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: 160-22112-1
TestAmerica Sample Delivery Group: SL2511
Client Project/Site: I17-007, W17-005, S17-005

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

Attn: Mr. Scot Fitzgerald

Authorized for release by:
5/31/2017 1:55:04 PM

Jayna Awalt, Project Manager II
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LINKS

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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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Case Narrative

Client: CH2M Hill Plateau Remediation Company
Project/Site: I17-007, W17-005, S17-005

TestAmerica Job ID: 160-22112-1
SDG: SL2511

Job ID: 160-22112-1

Laboratory: TestAmerica St. Louis

Narrative

CASE NARRATIVE

CH2MHill Plateau Remediation Company
P.O. Box 1600
Richland, Washington 99352
May 31, 2017
Attention: Scot Fitzgerald

SDG	: SL2511
Number of Samples	: 23 samples
Sample Matrix	: Water
Data Deliverable	: Summary
Date SDG Closed	: May 3, 2017

II. Introduction

On May 2 and 3, 23 samples were received by TestAmerica - St. Louis for chemical analysis. The samples were received within temperature 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: I17-007, W17-005 and S17-005

Samples B39BV9, B39BX1, B39BY4, B39C05, B39C06, B39C07, B39C08, B39C09, B39C10, B39C14, B39C15 and B39C16 were received with nickel-size headspace in the TOX bottles. Per SIR17-668, analysis has been performed and reported.

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 a narrative note; however, they are flagged “D” due to a limitation in the LIMS.

For solid matrices, all Metals analyses (including Hg) use a Standard Reference Material for the Laboratory Control Sample (LCS). Certificate for this source material may be obtained from TASL.

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, due to the short hold times for Nitrate, Nitrite and Phosphate by IC (48 hours) as well as pH analysis (24 hours), a SIR request is not needed when samples are run outside 1x hold but within 2x hold. A narrative comment will be included below if a sample is run outside the lab-specified hold time for waters.

Case Narrative

Job ID: 160-22112-1 (Continued)

Laboratory: TestAmerica St. Louis (Continued)

For extractable and volatile organic analyses, several analytes are considered poor performers and will not meet CHPRC QC limits. Per CHPRC direction, the lab's statistical limits have been reported. Excursions outside these statistical limits will include a non-conformance in the sections below.

IV. Definitions

QCBLK- Quality Control Blank, Method Blank
QCLCS- Quality Control Laboratory Control Sample, Blank Spike
DUP- Laboratory Duplicate
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.
- **B** - For radiochemistry, Method Blank reported above the MDC. Sample activity is > 5% the method blank.
- **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/RL but not greater than 5% the MB.
- **D** - For all analyses, the sample result was obtained from the analysis of a dilution. For ICPMS Metals analyses, per standard practice, all 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 and will not be narrated below. Only dilutions above 2x will be narrated and considered a true dilution for these samples.
- **N** - For inorganics, rad 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.
- **P -** For organic analyses (PCB/Pests only), the aroclor target analyte has greater than 25% difference for detected concentrations between the two GC columns.
- **X-** Organics and Anions IC - Sample concentration over calibration and/or surrogate recovery outside QC limits.
- **X-** Inorganics - The analyte present in the original sample is > 4x the spike concentration.
- **X-** Radiochemistry - Carrier or Tracer recovery is outside limits.
- **Z-** Sample was prepped or analyzed beyond the specified sample holding time.
- **y -** RPD is outside established limits.

Volatiles

Batch: 307316

The following compounds did not meet the minimum relative response factor limits in the continuing calibration verification (CCV) associated with batch analytical batch 160-307316: 2-Butanone and Acetone. A low level CCV was analyzed at the base reporting limit of 1ug/L and the affected analytes were detected. Affected target analytes recovering above the reporting limit in the associated samples will be qualified and reported. (CCVIS 160-307316/5)

Semivolatiles

Batch: 309366

The LCS recoveries for several analytes are outside the lower QC limits. The samples are outside the 2X holding time window and thus will not be re-prepped and re-analyzed. Results are provided with this narrative. B39JT2 (160-22140-1), (LCS 160-307418/2-A), (MB 160-307418/1-A), (160-22140-B-1-A MS) and (160-22140-C-1-A MSD) These analytes have been qualified accordingly with an "o" flag in the associated samples.

Job ID: 160-22112-1 (Continued)

Laboratory: TestAmerica St. Louis (Continued)

The MS/MSD recoveries for several analytes are outside the lower QC limits. The samples are outside the 2X holding time window and thus will not be re-prepped and re-analyzed. Results are provided with this narrative.B39JT2 (160-22140-1), (LCS 160-307418/2-A), (MB 160-307418/1-A), (160-22140-B-1-A MS) and (160-22140-C-1-A MSD) These analytes have been qualified accordingly with a "T" flag in the associated samples.

The CCV surrogate recovery for 2,4,6-Tribromophenol is outside the upper QC limits. The samples associated with this CCV had acceptable QC limits. Results are provided with this narrative. B39JT2 (160-22140-1), (CCVIS 160-309366/3), (LCS 160-307418/2-A), (MB 160-307418/1-A), (160-22140-B-1-A MS) and (160-22140-C-1-A MSD)

The continuing calibration verification (CCV) associated with batch 160-309366 recovered above the upper control limit for Benzoic Acid and Dinoseb. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following samples are impacted: B39JT2 (160-22140-1), (CCV 160-309366/4), (CCVIS 160-309366/3), (LCS 160-307418/2-A), (MB 160-307418/1-A), (160-22140-B-1-A MS) and (160-22140-C-1-A MSD).

The CCV recoveries for Famphur and Hexachlorophene are outside the QC limits. These compounds are poor responding compounds and thus the results will be reported as estimated. No further action is required. (CCV 160-309366/4) and (CCV 160-309366/6)

Batch: 310256

The CCV surrogate recovery for 2,4,6-Tribromophenol is outside the upper QC limits. The sample surrogate recoveries were within the acceptable QC limits. Results are provided with this narrative.B39JT0 (160-22140-2), B39JT9 (160-22140-3) and (CCVIS 160-310256/3)

The continuing calibration verification (CCV) associated with batch 160-310256 recovered above the upper control limit for Aramite Peak 1, Aramite Peak 2 and Total Aramite. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following samples are impacted: B39JT0 (160-22140-2), B39JT9 (160-22140-3) and (CCV 160-310256/4).

The CCV recoveries for Famphur and Hexachlorophene are outside the QC limits. These compounds are poor responding compounds and thus will be reported as estimated. No further action is required. B39JT0 (160-22140-2), B39JT9 (160-22140-3), (CCV 160-310256/4) and (CCV 160-310256/6)

PCBs

Batch: 307905

The matrix spike / matrix spike duplicate (MS/MSD) precision for preparation batch 160-307651 and analytical batch 160-307905 was outside control limits. Sample matrix interference is suspected. The MS/MSD % recoveries were within QC limits; therefore, re-analysis was not required. (160-22140-C-2-A MS) and (160-22140-D-2-A MSD)

Compound PCB-1254 eluted outside the retention time window on the RTX-CLP Pesticides and RTX-CLP Pesticides2 column for the following samples: (CCV 160-307905/15). This retention time shift was taken into account when reviewing the sample(s) for target compounds.

Hex Chromium

Batch: 306658

Elevated reporting limits are provided for the following sample in Hexavalent Chromium batch 160-306658 due to insufficient sample provided for analysis: B39JP9 (160-22112-3). Due to client needed QC; a reduced aliquot was used for sample and MS. Precision was demonstrated with LCS/LCSD.

Total Cyanide

Batch: 308855

Job ID: 160-22112-1 (Continued)

Laboratory: TestAmerica St. Louis (Continued)

Reanalysis of the following sample in Cyanide preparation batch 160-308596 and analytical batch 160-308855 was performed one day outside of the analytical holding time due to the failure of the initial calibration correlation from the in-hold run: B39JP7 (160-22112-1). The original, in-hold data is included with the raw data from the reported run. SIR request was not submitted, as PM was not notified of excursion until time of reporting.

TOX

Batch: 311155

The following samples in TOX analytical batch 160-311155 were bracketed by a continuing calibration verification (CCV) that recovered below the lower acceptance limit of 90% (58%): B39JR7 (160-22112-4) and B39C08 (160-22140-4) The cause of this CCV excursion is attributed to an incomplete injection of the carbon column into the autosampler boat. As the sample bottles now contain significant headspace, re-prep/re-analysis cannot be performed, as headspace is known to bias results low for TOX. Note: The MS bracketed by this low-recovering CCV recovered within acceptance limits.

The following samples in TOX analytical batch 160-311155 were bracketed by a continuing calibration verification (CCV) that recovered below the lower acceptance limit of 90% (0%): B39JR7 (160-22112-4), B39C08 (160-22140-4), B39BX1 (160-22140-5), B39C10 (160-22140-6), B39C09 (160-22140-7), B39C06 (160-22140-8) and (160-22140-A-5-B MS) The cause of this CCV excursion is attributed to the instrument software incorrectly cutting off the peak just before it was to be analyzed, as evidenced in the chromatogram. The root cause of this excursion may be due to impeded air-flow through the TOX system which appears to occasionally delay the resolution of the TOX peak, which causes the software to cut off analysis earlier than it should. This will be immediately investigated. Note: It does not appear that this possible flow issue significantly impacted any of the reported data associated with the low failing CCVs in this run. As the sample bottles now contain significant headspace, re-prep/re-analysis cannot be performed, as headspace is known to bias results low for TOX.

The following samples in TOX analytical batch 160-311155 were not bracketed by an ending CCV/CCB, due to a power outage in the laboratory that prevented the analysis of this ending bracketing QC. B39BX1 (160-22140-5), B39C10 (160-22140-6), B39C09 (160-22140-7), B39C06 (160-22140-8) and (160-22140-A-5-B MS) Additionally, sample 22140-8, which was being analyzed at the time of the power outage, only injected 1 of the 4 total columns at the time of the outage. Thus, the final result for sample 22140-8 is reported from only its first result (note: this sample result is ND).As the sample bottles now contain significant headspace, re-prep/re-analysis cannot be performed, as headspace is known to bias results low for TOX.

The following matrix spike (MS) recovered outside control limits (82%) in TOX analytical batch 160-311155: (160-22140-A-5-B MS) Sample matrix interference may have been the cause of this MS failure. However, this low-recovering MS was bracketed by continuing calibration verifications (CCVs) that recovered below the lower acceptance limit, which may indicate a slight low bias in the bracketed samples, including this MS. The associated laboratory control sample (LCS) recovery was within acceptance limits, as was the other MS analyzed in this batch. This analyte has been qualified accordingly with an "N" flag in the associated samples.

Batch: 311161

The following samples in TOX analytical batch 160-311161 were bracketed by a continuing calibration verification (CCV) that recovered below the lower acceptance limit of 90% (88%): B39C05 (160-22140-10), B39BV9 (160-22140-11), B39C14 (160-22140-12), B39BY4 (160-22140-13), B39C15 (160-22140-14) and B39C16 (160-22140-15) The cause of this CCV excursion is unknown, but may be due to slight instrument drift. The other two CCVs in this batch (that were analyzed before and after this failed CCV) both recovered within control limits. As the sample bottles now contain significant headspace, re-prep/re-analysis cannot be performed, as headspace is known to bias results low for TOX.

The following sample and its duplicate (DU) in TOX analytical batch 160-311161 have an RPD that exceeds the upper control limit of 20% (32%): B39C07 (160-22140-9) and (160-22140-A-9-B DU) However, RPD determinations are not as useful for values near the reporting limit (RL). As the sample and DU have results less than 5x the RL and are within the RL (5 ug/L) of each other (9.6 ug/L and 13.23 ug/L), results are reported with this narration.

The following samples in TOX analytical batch 160-311161 exhibited bottom column results greater than 10% of the combined sum of the top and bottom columns: B39C07 (160-22140-9) and (160-22140-A-9-B DU) However, the results are not believed to be adversely affected, as the samples did not contain any residual chlorine and the columns were not over-loaded. Thus, this excursion is attributed to

Job ID: 160-22112-1 (Continued)

Laboratory: TestAmerica St. Louis (Continued)

normal column channeling and results may be reported, per method 9020B.

Strontium-90

Batch: 308303

Insufficient sample volume was available to perform a sample duplicate (DU). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) was prepared to demonstrate accuracy and precision. B39JR7 (160-22112-4)

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

Anions
ICP Metals
Mercury
Alkalinity
TOC
Gross Alpha/Beta
Carbon-14

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	SIR17-668
REV NUM	0
DATE INITIATED	5/4/2017

SAMPLE EVENT INFORMATION

SAF NUM(S)	W17-005
OPERABLE UNIT(S)	NONE
PROJECT(S)	RCRA17
SAMPLE EVENT TITLE(S)	RCRA17
LABORATORY	TestAmerica St. Louis

SAMPLING INFORMATION

NUMBER OF SAMPLES	12
SAMPLE NUMBERS	B39BV9, B39BX1, B39BY4, B39C05, B39C06, B39C07, B39C08, B39C09, B39C10, B39C14, B39C15, B39C16
SAMPLE MATRIX	WATER
COLLECTION DATE	-
SDG NUM	

ISSUE BACKGROUND

CLASS	Field Sampling Issue
TYPE	Insufficient Sample Volume Collected
DESCRIPTION	Sample bottles for TOX received with nickel sized headspace.

DISPOSITION

DESCRIPTION	TASL PROPOSES TO CONTINUE WITH ANALYSIS AND NARRATE.
JUSTIFICATION	Final Disposition: Accept proposed resolution. SUBMITTED BY: Jayna Awalt DATE: 05/03/2017 ACCEPTED BY: Sarah Nagel DATE: 05/03/2017

SAMPLE ISSUE RESOLUTION (SIR) REPORT

SIR Number: SIR17-0781
Rev. Number: 0
Date Initiated: 06/29/2017

SAMPLE EVENT INFORMATION

SAF NUM(S): S17-005, W17-005

LABORATORY: TASL

SAMPLING INFORMATION

NUMBER OF SAMPLES: 5

SAMPLE NUMBERS: B39BY4, B39C14, B39C15, B39C16, B39CJ9

SAMPLE MATRIX: WATER

SDG NUM(S): SL2511

ISSUE BACKGROUND

CLASS: Chain of Custody Issue (Field)

TYPE: No/Illegible Relinquish/Receipt Date/Time

DESCRIPTION: COC W17-005-186, missing time in the second relinquished by box.COC S17-005-385, missing time in the first relinquished by and received by box.

RESOLUTION

PROPOSED RESOLUTION: DOCUMENT AND CLOSE

FINAL RESOLUTION: DOCUMENT AND CLOSE

SUBMITTED BY:

CALIXTO, SE 05/31/2017

ACCEPTED BY:

KILLAND, KE 06/29/2017

Login Sample Receipt Checklist

Client: CH2M Hill Plateau Remediation Company

Job Number: 160-22112-1
SDG Number: SL2511

Login Number: 22112
List Number: 1
Creator: Clarke, Jill C

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	0.6
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 (excluding tests with immediate HTs)	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	

54 lbs

CH2MHill Plateau Remediation Company 822511

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # I17-007-125

Page 1 of 1

Collector	Larry Rosane /CHPRC	Contact/Requester	WATERS-HUSTED, K	Telephone No.	376-4650
SAF No.	I17-007	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071
Project Title	Groundwater Background Study, April 20	Logbook No.	HNF-N-506 91 / 91	Ice Chest No.	GWS-184
Shipped To (Lab)	TestAmerica St. Louis	Method of Shipment	Commercial Carrier	Bill of Lading/Air Bill No.	7790 3479 5607
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 ☐

N/A

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B39JP7	N	W	MAY 01 2017	1235	1x250-mL aG	9060_TOC: COMMON	28 Days	HCl or H2SO4 to pH <2/Cool <=6C
B39JP7	N	W	MAY 01 2017	1235	1x250-mL aG	9012_CYANIDE (TOTAL): COMMON	14 Days	NaOH to pH >=12/Cool <=6C

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Larry Rosane /CHPRC	Larry Rosane	MAY 01 2017	1250	Barb Briggs /CHPRC	BeBriggs	MAY 01 2017	1250
Barb Briggs /CHPRC	BeBriggs	MAY 01 2017	1400	FEDEX			
		Fed Ex		Jill Clarke	Jill Clarke	5-2-17	0940

Matrix *

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

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

PRINTED ON 4/12/2017 FSR ID = FSR43792 A-6004-842 (REV 2)

CH2MHill Plateau Remediation Company 512511	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # I17-007-126 Page 1 of 1

Collector	Larry Rosane /CHPRC	**Contact/Requester**	WATERS-HUSTED, K	**Telephone No.**	376-4650
SAF No.	I17-007	**Sampling Origin**	Hanford Site	**Purchase Order/Charge Code**	300071
Project Title	Groundwater Background Study, April 20	**Logbook No.**	HNF-N-506 91/91	**Ice Chest No.**	GWS-184
Shipped To (Lab)	TestAmerica St. Louis	**Method of Shipment**	Commercial Carrier	**Bill of Lading/Air Bill No.**	7790 34795607
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 ☐
N/A

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B39JP8	N	W	MAY 01 2017	1235	1x125-mL P	300.0_ANIONS_IC: COMMON	48 Hours	Cool <=6C

Relinquished By	Print / Sign	Date/Time	Received By	Print / Sign	Date/Time
Larry Rosane /CHPRC	Larry Rosane	MAY 01 2017 1250	Barb Briggs /CHPRC	B Briggs	MAY 01 2017 1250
Barb Briggs /CHPRC	B Briggs	MAY 01 2017 1400		FEDEX	
		Fed Ex		Jill Clarke	52.17 0940

Matrix *

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

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

PRINTED ON 4/12/2017 FSR ID = FSR43792 A-6004-842 (REV 2)

CH2MHill Plateau Remediation Company

SL2511

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # I17-007-127

Collector	Larry Rosane /CHPRC	**Contact/Requester**	WATERS-HUSTED, K	**Telephone No.**	376-4650
SAF No.	I17-007	**Sampling Origin**	Hanford Site	**Purchase Order/Charge Code**	300071
Project Title	Groundwater Background Study, April 20	**Logbook No.**	HNF-N-506 91/91	**Ice Chest No.**	GW5-184
Shipped To (Lab)	TestAmerica St. Louis	**Method of Shipment**	Commercial Carrier	**Bill of Lading/Air Bill No.**	7790 3479 5607
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 ☐

N/A

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B39JP9	N	W	MAY 01 2017	1235	1x60-mL aG	7196_CR6: COMMON	24 Hours	Cool <=6C

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Larry Rosane /CHPRC	Larry Rosane		MAY 01 2017 1250	Barb Briggs /CHPRC	Barb Briggs		MAY 01 2017 1250
Barb Briggs /CHPRC	Barb Briggs		MAY 01 2017 1400				
				FEDEX			
			Fed Ex	Jill Clarke	Jill Clarke		5.2.17 0940

Matrix *

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

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

PRINTED ON 4/12/2017 | FSR ID = FSR43792 | A-6004-842 (REV 2)

CH2MHill Plateau Remediation Company SL2511	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # I17-007-136 Page 1 of 1

Collector	Larry Rosane /CHPRC	**Contact/Requester**	WATERS-HUSTED, K	**Telephone No.**	376-4650
SAF No.	I17-007	**Sampling Origin**	Hanford Site	**Purchase Order/Charge Code**	300071
Project Title	Groundwater Background Study, April 20	**Logbook No.**	HNF-N-506 91/91	**Ice Chest No.**	GWS-18 184
Shipped To (Lab)	TestAmerica St. Louis	**Method of Shipment**	Commercial Carrier	**Bill of Lading/Air Bill No.**	7790 3479 5607
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 ☐

N/A

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B39JR7	N	W	MAY 01 2017	0950	1x1-L aGs*	9020_TOX: COMMON	28 Days	H2SO4 to pH <2/Cool <=6C
B39JR7	N	W	↑	↑	5x40-mL aGs*	8260_VOA_GCMS: COMMON	14 Days	HCl or H2SO4 to pH <2/Cool <=6C
B39JR7	N	W	↕	↕	1x1-L P	9310_ALPHABETA_GPC: COMMON	6 Months	HNO3 to pH <2
B39JR7	N	W	↕	↕	1x500-mL G/P	C14_LSC: COMMON	6 Months	None
B39JR7	N	W	MAY 01 2017	0950	1x1-L G/P	SRISO_SEP_PRECIP_GPC: COMMON	6 Months	HNO3 to pH <2

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Larry Rosane /CHPRC	Larry Rosane		MAY 01 2017 1025	Barb Briggs /CHPRC		BeBriggs	MAY 01 2017 1025
Barb Briggs /CHPRC	BeBriggs		MAY 01 2017 1400			FEDEX	
			Fed Ex			Jill Clarke	Jill Clarke 5.2.17 0440

Matrix *

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

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

PRINTED ON 4/12/2017 FSR ID = FSR43474 A-6004-842 (REV 2)

FedEx ® Tracking

779034795607

Ship date:
Mon 5/01/2017

RICHLAND, WA US

Delivered
Signed for by: B.DANIELS

Actual delivery:
Tue 5/02/2017 9:44 am

EARTH CITY, MO US

Travel History

Date/Time	Activity	Location
- 5/02/2017 - Tuesday		
9:44 am	Delivered	EARTH CITY, MO
8:07 am	On FedEx vehicle for delivery	EARTH CITY, MO
8:02 am	At local FedEx facility	EARTH CITY, MO
6:51 am	At destination sort facility	BERKELEY, MO
6:04 am	Departed FedEx location	MEMPHIS, TN
12:12 am	Arrived at FedEx location	MEMPHIS, TN
- 5/01/2017 - Monday		
4:56 pm	Left FedEx origin facility	PASCO, WA
4:11 pm	Shipment information sent to FedEx	
3:18 pm	Picked up	PASCO, WA

Shipment Facts

Tracking number	779034795607	**Service**	FedEx Standard Overnight
Weight	54 lbs / 24.49 kgs	**Dimensions**	17x16x17 in.
Delivered To	Shipping/Receiving	**Total pieces**	1
Total shipment weight	54 lbs / 24.49 kgs	**Terms**	Recipient
Shipper reference	GWS-184	**Packaging**	Your Packaging
Special handling section	Deliver Weekday, Additional Handling Surcharge	**Standard transit**	5/02/2017 by 3:00 pm

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Login Sample Receipt Checklist

Client: CH2M Hill Plateau Remediation Company

Job Number: 160-22140-1
SDG Number: SL2511

Login Number: 22140
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	0.4,0.7,0.6,0.9
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 (excluding tests with immediate HTs)	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").	False	TOX bottles contained headspace.
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

CH2MHill Plateau Remediation Company

SL2511

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # W17-005-188

Page 1 of 1

Collector	Larry Rosane /CHPRC	Contact/Requester	Karen Waters-Husted	Telephone No.	509-376-4650
SAF No.	W17-005	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071
Project Title	RCRA, MAY 2017	Logbook No.	HNF-N-506 93/33	Ice Chest No.	GWS-507
Shipped To (Lab)	TestAmerica St. Louis	Method of Shipment	Commercial Carrier	Bill of Lading/Air Bill No.	779046134183
Protocol	RCRA	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 ☐

N/A

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B39JT2	N	W	5/2/17	1250	4x1-L aG ✓	8082_PCB_GC: COMMON	None	Cool <=6C
B39JT2	N	W	↓	↓	5x40-mL aGs* ✓	8260_VOA_GCMS: COMMON	14 Days	HCl or H2SO4 to pH <2/Cool <=6C
B39JT2	N	W	↓	↓	4x1-L aG ✓	8270_SVOA_GCMS_IX: COMMON REV 1	7/40 Days	Cool <=6C

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Larry Rosane /CHPRC	Larry Rosane		MAY 0 2 2017 1320	Curt Hoffman CHPRC	CC Hoffman		MAY 0 2 2017 1320
Curt Hoffman CHPRC	CC Hoffman		MAY 0 2 2017 1400	FEDEX			
FED EX				Brian Dana S			5/3/17 0910

Matrix *

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

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

PRINTED ON 3/28/2017 FSR ID = FSR43467 A-6004-842 (REV 2)

90165

CH2MHill Plateau Remediation Company

S22511

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **W17-005-187**

Page 1 of 1

Collector	Jeff Tucksen CHPRC	**Contact/Requester**	Karen Waters-Husted	**Telephone No.**	509-376-4650 ~~GWS-521~~ TLB 5-2-17
SAF No.	W17-005	**Sampling Origin**	Hanford Site	**Purchase Order/Charge Code**	300071
Project Title	RCRA, MAY 2017	**Logbook No.**	HNF-N-506 91 / 92	**Ice Chest No.**	GWS-521
Shipped To (Lab)	TestAmerica St. Louis	**Method of Shipment**	Commercial Carrier	**Bill of Lading/Air Bill No.**	7790 4605 3546
Protocol	RCRA	**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 ☐

N/A

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B39JT0	N	W	5-2-17	1028	4x1-L aG	8082_PCB_GC: COMMON	None	Cool <=6C
B39JT0	N	W	/	/	5x40-mL aGs*	8260_VOA_GCMS: COMMON	14 Days	HCl or H2SO4 to pH <2/Cool <=6C
B39JT0	N	W	5-2-17	1028	4x1-L aG	8270_SVOA_GCMS_IX: COMMON REV 1	7/40 Days	Cool <=6C

~~DPY~~ 925-2-17

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Jeff Tucksen CHPRC	[signature]		MAY 0 2 2017 1055	Troy Bacon CHPRC	Troy L. Bacon		MAY 0 2 2017 1055
Troy Bacon CHPRC	Troy L. Bacon		MAY 0 2 2017 1400	FEDEX			
FED EX				[signature]	Brian Davis		5/3/17 0910

Matrix *

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

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

PRINTED ON 3/28/2017 FSR ID = FSR31123 A-6004-842 (REV 2)

CH2MHill Plateau Remediation Company SL2511	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # W17-005-191 Page 1 of 1

Collector	Jeff Tucksen CHPRC	**Contact/Requester**	Karen Waters-Husted	**Telephone No.**	509-376-4650
SAF No.	W17-005	**Sampling Origin**	Hanford Site	**Purchase Order/Charge Code**	300071
Project Title	RCRA, MAY 2017	**Logbook No.**	HNF-N-506 91/92	**Ice Chest No.**	Gw5-519
Shipped To (Lab)	TestAmerica St. Louis	**Method of Shipment**	Commercial Carrier	**Bill of Lading/Air Bill No.**	7790 4607 3103
Protocol	RCRA	**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 ☐
N/A

