

July 7, 2016

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

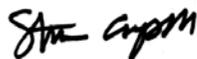
ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Richland
2800 George Washington Way
Richland, WA 99352
Tel: (509)375-3131

TestAmerica Job ID: 300-3281-1
TestAmerica Sample Delivery Group: WC1169
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:
7/7/2016 9:17:56 AM
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Designee for
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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 less than five times the MDL.



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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	13
Lab Chronicle	14
Method Summary	17
Sample Summary	18
Receipt Checklists	19

Definitions/Glossary

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

TestAmerica Job ID: 300-3281-1
 SDG: WC1169

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
B	Estimated result. Result is less than the RL, but greater than MDL
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)



July 7, 2016

Case Narrative

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

TestAmerica Job ID: 300-3281-1
SDG: WC1169

Job ID: 300-3281-1

Laboratory: TestAmerica Richland

Narrative

Job Narrative
300-3281-1

Comments

No additional comments.

Receipt

The samples were received on 6/15/2016 2:05 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 13.1° 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.

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

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F16-042-048 PAGE 1 OF 1

COLLECTOR: W.M. WISEGCHPRC COMPANY CONTACT: TODAK, D TELEPHONE NO.: 376-6427 PROJECT COORDINATOR: TODAK, D PRICE CODE: 7H DATA TURNAROUND: 30 Days / 30 Days

SAMPLING LOCATION: C9401, I-006 PROJECT DESIGNATION: 100-NR-2 Drilling - Water FIELD LOGBOOK NO.: HNF-NR-645-14 ACTUAL SAMPLE DEPTH: 88' 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 PRESERVATION: Cool <=6C HOLDING TIME: 24 Hours TYPE OF CONTAINER: aG NO. OF CONTAINER(S): 1 VOLUME: 60ml

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. NA

DI=Drum L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WI=Wipe X=Other

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME
B35VT2	WATER	JUN 15 2016	1046

3281
used

FILTER

300-3281 COC



CHAIN OF POSSESSION SIGN/ PRINT NAMES SPECIAL INSTRUCTIONS

RELINQUISHED BY/REMOVED FROM: W.M. WISEGCHPRC DATE/TIME: JUN 15 2016 1330 RECEIVED BY/STORED IN: Ledy Neal DATE/TIME: JUN 15 2016 1330

RELINQUISHED BY/REMOVED FROM: Ledy Neal DATE/TIME: JUN 15 2016 1405 RECEIVED BY/STORED IN: L. Anderson, TML DATE/TIME: JUN 15 2016 1405

RELINQUISHED BY/REMOVED FROM: DATE/TIME: DATE/TIME: RECEIVED BY/STORED IN: DATE/TIME: DATE/TIME:

RELINQUISHED BY/REMOVED FROM: DATE/TIME: DATE/TIME: RECEIVED BY/STORED IN: DATE/TIME: DATE/TIME:

RELINQUISHED BY/REMOVED FROM: DATE/TIME: DATE/TIME: RECEIVED BY/STORED IN: DATE/TIME: DATE/TIME:

RELINQUISHED BY/REMOVED FROM: DATE/TIME: DATE/TIME: RECEIVED BY/STORED IN: DATE/TIME: DATE/TIME:

LABORATORY SECTION: RECEIVED BY: TITLE: DATE/TIME:

FINAL SAMPLE DISPOSITION: DISPOSAL METHOD: DISPOSED BY: DATE/TIME:

PRINTED ON 5/24/2016 FSR ID = FSR32676 TRVL NUM = TRVL-16-153 A-6003-618 (REV 2)



