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

May 8, 2014

Scot Fitzgerald
CH2M-HILL PRC
PO Box 1600
Richland, WA 99352

Dear Scot Fitzgerald,

FINAL RESULT FOR SAMPLE DELIVERY GROUP WSCF140638

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

This letter contains the following information for sample delivery group WSCF140638

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

Very truly yours,

Electronically signed by Joseph Hale
For Lab Manager, Dan T. Smith
WSCF Analytical Lab
(509) 373-4804

Attachments 4

CC: w/Attachments

File/LB

ATTACHMENT 1

COVER SHEET

Consisting of 2 pages
Including cover page

WSCF SAF Number Cross Reference

Group # WSCF140638
Data Deliverable Date 05/12/14

SAF #	Sample ID	Sample #	Matrix	Sampled	Received
W14-004	B2W5N1	140638001	WATER	04/08/14	04/08/14
W14-004	B2W5L6	140638002	WATER	04/08/14	04/08/14
W14-004	B2W5N2	140638003	WATER	04/08/14	04/08/14
W14-004	B2W5L7	140638004	WATER	04/08/14	04/08/14
W14-004	B2W640	140638005	WATER	04/08/14	04/08/14
W14-004	B2W641	140638006	WATER	04/08/14	04/08/14
W14-004	B2W642	140638007	WATER	04/08/14	04/08/14
W14-004	B2W628	140638008	WATER	04/08/14	04/08/14
W14-004	B2W629	140638009	WATER	04/08/14	04/08/14
W14-004	B2W630	140638010	WATER	04/08/14	04/08/14
S14-004	B2W826	140638011	WATER	04/08/14	04/08/14

ATTACHMENT 2

NARRATIVE

Consisting of 4 pages
Including cover page

Attachment 2
Narrative
WSCF140638

Introduction

Samples were received at the WSCF laboratory as referenced on the WSCF SAF Number Cross Reference table included in the final report. The samples were analyzed for the analytes indicated on the attached copy of the chain of custody (COC) form in accordance with the *Statement of Work (SOW), to Contract 39818, Revision 4, "WSCF ANALYTICAL SERVICES FOR GROUNDWATER."*

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 not stamped "ICED" by the WSCF Laboratory Sample Custodian during sample receiving. However, based on procedure LO-090-403 form "NOTICE OF IMPROPER SAMPLE SUBMITTAL" was not submitted and was not stamped "NOT ICED". No anomaly was noted during sample receipt.

The following generic data qualifiers (i.e., B, C, D, J and U) may be applicable to this report, as appropriate.

- **B** – Sample results with a concentration greater than the MDL but less than the PQL are B flagged (applies to inorganic and wet chemical analyses), as appropriate.
- **C** – Analyte was detected in the blank and was evaluated. Affected sample results in the batch were C flagged (applies to inorganic and wet chemical analyses).
- **D** – Sample results are D flagged if dilution(s) were required, as appropriate.
- **J** – Sample results with a concentration greater than the MDL but less than the PQL are J flagged (applies to organic analyses), as appropriate.
- **B (organic analyses)** – Analyte was detected in the blank and was evaluated. Affected sample results in the batch were B flagged.
- **U** – Analyzed for but not detected above limiting criteria. Relative Percent Difference (RPD) values associated with an analyte qualified with a "U" are not applicable.
- **o** – LCS recovery outside established laboratory acceptance limits.

Analytical Methodology for Requested Analyses

Refer to *WSCF Method References Report* for a complete listing of approved analytical methods.

Inorganic Comments

Attachment 2
Narrative
WSCF140638

ICP-AES Metals – The hold time requirements for this analysis were met. A Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

- Sodium and Calcium – Matrix Spike and/or Matrix Spike Duplicate recoveries are outside established laboratory limits. Affected sample results in this batch were "N" flagged.
- All other applicable QC controls are within the established limits.

ICP-MS Metals – The hold time requirements for this analysis were met. A Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

- All applicable QC controls are within the established limits.

Total Organic Carbon – The hold time requirement for this analysis was met. A Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

- All applicable QC controls are within the established limits.

Total Organic Halides – The hold time requirement for this analysis was met. A Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

- All applicable QC controls are within the established limits.

Organic Comments

Semi-VOA – The hold time requirements for this analysis were met. A Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

- All applicable QC controls are within the established limits.

Radiochemistry Comments

Rad Chem – The hold time requirement for this analysis was met. A Duplicate, Matrix Spike (Matrix Spikes apply only to Technetium & Tritium), Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

Tritium:

- All applicable QC controls are within the established limits.

Technetium-99:

Attachment 2
Narrative
WSCF140638

- All applicable QC controls are within the established limits.

We certify that this data package is in compliance with the SOW, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this data package has been authorized by the Analytical Laboratory Manager (or designee) and the Client Services representative as verified by electronic signatures shown on the WSCF ANALYTICAL RESULTS REPORT.

ATTACHMENT 3

ANALYTICAL RESULTS

Consisting of 53 pages
Including cover page

WSCF ANALYTICAL RESULTS REPORT

For

CH2M Hill Plateau Remediation

PO Box 1600
Richland, WA 99352

Attention: Scot Fitzgerald

Contract #	MOA-FH-CHPRC-2008
Group #	WSCF140638
Report Date	May 8, 2014

Analytical: Electronically signed by Joseph Hale

Client Services: Electronically signed by Bruce Buchanan

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) 373-7005. Information designation of this report is the responsibility of the customer.

Batch QC List

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF140638

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
231441	232162	5	BLANK	108645	BLANK		ICP-6010 - All possible metals
231441	232162	7	LCS	108647	LCS		ICP-6010 - All possible metals
231441	232162	9	MS	108648	B2W7X5(140647003MS)	140647003	ICP-6010 - All possible metals
231441	232162	10	MSD	108649	B2W7X5(140647003MSD	140647003	ICP-6010 - All possible metals
231441	232162	12	SAMPLE	140638001	B2W5N1		ICP-6010 - All possible metals
231441	232162	13	SAMPLE	140638002	B2W5L6		ICP-6010 - All possible metals
231441	232162	14	SAMPLE	140638003	B2W5N2		ICP-6010 - All possible metals
231441	232162	15	SAMPLE	140638004	B2W5L7		ICP-6010 - All possible metals
232380	232381	1	BLANK	109511	BLANK		Total Organic Halides
232380	232381	2	LCS	109512	LCS		Total Organic Halides
232380	232381	10	MS	109516	B2W630(140638010MS)	140638010	Total Organic Halides
232380	232381	11	MSD	109517	B2W630(140638010MSD	140638010	Total Organic Halides
232380	232381	12	SAMPLE	140638010	B2W630		Total Organic Halides
232449	232450	1	BLANK	109534	BLANK		Total Organic Halides
232449	232450	2	LCS	109535	LCS		Total Organic Halides
232449	232450	10	MS	109539	B2W618(140629006MS)	140629006	Total Organic Halides
232449	232450	11	MSD	109540	B2W618(140629006MSD	140629006	Total Organic Halides
232449	232450	13	SAMPLE	140638001	B2W5N1		Total Organic Halides
232449	232450	14	SAMPLE	140638002	B2W5L6		Total Organic Halides
232449	232450	15	SAMPLE	140638005	B2W640		Total Organic Halides
232449	232450	16	MS	109541	B2W641(140638006MS)	140638006	Total Organic Halides
232449	232450	17	MSD	109542	B2W641(140638006MSD	140638006	Total Organic Halides
232449	232450	18	SAMPLE	140638006	B2W641		Total Organic Halides

Batch QC List

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF140638

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
232449	232450	19	SAMPLE	140638007	B2W642		Total Organic Halides
232449	232450	20	SAMPLE	140638008	B2W628		Total Organic Halides
232449	232450	21	SAMPLE	140638009	B2W629		Total Organic Halides
232555	232561	4	BLANK	109661	BLANK		3E-2008 ICP-MS 3 Elements
232555	232561	5	LCS	109662	LCS		3E-2008 ICP-MS 3 Elements
232555	232561	7	MS	109663	B2W820(140622007MS)	140622007	3E-2008 ICP-MS 3 Elements
232555	232561	8	MSD	109664	B2W820(140622007MSD	140622007	3E-2008 ICP-MS 3 Elements
232555	232561	15	SAMPLE	140638011	B2W826		3E-2008 ICP-MS 3 Elements

