TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica St. Louis
13715 Rider Trail North
Earth City, MO 63045
Tel: (314)298-8566

TestAmerica Job ID: 160-11325-1
TestAmerica Sample Delivery Group: SL1786
Client Project/Site: S,W,I,A ,X SAFS- GROUNDWATER

For:
CH2M Hill Plateau Remediation Company
PO BOX 1600, MS H8-41
Richland, Washington 99352

Attn: General Mailbox

Authorized for release by:
5/27/2015 9:23:21 AM

Jayna Awalt, Project Manager II
(314)298-8566
jayna.awalt@testamericainc.com

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Job ID: 160-11325-1

Laboratory: TestAmerica St. Louis

Narrative

CASE NARRATIVE

CH2MHill Plateau Remediation Company
P.O. Box 1600
Richland, Washington 99352
May 26, 2015
Attention: Scot Fitzgerald

SDG	: SL1786
Number of Samples	: 18 samples
Sample Matrix	: Water
Data Deliverable	: Summary
Date SDG Closed	: April 15, 2015

II. Introduction

On April 14 and 15, 18 samples were received by TestAmerica - St. Louis for chemical analysis. The samples were received within temperat criteria. See the COC and receipt checklists for documentation of any variations on receipt conditions and temperature. Upon receipt, samples were given laboratory Ids to correspond with specific client Ids. Please refer to the Sample Summary sheets attached to this case narrative. This report is incomplete without the narrative.

The following SAFs are associated with this SDG: I15-020, I15-021, S15-004, X15-004

III. Analytical Results/ Methodology

The analytical results for this report are presented by analytical test. Each set of data includes sample identification information, analytical results and the appropriate detection limits. All results are based upon samples as they were received, i.e. wet weight, unless otherwise noted on the data sheets. See the attached Methods Summary Form for the methods used in this SDG.

MS/MSD/Dup analysis was done per the client requirements. Analytical batches that did not contain matrix QC were analyzed with an LCS/LCS duplicate.

Note: For Metals analyses, per standard practice, all 6020 water and soil samples are initially prepared at 2x dilution. This standard dilution does not affect reporting limits as MDL studies are also prepared in the same manner. These dilutions do not necessitate flagging unless otherwise noted in the case narrative.

For Anion analysis, samples have been started at a 2x dilution per CHPRC direction. The samples are flagged accordingly with a “D” flag if sample concentration is above the MDL/RL. Non-conformance will be included in the below section only if dilution is greater than 2x.

For WTPH methods, the lab utilizes method 8015B. Per CHPRC direction, the method name in the electronic data has been modified to read WTPH in the place of 8015B.

Per CHPRC direction (June 2014), Boron will be reported for Metals using method 6010. Boron will no longer be reported by method 6020.

IV. Definitions

QCBLK-	Quality Control Blank, Method Blank
QCLCS-	Quality Control Laboratory Control Sample, Blank Spike
DUP-	Laboratory Duplicate

Job ID: 160-11325-1 (Continued)

Laboratory: TestAmerica St. Louis (Continued)

MS- Matrix Spike
MSD- Matrix Spike Duplicate

The term "Detection Limit" used in the analytical data report refers to either the lab's standard reporting limits or contractually required reporting limits, whichever is applicable.

The following data qualifiers may be applicable to the results in this report, as appropriate.

- **B** - For inorganic analyses, the sample result is greater than the MDL but less than the RL.
- **B** - For organic analyses, Method Blank contamination. The Method Blank contains the target analyte at a concentration above the MDL.
- **J** - For organic analyses, the sample is estimated and less than the RL.
- **C** - For inorganic analyses, Method Blank contamination. The Method Blank contains the target analyte at a concentration above the MDL.
- **D** - For all analyses, the sample result was obtained from the analysis of a dilution. For Metals analyses, per standard practice, all solid samples are initially prepared at a 2x dilution. This standard dilution does not affect reporting limits as MDL studies are also prepared in the same manner. These dilutions do not necessitate qualification unless otherwise noted in the case narrative.
- **N** - For inorganics and GC analyses, the spike/spike duplicate recoveries are outside QC limits.
- **T** - For GCMS analyses, the spike/spike duplicate recoveries are outside QC limits.
- **O**- For all analyses, the LCS (LCSD) recoveries are outside QC limits.
- **M**- For inorganic analyses, the precision was outside control limits.
- **P -** For organic analyses (PCB/Pests only), the aroclor target analyte has greater than 25% difference for detected concentrations between the two GC columns.

Volatiles

Batch: 186272

The continuing calibration verification (ZCCV9678) associated with batch 186272 recovered outside acceptance criteria, low biased, for Bromomethane and Chloroethane. A reporting limit (RL) standard was analyzed, and the target analytes were detected. Since the associated samples were non-detect for these analytes, the data has been reported.

The following compounds were outside the method recommended control limits for the minimum response factor in the continuing calibratic verification (CCV) associated with batch 186272: Acetone, 2-Butanone, 1- Butanol and 2- Hexanone. A reporting limit standard (LOQV-1u was analyzed within the analytical batch and these compounds were identified; therefore, the data has been reported. The associated samples were not detected above the reporting limit for the affected analytes. (CCVIS 160-186272/4) and (LOQV 160-186272/7)

The continuing calibration verification (ZCCV9678) associated with batch 186272 recovered above the upper control limit for Vinyl acetate, Methyl methacrylate, Ethyl methacrylate, 2- Hexanone and 1,1,2,2- Tetrachloroethane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data has been reported. (CCVIS 160-186272/4).

The laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for 186272 recovered outside control limits for the following analytes: Acrolein, 1,1,2,2- Tetrachloroethane and Vinyl acetate. These analytes were biased high in the LCS/LCSD and were not detected in the associated samples; therefore, the data has been reported. (LCS 160-186272/5) and (LCSD 160-186272/6) These analytes hav been qualified accordingly with an "O" flag in the associated samples.

The laboratory control samples (LCS/LCSD) for 186272 recovered outside control limits for the following analyte: Trichloroethene. A low-level LCS (LOQV), spiked at the reporting limit (RL), was prepared with this batch. The affected target analyte was detected; therefore, the LOQV demonstrates the analytical system had sufficient sensitivity to detect the compound had it been present. Since the affected target compound was not detected in the samples, the data has been reported and qualified. Samples 160-11355-3 and 160-11325-6 contained Trichloroethene over the reporting limit. These two samples are being re-run within hold time and with passing QC recoveries for Trichloroethene. (LCS 160-186272/5), (LCSD 160-186272/6) and (LOQV 160-186272/7) This analyte has been qualified accordingly with a

Job ID: 160-11325-1 (Continued)

Laboratory: TestAmerica St. Louis (Continued)

flag in the associated samples.

The matrix spike / matrix spike duplicate (MS/MSD) recoveries for 186272 were outside control limits for 1,1,2,2- Tetrachloroethane, Acrol Trichloroethene and Vinyl acetate. The matrix spike duplicate (MSD) recoveries for 186272 were outside control limits for Ethyl methacryla and Methyl methacrylate. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control samples (LCS/LCSD) recoveries, except those noted in the above NCMs, were within acceptance limits.(160-11296-B-1 MS) and (160-11296-C-1 MSD) These analytes have been qualified accordingly with a "T" flag in the associated samples.

The matrix spike / matrix spike duplicate (MS/MSD) precision for batch 186272 was outside control limits for 1- Butanol and Isobutyl alcoh MS/MSD recoveries are within QC limits demonstrating good extraction performance in the sample matrix. No further action is required. (160-11296-B-1 MS) and (160-11296-C-1 MSD)

The following sample was analyzed at reduced volume due to high concentrations of target analytes: B30M94 (160-11325-6). The reporting limits have been elevated by the appropriate factor. These analytes have been qualified accordingly with a "D" flag in the associated samples.

Batch: 187781

The following compounds did not meet the minimum relative response factor limits in the continuing calibration verification (CCV) associat with batch 187781: 2-Butanone, 1-Butanol, 2-Hexanone, 1,1,2,2-Tetrachloroethane and Acetone. A low level ccv was analyzed at the reporti limit (1ug/L) and the affected analytes were detected. Target analytes recovering above the reporting limit will be qualified and reported. (CCVIS 160-187781/5)

The continuing calibration verification (CCV) associated with batch 187781 recovered above the upper control limit for 1,1,2,2-Tetrachloroethane and Vinyl acetate. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following sample is impacted: (CCVIS 160-187781/5).

The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for 187781 recovered outside control limits for the following analytes: 1,1,2,2-Tetrachloroethane and Vinyl acetate. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported. (LCS 160-187781/6) and (LCSD 160-187781/7) These analytes have been qualifi accordingly with an "O" flag in the associated samples.

The matrix spike / matrix spike duplicate (MS/MSD) recoveries for 187781 were outside control limits. These analytes were biased high and were not detected in the associated samples; therefore, the data have been reported. (160-11405-K-8 MS) and (160-11405-L-8 MSD) These analytes have been qualified accordingly with a "T" flag in the associated samples.

ICP Metals

Prep/Analytical Batch: 189224/190412

Arsenic was detected in method blank MB 160-189224/1-A at a level exceeding the method detection limit but below the reporting limit. Th value should be considered an estimate, and has been flagged “B”. If the associated sample reported a result above the MDL and/or RL and is not greater than 5x the method blank, the result has been flagged “C”.

The continuing calibration verification (CCV) associated with the following samples recovered above the upper control limit for arsenic, nickel, and cobalt. The samples associated with this CCV were below the reporting limit for the affected analytes; therefore, the data have been reported. The following sample is impacted: (CCV 160-190412/55).

The continuing calibration verification (CCV) associated with the following samples recovered above the upper control limit for nickel and cobalt. The sample associated with this CCV is a spiked sample that recovered within limits and for which the original sample was below th reporting limit; therefore, the data have been reported. The following sample is impacted: (CCV 160-190412/69).

Job ID: 160-11325-1 (Continued)

Laboratory: TestAmerica St. Louis (Continued)

Prep/Analytical Batch: 188811/190412

The continuing calibration verification (CCV) associated with the following samples recovered above the upper control limit for sodium. The samples associated with this CCV were either non-detects or spiked samples for the affected analytes. Because the spiked samples recovered within the acceptance criteria, no positive bias is evident; therefore, the data have been reported. The following sample is impacted: (CCV 160-190412/27).

Batch: 189815

The serial dilution performed for the following samples was outside control limits for calcium and magnesium: (160-11290-A-2-A SD) indicating the presence of matrix interference.

The matrix spike / matrix spike duplicate (MS/MSD) recoveries for the following samples were outside control limits for calcium. Sample concentration was greater than 4x the amount spiked making percent recoveries statistically ineffective. (160-11290-A-2-B MS) and (160-11290-A-2-C MSD)

Batch: 190715

The serial dilution performed for the following sample was outside control limits for sodium: (160-11290-A-1-A SD) indicating the presence matrix interference.

Batch: 190830

The serial dilution performed for the following samples were outside control limits for calcium and magnesium: (160-11367-A-4-A SD) indicating the presence of matrix interference.

ICPMS Metals

Batch: 189964

Copper was detected in method blank MB 160-188812/1-A at a level that was above the method detection limit but below the reporting limit The value should be considered an estimate, and has been flagged “B”. If the associated sample reported a result above the MDL and/or RL and is not greater than 5x the method blank, the result has been flagged “C”.

Due to LDR failures, the linear range for beryllium has been lowered to the concentration of the highest calibration standard (200ppb). The LCS and MS/MSD were above the LDR, but were within acceptable limits. (LCS 160-188812/2-A), (160-11290-A-1-E MS) and (160-11290-A-1-F MSD)

Batch: 189963

Lead and Strontium were detected in method blank MB 160-188815/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged “B”. If the associated sample reported a result above the MDL and/or RL and is not greater than 5x the method blank, the result has been flagged “C”.

Due to LDR failures, the linear range for beryllium has been lowered to the concentration of the highest calibration standard (200ppb). The LCS and MS/MSD were above the LDR. The LCS was within acceptable limits. The MS and MSD are reported as estimated values. (LCS 160-188815/2-A), (160-11290-A-2-E MS) and (160-11290-A-2-F MSD)

The matrix spike duplicate (MSD) recoveries for barium, beryllium, chromium, and antimony were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance

Job ID: 160-11325-1 (Continued)

Laboratory: TestAmerica St. Louis (Continued)

limits. (160-11290-A-2-E MS) and (160-11290-A-2-F MSD) These analytes have been qualified accordingly with an "N" flag in the associa samples.

Batch: 190232

Selenium was detected in method blank MB 160-188815/1-A at levels that were above the method detection limit but below the reporting lin The values should be considered estimates, and have been flagged “B”. If the associated sample reported a result above the MDL and/or RL and is not greater than 5x the method blank, the result has been flagged “C”.

Batch: 190419

Due to LDR failures, the linear range for beryllium has been lowered to the concentration if the highest calibration standard (200ppb). The MS\MSD was above the LDR, but was within acceptable limits. (160-11367-A-4-E MS) and (160-11367-A-4-F MSD)

Batch: 190569

Due to LDR failures, the linear range for beryllium has been lowered to the concentration if the highest calibration standard (200ppb). The LCS was above the LDR, but was within acceptable limits. (LCS 160-189226/2-A)

Ammonia as N

Batch: 189175

Ammonia as N was detected in method blank MB 160-189175/38 at a level that was above the method detection limit but below the reportin limit. The value should be considered an estimate, and has been flagged “B”. If the associated sample reported a result above the MDL and/or RL and is not greater than 5x the method blank, the result has been flagged “C”.

The matrix spike (MS) recovery for Ammonia Batch 189175 was outside control limits. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits. (160-11325-A-7 MS) This analyte has been qualified accordingly with an "N" flag in the associated samples.

Sulfide

Batch: 187787

The following samples in Sulfide batch 187787 were analyzed out of 7 day hold for Sulfide analysis due to analyst error: B30MB2 (160-11325-3) and B30M94 (160-11325-6). The samples were analyzed within 2x hold. Per SDR15-290, the sample data for analysis performed outside 1x hold but within 2x hold has been reported.

Sulfide was detected in method blank MB 160-187774/1-A at a level exceeding the method detection limit but below the reporting limit. If t associated sample reported a result above the MDL and/or RL and is not greater than 5x the method blank, the result has been flagged “C”.

There were no observations or non-conformances associated with the following methods:

Mercury
TDS
Alkalinity
TOC

Job ID: 160-11325-1 (Continued)

Laboratory: TestAmerica St. Louis (Continued)

We certify that this data package is in compliance with the SOW, both technically and for completeness, including a full description of, explanation of, and corrective actions for, any and all deviations, from either the analyses requested or the case narrative requested. Release of the data contained in this hard copy data package has been authorized by the Laboratory Analytical Manager or designee and the laboratory's client services representative as verified by their signature on this report.

Reviewed and approved:

Jayna Awalt
St. Louis Project Manager

SAMPLE ISSUE RESOLUTION

SIR NUM	SDR15-290
REV NUM	0
DATE INITIATED	4/28/2015

SAMPLE EVENT INFORMATION

SAF NUM(S)	I15-021
OPERABLE UNIT(S)	200-ZP-1
PROJECT(S)	CERC15
SAMPLE EVENT TITLE(S)	CERC15
LABORATORY	TestAmerica St. Louis

SAMPLING INFORMATION

NUMBER OF SAMPLES	2
SAMPLE NUMBERS	B30M94, B30MB2
SAMPLE MATRIX	WATER
COLLECTION DATE	4/13/2015 - 4/13/2015
SDG NUM	SL1786

ISSUE BACKGROUND

CLASS	Laboratory Issue
TYPE	Analysis Holding Time Exceeded
DESCRIPTION	Samples were run outside of 1x hold due to analyst error for Sulfide analysis.

DISPOSITION

DESCRIPTION	TASL PROPOSES TO REPORT DATA FOR ANALYSIS PERFORMED OUTSIDE 1X HOLD BUT WITHIN 2X HOLD AND NARRATE IN REPORT.
JUSTIFICATION	Final Disposition: Accept proposed resolution. SUBMITTED BY: Jaynal Awalt DATE: 04/28/2015 ACCEPTED BY: Scot Fitzgerald DATE: 04/28/2015

Login Sample Receipt Checklist

Client: CH2M Hill Plateau Remediation Company

Job Number: 160-11325-1
SDG Number: SL1786

Login Number: 11325
List Number: 1
Creator: Daniels, Brian J

List Source: TestAmerica St. Louis

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

CH2MHill Plateau Remediation Company 841786

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **I15-020-061**

Collector	J.C. Fulton CHPRC	**Contact/Requester**	Karen Waters-Husted	**Telephone No.**	509-376-4650
SAF No.	I15-020	**Sampling Origin**	Hanford Site	**Purchase Order/Charge Code**	300071
Project Title	100KR4, APRIL 2015	**Logbook No.**	HNF-N-506 71 / 89	**Ice Chest No.**	GWS-311
Shipped To (Lab)	TestAmerica St. Louis	**Method of Shipment**	Commercial Carrier	**Bill of Lading/Air Bill No.**	7733 5766 7454
Protocol	CERCLA	**Priority:**	30 Days **PRIORITY**	**Offsite Property No.**	N/A

POSSIBLE SAMPLE HAZARDS/REMARKS

** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1

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

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B30LY7	N	W	4-10-15	1248	1x500-mL G/P	6010_METALS_ICP: GW 04; ✓ 6020_METALS_ICPMS: GW 01 ✓	6 Months	HNO3 to pH <2
B30LY9	Y	W	4-10-15	1248	1x500-mL G/P	6010_METALS_ICP: GW 04; 6020_METALS_ICPMS: GW 01 ✓	6 Months	HNO3 to pH <2

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
J.C. Fulton CHPRC			APR 1 0 2015 1250	SSU #1			APR 1 0 2015 1250
SSU #1			APR 1 3 2015 1120	F.M. Hall/CHPRC			APR 1 3 2015 1120
F.M. Hall/CHPRC			APR 1 3 2015 1400	FEDEX			
FED EX				Brian Daniels			4/14/15 0920

Matrix *

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

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

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A-6004-842 (REV 2)

CH2MHill Plateau Remediation Company 514786

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **I15-021-026**

Collector	CHRIS FULTON CHPRC	**Contact/Requester**	Karen Waters-Husted	**Telephone No.**	509-376-4650
SAF No.	I15-021	**Sampling Origin**	Hanford Site	**Purchase Order/Charge Code**	300071
Project Title	200ZP1, APRIL 2015	**Logbook No.**	HNF-N-506 75/5	**Ice Chest No.**	GWS-311
Shipped To (Lab)	TestAmerica St. Louis	**Method of Shipment**	Commercial Carrier	**Bill of Lading/Air Bill No.**	7733 5766 7454
Protocol	CERCLA	**Priority:**	**30 Days** **PRIORITY**	**Offsite Property No.**	N/A

POSSIBLE SAMPLE HAZARDS/REMARKS

** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1

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

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B30MB2	N	W	APR 13 2015	1213	1x500-mL G/P	160.1_TDS: COMMON ✓	7 Days	Cool <=6C
B30MB2	N	W	↓	↓	1x500-mL G/P	310.1_ALKALINITY: GW 01 ✓	14 Days	Cool <=6C
B30MB2	N	W	↓	↓	1x500-mL G/P	6010_METALS_ICP: COMMON ✓	6 Months	HNO3 to pH <2
B30MB2	N	W	↓	↓	4x40-mL aGs*	8260_VOA_GCMS_IX: COMMON ✓	14 Days	HCl or H2SO4 to pH <2/Cool <=6C
B30MB2	N	W	↓	↓	3x500-mL G/P	9034_SULFIDE: COMMON ✓	7 Days	ZnAc+NaOH to pH > 9/Cool <=6C
B30MB2	N	W	↓	↓	1x250-mL aG	9060_TOC: COMMON ✓	28 Days	HCl or H2SO4 to pH <2/Cool <=6C
B30PW2	Y	W	↓	↓	1x500-mL G/P	6010_METALS_ICP: COMMON ✓	6 Months	HNO3 to pH <2

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
CHRIS FULTON CHPRC			APR 13 2015 1240	F.M. Hall/CHPRC			APR 13 2015 1240
F.M. Hall/CHPRC			APR 13 2015 1400	FEDEX			
FED EX				Brian Daniels			4/14/15 0920

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 O 3/2/2015

A-6004-842 (REV 2)

CH2MHill Plateau Remediation Company SL1786

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **I15-021-024**

Collector	CHRIS FULTON CHPRC	**Contact/Requester**	Karen Waters-Husted	**Telephone No.**	509-376-4650
SAF No.	I15-021	**Sampling Origin**	Hanford Site	**Purchase Order/Charge Code**	300071
Project Title	200ZP1, APRIL 2015	**Logbook No.**	HNF-N-506 75/5	**Ice Chest No.**	GWS-31
Shipped To (Lab)	TestAmerica St. Louis	**Method of Shipment**	Commercial Carrier	**Bill of Lading/Air Bill No.**	7733 5766 7454
Protocol	CERCLA	**Priority:**	**30 Days** **PRIORITY**	**Offsite Property No.**	N/A

POSSIBLE SAMPLE HAZARDS/REMARKS

** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1

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

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B30PW3	Y	W	APR 13 2015	1028	1x500-mL G/P	6010_METALS_ICP: COMMON ✓	6 Months	HNO3 to pH <2
B30M94	N	W	↓	↓	1x500-mL G/P	160.1_TDS: COMMON ✓	7 Days	Cool <=6C
B30M94	N	W			1x500-mL G/P	310.1_ALKALINITY: GW 01 ✓	14 Days	Cool <=6C
B30M94	N	W			1x500-mL G/P	6010_METALS_ICP: COMMON ✓	6 Months	HNO3 to pH <2
B30M94	N	W			4x40-mL aGs*	8260_VOA_GCMS_IX: COMMON ✓	14 Days	HCl or H2SO4 to pH <2/Cool <=6C
B30M94	N	W			3x500-mL G/P	9034_SULFIDE: COMMON ✓	7 Days	ZnAc+NaOH to pH > 9/Cool <=6C
B30M94	N	W			1x250-mL aG	9060_TOC: COMMON ✓	28 Days	HCl or H2SO4 to pH <2/Cool <=6C

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
CHRIS FULTON CHPRC			APR 13 2015 1120	F.M. Hall/CHPRC			APR 13 2015 1120
F.M. Hall/CHPRC			APR 13 2015 1400	FEDEX			
FED EX				Brian Daniels			4/14/15 0920

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 O 2/26/2015

A-6004-842 (REV 2)

CH2MHill Plateau Remediation Company 847786

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **S15-004-279**

Collector	S.W. King/CHPRC	**Contact/Requester**	Karen Waters-Husted	**Telephone No.**	509-376-4650
SAF No.	S15-004	**Sampling Origin**	Hanford Site	**Purchase Order/Charge Code**	300071
Project Title	CERCLA, APRIL 2015	**Logbook No.**	HNF-N-506 75/3	**Ice Chest No.**	GWS-311
Shipped To (Lab)	TestAmerica St. Louis	**Method of Shipment**	Commercial Carrier	**Bill of Lading/Air Bill No.**	7733 5766 7454
Protocol	SURV	**Priority:**	**30 Days** **PRIORITY**	**Offsite Property No.**	N/A

POSSIBLE SAMPLE HAZARDS/REMARKS

** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1

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

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B30N20	N	W	APR 10 2015	1323	1x500-mL G/P	350.1_AMMONIA: COMMON ✓	28 Days	H2SO4 to pH <2/Cool <=6C
B30N20	N	W	↓	↓	1x500-mL G/P	6010_METALS_ICP: GW 04; 6020_METALS_ICPMS: GW 01 ✓	6 Months	HNO3 to pH <2
B30N22	Y	W	↓	↓	1x500-mL G/P	310.1_ALKALINITY: GW 01 ✓	14 Days	Cool <=6C
B30N22	Y	W	APR 10 2015	1323	1x500-mL G/P	6010_METALS_ICP: GW 04; 6020_METALS_ICPMS: GW 01 ✓	6 Months	HNO3 to pH <2

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
S.W. King/CHPRC			APR 10 2015 1455	SSU-1			APR 10 2015 1455
SSU-1			APR 13 2015 1120	F.M. Hall/CHPRC			APR 13 2015 1120
F.M. Hall/CHPRC			APR 13 2015 1400	FEDEX			
FED EX				Brian Davis			4/14/15 0920

Matrix *

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

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

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A-6004-842 (REV 2)

CH2MHill Plateau Remediation Company 821786

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **S15-004-282**

Collector	E.L. Kauer/CHPRC	**Contact/Requester**	Karen Waters-Husted	**Telephone No.**	509-376-4650
SAF No.	S15-004	**Sampling Origin**	Hanford Site	**Purchase Order/Charge Code**	300071
Project Title	CERCLA, APRIL 2015	**Logbook No.**	HNF-N-506 74168	**Ice Chest No.**	GWS-311
Shipped To (Lab)	TestAmerica St. Louis	**Method of Shipment**	Commercial Carrier	**Bill of Lading/Air Bill No.**	7733 5766 7454
Protocol	SURV	**Priority:**	**30 Days** **PRIORITY**	**Offsite Property No.**	N/A

POSSIBLE SAMPLE HAZARDS/REMARKS

** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1

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

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B30N91	N	W	4-10-15	1333	1x500-mL G/P	6010_METALS_ICP: GW 04; 6020_METALS_ICPMS: GW 01 ✓	6 Months	HNO3 to pH <2
B30N93	Y	W	4-10-15	1333	1x500-mL G/P	310.1_ALKALINITY: GW 01 ✓	14 Days	Cool <=6C
B30N93	Y	W	4-10-15	1333	1x500-mL G/P	6010_METALS_ICP: GW 04; 6020_METALS_ICPMS: GW 01 ✓	6 Months	HNO3 to pH <2

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
E.L. Kauer/CHPRC			4-10-15 1511	SSU-1			4-10-15 1511
SSU-1			APR 13 2015 1120	F.M. Hall/CHPRC			APR 13 2015 1120
F.M. Hall/CHPRC			APR 13 2015 1400	FEDEX			APR 13 2015
FED EX				Brian Daniels			4/14/15 0920

Matrix *

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

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

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A-6004-842 (REV 2)

CH2MHill Plateau Remediation Company 814786

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **X15-004-147**

Collector	CHRIS FULTON CHPRC	**Contact/Requester**	WATERS-HUSTED, K	**Telephone No.**	376-4650
SAF No.	X15-004	**Sampling Origin**	HANFORD SITE	**Purchase Order/Charge Code**	300071
Project Title	GW Sitewide Surv, FY15	**Logbook No.**	HNF-N-506 755	**Ice Chest No.**	GWS-311
Shipped To (Lab)	TestAmerica St. Louis	**Method of Shipment**	Commercial Carrier	**Bill of Lading/Air Bill No.**	7733 5766 7454
Protocol	SURV	**Priority:**	**30 Days** **PRIORITY**	**Offsite Property No.**	N/A

POSSIBLE SAMPLE HAZARDS/REMARKS

*Contains Radioactive Material at concentrations that are not be regulated for transportation per 49 CFR/IATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1.

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

Batch with A, I, S, and W SAFs.

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B30HN9	N	W	APR 13 2015	1028	4x40-mL aGs*	8260_VOA_GCMS: COMMON ✓	14 Days	HCl or H2SO4 to pH <2/Cool <=6C

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
CHRIS FULTON CHPRC			APR 13 2015 1120	F.M. Hall/CHPRC			APR 13 2015 1120
F.M. Hall/CHPRC			APR 13 2015 1400	FEDEX			
FED EX				Brian Daniels			4/14/15 0920

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 O 1/21/2015

A-6004-842 (REV 2)

FedEx ® Tracking

773357667454

Ship (P/U) date :
Mon 4/13/2015 3:25 pm

RICHLAND, WA US

Delivered

Signed for by: B.DANIELS

Actual delivery :
Tues 4/14/2015 9:20 am

EARTH CITY, MO US

Travel History

Date/Time	Activity	Location
4/14/2015 - Tuesday		
9:20 am	Delivered	EARTH CITY, MO
7:09 am	On FedEx vehicle for delivery	EARTH CITY, MO
7:03 am	At local FedEx facility	EARTH CITY, MO
5:32 am	At destination sort facility	BERKELEY, MO
4:44 am	Departed FedEx location	MEMPHIS, TN
12:55 am	Arrived at FedEx location	MEMPHIS, TN
4/13/2015 - Monday		
5:13 pm	Left FedEx origin facility	PASCO, WA
3:58 pm	Shipment information sent to FedEx	
3:25 pm	Picked up	PASCO, WA

Shipment Facts

Tracking number	773357667454	Service	FedEx Priority Overnight
Weight	84 lbs / 38.1 kgs	Dimensions	28x18x15 in.
Delivered To	Shipping/Receiving	Total pieces	1
Total shipment weight	84 lbs / 38.1 kgs	Shipper reference	gws-311
Packaging	Your Packaging	Special handling section	Deliver Weekday

Login Sample Receipt Checklist

Client: CH2M Hill Plateau Remediation Company

Job Number: 160-11355-1
SDG Number: SL1786

Login Number: 11355
List Number: 1
Creator: Daniels, Brian J

List Source: TestAmerica St. Louis

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.4
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

CH2MHill Plateau Remediation Company SL1786

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **X15-004-148**

Collector	S.W. King/CHPRC	**Contact/Requester**	WATERS-HUSTED, K	**Telephone No.**	376-4650
SAF No.	X15-004	**Sampling Origin**	HANFORD SITE	**Purchase Order/Charge Code**	300071
Project Title	GW Sitewide Surv, FY15	**Logbook No.**	HNF-N-506 70/62	**Ice Chest No.**	GWS-389
Shipped To (Lab)	TestAmerica St. Louis	**Method of Shipment**	Commercial Carrier	**Bill of Lading/Air Bill No.**	7733 6789 0492
Protocol	SURV	**Priority:**	**30 Days** **PRIORITY**	**Offsite Property No.**	N/A

POSSIBLE SAMPLE HAZARDS/REMARKS

*Contains Radioactive Material at concentrations that are not be regulated for transportation per 49 CFR/IATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1.

