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

December 19, 2012

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

Dear Scot Fitzgerald,

REVISED121303 - 699253 [Report ID: 121303]

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 WSCF121303

* 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 # WSCF121303
Data Deliverable Date 11/15/12

SAF #	Sample ID	Sample #	Matrix	Sampled	Received
W13-010	B2M184	121303001	WATER	10/15/12	10/15/12
W13-010	B2M183	121303002	WATER	10/15/12	10/15/12
W13-010	B2M242	121303003	WATER	10/15/12	10/15/12
W13-010	B2M243	121303004	WATER	10/15/12	10/15/12
W13-010	B2M244	121303005	WATER	10/15/12	10/15/12
W13-010	B2M185	121303006	WATER	10/15/12	10/15/12
W13-010	B2M8L0	121303007	WATER	10/15/12	10/15/12
W13-010	B2M8L1	121303008	WATER	10/15/12	10/15/12

ATTACHMENT 2

NARRATIVE

Consisting of 6 pages
Including cover page

Attachment 2
Narrative Rev1
WSCF121303

Revision 1: This case narrative replaces the prior in its entirety. 1,4-Dioxane was added per SDR13-064 to sample B2M183.

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), Master Contract 39818, Revision 3, "Laboratory Analytical Services to CHPRC Soil and Groundwater Remediation Project."*

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.

- Sample Issue Resolution Form SDR13-012 regarding Hexachlorophene analysis by Method 8270 is attached to this report.
- Sample Issue Resolution Form SDR13-064 adding 1,4-Dioxane by 8270 is attached to this report.

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.

Attachment 2
Narrative Rev1
WSCF121303

Analytical Methodology for Requested Analyses

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

Inorganic Comments

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

- All applicable QC controls are within the established limits.

Chemical Oxygen Demand – Hold time requirement for this analysis was met. A Matrix Spike, Matrix Spike Duplicate and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

- All applicable QC controls are within the established limits.

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

- All applicable QC controls are within the established limits.

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

- All 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 Alkalinity – The hold time requirement for this analysis was met. A Duplicate 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.

Attachment 2
Narrative Rev1
WSCF121303

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

PCB – 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.

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.

TPHD-WA – 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):

- Due to the co-elution of analytes for TPHD-WA (DRO) and kerosene analysis, samples are spiked and evaluated for TPHD only.

- All applicable QC controls are within the established limits.

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

- All applicable QC controls are within the established limits.

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

- 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 2
Narrative Rev1
WSCF121303

SAMPLE ISSUE RESOLUTION

SIR NUM SDR13-012
REV NUM 0
DATE INITIATED 10/15/2012

SAMPLE EVENT INFORMATION

SAF NUM(S) W13-010

OPERABLE UNIT(S)

PROJECT(S) RCRA13

SAMPLE EVENT TITLE(S) RCRA13

LABORATORY Waste Sampling & Characterization

SAMPLING INFORMATION

NUMBER OF SAMPLES 18

SAMPLE NUMBERS B2M171, B2M129, B2M135, B2M165, B2M123, B2M177, B2M9W6, B2M0Y3, B2M0Y9, B2M141, B2M147, B2M153, B2M159, B2M111, B2M194, B2M105, B2M117, B2M1B0, B2M183, B2MN99, B2MNB5, B2MN81, B2MN82, B2MN94, B2MN71, B2MN57, B2MN32, B2MN52, B2MN89, B2MNC0, B2MXL9, B2MN75, B2MN47, B2MN42, B2MXM8, B2MXN9, B2MXN8, B2MXM7, B2MN63, B2MN64

SAMPLE MATRIX WATER

COLLECTION DATE 10/3/2012 - 10/10/2012

SDG NUM WSCF121223, WSCF121226, WSCF121230, WSCF121232, WSCF121239, WSCF121241, WSCF121242, WSCF121274, WSCF121275, WSCF121284, WSCF121303, WSCF121398, WSCF121401, WSCF121402, WSCF121404, WSCF121439, WSCF121448, WSCF121450, WSCF121456

ISSUE BACKGROUND

CLASS Laboratory Issue

TYPE Cancellation of Analyses

DESCRIPTION WSCF is not currently calibrated for Hexachlorophene by 8270. The compound is polar thus it sticks the columns. Therefore, it is not able to be routinely measure in the extract. In order to be able to report the compound it would need to be derivatized. WSCF is currently not setup to derivatize hexachlorophene.

DISPOSITION

DESCRIPTION PROPOSED DISPOSITION: Report the data without Hexachlorophene and note issue in narrative.

JUSTIFICATION ACCEPTED DISPOSITION: Accept proposed resolution and request that WSCF send a weekly update of any further SDGs that are affected to be added to this SIR.

SUBMITTED BY: Heather Medley/WSCF DATE: 10/15/12
ACCEPTED BY: Karen Waters-Husted/CHPRC DATE: 10/16/12

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Attachment 2
Narrative Rev1
WSCF121303

SAMPLE ISSUE RESOLUTION

SIR NUM	SDR13-064
REV NUM	0
DATE INITIATED	12/12/2012

SAMPLE EVENT INFORMATION

SAF NUM(S)	W13-011, X13-012, W13-012, I13-007, W13-002, W13-010
OPERABLE UNIT(S)	NONE, 100-NR-2
PROJECT(S)	SURV13, CERC13, RCRA13
SAMPLE EVENT TITLE(S)	SURV13, CERC13, RCRA13
LABORATORY	Waste Sampling & Characterization

SAMPLING INFORMATION

NUMBER OF SAMPLES	63
SAMPLE NUMBERS	B2M0Y3, B2M0Y9, B2M105, B2M111, B2M117, B2M123, B2M129, B2M135, B2M141, B2M147, B2M153, B2M159, B2M165, B2M171, B2M177, B2M183, B2M194, B2M1B0, B2M9W6, B2MN27, B2MN32, B2MN37, B2MN42, B2MN47, B2MN52, B2MN57, B2MN64, B2MN71, B2MN75, B2MN81, B2MN82, B2MN89, B2MN94, B2MN99, B2MNB5, B2MNC0, B2MXD6, B2MXL9, B2MXM7, B2MXM8, B2MXN9, B2N3D3, B2N3D5, B2N905, B2N906, B2N910, B2N914, B2N915, B2N919, B2N923, B2N926, B2N931, B2N935, B2N938, B2N941, B2N945, B2N946, B2N950, B2N953, B2N957, B2N958, B2N962, B2N965
SAMPLE MATRIX	WATER
COLLECTION DATE	10/3/2012 - 12/6/2012
SDG NUM	WSCF121241, WSCF121242, WSCF121404, WSCF121448, WSCF121284, WSCF121439, WSCF121226, WSCF121555, WSCF121456, WSCF121275, WSCF121230, WSCF121223, WSCF121303, WSCF121402, WSCF121401, WSCF121398, WSCF121274, WSCF121232, WSCF121450, WSCF121239

ISSUE BACKGROUND

CLASS	Sample Management Issues
TYPE	Addition of Analyses
DESCRIPTION	Missed adding Appendix IX constituent 1,4-Dioxane to the new service list.
DISPOSITION DESCRIPTION	Proposed disposition: Request that WSCF report the missing data for 1,4-Dioxane for the listed samples. SMR will add necessary information to the affected data packages.
JUSTIFICATION	Accepted disposition: WSCF understands SMR missed having 1,4-dioxane reported for the Appendix IX 8270 service list. The data is available. WSCF has added 1,4-dioxane to the yellow highlighted samples above in addition to B2MXN8 (121450), and B2MN63 (121456). The samples not highlighted have not been received by WSCF as of 12/17/12. When they are received 1,4-dioxane will be added.

Submitted by: Karen Waters-Husted/CHPRC DATE: 12/12/12
Accepted by: Heather Medley/WSCF DATE: 12/17/12

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ATTACHMENT 3

ANALYTICAL RESULTS

Consisting of 87 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 # WSCF121303
Report Date December 19, 2012

Analytical: Electronically signed by Joseph Hale

Client Services: Electronically signed by Heather Medley

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.

Batch QC List

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF121303

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
208520	208520	2	BLANK	82922	BLANK		Anions by Ion Chromatography (Water)
208520	208520	3	LCS	82923	LCS		Anions by Ion Chromatography (Water)
208520	208520	4	DUP	82924	B2M785(121305002DUP)	121305002	Anions by Ion Chromatography (Water)
208520	208520	5	MS	82925	B2M785(121305002MS)	121305002	Anions by Ion Chromatography (Water)
208520	208520	6	MSD	82926	B2M785(121305002MSD)	121305002	Anions by Ion Chromatography (Water)
208520	208520	9	SAMPLE	121303001	B2M184		Anions by Ion Chromatography (Water)
208868	208870	3	BLANK	83102	BLANK		Chemical Oxygen Demand
208868	208870	4	LCS	83103	LCS		Chemical Oxygen Demand
208868	208870	7	MS	83104	B2M105(121284012MS)	121284012	Chemical Oxygen Demand
208868	208870	8	MSD	83105	B2M105(121284012MSD)	121284012	Chemical Oxygen Demand
208868	208870	12	SAMPLE	121303002	B2M183		Chemical Oxygen Demand
208894	208924	5	BLANK	83173	BLANK		ICP-6010 - All possible metals
208894	208924	7	LCS	83175	LCS		ICP-6010 - All possible metals
208894	208924	9	MS	83176	B2M5D1(121298016MS)	121298016	ICP-6010 - All possible metals
208894	208924	10	MSD	83177	B2M5D1(121298016MSD	121298016	ICP-6010 - All possible metals
208894	208924	15	SAMPLE	121303002	B2M183		ICP-6010 - All possible metals
208894	208924	16	SAMPLE	121303006	B2M185		ICP-6010 - All possible metals
209117	209125	4	BLANK	83554	BLANK		ICP-2008 MS All possible metal
209117	209125	5	LCS	83555	LCS		ICP-2008 MS All possible metal
209117	209125	7	MS	83556	B2M2N7(121217004MS)	121217004	ICP-2008 MS All possible metal
209117	209125	8	MSD	83557	B2M2N7(121217004MSD	121217004	ICP-2008 MS All possible metal
209117	209125	13	SAMPLE	121303002	B2M183		ICP-2008 MS All possible metal
209117	209125	14	SAMPLE	121303006	B2M185		ICP-2008 MS All possible metal

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Batch QC List

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF121303

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
209117	209125	15	SAMPLE	121303007	B2M8L0		ICP-2008 MS All possible metal
209117	209125	16	SAMPLE	121303008	B2M8L1		ICP-2008 MS All possible metal
209626	209627	1	BLANK	84327	BLANK		Total Organic Halides
209626	209627	2	LCS	84328	LCS		Total Organic Halides
209626	209627	10	MS	84332	B2M0R4(121289026MS)	121289026	Total Organic Halides
209626	209627	11	MSD	84333	B2M0R4(121289026MSD	121289026	Total Organic Halides
209626	209627	16	SAMPLE	121303002	B2M183		Total Organic Halides
209626	209627	17	SAMPLE	121303003	B2M242		Total Organic Halides
209626	209627	18	SAMPLE	121303004	B2M243		Total Organic Halides
209626	209627	19	SAMPLE	121303005	B2M244		Total Organic Halides

Batch QC List

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF121303

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
208947	208956	1	BLANK	83337	BLANK		Extractable Diesel and Petroleum
208947	208956	2	LCS	83338	LCS		Extractable Diesel and Petroleum
208947	208956	3	MS	83339	B2M183(121303002MS)	121303002	Extractable Diesel and Petroleum
208947	208956	4	MSD	83340	B2M183(121303002MSD)	121303002	Extractable Diesel and Petroleum
208947	208956	6	SAMPLE	121303002	B2M183		Extractable Diesel and Petroleum
208952	209022	1	BLANK	83362	BLANK		SW-846 8270D Semivolatiles
208952	209022	2	LCS	83363	LCS		SW-846 8270D Semivolatiles
208952	209022	3	MS	83364	B2M183(121303002MS)	121303002	SW-846 8270D Semivolatiles
208952	209022	4	MSD	83365	B2M183(121303002MSD)	121303002	SW-846 8270D Semivolatiles
208952	209022	5	SAMPLE	121303002	B2M183		SW-846 8270D Semivolatiles
209018	209113	1	BLANK	83416	BLANK		PCBs by EPA SW-846 Method 8082
209018	209113	2	LCS	83417	LCS		PCBs by EPA SW-846 Method 8082
209018	209113	3	MS	83418	B2M159(121274003MS)	121274003	PCBs by EPA SW-846 Method 8082
209018	209113	4	MSD	83419	B2M159(121274003MSD)	121274003	PCBs by EPA SW-846 Method 8082
209018	209113	9	SAMPLE	121303002	B2M183		PCBs by EPA SW-846 Method 8082

Batch QC List

Attention Scot Fitzgerald
Department Organic, Volatiles

Group # WSCF121303

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
208758	208759	1	BLANK	82988	BLANK		Gasoline Range (W)
208758	208759	2	LCS	82989	LCS		Gasoline Range (W)
208758	208759	3	MS	82990	B2M2T9(121270001MS)	121270001	Gasoline Range (W)
208758	208759	4	MSD	82991	B2M2T9(121270001MSD)	121270001	Gasoline Range (W)
208758	208759	5	DUP	82992	B2M2T9(121270001DUP)	121270001	Gasoline Range (W)
208758	208759	15	SAMPLE	121303002	B2M183		Gasoline Range (W)
208935	208936	1	BLANK	83311	BLANK		SW-846 8260B Volatiles
208935	208936	2	LCS	83312	LCS		SW-846 8260B Volatiles
208935	208936	3	MS	83313	B2M5J4(121292015MS)	121292015	SW-846 8260B Volatiles
208935	208936	4	MSD	83314	B2M5J4(121292015MSD)	121292015	SW-846 8260B Volatiles
208935	208936	12	SAMPLE	121303002	B2M183		SW-846 8260B Volatiles

Batch QC List

Attention Scot Fitzgerald
Department Wet Chemistry

Group # WSCF121303

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
208755	208755	1	LCS	82979	LCS		Total Alkalinity as mg/L CaCO3 (Water)
208755	208755	3	DUP	82980	B2M1F4(121285009DUP)	121285009	Total Alkalinity as mg/L CaCO3 (Water)
208755	208755	13	LCS	82981	LCS		Total Alkalinity as mg/L CaCO3 (Water)
208755	208755	23	SAMPLE	121303002	B2M183		Total Alkalinity as mg/L CaCO3 (Water)
208755	208755	24	LCS	82982	LCS		Total Alkalinity as mg/L CaCO3 (Water)
208883	208899	1	BLANK	83149	BLANK		Cyanide (W) by Midi/Spectrophotometer
208883	208899	4	LCS	83152	LCS		Cyanide (W) by Midi/Spectrophotometer
208883	208899	5	MS	83153	B2M147(121242007MS)	121242007	Cyanide (W) by Midi/Spectrophotometer
208883	208899	6	MSD	83154	B2M147(121242007MSD)	121242007	Cyanide (W) by Midi/Spectrophotometer
208883	208899	21	SAMPLE	121303002	B2M183		Cyanide (W) by Midi/Spectrophotometer
208907	208907	2	BLANK	83210	BLANK		Total Organic Carbon
208907	208907	3	LCS	83211	LCS		Total Organic Carbon
208907	208907	4	MS	83212	B2M0R4(121289026MS)	121289026	Total Organic Carbon
208907	208907	5	MSD	83213	B2M0R4(121289026MSD	121289026	Total Organic Carbon
208907	208907	12	SAMPLE	121303002	B2M183		Total Organic Carbon
208907	208907	13	SAMPLE	121303003	B2M242		Total Organic Carbon
208907	208907	17	MS	83215	B2M243(121303004MS)	121303004	Total Organic Carbon
208907	208907	18	MSD	83216	B2M243(121303004MSD)	121303004	Total Organic Carbon
208907	208907	19	SAMPLE	121303004	B2M243		Total Organic Carbon
208907	208907	20	SAMPLE	121303005	B2M244		Total Organic Carbon

Method Reference

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF121303

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)
LA-523-470	Chemical Oxygen Demand		
	EPA-600/4-79-020	410.4	Chemical Oxygen Demand
	HEIS	410.4_COD	Chemical Oxygen Demand
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 Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF121303

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-523-427	Polychlorinated Biphenyls (PCB'S) by Gas Chromatography		
	EPA SW-846	3510C	Separatory Funnel Liquid-Liquid Extraction
	EPA SW-846	3545	Pressurized Fluid Extraction (PFE)
	EPA SW-846	3665A	Sulfuric Acid/Permanganate Cleanup
	EPA SW-846	8000B	Determinative Chromatographic Separations
	EPA SW-846	8082	Polychlorinated Biphenyls (PCBs) by Gas Chromatography
	HEIS	8082_PCB_GC	Polychlorinated Biphenyls (PCBs) by Gas Chromatography
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 Chromatography/Mass Spectrometry (GC/MS)
	EPA SW-846	3545	Pressurized Fluid Extraction (PFE)
	HEIS	8270_SVOA_GCMS	Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry(GC/MS)
LA-523-493	NWTPH-Dx, Extractible Diesel and Petroleum Productions Analysis in Soil and Water		
	WDOE	WDOE	Total Petroleum Hydrocarbons in Diesel
	HEIS	WTPH_DIESEL	TPH Diesel

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, Volatiles

Group # WSCF121303

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-523-443	Gas Chromatography Analysis of Gasoline Range Total Petroleum Hydrocarbons in Water		
	EPA	NWTPH-G	"Analytical Methods for Petroleum Hydrocarbons, June 1997, NWTPH-G, Volatile Petroleum Products Method for Soil and Water
	HEIS	WTPH_GASOLINE	Total Petroleum Hydrocarbons, Gasoline
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 Scot Fitzgerald
Department Wet Chemistry

Group # WSCF121303

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		
	SM	2320	Alkalinity
	HEIS	2320_ALKALINITY	Alkalinity
LA-344-406	Total Organic Carbon (TOC) Based on SW-846		
	EPA SW-846	9060	Total Organic Carbon
	HEIS	9060_TOC	Total Organic Carbon
LA-695-402	Determination of Cyanide by Mididistillation and		
	EPA	SW-846 Method 9014/9010	Determination of Cyanide by Midi-Distillation and Spectrophotometric Analysis
	SM	4500 CNE	Cyanide, Total
	HEIS	4500E_CN	Cyanide, Total

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

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF121303

Sample # 121303001
SAF# W13-010
Sample ID B2M184

Matrix WATER
Sampled 10/15/12
Received 10/15/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
										10/15/12
Anions by Ion Chromatography (Water)										
Fluoride	16984-48-8	LA-533-410	D	0.262		ug/mL	2	0.046	0.14	10/15/12
Chloride	16887-00-6	LA-533-410	D	13.9		ug/mL	2	0.12	0.81	10/15/12
Nitrite-N	NO2-N	LA-533-410	BD	0.0506		ug/mL	2	0.038	0.20	10/15/12
Nitrate-N	NO3-N	LA-533-410	D	16.9		ug/mL	2	0.038	0.20	10/15/12
Sulfate	14808-79-8	LA-533-410	D	81.1		ug/mL	2	0.22	2.1	10/15/12

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.
o - LCS recovery outside established laboratory acceptance limits.

