

August 2, 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: 300-3591-1
TestAmerica Sample Delivery Group: WC1304
Client Project/Site: F16-042

For:
CH2M Hill Plateau Remediation Company
PO BOX 1600
Mail Stop R3-50
Richland, Washington 99352

Attn: CPP Sample Management



Authorized for release by:
8/2/2016 1:45:49 PM
Steven Campbell, Project Mgmt. Assistant
steven.campbell@testamericainc.com

Designee for
Whitney Ritari, Project Manager I
(509)375-3131 ext164
whitney.ritari@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.



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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
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)

August 2, 2016 Case Narrative

Client: CH2M Hill Plateau Remediation Company
Project/Site: F16-042

TestAmerica Job ID: 300-3591-1
SDG: WC1304

Job ID: 300-3591-1

Laboratory: TestAmerica Richland

Narrative

**Job Narrative
300-3591-1**

Comments

No additional comments.

Receipt

The samples were received on 7/27/2016 2:50 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 6.5° 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
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- 13

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CH2M Hill Plateau Remediation Company		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		F16-042-133	PAGE 1 OF 1
COLLECTOR J.R. Aguilera/CHPRC	COMPANY CONTACT TODAK, D	TELEPHONE NO. 376-6427	PROJECT COORDINATOR TODAK, D	PRICE CODE 7H	DATA TURNAROUND 30 Days / 30 Days
SAMPLING LOCATION C9425, I-006	PROJECT DESIGNATION 100-NR-2 Drilling - Water	FIELD LOGBOOK NO. HNF-N-645 4 - 28	SAF NO. F16-042	AIR QUALITY <input type="checkbox"/>	METHOD OF SHIPMENT GOVERNMENT VEHICLE
ICE CHEST NO. N/A	FIELD LOGBOOK NO.	ACTUAL SAMPLE DEPTH 92.5	COA 304070		ORIGINAL
SHIPPED TO TestAmerica Incorporated, Richland	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		

MATRIX*	POSSIBLE SAMPLE HAZARDS/ REMARKS	PRESERVATION	Cool <=6C
		HOLDING TIME	24 Hours
SPECIAL HANDLING AND/OR STORAGE	N/A	TYPE OF CONTAINER	3591
		NO. OF CONTAINER(S)	1
SAMPLE NO.	MATRIX*	VOLUME	WGC1304
		SAMPLE DATE	SAMPLE TIME
B36694	WATER	JUL 27 2016	1226

* Contains Radioactive Material at concentrations that are not be regulated for transportation per 49 CFR/1ATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1.

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

Sample was Filtered

300-3591 COC



CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS	
RELINQUISHED BY/REMOVED FROM J.R. Aguilera/CHPRC	DATE/TIME JUL 27 2016 1400	RECEIVED BY/STORED IN J. Bock, TARD	DATE/TIME JUL 27 2016 1300	N/A	
RELINQUISHED BY/REMOVED FROM J. Bock, TARD	DATE/TIME JUL 27 2016 1450	RECEIVED BY/STORED IN J. Bock, TARD	DATE/TIME JUL 27 2016 1450	N/A	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	N/A	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	N/A	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	N/A	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	N/A	
LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME		
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME		

PRINTED ON 7/11/2016 FSR ID = FSR333908 TRVL NUM = TRVL-16-186 A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F16-042-138

PAGE 1 OF 1

COLLECTOR: J.R. Aguilera/CH2MRC COMPANY CONTACT: TODAY, D TELEPHONE NO. 376-6427 PROJECT COORDINATOR: TODAY, D PRICE CODE 7H DATA TURNAROUND 30 Days / 30 Days

SAMPLING LOCATION: C9425, I-1006 PROJECT DESIGNATION: 100-NR-2 Drilling - Water FIELD LOGBOOK NO. HNF-N-645 4 - 28 ACTUAL SAMPLE DEPTH: 92.5 SAF NO. F16-042 AIR QUALITY METHOD OF SHIPMENT: GOVERNMENT VEHICLE ORIGINAL

ICE CHEST NO. N/A OFFSITE PROPERTY NO. N/A BILL OF LADING/AIR BILL NO. N/A

SHIPPED TO: TestAmerica Incorporated, Richland

MATRIX* POSSIBLE SAMPLE HAZARDS/ REMARKS: *Contains Radioactive Material at concentrations that are not be regulated for transportation per 49 CFR/JATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1.

