TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

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

TestAmerica Job ID: 160-26464-1
TestAmerica Sample Delivery Group: SL2794
Client Project/Site: F17-062

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

Attn: Mr. Scot Fitzgerald

Authorized for release by:
2/21/2018 3:49:20 PM

Jayna Awalt, Project Manager II
(314)298-8566
jayna.awalt@testamericainc.com

Table of Contents

Client: CH2M Hill Plateau Remediation Company
Project/Site: F17-062

TestAmerica Job ID: 160-26464-1
SDG: SL2794

Job ID: 160-26464-1

Laboratory: TestAmerica St. Louis

Narrative

CASE NARRATIVE

CH2MHill Plateau Remediation Company
P.O. Box 1600
Richland, Washington 99352
February 21, 2018
Attention: Scot Fitzgerald

SDG	: SL2794
Number of Samples	: 7 samples
Sample Matrix	: Soil
Data Deliverable	: Summary
Date SDG Closed	: January 23, 2018

II. Introduction

On January 23, 7 samples were received by TestAmerica - St. Louis for analysis. The samples were received within temperature criteria. See the COC and receipt checklists for documentation of any variations on receipt conditions and temperature. Upon receipt, samples were given laboratory Ids to correspond with specific client Ids. Please refer to the Sample Summary sheets attached to this case narrative. This report is incomplete without the narrative.

The following SAFs are associated with this SDG: F17-062

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.

Client: CH2M Hill Plateau Remediation Company
Project/Site: F17-062

TestAmerica Job ID: 160-26464-1
SDG: SL2794

Job ID: 160-26464-1 (Continued)

Laboratory: TestAmerica St. Louis (Continued)

IV. Definitions

QCBLK- Quality Control Blank, Method Blank
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.

WTPH Diesel

Batch: 348814

The following sample was diluted due to the dark color of the sample matrix: B3FMK4 (160-26464-3). Elevated reporting limits (RL) are provided. This analyte has been qualified accordingly with a "D" flag in the associated samples.

The surrogate recovery for the CCV was outside of the upper QC limits. The sample associated with this CCV had acceptable an acceptable surrogate recovery. (CCV 160-348814/38)

ICPMS Metals

Batch: 351826

The low level check (CCVL) was outside upper QC limits for Manganese. The concentration of this analyte in the sample was at such a high level as to make the CCVL unnecessary. (CCVL 160-351826/64)

The following samples were diluted due to the abundance of non-target analytes. Samples are high in salts which can cause instrument and QC failures when ran at a lesser dilution: B3FMH8 (160-26464-1), B3FMK1 (160-26464-2), B3FMK4 (160-26464-3), B3FMK7

Client: CH2M Hill Plateau Remediation Company
Project/Site: F17-062

TestAmerica Job ID: 160-26464-1
SDG: SL2794

Job ID: 160-26464-1 (Continued)

Laboratory: TestAmerica St. Louis (Continued)

(160-26464-4), B3FML0 (160-26464-5), B3FML9 (160-26464-6), B3FMM2 (160-26464-7), (160-26464-B-1-B MS), (160-26464-B-1-C MSD) and (160-26464-B-1-A SD). Elevated reporting limits (RLs) are provided. These analytes have been qualified accordingly with a "D" flag in the associated samples.

The recovery for the CCVL bracketing the method blank was outside the upper QC limit for Manganese indicating a potential high bias. The method blank was below the RL. No further action is required. (CCVL 160-351826/38)

The low level check (CCVL) was outside the upper QC limits for Cadmium and Copper. Associated samples which are either below the reporting limit for the contaminant or exhibit concentrations at such a high level as to make the CCVL unnecessary do not require re-analysis. Original results are reported. (CCVL 160-351826/51)

Due to the high concentration of Aluminum and Manganese, the matrix spike / matrix spike duplicate (MS/MSD) for preparation batch 160-348793 and analytical batch 160-351826 could not be evaluated for accuracy and precision. The associated laboratory control sample (LCS) met acceptance criteria. (160-26464-B-1-B MS) and (160-26464-B-1-C MSD)

Batch: 349413

The following samples were diluted due to the abundance of non-target analytes. Samples are high in salts which can cause instrument and QC failures when ran at a lesser dilution: B3FMH8 (160-26464-1), B3FMK1 (160-26464-2), B3FMK4 (160-26464-3), B3FMK7 (160-26464-4), B3FML0 (160-26464-5), B3FML9 (160-26464-6), B3FMM2 (160-26464-7), (160-26464-B-1-E MS), (160-26464-B-1-F MSD) and (160-26464-B-1-D SD). Elevated reporting limits (RLs) are provided. This analyte has been qualified accordingly with a "D" flag in the associated samples.

Ammonia as N

Batch: 351064

The following sample / sample duplicate (DU) precision for Ammonia preparation batch 160-350900 and analytical batch 160-351064 was outside control limits: B3FMH8 (160-26464-1) and (160-26464-E-1-E DU). However, RPD determinations are not valid for results that are less than five times the reporting limit (RL) and within the value of the RL from each other. Therefore, the results are reported with this narrative.

There were no observations or non-conformances associated with the following methods:

Semivolatiles
Mercury
Total Cyanide

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

Client: CH2M Hill Plateau Remediation Company
Project/Site: F17-062

TestAmerica Job ID: 160-26464-1
SDG: SL2794

Job ID: 160-26464-1 (Continued)

Laboratory: TestAmerica St. Louis (Continued)

Login Sample Receipt Checklist

Client: CH2M Hill Plateau Remediation Company

Job Number: 160-26464-1
SDG Number: SL2794

Login Number: 26464
List Number: 1
Creator: Clarke, Jill C

List Source: TestAmerica St. Louis

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	0.7
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.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F17-062-246	PAGE 1 OF 1
COLLECTOR: Daniel Klug CHPRC SL2794	COMPANY CONTACT: FITZGERALD, SL	TELEPHONE NO.: 373-7495	PROJECT COORDINATOR: FITZGERALD, SL		REQUIRED TAT: 30 Days
SAMPLING LOCATION: C9848, Shallow Sample 6	PROJECT DESIGNATION: 200-DV-1 Operable Unit Characterization - Shallow Sampling - Soil 2017		SAF NO.: F17-062		ORIGINAL
ICE CHEST NO.: GWS-600	FIELD LOGBOOK NO.: HNF-N-645 Ga-74	ACTUAL SAMPLE DEPTH: 13.0 to 15.0 FT	PURCHASE ORDER/CHARGE CODE: 303971	METHOD OF SHIPMENT: FEDERAL EXPRESS	
SHIPPED TO: TestAmerica St. Louis	OFFSITE PROPERTY NO.: N/A		BILL OF LADING/AIR BILL NO.: 771290805250		

MATRIX*: A=Air, DL=Drum Liquids, DS=Drum Solids, L=Liquid, O=Oil, S=Soil, SE=Sediment, T=Tissue, V=Vegetation, W=Water, WI=Wipe, X=Other

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

SPECIAL HANDLING AND/OR STORAGE
~~RADIOACTIVE TIE TO: B3FMH6~~ lw
JAN 1 8 2018

PRESERVATION	Cool <=6C	Cool <=6C	Cool <=6C	Cool <=6C	Cool <=6C
HOLDING TIME	14/40 Days	14/40 Days	28 Days	28 Days	14 Days
TYPE OF CONTAINER	aG	aG	G/P	G/P	aG
NO. OF CONTAINER(S)	1	1	1	1	1
VOLUME	120mL	120mL	250mL	60mL	40mL
SAMPLE ANALYSIS	8270_SVOA_GCMS: COMMON (Add-on) {Tributyl phosphate};	WTPH_KEROSENE: COMMON;	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	350.1_AMMONIA: COMMON;	9012_CYANIDE (TOTAL): COMMON;

SAMPLE NO.	FILTERED	MATRIX*	SAMPLE DATE	SAMPLE TIME					
B3FMH8	N/A	SOIL	JAN 1 8 2018	1041	✓	✓	✓	✓	✓

CHAIN OF POSSESSION: RELINQUISHED BY/REMOVED FROM	DATE/TIME	SIGN/ PRINT NAMES: RECEIVED BY/STORED IN	DATE/TIME
Daniel Klug CHPRC D. Klug	JAN 1 8 2018 1430	SSU-1	JAN 1 8 2018 1430
SSU-1	JAN 2 2 2018 1000	Lesly Wall /CHPRC Lesly Wall	JAN 2 2 2018 1000
Lesly Wall /CHPRC Lesly Wall	JAN 2 2 2018 1400	FEDEX	
FED EX		Jill Clarke Jill Clarke	1.23.18 0910

SPECIAL INSTRUCTIONS
TRVL-18-011
(1) 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};

FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

PRINTED ON 1/16/2018 | FSR ID = FSR52869 | TRVL NUM = TRVL-18-011 | A-6003-618 (REV 3)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F17-062-259	PAGE 1 OF 1
COLLECTOR: Daniel Klug CHPRC SL2794	COMPANY CONTACT: FITZGERALD, SL	TELEPHONE NO.: 373-7495	PROJECT COORDINATOR: FITZGERALD, SL	REQUIRED TAT: 30 Days	
SAMPLING LOCATION: C9849, Shallow Sample 1	PROJECT DESIGNATION: 200-DV-1 Operable Unit Characterization - Shallow Sampling - Soil 2017		SAF NO.: F17-062	ORIGINAL	
ICE CHEST NO.: GWS-600	FIELD LOGBOOK NO.: HNF-N-645 6 - 74	ACTUAL SAMPLE DEPTH: 2.2 to 4.4 FT	PURCHASE ORDER/CHARGE CODE: 303971	METHOD OF SHIPMENT: FEDERAL EXPRESS	
SHIPPED TO: TestAmerica St. Louis	OFFSITE PROPERTY NO.: N/A		BILL OF LADING/AIR BILL NO.: 7712 9080 5250		

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

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

SPECIAL HANDLING AND/OR STORAGE
~~RADIOACTIVE TIE TO: B3FMJ9~~
JAN 18 2018

SAMPLE NO.	FILTERED	MATRIX*	SAMPLE DATE	SAMPLE TIME	PRESERVATION	HOLDING TIME	TYPE OF CONTAINER	NO. OF CONTAINER(S)	VOLUME	SAMPLE ANALYSIS
					Cool <=6C	14/40 Days	aG	1	120mL	8270_SVOA_GCMS: COMMON (Add-on) {Tributyl phosphate};
					Cool <=6C	14/40 Days	aG	1	120mL	WTPH_KEROSENE: COMMON;
					Cool <=6C	28 Days	G/P	1	250mL	SEE ITEM (1) IN SPECIAL INSTRUCTIONS
					Cool <=6C	28 Days	G/P	1	60mL	350.1_AMMONIA: COMMON;
					Cool <=6C	14 Days	aG	1	40mL	9012_CYANIDE (TOTAL): COMMON;
B3FMK1	N/A	SOIL	JAN 18 2018	1211	✓	✓	✓	✓	✓	✓

Page 9 of 41

CHAIN OF POSSESSION RELINQUISHED BY/REMOVED FROM	DATE/TIME	SIGN/ PRINT NAMES RECEIVED BY/STORED IN	DATE/TIME
Daniel Klug CHPRC D. Klug	JAN 18 2018 1430	SSU-1	JAN 18 2018 1430
SSU-1	JAN 22 2018 1000	Lesly Wall /CHPRC Lesly Wall	JAN 22 2018 1000
Lesly Wall /CHPRC Lesly Wall	JAN 22 2018 1400	FEDEX	
FED EX		Jill Clark Jill Clark	1.23.18 0910

SPECIAL INSTRUCTIONS
TRVL-18-012
(1) 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};

FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

PRINTED ON 10/24/2017 | FSR ID = FSR52878 | TRVL NUM = TRVL-18-012 | A-6003-618 (REV 3)

2/21/2018

February 22, 2018 Revision 0

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F17-062-262	PAGE 1 OF 1
COLLECTOR Daniel Klug CHPRC 92794	**COMPANY CONTACT** FITZGERALD, SL	**TELEPHONE NO.** 373-7495	**PROJECT COORDINATOR** FITZGERALD, SL		**REQUIRED TAT** 30 Days
SAMPLING LOCATION C9849, Shallow Sample 2	**PROJECT DESIGNATION** 200-DV-1 Operable Unit Characterization - Shallow Sampling - Soil 2017		**SAF NO.** F17-062		ORIGINAL
ICE CHEST NO. GWS-600	**FIELD LOGBOOK NO.** HNF-N-645 6-74	**ACTUAL SAMPLE DEPTH** 4.4 to 6.6 ft	**PURCHASE ORDER/CHARGE CODE** 303971	**METHOD OF SHIPMENT** FEDERAL EXPRESS	
SHIPPED TO TestAmerica St. Louis	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** 7712 9080 5250		