REVISED121303 -

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF121303

Sample # 121303002
SAF# W13-010
Sample ID B2M183

Matrix WATER
Sampled 10/15/12
Received 10/15/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
ICPAES Prep (W)										**10/22/12**
ICP-6010 - All possible metals										
Iron	7439-89-6	LA-505-411	B	42.3		ug/L	1	19	95	10/24/12
Magnesium	7439-95-4	LA-505-411		18200		ug/L	1	4.0	20	10/24/12
Manganese	7439-96-5	LA-505-411	U	<4.0		ug/L	1	4.0	20	10/24/12
Nickel	7440-02-0	LA-505-411	U	<4.0		ug/L	1	4.0	20	10/24/12
Potassium	7440-09-7	LA-505-411		8160		ug/L	1	76	380	10/24/12
Silver	7440-22-4	LA-505-411	U	<4.0		ug/L	1	4.0	20	10/24/12
Sodium	7440-23-5	LA-505-411		28000		ug/L	1	10	50	10/24/12
Antimony	7440-36-0	LA-505-411	U	<36		ug/L	1	36	180	10/24/12
Barium	7440-39-3	LA-505-411		69.6		ug/L	1	4.0	20	10/24/12
Cadmium	7440-43-9	LA-505-411	U	<4.0		ug/L	1	4.0	20	10/24/12
Chromium	7440-47-3	LA-505-411	B	10.7		ug/L	1	5.0	25	10/24/12
Cobalt	7440-48-4	LA-505-411	U	<4.0		ug/L	1	4.0	20	10/24/12
Copper	7440-50-8	LA-505-411	U	<4.0		ug/L	1	4.0	20	10/24/12
Vanadium	7440-62-2	LA-505-411	B	15.5		ug/L	1	5.0	25	10/24/12
Zinc	7440-66-6	LA-505-411	U	<5.0		ug/L	1	5.0	25	10/24/12
Calcium	7440-70-2	LA-505-411		57400		ug/L	1	49	240	10/24/12
Strontium	7440-24-6	LA-505-411		290		ug/L	1	9.0	45	10/24/12

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.
o - LCS recovery outside established laboratory acceptance limits.

REVISED121303 -

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF121303

Sample # 121303002
SAF# W13-010
Sample ID B2M183

Matrix WATER
Sampled 10/15/12
Received 10/15/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Titanium	7440-32-6	LA-505-411	U	<4.0		ug/L	1	4.0	20	10/24/12
Beryllium	7440-41-7	LA-505-411	U	<4.0		ug/L	1	4.0	20	10/24/12
ICPMS Prep (W)										**10/25/12**
ICP-2008 MS All possible metal										
Aluminum	7429-90-5	LA-505-412	UD	<10		ug/L	2	10	100	10/26/12
Manganese	7439-96-5	LA-505-412	BD	0.840		ug/L	2	0.20	2.0	10/26/12
Nickel	7440-02-0	LA-505-412	D	5.52		ug/L	2	0.20	2.0	10/26/12
Silver	7440-22-4	LA-505-412	UD	<0.10		ug/L	2	0.10	1.0	10/26/12
Antimony	7440-36-0	LA-505-412	UD	<0.60		ug/L	2	0.60	6.0	10/26/12
Barium	7440-39-3	LA-505-412	D	72.1		ug/L	2	0.40	4.0	10/26/12
Beryllium	7440-41-7	LA-505-412	UD	<0.20		ug/L	2	0.20	2.0	10/26/12
Cadmium	7440-43-9	LA-505-412	UD	<0.10		ug/L	2	0.10	1.0	10/26/12
Chromium	7440-47-3	LA-505-412	D	8.01		ug/L	2	0.20	2.0	10/26/12
Cobalt	7440-48-4	LA-505-412	BD	0.124		ug/L	2	0.10	0.50	10/26/12
Copper	7440-50-8	LA-505-412	BD	0.504		ug/L	2	0.20	2.0	10/26/12
Vanadium	7440-62-2	LA-505-412	D	17.9		ug/L	2	0.40	4.0	10/26/12
Zinc	7440-66-6	LA-505-412	UD	<2.0		ug/L	2	2.0	20	10/26/12
Lead	7439-92-1	LA-505-412	BD	0.212		ug/L	2	0.10	1.0	10/26/12
Molybdenum	7439-98-7	LA-505-412	D	6.93		ug/L	2	0.10	1.0	10/26/12

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.
o - LCS recovery outside established laboratory acceptance limits.

REVISED121303 -

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF121303

Sample # 121303002
SAF# W13-010
Sample ID B2M183

Matrix WATER
Sampled 10/15/12
Received 10/15/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Strontium	7440-24-6	LA-505-412	D	328		ug/L	2	0.20	2.0	10/26/12
Thallium	7440-28-0	LA-505-412	UD	<0.10		ug/L	2	0.10	1.0	10/26/12
Tin	7440-31-5	LA-505-412	UD	<0.10		ug/L	2	0.10	1.0	10/26/12
Arsenic	7440-38-2	LA-505-412	D	5.08		ug/L	2	0.40	4.0	10/26/12
Selenium	7782-49-2	LA-505-412	BD	5.41		ug/L	2	2.0	20	10/26/12
Preparation for COD (W)										**10/16/12**
Chemical Oxygen Demand										
Chemical Oxygen Demand	COD	LA-523-470	U	<10		mg/L	1	10	50	10/16/12
Preparation for TOX (W)										**10/22/12**
Total Organic Halides										
Total Organic Halides	59473-04-0	LA-523-444	U	<5.0		ug/L	1	5.0	15	10/22/12

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.
o - LCS recovery outside established laboratory acceptance limits.

REVISED121303 -

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF121303

Sample # 121303003
SAF# W13-010
Sample ID B2M242

Matrix WATER
Sampled 10/15/12
Received 10/15/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Preparation for TOX (W)										**10/22/12**
Total Organic Halides										
Total Organic Halides	59473-04-0	LA-523-444	B	6.67		ug/L	1	5.0	15	10/22/12

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.
o - LCS recovery outside established laboratory acceptance limits.

REVISED121303 -

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF121303

Sample # 121303004
SAF# W13-010
Sample ID B2M243

Matrix WATER
Sampled 10/15/12
Received 10/15/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Preparation for TOX (W)										**10/22/12**
Total Organic Halides										
Total Organic Halides	59473-04-0	LA-523-444	B	7.05		ug/L	1	5.0	15	10/22/12

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.
o - LCS recovery outside established laboratory acceptance limits.

REVISED121303 -

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF121303

Sample # 121303005
SAF# W13-010
Sample ID B2M244

Matrix WATER
Sampled 10/15/12
Received 10/15/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Preparation for TOX (W)										**10/22/12**
Total Organic Halides										
Total Organic Halides	59473-04-0	LA-523-444	B	7.26		ug/L	1	5.0	15	10/22/12

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.
o - LCS recovery outside established laboratory acceptance limits.

REVISED121303 -

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF121303

Sample # 121303006
SAF# W13-010
Sample ID B2M185

Matrix WATER
Sampled 10/15/12
Received 10/15/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
ICPAES Prep (W)										**10/22/12**
ICP-6010 - All possible metals										
Iron	7439-89-6	LA-505-411	B	23.8		ug/L	1	19	95	10/24/12
Magnesium	7439-95-4	LA-505-411		17900		ug/L	1	4.0	20	10/24/12
Manganese	7439-96-5	LA-505-411	U	<4.0		ug/L	1	4.0	20	10/24/12
Nickel	7440-02-0	LA-505-411	B	9.70		ug/L	1	4.0	20	10/24/12
Potassium	7440-09-7	LA-505-411		8100		ug/L	1	76	380	10/24/12
Silver	7440-22-4	LA-505-411	U	<4.0		ug/L	1	4.0	20	10/24/12
Sodium	7440-23-5	LA-505-411		27500		ug/L	1	10	50	10/24/12
Antimony	7440-36-0	LA-505-411	U	<36		ug/L	1	36	180	10/24/12
Barium	7440-39-3	LA-505-411		68.4		ug/L	1	4.0	20	10/24/12
Cadmium	7440-43-9	LA-505-411	U	<4.0		ug/L	1	4.0	20	10/24/12
Chromium	7440-47-3	LA-505-411	B	5.90		ug/L	1	5.0	25	10/24/12
Cobalt	7440-48-4	LA-505-411	U	<4.0		ug/L	1	4.0	20	10/24/12
Copper	7440-50-8	LA-505-411	U	<4.0		ug/L	1	4.0	20	10/24/12
Vanadium	7440-62-2	LA-505-411	B	13.4		ug/L	1	5.0	25	10/24/12
Zinc	7440-66-6	LA-505-411	U	<5.0		ug/L	1	5.0	25	10/24/12
Calcium	7440-70-2	LA-505-411		56300		ug/L	1	49	240	10/24/12
Strontium	7440-24-6	LA-505-411		286		ug/L	1	9.0	45	10/24/12

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.
o - LCS recovery outside established laboratory acceptance limits.

REVISED121303 -

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF121303

Sample # 121303006
SAF# W13-010
Sample ID B2M185

Matrix WATER
Sampled 10/15/12
Received 10/15/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Titanium	7440-32-6	LA-505-411	U	<4.0		ug/L	1	4.0	20	10/24/12
Beryllium	7440-41-7	LA-505-411	U	<4.0		ug/L	1	4.0	20	10/24/12
ICPMS Prep (W)										**10/25/12**
ICP-2008 MS All possible metal										
Aluminum	7429-90-5	LA-505-412	UD	<10		ug/L	2	10	100	10/26/12
Manganese	7439-96-5	LA-505-412	BD	1.62		ug/L	2	0.20	2.0	10/26/12
Nickel	7440-02-0	LA-505-412	D	6.42		ug/L	2	0.20	2.0	10/26/12
Silver	7440-22-4	LA-505-412	UD	<0.10		ug/L	2	0.10	1.0	10/26/12
Antimony	7440-36-0	LA-505-412	UD	<0.60		ug/L	2	0.60	6.0	10/26/12
Barium	7440-39-3	LA-505-412	D	75.3		ug/L	2	0.40	4.0	10/26/12
Beryllium	7440-41-7	LA-505-412	UD	<0.20		ug/L	2	0.20	2.0	10/26/12
Cadmium	7440-43-9	LA-505-412	UD	<0.10		ug/L	2	0.10	1.0	10/26/12
Chromium	7440-47-3	LA-505-412	D	5.22		ug/L	2	0.20	2.0	10/26/12
Cobalt	7440-48-4	LA-505-412	BD	0.380		ug/L	2	0.10	0.50	10/26/12
Copper	7440-50-8	LA-505-412	BD	0.350		ug/L	2	0.20	2.0	10/26/12
Vanadium	7440-62-2	LA-505-412	D	18.2		ug/L	2	0.40	4.0	10/26/12
Zinc	7440-66-6	LA-505-412	UD	<2.0		ug/L	2	2.0	20	10/26/12
Lead	7439-92-1	LA-505-412	UD	<0.10		ug/L	2	0.10	1.0	10/26/12
Molybdenum	7439-98-7	LA-505-412	D	6.91		ug/L	2	0.10	1.0	10/26/12

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.
o - LCS recovery outside established laboratory acceptance limits.

REVISED121303 -

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF121303

Sample # 121303006
SAF# W13-010
Sample ID B2M185

Matrix WATER
Sampled 10/15/12
Received 10/15/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Strontium	7440-24-6	LA-505-412	D	336		ug/L	2	0.20	2.0	10/26/12
Thallium	7440-28-0	LA-505-412	UD	<0.10		ug/L	2	0.10	1.0	10/26/12
Tin	7440-31-5	LA-505-412	UD	<0.10		ug/L	2	0.10	1.0	10/26/12
Arsenic	7440-38-2	LA-505-412	D	5.12		ug/L	2	0.40	4.0	10/26/12
Selenium	7782-49-2	LA-505-412	BD	5.83		ug/L	2	2.0	20	10/26/12

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.
o - LCS recovery outside established laboratory acceptance limits.

REVISED121303 -

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF121303

Sample # 121303007
SAF# W13-010
Sample ID B2M8L0

Matrix WATER
Sampled 10/15/12
Received 10/15/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
ICPMS Prep (W)										**10/25/12**
ICP-2008 MS All possible metal										
Mercury	7439-97-6	LA-505-412	UD	<0.10		ug/L	2	0.10	0.40	10/26/12

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.
o - LCS recovery outside established laboratory acceptance limits.

REVISED121303 -

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF121303

Sample # 121303008
SAF# W13-010
Sample ID B2M8L1

Matrix WATER
Sampled 10/15/12
Received 10/15/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
ICPMS Prep (W)										**10/25/12**
ICP-2008 MS All possible metal										
Mercury	7439-97-6	LA-505-412	UD	<0.10		ug/L	2	0.10	0.40	10/26/12

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.
o - LCS recovery outside established laboratory acceptance limits.

REVISED121303 -

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF121303

Sample # 121303002
SAF# W13-010
Sample ID B2M183

Matrix WATER
Sampled 10/15/12
Received 10/15/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Preparation for 8082 (W) SPE										**10/17/12**
PCBs by EPA SW-846 Method 8082										
Aroclor-1016	12674-11-2	LA-523-427	U	<0.09		ug/L	1	0.09	0.2	10/24/12
Aroclor-1221	11104-28-2	LA-523-427	U	<0.2		ug/L	1	0.2	0.4	10/24/12
Aroclor-1232	11141-16-5	LA-523-427	U	<0.09		ug/L	1	0.09	0.2	10/24/12
Aroclor-1242	53469-21-9	LA-523-427	U	<0.09		ug/L	1	0.09	0.2	10/24/12
Aroclor-1248	12672-29-6	LA-523-427	U	<0.09		ug/L	1	0.09	0.2	10/24/12
Aroclor-1254	11097-69-1	LA-523-427	U	<0.09		ug/L	1	0.09	0.2	10/24/12
Aroclor-1260	11096-82-5	LA-523-427	U	<0.09		ug/L	1	0.09	0.2	10/24/12
Preparation for 8270 (W) CLE										**10/22/12**
SW-846 8270D Semivolatiles										
4-Nitrophenol	100-02-7	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/23/12
Phenol	108-95-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/23/12
1,2,4-Trichlorobenzene	120-82-1	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/23/12
2,4-Dinitrotoluene	121-14-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/23/12
1,4-Dichlorobenzene	106-46-7	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/23/12
Pyrene	129-00-0	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/23/12
4-Chloro-3-methylphenol	59-50-7	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/23/12

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TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

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D - Analyte was reported at a secondary dilution factor.
E - The calibration 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).
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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.