SPECIAL HANDLING AND/OR STORAGE: N/A

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME
B36699	WATER	JUL 27 2016	1226

FILTER

3591
USC1304

CHAIN OF POSSESSION SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	SPECIAL INSTRUCTIONS
J.R. Aguilera/CH2MRC	JUL 27 2016 1300	J.R. Aguilera/CH2MRC	JUL 27 2016 1300	FILTER
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	
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		DATE/TIME	

FILTER

August 2, 2016

August 2, 2016

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

CH2MHill Plateau Remediation Company		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		F16-042-134	PAGE 1 OF 1
COLLECTOR J.R. Aguilera/CHPRC	COMPANY CONTACT TODAK, D	TELEPHONE NO. 376-6427	PROJECT COORDINATOR TODAK, D	PRICE CODE 7H	DATA TURNAROUND 30 Days / 30 Days
SAMPLING LOCATION C9425, I-006	PROJECT DESIGNATION 100-NR-2 Drilling - Water	FIELD LOGBOOK NO. HNF-N-645 4 - 28	ACTUAL SAMPLE DEPTH 92.5	SAF NO. F16-042	AIR QUALITY <input type="checkbox"/>
ICE CHEST NO. N/A	FIELD LOGBOOK NO. HNF-N-645 4 - 28	ACTUAL SAMPLE DEPTH 92.5	COA 304070	METHOD OF SHIPMENT GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO TestAmerica Incorporated, Richland	OFFSITE PROPERTY NO. N/A	ACTUAL SAMPLE DEPTH 92.5	BILL OF LADING/AIR BILL NO. N/A		

MATRIX* A=Air DL=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WT=Wipe X=Other	SPECIAL HANDLING AND/OR STORAGE N/A	PRESERVATION		Cool <=6C
		HOLDING TIME		48 Hours
		TYPE OF CONTAINER		P
		NO. OF CONTAINER(S)		1
		VOLUME		500ml
SAMPLE NO. B36695	MATRIX* WATER	SAMPLE DATE JUL 27 2016	SAMPLE TIME 1226	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

3591
WC1304
* Sample Was Filled

CHAIN OF POSSESSION		SIGN/PRINT NAMES		SPECIAL INSTRUCTIONS	
RELINQUISHED BY/REMOVED FROM J.R. Aguilera/CHPRC	DATE/TIME JUL 27 2016 1300	RECEIVED BY/STORED IN J. Bock, TARI	DATE/TIME JUL 27 2016 1300	(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	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		
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			DATE/TIME	

PRINTED ON 7/11/2016 FSR ID = FSR333908 TRVL NUM = TRVL-16-186 A-6003-618 (REV 2)

August 2, 2016 Detection Summary

Client: CH2M Hill Plateau Remediation Company
Project/Site: F16-042

TestAmerica Job ID: 300-3591-1
SDG: WC1304

Client Sample ID: B36694

Lab Sample ID: 300-3591-1

No Detections.

Client Sample ID: B36699

Lab Sample ID: 300-3591-2

No Detections.

Client Sample ID: B36695

Lab Sample ID: 300-3591-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	16	D	0.40	0.20	mg/L	2		300.0	Total/NA
Nitrate as N	2.2	D	0.056	0.028	mg/L	2		300.0	Total/NA
Fluoride	1.2	D	0.10	0.050	mg/L	2		300.0	Total/NA
Nitrite as N	0.37	D	0.076	0.038	mg/L	2		300.0	Total/NA
Orthophosphate as P	0.11	B D	0.16	0.082	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.

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August 2, 2016

Client Sample Results

Client: CH2M Hill Plateau Remediation Company
 Project/Site: F16-042

TestAmerica Job ID: 300-3591-1
 SDG: WC1304

Client Sample ID: B36694

Lab Sample ID: 300-3591-1

Date Collected: 07/27/16 12:26

Matrix: Water

Date Received: 07/27/16 14:50

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.0015	U	0.0040	0.0015	mg/L			07/28/16 10:02	1

Client Sample ID: B36699

Lab Sample ID: 300-3591-2

Date Collected: 07/27/16 12:26

Matrix: Water

Date Received: 07/27/16 14:50

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.0015	U	0.0040	0.0015	mg/L			07/28/16 10:03	1

Client Sample ID: B36695

Lab Sample ID: 300-3591-3

Date Collected: 07/27/16 12:26

Matrix: Water

Date Received: 07/27/16 14:50

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	16	D	0.40	0.20	mg/L			07/27/16 17:18	2
Nitrate as N	2.2	D	0.056	0.028	mg/L			07/27/16 17:18	2
Fluoride	1.2	D	0.10	0.050	mg/L			07/27/16 17:18	2
Nitrite as N	0.37	D	0.076	0.038	mg/L			07/27/16 17:18	2
Orthophosphate as P	0.11	B D	0.16	0.082	mg/L			07/27/16 17:18	2
Sulfate	65	D	0.50	0.25	mg/L			07/27/16 17:18	2