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

Batch with A, I, S, and W SAFs.

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B30HP0	N	W	APR 14 2015	0833	4x40-mL aGs*	8260_VOA_GCMS: COMMON ✓	14 Days	HCl or H2SO4 to pH <2/Cool <=6C

Relinquished By	Print / Sign	Date/Time	Received By	Print / Sign	Date/Time
S.W. King/CHPRC	Scott King	APR 14 2015 1005	K.C. Patterson/CHPRC		APR 14 2015 1005
K.C. Patterson/CHPRC		APR 14 2015 1430	FEDEX		
FED EX			Brian Daniels		4/15/15 0920

Matrix *

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

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

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A-6004-842 (REV 2)

CH2MHill Plateau Remediation Company 91786

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **I15-020-068**

Collector	S.W. King/CHPRC	**Contact/Requester**	Karen Waters-Husted	**Telephone No.**	509-376-4650
SAF No.	I15-020	**Sampling Origin**	Hanford Site	**Purchase Order/Charge Code**	300071
Project Title	100KR4, APRIL 2015	**Logbook No.**	HNF-N-506 70/62	**Ice Chest No.**	GWS-389
Shipped To (Lab)	TestAmerica St. Louis	**Method of Shipment**	Commercial Carrier	**Bill of Lading/Air Bill No.**	7733 6789 0492
Protocol	CERCLA	**Priority:**	**30 Days** **PRIORITY**	**Offsite Property No.**	N/A

POSSIBLE SAMPLE HAZARDS/REMARKS

** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1

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

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B30M54	Y	W	APR 14 2015	0833	1x500-mL G/P	6010_METALS_ICP: GW 04; ✓ 7470_MERCURY_CV: COMMON (AQUEOUS) ✓	6 Months	HNO3 to pH <2
B30M49	N	W	✓	✓	1x500-mL G/P	6010_METALS_ICP: GW 04; ✓ 7470_MERCURY_CV: COMMON (AQUEOUS) ✓	6 Months	HNO3 to pH <2
B30M49	N	W	APR 14 2015	0833	4x40-mL aGs*	8260_VOA_GCMS: COMMON; 8260_VOA_GCMS: GW 01 ✓	14 Days	HCl or H2SO4 to pH <2/Cool <=6C

Relinquished By	Print / Sign	Date/Time	Received By	Print / Sign	Date/Time
S.W. King/CHPRC	Sign	APR 14 2015 1005	K.C. Patterson/CHPRC	Sign	APR 14 2015 1005
K.C. Patterson/CHPRC	Sign	APR 14 2015 1430	FEDEX		
FED EX			Brian Daniels		4/15/15 0920

Matrix *

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

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

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A-6004-842 (REV 2)

CH2MHill Plateau Remediation Company SL1786

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **S15-004-284**

Collector	CHRIS FULTON CHPRC	**Contact/Requester**	Karen Waters-Husted	**Telephone No.**	509-376-4650
SAF No.	S15-004	**Sampling Origin**	Hanford Site	**Purchase Order/Charge Code**	300071
Project Title	CERCLA, APRIL 2015	**Logbook No.**	HNF-N-506 7516	**Ice Chest No.**	GWS-389
Shipped To (Lab)	TestAmerica St. Louis	**Method of Shipment**	Commercial Carrier	**Bill of Lading/Air Bill No.**	7733 6789 0492
Protocol	SURV	**Priority:**	**30 Days** **PRIORITY**	**Offsite Property No.**	N/A

POSSIBLE SAMPLE HAZARDS/REMARKS

** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1

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

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B30ND5	N	W	APR 14 2015	0910	1x500-mL G/P	6010_METALS_ICP: GW 04; 6020_METALS_ICPMS: GW 01 ✓	6 Months	HNO3 to pH <2
B30ND7	Y	W	↓	↓	1x500-mL G/P	6010_METALS_ICP: GW 04; 6020_METALS_ICPMS: GW 01 ✓	6 Months	HNO3 to pH <2

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
CHRIS FULTON CHPRC			APR 14 2015 0950	K.C. Patterson/CHPRC			APR 14 2015 0950
K.C. Patterson/CHPRC			APR 14 2015 1430	FEDEX			
FED EX				Brian Dannels			4/15/15 0920

Matrix *

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

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

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CH2MHill Plateau Remediation Company 514786

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **I15-020-064**

Collector	S.W. King/CHPRC	**Contact/Requester**	Karen Waters-Husted	**Telephone No.**	509-376-4650
SAF No.	I15-020	**Sampling Origin**	Hanford Site	**Purchase Order/Charge Code**	300071
Project Title	100KR4, APRIL 2015	**Logbook No.**	HNF-N-506 70/62	**Ice Chest No.**	GWS-389
Shipped To (Lab)	TestAmerica St. Louis	**Method of Shipment**	Commercial Carrier	**Bill of Lading/Air Bill No.**	7733 6789 0492
Protocol	CERCLA	**Priority:**	30 Days **PRIORITY**	**Offsite Property No.**	N/A

POSSIBLE SAMPLE HAZARDS/REMARKS

** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1

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

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B30M11	N	W	APR 14 2015	0938	1x500-mL G/P	6010_METALS_ICP: COMMON; 6010_METALS_ICP: GW 03 ✓	6 Months	HNO3 to pH <2
B30M13	Y	W	✓	✓	1x500-mL G/P	6010_METALS_ICP: COMMON; 6010_METALS_ICP: GW 03 ✓	6 Months	HNO3 to pH <2

Relinquished By (Print / Sign)	Date/Time	Received By (Print / Sign)	Date/Time
S.W. King/CHPRC	APR 14 2015 1005	K.C. Patterson/CHPRC	APR 14 2015 1005
K. Patterson/CHPRC	APR 14 2015 1430	FEDEX	
FED EX		Brian Daniels	4/15/15 0920

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 O 2/23/2015

A-6004-842 (REV 2)

FedEx ® Tracking

773367890492

Ship (P/U) date :
Tues 4/14/2015 3:22 pm

RICHLAND, WA US

Actual delivery :
Wed 4/15/2015 9:12 am

EARTH CITY, MO US

Delivered

Signed for by: B.DANIELS

Travel History

Date/Time	Activity	Location
4/15/2015 - Wednesday		
9:12 am	Delivered	EARTH CITY, MO
6:51 am	On FedEx vehicle for delivery	EARTH CITY, MO
6:45 am	At local FedEx facility	EARTH CITY, MO
5:34 am	At destination sort facility	BERKELEY, MO
4:46 am	Departed FedEx location	MEMPHIS, TN
12:51 am	Arrived at FedEx location	MEMPHIS, TN
4/14/2015 - Tuesday		
5:15 pm	Left FedEx origin facility	PASCO, WA
3:22 pm	Picked up	PASCO, WA
3:13 pm	Shipment information sent to FedEx	

Shipment Facts

Tracking number	773367890492	Service	FedEx Priority Overnight
Weight	5 lbs / 2.27 kgs	Delivered To	Shipping/Receiving
Total pieces	1	Total shipment weight	5 lbs / 2.27 kgs
Shipper reference	gws-389	Packaging	FedEx Pak
Special handling section	Deliver Weekday		

FedEx.

Customer Focus
New Customer Center
Small Business Center

Featured Services
FedEx One Rate
FedEx SameDay

Companies
FedEx Express
FedEx Ground

Follow FedI

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
T	MS, MSD: Recovery exceeds upper or lower control limits.
E	Result exceeded calibration range.
U	Analyzed for but not detected.
O	LCS, LCSD: Recovery exceeds upper or lower control limits.
D	Sample results are obtained from a dilution; the surrogate or matrix spike recoveries reported are calculated from diluted samples.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS VOA TICs

Qualifier	Qualifier Description
N	Presumptive evidence of material.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
N	Recovery exceeds upper or lower control limits
B	Estimated result. Result is less than the RL, but greater than MDL
U	Analyzed for but not detected.
C	The analyte was detected in both the sample and the assoicated QC blank, and the sample concentration was </= 5X the blank concentration.

General Chemistry

Qualifier	Qualifier Description
U	Analyzed for but not detected.
N	MS, MSD: Spike recovery is outside acceptance limits.
B	Estimated result. Result is less than the RL, but greater than MDL

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Method Summary

Client: CH2M Hill Plateau Remediation Company
Project/Site: S,W,I,A ,X SAFS- GROUNDWATER

TestAmerica Job ID: 160-11325-1
SDG: SL1786

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds (GC/MS)	SW846	TAL SL
6010C	Metals (ICP)	SW846	TAL SL
6020A	Metals (ICP/MS)	SW846	TAL SL
7470A	Mercury (CVAA)	SW846	TAL SL
160.1	Solids, Total Dissolved (TDS)	MCAWW	TAL SL
310.1	Alkalinity	MCAWW	TAL SL
350.1	Nitrogen, Ammonia	MCAWW	TAL SL
9034	Sulfide, Acid soluble and Insoluble (Titrimetric)	SW846	TAL SL
9060	Organic Carbon, Total (TOC)	SW846	TAL SL

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.
SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: CH2M Hill Plateau Remediation Company
Project/Site: S,W,I,A ,X SAFS- GROUNDWATER

TestAmerica Job ID: 160-11325-1
SDG: SL1786

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
160-11325-1	B30LY7	Water	04/10/15 12:48	04/14/15 09:20
160-11325-2	B30LY9	Water	04/10/15 12:48	04/14/15 09:20
160-11325-3	B30MB2	Water	04/13/15 12:13	04/14/15 09:20
160-11325-4	B30PW2	Water	04/13/15 12:13	04/14/15 09:20
160-11325-5	B30PW3	Water	04/13/15 10:28	04/14/15 09:20
160-11325-6	B30M94	Water	04/13/15 10:28	04/14/15 09:20
160-11325-7	B30N20	Water	04/10/15 13:23	04/14/15 09:20
160-11325-8	B30N22	Water	04/10/15 13:23	04/14/15 09:20
160-11325-9	B30N91	Water	04/10/15 13:33	04/14/15 09:20
160-11325-10	B30N93	Water	04/10/15 13:33	04/14/15 09:20
160-11325-11	B30HN9	Water	04/13/15 10:28	04/14/15 09:20
160-11355-1	B30HP0	Water	04/14/15 08:33	04/15/15 09:20
160-11355-2	B30M54	Water	04/14/15 08:33	04/15/15 09:20
160-11355-3	B30M49	Water	04/14/15 08:33	04/15/15 09:20
160-11355-4	B30ND5	Water	04/14/15 09:10	04/15/15 09:20
160-11355-5	B30ND7	Water	04/14/15 09:10	04/15/15 09:20
160-11355-6	B30M11	Water	04/14/15 09:38	04/15/15 09:20
160-11355-7	B30M13	Water	04/14/15 09:38	04/15/15 09:20

Client: CH2M Hill Plateau Remediation Company
Project/Site: S,W,I,A ,X SAFS- GROUNDWATER

TestAmerica Job ID: 160-11325-1
SDG: SL1786

Method: 8260C - Volatile Organic Compounds (GC/MS)

Client Sample ID: B30MB2
Date Collected: 04/13/15 12:13
Date Received: 04/14/15 09:20

Lab Sample ID: 160-11325-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	0.090	U	1.0	0.090	ug/L			04/17/15 10:19	1
1,1,1-Trichloroethane	0.070	U	1.0	0.070	ug/L			04/17/15 10:19	1
1,1,2,2-Tetrachloroethane	0.10	U O T	1.0	0.10	ug/L			04/17/15 10:19	1
1,1,2-Trichloroethane	0.15	U	1.0	0.15	ug/L			04/17/15 10:19	1
1,1-Dichloroethane	0.070	U	1.0	0.070	ug/L			04/17/15 10:19	1
1,1-Dichloroethene	0.080	U	1.0	0.080	ug/L			04/17/15 10:19	1
1,2,3-Trichloropropane	0.15	U	1.0	0.15	ug/L			04/17/15 10:19	1
1,2-Dibromo-3-Chloropropane	0.41	U	1.0	0.41	ug/L			04/17/15 10:19	1
1,2-Dibromoethane (EDB)	0.13	U	1.0	0.13	ug/L			04/17/15 10:19	1
1,2-Dichloroethane	0.10	U	1.0	0.10	ug/L			04/17/15 10:19	1
1,2-Dichloroethene, Total	0.15	U	2.0	0.15	ug/L			04/17/15 10:19	1
1,2-Dichloropropane	0.10	U	1.0	0.10	ug/L			04/17/15 10:19	1
1,4-Dichlorobenzene	0.12	U	1.0	0.12	ug/L			04/17/15 10:19	1
1-Butanol	12	U	50	12	ug/L			04/17/15 10:19	1
2-Butanone (MEK)	0.52	U	5.0	0.52	ug/L			04/17/15 10:19	1
2-Hexanone	0.22	U	5.0	0.22	ug/L			04/17/15 10:19	1
4-Methyl-2-pentanone (MIBK)	0.12	U	5.0	0.12	ug/L			04/17/15 10:19	1
Acetone	0.34	U	2.0	0.34	ug/L			04/17/15 10:19	1
Acetonitrile	2.0	U	10	2.0	ug/L			04/17/15 10:19	1
Acrolein	2.8	U O T	10	2.8	ug/L			04/17/15 10:19	1
Acrylonitrile	0.58	U	10	0.58	ug/L			04/17/15 10:19	1
Allyl chloride	0.11	U	2.0	0.11	ug/L			04/17/15 10:19	1
Benzene	0.060	U	1.0	0.060	ug/L			04/17/15 10:19	1
Bromodichloromethane	0.090	U	1.0	0.090	ug/L			04/17/15 10:19	1
Bromoform	0.17	U	1.0	0.17	ug/L			04/17/15 10:19	1
Bromomethane	0.25	U	2.0	0.25	ug/L			04/17/15 10:19	1
Carbon disulfide	0.050	U	1.0	0.050	ug/L			04/17/15 10:19	1
Carbon tetrachloride	**36**		1.0	0.13	ug/L			04/17/15 10:19	1
Chlorobenzene	0.15	U	1.0	0.15	ug/L			04/17/15 10:19	1
Chloroethane	0.10	U	2.0	0.10	ug/L			04/17/15 10:19	1
Chloroform	**1.3**		1.0	0.10	ug/L			04/17/15 10:19	1
Chloromethane	0.080	U	2.0	0.080	ug/L			04/17/15 10:19	1
Chloroprene	0.10	U	1.0	0.10	ug/L			04/17/15 10:19	1
cis-1,2-Dichloroethylene	0.090	U	1.0	0.090	ug/L			04/17/15 10:19	1
cis-1,3-Dichloropropene	0.070	U	1.0	0.070	ug/L			04/17/15 10:19	1
Dibromochloromethane	0.13	U	1.0	0.13	ug/L			04/17/15 10:19	1
Dibromomethane	0.21	U	1.0	0.21	ug/L			04/17/15 10:19	1
Dichlorodifluoromethane	0.080	U	2.0	0.080	ug/L			04/17/15 10:19	1
Ethyl Cyanide	1.4	U	10	1.4	ug/L			04/17/15 10:19	1
Ethyl methacrylate	0.11	U T	1.0	0.11	ug/L			04/17/15 10:19	1
Ethylbenzene	0.090	U	1.0	0.090	ug/L			04/17/15 10:19	1
Iodomethane	0.090	U	2.0	0.090	ug/L			04/17/15 10:19	1
Isobutyl alcohol	8.7	U	80	8.7	ug/L			04/17/15 10:19	1
Methacrylonitrile	0.50	U	10	0.50	ug/L			04/17/15 10:19	1
Methyl methacrylate	0.26	U T	2.0	0.26	ug/L			04/17/15 10:19	1
Methylene Chloride	0.27	U	1.0	0.27	ug/L			04/17/15 10:19	1
Styrene	0.070	U	1.0	0.070	ug/L			04/17/15 10:19	1
Tetrachloroethene	0.18	U	1.0	0.18	ug/L			04/17/15 10:19	1
Tetrahydrofuran	1.1	U	10	1.1	ug/L			04/17/15 10:19	1

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B30MB2 — **Lab Sample ID: 160-11325-3**
Date Collected: 04/13/15 12:13 — **Matrix: Water**
Date Received: 04/14/15 09:20

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	0.070	U	1.0	0.070	ug/L			04/17/15 10:19	1
trans-1,2-Dichloroethylene	0.080	U	1.0	0.080	ug/L			04/17/15 10:19	1
trans-1,3-Dichloropropene	0.080	U	1.0	0.080	ug/L			04/17/15 10:19	1
trans-1,4-Dichloro-2-butene	0.29	U	2.0	0.29	ug/L			04/17/15 10:19	1
Trichloroethene	0.25	U O T	1.0	0.25	ug/L			04/17/15 10:19	1
Trichloromonofluoromethane	0.11	U	1.0	0.11	ug/L			04/17/15 10:19	1
Vinyl acetate	0.18	U O T	2.0	0.18	ug/L			04/17/15 10:19	1
Vinyl chloride	0.080	U	2.0	0.080	ug/L			04/17/15 10:19	1
Xylenes, Total	0.20	U	3.0	0.20	ug/L			04/17/15 10:19	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*04/17/15 10:19*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*75 - 129*		*04/17/15 10:19*	*1*
4-Bromofluorobenzene (Surr)	*113*		*81 - 130*		*04/17/15 10:19*	*1*
Dibromofluoromethane (Surr)	*118*		*81 - 124*		*04/17/15 10:19*	*1*
Toluene-d8 (Surr)	*116*		*87 - 128*		*04/17/15 10:19*	*1*

Client Sample ID: B30M94 — **Lab Sample ID: 160-11325-6**
Date Collected: 04/13/15 10:28 — **Matrix: Water**
Date Received: 04/14/15 09:20

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	0.090	U	1.0	0.090	ug/L			04/24/15 14:18	1
1,1,1-Trichloroethane	0.070	U	1.0	0.070	ug/L			04/24/15 14:18	1
1,1,2,2-Tetrachloroethane	0.10	U T O	1.0	0.10	ug/L			04/24/15 14:18	1
1,1,2-Trichloroethane	0.15	U	1.0	0.15	ug/L			04/24/15 14:18	1
1,1-Dichloroethane	0.070	U	1.0	0.070	ug/L			04/24/15 14:18	1
1,1-Dichloroethene	0.080	U	1.0	0.080	ug/L			04/24/15 14:18	1
1,2,3-Trichloropropane	0.15	U	1.0	0.15	ug/L			04/24/15 14:18	1
1,2-Dibromo-3-Chloropropane	0.41	U	1.0	0.41	ug/L			04/24/15 14:18	1
1,2-Dibromoethane (EDB)	0.13	U	1.0	0.13	ug/L			04/24/15 14:18	1
1,2-Dichloroethane	0.10	U	1.0	0.10	ug/L			04/24/15 14:18	1
1,2-Dichloroethene, Total	0.15	U	2.0	0.15	ug/L			04/24/15 14:18	1
1,2-Dichloropropane	0.10	U	1.0	0.10	ug/L			04/24/15 14:18	1
1,4-Dichlorobenzene	0.12	U	1.0	0.12	ug/L			04/24/15 14:18	1
1-Butanol	12	U	50	12	ug/L			04/24/15 14:18	1
2-Butanone (MEK)	0.52	U	5.0	0.52	ug/L			04/24/15 14:18	1
2-Hexanone	0.22	U	5.0	0.22	ug/L			04/24/15 14:18	1
4-Methyl-2-pentanone (MIBK)	0.12	U	5.0	0.12	ug/L			04/24/15 14:18	1
Acetone	0.34	U	2.0	0.34	ug/L			04/24/15 14:18	1
Acetonitrile	2.0	U	10	2.0	ug/L			04/24/15 14:18	1
Acrolein	2.8	U	10	2.8	ug/L			04/24/15 14:18	1
Acrylonitrile	0.58	U	10	0.58	ug/L			04/24/15 14:18	1
Allyl chloride	0.11	U	2.0	0.11	ug/L			04/24/15 14:18	1
Benzene	0.060	U	1.0	0.060	ug/L			04/24/15 14:18	1
Bromodichloromethane	**0.23**	**J**	1.0	0.090	ug/L			04/24/15 14:18	1
Bromoform	0.17	U	1.0	0.17	ug/L			04/24/15 14:18	1
Bromomethane	0.25	U	2.0	0.25	ug/L			04/24/15 14:18	1
Carbon disulfide	0.050	U	1.0	0.050	ug/L			04/24/15 14:18	1

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B30M94
Date Collected: 04/13/15 10:28
Date Received: 04/14/15 09:20

Lab Sample ID: 160-11325-6
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon tetrachloride	**220**	**D**	10	1.3	ug/L			04/17/15 11:29	10
Chlorobenzene	0.15	U	1.0	0.15	ug/L			04/24/15 14:18	1
Chloroethane	0.10	U	2.0	0.10	ug/L			04/24/15 14:18	1
Chloroform	**5.4**		1.0	0.10	ug/L			04/24/15 14:18	1
Chloromethane	0.080	U	2.0	0.080	ug/L			04/24/15 14:18	1
Chloroprene	0.10	U	1.0	0.10	ug/L			04/24/15 14:18	1
cis-1,2-Dichloroethylene	0.090	U	1.0	0.090	ug/L			04/24/15 14:18	1
cis-1,3-Dichloropropene	0.070	U	1.0	0.070	ug/L			04/24/15 14:18	1
Dibromochloromethane	0.13	U	1.0	0.13	ug/L			04/24/15 14:18	1
Dibromomethane	0.21	U	1.0	0.21	ug/L			04/24/15 14:18	1
Dichlorodifluoromethane	0.080	U	2.0	0.080	ug/L			04/24/15 14:18	1
Ethyl Cyanide	1.4	U	10	1.4	ug/L			04/24/15 14:18	1
Ethyl methacrylate	0.11	U	1.0	0.11	ug/L			04/24/15 14:18	1
Ethylbenzene	0.090	U	1.0	0.090	ug/L			04/24/15 14:18	1
Iodomethane	0.090	U	2.0	0.090	ug/L			04/24/15 14:18	1
Isobutyl alcohol	8.7	U	80	8.7	ug/L			04/24/15 14:18	1
Methacrylonitrile	0.50	U	10	0.50	ug/L			04/24/15 14:18	1
Methyl methacrylate	0.26	U	2.0	0.26	ug/L			04/24/15 14:18	1
Methylene Chloride	0.27	U	1.0	0.27	ug/L			04/24/15 14:18	1
Styrene	0.070	U	1.0	0.070	ug/L			04/24/15 14:18	1
Tetrachloroethene	0.18	U	1.0	0.18	ug/L			04/24/15 14:18	1
Tetrahydrofuran	1.1	U	10	1.1	ug/L			04/24/15 14:18	1
Toluene	0.070	U	1.0	0.070	ug/L			04/24/15 14:18	1
trans-1,2-Dichloroethylene	0.080	U	1.0	0.080	ug/L			04/24/15 14:18	1
trans-1,3-Dichloropropene	0.080	U	1.0	0.080	ug/L			04/24/15 14:18	1
trans-1,4-Dichloro-2-butene	0.29	U	2.0	0.29	ug/L			04/24/15 14:18	1
Trichloroethene	**2.2**		1.0	0.25	ug/L			04/24/15 14:18	1
Trichloromonofluoromethane	0.11	U	1.0	0.11	ug/L			04/24/15 14:18	1
Vinyl acetate	0.18	U T O	2.0	0.18	ug/L			04/24/15 14:18	1
Vinyl chloride	0.080	U	2.0	0.080	ug/L			04/24/15 14:18	1
Xylenes, Total	0.20	U	3.0	0.20	ug/L			04/24/15 14:18	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Unknown	*1.3*	*N*	*ug/L*		*4.53*			*04/24/15 14:18*	*1*
Tentatively Identified Compound	*None*		*ug/L*					*04/17/15 11:29*	*10*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*75 - 129*		*04/17/15 11:29*	*10*
1,2-Dichloroethane-d4 (Surr)	*96*		*75 - 129*		*04/24/15 14:18*	*1*
4-Bromofluorobenzene (Surr)	*111*		*81 - 130*		*04/17/15 11:29*	*10*
4-Bromofluorobenzene (Surr)	*115*		*81 - 130*		*04/24/15 14:18*	*1*
Dibromofluoromethane (Surr)	*117*		*81 - 124*		*04/17/15 11:29*	*10*
Dibromofluoromethane (Surr)	*120*		*81 - 124*		*04/24/15 14:18*	*1*
Toluene-d8 (Surr)	*108*		*87 - 128*		*04/17/15 11:29*	*10*
Toluene-d8 (Surr)	*117*		*87 - 128*		*04/24/15 14:18*	*1*

Method: 8260C - Volatile Organic Compounds (GC/MS)

Client Sample ID: B30HN9 — **Lab Sample ID: 160-11325-11**
Date Collected: 04/13/15 10:28 — **Matrix: Water**
Date Received: 04/14/15 09:20

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.070	U	1.0	0.070	ug/L			04/17/15 11:53	1
1,1,2-Trichloroethane	0.15	U	1.0	0.15	ug/L			04/17/15 11:53	1
1,1-Dichloroethane	0.070	U	1.0	0.070	ug/L			04/17/15 11:53	1
1,1-Dichloroethene	0.080	U	1.0	0.080	ug/L			04/17/15 11:53	1
1,2-Dichloroethane	0.10	U	1.0	0.10	ug/L			04/17/15 11:53	1
2-Butanone (MEK)	0.52	U	5.0	0.52	ug/L			04/17/15 11:53	1
4-Methyl-2-pentanone (MIBK)	0.12	U	5.0	0.12	ug/L			04/17/15 11:53	1
Acetone	0.34	U	2.0	0.34	ug/L			04/17/15 11:53	1
Benzene	0.060	U	1.0	0.060	ug/L			04/17/15 11:53	1
Carbon disulfide	0.050	U	1.0	0.050	ug/L			04/17/15 11:53	1
Carbon tetrachloride	0.13	U	1.0	0.13	ug/L			04/17/15 11:53	1
Chlorobenzene	0.15	U	1.0	0.15	ug/L			04/17/15 11:53	1
Chloroform	0.10	U	1.0	0.10	ug/L			04/17/15 11:53	1
Ethylbenzene	0.090	U	1.0	0.090	ug/L			04/17/15 11:53	1
Methylene Chloride	**1.8**		1.0	0.27	ug/L			04/17/15 11:53	1
Tetrachloroethene	0.18	U	1.0	0.18	ug/L			04/17/15 11:53	1
Toluene	0.070	U	1.0	0.070	ug/L			04/17/15 11:53	1
Trichloroethene	0.25	U O T	1.0	0.25	ug/L			04/17/15 11:53	1
Vinyl chloride	0.080	U	2.0	0.080	ug/L			04/17/15 11:53	1
Xylenes, Total	0.20	U	3.0	0.20	ug/L			04/17/15 11:53	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*04/17/15 11:53*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*75 - 129*		*04/17/15 11:53*	*1*
4-Bromofluorobenzene (Surr)	*104*		*81 - 130*		*04/17/15 11:53*	*1*
Dibromofluoromethane (Surr)	*110*		*81 - 124*		*04/17/15 11:53*	*1*
Toluene-d8 (Surr)	*100*		*87 - 128*		*04/17/15 11:53*	*1*

Client Sample ID: B30HP0 — **Lab Sample ID: 160-11355-1**
Date Collected: 04/14/15 08:33 — **Matrix: Water**
Date Received: 04/15/15 09:20