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

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

SPECIAL HANDLING AND/OR STORAGE
~~RADIOACTIVE TIE TO: B3FMK2~~
JAN 1 8 2018

PRESERVATION	Cool <=6C	Cool <=6C	Cool <=6C	Cool <=6C	Cool <=6C
HOLDING TIME	14/40 Days	14/40 Days	28 Days	28 Days	14 Days
TYPE OF CONTAINER	aG	aG	G/P	G/P	aG
NO. OF CONTAINER(S)	1	1	1	1	1
VOLUME	120mL	120mL	250mL	60mL	40mL
SAMPLE ANALYSIS	8270_SVOA_GCMS: COMMON (Add-on) {Tributyl phosphate};	WTPH_KEROSENE: COMMON;	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	350.1_AMMONIA: COMMON;	9012_CYANIDE (TOTAL): COMMON;

SAMPLE NO.	FILTERED	MATRIX*	SAMPLE DATE	SAMPLE TIME					
B3FMK4	N/A	SOIL	JAN 1 8 2018	1220	✓	✓	✓	✓	✓

CHAIN OF POSSESSION RELINQUISHED BY/REMOVED FROM	DATE/TIME	SIGN/ PRINT NAMES RECEIVED BY/STORED IN	DATE/TIME
Daniel Klug CHPRC D. Klug	JAN 1 8 2018 1430	SSU-1	JAN 1 8 2018 1430
SSU-1	JAN 2 2 2018 1000	Lesly Wall /CHPRC Lesly Wall	JAN 2 2 2018 1000
Lesly Wall /CHPRC Lesly Wall	JAN 2 2 2018 1400	FEDEX	
FED EX		Jim Clarke J. Clarke	1.23.18 0910

SPECIAL INSTRUCTIONS
TRVL-18-012
(1) 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};

FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

PRINTED ON 10/24/2017 FSR ID = FSR52879 TRVL NUM = TRVL-18-012 A-6003-618 (REV 3)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F17-062-265	PAGE 1 OF 1
COLLECTOR Daniel Klug CHPRC SL-27494	**COMPANY CONTACT** FITZGERALD, SL	**TELEPHONE NO.** 373-7495	**PROJECT COORDINATOR** FITZGERALD, SL	**REQUIRED TAT** 30 Days	
SAMPLING LOCATION C9849, Shallow Sample 3	**PROJECT DESIGNATION** 200-DV-1 Operable Unit Characterization - Shallow Sampling - Soil 2017		**SAF NO.** F17-062	**ORIGINAL**	
ICE CHEST NO. GWS-600	**FIELD LOGBOOK NO.** HNF-N-645 lk - 74	**ACTUAL SAMPLE DEPTH** 6.6 to 8.3 FT	**PURCHASE ORDER/CHARGE CODE** 303971	**METHOD OF SHIPMENT** FEDERAL EXPRESS	
SHIPPED TO TestAmerica St. Louis	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** 7712 9080 5250		

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

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

SPECIAL HANDLING AND/OR STORAGE
~~RADIOACTIVE TIE TO: B3FMK5~~ lw
JAN 1 8 2018

PRESERVATION	Cool <=6C	Cool <=6C	Cool <=6C	Cool <=6C	Cool <=6C					
HOLDING TIME	14/40 Days	14/40 Days	28 Days	28 Days	14 Days					
TYPE OF CONTAINER	aG	aG	G/P	G/P	aG					
NO. OF CONTAINER(S)	1	1	1	1	1					
VOLUME	120mL	120mL	250mL	60mL	40mL					
SAMPLE ANALYSIS	8270_SVOA_GCMS: COMMON (Add-on) {Tributyl phosphate};	WTPH_KEROSENE: COMMON;	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	350.1_AMMONIA: COMMON;	9012_CYANIDE (TOTAL): COMMON;					
SAMPLE NO.	**FILTERED**	**MATRIX***	**SAMPLE DATE**	**SAMPLE TIME**						
B3FMK7	N/A	SOIL	JAN 1 8 2018	1230	✓	✓	✓	✓	✓	

Page 11 of 41

CHAIN OF POSSESSION RELINQUISHED BY/REMOVED FROM	DATE/TIME	**SIGN/ PRINT NAMES** RECEIVED BY/STORED IN	DATE/TIME
Daniel Klug CHPRC	JAN 1 8 2018 1436	SSU-1	JAN 1 8 2018 1436
SSU-1	JAN 2 2 2018 1000	Lesly Wall /CHPRC	JAN 2 2 2018 1000
Lesly Wall /CHPRC	JAN 2 2 2018 1400	FEDEX	
FED EX		Jill Clark Jill Clark 1.23.18 0910	

SPECIAL INSTRUCTIONS
TRVL-18-012
(1) 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};

FINAL SAMPLE DISPOSITION	**DISPOSAL METHOD**	**DISPOSED BY**	**DATE/TIME**

2/21/2018

PRINTED ON 10/24/2017 **FSR ID = FSR52880** **TRVL NUM = TRVL-18-012** A-6003-618 (REV 3)

February 22, 2018 Revision 0

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F17-062-268	PAGE 1 OF 1
COLLECTOR Daniel Klug CHPRC 512794	**COMPANY CONTACT** FITZGERALD, SL	**TELEPHONE NO.** 373-7495	**PROJECT COORDINATOR** FITZGERALD, SL	**REQUIRED TAT** 30 Days	
SAMPLING LOCATION C9849, Shallow Sample 4	**PROJECT DESIGNATION** 200-DV-1 Operable Unit Characterization - Shallow Sampling - Soil 2017		**SAF NO.** F17-062	ORIGINAL	
ICE CHEST NO. GWS-600	**FIELD LOGBOOK NO.** HNF-N-645 6-74	**ACTUAL SAMPLE DEPTH** 8.3 to 10.1 ft	**PURCHASE ORDER/CHARGE CODE** 303971	**METHOD OF SHIPMENT** FEDERAL EXPRESS	
SHIPPED TO TestAmerica St. Louis	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** 771290805250		

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

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

SPECIAL HANDLING AND/OR STORAGE
~~RADIOACTIVE TIE TO: B3FM68~~
JAN 18 2018

PRESERVATION	Cool <=6C	Cool <=6C	Cool <=6C	Cool <=6C	Cool <=6C
HOLDING TIME	14/40 Days	14/40 Days	28 Days	28 Days	14 Days
TYPE OF CONTAINER	aG	aG	G/P	G/P	aG
NO. OF CONTAINER(S)	1	1	1	1	1
VOLUME	120mL	120mL	250mL	60mL	40mL
SAMPLE ANALYSIS	8270_SVOA_GCMS: COMMON (Add-on) {Tributyl phosphate};	WTPH_KEROSENE: COMMON;	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	350.1_AMMONIA: COMMON;	9012_CYANIDE (TOTAL): COMMON;

SAMPLE NO.	FILTERED	MATRIX*	SAMPLE DATE	SAMPLE TIME					
B3FML0	N/A	SOIL	JAN 18 2018	1235	✓	✓	✓	✓	✓

CHAIN OF POSSESSION RELINQUISHED BY/REMOVED FROM	DATE/TIME	SIGN/ PRINT NAMES RECEIVED BY/STORED IN	DATE/TIME
Daniel Klug CHPRC D.Klug	JAN 18 2018 1430	SSU-1	JAN 18 2018 1430
SSU-1	JAN 22 2018 1000	Lesly Wall /CHPRC Lesly Wall	JAN 22 2018 1000
Lesly Wall /CHPRC Lesly Wall	JAN 22 2018 1400	FEDEX	
FED EX		Jill Clarke Jill Clarke	1.23.18 0910

SPECIAL INSTRUCTIONS
TRVL-18-012
(1) 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};

FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

PRINTED ON 10/24/2017 | FSR ID = FSR52881 | TRVL NUM = TRVL-18-012 | A-6003-618 (REV 3)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST 49165	F17-062-277	PAGE 1 OF 1

COLLECTOR	COMPANY CONTACT	TELEPHONE NO.	PROJECT COORDINATOR	REQUIRED TAT
Daniel Klug CHPRC 92794	FITZGERALD, SL	373-7495	FITZGERALD, SL	30 Days

SAMPLING LOCATION	PROJECT DESIGNATION	SAF NO.
~~C9849~~, Optional 1 C9939	200-DV-1 Operable Unit Characterization - Shallow Sampling - Soil 2017	F17-062

ORIGINAL

ICE CHEST NO.	FIELD LOGBOOK NO.	ACTUAL SAMPLE DEPTH	PURCHASE ORDER/CHARGE CODE	METHOD OF SHIPMENT
GWS-1000	HNF-N-645 G - 74	10.1 to 12.0 ft	303971	FEDERAL EXPRESS

SHIPPED TO	OFFSITE PROPERTY NO.	BILL OF LADING/AIR BILL NO.
TestAmerica St. Louis	N/A	7712 9080 5250

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

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

SPECIAL HANDLING AND/OR STORAGE
~~RADIOACTIVE TIE TO: B3FML7~~
JAN 18 2018

PRESERVATION	Cool <=6C	Cool <=6C	Cool <=6C	Cool <=6C	Cool <=6C
HOLDING TIME	14/40 Days	14/40 Days	28 Days	28 Days	14 Days
TYPE OF CONTAINER	aG	aG	G/P	G/P	aG
NO. OF CONTAINER(S)	1	1	1	1	1
VOLUME	120mL	120mL	250mL	60mL	40mL
SAMPLE ANALYSIS	8270_SVOA_GCMS: COMMON (Add-on) {Tributyl phosphate};	WTPH_KEROSENE: COMMON;	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	350.1_AMMONIA: COMMON;	9012_CYANIDE (TOTAL): COMMON;
SAMPLE NO.	FILTERED	MATRIX*	SAMPLE DATE	SAMPLE TIME					
B3FML9	N/A	SOIL	JAN 18 2018	1350	✓	✓	✓	✓	✓

CHAIN OF POSSESSION RELINQUISHED BY/REMOVED FROM	DATE/TIME	SIGN/ PRINT NAMES RECEIVED BY/STORED IN	DATE/TIME
Daniel Klug CHPRC D. Klug	JAN 18 2018 1430	SSU-1	JAN 18 2018 1430
SSU-1	JAN 22 2018 1000	Lesly Wall /CHPRC Lesly Wall	JAN 22 2018 1000
Lesly Wall /CHPRC Lesly Wall	JAN 22 2018 1400	FEDEX	
FED EX		Jim Clark Jill Clarke	1.23.18 0910

SPECIAL INSTRUCTIONS
TRVL-18-012
(1) 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};

FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

PRINTED ON 10/24/2017 | FSR ID = FSR52884 | TRVL NUM = TRVL-18-012 | A-6003-618 (REV 3)

2/21/2018

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F17-062-280	PAGE 1 OF 1
COLLECTOR Daniel Klug CHPRC	**COMPANY CONTACT** FITZGERALD, SL	**TELEPHONE NO.** 373-7495	**PROJECT COORDINATOR** FITZGERALD, SL	**REQUIRED TAT** 30 Days	
SAMPLING LOCATION C9839, Optional 2 C9939	**PROJECT DESIGNATION** 200-DV-1 Operable Unit Characterization - Shallow Sampling - Soil 2017		**SAF NO.** F17-062	ORIGINAL	
ICE CHEST NO. GWS-600	**FIELD LOGBOOK NO.** HNF-N-645 6-74	**ACTUAL SAMPLE DEPTH** 13.0 to 15.1 ft	**PURCHASE ORDER/CHARGE CODE** 303971	**METHOD OF SHIPMENT** FEDERAL EXPRESS	
SHIPPED TO TestAmerica St. Louis	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** 771290805250		

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

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

SPECIAL HANDLING AND/OR STORAGE
~~RADIOACTIVE TIE TO: B3FMM0~~
JAN 18 2018

PRESERVATION	Cool <=6C	Cool <=6C	Cool <=6C	Cool <=6C	Cool <=6C
HOLDING TIME	14/40 Days	14/40 Days	28 Days	28 Days	14 Days
TYPE OF CONTAINER	aG	aG	G/P	G/P	aG
NO. OF CONTAINER(S)	1	1	1	1	1
VOLUME	120mL	120mL	250mL	60mL	40mL
SAMPLE ANALYSIS	8270_SVOA_GCMS: COMMON (Add-on) {Tributyl phosphate};	WTPH_KEROSENE: COMMON;	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	350.1_AMMONIA: COMMON;	9012_CYANIDE (TOTAL): COMMON;
SAMPLE NO.	**FILTERED**	**MATRIX***	**SAMPLE DATE**	**SAMPLE TIME**					
B3FMM2	N/A	SOIL	JAN 18 2018	1355	✓	✓	✓	✓	✓