Batch QC List

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF140638

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
231444	232144	1	BLANK	108664	BLANK		SW-846 8270D Semivolatiles
231444	232144	2	LCS	108665	LCS		SW-846 8270D Semivolatiles
231444	232144	3	MS	108666	B2W5K4(140628003MS)	140628003	SW-846 8270D Semivolatiles
231444	232144	4	MSD	108667	B2W5K4(140628003MSD	140628003	SW-846 8270D Semivolatiles
231444	232144	8	SAMPLE	140638002	B2W5L6		SW-846 8270D Semivolatiles
231444	232144	9	SAMPLE	140638001	B2W5N1		SW-846 8270D Semivolatiles

Batch QC List

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF140638

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
231036	231865	1	BLANK	108441	BLANK		Tritium by LSC
231036	231865	2	LCS	108442	LCS		Tritium by LSC
231036	231865	4	DUP	108443	B2W904(140608001DUP)	140608001	Tritium by LSC
231036	231865	5	MSPK	108444	B2W904(140608001MSP		Tritium by LSC
231036	231865	19	SAMPLE	140638011	B2W826		Tritium by LSC
231268	231735	1	BLANK	108585	BLANK		TC99 by Liquid Scintillation
231268	231735	2	LCS	108586	LCS		TC99 by Liquid Scintillation
231268	231735	4	DUP	108587	B2W820(140622007DUP)	140622007	TC99 by Liquid Scintillation
231268	231735	5	MS	108588	B2W820(140622007MS)	140622007	TC99 by Liquid Scintillation
231268	231735	12	SAMPLE	140638011	B2W826		TC99 by Liquid Scintillation

Batch QC List

Attention Scot Fitzgerald
Department Wet Chemistry

Group # WSCF140638

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
232553	232553	2	BLANK	109653	BLANK		Total Organic Carbon
232553	232553	3	LCS	109654	LCS		Total Organic Carbon
232553	232553	4	MS	109655	B2W618(140629006MS)	140629006	Total Organic Carbon
232553	232553	5	MSD	109656	B2W618(140629006MSD	140629006	Total Organic Carbon
232553	232553	7	SAMPLE	140638001	B2W5N1		Total Organic Carbon
232553	232553	8	SAMPLE	140638002	B2W5L6		Total Organic Carbon
232553	232553	9	SAMPLE	140638005	B2W640		Total Organic Carbon
232553	232553	10	SAMPLE	140638006	B2W641		Total Organic Carbon
232553	232553	11	SAMPLE	140638007	B2W642		Total Organic Carbon
232553	232553	12	SAMPLE	140638008	B2W628		Total Organic Carbon
232553	232553	13	SAMPLE	140638009	B2W629		Total Organic Carbon
232553	232553	14	SAMPLE	140638010	B2W630		Total Organic Carbon

Method Reference

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF140638

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-523-444	Total Organic Halides Based on SW-846 Method 9020B		
	EPA SW-846	9020B	Total Organic Halides (TOX)
	HEIS	9020_TOX	Total Organic Halides (TOX)

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 Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF140638

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-523-456	Semivolatile Sample Analysis by SW-846 Method 8270D		
	EPA SW-846	8000B	Determinative Chromagraphic Separations
	EPA SW-846	3510C	Separatory Funnel Liquid-Liquid Extraction
	EPA SW-846	8270D	Semivolatile Organic Compounds by Gas
	EPA SW-846	3545	Pressurized Fluid Extraction (PFE)
			Chromatography/Mass Spectrometry (GC/MS)
	HEIS	8270_SVOA_GCMS	Semivolatile 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 Scot Fitzgerald
Department Radiochemistry

Group # WSCF140638

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-218-413	Tritium By Ion Removal Using Eichrom Resin Columns (Prep)		
	N/A	PREP METHOD	
LA-438-402	Determination of Technetium-99 by RAD Disk Filtration & Liquid Scintillation Counting		
	N/A	PREP METHOD	
LA-508-421	Operation of the Tri-Carb Model 2500TR Liquid Scintillation Analyzer		
	HEIS	ALPHA_LSC	A/B Liquid Scintillation
	HEIS	BETA_LSC	A/B Liquid Scintillation
	HEIS	TC99_3MDSK_LSC	TC99 by Liquid Scintillation
	HEIS	TRITIUM_EIE_LSC	Tritium, by Eichrome ion exchange, LSC

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 Scot Fitzgerald
Department Wet Chemistry

Group # WSCF140638

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-344-406	Total Organic Carbon (TOC) Based on SW-846		
	EPA SW-846	9060	Total Organic Carbon
	HEIS	9060_TOC	Total Organic Carbon

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 Scot Fitzgerald
Department Inorganic

Group # WSCF140638

Sample # 140638001
SAF# W14-004
Sample ID B2W5N1

Matrix WATER
Sampled 04/08/14
Received 04/08/14

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
ICPAES Prep (W)										**04/22/14**
ICP-6010 - All possible metals										
Iron	7439-89-6	LA-505-411		61.6		ug/L	1	40	50	04/22/14
Magnesium	7439-95-4	LA-505-411		18800		ug/L	1	60	750	04/22/14
Manganese	7439-96-5	LA-505-411	U	<4.0		ug/L	1	4.0	5.0	04/22/14
Nickel	7440-02-0	LA-505-411	U	<10		ug/L	1	10	40	04/22/14
Potassium	7440-09-7	LA-505-411		8010		ug/L	1	250	4000	04/22/14
Silver	7440-22-4	LA-505-411	U	<5.0		ug/L	1	5.0	10	04/22/14
Sodium	7440-23-5	LA-505-411	N	26800		ug/L	1	100	500	04/22/14
Antimony	7440-36-0	LA-505-411	U	<20		ug/L	1	20	60	04/22/14
Barium	7440-39-3	LA-505-411		65.8		ug/L	1	4.0	20	04/22/14
Cadmium	7440-43-9	LA-505-411	U	<4.0		ug/L	1	4.0	5.0	04/22/14
Chromium	7440-47-3	LA-505-411		31.0		ug/L	1	5.0	10	04/22/14
Cobalt	7440-48-4	LA-505-411	U	<4.0		ug/L	1	4.0	20	04/22/14
Copper	7440-50-8	LA-505-411	U	<4.0		ug/L	1	4.0	8.0	04/22/14
Vanadium	7440-62-2	LA-505-411	B	16.2		ug/L	1	5.0	25	04/22/14
Zinc	7440-66-6	LA-505-411	U	<5.0		ug/L	1	5.0	10	04/22/14
Calcium	7440-70-2	LA-505-411	N	68600		ug/L	1	50	1000	04/22/14
Arsenic	7440-38-2	LA-505-411	U	<25		ug/L	1	25	30	04/22/14

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
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 dilution 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)
o - LCS recovery outside established laboratory acceptance limits.

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF140638

Sample # 140638001
SAF# W14-004
Sample ID B2W5N1

Matrix WATER
Sampled 04/08/14
Received 04/08/14

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Preparation for TOX (W)										**04/21/14**
Total Organic Halides										
Total Organic Halides	59473-04-0	LA-523-444	B	12.6		ug/L	1	5.0	15	04/21/14

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
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 dilution 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)
o - LCS recovery outside established laboratory acceptance limits.

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF140638

Sample # 140638002
SAF# W14-004
Sample ID B2W5L6

Matrix WATER
Sampled 04/08/14
Received 04/08/14

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
ICPAES Prep (W)										**04/22/14**
ICP-6010 - All possible metals										
Iron	7439-89-6	LA-505-411		52.3		ug/L	1	40	50	04/22/14
Magnesium	7439-95-4	LA-505-411		21000		ug/L	1	60	750	04/22/14
Manganese	7439-96-5	LA-505-411	U	<4.0		ug/L	1	4.0	5.0	04/22/14
Nickel	7440-02-0	LA-505-411	U	<10		ug/L	1	10	40	04/22/14
Potassium	7440-09-7	LA-505-411		8330		ug/L	1	250	4000	04/22/14
Silver	7440-22-4	LA-505-411	U	<5.0		ug/L	1	5.0	10	04/22/14
Sodium	7440-23-5	LA-505-411	N	26300		ug/L	1	100	500	04/22/14
Antimony	7440-36-0	LA-505-411	U	<20		ug/L	1	20	60	04/22/14
Barium	7440-39-3	LA-505-411		68.1		ug/L	1	4.0	20	04/22/14
Cadmium	7440-43-9	LA-505-411	U	<4.0		ug/L	1	4.0	5.0	04/22/14
Chromium	7440-47-3	LA-505-411		29.9		ug/L	1	5.0	10	04/22/14
Cobalt	7440-48-4	LA-505-411	U	<4.0		ug/L	1	4.0	20	04/22/14
Copper	7440-50-8	LA-505-411	U	<4.0		ug/L	1	4.0	8.0	04/22/14
Vanadium	7440-62-2	LA-505-411	B	18.4		ug/L	1	5.0	25	04/22/14
Zinc	7440-66-6	LA-505-411	U	<5.0		ug/L	1	5.0	10	04/22/14
Calcium	7440-70-2	LA-505-411	N	72800		ug/L	1	50	1000	04/22/14
Arsenic	7440-38-2	LA-505-411	U	<25		ug/L	1	25	30	04/22/14

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
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 dilution 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)
o - LCS recovery outside established laboratory acceptance limits.

