

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: 300-1224-1
TestAmerica Sample Delivery Group: WC0503
Client Project/Site: CH2M Hill Chemical

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

Attn: CPP Sample Management



Authorized for release by:
11/10/2015 12:24:59 PM
Steven Campbell, Quality Assurance Assistant
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Designee for
Whitney Ritari, Project Manager I
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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. The sample/ sample duplicate RPD agreement is not applicable if one or both results are elss than five times the MDL.

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LINKS

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Client: CH2M Hill Plateau Remediation Company
Project/Site: CH2M Hill Chemical

TestAmerica Job ID: 300-1224-1
SDG: WC0503



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Definitions/Glossary

Client: CH2M Hill Plateau Remediation Company
Project/Site: CH2M Hill Chemical

TestAmerica Job ID: 300-1224-1
SDG: WC0503

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Qualifiers

HPLC/IC

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

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.
¤	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)

Case Narrative

Client: CH2M Hill Plateau Remediation Company
Project/Site: CH2M Hill Chemical

TestAmerica Job ID: 300-1224-1
SDG: WC0503

Job ID: 300-1224-1

Laboratory: TestAmerica Richland

Narrative

**Job Narrative
300-1224-1**

Comments

No additional comments.

Receipt

The samples were received on 10/27/2015 11:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.0° C.

HPLC/IC

Method(s) 300.0: The matrix spike (MS) recoveries for analytical batch 300-1655 were outside control limits for Orthophosphate as P. 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.



SAMPLE ISSUE RESOLUTION

SIR NUM	SIR16-073
REV NUM	0
DATE INITIATED	11/3/2015

SAMPLE EVENT INFORMATION

SAF NUM(S) F14-003

OPERABLE UNIT(S)

PROJECT(S) 200 AREA SGRP

SAMPLE EVENT TITLE(S) 200-ZP-1 Remedial Action Wells

LABORATORY TestAmerica Incorporated, Richland

SAMPLING INFORMATION

NUMBER OF SAMPLES 1

SAMPLE NUMBERS B31CL7

SAMPLE MATRIX WATER

COLLECTION DATE 10/26/2015 - 10/26/2015

SDG NUM WC0503

ISSUE BACKGROUND

CLASS Chain of Custody Issue (Field)

TYPE No Logbook Number

DESCRIPTION Upon chain of custody data entry for SDG WC0503, COC #F14-003-459 (Sample #B31CL7), the "Logbook No." information is incomplete.

DISPOSITION

DESCRIPTION PROPOSED DISPOSITION: Document & close.

JUSTIFICATION ACCEPTED DISPOSITION: Accept the proposed resolution.

SUBMITTED BY: Gayelyn Gibson DATE: 11/3/15
 ACCEPTED BY: Susan Puckett Date: 11/3/15



CH2M Hill Plateau Remediation Company		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		F14-003-459	PAGE 1 OF 1
COLLECTOR <i>D. Wiegert</i>	COMPANY CONTACT TODAK, D	TELEPHONE NO. 376-6427	PROJECT COORDINATOR TODAK, D	PRICE CODE 7H	DATA TURNAROUND 30 Days / 30 Days
SAMPLING LOCATION C9440-1-004	PROJECT DESIGNATION FY2014 200-2P-1 Remedial Action Wells Sampling and Analysis - Water	FIELD LOGBOOK NO. INF-N-845	SAFE NO. F14-003	AIR QUALITY <input type="checkbox"/>	METHOD OF SHIPMENT GOVERNMENT VEHICLE
ICE CHEST NO. <i>N/A</i>	ACTUAL SAMPLE DEPTH <i>395.0 ft</i>	COA 302938	BILL OF LADING/AIR BILL NO. <i>N/A</i>	ORIGINAL	
SHIPPED TO TestAmerica Incorporated, Richland					

MATRIX* 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/LATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1.	PRESERVATION Cool <=6C	HOLDING TIME 24 Hours	NO. OF CONTAINER(S) 1	VOLUME 60ml	7196.CMG: COMMON;		
		SPECIAL HANDLING AND/OR STORAGE		SAMPLE ANALYSIS				
		SAMPLE NO. B31CL7	MATRIX* WATER	SAMPLE DATE OCT 26 2015	SAMPLE TIME 1445			
		<p style="text-align: center;"><i>1224</i> <i>W 0503</i></p>						

