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ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica St. Louis
13715 Rider Trail North
Earth City, MO 63045
Tel: (314)298-8566

TestAmerica Job ID: 160-23523-2

TestAmerica Sample Delivery Group: SL2596A
Client Project/Site: F17-009

For:

CH2M Hill Plateau Remediation Company
PO BOX 1600, MS H8-41
Richland, Washington 99352

Attn: Mr. Scot Fitzgerald



Authorized for release by:
3/2/2018 3:17:49 PM

Jayna Awalt, Project Manager II
(314)298-8566

jayna.awalt@testamericainc.com



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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

- 1
- 2
- 3
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- 5
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- 8
- 9
- 10

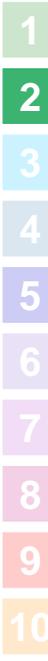


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Client: CH2M Hill Plateau Remediation Company
Project/Site: F17-009

TestAmerica Job ID: 160-23523-2
SDG: SL2596A

Job ID: 160-23523-2

Laboratory: TestAmerica St. Louis

Narrative

CASE NARRATIVE

CH2MHill Plateau Remediation Company
P.O. Box 1600
Richland, Washington 99352
March 2, 2018
Attention: Scot Fitzgerald

SDG	: SL2596A
Number of Samples	: 2 samples
Sample Matrix	: Soil
Data Deliverable	: Summary
Date SDG Closed	: July 29, 2017

II. Introduction

Per SIR18-0488, it was determined that pH analysis needed to be added to the samples in this SDG. It is acknowledged per the SIR that the method will be run outside of hold time and temperature criteria.

The following SAFs are associated with this SDG: F17-009

III. Analytical Results/ Methodology

The analytical results for this report are presented by analytical test. Each set of data includes sample identification information, analytical results and the appropriate detection limits. All results are based upon samples as they were received, i.e. wet weight, unless otherwise noted on the data sheets. See the attached Methods Summary Form for the methods used in this SDG.

MS/MSD/Dup analysis was done per the client requirements. Analytical batches that did not contain matrix QC were analyzed with an LCS/LCS duplicate.

Note: For Metals analyses, per standard practice, all 6020 water and soil samples are initially prepared at 2x dilution. This standard dilution does not affect reporting limits as MDL studies are also prepared in the same manner. These dilutions do not necessitate a narrative note; however, they are flagged "D" due to a limitation in the LIMS.

For solid matrices, all Metals analyses (including Hg) use a Standard Reference Material for the Laboratory Control Sample (LCS). Certificate for this source material may be obtained from TASL.

For Anion analysis, samples have been started at a 2x dilution per CHPRC direction. The samples are flagged accordingly with a "D" flag if sample concentration is above the MDL/RL. Non-conformance will be included in the below section only if dilution is greater than 2x.

For WTPH methods, the lab utilizes method 8015B. Per CHPRC direction, the method name in the electronic data has been modified to read WTPH in the place of 8015B.

Per CHPRC direction, due to the short hold times for Nitrate, Nitrite and Phosphate by IC (48 hours) as well as pH analysis (24 hours), a SIR request is not needed when samples are run outside 1x hold but within 2x hold. A narrative comment will be included below if a sample is run outside the lab-specified hold time for waters.

For extractable and volatile organic analyses, several analytes are considered poor performers and will not meet CHPRC QC limits. Per CHPRC direction, the lab's statistical limits have been reported. Excursions outside these statistical limits will include a non-conformance in the sections below.

IV. Definitions

QCBLK- Quality Control Blank, Method Blank

Client: CH2M Hill Plateau Remediation Company
Project/Site: F17-009

TestAmerica Job ID: 160-23523-2
SDG: SL2596A

Job ID: 160-23523-2 (Continued)

Laboratory: TestAmerica St. Louis (Continued)

QCLCS- Quality Control Laboratory Control Sample, Blank Spike
DUP- Laboratory Duplicate
MS- Matrix Spike
MSD- Matrix Spike Duplicate

The term "Detection Limit" used in the analytical data report refers to either the lab's standard reporting limits or contractually required reporting limits, whichever is applicable.

The following data qualifiers may be applicable to the results in this report, as appropriate.

