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: 300-3491-1
TestAmerica Sample Delivery Group: WC1261
Client Project/Site: X16-048

For:
CH2M Hill Plateau Remediation Company
PO BOX 1600
Mail Stop R3-50
Richland, Washington 99352

Attn: CPP Sample Management

Authorized for release by:
7/29/2016 3:51:39 PM
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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.

Table of Contents

Cover Page 1
Table of Contents 2
Definitions/Glossary 3
Case Narrative 4
Chain of Custody 5
Detection Summary 11
Client Sample Results 13
QC Sample Results 15
QC Association Summary 16
Lab Chronicle 17
Method Summary 20
Sample Summary 21
Receipt Checklists 22

Definitions/Glossary

Client: CH2M Hill Plateau Remediation Company
Project/Site: X16-048

TestAmerica Job ID: 300-3491-1
SDG: WC1261

Qualifiers

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

Client: CH2M Hill Plateau Remediation Company
Project/Site: X16-048

TestAmerica Job ID: 300-3491-1
SDG: WC1261

Job ID: 300-3491-1

Laboratory: TestAmerica Richland

Narrative

Job Narrative
300-3491-1

Comments
No additional comments.

Receipt
The samples were received on 7/15/2016 2:55 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 6.0º C.

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	C.O.C. # X16-048-002 Page 1 of 1

Collector	Frank Hall /CHPRC	Contact/Requester	WATERS-HUSTED, K	Telephone No.	376-4650
SAF No.	X16-048	Sampling Origin	Hanford Site	Purchase Order/Charge Code	304027
Project Title	100-KW Rebound Study, Vertical Profile	Logbook No.	HNF-N-506 86/52	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 be 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 ☐
N/A

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B36627	N	W	JUL 15 2016	1036	1x60-mL aG	7196_CR6: COMMON	24 Hours	Cool <=6C
B36626	Y	W	↓	↓	1x60-mL aG	7196_CR6: COMMON	24 Hours	Cool <=6C

#3491
WC1261

300-3491 COC

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Frank Hall /CHPRC			JUL 15 2016 1040	Troy Bacon CHPRC		Troy L. Bacon	JUL 15 2016 1040
Troy Bacon CHPRC		Troy L. Bacon	JUL 15 2016 1455	J. Bock, TARL			JUL 15 2016 1455

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

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # X16-048-005 Page 1 of 1

Collector	Frank Hall /CHPRC	Contact/Requester	WATERS-HUSTED, K	Telephone No.	376-4650
SAF No.	X16-048	Sampling Origin	Hanford Site	Purchase Order/Charge Code	304027
Project Title	100-KW Rebound Study, Vertical Profile	Logbook No.	HNF-N-506 86/53	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 be 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 ☐

N/A

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B36629	Y	W	JUL 15 2016	1142	1x60-mL aG	7196_CR6: COMMON	24 Hours	Cool <=6C
B36630	N	W	↓	↓	1x60-mL aG	7196_CR6: COMMON	24 Hours	Cool <=6C

#3491
WC1261

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Frank Hall /CHPRC			JUL 15 2016 1300	Lesly Wall /CHPRC			JUL 15 2016 1300
Lesly Wall /CHPRC			JUL 15 2016 1400	FEDEX	J. Bock, TARL		JUL 15 2016 1455

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

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # X16-048-006 Page 1 of 1

Collector	Frank Hall /CHPRC	Contact/Requester	WATERS-HUSTED, K	Telephone No.	376-4650
SAF No.	X16-048	Sampling Origin	Hanford Site	Purchase Order/Charge Code	304027
Project Title	100-KW Rebound Study, Vertical Profile	Logbook No.	HNF-N-506 86/53	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 be 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 ☐
N/A

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B36632	Y	W	JUL 15 2016	1209	1x60-mL aG	7196_CR6: COMMON	24 Hours	Cool <=6C
B36633	N	W	↓	↓	1x60-mL aG	7196_CR6: COMMON	24 Hours	Cool <=6C

#3491
WC1261

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Frank Hall /CHPRC			JUL 15 2016 1300	Lesly Wall /CHPRC			JUL 15 2016 1300
Lesly Wall /CHPRC			JUL 15 2016 1400	FEDEX			J. Bock, TARE JUL 15 2016 1455

