June 26, 2017

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: 160-22671-1
TestAmerica Sample Delivery Group: SL2542
Client Project/Site: W17-006 / S17-006

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

Attn: Mr. Scot Fitzgerald

Authorized for release by:
6/26/2017 11:12:58 AM

Jayna Awalt, Project Manager II
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jayna.awalt@testamericainc.com

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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Job ID: 160-22671-1

Laboratory: TestAmerica St. Louis

Narrative

CASE NARRATIVE

CH2MHill Plateau Remediation Company
P.O. Box 1600
Richland, Washington 99352
June 26, 2017
Attention: Scot Fitzgerald

SDG	: SL2542
Number of Samples	: 14 samples
Sample Matrix	: Water
Data Deliverable	: Summary
Date SDG Closed	: June 3, 2017

II. Introduction

On June 3, 14 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: W17-006 and S17-006

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.

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

Job ID: 160-22671-1 (Continued)

Laboratory: TestAmerica St. Louis (Continued)

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: 312173

The following compounds did not meet the minimum relative response factor limits in the continuing calibration verification (CCV) associated with batch 160-312173: 2-Butanone, n-Butanol, 4-Methyl-2-pentanone, 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 160-312173/2)

Anions

Batch: 311801

The following samples in Anion batch 160-311801 were diluted to bring the concentrations of Nitrate within the calibration range: B39TD3 (160-22671-1), B39TH6 (160-22671-3) and B39TF7 (160-22671-4). Elevated reporting limits (RLs) are provided. This analyte has been qualified accordingly with a "D" flag in the associated samples.

The following matrix spike (MS) recovery was outside control limits for Nitrite (79%) in Anion batch 160-311801: (160-22671-A-2 MS) Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Job ID: 160-22671-1 (Continued)

Laboratory: TestAmerica St. Louis (Continued)

This analyte has been qualified accordingly with an "N" flag in the associated samples.

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

Alkalinity
Total Cyanide

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

Login Sample Receipt Checklist

Client: CH2M Hill Plateau Remediation Company

Job Number: 160-22671-1
SDG Number: SL2542

Login Number: 22671
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	3.0,3.3
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	

CH2MHill Plateau Remediation Company

812542 81165

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # S17-006-458

Page 1 of 1

Collector	Dave Wight CHPRC	Contact/Requester	Karen Waters-Husted	Telephone No.	509-376-4650
SAF No.	S17-006	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071
Project Title	SURV, JUNE 2017	Logbook No.	HNF-N-506 93/45	Ice Chest No.	GWS 412
Shipped To (Lab)	TestAmerica St. Louis	Method of Shipment	Commercial Carrier	Bill of Lading/Air Bill No.	7792 9099 7769
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

N/A

Total Activity Exemption: Yes ☑ No ☐

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B39TD3	N	W	JUN 0 2 2017	0929	1x125-mL P	300.0_ANIONS_IC: COMMON; 300.0_ANIONS_IC: GW 01	48 Hours	Cool <=6C

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Dave Wight CHPRC			JUN 0 2 2017 1135	Janelle Zunker CHPRC			JUN 0 2 2017 1135
Janelle Zunker CHPRC			JUN 0 2 2017 1400	FEDEX			
FED EX				Brian Davis			6/3/17 0830

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 5/1/2017

FSR ID = FSR44374

A-6004-842 (REV 2)

CH2MHill Plateau Remediation Company 812542

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # S17-006-456

Page 1 of 1

Collector	Dave Wight CHPRC	Contact/Requester	Karen Waters-Husted	Telephone No.	509-376-4650
SAF No.	S17-006	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071
Project Title	SURV, JUNE 2017	Logbook No.	HNF-N-506 93145	Ice Chest No.	Cust 412
Shipped To (Lab)	TestAmerica St. Louis	Method of Shipment	Commercial Carrier	Bill of Lading/Air Bill No.	7792 9099 7769
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

N/A

Total Activity Exemption: Yes ☑ No ☐

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B39TC4 ✓	N	W	JUN 0 2 2017	1119	1x125-mL P	300.0_ANIONS_IC: COMMON; 300.0_ANIONS_IC: GW 01	48 Hours	Cool <=6C

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Dave Wight CHPRC			JUN 0 2 2017 1135	Janelle Zunker CHPRC			JUN 0 2 2017 1135
Janelle Zunker CHPRC			JUN 0 2 2017 1400	FEDEX			
FED EX				Brian Daniels			6/6/17 0830

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 5/1/2017 FSR ID = FSR40384 A-6004-842 (REV 2)

CH2MHill Plateau Remediation Company 822542

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # S17-006-589

Collector	CHRIS FULTON CHPRC	Contact/Requester	Karen Waters-Husted	Telephone No.	509-376-4650
SAF No.	S17-006	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071
Project Title	SURV, JUNE 2017	Logbook No.	HNF-N-506 92 / 86	Ice Chest No.	GWS-412
Shipped To (Lab)	~~TestAmerica St. Louis~~ ~~FARL~~ TASL	Method of Shipment	Commercial Carrier	Bill of Lading/Air Bill No.	7792 9099 7769
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
B39TH6	N	W	6-02-17	1127	1x125-mL P	300.0_ANIONS_IC: COMMON; 300.0_ANIONS_IC: GW 01	48 Hours	Cool <=6C

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
CHRIS FULTON CHPRC			1131 JUN 0 2 2017	Janelle Zunker CHPRC			1131 JUN 0 2 2017
Janelle Zunker CHPRC			JUN 0 2 2017 1400	FEDEX			
FED EX				Brian Daniels			6/3/17 0830

Matrix *

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

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

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CH2MHill Plateau Remediation Company 912542

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # S17-006-461

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Collector	Dave Wight CHPRC	Contact/Requester	Karen Waters-Husted	Telephone No.	509-376-4650
SAF No.	S17-006	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071
Project Title	SURV, JUNE 2017	Logbook No.	HNF-N-506 93/45	Ice Chest No.	GWS-412
Shipped To (Lab)	TestAmerica St. Louis	Method of Shipment	Commercial Carrier	Bill of Lading/Air Bill No.	7792 9099 7769
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
B39TF7	N	W	JUN 0 2 2017	0846	1x125-mL P	300.0_ANIONS_IC: COMMON; 300.0_ANIONS_IC: GW 01	48 Hours	Cool <=6C

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Dave Wight CHPRC			JUN 0 2 2017 1135	Janelle Zunker CHPRC			JUN 0 2 2017 1135
Janelle Zunker CHPRC			JUN 0 2 2017 1400	FEDEX			
FED EX				Brian Daniels			4/3/17 0830

Matrix *

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

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

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CH2MHill Plateau Remediation Company 82542

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # S17-006-460

Collector	Dave Wight CHPRC	Contact/Requester	Karen Waters-Husted	Telephone No.	509-376-4650
SAF No.	S17-006	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071
Project Title	SURV, JUNE 2017	Logbook No.	HNF-N-506 93/95	Ice Chest No.	GW5412
Shipped To (Lab)	TestAmerica St. Louis	Method of Shipment	Commercial Carrier	Bill of Lading/Air Bill No.	7792 9099 7769
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

N/A

Total Activity Exemption: Yes ☑ No ☐

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B39TF6	N	W	JUN 0 2 2017	0705	1x125-mL P	300.0_ANIONS_IC: COMMON; 300.0_ANIONS_IC: GW 01	48 Hours	Cool <=6C

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Dave Wight CHPRC			JUN 0 2 2017 1135	Janelle Zunker CHPRC			JUN 0 2 2017 1135
Janelle Zunker CHPRC			JUN 0 2 2017 1400	FEDEX			
FED EX				Brian Daniels			6/3/17 0830

Matrix *

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

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

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CH2MHill Plateau Remediation Company 512542

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # S17-006-457

Page 1 of 1

Collector	Dave Wight CHPRC	Contact/Requester	Karen Waters-Husted	Telephone No.	509-376-4650
SAF No.	S17-006	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071
Project Title	SURV, JUNE 2017	Logbook No.	HNF-N-506 93/45	Ice Chest No.	GWS-412
Shipped To (Lab)	TestAmerica St. Louis	Method of Shipment	Commercial Carrier	Bill of Lading/Air Bill No.	7792 9099 7769
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

N/A

Total Activity Exemption: Yes ☑ No ☐

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B39TD2	N	W	JUN 0 2 2017	0715	1x125-mL P	300.0_ANIONS_IC: COMMON; 300.0_ANIONS_IC: GW 01	48 Hours	Cool <=6C