CHAIN OF POSSESSION RELINQUISHED BY/REMOVED FROM	DATE/TIME	**SIGN/ PRINT NAMES** RECEIVED BY/STORED IN	DATE/TIME
Daniel Klug CHPRC D. Klug	JAN 18 2018 1430	SSU-1	JAN 18 2018 1430
SSU-1	JAN 22 2018 1000	Lesly Wall /CHPRC Lesly Wall	JAN 22 2018 1000
Lesly Wall /CHPRC Lesly Wall	JAN 22 2018 1400	FEDEX	
FED EX		Jim Clark Jill Clark	1.23.18 0910

SPECIAL INSTRUCTIONS
TRVL-18-012
(1) 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};

FINAL SAMPLE DISPOSITION | **DISPOSAL METHOD** | **DISPOSED BY** | **DATE/TIME**

PRINTED ON 10/24/2017 | FSR ID = FSR52885 | TRVL NUM = TRVL-18-012 | A-6003-618 (REV 3)

IMPORTANT!
FedEx is closely monitoring the winter storms across the U.S. Learn More

FedEx ® Tracking

771290805250

Ship date:
Mon 1/22/2018

Richland, WA US

Delivered
Signed for by: J.CLARKE

Actual delivery:
Tue 1/23/2018 9:00 am

EARTH CITY, MO US

Travel History

Date/Time	Activity	Location
- 1/23/2018 - Tuesday		
9:00 am	Delivered	EARTH CITY, MO
7:18 am	On FedEx vehicle for delivery	EARTH CITY, MO
7:13 am	At local FedEx facility	EARTH CITY, MO
6:01 am	At destination sort facility	BERKELEY, MO
5:16 am	Departed FedEx location	MEMPHIS, TN
12:25 am	Arrived at FedEx location	MEMPHIS, TN
- 1/22/2018 - Monday		
4:52 pm	Left FedEx origin facility	PASCO, WA
3:18 pm	Picked up	PASCO, WA
12:16 pm	Shipment information sent to FedEx	

Shipment Facts

Tracking Number	771290805250	**Service**	FedEx Standard Overnight
Weight	49 lbs / 22.23 kgs	**Delivered To**	Shipping/Receiving
Total pieces	1	**Total shipment weight**	49 lbs / 22.23 kgs
Terms	Recipient	**Shipper reference**	GWS-600
Packaging	Your Packaging	**Special handling section**	Deliver Weekday, Additional Handling Surcharge
Standard transit	1/23/2018 by 3:00 pm		

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
U	Analyzed for but not detected.

GC/MS Semi VOA TICs

Qualifier	Qualifier Description
J	Indicates an Estimated Value for TICs
N	Presumptive evidence of material.

GC Semi VOA

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

Metals

Qualifier	Qualifier Description
U	Analyzed for but not detected.
D	The reported value is from a dilution.
B	Estimated result. Result is less than the RL, but greater than MDL
X	See case narrative notes for explanation of the 'X' flag

General Chemistry

Qualifier	Qualifier Description
U	Analyzed for but not detected.
y	Duplicate analysis not within control limits.

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	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)

Method Summary

Client: CH2M Hill Plateau Remediation Company
Project/Site: F17-062

TestAmerica Job ID: 160-26464-1
SDG: SL2794

Method	Method Description	Protocol	Laboratory
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL SL
8015B	Diesel Range Organics (DRO) (GC)	SW846	TAL SL
6020A	Metals (ICP/MS)	SW846	TAL SL
7471B	Mercury (CVAA)	SW846	TAL SL
350.1	Nitrogen, Ammonia	MCAWW	TAL SL
9012B	Cyanide, Total andor Amenable	SW846	TAL SL
Moisture	Percent Moisture	EPA	TAL SL

Protocol References:

EPA = US Environmental Protection Agency

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

Sample Summary

Client: CH2M Hill Plateau Remediation Company
Project/Site: F17-062

TestAmerica Job ID: 160-26464-1
SDG: SL2794

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
160-26464-1	B3FMH8	Soil	01/18/18 10:41	01/23/18 09:10
160-26464-2	B3FMK1	Soil	01/18/18 12:11	01/23/18 09:10
160-26464-3	B3FMK4	Soil	01/18/18 12:20	01/23/18 09:10
160-26464-4	B3FMK7	Soil	01/18/18 12:30	01/23/18 09:10
160-26464-5	B3FML0	Soil	01/18/18 12:35	01/23/18 09:10
160-26464-6	B3FML9	Soil	01/18/18 13:50	01/23/18 09:10
160-26464-7	B3FMM2	Soil	01/18/18 13:55	01/23/18 09:10

Client: CH2M Hill Plateau Remediation Company
Project/Site: F17-062

TestAmerica Job ID: 160-26464-1
SDG: SL2794

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Client Sample ID: B3FMH8 — **Lab Sample ID: 160-26464-1**
Date Collected: 01/18/18 10:41 — **Matrix: Soil**
Date Received: 01/23/18 09:10 — **Percent Solids: 97.2**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tributyl phosphate	47	U	340	47	ug/Kg	☼	01/31/18 12:56	02/02/18 12:04	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
3-Penten-2-one, 4-methyl-	*220*	*N J*	*ug/Kg*	☼	*3.66*	*141-79-7*	*01/31/18 12:56*	*02/02/18 12:04*	*1*
Unknown	*9600*	*N*	*ug/Kg*	☼	*4.02*		*01/31/18 12:56*	*02/02/18 12:04*	*1*
Unknown	*230*	*N*	*ug/Kg*	☼	*4.55*		*01/31/18 12:56*	*02/02/18 12:04*	*1*
n-Hexadecanoic acid	*560*	*N J*	*ug/Kg*	☼	*10.21*	*57-10-3*	*01/31/18 12:56*	*02/02/18 12:04*	*1*
1-Octadecanol	*1100*	*N J*	*ug/Kg*	☼	*12.43*	*112-92-5*	*01/31/18 12:56*	*02/02/18 12:04*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*81*		*47 - 125*	*01/31/18 12:56*	*02/02/18 12:04*	*1*
2-Fluorobiphenyl (Surr)	*74*		*59 - 110*	*01/31/18 12:56*	*02/02/18 12:04*	*1*
2-Fluorophenol (Surr)	*75*		*54 - 102*	*01/31/18 12:56*	*02/02/18 12:04*	*1*
Nitrobenzene-d5 (Surr)	*71*		*44 - 120*	*01/31/18 12:56*	*02/02/18 12:04*	*1*
Phenol-d5 (Surr)	*75*		*51 - 104*	*01/31/18 12:56*	*02/02/18 12:04*	*1*
Terphenyl-d14 (Surr)	*87*		*59 - 98*	*01/31/18 12:56*	*02/02/18 12:04*	*1*

Client Sample ID: B3FMK1 — **Lab Sample ID: 160-26464-2**
Date Collected: 01/18/18 12:11 — **Matrix: Soil**
Date Received: 01/23/18 09:10 — **Percent Solids: 93.2**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tributyl phosphate	49	U	350	49	ug/Kg	☼	01/31/18 12:56	02/02/18 12:31	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
3-Penten-2-one, 4-methyl-	*250*	*N J*	*ug/Kg*	☼	*3.66*	*141-79-7*	*01/31/18 12:56*	*02/02/18 12:31*	*1*
Unknown	*12000*	*N*	*ug/Kg*	☼	*4.02*		*01/31/18 12:56*	*02/02/18 12:31*	*1*
Unknown	*270*	*N*	*ug/Kg*	☼	*4.55*		*01/31/18 12:56*	*02/02/18 12:31*	*1*
n-Hexadecanoic acid	*970*	*N J*	*ug/Kg*	☼	*10.22*	*57-10-3*	*01/31/18 12:56*	*02/02/18 12:31*	*1*
1-Octadecanol	*1700*	*N J*	*ug/Kg*	☼	*12.43*	*112-92-5*	*01/31/18 12:56*	*02/02/18 12:31*	*1*
Unknown	*190*	*N*	*ug/Kg*	☼	*16.38*		*01/31/18 12:56*	*02/02/18 12:31*	*1*

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*85*		*47 - 125*	*01/31/18 12:56*	*02/02/18 12:31*	*1*
2-Fluorobiphenyl (Surr)	*79*		*59 - 110*	*01/31/18 12:56*	*02/02/18 12:31*	*1*
2-Fluorophenol (Surr)	*80*		*54 - 102*	*01/31/18 12:56*	*02/02/18 12:31*	*1*
Nitrobenzene-d5 (Surr)	*76*		*44 - 120*	*01/31/18 12:56*	*02/02/18 12:31*	*1*
Phenol-d5 (Surr)	*82*		*51 - 104*	*01/31/18 12:56*	*02/02/18 12:31*	*1*
Terphenyl-d14 (Surr)	*92*		*59 - 98*	*01/31/18 12:56*	*02/02/18 12:31*	*1*

Client Sample ID: B3FMK4 — **Lab Sample ID: 160-26464-3**
Date Collected: 01/18/18 12:20 — **Matrix: Soil**
Date Received: 01/23/18 09:10 — **Percent Solids: 93.3**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tributyl phosphate	49	U	350	49	ug/Kg	☼	01/31/18 12:56	02/02/18 13:52	1

Tentatively Identified Compound	*Est. Result*	*Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
3-Hexen-2-one	*240*	*N J*	*ug/Kg*	☼	*3.66*	*763-93-9*	*01/31/18 12:56*	*02/02/18 13:52*	*1*
Unknown	*11000*	*N*	*ug/Kg*	☼	*4.02*		*01/31/18 12:56*	*02/02/18 13:52*	*1*
Unknown	*220*	*N*	*ug/Kg*	☼	*4.55*		*01/31/18 12:56*	*02/02/18 13:52*	*1*
n-Hexadecanoic acid	*670*	*N J*	*ug/Kg*	☼	*10.21*	*57-10-3*	*01/31/18 12:56*	*02/02/18 13:52*	*1*
1-Heneicosyl formate	*1100*	*N J*	*ug/Kg*	☼	*12.44*	*77899-03-7*	*01/31/18 12:56*	*02/02/18 13:52*	*1*

Client: CH2M Hill Plateau Remediation Company
Project/Site: F17-062

TestAmerica Job ID: 160-26464-1
SDG: SL2794

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B3FMK4
Date Collected: 01/18/18 12:20
Date Received: 01/23/18 09:10

Lab Sample ID: 160-26464-3
Matrix: Soil
Percent Solids: 93.3

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	190	N	ug/Kg	☼	16.40		01/31/18 12:56	02/02/18 13:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	85		47 - 125	01/31/18 12:56	02/02/18 13:52	1
2-Fluorobiphenyl (Surr)	77		59 - 110	01/31/18 12:56	02/02/18 13:52	1
2-Fluorophenol (Surr)	79		54 - 102	01/31/18 12:56	02/02/18 13:52	1
Nitrobenzene-d5 (Surr)	77		44 - 120	01/31/18 12:56	02/02/18 13:52	1
Phenol-d5 (Surr)	80		51 - 104	01/31/18 12:56	02/02/18 13:52	1
Terphenyl-d14 (Surr)	91		59 - 98	01/31/18 12:56	02/02/18 13:52	1

Client Sample ID: B3FMK7
Date Collected: 01/18/18 12:30
Date Received: 01/23/18 09:10