CH2M Hill Plateau Remediation Company		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		FIG-042-043	PAGE 1 OF 1
COLLECTOR WMA WISECHERRC	COMPANY CONTACT TODAK, D	TELEPHONE NO. 376-6427	PROJECT COORDINATOR TODAK, D	PRICE CODE 7H	DATA TURNAROUND 30 Days / 30 Days
SAMPLING LOCATION C9401, I-006	PROJECT DESIGNATION 100-NR-2 Drilling - Water	FIELD LOGBOOK NO. HAF-N-895-y	ACTUAL SAMPLE DEPTH 88'	SAF NO. F16-042	AIR QUALITY <input type="checkbox"/>
ICE CHEST NO.		OFFSITE PROPERTY NO.	COA 304070	METHOD OF SHIPMENT GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO TestAmerica Incorporated, Richland			BILL OF LADING/AIR BILL NO. D/A		

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	SPECIAL HANDLING AND/OR STORAGE	PRESERVATION		Cool <=6C
		HOLDING TIME		24 Hours
		TYPE OF CONTAINER		3G
		NO. OF CONTAINER(S)		1
		VOLUME		60mL
		SAMPLE ANALYSIS		7196, CR6, COMMON
SAMPLE NO. B35VR7	MATRIX* WATER	SAMPLE DATE JUN 15 2016	SAMPLE TIME 1046	✓

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w/line 9

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS	
RELINQUISHED BY/REMOVED FROM WMA WISECHERRC	DATE/TIME JUN 15 2016 1330	RECEIVED BY/STORED IN Leedy West Chem	DATE/TIME JUN 15 2016 1330	* Filtered sample	
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		
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	

CH2M Hill Plateau Remediation Company		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		F16-042-044	PAGE 1 OF 1
COLLECTOR W.M. WISEGARCIA	COMPANY CONTACT TODAK, D	TELEPHONE NO. 376-6427	PROJECT COORDINATOR TODAK, D	PRICE CODE 7H	DATA TURNAROUND 30 Days / 30 Days
SAMPLING LOCATION C9401, I-006	PROJECT DESIGNATION 100-NR-2 Drilling - Water	FIELD LOGBOOK NO. HNP-N-845-4	ACTUAL SAMPLE DEPTH 88'	SAF NO. F16-042	METHOD OF SHIPMENT GOVERNMENT VEHICLE ORIGINAL
ICE CHEST NO. N/A	OFFSITE PROPERTY NO. N/A	COA 304070	BILL OF LADING/AIR BILL NO. N/A		
SHIPPED TO TestAmerica Incorporated, Richland					

MATRIX* A=Air DL=Drum Liquids DS=Drum Solids L=Liquid O=Oil SE=Soil T=Tissue V=Vegetation W=Water WF=Wipe X=Other	SPECIAL HANDLING AND/OR STORAGE	PRESERVATION		Cool <=6C
		HOLDING TIME		48 Hours
		TYPE OF CONTAINER		P
		NO. OF CONTAINER(S)		1
VOLUME		500ml		
SEE ITEM (1) IN SPECIAL INSTRUCTIONS				
SAMPLE NO. B35VR8	MATRIX* WATER	SAMPLE DATE JUN 15 2016	SAMPLE TIME 1046	

3281
W01169

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS	
RELINQUISHED BY/REMOVED FROM W.M. WISEGARCIA	DATE/TIME JUN 15 2016 1330	RECEIVED BY/STORED IN LARRY WEAVER	DATE/TIME JUN 15 2016 1330	(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}; Filtered samples	
RELINQUISHED BY/REMOVED FROM LARRY WEAVER	DATE/TIME JUN 15 2016 1405	RECEIVED BY/STORED IN ANDERSON, TRYL	DATE/TIME JUN 15 2016 1405		
RELINQUISHED BY/REMOVED FROM ANDERSON, TRYL	DATE/TIME JUN 15 2016 1405	RECEIVED BY/STORED IN ANDERSON, TRYL	DATE/TIME JUN 15 2016 1405		
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	DISPOSED BY	DATE/TIME		

Detection Summary

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

TestAmerica Job ID: 300-3281-1
 SDG: WC1169

Client Sample ID: B35VT2

Lab Sample ID: 300-3281-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cr (VI)	0.0023	B	0.0040	0.0015	mg/L	1		7196A	Total/NA

Client Sample ID: B35VR7

Lab Sample ID: 300-3281-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cr (VI)	0.0020	B	0.0040	0.0015	mg/L	1		7196A	Total/NA

Client Sample ID: B35VR8

Lab Sample ID: 300-3281-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	20	D	0.40	0.20	mg/L	2		300.0	Total/NA
Nitrate as N	5.2	D	0.056	0.028	mg/L	2		300.0	Total/NA
Fluoride	0.49	D	0.10	0.050	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.

