

Appendix H

Building 96 SVE Pilot Test Report

BROOKHAVEN NATIONAL LABORATORY OU III BUILDING 96 AREA UPTON, NEW YORK

SOIL VAPOR EXTRACTION PILOT TEST REPORT OU III BUILDING 96 AREA TVOC PLUME

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PWGC Project Number: BNL1801

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1.0 INTRODUCTION

Brookhaven Science Associates, on behalf of Brookhaven National Laboratory (BNL), has contracted with P.W. Grosser Consulting, Inc. (PWGC) to prepare this Soil Vapor Extraction (SVE) Pilot Test Report following implementation of the SVE Pilot Test Work Plan dated May 2018. The intent of this report is to determine the feasibility for implementation of SVE as a remedial option for the volatile organic compound (VOC) plume near Building 96.

2.0 BACKGROUND

In February 2001, a groundwater pump and treat system began operation to remediate a plume of chlorinated VOCs (primarily tetrachloroethylene) identified downgradient (south) of Building 96. In 2010, soils containing VOCs were excavated from the source area, around Monitoring Well 085-379. However, elevated VOC concentrations, up to 280 µg/L total VOCs (TVOCs, BNL 2018), have persisted in this well.

An SVE pilot test was implemented June 25, 2018 through June 29, 2018 to determine if SVE would be an effective means of removing the VOCs from both the unsaturated soil and the shallow groundwater. Additional VOC sampling during vapor extraction was performed on December 5 through December 17, 2018.

2.1 Site Description

Building 96 is in the southeast corner of the main BNL campus. The topography is generally flat with an elevation of approximately 62 feet above mean sea level. The monitoring wells in this area are accessible by both vehicle and pedestrian, as the area has minimal vegetation, is adjacent to Rowland Street and a wooded area.

2.2 Geology and Hydrogeology

The geologic setting of Long Island is well documented and consists of crystalline bedrock composed of schist and gneiss overlain by layers of unconsolidated deposits. These unconsolidated deposits are approximately 1,300 feet thick beneath BNL, and from bedrock to land surface consist of: the Raritan Formation Lloyd sand (aquifer) which is confined by the Raritan Clay Member; the Magothy Formation (aquifer); and the Upper Glacial Aquifer. The

Upper Glacial Aquifer is the water-table aquifer at this location and is comprised of medium to coarse sand and gravel with occasional thin lenses of fine sand and brown clay. This aquifer extends from the land surface to the top of the Magothy and, therefore, is hydraulically connected to the Magothy Aquifer.

The unit of interest for this SVE pilot test is the Upper Glacial deposits. Based on the Draft *BNL 2017 Site Environmental Report Volume II, Groundwater Status Report* (BNL 2018), the areal and vertical extents of the Building 96 VOC plume have been delineated within the Upper Glacial aquifer (Figures 1 and 2). A cross-section of the area indicates that the unsaturated Upper Glacial deposits consist primarily of very fine sand and/or silt where the SVE pilot test was performed. As the plume moves south within the aquifer it increases in depth and shows preferential flow within a layer of coarse sand that occurs at approximately 40 feet below ground surface (bgs).

Existing monitoring wells in the area indicated that the depth to the water table was approximately 22 to 23 feet bgs in June 2018 and was approximately 18 to 19 feet bgs in December 2018. Both regional and local groundwater flow is generally toward the south. Please refer to Figure 2 for a cross sectional view of the geology and hydrogeology within the project area.

2.3 Contamination Extent and Characteristics

The areal extent of the VOC plume that still exceeds the groundwater standard of 5 µg/L for TVOCs is shown in Sheet 1, as per the Draft *BNL 2017 Site Environmental Report Volume II, Groundwater Status Report* (BNL 2018). The groundwater plume is approximately 100 feet wide (west to east), 500 feet long (north to south), and varies in depth from 27 feet bgs in the north (source well 085-379) to 55 feet bgs in the south (monitoring well 095-166). TVOC concentrations currently range up to 280 µg/L south of monitoring well 095-159, and primarily consist of tetrachloroethylene (PCE) with minor concentrations of PCE's degradation compounds. Please refer to Figures 1 and 2 for extents of existing TVOC plume.

The existing OU III Building 96 Treatment System consists of three recirculation wells and one pumping well with air stripping and vapor-phase carbon treatment. Pumping well RTW-1 is effectively capturing the plume. Since elevated VOC concentrations have persisted in monitoring well 085-379 following source soil excavation and removal in 2010, operation of the system has

continued in accordance with the OU III ROD. Per the ROD, the cleanup goal for this plume is to meet drinking water standards by 2030.

3.0 PILOT TEST DESIGN

The SVE Pilot Test was implemented to determine 1) if sufficient contaminant mass is recoverable by SVE, 2) the maximum effective radius of influence in the subject area, 3) the most efficient extraction flow rate, and 4) the effect of SVE on soil vapor concentrations over time. The pilot test consisted of two stages. The first stage was a “step test” of the blower system to determine the range of vacuum (on extraction well 085-359) to which the soil gas responds. The second stage consisted of a vacuum response test which measured the soil gas response to three different flow rates and vacuums selected based on the step test results.

For testing, a temporary SVE blower system was installed on an existing 4” PVC groundwater monitoring well, 085-359 (screened from 15 to 25 feet bgs), located south of the former source soil excavation area. The 4-inch diameter monitoring well has a 10-foot long screen zone from 15 to 25 feet bgs that straddles the water table (approximately 22 to 23 feet bgs) and therefore screens the unsaturated soils and vadose zone in addition to the aquifer. In order to measure vacuum field extensions (radius of influence) vacuum monitoring points were installed at varying distances and elevations from monitoring well 085-359, as shown in Figure 1.

The temporary blower consisted of a Rotron EN454W58ML which provided design flow rates of 0 – 120 CFM at vacuums of 0 - 60 inches of water column (“WC”). Blower appurtenances included a moisture separator, flow meter, vacuum gauge, inline particulate filter, vacuum relief, dilution filter, and upstream valve. The EN454 was plumbed to existing monitoring well 085-359 utilizing solid PVC piping and powered utilizing a local electric source. Details of the temporary blower system are shown on Figure 2.

Sixteen new SVE monitoring points were installed as shown on Figures 1 and 2. Ten monitoring points were designed to screen the unsaturated, vadose zone and terminate approximately 3 to 5 feet above the water table (SVE-01 through SVE-10), five monitoring points were designed to screen the vadose zone approximately 8-10 feet above the water table (SVE-1S, SVE-3S, SVE-5S, SVE-7S, SVE-9S), and one was designed to be screened at the water table (SVE-11).

The range and location of the vacuum monitoring points were installed to determine the radius of influence in the southern and western directions at the shallow and deep monitoring points.

4.0 SVE PILOT TEST RESULTS

Prior to step testing, the first TVOC sample was collected following the purging of the extraction well for two minutes at a flow rate of 65 CFM. Sample results of this “first draw” sample are summarized in Section 5.3 Laboratory Analytical Results.

4.1 Step Test Results

The step test was implemented to determine the relationship between the soil vacuum and flow rate from the extraction well (085-359) and the response limits of the subject soils. The relationship was used to determine the appropriate range of flow rate and vacuum to apply during the SVE vacuum response test. This was achieved by varying the flow rate and vacuum of the blower utilizing a PVC ball valve.

Step testing indicated that the Vacuum Response Test’s three operational points should be:

- at the lowest measurable flow of 35 CFM with a corresponding vacuum of 4 - 6 “WC,
- at a mid-range flow of 50 CFM with a corresponding vacuum of 30 – 32 “WC, and
- at the blower’s maximum flow and vacuum of 65 CFM with a corresponding vacuum of 36 “WC.

During step testing, VOCs were not detected in the soil vapor airstream utilizing a handheld photo-ionization detector (PID).

Field measurements during the step testing have been tabulated in Table 1.

4.2 Vacuum Response Test Results

The vacuum response tests were performed to determine the maximum effective radius of influence (ROI) in the subject area, contaminant mass removal at different flow rates and vacuums, and the most efficient extraction flow rate. The SVE Vacuum Response Test was performed following the SVE Step Test and was performed by applying a range of flow rates and vacuums to the temporary SVE extraction well 085-359, utilizing the blower package.

During the vacuum response testing, data was collected approximately every fifteen minutes. Parameters recorded include vacuum and flow at the extraction well, vacuum at each monitoring point, PID readings from the soil vapor air stream, and temperature of the soil vapor effluent. Measurements during vacuum response testing are summarized in Tables 2-4. Due to instrumental precision, the readings of vacuum at the blower are accurate to +/-1.0 "WC.

As shown in Table 2, during Vacuum Response Test 1 with a flow rate of 35 CFM and a vacuum of 6 "WC, final vacuum monitoring points to the south measured vacuums ranging from 4.80 "WC to 1.36"WC in the deep monitoring points and 0.39 "WC to 1.62 "WC in the shallow monitoring points over distances of 5 feet to 40 feet. Final vacuums measured in the western vacuum monitoring points ranged from 6.06 "WC to 0.00 "WC in the deep monitoring points and 0.13 "WC to 0.00 "WC at distances of 5 feet to 40 feet from the extraction well. The vacuum measured at the water table in SVE-11 was 0.15 "WC.

As shown in Table 3, during Vacuum Response Test 2 with a flow rate of 50 CFM and a vacuum of 32 "WC, final vacuum monitoring points to the south measured vacuums ranging from 14.26 "WC to 4.17 "WC in the deep monitoring points and 1.15 "WC to 5.02 "WC in the shallow monitoring points over distances of 5 feet to 40 feet. Vacuums measured in the western vacuum monitoring points ranged from 17.91 "WC to 0.00 "WC in the deep monitoring points and 0.36 "WC to 0.00 "WC at distances of 5 feet to 40 feet from the extraction well. The vacuum measured at the water table in SVE-11 was 0.32 "WC.

As shown in Table 4, during Vacuum Response Test 3 with a flow rate of 65 CFM and a vacuum of 36 "WC vacuum monitoring points to the south measured final vacuums ranging from 15.49 "WC to 4.48 "WC in the deep monitoring points and 1.24 "WC to 5.40 "WC in the shallow monitoring points over distances of 5 feet to 40 feet. Final vacuums measured in the western vacuum monitoring points ranged from 19.57 "WC to 0.01 "WC in the deep monitoring points and 0.39 "WC to 0.02 "WC at distances of 5 feet to 40 feet from the extraction well. The final vacuum measured at the water table in SVE-11 was 0.17 "WC.

While vacuum and flow rate at the blower increased from Vacuum Response Test 2 to Vacuum Response Test 3, measured vacuum at SVE-11 decreased. While no testing was conducted to

verify, potential water table fluctuations due to mounding from the Pilot Test could have reduced the vacuum at this point.

After the vacuum response testing was complete, the blower was operated continuously for approximately 2 days. Initial flow and vacuum were 65 CFM and 36 "WC. After approximately 14 hours of operation, the flow rate dropped to 45 CFM and vacuum decreased to 30 "WC. While not verified, the decrease in flow and vacuum could be the result of water table mounding and subsequent headlosses. After approximately 2 days of operation, parameters were measured and a sample was collected for TO-15 VOC analysis. The blower system was shut down at 09:45 on Friday June 29, 2018 and the SVE Pilot Test ceased.

A handheld PID with an accuracy of 0.0 ppmv (provided with an 11.7 eV lamp) was utilized to measure TVOCs from the soil vapor stream at the vent location of the blower. The PID was calibrated a minimum of once per day utilizing 100ppm isobutylene as a span gas. Measurements were collected during step testing, vacuum response testing, and continuous operation. During all phases of the testing, no TVOCs were detected in the air-stream utilizing the handheld PID.

4.3 Initial Laboratory Analytical Results - VOCs

In order to evaluate the effectiveness of SVE as a remedial option, five soil gas samples were initially collected during the SVE Pilot Study in June 2018. One sample was collected as a first draw prior to response testing, three samples were collected during Vacuum Response Testing, and one sample was collected after the system was operated continuously for approximately two days to evaluate expected long-term soil vapor concentrations.

The first draw sample was collected prior to step testing and after the extraction well was developed for two minutes at a flow rate of 65 CFM. A sample was collected during each of the three Vacuum Response Tests once parameters stabilized. A final sample was collected on 6/29/18 after the temporary SVE blower was operated continuously for a total of two consecutive days.

Soil vapor samples were collected from the blower sampling port on the extraction well (085-359) and as shown of Figure 2. Samples were collected in summa canisters provided by TestAmerica

of South Burlington, Vermont (TestAmerica), shipped under proper chain-of-custody procedures, and analyzed for VOCs by USEPA Method TO-15.

Analytical results have been tabulated and shown on Table 7. The laboratory analytical report are attached in Appendix D for reference. VOCs observed in the sampling include tetrachloroethene (PCE), 1,1,1-trichloroethane, acetone, and methyl ethyl ketone. Results from the five soil gas samples collected indicate that concentrations of TVOCs in the soil gas ranged from 4.4 ppb to 3,428 during collection.

4.4 Supplemental VOC Sampling and Analytical Results

VOC analytical results of the June 2018 sampling indicated significant, yet inconsistent data. Based on this, an additional nine soil vapor samples were collected from December 5 through December 17, 2018. The additional data was collected in order to more accurately calculate expected TVOC recovery rates for an SVE system. For this supplemental sampling, the same blower and configuration was utilized for an extended period (13 days) and a sample was collected on nine of those days (nine additional samples). The data confirmed the presence of PCE (ranging between 932 $\mu\text{g}/\text{m}^3$ and 2,352 $\mu\text{g}/\text{m}^3$) and 1,1,1-trichloroethane (12 $\mu\text{g}/\text{m}^3$ to 52 $\mu\text{g}/\text{m}^3$).

5.0 DATA EVALUATION

5.1 Radius of Influence

Based on vacuum data collected at the monitoring points, the ROI was estimated. A minimum vacuum of 0.1 "WC was considered an effective ROI due to the magnitude of vacuum required to break molecular forces binding VOCs to soils. Different ROIs were determined based on field measurements and data extrapolations. Separate ROIs were calculated due to the heterogeneity of local geology of the area where the SVE test occurred. ROIs calculated include a western and southern ROI of the vadose zone 3-5 feet above the groundwater table and a western and southern ROI 8-10 feet above the groundwater table.

Soil vacuum measurements observed during the pilot test have been tabulated and are shown in Data Tables 1-6 and described in Section 5 SVE Pilot Test Results. Graphs 1-3 have been

compiled and show plotted data, logarithmic trendlines, and resulting ROIs. Calculations for ROI are presented in Appendix A for reference.

During Vacuum Response Test 1, the blower was operating at a vacuum and flow rate of 6 "WC and 35 CFM respectively. Based on field measurements, fitting the data to logarithmic trendlines, and extrapolating data as necessary, ROIs were summarized as shown below:

- Southern ROI (3'-4.75' above groundwater table): 75' (Orange graphed data)
- Southern ROI (8'-9.75' above groundwater table): Min. 30' (Yellow graphed data)
- Western ROI (3'-4.75' above groundwater table): 28' (Blue graphed data)
- Western ROI (8'-9.75' above groundwater table): 6' (Grey graphed data)

During Vacuum Response Test 2 the blower was operating at a vacuum and flow rate of 32 "WC and 50 CFM respectively. Based on field measurements, fitting the data to logarithmic trendlines, and extrapolating data as necessary, ROIs were summarized as shown below:

- Southern ROI (3'-4.75' above groundwater table): 81' (Orange graphed data)
- Southern ROI (8'-9.75' above groundwater table): Min. 30' (Yellow graphed data)
- Western ROI (3'-4.75' above groundwater table): 29' (Blue graphed data)
- Western ROI (8'-9.75' above groundwater table): 20' (Grey graphed data)

During Vacuum Response Test 3 the blower was operating at a vacuum and flow rate of 36 "WC and 65 CFM respectively. Based on field measurements, fitting the data to logarithmic trendlines, and extrapolating data as necessary, ROIs were summarized as shown below:

- Southern ROI (3'-4.75' above groundwater table): 86' (Orange graphed data)
- Southern ROI (8'-9.75' above groundwater table): Min. 30' (Yellow graphed data)
- Western ROI (3'-4.75' above groundwater table): 29' (Blue graphed data)
- Western ROI (8'-9.75' above groundwater table): 21' (Grey graphed data)

No trendline was determined for the Southern ROIs (8'-9.75') in all three tests due to data which indicated higher vacuums at further vacuum monitoring points. This could occur due to geology heterogeneity, or inefficient installation of vacuum monitoring point (SVE-7S). An expected minimum ROI of 30' was measured at SVE-9S.

Vacuum measurements from SVE-11 were consistently higher than the vacuum measured at the adjacent vacuum monitoring points SVE-05 and SVE-5S. Monitoring points SVE-11, SVE-05, and SVE-5S were installed 40' from the extraction well to the west. SVE-11 was screened at the water table, whereas SVE-05 was screened 3'-4.75' above the water table, and SVE-5S was screened 8'-9.75' above the water table. Vacuum at SVE-11 was consistently higher than the vacuum at SVE-05 and SVE-5S. This indicates that at equal distances from the extraction well, vacuum at the water table is expected to be higher than the vacuums measured at higher elevations. Thus, the resulting ROI at the water table could be expected to be greater than ROI for higher elevations.

5.2 Soil Permeability

The intrinsic permeability of the soils within the ROI was calculated utilizing the collected field data. Intrinsic permeability is a parameter that can be utilized as reference to determine the effectiveness of an SVE system for remediating a specific site. It will also be utilized in blower selection if a full scale SVE design is conducted.

Intrinsic permeability was calculated using Equation E-5 of the United States Environmental Protection Agency's (USEPA) Soil Vapor Extraction Technology Reference Handbook as shown below:

$$\frac{Q}{H} = \pi \frac{k}{\mu} P_W \frac{[1 - (\frac{P_{atm}}{P_W})^2]}{\ln \frac{R_W}{R_I}}$$

Where:

k = soil permeability to air flow [cm²]

μ = viscosity of air = 1.8 x 10⁻⁴ g/cm·s

P_W = absolute pressure at extraction well [g/cm·s]

P_{atm} = absolute ambient pressure ~ 1.01 x 10⁶ g/cm·s

R_W = radius of vapor extraction well [cm]

R_I = radius of influence of vapor extraction well [cm]

Intrinsic permeability was calculated utilizing the measured values collected on 6/29/18 after the blower system was operated for approximately two days. Data is shown in Table 6. Calculations of intrinsic permeability are presented in Appendix B and indicate that the value of intrinsic permeability of the local soils is $1.54 \times 10^{-7} \text{ cm}^2$.

Intrinsic permeability of soils is greater than $1 \times 10^{-8} \text{ cm}^2$ SVE is generally effective “USEPA 2017”. Based upon the calculated intrinsic permeability, soil conditions at the subject site are favorable for the effectiveness of an SVE system.

5.3 TVOC Recovery

TVOC recovery rates for the SVE Pilot Study were evaluated utilizing analytical results and system flow rate. The results can be used to determine if SVE would be an effective remedial method, to determine what contaminant mass removal would be expected over time, and to help select the most effective operational parameters for a full-scale SVE system.

TVOC recovery rates (i.e., contaminant mass extraction rates) were calculated using the following formula:

$$\begin{aligned}
 & TVOC \text{ Recovery } \left(\frac{lbs}{year} \right) \\
 & = TVOC \text{ Conc. } \left(\frac{ug}{m^3} \right) \times Flow \text{ Rate } (cfm) \times \left(\frac{1 m^3}{35.3147 ft^3} \right) \times \left(\frac{1 pound}{453,600,000 ug} \right) \times \frac{60 \text{ min.}}{1 \text{ hour}} \times \frac{24 \text{ hours}}{1 \text{ day}} \times \frac{365 \text{ days}}{year}
 \end{aligned}$$

Where:

ug/m³ = micrograms per cubic meter

cfm = cubic feet per minute

TVOC Recovery was based on the concentrations detected in the final days of the supplemental sampling as it is expected to be most representative of long-term soil vapor concentrations. Based on an average TVOC concentration of 1,000 µg/m³, a mass removal of approximately 1.15 lbs/year of TVOCs would be expected for the pilot study system. Mass removal of a full-scale system would vary depending on number of extraction wells, locations, and blower parameters. Calculations of TVOC mass removal are shown in Appendix C for reference.

6.0 CONCLUSIONS AND RECOMMENDATIONS

The SVE Pilot Study was conducted from June 25, 2018 to June 29, 2018, with supplemental VOC sampling performed from December 5, 2018 to December 17, 2018. Parameters were evaluated to determine the effectiveness of the SVE technology in the subject area and included ROI, soil permeability, and TVOC recovery.

Soil permeability is an indicator for how effective SVE will be at remediating a specific site. Calculated intrinsic permeability was compared to USEPA guidance. The calculated value of intrinsic permeability for local site soils was 1.54×10^{-7} cm² and is determined to be generally favorable per USEPA guidance.

Ranges for southern ROIs at or close to the water table ranged from 75' to 86'. Ranges for western ROIs at or close to the water table ranged from 27' to 40'.

Expected annual mass recovery of TVOCs based on analytical results and flow rate collected after 13 days of continuous operation of the blower system indicated that approximately 1.15 lbs of TVOCs could be collected and treated annually, based on an average TVOC concentration of 1,000 µg/m³ and a constant extraction rate of 35 CFM (flow rate used during the pilot test).

Application of higher vacuums did increase the observed vacuums, especially at the nearer vacuum monitoring points. However, the general effect on radius of influence did not significantly change in proportion to the amount of energy required by a larger blower. The most efficient use of energy-to-ROI would consist of multiple extraction wells at a lower flow rates and vacuums rather than less extraction wells with higher flow rates and vacuums.

If an SVE system was to be implemented to effect residual soil contamination in the vadose zone, additional subsurface investigation would be recommended to delineate such an area.

Based upon the calculated recovery rate of 1.15 lbs/year, an SVE system would not be a cost-effective option to address residual soil contamination in this area.

7.0 REFERENCES

BNL 2018. Draft BNL 2017 Site Environmental Report Volume II, Groundwater Status Report.

USEPA 2017. How to Evaluate Alternative Cleanup Technologies for Underground Storage Tank Sites - A Guide for Corrective Action Plan Reviewers. EPA 510-B-17-003.

USEPA. Soil Vapor Extraction Technology Reference Handbook, February 1991

FIGURES

CONSULTANTS

7		
6		
5		
4		
3	AS BUILTS	2018/07/24
2	REVISION 1	2018/05/09
1	CLIENT REVIEW	2018/04/13
Number	Revision Description	Revision Date
Designed By	MTS	Date Submitted
Drawn By	JY	Date Checked
Approved By		Scale
Client:	BROOKHAVEN NATIONAL LABORATORY UPTON, NEW YORK 11973	
Project:	BUILDING 96 SOIL VAPOR EXTRACTION PILOT STUDY SERVICES	
Project Address:		
County for Map Number:		Contract Number:
Regulatory Reference Number:		
Title of Drawing:		

Client: BROOKHAVEN NATIONAL LABORATORY
UPTON, NEW YORK 11973

Project: BUILDING 96
SOIL VAPOR EXTRACTION
PILOT STUDY SERVICES

Project Address:

County for Map Number: Contract Number:

Regulatory Reference Number:

Title of Drawing:

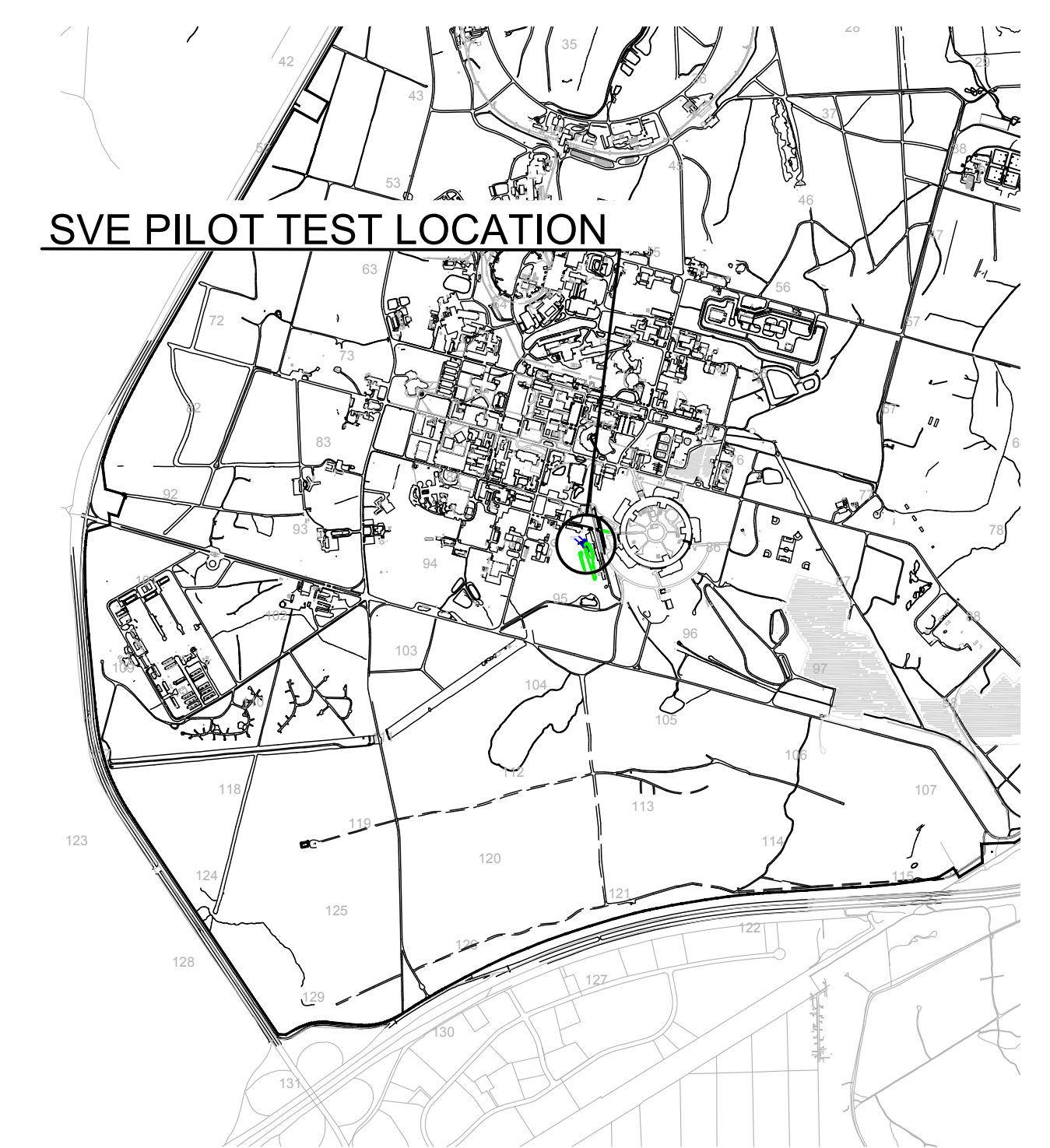
Soil Vapor Extraction (SVE) Pilot System Site Plan

Project Number: 1 2
Sheet of

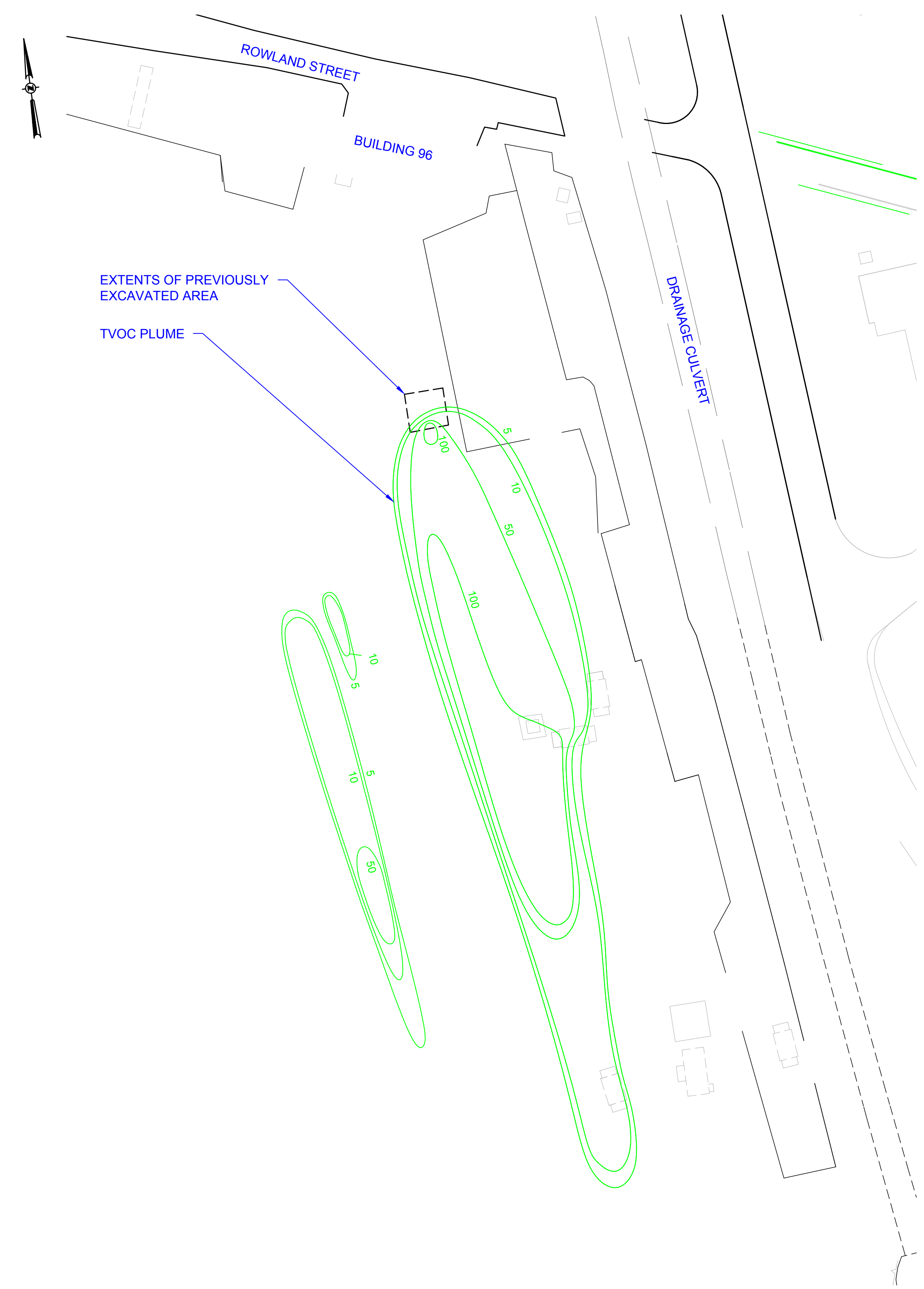
SVE-01

Drawing Number: BNL1801

Unauthorized alteration or addition to this drawing and related documents is a violation of Section 1709 of the New York State Education Law.



SVE PILOT TEST KEY PLAN
SCALE: NOT TO SCALE

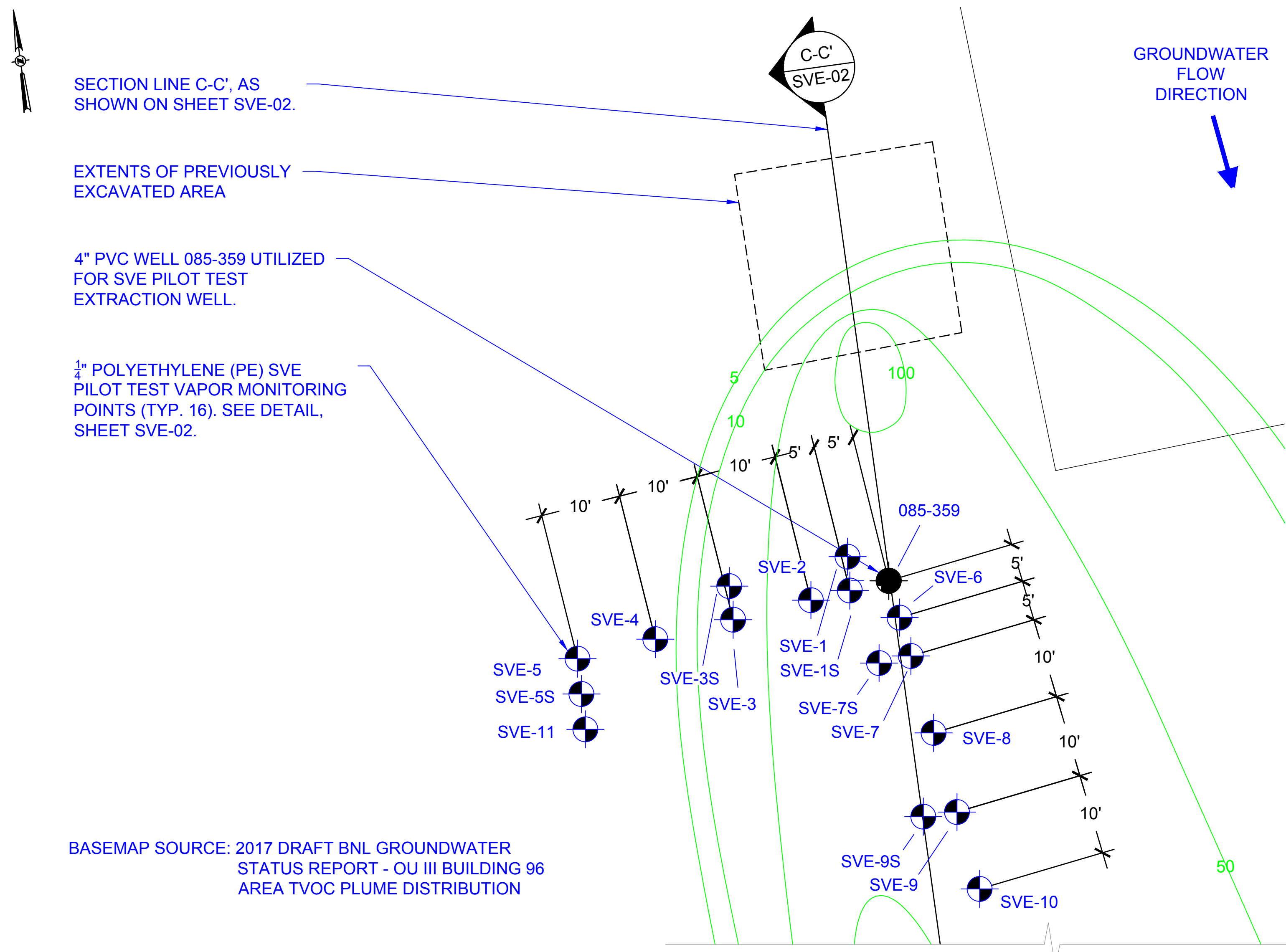


SVE PILOT TEST OVERALL SITE PLAN

0 50 100
SCALE: 1" = 50'

LEGEND

- EXTENTS OF PREVIOUSLY EXCAVATED SOURCE SOIL
- 50— GROUNDWATER TVOC ISOCONCENTRATION CONTOUR (UG/L)
- SECTION LINE C-C'
- EXISTING MONITORING WELL 085-359
- SVE MONITORING POINTS
- ➔ GROUNDWATER FLOW DIRECTION - PER BNL 2017



PARTIAL PLAN 1 - SVE PILOT TEST

0 10 20
SCALE: 1" = 10'

SECTION LINE C-C', AS SHOWN ON SHEET SVE-02.

EXTENTS OF PREVIOUSLY EXCAVATED AREA

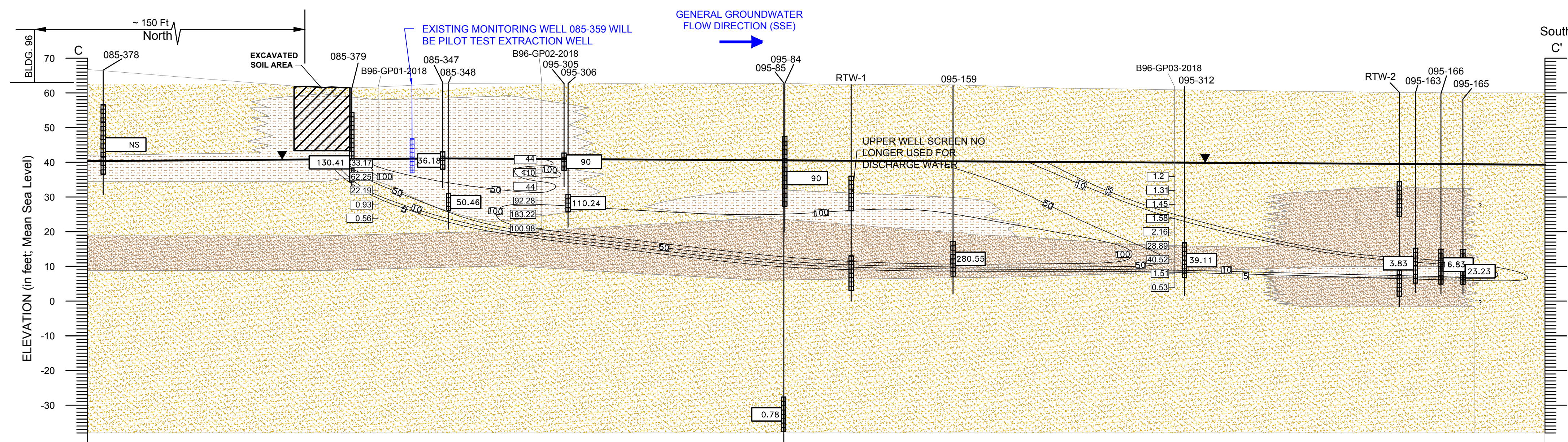
4" PVC WELL 085-359 UTILIZED FOR SVE PILOT TEST EXTRACTION WELL.

1/4" POLYETHYLENE (PE) SVE PILOT TEST VAPOR MONITORING POINTS (TYP. 16). SEE DETAIL, SHEET SVE-02.

GROUNDWATER FLOW DIRECTION

BASEMAP SOURCE: 2017 DRAFT BNL GROUNDWATER STATUS REPORT - OU III BUILDING 96 AREA TVOC PLUME DISTRIBUTION

CONSULTANTS



BASEMAP SOURCE:
2017 DRAFT BNL GROUNDWATER STATUS REPORT OU III
BUILDING 96 AREA HYDROGEOLOGIC CROSS SECTION
(C-C')

SECTION C-C: SVE WELLS AND LATERAL PIPING

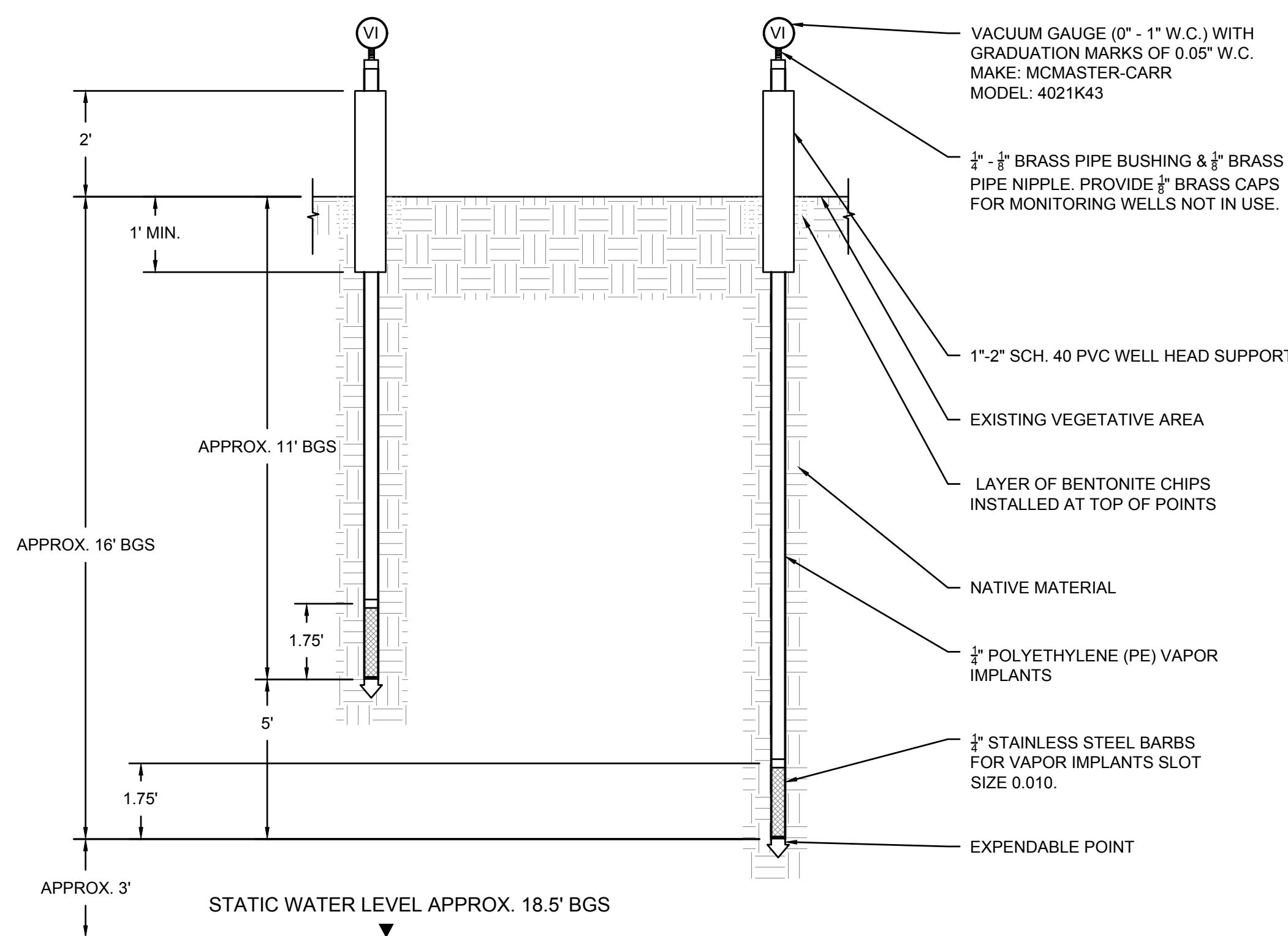
SCALE: NOT TO SCALE

BASEMAP LEGEND:

-  FINE TO COARSE SAND, TRACE TO LITTLE SILT AND/OR FINE TO MEDIUM GRAVEL.
-  VERY FINE SAND AND/OR SILT, WITH SILT AND SAND LENSES INTERBEDDED.
-  COARSE TO VERY COARSE SAND, WITH OR WITHOUT GRAVEL OR GRAVEL WITH SAND.
-  50 TVOC ISOCONTOUR (UG/L)

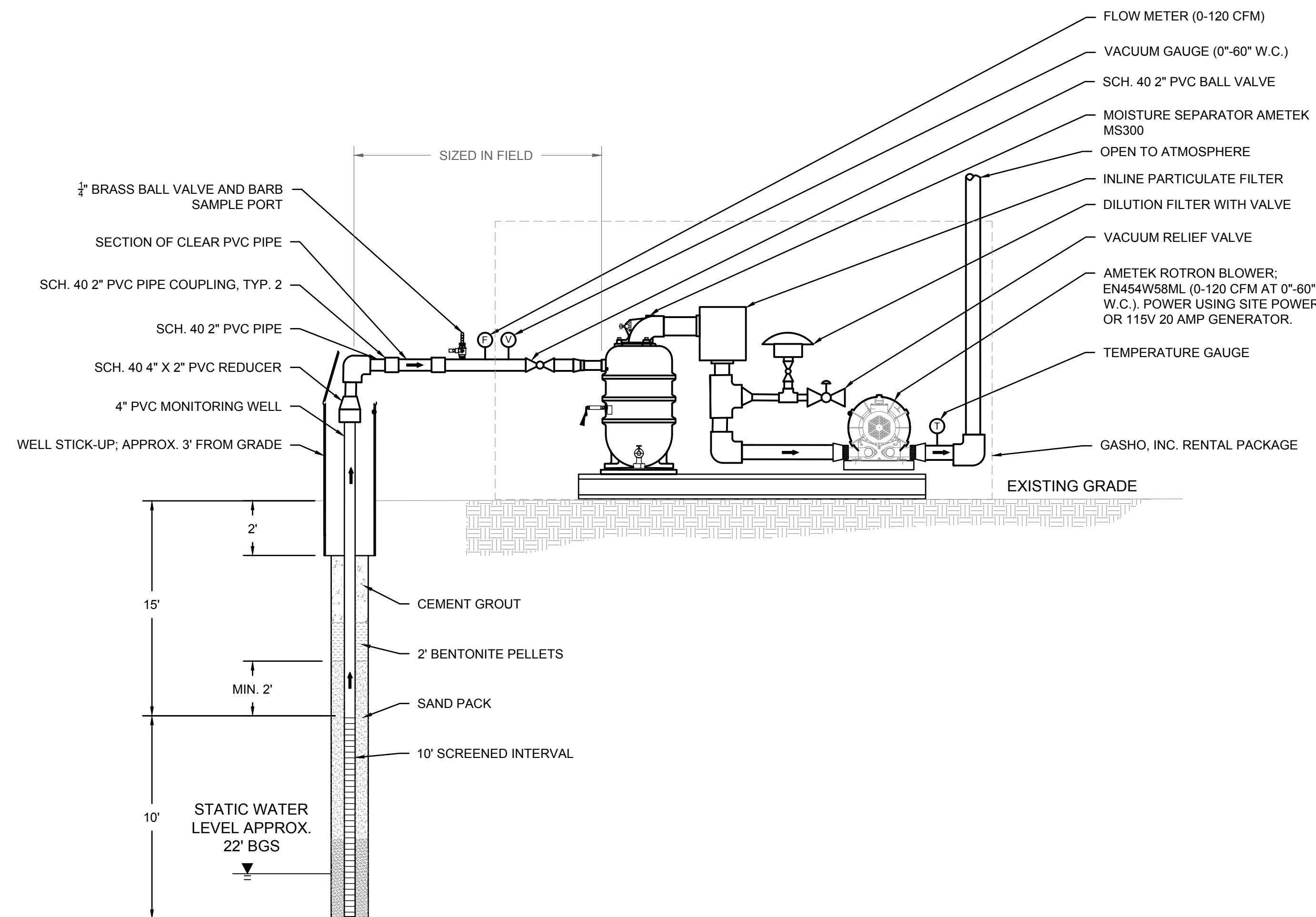
DETAIL A - SHALLOW SVE MONITORING POINT (SVE-1S, SVE-3S, SVE-5S, SVE-7S, SVE-9S)

DETAIL B - SVE MONITORING POINT (SVE-1 THROUGH SVE-10)



PROPOSED SOIL VAPOR MONITORING POINTS

SCALE: NOT TO SCALE



SOIL VAPOR EXTRACTION WELL (MW 085-359)

SCALE: NOT TO SCALE

7		
6		
5		
4		
3	AS BUILTS	2018/07/24
2	REVISION 1	2018/05/09
1	CLIENT REVIEW	2018/04/13

Designed By	MTS	Date Submitted	2018/03/28
Drawn By	JY	Date Created	AS NOTED
Approved By		Scale	

Client: **BROOKHAVEN NATIONAL LABORATORY UPTON, NEW YORK 11973**

BUILDING 96 SOIL VAPOR EXTRACTION PILOT STUDY SERVICES

Project Address:

County Tax Map Number: Contract Number:

Regulatory Reference Number:

Title of Drawing:

SOIL VAPOR EXTRACTION (SVE) PILOT SYSTEM SECTION AND DETAILS

PWGC Project Number	
Sheet	2 of 2

SVE-02

Unauthorised alteration or addition to the drawing and related documents is a violation of Section 7209 of the New York State Education Law. Drawing Number: **BNL1801**

TABLES

Table 1 - Step Test Measurements

Date:		6/27/2018		
Time:		11:25	11:45	12:10
FLOW (CFM)		35	50	65
VACUUM AT EXTRACTION WELL (IN. W.C.)		4	27	36
EFFLUENT TEMPERATURE (°F)		114	114	117
PID READING (TVOC, PPM)		0.0	0.0	0.0
MONITORING POINT DESIGNATION	DISTANCE FROM EXTRACTION WELL (FT)	VACUUM AT SVE MONITORING WELLS (IN. W.C.)		
SVE-01	5	4.73	15.99	20.13
SVE-1S	5	0.10	0.31	0.39
SVE-02	10	0.10	0.00	4.47
SVE-03	20	0.22	0.40	0.86
SVE-3S	20	0.03	0.05	0.06
SVE-04	30	0.05	0.11	0.14
SVE-05	40	0.00	0.02	0.01
SVE-5S	40	0.00	0.00	0.00
SVE-06	5	4.48	13.45	16.07
SVE-07	10	3.55	10.74	12.83
SVE-7S	10	0.04	1.09	1.30
SVE-08	20	2.00	6.05	7.24
SVE-09	30	1.62	4.85	5.84
SVE-9S	30	1.56	4.72	5.64
SVE-10	40	1.30	3.92	4.70
SVE-11	40	0.25	0.13	0.23

Due to precision of vacuum gauge at extraction well, vacuum measurements are accurate to +/- 1.0" w.c.

Table 2 - Vacuum Response Test 1

Date:		6/27/2018		
Time:		11:25	11:45	12:10
FLOW (CFM)		35	35	35
VACUUM AT EXTRACTION WELL (IN. W.C.)		6	6	6
EFFLUENT TEMPERATURE (°F)		105	98	98
PID READING (TVOC, PPM)		0.0	0.0	0.0
MONITORING POINT DESIGNATION	DISTANCE FROM EXTRACTION WELL (FT)	VACUUM AT SVE MONITORING WELLS (IN. W.C.)		
SVE-01	5	5.73	6.03	6.06
SVE-1S	5	0.11	0.12	0.13
SVE-02	10	0.03	0.03	1.26
SVE-03	20	0.25	0.26	0.25
SVE-3S	20	0.01	0.02	0.00
SVE-04	30	0.04	0.03	0.00
SVE-05	40	0.00	0.00	0.00
SVE-5S	40	0.00	0.01	0.00
SVE-06	5	4.75	4.80	4.80
SVE-07	10	3.78	3.82	3.82
SVE-7S	10	0.39	0.41	0.39
SVE-08	20	2.10	2.14	2.09
SVE-09	30	1.70	1.73	1.69
SVE-9S	30	1.65	1.67	1.62
SVE-10	40	1.37	1.36	1.36
SVE-11	40	0.40	0.35	0.15

SVE-02: when manometer left on; measurement stabilized to 1.26" W.C. - screen may be smeared/clogged.

Due to precision of vacuum gauge at extraction well, vacuum measurements are accurate to +/- 1.0" w.c.

Table 3 - Vacuum Response Test 2

Date:	6/27/2018			
Time:	12:30	12:50	13:05	
FLOW (CFM)	50	50	50	
VACUUM AT EXTRACTION WELL (IN. W.C.)	30	32	32	
EFFLUENT TEMPERATURE (°F)	110	116	116	
PID READING (TVOC, PPM)	0.0	0.0	0.0	
MONITORING POINT DESIGNATION	DISTANCE FROM EXTRACTION WELL (FT)	VACUUM AT SVE MONITORING WELLS (IN. W.C.)		
SVE-01	5	17.19	17.82	17.91
SVE-1S	5	0.31	0.36	0.36
SVE-02	10	4.78	4.80	5.09
SVE-03	20	0.63	0.76	0.78
SVE-3S	20	0.00	0.06	0.07
SVE-04	30	0.13	0.14	0.14
SVE-05	40	0.00	0.00	0.00
SVE-5S	40	0.00	0.00	0.00
SVE-06	5	14.14	14.15	14.26
SVE-07	10	11.28	11.29	11.42
SVE-7S	10	1.11	1.15	1.15
SVE-08	20	6.25	6.37	6.43
SVE-09	30	4.96	5.12	5.16
SVE-9S	30	4.81	4.97	5.02
SVE-10	40	3.96	4.11	4.17
SVE-11	40	0.20	0.25	0.32

Due to precision of vacuum gauge at extraction well, vacuum measurements are accurate to +/- 1.0" w.c.

Table 4 - Vacuum Response Test 3

Date:		6/27/2018		
Time:		13:25	13:40	13:55
FLOW (CFM)		65	65	65
VACUUM AT EXTRACTION WELL (IN. W.C.)		36	36	36
EFFLUENT TEMPERATURE (°F)		118	120	119
PID READING (TVOC, PPM)		0.0	0.0	0.0
MONITORING POINT DESIGNATION	DISTANCE FROM EXTRACTION WELL (FT)	VACUUM AT SVE MONITORING WELLS (IN. W.C.)		
SVE-01	5	19.95	19.80	19.57
SVE-1S	5	0.40	0.40	0.39
SVE-02	10	5.11	5.40	5.66
SVE-03	20	0.85	0.85	0.83
SVE-3S	20	0.06	0.06	0.07
SVE-04	30	0.18	0.14	0.15
SVE-05	40	0.01	0.00	0.01
SVE-5S	40	0.00	0.01	0.02
SVE-06	5	15.90	15.67	15.49
SVE-07	10	13.96	12.90	12.34
SVE-7S	10	1.28	1.23	1.24
SVE-08	20	7.13	7.03	6.93
SVE-09	30	6.43	5.64	6.29
SVE-9S	30	5.56	5.48	5.40
SVE-10	40	4.63	4.54	4.48
SVE-11	40	0.23	0.27	0.17

Due to precision of vacuum gauge at extraction well, vacuum measurements are accurate to +/- 1.0" w.c.

Table 5 - Approximately Two-Day Continuous Operation - Day 1

Personnel: AMS	0800 Test Weather: Rain; Overcast 70°F / Thunder		
Date: 6/28/18	1500 Test Weather: Overcast; Humid 80°F / calm		
Time:	0800	1500	
FLOW (CFM)	45	45	
VACUUM AT EXTRACTION WELL (IN. W.C.)	30	30	
EFFLUENT TEMPERATURE (°F)	106°F	106°F	
PID READING (TVOC, PPM)	0.0	0.0	
MONITORING POINT DESIGNATION	DISTANCE FROM EXTRACTION WELL (FT)	VACUUM AT SVE MONITORING WELLS (IN. W.C.)	
SVE-01	5	14.72	14.65
SVE-1S	5	0.30	0.30
SVE-02	10	3.50	3.56
SVE-03	20	0.59	0.62
SVE-3S	20	0.05	0.07
SVE-04	30	0.11	0.12
SVE-05	40	0.00	0.00
SVE-5S	40	0.00	0.00
SVE-06	5	11.49	11.40
SVE-07	10	10.48	10.38
SVE-7S	10	0.96	0.95
SVE-08	20	6.44	7.35
SVE-09	30	4.04	4.03
SVE-9S	30	3.94	3.89
SVE-10	40	3.28	3.23
SVE-11	40	0.25	0.21

Due to precision of vacuum gauge at extraction well, vacuum measurements are accurate to +/- 1.0" w.c.

0800 Notes: *Difficulty with stabilizing readings / PID calibrated x2 due to rain

1500 Notes: *Difficulty with stabilizing readings

Table 6 - Approximately Two-Day Continuous Operation - Day 2

Personnel: AMS		Weather: Sunny; clear. 77° F
Date: 6/29/18		
Time:		0846
FLOW (CFM)		45
VACUUM AT EXTRACTION WELL (IN. W.C.)		31
EFFLUENT TEMPERATURE (°F)		122°F
PID READING (TVOC, PPM)		0.0
MONITORING POINT DESIGNATION	DISTANCE FROM EXTRACTION WELL (FT)	VACUUM AT SVE MONITORING WELLS (IN. W.C.)
SVE-01	5	14.58
SVE-1S	5	0.32
SVE-02	10	3.48
SVE-03	20	0.63
SVE-3S	20	0.07
SVE-04	30	0.13
SVE-05	40	0.00
SVE-5S	40	0.00
SVE-06	5	11.40
SVE-07	10	8.97
SVE-7S	10	0.95
SVE-08	20	6.90
SVE-09	30	3.99
SVE-9S	30	4.50
SVE-10	40	3.21
SVE-11	40	0.89

Notes: SVE-05 sample taken at 0930

Due to precision of vacuum gauge at extraction well, vacuum measurements are accurate to +/- 1.0" w.c.
Blower system shut off at 09:45

BNL1801 - SVE Pilot Study Analytical Results

SVE Soil Vapor Air Samples

Table 7 - Detected Analytes

Analyte:	SVE-01	SVE-02	SVE-03	SVE-04	SVE-05
	6/27/2018	6/27/2018	6/27/2018	6/27/2018	6/29/2018
Method: TO-15 - Volatile Organic Compounds (ug/m ³)					
1,1,1-Trichloroethane	ND	28	ND	ND	17
Acetone	ND	ND	100	220	ND
Methyl Ethyl Ketone	ND	ND	5.9	12	ND
Tetrachloroethene	4.4	3400	16	380	3200
TVOCs, Added	4.4	3428	122	612	3217

Notes:

ND = Non Detect for Analyte

BNL1801 - SVE Pilot Study Analytical Results

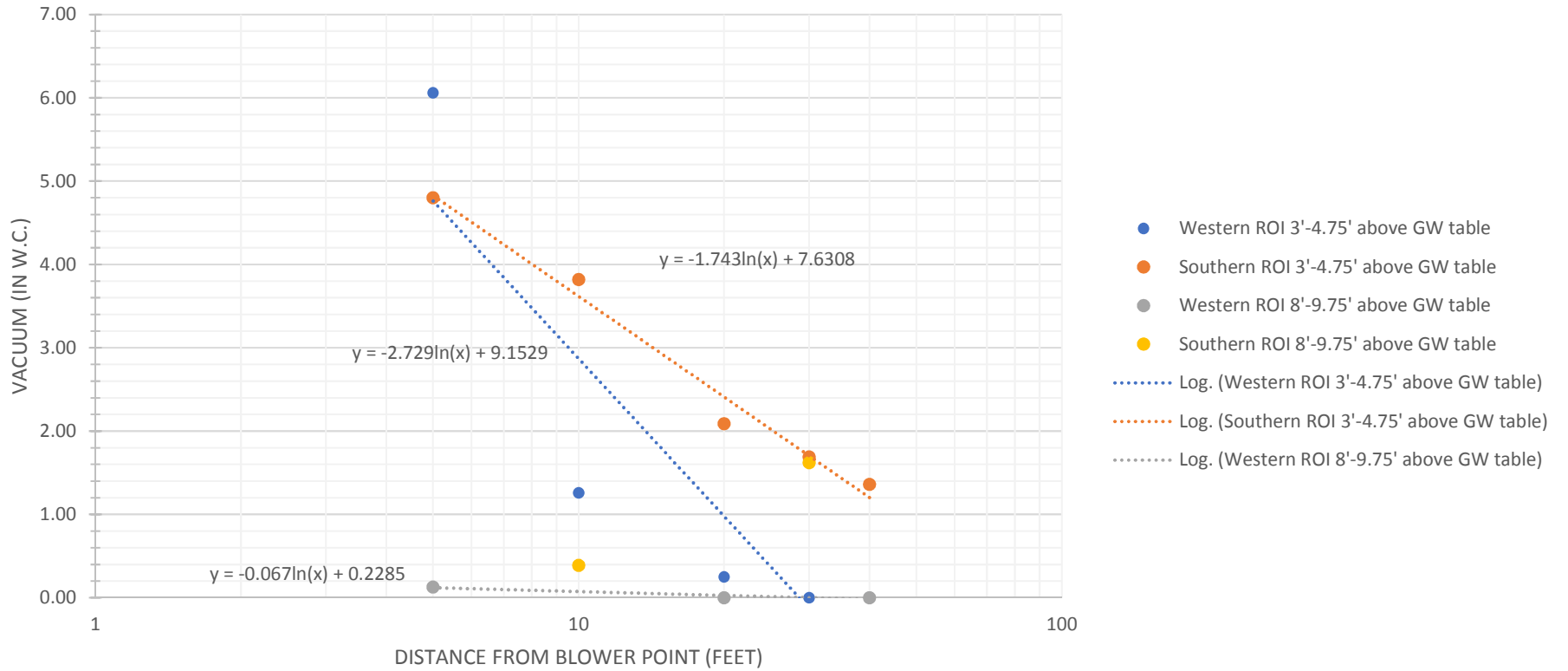
SVE Soil Vapor Air Samples

Table 8 - Detected Analytes

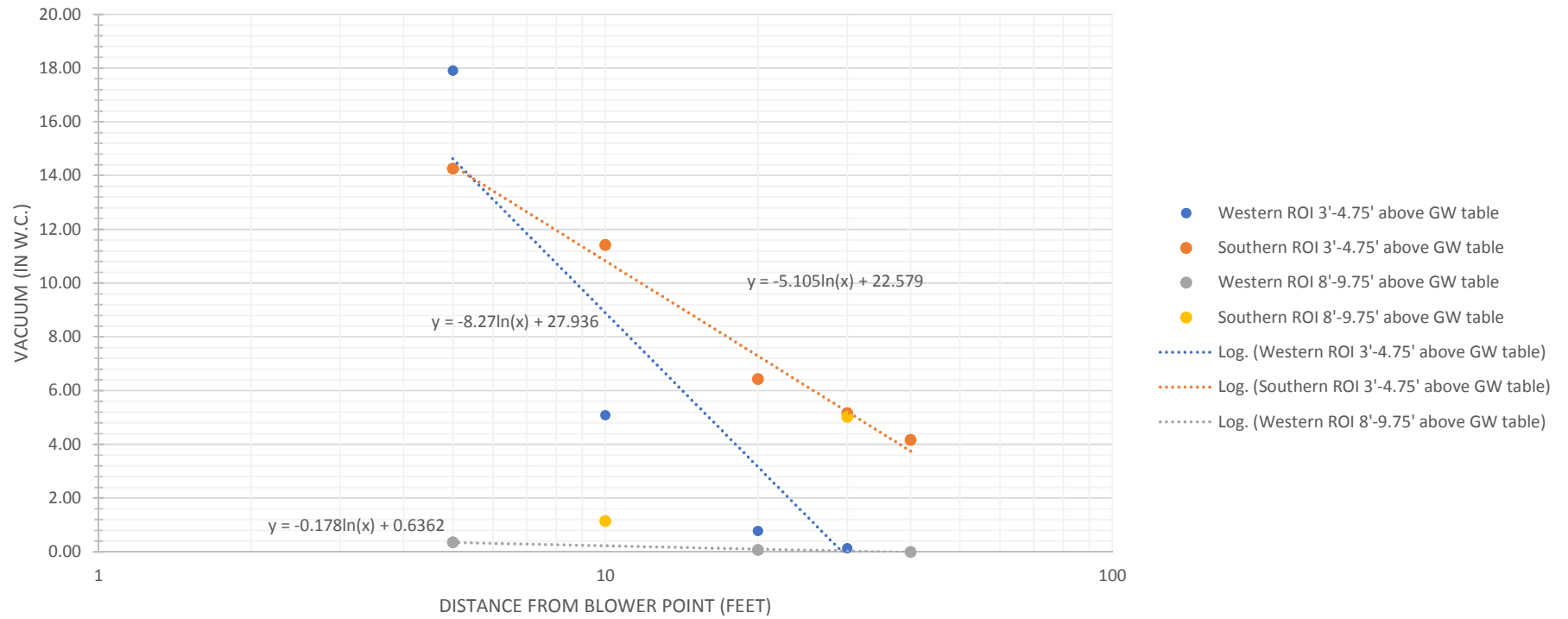
Analyte:	SVE-01 12/5/2018	SVE-02 12/6/2018	SVE-03 12/7/2018	SVE-04 12/10/2018	SVE-05 12/11/2018	SVE-06 12/12/2018	SVE-07 12/13/2018	SVE-08 12/14/2018	SVE-09 12/17/2018
Method: TO-15 - Volatile Organic Compounds (ug/m ³)									
1,1,1-Trichloroethane	18	52	31	22	12	14	13	13	14
Acetone	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl Ethyl Ketone	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	ND	ND	ND	18	ND	ND	ND	ND	ND
Tetrachloroethene	2000	2300	1800	1300	920	1100	960	1000	1100
TVOCs, Added	2018	2352	1831	1340	932	1114	973	1013	1114
Notes: ND = Non Detect for Analyte									

GRAPHS

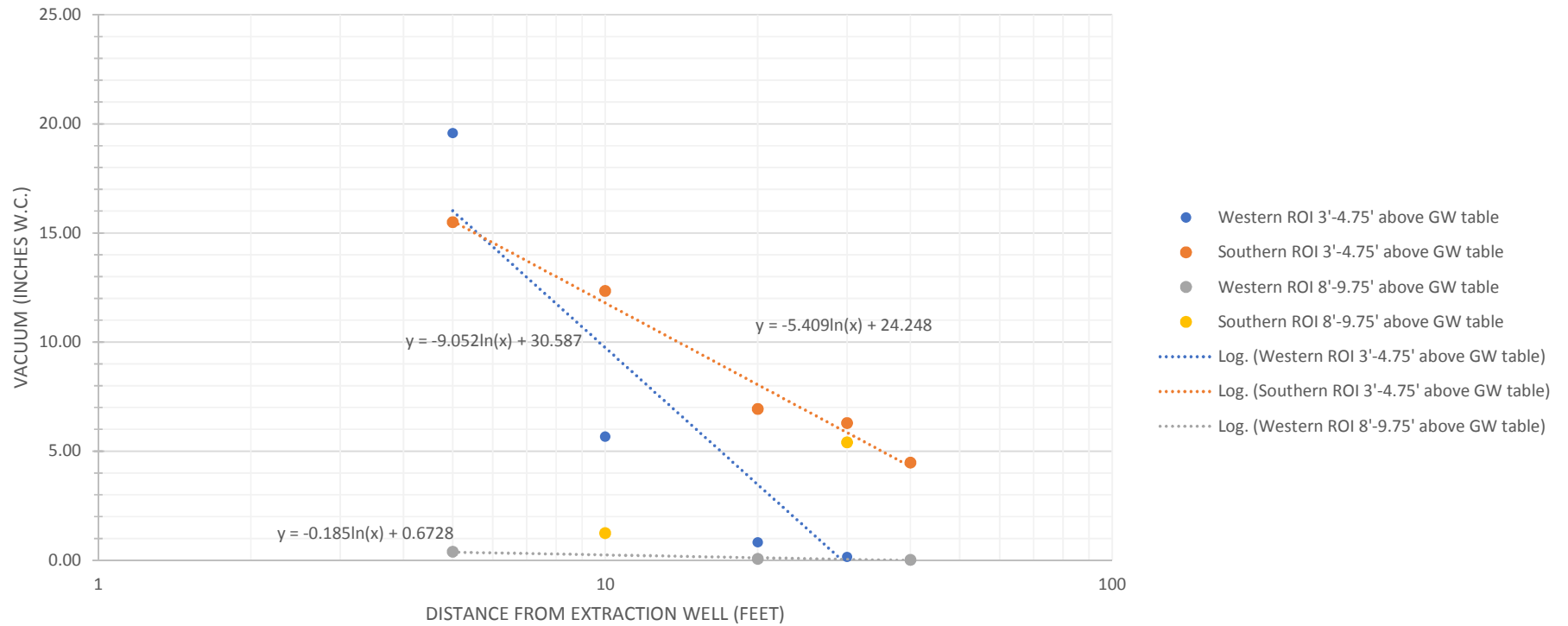
GRAPH 1 - ROI VACUUM RESPONSE TEST 1
FLOW: 35 CFM



GRAPH 2 - ROI VACUUM RESPONSE TEST 2
FLOW: 50 CFM

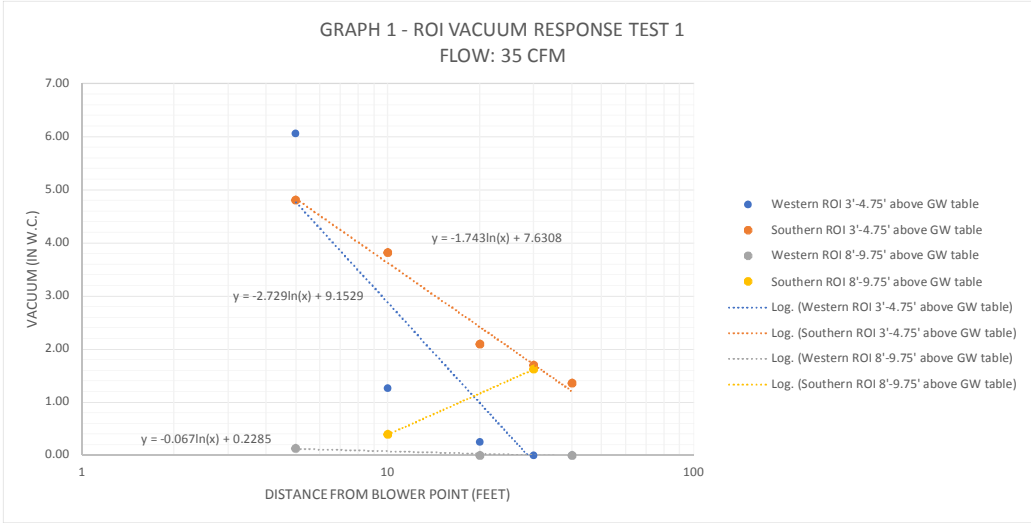


GRAPH 3 - ROI VACUUM RESPONSE TEST 3
FLOW: 65 CFM

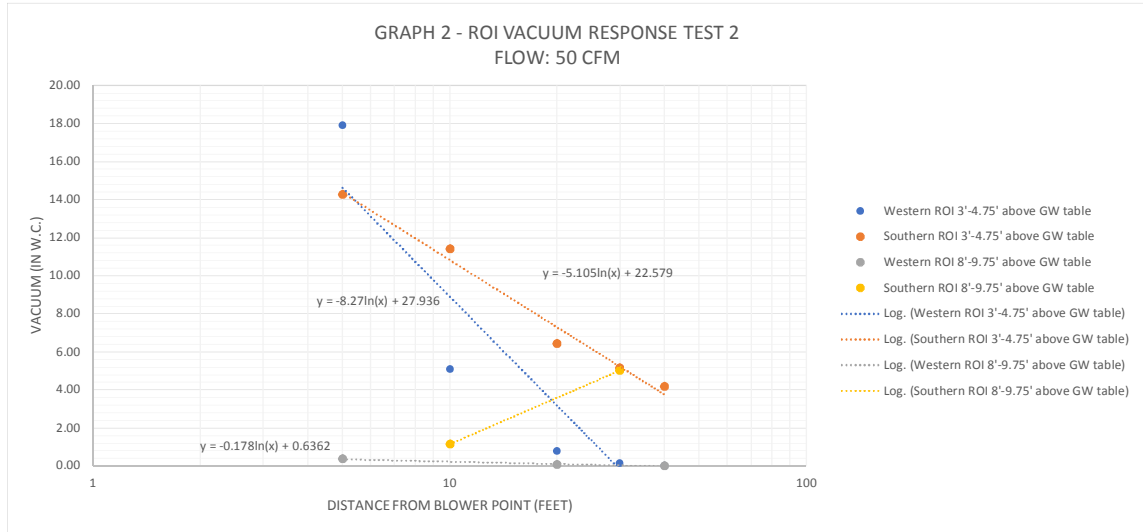


APPENDIX A – ROI CALCULATIONS

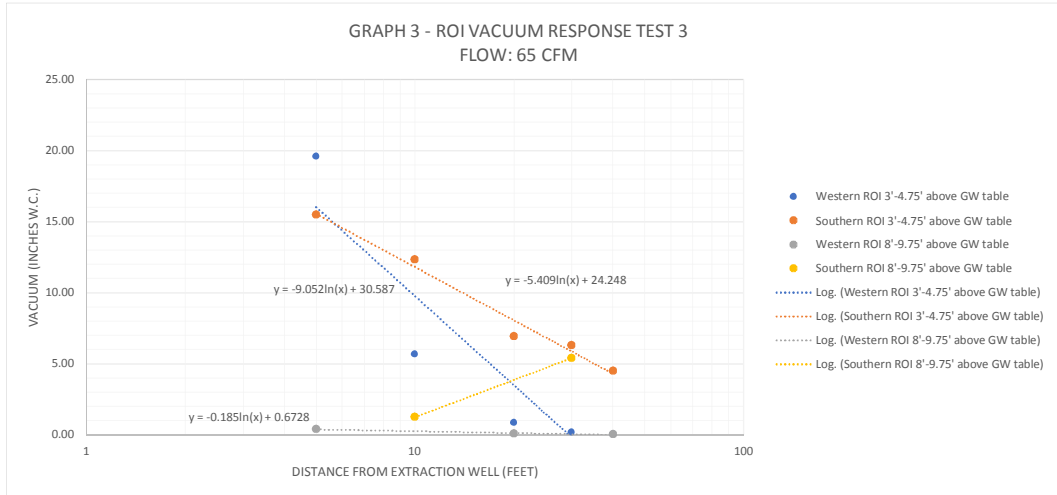
SVE PILOT TEST VACUUM VACUUM RESPONSE TEST 1 MEASUREMENTS		
Location	Distance from Blower Point (Feet)	Measured Vacuum (in W.C.)
SVE-01	5	6.06
SVE-1S	5	0.13
SVE-02	10	1.26
SVE-03	20	0.25
SVE-3S	20	0.00
SVE-04	30	0.00
SVE-05	40	0.00
SVE-5S	40	0.00
SVE-06	5	4.80
SVE-07	10	3.82
SVE-7S	10	0.39
SVE-08	20	2.09
SVE-09	30	1.69
SVE-9S	30	1.62
SVE-10	40	1.36
SVE-11	40	0.15
Western ROI 3'-4.75'		
X	$Y = -2.729 \ln(x) + 9.1529$	
28		0.1
Southern ROI 3'-4.75'		
X	$Y = -1.743 \ln(x) + 7.6308$	
75		0.1
Western ROI 8'-9.75'		
X	$Y = -0.067 \ln(x) + 0.2285$	
6		0.1
Southern ROI 8'-9.75'		
X	N/A	



SVE PILOT TEST VACUUM RESPONSE TEST 2 MEASUREMENTS		
Location	Distance from Blower Point (Feet)	Measured Vacuum (in W.C.)
SVE-01	5	17.91
SVE-1S	5	0.36
SVE-02	10	5.09
SVE-03	20	0.78
SVE-3S	20	0.07
SVE-04	30	0.14
SVE-05	40	0.00
SVE-5S	40	0.00
SVE-06	5	14.26
SVE-07	10	11.42
SVE-7S	10	1.15
SVE-08	20	6.43
SVE-09	30	5.16
SVE-9S	30	5.02
SVE-10	40	4.17
SVE-11	40	0.32
Western ROI 3'-4.75'		
X	Y = -8.27*ln(x) + 27.936	
29		0.1
Southern ROI 3'-4.75'		
X	Y = -5.105*ln(x) + 22.579	
81		0.1
Western ROI 8'-9.75'		
X	Y = -0.178*ln(x) + 0.6362	
20		0.1
Southern ROI 8'-9.75'		
X		N/A



SVE PILOT TEST VACUUM RESPONSE TEST 3 MEASUREMENTS		
Location	Distance from Blower Point (Feet)	Measured Vacuum (in W.C.)
SVE-01	5	19.57
SVE-1S	5	0.39
SVE-02	10	5.66
SVE-03	20	0.83
SVE-3S	20	0.07
SVE-04	30	0.15
SVE-05	40	0.01
SVE-5S	40	0.02
SVE-06	5	15.49
SVE-07	10	12.34
SVE-7S	10	1.24
SVE-08	20	6.93
SVE-09	30	6.29
SVE-9S	30	5.40
SVE-10	40	4.48
SVE-11	40	0.17
Western ROI 3'-4.75'		
X	$Y = -9.052 \ln(x) + 30.587$	
	29	0.1
Southern ROI 3'-4.75'		
X	$Y = -5.409 \ln(x) + 24.248$	
	86	0.1
Western ROI 8'-9.75'		
X	$Y = -0.185 \ln(x) + 0.6728$	
	21	0.1
Southern ROI 8'-9.75'		
X		N/A



APPENDIX B – SOIL PERMEABILITY CALCULATIONS

Project Number:	BNL1801	
Address:	TVOC PLUME BUILDING 96	
Soil Vapor Extraction: USEPA Equation E - 5		
GOVERNING EQUATIONS:		
RADIUS OF INFLUENCE EQUATION		
$\frac{Q}{H} = \frac{\pi k}{\mu} P_w \frac{[1 - (\frac{P_{ATM}}{P_w})^2]}{\ln \frac{R_w}{R_i}}$		

TABLE 1 DEFINITIONS		
Variable	Unit	Description
Q	cm3/s	Vapor flow rate
H	cm	Length of screen
k	cm2	Intrinsic permeability
P _w	g/(cm*s2)	Absolute pressure at extraction well
P _{ATM}	g/(cm*s2)	Absolute ambient air pressure
R _w	cm	Radius of vapor extraction well
R _i	cm	Radius of influence of vapor extraction well (Extrapolated)
K	cm/s	Hydraulic conductivity
g	9.81 m/s ²	Acceleration of gravity (9.81 m/s ²)
ρ	kg/m3	Density of H2O (kg/m3 @ 55°F)
μ	N*s/m2	Dynamic viscosity of H2O (0.0012 N*s/m2 @55°F)
μ	g/cm*s	Dynamic viscosity of air (1.8x-4 g/cm*s @55°F)

TABLE 2 MEASURED VALUES		
Variable	Unit	VALUE
Q	CFM	45
H	FT	10
Vacuum at Extraction Well	"W.C.	31
P _w	g/(cm*s2)	933306.2271
P _{ATM}	g/(cm*s2)	1010000
R _w	inches	1
R _i	inches	480
μ	g/cm*s	0.00018

TABLE 3 MEASURED VALUES - UNIT CONVERSION		
Variable	Unit	VALUE
Q	cm3/s	21237.6
H	cm	304.8
P _w	g/(cm*s2)	933306.2271
P _{ATM}	g/(cm*s2)	1010000
R _w	cm	2.54
R _i	cm	1219.2
μ	g/cm*s	0.00018

TABLE 3 CALCULATED VALUES - INTRINSIC PERMEABILITY		
Variable	Unit	VALUE
k	cm2	1.54343E-07

APPENDIX C – TVOC RECOVERY CALCULATIONS

Project Number:	BNL1801	
Address:	TVOC PLUME BUILDING 96	
Soil Vapor Extraction:	Mass Recovery	
GOVERNING EQUATIONS:		
Contaminant Mass Extraction		
$\text{TVOC RECOVERY (LBS/DAY)} = [\text{AIR CONCENTRATION (ug/m}^3\text{)} \times \text{AIR FLOW RATE (CFM)} \times 0.0283168 \times 0.0000000220462 \times 60 \times 24]$		
TABLE 1 DEFINITIONS		
Variable	Description	
0.02831682	Conversion from Cubic Meter to Cubic Foot	
2.20462E-09	Conversion from Microgram to Pound	
60	Conversion from Minutes to Hour	
24	Conversion from Hours to Day	
TABLE 2 MEASURED VALUES		
Variable	Unit	VALUE
TVOC Air Concentration	ug/m ³	1000
Air Flow Rate	CFM	35
TABLE 3 CALCULATED VALUES - TVOC RECOVERY		
Variable	Unit	VALUE
TVOC Recovery (Lbs/Day)	(Lbs/Day)	0.00
TVOC Recovery (Lbs/Year)	(Lbs/Year)	1.15

APPENDIX D – LABORATORY ANALYTICAL REPORT

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Burlington

30 Community Drive

Suite 11

South Burlington, VT 05403

Tel: (802)660-1990

TestAmerica Job ID: 200-44205-1

Client Project/Site: BNL 1801

For:

PW Grosser Consulting

630 Johnson Ave

Suite 7

Bohemia, New York 11716

Attn: Mike Scanlon



Authorized for release by:

7/18/2018 7:22:56 PM

Rebecca Jones, Project Management Assistant I

rebecca.jones@testamericainc.com

Designee for

John Schove, Project Manager II

(716)504-9838

john.schove@testamericainc.com

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

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



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Definitions/Glossary

Client: PW Grosser Consulting
Project/Site: BNL 1801

TestAmerica Job ID: 200-44205-1

Qualifiers

Air - GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was 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.

Glossary

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

Case Narrative

Client: PW Grosser Consulting
Project/Site: BNL 1801

TestAmerica Job ID: 200-44205-1

Job ID: 200-44205-1

Laboratory: TestAmerica Burlington

Narrative

Job Narrative
200-44205-1

Comments

No additional comments.

Receipt

The samples were received on 7/6/2018 10:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice.

Air Toxics

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

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Detection Summary

Client: PW Grosser Consulting
Project/Site: BNL 1801

TestAmerica Job ID: 200-44205-1

Client Sample ID: SVE-01

Lab Sample ID: 200-44205-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	0.65	J	2.0	0.29	ppb v/v	10		TO-15	Total/NA
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	4.4	J	14	2.0	ug/m3	10		TO-15	Total/NA

Client Sample ID: SVE-02

Lab Sample ID: 200-44205-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	5.0		4.6	1.6	ppb v/v	23.2		TO-15	Total/NA
Tetrachloroethene	500		4.6	0.67	ppb v/v	23.2		TO-15	Total/NA
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	28		25	8.6	ug/m3	23.2		TO-15	Total/NA
Tetrachloroethene	3400		31	4.6	ug/m3	23.2		TO-15	Total/NA

Client Sample ID: SVE-03

Lab Sample ID: 200-44205-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	42	J	50	26	ppb v/v	10		TO-15	Total/NA
Methyl Ethyl Ketone	2.0	J	5.0	2.0	ppb v/v	10		TO-15	Total/NA
Tetrachloroethene	2.4		2.0	0.29	ppb v/v	10		TO-15	Total/NA
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	100	J	120	62	ug/m3	10		TO-15	Total/NA
Methyl Ethyl Ketone	5.9	J	15	5.9	ug/m3	10		TO-15	Total/NA
Tetrachloroethene	16		14	2.0	ug/m3	10		TO-15	Total/NA

Client Sample ID: SVE-04

Lab Sample ID: 200-44205-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	91		50	26	ppb v/v	10		TO-15	Total/NA
Methyl Ethyl Ketone	4.0	J	5.0	2.0	ppb v/v	10		TO-15	Total/NA
Tetrachloroethene	56		2.0	0.29	ppb v/v	10		TO-15	Total/NA
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	220		120	62	ug/m3	10		TO-15	Total/NA
Methyl Ethyl Ketone	12	J	15	5.9	ug/m3	10		TO-15	Total/NA
Tetrachloroethene	380		14	2.0	ug/m3	10		TO-15	Total/NA

Client Sample ID: SVE-05

Lab Sample ID: 200-44205-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	3.1	J	4.2	1.4	ppb v/v	21		TO-15	Total/NA
Tetrachloroethene	470		4.2	0.61	ppb v/v	21		TO-15	Total/NA
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	17	J	23	7.8	ug/m3	21		TO-15	Total/NA
Tetrachloroethene	3200		28	4.1	ug/m3	21		TO-15	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Burlington

Client Sample Results

Client: PW Grosser Consulting
Project/Site: BNL 1801

TestAmerica Job ID: 200-44205-1

Client Sample ID: SVE-01

Date Collected: 06/27/18 10:25

Date Received: 07/06/18 10:30

Sample Container: Summa Canister 1L

Lab Sample ID: 200-44205-1

Matrix: Air

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	2.0	U	2.0	0.68	ppb v/v			07/11/18 17:11	10
1,1,2,2-Tetrachloroethane	2.0	U	2.0	0.76	ppb v/v			07/11/18 17:11	10
1,1,2-Trichloroethane	2.0	U	2.0	0.78	ppb v/v			07/11/18 17:11	10
1,1-Dichloroethane	2.0	U	2.0	0.26	ppb v/v			07/11/18 17:11	10
1,1-Dichloroethene	2.0	U	2.0	0.34	ppb v/v			07/11/18 17:11	10
1,2,4-Trichlorobenzene	5.0	U	5.0	2.4	ppb v/v			07/11/18 17:11	10
1,2,4-Trimethylbenzene	2.0	U	2.0	0.80	ppb v/v			07/11/18 17:11	10
1,2-Dibromoethane	2.0	U	2.0	0.69	ppb v/v			07/11/18 17:11	10
1,2-Dichlorobenzene	2.0	U	2.0	0.71	ppb v/v			07/11/18 17:11	10
1,2-Dichloroethane	2.0	U	2.0	0.63	ppb v/v			07/11/18 17:11	10
1,2-Dichloroethene, Total	4.0	U	4.0	1.1	ppb v/v			07/11/18 17:11	10
1,2-Dichloropropane	2.0	U	2.0	1.2	ppb v/v			07/11/18 17:11	10
1,2-Dichlorotetrafluoroethane	2.0	U	2.0	0.68	ppb v/v			07/11/18 17:11	10
1,3,5-Trimethylbenzene	2.0	U	2.0	0.58	ppb v/v			07/11/18 17:11	10
1,3-Butadiene	2.0	U	2.0	0.65	ppb v/v			07/11/18 17:11	10
1,3-Dichlorobenzene	2.0	U	2.0	0.82	ppb v/v			07/11/18 17:11	10
1,4-Dichlorobenzene	2.0	U	2.0	0.65	ppb v/v			07/11/18 17:11	10
1,4-Dioxane	50	U	50	13	ppb v/v			07/11/18 17:11	10
2,2,4-Trimethylpentane	2.0	U	2.0	0.88	ppb v/v			07/11/18 17:11	10
2-Chlorotoluene	2.0	U	2.0	0.71	ppb v/v			07/11/18 17:11	10
3-Chloropropene	5.0	U	5.0	2.7	ppb v/v			07/11/18 17:11	10
4-Ethyltoluene	2.0	U	2.0	0.69	ppb v/v			07/11/18 17:11	10
4-Isopropyltoluene	2.0	U	2.0	0.75	ppb v/v			07/11/18 17:11	10
Acetone	50	U	50	26	ppb v/v			07/11/18 17:11	10
Benzene	2.0	U	2.0	0.71	ppb v/v			07/11/18 17:11	10
Benzyl chloride	2.0	U	2.0	1.2	ppb v/v			07/11/18 17:11	10
Bromodichloromethane	2.0	U	2.0	0.94	ppb v/v			07/11/18 17:11	10
Bromoethene(Vinyl Bromide)	2.0	U	2.0	0.56	ppb v/v			07/11/18 17:11	10
Bromoform	2.0	U	2.0	0.86	ppb v/v			07/11/18 17:11	10
Bromomethane	2.0	U	2.0	0.62	ppb v/v			07/11/18 17:11	10
Carbon disulfide	5.0	U	5.0	1.2	ppb v/v			07/11/18 17:11	10
Carbon tetrachloride	2.0	U	2.0	0.24	ppb v/v			07/11/18 17:11	10
Chlorobenzene	2.0	U	2.0	0.40	ppb v/v			07/11/18 17:11	10
Chloroethane	5.0	U	5.0	2.1	ppb v/v			07/11/18 17:11	10
Chloroform	2.0	U	2.0	0.52	ppb v/v			07/11/18 17:11	10
Chloromethane	5.0	U	5.0	2.5	ppb v/v			07/11/18 17:11	10
cis-1,2-Dichloroethene	2.0	U	2.0	0.37	ppb v/v			07/11/18 17:11	10
cis-1,3-Dichloropropene	2.0	U	2.0	0.98	ppb v/v			07/11/18 17:11	10
Cumene	2.0	U	2.0	0.59	ppb v/v			07/11/18 17:11	10
Cyclohexane	2.0	U	2.0	0.63	ppb v/v			07/11/18 17:11	10
Dibromochloromethane	2.0	U	2.0	0.71	ppb v/v			07/11/18 17:11	10
Dichlorodifluoromethane	5.0	U	5.0	2.0	ppb v/v			07/11/18 17:11	10
Ethylbenzene	2.0	U	2.0	0.73	ppb v/v			07/11/18 17:11	10
Freon 22	5.0	U	5.0	2.6	ppb v/v			07/11/18 17:11	10
Freon TF	2.0	U	2.0	0.31	ppb v/v			07/11/18 17:11	10
Hexachlorobutadiene	2.0	U	2.0	0.82	ppb v/v			07/11/18 17:11	10
Isopropyl alcohol	50	U	50	18	ppb v/v			07/11/18 17:11	10
m,p-Xylene	5.0	U	5.0	0.70	ppb v/v			07/11/18 17:11	10

TestAmerica Burlington

Client Sample Results

Client: PW Grosser Consulting
Project/Site: BNL 1801

TestAmerica Job ID: 200-44205-1

Client Sample ID: SVE-01

Lab Sample ID: 200-44205-1

Date Collected: 06/27/18 10:25

Matrix: Air

Date Received: 07/06/18 10:30

Sample Container: Summa Canister 1L

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl Butyl Ketone (2-Hexanone)	5.0	U	5.0	4.2	ppb v/v			07/11/18 17:11	10
Methyl Ethyl Ketone	5.0	U	5.0	2.0	ppb v/v			07/11/18 17:11	10
methyl isobutyl ketone	5.0	U	5.0	3.6	ppb v/v			07/11/18 17:11	10
Methyl methacrylate	5.0	U	5.0	2.2	ppb v/v			07/11/18 17:11	10
Methyl tert-butyl ether	2.0	U	2.0	0.61	ppb v/v			07/11/18 17:11	10
Methylene Chloride	5.0	U	5.0	2.0	ppb v/v			07/11/18 17:11	10
Naphthalene	5.0	U	5.0	3.1	ppb v/v			07/11/18 17:11	10
n-Butane	5.0	U	5.0	3.1	ppb v/v			07/11/18 17:11	10
n-Butylbenzene	2.0	U	2.0	0.80	ppb v/v			07/11/18 17:11	10
n-Heptane	2.0	U	2.0	1.4	ppb v/v			07/11/18 17:11	10
n-Hexane	2.0	U	2.0	1.6	ppb v/v			07/11/18 17:11	10
n-Propylbenzene	2.0	U	2.0	0.69	ppb v/v			07/11/18 17:11	10
sec-Butylbenzene	2.0	U	2.0	0.66	ppb v/v			07/11/18 17:11	10
Styrene	2.0	U	2.0	0.86	ppb v/v			07/11/18 17:11	10
tert-Butyl alcohol	5.0	U	5.0	15	ppb v/v			07/11/18 17:11	10
tert-Butylbenzene	2.0	U	2.0	0.58	ppb v/v			07/11/18 17:11	10
Tetrachloroethene	0.65	J	2.0	0.29	ppb v/v			07/11/18 17:11	10
Tetrahydrofuran	5.0	U	5.0	26	ppb v/v			07/11/18 17:11	10
Toluene	2.0	U	2.0	0.69	ppb v/v			07/11/18 17:11	10
trans-1,2-Dichloroethene	2.0	U	2.0	0.74	ppb v/v			07/11/18 17:11	10
trans-1,3-Dichloropropene	2.0	U	2.0	1.2	ppb v/v			07/11/18 17:11	10
Trichloroethene	2.0	U	2.0	0.30	ppb v/v			07/11/18 17:11	10
Trichlorofluoromethane	2.0	U	2.0	0.62	ppb v/v			07/11/18 17:11	10
Vinyl chloride	2.0	U	2.0	0.41	ppb v/v			07/11/18 17:11	10
Xylene (total)	7.0	U	7.0	1.4	ppb v/v			07/11/18 17:11	10
Xylene, o-	2.0	U	2.0	0.71	ppb v/v			07/11/18 17:11	10

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	11	U	11	3.7	ug/m3			07/11/18 17:11	10
1,1,2,2-Tetrachloroethane	14	U	14	5.2	ug/m3			07/11/18 17:11	10
1,1,2-Trichloroethane	11	U	11	4.3	ug/m3			07/11/18 17:11	10
1,1-Dichloroethane	8.1	U	8.1	1.1	ug/m3			07/11/18 17:11	10
1,1-Dichloroethene	7.9	U	7.9	1.3	ug/m3			07/11/18 17:11	10
1,2,4-Trichlorobenzene	37	U	37	18	ug/m3			07/11/18 17:11	10
1,2,4-Trimethylbenzene	9.8	U	9.8	3.9	ug/m3			07/11/18 17:11	10
1,2-Dibromoethane	15	U	15	5.3	ug/m3			07/11/18 17:11	10
1,2-Dichlorobenzene	12	U	12	4.3	ug/m3			07/11/18 17:11	10
1,2-Dichloroethane	8.1	U	8.1	2.5	ug/m3			07/11/18 17:11	10
1,2-Dichloroethene, Total	16	U	16	4.4	ug/m3			07/11/18 17:11	10
1,2-Dichloropropane	9.2	U	9.2	5.5	ug/m3			07/11/18 17:11	10
1,2-Dichlorotetrafluoroethane	14	U	14	4.8	ug/m3			07/11/18 17:11	10
1,3,5-Trimethylbenzene	9.8	U	9.8	2.9	ug/m3			07/11/18 17:11	10
1,3-Butadiene	4.4	U	4.4	1.4	ug/m3			07/11/18 17:11	10
1,3-Dichlorobenzene	12	U	12	4.9	ug/m3			07/11/18 17:11	10
1,4-Dichlorobenzene	12	U	12	3.9	ug/m3			07/11/18 17:11	10
1,4-Dioxane	180	U	180	47	ug/m3			07/11/18 17:11	10
2,2,4-Trimethylpentane	9.3	U	9.3	4.1	ug/m3			07/11/18 17:11	10
2-Chlorotoluene	10	U	10	3.7	ug/m3			07/11/18 17:11	10
3-Chloropropene	16	U	16	8.5	ug/m3			07/11/18 17:11	10

TestAmerica Burlington

Client Sample Results

Client: PW Grosser Consulting
Project/Site: BNL 1801

TestAmerica Job ID: 200-44205-1

Client Sample ID: SVE-01

Lab Sample ID: 200-44205-1

Date Collected: 06/27/18 10:25

Matrix: Air

Date Received: 07/06/18 10:30

Sample Container: Summa Canister 1L

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Ethyltoluene	9.8	U	9.8	3.4	ug/m3			07/11/18 17:11	10
4-Isopropyltoluene	11	U	11	4.1	ug/m3			07/11/18 17:11	10
Acetone	120	U	120	62	ug/m3			07/11/18 17:11	10
Benzene	6.4	U	6.4	2.3	ug/m3			07/11/18 17:11	10
Benzyl chloride	10	U	10	6.2	ug/m3			07/11/18 17:11	10
Bromodichloromethane	13	U	13	6.3	ug/m3			07/11/18 17:11	10
Bromoethene(Vinyl Bromide)	8.7	U	8.7	2.4	ug/m3			07/11/18 17:11	10
Bromoform	21	U	21	8.9	ug/m3			07/11/18 17:11	10
Bromomethane	7.8	U	7.8	2.4	ug/m3			07/11/18 17:11	10
Carbon disulfide	16	U	16	3.7	ug/m3			07/11/18 17:11	10
Carbon tetrachloride	13	U	13	1.5	ug/m3			07/11/18 17:11	10
Chlorobenzene	9.2	U	9.2	1.8	ug/m3			07/11/18 17:11	10
Chloroethane	13	U	13	5.5	ug/m3			07/11/18 17:11	10
Chloroform	9.8	U	9.8	2.5	ug/m3			07/11/18 17:11	10
Chloromethane	10	U	10	5.2	ug/m3			07/11/18 17:11	10
cis-1,2-Dichloroethene	7.9	U	7.9	1.5	ug/m3			07/11/18 17:11	10
cis-1,3-Dichloropropene	9.1	U	9.1	4.4	ug/m3			07/11/18 17:11	10
Cumene	9.8	U	9.8	2.9	ug/m3			07/11/18 17:11	10
Cyclohexane	6.9	U	6.9	2.2	ug/m3			07/11/18 17:11	10
Dibromochloromethane	17	U	17	6.0	ug/m3			07/11/18 17:11	10
Dichlorodifluoromethane	25	U	25	9.9	ug/m3			07/11/18 17:11	10
Ethylbenzene	8.7	U	8.7	3.2	ug/m3			07/11/18 17:11	10
Freon 22	18	U	18	9.2	ug/m3			07/11/18 17:11	10
Freon TF	15	U	15	2.4	ug/m3			07/11/18 17:11	10
Hexachlorobutadiene	21	U	21	8.7	ug/m3			07/11/18 17:11	10
Isopropyl alcohol	120	U	120	44	ug/m3			07/11/18 17:11	10
m,p-Xylene	22	U	22	3.0	ug/m3			07/11/18 17:11	10
Methyl Butyl Ketone (2-Hexanone)	20	U	20	17	ug/m3			07/11/18 17:11	10
Methyl Ethyl Ketone	15	U	15	5.9	ug/m3			07/11/18 17:11	10
methyl isobutyl ketone	20	U	20	15	ug/m3			07/11/18 17:11	10
Methyl methacrylate	20	U	20	9.0	ug/m3			07/11/18 17:11	10
Methyl tert-butyl ether	7.2	U	7.2	2.2	ug/m3			07/11/18 17:11	10
Methylene Chloride	17	U	17	6.9	ug/m3			07/11/18 17:11	10
Naphthalene	26	U	26	16	ug/m3			07/11/18 17:11	10
n-Butane	12	U	12	7.4	ug/m3			07/11/18 17:11	10
n-Butylbenzene	11	U	11	4.4	ug/m3			07/11/18 17:11	10
n-Heptane	8.2	U	8.2	5.7	ug/m3			07/11/18 17:11	10
n-Hexane	7.0	U	7.0	5.6	ug/m3			07/11/18 17:11	10
n-Propylbenzene	9.8	U	9.8	3.4	ug/m3			07/11/18 17:11	10
sec-Butylbenzene	11	U	11	3.6	ug/m3			07/11/18 17:11	10
Styrene	8.5	U	8.5	3.7	ug/m3			07/11/18 17:11	10
tert-Butyl alcohol	150	U	150	45	ug/m3			07/11/18 17:11	10
tert-Butylbenzene	11	U	11	3.2	ug/m3			07/11/18 17:11	10
Tetrachloroethene	4.4	J	14	2.0	ug/m3			07/11/18 17:11	10
Tetrahydrofuran	150	U	150	77	ug/m3			07/11/18 17:11	10
Toluene	7.5	U	7.5	2.6	ug/m3			07/11/18 17:11	10
trans-1,2-Dichloroethene	7.9	U	7.9	2.9	ug/m3			07/11/18 17:11	10
trans-1,3-Dichloropropene	9.1	U	9.1	5.4	ug/m3			07/11/18 17:11	10

TestAmerica Burlington

Client Sample Results

Client: PW Grosser Consulting
Project/Site: BNL 1801

TestAmerica Job ID: 200-44205-1

Client Sample ID: SVE-01

Date Collected: 06/27/18 10:25

Date Received: 07/06/18 10:30

Sample Container: Summa Canister 1L

Lab Sample ID: 200-44205-1

Matrix: Air

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	11	U	11	1.6	ug/m3			07/11/18 17:11	10
Trichlorofluoromethane	11	U	11	3.5	ug/m3			07/11/18 17:11	10
Vinyl chloride	5.1	U	5.1	1.0	ug/m3			07/11/18 17:11	10
Xylene (total)	30	U	30	6.1	ug/m3			07/11/18 17:11	10
Xylene, o-	8.7	U	8.7	3.1	ug/m3			07/11/18 17:11	10

