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: 300-1486-1
TestAmerica Sample Delivery Group: WC0587
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:
12/7/2015 11:44:21 AM
Steven Campbell, Quality Assurance Assistant
steven.campbell@testamericainc.com

Designee for

Whitney Ritari, Project Manager I
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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 elss than five times the MDL.

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Definitions/Glossary

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

TestAmerica Job ID: 300-1486-1
SDG: WC0587

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.
¤	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

Job ID: 300-1486-1

Laboratory: TestAmerica Richland

Narrative

Job Narrative
300-1486-1

Comments
No additional comments.

Receipt
The samples were received on 11/12/2015 9:55 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.8º C.

HPLC/IC
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
Method 7196A: The following samples were received with less than 2 days remaining on the holding time or less than one shift (8 hours) remaining on a test with a holding time of 48 hours or less. As such, the laboratory had insufficient time remaining to perform the analysis within holding time: B334C2 (300-1486-1) and B334C0 (300-1486-2). For more information refer to SIR attached to report.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **I16-002-273**

Page 1 of 1

Collector	K.M. Campbell/CHPRC	**Contact/Requester**	Karen Waters-Husted	**Telephone No.**	509-376-4650
SAF No.	I16-002	**Sampling Origin**	Hanford Site	**Purchase Order/Charge Code**	300071
Project Title	100KR4, NOVEMBER 2015	**Logbook No.**	HNF-N-506 82/5	**Ice Chest No.**	N/A
Shipped To (Lab)	TestAmerica Incorporated, Richland	**Method of Shipment**	GOVERNMENT VEHICLE	**Bill of Lading/Air Bill No.**	N/A
Protocol	CERCLA	**Priority:**	**30 Days** **PRIORITY**	**Offsite Property No.**	N/A

POSSIBLE SAMPLE HAZARDS/REMARKS

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

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B334C2	Y	W	11-11-15	1347	1x60-mL aG	7196_CR6: COMMON	24 Hours	Cool <=6C
B334C0	N	W	11-11-15	1347	1x60-mL aG	7196_CR6: COMMON	24 Hours	Cool <=6C

300-1486 COC

#1486
W0587

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
	K.M. Campbell/CHPRC	KM Campbell	NOV 1 1 2015 1450	SSU-1			NOV 1 1 2015 1450
SSU-1			NOV 1 2 2015 0800	M.A. White CHPRC		M.A. White	NOV 1 2 2015 0800
M.A. White CHPRC		M.A. White	NOV 1 2 2015 0955	J. Friesz, TARL			NOV 1 2 2015 0955

Matrix *

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

FINAL SAMPLE DISPOSITION Disposal Method (e.g., Return to customer, per lab procedure, used in process) Disposed By Date/Time

December 07, 2015

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # I16-002-272 Page 1 of 1

Collector	K.M. Campbell/CHPRC	Contact/Requester	Karen Waters-Husted	Telephone No.	509-376-4650
SAF No.	I16-002	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071
Project Title	100KR4, NOVEMBER 2015	Logbook No.	HNF-N-506 92/5	Ice Chest No.	N/A
Shipped To (Lab)	TestAmerica Incorporated, Richland	Method of Shipment	GOVERNMENT VEHICLE	Bill of Lading/Air Bill No.	N/A
Protocol	CERCLA	Priority:	30 Days PRIORITY	Offsite Property No.	N/A

POSSIBLE SAMPLE HAZARDS/REMARKS

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

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B334B9	N	W	11-11-15	1347	1x500-mL P	300.0_ANIONS_IC: COMMON	48 Hours	Cool <=6C

#1486

W C0587

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
	K.M. Campbell/CHPRC	KM Campbell	NOV 1 1 2015 1450	SSU-1			NOV 1 1 2015 1450
SSU-1			NOV 1 2 2015 0800	M.A. White CHPRC		M.A. White	NOV 1 2 2015 0800
M.A. White CHPRC		M.A. White	NOV 1 2 2015 0955	J. Friesz, TARL			NOV 1 2 2015 0955
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

