

July 28, 2016

# 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: 300-3402-1

TestAmerica Sample Delivery Group: WC1225

Client Project/Site: F16-039

For:

CH2M Hill Plateau Remediation Company

PO BOX 1600

Mail Stop R3-50

Richland, Washington 99352

Attn: CPP Sample Management



Authorized for release by:

7/28/2016 11:34:54 AM

Steven Campbell, Project Mgmt. Assistant

[steven.campbell@testamericainc.com](mailto:steven.campbell@testamericainc.com)

Designee for

Whitney Ritari, Project Manager I

(509)375-3131 ext164

[whitney.ritari@testamericainc.com](mailto:whitney.ritari@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. The sample/ sample duplicate RPD agreement is not applicable if one or both results are less than five times the MDL.*



# Table of Contents

Cover Page . . . . .	1
Table of Contents . . . . .	2
Definitions/Glossary . . . . .	3
Case Narrative . . . . .	4
Chain of Custody . . . . .	5
Detection Summary . . . . .	8
Client Sample Results . . . . .	9
QC Sample Results . . . . .	10
QC Association Summary . . . . .	12
Lab Chronicle . . . . .	13
Method Summary . . . . .	15
Sample Summary . . . . .	16
Receipt Checklists . . . . .	17

## Qualifiers

### HPLC/IC

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

### General Chemistry

Qualifier	Qualifier Description
U	Analyzed for but not detected.

## Glossary

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

Client: CH2M Hill Plateau Remediation Company  
Project/Site: F16-039

TestAmerica Job ID: 300-3402-1  
SDG: WC1225

---

**Job ID: 300-3402-1**

---

**Laboratory: TestAmerica Richland**

**Narrative**

---

**Job Narrative  
300-3402-1**

**Comments**

No additional comments.

**Receipt**

The samples were received on 7/1/2016 9:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 5.1° C.

**HPLC/IC**

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

**General Chemistry**

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

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

CH2M Hill Plateau Remediation Company		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		FL6-039-079	PAGE 1 OF 1
COLLECTOR Curt Hoffman CHPRC	COMPANY CONTACT TODAK, D	TELEPHONE NO. 376-6427	PROJECT COORDINATOR TODAK, D	PRICE CODE 7H	DATA TURNAROUND 30 Days / 30 Days
SAMPLING LOCATION C9547, screened interval	PROJECT DESIGNATION 100-HR-3 Long Term & Interim Action Monitoring - Water	FIELD LOGBOOK NO. HDF-A-645-6/4	ACTUAL SAMPLE DEPTH 57.651	SAF NO. FL6-039	AIR QUALITY <input type="checkbox"/>
ICE CHEST NO.	OFFSITE PROPERTY NO.	COA 300115	METHOD OF SHIPMENT GOVERNMENT VEHICLE	<b>ORIGINAL</b>	
SHIPPED TO Testamerica Incorporated, Richland		BILL OF LADING/AIR BILL NO.			

MATRIX*	POSSIBLE SAMPLE HAZARDS/ REMARKS	PRESERVATION	HOLDING TIME	TYPE OF CONTAINER	NO. OF CONTAINER(S)	VOLUME	SAMPLE ANALYSIS
A=Air DL=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Sediment SE=Sediment T=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. N/A	Cool-4C	24 Hours	ag	1	60mL	7196, CRG, COMMON.
SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME				
B35184	WATER	6/30/16	1222	✓			

July 28, 2016



300-3402 COC

CHAIN OF POSSESSION	SIGN/ PRINT NAMES	SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM CHPRC	RECEIVED BY/STORED IN JUN 30 2016 07:45 550#1	*** All requests for Hexavalent Chromium at Test America Richland are to have a unique HEIS sample number and be assigned to a separate COC.
RELINQUISHED BY/REMOVED FROM 550#1	RECEIVED BY/STORED IN JUL 01 2016 07:00 Frank Hall CHPRC	
RELINQUISHED BY/REMOVED FROM Frank Hall	RECEIVED BY/STORED IN JUL 01 2016 09:30 J. Bock, TARL	
RELINQUISHED BY/REMOVED FROM	RECEIVED BY/STORED IN	
RELINQUISHED BY/REMOVED FROM	RECEIVED BY/STORED IN	
RELINQUISHED BY/REMOVED FROM	RECEIVED BY/STORED IN	
LABORATORY SECTION	RECEIVED BY	TITLE
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DATE/TIME

