

# 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: 300-7021-1  
TestAmerica Sample Delivery Group: WC2827  
Client Project/Site: W18-004

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

Attn: CPP Sample Management



Authorized for release by:  
5/11/2018 12:55:37 PM

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

### LINKS

Review your project results through  
**TotalAccess**

Have a Question?



Visit us at:  
[www.testamericainc.com](http://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 designee 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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Client: CH2M Hill Plateau Remediation Company  
Project/Site: W18-004

TestAmerica Job ID: 300-7021-1  
SDG: WC2827

## Qualifiers

### HPLC/IC

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

### Biology

Qualifier	Qualifier Description
U	Analyzed for but not detected.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	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)

Client: CH2M Hill Plateau Remediation Company  
Project/Site: W18-004

TestAmerica Job ID: 300-7021-1  
SDG: WC2827

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**Job ID: 300-7021-1**

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**Laboratory: TestAmerica Richland**

**Narrative**

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**Job Narrative  
300-7021-1**

**Comments**

No additional comments.

**Receipt**

The samples were received on 4/12/2018 12:00 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 5.5° C.

**HPLC/IC**

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

**Biology**

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

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CH2MH11 Plateau  
Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. #  
W18-004-205  
Page 1 of 1

Collector: **Larry Roseme** / **AC/PRC** Contact/Requester: Karen Waters-Husted Telephone No.: 509-376-4650

SAF No.: W18-004 Sampling Origin: Hanford Site Purchase Order/Charge Code: 300071

Project Title: RCRA WAC, APRIL 2018 Logbook No.: HNF-N-506 **97/83** 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: 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
B3HRJ7	N	W	4-12-18	0905	1x500-mL P	9223_COLLIFORM: COMMON	6 Hours	Na2S2O3 / COOL <=6C

05/11/2018

7021  
W182827



300-7021 COC

Relinquished By: <b>Larry Roseme</b> Signature: <i>Larry Roseme</i> Date/Time: APR 12 2018 1110	Received By: <b>Troy Bacon</b> Signature: <i>Troy L. Bacon</i> Date/Time: APR 12 2018 1110	<p>Matrix *</p> <p>S = Soil DS = Drum Solids</p> <p>SE = Sediment DL = Drum Liquid</p> <p>SO = Solid T = Tissue</p> <p>SL = Sludge WI = Wipe</p> <p>W = Water L = Liquid</p> <p>O = Oil V = Vegetation</p> <p>A = Air X = Other</p>
Relinquished By: <b>Troy Bacon</b> Signature: <i>Troy L. Bacon</i> Date/Time: APR 12 2018 1202	Received By: <b>B. Jorgenson</b> Signature: <i>B. Jorgenson</i> Date/Time: 4-12-18/1200	
Relinquished By: _____ Signature: _____ Date/Time: _____	Received By: _____ Signature: _____ Date/Time: _____	
Relinquished By: _____ Signature: _____ Date/Time: _____	Received By: _____ Signature: _____ Date/Time: _____	
Relinquished By: _____ Signature: _____ Date/Time: _____	Received By: _____ 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.#  
W18-004-206  
Page 1 of 1

**Collector:** Larry Rosane / CH2M Hill  
**SAF No.:** W18-004  
**Project Title:** RCRA\_WAC, APRIL 2018  
**Shipped To (Lab):** TestAmerica Incorporated, Rich  
**Protocol:** RCRA  
**Contact/Requester:** Karen Waters-Husted  
**Sampling Origin:** Hanford Site  
**Logbook No.:** HNF-N-506 97/03  
**Method of Shipment:** GOVERNMENT VEHICLE  
**Priority:** 30 Days  
**Telephone No.:** 509-376-4650  
**Purchase Order/Charge Code:** 300071  
**Ice Chest No.:** N/A  
**Bill of Lading/Air Bill No.:** N/A  
**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
B3HRK2	N	W	4-12-18	1040	1x500-mL P	9223_COLLIFORM: COMMON	6 Hours	Na2S2O3 / Cool <=6C