300-1224 COC



CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS	
RELINQUISHED BY/REMOVED FROM <i>D. Wiegert</i>	DATE/TIME OCT 26 2015	RECEIVED BY/STORED IN <i>SSU-1</i>	DATE/TIME OCT 26 2015	TRVL-15-079** The laboratory is to report all TICs for Method 8260.	
RELINQUISHED BY/REMOVED FROM <i>SSU-1</i>	DATE/TIME OCT 27 2015	RECEIVED BY/STORED IN <i>LD. Wall</i>	DATE/TIME OCT 27 2015		
RELINQUISHED BY/REMOVED FROM <i>LD. Wall</i>	DATE/TIME OCT 27 2015	RECEIVED BY/STORED IN <i>J. Bock, TARL</i>	DATE/TIME OCT 27 2015		
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		

TRVL-15-079



CH2M Hill Plateau Remediation Company		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			
COLLECTOR <i>D WILDT</i>	COMPANY CONTACT TODAK, D	TELEPHONE NO. 376-6427	PROJECT COORDINATOR TODAK, D	F14-003-462	PAGE 1 OF 1
SAMPLING LOCATION C9440_1-004	PROJECT DESIGNATION F72014 200-zp-1 Remedial Action Wells Sampling and Analysis - Water	FIELD LOGBOOK NO. HNF-N-645-2, P86	ACTUAL SAMPLE DEPTH 395.0 Ft	PRICE CODE 7H	DATA TURNAROUND 30 Days / 30 Days
ICE CHEST NO. N/A	OFFSITE PROPERTY NO. N/A	COA 302938	BILL OF LADING/AIR BILL NO. N/A	AIR QUALITY <input type="checkbox"/>	METHOD OF SHIPMENT FEDERAL EXPRESS
SHIPPED TO TestAmerica Incorporated, Richland		ORIGINAL			

MATRIX*	POSSIBLE SAMPLE HAZARDS/ REMARKS	PRESERVATION	NO. OF CONTAINER(S)	VOLUME
A=Air DL=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Soil SE=Settlement 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/ATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1.	Cool <-6C 48 hours	1	500ml
SPECIAL HANDLING AND/OR STORAGE	SAMPLE ANALYSIS	HOLDING TIME	TYPE OF CONTAINER	SEE ITEM (1) IN SPECIAL INSTRUCTIONS
		48 hours	P	
SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B31CM0	WATER	OCT 26 2015	1445	

W1224
W00523

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS	
RELINQUISHED BY/REMOVED FROM <i>D WILDT</i>	DATE/TIME OCT 26 2015 1545	RECEIVED BY/STORED IN SSU-1	DATE/TIME OCT 26 2015 1545	TRVL-15-079** The laboratory is to report all TICs for Method 8260. (1) 300.0 ANIONS_IC: COMMON {Nitrogen In Nitrate, Sulfate}; 300.0 ANIONS_IC: COMMON (Add-on) {Phosphorus in phosphate};	
RELINQUISHED BY/REMOVED FROM SSU-1	DATE/TIME OCT 27 2015 0833	RECEIVED BY/STORED IN CHPRC	DATE/TIME OCT 27 2015 0833		
RELINQUISHED BY/REMOVED FROM CHPRC	DATE/TIME OCT 27 2015 1100	RECEIVED BY/STORED IN J. Bock, TARA	DATE/TIME OCT 27 2015 1100		
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		

TRVL-15-079

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

Detection Summary

Client: CH2M Hill Plateau Remediation Company
Project/Site: CH2M Hill Chemical

TestAmerica Job ID: 300-1224-1
SDG: WC0503

Client Sample ID: B31CL7

Lab Sample ID: 300-1224-1

No Detections.

Client Sample ID: B31CM0

Lab Sample ID: 300-1224-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Nitrate as N	6.2	D	0.056	0.028	mg/L	2		300.0	Total/NA
Sulfate	62	D	0.50	0.25	mg/L	2		300.0	Total/NA

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This Detection Summary does not include radiochemical test results.