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.070	U	1.0	0.070	ug/L			04/17/15 12:16	1
1,1,2-Trichloroethane	0.15	U	1.0	0.15	ug/L			04/17/15 12:16	1
1,1-Dichloroethane	0.070	U	1.0	0.070	ug/L			04/17/15 12:16	1
1,1-Dichloroethene	0.080	U	1.0	0.080	ug/L			04/17/15 12:16	1
1,2-Dichloroethane	0.10	U	1.0	0.10	ug/L			04/17/15 12:16	1
2-Butanone (MEK)	0.52	U	5.0	0.52	ug/L			04/17/15 12:16	1
4-Methyl-2-pentanone (MIBK)	0.12	U	5.0	0.12	ug/L			04/17/15 12:16	1
Acetone	0.34	U	2.0	0.34	ug/L			04/17/15 12:16	1
Benzene	0.060	U	1.0	0.060	ug/L			04/17/15 12:16	1
Carbon disulfide	0.050	U	1.0	0.050	ug/L			04/17/15 12:16	1
Carbon tetrachloride	0.13	U	1.0	0.13	ug/L			04/17/15 12:16	1
Chlorobenzene	0.15	U	1.0	0.15	ug/L			04/17/15 12:16	1
Chloroform	0.10	U	1.0	0.10	ug/L			04/17/15 12:16	1
Ethylbenzene	0.090	U	1.0	0.090	ug/L			04/17/15 12:16	1
Methylene Chloride	**9.1**		1.0	0.27	ug/L			04/17/15 12:16	1
Tetrachloroethene	0.18	U	1.0	0.18	ug/L			04/17/15 12:16	1

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B30HP0 **Lab Sample ID: 160-11355-1**
Date Collected: 04/14/15 08:33 **Matrix: Water**
Date Received: 04/15/15 09:20

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	0.070	U	1.0	0.070	ug/L			04/17/15 12:16	1
Trichloroethene	0.25	U O T	1.0	0.25	ug/L			04/17/15 12:16	1
Vinyl chloride	0.080	U	2.0	0.080	ug/L			04/17/15 12:16	1
Xylenes, Total	0.20	U	3.0	0.20	ug/L			04/17/15 12:16	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*04/17/15 12:16*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*75 - 129*		*04/17/15 12:16*	*1*
4-Bromofluorobenzene (Surr)	*110*		*81 - 130*		*04/17/15 12:16*	*1*
Dibromofluoromethane (Surr)	*111*		*81 - 124*		*04/17/15 12:16*	*1*
Toluene-d8 (Surr)	*109*		*87 - 128*		*04/17/15 12:16*	*1*

Client Sample ID: B30M49 **Lab Sample ID: 160-11355-3**
Date Collected: 04/14/15 08:33 **Matrix: Water**
Date Received: 04/15/15 09:20

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.070	U	1.0	0.070	ug/L			04/24/15 13:53	1
1,1,2-Trichloroethane	0.15	U	1.0	0.15	ug/L			04/24/15 13:53	1
1,1-Dichloroethane	0.070	U	1.0	0.070	ug/L			04/24/15 13:53	1
1,1-Dichloroethene	0.080	U	1.0	0.080	ug/L			04/24/15 13:53	1
1,2-Dichloroethane	0.10	U	1.0	0.10	ug/L			04/24/15 13:53	1
1,4-Dichlorobenzene	0.12	U	1.0	0.12	ug/L			04/24/15 13:53	1
1-Butanol	12	U	50	12	ug/L			04/24/15 13:53	1
2-Butanone (MEK)	0.52	U	5.0	0.52	ug/L			04/24/15 13:53	1
4-Methyl-2-pentanone (MIBK)	0.12	U	5.0	0.12	ug/L			04/24/15 13:53	1
Acetone	0.34	U	2.0	0.34	ug/L			04/24/15 13:53	1
Benzene	0.060	U	1.0	0.060	ug/L			04/24/15 13:53	1
Carbon disulfide	0.050	U	1.0	0.050	ug/L			04/24/15 13:53	1
Carbon tetrachloride	0.13	U	1.0	0.13	ug/L			04/24/15 13:53	1
Chlorobenzene	0.15	U	1.0	0.15	ug/L			04/24/15 13:53	1
Chloroform	**0.35**	**J**	1.0	0.10	ug/L			04/24/15 13:53	1
cis-1,2-Dichloroethylene	0.090	U	1.0	0.090	ug/L			04/24/15 13:53	1
Ethyl Cyanide	1.4	U	10	1.4	ug/L			04/24/15 13:53	1
Ethylbenzene	0.090	U	1.0	0.090	ug/L			04/24/15 13:53	1
Methylene Chloride	0.27	U	1.0	0.27	ug/L			04/24/15 13:53	1
Tetrachloroethene	0.18	U	1.0	0.18	ug/L			04/24/15 13:53	1
Tetrahydrofuran	1.1	U	10	1.1	ug/L			04/24/15 13:53	1
Toluene	0.070	U	1.0	0.070	ug/L			04/24/15 13:53	1
trans-1,2-Dichloroethylene	0.080	U	1.0	0.080	ug/L			04/24/15 13:53	1
Trichloroethene	**3.2**		1.0	0.25	ug/L			04/24/15 13:53	1
Vinyl chloride	0.080	U	2.0	0.080	ug/L			04/24/15 13:53	1
Xylenes, Total	0.20	U	3.0	0.20	ug/L			04/24/15 13:53	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*04/24/15 13:53*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*98*		*75 - 129*		*04/24/15 13:53*	*1*
4-Bromofluorobenzene (Surr)	*118*		*81 - 130*		*04/24/15 13:53*	*1*

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B30M49 — **Lab Sample ID: 160-11355-3**
Date Collected: 04/14/15 08:33 — **Matrix: Water**
Date Received: 04/15/15 09:20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*106*		*81 - 124*		*04/24/15 13:53*	*1*
Toluene-d8 (Surr)	*118*		*87 - 128*		*04/24/15 13:53*	*1*

Method: 6010C - Metals (ICP)

Client Sample ID: B30LY7 — **Lab Sample ID: 160-11325-1**
Date Collected: 04/10/15 12:48 — **Matrix: Water**
Date Received: 04/14/15 09:20

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**23200**		1000	54.2	ug/L		04/30/15 15:39	05/11/15 11:56	1
Iron	**30.8**	**B**	100	12.8	ug/L		04/30/15 15:39	05/11/15 11:56	1
Magnesium	**4420**		1000	50.5	ug/L		04/30/15 15:39	05/11/15 11:56	1
Potassium	**1490**	**B**	5000	456	ug/L		04/30/15 15:39	05/11/15 11:56	1
Sodium	**2470**		1000	105	ug/L		04/30/15 15:39	05/11/15 11:56	1
Vanadium	4.4	U	50.0	4.4	ug/L		04/30/15 15:39	05/11/15 11:56	1
Boron	7.2	U	50.0	7.2	ug/L		04/30/15 15:39	05/11/15 11:56	1

Client Sample ID: B30MB2 — **Lab Sample ID: 160-11325-3**
Date Collected: 04/13/15 12:13 — **Matrix: Water**
Date Received: 04/14/15 09:20

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	3.7	U	10.0	3.7	ug/L		04/30/15 15:39	05/11/15 12:00	1
Arsenic	1.8	U	10.0	1.8	ug/L		04/30/15 15:39	05/11/15 12:00	1
Barium	**66.3**		50.0	2.1	ug/L		04/30/15 15:39	05/11/15 12:00	1
Cadmium	0.34	U	5.0	0.34	ug/L		04/30/15 15:39	05/11/15 12:00	1
Calcium	**81600**		1000	54.2	ug/L		04/30/15 15:39	05/11/15 12:00	1
Chromium	**38.9**		10.0	3.4	ug/L		04/30/15 15:39	05/11/15 12:00	1
Cobalt	2.7	U	50.0	2.7	ug/L		04/30/15 15:39	05/11/15 12:00	1
Copper	2.1	U	25.0	2.1	ug/L		04/30/15 15:39	05/11/15 12:00	1
Iron	**37.6**	**B**	100	12.8	ug/L		04/30/15 15:39	05/11/15 12:00	1
Magnesium	**28300**		1000	50.5	ug/L		04/30/15 15:39	05/11/15 12:00	1
Manganese	**1.0**	**B**	15.0	1.0	ug/L		04/30/15 15:39	05/11/15 12:00	1
Nickel	**11.4**	**B**	40.0	2.6	ug/L		04/30/15 15:39	05/11/15 12:00	1
Potassium	**5850**		5000	456	ug/L		04/30/15 15:39	05/11/15 12:00	1
Silver	0.99	U	10.0	0.99	ug/L		04/30/15 15:39	05/11/15 12:00	1
Sodium	**18600**		1000	105	ug/L		04/30/15 15:39	05/11/15 12:00	1
Vanadium	**21.7**	**B**	50.0	4.4	ug/L		04/30/15 15:39	05/11/15 12:00	1
Zinc	8.3	U	20.0	8.3	ug/L		04/30/15 15:39	05/11/15 12:00	1

Client Sample ID: B30M94 — **Lab Sample ID: 160-11325-6**
Date Collected: 04/13/15 10:28 — **Matrix: Water**
Date Received: 04/14/15 09:20

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	3.7	U	10.0	3.7	ug/L		04/30/15 15:39	05/11/15 12:12	1
Arsenic	1.8	U	10.0	1.8	ug/L		04/30/15 15:39	05/11/15 12:12	1
Barium	**58.2**		50.0	2.1	ug/L		04/30/15 15:39	05/11/15 12:12	1
Cadmium	0.34	U	5.0	0.34	ug/L		04/30/15 15:39	05/11/15 12:12	1
Calcium	**61700**		1000	54.2	ug/L		04/30/15 15:39	05/11/15 12:12	1
Chromium	**86.8**		10.0	3.4	ug/L		04/30/15 15:39	05/11/15 12:12	1
Cobalt	2.7	U	50.0	2.7	ug/L		04/30/15 15:39	05/11/15 12:12	1

Method: 6010C - Metals (ICP) (Continued)

Client Sample ID: B30M94 — **Lab Sample ID: 160-11325-6**
Date Collected: 04/13/15 10:28 — **Matrix: Water**
Date Received: 04/14/15 09:20

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Copper	2.1	U	25.0	2.1	ug/L		04/30/15 15:39	05/11/15 12:12	1
Iron	530		100	12.8	ug/L		04/30/15 15:39	05/11/15 12:12	1
Magnesium	20400		1000	50.5	ug/L		04/30/15 15:39	05/11/15 12:12	1
Manganese	4.8	B	15.0	1.0	ug/L		04/30/15 15:39	05/11/15 12:12	1
Nickel	30.3	B	40.0	2.6	ug/L		04/30/15 15:39	05/11/15 12:12	1
Potassium	4570	B	5000	456	ug/L		04/30/15 15:39	05/11/15 12:12	1
Silver	0.99	U	10.0	0.99	ug/L		04/30/15 15:39	05/11/15 12:12	1
Sodium	14900		1000	105	ug/L		04/30/15 15:39	05/11/15 12:12	1
Vanadium	27.9	B	50.0	4.4	ug/L		04/30/15 15:39	05/11/15 12:12	1
Zinc	8.3	U	20.0	8.3	ug/L		04/30/15 15:39	05/11/15 12:12	1

Client Sample ID: B30N20 — **Lab Sample ID: 160-11325-7**
Date Collected: 04/10/15 13:23 — **Matrix: Water**
Date Received: 04/14/15 09:20

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	18000		1000	54.2	ug/L		04/30/15 15:39	05/11/15 12:16	1
Iron	97.6	B	100	12.8	ug/L		04/30/15 15:39	05/11/15 12:16	1
Magnesium	4180		1000	50.5	ug/L		04/30/15 15:39	05/11/15 12:16	1
Potassium	29300		5000	456	ug/L		04/30/15 15:39	05/11/15 12:16	1
Sodium	13800		1000	105	ug/L		04/30/15 15:39	05/11/15 12:16	1
Vanadium	4.4	U	50.0	4.4	ug/L		04/30/15 15:39	05/11/15 12:16	1
Boron	7.2	U	50.0	7.2	ug/L		04/30/15 15:39	05/11/15 12:16	1

Client Sample ID: B30N91 — **Lab Sample ID: 160-11325-9**
Date Collected: 04/10/15 13:33 — **Matrix: Water**
Date Received: 04/14/15 09:20

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	84900		1000	54.2	ug/L		04/30/15 15:39	05/11/15 12:36	1
Iron	93.0	B	100	12.8	ug/L		04/30/15 15:39	05/11/15 12:36	1
Magnesium	21800		1000	50.5	ug/L		04/30/15 15:39	05/11/15 12:36	1
Potassium	6370		5000	456	ug/L		04/30/15 15:39	05/11/15 12:36	1
Sodium	39200		1000	105	ug/L		04/30/15 15:39	05/11/15 12:36	1
Vanadium	6.1	B	50.0	4.4	ug/L		04/30/15 15:39	05/11/15 12:36	1
Boron	22.2	B	50.0	7.2	ug/L		04/30/15 15:39	05/11/15 12:36	1

Client Sample ID: B30M49 — **Lab Sample ID: 160-11355-3**
Date Collected: 04/14/15 08:33 — **Matrix: Water**
Date Received: 04/15/15 09:20

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	59300		1000	54.2	ug/L		05/04/15 15:37	05/11/15 19:46	1
Iron	14.6	B	100	12.8	ug/L		05/04/15 15:37	05/11/15 19:46	1
Magnesium	12800		1000	50.5	ug/L		05/04/15 15:37	05/11/15 19:46	1
Potassium	6370		5000	456	ug/L		05/04/15 15:37	05/11/15 19:46	1
Sodium	17300		1000	105	ug/L		05/04/15 15:37	05/13/15 15:21	1
Vanadium	10.7	B	50.0	4.4	ug/L		05/04/15 15:37	05/11/15 19:46	1
Boron	7.2	U	50.0	7.2	ug/L		05/04/15 15:37	05/11/15 19:46	1

Client Sample Results

Client: CH2M Hill Plateau Remediation Company
Project/Site: S,W,I,A ,X SAFS- GROUNDWATER

TestAmerica Job ID: 160-11325-1
SDG: SL1786

Method: 6010C - Metals (ICP)

Client Sample ID: B30ND5
Date Collected: 04/14/15 09:10
Date Received: 04/15/15 09:20

Lab Sample ID: 160-11355-4
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	92400		1000	54.2	ug/L		05/04/15 15:37	05/11/15 19:49	1
Iron	12.8	U	100	12.8	ug/L		05/04/15 15:37	05/11/15 19:49	1
Magnesium	18700		1000	50.5	ug/L		05/04/15 15:37	05/11/15 19:49	1
Potassium	4660	B	5000	456	ug/L		05/04/15 15:37	05/11/15 19:49	1
Sodium	10700		1000	105	ug/L		05/04/15 15:37	05/13/15 15:25	1
Vanadium	5.8	B	50.0	4.4	ug/L		05/04/15 15:37	05/11/15 19:49	1
Boron	7.6	B	50.0	7.2	ug/L		05/04/15 15:37	05/11/15 19:49	1

Client Sample ID: B30M11
Date Collected: 04/14/15 09:38
Date Received: 04/15/15 09:20

Lab Sample ID: 160-11355-6
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	3.7	U	10.0	3.7	ug/L		05/04/15 15:37	05/11/15 20:13	1
Arsenic	4.3	B C	10.0	1.8	ug/L		05/04/15 15:37	05/11/15 20:13	1
Barium	27.0	B	50.0	2.1	ug/L		05/04/15 15:37	05/11/15 20:13	1
Beryllium	0.28	U	5.0	0.28	ug/L		05/04/15 15:37	05/11/15 20:13	1
Cadmium	0.34	U	5.0	0.34	ug/L		05/04/15 15:37	05/11/15 20:13	1
Calcium	38600		1000	54.2	ug/L		05/04/15 15:37	05/14/15 15:57	1
Chromium	9.1	B	10.0	3.4	ug/L		05/04/15 15:37	05/14/15 15:57	1
Cobalt	2.7	U	50.0	2.7	ug/L		05/04/15 15:37	05/11/15 20:13	1
Copper	8.2	B	25.0	2.1	ug/L		05/04/15 15:37	05/11/15 20:13	1
Iron	12.8	U	100	12.8	ug/L		05/04/15 15:37	05/11/15 20:13	1
Magnesium	8810		1000	50.5	ug/L		05/04/15 15:37	05/14/15 15:57	1
Manganese	1.0	U	15.0	1.0	ug/L		05/04/15 15:37	05/11/15 20:13	1
Nickel	4.5	B	40.0	2.6	ug/L		05/04/15 15:37	05/11/15 20:13	1
Potassium	4200		5000	456	ug/L		05/04/15 15:37	05/11/15 20:13	1
Silver	0.99	U	10.0	0.99	ug/L		05/04/15 15:37	05/11/15 20:13	1
Sodium	18500		1000	105	ug/L		05/04/15 15:37	05/11/15 20:13	1
Strontium	239		5.0	0.24	ug/L		05/04/15 15:37	05/11/15 20:13	1
Vanadium	13.5	B	50.0	4.4	ug/L		05/04/15 15:37	05/11/15 20:13	1
Zinc	12.2	B	20.0	8.3	ug/L		05/04/15 15:37	05/11/15 20:13	1

Method: 6010C - Metals (ICP) - Dissolved

Client Sample ID: B30LY9
Date Collected: 04/10/15 12:48
Date Received: 04/14/15 09:20

Lab Sample ID: 160-11325-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	7.2	U	50.0	7.2	ug/L		04/30/15 15:31	05/11/15 19:19	1
Calcium	23100		1000	54.2	ug/L		04/30/15 15:31	05/11/15 19:19	1
Iron	12.8	U	100	12.8	ug/L		04/30/15 15:31	05/11/15 19:19	1
Magnesium	4050		1000	50.5	ug/L		04/30/15 15:31	05/11/15 19:19	1
Potassium	1500	B	5000	456	ug/L		04/30/15 15:31	05/11/15 19:19	1
Sodium	2320		1000	105	ug/L		04/30/15 15:31	05/13/15 14:46	1
Vanadium	4.6	B	50.0	4.4	ug/L		04/30/15 15:31	05/11/15 19:19	1

Client Sample Results

Client: CH2M Hill Plateau Remediation Company
Project/Site: S,W,I,A ,X SAFS- GROUNDWATER

TestAmerica Job ID: 160-11325-1
SDG: SL1786

Method: 6010C - Metals (ICP) - Dissolved

Client Sample ID: B30PW2 — **Lab Sample ID: 160-11325-4**
Date Collected: 04/13/15 12:13 — **Matrix: Water**
Date Received: 04/14/15 09:20

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	3.7	U	10.0	3.7	ug/L		04/30/15 15:39	05/11/15 12:04	1
Arsenic	**2.6**	**B**	10.0	1.8	ug/L		04/30/15 15:39	05/11/15 12:04	1
Barium	**66.7**		50.0	2.1	ug/L		04/30/15 15:39	05/11/15 12:04	1
Cadmium	0.34	U	5.0	0.34	ug/L		04/30/15 15:39	05/11/15 12:04	1
Calcium	**82700**		1000	54.2	ug/L		04/30/15 15:39	05/11/15 12:04	1
Chromium	**32.0**		10.0	3.4	ug/L		04/30/15 15:39	05/11/15 12:04	1
Cobalt	2.7	U	50.0	2.7	ug/L		04/30/15 15:39	05/11/15 12:04	1
Copper	2.1	U	25.0	2.1	ug/L		04/30/15 15:39	05/11/15 12:04	1
Iron	12.8	U	100	12.8	ug/L		04/30/15 15:39	05/11/15 12:04	1
Magnesium	**28600**		1000	50.5	ug/L		04/30/15 15:39	05/11/15 12:04	1
Manganese	1.0	U	15.0	1.0	ug/L		04/30/15 15:39	05/11/15 12:04	1
Nickel	**6.2**	**B**	40.0	2.6	ug/L		04/30/15 15:39	05/11/15 12:04	1
Potassium	**5930**		5000	456	ug/L		04/30/15 15:39	05/11/15 12:04	1
Silver	0.99	U	10.0	0.99	ug/L		04/30/15 15:39	05/11/15 12:04	1
Sodium	**18700**		1000	105	ug/L		04/30/15 15:39	05/11/15 12:04	1
Vanadium	**21.8**	**B**	50.0	4.4	ug/L		04/30/15 15:39	05/11/15 12:04	1
Zinc	8.3	U	20.0	8.3	ug/L		04/30/15 15:39	05/11/15 12:04	1

Client Sample ID: B30PW3 — **Lab Sample ID: 160-11325-5**
Date Collected: 04/13/15 10:28 — **Matrix: Water**
Date Received: 04/14/15 09:20

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	**3.9**	**B**	10.0	3.7	ug/L		04/30/15 15:39	05/11/15 12:08	1
Arsenic	**1.9**	**B**	10.0	1.8	ug/L		04/30/15 15:39	05/11/15 12:08	1
Barium	**57.7**		50.0	2.1	ug/L		04/30/15 15:39	05/11/15 12:08	1
Cadmium	0.34	U	5.0	0.34	ug/L		04/30/15 15:39	05/11/15 12:08	1
Calcium	**62800**		1000	54.2	ug/L		04/30/15 15:39	05/11/15 12:08	1
Chromium	**31.5**		10.0	3.4	ug/L		04/30/15 15:39	05/11/15 12:08	1
Cobalt	2.7	U	50.0	2.7	ug/L		04/30/15 15:39	05/11/15 12:08	1
Copper	2.1	U	25.0	2.1	ug/L		04/30/15 15:39	05/11/15 12:08	1
Iron	**16.7**	**B**	100	12.8	ug/L		04/30/15 15:39	05/11/15 12:08	1
Magnesium	**20900**		1000	50.5	ug/L		04/30/15 15:39	05/11/15 12:08	1
Manganese	1.0	U	15.0	1.0	ug/L		04/30/15 15:39	05/11/15 12:08	1
Nickel	**17.8**	**B**	40.0	2.6	ug/L		04/30/15 15:39	05/11/15 12:08	1
Potassium	**4590**	**B**	5000	456	ug/L		04/30/15 15:39	05/11/15 12:08	1
Silver	0.99	U	10.0	0.99	ug/L		04/30/15 15:39	05/11/15 12:08	1
Sodium	**15000**		1000	105	ug/L		04/30/15 15:39	05/11/15 12:08	1
Vanadium	**29.4**	**B**	50.0	4.4	ug/L		04/30/15 15:39	05/11/15 12:08	1
Zinc	8.3	U	20.0	8.3	ug/L		04/30/15 15:39	05/11/15 12:08	1

Client Sample ID: B30N22 — **Lab Sample ID: 160-11325-8**
Date Collected: 04/10/15 13:23 — **Matrix: Water**
Date Received: 04/14/15 09:20

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	7.2	U	50.0	7.2	ug/L		04/30/15 15:31	05/11/15 19:23	1
Calcium	**17300**		1000	54.2	ug/L		04/30/15 15:31	05/11/15 19:23	1
Iron	**25.9**	**B**	100	12.8	ug/L		04/30/15 15:31	05/11/15 19:23	1
Magnesium	**3840**		1000	50.5	ug/L		04/30/15 15:31	05/11/15 19:23	1
Potassium	**32800**		5000	456	ug/L		04/30/15 15:31	05/11/15 19:23	1
Sodium	**13700**		1000	105	ug/L		04/30/15 15:31	05/13/15 14:50	1

Method: 6010C - Metals (ICP) - Dissolved (Continued)

Client Sample ID: B30N22 — **Lab Sample ID: 160-11325-8**
Date Collected: 04/10/15 13:23 — **Matrix: Water**
Date Received: 04/14/15 09:20

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vanadium	4.4	U	50.0	4.4	ug/L		04/30/15 15:31	05/11/15 19:23	1

Client Sample ID: B30N93 — **Lab Sample ID: 160-11325-10**
Date Collected: 04/10/15 13:33 — **Matrix: Water**
Date Received: 04/14/15 09:20

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	20.8	B	50.0	7.2	ug/L		04/30/15 15:39	05/11/15 12:39	1
Calcium	86100		1000	54.2	ug/L		04/30/15 15:39	05/11/15 12:39	1
Iron	30.8	B	100	12.8	ug/L		04/30/15 15:39	05/11/15 12:39	1
Magnesium	22200		1000	50.5	ug/L		04/30/15 15:39	05/11/15 12:39	1
Potassium	6210		5000	456	ug/L		04/30/15 15:39	05/11/15 12:39	1
Sodium	37800		1000	105	ug/L		04/30/15 15:39	05/11/15 12:39	1
Vanadium	7.0	B	50.0	4.4	ug/L		04/30/15 15:39	05/11/15 12:39	1

Client Sample ID: B30M54 — **Lab Sample ID: 160-11355-2**
Date Collected: 04/14/15 08:33 — **Matrix: Water**
Date Received: 04/15/15 09:20

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	8.6	B	50.0	7.2	ug/L		05/04/15 15:37	05/11/15 19:42	1
Calcium	57200		1000	54.2	ug/L		05/04/15 15:37	05/11/15 19:42	1
Iron	12.8	B	100	12.8	ug/L		05/04/15 15:37	05/11/15 19:42	1
Magnesium	13000		1000	50.5	ug/L		05/04/15 15:37	05/11/15 19:42	1
Potassium	6480		5000	456	ug/L		05/04/15 15:37	05/11/15 19:42	1
Sodium	17200		1000	105	ug/L		05/04/15 15:37	05/13/15 15:17	1
Vanadium	9.6	B	50.0	4.4	ug/L		05/04/15 15:37	05/11/15 19:42	1

Client Sample ID: B30ND7 — **Lab Sample ID: 160-11355-5**
Date Collected: 04/14/15 09:10 — **Matrix: Water**
Date Received: 04/15/15 09:20

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	7.3	B	50.0	7.2	ug/L		05/04/15 15:37	05/11/15 19:53	1
Calcium	96500		1000	54.2	ug/L		05/04/15 15:37	05/11/15 19:53	1
Iron	12.8	U	100	12.8	ug/L		05/04/15 15:37	05/11/15 19:53	1
Magnesium	19800		1000	50.5	ug/L		05/04/15 15:37	05/11/15 19:53	1
Potassium	4460	B	5000	456	ug/L		05/04/15 15:37	05/11/15 19:53	1
Sodium	10500		1000	105	ug/L		05/04/15 15:37	05/13/15 15:29	1
Vanadium	5.4	B	50.0	4.4	ug/L		05/04/15 15:37	05/11/15 19:53	1

Client Sample ID: B30M13 — **Lab Sample ID: 160-11355-7**
Date Collected: 04/14/15 09:38 — **Matrix: Water**
Date Received: 04/15/15 09:20

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	3.7	U	10.0	3.7	ug/L		05/04/15 15:37	05/11/15 20:17	1
Arsenic	4.0	B C	10.0	1.8	ug/L		05/04/15 15:37	05/11/15 20:17	1
Barium	27.1	B	50.0	2.1	ug/L		05/04/15 15:37	05/11/15 20:17	1
Beryllium	0.28	U	5.0	0.28	ug/L		05/04/15 15:37	05/11/15 20:17	1
Cadmium	0.34	U	5.0	0.34	ug/L		05/04/15 15:37	05/11/15 20:17	1
Calcium	43700		1000	54.2	ug/L		05/04/15 15:37	05/14/15 16:01	1
Chromium	10.4		10.0	3.4	ug/L		05/04/15 15:37	05/14/15 16:01	1
Cobalt	2.7	U	50.0	2.7	ug/L		05/04/15 15:37	05/11/15 20:17	1

Method: 6010C - Metals (ICP) - Dissolved (Continued)

Client Sample ID: B30M13 — **Lab Sample ID: 160-11355-7**
Date Collected: 04/14/15 09:38 — **Matrix: Water**
Date Received: 04/15/15 09:20

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Copper	**6.3**	**B**	25.0	2.1	ug/L		05/04/15 15:37	05/11/15 20:17	1
Iron	12.8	U	100	12.8	ug/L		05/04/15 15:37	05/11/15 20:17	1
Magnesium	**9980**		1000	50.5	ug/L		05/04/15 15:37	05/14/15 16:01	1
Manganese	**3.4**	**B**	15.0	1.0	ug/L		05/04/15 15:37	05/11/15 20:17	1
Nickel	**4.8**	**B**	40.0	2.6	ug/L		05/04/15 15:37	05/11/15 20:17	1
Potassium	**4170**	**B**	5000	456	ug/L		05/04/15 15:37	05/11/15 20:17	1
Silver	0.99	U	10.0	0.99	ug/L		05/04/15 15:37	05/11/15 20:17	1
Sodium	**18100**		1000	105	ug/L		05/04/15 15:37	05/11/15 20:17	1
Strontium	**240**		5.0	0.24	ug/L		05/04/15 15:37	05/11/15 20:17	1
Vanadium	**14.3**	**B**	50.0	4.4	ug/L		05/04/15 15:37	05/11/15 20:17	1
Zinc	**26.3**		20.0	8.3	ug/L		05/04/15 15:37	05/11/15 20:17	1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: B30LY7 — **Lab Sample ID: 160-11325-1**
Date Collected: 04/10/15 12:48 — **Matrix: Water**
Date Received: 04/14/15 09:20