05/11/2018  
7021  
W02827

**Relinquished By:** *Stanley Rosane* APR 12 2018 1110  
**Received By:** *Toy Bacon* APR 12 2018 1110  
**Relinquished By:** *Toy Bacon* APR 12 2018 1200  
**Received By:** *B. JOrgenson* APR 12 2018 4:12:15 PM  
**Relinquished By:** \_\_\_\_\_  
**Received By:** \_\_\_\_\_  
**Relinquished By:** \_\_\_\_\_  
**Received By:** \_\_\_\_\_

**FINAL SAMPLE DISPOSITION** Disposal Method (e.g., Return to customer, per lab procedure, used in process): \_\_\_\_\_  
 Disposed By: \_\_\_\_\_ 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

CH2MHill Plateau  
Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C.#  
W18-004-318  
Page 1 of 1

Collector: **Larry Roseane** CH2MHill Contact/Requester: Karen Waters-Husted Telephone No.: 509-376-4650

SAF No.: W18-004 Sampling Origin: Hanford Site Purchase Order/Charge Code: 300071

Project Title: RCRA\_WAC, APRIL 2018 Logbook No.: HNF-N-506 **97/93** 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: 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
B3HRJ8	N	W	4-12-18	0905	1x125-mL P	300.0_ANTIONS_IC: COMMON	48 Hours	COOL <=6C

05/11/2018

7021  
W021827

Relinquished By: **Larry Roseane** CH2MHill Signature: *[Signature]* Date/Time: APR 12 2018 1110  
Received By: **Troy Bacon** CH2MHill Signature: *[Signature]* Date/Time: APR 12 2018 1110

Relinquished By: **Troy Bacon** CH2MHill Signature: *[Signature]* Date/Time: APR 12 2018 1200  
Received By: **B. Jorgenson** CH2MHill Signature: *[Signature]* Date/Time: 4-12-18/1200

Relinquished By: \_\_\_\_\_ Signature: \_\_\_\_\_ Date/Time: \_\_\_\_\_  
Received By: \_\_\_\_\_ Signature: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Relinquished By: \_\_\_\_\_ Signature: \_\_\_\_\_ Date/Time: \_\_\_\_\_  
Received By: \_\_\_\_\_ Signature: \_\_\_\_\_ Date/Time: \_\_\_\_\_

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

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

**Collector:** LARRY ROSENA  
K232RAC

**Contact/Requester:** Karen Waters-Husted

**Telephone No.:** 509-376-4650

**SAF No.:** W18-004

**Sampling Origin:** Hanford Site

**Purchase Order/Charge Code:** 300071

**Project Title:** RCRA\_WAC, APRIL 2018

**Logbook No.:** HNF-N-506 97/85

**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:** 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
B3HRK3	N	W	4-12-18	1040	1x125-mL P	300.0_ANIONS_IC: COMMON	48 Hours	COOL <=6C

05/11/2018

7021  
W182827

Relinquished By: LARRY ROSENA  
K232RAC  
Signature: Larry Rosena Date/Time: APR 12 2018 1116

Received By: Troy Bacon  
CHPRC  
Signature: Troy Bacon Date/Time: APR 12 2018 1116

Relinquished By: Troy Bacon  
CHPRC  
Signature: Troy Bacon Date/Time: APR 12 2018 1200

Received By: B. Jorgenson  
TARL  
Signature: B. Jorgenson Date/Time: 4/12/18 1200

Relinquished By: \_\_\_\_\_  
Signature: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Received By: \_\_\_\_\_  
Signature: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Relinquished By: \_\_\_\_\_  
Signature: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Received By: \_\_\_\_\_  
Signature: \_\_\_\_\_ Date/Time: \_\_\_\_\_