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

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # X16-048-008 Page 1 of 1

Collector	Frank Hall /CHPRC	Contact/Requester	WATERS-HUSTED, K	Telephone No.	376-4650
SAF No.	X16-048	Sampling Origin	Hanford Site	Purchase Order/Charge Code	304027
Project Title	100-KW Rebound Study, Vertical Profile	Logbook No.	HNF-N-506 86/52	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 be 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 ☐

N/A

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B36635	Y	W	JUL 15 2016	0942	1x60-mL aG	7196_CR6: COMMON	24 Hours	Cool <=6C
B36636	N	W	↓	↓	1x60-mL aG	7196_CR6: COMMON	24 Hours	Cool <=6C

#3491
WC1261

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
	Frank Hall /CHPRC		JUL 15 2016 1040		Troy Bacon CHPRC	Troy L. Bacon	JUL 15 2016 1040
Relinquished By	Troy Bacon CHPRC	Troy L. Bacon	JUL 15 2016 1455	Received By	J. Bock, TARL		JUL 15 2016 1455
Relinquished By			Date/Time	Received By			Date/Time
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 6/30/2016 FSR ID = FSR33949 A-6004-842 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # X16-048-011 Page 1 of 1

Collector	Frank Hall /CHPRC	Contact/Requester	WATERS-HUSTED, K	Telephone No.	376-4650
SAF No.	X16-048	Sampling Origin	Hanford Site	Purchase Order/Charge Code	304027
Project Title	100-KW Rebound Study, Vertical Profile	Logbook No.	HNF-N-506 86/52	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 be 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 ☐
N/A

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B36638	Y	W	JUL 15 2016	0827	1x60-mL aG	7196_CR6: COMMON	24 Hours	Cool <=6C
B36639	N	W	↓	↓	1x60-mL aG	7196_CR6: COMMON	24 Hours	Cool <=6C

#3491
WC1261

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Frank Hall /CHPRC			JUL 15 2016 1040	Troy Bacon CHPRC		Troy L. Bacon	JUL 15 2016 1040
Troy Bacon CHPRC	Troy L. Bacon		JUL 15 2016 1455		J. Bock, TARL		JUL 15 2016 1455
Relinquished By			Date/Time	Received By			Date/Time
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 6/30/2016 FSR ID = FSR33951 A-6004-842 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # X16-048-012 Page 1 of 1

Collector	Frank Hall /CHPRC	Contact/Requester	WATERS-HUSTED, K	Telephone No.	376-4650
SAF No.	X16-048	Sampling Origin	Hanford Site	Purchase Order/Charge Code	304027
Project Title	100-KW Rebound Study, Vertical Profile	Logbook No.	HNF-N-506 86/52	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 be 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 ☐

N/A

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B36642	N	W	JUL 15 2016	0846	1x60-mL aG	7196_CR6: COMMON	24 Hours	Cool <=6C
B36641	Y	W	↓	↓	1x60-mL aG	7196_CR6: COMMON	24 Hours	Cool <=6C

#3491
WC1261

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Frank Hall /CHPRC			JUL 15 2016 1040	Troy Bacon CHPRC		Troy L. Bacon	JUL 15 2016 1040
Troy Bacon CHPRC		Troy L. Bacon	JUL 15 2016 1455		J. Bock, TARL		JUL 15 2016 1455

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

Detection Summary

Client: CH2M Hill Plateau Remediation Company
Project/Site: X16-048

TestAmerica Job ID: 300-3491-1
SDG: WC1261

Client Sample ID: B36627 — Lab Sample ID: 300-3491-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cr (VI)	0.016		0.0040	0.0015	mg/L	1		7196A	Total/NA

Client Sample ID: B36626 — Lab Sample ID: 300-3491-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cr (VI)	0.016		0.0040	0.0015	mg/L	1		7196A	Total/NA

Client Sample ID: B36629 — Lab Sample ID: 300-3491-3

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: B36630 — Lab Sample ID: 300-3491-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cr (VI)	0.013		0.0040	0.0015	mg/L	1		7196A	Total/NA