Client Sample ID: SVE-02

Date Collected: 06/27/18 12:20

Date Received: 07/06/18 10:30

Sample Container: Summa Canister 1L

Lab Sample ID: 200-44205-2

Matrix: Air

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	5.0		4.6	1.6	ppb v/v			07/11/18 18:02	23.2
1,1,2,2-Tetrachloroethane	4.6	U	4.6	1.8	ppb v/v			07/11/18 18:02	23.2
1,1,2-Trichloroethane	4.6	U	4.6	1.8	ppb v/v			07/11/18 18:02	23.2
1,1-Dichloroethane	4.6	U	4.6	0.60	ppb v/v			07/11/18 18:02	23.2
1,1-Dichloroethene	4.6	U	4.6	0.79	ppb v/v			07/11/18 18:02	23.2
1,2,4-Trichlorobenzene	12	U	12	5.6	ppb v/v			07/11/18 18:02	23.2
1,2,4-Trimethylbenzene	4.6	U	4.6	1.9	ppb v/v			07/11/18 18:02	23.2
1,2-Dibromoethane	4.6	U	4.6	1.6	ppb v/v			07/11/18 18:02	23.2
1,2-Dichlorobenzene	4.6	U	4.6	1.6	ppb v/v			07/11/18 18:02	23.2
1,2-Dichloroethane	4.6	U	4.6	1.5	ppb v/v			07/11/18 18:02	23.2
1,2-Dichloroethene, Total	9.3	U	9.3	2.6	ppb v/v			07/11/18 18:02	23.2
1,2-Dichloropropane	4.6	U	4.6	2.8	ppb v/v			07/11/18 18:02	23.2
1,2-Dichlorotetrafluoroethane	4.6	U	4.6	1.6	ppb v/v			07/11/18 18:02	23.2
1,3,5-Trimethylbenzene	4.6	U	4.6	1.3	ppb v/v			07/11/18 18:02	23.2
1,3-Butadiene	4.6	U	4.6	1.5	ppb v/v			07/11/18 18:02	23.2
1,3-Dichlorobenzene	4.6	U	4.6	1.9	ppb v/v			07/11/18 18:02	23.2
1,4-Dichlorobenzene	4.6	U	4.6	1.5	ppb v/v			07/11/18 18:02	23.2
1,4-Dioxane	120	U	120	30	ppb v/v			07/11/18 18:02	23.2
2,2,4-Trimethylpentane	4.6	U	4.6	2.0	ppb v/v			07/11/18 18:02	23.2
2-Chlorotoluene	4.6	U	4.6	1.6	ppb v/v			07/11/18 18:02	23.2
3-Chloropropene	12	U	12	6.3	ppb v/v			07/11/18 18:02	23.2
4-Ethyltoluene	4.6	U	4.6	1.6	ppb v/v			07/11/18 18:02	23.2
4-Isopropyltoluene	4.6	U	4.6	1.7	ppb v/v			07/11/18 18:02	23.2
Acetone	120	U	120	60	ppb v/v			07/11/18 18:02	23.2
Benzene	4.6	U	4.6	1.6	ppb v/v			07/11/18 18:02	23.2
Benzyl chloride	4.6	U	4.6	2.8	ppb v/v			07/11/18 18:02	23.2
Bromodichloromethane	4.6	U	4.6	2.2	ppb v/v			07/11/18 18:02	23.2
Bromoethene(Vinyl Bromide)	4.6	U	4.6	1.3	ppb v/v			07/11/18 18:02	23.2
Bromoform	4.6	U	4.6	2.0	ppb v/v			07/11/18 18:02	23.2
Bromomethane	4.6	U	4.6	1.4	ppb v/v			07/11/18 18:02	23.2
Carbon disulfide	12	U	12	2.8	ppb v/v			07/11/18 18:02	23.2
Carbon tetrachloride	4.6	U	4.6	0.56	ppb v/v			07/11/18 18:02	23.2
Chlorobenzene	4.6	U	4.6	0.93	ppb v/v			07/11/18 18:02	23.2
Chloroethane	12	U	12	4.9	ppb v/v			07/11/18 18:02	23.2
Chloroform	4.6	U	4.6	1.2	ppb v/v			07/11/18 18:02	23.2
Chloromethane	12	U	12	5.8	ppb v/v			07/11/18 18:02	23.2

TestAmerica Burlington

Client Sample Results

Client: PW Grosser Consulting
Project/Site: BNL 1801

TestAmerica Job ID: 200-44205-1

Client Sample ID: SVE-02

Lab Sample ID: 200-44205-2

Date Collected: 06/27/18 12:20

Matrix: Air

Date Received: 07/06/18 10:30

Sample Container: Summa Canister 1L

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	4.6	U	4.6	0.86	ppb v/v			07/11/18 18:02	23.2
cis-1,3-Dichloropropene	4.6	U	4.6	2.3	ppb v/v			07/11/18 18:02	23.2
Cumene	4.6	U	4.6	1.4	ppb v/v			07/11/18 18:02	23.2
Cyclohexane	4.6	U	4.6	1.5	ppb v/v			07/11/18 18:02	23.2
Dibromochloromethane	4.6	U	4.6	1.6	ppb v/v			07/11/18 18:02	23.2
Dichlorodifluoromethane	12	U	12	4.6	ppb v/v			07/11/18 18:02	23.2
Ethylbenzene	4.6	U	4.6	1.7	ppb v/v			07/11/18 18:02	23.2
Freon 22	12	U	12	6.0	ppb v/v			07/11/18 18:02	23.2
Freon TF	4.6	U	4.6	0.72	ppb v/v			07/11/18 18:02	23.2
Hexachlorobutadiene	4.6	U	4.6	1.9	ppb v/v			07/11/18 18:02	23.2
Isopropyl alcohol	120	U	120	42	ppb v/v			07/11/18 18:02	23.2
m,p-Xylene	12	U	12	1.6	ppb v/v			07/11/18 18:02	23.2
Methyl Butyl Ketone (2-Hexanone)	12	U	12	9.7	ppb v/v			07/11/18 18:02	23.2
Methyl Ethyl Ketone	12	U	12	4.6	ppb v/v			07/11/18 18:02	23.2
methyl isobutyl ketone	12	U	12	8.4	ppb v/v			07/11/18 18:02	23.2
Methyl methacrylate	12	U	12	5.1	ppb v/v			07/11/18 18:02	23.2
Methyl tert-butyl ether	4.6	U	4.6	1.4	ppb v/v			07/11/18 18:02	23.2
Methylene Chloride	12	U	12	4.6	ppb v/v			07/11/18 18:02	23.2
Naphthalene	12	U	12	7.2	ppb v/v			07/11/18 18:02	23.2
n-Butane	12	U	12	7.2	ppb v/v			07/11/18 18:02	23.2
n-Butylbenzene	4.6	U	4.6	1.9	ppb v/v			07/11/18 18:02	23.2
n-Heptane	4.6	U	4.6	3.2	ppb v/v			07/11/18 18:02	23.2
n-Hexane	4.6	U	4.6	3.7	ppb v/v			07/11/18 18:02	23.2
n-Propylbenzene	4.6	U	4.6	1.6	ppb v/v			07/11/18 18:02	23.2
sec-Butylbenzene	4.6	U	4.6	1.5	ppb v/v			07/11/18 18:02	23.2
Styrene	4.6	U	4.6	2.0	ppb v/v			07/11/18 18:02	23.2
tert-Butyl alcohol	120	U	120	35	ppb v/v			07/11/18 18:02	23.2
tert-Butylbenzene	4.6	U	4.6	1.3	ppb v/v			07/11/18 18:02	23.2
Tetrachloroethene	500		4.6	0.67	ppb v/v			07/11/18 18:02	23.2
Tetrahydrofuran	120	U	120	60	ppb v/v			07/11/18 18:02	23.2
Toluene	4.6	U	4.6	1.6	ppb v/v			07/11/18 18:02	23.2
trans-1,2-Dichloroethene	4.6	U	4.6	1.7	ppb v/v			07/11/18 18:02	23.2
trans-1,3-Dichloropropene	4.6	U	4.6	2.8	ppb v/v			07/11/18 18:02	23.2
Trichloroethene	4.6	U	4.6	0.70	ppb v/v			07/11/18 18:02	23.2
Trichlorofluoromethane	4.6	U	4.6	1.4	ppb v/v			07/11/18 18:02	23.2
Vinyl chloride	4.6	U	4.6	0.95	ppb v/v			07/11/18 18:02	23.2
Xylene (total)	16	U	16	3.3	ppb v/v			07/11/18 18:02	23.2
Xylene, o-	4.6	U	4.6	1.6	ppb v/v			07/11/18 18:02	23.2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	28		25	8.6	ug/m3			07/11/18 18:02	23.2
1,1,2,2-Tetrachloroethane	32	U	32	12	ug/m3			07/11/18 18:02	23.2
1,1,2-Trichloroethane	25	U	25	9.9	ug/m3			07/11/18 18:02	23.2
1,1-Dichloroethane	19	U	19	2.4	ug/m3			07/11/18 18:02	23.2
1,1-Dichloroethene	18	U	18	3.1	ug/m3			07/11/18 18:02	23.2
1,2,4-Trichlorobenzene	86	U	86	41	ug/m3			07/11/18 18:02	23.2
1,2,4-Trimethylbenzene	23	U	23	9.1	ug/m3			07/11/18 18:02	23.2
1,2-Dibromoethane	36	U	36	12	ug/m3			07/11/18 18:02	23.2
1,2-Dichlorobenzene	28	U	28	9.9	ug/m3			07/11/18 18:02	23.2

TestAmerica Burlington

Client Sample Results

Client: PW Grosser Consulting
Project/Site: BNL 1801

TestAmerica Job ID: 200-44205-1

Client Sample ID: SVE-02

Lab Sample ID: 200-44205-2

Date Collected: 06/27/18 12:20

Matrix: Air

Date Received: 07/06/18 10:30

Sample Container: Summa Canister 1L

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	19	U	19	5.9	ug/m3			07/11/18 18:02	23.2
1,2-Dichloroethene, Total	37	U	37	10	ug/m3			07/11/18 18:02	23.2
1,2-Dichloropropane	21	U	21	13	ug/m3			07/11/18 18:02	23.2
1,2-Dichlorotetrafluoroethane	32	U	32	11	ug/m3			07/11/18 18:02	23.2
1,3,5-Trimethylbenzene	23	U	23	6.6	ug/m3			07/11/18 18:02	23.2
1,3-Butadiene	10	U	10	3.3	ug/m3			07/11/18 18:02	23.2
1,3-Dichlorobenzene	28	U	28	11	ug/m3			07/11/18 18:02	23.2
1,4-Dichlorobenzene	28	U	28	9.1	ug/m3			07/11/18 18:02	23.2
1,4-Dioxane	420	U	420	110	ug/m3			07/11/18 18:02	23.2
2,2,4-Trimethylpentane	22	U	22	9.5	ug/m3			07/11/18 18:02	23.2
2-Chlorotoluene	24	U	24	8.5	ug/m3			07/11/18 18:02	23.2
3-Chloropropene	36	U	36	20	ug/m3			07/11/18 18:02	23.2
4-Ethyltoluene	23	U	23	7.9	ug/m3			07/11/18 18:02	23.2
4-Isopropyltoluene	25	U	25	9.6	ug/m3			07/11/18 18:02	23.2
Acetone	280	U	280	140	ug/m3			07/11/18 18:02	23.2
Benzene	15	U	15	5.3	ug/m3			07/11/18 18:02	23.2
Benzyl chloride	24	U	24	14	ug/m3			07/11/18 18:02	23.2
Bromodichloromethane	31	U	31	15	ug/m3			07/11/18 18:02	23.2
Bromoethene(Vinyl Bromide)	20	U	20	5.7	ug/m3			07/11/18 18:02	23.2
Bromoform	48	U	48	21	ug/m3			07/11/18 18:02	23.2
Bromomethane	18	U	18	5.6	ug/m3			07/11/18 18:02	23.2
Carbon disulfide	36	U	36	8.7	ug/m3			07/11/18 18:02	23.2
Carbon tetrachloride	29	U	29	3.5	ug/m3			07/11/18 18:02	23.2
Chlorobenzene	21	U	21	4.3	ug/m3			07/11/18 18:02	23.2
Chloroethane	31	U	31	13	ug/m3			07/11/18 18:02	23.2
Chloroform	23	U	23	5.9	ug/m3			07/11/18 18:02	23.2
Chloromethane	24	U	24	12	ug/m3			07/11/18 18:02	23.2
cis-1,2-Dichloroethene	18	U	18	3.4	ug/m3			07/11/18 18:02	23.2
cis-1,3-Dichloropropene	21	U	21	10	ug/m3			07/11/18 18:02	23.2
Cumene	23	U	23	6.7	ug/m3			07/11/18 18:02	23.2
Cyclohexane	16	U	16	5.0	ug/m3			07/11/18 18:02	23.2
Dibromochloromethane	40	U	40	14	ug/m3			07/11/18 18:02	23.2
Dichlorodifluoromethane	57	U	57	23	ug/m3			07/11/18 18:02	23.2
Ethylbenzene	20	U	20	7.4	ug/m3			07/11/18 18:02	23.2
Freon 22	41	U	41	21	ug/m3			07/11/18 18:02	23.2
Freon TF	36	U	36	5.5	ug/m3			07/11/18 18:02	23.2
Hexachlorobutadiene	49	U	49	20	ug/m3			07/11/18 18:02	23.2
Isopropyl alcohol	290	U	290	100	ug/m3			07/11/18 18:02	23.2
m,p-Xylene	50	U	50	7.1	ug/m3			07/11/18 18:02	23.2
Methyl Butyl Ketone (2-Hexanone)	48	U	48	40	ug/m3			07/11/18 18:02	23.2
Methyl Ethyl Ketone	34	U	34	14	ug/m3			07/11/18 18:02	23.2
methyl isobutyl ketone	48	U	48	34	ug/m3			07/11/18 18:02	23.2
Methyl methacrylate	48	U	48	21	ug/m3			07/11/18 18:02	23.2
Methyl tert-butyl ether	17	U	17	5.1	ug/m3			07/11/18 18:02	23.2
Methylene Chloride	40	U	40	16	ug/m3			07/11/18 18:02	23.2
Naphthalene	61	U	61	38	ug/m3			07/11/18 18:02	23.2
n-Butane	28	U	28	17	ug/m3			07/11/18 18:02	23.2
n-Butylbenzene	25	U	25	10	ug/m3			07/11/18 18:02	23.2

TestAmerica Burlington

Client Sample Results

Client: PW Grosser Consulting
Project/Site: BNL 1801

TestAmerica Job ID: 200-44205-1

Client Sample ID: SVE-02

Date Collected: 06/27/18 12:20

Date Received: 07/06/18 10:30

Sample Container: Summa Canister 1L

Lab Sample ID: 200-44205-2

Matrix: Air

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
n-Heptane	19	U	19	13	ug/m3			07/11/18 18:02	23.2
n-Hexane	16	U	16	13	ug/m3			07/11/18 18:02	23.2
n-Propylbenzene	23	U	23	7.9	ug/m3			07/11/18 18:02	23.2
sec-Butylbenzene	25	U	25	8.4	ug/m3			07/11/18 18:02	23.2
Styrene	20	U	20	8.5	ug/m3			07/11/18 18:02	23.2
tert-Butyl alcohol	350	U	350	110	ug/m3			07/11/18 18:02	23.2
tert-Butylbenzene	25	U	25	7.4	ug/m3			07/11/18 18:02	23.2
Tetrachloroethene	3400		31	4.6	ug/m3			07/11/18 18:02	23.2
Tetrahydrofuran	340	U	340	180	ug/m3			07/11/18 18:02	23.2
Toluene	17	U	17	6.0	ug/m3			07/11/18 18:02	23.2
trans-1,2-Dichloroethene	18	U	18	6.8	ug/m3			07/11/18 18:02	23.2
trans-1,3-Dichloropropene	21	U	21	13	ug/m3			07/11/18 18:02	23.2
Trichloroethene	25	U	25	3.7	ug/m3			07/11/18 18:02	23.2
Trichlorofluoromethane	26	U	26	8.1	ug/m3			07/11/18 18:02	23.2
Vinyl chloride	12	U	12	2.4	ug/m3			07/11/18 18:02	23.2
Xylene (total)	71	U	71	14	ug/m3			07/11/18 18:02	23.2
Xylene, o-	20	U	20	7.2	ug/m3			07/11/18 18:02	23.2

Client Sample ID: SVE-03

Date Collected: 06/27/18 13:15

Date Received: 07/06/18 10:30

Sample Container: Summa Canister 1L

Lab Sample ID: 200-44205-3

Matrix: Air

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	2.0	U	2.0	0.68	ppb v/v			07/11/18 18:52	10
1,1,2,2-Tetrachloroethane	2.0	U	2.0	0.76	ppb v/v			07/11/18 18:52	10
1,1,2-Trichloroethane	2.0	U	2.0	0.78	ppb v/v			07/11/18 18:52	10
1,1-Dichloroethane	2.0	U	2.0	0.26	ppb v/v			07/11/18 18:52	10
1,1-Dichloroethene	2.0	U	2.0	0.34	ppb v/v			07/11/18 18:52	10
1,2,4-Trichlorobenzene	5.0	U	5.0	2.4	ppb v/v			07/11/18 18:52	10
1,2,4-Trimethylbenzene	2.0	U	2.0	0.80	ppb v/v			07/11/18 18:52	10
1,2-Dibromoethane	2.0	U	2.0	0.69	ppb v/v			07/11/18 18:52	10
1,2-Dichlorobenzene	2.0	U	2.0	0.71	ppb v/v			07/11/18 18:52	10
1,2-Dichloroethane	2.0	U	2.0	0.63	ppb v/v			07/11/18 18:52	10
1,2-Dichloroethene, Total	4.0	U	4.0	1.1	ppb v/v			07/11/18 18:52	10
1,2-Dichloropropane	2.0	U	2.0	1.2	ppb v/v			07/11/18 18:52	10
1,2-Dichlorotetrafluoroethane	2.0	U	2.0	0.68	ppb v/v			07/11/18 18:52	10
1,3,5-Trimethylbenzene	2.0	U	2.0	0.58	ppb v/v			07/11/18 18:52	10
1,3-Butadiene	2.0	U	2.0	0.65	ppb v/v			07/11/18 18:52	10
1,3-Dichlorobenzene	2.0	U	2.0	0.82	ppb v/v			07/11/18 18:52	10
1,4-Dichlorobenzene	2.0	U	2.0	0.65	ppb v/v			07/11/18 18:52	10
1,4-Dioxane	50	U	50	13	ppb v/v			07/11/18 18:52	10
2,2,4-Trimethylpentane	2.0	U	2.0	0.88	ppb v/v			07/11/18 18:52	10
2-Chlorotoluene	2.0	U	2.0	0.71	ppb v/v			07/11/18 18:52	10
3-Chloropropene	5.0	U	5.0	2.7	ppb v/v			07/11/18 18:52	10
4-Ethyltoluene	2.0	U	2.0	0.69	ppb v/v			07/11/18 18:52	10
4-Isopropyltoluene	2.0	U	2.0	0.75	ppb v/v			07/11/18 18:52	10
Acetone	42	J	50	26	ppb v/v			07/11/18 18:52	10

TestAmerica Burlington

Client Sample Results

Client: PW Grosser Consulting
Project/Site: BNL 1801

TestAmerica Job ID: 200-44205-1

Client Sample ID: SVE-03

Lab Sample ID: 200-44205-3

Date Collected: 06/27/18 13:15

Matrix: Air

Date Received: 07/06/18 10:30

Sample Container: Summa Canister 1L

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	2.0	U	2.0	0.71	ppb v/v			07/11/18 18:52	10
Benzyl chloride	2.0	U	2.0	1.2	ppb v/v			07/11/18 18:52	10
Bromodichloromethane	2.0	U	2.0	0.94	ppb v/v			07/11/18 18:52	10
Bromoethene(Vinyl Bromide)	2.0	U	2.0	0.56	ppb v/v			07/11/18 18:52	10
Bromoform	2.0	U	2.0	0.86	ppb v/v			07/11/18 18:52	10
Bromomethane	2.0	U	2.0	0.62	ppb v/v			07/11/18 18:52	10
Carbon disulfide	5.0	U	5.0	1.2	ppb v/v			07/11/18 18:52	10
Carbon tetrachloride	2.0	U	2.0	0.24	ppb v/v			07/11/18 18:52	10
Chlorobenzene	2.0	U	2.0	0.40	ppb v/v			07/11/18 18:52	10
Chloroethane	5.0	U	5.0	2.1	ppb v/v			07/11/18 18:52	10
Chloroform	2.0	U	2.0	0.52	ppb v/v			07/11/18 18:52	10
Chloromethane	5.0	U	5.0	2.5	ppb v/v			07/11/18 18:52	10
cis-1,2-Dichloroethene	2.0	U	2.0	0.37	ppb v/v			07/11/18 18:52	10
cis-1,3-Dichloropropene	2.0	U	2.0	0.98	ppb v/v			07/11/18 18:52	10
Cumene	2.0	U	2.0	0.59	ppb v/v			07/11/18 18:52	10
Cyclohexane	2.0	U	2.0	0.63	ppb v/v			07/11/18 18:52	10
Dibromochloromethane	2.0	U	2.0	0.71	ppb v/v			07/11/18 18:52	10
Dichlorodifluoromethane	5.0	U	5.0	2.0	ppb v/v			07/11/18 18:52	10
Ethylbenzene	2.0	U	2.0	0.73	ppb v/v			07/11/18 18:52	10
Freon 22	5.0	U	5.0	2.6	ppb v/v			07/11/18 18:52	10
Freon TF	2.0	U	2.0	0.31	ppb v/v			07/11/18 18:52	10
Hexachlorobutadiene	2.0	U	2.0	0.82	ppb v/v			07/11/18 18:52	10
Isopropyl alcohol	50	U	50	18	ppb v/v			07/11/18 18:52	10
m,p-Xylene	5.0	U	5.0	0.70	ppb v/v			07/11/18 18:52	10
Methyl Butyl Ketone (2-Hexanone)	5.0	U	5.0	4.2	ppb v/v			07/11/18 18:52	10
Methyl Ethyl Ketone	2.0	J	5.0	2.0	ppb v/v			07/11/18 18:52	10
methyl isobutyl ketone	5.0	U	5.0	3.6	ppb v/v			07/11/18 18:52	10
Methyl methacrylate	5.0	U	5.0	2.2	ppb v/v			07/11/18 18:52	10
Methyl tert-butyl ether	2.0	U	2.0	0.61	ppb v/v			07/11/18 18:52	10
Methylene Chloride	5.0	U	5.0	2.0	ppb v/v			07/11/18 18:52	10
Naphthalene	5.0	U	5.0	3.1	ppb v/v			07/11/18 18:52	10
n-Butane	5.0	U	5.0	3.1	ppb v/v			07/11/18 18:52	10
n-Butylbenzene	2.0	U	2.0	0.80	ppb v/v			07/11/18 18:52	10
n-Heptane	2.0	U	2.0	1.4	ppb v/v			07/11/18 18:52	10
n-Hexane	2.0	U	2.0	1.6	ppb v/v			07/11/18 18:52	10
n-Propylbenzene	2.0	U	2.0	0.69	ppb v/v			07/11/18 18:52	10
sec-Butylbenzene	2.0	U	2.0	0.66	ppb v/v			07/11/18 18:52	10
Styrene	2.0	U	2.0	0.86	ppb v/v			07/11/18 18:52	10
tert-Butyl alcohol	50	U	50	15	ppb v/v			07/11/18 18:52	10
tert-Butylbenzene	2.0	U	2.0	0.58	ppb v/v			07/11/18 18:52	10
Tetrachloroethene	2.4		2.0	0.29	ppb v/v			07/11/18 18:52	10
Tetrahydrofuran	50	U	50	26	ppb v/v			07/11/18 18:52	10
Toluene	2.0	U	2.0	0.69	ppb v/v			07/11/18 18:52	10
trans-1,2-Dichloroethene	2.0	U	2.0	0.74	ppb v/v			07/11/18 18:52	10
trans-1,3-Dichloropropene	2.0	U	2.0	1.2	ppb v/v			07/11/18 18:52	10
Trichloroethene	2.0	U	2.0	0.30	ppb v/v			07/11/18 18:52	10
Trichlorofluoromethane	2.0	U	2.0	0.62	ppb v/v			07/11/18 18:52	10
Vinyl chloride	2.0	U	2.0	0.41	ppb v/v			07/11/18 18:52	10

TestAmerica Burlington

Client Sample Results

Client: PW Grosser Consulting
Project/Site: BNL 1801

TestAmerica Job ID: 200-44205-1

Client Sample ID: SVE-03

Lab Sample ID: 200-44205-3

Date Collected: 06/27/18 13:15

Matrix: Air

Date Received: 07/06/18 10:30

Sample Container: Summa Canister 1L

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Xylene (total)	7.0	U	7.0	1.4	ppb v/v			07/11/18 18:52	10
Xylene, o-	2.0	U	2.0	0.71	ppb v/v			07/11/18 18:52	10
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	11	U	11	3.7	ug/m3			07/11/18 18:52	10
1,1,1,2-Tetrachloroethane	14	U	14	5.2	ug/m3			07/11/18 18:52	10
1,1,2-Trichloroethane	11	U	11	4.3	ug/m3			07/11/18 18:52	10
1,1-Dichloroethane	8.1	U	8.1	1.1	ug/m3			07/11/18 18:52	10
1,1-Dichloroethene	7.9	U	7.9	1.3	ug/m3			07/11/18 18:52	10
1,2,4-Trichlorobenzene	37	U	37	18	ug/m3			07/11/18 18:52	10
1,2,4-Trimethylbenzene	9.8	U	9.8	3.9	ug/m3			07/11/18 18:52	10
1,2-Dibromoethane	15	U	15	5.3	ug/m3			07/11/18 18:52	10
1,2-Dichlorobenzene	12	U	12	4.3	ug/m3			07/11/18 18:52	10
1,2-Dichloroethane	8.1	U	8.1	2.5	ug/m3			07/11/18 18:52	10
1,2-Dichloroethene, Total	16	U	16	4.4	ug/m3			07/11/18 18:52	10
1,2-Dichloropropane	9.2	U	9.2	5.5	ug/m3			07/11/18 18:52	10
1,2-Dichlorotetrafluoroethane	14	U	14	4.8	ug/m3			07/11/18 18:52	10
1,3,5-Trimethylbenzene	9.8	U	9.8	2.9	ug/m3			07/11/18 18:52	10
1,3-Butadiene	4.4	U	4.4	1.4	ug/m3			07/11/18 18:52	10
1,3-Dichlorobenzene	12	U	12	4.9	ug/m3			07/11/18 18:52	10
1,4-Dichlorobenzene	12	U	12	3.9	ug/m3			07/11/18 18:52	10
1,4-Dioxane	180	U	180	47	ug/m3			07/11/18 18:52	10
2,2,4-Trimethylpentane	9.3	U	9.3	4.1	ug/m3			07/11/18 18:52	10
2-Chlorotoluene	10	U	10	3.7	ug/m3			07/11/18 18:52	10
3-Chloropropene	16	U	16	8.5	ug/m3			07/11/18 18:52	10
4-Ethyltoluene	9.8	U	9.8	3.4	ug/m3			07/11/18 18:52	10
4-Isopropyltoluene	11	U	11	4.1	ug/m3			07/11/18 18:52	10
Acetone	100	J	120	62	ug/m3			07/11/18 18:52	10
Benzene	6.4	U	6.4	2.3	ug/m3			07/11/18 18:52	10
Benzyl chloride	10	U	10	6.2	ug/m3			07/11/18 18:52	10
Bromodichloromethane	13	U	13	6.3	ug/m3			07/11/18 18:52	10
Bromoethene(Vinyl Bromide)	8.7	U	8.7	2.4	ug/m3			07/11/18 18:52	10
Bromoform	21	U	21	8.9	ug/m3			07/11/18 18:52	10
Bromomethane	7.8	U	7.8	2.4	ug/m3			07/11/18 18:52	10
Carbon disulfide	16	U	16	3.7	ug/m3			07/11/18 18:52	10
Carbon tetrachloride	13	U	13	1.5	ug/m3			07/11/18 18:52	10
Chlorobenzene	9.2	U	9.2	1.8	ug/m3			07/11/18 18:52	10
Chloroethane	13	U	13	5.5	ug/m3			07/11/18 18:52	10
Chloroform	9.8	U	9.8	2.5	ug/m3			07/11/18 18:52	10
Chloromethane	10	U	10	5.2	ug/m3			07/11/18 18:52	10
cis-1,2-Dichloroethene	7.9	U	7.9	1.5	ug/m3			07/11/18 18:52	10
cis-1,3-Dichloropropene	9.1	U	9.1	4.4	ug/m3			07/11/18 18:52	10
Cumene	9.8	U	9.8	2.9	ug/m3			07/11/18 18:52	10
Cyclohexane	6.9	U	6.9	2.2	ug/m3			07/11/18 18:52	10
Dibromochloromethane	17	U	17	6.0	ug/m3			07/11/18 18:52	10
Dichlorodifluoromethane	25	U	25	9.9	ug/m3			07/11/18 18:52	10
Ethylbenzene	8.7	U	8.7	3.2	ug/m3			07/11/18 18:52	10
Freon 22	18	U	18	9.2	ug/m3			07/11/18 18:52	10
Freon TF	15	U	15	2.4	ug/m3			07/11/18 18:52	10

TestAmerica Burlington

Client Sample Results

Client: PW Grosser Consulting
Project/Site: BNL 1801

TestAmerica Job ID: 200-44205-1

Client Sample ID: SVE-03

Date Collected: 06/27/18 13:15

Date Received: 07/06/18 10:30

Sample Container: Summa Canister 1L

Lab Sample ID: 200-44205-3

Matrix: Air

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorobutadiene	21	U	21	8.7	ug/m3			07/11/18 18:52	10
Isopropyl alcohol	120	U	120	44	ug/m3			07/11/18 18:52	10
m,p-Xylene	22	U	22	3.0	ug/m3			07/11/18 18:52	10
Methyl Butyl Ketone (2-Hexanone)	20	U	20	17	ug/m3			07/11/18 18:52	10
Methyl Ethyl Ketone	5.9	J	15	5.9	ug/m3			07/11/18 18:52	10
methyl isobutyl ketone	20	U	20	15	ug/m3			07/11/18 18:52	10
Methyl methacrylate	20	U	20	9.0	ug/m3			07/11/18 18:52	10
Methyl tert-butyl ether	7.2	U	7.2	2.2	ug/m3			07/11/18 18:52	10
Methylene Chloride	17	U	17	6.9	ug/m3			07/11/18 18:52	10
Naphthalene	26	U	26	16	ug/m3			07/11/18 18:52	10
n-Butane	12	U	12	7.4	ug/m3			07/11/18 18:52	10
n-Butylbenzene	11	U	11	4.4	ug/m3			07/11/18 18:52	10
n-Heptane	8.2	U	8.2	5.7	ug/m3			07/11/18 18:52	10
n-Hexane	7.0	U	7.0	5.6	ug/m3			07/11/18 18:52	10
n-Propylbenzene	9.8	U	9.8	3.4	ug/m3			07/11/18 18:52	10
sec-Butylbenzene	11	U	11	3.6	ug/m3			07/11/18 18:52	10
Styrene	8.5	U	8.5	3.7	ug/m3			07/11/18 18:52	10
tert-Butyl alcohol	150	U	150	45	ug/m3			07/11/18 18:52	10
tert-Butylbenzene	11	U	11	3.2	ug/m3			07/11/18 18:52	10
Tetrachloroethene	16		14	2.0	ug/m3			07/11/18 18:52	10
Tetrahydrofuran	150	U	150	77	ug/m3			07/11/18 18:52	10
Toluene	7.5	U	7.5	2.6	ug/m3			07/11/18 18:52	10
trans-1,2-Dichloroethene	7.9	U	7.9	2.9	ug/m3			07/11/18 18:52	10
trans-1,3-Dichloropropene	9.1	U	9.1	5.4	ug/m3			07/11/18 18:52	10
Trichloroethene	11	U	11	1.6	ug/m3			07/11/18 18:52	10
Trichlorofluoromethane	11	U	11	3.5	ug/m3			07/11/18 18:52	10
Vinyl chloride	5.1	U	5.1	1.0	ug/m3			07/11/18 18:52	10
Xylene (total)	30	U	30	6.1	ug/m3			07/11/18 18:52	10
Xylene, o-	8.7	U	8.7	3.1	ug/m3			07/11/18 18:52	10

Client Sample ID: SVE-04

Date Collected: 06/27/18 14:05

Date Received: 07/06/18 10:30

Sample Container: Summa Canister 1L

Lab Sample ID: 200-44205-4

Matrix: Air

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	2.0	U	2.0	0.68	ppb v/v			07/11/18 19:43	10
1,1,1,2-Tetrachloroethane	2.0	U	2.0	0.76	ppb v/v			07/11/18 19:43	10
1,1,2-Trichloroethane	2.0	U	2.0	0.78	ppb v/v			07/11/18 19:43	10
1,1-Dichloroethane	2.0	U	2.0	0.26	ppb v/v			07/11/18 19:43	10
1,1-Dichloroethene	2.0	U	2.0	0.34	ppb v/v			07/11/18 19:43	10
1,2,4-Trichlorobenzene	5.0	U	5.0	2.4	ppb v/v			07/11/18 19:43	10
1,2,4-Trimethylbenzene	2.0	U	2.0	0.80	ppb v/v			07/11/18 19:43	10
1,2-Dibromoethane	2.0	U	2.0	0.69	ppb v/v			07/11/18 19:43	10
1,2-Dichlorobenzene	2.0	U	2.0	0.71	ppb v/v			07/11/18 19:43	10
1,2-Dichloroethane	2.0	U	2.0	0.63	ppb v/v			07/11/18 19:43	10
1,2-Dichloroethene, Total	4.0	U	4.0	1.1	ppb v/v			07/11/18 19:43	10
1,2-Dichloropropane	2.0	U	2.0	1.2	ppb v/v			07/11/18 19:43	10

TestAmerica Burlington

Client Sample Results

Client: PW Grosser Consulting
Project/Site: BNL 1801

TestAmerica Job ID: 200-44205-1

Client Sample ID: SVE-04

Lab Sample ID: 200-44205-4

Date Collected: 06/27/18 14:05

Matrix: Air

Date Received: 07/06/18 10:30

Sample Container: Summa Canister 1L

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorotetrafluoroethane	2.0	U	2.0	0.68	ppb v/v			07/11/18 19:43	10
1,3,5-Trimethylbenzene	2.0	U	2.0	0.58	ppb v/v			07/11/18 19:43	10
1,3-Butadiene	2.0	U	2.0	0.65	ppb v/v			07/11/18 19:43	10
1,3-Dichlorobenzene	2.0	U	2.0	0.82	ppb v/v			07/11/18 19:43	10
1,4-Dichlorobenzene	2.0	U	2.0	0.65	ppb v/v			07/11/18 19:43	10
1,4-Dioxane	50	U	50	13	ppb v/v			07/11/18 19:43	10
2,2,4-Trimethylpentane	2.0	U	2.0	0.88	ppb v/v			07/11/18 19:43	10
2-Chlorotoluene	2.0	U	2.0	0.71	ppb v/v			07/11/18 19:43	10
3-Chloropropene	5.0	U	5.0	2.7	ppb v/v			07/11/18 19:43	10
4-Ethyltoluene	2.0	U	2.0	0.69	ppb v/v			07/11/18 19:43	10
4-Isopropyltoluene	2.0	U	2.0	0.75	ppb v/v			07/11/18 19:43	10
Acetone	91		50	26	ppb v/v			07/11/18 19:43	10
Benzene	2.0	U	2.0	0.71	ppb v/v			07/11/18 19:43	10
Benzyl chloride	2.0	U	2.0	1.2	ppb v/v			07/11/18 19:43	10
Bromodichloromethane	2.0	U	2.0	0.94	ppb v/v			07/11/18 19:43	10
Bromoethene(Vinyl Bromide)	2.0	U	2.0	0.56	ppb v/v			07/11/18 19:43	10
Bromoform	2.0	U	2.0	0.86	ppb v/v			07/11/18 19:43	10
Bromomethane	2.0	U	2.0	0.62	ppb v/v			07/11/18 19:43	10
Carbon disulfide	5.0	U	5.0	1.2	ppb v/v			07/11/18 19:43	10
Carbon tetrachloride	2.0	U	2.0	0.24	ppb v/v			07/11/18 19:43	10
Chlorobenzene	2.0	U	2.0	0.40	ppb v/v			07/11/18 19:43	10
Chloroethane	5.0	U	5.0	2.1	ppb v/v			07/11/18 19:43	10
Chloroform	2.0	U	2.0	0.52	ppb v/v			07/11/18 19:43	10
Chloromethane	5.0	U	5.0	2.5	ppb v/v			07/11/18 19:43	10
cis-1,2-Dichloroethene	2.0	U	2.0	0.37	ppb v/v			07/11/18 19:43	10
cis-1,3-Dichloropropene	2.0	U	2.0	0.98	ppb v/v			07/11/18 19:43	10
Cumene	2.0	U	2.0	0.59	ppb v/v			07/11/18 19:43	10
Cyclohexane	2.0	U	2.0	0.63	ppb v/v			07/11/18 19:43	10
Dibromochloromethane	2.0	U	2.0	0.71	ppb v/v			07/11/18 19:43	10
Dichlorodifluoromethane	5.0	U	5.0	2.0	ppb v/v			07/11/18 19:43	10
Ethylbenzene	2.0	U	2.0	0.73	ppb v/v			07/11/18 19:43	10
Freon 22	5.0	U	5.0	2.6	ppb v/v			07/11/18 19:43	10
Freon TF	2.0	U	2.0	0.31	ppb v/v			07/11/18 19:43	10
Hexachlorobutadiene	2.0	U	2.0	0.82	ppb v/v			07/11/18 19:43	10
Isopropyl alcohol	50	U	50	18	ppb v/v			07/11/18 19:43	10
m,p-Xylene	5.0	U	5.0	0.70	ppb v/v			07/11/18 19:43	10
Methyl Butyl Ketone (2-Hexanone)	5.0	U	5.0	4.2	ppb v/v			07/11/18 19:43	10
Methyl Ethyl Ketone	4.0	J	5.0	2.0	ppb v/v			07/11/18 19:43	10
methyl isobutyl ketone	5.0	U	5.0	3.6	ppb v/v			07/11/18 19:43	10
Methyl methacrylate	5.0	U	5.0	2.2	ppb v/v			07/11/18 19:43	10
Methyl tert-butyl ether	2.0	U	2.0	0.61	ppb v/v			07/11/18 19:43	10
Methylene Chloride	5.0	U	5.0	2.0	ppb v/v			07/11/18 19:43	10
Naphthalene	5.0	U	5.0	3.1	ppb v/v			07/11/18 19:43	10
n-Butane	5.0	U	5.0	3.1	ppb v/v			07/11/18 19:43	10
n-Butylbenzene	2.0	U	2.0	0.80	ppb v/v			07/11/18 19:43	10
n-Heptane	2.0	U	2.0	1.4	ppb v/v			07/11/18 19:43	10
n-Hexane	2.0	U	2.0	1.6	ppb v/v			07/11/18 19:43	10
n-Propylbenzene	2.0	U	2.0	0.69	ppb v/v			07/11/18 19:43	10

TestAmerica Burlington

Client Sample Results

Client: PW Grosser Consulting
Project/Site: BNL 1801

TestAmerica Job ID: 200-44205-1

Client Sample ID: SVE-04

Lab Sample ID: 200-44205-4

Date Collected: 06/27/18 14:05

Matrix: Air

Date Received: 07/06/18 10:30

Sample Container: Summa Canister 1L

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	2.0	U	2.0	0.66	ppb v/v			07/11/18 19:43	10
Styrene	2.0	U	2.0	0.86	ppb v/v			07/11/18 19:43	10
tert-Butyl alcohol	50	U	50	15	ppb v/v			07/11/18 19:43	10
tert-Butylbenzene	2.0	U	2.0	0.58	ppb v/v			07/11/18 19:43	10
Tetrachloroethene	56		2.0	0.29	ppb v/v			07/11/18 19:43	10
Tetrahydrofuran	50	U	50	26	ppb v/v			07/11/18 19:43	10
Toluene	2.0	U	2.0	0.69	ppb v/v			07/11/18 19:43	10
trans-1,2-Dichloroethene	2.0	U	2.0	0.74	ppb v/v			07/11/18 19:43	10
trans-1,3-Dichloropropene	2.0	U	2.0	1.2	ppb v/v			07/11/18 19:43	10
Trichloroethene	2.0	U	2.0	0.30	ppb v/v			07/11/18 19:43	10
Trichlorofluoromethane	2.0	U	2.0	0.62	ppb v/v			07/11/18 19:43	10
Vinyl chloride	2.0	U	2.0	0.41	ppb v/v			07/11/18 19:43	10
Xylene (total)	7.0	U	7.0	1.4	ppb v/v			07/11/18 19:43	10
Xylene, o-	2.0	U	2.0	0.71	ppb v/v			07/11/18 19:43	10
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	11	U	11	3.7	ug/m3			07/11/18 19:43	10
1,1,1,2,2-Tetrachloroethane	14	U	14	5.2	ug/m3			07/11/18 19:43	10
1,1,2-Trichloroethane	11	U	11	4.3	ug/m3			07/11/18 19:43	10
1,1-Dichloroethane	8.1	U	8.1	1.1	ug/m3			07/11/18 19:43	10
1,1-Dichloroethene	7.9	U	7.9	1.3	ug/m3			07/11/18 19:43	10
1,2,4-Trichlorobenzene	37	U	37	18	ug/m3			07/11/18 19:43	10
1,2,4-Trimethylbenzene	9.8	U	9.8	3.9	ug/m3			07/11/18 19:43	10
1,2-Dibromoethane	15	U	15	5.3	ug/m3			07/11/18 19:43	10
1,2-Dichlorobenzene	12	U	12	4.3	ug/m3			07/11/18 19:43	10
1,2-Dichloroethane	8.1	U	8.1	2.5	ug/m3			07/11/18 19:43	10
1,2-Dichloroethene, Total	16	U	16	4.4	ug/m3			07/11/18 19:43	10
1,2-Dichloropropane	9.2	U	9.2	5.5	ug/m3			07/11/18 19:43	10
1,2-Dichlorotetrafluoroethane	14	U	14	4.8	ug/m3			07/11/18 19:43	10
1,3,5-Trimethylbenzene	9.8	U	9.8	2.9	ug/m3			07/11/18 19:43	10
1,3-Butadiene	4.4	U	4.4	1.4	ug/m3			07/11/18 19:43	10
1,3-Dichlorobenzene	12	U	12	4.9	ug/m3			07/11/18 19:43	10
1,4-Dichlorobenzene	12	U	12	3.9	ug/m3			07/11/18 19:43	10
1,4-Dioxane	180	U	180	47	ug/m3			07/11/18 19:43	10
2,2,4-Trimethylpentane	9.3	U	9.3	4.1	ug/m3			07/11/18 19:43	10
2-Chlorotoluene	10	U	10	3.7	ug/m3			07/11/18 19:43	10
3-Chloropropene	16	U	16	8.5	ug/m3			07/11/18 19:43	10
4-Ethyltoluene	9.8	U	9.8	3.4	ug/m3			07/11/18 19:43	10
4-Isopropyltoluene	11	U	11	4.1	ug/m3			07/11/18 19:43	10
Acetone	220		120	62	ug/m3			07/11/18 19:43	10
Benzene	6.4	U	6.4	2.3	ug/m3			07/11/18 19:43	10
Benzyl chloride	10	U	10	6.2	ug/m3			07/11/18 19:43	10
Bromodichloromethane	13	U	13	6.3	ug/m3			07/11/18 19:43	10
Bromoethene(Vinyl Bromide)	8.7	U	8.7	2.4	ug/m3			07/11/18 19:43	10
Bromoform	21	U	21	8.9	ug/m3			07/11/18 19:43	10
Bromomethane	7.8	U	7.8	2.4	ug/m3			07/11/18 19:43	10
Carbon disulfide	16	U	16	3.7	ug/m3			07/11/18 19:43	10
Carbon tetrachloride	13	U	13	1.5	ug/m3			07/11/18 19:43	10
Chlorobenzene	9.2	U	9.2	1.8	ug/m3			07/11/18 19:43	10

TestAmerica Burlington

Client Sample Results

Client: PW Grosser Consulting
Project/Site: BNL 1801

TestAmerica Job ID: 200-44205-1

Client Sample ID: SVE-04

Lab Sample ID: 200-44205-4

Date Collected: 06/27/18 14:05

Matrix: Air

Date Received: 07/06/18 10:30

Sample Container: Summa Canister 1L

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroethane	13	U	13	5.5	ug/m3			07/11/18 19:43	10
Chloroform	9.8	U	9.8	2.5	ug/m3			07/11/18 19:43	10
Chloromethane	10	U	10	5.2	ug/m3			07/11/18 19:43	10
cis-1,2-Dichloroethene	7.9	U	7.9	1.5	ug/m3			07/11/18 19:43	10
cis-1,3-Dichloropropene	9.1	U	9.1	4.4	ug/m3			07/11/18 19:43	10
Cumene	9.8	U	9.8	2.9	ug/m3			07/11/18 19:43	10
Cyclohexane	6.9	U	6.9	2.2	ug/m3			07/11/18 19:43	10
Dibromochloromethane	17	U	17	6.0	ug/m3			07/11/18 19:43	10
Dichlorodifluoromethane	25	U	25	9.9	ug/m3			07/11/18 19:43	10
Ethylbenzene	8.7	U	8.7	3.2	ug/m3			07/11/18 19:43	10
Freon 22	18	U	18	9.2	ug/m3			07/11/18 19:43	10
Freon TF	15	U	15	2.4	ug/m3			07/11/18 19:43	10
Hexachlorobutadiene	21	U	21	8.7	ug/m3			07/11/18 19:43	10
Isopropyl alcohol	120	U	120	44	ug/m3			07/11/18 19:43	10
m,p-Xylene	22	U	22	3.0	ug/m3			07/11/18 19:43	10
Methyl Butyl Ketone (2-Hexanone)	20	U	20	17	ug/m3			07/11/18 19:43	10
Methyl Ethyl Ketone	12	J	15	5.9	ug/m3			07/11/18 19:43	10
methyl isobutyl ketone	20	U	20	15	ug/m3			07/11/18 19:43	10
Methyl methacrylate	20	U	20	9.0	ug/m3			07/11/18 19:43	10
Methyl tert-butyl ether	7.2	U	7.2	2.2	ug/m3			07/11/18 19:43	10
Methylene Chloride	17	U	17	6.9	ug/m3			07/11/18 19:43	10
Naphthalene	26	U	26	16	ug/m3			07/11/18 19:43	10
n-Butane	12	U	12	7.4	ug/m3			07/11/18 19:43	10
n-Butylbenzene	11	U	11	4.4	ug/m3			07/11/18 19:43	10
n-Heptane	8.2	U	8.2	5.7	ug/m3			07/11/18 19:43	10
n-Hexane	7.0	U	7.0	5.6	ug/m3			07/11/18 19:43	10
n-Propylbenzene	9.8	U	9.8	3.4	ug/m3			07/11/18 19:43	10
sec-Butylbenzene	11	U	11	3.6	ug/m3			07/11/18 19:43	10
Styrene	8.5	U	8.5	3.7	ug/m3			07/11/18 19:43	10
tert-Butyl alcohol	150	U	150	45	ug/m3			07/11/18 19:43	10
tert-Butylbenzene	11	U	11	3.2	ug/m3			07/11/18 19:43	10
Tetrachloroethene	380		14	2.0	ug/m3			07/11/18 19:43	10
Tetrahydrofuran	150	U	150	77	ug/m3			07/11/18 19:43	10
Toluene	7.5	U	7.5	2.6	ug/m3			07/11/18 19:43	10
trans-1,2-Dichloroethene	7.9	U	7.9	2.9	ug/m3			07/11/18 19:43	10
trans-1,3-Dichloropropene	9.1	U	9.1	5.4	ug/m3			07/11/18 19:43	10
Trichloroethene	11	U	11	1.6	ug/m3			07/11/18 19:43	10
Trichlorofluoromethane	11	U	11	3.5	ug/m3			07/11/18 19:43	10
Vinyl chloride	5.1	U	5.1	1.0	ug/m3			07/11/18 19:43	10
Xylene (total)	30	U	30	6.1	ug/m3			07/11/18 19:43	10
Xylene, o-	8.7	U	8.7	3.1	ug/m3			07/11/18 19:43	10

Client Sample Results

Client: PW Grosser Consulting
Project/Site: BNL 1801

TestAmerica Job ID: 200-44205-1

Client Sample ID: SVE-05

Lab Sample ID: 200-44205-5

Date Collected: 06/29/18 09:30

Matrix: Air

Date Received: 07/06/18 10:30

Sample Container: Summa Canister 1L

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	3.1	J	4.2	1.4	ppb v/v			07/11/18 20:34	21
1,1,2,2-Tetrachloroethane	4.2	U	4.2	1.6	ppb v/v			07/11/18 20:34	21
1,1,2-Trichloroethane	4.2	U	4.2	1.6	ppb v/v			07/11/18 20:34	21
1,1-Dichloroethane	4.2	U	4.2	0.55	ppb v/v			07/11/18 20:34	21
1,1-Dichloroethene	4.2	U	4.2	0.71	ppb v/v			07/11/18 20:34	21
1,2,4-Trichlorobenzene	11	U	11	5.0	ppb v/v			07/11/18 20:34	21
1,2,4-Trimethylbenzene	4.2	U	4.2	1.7	ppb v/v			07/11/18 20:34	21
1,2-Dibromoethane	4.2	U	4.2	1.4	ppb v/v			07/11/18 20:34	21
1,2-Dichlorobenzene	4.2	U	4.2	1.5	ppb v/v			07/11/18 20:34	21
1,2-Dichloroethane	4.2	U	4.2	1.3	ppb v/v			07/11/18 20:34	21
1,2-Dichloroethene, Total	8.4	U	8.4	2.3	ppb v/v			07/11/18 20:34	21
1,2-Dichloropropane	4.2	U	4.2	2.5	ppb v/v			07/11/18 20:34	21
1,2-Dichlorotetrafluoroethane	4.2	U	4.2	1.4	ppb v/v			07/11/18 20:34	21
1,3,5-Trimethylbenzene	4.2	U	4.2	1.2	ppb v/v			07/11/18 20:34	21
1,3-Butadiene	4.2	U	4.2	1.4	ppb v/v			07/11/18 20:34	21
1,3-Dichlorobenzene	4.2	U	4.2	1.7	ppb v/v			07/11/18 20:34	21
1,4-Dichlorobenzene	4.2	U	4.2	1.4	ppb v/v			07/11/18 20:34	21
1,4-Dioxane	110	U	110	27	ppb v/v			07/11/18 20:34	21
2,2,4-Trimethylpentane	4.2	U	4.2	1.8	ppb v/v			07/11/18 20:34	21
2-Chlorotoluene	4.2	U	4.2	1.5	ppb v/v			07/11/18 20:34	21
3-Chloropropene	11	U	11	5.7	ppb v/v			07/11/18 20:34	21
4-Ethyltoluene	4.2	U	4.2	1.4	ppb v/v			07/11/18 20:34	21
4-Isopropyltoluene	4.2	U	4.2	1.6	ppb v/v			07/11/18 20:34	21
Acetone	110	U	110	55	ppb v/v			07/11/18 20:34	21
Benzene	4.2	U	4.2	1.5	ppb v/v			07/11/18 20:34	21
Benzyl chloride	4.2	U	4.2	2.5	ppb v/v			07/11/18 20:34	21
Bromodichloromethane	4.2	U	4.2	2.0	ppb v/v			07/11/18 20:34	21
Bromoethene(Vinyl Bromide)	4.2	U	4.2	1.2	ppb v/v			07/11/18 20:34	21
Bromoform	4.2	U	4.2	1.8	ppb v/v			07/11/18 20:34	21
Bromomethane	4.2	U	4.2	1.3	ppb v/v			07/11/18 20:34	21
Carbon disulfide	11	U	11	2.5	ppb v/v			07/11/18 20:34	21
Carbon tetrachloride	4.2	U	4.2	0.50	ppb v/v			07/11/18 20:34	21
Chlorobenzene	4.2	U	4.2	0.84	ppb v/v			07/11/18 20:34	21
Chloroethane	11	U	11	4.4	ppb v/v			07/11/18 20:34	21
Chloroform	4.2	U	4.2	1.1	ppb v/v			07/11/18 20:34	21
Chloromethane	11	U	11	5.3	ppb v/v			07/11/18 20:34	21
cis-1,2-Dichloroethene	4.2	U	4.2	0.78	ppb v/v			07/11/18 20:34	21
cis-1,3-Dichloropropene	4.2	U	4.2	2.1	ppb v/v			07/11/18 20:34	21
Cumene	4.2	U	4.2	1.2	ppb v/v			07/11/18 20:34	21
Cyclohexane	4.2	U	4.2	1.3	ppb v/v			07/11/18 20:34	21
Dibromochloromethane	4.2	U	4.2	1.5	ppb v/v			07/11/18 20:34	21
Dichlorodifluoromethane	11	U	11	4.2	ppb v/v			07/11/18 20:34	21
Ethylbenzene	4.2	U	4.2	1.5	ppb v/v			07/11/18 20:34	21
Freon 22	11	U	11	5.5	ppb v/v			07/11/18 20:34	21
Freon TF	4.2	U	4.2	0.65	ppb v/v			07/11/18 20:34	21
Hexachlorobutadiene	4.2	U	4.2	1.7	ppb v/v			07/11/18 20:34	21
Isopropyl alcohol	110	U	110	38	ppb v/v			07/11/18 20:34	21
m,p-Xylene	11	U	11	1.5	ppb v/v			07/11/18 20:34	21

TestAmerica Burlington

Client Sample Results

Client: PW Grosser Consulting
Project/Site: BNL 1801

TestAmerica Job ID: 200-44205-1

Client Sample ID: SVE-05

Lab Sample ID: 200-44205-5

Date Collected: 06/29/18 09:30

Matrix: Air

Date Received: 07/06/18 10:30

Sample Container: Summa Canister 1L

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl Butyl Ketone (2-Hexanone)	11	U	11	8.8	ppb v/v			07/11/18 20:34	21
Methyl Ethyl Ketone	11	U	11	4.2	ppb v/v			07/11/18 20:34	21
methyl isobutyl ketone	11	U	11	7.6	ppb v/v			07/11/18 20:34	21
Methyl methacrylate	11	U	11	4.6	ppb v/v			07/11/18 20:34	21
Methyl tert-butyl ether	4.2	U	4.2	1.3	ppb v/v			07/11/18 20:34	21
Methylene Chloride	11	U	11	4.2	ppb v/v			07/11/18 20:34	21
Naphthalene	11	U	11	6.5	ppb v/v			07/11/18 20:34	21
n-Butane	11	U	11	6.5	ppb v/v			07/11/18 20:34	21
n-Butylbenzene	4.2	U	4.2	1.7	ppb v/v			07/11/18 20:34	21
n-Heptane	4.2	U	4.2	2.9	ppb v/v			07/11/18 20:34	21
n-Hexane	4.2	U	4.2	3.4	ppb v/v			07/11/18 20:34	21
n-Propylbenzene	4.2	U	4.2	1.4	ppb v/v			07/11/18 20:34	21
sec-Butylbenzene	4.2	U	4.2	1.4	ppb v/v			07/11/18 20:34	21
Styrene	4.2	U	4.2	1.8	ppb v/v			07/11/18 20:34	21
tert-Butyl alcohol	110	U	110	32	ppb v/v			07/11/18 20:34	21
tert-Butylbenzene	4.2	U	4.2	1.2	ppb v/v			07/11/18 20:34	21
Tetrachloroethene	470		4.2	0.61	ppb v/v			07/11/18 20:34	21
Tetrahydrofuran	110	U	110	55	ppb v/v			07/11/18 20:34	21
Toluene	4.2	U	4.2	1.4	ppb v/v			07/11/18 20:34	21
trans-1,2-Dichloroethene	4.2	U	4.2	1.6	ppb v/v			07/11/18 20:34	21
trans-1,3-Dichloropropene	4.2	U	4.2	2.5	ppb v/v			07/11/18 20:34	21
Trichloroethene	4.2	U	4.2	0.63	ppb v/v			07/11/18 20:34	21
Trichlorofluoromethane	4.2	U	4.2	1.3	ppb v/v			07/11/18 20:34	21
Vinyl chloride	4.2	U	4.2	0.86	ppb v/v			07/11/18 20:34	21
Xylene (total)	15	U	15	3.0	ppb v/v			07/11/18 20:34	21
Xylene, o-	4.2	U	4.2	1.5	ppb v/v			07/11/18 20:34	21
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	17	J	23	7.8	ug/m3			07/11/18 20:34	21
1,1,2,2-Tetrachloroethane	29	U	29	11	ug/m3			07/11/18 20:34	21
1,1,2-Trichloroethane	23	U	23	8.9	ug/m3			07/11/18 20:34	21
1,1-Dichloroethane	17	U	17	2.2	ug/m3			07/11/18 20:34	21
1,1-Dichloroethene	17	U	17	2.8	ug/m3			07/11/18 20:34	21
1,2,4-Trichlorobenzene	78	U	78	37	ug/m3			07/11/18 20:34	21
1,2,4-Trimethylbenzene	21	U	21	8.3	ug/m3			07/11/18 20:34	21
1,2-Dibromoethane	32	U	32	11	ug/m3			07/11/18 20:34	21
1,2-Dichlorobenzene	25	U	25	9.0	ug/m3			07/11/18 20:34	21
1,2-Dichloroethane	17	U	17	5.4	ug/m3			07/11/18 20:34	21
1,2-Dichloroethene, Total	33	U	33	9.2	ug/m3			07/11/18 20:34	21
1,2-Dichloropropane	19	U	19	12	ug/m3			07/11/18 20:34	21
1,2-Dichlorotetrafluoroethane	29	U	29	10	ug/m3			07/11/18 20:34	21
1,3,5-Trimethylbenzene	21	U	21	6.0	ug/m3			07/11/18 20:34	21
1,3-Butadiene	9.3	U	9.3	3.0	ug/m3			07/11/18 20:34	21
1,3-Dichlorobenzene	25	U	25	10	ug/m3			07/11/18 20:34	21
1,4-Dichlorobenzene	25	U	25	8.2	ug/m3			07/11/18 20:34	21
1,4-Dioxane	380	U	380	98	ug/m3			07/11/18 20:34	21
2,2,4-Trimethylpentane	20	U	20	8.6	ug/m3			07/11/18 20:34	21
2-Chlorotoluene	22	U	22	7.7	ug/m3			07/11/18 20:34	21
3-Chloropropene	33	U	33	18	ug/m3			07/11/18 20:34	21

TestAmerica Burlington

Client Sample Results

Client: PW Grosser Consulting
Project/Site: BNL 1801

TestAmerica Job ID: 200-44205-1

Client Sample ID: SVE-05

Lab Sample ID: 200-44205-5

Date Collected: 06/29/18 09:30

Matrix: Air

Date Received: 07/06/18 10:30

Sample Container: Summa Canister 1L

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Ethyltoluene	21	U	21	7.1	ug/m3			07/11/18 20:34	21
4-Isopropyltoluene	23	U	23	8.6	ug/m3			07/11/18 20:34	21
Acetone	250	U	250	130	ug/m3			07/11/18 20:34	21
Benzene	13	U	13	4.8	ug/m3			07/11/18 20:34	21
Benzyl chloride	22	U	22	13	ug/m3			07/11/18 20:34	21
Bromodichloromethane	28	U	28	13	ug/m3			07/11/18 20:34	21
Bromoethene(Vinyl Bromide)	18	U	18	5.1	ug/m3			07/11/18 20:34	21
Bromoform	43	U	43	19	ug/m3			07/11/18 20:34	21
Bromomethane	16	U	16	5.1	ug/m3			07/11/18 20:34	21
Carbon disulfide	33	U	33	7.8	ug/m3			07/11/18 20:34	21
Carbon tetrachloride	26	U	26	3.2	ug/m3			07/11/18 20:34	21
Chlorobenzene	19	U	19	3.9	ug/m3			07/11/18 20:34	21
Chloroethane	28	U	28	12	ug/m3			07/11/18 20:34	21
Chloroform	21	U	21	5.3	ug/m3			07/11/18 20:34	21
Chloromethane	22	U	22	11	ug/m3			07/11/18 20:34	21
cis-1,2-Dichloroethene	17	U	17	3.1	ug/m3			07/11/18 20:34	21
cis-1,3-Dichloropropene	19	U	19	9.3	ug/m3			07/11/18 20:34	21
Cumene	21	U	21	6.1	ug/m3			07/11/18 20:34	21
Cyclohexane	14	U	14	4.6	ug/m3			07/11/18 20:34	21
Dibromochloromethane	36	U	36	13	ug/m3			07/11/18 20:34	21
Dichlorodifluoromethane	52	U	52	21	ug/m3			07/11/18 20:34	21
Ethylbenzene	18	U	18	6.7	ug/m3			07/11/18 20:34	21
Freon 22	37	U	37	19	ug/m3			07/11/18 20:34	21
Freon TF	32	U	32	5.0	ug/m3			07/11/18 20:34	21
Hexachlorobutadiene	45	U	45	18	ug/m3			07/11/18 20:34	21
Isopropyl alcohol	260	U	260	93	ug/m3			07/11/18 20:34	21
m,p-Xylene	46	U	46	6.4	ug/m3			07/11/18 20:34	21
Methyl Butyl Ketone (2-Hexanone)	43	U	43	36	ug/m3			07/11/18 20:34	21
Methyl Ethyl Ketone	31	U	31	12	ug/m3			07/11/18 20:34	21
methyl isobutyl ketone	43	U	43	31	ug/m3			07/11/18 20:34	21
Methyl methacrylate	43	U	43	19	ug/m3			07/11/18 20:34	21
Methyl tert-butyl ether	15	U	15	4.6	ug/m3			07/11/18 20:34	21
Methylene Chloride	36	U	36	15	ug/m3			07/11/18 20:34	21
Naphthalene	55	U	55	34	ug/m3			07/11/18 20:34	21
n-Butane	25	U	25	15	ug/m3			07/11/18 20:34	21
n-Butylbenzene	23	U	23	9.2	ug/m3			07/11/18 20:34	21
n-Heptane	17	U	17	12	ug/m3			07/11/18 20:34	21
n-Hexane	15	U	15	12	ug/m3			07/11/18 20:34	21
n-Propylbenzene	21	U	21	7.1	ug/m3			07/11/18 20:34	21
sec-Butylbenzene	23	U	23	7.6	ug/m3			07/11/18 20:34	21
Styrene	18	U	18	7.7	ug/m3			07/11/18 20:34	21
tert-Butyl alcohol	320	U	320	95	ug/m3			07/11/18 20:34	21
tert-Butylbenzene	23	U	23	6.7	ug/m3			07/11/18 20:34	21
Tetrachloroethene	3200		28	4.1	ug/m3			07/11/18 20:34	21
Tetrahydrofuran	310	U	310	160	ug/m3			07/11/18 20:34	21
Toluene	16	U	16	5.5	ug/m3			07/11/18 20:34	21
trans-1,2-Dichloroethene	17	U	17	6.2	ug/m3			07/11/18 20:34	21
trans-1,3-Dichloropropene	19	U	19	11	ug/m3			07/11/18 20:34	21

TestAmerica Burlington

Client Sample Results

Client: PW Grosser Consulting
Project/Site: BNL 1801

TestAmerica Job ID: 200-44205-1

Client Sample ID: SVE-05

Date Collected: 06/29/18 09:30

Date Received: 07/06/18 10:30

Sample Container: Summa Canister 1L

Lab Sample ID: 200-44205-5

Matrix: Air

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	23	U	23	3.4	ug/m3			07/11/18 20:34	21
Trichlorofluoromethane	24	U	24	7.3	ug/m3			07/11/18 20:34	21
Vinyl chloride	11	U	11	2.2	ug/m3			07/11/18 20:34	21
Xylene (total)	64	U	64	13	ug/m3			07/11/18 20:34	21
Xylene, o-	18	U	18	6.5	ug/m3			07/11/18 20:34	21

QC Sample Results

Client: PW Grosser Consulting
Project/Site: BNL 1801

TestAmerica Job ID: 200-44205-1

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Lab Sample ID: MB 200-131686/6
Matrix: Air
Analysis Batch: 131686

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	0.20	U	0.20	0.068	ppb v/v			07/11/18 14:39	1
1,1,1,2-Tetrachloroethane	0.20	U	0.20	0.076	ppb v/v			07/11/18 14:39	1
1,1,2-Trichloroethane	0.20	U	0.20	0.078	ppb v/v			07/11/18 14:39	1
1,1-Dichloroethane	0.20	U	0.20	0.026	ppb v/v			07/11/18 14:39	1
1,1-Dichloroethene	0.20	U	0.20	0.034	ppb v/v			07/11/18 14:39	1
1,2,4-Trichlorobenzene	0.50	U	0.50	0.24	ppb v/v			07/11/18 14:39	1
1,2,4-Trimethylbenzene	0.20	U	0.20	0.080	ppb v/v			07/11/18 14:39	1
1,2-Dibromoethane	0.20	U	0.20	0.069	ppb v/v			07/11/18 14:39	1
1,2-Dichlorobenzene	0.20	U	0.20	0.071	ppb v/v			07/11/18 14:39	1
1,2-Dichloroethane	0.20	U	0.20	0.063	ppb v/v			07/11/18 14:39	1
1,2-Dichloroethene, Total	0.40	U	0.40	0.11	ppb v/v			07/11/18 14:39	1
1,2-Dichloropropane	0.20	U	0.20	0.12	ppb v/v			07/11/18 14:39	1
1,2-Dichlorotetrafluoroethane	0.20	U	0.20	0.068	ppb v/v			07/11/18 14:39	1
1,3,5-Trimethylbenzene	0.20	U	0.20	0.058	ppb v/v			07/11/18 14:39	1
1,3-Butadiene	0.20	U	0.20	0.065	ppb v/v			07/11/18 14:39	1
1,3-Dichlorobenzene	0.20	U	0.20	0.082	ppb v/v			07/11/18 14:39	1
1,4-Dichlorobenzene	0.20	U	0.20	0.065	ppb v/v			07/11/18 14:39	1
1,4-Dioxane	5.0	U	5.0	1.3	ppb v/v			07/11/18 14:39	1
2,2,4-Trimethylpentane	0.20	U	0.20	0.088	ppb v/v			07/11/18 14:39	1
2-Chlorotoluene	0.20	U	0.20	0.071	ppb v/v			07/11/18 14:39	1
3-Chloropropene	0.50	U	0.50	0.27	ppb v/v			07/11/18 14:39	1
4-Ethyltoluene	0.20	U	0.20	0.069	ppb v/v			07/11/18 14:39	1
4-Isopropyltoluene	0.20	U	0.20	0.075	ppb v/v			07/11/18 14:39	1
Acetone	5.0	U	5.0	2.6	ppb v/v			07/11/18 14:39	1
Benzene	0.20	U	0.20	0.071	ppb v/v			07/11/18 14:39	1
Benzyl chloride	0.20	U	0.20	0.12	ppb v/v			07/11/18 14:39	1
Bromodichloromethane	0.20	U	0.20	0.094	ppb v/v			07/11/18 14:39	1
Bromoethene(Vinyl Bromide)	0.20	U	0.20	0.056	ppb v/v			07/11/18 14:39	1
Bromoform	0.20	U	0.20	0.086	ppb v/v			07/11/18 14:39	1
Bromomethane	0.20	U	0.20	0.062	ppb v/v			07/11/18 14:39	1
Carbon disulfide	0.50	U	0.50	0.12	ppb v/v			07/11/18 14:39	1
Carbon tetrachloride	0.20	U	0.20	0.024	ppb v/v			07/11/18 14:39	1
Chlorobenzene	0.20	U	0.20	0.040	ppb v/v			07/11/18 14:39	1
Chloroethane	0.50	U	0.50	0.21	ppb v/v			07/11/18 14:39	1
Chloroform	0.20	U	0.20	0.052	ppb v/v			07/11/18 14:39	1
Chloromethane	0.50	U	0.50	0.25	ppb v/v			07/11/18 14:39	1
cis-1,2-Dichloroethene	0.20	U	0.20	0.037	ppb v/v			07/11/18 14:39	1
cis-1,3-Dichloropropene	0.20	U	0.20	0.098	ppb v/v			07/11/18 14:39	1
Cumene	0.20	U	0.20	0.059	ppb v/v			07/11/18 14:39	1
Cyclohexane	0.20	U	0.20	0.063	ppb v/v			07/11/18 14:39	1
Dibromochloromethane	0.20	U	0.20	0.071	ppb v/v			07/11/18 14:39	1
Dichlorodifluoromethane	0.50	U	0.50	0.20	ppb v/v			07/11/18 14:39	1
Ethylbenzene	0.20	U	0.20	0.073	ppb v/v			07/11/18 14:39	1
Freon 22	0.50	U	0.50	0.26	ppb v/v			07/11/18 14:39	1
Freon TF	0.20	U	0.20	0.031	ppb v/v			07/11/18 14:39	1
Hexachlorobutadiene	0.20	U	0.20	0.082	ppb v/v			07/11/18 14:39	1
Isopropyl alcohol	5.0	U	5.0	1.8	ppb v/v			07/11/18 14:39	1
m,p-Xylene	0.50	U	0.50	0.070	ppb v/v			07/11/18 14:39	1

TestAmerica Burlington

QC Sample Results

Client: PW Grosser Consulting
Project/Site: BNL 1801

TestAmerica Job ID: 200-44205-1

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: MB 200-131686/6

Matrix: Air

Analysis Batch: 131686

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Methyl Butyl Ketone (2-Hexanone)	0.50	U	0.50	0.42	ppb v/v			07/11/18 14:39	1
Methyl Ethyl Ketone	0.50	U	0.50	0.20	ppb v/v			07/11/18 14:39	1
methyl isobutyl ketone	0.50	U	0.50	0.36	ppb v/v			07/11/18 14:39	1
Methyl methacrylate	0.50	U	0.50	0.22	ppb v/v			07/11/18 14:39	1
Methyl tert-butyl ether	0.20	U	0.20	0.061	ppb v/v			07/11/18 14:39	1
Methylene Chloride	0.50	U	0.50	0.20	ppb v/v			07/11/18 14:39	1
Naphthalene	0.50	U	0.50	0.31	ppb v/v			07/11/18 14:39	1
n-Butane	0.50	U	0.50	0.31	ppb v/v			07/11/18 14:39	1
n-Butylbenzene	0.20	U	0.20	0.080	ppb v/v			07/11/18 14:39	1
n-Heptane	0.20	U	0.20	0.14	ppb v/v			07/11/18 14:39	1
n-Hexane	0.20	U	0.20	0.16	ppb v/v			07/11/18 14:39	1
n-Propylbenzene	0.20	U	0.20	0.069	ppb v/v			07/11/18 14:39	1
sec-Butylbenzene	0.20	U	0.20	0.066	ppb v/v			07/11/18 14:39	1
Styrene	0.20	U	0.20	0.086	ppb v/v			07/11/18 14:39	1
tert-Butyl alcohol	5.0	U	5.0	1.5	ppb v/v			07/11/18 14:39	1
tert-Butylbenzene	0.20	U	0.20	0.058	ppb v/v			07/11/18 14:39	1
Tetrachloroethene	0.20	U	0.20	0.029	ppb v/v			07/11/18 14:39	1
Tetrahydrofuran	5.0	U	5.0	2.6	ppb v/v			07/11/18 14:39	1
Toluene	0.20	U	0.20	0.069	ppb v/v			07/11/18 14:39	1
trans-1,2-Dichloroethene	0.20	U	0.20	0.074	ppb v/v			07/11/18 14:39	1
trans-1,3-Dichloropropene	0.20	U	0.20	0.12	ppb v/v			07/11/18 14:39	1
Trichloroethene	0.20	U	0.20	0.030	ppb v/v			07/11/18 14:39	1
Trichlorofluoromethane	0.20	U	0.20	0.062	ppb v/v			07/11/18 14:39	1
Vinyl chloride	0.20	U	0.20	0.041	ppb v/v			07/11/18 14:39	1
Xylene (total)	0.70	U	0.70	0.14	ppb v/v			07/11/18 14:39	1
Xylene, o-	0.20	U	0.20	0.071	ppb v/v			07/11/18 14:39	1

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,1,1-Trichloroethane	1.1	U	1.1	0.37	ug/m3			07/11/18 14:39	1
1,1,1,2-Tetrachloroethane	1.4	U	1.4	0.52	ug/m3			07/11/18 14:39	1
1,1,1,2-Trichloroethane	1.1	U	1.1	0.43	ug/m3			07/11/18 14:39	1
1,1-Dichloroethane	0.81	U	0.81	0.11	ug/m3			07/11/18 14:39	1
1,1-Dichloroethene	0.79	U	0.79	0.13	ug/m3			07/11/18 14:39	1
1,2,4-Trichlorobenzene	3.7	U	3.7	1.8	ug/m3			07/11/18 14:39	1
1,2,4-Trimethylbenzene	0.98	U	0.98	0.39	ug/m3			07/11/18 14:39	1
1,2-Dibromoethane	1.5	U	1.5	0.53	ug/m3			07/11/18 14:39	1
1,2-Dichlorobenzene	1.2	U	1.2	0.43	ug/m3			07/11/18 14:39	1
1,2-Dichloroethane	0.81	U	0.81	0.25	ug/m3			07/11/18 14:39	1
1,2-Dichloroethene, Total	1.6	U	1.6	0.44	ug/m3			07/11/18 14:39	1
1,2-Dichloropropane	0.92	U	0.92	0.55	ug/m3			07/11/18 14:39	1
1,2-Dichlorotetrafluoroethane	1.4	U	1.4	0.48	ug/m3			07/11/18 14:39	1
1,3,5-Trimethylbenzene	0.98	U	0.98	0.29	ug/m3			07/11/18 14:39	1
1,3-Butadiene	0.44	U	0.44	0.14	ug/m3			07/11/18 14:39	1
1,3-Dichlorobenzene	1.2	U	1.2	0.49	ug/m3			07/11/18 14:39	1
1,4-Dichlorobenzene	1.2	U	1.2	0.39	ug/m3			07/11/18 14:39	1
1,4-Dioxane	18	U	18	4.7	ug/m3			07/11/18 14:39	1
2,2,4-Trimethylpentane	0.93	U	0.93	0.41	ug/m3			07/11/18 14:39	1
2-Chlorotoluene	1.0	U	1.0	0.37	ug/m3			07/11/18 14:39	1

TestAmerica Burlington

QC Sample Results

Client: PW Grosser Consulting
Project/Site: BNL 1801

TestAmerica Job ID: 200-44205-1

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: MB 200-131686/6

Matrix: Air

Analysis Batch: 131686

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
3-Chloropropene	1.6	U	1.6	0.85	ug/m3			07/11/18 14:39	1
4-Ethyltoluene	0.98	U	0.98	0.34	ug/m3			07/11/18 14:39	1
4-Isopropyltoluene	1.1	U	1.1	0.41	ug/m3			07/11/18 14:39	1
Acetone	12	U	12	6.2	ug/m3			07/11/18 14:39	1
Benzene	0.64	U	0.64	0.23	ug/m3			07/11/18 14:39	1
Benzyl chloride	1.0	U	1.0	0.62	ug/m3			07/11/18 14:39	1
Bromodichloromethane	1.3	U	1.3	0.63	ug/m3			07/11/18 14:39	1
Bromoethene(Vinyl Bromide)	0.87	U	0.87	0.24	ug/m3			07/11/18 14:39	1
Bromoform	2.1	U	2.1	0.89	ug/m3			07/11/18 14:39	1
Bromomethane	0.78	U	0.78	0.24	ug/m3			07/11/18 14:39	1
Carbon disulfide	1.6	U	1.6	0.37	ug/m3			07/11/18 14:39	1
Carbon tetrachloride	1.3	U	1.3	0.15	ug/m3			07/11/18 14:39	1
Chlorobenzene	0.92	U	0.92	0.18	ug/m3			07/11/18 14:39	1
Chloroethane	1.3	U	1.3	0.55	ug/m3			07/11/18 14:39	1
Chloroform	0.98	U	0.98	0.25	ug/m3			07/11/18 14:39	1
Chloromethane	1.0	U	1.0	0.52	ug/m3			07/11/18 14:39	1
cis-1,2-Dichloroethene	0.79	U	0.79	0.15	ug/m3			07/11/18 14:39	1
cis-1,3-Dichloropropene	0.91	U	0.91	0.44	ug/m3			07/11/18 14:39	1
Cumene	0.98	U	0.98	0.29	ug/m3			07/11/18 14:39	1
Cyclohexane	0.69	U	0.69	0.22	ug/m3			07/11/18 14:39	1
Dibromochloromethane	1.7	U	1.7	0.60	ug/m3			07/11/18 14:39	1
Dichlorodifluoromethane	2.5	U	2.5	0.99	ug/m3			07/11/18 14:39	1
Ethylbenzene	0.87	U	0.87	0.32	ug/m3			07/11/18 14:39	1
Freon 22	1.8	U	1.8	0.92	ug/m3			07/11/18 14:39	1
Freon TF	1.5	U	1.5	0.24	ug/m3			07/11/18 14:39	1
Hexachlorobutadiene	2.1	U	2.1	0.87	ug/m3			07/11/18 14:39	1
Isopropyl alcohol	12	U	12	4.4	ug/m3			07/11/18 14:39	1
m,p-Xylene	2.2	U	2.2	0.30	ug/m3			07/11/18 14:39	1
Methyl Butyl Ketone (2-Hexanone)	2.0	U	2.0	1.7	ug/m3			07/11/18 14:39	1
Methyl Ethyl Ketone	1.5	U	1.5	0.59	ug/m3			07/11/18 14:39	1
methyl isobutyl ketone	2.0	U	2.0	1.5	ug/m3			07/11/18 14:39	1
Methyl methacrylate	2.0	U	2.0	0.90	ug/m3			07/11/18 14:39	1
Methyl tert-butyl ether	0.72	U	0.72	0.22	ug/m3			07/11/18 14:39	1
Methylene Chloride	1.7	U	1.7	0.69	ug/m3			07/11/18 14:39	1
Naphthalene	2.6	U	2.6	1.6	ug/m3			07/11/18 14:39	1
n-Butane	1.2	U	1.2	0.74	ug/m3			07/11/18 14:39	1
n-Butylbenzene	1.1	U	1.1	0.44	ug/m3			07/11/18 14:39	1
n-Heptane	0.82	U	0.82	0.57	ug/m3			07/11/18 14:39	1
n-Hexane	0.70	U	0.70	0.56	ug/m3			07/11/18 14:39	1
n-Propylbenzene	0.98	U	0.98	0.34	ug/m3			07/11/18 14:39	1
sec-Butylbenzene	1.1	U	1.1	0.36	ug/m3			07/11/18 14:39	1
Styrene	0.85	U	0.85	0.37	ug/m3			07/11/18 14:39	1
tert-Butyl alcohol	15	U	15	4.5	ug/m3			07/11/18 14:39	1
tert-Butylbenzene	1.1	U	1.1	0.32	ug/m3			07/11/18 14:39	1
Tetrachloroethene	1.4	U	1.4	0.20	ug/m3			07/11/18 14:39	1
Tetrahydrofuran	15	U	15	7.7	ug/m3			07/11/18 14:39	1
Toluene	0.75	U	0.75	0.26	ug/m3			07/11/18 14:39	1
trans-1,2-Dichloroethene	0.79	U	0.79	0.29	ug/m3			07/11/18 14:39	1

TestAmerica Burlington

QC Sample Results

Client: PW Grosser Consulting
Project/Site: BNL 1801

TestAmerica Job ID: 200-44205-1

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: MB 200-131686/6

Matrix: Air

Analysis Batch: 131686

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,3-Dichloropropene	0.91	U	0.91	0.54	ug/m3			07/11/18 14:39	1
Trichloroethene	1.1	U	1.1	0.16	ug/m3			07/11/18 14:39	1
Trichlorofluoromethane	1.1	U	1.1	0.35	ug/m3			07/11/18 14:39	1
Vinyl chloride	0.51	U	0.51	0.10	ug/m3			07/11/18 14:39	1
Xylene (total)	3.0	U	3.0	0.61	ug/m3			07/11/18 14:39	1
Xylene, o-	0.87	U	0.87	0.31	ug/m3			07/11/18 14:39	1

Lab Sample ID: LCS 200-131686/4

Matrix: Air

Analysis Batch: 131686

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	10.0	11.2		ppb v/v		112	70 - 130
1,1,2,2-Tetrachloroethane	10.0	11.2		ppb v/v		112	69 - 129
1,1,2-Trichloroethane	10.0	11.7		ppb v/v		117	69 - 129
1,1-Dichloroethane	10.0	10.5		ppb v/v		105	66 - 126
1,1-Dichloroethene	10.0	9.97		ppb v/v		100	67 - 127
1,2,4-Trichlorobenzene	10.0	9.13		ppb v/v		91	59 - 126
1,2,4-Trimethylbenzene	10.0	11.9		ppb v/v		119	65 - 125
1,2-Dibromoethane	10.0	11.7		ppb v/v		117	70 - 130
1,2-Dichlorobenzene	10.0	11.7		ppb v/v		117	67 - 127
1,2-Dichloroethane	10.0	11.0		ppb v/v		110	67 - 132
1,2-Dichloropropane	10.0	11.2		ppb v/v		112	67 - 127
1,2-Dichlorotetrafluoroethane	10.0	11.8		ppb v/v		118	78 - 138
1,3,5-Trimethylbenzene	10.0	11.8		ppb v/v		118	65 - 125
1,3-Butadiene	10.0	9.91		ppb v/v		99	59 - 125
1,3-Dichlorobenzene	10.0	11.7		ppb v/v		117	67 - 127
1,4-Dichlorobenzene	10.0	11.4		ppb v/v		114	66 - 126
1,4-Dioxane	10.0	12.6		ppb v/v		126	66 - 132
2,2,4-Trimethylpentane	10.0	11.1		ppb v/v		111	67 - 127
2-Chlorotoluene	10.0	11.7		ppb v/v		117	67 - 127
3-Chloropropene	10.0	5.34		ppb v/v		53	53 - 133
4-Ethyltoluene	10.0	12.1		ppb v/v		121	69 - 129
4-Isopropyltoluene	10.0	11.9		ppb v/v		119	67 - 129
Acetone	10.0	10.5		ppb v/v		105	64 - 136
Benzene	10.0	11.3		ppb v/v		113	67 - 127
Benzyl chloride	10.0	8.99		ppb v/v		90	54 - 135
Bromodichloromethane	10.0	11.2		ppb v/v		112	69 - 129
Bromoethene(Vinyl Bromide)	10.0	12.1		ppb v/v		121	67 - 127
Bromoform	10.0	7.70		ppb v/v		77	34 - 170
Bromomethane	10.0	11.4		ppb v/v		114	68 - 128
Carbon disulfide	10.0	10.9		ppb v/v		109	81 - 141
Carbon tetrachloride	10.0	11.7		ppb v/v		117	62 - 143
Chlorobenzene	10.0	11.5		ppb v/v		115	68 - 128
Chloroethane	10.0	10.7		ppb v/v		107	65 - 125
Chloroform	10.0	10.8		ppb v/v		108	69 - 129
Chloromethane	10.0	9.72		ppb v/v		97	57 - 126
cis-1,2-Dichloroethene	10.0	10.6		ppb v/v		106	67 - 127

TestAmerica Burlington

QC Sample Results

Client: PW Grosser Consulting
Project/Site: BNL 1801

TestAmerica Job ID: 200-44205-1

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: LCS 200-131686/4

Matrix: Air

Analysis Batch: 131686

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
cis-1,3-Dichloropropene	10.0	10.7		ppb v/v		107	70 - 130
Cumene	10.0	11.4		ppb v/v		114	67 - 127
Cyclohexane	10.0	11.5		ppb v/v		115	69 - 129
Dibromochloromethane	10.0	10.1		ppb v/v		101	66 - 130
Dichlorodifluoromethane	10.0	10.7		ppb v/v		107	68 - 128
Ethylbenzene	10.0	11.4		ppb v/v		114	68 - 128
Freon 22	10.0	10.3		ppb v/v		103	64 - 128
Freon TF	10.0	10.2		ppb v/v		102	68 - 128
Hexachlorobutadiene	10.0	11.0		ppb v/v		110	62 - 130
Isopropyl alcohol	10.0	10.1		ppb v/v		101	55 - 124
m,p-Xylene	20.0	23.1		ppb v/v		116	68 - 128
Methyl Butyl Ketone	10.0	10.4		ppb v/v		104	61 - 127
(2-Hexanone)							
Methyl Ethyl Ketone	10.0	10.7		ppb v/v		107	62 - 122
methyl isobutyl ketone	10.0	10.5		ppb v/v		105	62 - 130
Methyl methacrylate	10.0	11.5		ppb v/v		115	70 - 130
Methyl tert-butyl ether	10.0	10.6		ppb v/v		107	67 - 127
Methylene Chloride	10.0	9.14		ppb v/v		91	62 - 122
Naphthalene	10.0	8.04		ppb v/v		80	50 - 121
n-Butane	10.0	9.63		ppb v/v		96	56 - 130
n-Butylbenzene	10.0	11.3		ppb v/v		113	67 - 127
n-Heptane	10.0	10.5		ppb v/v		105	62 - 130
n-Hexane	10.0	10.2		ppb v/v		103	71 - 131
n-Propylbenzene	10.0	11.6		ppb v/v		116	67 - 127
sec-Butylbenzene	10.0	11.7		ppb v/v		117	66 - 126
Styrene	10.0	11.1		ppb v/v		111	68 - 128
tert-Butyl alcohol	10.0	11.1		ppb v/v		111	64 - 124
tert-Butylbenzene	10.0	11.8		ppb v/v		118	63 - 125
Tetrachloroethene	10.0	12.1		ppb v/v		121	70 - 130
Tetrahydrofuran	10.0	10.8		ppb v/v		108	61 - 136
Toluene	10.0	11.4		ppb v/v		114	67 - 127
trans-1,2-Dichloroethene	10.0	10.6		ppb v/v		106	72 - 132
trans-1,3-Dichloropropene	10.0	10.8		ppb v/v		108	69 - 129
Trichloroethene	10.0	11.9		ppb v/v		119	68 - 128
Trichlorofluoromethane	10.0	11.6		ppb v/v		116	67 - 127
Vinyl chloride	10.0	10.2		ppb v/v		102	62 - 125
Xylene, o-	10.0	11.6		ppb v/v		116	67 - 127

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	55	60.9		ug/m3		112	70 - 130
1,1,1,2,2-Tetrachloroethane	69	77.1		ug/m3		112	69 - 129
1,1,2-Trichloroethane	55	63.7		ug/m3		117	69 - 129
1,1-Dichloroethane	40	42.5		ug/m3		105	66 - 126
1,1-Dichloroethene	40	39.5		ug/m3		100	67 - 127
1,2,4-Trichlorobenzene	74	67.7		ug/m3		91	59 - 126
1,2,4-Trimethylbenzene	49	58.7		ug/m3		119	65 - 125
1,2-Dibromoethane	77	89.6		ug/m3		117	70 - 130
1,2-Dichlorobenzene	60	70.5		ug/m3		117	67 - 127

TestAmerica Burlington

QC Sample Results

Client: PW Grosser Consulting
Project/Site: BNL 1801

TestAmerica Job ID: 200-44205-1

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: LCS 200-131686/4

Matrix: Air

Analysis Batch: 131686

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dichloroethane	40	44.6		ug/m3		110	67 - 132
1,2-Dichloropropane	46	51.9		ug/m3		112	67 - 127
1,2-Dichlorotetrafluoroethane	70	82.6		ug/m3		118	78 - 138
1,3,5-Trimethylbenzene	49	57.9		ug/m3		118	65 - 125
1,3-Butadiene	22	21.9		ug/m3		99	59 - 125
1,3-Dichlorobenzene	60	70.2		ug/m3		117	67 - 127
1,4-Dichlorobenzene	60	68.7		ug/m3		114	66 - 126
1,4-Dioxane	36	45.3		ug/m3		126	66 - 132
2,2,4-Trimethylpentane	47	51.7		ug/m3		111	67 - 127
2-Chlorotoluene	52	60.7		ug/m3		117	67 - 127
3-Chloropropene	31	16.7		ug/m3		53	53 - 133
4-Ethyltoluene	49	59.4		ug/m3		121	69 - 129
4-Isopropyltoluene	55	65.3		ug/m3		119	67 - 129
Acetone	24	24.9		ug/m3		105	64 - 136
Benzene	32	36.1		ug/m3		113	67 - 127
Benzyl chloride	52	46.5		ug/m3		90	54 - 135
Bromodichloromethane	67	75.2		ug/m3		112	69 - 129
Bromoethene(Vinyl Bromide)	44	52.9		ug/m3		121	67 - 127
Bromoform	100	79.6		ug/m3		77	34 - 170
Bromomethane	39	44.2		ug/m3		114	68 - 128
Carbon disulfide	31	33.9		ug/m3		109	81 - 141
Carbon tetrachloride	63	73.6		ug/m3		117	62 - 143
Chlorobenzene	46	53.0		ug/m3		115	68 - 128
Chloroethane	26	28.3		ug/m3		107	65 - 125
Chloroform	49	52.6		ug/m3		108	69 - 129
Chloromethane	21	20.1		ug/m3		97	57 - 126
cis-1,2-Dichloroethene	40	42.1		ug/m3		106	67 - 127
cis-1,3-Dichloropropene	45	48.5		ug/m3		107	70 - 130
Cumene	49	56.2		ug/m3		114	67 - 127
Cyclohexane	34	39.5		ug/m3		115	69 - 129
Dibromochloromethane	85	86.2		ug/m3		101	66 - 130
Dichlorodifluoromethane	49	52.8		ug/m3		107	68 - 128
Ethylbenzene	43	49.6		ug/m3		114	68 - 128
Freon 22	35	36.3		ug/m3		103	64 - 128
Freon TF	77	78.5		ug/m3		102	68 - 128
Hexachlorobutadiene	110	117		ug/m3		110	62 - 130
Isopropyl alcohol	25	24.8		ug/m3		101	55 - 124
m,p-Xylene	87	100		ug/m3		116	68 - 128
Methyl Butyl Ketone (2-Hexanone)	41	42.4		ug/m3		104	61 - 127
Methyl Ethyl Ketone	29	31.6		ug/m3		107	62 - 122
methyl isobutyl ketone	41	43.1		ug/m3		105	62 - 130
Methyl methacrylate	41	47.1		ug/m3		115	70 - 130
Methyl tert-butyl ether	36	38.4		ug/m3		107	67 - 127
Methylene Chloride	35	31.8		ug/m3		91	62 - 122
Naphthalene	52	42.1		ug/m3		80	50 - 121
n-Butane	24	22.9		ug/m3		96	56 - 130
n-Butylbenzene	55	62.2		ug/m3		113	67 - 127

TestAmerica Burlington

QC Sample Results

Client: PW Grosser Consulting
Project/Site: BNL 1801

TestAmerica Job ID: 200-44205-1

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: LCS 200-131686/4

Matrix: Air

Analysis Batch: 131686

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
n-Heptane	41	43.1		ug/m3		105	62 - 130
n-Hexane	35	36.1		ug/m3		103	71 - 131
n-Propylbenzene	49	57.2		ug/m3		116	67 - 127
sec-Butylbenzene	55	64.1		ug/m3		117	66 - 126
Styrene	43	47.4		ug/m3		111	68 - 128
tert-Butyl alcohol	30	33.6		ug/m3		111	64 - 124
tert-Butylbenzene	55	64.9		ug/m3		118	63 - 125
Tetrachloroethene	68	82.2		ug/m3		121	70 - 130
Tetrahydrofuran	29	32.0		ug/m3		108	61 - 136
Toluene	38	42.9		ug/m3		114	67 - 127
trans-1,2-Dichloroethene	40	42.2		ug/m3		106	72 - 132
trans-1,3-Dichloropropene	45	49.0		ug/m3		108	69 - 129
Trichloroethene	54	64.2		ug/m3		119	68 - 128
Trichlorofluoromethane	56	65.3		ug/m3		116	67 - 127
Vinyl chloride	26	26.1		ug/m3		102	62 - 125
Xylene, o-	43	50.6		ug/m3		116	67 - 127

QC Association Summary

Client: PW Grosser Consulting
Project/Site: BNL 1801

TestAmerica Job ID: 200-44205-1

Air - GC/MS VOA

Analysis Batch: 131686

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
200-44205-1	SVE-01	Total/NA	Air	TO-15	
200-44205-2	SVE-02	Total/NA	Air	TO-15	
200-44205-3	SVE-03	Total/NA	Air	TO-15	
200-44205-4	SVE-04	Total/NA	Air	TO-15	
200-44205-5	SVE-05	Total/NA	Air	TO-15	
MB 200-131686/6	Method Blank	Total/NA	Air	TO-15	
LCS 200-131686/4	Lab Control Sample	Total/NA	Air	TO-15	

Lab Chronicle

Client: PW Grosser Consulting
Project/Site: BNL 1801

TestAmerica Job ID: 200-44205-1

Client Sample ID: SVE-01

Date Collected: 06/27/18 10:25

Date Received: 07/06/18 10:30

Lab Sample ID: 200-44205-1

Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		10	131686	07/11/18 17:11	K1P	TAL BUR

Client Sample ID: SVE-02

Date Collected: 06/27/18 12:20

Date Received: 07/06/18 10:30

Lab Sample ID: 200-44205-2

Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		23.2	131686	07/11/18 18:02	K1P	TAL BUR

Client Sample ID: SVE-03

Date Collected: 06/27/18 13:15

Date Received: 07/06/18 10:30

Lab Sample ID: 200-44205-3

Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		10	131686	07/11/18 18:52	K1P	TAL BUR

Client Sample ID: SVE-04

Date Collected: 06/27/18 14:05

Date Received: 07/06/18 10:30

Lab Sample ID: 200-44205-4

Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		10	131686	07/11/18 19:43	K1P	TAL BUR

Client Sample ID: SVE-05

Date Collected: 06/29/18 09:30

Date Received: 07/06/18 10:30

Lab Sample ID: 200-44205-5

Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		21	131686	07/11/18 20:34	K1P	TAL BUR

Laboratory References:

TAL BUR = TestAmerica Burlington, 30 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

TestAmerica Burlington

Accreditation/Certification Summary

Client: PW Grosser Consulting
Project/Site: BNL 1801

TestAmerica Job ID: 200-44205-1

Laboratory: TestAmerica Burlington

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	EPA Region	Identification Number	Expiration Date
New York	NELAP	2	10391	04-01-19

The following analytes are included in this report, but accreditation/certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
TO-15		Air	1,2-Dichloroethene, Total
TO-15		Air	4-Ethyltoluene
TO-15		Air	4-Isopropyltoluene
TO-15		Air	Cumene
TO-15		Air	Freon 22
TO-15		Air	Methyl Butyl Ketone (2-Hexanone)
TO-15		Air	n-Butane
TO-15		Air	n-Butylbenzene
TO-15		Air	n-Propylbenzene
TO-15		Air	sec-Butylbenzene
TO-15		Air	tert-Butylbenzene
TO-15		Air	Tetrahydrofuran

Method Summary

Client: PW Grosser Consulting
Project/Site: BNL 1801

TestAmerica Job ID: 200-44205-1

Method	Method Description	Protocol	Laboratory
TO-15	Volatile Organic Compounds in Ambient Air	EPA	TAL BUR

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

TAL BUR = TestAmerica Burlington, 30 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990



Sample Summary

Client: PW Grosser Consulting
Project/Site: BNL 1801

TestAmerica Job ID: 200-44205-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
200-44205-1	SVE-01	Air	06/27/18 10:25	07/06/18 10:30
200-44205-2	SVE-02	Air	06/27/18 12:20	07/06/18 10:30
200-44205-3	SVE-03	Air	06/27/18 13:15	07/06/18 10:30
200-44205-4	SVE-04	Air	06/27/18 14:05	07/06/18 10:30
200-44205-5	SVE-05	Air	06/29/18 09:30	07/06/18 10:30

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16

NYSC
460501

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Canister Samples Chain of Custody Record

TestAmerica Burlington
30 Community Drive
Suite 11

South Burlington, VT 05403-6809
phone 802.660.1990 fax 802.660.1919

TestAmerica Laboratories, Inc. assumes no liability with respect to the collection and shipment of these samples.

TestAmerica Laboratories, Inc.

Client Contact Information		Client Project Manager: <u>Michael Scanlon</u>		Samples Collected By: <u>Michael Scanlon</u>		COC No: <u>1</u> of <u>1</u> COCs											
Company Name: <u>P.W. GROSSER CONSULTING</u>		Phone: <u>(631) 404-0776</u>		Walk-in Client:		For Lab Use Only:											
Address: <u>620 JOHNSON AVE.</u>		Email: <u>MSCANLON@PWGROSSER.COM</u>		Lab Sampling:		Job / SDG No.:											
City/State/Zip: <u>ROSELAND, NY 11716</u>		Site Contact:		EPA 1516		Other (Please specify in notes section)											
Phone: <u>(631) 589-6353</u>		Tel/Fax:		ASTM D-1946		Landfill Gas											
Project Name: <u>BNL1801</u>		Analysis Turnaround Time:		EPA 25C		Soil Gas											
Site/Location:		Standard (Specific):		TO-15 SIM		Sub-Slab											
PO #		Rush (Specify):		TO-1419 (Standard / Low Level)		Indoor Air/Ambient Air											
Sample Identification	Sample Date(s)	Time Start	Time Stop	Canister Vacuum in Field, "Hg (Start)"	Canister Vacuum in Field, "Hg (Stop)"	Flow Controller ID	Canister ID	Sample Specific Notes:									
								TO-1419	EPA 3C	EPA 25C	ASTM D-1946	EPA 1516	Other (Please specify in notes section)	Sample Type	Soil Gas	Soil Vapor Extraction (SVE)	Landfill Gas
SVE-01	6/27/18	10:25	10:25	29.8	~2.0"	N/A	4389	X									
SVE-02	6/27/18	12:20	12:20	29.8	~2.0"	N/A	6298	X									
SVE-03	6/27/18	13:15	13:15	29.8	~2.0"	N/A	3817	X									
SVE-04	6/27/18	14:05	14:05	29.8	~2.0"	N/A	5935	X									
SVE-05	6/28/18	09:30	09:30	29.8	~2.0"	N/A	3897	X									
Special Instructions/QC Requirements & Comments:		Temperature (Fahrenheit)		Pressure (inches of Hg)		200-44205 Chain of Custody											
Start Stop		Interior		Ambient													
Start Stop		Interior		Ambient													
Samples Shipped by:		Date / Time:		Samples Received by:													
Samples Relinquished by: <u>Michael Scanlon</u>		7/2/18 21:27		Received by: <u>[Signature]</u>													
Relinquished by:		Date / Time:		Received by: <u>[Signature]</u>													
Lab Use Only:		Date / Time:		Received by: <u>[Signature]</u>													
Shipper Name: <u>TA Eds</u>		7/5/18 1800		Received by: <u>TA Eds</u>													

Form No. CA-C-WI-003, Rev. 2.5, dated 9/22/2011

Rec'd BY: Scanlon T ASD 7/6/18 1030



ORIGIN ID:LDJA (732) 549-3900
SAMPLE CONTROL - BRIAN BORDIERI
TESTAMERICA INC.
777 NEW DURHAM ROAD

SHIP DATE: 05JUL18
ACTWGT: 12.75 LB
CAD: 0358159/CAFE3210

EDISON, NJ 08817
UNITED STATES US

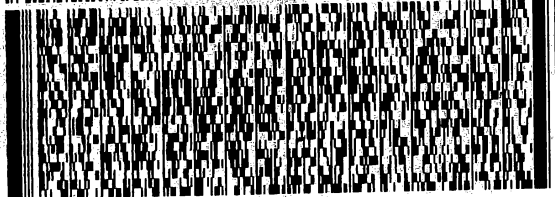
BILL RECIPIENT

TO **SAMPLE CUSTODY**
TEST AMERICA BURLINGTON
30 COMMUNITY DRIVE
SUITE 11
SOUTH BURLINGTON VT 05403

(802) 655-1203

REF:

DEPT:



FedEx
Express



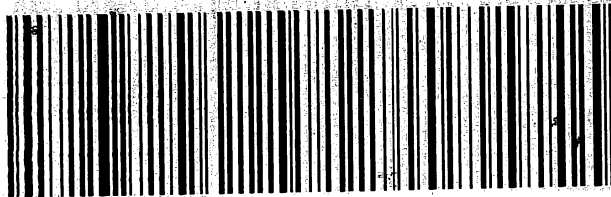
J181118042001W

TRK# 4137 2535 1404
0201

FRI - 06 JUL 3:00P
STANDARD OVERNIGHT

NC BTVA

05403
VT-US **BTV**



55122/RS37/1042



Login Sample Receipt Checklist

Client: PW Grosser Consulting

Job Number: 200-44205-1

Login Number: 44205

List Number: 1

Creator: Hahl, Victoria L

List Source: TestAmerica Burlington

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	Not present
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	Thermal preservation not required.
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	N/A	Thermal preservation not required.
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	Michael Scanton
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.	N/A	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	No analysis requiring residual chlorine check assigned.