CH2MHill Plateau Remediation Company		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		F16-039-083	PAGE 1 OF 1
COLLECTOR Curt Hoffman CHERC	COMPANY CONTACT TODAK, D	TELEPHONE NO. 376-6427	PROJECT COORDINATOR TODAK, D	PRICE CODE 7H	DATA TURNAROUND 30 Days / 30 Days
SAMPLING LOCATION C9547, screened interval	PROJECT DESIGNATION 100-HR-3 Long Term & Interim Action Monitoring - Water	FIELD LOGBOOK NO. H0F-N-645-6/4	ACTUAL SAMPLE DEPTH 57.651	SAF NO. F16-039	<input type="checkbox"/> AIR QUALITY
ICE CHEST NO.	OFFSITE PROPERTY NO.	NO. OF CONTAINER(S) 1	COA 300115	METHOD OF SHIPMENT GOVERNMENT VEHICLE	
SHIPPED TO TestAmerica Incorporated, Richland	PRESERVATION Cool-4C		BILL OF LADING/AIR BILL NO.		

MATRIX*	POSSIBLE SAMPLE HAZARDS/ REMARKS	HOLDING TIME	TYPE OF CONTAINER	VOLUME	SAMPLE ANALYSIS
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	*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. N/A	24 Hours	3G	60mL	7196 CRG: COMMON
B3SL88	WATER			6/30/16	1222 ✓

July 28, 2016

# 3402  
W01225

CHAIN OF POSSESSION	SIGN/ PRINT NAMES	SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM Curt Hoffman	RECEIVED BY/STORED IN SSO #1	** All requests for Hexavalent Chromium at Test America Richland are to have a unique HEIS sample number and be assigned to a separate COC.
DATE/TIME JUN 30 2016 1445	DATE/TIME JUN 30 2016 1445	
RELINQUISHED BY/REMOVED FROM SSO #1	RECEIVED BY/STORED IN Frank Heit	
DATE/TIME JUL 01 2016 0900	DATE/TIME JUL 01 2016 0700	
RELINQUISHED BY/REMOVED FROM Frank Heit	RECEIVED BY/STORED IN J. Bock, TARL	
DATE/TIME JUL 01 2016 0932	DATE/TIME JUL 01 2016 0932	
RELINQUISHED BY/REMOVED FROM	RECEIVED BY/STORED IN	
DATE/TIME	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	RECEIVED BY/STORED IN	
DATE/TIME	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	RECEIVED BY/STORED IN	
DATE/TIME	DATE/TIME	

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

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

FIG-039-080

PAGE 1 OF 1

<b>COLLECTOR</b> Curt Hoffman CHPRC	<b>COMPANY CONTACT</b> TODAK, D	<b>TELEPHONE NO.</b> 376-6427	<b>PROJECT COORDINATOR</b> TODAK, D	<b>PRICE CODE</b> 7H	<b>DATA TURNOURND</b> 30 Days / 30 Days
<b>SAMPLING LOCATION</b> C9547, screened interval	<b>PROJECT DESIGNATION</b> 100-HR-3 Long Term & Interim Action Monitoring - Water	<b>FIELD LOGBOOK NO.</b> HOF-N-645-6/14	<b>ACTUAL SAMPLE DEPTH</b> 57.651	<b>SAF NO.</b> F16-039	<b>AIR QUALITY</b> <input type="checkbox"/>
<b>ICE CHEST NO.</b>	<b>OFFSITE PROPERTY NO.</b>	<b>COA</b> 300115	<b>METHOD OF SHIPMENT</b> GOVERNMENT VEHICLE	<b>ORIGINAL</b>	
<b>SHIPPED TO</b> TestAmerica Incorporated, Richland					

