

July 28, 2016

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Richland

2800 George Washington Way

Richland, WA 99352

Tel: (509)375-3131

TestAmerica Job ID: 300-3455-1

TestAmerica Sample Delivery Group: WC1251

Client Project/Site: F13-002

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 11:40:21 AM

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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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Qualifiers

HPLC/IC

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

General Chemistry

Qualifier	Qualifier Description
U	Analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)



Client: CH2M Hill Plateau Remediation Company
Project/Site: F13-002

TestAmerica Job ID: 300-3455-1
SDG: WC1251

Job ID: 300-3455-1

Laboratory: TestAmerica Richland

Narrative

**Job Narrative
300-3455-1**

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 10.5° C.

HPLC/IC

Method 300.0: The following sample required filtration to reduce matrix interferences and solids: B35JV8 (300-3455-3).

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.



CH2M Hill Plateau Remediation Company		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		F13-002-2080	PAGE 1 OF 1
COLLECTOR Kevin Patterson CHPRC	COMPANY CONTACT SUMNER, LC	TELEPHONE NO. 376-3922	PROJECT COORDINATOR SUMNER, LC	PRICE CODE 7C	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION 299-E33-344, YE28 WK 8	PROJECT DESIGNATION 200W Pump & Treat - Extraction Well Water Sampling	FIELD LOGBOOK NO. HNF-N-49115	ACTUAL SAMPLE DEPTH N/A	SAF NO. F13-002	AIR QUALITY <input type="checkbox"/>
ICE CHEST NO. N/A	OFFSITE PROPERTY NO. N/A	COA 303111	BILL OF LADING/AIR BILL NO. N/A	METHOD OF SHIPMENT GOVERNMENT VEHICLE	ORIGINAL

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/JATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1. N/A	PRESERVATION	Cool <=6C
		HOLDING TIME	48 Hours
		TYPE OF CONTAINER	P
		NO. OF CONTAINER(S)	1
SPECIAL HANDLING AND/OR STORAGE		VOLUME	125ml
		SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS
SAMPLE NO. B35JV8	MATRIX* WATER	SAMPLE DATE JUL 13 2016	SAMPLE TIME 1025

3455
WCI251

CHAIN OF POSSESSION	SIGN/ PRINT NAMES	SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM Kevin Patterson CHPRC	RECEIVED BY/STORED IN Janelle Zunker CHPRC	TRVL-16-137 (1) 300.0 ANIONS_IC: COMMON; 300.0 ANIONS_IC: COMMON (Add- on) {Bromide};
RELINQUISHED BY/REMOVED FROM Janelle Zunker	RECEIVED BY/STORED IN Janelle Zunker	
RELINQUISHED BY/REMOVED FROM	RECEIVED BY/STORED IN	
RELINQUISHED BY/REMOVED FROM	RECEIVED BY/STORED IN	
RELINQUISHED BY/REMOVED FROM	RECEIVED BY/STORED IN	
RELINQUISHED BY/REMOVED FROM	RECEIVED BY/STORED IN	
RELINQUISHED BY/REMOVED FROM	RECEIVED BY/STORED IN	
RELINQUISHED BY/REMOVED FROM	RECEIVED BY/STORED IN	
RELINQUISHED BY/REMOVED FROM	RECEIVED BY/STORED IN	

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

July 28, 2016

CH2MHill Plateau Remediation Company		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		F13-002-2142	PAGE 1 OF 1
COLLECTOR	Kevin Patterson CHPRC	COMPANY CONTACT	SUMNER, LC	TELEPHONE NO.	376-3922
SAMPLING LOCATION	299-E33-350, YE29 WK 8	PROJECT DESIGNATION	200W Pump & Treat - Extraction Well Water Sampling		
ICE CHEST NO.	N/A	FIELD LOGBOOK NO.	HNF-N-49115	ACTUAL SAMPLE DEPTH	N/A
SHIPPED TO	TesAmerica Incorporated, Richland	OFFSITE PROPERTY NO.	N/A	BILL OF LADING/AIR BILL NO.	N/A
MATRIX*	<p>POSSIBLE SAMPLE HAZARDS/ REMARKS</p> <p>*Contains Radioactive Material at concentrations that are not be regulated for transportation per 49 CFR/DATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1. N/A</p> <p>A=Air DL=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WF=Wipe X=Other</p>	PRESERVATION	Cool <=6C	PROJECT COORDINATOR	SUMNER, LC
		HOLDING TIME	48 Hours	PRICE CODE	7C
		TYPE OF CONTAINER	P	AIR QUALITY	<input type="checkbox"/>
		NO. OF CONTAINER(S)	1	METHOD OF SHIPMENT	GOVERNMENT VEHICLE
		VOLUME	125ml		ORIGINAL
		SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS		