REVISED121303 -

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF121303

Sample # 121303002
SAF# W13-010
Sample ID B2M183

Matrix WATER
Sampled 10/15/12
Received 10/15/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
n-Nitroso-di-n-propylamine	621-64-7	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/23/12
Acenaphthene	83-32-9	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/23/12
Pentachlorophenol	87-86-5	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/23/12
2-Chlorophenol	95-57-8	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/23/12
4-Nitroaniline	100-01-6	LA-523-456	U	<0.9		ug/L	1	0.9	2	10/23/12
4-Bromophenyl-phenylether	101-55-3	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/23/12
2,4-Dimethylphenol	105-67-9	LA-523-456	U	<1		ug/L	1	1	2	10/23/12
4-Chloroaniline	106-47-8	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/23/12
Bis(1-Chloro-2-propyl)ether	108-60-1	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/23/12
Bis-(2-Chloroethyl) ether	111-44-4	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/23/12
Bis-(2-Chloroethoxy)methane	111-91-1	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/23/12
Bis-(2-Ethylhexyl)phthalate	117-81-7	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/23/12
Di-n-octylphthalate	117-84-0	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/23/12
Hexachlorobenzene	118-74-1	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/23/12
Anthracene	120-12-7	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/23/12
2,4-Dichlorophenol	120-83-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/23/12

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REVISED121303 -

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF121303

Sample # 121303002
SAF# W13-010
Sample ID B2M183

Matrix WATER
Sampled 10/15/12
Received 10/15/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Dimethylphthalate	131-11-3	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/23/12
Dibenzofuran	132-64-9	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/23/12
Benzo(g,h,i)perylene	191-24-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/23/12
Indeno(1,2,3-cd)pyrene	193-39-5	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/23/12
Benzo(b)fluoranthene	205-99-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/23/12
Fluoranthene	206-44-0	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/23/12
Benzo(k)fluoranthene	207-08-9	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/23/12
Acenaphthylene	208-96-8	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/23/12
Chrysene	218-01-9	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/23/12
Benzo(a)pyrene	50-32-8	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/23/12
2,4-Dinitrophenol	51-28-5	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/23/12
Dibenzo(a,h)anthracene	53-70-3	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/23/12
4,6-Dinitro-2-methylphenol	534-52-1	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/23/12
1,3-Dichlorobenzene	541-73-1	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/23/12
Benzo(a)anthracene	56-55-3	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/23/12
2,6-Dinitrotoluene	606-20-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/23/12
4-Chlorophenyl-phenylether	7005-72-3	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/23/12

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REVISED121303 -

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF121303

Sample # 121303002
SAF# W13-010
Sample ID B2M183

Matrix WATER
Sampled 10/15/12
Received 10/15/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Hexachlorocyclopentadiene	77-47-4	LA-523-456	U	<0.9		ug/L	1	0.9	2	10/23/12
Isophorone	78-59-1	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/23/12
Diethyl phthalate	84-66-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/23/12
Di-n-butylphthalate	84-74-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/23/12
Phenanthrene	85-01-8	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/23/12
Butylbenzylphthalate	85-68-7	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/23/12
Fluorene	86-73-7	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/23/12
Carbazole	86-74-8	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/23/12
Hexachlorobutadiene	87-68-3	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/23/12
2-Nitroaniline	88-74-4	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/23/12
2-Nitrophenol	88-75-5	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/23/12
Naphthalene	91-20-3	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/23/12
2-Methylnaphthalene	91-57-6	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/23/12
2-Chloronaphthalene	91-58-7	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/23/12
3,3-Dichlorobenzidine	91-94-1	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/23/12
2-Methylphenol	95-48-7	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/23/12
1,2-Dichlorobenzene	95-50-1	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/23/12
2,4,5-Trichlorophenol	95-95-4	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/23/12
Nitrobenzene	98-95-3	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/23/12

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REVISED121303 -

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF121303

Sample # 121303002
SAF# W13-010
Sample ID B2M183

Matrix WATER
Sampled 10/15/12
Received 10/15/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
3-Nitroaniline	99-09-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/23/12
3 & 4 Methylphenol, Total	65794-96-9	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/23/12
Hexachloroethane	67-72-1	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/23/12
2,4,6-Trichlorophenol	88-06-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/23/12
Benzyl alcohol	100-51-6	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/23/12
Tributyl phosphate	126-73-8	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/23/12
2-Naphthylamine	91-59-8	LA-523-456	U	<1		ug/L	1	1	2	10/23/12
Pyridine	110-86-1	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/23/12
n-Nitrosopiperidine	100-75-4	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/23/12
n-Nitrosomethylethylamine	10595-95-6	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/23/12
p-Phenylenediamine	106-50-3	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/23/12
2-Picoline	109-06-8	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/23/12
3,3-Dimethylbenzidine	119-93-7	LA-523-456	U	<4		ug/L	1	4	6	10/23/12
Isosafrole	120-58-1	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/23/12
Phentermine	122-09-8	LA-523-456	U	<5		ug/L	1	5	9	10/23/12
1,4-Dioxane	123-91-1	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/23/12
1,4-Naphthoquinone	130-15-4	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/23/12

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REVISED121303 -

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF121303

Sample # 121303002
SAF# W13-010
Sample ID B2M183

Matrix WATER
Sampled 10/15/12
Received 10/15/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
1-Naphthylamine	134-32-7	LA-523-456	U	<1		ug/L	1	1	2	10/23/12
Aramite	140-57-8	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/23/12
Kepone	143-50-0	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/23/12
Hexachloropropene	1888-71-7	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/23/12
Diallate	2303-16-4	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/23/12
Pronamide	23950-58-5	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/23/12
Isodrin	465-73-6	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/23/12
Chlorobenzilate	510-15-6	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/23/12
2-Acetylaminofluorene	53-96-3	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/23/12
n-Nitrosodiethylamine	55-18-5	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/23/12
3-Methylcholanthrene	56-49-5	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/23/12
4-Nitroquinoline-1-oxide	56-57-5	LA-523-456	U	<0.9		ug/L	1	0.9	2	10/23/12
7,12-Dimethylbenz(a)anthracene	57-97-6	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/23/12
2,3,4,6-Tetrachlorophenol	58-90-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/23/12
n-Nitrosomorpholine	59-89-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/23/12
Pentachlorobenzene	608-93-5	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/23/12
Phenacetin	62-44-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/23/12

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REVISED121303 -

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF121303

Sample # 121303002
SAF# W13-010
Sample ID B2M183

Matrix WATER
Sampled 10/15/12
Received 10/15/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Ethyl methanesulfonate	62-50-0	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/23/12
Aniline	62-53-3	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/23/12
n-Nitrosodimethylamine	62-75-9	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/23/12
Methyl methanesulfonate	66-27-3	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/23/12
Pentachloroethane	76-01-7	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/23/12
Pentachloronitrobenzene	82-68-8	LA-523-456	U	<1		ug/L	1	1	2	10/23/12
2,6-Dichlorophenol	87-65-0	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/23/12
Dinoseb(..dinitromethylphenol)	88-85-7	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/23/12
4-Aminobiphenyl	92-67-1	LA-523-456	U	<1		ug/L	1	1	2	10/23/12
n-Nitrosodibutylamine	924-16-3	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/23/12
n-Nitrosopyrolidine	930-55-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/23/12
Safrole	94-59-7	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/23/12
o-Toluidine	95-53-4	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/23/12
1,2,4,5-Tetrachlorobenzene	95-94-3	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/23/12
Acetophenone	98-86-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/23/12
1,3,5-Trinitrobenzene	99-35-4	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/23/12

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 - The calibration 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.

REVISED121303 -

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF121303

Sample # 121303002
SAF# W13-010
Sample ID B2M183

Matrix WATER
Sampled 10/15/12
Received 10/15/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
2-Methyl-5-nitroaniline	99-55-8	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/23/12
1,3-Dinitrobenzene	99-65-0	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/23/12
O,O,O-Triethylthiophosphate	126-68-1	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/23/12
Parathion	56-38-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/23/12
Dimethylaminoazobenzene	60-11-7	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/23/12
Dimethoate	60-51-5	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/23/12
Thionazin	297-97-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/23/12
Methyl parathion	298-00-0	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/23/12
Phorate	298-02-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/23/12
Disulfoton	298-04-4	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/23/12
Sulfotep	3689-24-5	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/23/12
Famfur	52-85-7	LA-523-456	U	<5		ug/L	1	5	9	10/23/12
N-Nitrosodiphenylamin/Diphenyl	DPA+NNDPA	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/23/12
Methapyrilene	91-80-5	LA-523-456	U	<0.9		ug/L	1	0.9	1	10/23/12
Total Petroleum Hydrocarbons (Water Prep										**10/22/12**
Extractable Diesel and Petroleum										
Diesel	TPHDIESEL	LA-523-493	U	<70		ug/L	1	70	100	10/22/12

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 - The calibration 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.

REVISED121303 -

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF121303

Sample # 121303002
SAF# W13-010
Sample ID B2M183

Matrix WATER
Sampled 10/15/12
Received 10/15/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Kerosene	TPHKEROSEN	LA-523-493	U	<70		ug/L	1	70	100	10/22/12

MDL = Minimum Detection Limit
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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 - The calibration 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).
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REVISED121303 -

Attention Scot Fitzgerald
Department Organic, Volatiles

Group # WSCF121303

Sample # 121303002
SAF# W13-010
Sample ID B2M183

Matrix WATER
Sampled 10/15/12
Received 10/15/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Gasoline Range Prep (W)										**10/16/12**
Gasoline Range (W)										
Gasoline	TPHGASOLIN	LA-523-443	U	<50		ug/L	1	50	200	10/16/12
Preparation for 8260B (W)										**10/22/12**
SW-846 8260B Volatiles										
1,1-Dichloroethene	75-35-4	LA-523-455	U	<1		ug/L	1	1	5	10/22/12
Trichloroethene	79-01-6	LA-523-455	U	<1		ug/L	1	1	5	10/22/12
Benzene	71-43-2	LA-523-455	U	<1		ug/L	1	1	5	10/22/12
Toluene	108-88-3	LA-523-455	U	<1		ug/L	1	1	5	10/22/12
Chlorobenzene	108-90-7	LA-523-455	U	<1		ug/L	1	1	5	10/22/12
1,1-Dichloroethane	75-34-3	LA-523-455	U	<1		ug/L	1	1	5	10/22/12
Ethylbenzene	100-41-4	LA-523-455	U	<1		ug/L	1	1	5	10/22/12
Styrene	100-42-5	LA-523-455	U	<1		ug/L	1	1	5	10/22/12
cis-1,3-Dichloropropene	10061-01-5	LA-523-455	U	<1		ug/L	1	1	5	10/22/12
trans-1,3-Dichloropropene	10061-02-6	LA-523-455	U	<1		ug/L	1	1	5	10/22/12
1,2-Dichloroethane	107-06-2	LA-523-455	U	<1		ug/L	1	1	5	10/22/12
Methyl isobutyl ketone	108-10-1	LA-523-455	U	<1		ug/L	1	1	5	10/22/12
Dibromochloromethane	124-48-1	LA-523-455	U	<1		ug/L	1	1	5	10/22/12

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D - Analyte was reported at a secondary dilution 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 - GC/MS or N - Non GC/MS - MS/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.

REVISED121303 -

Attention Scot Fitzgerald
Department Organic, Volatiles

Group # WSCF121303

Sample # 121303002
SAF# W13-010
Sample ID B2M183

Matrix WATER
Sampled 10/15/12
Received 10/15/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Tetrachloroethene	127-18-4	LA-523-455	U	<1		ug/L	1	1	5	10/22/12
Total Xylenes	1330-20-7	LA-523-455	U	<1		ug/L	1	1	5	10/22/12
Total 1,2-Dichloroethene	540-59-0	LA-523-455	U	<1		ug/L	1	1	5	10/22/12
Carbon tetrachloride	56-23-5	LA-523-455	U	<1		ug/L	1	1	5	10/22/12
2-Hexanone	591-78-6	LA-523-455	U	<1		ug/L	1	1	5	10/22/12
Acetone	67-64-1	LA-523-455	U	<1		ug/L	1	1	5	10/22/12
Chloroform	67-66-3	LA-523-455	U	<1		ug/L	1	1	5	10/22/12
1,1,1-Trichloroethane	71-55-6	LA-523-455	U	<1		ug/L	1	1	5	10/22/12
Bromomethane	74-83-9	LA-523-455	U	<1		ug/L	1	1	5	10/22/12
Chloromethane	74-87-3	LA-523-455	U	<1		ug/L	1	1	5	10/22/12
Chloroethane	75-00-3	LA-523-455	U	<1		ug/L	1	1	5	10/22/12
Vinyl chloride	75-01-4	LA-523-455	U	<1		ug/L	1	1	5	10/22/12
Methylene chloride	75-09-2	LA-523-455	U	<1		ug/L	1	1	5	10/22/12
Carbon disulfide	75-15-0	LA-523-455	U	<1		ug/L	1	1	5	10/22/12
Bromoform	75-25-2	LA-523-455	U	<1		ug/L	1	1	5	10/22/12
Bromodichloromethane	75-27-4	LA-523-455	U	<1		ug/L	1	1	5	10/22/12
1,2-Dichloropropane	78-87-5	LA-523-455	U	<1		ug/L	1	1	5	10/22/12
Methyl ethyl ketone	78-93-3	LA-523-455	U	<1		ug/L	1	1	5	10/22/12
1,1,2-Trichloroethane	79-00-5	LA-523-455	U	<1		ug/L	1	1	5	10/22/12

MDL = Minimum Detection Limit
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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)

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X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)
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REVISED121303 -

Attention Scot Fitzgerald
Department Organic, Volatiles

Group # WSCF121303

Sample # 121303002
SAF# W13-010
Sample ID B2M183

Matrix WATER
Sampled 10/15/12
Received 10/15/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
1,1,2,2-Tetrachloroethane	79-34-5	LA-523-455	U	<1		ug/L	1	1	5	10/22/12
1-Butanol	71-36-3	LA-523-455	U	<100		ug/L	1	100	500	10/22/12
Tetrahydrofuran	109-99-9	LA-523-455	U	<2		ug/L	1	2	10	10/22/12
Trichlorofluoromethane	75-69-4	LA-523-455	U	<1		ug/L	1	1	5	10/22/12
trans-1,2-Dichloroethene	156-60-5	LA-523-455	U	<1		ug/L	1	1	5	10/22/12
Acetonitrile	75-05-8	LA-523-455	U	<2		ug/L	1	2	10	10/22/12
cis-1,2-Dichloroethene	156-59-2	LA-523-455	U	<1		ug/L	1	1	5	10/22/12
Propionitrile	107-12-0	LA-523-455	U	<2		ug/L	1	2	10	10/22/12
Isobutyl alcohol	78-83-1	LA-523-455	U	<200		ug/L	1	200	1.E3	10/22/12
Iodomethane	74-88-4	LA-523-455	U	<1		ug/L	1	1	5	10/22/12
1,1,1,2-Tetrachloroethane	630-20-6	LA-523-455	U	<1		ug/L	1	1	5	10/22/12
1,2,3-Trichloropropane	96-18-4	LA-523-455	U	<1		ug/L	1	1	5	10/22/12
1,2-Dibromo-3-chloropropane	96-12-8	LA-523-455	U	<1		ug/L	1	1	5	10/22/12
1,2-Dibromoethane	106-93-4	LA-523-455	U	<1		ug/L	1	1	5	10/22/12
Acrolein	107-02-8	LA-523-455	U	<1		ug/L	1	1	5	10/22/12
Acrylonitrile	107-13-1	LA-523-455	U	<1		ug/L	1	1	5	10/22/12
Allyl chloride	107-05-1	LA-523-455	U	<1		ug/L	1	1	5	10/22/12

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T - GC/MS or N - Non GC/MS - MS/MSD recovery outside control limits
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REVISED121303 -

Attention Scot Fitzgerald
Department Organic, Volatiles

Group # WSCF121303

Sample # 121303002
SAF# W13-010
Sample ID B2M183

Matrix WATER
Sampled 10/15/12
Received 10/15/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Methylene bromide	74-95-3	LA-523-455	U	<1		ug/L	1	1	5	10/22/12
Dichlorodifluoromethane	75-71-8	LA-523-455	U	<1		ug/L	1	1	5	10/22/12
Ethyl methacrylate	97-63-2	LA-523-455	U	<1		ug/L	1	1	5	10/22/12
Methacrylonitrile	126-98-7	LA-523-455	U	<1		ug/L	1	1	5	10/22/12
Methyl methacrylate	80-62-6	LA-523-455	U	<1		ug/L	1	1	5	10/22/12
Trans-1,4-dichloro-2-butene	110-57-6	LA-523-455	U	<1		ug/L	1	1	5	10/22/12
Vinyl acetate	108-05-4	LA-523-455	U	<1		ug/L	1	1	5	10/22/12
Chloroprene	126-99-8	LA-523-455	U	<1		ug/L	1	1	5	10/22/12

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RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
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D - Analyte was reported at a secondary dilution 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 - GC/MS or N - Non GC/MS - MS/MSD recovery outside control limits
U - Analyzed for but not detected above limiting criteria.
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PQL is equivalent to Estimated Quantitation Limit (EQL)
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REVISED121303 -

Attention Scot Fitzgerald
Department Wet Chemistry

Group # WSCF121303

Sample # 121303002
SAF# W13-010
Sample ID B2M183

Matrix WATER
Sampled 10/15/12
Received 10/15/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Preparation for Cyanide (W)										**10/17/12**
Cyanide (W) by Midi/Spectrophotometer										
Cyanide	57-12-5	LA-695-402	B	9.38		ug/L	1	4.0	20	10/17/12
										10/16/12
Total Alkalinity as mg/L CaCO3 (Water)										
Total Alkalinity as CaCO3	ALKALINITY	LA-531-411		110		mg/L	1	1	10	10/16/12
										10/18/12
Total Organic Carbon										
Total Organic Carbon	TOC	LA-344-406	B	0.297		mg/L	1	0.10	0.30	10/18/12

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.