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B39JT9	N	W	5-2-17	1132	4x1-L aG ✓	8082_PCB_GC: COMMON	None	Cool <=6C
B39JT9	N	W	1	1	5x40-mL aGs*	8260_VOA_GCMS: COMMON	14 Days	HCl or H2SO4 to pH <2/Cool <=6C
B39JT9	N	W	5-2-17	1132	4x1-L aG ✓	8270_SVOA_GCMS_IX: COMMON REV 1	7/40 Days	Cool <=6C

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
	Jeff Tucksen CHPRC		MAY 0 2 2017 1210		Curt Hoffman CHPRC		MAY 0 2 2017 1210
Relinquished By	Curt Hoffman CHPRC		MAY 0 2 2017 1400	Received By	FEDEX		Date/Time
Relinquished By	FED EX		Date/Time	Received By			5/3/17 0910
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

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

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

PRINTED ON 3/28/2017 **FSR ID = FSR43484** A-6004-842 (REV 2)

CH2MHill Plateau Remediation Company SL2511	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # W17-005-185 Page 1 of 1

Collector	Jeff Tucksen CHPRC	**Contact/Requester**	Karen Waters-Husted	**Telephone No.**	509-376-4650
SAF No.	W17-005	**Sampling Origin**	Hanford Site	**Purchase Order/Charge Code**	300071
Project Title	RCRA, MAY 2017	**Logbook No.**	HNF-N-506 91 192	**Ice Chest No.**	GWS-521
Shipped To (Lab)	TestAmerica St. Louis	**Method of Shipment**	Commercial Carrier	**Bill of Lading/Air Bill No.**	7790 4160535446
Protocol	RCRA	**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 ☐

N/A

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B39C08	N	W	5-2-17	1028	1x1-L aGs*	9020_TOX: COMMON	28 Days	H2SO4 to pH <2/Cool <=6C
B39C08	N	W			1x250-mL aG	9060_TOC: COMMON	28 Days	HCl or H2SO4 to pH <2/Cool <=6C
B39BX1	N	W			1x250-mL G/P	310.1_ALKALINITY: COMMON	14 Days	Cool <=6C
B39BX1	N	W			1x1-L aGs*	9020_TOX: COMMON	28 Days	H2SO4 to pH <2/Cool <=6C
B39BX1	N	W			1x250-mL aG	9060_TOC: COMMON	28 Days	HCl or H2SO4 to pH <2/Cool <=6C
B39C10	N	W			1x1-L aGs*	9020_TOX: COMMON	28 Days	H2SO4 to pH <2/Cool <=6C
B39C10	N	W			1x250-mL aG	9060_TOC: COMMON	28 Days	HCl or H2SO4 to pH <2/Cool <=6C
B39C09	N	W			1x1-L aGs*	9020_TOX: COMMON	28 Days	H2SO4 to pH <2/Cool <=6C
B39C09	N	W	5-2-17	1028	1x250-mL aG	9060_TOC: COMMON	28 Days	HCl or H2SO4 to pH <2/Cool <=6C

COPY 5-2-17

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
	Jeff Tucksen CHPRC		MAY 02 2017 1058		Troy Bacon CHPRC		MAY 02 2017 1058
Relinquished By	Troy Bacon CHPRC		MAY 02 2017 1700	Received By	FEDEX		Date/Time
Relinquished By			FED EX	Received By			5/3/17 0900
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

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

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

PRINTED ON 3/28/2017 FSR ID = FSR31123 A-6004-842 (REV 2)

CH2MHill Plateau Remediation Company

76165

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # W17-005-184

Page 1 of 1

Collector	Jeff Tucksen CHPRC	**Contact/Requester**	Karen Waters-Husted	**Telephone No.**	509-376-4650
SAF No.	W17-005	**Sampling Origin**	Hanford Site	**Purchase Order/Charge Code**	300071
Project Title	RCRA, MAY 2017	**Logbook No.**	HNF-N-506 91/92	**Ice Chest No.**	GWS-L018
Shipped To (Lab)	TestAmerica St. Louis	**Method of Shipment**	Commercial Carrier	**Bill of Lading/Air Bill No.**	779D 4608 6879
Protocol	RCRA	**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 ☐

N/A

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B39C06	N	W	5-2-17	1132	1x1-L aGs*	9020_TOX: COMMON	28 Days	H2SO4 to pH <2/Cool <=6C
B39C06	N	W			1x250-mL aG	9060_TOC: COMMON	28 Days	HCl or H2SO4 to pH <2/Cool <=6C
B39C07	N	W			1x1-L aGs*	9020_TOX: COMMON	28 Days	H2SO4 to pH <2/Cool <=6C
B39C07	N	W			1x250-mL aG	9060_TOC: COMMON	28 Days	HCl or H2SO4 to pH <2/Cool <=6C
B39C05	N	W			1x1-L aGs*	9020_TOX: COMMON	28 Days	H2SO4 to pH <2/Cool <=6C
B39C05	N	W			1x250-mL aG	9060_TOC: COMMON	28 Days	HCl or H2SO4 to pH <2/Cool <=6C
B39BV9	N	W			1x250-mL G/P	310.1_ALKALINITY: GW 01	14 Days	Cool <=6C
B39BV9	N	W			1x1-L aGs*	9020_TOX: COMMON	28 Days	H2SO4 to pH <2/Cool <=6C
B39BV9	N	W	5-2-17	1132	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
	Jeff Tucksen CHPRC		MAY 0 2 2017 1210		Janelle Zunker CHPRC		MAY 0 2 2017 1210
Relinquished By	Janelle Zunker CHPRC		MAY 0 2 2017 1400	Received By	FEDEX		
Relinquished By			FED EX	Received By			5/3/17 0910
Relinquished By				Received By			

Matrix *

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

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

PRINTED ON 3/28/2017

FSR ID = FSR43484

A-6004-842 (REV 2)

REV. 1

CH2MHill Plateau Remediation Company

52-2511

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

84 165

C.O.C. # W17-005-186

Page 1 of 1

Collector	Larry Rosane /CHPRC	Contact/Requester	Karen Waters-Husted	Telephone No.	509-376-4650
SAF No.	W17-005	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071
Project Title	RCRA, MAY 2017	Logbook No.	HNF-N-506 93/33	Ice Chest No.	GWS-507
Shipped To (Lab)	TestAmerica St. Louis	Method of Shipment	Commercial Carrier	Bill of Lading/Air Bill No.	7790 4613 4153
Protocol	RCRA	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 ☐

N/A

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B39C14	N	W	5/2/17	1250	1x1-L aGs*	9020_TOX: COMMON	28 Days	H2SO4 to pH <2/Cool <=6C
B39C14	N	W			1x250-mL aG	9060_TOC: COMMON	28 Days	HCl or H2SO4 to pH <2/Cool <=6C
B39BY4	N	W			1x250-mL G/P	310.1_ALKALINITY: COMMON	14 Days	Cool <=6C
B39BY4	N	W			1x1-L aGs*	9020_TOX: COMMON	28 Days	H2SO4 to pH <2/Cool <=6C
B39BY4	N	W			1x250-mL aG	9060_TOC: COMMON	28 Days	HCl or H2SO4 to pH <2/Cool <=6C
B39C15	N	W			1x1-L aGs*	9020_TOX: COMMON	28 Days	H2SO4 to pH <2/Cool <=6C
B39C15	N	W			1x250-mL aG	9060_TOC: COMMON	28 Days	HCl or H2SO4 to pH <2/Cool <=6C
B39C16	N	W			1x1-L aGs*	9020_TOX: COMMON	28 Days	H2SO4 to pH <2/Cool <=6C
B39C16	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
Larry Rosane /CHPRC	Larry Rosane		MAY 0 2 2017 1320	Janelle Zunker CHPRC	[signature]		MAY 0 2 2017 1320
Janelle Zunker CHPRC	[signature]		MAY 0 2 2017	FEDEX			
			FED EX	[signature]	Brian Daniels		5/3/17 0910

Matrix *

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

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

PRINTED ON 3/28/2017 FSR ID = FSR43467 A-6004-842 (REV 2)

CH2MHill Plateau Remediation Company 82511	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # W17-005-025 Page 1 of 1

Collector	Jeff Tucksen CHPRC	**Contact/Requester**	Karen Waters-Husted	**Telephone No.**	509-376-4650
SAF No.	W17-005	**Sampling Origin**	Hanford Site	**Purchase Order/Charge Code**	300071
Project Title	RCRA, MAY 2017	**Logbook No.**	HNF-N-506 91 / 92	**Ice Chest No.**	GWS-519
Shipped To (Lab)	TestAmerica St. Louis	**Method of Shipment**	Commercial Carrier	**Bill of Lading/Air Bill No.**	7790 4607 3203
Protocol	RCRA	**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 ☐

N/A

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B39BW9	N	W	5-2-17	1028	1x500-mL G/P	7470_MERCURY_CV: COMMON (AQUEOUS); 6010_METALS_ICP: COMMON	28 Days	HNO3 to pH <2
B39BX4	Y	W	5-2-17	1028	1x500-mL G/P	7470_MERCURY_CV: COMMON (AQUEOUS); 6010_METALS_ICP: COMMON	28 Days	HNO3 to pH <2

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
	Jeff Tucksen CHPRC		MAY 02 2017 1055		Curt Hoffman CHPRC		MAY 02 2017 1055
Relinquished By	Curt Hoffman CHPRC		Date/Time MAY 02 2017 1400	Received By	FEDEX		Date/Time
Relinquished By			Date/Time FED EX	Received By	Brian Daniels		Date/Time 5/3/17 0915
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

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

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

PRINTED ON 3/28/2017 **FSR ID = FSR31123** A-6004-842 (REV 2)

78105

CH2MHill Plateau Remediation Company 512511	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # S17-005-385 Page 1 of 1

Collector	Daniel Klug CHPRC	**Contact/Requester**	Karen Waters-Husted	**Telephone No.**	509-376-4650
SAF No.	S17-005	**Sampling Origin**	Hanford Site	**Purchase Order/Charge Code**	300071
Project Title	SURV, MAY 2017	**Logbook No.**	HNF-N-506 92/68	**Ice Chest No.**	GWS-519
Shipped To (Lab)	TestAmerica St. Louis	**Method of Shipment**	Commercial Carrier	**Bill of Lading/Air Bill No.**	7790 4607 3103
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 ☐

N/A

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B39CJ9	N	W	MAY 02 2017	1240	1x250-mL G/P	310.1_ALKALINITY: GW 01	14 Days	Cool <=6C

Relinquished By	Print / Sign	Date/Time	Received By	Print / Sign	Date/Time
	Daniel Klug CHPRC D.KO	MAY 02 2017		Curt Hoffman CHPRC	MAY 02 2017
Relinquished By	Curt Hoffman CHPRC	Date/Time MAY 02 2017 1400	Received By	FEDEX	Date/Time
Relinquished By	FED EX	Date/Time	Received By	Brian Daniel	Date/Time 5/3/17 0910
Relinquished By		Date/Time	Received By		Date/Time

Matrix *

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

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

PRINTED ON 4/3/2017 **FSR ID = FSR41945** A-6004-842 (REV 2)

CH2MHill Plateau Remediation Company

92511

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **S17-005-386**

Page 1 of 1

Collector	Daniel Klug CHPRC	**Contact/Requester**	Karen Waters-Husted	**Telephone No.**	509-376-4650
SAF No.	S17-005	**Sampling Origin**	Hanford Site	**Purchase Order/Charge Code**	300071
Project Title	SURV, MAY 2017	**Logbook No.**	HNF-N-506 92/68	**Ice Chest No.**	GWS-519
Shipped To (Lab)	TestAmerica St. Louis	**Method of Shipment**	Commercial Carrier	**Bill of Lading/Air Bill No.**	7790 460735103
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 ☐

N/A

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B39CK6	N	W	MAY 02 2017	1129	1x250-mL G/P	310.1_ALKALINITY: GW 01	14 Days	Cool <=6C

Relinquished By	Print / Sign	Date/Time	Received By	Print / Sign	Date/Time
Daniel Klug CHPRC	D Klug	MAY 02 2017 1137	Curt Hoffman CHPRC		MAY 02 2017 1137
Curt Hoffman CHPRC		MAY 02 2017 1400		FEDEX	
		FED EX		Brian Davis	5/3/17 0916

Matrix *

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

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

PRINTED ON 4/3/2017 **FSR ID = FSR37587** A-6004-842 (REV 2)

1 2 3 4 5 6 7 8 9 10 11 12

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779046086879

Ship date:
Tue 5/02/2017

RICHLAND, WA US

Delivered
Signed for by: B.DANIELS

Actual delivery:
Wed 5/03/2017 8:46 am

EARTH CITY, MO US

Travel History

Date/Time	Activity	Location
5/03/2017 - Wednesday		
8:46 am	Delivered	EARTH CITY, MO
6:30 am	On FedEx vehicle for delivery	EARTH CITY, MO
6:24 am	At local FedEx facility	EARTH CITY, MO
5:16 am	At destination sort facility	BERKELEY, MO
4:26 am	Departed FedEx location	MEMPHIS, TN
12:42 am	Arrived at FedEx location	MEMPHIS, TN
5/02/2017 - Tuesday		
4:53 pm	Left FedEx origin facility	PASCO, WA
4:15 pm	Shipment information sent to FedEx	
3:20 pm	Picked up	PASCO, WA

Shipment Facts

Tracking number	779046086879	**Service**	FedEx Standard Overnight
Weight	76 lbs / 34.47 kgs	**Delivered To**	Shipping/Receiving
Total pieces	1	**Total shipment weight**	76 lbs / 34.47 kgs
Terms	Recipient	**Shipper reference**	GWS-618
Packaging	Your Packaging	**Special handling section**	Deliver Weekday, Additional Handling Surcharge
Standard transit	5/03/2017 by 3:00 pm		

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779046134153

Ship date:
Tue 5/02/2017

RICHLAND, WA US

Delivered
Signed for by: B.DANIELS

Actual delivery:
Wed 5/03/2017 8:46 am

EARTH CITY, MO US

Travel History

Date/Time	Activity	Location
- 5/03/2017 - Wednesday		
8:46 am	Delivered	EARTH CITY, MO
6:30 am	On FedEx vehicle for delivery	EARTH CITY, MO
6:24 am	At local FedEx facility	EARTH CITY, MO
5:16 am	At destination sort facility	BERKELEY, MO
4:26 am	Departed FedEx location	MEMPHIS, TN
12:42 am	Arrived at FedEx location	MEMPHIS, TN
- 5/02/2017 - Tuesday		
4:53 pm	Left FedEx origin facility	PASCO, WA
4:15 pm	Shipment information sent to FedEx	
3:20 pm	Picked up	PASCO, WA

Shipment Facts

Tracking number	779046134153	**Service**	FedEx Standard Overnight
Weight	84 lbs / 38.1 kgs	**Delivered To**	Shipping/Receiving
Total pieces	1	**Total shipment weight**	84 lbs / 38.1 kgs
Terms	Recipient	**Shipper reference**	GWS-507
Packaging	Your Packaging	**Special handling section**	Deliver Weekday, Additional Handling Surcharge
Standard transit	5/03/2017 by 3:00 pm		

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779046053546

Ship date:
Tue 5/02/2017

RICHLAND, WA US

Delivered
Signed for by: B.DANIELS

Actual delivery:
Wed 5/03/2017 8:46 am

EARTH CITY, MO US

Travel History

Date/Time	Activity	Location
- 5/03/2017 - Wednesday		
8:46 am	Delivered	EARTH CITY, MO
6:34 am	On FedEx vehicle for delivery	EARTH CITY, MO
6:27 am	At local FedEx facility	EARTH CITY, MO
5:16 am	At destination sort facility	BERKELEY, MO
4:26 am	Departed FedEx location	MEMPHIS, TN
12:42 am	Arrived at FedEx location	MEMPHIS, TN
- 5/02/2017 - Tuesday		
4:53 pm	Left FedEx origin facility	PASCO, WA
4:15 pm	Shipment information sent to FedEx	
3:20 pm	Picked up	PASCO, WA

Shipment Facts

Tracking number	779046053546	**Service**	FedEx Standard Overnight
Weight	90 lbs / 40.82 kgs	**Delivered To**	Shipping/Receiving
Total pieces	1	**Total shipment weight**	90 lbs / 40.82 kgs
Terms	Recipient	**Shipper reference**	GWS-521
Packaging	Your Packaging	**Special handling section**	Deliver Weekday, Additional Handling Surcharge
Standard transit	5/03/2017 by 3:00 pm		

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779046073103

Ship date:
Tue 5/02/2017

RICHLAND, WA US

Delivered
Signed for by: B.DANIELS

Actual delivery:
Wed 5/03/2017 8:46 am

EARTH CITY, MO US

Travel History

Date/Time	Activity	Location
- 5/03/2017 - Wednesday		
8:46 am	Delivered	EARTH CITY, MO
6:29 am	On FedEx vehicle for delivery	EARTH CITY, MO
5:16 am	At destination sort facility	BERKELEY, MO
4:26 am	Departed FedEx location	MEMPHIS, TN
12:42 am	Arrived at FedEx location	MEMPHIS, TN
- 5/02/2017 - Tuesday		
4:53 pm	Left FedEx origin facility	PASCO, WA
4:15 pm	Shipment information sent to FedEx	
3:20 pm	Picked up	PASCO, WA

Shipment Facts

Tracking number	779046073103	**Service**	FedEx Standard Overnight
Weight	78 lbs / 35.38 kgs	**Delivered To**	Shipping/Receiving
Total pieces	1	**Total shipment weight**	78 lbs / 35.38 kgs
Terms	Recipient	**Shipper reference**	GWS-519
Packaging	Your Packaging	**Special handling section**	Deliver Weekday, Additional Handling Surcharge
Standard transit	5/03/2017 by 3:00 pm		

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Definitions/Glossary

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Analyzed for but not detected.
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
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
U	Analyzed for but not detected.
o	LCS, LCSD: Recovery exceeds upper or lower control limits.
T	MS, MSD: Recovery exceeds upper or lower control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA TICs

Qualifier	Qualifier Description
J	Indicates an Estimated Value for TICs
N	Presumptive evidence of material.

GC Semi VOA

Qualifier	Qualifier Description
U	Analyzed for but not detected.
y	Duplicate analysis not within control limits.

HPLC/IC

Qualifier	Qualifier Description
D	The reported value is from a dilution.
U	Analyzed for but not detected.

Metals

Qualifier	Qualifier Description
U	Analyzed for but not detected.
B	Estimated result. Result is less than the RL, but greater than MDL

General Chemistry

Qualifier	Qualifier Description
U	Analyzed for but not detected.
Z	Sample was prepped or analyzed beyond the specified holding time
N	MS, MSD: Spike recovery is outside acceptance limits.
y	Duplicate analysis not within control limits.

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

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	Detection Limit (DoD/DOE)

Definitions/Glossary

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
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 (Radiochemistry)
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: I17-007, W17-005, S17-005

TestAmerica Job ID: 160-22112-1
SDG: SL2511

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds (GC/MS)	SW846	TAL SL
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL SL
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL SL
300.0	Anions, Ion Chromatography	MCAWW	TAL SL
6010C	Metals (ICP)	SW846	TAL SL
7470A	Mercury (CVAA)	SW846	TAL SL
310.1	Alkalinity	MCAWW	TAL SL
7196A	Chromium, Hexavalent	SW846	TAL SL
9012B	Cyanide, Total andor Amenable	SW846	TAL SL
9020B	Organic Halides, Total (TOX)	SW846	TAL SL
9060	Organic Carbon, Total (TOC)	SW846	TAL SL
9310	Gross Alpha / Beta (GFPC)	SW846	TAL SL
C-01-1	Carbon-14 (EERF C-01-1)	EERF	TAL SL
SR-03-RC	Total Beta Strontium (GFPC)	DOE	TAL SL

Protocol References:

DOE = U.S. Department of Energy
EERF = EERF
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: I17-007, W17-005, S17-005

TestAmerica Job ID: 160-22112-1
SDG: SL2511

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
160-22112-1	B39JP7	Water	05/01/17 12:35	05/02/17 09:40
160-22112-2	B39JP8	Water	05/01/17 12:35	05/02/17 09:40
160-22112-3	B39JP9	Water	05/01/17 12:35	05/02/17 09:40
160-22112-4	B39JR7	Water	05/01/17 09:50	05/02/17 09:40
160-22140-1	B39JT2	Water	05/02/17 12:50	05/03/17 09:10
160-22140-2	B39JT0	Water	05/02/17 10:28	05/03/17 09:10
160-22140-3	B39JT9	Water	05/02/17 11:32	05/03/17 09:10
160-22140-4	B39C08	Water	05/02/17 10:28	05/03/17 09:10
160-22140-5	B39BX1	Water	05/02/17 10:28	05/03/17 09:10
160-22140-6	B39C10	Water	05/02/17 10:28	05/03/17 09:10
160-22140-7	B39C09	Water	05/02/17 10:28	05/03/17 09:10
160-22140-8	B39C06	Water	05/02/17 11:32	05/03/17 09:10
160-22140-9	B39C07	Water	05/02/17 11:32	05/03/17 09:10
160-22140-10	B39C05	Water	05/02/17 11:32	05/03/17 09:10
160-22140-11	B39BV9	Water	05/02/17 11:32	05/03/17 09:10
160-22140-12	B39C14	Water	05/02/17 12:50	05/03/17 09:10
160-22140-13	B39BY4	Water	05/02/17 12:50	05/03/17 09:10
160-22140-14	B39C15	Water	05/02/17 12:50	05/03/17 09:10
160-22140-15	B39C16	Water	05/02/17 12:50	05/03/17 09:10
160-22140-16	B39BW9	Water	05/02/17 10:28	05/03/17 09:10
160-22140-17	B39BX4	Water	05/02/17 10:28	05/03/17 09:10
160-22140-18	B39CJ9	Water	05/02/17 12:40	05/03/17 09:10
160-22140-19	B39CK6	Water	05/02/17 11:29	05/03/17 09:10

Client Sample Results

Client: CH2M Hill Plateau Remediation Company
Project/Site: I17-007, W17-005, S17-005

TestAmerica Job ID: 160-22112-1
SDG: SL2511

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

Client Sample ID: B39JR7
Date Collected: 05/01/17 09:50
Date Received: 05/02/17 09:40

Lab Sample ID: 160-22112-4
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.17	U	1.0	0.17	ug/L			05/05/17 16:45	1
1,1,2-Trichloroethane	0.13	U	1.0	0.13	ug/L			05/05/17 16:45	1
1,1-Dichloroethane	0.070	U	1.0	0.070	ug/L			05/05/17 16:45	1
1,1-Dichloroethene	0.10	U	1.0	0.10	ug/L			05/05/17 16:45	1
1,2-Dichloroethane	0.22	U	1.0	0.22	ug/L			05/05/17 16:45	1
2-Butanone (MEK)	0.47	U	5.0	0.47	ug/L			05/05/17 16:45	1
4-Methyl-2-pentanone (MIBK)	0.22	U	5.0	0.22	ug/L			05/05/17 16:45	1
Acetone	0.55	U	2.0	0.55	ug/L			05/05/17 16:45	1
Benzene	0.10	U	1.0	0.10	ug/L			05/05/17 16:45	1
Carbon disulfide	0.10	U	1.0	0.10	ug/L			05/05/17 16:45	1
Carbon tetrachloride	0.18	U	1.0	0.18	ug/L			05/05/17 16:45	1
Chlorobenzene	0.11	U	1.0	0.11	ug/L			05/05/17 16:45	1
Chloroform	0.10	U	1.0	0.10	ug/L			05/05/17 16:45	1
Ethylbenzene	0.12	U	1.0	0.12	ug/L			05/05/17 16:45	1
Methylene Chloride	0.27	U	1.0	0.27	ug/L			05/05/17 16:45	1
Tetrachloroethene	0.18	U	1.0	0.18	ug/L			05/05/17 16:45	1
Toluene	0.14	U	1.0	0.14	ug/L			05/05/17 16:45	1
Trichloroethene	0.25	U	1.0	0.25	ug/L			05/05/17 16:45	1
Vinyl chloride	0.19	U	2.0	0.19	ug/L			05/05/17 16:45	1
Xylenes, Total	0.27	U	3.0	0.27	ug/L			05/05/17 16:45	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*05/05/17 16:45*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*75 - 129*		*05/05/17 16:45*	*1*
4-Bromofluorobenzene (Surr)	*106*		*81 - 130*		*05/05/17 16:45*	*1*
Dibromofluoromethane (Surr)	*99*		*81 - 124*		*05/05/17 16:45*	*1*
Toluene-d8 (Surr)	*104*		*87 - 128*		*05/05/17 16:45*	*1*

Client Sample ID: B39JT2
Date Collected: 05/02/17 12:50
Date Received: 05/03/17 09:10

Lab Sample ID: 160-22140-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.17	U	1.0	0.17	ug/L			05/05/17 18:52	1
1,1,2-Trichloroethane	0.13	U	1.0	0.13	ug/L			05/05/17 18:52	1
1,1-Dichloroethane	0.070	U	1.0	0.070	ug/L			05/05/17 18:52	1
1,1-Dichloroethene	0.10	U	1.0	0.10	ug/L			05/05/17 18:52	1
1,2-Dichloroethane	0.22	U	1.0	0.22	ug/L			05/05/17 18:52	1
2-Butanone (MEK)	0.47	U	5.0	0.47	ug/L			05/05/17 18:52	1
4-Methyl-2-pentanone (MIBK)	0.22	U	5.0	0.22	ug/L			05/05/17 18:52	1
Acetone	0.55	U	2.0	0.55	ug/L			05/05/17 18:52	1
Benzene	0.10	U	1.0	0.10	ug/L			05/05/17 18:52	1
Carbon disulfide	0.10	U	1.0	0.10	ug/L			05/05/17 18:52	1
Carbon tetrachloride	**3.2**		1.0	0.18	ug/L			05/05/17 18:52	1
Chlorobenzene	0.11	U	1.0	0.11	ug/L			05/05/17 18:52	1
Chloroform	**0.28**	**J**	1.0	0.10	ug/L			05/05/17 18:52	1
Ethylbenzene	0.12	U	1.0	0.12	ug/L			05/05/17 18:52	1
Methylene Chloride	0.27	U	1.0	0.27	ug/L			05/05/17 18:52	1
Tetrachloroethene	0.18	U	1.0	0.18	ug/L			05/05/17 18:52	1

TestAmerica St. Louis

Client Sample Results

Client: CH2M Hill Plateau Remediation Company
Project/Site: I17-007, W17-005, S17-005

