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: 160-15216-1
TestAmerica Sample Delivery Group: SL2042
Client Project/Site: X15-068

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

Attn: Mr. Scot Fitzgerald

Authorized for release by:
1/15/2016 2:19:03 PM

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

LINKS

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Have a Question? Ask The Expert

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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: 160-15216-1

Laboratory: TestAmerica St. Louis

Narrative

CASE NARRATIVE

CH2MHill Plateau Remediation Company
P.O. Box 1600
Richland, Washington 99352
January 15, 2016
Attention: Scot Fitzgerald

SDG	: SL2042
Number of Samples	: 16 samples
Sample Matrix	: Water
Data Deliverable	: Summary
Date SDG Closed	: December 4, 2015

II. Introduction

On December 4, 16 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: X15-068

Due to a large backlog for ICP Metals, the requested 6010 analytes have been reported by ICPMS 6020 per SIR16-164.

III. Analytical Results/ Methodology

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

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

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

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

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

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

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.

Per CHPRC direction, data for pH analysis will be reported outside 1x 24 hour hold time due to this being a field parameter.

Job ID: 160-15216-1 (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 at a concentration above the MDL.
- **J** - For organic analyses, the sample is estimated and less than the RL.
- **C** - For inorganic analyses, Method Blank contamination. The Method Blank contains the target analyte at a concentration above the MDL.
- **D** - For all analyses, the sample result was obtained from the analysis of a dilution. For Metals analyses, per standard practice, all solid samples are initially prepared at a 2x dilution. This standard dilution does not affect reporting limits as MDL studies are also prepared in the same manner. These dilutions do not necessitate qualification unless otherwise noted in the case narrative.
- **N** - For inorganics and GC analyses, the spike/spike duplicate recoveries are outside QC limits.
- **T** - For GCMS analyses, the spike/spike duplicate recoveries are outside QC limits.
- **O**- For all analyses, the LCS (LCSD) recoveries are outside QC limits.
- **M**- For inorganic analyses, the precision was outside control limits.
- **P -** For organic analyses (PCB/Pests only), the aroclor target analyte has greater than 25% difference for detected concentrations between the two GC columns.

ICPMS Metals

Batch: 232299

Sodium was detected in method blank MB 160-226833/1-A at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged “B”. If the associated sample reported a result above the MDL and/or RL and is not greater than 5x the method blank, the result has been flagged “C”.

The following samples were diluted to bring the concentration of target analytes within the calibration range: B338W4 (160-15216-5), B338W3 (160-15216-6), B338Y4 (160-15216-7), B338Y3 (160-15216-8), B338X6 (160-15216-9), B338X5 (160-15216-10), B338Y8 (160-15216-11), B338Y7 (160-15216-12), B338V9 (160-15216-13), B338W0 (160-15216-14), B33910 (160-15216-15) and B33909 (160-15216-16). Elevated reporting limits (RLs) are provided. These analytes have been qualified accordingly with a "D" flag in the associated samples.

The CCVL was outside upper QC limits for sodium. The concentration of this analyte in the samples was at such a high level as to make the CCVL unnecessary. (CCVL 160-232299/40) and (CCVL 160-232299/44)

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

Alkalinity

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

Job ID: 160-15216-1 (Continued)

Laboratory: TestAmerica St. Louis (Continued)

the laboratory's client services representative as verified by their signature on this report.

Reviewed and approved:

Jayna Awalt
St. Louis Project Manager

SAMPLE ISSUE RESOLUTION

SIR NUM	SIR16-164
REV NUM	0
DATE INITIATED	12/8/2016

SAMPLE EVENT INFORMATION

SAF NUM(S)	X15-068
OPERABLE UNIT(S)	300-FF-5
PROJECT(S)	CERC15
SAMPLE EVENT TITLE(S)	CERC15
LABORATORY	TestAmerica St. Louis

SAMPLING INFORMATION

NUMBER OF SAMPLES	16
SAMPLE NUMBERS	B338R5, B338R6, B338R9, B338T0, B338V9, B338W0, B338W3, B338W4, B338X5, B338X6, B338Y3, B338Y4, B338Y7, B338Y8, B33909, B33910
SAMPLE MATRIX	WATER
COLLECTION DATE	12/2/2015 - 12/2/2015
SDG NUM	SL2042

ISSUE BACKGROUND

CLASS	Sample Management Issues
TYPE	Method Correction
DESCRIPTION	The laboratory has a backlog for ICP and has requested permission to subtitute ICP-MS.

DISPOSITION

DESCRIPTION	Report requested analytes (sodium, calcium, potassium and magnesium) by 6020.
JUSTIFICATION	Final Disposition: Accept proposed resolution. SUBMITTED BY: Jayna Awalt DATE: 01/07/2016 ACCEPTED BY: Karen Waters-Husted DATE: 01/08/2016

Login Sample Receipt Checklist

Client: CH2M Hill Plateau Remediation Company

Job Number: 160-15216-1
SDG Number: SL2042

Login Number: 15216
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	0.9°
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	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 SL2042

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **X15-068-080**

Collector	J.R. Aguilar/CHPRC	**Contact/Requester**	WHITLEY, KM	**Telephone No.**	373-4929
SAF No.	X15-068	**Sampling Origin**	Hanford Site	**Purchase Order/Charge Code**	300205
Project Title	300 Area Uranium Sequestration Post Inj	**Logbook No.**	HNF-N-506 80 / 45	**Ice Chest No.**	GWS-498
Shipped To (Lab)	TestAmerica St. Louis	**Method of Shipment**	Commercial Carrier	**Bill of Lading/Air Bill No.**	77511329 6583
Protocol	CERCLA	**Priority:**	**30 Days** **PRIORITY**	**Offsite Property No.**	N/A

POSSIBLE SAMPLE HAZARDS/REMARKS

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

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

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B338R5	Y	W	12-2-15	1307	1x500-mL G/P	6020_METALS_ICPMS: Uranium (1); 6010_METALS_ICP: GW 04	6 Months	HNO3 to pH <2
B338R6	N	W	12-2-15	1307	1x500-mL G/P	6020_METALS_ICPMS: Uranium (1); 6010_METALS_ICP: GW 04	6 Months	HNO3 to pH <2
B338R6	N	W	12-2-15	1307	1x500-mL G/P	310.1_ALKALINITY: GW 01	14 Days	Cool <=6C