Pre-Shipment Clean Canister Certification Report

Canister Cleaning & Pre-Shipment Leak Test

System ID	Max DF#	# Cycles	Cleaning Date		Technician	Canister Size		Certification Type					
			Gauge	Date		1L	6L	Individual	Batch				
Oven 1/2	1	100	6/14/2018	6/14/2018	EJE								
Port	Can ID	Initial ¹ (psia)	Final (psia)	Diff. ³	Final ("Hg)	Initial Reading	Temp.	Time	Tech	Final Reading	Time	Tech	Temp.
1	6274	.03	.03	0	29.8	842	23	8:26	ck	8:26	ck	ck	26
2	6441	.03	.03	0									
3	5908	.03	.03	0									
4	3721	.06	.03	0									
5	6298	.03	.03	0									
6	4389	.05	.02	0									
7	5837	.03	.03	0									
8	6411	.03	.03	0									
9	6324	.03	.03	0									
10	6320	.03	.03	0									
11	5935	.03	.03	0									
12	5910	.03	.03	0	29.8	1150	27	6:18	ck	12:19	ck	ck	26

¹ Batch Certification: The reading is taken on the "batch" canister and this value is used as the initial pressure for all canisters in the batch.


³ Difference = Final Pressure - Initial Pressure . Acceptance Criteria: (1) The difference must be less than or equal to + 0.25psi. (2) Pressure readings must be at least 24 hours apart.

If time frame was not met, the PM must authorize shipment of canister **PM Authorization** Date:

Clean Canister Certification Analysis & Authorization of Release to Inventory			
Test Method: TO15 Routine ≤ TO15LL ≤ NUDEP-LL TO15	Inventory Level	Secondary Review	Date:
Can ID: 5910	Analyst: ABA	Limited	6/19/18
Sequence: 30937	Inventory Level: 3	Review Date: 6/19/18	Reviewer: [Signature]

Inventory Level 1:	Inventory Level 2:	Inventory Level 3:	Inventory Level 4:	Inventory Level Limited:
Individual Canister Certification (TO15LL 0.01).	Individual or Batch Certification (TO15 0.04 ppbv).	Individual or Batch Certification (TO15 0.2 ppbv).	Individual or Batch Certification (TO15LLNJ 0.08 ppbv).	Canisters may only be used for certain projects.

Comments:



200-43873-A-12
5910
Location: Air-Storage
Bottle: Summa Canister 1L
Sampled: 6/14/2018 12:00 AM 200-1163554

Loc: 200
43873
#12
A



Pre-shipment Clean Canister Certification Report

Canister Cleaning & Pre-Shipment Leak Test

System ID		Max DF#	# Cycles	Cleaning Date	Technician	Canister Size		Certification Type	
Oven 1/2		20	100	6/18/2018	EJE	1L	6L	Individual	Batch
Port	Can ID	Initial ¹ (psia)	Final (psia)	Diff. ³	Final ("Hg)	Initial Reading	Final Reading	Time:	Temp:
						Gauge:	Date:	Time:	Tech:
1	5847	.03	.03	.00	19.8	G26	6-18-18	8:55	EJE
2	6421	.03	.03	.00	19.8	G26	6-18-18	8:55	EJE
3	3585	.05	.05	.00	19.8	G26	6-18-18	8:55	EJE
4	2983	.04	.04	.00	19.8	G26	6-18-18	8:55	EJE
5	6328	.04	.04	.00	19.8	G26	6-18-18	8:55	EJE
6	4960	.03	.03	.00	19.8	G26	6-18-18	8:55	EJE
7	6412	.03	.03	.00	19.8	G26	6-18-18	8:55	EJE
8	6417	.03	.03	.00	19.8	G26	6-18-18	8:55	EJE
9	3817	.03	.03	.00	19.8	G26	6-18-18	8:55	EJE
10	4663	.03	.03	.00	19.8	G26	6-18-18	8:55	EJE
11	4838	.04	.04	.00	19.8	G26	6-18-18	8:55	EJE
12	3597	.03	.03	.00	19.8	G26	6-18-18	8:55	EJE

¹ Batch Certification: The reading is taken on the "batch" canister and this value is used as the initial pressure for all canisters in the batch.

³ Difference = Final Pressure - Initial Pressure. Acceptance Criteria: (1) The difference must be less than or equal to + 0.25psi. (2) Pressure readings must be at least 24 hours apart.

If time frame was not met, the PM must authorize shipment of canister

PM Authorization

Date:

Test Method: TO15 Routine ≤ TO15 LL ≤ NUDEP-LL TO15		Clean Canister Certification Analysis & Authorization of Release to Inventory			
Can ID	Date	Analyst	Inventory Level	Limited	Secondary Review
6-18-18 3950 4960	6/20/18	ADA	30995	4	6/20/18 UTP

Comments:

Inventory Level 1: Individual Canister Certification (TO15LL 0.01).

Inventory Level 2: Individual or Batch Certification (TO15 0.04 ppbv).

Inventory Level 3: Individual or Batch Certification (TO15 0.2 ppbv).

Inventory Level 4: Individual or Batch Certification (TO15LLNJ 0.08 ppbv).

Inventory Level Limited: Canisters may only be used for certain projects.

Form ID: FAI023:11
Revision Date: 11-15-2017

TestAmerica Burlington

200-43915-A-6
4960
Location: Air-Storage
Bottle: Summa Canister 1L
Sampled: 6/18/2018 12:00 AM 200-1164687

Loc: 200
43915
#6
A



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-43873-1
 SDG No.: _____
 Client Sample ID: 5910 Lab Sample ID: 200-43873-12
 Matrix: Air Lab File ID: 30937-07.D
 Analysis Method: TO-15 Date Collected: 06/14/2018 00:00
 Sample wt/vol: 200 (mL) Date Analyzed: 06/15/2018 18:18
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: RTX-624 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 130700 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	RL
115-07-1	Propylene	5.0	U	5.0	5.0
75-71-8	Dichlorodifluoromethane	0.50	U	0.50	0.50
75-45-6	Freon 22	0.50	U	0.50	0.50
76-14-2	1,2-Dichlorotetrafluoroethane	0.20	U	0.20	0.20
74-87-3	Chloromethane	0.50	U	0.50	0.50
106-97-8	n-Butane	0.50	U	0.50	0.50
75-01-4	Vinyl chloride	0.20	U	0.20	0.20
106-99-0	1,3-Butadiene	0.20	U	0.20	0.20
74-83-9	Bromomethane	0.20	U	0.20	0.20
75-00-3	Chloroethane	0.50	U	0.50	0.50
593-60-2	Bromoethene (Vinyl Bromide)	0.20	U	0.20	0.20
75-69-4	Trichlorofluoromethane	0.20	U	0.20	0.20
64-17-5	Ethanol	5.0	U	5.0	5.0
76-13-1	Freon TF	0.20	U	0.20	0.20
75-35-4	1,1-Dichloroethene	0.20	U	0.20	0.20
67-64-1	Acetone	5.0	U	5.0	5.0
67-63-0	Isopropyl alcohol	5.0	U	5.0	5.0
75-15-0	Carbon disulfide	0.50	U	0.50	0.50
107-05-1	3-Chloropropene	0.50	U	0.50	0.50
75-09-2	Methylene Chloride	0.50	U	0.50	0.50
75-65-0	tert-Butyl alcohol	5.0	U	5.0	5.0
1634-04-4	Methyl tert-butyl ether	0.20	U	0.20	0.20
156-60-5	trans-1,2-Dichloroethene	0.20	U	0.20	0.20
110-54-3	n-Hexane	0.20	U	0.20	0.20
75-34-3	1,1-Dichloroethane	0.20	U	0.20	0.20
108-05-4	Vinyl acetate	5.0	U	5.0	5.0
141-78-6	Ethyl acetate	5.0	U	5.0	5.0
78-93-3	Methyl Ethyl Ketone	0.50	U	0.50	0.50
156-59-2	cis-1,2-Dichloroethene	0.20	U	0.20	0.20
540-59-0	1,2-Dichloroethene, Total	0.40	U	0.40	0.40
67-66-3	Chloroform	0.20	U	0.20	0.20
109-99-9	Tetrahydrofuran	5.0	U	5.0	5.0
71-55-6	1,1,1-Trichloroethane	0.20	U	0.20	0.20
110-82-7	Cyclohexane	0.20	U	0.20	0.20
56-23-5	Carbon tetrachloride	0.20	U	0.20	0.20
540-84-1	2,2,4-Trimethylpentane	0.20	U	0.20	0.20

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-43873-1
 SDG No.: _____
 Client Sample ID: 5910 Lab Sample ID: 200-43873-12
 Matrix: Air Lab File ID: 30937-07.D
 Analysis Method: TO-15 Date Collected: 06/14/2018 00:00
 Sample wt/vol: 200 (mL) Date Analyzed: 06/15/2018 18:18
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: RTX-624 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 130700 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	RL
71-43-2	Benzene	0.20	U	0.20	0.20
107-06-2	1,2-Dichloroethane	0.20	U	0.20	0.20
142-82-5	n-Heptane	0.20	U	0.20	0.20
79-01-6	Trichloroethene	0.20	U	0.20	0.20
80-62-6	Methyl methacrylate	0.50	U	0.50	0.50
78-87-5	1,2-Dichloropropane	0.20	U	0.20	0.20
123-91-1	1,4-Dioxane	5.0	U	5.0	5.0
75-27-4	Bromodichloromethane	0.20	U	0.20	0.20
10061-01-5	cis-1,3-Dichloropropene	0.20	U	0.20	0.20
108-10-1	methyl isobutyl ketone	0.50	U	0.50	0.50
108-88-3	Toluene	0.20	U	0.20	0.20
10061-02-6	trans-1,3-Dichloropropene	0.20	U	0.20	0.20
79-00-5	1,1,2-Trichloroethane	0.20	U	0.20	0.20
127-18-4	Tetrachloroethene	0.20	U	0.20	0.20
591-78-6	Methyl Butyl Ketone (2-Hexanone)	0.50	U	0.50	0.50
124-48-1	Dibromochloromethane	0.20	U	0.20	0.20
106-93-4	1,2-Dibromoethane	0.20	U	0.20	0.20
108-90-7	Chlorobenzene	0.20	U	0.20	0.20
100-41-4	Ethylbenzene	0.20	U	0.20	0.20
179601-23-1	m,p-Xylene	0.50	U	0.50	0.50
95-47-6	Xylene, o-	0.20	U	0.20	0.20
1330-20-7	Xylene (total)	0.70	U	0.70	0.70
100-42-5	Styrene	0.20	U	0.20	0.20
75-25-2	Bromoform	0.20	U	0.20	0.20
98-82-8	Cumene	0.20	U	0.20	0.20
79-34-5	1,1,2,2-Tetrachloroethane	0.20	U	0.20	0.20
103-65-1	n-Propylbenzene	0.20	U	0.20	0.20
622-96-8	4-Ethyltoluene	0.20	U	0.20	0.20
108-67-8	1,3,5-Trimethylbenzene	0.20	U	0.20	0.20
95-49-8	2-Chlorotoluene	0.20	U	0.20	0.20
98-06-6	tert-Butylbenzene	0.20	U	0.20	0.20
95-63-6	1,2,4-Trimethylbenzene	0.20	U	0.20	0.20
135-98-8	sec-Butylbenzene	0.20	U	0.20	0.20
99-87-6	4-Isopropyltoluene	0.20	U	0.20	0.20
541-73-1	1,3-Dichlorobenzene	0.20	U	0.20	0.20
106-46-7	1,4-Dichlorobenzene	0.20	U	0.20	0.20

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-43873-1
 SDG No.: _____
 Client Sample ID: 5910 Lab Sample ID: 200-43873-12
 Matrix: Air Lab File ID: 30937-07.D
 Analysis Method: TO-15 Date Collected: 06/14/2018 00:00
 Sample wt/vol: 200 (mL) Date Analyzed: 06/15/2018 18:18
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: RTX-624 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 130700 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	RL
100-44-7	Benzyl chloride	0.20	U	0.20	0.20
104-51-8	n-Butylbenzene	0.20	U	0.20	0.20
95-50-1	1,2-Dichlorobenzene	0.20	U	0.20	0.20
120-82-1	1,2,4-Trichlorobenzene	0.50	U	0.50	0.50
87-68-3	Hexachlorobutadiene	0.20	U	0.20	0.20
91-20-3	Naphthalene	0.50	U	0.50	0.50

TestAmerica Burlington
Target Compound Quantitation Report

Data File: \\ChromNA\Burlington\ChromData\CHG.i\20180615-30937.b\30937-07.D
 Lims ID: 200-43873-A-12
 Client ID: 5910
 Sample Type: Client
 Inject. Date: 15-Jun-2018 18:18:30 ALS Bottle#: 7 Worklist Smp#: 7
 Purge Vol: 200.000 mL Dil. Factor: 1.0000
 Sample Info: 200-0030937-007
 Operator ID: ert Instrument ID: CHG.i
 Method: \\ChromNA\Burlington\ChromData\CHG.i\20180615-30937.b\TO15_MasterMethod_(v1)_G.m
 Limit Group: AI_TO15_ICAL
 Last Update: 18-Jun-2018 11:38:18 Calib Date: 05-Jun-2018 00:43:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Burlington\ChromData\CHG.i\20180604-30775.b\30775-11.D
 Column 1 : RTX-624 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK025

First Level Reviewer: puangmaleek

Date:

18-Jun-2018 11:38:18

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
1 Propene	41		3.117				ND	
2 Dichlorodifluoromethane	85		3.171				ND	
3 Chlorodifluoromethane	51		3.208				ND	
4 1,2-Dichloro-1,1,2,2-tetra	85		3.379				ND	
5 Chloromethane	50		3.492				ND	U
6 Butane	43		3.641				ND	
7 Vinyl chloride	62		3.674				ND	
8 Butadiene	54		3.732				ND	
10 Bromomethane	94		4.262				ND	
11 Chloroethane	64		4.439				ND	
13 Vinyl bromide	106		4.749				ND	
14 Trichlorofluoromethane	101		4.824				ND	
17 Ethanol	45		5.294				ND	
20 1,1,2-Trichloro-1,2,2-trif	101		5.685				ND	
21 1,1-Dichloroethene	96		5.738				ND	
22 Acetone	43		5.958				ND	
23 Carbon disulfide	76		6.097				ND	
24 Isopropyl alcohol	45		6.199				ND	
25 3-Chloro-1-propene	41		6.397				ND	
27 Methylene Chloride	49		6.648				ND	
28 2-Methyl-2-propanol	59		6.883				ND	
29 Methyl tert-butyl ether	73		7.033				ND	
31 trans-1,2-Dichloroethene	61		7.038				ND	
33 Hexane	57		7.381				ND	
34 1,1-Dichloroethane	63		7.830				ND	
35 Vinyl acetate	43		7.894				ND	
37 cis-1,2-Dichloroethene	96		8.836				ND	
38 2-Butanone (MEK)	72		8.911				ND	
39 Ethyl acetate	88		8.943				ND	
* 40 Chlorobromomethane	128	9.253	9.269	-0.016	69	363844	10.0	
41 Tetrahydrofuran	42		9.323				ND	
42 Chloroform	83		9.387				ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
43 Cyclohexane	84		9.633				ND	
44 1,1,1-Trichloroethane	97		9.654				ND	
S 30 1,2-Dichloroethene, Total	61		9.665				ND	
45 Carbon tetrachloride	117		9.895				ND	
46 Isooctane	57		10.302				ND	
47 Benzene	78		10.339				ND	
48 1,2-Dichloroethane	62		10.505				ND	
49 n-Heptane	43		10.676				ND	
* 50 1,4-Difluorobenzene	114	11.131	11.142	-0.011	92	1838775	10.0	
53 Trichloroethene	95		11.602				ND	
54 1,2-Dichloropropane	63		12.147				ND	
55 Methyl methacrylate	69		12.335				ND	
57 Dibromomethane	174	12.377	12.377	-0.017	24	1101	0.0173	M
56 1,4-Dioxane	88		12.415				ND	
58 Dichlorobromomethane	83		12.682				ND	
60 cis-1,3-Dichloropropene	75		13.597				ND	
61 4-Methyl-2-pentanone (MIBK)	43		13.924				ND	
65 Toluene	92		14.186				ND	
66 trans-1,3-Dichloropropene	75		14.779				ND	
67 1,1,2-Trichloroethane	83		15.149				ND	
68 Tetrachloroethene	166		15.256				ND	
69 2-Hexanone	43		15.641				ND	
71 Chlorodibromomethane	129		15.908				ND	
72 Ethylene Dibromide	107		16.176				ND	
* 74 Chlorobenzene-d5	117	17.074	17.080	-0.006	83	1635135	10.0	
75 Chlorobenzene	112		17.139				ND	
76 Ethylbenzene	91		17.305				ND	U
78 m-Xylene & p-Xylene	106		17.561				ND	
79 o-Xylene	106		18.412				ND	
80 Styrene	104		18.465				ND	
81 Bromoform	173		18.909				ND	
82 Isopropylbenzene	105		19.161				ND	
S 73 Xylenes, Total	106		19.600				ND	
84 1,1,2,2-Tetrachloroethane	83		19.872				ND	
85 N-Propylbenzene	91		19.947				ND	
89 2-Chlorotoluene	91		20.145				ND	
88 4-Ethyltoluene	105		20.151				ND	
90 1,3,5-Trimethylbenzene	105		20.274				ND	
92 tert-Butylbenzene	119		20.787				ND	
93 1,2,4-Trimethylbenzene	105		20.889				ND	
94 sec-Butylbenzene	105		21.130				ND	
95 4-Isopropyltoluene	119		21.344				ND	
96 1,3-Dichlorobenzene	146		21.360				ND	Ua
97 1,4-Dichlorobenzene	146	21.499	21.499	0.000	1	1556	0.0129	
98 Benzyl chloride	91		21.707				ND	
100 n-Butylbenzene	91		21.927				ND	
101 1,2-Dichlorobenzene	146		22.034				ND	
103 1,2,4-Trichlorobenzene	180		24.441				ND	U
104 Hexachlorobutadiene	225		24.628				ND	
105 Naphthalene	128		24.890				ND	

QC Flag Legend

Review Flags

M - Manually Integrated

U - Marked Undetected

a - User Assigned ID

Reagents:

ATTO15GIS_00015

Amount Added: 20.00

Units: mL

Run Reagent

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16

TestAmerica Burlington

Data File: \\ChromNA\Burlington\ChromData\CHG.i\20180615-30937.b\30937-07.D

Injection Date: 15-Jun-2018 18:18:30

Instrument ID: CHG.i

Operator ID: ert

Lims ID: 200-43873-A-12

Lab Sample ID: 200-43873-12

Worklist Smp#: 7

Client ID: 5910

Purge Vol: 200.000 mL

Dil. Factor: 1.0000

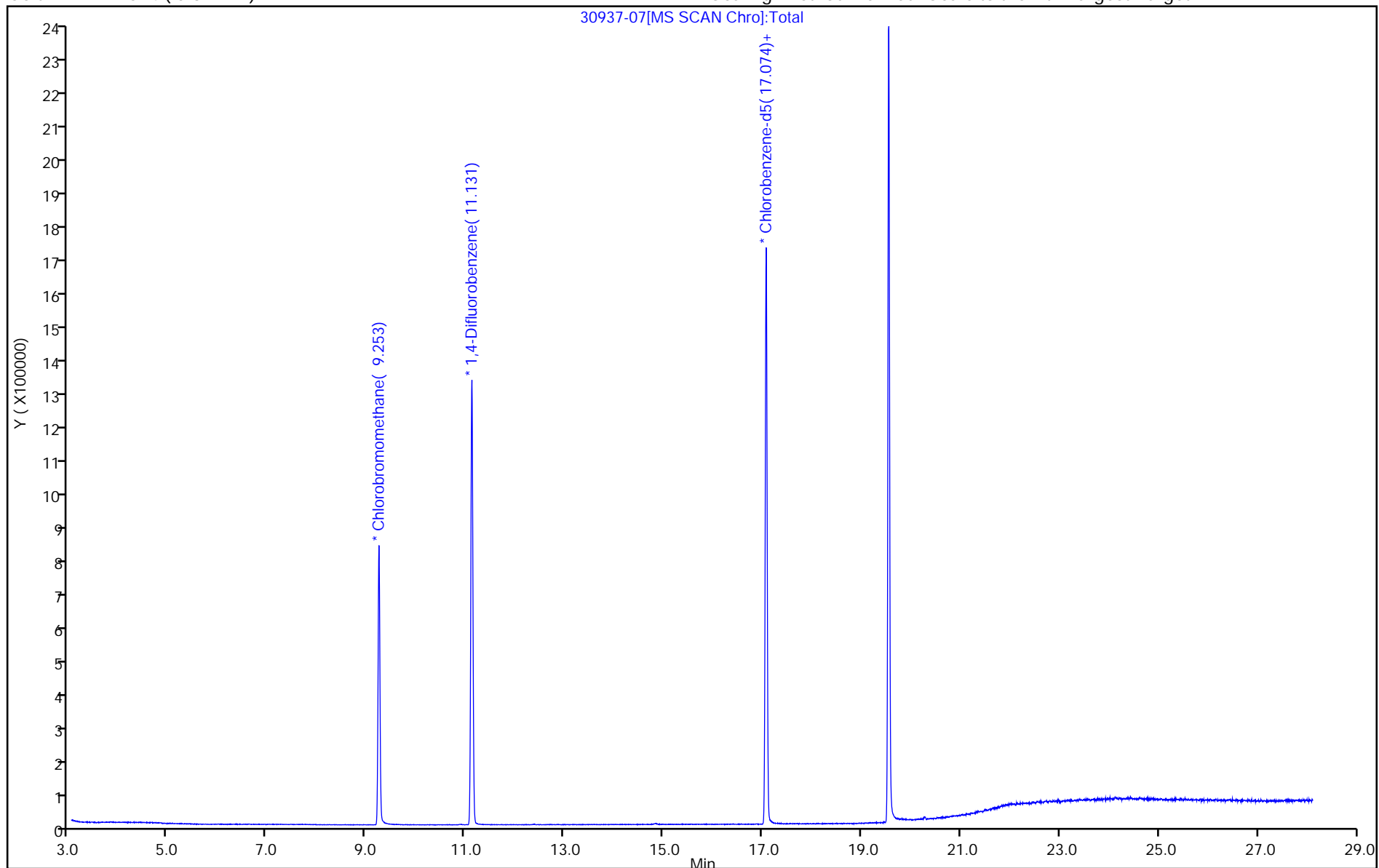
ALS Bottle#: 7

Method: TO15_MasterMethod_(v1)_G

Limit Group: AI_TO15_ICAL

Column: RTX-624 (0.32 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1

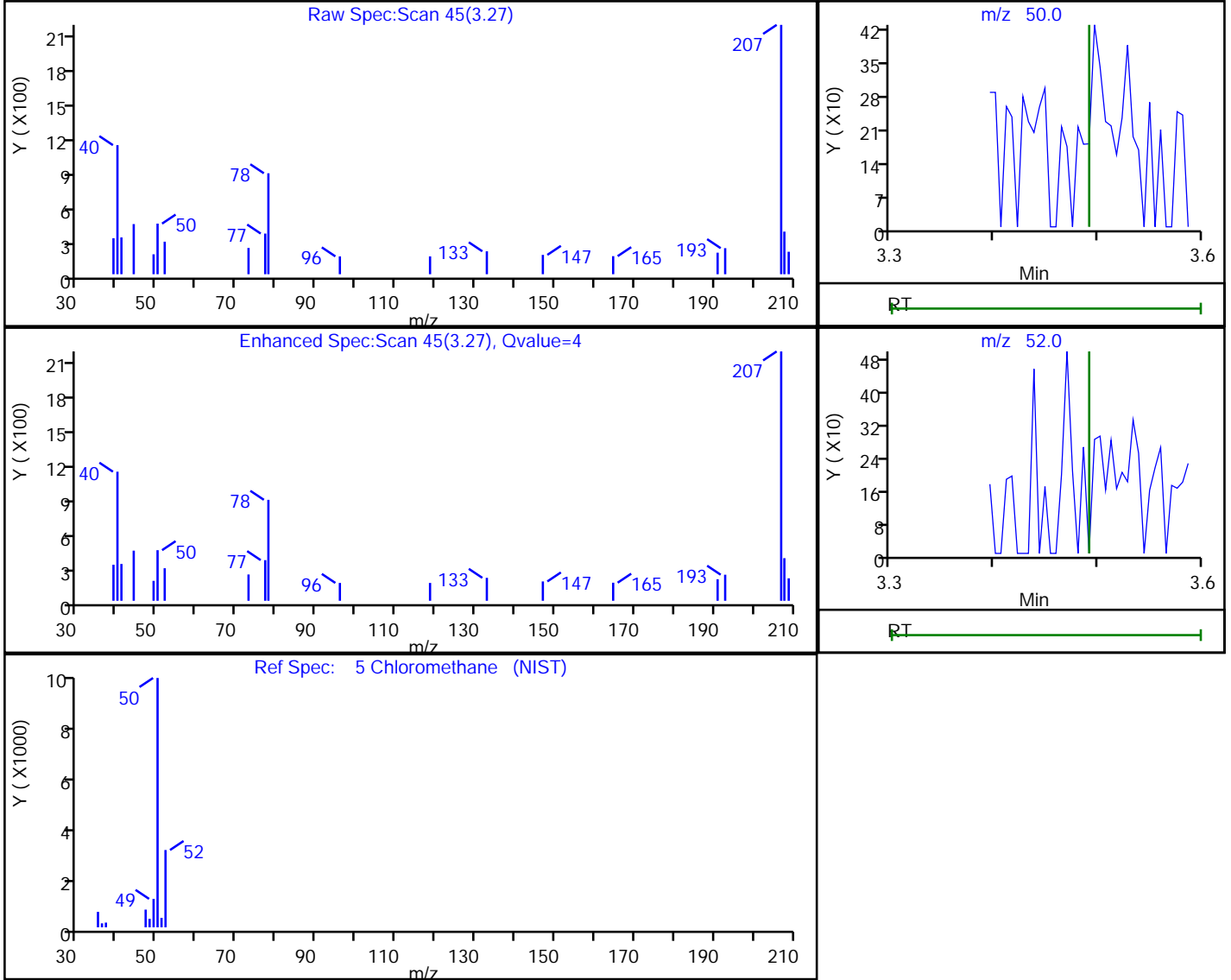


TestAmerica Burlington

Data File: \\ChromNA\Burlington\ChromData\CHG.i\20180615-30937.b\30937-07.D
 Injection Date: 15-Jun-2018 18:18:30 Instrument ID: CHG.i
 Lims ID: 200-43873-A-12 Lab Sample ID: 200-43873-12
 Client ID: 5910
 Operator ID: ert ALS Bottle#: 7 Worklist Smp#: 7
 Purge Vol: 200.000 mL Dil. Factor: 1.0000
 Method: TO15_MasterMethod_(v1)_G Limit Group: AI_TO15_ICAL
 Column: RTX-624 (0.32 mm) Detector: MS SCAN

5 Chloromethane, CAS: 74-87-3

Processing Results



RT	Mass	Response	Amount
3.27	50.00	555	0.030403
3.27	52.00	141	

Reviewer: puangmaleek, 18-Jun-2018 11:36:44

Audit Action: Marked Compound Undetected

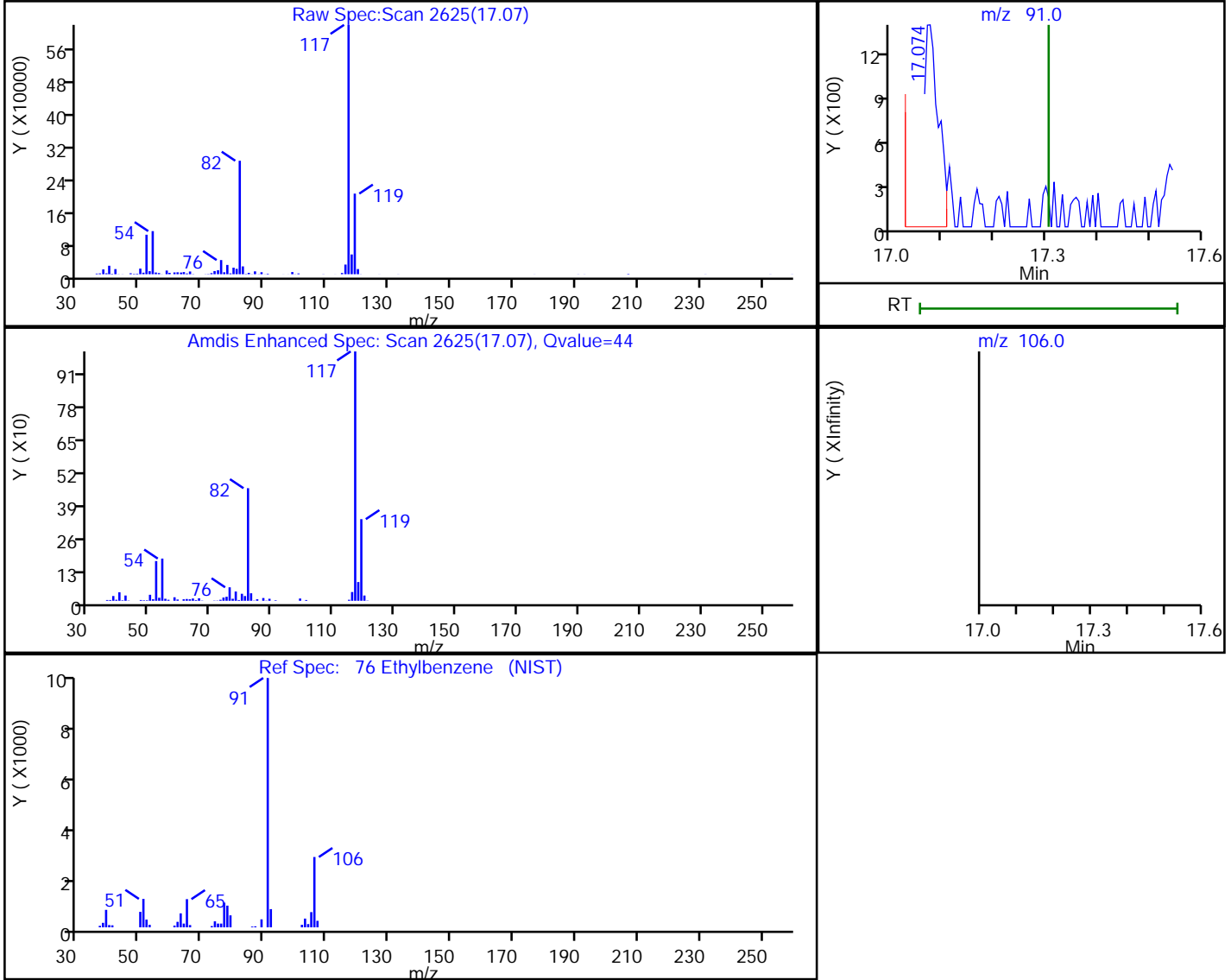
Audit Reason: Invalid Compound ID

TestAmerica Burlington

Data File: \\ChromNA\Burlington\ChromData\CHG.i\20180615-30937.b\30937-07.D
 Injection Date: 15-Jun-2018 18:18:30 Instrument ID: CHG.i
 Lims ID: 200-43873-A-12 Lab Sample ID: 200-43873-12
 Client ID: 5910
 Operator ID: ert ALS Bottle#: 7 Worklist Smp#: 7
 Purge Vol: 200.000 mL Dil. Factor: 1.0000
 Method: TO15_MasterMethod_(v1)_G Limit Group: AI_TO15_ICAL
 Column: RTX-624 (0.32 mm) Detector: MS SCAN

76 Ethylbenzene, CAS: 100-41-4

Processing Results



RT	Mass	Response	Amount
17.07	91.00	3296	0.021889
17.30	106.00	0	

Reviewer: puangmaleek, 18-Jun-2018 11:37:29

Audit Action: Marked Compound Undetected

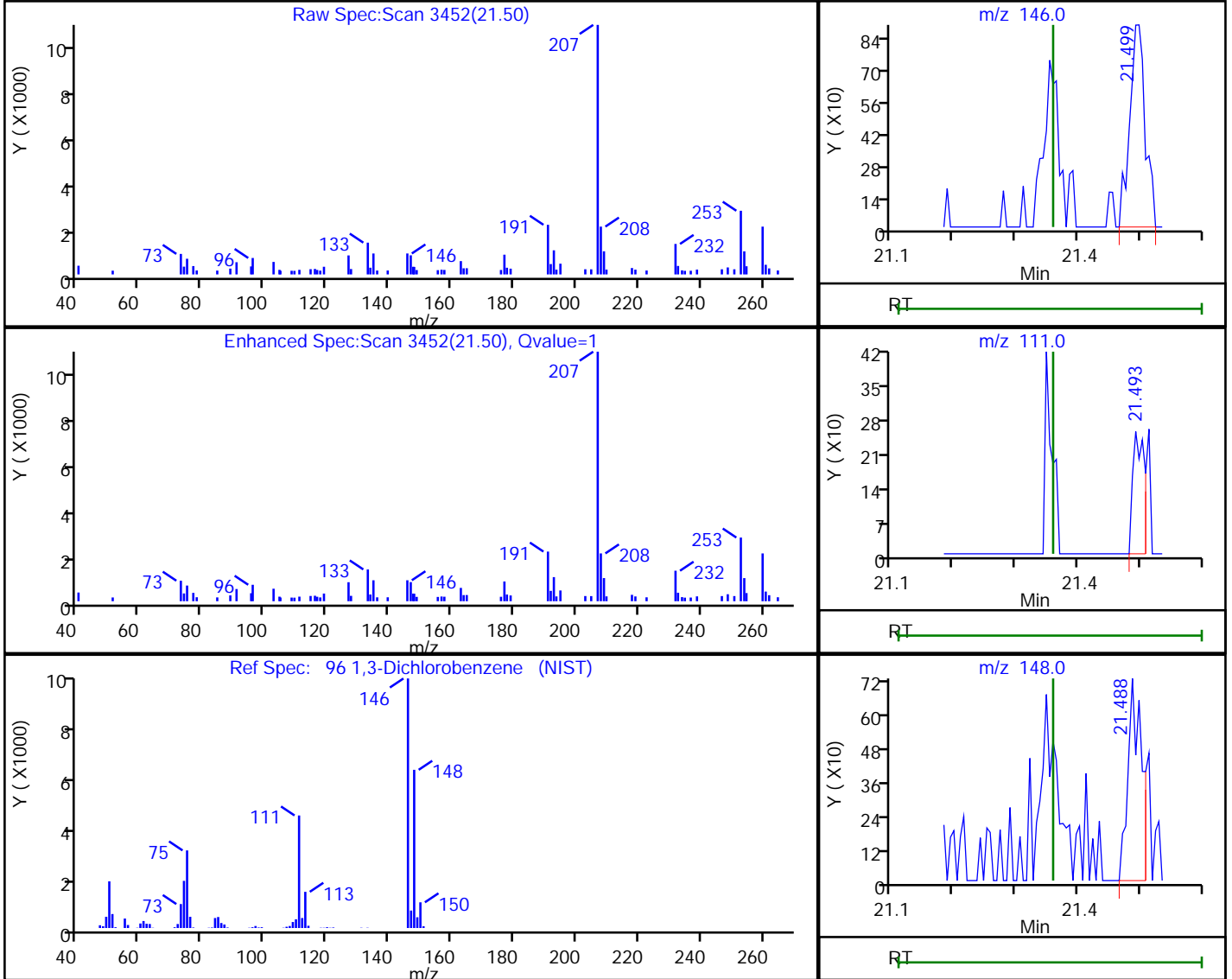
Audit Reason: Invalid Compound ID

TestAmerica Burlington

Data File: \\ChromNA\Burlington\ChromData\CHG.i\20180615-30937.b\30937-07.D
 Injection Date: 15-Jun-2018 18:18:30 Instrument ID: CHG.i
 Lims ID: 200-43873-A-12 Lab Sample ID: 200-43873-12
 Client ID: 5910
 Operator ID: ert ALS Bottle#: 7 Worklist Smp#: 7
 Purge Vol: 200.000 mL Dil. Factor: 1.0000
 Method: TO15_MasterMethod_(v1)_G Limit Group: AI_TO15_ICAL
 Column: RTX-624 (0.32 mm) Detector: MS SCAN

96 1,3-Dichlorobenzene, CAS: 541-73-1

Processing Results



RT	Mass	Response	Amount
21.50	146.00	1556	0.012874
21.49	111.00	323	
21.49	148.00	1102	

Reviewer: puangmaleek, 18-Jun-2018 11:38:06

Audit Action: Marked Compound Undetected

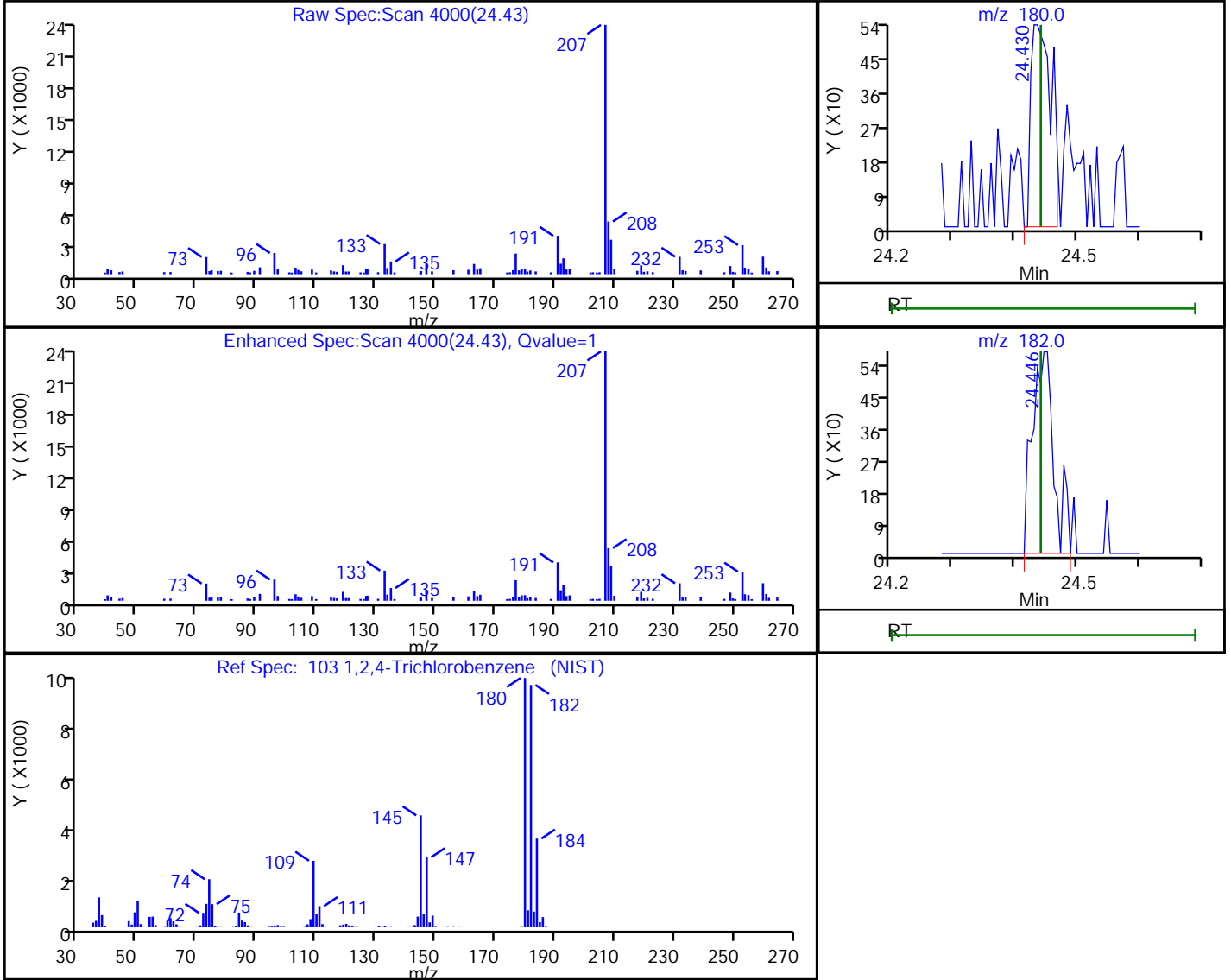
Audit Reason: Invalid Compound ID

TestAmerica Burlington

Data File: \\ChromNA\Burlington\ChromData\CHG.i\20180615-30937.b\30937-07.D
 Injection Date: 15-Jun-2018 18:18:30 Instrument ID: CHG.i
 Lims ID: 200-43873-A-12 Lab Sample ID: 200-43873-12
 Client ID: 5910
 Operator ID: ert ALS Bottle#: 7 Worklist Smp#: 7
 Purge Vol: 200.000 mL Dil. Factor: 1.0000
 Method: TO15_MasterMethod_(v1)_G Limit Group: AI_TO15_ICAL
 Column: RTX-624 (0.32 mm) Detector: MS SCAN

103 1,2,4-Trichlorobenzene, CAS: 120-82-1

Processing Results



RT	Mass	Response	Amount
24.43	180.00	1236	0.017127
24.45	182.00	1406	

Reviewer: puangmaleek, 18-Jun-2018 11:38:14

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-43915-1
 SDG No.: _____
 Client Sample ID: 4960 Lab Sample ID: 200-43915-6
 Matrix: Air Lab File ID: 30995-11.D
 Analysis Method: TO-15 Date Collected: 06/18/2018 00:00
 Sample wt/vol: 200 (mL) Date Analyzed: 06/19/2018 19:48
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: RTX-624 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 130834 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	RL
115-07-1	Propylene	5.0	U	5.0	5.0
75-71-8	Dichlorodifluoromethane	0.50	U	0.50	0.50
75-45-6	Freon 22	0.50	U	0.50	0.50
76-14-2	1,2-Dichlorotetrafluoroethane	0.20	U	0.20	0.20
74-87-3	Chloromethane	0.50	U	0.50	0.50
106-97-8	n-Butane	0.50	U	0.50	0.50
75-01-4	Vinyl chloride	0.20	U	0.20	0.20
106-99-0	1,3-Butadiene	0.20	U	0.20	0.20
74-83-9	Bromomethane	0.20	U	0.20	0.20
75-00-3	Chloroethane	0.50	U	0.50	0.50
593-60-2	Bromoethene (Vinyl Bromide)	0.20	U	0.20	0.20
75-69-4	Trichlorofluoromethane	0.20	U	0.20	0.20
64-17-5	Ethanol	5.0	U	5.0	5.0
76-13-1	Freon TF	0.20	U	0.20	0.20
75-35-4	1,1-Dichloroethene	0.20	U	0.20	0.20
67-64-1	Acetone	5.0	U	5.0	5.0
67-63-0	Isopropyl alcohol	5.0	U	5.0	5.0
75-15-0	Carbon disulfide	0.50	U	0.50	0.50
107-05-1	3-Chloropropene	0.50	U	0.50	0.50
75-09-2	Methylene Chloride	0.50	U	0.50	0.50
75-65-0	tert-Butyl alcohol	5.0	U	5.0	5.0
1634-04-4	Methyl tert-butyl ether	0.20	U	0.20	0.20
156-60-5	trans-1,2-Dichloroethene	0.20	U	0.20	0.20
110-54-3	n-Hexane	0.20	U	0.20	0.20
75-34-3	1,1-Dichloroethane	0.20	U	0.20	0.20
108-05-4	Vinyl acetate	5.0	U	5.0	5.0
141-78-6	Ethyl acetate	5.0	U	5.0	5.0
78-93-3	Methyl Ethyl Ketone	0.50	U	0.50	0.50
156-59-2	cis-1,2-Dichloroethene	0.20	U	0.20	0.20
540-59-0	1,2-Dichloroethene, Total	0.40	U	0.40	0.40
67-66-3	Chloroform	0.20	U	0.20	0.20
109-99-9	Tetrahydrofuran	5.0	U	5.0	5.0
71-55-6	1,1,1-Trichloroethane	0.20	U	0.20	0.20
110-82-7	Cyclohexane	0.20	U	0.20	0.20
56-23-5	Carbon tetrachloride	0.20	U	0.20	0.20
540-84-1	2,2,4-Trimethylpentane	0.20	U	0.20	0.20

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-43915-1
 SDG No.: _____
 Client Sample ID: 4960 Lab Sample ID: 200-43915-6
 Matrix: Air Lab File ID: 30995-11.D
 Analysis Method: TO-15 Date Collected: 06/18/2018 00:00
 Sample wt/vol: 200 (mL) Date Analyzed: 06/19/2018 19:48
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: RTX-624 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 130834 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	RL
71-43-2	Benzene	0.20	U	0.20	0.20
107-06-2	1,2-Dichloroethane	0.20	U	0.20	0.20
142-82-5	n-Heptane	0.20	U	0.20	0.20
79-01-6	Trichloroethene	0.20	U	0.20	0.20
80-62-6	Methyl methacrylate	0.50	U	0.50	0.50
78-87-5	1,2-Dichloropropane	0.20	U	0.20	0.20
123-91-1	1,4-Dioxane	5.0	U	5.0	5.0
75-27-4	Bromodichloromethane	0.20	U	0.20	0.20
10061-01-5	cis-1,3-Dichloropropene	0.20	U	0.20	0.20
108-10-1	methyl isobutyl ketone	0.50	U	0.50	0.50
108-88-3	Toluene	0.20	U	0.20	0.20
10061-02-6	trans-1,3-Dichloropropene	0.20	U	0.20	0.20
79-00-5	1,1,2-Trichloroethane	0.20	U	0.20	0.20
127-18-4	Tetrachloroethene	0.20	U	0.20	0.20
591-78-6	Methyl Butyl Ketone (2-Hexanone)	0.50	U	0.50	0.50
124-48-1	Dibromochloromethane	0.20	U	0.20	0.20
106-93-4	1,2-Dibromoethane	0.20	U	0.20	0.20
108-90-7	Chlorobenzene	0.20	U	0.20	0.20
100-41-4	Ethylbenzene	0.20	U	0.20	0.20
179601-23-1	m,p-Xylene	0.50	U	0.50	0.50
95-47-6	Xylene, o-	0.20	U	0.20	0.20
1330-20-7	Xylene (total)	0.70	U	0.70	0.70
100-42-5	Styrene	0.20	U	0.20	0.20
75-25-2	Bromoform	0.20	U	0.20	0.20
98-82-8	Cumene	0.20	U	0.20	0.20
79-34-5	1,1,2,2-Tetrachloroethane	0.20	U	0.20	0.20
103-65-1	n-Propylbenzene	0.20	U	0.20	0.20
622-96-8	4-Ethyltoluene	0.20	U	0.20	0.20
108-67-8	1,3,5-Trimethylbenzene	0.20	U	0.20	0.20
95-49-8	2-Chlorotoluene	0.20	U	0.20	0.20
98-06-6	tert-Butylbenzene	0.20	U	0.20	0.20
95-63-6	1,2,4-Trimethylbenzene	0.20	U	0.20	0.20
135-98-8	sec-Butylbenzene	0.20	U	0.20	0.20
99-87-6	4-Isopropyltoluene	0.20	U	0.20	0.20
541-73-1	1,3-Dichlorobenzene	0.20	U	0.20	0.20
106-46-7	1,4-Dichlorobenzene	0.20	U	0.20	0.20

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-43915-1
 SDG No.: _____
 Client Sample ID: 4960 Lab Sample ID: 200-43915-6
 Matrix: Air Lab File ID: 30995-11.D
 Analysis Method: TO-15 Date Collected: 06/18/2018 00:00
 Sample wt/vol: 200 (mL) Date Analyzed: 06/19/2018 19:48
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: RTX-624 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 130834 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	RL
100-44-7	Benzyl chloride	0.20	U	0.20	0.20
104-51-8	n-Butylbenzene	0.20	U	0.20	0.20
95-50-1	1,2-Dichlorobenzene	0.20	U	0.20	0.20
120-82-1	1,2,4-Trichlorobenzene	0.50	U	0.50	0.50
87-68-3	Hexachlorobutadiene	0.20	U	0.20	0.20
91-20-3	Naphthalene	0.50	U	0.50	0.50

TestAmerica Burlington
Target Compound Quantitation Report

Data File: \\ChromNA\Burlington\ChromData\CHB.i\20180619-30995.b\30995-11.D
 Lims ID: 200-43915-A-6
 Client ID: 4960
 Sample Type: Client
 Inject. Date: 19-Jun-2018 19:48:30 ALS Bottle#: 11 Worklist Smp#: 11
 Purge Vol: 200.000 mL Dil. Factor: 1.0000
 Sample Info: 200-0030995-011
 Operator ID: vtp Instrument ID: CHB.i
 Method: \\ChromNA\Burlington\ChromData\CHB.i\20180619-30995.b\TO15_LLNJ_TO3.m
 Limit Group: AI_TO15_ICAL
 Last Update: 20-Jun-2018 15:00:16 Calib Date: 15-Jun-2018 03:29:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal/External Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Burlington\ChromData\CHB.i\20180614-30925.b\30925-13.D
 Column 1 : RTX-624 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK001

First Level Reviewer: bunmaa

Date: 20-Jun-2018 14:13:48

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
1 Propene	41		3.140				ND	Ua
2 Dichlorodifluoromethane	85		3.199				ND	
3 Chlorodifluoromethane	51		3.231				ND	
4 1,2-Dichloro-1,1,2,2-tetra	85		3.412				ND	
5 Chloromethane	50		3.535				ND	
6 Butane	43		3.711				ND	Ua
7 Vinyl chloride	62		3.748				ND	
8 Butadiene	54		3.812				ND	
10 Bromomethane	94		4.474				ND	
11 Chloroethane	64		4.704				ND	
13 Vinyl bromide	106		5.114				ND	
14 Trichlorofluoromethane	101		5.216				ND	
16 Ethanol	45		5.664				ND	
19 1,1,2-Trichloro-1,2,2-trif	101		6.241				ND	
20 1,1-Dichloroethene	96		6.310				ND	
21 Acetone	43		6.454				ND	
22 Isopropyl alcohol	45		6.673				ND	
23 Carbon disulfide	76		6.742				ND	MUa
24 3-Chloro-1-propene	41		7.009				ND	
27 Methylene Chloride	49		7.265				ND	Ua
28 2-Methyl-2-propanol	59		7.372				ND	
29 Methyl tert-butyl ether	73		7.612				ND	
30 trans-1,2-Dichloroethene	61		7.676				ND	
32 Hexane	57	8.007	8.007	0.000	93	5978	0.0942	
33 1,1-Dichloroethane	63		8.413				ND	
34 Vinyl acetate	43		8.418				ND	
36 2-Butanone (MEK)	72		9.299				ND	
37 cis-1,2-Dichloroethene	96		9.315				ND	
35 Ethyl acetate	88		9.320				ND	
* 39 Chlorobromomethane	128	9.683	9.683	0.000	94	284760	10.0	
38 Tetrahydrofuran	42		9.694				ND	
40 Chloroform	83		9.758				ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
S 41 1,2-Dichloroethene, Total	61		10.000				ND	
42 1,1,1-Trichloroethane	97		10.019				ND	
43 Cyclohexane	84		10.030				ND	
44 Carbon tetrachloride	117		10.227				ND	
45 Isooctane	57		10.510				ND	
46 Benzene	78	10.553	10.547	0.006	90	2489	0.0223	7Ma
47 1,2-Dichloroethane	62		10.644				ND	
48 n-Heptane	43		10.761				ND	
* 50 1,4-Difluorobenzene	114	11.087	11.092	-0.005	95	1280674	10.0	
53 Trichloroethene	95		11.460				ND	
54 1,2-Dichloropropane	63		11.828				ND	
55 Methyl methacrylate	69		11.860				ND	
56 1,4-Dioxane	88		11.951				ND	
57 Dibromomethane	174		12.015				ND	
58 Dichlorobromomethane	83		12.186				ND	
60 cis-1,3-Dichloropropene	75		12.810				ND	
61 4-Methyl-2-pentanone (MIBK)	43		12.960				ND	
64 Toluene	92		13.243				ND	Ua
66 trans-1,3-Dichloropropene	75		13.606				ND	
67 1,1,2-Trichloroethane	83		13.872				ND	
68 Tetrachloroethene	166		14.022				ND	
69 2-Hexanone	43		14.134				ND	
70 Chlorodibromomethane	129		14.427				ND	
71 Ethylene Dibromide	107		14.630				ND	
* 72 Chlorobenzene-d5	117	15.196	15.196	0.000	87	1109680	10.0	
73 Chlorobenzene	112		15.239				ND	
74 Ethylbenzene	91	15.313	15.303	0.010	95	4705	0.0291	7a
76 m-Xylene & p-Xylene	106		15.452				ND	
78 o-Xylene	106		15.964				ND	Ua
79 Styrene	104		15.986				ND	
S 77 Xylenes, Total	106		16.000				ND	
80 Bromoform	173		16.279				ND	
81 Isopropylbenzene	105		16.375				ND	
83 1,1,2,2-Tetrachloroethane	83		16.781				ND	
84 N-Propylbenzene	91		16.856				ND	
87 4-Ethyltoluene	105		16.978				ND	
88 2-Chlorotoluene	91		17.021				ND	
89 1,3,5-Trimethylbenzene	105		17.048				ND	
91 tert-Butylbenzene	119		17.421				ND	
92 1,2,4-Trimethylbenzene	105		17.491				ND	
93 sec-Butylbenzene	105		17.678				ND	
94 4-Isopropyltoluene	119		17.832				ND	
95 1,3-Dichlorobenzene	146		17.907				ND	
96 1,4-Dichlorobenzene	146		18.019				ND	
97 Benzyl chloride	91		18.169				ND	
99 n-Butylbenzene	91		18.334				ND	
100 1,2-Dichlorobenzene	146		18.505				ND	
103 1,2,4-Trichlorobenzene	180		20.858				ND	
104 Hexachlorobutadiene	225		21.024				ND	
105 Naphthalene	128		21.333				ND	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

M - Manually Integrated

U - Marked Undetected

a - User Assigned ID

Reagents:

ATTO15BISs_00006

Amount Added: 20.00

Units: mL

Run Reagent



TestAmerica Burlington

Data File: \\ChromNA\Burlington\ChromData\CHB.i\20180619-30995.b\30995-11.D

Injection Date: 19-Jun-2018 19:48:30

Instrument ID: CHB.i

Operator ID: vtp

Lims ID: 200-43915-A-6

Lab Sample ID: 200-43915-6

Worklist Smp#: 11

Client ID: 4960

Purge Vol: 200.000 mL

Dil. Factor: 1.0000

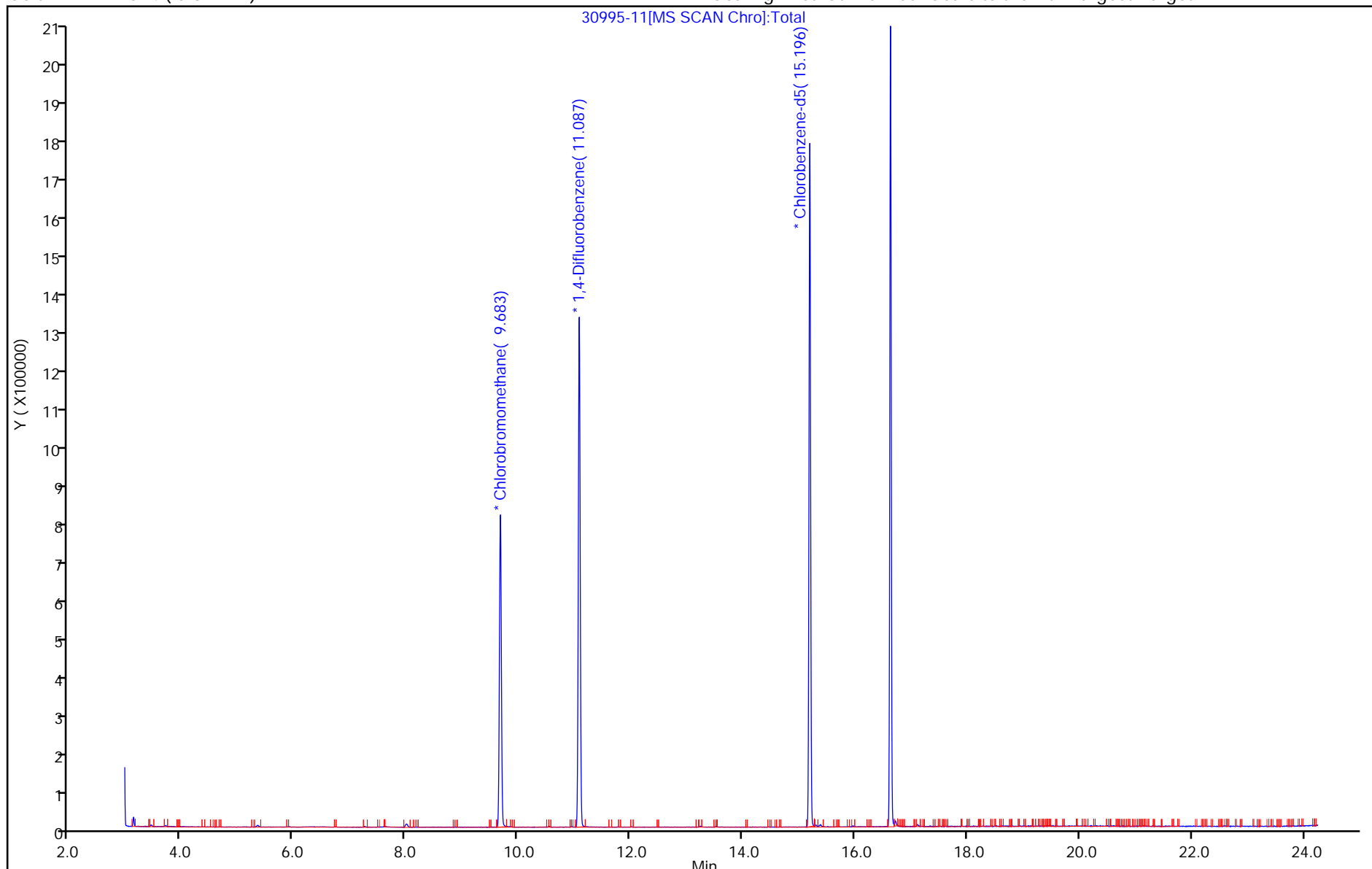
ALS Bottle#: 11

Method: TO15_LLNJ_TO3

Limit Group: AI_TO15_ICAL

Column: RTX-624 (0.32 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1

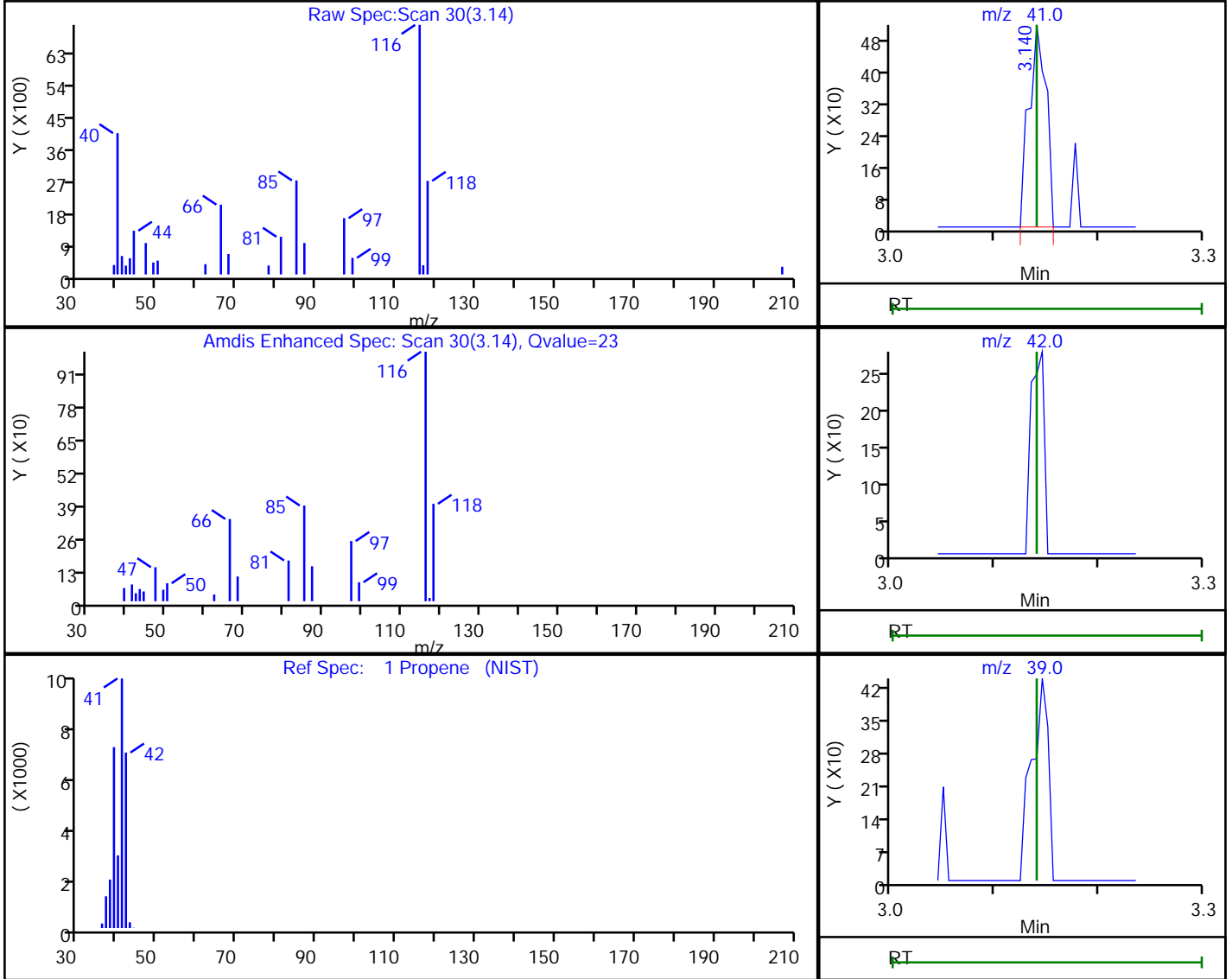


TestAmerica Burlington

Data File: \\ChromNA\Burlington\ChromData\CHB.i\20180619-30995.b\30995-11.D
 Injection Date: 19-Jun-2018 19:48:30 Instrument ID: CHB.i
 Lims ID: 200-43915-A-6 Lab Sample ID: 200-43915-6
 Client ID: 4960
 Operator ID: vtp ALS Bottle#: 11 Worklist Smp#: 11
 Purge Vol: 200.000 mL Dil. Factor: 1.0000
 Method: TO15_LLNJ_TO3 Limit Group: AI_TO15_ICAL
 Column: RTX-624 (0.32 mm) Detector: MS SCAN

1 Propene, CAS: 115-07-1

Processing Results



RT	Mass	Response	Amount
3.14	41.00	599	0.032260
3.14	42.00	0	
3.14	39.00	0	

Reviewer: bunmaa, 20-Jun-2018 14:04:30

Audit Action: Marked Compound Undetected

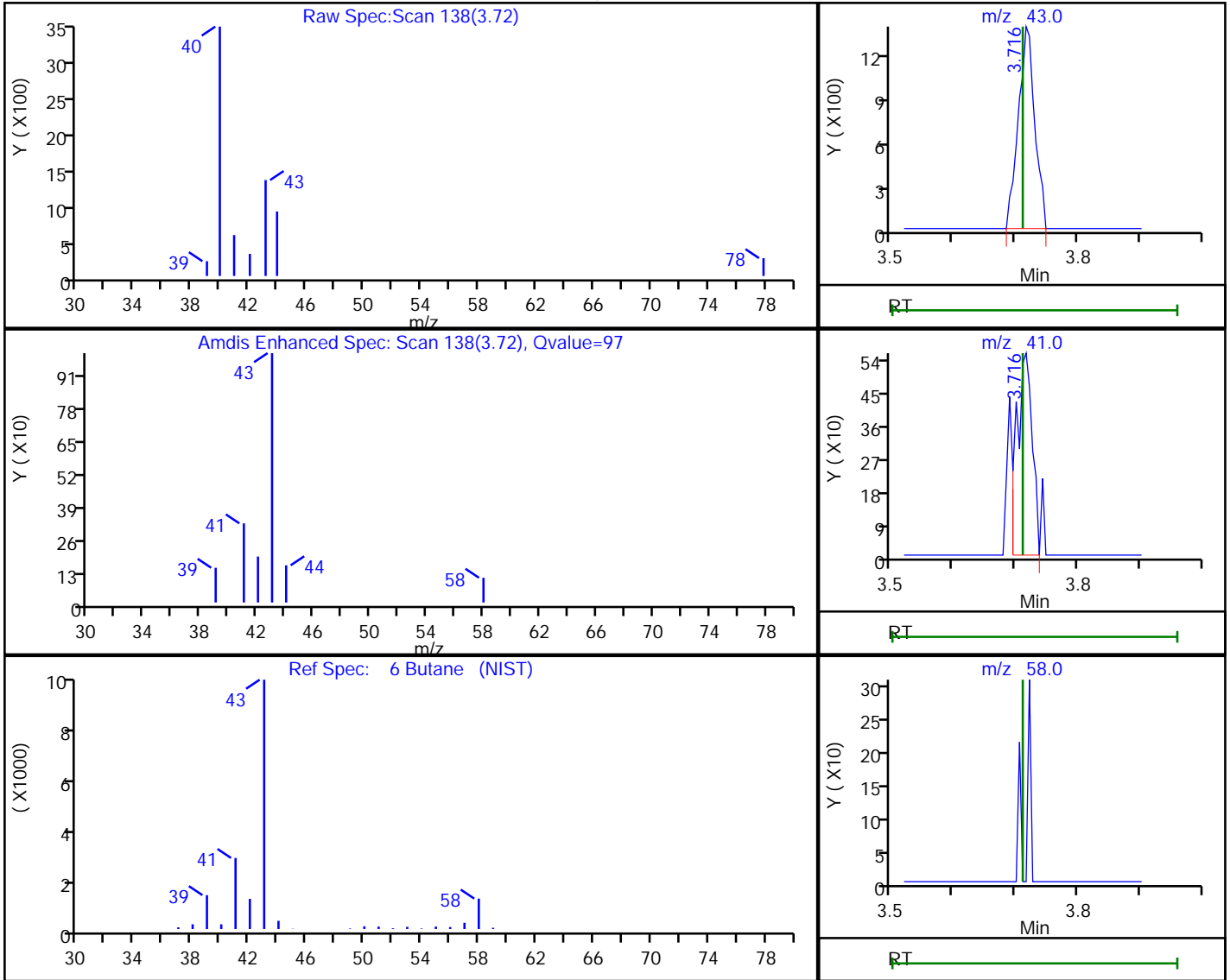
Audit Reason: Invalid Compound ID

TestAmerica Burlington

Data File: \\ChromNA\Burlington\ChromData\CHB.i\20180619-30995.b\30995-11.D
 Injection Date: 19-Jun-2018 19:48:30 Instrument ID: CHB.i
 Lims ID: 200-43915-A-6 Lab Sample ID: 200-43915-6
 Client ID: 4960
 Operator ID: vtp ALS Bottle#: 11 Worklist Smp#: 11
 Purge Vol: 200.000 mL Dil. Factor: 1.0000
 Method: TO15_LLNJ_TO3 Limit Group: AI_TO15_ICAL
 Column: RTX-624 (0.32 mm) Detector: MS SCAN

6 Butane, CAS: 106-97-8

Processing Results



RT	Mass	Response	Amount
3.72	43.00	2411	0.058174
3.72	41.00	963	
3.74	58.00	0	

Reviewer: bunmaa, 20-Jun-2018 14:04:50
 Audit Action: Marked Compound Undetected

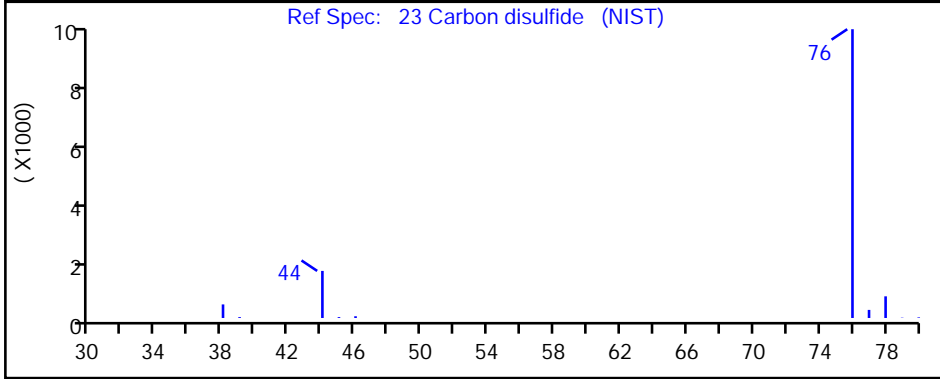
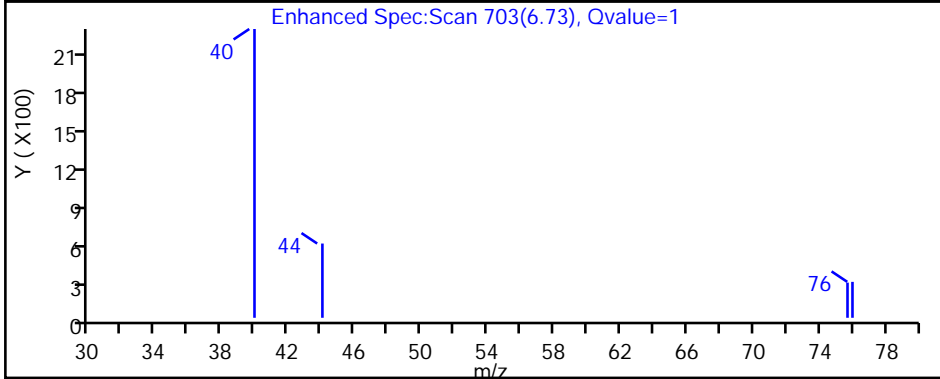
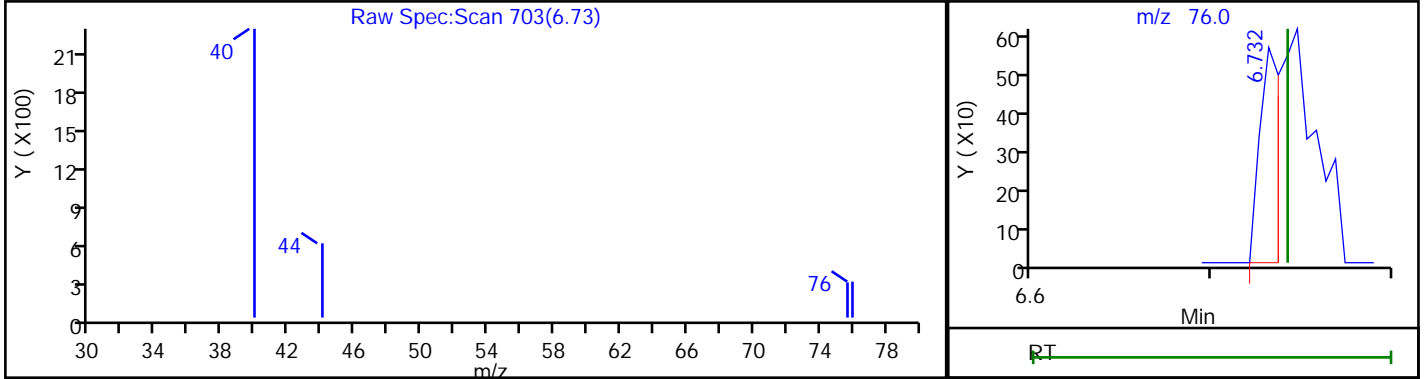
Audit Reason: Invalid Compound ID

TestAmerica Burlington

Data File: \\ChromNA\Burlington\ChromData\CHB.i\20180619-30995.b\30995-11.D
Injection Date: 19-Jun-2018 19:48:30 Instrument ID: CHB.i
Lims ID: 200-43915-A-6 Lab Sample ID: 200-43915-6
Client ID: 4960
Operator ID: vtp ALS Bottle#: 11 Worklist Smp#: 11
Purge Vol: 200.000 mL Dil. Factor: 1.0000
Method: TO15_LLNJ_TO3 Limit Group: AI_TO15_ICAL
Column: RTX-624 (0.32 mm) Detector: MS SCAN

23 Carbon disulfide, CAS: 75-15-0

Processing Results



RT	Mass	Response	Amount
6.73	76.00	443	0.004749

Reviewer: bunmaa, 20-Jun-2018 14:05:18

Audit Action: Marked Compound Undetected

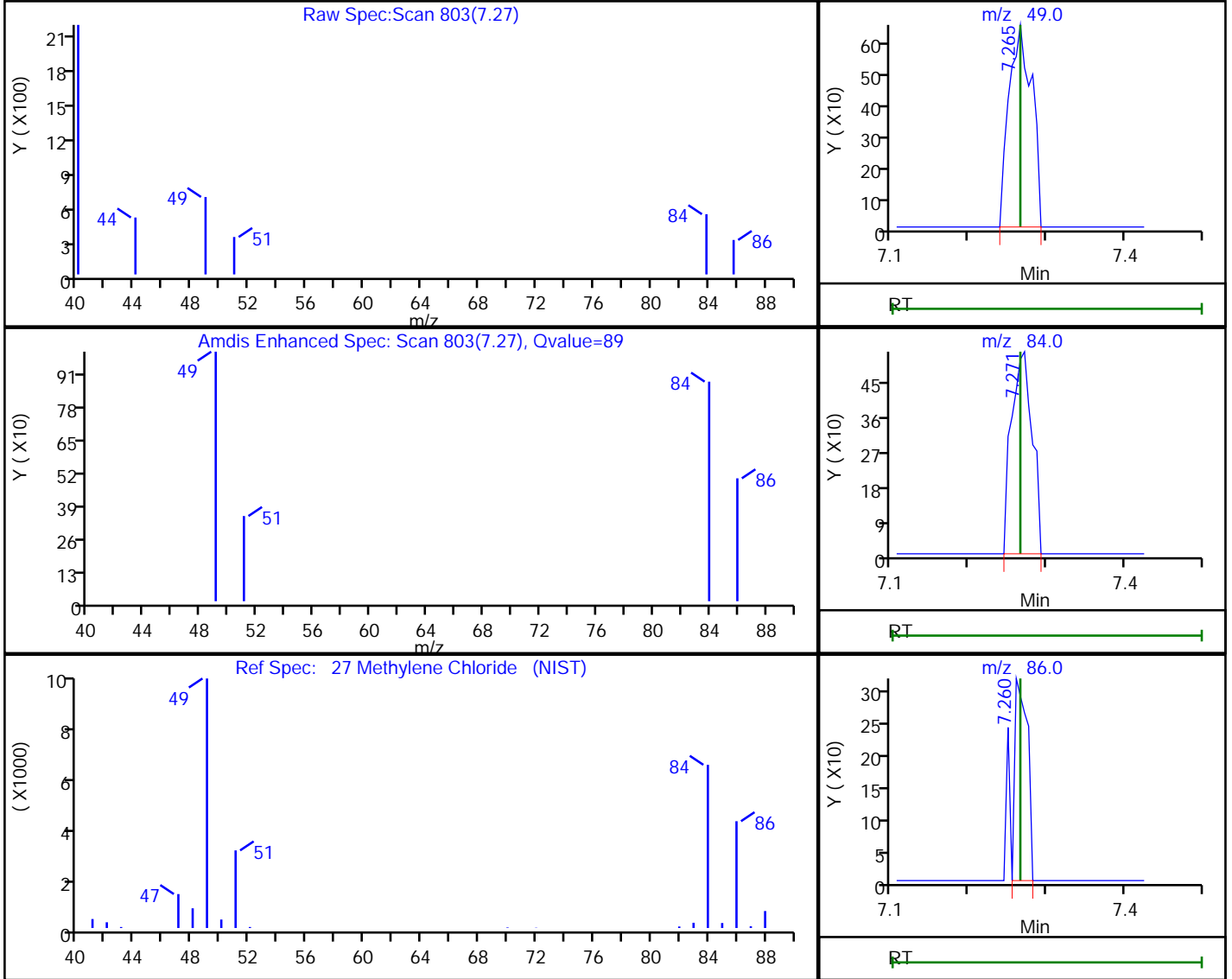
Audit Reason: Invalid Compound ID

TestAmerica Burlington

Data File: \\ChromNA\Burlington\ChromData\CHB.i\20180619-30995.b\30995-11.D
 Injection Date: 19-Jun-2018 19:48:30 Instrument ID: CHB.i
 Lims ID: 200-43915-A-6 Lab Sample ID: 200-43915-6
 Client ID: 4960
 Operator ID: vtp ALS Bottle#: 11 Worklist Smp#: 11
 Purge Vol: 200.000 mL Dil. Factor: 1.0000
 Method: TO15_LLNJ_TO3 Limit Group: AI_TO15_ICAL
 Column: RTX-624 (0.32 mm) Detector: MS SCAN

27 Methylene Chloride, CAS: 75-09-2

Processing Results



RT	Mass	Response	Amount
7.27	49.00	1334	0.032921
7.27	84.00	981	
7.26	86.00	357	

Reviewer: bunmaa, 20-Jun-2018 14:10:08

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

TestAmerica Burlington

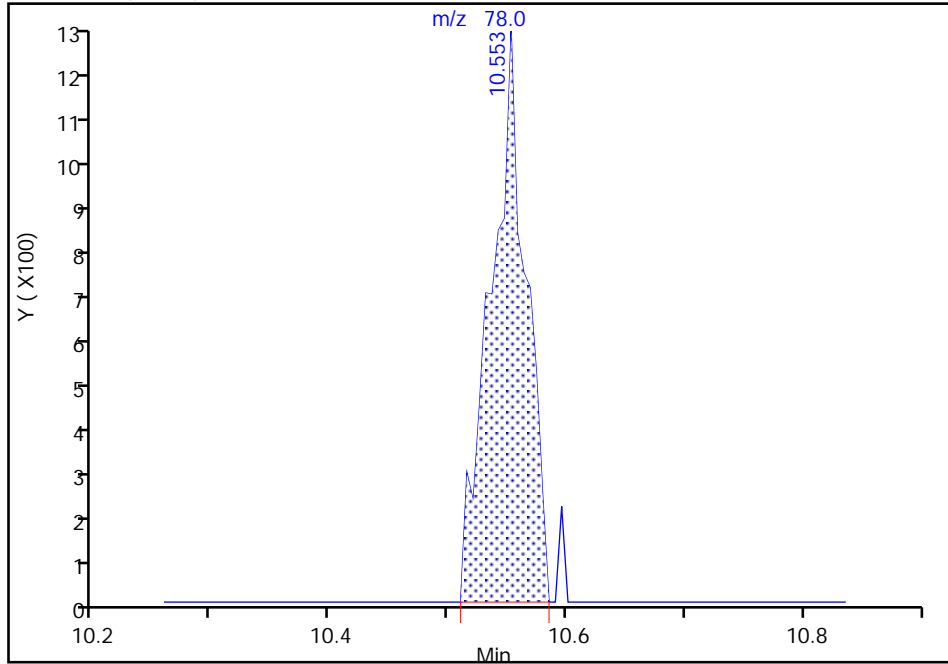
Data File:	\\ChromNA\Burlington\ChromData\CHB.i\20180619-30995.b\30995-11.D	Instrument ID:	CHB.i	Worklist Smp#:	11
Injection Date:	19-Jun-2018 19:48:30	Lab Sample ID:	200-43915-6		
Lims ID:	200-43915-A-6				
Client ID:	4960				
Operator ID:	vtp	ALS Bottle#:	11		
Purge Vol:	200.000 mL	Dil. Factor:	1.0000		
Method:	TO15_LLNJ_TO3	Limit Group:	AI_TO15_ICAL		
Column:	RTX-624 (0.32 mm)	Detector:	MS SCAN		

46 Benzene, CAS: 71-43-2

Signal: 1

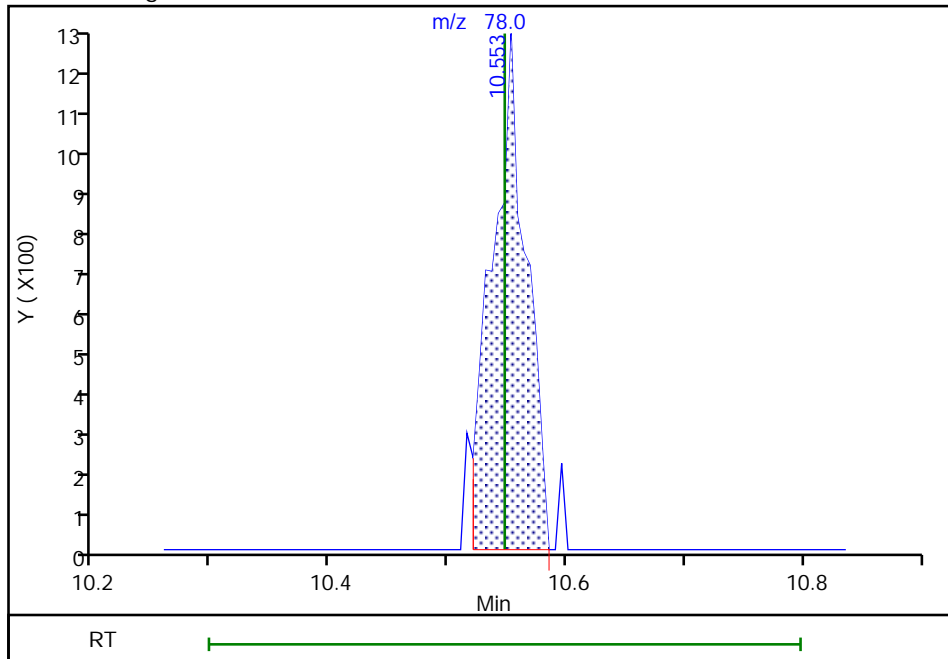
RT: 10.55
Area: 2578
Amount: 0.023099
Amount Units: ppb v/v

Processing Integration Results



RT: 10.55
Area: 2489
Amount: 0.022302
Amount Units: ppb v/v

Manual Integration Results



Reviewer: bunmaa, 20-Jun-2018 14:10:57

Audit Action: Manually Integrated

Audit Reason: Assign Peak

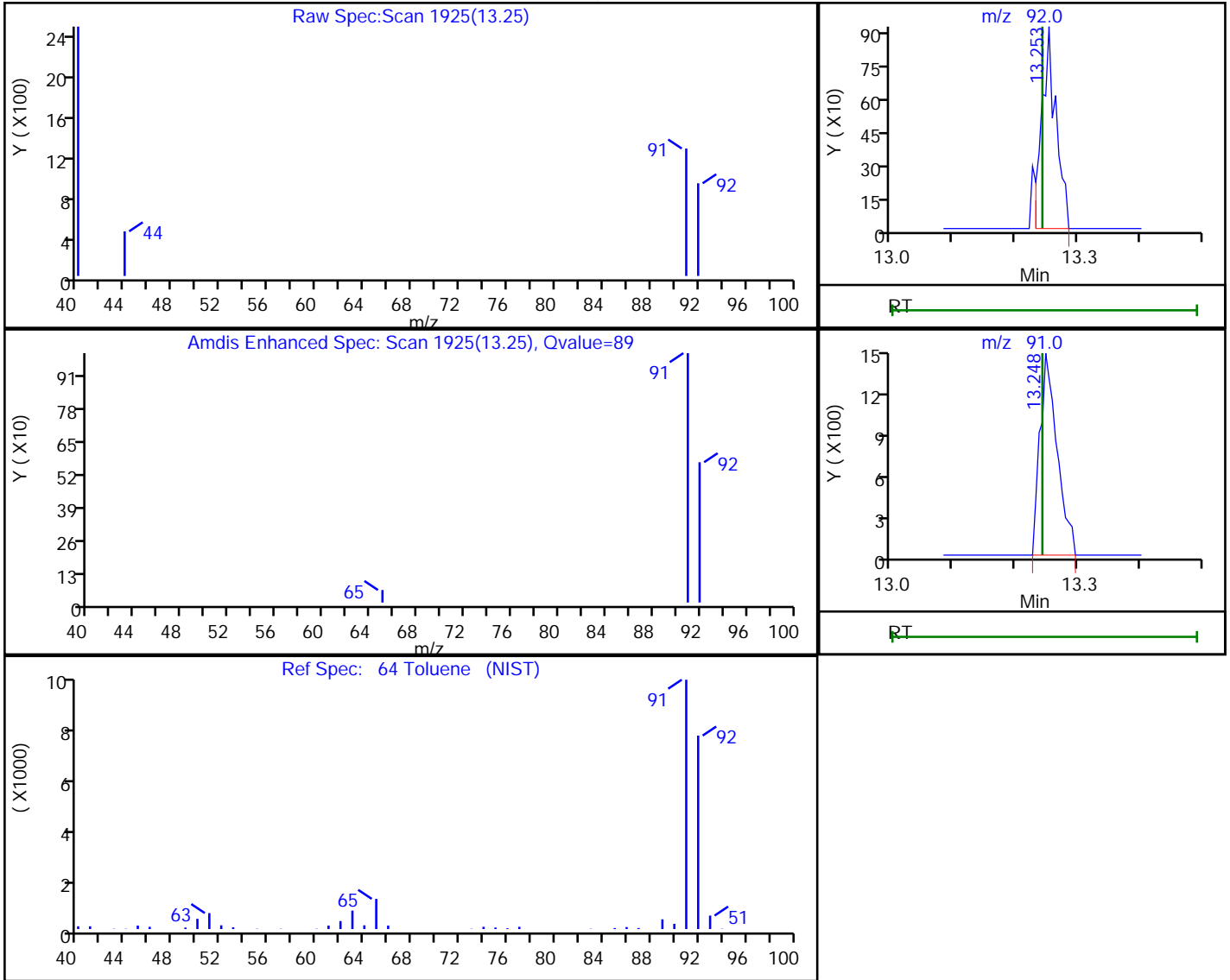


TestAmerica Burlington

Data File: \\ChromNA\Burlington\ChromData\CHB.i\20180619-30995.b\30995-11.D
Injection Date: 19-Jun-2018 19:48:30 Instrument ID: CHB.i
Lims ID: 200-43915-A-6 Lab Sample ID: 200-43915-6
Client ID: 4960
Operator ID: vtp ALS Bottle#: 11 Worklist Smp#: 11
Purge Vol: 200.000 mL Dil. Factor: 1.0000
Method: TO15_LLNJ_TO3 Limit Group: AI_TO15_ICAL
Column: RTX-624 (0.32 mm) Detector: MS SCAN

64 Toluene, CAS: 108-88-3

Processing Results



RT	Mass	Response	Amount
13.25	92.00	1476	0.019039
13.25	91.00	2809	

Reviewer: bunmaa, 20-Jun-2018 14:11:32

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

TestAmerica Burlington

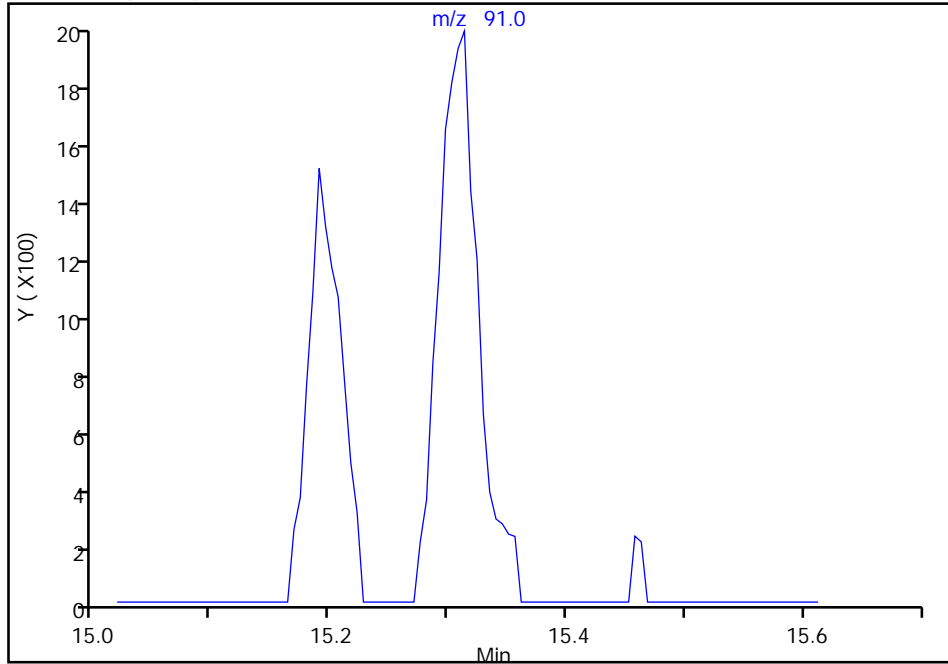
Data File:	\\ChromNA\Burlington\ChromData\CHB.i\20180619-30995.b\30995-11.D		
Injection Date:	19-Jun-2018 19:48:30	Instrument ID:	CHB.i
Lims ID:	200-43915-A-6	Lab Sample ID:	200-43915-6
Client ID:	4960		
Operator ID:	vtp	ALS Bottle#:	11
Purge Vol:	200.000 mL	Dil. Factor:	1.0000
Method:	TO15_LLNJ_TO3	Limit Group:	AI_TO15_ICAL
Column:	RTX-624 (0.32 mm)	Detector:	MS SCAN
		Worklist Smp#:	11

74 Ethylbenzene, CAS: 100-41-4

Signal: 1

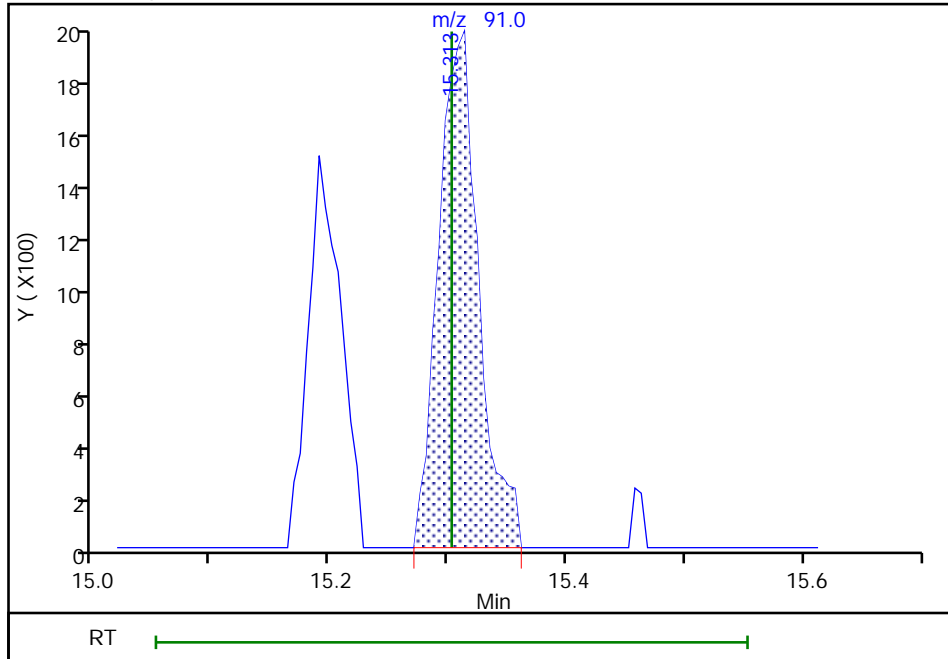
Not Detected
Expected RT: 15.30

Processing Integration Results



RT: 15.31
 Area: 4705
 Amount: 0.029088
 Amount Units: ppb v/v

Manual Integration Results



Reviewer: bunmaa, 20-Jun-2018 14:11:45

Audit Action: Assigned Compound ID

Audit Reason: Assign Peak

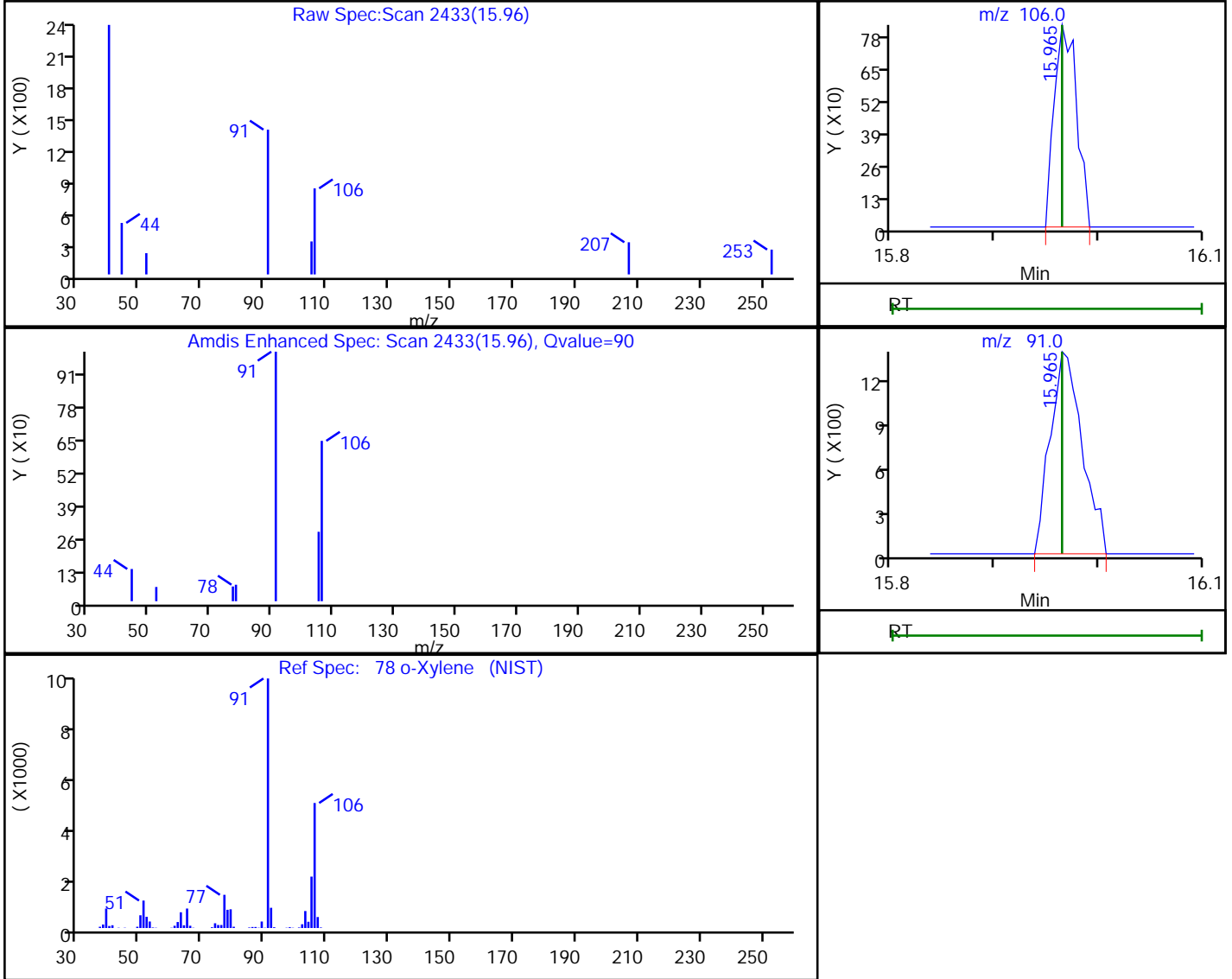


TestAmerica Burlington

Data File: \\ChromNA\Burlington\ChromData\CHB.i\20180619-30995.b\30995-11.D
Injection Date: 19-Jun-2018 19:48:30 Instrument ID: CHB.i
Lims ID: 200-43915-A-6 Lab Sample ID: 200-43915-6
Client ID: 4960
Operator ID: vtp ALS Bottle#: 11 Worklist Smp#: 11
Purge Vol: 200.000 mL Dil. Factor: 1.0000
Method: TO15_LLNJ_TO3 Limit Group: AI_TO15_ICAL
Column: RTX-624 (0.32 mm) Detector: MS SCAN

78 o-Xylene, CAS: 95-47-6

Processing Results



RT	Mass	Response	Amount
15.96	106.00	1239	0.019579
15.96	91.00	2967	

Reviewer: bunmaa, 20-Jun-2018 14:13:24

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

ANALYTICAL REPORT

Job Number: 200-46616-1
SDG Number: 200-46616-1
Job Description: 0411 BLDG96 SVE PILOT

For:
Brookhaven National Labs
Contracts Section
Building 134B
Upton, NY 11973
Attention: Mr. Adrian Steinhauff



Approved for release.
Kathryn A Kelly
Project Manager II
12/31/2018 3:07 PM

Kathryn A Kelly, Project Manager II
30 Community Drive, South Burlington, VT, 05403
(802)923-1021
kathryn.kelly@testamericainc.com
12/31/2018

The test results in this report relate only to sample(s) as received by the laboratory. These test results were derived under a quality system that adheres to the requirements of NELAC. Pursuant to NELAC, this report may not be produced in full without written approval from the laboratory

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Definitions/Glossary

Client: Brookhaven National Labs
Project/Site: 0411 BLDG96 SVE PILOT

TestAmerica Job ID: 200-46616-1
SDG: 200-46616-1

Qualifiers

Air - GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	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)

CASE NARRATIVE

Client: Brookhaven National Labs

Project: 0411 BLDG96 SVE PILOT

Report Number: 200-46616-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT

The samples were received on 12/11/2018; the samples arrived in good condition.

VOLATILE ORGANIC COMPOUNDS

Samples SVE-01, SVE-02, SVE-03 and SVE-04 were analyzed for Volatile Organic Compounds in accordance with EPA Method TO-15. The samples were analyzed on 12/20/2018.