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	DATE/TIME	DATE/TIME
B35K28	WATER	JUL 13 2016	1110		

3455
wci251

July 28, 2016

CHAIN OF POSSESSION	SIGN/ PRINT NAMES	SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM Kevin Patterson CHPRC	RECEIVED BY/STORED IN JUL 13 2016 1110 JUL 13 2016 1110	TRVL-16-137 (1) 300.0 ANIONS_IC: COMMON; 300.0 ANIONS_IC: COMMON (Add-on) {Bromide};
RELINQUISHED BY/REMOVED FROM Janelle Zunder CHPRC	RECEIVED BY/STORED IN JUL 13 2016 1552 JUL 13 2016 1552	
RELINQUISHED BY/REMOVED FROM	RECEIVED BY/STORED IN	
RELINQUISHED BY/REMOVED FROM	RECEIVED BY/STORED IN	
RELINQUISHED BY/REMOVED FROM	RECEIVED BY/STORED IN	
RELINQUISHED BY/REMOVED FROM	RECEIVED BY/STORED IN	

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

July 28, 2016
Detection Summary

Client: CH2M Hill Plateau Remediation Company
Project/Site: F13-002

TestAmerica Job ID: 300-3455-1
SDG: WC1251

Client Sample ID: B35K27

Lab Sample ID: 300-3455-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cr (VI)	0.089		0.0040	0.0015	mg/L	1		7196A	Total/NA

Client Sample ID: B35JV7

Lab Sample ID: 300-3455-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cr (VI)	0.056		0.0040	0.0015	mg/L	1		7196A	Total/NA

Client Sample ID: B35JV8

Lab Sample ID: 300-3455-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	74	D	0.40	0.20	mg/L	2		300.0	Total/NA
Nitrate as N	120	D	2.8	1.4	mg/L	100		300.0	Total/NA
Fluoride	8.1	D	0.10	0.050	mg/L	2		300.0	Total/NA
Sulfate	460	D	2.5	1.3	mg/L	10		300.0	Total/NA
Bromide	0.83	D	0.25	0.13	mg/L	2		300.0	Total/NA

Client Sample ID: B35K28

Lab Sample ID: 300-3455-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	98	D	2.0	1.0	mg/L	10		300.0	Total/NA
Nitrate as N	230	D	2.8	1.4	mg/L	100		300.0	Total/NA
Fluoride	2.3	D	0.10	0.050	mg/L	2		300.0	Total/NA
Sulfate	610	D	25	13	mg/L	100		300.0	Total/NA
Bromide	1.1	D	0.25	0.13	mg/L	2		300.0	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Richland

July 28, 2016
Client Sample Results

Client: CH2M Hill Plateau Remediation Company
Project/Site: F13-002

TestAmerica Job ID: 300-3455-1
SDG: WC1251

Client Sample ID: B35K27
Date Collected: 07/13/16 11:10
Date Received: 07/13/16 15:05

Lab Sample ID: 300-3455-1
Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.089		0.0040	0.0015	mg/L			07/13/16 17:00	1

Client Sample ID: B35JV7
Date Collected: 07/13/16 10:25
Date Received: 07/13/16 15:05

Lab Sample ID: 300-3455-2
Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.056		0.0040	0.0015	mg/L			07/13/16 17:01	1

Client Sample ID: B35JV8
Date Collected: 07/13/16 10:25
Date Received: 07/13/16 15:05

Lab Sample ID: 300-3455-3
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	74	D	0.40	0.20	mg/L			07/14/16 19:45	2
Nitrate as N	120	D	2.8	1.4	mg/L			07/14/16 16:28	100
Fluoride	8.1	D	0.10	0.050	mg/L			07/14/16 19:45	2
Nitrite as N	0.038	U D	0.076	0.038	mg/L			07/14/16 19:45	2
Sulfate	460	D	2.5	1.3	mg/L			07/14/16 18:44	10
Bromide	0.83	D	0.25	0.13	mg/L			07/14/16 19:45	2

