TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Knoxville
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TestAmerica Job ID: 140-5045-1
TestAmerica Sample Delivery Group: W07215
Client Project/Site: F12-025

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

Attn: Mr. Scot Fitzgerald

Authorized for release by:
6/15/2016 12:09:36 PM

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Definitions/Glossary

Client: CH2M Hill Plateau Remediation Company
Project/Site: F12-025

TestAmerica Job ID: 140-5045-1
SDG: W07215

Qualifiers

Air - GC/MS VOA

Qualifier	Qualifier Description
U	Analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Analyte was found in the associated method blank as well as in the sample.
D	The reported value is from a dilution.
Z	See case narrative notes for explanation of the 'Z' flag

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Case Narrative

Job ID: 140-5045-1

Laboratory: TestAmerica Knoxville

Narrative

Job Narrative
140-5045-1

Comments
No additional comments.

Receipt
The samples were received on 6/1/2016 1:40 PM; the samples arrived in good condition, properly preserved and, where required, on ice.

Receipt Exceptions

Per client instructions, the firm responsible for delivery was filled in and dated by the sample receiving department on completion of the shipment. Relinquished date and time recorded is the same as laboratory receipt date and time.

Air - GC/MS VOA
The dilution factor field in TALS documents the dilution performed on the canister ("in-can" or "serial" dilution) and the results are adjusted accordingly. In addition to dilution factors on the canister, a volume other than 500 mL is also used to adjust the final results. It is necessary to examine the lab chronicle to obtain the volume of sample analyzed. For example, if a canister did not have a dilution performed on it, but only 50 mL was analyzed, then the results will increase by a factor of 10, and the dilution factor will be 1.

Qualifier Description

U: Analyzed for but not detected.
J: Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B: Analyte was found in the associated method blank as well as in the sample.
D: The reported value is from a dilution.
Z: See case narrative notes for explanation of the 'Z' flag

Method(s) D1946, TO 15 LL, TO-15: EPA methods TO-14A and TO-15 specify the use of humidified “zero air” as the blank reagent for canister cleaning, instrument calibration and sample analysis. Ultra-high purity humidified nitrogen from a cryogenic reservoir is used in place of “zero air” by TestAmerica Knoxville.

Method(s) TO 15 LL: The continuing calibration verification (CCV) associated with batch 140-5152 exhibited % difference of > 30% for the following analyte(s) acetone; however, the results were within the LCS acceptance limits. The EPA method requires that all target analytes in the continuing calibration verification standard be within 30% difference from the initial calibration. According to the laboratory standard operating procedure, the continuing calibration is acceptable if it meets the laboratory control sample acceptance criteria.

Method(s) TO 15 LL: There is a contribution from an interfering non-target analyte to the quantitation of acetone in B35768 (140-5045-6). Therefore, the acetone results are biased high and should be considered estimated. The result is flagged with “Z”.

Method(s) TO 15 LL: The method blank for batch 140-5184 contained Methylene Chloride above the method detection limit (MDL).

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

Detection Summary

Client: CH2M Hill Plateau Remediation Company
Project/Site: F12-025

TestAmerica Job ID: 140-5045-1
SDG: W07215

Client Sample ID: B35763 — Lab Sample ID: 140-5045-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2-Dichloroethane	0.48	J	0.80	0.19	ppb v/v	1		TO 15 LL	Total/NA
Acetone	26.6		20.0	5.40	ppb v/v	1		TO 15 LL	Total/NA
Benzene	0.32	J	0.80	0.23	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	32.7		0.80	0.15	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	12.1		0.80	0.15	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	12.3	B	2.00	1.30	ppb v/v	1		TO 15 LL	Total/NA
Trichloroethene	0.69		0.40	0.14	ppb v/v	1		TO 15 LL	Total/NA

Client Sample ID: B35764 — Lab Sample ID: 140-5045-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	5.60	J	20.0	5.40	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	104		0.80	0.15	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	39.0		0.80	0.15	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	1.64	J B	2.00	1.30	ppb v/v	1		TO 15 LL	Total/NA

Client Sample ID: B35765 — Lab Sample ID: 140-5045-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Carbon tetrachloride	89.4		0.80	0.15	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	36.7		0.80	0.15	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	1.79	J B	2.00	1.30	ppb v/v	1		TO 15 LL	Total/NA

Client Sample ID: B35766 — Lab Sample ID: 140-5045-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	0.84	J	2.00	0.54	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.11		0.080	0.015	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	1.51		0.080	0.015	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	0.43	B	0.20	0.13	ppb v/v	1		TO 15 LL	Total/NA

Client Sample ID: B35767 — Lab Sample ID: 140-5045-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Carbon tetrachloride	490		3.33	0.63	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	42.9		3.33	0.63	ppb v/v	1		TO 15 LL	Total/NA

Client Sample ID: B35768 — Lab Sample ID: 140-5045-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	4.19	Z	2.00	0.54	ppb v/v	1		TO 15 LL	Total/NA
Benzene	0.079	J	0.080	0.023	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.32		0.080	0.015	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.035	J	0.080	0.015	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	0.43	B	0.20	0.13	ppb v/v	1		TO 15 LL	Total/NA

Client Sample ID: B35769 — Lab Sample ID: 140-5045-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	1.44	J	2.00	0.54	ppb v/v	1		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: CH2M Hill Plateau Remediation Company
Project/Site: F12-025

TestAmerica Job ID: 140-5045-1
SDG: W07215

Client Sample ID: B35769 (Continued) — Lab Sample ID: 140-5045-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.026	J	0.080	0.023	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	0.61	B	0.20	0.13	ppb v/v	1		TO 15 LL	Total/NA

Client Sample ID: B35770 — Lab Sample ID: 140-5045-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Carbon tetrachloride	130		2.00	0.38	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	5.09		2.00	0.38	ppb v/v	1		TO 15 LL	Total/NA

Client Sample ID: B35771 — Lab Sample ID: 140-5045-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Carbon tetrachloride	782	D	6.34	1.19	ppb v/v	3.17		TO 15 LL	Total/NA
Chloroform	28.7	D	6.34	1.19	ppb v/v	3.17		TO 15 LL	Total/NA
Trichloroethene	3.93	D	3.17	1.11	ppb v/v	3.17		TO 15 LL	Total/NA

Client Sample ID: B35772 — Lab Sample ID: 140-5045-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	2.76		2.00	0.54	ppb v/v	1		TO 15 LL	Total/NA
Benzene	0.024	J	0.080	0.023	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.091		0.080	0.015	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	0.51		0.20	0.13	ppb v/v	1		TO 15 LL	Total/NA

Client Sample ID: B35773 — Lab Sample ID: 140-5045-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Carbon tetrachloride	266		2.00	0.38	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	7.71		2.00	0.38	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	3.36	J	5.00	3.25	ppb v/v	1		TO 15 LL	Total/NA

Client Sample ID: B35774 — Lab Sample ID: 140-5045-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroform	23.4		4.00	0.75	ppb v/v	1		TO 15 LL	Total/NA
Trichloroethene	4.34		2.00	0.70	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride - DL	1030	D	11.1	2.08	ppb v/v	2.77		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: CH2M Hill Plateau Remediation Company
Project/Site: F12-025

TestAmerica Job ID: 140-5045-1
SDG: W07215

Client Sample ID: B35763

Lab Sample ID: 140-5045-1
Matrix: Air

Date Collected: 05/25/16 09:27
Date Received: 06/01/16 13:40
Sample Container: Summa Canister 6L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.12	U	0.80	0.12	ppb v/v			06/07/16 22:43	1
1,1-Dichloroethene	0.14	U	0.80	0.14	ppb v/v			06/07/16 22:43	1
1,2-Dichloroethane	**0.48**	**J**	0.80	0.19	ppb v/v			06/07/16 22:43	1
Acetone	**26.6**		20.0	5.40	ppb v/v			06/07/16 22:43	1
Benzene	**0.32**	**J**	0.80	0.23	ppb v/v			06/07/16 22:43	1
Carbon tetrachloride	**32.7**		0.80	0.15	ppb v/v			06/07/16 22:43	1
Chloroform	**12.1**		0.80	0.15	ppb v/v			06/07/16 22:43	1
Dibromochloromethane	0.17	U	0.80	0.17	ppb v/v			06/07/16 22:43	1
Methylene Chloride	**12.3**	**B**	2.00	1.30	ppb v/v			06/07/16 22:43	1
Trichloroethene	**0.69**		0.40	0.14	ppb v/v			06/07/16 22:43	1
Vinyl chloride	0.29	U	0.40	0.29	ppb v/v			06/07/16 22:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*85*		*60 - 140*		*06/07/16 22:43*	*1*