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF140638

Sample # 140638002
SAF# W14-004
Sample ID B2W5L6

Matrix WATER
Sampled 04/08/14
Received 04/08/14

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Preparation for TOX (W)										**04/21/14**
Total Organic Halides										
Total Organic Halides	59473-04-0	LA-523-444	B	13.8		ug/L	1	5.0	15	04/21/14

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
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 dilution 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)
o - LCS recovery outside established laboratory acceptance limits.

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF140638

Sample # 140638003
SAF# W14-004
Sample ID B2W5N2

Matrix WATER
Sampled 04/08/14
Received 04/08/14

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
ICPAES Prep (W)										**04/22/14**
ICP-6010 - All possible metals										
Iron	7439-89-6	LA-505-411	U	<40		ug/L	1	40	50	04/22/14
Magnesium	7439-95-4	LA-505-411		18600		ug/L	1	60	750	04/22/14
Manganese	7439-96-5	LA-505-411	U	<4.0		ug/L	1	4.0	5.0	04/22/14
Nickel	7440-02-0	LA-505-411	U	<10		ug/L	1	10	40	04/22/14
Potassium	7440-09-7	LA-505-411		7880		ug/L	1	250	4000	04/22/14
Silver	7440-22-4	LA-505-411	U	<5.0		ug/L	1	5.0	10	04/22/14
Sodium	7440-23-5	LA-505-411	N	26300		ug/L	1	100	500	04/22/14
Antimony	7440-36-0	LA-505-411	U	<20		ug/L	1	20	60	04/22/14
Barium	7440-39-3	LA-505-411		64.6		ug/L	1	4.0	20	04/22/14
Cadmium	7440-43-9	LA-505-411	U	<4.0		ug/L	1	4.0	5.0	04/22/14
Chromium	7440-47-3	LA-505-411		22.6		ug/L	1	5.0	10	04/22/14
Cobalt	7440-48-4	LA-505-411	U	<4.0		ug/L	1	4.0	20	04/22/14
Copper	7440-50-8	LA-505-411	U	<4.0		ug/L	1	4.0	8.0	04/22/14
Vanadium	7440-62-2	LA-505-411	B	15.6		ug/L	1	5.0	25	04/22/14
Zinc	7440-66-6	LA-505-411	U	<5.0		ug/L	1	5.0	10	04/22/14
Calcium	7440-70-2	LA-505-411	N	67100		ug/L	1	50	1000	04/22/14
Arsenic	7440-38-2	LA-505-411	U	<25		ug/L	1	25	30	04/22/14

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
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 dilution 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)
o - LCS recovery outside established laboratory acceptance limits.

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF140638

Sample # 140638004
SAF# W14-004
Sample ID B2W5L7

Matrix WATER
Sampled 04/08/14
Received 04/08/14

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
ICPAES Prep (W)										**04/22/14**
ICP-6010 - All possible metals										
Iron	7439-89-6	LA-505-411	U	<40		ug/L	1	40	50	04/22/14
Magnesium	7439-95-4	LA-505-411		21000		ug/L	1	60	750	04/22/14
Manganese	7439-96-5	LA-505-411	U	<4.0		ug/L	1	4.0	5.0	04/22/14
Nickel	7440-02-0	LA-505-411	U	<10		ug/L	1	10	40	04/22/14
Potassium	7440-09-7	LA-505-411		8180		ug/L	1	250	4000	04/22/14
Silver	7440-22-4	LA-505-411	U	<5.0		ug/L	1	5.0	10	04/22/14
Sodium	7440-23-5	LA-505-411	N	26000		ug/L	1	100	500	04/22/14
Antimony	7440-36-0	LA-505-411	U	<20		ug/L	1	20	60	04/22/14
Barium	7440-39-3	LA-505-411		66.6		ug/L	1	4.0	20	04/22/14
Cadmium	7440-43-9	LA-505-411	U	<4.0		ug/L	1	4.0	5.0	04/22/14
Chromium	7440-47-3	LA-505-411		23.4		ug/L	1	5.0	10	04/22/14
Cobalt	7440-48-4	LA-505-411	U	<4.0		ug/L	1	4.0	20	04/22/14
Copper	7440-50-8	LA-505-411	U	<4.0		ug/L	1	4.0	8.0	04/22/14
Vanadium	7440-62-2	LA-505-411	B	18.1		ug/L	1	5.0	25	04/22/14
Zinc	7440-66-6	LA-505-411	U	<5.0		ug/L	1	5.0	10	04/22/14
Calcium	7440-70-2	LA-505-411	N	71900		ug/L	1	50	1000	04/22/14
Arsenic	7440-38-2	LA-505-411	U	<25		ug/L	1	25	30	04/22/14

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
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 dilution 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)
o - LCS recovery outside established laboratory acceptance limits.

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF140638

Sample # 140638005
SAF# W14-004
Sample ID B2W640

Matrix WATER
Sampled 04/08/14
Received 04/08/14

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Preparation for TOX (W)										**04/21/14**
Total Organic Halides										
Total Organic Halides	59473-04-0	LA-523-444	B	12.5		ug/L	1	5.0	15	04/21/14

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
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 dilution 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)
o - LCS recovery outside established laboratory acceptance limits.

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF140638

Sample # 140638006
SAF# W14-004
Sample ID B2W641

Matrix WATER
Sampled 04/08/14
Received 04/08/14

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Preparation for TOX (W)										**04/21/14**
Total Organic Halides										
Total Organic Halides	59473-04-0	LA-523-444	B	13.4		ug/L	1	5.0	15	04/21/14

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
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 dilution 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)
o - LCS recovery outside established laboratory acceptance limits.

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF140638

Sample # 140638007
SAF# W14-004
Sample ID B2W642

Matrix WATER
Sampled 04/08/14
Received 04/08/14

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Preparation for TOX (W)										**04/21/14**
Total Organic Halides										
Total Organic Halides	59473-04-0	LA-523-444	B	14.6		ug/L	1	5.0	15	04/21/14

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
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 dilution 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)
o - LCS recovery outside established laboratory acceptance limits.

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF140638

Sample # 140638008
SAF# W14-004
Sample ID B2W628

Matrix WATER
Sampled 04/08/14
Received 04/08/14

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Preparation for TOX (W)										**04/21/14**
Total Organic Halides										
Total Organic Halides	59473-04-0	LA-523-444	B	12.1		ug/L	1	5.0	15	04/21/14

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
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 dilution 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)
o - LCS recovery outside established laboratory acceptance limits.

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF140638

Sample # 140638009
SAF# W14-004
Sample ID B2W629

Matrix WATER
Sampled 04/08/14
Received 04/08/14

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Preparation for TOX (W)										**04/21/14**
Total Organic Halides										
Total Organic Halides	59473-04-0	LA-523-444	B	11.2		ug/L	1	5.0	15	04/21/14

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
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 dilution 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)
o - LCS recovery outside established laboratory acceptance limits.

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF140638

Sample # 140638010
SAF# W14-004
Sample ID B2W630

Matrix WATER
Sampled 04/08/14
Received 04/08/14

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Preparation for TOX (W)										**04/21/14**
Total Organic Halides										
Total Organic Halides	59473-04-0	LA-523-444	B	9.00		ug/L	1	5.0	15	04/21/14

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
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 dilution 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)
o - LCS recovery outside established laboratory acceptance limits.

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF140638

Sample # 140638011
SAF# S14-004
Sample ID B2W826

Matrix WATER
Sampled 04/08/14
Received 04/08/14

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
ICPMS Prep 3-Elements (W)										**04/30/14**
3E-2008 ICP-MS 3 Elements										
Uranium	7440-61-1	LA-505-412	D	4.18		ug/L	2	0.10	0.50	05/05/14

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
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 dilution 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)
o - LCS recovery outside established laboratory acceptance limits.

