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: 300-3456-1
TestAmerica Sample Delivery Group: WC1252
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:
7/28/2016 11:42:39 AM
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Designee for

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LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: 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 desingee 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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Definitions/Glossary

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

TestAmerica Job ID: 300-3456-1
SDG: WC1252

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
D	The reported value is from a dilution.
U	Analyzed for but not detected.
B	Estimated result. Result is less than the RL, but greater than MDL

General Chemistry

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

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	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: F16-042

TestAmerica Job ID: 300-3456-1
SDG: WC1252

Job ID: 300-3456-1

Laboratory: TestAmerica Richland

Narrative

Job Narrative
300-3456-1

Comments
No additional comments.

Receipt
The samples were received on 7/13/2016 3:05 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 10.5º 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.

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F16-042-071	PAGE 1 OF 1
COLLECTOR: Chris Fulton CHPRC	COMPANY CONTACT: TODAK, D	TELEPHONE NO.: 376-6427	PROJECT COORDINATOR: TODAK, D	PRICE CODE: 7H	DATA TURNAROUND: 30 Days / 30 Days
SAMPLING LOCATION: C9403, I-007	PROJECT DESIGNATION: 100-NR-2 Drilling - Water		SAF NO.: F16-042	AIR QUALITY ☐	
ICE CHEST NO.: N/A	FIELD LOGBOOK NO.: HNF-N-645 4 - 125	ACTUAL SAMPLE DEPTH: 91.37'	COA: 304070	METHOD OF SHIPMENT: GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO: TestAmerica Incorporated, Richland	OFFSITE PROPERTY NO.: N/A		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
WI=Wipe
X=Other

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

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool <=6C
HOLDING TIME	24 Hours
TYPE OF CONTAINER	aG
NO. OF CONTAINER(S)	1
VOLUME	60mL
SAMPLE ANALYSIS	7196_CR6: COMMON;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B35XD2	WATER	JUL 13 2016	1146	✓

#3456
WC1252

300-3456 COC

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: Chris Fulton CHPRC	DATE/TIME: JUL 13 2016 1336	RECEIVED BY/STORED IN: Troy Bacon CHPRC	DATE/TIME: JUL 13 2016 1336	
RELINQUISHED BY/REMOVED FROM: Troy Bacon CHPRC	DATE/TIME: JUL 13 2016 1505	RECEIVED BY/STORED IN: J. Bock, TARU	DATE/TIME: JUL 13 2016 1505	
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

PRINTED ON 6/2/2016 FSR ID = FSR33028 TRVL NUM = TRVL-16-165 A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F16-042-076	PAGE 1 OF 1
COLLECTOR: Chris Fulton CHPRC	COMPANY CONTACT: TODAK, D	TELEPHONE NO.: 376-6427	PROJECT COORDINATOR: TODAK, D	PRICE CODE: 7H	DATA TURNAROUND: 30 Days / 30 Days
SAMPLING LOCATION: C9403, I-007	PROJECT DESIGNATION: 100-NR-2 Drilling - Water		SAF NO.: F16-042	AIR QUALITY: ☐	
ICE CHEST NO.: N/A	FIELD LOGBOOK NO.: HNF-N-645 4 - 475	ACTUAL SAMPLE DEPTH: 91.37	COA: 304070	METHOD OF SHIPMENT: GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO: TestAmerica Incorporated, Richland	OFFSITE PROPERTY NO.: N/A		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
WI=Wipe
X=Other

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

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool <=6C
HOLDING TIME	24 Hours
TYPE OF CONTAINER	aG
NO. OF CONTAINER(S)	1
VOLUME	60mL
SAMPLE ANALYSIS	7196_CR6: COMMON;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME
B35XD7	WATER	JUL 13 2016	1146

#3456
WC1252

FILTER

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: Chris Fulton CHPRC	DATE/TIME: JUL 13 2016 1336	RECEIVED BY/STORED IN: Troy Bacon CHPRC	DATE/TIME: JUL 13 2016 1336	FILTER
RELINQUISHED BY/REMOVED FROM: Troy Bacon CHPRC	DATE/TIME: JUL 13 2016 1505	RECEIVED BY/STORED IN: J. Bock, TARL	DATE/TIME: JUL 13 2016 1505	
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	