Client Sample ID: B35764

Lab Sample ID: 140-5045-2
Matrix: Air

Date Collected: 05/25/16 09:24
Date Received: 06/01/16 13:40
Sample Container: Summa Canister 6L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.12	U	0.80	0.12	ppb v/v			06/07/16 23:37	1
1,1-Dichloroethene	0.14	U	0.80	0.14	ppb v/v			06/07/16 23:37	1
1,2-Dichloroethane	0.19	U	0.80	0.19	ppb v/v			06/07/16 23:37	1
Acetone	**5.60**	**J**	20.0	5.40	ppb v/v			06/07/16 23:37	1
Benzene	0.23	U	0.80	0.23	ppb v/v			06/07/16 23:37	1
Carbon tetrachloride	**104**		0.80	0.15	ppb v/v			06/07/16 23:37	1
Chloroform	**39.0**		0.80	0.15	ppb v/v			06/07/16 23:37	1
Dibromochloromethane	0.17	U	0.80	0.17	ppb v/v			06/07/16 23:37	1
Methylene Chloride	**1.64**	**J B**	2.00	1.30	ppb v/v			06/07/16 23:37	1
Trichloroethene	0.14	U	0.40	0.14	ppb v/v			06/07/16 23:37	1
Vinyl chloride	0.29	U	0.40	0.29	ppb v/v			06/07/16 23:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*84*		*60 - 140*		*06/07/16 23:37*	*1*

Client Sample ID: B35765

Lab Sample ID: 140-5045-3
Matrix: Air

Date Collected: 05/25/16 09:22
Date Received: 06/01/16 13:40
Sample Container: Summa Canister 6L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.12	U	0.80	0.12	ppb v/v			06/08/16 00:31	1
1,1-Dichloroethene	0.14	U	0.80	0.14	ppb v/v			06/08/16 00:31	1
1,2-Dichloroethane	0.19	U	0.80	0.19	ppb v/v			06/08/16 00:31	1
Acetone	5.40	U	20.0	5.40	ppb v/v			06/08/16 00:31	1
Benzene	0.23	U	0.80	0.23	ppb v/v			06/08/16 00:31	1

Client Sample Results

Client: CH2M Hill Plateau Remediation Company
Project/Site: F12-025

TestAmerica Job ID: 140-5045-1
SDG: W07215

Client Sample ID: B35765

Lab Sample ID: 140-5045-3
Matrix: Air

Date Collected: 05/25/16 09:22
Date Received: 06/01/16 13:40
Sample Container: Summa Canister 6L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon tetrachloride	**89.4**		0.80	0.15	ppb v/v			06/08/16 00:31	1
Chloroform	**36.7**		0.80	0.15	ppb v/v			06/08/16 00:31	1
Dibromochloromethane	0.17	U	0.80	0.17	ppb v/v			06/08/16 00:31	1
Methylene Chloride	**1.79**	**J B**	2.00	1.30	ppb v/v			06/08/16 00:31	1
Trichloroethene	0.14	U	0.40	0.14	ppb v/v			06/08/16 00:31	1
Vinyl chloride	0.29	U	0.40	0.29	ppb v/v			06/08/16 00:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*84*		*60 - 140*		*06/08/16 00:31*	*1*

Client Sample ID: B35766

Lab Sample ID: 140-5045-4
Matrix: Air

Date Collected: 05/25/16 09:04
Date Received: 06/01/16 13:40
Sample Container: Summa Canister 6L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.012	U	0.080	0.012	ppb v/v			06/08/16 01:25	1
1,1-Dichloroethene	0.014	U	0.080	0.014	ppb v/v			06/08/16 01:25	1
1,2-Dichloroethane	0.019	U	0.080	0.019	ppb v/v			06/08/16 01:25	1
Acetone	**0.84**	**J**	2.00	0.54	ppb v/v			06/08/16 01:25	1
Benzene	0.023	U	0.080	0.023	ppb v/v			06/08/16 01:25	1
Carbon tetrachloride	**0.11**		0.080	0.015	ppb v/v			06/08/16 01:25	1
Chloroform	**1.51**		0.080	0.015	ppb v/v			06/08/16 01:25	1
Dibromochloromethane	0.017	U	0.080	0.017	ppb v/v			06/08/16 01:25	1
Methylene Chloride	**0.43**	**B**	0.20	0.13	ppb v/v			06/08/16 01:25	1
Trichloroethene	0.014	U	0.040	0.014	ppb v/v			06/08/16 01:25	1
Vinyl chloride	0.029	U	0.040	0.029	ppb v/v			06/08/16 01:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*85*		*60 - 140*		*06/08/16 01:25*	*1*

Client Sample ID: B35767

Lab Sample ID: 140-5045-5
Matrix: Air

Date Collected: 05/25/16 09:02
Date Received: 06/01/16 13:40
Sample Container: Summa Canister 6L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.50	U	3.33	0.50	ppb v/v			06/08/16 02:19	1
1,1-Dichloroethene	0.58	U	3.33	0.58	ppb v/v			06/08/16 02:19	1
1,2-Dichloroethane	0.79	U	3.33	0.79	ppb v/v			06/08/16 02:19	1
Acetone	22.5	U	83.3	22.5	ppb v/v			06/08/16 02:19	1
Benzene	0.96	U	3.33	0.96	ppb v/v			06/08/16 02:19	1
Carbon tetrachloride	**490**		3.33	0.63	ppb v/v			06/08/16 02:19	1
Chloroform	**42.9**		3.33	0.63	ppb v/v			06/08/16 02:19	1
Dibromochloromethane	0.71	U	3.33	0.71	ppb v/v			06/08/16 02:19	1
Methylene Chloride	5.42	U	8.33	5.42	ppb v/v			06/08/16 02:19	1
Trichloroethene	0.58	U	1.67	0.58	ppb v/v			06/08/16 02:19	1

Client Sample Results

Client: CH2M Hill Plateau Remediation Company
Project/Site: F12-025

TestAmerica Job ID: 140-5045-1
SDG: W07215

Client Sample ID: B35767 — Lab Sample ID: 140-5045-5

Date Collected: 05/25/16 09:02
Matrix: Air
Date Received: 06/01/16 13:40
Sample Container: Summa Canister 6L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	1.21	U	1.67	1.21	ppb v/v			06/08/16 02:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*76*		*60 - 140*		*06/08/16 02:19*	*1*

Client Sample ID: B35768 — Lab Sample ID: 140-5045-6

Date Collected: 05/25/16 08:54
Matrix: Air
Date Received: 06/01/16 13:40
Sample Container: Summa Canister 6L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.012	U	0.080	0.012	ppb v/v			06/08/16 03:13	1
1,1-Dichloroethene	0.014	U	0.080	0.014	ppb v/v			06/08/16 03:13	1
1,2-Dichloroethane	0.019	U	0.080	0.019	ppb v/v			06/08/16 03:13	1
Acetone	**4.19**	**Z**	2.00	0.54	ppb v/v			06/08/16 03:13	1
Benzene	**0.079**	**J**	0.080	0.023	ppb v/v			06/08/16 03:13	1
Carbon tetrachloride	**0.32**		0.080	0.015	ppb v/v			06/08/16 03:13	1
Chloroform	**0.035**	**J**	0.080	0.015	ppb v/v			06/08/16 03:13	1
Dibromochloromethane	0.017	U	0.080	0.017	ppb v/v			06/08/16 03:13	1
Methylene Chloride	**0.43**	**B**	0.20	0.13	ppb v/v			06/08/16 03:13	1
Trichloroethene	0.014	U	0.040	0.014	ppb v/v			06/08/16 03:13	1
Vinyl chloride	0.029	U	0.040	0.029	ppb v/v			06/08/16 03:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*85*		*60 - 140*		*06/08/16 03:13*	*1*

Client Sample ID: B35769 — Lab Sample ID: 140-5045-7

Date Collected: 05/25/16 08:45
Matrix: Air
Date Received: 06/01/16 13:40
Sample Container: Summa Canister 6L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.012	U	0.080	0.012	ppb v/v			06/08/16 04:07	1
1,1-Dichloroethene	0.014	U	0.080	0.014	ppb v/v			06/08/16 04:07	1
1,2-Dichloroethane	0.019	U	0.080	0.019	ppb v/v			06/08/16 04:07	1
Acetone	**1.44**	**J**	2.00	0.54	ppb v/v			06/08/16 04:07	1
Benzene	**0.026**	**J**	0.080	0.023	ppb v/v			06/08/16 04:07	1
Carbon tetrachloride	0.015	U	0.080	0.015	ppb v/v			06/08/16 04:07	1
Chloroform	0.015	U	0.080	0.015	ppb v/v			06/08/16 04:07	1
Dibromochloromethane	0.017	U	0.080	0.017	ppb v/v			06/08/16 04:07	1
Methylene Chloride	**0.61**	**B**	0.20	0.13	ppb v/v			06/08/16 04:07	1
Trichloroethene	0.014	U	0.040	0.014	ppb v/v			06/08/16 04:07	1
Vinyl chloride	0.029	U	0.040	0.029	ppb v/v			06/08/16 04:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*84*		*60 - 140*		*06/08/16 04:07*	*1*