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
	Dave Wight CHPRC		JUN 0 2 2017 1135		Janelle Zunker CHPRC		JUN 0 2 2017 1135
Relinquished By	Janelle Zunker CHPRC		JUN 0 2 2017 1400	Received By	FEDEX		Date/Time
Relinquished By	FED EX		Date/Time	Received By	Brian Daniels		6/3/17 0830
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

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CH2MHill Plateau Remediation Company 822542

20165

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # S17-006-595

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Collector	CHRIS FULTON CHPRC	Contact/Requester	Karen Waters-Husted	Telephone No.	509-376-4650
SAF No.	S17-006	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071
Project Title	SURV, JUNE 2017	Logbook No.	HNF-N-506 92 156	Ice Chest No.	GWS - 636
Shipped To (Lab)	~~TestAmerica St. Louis~~ TARL TAL	Method of Shipment	Commercial Carrier	Bill of Lading/Air Bill No.	7792 9259 7820
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
B39TJ7 ✓	N	W	6-02-17	1251	1x125-mL P	300.0_ANIONS_IC: COMMON; 300.0_ANIONS_IC: GW 01	48 Hours	Cool <=6C

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
CHRIS FULTON CHPRC			JUN 0 2 2017 1320	Ed Kauer /CHPRC			JUN 0 2 2017 1320
Relinquished By Ed Kauer /CHPRC			JUN 0 2 2027 1400	Received By	FEDEX		Date/Time
Relinquished By	FED EX		Date/Time	Received By	Brian Daniels		6/3/17 0830
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

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CH2MHill Plateau Remediation Company 822542

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # S17-006-596

Page 1 of 1

Collector	CHRIS FULTON CHPRC	Contact/Requester	Karen Waters-Husted	Telephone No.	509-376-4650
SAF No.	S17-006	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071
Project Title	SURV, JUNE 2017	Logbook No.	HNF-N-506 92156	Ice Chest No.	GWS-636
Shipped To (Lab)	~~TestAmerica St. Louis~~ ~~FARLTASL~~ Alan	Method of Shipment	Commercial Carrier	Bill of Lading/Air Bill No.	7792 9259 7820
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
B39TJ8 ✓	N	W	6-02-17	1251	1x125-mL P	300.0_ANIONS_IC: COMMON; 300.0_ANIONS_IC: GW 01	48 Hours	Cool <=6C

Relinquished By	Print / Sign	Date/Time	Received By	Print / Sign	Date/Time
CHRIS FULTON CHPRC		JUN 02 2017 1320	Ed Kauer /CHPRC		JUN 02 2017 1320
Ed Kauer /CHPRC		JUN 02 2027 1400	FEDEX		
FED EX			Brian Daniels		6/3/17 0830

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 5/1/2017 FSR ID = FSR33550 A-6004-842 (REV 2)

CH2MHill Plateau Remediation Company 822542

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # W17-006-170

Page 1 of 1

Collector	Dave Wight CHPRC	Contact/Requester	Karen Waters-Husted	Telephone No.	509-376-4650
SAF No.	W17-006	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071
Project Title	RCRA, JUNE 2017	Logbook No.	HNF-N-506 83145	Ice Chest No.	GWS-412
Shipped To (Lab)	TestAmerica St. Louis	Method of Shipment	Commercial Carrier	Bill of Lading/Air Bill No.	7792 9099 7769
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

N/A

Total Activity Exemption: Yes ☑ No ☐

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B39P85	N	W	JUN 0 2 2017	1021	5x40-mL aGs*	8260_VOA_GCMS: COMMON; 8260_VOA_GCMS: GW 01	14 Days	HCl or H2SO4 to pH <2/Cool <=6C

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Dave Wight CHPRC			1135 JUN 0 2 2017	Janelle Zunker CHPRC			1135 JUN 0 2 2017
Janelle Zunker CHPRC			JUN 0 2 2017 1400	FEDEX			
FED EX				Brian Daniels			6/3/17 0830

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 4/26/2017 FSR ID = FSR44376 A-6004-842 (REV 2)

CH2MHill Plateau Remediation Company 82542

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # W17-006-171

Page 1 of 1

Collector	CHRIS FULTON CHPRC	Contact/Requester	Karen Waters-Husted	Telephone No.	509-376-4650
SAF No.	W17-006	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071
Project Title	RCRA, JUNE 2017	Logbook No.	HNF-N-506 92 / 86	Ice Chest No.	GWS-412
Shipped To (Lab)	TestAmerica St. Louis	Method of Shipment	Commercial Carrier	Bill of Lading/Air Bill No.	7792 9099 7769
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
B39P88	N	W	6-02-17	0828	5x40-mL aGs*	8260_VOA_GCMS: COMMON; 8260_VOA_GCMS: GW 01	14 Days	HCl or H2SO4 to pH <2/Cool <=6C

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
CHRIS FULTON CHPRC			JUN 0 2 2017 1120	Janelle Zunker CHPRC			JUN 0 2 2017 1120
Janelle Zunker CHPRC			JUN 0 2 2017 1400	FEDEX			
FED EX				Brian Daniels			6/3/17 0830

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 5/1/2017 FSR ID = FSR44909 A-6004-842 (REV 2)

CH2MHill Plateau Remediation Company 812542

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # W17-006-168

Page 1 of 1

Collector	CHRIS FULTON CHPRC	Contact/Requester	Karen Waters-Husted	Telephone No.	509-376-4650
SAF No.	W17-006	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071
Project Title	RCRA, JUNE 2017	Logbook No.	HNF-N-506 92 / 86	Ice Chest No.	GWS 412
Shipped To (Lab)	TestAmerica St. Louis	Method of Shipment	Commercial Carrier	Bill of Lading/Air Bill No.	7792 9099 7769
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
B39P73 ✓	N	W	6-02-17	1027	5x40-mL aGs*	8260_VOA_GCMS: COMMON; 8260_VOA_GCMS: GW 01	14 Days	HCl or H2SO4 to pH <2/Cool <=6C

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
CHRIS FULTON CHPRC			JUN 0 2 2017 1120	Janelle Zunker CHPRC			JUN 0 2 2017 1120
Janelle Zunker CHPRC			JUN 0 2 2017 1400	FEDEX			
FED EX				Brian Daniel			4/3/17 0830

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 4/26/2017 FSR ID = FSR10804 A-6004-842 (REV 2)

CH2MHill Plateau Remediation Company 812542

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # W17-006-169

Page 1 of 1

Collector	Dave Wight CHPRC	Contact/Requester	Karen Waters-Husted	Telephone No.	509-376-4650
SAF No.	W17-006	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071
Project Title	RCRA, JUNE 2017	Logbook No.	HNF-N-506 93/45	Ice Chest No.	GWS-412
Shipped To (Lab)	TestAmerica St. Louis	Method of Shipment	Commercial Carrier	Bill of Lading/Air Bill No.	7792 9099 7769
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
B39P76	N	W	JUN 0 2 2017	1119	5x40-mL aGs*	8260_VOA_GCMS: COMMON; 8260_VOA_GCMS: GW 01	14 Days	HCl or H2SO4 to pH <2/Cool <=6C

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Dave Wight CHPRC			JUN 0 2 2017 1135	Janelle Zunker CHPRC			JUN 0 2 2017 1135
Janelle Zunker CHPRC			JUN 0 2 2017 1400	FEDEX			
FED EX				Brian Daniels			6/3/17 0830

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 5/1/2017 FSR ID = FSR40384 A-6004-842 (REV 2)

CH2MHill Plateau Remediation Company 822542

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # W17-006-150

Page 1 of 1

Collector	Juan Aguilar /CHPRC	Contact/Requester	Karen Waters-Husted	Telephone No.	509-376-4650
SAF No.	W17-006	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071
Project Title	RCRA, JUNE 2017	Logbook No.	HNF-N-506 88/67	Ice Chest No.	GWS-412
Shipped To (Lab)	TestAmerica St. Louis	Method of Shipment	Commercial Carrier	Bill of Lading/Air Bill No.	7792 9099 7769
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
B39NN5	N	W	6-2-17	1057	1x250-mL G/P	310.1_ALKALINITY: COMMON	14 Days	Cool <=6C
B39NN5	N	W	6-2-17	1057	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
	Juan Aguilar /CHPRC	JUN 0 2 2017	1130		Janelle Zunker CHPRC	JUN 0 2 2017	1130
Relinquished By	Janelle Zunker CHPRC	JUN 0 2 2017	1400	Received By	FEDEX		Date/Time
Relinquished By	FED EX		Date/Time	Received By	Brian Daniels	6/3/17	Date/Time 0830
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 5/15/2017 FSR ID = FSR41617 A-6004-842 (REV 2)