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF140638

Sample # 140638001
SAF# W14-004
Sample ID B2W5N1

Matrix WATER
Sampled 04/08/14
Received 04/08/14

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Preparation for 8270 (W) CLE										**04/14/14**
SW-846 8270D Semivolatiles										
4-Nitrophenol	100-02-7	LA-523-456	U	<0.9		ug/L	1	0.9	1	04/21/14
Phenol	108-95-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	04/21/14
4-Chloro-3-methylphenol	59-50-7	LA-523-456	U	<0.9		ug/L	1	0.9	1	04/21/14
Pentachlorophenol	87-86-5	LA-523-456	U	<0.9		ug/L	1	0.9	1	04/21/14
2-Chlorophenol	95-57-8	LA-523-456	U	<0.9		ug/L	1	0.9	1	04/21/14
2,4-Dimethylphenol	105-67-9	LA-523-456	U	<1		ug/L	1	1	2	04/21/14
2,4-Dichlorophenol	120-83-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	04/21/14
2,4-Dinitrophenol	51-28-5	LA-523-456	U	<0.9		ug/L	1	0.9	1	04/21/14
4,6-Dinitro-2-methylphenol	534-52-1	LA-523-456	U	<0.9		ug/L	1	0.9	1	04/21/14
2-Nitrophenol	88-75-5	LA-523-456	U	<0.9		ug/L	1	0.9	1	04/21/14
2-Methylphenol	95-48-7	LA-523-456	U	<0.9		ug/L	1	0.9	1	04/21/14
2,4,5-Trichlorophenol	95-95-4	LA-523-456	U	<0.9		ug/L	1	0.9	1	04/21/14
3 & 4 Methylphenol, Total	65794-96-9	LA-523-456	U	<0.9		ug/L	1	0.9	1	04/21/14
2,4,6-Trichlorophenol	88-06-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	04/21/14
2,3,4,6-Tetrachlorophenol	58-90-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	04/21/14

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
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 dilution factor.
E - Exceeds the calibration range (GC/MS).
J - Analyte < lowest calibration but >= 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.
PQL is equivalent to Estimated Quantitation Limit (EQL)
o - LCS recovery outside established laboratory acceptance limits.

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF140638

Sample # 140638001
SAF# W14-004
Sample ID B2W5N1

Matrix WATER
Sampled 04/08/14
Received 04/08/14

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
2,6-Dichlorophenol	87-65-0	LA-523-456	U	<0.9		ug/L	1	0.9	1	04/21/14
Dinoseb(..dinitromethyl phenol)	88-85-7	LA-523-456	U	<0.9		ug/L	1	0.9	1	04/21/14

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
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 dilution factor.
E - Exceeds the calibration range (GC/MS).
J - Analyte < lowest calibration but >= 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.
PQL is equivalent to Estimated Quantitation Limit (EQL)
o - LCS recovery outside established laboratory acceptance limits.

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF140638

Sample # 140638002
SAF# W14-004
Sample ID B2W5L6

Matrix WATER
Sampled 04/08/14
Received 04/08/14

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Preparation for 8270 (W) CLE										**04/14/14**
SW-846 8270D Semivolatiles										
4-Nitrophenol	100-02-7	LA-523-456	U	<0.9		ug/L	1	0.9	1	04/21/14
Phenol	108-95-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	04/21/14
4-Chloro-3-methylphenol	59-50-7	LA-523-456	U	<0.9		ug/L	1	0.9	1	04/21/14
Pentachlorophenol	87-86-5	LA-523-456	U	<0.9		ug/L	1	0.9	1	04/21/14
2-Chlorophenol	95-57-8	LA-523-456	U	<0.9		ug/L	1	0.9	1	04/21/14
2,4-Dimethylphenol	105-67-9	LA-523-456	U	<1		ug/L	1	1	2	04/21/14
2,4-Dichlorophenol	120-83-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	04/21/14
2,4-Dinitrophenol	51-28-5	LA-523-456	U	<0.9		ug/L	1	0.9	1	04/21/14
4,6-Dinitro-2-methylphenol	534-52-1	LA-523-456	U	<0.9		ug/L	1	0.9	1	04/21/14
2-Nitrophenol	88-75-5	LA-523-456	U	<0.9		ug/L	1	0.9	1	04/21/14
2-Methylphenol	95-48-7	LA-523-456	U	<0.9		ug/L	1	0.9	1	04/21/14
2,4,5-Trichlorophenol	95-95-4	LA-523-456	U	<0.9		ug/L	1	0.9	1	04/21/14
3 & 4 Methylphenol, Total	65794-96-9	LA-523-456	U	<0.9		ug/L	1	0.9	1	04/21/14
2,4,6-Trichlorophenol	88-06-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	04/21/14
2,3,4,6-Tetrachlorophenol	58-90-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	04/21/14

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
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 dilution factor.
E - Exceeds the calibration range (GC/MS).
J - Analyte < lowest calibration but >= 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.
PQL is equivalent to Estimated Quantitation Limit (EQL)
o - LCS recovery outside established laboratory acceptance limits.

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF140638

Sample # 140638002
SAF# W14-004
Sample ID B2W5L6

Matrix WATER
Sampled 04/08/14
Received 04/08/14

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
2,6-Dichlorophenol	87-65-0	LA-523-456	U	<0.9		ug/L	1	0.9	1	04/21/14
Dinoseb(..dinitromethyl phenol)	88-85-7	LA-523-456	U	<0.9		ug/L	1	0.9	1	04/21/14

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
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 dilution factor.
E - Exceeds the calibration range (GC/MS).
J - Analyte < lowest calibration but >= 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.
PQL is equivalent to Estimated Quantitation Limit (EQL)
o - LCS recovery outside established laboratory acceptance limits.

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF140638

Sample # 140638011
SAF# S14-004
Sample ID B2W826

Matrix WATER
Sampled 04/08/14
Received 04/08/14

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
TC99 by Liquid Scin. WATER/LIQUID PREP										**04/10/14**
TC99 by Liquid Scintillation										
Technetium-99	14133-76-7	LA-508-421		260	52	pCi/L	1	6.6		04/11/14
Tritium by LSC EICHROM WA/LIQ PREP										**04/09/14**
Tritium by LSC										
Tritium	10028-17-8	LA-508-421		520	220	pCi/L	1	290		04/14/14

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

B - The associated QC sample Blank has a result > or = the MDA
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)

o - LCS recovery outside established laboratory acceptance limits.

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Wet Chemistry

Group # WSCF140638

Sample # 140638001
SAF# W14-004
Sample ID B2W5N1

Matrix WATER
Sampled 04/08/14
Received 04/08/14

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
										04/28/14
Total Organic Carbon										
Total Organic Carbon	TOC	LA-344-406	B	0.234		mg/L	1	0.10	0.30	04/28/14

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
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 dilution 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)
o - LCS recovery outside established laboratory acceptance limits.
Ignitability: <20C listed in the result field indicates sample ignited at room temperature. Maximum temperature tested for ignitability is at 100C

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Wet Chemistry

Group # WSCF140638

Sample # 140638002
SAF# W14-004
Sample ID B2W5L6

Matrix WATER
Sampled 04/08/14
Received 04/08/14

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
										04/28/14
Total Organic Carbon										
Total Organic Carbon	TOC	LA-344-406	B	0.290		mg/L	1	0.10	0.30	04/28/14

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
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 dilution 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)
o - LCS recovery outside established laboratory acceptance limits.
Ignitability: <20C listed in the result field indicates sample ignited at room temperature. Maximum temperature tested for ignitability is at 100C

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Wet Chemistry

Group # WSCF140638

Sample # 140638005
SAF# W14-004
Sample ID B2W640

Matrix WATER
Sampled 04/08/14
Received 04/08/14

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
										04/28/14
Total Organic Carbon										
Total Organic Carbon	TOC	LA-344-406	B	0.235		mg/L	1	0.10	0.30	04/28/14

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
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 dilution 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)
o - LCS recovery outside established laboratory acceptance limits.
Ignitability: <20C listed in the result field indicates sample ignited at room temperature. Maximum temperature tested for ignitability is at 100C

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Wet Chemistry

Group # WSCF140638

Sample # 140638006
SAF# W14-004
Sample ID B2W641

Matrix WATER
Sampled 04/08/14
Received 04/08/14

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
										04/28/14
Total Organic Carbon										
Total Organic Carbon	TOC	LA-344-406	B	0.226		mg/L	1	0.10	0.30	04/28/14

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
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 dilution 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)
o - LCS recovery outside established laboratory acceptance limits.
Ignitability: <20C listed in the result field indicates sample ignited at room temperature. Maximum temperature tested for ignitability is at 100C