<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 regulated for transportation per 49 CFR/DATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1. N/A	<b>PRESERVATION</b> Cool <=6C	<b>HOLDING TIME</b> 48 Hours	<b>TYPE OF CONTAINER</b> P	<b>NO. OF CONTAINER(S)</b> 1	<b>VOLUME</b> 500ml	<b>SAMPLE ANALYSIS</b> SEE ITEM (1) IN SPECIAL INSTRUCTIONS
<b>SAMPLE NO.</b> B35185	<b>MATRIX*</b> WATER	<b>SAMPLE DATE</b> 6/30/16	<b>SAMPLE TIME</b> 1222	<b>SPECIAL HANDLING AND/OR STORAGE</b> 3402 wcras			

July 28, 2016

<b>CHAIN OF POSSESSION</b>	<b>SIGN / PRINT NAMES</b>	<b>SPECIAL INSTRUCTIONS</b>
RELINQUISHED BY/REMOVED FROM Curt Hoffman 550711	RECEIVED BY/STORED IN JUN 30 2016 JUL 01 2016	** All requests for Anions at Test America Richland are to have a unique HIES sample number and be assigned to a separate COC. (1) 300.0 ANIONS_IC: COMMON {Chloride, Nitrogen in Nitrate, Sulfate}; 300.0 ANIONS_IC: COMMON (Add-on) {Phosphorus in phosphate};
RELINQUISHED BY/REMOVED FROM Frank Hatt CHPRC	RECEIVED BY/STORED IN JUL 01 2016 JUL 01 2016	
RELINQUISHED BY/REMOVED FROM	RECEIVED BY/STORED IN	
RELINQUISHED BY/REMOVED FROM	RECEIVED BY/STORED IN	
RELINQUISHED BY/REMOVED FROM	RECEIVED BY/STORED IN	

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

~~July 28, 2016~~  
**Detection Summary**

Client: CH2M Hill Plateau Remediation Company  
 Project/Site: F16-039

TestAmerica Job ID: 300-3402-1  
 SDG: WC1225

**Client Sample ID: B35L84**

**Lab Sample ID: 300-3402-1**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cr (VI)	0.012		0.0040	0.0015	mg/L	1		7196A	Total/NA

**Client Sample ID: B35L88**

**Lab Sample ID: 300-3402-2**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cr (VI)	0.012		0.0040	0.0015	mg/L	1		7196A	Total/NA

**Client Sample ID: B35L85**

**Lab Sample ID: 300-3402-3**

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	6.1	D	0.056	0.028	mg/L	2		300.0	Total/NA
Sulfate	65	D	0.50	0.25	mg/L	2		300.0	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Richland



July 28, 2016  
Client Sample Results

Client: CH2M Hill Plateau Remediation Company  
Project/Site: F16-039

TestAmerica Job ID: 300-3402-1  
SDG: WC1225

**Client Sample ID: B35L84**

**Lab Sample ID: 300-3402-1**

Date Collected: 06/30/16 12:22

Matrix: Water

Date Received: 07/01/16 09:30

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.012		0.0040	0.0015	mg/L			07/01/16 11:22	1

**Client Sample ID: B35L88**

**Lab Sample ID: 300-3402-2**

Date Collected: 06/30/16 12:22

Matrix: Water

Date Received: 07/01/16 09:30

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.012		0.0040	0.0015	mg/L			07/01/16 11:22	1

**Client Sample ID: B35L85**

**Lab Sample ID: 300-3402-3**

Date Collected: 06/30/16 12:22

Matrix: Water

Date Received: 07/01/16 09:30

**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			07/01/16 17:35	2
Nitrate as N	6.1	D	0.056	0.028	mg/L			07/01/16 17:35	2
Orthophosphate as P	0.082	U D	0.16	0.082	mg/L			07/01/16 17:35	2
Sulfate	65	D	0.50	0.25	mg/L			07/01/16 17:35	2