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
J.R. Aguilar/CHPRC			DEC 0 2 2015 1420	SSU-1			DEC 0 2 2015 1420
SSU-1			DEC 0 3 2015 1020	M.A. White CHPRC			DEC 0 3 2015 1020
M.A. White CHPRC			DEC 0 3 2015 1400	FEDEX			
		FED EX		Jill Clarke		Jill Clarke	12-4-15 0915

Matrix *

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

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

PRINTED ON 9/30/2015 **FSR ID = FSR7331** A-6004-842 (REV 2)

CH2MHill Plateau Remediation Company SL2042

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **X15-068-066**

Collector	J.R. Aguilar/CHPRC	**Contact/Requester**	WHITLEY, KM	**Telephone No.**	373-4929
SAF No.	X15-068	**Sampling Origin**	Hanford Site	**Purchase Order/Charge Code**	300205
Project Title	300 Area Uranium Sequestration Post Inj	**Logbook No.**	HNF-N-506 80 / 45-46	**Ice Chest No.**	CWS-498
Shipped To (Lab)	TestAmerica St. Louis	**Method of Shipment**	Commercial Carrier	**Bill of Lading/Air Bill No.**	7751 1329 6583
Protocol	CERCLA	**Priority:**	**30 Days** **PRIORITY**	**Offsite Property No.**	N/A

POSSIBLE SAMPLE HAZARDS/REMARKS

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

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

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B338R9	Y	W	12-2-15	1331	1x500-mL G/P	6020_METALS_ICPMS: Uranium (1); 6010_METALS_ICP: GW 04	6 Months	HNO3 to pH <2
B338T0	N	W	12-2-15	1331	1x500-mL G/P	6020_METALS_ICPMS: Uranium (1); 6010_METALS_ICP: GW 04	6 Months	HNO3 to pH <2
B338T0	N	W	12-2-15	1331	1x500-mL G/P	310.1_ALKALINITY: GW 01	14 Days	Cool <=6C

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
J.R. Aguilar/CHPRC			DEC 0 2 2015 1420	SSU-1			DEC 0 2 2015 1420
SSU-1			DEC 0 3 2015 1020	M.A. White CHPRC			DEC 0 3 2015 1020
M.A. White CHPRC			DEC 0 3 2015 1400	FEDEX			
				J. Clarke			12.4.15 0415

Matrix *

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

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

PRINTED ON 9/30/2015 **FSR ID = FSR7332** A-6004-842 (REV 2)

CH2MHill Plateau Remediation Company SL2042

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **X15-068-073**

Collector	S.W. King/CHPRC	**Contact/Requester**	WHITLEY, KM	**Telephone No.**	373-4929
SAF No.	X15-068	**Sampling Origin**	Hanford Site	**Purchase Order/Charge Code**	300205
Project Title	300 Area Uranium Sequestration Post Inj	**Logbook No.**	HNF-N-506 81/51	**Ice Chest No.**	GWS-498
Shipped To (Lab)	TestAmerica St. Louis	**Method of Shipment**	Commercial Carrier	**Bill of Lading/Air Bill No.**	7751 1329 6583
Protocol	CERCLA	**Priority:**	**30 Days** **PRIORITY**	**Offsite Property No.**	N/A

POSSIBLE SAMPLE HAZARDS/REMARKS

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

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

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B338W4	N	W	DEC 02 2015	1105	1x500-mL G/P	6020_METALS_ICPMS: Uranium (1); 6010_METALS_ICP: GW 04	6 Months	HNO3 to pH <2
B338W4	N	W	↓	↓	1x500-mL G/P	310.1_ALKALINITY: GW 01	14 Days	Cool <=6C
B338W3	Y	W	DEC 02 2015	1105	1x500-mL G/P	6020_METALS_ICPMS: Uranium (1); 6010_METALS_ICP: GW 04	6 Months	HNO3 to pH <2

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
S.W. King/CHPRC			DEC 02 2015 1150	F.M. Hall/CHPRC			DEC 02 2015 1150
F.M. Hall/CHPRC			DEC 02 2015 1255	SSU-1			DEC 02 2015 1255
SSU-1			DEC 03 2015 1020	M.A. White CHPRC			DEC 03 2015 1020
M.A. White CHPRC			DEC 03 2015 1400	FEDEX			

Matrix *

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

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

PRINTED ON 9/30/2015 FSR ID = FSR7338 A-6004-842 (REV 2)

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST (continued)

C.O.C. No. X15-068-073

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Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
		FED EX		Jill Clarke	J.Clarke	12.4.15	0915
Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time

A-6003-962 (03/05)

CH2MHill Plateau Remediation Company SL2042

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **X15-068-059**

Collector	J.R. Aguilar/CHPRC	**Contact/Requester**	WHITLEY, KM	**Telephone No.**	373-4929
SAF No.	X15-068	**Sampling Origin**	Hanford Site	**Purchase Order/Charge Code**	300205
Project Title	300 Area Uranium Sequestration Post Inj	**Logbook No.**	HNF-N-506 80 / 45	**Ice Chest No.**	CWS-498
Shipped To (Lab)	TestAmerica St. Louis	**Method of Shipment**	Commercial Carrier	**Bill of Lading/Air Bill No.**	7751 1329 6583
Protocol	CERCLA	**Priority:**	**30 Days** **PRIORITY**	**Offsite Property No.**	N/A

POSSIBLE SAMPLE HAZARDS/REMARKS

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

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

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B338Y4	N	W	12-2-15	1026	1x500-mL G/P	6020_METALS_ICPMS: Uranium (1); 6010_METALS_ICP: GW 04	6 Months	HNO3 to pH <2
B338Y4	N	W	12-2-15	1026	1x500-mL G/P	310.1_ALKALINITY: GW 01	14 Days	Cool <=6C
B338Y3	Y	W	12-2-15	1026	1x500-mL G/P	6020_METALS_ICPMS: Uranium (1); 6010_METALS_ICP: GW 04	6 Months	HNO3 to pH <2

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
J.R. Aguilar/CHPRC			DEC 0 2 2015 1200	F.M. Hall/CHPRC			DEC 0 2 2015 1200
F.M. Hall/CHPRC			DEC 0 2 2015 1255	SSU-1			DEC 0 2 2015 1255
SSU-1			DEC 0 3 2015 1020	M.A. White CHPRC			DEC 0 3 2015 1020
M.A. White CHPRC			DEC 0 3 2015 1400	FEDEX			

Matrix *

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

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

PRINTED ON 9/30/2015 FSR ID = FSR7343 A-6004-842 (REV 2)

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST (continued)

C.O.C. No. X15-068-059

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Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
		FED EX			Jill Clarke	Jill Clarke	12.4.15 0915
Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time