**FINAL SAMPLE DISPOSITION**

Disposal Method (e.g., Return to customer, per lab procedure, used in process): \_\_\_\_\_

Disposed By: \_\_\_\_\_ Date/Time: \_\_\_\_\_

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

Client: CH2M Hill Plateau Remediation Company  
 Project/Site: W18-004

TestAmerica Job ID: 300-7021-1  
 SDG: WC2827

**Client Sample ID: B3HRJ7**

**Lab Sample ID: 300-7021-1**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Coliform, Total	2420		1.00	1.00	MPN/100mL	1		SM 9223B	Total/NA

**Client Sample ID: B3HRK2**

**Lab Sample ID: 300-7021-2**

No Detections.

**Client Sample ID: B3HRJ8**

**Lab Sample ID: 300-7021-3**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	4.7	D	0.40	0.20	mg/L	2		300.0	Total/NA
Nitrate as N	1.1	D	0.056	0.028	mg/L	2		300.0	Total/NA
Fluoride	0.47	D	0.10	0.050	mg/L	2		300.0	Total/NA
Nitrite as N	0.049	B D	0.076	0.038	mg/L	2		300.0	Total/NA
Sulfate	20	D	0.50	0.25	mg/L	2		300.0	Total/NA

**Client Sample ID: B3HRK3**

**Lab Sample ID: 300-7021-4**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	14	D	0.40	0.20	mg/L	2		300.0	Total/NA
Nitrate as N	2.2	D	0.056	0.028	mg/L	2		300.0	Total/NA
Fluoride	0.43	D	0.10	0.050	mg/L	2		300.0	Total/NA
Nitrite as N	0.055	B D	0.076	0.038	mg/L	2		300.0	Total/NA
Sulfate	50	D	0.50	0.25	mg/L	2		300.0	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Richland

Client: CH2M Hill Plateau Remediation Company  
Project/Site: W18-004

TestAmerica Job ID: 300-7021-1  
SDG: WC2827

**Client Sample ID: B3HRJ7**

**Lab Sample ID: 300-7021-1**

Date Collected: 04/12/18 09:05

Matrix: Water

Date Received: 04/12/18 12:00

**Method: SM 9223B - Coliforms, Total, and E.Coli (Colilert - Quanti Tray)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Coliform, Total	2420		1.00	1.00	MPN/100mL			04/12/18 12:45	1

**Client Sample ID: B3HRK2**

**Lab Sample ID: 300-7021-2**

Date Collected: 04/12/18 10:40

Matrix: Water

Date Received: 04/12/18 12:00

**Method: SM 9223B - Coliforms, Total, and E.Coli (Colilert - Quanti Tray)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Coliform, Total	1.00	U	1.00	1.00	MPN/100mL			04/12/18 12:45	1

**Client Sample ID: B3HRJ8**

**Lab Sample ID: 300-7021-3**

Date Collected: 04/12/18 09:05

Matrix: Water

Date Received: 04/12/18 12:00

**Method: 300.0 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.7	D	0.40	0.20	mg/L			04/12/18 15:23	2
Nitrate as N	1.1	D	0.056	0.028	mg/L			04/12/18 15:23	2
Fluoride	0.47	D	0.10	0.050	mg/L			04/12/18 15:23	2
Nitrite as N	0.049	B D	0.076	0.038	mg/L			04/12/18 15:23	2
Sulfate	20	D	0.50	0.25	mg/L			04/12/18 15:23	2

**Client Sample ID: B3HRK3**

**Lab Sample ID: 300-7021-4**

Date Collected: 04/12/18 10:40

Matrix: Water

Date Received: 04/12/18 12:00

**Method: 300.0 - Anions, Ion Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	14	D	0.40	0.20	mg/L			04/12/18 16:12	2
Nitrate as N	2.2	D	0.056	0.028	mg/L			04/12/18 16:12	2
Fluoride	0.43	D	0.10	0.050	mg/L			04/12/18 16:12	2
Nitrite as N	0.055	B D	0.076	0.038	mg/L			04/12/18 16:12	2
Sulfate	50	D	0.50	0.25	mg/L			04/12/18 16:12	2