- **B** - For inorganic analyses, the sample result is greater than the MDL but less than the RL.
- **B** - For organic analyses, Method Blank contamination. The Method Blank contains the target analyte above the MDL/RL and Method Blank is greater than 5% of the sample concentration.
- **B** - For inorganics and radiochemistry, Method Blank reported above the MDC/MDL.
- **J** - For organic analyses, the sample is estimated and less than the RL. If on Method Blank, indicates Method Blank contamination.
- **C** - For inorganic analyses, Method Blank contamination. The Method Blank contains the target analyte at a concentration above the MDL/RL and Method Blank concentration is greater than 5% of the sample concentration.
- **D** - For all analyses, the sample result was obtained from the analysis of a dilution. For ICPMS Metals analyses, per standard practice, all samples are initially prepared at a 2x dilution. This standard dilution does not affect reporting limits as MDL studies are also prepared in the same manner and will not be narrated below. Only dilutions above 2x will be narrated and considered a true dilution for these samples.
- **N** - For inorganics, rad and GC analyses, the spike/spike duplicate recoveries are outside QC limits.
- **T** - For GCMS analyses, the spike/spike duplicate recoveries are outside QC limits.
- **o** - For all analyses, the LCS (LCSD) recoveries are outside QC limits.
- **P** - For organic analyses (PCB/Pests only), the aroclor target analyte has greater than 25% difference for detected concentrations between the two GC columns.
- **X**- Organics and Anions IC - Sample concentration over calibration and/or surrogate recovery outside QC limits.
- **X**- Inorganics - The analyte present in the original sample is > 4x the spike concentration.
- **X**- Radiochemistry - Carrier or Tracer recovery is outside limits.
- **Z**- Sample was prepped or analyzed beyond the specified sample holding time.
- **y** - RPD is outside established limits.

pH

Batch: 352560

Analysis for the following sample in pH soil preparation batch 160-352555 and analytical batch 160-352560 was requested by the client after the holding time had expired: B3BMT5 (160-23523-2) and B3BMW7 (160-23640-1).

We certify that this data package is in compliance with the SOW, both technically and for completeness, including a full description of, explanation of, and corrective actions for, any and all deviations, from either the analyses requested or the case narrative requested. Release of the data contained in this hard copy data package has been authorized by the Laboratory Analytical Manager or designee and the laboratory's client services representative as verified by their signature on this report.

Reviewed and approved:

Jayna Awalt
St. Louis Project Manager

SAMPLE ISSUE RESOLUTION (SIR) REPORT		SIR Number: SIR18-0488
		Rev. Number: 0
		Date Initiated: 02/15/2018
<u>SAMPLE EVENT INFORMATION</u>		
SAF NUM(S):	F17-009	
LABORATORY:	TASL	
<u>SAMPLING INFORMATION</u>		
NUMBER OF SAMPLES:	12	
SAMPLE NUMBERS:	B3BMP2, B3BMT5, B3BMV6, B3BMW7, B3D1H7, B3D1J3, B3D1L9, B3DCH1, B3DCJ6, B3DCK6, B3DCL1, B3DCM1	
SAMPLE MATRIX:	SOIL	
SDG NUM(S):	SL2590, SL2596, SL2607, SL2649, SL2658, SL2682, SL2697	
<u>ISSUE BACKGROUND</u>		
CLASS:	General Laboratory Direction	
TYPE:	Addition of Analyses	
DESCRIPTION:	The project has determined the need to run pH on the sample(s) listed above. It is acknowledged that the method will be run outside of hold time.	
<u>RESOLUTION</u>		
PROPOSED RESOLUTION:	Run pH as described above.	
FINAL RESOLUTION:	Accept proposed resolution	
SUBMITTED BY:		
FITZGERALD, SL	_____	02/15/2018 _____
ACCEPTED BY:		
AWALT, JK	_____	02/15/2018 _____

Login Sample Receipt Checklist

Client: CH2M Hill Plateau Remediation Company

Job Number: 160-23640-1

SDG Number: SL2596

Login Number: 23640

List Number: 1

Creator: Clarke, Jill C

List Source: TestAmerica St. Louis

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	4.6
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 $< 6\text{mm}$ ($1/4"$).	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	False	