Client Sample ID: B36632 — Lab Sample ID: 300-3491-5

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: B36633 — Lab Sample ID: 300-3491-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cr (VI)	0.013		0.0040	0.0015	mg/L	1		7196A	Total/NA

Client Sample ID: B36635 — Lab Sample ID: 300-3491-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cr (VI)	0.0095		0.0040	0.0015	mg/L	1		7196A	Total/NA

Client Sample ID: B36636 — Lab Sample ID: 300-3491-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cr (VI)	0.0085		0.0040	0.0015	mg/L	1		7196A	Total/NA

Client Sample ID: B36638 — Lab Sample ID: 300-3491-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cr (VI)	0.038		0.0040	0.0015	mg/L	1		7196A	Total/NA

Client Sample ID: B36639 — Lab Sample ID: 300-3491-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cr (VI)	0.037		0.0040	0.0015	mg/L	1		7196A	Total/NA

Client Sample ID: B36642 — Lab Sample ID: 300-3491-11

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: CH2M Hill Plateau Remediation Company
Project/Site: X16-048

TestAmerica Job ID: 300-3491-1
SDG: WC1261

Client Sample ID: B36642 (Continued) — Lab Sample ID: 300-3491-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cr (VI)	0.029		0.0040	0.0015	mg/L	1		7196A	Total/NA

Client Sample ID: B36641 — Lab Sample ID: 300-3491-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cr (VI)	0.029		0.0040	0.0015	mg/L	1		7196A	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: CH2M Hill Plateau Remediation Company
Project/Site: X16-048

TestAmerica Job ID: 300-3491-1
SDG: WC1261

Client Sample ID: B36627 — Lab Sample ID: 300-3491-1

Date Collected: 07/15/16 10:36
Date Received: 07/15/16 14:55
Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.016		0.0040	0.0015	mg/L			07/15/16 17:07	1

Client Sample ID: B36626 — Lab Sample ID: 300-3491-2

Date Collected: 07/15/16 10:36
Date Received: 07/15/16 14:55
Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.016		0.0040	0.0015	mg/L			07/15/16 17:08	1

Client Sample ID: B36629 — Lab Sample ID: 300-3491-3

Date Collected: 07/15/16 11:42
Date Received: 07/15/16 14:55
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			07/15/16 17:08	1

Client Sample ID: B36630 — Lab Sample ID: 300-3491-4

Date Collected: 07/15/16 11:42
Date Received: 07/15/16 14:55
Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.013		0.0040	0.0015	mg/L			07/15/16 17:08	1

Client Sample ID: B36632 — Lab Sample ID: 300-3491-5

Date Collected: 07/15/16 12:09
Date Received: 07/15/16 14:55
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			07/15/16 17:09	1

Client Sample ID: B36633 — Lab Sample ID: 300-3491-6

Date Collected: 07/15/16 12:09
Date Received: 07/15/16 14:55
Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.013		0.0040	0.0015	mg/L			07/15/16 17:09	1

Client Sample ID: B36635 — Lab Sample ID: 300-3491-7

Date Collected: 07/15/16 09:42
Date Received: 07/15/16 14:55
Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.0095		0.0040	0.0015	mg/L			07/15/16 17:12	1

Client Sample Results

Client: CH2M Hill Plateau Remediation Company
Project/Site: X16-048

TestAmerica Job ID: 300-3491-1
SDG: WC1261

Client Sample ID: B36636
Lab Sample ID: 300-3491-8
Date Collected: 07/15/16 09:42
Matrix: Water
Date Received: 07/15/16 14:55

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.0085		0.0040	0.0015	mg/L			07/15/16 17:13	1

Client Sample ID: B36638
Lab Sample ID: 300-3491-9
Date Collected: 07/15/16 08:27
Matrix: Water
Date Received: 07/15/16 14:55

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.038		0.0040	0.0015	mg/L			07/15/16 17:13	1

Client Sample ID: B36639
Lab Sample ID: 300-3491-10
Date Collected: 07/15/16 08:27
Matrix: Water
Date Received: 07/15/16 14:55

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.037		0.0040	0.0015	mg/L			07/15/16 17:13	1

