

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: 300-7048-1
TestAmerica Sample Delivery Group: WC2832
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:
5/16/2018 9:30:12 AM

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



LINKS

Review your project results through
TotalAccess

Have a Question?



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 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: 300-7048-1
 SDG: WC2832

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
D	The reported value is from a dilution.
B	Estimated result. Result is less than the RL, but greater than MDL
C	The analyte was detected in both the sample and the associated QC blank, and the sample concentration was <= 5X the blank concentration.
U	Analyzed for but not detected.

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: 300-7048-1
SDG: WC2832

Job ID: 300-7048-1

Laboratory: TestAmerica Richland

Narrative

**Job Narrative
300-7048-1**

Comments

No additional comments.

Receipt

The samples were received on 4/18/2018 12:45 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 4.2° C.

HPLC/IC

Method(s) 300.0: The method blank for 11043 contained Chloride above the method detection limit. This target analyte concentration was less than the reporting limit (RL) or 10x higher than the RL; therefore, re-extraction and/or re-analysis of samples was not performed.

Method(s) 300.0: The method blank for <11042> contained Nitrite as N above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

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

Biology

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



CH2MHill Plateau
Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C.#
W18-004-334
Page 1 of 1

REV. 0

Collector: Roger Friesz Jr.
CHPRC

SAF No.: W18-004

Project Title: RCRA_MAC, APRIL 2018

Shipped To (Lab): TestAmerica Incorporated, Rich

Protocol: RCRA

Contact/Requester: Karen Waters-Husted

Sampling Origin: Hanford Site

Logbook No.: HNF-N-506-97-55

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
B3HP1	N	W	4-18-18	0550	1x500-mL P	9223_COLIFORM: COMMON	6 Hours	Na2S2O3 / Cool <=6C

05/16/2018



300-7048 COC

Relinquished By: [Signature]
CHPRC

Print First and Last Name: Troy Bacon

Date/Time: APR 18 2018 1050

Received By: [Signature]
CHPRC

Print First and Last Name: Troy L. Bacon

Date/Time: APR 18 2018 1050

Relinquished By: [Signature]
CHPRC

Print First and Last Name: Troy Bacon

Date/Time: APR 18 2018 1125

Received By: [Signature]
CHPRC

Print First and Last Name: Troy Bacon

Date/Time: APR 18 2018 1125

Relinquished By: [Signature]
CHPRC

Print First and Last Name: Troy Bacon

Date/Time: APR 18 2018 1245

Received By: [Signature]
CHPRC

Print First and Last Name: Troy Bacon

Date/Time: APR 18 2018 1245

Relinquished By: [Signature]
CHPRC

Print First and Last Name: Troy Bacon

Date/Time: APR 18 2018 1245

Received By: [Signature]
CHPRC

Print First and Last Name: Troy Bacon

Date/Time: APR 18 2018 1245

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

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

Disposed By: [Signature]

Date/Time: [Signature]

**CH2MHILL Plateau
Remediation Company**

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. #
W18-004-259
Page 1 of 1

Collector: Juan Aguilar
RCRA_WAC

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 - 98174

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

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B3HVT5	N	W	4-18-18	1013	1x500-ml P	9223_COLIFORM: COMMON	6 Hours	Na2S2O3 / COOL <=6C

05/16/2018



Relinquished By: Juan Aguilar
Signature: [Signature] Date/Time: APR 18 2018 1040

Received By: Toy Bacon
Signature: [Signature] Date/Time: APR 18 2018 1040

Relinquished By: Toy Bacon
Signature: [Signature] Date/Time: APR 18 2018 1125

Received By: Juan Schaefer
Signature: [Signature] Date/Time: APR 18 2018 1125

Relinquished By: Juan Schaefer
Signature: [Signature] Date/Time: APR 18 2018 1245

Received By: Bryan Bengson, TAVL
Signature: [Signature] Date/Time: 4-18-18/1245

Relinquished By: [Signature] Date/Time: [Date/Time]

Received By: [Signature] Date/Time: [Date/Time]

Matrix *

S = Soil	DS = Drum Solids
SE = Sediment	DL = Drum Liquid
SO = Solid	T = Tissue
SL = Sludge	WL = 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: [Signature] Date/Time: [Date/Time]

Printed On: 3/6/2018 FSR ID = FSR58366 A-6004-842 (REV 3)



CH2MHill Plateau
Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C.#
W18-004-266
Page 1 of 1

Collector: Roger Friesz Jr. ICHBRC
Contact/Requester: Karen Waters-Husted

SAF No.: W18-004
Sampling Origin: Hanford Site

Project Title: RCRA_WAC, APRIL 2018
Logbook No.: HNF-N-506-47-55

Shipped To (Lab): TestAmerica Incorporated, Rich
Method of Shipment: GOVERNMENT VEHICLE

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
B3HVV3	N	W	4-18-18	1115	1x500-mL P	9223_COLLIFORM: COMMON	6 Hours	Na2S2O3 / Cool1 <=6C