A-6003-962 (03/05)

CH2MHill Plateau Remediation Company SL2042

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **X15-068-067**

Collector	S.W. King/CHPRC	**Contact/Requester**	WHITLEY, KM	**Telephone No.**	373-4929
SAF No.	X15-068	**Sampling Origin**	Hanford Site	**Purchase Order/Charge Code**	300205
Project Title	300 Area Uranium Sequestration Post Inj	**Logbook No.**	HNF-N-506 81 / 51	**Ice Chest No.**	GWS-498
Shipped To (Lab)	TestAmerica St. Louis	**Method of Shipment**	Commercial Carrier	**Bill of Lading/Air Bill No.**	775113296583
Protocol	CERCLA	**Priority:**	**30 Days** **PRIORITY**	**Offsite Property No.**	N/A

POSSIBLE SAMPLE HAZARDS/REMARKS

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

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

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B338X6	N	W	DEC 02 2015	1222	1x500-mL G/P	6020_METALS_ICPMS: Uranium (1); 6010_METALS_ICP: GW 04	6 Months	HNO3 to pH <2
B338X6	N	W	↓	↓	1x500-mL G/P	310.1_ALKALINITY: GW 01	14 Days	Cool <=6C
B338X5	Y	W	DEC 02 2015	1222	1x500-mL G/P	6020_METALS_ICPMS: Uranium (1); 6010_METALS_ICP: GW 04	6 Months	HNO3 to pH <2

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
S.W. King/CHPRC			DEC 02 2015 1457	SSU-1			DEC 02 2015 1457
SSU-1			DEC 03 2015 1020	M.A. White CHPRC			DEC 03 2015 1020
M.A. White CHPRC			DEC 03 2015 1400	FEDEX			
			FED EX	Jill Clarke			12.4.15 0915

Matrix *

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

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

PRINTED ON 9/30/2015 **FSR ID = FSR7341** A-6004-842 (REV 2)

CH2MHill Plateau Remediation Company SL2042

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **X15-068-069**

Collector	J.R. Aguilar/CHPRC	**Contact/Requester**	WHITLEY, KM	**Telephone No.**	373-4929
SAF No.	X15-068	**Sampling Origin**	Hanford Site	**Purchase Order/Charge Code**	300205
Project Title	300 Area Uranium Sequestration Post Inj	**Logbook No.**	HNF-N-506 80 / 45	**Ice Chest No.**	GWS-498
Shipped To (Lab)	TestAmerica St. Louis	**Method of Shipment**	Commercial Carrier	**Bill of Lading/Air Bill No.**	775113296583
Protocol	CERCLA	**Priority:**	**30 Days** **PRIORITY**	**Offsite Property No.**	N/A

POSSIBLE SAMPLE HAZARDS/REMARKS

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

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

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B338Y8	N	W	12-2-15	1052	1x500-mL G/P	6020_METALS_ICPMS: Uranium (1); 6010_METALS_ICP: GW 04	6 Months	HNO3 to pH <2
B338Y8	N	W	12-2-15	1052	1x500-mL G/P	310.1_ALKALINITY: GW 01	14 Days	Cool <=6C
B338Y7	Y	W	12-2-15	1052	1x500-mL G/P	6020_METALS_ICPMS: Uranium (1); 6010_METALS_ICP: GW 04	6 Months	HNO3 to pH <2

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
J.R. Aguilar/CHPRC			DEC 0 2 2015 1200	F.M. Hall/CHPRC			DEC 0 2 2015 1200
F.M. Hall/CHPRC			DEC 0 2 2015 1255	SSU-1			DEC 0 2 2015 1255
SSU-1			DEC 0 3 2015 1020	M.A. White CHPRC			DEC 0 3 2015 1020
M.A. White CHPRC			DEC 0 3 2015 1400	FEDEX			

Matrix *

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

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

PRINTED ON 9/30/2015 **FSR ID = FSR7344** A-6004-842 (REV 2)

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST (continued)

C.O.C. No. X15-068-069

Page 2 of 2

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
		FED EX		Jill Clark	Jill Clarke	12.4.15	0915
Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
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Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time

A-6003-962 (03/05)

CH2MHill Plateau Remediation Company SL2042

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **X15-068-079**

Collector	S.W. King/CHPRC	**Contact/Requester**	WHITLEY, KM	**Telephone No.**	373-4929
SAF No.	X15-068	**Sampling Origin**	Hanford Site	**Purchase Order/Charge Code**	300205
Project Title	300 Area Uranium Sequestration Post Inj	**Logbook No.**	HNF-N-506 81 / 51	**Ice Chest No.**	CWS-498
Shipped To (Lab)	TestAmerica St. Louis	**Method of Shipment**	Commercial Carrier	**Bill of Lading/Air Bill No.**	775113296583
Protocol	CERCLA	**Priority:**	**30 Days** **PRIORITY**	**Offsite Property No.**	N/A

POSSIBLE SAMPLE HAZARDS/REMARKS

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

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

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B338V9	Y	W	DEC 02 2015	1018	1x500-mL G/P	6020_METALS_ICPMS: Uranium (1); 6010_METALS_ICP: GW 04	6 Months	HNO3 to pH <2
B338W0	N	W	↓	↓	1x500-mL G/P	6020_METALS_ICPMS: Uranium (1); 6010_METALS_ICP: GW 04	6 Months	HNO3 to pH <2
B338W0	N	W	DEC 02 2015	1018	1x500-mL G/P	310.1_ALKALINITY: GW 01	14 Days	Cool <=6C

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
S.W. King/CHPRC			DEC 02 2015 1150	F.M. Hall/CHPRC			DEC 02 2015 1150
F.M. Hall/CHPRC			DEC 02 2015 1255	SSU-1			DEC 02 2015 1255
SSU-1			DEC 03 2015 1020	M.A. White CHPRC			DEC 03 2015 1020
M.A. White CHPRC			DEC 03 2015 1400	FEDEX			

Matrix *

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

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

PRINTED ON 9/30/2015 FSR ID = FSR7337 A-6004-842 (REV 2)

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST (continued)

C.O.C. No. X15-068-079

Page 2 of 2

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
		FED EX		Jill Clarke	J. Il Clarke		12.4.15 0915
Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time

A-6003-962 (03/05)