Client Sample ID: B36642
Lab Sample ID: 300-3491-11
Date Collected: 07/15/16 08:46
Matrix: Water
Date Received: 07/15/16 14:55

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.029		0.0040	0.0015	mg/L			07/15/16 17:13	1

Client Sample ID: B36641
Lab Sample ID: 300-3491-12
Date Collected: 07/15/16 08:46
Matrix: Water
Date Received: 07/15/16 14:55

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	0.029		0.0040	0.0015	mg/L			07/15/16 17:14	1

QC Sample Results

Client: CH2M Hill Plateau Remediation Company
Project/Site: X16-048

TestAmerica Job ID: 300-3491-1
SDG: WC1261

Method: 7196A - Chromium, Hexavalent

Lab Sample ID: MB 300-5009/3
Matrix: Water
Analysis Batch: 5009

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			07/15/16 17:04	1

Lab Sample ID: LCS 300-5009/4
Matrix: Water
Analysis Batch: 5009

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	0.251		mg/L		101	80 - 120		

Lab Sample ID: 300-3491-1 MS
Matrix: Water
Analysis Batch: 5009

Client Sample ID: B36627
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Cr (VI)	0.016		0.0500	0.0657		mg/L		99	75 - 125		

Lab Sample ID: 300-3491-1 DU
Matrix: Water
Analysis Batch: 5009

Client Sample ID: B36627
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Cr (VI)	0.016			0.0162		mg/L				0	20

QC Association Summary

Client: CH2M Hill Plateau Remediation Company
Project/Site: X16-048

TestAmerica Job ID: 300-3491-1
SDG: WC1261

General Chemistry

Analysis Batch: 5009

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
300-3491-1	B36627	Total/NA	Water	7196A	
300-3491-2	B36626	Total/NA	Water	7196A	
300-3491-3	B36629	Total/NA	Water	7196A	
300-3491-4	B36630	Total/NA	Water	7196A	
300-3491-5	B36632	Total/NA	Water	7196A	
300-3491-6	B36633	Total/NA	Water	7196A	
300-3491-7	B36635	Total/NA	Water	7196A	
300-3491-8	B36636	Total/NA	Water	7196A	
300-3491-9	B36638	Total/NA	Water	7196A	
300-3491-10	B36639	Total/NA	Water	7196A	
300-3491-11	B36642	Total/NA	Water	7196A	
300-3491-12	B36641	Total/NA	Water	7196A	
MB 300-5009/3	Method Blank	Total/NA	Water	7196A	
LCS 300-5009/4	Lab Control Sample	Total/NA	Water	7196A	
300-3491-1 MS	B36627	Total/NA	Water	7196A	
300-3491-1 DU	B36627	Total/NA	Water	7196A	

Lab Chronicle

Client: CH2M Hill Plateau Remediation Company
Project/Site: X16-048

TestAmerica Job ID: 300-3491-1
SDG: WC1261

Client Sample ID: B36627 — Lab Sample ID: 300-3491-1

Date Collected: 07/15/16 10:36 — **Matrix: Water**
Date Received: 07/15/16 14:55

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			5009	07/15/16 17:07	RLC	TAL RCH

Client Sample ID: B36626 — Lab Sample ID: 300-3491-2

Date Collected: 07/15/16 10:36 — **Matrix: Water**
Date Received: 07/15/16 14:55

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			5009	07/15/16 17:08	RLC	TAL RCH

Client Sample ID: B36629 — Lab Sample ID: 300-3491-3

Date Collected: 07/15/16 11:42 — **Matrix: Water**
Date Received: 07/15/16 14:55

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			5009	07/15/16 17:08	RLC	TAL RCH

Client Sample ID: B36630 — Lab Sample ID: 300-3491-4

Date Collected: 07/15/16 11:42 — **Matrix: Water**
Date Received: 07/15/16 14:55

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			5009	07/15/16 17:08	RLC	TAL RCH

Client Sample ID: B36632 — Lab Sample ID: 300-3491-5

Date Collected: 07/15/16 12:09 — **Matrix: Water**
Date Received: 07/15/16 14:55

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			5009	07/15/16 17:09	RLC	TAL RCH