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Wet Chemistry

Group # WSCF140638

Sample # 140638007
SAF# W14-004
Sample ID B2W642

Matrix WATER
Sampled 04/08/14
Received 04/08/14

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
										04/28/14
Total Organic Carbon										
Total Organic Carbon	TOC	LA-344-406	B	0.220		mg/L	1	0.10	0.30	04/28/14

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
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 dilution 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)
o - LCS recovery outside established laboratory acceptance limits.
Ignitability: <20C listed in the result field indicates sample ignited at room temperature. Maximum temperature tested for ignitability is at 100C

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Wet Chemistry

Group # WSCF140638

Sample # 140638008
SAF# W14-004
Sample ID B2W628

Matrix WATER
Sampled 04/08/14
Received 04/08/14

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
										04/28/14
Total Organic Carbon										
Total Organic Carbon	TOC	LA-344-406		0.345		mg/L	1	0.10	0.30	04/28/14

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
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 dilution 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)
o - LCS recovery outside established laboratory acceptance limits.
Ignitability: <20C listed in the result field indicates sample ignited at room temperature. Maximum temperature tested for ignitability is at 100C

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Wet Chemistry

Group # WSCF140638

Sample # 140638009
SAF# W14-004
Sample ID B2W629

Matrix WATER
Sampled 04/08/14
Received 04/08/14

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
										04/28/14
Total Organic Carbon										
Total Organic Carbon	TOC	LA-344-406	B	0.249		mg/L	1	0.10	0.30	04/28/14

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
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 dilution 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)
o - LCS recovery outside established laboratory acceptance limits.
Ignitability: <20C listed in the result field indicates sample ignited at room temperature. Maximum temperature tested for ignitability is at 100C

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Wet Chemistry

Group # WSCF140638

Sample # 140638010
SAF# W14-004
Sample ID B2W630

Matrix WATER
Sampled 04/08/14
Received 04/08/14

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
										04/28/14
Total Organic Carbon										
Total Organic Carbon	TOC	LA-344-406		0.311		mg/L	1	0.10	0.30	04/28/14

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
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 dilution 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)
o - LCS recovery outside established laboratory acceptance limits.
Ignitability: <20C listed in the result field indicates sample ignited at room temperature. Maximum temperature tested for ignitability is at 100C

Quality Control Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF140638

Analytical Batch 231735 (QC Batch: 231268)
Associated Samples 140638011

Test TC99 by Liquid Scintillation

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #108585**							
Technetium-99	14133-76-7		-1.1	pCi/L					U	04/11/14
LCS			**QC Sample #108586**							
Technetium-99	14133-76-7		270	pCi/L	102.7	80 - 120				04/11/14
DUP			**QC Sample #108587**							
			Original 140622007							
Technetium-99	14133-76-7		60	pCi/L			16.30	20		04/11/14
MS			**QC Sample #108588**							
			Original 140622007							
Technetium-99	14133-76-7		1100	pCi/L	103.8	75 - 125				04/11/14

* - QC result out of range n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF140638

Analytical Batch 231865 (QC Batch: 231036) **Test** Tritium by LSC
Associated Samples 140638011

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #108441**							
Tritium	10028-17-8		72	pCi/L					U	04/14/14
LCS			**QC Sample #108442**							
Tritium	10028-17-8		3900	pCi/L	101.1	80 - 120				04/14/14
DUP			**QC Sample #108443**							
			Original 140608001							
Tritium	10028-17-8		500	pCi/L			10.20	20		04/14/14
MSPK			**QC Sample #108444**							
Tritium	10028-17-8		20000	pCi/L	97.1	75 - 125				04/14/14

* - QC result out of range n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF140638

Analytical Batch 232144 (QC Batch: 231444)
Associated Samples 140638001, 140638002

Test SW-846 8270D Semivolatiles

Analyte	CAS #	Original Found	QC Found	Units	% Recov Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #108664**						
4-Nitrophenol	100-02-7		<1	ug/L				U	04/21/14
Phenol	108-95-2		<1	ug/L				U	04/21/14
4-Chloro-3-methylphenol	59-50-7		<1	ug/L				U	04/21/14
Pentachlorophenol	87-86-5		<1	ug/L				U	04/21/14
2-Chlorophenol	95-57-8		<1	ug/L				U	04/21/14
2,4-Dimethylphenol	105-67-9		<2	ug/L				U	04/21/14
2,4-Dichlorophenol	120-83-2		<1	ug/L				U	04/21/14
2,4-Dinitrophenol	51-28-5		<1	ug/L				U	04/21/14
4,6-Dinitro-2-methylphenol	534-52-1		<1	ug/L				U	04/21/14
2-Nitrophenol	88-75-5		<1	ug/L				U	04/21/14
2-Methylphenol	95-48-7		<1	ug/L				U	04/21/14
2,4,5-Trichlorophenol	95-95-4		<1	ug/L				U	04/21/14
3 & 4 Methylphenol, Total	65794-96-9		<1	ug/L				U	04/21/14
2,4,6-Trichlorophenol	88-06-2		<1	ug/L				U	04/21/14
2,3,4,6-Tetrachlorophenol	58-90-2		<1	ug/L				U	04/21/14

* - QC result out of range n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF140638

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
2,6-Dichlorophenol	87-65-0		<1	ug/L					U	04/21/14
Dinoseb(..dinitromethylphenol)	88-85-7		<1	ug/L					U	04/21/14
LCS			**QC Sample #108665**							
4-Nitrophenol	100-02-7		9.4	ug/L	31.2	5 - 88				04/21/14
Phenol	108-95-2		13	ug/L	44.4	18 - 89				04/21/14
4-Chloro-3-methylphenol	59-50-7		25	ug/L	84.2	62 - 109				04/21/14
Pentachlorophenol	87-86-5		17	ug/L	56.1	17 - 125				04/21/14
2-Chlorophenol	95-57-8		23	ug/L	76.1	55 - 109				04/21/14
2-Methylphenol	95-48-7		22	ug/L	74.1	59 - 107				04/21/14
2-Nitrophenol	88-75-5		24	ug/L	78.6	48 - 113				04/21/14
2,4-Dimethylphenol	105-67-9		25	ug/L	84.5	58 - 113				04/21/14
2,4-Dichlorophenol	120-83-2		23	ug/L	77.1	52 - 110				04/21/14
MS			**QC Sample #108666**							
			Original 140628003							
4-Nitrophenol	100-02-7		8.9	ug/L	31.3	15 - 57				04/21/14
Phenol	108-95-2		12	ug/L	42.7	24 - 65				04/21/14
4-Chloro-3-methylphenol	59-50-7		25	ug/L	87.5	56 - 115				04/21/14
Pentachlorophenol	87-86-5		18	ug/L	63.3	32 - 127				04/21/14
2-Chlorophenol	95-57-8		23	ug/L	82.9	52 - 113				04/21/14
2-Methylphenol	95-48-7		22	ug/L	77.2	46 - 114				04/21/14
2-Nitrophenol	88-75-5		25	ug/L	87.6	51 - 114				04/21/14

* - QC result out of range n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF140638

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
2,4-Dimethylphenol	105-67-9		25	ug/L	89.8	46 - 124				04/21/14
2,4-Dichlorophenol	120-83-2		24	ug/L	83.4	50 - 114				04/21/14
MSD			**QC Sample #108667**							
			Original 140628003					**Paired**	**108666**	
4-Nitrophenol	100-02-7		9.6	ug/L	34.1	15 - 57	8.60	20		04/21/14
Phenol	108-95-2		13	ug/L	45.6	24 - 65	6.50	20		04/21/14
4-Chloro-3-methylphenol	59-50-7		26	ug/L	90.3	56 - 115	3.10	20		04/21/14
Pentachlorophenol	87-86-5		20	ug/L	71.7	32 - 127	12.40	20		04/21/14
2-Chlorophenol	95-57-8		24	ug/L	85.1	52 - 113	2.60	20		04/21/14
2-Methylphenol	95-48-7		23	ug/L	83	46 - 114	7.10	20		04/21/14
2-Nitrophenol	88-75-5		26	ug/L	90.2	51 - 114	2.90	20		04/21/14
2,4-Dimethylphenol	105-67-9		26	ug/L	92.4	46 - 124	2.90	20		04/21/14
2,4-Dichlorophenol	120-83-2		24	ug/L	86	50 - 114	3.00	20		04/21/14

* - QC result out of range n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF140638

