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: 160-27129-1
TestAmerica Sample Delivery Group: SL2814
Client Project/Site: W18-001

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

Attn: Mr. Scot Fitzgerald

Authorized for release by:
4/5/2018 11:20:15 AM

Jayna Awalt, Project Manager II
(314)298-8566
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: 160-27129-1

Laboratory: TestAmerica St. Louis

Narrative

CASE NARRATIVE

CH2MHill Plateau Remediation Company
P.O. Box 1600
Richland, Washington 99352
April 5, 2018
Attention: Scot Fitzgerald

SDG	: SL2814
Number of Samples	: 17 samples
Sample Matrix	: Water
Data Deliverable	: Summary
Date SDG Closed	: March 6, 2018

II. Introduction

On March 6, 17 samples were received by TestAmerica - St. Louis for 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: W18-001

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 non-conformance in the sections below.

Job ID: 160-27129-1 (Continued)

Laboratory: TestAmerica St. Louis (Continued)

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 above the MDL/RL and Method Blank is greater than 5% of the sample concentration.
- **B** - For inorganics and radiochemistry, Method Blank reported above the MDC/MDL.
- **J** - For organic analyses, the sample is estimated and less than the RL. If on Method Blank, indicates Method Blank contamination.
- **C** - For inorganic analyses, Method Blank contamination. The Method Blank contains the target analyte at a concentration above the MDL/RL and Method Blank concentration is greater than 5% of the sample concentration.
- **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.

Pesticides

Batch: 356891

The laboratory control sample (LCS) recovered outside control limits for the following analytes: 4,4'-DDT. This analyte was biased high in the LCS and was not detected in the associated samples; therefore, the data have been reported. No further action is required. This analyte has been qualified accordingly with an "o" flag in the associated samples.

The MSD recovery was outside control limits for Endrin Aldehyde. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits for this analyte. Results are provided with this narrative. This analyte has been qualified accordingly with an "N" flag in the associated samples.

ICPMS Metals

Batch: 356220

The low level check (CCVL) was outside the upper QC limits for Thorium. Associated samples which are below the reporting limit for the contaminant do not require re-analysis. Original results are reported. (CCVL 160-356220/77) and (CCVL 160-356220/87)

Job ID: 160-27129-1 (Continued)

Laboratory: TestAmerica St. Louis (Continued)

TOX

Batch: 358358

The following samples and QC were bracketed by a continuing calibration verification (CCV) that recovered below the lower acceptance limit of 90% (87% for CCV 1 and 83% for CCV 6) in TOX analytical batch 160-358358: B3FTP9 (160-27129-2), B3FTP7 (160-27129-3), B3FTP8 (160-27129-4), B3FRM7 (160-27129-5), B3FRM4 (160-27129-6), B3FTP4 (160-27129-7), (LCS 160-358164/2-A), (MB 160-358164/1-A), (160-27129-A-6-B DU) and (160-27129-A-6-C MS). After visual inspection of the sample chromatograms, the cause of these CCV failures is unknown. All other QC in this batch was within acceptance limits. The samples cannot be re-prepped and re-analyzed due to significant headspace now in the sample bottles.

The following sample and duplicate (DU) have a %RPD that is outside the upper control limit of 20% (47%) in TOX analytical batch 160-358358: B3FRM4 (160-27129-6) and (160-27129-A-6-B DU). However, %RPD is biased high for values near the reporting limit (RL). As the sample and DU have values less than 5x the RL and within the value of the RL from each other (RL is 5 ug/L and the sample and DU results are 3.2 ug/L and 5.17 ug/L, respectively) results are reported with this narration. This analyte has been qualified accordingly with a "y" flag in the sample duplicate.

The following samples in TOX analytical batch 160-358358 exhibited bottom column results greater than 10% of the combined sum of the top and bottom columns: B3FTP9 (160-27129-2), B3FTP7 (160-27129-3), B3FTP8 (160-27129-4), B3FRM7 (160-27129-5), B3FTR3 (160-27129-14), B3FRN1 (160-27129-16) and B3FTR1 (160-27129-17). However, the results are not believed to be adversely affected, as the carbon columns were not over-loaded. Thus, this excursion is attributed to normal column channeling and results may be reported, per method 9020B.

TOC

Batch: 355821

The following samples in TOC batch 160-355821 were analyzed with a high-recovering LCS, as well as bracketed by high-recovering CCVs: B3FTR4 (160-27129-13), B3FTR3 (160-27129-14), B3FTR5 (160-27129-15), B3FRN1 (160-27129-16) and B3FTR1 (160-27129-17). However, all sample results are below the reporting limit (RL) for TOC - and below the method detection limit (MDL) - and thus the high bias found in the LCS and CCVs did not have a significant impact on the sample results. This analyte has been qualified accordingly with an "o" flag in the associated samples.

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

Alkalinity
ICP Metals

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

Job ID: 160-27129-1 (Continued)

Laboratory: TestAmerica St. Louis (Continued)

Login Sample Receipt Checklist

Client: CH2M Hill Plateau Remediation Company

Job Number: 160-27129-1
SDG Number: SL2814

Login Number: 27129
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	0.8, 1.3
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").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # W18-001-292

Page 1 of 1

Collector:	Juan Aguilar /CHPRC SL2814	**Contact/Requester:**	Karen Waters-Husted	**Telephone No.:**	509-376-4650
SAF No.:	W18-001	**Sampling Origin:**	Hanford Site	**Purchase Order/Charge Code:**	300071
Project Title:	RCRA, JANUARY 2018	**Logbook No.:**	HNF-N-506-9915	**Ice Chest No.:**	G609-730
Shipped To (Lab):	TestAmerica St. Louis	**Method of Shipment**	Commercial Carrier	**Bill of Lading/Air Bill No.:**	771721719371
Protocol	RCRA	**Priority:**	30 Days	**Offsite Property No.:**	N/A

POSSIBLE SAMPLE HAZARDS/REMARK

** ** 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

N/A

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B3FXD6	N	W	3-5-18	0841	4x1-L aG	8081_PEST_GC: COMMON	7/40 Days	Cool <=6C

Relinquished By:	Signature	Date/Time	Received By:	Signature	Date/Time
Juan Aguilar /CHPRC	MAR 05 2018	0900	Daniel Klug CHPRC D.K.	MAR 05 2018	0900
Daniel Klug CHPRC D.K.	MAR 05 2018	0915	Lesly Wall /CHPRC Lesly Wall	MAR 05 2018	0915
Lesly Wall /CHPRC Lesly Wall	MAR 05 2018	1400	FEDEX		
FED EX			J. Clark J. Clark	3-6-18	0900

Matrix *

S = Soil	DS = Drum Solids
SE = Sediment	DL = Drum Liquid
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 12/6/2017 FSR ID = FSR54498 A-6004-842 (REV 3)

04/05/2018 REV.0 4/5/2018

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # W18-001-269

Collector:	Juan Aguilar /CHPRC SL2814	**Contact/Requester:**	Karen Waters-Husted	**Telephone No.:**	509-376-4650
SAF No.:	W18-001	**Sampling Origin:**	Hanford Site	**Purchase Order/Charge Code:**	300071
Project Title:	RCRA, JANUARY 2018	**Logbook No.:**	HNF-N-506 ~9915	**Ice Chest No.:**	GWS-730
Shipped To (Lab):	TestAmerica St. Louis	**Method of Shipment**	Commercial Carrier	**Bill of Lading/Air Bill No.:**	7717 2171 9371
Protocol	RCRA	**Priority:**	30 Days	**Offsite Property No.:**	N/A

POSSIBLE SAMPLE HAZARDS/REMARK

** ** 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

Low Volume Wells. Do not use for QC.

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B3FTP9	N	W	3-5-18	1049	1x250-mL aGs*	9020_TOX: COMMON	28 Days	H2SO4 to pH <2 / Cool <=6C
B3FTP9	N	W			1x60-mL aG	9060_TOC: COMMON	28 Days	HCl or H2SO4 to pH <2 / Cool <=6C
B3FTP7	N	W			1x250-mL aGs*	9020_TOX: COMMON	28 Days	H2SO4 to pH <2 / Cool <=6C
B3FTP7	N	W			1x60-mL aG	9060_TOC: COMMON	28 Days	HCl or H2SO4 to pH <2 / Cool <=6C
B3FTP8	N	W			1x250-mL aGs*	9020_TOX: COMMON	28 Days	H2SO4 to pH <2 / Cool <=6C
B3FTP8	N	W			1x60-mL aG	9060_TOC: COMMON	28 Days	HCl or H2SO4 to pH <2 / Cool <=6C
B3FRM7	N	W	3-5-18	1049	1x125-mL G/P	310.1_ALKALINITY: COMMON	14 Days	Cool <=6C

Relinquished By: Juan Aguilar /CHPRC	Signature	MAR 05 2018 1100	Received By: Kevin Patterson CHPRC	Signature	MAR 05 2018 1100
Relinquished By: Kevin Patterson CHPRC	Signature	MAR 05 2018 1125	Received By: Lesly Wall /CHPRC	Signature	MAR 05 2018 1125
Relinquished By: Lesly Wall /CHPRC	Signature	MAR 05 2018 1400	Received By: FEDEX	Signature	
Relinquished By: FED EX	Signature		Received By: Jill Clark	Signature	3-6-18 0900

Matrix *

S = Soil	DS = Drum Solids
SE = Sediment	DL = Drum Liquid
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:

CH2MHill Plateau Remediation Company

85 LBS.

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # W18-001-269

Collector:	Juan Aguilar /CHPRC SL2814	**Contact/Requester:**	Karen Waters-Husted	**Telephone No.:**	509-376-4650
SAF No.:	W18-001	**Sampling Origin:**	Hanford Site	**Purchase Order/Charge Code:**	300071
Project Title:	RCRA, JANUARY 2018	**Logbook No.:**	HNF-N-506 -9915	**Ice Chest No.:**	GWS-730
Shipped To (Lab):	TestAmerica St. Louis	**Method of Shipment**	Commercial Carrier	**Bill of Lading/Air Bill No.:**	771721719371
Protocol	RCRA	**Priority:**	30 Days	**Offsite Property No.:**	N/A

POSSIBLE SAMPLE HAZARDS/REMARK

** ** 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

Low Volume Wells. Do not use for QC.