REVISED121303 -

Attention Scot Fitzgerald
Department Wet Chemistry

Group # WSCF121303

Sample # 121303003
SAF# W13-010
Sample ID B2M242

Matrix WATER
Sampled 10/15/12
Received 10/15/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
										10/18/12
Total Organic Carbon										
Total Organic Carbon	TOC	LA-344-406	B	0.295		mg/L	1	0.10	0.30	10/18/12

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.

REVISED121303 -

Attention Scot Fitzgerald
Department Wet Chemistry

Group # WSCF121303

Sample # 121303004
SAF# W13-010
Sample ID B2M243

Matrix WATER
Sampled 10/15/12
Received 10/15/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
										10/18/12
Total Organic Carbon										
Total Organic Carbon	TOC	LA-344-406	B	0.157		mg/L	1	0.10	0.30	10/18/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
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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.
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REVISED121303 -

Attention Scot Fitzgerald
Department Wet Chemistry

Group # WSCF121303

Sample # 121303005
SAF# W13-010
Sample ID B2M244

Matrix WATER
Sampled 10/15/12
Received 10/15/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
										10/18/12
Total Organic Carbon										
Total Organic Carbon	TOC	LA-344-406	B	0.295		mg/L	1	0.10	0.30	10/18/12

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.
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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.

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REVISED121303 -

Quality Control Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF121303

Analytical Batch 208520 (QC Batch: 208520) **Test** Anions by Ion Chromatography (Water)
Associated Samples 121303001

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit		RQ	Analyzed
BLANK			**QC Sample #82922**								
Fluoride	16984-48-8		<0.023	ug/mL						U	10/15/12
Chloride	16887-00-6		<0.058	ug/mL						U	10/15/12
Nitrite-N	NO2-N		<0.019	ug/mL						U	10/15/12
Nitrate-N	NO3-N		<0.019	ug/mL						U	10/15/12
Sulfate	14808-79-8		<0.11	ug/mL						U	10/15/12
LCS			**QC Sample #82923**								
Fluoride	16984-48-8		0.895	ug/mL	90.4	90 - 110					10/15/12
Chloride	16887-00-6		1.82	ug/mL	91.8	90 - 110					10/15/12
Nitrite-N	NO2-N		0.954	ug/mL	97.5	90 - 110					10/15/12
Nitrate-N	NO3-N		0.902	ug/mL	101.9	90 - 110					10/15/12
Sulfate	14808-79-8		3.91	ug/mL	99.7	90 - 110					10/15/12
DUP			**QC Sample #82924**								
			Original 121305002								
Fluoride	16984-48-8		<0.046	ug/mL			3.60	20		UD	10/15/12
Chloride	16887-00-6		2.07	ug/mL			0.10	20		D	10/15/12
Nitrite-N	NO2-N		0.107	ug/mL			11.60	20		BD	10/15/12
Nitrate-N	NO3-N		<0.038	ug/mL			200.00	20	*	UD	10/15/12

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

REVISED121303 -

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF121303

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Sulfate	14808-79-8		23.3	ug/mL			1.10	20	D	10/15/12
MS			**QC Sample #82925**							
			Original 121305002							
Fluoride	16984-48-8		0.945	ug/mL	94.5	80 - 120			D	10/15/12
Chloride	16887-00-6		1.85	ug/mL	92.7	80 - 120			D	10/15/12
Nitrite-N	NO2-N		0.990	ug/mL	100.2	80 - 120			D	10/15/12
Nitrate-N	NO3-N		0.902	ug/mL	100.9	80 - 120			D	10/15/12
Sulfate	14808-79-8		4.02	ug/mL	101.4	80 - 120			D	10/15/12
MSD			**QC Sample #82926**							
			Original 121305002					**Paired**	**82925**	
Fluoride	16984-48-8		0.951	ug/mL	95.1	80 - 120	0.70	20	D	10/15/12
Chloride	16887-00-6		1.70	ug/mL	85.1	80 - 120	4.00	20	D	10/15/12
Nitrite-N	NO2-N		0.882	ug/mL	89.3	80 - 120	10.20	20	D	10/15/12
Nitrate-N	NO3-N		0.876	ug/mL	98	80 - 120	2.90	20	D	10/15/12
Sulfate	14808-79-8		3.93	ug/mL	99.2	80 - 120	0.30	20	D	10/15/12

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

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Attention Scot Fitzgerald
Department Wet Chemistry

Group # WSCF121303

Analytical Batch 208755 (QC Batch: 208755) **Test** Total Alkalinity as mg/L CaCO3 (Water)
Associated Samples 121303002

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
LCS			**QC Sample #82979**							
Total Alkalinity as CaCO3	ALKALINITY		98	mg/L	98.2	80 - 120				10/16/12
DUP			**QC Sample #82980**							
			Original 121285009							
Total Alkalinity as CaCO3	ALKALINITY		96	mg/L			1.00	20		10/16/12
LCS			**QC Sample #82981**							
Total Alkalinity as CaCO3	ALKALINITY		97	mg/L	97.3	80 - 120				10/16/12
LCS			**QC Sample #82982**							
Total Alkalinity as CaCO3	ALKALINITY		98	mg/L	97.7	80 - 120				10/16/12

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

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Attention Scot Fitzgerald
Department Organic, Volatiles

Group # WSCF121303

Analytical Batch 208759 (QC Batch: 208758) **Test** Gasoline Range (W)
Associated Samples 121303002

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit		RQ	Analyzed
BLANK			**QC Sample #82988**								
Gasoline	TPHGASOLI		<50	ug/L						U	10/16/12
LCS			**QC Sample #82989**								
Gasoline	TPHGASOLI		2500	ug/L	101.2	80 - 120					10/16/12
MS			**QC Sample #82990**								
			Original 121270001								
Gasoline	TPHGASOLI		2000	ug/L	80.2	75 - 125					10/16/12
MSD			**QC Sample #82991**								
			Original 121270001						**Paired**	**82990**	
Gasoline	TPHGASOLI		2000	ug/L	81.1	75 - 125	1.10	20			10/16/12
DUP			**QC Sample #82992**								
			Original 121270001								
Gasoline	TPHGASOLI		<50	ug/L			0.00	20		U	10/16/12

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

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Attention Scot Fitzgerald
Department Inorganic

Group # WSCF121303

Analytical Batch 208870 (QC Batch: 208868) **Test** Chemical Oxygen Demand
Associated Samples 121303002

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #83102**							
Chemical Oxygen Demand	COD		<10	mg/L					U	10/16/12
LCS			**QC Sample #83103**							
Chemical Oxygen Demand	COD		98.8	mg/L	98.8	80 - 120				10/16/12
MS			**QC Sample #83104**							
			Original 121284012							
Chemical Oxygen Demand	COD		251	mg/L	100.2	75 - 125				10/16/12
MSD			**QC Sample #83105**							
			Original 121284012					**Paired**	**83104**	
Chemical Oxygen Demand	COD		255	mg/L	102.1	75 - 125	1.90	20		10/16/12

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

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Attention Scot Fitzgerald
Department Wet Chemistry

Group # WSCF121303

Analytical Batch 208899 (QC Batch: 208883) **Test** Cyanide (W) by Midi/Spectrophotometer
Associated Samples 121303002

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #83149**							
Cyanide	57-12-5		<4.0	ug/L					U	10/17/12
LCS			**QC Sample #83152**							
Cyanide	57-12-5		50.3	ug/L	100.6	85 - 115				10/17/12
MS			**QC Sample #83153**							
			Original 121242007							
Cyanide	57-12-5		42.6	ug/L	106.4	75 - 125				10/17/12
MSD			**QC Sample #83154**							
			Original 121242007					**Paired**	**83153**	
Cyanide	57-12-5		43.3	ug/L	108.2	75 - 125	1.70	20		10/17/12

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

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Attention Scot Fitzgerald
Department Wet Chemistry

Group # WSCF121303

Analytical Batch 208907 (QC Batch: 208907) **Test** Total Organic Carbon
Associated Samples 121303002, 121303003, 121303004, 121303005

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit		RQ	Analyzed
BLANK			**QC Sample #83210**								
Total Organic Carbon	TOC		<0.045	mg/L						U	10/18/12
LCS			**QC Sample #83211**								
Total Organic Carbon	TOC		2.12	mg/L	106.2	80 - 120					10/18/12
MS			**QC Sample #83212**								
			Original 121289026								
Total Organic Carbon	TOC		2.16	mg/L	108	75 - 125					10/18/12
MSD			**QC Sample #83213**								
			Original 121289026						**Paired**	**83212**	
Total Organic Carbon	TOC		2.15	mg/L	107.7	75 - 125	0.20	20			10/18/12
MS			**QC Sample #83215**								
			Original 121303004								
Total Organic Carbon	TOC	0.157	2.12	mg/L	106.1	75 - 125					10/18/12
MSD			**QC Sample #83216**								
			Original 121303004						**Paired**	**83215**	
Total Organic Carbon	TOC	0.157	2.11	mg/L	105.5	75 - 125	0.50	20			10/18/12

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

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Quality Control Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF121303

Analytical Batch 208924 (QC Batch: 208894) **Test** ICP-6010 - All possible metals
Associated Samples 121303002, 121303006

Analyte	CAS #	Original Found	QC Found	Units	% Recov Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #83173**						
Iron	7439-89-6		<19	ug/L				U	10/24/12
Magnesium	7439-95-4		<4.0	ug/L				U	10/24/12
Manganese	7439-96-5		<4.0	ug/L				U	10/24/12
Nickel	7440-02-0		<4.0	ug/L				U	10/24/12
Potassium	7440-09-7		<76	ug/L				U	10/24/12
Silver	7440-22-4		<4.0	ug/L				U	10/24/12
Sodium	7440-23-5		<10	ug/L				U	10/24/12
Antimony	7440-36-0		<36	ug/L				U	10/24/12
Barium	7440-39-3		<4.0	ug/L				U	10/24/12
Cadmium	7440-43-9		<4.0	ug/L				U	10/24/12
Chromium	7440-47-3		<5.0	ug/L				U	10/24/12
Cobalt	7440-48-4		<4.0	ug/L				U	10/24/12
Copper	7440-50-8		<4.0	ug/L				U	10/24/12
Vanadium	7440-62-2		<5.0	ug/L				U	10/24/12
Zinc	7440-66-6		<5.0	ug/L				U	10/24/12
Calcium	7440-70-2		<49	ug/L				U	10/24/12
Strontium	7440-24-6		<9.0	ug/L				U	10/24/12

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

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Group # WSCF121303

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Titanium	7440-32-6		<4.0	ug/L					U	10/24/12
Beryllium	7440-41-7		<4.0	ug/L					U	10/24/12
LCS			**QC Sample #83175**							
Iron	7439-89-6		971	ug/L	97.1	80 - 120				10/24/12
Magnesium	7439-95-4		9880	ug/L	98.8	80 - 120				10/24/12
Manganese	7439-96-5		993	ug/L	99.3	80 - 120				10/24/12
Nickel	7440-02-0		980	ug/L	98	80 - 120				10/24/12
Potassium	7440-09-7		10300	ug/L	102.9	80 - 120				10/24/12
Silver	7440-22-4		1020	ug/L	101.5	80 - 120				10/24/12
Sodium	7440-23-5		9960	ug/L	99.6	80 - 120				10/24/12
Antimony	7440-36-0		994	ug/L	99.4	80 - 120				10/24/12
Barium	7440-39-3		1000	ug/L	100.2	80 - 120				10/24/12
Cadmium	7440-43-9		987	ug/L	98.7	80 - 120				10/24/12
Chromium	7440-47-3		992	ug/L	99.2	80 - 120				10/24/12
Cobalt	7440-48-4		971	ug/L	97.1	80 - 120				10/24/12
Copper	7440-50-8		990	ug/L	99	80 - 120				10/24/12
Vanadium	7440-62-2		976	ug/L	97.6	80 - 120				10/24/12
Zinc	7440-66-6		999	ug/L	99.9	80 - 120				10/24/12
Calcium	7440-70-2		20100	ug/L	100.4	80 - 120				10/24/12
Strontium	7440-24-6		973	ug/L	97.3	80 - 120				10/24/12
Titanium	7440-32-6		994	ug/L	99.4	80 - 120				10/24/12
Beryllium	7440-41-7		991	ug/L	99.1	80 - 120				10/24/12

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

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Group # WSCF121303

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
MS			**QC Sample #83176**							
			Original 121298016							
Iron	7439-89-6		974	ug/L	97.4	75 - 125				10/24/12
Magnesium	7439-95-4		9820	ug/L	98.2	75 - 125				10/24/12
Manganese	7439-96-5		983	ug/L	98.3	75 - 125				10/24/12
Nickel	7440-02-0		958	ug/L	95.8	75 - 125				10/24/12
Potassium	7440-09-7		10200	ug/L	102	75 - 125				10/24/12
Silver	7440-22-4		1000	ug/L	100.2	75 - 125				10/24/12
Sodium	7440-23-5		9540	ug/L	95.4	75 - 125				10/24/12
Antimony	7440-36-0		1010	ug/L	100.8	75 - 125				10/24/12
Barium	7440-39-3		996	ug/L	99.6	75 - 125				10/24/12
Cadmium	7440-43-9		986	ug/L	98.6	75 - 125				10/24/12
Chromium	7440-47-3		980	ug/L	98	75 - 125				10/24/12
Cobalt	7440-48-4		949	ug/L	94.9	75 - 125				10/24/12
Copper	7440-50-8		984	ug/L	98.4	75 - 125				10/24/12
Vanadium	7440-62-2		977	ug/L	97.7	75 - 125				10/24/12
Zinc	7440-66-6		999	ug/L	99.9	75 - 125				10/24/12
Calcium	7440-70-2		20100	ug/L	100.4	75 - 125				10/24/12
Strontium	7440-24-6		968	ug/L	96.8	75 - 125				10/24/12
Titanium	7440-32-6		988	ug/L	98.8	75 - 125				10/24/12
Beryllium	7440-41-7		998	ug/L	99.8	75 - 125				10/24/12
MSD			**QC Sample #83177**							
			Original 121298016					**Paired**	**83176**	
Iron	7439-89-6		997	ug/L	99.7	75 - 125	2.30	20		10/24/12

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

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Group # WSCF121303

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Magnesium	7439-95-4		10500	ug/L	105.4	75 - 125	3.00	20		10/24/12
Manganese	7439-96-5		1000	ug/L	100.4	75 - 125	2.10	20		10/24/12
Nickel	7440-02-0		976	ug/L	97.6	75 - 125	1.90	20		10/24/12
Potassium	7440-09-7		10600	ug/L	106.5	75 - 125	2.80	20		10/24/12
Silver	7440-22-4		1020	ug/L	101.8	75 - 125	1.60	20		10/24/12
Sodium	7440-23-5		10700	ug/L	107.4	75 - 125	3.90	20		10/24/12
Antimony	7440-36-0		1020	ug/L	101.5	75 - 125	0.70	20		10/24/12
Barium	7440-39-3		1020	ug/L	102.2	75 - 125	2.50	20		10/24/12
Cadmium	7440-43-9		1000	ug/L	100	75 - 125	1.40	20		10/24/12
Chromium	7440-47-3		1010	ug/L	100.7	75 - 125	2.50	20		10/24/12
Cobalt	7440-48-4		965	ug/L	96.5	75 - 125	1.60	20		10/24/12
Copper	7440-50-8		1010	ug/L	100.9	75 - 125	2.50	20		10/24/12
Vanadium	7440-62-2		996	ug/L	99.6	75 - 125	1.90	20		10/24/12
Zinc	7440-66-6		1010	ug/L	101.3	75 - 125	1.40	20		10/24/12
Calcium	7440-70-2		22400	ug/L	111.8	75 - 125	3.20	20		10/24/12
Strontium	7440-24-6		995	ug/L	99.5	75 - 125	2.10	20		10/24/12
Titanium	7440-32-6		1010	ug/L	101.2	75 - 125	2.40	20		10/24/12
Beryllium	7440-41-7		1020	ug/L	102	75 - 125	2.20	20		10/24/12