CH2MHIII Plateau Remediation Company		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		F17-009-695	PAGE 1 OF 1
COLLECTOR <i>P. Brice</i>	SL25916	COMPANY CONTACT FITZGERALD, SL	TELEPHONE NO. 373-7495	PROJECT COORDINATOR FITZGERALD, SL	PRICE CODE 8H
SAMPLING LOCATION C9497, Core 37, B391Y4		PROJECT DESIGNATION 200-DV-1 Operable Unit Characterization of Waste Sites Sampling - Soil 20	SAF NO. F17-009	AIR QUALITY <input type="checkbox"/>	DATA TURNAROUND 30 Days / 30 Days
ICE CHEST NO. NA		FIELD LOGBOOK NO. NA	ACTUAL SAMPLE DEPTH 231.0-233.0	COA 302632	METHOD OF SHIPMENT FEDERAL EXPRESS
SHIPPED TO TestAmerica St. Louis		OFFSITE PROPERTY NO. NA			ORIGINAL

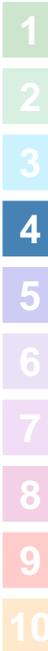
MATRIX*	PRESERVATION	HOLDING TIME	TYPE OF CONTAINER	NO. OF CONTAINER(S)	VOLUME	SAMPLE ANALYSIS	SAMPLE DATE	SAMPLE TIME	MATRIX*
A=Air DL=Drum L=Liquid S=Sediment SE=Soil T=Tissue V=Vegetation W=Water WI=Wipe X=Other	Cool <=6C	28 Days	G/P	1	250ml	SEE ITEM (2) IN SPECIAL INSTRUCTIONS COMMON;			
POSSIBLE 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.	Cool <=6C	14/40 Days	Gs	1	120ml	SEE ITEM (1) WITH_KEROSE NE: COMMON;	7/28/17	10:30	
SPECIAL HANDLING AND/OR STORAGE NA									

CHAIN OF POSSESSION	SIGN/ PRINT NAMES	RECEIVED BY/STORED IN	DATE/TIME								
RELINQUISHED BY/REMOVED FROM <i>Patrick Brice</i>		Jen Russell	7/28/17 10:45								
RELINQUISHED BY/REMOVED FROM <i>Jen Russell</i>		Book S. Boul-TALC	7-28-17 11:35								
RELINQUISHED BY/REMOVED FROM <i>Book S. Boul-TALC</i>		FEDEX	7-28-17								
RELINQUISHED BY/REMOVED FROM <i>FEDEX</i>		Chick	7-29-17								
RELINQUISHED BY/REMOVED FROM											
RELINQUISHED BY/REMOVED FROM											
RELINQUISHED BY/REMOVED FROM											

SPECIAL INSTRUCTIONS
 TRVL-17-175
 (1) 8270_SVOA_GCMS: COMMON (Add-on) {Tributyl phosphate};
 (2) 7471_MERCURY_CV: COMMON (SOLIDS); 6020_METALS_ICPMS:
 COMMON {Aluminum, Barium, Cadmium, Chromium, Copper, Lead, Selenium}; 6020_METALS_ICPMS: COMMON (Add-on) {Antimony, Arsenic, Manganese, Nickel, Silver, Uranium};

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME
PRINTED ON 6/28/2017	FSR ID = FSR47554	TRVL NUM = TRVL-17-175	A-6003-618 (REV 2)





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779763748950

Ship date:

Fri 7/28/2017

RICHLAND, WA US

Actual delivery:

Sat 7/29/2017 8:42 am

EARTH CITY, MO US

Delivered

Signed for by: J.CLARK

Travel History

Date/Time	Activity	Location
- 7/29/2017 - Saturday		
8:42 am	Delivered	EARTH CITY, MO
8:06 am	On FedEx vehicle for delivery	EARTH CITY, MO
7:32 am	At local FedEx facility	EARTH CITY, MO
5:13 am	At destination sort facility	BERKELEY, MO
4:27 am	Departed FedEx location	MEMPHIS, TN
12:13 am	Arrived at FedEx location	MEMPHIS, TN
- 7/28/2017 - Friday		
4:45 pm	Left FedEx origin facility	PASCO, WA
3:25 pm	Shipment information sent to FedEx	
3:24 pm	Picked up	PASCO, WA