CH2MHill Plateau Remediation Company 812542

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # W17-006-153

Page 1 of 1

Collector	Juan Aguilar /CHPRC	Contact/Requester	Karen Waters-Husted	Telephone No.	509-376-4650
SAF No.	W17-006	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071
Project Title	RCRA, JUNE 2017	Logbook No.	HNF-N-506 88/67	Ice Chest No.	GWS-412
Shipped To (Lab)	TestAmerica St. Louis	Method of Shipment	Commercial Carrier	Bill of Lading/Air Bill No.	7792 9099 7769
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
B39NR4 ✓	N	W	6-2-17	0905	1x250-mL G/P	310.1_ALKALINITY: COMMON	14 Days	Cool <=6C
B39NR4 ✓	N	W	6-2-17	0905	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
Juan Aguilar /CHPRC			JUN 0 2 2017 0915	Janelle Zunker CHPRC			JUN 0 2 2017 0915
Janelle Zunker CHPRC			JUN 0 2 2017 1400	FEDEX			
FED EX				Brian Daniels			6/3/17 0870

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 5/15/2017 FSR ID = FSR45151 A-6004-842 (REV 2)

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FedEx ® Tracking

779292597820

Ship date:		Actual delivery:
Fri 6/02/2017		**Sat 6/03/2017 8:30 am**
RICHLAND, WA US	**Delivered** *Signed for by: R.CASTILLO*	EARTH CITY, MO US

Travel History

Date/Time	Activity	Location
6/03/2017 - Saturday		
8:30 am	Delivered	EARTH CITY, MO
7:52 am	On FedEx vehicle for delivery	EARTH CITY, MO
7:50 am	At local FedEx facility	EARTH CITY, MO
5:04 am	At destination sort facility	BERKELEY, MO
4:17 am	Departed FedEx location	MEMPHIS, TN
12:34 am	Arrived at FedEx location	MEMPHIS, TN
6/02/2017 - Friday		
4:52 pm	Left FedEx origin facility	PASCO, WA
4:20 pm	Shipment information sent to FedEx	
3:20 pm	Picked up	PASCO, WA

Shipment Facts

Tracking number	779292597820	**Service**	FedEx Priority Overnight
Weight	20 lbs / 9.07 kgs	**Dimensions**	16x13x10 in.
Delivered To	Shipping/Receiving	**Total pieces**	1
Total shipment weight	20 lbs / 9.07 kgs	**Terms**	Recipient
Shipper reference	gws-636	**Packaging**	Your Packaging
Special handling section	For Saturday Delivery, Additional Handling Surcharge	**Standard transit**	6/03/2017 by 12:00 pm

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Hurricane Season Readiness. Learn More

FedEx ® Tracking

779290997769

Ship date:		Actual delivery:
Fri 6/02/2017		**Sat 6/03/2017 8:30 am**
RICHLAND, WA US	**Delivered** *Signed for by: R.CASTILLO*	EARTH CITY, MO US

Travel History

Date/Time	Activity	Location
- 6/03/2017 - Saturday		
8:30 am	Delivered	EARTH CITY, MO
7:46 am	On FedEx vehicle for delivery	EARTH CITY, MO
7:43 am	At local FedEx facility	EARTH CITY, MO
5:04 am	At destination sort facility	BERKELEY, MO
4:17 am	Departed FedEx location	MEMPHIS, TN
12:34 am	Arrived at FedEx location	MEMPHIS, TN
- 6/02/2017 - Friday		
4:52 pm	Left FedEx origin facility	PASCO, WA
3:20 pm	Picked up	PASCO, WA
2:39 pm	Shipment information sent to FedEx	

Shipment Facts

Tracking number	779290997769	**Service**	FedEx Priority Overnight
Weight	81 lbs / 36.74 kgs	**Dimensions**	28x16x17 in.
Delivered To	Shipping/Receiving	**Total pieces**	1
Total shipment weight	81 lbs / 36.74 kgs	**Terms**	Recipient
Shipper reference	GWS-412	**Packaging**	Your Packaging
Special handling section	For Saturday Delivery, Additional Handling Surcharge	**Standard transit**	6/03/2017 by 12:00 pm

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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.

HPLC/IC

Qualifier	Qualifier Description
D	The reported value is from a dilution.
N	MS, MSD: Spike recovery is outside acceptance limits.
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.

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)
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: W17-006 / S17-006

TestAmerica Job ID: 160-22671-1
SDG: SL2542

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds (GC/MS)	SW846	TAL SL
300.0	Anions, Ion Chromatography	MCAWW	TAL SL
310.1	Alkalinity	MCAWW	TAL SL
9012B	Cyanide, Total andor Amenable	SW846	TAL SL

Protocol References:

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

Laboratory References:

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

Sample Summary

Client: CH2M Hill Plateau Remediation Company
Project/Site: W17-006 / S17-006

TestAmerica Job ID: 160-22671-1
SDG: SL2542

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
160-22671-1	B39TD3	Water	06/02/17 09:29	06/03/17 08:30
160-22671-2	B39TC4	Water	06/02/17 11:19	06/03/17 08:30
160-22671-3	B39TH6	Water	06/02/17 11:27	06/03/17 08:30
160-22671-4	B39TF7	Water	06/02/17 08:46	06/03/17 08:30
160-22671-5	B39TF6	Water	06/02/17 07:05	06/03/17 08:30
160-22671-6	B39TD2	Water	06/02/17 07:15	06/03/17 08:30
160-22671-7	B39TJ7	Water	06/02/17 12:51	06/03/17 08:30
160-22671-8	B39TJ8	Water	06/02/17 12:51	06/03/17 08:30
160-22671-9	B39P85	Water	06/02/17 10:21	06/03/17 08:30
160-22671-10	B39P88	Water	06/02/17 08:28	06/03/17 08:30
160-22671-11	B39P73	Water	06/02/17 10:27	06/03/17 08:30
160-22671-12	B39P76	Water	06/02/17 11:19	06/03/17 08:30
160-22671-13	B39NN5	Water	06/02/17 10:57	06/03/17 08:30
160-22671-14	B39NR4	Water	06/02/17 09:05	06/03/17 08:30

Client: CH2M Hill Plateau Remediation Company
Project/Site: W17-006 / S17-006

TestAmerica Job ID: 160-22671-1
SDG: SL2542

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

Client Sample ID: B39P85
Date Collected: 06/02/17 10:21
Date Received: 06/03/17 08:30

Lab Sample ID: 160-22671-9
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			06/07/17 15:16	1
1,1,2-Trichloroethane	0.13	U	1.0	0.13	ug/L			06/07/17 15:16	1
1,1-Dichloroethane	0.070	U	1.0	0.070	ug/L			06/07/17 15:16	1
1,1-Dichloroethene	0.10	U	1.0	0.10	ug/L			06/07/17 15:16	1
1,2-Dichloroethane	0.22	U	1.0	0.22	ug/L			06/07/17 15:16	1
1,4-Dichlorobenzene	0.10	U	1.0	0.10	ug/L			06/07/17 15:16	1
1-Butanol	12	U	50	12	ug/L			06/07/17 15:16	1
2-Butanone (MEK)	0.47	U	5.0	0.47	ug/L			06/07/17 15:16	1
4-Methyl-2-pentanone (MIBK)	0.22	U	5.0	0.22	ug/L			06/07/17 15:16	1
Acetone	0.55	U	2.0	0.55	ug/L			06/07/17 15:16	1
Benzene	0.10	U	1.0	0.10	ug/L			06/07/17 15:16	1
Carbon disulfide	0.10	U	1.0	0.10	ug/L			06/07/17 15:16	1
Carbon tetrachloride	0.18	U	1.0	0.18	ug/L			06/07/17 15:16	1
Chlorobenzene	0.11	U	1.0	0.11	ug/L			06/07/17 15:16	1
Chloroform	0.10	U	1.0	0.10	ug/L			06/07/17 15:16	1
cis-1,2-Dichloroethylene	**1.9**		1.0	0.10	ug/L			06/07/17 15:16	1
Ethyl Cyanide	1.4	U	10	1.4	ug/L			06/07/17 15:16	1
Ethylbenzene	0.12	U	1.0	0.12	ug/L			06/07/17 15:16	1
Methylene Chloride	0.27	U	1.0	0.27	ug/L			06/07/17 15:16	1
Tetrachloroethene	0.18	U	1.0	0.18	ug/L			06/07/17 15:16	1
Tetrahydrofuran	0.50	U	10	0.50	ug/L			06/07/17 15:16	1
Toluene	0.14	U	1.0	0.14	ug/L			06/07/17 15:16	1
trans-1,2-Dichloroethylene	0.10	U	1.0	0.10	ug/L			06/07/17 15:16	1
Trichloroethene	0.25	U	1.0	0.25	ug/L			06/07/17 15:16	1
Vinyl chloride	0.19	U	2.0	0.19	ug/L			06/07/17 15:16	1
Xylenes, Total	0.27	U	3.0	0.27	ug/L			06/07/17 15:16	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*06/07/17 15:16*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*90*		*75 - 129*		*06/07/17 15:16*	*1*
4-Bromofluorobenzene (Surr)	*116*		*81 - 130*		*06/07/17 15:16*	*1*
Dibromofluoromethane (Surr)	*94*		*81 - 124*		*06/07/17 15:16*	*1*
Toluene-d8 (Surr)	*112*		*87 - 128*		*06/07/17 15:16*	*1*