05/16/2018



Relinquished By: Roger Friesz Jr. ICHBRC Signature: [Signature] Date/Time: APR 18 2018 1200	Received By: Ken Schaeffer ICHBRC Signature: [Signature] Date/Time: APR 18 2018 1200	<p>Matrix *</p> <p>S = Soil SE = Sediment SO = Solid SL = Sludge W = Water A = Air</p> <p>DS = Drum Solids DL = Drum Liquid T = Tissue WI = Wipe L = Liquid V = Vegetation X = Other</p>
Relinquished By: Ken Schaeffer ICHBRC Signature: [Signature] Date/Time: APR 18 2018 1245	Received By: B. Jorgenson, TARL Signature: [Signature] Date/Time: 4-18-18/1245	
Relinquished By: _____ Signature: _____ Date/Time: _____	Received By: _____ Signature: _____ Date/Time: _____	
Relinquished By: _____ Signature: _____ Date/Time: _____	Received By: _____ Signature: _____ Date/Time: _____	
<p>FINAL SAMPLE DISPOSITION</p> <p>Disposal Method (e.g., Return to customer, per lab procedure, used in process): _____</p>		Date/Time: _____

CH2MH11 Plateau
Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. #
W18-004-256
Page 1 of 1

Collector: *Juan Aguilar*
 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 - 98176
 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

Sample No.	Filter	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B3HV12	N	4-18-18	0813	1x500-ml P	9223 COLIFORM: COMMON	6 Hours	Na2SS203 / Cool <=6C

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Relinquished By: <i>Juan Aguilar</i> Print First and Last Name: <i>Juan Aguilar</i> Signature: <i>[Signature]</i> Date/Time: APR 18 2018 0845	Received By: <i>Troy Bacon</i> Print First and Last Name: <i>Troy L. Bacon</i> Signature: <i>[Signature]</i> Date/Time: APR 18 2018 0845	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
Relinquished By: <i>Troy Bacon</i> Print First and Last Name: <i>Troy L. Bacon</i> Signature: <i>[Signature]</i> Date/Time: APR 18 2018 1245	Received By: <i>Tari Magnusson</i> Print First and Last Name: <i>Tari Magnusson</i> Signature: <i>[Signature]</i> Date/Time: 4-18-18 11245	
Relinquished By: _____ Print First and Last Name: _____ Signature: _____ Date/Time: _____	Received By: _____ Print First and Last Name: _____ Signature: _____ Date/Time: _____	
Relinquished By: _____ Print First and Last Name: _____ Signature: _____ Date/Time: _____	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: _____

CH2MH11 Plateau
Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. #
W18-004-157
Page 1 of 1

Collector: Roger Frazee Jr. / CHRRC
 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-506-97-85
 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
B3HPT3	N	W	4-18-14	0850	1x125-mL P	300.0_ANTIONS_IC: COMMON; 300.0_ANTIONS_IC: GW 02	48 Hours	COOL <=6C

05/16/2018



Relinquished By: <i>[Signature]</i> Print First and Last Name: <i>[Signature]</i>	Signature	APR 18 2018 1050	Date/Time	Received By: Troy Bacon CHRRC	Signature	APR 18 2018 1050	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
Relinquished By: Troy Bacon CHRRC	Signature	APR 18 2018 1125	Date/Time	Received By: Troy Bacon CHRRC	Signature	APR 18 2018 1125	Date/Time	
Relinquished By: Ivan Schaeffer CHRRC	Signature	APR 18 2018 1245	Date/Time	Received By: Ivan Schaeffer CHRRC	Signature	APR 18 2018 1245	Date/Time	
Relinquished By: <i>[Signature]</i>	Signature		Date/Time	Received By: <i>[Signature]</i>	Signature		Date/Time	

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.#
W18-004-165
Page 1 of 1

Collector: Roger Friesz Jr. ICHPRC	Contact/Requester: Karen Waters-Husted	Telephone No.: 509-376-4650
NAF 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
<p>POSSIBLE SAMPLE HAZARDS/REMARK</p> <p>** ** 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</p>		<p>SPECIAL INSTRUCTIONS</p> <p>N/A</p>

Sample No.	Filter	* Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B3HP57	N	W	4-18-18	1x125-ML P	300.0_ANIONS_IC: COMMON; 300.0_ANIONS_IC: GW 02	48 Hours	COOL <=6C

05/16/2018



Relinquished By: Roger Friesz Jr. ICHPRC	Signature	APR 18 2018 12:00	Received By: Ivan Schaefer ICHPRC	Signature	APR 18 2018 12:00	<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: Ivan Schaefer ICHPRC	Signature	APR 18 2018 12:45	Received By: B. Jorgenson TARL	Signature	4-18-18/1245	
Relinquished By: _____	Signature	_____	Received By: _____	Signature	_____	
Relinquished By: _____	Signature	_____	Received By: _____	Signature	_____	