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

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Attention Scot Fitzgerald
Department Organic, Volatiles

Group # WSCF121303

Analytical Batch 208936 (QC Batch: 208935) **Test** SW-846 8260B Volatiles
Associated Samples 121303002

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #83311**							
1,1-Dichloroethene	75-35-4		<1	ug/L					U	10/22/12
Trichloroethene	79-01-6		<1	ug/L					U	10/22/12
Benzene	71-43-2		<1	ug/L					U	10/22/12
Toluene	108-88-3		<1	ug/L					U	10/22/12
Chlorobenzene	108-90-7		<1	ug/L					U	10/22/12
1,1-Dichloroethane	75-34-3		<1	ug/L					U	10/22/12
Ethylbenzene	100-41-4		<1	ug/L					U	10/22/12
Styrene	100-42-5		<1	ug/L					U	10/22/12
cis-1,3-Dichloropropene	10061-01-5		<1	ug/L					U	10/22/12
trans-1,3-Dichloropropene	10061-02-6		<1	ug/L					U	10/22/12
1,2-Dichloroethane	107-06-2		<1	ug/L					U	10/22/12
Methyl isobutyl ketone	108-10-1		<1	ug/L					U	10/22/12
Dibromochloromethane	124-48-1		<1	ug/L					U	10/22/12
Tetrachloroethene	127-18-4		<1	ug/L					U	10/22/12
Total Xylenes	1330-20-7		<1	ug/L					U	10/22/12

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

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Department Organic, Volatiles

Group # WSCF121303

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Total 1,2-Dichloroethene	540-59-0		<1	ug/L					U	10/22/12
Carbon tetrachloride	56-23-5		<1	ug/L					U	10/22/12
2-Hexanone	591-78-6		<1	ug/L					U	10/22/12
Acetone	67-64-1		<1	ug/L					U	10/22/12
Chloroform	67-66-3		<1	ug/L					U	10/22/12
1,1,1-Trichloroethane	71-55-6		<1	ug/L					U	10/22/12
Bromomethane	74-83-9		<1	ug/L					U	10/22/12
Chloromethane	74-87-3		<1	ug/L					U	10/22/12
Chloroethane	75-00-3		<1	ug/L					U	10/22/12
Vinyl chloride	75-01-4		<1	ug/L					U	10/22/12
Methylene chloride	75-09-2		<1	ug/L					U	10/22/12
Carbon disulfide	75-15-0		<1	ug/L					U	10/22/12
Bromoform	75-25-2		<1	ug/L					U	10/22/12
Bromodichloromethane	75-27-4		<1	ug/L					U	10/22/12
1,2-Dichloropropane	78-87-5		<1	ug/L					U	10/22/12
Methyl ethyl ketone	78-93-3		<1	ug/L					U	10/22/12
1,1,2-Trichloroethane	79-00-5		<1	ug/L					U	10/22/12
1,1,2,2-Tetrachloroethane	79-34-5		<1	ug/L					U	10/22/12
1-Butanol	71-36-3		<100	ug/L					U	10/22/12
Tetrahydrofuran	109-99-9		<2	ug/L					U	10/22/12
Trichlorofluoromethane	75-69-4		<1	ug/L					U	10/22/12

* - QC result out of range

n/a - Not Applicable

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Department Organic, Volatiles

Group # WSCF121303

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
trans-1,2-Dichloroethene	156-60-5		<1	ug/L					U	10/22/12
Acetonitrile	75-05-8		<2	ug/L					U	10/22/12
cis-1,2-Dichloroethene	156-59-2		<1	ug/L					U	10/22/12
Propionitrile	107-12-0		<2	ug/L					U	10/22/12
Isobutyl alcohol	78-83-1		<200	ug/L					U	10/22/12
Iodomethane	74-88-4		<1	ug/L					U	10/22/12
1,1,1,2-Tetrachloroethane	630-20-6		<1	ug/L					U	10/22/12
1,2,3-Trichloropropane	96-18-4		<1	ug/L					U	10/22/12
1,2-Dibromo-3-chloropropane	96-12-8		<1	ug/L					U	10/22/12
1,2-Dibromoethane	106-93-4		<1	ug/L					U	10/22/12
Acrolein	107-02-8		<1	ug/L					U	10/22/12
Acrylonitrile	107-13-1		<1	ug/L					U	10/22/12
Allyl chloride	107-05-1		<1	ug/L					U	10/22/12
Methylene bromide	74-95-3		<1	ug/L					U	10/22/12
Dichlorodifluoromethane	75-71-8		<1	ug/L					U	10/22/12
Ethyl methacrylate	97-63-2		<1	ug/L					U	10/22/12
Methacrylonitrile	126-98-7		<1	ug/L					U	10/22/12
Methyl methacrylate	80-62-6		<1	ug/L					U	10/22/12
Trans-1,4-dichloro-2-butene	110-57-6		<1	ug/L					U	10/22/12
Vinyl acetate	108-05-4		<1	ug/L					U	10/22/12

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

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Group # WSCF121303

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Chloroprene	126-99-8		<1	ug/L					U	10/22/12
LCS			**QC Sample #83312**							
1,1-Dichloroethene	75-35-4		23	ug/L	93.3	75 - 125				10/22/12
Trichloroethene	79-01-6		23	ug/L	93.6	75 - 125				10/22/12
Benzene	71-43-2		24	ug/L	97.8	75 - 125				10/22/12
Toluene	108-88-3		24	ug/L	96.6	75 - 125				10/22/12
Chlorobenzene	108-90-7		24	ug/L	97.8	75 - 125				10/22/12
1,1-Dichloroethane	75-34-3		23	ug/L	92.5	75 - 125				10/22/12
Ethylbenzene	100-41-4		25	ug/L	101.1	75 - 125				10/22/12
Styrene	100-42-5		26	ug/L	105.1	75 - 125				10/22/12
trans-1,3-Dichloropropene	10061-02-6		26	ug/L	105	75 - 125				10/22/12
1,2-Dichloroethane	107-06-2		25	ug/L	101.6	75 - 125				10/22/12
1,1,1-Trichloroethane	71-55-6		25	ug/L	100.6	75 - 125				10/22/12
Dibromochloromethane	124-48-1		25	ug/L	101.8	75 - 125				10/22/12
Carbon disulfide	75-15-0		23	ug/L	90.9	75 - 125				10/22/12
Bromoform	75-25-2		29	ug/L	115.6	75 - 125				10/22/12
Bromodichloromethane	75-27-4		25	ug/L	101	75 - 125				10/22/12
1,2-Dichloropropane	78-87-5		24	ug/L	97	75 - 125				10/22/12
1,1,2-Trichloroethane	79-00-5		26	ug/L	105.2	75 - 125				10/22/12
1,1,2,2-Tetrachloroethane	79-34-5		27	ug/L	106.2	75 - 125				10/22/12

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

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Group # WSCF121303

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
trans-1,2-Dichloroethene	156-60-5		23	ug/L	91.9	75 - 125				10/22/12
cis-1,2-Dichloroethene	156-59-2		23	ug/L	91	75 - 125				10/22/12
MS			**QC Sample #83313**							
			Original 121292015							
1,1-Dichloroethene	75-35-4		22	ug/L	86.2	75 - 125				10/22/12
Trichloroethene	79-01-6		22	ug/L	87.4	75 - 125				10/22/12
Benzene	71-43-2		23	ug/L	91.5	75 - 125				10/22/12
Toluene	108-88-3		23	ug/L	90.2	75 - 125				10/22/12
Chlorobenzene	108-90-7		23	ug/L	92.1	75 - 125				10/22/12
1,1-Dichloroethane	75-34-3		22	ug/L	87.8	75 - 125				10/22/12
Ethylbenzene	100-41-4		24	ug/L	94.1	75 - 125				10/22/12
Styrene	100-42-5		25	ug/L	98.8	75 - 125				10/22/12
trans-1,3-Dichloropropene	10061-02-6		24	ug/L	96.7	75 - 125				10/22/12
1,2-Dichloroethane	107-06-2		24	ug/L	94.4	75 - 125				10/22/12
1,1,1-Trichloroethane	71-55-6		23	ug/L	92.6	75 - 125				10/22/12
Dibromochloromethane	124-48-1		24	ug/L	94.8	75 - 125				10/22/12
Carbon disulfide	75-15-0		21	ug/L	84.8	75 - 125				10/22/12
Bromoform	75-25-2		26	ug/L	104.4	75 - 125				10/22/12
Bromodichloromethane	75-27-4		24	ug/L	94.7	75 - 125				10/22/12
1,2-Dichloropropane	78-87-5		23	ug/L	92	75 - 125				10/22/12
1,1,2-Trichloroethane	79-00-5		25	ug/L	98.9	75 - 125				10/22/12

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

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Attention Scot Fitzgerald
Department Organic, Volatiles

Group # WSCF121303

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
1,1,2,2-Tetrachloroethane	79-34-5		24	ug/L	96.4	75 - 125				10/22/12
trans-1,2-Dichloroethene	156-60-5		21	ug/L	85.5	75 - 125				10/22/12
cis-1,2-Dichloroethene	156-59-2		21	ug/L	85.3	75 - 125				10/22/12
MSD			**QC Sample #83314**							
			Original 121292015					**Paired**	**83313**	
1,1-Dichloroethene	75-35-4		24	ug/L	95.8	75 - 125	10.60	20		10/22/12
Trichloroethene	79-01-6		23	ug/L	92.4	75 - 125	5.60	20		10/22/12
Benzene	71-43-2		24	ug/L	97.3	75 - 125	6.10	20		10/22/12
Toluene	108-88-3		24	ug/L	97.7	75 - 125	7.90	20		10/22/12
Chlorobenzene	108-90-7		24	ug/L	97.8	75 - 125	6.10	20		10/22/12
1,1-Dichloroethane	75-34-3		24	ug/L	94.2	75 - 125	6.90	20		10/22/12
Ethylbenzene	100-41-4		25	ug/L	100.6	75 - 125	6.70	20		10/22/12
Styrene	100-42-5		26	ug/L	104.7	75 - 125	5.80	20		10/22/12
trans-1,3-Dichloropropene	10061-02-6		26	ug/L	102.2	75 - 125	5.50	20		10/22/12
1,2-Dichloroethane	107-06-2		24	ug/L	97.6	75 - 125	3.30	20		10/22/12
1,1,1-Trichloroethane	71-55-6		25	ug/L	99.7	75 - 125	7.30	20		10/22/12
Dibromochloromethane	124-48-1		25	ug/L	99.4	75 - 125	4.80	20		10/22/12
Carbon disulfide	75-15-0		23	ug/L	93	75 - 125	9.30	20		10/22/12
Bromoform	75-25-2		26	ug/L	105.7	75 - 125	1.20	20		10/22/12
Bromodichloromethane	75-27-4		25	ug/L	100.2	75 - 125	5.60	20		10/22/12
1,2-Dichloropropane	78-87-5		24	ug/L	96.5	75 - 125	4.80	20		10/22/12

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

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Department Organic, Volatiles

Group # WSCF121303

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
1,1,2-Trichloroethane	79-00-5		25	ug/L	101.5	75 - 125	2.60	20		10/22/12
1,1,2,2-Tetrachloroethane	79-34-5		25	ug/L	98.9	75 - 125	2.50	20		10/22/12
trans-1,2-Dichloroethene	156-60-5		23	ug/L	93.1	75 - 125	8.50	20		10/22/12
cis-1,2-Dichloroethene	156-59-2		23	ug/L	93	75 - 125	8.60	20		10/22/12

* - QC result out of range

n/a - Not Applicable

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Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF121303

Analytical Batch 208956 (QC Batch: 208947) **Test** Extractable Diesel and Petroleum
Associated Samples 121303002

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #83337**							
Diesel	TPHDIESEL		<80	ug/L					U	10/22/12
Kerosene	TPHKEROSE		<80	ug/L					U	10/22/12
LCS			**QC Sample #83338**							
Diesel	TPHDIESEL		2400	ug/L	97.8	65 - 128				10/22/12
MS			**QC Sample #83339**							
			Original 121303002							
Diesel	TPHDIESEL	<70	2300	ug/L	96.4	73 - 123				10/22/12
MSD			**QC Sample #83340**							
			Original 121303002					**Paired 83339**		
Diesel	TPHDIESEL	<70	2300	ug/L	97	73 - 123	0.70	20		10/22/12

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

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Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF121303

Analytical Batch 209022 (QC Batch: 208952) **Test** SW-846 8270D Semivolatiles
Associated Samples 121303002

Analyte	CAS #	Original Found	QC Found	Units	% Recov Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #83362**						
4-Nitrophenol	100-02-7		<1	ug/L				U	10/23/12
Phenol	108-95-2		<1	ug/L				U	10/23/12
1,2,4-Trichlorobenzene	120-82-1		<1	ug/L				U	10/23/12
2,4-Dinitrotoluene	121-14-2		<1	ug/L				U	10/23/12
1,4-Dichlorobenzene	106-46-7		<1	ug/L				U	10/23/12
Pyrene	129-00-0		<1	ug/L				U	10/23/12
4-Chloro-3-methylphenol	59-50-7		<1	ug/L				U	10/23/12
n-Nitroso-di-n-propylamine	621-64-7		<1	ug/L				U	10/23/12
Acenaphthene	83-32-9		<1	ug/L				U	10/23/12
Pentachlorophenol	87-86-5		<1	ug/L				U	10/23/12
2-Chlorophenol	95-57-8		<1	ug/L				U	10/23/12
4-Nitroaniline	100-01-6		<1	ug/L				U	10/23/12
4-Bromophenyl-phenylether	101-55-3		<1	ug/L				U	10/23/12
2,4-Dimethylphenol	105-67-9		<2	ug/L				U	10/23/12
4-Chloroaniline	106-47-8		<1	ug/L				U	10/23/12

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

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Group # WSCF121303

Analyte	CAS #	Original Found	QC Found	Units	% Recov Limits	RPD	RPD Limit	RQ	Analyzed
Bis(1-Chloro-2-propyl)ether	108-60-1		<1	ug/L				U	10/23/12
Bis-(2-Chloroethyl) ether	111-44-4		<1	ug/L				U	10/23/12
Bis-(2-Chloroethoxy)methane	111-91-1		<1	ug/L				U	10/23/12
Bis-(2-Ethylhexyl)phthalate	117-81-7		<1	ug/L				U	10/23/12
Di-n-octylphthalate	117-84-0		<1	ug/L				U	10/23/12
Hexachlorobenzene	118-74-1		<1	ug/L				U	10/23/12
Anthracene	120-12-7		<1	ug/L				U	10/23/12
2,4-Dichlorophenol	120-83-2		<1	ug/L				U	10/23/12
Dimethylphthalate	131-11-3		<1	ug/L				U	10/23/12
Dibenzofuran	132-64-9		<1	ug/L				U	10/23/12
Benzo(g,h,i)perylene	191-24-2		<1	ug/L				U	10/23/12
Indeno(1,2,3-cd)pyrene	193-39-5		<1	ug/L				U	10/23/12
Benzo(b)fluoranthene	205-99-2		<1	ug/L				U	10/23/12
Fluoranthene	206-44-0		<1	ug/L				U	10/23/12
Benzo(k)fluoranthene	207-08-9		<1	ug/L				U	10/23/12
Acenaphthylene	208-96-8		<1	ug/L				U	10/23/12
Chrysene	218-01-9		<1	ug/L				U	10/23/12
Benzo(a)pyrene	50-32-8		<1	ug/L				U	10/23/12
2,4-Dinitrophenol	51-28-5		<1	ug/L				U	10/23/12

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

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Attention Scot Fitzgerald
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Group # WSCF121303

Analyte	CAS #	Original Found	QC Found	Units	% Recov Limits	RPD	RPD Limit	RQ	Analyzed
Dibenzo(a,h)anthracene	53-70-3		<1	ug/L				U	10/23/12
4,6-Dinitro-2-methylphenol	534-52-1		<1	ug/L				U	10/23/12
1,3-Dichlorobenzene	541-73-1		<1	ug/L				U	10/23/12
Benzo(a)anthracene	56-55-3		<1	ug/L				U	10/23/12
2,6-Dinitrotoluene	606-20-2		<1	ug/L				U	10/23/12
4-Chlorophenyl-phenylether	7005-72-3		<1	ug/L				U	10/23/12
Hexachlorocyclopentadiene	77-47-4		<1	ug/L				U	10/23/12
Isophorone	78-59-1		<1	ug/L				U	10/23/12
Diethyl phthalate	84-66-2		<1	ug/L				U	10/23/12
Di-n-butylphthalate	84-74-2		<1	ug/L				U	10/23/12
Phenanthrene	85-01-8		<1	ug/L				U	10/23/12
Butylbenzylphthalate	85-68-7		<1	ug/L				U	10/23/12
Fluorene	86-73-7		<1	ug/L				U	10/23/12
Carbazole	86-74-8		<1	ug/L				U	10/23/12
Hexachlorobutadiene	87-68-3		<1	ug/L				U	10/23/12
2-Nitroaniline	88-74-4		<1	ug/L				U	10/23/12
2-Nitrophenol	88-75-5		<1	ug/L				U	10/23/12
Naphthalene	91-20-3		<1	ug/L				U	10/23/12
2-Methylnaphthalene	91-57-6		<1	ug/L				U	10/23/12
2-Chloronaphthalene	91-58-7		<1	ug/L				U	10/23/12
3,3-Dichlorobenzidine	91-94-1		<1	ug/L				U	10/23/12