CH2MHill Plateau Remediation Company SL2042

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **X15-068-058**

Collector	S.W. King/CHPRC	**Contact/Requester**	WHITLEY, KM	**Telephone No.**	373-4929
SAF No.	X15-068	**Sampling Origin**	Hanford Site	**Purchase Order/Charge Code**	300205
Project Title	300 Area Uranium Sequestration Post Inj	**Logbook No.**	HNF-N-506 81 / 51	**Ice Chest No.**	GWS-498
Shipped To (Lab)	TestAmerica St. Louis	**Method of Shipment**	Commercial Carrier	**Bill of Lading/Air Bill No.**	775113296583
Protocol	CERCLA	**Priority:**	**30 Days** **PRIORITY**	**Offsite Property No.**	N/A

POSSIBLE SAMPLE HAZARDS/REMARKS

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

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

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B33910	N	W	DEC 02 2015	1358	1x500-mL G/P	6020_METALS_ICPMS: Uranium (1); 6010_METALS_ICP: GW 04	6 Months	HNO3 to pH <2
B33910	N	W	↓	↓	1x500-mL G/P	310.1_ALKALINITY: GW 01	14 Days	Cool <=6C
B33909	Y	W	DEC 02 2015	1358	1x500-mL G/P	6020_METALS_ICPMS: Uranium (1); 6010_METALS_ICP: GW 04	6 Months	HNO3 to pH <2

Relinquished By	Print / Sign	Date/Time	Received By	Print / Sign	Date/Time
S.W. King/CHPRC		DEC 02 2015/1450	SSU-1		DEC 02 2015/1450
SSU-1		DEC 03 2015/1020	M.A. White CHPRC		DEC 03 2015/1020
M.A. White CHPRC		DEC 03 2015/1400	FEDEX		
		FED EX	Jill Clarke	Jill Clarke	12.4.15 0915

Matrix *

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

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

PRINTED ON 9/30/2015 **FSR ID = FSR7347** A-6004-842 (REV 2)

FedEx ® Tracking

775113296583

Ship date
Thu 12/03/2015

RICHLAND, WA US

Delivered
Signed for by: R.CASTELLO

Actual delivery:
Fri 12/04/2015 9:09 am

EARTH CITY, MO US

Travel History

Date/Time	Activity	Location
- 12/04/2015 - Friday		
9:09 am	Delivered	EARTH CITY, MO
7:17 am	On FedEx vehicle for delivery	EARTH CITY, MO
7:10 am	At local FedEx facility	EARTH CITY, MO
5:38 am	At destination sort facility	BERKELEY, MO
4:55 am	Departed FedEx location	MEMPHIS, TN
12:47 am	Arrived at FedEx location	MEMPHIS, TN
- 12/03/2015 - Thursday		
5:09 pm	Left FedEx origin facility	PASCO, WA
3:25 pm	Picked up	PASCO, WA
1:06 pm	Shipment information sent to FedEx	

Shipment Facts

Tracking number	775113296583	**Service**	FedEx Priority Overnight
Weight	82 lbs / 37.19 kgs	**Delivered To**	Shipping/Receiving
Total pieces	1	**Total shipment weight**	82 lbs / 37.19 kgs
Shipper reference	gws-498	**Packaging**	Your Packaging
Special handling section	Deliver Weekday, Additional Handling Surcharge		

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Qualifiers

Metals

Qualifier	Qualifier Description
D	The reported value is from a dilution.
B	Estimated result. Result is less than the RL, but greater than MDL
U	Analyzed for but not detected.

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, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Method Summary

Client: CH2M Hill Plateau Remediation Company
Project/Site: X15-068

TestAmerica Job ID: 160-15216-1
SDG: SL2042

Method	Method Description	Protocol	Laboratory
6020A	Metals (ICP/MS)	SW846	TAL SL
310.1	Alkalinity	MCAWW	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: X15-068

TestAmerica Job ID: 160-15216-1
SDG: SL2042

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
160-15216-1	B338R5	Water	12/02/15 13:07	12/04/15 09:15
160-15216-2	B338R6	Water	12/02/15 13:07	12/04/15 09:15
160-15216-3	B338R9	Water	12/02/15 13:31	12/04/15 09:15
160-15216-4	B338T0	Water	12/02/15 13:31	12/04/15 09:15
160-15216-5	B338W4	Water	12/02/15 11:05	12/04/15 09:15
160-15216-6	B338W3	Water	12/02/15 11:05	12/04/15 09:15
160-15216-7	B338Y4	Water	12/02/15 10:26	12/04/15 09:15
160-15216-8	B338Y3	Water	12/02/15 10:26	12/04/15 09:15
160-15216-9	B338X6	Water	12/02/15 12:22	12/04/15 09:15
160-15216-10	B338X5	Water	12/02/15 12:22	12/04/15 09:15
160-15216-11	B338Y8	Water	12/02/15 10:52	12/04/15 09:15
160-15216-12	B338Y7	Water	12/02/15 10:52	12/04/15 09:15
160-15216-13	B338V9	Water	12/02/15 10:18	12/04/15 09:15
160-15216-14	B338W0	Water	12/02/15 10:18	12/04/15 09:15
160-15216-15	B33910	Water	12/02/15 13:58	12/04/15 09:15
160-15216-16	B33909	Water	12/02/15 13:58	12/04/15 09:15

Client Sample Results

Client: CH2M Hill Plateau Remediation Company
Project/Site: X15-068

TestAmerica Job ID: 160-15216-1
SDG: SL2042

Method: 6020A - Metals (ICP/MS)

Client Sample ID: B338R6 — **Lab Sample ID: 160-15216-2**
Date Collected: 12/02/15 13:07 — **Matrix: Water**
Date Received: 12/04/15 09:15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Uranium	25.9		1.0	0.23	ug/L		12/11/15 11:56	12/17/15 18:35	2
Sodium	30900		50.0	23.7	ug/L		12/11/15 11:56	01/13/16 15:42	2
Potassium	6240		100	41.6	ug/L		12/11/15 11:56	01/13/16 15:42	2
Calcium	57100		100	68.1	ug/L		12/11/15 11:56	01/13/16 15:42	2
Magnesium	15000		50.0	5.6	ug/L		12/11/15 11:56	01/13/16 15:42	2

Client Sample ID: B338T0 — **Lab Sample ID: 160-15216-4**
Date Collected: 12/02/15 13:31 — **Matrix: Water**
Date Received: 12/04/15 09:15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Uranium	56.9		1.0	0.23	ug/L		12/11/15 11:56	12/17/15 18:43	2
Sodium	28200		50.0	23.7	ug/L		12/11/15 11:56	01/13/16 15:51	2
Potassium	5870		100	41.6	ug/L		12/11/15 11:56	01/13/16 15:51	2
Calcium	58000		100	68.1	ug/L		12/11/15 11:56	01/13/16 15:51	2
Magnesium	14700		50.0	5.6	ug/L		12/11/15 11:56	01/13/16 15:51	2