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**19.5**	**B**	30.0	17.3	ug/L		04/30/15 15:46	05/08/15 00:27	2
Antimony	1.7	U N	5.0	1.7	ug/L		04/30/15 15:46	05/08/15 00:27	2
Arsenic	1.2	U	10.0	1.2	ug/L		04/30/15 15:46	05/08/15 00:27	2
Barium	**21.3**	**N**	2.0	0.22	ug/L		04/30/15 15:46	05/08/15 00:27	2
Beryllium	0.35	U N	0.50	0.35	ug/L		04/30/15 15:46	05/08/15 00:27	2
Cadmium	0.10	U	0.50	0.10	ug/L		04/30/15 15:46	05/08/15 00:27	2
Chromium	**3.5**	**B N**	10.0	1.0	ug/L		04/30/15 15:46	05/08/15 00:27	2
Cobalt	0.22	U	2.0	0.22	ug/L		04/30/15 15:46	05/08/15 00:27	2
Copper	0.68	U	1.0	0.68	ug/L		04/30/15 15:46	05/08/15 22:41	2
Lead	0.17	U	3.0	0.17	ug/L		04/30/15 15:46	05/08/15 00:27	2
Manganese	**1.6**	**B**	2.0	0.88	ug/L		04/30/15 15:46	05/08/15 00:27	2
Molybdenum	1.0	U	5.0	1.0	ug/L		04/30/15 15:46	05/08/15 00:27	2
Nickel	**1.4**	**B**	5.0	0.80	ug/L		04/30/15 15:46	05/08/15 00:27	2
Selenium	1.6	U	5.0	1.6	ug/L		04/30/15 15:46	05/08/15 22:41	2
Silver	0.82	U	2.0	0.82	ug/L		04/30/15 15:46	05/08/15 00:27	2
Strontium	**125**		5.0	0.060	ug/L		04/30/15 15:46	05/08/15 00:27	2
Thallium	0.55	U	2.0	0.55	ug/L		04/30/15 15:46	05/08/15 00:27	2
Thorium	0.55	U	2.0	0.55	ug/L		04/30/15 15:46	05/08/15 00:27	2
Tin	1.1	U	2.0	1.1	ug/L		04/30/15 15:46	05/08/15 00:27	2
Uranium	**0.31**	**B**	1.0	0.23	ug/L		04/30/15 15:46	05/08/15 00:27	2
Zinc	9.3	U	10.0	9.3	ug/L		04/30/15 15:46	05/08/15 00:27	2

Client Sample ID: B30N20 — **Lab Sample ID: 160-11325-7**
Date Collected: 04/10/15 13:23 — **Matrix: Water**
Date Received: 04/14/15 09:20

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	17.3	U	30.0	17.3	ug/L		04/30/15 15:46	05/20/15 17:06	2
Antimony	1.7	U N	5.0	1.7	ug/L		04/30/15 15:46	05/20/15 17:06	2
Arsenic	1.2	U	10.0	1.2	ug/L		04/30/15 15:46	05/20/15 17:06	2
Barium	**70.7**	**N**	2.0	0.22	ug/L		04/30/15 15:46	05/20/15 17:06	2
Beryllium	0.35	U N	0.50	0.35	ug/L		04/30/15 15:46	05/20/15 17:06	2
Cadmium	0.10	U	0.50	0.10	ug/L		04/30/15 15:46	05/20/15 17:06	2

Method: 6020A - Metals (ICP/MS) (Continued)

Client Sample ID: B30N20 — **Lab Sample ID: 160-11325-7**
Date Collected: 04/10/15 13:23 — **Matrix: Water**
Date Received: 04/14/15 09:20

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	**7.9**	**B N**	10.0	1.0	ug/L		04/30/15 15:46	05/20/15 17:06	2
Cobalt	0.22	U	2.0	0.22	ug/L		04/30/15 15:46	05/20/15 17:06	2
Copper	0.68	U	1.0	0.68	ug/L		04/30/15 15:46	05/20/15 17:06	2
Lead	0.17	U	3.0	0.17	ug/L		04/30/15 15:46	05/20/15 17:06	2
Manganese	**6.2**		2.0	0.88	ug/L		04/30/15 15:46	05/20/15 17:06	2
Molybdenum	**1.3**	**B**	5.0	1.0	ug/L		04/30/15 15:46	05/20/15 17:06	2
Nickel	**5.5**		5.0	0.80	ug/L		04/30/15 15:46	05/20/15 17:06	2
Selenium	1.6	U	5.0	1.6	ug/L		04/30/15 15:46	05/20/15 17:06	2
Silver	0.82	U	2.0	0.82	ug/L		04/30/15 15:46	05/20/15 17:06	2
Strontium	**267**		5.0	0.060	ug/L		04/30/15 15:46	05/20/15 17:06	2
Thallium	0.55	U	2.0	0.55	ug/L		04/30/15 15:46	05/20/15 17:06	2
Thorium	0.55	U	2.0	0.55	ug/L		04/30/15 15:46	05/20/15 17:06	2
Tin	1.1	U	2.0	1.1	ug/L		04/30/15 15:46	05/20/15 17:06	2
Uranium	0.23	U	1.0	0.23	ug/L		04/30/15 15:46	05/20/15 17:06	2
Zinc	9.3	U	10.0	9.3	ug/L		04/30/15 15:46	05/20/15 17:06	2

Client Sample ID: B30N91 — **Lab Sample ID: 160-11325-9**
Date Collected: 04/10/15 13:33 — **Matrix: Water**
Date Received: 04/14/15 09:20

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**36.8**		30.0	17.3	ug/L		04/30/15 15:46	05/08/15 00:34	2
Antimony	1.7	U N	5.0	1.7	ug/L		04/30/15 15:46	05/08/15 00:34	2
Arsenic	**2.6**	**B**	10.0	1.2	ug/L		04/30/15 15:46	05/08/15 00:34	2
Barium	**121**	**N**	2.0	0.22	ug/L		04/30/15 15:46	05/08/15 00:34	2
Beryllium	0.35	U N	0.50	0.35	ug/L		04/30/15 15:46	05/08/15 00:34	2
Cadmium	0.10	U	0.50	0.10	ug/L		04/30/15 15:46	05/08/15 00:34	2
Chromium	**38.1**	**N**	10.0	1.0	ug/L		04/30/15 15:46	05/08/15 00:34	2
Cobalt	**0.32**	**B**	2.0	0.22	ug/L		04/30/15 15:46	05/08/15 00:34	2
Copper	**1.6**		1.0	0.68	ug/L		04/30/15 15:46	05/08/15 22:47	2
Lead	**0.21**	**B C**	3.0	0.17	ug/L		04/30/15 15:46	05/08/15 00:34	2
Manganese	**2.9**		2.0	0.88	ug/L		04/30/15 15:46	05/08/15 00:34	2
Molybdenum	**2.7**	**B**	5.0	1.0	ug/L		04/30/15 15:46	05/08/15 00:34	2
Nickel	**9.7**		5.0	0.80	ug/L		04/30/15 15:46	05/08/15 00:34	2
Selenium	**2.4**	**B C**	5.0	1.6	ug/L		04/30/15 15:46	05/08/15 22:47	2
Silver	0.82	U	2.0	0.82	ug/L		04/30/15 15:46	05/08/15 00:34	2
Strontium	**606**		5.0	0.060	ug/L		04/30/15 15:46	05/08/15 00:34	2
Thallium	0.55	U	2.0	0.55	ug/L		04/30/15 15:46	05/08/15 00:34	2
Thorium	0.55	U	2.0	0.55	ug/L		04/30/15 15:46	05/08/15 00:34	2
Tin	1.1	U	2.0	1.1	ug/L		04/30/15 15:46	05/08/15 00:34	2
Uranium	**3.6**		1.0	0.23	ug/L		04/30/15 15:46	05/08/15 00:34	2
Zinc	9.3	U	10.0	9.3	ug/L		04/30/15 15:46	05/08/15 00:34	2

Client Sample ID: B30ND5 — **Lab Sample ID: 160-11355-4**
Date Collected: 04/14/15 09:10 — **Matrix: Water**
Date Received: 04/15/15 09:20

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	17.3	U	30.0	17.3	ug/L		05/04/15 15:42	05/11/15 21:23	2
Antimony	1.7	U	5.0	1.7	ug/L		05/04/15 15:42	05/11/15 21:23	2
Arsenic	**1.4**	**B**	10.0	1.2	ug/L		05/04/15 15:42	05/11/15 21:23	2
Barium	**80.0**		2.0	0.22	ug/L		05/04/15 15:42	05/11/15 21:23	2

Method: 6020A - Metals (ICP/MS) (Continued)

Client Sample ID: B30ND5 — **Lab Sample ID: 160-11355-4**
Date Collected: 04/14/15 09:10 — **Matrix: Water**
Date Received: 04/15/15 09:20

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	0.35	U	0.50	0.35	ug/L		05/04/15 15:42	05/11/15 21:23	2
Cadmium	0.10	U	0.50	0.10	ug/L		05/04/15 15:42	05/11/15 21:23	2
Chromium	**105**		10.0	1.0	ug/L		05/04/15 15:42	05/11/15 21:23	2
Cobalt	0.22	U	2.0	0.22	ug/L		05/04/15 15:42	05/11/15 21:23	2
Copper	**0.80**	**B**	1.0	0.68	ug/L		05/04/15 15:42	05/11/15 21:23	2
Lead	**0.26**	**B**	3.0	0.17	ug/L		05/04/15 15:42	05/11/15 21:23	2
Manganese	0.88	U	2.0	0.88	ug/L		05/04/15 15:42	05/11/15 21:23	2
Molybdenum	**1.0**	**B**	5.0	1.0	ug/L		05/04/15 15:42	05/11/15 21:23	2
Nickel	**1.4**	**B**	5.0	0.80	ug/L		05/04/15 15:42	05/11/15 21:23	2
Selenium	**2.6**	**B**	5.0	1.6	ug/L		05/04/15 15:42	05/11/15 21:23	2
Silver	0.82	U	2.0	0.82	ug/L		05/04/15 15:42	05/11/15 21:23	2
Strontium	**490**		5.0	0.060	ug/L		05/04/15 15:42	05/11/15 21:23	2
Thallium	0.55	U	2.0	0.55	ug/L		05/04/15 15:42	05/11/15 21:23	2
Thorium	0.55	U	2.0	0.55	ug/L		05/04/15 15:42	05/11/15 21:23	2
Tin	1.1	U	2.0	1.1	ug/L		05/04/15 15:42	05/11/15 21:23	2
Uranium	**2.2**		1.0	0.23	ug/L		05/04/15 15:42	05/11/15 21:23	2
Zinc	**11.1**		10.0	9.3	ug/L		05/04/15 15:42	05/11/15 21:23	2

Method: 6020A - Metals (ICP/MS) - Dissolved

Client Sample ID: B30LY9 — **Lab Sample ID: 160-11325-2**
Date Collected: 04/10/15 12:48 — **Matrix: Water**
Date Received: 04/14/15 09:20

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	17.3	U	30.0	17.3	ug/L		04/30/15 15:37	05/08/15 04:16	2
Antimony	1.7	U	5.0	1.7	ug/L		04/30/15 15:37	05/08/15 04:16	2
Arsenic	1.2	U	10.0	1.2	ug/L		04/30/15 15:37	05/08/15 04:16	2
Barium	**19.2**		2.0	0.22	ug/L		04/30/15 15:37	05/08/15 04:16	2
Beryllium	0.35	U	0.50	0.35	ug/L		04/30/15 15:37	05/08/15 04:16	2
Cadmium	0.10	U	0.50	0.10	ug/L		04/30/15 15:37	05/08/15 04:16	2
Chromium	**1.5**	**B**	10.0	1.0	ug/L		04/30/15 15:37	05/08/15 04:16	2
Cobalt	**0.42**	**B**	2.0	0.22	ug/L		04/30/15 15:37	05/08/15 04:16	2
Copper	0.68	U	1.0	0.68	ug/L		04/30/15 15:37	05/08/15 04:16	2
Lead	0.17	U	3.0	0.17	ug/L		04/30/15 15:37	05/08/15 04:16	2
Manganese	**0.98**	**B**	2.0	0.88	ug/L		04/30/15 15:37	05/08/15 04:16	2
Molybdenum	1.0	U	5.0	1.0	ug/L		04/30/15 15:37	05/08/15 04:16	2
Nickel	0.80	U	5.0	0.80	ug/L		04/30/15 15:37	05/08/15 04:16	2
Selenium	1.6	U	5.0	1.6	ug/L		04/30/15 15:37	05/08/15 04:16	2
Silver	0.82	U	2.0	0.82	ug/L		04/30/15 15:37	05/08/15 04:16	2
Strontium	**116**		5.0	0.060	ug/L		04/30/15 15:37	05/08/15 04:16	2
Thallium	0.55	U	2.0	0.55	ug/L		04/30/15 15:37	05/08/15 04:16	2
Thorium	0.55	U	2.0	0.55	ug/L		04/30/15 15:37	05/08/15 04:16	2
Tin	1.1	U	2.0	1.1	ug/L		04/30/15 15:37	05/08/15 04:16	2
Uranium	**0.27**	**B**	1.0	0.23	ug/L		04/30/15 15:37	05/08/15 04:16	2
Zinc	9.3	U	10.0	9.3	ug/L		04/30/15 15:37	05/08/15 04:16	2

Client Sample Results

Client: CH2M Hill Plateau Remediation Company
Project/Site: S,W,I,A ,X SAFS- GROUNDWATER

TestAmerica Job ID: 160-11325-1
SDG: SL1786

Method: 6020A - Metals (ICP/MS) - Dissolved

Client Sample ID: B30N22
Date Collected: 04/10/15 13:23
Date Received: 04/14/15 09:20

Lab Sample ID: 160-11325-8
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	17.3	U	30.0	17.3	ug/L		04/30/15 15:37	05/08/15 04:22	2
Antimony	1.7	U	5.0	1.7	ug/L		04/30/15 15:37	05/08/15 04:22	2
Arsenic	1.2	U	10.0	1.2	ug/L		04/30/15 15:37	05/08/15 04:22	2
Barium	**72.4**		2.0	0.22	ug/L		04/30/15 15:37	05/08/15 04:22	2
Beryllium	0.35	U	0.50	0.35	ug/L		04/30/15 15:37	05/08/15 04:22	2
Cadmium	0.10	U	0.50	0.10	ug/L		04/30/15 15:37	05/08/15 04:22	2
Chromium	1.0	U	10.0	1.0	ug/L		04/30/15 15:37	05/08/15 04:22	2
Cobalt	**0.69**	**B**	2.0	0.22	ug/L		04/30/15 15:37	05/08/15 04:22	2
Copper	0.68	U	1.0	0.68	ug/L		04/30/15 15:37	05/08/15 04:22	2
Lead	0.17	U	3.0	0.17	ug/L		04/30/15 15:37	05/08/15 04:22	2
Manganese	**6.2**		2.0	0.88	ug/L		04/30/15 15:37	05/08/15 04:22	2
Molybdenum	**1.2**	**B**	5.0	1.0	ug/L		04/30/15 15:37	05/08/15 04:22	2
Nickel	**2.6**	**B**	5.0	0.80	ug/L		04/30/15 15:37	05/08/15 04:22	2
Selenium	1.6	U	5.0	1.6	ug/L		04/30/15 15:37	05/08/15 04:22	2
Silver	0.82	U	2.0	0.82	ug/L		04/30/15 15:37	05/08/15 04:22	2
Strontium	**274**		5.0	0.060	ug/L		04/30/15 15:37	05/08/15 04:22	2
Thallium	0.55	U	2.0	0.55	ug/L		04/30/15 15:37	05/08/15 04:22	2
Thorium	0.55	U	2.0	0.55	ug/L		04/30/15 15:37	05/08/15 04:22	2
Tin	1.1	U	2.0	1.1	ug/L		04/30/15 15:37	05/08/15 04:22	2
Uranium	0.23	U	1.0	0.23	ug/L		04/30/15 15:37	05/08/15 04:22	2
Zinc	9.3	U	10.0	9.3	ug/L		04/30/15 15:37	05/08/15 04:22	2

Client Sample ID: B30N93
Date Collected: 04/10/15 13:33
Date Received: 04/14/15 09:20

Lab Sample ID: 160-11325-10
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	17.3	U	30.0	17.3	ug/L		04/30/15 15:46	05/08/15 00:40	2
Antimony	1.7	U N	5.0	1.7	ug/L		04/30/15 15:46	05/08/15 00:40	2
Arsenic	**2.3**	**B**	10.0	1.2	ug/L		04/30/15 15:46	05/08/15 00:40	2
Barium	**116**	**N**	2.0	0.22	ug/L		04/30/15 15:46	05/08/15 00:40	2
Beryllium	0.35	U N	0.50	0.35	ug/L		04/30/15 15:46	05/08/15 00:40	2
Cadmium	0.10	U	0.50	0.10	ug/L		04/30/15 15:46	05/08/15 00:40	2
Chromium	**26.0**	**N**	10.0	1.0	ug/L		04/30/15 15:46	05/08/15 00:40	2
Cobalt	**0.30**	**B**	2.0	0.22	ug/L		04/30/15 15:46	05/08/15 00:40	2
Copper	0.68	U	1.0	0.68	ug/L		04/30/15 15:46	05/08/15 22:54	2
Lead	0.17	U	3.0	0.17	ug/L		04/30/15 15:46	05/08/15 00:40	2
Manganese	**1.8**	**B**	2.0	0.88	ug/L		04/30/15 15:46	05/08/15 00:40	2
Molybdenum	**2.6**	**B**	5.0	1.0	ug/L		04/30/15 15:46	05/08/15 00:40	2
Nickel	**7.1**		5.0	0.80	ug/L		04/30/15 15:46	05/08/15 00:40	2
Selenium	**1.6**	**B C**	5.0	1.6	ug/L		04/30/15 15:46	05/08/15 22:54	2
Silver	0.82	U	2.0	0.82	ug/L		04/30/15 15:46	05/08/15 00:40	2
Strontium	**588**		5.0	0.060	ug/L		04/30/15 15:46	05/08/15 00:40	2
Thallium	0.55	U	2.0	0.55	ug/L		04/30/15 15:46	05/08/15 00:40	2
Thorium	0.55	U	2.0	0.55	ug/L		04/30/15 15:46	05/08/15 00:40	2
Tin	1.1	U	2.0	1.1	ug/L		04/30/15 15:46	05/08/15 00:40	2
Uranium	**3.5**		1.0	0.23	ug/L		04/30/15 15:46	05/08/15 00:40	2
Zinc	9.3	U	10.0	9.3	ug/L		04/30/15 15:46	05/08/15 00:40	2

Client: CH2M Hill Plateau Remediation Company
Project/Site: S,W,I,A ,X SAFS- GROUNDWATER

TestAmerica Job ID: 160-11325-1
SDG: SL1786

Method: 6020A - Metals (ICP/MS) - Dissolved

Client Sample ID: B30ND7 — **Lab Sample ID: 160-11355-5**
Date Collected: 04/14/15 09:10 — **Matrix: Water**
Date Received: 04/15/15 09:20

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	17.3	U	30.0	17.3	ug/L		05/04/15 15:42	05/11/15 21:30	2
Antimony	1.7	U	5.0	1.7	ug/L		05/04/15 15:42	05/11/15 21:30	2
Arsenic	**1.3**	**B**	10.0	1.2	ug/L		05/04/15 15:42	05/11/15 21:30	2
Barium	**78.9**		2.0	0.22	ug/L		05/04/15 15:42	05/11/15 21:30	2
Beryllium	0.35	U	0.50	0.35	ug/L		05/04/15 15:42	05/11/15 21:30	2
Cadmium	0.10	U	0.50	0.10	ug/L		05/04/15 15:42	05/11/15 21:30	2
Chromium	**105**		10.0	1.0	ug/L		05/04/15 15:42	05/11/15 21:30	2
Cobalt	0.22	U	2.0	0.22	ug/L		05/04/15 15:42	05/11/15 21:30	2
Copper	0.68	U	1.0	0.68	ug/L		05/04/15 15:42	05/11/15 21:30	2
Lead	**0.17**	**B**	3.0	0.17	ug/L		05/04/15 15:42	05/11/15 21:30	2
Manganese	0.88	U	2.0	0.88	ug/L		05/04/15 15:42	05/11/15 21:30	2
Molybdenum	1.0	U	5.0	1.0	ug/L		05/04/15 15:42	05/11/15 21:30	2
Nickel	**1.4**	**B**	5.0	0.80	ug/L		05/04/15 15:42	05/11/15 21:30	2
Selenium	**2.0**	**B**	5.0	1.6	ug/L		05/04/15 15:42	05/11/15 21:30	2
Silver	0.82	U	2.0	0.82	ug/L		05/04/15 15:42	05/11/15 21:30	2
Strontium	**484**		5.0	0.060	ug/L		05/04/15 15:42	05/11/15 21:30	2
Thallium	0.55	U	2.0	0.55	ug/L		05/04/15 15:42	05/11/15 21:30	2
Thorium	0.55	U	2.0	0.55	ug/L		05/04/15 15:42	05/11/15 21:30	2
Tin	1.1	U	2.0	1.1	ug/L		05/04/15 15:42	05/11/15 21:30	2
Uranium	**2.1**		1.0	0.23	ug/L		05/04/15 15:42	05/11/15 21:30	2
Zinc	9.3	U	10.0	9.3	ug/L		05/04/15 15:42	05/11/15 21:30	2

Method: 7470A - Mercury (CVAA)

Client Sample ID: B30M49 — **Lab Sample ID: 160-11355-3**
Date Collected: 04/14/15 08:33 — **Matrix: Water**
Date Received: 04/15/15 09:20

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.060	U	0.20	0.060	ug/L		04/22/15 14:01	04/22/15 20:11	1

Method: 7470A - Mercury (CVAA) - Dissolved

Client Sample ID: B30M54 — **Lab Sample ID: 160-11355-2**
Date Collected: 04/14/15 08:33 — **Matrix: Water**
Date Received: 04/15/15 09:20

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.060	U	0.20	0.060	ug/L		04/22/15 14:01	04/22/15 20:03	1

General Chemistry

Client Sample ID: B30MB2 — **Lab Sample ID: 160-11325-3**
Date Collected: 04/13/15 12:13 — **Matrix: Water**
Date Received: 04/14/15 09:20

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (TDS)	**517**		5.0	3.5	mg/L			04/20/15 10:09	1
Alkalinity	**98.0**		5.0	0.54	mg/L			04/24/15 09:07	1
Bicarbonate Alkalinity	**98.0**		5.0	0.54	mg/L			04/24/15 09:07	1
Carbonate Alkalinity	0.54	U	5.0	0.54	mg/L			04/24/15 09:07	1
Hydroxide Alkalinity	0.54	U	5.0	0.54	mg/L			04/24/15 09:07	1
Sulfide	2.0	U	10.0	2.0	mg/L		04/24/15 08:16	04/24/15 09:24	1

General Chemistry (Continued)

Client Sample ID: B30MB2 — **Lab Sample ID: 160-11325-3**
Date Collected: 04/13/15 12:13 — **Matrix: Water**
Date Received: 04/14/15 09:20

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	0.35	U	1.0	0.35	mg/L			04/16/15 14:54	1

Client Sample ID: B30M94 — **Lab Sample ID: 160-11325-6**
Date Collected: 04/13/15 10:28 — **Matrix: Water**
Date Received: 04/14/15 09:20

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (TDS)	**333**		5.0	3.5	mg/L			04/20/15 10:09	1
Alkalinity	**118**		5.0	0.54	mg/L			04/24/15 09:07	1
Bicarbonate Alkalinity	**118**		5.0	0.54	mg/L			04/24/15 09:07	1
Carbonate Alkalinity	0.54	U	5.0	0.54	mg/L			04/24/15 09:07	1
Hydroxide Alkalinity	0.54	U	5.0	0.54	mg/L			04/24/15 09:07	1
Sulfide	2.0	U	10.0	2.0	mg/L		04/24/15 08:16	04/24/15 09:25	1
Total Organic Carbon	0.35	U	1.0	0.35	mg/L			04/16/15 15:05	1

Client Sample ID: B30N20 — **Lab Sample ID: 160-11325-7**
Date Collected: 04/10/15 13:23 — **Matrix: Water**
Date Received: 04/14/15 09:20

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia as N	**541**	**N**	50.0	8.3	ug/L			05/02/15 17:44	1

Client Sample ID: B30N22 — **Lab Sample ID: 160-11325-8**
Date Collected: 04/10/15 13:23 — **Matrix: Water**
Date Received: 04/14/15 09:20

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	**45.0**		5.0	0.54	mg/L			04/24/15 09:07	1
Bicarbonate Alkalinity	**33.0**		5.0	0.54	mg/L			04/24/15 09:07	1
Carbonate Alkalinity	**12.0**		5.0	0.54	mg/L			04/24/15 09:07	1
Hydroxide Alkalinity	0.54	U	5.0	0.54	mg/L			04/24/15 09:07	1

Client Sample ID: B30N93 — **Lab Sample ID: 160-11325-10**
Date Collected: 04/10/15 13:33 — **Matrix: Water**
Date Received: 04/14/15 09:20

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	**114**		5.0	0.54	mg/L			04/24/15 09:07	1
Bicarbonate Alkalinity	**114**		5.0	0.54	mg/L			04/24/15 09:07	1
Carbonate Alkalinity	0.54	U	5.0	0.54	mg/L			04/24/15 09:07	1
Hydroxide Alkalinity	0.54	U	5.0	0.54	mg/L			04/24/15 09:07	1

Method: 8260C - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 160-186272/8
Matrix: Water
Analysis Batch: 186272

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	0.090	U	1.0	0.090	ug/L			04/17/15 08:31	1
1,1,1-Trichloroethane	0.070	U	1.0	0.070	ug/L			04/17/15 08:31	1
1,1,2,2-Tetrachloroethane	0.10	U	1.0	0.10	ug/L			04/17/15 08:31	1
1,1,2-Trichloroethane	0.15	U	1.0	0.15	ug/L			04/17/15 08:31	1
1,1-Dichloroethane	0.070	U	1.0	0.070	ug/L			04/17/15 08:31	1
1,1-Dichloroethene	0.080	U	1.0	0.080	ug/L			04/17/15 08:31	1
1,2,3-Trichloropropane	0.15	U	1.0	0.15	ug/L			04/17/15 08:31	1
1,2-Dibromo-3-Chloropropane	0.41	U	1.0	0.41	ug/L			04/17/15 08:31	1
1,2-Dibromoethane (EDB)	0.13	U	1.0	0.13	ug/L			04/17/15 08:31	1
1,2-Dichloroethane	0.10	U	1.0	0.10	ug/L			04/17/15 08:31	1
1,2-Dichloroethene, Total	0.15	U	2.0	0.15	ug/L			04/17/15 08:31	1
1,2-Dichloropropane	0.10	U	1.0	0.10	ug/L			04/17/15 08:31	1
1,4-Dichlorobenzene	0.12	U	1.0	0.12	ug/L			04/17/15 08:31	1
1-Butanol	12	U	50	12	ug/L			04/17/15 08:31	1
2-Butanone (MEK)	0.52	U	5.0	0.52	ug/L			04/17/15 08:31	1
2-Hexanone	0.22	U	5.0	0.22	ug/L			04/17/15 08:31	1
4-Methyl-2-pentanone (MIBK)	0.12	U	5.0	0.12	ug/L			04/17/15 08:31	1
Acetone	0.34	U	2.0	0.34	ug/L			04/17/15 08:31	1
Acetonitrile	2.0	U	10	2.0	ug/L			04/17/15 08:31	1
Acrolein	2.8	U	10	2.8	ug/L			04/17/15 08:31	1
Acrylonitrile	0.58	U	10	0.58	ug/L			04/17/15 08:31	1
Allyl chloride	0.11	U	2.0	0.11	ug/L			04/17/15 08:31	1
Benzene	0.060	U	1.0	0.060	ug/L			04/17/15 08:31	1
Bromodichloromethane	0.090	U	1.0	0.090	ug/L			04/17/15 08:31	1
Bromoform	0.17	U	1.0	0.17	ug/L			04/17/15 08:31	1
Bromomethane	0.25	U	2.0	0.25	ug/L			04/17/15 08:31	1
Carbon disulfide	0.050	U	1.0	0.050	ug/L			04/17/15 08:31	1
Carbon tetrachloride	0.13	U	1.0	0.13	ug/L			04/17/15 08:31	1
Chlorobenzene	0.15	U	1.0	0.15	ug/L			04/17/15 08:31	1
Chloroethane	0.10	U	2.0	0.10	ug/L			04/17/15 08:31	1
Chloroform	0.10	U	1.0	0.10	ug/L			04/17/15 08:31	1
Chloromethane	0.080	U	2.0	0.080	ug/L			04/17/15 08:31	1
Chloroprene	0.10	U	1.0	0.10	ug/L			04/17/15 08:31	1
cis-1,2-Dichloroethylene	0.090	U	1.0	0.090	ug/L			04/17/15 08:31	1
cis-1,3-Dichloropropene	0.070	U	1.0	0.070	ug/L			04/17/15 08:31	1
Dibromochloromethane	0.13	U	1.0	0.13	ug/L			04/17/15 08:31	1
Dibromomethane	0.21	U	1.0	0.21	ug/L			04/17/15 08:31	1
Dichlorodifluoromethane	0.080	U	2.0	0.080	ug/L			04/17/15 08:31	1
Ethyl Cyanide	1.4	U	10	1.4	ug/L			04/17/15 08:31	1
Ethyl methacrylate	0.11	U	1.0	0.11	ug/L			04/17/15 08:31	1
Ethylbenzene	0.090	U	1.0	0.090	ug/L			04/17/15 08:31	1
Iodomethane	0.090	U	2.0	0.090	ug/L			04/17/15 08:31	1
Isobutyl alcohol	8.7	U	80	8.7	ug/L			04/17/15 08:31	1
Methacrylonitrile	0.50	U	10	0.50	ug/L			04/17/15 08:31	1
Methyl methacrylate	0.26	U	2.0	0.26	ug/L			04/17/15 08:31	1
Methylene Chloride	0.27	U	1.0	0.27	ug/L			04/17/15 08:31	1
Styrene	0.070	U	1.0	0.070	ug/L			04/17/15 08:31	1
Tetrachloroethene	0.18	U	1.0	0.18	ug/L			04/17/15 08:31	1