Client: CH2M Hill Plateau Remediation Company  
Project/Site: W18-004

TestAmerica Job ID: 300-7021-1  
SDG: WC2827

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: 300-6986-A-7 MB  
Matrix: Water  
Analysis Batch: 10967

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			04/12/18 12:10	1
Nitrite as N	0.019	U	0.038	0.019	mg/L			04/12/18 12:10	1

Lab Sample ID: MB 300-10967/5  
Matrix: Water  
Analysis Batch: 10967

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			04/12/18 10:33	1
Nitrite as N	0.019	U	0.038	0.019	mg/L			04/12/18 10:33	1

Lab Sample ID: LCS 300-10967/6  
Matrix: Water  
Analysis Batch: 10967

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	2.33		mg/L		103	80 - 120
Nitrite as N	3.04	3.13		mg/L		103	80 - 120

Lab Sample ID: 300-7021-3 MS  
Matrix: Water  
Analysis Batch: 10967

Client Sample ID: B3HRJ8  
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	1.1	D	0.452	1.57	D	mg/L		106	75 - 125
Nitrite as N	0.049	B D	0.609	0.543	D	mg/L		81	75 - 125

Lab Sample ID: 300-7021-3 DU  
Matrix: Water  
Analysis Batch: 10967

Client Sample ID: B3HRJ8  
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Nitrate as N	1.1	D	1.07	D	mg/L		2	20
Nitrite as N	0.049	B D	0.0485	B D	mg/L		0.4	20

Lab Sample ID: 300-6986-A-7 MB  
Matrix: Water  
Analysis Batch: 10968

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			04/12/18 12:10	1
Fluoride	0.025	U	0.050	0.025	mg/L			04/12/18 12:10	1
Sulfate	0.13	U	0.25	0.13	mg/L			04/12/18 12:10	1

Client: CH2M Hill Plateau Remediation Company  
Project/Site: W18-004

TestAmerica Job ID: 300-7021-1  
SDG: WC2827

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

Lab Sample ID: MB 300-10968/5  
Matrix: Water  
Analysis Batch: 10968

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			04/12/18 10:33	1
Fluoride	0.025	U	0.050	0.025	mg/L			04/12/18 10:33	1
Sulfate	0.13	U	0.25	0.13	mg/L			04/12/18 10:33	1

Lab Sample ID: LCS 300-10968/6  
Matrix: Water  
Analysis Batch: 10968

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	16.3		mg/L		102	80 - 120
Fluoride	4.00	4.07		mg/L		102	80 - 120
Sulfate	20.0	19.8		mg/L		99	80 - 120

Lab Sample ID: 300-7021-3 MS  
Matrix: Water  
Analysis Batch: 10968

Client Sample ID: B3HRJ8  
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	4.7	D	3.20	7.98	D	mg/L		101	75 - 125
Fluoride	0.47	D	0.800	1.25	D	mg/L		98	75 - 125
Sulfate	20	D	4.00	24.4	D	mg/L		99	75 - 125

Lab Sample ID: 300-7021-3 DU  
Matrix: Water  
Analysis Batch: 10968

Client Sample ID: B3HRJ8  
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Chloride	4.7	D	4.64	D	mg/L		2	20
Fluoride	0.47	D	0.447	D	mg/L		4	20
Sulfate	20	D	20.1	D	mg/L		2	20

**Method: SM 9223B - Coliforms, Total, and E.Coli (Colilert - Quanti Tray)**

Lab Sample ID: MB 300-11000/5  
Matrix: Water  
Analysis Batch: 11000

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Coliform, Total	1.00	U	1.00	1.00	MPN/100mL			04/12/18 12:45	1