Client Sample Results

Client: CH2M Hill Plateau Remediation Company
Project/Site: F12-025

TestAmerica Job ID: 140-5045-1
SDG: W07215

Client Sample ID: B35770

Lab Sample ID: 140-5045-8
Matrix: Air

Date Collected: 05/25/16 08:43
Date Received: 06/01/16 13:40
Sample Container: Summa Canister 6L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.30	U	2.00	0.30	ppb v/v			06/06/16 17:15	1
1,1-Dichloroethene	0.35	U	2.00	0.35	ppb v/v			06/06/16 17:15	1
1,2-Dichloroethane	0.48	U	2.00	0.48	ppb v/v			06/06/16 17:15	1
Acetone	13.5	U	50.0	13.5	ppb v/v			06/06/16 17:15	1
Benzene	0.58	U	2.00	0.58	ppb v/v			06/06/16 17:15	1
Carbon tetrachloride	**130**		2.00	0.38	ppb v/v			06/06/16 17:15	1
Chloroform	**5.09**		2.00	0.38	ppb v/v			06/06/16 17:15	1
Dibromochloromethane	0.43	U	2.00	0.43	ppb v/v			06/06/16 17:15	1
Methylene Chloride	3.25	U	5.00	3.25	ppb v/v			06/06/16 17:15	1
Trichloroethene	0.35	U	1.00	0.35	ppb v/v			06/06/16 17:15	1
Vinyl chloride	0.73	U	1.00	0.73	ppb v/v			06/06/16 17:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*60 - 140*		*06/06/16 17:15*	*1*

Client Sample ID: B35771

Lab Sample ID: 140-5045-9
Matrix: Air

Date Collected: 05/25/16 08:36
Date Received: 06/01/16 13:40
Sample Container: Summa Canister 6L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.95	U	6.34	0.95	ppb v/v			06/04/16 01:54	3.17
1,1-Dichloroethene	1.11	U	6.34	1.11	ppb v/v			06/04/16 01:54	3.17
1,2-Dichloroethane	1.51	U	6.34	1.51	ppb v/v			06/04/16 01:54	3.17
Acetone	42.8	U	159	42.8	ppb v/v			06/04/16 01:54	3.17
Benzene	1.82	U	6.34	1.82	ppb v/v			06/04/16 01:54	3.17
Carbon tetrachloride	**782**	**D**	6.34	1.19	ppb v/v			06/04/16 01:54	3.17
Chloroform	**28.7**	**D**	6.34	1.19	ppb v/v			06/04/16 01:54	3.17
Dibromochloromethane	1.35	U	6.34	1.35	ppb v/v			06/04/16 01:54	3.17
Methylene Chloride	10.3	U	15.9	10.3	ppb v/v			06/04/16 01:54	3.17
Trichloroethene	**3.93**	**D**	3.17	1.11	ppb v/v			06/04/16 01:54	3.17
Vinyl chloride	2.30	U	3.17	2.30	ppb v/v			06/04/16 01:54	3.17

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*80*		*60 - 140*		*06/04/16 01:54*	*3.17*

Client Sample ID: B35772

Lab Sample ID: 140-5045-10
Matrix: Air

Date Collected: 05/25/16 08:26
Date Received: 06/01/16 13:40
Sample Container: Summa Canister 6L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.012	U	0.080	0.012	ppb v/v			06/06/16 18:03	1
1,1-Dichloroethene	0.014	U	0.080	0.014	ppb v/v			06/06/16 18:03	1
1,2-Dichloroethane	0.019	U	0.080	0.019	ppb v/v			06/06/16 18:03	1
Acetone	**2.76**		2.00	0.54	ppb v/v			06/06/16 18:03	1
Benzene	**0.024**	**J**	0.080	0.023	ppb v/v			06/06/16 18:03	1

Client Sample Results

Client: CH2M Hill Plateau Remediation Company
Project/Site: F12-025

TestAmerica Job ID: 140-5045-1
SDG: W07215

Client Sample ID: B35772

Lab Sample ID: 140-5045-10
Matrix: Air

Date Collected: 05/25/16 08:26
Date Received: 06/01/16 13:40
Sample Container: Summa Canister 6L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon tetrachloride	**0.091**		0.080	0.015	ppb v/v			06/06/16 18:03	1
Chloroform	0.015	U	0.080	0.015	ppb v/v			06/06/16 18:03	1
Dibromochloromethane	0.017	U	0.080	0.017	ppb v/v			06/06/16 18:03	1
Methylene Chloride	**0.51**		0.20	0.13	ppb v/v			06/06/16 18:03	1
Trichloroethene	0.014	U	0.040	0.014	ppb v/v			06/06/16 18:03	1
Vinyl chloride	0.029	U	0.040	0.029	ppb v/v			06/06/16 18:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*60 - 140*		*06/06/16 18:03*	*1*

Client Sample ID: B35773

Lab Sample ID: 140-5045-11
Matrix: Air

Date Collected: 05/25/16 08:24
Date Received: 06/01/16 13:40
Sample Container: Summa Canister 6L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.30	U	2.00	0.30	ppb v/v			06/04/16 04:37	1
1,1-Dichloroethene	0.35	U	2.00	0.35	ppb v/v			06/04/16 04:37	1
1,2-Dichloroethane	0.48	U	2.00	0.48	ppb v/v			06/04/16 04:37	1
Acetone	13.5	U	50.0	13.5	ppb v/v			06/04/16 04:37	1
Benzene	0.58	U	2.00	0.58	ppb v/v			06/04/16 04:37	1
Carbon tetrachloride	**266**		2.00	0.38	ppb v/v			06/04/16 04:37	1
Chloroform	**7.71**		2.00	0.38	ppb v/v			06/04/16 04:37	1
Dibromochloromethane	0.43	U	2.00	0.43	ppb v/v			06/04/16 04:37	1
Methylene Chloride	**3.36**	**J**	5.00	3.25	ppb v/v			06/04/16 04:37	1
Trichloroethene	0.35	U	1.00	0.35	ppb v/v			06/04/16 04:37	1
Vinyl chloride	0.73	U	1.00	0.73	ppb v/v			06/04/16 04:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*76*		*60 - 140*		*06/04/16 04:37*	*1*

Client Sample ID: B35774

Lab Sample ID: 140-5045-12
Matrix: Air

Date Collected: 05/25/16 08:15
Date Received: 06/01/16 13:40
Sample Container: Summa Canister 6L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.60	U	4.00	0.60	ppb v/v			06/04/16 05:32	1
1,1-Dichloroethene	0.70	U	4.00	0.70	ppb v/v			06/04/16 05:32	1
1,2-Dichloroethane	0.95	U	4.00	0.95	ppb v/v			06/04/16 05:32	1
Acetone	27.0	U	100	27.0	ppb v/v			06/04/16 05:32	1
Benzene	1.15	U	4.00	1.15	ppb v/v			06/04/16 05:32	1
Chloroform	**23.4**		4.00	0.75	ppb v/v			06/04/16 05:32	1
Dibromochloromethane	0.85	U	4.00	0.85	ppb v/v			06/04/16 05:32	1
Methylene Chloride	6.50	U	10.0	6.50	ppb v/v			06/04/16 05:32	1
Trichloroethene	**4.34**		2.00	0.70	ppb v/v			06/04/16 05:32	1
Vinyl chloride	1.45	U	2.00	1.45	ppb v/v			06/04/16 05:32	1

Client Sample Results

Client: CH2M Hill Plateau Remediation Company
Project/Site: F12-025

TestAmerica Job ID: 140-5045-1
SDG: W07215

Client Sample ID: B35774

Lab Sample ID: 140-5045-12

Date Collected: 05/25/16 08:15
Matrix: Air
Date Received: 06/01/16 13:40
Sample Container: Summa Canister 6L

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*80*		*60 - 140*		*06/04/16 05:32*	*1*

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon tetrachloride	**1030**	**D**	11.1	2.08	ppb v/v			06/08/16 05:01	2.77

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*76*		*60 - 140*		*06/08/16 05:01*	*2.77*

Default Detection Limits

Client: CH2M Hill Plateau Remediation Company
Project/Site: F12-025

TestAmerica Job ID: 140-5045-1
SDG: W07215

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	RL	MDL	Units	Method
1,1,1-Trichloroethane	0.080	0.012	ppb v/v	TO 15 LL
1,1-Dichloroethene	0.080	0.014	ppb v/v	TO 15 LL
1,2-Dichloroethane	0.080	0.019	ppb v/v	TO 15 LL
Acetone	2.00	0.54	ppb v/v	TO 15 LL
Benzene	0.080	0.023	ppb v/v	TO 15 LL
Carbon tetrachloride	0.080	0.015	ppb v/v	TO 15 LL
Chloroform	0.080	0.015	ppb v/v	TO 15 LL
Dibromochloromethane	0.080	0.017	ppb v/v	TO 15 LL
Methylene Chloride	0.20	0.13	ppb v/v	TO 15 LL
Trichloroethene	0.040	0.014	ppb v/v	TO 15 LL
Vinyl chloride	0.040	0.029	ppb v/v	TO 15 LL