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QC Sample Results

Client: CH2M Hill Plateau Remediation Company
 Project/Site: F16-042

TestAmerica Job ID: 300-3591-1
 SDG: WC1304

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 300-5056/5
Matrix: Water
Analysis Batch: 5056

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			07/27/16 16:47	1
Nitrite as N	0.019	U	0.038	0.019	mg/L			07/27/16 16:47	1
Orthophosphate as P	0.041	U	0.082	0.041	mg/L			07/27/16 16:47	1

Lab Sample ID: LCS 300-5056/6
Matrix: Water
Analysis Batch: 5056

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	2.35		mg/L		104	80 - 120
Nitrite as N	3.04	3.20		mg/L		105	80 - 120
Orthophosphate as P	6.53	6.71		mg/L		103	80 - 120

Lab Sample ID: 300-3591-3 MS
Matrix: Water
Analysis Batch: 5056

Client Sample ID: B36695
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	2.2	D	0.452	2.75	D	mg/L		111	75 - 125
Nitrite as N	0.37	D	0.609	0.961	D	mg/L		97	75 - 125
Orthophosphate as P	0.11	B D	1.31	1.16	D	mg/L		80	75 - 125

Lab Sample ID: 300-3591-3 DU
Matrix: Water
Analysis Batch: 5056

Client Sample ID: B36695
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Nitrate as N	2.2	D	2.27	D	mg/L		1	20
Nitrite as N	0.37	D	0.375	D	mg/L		0.8	20
Orthophosphate as P	0.11	B D	0.106	B D	mg/L		0.9	20

Lab Sample ID: MB 300-5057/5
Matrix: Water
Analysis Batch: 5057

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			07/27/16 16:47	1
Fluoride	0.025	U	0.050	0.025	mg/L			07/27/16 16:47	1
Sulfate	0.13	U	0.25	0.13	mg/L			07/27/16 16:47	1

Lab Sample ID: LCS 300-5057/6
Matrix: Water
Analysis Batch: 5057

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	16.4		mg/L		103	80 - 120
Fluoride	4.00	4.12		mg/L		103	80 - 120
Sulfate	20.0	20.7		mg/L		104	80 - 120

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QC Sample Results

Client: CH2M Hill Plateau Remediation Company
 Project/Site: F16-042

TestAmerica Job ID: 300-3591-1
 SDG: WC1304

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 300-3591-3 MS
 Matrix: Water
 Analysis Batch: 5057

Client Sample ID: B36695
 Prep Type: Total/NA

Analyte	Sample		Spike Added	MS MS		Unit	D	%Rec	%Rec. Limits
	Result	Qualifier		Result	Qualifier				
Chloride	16	D	3.20	19.6	D	mg/L		108	75 - 125
Fluoride	1.2	D	0.800	2.06	D	mg/L		106	75 - 125
Sulfate	65	D	4.00	69.3	D	mg/L		113	75 - 125

Lab Sample ID: 300-3591-3 DU
 Matrix: Water
 Analysis Batch: 5057

Client Sample ID: B36695
 Prep Type: Total/NA

Analyte	Sample		DU DU		Unit	D	RPD	RPD Limit
	Result	Qualifier	Result	Qualifier				
Chloride	16	D	16.3	D	mg/L		1	20
Fluoride	1.2	D	1.22	D	mg/L		1	20
Sulfate	65	D	65.5	D	mg/L		1	20

Method: 7196A - Chromium, Hexavalent

Lab Sample ID: MB 300-5070/3
 Matrix: Water
 Analysis Batch: 5070

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

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Cr (VI)	0.0015	U	0.0040	0.0015	mg/L			07/28/16 09:59	1

Lab Sample ID: LCS 300-5070/4
 Matrix: Water
 Analysis Batch: 5070

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

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

Lab Sample ID: 300-3591-1 MS
 Matrix: Water
 Analysis Batch: 5070

Client Sample ID: B36694
 Prep Type: Total/NA

Analyte	Sample		Spike Added	MS MS		Unit	D	%Rec	%Rec. Limits
	Result	Qualifier		Result	Qualifier				
Cr (VI)	0.0015	U	0.0500	0.0502		mg/L		100	75 - 125

Lab Sample ID: 300-3591-1 DU
 Matrix: Water
 Analysis Batch: 5070

Client Sample ID: B36694
 Prep Type: Total/NA

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

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QC Association Summary

Client: CH2M Hill Plateau Remediation Company
 Project/Site: F16-042

TestAmerica Job ID: 300-3591-1
 SDG: WC1304

HPLC/IC

Analysis Batch: 5056

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
300-3591-3	B36695	Total/NA	Water	300.0	
MB 300-5056/5	Method Blank	Total/NA	Water	300.0	
LCS 300-5056/6	Lab Control Sample	Total/NA	Water	300.0	
300-3591-3 MS	B36695	Total/NA	Water	300.0	
300-3591-3 DU	B36695	Total/NA	Water	300.0	