Client Sample ID: B338W4 — **Lab Sample ID: 160-15216-5**
Date Collected: 12/02/15 11:05 — **Matrix: Water**
Date Received: 12/04/15 09:15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Uranium	2.5		1.0	0.23	ug/L		12/11/15 11:56	12/17/15 18:48	2
Sodium	724000	D	500	237	ug/L		12/11/15 11:56	01/13/16 15:55	20
Potassium	94600	D	1000	416	ug/L		12/11/15 11:56	01/13/16 15:55	20
Calcium	28100	D	1000	681	ug/L		12/11/15 11:56	01/13/16 15:55	20
Magnesium	19100	D	500	55.9	ug/L		12/11/15 11:56	01/13/16 15:55	20

Client Sample ID: B338Y4 — **Lab Sample ID: 160-15216-7**
Date Collected: 12/02/15 10:26 — **Matrix: Water**
Date Received: 12/04/15 09:15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Uranium	0.90	B	1.0	0.23	ug/L		12/11/15 11:56	12/17/15 19:09	2
Sodium	366000	D	250	119	ug/L		12/11/15 11:56	01/13/16 16:17	10
Potassium	7580	D	500	208	ug/L		12/11/15 11:56	01/13/16 16:17	10
Calcium	44800	D	500	341	ug/L		12/11/15 11:56	01/13/16 16:17	10
Magnesium	15800	D	250	28.0	ug/L		12/11/15 11:56	01/13/16 16:17	10

Client Sample ID: B338X6 — **Lab Sample ID: 160-15216-9**
Date Collected: 12/02/15 12:22 — **Matrix: Water**
Date Received: 12/04/15 09:15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Uranium	126		1.0	0.23	ug/L		12/11/15 11:56	12/17/15 19:18	2
Sodium	196000	D	125	59.3	ug/L		12/11/15 11:56	01/13/16 16:26	5
Potassium	8530	D	250	104	ug/L		12/11/15 11:56	01/13/16 16:26	5
Calcium	40100	D	250	170	ug/L		12/11/15 11:56	01/13/16 16:26	5
Magnesium	12700	D	125	14.0	ug/L		12/11/15 11:56	01/13/16 16:26	5

Client Sample Results

Client: CH2M Hill Plateau Remediation Company
Project/Site: X15-068

TestAmerica Job ID: 160-15216-1
SDG: SL2042

Method: 6020A - Metals (ICP/MS)

Client Sample ID: B338Y8 — **Lab Sample ID: 160-15216-11**
Date Collected: 12/02/15 10:52 — **Matrix: Water**
Date Received: 12/04/15 09:15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Uranium	7.4		1.0	0.23	ug/L		12/11/15 11:56	12/17/15 19:26	2
Sodium	114000	D	125	59.3	ug/L		12/11/15 11:56	01/13/16 16:34	5
Potassium	8130	D	250	104	ug/L		12/11/15 11:56	01/13/16 16:34	5
Calcium	77000	D	250	170	ug/L		12/11/15 11:56	01/13/16 16:34	5
Magnesium	22300	D	125	14.0	ug/L		12/11/15 11:56	01/13/16 16:34	5

Client Sample ID: B338W0 — **Lab Sample ID: 160-15216-14**
Date Collected: 12/02/15 10:18 — **Matrix: Water**
Date Received: 12/04/15 09:15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Uranium	7.6		1.0	0.23	ug/L		12/11/15 11:56	12/17/15 19:39	2
Sodium	203000	D	125	59.3	ug/L		12/11/15 11:56	01/13/16 16:47	5
Potassium	56200	D	250	104	ug/L		12/11/15 11:56	01/13/16 16:47	5
Calcium	45000	D	250	170	ug/L		12/11/15 11:56	01/13/16 16:47	5
Magnesium	16400	D	125	14.0	ug/L		12/11/15 11:56	01/13/16 16:47	5

Client Sample ID: B33910 — **Lab Sample ID: 160-15216-15**
Date Collected: 12/02/15 13:58 — **Matrix: Water**
Date Received: 12/04/15 09:15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Uranium	8.5		1.0	0.23	ug/L		12/11/15 11:56	12/17/15 19:43	2
Sodium	885000	D	500	237	ug/L		12/11/15 11:56	01/13/16 16:51	20
Potassium	164000	D	1000	416	ug/L		12/11/15 11:56	01/13/16 16:51	20
Calcium	18600	D	1000	681	ug/L		12/11/15 11:56	01/13/16 16:51	20
Magnesium	19900	D	500	55.9	ug/L		12/11/15 11:56	01/13/16 16:51	20

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

Client Sample ID: B338R5 — **Lab Sample ID: 160-15216-1**
Date Collected: 12/02/15 13:07 — **Matrix: Water**
Date Received: 12/04/15 09:15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Uranium	21.4		1.0	0.23	ug/L		12/11/15 11:56	12/17/15 18:18	2
Sodium	25700		50.0	23.7	ug/L		12/11/15 11:56	01/13/16 15:26	2
Potassium	5090		100	41.6	ug/L		12/11/15 11:56	01/13/16 15:26	2
Calcium	47300		100	68.1	ug/L		12/11/15 11:56	01/13/16 15:26	2
Magnesium	12500		50.0	5.6	ug/L		12/11/15 11:56	01/13/16 15:26	2

Client Sample ID: B338R9 — **Lab Sample ID: 160-15216-3**
Date Collected: 12/02/15 13:31 — **Matrix: Water**
Date Received: 12/04/15 09:15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Uranium	55.2		1.0	0.23	ug/L		12/11/15 11:56	12/17/15 18:39	2
Sodium	29200		50.0	23.7	ug/L		12/11/15 11:56	01/13/16 15:47	2
Potassium	6170		100	41.6	ug/L		12/11/15 11:56	01/13/16 15:47	2
Calcium	59400		100	68.1	ug/L		12/11/15 11:56	01/13/16 15:47	2
Magnesium	15100		50.0	5.6	ug/L		12/11/15 11:56	01/13/16 15:47	2

