

June 28, 2017

# 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: 300-5678-1

TestAmerica Sample Delivery Group: WC2122

Client Project/Site: F16-047

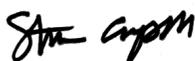
For:

CH2M Hill Plateau Remediation Company

825 Jadwin Avenue

Richland, Washington 99352

Attn: CPP Sample Management



Authorized for release by:

6/28/2017 10:51:12 AM

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Designee for

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### LINKS

Review your project  
results through

TotalAccess

Have a Question?



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*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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## Qualifiers

### HPLC/IC

Qualifier	Qualifier Description
D	The reported value is from a dilution.
N	MS, MSD: Spike recovery is outside acceptance limits.
U	Analyzed for but not detected.

### General Chemistry

Qualifier	Qualifier Description
U	Analyzed for but not detected.
B	Estimated result. Result is less than the RL, but greater than MDL

## 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: F16-047

TestAmerica Job ID: 300-5678-1  
SDG: WC2122

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**Job ID: 300-5678-1**

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**Laboratory: TestAmerica Richland**

**Narrative**

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**Job Narrative  
300-5678-1**

**Comments**

No additional comments.

**Receipt**

The samples were received on 6/20/2017 2:30 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 7.7° C.

**HPLC/IC**

Method 300.0: The Matrix Spike (MS) recovery for Orthophosphate as P in analytical batch 8334 was outside acceptance criteria. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

**General Chemistry**

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



CH2M Hill Plateau Remediation Company		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		F16-047-278	PAGE 1 OF 1
<b>COLLECTOR</b> Kevin Patterson CHPRC	<b>COMPANY CONTACT</b> SUMNER, LC 376-3922	<b>PROJECT COORDINATOR</b> SUMNER, LC	<b>PRICE CODE</b> 7C	<b>AIR QUALITY</b> <input type="checkbox"/>	<b>DATA TURNAROUND</b> 15 Days / 15 Days
<b>SAMPLING LOCATION</b> 289-T, Effluent Tank, Valve V07-Y80	<b>PROJECT DESIGNATION</b> 200 West Pump & Treat - Fluidized Bed Reactor (FBR) Microinfiltrant Analysis	<b>SAF NO.</b> F16-047	<b>METHOD OF SHIPMENT</b> GOVERNMENT VEHICLE	<b>ORIGINAL</b>	
<b>ICE CHEST NO.</b> NA	<b>FIELD LOGBOOK NO.</b> HNF-N-49116	<b>ACTUAL SAMPLE DEPTH</b> N/A	<b>COA</b> 304234	<b>BILL OF LADING/AIR BILL NO.</b> NA	
<b>SHIPPED TO</b> TestAmerica Incorporated, Richland	<b>OFFSITE PROPERTY NO.</b> NA				

<b>MATRIX*</b> A=Air DL=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Soil Se=Sediment T=Tissue V=Vegetation W=Water WI=Wipe X=Other	<b>POSSIBLE SAMPLE HAZARDS/ REMARKS</b> *Contains Radioactive Material at concentrations that are not be regulated for transportation per 49 CFR/IATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1.	<b>PRESERVATION</b> Cool <=6C	<b>HOLDING TIME</b> 24 Hours	<b>TYPE OF CONTAINER</b> 2g	<b>NO. OF CONTAINER(S)</b> 1	<b>VOLUME</b> 60ml	<b>SAMPLE ANALYSIS</b> 7196, CR6: COMMON;
<b>SPECIAL HANDLING AND/OR STORAGE</b> NA							
<b>SAMPLE NO.</b> B39KM2	<b>MATRIX*</b> WATER	<b>SAMPLE DATE</b> JUN 2 0 2017	<b>SAMPLE TIME</b> 1210				<b>300-5678 COC</b>