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

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Group # WSCF121303

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
2-Methylphenol	95-48-7		<1	ug/L					U	10/23/12
1,2-Dichlorobenzene	95-50-1		<1	ug/L					U	10/23/12
2,4,5-Trichlorophenol	95-95-4		<1	ug/L					U	10/23/12
Nitrobenzene	98-95-3		<1	ug/L					U	10/23/12
3-Nitroaniline	99-09-2		<1	ug/L					U	10/23/12
3 & 4 Methylphenol, Total	65794-96-9		<1	ug/L					U	10/23/12
Hexachloroethane	67-72-1		<1	ug/L					U	10/23/12
2,4,6-Trichlorophenol	88-06-2		<1	ug/L					U	10/23/12
Benzyl alcohol	100-51-6		<1	ug/L					U	10/23/12
Tributyl phosphate	126-73-8		<1	ug/L					U	10/23/12
2-Naphthylamine	91-59-8		<2	ug/L					U	10/23/12
Pyridine	110-86-1		<1	ug/L					U	10/23/12
n-Nitrosopiperidine	100-75-4		<1	ug/L					U	10/23/12
n-Nitrosomethylethylamine	10595-95-6		<1	ug/L					U	10/23/12
p-Phenylenediamine	106-50-3		<1	ug/L					U	10/23/12
2-Picoline	109-06-8		<1	ug/L					U	10/23/12
3,3-Dimethylbenzidine	119-93-7		<4	ug/L					U	10/23/12
Isosafrole	120-58-1		<1	ug/L					U	10/23/12
Phentermine	122-09-8		<5	ug/L					U	10/23/12
1,4-Dioxane	123-91-1		<1	ug/L					U	10/23/12
1,4-Naphthoquinone	130-15-4		<1	ug/L					U	10/23/12

* - QC result out of range

n/a - Not Applicable

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Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF121303

Analyte	CAS #	Original Found	QC Found	Units	% Recov Limits	RPD	RPD Limit	RQ	Analyzed
1-Naphthylamine	134-32-7		<2	ug/L				U	10/23/12
Aramite	140-57-8		<1	ug/L				U	10/23/12
Kepone	143-50-0		<1	ug/L				U	10/23/12
Hexachloropropene	1888-71-7		<1	ug/L				U	10/23/12
Diallate	2303-16-4		<1	ug/L				U	10/23/12
Pronamide	23950-58-5		<1	ug/L				U	10/23/12
Isodrin	465-73-6		<1	ug/L				U	10/23/12
Chlorobenzilate	510-15-6		<1	ug/L				U	10/23/12
2-Acetylaminofluorene	53-96-3		<1	ug/L				U	10/23/12
n-Nitrosodiethylamine	55-18-5		<1	ug/L				U	10/23/12
3-Methylcholanthrene	56-49-5		<1	ug/L				U	10/23/12
4-Nitroquinoline-1-oxide	56-57-5		<1	ug/L				U	10/23/12
7,12-Dimethylbenz(a)anthracene	57-97-6		<1	ug/L				U	10/23/12
2,3,4,6-Tetrachlorophenol	58-90-2		<1	ug/L				U	10/23/12
n-Nitrosomorpholine	59-89-2		<1	ug/L				U	10/23/12
Pentachlorobenzene	608-93-5		<1	ug/L				U	10/23/12
Phenacetin	62-44-2		<1	ug/L				U	10/23/12
Ethyl methanesulfonate	62-50-0		<1	ug/L				U	10/23/12
Aniline	62-53-3		<1	ug/L				U	10/23/12
n-Nitrosodimethylamine	62-75-9		<1	ug/L				U	10/23/12

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

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Attention Scot Fitzgerald
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Group # WSCF121303

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Methyl methanesulfonate	66-27-3		<1	ug/L					U	10/23/12
Pentachloroethane	76-01-7		<1	ug/L					U	10/23/12
Pentachloronitrobenzene	82-68-8		<2	ug/L					U	10/23/12
2,6-Dichlorophenol	87-65-0		<1	ug/L					U	10/23/12
Dinoseb(..dinitromethylphenol)	88-85-7		<1	ug/L					U	10/23/12
4-Aminobiphenyl	92-67-1		<2	ug/L					U	10/23/12
n-Nitrosodibutylamine	924-16-3		<1	ug/L					U	10/23/12
n-Nitrosopyrolidine	930-55-2		<1	ug/L					U	10/23/12
Safrole	94-59-7		<1	ug/L					U	10/23/12
o-Toluidine	95-53-4		<1	ug/L					U	10/23/12
1,2,4,5-Tetrachlorobenzene	95-94-3		<1	ug/L					U	10/23/12
Acetophenone	98-86-2		<1	ug/L					U	10/23/12
1,3,5-Trinitrobenzene	99-35-4		<1	ug/L					U	10/23/12
2-Methyl-5-nitroaniline	99-55-8		<1	ug/L					U	10/23/12
1,3-Dinitrobenzene	99-65-0		<1	ug/L					U	10/23/12
O,O,O-Triethylthiophosphate	126-68-1		<1	ug/L					U	10/23/12
Parathion	56-38-2		<1	ug/L					U	10/23/12
Dimethylaminoazobenzene	60-11-7		<1	ug/L					U	10/23/12
Dimethoate	60-51-5		<1	ug/L					U	10/23/12
Thionazin	297-97-2		<1	ug/L					U	10/23/12

* - QC result out of range

n/a - Not Applicable

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Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF121303

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Methyl parathion	298-00-0		<1	ug/L					U	10/23/12
Phorate	298-02-2		<1	ug/L					U	10/23/12
Disulfoton	298-04-4		<1	ug/L					U	10/23/12
Sulfotep	3689-24-5		<1	ug/L					U	10/23/12
Famfur	52-85-7		<5	ug/L					U	10/23/12
N-Nitrosodiphenylamin/ Diphenyl	DPA+NNDPA		<1	ug/L					U	10/23/12
Methapyrilene	91-80-5		<1	ug/L					U	10/23/12
LCS			**QC Sample #83363**							
4-Nitrophenol	100-02-7		12	ug/L	40	5 - 88				10/23/12
1,2,4-Trichlorobenzene	120-82-1		22	ug/L	75	50 - 105				10/23/12
Phenol	108-95-2		15	ug/L	48.7	18 - 89				10/23/12
1,4-Dichlorobenzene	106-46-7		16	ug/L	79.4	47 - 115				10/23/12
2,4-Dinitrotoluene	121-14-2		24	ug/L	81.5	59 - 110				10/23/12
Pyrene	129-00-0		28	ug/L	92.1	64 - 116				10/23/12
4-Chloro-3-methylphenol	59-50-7		24	ug/L	81.4	62 - 109				10/23/12
n-Nitroso-di-n-propylamine	621-64-7		24	ug/L	81.4	61 - 110				10/23/12
Acenaphthene	83-32-9		24	ug/L	80.2	59 - 113				10/23/12
Pentachlorophenol	87-86-5		21	ug/L	69.2	17 - 125				10/23/12
2-Chlorophenol	95-57-8		24	ug/L	80.6	55 - 109				10/23/12
1,4-Dioxane	123-91-1		22	ug/L	72.9	42 - 99				10/23/12

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

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Group # WSCF121303

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
n-Nitrosodimethylamine	62-75-9		24	ug/L	78.3	40 - 103				10/23/12
Benzyl alcohol	100-51-6		24	ug/L	81.3	58 - 108				10/23/12
2-Methylphenol	95-48-7		24	ug/L	79.8	59 - 107				10/23/12
Hexachloroethane	67-72-1		20	ug/L	66.8	43 - 105				10/23/12
2-Nitrophenol	88-75-5		24	ug/L	80.3	48 - 113				10/23/12
2,4-Dimethylphenol	105-67-9		24	ug/L	79.8	58 - 113				10/23/12
2,4-Dichlorophenol	120-83-2		24	ug/L	78.4	52 - 110				10/23/12
Anthracene	120-12-7		25	ug/L	82.6	67 - 113				10/23/12
Naphthalene	91-20-3		23	ug/L	77	55 - 110				10/23/12
2-Nitroaniline	88-74-4		26	ug/L	87.4	57 - 114				10/23/12
Dibenzofuran	132-64-9		25	ug/L	84.4	61 - 113				10/23/12
Fluorene	86-73-7		25	ug/L	84.6	64 - 115				10/23/12
Tributyl phosphate	126-73-8		25	ug/L	84.7	65 - 108				10/23/12
Hexachlorobenzene	118-74-1		25	ug/L	84.1	60 - 117				10/23/12
Dimethoate	60-51-5		12	ug/L	80.9	64 - 108				10/23/12
Carbazole	86-74-8		27	ug/L	88.7	35 - 129				10/23/12
Di-n-butylphthalate	84-74-2		26	ug/L	86.9	70 - 116				10/23/12
3,3-Dichlorobenzidine	91-94-1		19	ug/L	63.6	16 - 117				10/23/12
Bis-(2-Ethylhexyl)phthalate	117-81-7		28	ug/L	92.8	64 - 133				10/23/12
Di-n-octylphthalate	117-84-0		26	ug/L	87.8	57 - 134				10/23/12
Benzo(a)pyrene	50-32-8		24	ug/L	81.6	63 - 115				10/23/12
2-Picoline	109-06-8		25	ug/L	84.2	59 - 102				10/23/12

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

REVISED121303 -

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF121303

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Bis(1-Chloro-2-propyl)ether	108-60-1		24	ug/L	79	58 - 111				10/23/12
4-Chloroaniline	106-47-8		27	ug/L	91	43 - 125				10/23/12
MS			**QC Sample #83364**							
			Original 121303002							
4-Nitrophenol	100-02-7	<0.9	10	ug/L	36.8	15 - 57				10/23/12
1,2,4-Trichlorobenzene	120-82-1	<0.9	23	ug/L	79.8	51 - 104				10/23/12
Phenol	108-95-2	<0.9	12	ug/L	41.1	24 - 65				10/23/12
1,4-Dichlorobenzene	106-46-7	<0.9	16	ug/L	83.8	52 - 114				10/23/12
2,4-Dinitrotoluene	121-14-2	<0.9	24	ug/L	84.7	57 - 112				10/23/12
Pyrene	129-00-0	<0.9	26	ug/L	90.1	58 - 119				10/23/12
4-Chloro-3-methylphenol	59-50-7	<0.9	24	ug/L	85.7	56 - 115				10/23/12
n-Nitroso-di-n-propylamine	621-64-7	<0.9	23	ug/L	82.7	60 - 112				10/23/12
Acenaphthene	83-32-9	<0.9	24	ug/L	83.8	60 - 113				10/23/12
Pentachlorophenol	87-86-5	<0.9	22	ug/L	78.8	32 - 127				10/23/12
2-Chlorophenol	95-57-8	<0.9	23	ug/L	81.2	52 - 113				10/23/12
1,4-Dioxane	123-91-1	<0.9	19	ug/L	68.2	39 - 93				10/23/12
n-Nitrosodimethylamine	62-75-9	<0.9	21	ug/L	73.4	41 - 92				10/23/12
Benzyl alcohol	100-51-6	<0.9	23	ug/L	80.8	56 - 107				10/23/12
2-Methylphenol	95-48-7	<0.9	22	ug/L	79.2	46 - 114				10/23/12
Hexachloroethane	67-72-1	<0.9	20	ug/L	71.3	48 - 102				10/23/12
2-Nitrophenol	88-75-5	<0.9	23	ug/L	82.3	51 - 114				10/23/12

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

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Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF121303

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
2,4-Dimethylphenol	105-67-9	<1	25	ug/L	86.7	46 - 124				10/23/12
2,4-Dichlorophenol	120-83-2	<0.9	23	ug/L	80.4	50 - 114				10/23/12
Anthracene	120-12-7	<0.9	25	ug/L	88.1	64 - 116				10/23/12
Naphthalene	91-20-3	<0.9	23	ug/L	80.8	57 - 110				10/23/12
2-Nitroaniline	88-74-4	<0.9	26	ug/L	91.5	60 - 114				10/23/12
Dibenzofuran	132-64-9	<0.9	25	ug/L	87.8	61 - 114				10/23/12
Fluorene	86-73-7	<0.9	25	ug/L	87.7	63 - 116				10/23/12
Tributyl phosphate	126-73-8	<0.9	25	ug/L	87.6	59 - 113				10/23/12
Hexachlorobenzene	118-74-1	<0.9	25	ug/L	87.1	58 - 119				10/23/12
Dimethoate	60-51-5	<0.9	12	ug/L	82	53 - 119				10/23/12
Carbazole	86-74-8	<0.9	26	ug/L	93	41 - 122				10/23/12
Di-n-butylphthalate	84-74-2	<0.9	25	ug/L	89.5	67 - 118				10/23/12
3,3-Dichlorobenzidine	91-94-1	<0.9	25	ug/L	87.8	16 - 121				10/23/12
Bis-(2-Ethylhexyl)phthalate	117-81-7	<0.9	26	ug/L	91.7	64 - 134				10/23/12
Di-n-octylphthalate	117-84-0	<0.9	25	ug/L	87.2	40 - 143				10/23/12
Benzo(a)pyrene	50-32-8	<0.9	25	ug/L	89.3	61 - 117				10/23/12
2-Picoline	109-06-8	<0.9	24	ug/L	84.7	50 - 104				10/23/12
Bis(1-Chloro-2-propyl)ether	108-60-1	<0.9	23	ug/L	79.8	58 - 112				10/23/12
4-Chloroaniline	106-47-8	<0.9	28	ug/L	98.5	43 - 118				10/23/12
MSD			**QC Sample #83365**							
			Original 121303002						**Paired 83364**	
4-Nitrophenol	100-02-7	<0.9	11	ug/L	39.1	15 - 57	6.00	20		10/23/12

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

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Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF121303

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
1,2,4-Trichlorobenzene	120-82-1	<0.9	23	ug/L	81.4	51 - 104	1.90	20		10/23/12
Phenol	108-95-2	<0.9	12	ug/L	42	24 - 65	2.10	20		10/23/12
1,4-Dichlorobenzene	106-46-7	<0.9	16	ug/L	84	52 - 114	0.30	20		10/23/12
2,4-Dinitrotoluene	121-14-2	<0.9	25	ug/L	86.6	57 - 112	2.20	20		10/23/12
Pyrene	129-00-0	<0.9	26	ug/L	90.6	58 - 119	0.50	20		10/23/12
4-Chloro-3-methylphenol	59-50-7	<0.9	25	ug/L	88.2	56 - 115	2.80	20		10/23/12
n-Nitroso-di-n-propylamine	621-64-7	<0.9	24	ug/L	84.5	60 - 112	2.10	20		10/23/12
Acenaphthene	83-32-9	<0.9	24	ug/L	84.7	60 - 113	1.00	20		10/23/12
Pentachlorophenol	87-86-5	<0.9	24	ug/L	85	32 - 127	7.50	20		10/23/12
2-Chlorophenol	95-57-8	<0.9	24	ug/L	84	52 - 113	3.40	20		10/23/12
1,4-Dioxane	123-91-1	<0.9	19	ug/L	68.6	39 - 93	0.50	20		10/23/12
n-Nitrosodimethylamine	62-75-9	<0.9	22	ug/L	76.6	41 - 92	4.20	20		10/23/12
Benzyl alcohol	100-51-6	<0.9	24	ug/L	84.4	56 - 107	4.40	20		10/23/12
2-Methylphenol	95-48-7	<0.9	23	ug/L	81.3	46 - 114	2.60	20		10/23/12
Hexachloroethane	67-72-1	<0.9	20	ug/L	72.2	48 - 102	1.40	20		10/23/12
2-Nitrophenol	88-75-5	<0.9	24	ug/L	84.3	51 - 114	2.40	20		10/23/12
2,4-Dimethylphenol	105-67-9	<1	25	ug/L	88.6	46 - 124	2.10	20		10/23/12
2,4-Dichlorophenol	120-83-2	<0.9	23	ug/L	82.8	50 - 114	2.90	20		10/23/12
Anthracene	120-12-7	<0.9	26	ug/L	90.3	64 - 116	2.40	20		10/23/12
Naphthalene	91-20-3	<0.9	23	ug/L	82.1	57 - 110	1.60	20		10/23/12
2-Nitroaniline	88-74-4	<0.9	26	ug/L	93.4	60 - 114	2.00	20		10/23/12

* - QC result out of range

n/a - Not Applicable

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Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF121303