Samples SVE-01[10X], SVE-02[10X], SVE-03[10X] and SVE-04[10X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

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

Detection Summary

Client: Brookhaven National Labs
Project/Site: 0411 BLDG96 SVE PILOT

TestAmerica Job ID: 200-46616-1
SDG: 200-46616-1

Client Sample ID: SVE-01

Lab Sample ID: 200-46616-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	3.3		2.0		ppb v/v	10		TO-15	Total/NA
Tetrachloroethene	300		2.0		ppb v/v	10		TO-15	Total/NA
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	18		11		ug/m3	10		TO-15	Total/NA
Tetrachloroethene	2000		14		ug/m3	10		TO-15	Total/NA

Client Sample ID: SVE-02

Lab Sample ID: 200-46616-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	9.4		2.0		ppb v/v	10		TO-15	Total/NA
Tetrachloroethene	330		2.0		ppb v/v	10		TO-15	Total/NA
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	52		11		ug/m3	10		TO-15	Total/NA
Tetrachloroethene	2300		14		ug/m3	10		TO-15	Total/NA

Client Sample ID: SVE-03

Lab Sample ID: 200-46616-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	5.7		2.0		ppb v/v	10		TO-15	Total/NA
Tetrachloroethene	270		2.0		ppb v/v	10		TO-15	Total/NA
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	31		11		ug/m3	10		TO-15	Total/NA
Tetrachloroethene	1800		14		ug/m3	10		TO-15	Total/NA

Client Sample ID: SVE-04

Lab Sample ID: 200-46616-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	4.1		2.0		ppb v/v	10		TO-15	Total/NA
Toluene	4.7		2.0		ppb v/v	10		TO-15	Total/NA
Tetrachloroethene	200		2.0		ppb v/v	10		TO-15	Total/NA
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	22		11		ug/m3	10		TO-15	Total/NA
Toluene	18		7.5		ug/m3	10		TO-15	Total/NA
Tetrachloroethene	1300		14		ug/m3	10		TO-15	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Burlington

Client Sample Results

Client: Brookhaven National Labs
 Project/Site: 0411 BLDG96 SVE PILOT

TestAmerica Job ID: 200-46616-1
 SDG: 200-46616-1

Client Sample ID: SVE-01

Date Collected: 12/05/18 15:20

Date Received: 12/11/18 11:02

Sample Container: Summa Canister 6L

Lab Sample ID: 200-46616-1

Matrix: Air

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	5.0	U	5.0		ppb v/v			12/20/18 01:37	10
1,2-Dichlorotetrafluoroethane	2.0	U	2.0		ppb v/v			12/20/18 01:37	10
Chloromethane	5.0	U	5.0		ppb v/v			12/20/18 01:37	10
Vinyl chloride	2.0	U	2.0		ppb v/v			12/20/18 01:37	10
Bromomethane	2.0	U	2.0		ppb v/v			12/20/18 01:37	10
Chloroethane	5.0	U	5.0		ppb v/v			12/20/18 01:37	10
Trichlorofluoromethane	2.0	U	2.0		ppb v/v			12/20/18 01:37	10
Freon TF	2.0	U	2.0		ppb v/v			12/20/18 01:37	10
1,1-Dichloroethene	2.0	U	2.0		ppb v/v			12/20/18 01:37	10
Methylene Chloride	5.0	U	5.0		ppb v/v			12/20/18 01:37	10
1,1-Dichloroethane	2.0	U	2.0		ppb v/v			12/20/18 01:37	10
cis-1,2-Dichloroethene	2.0	U	2.0		ppb v/v			12/20/18 01:37	10
Chloroform	2.0	U	2.0		ppb v/v			12/20/18 01:37	10
1,1,1-Trichloroethane	3.3		2.0		ppb v/v			12/20/18 01:37	10
Carbon tetrachloride	2.0	U	2.0		ppb v/v			12/20/18 01:37	10
Benzene	2.0	U	2.0		ppb v/v			12/20/18 01:37	10
1,2-Dichloroethane	2.0	U	2.0		ppb v/v			12/20/18 01:37	10
Trichloroethene	2.0	U	2.0		ppb v/v			12/20/18 01:37	10
1,2-Dichloropropane	2.0	U	2.0		ppb v/v			12/20/18 01:37	10
cis-1,3-Dichloropropene	2.0	U	2.0		ppb v/v			12/20/18 01:37	10
Toluene	2.0	U	2.0		ppb v/v			12/20/18 01:37	10
trans-1,3-Dichloropropene	2.0	U	2.0		ppb v/v			12/20/18 01:37	10
1,1,2-Trichloroethane	2.0	U	2.0		ppb v/v			12/20/18 01:37	10
Tetrachloroethene	300		2.0		ppb v/v			12/20/18 01:37	10
1,2-Dibromoethane	2.0	U	2.0		ppb v/v			12/20/18 01:37	10
Chlorobenzene	2.0	U	2.0		ppb v/v			12/20/18 01:37	10
Ethylbenzene	2.0	U	2.0		ppb v/v			12/20/18 01:37	10
m,p-Xylene	5.0	U	5.0		ppb v/v			12/20/18 01:37	10
Xylene, o-	2.0	U	2.0		ppb v/v			12/20/18 01:37	10
Styrene	2.0	U	2.0		ppb v/v			12/20/18 01:37	10
1,1,2,2-Tetrachloroethane	2.0	U	2.0		ppb v/v			12/20/18 01:37	10
1,3,5-Trimethylbenzene	2.0	U	2.0		ppb v/v			12/20/18 01:37	10
1,2,4-Trimethylbenzene	2.0	U	2.0		ppb v/v			12/20/18 01:37	10
1,3-Dichlorobenzene	2.0	U	2.0		ppb v/v			12/20/18 01:37	10
1,4-Dichlorobenzene	2.0	U	2.0		ppb v/v			12/20/18 01:37	10
1,2-Dichlorobenzene	2.0	U	2.0		ppb v/v			12/20/18 01:37	10
1,2,4-Trichlorobenzene	5.0	U	5.0		ppb v/v			12/20/18 01:37	10
Hexachlorobutadiene	2.0	U	2.0		ppb v/v			12/20/18 01:37	10
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	25	U	25		ug/m3			12/20/18 01:37	10
1,2-Dichlorotetrafluoroethane	14	U	14		ug/m3			12/20/18 01:37	10
Chloromethane	10	U	10		ug/m3			12/20/18 01:37	10
Vinyl chloride	5.1	U	5.1		ug/m3			12/20/18 01:37	10
Bromomethane	7.8	U	7.8		ug/m3			12/20/18 01:37	10
Chloroethane	13	U	13		ug/m3			12/20/18 01:37	10
Trichlorofluoromethane	11	U	11		ug/m3			12/20/18 01:37	10
Freon TF	15	U	15		ug/m3			12/20/18 01:37	10
1,1-Dichloroethene	7.9	U	7.9		ug/m3			12/20/18 01:37	10

Client Sample Results

Client: Brookhaven National Labs
Project/Site: 0411 BLDG96 SVE PILOT

TestAmerica Job ID: 200-46616-1
SDG: 200-46616-1

Client Sample ID: SVE-01

Lab Sample ID: 200-46616-1

Date Collected: 12/05/18 15:20

Matrix: Air

Date Received: 12/11/18 11:02

Sample Container: Summa Canister 6L

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	17	U	17		ug/m3			12/20/18 01:37	10
1,1-Dichloroethane	8.1	U	8.1		ug/m3			12/20/18 01:37	10
cis-1,2-Dichloroethene	7.9	U	7.9		ug/m3			12/20/18 01:37	10
Chloroform	9.8	U	9.8		ug/m3			12/20/18 01:37	10
1,1,1-Trichloroethane	18		11		ug/m3			12/20/18 01:37	10
Carbon tetrachloride	13	U	13		ug/m3			12/20/18 01:37	10
Benzene	6.4	U	6.4		ug/m3			12/20/18 01:37	10
1,2-Dichloroethane	8.1	U	8.1		ug/m3			12/20/18 01:37	10
Trichloroethene	11	U	11		ug/m3			12/20/18 01:37	10
1,2-Dichloropropane	9.2	U	9.2		ug/m3			12/20/18 01:37	10
cis-1,3-Dichloropropene	9.1	U	9.1		ug/m3			12/20/18 01:37	10
Toluene	7.5	U	7.5		ug/m3			12/20/18 01:37	10
trans-1,3-Dichloropropene	9.1	U	9.1		ug/m3			12/20/18 01:37	10
1,1,2-Trichloroethane	11	U	11		ug/m3			12/20/18 01:37	10
Tetrachloroethene	2000		14		ug/m3			12/20/18 01:37	10
1,2-Dibromoethane	15	U	15		ug/m3			12/20/18 01:37	10
Chlorobenzene	9.2	U	9.2		ug/m3			12/20/18 01:37	10
Ethylbenzene	8.7	U	8.7		ug/m3			12/20/18 01:37	10
m,p-Xylene	22	U	22		ug/m3			12/20/18 01:37	10
Xylene, o-	8.7	U	8.7		ug/m3			12/20/18 01:37	10
Styrene	8.5	U	8.5		ug/m3			12/20/18 01:37	10
1,1,2,2-Tetrachloroethane	14	U	14		ug/m3			12/20/18 01:37	10
1,3,5-Trimethylbenzene	9.8	U	9.8		ug/m3			12/20/18 01:37	10
1,2,4-Trimethylbenzene	9.8	U	9.8		ug/m3			12/20/18 01:37	10
1,3-Dichlorobenzene	12	U	12		ug/m3			12/20/18 01:37	10
1,4-Dichlorobenzene	12	U	12		ug/m3			12/20/18 01:37	10
1,2-Dichlorobenzene	12	U	12		ug/m3			12/20/18 01:37	10
1,2,4-Trichlorobenzene	37	U	37		ug/m3			12/20/18 01:37	10
Hexachlorobutadiene	21	U	21		ug/m3			12/20/18 01:37	10

Client Sample ID: SVE-02

Lab Sample ID: 200-46616-2

Date Collected: 12/06/18 15:00

Matrix: Air

Date Received: 12/11/18 11:02

Sample Container: Summa Canister 6L

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	5.0	U	5.0		ppb v/v			12/20/18 02:27	10
1,2-Dichlorotetrafluoroethane	2.0	U	2.0		ppb v/v			12/20/18 02:27	10
Chloromethane	5.0	U	5.0		ppb v/v			12/20/18 02:27	10
Vinyl chloride	2.0	U	2.0		ppb v/v			12/20/18 02:27	10
Bromomethane	2.0	U	2.0		ppb v/v			12/20/18 02:27	10
Chloroethane	5.0	U	5.0		ppb v/v			12/20/18 02:27	10
Trichlorofluoromethane	2.0	U	2.0		ppb v/v			12/20/18 02:27	10
Freon TF	2.0	U	2.0		ppb v/v			12/20/18 02:27	10
1,1-Dichloroethene	2.0	U	2.0		ppb v/v			12/20/18 02:27	10
Methylene Chloride	5.0	U	5.0		ppb v/v			12/20/18 02:27	10
1,1-Dichloroethane	2.0	U	2.0		ppb v/v			12/20/18 02:27	10
cis-1,2-Dichloroethene	2.0	U	2.0		ppb v/v			12/20/18 02:27	10

Client Sample Results

Client: Brookhaven National Labs
 Project/Site: 0411 BLDG96 SVE PILOT

TestAmerica Job ID: 200-46616-1
 SDG: 200-46616-1

Client Sample ID: SVE-02

Lab Sample ID: 200-46616-2

Date Collected: 12/06/18 15:00

Matrix: Air

Date Received: 12/11/18 11:02

Sample Container: Summa Canister 6L

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroform	2.0	U	2.0		ppb v/v			12/20/18 02:27	10
1,1,1-Trichloroethane	9.4		2.0		ppb v/v			12/20/18 02:27	10
Carbon tetrachloride	2.0	U	2.0		ppb v/v			12/20/18 02:27	10
Benzene	2.0	U	2.0		ppb v/v			12/20/18 02:27	10
1,2-Dichloroethane	2.0	U	2.0		ppb v/v			12/20/18 02:27	10
Trichloroethene	2.0	U	2.0		ppb v/v			12/20/18 02:27	10
1,2-Dichloropropane	2.0	U	2.0		ppb v/v			12/20/18 02:27	10
cis-1,3-Dichloropropene	2.0	U	2.0		ppb v/v			12/20/18 02:27	10
Toluene	2.0	U	2.0		ppb v/v			12/20/18 02:27	10
trans-1,3-Dichloropropene	2.0	U	2.0		ppb v/v			12/20/18 02:27	10
1,1,2-Trichloroethane	2.0	U	2.0		ppb v/v			12/20/18 02:27	10
Tetrachloroethene	330		2.0		ppb v/v			12/20/18 02:27	10
1,2-Dibromoethane	2.0	U	2.0		ppb v/v			12/20/18 02:27	10
Chlorobenzene	2.0	U	2.0		ppb v/v			12/20/18 02:27	10
Ethylbenzene	2.0	U	2.0		ppb v/v			12/20/18 02:27	10
m,p-Xylene	5.0	U	5.0		ppb v/v			12/20/18 02:27	10
Xylene, o-	2.0	U	2.0		ppb v/v			12/20/18 02:27	10
Styrene	2.0	U	2.0		ppb v/v			12/20/18 02:27	10
1,1,2,2-Tetrachloroethane	2.0	U	2.0		ppb v/v			12/20/18 02:27	10
1,3,5-Trimethylbenzene	2.0	U	2.0		ppb v/v			12/20/18 02:27	10
1,2,4-Trimethylbenzene	2.0	U	2.0		ppb v/v			12/20/18 02:27	10
1,3-Dichlorobenzene	2.0	U	2.0		ppb v/v			12/20/18 02:27	10
1,4-Dichlorobenzene	2.0	U	2.0		ppb v/v			12/20/18 02:27	10
1,2-Dichlorobenzene	2.0	U	2.0		ppb v/v			12/20/18 02:27	10
1,2,4-Trichlorobenzene	5.0	U	5.0		ppb v/v			12/20/18 02:27	10
Hexachlorobutadiene	2.0	U	2.0		ppb v/v			12/20/18 02:27	10
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	25	U	25		ug/m3			12/20/18 02:27	10
1,2-Dichlorotetrafluoroethane	14	U	14		ug/m3			12/20/18 02:27	10
Chloromethane	10	U	10		ug/m3			12/20/18 02:27	10
Vinyl chloride	5.1	U	5.1		ug/m3			12/20/18 02:27	10
Bromomethane	7.8	U	7.8		ug/m3			12/20/18 02:27	10
Chloroethane	13	U	13		ug/m3			12/20/18 02:27	10
Trichlorofluoromethane	11	U	11		ug/m3			12/20/18 02:27	10
Freon TF	15	U	15		ug/m3			12/20/18 02:27	10
1,1-Dichloroethene	7.9	U	7.9		ug/m3			12/20/18 02:27	10
Methylene Chloride	17	U	17		ug/m3			12/20/18 02:27	10
1,1-Dichloroethane	8.1	U	8.1		ug/m3			12/20/18 02:27	10
cis-1,2-Dichloroethene	7.9	U	7.9		ug/m3			12/20/18 02:27	10
Chloroform	9.8	U	9.8		ug/m3			12/20/18 02:27	10
1,1,1-Trichloroethane	52		11		ug/m3			12/20/18 02:27	10
Carbon tetrachloride	13	U	13		ug/m3			12/20/18 02:27	10
Benzene	6.4	U	6.4		ug/m3			12/20/18 02:27	10
1,2-Dichloroethane	8.1	U	8.1		ug/m3			12/20/18 02:27	10
Trichloroethene	11	U	11		ug/m3			12/20/18 02:27	10
1,2-Dichloropropane	9.2	U	9.2		ug/m3			12/20/18 02:27	10
cis-1,3-Dichloropropene	9.1	U	9.1		ug/m3			12/20/18 02:27	10
Toluene	7.5	U	7.5		ug/m3			12/20/18 02:27	10

Client Sample Results

Client: Brookhaven National Labs
 Project/Site: 0411 BLDG96 SVE PILOT

TestAmerica Job ID: 200-46616-1
 SDG: 200-46616-1

Client Sample ID: SVE-02

Lab Sample ID: 200-46616-2

Date Collected: 12/06/18 15:00

Matrix: Air

Date Received: 12/11/18 11:02

Sample Container: Summa Canister 6L

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,3-Dichloropropene	9.1	U	9.1		ug/m3			12/20/18 02:27	10
1,1,2-Trichloroethane	11	U	11		ug/m3			12/20/18 02:27	10
Tetrachloroethene	2300		14		ug/m3			12/20/18 02:27	10
1,2-Dibromoethane	15	U	15		ug/m3			12/20/18 02:27	10
Chlorobenzene	9.2	U	9.2		ug/m3			12/20/18 02:27	10
Ethylbenzene	8.7	U	8.7		ug/m3			12/20/18 02:27	10
m,p-Xylene	22	U	22		ug/m3			12/20/18 02:27	10
Xylene, o-	8.7	U	8.7		ug/m3			12/20/18 02:27	10
Styrene	8.5	U	8.5		ug/m3			12/20/18 02:27	10
1,1,2,2-Tetrachloroethane	14	U	14		ug/m3			12/20/18 02:27	10
1,3,5-Trimethylbenzene	9.8	U	9.8		ug/m3			12/20/18 02:27	10
1,2,4-Trimethylbenzene	9.8	U	9.8		ug/m3			12/20/18 02:27	10
1,3-Dichlorobenzene	12	U	12		ug/m3			12/20/18 02:27	10
1,4-Dichlorobenzene	12	U	12		ug/m3			12/20/18 02:27	10
1,2-Dichlorobenzene	12	U	12		ug/m3			12/20/18 02:27	10
1,2,4-Trichlorobenzene	37	U	37		ug/m3			12/20/18 02:27	10
Hexachlorobutadiene	21	U	21		ug/m3			12/20/18 02:27	10

Client Sample ID: SVE-03

Lab Sample ID: 200-46616-3

Date Collected: 12/07/18 10:45

Matrix: Air

Date Received: 12/11/18 11:02

Sample Container: Summa Canister 6L

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	5.0	U	5.0		ppb v/v			12/20/18 03:17	10
1,2-Dichlorotetrafluoroethane	2.0	U	2.0		ppb v/v			12/20/18 03:17	10
Chloromethane	5.0	U	5.0		ppb v/v			12/20/18 03:17	10
Vinyl chloride	2.0	U	2.0		ppb v/v			12/20/18 03:17	10
Bromomethane	2.0	U	2.0		ppb v/v			12/20/18 03:17	10
Chloroethane	5.0	U	5.0		ppb v/v			12/20/18 03:17	10
Trichlorofluoromethane	2.0	U	2.0		ppb v/v			12/20/18 03:17	10
Freon TF	2.0	U	2.0		ppb v/v			12/20/18 03:17	10
1,1-Dichloroethene	2.0	U	2.0		ppb v/v			12/20/18 03:17	10
Methylene Chloride	5.0	U	5.0		ppb v/v			12/20/18 03:17	10
1,1-Dichloroethane	2.0	U	2.0		ppb v/v			12/20/18 03:17	10
cis-1,2-Dichloroethene	2.0	U	2.0		ppb v/v			12/20/18 03:17	10
Chloroform	2.0	U	2.0		ppb v/v			12/20/18 03:17	10
1,1,1-Trichloroethane	5.7		2.0		ppb v/v			12/20/18 03:17	10
Carbon tetrachloride	2.0	U	2.0		ppb v/v			12/20/18 03:17	10
Benzene	2.0	U	2.0		ppb v/v			12/20/18 03:17	10
1,2-Dichloroethane	2.0	U	2.0		ppb v/v			12/20/18 03:17	10
Trichloroethene	2.0	U	2.0		ppb v/v			12/20/18 03:17	10
1,2-Dichloropropane	2.0	U	2.0		ppb v/v			12/20/18 03:17	10
cis-1,3-Dichloropropene	2.0	U	2.0		ppb v/v			12/20/18 03:17	10
Toluene	2.0	U	2.0		ppb v/v			12/20/18 03:17	10
trans-1,3-Dichloropropene	2.0	U	2.0		ppb v/v			12/20/18 03:17	10
1,1,2-Trichloroethane	2.0	U	2.0		ppb v/v			12/20/18 03:17	10
Tetrachloroethene	270		2.0		ppb v/v			12/20/18 03:17	10

TestAmerica Burlington

Client Sample Results

Client: Brookhaven National Labs
 Project/Site: 0411 BLDG96 SVE PILOT

TestAmerica Job ID: 200-46616-1
 SDG: 200-46616-1

Client Sample ID: SVE-03

Lab Sample ID: 200-46616-3

Date Collected: 12/07/18 10:45

Matrix: Air

Date Received: 12/11/18 11:02

Sample Container: Summa Canister 6L

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	2.0	U	2.0		ppb v/v			12/20/18 03:17	10
Chlorobenzene	2.0	U	2.0		ppb v/v			12/20/18 03:17	10
Ethylbenzene	2.0	U	2.0		ppb v/v			12/20/18 03:17	10
m,p-Xylene	5.0	U	5.0		ppb v/v			12/20/18 03:17	10
Xylene, o-	2.0	U	2.0		ppb v/v			12/20/18 03:17	10
Styrene	2.0	U	2.0		ppb v/v			12/20/18 03:17	10
1,1,2,2-Tetrachloroethane	2.0	U	2.0		ppb v/v			12/20/18 03:17	10
1,3,5-Trimethylbenzene	2.0	U	2.0		ppb v/v			12/20/18 03:17	10
1,2,4-Trimethylbenzene	2.0	U	2.0		ppb v/v			12/20/18 03:17	10
1,3-Dichlorobenzene	2.0	U	2.0		ppb v/v			12/20/18 03:17	10
1,4-Dichlorobenzene	2.0	U	2.0		ppb v/v			12/20/18 03:17	10
1,2-Dichlorobenzene	2.0	U	2.0		ppb v/v			12/20/18 03:17	10
1,2,4-Trichlorobenzene	5.0	U	5.0		ppb v/v			12/20/18 03:17	10
Hexachlorobutadiene	2.0	U	2.0		ppb v/v			12/20/18 03:17	10
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	25	U	25		ug/m3			12/20/18 03:17	10
1,2-Dichlorotetrafluoroethane	14	U	14		ug/m3			12/20/18 03:17	10
Chloromethane	10	U	10		ug/m3			12/20/18 03:17	10
Vinyl chloride	5.1	U	5.1		ug/m3			12/20/18 03:17	10
Bromomethane	7.8	U	7.8		ug/m3			12/20/18 03:17	10
Chloroethane	13	U	13		ug/m3			12/20/18 03:17	10
Trichlorofluoromethane	11	U	11		ug/m3			12/20/18 03:17	10
Freon TF	15	U	15		ug/m3			12/20/18 03:17	10
1,1-Dichloroethene	7.9	U	7.9		ug/m3			12/20/18 03:17	10
Methylene Chloride	17	U	17		ug/m3			12/20/18 03:17	10
1,1-Dichloroethane	8.1	U	8.1		ug/m3			12/20/18 03:17	10
cis-1,2-Dichloroethene	7.9	U	7.9		ug/m3			12/20/18 03:17	10
Chloroform	9.8	U	9.8		ug/m3			12/20/18 03:17	10
1,1,1-Trichloroethane	31		11		ug/m3			12/20/18 03:17	10
Carbon tetrachloride	13	U	13		ug/m3			12/20/18 03:17	10
Benzene	6.4	U	6.4		ug/m3			12/20/18 03:17	10
1,2-Dichloroethane	8.1	U	8.1		ug/m3			12/20/18 03:17	10
Trichloroethene	11	U	11		ug/m3			12/20/18 03:17	10
1,2-Dichloropropane	9.2	U	9.2		ug/m3			12/20/18 03:17	10
cis-1,3-Dichloropropene	9.1	U	9.1		ug/m3			12/20/18 03:17	10
Toluene	7.5	U	7.5		ug/m3			12/20/18 03:17	10
trans-1,3-Dichloropropene	9.1	U	9.1		ug/m3			12/20/18 03:17	10
1,1,2-Trichloroethane	11	U	11		ug/m3			12/20/18 03:17	10
Tetrachloroethene	1800		14		ug/m3			12/20/18 03:17	10
1,2-Dibromoethane	15	U	15		ug/m3			12/20/18 03:17	10
Chlorobenzene	9.2	U	9.2		ug/m3			12/20/18 03:17	10
Ethylbenzene	8.7	U	8.7		ug/m3			12/20/18 03:17	10
m,p-Xylene	22	U	22		ug/m3			12/20/18 03:17	10
Xylene, o-	8.7	U	8.7		ug/m3			12/20/18 03:17	10
Styrene	8.5	U	8.5		ug/m3			12/20/18 03:17	10
1,1,2,2-Tetrachloroethane	14	U	14		ug/m3			12/20/18 03:17	10
1,3,5-Trimethylbenzene	9.8	U	9.8		ug/m3			12/20/18 03:17	10
1,2,4-Trimethylbenzene	9.8	U	9.8		ug/m3			12/20/18 03:17	10

Client Sample Results

Client: Brookhaven National Labs
 Project/Site: 0411 BLDG96 SVE PILOT

TestAmerica Job ID: 200-46616-1
 SDG: 200-46616-1

Client Sample ID: SVE-03

Lab Sample ID: 200-46616-3

Date Collected: 12/07/18 10:45

Matrix: Air

Date Received: 12/11/18 11:02

Sample Container: Summa Canister 6L

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3-Dichlorobenzene	12	U	12		ug/m3			12/20/18 03:17	10
1,4-Dichlorobenzene	12	U	12		ug/m3			12/20/18 03:17	10
1,2-Dichlorobenzene	12	U	12		ug/m3			12/20/18 03:17	10
1,2,4-Trichlorobenzene	37	U	37		ug/m3			12/20/18 03:17	10
Hexachlorobutadiene	21	U	21		ug/m3			12/20/18 03:17	10

Client Sample ID: SVE-04

Lab Sample ID: 200-46616-4

Date Collected: 12/10/18 14:00

Matrix: Air

Date Received: 12/11/18 11:02

Sample Container: Summa Canister 6L

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	5.0	U	5.0		ppb v/v			12/20/18 04:07	10
1,2-Dichlorotetrafluoroethane	2.0	U	2.0		ppb v/v			12/20/18 04:07	10
Chloromethane	5.0	U	5.0		ppb v/v			12/20/18 04:07	10
Vinyl chloride	2.0	U	2.0		ppb v/v			12/20/18 04:07	10
Bromomethane	2.0	U	2.0		ppb v/v			12/20/18 04:07	10
Chloroethane	5.0	U	5.0		ppb v/v			12/20/18 04:07	10
Trichlorofluoromethane	2.0	U	2.0		ppb v/v			12/20/18 04:07	10
Freon TF	2.0	U	2.0		ppb v/v			12/20/18 04:07	10
1,1-Dichloroethene	2.0	U	2.0		ppb v/v			12/20/18 04:07	10
Methylene Chloride	5.0	U	5.0		ppb v/v			12/20/18 04:07	10
1,1-Dichloroethane	2.0	U	2.0		ppb v/v			12/20/18 04:07	10
cis-1,2-Dichloroethene	2.0	U	2.0		ppb v/v			12/20/18 04:07	10
Chloroform	2.0	U	2.0		ppb v/v			12/20/18 04:07	10
1,1,1-Trichloroethane	4.1		2.0		ppb v/v			12/20/18 04:07	10
Carbon tetrachloride	2.0	U	2.0		ppb v/v			12/20/18 04:07	10
Benzene	2.0	U	2.0		ppb v/v			12/20/18 04:07	10
1,2-Dichloroethane	2.0	U	2.0		ppb v/v			12/20/18 04:07	10
Trichloroethene	2.0	U	2.0		ppb v/v			12/20/18 04:07	10
1,2-Dichloropropane	2.0	U	2.0		ppb v/v			12/20/18 04:07	10
cis-1,3-Dichloropropene	2.0	U	2.0		ppb v/v			12/20/18 04:07	10
Toluene	4.7		2.0		ppb v/v			12/20/18 04:07	10
trans-1,3-Dichloropropene	2.0	U	2.0		ppb v/v			12/20/18 04:07	10
1,1,2-Trichloroethane	2.0	U	2.0		ppb v/v			12/20/18 04:07	10
Tetrachloroethene	200		2.0		ppb v/v			12/20/18 04:07	10
1,2-Dibromoethane	2.0	U	2.0		ppb v/v			12/20/18 04:07	10
Chlorobenzene	2.0	U	2.0		ppb v/v			12/20/18 04:07	10
Ethylbenzene	2.0	U	2.0		ppb v/v			12/20/18 04:07	10
m,p-Xylene	5.0	U	5.0		ppb v/v			12/20/18 04:07	10
Xylene, o-	2.0	U	2.0		ppb v/v			12/20/18 04:07	10
Styrene	2.0	U	2.0		ppb v/v			12/20/18 04:07	10
1,1,2,2-Tetrachloroethane	2.0	U	2.0		ppb v/v			12/20/18 04:07	10
1,3,5-Trimethylbenzene	2.0	U	2.0		ppb v/v			12/20/18 04:07	10
1,2,4-Trimethylbenzene	2.0	U	2.0		ppb v/v			12/20/18 04:07	10
1,3-Dichlorobenzene	2.0	U	2.0		ppb v/v			12/20/18 04:07	10
1,4-Dichlorobenzene	2.0	U	2.0		ppb v/v			12/20/18 04:07	10
1,2-Dichlorobenzene	2.0	U	2.0		ppb v/v			12/20/18 04:07	10

TestAmerica Burlington

Client Sample Results

Client: Brookhaven National Labs
 Project/Site: 0411 BLDG96 SVE PILOT

TestAmerica Job ID: 200-46616-1
 SDG: 200-46616-1

Client Sample ID: SVE-04

Lab Sample ID: 200-46616-4

Date Collected: 12/10/18 14:00

Matrix: Air

Date Received: 12/11/18 11:02

Sample Container: Summa Canister 6L

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	5.0	U	5.0		ppb v/v			12/20/18 04:07	10
Hexachlorobutadiene	2.0	U	2.0		ppb v/v			12/20/18 04:07	10
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	25	U	25		ug/m3			12/20/18 04:07	10
1,2-Dichlorotetrafluoroethane	14	U	14		ug/m3			12/20/18 04:07	10
Chloromethane	10	U	10		ug/m3			12/20/18 04:07	10
Vinyl chloride	5.1	U	5.1		ug/m3			12/20/18 04:07	10
Bromomethane	7.8	U	7.8		ug/m3			12/20/18 04:07	10
Chloroethane	13	U	13		ug/m3			12/20/18 04:07	10
Trichlorofluoromethane	11	U	11		ug/m3			12/20/18 04:07	10
Freon TF	15	U	15		ug/m3			12/20/18 04:07	10
1,1-Dichloroethene	7.9	U	7.9		ug/m3			12/20/18 04:07	10
Methylene Chloride	17	U	17		ug/m3			12/20/18 04:07	10
1,1-Dichloroethane	8.1	U	8.1		ug/m3			12/20/18 04:07	10
cis-1,2-Dichloroethene	7.9	U	7.9		ug/m3			12/20/18 04:07	10
Chloroform	9.8	U	9.8		ug/m3			12/20/18 04:07	10
1,1,1-Trichloroethane	22		11		ug/m3			12/20/18 04:07	10
Carbon tetrachloride	13	U	13		ug/m3			12/20/18 04:07	10
Benzene	6.4	U	6.4		ug/m3			12/20/18 04:07	10
1,2-Dichloroethane	8.1	U	8.1		ug/m3			12/20/18 04:07	10
Trichloroethene	11	U	11		ug/m3			12/20/18 04:07	10
1,2-Dichloropropane	9.2	U	9.2		ug/m3			12/20/18 04:07	10
cis-1,3-Dichloropropene	9.1	U	9.1		ug/m3			12/20/18 04:07	10
Toluene	18		7.5		ug/m3			12/20/18 04:07	10
trans-1,3-Dichloropropene	9.1	U	9.1		ug/m3			12/20/18 04:07	10
1,1,2-Trichloroethane	11	U	11		ug/m3			12/20/18 04:07	10
Tetrachloroethene	1300		14		ug/m3			12/20/18 04:07	10
1,2-Dibromoethane	15	U	15		ug/m3			12/20/18 04:07	10
Chlorobenzene	9.2	U	9.2		ug/m3			12/20/18 04:07	10
Ethylbenzene	8.7	U	8.7		ug/m3			12/20/18 04:07	10
m,p-Xylene	22	U	22		ug/m3			12/20/18 04:07	10
Xylene, o-	8.7	U	8.7		ug/m3			12/20/18 04:07	10
Styrene	8.5	U	8.5		ug/m3			12/20/18 04:07	10
1,1,2,2-Tetrachloroethane	14	U	14		ug/m3			12/20/18 04:07	10
1,3,5-Trimethylbenzene	9.8	U	9.8		ug/m3			12/20/18 04:07	10
1,2,4-Trimethylbenzene	9.8	U	9.8		ug/m3			12/20/18 04:07	10
1,3-Dichlorobenzene	12	U	12		ug/m3			12/20/18 04:07	10
1,4-Dichlorobenzene	12	U	12		ug/m3			12/20/18 04:07	10
1,2-Dichlorobenzene	12	U	12		ug/m3			12/20/18 04:07	10
1,2,4-Trichlorobenzene	37	U	37		ug/m3			12/20/18 04:07	10
Hexachlorobutadiene	21	U	21		ug/m3			12/20/18 04:07	10

Default Detection Limits

Client: Brookhaven National Labs
 Project/Site: 0411 BLDG96 SVE PILOT

TestAmerica Job ID: 200-46616-1
 SDG: 200-46616-1

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	RL	MDL	Units	Method
1,1,1-Trichloroethane	0.20	0.068	ppb v/v	TO-15
1,1,1-Trichloroethane	1.1	0.37	ug/m3	TO-15
1,1,2,2-Tetrachloroethane	0.20	0.076	ppb v/v	TO-15
1,1,2,2-Tetrachloroethane	1.4	0.52	ug/m3	TO-15
1,1,2-Trichloroethane	0.20	0.078	ppb v/v	TO-15
1,1,2-Trichloroethane	1.1	0.43	ug/m3	TO-15
1,1-Dichloroethane	0.20	0.026	ppb v/v	TO-15
1,1-Dichloroethane	0.81	0.11	ug/m3	TO-15
1,1-Dichloroethene	0.20	0.034	ppb v/v	TO-15
1,1-Dichloroethene	0.79	0.13	ug/m3	TO-15
1,2,4-Trichlorobenzene	0.50	0.24	ppb v/v	TO-15
1,2,4-Trichlorobenzene	3.7	1.8	ug/m3	TO-15
1,2,4-Trimethylbenzene	0.20	0.080	ppb v/v	TO-15
1,2,4-Trimethylbenzene	0.98	0.39	ug/m3	TO-15
1,2-Dibromoethane	0.20	0.069	ppb v/v	TO-15
1,2-Dibromoethane	1.5	0.53	ug/m3	TO-15
1,2-Dichlorobenzene	0.20	0.071	ppb v/v	TO-15
1,2-Dichlorobenzene	1.2	0.43	ug/m3	TO-15
1,2-Dichloroethane	0.20	0.063	ppb v/v	TO-15
1,2-Dichloroethane	0.81	0.25	ug/m3	TO-15
1,2-Dichloropropane	0.20	0.12	ppb v/v	TO-15
1,2-Dichloropropane	0.92	0.55	ug/m3	TO-15
1,2-Dichlorotetrafluoroethane	0.20	0.068	ppb v/v	TO-15
1,2-Dichlorotetrafluoroethane	1.4	0.48	ug/m3	TO-15
1,3,5-Trimethylbenzene	0.20	0.058	ppb v/v	TO-15
1,3,5-Trimethylbenzene	0.98	0.29	ug/m3	TO-15
1,3-Dichlorobenzene	0.20	0.082	ppb v/v	TO-15
1,3-Dichlorobenzene	1.2	0.49	ug/m3	TO-15
1,4-Dichlorobenzene	0.20	0.065	ppb v/v	TO-15
1,4-Dichlorobenzene	1.2	0.39	ug/m3	TO-15
Benzene	0.20	0.071	ppb v/v	TO-15
Benzene	0.64	0.23	ug/m3	TO-15
Bromomethane	0.20	0.062	ppb v/v	TO-15
Bromomethane	0.78	0.24	ug/m3	TO-15
Carbon tetrachloride	0.20	0.024	ppb v/v	TO-15
Carbon tetrachloride	1.3	0.15	ug/m3	TO-15
Chlorobenzene	0.20	0.040	ppb v/v	TO-15
Chlorobenzene	0.92	0.18	ug/m3	TO-15
Chloroethane	0.50	0.21	ppb v/v	TO-15
Chloroethane	1.3	0.55	ug/m3	TO-15
Chloroform	0.20	0.052	ppb v/v	TO-15
Chloroform	0.98	0.25	ug/m3	TO-15
Chloromethane	0.50	0.25	ppb v/v	TO-15
Chloromethane	1.0	0.52	ug/m3	TO-15
cis-1,2-Dichloroethene	0.20	0.037	ppb v/v	TO-15
cis-1,2-Dichloroethene	0.79	0.15	ug/m3	TO-15
cis-1,3-Dichloropropene	0.20	0.098	ppb v/v	TO-15
cis-1,3-Dichloropropene	0.91	0.44	ug/m3	TO-15
Dichlorodifluoromethane	0.50	0.20	ppb v/v	TO-15
Dichlorodifluoromethane	2.5	0.99	ug/m3	TO-15
Ethylbenzene	0.20	0.073	ppb v/v	TO-15
Ethylbenzene	0.87	0.32	ug/m3	TO-15

Default Detection Limits

Client: Brookhaven National Labs
 Project/Site: 0411 BLDG96 SVE PILOT

TestAmerica Job ID: 200-46616-1
 SDG: 200-46616-1

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	RL	MDL	Units	Method
Freon TF	0.20	0.031	ppb v/v	TO-15
Freon TF	1.5	0.24	ug/m3	TO-15
Hexachlorobutadiene	0.20	0.082	ppb v/v	TO-15
Hexachlorobutadiene	2.1	0.87	ug/m3	TO-15
m,p-Xylene	0.50	0.070	ppb v/v	TO-15
m,p-Xylene	2.2	0.30	ug/m3	TO-15
Methylene Chloride	0.50	0.20	ppb v/v	TO-15
Methylene Chloride	1.7	0.69	ug/m3	TO-15
Styrene	0.20	0.086	ppb v/v	TO-15
Styrene	0.85	0.37	ug/m3	TO-15
Tetrachloroethene	0.20	0.029	ppb v/v	TO-15
Tetrachloroethene	1.4	0.20	ug/m3	TO-15
Toluene	0.20	0.069	ppb v/v	TO-15
Toluene	0.75	0.26	ug/m3	TO-15
trans-1,3-Dichloropropene	0.20	0.12	ppb v/v	TO-15
trans-1,3-Dichloropropene	0.91	0.54	ug/m3	TO-15
Trichloroethene	0.20	0.030	ppb v/v	TO-15
Trichloroethene	1.1	0.16	ug/m3	TO-15
Trichlorofluoromethane	0.20	0.062	ppb v/v	TO-15
Trichlorofluoromethane	1.1	0.35	ug/m3	TO-15
Vinyl chloride	0.20	0.041	ppb v/v	TO-15
Vinyl chloride	0.51	0.10	ug/m3	TO-15
Xylene, o-	0.20	0.071	ppb v/v	TO-15
Xylene, o-	0.87	0.31	ug/m3	TO-15

QC Sample Results

Client: Brookhaven National Labs
 Project/Site: 0411 BLDG96 SVE PILOT

TestAmerica Job ID: 200-46616-1
 SDG: 200-46616-1

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Lab Sample ID: MB 200-138350/6
Matrix: Air
Analysis Batch: 138350

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

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Dichlorodifluoromethane	0.50	U	0.50		ppb v/v			12/19/18 16:25	1
1,2-Dichlorotetrafluoroethane	0.20	U	0.20		ppb v/v			12/19/18 16:25	1
Chloromethane	0.50	U	0.50		ppb v/v			12/19/18 16:25	1
Vinyl chloride	0.20	U	0.20		ppb v/v			12/19/18 16:25	1
Bromomethane	0.20	U	0.20		ppb v/v			12/19/18 16:25	1
Chloroethane	0.50	U	0.50		ppb v/v			12/19/18 16:25	1
Trichlorofluoromethane	0.20	U	0.20		ppb v/v			12/19/18 16:25	1
Freon TF	0.20	U	0.20		ppb v/v			12/19/18 16:25	1
1,1-Dichloroethene	0.20	U	0.20		ppb v/v			12/19/18 16:25	1
Methylene Chloride	0.50	U	0.50		ppb v/v			12/19/18 16:25	1
1,1-Dichloroethane	0.20	U	0.20		ppb v/v			12/19/18 16:25	1
cis-1,2-Dichloroethene	0.20	U	0.20		ppb v/v			12/19/18 16:25	1
Chloroform	0.20	U	0.20		ppb v/v			12/19/18 16:25	1
1,1,1-Trichloroethane	0.20	U	0.20		ppb v/v			12/19/18 16:25	1
Carbon tetrachloride	0.20	U	0.20		ppb v/v			12/19/18 16:25	1
Benzene	0.20	U	0.20		ppb v/v			12/19/18 16:25	1
1,2-Dichloroethane	0.20	U	0.20		ppb v/v			12/19/18 16:25	1
Trichloroethene	0.20	U	0.20		ppb v/v			12/19/18 16:25	1
1,2-Dichloropropane	0.20	U	0.20		ppb v/v			12/19/18 16:25	1
cis-1,3-Dichloropropene	0.20	U	0.20		ppb v/v			12/19/18 16:25	1
Toluene	0.20	U	0.20		ppb v/v			12/19/18 16:25	1
trans-1,3-Dichloropropene	0.20	U	0.20		ppb v/v			12/19/18 16:25	1
1,1,2-Trichloroethane	0.20	U	0.20		ppb v/v			12/19/18 16:25	1
Tetrachloroethene	0.20	U	0.20		ppb v/v			12/19/18 16:25	1
1,2-Dibromoethane	0.20	U	0.20		ppb v/v			12/19/18 16:25	1
Chlorobenzene	0.20	U	0.20		ppb v/v			12/19/18 16:25	1
Ethylbenzene	0.20	U	0.20		ppb v/v			12/19/18 16:25	1
m,p-Xylene	0.50	U	0.50		ppb v/v			12/19/18 16:25	1
Xylene, o-	0.20	U	0.20		ppb v/v			12/19/18 16:25	1
Styrene	0.20	U	0.20		ppb v/v			12/19/18 16:25	1
1,1,2,2-Tetrachloroethane	0.20	U	0.20		ppb v/v			12/19/18 16:25	1
1,3,5-Trimethylbenzene	0.20	U	0.20		ppb v/v			12/19/18 16:25	1
1,2,4-Trimethylbenzene	0.20	U	0.20		ppb v/v			12/19/18 16:25	1
1,3-Dichlorobenzene	0.20	U	0.20		ppb v/v			12/19/18 16:25	1
1,4-Dichlorobenzene	0.20	U	0.20		ppb v/v			12/19/18 16:25	1
1,2-Dichlorobenzene	0.20	U	0.20		ppb v/v			12/19/18 16:25	1
1,2,4-Trichlorobenzene	0.50	U	0.50		ppb v/v			12/19/18 16:25	1
Hexachlorobutadiene	0.20	U	0.20		ppb v/v			12/19/18 16:25	1

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Dichlorodifluoromethane	2.5	U	2.5		ug/m3			12/19/18 16:25	1
1,2-Dichlorotetrafluoroethane	1.4	U	1.4		ug/m3			12/19/18 16:25	1
Chloromethane	1.0	U	1.0		ug/m3			12/19/18 16:25	1
Vinyl chloride	0.51	U	0.51		ug/m3			12/19/18 16:25	1
Bromomethane	0.78	U	0.78		ug/m3			12/19/18 16:25	1
Chloroethane	1.3	U	1.3		ug/m3			12/19/18 16:25	1
Trichlorofluoromethane	1.1	U	1.1		ug/m3			12/19/18 16:25	1
Freon TF	1.5	U	1.5		ug/m3			12/19/18 16:25	1

TestAmerica Burlington

QC Sample Results

Client: Brookhaven National Labs
Project/Site: 0411 BLDG96 SVE PILOT

TestAmerica Job ID: 200-46616-1
SDG: 200-46616-1

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: MB 200-138350/6
Matrix: Air
Analysis Batch: 138350

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

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,1-Dichloroethene	0.79	U	0.79		ug/m3			12/19/18 16:25	1
Methylene Chloride	1.7	U	1.7		ug/m3			12/19/18 16:25	1
1,1-Dichloroethane	0.81	U	0.81		ug/m3			12/19/18 16:25	1
cis-1,2-Dichloroethene	0.79	U	0.79		ug/m3			12/19/18 16:25	1
Chloroform	0.98	U	0.98		ug/m3			12/19/18 16:25	1
1,1,1-Trichloroethane	1.1	U	1.1		ug/m3			12/19/18 16:25	1
Carbon tetrachloride	1.3	U	1.3		ug/m3			12/19/18 16:25	1
Benzene	0.64	U	0.64		ug/m3			12/19/18 16:25	1
1,2-Dichloroethane	0.81	U	0.81		ug/m3			12/19/18 16:25	1
Trichloroethene	1.1	U	1.1		ug/m3			12/19/18 16:25	1
1,2-Dichloropropane	0.92	U	0.92		ug/m3			12/19/18 16:25	1
cis-1,3-Dichloropropene	0.91	U	0.91		ug/m3			12/19/18 16:25	1
Toluene	0.75	U	0.75		ug/m3			12/19/18 16:25	1
trans-1,3-Dichloropropene	0.91	U	0.91		ug/m3			12/19/18 16:25	1
1,1,2-Trichloroethane	1.1	U	1.1		ug/m3			12/19/18 16:25	1
Tetrachloroethene	1.4	U	1.4		ug/m3			12/19/18 16:25	1
1,2-Dibromoethane	1.5	U	1.5		ug/m3			12/19/18 16:25	1
Chlorobenzene	0.92	U	0.92		ug/m3			12/19/18 16:25	1
Ethylbenzene	0.87	U	0.87		ug/m3			12/19/18 16:25	1
m,p-Xylene	2.2	U	2.2		ug/m3			12/19/18 16:25	1
Xylene, o-	0.87	U	0.87		ug/m3			12/19/18 16:25	1
Styrene	0.85	U	0.85		ug/m3			12/19/18 16:25	1
1,1,2,2-Tetrachloroethane	1.4	U	1.4		ug/m3			12/19/18 16:25	1
1,3,5-Trimethylbenzene	0.98	U	0.98		ug/m3			12/19/18 16:25	1
1,2,4-Trimethylbenzene	0.98	U	0.98		ug/m3			12/19/18 16:25	1
1,3-Dichlorobenzene	1.2	U	1.2		ug/m3			12/19/18 16:25	1
1,4-Dichlorobenzene	1.2	U	1.2		ug/m3			12/19/18 16:25	1
1,2-Dichlorobenzene	1.2	U	1.2		ug/m3			12/19/18 16:25	1
1,2,4-Trichlorobenzene	3.7	U	3.7		ug/m3			12/19/18 16:25	1
Hexachlorobutadiene	2.1	U	2.1		ug/m3			12/19/18 16:25	1

Lab Sample ID: LCS 200-138350/5
Matrix: Air
Analysis Batch: 138350

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

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
Dichlorodifluoromethane	10.0	11.6		ppb v/v		116	68 - 128
1,2-Dichlorotetrafluoroethane	10.0	11.4		ppb v/v		114	78 - 138
Chloromethane	10.0	12.2		ppb v/v		122	57 - 126
Vinyl chloride	10.0	11.0		ppb v/v		110	62 - 125
Bromomethane	10.0	10.1		ppb v/v		101	68 - 128
Chloroethane	10.0	10.8		ppb v/v		108	65 - 125
Trichlorofluoromethane	10.0	9.88		ppb v/v		99	67 - 127
Freon TF	10.0	11.0		ppb v/v		110	68 - 128
1,1-Dichloroethene	10.0	10.8		ppb v/v		108	67 - 127
Methylene Chloride	10.0	12.1		ppb v/v		121	62 - 122
1,1-Dichloroethane	10.0	10.4		ppb v/v		104	66 - 126
cis-1,2-Dichloroethene	10.0	11.1		ppb v/v		111	67 - 127

QC Sample Results

Client: Brookhaven National Labs
Project/Site: 0411 BLDG96 SVE PILOT

TestAmerica Job ID: 200-46616-1
SDG: 200-46616-1

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: LCS 200-138350/5
Matrix: Air
Analysis Batch: 138350

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloroform	10.0	10.8		ppb v/v		108	69 - 129
1,1,1-Trichloroethane	10.0	10.8		ppb v/v		108	70 - 130
Carbon tetrachloride	10.0	11.4		ppb v/v		114	62 - 143
Benzene	10.0	10.6		ppb v/v		106	67 - 127
1,2-Dichloroethane	10.0	11.1		ppb v/v		111	67 - 132
Trichloroethene	10.0	10.4		ppb v/v		104	68 - 128
1,2-Dichloropropane	10.0	12.1		ppb v/v		121	67 - 127
cis-1,3-Dichloropropene	10.0	11.9		ppb v/v		119	70 - 130
Toluene	10.0	11.0		ppb v/v		110	67 - 127
trans-1,3-Dichloropropene	10.0	11.9		ppb v/v		119	69 - 129
1,1,2-Trichloroethane	10.0	11.3		ppb v/v		113	69 - 129
Tetrachloroethene	10.0	10.4		ppb v/v		104	70 - 130
1,2-Dibromoethane	10.0	11.1		ppb v/v		112	70 - 130
Chlorobenzene	10.0	10.8		ppb v/v		108	68 - 128
Ethylbenzene	10.0	11.2		ppb v/v		112	68 - 128
m,p-Xylene	20.0	21.9		ppb v/v		110	68 - 128
Xylene, o-	10.0	11.4		ppb v/v		114	67 - 127
Styrene	10.0	11.5		ppb v/v		115	68 - 128
1,1,2,2-Tetrachloroethane	10.0	11.5		ppb v/v		115	69 - 129
1,3,5-Trimethylbenzene	10.0	11.4		ppb v/v		114	65 - 125
1,2,4-Trimethylbenzene	10.0	11.5		ppb v/v		115	65 - 125
1,3-Dichlorobenzene	10.0	11.1		ppb v/v		111	67 - 127
1,4-Dichlorobenzene	10.0	11.2		ppb v/v		112	66 - 126
1,2-Dichlorobenzene	10.0	11.2		ppb v/v		112	67 - 127
1,2,4-Trichlorobenzene	10.0	11.0		ppb v/v		110	59 - 126
Hexachlorobutadiene	10.0	10.6		ppb v/v		106	62 - 130
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dichlorodifluoromethane	49	57.2		ug/m3		116	68 - 128
1,2-Dichlorotetrafluoroethane	70	79.5		ug/m3		114	78 - 138
Chloromethane	21	25.2		ug/m3		122	57 - 126
Vinyl chloride	26	28.1		ug/m3		110	62 - 125
Bromomethane	39	39.3		ug/m3		101	68 - 128
Chloroethane	26	28.4		ug/m3		108	65 - 125
Trichlorofluoromethane	56	55.5		ug/m3		99	67 - 127
Freon TF	77	84.2		ug/m3		110	68 - 128
1,1-Dichloroethene	40	42.7		ug/m3		108	67 - 127
Methylene Chloride	35	42.1		ug/m3		121	62 - 122
1,1-Dichloroethane	40	42.0		ug/m3		104	66 - 126
cis-1,2-Dichloroethene	40	43.8		ug/m3		111	67 - 127
Chloroform	49	52.9		ug/m3		108	69 - 129
1,1,1-Trichloroethane	55	58.8		ug/m3		108	70 - 130
Carbon tetrachloride	63	71.6		ug/m3		114	62 - 143
Benzene	32	33.8		ug/m3		106	67 - 127
1,2-Dichloroethane	40	45.0		ug/m3		111	67 - 132
Trichloroethene	54	55.9		ug/m3		104	68 - 128
1,2-Dichloropropane	46	55.8		ug/m3		121	67 - 127
cis-1,3-Dichloropropene	45	53.9		ug/m3		119	70 - 130

QC Sample Results

Client: Brookhaven National Labs
 Project/Site: 0411 BLDG96 SVE PILOT

TestAmerica Job ID: 200-46616-1
 SDG: 200-46616-1

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: LCS 200-138350/5

Matrix: Air

Analysis Batch: 138350

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Toluene	38	41.3		ug/m3		110	67 - 127
trans-1,3-Dichloropropene	45	54.1		ug/m3		119	69 - 129
1,1,2-Trichloroethane	55	61.4		ug/m3		113	69 - 129
Tetrachloroethene	68	70.4		ug/m3		104	70 - 130
1,2-Dibromoethane	77	85.7		ug/m3		112	70 - 130
Chlorobenzene	46	49.7		ug/m3		108	68 - 128
Ethylbenzene	43	48.8		ug/m3		112	68 - 128
m,p-Xylene	87	95.1		ug/m3		110	68 - 128
Xylene, o-	43	49.3		ug/m3		114	67 - 127
Styrene	43	48.9		ug/m3		115	68 - 128
1,1,2,2-Tetrachloroethane	69	79.3		ug/m3		115	69 - 129
1,3,5-Trimethylbenzene	49	56.0		ug/m3		114	65 - 125
1,2,4-Trimethylbenzene	49	56.6		ug/m3		115	65 - 125
1,3-Dichlorobenzene	60	66.6		ug/m3		111	67 - 127
1,4-Dichlorobenzene	60	67.6		ug/m3		112	66 - 126
1,2-Dichlorobenzene	60	67.4		ug/m3		112	67 - 127
1,2,4-Trichlorobenzene	74	81.4		ug/m3		110	59 - 126
Hexachlorobutadiene	110	113		ug/m3		106	62 - 130

QC Association Summary

Client: Brookhaven National Labs
Project/Site: 0411 BLDG96 SVE PILOT

TestAmerica Job ID: 200-46616-1
SDG: 200-46616-1

Air - GC/MS VOA

Analysis Batch: 138350

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
200-46616-1	SVE-01	Total/NA	Air	TO-15	
200-46616-2	SVE-02	Total/NA	Air	TO-15	
200-46616-3	SVE-03	Total/NA	Air	TO-15	
200-46616-4	SVE-04	Total/NA	Air	TO-15	
MB 200-138350/6	Method Blank	Total/NA	Air	TO-15	
LCS 200-138350/5	Lab Control Sample	Total/NA	Air	TO-15	

Lab Chronicle

Client: Brookhaven National Labs
Project/Site: 0411 BLDG96 SVE PILOT

TestAmerica Job ID: 200-46616-1
SDG: 200-46616-1

Client Sample ID: SVE-01

Date Collected: 12/05/18 15:20

Date Received: 12/11/18 11:02

Lab Sample ID: 200-46616-1

Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		10	138350	12/20/18 01:37	K1P	TAL BUR

Client Sample ID: SVE-02

Date Collected: 12/06/18 15:00

Date Received: 12/11/18 11:02

Lab Sample ID: 200-46616-2

Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		10	138350	12/20/18 02:27	K1P	TAL BUR

Client Sample ID: SVE-03

Date Collected: 12/07/18 10:45

Date Received: 12/11/18 11:02

Lab Sample ID: 200-46616-3

Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		10	138350	12/20/18 03:17	K1P	TAL BUR

Client Sample ID: SVE-04

Date Collected: 12/10/18 14:00

Date Received: 12/11/18 11:02

Lab Sample ID: 200-46616-4

Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		10	138350	12/20/18 04:07	K1P	TAL BUR

Laboratory References:

TAL BUR = TestAmerica Burlington, 30 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

Accreditation/Certification Summary

Client: Brookhaven National Labs
Project/Site: 0411 BLDG96 SVE PILOT

TestAmerica Job ID: 200-46616-1
SDG: 200-46616-1

Laboratory: TestAmerica Burlington

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
ANAB	DoD ELAP		L2336	02-25-20
Connecticut	State Program	1	PH-0751	09-30-19
DE Haz. Subst. Cleanup Act (HSCA)	State Program	3	NA	02-01-19 *
Florida	NELAP	4	E87467	06-30-19
Maine	State Program	1	VT00008	04-17-19
Minnesota	NELAP	5	050-999-436	12-31-18 *
New Hampshire	NELAP	1	2006	12-18-18 *
New Jersey	NELAP	2	VT972	06-30-19
New York	NELAP	2	10391	04-01-19
Pennsylvania	NELAP	3	68-00489	04-30-19
Rhode Island	State Program	1	LAO00298	12-30-18 *
US Fish & Wildlife	Federal		LE-058448-0	07-31-19
USDA	Federal		P330-11-00093	07-24-20
Vermont	State Program	1	VT-4000	12-31-18 *
Virginia	NELAP	3	460209	12-14-19

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: Brookhaven National Labs
Project/Site: 0411 BLDG96 SVE PILOT

TestAmerica Job ID: 200-46616-1
SDG: 200-46616-1

Method	Method Description	Protocol	Laboratory
TO-15	Volatile Organic Compounds in Ambient Air	EPA	TAL BUR

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

TAL BUR = TestAmerica Burlington, 30 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

Sample Summary

Client: Brookhaven National Labs
Project/Site: 0411 BLDG96 SVE PILOT

TestAmerica Job ID: 200-46616-1
SDG: 200-46616-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
200-46616-1	SVE-01	Air	12/05/18 15:20	12/11/18 11:02
200-46616-2	SVE-02	Air	12/06/18 15:00	12/11/18 11:02
200-46616-3	SVE-03	Air	12/07/18 10:45	12/11/18 11:02
200-46616-4	SVE-04	Air	12/10/18 14:00	12/11/18 11:02

AIR - GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-46616-1

SDG No.: 200-46616-1

Instrument ID: CHG.i Analysis Batch Number: 137447

Lab Sample ID: IC 200-137447/4 Client Sample ID: _____

Date Analyzed: 11/27/18 20:22 Lab File ID: 200-33385-004.D GC Column: RTX-624 ID: 0.32 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloroform	9.28	Baseline	mickd	11/28/18 08:49
1,1,1-Trichloroethane	9.54	Split Peak	mickd	11/28/18 08:52
Carbon tetrachloride	9.79	Split Peak	mickd	11/28/18 08:53
Benzene	10.22	Split Peak	mickd	11/28/18 08:56
Trichloroethene	11.49	Split Peak	mickd	11/28/18 08:57
Dibromomethane	12.27	Split Peak	mickd	11/28/18 08:58
cis-1,3-Dichloropropene	13.49	Split Peak	mickd	11/28/18 08:59
Tetrachloroethene	15.15	Split Peak	mickd	11/28/18 09:00
1,2-Dibromoethane	16.04	Split Peak	mickd	11/28/18 09:02

Lab Sample ID: IC 200-137447/5 Client Sample ID: _____

Date Analyzed: 11/27/18 21:13 Lab File ID: 200-33385-005.D GC Column: RTX-624 ID: 0.32 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Methyl Ethyl Ketone	8.84	Split Peak	mickd	11/28/18 09:07
Cyclohexane	9.53	Split Peak	mickd	11/28/18 09:09
1,1,1-Trichloroethane	9.54	Split Peak	mickd	11/28/18 09:09
1,2-Dichloropropane	12.02	Split Peak	mickd	11/28/18 09:10
Dibromomethane	12.28	Split Peak	mickd	11/28/18 09:11
Bromodichloromethane	12.57	Baseline	mickd	11/28/18 09:12
cis-1,3-Dichloropropene	13.48	Split Peak	mickd	11/28/18 09:13
Toluene	14.07	Split Peak	mickd	11/28/18 09:13
Xylene, o-	18.30	Baseline	mickd	11/28/18 09:15
Bromoform	18.78	Split Peak	mickd	11/28/18 09:15
Hexachlorobutadiene	24.54	Split Peak	mickd	11/28/18 09:16

AIR - GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-46616-1

SDG No.: 200-46616-1

Instrument ID: CHG.i Analysis Batch Number: 137447

Lab Sample ID: IC 200-137447/6 Client Sample ID: _____

Date Analyzed: 11/27/18 22:03 Lab File ID: 200-33385-006.D GC Column: RTX-624 ID: 0.32 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acrylonitrile	7.08	Baseline	mickd	11/28/18 09:19
1,2-Dichloropropane	12.01	Baseline	mickd	11/28/18 09:20

Lab Sample ID: IC 200-137447/7 Client Sample ID: _____

Date Analyzed: 11/27/18 22:54 Lab File ID: 200-33385-007.D GC Column: RTX-624 ID: 0.32 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acrolein	5.59	Missed Peak	mickd	11/28/18 10:22

Lab Sample ID: ICIS 200-137447/8 Client Sample ID: _____

Date Analyzed: 11/27/18 23:44 Lab File ID: 200-33385-008.D GC Column: RTX-624 ID: 0.32 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acrolein	5.59	Missed Peak	mickd	11/28/18 10:24

Lab Sample ID: IC 200-137447/9 Client Sample ID: _____

Date Analyzed: 11/28/18 00:35 Lab File ID: 200-33385-009.D GC Column: RTX-624 ID: 0.32 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	12.28	Missed Peak	mickd	11/28/18 09:36

Lab Sample ID: IC 200-137447/11 Client Sample ID: _____

Date Analyzed: 11/28/18 02:15 Lab File ID: 200-33385-011.D GC Column: RTX-624 ID: 0.32 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acrolein	5.59	Missed Peak	mickd	11/28/18 10:26

AIR - GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-46616-1

SDG No.: 200-46616-1

Instrument ID: CHG.i Analysis Batch Number: 138350

Lab Sample ID: CCVIS 200-138350/4 Client Sample ID: _____

Date Analyzed: 12/19/18 14:45 Lab File ID: 200-33765-004.D GC Column: RTX-624 ID: 0.32 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Ethanol	5.20	Peak assignment corrected	tobere	12/19/18 15:59

AIR - GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-46616-1

SDG No.: 200-46616-1

Instrument ID: CHG.i Analysis Batch Number: 138350

Lab Sample ID: MB 200-138350/6 Client Sample ID: _____

Date Analyzed: 12/19/18 16:25 Lab File ID: 200-33765-006.D GC Column: RTX-624 ID: 0.32 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,1-Dichloroethane		Invalid Compound ID	puangmale ek	12/20/18 13:57
1,1-Dichloroethene		Invalid Compound ID	puangmale ek	12/20/18 13:56
1,2,4-Trimethylbenzene		Invalid Compound ID	puangmale ek	12/20/18 13:59
1,2-Dichlorotetrafluoroethane		Invalid Compound ID	puangmale ek	12/20/18 13:56
1,3,5-Trimethylbenzene		Invalid Compound ID	puangmale ek	12/20/18 13:59
Benzene		Invalid Compound ID	puangmale ek	12/20/18 13:57
Bromomethane		Invalid Compound ID	puangmale ek	12/20/18 13:56
Chloroethane		Invalid Compound ID	puangmale ek	12/20/18 13:56
Chloromethane		Invalid Compound ID	puangmale ek	12/20/18 13:56
cis-1,2-Dichloroethene		Invalid Compound ID	puangmale ek	12/20/18 13:57
cis-1,3-Dichloropropene		Invalid Compound ID	puangmale ek	12/20/18 13:57
Ethylbenzene		Invalid Compound ID	puangmale ek	12/20/18 13:58
Toluene		Invalid Compound ID	puangmale ek	12/20/18 13:57
trans-1,3-Dichloropropene		Invalid Compound ID	puangmale ek	12/20/18 13:57
Trichlorofluoromethane		Invalid Compound ID	puangmale ek	12/20/18 13:56
Vinyl chloride		Invalid Compound ID	puangmale ek	12/20/18 13:56
Tetrachloroethene	15.13	Assign Peak	puangmale ek	12/20/18 13:58

AIR - GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-46616-1

SDG No.: 200-46616-1

Instrument ID: CHG.i Analysis Batch Number: 138350

Lab Sample ID: MB 200-138350/6 Client Sample ID: _____

Date Analyzed: 12/19/18 16:25 Lab File ID: 200-33765-006.D GC Column: RTX-624 ID: 0.32 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
m,p-Xylene	17.42	Assign Peak	puangmale ek	12/20/18 13:58
Xylene, o-	18.27	Assign Peak	puangmale ek	12/20/18 13:58

AIR - GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-46616-1

SDG No.: 200-46616-1

Instrument ID: CHG.i Analysis Batch Number: 138350

Lab Sample ID: 200-46616-1 Client Sample ID: SVE-01

Date Analyzed: 12/20/18 01:37 Lab File ID: 200-33765-017.D GC Column: RTX-624 ID: 0.32 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Trichlorofluoromethane	4.77	Assign Peak	puangmale ek	12/20/18 14:22
1,1,2,2-Tetrachloroethane		Invalid Compound ID	puangmale ek	12/20/18 14:24
1,1,2-Trichloroethane		Invalid Compound ID	puangmale ek	12/20/18 14:24
1,1-Dichloroethane		Invalid Compound ID	puangmale ek	12/20/18 14:22
1,1-Dichloroethene		Invalid Compound ID	puangmale ek	12/20/18 14:22
1,2,4-Trichlorobenzene		Invalid Compound ID	puangmale ek	12/20/18 14:24
1,2,4-Trimethylbenzene		Invalid Compound ID	puangmale ek	12/20/18 14:24
1,2-Dichlorobenzene		Invalid Compound ID	puangmale ek	12/20/18 14:24
1,2-Dichlorotetrafluoroethane		Invalid Compound ID	puangmale ek	12/20/18 14:22
1,3,5-Trimethylbenzene		Invalid Compound ID	puangmale ek	12/20/18 14:24
1,4-Dichlorobenzene		Invalid Compound ID	puangmale ek	12/20/18 14:24
Bromomethane		Invalid Compound ID	puangmale ek	12/20/18 14:22
Carbon tetrachloride		Invalid Compound ID	puangmale ek	12/20/18 14:23
Chloroethane		Invalid Compound ID	puangmale ek	12/20/18 14:22
Chloromethane		Invalid Compound ID	puangmale ek	12/20/18 14:22
cis-1,2-Dichloroethene		Invalid Compound ID	puangmale ek	12/20/18 14:23
cis-1,3-Dichloropropene		Invalid Compound ID	puangmale ek	12/20/18 14:23

AIR - GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-46616-1

SDG No.: 200-46616-1

Instrument ID: CHG.i Analysis Batch Number: 138350

Lab Sample ID: 200-46616-1 Client Sample ID: SVE-01

Date Analyzed: 12/20/18 01:37 Lab File ID: 200-33765-017.D GC Column: RTX-624 ID: 0.32 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Ethylbenzene		Invalid Compound ID	puangmale ek	12/20/18 14:24
Freon TF		Invalid Compound ID	puangmale ek	12/20/18 14:22
Hexachlorobutadiene		Invalid Compound ID	puangmale ek	12/20/18 14:24
trans-1,3-Dichloropropene		Invalid Compound ID	puangmale ek	12/20/18 14:24
Vinyl chloride		Invalid Compound ID	puangmale ek	12/20/18 14:22
Benzene	10.20	Assign Peak	puangmale ek	12/20/18 14:23
Trichloroethene	11.48	Assign Peak	puangmale ek	12/20/18 14:23
Toluene	14.05	Assign Peak	puangmale ek	12/20/18 14:23
m,p-Xylene	17.41	Assign Peak	puangmale ek	12/20/18 14:24

AIR - GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-46616-1

SDG No.: 200-46616-1

Instrument ID: CHG.i Analysis Batch Number: 138350

Lab Sample ID: 200-46616-2 Client Sample ID: SVE-02

Date Analyzed: 12/20/18 02:27 Lab File ID: 200-33765-018.D GC Column: RTX-624 ID: 0.32 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,1,2,2-Tetrachloroethane		Invalid Compound ID	puangmale ek	12/20/18 15:13
1,1,2-Trichloroethane		Invalid Compound ID	puangmale ek	12/20/18 15:13
1,1-Dichloroethene		Invalid Compound ID	puangmale ek	12/20/18 15:11
1,2,4-Trimethylbenzene		Invalid Compound ID	puangmale ek	12/20/18 15:13
1,2-Dibromoethane		Invalid Compound ID	puangmale ek	12/20/18 15:13
1,2-Dichlorobenzene		Invalid Compound ID	puangmale ek	12/20/18 15:13
1,2-Dichlorotetrafluoroethane		Invalid Compound ID	puangmale ek	12/20/18 15:10
1,3,5-Trimethylbenzene		Invalid Compound ID	puangmale ek	12/20/18 15:13
1,3-Dichlorobenzene		Invalid Compound ID	puangmale ek	12/20/18 15:13
1,4-Dichlorobenzene		Invalid Compound ID	puangmale ek	12/20/18 15:13
Benzene		Invalid Compound ID	puangmale ek	12/20/18 15:11
Bromomethane		Invalid Compound ID	puangmale ek	12/20/18 15:10
Chloroethane		Invalid Compound ID	puangmale ek	12/20/18 15:11
Chloromethane		Invalid Compound ID	puangmale ek	12/20/18 15:10
cis-1,2-Dichloroethene		Invalid Compound ID	puangmale ek	12/20/18 15:11
cis-1,3-Dichloropropene		Invalid Compound ID	puangmale ek	12/20/18 15:12
Ethylbenzene		Invalid Compound ID	puangmale ek	12/20/18 15:13

AIR - GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-46616-1

SDG No.: 200-46616-1

Instrument ID: CHG.i Analysis Batch Number: 138350

Lab Sample ID: 200-46616-2 Client Sample ID: SVE-02

Date Analyzed: 12/20/18 02:27 Lab File ID: 200-33765-018.D GC Column: RTX-624 ID: 0.32 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Hexachlorobutadiene		Invalid Compound ID	puangmale ek	12/20/18 15:10
trans-1,3-Dichloropropene		Invalid Compound ID	puangmale ek	12/20/18 15:13
Vinyl chloride		Invalid Compound ID	puangmale ek	12/20/18 15:10
Xylene, o-		Invalid Compound ID	puangmale ek	12/20/18 15:13
Trichloroethene	11.46	Assign Peak	puangmale ek	12/20/18 15:11
Toluene	14.05	Assign Peak	puangmale ek	12/20/18 15:12

AIR - GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-46616-1

SDG No.: 200-46616-1

Instrument ID: CHG.i Analysis Batch Number: 138350

Lab Sample ID: 200-46616-3 Client Sample ID: SVE-03

Date Analyzed: 12/20/18 03:17 Lab File ID: 200-33765-019.D GC Column: RTX-624 ID: 0.32 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Freon TF	5.59	Assign Peak	puangmale ek	12/20/18 16:15
1,1,2-Trichloroethane		Invalid Compound ID	puangmale ek	12/20/18 16:17
1,1-Dichloroethene		Invalid Compound ID	puangmale ek	12/20/18 16:16
1,2,4-Trichlorobenzene		Invalid Compound ID	puangmale ek	12/20/18 16:18
1,2,4-Trimethylbenzene		Invalid Compound ID	puangmale ek	12/20/18 16:18
1,2-Dichlorobenzene		Invalid Compound ID	puangmale ek	12/20/18 16:18
1,2-Dichlorotetrafluoroethane		Invalid Compound ID	puangmale ek	12/20/18 16:15
1,3,5-Trimethylbenzene		Invalid Compound ID	puangmale ek	12/20/18 16:18
1,3-Dichlorobenzene		Invalid Compound ID	puangmale ek	12/20/18 16:18
1,4-Dichlorobenzene		Invalid Compound ID	puangmale ek	12/20/18 16:18
Bromomethane		Invalid Compound ID	puangmale ek	12/20/18 16:15
Chloroethane		Invalid Compound ID	puangmale ek	12/20/18 16:15
Chloromethane		Invalid Compound ID	puangmale ek	12/20/18 16:15
cis-1,2-Dichloroethene		Invalid Compound ID	puangmale ek	12/20/18 16:16
Ethylbenzene		Invalid Compound ID	puangmale ek	12/20/18 16:17
Hexachlorobutadiene		Invalid Compound ID	puangmale ek	12/20/18 16:14
Vinyl chloride		Invalid Compound ID	puangmale ek	12/20/18 16:15

AIR - GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-46616-1

SDG No.: 200-46616-1

Instrument ID: CHG.i Analysis Batch Number: 138350

Lab Sample ID: 200-46616-3 Client Sample ID: SVE-03

Date Analyzed: 12/20/18 03:17 Lab File ID: 200-33765-019.D GC Column: RTX-624 ID: 0.32 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Trichloroethene	11.47	Assign Peak	puangmale ek	12/20/18 16:16
Toluene	14.05	Assign Peak	puangmale ek	12/20/18 16:16
m,p-Xylene	17.42	Assign Peak	puangmale ek	12/20/18 16:17

AIR - GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-46616-1

SDG No.: 200-46616-1

Instrument ID: CHG.i Analysis Batch Number: 138350

Lab Sample ID: 200-46616-4 Client Sample ID: SVE-04

Date Analyzed: 12/20/18 04:07 Lab File ID: 200-33765-020.D GC Column: RTX-624 ID: 0.32 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Trichlorofluoromethane	4.76	Assign Peak	puangmale ek	12/20/18 17:10
1,1,2,2-Tetrachloroethane		Invalid Compound ID	puangmale ek	12/20/18 17:11
1,1,2-Trichloroethane		Invalid Compound ID	puangmale ek	12/20/18 17:11
1,1-Dichloroethene		Invalid Compound ID	puangmale ek	12/20/18 17:10
1,2,4-Trichlorobenzene		Invalid Compound ID	puangmale ek	12/20/18 17:11
1,2-Dichlorobenzene		Invalid Compound ID	puangmale ek	12/20/18 17:11
1,2-Dichlorotetrafluoroethane		Invalid Compound ID	puangmale ek	12/20/18 17:10
1,3-Dichlorobenzene		Invalid Compound ID	puangmale ek	12/20/18 17:11
1,4-Dichlorobenzene		Invalid Compound ID	puangmale ek	12/20/18 17:11
Bromomethane		Invalid Compound ID	puangmale ek	12/20/18 17:10
Carbon tetrachloride		Invalid Compound ID	puangmale ek	12/20/18 17:10
Chloroethane		Invalid Compound ID	puangmale ek	12/20/18 17:10
Chloromethane		Invalid Compound ID	puangmale ek	12/20/18 17:10
cis-1,2-Dichloroethene		Invalid Compound ID	puangmale ek	12/20/18 17:10
cis-1,3-Dichloropropene		Invalid Compound ID	puangmale ek	12/20/18 17:10
Hexachlorobutadiene		Invalid Compound ID	puangmale ek	12/20/18 17:09
trans-1,3-Dichloropropene		Invalid Compound ID	puangmale ek	12/20/18 17:10

AIR - GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-46616-1

SDG No.: 200-46616-1

Instrument ID: CHG.i Analysis Batch Number: 138350

Lab Sample ID: 200-46616-4 Client Sample ID: SVE-04

Date Analyzed: 12/20/18 04:07 Lab File ID: 200-33765-020.D GC Column: RTX-624 ID: 0.32 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Vinyl chloride		Invalid Compound ID	puangmale ek	12/20/18 17:10

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46616-1

SDG No.: 200-46616-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
ATTO15CAL1w_00197	12/07/18	09/11/18	Nitrogen, Lot 12	15.463 L	ATTO15CAL6w_00158	155 mL	1,1,1-Trichloroethane	0.20044 ppb v/v
							1,1,2,2-Tetrachloroethane	0.20044 ppb v/v
							1,1,2-Trichloroethane	0.20044 ppb v/v
							1,1-Dichloroethane	0.20044 ppb v/v
							1,1-Dichloroethene	0.20044 ppb v/v
							1,2,3-Trichlorobenzene	0.20044 ppb v/v
							1,2,3-Trichloropropane	0.20044 ppb v/v
							1,2,4-Trichlorobenzene	0.20044 ppb v/v
							1,2,4-Trimethylbenzene	0.20044 ppb v/v
							1,2-Dibromoethane	0.20044 ppb v/v
							1,2-Dichlorobenzene	0.20044 ppb v/v
							1,2-Dichloroethane	0.20044 ppb v/v
							1,2-Dichloropropane	0.20044 ppb v/v
							1,2-Dichlorotetrafluoroethane	0.20044 ppb v/v
							1,3,5-Trimethylbenzene	0.20044 ppb v/v
							1,3-Dichlorobenzene	0.20044 ppb v/v
							1,4-Dichlorobenzene	0.20044 ppb v/v
							1,4-Dioxane	0.20044 ppb v/v
							2-Butanone (MEK)	0.20044 ppb v/v
							2-Chlorotoluene	0.20044 ppb v/v
2-Hexanone	0.20044 ppb v/v							
2-Methyl-2-propanol	0.20044 ppb v/v							
2-Methylbutane	0.20044 ppb v/v							
3-Chloro-1-propene	0.20044 ppb v/v							
4-Ethyltoluene	0.20044 ppb v/v							

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46616-1

SDG No.: 200-46616-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Isopropyltoluene	0.20044 ppb v/v
							4-Methyl-2-pentanone (MIBK)	0.20044 ppb v/v
							Acetone	0.20044 ppb v/v
							Acetonitrile	0.20044 ppb v/v
							Acrolein	0.20044 ppb v/v
							Acrylonitrile	0.20044 ppb v/v
							Alpha Methyl Styrene	0.20044 ppb v/v
							Benzene	0.20044 ppb v/v
							Benzyl chloride	0.20044 ppb v/v
							Bromoform	0.20044 ppb v/v
							Bromomethane	0.20044 ppb v/v
							Butadiene	0.20044 ppb v/v
							Butane	0.20044 ppb v/v
							Carbon disulfide	0.20044 ppb v/v
							Carbon tetrachloride	0.20044 ppb v/v
							Chlorobenzene	0.20044 ppb v/v
							Chlorodibromomethane	0.20044 ppb v/v
							Chlorodifluoromethane	0.20044 ppb v/v
							Chloroethane	0.20044 ppb v/v
							Chloroform	0.20044 ppb v/v
							Chloromethane	0.20044 ppb v/v
							cis-1,2-Dichloroethene	0.20044 ppb v/v
							cis-1,3-Dichloropropene	0.20044 ppb v/v
							Cyclohexane	0.20044 ppb v/v
							Dibromomethane	0.20044 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46616-1

SDG No.: 200-46616-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Dichlorobromomethane	0.20044 ppb v/v
							Dichlorodifluoromethane	0.20044 ppb v/v
							Dodecane	0.20044 ppb v/v
							Ethyl acetate	0.20044 ppb v/v
							Ethyl ether	0.20044 ppb v/v
							Ethylbenzene	0.20044 ppb v/v
							Freon TF	0.20044 ppb v/v
							Hexachlorobutadiene	0.20044 ppb v/v
							Hexane	0.20044 ppb v/v
							Isooctane	0.20044 ppb v/v
							Isopropyl alcohol	0.20044 ppb v/v
							Isopropylbenzene	0.20044 ppb v/v
							m,p-Xylene	0.400879 ppb v/v
							Methyl methacrylate	0.20044 ppb v/v
							Methyl tert-butyl ether	0.20044 ppb v/v
							Methylene Chloride	0.20044 ppb v/v
							n-Butanol	0.20044 ppb v/v
							n-Butylbenzene	0.20044 ppb v/v
							n-Decane	0.20044 ppb v/v
							n-Heptane	0.20044 ppb v/v
							n-Nonane	0.20044 ppb v/v
							n-Octane	0.20044 ppb v/v
							N-Propylbenzene	0.20044 ppb v/v
							Naphthalene	0.20044 ppb v/v
							Pentane	0.20044 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46616-1

SDG No.: 200-46616-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Propene	0.20044 ppb v/v
							sec-Butylbenzene	0.20044 ppb v/v
							Styrene	0.20044 ppb v/v
							tert-Butylbenzene	0.20044 ppb v/v
							Tetrachloroethene	0.20044 ppb v/v
							Tetrahydrofuran	0.20044 ppb v/v
							Toluene	0.20044 ppb v/v
							trans-1,2-Dichloroethene	0.20044 ppb v/v
							trans-1,3-Dichloropropene	0.20044 ppb v/v
							Trichloroethene	0.20044 ppb v/v
							Trichlorofluoromethane	0.20044 ppb v/v
							Undecane	0.20044 ppb v/v
							Vinyl acetate	0.20044 ppb v/v
							Vinyl bromide	0.20044 ppb v/v
							Vinyl chloride	0.20044 ppb v/v
							Xylene, o-	0.20044 ppb v/v
							Ethanol	0.400944 ppb v/v
.ATTO15CAL6w_00158	12/07/18	09/11/18	Nitrogen, Lot 1	15.463 L	ATTO15CALSTKi_00103	1546 mL	1,1,1-Trichloroethane	19.9961 ppb v/v
							1,1,2,2-Tetrachloroethane	19.9961 ppb v/v
							1,1,2-Trichloroethane	19.9961 ppb v/v
							1,1-Dichloroethane	19.9961 ppb v/v
							1,1-Dichloroethene	19.9961 ppb v/v
							1,2,3-Trichlorobenzene	19.9961 ppb v/v
							1,2,3-Trichloropropane	19.9961 ppb v/v
							1,2,4-Trichlorobenzene	19.9961 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46616-1

SDG No.: 200-46616-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2,4-Trimethylbenzene	19.9961 ppb v/v
							1,2-Dibromoethane	19.9961 ppb v/v
							1,2-Dichlorobenzene	19.9961 ppb v/v
							1,2-Dichloroethane	19.9961 ppb v/v
							1,2-Dichloropropane	19.9961 ppb v/v
							1,2-Dichlorotetrafluoroethane	19.9961 ppb v/v
							1,3,5-Trimethylbenzene	19.9961 ppb v/v
							1,3-Dichlorobenzene	19.9961 ppb v/v
							1,4-Dichlorobenzene	19.9961 ppb v/v
							1,4-Dioxane	19.9961 ppb v/v
							2-Butanone (MEK)	19.9961 ppb v/v
							2-Chlorotoluene	19.9961 ppb v/v
							2-Hexanone	19.9961 ppb v/v
							2-Methyl-2-propanol	19.9961 ppb v/v
							2-Methylbutane	19.9961 ppb v/v
							3-Chloro-1-propene	19.9961 ppb v/v
							4-Ethyltoluene	19.9961 ppb v/v
							4-Isopropyltoluene	19.9961 ppb v/v
							4-Methyl-2-pentanone (MIBK)	19.9961 ppb v/v
							Acetone	19.9961 ppb v/v
							Acetonitrile	19.9961 ppb v/v
							Acrolein	19.9961 ppb v/v
							Acrylonitrile	19.9961 ppb v/v
							Alpha Methyl Styrene	19.9961 ppb v/v
							Benzene	19.9961 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46616-1

SDG No.: 200-46616-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Benzyl chloride	19.9961 ppb v/v
							Bromoform	19.9961 ppb v/v
							Bromomethane	19.9961 ppb v/v
							Butadiene	19.9961 ppb v/v
							Butane	19.9961 ppb v/v
							Carbon disulfide	19.9961 ppb v/v
							Carbon tetrachloride	19.9961 ppb v/v
							Chlorobenzene	19.9961 ppb v/v
							Chlorodibromomethane	19.9961 ppb v/v
							Chlorodifluoromethane	19.9961 ppb v/v
							Chloroethane	19.9961 ppb v/v
							Chloroform	19.9961 ppb v/v
							Chloromethane	19.9961 ppb v/v
							cis-1,2-Dichloroethene	19.9961 ppb v/v
							cis-1,3-Dichloropropene	19.9961 ppb v/v
							Cyclohexane	19.9961 ppb v/v
							Dibromomethane	19.9961 ppb v/v
							Dichlorobromomethane	19.9961 ppb v/v
							Dichlorodifluoromethane	19.9961 ppb v/v
							Dodecane	19.9961 ppb v/v
							Ethyl acetate	19.9961 ppb v/v
							Ethyl ether	19.9961 ppb v/v
							Ethylbenzene	19.9961 ppb v/v
							Freon TF	19.9961 ppb v/v
							Hexachlorobutadiene	19.9961 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46616-1

SDG No.: 200-46616-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Hexane	19.9961 ppb v/v
							Isooctane	19.9961 ppb v/v
							Isopropyl alcohol	19.9961 ppb v/v
							Isopropylbenzene	19.9961 ppb v/v
							m,p-Xylene	39.9922 ppb v/v
							Methyl methacrylate	19.9961 ppb v/v
							Methyl tert-butyl ether	19.9961 ppb v/v
							Methylene Chloride	19.9961 ppb v/v
							n-Butanol	19.9961 ppb v/v
							n-Butylbenzene	19.9961 ppb v/v
							n-Decane	19.9961 ppb v/v
							n-Heptane	19.9961 ppb v/v
							n-Nonane	19.9961 ppb v/v
							n-Octane	19.9961 ppb v/v
							N-Propylbenzene	19.9961 ppb v/v
							Naphthalene	19.9961 ppb v/v
							Pentane	19.9961 ppb v/v
							Propene	19.9961 ppb v/v
							sec-Butylbenzene	19.9961 ppb v/v
							Styrene	19.9961 ppb v/v
							tert-Butylbenzene	19.9961 ppb v/v
							Tetrachloroethene	19.9961 ppb v/v
							Tetrahydrofuran	19.9961 ppb v/v
							Toluene	19.9961 ppb v/v
							trans-1,2-Dichloroethene	19.9961 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46616-1

SDG No.: 200-46616-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							trans-1,3-Dichloropropene	19.9961 ppb v/v
							Trichloroethene	19.9961 ppb v/v
							Trichlorofluoromethane	19.9961 ppb v/v
							Undecane	19.9961 ppb v/v
							Vinyl acetate	19.9961 ppb v/v
							Vinyl bromide	19.9961 ppb v/v
							Vinyl chloride	19.9961 ppb v/v
							Xylene, o-	19.9961 ppb v/v
					ATTO15EthCALw_00098	1237 mL	Ethanol	39.9987 ppb v/v
..ATTO15CALSTKi_00103	12/07/18	09/07/18	Nitrogen, Lot 13	37.5 L	ATTO15CALs_00031	7500 mL	1,1,1-Trichloroethane	200 ppb v/v
							1,1,2,2-Tetrachloroethane	200 ppb v/v
							1,1,2-Trichloroethane	200 ppb v/v
							1,1-Dichloroethane	200 ppb v/v
							1,1-Dichloroethene	200 ppb v/v
							1,2,3-Trichlorobenzene	200 ppb v/v
							1,2,3-Trichloropropane	200 ppb v/v
							1,2,4-Trichlorobenzene	200 ppb v/v
							1,2,4-Trimethylbenzene	200 ppb v/v
							1,2-Dibromoethane	200 ppb v/v
							1,2-Dichlorobenzene	200 ppb v/v
							1,2-Dichloroethane	200 ppb v/v
							1,2-Dichloropropane	200 ppb v/v
							1,2-Dichlorotetrafluoroethane	200 ppb v/v
							1,3,5-Trimethylbenzene	200 ppb v/v
							1,3-Dichlorobenzene	200 ppb v/v
							1,4-Dichlorobenzene	200 ppb v/v
							1,4-Dioxane	200 ppb v/v
							2-Butanone (MEK)	200 ppb v/v
							2-Chlorotoluene	200 ppb v/v
							2-Hexanone	200 ppb v/v
							2-Methyl-2-propanol	200 ppb v/v
							2-Methylbutane	200 ppb v/v
							3-Chloro-1-propene	200 ppb v/v
							4-Ethyltoluene	200 ppb v/v
							4-Isopropyltoluene	200 ppb v/v
							4-Methyl-2-pentanone (MIBK)	200 ppb v/v
							Acetone	200 ppb v/v
							Acetonitrile	200 ppb v/v
							Acrolein	200 ppb v/v
							Acrylonitrile	200 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46616-1

SDG No.: 200-46616-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Alpha Methyl Styrene	200 ppb v/v
							Benzene	200 ppb v/v
							Benzyl chloride	200 ppb v/v
							Bromoform	200 ppb v/v
							Bromomethane	200 ppb v/v
							Butadiene	200 ppb v/v
							Butane	200 ppb v/v
							Carbon disulfide	200 ppb v/v
							Carbon tetrachloride	200 ppb v/v
							Chlorobenzene	200 ppb v/v
							Chlorodibromomethane	200 ppb v/v
							Chlorodifluoromethane	200 ppb v/v
							Chloroethane	200 ppb v/v
							Chloroform	200 ppb v/v
							Chloromethane	200 ppb v/v
							cis-1,2-Dichloroethene	200 ppb v/v
							cis-1,3-Dichloropropene	200 ppb v/v
							Cyclohexane	200 ppb v/v
							Dibromomethane	200 ppb v/v
							Dichlorobromomethane	200 ppb v/v
							Dichlorodifluoromethane	200 ppb v/v
							Dodecane	200 ppb v/v
							Ethyl acetate	200 ppb v/v
							Ethyl ether	200 ppb v/v
							Ethylbenzene	200 ppb v/v
							Freon TF	200 ppb v/v
							Hexachlorobutadiene	200 ppb v/v
							Hexane	200 ppb v/v
							Isooctane	200 ppb v/v
							Isopropyl alcohol	200 ppb v/v
							Isopropylbenzene	200 ppb v/v
							m,p-Xylene	400 ppb v/v
							Methyl methacrylate	200 ppb v/v
							Methyl tert-butyl ether	200 ppb v/v
							Methylene Chloride	200 ppb v/v
							n-Butanol	200 ppb v/v
							n-Butylbenzene	200 ppb v/v
							n-Decane	200 ppb v/v
							n-Heptane	200 ppb v/v
							n-Nonane	200 ppb v/v
							n-Octane	200 ppb v/v
							N-Propylbenzene	200 ppb v/v
							Naphthalene	200 ppb v/v
							Pentane	200 ppb v/v
							Propene	200 ppb v/v
							sec-Butylbenzene	200 ppb v/v
							Styrene	200 ppb v/v
							tert-Butylbenzene	200 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46616-1

SDG No.: 200-46616-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Tetrachloroethene	200 ppb v/v
							Tetrahydrofuran	200 ppb v/v
							Toluene	200 ppb v/v
							trans-1,2-Dichloroethene	200 ppb v/v
							trans-1,3-Dichloropropene	200 ppb v/v
							Trichloroethene	200 ppb v/v
							Trichlorofluoromethane	200 ppb v/v
							Undecane	200 ppb v/v
							Vinyl acetate	200 ppb v/v
							Vinyl bromide	200 ppb v/v
							Vinyl chloride	200 ppb v/v
							Xylene, o-	200 ppb v/v
...ATTO15CALs_00031	02/01/19		Linde, Lot CC-133603		(Purchased Reagent)		1,1,1-Trichloroethane	1 ppm v/v
							1,1,2,2-Tetrachloroethane	1 ppm v/v
							1,1,2-Trichloroethane	1 ppm v/v
							1,1-Dichloroethane	1 ppm v/v
							1,1-Dichloroethene	1 ppm v/v
							1,2,3-Trichlorobenzene	1 ppm v/v
							1,2,3-Trichloropropane	1 ppm v/v
							1,2,4-Trichlorobenzene	1 ppm v/v
							1,2,4-Trimethylbenzene	1 ppm v/v
							1,2-Dibromoethane	1 ppm v/v
							1,2-Dichlorobenzene	1 ppm v/v
							1,2-Dichloroethane	1 ppm v/v
							1,2-Dichloropropane	1 ppm v/v
							1,2-Dichlorotetrafluoroethane	1 ppm v/v
							1,3,5-Trimethylbenzene	1 ppm v/v
							1,3-Dichlorobenzene	1 ppm v/v
							1,4-Dichlorobenzene	1 ppm v/v
							1,4-Dioxane	1 ppm v/v
							2-Butanone (MEK)	1 ppm v/v
							2-Chlorotoluene	1 ppm v/v
							2-Hexanone	1 ppm v/v
							2-Methyl-2-propanol	1 ppm v/v
							2-Methylbutane	1 ppm v/v
							3-Chloro-1-propene	1 ppm v/v
							4-Ethyltoluene	1 ppm v/v
							4-Isopropyltoluene	1 ppm v/v
							4-Methyl-2-pentanone (MIBK)	1 ppm v/v
							Acetone	1 ppm v/v
							Acetonitrile	1 ppm v/v
							Acrolein	1 ppm v/v
							Acrylonitrile	1 ppm v/v
							Alpha Methyl Styrene	1 ppm v/v
							Benzene	1 ppm v/v
							Benzyl chloride	1 ppm v/v
							Bromoform	1 ppm v/v
							Bromomethane	1 ppm v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46616-1

SDG No.: 200-46616-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Butadiene	1 ppm v/v
							Butane	1 ppm v/v
							Carbon disulfide	1 ppm v/v
							Carbon tetrachloride	1 ppm v/v
							Chlorobenzene	1 ppm v/v
							Chlorodibromomethane	1 ppm v/v
							Chlorodifluoromethane	1 ppm v/v
							Chloroethane	1 ppm v/v
							Chloroform	1 ppm v/v
							Chloromethane	1 ppm v/v
							cis-1,2-Dichloroethene	1 ppm v/v
							cis-1,3-Dichloropropene	1 ppm v/v
							Cyclohexane	1 ppm v/v
							Dibromomethane	1 ppm v/v
							Dichlorobromomethane	1 ppm v/v
							Dichlorodifluoromethane	1 ppm v/v
							Dodecane	1 ppm v/v
							Ethyl acetate	1 ppm v/v
							Ethyl ether	1 ppm v/v
							Ethylbenzene	1 ppm v/v
							Freon TF	1 ppm v/v
							Hexachlorobutadiene	1 ppm v/v
							Hexane	1 ppm v/v
							Isooctane	1 ppm v/v
							Isopropyl alcohol	1 ppm v/v
							Isopropylbenzene	1 ppm v/v
							m,p-Xylene	2 ppm v/v
							Methyl methacrylate	1 ppm v/v
							Methyl tert-butyl ether	1 ppm v/v
							Methylene Chloride	1 ppm v/v
							n-Butanol	1 ppm v/v
							n-Butylbenzene	1 ppm v/v
							n-Decane	1 ppm v/v
							n-Heptane	1 ppm v/v
							n-Nonane	1 ppm v/v
							n-Octane	1 ppm v/v
							N-Propylbenzene	1 ppm v/v
							Naphthalene	1 ppm v/v
							Pentane	1 ppm v/v
							Propene	1 ppm v/v
							sec-Butylbenzene	1 ppm v/v
							Styrene	1 ppm v/v
							tert-Butylbenzene	1 ppm v/v
							Tetrachloroethene	1 ppm v/v
							Tetrahydrofuran	1 ppm v/v
							Toluene	1 ppm v/v
							trans-1,2-Dichloroethene	1 ppm v/v
							trans-1,3-Dichloropropene	1 ppm v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46616-1

SDG No.: 200-46616-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Trichloroethene	1 ppm v/v
							Trichlorofluoromethane	1 ppm v/v
							Undecane	1 ppm v/v
							Vinyl acetate	1 ppm v/v
							Vinyl bromide	1 ppm v/v
							Vinyl chloride	1 ppm v/v
							Xylene, o-	1 ppm v/v
..ATTO15EthCALw_00098	12/10/18	09/10/18	Nitrogen, Lot 12	37.5 ppb	ATTO15EthCALs_00009	18.75 uL	Ethanol	500 ppb v/v
...ATTO15EthCALs_00009	09/05/21		Chem Service, Lot 5301900		(Purchased Reagent)		Ethanol	1 mL/mL
ATTO15CAL2w_00271	12/07/18	09/11/18	Nitrogen, Lot 12	15.463 L	ATTO15CAL6w_00158	387 mL	1,1,1-Trichloroethane	0.500453 ppb v/v
							1,1,2,2-Tetrachloroethane	0.500453 ppb v/v
							1,1,2-Trichloroethane	0.500453 ppb v/v
							1,1-Dichloroethane	0.500453 ppb v/v
							1,1-Dichloroethene	0.500453 ppb v/v
							1,2,3-Trichlorobenzene	0.500453 ppb v/v
							1,2,3-Trichloropropane	0.500453 ppb v/v
							1,2,4-Trichlorobenzene	0.500453 ppb v/v
							1,2,4-Trimethylbenzene	0.500453 ppb v/v
							1,2-Dibromoethane	0.500453 ppb v/v
							1,2-Dichlorobenzene	0.500453 ppb v/v
							1,2-Dichloroethane	0.500453 ppb v/v
							1,2-Dichloropropane	0.500453 ppb v/v
							1,2-Dichlorotetrafluoroethane	0.500453 ppb v/v
							1,3,5-Trimethylbenzene	0.500453 ppb v/v
							1,3-Dichlorobenzene	0.500453 ppb v/v
							1,4-Dichlorobenzene	0.500453 ppb v/v
							1,4-Dioxane	0.500453 ppb v/v
							2-Butanone (MEK)	0.500453 ppb v/v
							2-Chlorotoluene	0.500453 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46616-1

SDG No.: 200-46616-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Hexanone	0.500453 ppb v/v
							2-Methyl-2-propanol	0.500453 ppb v/v
							2-Methylbutane	0.500453 ppb v/v
							3-Chloro-1-propene	0.500453 ppb v/v
							4-Ethyltoluene	0.500453 ppb v/v
							4-Isopropyltoluene	0.500453 ppb v/v
							4-Methyl-2-pentanone (MIBK)	0.500453 ppb v/v
							Acetone	0.500453 ppb v/v
							Acetonitrile	0.500453 ppb v/v
							Acrolein	0.500453 ppb v/v
							Acrylonitrile	0.500453 ppb v/v
							Alpha Methyl Styrene	0.500453 ppb v/v
							Benzene	0.500453 ppb v/v
							Benzyl chloride	0.500453 ppb v/v
							Bromoform	0.500453 ppb v/v
							Bromomethane	0.500453 ppb v/v
							Butadiene	0.500453 ppb v/v
							Butane	0.500453 ppb v/v
							Carbon disulfide	0.500453 ppb v/v
							Carbon tetrachloride	0.500453 ppb v/v
							Chlorobenzene	0.500453 ppb v/v
							Chlorodibromomethane	0.500453 ppb v/v
							Chlorodifluoromethane	0.500453 ppb v/v
							Chloroethane	0.500453 ppb v/v
							Chloroform	0.500453 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46616-1

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Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Chloromethane	0.500453 ppb v/v
							cis-1,2-Dichloroethene	0.500453 ppb v/v
							cis-1,3-Dichloropropene	0.500453 ppb v/v
							Cyclohexane	0.500453 ppb v/v
							Dibromomethane	0.500453 ppb v/v
							Dichlorobromomethane	0.500453 ppb v/v
							Dichlorodifluoromethane	0.500453 ppb v/v
							Dodecane	0.500453 ppb v/v
							Ethyl acetate	0.500453 ppb v/v
							Ethyl ether	0.500453 ppb v/v
							Ethylbenzene	0.500453 ppb v/v
							Freon TF	0.500453 ppb v/v
							Hexachlorobutadiene	0.500453 ppb v/v
							Hexane	0.500453 ppb v/v
							Isooctane	0.500453 ppb v/v
							Isopropyl alcohol	0.500453 ppb v/v
							Isopropylbenzene	0.500453 ppb v/v
							m,p-Xylene	1.00091 ppb v/v
							Methyl methacrylate	0.500453 ppb v/v
							Methyl tert-butyl ether	0.500453 ppb v/v
							Methylene Chloride	0.500453 ppb v/v
							n-Butanol	0.500453 ppb v/v
							n-Butylbenzene	0.500453 ppb v/v
							n-Decane	0.500453 ppb v/v
							n-Heptane	0.500453 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46616-1

SDG No.: 200-46616-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							n-Nonane	0.500453 ppb v/v
							n-Octane	0.500453 ppb v/v
							N-Propylbenzene	0.500453 ppb v/v
							Naphthalene	0.500453 ppb v/v
							Pentane	0.500453 ppb v/v
							Propene	0.500453 ppb v/v
							sec-Butylbenzene	0.500453 ppb v/v
							Styrene	0.500453 ppb v/v
							tert-Butylbenzene	0.500453 ppb v/v
							Tetrachloroethene	0.500453 ppb v/v
							Tetrahydrofuran	0.500453 ppb v/v
							Toluene	0.500453 ppb v/v
							trans-1,2-Dichloroethene	0.500453 ppb v/v
							trans-1,3-Dichloropropene	0.500453 ppb v/v
							Trichloroethene	0.500453 ppb v/v
							Trichlorofluoromethane	0.500453 ppb v/v
							Undecane	0.500453 ppb v/v
							Vinyl acetate	0.500453 ppb v/v
							Vinyl bromide	0.500453 ppb v/v
							Vinyl chloride	0.500453 ppb v/v
							Xylene, o-	0.500453 ppb v/v
							Ethanol	5.01064 ppb v/v
					ATTO15EthCALw_00098	124 mL	Ethanol	5.01064 ppb v/v
.ATTO15CAL6w_00158	12/07/18	09/11/18	Nitrogen, Lot 1	15.463 L	ATTO15CALSTKi_00103	1546 mL	1,1,1-Trichloroethane	19.9961 ppb v/v
							1,1,2,2-Tetrachloroethane	19.9961 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46616-1