5678  
W02122



June 28, 2017

**FILTER**

**CHAIN OF POSSESSION**

**SIGN/ PRINT NAMES**

**SPECIAL INSTRUCTIONS**

<b>RELINQUISHED BY/REMOVED FROM</b> Kevin Patterson CHPRC	<b>DATE/TIME</b> JUN 2 0 2017 1315	<b>RECEIVED BY/STORED IN</b> Troy Bacon CHPRC	<b>DATE/TIME</b> JUN 2 0 2017 1315
<b>RELINQUISHED BY/REMOVED FROM</b> Troy Bacon CHPRC	<b>DATE/TIME</b> JUN 2 0 2017 1430	<b>RECEIVED BY/STORED IN</b> J. BODK, TART	<b>DATE/TIME</b> JUN 2 0 2017 1430
<b>RELINQUISHED BY/REMOVED FROM</b>	<b>DATE/TIME</b>	<b>RECEIVED BY/STORED IN</b>	<b>DATE/TIME</b>
<b>RELINQUISHED BY/REMOVED FROM</b>	<b>DATE/TIME</b>	<b>RECEIVED BY/STORED IN</b>	<b>DATE/TIME</b>
<b>RELINQUISHED BY/REMOVED FROM</b>	<b>DATE/TIME</b>	<b>RECEIVED BY/STORED IN</b>	<b>DATE/TIME</b>
<b>RELINQUISHED BY/REMOVED FROM</b>	<b>DATE/TIME</b>	<b>RECEIVED BY/STORED IN</b>	<b>DATE/TIME</b>

Filtering shall be performed by SGRP Field Sampling Services using a (0.45µm) filter while in the field. **FILTER**

**FILTER**

<b>LABORATORY SECTION</b>	<b>RECEIVED BY</b>	<b>TITLE</b>	<b>DATE/TIME</b>
<b>FINAL SAMPLE DISPOSITION</b>	<b>DISPOSAL METHOD</b>	<b>DISPOSED BY</b>	<b>DATE/TIME</b>

June 28, 2017

CH2MHill Plateau Remediation Company		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		F16-047-279	PAGE 1 OF 1
COLLECTOR Kevin Paterson CHPRC	COMPANY CONTACT SUMNER, LC	TELEPHONE NO. 376-3922	PROJECT COORDINATOR SUMNER, LC	PRICE CODE 7C	DATA TURNOAROUND 15 Days / 15 Days
SAMPLING LOCATION 289-T, Effluent Tank, Valve V07-Y80	PROJECT DESIGNATION 200 West Pump & Treat - Fluidized Bed Reactor (FBR) Micronutrient Analysis	FIELD LOGBOOK NO. HNF-N-49116	ACTUAL SAMPLE DEPTH N/A	SAF NO. F16-047	AIR QUALITY <input type="checkbox"/>
ICE CHEST NO. NA	OFFSITE PROPERTY NO. NA	COA 304234	METHOD OF SHIPMENT GOVERNMENT VEHICLE	ORIGINAL	
SHIPPED TO TestAmerica Incorporated, Richland		BILL OF LADING/AIR BILL NO. NA			

MATRIX*	POSSIBLE SAMPLE HAZARDS/ REMARKS	PRESERVATION	Cool <=6C
A=Air DL=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Soil SE=Sediment I = Tissue V=Vegetation W=Water WI=Wipe X=Other	*Contains Radioactive Material at concentrations that are not be regulated for transportation per 49 CFR/DATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1.	HOLDING TIME	48 Hours
		TYPE OF CONTAINER	P
		NO. OF CONTAINERS(S)	1
		VOLUME	250ml
		SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS
SAMPLE NO. B39K/M3	MATRIX* WATER	SAMPLE DATE JUN 20 2017	SAMPLE TIME 1210

45678  
wv2122

**FILTER**

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS	
RELINQUISHED BY/REMOVED FROM Kevin Paterson CHPRC	DATE/TIME JUN 20 2017 / 1315	RECEIVED BY/STORED IN Troy Bacon CHPRC	DATE/TIME JUN 20 2017 / 1315	Filtering shall be performed by SGRP Field Sampling Services using a (0.45µm) filter while in the field. FILTER (1) 300.0 ANIONS_IC: COMMON {Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate}; 300.0 ANIONS_IC: COMMON (Add-on) {Phosphorus in phosphate};	
RELINQUISHED BY/REMOVED FROM Troy Bacon CHPRC	DATE/TIME JUN 20 2017 / 1433	RECEIVED BY/STORED IN Troy Bacon CHPRC	DATE/TIME JUN 20 2017 / 1433		
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		
LABORATORY SECTION	RECEIVED BY	TITLE		DATE/TIME	
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY		DATE/TIME	