Shipment Facts

Tracking number	779763748950	Service	FedEx Priority Overnight
Weight	8 lbs / 3.63 kgs	Dimensions	11x9x11 in.
Delivered To	Shipping/Receiving	Total pieces	1
Total shipment weight	8 lbs / 3.63 kgs	Terms	Recipient
Shipper reference	CH2MHILL	Packaging	Your Packaging
Special handling section	For Saturday Delivery	Standard transit	7/29/2017 by 12:00 pm



Search or tracking number Subr

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New Customer Center
Small Business Center
Service Guide
Customer Support

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FedEx SameDay
FedEx Home Delivery
FedEx TechConnect
FedEx HealthCare Solutions
Online Retail Solutions
Packaging Services
Ancillary Clearance Services

Other Resources
FedEx Compatible
Developer Resource Center
FedEx Ship Manager Software
FedEx Mobile

Companies
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FedEx Ground
FedEx Office
FedEx Freight
FedEx Custom Critical
FedEx Trade Networks
FedEx Cross Border
FedEx Supply Chain

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Login Sample Receipt Checklist

Client: CH2M Hill Plateau Remediation Company

Job Number: 160-23523-1

SDG Number: SL2596

Login Number: 23523

List Number: 1

Creator: Taylor, Kristene N

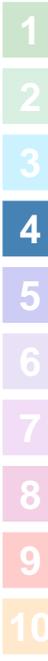
List Source: TestAmerica St. Louis

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.	N/A	
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	4.4
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 $<6\text{mm}$ (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

CH2M Hill Plateau Remediation Company		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		F17-009-667	PAGE 1 OF 1
COLLECTOR <i>P. Brice</i>	8225910	COMPANY CONTACT FITZGERALD, SL	TELEPHONE NO. 373-7495	PROJECT COORDINATOR FITZGERALD, SL	PRICE CODE 8H
SAMPLING LOCATION C9497, Core 17, B39LT4		PROJECT DESIGNATION 200-DV-1 Operable Unit Characterization of Waste Sites Sampling - Soil 20		SAF NO. F17-009	AIR QUALITY <input type="checkbox"/>
ICE CHEST NO.	NA	FIELD LOGBOOK NO.	ACTUAL SAMPLE DEPTH 132'-134.0'	COA 302632	METHOD OF SHIPMENT FEDERAL EXPRESS
SHIPPED TO TestAmerica St. Louis		OFFSITE PROPERTY NO.		BILL OF LADING/AIR BILL NO. 7797 2183 2144	

MATRIX*	POSSIBLE SAMPLE HAZARDS/ REMARKS	PRESERVATION	COOL <=6C	COOL <=6C	COOL <=6C	COOL <=6C
A=Air DL=Drum L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WT=Wipe X=Other	*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.	14/40 Days	14/40 Days	14/40 Days	28 Days	28 Days
		GS	GS	GS	G/P	G/P
		1	1	1	1	1
		120ml 7/21/17 410E	120ml	250ml	60ml 75 410E 7/14/17	350.L LAMMONT A: COMMON; 9012.CYANIDE: COMMON; ✓
		SEE ITEM (1) IN SPECIAL INSTRUCTIONS	WTP/LK ROSE NE: COMMON; ✓	SEE ITEM (2) IN SPECIAL INSTRUCTIONS		
SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME			
B3BMR9	SOIL	7/21/17	13:20	X	X	X

CHAIN OF POSSESSION	SIGN/ PRINT NAMES	RECEIVED BY/STORED IN	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM <i>P. Brice</i>		7/21/17 1400		7/21/17 1400		7/21/17 1400		7/21/17 1400		7/21/17 1400	
RELINQUISHED BY/REMOVED FROM <i>John Russell</i>		7/21/17 1405		7/21/17 1605		7/21/17 1605		7/21/17 0915		7/21/17 0915	
RELINQUISHED BY/REMOVED FROM <i>F. B. Taylor</i>											
RELINQUISHED BY/REMOVED FROM											
RELINQUISHED BY/REMOVED FROM											
RELINQUISHED BY/REMOVED FROM											
RELINQUISHED BY/REMOVED FROM											
LABORATORY SECTION	RECEIVED BY	TITLE		DATE/TIME		DISPOSED BY		DATE/TIME		TITLE	
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	TRVL-17-175		DATE/TIME		DATE/TIME		DATE/TIME		DATE/TIME	
PRINTED ON 6/28/2017	FSR ID = FSR47549	TRVL NUM = TRVL-17-175		A-6003-618 (REV 2)							