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B3FRM7	N	W	3-5-18	1049	1x250-mL aGs*	9020_TOX: COMMON	28 Days	H2SO4 to pH <2 / Cool <=6C
B3FRM7	N	W	3-5-18	1049	1x60-mL aG	9060_TOC: COMMON	28 Days	HCl or H2SO4 to pH <2 / Cool <=6C

Relinquished By	Print First and Last Name	Signature	Date/Time	Received By	Print First and Last Name	Signature	Date/Time
Juan Aguilar /CHPRC			MAR 0 5 2018 1100	Kevin Patterson CHPRC			MAR 0 5 2018 1100
Kevin Patterson CHPRC			MAR 0 5 2018 1125	Lesly Wall /CHPRC		Lesly Wall	MAR 0 5 2018 1125
Lesly Wall /CHPRC		Lesly Wall	MAR 0 5 2018 1400	FEDEX			
FED EX				Jill Clarke		Jill Clarke	3-6-18 0900

Matrix *

S = Soil	DS = Drum Solids
SE = Sediment	DL = Drum Liquid
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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 12/6/2017 FSR ID = FSR54489 A-6004-842 (REV 3)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # W18-001-268

Collector:	Juan Aguilar /CHPRC SL2814	**Contact/Requester:**	Karen Waters-Husted	**Telephone No.:**	509-376-4650
SAF No.:	W18-001	**Sampling Origin:**	Hanford Site	**Purchase Order/Charge Code:**	300071
Project Title:	RCRA, JANUARY 2018	**Logbook No.:**	HNF-N-506 -9915	**Ice Chest No.:**	GWS-730
Shipped To (Lab):	TestAmerica St. Louis	**Method of Shipment**	Commercial Carrier	**Bill of Lading/Air Bill No.:**	7717217193 71
Protocol	RCRA	**Priority:**	30 Days	**Offsite Property No.:**	N/A

POSSIBLE SAMPLE HAZARDS/REMARK

** ** 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

N/A

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B3FRM4	N	W	3-5-18	0841	1x500-mL G/P	6020_METALS_ICPMS: GW 01; 6010_METALS_ICP: GW 04	6 Months	HNO3 to pH <2
B3FRM4	N	W			1x1-L aGs*	9020_TOX: COMMON	28 Days	H2SO4 to pH <2 / Cool <=6C
B3FRM4	N	W			1x250-mL aG	9060_TOC: COMMON	28 Days	HCl or H2SO4 to pH <2 / Cool <=6C
B3FTP4	N	W			1x1-L aGs*	9020_TOX: COMMON	28 Days	H2SO4 to pH <2 / Cool <=6C
B3FTP4	N	W			1x250-mL aG	9060_TOC: COMMON	28 Days	HCl or H2SO4 to pH <2 / Cool <=6C
B3FTP5	N	W			1x1-L aGs*	9020_TOX: COMMON	28 Days	H2SO4 to pH <2 / Cool <=6C
B3FTP5	N	W	3-5-18	0841	1x250-mL aG	9060_TOC: COMMON	28 Days	HCl or H2SO4 to pH <2 / Cool <=6C

	Print First and Last Name	Signature	Date/Time
Relinquished By:	Juan Aguilar /CHPRC		MAR 05 2018 0900
Received By:	Daniel Klug CHPRC	D. Klug	MAR 05 2018 0900
Relinquished By:	Daniel Klug CHPRC	D. Klug	MAR 05 2018 0915
Received By:	Lesly Wall /CHPRC	Lesly Wall	MAR 05 2018 0915
Relinquished By:	Lesly Wall /CHPRC	Lesly Wall	MAR 05 2018 1400
Received By:	FEDEX		
Relinquished By:	FED EX		
Received By:	Jill Clark	J. Clark	3-6-18 0905

Matrix *

S = Soil	DS = Drum Solids
SE = Sediment	DL = Drum Liquid
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 12/6/2017 FSR ID = FSR54498 A-6004-842 (REV 3)

04/05/2018

REV.0

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # W18-001-268

Collector:	Juan Aguilar /CHPRC SL2814	**Contact/Requester:**	Karen Waters-Husted	**Telephone No.:**	509-376-4650
SAF No.:	W18-001	**Sampling Origin:**	Hanford Site	**Purchase Order/Charge Code:**	300071
Project Title:	RCRA, JANUARY 2018	**Logbook No.:**	HNF-N-506 -9915	**Ice Chest No.:**	GWS-730
Shipped To (Lab):	TestAmerica St. Louis	**Method of Shipment**	Commercial Carrier	**Bill of Lading/Air Bill No.:**	771721719371
Protocol	RCRA	**Priority:**	30 Days	**Offsite Property No.:**	N/A

POSSIBLE SAMPLE HAZARDS/REMARK
** ** 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
N/A

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B3FTP6	N	W	3-5-18	0841	1x1-L aGs*	9020_TOX: COMMON	28 Days	H2SO4 to pH <2 / Cool <=6C
B3FTP6	N	W	3-5-18	0841	1x250-mL aG	9060_TOC: COMMON	28 Days	HCl or H2SO4 to pH <2 / Cool <=6C

Relinquished By	Print First and Last Name	Signature	Date/Time	Received By	Print First and Last Name	Signature	Date/Time
Juan Aguilar /CHPRC			MAR 05 2018 0800	Daniel Klug CHPRC			MAR 05 2018 0800
Daniel Klug CHPRC			MAR 05 2018 0915	Lesly Wall /CHPRC			MAR 05 2018 0915
Lesly Wall /CHPRC			MAR 05 2018 1400	FEDEX			
FED EX							

Matrix *

S = Soil	DS = Drum Solids
SE = Sediment	DL = Drum Liquid
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 12/6/2017 FSR ID = FSR54498 A-6004-842 (REV 3)

04/05/2018 REV.0 4/5/2018

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # W18-001-270

Collector:	Juan Aguilar /CHPRC SL2814	**Contact/Requester:**	Karen Waters-Husted	**Telephone No.:**	509-376-4650
SAF No.:	W18-001	**Sampling Origin:**	Hanford Site	**Purchase Order/Charge Code:**	300071
Project Title:	RCRA, JANUARY 2018	**Logbook No.:**	HNF-N-506 -991 S	**Ice Chest No.:**	6605-741
Shipped To (Lab):	TestAmerica St. Louis	**Method of Shipment**	Commercial Carrier	**Bill of Lading/Air Bill No.:**	771720747772
Protocol	RCRA	**Priority:**	30 Days	**Offsite Property No.:**	N/A

POSSIBLE SAMPLE HAZARDS/REMARK
** ** 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
N/A

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B3FTR2	N	W	3-5-18	0630	1x1-L aGs*	9020_TOX: COMMON	28 Days	H2SO4 to pH <2 / Cool <=6C
B3FTR2	N	W			1x250-mL aG	9060_TOC: COMMON	28 Days	HCl or H2SO4 to pH <2 / Cool <=6C
B3FRN0	N	W			1x250-mL G/P	310.1_ALKALINITY: COMMON	14 Days	Cool <=6C
B3FRN0	N	W			1x1-L aGs*	9020_TOX: COMMON	28 Days	H2SO4 to pH <2 / Cool <=6C
B3FRN0	N	W			1x250-mL aG	9060_TOC: COMMON	28 Days	HCl or H2SO4 to pH <2 / Cool <=6C
B3FTR0	N	W			1x1-L aGs*	9020_TOX: COMMON	28 Days	H2SO4 to pH <2 / Cool <=6C
B3FTR0	N	W	3-5-18	0630	1x250-mL aG	9060_TOC: COMMON	28 Days	HCl or H2SO4 to pH <2 / Cool <=6C

Relinquished By	Print First and Last Name	Signature	Date/Time	Received By	Print First and Last Name	Signature	Date/Time
Juan Aguilar /CHPRC			MAR 05 2018 1100	Kevin Patterson CHPRC			MAR 05 2018 1100
Kevin Patterson CHPRC			MAR 05 2018 1125	Lesly Wall /CHPRC			MAR 05 2018 1125
Lesly Wall /CHPRC			MAR 05 2018 1400	FEDEX			
FED EX				Jill Clarke			3-6-18 0900

Matrix *

S = Soil	DS = Drum Solids
SE = Sediment	DL = Drum Liquid
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 12/6/2017 FSR ID = FSR54492 A-6004-842 (REV 3)

04/05/2018

REV.0

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # W18-001-270

Collector:	Juan Aguilar /CHPRC SL2814	**Contact/Requester:**	Karen Waters-Husted	**Telephone No.:**	509-376-4650
SAF No.:	W18-001	**Sampling Origin:**	Hanford Site	**Purchase Order/Charge Code:**	300071
Project Title:	RCRA, JANUARY 2018	**Logbook No.:**	HNF-N-506-99/5	**Ice Chest No.:**	GWS-741
Shipped To (Lab):	TestAmerica St. Louis	**Method of Shipment**	Commercial Carrier	**Bill of Lading/Air Bill No.:**	7717 2174 7772
Protocol	RCRA	**Priority:**	30 Days	**Offsite Property No.:**	N/A