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 160-186272/8 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 186272

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrahydrofuran	1.1	U	10	1.1	ug/L			04/17/15 08:31	1
Toluene	0.070	U	1.0	0.070	ug/L			04/17/15 08:31	1
trans-1,2-Dichloroethylene	0.080	U	1.0	0.080	ug/L			04/17/15 08:31	1
trans-1,3-Dichloropropene	0.080	U	1.0	0.080	ug/L			04/17/15 08:31	1
trans-1,4-Dichloro-2-butene	0.29	U	2.0	0.29	ug/L			04/17/15 08:31	1
Trichloroethene	0.25	U	1.0	0.25	ug/L			04/17/15 08:31	1
Trichloromonofluoromethane	0.11	U	1.0	0.11	ug/L			04/17/15 08:31	1
Vinyl acetate	0.18	U	2.0	0.18	ug/L			04/17/15 08:31	1
Vinyl chloride	0.080	U	2.0	0.080	ug/L			04/17/15 08:31	1
Xylenes, Total	0.20	U	3.0	0.20	ug/L			04/17/15 08:31	1

Tentatively Identified Compound	*MB Est. Result*	*MB Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Naphthalene	*0.247*	*J*	*ug/L*		*16.35*	*91-20-3*		*04/17/15 08:31*	*1*
Tentatively Identified Compound	*None*		*ug/L*					*04/17/15 08:31*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*75 - 129*		*04/17/15 08:31*	*1*
4-Bromofluorobenzene (Surr)	*110*		*81 - 130*		*04/17/15 08:31*	*1*
Dibromofluoromethane (Surr)	*113*		*81 - 124*		*04/17/15 08:31*	*1*
Toluene-d8 (Surr)	*106*		*87 - 128*		*04/17/15 08:31*	*1*

Lab Sample ID: LCS 160-186272/5 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 186272

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	10.0	10.0		ug/L		100	80 - 120
1,1,1-Trichloroethane	10.0	10.9		ug/L		109	85 - 116
1,1,2,2-Tetrachloroethane	10.0	16.8	O	ug/L		168	80 - 120
1,1,2-Trichloroethane	10.0	9.43		ug/L		94	80 - 120
1,1-Dichloroethane	10.0	9.48		ug/L		95	80 - 120
1,1-Dichloroethene	10.0	10.0		ug/L		100	80 - 120
1,2,3-Trichloropropane	10.0	9.47		ug/L		95	77 - 117
1,2-Dibromo-3-Chloropropane	10.0	9.56		ug/L		96	73 - 123
1,2-Dibromoethane (EDB)	10.0	10.2		ug/L		102	80 - 120
1,2-Dichloroethane	10.0	10.0		ug/L		100	80 - 115
1,2-Dichloroethene, Total	20.0	18.9		ug/L		94	80 - 120
1,2-Dichloropropane	10.0	9.35		ug/L		93	80 - 120
1,4-Dichlorobenzene	10.0	9.44		ug/L		94	80 - 120
1-Butanol	250	245		ug/L		98	62 - 128
2-Butanone (MEK)	10.0	9.23		ug/L		92	67 - 127
2-Hexanone	10.0	11.2		ug/L		112	70 - 123
4-Methyl-2-pentanone (MIBK)	10.0	11.1		ug/L		111	75 - 126
Acetone	10.0	9.08		ug/L		91	69 - 129
Acetonitrile	100	89.2		ug/L		89	67 - 122
Acrolein	50.0	92.8	O	ug/L		186	58 - 140
Acrylonitrile	100	99.4		ug/L		99	80 - 122

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 160-186272/5
Matrix: Water
Analysis Batch: 186272

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Allyl chloride	10.0	10.3		ug/L		103	25 - 140
Benzene	10.0	9.50		ug/L		95	80 - 120
Bromodichloromethane	10.0	10.1		ug/L		101	80 - 120
Bromoform	10.0	10.7		ug/L		107	80 - 120
Bromomethane	10.0	7.65		ug/L		77	70 - 124
Carbon disulfide	10.0	9.89		ug/L		99	80 - 121
Carbon tetrachloride	10.0	11.1		ug/L		111	83 - 125
Chlorobenzene	10.0	9.50		ug/L		95	80 - 120
Chloroethane	10.0	7.40		ug/L		74	73 - 119
Chloroform	10.0	10.0		ug/L		100	80 - 120
Chloromethane	10.0	9.37		ug/L		94	72 - 124
Chloroprene	10.0	11.2		ug/L		112	79 - 132
cis-1,2-Dichloroethylene	10.0	9.42		ug/L		94	80 - 120
cis-1,3-Dichloropropene	10.0	10.5		ug/L		105	80 - 120
Dibromochloromethane	10.0	11.1		ug/L		111	80 - 120
Dibromomethane	10.0	9.37		ug/L		94	80 - 120
Dichlorodifluoromethane	10.0	10.9		ug/L		109	24 - 140
Ethyl Cyanide	100	95.6		ug/L		96	77 - 121
Ethyl methacrylate	10.0	11.8		ug/L		118	69 - 123
Ethylbenzene	10.0	9.32		ug/L		93	80 - 120
Iodomethane	10.0	10.0		ug/L		100	69 - 129
Isobutyl alcohol	250	224		ug/L		90	64 - 124
Methacrylonitrile	100	103		ug/L		103	79 - 126
Methyl methacrylate	20.0	22.3		ug/L		112	70 - 123
Methylene Chloride	10.0	8.72		ug/L		87	80 - 120
Styrene	10.0	11.1		ug/L		111	81 - 133
Tetrachloroethene	10.0	10.4		ug/L		104	83 - 123
Tetrahydrofuran	20.0	17.9		ug/L		89	71 - 124
Toluene	10.0	10.0		ug/L		100	80 - 120
trans-1,2-Dichloroethylene	10.0	9.45		ug/L		95	80 - 120
trans-1,3-Dichloropropene	10.0	10.5		ug/L		105	82 - 124
trans-1,4-Dichloro-2-butene	10.0	9.33		ug/L		93	64 - 137
Trichloroethene	10.0	7.79	O	ug/L		78	80 - 120
Trichloromonofluoromethane	10.0	10.8		ug/L		108	71 - 132
Vinyl acetate	10.0	48.1	E O	ug/L		481	63 - 140
Vinyl chloride	10.0	8.49		ug/L		85	77 - 122
Xylenes, Total	20.0	21.1		ug/L		106	80 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*105*		*75 - 129*
4-Bromofluorobenzene (Surr)	*103*		*81 - 130*
Dibromofluoromethane (Surr)	*112*		*81 - 124*
Toluene-d8 (Surr)	*105*		*87 - 128*

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 160-186272/6
Matrix: Water
Analysis Batch: 186272

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	10.0	9.90		ug/L		99	80 - 120	1	20
1,1,1-Trichloroethane	10.0	10.6		ug/L		106	85 - 116	3	20
1,1,2,2-Tetrachloroethane	10.0	16.1	O	ug/L		161	80 - 120	4	20
1,1,2-Trichloroethane	10.0	9.14		ug/L		91	80 - 120	3	20
1,1-Dichloroethane	10.0	9.40		ug/L		94	80 - 120	1	20
1,1-Dichloroethene	10.0	10.0		ug/L		100	80 - 120	0	20
1,2,3-Trichloropropane	10.0	9.39		ug/L		94	77 - 117	1	20
1,2-Dibromo-3-Chloropropane	10.0	9.52		ug/L		95	73 - 123	0	20
1,2-Dibromoethane (EDB)	10.0	10.0		ug/L		100	80 - 120	2	20
1,2-Dichloroethane	10.0	9.60		ug/L		96	80 - 115	4	20
1,2-Dichloroethene, Total	20.0	18.9		ug/L		94	80 - 120	0	20
1,2-Dichloropropane	10.0	9.35		ug/L		94	80 - 120	0	20
1,4-Dichlorobenzene	10.0	9.28		ug/L		93	80 - 120	2	20
1-Butanol	250	227		ug/L		91	62 - 128	8	20
2-Butanone (MEK)	10.0	9.35		ug/L		94	67 - 127	1	20
2-Hexanone	10.0	10.5		ug/L		105	70 - 123	7	20
4-Methyl-2-pentanone (MIBK)	10.0	10.1		ug/L		101	75 - 126	9	20
Acetone	10.0	9.17		ug/L		92	69 - 129	1	20
Acetonitrile	100	93.3		ug/L		93	67 - 122	4	20
Acrolein	50.0	88.4	O	ug/L		177	58 - 140	5	20
Acrylonitrile	100	96.2		ug/L		96	80 - 122	3	20
Allyl chloride	10.0	9.59		ug/L		96	25 - 140	7	20
Benzene	10.0	9.44		ug/L		94	80 - 120	1	20
Bromodichloromethane	10.0	9.68		ug/L		97	80 - 120	4	20
Bromoform	10.0	10.4		ug/L		104	80 - 120	3	20
Bromomethane	10.0	7.51		ug/L		75	70 - 124	2	20
Carbon disulfide	10.0	9.81		ug/L		98	80 - 121	1	20
Carbon tetrachloride	10.0	11.0		ug/L		110	83 - 125	1	20
Chlorobenzene	10.0	9.32		ug/L		93	80 - 120	2	20
Chloroethane	10.0	7.30		ug/L		73	73 - 119	1	20
Chloroform	10.0	9.61		ug/L		96	80 - 120	4	20
Chloromethane	10.0	9.23		ug/L		92	72 - 124	1	20
Chloroprene	10.0	11.0		ug/L		110	79 - 132	2	20
cis-1,2-Dichloroethylene	10.0	9.40		ug/L		94	80 - 120	0	20
cis-1,3-Dichloropropene	10.0	10.6		ug/L		106	80 - 120	1	20
Dibromochloromethane	10.0	10.6		ug/L		106	80 - 120	4	20
Dibromomethane	10.0	9.47		ug/L		95	80 - 120	1	20
Dichlorodifluoromethane	10.0	10.0		ug/L		100	24 - 140	8	20
Ethyl Cyanide	100	94.2		ug/L		94	77 - 121	1	20
Ethyl methacrylate	10.0	11.6		ug/L		116	69 - 123	2	20
Ethylbenzene	10.0	9.11		ug/L		91	80 - 120	2	20
Iodomethane	10.0	10.3		ug/L		103	69 - 129	3	20
Isobutyl alcohol	250	237		ug/L		95	64 - 124	6	20
Methacrylonitrile	100	97.6		ug/L		98	79 - 126	5	20
Methyl methacrylate	20.0	22.0		ug/L		110	70 - 123	1	20
Methylene Chloride	10.0	8.67		ug/L		87	80 - 120	1	20
Styrene	10.0	11.0		ug/L		110	81 - 133	1	20
Tetrachloroethene	10.0	10.4		ug/L		104	83 - 123	0	20

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 160-186272/6
Matrix: Water
Analysis Batch: 186272

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Tetrahydrofuran			20.0	18.6		ug/L		93	71 - 124	4	20
Toluene			10.0	10.0		ug/L		100	80 - 120	0	20
trans-1,2-Dichloroethylene			10.0	9.46		ug/L		95	80 - 120	0	20
trans-1,3-Dichloropropene			10.0	10.4		ug/L		104	82 - 124	1	20
trans-1,4-Dichloro-2-butene			10.0	9.39		ug/L		94	64 - 137	1	20
Trichloroethene			10.0	7.81	O	ug/L		78	80 - 120	0	20
Trichloromonofluoromethane			10.0	10.4		ug/L		104	71 - 132	4	20
Vinyl acetate			10.0	42.5	E O	ug/L		425	63 - 140	12	20
Vinyl chloride			10.0	8.36		ug/L		84	77 - 122	2	20
Xylenes, Total			20.0	21.1		ug/L		106	80 - 120	0	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*96*		*75 - 129*
4-Bromofluorobenzene (Surr)	*103*		*81 - 130*
Dibromofluoromethane (Surr)	*108*		*81 - 124*
Toluene-d8 (Surr)	*103*		*87 - 128*

Lab Sample ID: 160-11296-B-1 MS
Matrix: Water
Analysis Batch: 186272

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,1,1,2-Tetrachloroethane	0.090	U	10.0	10.3		ug/L		103	80 - 120		
1,1,1-Trichloroethane	0.070	U	10.0	11.1		ug/L		111	82 - 124		
1,1,2,2-Tetrachloroethane	0.10	U O T	10.0	16.5	T	ug/L		165	75 - 121		
1,1,2-Trichloroethane	0.15	U	10.0	9.46		ug/L		95	80 - 120		
1,1-Dichloroethane	0.070	U	10.0	9.62		ug/L		96	80 - 122		
1,1-Dichloroethene	0.080	U	10.0	10.2		ug/L		102	80 - 120		
1,2,3-Trichloropropane	0.15	U	10.0	9.32		ug/L		93	71 - 119		
1,2-Dibromo-3-Chloropropane	0.41	U	10.0	8.73		ug/L		87	64 - 130		
1,2-Dibromoethane (EDB)	0.13	U	10.0	10.1		ug/L		101	82 - 122		
1,2-Dichloroethane	0.10	U	10.0	10.0		ug/L		100	80 - 120		
1,2-Dichloroethene, Total	0.15	U	20.0	19.1		ug/L		95	80 - 120		
1,2-Dichloropropane	0.10	U	10.0	9.65		ug/L		97	80 - 120		
1,4-Dichlorobenzene	0.12	U	10.0	9.36		ug/L		94	80 - 120		
1-Butanol	12	U	250	238		ug/L		95	58 - 144		
2-Butanone (MEK)	0.52	U	10.0	9.30		ug/L		93	53 - 145		
2-Hexanone	0.22	U	10.0	10.1		ug/L		101	59 - 132		
4-Methyl-2-pentanone (MIBK)	0.12	U	10.0	9.89		ug/L		99	70 - 131		
Acetone	0.34	U	10.0	8.59		ug/L		86	50 - 137		
Acetonitrile	2.0	U	100	95.6		ug/L		96	67 - 138		
Acrolein	2.8	U O T	50.0	86.2	T	ug/L		172	52 - 150		
Acrylonitrile	0.58	U	100	100		ug/L		100	73 - 137		
Allyl chloride	0.11	U	10.0	10.1		ug/L		101	49 - 150		
Benzene	0.060	U	10.0	9.63		ug/L		96	80 - 120		
Bromodichloromethane	0.090	U	10.0	10.2		ug/L		102	80 - 120		
Bromoform	0.17	U	10.0	10.2		ug/L		102	81 - 121		
Bromomethane	0.25	U	10.0	7.47		ug/L		75	55 - 137		

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 160-11296-B-1 MS
Matrix: Water
Analysis Batch: 186272

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Carbon disulfide	0.050	U	10.0	10.1		ug/L		101	80 - 121
Carbon tetrachloride	0.13	U	10.0	12.1		ug/L		121	77 - 131
Chlorobenzene	0.15	U	10.0	9.52		ug/L		95	80 - 120
Chloroethane	0.10	U	10.0	7.60		ug/L		76	71 - 126
Chloroform	0.60	J	10.0	10.7		ug/L		101	80 - 120
Chloromethane	0.080	U	10.0	9.21		ug/L		92	62 - 132
Chloroprene	0.10	U	10.0	11.4		ug/L		114	74 - 137
cis-1,2-Dichloroethylene	0.090	U	10.0	9.53		ug/L		95	80 - 120
cis-1,3-Dichloropropene	0.070	U	10.0	10.7		ug/L		107	83 - 127
Dibromochloromethane	0.13	U	10.0	10.8		ug/L		108	84 - 123
Dibromomethane	0.21	U	10.0	9.19		ug/L		92	78 - 122
Dichlorodifluoromethane	0.080	U	10.0	10.9		ug/L		109	67 - 135
Ethyl Cyanide	1.4	U	100	97.6		ug/L		98	67 - 141
Ethyl methacrylate	0.11	U T	10.0	11.1		ug/L		111	69 - 123
Ethylbenzene	0.090	U	10.0	9.52		ug/L		95	84 - 125
Iodomethane	0.090	U	10.0	10.1		ug/L		101	53 - 141
Isobutyl alcohol	8.7	U	250	249		ug/L		100	59 - 138
Methacrylonitrile	0.50	U	100	101		ug/L		101	70 - 142
Methyl methacrylate	0.26	U T	20.0	22.1		ug/L		110	66 - 131
Methylene Chloride	0.27	U	10.0	8.75		ug/L		87	80 - 120
Styrene	0.070	U	10.0	11.3		ug/L		113	77 - 139
Tetrachloroethene	0.18	U	10.0	10.7		ug/L		107	80 - 126
Tetrahydrofuran	1.1	U	20.0	18.6		ug/L		93	65 - 136
Toluene	0.070	U	10.0	10.4		ug/L		104	85 - 123
trans-1,2-Dichloroethylene	0.080	U	10.0	9.56		ug/L		96	80 - 120
trans-1,3-Dichloropropene	0.080	U	10.0	10.6		ug/L		106	83 - 125
trans-1,4-Dichloro-2-butene	0.29	U	10.0	9.56		ug/L		96	56 - 139
Trichloroethene	0.25	U O T	10.0	7.89	T	ug/L		79	81 - 125
Trichloromonofluoromethane	0.11	U	10.0	11.1		ug/L		111	69 - 133
Vinyl acetate	0.18	U O T	10.0	60.9	E T	ug/L		609	58 - 150
Vinyl chloride	0.080	U	10.0	8.36		ug/L		84	70 - 129
Xylenes, Total	0.20	U	20.0	21.6		ug/L		108	80 - 120

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*104*		*75 - 129*
4-Bromofluorobenzene (Surr)	*103*		*81 - 130*
Dibromofluoromethane (Surr)	*109*		*81 - 124*
Toluene-d8 (Surr)	*105*		*87 - 128*

Lab Sample ID: 160-11296-C-1 MSD
Matrix: Water
Analysis Batch: 186272

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	0.090	U	10.0	10.3		ug/L		103	80 - 120	0	20
1,1,1-Trichloroethane	0.070	U	10.0	10.8		ug/L		108	82 - 124	3	20
1,1,2,2-Tetrachloroethane	0.10	U O T	10.0	18.9	T	ug/L		189	75 - 121	13	20
1,1,2-Trichloroethane	0.15	U	10.0	9.96		ug/L		100	80 - 120	5	20

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 160-11296-C-1 MSD
Matrix: Water
Analysis Batch: 186272

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1-Dichloroethane	0.070	U	10.0	9.70		ug/L		97	80 - 122	1	20
1,1-Dichloroethene	0.080	U	10.0	9.85		ug/L		98	80 - 120	3	20
1,2,3-Trichloropropane	0.15	U	10.0	9.85		ug/L		99	71 - 119	6	20
1,2-Dibromo-3-Chloropropane	0.41	U	10.0	10.1		ug/L		101	64 - 130	15	20
1,2-Dibromoethane (EDB)	0.13	U	10.0	10.9		ug/L		109	82 - 122	8	20
1,2-Dichloroethane	0.10	U	10.0	10.3		ug/L		103	80 - 120	2	20
1,2-Dichloroethene, Total	0.15	U	20.0	19.4		ug/L		97	80 - 120	2	20
1,2-Dichloropropane	0.10	U	10.0	9.78		ug/L		98	80 - 120	1	20
1,4-Dichlorobenzene	0.12	U	10.0	9.46		ug/L		95	80 - 120	1	20
1-Butanol	12	U	250	295		ug/L		118	58 - 144	21	20
2-Butanone (MEK)	0.52	U	10.0	11.4		ug/L		114	53 - 145	20	20
2-Hexanone	0.22	U	10.0	12.1		ug/L		121	59 - 132	19	20
4-Methyl-2-pentanone (MIBK)	0.12	U	10.0	11.6		ug/L		116	70 - 131	16	20
Acetone	0.34	U	10.0	10.4		ug/L		104	50 - 137	19	20
Acetonitrile	2.0	U	100	109		ug/L		109	67 - 138	13	20
Acrolein	2.8	U O T	50.0	103	T	ug/L		206	52 - 150	18	20
Acrylonitrile	0.58	U	100	112		ug/L		112	73 - 137	11	20
Allyl chloride	0.11	U	10.0	10.2		ug/L		102	49 - 150	0	20
Benzene	0.060	U	10.0	9.78		ug/L		98	80 - 120	2	20
Bromodichloromethane	0.090	U	10.0	10.6		ug/L		106	80 - 120	4	20
Bromoform	0.17	U	10.0	11.2		ug/L		112	81 - 121	9	20
Bromomethane	0.25	U	10.0	7.61		ug/L		76	55 - 137	2	20
Carbon disulfide	0.050	U	10.0	9.93		ug/L		99	80 - 121	2	20
Carbon tetrachloride	0.13	U	10.0	11.5		ug/L		115	77 - 131	5	20
Chlorobenzene	0.15	U	10.0	9.59		ug/L		96	80 - 120	1	20
Chloroethane	0.10	U	10.0	7.69		ug/L		77	71 - 126	1	20
Chloroform	0.60	J	10.0	10.2		ug/L		95	80 - 120	5	20
Chloromethane	0.080	U	10.0	9.16		ug/L		92	62 - 132	1	20
Chloroprene	0.10	U	10.0	11.0		ug/L		110	74 - 137	3	20
cis-1,2-Dichloroethylene	0.090	U	10.0	9.65		ug/L		96	80 - 120	1	20
cis-1,3-Dichloropropene	0.070	U	10.0	11.1		ug/L		111	83 - 127	4	20
Dibromochloromethane	0.13	U	10.0	11.5		ug/L		115	84 - 123	6	20
Dibromomethane	0.21	U	10.0	9.97		ug/L		100	78 - 122	8	20
Dichlorodifluoromethane	0.080	U	10.0	10.6		ug/L		106	67 - 135	2	20
Ethyl Cyanide	1.4	U	100	109		ug/L		109	67 - 141	11	20
Ethyl methacrylate	0.11	U T	10.0	12.8	T	ug/L		128	69 - 123	14	20
Ethylbenzene	0.090	U	10.0	8.90		ug/L		89	84 - 125	7	20
Iodomethane	0.090	U	10.0	10.5		ug/L		105	53 - 141	4	20
Isobutyl alcohol	8.7	U	250	326		ug/L		130	59 - 138	27	20
Methacrylonitrile	0.50	U	100	112		ug/L		112	70 - 142	11	20
Methyl methacrylate	0.26	U T	20.0	26.7	T	ug/L		133	66 - 131	19	20
Methylene Chloride	0.27	U	10.0	9.22		ug/L		92	80 - 120	5	20
Styrene	0.070	U	10.0	11.2		ug/L		112	77 - 139	1	20
Tetrachloroethene	0.18	U	10.0	10.1		ug/L		101	80 - 126	5	20
Tetrahydrofuran	1.1	U	20.0	22.5		ug/L		113	65 - 136	19	20
Toluene	0.070	U	10.0	9.91		ug/L		99	85 - 123	5	20
trans-1,2-Dichloroethylene	0.080	U	10.0	9.75		ug/L		98	80 - 120	2	20
trans-1,3-Dichloropropene	0.080	U	10.0	11.0		ug/L		110	83 - 125	3	20

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 160-11296-C-1 MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 186272

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
trans-1,4-Dichloro-2-butene	0.29	U	10.0	10.6		ug/L		106	56 - 139	11	20
Trichloroethene	0.25	U O T	10.0	7.65	T	ug/L		77	81 - 125	3	20
Trichloromonofluoromethane	0.11	U	10.0	10.5		ug/L		105	69 - 133	5	20
Vinyl acetate	0.18	U O T	10.0	69.2	E T	ug/L		692	58 - 150	13	20
Vinyl chloride	0.080	U	10.0	8.50		ug/L		85	70 - 129	2	20
Xylenes, Total	0.20	U	20.0	21.1		ug/L		106	80 - 120	2	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*105*		*75 - 129*
4-Bromofluorobenzene (Surr)	*104*		*81 - 130*
Dibromofluoromethane (Surr)	*116*		*81 - 124*
Toluene-d8 (Surr)	*102*		*87 - 128*

Lab Sample ID: MB 160-187781/9 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 187781

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	0.090	U	1.0	0.090	ug/L			04/24/15 10:30	1
1,1,1-Trichloroethane	0.070	U	1.0	0.070	ug/L			04/24/15 10:30	1
1,1,2,2-Tetrachloroethane	0.10	U	1.0	0.10	ug/L			04/24/15 10:30	1
1,1,2-Trichloroethane	0.15	U	1.0	0.15	ug/L			04/24/15 10:30	1
1,1-Dichloroethane	0.070	U	1.0	0.070	ug/L			04/24/15 10:30	1
1,1-Dichloroethene	0.080	U	1.0	0.080	ug/L			04/24/15 10:30	1
1,2,3-Trichloropropane	0.15	U	1.0	0.15	ug/L			04/24/15 10:30	1
1,2-Dibromo-3-Chloropropane	0.41	U	1.0	0.41	ug/L			04/24/15 10:30	1
1,2-Dibromoethane (EDB)	0.13	U	1.0	0.13	ug/L			04/24/15 10:30	1
1,2-Dichloroethane	0.10	U	1.0	0.10	ug/L			04/24/15 10:30	1
1,2-Dichloroethene, Total	0.15	U	2.0	0.15	ug/L			04/24/15 10:30	1
1,2-Dichloropropane	0.10	U	1.0	0.10	ug/L			04/24/15 10:30	1
1,4-Dichlorobenzene	0.12	U	1.0	0.12	ug/L			04/24/15 10:30	1
1-Butanol	12	U	50	12	ug/L			04/24/15 10:30	1
2-Butanone (MEK)	0.52	U	5.0	0.52	ug/L			04/24/15 10:30	1
2-Hexanone	0.22	U	5.0	0.22	ug/L			04/24/15 10:30	1
4-Methyl-2-pentanone (MIBK)	0.12	U	5.0	0.12	ug/L			04/24/15 10:30	1
Acetone	0.34	U	2.0	0.34	ug/L			04/24/15 10:30	1
Acetonitrile	2.0	U	10	2.0	ug/L			04/24/15 10:30	1
Acrolein	2.8	U	10	2.8	ug/L			04/24/15 10:30	1
Acrylonitrile	0.58	U	10	0.58	ug/L			04/24/15 10:30	1
Allyl chloride	0.11	U	2.0	0.11	ug/L			04/24/15 10:30	1
Benzene	0.060	U	1.0	0.060	ug/L			04/24/15 10:30	1
Bromodichloromethane	0.090	U	1.0	0.090	ug/L			04/24/15 10:30	1
Bromoform	0.17	U	1.0	0.17	ug/L			04/24/15 10:30	1
Bromomethane	0.25	U	2.0	0.25	ug/L			04/24/15 10:30	1
Carbon disulfide	0.050	U	1.0	0.050	ug/L			04/24/15 10:30	1
Carbon tetrachloride	0.13	U	1.0	0.13	ug/L			04/24/15 10:30	1
Chlorobenzene	0.15	U	1.0	0.15	ug/L			04/24/15 10:30	1
Chloroethane	0.10	U	2.0	0.10	ug/L			04/24/15 10:30	1

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 160-187781/9 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 187781

