

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: 300-1448-1
TestAmerica Sample Delivery Group: WC0570
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 10:50:23 AM
Steven Campbell, Quality Assurance Assistant
steven.campbell@testamericainc.com

Designee for
Whitney Ritari, Project Manager I
(509)375-3131 ext164
whitney.ritari@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 designee as verified by the attached signature.

The laboratory is accredited to EPA 7196A in Solid and Chemical Materials, per Washington State Department of Ecology this is approved for non-discharge water samples. The sample/ sample duplicate RPD agreement is not applicable if one or both results are elss than five times the MDL.



LINKS

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December 07, 2015

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

TestAmerica Job ID: 300-1448-1
SDG: WC0570

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Qualifiers**HPLC/IC**

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

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: CH2M Hill Chemical

TestAmerica Job ID: 300-1448-1
SDG: WC0570

Job ID: 300-1448-1

Laboratory: TestAmerica Richland

Narrative

**Job Narrative
300-1448-1**

Comments

No additional comments.

Receipt

The samples were received on 11/10/2015 8:45 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 5.9° 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 sample(s) was 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: B332J9 (300-1448-1). For more information refer to SIR attached to job.

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



CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. #

W16-011-130

Page 1 of 1

Collector	K.C. Patterson/CHPRC	Contact/Requester	Karen Waters-Husted	Telephone No.	509-376-4650
SAF No.	W16-011	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071
Project Title	RCRA, NOVEMBER 2015	Logbook No.	HNF-N-506 80/23	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	RCRA	Priority:	30 Days PRIORITY	Offsite Property No.	N/A
POSSIBLE SAMPLE HAZARDS/REMARKS			SPECIAL INSTRUCTIONS		
*** 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			Hold Time		
			Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Sample No.	Filter	Date	Time	No/Type Container	Sample Analysis
B332J9	N	NOV 09 2015	1100	1x60-mL aG	7196_CR6: COMMON
					Holding Time
					24 Hours
					Preservative
					Cool <=6C



300-1448 COC

#1448
W 16057D

December 07 2015

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time	Matrix *
K.C. Patterson/CHPRC			NOV 09 2015 1405	SSU-1			NOV 09 2015 1405	S = Soil SE = Sediment SO = Solid SL = Sludge W = Water O = Oil A = Air
Relinquished By			NOV 10 2015 0740	M.A. White CHPRC			NOV 10 2015 0740	DS = Drumm Solids DL = Drumm Liquids T = Tissue WI = Wipe L = Liquid V = Vegetation X = Other
Relinquished By			NOV 10 2015 0845	M.A. White CHPRC			NOV 10 2015 0845	

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)	Disposed By	Date/Time
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CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. #
W16-011-132

Page 1 of 1

Collector	K.C. Patterson/CHPRC	Contact/Requester	Karen Waters-Husted	Telephone No.	509-376-4650
SAF No.	W16-011	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071
Project Title	RCRA, NOVEMBER 2015	Logbook No.	HNF-N-506 <u>8023</u>	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	RCRA	Priority:	30 Days	Offsite Property No.	N/A
POSSIBLE SAMPLE HAZARDS/REMARKS			SPECIAL INSTRUCTIONS		
*** 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			Hold Time		
			Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		

Sample No.	Filter	*	Date	Time	No./Type Container	Sample Analysis	Holding Time	Preservative
B332K0	N		NOV 09 2015	12:56	1x60-mL aG	7196_CR6: COMMON	24 Hours	Cool <=6C

#1448
L657D

December 07 2015

Relinquished By	K.C. Patterson/CHPRC	Print	Sign	Date/Time	NOV 09 2015 1405	Received By	SSU-1	Print	Sign	Date/Time	NOV 09 2015 1405	Matrix *
Relinquished By	SSU-1			Date/Time	NOV 10 2015 0740	Received By	M.A. White/CHPRC			Date/Time	NOV 10 2015 0740	S = Soil
Relinquished By	M.A. White/CHPRC			Date/Time	NOV 10 2015 0845	Received By	J. Friesz, TARL			Date/Time	NOV 10 2015 0845	SE = Sediment
Relinquished By	CHPRC			Date/Time		Received By				Date/Time		SO = Solid
Relinquished By				Date/Time		Received By				Date/Time		SL = Sludge
Relinquished By				Date/Time		Received By				Date/Time		W = Water
Relinquished By				Date/Time		Received By				Date/Time		O = Oil
Relinquished By				Date/Time		Received By				Date/Time		A = Air
Relinquished By				Date/Time		Received By				Date/Time		DS = Drum Solids
Relinquished By				Date/Time		Received By				Date/Time		DL = Drum Liquids
Relinquished By				Date/Time		Received By				Date/Time		T = Tissue
Relinquished By				Date/Time		Received By				Date/Time		WT = Wipe
Relinquished By				Date/Time		Received By				Date/Time		L = Liquid
Relinquished By				Date/Time		Received By				Date/Time		V = Vegetation
Relinquished By				Date/Time		Received By				Date/Time		X = Other