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

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)	Disposed By	Date/Time

PRINTED ON 10/8/2015 FSR ID = FSR7912 A-6004-842 (REV 2)

December 07, 2015

SAMPLE ISSUE RESOLUTION

SIR NUM	SIR16-106
REV NUM	0
DATE INITIATED	11/20/2015

SAMPLE EVENT INFORMATION

SAF NUM(S)	I16-002
OPERABLE UNIT(S)	
PROJECT(S)	CERC16
SAMPLE EVENT TITLE(S)	CERC16
LABORATORY	TestAmerica Incorporated, Richland

SAMPLING INFORMATION

NUMBER OF SAMPLES	2
SAMPLE NUMBERS	B334C0, B334C2
SAMPLE MATRIX	WATER
COLLECTION DATE	11/11/2015 - 11/11/2015
SDG NUM	WC0587

ISSUE BACKGROUND

CLASS	Field Sampling Issue
TYPE	Analysis Hold Time Exceeded
DESCRIPTION	The samples listed above were received with less than half the remaining on the hold time. As such the laboratory had insufficient time remaining to perform the analysis within analytical hold time.

DISPOSITION

DESCRIPTION	PROPOSED DISPOSITION: Initiate SIR, report results and include hold time comment in the case narrative
JUSTIFICATION	ACCEPTED RESOLUTION: Accept the proposed resolution.

SUBMITTED BY: Steven Campbell/TARL DATE: 11/20/15
ACCEPTED BY: Karen Waters-Husted/CHPRC DATE: 11/23/15

Detection Summary

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

TestAmerica Job ID: 300-1486-1
SDG: WC0587

Client Sample ID: B334C2 — Lab Sample ID: 300-1486-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cr (VI)	0.0096		0.0040	0.0015	mg/L	1		7196A	Total/NA

Client Sample ID: B334C0 — Lab Sample ID: 300-1486-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cr (VI)	0.0098		0.0040	0.0015	mg/L	1		7196A	Total/NA

Client Sample ID: B334B9 — Lab Sample ID: 300-1486-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	23	D	0.40	0.20	mg/L	2		300.0	Total/NA
Nitrate as N	6.7	D	0.056	0.028	mg/L	2		300.0	Total/NA
Fluoride	0.26	D	0.10	0.050	mg/L	2		300.0	Total/NA
Sulfate	40	D	0.50	0.25	mg/L	2		300.0	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

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

TestAmerica Job ID: 300-1486-1
SDG: WC0587

Client Sample ID: B334C2

Lab Sample ID: 300-1486-1
Date Collected: 11/11/15 13:47
Matrix: Water
Date Received: 11/12/15 09:55

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.0096		0.0040	0.0015	mg/L			11/12/15 13:56	1

Client Sample ID: B334C0

Lab Sample ID: 300-1486-2
Date Collected: 11/11/15 13:47
Matrix: Water
Date Received: 11/12/15 09:55

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.0098		0.0040	0.0015	mg/L			11/12/15 13:56	1

Client Sample ID: B334B9

Lab Sample ID: 300-1486-3
Date Collected: 11/11/15 13:47
Matrix: Water
Date Received: 11/12/15 09:55

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	23	D	0.40	0.20	mg/L			11/12/15 14:44	2
Nitrate as N	6.7	D	0.056	0.028	mg/L			11/12/15 14:44	2
Fluoride	0.26	D	0.10	0.050	mg/L			11/12/15 14:44	2
Nitrite as N	0.038	U	0.076	0.038	mg/L			11/12/15 14:44	2
Sulfate	40	D	0.50	0.25	mg/L			11/12/15 14:44	2

QC Sample Results

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

TestAmerica Job ID: 300-1486-1
SDG: WC0587

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 300-1965/13
Matrix: Water
Analysis Batch: 1965

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			11/12/15 14:12	1
Nitrite as N	0.019	U	0.038	0.019	mg/L			11/12/15 14:12	1