Analysis Batch: 5057

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
300-3591-3	B36695	Total/NA	Water	300.0	
MB 300-5057/5	Method Blank	Total/NA	Water	300.0	
LCS 300-5057/6	Lab Control Sample	Total/NA	Water	300.0	
300-3591-3 MS	B36695	Total/NA	Water	300.0	
300-3591-3 DU	B36695	Total/NA	Water	300.0	

General Chemistry

Analysis Batch: 5070

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
300-3591-1	B36694	Total/NA	Water	7196A	
300-3591-2	B36699	Total/NA	Water	7196A	
MB 300-5070/3	Method Blank	Total/NA	Water	7196A	
LCS 300-5070/4	Lab Control Sample	Total/NA	Water	7196A	
300-3591-1 MS	B36694	Total/NA	Water	7196A	
300-3591-1 DU	B36694	Total/NA	Water	7196A	

August 2, 2016 Lab Chronicle

Client: CH2M Hill Plateau Remediation Company
Project/Site: F16-042

TestAmerica Job ID: 300-3591-1
SDG: WC1304

Client Sample ID: B36694
Date Collected: 07/27/16 12:26
Date Received: 07/27/16 14:50

Lab Sample ID: 300-3591-1
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			5070	07/28/16 10:02	RLC	TAL RCH

Client Sample ID: B36699
Date Collected: 07/27/16 12:26
Date Received: 07/27/16 14:50

Lab Sample ID: 300-3591-2
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			5070	07/28/16 10:03	RLC	TAL RCH

Client Sample ID: B36695
Date Collected: 07/27/16 12:26
Date Received: 07/27/16 14:50

Lab Sample ID: 300-3591-3
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			5056	07/27/16 17:18	CPM	TAL RCH
Total/NA	Analysis	300.0		2			5057	07/27/16 17:18	CPM	TAL RCH

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

Lab Sample ID: MB 300-5056/5
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			5056	07/27/16 16:47	CPM	TAL RCH

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

Lab Sample ID: MB 300-5057/5
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			5057	07/27/16 16:47	CPM	TAL RCH

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

Lab Sample ID: MB 300-5070/3
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			5070	07/28/16 09:59	RLC	TAL RCH

August 2, 2016 Lab Chronicle

Client: CH2M Hill Plateau Remediation Company
Project/Site: F16-042

TestAmerica Job ID: 300-3591-1
SDG: WC1304

Client Sample ID: Lab Control Sample

Lab Sample ID: LCS 300-5056/6

Date Collected: N/A

Matrix: Water

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1			5056	07/27/16 17:02	CPM	TAL RCH

Client Sample ID: Lab Control Sample

Lab Sample ID: LCS 300-5057/6

Date Collected: N/A

Matrix: Water

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1			5057	07/27/16 17:02	CPM	TAL RCH

Client Sample ID: Lab Control Sample

Lab Sample ID: LCS 300-5070/4

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			5070	07/28/16 09:59	RLC	TAL RCH

Client Sample ID: B36694

Lab Sample ID: 300-3591-1 MS

Date Collected: 07/27/16 12:26

Matrix: Water

Date Received: 07/27/16 14:50

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			5070	07/28/16 09:59	RLC	TAL RCH

Client Sample ID: B36695

Lab Sample ID: 300-3591-3 MS

Date Collected: 07/27/16 12:26

Matrix: Water

Date Received: 07/27/16 14:50

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			5056	07/27/16 17:33	CPM	TAL RCH
Total/NA	Analysis	300.0		2			5057	07/27/16 17:33	CPM	TAL RCH

Laboratory References:

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

August 2, 2016

Method Summary

Client: CH2M Hill Plateau Remediation Company
Project/Site: F16-042

TestAmerica Job ID: 300-3591-1
SDG: WC1304

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

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August 2, 2016 Sample Summary

Client: CH2M Hill Plateau Remediation Company
Project/Site: F16-042

TestAmerica Job ID: 300-3591-1
SDG: WC1304

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
300-3591-1	B36694	Water	07/27/16 12:26	07/27/16 14:50
300-3591-2	B36699	Water	07/27/16 12:26	07/27/16 14:50
300-3591-3	B36695	Water	07/27/16 12:26	07/27/16 14:50

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Login Sample Receipt Checklist

Client: CH2M Hill Plateau Remediation Company

Job Number: 300-3591-1

SDG Number: WC1304

Login Number: 3591

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	