Surrogate Summary

Client: CH2M Hill Plateau Remediation Company
Project/Site: F12-025

TestAmerica Job ID: 140-5045-1
SDG: W07215

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

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

		Percent Surrogate Recovery (Acceptance Limits)						
Lab Sample ID	**Client Sample ID**	**BFB (60-140)**						
140-5045-1	B35763	85						
140-5045-2	B35764	84						
140-5045-3	B35765	84						
140-5045-4	B35766	85						
140-5045-5	B35767	76						
140-5045-6	B35768	85						
140-5045-7	B35769	84						
140-5045-8	B35770	97						
140-5045-9	B35771	80						
140-5045-10	B35772	102						
140-5045-11	B35773	76						
140-5045-12	B35774	80						
140-5045-12 - DL	B35774	76						
LCS 140-5132/1006	Lab Control Sample	94						
LCS 140-5152/1010	Lab Control Sample	100						
LCS 140-5184/1002	Lab Control Sample	96						
MB 140-5132/8	Method Blank	85						
MB 140-5152/12	Method Blank	101						
MB 140-5184/4	Method Blank	88						

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

QC Sample Results

Client: CH2M Hill Plateau Remediation Company
Project/Site: F12-025

TestAmerica Job ID: 140-5045-1
SDG: W07215

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Lab Sample ID: MB 140-5132/8
Matrix: Air
Analysis Batch: 5132

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.012	U	0.080	0.012	ppb v/v			06/03/16 12:55	1
1,1-Dichloroethene	0.014	U	0.080	0.014	ppb v/v			06/03/16 12:55	1
1,2-Dichloroethane	0.019	U	0.080	0.019	ppb v/v			06/03/16 12:55	1
Acetone	0.54	U	2.00	0.54	ppb v/v			06/03/16 12:55	1
Benzene	0.023	U	0.080	0.023	ppb v/v			06/03/16 12:55	1
Carbon tetrachloride	0.015	U	0.080	0.015	ppb v/v			06/03/16 12:55	1
Chloroform	0.015	U	0.080	0.015	ppb v/v			06/03/16 12:55	1
Dibromochloromethane	0.017	U	0.080	0.017	ppb v/v			06/03/16 12:55	1
Methylene Chloride	0.13	U	0.20	0.13	ppb v/v			06/03/16 12:55	1
Trichloroethene	0.014	U	0.040	0.014	ppb v/v			06/03/16 12:55	1
Vinyl chloride	0.029	U	0.040	0.029	ppb v/v			06/03/16 12:55	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*85*		*60 - 140*		*06/03/16 12:55*	*1*

Lab Sample ID: LCS 140-5132/1006
Matrix: Air
Analysis Batch: 5132

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	2.00	2.196		ppb v/v		110	70 - 130
1,1-Dichloroethene	2.00	2.032		ppb v/v		102	70 - 130
1,2-Dichloroethane	2.00	2.222		ppb v/v		111	70 - 130
Acetone	6.00	5.069		ppb v/v		84	60 - 140
Benzene	2.00	1.980		ppb v/v		99	70 - 130
Carbon tetrachloride	2.00	2.585		ppb v/v		129	70 - 130
Chloroform	2.00	1.973		ppb v/v		99	70 - 130
Dibromochloromethane	2.00	2.587		ppb v/v		129	70 - 130
Methylene Chloride	2.00	1.746		ppb v/v		87	70 - 130
Trichloroethene	2.00	2.277		ppb v/v		114	70 - 130
Vinyl chloride	2.00	1.644		ppb v/v		82	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*94*		*60 - 140*

Lab Sample ID: MB 140-5152/12
Matrix: Air
Analysis Batch: 5152

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.012	U	0.080	0.012	ppb v/v			06/06/16 15:41	1
1,1-Dichloroethene	0.014	U	0.080	0.014	ppb v/v			06/06/16 15:41	1
1,2-Dichloroethane	0.019	U	0.080	0.019	ppb v/v			06/06/16 15:41	1
Acetone	0.54	U	2.00	0.54	ppb v/v			06/06/16 15:41	1
Benzene	0.023	U	0.080	0.023	ppb v/v			06/06/16 15:41	1
Carbon tetrachloride	0.015	U	0.080	0.015	ppb v/v			06/06/16 15:41	1
Chloroform	0.015	U	0.080	0.015	ppb v/v			06/06/16 15:41	1

QC Sample Results

Client: CH2M Hill Plateau Remediation Company
Project/Site: F12-025

TestAmerica Job ID: 140-5045-1
SDG: W07215

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: MB 140-5152/12
Matrix: Air
Analysis Batch: 5152

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibromochloromethane	0.017	U	0.080	0.017	ppb v/v			06/06/16 15:41	1
Methylene Chloride	0.13	U	0.20	0.13	ppb v/v			06/06/16 15:41	1
Trichloroethene	0.014	U	0.040	0.014	ppb v/v			06/06/16 15:41	1
Vinyl chloride	0.029	U	0.040	0.029	ppb v/v			06/06/16 15:41	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*60 - 140*		*06/06/16 15:41*	*1*

Lab Sample ID: LCS 140-5152/1010
Matrix: Air
Analysis Batch: 5152

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	2.00	2.088		ppb v/v		104	70 - 130
1,1-Dichloroethene	2.00	2.066		ppb v/v		103	70 - 130
1,2-Dichloroethane	2.00	1.887		ppb v/v		94	70 - 130
Acetone	6.00	4.165		ppb v/v		69	60 - 140
Benzene	2.00	1.959		ppb v/v		98	70 - 130
Carbon tetrachloride	2.00	2.303		ppb v/v		115	70 - 130
Chloroform	2.00	1.954		ppb v/v		98	70 - 130
Dibromochloromethane	2.00	2.204		ppb v/v		110	70 - 130
Methylene Chloride	2.00	1.949		ppb v/v		97	70 - 130
Trichloroethene	2.00	2.121		ppb v/v		106	70 - 130
Vinyl chloride	2.00	1.789		ppb v/v		89	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*100*		*60 - 140*

Lab Sample ID: MB 140-5184/4
Matrix: Air
Analysis Batch: 5184

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.012	U	0.080	0.012	ppb v/v			06/07/16 13:39	1
1,1-Dichloroethene	0.014	U	0.080	0.014	ppb v/v			06/07/16 13:39	1
1,2-Dichloroethane	0.019	U	0.080	0.019	ppb v/v			06/07/16 13:39	1
Acetone	0.54	U	2.00	0.54	ppb v/v			06/07/16 13:39	1
Benzene	0.023	U	0.080	0.023	ppb v/v			06/07/16 13:39	1
Carbon tetrachloride	0.015	U	0.080	0.015	ppb v/v			06/07/16 13:39	1
Chloroform	0.015	U	0.080	0.015	ppb v/v			06/07/16 13:39	1
Dibromochloromethane	0.017	U	0.080	0.017	ppb v/v			06/07/16 13:39	1
Methylene Chloride	0.162	J	0.20	0.13	ppb v/v			06/07/16 13:39	1
Trichloroethene	0.014	U	0.040	0.014	ppb v/v			06/07/16 13:39	1
Vinyl chloride	0.029	U	0.040	0.029	ppb v/v			06/07/16 13:39	1

QC Sample Results

Client: CH2M Hill Plateau Remediation Company
Project/Site: F12-025

TestAmerica Job ID: 140-5045-1
SDG: W07215

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: MB 140-5184/4
Matrix: Air
Analysis Batch: 5184

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

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*88*		*60 - 140*		*06/07/16 13:39*	*1*

Lab Sample ID: LCS 140-5184/1002
Matrix: Air
Analysis Batch: 5184

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	2.00	2.013		ppb v/v		101	70 - 130
1,1-Dichloroethene	2.00	1.900		ppb v/v		95	70 - 130
1,2-Dichloroethane	2.00	2.110		ppb v/v		105	70 - 130
Acetone	6.00	4.736		ppb v/v		79	60 - 140
Benzene	2.00	1.936		ppb v/v		97	70 - 130
Carbon tetrachloride	2.00	2.472		ppb v/v		124	70 - 130
Chloroform	2.00	1.837		ppb v/v		92	70 - 130
Dibromochloromethane	2.00	2.215		ppb v/v		111	70 - 130
Methylene Chloride	2.00	1.635		ppb v/v		82	70 - 130
Trichloroethene	2.00	2.169		ppb v/v		108	70 - 130
Vinyl chloride	2.00	1.472		ppb v/v		74	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*96*		*60 - 140*