TestAmerica Job ID: 160-22112-1
SDG: SL2511

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

Client Sample ID: B39JT2
Date Collected: 05/02/17 12:50
Date Received: 05/03/17 09:10

Lab Sample ID: 160-22140-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	0.14	U	1.0	0.14	ug/L			05/05/17 18:52	1
Trichloroethene	0.25	U	1.0	0.25	ug/L			05/05/17 18:52	1
Vinyl chloride	0.19	U	2.0	0.19	ug/L			05/05/17 18:52	1
Xylenes, Total	0.27	U	3.0	0.27	ug/L			05/05/17 18:52	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*05/05/17 18:52*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*107*		*75 - 129*		*05/05/17 18:52*	*1*
4-Bromofluorobenzene (Surr)	*113*		*81 - 130*		*05/05/17 18:52*	*1*
Dibromofluoromethane (Surr)	*105*		*81 - 124*		*05/05/17 18:52*	*1*
Toluene-d8 (Surr)	*107*		*87 - 128*		*05/05/17 18:52*	*1*

Client Sample ID: B39JT0
Date Collected: 05/02/17 10:28
Date Received: 05/03/17 09:10

Lab Sample ID: 160-22140-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.17	U	1.0	0.17	ug/L			05/05/17 19:17	1
1,1,2-Trichloroethane	0.13	U	1.0	0.13	ug/L			05/05/17 19:17	1
1,1-Dichloroethane	0.070	U	1.0	0.070	ug/L			05/05/17 19:17	1
1,1-Dichloroethene	0.10	U	1.0	0.10	ug/L			05/05/17 19:17	1
1,2-Dichloroethane	0.22	U	1.0	0.22	ug/L			05/05/17 19:17	1
2-Butanone (MEK)	0.47	U	5.0	0.47	ug/L			05/05/17 19:17	1
4-Methyl-2-pentanone (MIBK)	0.22	U	5.0	0.22	ug/L			05/05/17 19:17	1
Acetone	0.55	U	2.0	0.55	ug/L			05/05/17 19:17	1
Benzene	0.10	U	1.0	0.10	ug/L			05/05/17 19:17	1
Carbon disulfide	0.10	U	1.0	0.10	ug/L			05/05/17 19:17	1
Carbon tetrachloride	**0.36**	**J**	1.0	0.18	ug/L			05/05/17 19:17	1
Chlorobenzene	0.11	U	1.0	0.11	ug/L			05/05/17 19:17	1
Chloroform	**0.61**	**J**	1.0	0.10	ug/L			05/05/17 19:17	1
Ethylbenzene	0.12	U	1.0	0.12	ug/L			05/05/17 19:17	1
Methylene Chloride	0.27	U	1.0	0.27	ug/L			05/05/17 19:17	1
Tetrachloroethene	0.18	U	1.0	0.18	ug/L			05/05/17 19:17	1
Toluene	0.14	U	1.0	0.14	ug/L			05/05/17 19:17	1
Trichloroethene	0.25	U	1.0	0.25	ug/L			05/05/17 19:17	1
Vinyl chloride	0.19	U	2.0	0.19	ug/L			05/05/17 19:17	1
Xylenes, Total	0.27	U	3.0	0.27	ug/L			05/05/17 19:17	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*05/05/17 19:17*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*111*		*75 - 129*		*05/05/17 19:17*	*1*
4-Bromofluorobenzene (Surr)	*116*		*81 - 130*		*05/05/17 19:17*	*1*
Dibromofluoromethane (Surr)	*107*		*81 - 124*		*05/05/17 19:17*	*1*
Toluene-d8 (Surr)	*105*		*87 - 128*		*05/05/17 19:17*	*1*

Client Sample Results

Client: CH2M Hill Plateau Remediation Company
Project/Site: I17-007, W17-005, S17-005

TestAmerica Job ID: 160-22112-1
SDG: SL2511

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

Client Sample ID: B39JT9
Date Collected: 05/02/17 11:32
Date Received: 05/03/17 09:10

Lab Sample ID: 160-22140-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.17	U	1.0	0.17	ug/L			05/05/17 19:43	1
1,1,2-Trichloroethane	0.13	U	1.0	0.13	ug/L			05/05/17 19:43	1
1,1-Dichloroethane	0.070	U	1.0	0.070	ug/L			05/05/17 19:43	1
1,1-Dichloroethene	0.10	U	1.0	0.10	ug/L			05/05/17 19:43	1
1,2-Dichloroethane	0.22	U	1.0	0.22	ug/L			05/05/17 19:43	1
2-Butanone (MEK)	0.47	U	5.0	0.47	ug/L			05/05/17 19:43	1
4-Methyl-2-pentanone (MIBK)	0.22	U	5.0	0.22	ug/L			05/05/17 19:43	1
Acetone	**1.0**	**J**	2.0	0.55	ug/L			05/05/17 19:43	1
Benzene	0.10	U	1.0	0.10	ug/L			05/05/17 19:43	1
Carbon disulfide	0.10	U	1.0	0.10	ug/L			05/05/17 19:43	1
Carbon tetrachloride	**3.0**		1.0	0.18	ug/L			05/05/17 19:43	1
Chlorobenzene	0.11	U	1.0	0.11	ug/L			05/05/17 19:43	1
Chloroform	**0.32**	**J**	1.0	0.10	ug/L			05/05/17 19:43	1
Ethylbenzene	0.12	U	1.0	0.12	ug/L			05/05/17 19:43	1
Methylene Chloride	0.27	U	1.0	0.27	ug/L			05/05/17 19:43	1
Tetrachloroethene	0.18	U	1.0	0.18	ug/L			05/05/17 19:43	1
Toluene	0.14	U	1.0	0.14	ug/L			05/05/17 19:43	1
Trichloroethene	0.25	U	1.0	0.25	ug/L			05/05/17 19:43	1
Vinyl chloride	0.19	U	2.0	0.19	ug/L			05/05/17 19:43	1
Xylenes, Total	0.27	U	3.0	0.27	ug/L			05/05/17 19:43	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*05/05/17 19:43*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*105*		*75 - 129*		*05/05/17 19:43*	*1*
4-Bromofluorobenzene (Surr)	*115*		*81 - 130*		*05/05/17 19:43*	*1*
Dibromofluoromethane (Surr)	*104*		*81 - 124*		*05/05/17 19:43*	*1*
Toluene-d8 (Surr)	*106*		*87 - 128*		*05/05/17 19:43*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Client Sample ID: B39JT2
Date Collected: 05/02/17 12:50
Date Received: 05/03/17 09:10

Lab Sample ID: 160-22140-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4,5-Tetrachlorobenzene	0.95	U	9.5	0.95	ug/L		05/05/17 10:00	05/19/17 00:26	1
1,2,4-Trichlorobenzene	0.95	U o	9.5	0.95	ug/L		05/05/17 10:00	05/19/17 00:26	1
1,2-Dichlorobenzene	0.95	U T o	9.5	0.95	ug/L		05/05/17 10:00	05/19/17 00:26	1
1,3-Dichlorobenzene	0.95	U T o	9.5	0.95	ug/L		05/05/17 10:00	05/19/17 00:26	1
1,4-Dichlorobenzene	0.95	U T o	9.5	0.95	ug/L		05/05/17 10:00	05/19/17 00:26	1
1,4-Dioxane	0.95	U	9.5	0.95	ug/L		05/05/17 10:00	05/19/17 00:26	1
1,4-Naphthoquinone	0.95	U	48	0.95	ug/L		05/05/17 10:00	05/19/17 00:26	1
1-Naphthylamine	0.95	U	9.5	0.95	ug/L		05/05/17 10:00	05/19/17 00:26	1
2,3,4,6-Tetrachlorophenol	0.95	U	48	0.95	ug/L		05/05/17 10:00	05/19/17 00:26	1
2,4,5-Trichlorophenol	0.95	U	9.5	0.95	ug/L		05/05/17 10:00	05/19/17 00:26	1
2,4,6-Trichlorophenol	0.95	U	9.5	0.95	ug/L		05/05/17 10:00	05/19/17 00:26	1
2,4-Dichlorophenol	0.95	U	9.5	0.95	ug/L		05/05/17 10:00	05/19/17 00:26	1
2,4-Dimethylphenol	0.95	U	9.5	0.95	ug/L		05/05/17 10:00	05/19/17 00:26	1
2,4-Dinitrophenol	1.9	U o	48	1.9	ug/L		05/05/17 10:00	05/19/17 00:26	1

Client Sample Results

Client: CH2M Hill Plateau Remediation Company
Project/Site: I17-007, W17-005, S17-005

TestAmerica Job ID: 160-22112-1
SDG: SL2511

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B39JT2
Date Collected: 05/02/17 12:50
Date Received: 05/03/17 09:10

Lab Sample ID: 160-22140-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrotoluene	0.95	U	9.5	0.95	ug/L		05/05/17 10:00	05/19/17 00:26	1
2,6-Dichlorophenol	0.95	U	9.5	0.95	ug/L		05/05/17 10:00	05/19/17 00:26	1
2,6-Dinitrotoluene	2.1	U	9.5	2.1	ug/L		05/05/17 10:00	05/19/17 00:26	1
2-Acetylaminofluorene	0.95	U	95	0.95	ug/L		05/05/17 10:00	05/19/17 00:26	1
2-Chloronaphthalene	0.95	U	9.5	0.95	ug/L		05/05/17 10:00	05/19/17 00:26	1
2-Chlorophenol	0.95	U	9.5	0.95	ug/L		05/05/17 10:00	05/19/17 00:26	1
2-Methylnaphthalene	0.95	U	9.5	0.95	ug/L		05/05/17 10:00	05/19/17 00:26	1
2-Methylphenol	0.95	U	9.5	0.95	ug/L		05/05/17 10:00	05/19/17 00:26	1
2-Naphthylamine	0.95	U	9.5	0.95	ug/L		05/05/17 10:00	05/19/17 00:26	1
2-Nitroaniline	1.1	U	9.5	1.1	ug/L		05/05/17 10:00	05/19/17 00:26	1
2-Nitrophenol	1.5	U	9.5	1.5	ug/L		05/05/17 10:00	05/19/17 00:26	1
2-Picoline	1.9	U	19	1.9	ug/L		05/05/17 10:00	05/19/17 00:26	1
3 & 4 Methylphenol	1.9	U	19	1.9	ug/L		05/05/17 10:00	05/19/17 00:26	1
3,3'-Dichlorobenzidine	1.2	U	48	1.2	ug/L		05/05/17 10:00	05/19/17 00:26	1
3,3'-Dimethylbenzidine	2.5	U	48	2.5	ug/L		05/05/17 10:00	05/19/17 00:26	1
3-Methylcholanthrene	0.95	U	19	0.95	ug/L		05/05/17 10:00	05/19/17 00:26	1
3-Nitroaniline	0.95	U	9.5	0.95	ug/L		05/05/17 10:00	05/19/17 00:26	1
4,6-Dinitro-2-methylphenol	1.2	U	9.5	1.2	ug/L		05/05/17 10:00	05/19/17 00:26	1
4-Aminobiphenyl	1.0	U	48	1.0	ug/L		05/05/17 10:00	05/19/17 00:26	1
4-Bromophenyl phenyl ether	0.95	U	9.5	0.95	ug/L		05/05/17 10:00	05/19/17 00:26	1
4-Chloro-3-methylphenol	0.95	U	9.5	0.95	ug/L		05/05/17 10:00	05/19/17 00:26	1
4-Chloroaniline	1.9	U	9.5	1.9	ug/L		05/05/17 10:00	05/19/17 00:26	1
4-Chlorophenyl phenyl ether	0.95	U	9.5	0.95	ug/L		05/05/17 10:00	05/19/17 00:26	1
4-Nitroaniline	0.95	U	9.5	0.95	ug/L		05/05/17 10:00	05/19/17 00:26	1
4-Nitrophenol	1.9	U	9.5	1.9	ug/L		05/05/17 10:00	05/19/17 00:26	1
4-Nitroquinoline-1-oxide	4.8	U	95	4.8	ug/L		05/05/17 10:00	05/19/17 00:26	1
5-Nitro-o-toluidine	0.95	U	19	0.95	ug/L		05/05/17 10:00	05/19/17 00:26	1
7,12-Dimethylbenz(a)anthracene	0.95	U	19	0.95	ug/L		05/05/17 10:00	05/19/17 00:26	1
Acenaphthene	0.95	U	9.5	0.95	ug/L		05/05/17 10:00	05/19/17 00:26	1
Acenaphthylene	0.95	U	9.5	0.95	ug/L		05/05/17 10:00	05/19/17 00:26	1
Acetophenone	0.95	U	9.5	0.95	ug/L		05/05/17 10:00	05/19/17 00:26	1
alpha,alpha-Dimethyl phenethylamine	21	U	48	21	ug/L		05/05/17 10:00	05/19/17 00:26	1
Aniline	1.2	U	9.5	1.2	ug/L		05/05/17 10:00	05/19/17 00:26	1
Anthracene	0.95	U	9.5	0.95	ug/L		05/05/17 10:00	05/19/17 00:26	1
Aramite, Total	4.8	U	19	4.8	ug/L		05/05/17 10:00	05/19/17 00:26	1
Benzo[a]anthracene	0.95	U	9.5	0.95	ug/L		05/05/17 10:00	05/19/17 00:26	1
Benzo[a]pyrene	0.95	U	9.5	0.95	ug/L		05/05/17 10:00	05/19/17 00:26	1
Benzo[b]fluoranthene	0.95	U	9.5	0.95	ug/L		05/05/17 10:00	05/19/17 00:26	1
Benzo[g,h,i]perylene	0.95	U	9.5	0.95	ug/L		05/05/17 10:00	05/19/17 00:26	1
Benzo[k]fluoranthene	0.95	U	9.5	0.95	ug/L		05/05/17 10:00	05/19/17 00:26	1
Benzyl alcohol	2.9	U	9.5	2.9	ug/L		05/05/17 10:00	05/19/17 00:26	1
bis(2 chloro-1-methylethyl) ether	0.95	U	9.5	0.95	ug/L		05/05/17 10:00	05/19/17 00:26	1
Bis(2-chloroethoxy)methane	0.95	U	9.5	0.95	ug/L		05/05/17 10:00	05/19/17 00:26	1
Bis(2-chloroethyl)ether	0.95	U	9.5	0.95	ug/L		05/05/17 10:00	05/19/17 00:26	1
Bis(2-ethylhexyl) phthalate	1.8	U	9.5	1.8	ug/L		05/05/17 10:00	05/19/17 00:26	1
Butyl benzyl phthalate	0.95	U	9.5	0.95	ug/L		05/05/17 10:00	05/19/17 00:26	1
Carbazole	0.95	U	9.5	0.95	ug/L		05/05/17 10:00	05/19/17 00:26	1
Chlorobenzilate	0.95	U	9.5	0.95	ug/L		05/05/17 10:00	05/19/17 00:26	1
Chrysene	0.95	U	9.5	0.95	ug/L		05/05/17 10:00	05/19/17 00:26	1

Client Sample Results

Client: CH2M Hill Plateau Remediation Company
Project/Site: I17-007, W17-005, S17-005

TestAmerica Job ID: 160-22112-1
SDG: SL2511

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B39JT2
Date Collected: 05/02/17 12:50
Date Received: 05/03/17 09:10

Lab Sample ID: 160-22140-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diallate	1.9	U	19	1.9	ug/L		05/05/17 10:00	05/19/17 00:26	1
Dibenz(a,h)anthracene	0.95	U	9.5	0.95	ug/L		05/05/17 10:00	05/19/17 00:26	1
Dibenzofuran	0.95	U	9.5	0.95	ug/L		05/05/17 10:00	05/19/17 00:26	1
Diethyl phthalate	0.95	U	9.5	0.95	ug/L		05/05/17 10:00	05/19/17 00:26	1
Dimethoate	0.95	U	19	0.95	ug/L		05/05/17 10:00	05/19/17 00:26	1
Dimethyl phthalate	0.95	U	9.5	0.95	ug/L		05/05/17 10:00	05/19/17 00:26	1
Di-n-butyl phthalate	0.95	U	9.5	0.95	ug/L		05/05/17 10:00	05/19/17 00:26	1
Dinitrobenzene, m-	0.95	U	9.5	0.95	ug/L		05/05/17 10:00	05/19/17 00:26	1
Di-n-octyl phthalate	0.95	U	9.5	0.95	ug/L		05/05/17 10:00	05/19/17 00:26	1
Dinoseb	1.9	U	19	1.9	ug/L		05/05/17 10:00	05/19/17 00:26	1
Diphenylamine + N-Nitrosodiphenylamine	0.95	U	9.5	0.95	ug/L		05/05/17 10:00	05/19/17 00:26	1
Disulfoton	0.95	U	48	0.95	ug/L		05/05/17 10:00	05/19/17 00:26	1
Ethyl methanesulfonate	0.95	U	9.5	0.95	ug/L		05/05/17 10:00	05/19/17 00:26	1
Famphur	1.6	U	95	1.6	ug/L		05/05/17 10:00	05/19/17 00:26	1
Fluoranthene	0.95	U	9.5	0.95	ug/L		05/05/17 10:00	05/19/17 00:26	1
Fluorene	0.95	U	9.5	0.95	ug/L		05/05/17 10:00	05/19/17 00:26	1
Hexachlorobenzene	0.95	U	9.5	0.95	ug/L		05/05/17 10:00	05/19/17 00:26	1
Hexachlorobutadiene	0.95	U o	9.5	0.95	ug/L		05/05/17 10:00	05/19/17 00:26	1
Hexachlorocyclopentadiene	0.95	U	9.5	0.95	ug/L		05/05/17 10:00	05/19/17 00:26	1
Hexachloroethane	0.95	U T o	9.5	0.95	ug/L		05/05/17 10:00	05/19/17 00:26	1
Hexachlorophene	9.5	U	240	9.5	ug/L		05/05/17 10:00	05/19/17 00:26	1
Hexachloropropene	0.95	U	95	0.95	ug/L		05/05/17 10:00	05/19/17 00:26	1
Indeno[1,2,3-cd]pyrene	0.95	U	9.5	0.95	ug/L		05/05/17 10:00	05/19/17 00:26	1
Isodrin	0.95	U	9.5	0.95	ug/L		05/05/17 10:00	05/19/17 00:26	1
Isophorone	0.95	U	9.5	0.95	ug/L		05/05/17 10:00	05/19/17 00:26	1
Isosafrole	4.8	U	19	4.8	ug/L		05/05/17 10:00	05/19/17 00:26	1
Kepone	19	U	95	19	ug/L		05/05/17 10:00	05/19/17 00:26	1
Methapyrilene	1.2	U	48	1.2	ug/L		05/05/17 10:00	05/19/17 00:26	1
Methyl methanesulfonate	0.95	U	9.5	0.95	ug/L		05/05/17 10:00	05/19/17 00:26	1
Methyl parathion	0.95	U	9.5	0.95	ug/L		05/05/17 10:00	05/19/17 00:26	1
Naphthalene	0.95	U	9.5	0.95	ug/L		05/05/17 10:00	05/19/17 00:26	1
Nitrobenzene	0.95	U	9.5	0.95	ug/L		05/05/17 10:00	05/19/17 00:26	1
N-Nitrosodiethylamine	0.95	U	9.5	0.95	ug/L		05/05/17 10:00	05/19/17 00:26	1
N-Nitrosodimethylamine	1.9	U	9.5	1.9	ug/L		05/05/17 10:00	05/19/17 00:26	1
N-Nitrosodi-n-butylamine	0.95	U	9.5	0.95	ug/L		05/05/17 10:00	05/19/17 00:26	1
N-Nitrosodi-n-propylamine	1.4	U	9.5	1.4	ug/L		05/05/17 10:00	05/19/17 00:26	1
N-Nitrosomethylethylamine	0.95	U	9.5	0.95	ug/L		05/05/17 10:00	05/19/17 00:26	1
N-Nitrosomorpholine	0.95	U	9.5	0.95	ug/L		05/05/17 10:00	05/19/17 00:26	1
N-Nitrosopiperidine	0.95	U	9.5	0.95	ug/L		05/05/17 10:00	05/19/17 00:26	1
N-Nitrosopyrrolidine	0.95	U	9.5	0.95	ug/L		05/05/17 10:00	05/19/17 00:26	1
o,o',o''-Triethylphosphorothioate	1.1	U	48	1.1	ug/L		05/05/17 10:00	05/19/17 00:26	1
O,O-Diethyl O-2-pyrazinyl phosphorothioate	0.95	U	48	0.95	ug/L		05/05/17 10:00	05/19/17 00:26	1
o-Toluidine	0.95	U	19	0.95	ug/L		05/05/17 10:00	05/19/17 00:26	1
Parathion	0.95	U	48	0.95	ug/L		05/05/17 10:00	05/19/17 00:26	1
p-Dimethylamino azobenzene	0.95	U	9.5	0.95	ug/L		05/05/17 10:00	05/19/17 00:26	1
Pentachlorobenzene	0.95	U	9.5	0.95	ug/L		05/05/17 10:00	05/19/17 00:26	1
Pentachloroethane	0.95	U	48	0.95	ug/L		05/05/17 10:00	05/19/17 00:26	1
Pentachloronitrobenzene	0.95	U	48	0.95	ug/L		05/05/17 10:00	05/19/17 00:26	1

Client Sample Results

Client: CH2M Hill Plateau Remediation Company
Project/Site: I17-007, W17-005, S17-005

TestAmerica Job ID: 160-22112-1
SDG: SL2511

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B39JT2
Date Collected: 05/02/17 12:50
Date Received: 05/03/17 09:10

Lab Sample ID: 160-22140-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	1.2	U	48	1.2	ug/L		05/05/17 10:00	05/19/17 00:26	1
Phenacetin	0.95	U	19	0.95	ug/L		05/05/17 10:00	05/19/17 00:26	1
Phenanthrene	0.95	U	9.5	0.95	ug/L		05/05/17 10:00	05/19/17 00:26	1
Phenol	1.9	U	9.5	1.9	ug/L		05/05/17 10:00	05/19/17 00:26	1
Phorate	1.9	U	48	1.9	ug/L		05/05/17 10:00	05/19/17 00:26	1
p-Phenylene diamine	0.95	U	95	0.95	ug/L		05/05/17 10:00	05/19/17 00:26	1
Pronamide	0.95	U	19	0.95	ug/L		05/05/17 10:00	05/19/17 00:26	1
Pyrene	0.95	U	9.5	0.95	ug/L		05/05/17 10:00	05/19/17 00:26	1
Pyridine	1.9	U	19	1.9	ug/L		05/05/17 10:00	05/19/17 00:26	1
Safrole	0.95	U	19	0.95	ug/L		05/05/17 10:00	05/19/17 00:26	1
sym-Trinitrobenzene	0.95	U	48	0.95	ug/L		05/05/17 10:00	05/19/17 00:26	1
Tetraethyl dithiopyrophosphate (sulfotep)	0.95	U	48	0.95	ug/L		05/05/17 10:00	05/19/17 00:26	1
Tributyl phosphate	0.95	U	9.5	0.95	ug/L		05/05/17 10:00	05/19/17 00:26	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Methylene Chloride	*4.5*	*N J*	*ug/L*		*2.35*	*75-09-2*	*05/05/17 10:00*	*05/19/17 00:26*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*90*		*37 - 120*	*05/05/17 10:00*	*05/19/17 00:26*	*1*
2-Fluorobiphenyl (Surr)	*66*		*43 - 108*	*05/05/17 10:00*	*05/19/17 00:26*	*1*
2-Fluorophenol (Surr)	*39*		*15 - 59*	*05/05/17 10:00*	*05/19/17 00:26*	*1*
Nitrobenzene-d5 (Surr)	*60*		*50 - 101*	*05/05/17 10:00*	*05/19/17 00:26*	*1*
Phenol-d5 (Surr)	*24*		*10 - 50*	*05/05/17 10:00*	*05/19/17 00:26*	*1*
Terphenyl-d14 (Surr)	*71*		*21 - 97*	*05/05/17 10:00*	*05/19/17 00:26*	*1*

Client Sample ID: B39JT0
Date Collected: 05/02/17 10:28
Date Received: 05/03/17 09:10

Lab Sample ID: 160-22140-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4,5-Tetrachlorobenzene	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:09	1
1,2,4-Trichlorobenzene	0.94	U o	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:09	1
1,2-Dichlorobenzene	0.94	U T o	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:09	1
1,3-Dichlorobenzene	0.94	U T o	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:09	1
1,4-Dichlorobenzene	0.94	U T o	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:09	1
1,4-Dioxane	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:09	1
1,4-Naphthoquinone	0.94	U	47	0.94	ug/L		05/05/17 10:00	05/24/17 14:09	1
1-Naphthylamine	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:09	1
2,3,4,6-Tetrachlorophenol	0.94	U	47	0.94	ug/L		05/05/17 10:00	05/24/17 14:09	1
2,4,5-Trichlorophenol	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:09	1
2,4,6-Trichlorophenol	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:09	1
2,4-Dichlorophenol	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:09	1
2,4-Dimethylphenol	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:09	1
2,4-Dinitrophenol	1.9	U o	47	1.9	ug/L		05/05/17 10:00	05/24/17 14:09	1
2,4-Dinitrotoluene	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:09	1
2,6-Dichlorophenol	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:09	1
2,6-Dinitrotoluene	2.0	U	9.4	2.0	ug/L		05/05/17 10:00	05/24/17 14:09	1
2-Acetylaminofluorene	0.94	U	94	0.94	ug/L		05/05/17 10:00	05/24/17 14:09	1
2-Chloronaphthalene	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:09	1
2-Chlorophenol	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:09	1

Client Sample Results

Client: CH2M Hill Plateau Remediation Company
Project/Site: I17-007, W17-005, S17-005

TestAmerica Job ID: 160-22112-1
SDG: SL2511

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B39JT0
Date Collected: 05/02/17 10:28
Date Received: 05/03/17 09:10