SDG No.: 200-46616-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,1,2-Trichloroethane	19.9961 ppb v/v
							1,1-Dichloroethane	19.9961 ppb v/v
							1,1-Dichloroethene	19.9961 ppb v/v
							1,2,3-Trichlorobenzene	19.9961 ppb v/v
							1,2,3-Trichloropropane	19.9961 ppb v/v
							1,2,4-Trichlorobenzene	19.9961 ppb v/v
							1,2,4-Trimethylbenzene	19.9961 ppb v/v
							1,2-Dibromoethane	19.9961 ppb v/v
							1,2-Dichlorobenzene	19.9961 ppb v/v
							1,2-Dichloroethane	19.9961 ppb v/v
							1,2-Dichloropropane	19.9961 ppb v/v
							1,2-Dichlorotetrafluoroethane	19.9961 ppb v/v
							1,3,5-Trimethylbenzene	19.9961 ppb v/v
							1,3-Dichlorobenzene	19.9961 ppb v/v
							1,4-Dichlorobenzene	19.9961 ppb v/v
							1,4-Dioxane	19.9961 ppb v/v
							2-Butanone (MEK)	19.9961 ppb v/v
							2-Chlorotoluene	19.9961 ppb v/v
							2-Hexanone	19.9961 ppb v/v
							2-Methyl-2-propanol	19.9961 ppb v/v
							2-Methylbutane	19.9961 ppb v/v
							3-Chloro-1-propene	19.9961 ppb v/v
							4-Ethyltoluene	19.9961 ppb v/v
							4-Isopropyltoluene	19.9961 ppb v/v
							4-Methyl-2-pentanone (MIBK)	19.9961 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46616-1

SDG No.: 200-46616-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Acetone	19.9961 ppb v/v
							Acetonitrile	19.9961 ppb v/v
							Acrolein	19.9961 ppb v/v
							Acrylonitrile	19.9961 ppb v/v
							Alpha Methyl Styrene	19.9961 ppb v/v
							Benzene	19.9961 ppb v/v
							Benzyl chloride	19.9961 ppb v/v
							Bromoform	19.9961 ppb v/v
							Bromomethane	19.9961 ppb v/v
							Butadiene	19.9961 ppb v/v
							Butane	19.9961 ppb v/v
							Carbon disulfide	19.9961 ppb v/v
							Carbon tetrachloride	19.9961 ppb v/v
							Chlorobenzene	19.9961 ppb v/v
							Chlorodibromomethane	19.9961 ppb v/v
							Chlorodifluoromethane	19.9961 ppb v/v
							Chloroethane	19.9961 ppb v/v
							Chloroform	19.9961 ppb v/v
							Chloromethane	19.9961 ppb v/v
							cis-1,2-Dichloroethene	19.9961 ppb v/v
							cis-1,3-Dichloropropene	19.9961 ppb v/v
							Cyclohexane	19.9961 ppb v/v
							Dibromomethane	19.9961 ppb v/v
							Dichlorobromomethane	19.9961 ppb v/v
							Dichlorodifluoromethane	19.9961 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46616-1

SDG No.: 200-46616-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Dodecane	19.9961 ppb v/v
							Ethyl acetate	19.9961 ppb v/v
							Ethyl ether	19.9961 ppb v/v
							Ethylbenzene	19.9961 ppb v/v
							Freon TF	19.9961 ppb v/v
							Hexachlorobutadiene	19.9961 ppb v/v
							Hexane	19.9961 ppb v/v
							Isooctane	19.9961 ppb v/v
							Isopropyl alcohol	19.9961 ppb v/v
							Isopropylbenzene	19.9961 ppb v/v
							m,p-Xylene	39.9922 ppb v/v
							Methyl methacrylate	19.9961 ppb v/v
							Methyl tert-butyl ether	19.9961 ppb v/v
							Methylene Chloride	19.9961 ppb v/v
							n-Butanol	19.9961 ppb v/v
							n-Butylbenzene	19.9961 ppb v/v
							n-Decane	19.9961 ppb v/v
							n-Heptane	19.9961 ppb v/v
							n-Nonane	19.9961 ppb v/v
							n-Octane	19.9961 ppb v/v
							N-Propylbenzene	19.9961 ppb v/v
							Naphthalene	19.9961 ppb v/v
							Pentane	19.9961 ppb v/v
							Propene	19.9961 ppb v/v
							sec-Butylbenzene	19.9961 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46616-1

SDG No.: 200-46616-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Styrene	19.9961 ppb v/v
							tert-Butylbenzene	19.9961 ppb v/v
							Tetrachloroethene	19.9961 ppb v/v
							Tetrahydrofuran	19.9961 ppb v/v
							Toluene	19.9961 ppb v/v
							trans-1,2-Dichloroethene	19.9961 ppb v/v
							trans-1,3-Dichloropropene	19.9961 ppb v/v
							Trichloroethene	19.9961 ppb v/v
							Trichlorofluoromethane	19.9961 ppb v/v
							Undecane	19.9961 ppb v/v
							Vinyl acetate	19.9961 ppb v/v
							Vinyl bromide	19.9961 ppb v/v
							Vinyl chloride	19.9961 ppb v/v
							Xylene, o-	19.9961 ppb v/v
					ATTO15EthCALw_00098	1237 mL	Ethanol	39.9987 ppb v/v
..ATTO15CALSTKi_00103	12/07/18	09/07/18	Nitrogen, Lot 13	37.5 L	ATTO15CALs_00031	7500 mL	1,1,1-Trichloroethane	200 ppb v/v
							1,1,2,2-Tetrachloroethane	200 ppb v/v
							1,1,2-Trichloroethane	200 ppb v/v
							1,1-Dichloroethane	200 ppb v/v
							1,1-Dichloroethene	200 ppb v/v
							1,2,3-Trichlorobenzene	200 ppb v/v
							1,2,3-Trichloropropane	200 ppb v/v
							1,2,4-Trichlorobenzene	200 ppb v/v
							1,2,4-Trimethylbenzene	200 ppb v/v
							1,2-Dibromoethane	200 ppb v/v
							1,2-Dichlorobenzene	200 ppb v/v
							1,2-Dichloroethane	200 ppb v/v
							1,2-Dichloropropane	200 ppb v/v
							1,2-Dichlorotetrafluoroethane	200 ppb v/v
							1,3,5-Trimethylbenzene	200 ppb v/v
							1,3-Dichlorobenzene	200 ppb v/v
							1,4-Dichlorobenzene	200 ppb v/v
							1,4-Dioxane	200 ppb v/v
							2-Butanone (MEK)	200 ppb v/v
							2-Chlorotoluene	200 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46616-1

SDG No.: 200-46616-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Hexanone	200 ppb v/v
							2-Methyl-2-propanol	200 ppb v/v
							2-Methylbutane	200 ppb v/v
							3-Chloro-1-propene	200 ppb v/v
							4-Ethyltoluene	200 ppb v/v
							4-Isopropyltoluene	200 ppb v/v
							4-Methyl-2-pentanone (MIBK)	200 ppb v/v
							Acetone	200 ppb v/v
							Acetonitrile	200 ppb v/v
							Acrolein	200 ppb v/v
							Acrylonitrile	200 ppb v/v
							Alpha Methyl Styrene	200 ppb v/v
							Benzene	200 ppb v/v
							Benzyl chloride	200 ppb v/v
							Bromoform	200 ppb v/v
							Bromomethane	200 ppb v/v
							Butadiene	200 ppb v/v
							Butane	200 ppb v/v
							Carbon disulfide	200 ppb v/v
							Carbon tetrachloride	200 ppb v/v
							Chlorobenzene	200 ppb v/v
							Chlorodibromomethane	200 ppb v/v
							Chlorodifluoromethane	200 ppb v/v
							Chloroethane	200 ppb v/v
							Chloroform	200 ppb v/v
							Chloromethane	200 ppb v/v
							cis-1,2-Dichloroethene	200 ppb v/v
							cis-1,3-Dichloropropene	200 ppb v/v
							Cyclohexane	200 ppb v/v
							Dibromomethane	200 ppb v/v
							Dichlorobromomethane	200 ppb v/v
							Dichlorodifluoromethane	200 ppb v/v
							Dodecane	200 ppb v/v
							Ethyl acetate	200 ppb v/v
							Ethyl ether	200 ppb v/v
							Ethylbenzene	200 ppb v/v
							Freon TF	200 ppb v/v
							Hexachlorobutadiene	200 ppb v/v
							Hexane	200 ppb v/v
							Isooctane	200 ppb v/v
							Isopropyl alcohol	200 ppb v/v
							Isopropylbenzene	200 ppb v/v
							m,p-Xylene	400 ppb v/v
							Methyl methacrylate	200 ppb v/v
							Methyl tert-butyl ether	200 ppb v/v
							Methylene Chloride	200 ppb v/v
							n-Butanol	200 ppb v/v
							n-Butylbenzene	200 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46616-1

SDG No.: 200-46616-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							n-Decane	200 ppb v/v
							n-Heptane	200 ppb v/v
							n-Nonane	200 ppb v/v
							n-Octane	200 ppb v/v
							N-Propylbenzene	200 ppb v/v
							Naphthalene	200 ppb v/v
							Pentane	200 ppb v/v
							Propene	200 ppb v/v
							sec-Butylbenzene	200 ppb v/v
							Styrene	200 ppb v/v
							tert-Butylbenzene	200 ppb v/v
							Tetrachloroethene	200 ppb v/v
							Tetrahydrofuran	200 ppb v/v
							Toluene	200 ppb v/v
							trans-1,2-Dichloroethene	200 ppb v/v
							trans-1,3-Dichloropropene	200 ppb v/v
							Trichloroethene	200 ppb v/v
							Trichlorofluoromethane	200 ppb v/v
							Undecane	200 ppb v/v
							Vinyl acetate	200 ppb v/v
							Vinyl bromide	200 ppb v/v
							Vinyl chloride	200 ppb v/v
							Xylene, o-	200 ppb v/v
...ATTO15CALs_00031	02/01/19		Linde, Lot CC-133603			(Purchased Reagent)	1,1,1-Trichloroethane	1 ppm v/v
							1,1,2,2-Tetrachloroethane	1 ppm v/v
							1,1,2-Trichloroethane	1 ppm v/v
							1,1-Dichloroethane	1 ppm v/v
							1,1-Dichloroethene	1 ppm v/v
							1,2,3-Trichlorobenzene	1 ppm v/v
							1,2,3-Trichloropropene	1 ppm v/v
							1,2,4-Trichlorobenzene	1 ppm v/v
							1,2,4-Trimethylbenzene	1 ppm v/v
							1,2-Dibromoethane	1 ppm v/v
							1,2-Dichlorobenzene	1 ppm v/v
							1,2-Dichloroethane	1 ppm v/v
							1,2-Dichloropropene	1 ppm v/v
							1,2-Dichlorotetrafluoroethane	1 ppm v/v
							1,3,5-Trimethylbenzene	1 ppm v/v
							1,3-Dichlorobenzene	1 ppm v/v
							1,4-Dichlorobenzene	1 ppm v/v
							1,4-Dioxane	1 ppm v/v
							2-Butanone (MEK)	1 ppm v/v
							2-Chlorotoluene	1 ppm v/v
							2-Hexanone	1 ppm v/v
							2-Methyl-2-propanol	1 ppm v/v
							2-Methylbutane	1 ppm v/v
							3-Chloro-1-propene	1 ppm v/v
							4-Ethyltoluene	1 ppm v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46616-1

SDG No.: 200-46616-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Isopropyltoluene	1 ppm v/v
							4-Methyl-2-pentanone (MIBK)	1 ppm v/v
							Acetone	1 ppm v/v
							Acetonitrile	1 ppm v/v
							Acrolein	1 ppm v/v
							Acrylonitrile	1 ppm v/v
							Alpha Methyl Styrene	1 ppm v/v
							Benzene	1 ppm v/v
							Benzyl chloride	1 ppm v/v
							Bromoform	1 ppm v/v
							Bromomethane	1 ppm v/v
							Butadiene	1 ppm v/v
							Butane	1 ppm v/v
							Carbon disulfide	1 ppm v/v
							Carbon tetrachloride	1 ppm v/v
							Chlorobenzene	1 ppm v/v
							Chlorodibromomethane	1 ppm v/v
							Chlorodifluoromethane	1 ppm v/v
							Chloroethane	1 ppm v/v
							Chloroform	1 ppm v/v
							Chloromethane	1 ppm v/v
							cis-1,2-Dichloroethene	1 ppm v/v
							cis-1,3-Dichloropropene	1 ppm v/v
							Cyclohexane	1 ppm v/v
							Dibromomethane	1 ppm v/v
							Dichlorobromomethane	1 ppm v/v
							Dichlorodifluoromethane	1 ppm v/v
							Dodecane	1 ppm v/v
							Ethyl acetate	1 ppm v/v
							Ethyl ether	1 ppm v/v
							Ethylbenzene	1 ppm v/v
							Freon TF	1 ppm v/v
							Hexachlorobutadiene	1 ppm v/v
							Hexane	1 ppm v/v
							Isooctane	1 ppm v/v
							Isopropyl alcohol	1 ppm v/v
							Isopropylbenzene	1 ppm v/v
							m,p-Xylene	2 ppm v/v
							Methyl methacrylate	1 ppm v/v
							Methyl tert-butyl ether	1 ppm v/v
							Methylene Chloride	1 ppm v/v
							n-Butanol	1 ppm v/v
							n-Butylbenzene	1 ppm v/v
							n-Decane	1 ppm v/v
							n-Heptane	1 ppm v/v
							n-Nonane	1 ppm v/v
							n-Octane	1 ppm v/v
							N-Propylbenzene	1 ppm v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46616-1

SDG No.: 200-46616-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Naphthalene	1 ppm v/v
							Pentane	1 ppm v/v
							Propene	1 ppm v/v
							sec-Butylbenzene	1 ppm v/v
							Styrene	1 ppm v/v
							tert-Butylbenzene	1 ppm v/v
							Tetrachloroethene	1 ppm v/v
							Tetrahydrofuran	1 ppm v/v
							Toluene	1 ppm v/v
							trans-1,2-Dichloroethene	1 ppm v/v
							trans-1,3-Dichloropropene	1 ppm v/v
							Trichloroethene	1 ppm v/v
							Trichlorofluoromethane	1 ppm v/v
							Undecane	1 ppm v/v
							Vinyl acetate	1 ppm v/v
							Vinyl bromide	1 ppm v/v
							Vinyl chloride	1 ppm v/v
							Xylene, o-	1 ppm v/v
..ATTO15EthCALw_00098	12/10/18	09/10/18	Nitrogen, Lot 12	37.5 ppb	ATTO15EthCALs_00009	18.75 uL	Ethanol	500 ppb v/v
..ATTO15EthCALs_00009	09/05/21		Chem Service, Lot 5301900		(Purchased Reagent)		Ethanol	1 mL/mL
.ATTO15EthCALw_00098	12/10/18	09/10/18	Nitrogen, Lot 12	37.5 ppb	ATTO15EthCALs_00009	18.75 uL	Ethanol	500 ppb v/v
..ATTO15EthCALs_00009	09/05/21		Chem Service, Lot 5301900		(Purchased Reagent)		Ethanol	1 mL/mL
ATTO15CAL3w_00206	12/07/18	09/10/18	Nitrogen, Lot 12	15.463 L	ATTO15CALSTKi_00103	386 mL	1,1,1-Trichloroethane	4.99256 ppb v/v
							1,1,2,2-Tetrachloroethane	4.99256 ppb v/v
							1,1,2-Trichloroethane	4.99256 ppb v/v
							1,1-Dichloroethane	4.99256 ppb v/v
							1,1-Dichloroethene	4.99256 ppb v/v
							1,2,3-Trichlorobenzene	4.99256 ppb v/v
							1,2,3-Trichloropropane	4.99256 ppb v/v
							1,2,4-Trichlorobenzene	4.99256 ppb v/v
							1,2,4-Trimethylbenzene	4.99256 ppb v/v
							1,2-Dibromoethane	4.99256 ppb v/v
							1,2-Dichlorobenzene	4.99256 ppb v/v
							1,2-Dichloroethane	4.99256 ppb v/v
							1,2-Dichloropropane	4.99256 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46616-1

SDG No.: 200-46616-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2-Dichlorotetrafluoroethane	4.99256 ppb v/v
							1,3,5-Trimethylbenzene	4.99256 ppb v/v
							1,3-Dichlorobenzene	4.99256 ppb v/v
							1,4-Dichlorobenzene	4.99256 ppb v/v
							1,4-Dioxane	4.99256 ppb v/v
							2-Butanone (MEK)	4.99256 ppb v/v
							2-Chlorotoluene	4.99256 ppb v/v
							2-Hexanone	4.99256 ppb v/v
							2-Methyl-2-propanol	4.99256 ppb v/v
							2-Methylbutane	4.99256 ppb v/v
							3-Chloro-1-propene	4.99256 ppb v/v
							4-Ethyltoluene	4.99256 ppb v/v
							4-Isopropyltoluene	4.99256 ppb v/v
							4-Methyl-2-pentanone (MIBK)	4.99256 ppb v/v
							Acetone	4.99256 ppb v/v
							Acetonitrile	4.99256 ppb v/v
							Acrolein	4.99256 ppb v/v
							Acrylonitrile	4.99256 ppb v/v
							Alpha Methyl Styrene	4.99256 ppb v/v
							Benzene	4.99256 ppb v/v
							Benzyl chloride	4.99256 ppb v/v
							Bromoform	4.99256 ppb v/v
							Bromomethane	4.99256 ppb v/v
							Butadiene	4.99256 ppb v/v
							Butane	4.99256 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46616-1

SDG No.: 200-46616-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Carbon disulfide	4.99256 ppb v/v
							Carbon tetrachloride	4.99256 ppb v/v
							Chlorobenzene	4.99256 ppb v/v
							Chlorodibromomethane	4.99256 ppb v/v
							Chlorodifluoromethane	4.99256 ppb v/v
							Chloroethane	4.99256 ppb v/v
							Chloroform	4.99256 ppb v/v
							Chloromethane	4.99256 ppb v/v
							cis-1,2-Dichloroethene	4.99256 ppb v/v
							cis-1,3-Dichloropropene	4.99256 ppb v/v
							Cyclohexane	4.99256 ppb v/v
							Dibromomethane	4.99256 ppb v/v
							Dichlorobromomethane	4.99256 ppb v/v
							Dichlorodifluoromethane	4.99256 ppb v/v
							Dodecane	4.99256 ppb v/v
							Ethyl acetate	4.99256 ppb v/v
							Ethyl ether	4.99256 ppb v/v
							Ethylbenzene	4.99256 ppb v/v
							Freon TF	4.99256 ppb v/v
							Hexachlorobutadiene	4.99256 ppb v/v
							Hexane	4.99256 ppb v/v
							Isooctane	4.99256 ppb v/v
							Isopropyl alcohol	4.99256 ppb v/v
							Isopropylbenzene	4.99256 ppb v/v
							m,p-Xylene	9.98513 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46616-1

SDG No.: 200-46616-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Methyl methacrylate	4.99256 ppb v/v
							Methyl tert-butyl ether	4.99256 ppb v/v
							Methylene Chloride	4.99256 ppb v/v
							n-Butanol	4.99256 ppb v/v
							n-Butylbenzene	4.99256 ppb v/v
							n-Decane	4.99256 ppb v/v
							n-Heptane	4.99256 ppb v/v
							n-Nonane	4.99256 ppb v/v
							n-Octane	4.99256 ppb v/v
							N-Propylbenzene	4.99256 ppb v/v
							Naphthalene	4.99256 ppb v/v
							Pentane	4.99256 ppb v/v
							Propene	4.99256 ppb v/v
							sec-Butylbenzene	4.99256 ppb v/v
							Styrene	4.99256 ppb v/v
							tert-Butylbenzene	4.99256 ppb v/v
							Tetrachloroethene	4.99256 ppb v/v
							Tetrahydrofuran	4.99256 ppb v/v
							Toluene	4.99256 ppb v/v
							trans-1,2-Dichloroethene	4.99256 ppb v/v
							trans-1,3-Dichloropropene	4.99256 ppb v/v
							Trichloroethene	4.99256 ppb v/v
							Trichlorofluoromethane	4.99256 ppb v/v
							Undecane	4.99256 ppb v/v
							Vinyl acetate	4.99256 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46616-1

SDG No.: 200-46616-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Vinyl bromide	4.99256 ppb v/v
							Vinyl chloride	4.99256 ppb v/v
							Xylene, o-	4.99256 ppb v/v
					ATTO15EthCALw_00098	309 mL	Ethanol	9.99159 ppb v/v
.ATTO15CALSTKi_00103	12/07/18	09/07/18	Nitrogen, Lot 13	37.5 L	ATTO15CALs_00031	7500 mL	1,1,1-Trichloroethane	200 ppb v/v
							1,1,2,2-Tetrachloroethane	200 ppb v/v
							1,1,2-Trichloroethane	200 ppb v/v
							1,1-Dichloroethane	200 ppb v/v
							1,1-Dichloroethene	200 ppb v/v
							1,2,3-Trichlorobenzene	200 ppb v/v
							1,2,3-Trichloropropane	200 ppb v/v
							1,2,4-Trichlorobenzene	200 ppb v/v
							1,2,4-Trimethylbenzene	200 ppb v/v
							1,2-Dibromoethane	200 ppb v/v
							1,2-Dichlorobenzene	200 ppb v/v
							1,2-Dichloroethane	200 ppb v/v
							1,2-Dichloropropane	200 ppb v/v
							1,2-Dichlorotetrafluoroethane	200 ppb v/v
							1,3,5-Trimethylbenzene	200 ppb v/v
							1,3-Dichlorobenzene	200 ppb v/v
							1,4-Dichlorobenzene	200 ppb v/v
							1,4-Dioxane	200 ppb v/v
							2-Butanone (MEK)	200 ppb v/v
							2-Chlorotoluene	200 ppb v/v
							2-Hexanone	200 ppb v/v
							2-Methyl-2-propanol	200 ppb v/v
							2-Methylbutane	200 ppb v/v
							3-Chloro-1-propene	200 ppb v/v
							4-Ethyltoluene	200 ppb v/v
							4-Isopropyltoluene	200 ppb v/v
							4-Methyl-2-pentanone (MIBK)	200 ppb v/v
							Acetone	200 ppb v/v
							Acetonitrile	200 ppb v/v
							Acrolein	200 ppb v/v
							Acrylonitrile	200 ppb v/v
							Alpha Methyl Styrene	200 ppb v/v
							Benzene	200 ppb v/v
							Benzyl chloride	200 ppb v/v
							Bromoform	200 ppb v/v
							Bromomethane	200 ppb v/v
							Butadiene	200 ppb v/v
							Butane	200 ppb v/v
							Carbon disulfide	200 ppb v/v
							Carbon tetrachloride	200 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46616-1

SDG No.: 200-46616-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Chlorobenzene	200 ppb v/v
							Chlorodibromomethane	200 ppb v/v
							Chlorodifluoromethane	200 ppb v/v
							Chloroethane	200 ppb v/v
							Chloroform	200 ppb v/v
							Chloromethane	200 ppb v/v
							cis-1,2-Dichloroethene	200 ppb v/v
							cis-1,3-Dichloropropene	200 ppb v/v
							Cyclohexane	200 ppb v/v
							Dibromomethane	200 ppb v/v
							Dichlorobromomethane	200 ppb v/v
							Dichlorodifluoromethane	200 ppb v/v
							Dodecane	200 ppb v/v
							Ethyl acetate	200 ppb v/v
							Ethyl ether	200 ppb v/v
							Ethylbenzene	200 ppb v/v
							Freon TF	200 ppb v/v
							Hexachlorobutadiene	200 ppb v/v
							Hexane	200 ppb v/v
							Isooctane	200 ppb v/v
							Isopropyl alcohol	200 ppb v/v
							Isopropylbenzene	200 ppb v/v
							m,p-Xylene	400 ppb v/v
							Methyl methacrylate	200 ppb v/v
							Methyl tert-butyl ether	200 ppb v/v
							Methylene Chloride	200 ppb v/v
							n-Butanol	200 ppb v/v
							n-Butylbenzene	200 ppb v/v
							n-Decane	200 ppb v/v
							n-Heptane	200 ppb v/v
							n-Nonane	200 ppb v/v
							n-Octane	200 ppb v/v
							N-Propylbenzene	200 ppb v/v
							Naphthalene	200 ppb v/v
							Pentane	200 ppb v/v
							Propene	200 ppb v/v
							sec-Butylbenzene	200 ppb v/v
							Styrene	200 ppb v/v
							tert-Butylbenzene	200 ppb v/v
							Tetrachloroethene	200 ppb v/v
							Tetrahydrofuran	200 ppb v/v
							Toluene	200 ppb v/v
							trans-1,2-Dichloroethene	200 ppb v/v
							trans-1,3-Dichloropropene	200 ppb v/v
							Trichloroethene	200 ppb v/v
							Trichlorofluoromethane	200 ppb v/v
							Undecane	200 ppb v/v
							Vinyl acetate	200 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46616-1

SDG No.: 200-46616-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Vinyl bromide	200 ppb v/v
							Vinyl chloride	200 ppb v/v
							Xylene, o-	200 ppb v/v
..ATTO15CALs_00031	02/01/19		Linde, Lot CC-133603			(Purchased Reagent)	1,1,1-Trichloroethane	1 ppm v/v
							1,1,2,2-Tetrachloroethane	1 ppm v/v
							1,1,2-Trichloroethane	1 ppm v/v
							1,1-Dichloroethane	1 ppm v/v
							1,1-Dichloroethene	1 ppm v/v
							1,2,3-Trichlorobenzene	1 ppm v/v
							1,2,3-Trichloropropane	1 ppm v/v
							1,2,4-Trichlorobenzene	1 ppm v/v
							1,2,4-Trimethylbenzene	1 ppm v/v
							1,2-Dibromoethane	1 ppm v/v
							1,2-Dichlorobenzene	1 ppm v/v
							1,2-Dichloroethane	1 ppm v/v
							1,2-Dichloropropane	1 ppm v/v
							1,2-Dichlorotetrafluoroethane	1 ppm v/v
							1,3,5-Trimethylbenzene	1 ppm v/v
							1,3-Dichlorobenzene	1 ppm v/v
							1,4-Dichlorobenzene	1 ppm v/v
							1,4-Dioxane	1 ppm v/v
							2-Butanone (MEK)	1 ppm v/v
							2-Chlorotoluene	1 ppm v/v
							2-Hexanone	1 ppm v/v
							2-Methyl-2-propanol	1 ppm v/v
							2-Methylbutane	1 ppm v/v
							3-Chloro-1-propene	1 ppm v/v
							4-Ethyltoluene	1 ppm v/v
							4-Isopropyltoluene	1 ppm v/v
							4-Methyl-2-pentanone (MIBK)	1 ppm v/v
							Acetone	1 ppm v/v
							Acetonitrile	1 ppm v/v
							Acrolein	1 ppm v/v
							Acrylonitrile	1 ppm v/v
							Alpha Methyl Styrene	1 ppm v/v
							Benzene	1 ppm v/v
							Benzyl chloride	1 ppm v/v
							Bromoform	1 ppm v/v
							Bromomethane	1 ppm v/v
							Butadiene	1 ppm v/v
							Butane	1 ppm v/v
							Carbon disulfide	1 ppm v/v
							Carbon tetrachloride	1 ppm v/v
							Chlorobenzene	1 ppm v/v
							Chlorodibromomethane	1 ppm v/v
							Chlorodifluoromethane	1 ppm v/v
							Chloroethane	1 ppm v/v
							Chloroform	1 ppm v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46616-1

SDG No.: 200-46616-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Chloromethane	1 ppm v/v
							cis-1,2-Dichloroethene	1 ppm v/v
							cis-1,3-Dichloropropene	1 ppm v/v
							Cyclohexane	1 ppm v/v
							Dibromomethane	1 ppm v/v
							Dichlorobromomethane	1 ppm v/v
							Dichlorodifluoromethane	1 ppm v/v
							Dodecane	1 ppm v/v
							Ethyl acetate	1 ppm v/v
							Ethyl ether	1 ppm v/v
							Ethylbenzene	1 ppm v/v
							Freon TF	1 ppm v/v
							Hexachlorobutadiene	1 ppm v/v
							Hexane	1 ppm v/v
							Isooctane	1 ppm v/v
							Isopropyl alcohol	1 ppm v/v
							Isopropylbenzene	1 ppm v/v
							m,p-Xylene	2 ppm v/v
							Methyl methacrylate	1 ppm v/v
							Methyl tert-butyl ether	1 ppm v/v
							Methylene Chloride	1 ppm v/v
							n-Butanol	1 ppm v/v
							n-Butylbenzene	1 ppm v/v
							n-Decane	1 ppm v/v
							n-Heptane	1 ppm v/v
							n-Nonane	1 ppm v/v
							n-Octane	1 ppm v/v
							N-Propylbenzene	1 ppm v/v
							Naphthalene	1 ppm v/v
							Pentane	1 ppm v/v
							Propene	1 ppm v/v
							sec-Butylbenzene	1 ppm v/v
							Styrene	1 ppm v/v
							tert-Butylbenzene	1 ppm v/v
							Tetrachloroethene	1 ppm v/v
							Tetrahydrofuran	1 ppm v/v
							Toluene	1 ppm v/v
							trans-1,2-Dichloroethene	1 ppm v/v
							trans-1,3-Dichloropropene	1 ppm v/v
							Trichloroethene	1 ppm v/v
							Trichlorofluoromethane	1 ppm v/v
							Undecane	1 ppm v/v
							Vinyl acetate	1 ppm v/v
							Vinyl bromide	1 ppm v/v
							Vinyl chloride	1 ppm v/v
							Xylene, o-	1 ppm v/v
.ATTO15EthCALw 00098	12/10/18	09/10/18	Nitrogen, Lot 12	37.5 ppb	ATTO15EthCALs 00009	18.75 uL	Ethanol	500 ppb v/v
..ATTO15EthCALs 00009	09/05/21		Chem Service, Lot 5301900		(Purchased Reagent)		Ethanol	1 mL/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46616-1

SDG No.: 200-46616-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
ATTO15CAL4w_00706	12/07/18	09/10/18	Nitrogen, Lot 12	15.463 L	ATTO15CALSTKi_00103	773 mL	1,1,1-Trichloroethane	9.99806 ppb v/v
							1,1,2,2-Tetrachloroethane	9.99806 ppb v/v
							1,1,2-Trichloroethane	9.99806 ppb v/v
							1,1-Dichloroethane	9.99806 ppb v/v
							1,1-Dichloroethene	9.99806 ppb v/v
							1,2,3-Trichlorobenzene	9.99806 ppb v/v
							1,2,3-Trichloropropane	9.99806 ppb v/v
							1,2,4-Trichlorobenzene	9.99806 ppb v/v
							1,2,4-Trimethylbenzene	9.99806 ppb v/v
							1,2-Dibromoethane	9.99806 ppb v/v
							1,2-Dichlorobenzene	9.99806 ppb v/v
							1,2-Dichloroethane	9.99806 ppb v/v
							1,2-Dichloropropane	9.99806 ppb v/v
							1,2-Dichlorotetrafluoroethane	9.99806 ppb v/v
							1,3,5-Trimethylbenzene	9.99806 ppb v/v
							1,3-Dichlorobenzene	9.99806 ppb v/v
							1,4-Dichlorobenzene	9.99806 ppb v/v
							1,4-Dioxane	9.99806 ppb v/v
							2-Butanone (MEK)	9.99806 ppb v/v
							2-Chlorotoluene	9.99806 ppb v/v
2-Hexanone	9.99806 ppb v/v							
2-Methyl-2-propanol	9.99806 ppb v/v							
2-Methylbutane	9.99806 ppb v/v							
3-Chloro-1-propene	9.99806 ppb v/v							
4-Ethyltoluene	9.99806 ppb v/v							

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46616-1

SDG No.: 200-46616-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Isopropyltoluene	9.99806 ppb v/v
							4-Methyl-2-pentanone (MIBK)	9.99806 ppb v/v
							Acetone	9.99806 ppb v/v
							Acetonitrile	9.99806 ppb v/v
							Acrolein	9.99806 ppb v/v
							Acrylonitrile	9.99806 ppb v/v
							Alpha Methyl Styrene	9.99806 ppb v/v
							Benzene	9.99806 ppb v/v
							Benzyl chloride	9.99806 ppb v/v
							Bromoform	9.99806 ppb v/v
							Bromomethane	9.99806 ppb v/v
							Butadiene	9.99806 ppb v/v
							Butane	9.99806 ppb v/v
							Carbon disulfide	9.99806 ppb v/v
							Carbon tetrachloride	9.99806 ppb v/v
							Chlorobenzene	9.99806 ppb v/v
							Chlorodibromomethane	9.99806 ppb v/v
							Chlorodifluoromethane	9.99806 ppb v/v
							Chloroethane	9.99806 ppb v/v
							Chloroform	9.99806 ppb v/v
							Chloromethane	9.99806 ppb v/v
							cis-1,2-Dichloroethene	9.99806 ppb v/v
							cis-1,3-Dichloropropene	9.99806 ppb v/v
							Cyclohexane	9.99806 ppb v/v
							Dibromomethane	9.99806 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46616-1

SDG No.: 200-46616-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Dichlorobromomethane	9.99806 ppb v/v
							Dichlorodifluoromethane	9.99806 ppb v/v
							Dodecane	9.99806 ppb v/v
							Ethyl acetate	9.99806 ppb v/v
							Ethyl ether	9.99806 ppb v/v
							Ethylbenzene	9.99806 ppb v/v
							Freon TF	9.99806 ppb v/v
							Hexachlorobutadiene	9.99806 ppb v/v
							Hexane	9.99806 ppb v/v
							Isooctane	9.99806 ppb v/v
							Isopropyl alcohol	9.99806 ppb v/v
							Isopropylbenzene	9.99806 ppb v/v
							m,p-Xylene	19.9961 ppb v/v
							Methyl methacrylate	9.99806 ppb v/v
							Methyl tert-butyl ether	9.99806 ppb v/v
							Methylene Chloride	9.99806 ppb v/v
							n-Butanol	9.99806 ppb v/v
							n-Butylbenzene	9.99806 ppb v/v
							n-Decane	9.99806 ppb v/v
							n-Heptane	9.99806 ppb v/v
							n-Nonane	9.99806 ppb v/v
							n-Octane	9.99806 ppb v/v
							N-Propylbenzene	9.99806 ppb v/v
							Naphthalene	9.99806 ppb v/v
							Pentane	9.99806 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46616-1

SDG No.: 200-46616-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Propene	9.99806 ppb v/v
							sec-Butylbenzene	9.99806 ppb v/v
							Styrene	9.99806 ppb v/v
							tert-Butylbenzene	9.99806 ppb v/v
							Tetrachloroethene	9.99806 ppb v/v
							Tetrahydrofuran	9.99806 ppb v/v
							Toluene	9.99806 ppb v/v
							trans-1,2-Dichloroethene	9.99806 ppb v/v
							trans-1,3-Dichloropropene	9.99806 ppb v/v
							Trichloroethene	9.99806 ppb v/v
							Trichlorofluoromethane	9.99806 ppb v/v
							Undecane	9.99806 ppb v/v
							Vinyl acetate	9.99806 ppb v/v
							Vinyl bromide	9.99806 ppb v/v
							Vinyl chloride	9.99806 ppb v/v
							Xylene, o-	9.99806 ppb v/v
					ATTO15EthCALw_00098	464 mL	Ethanol	15.0036 ppb v/v
.ATTO15CALSTKi_00103	12/07/18	09/07/18	Nitrogen, Lot 13	37.5 L	ATTO15CALs_00031	7500 mL	1,1,1-Trichloroethane	200 ppb v/v
							1,1,2,2-Tetrachloroethane	200 ppb v/v
							1,1,2-Trichloroethane	200 ppb v/v
							1,1-Dichloroethane	200 ppb v/v
							1,1-Dichloroethene	200 ppb v/v
							1,2,3-Trichlorobenzene	200 ppb v/v
							1,2,3-Trichloropropane	200 ppb v/v
							1,2,4-Trichlorobenzene	200 ppb v/v
							1,2,4-Trimethylbenzene	200 ppb v/v
							1,2-Dibromoethane	200 ppb v/v
							1,2-Dichlorobenzene	200 ppb v/v
							1,2-Dichloroethane	200 ppb v/v
							1,2-Dichloropropane	200 ppb v/v
							1,2-Dichlorotetrafluoroethane	200 ppb v/v
							1,3,5-Trimethylbenzene	200 ppb v/v
							1,3-Dichlorobenzene	200 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46616-1

SDG No.: 200-46616-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,4-Dichlorobenzene	200 ppb v/v
							1,4-Dioxane	200 ppb v/v
							2-Butanone (MEK)	200 ppb v/v
							2-Chlorotoluene	200 ppb v/v
							2-Hexanone	200 ppb v/v
							2-Methyl-2-propanol	200 ppb v/v
							2-Methylbutane	200 ppb v/v
							3-Chloro-1-propene	200 ppb v/v
							4-Ethyltoluene	200 ppb v/v
							4-Isopropyltoluene	200 ppb v/v
							4-Methyl-2-pentanone (MIBK)	200 ppb v/v
							Acetone	200 ppb v/v
							Acetonitrile	200 ppb v/v
							Acrolein	200 ppb v/v
							Acrylonitrile	200 ppb v/v
							Alpha Methyl Styrene	200 ppb v/v
							Benzene	200 ppb v/v
							Benzyl chloride	200 ppb v/v
							Bromoform	200 ppb v/v
							Bromomethane	200 ppb v/v
							Butadiene	200 ppb v/v
							Butane	200 ppb v/v
							Carbon disulfide	200 ppb v/v
							Carbon tetrachloride	200 ppb v/v
							Chlorobenzene	200 ppb v/v
							Chlorodibromomethane	200 ppb v/v
							Chlorodifluoromethane	200 ppb v/v
							Chloroethane	200 ppb v/v
							Chloroform	200 ppb v/v
							Chloromethane	200 ppb v/v
							cis-1,2-Dichloroethene	200 ppb v/v
							cis-1,3-Dichloropropene	200 ppb v/v
							Cyclohexane	200 ppb v/v
							Dibromomethane	200 ppb v/v
							Dichlorobromomethane	200 ppb v/v
							Dichlorodifluoromethane	200 ppb v/v
							Dodecane	200 ppb v/v
							Ethyl acetate	200 ppb v/v
							Ethyl ether	200 ppb v/v
							Ethylbenzene	200 ppb v/v
							Freon TF	200 ppb v/v
							Hexachlorobutadiene	200 ppb v/v
							Hexane	200 ppb v/v
							Isooctane	200 ppb v/v
							Isopropyl alcohol	200 ppb v/v
							Isopropylbenzene	200 ppb v/v
							m,p-Xylene	400 ppb v/v
							Methyl methacrylate	200 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46616-1

SDG No.: 200-46616-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Methyl tert-butyl ether	200 ppb v/v
							Methylene Chloride	200 ppb v/v
							n-Butanol	200 ppb v/v
							n-Butylbenzene	200 ppb v/v
							n-Decane	200 ppb v/v
							n-Heptane	200 ppb v/v
							n-Nonane	200 ppb v/v
							n-Octane	200 ppb v/v
							N-Propylbenzene	200 ppb v/v
							Naphthalene	200 ppb v/v
							Pentane	200 ppb v/v
							Propene	200 ppb v/v
							sec-Butylbenzene	200 ppb v/v
							Styrene	200 ppb v/v
							tert-Butylbenzene	200 ppb v/v
							Tetrachloroethene	200 ppb v/v
							Tetrahydrofuran	200 ppb v/v
							Toluene	200 ppb v/v
							trans-1,2-Dichloroethene	200 ppb v/v
							trans-1,3-Dichloropropene	200 ppb v/v
							Trichloroethene	200 ppb v/v
							Trichlorofluoromethane	200 ppb v/v
							Undecane	200 ppb v/v
							Vinyl acetate	200 ppb v/v
							Vinyl bromide	200 ppb v/v
							Vinyl chloride	200 ppb v/v
							Xylene, o-	200 ppb v/v
..ATTO15CALs_00031	02/01/19		Linde, Lot CC-133603			(Purchased Reagent)	1,1,1-Trichloroethane	1 ppm v/v
							1,1,2,2-Tetrachloroethane	1 ppm v/v
							1,1,2-Trichloroethane	1 ppm v/v
							1,1-Dichloroethane	1 ppm v/v
							1,1-Dichloroethene	1 ppm v/v
							1,2,3-Trichlorobenzene	1 ppm v/v
							1,2,3-Trichloropropane	1 ppm v/v
							1,2,4-Trichlorobenzene	1 ppm v/v
							1,2,4-Trimethylbenzene	1 ppm v/v
							1,2-Dibromoethane	1 ppm v/v
							1,2-Dichlorobenzene	1 ppm v/v
							1,2-Dichloroethane	1 ppm v/v
							1,2-Dichloropropene	1 ppm v/v
							1,2-Dichlorotetrafluoroethane	1 ppm v/v
							1,3,5-Trimethylbenzene	1 ppm v/v
							1,3-Dichlorobenzene	1 ppm v/v
							1,4-Dichlorobenzene	1 ppm v/v
							1,4-Dioxane	1 ppm v/v
							2-Butanone (MEK)	1 ppm v/v
							2-Chlorotoluene	1 ppm v/v
							2-Hexanone	1 ppm v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46616-1

SDG No.: 200-46616-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Methyl-2-propanol	1 ppm v/v
							2-Methylbutane	1 ppm v/v
							3-Chloro-1-propene	1 ppm v/v
							4-Ethyltoluene	1 ppm v/v
							4-Isopropyltoluene	1 ppm v/v
							4-Methyl-2-pentanone (MIBK)	1 ppm v/v
							Acetone	1 ppm v/v
							Acetonitrile	1 ppm v/v
							Acrolein	1 ppm v/v
							Acrylonitrile	1 ppm v/v
							Alpha Methyl Styrene	1 ppm v/v
							Benzene	1 ppm v/v
							Benzyl chloride	1 ppm v/v
							Bromoform	1 ppm v/v
							Bromomethane	1 ppm v/v
							Butadiene	1 ppm v/v
							Butane	1 ppm v/v
							Carbon disulfide	1 ppm v/v
							Carbon tetrachloride	1 ppm v/v
							Chlorobenzene	1 ppm v/v
							Chlorodibromomethane	1 ppm v/v
							Chlorodifluoromethane	1 ppm v/v
							Chloroethane	1 ppm v/v
							Chloroform	1 ppm v/v
							Chloromethane	1 ppm v/v
							cis-1,2-Dichloroethene	1 ppm v/v
							cis-1,3-Dichloropropene	1 ppm v/v
							Cyclohexane	1 ppm v/v
							Dibromomethane	1 ppm v/v
							Dichlorobromomethane	1 ppm v/v
							Dichlorodifluoromethane	1 ppm v/v
							Dodecane	1 ppm v/v
							Ethyl acetate	1 ppm v/v
							Ethyl ether	1 ppm v/v
							Ethylbenzene	1 ppm v/v
							Freon TF	1 ppm v/v
							Hexachlorobutadiene	1 ppm v/v
							Hexane	1 ppm v/v
							Isooctane	1 ppm v/v
							Isopropyl alcohol	1 ppm v/v
							Isopropylbenzene	1 ppm v/v
							m,p-Xylene	2 ppm v/v
							Methyl methacrylate	1 ppm v/v
							Methyl tert-butyl ether	1 ppm v/v
							Methylene Chloride	1 ppm v/v
							n-Butanol	1 ppm v/v
							n-Butylbenzene	1 ppm v/v
							n-Decane	1 ppm v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46616-1

SDG No.: 200-46616-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							n-Heptane	1 ppm v/v
							n-Nonane	1 ppm v/v
							n-Octane	1 ppm v/v
							N-Propylbenzene	1 ppm v/v
							Naphthalene	1 ppm v/v
							Pentane	1 ppm v/v
							Propene	1 ppm v/v
							sec-Butylbenzene	1 ppm v/v
							Styrene	1 ppm v/v
							tert-Butylbenzene	1 ppm v/v
							Tetrachloroethene	1 ppm v/v
							Tetrahydrofuran	1 ppm v/v
							Toluene	1 ppm v/v
							trans-1,2-Dichloroethene	1 ppm v/v
							trans-1,3-Dichloropropene	1 ppm v/v
							Trichloroethene	1 ppm v/v
							Trichlorofluoromethane	1 ppm v/v
							Undecane	1 ppm v/v
							Vinyl acetate	1 ppm v/v
							Vinyl bromide	1 ppm v/v
							Vinyl chloride	1 ppm v/v
							Xylene, o-	1 ppm v/v
.ATTO15EthCALw_00098	12/10/18	09/10/18	Nitrogen, Lot 12	37.5 ppb	ATTO15EthCALs_00009	18.75 uL	Ethanol	500 ppb v/v
..ATTO15EthCALs_00009	09/05/21		Chem Service, Lot 5301900		(Purchased Reagent)		Ethanol	1 mL/mL
ATTO15CAL4w_00713	01/01/19	10/04/18	Nitrogen, Lot 12	15.463 L	ATTO15CALSTKi_00105	773 mL	1,1,1-Trichloroethane	9.99806 ppb v/v
							1,1,2,2-Tetrachloroethane	9.99806 ppb v/v
							1,1,2-Trichloroethane	9.99806 ppb v/v
							1,1-Dichloroethane	9.99806 ppb v/v
							1,1-Dichloroethene	9.99806 ppb v/v
							1,2,4-Trichlorobenzene	9.99806 ppb v/v
							1,2,4-Trimethylbenzene	9.99806 ppb v/v
							1,2-Dibromoethane	9.99806 ppb v/v
							1,2-Dichlorobenzene	9.99806 ppb v/v
							1,2-Dichloroethane	9.99806 ppb v/v
							1,2-Dichloropropane	9.99806 ppb v/v
							1,2-Dichlorotetrafluoroethane	9.99806 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46616-1

SDG No.: 200-46616-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,3,5-Trimethylbenzene	9.99806 ppb v/v
							1,3-Dichlorobenzene	9.99806 ppb v/v
							1,4-Dichlorobenzene	9.99806 ppb v/v
							Benzene	9.99806 ppb v/v
							Bromomethane	9.99806 ppb v/v
							Carbon tetrachloride	9.99806 ppb v/v
							Chlorobenzene	9.99806 ppb v/v
							Chloroethane	9.99806 ppb v/v
							Chloroform	9.99806 ppb v/v
							Chloromethane	9.99806 ppb v/v
							cis-1,2-Dichloroethene	9.99806 ppb v/v
							cis-1,3-Dichloropropene	9.99806 ppb v/v
							Dichlorodifluoromethane	9.99806 ppb v/v
							Ethylbenzene	9.99806 ppb v/v
							Freon TF	9.99806 ppb v/v
							Hexachlorobutadiene	9.99806 ppb v/v
							m,p-Xylene	19.9961 ppb v/v
							Methylene Chloride	9.99806 ppb v/v
							Styrene	9.99806 ppb v/v
							Tetrachloroethene	9.99806 ppb v/v
							Toluene	9.99806 ppb v/v
							trans-1,3-Dichloropropene	9.99806 ppb v/v
							Trichloroethene	9.99806 ppb v/v
							Trichlorofluoromethane	9.99806 ppb v/v
							Vinyl chloride	9.99806 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46616-1

SDG No.: 200-46616-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Xylene, o-	9.99806 ppb v/v
.ATTO15CALSTKi_00105	01/01/19	10/01/18	Nitrogen, Lot 13	37.5 L	ATTO15CALs_00031	7500 mL	1,1,1-Trichloroethane	200 ppb v/v
							1,1,2,2-Tetrachloroethane	200 ppb v/v
							1,1,2-Trichloroethane	200 ppb v/v
							1,1-Dichloroethane	200 ppb v/v
							1,1-Dichloroethene	200 ppb v/v
							1,2,4-Trichlorobenzene	200 ppb v/v
							1,2,4-Trimethylbenzene	200 ppb v/v
							1,2-Dibromoethane	200 ppb v/v
							1,2-Dichlorobenzene	200 ppb v/v
							1,2-Dichloroethane	200 ppb v/v
							1,2-Dichloropropane	200 ppb v/v
							1,2-Dichlorotetrafluoroethane	200 ppb v/v
							1,3,5-Trimethylbenzene	200 ppb v/v
							1,3-Dichlorobenzene	200 ppb v/v
							1,4-Dichlorobenzene	200 ppb v/v
							Benzene	200 ppb v/v
							Bromomethane	200 ppb v/v
							Carbon tetrachloride	200 ppb v/v
							Chlorobenzene	200 ppb v/v
							Chloroethane	200 ppb v/v
							Chloroform	200 ppb v/v
							Chloromethane	200 ppb v/v
							cis-1,2-Dichloroethene	200 ppb v/v
							cis-1,3-Dichloropropene	200 ppb v/v
							Dichlorodifluoromethane	200 ppb v/v
							Ethylbenzene	200 ppb v/v
							Freon TF	200 ppb v/v
							Hexachlorobutadiene	200 ppb v/v
							m,p-Xylene	400 ppb v/v
							Methylene Chloride	200 ppb v/v
Styrene	200 ppb v/v							
Tetrachloroethene	200 ppb v/v							
Toluene	200 ppb v/v							
trans-1,3-Dichloropropene	200 ppb v/v							
Trichloroethene	200 ppb v/v							
Trichlorofluoromethane	200 ppb v/v							
Vinyl chloride	200 ppb v/v							
Xylene, o-	200 ppb v/v							
..ATTO15CALs_00031	02/01/19		Linde, Lot CC-133603		(Purchased Reagent)		1,1,1-Trichloroethane	1 ppm v/v
							1,1,2,2-Tetrachloroethane	1 ppm v/v
							1,1,2-Trichloroethane	1 ppm v/v
							1,1-Dichloroethane	1 ppm v/v
							1,1-Dichloroethene	1 ppm v/v
							1,2,4-Trichlorobenzene	1 ppm v/v
							1,2,4-Trimethylbenzene	1 ppm v/v
							1,2-Dibromoethane	1 ppm v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46616-1

SDG No.: 200-46616-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2-Dichlorobenzene	1 ppm v/v
							1,2-Dichloroethane	1 ppm v/v
							1,2-Dichloropropane	1 ppm v/v
							1,2-Dichlorotetrafluoroethane	1 ppm v/v
							1,3,5-Trimethylbenzene	1 ppm v/v
							1,3-Dichlorobenzene	1 ppm v/v
							1,4-Dichlorobenzene	1 ppm v/v
							Benzene	1 ppm v/v
							Bromomethane	1 ppm v/v
							Carbon tetrachloride	1 ppm v/v
							Chlorobenzene	1 ppm v/v
							Chloroethane	1 ppm v/v
							Chloroform	1 ppm v/v
							Chloromethane	1 ppm v/v
							cis-1,2-Dichloroethene	1 ppm v/v
							cis-1,3-Dichloropropene	1 ppm v/v
							Dichlorodifluoromethane	1 ppm v/v
							Ethylbenzene	1 ppm v/v
							Freon TF	1 ppm v/v
							Hexachlorobutadiene	1 ppm v/v
							m,p-Xylene	2 ppm v/v
							Methylene Chloride	1 ppm v/v
							Styrene	1 ppm v/v
							Tetrachloroethene	1 ppm v/v
							Toluene	1 ppm v/v
							trans-1,3-Dichloropropene	1 ppm v/v
							Trichloroethene	1 ppm v/v
							Trichlorofluoromethane	1 ppm v/v
							Vinyl chloride	1 ppm v/v
							Xylene, o-	1 ppm v/v
ATTO15CAL5w_00076	12/07/18	09/10/18	Nitrogen, Lot 12	15.463 L	ATTO15CALSTKi_00103	1160 mL	1,1,1-Trichloroethane	15.0036 ppb v/v
							1,1,2,2-Tetrachloroethane	15.0036 ppb v/v
							1,1,2-Trichloroethane	15.0036 ppb v/v
							1,1-Dichloroethane	15.0036 ppb v/v
							1,1-Dichloroethene	15.0036 ppb v/v
							1,2,3-Trichlorobenzene	15.0036 ppb v/v
							1,2,3-Trichloropropane	15.0036 ppb v/v
							1,2,4-Trichlorobenzene	15.0036 ppb v/v
							1,2,4-Trimethylbenzene	15.0036 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46616-1

SDG No.: 200-46616-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2-Dibromoethane	15.0036 ppb v/v
							1,2-Dichlorobenzene	15.0036 ppb v/v
							1,2-Dichloroethane	15.0036 ppb v/v
							1,2-Dichloropropane	15.0036 ppb v/v
							1,2-Dichlorotetrafluoroethane	15.0036 ppb v/v
							1,3,5-Trimethylbenzene	15.0036 ppb v/v
							1,3-Dichlorobenzene	15.0036 ppb v/v
							1,4-Dichlorobenzene	15.0036 ppb v/v
							1,4-Dioxane	15.0036 ppb v/v
							2-Butanone (MEK)	15.0036 ppb v/v
							2-Chlorotoluene	15.0036 ppb v/v
							2-Hexanone	15.0036 ppb v/v
							2-Methyl-2-propanol	15.0036 ppb v/v
							2-Methylbutane	15.0036 ppb v/v
							3-Chloro-1-propene	15.0036 ppb v/v
							4-Ethyltoluene	15.0036 ppb v/v
							4-Isopropyltoluene	15.0036 ppb v/v
							4-Methyl-2-pentanone (MIBK)	15.0036 ppb v/v
							Acetone	15.0036 ppb v/v
							Acetonitrile	15.0036 ppb v/v
							Acrolein	15.0036 ppb v/v
							Acrylonitrile	15.0036 ppb v/v
							Alpha Methyl Styrene	15.0036 ppb v/v
							Benzene	15.0036 ppb v/v
							Benzyl chloride	15.0036 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46616-1

SDG No.: 200-46616-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Bromoform	15.0036 ppb v/v
							Bromomethane	15.0036 ppb v/v
							Butadiene	15.0036 ppb v/v
							Butane	15.0036 ppb v/v
							Carbon disulfide	15.0036 ppb v/v
							Carbon tetrachloride	15.0036 ppb v/v
							Chlorobenzene	15.0036 ppb v/v
							Chlorodibromomethane	15.0036 ppb v/v
							Chlorodifluoromethane	15.0036 ppb v/v
							Chloroethane	15.0036 ppb v/v
							Chloroform	15.0036 ppb v/v
							Chloromethane	15.0036 ppb v/v
							cis-1,2-Dichloroethene	15.0036 ppb v/v
							cis-1,3-Dichloropropene	15.0036 ppb v/v
							Cyclohexane	15.0036 ppb v/v
							Dibromomethane	15.0036 ppb v/v
							Dichlorobromomethane	15.0036 ppb v/v
							Dichlorodifluoromethane	15.0036 ppb v/v
							Dodecane	15.0036 ppb v/v
							Ethyl acetate	15.0036 ppb v/v
							Ethyl ether	15.0036 ppb v/v
							Ethylbenzene	15.0036 ppb v/v
							Freon TF	15.0036 ppb v/v
							Hexachlorobutadiene	15.0036 ppb v/v
							Hexane	15.0036 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46616-1

SDG No.: 200-46616-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Isooctane	15.0036 ppb v/v
							Isopropyl alcohol	15.0036 ppb v/v
							Isopropylbenzene	15.0036 ppb v/v
							m,p-Xylene	30.0071 ppb v/v
							Methyl methacrylate	15.0036 ppb v/v
							Methyl tert-butyl ether	15.0036 ppb v/v
							Methylene Chloride	15.0036 ppb v/v
							n-Butanol	15.0036 ppb v/v
							n-Butylbenzene	15.0036 ppb v/v
							n-Decane	15.0036 ppb v/v
							n-Heptane	15.0036 ppb v/v
							n-Nonane	15.0036 ppb v/v
							n-Octane	15.0036 ppb v/v
							N-Propylbenzene	15.0036 ppb v/v
							Naphthalene	15.0036 ppb v/v
							Pentane	15.0036 ppb v/v
							Propene	15.0036 ppb v/v
							sec-Butylbenzene	15.0036 ppb v/v
							Styrene	15.0036 ppb v/v
							tert-Butylbenzene	15.0036 ppb v/v
							Tetrachloroethene	15.0036 ppb v/v
							Tetrahydrofuran	15.0036 ppb v/v
							Toluene	15.0036 ppb v/v
							trans-1,2-Dichloroethene	15.0036 ppb v/v
							trans-1,3-Dichloropropene	15.0036 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46616-1

SDG No.: 200-46616-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Trichloroethene	15.0036 ppb v/v
							Trichlorofluoromethane	15.0036 ppb v/v
							Undecane	15.0036 ppb v/v
							Vinyl acetate	15.0036 ppb v/v
							Vinyl bromide	15.0036 ppb v/v
							Vinyl chloride	15.0036 ppb v/v
							Xylene, o-	15.0036 ppb v/v
					ATTO15EthCALw_00098	620 mL	Ethanol	20.0479 ppb v/v
.ATTO15CALSTKi_00103	12/07/18	09/07/18	Nitrogen, Lot 13	37.5 L	ATTO15CALs_00031	7500 mL	1,1,1-Trichloroethane	200 ppb v/v
							1,1,2,2-Tetrachloroethane	200 ppb v/v
							1,1,2-Trichloroethane	200 ppb v/v
							1,1-Dichloroethane	200 ppb v/v
							1,1-Dichloroethene	200 ppb v/v
							1,2,3-Trichlorobenzene	200 ppb v/v
							1,2,3-Trichloropropane	200 ppb v/v
							1,2,4-Trichlorobenzene	200 ppb v/v
							1,2,4-Trimethylbenzene	200 ppb v/v
							1,2-Dibromoethane	200 ppb v/v
							1,2-Dichlorobenzene	200 ppb v/v
							1,2-Dichloroethane	200 ppb v/v
							1,2-Dichloropropane	200 ppb v/v
							1,2-Dichlorotetrafluoroethane	200 ppb v/v
							1,3,5-Trimethylbenzene	200 ppb v/v
							1,3-Dichlorobenzene	200 ppb v/v
							1,4-Dichlorobenzene	200 ppb v/v
							1,4-Dioxane	200 ppb v/v
							2-Butanone (MEK)	200 ppb v/v
							2-Chlorotoluene	200 ppb v/v
							2-Hexanone	200 ppb v/v
							2-Methyl-2-propanol	200 ppb v/v
							2-Methylbutane	200 ppb v/v
							3-Chloro-1-propene	200 ppb v/v
							4-Ethyltoluene	200 ppb v/v
							4-Isopropyltoluene	200 ppb v/v
							4-Methyl-2-pentanone (MIBK)	200 ppb v/v
							Acetone	200 ppb v/v
							Acetonitrile	200 ppb v/v
							Acrolein	200 ppb v/v
							Acrylonitrile	200 ppb v/v
							Alpha Methyl Styrene	200 ppb v/v
							Benzene	200 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46616-1

SDG No.: 200-46616-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Benzyl chloride	200 ppb v/v
							Bromoform	200 ppb v/v
							Bromomethane	200 ppb v/v
							Butadiene	200 ppb v/v
							Butane	200 ppb v/v
							Carbon disulfide	200 ppb v/v
							Carbon tetrachloride	200 ppb v/v
							Chlorobenzene	200 ppb v/v
							Chlorodibromomethane	200 ppb v/v
							Chlorodifluoromethane	200 ppb v/v
							Chloroethane	200 ppb v/v
							Chloroform	200 ppb v/v
							Chloromethane	200 ppb v/v
							cis-1,2-Dichloroethene	200 ppb v/v
							cis-1,3-Dichloropropene	200 ppb v/v
							Cyclohexane	200 ppb v/v
							Dibromomethane	200 ppb v/v
							Dichlorobromomethane	200 ppb v/v
							Dichlorodifluoromethane	200 ppb v/v
							Dodecane	200 ppb v/v
							Ethyl acetate	200 ppb v/v
							Ethyl ether	200 ppb v/v
							Ethylbenzene	200 ppb v/v
							Freon TF	200 ppb v/v
							Hexachlorobutadiene	200 ppb v/v
							Hexane	200 ppb v/v
							Isooctane	200 ppb v/v
							Isopropyl alcohol	200 ppb v/v
							Isopropylbenzene	200 ppb v/v
							m,p-Xylene	400 ppb v/v
							Methyl methacrylate	200 ppb v/v
							Methyl tert-butyl ether	200 ppb v/v
							Methylene Chloride	200 ppb v/v
							n-Butanol	200 ppb v/v
							n-Butylbenzene	200 ppb v/v
							n-Decane	200 ppb v/v
							n-Heptane	200 ppb v/v
							n-Nonane	200 ppb v/v
							n-Octane	200 ppb v/v
							N-Propylbenzene	200 ppb v/v
							Naphthalene	200 ppb v/v
							Pentane	200 ppb v/v
							Propene	200 ppb v/v
							sec-Butylbenzene	200 ppb v/v
							Styrene	200 ppb v/v
							tert-Butylbenzene	200 ppb v/v
							Tetrachloroethene	200 ppb v/v
							Tetrahydrofuran	200 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46616-1

SDG No.: 200-46616-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Toluene	200 ppb v/v
							trans-1,2-Dichloroethene	200 ppb v/v
							trans-1,3-Dichloropropene	200 ppb v/v
							Trichloroethene	200 ppb v/v
							Trichlorofluoromethane	200 ppb v/v
							Undecane	200 ppb v/v
							Vinyl acetate	200 ppb v/v
							Vinyl bromide	200 ppb v/v
							Vinyl chloride	200 ppb v/v
							Xylene, o-	200 ppb v/v
..ATTO15CALs_00031	02/01/19		Linde, Lot CC-133603		(Purchased Reagent)		1,1,1-Trichloroethane	1 ppm v/v
							1,1,2,2-Tetrachloroethane	1 ppm v/v
							1,1,2-Trichloroethane	1 ppm v/v
							1,1-Dichloroethane	1 ppm v/v
							1,1-Dichloroethene	1 ppm v/v
							1,2,3-Trichlorobenzene	1 ppm v/v
							1,2,3-Trichloropropane	1 ppm v/v
							1,2,4-Trichlorobenzene	1 ppm v/v
							1,2,4-Trimethylbenzene	1 ppm v/v
							1,2-Dibromoethane	1 ppm v/v
							1,2-Dichlorobenzene	1 ppm v/v
							1,2-Dichloroethane	1 ppm v/v
							1,2-Dichloropropane	1 ppm v/v
							1,2-Dichlorotetrafluoroethane	1 ppm v/v
							1,3,5-Trimethylbenzene	1 ppm v/v
							1,3-Dichlorobenzene	1 ppm v/v
							1,4-Dichlorobenzene	1 ppm v/v
							1,4-Dioxane	1 ppm v/v
							2-Butanone (MEK)	1 ppm v/v
							2-Chlorotoluene	1 ppm v/v
							2-Hexanone	1 ppm v/v
							2-Methyl-2-propanol	1 ppm v/v
							2-Methylbutane	1 ppm v/v
							3-Chloro-1-propene	1 ppm v/v
							4-Ethyltoluene	1 ppm v/v
							4-Isopropyltoluene	1 ppm v/v
							4-Methyl-2-pentanone (MIBK)	1 ppm v/v
							Acetone	1 ppm v/v
							Acetonitrile	1 ppm v/v
							Acrolein	1 ppm v/v
							Acrylonitrile	1 ppm v/v
							Alpha Methyl Styrene	1 ppm v/v
							Benzene	1 ppm v/v
							Benzyl chloride	1 ppm v/v
							Bromoform	1 ppm v/v
							Bromomethane	1 ppm v/v
							Butadiene	1 ppm v/v
							Butane	1 ppm v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46616-1

SDG No.: 200-46616-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Carbon disulfide	1 ppm v/v
							Carbon tetrachloride	1 ppm v/v
							Chlorobenzene	1 ppm v/v
							Chlorodibromomethane	1 ppm v/v
							Chlorodifluoromethane	1 ppm v/v
							Chloroethane	1 ppm v/v
							Chloroform	1 ppm v/v
							Chloromethane	1 ppm v/v
							cis-1,2-Dichloroethene	1 ppm v/v
							cis-1,3-Dichloropropene	1 ppm v/v
							Cyclohexane	1 ppm v/v
							Dibromomethane	1 ppm v/v
							Dichlorobromomethane	1 ppm v/v
							Dichlorodifluoromethane	1 ppm v/v
							Dodecane	1 ppm v/v
							Ethyl acetate	1 ppm v/v
							Ethyl ether	1 ppm v/v
							Ethylbenzene	1 ppm v/v
							Freon TF	1 ppm v/v
							Hexachlorobutadiene	1 ppm v/v
							Hexane	1 ppm v/v
							Isooctane	1 ppm v/v
							Isopropyl alcohol	1 ppm v/v
							Isopropylbenzene	1 ppm v/v
							m,p-Xylene	2 ppm v/v
							Methyl methacrylate	1 ppm v/v
							Methyl tert-butyl ether	1 ppm v/v
							Methylene Chloride	1 ppm v/v
							n-Butanol	1 ppm v/v
							n-Butylbenzene	1 ppm v/v
							n-Decane	1 ppm v/v
							n-Heptane	1 ppm v/v
							n-Nonane	1 ppm v/v
							n-Octane	1 ppm v/v
							N-Propylbenzene	1 ppm v/v
							Naphthalene	1 ppm v/v
							Pentane	1 ppm v/v
							Propene	1 ppm v/v
							sec-Butylbenzene	1 ppm v/v
							Styrene	1 ppm v/v
							tert-Butylbenzene	1 ppm v/v
							Tetrachloroethene	1 ppm v/v
							Tetrahydrofuran	1 ppm v/v
							Toluene	1 ppm v/v
							trans-1,2-Dichloroethene	1 ppm v/v
							trans-1,3-Dichloropropene	1 ppm v/v
							Trichloroethene	1 ppm v/v
							Trichlorofluoromethane	1 ppm v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46616-1

SDG No.: 200-46616-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Undecane	1 ppm v/v
							Vinyl acetate	1 ppm v/v
							Vinyl bromide	1 ppm v/v
							Vinyl chloride	1 ppm v/v
							Xylene, o-	1 ppm v/v
.ATTO15EthCALw_00098	12/10/18	09/10/18	Nitrogen, Lot 12	37.5 ppb	ATTO15EthCALs_00009	18.75 uL	Ethanol	500 ppb v/v
..ATTO15EthCALs_00009	09/05/21		Chem Service, Lot 5301900		(Purchased Reagent)		Ethanol	1 mL/mL
ATTO15CAL6w_00158	12/07/18	09/11/18	Nitrogen, Lot 1	15.463 L	ATTO15CALSTKi_00103	1546 mL	1,1,1-Trichloroethane	19.9961 ppb v/v
							1,1,2,2-Tetrachloroethane	19.9961 ppb v/v
							1,1,2-Trichloroethane	19.9961 ppb v/v
							1,1-Dichloroethane	19.9961 ppb v/v
							1,1-Dichloroethene	19.9961 ppb v/v
							1,2,3-Trichlorobenzene	19.9961 ppb v/v
							1,2,3-Trichloropropane	19.9961 ppb v/v
							1,2,4-Trichlorobenzene	19.9961 ppb v/v
							1,2,4-Trimethylbenzene	19.9961 ppb v/v
							1,2-Dibromoethane	19.9961 ppb v/v
							1,2-Dichlorobenzene	19.9961 ppb v/v
							1,2-Dichloroethane	19.9961 ppb v/v
							1,2-Dichloropropane	19.9961 ppb v/v
							1,2-Dichlorotetrafluoroethane	19.9961 ppb v/v
							1,3,5-Trimethylbenzene	19.9961 ppb v/v
							1,3-Dichlorobenzene	19.9961 ppb v/v
							1,4-Dichlorobenzene	19.9961 ppb v/v
							1,4-Dioxane	19.9961 ppb v/v
							2-Butanone (MEK)	19.9961 ppb v/v
							2-Chlorotoluene	19.9961 ppb v/v
							2-Hexanone	19.9961 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46616-1

SDG No.: 200-46616-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Methyl-2-propanol	19.9961 ppb v/v
							2-Methylbutane	19.9961 ppb v/v
							3-Chloro-1-propene	19.9961 ppb v/v
							4-Ethyltoluene	19.9961 ppb v/v
							4-Isopropyltoluene	19.9961 ppb v/v
							4-Methyl-2-pentanone (MIBK)	19.9961 ppb v/v
							Acetone	19.9961 ppb v/v
							Acetonitrile	19.9961 ppb v/v
							Acrolein	19.9961 ppb v/v
							Acrylonitrile	19.9961 ppb v/v
							Alpha Methyl Styrene	19.9961 ppb v/v
							Benzene	19.9961 ppb v/v
							Benzyl chloride	19.9961 ppb v/v
							Bromoform	19.9961 ppb v/v
							Bromomethane	19.9961 ppb v/v
							Butadiene	19.9961 ppb v/v
							Butane	19.9961 ppb v/v
							Carbon disulfide	19.9961 ppb v/v
							Carbon tetrachloride	19.9961 ppb v/v
							Chlorobenzene	19.9961 ppb v/v
							Chlorodibromomethane	19.9961 ppb v/v
							Chlorodifluoromethane	19.9961 ppb v/v
							Chloroethane	19.9961 ppb v/v
							Chloroform	19.9961 ppb v/v
							Chloromethane	19.9961 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46616-1

SDG No.: 200-46616-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							cis-1,2-Dichloroethene	19.9961 ppb v/v
							cis-1,3-Dichloropropene	19.9961 ppb v/v
							Cyclohexane	19.9961 ppb v/v
							Dibromomethane	19.9961 ppb v/v
							Dichlorobromomethane	19.9961 ppb v/v
							Dichlorodifluoromethane	19.9961 ppb v/v
							Dodecane	19.9961 ppb v/v
							Ethyl acetate	19.9961 ppb v/v
							Ethyl ether	19.9961 ppb v/v
							Ethylbenzene	19.9961 ppb v/v
							Freon TF	19.9961 ppb v/v
							Hexachlorobutadiene	19.9961 ppb v/v
							Hexane	19.9961 ppb v/v
							Isooctane	19.9961 ppb v/v
							Isopropyl alcohol	19.9961 ppb v/v
							Isopropylbenzene	19.9961 ppb v/v
							m,p-Xylene	39.9922 ppb v/v
							Methyl methacrylate	19.9961 ppb v/v
							Methyl tert-butyl ether	19.9961 ppb v/v
							Methylene Chloride	19.9961 ppb v/v
							n-Butanol	19.9961 ppb v/v
							n-Butylbenzene	19.9961 ppb v/v
							n-Decane	19.9961 ppb v/v
							n-Heptane	19.9961 ppb v/v
							n-Nonane	19.9961 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46616-1

SDG No.: 200-46616-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							n-Octane	19.9961 ppb v/v
							N-Propylbenzene	19.9961 ppb v/v
							Naphthalene	19.9961 ppb v/v
							Pentane	19.9961 ppb v/v
							Propene	19.9961 ppb v/v
							sec-Butylbenzene	19.9961 ppb v/v
							Styrene	19.9961 ppb v/v
							tert-Butylbenzene	19.9961 ppb v/v
							Tetrachloroethene	19.9961 ppb v/v
							Tetrahydrofuran	19.9961 ppb v/v
							Toluene	19.9961 ppb v/v
							trans-1,2-Dichloroethene	19.9961 ppb v/v
							trans-1,3-Dichloropropene	19.9961 ppb v/v
							Trichloroethene	19.9961 ppb v/v
							Trichlorofluoromethane	19.9961 ppb v/v
							Undecane	19.9961 ppb v/v
							Vinyl acetate	19.9961 ppb v/v
							Vinyl bromide	19.9961 ppb v/v
							Vinyl chloride	19.9961 ppb v/v
							Xylene, o-	19.9961 ppb v/v
					ATTO15EthCALw_00098	1237 mL	Ethanol	39.9987 ppb v/v
.ATTO15CALSTKi_00103	12/07/18	09/07/18	Nitrogen, Lot 13	37.5 L	ATTO15CALs_00031	7500 mL	1,1,1-Trichloroethane	200 ppb v/v
							1,1,2,2-Tetrachloroethane	200 ppb v/v
							1,1,2-Trichloroethane	200 ppb v/v
							1,1-Dichloroethane	200 ppb v/v
							1,1-Dichloroethene	200 ppb v/v
							1,2,3-Trichlorobenzene	200 ppb v/v
							1,2,3-Trichloropropane	200 ppb v/v
							1,2,4-Trichlorobenzene	200 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46616-1

SDG No.: 200-46616-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2,4-Trimethylbenzene	200 ppb v/v
							1,2-Dibromoethane	200 ppb v/v
							1,2-Dichlorobenzene	200 ppb v/v
							1,2-Dichloroethane	200 ppb v/v
							1,2-Dichloropropane	200 ppb v/v
							1,2-Dichlorotetrafluoroethane	200 ppb v/v
							1,3,5-Trimethylbenzene	200 ppb v/v
							1,3-Dichlorobenzene	200 ppb v/v
							1,4-Dichlorobenzene	200 ppb v/v
							1,4-Dioxane	200 ppb v/v
							2-Butanone (MEK)	200 ppb v/v
							2-Chlorotoluene	200 ppb v/v
							2-Hexanone	200 ppb v/v
							2-Methyl-2-propanol	200 ppb v/v
							2-Methylbutane	200 ppb v/v
							3-Chloro-1-propene	200 ppb v/v
							4-Ethyltoluene	200 ppb v/v
							4-Isopropyltoluene	200 ppb v/v
							4-Methyl-2-pentanone (MIBK)	200 ppb v/v
							Acetone	200 ppb v/v
							Acetonitrile	200 ppb v/v
							Acrolein	200 ppb v/v
							Acrylonitrile	200 ppb v/v
							Alpha Methyl Styrene	200 ppb v/v
							Benzene	200 ppb v/v
							Benzyl chloride	200 ppb v/v
							Bromoform	200 ppb v/v
							Bromomethane	200 ppb v/v
							Butadiene	200 ppb v/v
							Butane	200 ppb v/v
							Carbon disulfide	200 ppb v/v
							Carbon tetrachloride	200 ppb v/v
							Chlorobenzene	200 ppb v/v
							Chlorodibromomethane	200 ppb v/v
							Chlorodifluoromethane	200 ppb v/v
							Chloroethane	200 ppb v/v
							Chloroform	200 ppb v/v
							Chloromethane	200 ppb v/v
							cis-1,2-Dichloroethene	200 ppb v/v
							cis-1,3-Dichloropropene	200 ppb v/v
							Cyclohexane	200 ppb v/v
							Dibromomethane	200 ppb v/v
							Dichlorobromomethane	200 ppb v/v
							Dichlorodifluoromethane	200 ppb v/v
							Dodecane	200 ppb v/v
							Ethyl acetate	200 ppb v/v
							Ethyl ether	200 ppb v/v
							Ethylbenzene	200 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46616-1

SDG No.: 200-46616-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Freon TF	200 ppb v/v
							Hexachlorobutadiene	200 ppb v/v
							Hexane	200 ppb v/v
							Isooctane	200 ppb v/v
							Isopropyl alcohol	200 ppb v/v
							Isopropylbenzene	200 ppb v/v
							m,p-Xylene	400 ppb v/v
							Methyl methacrylate	200 ppb v/v
							Methyl tert-butyl ether	200 ppb v/v
							Methylene Chloride	200 ppb v/v
							n-Butanol	200 ppb v/v
							n-Butylbenzene	200 ppb v/v
							n-Decane	200 ppb v/v
							n-Heptane	200 ppb v/v
							n-Nonane	200 ppb v/v
							n-Octane	200 ppb v/v
							N-Propylbenzene	200 ppb v/v
							Naphthalene	200 ppb v/v
							Pentane	200 ppb v/v
							Propene	200 ppb v/v
							sec-Butylbenzene	200 ppb v/v
							Styrene	200 ppb v/v
							tert-Butylbenzene	200 ppb v/v
							Tetrachloroethene	200 ppb v/v
							Tetrahydrofuran	200 ppb v/v
							Toluene	200 ppb v/v
							trans-1,2-Dichloroethene	200 ppb v/v
							trans-1,3-Dichloropropene	200 ppb v/v
							Trichloroethene	200 ppb v/v
							Trichlorofluoromethane	200 ppb v/v
							Undecane	200 ppb v/v
							Vinyl acetate	200 ppb v/v
							Vinyl bromide	200 ppb v/v
							Vinyl chloride	200 ppb v/v
							Xylene, o-	200 ppb v/v
..ATTO15CALs_00031	02/01/19		Linde, Lot CC-133603			(Purchased Reagent)	1,1,1-Trichloroethane	1 ppm v/v
							1,1,2,2-Tetrachloroethane	1 ppm v/v
							1,1,2-Trichloroethane	1 ppm v/v
							1,1-Dichloroethane	1 ppm v/v
							1,1-Dichloroethene	1 ppm v/v
							1,2,3-Trichlorobenzene	1 ppm v/v
							1,2,3-Trichloropropene	1 ppm v/v
							1,2,4-Trichlorobenzene	1 ppm v/v
							1,2,4-Trimethylbenzene	1 ppm v/v
							1,2-Dibromoethane	1 ppm v/v
							1,2-Dichlorobenzene	1 ppm v/v
							1,2-Dichloroethane	1 ppm v/v
							1,2-Dichloropropene	1 ppm v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46616-1

SDG No.: 200-46616-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2-Dichlorotetrafluoroethane	1 ppm v/v
							1,3,5-Trimethylbenzene	1 ppm v/v
							1,3-Dichlorobenzene	1 ppm v/v
							1,4-Dichlorobenzene	1 ppm v/v
							1,4-Dioxane	1 ppm v/v
							2-Butanone (MEK)	1 ppm v/v
							2-Chlorotoluene	1 ppm v/v
							2-Hexanone	1 ppm v/v
							2-Methyl-2-propanol	1 ppm v/v
							2-Methylbutane	1 ppm v/v
							3-Chloro-1-propene	1 ppm v/v
							4-Ethyltoluene	1 ppm v/v
							4-Isopropyltoluene	1 ppm v/v
							4-Methyl-2-pentanone (MIBK)	1 ppm v/v
							Acetone	1 ppm v/v
							Acetonitrile	1 ppm v/v
							Acrolein	1 ppm v/v
							Acrylonitrile	1 ppm v/v
							Alpha Methyl Styrene	1 ppm v/v
							Benzene	1 ppm v/v
							Benzyl chloride	1 ppm v/v
							Bromoform	1 ppm v/v
							Bromomethane	1 ppm v/v
							Butadiene	1 ppm v/v
							Butane	1 ppm v/v
							Carbon disulfide	1 ppm v/v
							Carbon tetrachloride	1 ppm v/v
							Chlorobenzene	1 ppm v/v
							Chlorodibromomethane	1 ppm v/v
							Chlorodifluoromethane	1 ppm v/v
							Chloroethane	1 ppm v/v
							Chloroform	1 ppm v/v
							Chloromethane	1 ppm v/v
							cis-1,2-Dichloroethene	1 ppm v/v
							cis-1,3-Dichloropropene	1 ppm v/v
							Cyclohexane	1 ppm v/v
							Dibromomethane	1 ppm v/v
							Dichlorobromomethane	1 ppm v/v
							Dichlorodifluoromethane	1 ppm v/v
							Dodecane	1 ppm v/v
							Ethyl acetate	1 ppm v/v
							Ethyl ether	1 ppm v/v
							Ethylbenzene	1 ppm v/v
							Freon TF	1 ppm v/v
							Hexachlorobutadiene	1 ppm v/v
							Hexane	1 ppm v/v
							Isooctane	1 ppm v/v
							Isopropyl alcohol	1 ppm v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46616-1

SDG No.: 200-46616-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Isopropylbenzene	1 ppm v/v
							m,p-Xylene	2 ppm v/v
							Methyl methacrylate	1 ppm v/v
							Methyl tert-butyl ether	1 ppm v/v
							Methylene Chloride	1 ppm v/v
							n-Butanol	1 ppm v/v
							n-Butylbenzene	1 ppm v/v
							n-Decane	1 ppm v/v
							n-Heptane	1 ppm v/v
							n-Nonane	1 ppm v/v
							n-Octane	1 ppm v/v
							N-Propylbenzene	1 ppm v/v
							Naphthalene	1 ppm v/v
							Pentane	1 ppm v/v
							Propene	1 ppm v/v
							sec-Butylbenzene	1 ppm v/v
							Styrene	1 ppm v/v
							tert-Butylbenzene	1 ppm v/v
							Tetrachloroethene	1 ppm v/v
							Tetrahydrofuran	1 ppm v/v
							Toluene	1 ppm v/v
							trans-1,2-Dichloroethene	1 ppm v/v
							trans-1,3-Dichloropropene	1 ppm v/v
							Trichloroethene	1 ppm v/v
							Trichlorofluoromethane	1 ppm v/v
							Undecane	1 ppm v/v
							Vinyl acetate	1 ppm v/v
							Vinyl bromide	1 ppm v/v
							Vinyl chloride	1 ppm v/v
							Xylene, o-	1 ppm v/v
.ATTO15EthCALw_00098	12/10/18	09/10/18	Nitrogen, Lot 12	37.5 ppb	ATTO15EthCALs_00009	18.75 uL	Ethanol	500 ppb v/v
..ATTO15EthCALs_00009	09/05/21		Chem Service, Lot 5301900			(Purchased Reagent)	Ethanol	1 mL/mL
ATTO15CAL7w_00079	12/07/18	09/10/18	Nitrogen, Lot 12	15.463 L	ATTO15CALSTKi_00103	3092 mL	1,1,1-Trichloroethane	39.9922 ppb v/v
							1,1,2,2-Tetrachloroethane	39.9922 ppb v/v
							1,1,2-Trichloroethane	39.9922 ppb v/v
							1,1-Dichloroethane	39.9922 ppb v/v
							1,1-Dichloroethene	39.9922 ppb v/v
							1,2,3-Trichlorobenzene	39.9922 ppb v/v
							1,2,3-Trichloropropane	39.9922 ppb v/v
							1,2,4-Trichlorobenzene	39.9922 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46616-1

SDG No.: 200-46616-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2,4-Trimethylbenzene	39.9922 ppb v/v
							1,2-Dibromoethane	39.9922 ppb v/v
							1,2-Dichlorobenzene	39.9922 ppb v/v
							1,2-Dichloroethane	39.9922 ppb v/v
							1,2-Dichloropropane	39.9922 ppb v/v
							1,2-Dichlorotetrafluoroethane	39.9922 ppb v/v
							1,3,5-Trimethylbenzene	39.9922 ppb v/v
							1,3-Dichlorobenzene	39.9922 ppb v/v
							1,4-Dichlorobenzene	39.9922 ppb v/v
							1,4-Dioxane	39.9922 ppb v/v
							2-Butanone (MEK)	39.9922 ppb v/v
							2-Chlorotoluene	39.9922 ppb v/v
							2-Hexanone	39.9922 ppb v/v
							2-Methyl-2-propanol	39.9922 ppb v/v
							2-Methylbutane	39.9922 ppb v/v
							3-Chloro-1-propene	39.9922 ppb v/v
							4-Ethyltoluene	39.9922 ppb v/v
							4-Isopropyltoluene	39.9922 ppb v/v
							4-Methyl-2-pentanone (MIBK)	39.9922 ppb v/v
							Acetone	39.9922 ppb v/v
							Acetonitrile	39.9922 ppb v/v
							Acrolein	39.9922 ppb v/v
							Acrylonitrile	39.9922 ppb v/v
							Alpha Methyl Styrene	39.9922 ppb v/v
							Benzene	39.9922 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46616-1

SDG No.: 200-46616-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Benzyl chloride	39.9922 ppb v/v
							Bromoform	39.9922 ppb v/v
							Bromomethane	39.9922 ppb v/v
							Butadiene	39.9922 ppb v/v
							Butane	39.9922 ppb v/v
							Carbon disulfide	39.9922 ppb v/v
							Carbon tetrachloride	39.9922 ppb v/v
							Chlorobenzene	39.9922 ppb v/v
							Chlorodibromomethane	39.9922 ppb v/v
							Chlorodifluoromethane	39.9922 ppb v/v
							Chloroethane	39.9922 ppb v/v
							Chloroform	39.9922 ppb v/v
							Chloromethane	39.9922 ppb v/v
							cis-1,2-Dichloroethene	39.9922 ppb v/v
							cis-1,3-Dichloropropene	39.9922 ppb v/v
							Cyclohexane	39.9922 ppb v/v
							Dibromomethane	39.9922 ppb v/v
							Dichlorobromomethane	39.9922 ppb v/v
							Dichlorodifluoromethane	39.9922 ppb v/v
							Dodecane	39.9922 ppb v/v
							Ethyl acetate	39.9922 ppb v/v
							Ethyl ether	39.9922 ppb v/v
							Ethylbenzene	39.9922 ppb v/v
							Freon TF	39.9922 ppb v/v
							Hexachlorobutadiene	39.9922 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46616-1

SDG No.: 200-46616-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Hexane	39.9922 ppb v/v
							Isooctane	39.9922 ppb v/v
							Isopropyl alcohol	39.9922 ppb v/v
							Isopropylbenzene	39.9922 ppb v/v
							m,p-Xylene	79.9845 ppb v/v
							Methyl methacrylate	39.9922 ppb v/v
							Methyl tert-butyl ether	39.9922 ppb v/v
							Methylene Chloride	39.9922 ppb v/v
							n-Butanol	39.9922 ppb v/v
							n-Butylbenzene	39.9922 ppb v/v
							n-Decane	39.9922 ppb v/v
							n-Heptane	39.9922 ppb v/v
							n-Nonane	39.9922 ppb v/v
							n-Octane	39.9922 ppb v/v
							N-Propylbenzene	39.9922 ppb v/v
							Naphthalene	39.9922 ppb v/v
							Pentane	39.9922 ppb v/v
							Propene	39.9922 ppb v/v
							sec-Butylbenzene	39.9922 ppb v/v
							Styrene	39.9922 ppb v/v
							tert-Butylbenzene	39.9922 ppb v/v
							Tetrachloroethene	39.9922 ppb v/v
							Tetrahydrofuran	39.9922 ppb v/v
							Toluene	39.9922 ppb v/v
							trans-1,2-Dichloroethene	39.9922 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46616-1

SDG No.: 200-46616-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							trans-1,3-Dichloropropene	39.9922 ppb v/v
							Trichloroethene	39.9922 ppb v/v
							Trichlorofluoromethane	39.9922 ppb v/v
							Undecane	39.9922 ppb v/v
							Vinyl acetate	39.9922 ppb v/v
							Vinyl bromide	39.9922 ppb v/v
							Vinyl chloride	39.9922 ppb v/v
							Xylene, o-	39.9922 ppb v/v
					ATTO15EthCALw_00098	3092 mL	Ethanol	99.9806 ppb v/v
.ATTO15CALSTKi_00103	12/07/18	09/07/18	Nitrogen, Lot 13	37.5 L	ATTO15CALs_00031	7500 mL	1,1,1-Trichloroethane	200 ppb v/v
							1,1,2,2-Tetrachloroethane	200 ppb v/v
							1,1,2-Trichloroethane	200 ppb v/v
							1,1-Dichloroethane	200 ppb v/v
							1,1-Dichloroethene	200 ppb v/v
							1,2,3-Trichlorobenzene	200 ppb v/v
							1,2,3-Trichloropropane	200 ppb v/v
							1,2,4-Trichlorobenzene	200 ppb v/v
							1,2,4-Trimethylbenzene	200 ppb v/v
							1,2-Dibromoethane	200 ppb v/v
							1,2-Dichlorobenzene	200 ppb v/v
							1,2-Dichloroethane	200 ppb v/v
							1,2-Dichloropropane	200 ppb v/v
							1,2-Dichlorotetrafluoroethane	200 ppb v/v
							1,3,5-Trimethylbenzene	200 ppb v/v
							1,3-Dichlorobenzene	200 ppb v/v
							1,4-Dichlorobenzene	200 ppb v/v
							1,4-Dioxane	200 ppb v/v
							2-Butanone (MEK)	200 ppb v/v
							2-Chlorotoluene	200 ppb v/v
							2-Hexanone	200 ppb v/v
							2-Methyl-2-propanol	200 ppb v/v
							2-Methylbutane	200 ppb v/v
							3-Chloro-1-propene	200 ppb v/v
							4-Ethyltoluene	200 ppb v/v
							4-Isopropyltoluene	200 ppb v/v
							4-Methyl-2-pentanone (MIBK)	200 ppb v/v
							Acetone	200 ppb v/v
							Acetonitrile	200 ppb v/v
							Acrolein	200 ppb v/v
							Acrylonitrile	200 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46616-1

SDG No.: 200-46616-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Alpha Methyl Styrene	200 ppb v/v
							Benzene	200 ppb v/v
							Benzyl chloride	200 ppb v/v
							Bromoform	200 ppb v/v
							Bromomethane	200 ppb v/v
							Butadiene	200 ppb v/v
							Butane	200 ppb v/v
							Carbon disulfide	200 ppb v/v
							Carbon tetrachloride	200 ppb v/v
							Chlorobenzene	200 ppb v/v
							Chlorodibromomethane	200 ppb v/v
							Chlorodifluoromethane	200 ppb v/v
							Chloroethane	200 ppb v/v
							Chloroform	200 ppb v/v
							Chloromethane	200 ppb v/v
							cis-1,2-Dichloroethene	200 ppb v/v
							cis-1,3-Dichloropropene	200 ppb v/v
							Cyclohexane	200 ppb v/v
							Dibromomethane	200 ppb v/v
							Dichlorobromomethane	200 ppb v/v
							Dichlorodifluoromethane	200 ppb v/v
							Dodecane	200 ppb v/v
							Ethyl acetate	200 ppb v/v
							Ethyl ether	200 ppb v/v
							Ethylbenzene	200 ppb v/v
							Freon TF	200 ppb v/v
							Hexachlorobutadiene	200 ppb v/v
							Hexane	200 ppb v/v
							Isooctane	200 ppb v/v
							Isopropyl alcohol	200 ppb v/v
							Isopropylbenzene	200 ppb v/v
							m,p-Xylene	400 ppb v/v
							Methyl methacrylate	200 ppb v/v
							Methyl tert-butyl ether	200 ppb v/v
							Methylene Chloride	200 ppb v/v
							n-Butanol	200 ppb v/v
							n-Butylbenzene	200 ppb v/v
							n-Decane	200 ppb v/v
							n-Heptane	200 ppb v/v
							n-Nonane	200 ppb v/v
							n-Octane	200 ppb v/v
							N-Propylbenzene	200 ppb v/v
							Naphthalene	200 ppb v/v
							Pentane	200 ppb v/v
							Propene	200 ppb v/v
							sec-Butylbenzene	200 ppb v/v
							Styrene	200 ppb v/v
							tert-Butylbenzene	200 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46616-1

SDG No.: 200-46616-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Tetrachloroethene	200 ppb v/v
							Tetrahydrofuran	200 ppb v/v
							Toluene	200 ppb v/v
							trans-1,2-Dichloroethene	200 ppb v/v
							trans-1,3-Dichloropropene	200 ppb v/v
							Trichloroethene	200 ppb v/v
							Trichlorofluoromethane	200 ppb v/v
							Undecane	200 ppb v/v
							Vinyl acetate	200 ppb v/v
							Vinyl bromide	200 ppb v/v
							Vinyl chloride	200 ppb v/v
							Xylene, o-	200 ppb v/v
..ATTO15CALs_00031	02/01/19		Linde, Lot CC-133603		(Purchased Reagent)		1,1,1-Trichloroethane	1 ppm v/v
							1,1,2,2-Tetrachloroethane	1 ppm v/v
							1,1,2-Trichloroethane	1 ppm v/v
							1,1-Dichloroethane	1 ppm v/v
							1,1-Dichloroethene	1 ppm v/v
							1,2,3-Trichlorobenzene	1 ppm v/v
							1,2,3-Trichloropropane	1 ppm v/v
							1,2,4-Trichlorobenzene	1 ppm v/v
							1,2,4-Trimethylbenzene	1 ppm v/v
							1,2-Dibromoethane	1 ppm v/v
							1,2-Dichlorobenzene	1 ppm v/v
							1,2-Dichloroethane	1 ppm v/v
							1,2-Dichloropropane	1 ppm v/v
							1,2-Dichlorotetrafluoroethane	1 ppm v/v
							1,3,5-Trimethylbenzene	1 ppm v/v
							1,3-Dichlorobenzene	1 ppm v/v
							1,4-Dichlorobenzene	1 ppm v/v
							1,4-Dioxane	1 ppm v/v
							2-Butanone (MEK)	1 ppm v/v
							2-Chlorotoluene	1 ppm v/v
							2-Hexanone	1 ppm v/v
							2-Methyl-2-propanol	1 ppm v/v
							2-Methylbutane	1 ppm v/v
							3-Chloro-1-propene	1 ppm v/v
							4-Ethyltoluene	1 ppm v/v
							4-Isopropyltoluene	1 ppm v/v
							4-Methyl-2-pentanone (MIBK)	1 ppm v/v
							Acetone	1 ppm v/v
							Acetonitrile	1 ppm v/v
							Acrolein	1 ppm v/v
							Acrylonitrile	1 ppm v/v
							Alpha Methyl Styrene	1 ppm v/v
							Benzene	1 ppm v/v
							Benzyl chloride	1 ppm v/v
							Bromoform	1 ppm v/v
							Bromomethane	1 ppm v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46616-1

SDG No.: 200-46616-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Butadiene	1 ppm v/v
							Butane	1 ppm v/v
							Carbon disulfide	1 ppm v/v
							Carbon tetrachloride	1 ppm v/v
							Chlorobenzene	1 ppm v/v
							Chlorodibromomethane	1 ppm v/v
							Chlorodifluoromethane	1 ppm v/v
							Chloroethane	1 ppm v/v
							Chloroform	1 ppm v/v
							Chloromethane	1 ppm v/v
							cis-1,2-Dichloroethene	1 ppm v/v
							cis-1,3-Dichloropropene	1 ppm v/v
							Cyclohexane	1 ppm v/v
							Dibromomethane	1 ppm v/v
							Dichlorobromomethane	1 ppm v/v
							Dichlorodifluoromethane	1 ppm v/v
							Dodecane	1 ppm v/v
							Ethyl acetate	1 ppm v/v
							Ethyl ether	1 ppm v/v
							Ethylbenzene	1 ppm v/v
							Freon TF	1 ppm v/v
							Hexachlorobutadiene	1 ppm v/v
							Hexane	1 ppm v/v
							Isooctane	1 ppm v/v
							Isopropyl alcohol	1 ppm v/v
							Isopropylbenzene	1 ppm v/v
							m,p-Xylene	2 ppm v/v
							Methyl methacrylate	1 ppm v/v
							Methyl tert-butyl ether	1 ppm v/v
							Methylene Chloride	1 ppm v/v
							n-Butanol	1 ppm v/v
							n-Butylbenzene	1 ppm v/v
							n-Decane	1 ppm v/v
							n-Heptane	1 ppm v/v
							n-Nonane	1 ppm v/v
							n-Octane	1 ppm v/v
							N-Propylbenzene	1 ppm v/v
							Naphthalene	1 ppm v/v
							Pentane	1 ppm v/v
							Propene	1 ppm v/v
							sec-Butylbenzene	1 ppm v/v
							Styrene	1 ppm v/v
							tert-Butylbenzene	1 ppm v/v
							Tetrachloroethene	1 ppm v/v
							Tetrahydrofuran	1 ppm v/v
							Toluene	1 ppm v/v
							trans-1,2-Dichloroethene	1 ppm v/v
							trans-1,3-Dichloropropene	1 ppm v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46616-1

SDG No.: 200-46616-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Trichloroethene	1 ppm v/v
							Trichlorofluoromethane	1 ppm v/v
							Undecane	1 ppm v/v
							Vinyl acetate	1 ppm v/v
							Vinyl bromide	1 ppm v/v
							Vinyl chloride	1 ppm v/v
							Xylene, o-	1 ppm v/v
.ATTO15EthCALw_00098	12/10/18	09/10/18	Nitrogen, Lot 12	37.5 ppb	ATTO15EthCALs_00009	18.75 uL	Ethanol	500 ppb v/v
..ATTO15EthCALs_00009	09/05/21		Chem Service, Lot 5301900		(Purchased Reagent)		Ethanol	1 mL/mL
ATTO15GIS_00015							1,2-Dichloroethene, Total	
							1,4-Difluorobenzene	100 ppb v/v
							BFB	100 ppb v/v
							Chlorobenzene-d5	100 ppb v/v
							Chlorobromomethane	100 ppb v/v
							Tentatively Identified Compound	
							Total Alkanes	
							Xylenes, Total	
ATTO15LCSW_00787	12/04/18	09/21/18	Nitrogen, Lot 13	15.463 L	ATTO15LCSSTKi_00096	773 mL	1,1,1-Trichloroethane	9.99806 ppb v/v
							1,1,2,2-Tetrachloroethane	9.99806 ppb v/v
							1,1,2-Trichloroethane	9.99806 ppb v/v
							1,1-Dichloroethane	9.99806 ppb v/v
							1,1-Dichloroethene	9.99806 ppb v/v
							1,2,4-Trichlorobenzene	9.99806 ppb v/v
							1,2,4-Trimethylbenzene	9.99806 ppb v/v
							1,2-Dibromoethane	9.99806 ppb v/v
							1,2-Dichlorobenzene	9.99806 ppb v/v
							1,2-Dichloroethane	9.99806 ppb v/v
							1,2-Dichloropropane	9.99806 ppb v/v
							1,2-Dichlorotetrafluoroethane	9.99806 ppb v/v
							1,3,5-Trimethylbenzene	9.99806 ppb v/v
							1,3-Dichlorobenzene	9.99806 ppb v/v
							1,4-Dichlorobenzene	9.99806 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46616-1

SDG No.: 200-46616-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Benzene	9.99806 ppb v/v
							Bromomethane	9.99806 ppb v/v
							Carbon tetrachloride	9.99806 ppb v/v
							Chlorobenzene	9.99806 ppb v/v
							Chloroethane	9.99806 ppb v/v
							Chloroform	9.99806 ppb v/v
							Chloromethane	9.99806 ppb v/v
							cis-1,2-Dichloroethene	9.99806 ppb v/v
							cis-1,3-Dichloropropene	9.99806 ppb v/v
							Dichlorodifluoromethane	9.99806 ppb v/v
							Ethylbenzene	9.99806 ppb v/v
							Freon TF	9.99806 ppb v/v
							Hexachlorobutadiene	9.99806 ppb v/v
							m,p-Xylene	19.9961 ppb v/v
							Methylene Chloride	9.99806 ppb v/v
							Styrene	9.99806 ppb v/v
							Tetrachloroethene	9.99806 ppb v/v
							Toluene	9.99806 ppb v/v
							trans-1,3-Dichloropropene	9.99806 ppb v/v
							Trichloroethene	9.99806 ppb v/v
							Trichlorofluoromethane	9.99806 ppb v/v
							Vinyl chloride	9.99806 ppb v/v
							Xylene, o-	9.99806 ppb v/v
.ATTO15LCSSTKi_00096	12/04/18	09/04/18	Nitrogen, Lot 12	37.5 L	ATTO15LCSs_00024	7500 mL	1,1,1-Trichloroethane	200 ppb v/v
							1,1,2,2-Tetrachloroethane	200 ppb v/v
							1,1,2-Trichloroethane	200 ppb v/v
							1,1-Dichloroethane	200 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46616-1