POSSIBLE SAMPLE HAZARDS/REMARK
** ** 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
N/A

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B3FTR4	N	W	3-5-18	0630	1x1-L aGs*	9020_TOX: COMMON	28 Days	H2SO4 to pH <2 / Cool <=6C
B3FTR4	N	W	3-5-18	0630	1x250-mL aG	9060_TOC: COMMON	28 Days	HCl or H2SO4 to pH <2 / Cool <=6C

Relinquished By	Print First and Last Name	Signature	Date/Time	Received By	Print First and Last Name	Signature	Date/Time
Juan Aguilar /CHPRC			MAR 05 2018 1125	Kevin Patterson CHPRC			MAR 05 2018 1125
Kevin Patterson CHPRC			MAR 05 2018 1125	Lesty Wall /CHPRC			MAR 05 2018 1125
Lesty Wall /CHPRC			MAR 05 2018 1400	FEDEX			
FED EX				Clark J. Clark			3-6-18 0900

Matrix *

S = Soil	DS = Drum Solids
SE = Sediment	DL = Drum Liquid
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 12/6/2017 FSR ID = FSR54492 A-6004-842 (REV 3)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # W18-001-271

Collector:	Juan Aguilar /CHPRC SL2814	**Contact/Requester:**	Karen Waters-Husted	**Telephone No.:**	509-376-4650
SAF No.:	W18-001	**Sampling Origin:**	Hanford Site	**Purchase Order/Charge Code:**	300071
Project Title:	RCRA, JANUARY 2018	**Logbook No.:**	HNF-N-506 - 99/5	**Ice Chest No.:**	GWS-741
Shipped To (Lab):	TestAmerica St. Louis	**Method of Shipment**	Commercial Carrier	**Bill of Lading/Air Bill No.:**	771721747772
Protocol	RCRA	**Priority:**	30 Days	**Offsite Property No.:**	N/A

POSSIBLE SAMPLE HAZARDS/REMARK

** ** 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

N/A

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B3FTR3	N	W	3-5-18	1013	1x1-L aGs*	9020_TOX: COMMON	28 Days	H2SO4 to pH <2 / Cool <=6C
B3FTR3	N	W			1x250-mL aG	9060_TOC: COMMON	28 Days	HCl or H2SO4 to pH <2 / Cool <=6C
B3FTR5	N	W			1x1-L aGs*	9020_TOX: COMMON	28 Days	H2SO4 to pH <2 / Cool <=6C
B3FTR5	N	W			1x250-mL aG	9060_TOC: COMMON	28 Days	HCl or H2SO4 to pH <2 / Cool <=6C
B3FRN1	N	W			1x250-mL G/P	310.1_ALKALINITY: COMMON	14 Days	Cool <=6C
B3FRN1	N	W			1x1-L aGs*	9020_TOX: COMMON	28 Days	H2SO4 to pH <2 / Cool <=6C
B3FRN1	N	W	3-5-18	1013	1x250-mL aG	9060_TOC: COMMON	28 Days	HCl or H2SO4 to pH <2 / Cool <=6C

Relinquished By	Print First and Last Name	Signature	Date/Time	Received By	Print First and Last Name	Signature	Date/Time
Juan Aguilar /CHPRC			MAR 05 2018 1100	Kevin Patterson CHPRC			MAR 05 2018 1100
Kevin Patterson CHPRC			MAR 05 2018 1125	Lesly Wall /CHPRC		Lesly Wall	MAR 05 2018 1125
Lesly Wall /CHPRC		Lesly Wall	MAR 05 2018 1400	FEDEX			
FED EX					Jill Clarke	Jill Clarke	3-6-18 0900

Matrix *

S = Soil	DS = Drum Solids
SE = Sediment	DL = Drum Liquid
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

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # W18-001-271

Collector: Juan Aguilar /CHPRC SL2814	**Contact/Requester:** Karen Waters-Husted	**Telephone No.:** 509-376-4650	
SAF No.: W18-001	**Sampling Origin:** Hanford Site	**Purchase Order/Charge Code:** 300071	
Project Title: RCRA, JANUARY 2018	**Logbook No.:** HNF-N-506-9915	**Ice Chest No.:** GLS-741	
Shipped To (Lab): TestAmerica St. Louis	**Method of Shipment** Commercial Carrier	**Bill of Lading/Air Bill No.:** 771721747772	
Protocol RCRA	**Priority:** 30 Days	**Offsite Property No.:** N/A	

POSSIBLE SAMPLE HAZARDS/REMARK
** ** 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
N/A

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B3FTR1	N	W	3-5-18	1013	1x1-L aGs*	9020_TOX: COMMON	28 Days	H2SO4 to pH <2 / Cool <=6C
B3FTR1	N	W	3-5-18	1013	1x250-mL aG	9060_TOC: COMMON	28 Days	HCl or H2SO4 to pH <2 / Cool <=6C

Relinquished By	Received By
Juan Aguilar /CHPRC — MAR 05 2018 1150 (Print First and Last Name / Signature / Date/Time)	Kevin Patterson CHPRC — MAR 05 2018 1150 (Print First and Last Name / Signature / Date/Time)
Kevin Patterson CHPRC — MAR 05 2018 1125 (Print First and Last Name / Signature / Date/Time)	Lesly Wall /CHPRC — MAR 05 2018 1125 (Print First and Last Name / Signature / Date/Time)
Lesly Wall /CHPRC — MAR 05 2018 1400 (Print First and Last Name / Signature / Date/Time)	FEDEX (Print First and Last Name / Signature / Date/Time)
FED EX (Print First and Last Name / Signature / Date/Time)	Jill Clarke — 3-6-18 0900 (Print First and Last Name / Signature / Date/Time)

Matrix *

S = Soil	DS = Drum Solids
SE = Sediment	DL = Drum Liquid
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 12/6/2017 FSR ID = FSR54490 A-6004-842 (REV 3)

04/05/2018

REV.0

4/5/2018

IMPORTANT!
Winter Storms are causing hazardous conditions across the Northeast and Southeast U.S. Learn More

FedEx® Tracking

771721719371

Ship date:
Mon 3/05/2018

Richland, WA US

Delivered
Signed for by: J.CLARKE

Actual delivery:
Tue 3/06/2018 8:52 am

EARTH CITY, MO US

Travel History

Date/Time	Activity	Location
- 3/06/2018 - Tuesday		
8:52 am	Delivered	EARTH CITY, MO
7:38 am	On FedEx vehicle for delivery	EARTH CITY, MO
7:31 am	At local FedEx facility	EARTH CITY, MO
5:50 am	At destination sort facility	BERKELEY, MO
5:01 am	Departed FedEx location	MEMPHIS, TN
12:29 am	Arrived at FedEx location	MEMPHIS, TN
- 3/05/2018 - Monday		
4:50 pm	Left FedEx origin facility	PASCO, WA
3:17 pm	Picked up	PASCO, WA
2:18 pm	Shipment information sent to FedEx	

Shipment Facts

Tracking Number	771721719371	**Service**	FedEx Standard Overnight
Weight	85 lbs / 38.56 kgs	**Delivered To**	Shipping/Receiving
Total pieces	1	**Total shipment weight**	85 lbs / 38.56 kgs
Terms	Recipient	**Shipper reference**	GWS-730
Packaging	Your Packaging	**Special handling section**	Deliver Weekday
Standard transit	3/06/2018 by 3:00 pm		

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IMPORTANT!
Winter Storms are causing hazardous conditions across the Northeast and Southeast U.S. Learn More

FedEx ® Tracking

771721747772

Ship date:
Mon 3/05/2018

Richland, WA US

Delivered
Signed for by: J.CLARKE

Actual delivery:
Tue 3/06/2018 8:52 am

EARTH CITY, MO US

Travel History

Date/Time	Activity	Location
- 3/06/2018 - Tuesday		
8:52 am	Delivered	EARTH CITY, MO
7:38 am	On FedEx vehicle for delivery	EARTH CITY, MO
7:30 am	At local FedEx facility	EARTH CITY, MO
5:50 am	At destination sort facility	BERKELEY, MO
5:01 am	Departed FedEx location	MEMPHIS, TN
12:29 am	Arrived at FedEx location	MEMPHIS, TN
- 3/05/2018 - Monday		
4:50 pm	Left FedEx origin facility	PASCO, WA
3:17 pm	Picked up	PASCO, WA
2:20 pm	Shipment information sent to FedEx	

Shipment Facts

Tracking Number	771721747772	**Service**	FedEx Standard Overnight
Weight	87 lbs / 39.46 kgs	**Dimensions**	28x16x16 in.
Delivered To	Shipping/Receiving	**Total pieces**	1
Total shipment weight	87 lbs / 39.46 kgs	**Terms**	Recipient
Shipper reference	GWS-741	**Packaging**	Your Packaging
Special handling section	Deliver Weekday, Additional Handling Surcharge	**Standard transit**	3/06/2018 by 3:00 pm

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Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
U	Analyzed for but not detected.
o	LCS, LCSD: Recovery exceeds upper or lower control limits.
N	MS, MSD: Spike recovery is outside acceptance limits.

Metals

Qualifier	Qualifier Description
U	Analyzed for but not detected.
B	Estimated result. Result is less than the RL, but greater than MDL
D	The reported value is from a dilution.
X	See case narrative notes for explanation of the 'X' flag

General Chemistry

Qualifier	Qualifier Description
U	Analyzed for but not detected.
o	LCS, LCSD: Recovery exceeds upper or lower control limits.
B	Estimated result. Result is less than the RL, but greater than MDL
y	Duplicate analysis not within control limits.