Lab Sample ID: 160-22140-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:09	1
2-Methylphenol	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:09	1
2-Naphthylamine	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:09	1
2-Nitroaniline	1.0	U	9.4	1.0	ug/L		05/05/17 10:00	05/24/17 14:09	1
2-Nitrophenol	1.4	U	9.4	1.4	ug/L		05/05/17 10:00	05/24/17 14:09	1
2-Picoline	1.9	U	19	1.9	ug/L		05/05/17 10:00	05/24/17 14:09	1
3 & 4 Methylphenol	1.9	U	19	1.9	ug/L		05/05/17 10:00	05/24/17 14:09	1
3,3'-Dichlorobenzidine	1.2	U	47	1.2	ug/L		05/05/17 10:00	05/24/17 14:09	1
3,3'-Dimethylbenzidine	2.5	U	47	2.5	ug/L		05/05/17 10:00	05/24/17 14:09	1
3-Methylcholanthrene	0.94	U	19	0.94	ug/L		05/05/17 10:00	05/24/17 14:09	1
3-Nitroaniline	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:09	1
4,6-Dinitro-2-methylphenol	1.2	U	9.4	1.2	ug/L		05/05/17 10:00	05/24/17 14:09	1
4-Aminobiphenyl	0.99	U	47	0.99	ug/L		05/05/17 10:00	05/24/17 14:09	1
4-Bromophenyl phenyl ether	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:09	1
4-Chloro-3-methylphenol	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:09	1
4-Chloroaniline	1.9	U	9.4	1.9	ug/L		05/05/17 10:00	05/24/17 14:09	1
4-Chlorophenyl phenyl ether	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:09	1
4-Nitroaniline	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:09	1
4-Nitrophenol	1.9	U	9.4	1.9	ug/L		05/05/17 10:00	05/24/17 14:09	1
4-Nitroquinoline-1-oxide	4.7	U	94	4.7	ug/L		05/05/17 10:00	05/24/17 14:09	1
5-Nitro-o-toluidine	0.94	U	19	0.94	ug/L		05/05/17 10:00	05/24/17 14:09	1
7,12-Dimethylbenz(a)anthracene	0.94	U	19	0.94	ug/L		05/05/17 10:00	05/24/17 14:09	1
Acenaphthene	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:09	1
Acenaphthylene	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:09	1
Acetophenone	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:09	1
alpha,alpha-Dimethyl phenethylamine	21	U	47	21	ug/L		05/05/17 10:00	05/24/17 14:09	1
Aniline	1.2	U	9.4	1.2	ug/L		05/05/17 10:00	05/24/17 14:09	1
Anthracene	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:09	1
Aramite, Total	4.7	U	19	4.7	ug/L		05/05/17 10:00	05/24/17 14:09	1
Benzo[a]anthracene	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:09	1
Benzo[a]pyrene	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:09	1
Benzo[b]fluoranthene	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:09	1
Benzo[g,h,i]perylene	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:09	1
Benzo[k]fluoranthene	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:09	1
Benzyl alcohol	2.8	U	9.4	2.8	ug/L		05/05/17 10:00	05/24/17 14:09	1
bis(2 chloro-1-methylethyl) ether	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:09	1
Bis(2-chloroethoxy)methane	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:09	1
Bis(2-chloroethyl)ether	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:09	1
Bis(2-ethylhexyl) phthalate	1.8	U	9.4	1.8	ug/L		05/05/17 10:00	05/24/17 14:09	1
Butyl benzyl phthalate	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:09	1
Carbazole	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:09	1
Chlorobenzilate	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:09	1
Chrysene	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:09	1
Diallate	1.9	U	19	1.9	ug/L		05/05/17 10:00	05/24/17 14:09	1
Dibenz(a,h)anthracene	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:09	1
Dibenzofuran	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:09	1
Diethyl phthalate	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:09	1
Dimethoate	0.94	U	19	0.94	ug/L		05/05/17 10:00	05/24/17 14:09	1
Dimethyl phthalate	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:09	1

Client Sample Results

Client: CH2M Hill Plateau Remediation Company
Project/Site: I17-007, W17-005, S17-005

TestAmerica Job ID: 160-22112-1
SDG: SL2511

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B39JT0
Date Collected: 05/02/17 10:28
Date Received: 05/03/17 09:10

Lab Sample ID: 160-22140-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Di-n-butyl phthalate	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:09	1
Dinitrobenzene, m-	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:09	1
Di-n-octyl phthalate	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:09	1
Dinoseb	1.9	U	19	1.9	ug/L		05/05/17 10:00	05/24/17 14:09	1
Diphenylamine + N-Nitrosodiphenylamine	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:09	1
Disulfoton	0.94	U	47	0.94	ug/L		05/05/17 10:00	05/24/17 14:09	1
Ethyl methanesulfonate	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:09	1
Famphur	1.6	U	94	1.6	ug/L		05/05/17 10:00	05/24/17 14:09	1
Fluoranthene	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:09	1
Fluorene	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:09	1
Hexachlorobenzene	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:09	1
Hexachlorobutadiene	0.94	U o	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:09	1
Hexachlorocyclopentadiene	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:09	1
Hexachloroethane	0.94	U T o	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:09	1
Hexachlorophene	9.4	U	240	9.4	ug/L		05/05/17 10:00	05/24/17 14:09	1
Hexachloropropene	0.94	U	94	0.94	ug/L		05/05/17 10:00	05/24/17 14:09	1
Indeno[1,2,3-cd]pyrene	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:09	1
Isodrin	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:09	1
Isophorone	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:09	1
Isosafrole	4.7	U	19	4.7	ug/L		05/05/17 10:00	05/24/17 14:09	1
Kepone	19	U	94	19	ug/L		05/05/17 10:00	05/24/17 14:09	1
Methapyrilene	1.2	U	47	1.2	ug/L		05/05/17 10:00	05/24/17 14:09	1
Methyl methanesulfonate	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:09	1
Methyl parathion	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:09	1
Naphthalene	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:09	1
Nitrobenzene	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:09	1
N-Nitrosodiethylamine	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:09	1
N-Nitrosodimethylamine	1.9	U	9.4	1.9	ug/L		05/05/17 10:00	05/24/17 14:09	1
N-Nitrosodi-n-butylamine	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:09	1
N-Nitrosodi-n-propylamine	1.4	U	9.4	1.4	ug/L		05/05/17 10:00	05/24/17 14:09	1
N-Nitrosomethylethylamine	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:09	1
N-Nitrosomorpholine	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:09	1
N-Nitrosopiperidine	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:09	1
N-Nitrosopyrrolidine	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:09	1
o,o',o''-Triethylphosphorothioate	1.1	U	47	1.1	ug/L		05/05/17 10:00	05/24/17 14:09	1
O,O-Diethyl O-2-pyrazinyl phosphorothioate	0.94	U	47	0.94	ug/L		05/05/17 10:00	05/24/17 14:09	1
o-Toluidine	0.94	U	19	0.94	ug/L		05/05/17 10:00	05/24/17 14:09	1
Parathion	0.94	U	47	0.94	ug/L		05/05/17 10:00	05/24/17 14:09	1
p-Dimethylamino azobenzene	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:09	1
Pentachlorobenzene	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:09	1
Pentachloroethane	0.94	U	47	0.94	ug/L		05/05/17 10:00	05/24/17 14:09	1
Pentachloronitrobenzene	0.94	U	47	0.94	ug/L		05/05/17 10:00	05/24/17 14:09	1
Pentachlorophenol	1.2	U	47	1.2	ug/L		05/05/17 10:00	05/24/17 14:09	1
Phenacetin	0.94	U	19	0.94	ug/L		05/05/17 10:00	05/24/17 14:09	1
Phenanthrene	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:09	1
Phenol	1.9	U	9.4	1.9	ug/L		05/05/17 10:00	05/24/17 14:09	1
Phorate	1.9	U	47	1.9	ug/L		05/05/17 10:00	05/24/17 14:09	1
p-Phenylene diamine	0.94	U	94	0.94	ug/L		05/05/17 10:00	05/24/17 14:09	1

Client Sample Results

Client: CH2M Hill Plateau Remediation Company
Project/Site: I17-007, W17-005, S17-005

TestAmerica Job ID: 160-22112-1
SDG: SL2511

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B39JT0
Date Collected: 05/02/17 10:28
Date Received: 05/03/17 09:10

Lab Sample ID: 160-22140-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pronamide	0.94	U	19	0.94	ug/L		05/05/17 10:00	05/24/17 14:09	1
Pyrene	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:09	1
Pyridine	1.9	U	19	1.9	ug/L		05/05/17 10:00	05/24/17 14:09	1
Safrole	0.94	U	19	0.94	ug/L		05/05/17 10:00	05/24/17 14:09	1
sym-Trinitrobenzene	0.94	U	47	0.94	ug/L		05/05/17 10:00	05/24/17 14:09	1
Tetraethyl dithiopyrophosphate (sulfotep)	0.94	U	47	0.94	ug/L		05/05/17 10:00	05/24/17 14:09	1
Tributyl phosphate	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:09	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*				*05/05/17 10:00*	*05/24/17 14:09*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*79*		*37 - 120*	*05/05/17 10:00*	*05/24/17 14:09*	*1*
2-Fluorobiphenyl (Surr)	*62*		*43 - 108*	*05/05/17 10:00*	*05/24/17 14:09*	*1*
2-Fluorophenol (Surr)	*35*		*15 - 59*	*05/05/17 10:00*	*05/24/17 14:09*	*1*
Nitrobenzene-d5 (Surr)	*58*		*50 - 101*	*05/05/17 10:00*	*05/24/17 14:09*	*1*
Phenol-d5 (Surr)	*22*		*10 - 50*	*05/05/17 10:00*	*05/24/17 14:09*	*1*
Terphenyl-d14 (Surr)	*70*		*21 - 97*	*05/05/17 10:00*	*05/24/17 14:09*	*1*

Client Sample ID: B39JT9
Date Collected: 05/02/17 11:32
Date Received: 05/03/17 09:10

Lab Sample ID: 160-22140-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4,5-Tetrachlorobenzene	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:45	1
1,2,4-Trichlorobenzene	0.94	U o	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:45	1
1,2-Dichlorobenzene	0.94	U T o	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:45	1
1,3-Dichlorobenzene	0.94	U T o	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:45	1
1,4-Dichlorobenzene	0.94	U T o	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:45	1
1,4-Dioxane	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:45	1
1,4-Naphthoquinone	0.94	U	47	0.94	ug/L		05/05/17 10:00	05/24/17 14:45	1
1-Naphthylamine	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:45	1
2,3,4,6-Tetrachlorophenol	0.94	U	47	0.94	ug/L		05/05/17 10:00	05/24/17 14:45	1
2,4,5-Trichlorophenol	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:45	1
2,4,6-Trichlorophenol	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:45	1
2,4-Dichlorophenol	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:45	1
2,4-Dimethylphenol	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:45	1
2,4-Dinitrophenol	1.9	U o	47	1.9	ug/L		05/05/17 10:00	05/24/17 14:45	1
2,4-Dinitrotoluene	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:45	1
2,6-Dichlorophenol	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:45	1
2,6-Dinitrotoluene	2.0	U	9.4	2.0	ug/L		05/05/17 10:00	05/24/17 14:45	1
2-Acetylaminofluorene	0.94	U	94	0.94	ug/L		05/05/17 10:00	05/24/17 14:45	1
2-Chloronaphthalene	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:45	1
2-Chlorophenol	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:45	1
2-Methylnaphthalene	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:45	1
2-Methylphenol	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:45	1
2-Naphthylamine	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:45	1
2-Nitroaniline	1.0	U	9.4	1.0	ug/L		05/05/17 10:00	05/24/17 14:45	1
2-Nitrophenol	1.4	U	9.4	1.4	ug/L		05/05/17 10:00	05/24/17 14:45	1
2-Picoline	1.9	U	19	1.9	ug/L		05/05/17 10:00	05/24/17 14:45	1

Client Sample Results

Client: CH2M Hill Plateau Remediation Company
Project/Site: I17-007, W17-005, S17-005

TestAmerica Job ID: 160-22112-1
SDG: SL2511

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B39JT9
Date Collected: 05/02/17 11:32
Date Received: 05/03/17 09:10

Lab Sample ID: 160-22140-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3 & 4 Methylphenol	1.9	U	19	1.9	ug/L		05/05/17 10:00	05/24/17 14:45	1
3,3'-Dichlorobenzidine	1.2	U	47	1.2	ug/L		05/05/17 10:00	05/24/17 14:45	1
3,3'-Dimethylbenzidine	2.5	U	47	2.5	ug/L		05/05/17 10:00	05/24/17 14:45	1
3-Methylcholanthrene	0.94	U	19	0.94	ug/L		05/05/17 10:00	05/24/17 14:45	1
3-Nitroaniline	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:45	1
4,6-Dinitro-2-methylphenol	1.2	U	9.4	1.2	ug/L		05/05/17 10:00	05/24/17 14:45	1
4-Aminobiphenyl	0.99	U	47	0.99	ug/L		05/05/17 10:00	05/24/17 14:45	1
4-Bromophenyl phenyl ether	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:45	1
4-Chloro-3-methylphenol	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:45	1
4-Chloroaniline	1.9	U	9.4	1.9	ug/L		05/05/17 10:00	05/24/17 14:45	1
4-Chlorophenyl phenyl ether	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:45	1
4-Nitroaniline	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:45	1
4-Nitrophenol	1.9	U	9.4	1.9	ug/L		05/05/17 10:00	05/24/17 14:45	1
4-Nitroquinoline-1-oxide	4.7	U	94	4.7	ug/L		05/05/17 10:00	05/24/17 14:45	1
5-Nitro-o-toluidine	0.94	U	19	0.94	ug/L		05/05/17 10:00	05/24/17 14:45	1
7,12-Dimethylbenz(a)anthracene	0.94	U	19	0.94	ug/L		05/05/17 10:00	05/24/17 14:45	1
Acenaphthene	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:45	1
Acenaphthylene	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:45	1
Acetophenone	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:45	1
alpha,alpha-Dimethyl phenethylamine	21	U	47	21	ug/L		05/05/17 10:00	05/24/17 14:45	1
Aniline	1.2	U	9.4	1.2	ug/L		05/05/17 10:00	05/24/17 14:45	1
Anthracene	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:45	1
Aramite, Total	4.7	U	19	4.7	ug/L		05/05/17 10:00	05/24/17 14:45	1
Benzo[a]anthracene	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:45	1
Benzo[a]pyrene	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:45	1
Benzo[b]fluoranthene	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:45	1
Benzo[g,h,i]perylene	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:45	1
Benzo[k]fluoranthene	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:45	1
Benzyl alcohol	2.8	U	9.4	2.8	ug/L		05/05/17 10:00	05/24/17 14:45	1
bis(2 chloro-1-methylethyl) ether	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:45	1
Bis(2-chloroethoxy)methane	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:45	1
Bis(2-chloroethyl)ether	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:45	1
Bis(2-ethylhexyl) phthalate	1.8	U	9.4	1.8	ug/L		05/05/17 10:00	05/24/17 14:45	1
Butyl benzyl phthalate	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:45	1
Carbazole	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:45	1
Chlorobenzilate	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:45	1
Chrysene	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:45	1
Diallate	1.9	U	19	1.9	ug/L		05/05/17 10:00	05/24/17 14:45	1
Dibenz(a,h)anthracene	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:45	1
Dibenzofuran	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:45	1
Diethyl phthalate	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:45	1
Dimethoate	0.94	U	19	0.94	ug/L		05/05/17 10:00	05/24/17 14:45	1
Dimethyl phthalate	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:45	1
Di-n-butyl phthalate	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:45	1
Dinitrobenzene, m-	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:45	1
Di-n-octyl phthalate	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:45	1
Dinoseb	1.9	U	19	1.9	ug/L		05/05/17 10:00	05/24/17 14:45	1
Diphenylamine + N-Nitrosodiphenylamine	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:45	1
Disulfoton	0.94	U	47	0.94	ug/L		05/05/17 10:00	05/24/17 14:45	1

Client Sample Results

Client: CH2M Hill Plateau Remediation Company
Project/Site: I17-007, W17-005, S17-005

TestAmerica Job ID: 160-22112-1
SDG: SL2511

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B39JT9
Date Collected: 05/02/17 11:32
Date Received: 05/03/17 09:10

Lab Sample ID: 160-22140-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethyl methanesulfonate	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:45	1
Famphur	1.6	U	94	1.6	ug/L		05/05/17 10:00	05/24/17 14:45	1
Fluoranthene	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:45	1
Fluorene	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:45	1
Hexachlorobenzene	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:45	1
Hexachlorobutadiene	0.94	U o	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:45	1
Hexachlorocyclopentadiene	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:45	1
Hexachloroethane	0.94	U T o	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:45	1
Hexachlorophene	9.4	U	240	9.4	ug/L		05/05/17 10:00	05/24/17 14:45	1
Hexachloropropene	0.94	U	94	0.94	ug/L		05/05/17 10:00	05/24/17 14:45	1
Indeno[1,2,3-cd]pyrene	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:45	1
Isodrin	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:45	1
Isophorone	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:45	1
Isosafrole	4.7	U	19	4.7	ug/L		05/05/17 10:00	05/24/17 14:45	1
Kepone	19	U	94	19	ug/L		05/05/17 10:00	05/24/17 14:45	1
Methapyrilene	1.2	U	47	1.2	ug/L		05/05/17 10:00	05/24/17 14:45	1
Methyl methanesulfonate	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:45	1
Methyl parathion	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:45	1
Naphthalene	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:45	1
Nitrobenzene	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:45	1
N-Nitrosodiethylamine	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:45	1
N-Nitrosodimethylamine	1.9	U	9.4	1.9	ug/L		05/05/17 10:00	05/24/17 14:45	1
N-Nitrosodi-n-butylamine	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:45	1
N-Nitrosodi-n-propylamine	1.4	U	9.4	1.4	ug/L		05/05/17 10:00	05/24/17 14:45	1
N-Nitrosomethylethylamine	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:45	1
N-Nitrosomorpholine	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:45	1
N-Nitrosopiperidine	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:45	1
N-Nitrosopyrrolidine	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:45	1
o,o',o''-Triethylphosphorothioate	1.1	U	47	1.1	ug/L		05/05/17 10:00	05/24/17 14:45	1
O,O-Diethyl O-2-pyrazinyl phosphorothioate	0.94	U	47	0.94	ug/L		05/05/17 10:00	05/24/17 14:45	1
o-Toluidine	0.94	U	19	0.94	ug/L		05/05/17 10:00	05/24/17 14:45	1
Parathion	0.94	U	47	0.94	ug/L		05/05/17 10:00	05/24/17 14:45	1
p-Dimethylamino azobenzene	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:45	1
Pentachlorobenzene	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:45	1
Pentachloroethane	0.94	U	47	0.94	ug/L		05/05/17 10:00	05/24/17 14:45	1
Pentachloronitrobenzene	0.94	U	47	0.94	ug/L		05/05/17 10:00	05/24/17 14:45	1
Pentachlorophenol	1.2	U	47	1.2	ug/L		05/05/17 10:00	05/24/17 14:45	1
Phenacetin	0.94	U	19	0.94	ug/L		05/05/17 10:00	05/24/17 14:45	1
Phenanthrene	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:45	1
Phenol	1.9	U	9.4	1.9	ug/L		05/05/17 10:00	05/24/17 14:45	1
Phorate	1.9	U	47	1.9	ug/L		05/05/17 10:00	05/24/17 14:45	1
p-Phenylene diamine	0.94	U	94	0.94	ug/L		05/05/17 10:00	05/24/17 14:45	1
Pronamide	0.94	U	19	0.94	ug/L		05/05/17 10:00	05/24/17 14:45	1
Pyrene	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:45	1
Pyridine	1.9	U	19	1.9	ug/L		05/05/17 10:00	05/24/17 14:45	1
Safrole	0.94	U	19	0.94	ug/L		05/05/17 10:00	05/24/17 14:45	1
sym-Trinitrobenzene	0.94	U	47	0.94	ug/L		05/05/17 10:00	05/24/17 14:45	1
Tetraethyl dithiopyrophosphate (sulfotep)	0.94	U	47	0.94	ug/L		05/05/17 10:00	05/24/17 14:45	1

Client Sample Results

Client: CH2M Hill Plateau Remediation Company
Project/Site: I17-007, W17-005, S17-005

TestAmerica Job ID: 160-22112-1
SDG: SL2511

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B39JT9
Date Collected: 05/02/17 11:32
Date Received: 05/03/17 09:10

Lab Sample ID: 160-22140-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tributyl phosphate	0.94	U	9.4	0.94	ug/L		05/05/17 10:00	05/24/17 14:45	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentative Identified Compound	*None*		*ug/L*				*05/05/17 10:00*	*05/24/17 14:45*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*74*		*37 - 120*	*05/05/17 10:00*	*05/24/17 14:45*	*1*
2-Fluorobiphenyl (Surr)	*57*		*43 - 108*	*05/05/17 10:00*	*05/24/17 14:45*	*1*
2-Fluorophenol (Surr)	*36*		*15 - 59*	*05/05/17 10:00*	*05/24/17 14:45*	*1*
Nitrobenzene-d5 (Surr)	*55*		*50 - 101*	*05/05/17 10:00*	*05/24/17 14:45*	*1*
Phenol-d5 (Surr)	*22*		*10 - 50*	*05/05/17 10:00*	*05/24/17 14:45*	*1*
Terphenyl-d14 (Surr)	*69*		*21 - 97*	*05/05/17 10:00*	*05/24/17 14:45*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Sample ID: B39JT2
Date Collected: 05/02/17 12:50
Date Received: 05/03/17 09:10

Lab Sample ID: 160-22140-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.34	U	0.96	0.34	ug/L		05/08/17 09:30	05/10/17 15:02	1
Aroclor 1221	0.34	U	0.96	0.34	ug/L		05/08/17 09:30	05/10/17 15:02	1
Aroclor 1232	0.34	U	0.96	0.34	ug/L		05/08/17 09:30	05/10/17 15:02	1
Aroclor 1242	0.34	U	0.96	0.34	ug/L		05/08/17 09:30	05/10/17 15:02	1
Aroclor 1248	0.34	U	0.96	0.34	ug/L		05/08/17 09:30	05/10/17 15:02	1
Aroclor 1254	0.21	U	0.96	0.21	ug/L		05/08/17 09:30	05/10/17 15:02	1
Aroclor 1260	0.21	U	0.96	0.21	ug/L		05/08/17 09:30	05/10/17 15:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr)	*102*		*32 - 141*	*05/08/17 09:30*	*05/10/17 15:02*	*1*

Client Sample ID: B39JT0
Date Collected: 05/02/17 10:28
Date Received: 05/03/17 09:10

Lab Sample ID: 160-22140-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.33	U	0.95	0.33	ug/L		05/08/17 09:30	05/10/17 15:23	1
Aroclor 1221	0.33	U	0.95	0.33	ug/L		05/08/17 09:30	05/10/17 15:23	1
Aroclor 1232	0.33	U	0.95	0.33	ug/L		05/08/17 09:30	05/10/17 15:23	1
Aroclor 1242	0.33	U	0.95	0.33	ug/L		05/08/17 09:30	05/10/17 15:23	1
Aroclor 1248	0.33	U	0.95	0.33	ug/L		05/08/17 09:30	05/10/17 15:23	1
Aroclor 1254	0.21	U	0.95	0.21	ug/L		05/08/17 09:30	05/10/17 15:23	1
Aroclor 1260	0.21	U	0.95	0.21	ug/L		05/08/17 09:30	05/10/17 15:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr)	*104*		*32 - 141*	*05/08/17 09:30*	*05/10/17 15:23*	*1*

Client Sample ID: B39JT9
Date Collected: 05/02/17 11:32
Date Received: 05/03/17 09:10

Lab Sample ID: 160-22140-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.33	U	0.94	0.33	ug/L		05/08/17 09:30	05/10/17 16:26	1
Aroclor 1221	0.33	U	0.94	0.33	ug/L		05/08/17 09:30	05/10/17 16:26	1

Client Sample Results

Client: CH2M Hill Plateau Remediation Company
Project/Site: I17-007, W17-005, S17-005

TestAmerica Job ID: 160-22112-1
SDG: SL2511

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Client Sample ID: B39JT9
Date Collected: 05/02/17 11:32
Date Received: 05/03/17 09:10

Lab Sample ID: 160-22140-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1232	0.33	U	0.94	0.33	ug/L		05/08/17 09:30	05/10/17 16:26	1
Aroclor 1242	0.33	U	0.94	0.33	ug/L		05/08/17 09:30	05/10/17 16:26	1
Aroclor 1248	0.33	U	0.94	0.33	ug/L		05/08/17 09:30	05/10/17 16:26	1
Aroclor 1254	0.20	U	0.94	0.20	ug/L		05/08/17 09:30	05/10/17 16:26	1
Aroclor 1260	0.20	U	0.94	0.20	ug/L		05/08/17 09:30	05/10/17 16:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr)	*103*		*32 - 141*	*05/08/17 09:30*	*05/10/17 16:26*	*1*

Method: 300.0 - Anions, Ion Chromatography - DL

Client Sample ID: B39JP8
Date Collected: 05/01/17 12:35
Date Received: 05/02/17 09:40

Lab Sample ID: 160-22112-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	**0.29**	**D**	0.20	0.052	mg/L			05/02/17 20:33	2
Nitrate as N	**0.37**	**D**	0.040	0.014	mg/L			05/02/17 20:33	2
Nitrite as N	0.014	U D	0.040	0.014	mg/L			05/02/17 20:33	2
Sulfate	**13**	**D**	1.0	0.10	mg/L			05/02/17 20:33	2
Chloride	**3.9**	**D**	0.40	0.040	mg/L			05/02/17 20:33	2

Method: 6010C - Metals (ICP)

Client Sample ID: B39BW9
Date Collected: 05/02/17 10:28
Date Received: 05/03/17 09:10

Lab Sample ID: 160-22140-16
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	3.0	U	10.0	3.0	ug/L		05/09/17 12:13	05/15/17 21:51	1
Arsenic	4.0	U	10.0	4.0	ug/L		05/09/17 12:13	05/15/17 21:51	1
Barium	**31.1**	**B**	50.0	15.0	ug/L		05/09/17 12:13	05/15/17 21:51	1
Cadmium	1.5	U	5.0	1.5	ug/L		05/09/17 12:13	05/15/17 21:51	1
Calcium	**30700**		1000	300	ug/L		05/09/17 12:13	05/15/17 21:51	1
Chromium	**7.0**	**B**	10.0	3.0	ug/L		05/09/17 12:13	05/15/17 21:51	1
Cobalt	15.0	U	50.0	15.0	ug/L		05/09/17 12:13	05/15/17 21:51	1
Copper	7.0	U	25.0	7.0	ug/L		05/09/17 12:13	05/15/17 21:51	1
Iron	30.0	U	100	30.0	ug/L		05/09/17 12:13	05/15/17 21:51	1
Magnesium	**10600**		1000	300	ug/L		05/09/17 12:13	05/15/17 21:51	1
Manganese	4.0	U	15.0	4.0	ug/L		05/09/17 12:13	05/15/17 21:51	1
Nickel	10.0	U	40.0	10.0	ug/L		05/09/17 12:13	05/15/17 21:51	1
Potassium	**3290**	**B**	5000	1500	ug/L		05/09/17 12:13	05/15/17 21:51	1
Silver	3.0	U	10.0	3.0	ug/L		05/09/17 12:13	05/15/17 21:51	1
Sodium	**16500**		1000	300	ug/L		05/09/17 12:13	05/15/17 21:51	1
Vanadium	**28.7**	**B**	50.0	25.0	ug/L		05/09/17 12:13	05/15/17 21:51	1
Zinc	6.0	U	20.0	6.0	ug/L		05/09/17 12:13	05/15/17 21:51	1