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process):	Disposed By:	Date/Time:
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CH2MHILL Plateau
Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. #
W18-004-335
Page 1 of 1

REV 0

Collector: Roger Friess Jr. / CHERC
 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-506-57785
 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
 SPECIAL INSTRUCTIONS
 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

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B3HPT4	N	W	4-18-18	0956	1x125-mL P	300.0_ANTIONS_IC: COMMON; 300.0_ANTIONS_IC: GM 02	48 Hours	COOL <=6C

05/16/2018



Relinquished By: Troy Bacon / CHERC
 Signature: [Signature] Date/Time: APR 18 2018 1050
 Received By: Troy L. Bacon
 Signature: [Signature] Date/Time: APR 18 2018 1050

Relinquished By: Troy Bacon / CHERC
 Signature: [Signature] Date/Time: APR 18 2018 1125
 Received By: Troy L. Bacon
 Signature: [Signature] Date/Time: APR 18 2018 1125

Relinquished By: Ivan Schaefer / CHERC
 Signature: [Signature] Date/Time: APR 18 2018 1245
 Received By: Ivan Schaefer / CHERC
 Signature: [Signature] Date/Time: APR 18 2018 1245

Relinquished By: [Signature]
 Signature: [Signature] Date/Time: [Date/Time]

Relinquished By: [Signature]
 Signature: [Signature] Date/Time: [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

Printed On 3/7/2018
 FSR ID = FSR58650
 Disposed By: [Signature] Date/Time: [Date/Time]

CH2MHILL Plateau
Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C.#
W18-004-349
Page 1 of 1

Collector: <i>Jean Schaefer</i> RCRA	Contact/Requester: Karen Waters-Husted	Telephone No.: 509-376-4650
NAF No.: W18-004	Sampling Origin: Hanford Site	Purchase Order/Charge Code: 300071
Project Title: RCRA_WAC, APRIL 2018	Logbook No.: HNF-N-506 - 48176	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
B3HNV3	N	W	4-18-18	1013	1x125-mL P	300.0_ANIONS_IC: COMMON; 300.0_ANIONS_IC: GW 02	48 Hours	COOL <=6C

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Relinquished By: <i>Jean Schaefer</i> RCRA	Signature	APR 18 2018 1040	Received By: <i>Troy Bacon</i> RCRA	Signature	APR 18 2018 1040	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
Relinquished By: <i>Troy Bacon</i> RCRA	Signature	APR 18 2018 1125	Received By: <i>Jean Schaefer</i> RCRA	Signature	APR 18 2018 1125	
Relinquished By: <i>Jean Schaefer</i> RCRA	Signature	APR 18 2018 1245	Received By: <i>B. Johnson</i> RCRA	Signature	4-18-18/1245	
Relinquished By: _____	Signature	_____	Received By: _____	Signature	_____	

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process):	Disposed By:	Date/Time:
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CH2MHill Plateau
Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C.#
W18-004-350
Page 1 of 1

Collector: Juan Aguilar /CHPSC
 SAF No.: W18-004
 Project Title: RCRA_MAC, APRIL 2018
 Shipped To (Lab): TestAmerica Incorporated, Rich
 Protocol: RCRA
 Contact/Requester: Karen Waters-Husted
 Sampling Origin: Hanford Site
 Logbook No.: HNF-N-506 - 98174
 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
B3HPN6	N	W	4-18-18	0915	1x125-mL P	300.0_ANIONS_IC: COMMON; 300.0_ANIONS_IC: GW 02	48 Hours	COOL <=6C

05/16/2018



Relinquished By: Juan Aguilar
 Signature: [Signature]
 Date/Time: APR 18 2018 0935
 Received By: Toy Bacon
 Signature: [Signature]
 Date/Time: APR 18 2018 0935

Relinquished By: Toy Bacon
 Signature: [Signature]
 Date/Time: APR 18 2018 1245
 Received By: [Signature]
 Signature: [Signature]
 Date/Time: 4-18-18 1245

Relinquished By: [Signature]
 Signature: [Signature]
 Date/Time: [Date/Time]

Relinquished By: [Signature]
 Signature: [Signature]
 Date/Time: [Date/Time]

Matrix *
 S = Soil DS = Drum Solids
 SE = Sediment DL = Drum Liquid
 SO = Solid T = Tissue
 SL = Sludge WL = 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: [Signature] Date/Time: [Date/Time]

CH2MH111 Plateau
Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. #
W18-004-353
Page 1 of 1

Collector: Juan Aguilar
RCFPRC
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-506-98176
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

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B3HRB8	N	W	4-18-18	0813	1x125-mL P	300.0_ANTONS_IC: COMMON; 300.0_ANTONS_IC: GM 02	48 HOURS	COOL <=6C

05/16/2018



Relinquished By: <i>Juan Aguilar</i> <i>RCFPRC</i>	Signature	APR 18 2018	0845	Received By: <i>Toy Bacon</i> <i>RCFPRC</i>	Signature	APR 18 2018	0845	<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: <i>Toy Bacon</i> <i>RCFPRC</i>	Signature	APR 18 2018	1245	Received By: <i>B. J. Jorgenson</i> <i>TARL</i>	Signature	4-18-18	1245	
Relinquished By: _____	Signature	_____	_____	Received By: _____	Signature	_____	_____	
Relinquished By: _____	Signature	_____	_____	Received By: _____	Signature	_____	_____	

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process):	Disposed By:	Date/Time:
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Client: CH2M Hill Plateau Remediation Company
Project/Site: W18-004

TestAmerica Job ID: 300-7048-1
SDG: WC2832

Client Sample ID: B3HPT1

Lab Sample ID: 300-7048-1

No Detections.