Client Sample Results

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

TestAmerica Job ID: 300-3281-1
 SDG: WC1169

Client Sample ID: B35VT2

Lab Sample ID: 300-3281-1

Date Collected: 06/15/16 10:46

Matrix: Water

Date Received: 06/15/16 14:05

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.0023	B	0.0040	0.0015	mg/L			06/15/16 16:14	1

Client Sample ID: B35VR7

Lab Sample ID: 300-3281-2

Date Collected: 06/15/16 10:46

Matrix: Water

Date Received: 06/15/16 14:05

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.0020	B	0.0040	0.0015	mg/L			06/15/16 16:14	1

Client Sample ID: B35VR8

Lab Sample ID: 300-3281-3

Date Collected: 06/15/16 10:46

Matrix: Water

Date Received: 06/15/16 14:05

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	20	D	0.40	0.20	mg/L			06/15/16 19:03	2
Nitrate as N	5.2	D	0.056	0.028	mg/L			06/15/16 19:03	2
Fluoride	0.49	D	0.10	0.050	mg/L			06/15/16 19:03	2
Nitrite as N	0.038	U D	0.076	0.038	mg/L			06/15/16 19:03	2
Orthophosphate as P	0.082	U D	0.16	0.082	mg/L			06/15/16 19:03	2
Sulfate	100	D	2.5	1.3	mg/L			06/15/16 21:34	10

QC Sample Results

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

TestAmerica Job ID: 300-3281-1
SDG: WC1169

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 300-4551/5
Matrix: Water
Analysis Batch: 4551

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			06/15/16 16:47	1
Nitrite as N	0.019	U	0.038	0.019	mg/L			06/15/16 16:47	1
Orthophosphate as P	0.041	U	0.082	0.041	mg/L			06/15/16 16:47	1

Lab Sample ID: LCS 300-4551/6
Matrix: Water
Analysis Batch: 4551

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
Nitrite as N	3.04	3.12		mg/L		103	80 - 120
Orthophosphate as P	6.53	6.60		mg/L		101	80 - 120

Lab Sample ID: 300-3277-A-4 MS
Matrix: Water
Analysis Batch: 4551

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
Nitrite as N	0.51	D	0.609	1.12	D	mg/L		99	75 - 125
Orthophosphate as P	0.082	U D	1.31	1.15	D	mg/L		88	75 - 125

Lab Sample ID: 300-3277-A-4 MS
Matrix: Water
Analysis Batch: 4551

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	43	D	11.3	55.2	D	mg/L		108	75 - 125

Lab Sample ID: 300-3277-A-4 DU
Matrix: Water
Analysis Batch: 4551

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Nitrite as N	0.51	D	0.516	D	mg/L		0.8	20
Orthophosphate as P	0.082	U D	0.082	U D	mg/L		NC	20

Lab Sample ID: 300-3277-A-4 DU
Matrix: Water
Analysis Batch: 4551

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	43	D	43.0	D	mg/L		0	20

Lab Sample ID: MB 300-4552/5
Matrix: Water
Analysis Batch: 4552

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			06/15/16 16:47	1

QC Sample Results

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

TestAmerica Job ID: 300-3281-1
SDG: WC1169

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: MB 300-4552/5
Matrix: Water
Analysis Batch: 4552

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			06/15/16 16:47	1
Sulfate	0.13	U	0.25	0.13	mg/L			06/15/16 16:47	1