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: W18-001

TestAmerica Job ID: 160-27129-1
SDG: SL2814

Method	Method Description	Protocol	Laboratory
8081B	Organochlorine Pesticides (GC)	SW846	TAL SL
6010C	Metals (ICP)	SW846	TAL SL
6020A	Metals (ICP/MS)	SW846	TAL SL
310.1	Alkalinity	MCAWW	TAL SL
9020B	Organic Halides, Total (TOX)	SW846	TAL SL
9060	Organic Carbon, Total (TOC)	SW846	TAL SL

Protocol References:

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

Laboratory References:

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

Sample Summary

Client: CH2M Hill Plateau Remediation Company
Project/Site: W18-001

TestAmerica Job ID: 160-27129-1
SDG: SL2814

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
160-27129-1	B3FXD6	Water	03/05/18 08:41	03/06/18 09:00
160-27129-2	B3FTP9	Water	03/05/18 10:49	03/06/18 09:00
160-27129-3	B3FTP7	Water	03/05/18 10:49	03/06/18 09:00
160-27129-4	B3FTP8	Water	03/05/18 10:49	03/06/18 09:00
160-27129-5	B3FRM7	Water	03/05/18 10:49	03/06/18 09:00
160-27129-6	B3FRM4	Water	03/05/18 08:41	03/06/18 09:00
160-27129-7	B3FTP4	Water	03/05/18 08:41	03/06/18 09:00
160-27129-8	B3FTP5	Water	03/05/18 08:41	03/06/18 09:00
160-27129-9	B3FTP6	Water	03/05/18 08:41	03/06/18 09:00
160-27129-10	B3FTR2	Water	03/05/18 06:30	03/06/18 09:00
160-27129-11	B3FRN0	Water	03/05/18 06:30	03/06/18 09:00
160-27129-12	B3FTR0	Water	03/05/18 06:30	03/06/18 09:00
160-27129-13	B3FTR4	Water	03/05/18 06:30	03/06/18 09:00
160-27129-14	B3FTR3	Water	03/05/18 10:13	03/06/18 09:00
160-27129-15	B3FTR5	Water	03/05/18 10:13	03/06/18 09:00
160-27129-16	B3FRN1	Water	03/05/18 10:13	03/06/18 09:00
160-27129-17	B3FTR1	Water	03/05/18 10:13	03/06/18 09:00

Method: 8081B - Organochlorine Pesticides (GC)

Client Sample ID: B3FXD6 — **Lab Sample ID: 160-27129-1**
Date Collected: 03/05/18 08:41 — **Matrix: Water**
Date Received: 03/06/18 09:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	0.0098	U	0.049	0.0098	ug/L		03/09/18 13:30	03/21/18 15:21	1
alpha-BHC	0.0098	U	0.049	0.0098	ug/L		03/09/18 13:30	03/21/18 15:21	1
beta-BHC	0.013	U	0.049	0.013	ug/L		03/09/18 13:30	03/21/18 15:21	1
delta-BHC	0.0098	U	0.049	0.0098	ug/L		03/09/18 13:30	03/21/18 15:21	1
gamma-BHC (Lindane)	0.0098	U	0.049	0.0098	ug/L		03/09/18 13:30	03/21/18 15:21	1
4,4'-DDD	0.0098	U	0.049	0.0098	ug/L		03/09/18 13:30	03/21/18 15:21	1
4,4'-DDE	0.014	U	0.049	0.014	ug/L		03/09/18 13:30	03/21/18 15:21	1
4,4'-DDT	0.023	U o	0.049	0.023	ug/L		03/09/18 13:30	03/21/18 15:21	1
Dieldrin	0.0098	U	0.049	0.0098	ug/L		03/09/18 13:30	03/21/18 15:21	1
Endosulfan I	0.019	U	0.049	0.019	ug/L		03/09/18 13:30	03/21/18 15:21	1
Endosulfan II	0.0098	U	0.049	0.0098	ug/L		03/09/18 13:30	03/21/18 15:21	1
Endosulfan sulfate	0.0098	U	0.049	0.0098	ug/L		03/09/18 13:30	03/21/18 15:21	1
Endrin	0.018	U	0.049	0.018	ug/L		03/09/18 13:30	03/21/18 15:21	1
Endrin aldehyde	0.0098	U N	0.049	0.0098	ug/L		03/09/18 13:30	03/21/18 15:21	1
Heptachlor epoxide	0.017	U	0.049	0.017	ug/L		03/09/18 13:30	03/21/18 15:21	1
Methoxychlor	0.013	U	0.49	0.013	ug/L		03/09/18 13:30	03/21/18 15:21	1
Toxaphene	0.26	U	2.0	0.26	ug/L		03/09/18 13:30	03/21/18 15:21	1
Technical Chlordane	0.098	U	0.49	0.098	ug/L		03/09/18 13:30	03/21/18 15:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr)	*67*		*26 - 127*	*03/09/18 13:30*	*03/21/18 15:21*	*1*
Tetrachloro-m-xylene	*75*		*53 - 116*	*03/09/18 13:30*	*03/21/18 15:21*	*1*

Method: 6010C - Metals (ICP)

Client Sample ID: B3FRM4 — **Lab Sample ID: 160-27129-6**
Date Collected: 03/05/18 08:41 — **Matrix: Water**
Date Received: 03/06/18 09:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**44500**		1000	300	ug/L		03/07/18 12:58	03/08/18 13:54	1
Iron	**52.9**	**B**	100	30.0	ug/L		03/07/18 12:58	03/08/18 13:54	1
Magnesium	**13400**		1000	300	ug/L		03/07/18 12:58	03/08/18 13:54	1
Potassium	**3940**	**B**	5000	1500	ug/L		03/07/18 12:58	03/08/18 13:54	1
Sodium	**11300**		1000	300	ug/L		03/07/18 12:58	03/08/18 13:54	1
Vanadium	**17.6**	**B**	50.0	4.0	ug/L		03/07/18 12:58	03/08/18 13:54	1
Boron	25.0	U	100	25.0	ug/L		03/07/18 12:58	03/08/18 13:54	1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: B3FRM4 — **Lab Sample ID: 160-27129-6**
Date Collected: 03/05/18 08:41 — **Matrix: Water**
Date Received: 03/06/18 09:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**30.9**	**B D**	50.0	20.0	ug/L		03/07/18 12:59	03/16/18 23:01	2
Antimony	2.0	U D	5.0	2.0	ug/L		03/07/18 12:59	03/16/18 23:01	2
Arsenic	4.0	U D	10.0	4.0	ug/L		03/07/18 12:59	03/16/18 23:01	2
Barium	**50.5**	**D**	2.0	0.90	ug/L		03/07/18 12:59	03/16/18 23:01	2
Beryllium	0.20	U D	0.50	0.20	ug/L		03/07/18 12:59	03/16/18 23:01	2
Cadmium	**0.26**	**B D**	0.50	0.20	ug/L		03/07/18 12:59	03/16/18 23:01	2
Chromium	4.0	U D	10.0	4.0	ug/L		03/07/18 12:59	03/16/18 23:01	2

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

Client Sample ID: B3FRM4 — **Lab Sample ID: 160-27129-6**
Date Collected: 03/05/18 08:41 — **Matrix: Water**
Date Received: 03/06/18 09:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	0.90	U D	2.0	0.90	ug/L		03/07/18 12:59	03/16/18 23:01	2
Copper	**0.80**	**B D**	1.0	0.40	ug/L		03/07/18 12:59	03/20/18 04:21	2
Lead	1.0	U D	3.0	1.0	ug/L		03/07/18 12:59	03/16/18 23:01	2
Manganese	**2.0**	**D**	2.0	0.90	ug/L		03/07/18 12:59	03/16/18 23:01	2
Molybdenum	**4.1**	**B D**	5.0	2.0	ug/L		03/07/18 12:59	03/16/18 23:01	2
Nickel	2.0	U D	5.0	2.0	ug/L		03/07/18 12:59	03/16/18 23:01	2
Selenium	**7.4**	**D**	5.0	2.0	ug/L		03/07/18 12:59	03/16/18 23:01	2
Silver	0.90	U D	2.0	0.90	ug/L		03/07/18 12:59	03/16/18 23:01	2
Strontium	**175**	**D**	5.0	0.50	ug/L		03/07/18 12:59	03/16/18 23:01	2
Thallium	0.90	U D	2.0	0.90	ug/L		03/07/18 12:59	03/16/18 23:01	2
Thorium	**1.3**	**B D**	2.0	0.90	ug/L		03/07/18 12:59	03/16/18 23:01	2
Tin	1.2	U D	2.0	1.2	ug/L		03/07/18 12:59	03/16/18 23:01	2
Uranium	**1.0**	**D**	1.0	0.40	ug/L		03/07/18 12:59	03/16/18 23:01	2
Zinc	7.5	U D	20.0	7.5	ug/L		03/07/18 12:59	03/16/18 23:01	2

General Chemistry

Client Sample ID: B3FTP9 — **Lab Sample ID: 160-27129-2**
Date Collected: 03/05/18 10:49 — **Matrix: Water**
Date Received: 03/06/18 09:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Halogens, Total Organic	**8.4**		5.0	2.1	ug/L		03/26/18 12:00	03/27/18 16:29	1
Total Organic Carbon	0.50	U	1.0	0.50	mg/L			03/14/18 02:26	1