Analytical Batch 232162 (QC Batch: 231441)
Associated Samples 140638001, 140638002, 140638003, 140638004

Test ICP-6010 - All possible metals

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #108645**							
Iron	7439-89-6		<40	ug/L					U	04/22/14
Magnesium	7439-95-4		<60	ug/L					U	04/22/14
Manganese	7439-96-5		<4.0	ug/L					U	04/22/14
Nickel	7440-02-0		<10	ug/L					U	04/22/14
Potassium	7440-09-7		<250	ug/L					U	04/22/14
Silver	7440-22-4		<5.0	ug/L					U	04/22/14
Sodium	7440-23-5		<100	ug/L					U	04/22/14
Antimony	7440-36-0		<20	ug/L					U	04/22/14
Barium	7440-39-3		<4.0	ug/L					U	04/22/14
Cadmium	7440-43-9		<4.0	ug/L					U	04/22/14
Chromium	7440-47-3		<5.0	ug/L					U	04/22/14
Cobalt	7440-48-4		<4.0	ug/L					U	04/22/14
Copper	7440-50-8		<4.0	ug/L					U	04/22/14
Vanadium	7440-62-2		<5.0	ug/L					U	04/22/14
Zinc	7440-66-6		<5.0	ug/L					U	04/22/14
Calcium	7440-70-2		<50	ug/L					U	04/22/14
Arsenic	7440-38-2		<25	ug/L					U	04/22/14

* - QC result out of range n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF140638

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
LCS			**QC Sample #108647**							
Iron	7439-89-6		996	ug/L	99.6	80 - 120				04/22/14
Magnesium	7439-95-4		9650	ug/L	96.5	80 - 120				04/22/14
Manganese	7439-96-5		983	ug/L	98.3	80 - 120				04/22/14
Nickel	7440-02-0		995	ug/L	99.5	80 - 120				04/22/14
Potassium	7440-09-7		9870	ug/L	98.7	80 - 120				04/22/14
Silver	7440-22-4		977	ug/L	97.7	80 - 120				04/22/14
Sodium	7440-23-5		9610	ug/L	96.1	80 - 120				04/22/14
Antimony	7440-36-0		997	ug/L	99.7	80 - 120				04/22/14
Barium	7440-39-3		981	ug/L	98.1	80 - 120				04/22/14
Cadmium	7440-43-9		982	ug/L	98.2	80 - 120				04/22/14
Chromium	7440-47-3		991	ug/L	99.1	80 - 120				04/22/14
Cobalt	7440-48-4		999	ug/L	99.9	80 - 120				04/22/14
Copper	7440-50-8		979	ug/L	97.9	80 - 120				04/22/14
Vanadium	7440-62-2		985	ug/L	98.5	80 - 120				04/22/14
Zinc	7440-66-6		1000	ug/L	100.4	80 - 120				04/22/14
Calcium	7440-70-2		19600	ug/L	98.1	80 - 120				04/22/14
Arsenic	7440-38-2		1030	ug/L	102.8	80 - 120				04/22/14
MS			**QC Sample #108648**							
			Original 140647003							
Iron	7439-89-6		945	ug/L	94.5	75 - 125				04/22/14
Magnesium	7439-95-4		7790	ug/L	77.9	75 - 125				04/22/14
Manganese	7439-96-5		951	ug/L	95.1	75 - 125				04/22/14

* - QC result out of range n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF140638

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Nickel	7440-02-0		921	ug/L	92.1	75 - 125				04/22/14
Potassium	7440-09-7		9580	ug/L	95.8	75 - 125				04/22/14
Silver	7440-22-4		937	ug/L	93.7	75 - 125				04/22/14
Sodium	7440-23-5		5940	ug/L	59.4	75 - 125			N	04/22/14
Antimony	7440-36-0		964	ug/L	96.4	75 - 125				04/22/14
Barium	7440-39-3		930	ug/L	93	75 - 125				04/22/14
Cadmium	7440-43-9		942	ug/L	94.2	75 - 125				04/22/14
Chromium	7440-47-3		917	ug/L	91.7	75 - 125				04/22/14
Cobalt	7440-48-4		976	ug/L	97.6	75 - 125				04/22/14
Copper	7440-50-8		939	ug/L	93.9	75 - 125				04/22/14
Vanadium	7440-62-2		922	ug/L	92.2	75 - 125				04/22/14
Zinc	7440-66-6		926	ug/L	92.6	75 - 125				04/22/14
Calcium	7440-70-2		13500	ug/L	67.7	75 - 125			N	04/22/14
Arsenic	7440-38-2		999	ug/L	99.9	75 - 125				04/22/14
MSD			**QC Sample #108649**							
			Original 140647003					**Paired**	**108648**	
Iron	7439-89-6		957	ug/L	95.7	75 - 125	1.20	20		04/22/14
Magnesium	7439-95-4		8130	ug/L	81.3	75 - 125	1.50	20		04/22/14
Manganese	7439-96-5		971	ug/L	97.1	75 - 125	2.10	20		04/22/14
Nickel	7440-02-0		952	ug/L	95.2	75 - 125	3.30	20		04/22/14
Potassium	7440-09-7		9830	ug/L	98.3	75 - 125	1.40	20		04/22/14
Silver	7440-22-4		968	ug/L	96.8	75 - 125	3.30	20		04/22/14
Sodium	7440-23-5		6580	ug/L	65.8	75 - 125	1.80	20	N	04/22/14

* - QC result out of range n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF140638

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Antimony	7440-36-0		964	ug/L	96.4	75 - 125	0.00	20		04/22/14
Barium	7440-39-3		953	ug/L	95.3	75 - 125	2.30	20		04/22/14
Cadmium	7440-43-9		956	ug/L	95.6	75 - 125	1.50	20		04/22/14
Chromium	7440-47-3		944	ug/L	94.4	75 - 125	2.80	20		04/22/14
Cobalt	7440-48-4		959	ug/L	95.9	75 - 125	1.80	20		04/22/14
Copper	7440-50-8		966	ug/L	96.6	75 - 125	2.80	20		04/22/14
Vanadium	7440-62-2		948	ug/L	94.8	75 - 125	2.80	20		04/22/14
Zinc	7440-66-6		951	ug/L	95.1	75 - 125	2.60	20		04/22/14
Calcium	7440-70-2		14400	ug/L	72.1	75 - 125	1.40	20	N	04/22/14
Arsenic	7440-38-2		1010	ug/L	100.8	75 - 125	0.90	20		04/22/14

* - QC result out of range

n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF140638

Analytical Batch 232381 (QC Batch: 232380)
Associated Samples 140638010

Test Total Organic Halides

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK				**QC Sample #109511**						
Total Organic Halides	59473-04-0		<5.0	ug/L					U	04/21/14
LCS				**QC Sample #109512**						
Total Organic Halides	59473-04-0		379	mg/L	94.7	80 - 120				04/21/14
MS				**QC Sample #109516**						
				Original 140638010						
Total Organic Halides	59473-04-0	9.00	39.8	ug/L	99.5	75 - 125				04/21/14
MSD				**QC Sample #109517**						
				Original 140638010				**Paired**	**109516**	
Total Organic Halides	59473-04-0	9.00	34.7	ug/L	86.7	75 - 125	11.10	20		04/21/14

* - QC result out of range n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF140638

Analytical Batch 232450 (QC Batch: 232449) **Test** Total Organic Halides
Associated Samples 140638001, 140638002, 140638005, 140638006, 140638007, 140638008, 140638009

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit		RQ	Analyzed
BLANK				**QC Sample #109534**							
Total Organic Halides	59473-04-0		<5.0	ug/L						U	04/21/14
LCS				**QC Sample #109535**							
Total Organic Halides	59473-04-0		379	mg/L	94.7	80 - 120					04/21/14
MS				**QC Sample #109539**							
				Original 140629006							
Total Organic Halides	59473-04-0		39.2	ug/L	97.9	75 - 125					04/21/14
MSD				**QC Sample #109540**							
				Original 140629006					**Paired**	**109539**	
Total Organic Halides	59473-04-0		42.4	ug/L	106.1	75 - 125	6.00	20			04/21/14
MS				**QC Sample #109541**							
				Original 140638006							
Total Organic Halides	59473-04-0	13.4	37.8	ug/L	94.5	75 - 125					04/21/14
MSD				**QC Sample #109542**							
				Original 140638006					**Paired**	**109541**	
Total Organic Halides	59473-04-0	13.4	42.1	ug/L	105.2	75 - 125	8.00	20			04/21/14

* - QC result out of range n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Wet Chemistry