Client Sample Results

Client: CH2M Hill Plateau Remediation Company
Project/Site: X15-068

TestAmerica Job ID: 160-15216-1
SDG: SL2042

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

Client Sample ID: B338W3 — **Lab Sample ID: 160-15216-6**
Date Collected: 12/02/15 11:05 — **Matrix: Water**
Date Received: 12/04/15 09:15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Uranium	2.4		1.0	0.23	ug/L		12/11/15 11:56	12/17/15 19:05	2
Sodium	711000	D	500	237	ug/L		12/11/15 11:56	01/13/16 16:13	20
Potassium	92600	D	1000	416	ug/L		12/11/15 11:56	01/13/16 16:13	20
Calcium	27500	D	1000	681	ug/L		12/11/15 11:56	01/13/16 16:13	20
Magnesium	18800	D	500	55.9	ug/L		12/11/15 11:56	01/13/16 16:13	20

Client Sample ID: B338Y3 — **Lab Sample ID: 160-15216-8**
Date Collected: 12/02/15 10:26 — **Matrix: Water**
Date Received: 12/04/15 09:15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Uranium	0.85	B	1.0	0.23	ug/L		12/11/15 11:56	12/17/15 19:13	2
Sodium	362000	D	250	119	ug/L		12/11/15 11:56	01/13/16 16:21	10
Potassium	7590	D	500	208	ug/L		12/11/15 11:56	01/13/16 16:21	10
Calcium	43900	D	500	341	ug/L		12/11/15 11:56	01/13/16 16:21	10
Magnesium	15600	D	250	28.0	ug/L		12/11/15 11:56	01/13/16 16:21	10

Client Sample ID: B338X5 — **Lab Sample ID: 160-15216-10**
Date Collected: 12/02/15 12:22 — **Matrix: Water**
Date Received: 12/04/15 09:15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Uranium	130		1.0	0.23	ug/L		12/11/15 11:56	12/17/15 19:22	2
Sodium	198000	D	125	59.3	ug/L		12/11/15 11:56	01/13/16 16:30	5
Potassium	8490	D	250	104	ug/L		12/11/15 11:56	01/13/16 16:30	5
Calcium	40000	D	250	170	ug/L		12/11/15 11:56	01/13/16 16:30	5
Magnesium	12600	D	125	14.0	ug/L		12/11/15 11:56	01/13/16 16:30	5

Client Sample ID: B338Y7 — **Lab Sample ID: 160-15216-12**
Date Collected: 12/02/15 10:52 — **Matrix: Water**
Date Received: 12/04/15 09:15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Uranium	7.0		1.0	0.23	ug/L		12/11/15 11:56	12/17/15 19:31	2
Sodium	110000	D	125	59.3	ug/L		12/11/15 11:56	01/13/16 16:39	5
Potassium	7780	D	250	104	ug/L		12/11/15 11:56	01/13/16 16:39	5
Calcium	74000	D	250	170	ug/L		12/11/15 11:56	01/13/16 16:39	5
Magnesium	21400	D	125	14.0	ug/L		12/11/15 11:56	01/13/16 16:39	5

Client Sample ID: B338V9 — **Lab Sample ID: 160-15216-13**
Date Collected: 12/02/15 10:18 — **Matrix: Water**
Date Received: 12/04/15 09:15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Uranium	7.9		1.0	0.23	ug/L		12/11/15 11:56	12/17/15 19:35	2
Sodium	205000	D	125	59.3	ug/L		12/11/15 11:56	01/13/16 16:43	5
Potassium	56300	D	250	104	ug/L		12/11/15 11:56	01/13/16 16:43	5
Calcium	44400	D	250	170	ug/L		12/11/15 11:56	01/13/16 16:43	5
Magnesium	15900	D	125	14.0	ug/L		12/11/15 11:56	01/13/16 16:43	5

Client Sample ID: B33909 — **Lab Sample ID: 160-15216-16**
Date Collected: 12/02/15 13:58 — **Matrix: Water**
Date Received: 12/04/15 09:15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Uranium	11.9		1.0	0.23	ug/L		12/11/15 11:56	12/17/15 20:01	2

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

Client Sample ID: B33909 — **Lab Sample ID: 160-15216-16**
Date Collected: 12/02/15 13:58 — **Matrix: Water**
Date Received: 12/04/15 09:15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	892000	D	500	237	ug/L		12/11/15 11:56	01/13/16 17:09	20
Potassium	162000	D	1000	416	ug/L		12/11/15 11:56	01/13/16 17:09	20
Calcium	20600	D	1000	681	ug/L		12/11/15 11:56	01/13/16 17:09	20
Magnesium	20400	D	500	55.9	ug/L		12/11/15 11:56	01/13/16 17:09	20

General Chemistry

Client Sample ID: B338R6 — **Lab Sample ID: 160-15216-2**
Date Collected: 12/02/15 13:07 — **Matrix: Water**
Date Received: 12/04/15 09:15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	140		5.0	0.54	mg/L			12/09/15 11:50	1
Bicarbonate Alkalinity as CaCO3	140		5.0	0.54	mg/L			12/09/15 11:50	1
Carbonate Alkalinity as CaCO3	0.54	U	5.0	0.54	mg/L			12/09/15 11:50	1
Hydroxide Alkalinity	0.54	U	5.0	0.54	mg/L			12/09/15 11:50	1

Client Sample ID: B338T0 — **Lab Sample ID: 160-15216-4**
Date Collected: 12/02/15 13:31 — **Matrix: Water**
Date Received: 12/04/15 09:15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	128		5.0	0.54	mg/L			12/09/15 11:50	1
Bicarbonate Alkalinity as CaCO3	128		5.0	0.54	mg/L			12/09/15 11:50	1
Carbonate Alkalinity as CaCO3	0.54	U	5.0	0.54	mg/L			12/09/15 11:50	1
Hydroxide Alkalinity	0.54	U	5.0	0.54	mg/L			12/09/15 11:50	1

Client Sample ID: B338W4 — **Lab Sample ID: 160-15216-5**
Date Collected: 12/02/15 11:05 — **Matrix: Water**
Date Received: 12/04/15 09:15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	528		5.0	0.54	mg/L			12/09/15 11:50	1
Bicarbonate Alkalinity as CaCO3	528		5.0	0.54	mg/L			12/09/15 11:50	1
Carbonate Alkalinity as CaCO3	0.54	U	5.0	0.54	mg/L			12/09/15 11:50	1
Hydroxide Alkalinity	0.54	U	5.0	0.54	mg/L			12/09/15 11:50	1