**FILTER**

PRINTED ON 5/31/2017

FSR ID = FSR45815

TRVL NUM = TRVL-17-147

A-6003-618 (REV 2)

# June 28, 2017 Detection Summary

Client: CH2M Hill Plateau Remediation Company  
Project/Site: F16-047

TestAmerica Job ID: 300-5678-1  
SDG: WC2122

## Client Sample ID: B39KM2

## Lab Sample ID: 300-5678-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cr (VI)	0.0039	B	0.0040	0.0015	mg/L	1		7196A	Total/NA

## Client Sample ID: B39KM3

## Lab Sample ID: 300-5678-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	42	D	2.0	1.0	mg/L	10		300.0	Total/NA
Nitrate as N	10	D	0.28	0.14	mg/L	10		300.0	Total/NA
Fluoride	0.53	D	0.50	0.25	mg/L	10		300.0	Total/NA
Nitrite as N	1.4	D	0.38	0.19	mg/L	10		300.0	Total/NA
Orthophosphate as P	0.17	D N	0.16	0.082	mg/L	2		300.0	Total/NA
Sulfate	100	D	2.5	1.3	mg/L	10		300.0	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Richland

Client: CH2M Hill Plateau Remediation Company  
Project/Site: F16-047

TestAmerica Job ID: 300-5678-1  
SDG: WC2122

**Client Sample ID: B39KM2**  
Date Collected: 06/20/17 12:10  
Date Received: 06/20/17 14:30

**Lab Sample ID: 300-5678-1**  
Matrix: Water

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.0039	B	0.0040	0.0015	mg/L			06/20/17 15:51	1

**Client Sample ID: B39KM3**  
Date Collected: 06/20/17 12:10  
Date Received: 06/20/17 14:30

**Lab Sample ID: 300-5678-2**  
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	42	D	2.0	1.0	mg/L			06/21/17 01:45	10
Nitrate as N	10	D	0.28	0.14	mg/L			06/21/17 01:45	10
Fluoride	0.53	D	0.50	0.25	mg/L			06/21/17 01:45	10
Nitrite as N	1.4	D	0.38	0.19	mg/L			06/21/17 01:45	10
Orthophosphate as P	0.17	D N	0.16	0.082	mg/L			06/20/17 22:30	2
Sulfate	100	D	2.5	1.3	mg/L			06/21/17 01:45	10

Client: CH2M Hill Plateau Remediation Company  
Project/Site: F16-047

TestAmerica Job ID: 300-5678-1  
SDG: WC2122

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

**Lab Sample ID: MB 300-8334/39**  
**Matrix: Water**  
**Analysis Batch: 8334**

**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			06/20/17 22:00	1
Nitrite as N	0.019	U	0.038	0.019	mg/L			06/20/17 22:00	1
Orthophosphate as P	0.041	U	0.082	0.041	mg/L			06/20/17 22:00	1

**Lab Sample ID: LCS 300-8334/40**  
**Matrix: Water**  
**Analysis Batch: 8334**

**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	2.24		mg/L		99	80 - 120
Nitrite as N	3.04	3.07		mg/L		101	80 - 120
Orthophosphate as P	6.53	6.37		mg/L		98	80 - 120

**Lab Sample ID: 300-5678-2 MS**  
**Matrix: Water**  
**Analysis Batch: 8334**

**Client Sample ID: B39KM3**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Orthophosphate as P	0.17	D N	1.31	0.731	D N	mg/L		43	75 - 125

**Lab Sample ID: 300-5678-2 MS**  
**Matrix: Water**  
**Analysis Batch: 8334**

**Client Sample ID: B39KM3**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Nitrate as N	10	D	2.26	12.4	D	mg/L		100	75 - 125
Nitrite as N	1.4	D	3.04	4.19	D	mg/L		92	75 - 125

**Lab Sample ID: 300-5678-2 DU**  
**Matrix: Water**  
**Analysis Batch: 8334**

**Client Sample ID: B39KM3**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Orthophosphate as P	0.17	D N	0.167	D	mg/L		3	20