Client Sample Results

Client: CH2M Hill Plateau Remediation Company
Project/Site: I17-007, W17-005, S17-005

TestAmerica Job ID: 160-22112-1
SDG: SL2511

Method: 6010C - Metals (ICP) - Dissolved

Client Sample ID: B39BX4
Date Collected: 05/02/17 10:28
Date Received: 05/03/17 09:10

Lab Sample ID: 160-22140-17
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	3.0	U	10.0	3.0	ug/L		05/09/17 12:13	05/15/17 21:56	1
Arsenic	4.0	U	10.0	4.0	ug/L		05/09/17 12:13	05/15/17 21:56	1
Barium	**30.0**	**B**	50.0	15.0	ug/L		05/09/17 12:13	05/15/17 21:56	1
Cadmium	1.5	U	5.0	1.5	ug/L		05/09/17 12:13	05/15/17 21:56	1
Calcium	**29900**		1000	300	ug/L		05/09/17 12:13	05/15/17 21:56	1
Chromium	**6.6**	**B**	10.0	3.0	ug/L		05/09/17 12:13	05/15/17 21:56	1
Cobalt	15.0	U	50.0	15.0	ug/L		05/09/17 12:13	05/15/17 21:56	1
Copper	7.0	U	25.0	7.0	ug/L		05/09/17 12:13	05/15/17 21:56	1
Iron	30.0	U	100	30.0	ug/L		05/09/17 12:13	05/15/17 21:56	1
Magnesium	**10500**		1000	300	ug/L		05/09/17 12:13	05/15/17 21:56	1
Manganese	4.0	U	15.0	4.0	ug/L		05/09/17 12:13	05/15/17 21:56	1
Nickel	10.0	U	40.0	10.0	ug/L		05/09/17 12:13	05/15/17 21:56	1
Potassium	**3130**	**B**	5000	1500	ug/L		05/09/17 12:13	05/15/17 21:56	1
Silver	3.0	U	10.0	3.0	ug/L		05/09/17 12:13	05/15/17 21:56	1
Sodium	**16100**		1000	300	ug/L		05/09/17 12:13	05/15/17 21:56	1
Vanadium	**33.7**	**B**	50.0	25.0	ug/L		05/09/17 12:13	05/15/17 21:56	1
Zinc	6.0	U	20.0	6.0	ug/L		05/09/17 12:13	05/15/17 21:56	1

Method: 7470A - Mercury (CVAA)

Client Sample ID: B39BW9
Date Collected: 05/02/17 10:28
Date Received: 05/03/17 09:10

Lab Sample ID: 160-22140-16
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.060	U	0.20	0.060	ug/L		05/05/17 07:20	05/05/17 15:54	1

Method: 7470A - Mercury (CVAA) - Dissolved

Client Sample ID: B39BX4
Date Collected: 05/02/17 10:28
Date Received: 05/03/17 09:10

Lab Sample ID: 160-22140-17
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.060	U	0.20	0.060	ug/L		05/05/17 07:20	05/05/17 15:56	1

General Chemistry

Client Sample ID: B39JP7
Date Collected: 05/01/17 12:35
Date Received: 05/02/17 09:40

Lab Sample ID: 160-22112-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	3.1	U Z	5.0	3.1	ug/L		05/15/17 16:25	05/16/17 12:59	1
Total Organic Carbon	0.72	U	1.0	0.72	mg/L			05/12/17 01:28	1

Client Sample ID: B39JP9
Date Collected: 05/01/17 12:35
Date Received: 05/02/17 09:40

Lab Sample ID: 160-22112-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	2.6	U	10.0	2.6	ug/L			05/02/17 11:04	1

Client Sample Results

Client: CH2M Hill Plateau Remediation Company
Project/Site: I17-007, W17-005, S17-005

TestAmerica Job ID: 160-22112-1
SDG: SL2511

General Chemistry

Client Sample ID: B39JR7
Date Collected: 05/01/17 09:50
Date Received: 05/02/17 09:40
Lab Sample ID: 160-22112-4
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Halogens, Total Organic	2.1	U N	5.0	2.1	ug/L		05/16/17 12:00	05/19/17 02:02	1

Client Sample ID: B39C08
Date Collected: 05/02/17 10:28
Date Received: 05/03/17 09:10
Lab Sample ID: 160-22140-4
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Halogens, Total Organic	2.1	U N	5.0	2.1	ug/L		05/16/17 12:00	05/19/17 02:34	1
Total Organic Carbon	0.72	U	1.0	0.72	mg/L			05/12/17 02:02	1

Client Sample ID: B39BX1
Date Collected: 05/02/17 10:28
Date Received: 05/03/17 09:10
Lab Sample ID: 160-22140-5
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	**119**		5.0	0.54	mg/L			05/12/17 22:31	1
Halogens, Total Organic	2.1	U N	5.0	2.1	ug/L		05/17/17 12:00	05/19/17 03:41	1
Total Organic Carbon	0.72	U	1.0	0.72	mg/L			05/12/17 02:14	1

Client Sample ID: B39C10
Date Collected: 05/02/17 10:28
Date Received: 05/03/17 09:10
Lab Sample ID: 160-22140-6
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Halogens, Total Organic	2.1	U N	5.0	2.1	ug/L		05/17/17 12:00	05/19/17 04:58	1
Total Organic Carbon	0.72	U	1.0	0.72	mg/L			05/12/17 02:25	1

Client Sample ID: B39C09
Date Collected: 05/02/17 10:28
Date Received: 05/03/17 09:10
Lab Sample ID: 160-22140-7
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Halogens, Total Organic	2.1	U N	5.0	2.1	ug/L		05/17/17 12:00	05/19/17 05:25	1
Total Organic Carbon	0.72	U	1.0	0.72	mg/L			05/12/17 02:41	1

Client Sample ID: B39C06
Date Collected: 05/02/17 11:32
Date Received: 05/03/17 09:10
Lab Sample ID: 160-22140-8
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Halogens, Total Organic	2.1	U N	5.0	2.1	ug/L		05/18/17 12:00	05/19/17 05:52	1
Total Organic Carbon	0.72	U	1.0	0.72	mg/L			05/12/17 02:52	1

Client Sample ID: B39C07
Date Collected: 05/02/17 11:32
Date Received: 05/03/17 09:10
Lab Sample ID: 160-22140-9
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Halogens, Total Organic	**9.6**	**y**	5.0	2.1	ug/L		05/22/17 12:00	05/25/17 20:40	1
Total Organic Carbon	0.72	U	1.0	0.72	mg/L			05/12/17 03:04	1

Client Sample ID: B39C05
Date Collected: 05/02/17 11:32
Date Received: 05/03/17 09:10
Lab Sample ID: 160-22140-10
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Halogens, Total Organic	2.1	U	5.0	2.1	ug/L		05/22/17 12:00	05/25/17 23:30	1
Total Organic Carbon	0.72	U	1.0	0.72	mg/L			05/12/17 03:15	1

TestAmerica St. Louis

Client Sample Results

Client: CH2M Hill Plateau Remediation Company
Project/Site: I17-007, W17-005, S17-005

TestAmerica Job ID: 160-22112-1
SDG: SL2511

General Chemistry

Client Sample ID: B39BV9
Date Collected: 05/02/17 11:32
Date Received: 05/03/17 09:10

Lab Sample ID: 160-22140-11
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	**108**		5.0	0.54	mg/L			05/12/17 23:08	1
Bicarbonate Alkalinity	**108**		5.0	0.54	mg/L			05/12/17 23:08	1
Carbonate Alkalinity	0.54	U	5.0	0.54	mg/L			05/12/17 23:08	1
Hydroxide Alkalinity	0.54	U	5.0	0.54	mg/L			05/12/17 23:08	1
Halogens, Total Organic	2.1	U	5.0	2.1	ug/L		05/22/17 12:00	05/25/17 23:59	1
Total Organic Carbon	0.72	U	1.0	0.72	mg/L			05/12/17 03:27	1

Client Sample ID: B39C14
Date Collected: 05/02/17 12:50
Date Received: 05/03/17 09:10

Lab Sample ID: 160-22140-12
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Halogens, Total Organic	2.1	U	5.0	2.1	ug/L		05/22/17 12:00	05/26/17 00:26	1
Total Organic Carbon	0.72	U	1.0	0.72	mg/L			05/12/17 03:38	1

Client Sample ID: B39BY4
Date Collected: 05/02/17 12:50
Date Received: 05/03/17 09:10

Lab Sample ID: 160-22140-13
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	**109**		5.0	0.54	mg/L			05/12/17 23:21	1
Halogens, Total Organic	2.1	U	5.0	2.1	ug/L		05/23/17 12:00	05/26/17 00:53	1
Total Organic Carbon	0.72	U	1.0	0.72	mg/L			05/12/17 03:50	1

Client Sample ID: B39C15
Date Collected: 05/02/17 12:50
Date Received: 05/03/17 09:10

Lab Sample ID: 160-22140-14
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Halogens, Total Organic	2.1	U	5.0	2.1	ug/L		05/23/17 12:00	05/26/17 01:20	1
Total Organic Carbon	0.72	U	1.0	0.72	mg/L			05/12/17 04:34	1

Client Sample ID: B39C16
Date Collected: 05/02/17 12:50
Date Received: 05/03/17 09:10

Lab Sample ID: 160-22140-15
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Halogens, Total Organic	2.1	U	5.0	2.1	ug/L		05/23/17 12:00	05/26/17 02:41	1
Total Organic Carbon	0.72	U	1.0	0.72	mg/L			05/12/17 04:45	1

Client Sample ID: B39CJ9
Date Collected: 05/02/17 12:40
Date Received: 05/03/17 09:10

Lab Sample ID: 160-22140-18
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	**150**		5.0	0.54	mg/L			05/12/17 23:33	1
Bicarbonate Alkalinity	**150**		5.0	0.54	mg/L			05/12/17 23:33	1
Carbonate Alkalinity	0.54	U	5.0	0.54	mg/L			05/12/17 23:33	1
Hydroxide Alkalinity	0.54	U	5.0	0.54	mg/L			05/12/17 23:33	1

Client Sample ID: B39CK6
Date Collected: 05/02/17 11:29
Date Received: 05/03/17 09:10

Lab Sample ID: 160-22140-19
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	**122**		5.0	0.54	mg/L			05/12/17 23:46	1
Bicarbonate Alkalinity	**122**		5.0	0.54	mg/L			05/12/17 23:46	1

Client Sample Results

Client: CH2M Hill Plateau Remediation Company
Project/Site: I17-007, W17-005, S17-005

TestAmerica Job ID: 160-22112-1
SDG: SL2511

General Chemistry (Continued)

Client Sample ID: B39CK6
Date Collected: 05/02/17 11:29
Date Received: 05/03/17 09:10

Lab Sample ID: 160-22140-19
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbonate Alkalinity	0.54	U	5.0	0.54	mg/L			05/12/17 23:46	1
Hydroxide Alkalinity	0.54	U	5.0	0.54	mg/L			05/12/17 23:46	1

Method: 9310 - Gross Alpha / Beta (GFPC)

Client Sample ID: B39JR7
Date Collected: 05/01/17 09:50
Date Received: 05/02/17 09:40

Lab Sample ID: 160-22112-4
Matrix: Water

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Gross Alpha	2.90	U	2.08	2.10	3.00	2.97	pCi/L	05/12/17 10:50	05/15/17 19:22	1
Gross Beta	**4.94**		1.27	1.36	4.00	1.52	pCi/L	05/12/17 10:50	05/15/17 19:22	1

Method: C-01-1 - Carbon-14 (EERF C-01-1)

Client Sample ID: B39JR7
Date Collected: 05/01/17 09:50
Date Received: 05/02/17 09:40

Lab Sample ID: 160-22112-4
Matrix: Water

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Carbon-14	-2.9	U	5.86	5.87	20.0	10.1	pCi/L	05/12/17 08:56	05/16/17 23:10	1

Method: SR-03-RC - Total Beta Strontium (GFPC)

Client Sample ID: B39JR7
Date Collected: 05/01/17 09:50
Date Received: 05/02/17 09:40

Lab Sample ID: 160-22112-4
Matrix: Water

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Strontium 89/90	0.0792	U	0.111	0.112	2.00	0.187	pCi/L	05/11/17 09:12	05/13/17 10:30	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Sr Carrier	*82.9*		*40 - 110*	*05/11/17 09:12*	*05/13/17 10:30*	*1*

QC Sample Results

Client: CH2M Hill Plateau Remediation Company
Project/Site: I17-007, W17-005, S17-005

TestAmerica Job ID: 160-22112-1
SDG: SL2511

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

Lab Sample ID: MB 160-307316/9
Matrix: Water
Analysis Batch: 307316

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-Trichloroethane	0.17	U	1.0	0.17	ug/L			05/05/17 10:24	1
1,1,2-Trichloroethane	0.13	U	1.0	0.13	ug/L			05/05/17 10:24	1
1,1-Dichloroethane	0.070	U	1.0	0.070	ug/L			05/05/17 10:24	1
1,1-Dichloroethene	0.10	U	1.0	0.10	ug/L			05/05/17 10:24	1
1,2-Dichloroethane	0.22	U	1.0	0.22	ug/L			05/05/17 10:24	1
2-Butanone (MEK)	0.47	U	5.0	0.47	ug/L			05/05/17 10:24	1
4-Methyl-2-pentanone (MIBK)	0.22	U	5.0	0.22	ug/L			05/05/17 10:24	1
Acetone	0.55	U	2.0	0.55	ug/L			05/05/17 10:24	1
Benzene	0.10	U	1.0	0.10	ug/L			05/05/17 10:24	1
Carbon disulfide	0.10	U	1.0	0.10	ug/L			05/05/17 10:24	1
Carbon tetrachloride	0.18	U	1.0	0.18	ug/L			05/05/17 10:24	1
Chlorobenzene	0.11	U	1.0	0.11	ug/L			05/05/17 10:24	1
Chloroform	0.10	U	1.0	0.10	ug/L			05/05/17 10:24	1
Ethylbenzene	0.12	U	1.0	0.12	ug/L			05/05/17 10:24	1
Methylene Chloride	0.27	U	1.0	0.27	ug/L			05/05/17 10:24	1
Tetrachloroethene	0.18	U	1.0	0.18	ug/L			05/05/17 10:24	1
Toluene	0.14	U	1.0	0.14	ug/L			05/05/17 10:24	1
Trichloroethene	0.25	U	1.0	0.25	ug/L			05/05/17 10:24	1
Vinyl chloride	0.19	U	2.0	0.19	ug/L			05/05/17 10:24	1
Xylenes, Total	0.27	U	3.0	0.27	ug/L			05/05/17 10:24	1

Tentatively Identified Compound	*MB Est. Result*	*MB Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Ethyl acetate	*0.978*	*J*	*ug/L*		*7.74*	*141-78-6*		*05/05/17 10:24*	*1*
n-Butylbenzene	*0.638*	*J*	*ug/L*		*13.87*	*104-51-8*		*05/05/17 10:24*	*1*
n-Nonyl Aldehyde	*1.28*	*J*	*ug/L*		*14.80*	*124-19-6*		*05/05/17 10:24*	*1*
1,2,4-Trichlorobenzene	*0.959*	*J*	*ug/L*		*15.52*	*120-82-1*		*05/05/17 10:24*	*1*
1,2,3-Trichlorobenzene	*1.05*		*ug/L*		*16.03*	*87-61-6*		*05/05/17 10:24*	*1*
Tentatively Identified Compound	*None*		*ug/L*					*05/05/17 10:24*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*105*		*75 - 129*		*05/05/17 10:24*	*1*
4-Bromofluorobenzene (Surr)	*111*		*81 - 130*		*05/05/17 10:24*	*1*
Dibromofluoromethane (Surr)	*101*		*81 - 124*		*05/05/17 10:24*	*1*
Toluene-d8 (Surr)	*105*		*87 - 128*		*05/05/17 10:24*	*1*

Lab Sample ID: LCS 160-307316/6
Matrix: Water
Analysis Batch: 307316

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	10.0	9.92		ug/L		99	85 - 116
1,1,2-Trichloroethane	10.0	9.63		ug/L		96	80 - 120
1,1-Dichloroethane	10.0	9.77		ug/L		98	80 - 120
1,1-Dichloroethene	10.0	10.1		ug/L		101	80 - 120
1,2-Dichloroethane	10.0	9.57		ug/L		96	80 - 115
2-Butanone (MEK)	10.0	8.71		ug/L		87	67 - 127
4-Methyl-2-pentanone (MIBK)	10.0	9.58		ug/L		96	75 - 126

QC Sample Results

Client: CH2M Hill Plateau Remediation Company
Project/Site: I17-007, W17-005, S17-005

TestAmerica Job ID: 160-22112-1
SDG: SL2511

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

Lab Sample ID: LCS 160-307316/6
Matrix: Water
Analysis Batch: 307316

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	10.0	8.20		ug/L		82	69 - 129
Benzene	10.0	9.74		ug/L		97	80 - 120
Carbon disulfide	10.0	10.1		ug/L		101	80 - 121
Carbon tetrachloride	10.0	10.1		ug/L		101	83 - 125
Chlorobenzene	10.0	9.61		ug/L		96	80 - 120
Chloroform	10.0	9.66		ug/L		97	80 - 120
Ethylbenzene	10.0	9.90		ug/L		99	80 - 120
Methylene Chloride	10.0	9.31		ug/L		93	80 - 120
Tetrachloroethene	10.0	9.92		ug/L		99	83 - 123
Toluene	10.0	9.87		ug/L		99	80 - 120
Trichloroethene	10.0	9.84		ug/L		98	80 - 120
Vinyl chloride	10.0	9.51		ug/L		95	77 - 122
Xylenes, Total	20.0	19.8		ug/L		99	80 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*98*		*75 - 129*
4-Bromofluorobenzene (Surr)	*93*		*81 - 130*
Dibromofluoromethane (Surr)	*99*		*81 - 124*
Toluene-d8 (Surr)	*103*		*87 - 128*

Lab Sample ID: LCSD 160-307316/7
Matrix: Water
Analysis Batch: 307316

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-Trichloroethane	10.0	9.94		ug/L		99	85 - 116	0	20
1,1,2-Trichloroethane	10.0	10.1		ug/L		101	80 - 120	5	20
1,1-Dichloroethane	10.0	9.78		ug/L		98	80 - 120	0	20
1,1-Dichloroethene	10.0	9.99		ug/L		100	80 - 120	1	20
1,2-Dichloroethane	10.0	10.0		ug/L		100	80 - 115	4	20
2-Butanone (MEK)	10.0	9.95		ug/L		99	67 - 127	13	20
4-Methyl-2-pentanone (MIBK)	10.0	10.8		ug/L		108	75 - 126	12	20
Acetone	10.0	9.76		ug/L		98	69 - 129	17	20
Benzene	10.0	9.87		ug/L		99	80 - 120	1	20
Carbon disulfide	10.0	10.1		ug/L		101	80 - 121	0	20
Carbon tetrachloride	10.0	10.1		ug/L		101	83 - 125	0	20
Chlorobenzene	10.0	9.70		ug/L		97	80 - 120	1	20
Chloroform	10.0	9.78		ug/L		98	80 - 120	1	20
Ethylbenzene	10.0	9.93		ug/L		99	80 - 120	0	20
Methylene Chloride	10.0	9.57		ug/L		96	80 - 120	3	20
Tetrachloroethene	10.0	9.79		ug/L		98	83 - 123	1	20
Toluene	10.0	10.0		ug/L		100	80 - 120	1	20
Trichloroethene	10.0	9.86		ug/L		99	80 - 120	0	20
Vinyl chloride	10.0	9.29		ug/L		93	77 - 122	2	20
Xylenes, Total	20.0	20.0		ug/L		100	80 - 120	1	20

QC Sample Results

Client: CH2M Hill Plateau Remediation Company
Project/Site: I17-007, W17-005, S17-005

TestAmerica Job ID: 160-22112-1
SDG: SL2511

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

Lab Sample ID: LCSD 160-307316/7
Matrix: Water
Analysis Batch: 307316

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

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	*103*		*75 - 129*
4-Bromofluorobenzene (Surr)	*94*		*81 - 130*
Dibromofluoromethane (Surr)	*100*		*81 - 124*
Toluene-d8 (Surr)	*103*		*87 - 128*

Lab Sample ID: 160-22111-B-1 MS
Matrix: Water
Analysis Batch: 307316

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-Trichloroethane	0.17	U	10.0	10.2		ug/L		102	82 - 124
1,1,2-Trichloroethane	0.13	U	10.0	9.74		ug/L		97	80 - 120
1,1-Dichloroethane	0.070	U	10.0	10.1		ug/L		101	80 - 122
1,1-Dichloroethene	0.10	U	10.0	10.2		ug/L		102	80 - 120
1,2-Dichloroethane	0.22	U	10.0	9.94		ug/L		99	80 - 120
2-Butanone (MEK)	0.47	U	10.0	9.03		ug/L		90	53 - 145
4-Methyl-2-pentanone (MIBK)	0.22	U	10.0	9.26		ug/L		93	70 - 131
Acetone	0.55	U	10.0	9.85		ug/L		98	50 - 137
Benzene	0.10	U	10.0	10.1		ug/L		101	80 - 120
Carbon disulfide	0.10	U	10.0	10.3		ug/L		103	80 - 121
Carbon tetrachloride	0.18	U	10.0	10.3		ug/L		103	77 - 131
Chlorobenzene	0.11	U	10.0	10.0		ug/L		100	80 - 120
Chloroform	0.10	U	10.0	10.1		ug/L		101	80 - 120
Ethylbenzene	0.12	U	10.0	10.2		ug/L		102	84 - 125
Methylene Chloride	6.3		10.0	15.6		ug/L		93	80 - 120
Tetrachloroethene	0.18	U	10.0	10.2		ug/L		102	80 - 126
Toluene	0.14	U	10.0	10.2		ug/L		102	85 - 123
Trichloroethene	0.25	U	10.0	10.0		ug/L		100	81 - 125
Vinyl chloride	0.19	U	10.0	9.40		ug/L		94	70 - 129
Xylenes, Total	0.27	U	20.0	20.3		ug/L		102	80 - 120

Surrogate	MS %Recovery	MS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	*99*		*75 - 129*
4-Bromofluorobenzene (Surr)	*92*		*81 - 130*
Dibromofluoromethane (Surr)	*101*		*81 - 124*
Toluene-d8 (Surr)	*104*		*87 - 128*

Lab Sample ID: 160-22111-C-1 MSD
Matrix: Water
Analysis Batch: 307316

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-Trichloroethane	0.17	U	10.0	10.1		ug/L		101	82 - 124	1	20
1,1,2-Trichloroethane	0.13	U	10.0	9.55		ug/L		95	80 - 120	2	20
1,1-Dichloroethane	0.070	U	10.0	10.1		ug/L		101	80 - 122	1	20
1,1-Dichloroethene	0.10	U	10.0	10.2		ug/L		102	80 - 120	1	20
1,2-Dichloroethane	0.22	U	10.0	9.67		ug/L		97	80 - 120	3	20
2-Butanone (MEK)	0.47	U	10.0	8.51		ug/L		85	53 - 145	6	20

QC Sample Results

Client: CH2M Hill Plateau Remediation Company
Project/Site: I17-007, W17-005, S17-005

TestAmerica Job ID: 160-22112-1
SDG: SL2511

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

Lab Sample ID: 160-22111-C-1 MSD
Matrix: Water
Analysis Batch: 307316

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
4-Methyl-2-pentanone (MIBK)	0.22	U	10.0	9.00		ug/L		90	70 - 131	3	20
Acetone	0.55	U	10.0	11.1		ug/L		111	50 - 137	12	20
Benzene	0.10	U	10.0	10.0		ug/L		100	80 - 120	1	20
Carbon disulfide	0.10	U	10.0	10.3		ug/L		103	80 - 121	0	20
Carbon tetrachloride	0.18	U	10.0	10.2		ug/L		102	77 - 131	1	20
Chlorobenzene	0.11	U	10.0	9.79		ug/L		98	80 - 120	2	20
Chloroform	0.10	U	10.0	9.89		ug/L		99	80 - 120	2	20
Ethylbenzene	0.12	U	10.0	10.2		ug/L		102	84 - 125	0	20
Methylene Chloride	6.3		10.0	15.6		ug/L		92	80 - 120	0	20
Tetrachloroethene	0.18	U	10.0	10.2		ug/L		102	80 - 126	0	20
Toluene	0.14	U	10.0	10.1		ug/L		101	85 - 123	1	20
Trichloroethene	0.25	U	10.0	9.86		ug/L		99	81 - 125	2	20
Vinyl chloride	0.19	U	10.0	9.53		ug/L		95	70 - 129	1	20
Xylenes, Total	0.27	U	20.0	20.2		ug/L		101	80 - 120	0	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*97*		*75 - 129*
4-Bromofluorobenzene (Surr)	*92*		*81 - 130*
Dibromofluoromethane (Surr)	*101*		*81 - 124*
Toluene-d8 (Surr)	*104*		*87 - 128*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 160-307418/1-A
Matrix: Water
Analysis Batch: 309366