Client Sample ID: B36633 — Lab Sample ID: 300-3491-6

Date Collected: 07/15/16 12:09 — **Matrix: Water**
Date Received: 07/15/16 14:55

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			5009	07/15/16 17:09	RLC	TAL RCH

Lab Chronicle

Client: CH2M Hill Plateau Remediation Company
Project/Site: X16-048

TestAmerica Job ID: 300-3491-1
SDG: WC1261

Client Sample ID: B36635 — Lab Sample ID: 300-3491-7

Date Collected: 07/15/16 09:42 — **Matrix: Water**
Date Received: 07/15/16 14:55

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			5009	07/15/16 17:12	RLC	TAL RCH

Client Sample ID: B36636 — Lab Sample ID: 300-3491-8

Date Collected: 07/15/16 09:42 — **Matrix: Water**
Date Received: 07/15/16 14:55

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			5009	07/15/16 17:13	RLC	TAL RCH

Client Sample ID: B36638 — Lab Sample ID: 300-3491-9

Date Collected: 07/15/16 08:27 — **Matrix: Water**
Date Received: 07/15/16 14:55

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			5009	07/15/16 17:13	RLC	TAL RCH

Client Sample ID: B36639 — Lab Sample ID: 300-3491-10

Date Collected: 07/15/16 08:27 — **Matrix: Water**
Date Received: 07/15/16 14:55

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			5009	07/15/16 17:13	RLC	TAL RCH

Client Sample ID: B36642 — Lab Sample ID: 300-3491-11

Date Collected: 07/15/16 08:46 — **Matrix: Water**
Date Received: 07/15/16 14:55

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			5009	07/15/16 17:13	RLC	TAL RCH

Client Sample ID: B36641 — Lab Sample ID: 300-3491-12

Date Collected: 07/15/16 08:46 — **Matrix: Water**
Date Received: 07/15/16 14:55

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			5009	07/15/16 17:14	RLC	TAL RCH

Lab Chronicle

Client: CH2M Hill Plateau Remediation Company
Project/Site: X16-048

TestAmerica Job ID: 300-3491-1
SDG: WC1261

Client Sample ID: Method Blank — Lab Sample ID: MB 300-5009/3

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			5009	07/15/16 17:04	RLC	TAL RCH

Client Sample ID: Lab Control Sample — Lab Sample ID: LCS 300-5009/4

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			5009	07/15/16 17:04	RLC	TAL RCH

Client Sample ID: B36627 — Lab Sample ID: 300-3491-1 MS

Date Collected: 07/15/16 10:36
Matrix: Water
Date Received: 07/15/16 14:55

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			5009	07/15/16 17:04	RLC	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: X16-048

TestAmerica Job ID: 300-3491-1
SDG: WC1261

Method	Method Description	Protocol	Laboratory
7196A	Chromium, Hexavalent	SW846	TAL RCH

Protocol References:

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: X16-048

TestAmerica Job ID: 300-3491-1
SDG: WC1261

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
300-3491-1	B36627	Water	07/15/16 10:36	07/15/16 14:55
300-3491-2	B36626	Water	07/15/16 10:36	07/15/16 14:55
300-3491-3	B36629	Water	07/15/16 11:42	07/15/16 14:55
300-3491-4	B36630	Water	07/15/16 11:42	07/15/16 14:55
300-3491-5	B36632	Water	07/15/16 12:09	07/15/16 14:55
300-3491-6	B36633	Water	07/15/16 12:09	07/15/16 14:55
300-3491-7	B36635	Water	07/15/16 09:42	07/15/16 14:55
300-3491-8	B36636	Water	07/15/16 09:42	07/15/16 14:55
300-3491-9	B36638	Water	07/15/16 08:27	07/15/16 14:55
300-3491-10	B36639	Water	07/15/16 08:27	07/15/16 14:55
300-3491-11	B36642	Water	07/15/16 08:46	07/15/16 14:55
300-3491-12	B36641	Water	07/15/16 08:46	07/15/16 14:55

Login Sample Receipt Checklist

Client: CH2M Hill Plateau Remediation Company

Job Number: 300-3491-1
SDG Number: WC1261

Login Number: 3491
List Number: 1
Creator: Anderson, Lori F

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.	N/A	
Residual Chlorine Checked.	N/A	