PRINTED ON 6/2/2016 FSR ID = FSR33028 TRVL NUM = TRVL-16-165 A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F16-042-072	PAGE 1 OF 1
COLLECTOR: Chris Fulton CHPRC	COMPANY CONTACT: TODAK, D	TELEPHONE NO.: 376-6427	PROJECT COORDINATOR: TODAK, D	PRICE CODE: 7H	DATA TURNAROUND
SAMPLING LOCATION: C9403, I-007	PROJECT DESIGNATION: 100-NR-2 Drilling - Water		SAF NO.: F16-042	AIR QUALITY ☐	30 Days / 30 Days
ICE CHEST NO.: N/A	FIELD LOGBOOK NO.: HNF-N-645 4 - p25	ACTUAL SAMPLE DEPTH: 91.37'	COA: 304070	METHOD OF SHIPMENT: GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO: TestAmerica Incorporated, Richland	OFFSITE PROPERTY NO.: N/A		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
WI=Wipe
X=Other

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

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool <=6C
HOLDING TIME	48 Hours
TYPE OF CONTAINER	P
NO. OF CONTAINER(S)	1
VOLUME	500mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B35XD3	WATER	JUL 13 2016	1146	✓

3456
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CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM: Chris Fulton CHPRC	DATE/TIME: JUL 13 2016 1336	RECEIVED BY/STORED IN: Troy Bacon CHPRC Troy L Bacon	DATE/TIME: JUL 13 2016 1336
RELINQUISHED BY/REMOVED FROM: Troy Bacon CHPRC Troy L Bacon	DATE/TIME: JUL 13 2016 1505	RECEIVED BY/STORED IN: J. Bock, TARL	DATE/TIME: JUL 13 2016 1505
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

SPECIAL INSTRUCTIONS
(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};

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

PRINTED ON 6/2/2016 FSR ID = FSR33028 TRVL NUM = TRVL-16-165 A-6003-618 (REV 2)

Detection Summary

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

TestAmerica Job ID: 300-3456-1
SDG: WC1252

Client Sample ID: B35XD2 — Lab Sample ID: 300-3456-1

No Detections.

Client Sample ID: B35XD7 — Lab Sample ID: 300-3456-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cr (VI)	0.0016	B	0.0040	0.0015	mg/L	1		7196A	Total/NA

Client Sample ID: B35XD3 — Lab Sample ID: 300-3456-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	19	D	0.40	0.20	mg/L	2		300.0	Total/NA
Nitrate as N	5.0	D	0.056	0.028	mg/L	2		300.0	Total/NA
Fluoride	0.56	D	0.10	0.050	mg/L	2		300.0	Total/NA
Orthophosphate as P	0.12	B D	0.16	0.082	mg/L	2		300.0	Total/NA
Sulfate	100	D	2.5	1.3	mg/L	10		300.0	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

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

TestAmerica Job ID: 300-3456-1
SDG: WC1252

Client Sample ID: B35XD2

Lab Sample ID: 300-3456-1
Date Collected: 07/13/16 11:46
Matrix: Water
Date Received: 07/13/16 15:05

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.0015	U	0.0040	0.0015	mg/L			07/13/16 17:01	1

Client Sample ID: B35XD7

Lab Sample ID: 300-3456-2
Date Collected: 07/13/16 11:46
Matrix: Water
Date Received: 07/13/16 15:05

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.0016	B	0.0040	0.0015	mg/L			07/13/16 17:02	1

Client Sample ID: B35XD3

Lab Sample ID: 300-3456-3
Date Collected: 07/13/16 11:46
Matrix: Water
Date Received: 07/13/16 15:05

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	19	D	0.40	0.20	mg/L			07/14/16 15:12	2
Nitrate as N	5.0	D	0.056	0.028	mg/L			07/14/16 15:12	2
Fluoride	0.56	D	0.10	0.050	mg/L			07/14/16 15:12	2
Nitrite as N	0.038	U D	0.076	0.038	mg/L			07/14/16 15:12	2
Orthophosphate as P	0.12	B D	0.16	0.082	mg/L			07/14/16 15:12	2
Sulfate	100	D	2.5	1.3	mg/L			07/14/16 17:28	10

QC Sample Results

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

TestAmerica Job ID: 300-3456-1
SDG: WC1252

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 300-4877/5 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 4877