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroform	0.10	U	1.0	0.10	ug/L			04/24/15 10:30	1
Chloromethane	0.080	U	2.0	0.080	ug/L			04/24/15 10:30	1
Chloroprene	0.10	U	1.0	0.10	ug/L			04/24/15 10:30	1
cis-1,2-Dichloroethylene	0.090	U	1.0	0.090	ug/L			04/24/15 10:30	1
cis-1,3-Dichloropropene	0.070	U	1.0	0.070	ug/L			04/24/15 10:30	1
Dibromochloromethane	0.13	U	1.0	0.13	ug/L			04/24/15 10:30	1
Dibromomethane	0.21	U	1.0	0.21	ug/L			04/24/15 10:30	1
Dichlorodifluoromethane	0.080	U	2.0	0.080	ug/L			04/24/15 10:30	1
Ethyl Cyanide	1.4	U	10	1.4	ug/L			04/24/15 10:30	1
Ethyl methacrylate	0.11	U	1.0	0.11	ug/L			04/24/15 10:30	1
Ethylbenzene	0.090	U	1.0	0.090	ug/L			04/24/15 10:30	1
Iodomethane	0.090	U	2.0	0.090	ug/L			04/24/15 10:30	1
Isobutyl alcohol	8.7	U	80	8.7	ug/L			04/24/15 10:30	1
Methacrylonitrile	0.50	U	10	0.50	ug/L			04/24/15 10:30	1
Methyl methacrylate	0.26	U	2.0	0.26	ug/L			04/24/15 10:30	1
Methylene Chloride	0.27	U	1.0	0.27	ug/L			04/24/15 10:30	1
Styrene	0.070	U	1.0	0.070	ug/L			04/24/15 10:30	1
Tetrachloroethene	0.18	U	1.0	0.18	ug/L			04/24/15 10:30	1
Tetrahydrofuran	1.1	U	10	1.1	ug/L			04/24/15 10:30	1
Toluene	0.070	U	1.0	0.070	ug/L			04/24/15 10:30	1
trans-1,2-Dichloroethylene	0.080	U	1.0	0.080	ug/L			04/24/15 10:30	1
trans-1,3-Dichloropropene	0.080	U	1.0	0.080	ug/L			04/24/15 10:30	1
trans-1,4-Dichloro-2-butene	0.29	U	2.0	0.29	ug/L			04/24/15 10:30	1
Trichloroethene	0.25	U	1.0	0.25	ug/L			04/24/15 10:30	1
Trichloromonofluoromethane	0.11	U	1.0	0.11	ug/L			04/24/15 10:30	1
Vinyl acetate	0.18	U	2.0	0.18	ug/L			04/24/15 10:30	1
Vinyl chloride	0.080	U	2.0	0.080	ug/L			04/24/15 10:30	1
Xylenes, Total	0.20	U	3.0	0.20	ug/L			04/24/15 10:30	1

Tentatively Identified Compound	*MB Est. Result*	*MB Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*04/24/15 10:30*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*75 - 129*		*04/24/15 10:30*	*1*
4-Bromofluorobenzene (Surr)	*119*		*81 - 130*		*04/24/15 10:30*	*1*
Dibromofluoromethane (Surr)	*109*		*81 - 124*		*04/24/15 10:30*	*1*
Toluene-d8 (Surr)	*118*		*87 - 128*		*04/24/15 10:30*	*1*

Lab Sample ID: LCS 160-187781/6 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 187781

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	10.0	10.4		ug/L		104	80 - 120
1,1,1-Trichloroethane	10.0	9.96		ug/L		100	85 - 116
1,1,2,2-Tetrachloroethane	10.0	13.3	O	ug/L		133	80 - 120
1,1,2-Trichloroethane	10.0	10.1		ug/L		101	80 - 120

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 160-187781/6
Matrix: Water
Analysis Batch: 187781

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethane	10.0	9.62		ug/L		96	80 - 120
1,1-Dichloroethene	10.0	9.66		ug/L		97	80 - 120
1,2,3-Trichloropropane	10.0	11.2		ug/L		112	77 - 117
1,2-Dibromo-3-Chloropropane	10.0	10.5		ug/L		105	73 - 123
1,2-Dibromoethane (EDB)	10.0	9.57		ug/L		96	80 - 120
1,2-Dichloroethane	10.0	9.57		ug/L		96	80 - 115
1,2-Dichloroethene, Total	20.0	19.8		ug/L		99	80 - 120
1,2-Dichloropropane	10.0	9.79		ug/L		98	80 - 120
1,4-Dichlorobenzene	10.0	9.87		ug/L		99	80 - 120
1-Butanol	250	261		ug/L		105	62 - 128
2-Butanone (MEK)	10.0	9.17		ug/L		92	67 - 127
2-Hexanone	10.0	9.81		ug/L		98	70 - 123
4-Methyl-2-pentanone (MIBK)	10.0	9.06		ug/L		91	75 - 126
Acetone	10.0	11.3		ug/L		113	69 - 129
Acetonitrile	100	92.7		ug/L		93	67 - 122
Acrolein	50.0	49.1		ug/L		98	58 - 140
Acrylonitrile	100	94.6		ug/L		95	80 - 122
Allyl chloride	10.0	9.87		ug/L		99	25 - 140
Benzene	10.0	10.0		ug/L		100	80 - 120
Bromodichloromethane	10.0	10.1		ug/L		101	80 - 120
Bromoform	10.0	10.7		ug/L		107	80 - 120
Bromomethane	10.0	11.3		ug/L		113	70 - 124
Carbon disulfide	10.0	9.92		ug/L		99	80 - 121
Carbon tetrachloride	10.0	9.83		ug/L		98	83 - 125
Chlorobenzene	10.0	9.94		ug/L		99	80 - 120
Chloroethane	10.0	9.17		ug/L		92	73 - 119
Chloroform	10.0	9.84		ug/L		98	80 - 120
Chloromethane	10.0	8.79		ug/L		88	72 - 124
Chloroprene	10.0	9.52		ug/L		95	79 - 132
cis-1,2-Dichloroethylene	10.0	9.92		ug/L		99	80 - 120
cis-1,3-Dichloropropene	10.0	9.94		ug/L		99	80 - 120
Dibromochloromethane	10.0	10.3		ug/L		103	80 - 120
Dibromomethane	10.0	9.68		ug/L		97	80 - 120
Dichlorodifluoromethane	10.0	8.78		ug/L		88	24 - 140
Ethyl Cyanide	100	95.6		ug/L		96	77 - 121
Ethyl methacrylate	10.0	10.4		ug/L		104	69 - 123
Ethylbenzene	10.0	10.1		ug/L		101	80 - 120
Iodomethane	10.0	9.97		ug/L		100	69 - 129
Isobutyl alcohol	250	264		ug/L		105	64 - 124
Methacrylonitrile	100	100		ug/L		100	79 - 126
Methyl methacrylate	20.0	20.9		ug/L		104	70 - 123
Methylene Chloride	10.0	9.91		ug/L		99	80 - 120
Styrene	10.0	10.3		ug/L		103	81 - 133
Tetrachloroethene	10.0	9.49		ug/L		95	83 - 123
Tetrahydrofuran	20.0	19.7		ug/L		99	71 - 124
Toluene	10.0	9.95		ug/L		100	80 - 120
trans-1,2-Dichloroethylene	10.0	9.86		ug/L		99	80 - 120
trans-1,3-Dichloropropene	10.0	10.3		ug/L		103	82 - 124

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 160-187781/6
Matrix: Water
Analysis Batch: 187781

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
trans-1,4-Dichloro-2-butene	10.0	9.52		ug/L		95	64 - 137
Trichloroethene	10.0	8.60		ug/L		86	80 - 120
Trichloromonofluoromethane	10.0	9.18		ug/L		92	71 - 132
Vinyl acetate	10.0	30.7	O	ug/L		307	63 - 140
Vinyl chloride	10.0	9.18		ug/L		92	77 - 122
Xylenes, Total	20.0	20.6		ug/L		103	80 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*101*		*75 - 129*
4-Bromofluorobenzene (Surr)	*101*		*81 - 130*
Dibromofluoromethane (Surr)	*103*		*81 - 124*
Toluene-d8 (Surr)	*105*		*87 - 128*

Lab Sample ID: LCSD 160-187781/7
Matrix: Water
Analysis Batch: 187781

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	10.0	9.93		ug/L		99	80 - 120	5	20
1,1,1-Trichloroethane	10.0	10.2		ug/L		102	85 - 116	2	20
1,1,2,2-Tetrachloroethane	10.0	12.9	O	ug/L		129	80 - 120	3	20
1,1,2-Trichloroethane	10.0	9.71		ug/L		97	80 - 120	4	20
1,1-Dichloroethane	10.0	9.84		ug/L		98	80 - 120	2	20
1,1-Dichloroethene	10.0	9.84		ug/L		98	80 - 120	2	20
1,2,3-Trichloropropane	10.0	10.7		ug/L		107	77 - 117	4	20
1,2-Dibromo-3-Chloropropane	10.0	10.1		ug/L		101	73 - 123	5	20
1,2-Dibromoethane (EDB)	10.0	9.55		ug/L		96	80 - 120	0	20
1,2-Dichloroethane	10.0	9.34		ug/L		93	80 - 115	2	20
1,2-Dichloroethene, Total	20.0	19.8		ug/L		99	80 - 120	0	20
1,2-Dichloropropane	10.0	9.55		ug/L		96	80 - 120	2	20
1,4-Dichlorobenzene	10.0	9.87		ug/L		99	80 - 120	0	20
1-Butanol	250	240		ug/L		96	62 - 128	8	20
2-Butanone (MEK)	10.0	9.03		ug/L		90	67 - 127	2	20
2-Hexanone	10.0	8.87		ug/L		89	70 - 123	10	20
4-Methyl-2-pentanone (MIBK)	10.0	8.69		ug/L		87	75 - 126	4	20
Acetone	10.0	9.48		ug/L		95	69 - 129	18	20
Acetonitrile	100	88.9		ug/L		89	67 - 122	4	20
Acrolein	50.0	46.5		ug/L		93	58 - 140	6	20
Acrylonitrile	100	92.7		ug/L		93	80 - 122	2	20
Allyl chloride	10.0	9.85		ug/L		98	25 - 140	0	20
Benzene	10.0	9.93		ug/L		99	80 - 120	1	20
Bromodichloromethane	10.0	10.0		ug/L		100	80 - 120	1	20
Bromoform	10.0	10.2		ug/L		102	80 - 120	5	20
Bromomethane	10.0	11.6		ug/L		116	70 - 124	3	20
Carbon disulfide	10.0	10.1		ug/L		101	80 - 121	2	20
Carbon tetrachloride	10.0	10.2		ug/L		102	83 - 125	4	20
Chlorobenzene	10.0	9.70		ug/L		97	80 - 120	2	20
Chloroethane	10.0	9.44		ug/L		94	73 - 119	3	20

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 160-187781/7
Matrix: Water
Analysis Batch: 187781

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloroform	10.0	10.3		ug/L		103	80 - 120	4	20
Chloromethane	10.0	8.60		ug/L		86	72 - 124	2	20
Chloroprene	10.0	9.70		ug/L		97	79 - 132	2	20
cis-1,2-Dichloroethylene	10.0	9.93		ug/L		99	80 - 120	0	20
cis-1,3-Dichloropropene	10.0	10.2		ug/L		102	80 - 120	3	20
Dibromochloromethane	10.0	10.3		ug/L		103	80 - 120	0	20
Dibromomethane	10.0	9.69		ug/L		97	80 - 120	0	20
Dichlorodifluoromethane	10.0	9.05		ug/L		91	24 - 140	3	20
Ethyl Cyanide	100	94.2		ug/L		94	77 - 121	2	20
Ethyl methacrylate	10.0	10.0		ug/L		100	69 - 123	4	20
Ethylbenzene	10.0	10.1		ug/L		101	80 - 120	0	20
Iodomethane	10.0	11.0		ug/L		110	69 - 129	10	20
Isobutyl alcohol	250	243		ug/L		97	64 - 124	8	20
Methacrylonitrile	100	95.9		ug/L		96	79 - 126	4	20
Methyl methacrylate	20.0	20.6		ug/L		103	70 - 123	1	20
Methylene Chloride	10.0	9.96		ug/L		100	80 - 120	1	20
Styrene	10.0	10.3		ug/L		103	81 - 133	0	20
Tetrachloroethene	10.0	9.60		ug/L		96	83 - 123	1	20
Tetrahydrofuran	20.0	21.6		ug/L		108	71 - 124	9	20
Toluene	10.0	10.2		ug/L		102	80 - 120	2	20
trans-1,2-Dichloroethylene	10.0	9.82		ug/L		98	80 - 120	0	20
trans-1,3-Dichloropropene	10.0	10.3		ug/L		103	82 - 124	1	20
trans-1,4-Dichloro-2-butene	10.0	9.48		ug/L		95	64 - 137	0	20
Trichloroethene	10.0	8.66		ug/L		87	80 - 120	1	20
Trichloromonofluoromethane	10.0	9.76		ug/L		98	71 - 132	6	20
Vinyl acetate	10.0	30.7	O	ug/L		307	63 - 140	0	20
Vinyl chloride	10.0	9.14		ug/L		91	77 - 122	0	20
Xylenes, Total	20.0	20.4		ug/L		102	80 - 120	1	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*100*		*75 - 129*
4-Bromofluorobenzene (Surr)	*102*		*81 - 130*
Dibromofluoromethane (Surr)	*106*		*81 - 124*
Toluene-d8 (Surr)	*105*		*87 - 128*

Lab Sample ID: 160-11405-K-8 MS
Matrix: Water
Analysis Batch: 187781

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	0.090	U	10.0	10.2		ug/L		102	80 - 120
1,1,1-Trichloroethane	0.070	U	10.0	10.3		ug/L		103	82 - 124
1,1,2,2-Tetrachloroethane	0.10	U T O	10.0	13.0	T	ug/L		130	75 - 121
1,1,2-Trichloroethane	0.15	U	10.0	9.66		ug/L		97	80 - 120
1,1-Dichloroethane	0.070	U	10.0	9.95		ug/L		99	80 - 122
1,1-Dichloroethene	0.080	U	10.0	9.54		ug/L		95	80 - 120
1,2,3-Trichloropropane	0.15	U	10.0	10.9		ug/L		109	71 - 119
1,2-Dibromo-3-Chloropropane	0.41	U	10.0	9.50		ug/L		95	64 - 130

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 160-11405-K-8 MS
Matrix: Water
Analysis Batch: 187781

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dibromoethane (EDB)	0.13	U	10.0	9.09		ug/L		91	82 - 122
1,2-Dichloroethane	0.10	U	10.0	9.37		ug/L		94	80 - 120
1,2-Dichloroethene, Total	0.15	U	20.0	19.9		ug/L		99	80 - 120
1,2-Dichloropropane	0.10	U	10.0	10.1		ug/L		101	80 - 120
1,4-Dichlorobenzene	0.12	U	10.0	9.97		ug/L		100	80 - 120
1-Butanol	12	U	250	230		ug/L		92	58 - 144
2-Butanone (MEK)	0.52	U	10.0	8.37		ug/L		84	53 - 145
2-Hexanone	0.22	U	10.0	9.15		ug/L		91	59 - 132
4-Methyl-2-pentanone (MIBK)	0.12	U	10.0	8.35		ug/L		83	70 - 131
Acetone	0.34	U	10.0	9.44		ug/L		94	50 - 137
Acetonitrile	2.0	U	100	87.3		ug/L		87	67 - 138
Acrolein	2.8	U	50.0	46.8		ug/L		94	52 - 150
Acrylonitrile	0.58	U	100	93.0		ug/L		93	73 - 137
Allyl chloride	0.11	U	10.0	10.2		ug/L		102	49 - 150
Benzene	0.060	U	10.0	10.3		ug/L		103	80 - 120
Bromodichloromethane	0.090	U	10.0	10.5		ug/L		105	80 - 120
Bromoform	0.17	U	10.0	10.5		ug/L		105	81 - 121
Bromomethane	0.25	U	10.0	11.4		ug/L		114	55 - 137
Carbon disulfide	0.050	U	10.0	10.1		ug/L		101	80 - 121
Carbon tetrachloride	6.1		10.0	16.6		ug/L		104	77 - 131
Chlorobenzene	0.15	U	10.0	10.1		ug/L		101	80 - 120
Chloroethane	0.10	U	10.0	9.63		ug/L		96	71 - 126
Chloroform	0.27	J	10.0	10.7		ug/L		105	80 - 120
Chloromethane	0.080	U	10.0	8.54		ug/L		85	62 - 132
Chloroprene	0.10	U	10.0	9.76		ug/L		98	74 - 137
cis-1,2-Dichloroethylene	0.090	U	10.0	10.0		ug/L		100	80 - 120
cis-1,3-Dichloropropene	0.070	U	10.0	10.2		ug/L		102	83 - 127
Dibromochloromethane	0.13	U	10.0	10.4		ug/L		104	84 - 123
Dibromomethane	0.21	U	10.0	9.99		ug/L		100	78 - 122
Dichlorodifluoromethane	0.080	U	10.0	8.88		ug/L		89	67 - 135
Ethyl Cyanide	1.4	U	100	94.3		ug/L		94	67 - 141
Ethyl methacrylate	0.11	U	10.0	10.4		ug/L		104	69 - 123
Ethylbenzene	0.090	U	10.0	10.5		ug/L		105	84 - 125
Iodomethane	0.090	U	10.0	10.0		ug/L		100	53 - 141
Isobutyl alcohol	8.7	U	250	211		ug/L		84	59 - 138
Methacrylonitrile	0.50	U	100	96.7		ug/L		97	70 - 142
Methyl methacrylate	0.26	U	20.0	20.6		ug/L		103	66 - 131
Methylene Chloride	0.27	U	10.0	10.1		ug/L		101	80 - 120
Styrene	0.070	U	10.0	10.6		ug/L		106	77 - 139
Tetrachloroethene	0.18	U	10.0	9.90		ug/L		99	80 - 126
Tetrahydrofuran	1.1	U	20.0	20.8		ug/L		104	65 - 136
Toluene	1.7		10.0	12.1		ug/L		104	85 - 123
trans-1,2-Dichloroethylene	0.080	U	10.0	9.87		ug/L		99	80 - 120
trans-1,3-Dichloropropene	0.080	U	10.0	10.2		ug/L		102	83 - 125
trans-1,4-Dichloro-2-butene	0.29	U	10.0	8.60		ug/L		86	56 - 139
Trichloroethene	0.25	U	10.0	8.91		ug/L		89	81 - 125
Trichloromonofluoromethane	0.11	U	10.0	9.79		ug/L		98	69 - 133
Vinyl acetate	0.18	U T O	10.0	30.9	T	ug/L		309	58 - 150

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 160-11405-K-8 MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 187781

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Vinyl chloride	0.080	U	10.0	9.15		ug/L		91	70 - 129
Xylenes, Total	0.20	U	20.0	21.1		ug/L		106	80 - 120

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*99*		*75 - 129*
4-Bromofluorobenzene (Surr)	*100*		*81 - 130*
Dibromofluoromethane (Surr)	*106*		*81 - 124*
Toluene-d8 (Surr)	*102*		*87 - 128*

Lab Sample ID: 160-11405-L-8 MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 187781

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	0.090	U	10.0	10.3		ug/L		103	80 - 120	1	20
1,1,1-Trichloroethane	0.070	U	10.0	10.4		ug/L		104	82 - 124	1	20
1,1,2,2-Tetrachloroethane	0.10	U T O	10.0	12.9	T	ug/L		129	75 - 121	1	20
1,1,2-Trichloroethane	0.15	U	10.0	9.69		ug/L		97	80 - 120	0	20
1,1-Dichloroethane	0.070	U	10.0	10.1		ug/L		101	80 - 122	1	20
1,1-Dichloroethene	0.080	U	10.0	9.74		ug/L		97	80 - 120	2	20
1,2,3-Trichloropropane	0.15	U	10.0	9.83		ug/L		98	71 - 119	10	20
1,2-Dibromo-3-Chloropropane	0.41	U	10.0	9.62		ug/L		96	64 - 130	1	20
1,2-Dibromoethane (EDB)	0.13	U	10.0	8.80		ug/L		88	82 - 122	3	20
1,2-Dichloroethane	0.10	U	10.0	9.29		ug/L		93	80 - 120	1	20
1,2-Dichloroethene, Total	0.15	U	20.0	20.2		ug/L		101	80 - 120	2	20
1,2-Dichloropropane	0.10	U	10.0	10.0		ug/L		100	80 - 120	1	20
1,4-Dichlorobenzene	0.12	U	10.0	9.97		ug/L		100	80 - 120	0	20
1-Butanol	12	U	250	227		ug/L		91	58 - 144	1	20
2-Butanone (MEK)	0.52	U	10.0	8.28		ug/L		83	53 - 145	1	20
2-Hexanone	0.22	U	10.0	8.94		ug/L		89	59 - 132	2	20
4-Methyl-2-pentanone (MIBK)	0.12	U	10.0	8.46		ug/L		85	70 - 131	1	20
Acetone	0.34	U	10.0	9.46		ug/L		95	50 - 137	0	20
Acetonitrile	2.0	U	100	86.8		ug/L		87	67 - 138	1	20
Acrolein	2.8	U	50.0	47.5		ug/L		95	52 - 150	2	20
Acrylonitrile	0.58	U	100	90.9		ug/L		91	73 - 137	2	20
Allyl chloride	0.11	U	10.0	10.1		ug/L		101	49 - 150	1	20
Benzene	0.060	U	10.0	10.4		ug/L		104	80 - 120	1	20
Bromodichloromethane	0.090	U	10.0	10.3		ug/L		103	80 - 120	2	20
Bromoform	0.17	U	10.0	10.1		ug/L		101	81 - 121	4	20
Bromomethane	0.25	U	10.0	11.7		ug/L		117	55 - 137	2	20
Carbon disulfide	0.050	U	10.0	10.3		ug/L		103	80 - 121	2	20
Carbon tetrachloride	6.1		10.0	17.4		ug/L		112	77 - 131	5	20
Chlorobenzene	0.15	U	10.0	10.0		ug/L		100	80 - 120	1	20
Chloroethane	0.10	U	10.0	9.52		ug/L		95	71 - 126	1	20
Chloroform	0.27	J	10.0	10.8		ug/L		105	80 - 120	0	20
Chloromethane	0.080	U	10.0	8.89		ug/L		89	62 - 132	4	20
Chloroprene	0.10	U	10.0	9.74		ug/L		97	74 - 137	0	20
cis-1,2-Dichloroethylene	0.090	U	10.0	10.1		ug/L		101	80 - 120	1	20

Method: 8260C - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 160-11405-L-8 MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 187781

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
cis-1,3-Dichloropropene	0.070	U	10.0	10.2		ug/L		102	83 - 127	1	20
Dibromochloromethane	0.13	U	10.0	10.1		ug/L		101	84 - 123	3	20
Dibromomethane	0.21	U	10.0	9.82		ug/L		98	78 - 122	2	20
Dichlorodifluoromethane	0.080	U	10.0	9.29		ug/L		93	67 - 135	5	20
Ethyl Cyanide	1.4	U	100	91.3		ug/L		91	67 - 141	3	20
Ethyl methacrylate	0.11	U	10.0	9.76		ug/L		98	69 - 123	7	20
Ethylbenzene	0.090	U	10.0	10.4		ug/L		104	84 - 125	1	20
Iodomethane	0.090	U	10.0	10.8		ug/L		108	53 - 141	8	20
Isobutyl alcohol	8.7	U	250	231		ug/L		93	59 - 138	9	20
Methacrylonitrile	0.50	U	100	95.0		ug/L		95	70 - 142	2	20
Methyl methacrylate	0.26	U	20.0	20.8		ug/L		104	66 - 131	1	20
Methylene Chloride	0.27	U	10.0	10.3		ug/L		103	80 - 120	3	20
Styrene	0.070	U	10.0	10.5		ug/L		105	77 - 139	0	20
Tetrachloroethene	0.18	U	10.0	9.84		ug/L		98	80 - 126	1	20
Tetrahydrofuran	1.1	U	20.0	22.0		ug/L		110	65 - 136	6	20
Toluene	1.7		10.0	12.3		ug/L		106	85 - 123	2	20
trans-1,2-Dichloroethylene	0.080	U	10.0	10.1		ug/L		101	80 - 120	3	20
trans-1,3-Dichloropropene	0.080	U	10.0	10.2		ug/L		102	83 - 125	0	20
trans-1,4-Dichloro-2-butene	0.29	U	10.0	9.04		ug/L		90	56 - 139	5	20
Trichloroethene	0.25	U	10.0	8.92		ug/L		89	81 - 125	0	20
Trichloromonofluoromethane	0.11	U	10.0	9.55		ug/L		95	69 - 133	2	20
Vinyl acetate	0.18	U T O	10.0	30.4	T	ug/L		304	58 - 150	2	20
Vinyl chloride	0.080	U	10.0	9.34		ug/L		93	70 - 129	2	20
Xylenes, Total	0.20	U	20.0	20.8		ug/L		104	80 - 120	1	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*96*		*75 - 129*
4-Bromofluorobenzene (Surr)	*103*		*81 - 130*
Dibromofluoromethane (Surr)	*108*		*81 - 124*
Toluene-d8 (Surr)	*106*		*87 - 128*

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 160-188811/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 190412 — **Prep Batch: 188811**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	54.2	U	1000	54.2	ug/L		04/30/15 15:31	05/11/15 18:25	1
Boron	7.2	U	50.0	7.2	ug/L		04/30/15 15:31	05/11/15 18:25	1
Iron	12.8	U	100	12.8	ug/L		04/30/15 15:31	05/11/15 18:25	1
Magnesium	50.5	U	1000	50.5	ug/L		04/30/15 15:31	05/11/15 18:25	1
Potassium	456	U	5000	456	ug/L		04/30/15 15:31	05/11/15 18:25	1
Sodium	105	U	1000	105	ug/L		04/30/15 15:31	05/11/15 18:25	1
Vanadium	4.4	U	50.0	4.4	ug/L		04/30/15 15:31	05/11/15 18:25	1

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: LCS 160-188811/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 190412 — **Prep Batch: 188811**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Calcium	10000	11040		ug/L		110	80 - 120
Boron	2000	1922		ug/L		96	80 - 120
Iron	10000	9990		ug/L		100	80 - 120
Magnesium	10000	9198		ug/L		92	80 - 120
Potassium	10000	10020		ug/L		100	80 - 120
Sodium	10000	10480		ug/L		105	80 - 120
Vanadium	1000	988.9		ug/L		99	80 - 120

Lab Sample ID: MB 160-188814/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 189815 — **Prep Batch: 188814**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	3.7	U	10.0	3.7	ug/L		04/30/15 15:39	05/06/15 22:47	1
Arsenic	1.8	U	10.0	1.8	ug/L		04/30/15 15:39	05/06/15 22:47	1
Barium	2.1	U	50.0	2.1	ug/L		04/30/15 15:39	05/06/15 22:47	1
Cadmium	0.34	U	5.0	0.34	ug/L		04/30/15 15:39	05/06/15 22:47	1
Calcium	54.2	U	1000	54.2	ug/L		04/30/15 15:39	05/06/15 22:47	1
Chromium	3.4	U	10.0	3.4	ug/L		04/30/15 15:39	05/06/15 22:47	1
Cobalt	2.7	U	50.0	2.7	ug/L		04/30/15 15:39	05/06/15 22:47	1
Copper	2.1	U	25.0	2.1	ug/L		04/30/15 15:39	05/06/15 22:47	1
Iron	12.8	U	100	12.8	ug/L		04/30/15 15:39	05/06/15 22:47	1
Magnesium	50.5	U	1000	50.5	ug/L		04/30/15 15:39	05/06/15 22:47	1
Manganese	1.0	U	15.0	1.0	ug/L		04/30/15 15:39	05/06/15 22:47	1
Nickel	2.6	U	40.0	2.6	ug/L		04/30/15 15:39	05/06/15 22:47	1
Silver	0.99	U	10.0	0.99	ug/L		04/30/15 15:39	05/06/15 22:47	1
Vanadium	4.4	U	50.0	4.4	ug/L		04/30/15 15:39	05/06/15 22:47	1
Zinc	8.3	U	20.0	8.3	ug/L		04/30/15 15:39	05/06/15 22:47	1

Lab Sample ID: MB 160-188814/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 189936 — **Prep Batch: 188814**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	7.2	U	50.0	7.2	ug/L		04/30/15 15:39	05/07/15 23:31	1
Potassium	456	U	5000	456	ug/L		04/30/15 15:39	05/07/15 23:31	1
Sodium	105	U	1000	105	ug/L		04/30/15 15:39	05/07/15 23:31	1

Lab Sample ID: LCS 160-188814/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 189815 — **Prep Batch: 188814**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	500	514.5		ug/L		103	80 - 120
Arsenic	1000	1020		ug/L		102	80 - 120
Barium	1000	1028		ug/L		103	80 - 120
Cadmium	1000	1037		ug/L		104	80 - 120
Calcium	10000	11370		ug/L		114	80 - 120
Chromium	1000	1094		ug/L		109	80 - 120