Client Sample ID: B338Y4 — **Lab Sample ID: 160-15216-7**
Date Collected: 12/02/15 10:26 — **Matrix: Water**
Date Received: 12/04/15 09:15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	310		5.0	0.54	mg/L			12/09/15 11:50	1
Bicarbonate Alkalinity as CaCO3	310		5.0	0.54	mg/L			12/09/15 11:50	1
Carbonate Alkalinity as CaCO3	0.54	U	5.0	0.54	mg/L			12/09/15 11:50	1
Hydroxide Alkalinity	0.54	U	5.0	0.54	mg/L			12/09/15 11:50	1

Client Sample ID: B338X6 — **Lab Sample ID: 160-15216-9**
Date Collected: 12/02/15 12:22 — **Matrix: Water**
Date Received: 12/04/15 09:15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	190		5.0	0.54	mg/L			12/09/15 11:50	1
Bicarbonate Alkalinity as CaCO3	190		5.0	0.54	mg/L			12/09/15 11:50	1
Carbonate Alkalinity as CaCO3	0.54	U	5.0	0.54	mg/L			12/09/15 11:50	1
Hydroxide Alkalinity	0.54	U	5.0	0.54	mg/L			12/09/15 11:50	1

Client Sample Results

Client: CH2M Hill Plateau Remediation Company
Project/Site: X15-068

TestAmerica Job ID: 160-15216-1
SDG: SL2042

Client Sample ID: B338Y8
Date Collected: 12/02/15 10:52
Date Received: 12/04/15 09:15

Lab Sample ID: 160-15216-11
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	**198**		5.0	0.54	mg/L			12/09/15 11:50	1
Bicarbonate Alkalinity as CaCO3	**198**		5.0	0.54	mg/L			12/09/15 11:50	1
Carbonate Alkalinity as CaCO3	0.54	U	5.0	0.54	mg/L			12/09/15 11:50	1
Hydroxide Alkalinity	0.54	U	5.0	0.54	mg/L			12/09/15 11:50	1

Client Sample ID: B338W0
Date Collected: 12/02/15 10:18
Date Received: 12/04/15 09:15

Lab Sample ID: 160-15216-14
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	**224**		5.0	0.54	mg/L			12/09/15 11:50	1
Bicarbonate Alkalinity as CaCO3	**224**		5.0	0.54	mg/L			12/09/15 11:50	1
Carbonate Alkalinity as CaCO3	0.54	U	5.0	0.54	mg/L			12/09/15 11:50	1
Hydroxide Alkalinity	0.54	U	5.0	0.54	mg/L			12/09/15 11:50	1

Client Sample ID: B33910
Date Collected: 12/02/15 13:58
Date Received: 12/04/15 09:15

Lab Sample ID: 160-15216-15
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	**694**		5.0	0.54	mg/L			12/09/15 11:50	1
Bicarbonate Alkalinity as CaCO3	**694**		5.0	0.54	mg/L			12/09/15 11:50	1
Carbonate Alkalinity as CaCO3	0.54	U	5.0	0.54	mg/L			12/09/15 11:50	1
Hydroxide Alkalinity	0.54	U	5.0	0.54	mg/L			12/09/15 11:50	1

QC Sample Results

Client: CH2M Hill Plateau Remediation Company
Project/Site: X15-068

TestAmerica Job ID: 160-15216-1
SDG: SL2042

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 160-226833/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 228227 — **Prep Batch: 226833**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Uranium	0.23	U	1.0	0.23	ug/L		12/11/15 11:56	12/17/15 18:10	2

Lab Sample ID: MB 160-226833/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 232299 — **Prep Batch: 226833**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	33.06	B	50.0	23.7	ug/L		12/11/15 11:56	01/13/16 15:17	2
Potassium	41.6	U	100	41.6	ug/L		12/11/15 11:56	01/13/16 15:17	2
Calcium	68.1	U	100	68.1	ug/L		12/11/15 11:56	01/13/16 15:17	2
Magnesium	5.6	U	50.0	5.6	ug/L		12/11/15 11:56	01/13/16 15:17	2

Lab Sample ID: LCS 160-226833/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 228227 — **Prep Batch: 226833**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Uranium	1000	1038		ug/L		104	80 - 120

Lab Sample ID: LCS 160-226833/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 232299 — **Prep Batch: 226833**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sodium	10000	9764		ug/L		98	80 - 120
Potassium	10000	9603		ug/L		96	80 - 120
Calcium	10000	10330		ug/L		103	80 - 120
Magnesium	10000	9842		ug/L		98	80 - 120

Lab Sample ID: 160-15216-1 MS — **Client Sample ID: B338R5**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 228227 — **Prep Batch: 226833**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Uranium	21.4		1000	1051		ug/L		103	75 - 125

Lab Sample ID: 160-15216-1 MS — **Client Sample ID: B338R5**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 232299 — **Prep Batch: 226833**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sodium	25700		10000	34110		ug/L		84	75 - 125
Potassium	5090		10000	14270		ug/L		92	75 - 125
Calcium	47300		10000	56930		ug/L		97	75 - 125
Magnesium	12500		10000	21220		ug/L		87	75 - 125

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

Lab Sample ID: 160-15216-1 MSD — **Client Sample ID: B338R5**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 228227 — **Prep Batch: 226833**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Uranium	21.4		1000	1061		ug/L		104	75 - 125	1	20

Lab Sample ID: 160-15216-1 MSD — **Client Sample ID: B338R5**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 232299 — **Prep Batch: 226833**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sodium	25700		10000	34180		ug/L		85	75 - 125	0	20
Potassium	5090		10000	14470		ug/L		94	75 - 125	1	20
Calcium	47300		10000	57070		ug/L		98	75 - 125	0	20
Magnesium	12500		10000	21280		ug/L		88	75 - 125	0	20

Method: 310.1 - Alkalinity

Lab Sample ID: MB 160-226160/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 226160

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	0.54	U	5.0	0.54	mg/L			12/09/15 11:50	1
Bicarbonate Alkalinity as CaCO3	0.54	U	5.0	0.54	mg/L			12/09/15 11:50	1
Carbonate Alkalinity as CaCO3	0.54	U	5.0	0.54	mg/L			12/09/15 11:50	1
Hydroxide Alkalinity	0.54	U	5.0	0.54	mg/L			12/09/15 11:50	1

Lab Sample ID: HLCS 160-226160/3 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 226160

Analyte	Spike Added	HLCS Result	HLCS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity	400	376.0		mg/L		94	90 - 110
Bicarbonate Alkalinity as CaCO3	400	376.0		mg/L		94	90 - 110

Lab Sample ID: LCS 160-226160/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 226160

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity	200	189.0		mg/L		94	90 - 110
Bicarbonate Alkalinity as CaCO3	200	189.0		mg/L		94	90 - 110