QC Association Summary

Client: CH2M Hill Plateau Remediation Company
Project/Site: F12-025

TestAmerica Job ID: 140-5045-1
SDG: W07215

Air - GC/MS VOA

Analysis Batch: 5132

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-5045-9	B35771	Total/NA	Air	TO 15 LL	
140-5045-11	B35773	Total/NA	Air	TO 15 LL	
140-5045-12	B35774	Total/NA	Air	TO 15 LL	
LCS 140-5132/1006	Lab Control Sample	Total/NA	Air	TO 15 LL	
MB 140-5132/8	Method Blank	Total/NA	Air	TO 15 LL	

Analysis Batch: 5152

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-5045-8	B35770	Total/NA	Air	TO 15 LL	
140-5045-10	B35772	Total/NA	Air	TO 15 LL	
LCS 140-5152/1010	Lab Control Sample	Total/NA	Air	TO 15 LL	
MB 140-5152/12	Method Blank	Total/NA	Air	TO 15 LL	

Analysis Batch: 5184

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-5045-1	B35763	Total/NA	Air	TO 15 LL	
140-5045-2	B35764	Total/NA	Air	TO 15 LL	
140-5045-3	B35765	Total/NA	Air	TO 15 LL	
140-5045-4	B35766	Total/NA	Air	TO 15 LL	
140-5045-5	B35767	Total/NA	Air	TO 15 LL	
140-5045-6	B35768	Total/NA	Air	TO 15 LL	
140-5045-7	B35769	Total/NA	Air	TO 15 LL	
140-5045-12 - DL	B35774	Total/NA	Air	TO 15 LL	
LCS 140-5184/1002	Lab Control Sample	Total/NA	Air	TO 15 LL	
MB 140-5184/4	Method Blank	Total/NA	Air	TO 15 LL	

Lab Chronicle

Client: CH2M Hill Plateau Remediation Company
Project/Site: F12-025

TestAmerica Job ID: 140-5045-1
SDG: W07215

Client Sample ID: B35763 — Lab Sample ID: 140-5045-1

Date Collected: 05/25/16 09:27
Date Received: 06/01/16 13:40
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	50 mL	500 mL	5184	06/07/16 22:43	HMT	TAL KNX
	Instrument ID: MJ									

Client Sample ID: B35764 — Lab Sample ID: 140-5045-2

Date Collected: 05/25/16 09:24
Date Received: 06/01/16 13:40
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	50 mL	500 mL	5184	06/07/16 23:37	HMT	TAL KNX
	Instrument ID: MJ									

Client Sample ID: B35765 — Lab Sample ID: 140-5045-3

Date Collected: 05/25/16 09:22
Date Received: 06/01/16 13:40
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	50 mL	500 mL	5184	06/08/16 00:31	HMT	TAL KNX
	Instrument ID: MJ									

Client Sample ID: B35766 — Lab Sample ID: 140-5045-4

Date Collected: 05/25/16 09:04
Date Received: 06/01/16 13:40
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	5184	06/08/16 01:25	HMT	TAL KNX
	Instrument ID: MJ									

Client Sample ID: B35767 — Lab Sample ID: 140-5045-5

Date Collected: 05/25/16 09:02
Date Received: 06/01/16 13:40
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	12 mL	500 mL	5184	06/08/16 02:19	HMT	TAL KNX
	Instrument ID: MJ									

Client Sample ID: B35768 — Lab Sample ID: 140-5045-6

Date Collected: 05/25/16 08:54
Date Received: 06/01/16 13:40
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	5184	06/08/16 03:13	HMT	TAL KNX
	Instrument ID: MJ									

Lab Chronicle

Client: CH2M Hill Plateau Remediation Company
Project/Site: F12-025

TestAmerica Job ID: 140-5045-1
SDG: W07215

Client Sample ID: B35769
Date Collected: 05/25/16 08:45
Date Received: 06/01/16 13:40

Lab Sample ID: 140-5045-7
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	5184	06/08/16 04:07	HMT	TAL KNX
	Instrument ID: MJ									

Client Sample ID: B35770
Date Collected: 05/25/16 08:43
Date Received: 06/01/16 13:40

Lab Sample ID: 140-5045-8
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	20 mL	500 mL	5152	06/06/16 17:15	HMT	TAL KNX
	Instrument ID: ME									

Client Sample ID: B35771
Date Collected: 05/25/16 08:36
Date Received: 06/01/16 13:40

Lab Sample ID: 140-5045-9
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		3.17	20 mL	500 mL	5132	06/04/16 01:54	HMT	TAL KNX
	Instrument ID: MJ									

Client Sample ID: B35772
Date Collected: 05/25/16 08:26
Date Received: 06/01/16 13:40

Lab Sample ID: 140-5045-10
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	5152	06/06/16 18:03	HMT	TAL KNX
	Instrument ID: ME									

Client Sample ID: B35773
Date Collected: 05/25/16 08:24
Date Received: 06/01/16 13:40

Lab Sample ID: 140-5045-11
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	20 mL	500 mL	5132	06/04/16 04:37	HMT	TAL KNX
	Instrument ID: MJ									

Client Sample ID: B35774
Date Collected: 05/25/16 08:15
Date Received: 06/01/16 13:40

Lab Sample ID: 140-5045-12
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	10 mL	500 mL	5132	06/04/16 05:32	HMT	TAL KNX
	Instrument ID: MJ									

Lab Chronicle

Client: CH2M Hill Plateau Remediation Company
Project/Site: F12-025

TestAmerica Job ID: 140-5045-1
SDG: W07215

Client Sample ID: B35774 — Lab Sample ID: 140-5045-12

Date Collected: 05/25/16 08:15 — **Matrix: Air**
Date Received: 06/01/16 13:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL	DL	2.77	10 mL	500 mL	5184	06/08/16 05:01	HMT	TAL KNX
	Instrument ID: MJ									

Client Sample ID: Lab Control Sample — Lab Sample ID: LCS 140-5132/1006

Date Collected: N/A — **Matrix: Air**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	5132	06/03/16 11:34	HMT	TAL KNX
	Instrument ID: MJ									

Client Sample ID: Lab Control Sample — Lab Sample ID: LCS 140-5152/1010

Date Collected: N/A — **Matrix: Air**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	5152	06/06/16 13:37	HMT	TAL KNX
	Instrument ID: ME									

Client Sample ID: Lab Control Sample — Lab Sample ID: LCS 140-5184/1002

Date Collected: N/A — **Matrix: Air**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	5184	06/07/16 11:43	HMT	TAL KNX
	Instrument ID: MJ									

Client Sample ID: Method Blank — Lab Sample ID: MB 140-5132/8

Date Collected: N/A — **Matrix: Air**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	5132	06/03/16 12:55	HMT	TAL KNX
	Instrument ID: MJ									

Client Sample ID: Method Blank — Lab Sample ID: MB 140-5152/12

Date Collected: N/A — **Matrix: Air**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	5152	06/06/16 15:41	HMT	TAL KNX
	Instrument ID: ME									

Lab Chronicle

Client: CH2M Hill Plateau Remediation Company
Project/Site: F12-025

TestAmerica Job ID: 140-5045-1
SDG: W07215

Client Sample ID: Method Blank

Date Collected: N/A
Date Received: N/A

Lab Sample ID: MB 140-5184/4

Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	5184	06/07/16 13:39	HMT	TAL KNX
	Instrument ID: MJ									

Laboratory References:

TAL KNX = TestAmerica Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

Method Summary

Client: CH2M Hill Plateau Remediation Company
Project/Site: F12-025

TestAmerica Job ID: 140-5045-1
SDG: W07215

Method	Method Description	Protocol	Laboratory
TO 15 LL	Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)	EPA	TAL KNX

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

TAL KNX = TestAmerica Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

Sample Summary

Client: CH2M Hill Plateau Remediation Company
Project/Site: F12-025

TestAmerica Job ID: 140-5045-1
SDG: W07215

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
140-5045-1	B35763	Air	05/25/16 09:27	06/01/16 13:40
140-5045-2	B35764	Air	05/25/16 09:24	06/01/16 13:40
140-5045-3	B35765	Air	05/25/16 09:22	06/01/16 13:40
140-5045-4	B35766	Air	05/25/16 09:04	06/01/16 13:40
140-5045-5	B35767	Air	05/25/16 09:02	06/01/16 13:40
140-5045-6	B35768	Air	05/25/16 08:54	06/01/16 13:40
140-5045-7	B35769	Air	05/25/16 08:45	06/01/16 13:40
140-5045-8	B35770	Air	05/25/16 08:43	06/01/16 13:40
140-5045-9	B35771	Air	05/25/16 08:36	06/01/16 13:40
140-5045-10	B35772	Air	05/25/16 08:26	06/01/16 13:40
140-5045-11	B35773	Air	05/25/16 08:24	06/01/16 13:40
140-5045-12	B35774	Air	05/25/16 08:15	06/01/16 13:40