Client Sample ID: B3HVT5

Lab Sample ID: 300-7048-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Coliform, Total	39.5		1.00	1.00	MPN/100mL		1	SM 9223B	Total/NA

Client Sample ID: B3HPT2

Lab Sample ID: 300-7048-3

No Detections.

Client Sample ID: B3HVV3

Lab Sample ID: 300-7048-4

No Detections.

Client Sample ID: B3HVT2

Lab Sample ID: 300-7048-5

No Detections.

Client Sample ID: B3HVT8

Lab Sample ID: 300-7048-6

No Detections.

Client Sample ID: B3HPT3

Lab Sample ID: 300-7048-7

No Detections.

Client Sample ID: B3HP57

Lab Sample ID: 300-7048-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	18	D	0.40	0.20	mg/L		2	300.0	Total/NA
Nitrate as N	3.2	D	0.056	0.028	mg/L		2	300.0	Total/NA
Fluoride	0.20	D	0.10	0.050	mg/L		2	300.0	Total/NA
Nitrite as N	0.057	B D C	0.076	0.038	mg/L		2	300.0	Total/NA
Sulfate	63	D	0.50	0.25	mg/L		2	300.0	Total/NA
Bromide	0.19	B D	0.25	0.13	mg/L		2	300.0	Total/NA

Client Sample ID: B3HPT4

Lab Sample ID: 300-7048-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	28	D	0.40	0.20	mg/L		2	300.0	Total/NA
Nitrate as N	3.8	D	0.056	0.028	mg/L		2	300.0	Total/NA
Fluoride	0.20	D	0.10	0.050	mg/L		2	300.0	Total/NA
Nitrite as N	0.062	B D C	0.076	0.038	mg/L		2	300.0	Total/NA
Sulfate	86	D	0.50	0.25	mg/L		2	300.0	Total/NA
Bromide	0.24	B D	0.25	0.13	mg/L		2	300.0	Total/NA

Client Sample ID: B3HNV3

Lab Sample ID: 300-7048-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	15	D	0.40	0.20	mg/L		2	300.0	Total/NA
Nitrate as N	2.5	D	0.056	0.028	mg/L		2	300.0	Total/NA
Fluoride	0.19	D	0.10	0.050	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: 300-7048-1
SDG: WC2832

Client Sample ID: B3HNV3 (Continued)

Lab Sample ID: 300-7048-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Nitrite as N	0.056	B D C	0.076	0.038	mg/L	2		300.0	Total/NA
Sulfate	57	D	0.50	0.25	mg/L	2		300.0	Total/NA
Bromide	0.18	B D	0.25	0.13	mg/L	2		300.0	Total/NA

Client Sample ID: B3HPN6

Lab Sample ID: 300-7048-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	12	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	0.22	D	0.10	0.050	mg/L	2		300.0	Total/NA
Nitrite as N	0.056	B D C	0.076	0.038	mg/L	2		300.0	Total/NA
Sulfate	56	D	0.50	0.25	mg/L	2		300.0	Total/NA
Bromide	0.16	B D	0.25	0.13	mg/L	2		300.0	Total/NA

Client Sample ID: B3HRB8

Lab Sample ID: 300-7048-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	11	D	0.40	0.20	mg/L	2		300.0	Total/NA
Nitrate as N	2.9	D	0.056	0.028	mg/L	2		300.0	Total/NA
Fluoride	0.32	D	0.10	0.050	mg/L	2		300.0	Total/NA
Nitrite as N	0.056	B D C	0.076	0.038	mg/L	2		300.0	Total/NA
Sulfate	83	D	0.50	0.25	mg/L	2		300.0	Total/NA
Bromide	0.15	B D	0.25	0.13	mg/L	2		300.0	Total/NA

This Detection Summary does not include radiochemical test results.