CH2M Hill Plateau Remediation Company		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		F17-009-673	PAGE 1 OF 1
COLLECTOR <i>P. Brice</i>	COMPANY CONTACT FITZGERALD, SL	TELEPHONE NO. 373-7495	PROJECT COORDINATOR FITZGERALD, SL	PRICE CODE 8H	DATA TURNAROUND 30 Days / 30 Days
SAMPLING LOCATION C9497, Core 23, B391LV6	PROJECT DESIGNATION 200-DV-1 Operable Unit Characterization of Waste Sites Sampling - Soil 20	SAF NO. F17-009	COA 302632	AIR QUALITY <input type="checkbox"/>	METHOD OF SHIPMENT FEDERAL EXPRESS
ICE CHEST NO. NA	FIELD LOGBOOK NO. NA	ACTUAL SAMPLE DEPTH 161.0 - 163.5'	BILL OF LADING/AIR BILL NO. NA		
SHIPPED TO TestAmerica St. Louis	OFFSITE PROPERTY NO. NA				

MATRIX*	POSSIBLE SAMPLE HAZARDS/ REMARKS	PRESERVATION	COOL <=6C	COOL <=6C	COOL <=6C	COOL <=6C
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	*Contains Radioactive Material at concentrations that are not be regulated for transport per 49 CFR/JATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1.	14/40 Days	14/40 Days	14/40 Days	28 Days	28 Days
SPECIAL HANDLING AND/OR STORAGE NA		CS	1	1	G/P	G/P
NO. OF CONTAINER(S)		1	1	1	1	1
VOLUME		120ml	120ml	250ml	40ml	40ml
SAMPLE ANALYSIS		SEE ITEM (1) IN SPECIAL INSTRUCTIONS COMMON;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS COMMON;			

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	DATE/TIME	DATE/TIME
B3BMT5	SOIL	7/21/17	1415	X	X

CHAIN OF POSSESSION	SIGN/ PRINT NAMES	RECEIVED BY/STORED IN	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM <i>Patrick Brice</i>		<i>Jean Russell</i>	7/21/17 1430	<i>Jean Russell</i>	7/21/17 1430
RELINQUISHED BY/REMOVED FROM <i>Jean Russell</i>		<i>A. Rogers, TARI</i>	7/21/17 1605	<i>A. Rogers</i>	7/21/17 1605
RELINQUISHED BY/REMOVED FROM <i>Patrick Brice</i>		<i>Kristine Taylor</i>	7/25/17 0915	<i>Kristine Taylor</i>	7/25/17 0915
RELINQUISHED BY/REMOVED FROM					
RELINQUISHED BY/REMOVED FROM					
RELINQUISHED BY/REMOVED FROM					
RELINQUISHED BY/REMOVED FROM					

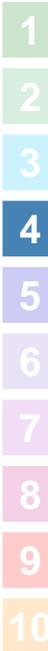
SPECIAL INSTRUCTIONS
TRVL-17-175
(1) 8270_SVOA_GCMS: COMMON (Add-on) {Tributyl phosphate};
(2) 7471_MERCURY_CV: COMMON (SOLIDS); 6020_METALS_ICPMS: COMMON {Aluminum, Barium, Cadmium, Chromium, Copper, Lead, Selenium}; 6020_METALS_ICPMS: COMMON (Add-on) {Antimony, Arsenic, Manganese, Nickel, Silver, Uranium};

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

FRS ID = FSR47550 TRVL NUM = TRVL-17-175 A-6003-618 (REV 2)

PRINTED ON 6/28/2017





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779721832144

Ship date:
Mon 7/24/2017

RICHLAND, WA US

Actual delivery:
Tue 7/25/2017 9:06 am

EARTH CITY, MO US

Delivered

Signed for by: B.DANIELS

Travel History

Date/Time	Activity	Location
- 7/25/2017 - Tuesday		
9:06 am	Delivered	EARTH CITY, MO
6:57 am	On FedEx vehicle for delivery	EARTH CITY, MO
6:46 am	At local FedEx facility	EARTH CITY, MO
5:12 am	At destination sort facility	BERKELEY, MO
4:25 am	Departed FedEx location	MEMPHIS, TN
12:32 am	Arrived at FedEx location	MEMPHIS, TN
- 7/24/2017 - Monday		
5:06 pm	Left FedEx origin facility	PASCO, WA
5:00 pm	Shipment information sent to FedEx	
3:13 pm	Picked up	PASCO, WA