Lab Sample ID: LCS 300-4552/6
Matrix: Water
Analysis Batch: 4552

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	16.1		mg/L		100	80 - 120
Fluoride	4.00	4.02		mg/L		101	80 - 120
Sulfate	20.0	20.2		mg/L		101	80 - 120

Lab Sample ID: 300-3277-A-4 MS
Matrix: Water
Analysis Batch: 4552

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	33	D	3.20	36.5	D	mg/L		105	75 - 125
Fluoride	3.2	D	0.800	4.02	D	mg/L		106	75 - 125
Sulfate	13	D	4.00	17.3	D	mg/L		105	75 - 125

Lab Sample ID: 300-3277-A-4 DU
Matrix: Water
Analysis Batch: 4552

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Chloride	33	D	33.4	D	mg/L		0.8	20
Fluoride	3.2	D	3.20	D	mg/L		0.8	20
Sulfate	13	D	13.2	D	mg/L		0.9	20

Method: 7196A - Chromium, Hexavalent

Lab Sample ID: MB 300-4562/3
Matrix: Water
Analysis Batch: 4562

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			06/15/16 16:10	1

Lab Sample ID: LCS 300-4562/4
Matrix: Water
Analysis Batch: 4562

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	0.259		mg/L		104	80 - 120

QC Sample Results

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

TestAmerica Job ID: 300-3281-1
 SDG: WC1169

Method: 7196A - Chromium, Hexavalent (Continued)

Lab Sample ID: 300-3281-1 MS
 Matrix: Water
 Analysis Batch: 4562

Client Sample ID: B35VT2
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	0.0023	B	0.0499	0.0480		mg/L		91	75 - 125

Lab Sample ID: 300-3281-1 DU
 Matrix: Water
 Analysis Batch: 4562

Client Sample ID: B35VT2
 Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Cr (VI)	0.0023	B	0.00230	B	mg/L		0	20

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QC Association Summary

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

TestAmerica Job ID: 300-3281-1
 SDG: WC1169

HPLC/IC

Analysis Batch: 4551

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
300-3277-A-4 DU	Duplicate	Total/NA	Water	300.0	
300-3277-A-4 DU	Duplicate	Total/NA	Water	300.0	
300-3277-A-4 MS	Matrix Spike	Total/NA	Water	300.0	
300-3277-A-4 MS	Matrix Spike	Total/NA	Water	300.0	
300-3281-3	B35VR8	Total/NA	Water	300.0	
LCS 300-4551/6	Lab Control Sample	Total/NA	Water	300.0	
MB 300-4551/5	Method Blank	Total/NA	Water	300.0	

Analysis Batch: 4552

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
300-3277-A-4 DU	Duplicate	Total/NA	Water	300.0	
300-3277-A-4 MS	Matrix Spike	Total/NA	Water	300.0	
300-3281-3	B35VR8	Total/NA	Water	300.0	
300-3281-3	B35VR8	Total/NA	Water	300.0	
LCS 300-4552/6	Lab Control Sample	Total/NA	Water	300.0	
MB 300-4552/5	Method Blank	Total/NA	Water	300.0	

General Chemistry

Analysis Batch: 4562

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
300-3281-1	B35VT2	Total/NA	Water	7196A	
300-3281-1 DU	B35VT2	Total/NA	Water	7196A	
300-3281-1 MS	B35VT2	Total/NA	Water	7196A	
300-3281-2	B35VR7	Total/NA	Water	7196A	
LCS 300-4562/4	Lab Control Sample	Total/NA	Water	7196A	
MB 300-4562/3	Method Blank	Total/NA	Water	7196A	

Lab Chronicle

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

TestAmerica Job ID: 300-3281-1
SDG: WC1169

Client Sample ID: B35VT2

Date Collected: 06/15/16 10:46

Date Received: 06/15/16 14:05

Lab Sample ID: 300-3281-1

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			4562	06/15/16 16:14	RLC	TAL RCH