Lab Sample ID: 300-7021-1 DU  
Matrix: Water  
Analysis Batch: 11000

Client Sample ID: B3HRJ7  
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Coliform, Total	2420		>2419.6		MPN/100mL		NC	30

Client: CH2M Hill Plateau Remediation Company  
Project/Site: W18-004

TestAmerica Job ID: 300-7021-1  
SDG: WC2827

**HPLC/IC**

**Analysis Batch: 10967**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
300-7021-3	B3HRJ8	Total/NA	Water	300.0	
300-7021-4	B3HRK3	Total/NA	Water	300.0	
300-6986-A-7 MB	Method Blank	Total/NA	Water	300.0	
MB 300-10967/5	Method Blank	Total/NA	Water	300.0	
LCS 300-10967/6	Lab Control Sample	Total/NA	Water	300.0	
300-7021-3 MS	B3HRJ8	Total/NA	Water	300.0	
300-7021-3 DU	B3HRJ8	Total/NA	Water	300.0	

**Analysis Batch: 10968**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
300-7021-3	B3HRJ8	Total/NA	Water	300.0	
300-7021-4	B3HRK3	Total/NA	Water	300.0	
300-6986-A-7 MB	Method Blank	Total/NA	Water	300.0	
MB 300-10968/5	Method Blank	Total/NA	Water	300.0	
LCS 300-10968/6	Lab Control Sample	Total/NA	Water	300.0	
300-7021-3 MS	B3HRJ8	Total/NA	Water	300.0	
300-7021-3 DU	B3HRJ8	Total/NA	Water	300.0	

**Biology**

**Analysis Batch: 11000**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
300-7021-1	B3HRJ7	Total/NA	Water	SM 9223B	
300-7021-2	B3HRK2	Total/NA	Water	SM 9223B	
MB 300-11000/5	Method Blank	Total/NA	Water	SM 9223B	
LCS 300-11000/1	Lab Control Sample	Total/NA	Water	SM 9223B	
300-7021-1 DU	B3HRJ7	Total/NA	Water	SM 9223B	

Client: CH2M Hill Plateau Remediation Company  
Project/Site: W18-004

TestAmerica Job ID: 300-7021-1  
SDG: WC2827

**Client Sample ID: B3HRJ7**  
Date Collected: 04/12/18 09:05  
Date Received: 04/12/18 12:00

**Lab Sample ID: 300-7021-1**  
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 9223B		1	100 mL	100 mL	11000	04/12/18 12:45	TRH	TAL RCH

**Client Sample ID: B3HRK2**  
Date Collected: 04/12/18 10:40  
Date Received: 04/12/18 12:00

**Lab Sample ID: 300-7021-2**  
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 9223B		1	100 mL	100 mL	11000	04/12/18 12:45	TRH	TAL RCH

**Client Sample ID: B3HRJ8**  
Date Collected: 04/12/18 09:05  
Date Received: 04/12/18 12:00

**Lab Sample ID: 300-7021-3**  
Matrix: Water

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			10967	04/12/18 15:23	RTQ	TAL RCH
Total/NA	Analysis	300.0		2			10968	04/12/18 15:23	RTQ	TAL RCH

**Client Sample ID: B3HRK3**  
Date Collected: 04/12/18 10:40  
Date Received: 04/12/18 12:00

**Lab Sample ID: 300-7021-4**  
Matrix: Water

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			10967	04/12/18 16:12	RTQ	TAL RCH
Total/NA	Analysis	300.0		2			10968	04/12/18 16:12	RTQ	TAL RCH

**Client Sample ID: Method Blank**  
Date Collected: 04/05/18 10:00  
Date Received: 04/06/18 10:52

**Lab Sample ID: 300-6986-A-7 MB**  
Matrix: Water

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			10967	04/12/18 12:10	RTQ	TAL RCH
Total/NA	Analysis	300.0		1			10968	04/12/18 12:10	RTQ	TAL RCH