**Lab Sample ID: 300-5678-2 DU**  
**Matrix: Water**  
**Analysis Batch: 8334**

**Client Sample ID: B39KM3**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Nitrate as N	10	D	9.72	D	mg/L		4	20
Nitrite as N	1.4	D	1.35	D	mg/L		3	20

**Lab Sample ID: MB 300-8335/39**  
**Matrix: Water**  
**Analysis Batch: 8335**

**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			06/20/17 22:00	1

TestAmerica Richland

Client: CH2M Hill Plateau Remediation Company  
Project/Site: F16-047

TestAmerica Job ID: 300-5678-1  
SDG: WC2122

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

Lab Sample ID: MB 300-8335/39  
Matrix: Water  
Analysis Batch: 8335

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.025	U	0.050	0.025	mg/L			06/20/17 22:00	1
Sulfate	0.13	U	0.25	0.13	mg/L			06/20/17 22:00	1

Lab Sample ID: LCS 300-8335/40  
Matrix: Water  
Analysis Batch: 8335

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	15.7		mg/L		98	80 - 120
Fluoride	4.00	3.97		mg/L		99	80 - 120
Sulfate	20.0	20.0		mg/L		100	80 - 120

Lab Sample ID: 300-5678-2 MS  
Matrix: Water  
Analysis Batch: 8335

Client Sample ID: B39KM3  
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	42	D	16.0	57.7	D	mg/L		99	75 - 125
Fluoride	0.53	D	4.00	4.04	D	mg/L		88	75 - 125
Sulfate	100	D	20.0	122	D	mg/L		101	75 - 125

Lab Sample ID: 300-5678-2 DU  
Matrix: Water  
Analysis Batch: 8335

Client Sample ID: B39KM3  
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Chloride	42	D	40.4	D	mg/L		3	20
Fluoride	0.53	D	0.514	D	mg/L		2	20
Sulfate	100	D	97.8	D	mg/L		3	20

**Method: 7196A - Chromium, Hexavalent**

Lab Sample ID: MB 300-8347/3  
Matrix: Water  
Analysis Batch: 8347

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.0015	U	0.0040	0.0015	mg/L			06/20/17 15:47	1

Lab Sample ID: LCS 300-8347/4  
Matrix: Water  
Analysis Batch: 8347

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	0.250	0.254		mg/L		102	80 - 120

Client: CH2M Hill Plateau Remediation Company  
Project/Site: F16-047

TestAmerica Job ID: 300-5678-1  
SDG: WC2122

**Method: 7196A - Chromium, Hexavalent (Continued)**

Lab Sample ID: 300-5677-A-1 MS  
Matrix: Water  
Analysis Batch: 8347

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
Cr (VI)	0.0015	U	0.0501	0.0457		mg/L		91	75 - 125

Lab Sample ID: 300-5677-A-1 DU  
Matrix: Water  
Analysis Batch: 8347

Client Sample ID: Duplicate  
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Cr (VI)	0.0015	U	0.0015	U	mg/L		NC	20

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

Client: CH2M Hill Plateau Remediation Company  
Project/Site: F16-047

TestAmerica Job ID: 300-5678-1  
SDG: WC2122

**HPLC/IC**

**Analysis Batch: 8334**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
300-5678-2	B39KM3	Total/NA	Water	300.0	
300-5678-2	B39KM3	Total/NA	Water	300.0	
MB 300-8334/39	Method Blank	Total/NA	Water	300.0	
LCS 300-8334/40	Lab Control Sample	Total/NA	Water	300.0	
300-5678-2 MS	B39KM3	Total/NA	Water	300.0	
300-5678-2 MS	B39KM3	Total/NA	Water	300.0	
300-5678-2 DU	B39KM3	Total/NA	Water	300.0	
300-5678-2 DU	B39KM3	Total/NA	Water	300.0	

**Analysis Batch: 8335**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
300-5678-2	B39KM3	Total/NA	Water	300.0	
MB 300-8335/39	Method Blank	Total/NA	Water	300.0	
LCS 300-8335/40	Lab Control Sample	Total/NA	Water	300.0	
300-5678-2 MS	B39KM3	Total/NA	Water	300.0	
300-5678-2 DU	B39KM3	Total/NA	Water	300.0	