Client Sample ID: B35K28
Date Collected: 07/13/16 11:10
Date Received: 07/13/16 15:05

Lab Sample ID: 300-3455-4
Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	98	D	2.0	1.0	mg/L			07/14/16 18:59	10
Nitrate as N	230	D	2.8	1.4	mg/L			07/14/16 16:43	100
Fluoride	2.3	D	0.10	0.050	mg/L			07/14/16 20:00	2
Nitrite as N	0.038	U D	0.076	0.038	mg/L			07/14/16 20:00	2
Sulfate	610	D	25	13	mg/L			07/14/16 16:43	100
Bromide	1.1	D	0.25	0.13	mg/L			07/14/16 20:00	2

Client: CH2M Hill Plateau Remediation Company
Project/Site: F13-002

TestAmerica Job ID: 300-3455-1
SDG: WC1251

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 300-4877/5
Matrix: Water
Analysis Batch: 4877

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			07/14/16 14:42	1
Nitrite as N	0.019	U	0.038	0.019	mg/L			07/14/16 14:42	1

Lab Sample ID: LCS 300-4877/6
Matrix: Water
Analysis Batch: 4877

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	2.28		mg/L		101	80 - 120
Nitrite as N	3.04	3.08		mg/L		101	80 - 120

Lab Sample ID: 300-3456-A-3 MS
Matrix: Water
Analysis Batch: 4877

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	5.0	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

Lab Sample ID: 300-3456-A-3 DU
Matrix: Water
Analysis Batch: 4877

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	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

Lab Sample ID: MB 300-4878/5
Matrix: Water
Analysis Batch: 4878

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			07/14/16 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
Bromide	0.063	U	0.13	0.063	mg/L			07/14/16 14:42	1

Lab Sample ID: LCS 300-4878/6
Matrix: Water
Analysis Batch: 4878

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	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
Bromide	10.0	10.1		mg/L		101	80 - 120

Client: CH2M Hill Plateau Remediation Company
Project/Site: F13-002

TestAmerica Job ID: 300-3455-1
SDG: WC1251

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 300-3456-A-3 MS
Matrix: Water
Analysis Batch: 4878

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

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.
	Result	Qualifier		Result	Qualifier				
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
Bromide	0.28	D	2.00	1.99	D	mg/L		85	75 - 125

Lab Sample ID: 300-3456-A-3 MS
Matrix: Water
Analysis Batch: 4878

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

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

Lab Sample ID: 300-3456-A-3 DU
Matrix: Water
Analysis Batch: 4878

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	RPD	Limit
	Result	Qualifier		Result					
Chloride	19	D	19.3	D	mg/L		2	2	20
Fluoride	0.56	D	0.567	D	mg/L		1	1	20
Bromide	0.28	D	0.285	D	mg/L		0.6	0.6	20

Lab Sample ID: 300-3456-A-3 DU
Matrix: Water
Analysis Batch: 4878

Client Sample ID: Duplicate
Prep Type: Total/NA

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

Method: 7196A - Chromium, Hexavalent

Lab Sample ID: MB 300-4872/3
Matrix: Water
Analysis Batch: 4872

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			07/13/16 16:57	1

Lab Sample ID: LCS 300-4872/4
Matrix: Water
Analysis Batch: 4872

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

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

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

Client Sample ID: B35K27
Prep Type: Total/NA

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

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Client: CH2M Hill Plateau Remediation Company
Project/Site: F13-002

TestAmerica Job ID: 300-3455-1
SDG: WC1251

Method: 7196A - Chromium, Hexavalent (Continued)

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

Client Sample ID: B35K27
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

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

Client: CH2M Hill Plateau Remediation Company
Project/Site: F13-002

TestAmerica Job ID: 300-3455-1
SDG: WC1251

HPLC/IC

Analysis Batch: 4877

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
300-3455-3	B35JV8	Total/NA	Water	300.0	
300-3455-3	B35JV8	Total/NA	Water	300.0	
300-3455-4	B35K28	Total/NA	Water	300.0	
300-3455-4	B35K28	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-A-3 MS	Matrix Spike	Total/NA	Water	300.0	
300-3456-A-3 DU	Duplicate	Total/NA	Water	300.0	