Client Sample ID: B35VR7

Date Collected: 06/15/16 10:46

Date Received: 06/15/16 14:05

Lab Sample ID: 300-3281-2

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			4562	06/15/16 16:14	RLC	TAL RCH

Client Sample ID: B35VR8

Date Collected: 06/15/16 10:46

Date Received: 06/15/16 14:05

Lab Sample ID: 300-3281-3

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	10 mL		4551	06/15/16 19:03	CPM	TAL RCH
Total/NA	Analysis	300.0		2	10 mL		4552	06/15/16 19:03	CPM	TAL RCH
Total/NA	Analysis	300.0		10	10 mL		4552	06/15/16 21:34	CPM	TAL RCH

Client Sample ID: Duplicate

Date Collected: 06/15/16 08:30

Date Received: 06/15/16 11:00

Lab Sample ID: 300-3277-A-4 DU

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		4551	06/15/16 17:47	CPM	TAL RCH
Total/NA	Analysis	300.0		2	10 mL		4552	06/15/16 17:47	CPM	TAL RCH
Total/NA	Analysis	300.0		50	10 mL		4551	06/15/16 20:18	CPM	TAL RCH

Client Sample ID: B35VT2

Date Collected: 06/15/16 10:46

Date Received: 06/15/16 14:05

Lab Sample ID: 300-3281-1 DU

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			4562	06/15/16 16:14	RLC	TAL RCH

Client Sample ID: Lab Control Sample

Date Collected: N/A

Date Received: N/A

Lab Sample ID: LCS 300-4551/6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1	10 mL		4551	06/15/16 17:02	CPM	TAL RCH

Lab Chronicle

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

TestAmerica Job ID: 300-3281-1
SDG: WC1169

Client Sample ID: Lab Control Sample

Lab Sample ID: LCS 300-4552/6

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		4552	06/15/16 17:02	CPM	TAL RCH

Client Sample ID: Lab Control Sample

Lab Sample ID: LCS 300-4562/4

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			4562	06/15/16 16:11	RLC	TAL RCH

Client Sample ID: Method Blank

Lab Sample ID: MB 300-4551/5

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		4551	06/15/16 16:47	CPM	TAL RCH

Client Sample ID: Method Blank

Lab Sample ID: MB 300-4552/5

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		4552	06/15/16 16:47	CPM	TAL RCH

Client Sample ID: Method Blank

Lab Sample ID: MB 300-4562/3

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			4562	06/15/16 16:10	RLC	TAL RCH

Client Sample ID: Matrix Spike

Lab Sample ID: 300-3277-A-4 MS

Date Collected: 06/15/16 08:30
Date Received: 06/15/16 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		4551	06/15/16 17:32	CPM	TAL RCH
Total/NA	Analysis	300.0		2	10 mL		4552	06/15/16 17:32	CPM	TAL RCH
Total/NA	Analysis	300.0		50	10 mL		4551	06/15/16 20:03	CPM	TAL RCH

Lab Chronicle

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

TestAmerica Job ID: 300-3281-1
SDG: WC1169

Client Sample ID: B35VT2

Lab Sample ID: 300-3281-1 MS

Date Collected: 06/15/16 10:46

Matrix: Water

Date Received: 06/15/16 14:05

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	4562	06/15/16 16:11	RLC	TAL RCH

Laboratory References:

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

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Method Summary

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

TestAmerica Job ID: 300-3281-1
SDG: WC1169

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 7, 2016

Sample Summary

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

TestAmerica Job ID: 300-3281-1
SDG: WC1169

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
300-3281-1	B35VT2	Water	06/15/16 10:46	06/15/16 14:05
300-3281-2	B35VR7	Water	06/15/16 10:46	06/15/16 14:05
300-3281-3	B35VR8	Water	06/15/16 10:46	06/15/16 14:05

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Login Sample Receipt Checklist

Client: CH2M Hill Plateau Remediation Company

Job Number: 300-3281-1

SDG Number: WC1169

Login Number: 3281

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	

