TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Richland
2800 George Washington Way
Richland, WA 99352
Tel: (509)375-3131

TestAmerica Job ID: 300-9038-1
TestAmerica Sample Delivery Group: RL9038-1
Client Project/Site: I19-006

For:
CH2M Hill Plateau Remediation Company
825 Jadwin Avenue
Richland, Washington 99352

Attn: CPP Sample Management

Ashley L Worthy

Authorized for release by:
12/19/2018 9:50:34 AM

Ashley Worthy, Project Manager I
(509)375-3131
ashley.worthy@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

I certify that this Certificate of Analysis is in compliance with the SOW, both technically and for completeness, for other than the conditions detailed in this package. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager, or a desingee as verified by the attached signature.

The laboratory is accredited to EPA 7196A in Solid and Chemical Materials, per Washington State Department of Ecology this is approved for non-discharge water samples.

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Definitions/Glossary

Client: CH2M Hill Plateau Remediation Company
Project/Site: I19-006

TestAmerica Job ID: 300-9038-1
SDG: RL9038-1

Qualifiers

HPLC/IC

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

Glossary

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

Case Narrative

Client: CH2M Hill Plateau Remediation Company
Project/Site: I19-006

TestAmerica Job ID: 300-9038-1
SDG: RL9038-1

Job ID: 300-9038-1

Laboratory: TestAmerica Richland

Narrative

Job Narrative
300-9038-1

Comments
No additional comments.

Receipt
The samples were received on 12/17/2018 11:05 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 12.3º C.

HPLC/IC
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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Dec. 19, 2018
RL9038-1
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CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # I19-006-162 Page 1 of 1

Collector: Daniel Klug CHPRC	**Contact/Requester:** Karen Waters-Husted	**Telephone No.:** 509-376-4650
SAF No.: I19-006	**Sampling Origin:** Hanford Site	**Purchase Order/Charge Code:** 300071
Project Title: AEA, DECEMBER 2018	**Logbook No.:** HNF-N-506 104/53	**Ice Chest No.:** N/A
Shipped To (Lab): TestAmerica Incorporated, Rich	**Method of Shipment:** GOVERNMENT VEHICLE	**Bill of Lading/Air Bill No.:** N/A
Protocol: SURV	**Priority:** 15 Days PRIORITY	**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
B3M8K9	N	W	DEC 17 2018	0931	1x125-mL P	300.0_ANIONS_IC: COMMON	48 Hours	Cool <=6C

9038

300-9038 COC

Relinquished By:	Received By:	Matrix *
Daniel Klug CHPRC — D. Klug — DEC 17 2018 1105	Charlette Bryant — TAPE — DEC 17 2018 11:05	S = Soil, SE = Sediment, SO = Solid, SL = Sludge, W = Water, O = Oil, A = Air, DS = Drum Solids, DL = Drum Liquids, T = Tissue, WI = Wipe, L = Liquid, V = Vegetation, X = Other
Relinquished By:	Received By:	
Relinquished By:	Received By:	
Relinquished By:	Received By:	

(Print First and Last Name / Signature / Date/Time)

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

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # I19-006-163 Page 1 of 1

Collector: Daniel Klug CHPRC	**Contact/Requester:** Karen Waters-Husted	**Telephone No.:** 509-376-4650
SAF No.: I19-006	**Sampling Origin:** Hanford Site	**Purchase Order/Charge Code:** 300071
Project Title: AEA, DECEMBER 2018	**Logbook No.:** HNF-N-506 104/53	**Ice Chest No.:** N/A
Shipped To (Lab): TestAmerica Incorporated, Rich	**Method of Shipment:** GOVERNMENT VEHICLE	**Bill of Lading/Air Bill No.:** N/A
Protocol: SURV	**Priority:** 15 Days PRIORITY	**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
B3M8L2	N		DEC 17 2018	1012	1x125-mL P	300.0_ANIONS_IC: COMMON	48 Hours	Cool <=6C

9038

Relinquished By: Daniel Klug CHPRC	D. Klug	DEC 17 2018 1105	Received By: Charlotte Burghard CBTARL	DEC 17 2018 1105	Matrix *
Print First and Last Name	*Signature*	*Date/Time*	*Print First and Last Name*	*Signature*	*Date/Time*
Relinquished By:			Received By:		
Print First and Last Name	*Signature*	*Date/Time*	*Print First and Last Name*	*Signature*	*Date/Time*
Relinquished By:			Received By:		
Print First and Last Name	*Signature*	*Date/Time*	*Print First and Last Name*	*Signature*	*Date/Time*
Relinquished By:			Received By:		
Print First and Last Name	*Signature*	*Date/Time*	*Print First and Last Name*	*Signature*	*Date/Time*