Client Sample ID: B39P88
Date Collected: 06/02/17 08:28
Date Received: 06/03/17 08:30

Lab Sample ID: 160-22671-10
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			06/07/17 15:39	1
1,1,2-Trichloroethane	0.13	U	1.0	0.13	ug/L			06/07/17 15:39	1
1,1-Dichloroethane	0.070	U	1.0	0.070	ug/L			06/07/17 15:39	1
1,1-Dichloroethene	0.10	U	1.0	0.10	ug/L			06/07/17 15:39	1
1,2-Dichloroethane	0.22	U	1.0	0.22	ug/L			06/07/17 15:39	1
1,4-Dichlorobenzene	0.10	U	1.0	0.10	ug/L			06/07/17 15:39	1
1-Butanol	12	U	50	12	ug/L			06/07/17 15:39	1
2-Butanone (MEK)	0.47	U	5.0	0.47	ug/L			06/07/17 15:39	1
4-Methyl-2-pentanone (MIBK)	0.22	U	5.0	0.22	ug/L			06/07/17 15:39	1
Acetone	0.55	U	2.0	0.55	ug/L			06/07/17 15:39	1

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

Client Sample ID: B39P88 — **Lab Sample ID: 160-22671-10**
Date Collected: 06/02/17 08:28 — **Matrix: Water**
Date Received: 06/03/17 08:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.10	U	1.0	0.10	ug/L			06/07/17 15:39	1
Carbon disulfide	0.10	U	1.0	0.10	ug/L			06/07/17 15:39	1
Carbon tetrachloride	0.18	U	1.0	0.18	ug/L			06/07/17 15:39	1
Chlorobenzene	0.11	U	1.0	0.11	ug/L			06/07/17 15:39	1
Chloroform	0.10	U	1.0	0.10	ug/L			06/07/17 15:39	1
cis-1,2-Dichloroethylene	0.10	U	1.0	0.10	ug/L			06/07/17 15:39	1
Ethyl Cyanide	1.4	U	10	1.4	ug/L			06/07/17 15:39	1
Ethylbenzene	0.12	U	1.0	0.12	ug/L			06/07/17 15:39	1
Methylene Chloride	0.27	U	1.0	0.27	ug/L			06/07/17 15:39	1
Tetrachloroethene	0.18	U	1.0	0.18	ug/L			06/07/17 15:39	1
Tetrahydrofuran	0.50	U	10	0.50	ug/L			06/07/17 15:39	1
Toluene	0.14	U	1.0	0.14	ug/L			06/07/17 15:39	1
trans-1,2-Dichloroethylene	0.10	U	1.0	0.10	ug/L			06/07/17 15:39	1
Trichloroethene	0.25	U	1.0	0.25	ug/L			06/07/17 15:39	1
Vinyl chloride	0.19	U	2.0	0.19	ug/L			06/07/17 15:39	1
Xylenes, Total	0.27	U	3.0	0.27	ug/L			06/07/17 15:39	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*06/07/17 15:39*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*91*		*75 - 129*		*06/07/17 15:39*	*1*
4-Bromofluorobenzene (Surr)	*112*		*81 - 130*		*06/07/17 15:39*	*1*
Dibromofluoromethane (Surr)	*96*		*81 - 124*		*06/07/17 15:39*	*1*
Toluene-d8 (Surr)	*109*		*87 - 128*		*06/07/17 15:39*	*1*

Client Sample ID: B39P73 — **Lab Sample ID: 160-22671-11**
Date Collected: 06/02/17 10:27 — **Matrix: Water**
Date Received: 06/03/17 08:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.17	U	1.0	0.17	ug/L			06/07/17 16:03	1
1,1,2-Trichloroethane	0.13	U	1.0	0.13	ug/L			06/07/17 16:03	1
1,1-Dichloroethane	0.070	U	1.0	0.070	ug/L			06/07/17 16:03	1
1,1-Dichloroethene	0.10	U	1.0	0.10	ug/L			06/07/17 16:03	1
1,2-Dichloroethane	0.22	U	1.0	0.22	ug/L			06/07/17 16:03	1
1,4-Dichlorobenzene	0.10	U	1.0	0.10	ug/L			06/07/17 16:03	1
1-Butanol	12	U	50	12	ug/L			06/07/17 16:03	1
2-Butanone (MEK)	0.47	U	5.0	0.47	ug/L			06/07/17 16:03	1
4-Methyl-2-pentanone (MIBK)	0.22	U	5.0	0.22	ug/L			06/07/17 16:03	1
Acetone	**1.0**	**J**	2.0	0.55	ug/L			06/07/17 16:03	1
Benzene	0.10	U	1.0	0.10	ug/L			06/07/17 16:03	1
Carbon disulfide	0.10	U	1.0	0.10	ug/L			06/07/17 16:03	1
Carbon tetrachloride	0.18	U	1.0	0.18	ug/L			06/07/17 16:03	1
Chlorobenzene	0.11	U	1.0	0.11	ug/L			06/07/17 16:03	1
Chloroform	0.10	U	1.0	0.10	ug/L			06/07/17 16:03	1
cis-1,2-Dichloroethylene	0.10	U	1.0	0.10	ug/L			06/07/17 16:03	1
Ethyl Cyanide	1.4	U	10	1.4	ug/L			06/07/17 16:03	1
Ethylbenzene	0.12	U	1.0	0.12	ug/L			06/07/17 16:03	1
Methylene Chloride	0.27	U	1.0	0.27	ug/L			06/07/17 16:03	1
Tetrachloroethene	0.18	U	1.0	0.18	ug/L			06/07/17 16:03	1

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

Client Sample ID: B39P73 — **Lab Sample ID: 160-22671-11**
Date Collected: 06/02/17 10:27 — **Matrix: Water**
Date Received: 06/03/17 08:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrahydrofuran	0.50	U	10	0.50	ug/L			06/07/17 16:03	1
Toluene	0.14	U	1.0	0.14	ug/L			06/07/17 16:03	1
trans-1,2-Dichloroethylene	0.10	U	1.0	0.10	ug/L			06/07/17 16:03	1
Trichloroethene	0.25	U	1.0	0.25	ug/L			06/07/17 16:03	1
Vinyl chloride	0.19	U	2.0	0.19	ug/L			06/07/17 16:03	1
Xylenes, Total	0.27	U	3.0	0.27	ug/L			06/07/17 16:03	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*06/07/17 16:03*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*94*		*75 - 129*		*06/07/17 16:03*	*1*
4-Bromofluorobenzene (Surr)	*117*		*81 - 130*		*06/07/17 16:03*	*1*
Dibromofluoromethane (Surr)	*96*		*81 - 124*		*06/07/17 16:03*	*1*
Toluene-d8 (Surr)	*112*		*87 - 128*		*06/07/17 16:03*	*1*