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)	Disposed By	Date/Time
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Collector	K.C. Patterson/CHPRC	Contact/Requester	Karen Waters-Husted	Telephone No.	509-376-4650
SAF No.	W16-011	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071
Project Title	RCRA, NOVEMBER 2015	Logbook No.	HNF-N-506 80/23	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	RCRA	Priority:	30 Days PRIORITY	Offsite Property No.	N/A
POSSIBLE SAMPLE HAZARDS/REMARKS			SPECIAL INSTRUCTIONS		
*** 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			Hold Time		
Sample No.	Filter	Date	Time	No/Type Container	Sample Analysis
B332J5	N	NOV 09 2015	1100	1x500-mL P	300.0_ANIONS_IC: COMMON
					Holding Time
					48 Hours
					Preservative
					Cool <=6C
					Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

December 07 2015

Relinquished By	K.C. Patterson/CHPRC	Print	Sign	Date/Time	Received By	SSU-1	Print	Sign	Date/Time	Matrix *
				NOV 09 2015 1405					NOV 09 2015 1405	S = Soil
Relinquished By	SSU-1			NOV 10 2015 0740	Received By	M.A. White			NOV 10 2015 0740	DS = Drum Solids
						CHPRC				DL = Drum Liquids
Relinquished By	M.A. White			NOV 10 2015 0845	Received By	J. Friesz, TARL			NOV 10 2015 0845	SO = Solid
	CHPRC									T = Tissue
										SL = Sludge
										WI = Wipe
										W = Water
										L = Liquid
										O = Oil
										V = Vegetation
										X = Other
										A = Air

#1448
WCO570

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)	Disposed By	Date/Time
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CH2M Hill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. #

W16-011-131

Page 1 of 1

Collector	K.C. Paterson/CHPRC	Contact/Requester	Karen Waters-Husted	Telephone No.	509-376-4650
SAF No.	W16-011	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071
Project Title	RCRA, NOVEMBER 2015	Logbook No.	HNF-N-506 <u>80/23</u>	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	RCRA	Priority:	30 Days	Offsite Property No.	N/A
POSSIBLE SAMPLE HAZARDS/REMARKS			SPECIAL INSTRUCTIONS		
*** 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			Hold Time		
Sample No.	B332J6	Filter	*	Date	NOV 09 2015 1256
No/Type Container	1x500-mL P	Sample Analysis	300.0_ANIONS_IC: COMMON		
Holding Time	48 Hours	Preservative	Cool <=6C		
Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>					

#1448
W 00510

December 07 2015

Relinquished By	<i>[Signature]</i>	Date/Time	NOV 09 2015 1405	Received By	SSU-1	Date/Time	NOV 09 2015 1405	Matrix *
Relinquished By	<i>[Signature]</i>	Date/Time	NOV 10 2015 0740	Received By	M.A. White	Date/Time	NOV 10 2015 0740	S = Soil
Relinquished By	M.A. White	Date/Time	NOV 10 2015 0845	Received By	J. Fiesz, TARL	Date/Time	NOV 10 2015 0845	SE = Sediment
Relinquished By	CHPRC	Date/Time		Received By		Date/Time		SO = Solid
								SL = Sludge
								W = Water
								O = Oil
								A = Air
								DS = Drum Solids
								DL = Drum Liquids
								T = Tissue
								WI = Wipe
								L = Liquid
								V = Vegetation
								X = Other