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Client Sample Results

Client: CH2M Hill Plateau Remediation Company
Project/Site: CH2M Hill Chemical

TestAmerica Job ID: 300-1224-1
SDG: WC0503

Client Sample ID: B31CL7

Date Collected: 10/26/15 14:45

Date Received: 10/27/15 11:00

Lab Sample ID: 300-1224-1

Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.0015	U	0.0040	0.0015	mg/L	-		10/27/15 14:01	1

Client Sample ID: B31CM0

Date Collected: 10/26/15 14:45

Date Received: 10/27/15 11:00

Lab Sample ID: 300-1224-2

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	6.2	D	0.056	0.028	mg/L	-		10/27/15 15:32	2
Orthophosphate as P	0.082	U N	0.16	0.082	mg/L	-		10/27/15 15:32	2
Sulfate	62	D	0.50	0.25	mg/L	-		10/27/15 15:32	2

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QC Sample Results

Client: CH2M Hill Plateau Remediation Company
Project/Site: CH2M Hill Chemical

TestAmerica Job ID: 300-1224-1
SDG: WC0503

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 300-1655/5
Matrix: Water
Analysis Batch: 1655

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			10/27/15 12:32	1
Orthophosphate as P	0.041	U	0.082	0.041	mg/L			10/27/15 12:32	1

Lab Sample ID: LCS 300-1655/6
Matrix: Water
Analysis Batch: 1655

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	2.39		mg/L		106	80 - 120
Orthophosphate as P	6.53	6.81		mg/L		104	80 - 120

Lab Sample ID: 300-1221-A-8 MS
Matrix: Water
Analysis Batch: 1655

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	5.9	D	0.452	6.35	D	mg/L		107	75 - 125
Orthophosphate as P	0.082	U N	1.31	0.631	D N	mg/L		48	75 - 125

Lab Sample ID: 300-1221-A-8 DU
Matrix: Water
Analysis Batch: 1655

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	5.9	D	5.85	D	mg/L		0.2	20
Orthophosphate as P	0.082	U N	0.082	U	mg/L		NC	20

Lab Sample ID: MB 300-1656/5
Matrix: Water
Analysis Batch: 1656

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	0.13	U	0.25	0.13	mg/L			10/27/15 12:32	1

Lab Sample ID: LCS 300-1656/6
Matrix: Water
Analysis Batch: 1656

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	20.0	21.0		mg/L		105	80 - 120

Lab Sample ID: 300-1221-A-8 MS
Matrix: Water
Analysis Batch: 1656

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
Sulfate	140	D	10.0	153	D	mg/L		107	75 - 125

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QC Sample Results

Client: CH2M Hill Plateau Remediation Company
Project/Site: CH2M Hill Chemical

TestAmerica Job ID: 300-1224-1
SDG: WC0503

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 300-1221-A-8 DU Client Sample ID: Duplicate
 Matrix: Water Prep Type: Total/NA
 Analysis Batch: 1656

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Sulfate	140	D	140	D	mg/L		1	20

Method: 7196A - Chromium, Hexavalent

Lab Sample ID: MB 300-1682/3 Client Sample ID: Method Blank
 Matrix: Water Prep Type: Total/NA
 Analysis Batch: 1682

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.0015	U	0.0040	0.0015	mg/L			10/27/15 13:58	1

Lab Sample ID: LCS 300-1682/4 Client Sample ID: Lab Control Sample
 Matrix: Water Prep Type: Total/NA
 Analysis Batch: 1682

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	0.250	0.259		mg/L		104	80 - 120

Lab Sample ID: 300-1224-1 MS Client Sample ID: B31CL7
 Matrix: Water Prep Type: Total/NA
 Analysis Batch: 1682

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	0.0015	U	0.0500	0.0484		mg/L		97	85 - 115

Lab Sample ID: 300-1224-1 DU Client Sample ID: B31CL7
 Matrix: Water Prep Type: Total/NA
 Analysis Batch: 1682

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

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QC Association Summary

Client: CH2M Hill Plateau Remediation Company
Project/Site: CH2M Hill Chemical

TestAmerica Job ID: 300-1224-1
SDG: WC0503

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HPLC/IC

Analysis Batch: 1655

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
300-1221-A-8 DU	Duplicate	Total/NA	Water	300.0	
300-1221-A-8 MS	Matrix Spike	Total/NA	Water	300.0	
300-1224-2	B31CM0	Total/NA	Water	300.0	
LCS 300-1655/6	Lab Control Sample	Total/NA	Water	300.0	
MB 300-1655/5	Method Blank	Total/NA	Water	300.0	

Analysis Batch: 1656

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
300-1221-A-8 DU	Duplicate	Total/NA	Water	300.0	
300-1221-A-8 MS	Matrix Spike	Total/NA	Water	300.0	
300-1224-2	B31CM0	Total/NA	Water	300.0	
LCS 300-1656/6	Lab Control Sample	Total/NA	Water	300.0	
MB 300-1656/5	Method Blank	Total/NA	Water	300.0	