Client Sample ID: B39P76 — **Lab Sample ID: 160-22671-12**
Date Collected: 06/02/17 11:19 — **Matrix: Water**
Date Received: 06/03/17 08:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.17	U	1.0	0.17	ug/L			06/07/17 16:27	1
1,1,2-Trichloroethane	0.13	U	1.0	0.13	ug/L			06/07/17 16:27	1
1,1-Dichloroethane	0.070	U	1.0	0.070	ug/L			06/07/17 16:27	1
1,1-Dichloroethene	0.10	U	1.0	0.10	ug/L			06/07/17 16:27	1
1,2-Dichloroethane	0.22	U	1.0	0.22	ug/L			06/07/17 16:27	1
1,4-Dichlorobenzene	0.10	U	1.0	0.10	ug/L			06/07/17 16:27	1
1-Butanol	12	U	50	12	ug/L			06/07/17 16:27	1
2-Butanone (MEK)	0.47	U	5.0	0.47	ug/L			06/07/17 16:27	1
4-Methyl-2-pentanone (MIBK)	0.22	U	5.0	0.22	ug/L			06/07/17 16:27	1
Acetone	0.55	U	2.0	0.55	ug/L			06/07/17 16:27	1
Benzene	0.10	U	1.0	0.10	ug/L			06/07/17 16:27	1
Carbon disulfide	0.10	U	1.0	0.10	ug/L			06/07/17 16:27	1
Carbon tetrachloride	0.18	U	1.0	0.18	ug/L			06/07/17 16:27	1
Chlorobenzene	0.11	U	1.0	0.11	ug/L			06/07/17 16:27	1
Chloroform	0.10	U	1.0	0.10	ug/L			06/07/17 16:27	1
cis-1,2-Dichloroethylene	0.10	U	1.0	0.10	ug/L			06/07/17 16:27	1
Ethyl Cyanide	1.4	U	10	1.4	ug/L			06/07/17 16:27	1
Ethylbenzene	0.12	U	1.0	0.12	ug/L			06/07/17 16:27	1
Methylene Chloride	0.27	U	1.0	0.27	ug/L			06/07/17 16:27	1
Tetrachloroethene	0.18	U	1.0	0.18	ug/L			06/07/17 16:27	1
Tetrahydrofuran	0.50	U	10	0.50	ug/L			06/07/17 16:27	1
Toluene	0.14	U	1.0	0.14	ug/L			06/07/17 16:27	1
trans-1,2-Dichloroethylene	0.10	U	1.0	0.10	ug/L			06/07/17 16:27	1
Trichloroethene	0.25	U	1.0	0.25	ug/L			06/07/17 16:27	1
Vinyl chloride	0.19	U	2.0	0.19	ug/L			06/07/17 16:27	1
Xylenes, Total	0.27	U	3.0	0.27	ug/L			06/07/17 16:27	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Tentatively Identified Compound	*None*		*ug/L*					*06/07/17 16:27*	*1*

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	90		75 - 129		06/07/17 16:27	1
4-Bromofluorobenzene (Surr)	116		81 - 130		06/07/17 16:27	1
Dibromofluoromethane (Surr)	95		81 - 124		06/07/17 16:27	1
Toluene-d8 (Surr)	111		87 - 128		06/07/17 16:27	1

Method: 300.0 - Anions, Ion Chromatography - DL

Client Sample ID: B39TD3 — **Lab Sample ID: 160-22671-1**
Date Collected: 06/02/17 09:29 — **Matrix: Water**
Date Received: 06/03/17 08:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.61	D	0.20	0.052	mg/L			06/03/17 19:39	2
Nitrite as N	0.014	U D N	0.040	0.014	mg/L			06/03/17 19:39	2
Sulfate	29	D	1.0	0.10	mg/L			06/03/17 19:39	2
Chloride	7.6	D	0.40	0.040	mg/L			06/03/17 19:39	2
Phosphate	8.9	D	1.0	0.53	mg/L			06/03/17 19:39	2

Client Sample ID: B39TC4 — **Lab Sample ID: 160-22671-2**
Date Collected: 06/02/17 11:19 — **Matrix: Water**
Date Received: 06/03/17 08:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.39	D	0.20	0.052	mg/L			06/03/17 15:39	2
Nitrate as N	0.59	D	0.040	0.014	mg/L			06/03/17 15:39	2
Nitrite as N	0.014	U D N	0.040	0.014	mg/L			06/03/17 15:39	2
Sulfate	12	D	1.0	0.10	mg/L			06/03/17 15:39	2
Chloride	2.2	D	0.40	0.040	mg/L			06/03/17 15:39	2
Phosphate	0.53	U D	1.0	0.53	mg/L			06/03/17 15:39	2

Client Sample ID: B39TH6 — **Lab Sample ID: 160-22671-3**
Date Collected: 06/02/17 11:27 — **Matrix: Water**
Date Received: 06/03/17 08:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.45	D	0.20	0.052	mg/L			06/04/17 00:32	2
Nitrite as N	0.014	U D N	0.040	0.014	mg/L			06/04/17 00:32	2
Sulfate	20	D	1.0	0.10	mg/L			06/04/17 00:32	2
Chloride	5.7	D	0.40	0.040	mg/L			06/04/17 00:32	2
Phosphate	6.3	D	1.0	0.53	mg/L			06/04/17 00:32	2

Client Sample ID: B39TF7 — **Lab Sample ID: 160-22671-4**
Date Collected: 06/02/17 08:46 — **Matrix: Water**
Date Received: 06/03/17 08:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	1.2	D	0.20	0.052	mg/L			06/03/17 20:59	2
Nitrite as N	0.014	U D N	0.040	0.014	mg/L			06/03/17 20:59	2
Sulfate	26	D	1.0	0.10	mg/L			06/03/17 20:59	2
Chloride	5.0	D	0.40	0.040	mg/L			06/03/17 20:59	2
Phosphate	13	D	1.0	0.53	mg/L			06/03/17 20:59	2

Client Sample ID: B39TF6 — **Lab Sample ID: 160-22671-5**
Date Collected: 06/02/17 07:05 — **Matrix: Water**
Date Received: 06/03/17 08:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.052	U D	0.20	0.052	mg/L			06/03/17 20:32	2

Method: 300.0 - Anions, Ion Chromatography - DL (Continued)

Client Sample ID: B39TF6 — **Lab Sample ID: 160-22671-5**
Date Collected: 06/02/17 07:05 — **Matrix: Water**
Date Received: 06/03/17 08:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	**0.23**	**D**	0.040	0.014	mg/L			06/03/17 20:32	2
Nitrite as N	0.014	U D N	0.040	0.014	mg/L			06/03/17 20:32	2
Sulfate	0.10	U D	1.0	0.10	mg/L			06/03/17 20:32	2
Chloride	0.040	U D	0.40	0.040	mg/L			06/03/17 20:32	2
Phosphate	0.53	U D	1.0	0.53	mg/L			06/03/17 20:32	2

Client Sample ID: B39TD2 — **Lab Sample ID: 160-22671-6**
Date Collected: 06/02/17 07:15 — **Matrix: Water**
Date Received: 06/03/17 08:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.052	U D	0.20	0.052	mg/L			06/03/17 18:19	2
Nitrate as N	0.014	U D	0.040	0.014	mg/L			06/03/17 18:19	2
Nitrite as N	0.014	U D N	0.040	0.014	mg/L			06/03/17 18:19	2
Sulfate	0.10	U D	1.0	0.10	mg/L			06/03/17 18:19	2
Chloride	0.040	U D	0.40	0.040	mg/L			06/03/17 18:19	2
Phosphate	0.53	U D	1.0	0.53	mg/L			06/03/17 18:19	2

Client Sample ID: B39TJ7 — **Lab Sample ID: 160-22671-7**
Date Collected: 06/02/17 12:51 — **Matrix: Water**
Date Received: 06/03/17 08:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	**0.29**	**D**	0.20	0.052	mg/L			06/03/17 21:52	2
Nitrate as N	**0.27**	**D**	0.040	0.014	mg/L			06/03/17 21:52	2
Nitrite as N	0.014	U D N	0.040	0.014	mg/L			06/03/17 21:52	2
Sulfate	**8.7**	**D**	1.0	0.10	mg/L			06/03/17 21:52	2
Chloride	**1.5**	**D**	0.40	0.040	mg/L			06/03/17 21:52	2
Phosphate	**1.1**	**D**	1.0	0.53	mg/L			06/03/17 21:52	2

Client Sample ID: B39TJ8 — **Lab Sample ID: 160-22671-8**
Date Collected: 06/02/17 12:51 — **Matrix: Water**
Date Received: 06/03/17 08:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	**0.31**	**D**	0.20	0.052	mg/L			06/03/17 22:45	2
Nitrate as N	**0.26**	**D**	0.040	0.014	mg/L			06/03/17 22:45	2
Nitrite as N	0.014	U D N	0.040	0.014	mg/L			06/03/17 22:45	2
Sulfate	**8.8**	**D**	1.0	0.10	mg/L			06/03/17 22:45	2
Chloride	**1.5**	**D**	0.40	0.040	mg/L			06/03/17 22:45	2
Phosphate	**0.89**	**B D**	1.0	0.53	mg/L			06/03/17 22:45	2

Method: 300.0 - Anions, Ion Chromatography - DL2

Client Sample ID: B39TD3 — **Lab Sample ID: 160-22671-1**
Date Collected: 06/02/17 09:29 — **Matrix: Water**
Date Received: 06/03/17 08:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	**6.1**	**D**	0.40	0.14	mg/L			06/03/17 20:05	20

Client: CH2M Hill Plateau Remediation Company
Project/Site: W17-006 / S17-006

TestAmerica Job ID: 160-22671-1
SDG: SL2542

Method: 300.0 - Anions, Ion Chromatography - DL2

Client Sample ID: B39TH6 — **Lab Sample ID: 160-22671-3**
Date Collected: 06/02/17 11:27 — **Matrix: Water**
Date Received: 06/03/17 08:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	3.2	D	0.40	0.14	mg/L			06/04/17 00:59	20