Group # WSCF140638

Analytical Batch 232553 (QC Batch: 232553) **Test** Total Organic Carbon
Associated Samples 140638001, 140638002, 140638005, 140638006, 140638007, 140638008, 140638009, 140638010

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #109653**							
Total Organic Carbon	TOC		<0.045	mg/L					U	04/28/14
LCS			**QC Sample #109654**							
Total Organic Carbon	TOC		2.05	mg/L	102.4	80 - 120				04/28/14
MS			**QC Sample #109655**							
			Original 140629006							
Total Organic Carbon	TOC		2.11	mg/L	105.7	75 - 125				04/28/14
MSD			**QC Sample #109656**							
			Original 140629006					**Paired**	**109655**	
Total Organic Carbon	TOC		2.09	mg/L	104.6	75 - 125	0.90	20		04/28/14

* - QC result out of range n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF140638

Analytical Batch 232561 (QC Batch: 232555)
Associated Samples 140638011

Test 3E-2008 ICP-MS 3 Elements

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #109661**							
Uranium	7440-61-1		<0.050	ug/L					U	05/05/14
LCS			**QC Sample #109662**							
Uranium	7440-61-1		35.5	ug/L	88.8	85 - 115				05/05/14
MS			**QC Sample #109663**							
			Original 140622007							
Uranium	7440-61-1		35.9	ug/L	89.7	70 - 130				05/05/14
MSD			**QC Sample #109664**							
			Original 140622007					**Paired**	**109663**	
Uranium	7440-61-1		32.1	ug/L	80.1	70 - 130	10.20	20		05/05/14

* - QC result out of range n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF140638

Analytical Batch 232144 (QC Batch: 231444)
Associated Samples 140638001, 140638002

Test SW-846 8270D Semivolatiles

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #108664**							
2-Fluorophenol	367-12-4				70.5	34 - 103				04/21/14
Phenol-d5	4165-62-2				49.1	10 - 93				04/21/14
Nitrobenzene-d5	4165-60-0				89	49 - 133				04/21/14
2-Methylnaphthalene-d10	7297-45-2				92	60 - 135				04/21/14
2-Fluorobiphenyl	321-60-8				94.4	48 - 132				04/21/14
2,4,6-Tribromophenol	118-79-6				67.4	33 - 134				04/21/14
Fluoranthene-d10	93951-69-0				97.5	62 - 139				04/21/14
Terphenyl-d14	98904-43-9				92.6	56 - 138				04/21/14
LCS			**QC Sample #108665**							
2-Fluorophenol	367-12-4				62.9	34 - 103				04/21/14
Phenol-d5	4165-62-2				43.7	10 - 93				04/21/14
Nitrobenzene-d5	4165-60-0				84.3	49 - 133				04/21/14
2-Methylnaphthalene-d10	7297-45-2				88.4	60 - 135				04/21/14
2-Fluorobiphenyl	321-60-8				82.6	48 - 132				04/21/14
2,4,6-Tribromophenol	118-79-6				79.9	33 - 134				04/21/14

* - QC result out of range n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF140638

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Fluoranthene-d10	93951-69-0				96.2	62 - 139				04/21/14
Terphenyl-d14	98904-43-9				85.3	56 - 138				04/21/14
MS			**QC Sample #108666**							
			Original	**140628003**						
2-Fluorophenol	367-12-4				63.4	34 - 103				04/21/14
Phenol-d5	4165-62-2				42.1	10 - 93				04/21/14
Nitrobenzene-d5	4165-60-0				94.2	49 - 133				04/21/14
2-Methylnaphthalene-d10	7297-45-2				95.8	60 - 135				04/21/14
2-Fluorobiphenyl	321-60-8				94.7	48 - 132				04/21/14
2,4,6-Tribromophenol	118-79-6				86.4	33 - 134				04/21/14
Fluoranthene-d10	93951-69-0				97.9	62 - 139				04/21/14
Terphenyl-d14	98904-43-9				92.9	56 - 138				04/21/14
MSD			**QC Sample #108667**							
			Original	**140628003**				**Paired**	**108666**	
2-Fluorophenol	367-12-4				67	34 - 103	n/a			04/21/14
Phenol-d5	4165-62-2				45.5	10 - 93	n/a			04/21/14
Nitrobenzene-d5	4165-60-0				94.7	49 - 133	n/a			04/21/14
2-Methylnaphthalene-d10	7297-45-2				97.7	60 - 135	n/a			04/21/14
2-Fluorobiphenyl	321-60-8				95.3	48 - 132	n/a			04/21/14
2,4,6-Tribromophenol	118-79-6				89.2	33 - 134	n/a			04/21/14
Fluoranthene-d10	93951-69-0				99.3	62 - 139	n/a			04/21/14
Terphenyl-d14	98904-43-9				94	56 - 138	n/a			04/21/14

* - QC result out of range n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF140638

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
SAMPLE			**Sample #140638001**							
2-Fluorophenol	367-12-4				58	34 - 103				04/21/14
Phenol-d5	4165-62-2				37.3	10 - 93				04/21/14
Nitrobenzene-d5	4165-60-0				79.1	49 - 133				04/21/14
2-Methylnaphthalene-d10	7297-45-2				79.4	60 - 135				04/21/14
2-Fluorobiphenyl	321-60-8				85.5	48 - 132				04/21/14
2,4,6-Tribromophenol	118-79-6				52.5	33 - 134				04/21/14
Fluoranthene-d10	93951-69-0				87.2	62 - 139				04/21/14
Terphenyl-d14	98904-43-9				84.3	56 - 138				04/21/14
SAMPLE			**Sample #140638002**							
2-Fluorophenol	367-12-4				60.7	34 - 103				04/21/14
Phenol-d5	4165-62-2				41.4	10 - 93				04/21/14
Nitrobenzene-d5	4165-60-0				78.2	49 - 133				04/21/14
2-Methylnaphthalene-d10	7297-45-2				84.7	60 - 135				04/21/14
2-Fluorobiphenyl	321-60-8				83.6	48 - 132				04/21/14
2,4,6-Tribromophenol	118-79-6				61.1	33 - 134				04/21/14
Fluoranthene-d10	93951-69-0				92.6	62 - 139				04/21/14
Terphenyl-d14	98904-43-9				89.2	56 - 138				04/21/14

* - QC result out of range n/a - Not Applicable

ATTACHMENT4

SAMPLE RECEIPT

Consisting of 6 pages
Including cover page

Waste Sampling and Characterization Facility
P.O. Box 650 S3-30, Richland WA 99352
Phone: (509) 373-7005/FAX: (509) 372-0456

ACKNOWLEDGEMENT OF SAMPLES RECEIVED

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

ATTN: Scot Fitzgerald

Customer Code: CHPRC
CACN: 401647
Work Order #: 140638
Customer Work ID: W14-004-077
Due Date: 05/12/2014 **(R031)**

The following samples were received from you on 4/8/2014 12:50:00 PM. They have been scheduled for the tests listed below each sample. If this information is incorrect, please contact WSCF Client Services. Thank you for using Waste Sampling and Characterization Facility.

Sample #	Sample ID	Matrix	Collected	Received
140638001	B2W5N1	WATER	4/8/2014 11:37	4/8/2014 12:50

Procedure	Compound List
ICP-6010 - All possible metals	6010 ICP Common
SW-846 8270D Semivolatiles	8270 Phenolic GC Common
Total Organic Carbon	TOC
Total Organic Halides	TOX

Sample #	Sample ID	Matrix	Collected	Received
140638002	B2W5L6	WATER	4/8/2014 08:57	4/8/2014 12:50

Procedure	Compound List
ICP-6010 - All possible metals	6010 ICP Common
SW-846 8270D Semivolatiles	8270 Phenolic GC Common
Total Organic Carbon	TOC
Total Organic Halides	TOX

Sample #	Sample ID	Matrix	Collected	Received
140638003	B2W5N2	WATER	4/8/2014 11:37	4/8/2014 12:50

Procedure	Compound List
ICP-6010 - All possible metals	6010 ICP Common

Sample #	Sample ID	Matrix	Collected	Received
140638004	B2W5L7	WATER	4/8/2014 08:57	4/8/2014 12:50

Procedure	Compound List
ICP-6010 - All possible metals	6010 ICP Common

Sample #	Sample ID	Matrix	Collected	Received
140638005	B2W640	WATER	4/8/2014 11:37	4/8/2014 12:50

Procedure	Compound List
Total Organic Carbon	TOC
Total Organic Halides	TOX

Sample #	Sample ID	Matrix	Collected	Received
140638006	B2W641	WATER	4/8/2014 11:37	4/8/2014 12:50