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

SIR NUM	SIR16-120
REV NUM	0
DATE INITIATED	11/19/2015



SAMPLE EVENT INFORMATION

SAF NUM(S)	W16-011
OPERABLE UNIT(S)	NONE
PROJECT(S)	RCRA16
SAMPLE EVENT TITLE(S)	RCRA16
LABORATORY	TestAmerica Incorporated, Richland

SAMPLING INFORMATION

NUMBER OF SAMPLES	1
SAMPLE NUMBERS	B332J9
SAMPLE MATRIX	WATER
COLLECTION DATE	11/9/2015 - 11/9/2015
SDG NUM	WC0570

ISSUE BACKGROUND

CLASS	Field Sampling Issue
TYPE	Analysis Hold Time Exceeded
DESCRIPTION	The sample listed above was 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
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JUSTIFICATION	ACCEPTED DISPOSITION: Accept the proposed resolution.
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SUBMITTED BY: Steven Campbell/TARL DATE: 11/19/15
 ACCEPTED BY: Karen Waters-Husted/CHPRC DATE: 12/2/15

Detection Summary

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

TestAmerica Job ID: 300-1448-1
 SDG: WC0570

Client Sample ID: B332J9

Lab Sample ID: 300-1448-1

No Detections.

Client Sample ID: B332K0

Lab Sample ID: 300-1448-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cr (VI)	0.014		0.0040	0.0015	mg/L	1		7196A	Total/NA

Client Sample ID: B332J5

Lab Sample ID: 300-1448-3

No Detections.

Client Sample ID: B332J6

Lab Sample ID: 300-1448-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	45	D	0.40	0.20	mg/L	2		300.0	Total/NA
Nitrate as N	83	D	0.56	0.28	mg/L	20		300.0	Total/NA
Fluoride	1.4	D	0.10	0.050	mg/L	2		300.0	Total/NA
Sulfate	93	D	0.50	0.25	mg/L	2		300.0	Total/NA

This Detection Summary does not include radiochemical test results.

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

TestAmerica Job ID: 300-1448-1
 SDG: WC0570

Client Sample ID: B332J9

Date Collected: 11/09/15 11:00

Date Received: 11/10/15 08:45

Lab Sample ID: 300-1448-1

Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.0015	U	0.0040	0.0015	mg/L			11/10/15 11:26	1

Client Sample ID: B332K0

Date Collected: 11/09/15 12:56

Date Received: 11/10/15 08:45

Lab Sample ID: 300-1448-2

Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.014		0.0040	0.0015	mg/L			11/10/15 11:26	1

Client Sample ID: B332J5

Date Collected: 11/09/15 11:00

Date Received: 11/10/15 08:45

Lab Sample ID: 300-1448-3

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	0.20	U	0.40	0.20	mg/L			11/10/15 14:24	2
Nitrate as N	0.028	U	0.056	0.028	mg/L			11/10/15 14:24	2
Fluoride	0.050	U	0.10	0.050	mg/L			11/10/15 14:24	2
Nitrite as N	0.038	U	0.076	0.038	mg/L			11/10/15 14:24	2
Sulfate	0.25	U	0.50	0.25	mg/L			11/10/15 14:24	2

Client Sample ID: B332J6

Date Collected: 11/09/15 12:56

Date Received: 11/10/15 08:45

Lab Sample ID: 300-1448-4

Matrix: Water

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	45	D	0.40	0.20	mg/L			11/10/15 14:39	2
Nitrate as N	83	D	0.56	0.28	mg/L			11/10/15 17:50	20
Fluoride	1.4	D	0.10	0.050	mg/L			11/10/15 14:39	2
Nitrite as N	0.038	U	0.076	0.038	mg/L			11/10/15 14:39	2
Sulfate	93	D	0.50	0.25	mg/L			11/10/15 14:39	2

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 300-1923/5
Matrix: Water
Analysis Batch: 1923

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			11/10/15 12:39	1
Nitrite as N	0.019	U	0.038	0.019	mg/L			11/10/15 12:39	1

Lab Sample ID: LCS 300-1923/6
Matrix: Water
Analysis Batch: 1923

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	2.26	2.39		mg/L		106	80 - 120
Nitrite as N	3.04	3.26		mg/L		107	80 - 120

Lab Sample ID: 300-1437-A-5 MS
Matrix: Water
Analysis Batch: 1923

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	0.030	B D	0.452	0.437	D	mg/L		90	75 - 125
Nitrite as N	0.038	U	0.609	0.591	D	mg/L		97	75 - 125