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Dibenzofuran	132-64-9	<0.9	25	ug/L	88.6	61 - 114	0.90	20		10/23/12
Fluorene	86-73-7	<0.9	25	ug/L	89.1	63 - 116	1.50	20		10/23/12
Tributyl phosphate	126-73-8	<0.9	26	ug/L	90.2	59 - 113	2.90	20		10/23/12
Hexachlorobenzene	118-74-1	<0.9	25	ug/L	89.7	58 - 119	3.00	20		10/23/12
Dimethoate	60-51-5	<0.9	12	ug/L	87.7	53 - 119	6.70	20		10/23/12
Carbazole	86-74-8	<0.9	27	ug/L	96.4	41 - 122	3.60	20		10/23/12
Di-n-butylphthalate	84-74-2	<0.9	26	ug/L	91.4	67 - 118	2.20	20		10/23/12
3,3-Dichlorobenzidine	91-94-1	<0.9	26	ug/L	92.4	16 - 121	5.10	20		10/23/12
Bis-(2-Ethylhexyl)phthalate	117-81-7	<0.9	27	ug/L	95.5	64 - 134	4.00	20		10/23/12
Di-n-octylphthalate	117-84-0	<0.9	26	ug/L	92.9	40 - 143	6.40	20		10/23/12
Benzo(a)pyrene	50-32-8	<0.9	26	ug/L	92.9	61 - 117	3.90	20		10/23/12
2-Picoline	109-06-8	<0.9	23	ug/L	80.7	50 - 104	4.80	20		10/23/12
Bis(1-Chloro-2-propyl)ether	108-60-1	<0.9	23	ug/L	81.8	58 - 112	2.50	20		10/23/12
4-Chloroaniline	106-47-8	<0.9	29	ug/L	101	43 - 118	2.50	20		10/23/12

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

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF121303

Analytical Batch 209113 (QC Batch: 209018) **Test** PCBs by EPA SW-846 Method 8082
Associated Samples 121303002

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #83416**							
Aroclor-1016	12674-11-2		<0.1	ug/L					U	10/24/12
Aroclor-1221	11104-28-2		<0.2	ug/L					U	10/24/12
Aroclor-1232	11141-16-5		<0.1	ug/L					U	10/24/12
Aroclor-1242	53469-21-9		<0.1	ug/L					U	10/24/12
Aroclor-1248	12672-29-6		<0.1	ug/L					U	10/24/12
Aroclor-1254	11097-69-1		<0.1	ug/L					U	10/24/12
Aroclor-1260	11096-82-5		<0.1	ug/L					U	10/24/12
LCS			**QC Sample #83417**							
Aroclor-1254	11097-69-1		1.9	ug/L	95.8	70 - 130				10/24/12
MS			**QC Sample #83418**							
			Original 121274003							
Aroclor-1254	11097-69-1		1.8	ug/L	96.6	60 - 130				10/24/12
MSD			**QC Sample #83419**							
			Original 121274003					**Paired 83418**		
Aroclor-1254	11097-69-1		1.8	ug/L	96.3	60 - 130	0.30	20		10/24/12

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

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Attention Scot Fitzgerald
Department Inorganic

Group # WSCF121303

Analytical Batch 209125 (QC Batch: 209117) **Test** ICP-2008 MS All possible metal
Associated Samples 121303002, 121303006, 121303007, 121303008

Analyte	CAS #	Original Found	QC Found	Units	% Recov Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #83554**						
Aluminum	7429-90-5		<5.0	ug/L				U	10/26/12
Manganese	7439-96-5		<0.10	ug/L				U	10/26/12
Nickel	7440-02-0		<0.10	ug/L				U	10/26/12
Silver	7440-22-4		<0.050	ug/L				U	10/26/12
Antimony	7440-36-0		<0.30	ug/L				U	10/26/12
Barium	7440-39-3		<0.20	ug/L				U	10/26/12
Beryllium	7440-41-7		<0.10	ug/L				U	10/26/12
Cadmium	7440-43-9		<0.050	ug/L				U	10/26/12
Chromium	7440-47-3		<0.10	ug/L				U	10/26/12
Cobalt	7440-48-4		<0.050	ug/L				U	10/26/12
Copper	7440-50-8		<0.10	ug/L				U	10/26/12
Vanadium	7440-62-2		<0.20	ug/L				U	10/26/12
Zinc	7440-66-6		<1.0	ug/L				U	10/26/12
Lead	7439-92-1		<0.050	ug/L				U	10/26/12
Mercury	7439-97-6		<0.050	ug/L				U	10/26/12
Molybdenum	7439-98-7		<0.050	ug/L				U	10/26/12
Strontium	7440-24-6		<0.10	ug/L				U	10/26/12

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

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Attention Scot Fitzgerald
Department Inorganic

Group # WSCF121303

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Thallium	7440-28-0		<0.050	ug/L					U	10/26/12
Tin	7440-31-5		<0.050	ug/L					U	10/26/12
Arsenic	7440-38-2		<0.20	ug/L					U	10/26/12
Selenium	7782-49-2		<1.0	ug/L					U	10/26/12
LCS			**QC Sample #83555**							
Aluminum	7429-90-5		406	ug/L	101.4	85 - 115				10/26/12
Manganese	7439-96-5		40.5	ug/L	101.2	85 - 115				10/26/12
Nickel	7440-02-0		40.6	ug/L	101.6	85 - 115				10/26/12
Silver	7440-22-4		40.5	ug/L	101.2	85 - 115				10/26/12
Antimony	7440-36-0		39.0	ug/L	97.4	85 - 115				10/26/12
Barium	7440-39-3		40.6	ug/L	101.4	85 - 115				10/26/12
Beryllium	7440-41-7		39.9	ug/L	99.8	85 - 115				10/26/12
Cadmium	7440-43-9		38.2	ug/L	95.5	85 - 115				10/26/12
Chromium	7440-47-3		40.6	ug/L	101.4	85 - 115				10/26/12
Cobalt	7440-48-4		40.3	ug/L	100.7	85 - 115				10/26/12
Copper	7440-50-8		40.4	ug/L	101	85 - 115				10/26/12
Vanadium	7440-62-2		40.2	ug/L	100.5	85 - 115				10/26/12
Zinc	7440-66-6		35.9	ug/L	89.7	85 - 115				10/26/12
Lead	7439-92-1		41.8	ug/L	104.6	85 - 115				10/26/12
Mercury	7439-97-6		1.98	ug/L	98.8	85 - 115				10/26/12
Molybdenum	7439-98-7		40.5	ug/L	101.4	85 - 115				10/26/12
Strontium	7440-24-6		396	ug/L	99	85 - 115				10/26/12

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

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Attention Scot Fitzgerald
Department Inorganic

Group # WSCF121303

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Thallium	7440-28-0		41.2	ug/L	103.1	85 - 115				10/26/12
Tin	7440-31-5		40.1	ug/L	100.2	85 - 115				10/26/12
Arsenic	7440-38-2		37.2	ug/L	92.9	85 - 115				10/26/12
Selenium	7782-49-2		34.4	ug/L	86	85 - 115				10/26/12
MS			**QC Sample #83556**							
			Original 121217004							
Aluminum	7429-90-5		395	ug/L	98.8	70 - 130				10/26/12
Manganese	7439-96-5		39.1	ug/L	97.7	70 - 130				10/26/12
Nickel	7440-02-0		38.3	ug/L	95.7	70 - 130				10/26/12
Silver	7440-22-4		38.2	ug/L	95.4	70 - 130				10/26/12
Antimony	7440-36-0		38.8	ug/L	97	70 - 130				10/26/12
Barium	7440-39-3		39.2	ug/L	98.1	70 - 130				10/26/12
Beryllium	7440-41-7		40.9	ug/L	102.2	70 - 130				10/26/12
Cadmium	7440-43-9		37.4	ug/L	93.5	70 - 130				10/26/12
Chromium	7440-47-3		39.5	ug/L	98.7	70 - 130				10/26/12
Cobalt	7440-48-4		38.6	ug/L	96.5	70 - 130				10/26/12
Copper	7440-50-8		37.0	ug/L	92.5	70 - 130				10/26/12
Vanadium	7440-62-2		39.4	ug/L	98.6	70 - 130				10/26/12
Zinc	7440-66-6		34.7	ug/L	86.7	70 - 130				10/26/12
Lead	7439-92-1		41.8	ug/L	104.4	70 - 130				10/26/12
Mercury	7439-97-6		2.04	ug/L	102	70 - 130				10/26/12
Molybdenum	7439-98-7		40.4	ug/L	101	70 - 130				10/26/12
Strontium	7440-24-6		382	ug/L	95.5	70 - 130				10/26/12

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

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Attention Scot Fitzgerald
Department Inorganic

Group # WSCF121303

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Thallium	7440-28-0		41.6	ug/L	104	70 - 130				10/26/12
Tin	7440-31-5		39.6	ug/L	99	70 - 130				10/26/12
Arsenic	7440-38-2		37.0	ug/L	92.4	70 - 130				10/26/12
Selenium	7782-49-2		33.8	ug/L	84.4	70 - 130				10/26/12
MSD			**QC Sample #83557**							
			Original 121217004					**Paired**	**83556**	
Aluminum	7429-90-5		401	ug/L	100.2	70 - 130	1.50	20		10/26/12
Manganese	7439-96-5		39.4	ug/L	98.6	70 - 130	1.00	20		10/26/12
Nickel	7440-02-0		38.4	ug/L	96.1	70 - 130	0.40	20		10/26/12
Silver	7440-22-4		38.6	ug/L	96.4	70 - 130	1.00	20		10/26/12
Antimony	7440-36-0		39.4	ug/L	98.4	70 - 130	1.40	20		10/26/12
Barium	7440-39-3		40.0	ug/L	99.9	70 - 130	1.10	20		10/26/12
Beryllium	7440-41-7		40.4	ug/L	101	70 - 130	1.20	20		10/26/12
Cadmium	7440-43-9		37.5	ug/L	93.7	70 - 130	0.20	20		10/26/12
Chromium	7440-47-3		39.5	ug/L	98.8	70 - 130	0.20	20		10/26/12
Cobalt	7440-48-4		38.8	ug/L	96.9	70 - 130	0.40	20		10/26/12
Copper	7440-50-8		37.2	ug/L	92.9	70 - 130	0.50	20		10/26/12
Vanadium	7440-62-2		39.7	ug/L	99.2	70 - 130	0.60	20		10/26/12
Zinc	7440-66-6		34.6	ug/L	86.5	70 - 130	0.20	20		10/26/12
Lead	7439-92-1		42.1	ug/L	105.4	70 - 130	0.90	20		10/26/12
Mercury	7439-97-6		2.06	ug/L	103.2	70 - 130	1.20	20		10/26/12
Molybdenum	7439-98-7		40.9	ug/L	102.2	70 - 130	1.10	20		10/26/12
Strontium	7440-24-6		383	ug/L	95.8	70 - 130	0.20	20		10/26/12

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

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Attention Scot Fitzgerald
Department Inorganic

Group # WSCF121303

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Thallium	7440-28-0		42.3	ug/L	105.8	70 - 130	1.70	20		10/26/12
Tin	7440-31-5		40.2	ug/L	100.6	70 - 130	1.60	20		10/26/12
Arsenic	7440-38-2		37.0	ug/L	92.4	70 - 130	0.00	20		10/26/12
Selenium	7782-49-2		33.9	ug/L	84.8	70 - 130	0.50	20		10/26/12

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

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Attention Scot Fitzgerald
Department Inorganic

Group # WSCF121303

Analytical Batch 209627 (QC Batch: 209626) **Test** Total Organic Halides
Associated Samples 121303002, 121303003, 121303004, 121303005

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #84327**							
Total Organic Halides	59473-04-0		<5.0	ug/L					U	10/22/12
LCS			**QC Sample #84328**							
Total Organic Halides	59473-04-0		408	mg/L	102	80 - 120				10/22/12
MS			**QC Sample #84332**							
			Original 121289026							
Total Organic Halides	59473-04-0		39.3	ug/L	98.2	75 - 125				10/22/12
MSD			**QC Sample #84333**							
			Original 121289026					**Paired**	**84332**	
Total Organic Halides	59473-04-0		39.2	ug/L	98	75 - 125	0.20	20		10/22/12

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

Attention Scot Fitzgerald
Department Organic, Volatiles

Group # WSCF121303

Analytical Batch 208759 (QC Batch: 208758) **Test** Gasoline Range (W)
Associated Samples 121303002

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
SAMPLE			**Sample #121303002**							
4-Bromofluorobenzene	460-00-4				92.5	50 - 150				10/16/12
BLANK			**QC Sample #82988**							
4-Bromofluorobenzene	460-00-4				92	50 - 150				10/16/12
LCS			**QC Sample #82989**							
4-Bromofluorobenzene	460-00-4				93	50 - 150				10/16/12
MS			**QC Sample #82990**							
			Original 121270001							
4-Bromofluorobenzene	460-00-4				92.2	50 - 150				10/16/12
MSD			**QC Sample #82991**							
			Original 121270001					**Paired**	**82990**	
4-Bromofluorobenzene	460-00-4				95.7	50 - 150	n/a			10/16/12
DUP			**QC Sample #82992**							
			Original 121270001							

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

REVISED121303 -

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Volatiles

Group # WSCF121303

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
4-Bromofluorobenzene	460-00-4				97.3	50 - 150	n/a			10/16/12

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

REVISED121303 -

Attention Scot Fitzgerald
Department Organic, Volatiles

Group # WSCF121303

Analytical Batch 208936 (QC Batch: 208935) **Test** SW-846 8260B Volatiles
Associated Samples 121303002

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
SAMPLE			**Sample #121303002**							
1,2-Dichloroethane-d4	17060-07-0				103.2	75 - 125				10/22/12
Toluene-d8	2037-26-5				99.2	75 - 125				10/22/12
4-Bromofluorobenzene	460-00-4				100.4	75 - 125				10/22/12
BLANK			**QC Sample #83311**							
1,2-Dichloroethane-d4	17060-07-0				98	75 - 125				10/22/12
Toluene-d8	2037-26-5				100.6	75 - 125				10/22/12
4-Bromofluorobenzene	460-00-4				99.8	75 - 125				10/22/12
LCS			**QC Sample #83312**							
1,2-Dichloroethane-d4	17060-07-0				103.6	75 - 125				10/22/12
Toluene-d8	2037-26-5				97.8	75 - 125				10/22/12
4-Bromofluorobenzene	460-00-4				97.3	75 - 125				10/22/12
MS			**QC Sample #83313**							
			Original 121292015							
1,2-Dichloroethane-d4	17060-07-0				102.7	75 - 125				10/22/12

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

REVISED121303 -

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Volatiles

Group # WSCF121303

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Toluene-d8	2037-26-5				98.2	75 - 125				10/22/12
4-Bromofluorobenzene	460-00-4				97.2	75 - 125				10/22/12
MSD			**QC Sample #83314**							
			Original 121292015					**Paired 83313**		
1,2-Dichloroethane-d4	17060-07-0				100.3	75 - 125	n/a			10/22/12
Toluene-d8	2037-26-5				98.4	75 - 125	n/a			10/22/12
4-Bromofluorobenzene	460-00-4				98.3	75 - 125	n/a			10/22/12

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

REVISED121303 -

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF121303

Analytical Batch 208956 (QC Batch: 208947) **Test** Extractable Diesel and Petroleum
Associated Samples 121303002

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
SAMPLE			**Sample #121303002**							
o-Terphenyl	84-15-1				98.5	70 - 130				10/22/12
BLANK			**QC Sample #83337**							
o-Terphenyl	84-15-1				92.5	70 - 130				10/22/12
LCS			**QC Sample #83338**							
o-Terphenyl	84-15-1				98.9	70 - 130				10/22/12
MS			**QC Sample #83339**							
			Original 121303002							
o-Terphenyl	84-15-1				94.9	70 - 130				10/22/12
MSD			**QC Sample #83340**							
			Original 121303002					**Paired**	**83339**	
o-Terphenyl	84-15-1				95.8	70 - 130	n/a			10/22/12

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

REVISED121303 -

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF121303

Analytical Batch 209022 (QC Batch: 208952) **Test** SW-846 8270D Semivolatiles
Associated Samples 121303002

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
SAMPLE			**Sample #121303002**							
2-Fluorophenol	367-12-4				57.5	34 - 103				10/23/12
Phenol-d5	4165-62-2				38.3	10 - 93				10/23/12
Nitrobenzene-d5	4165-60-0				82.4	49 - 133				10/23/12
2-Methylnaphthalene-d10	7297-45-2				84.4	60 - 135				10/23/12
2-Fluorobiphenyl	321-60-8				86.3	48 - 132				10/23/12
2,4,6-Tribromophenol	118-79-6				71.5	33 - 134				10/23/12
Fluoranthene-d10	93951-69-0				88.4	62 - 139				10/23/12
Terphenyl-d14	98904-43-9				90.4	56 - 138				10/23/12
BLANK			**QC Sample #83362**							
2-Fluorophenol	367-12-4				65.6	34 - 103				10/23/12
Phenol-d5	4165-62-2				47.7	10 - 93				10/23/12
Nitrobenzene-d5	4165-60-0				85	49 - 133				10/23/12
2-Methylnaphthalene-d10	7297-45-2				83.8	60 - 135				10/23/12
2-Fluorobiphenyl	321-60-8				85.2	48 - 132				10/23/12
2,4,6-Tribromophenol	118-79-6				73.6	33 - 134				10/23/12