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

TestAmerica Job ID: 300-7048-1
SDG: WC2832

Client Sample ID: B3HPT1

Lab Sample ID: 300-7048-1

Date Collected: 04/18/18 08:50

Matrix: Water

Date Received: 04/18/18 12:45

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			04/18/18 13:40	1

Client Sample ID: B3HVT5

Lab Sample ID: 300-7048-2

Date Collected: 04/18/18 10:13

Matrix: Water

Date Received: 04/18/18 12:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Coliform, Total	39.5		1.00	1.00	MPN/100mL			04/18/18 13:40	1

Client Sample ID: B3HPT2

Lab Sample ID: 300-7048-3

Date Collected: 04/18/18 09:56

Matrix: Water

Date Received: 04/18/18 12:45

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			04/18/18 13:40	1

Client Sample ID: B3HVV3

Lab Sample ID: 300-7048-4

Date Collected: 04/18/18 11:15

Matrix: Water

Date Received: 04/18/18 12:45

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			04/18/18 13:40	1

Client Sample ID: B3HVT2

Lab Sample ID: 300-7048-5

Date Collected: 04/18/18 08:13

Matrix: Water

Date Received: 04/18/18 12:45

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			04/18/18 13:40	1

Client Sample ID: B3HVT8

Lab Sample ID: 300-7048-6

Date Collected: 04/18/18 09:15

Matrix: Water

Date Received: 04/18/18 12:45

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			04/18/18 13:40	1

Client Sample ID: B3HPT3

Lab Sample ID: 300-7048-7

Date Collected: 04/18/18 08:50

Matrix: Water

Date Received: 04/18/18 12:45

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.20	U D	0.40	0.20	mg/L			04/18/18 15:30	2
Nitrate as N	0.028	U D	0.056	0.028	mg/L			04/18/18 15:30	2
Fluoride	0.050	U D	0.10	0.050	mg/L			04/18/18 15:30	2

TestAmerica Richland

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

TestAmerica Job ID: 300-7048-1
SDG: WC2832

Client Sample ID: B3HPT3

Lab Sample ID: 300-7048-7

Date Collected: 04/18/18 08:50

Matrix: Water

Date Received: 04/18/18 12:45

Method: 300.0 - Anions, Ion Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrite as N	0.038	U D	0.076	0.038	mg/L			04/18/18 15:30	2
Orthophosphate as P	0.082	U D	0.16	0.082	mg/L			04/18/18 15:30	2
Sulfate	0.25	U D	0.50	0.25	mg/L			04/18/18 15:30	2
Bromide	0.13	U D	0.25	0.13	mg/L			04/18/18 15:30	2

Client Sample ID: B3HP57

Lab Sample ID: 300-7048-8

Date Collected: 04/18/18 11:15

Matrix: Water

Date Received: 04/18/18 12:45

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	18	D	0.40	0.20	mg/L			04/18/18 15:46	2
Nitrate as N	3.2	D	0.056	0.028	mg/L			04/18/18 15:46	2
Fluoride	0.20	D	0.10	0.050	mg/L			04/18/18 15:46	2
Nitrite as N	0.057	B D C	0.076	0.038	mg/L			04/18/18 15:46	2
Orthophosphate as P	0.082	U D	0.16	0.082	mg/L			04/18/18 15:46	2
Sulfate	63	D	0.50	0.25	mg/L			04/18/18 15:46	2
Bromide	0.19	B D	0.25	0.13	mg/L			04/18/18 15:46	2

Client Sample ID: B3HPT4

Lab Sample ID: 300-7048-9

Date Collected: 04/18/18 09:56

Matrix: Water

Date Received: 04/18/18 12:45

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	28	D	0.40	0.20	mg/L			04/18/18 16:02	2
Nitrate as N	3.8	D	0.056	0.028	mg/L			04/18/18 16:02	2
Fluoride	0.20	D	0.10	0.050	mg/L			04/18/18 16:02	2
Nitrite as N	0.062	B D C	0.076	0.038	mg/L			04/18/18 16:02	2
Orthophosphate as P	0.082	U D	0.16	0.082	mg/L			04/18/18 16:02	2
Sulfate	86	D	0.50	0.25	mg/L			04/18/18 16:02	2
Bromide	0.24	B D	0.25	0.13	mg/L			04/18/18 16:02	2

Client Sample ID: B3HNV3

Lab Sample ID: 300-7048-10

Date Collected: 04/18/18 10:13

Matrix: Water

Date Received: 04/18/18 12:45

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	15	D	0.40	0.20	mg/L			04/18/18 16:18	2
Nitrate as N	2.5	D	0.056	0.028	mg/L			04/18/18 16:18	2
Fluoride	0.19	D	0.10	0.050	mg/L			04/18/18 16:18	2
Nitrite as N	0.056	B D C	0.076	0.038	mg/L			04/18/18 16:18	2
Orthophosphate as P	0.082	U D	0.16	0.082	mg/L			04/18/18 16:18	2
Sulfate	57	D	0.50	0.25	mg/L			04/18/18 16:18	2
Bromide	0.18	B D	0.25	0.13	mg/L			04/18/18 16:18	2