General Chemistry

Analysis Batch: 1682

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
300-1224-1	B31CL7	Total/NA	Water	7196A	
300-1224-1 DU	B31CL7	Total/NA	Water	7196A	
300-1224-1 MS	B31CL7	Total/NA	Water	7196A	
LCS 300-1682/4	Lab Control Sample	Total/NA	Water	7196A	
MB 300-1682/3	Method Blank	Total/NA	Water	7196A	

Lab Chronicle

Client: CH2M Hill Plateau Remediation Company
 Project/Site: CH2M Hill Chemical

TestAmerica Job ID: 300-1224-1
 SDG: WC0503

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Client Sample ID: B31CL7

Lab Sample ID: 300-1224-1

Date Collected: 10/26/15 14:45
 Date Received: 10/27/15 11:00

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			1682	10/27/15 14:01	AMC	TAL RCH

Client Sample ID: B31CM0

Lab Sample ID: 300-1224-2

Date Collected: 10/26/15 14:45
 Date Received: 10/27/15 11:00

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	10 mL		1655	10/27/15 15:32	CPM	TAL RCH
Total/NA	Analysis	300.0		2	10 mL		1656	10/27/15 15:32	CPM	TAL RCH

Client Sample ID: Duplicate

Lab Sample ID: 300-1221-A-8 DU

Date Collected: 10/26/15 12:18
 Date Received: 10/26/15 15:00

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	10 mL		1655	10/27/15 13:32	CPM	TAL RCH
Total/NA	Analysis	300.0		5	10 mL		1656	10/27/15 16:33	CPM	TAL RCH

Client Sample ID: B31CL7

Lab Sample ID: 300-1224-1 DU

Date Collected: 10/26/15 14:45
 Date Received: 10/27/15 11:00

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			1682	10/27/15 14:02	AMC	TAL RCH

Client Sample ID: Lab Control Sample

Lab Sample ID: LCS 300-1655/6

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	10 mL		1655	10/27/15 12:47	CPM	TAL RCH

Client Sample ID: Lab Control Sample

Lab Sample ID: LCS 300-1656/6

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	10 mL		1656	10/27/15 12:47	CPM	TAL RCH

Lab Chronicle

Client: CH2M Hill Plateau Remediation Company
 Project/Site: CH2M Hill Chemical

TestAmerica Job ID: 300-1224-1
 SDG: WC0503

Client Sample ID: Lab Control Sample

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

Lab Sample ID: LCS 300-1682/4

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	7196A		1			1682	10/27/15 13:58	AMC	TAL RCH

Client Sample ID: Method Blank

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

Lab Sample ID: MB 300-1655/5

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	10 mL		1655	10/27/15 12:32	CPM	TAL RCH

Client Sample ID: Method Blank

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

Lab Sample ID: MB 300-1656/5

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	10 mL		1656	10/27/15 12:32	CPM	TAL RCH

Client Sample ID: Method Blank

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

Lab Sample ID: MB 300-1682/3

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			1682	10/27/15 13:58	AMC	TAL RCH

Client Sample ID: Matrix Spike

Date Collected: 10/26/15 12:18
 Date Received: 10/26/15 15:00

Lab Sample ID: 300-1221-A-8 MS

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	10 mL		1655	10/27/15 13:17	CPM	TAL RCH
Total/NA	Analysis	300.0		5	10 mL		1656	10/27/15 16:18	CPM	TAL RCH

Client Sample ID: B31CL7

Date Collected: 10/26/15 14:45
 Date Received: 10/27/15 11:00

Lab Sample ID: 300-1224-1 MS

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		3.0 mL	1682	10/27/15 13:59	AMC	TAL RCH

Laboratory References:

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



Method Summary

Client: CH2M Hill Plateau Remediation Company
Project/Site: CH2M Hill Chemical

TestAmerica Job ID: 300-1224-1
SDG: WC0503



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

Sample Summary

Client: CH2M Hill Plateau Remediation Company
Project/Site: CH2M Hill Chemical

TestAmerica Job ID: 300-1224-1
SDG: WC0503

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
300-1224-1	B31CL7	Water	10/26/15 14:45	10/27/15 11:00
300-1224-2	B31CM0	Water	10/26/15 14:45	10/27/15 11:00

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

Login Sample Receipt Checklist

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

Client: CH2M Hill Plateau Remediation Company

Job Number: 300-1224-1

SDG Number: WC0503

Login Number: 1224
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.	True	
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.	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	