Lab Sample ID: 160-26464-4
Matrix: Soil
Percent Solids: 94.9

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tributyl phosphate	48	U	340	48	ug/Kg	☼	01/31/18 12:56	02/02/18 14:19	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	1800	N	ug/Kg	☼	2.70		01/31/18 12:56	02/02/18 14:19	1
Unknown	150	N	ug/Kg	☼	2.76		01/31/18 12:56	02/02/18 14:19	1
3-Penten-2-one, 4-methyl-	620	N J	ug/Kg	☼	3.65	141-79-7	01/31/18 12:56	02/02/18 14:19	1
Unknown	11000	N	ug/Kg	☼	4.02		01/31/18 12:56	02/02/18 14:19	1
Unknown	250	N	ug/Kg	☼	4.54		01/31/18 12:56	02/02/18 14:19	1
n-Hexadecanoic acid	540	N J	ug/Kg	☼	10.20	57-10-3	01/31/18 12:56	02/02/18 14:19	1
1-Heneicosyl formate	770	N J	ug/Kg	☼	12.46	77899-03-7	01/31/18 12:56	02/02/18 14:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	76		47 - 125	01/31/18 12:56	02/02/18 14:19	1
2-Fluorobiphenyl (Surr)	70		59 - 110	01/31/18 12:56	02/02/18 14:19	1
2-Fluorophenol (Surr)	72		54 - 102	01/31/18 12:56	02/02/18 14:19	1
Nitrobenzene-d5 (Surr)	70		44 - 120	01/31/18 12:56	02/02/18 14:19	1
Phenol-d5 (Surr)	73		51 - 104	01/31/18 12:56	02/02/18 14:19	1
Terphenyl-d14 (Surr)	83		59 - 98	01/31/18 12:56	02/02/18 14:19	1

Client Sample ID: B3FML0
Date Collected: 01/18/18 12:35
Date Received: 01/23/18 09:10

Lab Sample ID: 160-26464-5
Matrix: Soil
Percent Solids: 94.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tributyl phosphate	48	U	350	48	ug/Kg	☼	01/31/18 12:56	02/02/18 14:46	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
3-Penten-2-one, 4-methyl-	230	N J	ug/Kg	☼	3.65	141-79-7	01/31/18 12:56	02/02/18 14:46	1
Unknown	10000	N	ug/Kg	☼	4.01		01/31/18 12:56	02/02/18 14:46	1
Unknown	210	N	ug/Kg	☼	4.54		01/31/18 12:56	02/02/18 14:46	1
3-Eicosene, (E)-	1100	N J	ug/Kg	☼	12.46	74685-33-9	01/31/18 12:56	02/02/18 14:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	86		47 - 125	01/31/18 12:56	02/02/18 14:46	1
2-Fluorobiphenyl (Surr)	76		59 - 110	01/31/18 12:56	02/02/18 14:46	1
2-Fluorophenol (Surr)	74		54 - 102	01/31/18 12:56	02/02/18 14:46	1
Nitrobenzene-d5 (Surr)	71		44 - 120	01/31/18 12:56	02/02/18 14:46	1
Phenol-d5 (Surr)	76		51 - 104	01/31/18 12:56	02/02/18 14:46	1

Client: CH2M Hill Plateau Remediation Company
Project/Site: F17-062

TestAmerica Job ID: 160-26464-1
SDG: SL2794

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Client Sample ID: B3FML0
Date Collected: 01/18/18 12:35
Date Received: 01/23/18 09:10

Lab Sample ID: 160-26464-5
Matrix: Soil
Percent Solids: 94.5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14 (Surr)	95		59 - 98	01/31/18 12:56	02/02/18 14:46	1

Client Sample ID: B3FML9
Date Collected: 01/18/18 13:50
Date Received: 01/23/18 09:10

Lab Sample ID: 160-26464-6
Matrix: Soil
Percent Solids: 94.1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tributyl phosphate	48	U	350	48	ug/Kg	☼	01/31/18 12:56	02/02/18 15:13	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
3-Penten-2-one, 4-methyl-	260	N J	ug/Kg	☼	3.65	141-79-7	01/31/18 12:56	02/02/18 15:13	1
Unknown	11000	N	ug/Kg	☼	4.02		01/31/18 12:56	02/02/18 15:13	1
Unknown	260	N	ug/Kg	☼	4.54		01/31/18 12:56	02/02/18 15:13	1
n-Hexadecanoic acid	210	N J	ug/Kg	☼	10.20	57-10-3	01/31/18 12:56	02/02/18 15:13	1
3-Eicosene, (E)-	1200	N J	ug/Kg	☼	12.45	74685-33-9	01/31/18 12:56	02/02/18 15:13	1
Unknown	190	N	ug/Kg	☼	16.44		01/31/18 12:56	02/02/18 15:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	83		47 - 125	01/31/18 12:56	02/02/18 15:13	1
2-Fluorobiphenyl (Surr)	77		59 - 110	01/31/18 12:56	02/02/18 15:13	1
2-Fluorophenol (Surr)	76		54 - 102	01/31/18 12:56	02/02/18 15:13	1
Nitrobenzene-d5 (Surr)	72		44 - 120	01/31/18 12:56	02/02/18 15:13	1
Phenol-d5 (Surr)	77		51 - 104	01/31/18 12:56	02/02/18 15:13	1
Terphenyl-d14 (Surr)	90		59 - 98	01/31/18 12:56	02/02/18 15:13	1

Client Sample ID: B3FMM2
Date Collected: 01/18/18 13:55
Date Received: 01/23/18 09:10

Lab Sample ID: 160-26464-7
Matrix: Soil
Percent Solids: 93.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tributyl phosphate	49	U	350	49	ug/Kg	☼	01/31/18 12:56	02/02/18 15:40	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	750	N	ug/Kg	☼	2.69		01/31/18 12:56	02/02/18 15:40	1
3-Penten-2-one, 4-methyl-	330	N J	ug/Kg	☼	3.65	141-79-7	01/31/18 12:56	02/02/18 15:40	1
Unknown	11000	N	ug/Kg	☼	4.01		01/31/18 12:56	02/02/18 15:40	1
Unknown	260	N	ug/Kg	☼	4.54		01/31/18 12:56	02/02/18 15:40	1
n-Hexadecanoic acid	1100	N J	ug/Kg	☼	10.20	57-10-3	01/31/18 12:56	02/02/18 15:40	1
1-Heneicosyl formate	1600	N J	ug/Kg	☼	12.44	77899-03-7	01/31/18 12:56	02/02/18 15:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	88		47 - 125	01/31/18 12:56	02/02/18 15:40	1
2-Fluorobiphenyl (Surr)	78		59 - 110	01/31/18 12:56	02/02/18 15:40	1
2-Fluorophenol (Surr)	79		54 - 102	01/31/18 12:56	02/02/18 15:40	1
Nitrobenzene-d5 (Surr)	73		44 - 120	01/31/18 12:56	02/02/18 15:40	1
Phenol-d5 (Surr)	79		51 - 104	01/31/18 12:56	02/02/18 15:40	1
Terphenyl-d14 (Surr)	95		59 - 98	01/31/18 12:56	02/02/18 15:40	1

Method: 8015B - Diesel Range Organics (DRO) (GC)

Client Sample ID: B3FMH8
Date Collected: 01/18/18 10:41
Date Received: 01/23/18 09:10

Lab Sample ID: 160-26464-1
Matrix: Soil
Percent Solids: 97.2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Kerosene (C9-C16)	2.5	U	26	2.5	mg/Kg	☼	01/25/18 08:56	01/31/18 01:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*77*		*49 - 133*	*01/25/18 08:56*	*01/31/18 01:36*	*1*

Client Sample ID: B3FMK1
Date Collected: 01/18/18 12:11
Date Received: 01/23/18 09:10

Lab Sample ID: 160-26464-2
Matrix: Soil
Percent Solids: 93.2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Kerosene (C9-C16)	2.6	U	27	2.6	mg/Kg	☼	01/25/18 08:56	01/31/18 02:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*80*		*49 - 133*	*01/25/18 08:56*	*01/31/18 02:56*	*1*

Client Sample ID: B3FMK4
Date Collected: 01/18/18 12:20
Date Received: 01/23/18 09:10

Lab Sample ID: 160-26464-3
Matrix: Soil
Percent Solids: 93.3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Kerosene (C9-C16)	26	U D	260	26	mg/Kg	☼	01/25/18 08:56	01/31/18 03:23	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*76*		*49 - 133*	*01/25/18 08:56*	*01/31/18 03:23*	*10*

Client Sample ID: B3FMK7
Date Collected: 01/18/18 12:30
Date Received: 01/23/18 09:10

Lab Sample ID: 160-26464-4
Matrix: Soil
Percent Solids: 94.9

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Kerosene (C9-C16)	2.5	U	26	2.5	mg/Kg	☼	01/25/18 08:56	01/31/18 03:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*76*		*49 - 133*	*01/25/18 08:56*	*01/31/18 03:50*	*1*

Client Sample ID: B3FML0
Date Collected: 01/18/18 12:35
Date Received: 01/23/18 09:10

Lab Sample ID: 160-26464-5
Matrix: Soil
Percent Solids: 94.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Kerosene (C9-C16)	2.5	U	26	2.5	mg/Kg	☼	01/25/18 08:56	01/31/18 04:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*79*		*49 - 133*	*01/25/18 08:56*	*01/31/18 04:16*	*1*

Client Sample ID: B3FML9
Date Collected: 01/18/18 13:50
Date Received: 01/23/18 09:10

Lab Sample ID: 160-26464-6
Matrix: Soil
Percent Solids: 94.1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Kerosene (C9-C16)	2.6	U	26	2.6	mg/Kg	☼	01/25/18 08:56	01/31/18 04:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*105*		*49 - 133*	*01/25/18 08:56*	*01/31/18 04:43*	*1*

Client: CH2M Hill Plateau Remediation Company
Project/Site: F17-062

TestAmerica Job ID: 160-26464-1
SDG: SL2794

Method: 8015B - Diesel Range Organics (DRO) (GC)

Client Sample ID: B3FMM2
Date Collected: 01/18/18 13:55
Date Received: 01/23/18 09:10

Lab Sample ID: 160-26464-7
Matrix: Soil
Percent Solids: 93.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Kerosene (C9-C16)	2.6	U	27	2.6	mg/Kg	☼	01/25/18 08:56	01/31/18 06:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*104*		*49 - 133*	*01/25/18 08:56*	*01/31/18 06:04*	*1*

Method: 6020A - Metals (ICP/MS)

Client Sample ID: B3FMH8
Date Collected: 01/18/18 10:41
Date Received: 01/23/18 09:10

Lab Sample ID: 160-26464-1
Matrix: Soil
Percent Solids: 97.2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**4550**	**D**	11.9	4.8	mg/Kg	☼	01/30/18 11:11	02/16/18 20:51	5
Antimony	0.44	U D	1.1	0.44	mg/Kg	☼	01/30/18 12:48	02/02/18 20:08	5
Arsenic	**2.4**	**D**	2.4	0.96	mg/Kg	☼	01/30/18 11:11	02/16/18 20:51	5
Barium	**61.6**	**D**	4.8	1.2	mg/Kg	☼	01/30/18 11:11	02/16/18 20:51	5
Cadmium	**0.076**	**B D**	0.12	0.057	mg/Kg	☼	01/30/18 11:11	02/16/18 20:51	5
Chromium	**6.4**	**D**	2.4	1.1	mg/Kg	☼	01/30/18 11:11	02/16/18 20:51	5
Copper	**14.2**	**D**	2.4	0.96	mg/Kg	☼	01/30/18 11:11	02/16/18 20:51	5
Lead	**2.5**	**D**	0.72	0.30	mg/Kg	☼	01/30/18 11:11	02/16/18 20:51	5
Manganese	**417**	**D**	1.2	0.48	mg/Kg	☼	01/30/18 11:11	02/16/18 20:51	5
Nickel	**8.2**	**D**	1.2	0.48	mg/Kg	☼	01/30/18 11:11	02/16/18 20:51	5
Selenium	**0.99**	**B D**	1.2	0.76	mg/Kg	☼	01/30/18 11:11	02/16/18 20:51	5
Silver	0.18	U D	0.48	0.18	mg/Kg	☼	01/30/18 11:11	02/16/18 20:51	5
Uranium	**0.37**	**D**	0.24	0.096	mg/Kg	☼	01/30/18 11:11	02/16/18 20:51	5

Client Sample ID: B3FMK1
Date Collected: 01/18/18 12:11
Date Received: 01/23/18 09:10