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

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

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # I19-006-164 Page 1 of 1

Collector: Daniel Klug CHPRC	**Contact/Requester:** Karen Waters-Husted	**Telephone No.:** 509-376-4650
SAF No.: I19-006	**Sampling Origin:** Hanford Site	**Purchase Order/Charge Code:** 300071
Project Title: AEA, DECEMBER 2018	**Logbook No.:** HNF-N-506 104/53	**Ice Chest No.:** N/A
Shipped To (Lab): TestAmerica Incorporated, Rich	**Method of Shipment:** GOVERNMENT VEHICLE	**Bill of Lading/Air Bill No.:** N/A
Protocol: SURV	**Priority:** 15 Days PRIORITY	**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
B3M8L4	N		DEC 17 2018	1040	1x125-mL P	300.0_ANIONS_IC: COMMON	48 Hours	Cool <=6C

9038

Relinquished By: Daniel Klug CHPRC	Signature	Date/Time	Received By: Charlotte Burghaze CB TAKL	Signature	Date/Time
	D. Klug	DEC 17 2018 1105			DEC 17 2018 1105
Relinquished By:			Received By:		
Print First and Last Name	Signature	Date/Time	Print First and Last Name	Signature	Date/Time
Relinquished By:			Received By:		
Print First and Last Name	Signature	Date/Time	Print First and Last Name	Signature	Date/Time
Relinquished By:			Received By:		
Print First and Last Name	Signature	Date/Time	Print First and Last Name	Signature	Date/Time

Matrix *

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

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

Detection Summary

Client: CH2M Hill Plateau Remediation Company
Project/Site: I19-006

TestAmerica Job ID: 300-9038-1
SDG: RL9038-1

Client Sample ID: B3M8K9 — Lab Sample ID: 300-9038-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	34	D	0.40	0.20	mg/L	2		300.0	Total/NA
Nitrate as N	31	D	0.28	0.14	mg/L	10		300.0	Total/NA
Fluoride	0.12	D	0.10	0.050	mg/L	2		300.0	Total/NA
Sulfate	79	D	0.50	0.25	mg/L	2		300.0	Total/NA

Client Sample ID: B3M8L2 — Lab Sample ID: 300-9038-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	26	D	0.40	0.20	mg/L	2		300.0	Total/NA
Nitrate as N	2.8	D	0.056	0.028	mg/L	2		300.0	Total/NA
Fluoride	0.28	D	0.10	0.050	mg/L	2		300.0	Total/NA
Sulfate	34	D	0.50	0.25	mg/L	2		300.0	Total/NA

Client Sample ID: B3M8L4 — Lab Sample ID: 300-9038-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	20	D	0.40	0.20	mg/L	2		300.0	Total/NA
Nitrate as N	5.4	D	0.056	0.028	mg/L	2		300.0	Total/NA
Fluoride	0.29	D	0.10	0.050	mg/L	2		300.0	Total/NA
Sulfate	34	D	0.50	0.25	mg/L	2		300.0	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: CH2M Hill Plateau Remediation Company
Project/Site: I19-006

TestAmerica Job ID: 300-9038-1
SDG: RL9038-1

Client Sample ID: B3M8K9

Lab Sample ID: 300-9038-1
Matrix: Water
Date Collected: 12/17/18 09:31
Date Received: 12/17/18 11:05

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	34	D	0.40	0.20	mg/L			12/17/18 17:59	2
Nitrate as N	31	D	0.28	0.14	mg/L			12/18/18 00:40	10
Fluoride	0.12	D	0.10	0.050	mg/L			12/17/18 17:59	2
Nitrite as N	0.038	U D	0.076	0.038	mg/L			12/17/18 17:59	2
Sulfate	79	D	0.50	0.25	mg/L			12/17/18 17:59	2

Client Sample ID: B3M8L2

Lab Sample ID: 300-9038-2
Matrix: Water
Date Collected: 12/17/18 10:12
Date Received: 12/17/18 11:05

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	26	D	0.40	0.20	mg/L			12/17/18 18:15	2
Nitrate as N	2.8	D	0.056	0.028	mg/L			12/17/18 18:15	2
Fluoride	0.28	D	0.10	0.050	mg/L			12/17/18 18:15	2
Nitrite as N	0.038	U D	0.076	0.038	mg/L			12/17/18 18:15	2
Sulfate	34	D	0.50	0.25	mg/L			12/17/18 18:15	2

Client Sample ID: B3M8L4

Lab Sample ID: 300-9038-3
Matrix: Water
Date Collected: 12/17/18 10:40
Date Received: 12/17/18 11:05