Client Sample ID: B3FTP7 — **Lab Sample ID: 160-27129-3**
Date Collected: 03/05/18 10:49 — **Matrix: Water**
Date Received: 03/06/18 09:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Halogens, Total Organic	**11.2**		5.0	2.1	ug/L		03/26/18 12:00	03/27/18 17:04	1
Total Organic Carbon	0.50	U	1.0	0.50	mg/L			03/14/18 03:03	1

Client Sample ID: B3FTP8 — **Lab Sample ID: 160-27129-4**
Date Collected: 03/05/18 10:49 — **Matrix: Water**
Date Received: 03/06/18 09:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Halogens, Total Organic	**6.5**		5.0	2.1	ug/L		03/26/18 12:00	03/27/18 18:19	1
Total Organic Carbon	0.50	U	1.0	0.50	mg/L			03/14/18 03:15	1

Client Sample ID: B3FRM7 — **Lab Sample ID: 160-27129-5**
Date Collected: 03/05/18 10:49 — **Matrix: Water**
Date Received: 03/06/18 09:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	**130**		5.0	0.54	mg/L			03/07/18 10:44	1
Halogens, Total Organic	**6.9**		5.0	2.1	ug/L		03/26/18 12:00	03/27/18 19:22	1
Total Organic Carbon	0.50	U	1.0	0.50	mg/L			03/14/18 03:26	1

Client Sample ID: B3FRM4 — **Lab Sample ID: 160-27129-6**
Date Collected: 03/05/18 08:41 — **Matrix: Water**
Date Received: 03/06/18 09:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Halogens, Total Organic	**3.2**	**B y**	5.0	2.1	ug/L		03/26/18 12:00	03/27/18 19:58	1

General Chemistry (Continued)

Client Sample ID: B3FRM4 — **Lab Sample ID: 160-27129-6**
Date Collected: 03/05/18 08:41 — **Matrix: Water**
Date Received: 03/06/18 09:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	0.50	U	1.0	0.50	mg/L			03/14/18 03:38	1

Client Sample ID: B3FTP4 — **Lab Sample ID: 160-27129-7**
Date Collected: 03/05/18 08:41 — **Matrix: Water**
Date Received: 03/06/18 09:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Halogens, Total Organic	**6.2**		5.0	2.1	ug/L		03/26/18 12:00	03/27/18 22:29	1
Total Organic Carbon	0.50	U	1.0	0.50	mg/L			03/14/18 03:49	1

Client Sample ID: B3FTP5 — **Lab Sample ID: 160-27129-8**
Date Collected: 03/05/18 08:41 — **Matrix: Water**
Date Received: 03/06/18 09:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Halogens, Total Organic	**3.9**	**B**	5.0	2.1	ug/L		03/26/18 12:00	03/27/18 23:51	1
Total Organic Carbon	0.50	U	1.0	0.50	mg/L			03/14/18 04:00	1

Client Sample ID: B3FTP6 — **Lab Sample ID: 160-27129-9**
Date Collected: 03/05/18 08:41 — **Matrix: Water**
Date Received: 03/06/18 09:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Halogens, Total Organic	**5.0**		5.0	2.1	ug/L		03/26/18 12:00	03/28/18 00:25	1
Total Organic Carbon	0.50	U	1.0	0.50	mg/L			03/14/18 04:12	1

Client Sample ID: B3FTR2 — **Lab Sample ID: 160-27129-10**
Date Collected: 03/05/18 06:30 — **Matrix: Water**
Date Received: 03/06/18 09:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Halogens, Total Organic	2.1	U	5.0	2.1	ug/L		03/27/18 12:00	03/28/18 00:59	1
Total Organic Carbon	0.50	U	1.0	0.50	mg/L			03/14/18 04:23	1

Client Sample ID: B3FRN0 — **Lab Sample ID: 160-27129-11**
Date Collected: 03/05/18 06:30 — **Matrix: Water**
Date Received: 03/06/18 09:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	**10.0**		5.0	0.54	mg/L			03/07/18 10:44	1
Halogens, Total Organic	2.1	U	5.0	2.1	ug/L		03/27/18 12:00	03/28/18 01:28	1
Total Organic Carbon	0.50	U	1.0	0.50	mg/L			03/14/18 04:35	1

Client Sample ID: B3FTR0 — **Lab Sample ID: 160-27129-12**
Date Collected: 03/05/18 06:30 — **Matrix: Water**
Date Received: 03/06/18 09:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Halogens, Total Organic	2.1	U	5.0	2.1	ug/L		03/27/18 12:00	03/28/18 01:57	1
Total Organic Carbon	0.50	U	1.0	0.50	mg/L			03/14/18 04:46	1

Client Sample ID: B3FTR4 — **Lab Sample ID: 160-27129-13**
Date Collected: 03/05/18 06:30 — **Matrix: Water**
Date Received: 03/06/18 09:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Halogens, Total Organic	2.1	U	5.0	2.1	ug/L		03/27/18 12:00	03/28/18 15:15	1
Total Organic Carbon	0.50	U o	1.0	0.50	mg/L			03/14/18 18:41	1

General Chemistry

Client Sample ID: B3FTR3 — **Lab Sample ID: 160-27129-14**
Date Collected: 03/05/18 10:13 — **Matrix: Water**
Date Received: 03/06/18 09:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Halogens, Total Organic	**7.0**		5.0	2.1	ug/L		03/27/18 12:00	03/28/18 15:46	1
Total Organic Carbon	0.50	U o	1.0	0.50	mg/L			03/14/18 19:18	1

Client Sample ID: B3FTR5 — **Lab Sample ID: 160-27129-15**
Date Collected: 03/05/18 10:13 — **Matrix: Water**
Date Received: 03/06/18 09:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Halogens, Total Organic	**5.3**		5.0	2.1	ug/L		03/27/18 12:00	03/28/18 16:20	1
Total Organic Carbon	0.50	U o	1.0	0.50	mg/L			03/14/18 19:29	1

Client Sample ID: B3FRN1 — **Lab Sample ID: 160-27129-16**
Date Collected: 03/05/18 10:13 — **Matrix: Water**
Date Received: 03/06/18 09:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	**136**		5.0	0.54	mg/L			03/07/18 10:44	1
Halogens, Total Organic	**8.5**		5.0	2.1	ug/L		03/27/18 12:00	03/28/18 17:19	1
Total Organic Carbon	0.50	U o	1.0	0.50	mg/L			03/14/18 19:41	1

Client Sample ID: B3FTR1 — **Lab Sample ID: 160-27129-17**
Date Collected: 03/05/18 10:13 — **Matrix: Water**
Date Received: 03/06/18 09:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Halogens, Total Organic	**8.6**		5.0	2.1	ug/L		03/27/18 12:00	03/28/18 18:04	1
Total Organic Carbon	0.50	U o	1.0	0.50	mg/L			03/14/18 19:52	1

Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: MB 160-354860/1-A
Matrix: Water
Analysis Batch: 356891

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 354860

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	0.010	U	0.050	0.010	ug/L		03/09/18 13:30	03/21/18 14:39	1
alpha-BHC	0.010	U	0.050	0.010	ug/L		03/09/18 13:30	03/21/18 14:39	1
beta-BHC	0.013	U	0.050	0.013	ug/L		03/09/18 13:30	03/21/18 14:39	1
delta-BHC	0.010	U	0.050	0.010	ug/L		03/09/18 13:30	03/21/18 14:39	1
gamma-BHC (Lindane)	0.010	U	0.050	0.010	ug/L		03/09/18 13:30	03/21/18 14:39	1
4,4'-DDD	0.010	U	0.050	0.010	ug/L		03/09/18 13:30	03/21/18 14:39	1
4,4'-DDE	0.014	U	0.050	0.014	ug/L		03/09/18 13:30	03/21/18 14:39	1
4,4'-DDT	0.023	U	0.050	0.023	ug/L		03/09/18 13:30	03/21/18 14:39	1
Dieldrin	0.010	U	0.050	0.010	ug/L		03/09/18 13:30	03/21/18 14:39	1
Endosulfan I	0.019	U	0.050	0.019	ug/L		03/09/18 13:30	03/21/18 14:39	1
Endosulfan II	0.010	U	0.050	0.010	ug/L		03/09/18 13:30	03/21/18 14:39	1
Endosulfan sulfate	0.010	U	0.050	0.010	ug/L		03/09/18 13:30	03/21/18 14:39	1
Endrin	0.018	U	0.050	0.018	ug/L		03/09/18 13:30	03/21/18 14:39	1
Endrin aldehyde	0.010	U	0.050	0.010	ug/L		03/09/18 13:30	03/21/18 14:39	1
Heptachlor epoxide	0.017	U	0.050	0.017	ug/L		03/09/18 13:30	03/21/18 14:39	1
Methoxychlor	0.013	U	0.50	0.013	ug/L		03/09/18 13:30	03/21/18 14:39	1
Toxaphene	0.27	U	2.0	0.27	ug/L		03/09/18 13:30	03/21/18 14:39	1
Technical Chlordane	0.10	U	0.50	0.10	ug/L		03/09/18 13:30	03/21/18 14:39	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr)	*67*		*26 - 127*	*03/09/18 13:30*	*03/21/18 14:39*	*1*
Tetrachloro-m-xylene	*76*		*53 - 116*	*03/09/18 13:30*	*03/21/18 14:39*	*1*