SDG No.: 200-46616-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,1-Dichloroethene	200 ppb v/v
							1,2,4-Trichlorobenzene	200 ppb v/v
							1,2,4-Trimethylbenzene	200 ppb v/v
							1,2-Dibromoethane	200 ppb v/v
							1,2-Dichlorobenzene	200 ppb v/v
							1,2-Dichloroethane	200 ppb v/v
							1,2-Dichloropropane	200 ppb v/v
							1,2-Dichlorotetrafluoroethane	200 ppb v/v
							1,3,5-Trimethylbenzene	200 ppb v/v
							1,3-Dichlorobenzene	200 ppb v/v
							1,4-Dichlorobenzene	200 ppb v/v
							Benzene	200 ppb v/v
							Bromomethane	200 ppb v/v
							Carbon tetrachloride	200 ppb v/v
							Chlorobenzene	200 ppb v/v
							Chloroethane	200 ppb v/v
							Chloroform	200 ppb v/v
							Chloromethane	200 ppb v/v
							cis-1,2-Dichloroethene	200 ppb v/v
							cis-1,3-Dichloropropene	200 ppb v/v
							Dichlorodifluoromethane	200 ppb v/v
							Ethylbenzene	200 ppb v/v
							Freon TF	200 ppb v/v
							Hexachlorobutadiene	200 ppb v/v
							m,p-Xylene	400 ppb v/v
							Methylene Chloride	200 ppb v/v
							Styrene	200 ppb v/v
							Tetrachloroethene	200 ppb v/v
							Toluene	200 ppb v/v
							trans-1,3-Dichloropropene	200 ppb v/v
							Trichloroethene	200 ppb v/v
							Trichlorofluoromethane	200 ppb v/v
							Vinyl chloride	200 ppb v/v
							Xylene, o-	200 ppb v/v
..ATTO15LCSS_00024	02/01/19		Spectra Gases, Lot CC-250179			(Purchased Reagent)	1,1,1-Trichloroethane	1 ppm v/v
							1,1,2,2-Tetrachloroethane	1 ppm v/v
							1,1,2-Trichloroethane	1 ppm v/v
							1,1-Dichloroethane	1 ppm v/v
							1,1-Dichloroethene	1 ppm v/v
							1,2,4-Trichlorobenzene	1 ppm v/v
							1,2,4-Trimethylbenzene	1 ppm v/v
							1,2-Dibromoethane	1 ppm v/v
							1,2-Dichlorobenzene	1 ppm v/v
							1,2-Dichloroethane	1 ppm v/v
							1,2-Dichloropropane	1 ppm v/v
							1,2-Dichlorotetrafluoroethane	1 ppm v/v
							1,3,5-Trimethylbenzene	1 ppm v/v
							1,3-Dichlorobenzene	1 ppm v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46616-1

SDG No.: 200-46616-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,4-Dichlorobenzene	1 ppm v/v
							Benzene	1 ppm v/v
							Bromomethane	1 ppm v/v
							Carbon tetrachloride	1 ppm v/v
							Chlorobenzene	1 ppm v/v
							Chloroethane	1 ppm v/v
							Chloroform	1 ppm v/v
							Chloromethane	1 ppm v/v
							cis-1,2-Dichloroethene	1 ppm v/v
							cis-1,3-Dichloropropene	1 ppm v/v
							Dichlorodifluoromethane	1 ppm v/v
							Ethylbenzene	1 ppm v/v
							Freon TF	1 ppm v/v
							Hexachlorobutadiene	1 ppm v/v
							m,p-Xylene	2 ppm v/v
							Methylene Chloride	1 ppm v/v
							Styrene	1 ppm v/v
							Tetrachloroethene	1 ppm v/v
							Toluene	1 ppm v/v
							trans-1,3-Dichloropropene	1 ppm v/v
							Trichloroethene	1 ppm v/v
							Trichlorofluoromethane	1 ppm v/v
							Vinyl chloride	1 ppm v/v
							Xylene, o-	1 ppm v/v
ATTO15LCSW_00791	12/27/18	12/05/18	Nitrogen, Lot 13	15.463 L	ATTO15LCSSTki_00097	773 mL	1,1,1-Trichloroethane	9.99806 ppb v/v
							1,1,2,2-Tetrachloroethane	9.99806 ppb v/v
							1,1,2-Trichloroethane	9.99806 ppb v/v
							1,1-Dichloroethane	9.99806 ppb v/v
							1,1-Dichloroethene	9.99806 ppb v/v
							1,2,4-Trichlorobenzene	9.99806 ppb v/v
							1,2,4-Trimethylbenzene	9.99806 ppb v/v
							1,2-Dibromoethane	9.99806 ppb v/v
							1,2-Dichlorobenzene	9.99806 ppb v/v
							1,2-Dichloroethane	9.99806 ppb v/v
							1,2-Dichloropropane	9.99806 ppb v/v
							1,2-Dichlorotetrafluoroethane	9.99806 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46616-1

SDG No.: 200-46616-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,3,5-Trimethylbenzene	9.99806 ppb v/v
							1,3-Dichlorobenzene	9.99806 ppb v/v
							1,4-Dichlorobenzene	9.99806 ppb v/v
							Benzene	9.99806 ppb v/v
							Bromomethane	9.99806 ppb v/v
							Carbon tetrachloride	9.99806 ppb v/v
							Chlorobenzene	9.99806 ppb v/v
							Chloroethane	9.99806 ppb v/v
							Chloroform	9.99806 ppb v/v
							Chloromethane	9.99806 ppb v/v
							cis-1,2-Dichloroethene	9.99806 ppb v/v
							cis-1,3-Dichloropropene	9.99806 ppb v/v
							Dichlorodifluoromethane	9.99806 ppb v/v
							Ethylbenzene	9.99806 ppb v/v
							Freon TF	9.99806 ppb v/v
							Hexachlorobutadiene	9.99806 ppb v/v
							m,p-Xylene	19.9961 ppb v/v
							Methylene Chloride	9.99806 ppb v/v
							Styrene	9.99806 ppb v/v
							Tetrachloroethene	9.99806 ppb v/v
							Toluene	9.99806 ppb v/v
							trans-1,3-Dichloropropene	9.99806 ppb v/v
							Trichloroethene	9.99806 ppb v/v
							Trichlorofluoromethane	9.99806 ppb v/v
							Vinyl chloride	9.99806 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46616-1

SDG No.: 200-46616-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Xylene, o-	9.99806 ppb v/v
.ATTO15LCSSTKi_00097	12/27/18	11/27/18	Nitrogen, Lot 12	37.5 L	ATTO15LCSS_00024	7500 mL	1,1,1-Trichloroethane	200 ppb v/v
							1,1,2,2-Tetrachloroethane	200 ppb v/v
							1,1,2-Trichloroethane	200 ppb v/v
							1,1-Dichloroethane	200 ppb v/v
							1,1-Dichloroethene	200 ppb v/v
							1,2,4-Trichlorobenzene	200 ppb v/v
							1,2,4-Trimethylbenzene	200 ppb v/v
							1,2-Dibromoethane	200 ppb v/v
							1,2-Dichlorobenzene	200 ppb v/v
							1,2-Dichloroethane	200 ppb v/v
							1,2-Dichloropropane	200 ppb v/v
							1,2-Dichlorotetrafluoroethane	200 ppb v/v
							1,3,5-Trimethylbenzene	200 ppb v/v
							1,3-Dichlorobenzene	200 ppb v/v
							1,4-Dichlorobenzene	200 ppb v/v
							Benzene	200 ppb v/v
							Bromomethane	200 ppb v/v
							Carbon tetrachloride	200 ppb v/v
							Chlorobenzene	200 ppb v/v
							Chloroethane	200 ppb v/v
							Chloroform	200 ppb v/v
							Chloromethane	200 ppb v/v
							cis-1,2-Dichloroethene	200 ppb v/v
							cis-1,3-Dichloropropene	200 ppb v/v
							Dichlorodifluoromethane	200 ppb v/v
							Ethylbenzene	200 ppb v/v
							Freon TF	200 ppb v/v
							Hexachlorobutadiene	200 ppb v/v
							m,p-Xylene	400 ppb v/v
							Methylene Chloride	200 ppb v/v
							Styrene	200 ppb v/v
							Tetrachloroethene	200 ppb v/v
							Toluene	200 ppb v/v
							trans-1,3-Dichloropropene	200 ppb v/v
							Trichloroethene	200 ppb v/v
							Trichlorofluoromethane	200 ppb v/v
							Vinyl chloride	200 ppb v/v
							Xylene, o-	200 ppb v/v
..ATTO15LCSS_00024	02/01/19		Spectra Gases, Lot CC-250179			(Purchased Reagent)	1,1,1-Trichloroethane	1 ppm v/v
							1,1,2,2-Tetrachloroethane	1 ppm v/v
							1,1,2-Trichloroethane	1 ppm v/v
							1,1-Dichloroethane	1 ppm v/v
							1,1-Dichloroethene	1 ppm v/v
							1,2,4-Trichlorobenzene	1 ppm v/v
							1,2,4-Trimethylbenzene	1 ppm v/v
							1,2-Dibromoethane	1 ppm v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46616-1

SDG No.: 200-46616-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2-Dichlorobenzene	1 ppm v/v
							1,2-Dichloroethane	1 ppm v/v
							1,2-Dichloropropane	1 ppm v/v
							1,2-Dichlorotetrafluoroethane	1 ppm v/v
							1,3,5-Trimethylbenzene	1 ppm v/v
							1,3-Dichlorobenzene	1 ppm v/v
							1,4-Dichlorobenzene	1 ppm v/v
							Benzene	1 ppm v/v
							Bromomethane	1 ppm v/v
							Carbon tetrachloride	1 ppm v/v
							Chlorobenzene	1 ppm v/v
							Chloroethane	1 ppm v/v
							Chloroform	1 ppm v/v
							Chloromethane	1 ppm v/v
							cis-1,2-Dichloroethene	1 ppm v/v
							cis-1,3-Dichloropropene	1 ppm v/v
							Dichlorodifluoromethane	1 ppm v/v
							Ethylbenzene	1 ppm v/v
							Freon TF	1 ppm v/v
							Hexachlorobutadiene	1 ppm v/v
							m,p-Xylene	2 ppm v/v
							Methylene Chloride	1 ppm v/v
							Styrene	1 ppm v/v
							Tetrachloroethene	1 ppm v/v
							Toluene	1 ppm v/v
							trans-1,3-Dichloropropene	1 ppm v/v
							Trichloroethene	1 ppm v/v
							Trichlorofluoromethane	1 ppm v/v
							Vinyl chloride	1 ppm v/v
							Xylene, o-	1 ppm v/v

Method T015

Volatile Organic Compounds (GC/MS)
by Method T015

FORM III
AIR - GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Burlington

Job No.: 200-46616-1

SDG No.: 200-46616-1

Matrix: Air Level: Low

Lab File ID: 200-33765-005.D

Lab ID: LCS 200-138350/5

Client ID: _____

COMPOUND	SPIKE ADDED (ppb v/v)	LCS CONCENTRATION (ppb v/v)	LCS % REC	QC LIMITS REC	#
Dichlorodifluoromethane	10.0	11.6	116	68-128	
1,2-Dichlorotetrafluoroethane	10.0	11.4	114	78-138	
Chloromethane	10.0	12.2	122	57-126	
Vinyl chloride	10.0	11.0	110	62-125	
Bromomethane	10.0	10.1	101	68-128	
Chloroethane	10.0	10.8	108	65-125	
Trichlorofluoromethane	10.0	9.88	99	67-127	
Freon TF	10.0	11.0	110	68-128	
1,1-Dichloroethene	10.0	10.8	108	67-127	
Methylene Chloride	10.0	12.1	121	62-122	
1,1-Dichloroethane	10.0	10.4	104	66-126	
cis-1,2-Dichloroethene	10.0	11.1	111	67-127	
Chloroform	10.0	10.8	108	69-129	
1,1,1-Trichloroethane	10.0	10.8	108	70-130	
Carbon tetrachloride	10.0	11.4	114	62-143	
Benzene	10.0	10.6	106	67-127	
1,2-Dichloroethane	10.0	11.1	111	67-132	
Trichloroethene	10.0	10.4	104	68-128	
1,2-Dichloropropane	10.0	12.1	121	67-127	
cis-1,3-Dichloropropene	10.0	11.9	119	70-130	
Toluene	10.0	11.0	110	67-127	
trans-1,3-Dichloropropene	10.0	11.9	119	69-129	
1,1,2-Trichloroethane	10.0	11.3	113	69-129	
Tetrachloroethene	10.0	10.4	104	70-130	
1,2-Dibromoethane	10.0	11.1	112	70-130	
Chlorobenzene	10.0	10.8	108	68-128	
Ethylbenzene	10.0	11.2	112	68-128	
m,p-Xylene	20.0	21.9	110	68-128	
Xylene, o-	10.0	11.4	114	67-127	
Styrene	10.0	11.5	115	68-128	
1,1,2,2-Tetrachloroethane	10.0	11.5	115	69-129	
1,3,5-Trimethylbenzene	10.0	11.4	114	65-125	
1,2,4-Trimethylbenzene	10.0	11.5	115	65-125	
1,3-Dichlorobenzene	10.0	11.1	111	67-127	
1,4-Dichlorobenzene	10.0	11.2	112	66-126	
1,2-Dichlorobenzene	10.0	11.2	112	67-127	
1,2,4-Trichlorobenzene	10.0	11.0	110	59-126	
Hexachlorobutadiene	10.0	10.6	106	62-130	

Column to be used to flag recovery and RPD values

FORM IV
AIR - GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-46616-1
 SDG No.: 200-46616-1
 Lab File ID: 200-33765-006.D Lab Sample ID: MB 200-138350/6
 Matrix: Air Heated Purge: (Y/N) N
 Instrument ID: CHG.i Date Analyzed: 12/19/2018 16:25
 GC Column: RTX-624 ID: 0.32 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 200-138350/5	200-33765-005.D	12/19/2018 15:35
SVE-01	200-46616-1	200-33765-017.D	12/20/2018 01:37
SVE-02	200-46616-2	200-33765-018.D	12/20/2018 02:27
SVE-03	200-46616-3	200-33765-019.D	12/20/2018 03:17
SVE-04	200-46616-4	200-33765-020.D	12/20/2018 04:07

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: TestAmerica Burlington Job No.: 200-46616-1
 SDG No.: 200-46616-1
 Lab File ID: 200-33385-001.D BFB Injection Date: 11/27/2018
 Instrument ID: CHG.i BFB Injection Time: 17:52
 Analysis Batch No.: 137447

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	8.0 - 40.0% of mass 95	23.8	
75	30.0 - 66.0% of mass 95	56.7	
95	Base peak, 100% relative abundance	100.0	
96	5.0 - 9.0% of mass 95	6.7	
173	Less than 2.0% of mass 174	0.3	(0.4) 1
174	50.0 - 120.0% of mass 95	69.1	
175	4.0 - 9.0 % of mass 174	5.0	(7.3) 1
176	93.0 - 101.0% of mass 174	68.2	(98.7) 1
177	5.0 - 9.0% of mass 176	4.5	(6.6) 2

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 200-137447/4	200-33385-00 4.D	11/27/2018	20:22
	IC 200-137447/5	200-33385-00 5.D	11/27/2018	21:13
	IC 200-137447/6	200-33385-00 6.D	11/27/2018	22:03
	IC 200-137447/7	200-33385-00 7.D	11/27/2018	22:54
	ICIS 200-137447/8	200-33385-00 8.D	11/27/2018	23:44
	IC 200-137447/9	200-33385-00 9.D	11/28/2018	00:35
	IC 200-137447/10	200-33385-01 0.D	11/28/2018	01:25
	IC 200-137447/11	200-33385-01 1.D	11/28/2018	02:15
	ICV 200-137447/15	200-33385-01 5.D	11/28/2018	05:37

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: TestAmerica Burlington Job No.: 200-46616-1
 SDG No.: 200-46616-1
 Lab File ID: 200-33765-001.D BFB Injection Date: 12/19/2018
 Instrument ID: CHG.i BFB Injection Time: 11:38
 Analysis Batch No.: 138350

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	31.3
75	30.0 - 66.0% of mass 95	63.8
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.7
173	Less than 2.0% of mass 174	0.3 (0.5) 1
174	50.0 - 120.0% of mass 95	67.1
175	4.0 - 9.0 % of mass 174	4.6 (6.8) 1
176	93.0 - 101.0% of mass 174	66.0 (98.4) 1
177	5.0 - 9.0% of mass 176	4.4 (6.7) 2

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 200-138350/4	200-33765-00 4.D	12/19/2018	14:45
	LCS 200-138350/5	200-33765-00 5.D	12/19/2018	15:35
	MB 200-138350/6	200-33765-00 6.D	12/19/2018	16:25
SVE-01	200-46616-1	200-33765-01 7.D	12/20/2018	01:37
SVE-02	200-46616-2	200-33765-01 8.D	12/20/2018	02:27
SVE-03	200-46616-3	200-33765-01 9.D	12/20/2018	03:17
SVE-04	200-46616-4	200-33765-02 0.D	12/20/2018	04:07

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-46616-1
 SDG No.: 200-46616-1
 Sample No.: ICIS 200-137447/8 Date Analyzed: 11/27/2018 23:44
 Instrument ID: CHG.i GC Column: RTX-624 ID: 0.32 (mm)
 Lab File ID (Standard): 200-33385-008.D Heated Purge: (Y/N) N
 Calibration ID: 40668

	BCM		DFBZ		CBNZd5	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT	974604	9.16	3462989	11.02	3487050	16.96
UPPER LIMIT	1364446	9.49	4848185	11.35	4881870	17.29
LOWER LIMIT	584762	8.83	2077793	10.69	2092230	16.63
LAB SAMPLE ID	CLIENT SAMPLE ID					
ICV 200-137447/15	1131202	9.16	5003919*	11.02	4555708	16.96

BCM = Bromochloromethane
 DFBZ = 1,4-Difluorobenzene
 CBNZd5 = Chlorobenzene-d5

Area Limit = 60%-140% of internal standard area
 RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-46616-1
 SDG No.: 200-46616-1
 Sample No.: CCVIS 200-138350/4 Date Analyzed: 12/19/2018 14:45
 Instrument ID: CHG.i GC Column: RTX-624 ID: 0.32 (mm)
 Lab File ID (Standard): 200-33765-004.D Heated Purge: (Y/N) N
 Calibration ID: 40668

	BCM		DFBZ		CBNZd5			
	AREA #	RT #	AREA #	RT #	AREA #	RT #		
12/24 HOUR STD	614032	9.15	2716967	11.01	2587696	16.95		
UPPER LIMIT	859645	9.48	3803754	11.34	3622774	17.28		
LOWER LIMIT	368419	8.82	1630180	10.68	1552618	16.62		
LAB SAMPLE ID	CLIENT SAMPLE ID							
LCS 200-138350/5			562031	9.15	2419176	11.01	2407381	16.95
MB 200-138350/6			519260	9.14	2425656	11.00	2439008	16.94
200-46616-1	SVE-01		786037	9.14	3417451	11.00	2127929	16.94
200-46616-2	SVE-02		572447	9.14	2180931	11.00	2045162	16.95
200-46616-3	SVE-03		495171	9.14	1922751	11.00	1793729	16.95
200-46616-4	SVE-04		699232	9.14	2743358	11.00	2536038	16.94

BCM = Bromochloromethane
 DFBZ = 1,4-Difluorobenzene
 CBNZd5 = Chlorobenzene-d5

Area Limit = 60%-140% of internal standard area
 RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-46616-1
 SDG No.: 200-46616-1
 Client Sample ID: SVE-01 Lab Sample ID: 200-46616-1
 Matrix: Air Lab File ID: 200-33765-017.D
 Analysis Method: TO-15 Date Collected: 12/05/2018 15:20
 Sample wt/vol: 20 (mL) Date Analyzed: 12/20/2018 01:37
 Soil Aliquot Vol: _____ Dilution Factor: 10
 Soil Extract Vol.: _____ GC Column: RTX-624 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 138350 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
75-71-8	Dichlorodifluoromethane	120.91	5.0	U	5.0	
76-14-2	1,2-Dichlorotetrafluoroethane	170.92	2.0	U	2.0	
74-87-3	Chloromethane	50.49	5.0	U	5.0	
75-01-4	Vinyl chloride	62.50	2.0	U	2.0	
74-83-9	Bromomethane	94.94	2.0	U	2.0	
75-00-3	Chloroethane	64.52	5.0	U	5.0	
75-69-4	Trichlorofluoromethane	137.37	2.0	U	2.0	
76-13-1	Freon TF	187.38	2.0	U	2.0	
75-35-4	1,1-Dichloroethene	96.94	2.0	U	2.0	
75-09-2	Methylene Chloride	84.93	5.0	U	5.0	
75-34-3	1,1-Dichloroethane	98.96	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	96.94	2.0	U	2.0	
67-66-3	Chloroform	119.38	2.0	U	2.0	
71-55-6	1,1,1-Trichloroethane	133.41	3.3		2.0	
56-23-5	Carbon tetrachloride	153.81	2.0	U	2.0	
71-43-2	Benzene	78.11	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	98.96	2.0	U	2.0	
79-01-6	Trichloroethene	131.39	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	112.99	2.0	U	2.0	
10061-01-5	cis-1,3-Dichloropropene	110.97	2.0	U	2.0	
108-88-3	Toluene	92.14	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	110.97	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	133.41	2.0	U	2.0	
127-18-4	Tetrachloroethene	165.83	300		2.0	
106-93-4	1,2-Dibromoethane	187.87	2.0	U	2.0	
108-90-7	Chlorobenzene	112.56	2.0	U	2.0	
100-41-4	Ethylbenzene	106.17	2.0	U	2.0	
179601-23-1	m,p-Xylene	106.17	5.0	U	5.0	
95-47-6	Xylene, o-	106.17	2.0	U	2.0	
100-42-5	Styrene	104.15	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	167.85	2.0	U	2.0	
108-67-8	1,3,5-Trimethylbenzene	120.20	2.0	U	2.0	
95-63-6	1,2,4-Trimethylbenzene	120.20	2.0	U	2.0	
541-73-1	1,3-Dichlorobenzene	147.00	2.0	U	2.0	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-46616-1
 SDG No.: 200-46616-1
 Client Sample ID: SVE-01 Lab Sample ID: 200-46616-1
 Matrix: Air Lab File ID: 200-33765-017.D
 Analysis Method: TO-15 Date Collected: 12/05/2018 15:20
 Sample wt/vol: 20 (mL) Date Analyzed: 12/20/2018 01:37
 Soil Aliquot Vol: _____ Dilution Factor: 10
 Soil Extract Vol.: _____ GC Column: RTX-624 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 138350 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
106-46-7	1,4-Dichlorobenzene	147.00	2.0	U	2.0	
95-50-1	1,2-Dichlorobenzene	147.00	2.0	U	2.0	
120-82-1	1,2,4-Trichlorobenzene	181.45	5.0	U	5.0	
87-68-3	Hexachlorobutadiene	260.76	2.0	U	2.0	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-46616-1
 SDG No.: 200-46616-1
 Client Sample ID: SVE-01 Lab Sample ID: 200-46616-1
 Matrix: Air Lab File ID: 200-33765-017.D
 Analysis Method: TO-15 Date Collected: 12/05/2018 15:20
 Sample wt/vol: 20 (mL) Date Analyzed: 12/20/2018 01:37
 Soil Aliquot Vol: _____ Dilution Factor: 10
 Soil Extract Vol.: _____ GC Column: RTX-624 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 138350 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
75-71-8	Dichlorodifluoromethane	120.91	25	U	25	
76-14-2	1,2-Dichlorotetrafluoroethane	170.92	14	U	14	
74-87-3	Chloromethane	50.49	10	U	10	
75-01-4	Vinyl chloride	62.50	5.1	U	5.1	
74-83-9	Bromomethane	94.94	7.8	U	7.8	
75-00-3	Chloroethane	64.52	13	U	13	
75-69-4	Trichlorofluoromethane	137.37	11	U	11	
76-13-1	Freon TF	187.38	15	U	15	
75-35-4	1,1-Dichloroethene	96.94	7.9	U	7.9	
75-09-2	Methylene Chloride	84.93	17	U	17	
75-34-3	1,1-Dichloroethane	98.96	8.1	U	8.1	
156-59-2	cis-1,2-Dichloroethene	96.94	7.9	U	7.9	
67-66-3	Chloroform	119.38	9.8	U	9.8	
71-55-6	1,1,1-Trichloroethane	133.41	18		11	
56-23-5	Carbon tetrachloride	153.81	13	U	13	
71-43-2	Benzene	78.11	6.4	U	6.4	
107-06-2	1,2-Dichloroethane	98.96	8.1	U	8.1	
79-01-6	Trichloroethene	131.39	11	U	11	
78-87-5	1,2-Dichloropropane	112.99	9.2	U	9.2	
10061-01-5	cis-1,3-Dichloropropene	110.97	9.1	U	9.1	
108-88-3	Toluene	92.14	7.5	U	7.5	
10061-02-6	trans-1,3-Dichloropropene	110.97	9.1	U	9.1	
79-00-5	1,1,2-Trichloroethane	133.41	11	U	11	
127-18-4	Tetrachloroethene	165.83	2000		14	
106-93-4	1,2-Dibromoethane	187.87	15	U	15	
108-90-7	Chlorobenzene	112.56	9.2	U	9.2	
100-41-4	Ethylbenzene	106.17	8.7	U	8.7	
179601-23-1	m,p-Xylene	106.17	22	U	22	
95-47-6	Xylene, o-	106.17	8.7	U	8.7	
100-42-5	Styrene	104.15	8.5	U	8.5	
79-34-5	1,1,2,2-Tetrachloroethane	167.85	14	U	14	
108-67-8	1,3,5-Trimethylbenzene	120.20	9.8	U	9.8	
95-63-6	1,2,4-Trimethylbenzene	120.20	9.8	U	9.8	
541-73-1	1,3-Dichlorobenzene	147.00	12	U	12	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-46616-1
 SDG No.: 200-46616-1
 Client Sample ID: SVE-01 Lab Sample ID: 200-46616-1
 Matrix: Air Lab File ID: 200-33765-017.D
 Analysis Method: TO-15 Date Collected: 12/05/2018 15:20
 Sample wt/vol: 20 (mL) Date Analyzed: 12/20/2018 01:37
 Soil Aliquot Vol: _____ Dilution Factor: 10
 Soil Extract Vol.: _____ GC Column: RTX-624 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 138350 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
106-46-7	1,4-Dichlorobenzene	147.00	12	U	12	
95-50-1	1,2-Dichlorobenzene	147.00	12	U	12	
120-82-1	1,2,4-Trichlorobenzene	181.45	37	U	37	
87-68-3	Hexachlorobutadiene	260.76	21	U	21	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-46616-1
 SDG No.: 200-46616-1
 Client Sample ID: SVE-02 Lab Sample ID: 200-46616-2
 Matrix: Air Lab File ID: 200-33765-018.D
 Analysis Method: TO-15 Date Collected: 12/06/2018 15:00
 Sample wt/vol: 20 (mL) Date Analyzed: 12/20/2018 02:27
 Soil Aliquot Vol: _____ Dilution Factor: 10
 Soil Extract Vol.: _____ GC Column: RTX-624 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 138350 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
75-71-8	Dichlorodifluoromethane	120.91	5.0	U	5.0	
76-14-2	1,2-Dichlorotetrafluoroethane	170.92	2.0	U	2.0	
74-87-3	Chloromethane	50.49	5.0	U	5.0	
75-01-4	Vinyl chloride	62.50	2.0	U	2.0	
74-83-9	Bromomethane	94.94	2.0	U	2.0	
75-00-3	Chloroethane	64.52	5.0	U	5.0	
75-69-4	Trichlorofluoromethane	137.37	2.0	U	2.0	
76-13-1	Freon TF	187.38	2.0	U	2.0	
75-35-4	1,1-Dichloroethene	96.94	2.0	U	2.0	
75-09-2	Methylene Chloride	84.93	5.0	U	5.0	
75-34-3	1,1-Dichloroethane	98.96	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	96.94	2.0	U	2.0	
67-66-3	Chloroform	119.38	2.0	U	2.0	
71-55-6	1,1,1-Trichloroethane	133.41	9.4		2.0	
56-23-5	Carbon tetrachloride	153.81	2.0	U	2.0	
71-43-2	Benzene	78.11	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	98.96	2.0	U	2.0	
79-01-6	Trichloroethene	131.39	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	112.99	2.0	U	2.0	
10061-01-5	cis-1,3-Dichloropropene	110.97	2.0	U	2.0	
108-88-3	Toluene	92.14	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	110.97	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	133.41	2.0	U	2.0	
127-18-4	Tetrachloroethene	165.83	330		2.0	
106-93-4	1,2-Dibromoethane	187.87	2.0	U	2.0	
108-90-7	Chlorobenzene	112.56	2.0	U	2.0	
100-41-4	Ethylbenzene	106.17	2.0	U	2.0	
179601-23-1	m,p-Xylene	106.17	5.0	U	5.0	
95-47-6	Xylene, o-	106.17	2.0	U	2.0	
100-42-5	Styrene	104.15	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	167.85	2.0	U	2.0	
108-67-8	1,3,5-Trimethylbenzene	120.20	2.0	U	2.0	
95-63-6	1,2,4-Trimethylbenzene	120.20	2.0	U	2.0	
541-73-1	1,3-Dichlorobenzene	147.00	2.0	U	2.0	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-46616-1
 SDG No.: 200-46616-1
 Client Sample ID: SVE-02 Lab Sample ID: 200-46616-2
 Matrix: Air Lab File ID: 200-33765-018.D
 Analysis Method: TO-15 Date Collected: 12/06/2018 15:00
 Sample wt/vol: 20 (mL) Date Analyzed: 12/20/2018 02:27
 Soil Aliquot Vol: _____ Dilution Factor: 10
 Soil Extract Vol.: _____ GC Column: RTX-624 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 138350 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
106-46-7	1,4-Dichlorobenzene	147.00	2.0	U	2.0	
95-50-1	1,2-Dichlorobenzene	147.00	2.0	U	2.0	
120-82-1	1,2,4-Trichlorobenzene	181.45	5.0	U	5.0	
87-68-3	Hexachlorobutadiene	260.76	2.0	U	2.0	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-46616-1
 SDG No.: 200-46616-1
 Client Sample ID: SVE-02 Lab Sample ID: 200-46616-2
 Matrix: Air Lab File ID: 200-33765-018.D
 Analysis Method: TO-15 Date Collected: 12/06/2018 15:00
 Sample wt/vol: 20 (mL) Date Analyzed: 12/20/2018 02:27
 Soil Aliquot Vol: _____ Dilution Factor: 10
 Soil Extract Vol.: _____ GC Column: RTX-624 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 138350 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
75-71-8	Dichlorodifluoromethane	120.91	25	U	25	
76-14-2	1,2-Dichlorotetrafluoroethane	170.92	14	U	14	
74-87-3	Chloromethane	50.49	10	U	10	
75-01-4	Vinyl chloride	62.50	5.1	U	5.1	
74-83-9	Bromomethane	94.94	7.8	U	7.8	
75-00-3	Chloroethane	64.52	13	U	13	
75-69-4	Trichlorofluoromethane	137.37	11	U	11	
76-13-1	Freon TF	187.38	15	U	15	
75-35-4	1,1-Dichloroethene	96.94	7.9	U	7.9	
75-09-2	Methylene Chloride	84.93	17	U	17	
75-34-3	1,1-Dichloroethane	98.96	8.1	U	8.1	
156-59-2	cis-1,2-Dichloroethene	96.94	7.9	U	7.9	
67-66-3	Chloroform	119.38	9.8	U	9.8	
71-55-6	1,1,1-Trichloroethane	133.41	52		11	
56-23-5	Carbon tetrachloride	153.81	13	U	13	
71-43-2	Benzene	78.11	6.4	U	6.4	
107-06-2	1,2-Dichloroethane	98.96	8.1	U	8.1	
79-01-6	Trichloroethene	131.39	11	U	11	
78-87-5	1,2-Dichloropropane	112.99	9.2	U	9.2	
10061-01-5	cis-1,3-Dichloropropene	110.97	9.1	U	9.1	
108-88-3	Toluene	92.14	7.5	U	7.5	
10061-02-6	trans-1,3-Dichloropropene	110.97	9.1	U	9.1	
79-00-5	1,1,2-Trichloroethane	133.41	11	U	11	
127-18-4	Tetrachloroethene	165.83	2300		14	
106-93-4	1,2-Dibromoethane	187.87	15	U	15	
108-90-7	Chlorobenzene	112.56	9.2	U	9.2	
100-41-4	Ethylbenzene	106.17	8.7	U	8.7	
179601-23-1	m,p-Xylene	106.17	22	U	22	
95-47-6	Xylene, o-	106.17	8.7	U	8.7	
100-42-5	Styrene	104.15	8.5	U	8.5	
79-34-5	1,1,2,2-Tetrachloroethane	167.85	14	U	14	
108-67-8	1,3,5-Trimethylbenzene	120.20	9.8	U	9.8	
95-63-6	1,2,4-Trimethylbenzene	120.20	9.8	U	9.8	
541-73-1	1,3-Dichlorobenzene	147.00	12	U	12	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-46616-1
 SDG No.: 200-46616-1
 Client Sample ID: SVE-02 Lab Sample ID: 200-46616-2
 Matrix: Air Lab File ID: 200-33765-018.D
 Analysis Method: TO-15 Date Collected: 12/06/2018 15:00
 Sample wt/vol: 20 (mL) Date Analyzed: 12/20/2018 02:27
 Soil Aliquot Vol: _____ Dilution Factor: 10
 Soil Extract Vol.: _____ GC Column: RTX-624 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 138350 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
106-46-7	1,4-Dichlorobenzene	147.00	12	U	12	
95-50-1	1,2-Dichlorobenzene	147.00	12	U	12	
120-82-1	1,2,4-Trichlorobenzene	181.45	37	U	37	
87-68-3	Hexachlorobutadiene	260.76	21	U	21	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-46616-1
 SDG No.: 200-46616-1
 Client Sample ID: SVE-03 Lab Sample ID: 200-46616-3
 Matrix: Air Lab File ID: 200-33765-019.D
 Analysis Method: TO-15 Date Collected: 12/07/2018 10:45
 Sample wt/vol: 20 (mL) Date Analyzed: 12/20/2018 03:17
 Soil Aliquot Vol: _____ Dilution Factor: 10
 Soil Extract Vol.: _____ GC Column: RTX-624 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 138350 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
75-71-8	Dichlorodifluoromethane	120.91	5.0	U	5.0	
76-14-2	1,2-Dichlorotetrafluoroethane	170.92	2.0	U	2.0	
74-87-3	Chloromethane	50.49	5.0	U	5.0	
75-01-4	Vinyl chloride	62.50	2.0	U	2.0	
74-83-9	Bromomethane	94.94	2.0	U	2.0	
75-00-3	Chloroethane	64.52	5.0	U	5.0	
75-69-4	Trichlorofluoromethane	137.37	2.0	U	2.0	
76-13-1	Freon TF	187.38	2.0	U	2.0	
75-35-4	1,1-Dichloroethene	96.94	2.0	U	2.0	
75-09-2	Methylene Chloride	84.93	5.0	U	5.0	
75-34-3	1,1-Dichloroethane	98.96	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	96.94	2.0	U	2.0	
67-66-3	Chloroform	119.38	2.0	U	2.0	
71-55-6	1,1,1-Trichloroethane	133.41	5.7		2.0	
56-23-5	Carbon tetrachloride	153.81	2.0	U	2.0	
71-43-2	Benzene	78.11	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	98.96	2.0	U	2.0	
79-01-6	Trichloroethene	131.39	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	112.99	2.0	U	2.0	
10061-01-5	cis-1,3-Dichloropropene	110.97	2.0	U	2.0	
108-88-3	Toluene	92.14	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	110.97	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	133.41	2.0	U	2.0	
127-18-4	Tetrachloroethene	165.83	270		2.0	
106-93-4	1,2-Dibromoethane	187.87	2.0	U	2.0	
108-90-7	Chlorobenzene	112.56	2.0	U	2.0	
100-41-4	Ethylbenzene	106.17	2.0	U	2.0	
179601-23-1	m,p-Xylene	106.17	5.0	U	5.0	
95-47-6	Xylene, o-	106.17	2.0	U	2.0	
100-42-5	Styrene	104.15	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	167.85	2.0	U	2.0	
108-67-8	1,3,5-Trimethylbenzene	120.20	2.0	U	2.0	
95-63-6	1,2,4-Trimethylbenzene	120.20	2.0	U	2.0	
541-73-1	1,3-Dichlorobenzene	147.00	2.0	U	2.0	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-46616-1
 SDG No.: 200-46616-1
 Client Sample ID: SVE-03 Lab Sample ID: 200-46616-3
 Matrix: Air Lab File ID: 200-33765-019.D
 Analysis Method: TO-15 Date Collected: 12/07/2018 10:45
 Sample wt/vol: 20 (mL) Date Analyzed: 12/20/2018 03:17
 Soil Aliquot Vol: _____ Dilution Factor: 10
 Soil Extract Vol.: _____ GC Column: RTX-624 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 138350 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
106-46-7	1,4-Dichlorobenzene	147.00	2.0	U	2.0	
95-50-1	1,2-Dichlorobenzene	147.00	2.0	U	2.0	
120-82-1	1,2,4-Trichlorobenzene	181.45	5.0	U	5.0	
87-68-3	Hexachlorobutadiene	260.76	2.0	U	2.0	

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AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-46616-1
 SDG No.: 200-46616-1
 Client Sample ID: SVE-03 Lab Sample ID: 200-46616-3
 Matrix: Air Lab File ID: 200-33765-019.D
 Analysis Method: TO-15 Date Collected: 12/07/2018 10:45
 Sample wt/vol: 20 (mL) Date Analyzed: 12/20/2018 03:17
 Soil Aliquot Vol: _____ Dilution Factor: 10
 Soil Extract Vol.: _____ GC Column: RTX-624 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 138350 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
75-71-8	Dichlorodifluoromethane	120.91	25	U	25	
76-14-2	1,2-Dichlorotetrafluoroethane	170.92	14	U	14	
74-87-3	Chloromethane	50.49	10	U	10	
75-01-4	Vinyl chloride	62.50	5.1	U	5.1	
74-83-9	Bromomethane	94.94	7.8	U	7.8	
75-00-3	Chloroethane	64.52	13	U	13	
75-69-4	Trichlorofluoromethane	137.37	11	U	11	
76-13-1	Freon TF	187.38	15	U	15	
75-35-4	1,1-Dichloroethene	96.94	7.9	U	7.9	
75-09-2	Methylene Chloride	84.93	17	U	17	
75-34-3	1,1-Dichloroethane	98.96	8.1	U	8.1	
156-59-2	cis-1,2-Dichloroethene	96.94	7.9	U	7.9	
67-66-3	Chloroform	119.38	9.8	U	9.8	
71-55-6	1,1,1-Trichloroethane	133.41	31		11	
56-23-5	Carbon tetrachloride	153.81	13	U	13	
71-43-2	Benzene	78.11	6.4	U	6.4	
107-06-2	1,2-Dichloroethane	98.96	8.1	U	8.1	
79-01-6	Trichloroethene	131.39	11	U	11	
78-87-5	1,2-Dichloropropane	112.99	9.2	U	9.2	
10061-01-5	cis-1,3-Dichloropropene	110.97	9.1	U	9.1	
108-88-3	Toluene	92.14	7.5	U	7.5	
10061-02-6	trans-1,3-Dichloropropene	110.97	9.1	U	9.1	
79-00-5	1,1,2-Trichloroethane	133.41	11	U	11	
127-18-4	Tetrachloroethene	165.83	1800		14	
106-93-4	1,2-Dibromoethane	187.87	15	U	15	
108-90-7	Chlorobenzene	112.56	9.2	U	9.2	
100-41-4	Ethylbenzene	106.17	8.7	U	8.7	
179601-23-1	m,p-Xylene	106.17	22	U	22	
95-47-6	Xylene, o-	106.17	8.7	U	8.7	
100-42-5	Styrene	104.15	8.5	U	8.5	
79-34-5	1,1,2,2-Tetrachloroethane	167.85	14	U	14	
108-67-8	1,3,5-Trimethylbenzene	120.20	9.8	U	9.8	
95-63-6	1,2,4-Trimethylbenzene	120.20	9.8	U	9.8	
541-73-1	1,3-Dichlorobenzene	147.00	12	U	12	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-46616-1
 SDG No.: 200-46616-1
 Client Sample ID: SVE-03 Lab Sample ID: 200-46616-3
 Matrix: Air Lab File ID: 200-33765-019.D
 Analysis Method: TO-15 Date Collected: 12/07/2018 10:45
 Sample wt/vol: 20 (mL) Date Analyzed: 12/20/2018 03:17
 Soil Aliquot Vol: _____ Dilution Factor: 10
 Soil Extract Vol.: _____ GC Column: RTX-624 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 138350 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
106-46-7	1,4-Dichlorobenzene	147.00	12	U	12	
95-50-1	1,2-Dichlorobenzene	147.00	12	U	12	
120-82-1	1,2,4-Trichlorobenzene	181.45	37	U	37	
87-68-3	Hexachlorobutadiene	260.76	21	U	21	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-46616-1
 SDG No.: 200-46616-1
 Client Sample ID: SVE-04 Lab Sample ID: 200-46616-4
 Matrix: Air Lab File ID: 200-33765-020.D
 Analysis Method: TO-15 Date Collected: 12/10/2018 14:00
 Sample wt/vol: 20 (mL) Date Analyzed: 12/20/2018 04:07
 Soil Aliquot Vol: _____ Dilution Factor: 10
 Soil Extract Vol.: _____ GC Column: RTX-624 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 138350 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
75-71-8	Dichlorodifluoromethane	120.91	5.0	U	5.0	
76-14-2	1,2-Dichlorotetrafluoroethane	170.92	2.0	U	2.0	
74-87-3	Chloromethane	50.49	5.0	U	5.0	
75-01-4	Vinyl chloride	62.50	2.0	U	2.0	
74-83-9	Bromomethane	94.94	2.0	U	2.0	
75-00-3	Chloroethane	64.52	5.0	U	5.0	
75-69-4	Trichlorofluoromethane	137.37	2.0	U	2.0	
76-13-1	Freon TF	187.38	2.0	U	2.0	
75-35-4	1,1-Dichloroethene	96.94	2.0	U	2.0	
75-09-2	Methylene Chloride	84.93	5.0	U	5.0	
75-34-3	1,1-Dichloroethane	98.96	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	96.94	2.0	U	2.0	
67-66-3	Chloroform	119.38	2.0	U	2.0	
71-55-6	1,1,1-Trichloroethane	133.41	4.1		2.0	
56-23-5	Carbon tetrachloride	153.81	2.0	U	2.0	
71-43-2	Benzene	78.11	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	98.96	2.0	U	2.0	
79-01-6	Trichloroethene	131.39	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	112.99	2.0	U	2.0	
10061-01-5	cis-1,3-Dichloropropene	110.97	2.0	U	2.0	
108-88-3	Toluene	92.14	4.7		2.0	
10061-02-6	trans-1,3-Dichloropropene	110.97	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	133.41	2.0	U	2.0	
127-18-4	Tetrachloroethene	165.83	200		2.0	
106-93-4	1,2-Dibromoethane	187.87	2.0	U	2.0	
108-90-7	Chlorobenzene	112.56	2.0	U	2.0	
100-41-4	Ethylbenzene	106.17	2.0	U	2.0	
179601-23-1	m,p-Xylene	106.17	5.0	U	5.0	
95-47-6	Xylene, o-	106.17	2.0	U	2.0	
100-42-5	Styrene	104.15	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	167.85	2.0	U	2.0	
108-67-8	1,3,5-Trimethylbenzene	120.20	2.0	U	2.0	
95-63-6	1,2,4-Trimethylbenzene	120.20	2.0	U	2.0	
541-73-1	1,3-Dichlorobenzene	147.00	2.0	U	2.0	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-46616-1
 SDG No.: 200-46616-1
 Client Sample ID: SVE-04 Lab Sample ID: 200-46616-4
 Matrix: Air Lab File ID: 200-33765-020.D
 Analysis Method: TO-15 Date Collected: 12/10/2018 14:00
 Sample wt/vol: 20 (mL) Date Analyzed: 12/20/2018 04:07
 Soil Aliquot Vol: _____ Dilution Factor: 10
 Soil Extract Vol.: _____ GC Column: RTX-624 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 138350 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
106-46-7	1,4-Dichlorobenzene	147.00	2.0	U	2.0	
95-50-1	1,2-Dichlorobenzene	147.00	2.0	U	2.0	
120-82-1	1,2,4-Trichlorobenzene	181.45	5.0	U	5.0	
87-68-3	Hexachlorobutadiene	260.76	2.0	U	2.0	

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AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-46616-1
 SDG No.: 200-46616-1
 Client Sample ID: SVE-04 Lab Sample ID: 200-46616-4
 Matrix: Air Lab File ID: 200-33765-020.D
 Analysis Method: TO-15 Date Collected: 12/10/2018 14:00
 Sample wt/vol: 20 (mL) Date Analyzed: 12/20/2018 04:07
 Soil Aliquot Vol: _____ Dilution Factor: 10
 Soil Extract Vol.: _____ GC Column: RTX-624 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 138350 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
75-71-8	Dichlorodifluoromethane	120.91	25	U	25	
76-14-2	1,2-Dichlorotetrafluoroethane	170.92	14	U	14	
74-87-3	Chloromethane	50.49	10	U	10	
75-01-4	Vinyl chloride	62.50	5.1	U	5.1	
74-83-9	Bromomethane	94.94	7.8	U	7.8	
75-00-3	Chloroethane	64.52	13	U	13	
75-69-4	Trichlorofluoromethane	137.37	11	U	11	
76-13-1	Freon TF	187.38	15	U	15	
75-35-4	1,1-Dichloroethene	96.94	7.9	U	7.9	
75-09-2	Methylene Chloride	84.93	17	U	17	
75-34-3	1,1-Dichloroethane	98.96	8.1	U	8.1	
156-59-2	cis-1,2-Dichloroethene	96.94	7.9	U	7.9	
67-66-3	Chloroform	119.38	9.8	U	9.8	
71-55-6	1,1,1-Trichloroethane	133.41	22		11	
56-23-5	Carbon tetrachloride	153.81	13	U	13	
71-43-2	Benzene	78.11	6.4	U	6.4	
107-06-2	1,2-Dichloroethane	98.96	8.1	U	8.1	
79-01-6	Trichloroethene	131.39	11	U	11	
78-87-5	1,2-Dichloropropane	112.99	9.2	U	9.2	
10061-01-5	cis-1,3-Dichloropropene	110.97	9.1	U	9.1	
108-88-3	Toluene	92.14	18		7.5	
10061-02-6	trans-1,3-Dichloropropene	110.97	9.1	U	9.1	
79-00-5	1,1,2-Trichloroethane	133.41	11	U	11	
127-18-4	Tetrachloroethene	165.83	1300		14	
106-93-4	1,2-Dibromoethane	187.87	15	U	15	
108-90-7	Chlorobenzene	112.56	9.2	U	9.2	
100-41-4	Ethylbenzene	106.17	8.7	U	8.7	
179601-23-1	m,p-Xylene	106.17	22	U	22	
95-47-6	Xylene, o-	106.17	8.7	U	8.7	
100-42-5	Styrene	104.15	8.5	U	8.5	
79-34-5	1,1,2,2-Tetrachloroethane	167.85	14	U	14	
108-67-8	1,3,5-Trimethylbenzene	120.20	9.8	U	9.8	
95-63-6	1,2,4-Trimethylbenzene	120.20	9.8	U	9.8	
541-73-1	1,3-Dichlorobenzene	147.00	12	U	12	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-46616-1
 SDG No.: 200-46616-1
 Client Sample ID: SVE-04 Lab Sample ID: 200-46616-4
 Matrix: Air Lab File ID: 200-33765-020.D
 Analysis Method: TO-15 Date Collected: 12/10/2018 14:00
 Sample wt/vol: 20 (mL) Date Analyzed: 12/20/2018 04:07
 Soil Aliquot Vol: _____ Dilution Factor: 10
 Soil Extract Vol.: _____ GC Column: RTX-624 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 138350 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
106-46-7	1,4-Dichlorobenzene	147.00	12	U	12	
95-50-1	1,2-Dichlorobenzene	147.00	12	U	12	
120-82-1	1,2,4-Trichlorobenzene	181.45	37	U	37	
87-68-3	Hexachlorobutadiene	260.76	21	U	21	

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Burlington Job No.: 200-46616-1 Analy Batch No.: 137447

SDG No.: 200-46616-1

Instrument ID: CHG.i GC Column: RTX-624 ID: 0.32 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/27/2018 20:22 Calibration End Date: 11/28/2018 02:15 Calibration ID: 40668

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-137447/4	200-33385-004.D
Level 2	IC 200-137447/5	200-33385-005.D
Level 3	IC 200-137447/6	200-33385-006.D
Level 4	IC 200-137447/7	200-33385-007.D
Level 5	ICIS 200-137447/8	200-33385-008.D
Level 6	IC 200-137447/9	200-33385-009.D
Level 7	IC 200-137447/10	200-33385-010.D
Level 8	IC 200-137447/11	200-33385-011.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R ² OR COD	#	MIN R ² OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Propylene	++++ 0.6329	++++ 0.6568	++++ 0.6026	0.7527	0.8066	Ave		0.6903			12.4		30.0				
Dichlorodifluoromethane	++++ 3.3389	++++ 3.4205	4.4909 2.9962	3.9455	4.1925	Ave		3.7308			15.3		30.0				
Freon 22	++++ 1.3948	++++ 1.4821	1.8958 1.3904	1.6246	1.7412	Ave		1.5882			12.8		30.0				
1,2-Dichlorotetrafluoroethane	++++ 2.4871	2.9012 2.5770	3.3694 2.3598	2.8738	3.0853	Ave		2.8077			12.7		30.0				
Chloromethane	++++ 0.6326	++++ 0.6828	0.8285 0.6510	0.7589	0.8019	Ave		0.7259			11.3		30.0				
n-Butane	++++ 0.8588	++++ 0.8980	1.1689 0.8391	1.0189	1.0795	Ave		0.9772			13.6		30.0				
Vinyl chloride	1.0834 0.7516	0.8332 0.7865	0.9709 0.7547	0.8664	0.9438	Ave		0.8738			13.5		30.0				
1,3-Butadiene	0.5534 0.4779	0.5452 0.5073	0.6551 0.4855	0.5389	0.5859	Ave		0.5437			10.6		30.0				
Bromomethane	++++ 0.9191	0.9633 0.9673	1.1554 0.9282	1.0050	1.1238	Ave		1.0089			9.3		30.0				
Chloroethane	++++ 0.2981	++++ 0.3106	0.4091 0.3048	0.3276	0.3674	Ave		0.3363			12.9		30.0				
Isopentane	++++ 0.5721	0.6610 0.5826	0.7572 0.5559	0.6792	0.7074	Ave		0.6451			11.8		30.0				
Bromoethene (Vinyl Bromide)	++++ 0.9050	0.9392 0.9502	1.1868 0.9196	0.9778	1.1037	Ave		0.9975			10.7		30.0				
Trichlorofluoromethane	++++ 2.6569	2.8766 2.7100	3.5631 2.5398	3.0318	3.2599	Ave		2.9483			12.4		30.0				
n-Pentane	++++ 0.8532	++++ 0.8736	1.2453 0.8464	0.9943	1.0457	Ave		0.9764			15.9		30.0				

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Burlington

Job No.: 200-46616-1

Analy Batch No.: 137447

SDG No.: 200-46616-1

Instrument ID: CHG.i

GC Column: RTX-624

ID: 0.32 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 11/27/2018 20:22

Calibration End Date: 11/28/2018 02:15

Calibration ID: 40668

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R ² OR COD	#	MIN R ² OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8														
Ethanol	++++ 0.1756	++++ 0.1636	0.2556 0.1529	0.2128	0.2528	Ave		0.2022			22.3		30.0				
Ethyl ether	0.3879 0.3273	0.3052 0.2746	0.4192 0.2839	0.3618	0.3802	Ave		0.3425			15.4		30.0				
Acrolein	++++ 0.1020	++++ 0.1089	++++ 0.1213	0.1663	0.1572	Ave		0.1311			22.1		30.0				
Freon TF	++++ 1.8786	2.0349 1.9051	2.5595 1.8694	2.0356	2.2541	Ave		2.0767			12.1		30.0				
1,1-Dichloroethene	0.9994 0.7970	1.0051 0.8552	0.9932 0.8390	0.8598	0.9645	Ave		0.9142			9.3		30.0				
Acetone	++++ 0.7752	++++ 0.6396	++++ 0.6587	0.9232	0.8960	Ave		0.7785			16.8		30.0				
Carbon disulfide	++++ 2.1258	++++ 2.1509	2.6421 2.1358	2.4410	2.6131	Ave		2.3514			10.4		30.0				
Isopropyl alcohol	++++ 0.8004	++++ 0.8272	++++ 0.7834	0.8973	0.9931	Ave		0.8603			10.0		30.0				
3-Chloropropene	++++ 0.6406	0.6793 0.6435	0.8826 0.6157	0.6966	0.6024	Ave		0.6801			14.0		30.0				
Acetonitrile	++++ 0.2867	++++ 0.2274	++++ 0.2497	0.3291	0.3306	Ave		0.2847			16.3		30.0				
Methylene Chloride	++++ 0.7469	++++ 0.7381	1.0060 0.7271	0.8292	0.9027	Ave		0.8250			13.5		30.0				
tert-Butyl alcohol	++++ 1.2182	++++ 1.2894	++++ 1.2365	1.3316	1.5007	Ave		1.3153			8.6		30.0				
Methyl tert-butyl ether	++++ 1.7148	1.6941 1.4867	2.2435 1.5198	1.8543	1.9269	Ave		1.7772			14.7		30.0				
trans-1,2-Dichloroethene	++++ 1.0001	1.1062 1.0014	1.3753 0.9872	1.0917	1.1912	Ave		1.1076			12.6		30.0				
Acrylonitrile	++++ 0.2987	++++ 0.2439	0.3781 0.2802	0.3247	0.3389	Ave		0.3108			15.1		30.0				
n-Hexane	++++ 0.8047	0.8683 0.8128	1.0435 0.8116	0.8674	0.9716	Ave		0.8829			10.4		30.0				
1,1-Dichloroethane	1.8288 1.2653	1.3210 1.2484	1.6382 1.2562	1.3623	1.5147	Ave		1.4294			14.9		30.0				
Vinyl acetate	++++ 1.0877	++++ 0.8747	++++ 0.9712	1.2075	1.2650	Ave		1.0812			15.0		30.0				
cis-1,2-Dichloroethene	0.7359 0.8260	0.8150 0.8352	1.0099 0.8502	0.8720	0.9834	Ave		0.8660			10.4		30.0				
Methyl Ethyl Ketone	++++ 0.2567	++++ 0.2334	0.3758 0.2418	0.2811	0.2874	Ave		0.2794			18.5		30.0				

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Burlington

Job No.: 200-46616-1

Analy Batch No.: 137447

SDG No.: 200-46616-1

Instrument ID: CHG.i

GC Column: RTX-624

ID: 0.32 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 11/27/2018 20:22

Calibration End Date: 11/28/2018 02:15

Calibration ID: 40668

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R ² OR COD	#	MIN R ² OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8														
Ethyl acetate	++++ 0.0403	++++ 0.0352	++++ 0.0365	0.0437	0.0435	Ave		0.0398			9.8		30.0				
Tetrahydrofuran	++++ 0.1067	++++ 0.0888	++++ 0.0918	0.1296	0.1535	Ave		0.1141			23.9		30.0				
Chloroform	++++ 1.9314	1.9917 1.9092	2.5297 1.9140	2.0466	2.2991	Ave		2.0888			11.4		30.0				
Cyclohexane	++++ 0.2003	0.2327 0.1935	0.2603 0.1955	0.2238	0.3006	Ave		0.2295			17.2		30.0				
1,1,1-Trichloroethane	++++ 0.4988	0.5078 0.4686	0.6359 0.4757	0.5543	0.7483	Ave		0.5556			18.4		30.0				
Carbon tetrachloride	0.4806 0.5650	0.5059 0.5374	0.6669 0.5424	0.6211	0.8305	Ave		0.5937			19.0		30.0				
2,2,4-Trimethylpentane	++++ 0.6794	0.7057 0.6381	0.8618 0.6427	0.7716	1.0153	Ave		0.7593			18.1		30.0				
Benzene	++++ 0.4835	0.4863 0.4265	0.6573 0.4735	0.4999	0.7004	Ave		0.5325			19.4		30.0				
1,2-Dichloroethane	++++ 0.2789	0.2813 0.2453	0.3757 0.2649	0.2997	0.4101	Ave		0.3080			19.9		30.0				
n-Heptane	++++ 0.2449	0.2474 0.2303	0.3200 0.2289	0.2831	0.3634	Ave		0.2740			18.7		30.0				
n-Butanol	++++ 0.0800	++++ 0.0814	++++ 0.0832	0.0857	0.1201	Ave		0.0901			18.8		30.0				
Trichloroethene	0.4574 0.3060	0.3105 0.3029	0.3480 0.3059	0.3198	0.4372	Ave		0.3485			18.0		30.0				
1,2-Dichloropropane	++++ 0.1752	0.1675 0.1481	0.2276 0.1669	0.1813	0.2474	Ave		0.1877			19.2		30.0				
Methyl methacrylate	++++ 0.1487	++++ 0.1311	++++ 0.1407	0.1525	0.1596	Ave		0.1550			14.9		30.0				
Dibromomethane	0.3478 0.3319	0.2791 0.2799	0.3143 0.3117	0.2892	0.4152	Ave		0.3211			14.1		30.0				
1,4-Dioxane	++++ 0.0868	++++ 0.0857	++++ 0.0833	0.1014	0.1322	Ave		0.0979			20.9		30.0				
Bromodichloromethane	++++ 0.4979	0.4478 0.4742	0.5794 0.4968	0.5383	0.7535	Ave		0.5411			19.0		30.0				
cis-1,3-Dichloropropene	++++ 0.3252	0.2851 0.2866	0.3546 0.3168	0.3272	0.4499	Ave		0.3350			16.8		30.0				
Methyl isobutyl ketone	++++ 0.3256	++++ 0.3105	0.2817 0.3100	0.3847	0.4652	Ave		0.3463			19.5		30.0				
Toluene	++++ 0.3917	++++ 0.3291	0.4980 0.3885	0.3929	0.4934	Ave		0.4051			16.5		30.0				

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Burlington

Job No.: 200-46616-1

Analy Batch No.: 137447

SDG No.: 200-46616-1

Instrument ID: CHG.i

GC Column: RTX-624

ID: 0.32 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 11/27/2018 20:22

Calibration End Date: 11/28/2018 02:15

Calibration ID: 40668

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8	LVL 5													
n-Octane	0.3970 0.3702	0.3466 0.3394	0.4541 0.3455	0.4195	0.5513	Ave		0.4030			17.9		30.0				
trans-1,3-Dichloropropene	++++ 0.3241	0.2696 0.2804	0.3487 0.3127	0.3311	0.4402	Ave		0.3295			17.1		30.0				
1,1,2-Trichloroethane	++++ 0.2114	0.1820 0.1888	0.2604 0.2015	0.2193	0.2710	Ave		0.2192			15.6		30.0				
Tetrachloroethene	0.4355 0.4617	0.4165 0.4625	0.5417 0.4886	0.4687	0.6052	Ave		0.4850			12.6		30.0				
Methyl Butyl Ketone (2-Hexanone)	++++ 0.3445	++++ 0.3441	0.2655 0.3321	0.3965	0.4536	Ave		0.3560			17.9		30.0				
Dibromochloromethane	++++ 0.5088	0.4271 0.5724	0.6332 0.6131	0.5859	0.7606	Ave		0.5859			17.7		30.0				
1,2-Dibromoethane	++++ 0.4438	0.3264 0.4051	0.4804 0.4444	0.4357	0.5623	Ave		0.4426			16.2		30.0				
Chlorobenzene	++++ 0.6117	0.4949 0.5568	0.7217 0.6103	0.5964	0.7698	Ave		0.6231			15.1		30.0				
Ethylbenzene	++++ 0.8972	0.7158 0.7958	1.0833 0.8478	0.9192	1.1260	Ave		0.9122			16.2		30.0				
n-Nonane	++++ 0.3814	0.3309 0.3456	0.4702 0.3597	0.4040	0.5000	Ave		0.3988			16.1		30.0				
m,p-Xylene	++++ 0.3676	0.2954 0.3261	0.4247 0.3647	0.3636	0.4462	Ave		0.3698			14.1		30.0				
Xylene, o-	++++ 0.3484	0.2715 0.3108	0.4039 0.3434	0.3518	0.4300	Ave		0.3514			15.2		30.0				
Styrene	++++ 0.5616	0.3492 0.5108	0.5598 0.5623	0.5390	0.6829	Ave		0.5379			18.4		30.0				
Bromoform	++++ 0.3139	0.3517 0.5834	0.5752 0.6151	0.5731	0.6986	Ave		0.5301			26.8		30.0				
Cumene	++++ 1.0335	0.7455 0.9303	1.1674 0.9815	1.0518	1.2825	Ave		1.0275			16.7		30.0				
1,1,2,2-Tetrachloroethane	++++ 0.5504	0.4482 0.5063	0.6336 0.5069	0.5835	0.6956	Ave		0.5606			15.0		30.0				
n-Propylbenzene	++++ 1.2323	0.8889 1.0927	1.4608 1.0737	1.2770	1.5395	Ave		1.2236			18.6		30.0				
1,2,3-Trichloropropane	++++ 0.4472	0.4020 0.4020	0.5596 0.3989	0.4827	0.5650	Ave		0.4759			15.5		30.0				
2-Chlorotoluene	++++ 0.9181	0.7204 0.8246	1.0617 0.8268	0.9526	1.1642	Ave		0.9241			16.4		30.0				
4-Ethyltoluene	++++ 1.0768	0.7192 0.9640	1.1681 0.9775	1.0651	1.3206	Ave		1.0416			17.9		30.0				

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Burlington Job No.: 200-46616-1 Analy Batch No.: 137447
 SDG No.: 200-46616-1
 Instrument ID: CHG.i GC Column: RTX-624 ID: 0.32 (mm) Heated Purge: (Y/N) N
 Calibration Start Date: 11/27/2018 20:22 Calibration End Date: 11/28/2018 02:15 Calibration ID: 40668

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R ² OR COD	#	MIN R ² OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8														
n-Decane	++++ 0.4779	++++ 0.4256	0.5261 0.4153	0.5064	0.6083	Ave		0.4933			14.4		30.0				
1,3,5-Trimethylbenzene	++++ 0.8956	0.6442 0.8150	1.0259 0.8332	0.9157	1.1089	Ave		0.8912			16.9		30.0				
Alpha Methyl Styrene	0.2507 0.4704	0.2440 0.4418	0.4310 0.4794	0.4571	0.5749	Ave		0.4187			27.3		30.0				
tert-Butylbenzene	++++ 0.8409	0.5813 0.7712	0.9355 0.8126	0.8597	1.0341	Ave		0.8336			16.9		30.0				
1,2,4-Trimethylbenzene	++++ 0.8911	0.6184 0.8144	0.9911 0.8219	0.9134	1.1044	Ave		0.8792			17.4		30.0				
sec-Butylbenzene	++++ 1.2622	0.8682 1.1513	1.4377 1.0542	1.3128	1.5663	Ave		1.2361			19.0		30.0				
4-Isopropyltoluene	++++ 1.1224	0.6429 1.0348	1.1711 0.9553	1.1274	1.3624	Ave		1.0595			21.0		30.0				
1,3-Dichlorobenzene	++++ 0.7357	0.5359 0.6840	0.7351 0.6903	0.7077	0.8994	Ave		0.7126			15.0		30.0				
1,4-Dichlorobenzene	++++ 0.6952	0.5161 0.6448	0.7165 0.6563	0.6882	0.8527	Ave		0.6814			14.7		30.0				
Benzyl chloride	++++ 0.8847	0.5401 0.8301	0.9012 0.7958	0.8876	1.0484	Ave		0.8411			18.4		30.0				
n-Butylbenzene	++++ 1.0057	0.6646 0.9161	0.9930 0.8422	1.0697	1.2696	Ave		0.9659			19.5		30.0				
n-Undecane	++++ 0.5350	++++ 0.4812	++++ 0.4546	0.5682	0.6776	Ave		0.5433			16.1		30.0				
1,2-Dichlorobenzene	++++ 0.6677	0.4986 0.6195	0.6777 0.6269	0.6715	0.8222	Ave		0.6549			14.7		30.0				
n-Dodecane	++++ 0.4633	++++ 0.4103	++++ 0.3898	0.4873	0.5744	Ave		0.4351			22.5		30.0				
1,2,4-Trichlorobenzene	++++ 0.5232	++++ 0.4893	0.3677 0.4924	0.4772	0.6037	Ave		0.4922			15.5		30.0				
Hexachlorobutadiene	++++ 0.4948	0.4280 0.4522	0.5076 0.4430	0.4948	0.6071	Ave		0.4897			12.2		30.0				
Naphthalene	++++ 1.0454	++++ 0.9929	0.6623 0.9673	0.9060	1.1521	Ave		0.9543			17.3		30.0				
1,2,3-Trichlorobenzene	++++ 0.4534	++++ 0.4244	0.3280 0.4206	0.4203	0.5048	Ave		0.4252			13.6		30.0				

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Burlington Job No.: 200-46616-1 Analy Batch No.: 137447

SDG No.: 200-46616-1

Instrument ID: CHG.i GC Column: RTX-624 ID: 0.32 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/27/2018 20:22 Calibration End Date: 11/28/2018 02:15 Calibration ID: 40668

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-137447/4	200-33385-004.D
Level 2	IC 200-137447/5	200-33385-005.D
Level 3	IC 200-137447/6	200-33385-006.D
Level 4	IC 200-137447/7	200-33385-007.D
Level 5	ICIS 200-137447/8	200-33385-008.D
Level 6	IC 200-137447/9	200-33385-009.D
Level 7	IC 200-137447/10	200-33385-010.D
Level 8	IC 200-137447/11	200-33385-011.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
Propylene	BCM	Ave	++++ 1051895	++++ 1420070	++++ 2699122	364033	785952	++++ 15.0	++++ 20.0	++++ 40.0	4.99	10.00
Dichlorodifluoromethane	BCM	Ave	++++ 5549641	++++ 7395788	228414 13419981	1908083	4085272	++++ 15.0	++++ 20.0	0.500 40.0	4.99	10.00
Freon 22	BCM	Ave	++++ 2318249	++++ 3204700	96426 6227733	785654	1696694	++++ 15.0	++++ 20.0	0.500 40.0	4.99	10.00
1,2-Dichlorotetrafluoroethane	BCM	Ave	++++ 4133878	58316 5572029	171371 10569525	1389798	3006367	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Chloromethane	BCM	Ave	++++ 1051513	++++ 1476396	42138 2915590	366991	781412	++++ 15.0	++++ 20.0	0.500 40.0	4.99	10.00
n-Butane	BCM	Ave	++++ 1427468	++++ 1941633	59450 3758112	492754	1051856	++++ 15.0	++++ 20.0	0.500 40.0	4.99	10.00
Vinyl chloride	BCM	Ave	4137 1249166	16747 1700616	49384 3380364	418982	919635	0.0351 15.0	0.200 20.0	0.500 40.0	4.99	10.00
1,3-Butadiene	BCM	Ave	2113 794383	10959 1096868	33319 2174691	260635	570903	0.0351 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Bromomethane	BCM	Ave	++++ 1527586	19363 2091603	58765 4157469	486037	1095065	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Chloroethane	BCM	Ave	++++ 495532	++++ 671660	20807 1365037	158452	357997	++++ 15.0	++++ 20.0	0.500 40.0	4.99	10.00
Isopentane	BCM	Ave	++++ 950946	13287 1259758	38513 2489976	328482	689287	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Bromoethene (Vinyl Bromide)	BCM	Ave	++++ 1504165	18879 2054520	60365 4118977	472875	1075494	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Trichlorofluoromethane	BCM	Ave	++++ 4416027	57821 5859677	181225 11375500	1466203	3176477	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
n-Pentane	BCM	Ave	++++ 1418170	++++ 1888865	63337 3791215	480875	1018971	++++ 15.0	++++ 20.0	0.500 40.0	4.99	10.00
Ethanol	BCM	Ave	++++ 390014	++++ 707471	130151 1712095	205970	369667	++++ 20.0	++++ 40.0	5.01 100.0	9.99	15.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Burlington

Job No.: 200-46616-1

Analy Batch No.: 137447

SDG No.: 200-46616-1

Instrument ID: CHG.i

GC Column: RTX-624

ID: 0.32 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 11/27/2018 20:22

Calibration End Date: 11/28/2018 02:15

Calibration ID: 40668

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
Ethyl ether	BCM	Ave	1481 544069	6134 593714	21321 1271570	174979	370443	0.0351 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Acrolein	BCM	Ave	++++ 169592	++++ 235550	++++ 543303	80408	153136	++++ 15.0	++++ 20.0	++++ 40.0	4.99	10.00
Freon TF	BCM	Ave	++++ 3122448	40902 4119144	130182 8372996	984428	2196444	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
1,1-Dichloroethene	BCM	Ave	3816 1324685	20203 1849152	50516 3757862	415825	939842	0.0351 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Acetone	BCM	Ave	++++ 1288430	++++ 1383034	++++ 2950498	446467	873048	++++ 15.0	++++ 20.0	++++ 40.0	4.99	10.00
Carbon disulfide	BCM	Ave	++++ 3533230	++++ 4650752	++++ 9566310	1180486	2546288	++++ 15.0	++++ 20.0	0.500 40.0	4.99	10.00
Isopropyl alcohol	BCM	Ave	++++ 1330275	++++ 1788623	++++ 3508874	433961	967720	++++ 15.0	++++ 20.0	++++ 40.0	4.99	10.00
3-Chloropropene	BCM	Ave	++++ 1064730	13655 1391342	44893 2757743	336881	586985	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Acetonitrile	BCM	Ave	++++ 476460	++++ 491620	++++ 1118502	159156	322186	++++ 15.0	++++ 20.0	++++ 40.0	4.99	10.00
Methylene Chloride	BCM	Ave	++++ 1241501	++++ 1595918	++++ 3256585	400998	879587	++++ 15.0	++++ 20.0	0.500 40.0	4.99	10.00
tert-Butyl alcohol	BCM	Ave	++++ 2024721	++++ 2787953	++++ 5538463	643959	1462343	++++ 15.0	++++ 20.0	++++ 40.0	4.99	10.00
Methyl tert-butyl ether	BCM	Ave	++++ 2850213	34053 3214537	114110 6807313	896738	1877588	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
trans-1,2-Dichloroethene	BCM	Ave	++++ 1662249	22236 2165148	69952 4421717	527968	1160714	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Acrylonitrile	BCM	Ave	++++ 496388	++++ 527389	++++ 1255166	19230	330215	++++ 15.0	++++ 20.0	0.500 40.0	4.99	10.00
n-Hexane	BCM	Ave	++++ 1337568	17454 1757444	53074 3635199	419502	946701	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
1,1-Dichloroethane	BCM	Ave	6983 2102981	26553 2699325	83323 5626599	658831	1475943	0.0351 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Vinyl acetate	BCM	Ave	++++ 1807895	++++ 1891260	++++ 4349907	583981	1232683	++++ 15.0	++++ 20.0	++++ 40.0	4.99	10.00
cis-1,2-Dichloroethene	BCM	Ave	2810 1372886	16381 1805960	51366 3807961	421703	958263	0.0351 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Methyl Ethyl Ketone	BCM	Ave	++++ 426590	++++ 504703	19113 1082953	135941	280092	++++ 15.0	++++ 20.0	0.500 40.0	4.99	10.00
Ethyl acetate	BCM	Ave	++++ 66961	++++ 76105	++++ 163260	21125	42404	++++ 15.0	++++ 20.0	++++ 40.0	4.99	10.00
Tetrahydrofuran	DFBZ	Ave	++++ 787841	++++ 901182	++++ 1902316	260189	531349	++++ 15.0	++++ 20.0	++++ 40.0	4.99	10.00

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Burlington

Job No.: 200-46616-1

Analy Batch No.: 137447

SDG No.: 200-46616-1

Instrument ID: CHG.i

GC Column: RTX-624

ID: 0.32 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 11/27/2018 20:22

Calibration End Date: 11/28/2018 02:15

Calibration ID: 40668

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
Chloroform	BCM	Ave	++++ 3210215	40034 4128100	128667 8572568	989740	2240315	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Cyclohexane	DFBZ	Ave	++++ 1479056	20662 1963429	58864 4051197	449187	1040636	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
1,1,1-Trichloroethane	DFBZ	Ave	++++ 3683537	45084 4755711	143792 9855828	1112533	2590931	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Carbon tetrachloride	DFBZ	Ave	8699 4172078	44908 5453754	150815 11237527	1246640	2875434	0.0351 15.0	0.200 20.0	0.500 40.0	4.99	10.00
2,2,4-Trimethylpentane	DFBZ	Ave	++++ 5016965	62654 6475336	194884 13317097	1548759	3515364	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Benzene	DFBZ	Ave	++++ 3570443	43168 4328088	148640 9811343	1003423	2425081	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
1,2-Dichloroethane	DFBZ	Ave	++++ 2059367	24972 2489352	84959 5487945	601611	1420020	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
n-Heptane	DFBZ	Ave	++++ 1808294	21959 2336889	72356 4741703	568208	1258258	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
n-Butanol	DFBZ	Ave	++++ 590670	++++ 826101	++++ 1724262	171996	415873	++++ 15.0	++++ 20.0	++++ 40.0	4.99	10.00
Trichloroethene	DFBZ	Ave	8278 2259549	27569 3073973	78684 6338766	641772	1513764	0.0351 15.0	0.200 20.0	0.500 40.0	4.99	10.00
1,2-Dichloropropane	DFBZ	Ave	++++ 1293872	14866 1502966	51479 3457600	363894	856722	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Methyl methacrylate	DFBZ	Ave	++++ 1098124	++++ 1330674	34488 2914700	320321	684345	++++ 15.0	++++ 20.0	0.500 40.0	4.99	10.00
Dibromomethane	DFBZ	Ave	6295 2450905	24779 2840387	71063 6458681	580456	1437496	0.0351 15.0	0.200 20.0	0.500 40.0	4.99	10.00
1,4-Dioxane	DFBZ	Ave	++++ 641235	++++ 869623	++++ 1725135	203616	457619	++++ 15.0	++++ 20.0	++++ 40.0	4.99	10.00
Bromodichloromethane	DFBZ	Ave	++++ 3677048	39756 4812503	131012 10293890	1080443	2608790	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
cis-1,3-Dichloropropene	DFBZ	Ave	++++ 2401051	25306 2908180	80183 6564618	656690	1557584	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Methyl isobutyl ketone	DFBZ	Ave	++++ 2404030	++++ 3150659	63705 6422005	772096	1610756	++++ 15.0	++++ 20.0	0.500 40.0	4.99	10.00
Toluene	CBNZ d5	Ave	++++ 2697537	27235 3169437	99665 7579326	735618	1720202	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
n-Octane	DFBZ	Ave	7186 2733544	30772 3444502	102681 7159103	841880	1908768	0.0351 15.0	0.200 20.0	0.500 40.0	4.99	10.00
trans-1,3-Dichloropropene	DFBZ	Ave	++++ 2393129	++++ 2845044	78856 6478563	664445	1524139	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
1,1,2-Trichloroethane	CBNZ d5	Ave	++++ 1455914	15065 1750288	52120 3930810	410631	944671	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Burlington

Job No.: 200-46616-1

Analy Batch No.: 137447

SDG No.: 200-46616-1

Instrument ID: CHG.i

GC Column: RTX-624

ID: 0.32 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 11/27/2018 20:22

Calibration End Date: 11/28/2018 02:15

Calibration ID: 40668

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
Tetrachloroethene	CBNZ d5	Ave	7097 3180178	34467 4287756	108407 9530791	877542	2109890	0.0351 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Methyl Butyl Ketone (2-Hexanone)	CBNZ d5	Ave	++++ 2372638	++++ 3189962	53132 6477478	742376	1581311	++++ 15.0	++++ 20.0	0.500 40.0	4.99	10.00
Dibromochloromethane	CBNZ d5	Ave	++++ 3504436	35343 5306808	126722 11959307	1096910	2651860	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
1,2-Dibromoethane	CBNZ d5	Ave	++++ 3056704	27011 3755698	96147 8668262	815745	1960372	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Chlorobenzene	CBNZ d5	Ave	++++ 4212946	40954 5162562	144447 11904403	1116470	2683674	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Ethylbenzene	CBNZ d5	Ave	++++ 6179511	59235 7378266	216811 16537592	1720827	3925675	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
n-Nonane	CBNZ d5	Ave	++++ 2627135	27380 3204291	94114 7015829	756388	1743091	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
m,p-Xylene	CBNZ d5	Ave	++++ 5063931	48888 6046753	169987 14227820	1361269	3111549	++++ 30.0	0.401 40.0	1.00 80.0	9.99	20.0
Xylene, o-	CBNZ d5	Ave	++++ 2399623	22469 2881433	80844 6699071	658661	1499082	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Styrene	CBNZ d5	Ave	++++ 3868129	28896 4735875	112030 10969590	1009105	2380815	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Bromoform	CBNZ d5	Ave	++++ 2161781	29102 5408954	115114 11998176	1072914	2435440	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Cumene	CBNZ d5	Ave	++++ 7117974	61695 8625268	233651 19146334	1969132	4471409	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
1,1,2,2-Tetrachloroethane	CBNZ d5	Ave	++++ 3790940	37089 4694500	126803 9888341	1092336	2425088	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
n-Propylbenzene	CBNZ d5	Ave	++++ 8487730	73558 10131225	292366 20945257	2390637	5367272	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
1,2,3-Trichloropropane	CBNZ d5	Ave	++++ 3079793	++++ 3726635	111994 7781871	903747	1969674	++++ 15.0	++++ 20.0	0.500 40.0	4.99	10.00
2-Chlorotoluene	CBNZ d5	Ave	++++ 6323624	59613 7644964	212485 16128555	1783458	4058986	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
4-Ethyltoluene	CBNZ d5	Ave	++++ 7416727	59515 8937124	233789 19068557	1994007	4603967	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
n-Decane	CBNZ d5	Ave	++++ 3291763	++++ 3946033	105294 8101213	948077	2120895	++++ 15.0	++++ 20.0	0.500 40.0	4.99	10.00
1,3,5-Trimethylbenzene	CBNZ d5	Ave	++++ 6168169	53306 7555721	205318 16252663	1714281	3866116	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Alpha Methyl Styrene	CBNZ d5	Ave	4086 3239717	20195 4096139	86259 9352072	855695	2004428	0.0351 15.0	0.200 20.0	0.500 40.0	4.99	10.00
tert-Butylbenzene	CBNZ d5	Ave	++++ 5791514	48103 7149602	187237 15852197	1609408	3605410	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Burlington

Job No.: 200-46616-1

Analy Batch No.: 137447

SDG No.: 200-46616-1

Instrument ID: CHG.i

GC Column: RTX-624

ID: 0.32 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 11/27/2018 20:22

Calibration End Date: 11/28/2018 02:15

Calibration ID: 40668

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
1,2,4-Trimethylbenzene	CBNZ d5	Ave	++++ 6137145	51172 7550261	198359 16033863	1709998	3850351	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
sec-Butylbenzene	CBNZ d5	Ave	++++ 8693056	71845 10673825	287732 20565381	2457706	5460744	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
4-Isopropyltoluene	CBNZ d5	Ave	++++ 7730417	53198 9594097	234383 18636156	2110536	4749785	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
1,3-Dichlorobenzene	CBNZ d5	Ave	++++ 5066879	44349 6341580	147114 13465059	1324895	3135758	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
1,4-Dichlorobenzene	CBNZ d5	Ave	++++ 4788189	42712 5978083	143403 12802544	1288460	2972771	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Benzyl chloride	CBNZ d5	Ave	++++ 6093646	44697 7695730	180360 15523695	1661751	3655270	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
n-Butylbenzene	CBNZ d5	Ave	++++ 6926989	54995 8493710	198746 16429525	2002534	4426320	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
n-Undecane	CBNZ d5	Ave	++++ 3684708	++++ 4461241	++++ 8868673	1063652	2362262	++++ 15.0	++++ 20.0	++++ 40.0	4.99	10.00
1,2-Dichlorobenzene	CBNZ d5	Ave	++++ 4598903	41264 5743225	135642 12229345	1257186	2866493	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
n-Dodecane	CBNZ d5	Ave	++++ 3190960	++++ 3804271	57122 7604798	912362	2002652	++++ 15.0	++++ 20.0	0.500 40.0	4.99	10.00
1,2,4-Trichlorobenzene	CBNZ d5	Ave	++++ 3603443	++++ 4536179	73588 9605184	893344	2104583	++++ 15.0	++++ 20.0	0.500 40.0	4.99	10.00
Hexachlorobutadiene	CBNZ d5	Ave	++++ 3408169	++++ 4192325	35418 8641895	101589	926407	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Naphthalene	CBNZ d5	Ave	++++ 7199838	++++ 9205645	132543 18868971	1696136	4016657	++++ 15.0	++++ 20.0	0.500 40.0	4.99	10.00
1,2,3-Trichlorobenzene	CBNZ d5	Ave	++++ 3122511	++++ 3934722	65637 8204087	786857	1759849	++++ 15.0	++++ 20.0	0.500 40.0	4.99	10.00

Curve Type Legend:

Ave = Average ISTD

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 200-46616-1
 SDG No.: 200-46616-1
 Lab Sample ID: ICV 200-137447/15 Calibration Date: 11/28/2018 05:37
 Instrument ID: CHG.i Calib Start Date: 11/27/2018 20:22
 GC Column: RTX-624 ID: 0.32 (mm) Calib End Date: 11/28/2018 02:15
 Lab File ID: 200-33385-015.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Propylene	Ave	0.6903	0.6284		9.10	10.0	-9.0	30.0
Dichlorodifluoromethane	Ave	3.731	3.624		9.71	10.0	-2.9	30.0
Freon 22	Ave	1.588	1.434		9.03	10.0	-9.7	30.0
1,2-Dichlorotetrafluoroethane	Ave	2.808	2.919		10.4	10.0	4.0	30.0
Chloromethane	Ave	0.7259	0.6612		9.11	10.0	-8.9	30.0
n-Butane	Ave	0.9772	0.9149		9.36	10.0	-6.4	30.0
Vinyl chloride	Ave	0.8738	0.7939		9.08	10.0	-9.1	30.0
1,3-Butadiene	Ave	0.5437	0.5157		9.48	10.0	-5.1	30.0
Bromomethane	Ave	1.009	0.9894		9.81	10.0	-1.9	30.0
Chloroethane	Ave	0.3363	0.3254		9.68	10.0	-3.2	30.0
Isopentane	Ave	0.6451	0.6234		9.66	10.0	-3.4	30.0
Bromoethene (Vinyl Bromide)	Ave	0.997	1.039		10.4	10.0	4.2	30.0
Trichlorofluoromethane	Ave	2.948	2.927		9.93	10.0	-0.7	30.0
n-Pentane	Ave	0.9764	0.9287		9.51	10.0	-4.9	30.0
Ethanol	Ave	0.2022	0.2214		16.4	15.0	9.5	30.0
Ethyl ether	Ave	0.3425	0.3951		11.5	10.0	15.4	30.0
Acrolein	Ave	0.1311	0.1628		12.4	10.0	24.2	30.0
Freon TF	Ave	2.077	1.835		8.83	10.0	-11.6	30.0
1,1-Dichloroethene	Ave	0.9142	0.7882		8.62	10.0	-13.8	30.0
Acetone	Ave	0.7785	0.8177		10.5	10.0	5.0	30.0
Carbon disulfide	Ave	2.351	2.273		9.66	10.0	-3.4	30.0
Isopropyl alcohol	Ave	0.8603	0.7493		8.71	10.0	-12.9	30.0
3-Chloropropene	Ave	0.6801	0.5886		8.65	10.0	-13.5	30.0
Acetonitrile	Ave	0.2847	0.3231		11.3	10.0	13.5	30.0
Methylene Chloride	Ave	0.8250	0.7198		8.72	10.0	-12.8	30.0
tert-Butyl alcohol	Ave	1.315	1.255		9.54	10.0	-4.6	30.0
Methyl tert-butyl ether	Ave	1.777	1.792		10.1	10.0	0.8	30.0
trans-1,2-Dichloroethene	Ave	1.108	1.052		9.50	10.0	-5.0	30.0
Acrylonitrile	Ave	0.3108	0.3429		11.0	10.0	10.3	30.0
n-Hexane	Ave	0.8829	0.8836		10.0	10.0	0.0	30.0
1,1-Dichloroethane	Ave	1.429	1.343		9.39	10.0	-6.1	30.0
Vinyl acetate	Ave	1.081	1.232		11.4	10.0	14.0	30.0
cis-1,2-Dichloroethene	Ave	0.8660	0.8634		9.97	10.0	-0.3	30.0
Methyl Ethyl Ketone	Ave	0.2794	0.2674		9.57	10.0	-4.3	30.0
Ethyl acetate	Ave	0.0398	0.0393		9.86	10.0	-1.4	30.0
Tetrahydrofuran	Ave	0.1141	0.1166		10.2	10.0	2.2	30.0
Chloroform	Ave	2.089	2.014		9.64	10.0	-3.6	30.0
Cyclohexane	Ave	0.2295	0.2171		9.46	10.0	-5.4	30.0
1,1,1-Trichloroethane	Ave	0.5556	0.5220		9.39	10.0	-6.1	30.0
Carbon tetrachloride	Ave	0.5937	0.5906		9.95	10.0	-0.5	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 200-46616-1
 SDG No.: 200-46616-1
 Lab Sample ID: ICV 200-137447/15 Calibration Date: 11/28/2018 05:37
 Instrument ID: CHG.i Calib Start Date: 11/27/2018 20:22
 GC Column: RTX-624 ID: 0.32 (mm) Calib End Date: 11/28/2018 02:15
 Lab File ID: 200-33385-015.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,2,4-Trimethylpentane	Ave	0.7593	0.7298		9.61	10.0	-3.9	30.0
Benzene	Ave	0.5325	0.5164		9.70	10.0	-3.0	30.0
1,2-Dichloroethane	Ave	0.3080	0.2950		9.58	10.0	-4.2	30.0
n-Heptane	Ave	0.2740	0.2587		9.44	10.0	-5.6	30.0
n-Butanol	Ave	0.0901	0.0925		10.3	10.0	2.7	30.0
Trichloroethene	Ave	0.3485	0.3273		9.39	10.0	-6.1	30.0
1,2-Dichloropropane	Ave	0.1877	0.1920		10.2	10.0	2.3	30.0
Methyl methacrylate	Ave	0.1550	0.1640		10.6	10.0	5.8	30.0
Dibromomethane	Ave	0.3211	0.3182		9.91	10.0	-0.9	30.0
1,4-Dioxane	Ave	0.0979	0.0868		8.86	10.0	-11.3	30.0
Bromodichloromethane	Ave	0.5411	0.5668		10.5	10.0	4.7	30.0
cis-1,3-Dichloropropene	Ave	0.3350	0.3364		10.0	10.0	0.4	30.0
Methyl isobutyl ketone	Ave	0.3463	0.3292		9.50	10.0	-4.9	30.0
Toluene	Ave	0.4051	0.4490		11.1	10.0	10.8	30.0
n-Octane	Ave	0.4030	0.3971		9.85	10.0	-1.5	30.0
trans-1,3-Dichloropropene	Ave	0.3295	0.3651		11.1	10.0	10.8	30.0
1,1,2-Trichloroethane	Ave	0.2192	0.2430		11.1	10.0	10.9	30.0
Tetrachloroethene	Ave	0.4850	0.5253		10.8	10.0	8.3	30.0
Methyl Butyl Ketone (2-Hexanone)	Ave	0.3560	0.3660		10.3	10.0	2.8	30.0
Dibromochloromethane	Ave	0.5859	0.6428		11.0	10.0	9.7	30.0
1,2-Dibromoethane	Ave	0.4426	0.5030		11.4	10.0	13.6	30.0
Chlorobenzene	Ave	0.6231	0.6847		11.0	10.0	9.9	30.0
Ethylbenzene	Ave	0.9122	0.9854		10.8	10.0	8.0	30.0
n-Nonane	Ave	0.3988	0.4104		10.3	10.0	2.9	30.0
m,p-Xylene	Ave	0.3698	0.4008		21.7	20.0	8.4	30.0
Xylene, o-	Ave	0.3514	0.3846		10.9	10.0	9.5	30.0
Styrene	Ave	0.5379	0.5942		11.0	10.0	10.5	30.0
Bromoform	Ave	0.5301	0.6198		11.7	10.0	16.9	30.0
Cumene	Ave	1.028	1.114		10.8	10.0	8.5	30.0
1,1,2,2-Tetrachloroethane	Ave	0.5606	0.6003		10.7	10.0	7.1	30.0
n-Propylbenzene	Ave	1.224	1.324		10.8	10.0	8.2	30.0
1,2,3-Trichloropropane	Ave	0.4759	0.4599		9.66	10.0	-3.4	30.0
2-Chlorotoluene	Ave	0.9241	0.9799		10.6	10.0	6.0	30.0
4-Ethyltoluene	Ave	1.042	1.154		11.1	10.0	10.8	30.0
n-Decane	Ave	0.4933	0.4849		9.83	10.0	-1.7	30.0
1,3,5-Trimethylbenzene	Ave	0.8912	0.9530		10.7	10.0	6.9	30.0
Alpha Methyl Styrene	Ave	0.4187	0.4833		11.5	10.0	15.4	30.0
tert-Butylbenzene	Ave	0.8336	0.8924		10.7	10.0	7.1	30.0
1,2,4-Trimethylbenzene	Ave	0.8792	0.9515		10.8	10.0	8.2	30.0
sec-Butylbenzene	Ave	1.236	1.319		10.7	10.0	6.7	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 200-46616-1
 SDG No.: 200-46616-1
 Lab Sample ID: ICV 200-137447/15 Calibration Date: 11/28/2018 05:37
 Instrument ID: CHG.i Calib Start Date: 11/27/2018 20:22
 GC Column: RTX-624 ID: 0.32 (mm) Calib End Date: 11/28/2018 02:15
 Lab File ID: 200-33385-015.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Isopropyltoluene	Ave	1.059	1.142		10.8	10.0	7.8	30.0
1,3-Dichlorobenzene	Ave	0.7126	0.7658		10.7	10.0	7.5	30.0
1,4-Dichlorobenzene	Ave	0.6814	0.7446		10.9	10.0	9.3	30.0
Benzyl chloride	Ave	0.8411	0.8499		10.1	10.0	1.0	30.0
n-Butylbenzene	Ave	0.9659	1.021		10.6	10.0	5.7	30.0
n-Undecane	Ave	0.5433	0.5238		9.64	10.0	-3.6	30.0
1,2-Dichlorobenzene	Ave	0.6549	0.6972		10.6	10.0	6.5	30.0
n-Dodecane	Ave	0.4351	0.3941		9.06	10.0	-9.4	30.0
1,2,4-Trichlorobenzene	Ave	0.4922	0.4673		9.49	10.0	-5.1	30.0
Hexachlorobutadiene	Ave	0.4897	0.4519		9.23	10.0	-7.7	30.0
Naphthalene	Ave	0.9543	0.8724		9.14	10.0	-8.6	30.0
1,2,3-Trichlorobenzene	Ave	0.4252	0.3651		8.58	10.0	-14.1	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 200-46616-1
 SDG No.: 200-46616-1
 Lab Sample ID: CCVIS 200-138350/4 Calibration Date: 12/19/2018 14:45
 Instrument ID: CHG.i Calib Start Date: 11/27/2018 20:22
 GC Column: RTX-624 ID: 0.32 (mm) Calib End Date: 11/28/2018 02:15
 Lab File ID: 200-33765-004.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Propylene	Ave	0.6903	0.8260		12.0	10.0	19.7	30.0
Dichlorodifluoromethane	Ave	3.731	4.133		11.1	10.0	10.8	30.0
Freon 22	Ave	1.588	1.750		11.0	10.0	10.2	30.0
1,2-Dichlorotetrafluoroethane	Ave	2.808	3.065		10.9	10.0	9.2	30.0
Chloromethane	Ave	0.7259	0.8167		11.2	10.0	12.5	30.0
n-Butane	Ave	0.9772	1.147		11.7	10.0	17.4	30.0
Vinyl chloride	Ave	0.8738	0.9123		10.4	10.0	4.4	30.0
1,3-Butadiene	Ave	0.5437	0.5613		10.3	10.0	3.2	30.0
Bromomethane	Ave	1.009	0.997		9.88	10.0	-1.2	30.0
Chloroethane	Ave	0.3363	0.3405		10.1	10.0	1.2	30.0
Isopentane	Ave	0.6451	0.7351		11.4	10.0	14.0	30.0
Bromoethene (Vinyl Bromide)	Ave	0.997	0.9671		9.69	10.0	-3.0	30.0
Trichlorofluoromethane	Ave	2.948	2.834		9.61	10.0	-3.9	30.0
n-Pentane	Ave	0.9764	1.059		10.8	10.0	8.4	30.0
Ethanol	Ave	0.2022	0.3084		22.9	15.0	52.5*	30.0
Ethyl ether	Ave	0.3425	0.4056		11.8	10.0	18.4	30.0
Acrolein	Ave	0.1311	0.1565		11.9	10.0	19.3	30.0
Freon TF	Ave	2.077	1.909		9.19	10.0	-8.1	30.0
1,1-Dichloroethene	Ave	0.9142	0.8328		9.11	10.0	-8.9	30.0
Acetone	Ave	0.7785	1.000		12.8	10.0	28.4	30.0
Carbon disulfide	Ave	2.351	2.598		11.0	10.0	10.5	30.0
Isopropyl alcohol	Ave	0.8603	0.9415		10.9	10.0	9.4	30.0
3-Chloropropene	Ave	0.6801	0.7071		10.4	10.0	4.0	30.0
Acetonitrile	Ave	0.2847	0.3460		12.2	10.0	21.5	30.0
Methylene Chloride	Ave	0.8250	0.8634		10.5	10.0	4.6	30.0
tert-Butyl alcohol	Ave	1.315	1.369		10.4	10.0	4.1	30.0
Methyl tert-butyl ether	Ave	1.777	1.938		10.9	10.0	9.0	30.0
trans-1,2-Dichloroethene	Ave	1.108	1.195		10.8	10.0	7.9	30.0
Acrylonitrile	Ave	0.3108	0.3278		10.5	10.0	5.5	30.0
n-Hexane	Ave	0.8829	1.008		11.4	10.0	14.2	30.0
1,1-Dichloroethane	Ave	1.429	1.477		10.3	10.0	3.4	30.0
Vinyl acetate	Ave	1.081	1.312		12.1	10.0	21.4	30.0
cis-1,2-Dichloroethene	Ave	0.8660	0.8879		10.3	10.0	2.5	30.0
Methyl Ethyl Ketone	Ave	0.2794	0.3039		10.9	10.0	8.8	30.0
Ethyl acetate	Ave	0.0398	0.0446		11.2	10.0	11.8	30.0
Tetrahydrofuran	Ave	0.1141	0.1428		12.5	10.0	25.2	30.0
Chloroform	Ave	2.089	2.137		10.2	10.0	2.3	30.0
Cyclohexane	Ave	0.2295	0.2317		10.1	10.0	1.0	30.0
1,1,1-Trichloroethane	Ave	0.5556	0.5414		9.74	10.0	-2.6	30.0
Carbon tetrachloride	Ave	0.5937	0.5998		10.1	10.0	1.0	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 200-46616-1
 SDG No.: 200-46616-1
 Lab Sample ID: CCVIS 200-138350/4 Calibration Date: 12/19/2018 14:45
 Instrument ID: CHG.i Calib Start Date: 11/27/2018 20:22
 GC Column: RTX-624 ID: 0.32 (mm) Calib End Date: 11/28/2018 02:15
 Lab File ID: 200-33765-004.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,2,4-Trimethylpentane	Ave	0.7593	0.8360		11.0	10.0	10.1	30.0
Benzene	Ave	0.5325	0.4723		8.87	10.0	-11.3	30.0
1,2-Dichloroethane	Ave	0.3080	0.2841		9.22	10.0	-7.8	30.0
n-Heptane	Ave	0.2740	0.3203		11.7	10.0	16.9	30.0
n-Butanol	Ave	0.0901	0.0991		11.0	10.0	10.0	30.0
Trichloroethene	Ave	0.3485	0.3425		9.83	10.0	-1.7	30.0
1,2-Dichloropropane	Ave	0.1877	0.1919		10.2	10.0	2.2	30.0
Methyl methacrylate	Ave	0.1550	0.1752		11.3	10.0	13.0	30.0
Dibromomethane	Ave	0.3211	0.2988		9.30	10.0	-7.0	30.0
1,4-Dioxane	Ave	0.0979	0.1116		11.4	10.0	14.0	30.0
Bromodichloromethane	Ave	0.5411	0.5682		10.5	10.0	5.0	30.0
cis-1,3-Dichloropropene	Ave	0.3350	0.3224		9.62	10.0	-3.8	30.0
Methyl isobutyl ketone	Ave	0.3463	0.4272		12.3	10.0	23.4	30.0
Toluene	Ave	0.4051	0.4012		9.90	10.0	-0.9	30.0
n-Octane	Ave	0.4030	0.4699		11.7	10.0	16.6	30.0
trans-1,3-Dichloropropene	Ave	0.3295	0.3529		10.7	10.0	7.1	30.0
1,1,2-Trichloroethane	Ave	0.2192	0.2288		10.4	10.0	4.4	30.0
Tetrachloroethene	Ave	0.4850	0.4968		10.2	10.0	2.4	30.0
Methyl Butyl Ketone (2-Hexanone)	Ave	0.3560	0.4421		12.4	10.0	24.2	30.0
Dibromochloromethane	Ave	0.5859	0.5704		9.73	10.0	-2.6	30.0
1,2-Dibromoethane	Ave	0.4426	0.4488		10.1	10.0	1.4	30.0
Chlorobenzene	Ave	0.6231	0.6079		9.75	10.0	-2.4	30.0
Ethylbenzene	Ave	0.9122	0.9234		10.1	10.0	1.2	30.0
n-Nonane	Ave	0.3988	0.4268		10.7	10.0	7.0	30.0
m,p-Xylene	Ave	0.3698	0.3688		19.9	20.0	-0.3	30.0
Xylene, o-	Ave	0.3514	0.3650		10.4	10.0	3.9	30.0
Styrene	Ave	0.5379	0.5434		10.1	10.0	1.0	30.0
Bromoform	Ave	0.5301	0.5000		9.43	10.0	-5.7	30.0
Cumene	Ave	1.028	1.053		10.3	10.0	2.5	30.0
1,1,2,2-Tetrachloroethane	Ave	0.5606	0.6007		10.7	10.0	7.1	30.0
n-Propylbenzene	Ave	1.224	1.289		10.5	10.0	5.3	30.0
1,2,3-Trichloropropane	Ave	0.4759	0.4752		9.98	10.0	-0.2	30.0
2-Chlorotoluene	Ave	0.9241	0.9368		10.1	10.0	1.4	30.0
4-Ethyltoluene	Ave	1.042	1.099		10.5	10.0	5.5	30.0
n-Decane	Ave	0.4933	0.5313		10.8	10.0	7.7	30.0
1,3,5-Trimethylbenzene	Ave	0.8912	0.9191		10.3	10.0	3.1	30.0
Alpha Methyl Styrene	Ave	0.4187	0.4564		10.9	10.0	9.0	30.0
tert-Butylbenzene	Ave	0.8336	0.8538		10.2	10.0	2.4	30.0
1,2,4-Trimethylbenzene	Ave	0.8792	0.9200		10.5	10.0	4.6	30.0
sec-Butylbenzene	Ave	1.236	1.286		10.4	10.0	4.1	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 200-46616-1
 SDG No.: 200-46616-1
 Lab Sample ID: CCVIS 200-138350/4 Calibration Date: 12/19/2018 14:45
 Instrument ID: CHG.i Calib Start Date: 11/27/2018 20:22
 GC Column: RTX-624 ID: 0.32 (mm) Calib End Date: 11/28/2018 02:15
 Lab File ID: 200-33765-004.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Isopropyltoluene	Ave	1.059	1.129		10.7	10.0	6.5	30.0
1,3-Dichlorobenzene	Ave	0.7126	0.7049		9.89	10.0	-1.1	30.0
1,4-Dichlorobenzene	Ave	0.6814	0.6871		10.1	10.0	0.8	30.0
Benzyl chloride	Ave	0.8411	0.7639		9.08	10.0	-9.2	30.0
n-Butylbenzene	Ave	0.9659	1.036		10.7	10.0	7.2	30.0
n-Undecane	Ave	0.5433	0.5694		10.5	10.0	4.8	30.0
1,2-Dichlorobenzene	Ave	0.6549	0.6545		9.99	10.0	-0.0	30.0
n-Dodecane	Ave	0.4351	0.4254		9.77	10.0	-2.2	30.0
1,2,4-Trichlorobenzene	Ave	0.4922	0.4318		8.77	10.0	-12.3	30.0
Hexachlorobutadiene	Ave	0.4897	0.4313		8.81	10.0	-11.9	30.0
Naphthalene	Ave	0.9543	0.8003		8.38	10.0	-16.1	30.0
1,2,3-Trichlorobenzene	Ave	0.4252	0.3460		8.14	10.0	-18.6	30.0