Lab Sample ID: 160-26464-2
Matrix: Soil
Percent Solids: 93.2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**5080**	**D**	12.8	5.1	mg/Kg	☼	01/30/18 11:11	02/16/18 21:18	5
Antimony	0.50	U D	1.2	0.50	mg/Kg	☼	01/30/18 12:48	02/02/18 20:26	5
Arsenic	**3.6**	**D**	2.6	1.0	mg/Kg	☼	01/30/18 11:11	02/16/18 21:18	5
Barium	**75.4**	**D**	5.1	1.3	mg/Kg	☼	01/30/18 11:11	02/16/18 21:18	5
Cadmium	**0.11**	**B D**	0.13	0.061	mg/Kg	☼	01/30/18 11:11	02/16/18 21:18	5
Chromium	**7.9**	**D**	2.6	1.1	mg/Kg	☼	01/30/18 11:11	02/16/18 21:18	5
Copper	**12.1**	**D**	2.6	1.0	mg/Kg	☼	01/30/18 11:11	02/16/18 21:18	5
Lead	**4.0**	**D**	0.77	0.32	mg/Kg	☼	01/30/18 11:11	02/16/18 21:18	5
Manganese	**309**	**D**	1.3	0.51	mg/Kg	☼	01/30/18 11:11	02/16/18 21:18	5
Nickel	**9.1**	**D**	1.3	0.51	mg/Kg	☼	01/30/18 11:11	02/16/18 21:18	5
Selenium	**0.84**	**B D**	1.3	0.82	mg/Kg	☼	01/30/18 11:11	02/16/18 21:18	5
Silver	0.19	U D	0.51	0.19	mg/Kg	☼	01/30/18 11:11	02/16/18 21:18	5
Uranium	**0.49**	**D**	0.26	0.10	mg/Kg	☼	01/30/18 11:11	02/16/18 21:18	5

Client Sample ID: B3FMK4
Date Collected: 01/18/18 12:20
Date Received: 01/23/18 09:10

Lab Sample ID: 160-26464-3
Matrix: Soil
Percent Solids: 93.3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**6300**	**D**	12.6	5.0	mg/Kg	☼	01/30/18 11:11	02/16/18 21:24	5
Antimony	0.52	U D	1.3	0.52	mg/Kg	☼	01/30/18 12:48	02/02/18 20:31	5
Arsenic	**4.8**	**D**	2.5	1.0	mg/Kg	☼	01/30/18 11:11	02/16/18 21:24	5

Client: CH2M Hill Plateau Remediation Company
Project/Site: F17-062

TestAmerica Job ID: 160-26464-1
SDG: SL2794

Method: 6020A - Metals (ICP/MS) (Continued)

Client Sample ID: B3FMK4
Date Collected: 01/18/18 12:20
Date Received: 01/23/18 09:10

Lab Sample ID: 160-26464-3
Matrix: Soil
Percent Solids: 93.3

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	82.5	D	5.0	1.3	mg/Kg	☼	01/30/18 11:11	02/16/18 21:24	5
Cadmium	0.081	B D	0.13	0.060	mg/Kg	☼	01/30/18 11:11	02/16/18 21:24	5
Chromium	7.5	D	2.5	1.1	mg/Kg	☼	01/30/18 11:11	02/16/18 21:24	5
Copper	15.2	D	2.5	1.0	mg/Kg	☼	01/30/18 11:11	02/16/18 21:24	5
Lead	5.1	D	0.75	0.31	mg/Kg	☼	01/30/18 11:11	02/16/18 21:24	5
Manganese	435	D	1.3	0.50	mg/Kg	☼	01/30/18 11:11	02/16/18 21:24	5
Nickel	10.7	D	1.3	0.50	mg/Kg	☼	01/30/18 11:11	02/16/18 21:24	5
Selenium	1.2	B D	1.3	0.81	mg/Kg	☼	01/30/18 11:11	02/16/18 21:24	5
Silver	0.19	U D	0.50	0.19	mg/Kg	☼	01/30/18 11:11	02/16/18 21:24	5
Uranium	0.50	D	0.25	0.10	mg/Kg	☼	01/30/18 11:11	02/16/18 21:24	5

Client Sample ID: B3FMK7
Date Collected: 01/18/18 12:30
Date Received: 01/23/18 09:10

Lab Sample ID: 160-26464-4
Matrix: Soil
Percent Solids: 94.9

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	6160	D	12.7	5.1	mg/Kg	☼	01/30/18 11:11	02/16/18 21:31	5
Antimony	0.50	U D	1.3	0.50	mg/Kg	☼	01/30/18 12:48	02/02/18 20:49	5
Arsenic	4.6	D	2.5	1.0	mg/Kg	☼	01/30/18 11:11	02/16/18 21:31	5
Barium	75.9	D	5.1	1.3	mg/Kg	☼	01/30/18 11:11	02/16/18 21:31	5
Cadmium	0.080	B D	0.13	0.061	mg/Kg	☼	01/30/18 11:11	02/16/18 21:31	5
Chromium	7.6	D	2.5	1.1	mg/Kg	☼	01/30/18 11:11	02/16/18 21:31	5
Copper	15.5	D	2.5	1.0	mg/Kg	☼	01/30/18 11:11	02/16/18 21:31	5
Lead	4.3	D	0.76	0.32	mg/Kg	☼	01/30/18 11:11	02/16/18 21:31	5
Manganese	394	D	1.3	0.51	mg/Kg	☼	01/30/18 11:11	02/16/18 21:31	5
Nickel	10.9	D	1.3	0.51	mg/Kg	☼	01/30/18 11:11	02/16/18 21:31	5
Selenium	1.2	B D	1.3	0.82	mg/Kg	☼	01/30/18 11:11	02/16/18 21:31	5
Silver	0.19	U D	0.51	0.19	mg/Kg	☼	01/30/18 11:11	02/16/18 21:31	5
Uranium	0.50	D	0.25	0.10	mg/Kg	☼	01/30/18 11:11	02/16/18 21:31	5

Client Sample ID: B3FML0
Date Collected: 01/18/18 12:35
Date Received: 01/23/18 09:10

Lab Sample ID: 160-26464-5
Matrix: Soil
Percent Solids: 94.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	5630	D	12.3	4.9	mg/Kg	☼	01/30/18 11:11	02/16/18 21:38	5
Antimony	0.49	U D	1.2	0.49	mg/Kg	☼	01/30/18 12:48	02/02/18 20:53	5
Arsenic	4.6	D	2.5	0.99	mg/Kg	☼	01/30/18 11:11	02/16/18 21:38	5
Barium	65.4	D	4.9	1.2	mg/Kg	☼	01/30/18 11:11	02/16/18 21:38	5
Cadmium	0.064	B D	0.12	0.059	mg/Kg	☼	01/30/18 11:11	02/16/18 21:38	5
Chromium	7.5	D	2.5	1.1	mg/Kg	☼	01/30/18 11:11	02/16/18 21:38	5
Copper	14.0	D	2.5	0.99	mg/Kg	☼	01/30/18 11:11	02/16/18 21:38	5
Lead	3.8	D	0.74	0.31	mg/Kg	☼	01/30/18 11:11	02/16/18 21:38	5
Manganese	356	D	1.2	0.49	mg/Kg	☼	01/30/18 11:11	02/16/18 21:38	5
Nickel	9.4	D	1.2	0.49	mg/Kg	☼	01/30/18 11:11	02/16/18 21:38	5
Selenium	1.1	B D	1.2	0.79	mg/Kg	☼	01/30/18 11:11	02/16/18 21:38	5
Silver	0.18	U D	0.49	0.18	mg/Kg	☼	01/30/18 11:11	02/16/18 21:38	5
Uranium	0.42	D	0.25	0.099	mg/Kg	☼	01/30/18 11:11	02/16/18 21:38	5

Client: CH2M Hill Plateau Remediation Company
Project/Site: F17-062

TestAmerica Job ID: 160-26464-1
SDG: SL2794

Method: 6020A - Metals (ICP/MS)

Client Sample ID: B3FML9
Date Collected: 01/18/18 13:50
Date Received: 01/23/18 09:10

Lab Sample ID: 160-26464-6
Matrix: Soil
Percent Solids: 94.1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**5710**	**D**	11.3	4.5	mg/Kg	☼	01/30/18 11:11	02/16/18 21:44	5
Antimony	0.52	U D	1.3	0.52	mg/Kg	☼	01/30/18 12:48	02/02/18 20:58	5
Arsenic	**3.9**	**D**	2.3	0.91	mg/Kg	☼	01/30/18 11:11	02/16/18 21:44	5
Barium	**85.9**	**D**	4.5	1.1	mg/Kg	☼	01/30/18 11:11	02/16/18 21:44	5
Cadmium	**0.071**	**B D**	0.11	0.054	mg/Kg	☼	01/30/18 11:11	02/16/18 21:44	5
Chromium	**6.8**	**D**	2.3	1.0	mg/Kg	☼	01/30/18 11:11	02/16/18 21:44	5
Copper	**13.5**	**D**	2.3	0.91	mg/Kg	☼	01/30/18 11:11	02/16/18 21:44	5
Lead	**4.1**	**D**	0.68	0.28	mg/Kg	☼	01/30/18 11:11	02/16/18 21:44	5
Manganese	**439**	**D**	1.1	0.45	mg/Kg	☼	01/30/18 11:11	02/16/18 21:44	5
Nickel	**9.1**	**D**	1.1	0.45	mg/Kg	☼	01/30/18 11:11	02/16/18 21:44	5
Selenium	**1.1**	**D**	1.1	0.72	mg/Kg	☼	01/30/18 11:11	02/16/18 21:44	5
Silver	0.17	U D	0.45	0.17	mg/Kg	☼	01/30/18 11:11	02/16/18 21:44	5
Uranium	**0.45**	**D**	0.23	0.091	mg/Kg	☼	01/30/18 11:11	02/16/18 21:44	5

Client Sample ID: B3FMM2
Date Collected: 01/18/18 13:55
Date Received: 01/23/18 09:10

Lab Sample ID: 160-26464-7
Matrix: Soil
Percent Solids: 93.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**6230**	**D**	13.0	5.2	mg/Kg	☼	01/30/18 11:11	02/16/18 22:11	5
Antimony	0.51	U D	1.3	0.51	mg/Kg	☼	01/30/18 12:48	02/02/18 21:02	5
Arsenic	**4.0**	**D**	2.6	1.0	mg/Kg	☼	01/30/18 11:11	02/16/18 22:11	5
Barium	**79.0**	**D**	5.2	1.3	mg/Kg	☼	01/30/18 11:11	02/16/18 22:11	5
Cadmium	**0.072**	**B D**	0.13	0.062	mg/Kg	☼	01/30/18 11:11	02/16/18 22:11	5
Chromium	**8.5**	**D**	2.6	1.2	mg/Kg	☼	01/30/18 11:11	02/16/18 22:11	5
Copper	**15.8**	**D**	2.6	1.0	mg/Kg	☼	01/30/18 11:11	02/16/18 22:11	5
Lead	**4.8**	**D**	0.78	0.32	mg/Kg	☼	01/30/18 11:11	02/16/18 22:11	5
Manganese	**368**	**D**	1.3	0.52	mg/Kg	☼	01/30/18 11:11	02/16/18 22:11	5
Nickel	**11.2**	**D**	1.3	0.52	mg/Kg	☼	01/30/18 11:11	02/16/18 22:11	5
Selenium	**1.5**	**D**	1.3	0.83	mg/Kg	☼	01/30/18 11:11	02/16/18 22:11	5
Silver	0.19	U D	0.52	0.19	mg/Kg	☼	01/30/18 11:11	02/16/18 22:11	5
Uranium	**0.55**	**D**	0.26	0.10	mg/Kg	☼	01/30/18 11:11	02/16/18 22:11	5

Method: 7471B - Mercury (CVAA)

Client Sample ID: B3FMH8
Date Collected: 01/18/18 10:41
Date Received: 01/23/18 09:10

Lab Sample ID: 160-26464-1
Matrix: Soil
Percent Solids: 97.2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.010	U	0.031	0.010	mg/Kg	☼	01/31/18 08:09	01/31/18 14:37	1

Client Sample ID: B3FMK1
Date Collected: 01/18/18 12:11
Date Received: 01/23/18 09:10

Lab Sample ID: 160-26464-2
Matrix: Soil
Percent Solids: 93.2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.010	U	0.031	0.010	mg/Kg	☼	01/31/18 08:09	01/31/18 14:46	1

Client: CH2M Hill Plateau Remediation Company
Project/Site: F17-062

TestAmerica Job ID: 160-26464-1
SDG: SL2794

Method: 7471B - Mercury (CVAA)

Client Sample ID: B3FMK4 — **Lab Sample ID: 160-26464-3**
Date Collected: 01/18/18 12:20 — **Matrix: Soil**
Date Received: 01/23/18 09:10 — **Percent Solids: 93.3**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.011	U	0.032	0.011	mg/Kg	☼	01/31/18 08:09	01/31/18 14:48	1

Client Sample ID: B3FMK7 — **Lab Sample ID: 160-26464-4**
Date Collected: 01/18/18 12:30 — **Matrix: Soil**
Date Received: 01/23/18 09:10 — **Percent Solids: 94.9**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.011	U	0.033	0.011	mg/Kg	☼	01/31/18 08:09	01/31/18 14:50	1