Lab Sample ID: LCS 160-354860/2-A
Matrix: Water
Analysis Batch: 356891

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 354860

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aldrin	0.500	0.351		ug/L		70	63 - 94
alpha-BHC	0.500	0.467		ug/L		93	79 - 111
beta-BHC	0.500	0.499		ug/L		100	73 - 104
delta-BHC	0.500	0.518		ug/L		104	80 - 117
gamma-BHC (Lindane)	0.501	0.477		ug/L		95	79 - 106
4,4'-DDD	0.500	0.540		ug/L		108	79 - 115
4,4'-DDE	0.501	0.434		ug/L		87	73 - 107
4,4'-DDT	0.500	0.562	o	ug/L		112	79 - 111
Dieldrin	0.501	0.464		ug/L		93	75 - 107
Endosulfan I	0.500	0.369		ug/L		74	38 - 105
Endosulfan II	0.500	0.411		ug/L		82	50 - 105
Endosulfan sulfate	0.500	0.504		ug/L		101	76 - 111
Endrin	0.501	0.487		ug/L		97	73 - 118
Endrin aldehyde	0.500	0.420		ug/L		84	77 - 112
Heptachlor epoxide	0.500	0.456		ug/L		91	76 - 108
Methoxychlor	0.500	0.565		ug/L		113	77 - 114

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl (Surr)	*74*		*26 - 127*

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCS 160-354860/2-A
Matrix: Water
Analysis Batch: 356891

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 354860

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Tetrachloro-m-xylene	76		53 - 116

Lab Sample ID: 160-27129-1 MS
Matrix: Water
Analysis Batch: 356891

Client Sample ID: B3FXD6
Prep Type: Total/NA
Prep Batch: 354860

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Aldrin	0.0098	U	0.483	0.354		ug/L		73	57 - 101
alpha-BHC	0.0098	U	0.483	0.445		ug/L		92	76 - 109
beta-BHC	0.013	U	0.483	0.452		ug/L		94	74 - 102
delta-BHC	0.0098	U	0.483	0.482		ug/L		100	64 - 134
gamma-BHC (Lindane)	0.0098	U	0.483	0.448		ug/L		93	69 - 112
4,4'-DDD	0.0098	U	0.483	0.475		ug/L		98	80 - 111
4,4'-DDE	0.014	U	0.483	0.408		ug/L		85	70 - 106
4,4'-DDT	0.023	U o	0.483	0.498		ug/L		103	76 - 108
Dieldrin	0.0098	U	0.483	0.421		ug/L		87	69 - 117
Endosulfan I	0.019	U	0.483	0.343		ug/L		71	36 - 102
Endosulfan II	0.0098	U	0.483	0.370		ug/L		77	48 - 102
Endosulfan sulfate	0.0098	U	0.483	0.448		ug/L		93	81 - 107
Endrin	0.018	U	0.483	0.437		ug/L		90	77 - 118
Endrin aldehyde	0.0098	U N	0.483	0.392		ug/L		81	81 - 109
Heptachlor epoxide	0.017	U	0.483	0.417		ug/L		86	76 - 115
Methoxychlor	0.013	U	0.483	0.494		ug/L		102	76 - 115

Surrogate	MS %Recovery	MS Qualifier	Limits
DCB Decachlorobiphenyl (Surr)	68		26 - 127
Tetrachloro-m-xylene	73		53 - 116

Lab Sample ID: 160-27129-1 MSD
Matrix: Water
Analysis Batch: 356891

Client Sample ID: B3FXD6
Prep Type: Total/NA
Prep Batch: 354860

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aldrin	0.0098	U	0.484	0.332		ug/L		69	57 - 101	6	20
alpha-BHC	0.0098	U	0.484	0.437		ug/L		90	76 - 109	2	20
beta-BHC	0.013	U	0.484	0.443		ug/L		92	74 - 102	2	20
delta-BHC	0.0098	U	0.484	0.471		ug/L		97	64 - 134	2	20
gamma-BHC (Lindane)	0.0098	U	0.484	0.439		ug/L		91	69 - 112	2	20
4,4'-DDD	0.0098	U	0.484	0.461		ug/L		95	80 - 111	3	20
4,4'-DDE	0.014	U	0.484	0.394		ug/L		81	70 - 106	4	20
4,4'-DDT	0.023	U o	0.484	0.477		ug/L		99	76 - 108	4	20
Dieldrin	0.0098	U	0.484	0.411		ug/L		85	69 - 117	2	20
Endosulfan I	0.019	U	0.484	0.338		ug/L		70	36 - 102	1	20
Endosulfan II	0.0098	U	0.484	0.372		ug/L		77	48 - 102	0	20
Endosulfan sulfate	0.0098	U	0.484	0.439		ug/L		91	81 - 107	2	20
Endrin	0.018	U	0.484	0.426		ug/L		88	77 - 118	3	20
Endrin aldehyde	0.0098	U N	0.484	0.369	N	ug/L		76	81 - 109	6	20
Heptachlor epoxide	0.017	U	0.484	0.406		ug/L		84	76 - 115	3	20

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: 160-27129-1 MSD — **Client Sample ID: B3FXD6**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 356891 — **Prep Batch: 354860**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Methoxychlor	0.013	U	0.484	0.481		ug/L		99	76 - 115	3	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
DCB Decachlorobiphenyl (Surr)	*68*		*26 - 127*
Tetrachloro-m-xylene	*69*		*53 - 116*

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 160-354427/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 354941 — **Prep Batch: 354427**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	300	U	1000	300	ug/L		03/07/18 12:58	03/08/18 13:45	1
Iron	30.0	U	100	30.0	ug/L		03/07/18 12:58	03/08/18 13:45	1
Magnesium	300	U	1000	300	ug/L		03/07/18 12:58	03/08/18 13:45	1
Potassium	1500	U	5000	1500	ug/L		03/07/18 12:58	03/08/18 13:45	1
Sodium	300	U	1000	300	ug/L		03/07/18 12:58	03/08/18 13:45	1
Vanadium	4.0	U	50.0	4.0	ug/L		03/07/18 12:58	03/08/18 13:45	1
Boron	25.0	U	100	25.0	ug/L		03/07/18 12:58	03/08/18 13:45	1

Lab Sample ID: LCS 160-354427/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 354941 — **Prep Batch: 354427**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Calcium	10000	10430		ug/L		104	80 - 120
Iron	10000	9465		ug/L		95	80 - 120
Magnesium	10000	9234		ug/L		92	80 - 120
Potassium	10000	9318		ug/L		93	80 - 120
Sodium	10000	9318		ug/L		93	80 - 120
Vanadium	1000	887.4		ug/L		89	80 - 120
Boron	200	181.6		ug/L		91	80 - 120

Lab Sample ID: 160-27129-6 MS — **Client Sample ID: B3FRM4**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 354941 — **Prep Batch: 354427**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Calcium	44500		10000	54960	X	ug/L		105	75 - 125
Iron	52.9	B	10000	9543		ug/L		95	75 - 125
Magnesium	13400		10000	22570		ug/L		92	75 - 125
Potassium	3940	B	10000	13360		ug/L		94	75 - 125
Sodium	11300		10000	20400		ug/L		91	75 - 125
Vanadium	17.6	B	1000	914.9		ug/L		90	75 - 125
Boron	25.0	U	200	189.7		ug/L		95	75 - 125

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

Lab Sample ID: 160-27129-6 MSD — **Client Sample ID: B3FRM4**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 354941 — **Prep Batch: 354427**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Calcium	44500		10000	54520	X	ug/L		101	75 - 125	1	20
Iron	52.9	B	10000	9518		ug/L		95	75 - 125	0	20
Magnesium	13400		10000	22380		ug/L		90	75 - 125	1	20
Potassium	3940	B	10000	13300		ug/L		94	75 - 125	0	20
Sodium	11300		10000	20210		ug/L		90	75 - 125	1	20
Vanadium	17.6	B	1000	904.9		ug/L		89	75 - 125	1	20
Boron	25.0	U	200	195.5		ug/L		98	75 - 125	3	20

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 160-354428/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 356220 — **Prep Batch: 354428**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	20.0	U D	50.0	20.0	ug/L		03/07/18 12:59	03/16/18 22:48	2
Antimony	2.0	U D	5.0	2.0	ug/L		03/07/18 12:59	03/16/18 22:48	2
Arsenic	4.0	U D	10.0	4.0	ug/L		03/07/18 12:59	03/16/18 22:48	2
Barium	0.90	U D	2.0	0.90	ug/L		03/07/18 12:59	03/16/18 22:48	2
Beryllium	0.20	U D	0.50	0.20	ug/L		03/07/18 12:59	03/16/18 22:48	2
Cadmium	0.20	U D	0.50	0.20	ug/L		03/07/18 12:59	03/16/18 22:48	2
Chromium	4.0	U D	10.0	4.0	ug/L		03/07/18 12:59	03/16/18 22:48	2
Cobalt	0.90	U D	2.0	0.90	ug/L		03/07/18 12:59	03/16/18 22:48	2
Lead	1.0	U D	3.0	1.0	ug/L		03/07/18 12:59	03/16/18 22:48	2
Manganese	0.90	U D	2.0	0.90	ug/L		03/07/18 12:59	03/16/18 22:48	2
Molybdenum	2.0	U D	5.0	2.0	ug/L		03/07/18 12:59	03/16/18 22:48	2
Nickel	2.0	U D	5.0	2.0	ug/L		03/07/18 12:59	03/16/18 22:48	2
Selenium	2.0	U D	5.0	2.0	ug/L		03/07/18 12:59	03/16/18 22:48	2
Silver	0.90	U D	2.0	0.90	ug/L		03/07/18 12:59	03/16/18 22:48	2
Strontium	0.50	U D	5.0	0.50	ug/L		03/07/18 12:59	03/16/18 22:48	2
Thallium	0.90	U D	2.0	0.90	ug/L		03/07/18 12:59	03/16/18 22:48	2
Thorium	0.90	U D	2.0	0.90	ug/L		03/07/18 12:59	03/16/18 22:48	2
Tin	1.2	U D	2.0	1.2	ug/L		03/07/18 12:59	03/16/18 22:48	2
Uranium	0.40	U D	1.0	0.40	ug/L		03/07/18 12:59	03/16/18 22:48	2
Zinc	7.5	U D	20.0	7.5	ug/L		03/07/18 12:59	03/16/18 22:48	2