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	20	D	0.40	0.20	mg/L			12/17/18 19:19	2
Nitrate as N	5.4	D	0.056	0.028	mg/L			12/17/18 19:19	2
Fluoride	0.29	D	0.10	0.050	mg/L			12/17/18 19:19	2
Nitrite as N	0.038	U D	0.076	0.038	mg/L			12/17/18 19:19	2
Sulfate	34	D	0.50	0.25	mg/L			12/17/18 19:19	2

QC Sample Results

Client: CH2M Hill Plateau Remediation Company
Project/Site: I19-006

TestAmerica Job ID: 300-9038-1
SDG: RL9038-1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 300-16712/5
Matrix: Water
Analysis Batch: 16712

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.014	U	0.028	0.014	mg/L			12/17/18 13:19	1
Nitrite as N	0.019	U	0.038	0.019	mg/L			12/17/18 13:19	1

Lab Sample ID: LCS 300-16712/6
Matrix: Water
Analysis Batch: 16712

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	2.26	2.12		mg/L		94	80 - 120
Nitrite as N	3.04	2.97		mg/L		98	80 - 120

Lab Sample ID: 300-9046-A-1 MS
Matrix: Water
Analysis Batch: 16712

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	0.43	D	0.452	0.850	D	mg/L		92	75 - 125
Nitrite as N	0.038	U D	0.609	0.488	D	mg/L		80	75 - 125

Lab Sample ID: 300-9046-A-1 DU
Matrix: Water
Analysis Batch: 16712

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Nitrate as N	0.43	D	0.428	D	mg/L		2	20
Nitrite as N	0.038	U D	0.038	U D	mg/L		NC	20

Lab Sample ID: MB 300-16713/5
Matrix: Water
Analysis Batch: 16713

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.10	U	0.20	0.10	mg/L			12/17/18 13:19	1
Fluoride	0.025	U	0.050	0.025	mg/L			12/17/18 13:19	1
Sulfate	0.13	U	0.25	0.13	mg/L			12/17/18 13:19	1

Lab Sample ID: LCS 300-16713/6
Matrix: Water
Analysis Batch: 16713

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	16.0	15.3		mg/L		96	80 - 120
Fluoride	4.00	3.80		mg/L		95	80 - 120
Sulfate	20.0	18.9		mg/L		95	80 - 120

QC Sample Results

Client: CH2M Hill Plateau Remediation Company
Project/Site: I19-006

TestAmerica Job ID: 300-9038-1
SDG: RL9038-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 300-9046-A-1 MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 16713

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	24	D	3.20	26.5	D	mg/L		84	75 - 125
Fluoride	0.52	D	0.800	1.27	D	mg/L		93	75 - 125

Lab Sample ID: 300-9046-A-1 MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 16713

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	100	D	10.0	111	D	mg/L		97	75 - 125

Lab Sample ID: 300-9046-A-1 DU — **Client Sample ID: Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 16713

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Chloride	24	D	23.5	D	mg/L		2	20
Fluoride	0.52	D	0.514	D	mg/L		1	20

Lab Sample ID: 300-9046-A-1 DU — **Client Sample ID: Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 16713

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Sulfate	100	D	101	D	mg/L		0.3	20

QC Association Summary

Client: CH2M Hill Plateau Remediation Company
Project/Site: I19-006

TestAmerica Job ID: 300-9038-1
SDG: RL9038-1

HPLC/IC

Analysis Batch: 16712

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
300-9038-1	B3M8K9	Total/NA	Water	300.0	
300-9038-1	B3M8K9	Total/NA	Water	300.0	
300-9038-2	B3M8L2	Total/NA	Water	300.0	
300-9038-3	B3M8L4	Total/NA	Water	300.0	
MB 300-16712/5	Method Blank	Total/NA	Water	300.0	
LCS 300-16712/6	Lab Control Sample	Total/NA	Water	300.0	
300-9046-A-1 MS	Matrix Spike	Total/NA	Water	300.0	
300-9046-A-1 DU	Duplicate	Total/NA	Water	300.0	

Analysis Batch: 16713

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
300-9038-1	B3M8K9	Total/NA	Water	300.0	
300-9038-2	B3M8L2	Total/NA	Water	300.0	
300-9038-3	B3M8L4	Total/NA	Water	300.0	
MB 300-16713/5	Method Blank	Total/NA	Water	300.0	
LCS 300-16713/6	Lab Control Sample	Total/NA	Water	300.0	
300-9046-A-1 MS	Matrix Spike	Total/NA	Water	300.0	
300-9046-A-1 MS	Matrix Spike	Total/NA	Water	300.0	
300-9046-A-1 DU	Duplicate	Total/NA	Water	300.0	
300-9046-A-1 DU	Duplicate	Total/NA	Water	300.0	