Client: CH2M Hill Plateau Remediation Company  
Project/Site: F16-039

TestAmerica Job ID: 300-3402-1  
SDG: WC1225

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

Lab Sample ID: MB 300-4764/5  
Matrix: Water  
Analysis Batch: 4764

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			07/01/16 17:05	1
Orthophosphate as P	0.041	U	0.082	0.041	mg/L			07/01/16 17:05	1

Lab Sample ID: LCS 300-4764/6  
Matrix: Water  
Analysis Batch: 4764

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	2.30		mg/L		102	80 - 120
Orthophosphate as P	6.53	6.56		mg/L		101	80 - 120

Lab Sample ID: 300-3402-3 MS  
Matrix: Water  
Analysis Batch: 4764

Client Sample ID: B35L85  
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	6.1	D	0.452	6.52	D	mg/L		83	75 - 125
Orthophosphate as P	0.082	U D	1.31	1.18	D	mg/L		90	75 - 125

Lab Sample ID: 300-3402-3 DU  
Matrix: Water  
Analysis Batch: 4764

Client Sample ID: B35L85  
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Nitrate as N	6.1	D	6.11	D	mg/L		0.6	20
Orthophosphate as P	0.082	U D	0.082	U D	mg/L		NC	20

Lab Sample ID: MB 300-4765/5  
Matrix: Water  
Analysis Batch: 4765

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			07/01/16 17:05	1
Sulfate	0.13	U	0.25	0.13	mg/L			07/01/16 17:05	1

Lab Sample ID: LCS 300-4765/6  
Matrix: Water  
Analysis Batch: 4765

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	16.0		mg/L		100	80 - 120
Sulfate	20.0	20.1		mg/L		101	80 - 120

Lab Sample ID: 300-3402-3 MS  
Matrix: Water  
Analysis Batch: 4765

Client Sample ID: B35L85  
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	18	D	3.20	20.6	D	mg/L		94	75 - 125

TestAmerica Richland

Client: CH2M Hill Plateau Remediation Company  
Project/Site: F16-039

TestAmerica Job ID: 300-3402-1  
SDG: WC1225

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

Lab Sample ID: 300-3402-3 MS  
Matrix: Water  
Analysis Batch: 4765

Client Sample ID: B35L85  
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	65	D	4.00	68.5	D	mg/L		78	75 - 125

Lab Sample ID: 300-3402-3 DU  
Matrix: Water  
Analysis Batch: 4765

Client Sample ID: B35L85  
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Chloride	18	D	17.4	D	mg/L		0.6	20
Sulfate	65	D	64.9	D	mg/L		0.6	20

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

Lab Sample ID: MB 300-4774/3  
Matrix: Water  
Analysis Batch: 4774

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			07/01/16 11:18	1

Lab Sample ID: LCS 300-4774/4  
Matrix: Water  
Analysis Batch: 4774

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	0.252		mg/L		101	80 - 120

Lab Sample ID: 300-3402-1 MS  
Matrix: Water  
Analysis Batch: 4774

Client Sample ID: B35L84  
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	0.012		0.0499	0.0627		mg/L		102	75 - 125

Lab Sample ID: 300-3402-1 DU  
Matrix: Water  
Analysis Batch: 4774

Client Sample ID: B35L84  
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Cr (VI)	0.012		0.0119		mg/L		0.8	20

July 28, 2016  
QC Association Summary

Client: CH2M Hill Plateau Remediation Company  
Project/Site: F16-039

TestAmerica Job ID: 300-3402-1  
SDG: WC1225

**HPLC/IC**

**Analysis Batch: 4764**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
300-3402-3	B35L85	Total/NA	Water	300.0	
MB 300-4764/5	Method Blank	Total/NA	Water	300.0	
LCS 300-4764/6	Lab Control Sample	Total/NA	Water	300.0	
300-3402-3 MS	B35L85	Total/NA	Water	300.0	
300-3402-3 DU	B35L85	Total/NA	Water	300.0	

**Analysis Batch: 4765**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
300-3402-3	B35L85	Total/NA	Water	300.0	
MB 300-4765/5	Method Blank	Total/NA	Water	300.0	
LCS 300-4765/6	Lab Control Sample	Total/NA	Water	300.0	
300-3402-3 MS	B35L85	Total/NA	Water	300.0	
300-3402-3 DU	B35L85	Total/NA	Water	300.0	