Client Sample ID: B39TF7 — **Lab Sample ID: 160-22671-4**
Date Collected: 06/02/17 08:46 — **Matrix: Water**
Date Received: 06/03/17 08:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	4.9	D	0.40	0.14	mg/L			06/03/17 21:25	20

General Chemistry

Client Sample ID: B39NN5 — **Lab Sample ID: 160-22671-13**
Date Collected: 06/02/17 10:57 — **Matrix: Water**
Date Received: 06/03/17 08:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	112		5.0	0.54	mg/L			06/12/17 22:59	1
Cyanide, Total	3.1	U	5.0	3.1	ug/L		06/15/17 18:30	06/15/17 21:09	1

Client Sample ID: B39NR4 — **Lab Sample ID: 160-22671-14**
Date Collected: 06/02/17 09:05 — **Matrix: Water**
Date Received: 06/03/17 08:30

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	126		5.0	0.54	mg/L			06/12/17 23:09	1
Cyanide, Total	18.7		5.0	3.1	ug/L		06/15/17 18:30	06/15/17 21:12	1

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

Lab Sample ID: MB 160-312173/6
Matrix: Water
Analysis Batch: 312173

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			06/07/17 11:17	1
1,1,2-Trichloroethane	0.13	U	1.0	0.13	ug/L			06/07/17 11:17	1
1,1-Dichloroethane	0.070	U	1.0	0.070	ug/L			06/07/17 11:17	1
1,1-Dichloroethene	0.10	U	1.0	0.10	ug/L			06/07/17 11:17	1
1,2-Dichloroethane	0.22	U	1.0	0.22	ug/L			06/07/17 11:17	1
1,4-Dichlorobenzene	0.10	U	1.0	0.10	ug/L			06/07/17 11:17	1
1-Butanol	12	U	50	12	ug/L			06/07/17 11:17	1
2-Butanone (MEK)	0.47	U	5.0	0.47	ug/L			06/07/17 11:17	1
4-Methyl-2-pentanone (MIBK)	0.22	U	5.0	0.22	ug/L			06/07/17 11:17	1
Acetone	0.55	U	2.0	0.55	ug/L			06/07/17 11:17	1
Benzene	0.10	U	1.0	0.10	ug/L			06/07/17 11:17	1
Carbon disulfide	0.10	U	1.0	0.10	ug/L			06/07/17 11:17	1
Carbon tetrachloride	0.18	U	1.0	0.18	ug/L			06/07/17 11:17	1
Chlorobenzene	0.11	U	1.0	0.11	ug/L			06/07/17 11:17	1
Chloroform	0.10	U	1.0	0.10	ug/L			06/07/17 11:17	1
cis-1,2-Dichloroethylene	0.10	U	1.0	0.10	ug/L			06/07/17 11:17	1
Ethyl Cyanide	1.4	U	10	1.4	ug/L			06/07/17 11:17	1
Ethylbenzene	0.12	U	1.0	0.12	ug/L			06/07/17 11:17	1
Methylene Chloride	0.27	U	1.0	0.27	ug/L			06/07/17 11:17	1
Tetrachloroethene	0.18	U	1.0	0.18	ug/L			06/07/17 11:17	1
Tetrahydrofuran	0.50	U	10	0.50	ug/L			06/07/17 11:17	1
Toluene	0.14	U	1.0	0.14	ug/L			06/07/17 11:17	1
trans-1,2-Dichloroethylene	0.10	U	1.0	0.10	ug/L			06/07/17 11:17	1
Trichloroethene	0.25	U	1.0	0.25	ug/L			06/07/17 11:17	1
Vinyl chloride	0.19	U	2.0	0.19	ug/L			06/07/17 11:17	1
Xylenes, Total	0.27	U	3.0	0.27	ug/L			06/07/17 11:17	1

Tentatively Identified Compound	*MB Est. Result*	*MB Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
Naphthalene	*0.249*	*J*	*ug/L*		*16.11*	*91-20-3*		*06/07/17 11:17*	*1*
Tentatively Identified Compound	*None*		*ug/L*					*06/07/17 11:17*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*93*		*75 - 129*		*06/07/17 11:17*	*1*
4-Bromofluorobenzene (Surr)	*116*		*81 - 130*		*06/07/17 11:17*	*1*
Dibromofluoromethane (Surr)	*98*		*81 - 124*		*06/07/17 11:17*	*1*
Toluene-d8 (Surr)	*112*		*87 - 128*		*06/07/17 11:17*	*1*

Lab Sample ID: LCS 160-312173/3
Matrix: Water
Analysis Batch: 312173

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	10.3		ug/L		103	85 - 116
1,1,2-Trichloroethane	10.0	10.4		ug/L		104	80 - 120
1,1-Dichloroethane	10.0	10.3		ug/L		103	80 - 120
1,1-Dichloroethene	10.0	10.3		ug/L		103	80 - 120
1,2-Dichloroethane	10.0	10.6		ug/L		106	80 - 115

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

Lab Sample ID: LCS 160-312173/3
Matrix: Water
Analysis Batch: 312173

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,4-Dichlorobenzene	10.0	10.0		ug/L		100	80 - 120
1-Butanol	250	283		ug/L		113	62 - 128
2-Butanone (MEK)	10.0	9.72		ug/L		97	67 - 127
4-Methyl-2-pentanone (MIBK)	10.0	10.8		ug/L		108	75 - 126
Acetone	10.0	10.0		ug/L		100	69 - 129
Benzene	10.0	10.4		ug/L		104	80 - 120
Carbon disulfide	10.0	10.3		ug/L		103	80 - 121
Carbon tetrachloride	10.0	10.5		ug/L		105	83 - 125
Chlorobenzene	10.0	10.1		ug/L		101	80 - 120
Chloroform	10.0	10.3		ug/L		103	80 - 120
cis-1,2-Dichloroethylene	10.0	10.5		ug/L		105	80 - 120
Ethyl Cyanide	100	103		ug/L		103	77 - 121
Ethylbenzene	10.0	10.4		ug/L		104	80 - 120
Methylene Chloride	10.0	10.1		ug/L		101	80 - 120
Tetrachloroethene	10.0	10.4		ug/L		104	83 - 123
Tetrahydrofuran	20.0	22.3		ug/L		112	71 - 124
Toluene	10.0	10.6		ug/L		106	80 - 120
trans-1,2-Dichloroethylene	10.0	10.5		ug/L		105	80 - 120
Trichloroethene	10.0	10.3		ug/L		103	80 - 120
Vinyl chloride	10.0	9.84		ug/L		98	77 - 122
Xylenes, Total	20.0	22.2		ug/L		111	80 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*95*		*75 - 129*
4-Bromofluorobenzene (Surr)	*104*		*81 - 130*
Dibromofluoromethane (Surr)	*101*		*81 - 124*
Toluene-d8 (Surr)	*104*		*87 - 128*

Lab Sample ID: LCSD 160-312173/4
Matrix: Water
Analysis Batch: 312173

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	10.1		ug/L		101	85 - 116	2	20
1,1,2-Trichloroethane	10.0	10.1		ug/L		101	80 - 120	3	20
1,1-Dichloroethane	10.0	9.79		ug/L		98	80 - 120	5	20
1,1-Dichloroethene	10.0	10.0		ug/L		100	80 - 120	2	20
1,2-Dichloroethane	10.0	10.0		ug/L		100	80 - 115	6	20
1,4-Dichlorobenzene	10.0	9.93		ug/L		99	80 - 120	1	20
1-Butanol	250	245		ug/L		98	62 - 128	14	20
2-Butanone (MEK)	10.0	9.52		ug/L		95	67 - 127	2	20
4-Methyl-2-pentanone (MIBK)	10.0	10.4		ug/L		104	75 - 126	4	20
Acetone	10.0	9.87		ug/L		99	69 - 129	2	20
Benzene	10.0	10.0		ug/L		100	80 - 120	4	20
Carbon disulfide	10.0	9.73		ug/L		97	80 - 121	5	20
Carbon tetrachloride	10.0	10.1		ug/L		101	83 - 125	3	20
Chlorobenzene	10.0	9.85		ug/L		98	80 - 120	3	20
Chloroform	10.0	9.80		ug/L		98	80 - 120	5	20