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			07/14/16 14:42	1
Nitrite as N	0.019	U	0.038	0.019	mg/L			07/14/16 14:42	1
Orthophosphate as P	0.041	U	0.082	0.041	mg/L			07/14/16 14:42	1

Lab Sample ID: LCS 300-4877/6 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 4877

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	2.26	2.28		mg/L		101	80 - 120
Nitrite as N	3.04	3.08		mg/L		101	80 - 120
Orthophosphate as P	6.53	6.54		mg/L		100	80 - 120

Lab Sample ID: 300-3456-3 MS — **Client Sample ID: B35XD3**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 4877

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	5.0	D	0.452	5.53	D	mg/L		123	75 - 125
Nitrite as N	0.038	U D	0.609	0.533	D	mg/L		88	75 - 125
Orthophosphate as P	0.12	B D	1.31	1.17	D	mg/L		81	75 - 125

Lab Sample ID: 300-3456-3 DU — **Client Sample ID: B35XD3**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 4877

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Nitrate as N	5.0	D	5.05	D	mg/L		1	20
Nitrite as N	0.038	U D	0.038	U D	mg/L		NC	20
Orthophosphate as P	0.12	B D	0.115	B D	mg/L		0.6	20

Lab Sample ID: MB 300-4878/5 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 4878

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.10	U	0.20	0.10	mg/L			07/14/16 14:42	1
Fluoride	0.025	U	0.050	0.025	mg/L			07/14/16 14:42	1
Sulfate	0.13	U	0.25	0.13	mg/L			07/14/16 14:42	1

Lab Sample ID: LCS 300-4878/6 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 4878

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	16.0	15.9		mg/L		99	80 - 120
Fluoride	4.00	3.99		mg/L		100	80 - 120
Sulfate	20.0	19.9		mg/L		100	80 - 120

QC Sample Results

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

TestAmerica Job ID: 300-3456-1
SDG: WC1252

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 300-3456-3 MS — **Client Sample ID: B35XD3**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 4878

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	19	D	3.20	22.5	D	mg/L		112	75 - 125
Fluoride	0.56	D	0.800	1.35	D	mg/L		99	75 - 125

Lab Sample ID: 300-3456-3 MS — **Client Sample ID: B35XD3**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 4878

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	100	D	20.0	123	D	mg/L		109	75 - 125

Lab Sample ID: 300-3456-3 DU — **Client Sample ID: B35XD3**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 4878

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Chloride	19	D	19.3	D	mg/L		2	20
Fluoride	0.56	D	0.567	D	mg/L		1	20

Lab Sample ID: 300-3456-3 DU — **Client Sample ID: B35XD3**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 4878

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Sulfate	100	D	101	D	mg/L		0.2	20

Method: 7196A - Chromium, Hexavalent

Lab Sample ID: MB 300-4872/3 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 4872

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.0015	U	0.0040	0.0015	mg/L			07/13/16 16:57	1

Lab Sample ID: LCS 300-4872/4 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 4872

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	0.250	0.253		mg/L		101	80 - 120

Lab Sample ID: 300-3455-A-1 MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 4872

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	0.089		0.0500	0.138		mg/L		97	75 - 125

QC Sample Results

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

TestAmerica Job ID: 300-3456-1
SDG: WC1252

Method: 7196A - Chromium, Hexavalent (Continued)

Lab Sample ID: 300-3455-A-1 DU
Matrix: Water
Analysis Batch: 4872

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Cr (VI)	0.089			0.0893		mg/L				0.2	20

QC Association Summary

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

TestAmerica Job ID: 300-3456-1
SDG: WC1252

HPLC/IC

Analysis Batch: 4877

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
300-3456-3	B35XD3	Total/NA	Water	300.0	
MB 300-4877/5	Method Blank	Total/NA	Water	300.0	
LCS 300-4877/6	Lab Control Sample	Total/NA	Water	300.0	
300-3456-3 MS	B35XD3	Total/NA	Water	300.0	
300-3456-3 DU	B35XD3	Total/NA	Water	300.0	

Analysis Batch: 4878

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
300-3456-3	B35XD3	Total/NA	Water	300.0	
300-3456-3	B35XD3	Total/NA	Water	300.0	
MB 300-4878/5	Method Blank	Total/NA	Water	300.0	
LCS 300-4878/6	Lab Control Sample	Total/NA	Water	300.0	
300-3456-3 MS	B35XD3	Total/NA	Water	300.0	
300-3456-3 MS	B35XD3	Total/NA	Water	300.0	
300-3456-3 DU	B35XD3	Total/NA	Water	300.0	
300-3456-3 DU	B35XD3	Total/NA	Water	300.0	