Lab Chronicle

Client: CH2M Hill Plateau Remediation Company
Project/Site: I19-006

TestAmerica Job ID: 300-9038-1
SDG: RL9038-1

Client Sample ID: B3M8K9 — Lab Sample ID: 300-9038-1

Date Collected: 12/17/18 09:31 — **Matrix: Water**
Date Received: 12/17/18 11:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		2			16712	12/17/18 17:59	RTQ	TAL RCH
Total/NA	Analysis	300.0		2			16713	12/17/18 17:59	RTQ	TAL RCH
Total/NA	Analysis	300.0		10			16712	12/18/18 00:40	RTQ	TAL RCH

Client Sample ID: B3M8L2 — Lab Sample ID: 300-9038-2

Date Collected: 12/17/18 10:12 — **Matrix: Water**
Date Received: 12/17/18 11:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		2			16712	12/17/18 18:15	RTQ	TAL RCH
Total/NA	Analysis	300.0		2			16713	12/17/18 18:15	RTQ	TAL RCH

Client Sample ID: B3M8L4 — Lab Sample ID: 300-9038-3

Date Collected: 12/17/18 10:40 — **Matrix: Water**
Date Received: 12/17/18 11:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		2			16712	12/17/18 19:19	RTQ	TAL RCH
Total/NA	Analysis	300.0		2			16713	12/17/18 19:19	RTQ	TAL RCH

Client Sample ID: Method Blank — Lab Sample ID: MB 300-16712/5

Date Collected: N/A — **Matrix: Water**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1			16712	12/17/18 13:19	RTQ	TAL RCH

Client Sample ID: Method Blank — Lab Sample ID: MB 300-16713/5

Date Collected: N/A — **Matrix: Water**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1			16713	12/17/18 13:19	RTQ	TAL RCH

Client Sample ID: Lab Control Sample — Lab Sample ID: LCS 300-16712/6

Date Collected: N/A — **Matrix: Water**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1			16712	12/17/18 13:35	RTQ	TAL RCH

Lab Chronicle

Client: CH2M Hill Plateau Remediation Company
Project/Site: I19-006

TestAmerica Job ID: 300-9038-1
SDG: RL9038-1

Client Sample ID: Lab Control Sample

Lab Sample ID: LCS 300-16713/6

Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1			16713	12/17/18 13:35	RTQ	TAL RCH

Client Sample ID: Matrix Spike

Lab Sample ID: 300-9046-A-1 MS

Date Collected: 12/17/18 09:54
Matrix: Water
Date Received: 12/17/18 12:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		2			16712	12/17/18 16:39	RTQ	TAL RCH
Total/NA	Analysis	300.0		2			16713	12/17/18 16:39	RTQ	TAL RCH
Total/NA	Analysis	300.0		5			16713	12/17/18 23:20	RTQ	TAL RCH

Client Sample ID: Duplicate

Lab Sample ID: 300-9046-A-1 DU

Date Collected: 12/17/18 09:54
Matrix: Water
Date Received: 12/17/18 12:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		2			16712	12/17/18 16:55	RTQ	TAL RCH
Total/NA	Analysis	300.0		2			16713	12/17/18 16:55	RTQ	TAL RCH
Total/NA	Analysis	300.0		5			16713	12/17/18 23:36	RTQ	TAL RCH

Laboratory References:

TAL RCH = TestAmerica Richland, 2800 George Washington Way, Richland, WA 99352, TEL (509)375-3131

Method Summary

Client: CH2M Hill Plateau Remediation Company
Project/Site: I19-006

TestAmerica Job ID: 300-9038-1
SDG: RL9038-1

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	MCAWW	TAL RCH

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

Laboratory References:

TAL RCH = TestAmerica Richland, 2800 George Washington Way, Richland, WA 99352, TEL (509)375-3131

Sample Summary

Client: CH2M Hill Plateau Remediation Company
Project/Site: I19-006

TestAmerica Job ID: 300-9038-1
SDG: RL9038-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
300-9038-1	B3M8K9	Water	12/17/18 09:31	12/17/18 11:05
300-9038-2	B3M8L2	Water	12/17/18 10:12	12/17/18 11:05
300-9038-3	B3M8L4	Water	12/17/18 10:40	12/17/18 11:05

Login Sample Receipt Checklist

Client: CH2M Hill Plateau Remediation Company

Job Number: 300-9038-1
SDG Number: RL9038-1

Login Number: 9038
List Number: 1
Creator: Burghard, Charlette JA

List Source: TestAmerica Richland

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.	N/A	
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.	False	Received same day of collection; chilling process has begun.
Cooler Temperature is recorded.	True	
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.	N/A	
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.	N/A	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	