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

TestAmerica Job ID: 300-7048-1
 SDG: WC2832

Client Sample ID: B3HPN6

Lab Sample ID: 300-7048-11

Date Collected: 04/18/18 09:15

Matrix: Water

Date Received: 04/18/18 12:45

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	12	D	0.40	0.20	mg/L			04/18/18 17:07	2
Nitrate as N	2.8	D	0.056	0.028	mg/L			04/18/18 17:07	2
Fluoride	0.22	D	0.10	0.050	mg/L			04/18/18 17:07	2
Nitrite as N	0.056	B D C	0.076	0.038	mg/L			04/18/18 17:07	2
Orthophosphate as P	0.082	U D	0.16	0.082	mg/L			04/18/18 17:07	2
Sulfate	56	D	0.50	0.25	mg/L			04/18/18 17:07	2
Bromide	0.16	B D	0.25	0.13	mg/L			04/18/18 17:07	2

Client Sample ID: B3HRB8

Lab Sample ID: 300-7048-12

Date Collected: 04/18/18 08:13

Matrix: Water

Date Received: 04/18/18 12:45

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	11	D	0.40	0.20	mg/L			04/18/18 17:23	2
Nitrate as N	2.9	D	0.056	0.028	mg/L			04/18/18 17:23	2
Fluoride	0.32	D	0.10	0.050	mg/L			04/18/18 17:23	2
Nitrite as N	0.056	B D C	0.076	0.038	mg/L			04/18/18 17:23	2
Orthophosphate as P	0.082	U D	0.16	0.082	mg/L			04/18/18 17:23	2
Sulfate	83	D	0.50	0.25	mg/L			04/18/18 17:23	2
Bromide	0.15	B D	0.25	0.13	mg/L			04/18/18 17:23	2

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

TestAmerica Job ID: 300-7048-1
SDG: WC2832

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 300-11042/7
Matrix: Water
Analysis Batch: 11042

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			04/18/18 12:03	1
Nitrite as N	0.0265	B	0.038	0.019	mg/L			04/18/18 12:03	1
Orthophosphate as P	0.041	U	0.082	0.041	mg/L			04/18/18 12:03	1

Lab Sample ID: LCS 300-11042/8
Matrix: Water
Analysis Batch: 11042

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	2.46		mg/L		109	80 - 120
Nitrite as N	3.04	3.31		mg/L		109	80 - 120
Orthophosphate as P	6.53	7.05		mg/L		108	80 - 120

Lab Sample ID: 300-7049-A-1 MS
Matrix: Water
Analysis Batch: 11042

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	0.52	D	0.452	0.987	D	mg/L		102	75 - 125
Nitrite as N	0.045	B D C	0.609	0.559	D	mg/L		84	75 - 125
Orthophosphate as P	0.082	U D	1.31	1.19	D	mg/L		91	75 - 125

Lab Sample ID: 300-7049-A-1 DU
Matrix: Water
Analysis Batch: 11042

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	0.52	D	0.506	D	mg/L		3	20
Nitrite as N	0.045	B D C	0.0473	B D C	mg/L		4	20
Orthophosphate as P	0.082	U D	0.082	U D	mg/L		NC	20

Lab Sample ID: MB 300-11043/7
Matrix: Water
Analysis Batch: 11043

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.108	B	0.20	0.10	mg/L			04/18/18 12:03	1
Fluoride	0.025	U	0.050	0.025	mg/L			04/18/18 12:03	1
Sulfate	0.13	U	0.25	0.13	mg/L			04/18/18 12:03	1
Bromide	0.063	U	0.13	0.063	mg/L			04/18/18 12:03	1

Lab Sample ID: LCS 300-11043/8
Matrix: Water
Analysis Batch: 11043

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	17.1		mg/L		107	80 - 120
Fluoride	4.00	4.34		mg/L		108	80 - 120
Sulfate	20.0	20.8		mg/L		104	80 - 120

TestAmerica Richland

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

TestAmerica Job ID: 300-7048-1
SDG: WC2832

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 300-11043/8
Matrix: Water
Analysis Batch: 11043

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromide	10.0	10.9		mg/L		109	80 - 120

Lab Sample ID: 300-7049-A-1 MS
Matrix: Water
Analysis Batch: 11043

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
Chloride	4.8	D	3.20	8.08	D	mg/L		103	75 - 125
Fluoride	0.25	D	0.800	1.03	D	mg/L		98	75 - 125
Sulfate	19	D	4.00	22.6	D	mg/L		100	75 - 125
Bromide	0.13	U D	2.00	1.87	D	mg/L		93	75 - 125

Lab Sample ID: 300-7049-A-1 DU
Matrix: Water
Analysis Batch: 11043

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Chloride	4.8	D	4.69	D	mg/L		2	20
Fluoride	0.25	D	0.250	D	mg/L		1	20
Sulfate	19	D	18.3	D	mg/L		1	20
Bromide	0.13	U D	0.13	U D	mg/L		NC	20

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

Lab Sample ID: MB 300-11093/9
Matrix: Water
Analysis Batch: 11093

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			04/18/18 13:40	1

Lab Sample ID: 300-7048-1 DU
Matrix: Water
Analysis Batch: 11093

Client Sample ID: B3HPT1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Coliform, Total	1.00	U	1.00	U	MPN/100mL		NC	30