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

Lab Sample ID: LCSD 160-312173/4
Matrix: Water
Analysis Batch: 312173

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
cis-1,2-Dichloroethylene			10.0	10.4		ug/L		104	80 - 120	1	20
Ethyl Cyanide			100	98.8		ug/L		99	77 - 121	4	20
Ethylbenzene			10.0	10.3		ug/L		103	80 - 120	0	20
Methylene Chloride			10.0	9.44		ug/L		94	80 - 120	7	20
Tetrachloroethene			10.0	10.3		ug/L		103	83 - 123	0	20
Tetrahydrofuran			20.0	21.7		ug/L		109	71 - 124	3	20
Toluene			10.0	10.4		ug/L		104	80 - 120	2	20
trans-1,2-Dichloroethylene			10.0	10.2		ug/L		102	80 - 120	3	20
Trichloroethene			10.0	10.0		ug/L		100	80 - 120	3	20
Vinyl chloride			10.0	9.54		ug/L		95	77 - 122	3	20
Xylenes, Total			20.0	21.9		ug/L		110	80 - 120	1	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*91*		*75 - 129*
4-Bromofluorobenzene (Surr)	*104*		*81 - 130*
Dibromofluoromethane (Surr)	*99*		*81 - 124*
Toluene-d8 (Surr)	*104*		*87 - 128*

Lab Sample ID: 160-22668-A-1 MS
Matrix: Water
Analysis Batch: 312173

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	10.1		ug/L		101	82 - 124		
1,1,2-Trichloroethane	0.13	U	10.0	9.59		ug/L		96	80 - 120		
1,1-Dichloroethane	0.070	U	10.0	10.0		ug/L		100	80 - 122		
1,1-Dichloroethene	0.10	U	10.0	10.4		ug/L		104	80 - 120		
1,2-Dichloroethane	0.22	U	10.0	9.85		ug/L		98	80 - 120		
1,4-Dichlorobenzene	0.10	U	10.0	9.86		ug/L		99	80 - 120		
1-Butanol	12	U	250	231		ug/L		92	58 - 144		
2-Butanone (MEK)	0.47	U	10.0	8.83		ug/L		88	53 - 145		
4-Methyl-2-pentanone (MIBK)	0.22	U	10.0	9.80		ug/L		98	70 - 131		
Acetone	2.1		10.0	8.34		ug/L		62	50 - 137		
Benzene	0.10	U	10.0	10.2		ug/L		102	80 - 120		
Carbon disulfide	0.10	U	10.0	10.1		ug/L		101	80 - 121		
Carbon tetrachloride	0.18	U	10.0	10.3		ug/L		103	77 - 131		
Chlorobenzene	0.11	U	10.0	9.89		ug/L		99	80 - 120		
Chloroform	0.10	U	10.0	9.81		ug/L		98	80 - 120		
cis-1,2-Dichloroethylene	0.10	U	10.0	10.1		ug/L		101	80 - 120		
Ethyl Cyanide	1.4	U	100	96.5		ug/L		96	67 - 141		
Ethylbenzene	0.12	U	10.0	10.3		ug/L		103	84 - 125		
Methylene Chloride	1.9		10.0	11.1		ug/L		92	80 - 120		
Tetrachloroethene	0.18	U	10.0	10.3		ug/L		103	80 - 126		
Tetrahydrofuran	0.50	U	20.0	21.6		ug/L		108	65 - 136		
Toluene	0.14	U	10.0	10.2		ug/L		102	85 - 123		
trans-1,2-Dichloroethylene	0.10	U	10.0	10.4		ug/L		104	80 - 120		
Trichloroethene	0.25	U	10.0	10.0		ug/L		100	81 - 125		
Vinyl chloride	0.19	U	10.0	10.3		ug/L		103	70 - 129		

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

Lab Sample ID: 160-22668-A-1 MS
Matrix: Water
Analysis Batch: 312173

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
Xylenes, Total	0.27	U	20.0	21.8		ug/L		109	80 - 120

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*91*		*75 - 129*
4-Bromofluorobenzene (Surr)	*104*		*81 - 130*
Dibromofluoromethane (Surr)	*98*		*81 - 124*
Toluene-d8 (Surr)	*103*		*87 - 128*

Lab Sample ID: 160-22668-A-1 MSD
Matrix: Water
Analysis Batch: 312173

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	0	20
1,1,2-Trichloroethane	0.13	U	10.0	9.88		ug/L		99	80 - 120	3	20
1,1-Dichloroethane	0.070	U	10.0	9.65		ug/L		97	80 - 122	3	20
1,1-Dichloroethene	0.10	U	10.0	10.0		ug/L		100	80 - 120	4	20
1,2-Dichloroethane	0.22	U	10.0	10.2		ug/L		102	80 - 120	3	20
1,4-Dichlorobenzene	0.10	U	10.0	10.0		ug/L		100	80 - 120	2	20
1-Butanol	12	U	250	259		ug/L		103	58 - 144	11	20
2-Butanone (MEK)	0.47	U	10.0	8.95		ug/L		90	53 - 145	1	20
4-Methyl-2-pentanone (MIBK)	0.22	U	10.0	10.7		ug/L		107	70 - 131	8	20
Acetone	2.1		10.0	9.76		ug/L		76	50 - 137	16	20
Benzene	0.10	U	10.0	10.1		ug/L		101	80 - 120	2	20
Carbon disulfide	0.10	U	10.0	9.95		ug/L		100	80 - 121	2	20
Carbon tetrachloride	0.18	U	10.0	9.97		ug/L		100	77 - 131	4	20
Chlorobenzene	0.11	U	10.0	9.72		ug/L		97	80 - 120	2	20
Chloroform	0.10	U	10.0	9.81		ug/L		98	80 - 120	0	20
cis-1,2-Dichloroethylene	0.10	U	10.0	10.2		ug/L		102	80 - 120	1	20
Ethyl Cyanide	1.4	U	100	106		ug/L		106	67 - 141	9	20
Ethylbenzene	0.12	U	10.0	10.0		ug/L		100	84 - 125	3	20
Methylene Chloride	1.9		10.0	11.2		ug/L		93	80 - 120	1	20
Tetrachloroethene	0.18	U	10.0	9.91		ug/L		99	80 - 126	4	20
Tetrahydrofuran	0.50	U	20.0	22.3		ug/L		111	65 - 136	3	20
Toluene	0.14	U	10.0	10.1		ug/L		101	85 - 123	1	20
trans-1,2-Dichloroethylene	0.10	U	10.0	10.3		ug/L		103	80 - 120	1	20
Trichloroethene	0.25	U	10.0	9.92		ug/L		99	81 - 125	1	20
Vinyl chloride	0.19	U	10.0	9.96		ug/L		100	70 - 129	4	20
Xylenes, Total	0.27	U	20.0	21.3		ug/L		107	80 - 120	2	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*93*		*75 - 129*
4-Bromofluorobenzene (Surr)	*105*		*81 - 130*
Dibromofluoromethane (Surr)	*99*		*81 - 124*
Toluene-d8 (Surr)	*102*		*87 - 128*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 160-311595/71 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 311595

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.026	U	0.10	0.026	mg/L			06/03/17 00:27	1
Sulfate	0.050	U	0.50	0.050	mg/L			06/03/17 00:27	1
Chloride	0.020	U	0.20	0.020	mg/L			06/03/17 00:27	1

Lab Sample ID: LCS 160-311595/72 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 311595

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	1.00	1.04		mg/L		104	90 - 110
Sulfate	8.00	8.34		mg/L		104	90 - 110
Chloride	2.00	2.03		mg/L		102	90 - 110

Lab Sample ID: MB 160-311801/71 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 311801

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			06/03/17 00:27	1
Nitrite as N	0.0070	U	0.020	0.0070	mg/L			06/03/17 00:27	1
Phosphate	0.26	U	0.50	0.26	mg/L			06/03/17 00:27	1

Lab Sample ID: LCS 160-311801/72 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 311801

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	0.400	0.413		mg/L		103	90 - 110
Nitrite as N	0.160	0.167		mg/L		104	90 - 110
Phosphate	8.00	8.26		mg/L		103	90 - 110

Method: 300.0 - Anions, Ion Chromatography - DL

Lab Sample ID: 160-22671-2 MS — **Client Sample ID: B39TC4**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 311595

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride - DL	0.39	D	4.00	4.59	D	mg/L		105	90 - 110
Sulfate - DL	12	D	8.00	19.6	D	mg/L		102	90 - 110
Chloride - DL	2.2	D	4.00	6.18	D	mg/L		100	90 - 110

Lab Sample ID: 160-22671-2 DU — **Client Sample ID: B39TC4**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 311595

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Fluoride - DL	0.39	D	0.378	D	mg/L		3	20
Sulfate - DL	12	D	11.1	D	mg/L		3	20

Method: 300.0 - Anions, Ion Chromatography - DL (Continued)

Lab Sample ID: 160-22671-2 DU — **Client Sample ID: B39TC4**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 311595