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: LCS 160-188814/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 189815 — **Prep Batch: 188814**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cobalt	1000	1099		ug/L		110	80 - 120
Copper	1000	1058		ug/L		106	80 - 120
Iron	10000	10210		ug/L		102	80 - 120
Magnesium	10000	9434		ug/L		94	80 - 120
Manganese	1000	1021		ug/L		102	80 - 120
Nickel	1000	1105		ug/L		111	80 - 120
Silver	200	202.3		ug/L		101	80 - 120
Vanadium	1000	1005		ug/L		101	80 - 120
Zinc	1000	1061		ug/L		106	80 - 120

Lab Sample ID: LCS 160-188814/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 189936 — **Prep Batch: 188814**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	2000	1973		ug/L		99	80 - 120
Potassium	10000	10260		ug/L		103	80 - 120
Sodium	10000	10830		ug/L		108	80 - 120

Lab Sample ID: 160-11290-A-2-B MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 189815 — **Prep Batch: 188814**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	3.7	U	500	539.8		ug/L		108	75 - 125
Arsenic	2.7	B	1000	1088		ug/L		109	75 - 125
Barium	39.8	B	1000	1076		ug/L		104	75 - 125
Cadmium	0.34	U	1000	1099		ug/L		110	75 - 125
Calcium	43100		10000	59120		ug/L		160	75 - 125
Chromium	22.7		1000	1176		ug/L		115	75 - 125
Cobalt	2.7	U	1000	1129		ug/L		113	75 - 125
Copper	2.1	U	1000	1106		ug/L		111	75 - 125
Iron	19.9	B	10000	10600		ug/L		106	75 - 125
Magnesium	8850		10000	20310		ug/L		115	75 - 125
Manganese	1.0	U	1000	1084		ug/L		108	75 - 125
Nickel	5.3	B	1000	1150		ug/L		114	75 - 125
Silver	0.99	U	200	210.2		ug/L		105	75 - 125
Vanadium	7.3	B	1000	1062		ug/L		105	75 - 125
Zinc	11.1	B	1000	1127		ug/L		112	75 - 125

Lab Sample ID: 160-11290-A-2-B MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 189936 — **Prep Batch: 188814**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	11.1	B	2000	2054		ug/L		102	75 - 125
Potassium	5560		10000	16200		ug/L		106	75 - 125
Sodium	11200		10000	21630		ug/L		105	75 - 125

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: 160-11290-A-2-C MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 189815 — **Prep Batch: 188814**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	3.7	U	500	532.4		ug/L		106	75 - 125	1	20
Arsenic	2.7	B	1000	1069		ug/L		107	75 - 125	2	20
Barium	39.8	B	1000	1066		ug/L		103	75 - 125	1	20
Cadmium	0.34	U	1000	1079		ug/L		108	75 - 125	2	20
Calcium	43100		10000	57600		ug/L		145	75 - 125	3	20
Chromium	22.7		1000	1159		ug/L		114	75 - 125	1	20
Cobalt	2.7	U	1000	1108		ug/L		111	75 - 125	2	20
Copper	2.1	U	1000	1086		ug/L		109	75 - 125	2	20
Iron	19.9	B	10000	10340		ug/L		103	75 - 125	2	20
Magnesium	8850		10000	20000		ug/L		112	75 - 125	2	20
Manganese	1.0	U	1000	1068		ug/L		107	75 - 125	1	20
Nickel	5.3	B	1000	1129		ug/L		112	75 - 125	2	20
Silver	0.99	U	200	208.4		ug/L		104	75 - 125	1	20
Vanadium	7.3	B	1000	1042		ug/L		103	75 - 125	2	20
Zinc	11.1	B	1000	1107		ug/L		110	75 - 125	2	20

Lab Sample ID: 160-11290-A-2-C MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 189936 — **Prep Batch: 188814**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron	11.1	B	2000	2042		ug/L		102	75 - 125	1	20
Potassium	5560		10000	16160		ug/L		106	75 - 125	0	20
Sodium	11200		10000	21290		ug/L		101	75 - 125	2	20

Lab Sample ID: MB 160-189224/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 190412 — **Prep Batch: 189224**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	3.7	U	10.0	3.7	ug/L		05/04/15 15:37	05/11/15 19:34	1
Arsenic	2.00	B	10.0	1.8	ug/L		05/04/15 15:37	05/11/15 19:34	1
Barium	2.1	U	50.0	2.1	ug/L		05/04/15 15:37	05/11/15 19:34	1
Beryllium	0.28	U	5.0	0.28	ug/L		05/04/15 15:37	05/11/15 19:34	1
Cadmium	0.34	U	5.0	0.34	ug/L		05/04/15 15:37	05/11/15 19:34	1
Calcium	54.2	U	1000	54.2	ug/L		05/04/15 15:37	05/11/15 19:34	1
Boron	7.2	U	50.0	7.2	ug/L		05/04/15 15:37	05/11/15 19:34	1
Cobalt	2.7	U	50.0	2.7	ug/L		05/04/15 15:37	05/11/15 19:34	1
Copper	2.1	U	25.0	2.1	ug/L		05/04/15 15:37	05/11/15 19:34	1
Iron	12.8	U	100	12.8	ug/L		05/04/15 15:37	05/11/15 19:34	1
Magnesium	50.5	U	1000	50.5	ug/L		05/04/15 15:37	05/11/15 19:34	1
Manganese	1.0	U	15.0	1.0	ug/L		05/04/15 15:37	05/11/15 19:34	1
Nickel	2.6	U	40.0	2.6	ug/L		05/04/15 15:37	05/11/15 19:34	1
Potassium	456	U	5000	456	ug/L		05/04/15 15:37	05/11/15 19:34	1
Silver	0.99	U	10.0	0.99	ug/L		05/04/15 15:37	05/11/15 19:34	1
Sodium	105	U	1000	105	ug/L		05/04/15 15:37	05/11/15 19:34	1
Strontium	0.24	U	5.0	0.24	ug/L		05/04/15 15:37	05/11/15 19:34	1
Vanadium	4.4	U	50.0	4.4	ug/L		05/04/15 15:37	05/11/15 19:34	1

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: MB 160-189224/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 190412 — **Prep Batch: 189224**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	8.3	U	20.0	8.3	ug/L		05/04/15 15:37	05/11/15 19:34	1

Lab Sample ID: LCS 160-189224/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 190412 — **Prep Batch: 189224**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	500	505.0		ug/L		101	80 - 120
Arsenic	1000	1010		ug/L		101	80 - 120
Barium	1000	1079		ug/L		108	80 - 120
Beryllium	1000	1068		ug/L		107	80 - 120
Cadmium	1000	1020		ug/L		102	80 - 120
Calcium	10000	11080		ug/L		111	80 - 120
Boron	2000	1937		ug/L		97	80 - 120
Cobalt	1000	1076		ug/L		108	80 - 120
Copper	1000	1062		ug/L		106	80 - 120
Iron	10000	10040		ug/L		100	80 - 120
Magnesium	10000	9104		ug/L		91	80 - 120
Manganese	1000	991.5		ug/L		99	80 - 120
Nickel	1000	1064		ug/L		106	80 - 120
Potassium	10000	10410		ug/L		104	80 - 120
Silver	200	203.4		ug/L		102	80 - 120
Sodium	10000	10930		ug/L		109	80 - 120
Strontium	1000	1095		ug/L		110	80 - 120
Vanadium	1000	991.2		ug/L		99	80 - 120
Zinc	1000	1045		ug/L		105	80 - 120

Lab Sample ID: 160-11290-A-1-B MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 190412 — **Prep Batch: 188811**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Calcium	46500		10000	54360		ug/L		79	75 - 125
Boron	7.2	U	2000	1970		ug/L		99	75 - 125
Iron	12.8	U	10000	9861		ug/L		99	75 - 125
Magnesium	9280		10000	18000		ug/L		87	75 - 125
Potassium	5570		10000	15940		ug/L		104	75 - 125
Vanadium	9.0	B	1000	995.5		ug/L		99	75 - 125

Lab Sample ID: 160-11290-A-1-B MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 190715 — **Prep Batch: 188811**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sodium	10600		10000	19760		ug/L		91	75 - 125

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: 160-11290-A-1-C MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 190412 — **Prep Batch: 188811**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Calcium	46500		10000	54710		ug/L		82	75 - 125	1	20
Boron	7.2	U	2000	1987		ug/L		99	75 - 125	1	20
Iron	12.8	U	10000	10020		ug/L		100	75 - 125	2	20
Magnesium	9280		10000	18180		ug/L		89	75 - 125	1	20
Potassium	5570		10000	16000		ug/L		104	75 - 125	0	20
Vanadium	9.0	B	1000	998.2		ug/L		99	75 - 125	0	20

Lab Sample ID: 160-11290-A-1-C MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 190715 — **Prep Batch: 188811**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sodium	10600		10000	20370		ug/L		98	75 - 125	3	20

Lab Sample ID: 160-11367-A-4-B MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 190412 — **Prep Batch: 189224**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	3.7	U	500	548.6		ug/L		110	75 - 125
Arsenic	2.2	B C	1000	1154		ug/L		115	75 - 125
Barium	15.2	B	1000	1009		ug/L		99	75 - 125
Beryllium	0.28	U	1000	1164		ug/L		116	75 - 125
Cadmium	0.34	U	1000	1124		ug/L		112	75 - 125
Boron	7.2	U	2000	2053		ug/L		103	75 - 125
Cobalt	2.7	U	1000	1212		ug/L		121	75 - 125
Copper	2.1	U	1000	1112		ug/L		111	75 - 125
Iron	12.8	U	10000	11550		ug/L		116	75 - 125
Manganese	1.0	U	1000	1117		ug/L		112	75 - 125
Nickel	2.8	B	1000	1217		ug/L		121	75 - 125
Potassium	1580	B N	10000	11570		ug/L		100	75 - 125
Silver	0.99	U	200	214.5		ug/L		107	75 - 125
Sodium	2220	N	10000	12060		ug/L		98	75 - 125
Strontium	81.2	N	1000	1114		ug/L		103	75 - 125
Vanadium	8.0	B	1000	1096		ug/L		109	75 - 125
Zinc	8.3	U	1000	1172		ug/L		117	75 - 125

Lab Sample ID: 160-11367-A-4-B MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 190830 — **Prep Batch: 189224**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Calcium	21800		10000	31250		ug/L		94	75 - 125
Chromium	3.4	U	1000	1073		ug/L		107	75 - 125
Magnesium	4750		10000	14130		ug/L		94	75 - 125

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: 160-11367-A-4-C MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 190412 — **Prep Batch: 189224**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	3.7	U	500	560.0		ug/L		112	75 - 125	2	20
Arsenic	2.2	B C	1000	1186		ug/L		118	75 - 125	3	20
Barium	15.2	B	1000	973.5		ug/L		96	75 - 125	4	20
Beryllium	0.28	U	1000	1144		ug/L		114	75 - 125	2	20
Cadmium	0.34	U	1000	1145		ug/L		115	75 - 125	2	20
Boron	7.2	U	2000	2015		ug/L		101	75 - 125	2	20
Cobalt	2.7	U	1000	1233		ug/L		123	75 - 125	2	20
Copper	2.1	U	1000	1127		ug/L		113	75 - 125	1	20
Iron	12.8	U	10000	11410		ug/L		114	75 - 125	1	20
Manganese	1.0	U	1000	1102		ug/L		110	75 - 125	1	20
Nickel	2.8	B	1000	1242		ug/L		124	75 - 125	2	20
Potassium	1580	B N	10000	11310		ug/L		97	75 - 125	2	20
Silver	0.99	U	200	215.1		ug/L		108	75 - 125	0	20
Sodium	2220	N	10000	11690		ug/L		95	75 - 125	3	20
Strontium	81.2	N	1000	1077		ug/L		100	75 - 125	3	20
Vanadium	8.0	B	1000	1088		ug/L		108	75 - 125	1	20
Zinc	8.3	U	1000	1199		ug/L		120	75 - 125	2	20

Lab Sample ID: 160-11367-A-4-C MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 190830 — **Prep Batch: 189224**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Calcium	21800		10000	30260		ug/L		84	75 - 125	3	20
Chromium	3.4	U	1000	1057		ug/L		106	75 - 125	2	20
Magnesium	4750		10000	14120		ug/L		94	75 - 125	0	20

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 160-188812/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 189964 — **Prep Batch: 188812**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	17.3	U	30.0	17.3	ug/L		04/30/15 15:37	05/08/15 02:48	2
Antimony	1.7	U	5.0	1.7	ug/L		04/30/15 15:37	05/08/15 02:48	2
Arsenic	1.2	U	10.0	1.2	ug/L		04/30/15 15:37	05/08/15 02:48	2
Barium	0.22	U	2.0	0.22	ug/L		04/30/15 15:37	05/08/15 02:48	2
Beryllium	0.35	U	0.50	0.35	ug/L		04/30/15 15:37	05/08/15 02:48	2
Cadmium	0.10	U	0.50	0.10	ug/L		04/30/15 15:37	05/08/15 02:48	2
Chromium	1.0	U	10.0	1.0	ug/L		04/30/15 15:37	05/08/15 02:48	2
Cobalt	0.22	U	2.0	0.22	ug/L		04/30/15 15:37	05/08/15 02:48	2
Copper	0.832	B	1.0	0.68	ug/L		04/30/15 15:37	05/08/15 02:48	2
Lead	0.17	U	3.0	0.17	ug/L		04/30/15 15:37	05/08/15 02:48	2
Manganese	0.88	U	2.0	0.88	ug/L		04/30/15 15:37	05/08/15 02:48	2
Molybdenum	1.0	U	5.0	1.0	ug/L		04/30/15 15:37	05/08/15 02:48	2
Nickel	0.80	U	5.0	0.80	ug/L		04/30/15 15:37	05/08/15 02:48	2
Selenium	1.6	U	5.0	1.6	ug/L		04/30/15 15:37	05/08/15 02:48	2

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 160-188812/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 189964 — **Prep Batch: 188812**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.82	U	2.0	0.82	ug/L		04/30/15 15:37	05/08/15 02:48	2
Strontium	0.060	U	5.0	0.060	ug/L		04/30/15 15:37	05/08/15 02:48	2
Thallium	0.55	U	2.0	0.55	ug/L		04/30/15 15:37	05/08/15 02:48	2
Thorium	0.55	U	2.0	0.55	ug/L		04/30/15 15:37	05/08/15 02:48	2
Tin	1.1	U	2.0	1.1	ug/L		04/30/15 15:37	05/08/15 02:48	2
Uranium	0.23	U	1.0	0.23	ug/L		04/30/15 15:37	05/08/15 02:48	2
Zinc	9.3	U	10.0	9.3	ug/L		04/30/15 15:37	05/08/15 02:48	2

Lab Sample ID: LCS 160-188812/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 189964 — **Prep Batch: 188812**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	10000	9637		ug/L		96	80 - 120
Antimony	500	525.9		ug/L		105	80 - 120
Arsenic	1000	1000		ug/L		100	80 - 120
Barium	1000	1054		ug/L		105	80 - 120
Beryllium	1000	1028		ug/L		103	80 - 120
Cadmium	1000	974.4		ug/L		97	80 - 120
Chromium	1000	961.8		ug/L		96	80 - 120
Cobalt	1000	1066		ug/L		107	80 - 120
Copper	1000	1059		ug/L		106	80 - 120
Lead	1000	980.2		ug/L		98	80 - 120
Manganese	1000	1030		ug/L		103	80 - 120
Molybdenum	500	488.3		ug/L		98	80 - 120
Nickel	1000	998.4		ug/L		100	80 - 120
Selenium	500	461.4		ug/L		92	80 - 120
Silver	200	196.4		ug/L		98	80 - 120
Strontium	1000	982.7		ug/L		98	80 - 120
Thallium	200	214.3		ug/L		107	80 - 120
Thorium	1000	983.4		ug/L		98	80 - 120
Tin	1000	982.2		ug/L		98	80 - 120
Uranium	1000	977.6		ug/L		98	80 - 120
Zinc	1000	968.7		ug/L		97	80 - 120

Lab Sample ID: MB 160-188815/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 189963 — **Prep Batch: 188815**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	17.3	U	30.0	17.3	ug/L		04/30/15 15:46	05/07/15 22:59	2
Antimony	1.7	U	5.0	1.7	ug/L		04/30/15 15:46	05/07/15 22:59	2
Arsenic	1.2	U	10.0	1.2	ug/L		04/30/15 15:46	05/07/15 22:59	2
Barium	0.22	U	2.0	0.22	ug/L		04/30/15 15:46	05/07/15 22:59	2
Beryllium	0.35	U	0.50	0.35	ug/L		04/30/15 15:46	05/07/15 22:59	2
Cadmium	0.10	U	0.50	0.10	ug/L		04/30/15 15:46	05/07/15 22:59	2
Chromium	1.0	U	10.0	1.0	ug/L		04/30/15 15:46	05/07/15 22:59	2
Cobalt	0.22	U	2.0	0.22	ug/L		04/30/15 15:46	05/07/15 22:59	2
Lead	0.194	B	3.0	0.17	ug/L		04/30/15 15:46	05/07/15 22:59	2

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 160-188815/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 189963 — **Prep Batch: 188815**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	0.88	U	2.0	0.88	ug/L		04/30/15 15:46	05/07/15 22:59	2
Molybdenum	1.0	U	5.0	1.0	ug/L		04/30/15 15:46	05/07/15 22:59	2
Nickel	0.80	U	5.0	0.80	ug/L		04/30/15 15:46	05/07/15 22:59	2
Silver	0.82	U	2.0	0.82	ug/L		04/30/15 15:46	05/07/15 22:59	2
Strontium	0.120	B	5.0	0.060	ug/L		04/30/15 15:46	05/07/15 22:59	2
Thallium	0.55	U	2.0	0.55	ug/L		04/30/15 15:46	05/07/15 22:59	2
Thorium	0.55	U	2.0	0.55	ug/L		04/30/15 15:46	05/07/15 22:59	2
Tin	1.1	U	2.0	1.1	ug/L		04/30/15 15:46	05/07/15 22:59	2
Uranium	0.23	U	1.0	0.23	ug/L		04/30/15 15:46	05/07/15 22:59	2
Zinc	9.3	U	10.0	9.3	ug/L		04/30/15 15:46	05/07/15 22:59	2

Lab Sample ID: MB 160-188815/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 190232 — **Prep Batch: 188815**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Copper	0.68	U	1.0	0.68	ug/L		04/30/15 15:46	05/08/15 21:14	2
Selenium	1.61	B	5.0	1.6	ug/L		04/30/15 15:46	05/08/15 21:14	2

Lab Sample ID: LCS 160-188815/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 189963 — **Prep Batch: 188815**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	10000	8970		ug/L		90	80 - 120
Antimony	500	533.3		ug/L		107	80 - 120
Arsenic	1000	964.0		ug/L		96	80 - 120
Barium	1000	1081		ug/L		108	80 - 120
Beryllium	1000	1086		ug/L		109	80 - 120
Cadmium	1000	959.5		ug/L		96	80 - 120
Chromium	1000	1016		ug/L		102	80 - 120
Cobalt	1000	1050		ug/L		105	80 - 120
Lead	1000	983.2		ug/L		98	80 - 120
Manganese	1000	926.1		ug/L		93	80 - 120
Molybdenum	500	483.1		ug/L		97	80 - 120
Nickel	1000	975.5		ug/L		98	80 - 120
Silver	200	189.5		ug/L		95	80 - 120
Strontium	1000	991.3		ug/L		99	80 - 120
Thallium	200	211.6		ug/L		106	80 - 120
Thorium	1000	965.1		ug/L		97	80 - 120
Tin	1000	994.9		ug/L		99	80 - 120
Uranium	1000	966.2		ug/L		97	80 - 120
Zinc	1000	905.9		ug/L		91	80 - 120

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 160-188815/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 190232 — **Prep Batch: 188815**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Copper	1000	1044		ug/L		104	80 - 120
Selenium	500	489.2		ug/L		98	80 - 120

Lab Sample ID: 160-11290-A-2-E MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 189963 — **Prep Batch: 188815**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	17.3	U	10000	10470		ug/L		105	75 - 125
Antimony	1.7	U N	500	619.7		ug/L		124	75 - 125
Arsenic	1.8	B	1000	1121		ug/L		112	75 - 125
Barium	41.5	N	1000	1268		ug/L		123	75 - 125
Beryllium	0.35	U N	1000	1248		ug/L		125	75 - 125
Cadmium	0.10	U	1000	1176		ug/L		118	75 - 125
Chromium	22.2	N	1000	1265		ug/L		124	75 - 125
Cobalt	0.22	U	1000	1178		ug/L		118	75 - 125
Lead	0.17	B C	1000	1128		ug/L		113	75 - 125
Manganese	0.88	U	1000	1054		ug/L		105	75 - 125
Molybdenum	4.8	B	500	568.5		ug/L		113	75 - 125
Nickel	0.80	B	1000	1114		ug/L		111	75 - 125
Silver	0.82	U	200	215.1		ug/L		108	75 - 125
Strontium	173		1000	1299		ug/L		113	75 - 125
Thallium	0.55	U	200	241.5		ug/L		121	75 - 125
Thorium	0.55	U	1000	1133		ug/L		113	75 - 125
Tin	1.1	U	1000	1158		ug/L		116	75 - 125
Uranium	1.2		1000	1119		ug/L		112	75 - 125
Zinc	9.7	B	1000	1050		ug/L		104	75 - 125

Lab Sample ID: 160-11290-A-2-E MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 190232 — **Prep Batch: 188815**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Copper	0.69	B	1000	1073		ug/L		107	75 - 125
Selenium	1.6	U	500	529.1		ug/L		106	75 - 125

Lab Sample ID: 160-11290-A-2-F MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 189963 — **Prep Batch: 188815**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aluminum	17.3	U	10000	10920		ug/L		109	75 - 125	4	20
Antimony	1.7	U N	500	642.4	N	ug/L		128	75 - 125	4	20
Arsenic	1.8	B	1000	1160		ug/L		116	75 - 125	3	20
Barium	41.5	N	1000	1300	N	ug/L		126	75 - 125	2	20
Beryllium	0.35	U N	1000	1279	N	ug/L		128	75 - 125	2	20
Cadmium	0.10	U	1000	1213		ug/L		121	75 - 125	3	20
Chromium	22.2	N	1000	1332	N	ug/L		131	75 - 125	5	20
Cobalt	0.22	U	1000	1219		ug/L		122	75 - 125	3	20

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 160-11290-A-2-F MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 189963 — **Prep Batch: 188815**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	0.17	B C	1000	1147		ug/L		115	75 - 125	2	20
Manganese	0.88	U	1000	1090		ug/L		109	75 - 125	3	20
Molybdenum	4.8	B	500	599.4		ug/L		119	75 - 125	5	20
Nickel	0.80	B	1000	1145		ug/L		114	75 - 125	3	20
Silver	0.82	U	200	233.1		ug/L		117	75 - 125	8	20
Strontium	173		1000	1349		ug/L		118	75 - 125	4	20
Thallium	0.55	U	200	245.7		ug/L		123	75 - 125	2	20
Thorium	0.55	U	1000	1158		ug/L		116	75 - 125	2	20
Tin	1.1	U	1000	1202		ug/L		120	75 - 125	4	20
Uranium	1.2		1000	1138		ug/L		114	75 - 125	2	20
Zinc	9.7	B	1000	1081		ug/L		107	75 - 125	3	20

Lab Sample ID: 160-11290-A-2-F MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 190232 — **Prep Batch: 188815**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Copper	0.69	B	1000	1082		ug/L		108	75 - 125	1	20
Selenium	1.6	U	500	516.4		ug/L		103	75 - 125	2	20

Lab Sample ID: MB 160-189226/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 190419 — **Prep Batch: 189226**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	17.3	U	30.0	17.3	ug/L		05/04/15 15:42	05/11/15 21:09	2
Antimony	1.7	U	5.0	1.7	ug/L		05/04/15 15:42	05/11/15 21:09	2
Arsenic	1.2	U	10.0	1.2	ug/L		05/04/15 15:42	05/11/15 21:09	2
Barium	0.22	U	2.0	0.22	ug/L		05/04/15 15:42	05/11/15 21:09	2
Beryllium	0.35	U	0.50	0.35	ug/L		05/04/15 15:42	05/11/15 21:09	2
Cadmium	0.10	U	0.50	0.10	ug/L		05/04/15 15:42	05/11/15 21:09	2
Chromium	1.0	U	10.0	1.0	ug/L		05/04/15 15:42	05/11/15 21:09	2
Cobalt	0.22	U	2.0	0.22	ug/L		05/04/15 15:42	05/11/15 21:09	2
Copper	0.68	U	1.0	0.68	ug/L		05/04/15 15:42	05/11/15 21:09	2
Lead	0.17	U	3.0	0.17	ug/L		05/04/15 15:42	05/11/15 21:09	2
Manganese	0.88	U	2.0	0.88	ug/L		05/04/15 15:42	05/11/15 21:09	2
Molybdenum	1.0	U	5.0	1.0	ug/L		05/04/15 15:42	05/11/15 21:09	2
Nickel	0.80	U	5.0	0.80	ug/L		05/04/15 15:42	05/11/15 21:09	2
Selenium	1.6	U	5.0	1.6	ug/L		05/04/15 15:42	05/11/15 21:09	2
Silver	0.82	U	2.0	0.82	ug/L		05/04/15 15:42	05/11/15 21:09	2
Strontium	0.060	U	5.0	0.060	ug/L		05/04/15 15:42	05/11/15 21:09	2
Thallium	0.55	U	2.0	0.55	ug/L		05/04/15 15:42	05/11/15 21:09	2
Thorium	0.55	U	2.0	0.55	ug/L		05/04/15 15:42	05/11/15 21:09	2
Tin	1.1	U	2.0	1.1	ug/L		05/04/15 15:42	05/11/15 21:09	2
Uranium	0.23	U	1.0	0.23	ug/L		05/04/15 15:42	05/11/15 21:09	2
Zinc	9.3	U	10.0	9.3	ug/L		05/04/15 15:42	05/11/15 21:09	2

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 160-189226/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 190569 — **Prep Batch: 189226**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	10000	9875		ug/L		99	80 - 120
Antimony	500	492.3		ug/L		98	80 - 120
Arsenic	1000	995.2		ug/L		100	80 - 120
Barium	1000	1048		ug/L		105	80 - 120
Beryllium	1000	1056		ug/L		106	80 - 120
Cadmium	1000	1024		ug/L		102	80 - 120
Chromium	1000	1041		ug/L		104	80 - 120
Cobalt	1000	1025		ug/L		102	80 - 120
Copper	1000	1039		ug/L		104	80 - 120
Lead	1000	981.4		ug/L		98	80 - 120
Manganese	1000	1005		ug/L		100	80 - 120
Molybdenum	500	500.6		ug/L		100	80 - 120
Nickel	1000	1001		ug/L		100	80 - 120
Selenium	500	475.2		ug/L		95	80 - 120
Silver	200	205.3		ug/L		103	80 - 120
Strontium	1000	968.5		ug/L		97	80 - 120
Thallium	200	204.5		ug/L		102	80 - 120
Thorium	1000	979.0		ug/L		98	80 - 120
Tin	1000	970.3		ug/L		97	80 - 120
Uranium	1000	986.0		ug/L		99	80 - 120
Zinc	1000	961.5		ug/L		96	80 - 120

Lab Sample ID: 160-11290-A-1-E MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 189964 — **Prep Batch: 188812**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	17.3	U	10000	9621		ug/L		96	75 - 125
Antimony	1.7	U	500	526.6		ug/L		105	75 - 125
Arsenic	2.2	B	1000	1000		ug/L		100	75 - 125
Barium	40.7		1000	1086		ug/L		105	75 - 125
Beryllium	0.35	U	1000	1025		ug/L		103	75 - 125
Cadmium	0.10	U	1000	964.0		ug/L		96	75 - 125
Chromium	19.9		1000	985.1		ug/L		97	75 - 125
Cobalt	0.22	U	1000	1018		ug/L		102	75 - 125
Copper	0.68	U	1000	1026		ug/L		103	75 - 125
Lead	0.17	U	1000	991.5		ug/L		99	75 - 125
Manganese	0.88	U	1000	1001		ug/L		100	75 - 125
Molybdenum	4.9	B	500	491.4		ug/L		97	75 - 125
Nickel	0.80	U	1000	962.3		ug/L		96	75 - 125
Selenium	2.2	B	500	469.8		ug/L		94	75 - 125
Silver	0.82	U	200	193.4		ug/L		97	75 - 125
Strontium	170		1000	1139		ug/L		97	75 - 125
Thallium	0.55	U	200	215.2		ug/L		108	75 - 125
Thorium	0.55	U	1000	1001		ug/L		100	75 - 125
Tin	1.1	U	1000	988.4		ug/L		99	75 - 125
Uranium	1.2		1000	995.5		ug/L		99	75 - 125
Zinc	9.3	U	1000	946.8		ug/L		95	75 - 125