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

TestAmerica Job ID: 300-7048-1
 SDG: WC2832

HPLC/IC

Analysis Batch: 11042

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
300-7048-7	B3HPT3	Total/NA	Water	300.0	
300-7048-8	B3HP57	Total/NA	Water	300.0	
300-7048-9	B3HPT4	Total/NA	Water	300.0	
300-7048-10	B3HNV3	Total/NA	Water	300.0	
300-7048-11	B3HPN6	Total/NA	Water	300.0	
300-7048-12	B3HRB8	Total/NA	Water	300.0	
MB 300-11042/7	Method Blank	Total/NA	Water	300.0	
LCS 300-11042/8	Lab Control Sample	Total/NA	Water	300.0	
300-7049-A-1 MS	Matrix Spike	Total/NA	Water	300.0	
300-7049-A-1 DU	Duplicate	Total/NA	Water	300.0	

Analysis Batch: 11043

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
300-7048-7	B3HPT3	Total/NA	Water	300.0	
300-7048-8	B3HP57	Total/NA	Water	300.0	
300-7048-9	B3HPT4	Total/NA	Water	300.0	
300-7048-10	B3HNV3	Total/NA	Water	300.0	
300-7048-11	B3HPN6	Total/NA	Water	300.0	
300-7048-12	B3HRB8	Total/NA	Water	300.0	
MB 300-11043/7	Method Blank	Total/NA	Water	300.0	
LCS 300-11043/8	Lab Control Sample	Total/NA	Water	300.0	
300-7049-A-1 MS	Matrix Spike	Total/NA	Water	300.0	
300-7049-A-1 DU	Duplicate	Total/NA	Water	300.0	

Biology

Analysis Batch: 11093

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
300-7048-1	B3HPT1	Total/NA	Water	SM 9223B	
300-7048-2	B3HVT5	Total/NA	Water	SM 9223B	
300-7048-3	B3HPT2	Total/NA	Water	SM 9223B	
300-7048-4	B3HVV3	Total/NA	Water	SM 9223B	
300-7048-5	B3HVT2	Total/NA	Water	SM 9223B	
300-7048-6	B3HVT8	Total/NA	Water	SM 9223B	
MB 300-11093/9	Method Blank	Total/NA	Water	SM 9223B	
LCS 300-11093/1	Lab Control Sample	Total/NA	Water	SM 9223B	
300-7048-1 DU	B3HPT1	Total/NA	Water	SM 9223B	

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

TestAmerica Job ID: 300-7048-1
SDG: WC2832

Client Sample ID: B3HPT1
Date Collected: 04/18/18 08:50
Date Received: 04/18/18 12:45

Lab Sample ID: 300-7048-1
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	11093	04/18/18 13:40	TRH	TAL RCH

Client Sample ID: B3HVT5
Date Collected: 04/18/18 10:13
Date Received: 04/18/18 12:45

Lab Sample ID: 300-7048-2
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	11093	04/18/18 13:40	TRH	TAL RCH

Client Sample ID: B3HPT2
Date Collected: 04/18/18 09:56
Date Received: 04/18/18 12:45

Lab Sample ID: 300-7048-3
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	SM 9223B		1	100 mL	100 mL	11093	04/18/18 13:40	TRH	TAL RCH

Client Sample ID: B3HVV3
Date Collected: 04/18/18 11:15
Date Received: 04/18/18 12:45

Lab Sample ID: 300-7048-4
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	SM 9223B		1	100 mL	100 mL	11093	04/18/18 13:40	TRH	TAL RCH

Client Sample ID: B3HVT2
Date Collected: 04/18/18 08:13
Date Received: 04/18/18 12:45

Lab Sample ID: 300-7048-5
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	SM 9223B		1	100 mL	100 mL	11093	04/18/18 13:40	TRH	TAL RCH

Client Sample ID: B3HVT8
Date Collected: 04/18/18 09:15
Date Received: 04/18/18 12:45

Lab Sample ID: 300-7048-6
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	11093	04/18/18 13:40	TRH	TAL RCH

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

TestAmerica Job ID: 300-7048-1
SDG: WC2832

Client Sample ID: B3HPT3

Lab Sample ID: 300-7048-7

Date Collected: 04/18/18 08:50

Matrix: Water

Date Received: 04/18/18 12:45

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			11042	04/18/18 15:30	RTQ	TAL RCH
Total/NA	Analysis	300.0		2			11043	04/18/18 15:30	RTQ	TAL RCH

Client Sample ID: B3HP57

Lab Sample ID: 300-7048-8

Date Collected: 04/18/18 11:15

Matrix: Water

Date Received: 04/18/18 12:45

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			11042	04/18/18 15:46	RTQ	TAL RCH
Total/NA	Analysis	300.0		2			11043	04/18/18 15:46	RTQ	TAL RCH