General Chemistry

Analysis Batch: 4872

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
300-3456-1	B35XD2	Total/NA	Water	7196A	
300-3456-2	B35XD7	Total/NA	Water	7196A	
MB 300-4872/3	Method Blank	Total/NA	Water	7196A	
LCS 300-4872/4	Lab Control Sample	Total/NA	Water	7196A	
300-3455-A-1 MS	Matrix Spike	Total/NA	Water	7196A	
300-3455-A-1 DU	Duplicate	Total/NA	Water	7196A	

Lab Chronicle

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

TestAmerica Job ID: 300-3456-1
SDG: WC1252

Client Sample ID: B35XD2 — Lab Sample ID: 300-3456-1

Date Collected: 07/13/16 11:46 — **Matrix: Water**
Date Received: 07/13/16 15:05

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			4872	07/13/16 17:01	RLC	TAL RCH

Client Sample ID: B35XD7 — Lab Sample ID: 300-3456-2

Date Collected: 07/13/16 11:46 — **Matrix: Water**
Date Received: 07/13/16 15:05

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			4872	07/13/16 17:02	RLC	TAL RCH

Client Sample ID: B35XD3 — Lab Sample ID: 300-3456-3

Date Collected: 07/13/16 11:46 — **Matrix: Water**
Date Received: 07/13/16 15:05

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			4877	07/14/16 15:12	CPM	TAL RCH
Total/NA	Analysis	300.0		2			4878	07/14/16 15:12	CPM	TAL RCH
Total/NA	Analysis	300.0		10			4878	07/14/16 17:28	CPM	TAL RCH

Client Sample ID: Method Blank — Lab Sample ID: MB 300-4872/3

Date Collected: N/A — **Matrix: Water**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	7196A		1			4872	07/13/16 16:57	RLC	TAL RCH

Client Sample ID: Method Blank — Lab Sample ID: MB 300-4877/5

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			4877	07/14/16 14:42	CPM	TAL RCH

Client Sample ID: Method Blank — Lab Sample ID: MB 300-4878/5

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			4878	07/14/16 14:42	CPM	TAL RCH

Lab Chronicle

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

TestAmerica Job ID: 300-3456-1
SDG: WC1252

Client Sample ID: Lab Control Sample — Lab Sample ID: LCS 300-4872/4

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			4872	07/13/16 16:57	RLC	TAL RCH

Client Sample ID: Lab Control Sample — Lab Sample ID: LCS 300-4877/6

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			4877	07/14/16 14:57	CPM	TAL RCH

Client Sample ID: Lab Control Sample — Lab Sample ID: LCS 300-4878/6

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			4878	07/14/16 14:57	CPM	TAL RCH

Client Sample ID: Matrix Spike — Lab Sample ID: 300-3455-A-1 MS

Date Collected: 07/13/16 11:10 — **Matrix: Water**
Date Received: 07/13/16 15:05

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			4872	07/13/16 16:58	RLC	TAL RCH

Client Sample ID: B35XD3 — Lab Sample ID: 300-3456-3 MS

Date Collected: 07/13/16 11:46 — **Matrix: Water**
Date Received: 07/13/16 15:05

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			4877	07/14/16 15:27	CPM	TAL RCH
Total/NA	Analysis	300.0		2			4878	07/14/16 15:27	CPM	TAL RCH
Total/NA	Analysis	300.0		10			4878	07/14/16 17:43	CPM	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: F16-042

TestAmerica Job ID: 300-3456-1
SDG: WC1252

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: F16-042

TestAmerica Job ID: 300-3456-1
SDG: WC1252

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
300-3456-1	B35XD2	Water	07/13/16 11:46	07/13/16 15:05
300-3456-2	B35XD7	Water	07/13/16 11:46	07/13/16 15:05
300-3456-3	B35XD3	Water	07/13/16 11:46	07/13/16 15:05

Login Sample Receipt Checklist

Client: CH2M Hill Plateau Remediation Company

Job Number: 300-3456-1
SDG Number: WC1252

Login Number: 3456
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	