Client Sample ID: B3FML0 — **Lab Sample ID: 160-26464-5**
Date Collected: 01/18/18 12:35 — **Matrix: Soil**
Date Received: 01/23/18 09:10 — **Percent Solids: 94.5**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.011	U	0.033	0.011	mg/Kg	☼	01/31/18 08:09	01/31/18 14:52	1

Client Sample ID: B3FML9 — **Lab Sample ID: 160-26464-6**
Date Collected: 01/18/18 13:50 — **Matrix: Soil**
Date Received: 01/23/18 09:10 — **Percent Solids: 94.1**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.011	U	0.032	0.011	mg/Kg	☼	01/31/18 08:09	01/31/18 14:58	1

Client Sample ID: B3FMM2 — **Lab Sample ID: 160-26464-7**
Date Collected: 01/18/18 13:55 — **Matrix: Soil**
Date Received: 01/23/18 09:10 — **Percent Solids: 93.0**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.011	U	0.032	0.011	mg/Kg	☼	01/31/18 08:09	01/31/18 15:00	1

General Chemistry

Client Sample ID: B3FMH8 — **Lab Sample ID: 160-26464-1**
Date Collected: 01/18/18 10:41 — **Matrix: Soil**
Date Received: 01/23/18 09:10 — **Percent Solids: 97.2**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (as N)	**0.51**	**y**	0.51	0.23	mg/Kg	☼	02/13/18 14:45	02/13/18 21:15	1
Cyanide, Total	0.12	U	0.51	0.12	mg/Kg	☼	01/31/18 15:45	01/31/18 18:46	1

Client Sample ID: B3FMK1 — **Lab Sample ID: 160-26464-2**
Date Collected: 01/18/18 12:11 — **Matrix: Soil**
Date Received: 01/23/18 09:10 — **Percent Solids: 93.2**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (as N)	**1.8**		0.53	0.24	mg/Kg	☼	02/13/18 14:45	02/13/18 21:26	1
Cyanide, Total	0.12	U	0.53	0.12	mg/Kg	☼	01/31/18 15:45	01/31/18 18:56	1

Client Sample ID: B3FMK4 — **Lab Sample ID: 160-26464-3**
Date Collected: 01/18/18 12:20 — **Matrix: Soil**
Date Received: 01/23/18 09:10 — **Percent Solids: 93.3**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (as N)	**0.96**		0.53	0.24	mg/Kg	☼	02/13/18 14:45	02/13/18 21:28	1
Cyanide, Total	0.12	U	0.53	0.12	mg/Kg	☼	01/31/18 15:45	01/31/18 18:59	1

Client: CH2M Hill Plateau Remediation Company
Project/Site: F17-062

TestAmerica Job ID: 160-26464-1
SDG: SL2794

General Chemistry

Client Sample ID: B3FMK7
Date Collected: 01/18/18 12:30
Date Received: 01/23/18 09:10

Lab Sample ID: 160-26464-4
Matrix: Soil
Percent Solids: 94.9

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (as N)	**0.69**		0.53	0.23	mg/Kg	☼	02/13/18 14:45	02/13/18 21:30	1
Cyanide, Total	0.12	U	0.52	0.12	mg/Kg	☼	01/31/18 15:45	01/31/18 19:10	1

Client Sample ID: B3FML0
Date Collected: 01/18/18 12:35
Date Received: 01/23/18 09:10

Lab Sample ID: 160-26464-5
Matrix: Soil
Percent Solids: 94.5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (as N)	**0.58**		0.53	0.24	mg/Kg	☼	02/13/18 14:45	02/13/18 21:33	1
Cyanide, Total	0.12	U	0.53	0.12	mg/Kg	☼	01/31/18 15:45	01/31/18 19:13	1

Client Sample ID: B3FML9
Date Collected: 01/18/18 13:50
Date Received: 01/23/18 09:10

Lab Sample ID: 160-26464-6
Matrix: Soil
Percent Solids: 94.1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (as N)	**0.61**		0.53	0.24	mg/Kg	☼	02/13/18 14:45	02/13/18 21:35	1
Cyanide, Total	0.12	U	0.53	0.12	mg/Kg	☼	01/31/18 15:45	01/31/18 19:16	1

Client Sample ID: B3FMM2
Date Collected: 01/18/18 13:55
Date Received: 01/23/18 09:10

Lab Sample ID: 160-26464-7
Matrix: Soil
Percent Solids: 93.0

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (as N)	**0.65**		0.54	0.24	mg/Kg	☼	02/13/18 14:45	02/13/18 21:37	1
Cyanide, Total	0.12	U	0.53	0.12	mg/Kg	☼	01/31/18 15:45	01/31/18 19:20	1

QC Sample Results

Client: CH2M Hill Plateau Remediation Company
Project/Site: F17-062

TestAmerica Job ID: 160-26464-1
SDG: SL2794

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 160-348988/1-A
Matrix: Solid
Analysis Batch: 349314

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 348988

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tributyl phosphate	46	U	330	46	ug/Kg		01/31/18 12:56	02/02/18 11:10	1

Tentatively Identified Compound	*MB Est. Result*	*MB Qualifier*	*Unit*	*D*	*RT*	*CAS No.*	*Prepared*	*Analyzed*	*Dil Fac*
3-Penten-2-one, 4-methyl-	*327*	*N J*	*ug/Kg*		*3.65*	*141-79-7*	*01/31/18 12:56*	*02/02/18 11:10*	*1*
Unknown	*15000*	*N*	*ug/Kg*		*4.03*		*01/31/18 12:56*	*02/02/18 11:10*	*1*
Unknown	*309*	*N*	*ug/Kg*		*4.54*		*01/31/18 12:56*	*02/02/18 11:10*	*1*
Unknown	*512*	*N*	*ug/Kg*		*12.43*		*01/31/18 12:56*	*02/02/18 11:10*	*1*

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*83*		*47 - 125*	*01/31/18 12:56*	*02/02/18 11:10*	*1*
2-Fluorobiphenyl (Surr)	*81*		*59 - 110*	*01/31/18 12:56*	*02/02/18 11:10*	*1*
2-Fluorophenol (Surr)	*84*		*54 - 102*	*01/31/18 12:56*	*02/02/18 11:10*	*1*
Nitrobenzene-d5 (Surr)	*80*		*44 - 120*	*01/31/18 12:56*	*02/02/18 11:10*	*1*
Phenol-d5 (Surr)	*84*		*51 - 104*	*01/31/18 12:56*	*02/02/18 11:10*	*1*
Terphenyl-d14 (Surr)	*94*		*59 - 98*	*01/31/18 12:56*	*02/02/18 11:10*	*1*

Lab Sample ID: LCS 160-348988/2-A
Matrix: Solid
Analysis Batch: 349314

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 348988

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Tributyl phosphate	1670	1370		ug/Kg		82	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*83*		*47 - 125*
2-Fluorobiphenyl (Surr)	*78*		*59 - 110*
2-Fluorophenol (Surr)	*77*		*54 - 102*
Nitrobenzene-d5 (Surr)	*73*		*44 - 120*
Phenol-d5 (Surr)	*78*		*51 - 104*
Terphenyl-d14 (Surr)	*92*		*59 - 98*

Lab Sample ID: 160-26464-2 MS
Matrix: Soil
Analysis Batch: 349314

Client Sample ID: B3FMK1
Prep Type: Total/NA
Prep Batch: 348988

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Tributyl phosphate	49	U	1770	1470		ug/Kg	☼	83	50 - 150

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*83*		*47 - 125*
2-Fluorobiphenyl (Surr)	*80*		*59 - 110*
2-Fluorophenol (Surr)	*82*		*54 - 102*
Nitrobenzene-d5 (Surr)	*75*		*44 - 120*
Phenol-d5 (Surr)	*81*		*51 - 104*
Terphenyl-d14 (Surr)	*91*		*59 - 98*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 160-26464-2 MSD — **Client Sample ID: B3FMK1**
Matrix: Soil — **Prep Type: Total/NA**
Analysis Batch: 349314 — **Prep Batch: 348988**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Tributyl phosphate	49	U	1780	1470		ug/Kg	☼	83	50 - 150	0	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*80*		*47 - 125*
2-Fluorobiphenyl (Surr)	*75*		*59 - 110*
2-Fluorophenol (Surr)	*75*		*54 - 102*
Nitrobenzene-d5 (Surr)	*71*		*44 - 120*
Phenol-d5 (Surr)	*77*		*51 - 104*
Terphenyl-d14 (Surr)	*90*		*59 - 98*

Method: 8015B - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 160-347966/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 348814 — **Prep Batch: 347966**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Kerosene (C9-C16)	2.4	U	25	2.4	mg/Kg		01/25/18 08:56	01/31/18 00:42	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*89*		*49 - 133*	*01/25/18 08:56*	*01/31/18 00:42*	*1*

Lab Sample ID: LCS 160-347966/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 348814 — **Prep Batch: 347966**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel Range Organics [C10-C28]	83.3	71.6		mg/Kg		86	57 - 105

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
o-Terphenyl	*107*		*49 - 133*

Lab Sample ID: 160-26464-1 MS — **Client Sample ID: B3FMH8**
Matrix: Soil — **Prep Type: Total/NA**
Analysis Batch: 348814 — **Prep Batch: 347966**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel Range Organics [C10-C28]	2.5	U	85.5	66.1		mg/Kg	☼	77	34 - 150

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
o-Terphenyl	*99*		*49 - 133*

Method: 8015B - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: 160-26464-1 MSD — **Client Sample ID: B3FMH8**
Matrix: Soil — **Prep Type: Total/NA**
Analysis Batch: 348814 — **Prep Batch: 347966**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]	2.5	U	85.1	70.5		mg/Kg	☼	83	34 - 150	6	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
o-Terphenyl	*105*		*49 - 133*

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 160-348793/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 351826 — **Prep Batch: 348793**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	1.9	U D	4.7	1.9	mg/Kg		01/30/18 11:11	02/16/18 20:11	2
Arsenic	0.38	U D	0.94	0.38	mg/Kg		01/30/18 11:11	02/16/18 20:11	2
Barium	0.47	U D	1.9	0.47	mg/Kg		01/30/18 11:11	02/16/18 20:11	2
Cadmium	0.023	U D	0.047	0.023	mg/Kg		01/30/18 11:11	02/16/18 20:11	2
Chromium	0.42	U D	0.94	0.42	mg/Kg		01/30/18 11:11	02/16/18 20:11	2
Copper	0.38	U D	0.94	0.38	mg/Kg		01/30/18 11:11	02/16/18 20:11	2
Lead	0.12	U D	0.28	0.12	mg/Kg		01/30/18 11:11	02/16/18 20:11	2
Manganese	0.19	U D	0.47	0.19	mg/Kg		01/30/18 11:11	02/16/18 20:11	2
Nickel	0.19	U D	0.47	0.19	mg/Kg		01/30/18 11:11	02/16/18 20:11	2
Selenium	0.30	U D	0.47	0.30	mg/Kg		01/30/18 11:11	02/16/18 20:11	2
Silver	0.070	U D	0.19	0.070	mg/Kg		01/30/18 11:11	02/16/18 20:11	2
Uranium	0.038	U D	0.094	0.038	mg/Kg		01/30/18 11:11	02/16/18 20:11	2

Lab Sample ID: LCS 160-348793/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 351826 — **Prep Batch: 348793**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Uranium	91.1	87.04	D	mg/Kg		96	80 - 120

Lab Sample ID: LCSSRM 160-348793/3-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 351826 — **Prep Batch: 348793**

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	8090	6425	D	mg/Kg		79.4	39.6 - 160.7
Arsenic	100	99.16	D	mg/Kg		99.2	69.6 - 131.0
Barium	217	220.4	D	mg/Kg		101.6	73.7 - 128.1
Cadmium	83.7	82.73	D	mg/Kg		98.8	73.2 - 131.4
Chromium	107	107.8	D	mg/Kg		100.8	69.4 - 134.6
Copper	166	177.5	D	mg/Kg		106.9	75.3 - 128.3

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: LCSSRM 160-348793/3-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 351826 — **Prep Batch: 348793**

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	88.4	89.49	D	mg/Kg		101.2	69.9 - 130.1
Manganese	311	316.9	D	mg/Kg		101.9	74.9 - 125.4
Nickel	49.8	55.69	D	mg/Kg		111.8	69.1 - 135.1
Selenium	87.7	88.85	D	mg/Kg		101.3	64.1 - 135.7
Silver	41.4	42.71	D	mg/Kg		103.2	65.9 - 133.8