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 160-11290-A-1-F MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 189964 — **Prep Batch: 188812**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aluminum	17.3	U	10000	9828		ug/L		98	75 - 125	2	20
Antimony	1.7	U	500	535.4		ug/L		107	75 - 125	2	20
Arsenic	2.2	B	1000	1003		ug/L		100	75 - 125	0	20
Barium	40.7		1000	1095		ug/L		105	75 - 125	1	20
Beryllium	0.35	U	1000	1024		ug/L		102	75 - 125	0	20
Cadmium	0.10	U	1000	988.6		ug/L		99	75 - 125	3	20
Chromium	19.9		1000	1005		ug/L		98	75 - 125	2	20
Cobalt	0.22	U	1000	1030		ug/L		103	75 - 125	1	20
Copper	0.68	U	1000	1028		ug/L		103	75 - 125	0	20
Lead	0.17	U	1000	998.8		ug/L		100	75 - 125	1	20
Manganese	0.88	U	1000	1006		ug/L		101	75 - 125	0	20
Molybdenum	4.9	B	500	492.8		ug/L		98	75 - 125	0	20
Nickel	0.80	U	1000	968.2		ug/L		97	75 - 125	1	20
Selenium	2.2	B	500	429.5		ug/L		85	75 - 125	9	20
Silver	0.82	U	200	198.6		ug/L		99	75 - 125	3	20
Strontium	170		1000	1150		ug/L		98	75 - 125	1	20
Thallium	0.55	U	200	217.6		ug/L		109	75 - 125	1	20
Thorium	0.55	U	1000	1012		ug/L		101	75 - 125	1	20
Tin	1.1	U	1000	1004		ug/L		100	75 - 125	2	20
Uranium	1.2		1000	1009		ug/L		101	75 - 125	1	20
Zinc	9.3	U	1000	957.8		ug/L		96	75 - 125	1	20

Lab Sample ID: 160-11367-A-4-E MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 190419 — **Prep Batch: 189226**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	17.3	U	10000	10100		ug/L		101	75 - 125
Antimony	1.7	U	500	517.2		ug/L		103	75 - 125
Arsenic	1.2	U	1000	1009		ug/L		101	75 - 125
Barium	16.6	D	1000	1092		ug/L		108	75 - 125
Beryllium	0.35	U	1000	897.7		ug/L		90	75 - 125
Cadmium	0.10	U	1000	1087		ug/L		109	75 - 125
Chromium	1.0	U	1000	1075		ug/L		108	75 - 125
Cobalt	0.22	U	1000	1048		ug/L		105	75 - 125
Copper	0.68	U	1000	1081		ug/L		108	75 - 125
Lead	0.17	U	1000	1031		ug/L		103	75 - 125
Manganese	0.88	U	1000	1016		ug/L		102	75 - 125
Molybdenum	1.0	U	500	564.0		ug/L		113	75 - 125
Nickel	0.80	U	1000	1002		ug/L		100	75 - 125
Selenium	1.6	U	500	501.2		ug/L		100	75 - 125
Silver	0.82	U	200	214.2		ug/L		107	75 - 125
Strontium	84.5	D	1000	1136		ug/L		105	75 - 125
Thallium	0.55	U	200	222.3		ug/L		111	75 - 125
Thorium	0.55	U	1000	1051		ug/L		105	75 - 125
Tin	1.1	U	1000	1026		ug/L		103	75 - 125
Uranium	0.23	U	1000	1040		ug/L		104	75 - 125
Zinc	9.3	U	1000	988.9		ug/L		99	75 - 125

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 160-11367-A-4-F MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 190419 — **Prep Batch: 189226**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aluminum	17.3	U	10000	10010		ug/L		100	75 - 125	1	20
Antimony	1.7	U	500	511.7		ug/L		102	75 - 125	1	20
Arsenic	1.2	U	1000	1021		ug/L		102	75 - 125	1	20
Barium	16.6	D	1000	1084		ug/L		107	75 - 125	1	20
Beryllium	0.35	U	1000	1064		ug/L		106	75 - 125	17	20
Cadmium	0.10	U	1000	1082		ug/L		108	75 - 125	0	20
Chromium	1.0	U	1000	1071		ug/L		107	75 - 125	0	20
Cobalt	0.22	U	1000	1036		ug/L		104	75 - 125	1	20
Copper	0.68	U	1000	1082		ug/L		108	75 - 125	0	20
Lead	0.17	U	1000	1021		ug/L		102	75 - 125	1	20
Manganese	0.88	U	1000	1012		ug/L		101	75 - 125	0	20
Molybdenum	1.0	U	500	553.6		ug/L		111	75 - 125	2	20
Nickel	0.80	U	1000	985.1		ug/L		99	75 - 125	2	20
Selenium	1.6	U	500	500.7		ug/L		100	75 - 125	0	20
Silver	0.82	U	200	211.4		ug/L		106	75 - 125	1	20
Strontium	84.5	D	1000	1132		ug/L		105	75 - 125	0	20
Thallium	0.55	U	200	218.3		ug/L		109	75 - 125	2	20
Thorium	0.55	U	1000	1042		ug/L		104	75 - 125	1	20
Tin	1.1	U	1000	1012		ug/L		101	75 - 125	1	20
Uranium	0.23	U	1000	1041		ug/L		104	75 - 125	0	20
Zinc	9.3	U	1000	989.5		ug/L		99	75 - 125	0	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 160-187523/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 187734 — **Prep Batch: 187523**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.060	U	0.20	0.060	ug/L		04/22/15 14:01	04/22/15 19:25	1

Lab Sample ID: LCS 160-187523/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 187734 — **Prep Batch: 187523**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	5.00	4.75		ug/L		95	80 - 120

Lab Sample ID: 160-11355-2 MS — **Client Sample ID: B30M54**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 187734 — **Prep Batch: 187523**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.060	U	5.00	4.66		ug/L		93	80 - 120

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: 160-11355-2 MSD — **Client Sample ID: B30M54**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 187734 — **Prep Batch: 187523**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.060	U	5.00	4.59		ug/L		92	80 - 120	2	20

Method: 160.1 - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 160-186888/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 186888

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (TDS)	3.5	U	5.0	3.5	mg/L			04/20/15 10:09	1

Lab Sample ID: LCS 160-186888/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 186888

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids (TDS)	500	499.0		mg/L		100	90 - 110

Lab Sample ID: 160-11325-3 DU — **Client Sample ID: B30MB2**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 186888

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids (TDS)	517		530.0		mg/L		2	20

Method: 310.1 - Alkalinity

Lab Sample ID: MB 160-187786/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 187786

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	0.54	U	5.0	0.54	mg/L			04/24/15 09:07	1
Bicarbonate Alkalinity	0.54	U	5.0	0.54	mg/L			04/24/15 09:07	1
Carbonate Alkalinity	0.54	U	5.0	0.54	mg/L			04/24/15 09:07	1
Hydroxide Alkalinity	0.54	U	5.0	0.54	mg/L			04/24/15 09:07	1

Lab Sample ID: HLCS 160-187786/3 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 187786

Analyte	Spike Added	HLCS Result	HLCS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity	400	383.0		mg/L		96	90 - 110
Bicarbonate Alkalinity	400	383.0		mg/L		96	90 - 110

Method: 310.1 - Alkalinity (Continued)

Lab Sample ID: LCS 160-187786/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 187786

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity	200	192.0		mg/L		96	90 - 110
Bicarbonate Alkalinity	200	192.0		mg/L		96	90 - 110

Lab Sample ID: 160-11325-3 MS — **Client Sample ID: B30MB2**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 187786

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity	98.0		100	193.0		mg/L		95	80 - 120
Bicarbonate Alkalinity	98.0		100	193.0		mg/L		95	80 - 120

Lab Sample ID: 160-11384-E-1 MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 187786

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Alkalinity	121		100	215.0		mg/L		94	80 - 120	0	20
Bicarbonate Alkalinity	121		100	215.0		mg/L		94	80 - 120	0	20

Lab Sample ID: 160-11325-3 DU — **Client Sample ID: B30MB2**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 187786

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Alkalinity	98.0		97.00		mg/L		1	20
Bicarbonate Alkalinity	98.0		97.00		mg/L		1	20
Carbonate Alkalinity	0.54	U	0.54	U	mg/L		NC	20
Hydroxide Alkalinity	0.54	U	0.54	U	mg/L		NC	20

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 160-189175/38 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 189175

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia as N	38.23	B	50.0	8.3	ug/L			05/02/15 17:40	1

Lab Sample ID: LCS 160-189175/39 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 189175

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia as N	500	519.1		ug/L		104	90 - 110

Method: 350.1 - Nitrogen, Ammonia (Continued)

Lab Sample ID: 160-11325-7 MS — **Client Sample ID: B30N20**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 189175

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Ammonia as N	541	N	500	1305	N	ug/L		153	90 - 110		

Lab Sample ID: 160-11325-7 DU — **Client Sample ID: B30N20**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 189175

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Ammonia as N	541	N		538.1		ug/L				0.6	20

Method: 9034 - Sulfide, Acid soluble and Insoluble (Titrimetric)

Lab Sample ID: MB 160-187774/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 187787 — **Prep Batch: 187774**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	7.11	B	10.0	2.0	mg/L		04/24/15 08:15	04/24/15 09:24	1

Lab Sample ID: LCS 160-187774/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 187787 — **Prep Batch: 187774**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfide			50.0	48.44		mg/L		97	70 - 130		

Lab Sample ID: LCS 160-187774/3-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 187787 — **Prep Batch: 187774**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfide			50.0	47.11		mg/L		94	70 - 130		

Lab Sample ID: LCS 160-187774/4-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 187787 — **Prep Batch: 187774**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfide			50.0	52.44		mg/L		105	70 - 130		

Lab Sample ID: LCS 160-187774/5-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 187787 — **Prep Batch: 187774**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfide			50.0	52.44		mg/L		105	70 - 130		

Method: 9034 - Sulfide, Acid soluble and Insoluble (Titrimetric) (Continued)

Lab Sample ID: 160-11405-B-8-C MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 187787 — **Prep Batch: 187774**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfide	2.0	U	50.0	52.44		mg/L		105	70 - 130		

Lab Sample ID: 160-11405-B-8-B DU — **Client Sample ID: Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 187787 — **Prep Batch: 187774**

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Sulfide	2.0	U		2.0	U	mg/L				NC	20

Method: 9060 - Organic Carbon, Total (TOC)

Lab Sample ID: MB 160-186423/63 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 186423

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	0.35	U	1.0	0.35	mg/L			04/16/15 08:56	1

Lab Sample ID: LCS 160-186423/64 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 186423

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Organic Carbon			10.0	9.47		mg/L		95	90 - 110		

Lab Sample ID: 160-11222-B-4 MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 186423

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Organic Carbon	1.5		5.00	6.98		mg/L		109	76 - 120		

Lab Sample ID: 160-11222-B-4 DU — **Client Sample ID: Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 186423

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Organic Carbon	1.5			1.48		mg/L				3	20

QC Association Summary

Client: CH2M Hill Plateau Remediation Company
Project/Site: S,W,I,A ,X SAFS- GROUNDWATER

TestAmerica Job ID: 160-11325-1
SDG: SL1786

GC/MS VOA

Analysis Batch: 186272

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-11296-B-1 MS	Matrix Spike	Total/NA	Water	8260C	
160-11296-C-1 MSD	Matrix Spike Duplicate	Total/NA	Water	8260C	
160-11325-3	B30MB2	Total/NA	Water	8260C	
160-11325-6	B30M94	Total/NA	Water	8260C	
160-11325-11	B30HN9	Total/NA	Water	8260C	
160-11355-1	B30HP0	Total/NA	Water	8260C	
LCS 160-186272/5	Lab Control Sample	Total/NA	Water	8260C	
LCSD 160-186272/6	Lab Control Sample Dup	Total/NA	Water	8260C	
MB 160-186272/8	Method Blank	Total/NA	Water	8260C	

Analysis Batch: 187781

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-11325-6	B30M94	Total/NA	Water	8260C	
160-11355-3	B30M49	Total/NA	Water	8260C	
160-11405-K-8 MS	Matrix Spike	Total/NA	Water	8260C	
160-11405-L-8 MSD	Matrix Spike Duplicate	Total/NA	Water	8260C	
LCS 160-187781/6	Lab Control Sample	Total/NA	Water	8260C	
LCSD 160-187781/7	Lab Control Sample Dup	Total/NA	Water	8260C	
MB 160-187781/9	Method Blank	Total/NA	Water	8260C	

Metals

Prep Batch: 187523

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-11355-2	B30M54	Dissolved	Water	7470A	
160-11355-2 MS	B30M54	Dissolved	Water	7470A	
160-11355-2 MSD	B30M54	Dissolved	Water	7470A	
160-11355-3	B30M49	Total/NA	Water	7470A	
LCS 160-187523/2-A	Lab Control Sample	Total/NA	Water	7470A	
MB 160-187523/1-A	Method Blank	Total/NA	Water	7470A	

Analysis Batch: 187734

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-11355-2	B30M54	Dissolved	Water	7470A	187523
160-11355-2 MS	B30M54	Dissolved	Water	7470A	187523
160-11355-2 MSD	B30M54	Dissolved	Water	7470A	187523
160-11355-3	B30M49	Total/NA	Water	7470A	187523
LCS 160-187523/2-A	Lab Control Sample	Total/NA	Water	7470A	187523
MB 160-187523/1-A	Method Blank	Total/NA	Water	7470A	187523

Prep Batch: 188811

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-11290-A-1-B MS	Matrix Spike	Dissolved	Water	3010A	
160-11290-A-1-C MSD	Matrix Spike Duplicate	Dissolved	Water	3010A	
160-11325-2	B30LY9	Dissolved	Water	3010A	
160-11325-8	B30N22	Dissolved	Water	3010A	
LCS 160-188811/2-A	Lab Control Sample	Total/NA	Water	3010A	
MB 160-188811/1-A	Method Blank	Total/NA	Water	3010A	

Metals (Continued)

Prep Batch: 188812

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-11290-A-1-E MS	Matrix Spike	Dissolved	Water	3010A	
160-11290-A-1-F MSD	Matrix Spike Duplicate	Dissolved	Water	3010A	
160-11325-2	B30LY9	Dissolved	Water	3010A	
160-11325-8	B30N22	Dissolved	Water	3010A	
LCS 160-188812/2-A	Lab Control Sample	Total/NA	Water	3010A	
MB 160-188812/1-A	Method Blank	Total/NA	Water	3010A	

Prep Batch: 188814

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-11290-A-2-B MS	Matrix Spike	Total/NA	Water	3010A	
160-11290-A-2-C MSD	Matrix Spike Duplicate	Total/NA	Water	3010A	
160-11325-1	B30LY7	Total/NA	Water	3010A	
160-11325-3	B30MB2	Total/NA	Water	3010A	
160-11325-4	B30PW2	Dissolved	Water	3010A	
160-11325-5	B30PW3	Dissolved	Water	3010A	
160-11325-6	B30M94	Total/NA	Water	3010A	
160-11325-7	B30N20	Total/NA	Water	3010A	
160-11325-9	B30N91	Total/NA	Water	3010A	
160-11325-10	B30N93	Dissolved	Water	3010A	
LCS 160-188814/2-A	Lab Control Sample	Total/NA	Water	3010A	
MB 160-188814/1-A	Method Blank	Total/NA	Water	3010A	

Prep Batch: 188815

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-11290-A-2-E MS	Matrix Spike	Total/NA	Water	3010A	
160-11290-A-2-F MSD	Matrix Spike Duplicate	Total/NA	Water	3010A	
160-11325-1	B30LY7	Total/NA	Water	3010A	
160-11325-7	B30N20	Total/NA	Water	3010A	
160-11325-9	B30N91	Total/NA	Water	3010A	
160-11325-10	B30N93	Dissolved	Water	3010A	
LCS 160-188815/2-A	Lab Control Sample	Total/NA	Water	3010A	
MB 160-188815/1-A	Method Blank	Total/NA	Water	3010A	

Prep Batch: 189224

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-11355-2	B30M54	Dissolved	Water	3010A	
160-11355-3	B30M49	Total/NA	Water	3010A	
160-11355-4	B30ND5	Total/NA	Water	3010A	
160-11355-5	B30ND7	Dissolved	Water	3010A	
160-11355-6	B30M11	Total/NA	Water	3010A	
160-11355-7	B30M13	Dissolved	Water	3010A	
160-11367-A-4-B MS	Matrix Spike	Dissolved	Water	3010A	
160-11367-A-4-C MSD	Matrix Spike Duplicate	Dissolved	Water	3010A	
LCS 160-189224/2-A	Lab Control Sample	Total/NA	Water	3010A	
MB 160-189224/1-A	Method Blank	Total/NA	Water	3010A	

Prep Batch: 189226

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-11355-4	B30ND5	Total/NA	Water	3010A	
160-11355-5	B30ND7	Dissolved	Water	3010A	
160-11367-A-4-E MS	Matrix Spike	Dissolved	Water	3010A	

Metals (Continued)

Prep Batch: 189226 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-11367-A-4-F MSD	Matrix Spike Duplicate	Dissolved	Water	3010A	
LCS 160-189226/2-A	Lab Control Sample	Total/NA	Water	3010A	
MB 160-189226/1-A	Method Blank	Total/NA	Water	3010A	

Analysis Batch: 189815

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-11290-A-2-B MS	Matrix Spike	Total/NA	Water	6010C	188814
160-11290-A-2-C MSD	Matrix Spike Duplicate	Total/NA	Water	6010C	188814
LCS 160-188814/2-A	Lab Control Sample	Total/NA	Water	6010C	188814
MB 160-188814/1-A	Method Blank	Total/NA	Water	6010C	188814

Analysis Batch: 189936

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-11290-A-2-B MS	Matrix Spike	Total/NA	Water	6010C	188814
160-11290-A-2-C MSD	Matrix Spike Duplicate	Total/NA	Water	6010C	188814
LCS 160-188814/2-A	Lab Control Sample	Total/NA	Water	6010C	188814
MB 160-188814/1-A	Method Blank	Total/NA	Water	6010C	188814

Analysis Batch: 189963

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-11290-A-2-E MS	Matrix Spike	Total/NA	Water	6020A	188815
160-11290-A-2-F MSD	Matrix Spike Duplicate	Total/NA	Water	6020A	188815
160-11325-1	B30LY7	Total/NA	Water	6020A	188815
160-11325-9	B30N91	Total/NA	Water	6020A	188815
160-11325-10	B30N93	Dissolved	Water	6020A	188815
LCS 160-188815/2-A	Lab Control Sample	Total/NA	Water	6020A	188815
MB 160-188815/1-A	Method Blank	Total/NA	Water	6020A	188815

Analysis Batch: 189964

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-11290-A-1-E MS	Matrix Spike	Dissolved	Water	6020A	188812
160-11290-A-1-F MSD	Matrix Spike Duplicate	Dissolved	Water	6020A	188812
160-11325-2	B30LY9	Dissolved	Water	6020A	188812
160-11325-8	B30N22	Dissolved	Water	6020A	188812
LCS 160-188812/2-A	Lab Control Sample	Total/NA	Water	6020A	188812
MB 160-188812/1-A	Method Blank	Total/NA	Water	6020A	188812

Analysis Batch: 190232

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-11290-A-2-E MS	Matrix Spike	Total/NA	Water	6020A	188815
160-11290-A-2-F MSD	Matrix Spike Duplicate	Total/NA	Water	6020A	188815
160-11325-1	B30LY7	Total/NA	Water	6020A	188815
160-11325-9	B30N91	Total/NA	Water	6020A	188815
160-11325-10	B30N93	Dissolved	Water	6020A	188815
LCS 160-188815/2-A	Lab Control Sample	Total/NA	Water	6020A	188815
MB 160-188815/1-A	Method Blank	Total/NA	Water	6020A	188815

Analysis Batch: 190362

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-11325-1	B30LY7	Total/NA	Water	6010C	188814
160-11325-3	B30MB2	Total/NA	Water	6010C	188814

Metals (Continued)

Analysis Batch: 190362 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-11325-4	B30PW2	Dissolved	Water	6010C	188814
160-11325-5	B30PW3	Dissolved	Water	6010C	188814
160-11325-6	B30M94	Total/NA	Water	6010C	188814
160-11325-7	B30N20	Total/NA	Water	6010C	188814
160-11325-9	B30N91	Total/NA	Water	6010C	188814
160-11325-10	B30N93	Dissolved	Water	6010C	188814

Analysis Batch: 190412

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-11290-A-1-B MS	Matrix Spike	Dissolved	Water	6010C	188811
160-11290-A-1-C MSD	Matrix Spike Duplicate	Dissolved	Water	6010C	188811
160-11325-2	B30LY9	Dissolved	Water	6010C	188811
160-11325-8	B30N22	Dissolved	Water	6010C	188811
160-11355-2	B30M54	Dissolved	Water	6010C	189224
160-11355-3	B30M49	Total/NA	Water	6010C	189224
160-11355-4	B30ND5	Total/NA	Water	6010C	189224
160-11355-5	B30ND7	Dissolved	Water	6010C	189224
160-11355-6	B30M11	Total/NA	Water	6010C	189224
160-11355-7	B30M13	Dissolved	Water	6010C	189224
160-11367-A-4-B MS	Matrix Spike	Dissolved	Water	6010C	189224
160-11367-A-4-C MSD	Matrix Spike Duplicate	Dissolved	Water	6010C	189224
LCS 160-188811/2-A	Lab Control Sample	Total/NA	Water	6010C	188811
LCS 160-189224/2-A	Lab Control Sample	Total/NA	Water	6010C	189224
MB 160-188811/1-A	Method Blank	Total/NA	Water	6010C	188811
MB 160-189224/1-A	Method Blank	Total/NA	Water	6010C	189224

Analysis Batch: 190419

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-11355-4	B30ND5	Total/NA	Water	6020A	189226
160-11355-5	B30ND7	Dissolved	Water	6020A	189226
160-11367-A-4-E MS	Matrix Spike	Dissolved	Water	6020A	189226
160-11367-A-4-F MSD	Matrix Spike Duplicate	Dissolved	Water	6020A	189226
MB 160-189226/1-A	Method Blank	Total/NA	Water	6020A	189226

Analysis Batch: 190569

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 160-189226/2-A	Lab Control Sample	Total/NA	Water	6020A	189226

Analysis Batch: 190715

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-11290-A-1-B MS	Matrix Spike	Dissolved	Water	6010C	188811
160-11290-A-1-C MSD	Matrix Spike Duplicate	Dissolved	Water	6010C	188811
160-11325-2	B30LY9	Dissolved	Water	6010C	188811
160-11325-8	B30N22	Dissolved	Water	6010C	188811
160-11355-2	B30M54	Dissolved	Water	6010C	189224
160-11355-3	B30M49	Total/NA	Water	6010C	189224
160-11355-4	B30ND5	Total/NA	Water	6010C	189224
160-11355-5	B30ND7	Dissolved	Water	6010C	189224

QC Association Summary

Client: CH2M Hill Plateau Remediation Company
Project/Site: S,W,I,A ,X SAFS- GROUNDWATER

TestAmerica Job ID: 160-11325-1
SDG: SL1786

Metals (Continued)

Analysis Batch: 190830

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-11355-6	B30M11	Total/NA	Water	6010C	189224
160-11355-7	B30M13	Dissolved	Water	6010C	189224
160-11367-A-4-B MS	Matrix Spike	Dissolved	Water	6010C	189224
160-11367-A-4-C MSD	Matrix Spike Duplicate	Dissolved	Water	6010C	189224

Analysis Batch: 191788

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-11325-7	B30N20	Total/NA	Water	6020A	188815

General Chemistry

Analysis Batch: 186423

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-11222-B-4 DU	Duplicate	Total/NA	Water	9060	
160-11222-B-4 MS	Matrix Spike	Total/NA	Water	9060	
160-11325-3	B30MB2	Total/NA	Water	9060	
160-11325-6	B30M94	Total/NA	Water	9060	
LCS 160-186423/64	Lab Control Sample	Total/NA	Water	9060	
MB 160-186423/63	Method Blank	Total/NA	Water	9060	

Analysis Batch: 186888

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-11325-3	B30MB2	Total/NA	Water	160.1	
160-11325-3 DU	B30MB2	Total/NA	Water	160.1	
160-11325-6	B30M94	Total/NA	Water	160.1	
LCS 160-186888/2	Lab Control Sample	Total/NA	Water	160.1	
MB 160-186888/1	Method Blank	Total/NA	Water	160.1	

Prep Batch: 187774

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-11325-3	B30MB2	Total/NA	Water	9030B	
160-11325-6	B30M94	Total/NA	Water	9030B	
160-11405-B-8-B DU	Duplicate	Total/NA	Water	9030B	
160-11405-B-8-C MS	Matrix Spike	Total/NA	Water	9030B	
LCS 160-187774/2-A	Lab Control Sample	Total/NA	Water	9030B	
LCS 160-187774/3-A	Lab Control Sample	Total/NA	Water	9030B	
LCS 160-187774/4-A	Lab Control Sample	Total/NA	Water	9030B	
LCS 160-187774/5-A	Lab Control Sample	Total/NA	Water	9030B	
MB 160-187774/1-A	Method Blank	Total/NA	Water	9030B	

Analysis Batch: 187786

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-11325-3	B30MB2	Total/NA	Water	310.1	
160-11325-3 DU	B30MB2	Total/NA	Water	310.1	
160-11325-3 MS	B30MB2	Total/NA	Water	310.1	
160-11325-6	B30M94	Total/NA	Water	310.1	
160-11325-8	B30N22	Total/NA	Water	310.1	
160-11325-10	B30N93	Total/NA	Water	310.1	
160-11384-E-1 MSD	Matrix Spike Duplicate	Total/NA	Water	310.1	
HLCS 160-187786/3	Lab Control Sample	Total/NA	Water	310.1	

QC Association Summary

Client: CH2M Hill Plateau Remediation Company
Project/Site: S,W,I,A ,X SAFS- GROUNDWATER

TestAmerica Job ID: 160-11325-1
SDG: SL1786

General Chemistry (Continued)

Analysis Batch: 187786 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 160-187786/2	Lab Control Sample	Total/NA	Water	310.1	
MB 160-187786/1	Method Blank	Total/NA	Water	310.1	

Analysis Batch: 187787

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-11325-3	B30MB2	Total/NA	Water	9034	187774
160-11325-6	B30M94	Total/NA	Water	9034	187774
160-11405-B-8-B DU	Duplicate	Total/NA	Water	9034	187774
160-11405-B-8-C MS	Matrix Spike	Total/NA	Water	9034	187774
LCS 160-187774/2-A	Lab Control Sample	Total/NA	Water	9034	187774
LCS 160-187774/3-A	Lab Control Sample	Total/NA	Water	9034	187774
LCS 160-187774/4-A	Lab Control Sample	Total/NA	Water	9034	187774
LCS 160-187774/5-A	Lab Control Sample	Total/NA	Water	9034	187774
MB 160-187774/1-A	Method Blank	Total/NA	Water	9034	187774

Analysis Batch: 189175

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-11325-7	B30N20	Total/NA	Water	350.1	
160-11325-7 DU	B30N20	Total/NA	Water	350.1	
160-11325-7 MS	B30N20	Total/NA	Water	350.1	
LCS 160-189175/39	Lab Control Sample	Total/NA	Water	350.1	
MB 160-189175/38	Method Blank	Total/NA	Water	350.1	

Surrogate Summary

Client: CH2M Hill Plateau Remediation Company
Project/Site: S,W,I,A ,X SAFS- GROUNDWATER

TestAmerica Job ID: 160-11325-1
SDG: SL1786

Method: 8260C - Volatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		12DCE	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(75-129)	(81-130)	(81-124)	(87-128)
160-11296-B-1 MS	Matrix Spike	104	103	109	105
160-11296-C-1 MSD	Matrix Spike Duplicate	105	104	116	102
160-11325-3	B30MB2	99	113	118	116
160-11325-6	B30M94	102	111	117	108
160-11325-6	B30M94	96	115	120	117
160-11325-11	B30HN9	103	104	110	100
160-11355-1	B30HP0	101	110	111	109
160-11355-3	B30M49	98	118	106	118
160-11405-K-8 MS	Matrix Spike	99	100	106	102
160-11405-L-8 MSD	Matrix Spike Duplicate	96	103	108	106
LCS 160-186272/5	Lab Control Sample	105	103	112	105
LCS 160-187781/6	Lab Control Sample	101	101	103	105
LCSD 160-186272/6	Lab Control Sample Dup	96	103	108	103
LCSD 160-187781/7	Lab Control Sample Dup	100	102	106	105
MB 160-186272/8	Method Blank	103	110	113	106
MB 160-187781/9	Method Blank	100	119	109	118

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)