Analysis Batch: 4878

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
300-3455-3	B35JV8	Total/NA	Water	300.0	
300-3455-3	B35JV8	Total/NA	Water	300.0	
300-3455-4	B35K28	Total/NA	Water	300.0	
300-3455-4	B35K28	Total/NA	Water	300.0	
300-3455-4	B35K28	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-A-3 MS	Matrix Spike	Total/NA	Water	300.0	
300-3456-A-3 MS	Matrix Spike	Total/NA	Water	300.0	
300-3456-A-3 DU	Duplicate	Total/NA	Water	300.0	
300-3456-A-3 DU	Duplicate	Total/NA	Water	300.0	

General Chemistry

Analysis Batch: 4872

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
300-3455-1	B35K27	Total/NA	Water	7196A	
300-3455-2	B35JV7	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	
300-3455-1 MS	B35K27	Total/NA	Water	7196A	
300-3455-1 DU	B35K27	Total/NA	Water	7196A	



Client: CH2M Hill Plateau Remediation Company
Project/Site: F13-002

TestAmerica Job ID: 300-3455-1
SDG: WC1251

Client Sample ID: B35K27
Date Collected: 07/13/16 11:10
Date Received: 07/13/16 15:05

Lab Sample ID: 300-3455-1
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			4872	07/13/16 17:00	RLC	TAL RCH

Client Sample ID: B35JV7
Date Collected: 07/13/16 10:25
Date Received: 07/13/16 15:05

Lab Sample ID: 300-3455-2
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			4872	07/13/16 17:01	RLC	TAL RCH

Client Sample ID: B35JV8
Date Collected: 07/13/16 10:25
Date Received: 07/13/16 15:05

Lab Sample ID: 300-3455-3
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		100			4877	07/14/16 16:28	CPM	TAL RCH
Total/NA	Analysis	300.0		10			4878	07/14/16 18:44	CPM	TAL RCH
Total/NA	Analysis	300.0		2			4877	07/14/16 19:45	CPM	TAL RCH
Total/NA	Analysis	300.0		2			4878	07/14/16 19:45	CPM	TAL RCH

Client Sample ID: B35K28
Date Collected: 07/13/16 11:10
Date Received: 07/13/16 15:05

Lab Sample ID: 300-3455-4
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	300.0		100			4877	07/14/16 16:43	CPM	TAL RCH
Total/NA	Analysis	300.0		100			4878	07/14/16 16:43	CPM	TAL RCH
Total/NA	Analysis	300.0		10			4878	07/14/16 18:59	CPM	TAL RCH
Total/NA	Analysis	300.0		2			4877	07/14/16 20:00	CPM	TAL RCH
Total/NA	Analysis	300.0		2			4878	07/14/16 20:00	CPM	TAL RCH

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

Lab Sample ID: MB 300-4872/3
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			4872	07/13/16 16:57	RLC	TAL RCH

Client: CH2M Hill Plateau Remediation Company
Project/Site: F13-002

TestAmerica Job ID: 300-3455-1
SDG: WC1251

Client Sample ID: Method Blank

Lab Sample ID: MB 300-4877/5

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

Client Sample ID: Lab Control Sample

Lab Sample ID: LCS 300-4872/4

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

Client Sample ID: B35K27

Lab Sample ID: 300-3455-1 MS

Date Collected: 07/13/16 11:10
Date Received: 07/13/16 15:05

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

Client: CH2M Hill Plateau Remediation Company
 Project/Site: F13-002

TestAmerica Job ID: 300-3455-1
 SDG: WC1251

Client Sample ID: Matrix Spike

Lab Sample ID: 300-3456-A-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

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Client: CH2M Hill Plateau Remediation Company
Project/Site: F13-002

TestAmerica Job ID: 300-3455-1
SDG: WC1251

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	MCAWW	TAL RCH
7196A	Chromium, Hexavalent	SW846	TAL RCH

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

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



July 28, 2016
Sample Summary

Client: CH2M Hill Plateau Remediation Company
Project/Site: F13-002

TestAmerica Job ID: 300-3455-1
SDG: WC1251

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
300-3455-1	B35K27	Water	07/13/16 11:10	07/13/16 15:05
300-3455-2	B35JV7	Water	07/13/16 10:25	07/13/16 15:05
300-3455-3	B35JV8	Water	07/13/16 10:25	07/13/16 15:05
300-3455-4	B35K28	Water	07/13/16 11:10	07/13/16 15:05

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Login Sample Receipt Checklist

Client: CH2M Hill Plateau Remediation Company

Job Number: 300-3455-1

SDG Number: WC1251

Login Number: 3455

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	