Lab Sample ID: LCS 300-1965/14
Matrix: Water
Analysis Batch: 1965

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	2.37		mg/L		105	80 - 120
Nitrite as N	3.04	3.24		mg/L		106	80 - 120

Lab Sample ID: 300-1486-3 MS
Matrix: Water
Analysis Batch: 1965

Client Sample ID: B334B9
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	6.7	D	0.452	7.15	D	mg/L		101	75 - 125
Nitrite as N	0.038	U	0.609	0.573	D	mg/L		94	75 - 125

Lab Sample ID: 300-1486-3 DU
Matrix: Water
Analysis Batch: 1965

Client Sample ID: B334B9
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Nitrate as N	6.7	D	6.71	D	mg/L		0.2	20
Nitrite as N	0.038	U	0.038	U	mg/L		NC	20

Lab Sample ID: MB 300-1966/13
Matrix: Water
Analysis Batch: 1966

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			11/12/15 14:12	1
Fluoride	0.025	U	0.050	0.025	mg/L			11/12/15 14:12	1
Sulfate	0.13	U	0.25	0.13	mg/L			11/12/15 14:12	1

Lab Sample ID: LCS 300-1966/14
Matrix: Water
Analysis Batch: 1966

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	16.7		mg/L		104	80 - 120
Fluoride	4.00	4.22		mg/L		105	80 - 120
Sulfate	20.0	21.0		mg/L		105	80 - 120

QC Sample Results

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

TestAmerica Job ID: 300-1486-1
SDG: WC0587

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 300-1486-3 MS — **Client Sample ID: B334B9**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 1966

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	23	D	3.20	26.2	D	mg/L		104	75 - 125
Fluoride	0.26	D	0.800	1.07	D	mg/L		101	75 - 125
Sulfate	40	D	4.00	44.7	D	mg/L		108	75 - 125

Lab Sample ID: 300-1486-3 DU — **Client Sample ID: B334B9**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 1966

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Chloride	23	D	22.9	D	mg/L		0.2	20
Fluoride	0.26	D	0.262	D	mg/L		0.1	20
Sulfate	40	D	40.5	D	mg/L		0.2	20

Method: 7196A - Chromium, Hexavalent

Lab Sample ID: MB 300-1972/3 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 1972

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.0015	U	0.0040	0.0015	mg/L			11/12/15 13:43	1

Lab Sample ID: LCS 300-1972/4 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 1972

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	0.250	0.252		mg/L		101	80 - 120

Lab Sample ID: 300-1485-A-1 MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 1972

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	0.076		0.0500	0.124		mg/L		97	85 - 115

Lab Sample ID: 300-1485-A-1 DU — **Client Sample ID: Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 1972

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Cr (VI)	0.076		0.0770		mg/L		2	20

QC Association Summary

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

TestAmerica Job ID: 300-1486-1
SDG: WC0587

HPLC/IC

Analysis Batch: 1965

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
300-1486-3	B334B9	Total/NA	Water	300.0	
300-1486-3 DU	B334B9	Total/NA	Water	300.0	
300-1486-3 MS	B334B9	Total/NA	Water	300.0	
LCS 300-1965/14	Lab Control Sample	Total/NA	Water	300.0	
MB 300-1965/13	Method Blank	Total/NA	Water	300.0	

Analysis Batch: 1966

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
300-1486-3	B334B9	Total/NA	Water	300.0	
300-1486-3 DU	B334B9	Total/NA	Water	300.0	
300-1486-3 MS	B334B9	Total/NA	Water	300.0	
LCS 300-1966/14	Lab Control Sample	Total/NA	Water	300.0	
MB 300-1966/13	Method Blank	Total/NA	Water	300.0	

General Chemistry

Analysis Batch: 1972

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
300-1485-A-1 DU	Duplicate	Total/NA	Water	7196A	
300-1485-A-1 MS	Matrix Spike	Total/NA	Water	7196A	
300-1486-1	B334C2	Total/NA	Water	7196A	
300-1486-2	B334C0	Total/NA	Water	7196A	
LCS 300-1972/4	Lab Control Sample	Total/NA	Water	7196A	
MB 300-1972/3	Method Blank	Total/NA	Water	7196A	