Lab Sample ID: MB 160-354428/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 356515 — **Prep Batch: 354428**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Copper	0.40	U D	1.0	0.40	ug/L		03/07/18 12:59	03/20/18 04:07	2

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

Lab Sample ID: LCS 160-354428/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 356220 — **Prep Batch: 354428**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	10000	9981	D	ug/L		100	80 - 120
Antimony	500	500.5	D	ug/L		100	80 - 120
Arsenic	1000	950.9	D	ug/L		95	80 - 120
Barium	1000	1030	D	ug/L		103	80 - 120
Beryllium	100	99.37	D	ug/L		99	80 - 120
Cadmium	1000	950.5	D	ug/L		95	80 - 120
Chromium	1000	1037	D	ug/L		104	80 - 120
Cobalt	1000	1077	D	ug/L		108	80 - 120
Lead	1000	991.2	D	ug/L		99	80 - 120
Manganese	1000	1040	D	ug/L		104	80 - 120
Molybdenum	500	499.2	D	ug/L		100	80 - 120
Nickel	1000	1030	D	ug/L		103	80 - 120
Selenium	500	448.6	D	ug/L		90	80 - 120
Silver	200	198.0	D	ug/L		99	80 - 120
Strontium	1000	989.8	D	ug/L		99	80 - 120
Thallium	200	211.5	D	ug/L		106	80 - 120
Thorium	1000	1007	D	ug/L		101	80 - 120
Tin	1000	976.0	D	ug/L		98	80 - 120
Uranium	1000	1021	D	ug/L		102	80 - 120
Zinc	1000	957.5	D	ug/L		96	80 - 120

Lab Sample ID: LCS 160-354428/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 356515 — **Prep Batch: 354428**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Copper	1000	983.0	D	ug/L		98	80 - 120

Lab Sample ID: 160-27129-6 MS — **Client Sample ID: B3FRM4**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 356220 — **Prep Batch: 354428**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	30.9	B D	10000	9862	D	ug/L		98	75 - 125
Antimony	2.0	U D	500	505.2	D	ug/L		101	75 - 125
Arsenic	4.0	U D	1000	974.9	D	ug/L		97	75 - 125
Barium	50.5	D	1000	1058	D	ug/L		101	75 - 125
Beryllium	0.20	U D	100	98.63	D	ug/L		99	75 - 125
Cadmium	0.26	B D	1000	949.4	D	ug/L		95	75 - 125
Chromium	4.0	U D	1000	1017	D	ug/L		102	75 - 125
Cobalt	0.90	U D	1000	1048	D	ug/L		105	75 - 125
Lead	1.0	U D	1000	980.5	D	ug/L		98	75 - 125
Manganese	2.0	D	1000	1020	D	ug/L		102	75 - 125
Molybdenum	4.1	B D	500	495.2	D	ug/L		98	75 - 125
Nickel	2.0	U D	1000	999.1	D	ug/L		100	75 - 125
Selenium	7.4	D	500	470.7	D	ug/L		93	75 - 125
Silver	0.90	U D	200	194.9	D	ug/L		97	75 - 125
Strontium	175	D	1000	1145	D	ug/L		97	75 - 125

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

Lab Sample ID: 160-27129-6 MS — **Client Sample ID: B3FRM4**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 356220 — **Prep Batch: 354428**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Thallium	0.90	U D	200	211.4	D	ug/L		106	75 - 125
Thorium	1.3	B D	1000	1009	D	ug/L		101	75 - 125
Tin	1.2	U D	1000	979.1	D	ug/L		98	75 - 125
Uranium	1.0	D	1000	1014	D	ug/L		101	75 - 125
Zinc	7.5	U D	1000	966.2	D	ug/L		97	75 - 125

Lab Sample ID: 160-27129-6 MS — **Client Sample ID: B3FRM4**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 356515 — **Prep Batch: 354428**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Copper	0.80	B D	1000	970.6	D	ug/L		97	75 - 125

Lab Sample ID: 160-27129-6 MSD — **Client Sample ID: B3FRM4**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 356220 — **Prep Batch: 354428**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aluminum	30.9	B D	10000	9837	D	ug/L		98	75 - 125	0	20
Antimony	2.0	U D	500	499.1	D	ug/L		100	75 - 125	1	20
Arsenic	4.0	U D	1000	945.7	D	ug/L		95	75 - 125	3	20
Barium	50.5	D	1000	1061	D	ug/L		101	75 - 125	0	20
Beryllium	0.20	U D	100	97.84	D	ug/L		98	75 - 125	1	20
Cadmium	0.26	B D	1000	951.8	D	ug/L		95	75 - 125	0	20
Chromium	4.0	U D	1000	1021	D	ug/L		102	75 - 125	0	20
Cobalt	0.90	U D	1000	1034	D	ug/L		103	75 - 125	1	20
Lead	1.0	U D	1000	983.9	D	ug/L		98	75 - 125	0	20
Manganese	2.0	D	1000	995.8	D	ug/L		99	75 - 125	2	20
Molybdenum	4.1	B D	500	490.4	D	ug/L		97	75 - 125	1	20
Nickel	2.0	U D	1000	975.8	D	ug/L		98	75 - 125	2	20
Selenium	7.4	D	500	454.1	D	ug/L		89	75 - 125	4	20
Silver	0.90	U D	200	194.6	D	ug/L		97	75 - 125	0	20
Strontium	175	D	1000	1145	D	ug/L		97	75 - 125	0	20
Thallium	0.90	U D	200	210.1	D	ug/L		105	75 - 125	1	20
Thorium	1.3	B D	1000	1001	D	ug/L		100	75 - 125	1	20
Tin	1.2	U D	1000	979.5	D	ug/L		98	75 - 125	0	20
Uranium	1.0	D	1000	1014	D	ug/L		101	75 - 125	0	20
Zinc	7.5	U D	1000	943.9	D	ug/L		94	75 - 125	2	20

Lab Sample ID: 160-27129-6 MSD — **Client Sample ID: B3FRM4**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 356515 — **Prep Batch: 354428**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Copper	0.80	B D	1000	953.7	D	ug/L		95	75 - 125	2	20

Method: 310.1 - Alkalinity

Lab Sample ID: MB 160-354406/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 354406

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	0.54	U	5.0	0.54	mg/L			03/07/18 10:44	1

Lab Sample ID: HLCS 160-354406/3 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 354406

Analyte	Spike Added	HLCS Result	HLCS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity	400	387.0		mg/L		97	90 - 110

Lab Sample ID: LCS 160-354406/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 354406

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity	200	194.0		mg/L		97	90 - 110

Lab Sample ID: 160-27066-A-1 MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 354406

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity	129		100	228.0		mg/L		99	80 - 120

Lab Sample ID: 160-27066-A-1 DU — **Client Sample ID: Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 354406

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Alkalinity	129		132.0		mg/L		2	20

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

Lab Sample ID: MB 160-358164/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 358358 — **Prep Batch: 358164**

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		03/27/18 12:00	03/27/18 15:18	1

Lab Sample ID: LCS 160-358164/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 358358 — **Prep Batch: 358164**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Halogens, Total Organic	100	98.25		ug/L		98	90 - 116

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

Lab Sample ID: 160-27129-6 MS — **Client Sample ID: B3FRM4**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 358358 — **Prep Batch: 358164**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Halogens, Total Organic	3.2	B y	100	106.7		ug/L		103	85 - 117

Lab Sample ID: 160-27129-6 DU — **Client Sample ID: B3FRM4**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 358358 — **Prep Batch: 358164**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Halogens, Total Organic	3.2	B y	5.17	y	ug/L		47	20

Method: 9060 - Organic Carbon, Total (TOC)

Lab Sample ID: MB 160-355622/48 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 355622

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	0.50	U	1.0	0.50	mg/L			03/14/18 01:52	1

Lab Sample ID: LCS 160-355622/49 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 355622

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	10.0	9.29		mg/L		93	90 - 110

Lab Sample ID: 160-27129-2 MS — **Client Sample ID: B3FTP9**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 355622

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	0.50	U	5.00	4.72		mg/L		94	76 - 120

Lab Sample ID: 160-27129-2 DU — **Client Sample ID: B3FTP9**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 355622

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Organic Carbon	0.50	U	0.50	U	mg/L		NC	20

Lab Sample ID: MB 160-355821/16 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 355821

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	0.50	U	1.0	0.50	mg/L			03/14/18 18:09	1

Method: 9060 - Organic Carbon, Total (TOC) (Continued)

Lab Sample ID: LCS 160-355821/17 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 355821

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Organic Carbon			10.0	11.62	o	mg/L		116	90 - 110		

Lab Sample ID: 160-27129-13 MS — **Client Sample ID: B3FTR4**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 355821

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Organic Carbon	0.50	U o	5.00	5.87		mg/L		117	76 - 120		

Lab Sample ID: 160-27129-13 DU — **Client Sample ID: B3FTR4**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 355821

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Organic Carbon	0.50	U o		0.50	U o	mg/L				NC	20