Lab Sample ID: 160-15216-2 MS — **Client Sample ID: B338R6**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 226160

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity	140		100	233.0		mg/L		93	80 - 120
Bicarbonate Alkalinity as CaCO3	140		100	233.0		mg/L		93	80 - 120

Method: 310.1 - Alkalinity (Continued)

Lab Sample ID: 160-15216-2 DU
Matrix: Water
Analysis Batch: 226160

Client Sample ID: B338R6
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Alkalinity	140			140.0		mg/L				0	20
Bicarbonate Alkalinity as CaCO3	140			140.0		mg/L				0	20
Carbonate Alkalinity as CaCO3	0.54	U		0.54	U	mg/L				NC	20
Hydroxide Alkalinity	0.54	U		0.54	U	mg/L				NC	20

QC Association Summary

Client: CH2M Hill Plateau Remediation Company
Project/Site: X15-068

TestAmerica Job ID: 160-15216-1
SDG: SL2042

Metals

Prep Batch: 226833

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-15216-1	B338R5	Dissolved	Water	3010A	
160-15216-1 MS	B338R5	Dissolved	Water	3010A	
160-15216-1 MSD	B338R5	Dissolved	Water	3010A	
160-15216-2	B338R6	Total/NA	Water	3010A	
160-15216-3	B338R9	Dissolved	Water	3010A	
160-15216-4	B338T0	Total/NA	Water	3010A	
160-15216-5	B338W4	Total/NA	Water	3010A	
160-15216-6	B338W3	Dissolved	Water	3010A	
160-15216-7	B338Y4	Total/NA	Water	3010A	
160-15216-8	B338Y3	Dissolved	Water	3010A	
160-15216-9	B338X6	Total/NA	Water	3010A	
160-15216-10	B338X5	Dissolved	Water	3010A	
160-15216-11	B338Y8	Total/NA	Water	3010A	
160-15216-12	B338Y7	Dissolved	Water	3010A	
160-15216-13	B338V9	Dissolved	Water	3010A	
160-15216-14	B338W0	Total/NA	Water	3010A	
160-15216-15	B33910	Total/NA	Water	3010A	
160-15216-16	B33909	Dissolved	Water	3010A	
LCS 160-226833/2-A	Lab Control Sample	Total/NA	Water	3010A	
MB 160-226833/1-A	Method Blank	Total/NA	Water	3010A	

Analysis Batch: 228227

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-15216-1	B338R5	Dissolved	Water	6020A	226833
160-15216-1 MS	B338R5	Dissolved	Water	6020A	226833
160-15216-1 MSD	B338R5	Dissolved	Water	6020A	226833
160-15216-2	B338R6	Total/NA	Water	6020A	226833
160-15216-3	B338R9	Dissolved	Water	6020A	226833
160-15216-4	B338T0	Total/NA	Water	6020A	226833
160-15216-5	B338W4	Total/NA	Water	6020A	226833
160-15216-6	B338W3	Dissolved	Water	6020A	226833
160-15216-7	B338Y4	Total/NA	Water	6020A	226833
160-15216-8	B338Y3	Dissolved	Water	6020A	226833
160-15216-9	B338X6	Total/NA	Water	6020A	226833
160-15216-10	B338X5	Dissolved	Water	6020A	226833
160-15216-11	B338Y8	Total/NA	Water	6020A	226833
160-15216-12	B338Y7	Dissolved	Water	6020A	226833
160-15216-13	B338V9	Dissolved	Water	6020A	226833
160-15216-14	B338W0	Total/NA	Water	6020A	226833
160-15216-15	B33910	Total/NA	Water	6020A	226833
160-15216-16	B33909	Dissolved	Water	6020A	226833
LCS 160-226833/2-A	Lab Control Sample	Total/NA	Water	6020A	226833
MB 160-226833/1-A	Method Blank	Total/NA	Water	6020A	226833

Analysis Batch: 232299

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-15216-1	B338R5	Dissolved	Water	6020A	226833
160-15216-1 MS	B338R5	Dissolved	Water	6020A	226833
160-15216-1 MSD	B338R5	Dissolved	Water	6020A	226833
160-15216-2	B338R6	Total/NA	Water	6020A	226833
160-15216-3	B338R9	Dissolved	Water	6020A	226833

QC Association Summary

Client: CH2M Hill Plateau Remediation Company
Project/Site: X15-068

TestAmerica Job ID: 160-15216-1
SDG: SL2042

Metals (Continued)

Analysis Batch: 232299 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-15216-4	B338T0	Total/NA	Water	6020A	226833
160-15216-5	B338W4	Total/NA	Water	6020A	226833
160-15216-6	B338W3	Dissolved	Water	6020A	226833
160-15216-7	B338Y4	Total/NA	Water	6020A	226833
160-15216-8	B338Y3	Dissolved	Water	6020A	226833
160-15216-9	B338X6	Total/NA	Water	6020A	226833
160-15216-10	B338X5	Dissolved	Water	6020A	226833
160-15216-11	B338Y8	Total/NA	Water	6020A	226833
160-15216-12	B338Y7	Dissolved	Water	6020A	226833
160-15216-13	B338V9	Dissolved	Water	6020A	226833
160-15216-14	B338W0	Total/NA	Water	6020A	226833
160-15216-15	B33910	Total/NA	Water	6020A	226833
160-15216-16	B33909	Dissolved	Water	6020A	226833
LCS 160-226833/2-A	Lab Control Sample	Total/NA	Water	6020A	226833
MB 160-226833/1-A	Method Blank	Total/NA	Water	6020A	226833

General Chemistry

Analysis Batch: 226160

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-15216-2	B338R6	Total/NA	Water	310.1	
160-15216-2 DU	B338R6	Total/NA	Water	310.1	
160-15216-2 MS	B338R6	Total/NA	Water	310.1	
160-15216-4	B338T0	Total/NA	Water	310.1	
160-15216-5	B338W4	Total/NA	Water	310.1	
160-15216-7	B338Y4	Total/NA	Water	310.1	
160-15216-9	B338X6	Total/NA	Water	310.1	
160-15216-11	B338Y8	Total/NA	Water	310.1	
160-15216-14	B338W0	Total/NA	Water	310.1	
160-15216-15	B33910	Total/NA	Water	310.1	
HLCS 160-226160/3	Lab Control Sample	Total/NA	Water	310.1	
LCS 160-226160/2	Lab Control Sample	Total/NA	Water	310.1	
MB 160-226160/1	Method Blank	Total/NA	Water	310.1	