Lab Chronicle

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

TestAmerica Job ID: 300-1486-1
SDG: WC0587

Client Sample ID: B334C2
Date Collected: 11/11/15 13:47
Date Received: 11/12/15 09:55

Lab Sample ID: 300-1486-1
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			1972	11/12/15 13:56	AMC	TAL RCH

Client Sample ID: B334C0
Date Collected: 11/11/15 13:47
Date Received: 11/12/15 09:55

Lab Sample ID: 300-1486-2
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			1972	11/12/15 13:56	AMC	TAL RCH

Client Sample ID: B334B9
Date Collected: 11/11/15 13:47
Date Received: 11/12/15 09:55

Lab Sample ID: 300-1486-3
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		1965	11/12/15 14:44	CPM	TAL RCH
Total/NA	Analysis	300.0		2	10 mL		1966	11/12/15 14:44	CPM	TAL RCH

Client Sample ID: Duplicate
Date Collected: 11/11/15 13:36
Date Received: 11/12/15 09:55

Lab Sample ID: 300-1485-A-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			1972	11/12/15 13:46	AMC	TAL RCH

Client Sample ID: B334B9
Date Collected: 11/11/15 13:47
Date Received: 11/12/15 09:55

Lab Sample ID: 300-1486-3 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		1965	11/12/15 15:14	CPM	TAL RCH
Total/NA	Analysis	300.0		2	10 mL		1966	11/12/15 15:14	CPM	TAL RCH

Client Sample ID: Lab Control Sample
Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCS 300-1965/14
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		1965	11/12/15 14:29	CPM	TAL RCH

Lab Chronicle

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

TestAmerica Job ID: 300-1486-1
SDG: WC0587

Client Sample ID: Lab Control Sample — Lab Sample ID: LCS 300-1966/14

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	10 mL		1966	11/12/15 14:29	CPM	TAL RCH

Client Sample ID: Lab Control Sample — Lab Sample ID: LCS 300-1972/4

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			1972	11/12/15 13:43	AMC	TAL RCH

Client Sample ID: Method Blank — Lab Sample ID: MB 300-1965/13

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	10 mL		1965	11/12/15 14:12	CPM	TAL RCH

Client Sample ID: Method Blank — Lab Sample ID: MB 300-1966/13

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	10 mL		1966	11/12/15 14:12	CPM	TAL RCH

Client Sample ID: Method Blank — Lab Sample ID: MB 300-1972/3

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			1972	11/12/15 13:43	AMC	TAL RCH

Client Sample ID: Matrix Spike — Lab Sample ID: 300-1485-A-1 MS

Date Collected: 11/11/15 13:36 — **Matrix: Water**
Date Received: 11/12/15 09:55

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	1972	11/12/15 13:43	AMC	TAL RCH

Lab Chronicle

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

TestAmerica Job ID: 300-1486-1
SDG: WC0587

Client Sample ID: B334B9

Date Collected: 11/11/15 13:47
Date Received: 11/12/15 09:55

Lab Sample ID: 300-1486-3 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		1965	11/12/15 14:59	CPM	TAL RCH
Total/NA	Analysis	300.0		2	10 mL		1966	11/12/15 14:59	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: CH2M Hill Chemical

TestAmerica Job ID: 300-1486-1
SDG: WC0587

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: 300-1486-1
SDG: WC0587

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
300-1486-1	B334C2	Water	11/11/15 13:47	11/12/15 09:55
300-1486-2	B334C0	Water	11/11/15 13:47	11/12/15 09:55
300-1486-3	B334B9	Water	11/11/15 13:47	11/12/15 09:55

Login Sample Receipt Checklist

Client: CH2M Hill Plateau Remediation Company

Job Number: 300-1486-1
SDG Number: WC0587

Login Number: 1486
List Number: 1
Creator: Friesz, Jordan D

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.	N/A	
Residual Chlorine Checked.	N/A	