QC Association Summary

Client: CH2M Hill Plateau Remediation Company
Project/Site: W18-001

TestAmerica Job ID: 160-27129-1
SDG: SL2814

GC Semi VOA

Prep Batch: 354860

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-27129-1	B3FXD6	Total/NA	Water	3510C	
MB 160-354860/1-A	Method Blank	Total/NA	Water	3510C	
LCS 160-354860/2-A	Lab Control Sample	Total/NA	Water	3510C	
160-27129-1 MS	B3FXD6	Total/NA	Water	3510C	
160-27129-1 MSD	B3FXD6	Total/NA	Water	3510C	

Analysis Batch: 356891

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-27129-1	B3FXD6	Total/NA	Water	8081B	354860
MB 160-354860/1-A	Method Blank	Total/NA	Water	8081B	354860
LCS 160-354860/2-A	Lab Control Sample	Total/NA	Water	8081B	354860
160-27129-1 MS	B3FXD6	Total/NA	Water	8081B	354860
160-27129-1 MSD	B3FXD6	Total/NA	Water	8081B	354860

Metals

Prep Batch: 354427

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-27129-6	B3FRM4	Total/NA	Water	3010A	
MB 160-354427/1-A	Method Blank	Total/NA	Water	3010A	
LCS 160-354427/2-A	Lab Control Sample	Total/NA	Water	3010A	
160-27129-6 MS	B3FRM4	Total/NA	Water	3010A	
160-27129-6 MSD	B3FRM4	Total/NA	Water	3010A	

Prep Batch: 354428

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-27129-6	B3FRM4	Total/NA	Water	3010A	
MB 160-354428/1-A	Method Blank	Total/NA	Water	3010A	
LCS 160-354428/2-A	Lab Control Sample	Total/NA	Water	3010A	
160-27129-6 MS	B3FRM4	Total/NA	Water	3010A	
160-27129-6 MSD	B3FRM4	Total/NA	Water	3010A	

Analysis Batch: 354941

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-27129-6	B3FRM4	Total/NA	Water	6010C	354427
MB 160-354427/1-A	Method Blank	Total/NA	Water	6010C	354427
LCS 160-354427/2-A	Lab Control Sample	Total/NA	Water	6010C	354427
160-27129-6 MS	B3FRM4	Total/NA	Water	6010C	354427
160-27129-6 MSD	B3FRM4	Total/NA	Water	6010C	354427

Analysis Batch: 356220

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-27129-6	B3FRM4	Total/NA	Water	6020A	354428
MB 160-354428/1-A	Method Blank	Total/NA	Water	6020A	354428
LCS 160-354428/2-A	Lab Control Sample	Total/NA	Water	6020A	354428
160-27129-6 MS	B3FRM4	Total/NA	Water	6020A	354428
160-27129-6 MSD	B3FRM4	Total/NA	Water	6020A	354428

Metals (Continued)

Analysis Batch: 356515

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-27129-6	B3FRM4	Total/NA	Water	6020A	354428
MB 160-354428/1-A	Method Blank	Total/NA	Water	6020A	354428
LCS 160-354428/2-A	Lab Control Sample	Total/NA	Water	6020A	354428
160-27129-6 MS	B3FRM4	Total/NA	Water	6020A	354428
160-27129-6 MSD	B3FRM4	Total/NA	Water	6020A	354428

General Chemistry

Analysis Batch: 354406

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-27129-5	B3FRM7	Total/NA	Water	310.1	
160-27129-11	B3FRN0	Total/NA	Water	310.1	
160-27129-16	B3FRN1	Total/NA	Water	310.1	
MB 160-354406/1	Method Blank	Total/NA	Water	310.1	
HLCS 160-354406/3	Lab Control Sample	Total/NA	Water	310.1	
LCS 160-354406/2	Lab Control Sample	Total/NA	Water	310.1	
160-27066-A-1 MS	Matrix Spike	Total/NA	Water	310.1	
160-27066-A-1 DU	Duplicate	Total/NA	Water	310.1	

Analysis Batch: 355622

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-27129-2	B3FTP9	Total/NA	Water	9060	
160-27129-3	B3FTP7	Total/NA	Water	9060	
160-27129-4	B3FTP8	Total/NA	Water	9060	
160-27129-5	B3FRM7	Total/NA	Water	9060	
160-27129-6	B3FRM4	Total/NA	Water	9060	
160-27129-7	B3FTP4	Total/NA	Water	9060	
160-27129-8	B3FTP5	Total/NA	Water	9060	
160-27129-9	B3FTP6	Total/NA	Water	9060	
160-27129-10	B3FTR2	Total/NA	Water	9060	
160-27129-11	B3FRN0	Total/NA	Water	9060	
160-27129-12	B3FTR0	Total/NA	Water	9060	
MB 160-355622/48	Method Blank	Total/NA	Water	9060	
LCS 160-355622/49	Lab Control Sample	Total/NA	Water	9060	
160-27129-2 MS	B3FTP9	Total/NA	Water	9060	
160-27129-2 DU	B3FTP9	Total/NA	Water	9060	

Analysis Batch: 355821

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-27129-13	B3FTR4	Total/NA	Water	9060	
160-27129-14	B3FTR3	Total/NA	Water	9060	
160-27129-15	B3FTR5	Total/NA	Water	9060	
160-27129-16	B3FRN1	Total/NA	Water	9060	
160-27129-17	B3FTR1	Total/NA	Water	9060	
MB 160-355821/16	Method Blank	Total/NA	Water	9060	
LCS 160-355821/17	Lab Control Sample	Total/NA	Water	9060	
160-27129-13 MS	B3FTR4	Total/NA	Water	9060	
160-27129-13 DU	B3FTR4	Total/NA	Water	9060	

General Chemistry (Continued)

Prep Batch: 358164

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-27129-2	B3FTP9	Total/NA	Water	Carbon Trap	
160-27129-3	B3FTP7	Total/NA	Water	Carbon Trap	
160-27129-4	B3FTP8	Total/NA	Water	Carbon Trap	
160-27129-5	B3FRM7	Total/NA	Water	Carbon Trap	
160-27129-6	B3FRM4	Total/NA	Water	Carbon Trap	
160-27129-7	B3FTP4	Total/NA	Water	Carbon Trap	
160-27129-8	B3FTP5	Total/NA	Water	Carbon Trap	
160-27129-9	B3FTP6	Total/NA	Water	Carbon Trap	
160-27129-10	B3FTR2	Total/NA	Water	Carbon Trap	
160-27129-11	B3FRN0	Total/NA	Water	Carbon Trap	
160-27129-12	B3FTR0	Total/NA	Water	Carbon Trap	
160-27129-13	B3FTR4	Total/NA	Water	Carbon Trap	
160-27129-14	B3FTR3	Total/NA	Water	Carbon Trap	
160-27129-15	B3FTR5	Total/NA	Water	Carbon Trap	
160-27129-16	B3FRN1	Total/NA	Water	Carbon Trap	
160-27129-17	B3FTR1	Total/NA	Water	Carbon Trap	
MB 160-358164/1-A	Method Blank	Total/NA	Water	Carbon Trap	
LCS 160-358164/2-A	Lab Control Sample	Total/NA	Water	Carbon Trap	
160-27129-6 MS	B3FRM4	Total/NA	Water	Carbon Trap	
160-27129-6 DU	B3FRM4	Total/NA	Water	Carbon Trap	

Analysis Batch: 358358

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-27129-2	B3FTP9	Total/NA	Water	9020B	358164
160-27129-3	B3FTP7	Total/NA	Water	9020B	358164
160-27129-4	B3FTP8	Total/NA	Water	9020B	358164
160-27129-5	B3FRM7	Total/NA	Water	9020B	358164
160-27129-6	B3FRM4	Total/NA	Water	9020B	358164
160-27129-7	B3FTP4	Total/NA	Water	9020B	358164
160-27129-8	B3FTP5	Total/NA	Water	9020B	358164
160-27129-9	B3FTP6	Total/NA	Water	9020B	358164
160-27129-10	B3FTR2	Total/NA	Water	9020B	358164
160-27129-11	B3FRN0	Total/NA	Water	9020B	358164
160-27129-12	B3FTR0	Total/NA	Water	9020B	358164
160-27129-13	B3FTR4	Total/NA	Water	9020B	358164
160-27129-14	B3FTR3	Total/NA	Water	9020B	358164
160-27129-15	B3FTR5	Total/NA	Water	9020B	358164
160-27129-16	B3FRN1	Total/NA	Water	9020B	358164
160-27129-17	B3FTR1	Total/NA	Water	9020B	358164
MB 160-358164/1-A	Method Blank	Total/NA	Water	9020B	358164
LCS 160-358164/2-A	Lab Control Sample	Total/NA	Water	9020B	358164
160-27129-6 MS	B3FRM4	Total/NA	Water	9020B	358164
160-27129-6 DU	B3FRM4	Total/NA	Water	9020B	358164

Surrogate Summary

Client: CH2M Hill Plateau Remediation Company
Project/Site: W18-001

TestAmerica Job ID: 160-27129-1
SDG: SL2814

Method: 8081B - Organochlorine Pesticides (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
		DCB1	TCX1
Lab Sample ID	Client Sample ID	(26-127)	(53-116)
160-27129-1	B3FXD6	67	75
160-27129-1 MS	B3FXD6	68	73
160-27129-1 MSD	B3FXD6	68	69
LCS 160-354860/2-A	Lab Control Sample	74	76
MB 160-354860/1-A	Method Blank	67	76

Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)

TCX = Tetrachloro-m-xylene