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-46616-1
 SDG No.: 200-46616-1
 Client Sample ID: _____ Lab Sample ID: MB 200-138350/6
 Matrix: Air Lab File ID: 200-33765-006.D
 Analysis Method: TO-15 Date Collected: _____
 Sample wt/vol: 200 (mL) Date Analyzed: 12/19/2018 16:25
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: RTX-624 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 138350 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL
75-71-8	Dichlorodifluoromethane	120.91	0.50	U	0.50
76-14-2	1,2-Dichlorotetrafluoroethane	170.92	0.20	U	0.20
74-87-3	Chloromethane	50.49	0.50	U	0.50
75-01-4	Vinyl chloride	62.50	0.20	U	0.20
74-83-9	Bromomethane	94.94	0.20	U	0.20
75-00-3	Chloroethane	64.52	0.50	U	0.50
75-69-4	Trichlorofluoromethane	137.37	0.20	U	0.20
76-13-1	Freon TF	187.38	0.20	U	0.20
75-35-4	1,1-Dichloroethene	96.94	0.20	U	0.20
75-09-2	Methylene Chloride	84.93	0.50	U	0.50
75-34-3	1,1-Dichloroethane	98.96	0.20	U	0.20
156-59-2	cis-1,2-Dichloroethene	96.94	0.20	U	0.20
67-66-3	Chloroform	119.38	0.20	U	0.20
71-55-6	1,1,1-Trichloroethane	133.41	0.20	U	0.20
56-23-5	Carbon tetrachloride	153.81	0.20	U	0.20
71-43-2	Benzene	78.11	0.20	U	0.20
107-06-2	1,2-Dichloroethane	98.96	0.20	U	0.20
79-01-6	Trichloroethene	131.39	0.20	U	0.20
78-87-5	1,2-Dichloropropane	112.99	0.20	U	0.20
10061-01-5	cis-1,3-Dichloropropene	110.97	0.20	U	0.20
108-88-3	Toluene	92.14	0.20	U	0.20
10061-02-6	trans-1,3-Dichloropropene	110.97	0.20	U	0.20
79-00-5	1,1,2-Trichloroethane	133.41	0.20	U	0.20
127-18-4	Tetrachloroethene	165.83	0.20	U	0.20
106-93-4	1,2-Dibromoethane	187.87	0.20	U	0.20
108-90-7	Chlorobenzene	112.56	0.20	U	0.20
100-41-4	Ethylbenzene	106.17	0.20	U	0.20
179601-23-1	m,p-Xylene	106.17	0.50	U	0.50
95-47-6	Xylene, o-	106.17	0.20	U	0.20
100-42-5	Styrene	104.15	0.20	U	0.20
79-34-5	1,1,2,2-Tetrachloroethane	167.85	0.20	U	0.20
108-67-8	1,3,5-Trimethylbenzene	120.20	0.20	U	0.20
95-63-6	1,2,4-Trimethylbenzene	120.20	0.20	U	0.20
541-73-1	1,3-Dichlorobenzene	147.00	0.20	U	0.20

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-46616-1
 SDG No.: 200-46616-1
 Client Sample ID: _____ Lab Sample ID: MB 200-138350/6
 Matrix: Air Lab File ID: 200-33765-006.D
 Analysis Method: TO-15 Date Collected: _____
 Sample wt/vol: 200 (mL) Date Analyzed: 12/19/2018 16:25
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: RTX-624 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 138350 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
106-46-7	1,4-Dichlorobenzene	147.00	0.20	U	0.20	
95-50-1	1,2-Dichlorobenzene	147.00	0.20	U	0.20	
120-82-1	1,2,4-Trichlorobenzene	181.45	0.50	U	0.50	
87-68-3	Hexachlorobutadiene	260.76	0.20	U	0.20	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-46616-1
 SDG No.: 200-46616-1
 Client Sample ID: _____ Lab Sample ID: MB 200-138350/6
 Matrix: Air Lab File ID: 200-33765-006.D
 Analysis Method: TO-15 Date Collected: _____
 Sample wt/vol: 200 (mL) Date Analyzed: 12/19/2018 16:25
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: RTX-624 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 138350 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL
75-71-8	Dichlorodifluoromethane	120.91	2.5	U	2.5
76-14-2	1,2-Dichlorotetrafluoroethane	170.92	1.4	U	1.4
74-87-3	Chloromethane	50.49	1.0	U	1.0
75-01-4	Vinyl chloride	62.50	0.51	U	0.51
74-83-9	Bromomethane	94.94	0.78	U	0.78
75-00-3	Chloroethane	64.52	1.3	U	1.3
75-69-4	Trichlorofluoromethane	137.37	1.1	U	1.1
76-13-1	Freon TF	187.38	1.5	U	1.5
75-35-4	1,1-Dichloroethene	96.94	0.79	U	0.79
75-09-2	Methylene Chloride	84.93	1.7	U	1.7
75-34-3	1,1-Dichloroethane	98.96	0.81	U	0.81
156-59-2	cis-1,2-Dichloroethene	96.94	0.79	U	0.79
67-66-3	Chloroform	119.38	0.98	U	0.98
71-55-6	1,1,1-Trichloroethane	133.41	1.1	U	1.1
56-23-5	Carbon tetrachloride	153.81	1.3	U	1.3
71-43-2	Benzene	78.11	0.64	U	0.64
107-06-2	1,2-Dichloroethane	98.96	0.81	U	0.81
79-01-6	Trichloroethene	131.39	1.1	U	1.1
78-87-5	1,2-Dichloropropane	112.99	0.92	U	0.92
10061-01-5	cis-1,3-Dichloropropene	110.97	0.91	U	0.91
108-88-3	Toluene	92.14	0.75	U	0.75
10061-02-6	trans-1,3-Dichloropropene	110.97	0.91	U	0.91
79-00-5	1,1,2-Trichloroethane	133.41	1.1	U	1.1
127-18-4	Tetrachloroethene	165.83	1.4	U	1.4
106-93-4	1,2-Dibromoethane	187.87	1.5	U	1.5
108-90-7	Chlorobenzene	112.56	0.92	U	0.92
100-41-4	Ethylbenzene	106.17	0.87	U	0.87
179601-23-1	m,p-Xylene	106.17	2.2	U	2.2
95-47-6	Xylene, o-	106.17	0.87	U	0.87
100-42-5	Styrene	104.15	0.85	U	0.85
79-34-5	1,1,2,2-Tetrachloroethane	167.85	1.4	U	1.4
108-67-8	1,3,5-Trimethylbenzene	120.20	0.98	U	0.98
95-63-6	1,2,4-Trimethylbenzene	120.20	0.98	U	0.98
541-73-1	1,3-Dichlorobenzene	147.00	1.2	U	1.2

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-46616-1
 SDG No.: 200-46616-1
 Client Sample ID: _____ Lab Sample ID: MB 200-138350/6
 Matrix: Air Lab File ID: 200-33765-006.D
 Analysis Method: TO-15 Date Collected: _____
 Sample wt/vol: 200 (mL) Date Analyzed: 12/19/2018 16:25
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: RTX-624 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 138350 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
106-46-7	1,4-Dichlorobenzene	147.00	1.2	U	1.2	
95-50-1	1,2-Dichlorobenzene	147.00	1.2	U	1.2	
120-82-1	1,2,4-Trichlorobenzene	181.45	3.7	U	3.7	
87-68-3	Hexachlorobutadiene	260.76	2.1	U	2.1	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-46616-1
 SDG No.: 200-46616-1
 Client Sample ID: _____ Lab Sample ID: LCS 200-138350/5
 Matrix: Air Lab File ID: 200-33765-005.D
 Analysis Method: TO-15 Date Collected: _____
 Sample wt/vol: 200 (mL) Date Analyzed: 12/19/2018 15:35
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: RTX-624 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 138350 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL
75-71-8	Dichlorodifluoromethane	120.91	11.6		0.50
76-14-2	1,2-Dichlorotetrafluoroethane	170.92	11.4		0.20
74-87-3	Chloromethane	50.49	12.2		0.50
75-01-4	Vinyl chloride	62.50	11.0		0.20
74-83-9	Bromomethane	94.94	10.1		0.20
75-00-3	Chloroethane	64.52	10.8		0.50
75-69-4	Trichlorofluoromethane	137.37	9.88		0.20
76-13-1	Freon TF	187.38	11.0		0.20
75-35-4	1,1-Dichloroethene	96.94	10.8		0.20
75-09-2	Methylene Chloride	84.93	12.1		0.50
75-34-3	1,1-Dichloroethane	98.96	10.4		0.20
156-59-2	cis-1,2-Dichloroethene	96.94	11.1		0.20
67-66-3	Chloroform	119.38	10.8		0.20
71-55-6	1,1,1-Trichloroethane	133.41	10.8		0.20
56-23-5	Carbon tetrachloride	153.81	11.4		0.20
71-43-2	Benzene	78.11	10.6		0.20
107-06-2	1,2-Dichloroethane	98.96	11.1		0.20
79-01-6	Trichloroethene	131.39	10.4		0.20
78-87-5	1,2-Dichloropropane	112.99	12.1		0.20
10061-01-5	cis-1,3-Dichloropropene	110.97	11.9		0.20
108-88-3	Toluene	92.14	11.0		0.20
10061-02-6	trans-1,3-Dichloropropene	110.97	11.9		0.20
79-00-5	1,1,2-Trichloroethane	133.41	11.3		0.20
127-18-4	Tetrachloroethene	165.83	10.4		0.20
106-93-4	1,2-Dibromoethane	187.87	11.1		0.20
108-90-7	Chlorobenzene	112.56	10.8		0.20
100-41-4	Ethylbenzene	106.17	11.2		0.20
179601-23-1	m,p-Xylene	106.17	21.9		0.50
95-47-6	Xylene, o-	106.17	11.4		0.20
100-42-5	Styrene	104.15	11.5		0.20
79-34-5	1,1,2,2-Tetrachloroethane	167.85	11.5		0.20
108-67-8	1,3,5-Trimethylbenzene	120.20	11.4		0.20
95-63-6	1,2,4-Trimethylbenzene	120.20	11.5		0.20
541-73-1	1,3-Dichlorobenzene	147.00	11.1		0.20

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-46616-1
 SDG No.: 200-46616-1
 Client Sample ID: _____ Lab Sample ID: LCS 200-138350/5
 Matrix: Air Lab File ID: 200-33765-005.D
 Analysis Method: TO-15 Date Collected: _____
 Sample wt/vol: 200 (mL) Date Analyzed: 12/19/2018 15:35
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: RTX-624 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 138350 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
106-46-7	1,4-Dichlorobenzene	147.00	11.2		0.20	
95-50-1	1,2-Dichlorobenzene	147.00	11.2		0.20	
120-82-1	1,2,4-Trichlorobenzene	181.45	11.0		0.50	
87-68-3	Hexachlorobutadiene	260.76	10.6		0.20	

AIR - GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Burlington Job No.: 200-46616-1

SDG No.: 200-46616-1

Instrument ID: CHG.i Start Date: 11/27/2018 17:52

Analysis Batch Number: 137447 End Date: 11/28/2018 07:19

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 200-137447/1		11/27/2018 17:52	1	200-33385-001.D	RTX-624 0.32 (mm)
VIBLK 200-137447/2		11/27/2018 18:41	1		RTX-624 0.32 (mm)
VIBLK 200-137447/3		11/27/2018 19:32	1		RTX-624 0.32 (mm)
IC 200-137447/4		11/27/2018 20:22	1	200-33385-004.D	RTX-624 0.32 (mm)
IC 200-137447/5		11/27/2018 21:13	1	200-33385-005.D	RTX-624 0.32 (mm)
IC 200-137447/6		11/27/2018 22:03	1	200-33385-006.D	RTX-624 0.32 (mm)
IC 200-137447/7		11/27/2018 22:54	1	200-33385-007.D	RTX-624 0.32 (mm)
ICIS 200-137447/8		11/27/2018 23:44	1	200-33385-008.D	RTX-624 0.32 (mm)
IC 200-137447/9		11/28/2018 00:35	1	200-33385-009.D	RTX-624 0.32 (mm)
IC 200-137447/10		11/28/2018 01:25	1	200-33385-010.D	RTX-624 0.32 (mm)
IC 200-137447/11		11/28/2018 02:15	1	200-33385-011.D	RTX-624 0.32 (mm)
VIBLK 200-137447/12		11/28/2018 03:06	1		RTX-624 0.32 (mm)
VIBLK 200-137447/13		11/28/2018 03:56	1		RTX-624 0.32 (mm)
ZZZZZ		11/28/2018 04:47	1		RTX-624 0.32 (mm)
ICV 200-137447/15		11/28/2018 05:37	1	200-33385-015.D	RTX-624 0.32 (mm)
ZZZZZ		11/28/2018 06:28	1		RTX-624 0.32 (mm)
VIBLK 200-137447/17		11/28/2018 07:19	1		RTX-624 0.32 (mm)

AIR - GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Burlington Job No.: 200-46616-1

SDG No.: 200-46616-1

Instrument ID: CHG.i Start Date: 12/19/2018 11:38

Analysis Batch Number: 138350 End Date: 12/20/2018 11:05

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 200-138350/1		12/19/2018 11:38	1	200-33765-001.D	RTX-624 0.32 (mm)
CCVIS 200-138350/4		12/19/2018 14:45	1	200-33765-004.D	RTX-624 0.32 (mm)
LCS 200-138350/5		12/19/2018 15:35	1	200-33765-005.D	RTX-624 0.32 (mm)
MB 200-138350/6		12/19/2018 16:25	1	200-33765-006.D	RTX-624 0.32 (mm)
ZZZZZ		12/19/2018 17:17	0.2		RTX-624 0.32 (mm)
ZZZZZ		12/19/2018 18:07	1		RTX-624 0.32 (mm)
ZZZZZ		12/19/2018 18:57	1		RTX-624 0.32 (mm)
ZZZZZ		12/19/2018 20:38	1		RTX-624 0.32 (mm)
ZZZZZ		12/19/2018 21:27	10		RTX-624 0.32 (mm)
ZZZZZ		12/19/2018 22:17	10		RTX-624 0.32 (mm)
ZZZZZ		12/19/2018 23:07	1		RTX-624 0.32 (mm)
ZZZZZ		12/19/2018 23:58	10		RTX-624 0.32 (mm)
ZZZZZ		12/20/2018 00:47	10		RTX-624 0.32 (mm)
200-46616-1		12/20/2018 01:37	10	200-33765-017.D	RTX-624 0.32 (mm)
200-46616-2		12/20/2018 02:27	10	200-33765-018.D	RTX-624 0.32 (mm)
200-46616-3		12/20/2018 03:17	10	200-33765-019.D	RTX-624 0.32 (mm)
200-46616-4		12/20/2018 04:07	10	200-33765-020.D	RTX-624 0.32 (mm)
ZZZZZ		12/20/2018 04:59	0.2		RTX-624 0.32 (mm)
ZZZZZ		12/20/2018 05:49	1		RTX-624 0.32 (mm)
ZZZZZ		12/20/2018 08:25	29.9		RTX-624 0.32 (mm)
ZZZZZ		12/20/2018 09:15	200		RTX-624 0.32 (mm)
ZZZZZ		12/20/2018 10:15	1		RTX-624 0.32 (mm)
ZZZZZ		12/20/2018 11:05	1		RTX-624 0.32 (mm)

AIR - GC/MS VOA BATCH WORKSHEET

Lab Name: TestAmerica Burlington Job No.: 200-46616-1

SDG No.: 200-46616-1

Batch Number: 137447 Batch Start Date: 11/27/18 17:52 Batch Analyst: Mick, David G

Batch Method: TO-15 Batch End Date: _____

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialPressure	FinalPressure	InitialAmount	FinalAmount	ATTO15CAL1w 00197	ATTO15CAL2w 00271
BFB 200-137447/1		TO-15		1	1	200 mL	200 mL		
IC 200-137447/4		TO-15		1	1	200 mL	200 mL	35 mL	
IC 200-137447/5		TO-15		1	1	200 mL	200 mL	200 mL	
IC 200-137447/6		TO-15		1	1	200 mL	200 mL		200 mL
IC 200-137447/7		TO-15		1	1	200 mL	200 mL		
ICIS 200-137447/8		TO-15		1	1	200 mL	200 mL		
IC 200-137447/9		TO-15		1	1	200 mL	200 mL		
IC 200-137447/10		TO-15		1	1	200 mL	200 mL		
IC 200-137447/11		TO-15		1	1	200 mL	200 mL		
ICV 200-137447/15		TO-15		1	1	200 mL	200 mL		

Lab Sample ID	Client Sample ID	Method Chain	Basis	ATTO15CAL3w 00206	ATTO15CAL4w 00706	ATTO15CAL5w 00076	ATTO15CAL6w 00158	ATTO15CAL7w 00079	ATTO15GIS 00015
BFB 200-137447/1		TO-15							20 mL
IC 200-137447/4		TO-15							20 mL
IC 200-137447/5		TO-15							20 mL
IC 200-137447/6		TO-15							20 mL
IC 200-137447/7		TO-15		200 mL					20 mL
ICIS 200-137447/8		TO-15			200 mL				20 mL
IC 200-137447/9		TO-15				200 mL			20 mL
IC 200-137447/10		TO-15					200 mL		20 mL
IC 200-137447/11		TO-15						200 mL	20 mL
ICV 200-137447/15		TO-15							20 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	ATTO15LCSW 00787					

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

AIR - GC/MS VOA BATCH WORKSHEET

Lab Name: TestAmerica Burlington Job No.: 200-46616-1

SDG No.: 200-46616-1

Batch Number: 137447 Batch Start Date: 11/27/18 17:52 Batch Analyst: Mick, David G

Batch Method: TO-15 Batch End Date: _____

Lab Sample ID	Client Sample ID	Method Chain	Basis	ATTO15LCSW 00787					
BFB 200-137447/1		TO-15							
IC 200-137447/4		TO-15							
IC 200-137447/5		TO-15							
IC 200-137447/6		TO-15							
IC 200-137447/7		TO-15							
ICIS 200-137447/8		TO-15							
IC 200-137447/9		TO-15							
IC 200-137447/10		TO-15							
IC 200-137447/11		TO-15							
ICV 200-137447/15		TO-15		200 mL					

Batch Notes	

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

AIR - GC/MS VOA BATCH WORKSHEET

Lab Name: TestAmerica Burlington Job No.: 200-46616-1

SDG No.: 200-46616-1

Batch Number: 138350 Batch Start Date: 12/19/18 11:38 Batch Analyst: Puangmalee, Kesanee 1

Batch Method: TO-15 Batch End Date: _____

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialPressure	FinalPressure	InitialAmount	FinalAmount	ATTO15CAL4w 00713	ATTO15GIS 00015
BFB 200-138350/1		TO-15		1	1	200 mL	200 mL		20 mL
CCVIS 200-138350/4		TO-15		1	1	200 mL	200 mL	200 mL	20 mL
LCS 200-138350/5		TO-15		1	1	200 mL	200 mL		20 mL
MB 200-138350/6		TO-15		1	1	200 mL	200 mL		20 mL
200-46616-A-1	SVE-01	TO-15	T	1	1	20 mL	200 mL		20 mL
200-46616-A-2	SVE-02	TO-15	T	1	1	20 mL	200 mL		20 mL
200-46616-A-3	SVE-03	TO-15	T	1	1	20 mL	200 mL		20 mL
200-46616-A-4	SVE-04	TO-15	T	1	1	20 mL	200 mL		20 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	ATTO15LCSW 00791					
BFB 200-138350/1		TO-15							
CCVIS 200-138350/4		TO-15							
LCS 200-138350/5		TO-15		200 mL					
MB 200-138350/6		TO-15							
200-46616-A-1	SVE-01	TO-15	T						
200-46616-A-2	SVE-02	TO-15	T						
200-46616-A-3	SVE-03	TO-15	T						
200-46616-A-4	SVE-04	TO-15	T						

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Shipping and Receiving Documents

ORIGIN ID: ISPA (631) 344-2311
BNL SHIPPING DEPT
BROOKHAVEN NATIONAL LAB
BLDG98, ROCHESTER STREET

SHIP DATE: 10DEC18
ACTWGT: 29.00 LB MAN
CAD: 0620132/CAFE3211

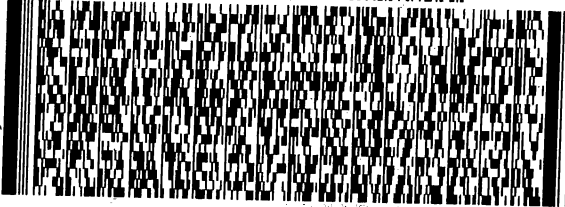
UPTON, NY 11973
UNITED STATES US

BILL RECIPIENT

TO RECEIVING DEPT.
TEST AMERICA, VT.
30 COMMUNITY DRIVE
SUITE 11
SOUTH BURLINGTON VT 05403

(802) 923-1021

REF: 0000059658



FedEx
Express



551C1/F/FE/104C
JT81118060104

TRK# 6583 4853 8620
0201

TUE - 11 DEC 10:30A
PRIORITY OVERNIGHT

XH BTVA

05403
VT-US BTV

Part #: 156145-434 RIT EXP 11/18



Login Sample Receipt Checklist

Client: Brookhaven National Labs

Job Number: 200-46616-1

SDG Number: 200-46616-1

Login Number: 46616

List Source: TestAmerica Burlington

List Number: 1

Creator: Johnson, Eleanor E

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	Seal present with no number.
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	Thermal preservation not required.
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	N/A	Thermal preservation not required.
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	AS
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.	N/A	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	No analysis requiring residual chlorine check assigned.

ANALYTICAL REPORT

Job Number: 200-46729-1
SDG Number: 200-46729-1
Job Description: System Samples

For:
Brookhaven National Labs
Contracts Section
Building 134B
Upton, NY 11973
Attention: Mr. Adrian Steinhauff



Approved for release.
Kathryn A Kelly
Project Manager II
1/16/2019 2:42 PM

Kathryn A Kelly, Project Manager II
30 Community Drive, South Burlington, VT, 05403
(802)923-1021
kathryn.kelly@testamericainc.com
01/16/2019

The test results in this report relate only to sample(s) as received by the laboratory. These test results were derived under a quality system that adheres to the requirements of NELAC. Pursuant to NELAC, this report may not be produced in full without written approval from the laboratory

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Definitions/Glossary

Client: Brookhaven National Labs
Project/Site: System Samples

TestAmerica Job ID: 200-46729-1
SDG: 200-46729-1

Qualifiers

Air - GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	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)

CASE NARRATIVE

Client: Brookhaven National Labs

Project: System Samples

Report Number: 200-46729-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT

The samples were received on 12/15/2018; the samples arrived in good condition.

VOLATILE ORGANIC COMPOUNDS

Samples SVE-05, SVE-06, SVE-07 and SVE-08 were analyzed for Volatile Organic Compounds in accordance with EPA Method TO-15. The samples were analyzed on 12/28/2018.

Samples SVE-05[7X], SVE-06[8X], SVE-07[7X] and SVE-08[8X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

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

Detection Summary

Client: Brookhaven National Labs
Project/Site: System Samples

TestAmerica Job ID: 200-46729-1
SDG: 200-46729-1

Client Sample ID: SVE-05

Lab Sample ID: 200-46729-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	2.3		1.4		ppb v/v	7		TO-15	Total/NA
Tetrachloroethene	140		1.4		ppb v/v	7		TO-15	Total/NA
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	12		7.6		ug/m3	7		TO-15	Total/NA
Tetrachloroethene	920		9.5		ug/m3	7		TO-15	Total/NA

Client Sample ID: SVE-06

Lab Sample ID: 200-46729-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	2.5		1.6		ppb v/v	8		TO-15	Total/NA
Tetrachloroethene	150		1.6		ppb v/v	8		TO-15	Total/NA
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	14		8.7		ug/m3	8		TO-15	Total/NA
Tetrachloroethene	1100		11		ug/m3	8		TO-15	Total/NA

Client Sample ID: SVE-07

Lab Sample ID: 200-46729-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	2.5		1.4		ppb v/v	7		TO-15	Total/NA
Tetrachloroethene	140		1.4		ppb v/v	7		TO-15	Total/NA
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	13		7.6		ug/m3	7		TO-15	Total/NA
Tetrachloroethene	960		9.5		ug/m3	7		TO-15	Total/NA

Client Sample ID: SVE-08

Lab Sample ID: 200-46729-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	2.4		1.6		ppb v/v	8		TO-15	Total/NA
Tetrachloroethene	150		1.6		ppb v/v	8		TO-15	Total/NA
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	13		8.7		ug/m3	8		TO-15	Total/NA
Tetrachloroethene	1000		11		ug/m3	8		TO-15	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Burlington

Client Sample Results

Client: Brookhaven National Labs
Project/Site: System Samples

TestAmerica Job ID: 200-46729-1
SDG: 200-46729-1

Client Sample ID: SVE-05

Date Collected: 12/11/18 14:00

Date Received: 12/15/18 09:55

Sample Container: Summa Canister 6L

Lab Sample ID: 200-46729-1

Matrix: Air

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	3.5	U	3.5		ppb v/v			12/28/18 01:05	7
1,2-Dichlorotetrafluoroethane	1.4	U	1.4		ppb v/v			12/28/18 01:05	7
Chloromethane	3.5	U	3.5		ppb v/v			12/28/18 01:05	7
Vinyl chloride	1.4	U	1.4		ppb v/v			12/28/18 01:05	7
Bromomethane	1.4	U	1.4		ppb v/v			12/28/18 01:05	7
Chloroethane	3.5	U	3.5		ppb v/v			12/28/18 01:05	7
Trichlorofluoromethane	1.4	U	1.4		ppb v/v			12/28/18 01:05	7
Freon TF	1.4	U	1.4		ppb v/v			12/28/18 01:05	7
1,1-Dichloroethene	1.4	U	1.4		ppb v/v			12/28/18 01:05	7
Methylene Chloride	3.5	U	3.5		ppb v/v			12/28/18 01:05	7
1,1-Dichloroethane	1.4	U	1.4		ppb v/v			12/28/18 01:05	7
cis-1,2-Dichloroethene	1.4	U	1.4		ppb v/v			12/28/18 01:05	7
Chloroform	1.4	U	1.4		ppb v/v			12/28/18 01:05	7
1,1,1-Trichloroethane	2.3		1.4		ppb v/v			12/28/18 01:05	7
Carbon tetrachloride	1.4	U	1.4		ppb v/v			12/28/18 01:05	7
Benzene	1.4	U	1.4		ppb v/v			12/28/18 01:05	7
1,2-Dichloroethane	1.4	U	1.4		ppb v/v			12/28/18 01:05	7
Trichloroethene	1.4	U	1.4		ppb v/v			12/28/18 01:05	7
1,2-Dichloropropane	1.4	U	1.4		ppb v/v			12/28/18 01:05	7
cis-1,3-Dichloropropene	1.4	U	1.4		ppb v/v			12/28/18 01:05	7
Toluene	1.4	U	1.4		ppb v/v			12/28/18 01:05	7
trans-1,3-Dichloropropene	1.4	U	1.4		ppb v/v			12/28/18 01:05	7
1,1,2-Trichloroethane	1.4	U	1.4		ppb v/v			12/28/18 01:05	7
Tetrachloroethene	140		1.4		ppb v/v			12/28/18 01:05	7
1,2-Dibromoethane	1.4	U	1.4		ppb v/v			12/28/18 01:05	7
Chlorobenzene	1.4	U	1.4		ppb v/v			12/28/18 01:05	7
Ethylbenzene	1.4	U	1.4		ppb v/v			12/28/18 01:05	7
m,p-Xylene	3.5	U	3.5		ppb v/v			12/28/18 01:05	7
Xylene, o-	1.4	U	1.4		ppb v/v			12/28/18 01:05	7
Styrene	1.4	U	1.4		ppb v/v			12/28/18 01:05	7
1,1,2,2-Tetrachloroethane	1.4	U	1.4		ppb v/v			12/28/18 01:05	7
1,3,5-Trimethylbenzene	1.4	U	1.4		ppb v/v			12/28/18 01:05	7
1,2,4-Trimethylbenzene	1.4	U	1.4		ppb v/v			12/28/18 01:05	7
1,3-Dichlorobenzene	1.4	U	1.4		ppb v/v			12/28/18 01:05	7
1,4-Dichlorobenzene	1.4	U	1.4		ppb v/v			12/28/18 01:05	7
1,2-Dichlorobenzene	1.4	U	1.4		ppb v/v			12/28/18 01:05	7
1,2,4-Trichlorobenzene	3.5	U	3.5		ppb v/v			12/28/18 01:05	7
Hexachlorobutadiene	1.4	U	1.4		ppb v/v			12/28/18 01:05	7
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	17	U	17		ug/m3			12/28/18 01:05	7
1,2-Dichlorotetrafluoroethane	9.8	U	9.8		ug/m3			12/28/18 01:05	7
Chloromethane	7.2	U	7.2		ug/m3			12/28/18 01:05	7
Vinyl chloride	3.6	U	3.6		ug/m3			12/28/18 01:05	7
Bromomethane	5.4	U	5.4		ug/m3			12/28/18 01:05	7
Chloroethane	9.2	U	9.2		ug/m3			12/28/18 01:05	7
Trichlorofluoromethane	7.9	U	7.9		ug/m3			12/28/18 01:05	7
Freon TF	11	U	11		ug/m3			12/28/18 01:05	7
1,1-Dichloroethene	5.6	U	5.6		ug/m3			12/28/18 01:05	7

Client Sample Results

Client: Brookhaven National Labs
Project/Site: System Samples

TestAmerica Job ID: 200-46729-1
SDG: 200-46729-1

Client Sample ID: SVE-05

Lab Sample ID: 200-46729-1

Date Collected: 12/11/18 14:00

Matrix: Air

Date Received: 12/15/18 09:55

Sample Container: Summa Canister 6L

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	12	U	12		ug/m3			12/28/18 01:05	7
1,1-Dichloroethane	5.7	U	5.7		ug/m3			12/28/18 01:05	7
cis-1,2-Dichloroethene	5.6	U	5.6		ug/m3			12/28/18 01:05	7
Chloroform	6.8	U	6.8		ug/m3			12/28/18 01:05	7
1,1,1-Trichloroethane	12		7.6		ug/m3			12/28/18 01:05	7
Carbon tetrachloride	8.8	U	8.8		ug/m3			12/28/18 01:05	7
Benzene	4.5	U	4.5		ug/m3			12/28/18 01:05	7
1,2-Dichloroethane	5.7	U	5.7		ug/m3			12/28/18 01:05	7
Trichloroethene	7.5	U	7.5		ug/m3			12/28/18 01:05	7
1,2-Dichloropropane	6.5	U	6.5		ug/m3			12/28/18 01:05	7
cis-1,3-Dichloropropene	6.4	U	6.4		ug/m3			12/28/18 01:05	7
Toluene	5.3	U	5.3		ug/m3			12/28/18 01:05	7
trans-1,3-Dichloropropene	6.4	U	6.4		ug/m3			12/28/18 01:05	7
1,1,2-Trichloroethane	7.6	U	7.6		ug/m3			12/28/18 01:05	7
Tetrachloroethene	920		9.5		ug/m3			12/28/18 01:05	7
1,2-Dibromoethane	11	U	11		ug/m3			12/28/18 01:05	7
Chlorobenzene	6.4	U	6.4		ug/m3			12/28/18 01:05	7
Ethylbenzene	6.1	U	6.1		ug/m3			12/28/18 01:05	7
m,p-Xylene	15	U	15		ug/m3			12/28/18 01:05	7
Xylene, o-	6.1	U	6.1		ug/m3			12/28/18 01:05	7
Styrene	6.0	U	6.0		ug/m3			12/28/18 01:05	7
1,1,2,2-Tetrachloroethane	9.6	U	9.6		ug/m3			12/28/18 01:05	7
1,3,5-Trimethylbenzene	6.9	U	6.9		ug/m3			12/28/18 01:05	7
1,2,4-Trimethylbenzene	6.9	U	6.9		ug/m3			12/28/18 01:05	7
1,3-Dichlorobenzene	8.4	U	8.4		ug/m3			12/28/18 01:05	7
1,4-Dichlorobenzene	8.4	U	8.4		ug/m3			12/28/18 01:05	7
1,2-Dichlorobenzene	8.4	U	8.4		ug/m3			12/28/18 01:05	7
1,2,4-Trichlorobenzene	26	U	26		ug/m3			12/28/18 01:05	7
Hexachlorobutadiene	15	U	15		ug/m3			12/28/18 01:05	7

Client Sample ID: SVE-06

Lab Sample ID: 200-46729-2

Date Collected: 12/12/18 14:00

Matrix: Air

Date Received: 12/15/18 09:55

Sample Container: Summa Canister 6L

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	4.0	U	4.0		ppb v/v			12/28/18 01:58	8
1,2-Dichlorotetrafluoroethane	1.6	U	1.6		ppb v/v			12/28/18 01:58	8
Chloromethane	4.0	U	4.0		ppb v/v			12/28/18 01:58	8
Vinyl chloride	1.6	U	1.6		ppb v/v			12/28/18 01:58	8
Bromomethane	1.6	U	1.6		ppb v/v			12/28/18 01:58	8
Chloroethane	4.0	U	4.0		ppb v/v			12/28/18 01:58	8
Trichlorofluoromethane	1.6	U	1.6		ppb v/v			12/28/18 01:58	8
Freon TF	1.6	U	1.6		ppb v/v			12/28/18 01:58	8
1,1-Dichloroethene	1.6	U	1.6		ppb v/v			12/28/18 01:58	8
Methylene Chloride	4.0	U	4.0		ppb v/v			12/28/18 01:58	8
1,1-Dichloroethane	1.6	U	1.6		ppb v/v			12/28/18 01:58	8
cis-1,2-Dichloroethene	1.6	U	1.6		ppb v/v			12/28/18 01:58	8

Client Sample Results

Client: Brookhaven National Labs
Project/Site: System Samples

TestAmerica Job ID: 200-46729-1
SDG: 200-46729-1

Client Sample ID: SVE-06

Lab Sample ID: 200-46729-2

Date Collected: 12/12/18 14:00

Matrix: Air

Date Received: 12/15/18 09:55

Sample Container: Summa Canister 6L

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroform	1.6	U	1.6		ppb v/v			12/28/18 01:58	8
1,1,1-Trichloroethane	2.5		1.6		ppb v/v			12/28/18 01:58	8
Carbon tetrachloride	1.6	U	1.6		ppb v/v			12/28/18 01:58	8
Benzene	1.6	U	1.6		ppb v/v			12/28/18 01:58	8
1,2-Dichloroethane	1.6	U	1.6		ppb v/v			12/28/18 01:58	8
Trichloroethene	1.6	U	1.6		ppb v/v			12/28/18 01:58	8
1,2-Dichloropropane	1.6	U	1.6		ppb v/v			12/28/18 01:58	8
cis-1,3-Dichloropropene	1.6	U	1.6		ppb v/v			12/28/18 01:58	8
Toluene	1.6	U	1.6		ppb v/v			12/28/18 01:58	8
trans-1,3-Dichloropropene	1.6	U	1.6		ppb v/v			12/28/18 01:58	8
1,1,2-Trichloroethane	1.6	U	1.6		ppb v/v			12/28/18 01:58	8
Tetrachloroethene	150		1.6		ppb v/v			12/28/18 01:58	8
1,2-Dibromoethane	1.6	U	1.6		ppb v/v			12/28/18 01:58	8
Chlorobenzene	1.6	U	1.6		ppb v/v			12/28/18 01:58	8
Ethylbenzene	1.6	U	1.6		ppb v/v			12/28/18 01:58	8
m,p-Xylene	4.0	U	4.0		ppb v/v			12/28/18 01:58	8
Xylene, o-	1.6	U	1.6		ppb v/v			12/28/18 01:58	8
Styrene	1.6	U	1.6		ppb v/v			12/28/18 01:58	8
1,1,2,2-Tetrachloroethane	1.6	U	1.6		ppb v/v			12/28/18 01:58	8
1,3,5-Trimethylbenzene	1.6	U	1.6		ppb v/v			12/28/18 01:58	8
1,2,4-Trimethylbenzene	1.6	U	1.6		ppb v/v			12/28/18 01:58	8
1,3-Dichlorobenzene	1.6	U	1.6		ppb v/v			12/28/18 01:58	8
1,4-Dichlorobenzene	1.6	U	1.6		ppb v/v			12/28/18 01:58	8
1,2-Dichlorobenzene	1.6	U	1.6		ppb v/v			12/28/18 01:58	8
1,2,4-Trichlorobenzene	4.0	U	4.0		ppb v/v			12/28/18 01:58	8
Hexachlorobutadiene	1.6	U	1.6		ppb v/v			12/28/18 01:58	8
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	20	U	20		ug/m3			12/28/18 01:58	8
1,2-Dichlorotetrafluoroethane	11	U	11		ug/m3			12/28/18 01:58	8
Chloromethane	8.3	U	8.3		ug/m3			12/28/18 01:58	8
Vinyl chloride	4.1	U	4.1		ug/m3			12/28/18 01:58	8
Bromomethane	6.2	U	6.2		ug/m3			12/28/18 01:58	8
Chloroethane	11	U	11		ug/m3			12/28/18 01:58	8
Trichlorofluoromethane	9.0	U	9.0		ug/m3			12/28/18 01:58	8
Freon TF	12	U	12		ug/m3			12/28/18 01:58	8
1,1-Dichloroethene	6.3	U	6.3		ug/m3			12/28/18 01:58	8
Methylene Chloride	14	U	14		ug/m3			12/28/18 01:58	8
1,1-Dichloroethane	6.5	U	6.5		ug/m3			12/28/18 01:58	8
cis-1,2-Dichloroethene	6.3	U	6.3		ug/m3			12/28/18 01:58	8
Chloroform	7.8	U	7.8		ug/m3			12/28/18 01:58	8
1,1,1-Trichloroethane	14		8.7		ug/m3			12/28/18 01:58	8
Carbon tetrachloride	10	U	10		ug/m3			12/28/18 01:58	8
Benzene	5.1	U	5.1		ug/m3			12/28/18 01:58	8
1,2-Dichloroethane	6.5	U	6.5		ug/m3			12/28/18 01:58	8
Trichloroethene	8.6	U	8.6		ug/m3			12/28/18 01:58	8
1,2-Dichloropropane	7.4	U	7.4		ug/m3			12/28/18 01:58	8
cis-1,3-Dichloropropene	7.3	U	7.3		ug/m3			12/28/18 01:58	8
Toluene	6.0	U	6.0		ug/m3			12/28/18 01:58	8

Client Sample Results

Client: Brookhaven National Labs
Project/Site: System Samples

TestAmerica Job ID: 200-46729-1
SDG: 200-46729-1

Client Sample ID: SVE-06

Lab Sample ID: 200-46729-2

Date Collected: 12/12/18 14:00

Matrix: Air

Date Received: 12/15/18 09:55

Sample Container: Summa Canister 6L

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,3-Dichloropropene	7.3	U	7.3		ug/m3			12/28/18 01:58	8
1,1,2-Trichloroethane	8.7	U	8.7		ug/m3			12/28/18 01:58	8
Tetrachloroethene	1100		11		ug/m3			12/28/18 01:58	8
1,2-Dibromoethane	12	U	12		ug/m3			12/28/18 01:58	8
Chlorobenzene	7.4	U	7.4		ug/m3			12/28/18 01:58	8
Ethylbenzene	6.9	U	6.9		ug/m3			12/28/18 01:58	8
m,p-Xylene	17	U	17		ug/m3			12/28/18 01:58	8
Xylene, o-	6.9	U	6.9		ug/m3			12/28/18 01:58	8
Styrene	6.8	U	6.8		ug/m3			12/28/18 01:58	8
1,1,2,2-Tetrachloroethane	11	U	11		ug/m3			12/28/18 01:58	8
1,3,5-Trimethylbenzene	7.9	U	7.9		ug/m3			12/28/18 01:58	8
1,2,4-Trimethylbenzene	7.9	U	7.9		ug/m3			12/28/18 01:58	8
1,3-Dichlorobenzene	9.6	U	9.6		ug/m3			12/28/18 01:58	8
1,4-Dichlorobenzene	9.6	U	9.6		ug/m3			12/28/18 01:58	8
1,2-Dichlorobenzene	9.6	U	9.6		ug/m3			12/28/18 01:58	8
1,2,4-Trichlorobenzene	30	U	30		ug/m3			12/28/18 01:58	8
Hexachlorobutadiene	17	U	17		ug/m3			12/28/18 01:58	8

Client Sample ID: SVE-07

Lab Sample ID: 200-46729-3

Date Collected: 12/13/18 14:30

Matrix: Air

Date Received: 12/15/18 09:55

Sample Container: Summa Canister 6L

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	3.5	U	3.5		ppb v/v			12/28/18 02:52	7
1,2-Dichlorotetrafluoroethane	1.4	U	1.4		ppb v/v			12/28/18 02:52	7
Chloromethane	3.5	U	3.5		ppb v/v			12/28/18 02:52	7
Vinyl chloride	1.4	U	1.4		ppb v/v			12/28/18 02:52	7
Bromomethane	1.4	U	1.4		ppb v/v			12/28/18 02:52	7
Chloroethane	3.5	U	3.5		ppb v/v			12/28/18 02:52	7
Trichlorofluoromethane	1.4	U	1.4		ppb v/v			12/28/18 02:52	7
Freon TF	1.4	U	1.4		ppb v/v			12/28/18 02:52	7
1,1-Dichloroethene	1.4	U	1.4		ppb v/v			12/28/18 02:52	7
Methylene Chloride	3.5	U	3.5		ppb v/v			12/28/18 02:52	7
1,1-Dichloroethane	1.4	U	1.4		ppb v/v			12/28/18 02:52	7
cis-1,2-Dichloroethene	1.4	U	1.4		ppb v/v			12/28/18 02:52	7
Chloroform	1.4	U	1.4		ppb v/v			12/28/18 02:52	7
1,1,1-Trichloroethane	2.5		1.4		ppb v/v			12/28/18 02:52	7
Carbon tetrachloride	1.4	U	1.4		ppb v/v			12/28/18 02:52	7
Benzene	1.4	U	1.4		ppb v/v			12/28/18 02:52	7
1,2-Dichloroethane	1.4	U	1.4		ppb v/v			12/28/18 02:52	7
Trichloroethene	1.4	U	1.4		ppb v/v			12/28/18 02:52	7
1,2-Dichloropropane	1.4	U	1.4		ppb v/v			12/28/18 02:52	7
cis-1,3-Dichloropropene	1.4	U	1.4		ppb v/v			12/28/18 02:52	7
Toluene	1.4	U	1.4		ppb v/v			12/28/18 02:52	7
trans-1,3-Dichloropropene	1.4	U	1.4		ppb v/v			12/28/18 02:52	7
1,1,2-Trichloroethane	1.4	U	1.4		ppb v/v			12/28/18 02:52	7
Tetrachloroethene	140		1.4		ppb v/v			12/28/18 02:52	7

TestAmerica Burlington

Client Sample Results

Client: Brookhaven National Labs
Project/Site: System Samples

TestAmerica Job ID: 200-46729-1
SDG: 200-46729-1

Client Sample ID: SVE-07

Lab Sample ID: 200-46729-3

Date Collected: 12/13/18 14:30

Matrix: Air

Date Received: 12/15/18 09:55

Sample Container: Summa Canister 6L

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	1.4	U	1.4		ppb v/v			12/28/18 02:52	7
Chlorobenzene	1.4	U	1.4		ppb v/v			12/28/18 02:52	7
Ethylbenzene	1.4	U	1.4		ppb v/v			12/28/18 02:52	7
m,p-Xylene	3.5	U	3.5		ppb v/v			12/28/18 02:52	7
Xylene, o-	1.4	U	1.4		ppb v/v			12/28/18 02:52	7
Styrene	1.4	U	1.4		ppb v/v			12/28/18 02:52	7
1,1,2,2-Tetrachloroethane	1.4	U	1.4		ppb v/v			12/28/18 02:52	7
1,3,5-Trimethylbenzene	1.4	U	1.4		ppb v/v			12/28/18 02:52	7
1,2,4-Trimethylbenzene	1.4	U	1.4		ppb v/v			12/28/18 02:52	7
1,3-Dichlorobenzene	1.4	U	1.4		ppb v/v			12/28/18 02:52	7
1,4-Dichlorobenzene	1.4	U	1.4		ppb v/v			12/28/18 02:52	7
1,2-Dichlorobenzene	1.4	U	1.4		ppb v/v			12/28/18 02:52	7
1,2,4-Trichlorobenzene	3.5	U	3.5		ppb v/v			12/28/18 02:52	7
Hexachlorobutadiene	1.4	U	1.4		ppb v/v			12/28/18 02:52	7
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	17	U	17		ug/m3			12/28/18 02:52	7
1,2-Dichlorotetrafluoroethane	9.8	U	9.8		ug/m3			12/28/18 02:52	7
Chloromethane	7.2	U	7.2		ug/m3			12/28/18 02:52	7
Vinyl chloride	3.6	U	3.6		ug/m3			12/28/18 02:52	7
Bromomethane	5.4	U	5.4		ug/m3			12/28/18 02:52	7
Chloroethane	9.2	U	9.2		ug/m3			12/28/18 02:52	7
Trichlorofluoromethane	7.9	U	7.9		ug/m3			12/28/18 02:52	7
Freon TF	11	U	11		ug/m3			12/28/18 02:52	7
1,1-Dichloroethene	5.6	U	5.6		ug/m3			12/28/18 02:52	7
Methylene Chloride	12	U	12		ug/m3			12/28/18 02:52	7
1,1-Dichloroethane	5.7	U	5.7		ug/m3			12/28/18 02:52	7
cis-1,2-Dichloroethene	5.6	U	5.6		ug/m3			12/28/18 02:52	7
Chloroform	6.8	U	6.8		ug/m3			12/28/18 02:52	7
1,1,1-Trichloroethane	13		7.6		ug/m3			12/28/18 02:52	7
Carbon tetrachloride	8.8	U	8.8		ug/m3			12/28/18 02:52	7
Benzene	4.5	U	4.5		ug/m3			12/28/18 02:52	7
1,2-Dichloroethane	5.7	U	5.7		ug/m3			12/28/18 02:52	7
Trichloroethene	7.5	U	7.5		ug/m3			12/28/18 02:52	7
1,2-Dichloropropane	6.5	U	6.5		ug/m3			12/28/18 02:52	7
cis-1,3-Dichloropropene	6.4	U	6.4		ug/m3			12/28/18 02:52	7
Toluene	5.3	U	5.3		ug/m3			12/28/18 02:52	7
trans-1,3-Dichloropropene	6.4	U	6.4		ug/m3			12/28/18 02:52	7
1,1,2-Trichloroethane	7.6	U	7.6		ug/m3			12/28/18 02:52	7
Tetrachloroethene	960		9.5		ug/m3			12/28/18 02:52	7
1,2-Dibromoethane	11	U	11		ug/m3			12/28/18 02:52	7
Chlorobenzene	6.4	U	6.4		ug/m3			12/28/18 02:52	7
Ethylbenzene	6.1	U	6.1		ug/m3			12/28/18 02:52	7
m,p-Xylene	15	U	15		ug/m3			12/28/18 02:52	7
Xylene, o-	6.1	U	6.1		ug/m3			12/28/18 02:52	7
Styrene	6.0	U	6.0		ug/m3			12/28/18 02:52	7
1,1,2,2-Tetrachloroethane	9.6	U	9.6		ug/m3			12/28/18 02:52	7
1,3,5-Trimethylbenzene	6.9	U	6.9		ug/m3			12/28/18 02:52	7
1,2,4-Trimethylbenzene	6.9	U	6.9		ug/m3			12/28/18 02:52	7

Client Sample Results

Client: Brookhaven National Labs
Project/Site: System Samples

TestAmerica Job ID: 200-46729-1
SDG: 200-46729-1

Client Sample ID: SVE-07

Date Collected: 12/13/18 14:30

Date Received: 12/15/18 09:55

Sample Container: Summa Canister 6L

Lab Sample ID: 200-46729-3

Matrix: Air

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3-Dichlorobenzene	8.4	U	8.4		ug/m3			12/28/18 02:52	7
1,4-Dichlorobenzene	8.4	U	8.4		ug/m3			12/28/18 02:52	7
1,2-Dichlorobenzene	8.4	U	8.4		ug/m3			12/28/18 02:52	7
1,2,4-Trichlorobenzene	26	U	26		ug/m3			12/28/18 02:52	7
Hexachlorobutadiene	15	U	15		ug/m3			12/28/18 02:52	7

Client Sample ID: SVE-08

Date Collected: 12/14/18 14:00

Date Received: 12/15/18 09:55

Sample Container: Summa Canister 6L

Lab Sample ID: 200-46729-4

Matrix: Air

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	4.0	U	4.0		ppb v/v			12/28/18 03:45	8
1,2-Dichlorotetrafluoroethane	1.6	U	1.6		ppb v/v			12/28/18 03:45	8
Chloromethane	4.0	U	4.0		ppb v/v			12/28/18 03:45	8
Vinyl chloride	1.6	U	1.6		ppb v/v			12/28/18 03:45	8
Bromomethane	1.6	U	1.6		ppb v/v			12/28/18 03:45	8
Chloroethane	4.0	U	4.0		ppb v/v			12/28/18 03:45	8
Trichlorofluoromethane	1.6	U	1.6		ppb v/v			12/28/18 03:45	8
Freon TF	1.6	U	1.6		ppb v/v			12/28/18 03:45	8
1,1-Dichloroethene	1.6	U	1.6		ppb v/v			12/28/18 03:45	8
Methylene Chloride	4.0	U	4.0		ppb v/v			12/28/18 03:45	8
1,1-Dichloroethane	1.6	U	1.6		ppb v/v			12/28/18 03:45	8
cis-1,2-Dichloroethene	1.6	U	1.6		ppb v/v			12/28/18 03:45	8
Chloroform	1.6	U	1.6		ppb v/v			12/28/18 03:45	8
1,1,1-Trichloroethane	2.4		1.6		ppb v/v			12/28/18 03:45	8
Carbon tetrachloride	1.6	U	1.6		ppb v/v			12/28/18 03:45	8
Benzene	1.6	U	1.6		ppb v/v			12/28/18 03:45	8
1,2-Dichloroethane	1.6	U	1.6		ppb v/v			12/28/18 03:45	8
Trichloroethene	1.6	U	1.6		ppb v/v			12/28/18 03:45	8
1,2-Dichloropropane	1.6	U	1.6		ppb v/v			12/28/18 03:45	8
cis-1,3-Dichloropropene	1.6	U	1.6		ppb v/v			12/28/18 03:45	8
Toluene	1.6	U	1.6		ppb v/v			12/28/18 03:45	8
trans-1,3-Dichloropropene	1.6	U	1.6		ppb v/v			12/28/18 03:45	8
1,1,2-Trichloroethane	1.6	U	1.6		ppb v/v			12/28/18 03:45	8
Tetrachloroethene	150		1.6		ppb v/v			12/28/18 03:45	8
1,2-Dibromoethane	1.6	U	1.6		ppb v/v			12/28/18 03:45	8
Chlorobenzene	1.6	U	1.6		ppb v/v			12/28/18 03:45	8
Ethylbenzene	1.6	U	1.6		ppb v/v			12/28/18 03:45	8
m,p-Xylene	4.0	U	4.0		ppb v/v			12/28/18 03:45	8
Xylene, o-	1.6	U	1.6		ppb v/v			12/28/18 03:45	8
Styrene	1.6	U	1.6		ppb v/v			12/28/18 03:45	8
1,1,2,2-Tetrachloroethane	1.6	U	1.6		ppb v/v			12/28/18 03:45	8
1,3,5-Trimethylbenzene	1.6	U	1.6		ppb v/v			12/28/18 03:45	8
1,2,4-Trimethylbenzene	1.6	U	1.6		ppb v/v			12/28/18 03:45	8
1,3-Dichlorobenzene	1.6	U	1.6		ppb v/v			12/28/18 03:45	8
1,4-Dichlorobenzene	1.6	U	1.6		ppb v/v			12/28/18 03:45	8
1,2-Dichlorobenzene	1.6	U	1.6		ppb v/v			12/28/18 03:45	8

Client Sample Results

Client: Brookhaven National Labs
Project/Site: System Samples

TestAmerica Job ID: 200-46729-1
SDG: 200-46729-1

Client Sample ID: SVE-08

Lab Sample ID: 200-46729-4

Date Collected: 12/14/18 14:00

Matrix: Air

Date Received: 12/15/18 09:55

Sample Container: Summa Canister 6L

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	4.0	U	4.0		ppb v/v			12/28/18 03:45	8
Hexachlorobutadiene	1.6	U	1.6		ppb v/v			12/28/18 03:45	8
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	20	U	20		ug/m3			12/28/18 03:45	8
1,2-Dichlorotetrafluoroethane	11	U	11		ug/m3			12/28/18 03:45	8
Chloromethane	8.3	U	8.3		ug/m3			12/28/18 03:45	8
Vinyl chloride	4.1	U	4.1		ug/m3			12/28/18 03:45	8
Bromomethane	6.2	U	6.2		ug/m3			12/28/18 03:45	8
Chloroethane	11	U	11		ug/m3			12/28/18 03:45	8
Trichlorofluoromethane	9.0	U	9.0		ug/m3			12/28/18 03:45	8
Freon TF	12	U	12		ug/m3			12/28/18 03:45	8
1,1-Dichloroethene	6.3	U	6.3		ug/m3			12/28/18 03:45	8
Methylene Chloride	14	U	14		ug/m3			12/28/18 03:45	8
1,1-Dichloroethane	6.5	U	6.5		ug/m3			12/28/18 03:45	8
cis-1,2-Dichloroethene	6.3	U	6.3		ug/m3			12/28/18 03:45	8
Chloroform	7.8	U	7.8		ug/m3			12/28/18 03:45	8
1,1,1-Trichloroethane	13		8.7		ug/m3			12/28/18 03:45	8
Carbon tetrachloride	10	U	10		ug/m3			12/28/18 03:45	8
Benzene	5.1	U	5.1		ug/m3			12/28/18 03:45	8
1,2-Dichloroethane	6.5	U	6.5		ug/m3			12/28/18 03:45	8
Trichloroethene	8.6	U	8.6		ug/m3			12/28/18 03:45	8
1,2-Dichloropropane	7.4	U	7.4		ug/m3			12/28/18 03:45	8
cis-1,3-Dichloropropene	7.3	U	7.3		ug/m3			12/28/18 03:45	8
Toluene	6.0	U	6.0		ug/m3			12/28/18 03:45	8
trans-1,3-Dichloropropene	7.3	U	7.3		ug/m3			12/28/18 03:45	8
1,1,2-Trichloroethane	8.7	U	8.7		ug/m3			12/28/18 03:45	8
Tetrachloroethene	1000		11		ug/m3			12/28/18 03:45	8
1,2-Dibromoethane	12	U	12		ug/m3			12/28/18 03:45	8
Chlorobenzene	7.4	U	7.4		ug/m3			12/28/18 03:45	8
Ethylbenzene	6.9	U	6.9		ug/m3			12/28/18 03:45	8
m,p-Xylene	17	U	17		ug/m3			12/28/18 03:45	8
Xylene, o-	6.9	U	6.9		ug/m3			12/28/18 03:45	8
Styrene	6.8	U	6.8		ug/m3			12/28/18 03:45	8
1,1,2,2-Tetrachloroethane	11	U	11		ug/m3			12/28/18 03:45	8
1,3,5-Trimethylbenzene	7.9	U	7.9		ug/m3			12/28/18 03:45	8
1,2,4-Trimethylbenzene	7.9	U	7.9		ug/m3			12/28/18 03:45	8
1,3-Dichlorobenzene	9.6	U	9.6		ug/m3			12/28/18 03:45	8
1,4-Dichlorobenzene	9.6	U	9.6		ug/m3			12/28/18 03:45	8
1,2-Dichlorobenzene	9.6	U	9.6		ug/m3			12/28/18 03:45	8
1,2,4-Trichlorobenzene	30	U	30		ug/m3			12/28/18 03:45	8
Hexachlorobutadiene	17	U	17		ug/m3			12/28/18 03:45	8

Default Detection Limits

Client: Brookhaven National Labs
 Project/Site: System Samples

TestAmerica Job ID: 200-46729-1
 SDG: 200-46729-1

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	RL	MDL	Units	Method
1,1,1-Trichloroethane	0.20	0.068	ppb v/v	TO-15
1,1,1-Trichloroethane	1.1	0.37	ug/m3	TO-15
1,1,2,2-Tetrachloroethane	0.20	0.076	ppb v/v	TO-15
1,1,2,2-Tetrachloroethane	1.4	0.52	ug/m3	TO-15
1,1,2-Trichloroethane	0.20	0.078	ppb v/v	TO-15
1,1,2-Trichloroethane	1.1	0.43	ug/m3	TO-15
1,1-Dichloroethane	0.20	0.026	ppb v/v	TO-15
1,1-Dichloroethane	0.81	0.11	ug/m3	TO-15
1,1-Dichloroethene	0.20	0.034	ppb v/v	TO-15
1,1-Dichloroethene	0.79	0.13	ug/m3	TO-15
1,2,4-Trichlorobenzene	0.50	0.24	ppb v/v	TO-15
1,2,4-Trichlorobenzene	3.7	1.8	ug/m3	TO-15
1,2,4-Trimethylbenzene	0.20	0.080	ppb v/v	TO-15
1,2,4-Trimethylbenzene	0.98	0.39	ug/m3	TO-15
1,2-Dibromoethane	0.20	0.069	ppb v/v	TO-15
1,2-Dibromoethane	1.5	0.53	ug/m3	TO-15
1,2-Dichlorobenzene	0.20	0.071	ppb v/v	TO-15
1,2-Dichlorobenzene	1.2	0.43	ug/m3	TO-15
1,2-Dichloroethane	0.20	0.063	ppb v/v	TO-15
1,2-Dichloroethane	0.81	0.25	ug/m3	TO-15
1,2-Dichloropropane	0.20	0.12	ppb v/v	TO-15
1,2-Dichloropropane	0.92	0.55	ug/m3	TO-15
1,2-Dichlorotetrafluoroethane	0.20	0.068	ppb v/v	TO-15
1,2-Dichlorotetrafluoroethane	1.4	0.48	ug/m3	TO-15
1,3,5-Trimethylbenzene	0.20	0.058	ppb v/v	TO-15
1,3,5-Trimethylbenzene	0.98	0.29	ug/m3	TO-15
1,3-Dichlorobenzene	0.20	0.082	ppb v/v	TO-15
1,3-Dichlorobenzene	1.2	0.49	ug/m3	TO-15
1,4-Dichlorobenzene	0.20	0.065	ppb v/v	TO-15
1,4-Dichlorobenzene	1.2	0.39	ug/m3	TO-15
Benzene	0.20	0.071	ppb v/v	TO-15
Benzene	0.64	0.23	ug/m3	TO-15
Bromomethane	0.20	0.062	ppb v/v	TO-15
Bromomethane	0.78	0.24	ug/m3	TO-15
Carbon tetrachloride	0.20	0.024	ppb v/v	TO-15
Carbon tetrachloride	1.3	0.15	ug/m3	TO-15
Chlorobenzene	0.20	0.040	ppb v/v	TO-15
Chlorobenzene	0.92	0.18	ug/m3	TO-15
Chloroethane	0.50	0.21	ppb v/v	TO-15
Chloroethane	1.3	0.55	ug/m3	TO-15
Chloroform	0.20	0.052	ppb v/v	TO-15
Chloroform	0.98	0.25	ug/m3	TO-15
Chloromethane	0.50	0.25	ppb v/v	TO-15
Chloromethane	1.0	0.52	ug/m3	TO-15
cis-1,2-Dichloroethene	0.20	0.037	ppb v/v	TO-15
cis-1,2-Dichloroethene	0.79	0.15	ug/m3	TO-15
cis-1,3-Dichloropropene	0.20	0.098	ppb v/v	TO-15
cis-1,3-Dichloropropene	0.91	0.44	ug/m3	TO-15
Dichlorodifluoromethane	0.50	0.20	ppb v/v	TO-15
Dichlorodifluoromethane	2.5	0.99	ug/m3	TO-15
Ethylbenzene	0.20	0.073	ppb v/v	TO-15
Ethylbenzene	0.87	0.32	ug/m3	TO-15

Default Detection Limits

Client: Brookhaven National Labs
 Project/Site: System Samples

TestAmerica Job ID: 200-46729-1
 SDG: 200-46729-1

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	RL	MDL	Units	Method
Freon TF	0.20	0.031	ppb v/v	TO-15
Freon TF	1.5	0.24	ug/m3	TO-15
Hexachlorobutadiene	0.20	0.082	ppb v/v	TO-15
Hexachlorobutadiene	2.1	0.87	ug/m3	TO-15
m,p-Xylene	0.50	0.070	ppb v/v	TO-15
m,p-Xylene	2.2	0.30	ug/m3	TO-15
Methylene Chloride	0.50	0.20	ppb v/v	TO-15
Methylene Chloride	1.7	0.69	ug/m3	TO-15
Styrene	0.20	0.086	ppb v/v	TO-15
Styrene	0.85	0.37	ug/m3	TO-15
Tetrachloroethene	0.20	0.029	ppb v/v	TO-15
Tetrachloroethene	1.4	0.20	ug/m3	TO-15
Toluene	0.20	0.069	ppb v/v	TO-15
Toluene	0.75	0.26	ug/m3	TO-15
trans-1,3-Dichloropropene	0.20	0.12	ppb v/v	TO-15
trans-1,3-Dichloropropene	0.91	0.54	ug/m3	TO-15
Trichloroethene	0.20	0.030	ppb v/v	TO-15
Trichloroethene	1.1	0.16	ug/m3	TO-15
Trichlorofluoromethane	0.20	0.062	ppb v/v	TO-15
Trichlorofluoromethane	1.1	0.35	ug/m3	TO-15
Vinyl chloride	0.20	0.041	ppb v/v	TO-15
Vinyl chloride	0.51	0.10	ug/m3	TO-15
Xylene, o-	0.20	0.071	ppb v/v	TO-15
Xylene, o-	0.87	0.31	ug/m3	TO-15

QC Sample Results

Client: Brookhaven National Labs
 Project/Site: System Samples

TestAmerica Job ID: 200-46729-1
 SDG: 200-46729-1

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Lab Sample ID: MB 200-138574/6
Matrix: Air
Analysis Batch: 138574

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

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Dichlorodifluoromethane	0.50	U	0.50		ppb v/v			12/27/18 14:59	1
1,2-Dichlorotetrafluoroethane	0.20	U	0.20		ppb v/v			12/27/18 14:59	1
Chloromethane	0.50	U	0.50		ppb v/v			12/27/18 14:59	1
Vinyl chloride	0.20	U	0.20		ppb v/v			12/27/18 14:59	1
Bromomethane	0.20	U	0.20		ppb v/v			12/27/18 14:59	1
Chloroethane	0.50	U	0.50		ppb v/v			12/27/18 14:59	1
Trichlorofluoromethane	0.20	U	0.20		ppb v/v			12/27/18 14:59	1
Freon TF	0.20	U	0.20		ppb v/v			12/27/18 14:59	1
1,1-Dichloroethene	0.20	U	0.20		ppb v/v			12/27/18 14:59	1
Methylene Chloride	0.50	U	0.50		ppb v/v			12/27/18 14:59	1
1,1-Dichloroethane	0.20	U	0.20		ppb v/v			12/27/18 14:59	1
cis-1,2-Dichloroethene	0.20	U	0.20		ppb v/v			12/27/18 14:59	1
Chloroform	0.20	U	0.20		ppb v/v			12/27/18 14:59	1
1,1,1-Trichloroethane	0.20	U	0.20		ppb v/v			12/27/18 14:59	1
Carbon tetrachloride	0.20	U	0.20		ppb v/v			12/27/18 14:59	1
Benzene	0.20	U	0.20		ppb v/v			12/27/18 14:59	1
1,2-Dichloroethane	0.20	U	0.20		ppb v/v			12/27/18 14:59	1
Trichloroethene	0.20	U	0.20		ppb v/v			12/27/18 14:59	1
1,2-Dichloropropane	0.20	U	0.20		ppb v/v			12/27/18 14:59	1
cis-1,3-Dichloropropene	0.20	U	0.20		ppb v/v			12/27/18 14:59	1
Toluene	0.20	U	0.20		ppb v/v			12/27/18 14:59	1
trans-1,3-Dichloropropene	0.20	U	0.20		ppb v/v			12/27/18 14:59	1
1,1,2-Trichloroethane	0.20	U	0.20		ppb v/v			12/27/18 14:59	1
Tetrachloroethene	0.20	U	0.20		ppb v/v			12/27/18 14:59	1
1,2-Dibromoethane	0.20	U	0.20		ppb v/v			12/27/18 14:59	1
Chlorobenzene	0.20	U	0.20		ppb v/v			12/27/18 14:59	1
Ethylbenzene	0.20	U	0.20		ppb v/v			12/27/18 14:59	1
m,p-Xylene	0.50	U	0.50		ppb v/v			12/27/18 14:59	1
Xylene, o-	0.20	U	0.20		ppb v/v			12/27/18 14:59	1
Styrene	0.20	U	0.20		ppb v/v			12/27/18 14:59	1
1,1,2,2-Tetrachloroethane	0.20	U	0.20		ppb v/v			12/27/18 14:59	1
1,3,5-Trimethylbenzene	0.20	U	0.20		ppb v/v			12/27/18 14:59	1
1,2,4-Trimethylbenzene	0.20	U	0.20		ppb v/v			12/27/18 14:59	1
1,3-Dichlorobenzene	0.20	U	0.20		ppb v/v			12/27/18 14:59	1
1,4-Dichlorobenzene	0.20	U	0.20		ppb v/v			12/27/18 14:59	1
1,2-Dichlorobenzene	0.20	U	0.20		ppb v/v			12/27/18 14:59	1
1,2,4-Trichlorobenzene	0.50	U	0.50		ppb v/v			12/27/18 14:59	1
Hexachlorobutadiene	0.20	U	0.20		ppb v/v			12/27/18 14:59	1

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Dichlorodifluoromethane	2.5	U	2.5		ug/m3			12/27/18 14:59	1
1,2-Dichlorotetrafluoroethane	1.4	U	1.4		ug/m3			12/27/18 14:59	1
Chloromethane	1.0	U	1.0		ug/m3			12/27/18 14:59	1
Vinyl chloride	0.51	U	0.51		ug/m3			12/27/18 14:59	1
Bromomethane	0.78	U	0.78		ug/m3			12/27/18 14:59	1
Chloroethane	1.3	U	1.3		ug/m3			12/27/18 14:59	1
Trichlorofluoromethane	1.1	U	1.1		ug/m3			12/27/18 14:59	1
Freon TF	1.5	U	1.5		ug/m3			12/27/18 14:59	1

TestAmerica Burlington

QC Sample Results

Client: Brookhaven National Labs
Project/Site: System Samples

TestAmerica Job ID: 200-46729-1
SDG: 200-46729-1

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: MB 200-138574/6

Matrix: Air

Analysis Batch: 138574

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,1-Dichloroethene	0.79	U	0.79		ug/m3			12/27/18 14:59	1
Methylene Chloride	1.7	U	1.7		ug/m3			12/27/18 14:59	1
1,1-Dichloroethane	0.81	U	0.81		ug/m3			12/27/18 14:59	1
cis-1,2-Dichloroethene	0.79	U	0.79		ug/m3			12/27/18 14:59	1
Chloroform	0.98	U	0.98		ug/m3			12/27/18 14:59	1
1,1,1-Trichloroethane	1.1	U	1.1		ug/m3			12/27/18 14:59	1
Carbon tetrachloride	1.3	U	1.3		ug/m3			12/27/18 14:59	1
Benzene	0.64	U	0.64		ug/m3			12/27/18 14:59	1
1,2-Dichloroethane	0.81	U	0.81		ug/m3			12/27/18 14:59	1
Trichloroethene	1.1	U	1.1		ug/m3			12/27/18 14:59	1
1,2-Dichloropropane	0.92	U	0.92		ug/m3			12/27/18 14:59	1
cis-1,3-Dichloropropene	0.91	U	0.91		ug/m3			12/27/18 14:59	1
Toluene	0.75	U	0.75		ug/m3			12/27/18 14:59	1
trans-1,3-Dichloropropene	0.91	U	0.91		ug/m3			12/27/18 14:59	1
1,1,2-Trichloroethane	1.1	U	1.1		ug/m3			12/27/18 14:59	1
Tetrachloroethene	1.4	U	1.4		ug/m3			12/27/18 14:59	1
1,2-Dibromoethane	1.5	U	1.5		ug/m3			12/27/18 14:59	1
Chlorobenzene	0.92	U	0.92		ug/m3			12/27/18 14:59	1
Ethylbenzene	0.87	U	0.87		ug/m3			12/27/18 14:59	1
m,p-Xylene	2.2	U	2.2		ug/m3			12/27/18 14:59	1
Xylene, o-	0.87	U	0.87		ug/m3			12/27/18 14:59	1
Styrene	0.85	U	0.85		ug/m3			12/27/18 14:59	1
1,1,2,2-Tetrachloroethane	1.4	U	1.4		ug/m3			12/27/18 14:59	1
1,3,5-Trimethylbenzene	0.98	U	0.98		ug/m3			12/27/18 14:59	1
1,2,4-Trimethylbenzene	0.98	U	0.98		ug/m3			12/27/18 14:59	1
1,3-Dichlorobenzene	1.2	U	1.2		ug/m3			12/27/18 14:59	1
1,4-Dichlorobenzene	1.2	U	1.2		ug/m3			12/27/18 14:59	1
1,2-Dichlorobenzene	1.2	U	1.2		ug/m3			12/27/18 14:59	1
1,2,4-Trichlorobenzene	3.7	U	3.7		ug/m3			12/27/18 14:59	1
Hexachlorobutadiene	2.1	U	2.1		ug/m3			12/27/18 14:59	1

Lab Sample ID: LCS 200-138574/30

Matrix: Air

Analysis Batch: 138574

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
Dichlorodifluoromethane	10.0	10.5		ppb v/v		105	68 - 128
1,2-Dichlorotetrafluoroethane	10.0	9.94		ppb v/v		99	78 - 138
Chloromethane	10.0	11.1		ppb v/v		111	57 - 126
Vinyl chloride	10.0	10.4		ppb v/v		104	62 - 125
Bromomethane	10.0	9.92		ppb v/v		99	68 - 128
Chloroethane	10.0	10.7		ppb v/v		107	65 - 125
Trichlorofluoromethane	10.0	9.65		ppb v/v		97	67 - 127
Freon TF	10.0	9.69		ppb v/v		97	68 - 128
1,1-Dichloroethene	10.0	9.64		ppb v/v		96	67 - 127
Methylene Chloride	10.0	11.2		ppb v/v		112	62 - 122
1,1-Dichloroethane	10.0	9.83		ppb v/v		98	66 - 126
cis-1,2-Dichloroethene	10.0	9.42		ppb v/v		94	67 - 127

TestAmerica Burlington

QC Sample Results

Client: Brookhaven National Labs
Project/Site: System Samples

TestAmerica Job ID: 200-46729-1
SDG: 200-46729-1

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: LCS 200-138574/30

Matrix: Air

Analysis Batch: 138574

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloroform	10.0	9.93		ppb v/v		99	69 - 129
1,1,1-Trichloroethane	10.0	9.95		ppb v/v		100	70 - 130
Carbon tetrachloride	10.0	9.77		ppb v/v		98	62 - 143
Benzene	10.0	9.99		ppb v/v		100	67 - 127
1,2-Dichloroethane	10.0	10.5		ppb v/v		105	67 - 132
Trichloroethene	10.0	9.79		ppb v/v		98	68 - 128
1,2-Dichloropropane	10.0	10.7		ppb v/v		107	67 - 127
cis-1,3-Dichloropropene	10.0	10.5		ppb v/v		105	70 - 130
Toluene	10.0	9.74		ppb v/v		97	67 - 127
trans-1,3-Dichloropropene	10.0	10.3		ppb v/v		103	69 - 129
1,1,2-Trichloroethane	10.0	10.2		ppb v/v		102	69 - 129
Tetrachloroethene	10.0	8.86		ppb v/v		89	70 - 130
1,2-Dibromoethane	10.0	10.1		ppb v/v		101	70 - 130
Chlorobenzene	10.0	9.44		ppb v/v		94	68 - 128
Ethylbenzene	10.0	9.83		ppb v/v		98	68 - 128
m,p-Xylene	20.0	19.3		ppb v/v		97	68 - 128
Xylene, o-	10.0	9.64		ppb v/v		96	67 - 127
Styrene	10.0	10.2		ppb v/v		102	68 - 128
1,1,2,2-Tetrachloroethane	10.0	10.5		ppb v/v		105	69 - 129
1,3,5-Trimethylbenzene	10.0	9.65		ppb v/v		97	65 - 125
1,2,4-Trimethylbenzene	10.0	9.74		ppb v/v		97	65 - 125
1,3-Dichlorobenzene	10.0	9.17		ppb v/v		92	67 - 127
1,4-Dichlorobenzene	10.0	9.16		ppb v/v		92	66 - 126
1,2-Dichlorobenzene	10.0	9.22		ppb v/v		92	67 - 127
1,2,4-Trichlorobenzene	10.0	9.39		ppb v/v		94	59 - 126
Hexachlorobutadiene	10.0	8.83		ppb v/v		88	62 - 130
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dichlorodifluoromethane	49	52.0		ug/m3		105	68 - 128
1,2-Dichlorotetrafluoroethane	70	69.5		ug/m3		99	78 - 138
Chloromethane	21	23.0		ug/m3		111	57 - 126
Vinyl chloride	26	26.5		ug/m3		104	62 - 125
Bromomethane	39	38.5		ug/m3		99	68 - 128
Chloroethane	26	28.2		ug/m3		107	65 - 125
Trichlorofluoromethane	56	54.2		ug/m3		97	67 - 127
Freon TF	77	74.3		ug/m3		97	68 - 128
1,1-Dichloroethene	40	38.2		ug/m3		96	67 - 127
Methylene Chloride	35	38.9		ug/m3		112	62 - 122
1,1-Dichloroethane	40	39.8		ug/m3		98	66 - 126
cis-1,2-Dichloroethene	40	37.3		ug/m3		94	67 - 127
Chloroform	49	48.5		ug/m3		99	69 - 129
1,1,1-Trichloroethane	55	54.3		ug/m3		100	70 - 130
Carbon tetrachloride	63	61.5		ug/m3		98	62 - 143
Benzene	32	31.9		ug/m3		100	67 - 127
1,2-Dichloroethane	40	42.5		ug/m3		105	67 - 132
Trichloroethene	54	52.6		ug/m3		98	68 - 128
1,2-Dichloropropane	46	49.4		ug/m3		107	67 - 127
cis-1,3-Dichloropropene	45	47.7		ug/m3		105	70 - 130

QC Sample Results

Client: Brookhaven National Labs
Project/Site: System Samples

TestAmerica Job ID: 200-46729-1
SDG: 200-46729-1

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: LCS 200-138574/30

Matrix: Air

Analysis Batch: 138574

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Toluene	38	36.7		ug/m3		97	67 - 127
trans-1,3-Dichloropropene	45	46.8		ug/m3		103	69 - 129
1,1,2-Trichloroethane	55	55.8		ug/m3		102	69 - 129
Tetrachloroethene	68	60.1		ug/m3		89	70 - 130
1,2-Dibromoethane	77	77.9		ug/m3		101	70 - 130
Chlorobenzene	46	43.5		ug/m3		94	68 - 128
Ethylbenzene	43	42.7		ug/m3		98	68 - 128
m,p-Xylene	87	83.8		ug/m3		97	68 - 128
Xylene, o-	43	41.9		ug/m3		96	67 - 127
Styrene	43	43.7		ug/m3		102	68 - 128
1,1,2,2-Tetrachloroethane	69	72.1		ug/m3		105	69 - 129
1,3,5-Trimethylbenzene	49	47.4		ug/m3		97	65 - 125
1,2,4-Trimethylbenzene	49	47.9		ug/m3		97	65 - 125
1,3-Dichlorobenzene	60	55.1		ug/m3		92	67 - 127
1,4-Dichlorobenzene	60	55.1		ug/m3		92	66 - 126
1,2-Dichlorobenzene	60	55.4		ug/m3		92	67 - 127
1,2,4-Trichlorobenzene	74	69.7		ug/m3		94	59 - 126
Hexachlorobutadiene	110	94.2		ug/m3		88	62 - 130

QC Association Summary

Client: Brookhaven National Labs
Project/Site: System Samples

TestAmerica Job ID: 200-46729-1
SDG: 200-46729-1

Air - GC/MS VOA

Analysis Batch: 138574

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
200-46729-1	SVE-05	Total/NA	Air	TO-15	
200-46729-2	SVE-06	Total/NA	Air	TO-15	
200-46729-3	SVE-07	Total/NA	Air	TO-15	
200-46729-4	SVE-08	Total/NA	Air	TO-15	
MB 200-138574/6	Method Blank	Total/NA	Air	TO-15	
LCS 200-138574/30	Lab Control Sample	Total/NA	Air	TO-15	

Lab Chronicle

Client: Brookhaven National Labs
Project/Site: System Samples

TestAmerica Job ID: 200-46729-1
SDG: 200-46729-1

Client Sample ID: SVE-05
Date Collected: 12/11/18 14:00
Date Received: 12/15/18 09:55

Lab Sample ID: 200-46729-1
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		7	138574	12/28/18 01:05	A1B	TAL BUR

Client Sample ID: SVE-06
Date Collected: 12/12/18 14:00
Date Received: 12/15/18 09:55

Lab Sample ID: 200-46729-2
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		8	138574	12/28/18 01:58	A1B	TAL BUR

Client Sample ID: SVE-07
Date Collected: 12/13/18 14:30
Date Received: 12/15/18 09:55

Lab Sample ID: 200-46729-3
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		7	138574	12/28/18 02:52	A1B	TAL BUR

Client Sample ID: SVE-08
Date Collected: 12/14/18 14:00
Date Received: 12/15/18 09:55

Lab Sample ID: 200-46729-4
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		8	138574	12/28/18 03:45	A1B	TAL BUR

Laboratory References:

TAL BUR = TestAmerica Burlington, 30 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

Accreditation/Certification Summary

Client: Brookhaven National Labs
Project/Site: System Samples

TestAmerica Job ID: 200-46729-1
SDG: 200-46729-1

Laboratory: TestAmerica Burlington

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
ANAB	DoD ELAP		L2336	02-25-20
Connecticut	State Program	1	PH-0751	09-30-19
DE Haz. Subst. Cleanup Act (HSCA)	State Program	3	NA	02-01-19 *
Florida	NELAP	4	E87467	06-30-19
Maine	State Program	1	VT00008	04-17-19
Minnesota	NELAP	5	050-999-436	12-31-19
New Hampshire	NELAP	1	2006	12-18-18 *
New Jersey	NELAP	2	VT972	06-30-19
New York	NELAP	2	10391	04-01-19
Pennsylvania	NELAP	3	68-00489	04-30-19
Rhode Island	State Program	1	LAO00298	12-30-19
US Fish & Wildlife	Federal		LE-058448-0	07-31-19
USDA	Federal		P330-11-00093	07-24-20
Vermont	State Program	1	VT-4000	12-31-19
Virginia	NELAP	3	460209	12-14-19

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: Brookhaven National Labs
Project/Site: System Samples

TestAmerica Job ID: 200-46729-1
SDG: 200-46729-1

Method	Method Description	Protocol	Laboratory
TO-15	Volatile Organic Compounds in Ambient Air	EPA	TAL BUR

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

TAL BUR = TestAmerica Burlington, 30 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

Sample Summary

Client: Brookhaven National Labs
Project/Site: System Samples

TestAmerica Job ID: 200-46729-1
SDG: 200-46729-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
200-46729-1	SVE-05	Air	12/11/18 14:00	12/15/18 09:55
200-46729-2	SVE-06	Air	12/12/18 14:00	12/15/18 09:55
200-46729-3	SVE-07	Air	12/13/18 14:30	12/15/18 09:55
200-46729-4	SVE-08	Air	12/14/18 14:00	12/15/18 09:55

AIR - GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-46729-1

SDG No.: 200-46729-1

Instrument ID: CHC.i Analysis Batch Number: 138548

Lab Sample ID: IC 200-138548/4 Client Sample ID: _____

Date Analyzed: 12/26/18 19:09 Lab File ID: 33872-04.D GC Column: RTX-624 ID: 0.32 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
cis-1,2-Dichloroethene	9.75	Incomplete Integration	phamvu	12/27/18 09:45
Trichloroethene	12.68	Incomplete Integration	phamvu	12/27/18 09:45
Tetrachloroethene	16.43	Incomplete Integration	phamvu	12/27/18 09:45

Lab Sample ID: IC 200-138548/5 Client Sample ID: _____

Date Analyzed: 12/26/18 20:02 Lab File ID: 33872-05.D GC Column: RTX-624 ID: 0.32 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
n-Heptane	11.74	Incomplete Integration	phamvu	12/27/18 09:47
sec-Butylbenzene	22.13	Incomplete Integration	phamvu	12/27/18 09:51

Lab Sample ID: IC 200-138548/6 Client Sample ID: _____

Date Analyzed: 12/26/18 20:55 Lab File ID: 33872-06.D GC Column: RTX-624 ID: 0.32 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
sec-Butylbenzene	22.13	Peak assignment corrected	phamvu	12/27/18 09:58

Lab Sample ID: ICIS 200-138548/8 Client Sample ID: _____

Date Analyzed: 12/26/18 22:42 Lab File ID: 33872-08.D GC Column: RTX-624 ID: 0.32 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetonitrile	7.03	Peak assignment corrected	phamvu	12/27/18 10:26
1,2,4-Trimethylbenzene	21.90	Peak assignment corrected	phamvu	12/27/18 10:27
sec-Butylbenzene	22.14	Peak assignment corrected	phamvu	12/27/18 10:27

AIR - GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-46729-1

SDG No.: 200-46729-1

Instrument ID: CHC.i Analysis Batch Number: 138548

Lab Sample ID: IC 200-138548/9 Client Sample ID: _____

Date Analyzed: 12/26/18 23:35 Lab File ID: 33872-09.D GC Column: RTX-624 ID: 0.32 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetonitrile	7.03	Peak assignment corrected	phamvu	12/27/18 10:02
sec-Butylbenzene	22.14	Peak assignment corrected	phamvu	12/27/18 10:03

Lab Sample ID: IC 200-138548/10 Client Sample ID: _____

Date Analyzed: 12/27/18 00:29 Lab File ID: 33872-10.D GC Column: RTX-624 ID: 0.32 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetonitrile	7.03	Peak assignment corrected	phamvu	12/27/18 10:03
sec-Butylbenzene	22.14	Peak assignment corrected	phamvu	12/27/18 10:04

Lab Sample ID: IC 200-138548/11 Client Sample ID: _____

Date Analyzed: 12/27/18 01:22 Lab File ID: 33872-11.D GC Column: RTX-624 ID: 0.32 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetonitrile	7.03	Peak assignment corrected	phamvu	12/27/18 10:05
sec-Butylbenzene	22.14	Peak assignment corrected	phamvu	12/27/18 10:06

AIR - GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-46729-1

SDG No.: 200-46729-1

Instrument ID: CHC.i Analysis Batch Number: 138574

Lab Sample ID: MB 200-138574/6 Client Sample ID: _____

Date Analyzed: 12/27/18 14:59 Lab File ID: 33879-06.D GC Column: RTX-624 ID: 0.32 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Trichlorofluoromethane	5.13	Assign Peak	bunmaa	12/28/18 12:11
1,1,2,2-Tetrachloroethane		Invalid Compound ID	bunmaa	12/28/18 12:14
Chlorobenzene		Invalid Compound ID	bunmaa	12/28/18 12:14
Ethylbenzene		Invalid Compound ID	bunmaa	12/28/18 12:14
m,p-Xylene		Invalid Compound ID	bunmaa	12/28/18 12:14
trans-1,3-Dichloropropene		Invalid Compound ID	bunmaa	12/28/18 12:14
Toluene	15.32	Assign Peak	bunmaa	12/28/18 12:13
1,3,5-Trimethylbenzene	21.31	Assign Peak	bunmaa	12/28/18 12:15
1,3-Dichlorobenzene	22.38	Assign Peak	bunmaa	12/28/18 12:15
1,4-Dichlorobenzene	22.51	Assign Peak	bunmaa	12/28/18 12:15

AIR - GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-46729-1

SDG No.: 200-46729-1

Instrument ID: CHC.i Analysis Batch Number: 138574

Lab Sample ID: 200-46729-1 Client Sample ID: SVE-05

Date Analyzed: 12/28/18 01:05 Lab File ID: 33879-17.D GC Column: RTX-624 ID: 0.32 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloromethane	3.42	Assign Peak	bunmaa	12/28/18 14:12
1,1,2-Trichloroethane		Invalid Compound ID	bunmaa	12/28/18 14:14
1,2,4-Trichlorobenzene		Invalid Compound ID	bunmaa	12/28/18 14:15
1,2,4-Trimethylbenzene		Invalid Compound ID	bunmaa	12/28/18 14:15
1,2-Dichlorobenzene		Invalid Compound ID	bunmaa	12/28/18 14:15
1,3,5-Trimethylbenzene		Invalid Compound ID	bunmaa	12/28/18 14:15
1,3-Dichlorobenzene		Invalid Compound ID	bunmaa	12/28/18 14:15
1,4-Dichlorobenzene		Invalid Compound ID	bunmaa	12/28/18 14:15
Carbon tetrachloride		Invalid Compound ID	bunmaa	12/28/18 14:13
Ethylbenzene		Invalid Compound ID	bunmaa	12/28/18 14:14
Methylene Chloride		Invalid Compound ID	bunmaa	12/28/18 14:13
trans-1,3-Dichloropropene		Invalid Compound ID	bunmaa	12/28/18 14:14
Benzene	11.34	Assign Peak	bunmaa	12/28/18 14:13
Trichloroethene	12.67	Assign Peak	bunmaa	12/28/18 14:14
Toluene	15.34	Assign Peak	bunmaa	12/28/18 14:14
m,p-Xylene	18.71	Assign Peak	bunmaa	12/28/18 14:14

AIR - GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-46729-1

SDG No.: 200-46729-1

Instrument ID: CHC.i Analysis Batch Number: 138574

Lab Sample ID: 200-46729-2 Client Sample ID: SVE-06

Date Analyzed: 12/28/18 01:58 Lab File ID: 33879-18.D GC Column: RTX-624 ID: 0.32 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Trichlorofluoromethane	5.13	Assign Peak	bunmaa	12/28/18 15:18
1,1,2-Trichloroethane		Invalid Compound ID	bunmaa	12/28/18 15:19
1,2,4-Trichlorobenzene		Invalid Compound ID	bunmaa	12/28/18 15:19
1,2,4-Trimethylbenzene		Invalid Compound ID	bunmaa	12/28/18 15:19
1,2-Dichlorobenzene		Invalid Compound ID	bunmaa	12/28/18 15:19
1,3,5-Trimethylbenzene		Invalid Compound ID	bunmaa	12/28/18 15:19
1,3-Dichlorobenzene		Invalid Compound ID	bunmaa	12/28/18 15:19
1,4-Dichlorobenzene		Invalid Compound ID	bunmaa	12/28/18 15:19
Benzene		Invalid Compound ID	bunmaa	12/28/18 15:18
Chloromethane		Invalid Compound ID	bunmaa	12/28/18 15:18
Ethylbenzene		Invalid Compound ID	bunmaa	12/28/18 15:19
Freon TF		Invalid Compound ID	bunmaa	12/28/18 15:18
Toluene		Invalid Compound ID	bunmaa	12/28/18 15:19
trans-1,3-Dichloropropene		Invalid Compound ID	bunmaa	12/28/18 15:19
Trichloroethene	12.66	Assign Peak	bunmaa	12/28/18 15:18

AIR - GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-46729-1

SDG No.: 200-46729-1

Instrument ID: CHC.i Analysis Batch Number: 138574

Lab Sample ID: 200-46729-3 Client Sample ID: SVE-07

Date Analyzed: 12/28/18 02:52 Lab File ID: 33879-19.D GC Column: RTX-624 ID: 0.32 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Trichlorofluoromethane	5.14	Assign Peak	bunmaa	12/28/18 15:57
1,1,2-Trichloroethane		Invalid Compound ID	bunmaa	12/28/18 15:59
1,2,4-Trichlorobenzene		Invalid Compound ID	bunmaa	12/28/18 15:59
1,2,4-Trimethylbenzene		Invalid Compound ID	bunmaa	12/28/18 15:59
1,2-Dichlorobenzene		Invalid Compound ID	bunmaa	12/28/18 15:59
1,3,5-Trimethylbenzene		Invalid Compound ID	bunmaa	12/28/18 15:59
1,3-Dichlorobenzene		Invalid Compound ID	bunmaa	12/28/18 15:59
1,4-Dichlorobenzene		Invalid Compound ID	bunmaa	12/28/18 15:59
Benzene		Invalid Compound ID	bunmaa	12/28/18 15:58
Ethylbenzene		Invalid Compound ID	bunmaa	12/28/18 15:59
Freon TF		Invalid Compound ID	bunmaa	12/28/18 15:58
Hexachlorobutadiene		Invalid Compound ID	bunmaa	12/28/18 15:59
m,p-Xylene		Invalid Compound ID	bunmaa	12/28/18 15:59
Trichloroethene	12.68	Assign Peak	bunmaa	12/28/18 15:58
Toluene	15.34	Assign Peak	bunmaa	12/28/18 15:58

AIR - GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-46729-1

SDG No.: 200-46729-1

Instrument ID: CHC.i Analysis Batch Number: 138574

Lab Sample ID: 200-46729-4 Client Sample ID: SVE-08

Date Analyzed: 12/28/18 03:45 Lab File ID: 33879-20.D GC Column: RTX-624 ID: 0.32 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Trichlorofluoromethane	5.11	Assign Peak	bunmaa	01/03/19 09:30
1,1,2-Trichloroethane		Invalid Compound ID	bunmaa	01/03/19 09:30
1,2,4-Trichlorobenzene		Invalid Compound ID	bunmaa	01/03/19 09:31
1,2,4-Trimethylbenzene		Invalid Compound ID	bunmaa	01/03/19 09:31
1,2-Dichlorobenzene		Invalid Compound ID	bunmaa	01/03/19 09:31
1,3-Dichlorobenzene		Invalid Compound ID	bunmaa	01/03/19 09:31
1,4-Dichlorobenzene		Invalid Compound ID	bunmaa	01/03/19 09:31
Benzene		Invalid Compound ID	bunmaa	01/03/19 09:30
Ethylbenzene		Invalid Compound ID	bunmaa	01/03/19 09:31
Freon TF		Invalid Compound ID	bunmaa	01/03/19 09:30
Methylene Chloride		Invalid Compound ID	bunmaa	01/03/19 09:30
Toluene		Invalid Compound ID	bunmaa	01/03/19 09:30
trans-1,3-Dichloropropene		Invalid Compound ID	bunmaa	01/03/19 09:30
Trichloroethene	12.66	Assign Peak	bunmaa	01/03/19 09:30

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46729-1

SDG No.: 200-46729-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
ATTO15CAL1w_00201	02/01/19	12/20/18	Nitrogen, Lot 12	15.463 L	ATTO15CAL6w_00162	155 mL	1,1,1-Trichloroethane	0.20044 ppb v/v
							1,1,2,2-Tetrachloroethane	0.20044 ppb v/v
							1,1,2-Trichloroethane	0.20044 ppb v/v
							1,1-Dichloroethane	0.20044 ppb v/v
							1,1-Dichloroethene	0.20044 ppb v/v
							1,2,3-Trichlorobenzene	0.20044 ppb v/v
							1,2,3-Trichloropropane	0.20044 ppb v/v
							1,2,4-Trichlorobenzene	0.20044 ppb v/v
							1,2,4-Trimethylbenzene	0.20044 ppb v/v
							1,2-Dibromoethane	0.20044 ppb v/v
							1,2-Dichlorobenzene	0.20044 ppb v/v
							1,2-Dichloroethane	0.20044 ppb v/v
							1,2-Dichloropropane	0.20044 ppb v/v
							1,2-Dichlorotetrafluoroethane	0.20044 ppb v/v
							1,3,5-Trimethylbenzene	0.20044 ppb v/v
							1,3-Dichlorobenzene	0.20044 ppb v/v
							1,4-Dichlorobenzene	0.20044 ppb v/v
							1,4-Dioxane	0.20044 ppb v/v
							2-Butanone (MEK)	0.20044 ppb v/v
							2-Chlorotoluene	0.20044 ppb v/v
2-Hexanone	0.20044 ppb v/v							
2-Methyl-2-propanol	0.20044 ppb v/v							
2-Methylbutane	0.20044 ppb v/v							
3-Chloro-1-propene	0.20044 ppb v/v							
4-Ethyltoluene	0.20044 ppb v/v							

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46729-1

SDG No.: 200-46729-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Isopropyltoluene	0.20044 ppb v/v
							4-Methyl-2-pentanone (MIBK)	0.20044 ppb v/v
							Acetone	0.20044 ppb v/v
							Acetonitrile	0.20044 ppb v/v
							Acrolein	0.20044 ppb v/v
							Acrylonitrile	0.20044 ppb v/v
							Alpha Methyl Styrene	0.20044 ppb v/v
							Benzene	0.20044 ppb v/v
							Benzyl chloride	0.20044 ppb v/v
							Bromoform	0.20044 ppb v/v
							Bromomethane	0.20044 ppb v/v
							Butadiene	0.20044 ppb v/v
							Butane	0.20044 ppb v/v
							Carbon disulfide	0.20044 ppb v/v
							Carbon tetrachloride	0.20044 ppb v/v
							Chlorobenzene	0.20044 ppb v/v
							Chlorodibromomethane	0.20044 ppb v/v
							Chlorodifluoromethane	0.20044 ppb v/v
							Chloroethane	0.20044 ppb v/v
							Chloroform	0.20044 ppb v/v
							Chloromethane	0.20044 ppb v/v
							cis-1,2-Dichloroethene	0.20044 ppb v/v
							cis-1,3-Dichloropropene	0.20044 ppb v/v
							Cyclohexane	0.20044 ppb v/v
							Dibromomethane	0.20044 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46729-1

SDG No.: 200-46729-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Dichlorobromomethane	0.20044 ppb v/v
							Dichlorodifluoromethane	0.20044 ppb v/v
							Dodecane	0.20044 ppb v/v
							Ethyl acetate	0.20044 ppb v/v
							Ethyl ether	0.20044 ppb v/v
							Ethylbenzene	0.20044 ppb v/v
							Freon TF	0.20044 ppb v/v
							Hexachlorobutadiene	0.20044 ppb v/v
							Hexane	0.20044 ppb v/v
							Isooctane	0.20044 ppb v/v
							Isopropyl alcohol	0.20044 ppb v/v
							Isopropylbenzene	0.20044 ppb v/v
							m,p-Xylene	0.400879 ppb v/v
							Methyl methacrylate	0.20044 ppb v/v
							Methyl tert-butyl ether	0.20044 ppb v/v
							Methylene Chloride	0.20044 ppb v/v
							n-Butanol	0.20044 ppb v/v
							n-Butylbenzene	0.20044 ppb v/v
							n-Decane	0.20044 ppb v/v
							n-Heptane	0.20044 ppb v/v
							n-Nonane	0.20044 ppb v/v
							n-Octane	0.20044 ppb v/v
							N-Propylbenzene	0.20044 ppb v/v
							Naphthalene	0.20044 ppb v/v
							Pentane	0.20044 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46729-1

SDG No.: 200-46729-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Propene	0.20044 ppb v/v
							sec-Butylbenzene	0.20044 ppb v/v
							Styrene	0.20044 ppb v/v
							tert-Butylbenzene	0.20044 ppb v/v
							Tetrachloroethene	0.20044 ppb v/v
							Tetrahydrofuran	0.20044 ppb v/v
							Toluene	0.20044 ppb v/v
							trans-1,2-Dichloroethene	0.20044 ppb v/v
							trans-1,3-Dichloropropene	0.20044 ppb v/v
							Trichloroethene	0.20044 ppb v/v
							Trichlorofluoromethane	0.20044 ppb v/v
							Undecane	0.20044 ppb v/v
							Vinyl acetate	0.20044 ppb v/v
							Vinyl bromide	0.20044 ppb v/v
							Vinyl chloride	0.20044 ppb v/v
							Xylene, o-	0.20044 ppb v/v
							Ethanol	0.400944 ppb v/v
.ATTO15CAL6w_00162	02/01/19	12/19/18	Nitrogen, Lot 1	15.463 L	ATTO15CALSTKi_00107	1546 mL	1,1,1-Trichloroethane	19.9961 ppb v/v
							1,1,2,2-Tetrachloroethane	19.9961 ppb v/v
							1,1,2-Trichloroethane	19.9961 ppb v/v
							1,1-Dichloroethane	19.9961 ppb v/v
							1,1-Dichloroethene	19.9961 ppb v/v
							1,2,3-Trichlorobenzene	19.9961 ppb v/v
							1,2,3-Trichloropropane	19.9961 ppb v/v
							1,2,4-Trichlorobenzene	19.9961 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46729-1

SDG No.: 200-46729-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2,4-Trimethylbenzene	19.9961 ppb v/v
							1,2-Dibromoethane	19.9961 ppb v/v
							1,2-Dichlorobenzene	19.9961 ppb v/v
							1,2-Dichloroethane	19.9961 ppb v/v
							1,2-Dichloropropane	19.9961 ppb v/v
							1,2-Dichlorotetrafluoroethane	19.9961 ppb v/v
							1,3,5-Trimethylbenzene	19.9961 ppb v/v
							1,3-Dichlorobenzene	19.9961 ppb v/v
							1,4-Dichlorobenzene	19.9961 ppb v/v
							1,4-Dioxane	19.9961 ppb v/v
							2-Butanone (MEK)	19.9961 ppb v/v
							2-Chlorotoluene	19.9961 ppb v/v
							2-Hexanone	19.9961 ppb v/v
							2-Methyl-2-propanol	19.9961 ppb v/v
							2-Methylbutane	19.9961 ppb v/v
							3-Chloro-1-propene	19.9961 ppb v/v
							4-Ethyltoluene	19.9961 ppb v/v
							4-Isopropyltoluene	19.9961 ppb v/v
							4-Methyl-2-pentanone (MIBK)	19.9961 ppb v/v
							Acetone	19.9961 ppb v/v
							Acetonitrile	19.9961 ppb v/v
							Acrolein	19.9961 ppb v/v
							Acrylonitrile	19.9961 ppb v/v
							Alpha Methyl Styrene	19.9961 ppb v/v
							Benzene	19.9961 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46729-1