**Client Sample ID: Method Blank**  
Date Collected: N/A  
Date Received: N/A

**Lab Sample ID: MB 300-10967/5**  
Matrix: Water

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			10967	04/12/18 10:33	RTQ	TAL RCH

Client: CH2M Hill Plateau Remediation Company  
Project/Site: W18-004

TestAmerica Job ID: 300-7021-1  
SDG: WC2827

**Client Sample ID: Method Blank**

**Lab Sample ID: MB 300-10968/5**

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			10968	04/12/18 10:33	RTQ	TAL RCH

**Client Sample ID: Method Blank**

**Lab Sample ID: MB 300-11000/5**

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	SM 9223B		1	100 mL	100 mL	11000	04/12/18 12:45	TRH	TAL RCH

**Client Sample ID: Lab Control Sample**

**Lab Sample ID: LCS 300-10967/6**

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			10967	04/12/18 10:49	RTQ	TAL RCH

**Client Sample ID: Lab Control Sample**

**Lab Sample ID: LCS 300-10968/6**

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			10968	04/12/18 10:49	RTQ	TAL RCH

**Client Sample ID: Lab Control Sample**

**Lab Sample ID: LCS 300-11000/1**

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	SM 9223B		1	100 mL	100 mL	11000	04/12/18 12:45	TRH	TAL RCH

**Client Sample ID: B3HRJ8**

**Lab Sample ID: 300-7021-3 MS**

Date Collected: 04/12/18 09:05

Matrix: Water

Date Received: 04/12/18 12:00

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			10967	04/12/18 15:39	RTQ	TAL RCH
Total/NA	Analysis	300.0		2			10968	04/12/18 15:39	RTQ	TAL RCH

Client: CH2M Hill Plateau Remediation Company  
Project/Site: W18-004

TestAmerica Job ID: 300-7021-1  
SDG: WC2827

**Client Sample ID: B3HRJ7**

**Lab Sample ID: 300-7021-1 DU**

Date Collected: 04/12/18 09:05

Matrix: Water

Date Received: 04/12/18 12:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 9223B		1	100 mL	100 mL	11000	04/12/18 12:45	TRH	TAL RCH

**Client Sample ID: B3HRJ8**

**Lab Sample ID: 300-7021-3 DU**

Date Collected: 04/12/18 09:05

Matrix: Water

Date Received: 04/12/18 12:00

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			10967	04/12/18 15:55	RTQ	TAL RCH
Total/NA	Analysis	300.0		2			10968	04/12/18 15:55	RTQ	TAL RCH

**Laboratory References:**

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

Client: CH2M Hill Plateau Remediation Company  
Project/Site: W18-004

TestAmerica Job ID: 300-7021-1  
SDG: WC2827

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	MCAWW	TAL RCH
SM 9223B	Coliforms, Total, and E.Coli (Colilert - Quanti Tray)	SM	TAL RCH

**Protocol References:**

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

SM = "Standard Methods For The Examination Of Water And Wastewater"

**Laboratory References:**

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



Client: CH2M Hill Plateau Remediation Company  
Project/Site: W18-004

TestAmerica Job ID: 300-7021-1  
SDG: WC2827

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
300-7021-1	B3HRJ7	Water	04/12/18 09:05	04/12/18 12:00
300-7021-2	B3HRK2	Water	04/12/18 10:40	04/12/18 12:00
300-7021-3	B3HRJ8	Water	04/12/18 09:05	04/12/18 12:00
300-7021-4	B3HRK3	Water	04/12/18 10:40	04/12/18 12:00

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13

## Login Sample Receipt Checklist

Client: CH2M Hill Plateau Remediation Company

Job Number: 300-7021-1

SDG Number: WC2827

Login Number: 7021

List Number: 1

Creator: Jorgenson, Briana F

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.	True	
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.	N/A	
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	