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Chloride - DL	2.2	D		2.13	D	mg/L				2	20

Lab Sample ID: 160-22671-2 MS — **Client Sample ID: B39TC4**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 311801

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Nitrate as N - DL	0.59	D	0.800	1.38	D	mg/L		99	90 - 110		
Nitrite as N - DL	0.014	U D N	0.200	0.158	D N	mg/L		79	90 - 110		
Phosphate - DL	0.53	U D	8.00	8.02	D	mg/L		100	90 - 110		

Lab Sample ID: 160-22671-2 DU — **Client Sample ID: B39TC4**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 311801

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Nitrate as N - DL	0.59	D		0.629	D	mg/L				7	20
Nitrite as N - DL	0.014	U D N		0.014	U D	mg/L				NC	20
Phosphate - DL	0.53	U D		0.53	U D	mg/L				NC	20

Method: 310.1 - Alkalinity

Lab Sample ID: MB 160-313080/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 313080

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	0.54	U	5.0	0.54	mg/L			06/12/17 21:42	1

Lab Sample ID: HLCS 160-313080/3 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 313080

Analyte			Spike Added	HLCS Result	HLCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Alkalinity			400	370.0		mg/L		92	90 - 110		

Lab Sample ID: LCS 160-313080/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 313080

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Alkalinity			200	186.0		mg/L		93	90 - 110		

Lab Sample ID: 160-22644-E-1 MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 313080

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Alkalinity	120		100	212.0		mg/L		92	80 - 120		

Method: 310.1 - Alkalinity (Continued)

Lab Sample ID: 160-22644-E-1 DU — **Client Sample ID: Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 313080

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Alkalinity	120			122.0		mg/L				2	20

Method: 9012B - Cyanide, Total andor Amenable

Lab Sample ID: MB 160-313682/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 313859 — **Prep Batch: 313682**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	3.1	U	5.0	3.1	ug/L		06/15/17 18:30	06/15/17 20:42	1

Lab Sample ID: HLCS 160-313682/3-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 313859 — **Prep Batch: 313682**

Analyte			Spike Added	HLCS Result	HLCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Cyanide, Total			400	399.3		ug/L		100	85 - 115		

Lab Sample ID: LCS 160-313682/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 313859 — **Prep Batch: 313682**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Cyanide, Total			200	194.0		ug/L		97	85 - 115		

Lab Sample ID: 160-22649-B-5-C MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 313859 — **Prep Batch: 313682**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Cyanide, Total	199		200	403.2		ug/L		102	66 - 120		

Lab Sample ID: 160-22649-B-5-B DU — **Client Sample ID: Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 313859 — **Prep Batch: 313682**

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Cyanide, Total	199			196.3		ug/L				1	20

QC Association Summary

Client: CH2M Hill Plateau Remediation Company
Project/Site: W17-006 / S17-006

TestAmerica Job ID: 160-22671-1
SDG: SL2542

GC/MS VOA

Analysis Batch: 312173

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-22671-9	B39P85	Total/NA	Water	8260C	
160-22671-10	B39P88	Total/NA	Water	8260C	
160-22671-11	B39P73	Total/NA	Water	8260C	
160-22671-12	B39P76	Total/NA	Water	8260C	
MB 160-312173/6	Method Blank	Total/NA	Water	8260C	
LCS 160-312173/3	Lab Control Sample	Total/NA	Water	8260C	
LCSD 160-312173/4	Lab Control Sample Dup	Total/NA	Water	8260C	
160-22668-A-1 MS	Matrix Spike	Total/NA	Water	8260C	
160-22668-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	8260C	

HPLC/IC

Analysis Batch: 311595

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-22671-1 - DL	B39TD3	Total/NA	Water	300.0	
160-22671-2 - DL	B39TC4	Total/NA	Water	300.0	
160-22671-3 - DL	B39TH6	Total/NA	Water	300.0	
160-22671-4 - DL	B39TF7	Total/NA	Water	300.0	
160-22671-5 - DL	B39TF6	Total/NA	Water	300.0	
160-22671-6 - DL	B39TD2	Total/NA	Water	300.0	
160-22671-7 - DL	B39TJ7	Total/NA	Water	300.0	
160-22671-8 - DL	B39TJ8	Total/NA	Water	300.0	
MB 160-311595/71	Method Blank	Total/NA	Water	300.0	
LCS 160-311595/72	Lab Control Sample	Total/NA	Water	300.0	
160-22671-2 MS - DL	B39TC4	Total/NA	Water	300.0	
160-22671-2 DU - DL	B39TC4	Total/NA	Water	300.0	

Analysis Batch: 311801

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-22671-1 - DL	B39TD3	Total/NA	Water	300.0	
160-22671-1 - DL2	B39TD3	Total/NA	Water	300.0	
160-22671-2 - DL	B39TC4	Total/NA	Water	300.0	
160-22671-3 - DL	B39TH6	Total/NA	Water	300.0	
160-22671-3 - DL2	B39TH6	Total/NA	Water	300.0	
160-22671-4 - DL	B39TF7	Total/NA	Water	300.0	
160-22671-4 - DL2	B39TF7	Total/NA	Water	300.0	
160-22671-5 - DL	B39TF6	Total/NA	Water	300.0	
160-22671-6 - DL	B39TD2	Total/NA	Water	300.0	
160-22671-7 - DL	B39TJ7	Total/NA	Water	300.0	
160-22671-8 - DL	B39TJ8	Total/NA	Water	300.0	
MB 160-311801/71	Method Blank	Total/NA	Water	300.0	
LCS 160-311801/72	Lab Control Sample	Total/NA	Water	300.0	
160-22671-2 MS - DL	B39TC4	Total/NA	Water	300.0	
160-22671-2 DU - DL	B39TC4	Total/NA	Water	300.0	

General Chemistry

Analysis Batch: 313080

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-22671-13	B39NN5	Total/NA	Water	310.1	

QC Association Summary

Client: CH2M Hill Plateau Remediation Company
Project/Site: W17-006 / S17-006

TestAmerica Job ID: 160-22671-1
SDG: SL2542

General Chemistry (Continued)

Analysis Batch: 313080 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-22671-14	B39NR4	Total/NA	Water	310.1	
MB 160-313080/1	Method Blank	Total/NA	Water	310.1	
HLCS 160-313080/3	Lab Control Sample	Total/NA	Water	310.1	
LCS 160-313080/2	Lab Control Sample	Total/NA	Water	310.1	
160-22644-E-1 MS	Matrix Spike	Total/NA	Water	310.1	
160-22644-E-1 DU	Duplicate	Total/NA	Water	310.1	

Prep Batch: 313682

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-22671-13	B39NN5	Total/NA	Water	9010C	
160-22671-14	B39NR4	Total/NA	Water	9010C	
MB 160-313682/1-A	Method Blank	Total/NA	Water	9010C	
HLCS 160-313682/3-A	Lab Control Sample	Total/NA	Water	9010C	
LCS 160-313682/2-A	Lab Control Sample	Total/NA	Water	9010C	
160-22649-B-5-C MS	Matrix Spike	Total/NA	Water	9010C	
160-22649-B-5-B DU	Duplicate	Total/NA	Water	9010C	

Analysis Batch: 313859

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-22671-13	B39NN5	Total/NA	Water	9012B	313682
160-22671-14	B39NR4	Total/NA	Water	9012B	313682
MB 160-313682/1-A	Method Blank	Total/NA	Water	9012B	313682
HLCS 160-313682/3-A	Lab Control Sample	Total/NA	Water	9012B	313682
LCS 160-313682/2-A	Lab Control Sample	Total/NA	Water	9012B	313682
160-22649-B-5-C MS	Matrix Spike	Total/NA	Water	9012B	313682
160-22649-B-5-B DU	Duplicate	Total/NA	Water	9012B	313682

Surrogate Summary

Client: CH2M Hill Plateau Remediation Company
Project/Site: W17-006 / S17-006

TestAmerica Job ID: 160-22671-1
SDG: SL2542

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

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

		Percent Surrogate Recovery (Acceptance Limits)			
		12DCE	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(75-129)	(81-130)	(81-124)	(87-128)
160-22668-A-1 MS	Matrix Spike	91	104	98	103
160-22668-A-1 MSD	Matrix Spike Duplicate	93	105	99	102
160-22671-9	B39P85	90	116	94	112
160-22671-10	B39P88	91	112	96	109
160-22671-11	B39P73	94	117	96	112
160-22671-12	B39P76	90	116	95	111
LCS 160-312173/3	Lab Control Sample	95	104	101	104
LCSD 160-312173/4	Lab Control Sample Dup	91	104	99	104
MB 160-312173/6	Method Blank	93	116	98	112

Surrogate Legend

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