Procedure	Compound List
Total Organic Carbon	TOC
Total Organic Halides	TOX

Sample Receipt

Waste Sampling and Characterization Facility
P.O. Box 650 S3-30, Richland WA 99352
Phone: (509) 373-7005/FAX: (509) 372-0456

Sample #	Sample ID	Matrix	Collected	Received
140638007	B2W642	WATER	4/8/2014 11:37	4/8/2014 12:50

Procedure	Compound List
Total Organic Carbon	TOC
Total Organic Halides	TOX

Sample #	Sample ID	Matrix	Collected	Received
140638008	B2W628	WATER	4/8/2014 08:57	4/8/2014 12:50

Procedure	Compound List
Total Organic Carbon	TOC
Total Organic Halides	TOX

Sample #	Sample ID	Matrix	Collected	Received
140638009	B2W629	WATER	4/8/2014 08:57	4/8/2014 12:50

Procedure	Compound List
Total Organic Carbon	TOC
Total Organic Halides	TOX

Sample #	Sample ID	Matrix	Collected	Received
140638010	B2W630	WATER	4/8/2014 08:57	4/8/2014 12:50

Procedure	Compound List
Total Organic Carbon	TOC
Total Organic Halides	TOX

Sample #	Sample ID	Matrix	Collected	Received
140638011	B2W826 (S14-004)	WATER	4/8/2014 11:57	4/8/2014 12:50

Procedure	Compound List
3E-2008 ICP-MS 3 Elements	U
TC99 by Liquid Scintillation	Tc-99
Tritium by LSC	H3

Sample Receipt

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **W14-004-077**

Page 1 of 1

Collector	JANELLE ZUNKER	Contact/Requester	Karen Waters-Husted	Telephone No.	509-376-4650
SAF No.	W14-004	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071ES20
Project Title	RCRA, APRIL 2014	Logbook No.	HNF-N-506 66/3	Ice Chest No.	N/A
Shipped To (Lab)	Waste Sampling & Characterization	Method of Shipment	GOVERNMENT VEHICLE	Bill of Lading/Air Bill No.	N/A
Protocol	RCRA	Priority:	31 Days **PRIORITY**	Offsite Property No.	N/A

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 458.1.

140638

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

Site Wide Generator Knowledge Information Form applies.
The CACN for analytical work at WSCF is 401647.

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B2W640 5	N	W	4/8/14	1127	1x1-L aGs*	9020_TOX: COMMON	28 Days	H2SO4 to pH <2/Cool~4C
B2W640 ↓	N	W			1x250-mL aG	9060_TOC: COMMON	28 Days	HCl or H2SO4 to pH <2/Cool~4C
B2W641 6	N	W			1x1-L aGs*	9020_TOX: COMMON	28 Days	H2SO4 to pH <2/Cool~4C
B2W641 ↓	N	W			1x250-mL aG	9060_TOC: COMMON	28 Days	HCl or H2SO4 to pH <2/Cool~4C
B2W5N2 3	Y	W			1x500-mL G/P	6010_METALS_ICP: COMMON	6 Months	HNO3 to pH <2
B2W5N1 1	N	W			1x500-mL G/P	6010_METALS_ICP: COMMON	6 Months	HNO3 to pH <2
B2W5N1	N	W			4x1-L aC	8270_PHENOLIC_GC: COMMON	7/40 Days	Cool~4C
B2W5N1	N	W			1x1-L aGs*	9020_TOX: COMMON	28 Days	H2SO4 to pH <2/Cool~4C
B2W5N1 ↓	N	W			1x250-mL aG	9060_TOC: COMMON	28 Days	HCl or H2SO4 to pH <2/Cool~4C
B2W642 7	N	W			1x1-L aGs*	9020_TOX: COMMON	28 Days	H2SO4 to pH <2/Cool~4C
B2W642 ↓	N	W			1x250-mL aG	9060_TOC: COMMON	28 Days	HCl or H2SO4 to pH <2/Cool~4C

Chain of Custody

Relinquished By (Print / Sign)	Date/Time	Received By (Print / Sign)	Date/Time
JANELLE ZUNKER [signature]	APR 08 2014 1220	FM Hill [signature]	APR 08 2014 1220
FM Hill [signature]	4-8-14 (25)	KFAUSH [signature]	4-8-14 (25)

Matrix *

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

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

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A-6004-842 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # W14-004-070

Page 1 of 1

Collector	JANELLE ZUNKER	Contact/Requester	Karen Waters-Husted	Telephone No.	509-376-4650
SAF No.	W14-004	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071ES20
Project Title	RCRA, APRIL 2014	Logbook No.	HNF-N-506 6613	Ice Chest No.	N/A
Shipped To (Lab)	Waste Sampling & Characterization	Method of Shipment	GOVERNMENT VEHICLE	Bill of Lading/Air Bill No.	N/A
Protocol	RCRA	Priority:	31 Days **PRIORITY**	Offsite Property No.	N/A

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 458.1.

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

Site Wide Generator Knowledge Information Form applies.
The CACN for analytical work at WSCF is 401647.

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B2W628 8	N	W	4/8/14	0857	1x1-L aGs*	9020_TOX: COMMON	28 Days	H2SO4 to pH <2/Cool~4C
B2W628	N	W			1x250-mL aG	9060_TOC: COMMON	28 Days	HCl or H2SO4 to pH <2/Cool~4C
B2W5L6 2	N	W			1x500-mL G/P	6010_METALS_ICP: COMMON	6 Months	HNO3 to pH <2
B2W5L6	N	W			4x1-L aG	8270_PHENOLIC_GC: COMMON	7/40 Days	Cool~4C
B2W5L6	N	W			1x1-L aGs*	9020_TOX: COMMON	28 Days	H2SO4 to pH <2/Cool~4C
B2W5L6	N	W			1x250-mL aG	9060_TOC: COMMON	28 Days	HCl or H2SO4 to pH <2/Cool~4C
B2W629 9	N	W			1x1-L aGs*	9020_TOX: COMMON	28 Days	H2SO4 to pH <2/Cool~4C
B2W629	N	W			1x250-mL aG	9060_TOC: COMMON	28 Days	HCl or H2SO4 to pH <2/Cool~4C
B2W5L7 4	Y	W			1x500-mL G/P	6010_METALS_ICP: COMMON	6 Months	HNO3 to pH <2
B2W630 10	N	W			1x1-L aGs*	9020_TOX: COMMON	28 Days	H2SO4 to pH <2/Cool~4C
B2W630	N	W			1x250-mL aG	9060_TOC: COMMON	28 Days	HCl or H2SO4 to pH <2/Cool~4C

Chain of Custody

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
JANELLE ZUNKER		Janelle Zunker	APR 08 2014 1220	L D. WALL		L D. Wall	APR 08 2014 1220
L D WALL		L D. Wall	4/8/14 1250	K GRISBY		K Grisby	4/8/14 1250

LW. 4/8/14 LW. 4/8/14

Matrix *

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

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

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A 6004-842 (REV 2)

Sample Receipt

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **S14-004-265**

Page 1 of 1

Collector	JANELLE ZUNKER	Contact/Requester	Karen Waters-Husted	Telephone No.	509-376-4650
SAF No.	S14-004	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071ES20
Project Title	SURV, APRIL 2014	Logbook No.	HNF-N-506 0661 S	Ice Chest No.	N/A
Shipped To (Lab)	Waste Sampling & Characterization	Method of Shipment	GOVERNMENT VEHICLE	Bill of Lading/Air Bill No.	N/A
Protocol	SURV	Priority:	31 Days **PRIORITY**	Offsite Property No.	N/A

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 458.1.

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

Site Wide Generator Knowledge Information Form applies
The CACN for analytical work at WSCF is 401647.

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B2W826	N	W	4/8/14	1157	1x500-mL G/P	200.8_METALS_ICPMS. Uranium (1)	6 Months	HNO3 to pH <2
B2W826	N	W	↓	↓	1x1-L G/P	TC99_3MDSK_LSC: COMMON	6 Months	HCl to pH <2
B2W826	N	W	↓	↓	1x250-mL G	TRITIUM_DIE_LSC: COMMON	6 Months	None

Chain of Custody

Relinquished By (Print / Sign)	Date/Time	Received By (Print / Sign)	Date/Time
JANELLE ZUNKER	APR 08 2014 1220		APR 08 2014 1220
	4-8-14		4/8/14 1225

Matrix *

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

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

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