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

REVISED121303 -

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF121303

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Fluoranthene-d10	93951-69-0				91.4	62 - 139				10/23/12
Terphenyl-d14	98904-43-9				95.2	56 - 138				10/23/12
LCS			**QC Sample #83363**							
2-Fluorophenol	367-12-4				63.8	34 - 103				10/23/12
Phenol-d5	4165-62-2				46.3	10 - 93				10/23/12
Nitrobenzene-d5	4165-60-0				83.4	49 - 133				10/23/12
2-Methylnaphthalene-d10	7297-45-2				85.4	60 - 135				10/23/12
2-Fluorobiphenyl	321-60-8				86.3	48 - 132				10/23/12
2,4,6-Tribromophenol	118-79-6				82.7	33 - 134				10/23/12
Fluoranthene-d10	93951-69-0				87.8	62 - 139				10/23/12
Terphenyl-d14	98904-43-9				95.9	56 - 138				10/23/12
MS			**QC Sample #83364**							
			Original 121303002							
2-Fluorophenol	367-12-4				60.7	34 - 103				10/23/12
Phenol-d5	4165-62-2				39.2	10 - 93				10/23/12
Nitrobenzene-d5	4165-60-0				86.3	49 - 133				10/23/12
2-Methylnaphthalene-d10	7297-45-2				87.3	60 - 135				10/23/12
2-Fluorobiphenyl	321-60-8				88.6	48 - 132				10/23/12
2,4,6-Tribromophenol	118-79-6				85.3	33 - 134				10/23/12
Fluoranthene-d10	93951-69-0				91.4	62 - 139				10/23/12
Terphenyl-d14	98904-43-9				91.4	56 - 138				10/23/12

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

REVISED121303 -

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF121303

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
MSD			**QC Sample #83365**							
			Original 121303002					**Paired 83364**		
2-Fluorophenol	367-12-4				61.5	34 - 103	n/a			10/23/12
Phenol-d5	4165-62-2				40.9	10 - 93	n/a			10/23/12
Nitrobenzene-d5	4165-60-0				86.9	49 - 133	n/a			10/23/12
2-Methylnaphthalene-d10	7297-45-2				88.1	60 - 135	n/a			10/23/12
2-Fluorobiphenyl	321-60-8				87.6	48 - 132	n/a			10/23/12
2,4,6-Tribromophenol	118-79-6				89.2	33 - 134	n/a			10/23/12
Fluoranthene-d10	93951-69-0				94.4	62 - 139	n/a			10/23/12
Terphenyl-d14	98904-43-9				94.2	56 - 138	n/a			10/23/12

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

REVISED121303 -

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF121303

Analytical Batch 209113 (QC Batch: 209018) **Test** PCBs by EPA SW-846 Method 8082
Associated Samples 121303002

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
SAMPLE			**Sample #121303002**							
Tetrachloro-m-xylene	877-09-8				82.9	60 - 140				10/24/12
Decachlorobiphenyl	2051-24-3				104.8	60 - 140				10/24/12
BLANK			**QC Sample #83416**							
Tetrachloro-m-xylene	877-09-8				81.6	60 - 140				10/24/12
Decachlorobiphenyl	2051-24-3				100.4	60 - 140				10/24/12
LCS			**QC Sample #83417**							
Tetrachloro-m-xylene	877-09-8				82.3	60 - 140				10/24/12
Decachlorobiphenyl	2051-24-3				87.1	60 - 140				10/24/12
MS			**QC Sample #83418**							
			Original 121274003							
Tetrachloro-m-xylene	877-09-8				77.6	60 - 140				10/24/12
Decachlorobiphenyl	2051-24-3				94.9	60 - 140				10/24/12
MSD			**QC Sample #83419**							
			Original 121274003					**Paired 83418**		
Tetrachloro-m-xylene	877-09-8				79.4	60 - 140	n/a			10/24/12
Decachlorobiphenyl	2051-24-3				94.2	60 - 140	n/a			10/24/12

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

REVISED121303 -

ATTACHMENT4

SAMPLE RECEIPT

Consisting of 6 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: Scot Fitzgerald

Customer Code: CHPRC
PO #: 401647
Work Order #: 121303
Profile #: W13-010-202
Proj. Mgr.:
Phone:

The following samples were received from you on 10/15/2012 10:15:00 AM. 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		
121303001	B2M184	WATER	10/15/2012 09:31	10/15/2012 10:15
		IC-W		
121303002	B2M183	WATER	10/15/2012 09:31	10/15/2012 10:15
		2008-W; 6010-W; 8260V-W; 8270SV-W; ALK-W; CN-W; COD-W; PCB-W; TOC-W; TOX-W; TPHDWA-W; TPHGWA-W		
121303003	B2M242	WATER	10/15/2012 09:31	10/15/2012 10:15
		TOC-W; TOX-W		
121303004	B2M243	WATER	10/15/2012 09:31	10/15/2012 10:15
		TOC-W; TOX-W		
121303005	B2M244	WATER	10/15/2012 09:31	10/15/2012 10:15
		TOC-W; TOX-W		
121303006	B2M185	WATER	10/15/2012 09:31	10/15/2012 10:15
		2008-W; 6010-W		
121303007	B2M8L0	WATER	10/15/2012 09:31	10/15/2012 10:15
		2008-W		
121303008	B2M8L1	WATER	10/15/2012 09:31	10/15/2012 10:15
		2008-W		

Test Acronym Description

Test Acronym	Description
2008-W	ICP-MS (W)
6010-W	ICP-AES (W)

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

8260V-W	Volatiles by 8260B (W)
8270SV-W	Semivolatiles by 8270D (W)
ALK-W	Total Alkalinity (W)
CN-W	Cyanide (Spectroscopy) (W)
COD-W	Chemical Oxygen Demand (W)
IC-W	Anions by IC (W)
PCB-W	PCB (8082) (W)
TOC-W	Total Organic Carbon (W)
TOX-W	Total Organic Halides (W)
TPHDWA-W	TPHD-WA (W)
TPHGWA-W	TPHG-WA (Water)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # W13-010-202 Page 1 of 1

Collector	FM Hall CHPRC	Contact/Requester	Karen Waters-Husted	Telephone No.	376-4650
SAF No.	W13-010	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071ES20
Project Title	RCRA, OCTOBER 2012	Logbook No.	HNF-N-506 51 / 19	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 concentations that are not regulated for transportation per 49 CRF but are not releasable per DOE Order 5400 5 (1990/1993)

121303

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

FY12 and FY13 samples cannot be in the same SDG.
Site Wide Generator Knowledge Information Form applies.
The CACN for all analytical work at WSCF is 401647.

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B2M184 1	N	W	10/15/12	0931	1x500-mL P	300.0_ANIONS_IC: List-1 (5)	48 Hours	Cool~4C

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
FM Hall CHPRC			OCT 15 2012 1015	Cynthia R Johnson			OCT 15 2012 1015
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

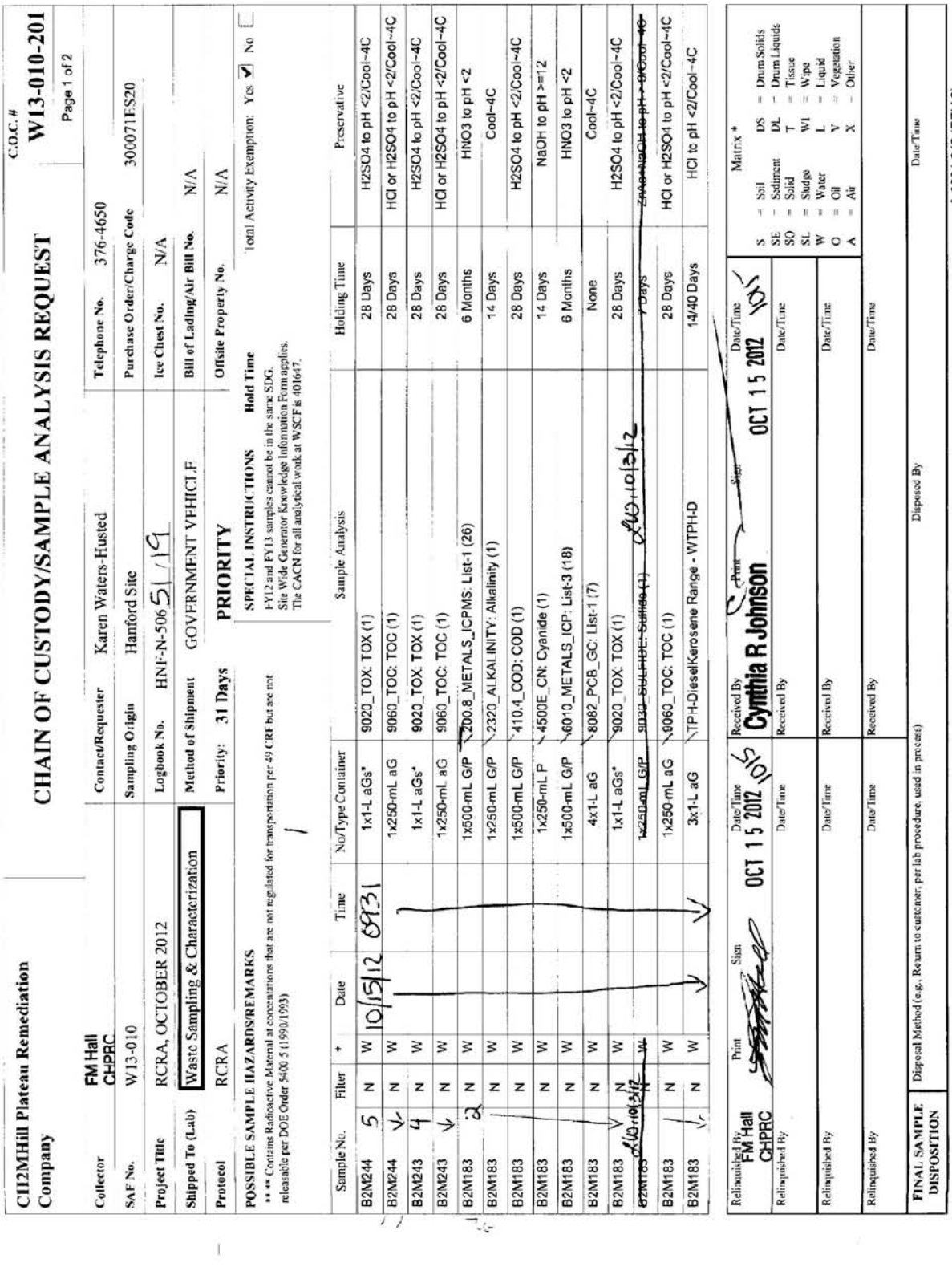
S = Soil	DS = Drum Solids		
SE = Sediment	DL = Drum Liquids		
SO = Solid	T = Tissue		
SL = Sludge	WI = Wipe		
W = Water	L = Liquid		
O = Oil	V = Vegetation		
A = Air	X = Other		

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

PRINTED ON 9/18/2012

A-6004-842 (REV 2)

Chain of Custody



CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # W13-010-201

Page 1 of 2

Collector	FM Hall CHPRC	Contact/Requester	Karen Waters-Husted	Telephone No.	376-4650
SAF No.	W13-010	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071ES20
Project Title	RCRA, OCTOBER 2012	Logbook No.	HNF-N-506 51 / 1G	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 are not regulated for transportation per 49 CRF but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL INSTRUCTIONS **Hold Time**

FY12 and FY13 samples cannot be in the same SDG.
Site Wide Generator Knowledge Information Form applies.
The CACN for all analytical work at WSCF is 401647.

Total Activity Exemption: Yes ☑ No ☐

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B2M244 5	N	W	10/15/12	0931	1x1-L aGs*	9020_TOX: TOX (1)	28 Days	H2SO4 to pH <2/Cool~4C
B2M244	N	W			1x250-mL aG	9060_TOC: TOC (1)	28 Days	HCl or H2SO4 to pH <2/Cool~4C
B2M243 4	N	W			1x1-L aGs*	9020_TOX: TOX (1)	28 Days	H2SO4 to pH <2/Cool~4C
B2M243	N	W			1x250-mL aG	9060_TOC: TOC (1)	28 Days	HCl or H2SO4 to pH <2/Cool~4C
B2M183 2	N	W			1x500-mL G/P	200.8_METALS_ICPMS: List-1 (26)	6 Months	HNO3 to pH <2
B2M183	N	W			1x250-mL G/P	2320_ALKALINITY: Alkalinity (1)	14 Days	Cool~4C
B2M183	N	W			1x500-mL G/P	410.4_COD: COD (1)	28 Days	H2SO4 to pH <2/Cool~4C
B2M183	N	W			1x250-mL P	4500E_CN: Cyanide (1)	14 Days	NaOH to pH >=12
B2M183	N	W			1x500-mL G/P	6010_METALS_ICP: List-3 (18)	6 Months	HNO3 to pH <2
B2M183	N	W			4x1-L aG	8082_PCB_GC: List-1 (7)	None	Cool~4C
B2M183	N	W			1x1-L aGs*	9020_TOX: TOX (1)	28 Days	H2SO4 to pH <2/Cool~4C
~~B2M183~~	~~N~~	~~W~~			~~1x250-mL G/P~~	~~8039_SULFIDE: Sulfide (1)~~	~~7 Days~~	~~ZnAc+NaOH to pH >9/Cool~4C~~
B2M183	N	W			1x250-mL aG	9060_TOC: TOC (1)	28 Days	HCl or H2SO4 to pH <2/Cool~4C
B2M183	N	W			3x1-L aG	NTPH-Diesel/Kerosene Range - WTPH-D	14/40 Days	HCl to pH <2/Cool~4C

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
FM Hall CHPRC			OCT 15 2012 1015	Cynthia R Johnson			OCT 15 2012 1015
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time
FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer; per lab procedure; used in process)				Disposed By		Date/Time

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		

PRINTED ON 9/18/2012

A-6004-842 (REV 2)

Chain of Custody

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # W13-010-201

Page 2 of 2

Collector	FM Hall CHPRC	Contact/Requester	Karen Waters-Husted
SAF No.	W13-010	Sampling Origin	Hanford Site
Project Title	RCRA, OCTOBER 2012	Logbook No.	HNF-N-506 51 / 19
Shipped To (Lab)	Waste Sampling & Characterization	Method of Shipment	GOVERNMENT VEHICLE
Protocol	RCRA	Priority: 31 Days	PRIORITY

Telephone No. 376-4650
Purchase Order/Charge Code 300071ES20
Ice Chest No. N/A
Bill of Lading/Air Bill No. N/A
Offsite Property No. N/A

POSSIBLE SAMPLE HAZARDS/REMARKS

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

SPECIAL INSTRUCTIONS Hold Time

FY12 and FY13 samples cannot be in the same SDG.
Site Wide Generator Knowledge Information Form applies.
The CACN for all analytical work at WSCF is 401647.

Total Activity Exemption: Yes ☑ No ☐

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B2M183	N	W	10/15/12	0931	4x40-mL aGs*	TPH-Gasoline Range - WTPH-G	14 Days	HCl to pH <2/Cool-4C
B2M183	N	W			3x40-mL aGs*	8260_VOA_GCMS_IX_COMMON; 8260_VOA_GCMS_IX_COMMON (Add-on)	14 Days	HCl or H2SO4 to pH <2/Cool-4C
B2M183	N	W			4x1-L aG	8270_SVOA_GCMS_IX_COMMON	7/40 Days	Cool-4C
B2M242	N	W			1x1-L aGs*	9020_TOX: TOX (1)	28 Days	H2SO4 to pH <2/Cool-4C
B2M242	N	W			1x250-mL aG	9060_TOC: TOC (1)	28 Days	HCl or H2SO4 to pH <2/Cool-4C
B2M8L1	Y	W			1x500-mL G	200.8_HG - ICPMS	28 Days	HNO3 to pH <2
B2M8L0	N	W			1x500-mL G	200.8_HG - ICPMS	28 Days	HNO3 to pH <2
B2M185	Y	W			1x500-mL G/P	200.8_METALS_ICPMS: List-1 (26)	6 Months	HNO3 to pH <2
B2M185	Y	W			1x500-mL G/P	6010_METALS_ICP: List-3 (18)	6 Months	HNO3 to pH <2

Relinquished By	FM Hall CHPRC	Sign	Date/Time 10/15/2012	Received By	Sign Cynthia R Johnson
Relinquished By			Date/Time	Received By	Date/Time OCT 15 2012
Relinquished By			Date/Time	Received By	Date/Time
Relinquished By			Date/Time	Received By	Date/Time
FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)			Disposed By	Date/Time

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		

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