Client Sample ID: B3HPT4

Lab Sample ID: 300-7048-9

Date Collected: 04/18/18 09:56

Matrix: Water

Date Received: 04/18/18 12:45

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			11042	04/18/18 16:02	RTQ	TAL RCH
Total/NA	Analysis	300.0		2			11043	04/18/18 16:02	RTQ	TAL RCH

Client Sample ID: B3HNV3

Lab Sample ID: 300-7048-10

Date Collected: 04/18/18 10:13

Matrix: Water

Date Received: 04/18/18 12:45

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			11042	04/18/18 16:18	RTQ	TAL RCH
Total/NA	Analysis	300.0		2			11043	04/18/18 16:18	RTQ	TAL RCH

Client Sample ID: B3HPN6

Lab Sample ID: 300-7048-11

Date Collected: 04/18/18 09:15

Matrix: Water

Date Received: 04/18/18 12:45

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			11042	04/18/18 17:07	RTQ	TAL RCH
Total/NA	Analysis	300.0		2			11043	04/18/18 17:07	RTQ	TAL RCH

Client Sample ID: B3HRB8

Lab Sample ID: 300-7048-12

Date Collected: 04/18/18 08:13

Matrix: Water

Date Received: 04/18/18 12:45

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			11042	04/18/18 17:23	RTQ	TAL RCH

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

TestAmerica Job ID: 300-7048-1
SDG: WC2832

Client Sample ID: B3HRB8

Lab Sample ID: 300-7048-12

Date Collected: 04/18/18 08:13

Matrix: Water

Date Received: 04/18/18 12:45

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			11043	04/18/18 17:23	RTQ	TAL RCH

Client Sample ID: Method Blank

Lab Sample ID: MB 300-11042/7

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			11042	04/18/18 12:03	RTQ	TAL RCH

Client Sample ID: Method Blank

Lab Sample ID: MB 300-11043/7

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			11043	04/18/18 12:03	RTQ	TAL RCH

Client Sample ID: Method Blank

Lab Sample ID: MB 300-11093/9

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	11093	04/18/18 13:40	TRH	TAL RCH

Client Sample ID: Lab Control Sample

Lab Sample ID: LCS 300-11042/8

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			11042	04/18/18 12:20	RTQ	TAL RCH

Client Sample ID: Lab Control Sample

Lab Sample ID: LCS 300-11043/8

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			11043	04/18/18 12:20	RTQ	TAL RCH

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

TestAmerica Job ID: 300-7048-1
SDG: WC2832

Client Sample ID: Lab Control Sample

Lab Sample ID: LCS 300-11093/1

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	11093	04/18/18 13:40	TRH	TAL RCH

Client Sample ID: Matrix Spike

Lab Sample ID: 300-7049-A-1 MS

Date Collected: 04/18/18 11:50

Matrix: Water

Date Received: 04/18/18 13:25

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			11042	04/18/18 14:42	RTQ	TAL RCH
Total/NA	Analysis	300.0		2			11043	04/18/18 14:42	RTQ	TAL RCH

Client Sample ID: B3HPT1

Lab Sample ID: 300-7048-1 DU

Date Collected: 04/18/18 08:50

Matrix: Water

Date Received: 04/18/18 12:45

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	11093	04/18/18 13:40	TRH	TAL RCH

Client Sample ID: Duplicate

Lab Sample ID: 300-7049-A-1 DU

Date Collected: 04/18/18 11:50

Matrix: Water

Date Received: 04/18/18 13:25

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			11042	04/18/18 14:58	RTQ	TAL RCH
Total/NA	Analysis	300.0		2			11043	04/18/18 14:58	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: 300-7048-1
SDG: WC2832

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: 300-7048-1
SDG: WC2832

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
300-7048-1	B3HPT1	Water	04/18/18 08:50	04/18/18 12:45
300-7048-2	B3HVT5	Water	04/18/18 10:13	04/18/18 12:45
300-7048-3	B3HPT2	Water	04/18/18 09:56	04/18/18 12:45
300-7048-4	B3HVV3	Water	04/18/18 11:15	04/18/18 12:45
300-7048-5	B3HVT2	Water	04/18/18 08:13	04/18/18 12:45
300-7048-6	B3HVT8	Water	04/18/18 09:15	04/18/18 12:45
300-7048-7	B3HPT3	Water	04/18/18 08:50	04/18/18 12:45
300-7048-8	B3HP57	Water	04/18/18 11:15	04/18/18 12:45
300-7048-9	B3HPT4	Water	04/18/18 09:56	04/18/18 12:45
300-7048-10	B3HNV3	Water	04/18/18 10:13	04/18/18 12:45
300-7048-11	B3HPN6	Water	04/18/18 09:15	04/18/18 12:45
300-7048-12	B3HRB8	Water	04/18/18 08:13	04/18/18 12:45

- 1
- 2
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- 13

Login Sample Receipt Checklist

Client: CH2M Hill Plateau Remediation Company

Job Number: 300-7048-1

SDG Number: WC2832

Login Number: 7048

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	