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 307418

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4,5-Tetrachlorobenzene	1.0	U	10	1.0	ug/L		05/05/17 10:00	05/18/17 23:17	1
1,2,4-Trichlorobenzene	1.0	U	10	1.0	ug/L		05/05/17 10:00	05/18/17 23:17	1
1,2-Dichlorobenzene	1.0	U	10	1.0	ug/L		05/05/17 10:00	05/18/17 23:17	1
1,3-Dichlorobenzene	1.0	U	10	1.0	ug/L		05/05/17 10:00	05/18/17 23:17	1
1,4-Dichlorobenzene	1.0	U	10	1.0	ug/L		05/05/17 10:00	05/18/17 23:17	1
1,4-Dioxane	1.0	U	10	1.0	ug/L		05/05/17 10:00	05/18/17 23:17	1
1,4-Naphthoquinone	1.0	U	50	1.0	ug/L		05/05/17 10:00	05/18/17 23:17	1
1-Naphthylamine	1.0	U	10	1.0	ug/L		05/05/17 10:00	05/18/17 23:17	1
2,3,4,6-Tetrachlorophenol	1.0	U	50	1.0	ug/L		05/05/17 10:00	05/18/17 23:17	1
2,4,5-Trichlorophenol	1.0	U	10	1.0	ug/L		05/05/17 10:00	05/18/17 23:17	1
2,4,6-Trichlorophenol	1.0	U	10	1.0	ug/L		05/05/17 10:00	05/18/17 23:17	1
2,4-Dichlorophenol	1.0	U	10	1.0	ug/L		05/05/17 10:00	05/18/17 23:17	1
2,4-Dimethylphenol	1.0	U	10	1.0	ug/L		05/05/17 10:00	05/18/17 23:17	1
2,4-Dinitrophenol	2.0	U	50	2.0	ug/L		05/05/17 10:00	05/18/17 23:17	1
2,4-Dinitrotoluene	1.0	U	10	1.0	ug/L		05/05/17 10:00	05/18/17 23:17	1
2,6-Dichlorophenol	1.0	U	10	1.0	ug/L		05/05/17 10:00	05/18/17 23:17	1
2,6-Dinitrotoluene	2.2	U	10	2.2	ug/L		05/05/17 10:00	05/18/17 23:17	1
2-Acetylaminofluorene	1.0	U	100	1.0	ug/L		05/05/17 10:00	05/18/17 23:17	1
2-Chloronaphthalene	1.0	U	10	1.0	ug/L		05/05/17 10:00	05/18/17 23:17	1
2-Chlorophenol	1.0	U	10	1.0	ug/L		05/05/17 10:00	05/18/17 23:17	1

QC Sample Results

Client: CH2M Hill Plateau Remediation Company
Project/Site: I17-007, W17-005, S17-005

TestAmerica Job ID: 160-22112-1
SDG: SL2511

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 160-307418/1-A
Matrix: Water
Analysis Batch: 309366

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 307418

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	1.0	U	10	1.0	ug/L		05/05/17 10:00	05/18/17 23:17	1
2-Methylphenol	1.0	U	10	1.0	ug/L		05/05/17 10:00	05/18/17 23:17	1
2-Naphthylamine	1.0	U	10	1.0	ug/L		05/05/17 10:00	05/18/17 23:17	1
2-Nitroaniline	1.1	U	10	1.1	ug/L		05/05/17 10:00	05/18/17 23:17	1
2-Nitrophenol	1.5	U	10	1.5	ug/L		05/05/17 10:00	05/18/17 23:17	1
2-Picoline	2.0	U	20	2.0	ug/L		05/05/17 10:00	05/18/17 23:17	1
3 & 4 Methylphenol	2.0	U	20	2.0	ug/L		05/05/17 10:00	05/18/17 23:17	1
3,3'-Dichlorobenzidine	1.3	U	50	1.3	ug/L		05/05/17 10:00	05/18/17 23:17	1
3,3'-Dimethylbenzidine	2.6	U	50	2.6	ug/L		05/05/17 10:00	05/18/17 23:17	1
3-Methylcholanthrene	1.0	U	20	1.0	ug/L		05/05/17 10:00	05/18/17 23:17	1
3-Nitroaniline	1.0	U	10	1.0	ug/L		05/05/17 10:00	05/18/17 23:17	1
4,6-Dinitro-2-methylphenol	1.3	U	10	1.3	ug/L		05/05/17 10:00	05/18/17 23:17	1
4-Aminobiphenyl	1.1	U	50	1.1	ug/L		05/05/17 10:00	05/18/17 23:17	1
4-Bromophenyl phenyl ether	1.0	U	10	1.0	ug/L		05/05/17 10:00	05/18/17 23:17	1
4-Chloro-3-methylphenol	1.0	U	10	1.0	ug/L		05/05/17 10:00	05/18/17 23:17	1
4-Chloroaniline	2.0	U	10	2.0	ug/L		05/05/17 10:00	05/18/17 23:17	1
4-Chlorophenyl phenyl ether	1.0	U	10	1.0	ug/L		05/05/17 10:00	05/18/17 23:17	1
4-Nitroaniline	1.0	U	10	1.0	ug/L		05/05/17 10:00	05/18/17 23:17	1
4-Nitrophenol	2.0	U	10	2.0	ug/L		05/05/17 10:00	05/18/17 23:17	1
4-Nitroquinoline-1-oxide	5.0	U	100	5.0	ug/L		05/05/17 10:00	05/18/17 23:17	1
5-Nitro-o-toluidine	1.0	U	20	1.0	ug/L		05/05/17 10:00	05/18/17 23:17	1
7,12-Dimethylbenz(a)anthracene	1.0	U	20	1.0	ug/L		05/05/17 10:00	05/18/17 23:17	1
Acenaphthene	1.0	U	10	1.0	ug/L		05/05/17 10:00	05/18/17 23:17	1
Acenaphthylene	1.0	U	10	1.0	ug/L		05/05/17 10:00	05/18/17 23:17	1
Acetophenone	1.0	U	10	1.0	ug/L		05/05/17 10:00	05/18/17 23:17	1
alpha,alpha-Dimethyl phenethylamine	22	U	50	22	ug/L		05/05/17 10:00	05/18/17 23:17	1
Aniline	1.3	U	10	1.3	ug/L		05/05/17 10:00	05/18/17 23:17	1
Anthracene	1.0	U	10	1.0	ug/L		05/05/17 10:00	05/18/17 23:17	1
Aramite, Total	5.0	U	20	5.0	ug/L		05/05/17 10:00	05/18/17 23:17	1
Benzo[a]anthracene	1.0	U	10	1.0	ug/L		05/05/17 10:00	05/18/17 23:17	1
Benzo[a]pyrene	1.0	U	10	1.0	ug/L		05/05/17 10:00	05/18/17 23:17	1
Benzo[b]fluoranthene	1.0	U	10	1.0	ug/L		05/05/17 10:00	05/18/17 23:17	1
Benzo[g,h,i]perylene	1.0	U	10	1.0	ug/L		05/05/17 10:00	05/18/17 23:17	1
Benzo[k]fluoranthene	1.0	U	10	1.0	ug/L		05/05/17 10:00	05/18/17 23:17	1
Benzyl alcohol	3.0	U	10	3.0	ug/L		05/05/17 10:00	05/18/17 23:17	1
bis(2 chloro-1-methylethyl) ether	1.0	U	10	1.0	ug/L		05/05/17 10:00	05/18/17 23:17	1
Bis(2-chloroethoxy)methane	1.0	U	10	1.0	ug/L		05/05/17 10:00	05/18/17 23:17	1
Bis(2-chloroethyl)ether	1.0	U	10	1.0	ug/L		05/05/17 10:00	05/18/17 23:17	1
Bis(2-ethylhexyl) phthalate	1.9	U	10	1.9	ug/L		05/05/17 10:00	05/18/17 23:17	1
Butyl benzyl phthalate	1.0	U	10	1.0	ug/L		05/05/17 10:00	05/18/17 23:17	1
Carbazole	1.0	U	10	1.0	ug/L		05/05/17 10:00	05/18/17 23:17	1
Chlorobenzilate	1.0	U	10	1.0	ug/L		05/05/17 10:00	05/18/17 23:17	1
Chrysene	1.0	U	10	1.0	ug/L		05/05/17 10:00	05/18/17 23:17	1
Diallate	2.0	U	20	2.0	ug/L		05/05/17 10:00	05/18/17 23:17	1
Dibenz(a,h)anthracene	1.0	U	10	1.0	ug/L		05/05/17 10:00	05/18/17 23:17	1
Dibenzofuran	1.0	U	10	1.0	ug/L		05/05/17 10:00	05/18/17 23:17	1
Diethyl phthalate	1.0	U	10	1.0	ug/L		05/05/17 10:00	05/18/17 23:17	1
Dimethoate	1.0	U	20	1.0	ug/L		05/05/17 10:00	05/18/17 23:17	1

QC Sample Results

Client: CH2M Hill Plateau Remediation Company
Project/Site: I17-007, W17-005, S17-005

TestAmerica Job ID: 160-22112-1
SDG: SL2511

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 160-307418/1-A
Matrix: Water
Analysis Batch: 309366

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 307418

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dimethyl phthalate	1.0	U	10	1.0	ug/L		05/05/17 10:00	05/18/17 23:17	1
Di-n-butyl phthalate	1.0	U	10	1.0	ug/L		05/05/17 10:00	05/18/17 23:17	1
Dinitrobenzene, m-	1.0	U	10	1.0	ug/L		05/05/17 10:00	05/18/17 23:17	1
Di-n-octyl phthalate	1.0	U	10	1.0	ug/L		05/05/17 10:00	05/18/17 23:17	1
Dinoseb	2.0	U	20	2.0	ug/L		05/05/17 10:00	05/18/17 23:17	1
Diphenylamine + N-Nitrosodiphenylamine	1.0	U	10	1.0	ug/L		05/05/17 10:00	05/18/17 23:17	1
Disulfoton	1.0	U	50	1.0	ug/L		05/05/17 10:00	05/18/17 23:17	1
Ethyl methanesulfonate	1.0	U	10	1.0	ug/L		05/05/17 10:00	05/18/17 23:17	1
Famphur	1.7	U	100	1.7	ug/L		05/05/17 10:00	05/18/17 23:17	1
Fluoranthene	1.0	U	10	1.0	ug/L		05/05/17 10:00	05/18/17 23:17	1
Fluorene	1.0	U	10	1.0	ug/L		05/05/17 10:00	05/18/17 23:17	1
Hexachlorobenzene	1.0	U	10	1.0	ug/L		05/05/17 10:00	05/18/17 23:17	1
Hexachlorobutadiene	1.0	U	10	1.0	ug/L		05/05/17 10:00	05/18/17 23:17	1
Hexachlorocyclopentadiene	1.0	U	10	1.0	ug/L		05/05/17 10:00	05/18/17 23:17	1
Hexachloroethane	1.0	U	10	1.0	ug/L		05/05/17 10:00	05/18/17 23:17	1
Hexachlorophene	10	U	250	10	ug/L		05/05/17 10:00	05/18/17 23:17	1
Hexachloropropene	1.0	U	100	1.0	ug/L		05/05/17 10:00	05/18/17 23:17	1
Indeno[1,2,3-cd]pyrene	1.0	U	10	1.0	ug/L		05/05/17 10:00	05/18/17 23:17	1
Isodrin	1.0	U	10	1.0	ug/L		05/05/17 10:00	05/18/17 23:17	1
Isophorone	1.0	U	10	1.0	ug/L		05/05/17 10:00	05/18/17 23:17	1
Isosafrole	5.0	U	20	5.0	ug/L		05/05/17 10:00	05/18/17 23:17	1
Kepone	20	U	100	20	ug/L		05/05/17 10:00	05/18/17 23:17	1
Methapyrilene	1.3	U	50	1.3	ug/L		05/05/17 10:00	05/18/17 23:17	1
Methyl methanesulfonate	1.0	U	10	1.0	ug/L		05/05/17 10:00	05/18/17 23:17	1
Methyl parathion	1.0	U	10	1.0	ug/L		05/05/17 10:00	05/18/17 23:17	1
Naphthalene	1.0	U	10	1.0	ug/L		05/05/17 10:00	05/18/17 23:17	1
Nitrobenzene	1.0	U	10	1.0	ug/L		05/05/17 10:00	05/18/17 23:17	1
N-Nitrosodiethylamine	1.0	U	10	1.0	ug/L		05/05/17 10:00	05/18/17 23:17	1
N-Nitrosodimethylamine	2.0	U	10	2.0	ug/L		05/05/17 10:00	05/18/17 23:17	1
N-Nitrosodi-n-butylamine	1.0	U	10	1.0	ug/L		05/05/17 10:00	05/18/17 23:17	1
N-Nitrosodi-n-propylamine	1.5	U	10	1.5	ug/L		05/05/17 10:00	05/18/17 23:17	1
N-Nitrosomethylethylamine	1.0	U	10	1.0	ug/L		05/05/17 10:00	05/18/17 23:17	1
N-Nitrosomorpholine	1.0	U	10	1.0	ug/L		05/05/17 10:00	05/18/17 23:17	1
N-Nitrosopiperidine	1.0	U	10	1.0	ug/L		05/05/17 10:00	05/18/17 23:17	1
N-Nitrosopyrrolidine	1.0	U	10	1.0	ug/L		05/05/17 10:00	05/18/17 23:17	1
o,o',o''-Triethylphosphorothioate	1.1	U	50	1.1	ug/L		05/05/17 10:00	05/18/17 23:17	1
O,O-Diethyl O-2-pyrazinyl phosphorothioate	1.0	U	50	1.0	ug/L		05/05/17 10:00	05/18/17 23:17	1
o-Toluidine	1.0	U	20	1.0	ug/L		05/05/17 10:00	05/18/17 23:17	1
Parathion	1.0	U	50	1.0	ug/L		05/05/17 10:00	05/18/17 23:17	1
p-Dimethylamino azobenzene	1.0	U	10	1.0	ug/L		05/05/17 10:00	05/18/17 23:17	1
Pentachlorobenzene	1.0	U	10	1.0	ug/L		05/05/17 10:00	05/18/17 23:17	1
Pentachloroethane	1.0	U	50	1.0	ug/L		05/05/17 10:00	05/18/17 23:17	1
Pentachloronitrobenzene	1.0	U	50	1.0	ug/L		05/05/17 10:00	05/18/17 23:17	1
Pentachlorophenol	1.3	U	50	1.3	ug/L		05/05/17 10:00	05/18/17 23:17	1
Phenacetin	1.0	U	20	1.0	ug/L		05/05/17 10:00	05/18/17 23:17	1
Phenanthrene	1.0	U	10	1.0	ug/L		05/05/17 10:00	05/18/17 23:17	1
Phenol	2.0	U	10	2.0	ug/L		05/05/17 10:00	05/18/17 23:17	1

QC Sample Results

Client: CH2M Hill Plateau Remediation Company
Project/Site: I17-007, W17-005, S17-005

TestAmerica Job ID: 160-22112-1
SDG: SL2511

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 160-307418/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 309366 — **Prep Batch: 307418**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phorate	2.0	U	50	2.0	ug/L		05/05/17 10:00	05/18/17 23:17	1
p-Phenylene diamine	1.0	U	100	1.0	ug/L		05/05/17 10:00	05/18/17 23:17	1
Pronamide	1.0	U	20	1.0	ug/L		05/05/17 10:00	05/18/17 23:17	1
Pyrene	1.0	U	10	1.0	ug/L		05/05/17 10:00	05/18/17 23:17	1
Pyridine	2.0	U	20	2.0	ug/L		05/05/17 10:00	05/18/17 23:17	1
Safrole	1.0	U	20	1.0	ug/L		05/05/17 10:00	05/18/17 23:17	1
sym-Trinitrobenzene	1.0	U	50	1.0	ug/L		05/05/17 10:00	05/18/17 23:17	1
Tetraethyl dithiopyrophosphate (sulfotep)	1.0	U	50	1.0	ug/L		05/05/17 10:00	05/18/17 23:17	1
Tributyl phosphate	1.0	U	10	1.0	ug/L		05/05/17 10:00	05/18/17 23:17	1

Tentatively Identified Compound	*MB Est. Result*	*MB Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Methylene Chloride	*6.08*	*N J*	*ug/L*		*2.33*	*75-09-2*	*05/05/17 10:00*	*05/18/17 23:17*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*96*		*37 - 120*	*05/05/17 10:00*	*05/18/17 23:17*	*1*
2-Fluorobiphenyl (Surr)	*64*		*43 - 108*	*05/05/17 10:00*	*05/18/17 23:17*	*1*
2-Fluorophenol (Surr)	*41*		*15 - 59*	*05/05/17 10:00*	*05/18/17 23:17*	*1*
Nitrobenzene-d5 (Surr)	*63*		*50 - 101*	*05/05/17 10:00*	*05/18/17 23:17*	*1*
Phenol-d5 (Surr)	*25*		*10 - 50*	*05/05/17 10:00*	*05/18/17 23:17*	*1*
Terphenyl-d14 (Surr)	*83*		*21 - 97*	*05/05/17 10:00*	*05/18/17 23:17*	*1*

Lab Sample ID: LCS 160-307418/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 309366 — **Prep Batch: 307418**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4-Trichlorobenzene	100	48.1	o	ug/L		48	56 - 100
1,2-Dichlorobenzene	100	44.6	o	ug/L		45	50 - 99
1,3-Dichlorobenzene	100	40.2	o	ug/L		40	55 - 99
1,4-Dichlorobenzene	100	41.3	o	ug/L		41	47 - 99
2,4,5-Trichlorophenol	100	81.8		ug/L		82	56 - 113
2,4,6-Trichlorophenol	100	85.0		ug/L		85	47 - 116
2,4-Dichlorophenol	100	79.6		ug/L		80	55 - 104
2,4-Dimethylphenol	100	71.5		ug/L		72	53 - 99
2,4-Dinitrophenol	100	50.1	o	ug/L		50	53 - 119
2,4-Dinitrotoluene	100	90.3		ug/L		90	57 - 117
2,6-Dinitrotoluene	100	88.1		ug/L		88	59 - 117
2-Chloronaphthalene	100	66.3		ug/L		66	58 - 109
2-Chlorophenol	100	71.2		ug/L		71	47 - 97
2-Methylnaphthalene	100	63.1		ug/L		63	54 - 101
2-Methylphenol	100	63.5		ug/L		64	40 - 96
2-Nitroaniline	100	71.7		ug/L		72	57 - 120
2-Nitrophenol	100	82.8		ug/L		83	58 - 111
3 & 4 Methylphenol	100	65.6		ug/L		66	40 - 87
3,3'-Dichlorobenzidine	100	79.5		ug/L		79	50 - 105
3-Nitroaniline	100	85.3		ug/L		85	47 - 113
4,6-Dinitro-2-methylphenol	100	81.2		ug/L		81	56 - 118

QC Sample Results

Client: CH2M Hill Plateau Remediation Company
Project/Site: I17-007, W17-005, S17-005

TestAmerica Job ID: 160-22112-1
SDG: SL2511

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 160-307418/2-A
Matrix: Water
Analysis Batch: 309366

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 307418

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
4-Bromophenyl phenyl ether	100	86.8		ug/L		87	62 - 98
4-Chloro-3-methylphenol	100	81.7		ug/L		82	51 - 102
4-Chloroaniline	100	74.2		ug/L		74	43 - 97
4-Chlorophenyl phenyl ether	100	79.6		ug/L		80	59 - 110
4-Nitroaniline	100	89.0		ug/L		89	51 - 119
4-Nitrophenol	100	27.6		ug/L		28	20 - 47
Acenaphthene	100	71.0		ug/L		71	58 - 108
Acenaphthylene	100	76.9		ug/L		77	59 - 110
Anthracene	100	81.5		ug/L		82	59 - 106
Benzo[a]anthracene	100	84.4		ug/L		84	56 - 105
Benzo[a]pyrene	100	66.1		ug/L		66	54 - 109
Benzo[b]fluoranthene	100	66.9		ug/L		67	58 - 109
Benzo[g,h,i]perylene	100	67.6		ug/L		68	50 - 119
Benzo[k]fluoranthene	100	66.2		ug/L		66	54 - 109
bis(2 chloro-1-methylethyl) ether	100	56.3		ug/L		56	49 - 97
Bis(2-chloroethoxy)methane	100	72.0		ug/L		72	59 - 110
Bis(2-chloroethyl)ether	100	66.1		ug/L		66	58 - 109
Bis(2-ethylhexyl) phthalate	100	81.5		ug/L		82	58 - 111
Butyl benzyl phthalate	100	82.1		ug/L		82	56 - 111
Carbazole	100	81.6		ug/L		82	56 - 101
Chrysene	100	82.6		ug/L		83	55 - 107
Dibenz(a,h)anthracene	100	69.5		ug/L		70	52 - 118
Dibenzofuran	100	76.1		ug/L		76	57 - 106
Diethyl phthalate	100	82.9		ug/L		83	58 - 113
Dimethyl phthalate	100	84.1		ug/L		84	60 - 114
Di-n-butyl phthalate	100	84.5		ug/L		84	60 - 105
Di-n-octyl phthalate	100	83.3		ug/L		83	59 - 113
Diphenylamine + N-Nitrosodiphenylamine	100	95.1		ug/L		95	65 - 119
Fluoranthene	100	85.3		ug/L		85	56 - 113
Fluorene	100	80.0		ug/L		80	61 - 113
Hexachlorobenzene	100	91.7		ug/L		92	57 - 113
Hexachlorobutadiene	100	38.4	o	ug/L		38	52 - 102
Hexachlorocyclopentadiene	100	40.4		ug/L		40	40 - 120
Hexachloroethane	100	32.1	o	ug/L		32	52 - 102
Indeno[1,2,3-cd]pyrene	100	75.7		ug/L		76	49 - 120
Isophorone	100	67.9		ug/L		68	56 - 101
Naphthalene	100	59.7		ug/L		60	54 - 98
Nitrobenzene	100	68.0		ug/L		68	59 - 110
N-Nitrosodi-n-propylamine	100	69.8		ug/L		70	59 - 115
Pentachlorophenol	100	64.3		ug/L		64	49 - 115
Phenanthrene	100	81.0		ug/L		81	59 - 110
Phenol	100	30.7		ug/L		31	20 - 69
Pyrene	100	83.9		ug/L		84	55 - 105

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*104*		*37 - 120*
2-Fluorobiphenyl (Surr)	*78*		*43 - 108*

QC Sample Results

Client: CH2M Hill Plateau Remediation Company
Project/Site: I17-007, W17-005, S17-005

TestAmerica Job ID: 160-22112-1
SDG: SL2511

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 160-307418/2-A
Matrix: Water
Analysis Batch: 309366

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 307418

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorophenol (Surr)	*46*		*15 - 59*
Nitrobenzene-d5 (Surr)	*72*		*50 - 101*
Phenol-d5 (Surr)	*29*		*10 - 50*
Terphenyl-d14 (Surr)	*87*		*21 - 97*

Lab Sample ID: 160-22140-1 MS
Matrix: Water
Analysis Batch: 309366

Client Sample ID: B39JT2
Prep Type: Total/NA
Prep Batch: 307418

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4-Trichlorobenzene	0.95	U o	96.6	61.5		ug/L		64	61 - 95
1,2-Dichlorobenzene	0.95	U T o	96.6	55.5	T	ug/L		57	62 - 97
1,3-Dichlorobenzene	0.95	U T o	96.6	51.6	T	ug/L		53	60 - 94
1,4-Dichlorobenzene	0.95	U T o	96.6	52.0	T	ug/L		54	60 - 94
2,4,5-Trichlorophenol	0.95	U	96.6	77.0		ug/L		80	61 - 108
2,4,6-Trichlorophenol	0.95	U	96.6	80.0		ug/L		83	61 - 108
2,4-Dichlorophenol	0.95	U	96.6	73.6		ug/L		76	60 - 99
2,4-Dimethylphenol	0.95	U	96.6	68.0		ug/L		70	54 - 97
2,4-Dinitrophenol	1.9	U o	96.6	50.5		ug/L		52	20 - 131
2,4-Dinitrotoluene	0.95	U	96.6	83.8		ug/L		87	62 - 112
2,6-Dinitrotoluene	2.1	U	96.6	82.3		ug/L		85	64 - 112
2-Chloronaphthalene	0.95	U	96.6	71.4		ug/L		74	63 - 104
2-Chlorophenol	0.95	U	96.6	65.7		ug/L		68	52 - 92
2-Methylnaphthalene	0.95	U	96.6	70.5		ug/L		73	64 - 99
2-Methylphenol	0.95	U	96.6	59.0		ug/L		61	39 - 83
2-Nitroaniline	1.1	U	96.6	68.0		ug/L		70	62 - 115
2-Nitrophenol	1.5	U	96.6	77.1		ug/L		80	64 - 106
3 & 4 Methylphenol	1.9	U	96.6	61.1		ug/L		63	39 - 82
3,3'-Dichlorobenzidine	1.2	U	96.6	71.1		ug/L		74	43 - 117
3-Nitroaniline	0.95	U	96.6	78.2		ug/L		81	52 - 108
4,6-Dinitro-2-methylphenol	1.2	U	96.6	74.3		ug/L		77	61 - 113
4-Bromophenyl phenyl ether	0.95	U	96.6	80.0		ug/L		83	64 - 108
4-Chloro-3-methylphenol	0.95	U	96.6	76.6		ug/L		79	51 - 105
4-Chloroaniline	1.9	U	96.6	68.0		ug/L		70	48 - 92
4-Chlorophenyl phenyl ether	0.95	U	96.6	77.3		ug/L		80	64 - 105
4-Nitroaniline	0.95	U	96.6	83.1		ug/L		86	56 - 114
4-Nitrophenol	1.9	U	96.6	26.9		ug/L		28	15 - 42
Acenaphthene	0.95	U	96.6	71.1		ug/L		74	63 - 103
Acenaphthylene	0.95	U	96.6	77.3		ug/L		80	64 - 105
Anthracene	0.95	U	96.6	73.8		ug/L		76	64 - 101
Benzo[a]anthracene	0.95	U	96.6	76.4		ug/L		79	55 - 116
Benzo[a]pyrene	0.95	U	96.6	58.2		ug/L		60	55 - 109
Benzo[b]fluoranthene	0.95	U	96.6	58.7		ug/L		61	56 - 119
Benzo[g,h,i]perylene	0.95	U	96.6	62.5		ug/L		65	40 - 127
Benzo[k]fluoranthene	0.95	U	96.6	58.4		ug/L		60	54 - 110
bis(2 chloro-1-methylethyl) ether	0.95	U	96.6	53.6		ug/L		56	54 - 102
Bis(2-chloroethoxy)methane	0.95	U	96.6	67.0		ug/L		69	64 - 105
Bis(2-chloroethyl)ether	0.95	U	96.6	61.5		ug/L		64	63 - 104

QC Sample Results

Client: CH2M Hill Plateau Remediation Company
Project/Site: I17-007, W17-005, S17-005