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F12-025-299	PAGE 1 OF 1
COLLECTOR K.C. Patterson/CHPRC	COMPANY CONTACT SUMNER, LC	TELEPHONE NO. 376-3922	PROJECT COORDINATOR SUMNER, LC	PRICE CODE 9C AIR QUALITY ☐	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION 289-T, B2 GAC Unit, Bottom Sample Port	PROJECT DESIGNATION 200 West Pump & Treat - ETBs and BioTreatment VOC Sampling - Gaseous		SAF NO. F12-025		
ICE CHEST NO. FB-2	FIELD LOGBOOK NO. HNF-N-507 34	ACTUAL SAMPLE DEPTH (N/A)	COA 303700	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO TestAmerica Knoxville	OFFSITE PROPERTY NO. (N/A)		BILL OF LADING/AIR BILL NO. 7763 7081 4956		

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. NA

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	None
HOLDING TIME	30 Days
TYPE OF CONTAINER	Summa Canister
NO. OF CONTAINER(S)	1
VOLUME	6L
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B35763	GASEOUS	MAY 25 2016	0927	✓

Received @ ambient, 2 boxes
Fedex G,tr K# 7763 7079 3840
" 7081 4956
Custody seal intact, KW 6/1/16
12 cans, 12 gauges
SDG# W07215

140-5045 Chain of Custody

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM K.C. Patterson/CHPRC	DATE/TIME MAY 25 2016 1400	RECEIVED BY/STORED IN FEDEX	DATE/TIME
RELINQUISHED BY/REMOVED FROM Fedex 6/1/16 / 1340 - entered by TA-KW 6/1/16 1340	DATE/TIME	RECEIVED BY/STORED IN Ken Wilson KW 6/1/16	DATE/TIME 1340
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS
** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF. TRVL-16-128
(1) TO-15_VOA: COMMON {1,1,1-Trichloroethane, 1,1-Dichloroethene, 1,2-Dichloroethane, Acetone, Benzene, Carbon tetrachloride, Chloroform, Dibromochloromethane, Methylene chloride, Trichloroethene, Vinyl chloride};

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

PRINTED ON 4/12/2016 FSR ID = FSR31358 TRVL NUM = TRVL-16-128 A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F12-025-300	PAGE 1 OF 1
COLLECTOR K.C. Patterson/CHPRC	COMPANY CONTACT SUMNER, LC	TELEPHONE NO. 376-3922	PROJECT COORDINATOR SUMNER, LC	PRICE CODE 9C AIR QUALITY ☐	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION 289-T, B1 GAC Unit, Top Sample Port	PROJECT DESIGNATION 200 West Pump & Treat - ETBs and BioTreatment VOC Sampling - Gaseous		SAF NO. F12-025		
ICE CHEST NO. FB-2	FIELD LOGBOOK NO. HNF-N-50734	ACTUAL SAMPLE DEPTH (N/A)	COA 303700	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO TestAmerica Knoxville	OFFSITE PROPERTY NO. (N/A)		BILL OF LADING/AIR BILL NO. 7763 7081 4956		

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. NA

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	None
HOLDING TIME	30 Days
TYPE OF CONTAINER	Summa Canister
NO. OF CONTAINER(S)	1
VOLUME	6L
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SDG # W07215

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B35764	GASEOUS	MAY 25 2016	0924	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM K.C. Patterson/CHPRC	DATE/TIME MAY 25 2016 1400	RECEIVED BY/STORED IN FEDEX	DATE/TIME
RELINQUISHED BY/REMOVED FROM FedEx 6/1/16/ 1340 - entered by JA-KW 6/1/16 1340	DATE/TIME	RECEIVED BY/STORED IN Ken Wilson Ken W 6/1/16 1340	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS
** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF. TRVL-16-128
(1) TO-15_VOA: COMMON {1,1,1-Trichloroethane, 1,1-Dichloroethene, 1,2-Dichloroethane, Acetone, Benzene, Carbon tetrachloride, Chloroform, Dibromochloromethane, Methylene chloride, Trichloroethene, Vinyl chloride};

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

PRINTED ON 4/12/2016 FSR ID = FSR31355 TRVL NUM = TRVL-16-128 A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F12-025-301	PAGE 1 OF 1
COLLECTOR K.C. Patterson/CHPRC	COMPANY CONTACT SUMNER, LC	TELEPHONE NO. 376-3922	PROJECT COORDINATOR SUMNER, LC	PRICE CODE 9C AIR QUALITY ☐	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION 289-T, B1 GAC Unit, Bottom Sample Port	PROJECT DESIGNATION 200 West Pump & Treat - ETBs and BioTreatment VOC Sampling - Gaseous		SAF NO. F12-025		
ICE CHEST NO. FB-2	FIELD LOGBOOK NO. HNF-N-507 34	ACTUAL SAMPLE DEPTH (N/A)	COA 303700	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO TestAmerica Knoxville	OFFSITE PROPERTY NO. (N/A)		BILL OF LADING/AIR BILL NO. 7763 7081 4956		

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. NA

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	None
HOLDING TIME	30 Days
TYPE OF CONTAINER	Summa Canister
NO. OF CONTAINER(S)	1
VOLUME	6L
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SDG# W0725

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B35765	GASEOUS	MAY 25 2016	0922	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM K.C. Patterson/CHPRC	DATE/TIME MAY 25 2016 1400	RECEIVED BY/STORED IN FEDEX	DATE/TIME
RELINQUISHED BY/REMOVED FROM FedEx 6/1/16 1340 - entered by TA-KW 6/1/16 1340	DATE/TIME	RECEIVED BY/STORED IN Ken Wilson	DATE/TIME 6/1/16 1340
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS
** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF. TRVL-16-128
(1) TO-15_VOA: COMMON {1,1,1-Trichloroethane, 1,1-Dichloroethene, 1,2-Dichloroethane, Acetone, Benzene, Carbon tetrachloride, Chloroform, Dibromochloromethane, Methylene chloride, Trichloroethene, Vinyl chloride};

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

PRINTED ON 4/12/2016 FSR ID = FSR31356 TRVL NUM = TRVL-16-128 A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F12-025-302	PAGE 1 OF 1
COLLECTOR K.C. Patterson/CHPRC	COMPANY CONTACT SUMNER, LC	TELEPHONE NO. 376-3922	PROJECT COORDINATOR SUMNER, LC	PRICE CODE 9C AIR QUALITY ☐	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION 289-T, A1 GAC Unit, Top Sample Port	PROJECT DESIGNATION 200 West Pump & Treat - ETBs and BioTreatment VOC Sampling - Gaseous		SAF NO. F12-025		
ICE CHEST NO. FB-2	FIELD LOGBOOK NO. HNF-N-507 34	ACTUAL SAMPLE DEPTH (N/A)	COA 303700	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO TestAmerica Knoxville	OFFSITE PROPERTY NO. (N/A)		BILL OF LADING/AIR BILL NO. 7763 7081 4956		

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. NA

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	None
HOLDING TIME	30 Days
TYPE OF CONTAINER	Summa Canister
NO. OF CONTAINER(S)	1
VOLUME	6L
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SDG# W0721S

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B35766	GASEOUS	MAY 25 2016	0904	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM K.C. Patterson/CHPRC	DATE/TIME MAY 25 2016 1400	RECEIVED BY/STORED IN FEDEX	DATE/TIME
RELINQUISHED BY/REMOVED FROM Fedex 6/1/16 1340 - entered by TA-KW 6/1/16 1340	DATE/TIME	RECEIVED BY/STORED IN Ken Wilson 6/1/16 1340	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS
** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF. TRVL-16-128
(1) TO-15_VOA: COMMON {1,1,1-Trichloroethane, 1,1-Dichloroethene, 1,2-Dichloroethane, Acetone, Benzene, Carbon tetrachloride, Chloroform, Dibromochloromethane, Methylene chloride, Trichloroethene, Vinyl chloride};