Shipment Facts

Tracking number	779721832144	Service	FedEx Standard Overnight
Weight	11 lbs / 4.99 kgs	Dimensions	14x10x9 in.
Delivered To	Shipping/Receiving	Total pieces	1
Total shipment weight	11 lbs / 4.99 kgs	Terms	Recipient
Shipper reference	FLH	Packaging	Your Packaging
Special handling section	Deliver Weekday, Additional Handling Surcharge	Standard transit	7/25/2017 by 3:00 pm



Search or tracking number **Sub**

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- Small Business Center
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- FedEx Critical Inventory Logistics
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- Packaging Services
- Ancillary Clearance Services

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- FedEx Trade Networks
- FedEx Cross Border
- FedEx Supply Chain

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Ask FedEx

Client: CH2M Hill Plateau Remediation Company
 Project/Site: F17-009

TestAmerica Job ID: 160-23523-2
 SDG: SL2596A

Qualifiers

General Chemistry

Qualifier	Qualifier Description
Z	Sample was prepped or analyzed beyond the specified holding time

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	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
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 (Radiochemistry)
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: F17-009

TestAmerica Job ID: 160-23523-2
SDG: SL2596A

Method	Method Description	Protocol	Laboratory
9045D	pH	SW846	TAL SL

Protocol References:

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

Laboratory References:

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566



Client: CH2M Hill Plateau Remediation Company
Project/Site: F17-009

TestAmerica Job ID: 160-23523-2
SDG: SL2596A

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
160-23523-2	B3BMT5	Soil	07/21/17 14:15	07/25/17 09:15
160-23640-1	B3BMW7	Soil	07/28/17 10:30	07/29/17 09:00

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10

03/02/2018
Client Sample Results

REV.0

Client: CH2M Hill Plateau Remediation Company
Project/Site: F17-009

TestAmerica Job ID: 160-23523-2
SDG: SL2596A

General Chemistry

Client Sample ID: B3BMT5
Date Collected: 07/21/17 14:15
Date Received: 07/25/17 09:15

Lab Sample ID: 160-23523-2
Matrix: Soil

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.68	Z	0.0999	0.0999	SU		02/22/18 20:06	02/22/18 21:51	1

Client Sample ID: B3BMW7
Date Collected: 07/28/17 10:30
Date Received: 07/29/17 09:00

Lab Sample ID: 160-23640-1
Matrix: Soil

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	8.85	Z	0.100	0.100	SU		02/22/18 20:06	02/22/18 21:47	1

Client: CH2M Hill Plateau Remediation Company
 Project/Site: F17-009

TestAmerica Job ID: 160-23523-2
 SDG: SL2596A

Method: 9045D - pH

Lab Sample ID: 160-24283-A-3-E DU
Matrix: Solid
Analysis Batch: 352560

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 352555

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
pH	9.99		10.08		SU		0.9	5

Lab Sample ID: LCS 160-352560/6
Matrix: Solid
Analysis Batch: 352560

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
pH	7.00	7.050		SU		101	99.0 - 101.0

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10

03/02/2018
QC Association Summary

REV.0

Client: CH2M Hill Plateau Remediation Company
Project/Site: F17-009

TestAmerica Job ID: 160-23523-2
SDG: SL2596A

General Chemistry

Prep Batch: 352555

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-23523-2	B3BMT5	Total/NA	Soil	DILeach_Prep	
160-23640-1	B3BMW7	Total/NA	Soil	DILeach_Prep	
160-24283-A-3-E DU	Duplicate	Total/NA	Solid	DILeach_Prep	

Analysis Batch: 352560

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-23523-2	B3BMT5	Total/NA	Soil	9045D	352555
160-23640-1	B3BMW7	Total/NA	Soil	9045D	352555
LCS 160-352560/6	Lab Control Sample	Total/NA	Solid	9045D	
160-24283-A-3-E DU	Duplicate	Total/NA	Solid	9045D	352555