TestAmerica Job ID: 160-22112-1
SDG: SL2511

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 160-22140-1 MS — **Client Sample ID: B39JT2**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 309366 — **Prep Batch: 307418**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Bis(2-ethylhexyl) phthalate	1.8	U	96.6	71.3		ug/L		74	53 - 125
Butyl benzyl phthalate	0.95	U	96.6	75.3		ug/L		78	56 - 128
Carbazole	0.95	U	96.6	74.1		ug/L		77	62 - 106
Chrysene	0.95	U	96.6	74.0		ug/L		77	56 - 115
Dibenz(a,h)anthracene	0.95	U	96.6	63.8		ug/L		66	44 - 128
Dibenzofuran	0.95	U	96.6	74.7		ug/L		77	62 - 101
Diethyl phthalate	0.95	U	96.6	76.6		ug/L		79	63 - 108
Dimethyl phthalate	0.95	U	96.6	78.1		ug/L		81	65 - 109
Di-n-butyl phthalate	0.95	U	96.6	74.9		ug/L		78	62 - 109
Di-n-octyl phthalate	0.95	U	96.6	72.3		ug/L		75	54 - 128
Diphenylamine + N-Nitrosodiphenylamine	0.95	U	96.6	85.8		ug/L		89	70 - 119
Fluoranthene	0.95	U	96.6	75.9		ug/L		79	61 - 108
Fluorene	0.95	U	96.6	76.4		ug/L		79	66 - 108
Hexachlorobenzene	0.95	U	96.6	82.6		ug/L		85	62 - 108
Hexachlorobutadiene	0.95	U o	96.6	58.0		ug/L		60	57 - 97
Hexachlorocyclopentadiene	0.95	U	96.6	64.1		ug/L		66	16 - 115
Hexachloroethane	0.95	U T o	96.6	46.2	T	ug/L		48	57 - 97
Indeno[1,2,3-cd]pyrene	0.95	U	96.6	64.8		ug/L		67	42 - 131
Isophorone	0.95	U	96.6	63.8		ug/L		66	48 - 106
Naphthalene	0.95	U	96.6	65.8		ug/L		68	63 - 98
Nitrobenzene	0.95	U	96.6	64.3		ug/L		67	64 - 105
N-Nitrosodi-n-propylamine	1.4	U	96.6	66.2		ug/L		69	64 - 110
Pentachlorophenol	1.2	U	96.6	59.6		ug/L		62	54 - 110
Phenanthrene	0.95	U	96.6	74.0		ug/L		77	64 - 105
Phenol	1.9	U	96.6	28.6		ug/L		30	15 - 70
Pyrene	0.95	U	96.6	76.5		ug/L		79	57 - 118

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*100*		*37 - 120*
2-Fluorobiphenyl (Surr)	*77*		*43 - 108*
2-Fluorophenol (Surr)	*42*		*15 - 59*
Nitrobenzene-d5 (Surr)	*70*		*50 - 101*
Phenol-d5 (Surr)	*28*		*10 - 50*
Terphenyl-d14 (Surr)	*82*		*21 - 97*

Lab Sample ID: 160-22140-1 MSD — **Client Sample ID: B39JT2**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 309366 — **Prep Batch: 307418**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,4-Trichlorobenzene	0.95	U o	96.3	63.1		ug/L		66	61 - 95	3	20
1,2-Dichlorobenzene	0.95	U T o	96.3	58.3	T	ug/L		61	62 - 97	5	20
1,3-Dichlorobenzene	0.95	U T o	96.3	54.8	T	ug/L		57	60 - 94	6	20
1,4-Dichlorobenzene	0.95	U T o	96.3	55.0	T	ug/L		57	60 - 94	6	20
2,4,5-Trichlorophenol	0.95	U	96.3	76.4		ug/L		79	61 - 108	1	20
2,4,6-Trichlorophenol	0.95	U	96.3	78.0		ug/L		81	61 - 108	3	20
2,4-Dichlorophenol	0.95	U	96.3	74.6		ug/L		77	60 - 99	1	20

QC Sample Results

Client: CH2M Hill Plateau Remediation Company
Project/Site: I17-007, W17-005, S17-005

TestAmerica Job ID: 160-22112-1
SDG: SL2511

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 160-22140-1 MSD | **Client Sample ID: B39JT2**
Matrix: Water | **Prep Type: Total/NA**
Analysis Batch: 309366 | **Prep Batch: 307418**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2,4-Dimethylphenol	0.95	U	96.3	66.9		ug/L		69	54 - 97	2	20
2,4-Dinitrophenol	1.9	U o	96.3	43.7	J	ug/L		45	20 - 131	14	20
2,4-Dinitrotoluene	0.95	U	96.3	79.4		ug/L		82	62 - 112	5	20
2,6-Dinitrotoluene	2.1	U	96.3	78.4		ug/L		81	64 - 112	5	20
2-Chloronaphthalene	0.95	U	96.3	70.1		ug/L		73	63 - 104	2	20
2-Chlorophenol	0.95	U	96.3	68.1		ug/L		71	52 - 92	4	20
2-Methylnaphthalene	0.95	U	96.3	70.8		ug/L		73	64 - 99	0	20
2-Methylphenol	0.95	U	96.3	60.3		ug/L		63	39 - 83	2	20
2-Nitroaniline	1.1	U	96.3	66.0		ug/L		69	62 - 115	3	20
2-Nitrophenol	1.5	U	96.3	78.3		ug/L		81	64 - 106	1	20
3 & 4 Methylphenol	1.9	U	96.3	62.2		ug/L		65	39 - 82	2	20
3,3'-Dichlorobenzidine	1.2	U	96.3	69.7		ug/L		72	43 - 117	2	20
3-Nitroaniline	0.95	U	96.3	75.4		ug/L		78	52 - 108	4	20
4,6-Dinitro-2-methylphenol	1.2	U	96.3	71.4		ug/L		74	61 - 113	4	20
4-Bromophenyl phenyl ether	0.95	U	96.3	77.2		ug/L		80	64 - 108	4	20
4-Chloro-3-methylphenol	0.95	U	96.3	75.9		ug/L		79	51 - 105	1	20
4-Chloroaniline	1.9	U	96.3	67.0		ug/L		70	48 - 92	1	20
4-Chlorophenyl phenyl ether	0.95	U	96.3	74.4		ug/L		77	64 - 105	4	20
4-Nitroaniline	0.95	U	96.3	79.3		ug/L		82	56 - 114	5	20
4-Nitrophenol	1.9	U	96.3	25.8		ug/L		27	15 - 42	4	20
Acenaphthene	0.95	U	96.3	69.4		ug/L		72	63 - 103	2	20
Acenaphthylene	0.95	U	96.3	75.4		ug/L		78	64 - 105	3	20
Anthracene	0.95	U	96.3	70.5		ug/L		73	64 - 101	4	20
Benzo[a]anthracene	0.95	U	96.3	74.3		ug/L		77	55 - 116	3	20
Benzo[a]pyrene	0.95	U	96.3	57.1		ug/L		59	55 - 109	2	20
Benzo[b]fluoranthene	0.95	U	96.3	57.7		ug/L		60	56 - 119	2	20
Benzo[g,h,i]perylene	0.95	U	96.3	61.0		ug/L		63	40 - 127	2	20
Benzo[k]fluoranthene	0.95	U	96.3	57.0		ug/L		59	54 - 110	2	20
bis(2 chloro-1-methylethyl) ether	0.95	U	96.3	55.9		ug/L		58	54 - 102	4	20
Bis(2-chloroethoxy)methane	0.95	U	96.3	68.2		ug/L		71	64 - 105	2	20
Bis(2-chloroethyl)ether	0.95	U	96.3	63.5		ug/L		66	63 - 104	3	20
Bis(2-ethylhexyl) phthalate	1.8	U	96.3	71.4		ug/L		74	53 - 125	0	20
Butyl benzyl phthalate	0.95	U	96.3	73.2		ug/L		76	56 - 128	3	20
Carbazole	0.95	U	96.3	71.4		ug/L		74	62 - 106	4	20
Chrysene	0.95	U	96.3	72.0		ug/L		75	56 - 115	3	20
Dibenz(a,h)anthracene	0.95	U	96.3	64.4		ug/L		67	44 - 128	1	20
Dibenzofuran	0.95	U	96.3	72.3		ug/L		75	62 - 101	3	20
Diethyl phthalate	0.95	U	96.3	73.5		ug/L		76	63 - 108	4	20
Dimethyl phthalate	0.95	U	96.3	75.0		ug/L		78	65 - 109	4	20
Di-n-butyl phthalate	0.95	U	96.3	73.5		ug/L		76	62 - 109	2	20
Di-n-octyl phthalate	0.95	U	96.3	72.5		ug/L		75	54 - 128	0	20
Diphenylamine + N-Nitrosodiphenylamine	0.95	U	96.3	82.9		ug/L		86	70 - 119	4	20
Fluoranthene	0.95	U	96.3	73.8		ug/L		77	61 - 108	3	20
Fluorene	0.95	U	96.3	73.5		ug/L		76	66 - 108	4	20
Hexachlorobenzene	0.95	U	96.3	80.0		ug/L		83	62 - 108	3	20
Hexachlorobutadiene	0.95	U o	96.3	60.2		ug/L		63	57 - 97	4	20
Hexachlorocyclopentadiene	0.95	U	96.3	61.4		ug/L		64	16 - 115	4	20

QC Sample Results

Client: CH2M Hill Plateau Remediation Company
Project/Site: I17-007, W17-005, S17-005

TestAmerica Job ID: 160-22112-1
SDG: SL2511

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 160-22140-1 MSD
Matrix: Water
Analysis Batch: 309366

Client Sample ID: B39JT2
Prep Type: Total/NA
Prep Batch: 307418

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Hexachloroethane	0.95	U T o	96.3	49.4	T	ug/L		51	57 - 97	7	20
Indeno[1,2,3-cd]pyrene	0.95	U	96.3	67.5		ug/L		70	42 - 131	4	20
Isophorone	0.95	U	96.3	64.0		ug/L		66	48 - 106	0	20
Naphthalene	0.95	U	96.3	67.2		ug/L		70	63 - 98	2	20
Nitrobenzene	0.95	U	96.3	65.7		ug/L		68	64 - 105	2	20
N-Nitrosodi-n-propylamine	1.4	U	96.3	66.6		ug/L		69	64 - 110	1	20
Pentachlorophenol	1.2	U	96.3	60.0		ug/L		62	54 - 110	1	20
Phenanthrene	0.95	U	96.3	71.1		ug/L		74	64 - 105	4	20
Phenol	1.9	U	96.3	29.0		ug/L		30	15 - 70	2	20
Pyrene	0.95	U	96.3	73.9		ug/L		77	57 - 118	3	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*95*		*37 - 120*
2-Fluorobiphenyl (Surr)	*76*		*43 - 108*
2-Fluorophenol (Surr)	*45*		*15 - 59*
Nitrobenzene-d5 (Surr)	*72*		*50 - 101*
Phenol-d5 (Surr)	*29*		*10 - 50*
Terphenyl-d14 (Surr)	*80*		*21 - 97*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 160-307651/1-A
Matrix: Water
Analysis Batch: 307905

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 307651

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	0.35	U	1.0	0.35	ug/L		05/08/17 09:30	05/10/17 14:20	1
Aroclor 1221	0.35	U	1.0	0.35	ug/L		05/08/17 09:30	05/10/17 14:20	1
Aroclor 1232	0.35	U	1.0	0.35	ug/L		05/08/17 09:30	05/10/17 14:20	1
Aroclor 1242	0.35	U	1.0	0.35	ug/L		05/08/17 09:30	05/10/17 14:20	1
Aroclor 1248	0.35	U	1.0	0.35	ug/L		05/08/17 09:30	05/10/17 14:20	1
Aroclor 1254	0.22	U	1.0	0.22	ug/L		05/08/17 09:30	05/10/17 14:20	1
Aroclor 1260	0.22	U	1.0	0.22	ug/L		05/08/17 09:30	05/10/17 14:20	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr)	*101*		*32 - 141*	*05/08/17 09:30*	*05/10/17 14:20*	*1*

Lab Sample ID: LCS 160-307651/2-A
Matrix: Water
Analysis Batch: 307905

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 307651

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Aroclor 1016			5.00	5.08		ug/L		102	43 - 138		
Aroclor 1260			5.00	5.53		ug/L		111	43 - 137		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl (Surr)	*108*		*32 - 141*

TestAmerica St. Louis

QC Sample Results

Client: CH2M Hill Plateau Remediation Company
Project/Site: I17-007, W17-005, S17-005

TestAmerica Job ID: 160-22112-1
SDG: SL2511

Lab Sample ID: 160-22140-2 MS
Matrix: Water
Analysis Batch: 307905

Client Sample ID: B39JT0
Prep Type: Total/NA
Prep Batch: 307651

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor 1016	0.33	U	4.68	4.19		ug/L		90	47 - 133
Aroclor 1260	0.21	U	4.68	4.72		ug/L		101	39 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
DCB Decachlorobiphenyl (Surr)	*98*		*32 - 141*

Lab Sample ID: 160-22140-2 MSD
Matrix: Water
Analysis Batch: 307905

Client Sample ID: B39JT0
Prep Type: Total/NA
Prep Batch: 307651

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aroclor 1016	0.33	U	4.76	3.39	y	ug/L		71	47 - 133	33	20
Aroclor 1260	0.21	U	4.76	3.61	y	ug/L		76	39 - 130	27	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
DCB Decachlorobiphenyl (Surr)	*75*		*32 - 141*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 160-306783/10
Matrix: Water
Analysis Batch: 306783

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.026	U	0.10	0.026	mg/L			05/02/17 18:21	1
Sulfate	0.050	U	0.50	0.050	mg/L			05/02/17 18:21	1
Chloride	0.020	U	0.20	0.020	mg/L			05/02/17 18:21	1

Lab Sample ID: LCS 160-306783/11
Matrix: Water
Analysis Batch: 306783

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	1.00	0.999		mg/L		100	90 - 110
Sulfate	8.00	8.09		mg/L		101	90 - 110
Chloride	2.00	2.02		mg/L		101	90 - 110

Lab Sample ID: MB 160-306784/10
Matrix: Water
Analysis Batch: 306784

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.0070	U	0.020	0.0070	mg/L			05/02/17 18:21	1
Nitrite as N	0.0070	U	0.020	0.0070	mg/L			05/02/17 18:21	1

QC Sample Results

Client: CH2M Hill Plateau Remediation Company
Project/Site: I17-007, W17-005, S17-005

TestAmerica Job ID: 160-22112-1
SDG: SL2511

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 160-306784/11
Matrix: Water
Analysis Batch: 306784

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	0.400	0.422		mg/L		105	90 - 110
Nitrite as N	0.160	0.162		mg/L		101	90 - 110

Method: 300.0 - Anions, Ion Chromatography - DL

Lab Sample ID: 160-22112-2 MS
Matrix: Water
Analysis Batch: 306783

Client Sample ID: B39JP8
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride - DL	0.29	D	4.00	4.47	D	mg/L		105	90 - 110
Sulfate - DL	13	D	8.00	21.8	D	mg/L		107	90 - 110
Chloride - DL	3.9	D	4.00	8.12	D	mg/L		104	90 - 110

Lab Sample ID: 160-22112-2 DU
Matrix: Water
Analysis Batch: 306783

Client Sample ID: B39JP8
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Fluoride - DL	0.29	D	0.282	D	mg/L		2	20
Sulfate - DL	13	D	13.3	D	mg/L		0.6	20
Chloride - DL	3.9	D	4.01	D	mg/L		1	20

Lab Sample ID: 160-22112-2 MS
Matrix: Water
Analysis Batch: 306784

Client Sample ID: B39JP8
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N - DL	0.37	D	0.800	1.23	D	mg/L		108	90 - 110
Nitrite as N - DL	0.014	U D	0.200	0.193	D	mg/L		96	90 - 110

Lab Sample ID: 160-22112-2 DU
Matrix: Water
Analysis Batch: 306784

Client Sample ID: B39JP8
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Nitrate as N - DL	0.37	D	0.373	D	mg/L		2	20
Nitrite as N - DL	0.014	U D	0.014	U D	mg/L		NC	20

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 160-307845/1-A
Matrix: Water
Analysis Batch: 308716

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 307845

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	3.0	U	10.0	3.0	ug/L		05/09/17 12:13	05/15/17 21:15	1
Arsenic	4.0	U	10.0	4.0	ug/L		05/09/17 12:13	05/15/17 21:15	1
Barium	15.0	U	50.0	15.0	ug/L		05/09/17 12:13	05/15/17 21:15	1

TestAmerica St. Louis

QC Sample Results

Client: CH2M Hill Plateau Remediation Company
Project/Site: I17-007, W17-005, S17-005

TestAmerica Job ID: 160-22112-1
SDG: SL2511

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

Lab Sample ID: MB 160-307845/1-A
Matrix: Water
Analysis Batch: 308716

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 307845

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	1.5	U	5.0	1.5	ug/L		05/09/17 12:13	05/15/17 21:15	1
Calcium	300	U	1000	300	ug/L		05/09/17 12:13	05/15/17 21:15	1
Chromium	3.0	U	10.0	3.0	ug/L		05/09/17 12:13	05/15/17 21:15	1
Cobalt	15.0	U	50.0	15.0	ug/L		05/09/17 12:13	05/15/17 21:15	1
Copper	7.0	U	25.0	7.0	ug/L		05/09/17 12:13	05/15/17 21:15	1
Iron	30.0	U	100	30.0	ug/L		05/09/17 12:13	05/15/17 21:15	1
Magnesium	300	U	1000	300	ug/L		05/09/17 12:13	05/15/17 21:15	1
Manganese	4.0	U	15.0	4.0	ug/L		05/09/17 12:13	05/15/17 21:15	1
Nickel	10.0	U	40.0	10.0	ug/L		05/09/17 12:13	05/15/17 21:15	1
Potassium	1500	U	5000	1500	ug/L		05/09/17 12:13	05/15/17 21:15	1
Silver	3.0	U	10.0	3.0	ug/L		05/09/17 12:13	05/15/17 21:15	1
Sodium	300	U	1000	300	ug/L		05/09/17 12:13	05/15/17 21:15	1
Vanadium	25.0	U	50.0	25.0	ug/L		05/09/17 12:13	05/15/17 21:15	1
Zinc	6.0	U	20.0	6.0	ug/L		05/09/17 12:13	05/15/17 21:15	1

Lab Sample ID: LCS 160-307845/2-A
Matrix: Water
Analysis Batch: 308716

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 307845

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	500	448.5		ug/L		90	80 - 120
Arsenic	1000	916.5		ug/L		92	80 - 120
Barium	1000	1023		ug/L		102	80 - 120
Cadmium	1000	895.6		ug/L		90	80 - 120
Calcium	10000	9603		ug/L		96	80 - 120
Chromium	1000	929.5		ug/L		93	80 - 120
Cobalt	1000	953.3		ug/L		95	80 - 120
Copper	1000	940.6		ug/L		94	80 - 120
Iron	10000	9951		ug/L		100	80 - 120
Magnesium	10000	9713		ug/L		97	80 - 120
Manganese	1000	971.8		ug/L		97	80 - 120
Nickel	1000	962.6		ug/L		96	80 - 120
Potassium	10000	9653		ug/L		97	80 - 120
Silver	200	183.8		ug/L		92	80 - 120
Sodium	10000	9837		ug/L		98	80 - 120
Vanadium	1000	995.2		ug/L		100	80 - 120
Zinc	1000	900.1		ug/L		90	80 - 120

Lab Sample ID: 160-22139-B-1-E MS
Matrix: Water
Analysis Batch: 308716

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 307845

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	3.0	U	500	450.7		ug/L		90	75 - 125
Arsenic	4.0	U	1000	914.4		ug/L		91	75 - 125
Barium	15.0	U	1000	1029		ug/L		103	75 - 125
Cadmium	1.5	U	1000	902.3		ug/L		90	75 - 125
Calcium	300	U	10000	9621		ug/L		96	75 - 125
Chromium	3.0	U	1000	928.7		ug/L		93	75 - 125

QC Sample Results

Client: CH2M Hill Plateau Remediation Company
Project/Site: I17-007, W17-005, S17-005

TestAmerica Job ID: 160-22112-1
SDG: SL2511

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

Lab Sample ID: 160-22139-B-1-E MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 308716 — **Prep Batch: 307845**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cobalt	15.0	U	1000	953.0		ug/L		95	75 - 125
Copper	7.0	U	1000	941.8		ug/L		94	75 - 125
Iron	30.0	U	10000	10060		ug/L		101	75 - 125
Magnesium	300	U	10000	9810		ug/L		98	75 - 125
Manganese	4.0	U	1000	989.4		ug/L		99	75 - 125
Nickel	10.0	U	1000	961.2		ug/L		96	75 - 125
Potassium	1500	U	10000	10060		ug/L		101	75 - 125
Silver	3.0	U	200	186.6		ug/L		93	75 - 125
Sodium	300	U	10000	10030		ug/L		100	75 - 125
Vanadium	25.0	U	1000	997.3		ug/L		100	75 - 125
Zinc	6.0	U	1000	905.1		ug/L		91	75 - 125

Lab Sample ID: 160-22139-B-1-F MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 308716 — **Prep Batch: 307845**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	3.0	U	500	430.5		ug/L		86	75 - 125	5	20
Arsenic	4.0	U	1000	883.5		ug/L		88	75 - 125	3	20
Barium	15.0	U	1000	1026		ug/L		103	75 - 125	0	20
Cadmium	1.5	U	1000	869.5		ug/L		87	75 - 125	4	20
Calcium	300	U	10000	9329		ug/L		93	75 - 125	3	20
Chromium	3.0	U	1000	900.0		ug/L		90	75 - 125	3	20
Cobalt	15.0	U	1000	921.5		ug/L		92	75 - 125	3	20
Copper	7.0	U	1000	905.9		ug/L		91	75 - 125	4	20
Iron	30.0	U	10000	10120		ug/L		101	75 - 125	1	20
Magnesium	300	U	10000	9903		ug/L		99	75 - 125	1	20
Manganese	4.0	U	1000	990.8		ug/L		99	75 - 125	0	20
Nickel	10.0	U	1000	929.0		ug/L		93	75 - 125	3	20
Potassium	1500	U	10000	9656		ug/L		97	75 - 125	4	20
Silver	3.0	U	200	185.8		ug/L		93	75 - 125	0	20
Sodium	300	U	10000	9922		ug/L		99	75 - 125	1	20
Vanadium	25.0	U	1000	1004		ug/L		100	75 - 125	1	20
Zinc	6.0	U	1000	876.1		ug/L		88	75 - 125	3	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 160-307317/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 307538 — **Prep Batch: 307317**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.060	U	0.20	0.060	ug/L		05/05/17 07:20	05/05/17 15:33	1

QC Sample Results

Client: CH2M Hill Plateau Remediation Company
Project/Site: I17-007, W17-005, S17-005

TestAmerica Job ID: 160-22112-1
SDG: SL2511

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

Lab Sample ID: LCS 160-307317/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 307538 — **Prep Batch: 307317**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	5.00	4.97		ug/L		99	80 - 120

Lab Sample ID: 160-22139-B-1-B MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 307538 — **Prep Batch: 307317**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.060	U	5.00	4.96		ug/L		99	80 - 120

Lab Sample ID: 160-22139-B-1-C MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 307538 — **Prep Batch: 307317**

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	4.98		ug/L		100	80 - 120	0	20

Method: 310.1 - Alkalinity

Lab Sample ID: MB 160-308461/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 308461

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	0.54	U	5.0	0.54	mg/L			05/12/17 21:54	1
Bicarbonate Alkalinity	0.54	U	5.0	0.54	mg/L			05/12/17 21:54	1
Carbonate Alkalinity	0.54	U	5.0	0.54	mg/L			05/12/17 21:54	1
Hydroxide Alkalinity	0.54	U	5.0	0.54	mg/L			05/12/17 21:54	1

Lab Sample ID: HLCS 160-308461/3 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 308461

Analyte	Spike Added	HLCS Result	HLCS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity	400	374.0		mg/L		93	90 - 110
Bicarbonate Alkalinity	400	374.0		mg/L		93	90 - 110

Lab Sample ID: LCS 160-308461/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 308461

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity	200	188.0		mg/L		94	90 - 110
Bicarbonate Alkalinity	200	188.0		mg/L		94	90 - 110

QC Sample Results

Client: CH2M Hill Plateau Remediation Company
Project/Site: I17-007, W17-005, S17-005

TestAmerica Job ID: 160-22112-1
SDG: SL2511

Method: 310.1 - Alkalinity (Continued)

Lab Sample ID: 160-22140-5 MS
Matrix: Water
Analysis Batch: 308461

Client Sample ID: B39BX1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Alkalinity	119		100	214.0		mg/L		95	80 - 120		
Bicarbonate Alkalinity	119		100	214.0		mg/L		95	80 - 120		

Lab Sample ID: 160-22140-5 DU
Matrix: Water
Analysis Batch: 308461

Client Sample ID: B39BX1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Alkalinity	119		116.0		mg/L		3	20
Bicarbonate Alkalinity	119		116.0		mg/L		3	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: 7196A - Chromium, Hexavalent

Lab Sample ID: MB 160-306658/8
Matrix: Water
Analysis Batch: 306658

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	2.6	U	10.0	2.6	ug/L			05/02/17 11:03	1

Lab Sample ID: LCS 160-306658/9
Matrix: Water
Analysis Batch: 306658

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Cr (VI)	50.1	49.63		ug/L		99	85 - 115		

Lab Sample ID: LCSD 160-306658/10
Matrix: Water
Analysis Batch: 306658

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
Cr (VI)	50.1	50.87		ug/L		102	85 - 115	2	20

Lab Sample ID: 160-22112-3 MS
Matrix: Water
Analysis Batch: 306658

Client Sample ID: B39JP9
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Cr (VI)	2.6	U	50.1	48.40		ug/L		97	85 - 115		

QC Sample Results

Client: CH2M Hill Plateau Remediation Company
Project/Site: I17-007, W17-005, S17-005

TestAmerica Job ID: 160-22112-1
SDG: SL2511

Method: 9012B - Cyanide, Total andor Amenable

Lab Sample ID: MB 160-308596/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 308855 — **Prep Batch: 308596**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	3.1	U	5.0	3.1	ug/L		05/15/17 16:25	05/16/17 12:49	1

Lab Sample ID: HLCS 160-308596/3-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 308855 — **Prep Batch: 308596**

Analyte	Spike Added	HLCS Result	HLCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	400	386.7		ug/L		97	85 - 115

Lab Sample ID: LCS 160-308596/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 308855 — **Prep Batch: 308596**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	200	179.3		ug/L		90	85 - 115

Lab Sample ID: 160-22112-1 MS — **Client Sample ID: B39JP7**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 308855 — **Prep Batch: 308596**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	3.1	U Z	200	195.4		ug/L		98	66 - 120

Lab Sample ID: 160-22112-1 DU — **Client Sample ID: B39JP7**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 308855 — **Prep Batch: 308596**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Cyanide, Total	3.1	U Z	3.1	U	ug/L		NC	20

Method: 9020B - Organic Halides, Total (TOX)