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

PRINTED ON 4/12/2016 FSR ID = FSR31357 TRVL NUM = TRVL-16-128 A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F12-025-303	PAGE 1 OF 1
COLLECTOR K.C. Patterson/CHPRC	**COMPANY CONTACT** SUMNER, LC	**TELEPHONE NO.** 376-3922	**PROJECT COORDINATOR** SUMNER, LC	**PRICE CODE** 9C	**DATA TURNAROUND**
SAMPLING LOCATION 289-T, A1 GAC Unit, Bottom Sample Port	**PROJECT DESIGNATION** 200 West Pump & Treat - ETBs and BioTreatment VOC Sampling - Gaseous		**SAF NO.** F12-025	**AIR QUALITY** ☐	15 Days / 15 Days
ICE CHEST NO. FB-2	**FIELD LOGBOOK NO.** HNF-N-507 34	**ACTUAL SAMPLE DEPTH** (N/A)	**COA** 303700	**METHOD OF SHIPMENT** FEDERAL EXPRESS	**ORIGINAL**
SHIPPED TO TestAmerica Knoxville	**OFFSITE PROPERTY NO.** (N/A)		**BILL OF LADING/AIR BILL NO.** 7763 7081 4956		

SDG # W0 72F

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. NA

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	None
HOLDING TIME	30 Days
TYPE OF CONTAINER	Summa Canister
NO. OF CONTAINER(S)	1
VOLUME	6L
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B35767	GASEOUS	MAY 25 2016	0902	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM K.C. Patterson/CHPRC	DATE/TIME MAY 25 2016 1400	RECEIVED BY/STORED IN FEDEX	DATE/TIME
RELINQUISHED BY/REMOVED FROM Fedex 6/1/16/1340 - entered by TA-KW 6/1/16 1340	DATE/TIME	RECEIVED BY/STORED IN Ken Wilson 6/1/16 1340	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS
** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF. TRVL-16-128
(1) TO-15_VOA: COMMON {1,1,1-Trichloroethane, 1,1-Dichloroethene, 1,2-Dichloroethane, Acetone, Benzene, Carbon tetrachloride, Chloroform, Dibromochloromethane, Methylene chloride, Trichloroethene, Vinyl chloride};

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

PRINTED ON 4/12/2016 FSR ID = FSR31359 TRVL NUM = TRVL-16-128 A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F12-025-304	PAGE 1 OF 1
COLLECTOR K.C. Patterson/CHPRC	COMPANY CONTACT SUMNER, LC	TELEPHONE NO. 376-3922	PROJECT COORDINATOR SUMNER, LC	PRICE CODE 9C AIR QUALITY ☐	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION 289-T, A2 GAC Unit, Bottom Sample Port	PROJECT DESIGNATION 200 West Pump & Treat - ETBs and BioTreatment VOC Sampling - Gaseous		SAF NO. F12-025		
ICE CHEST NO. FB-2	FIELD LOGBOOK NO. HNF-N-50734	ACTUAL SAMPLE DEPTH (N/A)	COA 303700	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO TestAmerica Knoxville	OFFSITE PROPERTY NO. (N/A)		BILL OF LADING/AIR BILL NO. 7763 7081 4956		

SOG# WO7215

MATRIX*	POSSIBLE SAMPLE HAZARDS/ REMARKS	PRESERVATION	None
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 transportation per 49 CFR/IATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1. NA	HOLDING TIME	30 Days
		TYPE OF CONTAINER	Summa Canister
		NO. OF CONTAINER(S)	1
		VOLUME	6L
	SPECIAL HANDLING AND/OR STORAGE	SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B35768	GASEOUS	MAY 25 2016	0854	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM K.C. Patterson/CHPRC	DATE/TIME MAY 25 2016 1440	RECEIVED BY/STORED IN FEDEX	DATE/TIME
RELINQUISHED BY/REMOVED FROM Fedex 6/1/16 / 1340 - entered by TA-KW 6/1/16 1340	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF. TRVL-16-128
(1) TO-15_VOA: COMMON {1,1,1-Trichloroethane, 1,1-Dichloroethene, 1,2-Dichloroethane, Acetone, Benzene, Carbon tetrachloride, Chloroform, Dibromochloromethane, Methylene chloride, Trichloroethene, Vinyl chloride};

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

PRINTED ON 4/12/2016 FSR ID = FSR31360 TRVL NUM = TRVL-16-128 A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F12-025-305	PAGE 1 OF 1
COLLECTOR K.C. Patterson/CHPRC	COMPANY CONTACT SUMNER, LC	TELEPHONE NO. 376-3922	PROJECT COORDINATOR SUMNER, LC	PRICE CODE 9C AIR QUALITY ☐	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION 289-T, D1 GAC Unit, Top Sample Port	PROJECT DESIGNATION 200 West Pump & Treat - ETBs and BioTreatment VOC Sampling - Gaseous		SAF NO. F12-025		
ICE CHEST NO. FB-1	FIELD LOGBOOK NO. HNF-N-507 34	ACTUAL SAMPLE DEPTH (N/A)	COA 303700	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO TestAmerica Knoxville	OFFSITE PROPERTY NO. (N/A)		BILL OF LADING/AIR BILL NO. 7763 7079 3840		

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. NA

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	None
HOLDING TIME	30 Days
TYPE OF CONTAINER	Summa Canister
NO. OF CONTAINER(S)	1
VOLUME	6L
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SDG# W072N

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B35769	GASEOUS	MAY 25 2016	0845	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM K.C. Patterson/CHPRC	DATE/TIME MAY 25 2016 1400	RECEIVED BY/STORED IN FEDEX	DATE/TIME
RELINQUISHED BY/REMOVED FROM FedEx 6/1/16 1340 - entered by TA-KW 6/1/16 1340	DATE/TIME	RECEIVED BY/STORED IN Ken Wilson 6/1/16	DATE/TIME 1340
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS
** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF. TRVL-16-128
(1) TO-15_VOA: COMMON {1,1,1-Trichloroethane, 1,1-Dichloroethene, 1,2-Dichloroethane, Acetone, Benzene, Carbon tetrachloride, Chloroform, Dibromochloromethane, Methylene chloride, Trichloroethene, Vinyl chloride};

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

PRINTED ON 4/12/2016 FSR ID = FSR31361 TRVL NUM = TRVL-16-128 A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F12-025-306	PAGE 1 OF 1
COLLECTOR K.C. Patterson/CHPRC	COMPANY CONTACT SUMNER, LC	TELEPHONE NO. 376-3922	PROJECT COORDINATOR SUMNER, LC	PRICE CODE 9C AIR QUALITY ☐	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION 289-T, D1 GAC Unit, Bottom Sample Port	PROJECT DESIGNATION 200 West Pump & Treat - ETBs and BioTreatment VOC Sampling - Gaseous		SAF NO. F12-025		
ICE CHEST NO. FB-1	FIELD LOGBOOK NO. HNF-N-507 34	ACTUAL SAMPLE DEPTH (N/A)	COA 303700	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO TestAmerica Knoxville	OFFSITE PROPERTY NO. (N/A)		BILL OF LADING/AIR BILL NO. 7763 7079 3840		

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. NA

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	None
HOLDING TIME	30 Days
TYPE OF CONTAINER	Summa Canister
NO. OF CONTAINER(S)	1
VOLUME	6L
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

KW 6/1/16
SDG#
SDG# W072H

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B35770	GASEOUS	MAY 25 2016	0843	

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM K.C. Patterson/CHPRC	DATE/TIME MAY 25 2016 1400	RECEIVED BY/STORED IN FEDEX	DATE/TIME
RELINQUISHED BY/REMOVED FROM Fedex 6/1/16/1340 - entered by TA-KW 6/1/16 1340	DATE/TIME	RECEIVED BY/STORED IN Ken Wilson Ken 6/1/16 1340	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS
** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF. TRVL-16-128
(1) TO-15_VOA: COMMON {1,1,1-Trichloroethane, 1,1-Dichloroethene, 1,2-Dichloroethane, Acetone, Benzene, Carbon tetrachloride, Chloroform, Dibromochloromethane, Methylene chloride, Trichloroethene, Vinyl chloride};

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

PRINTED ON 4/12/2016 FSR ID = FSR31362 TRVL NUM = TRVL-16-128 A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F12-025-307	PAGE 1 OF 1
COLLECTOR K.C. Patterson/CHPRC	COMPANY CONTACT SUMNER, LC	TELEPHONE NO. 376-3922	PROJECT COORDINATOR SUMNER, LC	PRICE CODE 9C AIR QUALITY ☐	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION 289-T, D2 GAC Unit, Bottom Sample Port	PROJECT DESIGNATION 200 West Pump & Treat - ETBs and BioTreatment VOC Sampling - Gaseous		SAF NO. F12-025		
ICE CHEST NO. FB-1	FIELD LOGBOOK NO. HNF-N-50734	ACTUAL SAMPLE DEPTH (N/A)	COA 303700	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO TestAmerica Knoxville	OFFSITE PROPERTY NO. (N/A)		BILL OF LADING/AIR BILL NO. 7763 7079 3840		

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. NA

PRESERVATION	None
HOLDING TIME	30 Days
TYPE OF CONTAINER	Summa Canister
NO. OF CONTAINER(S)	1
VOLUME	6L
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SPECIAL HANDLING AND/OR STORAGE