Lab Sample ID: 160-26464-1 MS — **Client Sample ID: B3FMH8**
Matrix: Soil — **Prep Type: Total/NA**
Analysis Batch: 351826 — **Prep Batch: 348793**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	4550	D	998	7777	D X	mg/Kg	☼	324	75 - 125
Arsenic	2.4	D	99.8	93.17	D	mg/Kg	☼	91	75 - 125
Barium	61.6	D	99.8	176.4	D	mg/Kg	☼	115	75 - 125
Cadmium	0.076	B D	99.8	91.71	D	mg/Kg	☼	92	75 - 125
Chromium	6.4	D	99.8	107.3	D	mg/Kg	☼	101	75 - 125
Copper	14.2	D	99.8	112.3	D	mg/Kg	☼	98	75 - 125
Lead	2.5	D	99.8	100.4	D	mg/Kg	☼	98	75 - 125
Manganese	417	D	99.8	478.3	D X	mg/Kg	☼	62	75 - 125
Nickel	8.2	D	99.8	111.2	D	mg/Kg	☼	103	75 - 125
Selenium	0.99	B D	49.9	43.85	D	mg/Kg	☼	86	75 - 125
Silver	0.18	U D	20.0	18.92	D	mg/Kg	☼	95	75 - 125
Uranium	0.37	D	99.8	100.9	D	mg/Kg	☼	101	75 - 125

Lab Sample ID: 160-26464-1 MSD — **Client Sample ID: B3FMH8**
Matrix: Soil — **Prep Type: Total/NA**
Analysis Batch: 351826 — **Prep Batch: 348793**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aluminum	4550	D	979	6633	D X	mg/Kg	☼	213	75 - 125	16	30
Arsenic	2.4	D	97.9	89.59	D	mg/Kg	☼	89	75 - 125	4	30
Barium	61.6	D	97.9	154.6	D	mg/Kg	☼	95	75 - 125	13	30
Cadmium	0.076	B D	98.0	88.26	D	mg/Kg	☼	90	75 - 125	4	30
Chromium	6.4	D	97.9	97.40	D	mg/Kg	☼	93	75 - 125	10	30
Copper	14.2	D	97.9	108.1	D	mg/Kg	☼	96	75 - 125	4	30
Lead	2.5	D	97.9	93.99	D	mg/Kg	☼	93	75 - 125	7	30
Manganese	417	D	97.9	462.1	D X	mg/Kg	☼	47	75 - 125	3	30
Nickel	8.2	D	97.9	102.0	D	mg/Kg	☼	96	75 - 125	9	30
Selenium	0.99	B D	49.0	43.05	D	mg/Kg	☼	86	75 - 125	2	30
Silver	0.18	U D	19.6	18.40	D	mg/Kg	☼	94	75 - 125	3	30
Uranium	0.37	D	97.9	95.34	D	mg/Kg	☼	97	75 - 125	6	30

QC Sample Results

Client: CH2M Hill Plateau Remediation Company
Project/Site: F17-062

TestAmerica Job ID: 160-26464-1
SDG: SL2794

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 160-348805/1-A
Matrix: Solid
Analysis Batch: 349413

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 348805

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.19	U D	0.47	0.19	mg/Kg		01/30/18 12:48	02/02/18 19:59	2

Lab Sample ID: LCS 160-348805/2-A
Matrix: Solid
Analysis Batch: 349413

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 348805

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	43.7	40.46	D	mg/Kg		93	21 - 251

Lab Sample ID: 160-26464-1 MS
Matrix: Soil
Analysis Batch: 349413

Client Sample ID: B3FMH8
Prep Type: Total/NA
Prep Batch: 348805

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.44	U D	47.5	44.22	D	mg/Kg	☼	93	75 - 125

Lab Sample ID: 160-26464-1 MSD
Matrix: Soil
Analysis Batch: 349413

Client Sample ID: B3FMH8
Prep Type: Total/NA
Prep Batch: 348805

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	0.44	U D	50.0	45.86	D	mg/Kg	☼	92	75 - 125	4	30

Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 160-348864/1-A
Matrix: Solid
Analysis Batch: 349134

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 348864

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0096	U	0.029	0.0096	mg/Kg		01/31/18 08:09	01/31/18 14:33	1

Lab Sample ID: LCSSRM 160-348864/2-A
Matrix: Solid
Analysis Batch: 349134

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 348864

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	12.3	9.85	D	mg/Kg		80.0	51.4 - 148.8

Lab Sample ID: 160-26464-1 MS
Matrix: Soil
Analysis Batch: 349134

Client Sample ID: B3FMH8
Prep Type: Total/NA
Prep Batch: 348864

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.010	U	0.792	0.802		mg/Kg	☼	101	80 - 120

QC Sample Results

Client: CH2M Hill Plateau Remediation Company
Project/Site: F17-062

TestAmerica Job ID: 160-26464-1
SDG: SL2794

Method: 7471B - Mercury (CVAA) (Continued)

Lab Sample ID: 160-26464-1 MSD — **Client Sample ID: B3FMH8**
Matrix: Soil — **Prep Type: Total/NA**
Analysis Batch: 349134 — **Prep Batch: 348864**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.010	U	0.841	0.853		mg/Kg	☼	101	80 - 120	6	30

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 160-350900/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 351064 — **Prep Batch: 350900**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia (as N)	0.22	U	0.50	0.22	mg/Kg		02/13/18 14:45	02/13/18 21:05	1

Lab Sample ID: LCS 160-350900/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 351064 — **Prep Batch: 350900**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia (as N)	5.00	4.92		mg/Kg		98	90 - 110

Lab Sample ID: 160-26464-1 MS — **Client Sample ID: B3FMH8**
Matrix: Soil — **Prep Type: Total/NA**
Analysis Batch: 351064 — **Prep Batch: 350900**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia (as N)	0.51	y	5.12	5.69		mg/Kg	☼	101	90 - 110

Lab Sample ID: 160-26464-1 DU — **Client Sample ID: B3FMH8**
Matrix: Soil — **Prep Type: Total/NA**
Analysis Batch: 351064 — **Prep Batch: 350900**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Ammonia (as N)	0.51	y	0.796	y	mg/Kg	☼	44	30

Method: 9012B - Cyanide, Total andor Amenable

Lab Sample ID: MB 160-348990/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 349164 — **Prep Batch: 348990**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.11	U	0.50	0.11	mg/Kg		01/31/18 15:45	01/31/18 18:29	1

Lab Sample ID: HLCS 160-348990/3-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 349164 — **Prep Batch: 348990**

Analyte	Spike Added	HLCS Result	HLCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	4.80	4.73		mg/Kg		98	85 - 115

QC Sample Results

Client: CH2M Hill Plateau Remediation Company
Project/Site: F17-062

TestAmerica Job ID: 160-26464-1
SDG: SL2794

Method: 9012B - Cyanide, Total andor Amenable (Continued)

Lab Sample ID: LCS 160-348990/2-A
Matrix: Solid
Analysis Batch: 349164

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 348990

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Cyanide, Total			2.40	2.36		mg/Kg		98	85 - 115		

Lab Sample ID: 160-26464-1 MS
Matrix: Soil
Analysis Batch: 349164

Client Sample ID: B3FMH8
Prep Type: Total/NA
Prep Batch: 348990

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Cyanide, Total	0.12	U	2.45	2.41		mg/Kg	☼	98	60 - 130		

Lab Sample ID: 160-26464-1 DU
Matrix: Soil
Analysis Batch: 349164

Client Sample ID: B3FMH8
Prep Type: Total/NA
Prep Batch: 348990

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Cyanide, Total	0.12	U		0.11	U	mg/Kg	☼			NC	30

QC Association Summary

Client: CH2M Hill Plateau Remediation Company
Project/Site: F17-062

TestAmerica Job ID: 160-26464-1
SDG: SL2794

GC/MS Semi VOA

Prep Batch: 348988

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-26464-1	B3FMH8	Total/NA	Soil	3550C	
160-26464-2	B3FMK1	Total/NA	Soil	3550C	
160-26464-3	B3FMK4	Total/NA	Soil	3550C	
160-26464-4	B3FMK7	Total/NA	Soil	3550C	
160-26464-5	B3FML0	Total/NA	Soil	3550C	
160-26464-6	B3FML9	Total/NA	Soil	3550C	
160-26464-7	B3FMM2	Total/NA	Soil	3550C	
MB 160-348988/1-A	Method Blank	Total/NA	Solid	3550C	
LCS 160-348988/2-A	Lab Control Sample	Total/NA	Solid	3550C	
160-26464-2 MS	B3FMK1	Total/NA	Soil	3550C	
160-26464-2 MSD	B3FMK1	Total/NA	Soil	3550C	

Analysis Batch: 349314

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-26464-1	B3FMH8	Total/NA	Soil	8270D	348988
160-26464-2	B3FMK1	Total/NA	Soil	8270D	348988
160-26464-3	B3FMK4	Total/NA	Soil	8270D	348988
160-26464-4	B3FMK7	Total/NA	Soil	8270D	348988
160-26464-5	B3FML0	Total/NA	Soil	8270D	348988
160-26464-6	B3FML9	Total/NA	Soil	8270D	348988
160-26464-7	B3FMM2	Total/NA	Soil	8270D	348988
MB 160-348988/1-A	Method Blank	Total/NA	Solid	8270D	348988
LCS 160-348988/2-A	Lab Control Sample	Total/NA	Solid	8270D	348988
160-26464-2 MS	B3FMK1	Total/NA	Soil	8270D	348988
160-26464-2 MSD	B3FMK1	Total/NA	Soil	8270D	348988

GC Semi VOA

Prep Batch: 347966

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-26464-1	B3FMH8	Total/NA	Soil	3550C	
160-26464-2	B3FMK1	Total/NA	Soil	3550C	
160-26464-3	B3FMK4	Total/NA	Soil	3550C	
160-26464-4	B3FMK7	Total/NA	Soil	3550C	
160-26464-5	B3FML0	Total/NA	Soil	3550C	
160-26464-6	B3FML9	Total/NA	Soil	3550C	
160-26464-7	B3FMM2	Total/NA	Soil	3550C	
MB 160-347966/1-A	Method Blank	Total/NA	Solid	3550C	
LCS 160-347966/2-A	Lab Control Sample	Total/NA	Solid	3550C	
160-26464-1 MS	B3FMH8	Total/NA	Soil	3550C	
160-26464-1 MSD	B3FMH8	Total/NA	Soil	3550C	

Analysis Batch: 348814

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-26464-1	B3FMH8	Total/NA	Soil	8015B	347966
160-26464-2	B3FMK1	Total/NA	Soil	8015B	347966
160-26464-3	B3FMK4	Total/NA	Soil	8015B	347966
160-26464-4	B3FMK7	Total/NA	Soil	8015B	347966
160-26464-5	B3FML0	Total/NA	Soil	8015B	347966
160-26464-6	B3FML9	Total/NA	Soil	8015B	347966

GC Semi VOA (Continued)

Analysis Batch: 348814 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-26464-7	B3FMM2	Total/NA	Soil	8015B	347966
MB 160-347966/1-A	Method Blank	Total/NA	Solid	8015B	347966
LCS 160-347966/2-A	Lab Control Sample	Total/NA	Solid	8015B	347966
160-26464-1 MS	B3FMH8	Total/NA	Soil	8015B	347966
160-26464-1 MSD	B3FMH8	Total/NA	Soil	8015B	347966

Metals

Prep Batch: 348793

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-26464-1	B3FMH8	Total/NA	Soil	3050B	
160-26464-2	B3FMK1	Total/NA	Soil	3050B	
160-26464-3	B3FMK4	Total/NA	Soil	3050B	
160-26464-4	B3FMK7	Total/NA	Soil	3050B	
160-26464-5	B3FML0	Total/NA	Soil	3050B	
160-26464-6	B3FML9	Total/NA	Soil	3050B	
160-26464-7	B3FMM2	Total/NA	Soil	3050B	
MB 160-348793/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 160-348793/2-A	Lab Control Sample	Total/NA	Solid	3050B	
LCSSRM 160-348793/3-A	Lab Control Sample	Total/NA	Solid	3050B	
160-26464-1 MS	B3FMH8	Total/NA	Soil	3050B	
160-26464-1 MSD	B3FMH8	Total/NA	Soil	3050B	