Lab Sample ID: MB 160-308598/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 311155 — **Prep Batch: 308598**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Halogens, Total Organic	2.1	U	5.0	2.1	ug/L		05/18/17 12:00	05/18/17 16:35	1

Lab Sample ID: LCS 160-308598/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 311155 — **Prep Batch: 308598**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Halogens, Total Organic	100	89.69		ug/L		90	90 - 116

QC Sample Results

Client: CH2M Hill Plateau Remediation Company
Project/Site: I17-007, W17-005, S17-005

TestAmerica Job ID: 160-22112-1
SDG: SL2511

Method: 9020B - Organic Halides, Total (TOX) (Continued)

Lab Sample ID: 160-22035-A-4-C MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 311155 — **Prep Batch: 308598**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Halogens, Total Organic	2.1	U	100	90.85		ug/L		91	85 - 117

Lab Sample ID: 160-22140-5 MS — **Client Sample ID: B39BX1**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 311155 — **Prep Batch: 308598**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Halogens, Total Organic	2.1	U N	100	81.63	N	ug/L		82	85 - 117

Lab Sample ID: 160-22035-A-4-B DU — **Client Sample ID: Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 311155 — **Prep Batch: 308598**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Halogens, Total Organic	2.1	U	2.1	U	ug/L		NC	20

Lab Sample ID: MB 160-309854/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 311161 — **Prep Batch: 309854**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Halogens, Total Organic	2.1	U	5.0	2.1	ug/L		05/25/17 12:00	05/25/17 19:37	1

Lab Sample ID: LCS 160-309854/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 311161 — **Prep Batch: 309854**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Halogens, Total Organic	100	93.03		ug/L		93	90 - 116

Lab Sample ID: 160-22140-9 MS — **Client Sample ID: B39C07**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 311161 — **Prep Batch: 309854**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Halogens, Total Organic	9.6	y	100	109.4		ug/L		100	85 - 117

Lab Sample ID: 160-22140-9 DU — **Client Sample ID: B39C07**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 311161 — **Prep Batch: 309854**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Halogens, Total Organic	9.6	y	13.23	y	ug/L		32	20

QC Sample Results

Client: CH2M Hill Plateau Remediation Company
Project/Site: I17-007, W17-005, S17-005

TestAmerica Job ID: 160-22112-1
SDG: SL2511

Method: 9060 - Organic Carbon, Total (TOC)

Lab Sample ID: MB 160-308456/30
Matrix: Water
Analysis Batch: 308456

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	0.72	U	1.0	0.72	mg/L			05/12/17 00:52	1

Lab Sample ID: LCS 160-308456/31
Matrix: Water
Analysis Batch: 308456

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	10.0	10.01		mg/L		100	90 - 110

Lab Sample ID: 160-22112-1 MS
Matrix: Water
Analysis Batch: 308456

Client Sample ID: B39JP7
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	0.72	U	5.00	5.21		mg/L		104	76 - 120

Lab Sample ID: 160-22112-1 DU
Matrix: Water
Analysis Batch: 308456

Client Sample ID: B39JP7
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Organic Carbon	0.72	U	0.72	U	mg/L		NC	20

Method: 9310 - Gross Alpha / Beta (GFPC)

Lab Sample ID: MB 160-308411/1-A
Matrix: Water
Analysis Batch: 308495

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 308411

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Gross Alpha	-0.253	U	0.494	0.495	3.00	1.05	pCi/L	05/12/17 10:50	05/15/17 19:19	1
Gross Beta	0.308	U	0.527	0.528	4.00	0.898	pCi/L	05/12/17 10:50	05/15/17 19:19	1

Lab Sample ID: LCS 160-308411/2-A
Matrix: Water
Analysis Batch: 308495

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 308411

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Gross Alpha	49.9	40.84		6.05	3.00	1.73	pCi/L	82	80 - 120

Lab Sample ID: LCSB 160-308411/3-A
Matrix: Water
Analysis Batch: 308495

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 308411

Analyte	Spike Added	LCSB Result	LCSB Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Gross Beta	90.6	86.49		9.18	4.00	1.04	pCi/L	95	80 - 120

QC Sample Results

Client: CH2M Hill Plateau Remediation Company
Project/Site: I17-007, W17-005, S17-005

TestAmerica Job ID: 160-22112-1
SDG: SL2511

Method: 9310 - Gross Alpha / Beta (GFPC) (Continued)

Lab Sample ID: 160-22112-4 MS — **Client Sample ID: B39JR7**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 308498 — **Prep Batch: 308411**

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Gross Alpha	2.90	U	77.3	71.72		11.0	3.00	2.45	pCi/L	89	60 - 140

Lab Sample ID: 160-22112-4 MSBT — **Client Sample ID: B39JR7**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 308498 — **Prep Batch: 308411**

Analyte	Sample Result	Sample Qual	Spike Added	MSBT Result	MSBT Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Gross Beta	4.94		140	142.1		15.1	4.00	1.33	pCi/L	98	60 - 140

Lab Sample ID: 160-22112-4 DU — **Client Sample ID: B39JR7**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 308498 — **Prep Batch: 308411**

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Gross Alpha	2.90	U	2.057	U	1.60	3.00	2.12	pCi/L	0.23	1
Gross Beta	4.94		6.639		1.48	4.00	1.39	pCi/L	0.60	1

Method: C-01-1 - Carbon-14 (EERF C-01-1)

Lab Sample ID: MB 160-308384/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 308877 — **Prep Batch: 308384**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Carbon-14	-7.87	U	6.19	6.25	20.0	11.0	pCi/L	05/12/17 08:56	05/15/17 23:14	1

Lab Sample ID: LCS 160-308384/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 308877 — **Prep Batch: 308384**

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Carbon-14	1130	1037		114	20.0	10.8	pCi/L	92	80 - 120

Lab Sample ID: 160-22112-4 MS — **Client Sample ID: B39JR7**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 309172 — **Prep Batch: 308384**

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Carbon-14	-2.9	U	1130	936.6		104	20.0	10.3	pCi/L	83	75 - 125

QC Sample Results

Client: CH2M Hill Plateau Remediation Company
Project/Site: I17-007, W17-005, S17-005

TestAmerica Job ID: 160-22112-1
SDG: SL2511

Method: C-01-1 - Carbon-14 (EERF C-01-1) (Continued)

Lab Sample ID: 160-22242-A-2-B MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 308877 — **Prep Batch: 308384**

Analyte	Sample Result	Sample Qual	Spike Added	MSD Result	MSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Carbon-14	69.7		1110	1054		116	20.0	10.7	pCi/L	89	75 - 125	0.15	1

Lab Sample ID: 160-22112-4 DU — **Client Sample ID: B39JR7**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 309172 — **Prep Batch: 308384**

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Carbon-14	-2.9	U	-2.11	U	5.97	20.0	10.2	pCi/L	0.06	1

Method: SR-03-RC - Total Beta Strontium (GFPC)

Lab Sample ID: MB 160-308303/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 308480 — **Prep Batch: 308303**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Strontium 89/90	0.0856	U	0.102	0.102	2.00	0.168	pCi/L	05/11/17 09:12	05/13/17 10:30	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Sr Carrier	*86.1*		*40 - 110*	*05/11/17 09:12*	*05/13/17 10:30*	*1*

Lab Sample ID: LCS 160-308303/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 308480 — **Prep Batch: 308303**

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Strontium 89/90	8.46	7.568		0.661	2.00	0.146	pCi/L	89	80 - 120

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Sr Carrier	*90.0*		*40 - 110*

Lab Sample ID: LCSD 160-308303/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 308480 — **Prep Batch: 308303**

Analyte	Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Strontium 89/90	8.46	7.800		0.686	2.00	0.171	pCi/L	92	80 - 120	0.17	1

Carrier	*LCSD %Yield*	*LCSD Qualifier*	*Limits*
Sr Carrier	*85.4*		*40 - 110*

QC Association Summary

Client: CH2M Hill Plateau Remediation Company
Project/Site: I17-007, W17-005, S17-005

TestAmerica Job ID: 160-22112-1
SDG: SL2511

GC/MS VOA

Analysis Batch: 307316

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-22112-4	B39JR7	Total/NA	Water	8260C	
160-22140-1	B39JT2	Total/NA	Water	8260C	
160-22140-2	B39JT0	Total/NA	Water	8260C	
160-22140-3	B39JT9	Total/NA	Water	8260C	
MB 160-307316/9	Method Blank	Total/NA	Water	8260C	
LCS 160-307316/6	Lab Control Sample	Total/NA	Water	8260C	
LCSD 160-307316/7	Lab Control Sample Dup	Total/NA	Water	8260C	
160-22111-B-1 MS	Matrix Spike	Total/NA	Water	8260C	
160-22111-C-1 MSD	Matrix Spike Duplicate	Total/NA	Water	8260C	

GC/MS Semi VOA

Prep Batch: 307418

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-22140-1	B39JT2	Total/NA	Water	3510C	
160-22140-2	B39JT0	Total/NA	Water	3510C	
160-22140-3	B39JT9	Total/NA	Water	3510C	
MB 160-307418/1-A	Method Blank	Total/NA	Water	3510C	
LCS 160-307418/2-A	Lab Control Sample	Total/NA	Water	3510C	
160-22140-1 MS	B39JT2	Total/NA	Water	3510C	
160-22140-1 MSD	B39JT2	Total/NA	Water	3510C	

Analysis Batch: 309366

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-22140-1	B39JT2	Total/NA	Water	8270D	307418
MB 160-307418/1-A	Method Blank	Total/NA	Water	8270D	307418
LCS 160-307418/2-A	Lab Control Sample	Total/NA	Water	8270D	307418
160-22140-1 MS	B39JT2	Total/NA	Water	8270D	307418
160-22140-1 MSD	B39JT2	Total/NA	Water	8270D	307418

Analysis Batch: 310256

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-22140-2	B39JT0	Total/NA	Water	8270D	307418
160-22140-3	B39JT9	Total/NA	Water	8270D	307418

GC Semi VOA

Prep Batch: 307651

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-22140-1	B39JT2	Total/NA	Water	3510C	
160-22140-2	B39JT0	Total/NA	Water	3510C	
160-22140-3	B39JT9	Total/NA	Water	3510C	
MB 160-307651/1-A	Method Blank	Total/NA	Water	3510C	
LCS 160-307651/2-A	Lab Control Sample	Total/NA	Water	3510C	
160-22140-2 MS	B39JT0	Total/NA	Water	3510C	
160-22140-2 MSD	B39JT0	Total/NA	Water	3510C	

Analysis Batch: 307905

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-22140-1	B39JT2	Total/NA	Water	8082A	307651

QC Association Summary

Client: CH2M Hill Plateau Remediation Company
Project/Site: I17-007, W17-005, S17-005

TestAmerica Job ID: 160-22112-1
SDG: SL2511

GC Semi VOA (Continued)

Analysis Batch: 307905 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-22140-2	B39JT0	Total/NA	Water	8082A	307651
160-22140-3	B39JT9	Total/NA	Water	8082A	307651
MB 160-307651/1-A	Method Blank	Total/NA	Water	8082A	307651
LCS 160-307651/2-A	Lab Control Sample	Total/NA	Water	8082A	307651
160-22140-2 MS	B39JT0	Total/NA	Water	8082A	307651
160-22140-2 MSD	B39JT0	Total/NA	Water	8082A	307651

HPLC/IC

Analysis Batch: 306783

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-22112-2 - DL	B39JP8	Total/NA	Water	300.0	
MB 160-306783/10	Method Blank	Total/NA	Water	300.0	
LCS 160-306783/11	Lab Control Sample	Total/NA	Water	300.0	
160-22112-2 MS - DL	B39JP8	Total/NA	Water	300.0	
160-22112-2 DU - DL	B39JP8	Total/NA	Water	300.0	

Analysis Batch: 306784

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-22112-2 - DL	B39JP8	Total/NA	Water	300.0	
MB 160-306784/10	Method Blank	Total/NA	Water	300.0	
LCS 160-306784/11	Lab Control Sample	Total/NA	Water	300.0	
160-22112-2 MS - DL	B39JP8	Total/NA	Water	300.0	
160-22112-2 DU - DL	B39JP8	Total/NA	Water	300.0	

Metals

Prep Batch: 307317

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-22140-16	B39BW9	Total/NA	Water	7470A	
160-22140-17	B39BX4	Dissolved	Water	7470A	
MB 160-307317/1-A	Method Blank	Total/NA	Water	7470A	
LCS 160-307317/2-A	Lab Control Sample	Total/NA	Water	7470A	
160-22139-B-1-B MS	Matrix Spike	Total/NA	Water	7470A	
160-22139-B-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	

Analysis Batch: 307538

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-22140-16	B39BW9	Total/NA	Water	7470A	307317
160-22140-17	B39BX4	Dissolved	Water	7470A	307317
MB 160-307317/1-A	Method Blank	Total/NA	Water	7470A	307317
LCS 160-307317/2-A	Lab Control Sample	Total/NA	Water	7470A	307317
160-22139-B-1-B MS	Matrix Spike	Total/NA	Water	7470A	307317
160-22139-B-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	7470A	307317

Prep Batch: 307845

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-22140-16	B39BW9	Total/NA	Water	3010A	
160-22140-17	B39BX4	Dissolved	Water	3010A	
MB 160-307845/1-A	Method Blank	Total/NA	Water	3010A	

QC Association Summary

Client: CH2M Hill Plateau Remediation Company
Project/Site: I17-007, W17-005, S17-005

TestAmerica Job ID: 160-22112-1
SDG: SL2511

Metals (Continued)

Prep Batch: 307845 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 160-307845/2-A	Lab Control Sample	Total/NA	Water	3010A	
160-22139-B-1-E MS	Matrix Spike	Total/NA	Water	3010A	
160-22139-B-1-F MSD	Matrix Spike Duplicate	Total/NA	Water	3010A	

Analysis Batch: 308716

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-22140-16	B39BW9	Total/NA	Water	6010C	307845
160-22140-17	B39BX4	Dissolved	Water	6010C	307845
MB 160-307845/1-A	Method Blank	Total/NA	Water	6010C	307845
LCS 160-307845/2-A	Lab Control Sample	Total/NA	Water	6010C	307845
160-22139-B-1-E MS	Matrix Spike	Total/NA	Water	6010C	307845
160-22139-B-1-F MSD	Matrix Spike Duplicate	Total/NA	Water	6010C	307845

General Chemistry

Analysis Batch: 306658

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-22112-3	B39JP9	Total/NA	Water	7196A	
MB 160-306658/8	Method Blank	Total/NA	Water	7196A	
LCS 160-306658/9	Lab Control Sample	Total/NA	Water	7196A	
LCSD 160-306658/10	Lab Control Sample Dup	Total/NA	Water	7196A	
160-22112-3 MS	B39JP9	Total/NA	Water	7196A	

Analysis Batch: 308456

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-22112-1	B39JP7	Total/NA	Water	9060	
160-22140-4	B39C08	Total/NA	Water	9060	
160-22140-5	B39BX1	Total/NA	Water	9060	
160-22140-6	B39C10	Total/NA	Water	9060	
160-22140-7	B39C09	Total/NA	Water	9060	
160-22140-8	B39C06	Total/NA	Water	9060	
160-22140-9	B39C07	Total/NA	Water	9060	
160-22140-10	B39C05	Total/NA	Water	9060	
160-22140-11	B39BV9	Total/NA	Water	9060	
160-22140-12	B39C14	Total/NA	Water	9060	
160-22140-13	B39BY4	Total/NA	Water	9060	
160-22140-14	B39C15	Total/NA	Water	9060	
160-22140-15	B39C16	Total/NA	Water	9060	
MB 160-308456/30	Method Blank	Total/NA	Water	9060	
LCS 160-308456/31	Lab Control Sample	Total/NA	Water	9060	
160-22112-1 MS	B39JP7	Total/NA	Water	9060	
160-22112-1 DU	B39JP7	Total/NA	Water	9060	

Analysis Batch: 308461

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-22140-5	B39BX1	Total/NA	Water	310.1	
160-22140-11	B39BV9	Total/NA	Water	310.1	
160-22140-13	B39BY4	Total/NA	Water	310.1	
160-22140-18	B39CJ9	Total/NA	Water	310.1	
160-22140-19	B39CK6	Total/NA	Water	310.1	

QC Association Summary

Client: CH2M Hill Plateau Remediation Company
Project/Site: I17-007, W17-005, S17-005

TestAmerica Job ID: 160-22112-1
SDG: SL2511

General Chemistry (Continued)

Analysis Batch: 308461 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 160-308461/1	Method Blank	Total/NA	Water	310.1	
HLCS 160-308461/3	Lab Control Sample	Total/NA	Water	310.1	
LCS 160-308461/2	Lab Control Sample	Total/NA	Water	310.1	
160-22140-5 MS	B39BX1	Total/NA	Water	310.1	
160-22140-5 DU	B39BX1	Total/NA	Water	310.1	

Prep Batch: 308596

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-22112-1	B39JP7	Total/NA	Water	9010C	
MB 160-308596/1-A	Method Blank	Total/NA	Water	9010C	
HLCS 160-308596/3-A	Lab Control Sample	Total/NA	Water	9010C	
LCS 160-308596/2-A	Lab Control Sample	Total/NA	Water	9010C	
160-22112-1 MS	B39JP7	Total/NA	Water	9010C	
160-22112-1 DU	B39JP7	Total/NA	Water	9010C	

Prep Batch: 308598

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-22112-4	B39JR7	Total/NA	Water	Carbon Trap	
160-22140-4	B39C08	Total/NA	Water	Carbon Trap	
160-22140-5	B39BX1	Total/NA	Water	Carbon Trap	
160-22140-6	B39C10	Total/NA	Water	Carbon Trap	
160-22140-7	B39C09	Total/NA	Water	Carbon Trap	
160-22140-8	B39C06	Total/NA	Water	Carbon Trap	
MB 160-308598/1-A	Method Blank	Total/NA	Water	Carbon Trap	
LCS 160-308598/2-A	Lab Control Sample	Total/NA	Water	Carbon Trap	
160-22035-A-4-C MS	Matrix Spike	Total/NA	Water	Carbon Trap	
160-22140-5 MS	B39BX1	Total/NA	Water	Carbon Trap	
160-22035-A-4-B DU	Duplicate	Total/NA	Water	Carbon Trap	

Analysis Batch: 308855

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-22112-1	B39JP7	Total/NA	Water	9012B	308596
MB 160-308596/1-A	Method Blank	Total/NA	Water	9012B	308596
HLCS 160-308596/3-A	Lab Control Sample	Total/NA	Water	9012B	308596
LCS 160-308596/2-A	Lab Control Sample	Total/NA	Water	9012B	308596
160-22112-1 MS	B39JP7	Total/NA	Water	9012B	308596
160-22112-1 DU	B39JP7	Total/NA	Water	9012B	308596

Prep Batch: 309854

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-22140-9	B39C07	Total/NA	Water	Carbon Trap	
160-22140-10	B39C05	Total/NA	Water	Carbon Trap	
160-22140-11	B39BV9	Total/NA	Water	Carbon Trap	
160-22140-12	B39C14	Total/NA	Water	Carbon Trap	
160-22140-13	B39BY4	Total/NA	Water	Carbon Trap	
160-22140-14	B39C15	Total/NA	Water	Carbon Trap	
160-22140-15	B39C16	Total/NA	Water	Carbon Trap	
MB 160-309854/1-A	Method Blank	Total/NA	Water	Carbon Trap	
LCS 160-309854/2-A	Lab Control Sample	Total/NA	Water	Carbon Trap	
160-22140-9 MS	B39C07	Total/NA	Water	Carbon Trap	
160-22140-9 DU	B39C07	Total/NA	Water	Carbon Trap	

QC Association Summary

Client: CH2M Hill Plateau Remediation Company
Project/Site: I17-007, W17-005, S17-005

TestAmerica Job ID: 160-22112-1
SDG: SL2511

Analysis Batch: 311155

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-22112-4	B39JR7	Total/NA	Water	9020B	308598
160-22140-4	B39C08	Total/NA	Water	9020B	308598
160-22140-5	B39BX1	Total/NA	Water	9020B	308598
160-22140-6	B39C10	Total/NA	Water	9020B	308598
160-22140-7	B39C09	Total/NA	Water	9020B	308598
160-22140-8	B39C06	Total/NA	Water	9020B	308598
MB 160-308598/1-A	Method Blank	Total/NA	Water	9020B	308598
LCS 160-308598/2-A	Lab Control Sample	Total/NA	Water	9020B	308598
160-22035-A-4-C MS	Matrix Spike	Total/NA	Water	9020B	308598
160-22140-5 MS	B39BX1	Total/NA	Water	9020B	308598
160-22035-A-4-B DU	Duplicate	Total/NA	Water	9020B	308598

Analysis Batch: 311161

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-22140-9	B39C07	Total/NA	Water	9020B	309854
160-22140-10	B39C05	Total/NA	Water	9020B	309854
160-22140-11	B39BV9	Total/NA	Water	9020B	309854
160-22140-12	B39C14	Total/NA	Water	9020B	309854
160-22140-13	B39BY4	Total/NA	Water	9020B	309854
160-22140-14	B39C15	Total/NA	Water	9020B	309854
160-22140-15	B39C16	Total/NA	Water	9020B	309854
MB 160-309854/1-A	Method Blank	Total/NA	Water	9020B	309854
LCS 160-309854/2-A	Lab Control Sample	Total/NA	Water	9020B	309854
160-22140-9 MS	B39C07	Total/NA	Water	9020B	309854
160-22140-9 DU	B39C07	Total/NA	Water	9020B	309854

Rad

Prep Batch: 308303

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-22112-4	B39JR7	Total/NA	Water	PrecSep_0	
MB 160-308303/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-308303/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-308303/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

Prep Batch: 308384

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-22112-4	B39JR7	Total/NA	Water	LSC_Dist_Susp	
MB 160-308384/1-A	Method Blank	Total/NA	Water	LSC_Dist_Susp	
LCS 160-308384/2-A	Lab Control Sample	Total/NA	Water	LSC_Dist_Susp	
160-22112-4 MS	B39JR7	Total/NA	Water	LSC_Dist_Susp	
160-22242-A-2-B MSD	Matrix Spike Duplicate	Total/NA	Water	LSC_Dist_Susp	
160-22112-4 DU	B39JR7	Total/NA	Water	LSC_Dist_Susp	

Prep Batch: 308411

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-22112-4	B39JR7	Total/NA	Water	Evaporation	
MB 160-308411/1-A	Method Blank	Total/NA	Water	Evaporation	
LCS 160-308411/2-A	Lab Control Sample	Total/NA	Water	Evaporation	
LCSB 160-308411/3-A	Lab Control Sample	Total/NA	Water	Evaporation	
160-22112-4 MS	B39JR7	Total/NA	Water	Evaporation	
160-22112-4 MSBT	B39JR7	Total/NA	Water	Evaporation	
160-22112-4 DU	B39JR7	Total/NA	Water	Evaporation	

Surrogate Summary

Client: CH2M Hill Plateau Remediation Company
Project/Site: I17-007, W17-005, S17-005

TestAmerica Job ID: 160-22112-1
SDG: SL2511

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

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

		Percent Surrogate Recovery (Acceptance Limits)			
Lab Sample ID	Client Sample ID	12DCE (75-129)	BFB (81-130)	DBFM (81-124)	TOL (87-128)
160-22111-B-1 MS	Matrix Spike	99	92	101	104
160-22111-C-1 MSD	Matrix Spike Duplicate	97	92	101	104
160-22112-4	B39JR7	102	106	99	104
160-22140-1	B39JT2	107	113	105	107
160-22140-2	B39JT0	111	116	107	105
160-22140-3	B39JT9	105	115	104	106
LCS 160-307316/6	Lab Control Sample	98	93	99	103
LCSD 160-307316/7	Lab Control Sample Dup	103	94	100	103
MB 160-307316/9	Method Blank	105	111	101	105

Surrogate Legend

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

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

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

		Percent Surrogate Recovery (Acceptance Limits)					
Lab Sample ID	Client Sample ID	TBP (37-120)	FBP (43-108)	2FP (15-59)	NBZ (50-101)	PHL (10-50)	TPH (21-97)
160-22140-1	B39JT2	90	66	39	60	24	71
160-22140-1 MS	B39JT2	100	77	42	70	28	82
160-22140-1 MSD	B39JT2	95	76	45	72	29	80
160-22140-2	B39JT0	79	62	35	58	22	70
160-22140-3	B39JT9	74	57	36	55	22	69
LCS 160-307418/2-A	Lab Control Sample	104	78	46	72	29	87
MB 160-307418/1-A	Method Blank	96	64	41	63	25	83

Surrogate Legend

TBP = 2,4,6-Tribromophenol (Surr)
FBP = 2-Fluorobiphenyl (Surr)
2FP = 2-Fluorophenol (Surr)
NBZ = Nitrobenzene-d5 (Surr)
PHL = Phenol-d5 (Surr)
TPH = Terphenyl-d14 (Surr)

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

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

		Percent Surrogate Recovery (Acceptance Limits)
Lab Sample ID	Client Sample ID	DCB2 (32-141)
160-22140-1	B39JT2	102
160-22140-2	B39JT0	104
160-22140-2 MS	B39JT0	98
160-22140-3	B39JT9	103
LCS 160-307651/2-A	Lab Control Sample	108
MB 160-307651/1-A	Method Blank	101

Surrogate Summary

Client: CH2M Hill Plateau Remediation Company
Project/Site: I17-007, W17-005, S17-005

TestAmerica Job ID: 160-22112-1
SDG: SL2511

Surrogate Legend
DCB = DCB Decachlorobiphenyl (Surr)

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

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

		Percent Surrogate Recovery (Acceptance Limits)								
Lab Sample ID	**Client Sample ID**	**DCB1 (32-141)**								
160-22140-2 MSD	B39JT0	75								

Surrogate Legend
DCB = DCB Decachlorobiphenyl (Surr)

Tracer/Carrier Summary

Client: CH2M Hill Plateau Remediation Company
Project/Site: I17-007, W17-005, S17-005

TestAmerica Job ID: 160-22112-1
SDG: SL2511

Method: SR-03-RC - Total Beta Strontium (GFPC)

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

		Percent Yield (Acceptance Limits)							
Lab Sample ID	Client Sample ID	Sr (C) (40-110)							
160-22112-4	B39JR7	82.9							
LCS 160-308303/2-A	Lab Control Sample	90.0							
LCSD 160-308303/3-A	Lab Control Sample Dup	85.4							
MB 160-308303/1-A	Method Blank	86.1							

Tracer/Carrier Legend

Sr (C) = Sr Carrier