SDG# W07215

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B35771	GASEOUS	MAY 25 2016	0836	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM K.C. Patterson/CHPRC	DATE/TIME MAY 25 2016 1400	RECEIVED BY/STORED IN FEDEX	DATE/TIME ~~MAY 25 2016~~ 6 5.25.16
RELINQUISHED BY/REMOVED FROM Fedex 6/1/16 / 1340 - entered by TA-KW	DATE/TIME 6/1/16 1340	RECEIVED BY/STORED IN Ken Wilson	DATE/TIME 6/1/16 1340
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS
** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF. TRVL-16-128
(1) TO-15_VOA: COMMON {1,1,1-Trichloroethane, 1,1-Dichloroethene, 1,2-Dichloroethane, Acetone, Benzene, Carbon tetrachloride, Chloroform, Dibromochloromethane, Methylene chloride, Trichloroethene, Vinyl chloride};

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

PRINTED ON 4/12/2016 FSR ID = FSR31363 TRVL NUM = TRVL-16-128 A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F12-025-308	PAGE 1 OF 1
COLLECTOR K.C. Patterson/CHPRC	COMPANY CONTACT SUMNER, LC	TELEPHONE NO. 376-3922	PROJECT COORDINATOR SUMNER, LC	PRICE CODE 9C AIR QUALITY ☐	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION 289-T, D3 GAC Unit, Top Sample Port	PROJECT DESIGNATION 200 West Pump & Treat - ETBs and BioTreatment VOC Sampling - Gaseous		SAF NO. F12-025		
ICE CHEST NO. FB-1	FIELD LOGBOOK NO. HNF-N-507 34	ACTUAL SAMPLE DEPTH (N/A)	COA 303700	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO TestAmerica Knoxville	OFFSITE PROPERTY NO. (N/A)		BILL OF LADING/AIR BILL NO. 7763 7079 3840		

SDG# W0725

MATRIX*	POSSIBLE SAMPLE HAZARDS/ REMARKS	PRESERVATION	None
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 transportation per 49 CFR/IATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1. NA	HOLDING TIME	30 Days
		TYPE OF CONTAINER	Summa Canister
		NO. OF CONTAINER(S)	1
		VOLUME	6L
	SPECIAL HANDLING AND/OR STORAGE	SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B35772	GASEOUS	MAY 25 2016	0826	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM K.C. Patterson/CHPRC	DATE/TIME MAY 25 2016 1400	RECEIVED BY/STORED IN FEDEX	DATE/TIME jbb 5.25.16 ~~MAY 25 2016~~
RELINQUISHED BY/REMOVED FROM FedEx 6/1/16/1340 - entered by JA-KW 6/1/16 1340	DATE/TIME	RECEIVED BY/STORED IN Ken Wilson KW	DATE/TIME 6/1/16 1340
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF. TRVL-16-128
(1) TO-15_VOA: COMMON {1,1,1-Trichloroethane, 1,1-Dichloroethene, 1,2-Dichloroethane, Acetone, Benzene, Carbon tetrachloride, Chloroform, Dibromochloromethane, Methylene chloride, Trichloroethene, Vinyl chloride};

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

PRINTED ON 4/12/2016 FSR ID = FSR31364 TRVL NUM = TRVL-16-128 A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F12-025-309	PAGE 1 OF 1
COLLECTOR K.C. Patterson/CHPRC	COMPANY CONTACT SUMNER, LC	TELEPHONE NO. 376-3922	PROJECT COORDINATOR SUMNER, LC	PRICE CODE 9C AIR QUALITY ☐	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION 289-T, D3 GAC Unit, Bottom Sample Port	PROJECT DESIGNATION 200 West Pump & Treat - ETBs and BioTreatment VOC Sampling - Gaseous		SAF NO. F12-025		
ICE CHEST NO. FB-1	FIELD LOGBOOK NO. HNF-N-507 34	ACTUAL SAMPLE DEPTH (N/A)	COA 303700	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO TestAmerica Knoxville	OFFSITE PROPERTY NO. (N/A)		BILL OF LADING/AIR BILL NO. 7763 7079 3840		

SDG#W0721S

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. NA

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	None
HOLDING TIME	30 Days
TYPE OF CONTAINER	Summa Canister
NO. OF CONTAINER(S)	1
VOLUME	6L
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B35773	GASEOUS	MAY 25 2016	0824	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM K.C. Patterson/CHPRC	DATE/TIME MAY 25 2016 1400	RECEIVED BY/STORED IN FEDEX	DATE/TIME
RELINQUISHED BY/REMOVED FROM FedEx 6/1/16 /1340 - entered by JA-KW 6/1/16 1340	DATE/TIME	RECEIVED BY/STORED IN Ken Wilson	DATE/TIME 6/1/16 1340
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS
** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF. TRVL-16-128
(1) TO-15_VOA: COMMON {1,1,1-Trichloroethane, 1,1-Dichloroethene, 1,2-Dichloroethane, Acetone, Benzene, Carbon tetrachloride, Chloroform, Dibromochloromethane, Methylene chloride, Trichloroethene, Vinyl chloride};

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

PRINTED ON 4/12/2016 FSR ID = FSR31365 TRVL NUM = TRVL-16-128 A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F12-025-310	PAGE 1 OF 1
COLLECTOR K.C. Patterson/CHPRC	COMPANY CONTACT SUMNER, LC	TELEPHONE NO. 376-3922	PROJECT COORDINATOR SUMNER, LC	PRICE CODE 9C AIR QUALITY ☐	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION 289-T, D4 GAC Unit, Bottom Sample Port	PROJECT DESIGNATION 200 West Pump & Treat - ETBs and BioTreatment VOC Sampling - Gaseous		SAF NO. F12-025		
ICE CHEST NO. FB-1	FIELD LOGBOOK NO. HNF-N-50734	ACTUAL SAMPLE DEPTH (N/A)	COA 303700	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO TestAmerica Knoxville	OFFSITE PROPERTY NO. (N/A)		BILL OF LADING/AIR BILL NO. 7763 7079 3840		

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. NA

PRESERVATION	None
HOLDING TIME	30 Days
TYPE OF CONTAINER	Summa Canister
NO. OF CONTAINER(S)	1
VOLUME	6L
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SPECIAL HANDLING AND/OR STORAGE

SDG# W0725

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B35774	GASEOUS	MAY 25 2016	0815	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM K.C. Patterson/CHPRC	DATE/TIME MAY 25 2016 1400	RECEIVED BY/STORED IN FEDEX	DATE/TIME
RELINQUISHED BY/REMOVED FROM Fedex 6/1/16/1340 - entered by TA-KW 6/1/16 1340	DATE/TIME	RECEIVED BY/STORED IN Ken Wilson	DATE/TIME 6/1/16 1340
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS
** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF. TRVL-16-128
(1) TO-15_VOA: COMMON {1,1,1-Trichloroethane, 1,1-Dichloroethene, 1,2-Dichloroethane, Acetone, Benzene, Carbon tetrachloride, Chloroform, Dibromochloromethane, Methylene chloride, Trichloroethene, Vinyl chloride};

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

PRINTED ON 4/12/2016 FSR ID = FSR31366 TRVL NUM = TRVL-16-128 A-6003-618 (REV 2)

Login Sample Receipt Checklist

Client: CH2M Hill Plateau Remediation Company

Job Number: 140-5045-1
SDG Number: W07215

Login Number: 5045
List Number: 1
Creator: Wilson, Ken

List Source: TestAmerica Knoxville

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
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.	N/A	
Cooler Temperature is acceptable.	N/A	
Cooler Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	False	COC not relinquished.
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.	N/A	This is checked in the lab.
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	N/A	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	N/A	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	N/A	
Residual Chlorine Checked.	N/A	

TestAmerica Knoxville - Air Canister Initial Pressure Check

Gauge ID: G5
Date: 6/3/2016

Analyst	Sample ID	Asset #	Cleaning Job	Cert	Size (L)	Pressure @ Receipt (-in Hg or +psig)	Time	Comments
DDF	140-5045-a-1	09942	4834	B	6	0	1005	
DDF	140-5045-a-2	10381	4826	B	6	0	1006	
DDF	140-5045-a-3	10133	4826	B	6	0	1007	
DDF	140-5045-a-4	09613	4826	B	6	0	1008	
DDF	140-5045-a-5	10568	4834	B	6	0	1009	
DDF	140-5045-a-6	09777	4826	B	6	0	1010	
DDF	140-5045-a-7	10826	4834	B	6	-1.2	1011	
DDF	140-5045-a-8	09780	4834	B	6	0	1012	
DDF	140-5045-a-9	09872	4834	B	6	0	1013	
DDF	140-5045-a-10	10247	4834	B	6	0	1014	
DDF	140-5045-a-11	11265	4834	B	6	0	1015	
DDF	140-5045-a-12	11195	4834	B	6	0	1016	