Prep Batch: 348805

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-26464-1	B3FMH8	Total/NA	Soil	3050B-Sb	
160-26464-2	B3FMK1	Total/NA	Soil	3050B-Sb	
160-26464-3	B3FMK4	Total/NA	Soil	3050B-Sb	
160-26464-4	B3FMK7	Total/NA	Soil	3050B-Sb	
160-26464-5	B3FML0	Total/NA	Soil	3050B-Sb	
160-26464-6	B3FML9	Total/NA	Soil	3050B-Sb	
160-26464-7	B3FMM2	Total/NA	Soil	3050B-Sb	
MB 160-348805/1-A	Method Blank	Total/NA	Solid	3050B-Sb	
LCS 160-348805/2-A	Lab Control Sample	Total/NA	Solid	3050B-Sb	
160-26464-1 MS	B3FMH8	Total/NA	Soil	3050B-Sb	
160-26464-1 MSD	B3FMH8	Total/NA	Soil	3050B-Sb	

Prep Batch: 348864

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-26464-1	B3FMH8	Total/NA	Soil	7471B	
160-26464-2	B3FMK1	Total/NA	Soil	7471B	
160-26464-3	B3FMK4	Total/NA	Soil	7471B	
160-26464-4	B3FMK7	Total/NA	Soil	7471B	
160-26464-5	B3FML0	Total/NA	Soil	7471B	
160-26464-6	B3FML9	Total/NA	Soil	7471B	
160-26464-7	B3FMM2	Total/NA	Soil	7471B	
MB 160-348864/1-A	Method Blank	Total/NA	Solid	7471B	
LCSSRM 160-348864/2-A	Lab Control Sample	Total/NA	Solid	7471B	
160-26464-1 MS	B3FMH8	Total/NA	Soil	7471B	
160-26464-1 MSD	B3FMH8	Total/NA	Soil	7471B	

QC Association Summary

Client: CH2M Hill Plateau Remediation Company
Project/Site: F17-062

TestAmerica Job ID: 160-26464-1
SDG: SL2794

Metals (Continued)

Analysis Batch: 349134

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-26464-1	B3FMH8	Total/NA	Soil	7471B	348864
160-26464-2	B3FMK1	Total/NA	Soil	7471B	348864
160-26464-3	B3FMK4	Total/NA	Soil	7471B	348864
160-26464-4	B3FMK7	Total/NA	Soil	7471B	348864
160-26464-5	B3FML0	Total/NA	Soil	7471B	348864
160-26464-6	B3FML9	Total/NA	Soil	7471B	348864
160-26464-7	B3FMM2	Total/NA	Soil	7471B	348864
MB 160-348864/1-A	Method Blank	Total/NA	Solid	7471B	348864
LCSSRM 160-348864/2-A	Lab Control Sample	Total/NA	Solid	7471B	348864
160-26464-1 MS	B3FMH8	Total/NA	Soil	7471B	348864
160-26464-1 MSD	B3FMH8	Total/NA	Soil	7471B	348864

Analysis Batch: 349413

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-26464-1	B3FMH8	Total/NA	Soil	6020A	348805
160-26464-2	B3FMK1	Total/NA	Soil	6020A	348805
160-26464-3	B3FMK4	Total/NA	Soil	6020A	348805
160-26464-4	B3FMK7	Total/NA	Soil	6020A	348805
160-26464-5	B3FML0	Total/NA	Soil	6020A	348805
160-26464-6	B3FML9	Total/NA	Soil	6020A	348805
160-26464-7	B3FMM2	Total/NA	Soil	6020A	348805
MB 160-348805/1-A	Method Blank	Total/NA	Solid	6020A	348805
LCS 160-348805/2-A	Lab Control Sample	Total/NA	Solid	6020A	348805
160-26464-1 MS	B3FMH8	Total/NA	Soil	6020A	348805
160-26464-1 MSD	B3FMH8	Total/NA	Soil	6020A	348805

Analysis Batch: 351826

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-26464-1	B3FMH8	Total/NA	Soil	6020A	348793
160-26464-2	B3FMK1	Total/NA	Soil	6020A	348793
160-26464-3	B3FMK4	Total/NA	Soil	6020A	348793
160-26464-4	B3FMK7	Total/NA	Soil	6020A	348793
160-26464-5	B3FML0	Total/NA	Soil	6020A	348793
160-26464-6	B3FML9	Total/NA	Soil	6020A	348793
160-26464-7	B3FMM2	Total/NA	Soil	6020A	348793
MB 160-348793/1-A	Method Blank	Total/NA	Solid	6020A	348793
LCS 160-348793/2-A	Lab Control Sample	Total/NA	Solid	6020A	348793
LCSSRM 160-348793/3-A	Lab Control Sample	Total/NA	Solid	6020A	348793
160-26464-1 MS	B3FMH8	Total/NA	Soil	6020A	348793
160-26464-1 MSD	B3FMH8	Total/NA	Soil	6020A	348793

General Chemistry

Analysis Batch: 347761

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-26464-1	B3FMH8	Total/NA	Soil	Moisture	
160-26464-2	B3FMK1	Total/NA	Soil	Moisture	
160-26464-3	B3FMK4	Total/NA	Soil	Moisture	
160-26464-4	B3FMK7	Total/NA	Soil	Moisture	
160-26464-5	B3FML0	Total/NA	Soil	Moisture	

QC Association Summary

Client: CH2M Hill Plateau Remediation Company
Project/Site: F17-062

TestAmerica Job ID: 160-26464-1
SDG: SL2794

General Chemistry (Continued)

Analysis Batch: 347761 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-26464-6	B3FML9	Total/NA	Soil	Moisture	
160-26464-7	B3FMM2	Total/NA	Soil	Moisture	
160-26464-1 DU	B3FMH8	Total/NA	Soil	Moisture	

Prep Batch: 348990

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-26464-1	B3FMH8	Total/NA	Soil	9010C	
160-26464-2	B3FMK1	Total/NA	Soil	9010C	
160-26464-3	B3FMK4	Total/NA	Soil	9010C	
160-26464-4	B3FMK7	Total/NA	Soil	9010C	
160-26464-5	B3FML0	Total/NA	Soil	9010C	
160-26464-6	B3FML9	Total/NA	Soil	9010C	
160-26464-7	B3FMM2	Total/NA	Soil	9010C	
MB 160-348990/1-A	Method Blank	Total/NA	Solid	9010C	
HLCS 160-348990/3-A	Lab Control Sample	Total/NA	Solid	9010C	
LCS 160-348990/2-A	Lab Control Sample	Total/NA	Solid	9010C	
160-26464-1 MS	B3FMH8	Total/NA	Soil	9010C	
160-26464-1 DU	B3FMH8	Total/NA	Soil	9010C	

Analysis Batch: 349164

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-26464-1	B3FMH8	Total/NA	Soil	9012B	348990
160-26464-2	B3FMK1	Total/NA	Soil	9012B	348990
160-26464-3	B3FMK4	Total/NA	Soil	9012B	348990
160-26464-4	B3FMK7	Total/NA	Soil	9012B	348990
160-26464-5	B3FML0	Total/NA	Soil	9012B	348990
160-26464-6	B3FML9	Total/NA	Soil	9012B	348990
160-26464-7	B3FMM2	Total/NA	Soil	9012B	348990
MB 160-348990/1-A	Method Blank	Total/NA	Solid	9012B	348990
HLCS 160-348990/3-A	Lab Control Sample	Total/NA	Solid	9012B	348990
LCS 160-348990/2-A	Lab Control Sample	Total/NA	Solid	9012B	348990
160-26464-1 MS	B3FMH8	Total/NA	Soil	9012B	348990
160-26464-1 DU	B3FMH8	Total/NA	Soil	9012B	348990

Prep Batch: 350900

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-26464-1	B3FMH8	Total/NA	Soil	DILeach_Prep	
160-26464-2	B3FMK1	Total/NA	Soil	DILeach_Prep	
160-26464-3	B3FMK4	Total/NA	Soil	DILeach_Prep	
160-26464-4	B3FMK7	Total/NA	Soil	DILeach_Prep	
160-26464-5	B3FML0	Total/NA	Soil	DILeach_Prep	
160-26464-6	B3FML9	Total/NA	Soil	DILeach_Prep	
160-26464-7	B3FMM2	Total/NA	Soil	DILeach_Prep	
MB 160-350900/1-A	Method Blank	Total/NA	Solid	DILeach_Prep	
LCS 160-350900/2-A	Lab Control Sample	Total/NA	Solid	DILeach_Prep	
160-26464-1 MS	B3FMH8	Total/NA	Soil	DILeach_Prep	
160-26464-1 DU	B3FMH8	Total/NA	Soil	DILeach_Prep	

Analysis Batch: 351064

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-26464-1	B3FMH8	Total/NA	Soil	350.1	350900

QC Association Summary

Client: CH2M Hill Plateau Remediation Company
Project/Site: F17-062

TestAmerica Job ID: 160-26464-1
SDG: SL2794

General Chemistry (Continued)

Analysis Batch: 351064 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-26464-2	B3FMK1	Total/NA	Soil	350.1	350900
160-26464-3	B3FMK4	Total/NA	Soil	350.1	350900
160-26464-4	B3FMK7	Total/NA	Soil	350.1	350900
160-26464-5	B3FML0	Total/NA	Soil	350.1	350900
160-26464-6	B3FML9	Total/NA	Soil	350.1	350900
160-26464-7	B3FMM2	Total/NA	Soil	350.1	350900
MB 160-350900/1-A	Method Blank	Total/NA	Solid	350.1	350900
LCS 160-350900/2-A	Lab Control Sample	Total/NA	Solid	350.1	350900
160-26464-1 MS	B3FMH8	Total/NA	Soil	350.1	350900
160-26464-1 DU	B3FMH8	Total/NA	Soil	350.1	350900

Surrogate Summary

Client: CH2M Hill Plateau Remediation Company
Project/Site: F17-062

TestAmerica Job ID: 160-26464-1
SDG: SL2794

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Soil **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		TBP	FBP	2FP	NBZ	PHL	TPHL
Lab Sample ID	Client Sample ID	(47-125)	(59-110)	(54-102)	(44-120)	(51-104)	(59-98)
160-26464-1	B3FMH8	81	74	75	71	75	87
160-26464-2	B3FMK1	85	79	80	76	82	92
160-26464-2 MS	B3FMK1	83	80	82	75	81	91
160-26464-2 MSD	B3FMK1	80	75	75	71	77	90
160-26464-3	B3FMK4	85	77	79	77	80	91
160-26464-4	B3FMK7	76	70	72	70	73	83
160-26464-5	B3FML0	86	76	74	71	76	95
160-26464-6	B3FML9	83	77	76	72	77	90
160-26464-7	B3FMM2	88	78	79	73	79	95

Surrogate Legend

TBP = 2,4,6-Tribromophenol (Surr)
FBP = 2-Fluorobiphenyl (Surr)
2FP = 2-Fluorophenol (Surr)
NBZ = Nitrobenzene-d5 (Surr)
PHL = Phenol-d5 (Surr)
TPHL = Terphenyl-d14 (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		TBP	FBP	2FP	NBZ	PHL	TPHL
Lab Sample ID	Client Sample ID	(47-125)	(59-110)	(54-102)	(44-120)	(51-104)	(59-98)
LCS 160-348988/2-A	Lab Control Sample	83	78	77	73	78	92
MB 160-348988/1-A	Method Blank	83	81	84	80	84	94

Surrogate Legend

TBP = 2,4,6-Tribromophenol (Surr)
FBP = 2-Fluorobiphenyl (Surr)
2FP = 2-Fluorophenol (Surr)
NBZ = Nitrobenzene-d5 (Surr)
PHL = Phenol-d5 (Surr)
TPHL = Terphenyl-d14 (Surr)

Method: 8015B - Diesel Range Organics (DRO) (GC)

Matrix: Soil **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)
		OTPH1
Lab Sample ID	Client Sample ID	(49-133)
160-26464-1	B3FMH8	77
160-26464-1 MS	B3FMH8	99
160-26464-1 MSD	B3FMH8	105
160-26464-2	B3FMK1	80
160-26464-3	B3FMK4	76
160-26464-4	B3FMK7	76
160-26464-5	B3FML0	79
160-26464-6	B3FML9	105
160-26464-7	B3FMM2	104

Surrogate Summary

Client: CH2M Hill Plateau Remediation Company
Project/Site: F17-062

TestAmerica Job ID: 160-26464-1
SDG: SL2794

Surrogate Legend
OTPH = o-Terphenyl

Method: 8015B - Diesel Range Organics (DRO) (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)								
Lab Sample ID	**Client Sample ID**	**OTPH1 (49-133)**								
LCS 160-347966/2-A	Lab Control Sample	107								
MB 160-347966/1-A	Method Blank	89								

Surrogate Legend
OTPH = o-Terphenyl