**General Chemistry**

**Analysis Batch: 8347**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
300-5678-1	B39KM2	Total/NA	Water	7196A	
MB 300-8347/3	Method Blank	Total/NA	Water	7196A	
LCS 300-8347/4	Lab Control Sample	Total/NA	Water	7196A	
300-5677-A-1 MS	Matrix Spike	Total/NA	Water	7196A	
300-5677-A-1 DU	Duplicate	Total/NA	Water	7196A	



Client: CH2M Hill Plateau Remediation Company  
Project/Site: F16-047

TestAmerica Job ID: 300-5678-1  
SDG: WC2122

**Client Sample ID: B39KM2**

**Lab Sample ID: 300-5678-1**

Date Collected: 06/20/17 12:10

Matrix: Water

Date Received: 06/20/17 14:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	7196A		1			8347	06/20/17 15:51	TP	TAL RCH

**Client Sample ID: B39KM3**

**Lab Sample ID: 300-5678-2**

Date Collected: 06/20/17 12:10

Matrix: Water

Date Received: 06/20/17 14:30

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			8334	06/20/17 22:30	ALR	TAL RCH
Total/NA	Analysis	300.0		10			8334	06/21/17 01:45	ALR	TAL RCH
Total/NA	Analysis	300.0		10			8335	06/21/17 01:45	ALR	TAL RCH

**Client Sample ID: Method Blank**

**Lab Sample ID: MB 300-8334/39**

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			8334	06/20/17 22:00	ALR	TAL RCH

**Client Sample ID: Method Blank**

**Lab Sample ID: MB 300-8335/39**

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			8335	06/20/17 22:00	ALR	TAL RCH

**Client Sample ID: Method Blank**

**Lab Sample ID: MB 300-8347/3**

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	7196A		1			8347	06/20/17 15:47	TP	TAL RCH

**Client Sample ID: Lab Control Sample**

**Lab Sample ID: LCS 300-8334/40**

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			8334	06/20/17 22:15	ALR	TAL RCH

Client: CH2M Hill Plateau Remediation Company  
Project/Site: F16-047

TestAmerica Job ID: 300-5678-1  
SDG: WC2122

**Client Sample ID: Lab Control Sample**

**Lab Sample ID: LCS 300-8335/40**

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			8335	06/20/17 22:15	ALR	TAL RCH

**Client Sample ID: Lab Control Sample**

**Lab Sample ID: LCS 300-8347/4**

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	7196A		1			8347	06/20/17 15:47	TP	TAL RCH

**Client Sample ID: Matrix Spike**

**Lab Sample ID: 300-5677-A-1 MS**

Date Collected: 06/20/17 10:54

Matrix: Water

Date Received: 06/20/17 14:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	7196A		1			8347	06/20/17 15:47	TP	TAL RCH

**Client Sample ID: B39KM3**

**Lab Sample ID: 300-5678-2 MS**

Date Collected: 06/20/17 12:10

Matrix: Water

Date Received: 06/20/17 14:30

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			8334	06/20/17 22:45	ALR	TAL RCH
Total/NA	Analysis	300.0		10			8334	06/21/17 02:00	ALR	TAL RCH
Total/NA	Analysis	300.0		10			8335	06/21/17 02:00	ALR	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: F16-047

TestAmerica Job ID: 300-5678-1  
SDG: WC2122

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	MCAWW	TAL RCH
7196A	Chromium, Hexavalent	SW846	TAL RCH

**Protocol References:**

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

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

**Laboratory References:**

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



Client: CH2M Hill Plateau Remediation Company  
Project/Site: F16-047

TestAmerica Job ID: 300-5678-1  
SDG: WC2122

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
300-5678-1	B39KM2	Water	06/20/17 12:10	06/20/17 14:30
300-5678-2	B39KM3	Water	06/20/17 12:10	06/20/17 14:30

- 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: 300-5678-1

SDG Number: WC2122

**Login Number: 5678**

**List Number: 1**

**Creator: Bock, Julie A**

**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.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