**General Chemistry**

**Analysis Batch: 4774**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
300-3402-1	B35L84	Total/NA	Water	7196A	
300-3402-2	B35L88	Total/NA	Water	7196A	
MB 300-4774/3	Method Blank	Total/NA	Water	7196A	
LCS 300-4774/4	Lab Control Sample	Total/NA	Water	7196A	
300-3402-1 MS	B35L84	Total/NA	Water	7196A	
300-3402-1 DU	B35L84	Total/NA	Water	7196A	



Client: CH2M Hill Plateau Remediation Company  
Project/Site: F16-039

TestAmerica Job ID: 300-3402-1  
SDG: WC1225

**Client Sample ID: B35L84**  
Date Collected: 06/30/16 12:22  
Date Received: 07/01/16 09:30

**Lab Sample ID: 300-3402-1**  
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	7196A		1			4774	07/01/16 11:22	RLC	TAL RCH

**Client Sample ID: B35L88**  
Date Collected: 06/30/16 12:22  
Date Received: 07/01/16 09:30

**Lab Sample ID: 300-3402-2**  
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	7196A		1			4774	07/01/16 11:22	RLC	TAL RCH

**Client Sample ID: B35L85**  
Date Collected: 06/30/16 12:22  
Date Received: 07/01/16 09:30

**Lab Sample ID: 300-3402-3**  
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			4764	07/01/16 17:35	CPM	TAL RCH
Total/NA	Analysis	300.0		2			4765	07/01/16 17:35	CPM	TAL RCH

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

**Lab Sample ID: MB 300-4764/5**  
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			4764	07/01/16 17:05	CPM	TAL RCH

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

**Lab Sample ID: MB 300-4765/5**  
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			4765	07/01/16 17:05	CPM	TAL RCH

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

**Lab Sample ID: MB 300-4774/3**  
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	7196A		1			4774	07/01/16 11:18	RLC	TAL RCH

Client: CH2M Hill Plateau Remediation Company  
Project/Site: F16-039

TestAmerica Job ID: 300-3402-1  
SDG: WC1225

**Client Sample ID: Lab Control Sample**

**Lab Sample ID: LCS 300-4764/6**

Date Collected: N/A  
Date Received: N/A

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			4764	07/01/16 17:20	CPM	TAL RCH

**Client Sample ID: Lab Control Sample**

**Lab Sample ID: LCS 300-4765/6**

Date Collected: N/A  
Date Received: N/A

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			4765	07/01/16 17:20	CPM	TAL RCH

**Client Sample ID: Lab Control Sample**

**Lab Sample ID: LCS 300-4774/4**

Date Collected: N/A  
Date Received: N/A

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	7196A		1			4774	07/01/16 11:19	RLC	TAL RCH

**Client Sample ID: B35L84**

**Lab Sample ID: 300-3402-1 MS**

Date Collected: 06/30/16 12:22  
Date Received: 07/01/16 09:30

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	7196A		1			4774	07/01/16 11:19	RLC	TAL RCH

**Client Sample ID: B35L85**

**Lab Sample ID: 300-3402-3 MS**

Date Collected: 06/30/16 12:22  
Date Received: 07/01/16 09:30

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			4764	07/01/16 17:50	CPM	TAL RCH
Total/NA	Analysis	300.0		2			4765	07/01/16 17:50	CPM	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: F16-039

TestAmerica Job ID: 300-3402-1  
SDG: WC1225

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



July 28, 2016  
Sample Summary

Client: CH2M Hill Plateau Remediation Company  
Project/Site: F16-039

TestAmerica Job ID: 300-3402-1  
SDG: WC1225

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
300-3402-1	B35L84	Water	06/30/16 12:22	07/01/16 09:30
300-3402-2	B35L88	Water	06/30/16 12:22	07/01/16 09:30
300-3402-3	B35L85	Water	06/30/16 12:22	07/01/16 09:30

- 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: 300-3402-1

SDG Number: WC1225

Login Number: 3402

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	