Lab Sample ID: 300-1437-A-5 DU
Matrix: Water
Analysis Batch: 1923

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Nitrate as N	0.030	B D	0.028	U	mg/L		NC	20
Nitrite as N	0.038	U	0.038	U	mg/L		NC	20

Lab Sample ID: MB 300-1924/5
Matrix: Water
Analysis Batch: 1924

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			11/10/15 12:39	1
Fluoride	0.025	U	0.050	0.025	mg/L			11/10/15 12:39	1
Sulfate	0.13	U	0.25	0.13	mg/L			11/10/15 12:39	1

Lab Sample ID: LCS 300-1924/6
Matrix: Water
Analysis Batch: 1924

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	16.8		mg/L		105	80 - 120
Fluoride	4.00	4.24		mg/L		106	80 - 120
Sulfate	20.0	21.1		mg/L		105	80 - 120

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 300-1437-A-5 MS

Matrix: Water

Analysis Batch: 1924

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	0.20	U	3.20	3.19	D	mg/L		100	75 - 125
Fluoride	0.050	U	0.800	0.783	D	mg/L		98	75 - 125
Sulfate	0.25	U	4.00	3.95	D	mg/L		99	75 - 125

Lab Sample ID: 300-1437-A-5 DU

Matrix: Water

Analysis Batch: 1924

Client Sample ID: Duplicate

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Chloride	0.20	U	0.20	U	mg/L		NC	20
Fluoride	0.050	U	0.050	U	mg/L		NC	20
Sulfate	0.25	U	0.25	U	mg/L		NC	20

Method: 7196A - Chromium, Hexavalent

Lab Sample ID: MB 300-1929/3

Matrix: Water

Analysis Batch: 1929

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			11/10/15 11:22	1

Lab Sample ID: LCS 300-1929/4

Matrix: Water

Analysis Batch: 1929

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	0.252		mg/L		101	80 - 120

Lab Sample ID: 300-1448-1 MS

Matrix: Water

Analysis Batch: 1929

Client Sample ID: B332J9

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cr (VI)	0.0015	U	0.0500	0.0492		mg/L		98	85 - 115

Lab Sample ID: 300-1448-1 DU

Matrix: Water

Analysis Batch: 1929

Client Sample ID: B332J9

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Cr (VI)	0.0015	U	0.0015	U	mg/L		NC	20

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

TestAmerica Job ID: 300-1448-1
 SDG: WC0570

HPLC/IC

Analysis Batch: 1923

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
300-1437-A-5 DU	Duplicate	Total/NA	Water	300.0	
300-1437-A-5 MS	Matrix Spike	Total/NA	Water	300.0	
300-1448-3	B332J5	Total/NA	Water	300.0	
300-1448-4	B332J6	Total/NA	Water	300.0	
300-1448-4	B332J6	Total/NA	Water	300.0	
LCS 300-1923/6	Lab Control Sample	Total/NA	Water	300.0	
MB 300-1923/5	Method Blank	Total/NA	Water	300.0	

Analysis Batch: 1924

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
300-1437-A-5 DU	Duplicate	Total/NA	Water	300.0	
300-1437-A-5 MS	Matrix Spike	Total/NA	Water	300.0	
300-1448-3	B332J5	Total/NA	Water	300.0	
300-1448-4	B332J6	Total/NA	Water	300.0	
LCS 300-1924/6	Lab Control Sample	Total/NA	Water	300.0	
MB 300-1924/5	Method Blank	Total/NA	Water	300.0	

General Chemistry

Analysis Batch: 1929

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
300-1448-1	B332J9	Total/NA	Water	7196A	
300-1448-1 DU	B332J9	Total/NA	Water	7196A	
300-1448-1 MS	B332J9	Total/NA	Water	7196A	
300-1448-2	B332K0	Total/NA	Water	7196A	
LCS 300-1929/4	Lab Control Sample	Total/NA	Water	7196A	
MB 300-1929/3	Method Blank	Total/NA	Water	7196A	

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

TestAmerica Job ID: 300-1448-1
 SDG: WC0570

Client Sample ID: B332J9
Date Collected: 11/09/15 11:00
Date Received: 11/10/15 08:45

Lab Sample ID: 300-1448-1
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			1929	11/10/15 11:26	AMC	TAL RCH

Client Sample ID: B332K0
Date Collected: 11/09/15 12:56
Date Received: 11/10/15 08:45

Lab Sample ID: 300-1448-2
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			1929	11/10/15 11:26	AMC	TAL RCH

Client Sample ID: B332J5
Date Collected: 11/09/15 11:00
Date Received: 11/10/15 08:45

Lab Sample ID: 300-1448-3
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		1923	11/10/15 14:24	RLC	TAL RCH
Total/NA	Analysis	300.0		2	10 mL		1924	11/10/15 14:24	RLC	TAL RCH

Client Sample ID: B332J6
Date Collected: 11/09/15 12:56
Date Received: 11/10/15 08:45

Lab Sample ID: 300-1448-4
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		2	10 mL		1923	11/10/15 14:39	RLC	TAL RCH
Total/NA	Analysis	300.0		2	10 mL		1924	11/10/15 14:39	RLC	TAL RCH
Total/NA	Analysis	300.0		20	10 mL		1923	11/10/15 17:50	RLC	TAL RCH

Client Sample ID: Duplicate
Date Collected: 11/09/15 08:30
Date Received: 11/09/15 14:35

Lab Sample ID: 300-1437-A-5 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		1923	11/10/15 13:39	RLC	TAL RCH
Total/NA	Analysis	300.0		2	10 mL		1924	11/10/15 13:39	RLC	TAL RCH

Client Sample ID: B332J9
Date Collected: 11/09/15 11:00
Date Received: 11/10/15 08:45

Lab Sample ID: 300-1448-1 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			1929	11/10/15 11:26	AMC	TAL RCH

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

TestAmerica Job ID: 300-1448-1
 SDG: WC0570

Client Sample ID: Lab Control Sample

Lab Sample ID: LCS 300-1923/6

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	10 mL		1923	11/10/15 12:54	RLC	TAL RCH

Client Sample ID: Lab Control Sample

Lab Sample ID: LCS 300-1924/6

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	10 mL		1924	11/10/15 12:54	RLC	TAL RCH

Client Sample ID: Lab Control Sample

Lab Sample ID: LCS 300-1929/4

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			1929	11/10/15 11:23	AMC	TAL RCH

Client Sample ID: Method Blank

Lab Sample ID: MB 300-1923/5

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	10 mL		1923	11/10/15 12:39	RLC	TAL RCH

Client Sample ID: Method Blank

Lab Sample ID: MB 300-1924/5

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	10 mL		1924	11/10/15 12:39	RLC	TAL RCH

Client Sample ID: Method Blank

Lab Sample ID: MB 300-1929/3

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			1929	11/10/15 11:22	AMC	TAL RCH

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

TestAmerica Job ID: 300-1448-1
 SDG: WC0570

Client Sample ID: Matrix Spike

Lab Sample ID: 300-1437-A-5 MS

Date Collected: 11/09/15 08:30

Matrix: Water

Date Received: 11/09/15 14:35

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		1923	11/10/15 13:24	RLC	TAL RCH
Total/NA	Analysis	300.0		2	10 mL		1924	11/10/15 13:24	RLC	TAL RCH

Client Sample ID: B332J9

Lab Sample ID: 300-1448-1 MS

Date Collected: 11/09/15 11:00

Matrix: Water

Date Received: 11/10/15 08:45

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	1929	11/10/15 11:23	AMC	TAL RCH

Laboratory References:

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

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

TestAmerica Job ID: 300-1448-1
SDG: WC0570

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: 300-1448-1
SDG: WC0570

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
300-1448-1	B332J9	Water	11/09/15 11:00	11/10/15 08:45
300-1448-2	B332K0	Water	11/09/15 12:56	11/10/15 08:45
300-1448-3	B332J5	Water	11/09/15 11:00	11/10/15 08:45
300-1448-4	B332J6	Water	11/09/15 12:56	11/10/15 08:45

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

Login Sample Receipt Checklist

Client: CH2M Hill Plateau Remediation Company

Job Number: 300-1448-1

SDG Number: WC0570

Login Number: 1448

List Number: 1

Creator: Friesz, Jordan D

List Source: TestAmerica Richland

Question	Answer	Comment
Radioactivity wasn't checked or is \leq 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 <math><6\text{mm}</math> (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	