SDG No.: 200-46729-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Benzyl chloride	19.9961 ppb v/v
							Bromoform	19.9961 ppb v/v
							Bromomethane	19.9961 ppb v/v
							Butadiene	19.9961 ppb v/v
							Butane	19.9961 ppb v/v
							Carbon disulfide	19.9961 ppb v/v
							Carbon tetrachloride	19.9961 ppb v/v
							Chlorobenzene	19.9961 ppb v/v
							Chlorodibromomethane	19.9961 ppb v/v
							Chlorodifluoromethane	19.9961 ppb v/v
							Chloroethane	19.9961 ppb v/v
							Chloroform	19.9961 ppb v/v
							Chloromethane	19.9961 ppb v/v
							cis-1,2-Dichloroethene	19.9961 ppb v/v
							cis-1,3-Dichloropropene	19.9961 ppb v/v
							Cyclohexane	19.9961 ppb v/v
							Dibromomethane	19.9961 ppb v/v
							Dichlorobromomethane	19.9961 ppb v/v
							Dichlorodifluoromethane	19.9961 ppb v/v
							Dodecane	19.9961 ppb v/v
							Ethyl acetate	19.9961 ppb v/v
							Ethyl ether	19.9961 ppb v/v
							Ethylbenzene	19.9961 ppb v/v
							Freon TF	19.9961 ppb v/v
							Hexachlorobutadiene	19.9961 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46729-1

SDG No.: 200-46729-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Hexane	19.9961 ppb v/v
							Isooctane	19.9961 ppb v/v
							Isopropyl alcohol	19.9961 ppb v/v
							Isopropylbenzene	19.9961 ppb v/v
							m,p-Xylene	39.9922 ppb v/v
							Methyl methacrylate	19.9961 ppb v/v
							Methyl tert-butyl ether	19.9961 ppb v/v
							Methylene Chloride	19.9961 ppb v/v
							n-Butanol	19.9961 ppb v/v
							n-Butylbenzene	19.9961 ppb v/v
							n-Decane	19.9961 ppb v/v
							n-Heptane	19.9961 ppb v/v
							n-Nonane	19.9961 ppb v/v
							n-Octane	19.9961 ppb v/v
							N-Propylbenzene	19.9961 ppb v/v
							Naphthalene	19.9961 ppb v/v
							Pentane	19.9961 ppb v/v
							Propene	19.9961 ppb v/v
							sec-Butylbenzene	19.9961 ppb v/v
							Styrene	19.9961 ppb v/v
							tert-Butylbenzene	19.9961 ppb v/v
							Tetrachloroethene	19.9961 ppb v/v
							Tetrahydrofuran	19.9961 ppb v/v
							Toluene	19.9961 ppb v/v
							trans-1,2-Dichloroethene	19.9961 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46729-1

SDG No.: 200-46729-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							trans-1,3-Dichloropropene	19.9961 ppb v/v
							Trichloroethene	19.9961 ppb v/v
							Trichlorofluoromethane	19.9961 ppb v/v
							Undecane	19.9961 ppb v/v
							Vinyl acetate	19.9961 ppb v/v
							Vinyl bromide	19.9961 ppb v/v
							Vinyl chloride	19.9961 ppb v/v
							Xylene, o-	19.9961 ppb v/v
					ATTO15EthCALw_00101	1237 mL	Ethanol	39.9987 ppb v/v
..ATTO15CALSTKi_00107	02/01/19	12/18/18	Nitrogen, Lot 13	37.5 L	ATTO15CALs_00031	7500 mL	1,1,1-Trichloroethane	200 ppb v/v
							1,1,2,2-Tetrachloroethane	200 ppb v/v
							1,1,2-Trichloroethane	200 ppb v/v
							1,1-Dichloroethane	200 ppb v/v
							1,1-Dichloroethene	200 ppb v/v
							1,2,3-Trichlorobenzene	200 ppb v/v
							1,2,3-Trichloropropane	200 ppb v/v
							1,2,4-Trichlorobenzene	200 ppb v/v
							1,2,4-Trimethylbenzene	200 ppb v/v
							1,2-Dibromoethane	200 ppb v/v
							1,2-Dichlorobenzene	200 ppb v/v
							1,2-Dichloroethane	200 ppb v/v
							1,2-Dichloropropane	200 ppb v/v
							1,2-Dichlorotetrafluoroethane	200 ppb v/v
							1,3,5-Trimethylbenzene	200 ppb v/v
							1,3-Dichlorobenzene	200 ppb v/v
							1,4-Dichlorobenzene	200 ppb v/v
							1,4-Dioxane	200 ppb v/v
							2-Butanone (MEK)	200 ppb v/v
							2-Chlorotoluene	200 ppb v/v
							2-Hexanone	200 ppb v/v
							2-Methyl-2-propanol	200 ppb v/v
							2-Methylbutane	200 ppb v/v
							3-Chloro-1-propene	200 ppb v/v
							4-Ethyltoluene	200 ppb v/v
							4-Isopropyltoluene	200 ppb v/v
							4-Methyl-2-pentanone (MIBK)	200 ppb v/v
							Acetone	200 ppb v/v
							Acetonitrile	200 ppb v/v
							Acrolein	200 ppb v/v
							Acrylonitrile	200 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46729-1

SDG No.: 200-46729-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Alpha Methyl Styrene	200 ppb v/v
							Benzene	200 ppb v/v
							Benzyl chloride	200 ppb v/v
							Bromoform	200 ppb v/v
							Bromomethane	200 ppb v/v
							Butadiene	200 ppb v/v
							Butane	200 ppb v/v
							Carbon disulfide	200 ppb v/v
							Carbon tetrachloride	200 ppb v/v
							Chlorobenzene	200 ppb v/v
							Chlorodibromomethane	200 ppb v/v
							Chlorodifluoromethane	200 ppb v/v
							Chloroethane	200 ppb v/v
							Chloroform	200 ppb v/v
							Chloromethane	200 ppb v/v
							cis-1,2-Dichloroethene	200 ppb v/v
							cis-1,3-Dichloropropene	200 ppb v/v
							Cyclohexane	200 ppb v/v
							Dibromomethane	200 ppb v/v
							Dichlorobromomethane	200 ppb v/v
							Dichlorodifluoromethane	200 ppb v/v
							Dodecane	200 ppb v/v
							Ethyl acetate	200 ppb v/v
							Ethyl ether	200 ppb v/v
							Ethylbenzene	200 ppb v/v
							Freon TF	200 ppb v/v
							Hexachlorobutadiene	200 ppb v/v
							Hexane	200 ppb v/v
							Isooctane	200 ppb v/v
							Isopropyl alcohol	200 ppb v/v
							Isopropylbenzene	200 ppb v/v
							m,p-Xylene	400 ppb v/v
							Methyl methacrylate	200 ppb v/v
							Methyl tert-butyl ether	200 ppb v/v
							Methylene Chloride	200 ppb v/v
							n-Butanol	200 ppb v/v
							n-Butylbenzene	200 ppb v/v
							n-Decane	200 ppb v/v
							n-Heptane	200 ppb v/v
							n-Nonane	200 ppb v/v
							n-Octane	200 ppb v/v
							N-Propylbenzene	200 ppb v/v
							Naphthalene	200 ppb v/v
							Pentane	200 ppb v/v
							Propene	200 ppb v/v
							sec-Butylbenzene	200 ppb v/v
							Styrene	200 ppb v/v
							tert-Butylbenzene	200 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46729-1

SDG No.: 200-46729-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Tetrachloroethene	200 ppb v/v
							Tetrahydrofuran	200 ppb v/v
							Toluene	200 ppb v/v
							trans-1,2-Dichloroethene	200 ppb v/v
							trans-1,3-Dichloropropene	200 ppb v/v
							Trichloroethene	200 ppb v/v
							Trichlorofluoromethane	200 ppb v/v
							Undecane	200 ppb v/v
							Vinyl acetate	200 ppb v/v
							Vinyl bromide	200 ppb v/v
							Vinyl chloride	200 ppb v/v
							Xylene, o-	200 ppb v/v
...ATTO15CALs_00031	02/01/19		Linde, Lot CC-133603		(Purchased Reagent)		1,1,1-Trichloroethane	1 ppm v/v
							1,1,2,2-Tetrachloroethane	1 ppm v/v
							1,1,2-Trichloroethane	1 ppm v/v
							1,1-Dichloroethane	1 ppm v/v
							1,1-Dichloroethene	1 ppm v/v
							1,2,3-Trichlorobenzene	1 ppm v/v
							1,2,3-Trichloropropane	1 ppm v/v
							1,2,4-Trichlorobenzene	1 ppm v/v
							1,2,4-Trimethylbenzene	1 ppm v/v
							1,2-Dibromoethane	1 ppm v/v
							1,2-Dichlorobenzene	1 ppm v/v
							1,2-Dichloroethane	1 ppm v/v
							1,2-Dichloropropane	1 ppm v/v
							1,2-Dichlorotetrafluoroethane	1 ppm v/v
							1,3,5-Trimethylbenzene	1 ppm v/v
							1,3-Dichlorobenzene	1 ppm v/v
							1,4-Dichlorobenzene	1 ppm v/v
							1,4-Dioxane	1 ppm v/v
							2-Butanone (MEK)	1 ppm v/v
							2-Chlorotoluene	1 ppm v/v
							2-Hexanone	1 ppm v/v
							2-Methyl-2-propanol	1 ppm v/v
							2-Methylbutane	1 ppm v/v
							3-Chloro-1-propene	1 ppm v/v
							4-Ethyltoluene	1 ppm v/v
							4-Isopropyltoluene	1 ppm v/v
							4-Methyl-2-pentanone (MIBK)	1 ppm v/v
							Acetone	1 ppm v/v
							Acetonitrile	1 ppm v/v
							Acrolein	1 ppm v/v
							Acrylonitrile	1 ppm v/v
							Alpha Methyl Styrene	1 ppm v/v
							Benzene	1 ppm v/v
							Benzyl chloride	1 ppm v/v
							Bromoform	1 ppm v/v
							Bromomethane	1 ppm v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46729-1

SDG No.: 200-46729-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Butadiene	1 ppm v/v
							Butane	1 ppm v/v
							Carbon disulfide	1 ppm v/v
							Carbon tetrachloride	1 ppm v/v
							Chlorobenzene	1 ppm v/v
							Chlorodibromomethane	1 ppm v/v
							Chlorodifluoromethane	1 ppm v/v
							Chloroethane	1 ppm v/v
							Chloroform	1 ppm v/v
							Chloromethane	1 ppm v/v
							cis-1,2-Dichloroethene	1 ppm v/v
							cis-1,3-Dichloropropene	1 ppm v/v
							Cyclohexane	1 ppm v/v
							Dibromomethane	1 ppm v/v
							Dichlorobromomethane	1 ppm v/v
							Dichlorodifluoromethane	1 ppm v/v
							Dodecane	1 ppm v/v
							Ethyl acetate	1 ppm v/v
							Ethyl ether	1 ppm v/v
							Ethylbenzene	1 ppm v/v
							Freon TF	1 ppm v/v
							Hexachlorobutadiene	1 ppm v/v
							Hexane	1 ppm v/v
							Isooctane	1 ppm v/v
							Isopropyl alcohol	1 ppm v/v
							Isopropylbenzene	1 ppm v/v
							m,p-Xylene	2 ppm v/v
							Methyl methacrylate	1 ppm v/v
							Methyl tert-butyl ether	1 ppm v/v
							Methylene Chloride	1 ppm v/v
							n-Butanol	1 ppm v/v
							n-Butylbenzene	1 ppm v/v
							n-Decane	1 ppm v/v
							n-Heptane	1 ppm v/v
							n-Nonane	1 ppm v/v
							n-Octane	1 ppm v/v
							N-Propylbenzene	1 ppm v/v
							Naphthalene	1 ppm v/v
							Pentane	1 ppm v/v
							Propene	1 ppm v/v
							sec-Butylbenzene	1 ppm v/v
							Styrene	1 ppm v/v
							tert-Butylbenzene	1 ppm v/v
							Tetrachloroethene	1 ppm v/v
							Tetrahydrofuran	1 ppm v/v
							Toluene	1 ppm v/v
							trans-1,2-Dichloroethene	1 ppm v/v
							trans-1,3-Dichloropropene	1 ppm v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46729-1

SDG No.: 200-46729-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Trichloroethene	1 ppm v/v
							Trichlorofluoromethane	1 ppm v/v
							Undecane	1 ppm v/v
							Vinyl acetate	1 ppm v/v
							Vinyl bromide	1 ppm v/v
							Vinyl chloride	1 ppm v/v
							Xylene, o-	1 ppm v/v
..ATTO15EthCALw_00101	02/23/19	11/21/18	Nitrogen, Lot 12	37.5 ppb	ATTO15EthCALs_00009	18.75 uL	Ethanol	500 ppb v/v
...ATTO15EthCALs_00009	09/05/21		Chem Service, Lot 5301900		(Purchased Reagent)		Ethanol	1 mL/mL
ATTO15CAL2w_00275	02/01/19	12/20/18	Nitrogen, Lot 12	15.463 L	ATTO15CAL6w_00162	387 mL	1,1,1-Trichloroethane	0.500453 ppb v/v
							1,1,2,2-Tetrachloroethane	0.500453 ppb v/v
							1,1,2-Trichloroethane	0.500453 ppb v/v
							1,1-Dichloroethane	0.500453 ppb v/v
							1,1-Dichloroethene	0.500453 ppb v/v
							1,2,3-Trichlorobenzene	0.500453 ppb v/v
							1,2,3-Trichloropropane	0.500453 ppb v/v
							1,2,4-Trichlorobenzene	0.500453 ppb v/v
							1,2,4-Trimethylbenzene	0.500453 ppb v/v
							1,2-Dibromoethane	0.500453 ppb v/v
							1,2-Dichlorobenzene	0.500453 ppb v/v
							1,2-Dichloroethane	0.500453 ppb v/v
							1,2-Dichloropropane	0.500453 ppb v/v
							1,2-Dichlorotetrafluoroethane	0.500453 ppb v/v
							1,3,5-Trimethylbenzene	0.500453 ppb v/v
							1,3-Dichlorobenzene	0.500453 ppb v/v
							1,4-Dichlorobenzene	0.500453 ppb v/v
							1,4-Dioxane	0.500453 ppb v/v
							2-Butanone (MEK)	0.500453 ppb v/v
							2-Chlorotoluene	0.500453 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46729-1

SDG No.: 200-46729-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Hexanone	0.500453 ppb v/v
							2-Methyl-2-propanol	0.500453 ppb v/v
							2-Methylbutane	0.500453 ppb v/v
							3-Chloro-1-propene	0.500453 ppb v/v
							4-Ethyltoluene	0.500453 ppb v/v
							4-Isopropyltoluene	0.500453 ppb v/v
							4-Methyl-2-pentanone (MIBK)	0.500453 ppb v/v
							Acetone	0.500453 ppb v/v
							Acetonitrile	0.500453 ppb v/v
							Acrolein	0.500453 ppb v/v
							Acrylonitrile	0.500453 ppb v/v
							Alpha Methyl Styrene	0.500453 ppb v/v
							Benzene	0.500453 ppb v/v
							Benzyl chloride	0.500453 ppb v/v
							Bromoform	0.500453 ppb v/v
							Bromomethane	0.500453 ppb v/v
							Butadiene	0.500453 ppb v/v
							Butane	0.500453 ppb v/v
							Carbon disulfide	0.500453 ppb v/v
							Carbon tetrachloride	0.500453 ppb v/v
							Chlorobenzene	0.500453 ppb v/v
							Chlorodibromomethane	0.500453 ppb v/v
							Chlorodifluoromethane	0.500453 ppb v/v
							Chloroethane	0.500453 ppb v/v
							Chloroform	0.500453 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46729-1

SDG No.: 200-46729-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Chloromethane	0.500453 ppb v/v
							cis-1,2-Dichloroethene	0.500453 ppb v/v
							cis-1,3-Dichloropropene	0.500453 ppb v/v
							Cyclohexane	0.500453 ppb v/v
							Dibromomethane	0.500453 ppb v/v
							Dichlorobromomethane	0.500453 ppb v/v
							Dichlorodifluoromethane	0.500453 ppb v/v
							Dodecane	0.500453 ppb v/v
							Ethyl acetate	0.500453 ppb v/v
							Ethyl ether	0.500453 ppb v/v
							Ethylbenzene	0.500453 ppb v/v
							Freon TF	0.500453 ppb v/v
							Hexachlorobutadiene	0.500453 ppb v/v
							Hexane	0.500453 ppb v/v
							Isooctane	0.500453 ppb v/v
							Isopropyl alcohol	0.500453 ppb v/v
							Isopropylbenzene	0.500453 ppb v/v
							m,p-Xylene	1.00091 ppb v/v
							Methyl methacrylate	0.500453 ppb v/v
							Methyl tert-butyl ether	0.500453 ppb v/v
							Methylene Chloride	0.500453 ppb v/v
							n-Butanol	0.500453 ppb v/v
							n-Butylbenzene	0.500453 ppb v/v
							n-Decane	0.500453 ppb v/v
							n-Heptane	0.500453 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46729-1

SDG No.: 200-46729-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							n-Nonane	0.500453 ppb v/v
							n-Octane	0.500453 ppb v/v
							N-Propylbenzene	0.500453 ppb v/v
							Naphthalene	0.500453 ppb v/v
							Pentane	0.500453 ppb v/v
							Propene	0.500453 ppb v/v
							sec-Butylbenzene	0.500453 ppb v/v
							Styrene	0.500453 ppb v/v
							tert-Butylbenzene	0.500453 ppb v/v
							Tetrachloroethene	0.500453 ppb v/v
							Tetrahydrofuran	0.500453 ppb v/v
							Toluene	0.500453 ppb v/v
							trans-1,2-Dichloroethene	0.500453 ppb v/v
							trans-1,3-Dichloropropene	0.500453 ppb v/v
							Trichloroethene	0.500453 ppb v/v
							Trichlorofluoromethane	0.500453 ppb v/v
							Undecane	0.500453 ppb v/v
							Vinyl acetate	0.500453 ppb v/v
							Vinyl bromide	0.500453 ppb v/v
							Vinyl chloride	0.500453 ppb v/v
Xylene, o-	0.500453 ppb v/v							
Ethanol	5.01064 ppb v/v							
					ATTO15EthCALw_00101	124 mL	Ethanol	5.01064 ppb v/v
.ATTO15CAL6w_00162	02/01/19	12/19/18	Nitrogen, Lot 1	15.463 L	ATTO15CALSTKi_00107	1546 mL	1,1,1-Trichloroethane	19.9961 ppb v/v
							1,1,2,2-Tetrachloroethane	19.9961 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46729-1

SDG No.: 200-46729-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,1,2-Trichloroethane	19.9961 ppb v/v
							1,1-Dichloroethane	19.9961 ppb v/v
							1,1-Dichloroethene	19.9961 ppb v/v
							1,2,3-Trichlorobenzene	19.9961 ppb v/v
							1,2,3-Trichloropropane	19.9961 ppb v/v
							1,2,4-Trichlorobenzene	19.9961 ppb v/v
							1,2,4-Trimethylbenzene	19.9961 ppb v/v
							1,2-Dibromoethane	19.9961 ppb v/v
							1,2-Dichlorobenzene	19.9961 ppb v/v
							1,2-Dichloroethane	19.9961 ppb v/v
							1,2-Dichloropropane	19.9961 ppb v/v
							1,2-Dichlorotetrafluoroethane	19.9961 ppb v/v
							1,3,5-Trimethylbenzene	19.9961 ppb v/v
							1,3-Dichlorobenzene	19.9961 ppb v/v
							1,4-Dichlorobenzene	19.9961 ppb v/v
							1,4-Dioxane	19.9961 ppb v/v
							2-Butanone (MEK)	19.9961 ppb v/v
							2-Chlorotoluene	19.9961 ppb v/v
							2-Hexanone	19.9961 ppb v/v
							2-Methyl-2-propanol	19.9961 ppb v/v
							2-Methylbutane	19.9961 ppb v/v
							3-Chloro-1-propene	19.9961 ppb v/v
							4-Ethyltoluene	19.9961 ppb v/v
							4-Isopropyltoluene	19.9961 ppb v/v
							4-Methyl-2-pentanone (MIBK)	19.9961 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46729-1

SDG No.: 200-46729-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Acetone	19.9961 ppb v/v
							Acetonitrile	19.9961 ppb v/v
							Acrolein	19.9961 ppb v/v
							Acrylonitrile	19.9961 ppb v/v
							Alpha Methyl Styrene	19.9961 ppb v/v
							Benzene	19.9961 ppb v/v
							Benzyl chloride	19.9961 ppb v/v
							Bromoform	19.9961 ppb v/v
							Bromomethane	19.9961 ppb v/v
							Butadiene	19.9961 ppb v/v
							Butane	19.9961 ppb v/v
							Carbon disulfide	19.9961 ppb v/v
							Carbon tetrachloride	19.9961 ppb v/v
							Chlorobenzene	19.9961 ppb v/v
							Chlorodibromomethane	19.9961 ppb v/v
							Chlorodifluoromethane	19.9961 ppb v/v
							Chloroethane	19.9961 ppb v/v
							Chloroform	19.9961 ppb v/v
							Chloromethane	19.9961 ppb v/v
							cis-1,2-Dichloroethene	19.9961 ppb v/v
							cis-1,3-Dichloropropene	19.9961 ppb v/v
							Cyclohexane	19.9961 ppb v/v
							Dibromomethane	19.9961 ppb v/v
							Dichlorobromomethane	19.9961 ppb v/v
							Dichlorodifluoromethane	19.9961 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46729-1

SDG No.: 200-46729-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Dodecane	19.9961 ppb v/v
							Ethyl acetate	19.9961 ppb v/v
							Ethyl ether	19.9961 ppb v/v
							Ethylbenzene	19.9961 ppb v/v
							Freon TF	19.9961 ppb v/v
							Hexachlorobutadiene	19.9961 ppb v/v
							Hexane	19.9961 ppb v/v
							Isooctane	19.9961 ppb v/v
							Isopropyl alcohol	19.9961 ppb v/v
							Isopropylbenzene	19.9961 ppb v/v
							m,p-Xylene	39.9922 ppb v/v
							Methyl methacrylate	19.9961 ppb v/v
							Methyl tert-butyl ether	19.9961 ppb v/v
							Methylene Chloride	19.9961 ppb v/v
							n-Butanol	19.9961 ppb v/v
							n-Butylbenzene	19.9961 ppb v/v
							n-Decane	19.9961 ppb v/v
							n-Heptane	19.9961 ppb v/v
							n-Nonane	19.9961 ppb v/v
							n-Octane	19.9961 ppb v/v
							N-Propylbenzene	19.9961 ppb v/v
							Naphthalene	19.9961 ppb v/v
							Pentane	19.9961 ppb v/v
							Propene	19.9961 ppb v/v
							sec-Butylbenzene	19.9961 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46729-1

SDG No.: 200-46729-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Styrene	19.9961 ppb v/v
							tert-Butylbenzene	19.9961 ppb v/v
							Tetrachloroethene	19.9961 ppb v/v
							Tetrahydrofuran	19.9961 ppb v/v
							Toluene	19.9961 ppb v/v
							trans-1,2-Dichloroethene	19.9961 ppb v/v
							trans-1,3-Dichloropropene	19.9961 ppb v/v
							Trichloroethene	19.9961 ppb v/v
							Trichlorofluoromethane	19.9961 ppb v/v
							Undecane	19.9961 ppb v/v
							Vinyl acetate	19.9961 ppb v/v
							Vinyl bromide	19.9961 ppb v/v
							Vinyl chloride	19.9961 ppb v/v
							Xylene, o-	19.9961 ppb v/v
					ATTO15EthCALw_00101	1237 mL	Ethanol	39.9987 ppb v/v
..ATTO15CALSTKi_00107	02/01/19	12/18/18	Nitrogen, Lot 13	37.5 L	ATTO15CALs_00031	7500 mL	1,1,1-Trichloroethane	200 ppb v/v
							1,1,2,2-Tetrachloroethane	200 ppb v/v
							1,1,2-Trichloroethane	200 ppb v/v
							1,1-Dichloroethane	200 ppb v/v
							1,1-Dichloroethene	200 ppb v/v
							1,2,3-Trichlorobenzene	200 ppb v/v
							1,2,3-Trichloropropane	200 ppb v/v
							1,2,4-Trichlorobenzene	200 ppb v/v
							1,2,4-Trimethylbenzene	200 ppb v/v
							1,2-Dibromoethane	200 ppb v/v
							1,2-Dichlorobenzene	200 ppb v/v
							1,2-Dichloroethane	200 ppb v/v
							1,2-Dichloropropane	200 ppb v/v
							1,2-Dichlorotetrafluoroethane	200 ppb v/v
							1,3,5-Trimethylbenzene	200 ppb v/v
							1,3-Dichlorobenzene	200 ppb v/v
							1,4-Dichlorobenzene	200 ppb v/v
							1,4-Dioxane	200 ppb v/v
							2-Butanone (MEK)	200 ppb v/v
							2-Chlorotoluene	200 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46729-1

SDG No.: 200-46729-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Hexanone	200 ppb v/v
							2-Methyl-2-propanol	200 ppb v/v
							2-Methylbutane	200 ppb v/v
							3-Chloro-1-propene	200 ppb v/v
							4-Ethyltoluene	200 ppb v/v
							4-Isopropyltoluene	200 ppb v/v
							4-Methyl-2-pentanone (MIBK)	200 ppb v/v
							Acetone	200 ppb v/v
							Acetonitrile	200 ppb v/v
							Acrolein	200 ppb v/v
							Acrylonitrile	200 ppb v/v
							Alpha Methyl Styrene	200 ppb v/v
							Benzene	200 ppb v/v
							Benzyl chloride	200 ppb v/v
							Bromoform	200 ppb v/v
							Bromomethane	200 ppb v/v
							Butadiene	200 ppb v/v
							Butane	200 ppb v/v
							Carbon disulfide	200 ppb v/v
							Carbon tetrachloride	200 ppb v/v
							Chlorobenzene	200 ppb v/v
							Chlorodibromomethane	200 ppb v/v
							Chlorodifluoromethane	200 ppb v/v
							Chloroethane	200 ppb v/v
							Chloroform	200 ppb v/v
							Chloromethane	200 ppb v/v
							cis-1,2-Dichloroethene	200 ppb v/v
							cis-1,3-Dichloropropene	200 ppb v/v
							Cyclohexane	200 ppb v/v
							Dibromomethane	200 ppb v/v
							Dichlorobromomethane	200 ppb v/v
							Dichlorodifluoromethane	200 ppb v/v
							Dodecane	200 ppb v/v
							Ethyl acetate	200 ppb v/v
							Ethyl ether	200 ppb v/v
							Ethylbenzene	200 ppb v/v
							Freon TF	200 ppb v/v
							Hexachlorobutadiene	200 ppb v/v
							Hexane	200 ppb v/v
							Isooctane	200 ppb v/v
							Isopropyl alcohol	200 ppb v/v
							Isopropylbenzene	200 ppb v/v
							m,p-Xylene	400 ppb v/v
							Methyl methacrylate	200 ppb v/v
							Methyl tert-butyl ether	200 ppb v/v
							Methylene Chloride	200 ppb v/v
							n-Butanol	200 ppb v/v
							n-Butylbenzene	200 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46729-1

SDG No.: 200-46729-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							n-Decane	200 ppb v/v
							n-Heptane	200 ppb v/v
							n-Nonane	200 ppb v/v
							n-Octane	200 ppb v/v
							N-Propylbenzene	200 ppb v/v
							Naphthalene	200 ppb v/v
							Pentane	200 ppb v/v
							Propene	200 ppb v/v
							sec-Butylbenzene	200 ppb v/v
							Styrene	200 ppb v/v
							tert-Butylbenzene	200 ppb v/v
							Tetrachloroethene	200 ppb v/v
							Tetrahydrofuran	200 ppb v/v
							Toluene	200 ppb v/v
							trans-1,2-Dichloroethene	200 ppb v/v
							trans-1,3-Dichloropropene	200 ppb v/v
							Trichloroethene	200 ppb v/v
							Trichlorofluoromethane	200 ppb v/v
							Undecane	200 ppb v/v
							Vinyl acetate	200 ppb v/v
							Vinyl bromide	200 ppb v/v
							Vinyl chloride	200 ppb v/v
							Xylene, o-	200 ppb v/v
...ATTO15CALs_00031	02/01/19		Linde, Lot CC-133603			(Purchased Reagent)	1,1,1-Trichloroethane	1 ppm v/v
							1,1,2,2-Tetrachloroethane	1 ppm v/v
							1,1,2-Trichloroethane	1 ppm v/v
							1,1-Dichloroethane	1 ppm v/v
							1,1-Dichloroethene	1 ppm v/v
							1,2,3-Trichlorobenzene	1 ppm v/v
							1,2,3-Trichloropropene	1 ppm v/v
							1,2,4-Trichlorobenzene	1 ppm v/v
							1,2,4-Trimethylbenzene	1 ppm v/v
							1,2-Dibromoethane	1 ppm v/v
							1,2-Dichlorobenzene	1 ppm v/v
							1,2-Dichloroethane	1 ppm v/v
							1,2-Dichloropropene	1 ppm v/v
							1,2-Dichlorotetrafluoroethane	1 ppm v/v
							1,3,5-Trimethylbenzene	1 ppm v/v
							1,3-Dichlorobenzene	1 ppm v/v
							1,4-Dichlorobenzene	1 ppm v/v
							1,4-Dioxane	1 ppm v/v
							2-Butanone (MEK)	1 ppm v/v
							2-Chlorotoluene	1 ppm v/v
							2-Hexanone	1 ppm v/v
							2-Methyl-2-propanol	1 ppm v/v
							2-Methylbutane	1 ppm v/v
							3-Chloro-1-propene	1 ppm v/v
							4-Ethyltoluene	1 ppm v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46729-1

SDG No.: 200-46729-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Isopropyltoluene	1 ppm v/v
							4-Methyl-2-pentanone (MIBK)	1 ppm v/v
							Acetone	1 ppm v/v
							Acetonitrile	1 ppm v/v
							Acrolein	1 ppm v/v
							Acrylonitrile	1 ppm v/v
							Alpha Methyl Styrene	1 ppm v/v
							Benzene	1 ppm v/v
							Benzyl chloride	1 ppm v/v
							Bromoform	1 ppm v/v
							Bromomethane	1 ppm v/v
							Butadiene	1 ppm v/v
							Butane	1 ppm v/v
							Carbon disulfide	1 ppm v/v
							Carbon tetrachloride	1 ppm v/v
							Chlorobenzene	1 ppm v/v
							Chlorodibromomethane	1 ppm v/v
							Chlorodifluoromethane	1 ppm v/v
							Chloroethane	1 ppm v/v
							Chloroform	1 ppm v/v
							Chloromethane	1 ppm v/v
							cis-1,2-Dichloroethene	1 ppm v/v
							cis-1,3-Dichloropropene	1 ppm v/v
							Cyclohexane	1 ppm v/v
							Dibromomethane	1 ppm v/v
							Dichlorobromomethane	1 ppm v/v
							Dichlorodifluoromethane	1 ppm v/v
							Dodecane	1 ppm v/v
							Ethyl acetate	1 ppm v/v
							Ethyl ether	1 ppm v/v
							Ethylbenzene	1 ppm v/v
							Freon TF	1 ppm v/v
							Hexachlorobutadiene	1 ppm v/v
							Hexane	1 ppm v/v
							Isooctane	1 ppm v/v
							Isopropyl alcohol	1 ppm v/v
							Isopropylbenzene	1 ppm v/v
							m,p-Xylene	2 ppm v/v
							Methyl methacrylate	1 ppm v/v
							Methyl tert-butyl ether	1 ppm v/v
							Methylene Chloride	1 ppm v/v
							n-Butanol	1 ppm v/v
							n-Butylbenzene	1 ppm v/v
							n-Decane	1 ppm v/v
							n-Heptane	1 ppm v/v
							n-Nonane	1 ppm v/v
							n-Octane	1 ppm v/v
							N-Propylbenzene	1 ppm v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46729-1

SDG No.: 200-46729-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Naphthalene	1 ppm v/v
							Pentane	1 ppm v/v
							Propene	1 ppm v/v
							sec-Butylbenzene	1 ppm v/v
							Styrene	1 ppm v/v
							tert-Butylbenzene	1 ppm v/v
							Tetrachloroethene	1 ppm v/v
							Tetrahydrofuran	1 ppm v/v
							Toluene	1 ppm v/v
							trans-1,2-Dichloroethene	1 ppm v/v
							trans-1,3-Dichloropropene	1 ppm v/v
							Trichloroethene	1 ppm v/v
							Trichlorofluoromethane	1 ppm v/v
							Undecane	1 ppm v/v
							Vinyl acetate	1 ppm v/v
							Vinyl bromide	1 ppm v/v
							Vinyl chloride	1 ppm v/v
							Xylene, o-	1 ppm v/v
..ATTO15EthCALw_00101	02/23/19	11/21/18	Nitrogen, Lot 12	37.5 ppb	ATTO15EthCALs_00009	18.75 uL	Ethanol	500 ppb v/v
..ATTO15EthCALs_00009	09/05/21		Chem Service, Lot 5301900		(Purchased Reagent)		Ethanol	1 mL/mL
.ATTO15EthCALw_00101	02/23/19	11/21/18	Nitrogen, Lot 12	37.5 ppb	ATTO15EthCALs_00009	18.75 uL	Ethanol	500 ppb v/v
..ATTO15EthCALs_00009	09/05/21		Chem Service, Lot 5301900		(Purchased Reagent)		Ethanol	1 mL/mL
ATTO15CAL3w_00211	02/01/19	12/19/18	Nitrogen, Lot 12	15.463 L	ATTO15CALSTKi_00107	386 mL	1,1,1-Trichloroethane	4.99256 ppb v/v
							1,1,2,2-Tetrachloroethane	4.99256 ppb v/v
							1,1,2-Trichloroethane	4.99256 ppb v/v
							1,1-Dichloroethane	4.99256 ppb v/v
							1,1-Dichloroethene	4.99256 ppb v/v
							1,2,3-Trichlorobenzene	4.99256 ppb v/v
							1,2,3-Trichloropropane	4.99256 ppb v/v
							1,2,4-Trichlorobenzene	4.99256 ppb v/v
							1,2,4-Trimethylbenzene	4.99256 ppb v/v
							1,2-Dibromoethane	4.99256 ppb v/v
							1,2-Dichlorobenzene	4.99256 ppb v/v
							1,2-Dichloroethane	4.99256 ppb v/v
							1,2-Dichloropropane	4.99256 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46729-1

SDG No.: 200-46729-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2-Dichlorotetrafluoroethane	4.99256 ppb v/v
							1,3,5-Trimethylbenzene	4.99256 ppb v/v
							1,3-Dichlorobenzene	4.99256 ppb v/v
							1,4-Dichlorobenzene	4.99256 ppb v/v
							1,4-Dioxane	4.99256 ppb v/v
							2-Butanone (MEK)	4.99256 ppb v/v
							2-Chlorotoluene	4.99256 ppb v/v
							2-Hexanone	4.99256 ppb v/v
							2-Methyl-2-propanol	4.99256 ppb v/v
							2-Methylbutane	4.99256 ppb v/v
							3-Chloro-1-propene	4.99256 ppb v/v
							4-Ethyltoluene	4.99256 ppb v/v
							4-Isopropyltoluene	4.99256 ppb v/v
							4-Methyl-2-pentanone (MIBK)	4.99256 ppb v/v
							Acetone	4.99256 ppb v/v
							Acetonitrile	4.99256 ppb v/v
							Acrolein	4.99256 ppb v/v
							Acrylonitrile	4.99256 ppb v/v
							Alpha Methyl Styrene	4.99256 ppb v/v
							Benzene	4.99256 ppb v/v
							Benzyl chloride	4.99256 ppb v/v
							Bromoform	4.99256 ppb v/v
							Bromomethane	4.99256 ppb v/v
							Butadiene	4.99256 ppb v/v
							Butane	4.99256 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46729-1

SDG No.: 200-46729-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Carbon disulfide	4.99256 ppb v/v
							Carbon tetrachloride	4.99256 ppb v/v
							Chlorobenzene	4.99256 ppb v/v
							Chlorodibromomethane	4.99256 ppb v/v
							Chlorodifluoromethane	4.99256 ppb v/v
							Chloroethane	4.99256 ppb v/v
							Chloroform	4.99256 ppb v/v
							Chloromethane	4.99256 ppb v/v
							cis-1,2-Dichloroethene	4.99256 ppb v/v
							cis-1,3-Dichloropropene	4.99256 ppb v/v
							Cyclohexane	4.99256 ppb v/v
							Dibromomethane	4.99256 ppb v/v
							Dichlorobromomethane	4.99256 ppb v/v
							Dichlorodifluoromethane	4.99256 ppb v/v
							Dodecane	4.99256 ppb v/v
							Ethyl acetate	4.99256 ppb v/v
							Ethyl ether	4.99256 ppb v/v
							Ethylbenzene	4.99256 ppb v/v
							Freon TF	4.99256 ppb v/v
							Hexachlorobutadiene	4.99256 ppb v/v
							Hexane	4.99256 ppb v/v
							Isooctane	4.99256 ppb v/v
							Isopropyl alcohol	4.99256 ppb v/v
							Isopropylbenzene	4.99256 ppb v/v
							m,p-Xylene	9.98513 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46729-1

SDG No.: 200-46729-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Methyl methacrylate	4.99256 ppb v/v
							Methyl tert-butyl ether	4.99256 ppb v/v
							Methylene Chloride	4.99256 ppb v/v
							n-Butanol	4.99256 ppb v/v
							n-Butylbenzene	4.99256 ppb v/v
							n-Decane	4.99256 ppb v/v
							n-Heptane	4.99256 ppb v/v
							n-Nonane	4.99256 ppb v/v
							n-Octane	4.99256 ppb v/v
							N-Propylbenzene	4.99256 ppb v/v
							Naphthalene	4.99256 ppb v/v
							Pentane	4.99256 ppb v/v
							Propene	4.99256 ppb v/v
							sec-Butylbenzene	4.99256 ppb v/v
							Styrene	4.99256 ppb v/v
							tert-Butylbenzene	4.99256 ppb v/v
							Tetrachloroethene	4.99256 ppb v/v
							Tetrahydrofuran	4.99256 ppb v/v
							Toluene	4.99256 ppb v/v
							trans-1,2-Dichloroethene	4.99256 ppb v/v
							trans-1,3-Dichloropropene	4.99256 ppb v/v
							Trichloroethene	4.99256 ppb v/v
							Trichlorofluoromethane	4.99256 ppb v/v
							Undecane	4.99256 ppb v/v
							Vinyl acetate	4.99256 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46729-1

SDG No.: 200-46729-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Vinyl bromide	4.99256 ppb v/v
							Vinyl chloride	4.99256 ppb v/v
							Xylene, o-	4.99256 ppb v/v
					ATTO15EthCALw_00101	309 mL	Ethanol	9.99159 ppb v/v
.ATTO15CALSTKi_00107	02/01/19	12/18/18	Nitrogen, Lot 13	37.5 L	ATTO15CALs_00031	7500 mL	1,1,1-Trichloroethane	200 ppb v/v
							1,1,2,2-Tetrachloroethane	200 ppb v/v
							1,1,2-Trichloroethane	200 ppb v/v
							1,1-Dichloroethane	200 ppb v/v
							1,1-Dichloroethene	200 ppb v/v
							1,2,3-Trichlorobenzene	200 ppb v/v
							1,2,3-Trichloropropane	200 ppb v/v
							1,2,4-Trichlorobenzene	200 ppb v/v
							1,2,4-Trimethylbenzene	200 ppb v/v
							1,2-Dibromoethane	200 ppb v/v
							1,2-Dichlorobenzene	200 ppb v/v
							1,2-Dichloroethane	200 ppb v/v
							1,2-Dichloropropane	200 ppb v/v
							1,2-Dichlorotetrafluoroethane	200 ppb v/v
							1,3,5-Trimethylbenzene	200 ppb v/v
							1,3-Dichlorobenzene	200 ppb v/v
							1,4-Dichlorobenzene	200 ppb v/v
							1,4-Dioxane	200 ppb v/v
							2-Butanone (MEK)	200 ppb v/v
							2-Chlorotoluene	200 ppb v/v
							2-Hexanone	200 ppb v/v
							2-Methyl-2-propanol	200 ppb v/v
							2-Methylbutane	200 ppb v/v
							3-Chloro-1-propene	200 ppb v/v
							4-Ethyltoluene	200 ppb v/v
							4-Isopropyltoluene	200 ppb v/v
							4-Methyl-2-pentanone (MIBK)	200 ppb v/v
							Acetone	200 ppb v/v
							Acetonitrile	200 ppb v/v
							Acrolein	200 ppb v/v
							Acrylonitrile	200 ppb v/v
							Alpha Methyl Styrene	200 ppb v/v
							Benzene	200 ppb v/v
							Benzyl chloride	200 ppb v/v
							Bromoform	200 ppb v/v
							Bromomethane	200 ppb v/v
							Butadiene	200 ppb v/v
							Butane	200 ppb v/v
							Carbon disulfide	200 ppb v/v
							Carbon tetrachloride	200 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46729-1

SDG No.: 200-46729-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Chlorobenzene	200 ppb v/v
							Chlorodibromomethane	200 ppb v/v
							Chlorodifluoromethane	200 ppb v/v
							Chloroethane	200 ppb v/v
							Chloroform	200 ppb v/v
							Chloromethane	200 ppb v/v
							cis-1,2-Dichloroethene	200 ppb v/v
							cis-1,3-Dichloropropene	200 ppb v/v
							Cyclohexane	200 ppb v/v
							Dibromomethane	200 ppb v/v
							Dichlorobromomethane	200 ppb v/v
							Dichlorodifluoromethane	200 ppb v/v
							Dodecane	200 ppb v/v
							Ethyl acetate	200 ppb v/v
							Ethyl ether	200 ppb v/v
							Ethylbenzene	200 ppb v/v
							Freon TF	200 ppb v/v
							Hexachlorobutadiene	200 ppb v/v
							Hexane	200 ppb v/v
							Isooctane	200 ppb v/v
							Isopropyl alcohol	200 ppb v/v
							Isopropylbenzene	200 ppb v/v
							m,p-Xylene	400 ppb v/v
							Methyl methacrylate	200 ppb v/v
							Methyl tert-butyl ether	200 ppb v/v
							Methylene Chloride	200 ppb v/v
							n-Butanol	200 ppb v/v
							n-Butylbenzene	200 ppb v/v
							n-Decane	200 ppb v/v
							n-Heptane	200 ppb v/v
							n-Nonane	200 ppb v/v
							n-Octane	200 ppb v/v
							N-Propylbenzene	200 ppb v/v
							Naphthalene	200 ppb v/v
							Pentane	200 ppb v/v
							Propene	200 ppb v/v
							sec-Butylbenzene	200 ppb v/v
							Styrene	200 ppb v/v
							tert-Butylbenzene	200 ppb v/v
							Tetrachloroethene	200 ppb v/v
							Tetrahydrofuran	200 ppb v/v
							Toluene	200 ppb v/v
							trans-1,2-Dichloroethene	200 ppb v/v
							trans-1,3-Dichloropropene	200 ppb v/v
							Trichloroethene	200 ppb v/v
							Trichlorofluoromethane	200 ppb v/v
							Undecane	200 ppb v/v
							Vinyl acetate	200 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46729-1

SDG No.: 200-46729-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Vinyl bromide	200 ppb v/v
							Vinyl chloride	200 ppb v/v
							Xylene, o-	200 ppb v/v
..ATTO15CALs_00031	02/01/19		Linde, Lot CC-133603			(Purchased Reagent)	1,1,1-Trichloroethane	1 ppm v/v
							1,1,2,2-Tetrachloroethane	1 ppm v/v
							1,1,2-Trichloroethane	1 ppm v/v
							1,1-Dichloroethane	1 ppm v/v
							1,1-Dichloroethene	1 ppm v/v
							1,2,3-Trichlorobenzene	1 ppm v/v
							1,2,3-Trichloropropane	1 ppm v/v
							1,2,4-Trichlorobenzene	1 ppm v/v
							1,2,4-Trimethylbenzene	1 ppm v/v
							1,2-Dibromoethane	1 ppm v/v
							1,2-Dichlorobenzene	1 ppm v/v
							1,2-Dichloroethane	1 ppm v/v
							1,2-Dichloropropane	1 ppm v/v
							1,2-Dichlorotetrafluoroethane	1 ppm v/v
							1,3,5-Trimethylbenzene	1 ppm v/v
							1,3-Dichlorobenzene	1 ppm v/v
							1,4-Dichlorobenzene	1 ppm v/v
							1,4-Dioxane	1 ppm v/v
							2-Butanone (MEK)	1 ppm v/v
							2-Chlorotoluene	1 ppm v/v
							2-Hexanone	1 ppm v/v
							2-Methyl-2-propanol	1 ppm v/v
							2-Methylbutane	1 ppm v/v
							3-Chloro-1-propene	1 ppm v/v
							4-Ethyltoluene	1 ppm v/v
							4-Isopropyltoluene	1 ppm v/v
							4-Methyl-2-pentanone (MIBK)	1 ppm v/v
							Acetone	1 ppm v/v
							Acetonitrile	1 ppm v/v
							Acrolein	1 ppm v/v
							Acrylonitrile	1 ppm v/v
							Alpha Methyl Styrene	1 ppm v/v
							Benzene	1 ppm v/v
							Benzyl chloride	1 ppm v/v
							Bromoform	1 ppm v/v
							Bromomethane	1 ppm v/v
							Butadiene	1 ppm v/v
							Butane	1 ppm v/v
							Carbon disulfide	1 ppm v/v
							Carbon tetrachloride	1 ppm v/v
							Chlorobenzene	1 ppm v/v
							Chlorodibromomethane	1 ppm v/v
							Chlorodifluoromethane	1 ppm v/v
							Chloroethane	1 ppm v/v
							Chloroform	1 ppm v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46729-1

SDG No.: 200-46729-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Chloromethane	1 ppm v/v
							cis-1,2-Dichloroethene	1 ppm v/v
							cis-1,3-Dichloropropene	1 ppm v/v
							Cyclohexane	1 ppm v/v
							Dibromomethane	1 ppm v/v
							Dichlorobromomethane	1 ppm v/v
							Dichlorodifluoromethane	1 ppm v/v
							Dodecane	1 ppm v/v
							Ethyl acetate	1 ppm v/v
							Ethyl ether	1 ppm v/v
							Ethylbenzene	1 ppm v/v
							Freon TF	1 ppm v/v
							Hexachlorobutadiene	1 ppm v/v
							Hexane	1 ppm v/v
							Isooctane	1 ppm v/v
							Isopropyl alcohol	1 ppm v/v
							Isopropylbenzene	1 ppm v/v
							m,p-Xylene	2 ppm v/v
							Methyl methacrylate	1 ppm v/v
							Methyl tert-butyl ether	1 ppm v/v
							Methylene Chloride	1 ppm v/v
							n-Butanol	1 ppm v/v
							n-Butylbenzene	1 ppm v/v
							n-Decane	1 ppm v/v
							n-Heptane	1 ppm v/v
							n-Nonane	1 ppm v/v
							n-Octane	1 ppm v/v
							N-Propylbenzene	1 ppm v/v
							Naphthalene	1 ppm v/v
							Pentane	1 ppm v/v
							Propene	1 ppm v/v
							sec-Butylbenzene	1 ppm v/v
							Styrene	1 ppm v/v
							tert-Butylbenzene	1 ppm v/v
							Tetrachloroethene	1 ppm v/v
							Tetrahydrofuran	1 ppm v/v
							Toluene	1 ppm v/v
							trans-1,2-Dichloroethene	1 ppm v/v
							trans-1,3-Dichloropropene	1 ppm v/v
							Trichloroethene	1 ppm v/v
							Trichlorofluoromethane	1 ppm v/v
							Undecane	1 ppm v/v
							Vinyl acetate	1 ppm v/v
							Vinyl bromide	1 ppm v/v
							Vinyl chloride	1 ppm v/v
							Xylene, o-	1 ppm v/v
.ATTO15EthCALw 00101	02/23/19	11/21/18	Nitrogen, Lot 12	37.5 ppb	ATTO15EthCALs 00009	18.75 uL	Ethanol	500 ppb v/v
..ATTO15EthCALs 00009	09/05/21		Chem Service, Lot 5301900		(Purchased Reagent)		Ethanol	1 mL/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46729-1

SDG No.: 200-46729-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
ATTO15CAL4w_00719	02/01/19	12/26/18	Nitrogen, Lot 12	15.463 L	ATTO15CALSTKi_00107	773 mL	1,1,1-Trichloroethane	9.99806 ppb v/v
							1,1,2,2-Tetrachloroethane	9.99806 ppb v/v
							1,1,2-Trichloroethane	9.99806 ppb v/v
							1,1-Dichloroethane	9.99806 ppb v/v
							1,1-Dichloroethene	9.99806 ppb v/v
							1,2,3-Trichlorobenzene	9.99806 ppb v/v
							1,2,3-Trichloropropane	9.99806 ppb v/v
							1,2,4-Trichlorobenzene	9.99806 ppb v/v
							1,2,4-Trimethylbenzene	9.99806 ppb v/v
							1,2-Dibromoethane	9.99806 ppb v/v
							1,2-Dichlorobenzene	9.99806 ppb v/v
							1,2-Dichloroethane	9.99806 ppb v/v
							1,2-Dichloropropane	9.99806 ppb v/v
							1,2-Dichlorotetrafluoroethane	9.99806 ppb v/v
							1,3,5-Trimethylbenzene	9.99806 ppb v/v
							1,3-Dichlorobenzene	9.99806 ppb v/v
							1,4-Dichlorobenzene	9.99806 ppb v/v
							1,4-Dioxane	9.99806 ppb v/v
							2-Butanone (MEK)	9.99806 ppb v/v
							2-Chlorotoluene	9.99806 ppb v/v
2-Hexanone	9.99806 ppb v/v							
2-Methyl-2-propanol	9.99806 ppb v/v							
2-Methylbutane	9.99806 ppb v/v							
3-Chloro-1-propene	9.99806 ppb v/v							
4-Ethyltoluene	9.99806 ppb v/v							

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46729-1

SDG No.: 200-46729-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Isopropyltoluene	9.99806 ppb v/v
							4-Methyl-2-pentanone (MIBK)	9.99806 ppb v/v
							Acetone	9.99806 ppb v/v
							Acetonitrile	9.99806 ppb v/v
							Acrolein	9.99806 ppb v/v
							Acrylonitrile	9.99806 ppb v/v
							Alpha Methyl Styrene	9.99806 ppb v/v
							Benzene	9.99806 ppb v/v
							Benzyl chloride	9.99806 ppb v/v
							Bromoform	9.99806 ppb v/v
							Bromomethane	9.99806 ppb v/v
							Butadiene	9.99806 ppb v/v
							Butane	9.99806 ppb v/v
							Carbon disulfide	9.99806 ppb v/v
							Carbon tetrachloride	9.99806 ppb v/v
							Chlorobenzene	9.99806 ppb v/v
							Chlorodibromomethane	9.99806 ppb v/v
							Chlorodifluoromethane	9.99806 ppb v/v
							Chloroethane	9.99806 ppb v/v
							Chloroform	9.99806 ppb v/v
							Chloromethane	9.99806 ppb v/v
							cis-1,2-Dichloroethene	9.99806 ppb v/v
							cis-1,3-Dichloropropene	9.99806 ppb v/v
							Cyclohexane	9.99806 ppb v/v
							Dibromomethane	9.99806 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46729-1

SDG No.: 200-46729-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Dichlorobromomethane	9.99806 ppb v/v
							Dichlorodifluoromethane	9.99806 ppb v/v
							Dodecane	9.99806 ppb v/v
							Ethyl acetate	9.99806 ppb v/v
							Ethyl ether	9.99806 ppb v/v
							Ethylbenzene	9.99806 ppb v/v
							Freon TF	9.99806 ppb v/v
							Hexachlorobutadiene	9.99806 ppb v/v
							Hexane	9.99806 ppb v/v
							Isooctane	9.99806 ppb v/v
							Isopropyl alcohol	9.99806 ppb v/v
							Isopropylbenzene	9.99806 ppb v/v
							m,p-Xylene	19.9961 ppb v/v
							Methyl methacrylate	9.99806 ppb v/v
							Methyl tert-butyl ether	9.99806 ppb v/v
							Methylene Chloride	9.99806 ppb v/v
							n-Butanol	9.99806 ppb v/v
							n-Butylbenzene	9.99806 ppb v/v
							n-Decane	9.99806 ppb v/v
							n-Heptane	9.99806 ppb v/v
							n-Nonane	9.99806 ppb v/v
							n-Octane	9.99806 ppb v/v
							N-Propylbenzene	9.99806 ppb v/v
							Naphthalene	9.99806 ppb v/v
							Pentane	9.99806 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46729-1

SDG No.: 200-46729-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Propene	9.99806 ppb v/v
							sec-Butylbenzene	9.99806 ppb v/v
							Styrene	9.99806 ppb v/v
							tert-Butylbenzene	9.99806 ppb v/v
							Tetrachloroethene	9.99806 ppb v/v
							Tetrahydrofuran	9.99806 ppb v/v
							Toluene	9.99806 ppb v/v
							trans-1,2-Dichloroethene	9.99806 ppb v/v
							trans-1,3-Dichloropropene	9.99806 ppb v/v
							Trichloroethene	9.99806 ppb v/v
							Trichlorofluoromethane	9.99806 ppb v/v
							Undecane	9.99806 ppb v/v
							Vinyl acetate	9.99806 ppb v/v
							Vinyl bromide	9.99806 ppb v/v
							Vinyl chloride	9.99806 ppb v/v
							Xylene, o-	9.99806 ppb v/v
					ATTO15EthCALw_00101	464 mL	Ethanol	15.0036 ppb v/v
.ATTO15CALSTKi_00107	02/01/19	12/18/18	Nitrogen, Lot 13	37.5 L	ATTO15CALs_00031	7500 mL	1,1,1-Trichloroethane	200 ppb v/v
							1,1,2,2-Tetrachloroethane	200 ppb v/v
							1,1,2-Trichloroethane	200 ppb v/v
							1,1-Dichloroethane	200 ppb v/v
							1,1-Dichloroethene	200 ppb v/v
							1,2,3-Trichlorobenzene	200 ppb v/v
							1,2,3-Trichloropropane	200 ppb v/v
							1,2,4-Trichlorobenzene	200 ppb v/v
							1,2,4-Trimethylbenzene	200 ppb v/v
							1,2-Dibromoethane	200 ppb v/v
							1,2-Dichlorobenzene	200 ppb v/v
							1,2-Dichloroethane	200 ppb v/v
							1,2-Dichloropropane	200 ppb v/v
							1,2-Dichlorotetrafluoroethane	200 ppb v/v
							1,3,5-Trimethylbenzene	200 ppb v/v
							1,3-Dichlorobenzene	200 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46729-1

SDG No.: 200-46729-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,4-Dichlorobenzene	200 ppb v/v
							1,4-Dioxane	200 ppb v/v
							2-Butanone (MEK)	200 ppb v/v
							2-Chlorotoluene	200 ppb v/v
							2-Hexanone	200 ppb v/v
							2-Methyl-2-propanol	200 ppb v/v
							2-Methylbutane	200 ppb v/v
							3-Chloro-1-propene	200 ppb v/v
							4-Ethyltoluene	200 ppb v/v
							4-Isopropyltoluene	200 ppb v/v
							4-Methyl-2-pentanone (MIBK)	200 ppb v/v
							Acetone	200 ppb v/v
							Acetonitrile	200 ppb v/v
							Acrolein	200 ppb v/v
							Acrylonitrile	200 ppb v/v
							Alpha Methyl Styrene	200 ppb v/v
							Benzene	200 ppb v/v
							Benzyl chloride	200 ppb v/v
							Bromoform	200 ppb v/v
							Bromomethane	200 ppb v/v
							Butadiene	200 ppb v/v
							Butane	200 ppb v/v
							Carbon disulfide	200 ppb v/v
							Carbon tetrachloride	200 ppb v/v
							Chlorobenzene	200 ppb v/v
							Chlorodibromomethane	200 ppb v/v
							Chlorodifluoromethane	200 ppb v/v
							Chloroethane	200 ppb v/v
							Chloroform	200 ppb v/v
							Chloromethane	200 ppb v/v
							cis-1,2-Dichloroethene	200 ppb v/v
							cis-1,3-Dichloropropene	200 ppb v/v
							Cyclohexane	200 ppb v/v
							Dibromomethane	200 ppb v/v
							Dichlorobromomethane	200 ppb v/v
							Dichlorodifluoromethane	200 ppb v/v
							Dodecane	200 ppb v/v
							Ethyl acetate	200 ppb v/v
							Ethyl ether	200 ppb v/v
							Ethylbenzene	200 ppb v/v
							Freon TF	200 ppb v/v
							Hexachlorobutadiene	200 ppb v/v
							Hexane	200 ppb v/v
							Isooctane	200 ppb v/v
							Isopropyl alcohol	200 ppb v/v
							Isopropylbenzene	200 ppb v/v
							m,p-Xylene	400 ppb v/v
							Methyl methacrylate	200 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46729-1

SDG No.: 200-46729-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Methyl tert-butyl ether	200 ppb v/v
							Methylene Chloride	200 ppb v/v
							n-Butanol	200 ppb v/v
							n-Butylbenzene	200 ppb v/v
							n-Decane	200 ppb v/v
							n-Heptane	200 ppb v/v
							n-Nonane	200 ppb v/v
							n-Octane	200 ppb v/v
							N-Propylbenzene	200 ppb v/v
							Naphthalene	200 ppb v/v
							Pentane	200 ppb v/v
							Propene	200 ppb v/v
							sec-Butylbenzene	200 ppb v/v
							Styrene	200 ppb v/v
							tert-Butylbenzene	200 ppb v/v
							Tetrachloroethene	200 ppb v/v
							Tetrahydrofuran	200 ppb v/v
							Toluene	200 ppb v/v
							trans-1,2-Dichloroethene	200 ppb v/v
							trans-1,3-Dichloropropene	200 ppb v/v
							Trichloroethene	200 ppb v/v
							Trichlorofluoromethane	200 ppb v/v
							Undecane	200 ppb v/v
							Vinyl acetate	200 ppb v/v
							Vinyl bromide	200 ppb v/v
							Vinyl chloride	200 ppb v/v
							Xylene, o-	200 ppb v/v
..ATTO15CALs_00031	02/01/19		Linde, Lot CC-133603			(Purchased Reagent)	1,1,1-Trichloroethane	1 ppm v/v
							1,1,2,2-Tetrachloroethane	1 ppm v/v
							1,1,2-Trichloroethane	1 ppm v/v
							1,1-Dichloroethane	1 ppm v/v
							1,1-Dichloroethene	1 ppm v/v
							1,2,3-Trichlorobenzene	1 ppm v/v
							1,2,3-Trichloropropane	1 ppm v/v
							1,2,4-Trichlorobenzene	1 ppm v/v
							1,2,4-Trimethylbenzene	1 ppm v/v
							1,2-Dibromoethane	1 ppm v/v
							1,2-Dichlorobenzene	1 ppm v/v
							1,2-Dichloroethane	1 ppm v/v
							1,2-Dichloropropene	1 ppm v/v
							1,2-Dichlorotetrafluoroethane	1 ppm v/v
							1,3,5-Trimethylbenzene	1 ppm v/v
							1,3-Dichlorobenzene	1 ppm v/v
							1,4-Dichlorobenzene	1 ppm v/v
							1,4-Dioxane	1 ppm v/v
							2-Butanone (MEK)	1 ppm v/v
							2-Chlorotoluene	1 ppm v/v
							2-Hexanone	1 ppm v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46729-1

SDG No.: 200-46729-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Methyl-2-propanol	1 ppm v/v
							2-Methylbutane	1 ppm v/v
							3-Chloro-1-propene	1 ppm v/v
							4-Ethyltoluene	1 ppm v/v
							4-Isopropyltoluene	1 ppm v/v
							4-Methyl-2-pentanone (MIBK)	1 ppm v/v
							Acetone	1 ppm v/v
							Acetonitrile	1 ppm v/v
							Acrolein	1 ppm v/v
							Acrylonitrile	1 ppm v/v
							Alpha Methyl Styrene	1 ppm v/v
							Benzene	1 ppm v/v
							Benzyl chloride	1 ppm v/v
							Bromoform	1 ppm v/v
							Bromomethane	1 ppm v/v
							Butadiene	1 ppm v/v
							Butane	1 ppm v/v
							Carbon disulfide	1 ppm v/v
							Carbon tetrachloride	1 ppm v/v
							Chlorobenzene	1 ppm v/v
							Chlorodibromomethane	1 ppm v/v
							Chlorodifluoromethane	1 ppm v/v
							Chloroethane	1 ppm v/v
							Chloroform	1 ppm v/v
							Chloromethane	1 ppm v/v
							cis-1,2-Dichloroethene	1 ppm v/v
							cis-1,3-Dichloropropene	1 ppm v/v
							Cyclohexane	1 ppm v/v
							Dibromomethane	1 ppm v/v
							Dichlorobromomethane	1 ppm v/v
							Dichlorodifluoromethane	1 ppm v/v
							Dodecane	1 ppm v/v
							Ethyl acetate	1 ppm v/v
							Ethyl ether	1 ppm v/v
							Ethylbenzene	1 ppm v/v
							Freon TF	1 ppm v/v
							Hexachlorobutadiene	1 ppm v/v
							Hexane	1 ppm v/v
							Isooctane	1 ppm v/v
							Isopropyl alcohol	1 ppm v/v
							Isopropylbenzene	1 ppm v/v
							m,p-Xylene	2 ppm v/v
							Methyl methacrylate	1 ppm v/v
							Methyl tert-butyl ether	1 ppm v/v
							Methylene Chloride	1 ppm v/v
							n-Butanol	1 ppm v/v
							n-Butylbenzene	1 ppm v/v
							n-Decane	1 ppm v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46729-1

SDG No.: 200-46729-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							n-Heptane	1 ppm v/v
							n-Nonane	1 ppm v/v
							n-Octane	1 ppm v/v
							N-Propylbenzene	1 ppm v/v
							Naphthalene	1 ppm v/v
							Pentane	1 ppm v/v
							Propene	1 ppm v/v
							sec-Butylbenzene	1 ppm v/v
							Styrene	1 ppm v/v
							tert-Butylbenzene	1 ppm v/v
							Tetrachloroethene	1 ppm v/v
							Tetrahydrofuran	1 ppm v/v
							Toluene	1 ppm v/v
							trans-1,2-Dichloroethene	1 ppm v/v
							trans-1,3-Dichloropropene	1 ppm v/v
							Trichloroethene	1 ppm v/v
							Trichlorofluoromethane	1 ppm v/v
							Undecane	1 ppm v/v
							Vinyl acetate	1 ppm v/v
							Vinyl bromide	1 ppm v/v
							Vinyl chloride	1 ppm v/v
							Xylene, o-	1 ppm v/v
.ATTO15EthCALw_00101	02/23/19	11/21/18	Nitrogen, Lot 12	37.5 ppb	ATTO15EthCALs_00009	18.75 uL	Ethanol	500 ppb v/v
..ATTO15EthCALs_00009	09/05/21		Chem Service, Lot 5301900		(Purchased Reagent)		Ethanol	1 mL/mL
ATTO15CAL5w_00079	02/01/19	12/19/18	Nitrogen, Lot 12	15.463 L	ATTO15CALSTKi_00107	1160 mL	1,1,1-Trichloroethane	15.0036 ppb v/v
							1,1,2,2-Tetrachloroethane	15.0036 ppb v/v
							1,1,2-Trichloroethane	15.0036 ppb v/v
							1,1-Dichloroethane	15.0036 ppb v/v
							1,1-Dichloroethene	15.0036 ppb v/v
							1,2,3-Trichlorobenzene	15.0036 ppb v/v
							1,2,3-Trichloropropane	15.0036 ppb v/v
							1,2,4-Trichlorobenzene	15.0036 ppb v/v
							1,2,4-Trimethylbenzene	15.0036 ppb v/v
							1,2-Dibromoethane	15.0036 ppb v/v
							1,2-Dichlorobenzene	15.0036 ppb v/v
							1,2-Dichloroethane	15.0036 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46729-1

SDG No.: 200-46729-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2-Dichloropropane	15.0036 ppb v/v
							1,2-Dichlorotetrafluoroethane	15.0036 ppb v/v
							1,3,5-Trimethylbenzene	15.0036 ppb v/v
							1,3-Dichlorobenzene	15.0036 ppb v/v
							1,4-Dichlorobenzene	15.0036 ppb v/v
							1,4-Dioxane	15.0036 ppb v/v
							2-Butanone (MEK)	15.0036 ppb v/v
							2-Chlorotoluene	15.0036 ppb v/v
							2-Hexanone	15.0036 ppb v/v
							2-Methyl-2-propanol	15.0036 ppb v/v
							2-Methylbutane	15.0036 ppb v/v
							3-Chloro-1-propene	15.0036 ppb v/v
							4-Ethyltoluene	15.0036 ppb v/v
							4-Isopropyltoluene	15.0036 ppb v/v
							4-Methyl-2-pentanone (MIBK)	15.0036 ppb v/v
							Acetone	15.0036 ppb v/v
							Acetonitrile	15.0036 ppb v/v
							Acrolein	15.0036 ppb v/v
							Acrylonitrile	15.0036 ppb v/v
							Alpha Methyl Styrene	15.0036 ppb v/v
							Benzene	15.0036 ppb v/v
							Benzyl chloride	15.0036 ppb v/v
							Bromoform	15.0036 ppb v/v
							Bromomethane	15.0036 ppb v/v
							Butadiene	15.0036 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46729-1

SDG No.: 200-46729-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Butane	15.0036 ppb v/v
							Carbon disulfide	15.0036 ppb v/v
							Carbon tetrachloride	15.0036 ppb v/v
							Chlorobenzene	15.0036 ppb v/v
							Chlorodibromomethane	15.0036 ppb v/v
							Chlorodifluoromethane	15.0036 ppb v/v
							Chloroethane	15.0036 ppb v/v
							Chloroform	15.0036 ppb v/v
							Chloromethane	15.0036 ppb v/v
							cis-1,2-Dichloroethene	15.0036 ppb v/v
							cis-1,3-Dichloropropene	15.0036 ppb v/v
							Cyclohexane	15.0036 ppb v/v
							Dibromomethane	15.0036 ppb v/v
							Dichlorobromomethane	15.0036 ppb v/v
							Dichlorodifluoromethane	15.0036 ppb v/v
							Dodecane	15.0036 ppb v/v
							Ethyl acetate	15.0036 ppb v/v
							Ethyl ether	15.0036 ppb v/v
							Ethylbenzene	15.0036 ppb v/v
							Freon TF	15.0036 ppb v/v
							Hexachlorobutadiene	15.0036 ppb v/v
							Hexane	15.0036 ppb v/v
							Isooctane	15.0036 ppb v/v
							Isopropyl alcohol	15.0036 ppb v/v
							Isopropylbenzene	15.0036 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46729-1

SDG No.: 200-46729-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							m,p-Xylene	30.0071 ppb v/v
							Methyl methacrylate	15.0036 ppb v/v
							Methyl tert-butyl ether	15.0036 ppb v/v
							Methylene Chloride	15.0036 ppb v/v
							n-Butanol	15.0036 ppb v/v
							n-Butylbenzene	15.0036 ppb v/v
							n-Decane	15.0036 ppb v/v
							n-Heptane	15.0036 ppb v/v
							n-Nonane	15.0036 ppb v/v
							n-Octane	15.0036 ppb v/v
							N-Propylbenzene	15.0036 ppb v/v
							Naphthalene	15.0036 ppb v/v
							Pentane	15.0036 ppb v/v
							Propene	15.0036 ppb v/v
							sec-Butylbenzene	15.0036 ppb v/v
							Styrene	15.0036 ppb v/v
							tert-Butylbenzene	15.0036 ppb v/v
							Tetrachloroethene	15.0036 ppb v/v
							Tetrahydrofuran	15.0036 ppb v/v
							Toluene	15.0036 ppb v/v
							trans-1,2-Dichloroethene	15.0036 ppb v/v
							trans-1,3-Dichloropropene	15.0036 ppb v/v
							Trichloroethene	15.0036 ppb v/v
							Trichlorofluoromethane	15.0036 ppb v/v
							Undecane	15.0036 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46729-1

SDG No.: 200-46729-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Vinyl acetate	15.0036 ppb v/v
							Vinyl bromide	15.0036 ppb v/v
							Vinyl chloride	15.0036 ppb v/v
							Xylene, o-	15.0036 ppb v/v
					ATTO15EthCALw_00101	620 mL	Ethanol	20.0479 ppb v/v
.ATTO15CALSTKi_00107	02/01/19	12/18/18	Nitrogen, Lot 13	37.5 L	ATTO15CALs_00031	7500 mL	1,1,1-Trichloroethane	200 ppb v/v
							1,1,2,2-Tetrachloroethane	200 ppb v/v
							1,1,2-Trichloroethane	200 ppb v/v
							1,1-Dichloroethane	200 ppb v/v
							1,1-Dichloroethene	200 ppb v/v
							1,2,3-Trichlorobenzene	200 ppb v/v
							1,2,3-Trichloropropane	200 ppb v/v
							1,2,4-Trichlorobenzene	200 ppb v/v
							1,2,4-Trimethylbenzene	200 ppb v/v
							1,2-Dibromoethane	200 ppb v/v
							1,2-Dichlorobenzene	200 ppb v/v
							1,2-Dichloroethane	200 ppb v/v
							1,2-Dichloropropane	200 ppb v/v
							1,2-Dichlorotetrafluoroethane	200 ppb v/v
							1,3,5-Trimethylbenzene	200 ppb v/v
							1,3-Dichlorobenzene	200 ppb v/v
							1,4-Dichlorobenzene	200 ppb v/v
							1,4-Dioxane	200 ppb v/v
							2-Butanone (MEK)	200 ppb v/v
							2-Chlorotoluene	200 ppb v/v
							2-Hexanone	200 ppb v/v
							2-Methyl-2-propanol	200 ppb v/v
							2-Methylbutane	200 ppb v/v
							3-Chloro-1-propene	200 ppb v/v
							4-Ethyltoluene	200 ppb v/v
							4-Isopropyltoluene	200 ppb v/v
							4-Methyl-2-pentanone (MIBK)	200 ppb v/v
							Acetone	200 ppb v/v
							Acetonitrile	200 ppb v/v
							Acrylonitrile	200 ppb v/v
							Alpha Methyl Styrene	200 ppb v/v
							Benzene	200 ppb v/v
							Benzyl chloride	200 ppb v/v
							Bromoform	200 ppb v/v
							Bromomethane	200 ppb v/v
							Butadiene	200 ppb v/v
							Butane	200 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46729-1

SDG No.: 200-46729-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Carbon disulfide	200 ppb v/v
							Carbon tetrachloride	200 ppb v/v
							Chlorobenzene	200 ppb v/v
							Chlorodibromomethane	200 ppb v/v
							Chlorodifluoromethane	200 ppb v/v
							Chloroethane	200 ppb v/v
							Chloroform	200 ppb v/v
							Chloromethane	200 ppb v/v
							cis-1,2-Dichloroethene	200 ppb v/v
							cis-1,3-Dichloropropene	200 ppb v/v
							Cyclohexane	200 ppb v/v
							Dibromomethane	200 ppb v/v
							Dichlorobromomethane	200 ppb v/v
							Dichlorodifluoromethane	200 ppb v/v
							Dodecane	200 ppb v/v
							Ethyl acetate	200 ppb v/v
							Ethyl ether	200 ppb v/v
							Ethylbenzene	200 ppb v/v
							Freon TF	200 ppb v/v
							Hexachlorobutadiene	200 ppb v/v
							Hexane	200 ppb v/v
							Isooctane	200 ppb v/v
							Isopropyl alcohol	200 ppb v/v
							Isopropylbenzene	200 ppb v/v
							m,p-Xylene	400 ppb v/v
							Methyl methacrylate	200 ppb v/v
							Methyl tert-butyl ether	200 ppb v/v
							Methylene Chloride	200 ppb v/v
							n-Butanol	200 ppb v/v
							n-Butylbenzene	200 ppb v/v
							n-Decane	200 ppb v/v
							n-Heptane	200 ppb v/v
							n-Nonane	200 ppb v/v
							n-Octane	200 ppb v/v
							N-Propylbenzene	200 ppb v/v
							Naphthalene	200 ppb v/v
							Pentane	200 ppb v/v
							Propene	200 ppb v/v
							sec-Butylbenzene	200 ppb v/v
							Styrene	200 ppb v/v
							tert-Butylbenzene	200 ppb v/v
							Tetrachloroethene	200 ppb v/v
							Tetrahydrofuran	200 ppb v/v
							Toluene	200 ppb v/v
							trans-1,2-Dichloroethene	200 ppb v/v
							trans-1,3-Dichloropropene	200 ppb v/v
							Trichloroethene	200 ppb v/v
							Trichlorofluoromethane	200 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46729-1

SDG No.: 200-46729-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Undecane	200 ppb v/v
							Vinyl acetate	200 ppb v/v
							Vinyl bromide	200 ppb v/v
							Vinyl chloride	200 ppb v/v
							Xylene, o-	200 ppb v/v
..ATTO15CALs_00031	02/01/19		Linde, Lot CC-133603		(Purchased Reagent)		1,1,1-Trichloroethane	1 ppm v/v
							1,1,2,2-Tetrachloroethane	1 ppm v/v
							1,1,2-Trichloroethane	1 ppm v/v
							1,1-Dichloroethane	1 ppm v/v
							1,1-Dichloroethene	1 ppm v/v
							1,2,3-Trichlorobenzene	1 ppm v/v
							1,2,3-Trichloropropane	1 ppm v/v
							1,2,4-Trichlorobenzene	1 ppm v/v
							1,2,4-Trimethylbenzene	1 ppm v/v
							1,2-Dibromoethane	1 ppm v/v
							1,2-Dichlorobenzene	1 ppm v/v
							1,2-Dichloroethane	1 ppm v/v
							1,2-Dichloropropane	1 ppm v/v
							1,2-Dichlorotetrafluoroethane	1 ppm v/v
							1,3,5-Trimethylbenzene	1 ppm v/v
							1,3-Dichlorobenzene	1 ppm v/v
							1,4-Dichlorobenzene	1 ppm v/v
							1,4-Dioxane	1 ppm v/v
							2-Butanone (MEK)	1 ppm v/v
							2-Chlorotoluene	1 ppm v/v
							2-Hexanone	1 ppm v/v
							2-Methyl-2-propanol	1 ppm v/v
							2-Methylbutane	1 ppm v/v
							3-Chloro-1-propene	1 ppm v/v
							4-Ethyltoluene	1 ppm v/v
							4-Isopropyltoluene	1 ppm v/v
							4-Methyl-2-pentanone (MIBK)	1 ppm v/v
							Acetone	1 ppm v/v
							Acetonitrile	1 ppm v/v
							Acrolein	1 ppm v/v
							Acrylonitrile	1 ppm v/v
							Alpha Methyl Styrene	1 ppm v/v
							Benzene	1 ppm v/v
							Benzyl chloride	1 ppm v/v
							Bromoform	1 ppm v/v
							Bromomethane	1 ppm v/v
							Butadiene	1 ppm v/v
							Butane	1 ppm v/v
							Carbon disulfide	1 ppm v/v
							Carbon tetrachloride	1 ppm v/v
							Chlorobenzene	1 ppm v/v
							Chlorodibromomethane	1 ppm v/v
							Chlorodifluoromethane	1 ppm v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46729-1

SDG No.: 200-46729-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Chloroethane	1 ppm v/v
							Chloroform	1 ppm v/v
							Chloromethane	1 ppm v/v
							cis-1,2-Dichloroethene	1 ppm v/v
							cis-1,3-Dichloropropene	1 ppm v/v
							Cyclohexane	1 ppm v/v
							Dibromomethane	1 ppm v/v
							Dichlorobromomethane	1 ppm v/v
							Dichlorodifluoromethane	1 ppm v/v
							Dodecane	1 ppm v/v
							Ethyl acetate	1 ppm v/v
							Ethyl ether	1 ppm v/v
							Ethylbenzene	1 ppm v/v
							Freon TF	1 ppm v/v
							Hexachlorobutadiene	1 ppm v/v
							Hexane	1 ppm v/v
							Isooctane	1 ppm v/v
							Isopropyl alcohol	1 ppm v/v
							Isopropylbenzene	1 ppm v/v
							m,p-Xylene	2 ppm v/v
							Methyl methacrylate	1 ppm v/v
							Methyl tert-butyl ether	1 ppm v/v
							Methylene Chloride	1 ppm v/v
							n-Butanol	1 ppm v/v
							n-Butylbenzene	1 ppm v/v
							n-Decane	1 ppm v/v
							n-Heptane	1 ppm v/v
							n-Nonane	1 ppm v/v
							n-Octane	1 ppm v/v
							N-Propylbenzene	1 ppm v/v
							Naphthalene	1 ppm v/v
							Pentane	1 ppm v/v
							Propene	1 ppm v/v
							sec-Butylbenzene	1 ppm v/v
							Styrene	1 ppm v/v
							tert-Butylbenzene	1 ppm v/v
							Tetrachloroethene	1 ppm v/v
							Tetrahydrofuran	1 ppm v/v
							Toluene	1 ppm v/v
							trans-1,2-Dichloroethene	1 ppm v/v
							trans-1,3-Dichloropropene	1 ppm v/v
							Trichloroethene	1 ppm v/v
							Trichlorofluoromethane	1 ppm v/v
							Undecane	1 ppm v/v
							Vinyl acetate	1 ppm v/v
							Vinyl bromide	1 ppm v/v
							Vinyl chloride	1 ppm v/v
							Xylene, o-	1 ppm v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46729-1

SDG No.: 200-46729-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.ATTO15EthCALw_00101	02/23/19	11/21/18	Nitrogen, Lot 12	37.5 ppb	ATTO15EthCALs_00009	18.75 uL	Ethanol	500 ppb v/v
.ATTO15EthCALs_00009	09/05/21		Chem Service, Lot 5301900		(Purchased Reagent)		Ethanol	1 mL/mL
ATTO15CAL6w_00163	02/01/19	12/26/18	Nitrogen, Lot 1	15.463 L	ATTO15CALSTKi_00107	1546 mL	1,1,1-Trichloroethane	19.9961 ppb v/v
							1,1,2,2-Tetrachloroethane	19.9961 ppb v/v
							1,1,2-Trichloroethane	19.9961 ppb v/v
							1,1-Dichloroethane	19.9961 ppb v/v
							1,1-Dichloroethene	19.9961 ppb v/v
							1,2,3-Trichlorobenzene	19.9961 ppb v/v
							1,2,3-Trichloropropane	19.9961 ppb v/v
							1,2,4-Trichlorobenzene	19.9961 ppb v/v
							1,2,4-Trimethylbenzene	19.9961 ppb v/v
							1,2-Dibromoethane	19.9961 ppb v/v
							1,2-Dichlorobenzene	19.9961 ppb v/v
							1,2-Dichloroethane	19.9961 ppb v/v
							1,2-Dichloropropane	19.9961 ppb v/v
							1,2-Dichlorotetrafluoroethane	19.9961 ppb v/v
							1,3,5-Trimethylbenzene	19.9961 ppb v/v
							1,3-Dichlorobenzene	19.9961 ppb v/v
							1,4-Dichlorobenzene	19.9961 ppb v/v
							1,4-Dioxane	19.9961 ppb v/v
							2-Butanone (MEK)	19.9961 ppb v/v
							2-Chlorotoluene	19.9961 ppb v/v
							2-Hexanone	19.9961 ppb v/v
							2-Methyl-2-propanol	19.9961 ppb v/v
							2-Methylbutane	19.9961 ppb v/v
							3-Chloro-1-propene	19.9961 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46729-1

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Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Ethyltoluene	19.9961 ppb v/v
							4-Isopropyltoluene	19.9961 ppb v/v
							4-Methyl-2-pentanone (MIBK)	19.9961 ppb v/v
							Acetone	19.9961 ppb v/v
							Acetonitrile	19.9961 ppb v/v
							Acrolein	19.9961 ppb v/v
							Acrylonitrile	19.9961 ppb v/v
							Alpha Methyl Styrene	19.9961 ppb v/v
							Benzene	19.9961 ppb v/v
							Benzyl chloride	19.9961 ppb v/v
							Bromoform	19.9961 ppb v/v
							Bromomethane	19.9961 ppb v/v
							Butadiene	19.9961 ppb v/v
							Butane	19.9961 ppb v/v
							Carbon disulfide	19.9961 ppb v/v
							Carbon tetrachloride	19.9961 ppb v/v
							Chlorobenzene	19.9961 ppb v/v
							Chlorodibromomethane	19.9961 ppb v/v
							Chlorodifluoromethane	19.9961 ppb v/v
							Chloroethane	19.9961 ppb v/v
							Chloroform	19.9961 ppb v/v
							Chloromethane	19.9961 ppb v/v
							cis-1,2-Dichloroethene	19.9961 ppb v/v
							cis-1,3-Dichloropropene	19.9961 ppb v/v
							Cyclohexane	19.9961 ppb v/v

REAGENT TRACEABILITY SUMMARY

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Job No.: 200-46729-1

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Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Dibromomethane	19.9961 ppb v/v
							Dichlorobromomethane	19.9961 ppb v/v
							Dichlorodifluoromethane	19.9961 ppb v/v
							Dodecane	19.9961 ppb v/v
							Ethyl acetate	19.9961 ppb v/v
							Ethyl ether	19.9961 ppb v/v
							Ethylbenzene	19.9961 ppb v/v
							Freon TF	19.9961 ppb v/v
							Hexachlorobutadiene	19.9961 ppb v/v
							Hexane	19.9961 ppb v/v
							Isooctane	19.9961 ppb v/v
							Isopropyl alcohol	19.9961 ppb v/v
							Isopropylbenzene	19.9961 ppb v/v
							m,p-Xylene	39.9922 ppb v/v
							Methyl methacrylate	19.9961 ppb v/v
							Methyl tert-butyl ether	19.9961 ppb v/v
							Methylene Chloride	19.9961 ppb v/v
							n-Butanol	19.9961 ppb v/v
							n-Butylbenzene	19.9961 ppb v/v
							n-Decane	19.9961 ppb v/v
							n-Heptane	19.9961 ppb v/v
							n-Nonane	19.9961 ppb v/v
							n-Octane	19.9961 ppb v/v
							N-Propylbenzene	19.9961 ppb v/v
							Naphthalene	19.9961 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46729-1

SDG No.: 200-46729-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Pentane	19.9961 ppb v/v
							Propene	19.9961 ppb v/v
							sec-Butylbenzene	19.9961 ppb v/v
							Styrene	19.9961 ppb v/v
							tert-Butylbenzene	19.9961 ppb v/v
							Tetrachloroethene	19.9961 ppb v/v
							Tetrahydrofuran	19.9961 ppb v/v
							Toluene	19.9961 ppb v/v
							trans-1,2-Dichloroethene	19.9961 ppb v/v
							trans-1,3-Dichloropropene	19.9961 ppb v/v
							Trichloroethene	19.9961 ppb v/v
							Trichlorofluoromethane	19.9961 ppb v/v
							Undecane	19.9961 ppb v/v
							Vinyl acetate	19.9961 ppb v/v
							Vinyl bromide	19.9961 ppb v/v
Vinyl chloride	19.9961 ppb v/v							
					ATTO15EthCALw_00101	1237 mL	Ethanol	39.9987 ppb v/v
.ATTO15CALSTKi_00107	02/01/19	12/18/18	Nitrogen, Lot 13	37.5 L	ATTO15CALs_00031	7500 mL	1,1,1-Trichloroethane	200 ppb v/v
							1,1,2,2-Tetrachloroethane	200 ppb v/v
							1,1,2-Trichloroethane	200 ppb v/v
							1,1-Dichloroethane	200 ppb v/v
							1,1-Dichloroethene	200 ppb v/v
							1,2,3-Trichlorobenzene	200 ppb v/v
							1,2,3-Trichloropropane	200 ppb v/v
							1,2,4-Trichlorobenzene	200 ppb v/v
							1,2,4-Trimethylbenzene	200 ppb v/v
							1,2-Dibromoethane	200 ppb v/v
							1,2-Dichlorobenzene	200 ppb v/v
							1,2-Dichloroethane	200 ppb v/v
							1,2-Dichloropropane	200 ppb v/v
							1,2-Dichlorotetrafluoroethane	200 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46729-1

SDG No.: 200-46729-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,3,5-Trimethylbenzene	200 ppb v/v
							1,3-Dichlorobenzene	200 ppb v/v
							1,4-Dichlorobenzene	200 ppb v/v
							1,4-Dioxane	200 ppb v/v
							2-Butanone (MEK)	200 ppb v/v
							2-Chlorotoluene	200 ppb v/v
							2-Hexanone	200 ppb v/v
							2-Methyl-2-propanol	200 ppb v/v
							2-Methylbutane	200 ppb v/v
							3-Chloro-1-propene	200 ppb v/v
							4-Ethyltoluene	200 ppb v/v
							4-Isopropyltoluene	200 ppb v/v
							4-Methyl-2-pentanone (MIBK)	200 ppb v/v
							Acetone	200 ppb v/v
							Acetonitrile	200 ppb v/v
							Acrolein	200 ppb v/v
							Acrylonitrile	200 ppb v/v
							Alpha Methyl Styrene	200 ppb v/v
							Benzene	200 ppb v/v
							Benzyl chloride	200 ppb v/v
							Bromoform	200 ppb v/v
							Bromomethane	200 ppb v/v
							Butadiene	200 ppb v/v
							Butane	200 ppb v/v
							Carbon disulfide	200 ppb v/v
							Carbon tetrachloride	200 ppb v/v
							Chlorobenzene	200 ppb v/v
							Chlorodibromomethane	200 ppb v/v
							Chlorodifluoromethane	200 ppb v/v
							Chloroethane	200 ppb v/v
							Chloroform	200 ppb v/v
							Chloromethane	200 ppb v/v
							cis-1,2-Dichloroethene	200 ppb v/v
							cis-1,3-Dichloropropene	200 ppb v/v
							Cyclohexane	200 ppb v/v
							Dibromomethane	200 ppb v/v
							Dichlorobromomethane	200 ppb v/v
							Dichlorodifluoromethane	200 ppb v/v
							Dodecane	200 ppb v/v
							Ethyl acetate	200 ppb v/v
							Ethyl ether	200 ppb v/v
							Ethylbenzene	200 ppb v/v
							Freon TF	200 ppb v/v
							Hexachlorobutadiene	200 ppb v/v
							Hexane	200 ppb v/v
							Isooctane	200 ppb v/v
							Isopropyl alcohol	200 ppb v/v
							Isopropylbenzene	200 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46729-1

SDG No.: 200-46729-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							m,p-Xylene	400 ppb v/v
							Methyl methacrylate	200 ppb v/v
							Methyl tert-butyl ether	200 ppb v/v
							Methylene Chloride	200 ppb v/v
							n-Butanol	200 ppb v/v
							n-Butylbenzene	200 ppb v/v
							n-Decane	200 ppb v/v
							n-Heptane	200 ppb v/v
							n-Nonane	200 ppb v/v
							n-Octane	200 ppb v/v
							N-Propylbenzene	200 ppb v/v
							Naphthalene	200 ppb v/v
							Pentane	200 ppb v/v
							Propene	200 ppb v/v
							sec-Butylbenzene	200 ppb v/v
							Styrene	200 ppb v/v
							tert-Butylbenzene	200 ppb v/v
							Tetrachloroethene	200 ppb v/v
							Tetrahydrofuran	200 ppb v/v
							Toluene	200 ppb v/v
							trans-1,2-Dichloroethene	200 ppb v/v
							trans-1,3-Dichloropropene	200 ppb v/v
							Trichloroethene	200 ppb v/v
							Trichlorofluoromethane	200 ppb v/v
							Undecane	200 ppb v/v
							Vinyl acetate	200 ppb v/v
							Vinyl bromide	200 ppb v/v
							Vinyl chloride	200 ppb v/v
							Xylene, o-	200 ppb v/v
..ATTO15CALs_00031	02/01/19		Linde, Lot CC-133603		(Purchased Reagent)		1,1,1-Trichloroethane	1 ppm v/v
							1,1,2,2-Tetrachloroethane	1 ppm v/v
							1,1,2-Trichloroethane	1 ppm v/v
							1,1-Dichloroethane	1 ppm v/v
							1,1-Dichloroethene	1 ppm v/v
							1,2,3-Trichlorobenzene	1 ppm v/v
							1,2,3-Trichloropropane	1 ppm v/v
							1,2,4-Trichlorobenzene	1 ppm v/v
							1,2,4-Trimethylbenzene	1 ppm v/v
							1,2-Dibromoethane	1 ppm v/v
							1,2-Dichlorobenzene	1 ppm v/v
							1,2-Dichloroethane	1 ppm v/v
							1,2-Dichloropropane	1 ppm v/v
							1,2-Dichlorotetrafluoroethane	1 ppm v/v
							1,3,5-Trimethylbenzene	1 ppm v/v
							1,3-Dichlorobenzene	1 ppm v/v
							1,4-Dichlorobenzene	1 ppm v/v
							1,4-Dioxane	1 ppm v/v
							2-Butanone (MEK)	1 ppm v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46729-1

SDG No.: 200-46729-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Chlorotoluene	1 ppm v/v
							2-Hexanone	1 ppm v/v
							2-Methyl-2-propanol	1 ppm v/v
							2-Methylbutane	1 ppm v/v
							3-Chloro-1-propene	1 ppm v/v
							4-Ethyltoluene	1 ppm v/v
							4-Isopropyltoluene	1 ppm v/v
							4-Methyl-2-pentanone (MIBK)	1 ppm v/v
							Acetone	1 ppm v/v
							Acetonitrile	1 ppm v/v
							Acrolein	1 ppm v/v
							Acrylonitrile	1 ppm v/v
							Alpha Methyl Styrene	1 ppm v/v
							Benzene	1 ppm v/v
							Benzyl chloride	1 ppm v/v
							Bromoform	1 ppm v/v
							Bromomethane	1 ppm v/v
							Butadiene	1 ppm v/v
							Butane	1 ppm v/v
							Carbon disulfide	1 ppm v/v
							Carbon tetrachloride	1 ppm v/v
							Chlorobenzene	1 ppm v/v
							Chlorodibromomethane	1 ppm v/v
							Chlorodifluoromethane	1 ppm v/v
							Chloroethane	1 ppm v/v
							Chloroform	1 ppm v/v
							Chloromethane	1 ppm v/v
							cis-1,2-Dichloroethene	1 ppm v/v
							cis-1,3-Dichloropropene	1 ppm v/v
							Cyclohexane	1 ppm v/v
							Dibromomethane	1 ppm v/v
							Dichlorobromomethane	1 ppm v/v
							Dichlorodifluoromethane	1 ppm v/v
							Dodecane	1 ppm v/v
							Ethyl acetate	1 ppm v/v
							Ethyl ether	1 ppm v/v
							Ethylbenzene	1 ppm v/v
							Freon TF	1 ppm v/v
							Hexachlorobutadiene	1 ppm v/v
							Hexane	1 ppm v/v
							Isooctane	1 ppm v/v
							Isopropyl alcohol	1 ppm v/v
							Isopropylbenzene	1 ppm v/v
							m,p-Xylene	2 ppm v/v
							Methyl methacrylate	1 ppm v/v
							Methyl tert-butyl ether	1 ppm v/v
							Methylene Chloride	1 ppm v/v
							n-Butanol	1 ppm v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46729-1

SDG No.: 200-46729-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							n-Butylbenzene	1 ppm v/v
							n-Decane	1 ppm v/v
							n-Heptane	1 ppm v/v
							n-Nonane	1 ppm v/v
							n-Octane	1 ppm v/v
							N-Propylbenzene	1 ppm v/v
							Naphthalene	1 ppm v/v
							Pentane	1 ppm v/v
							Propene	1 ppm v/v
							sec-Butylbenzene	1 ppm v/v
							Styrene	1 ppm v/v
							tert-Butylbenzene	1 ppm v/v
							Tetrachloroethene	1 ppm v/v
							Tetrahydrofuran	1 ppm v/v
							Toluene	1 ppm v/v
							trans-1,2-Dichloroethene	1 ppm v/v
							trans-1,3-Dichloropropene	1 ppm v/v
							Trichloroethene	1 ppm v/v
							Trichlorofluoromethane	1 ppm v/v
							Undecane	1 ppm v/v
							Vinyl acetate	1 ppm v/v
							Vinyl bromide	1 ppm v/v
							Vinyl chloride	1 ppm v/v
							Xylene, o-	1 ppm v/v
.ATTO15EthCALw_00101	02/23/19	11/21/18	Nitrogen, Lot 12	37.5 ppb	ATTO15EthCALs_00009	18.75 uL	Ethanol	500 ppb v/v
.ATTO15EthCALs_00009	09/05/21		Chem Service, Lot 5301900		(Purchased Reagent)		Ethanol	1 mL/mL
ATTO15CAL7w_00081	02/01/19	12/19/18	Nitrogen, Lot 12	15.463 L	ATTO15CALSTKi_00107	3092 mL	1,1,1-Trichloroethane	39.9922 ppb v/v
							1,1,2,2-Tetrachloroethane	39.9922 ppb v/v
							1,1,2-Trichloroethane	39.9922 ppb v/v
							1,1-Dichloroethane	39.9922 ppb v/v
							1,1-Dichloroethene	39.9922 ppb v/v
							1,2,3-Trichlorobenzene	39.9922 ppb v/v
							1,2,3-Trichloropropane	39.9922 ppb v/v
							1,2,4-Trichlorobenzene	39.9922 ppb v/v
							1,2,4-Trimethylbenzene	39.9922 ppb v/v
							1,2-Dibromoethane	39.9922 ppb v/v
							1,2-Dichlorobenzene	39.9922 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46729-1

SDG No.: 200-46729-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2-Dichloroethane	39.9922 ppb v/v
							1,2-Dichloropropane	39.9922 ppb v/v
							1,2-Dichlorotetrafluoroethane	39.9922 ppb v/v
							1,3,5-Trimethylbenzene	39.9922 ppb v/v
							1,3-Dichlorobenzene	39.9922 ppb v/v
							1,4-Dichlorobenzene	39.9922 ppb v/v
							1,4-Dioxane	39.9922 ppb v/v
							2-Butanone (MEK)	39.9922 ppb v/v
							2-Chlorotoluene	39.9922 ppb v/v
							2-Hexanone	39.9922 ppb v/v
							2-Methyl-2-propanol	39.9922 ppb v/v
							2-Methylbutane	39.9922 ppb v/v
							3-Chloro-1-propene	39.9922 ppb v/v
							4-Ethyltoluene	39.9922 ppb v/v
							4-Isopropyltoluene	39.9922 ppb v/v
							4-Methyl-2-pentanone (MIBK)	39.9922 ppb v/v
							Acetone	39.9922 ppb v/v
							Acetonitrile	39.9922 ppb v/v
							Acrolein	39.9922 ppb v/v
							Acrylonitrile	39.9922 ppb v/v
							Alpha Methyl Styrene	39.9922 ppb v/v
							Benzene	39.9922 ppb v/v
							Benzyl chloride	39.9922 ppb v/v
							Bromoform	39.9922 ppb v/v
							Bromomethane	39.9922 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46729-1

SDG No.: 200-46729-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Butadiene	39.9922 ppb v/v
							Butane	39.9922 ppb v/v
							Carbon disulfide	39.9922 ppb v/v
							Carbon tetrachloride	39.9922 ppb v/v
							Chlorobenzene	39.9922 ppb v/v
							Chlorodibromomethane	39.9922 ppb v/v
							Chlorodifluoromethane	39.9922 ppb v/v
							Chloroethane	39.9922 ppb v/v
							Chloroform	39.9922 ppb v/v
							Chloromethane	39.9922 ppb v/v
							cis-1,2-Dichloroethene	39.9922 ppb v/v
							cis-1,3-Dichloropropene	39.9922 ppb v/v
							Cyclohexane	39.9922 ppb v/v
							Dibromomethane	39.9922 ppb v/v
							Dichlorobromomethane	39.9922 ppb v/v
							Dichlorodifluoromethane	39.9922 ppb v/v
							Dodecane	39.9922 ppb v/v
							Ethyl acetate	39.9922 ppb v/v
							Ethyl ether	39.9922 ppb v/v
							Ethylbenzene	39.9922 ppb v/v
							Freon TF	39.9922 ppb v/v
							Hexachlorobutadiene	39.9922 ppb v/v
							Hexane	39.9922 ppb v/v
							Isooctane	39.9922 ppb v/v
							Isopropyl alcohol	39.9922 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46729-1

SDG No.: 200-46729-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Isopropylbenzene	39.9922 ppb v/v
							m,p-Xylene	79.9845 ppb v/v
							Methyl methacrylate	39.9922 ppb v/v
							Methyl tert-butyl ether	39.9922 ppb v/v
							Methylene Chloride	39.9922 ppb v/v
							n-Butanol	39.9922 ppb v/v
							n-Butylbenzene	39.9922 ppb v/v
							n-Decane	39.9922 ppb v/v
							n-Heptane	39.9922 ppb v/v
							n-Nonane	39.9922 ppb v/v
							n-Octane	39.9922 ppb v/v
							N-Propylbenzene	39.9922 ppb v/v
							Naphthalene	39.9922 ppb v/v
							Pentane	39.9922 ppb v/v
							Propene	39.9922 ppb v/v
							sec-Butylbenzene	39.9922 ppb v/v
							Styrene	39.9922 ppb v/v
							tert-Butylbenzene	39.9922 ppb v/v
							Tetrachloroethene	39.9922 ppb v/v
							Tetrahydrofuran	39.9922 ppb v/v
							Toluene	39.9922 ppb v/v
							trans-1,2-Dichloroethene	39.9922 ppb v/v
							trans-1,3-Dichloropropene	39.9922 ppb v/v
							Trichloroethene	39.9922 ppb v/v
							Trichlorofluoromethane	39.9922 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46729-1

SDG No.: 200-46729-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Undecane	39.9922 ppb v/v
							Vinyl acetate	39.9922 ppb v/v
							Vinyl bromide	39.9922 ppb v/v
							Vinyl chloride	39.9922 ppb v/v
							Xylene, o-	39.9922 ppb v/v
					ATTO15EthCALw_00101	3092 mL	Ethanol	99.9806 ppb v/v
.ATTO15CALSTKi_00107	02/01/19	12/18/18	Nitrogen, Lot 13	37.5 L	ATTO15CALs_00031	7500 mL	1,1,1-Trichloroethane	200 ppb v/v
							1,1,2,2-Tetrachloroethane	200 ppb v/v
							1,1,2-Trichloroethane	200 ppb v/v
							1,1-Dichloroethane	200 ppb v/v
							1,1-Dichloroethene	200 ppb v/v
							1,2,3-Trichlorobenzene	200 ppb v/v
							1,2,3-Trichloropropane	200 ppb v/v
							1,2,4-Trichlorobenzene	200 ppb v/v
							1,2,4-Trimethylbenzene	200 ppb v/v
							1,2-Dibromoethane	200 ppb v/v
							1,2-Dichlorobenzene	200 ppb v/v
							1,2-Dichloroethane	200 ppb v/v
							1,2-Dichloropropane	200 ppb v/v
							1,2-Dichlorotetrafluoroethane	200 ppb v/v
							1,3,5-Trimethylbenzene	200 ppb v/v
							1,3-Dichlorobenzene	200 ppb v/v
							1,4-Dichlorobenzene	200 ppb v/v
							1,4-Dioxane	200 ppb v/v
							2-Butanone (MEK)	200 ppb v/v
							2-Chlorotoluene	200 ppb v/v
							2-Hexanone	200 ppb v/v
							2-Methyl-2-propanol	200 ppb v/v
							2-Methylbutane	200 ppb v/v
							3-Chloro-1-propene	200 ppb v/v
							4-Ethyltoluene	200 ppb v/v
							4-Isopropyltoluene	200 ppb v/v
							4-Methyl-2-pentanone (MIBK)	200 ppb v/v
							Acetone	200 ppb v/v
							Acetonitrile	200 ppb v/v
							Acrolein	200 ppb v/v
							Acrylonitrile	200 ppb v/v
							Alpha Methyl Styrene	200 ppb v/v
							Benzene	200 ppb v/v
							Benzyl chloride	200 ppb v/v
							Bromoform	200 ppb v/v
							Bromomethane	200 ppb v/v
							Butadiene	200 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46729-1

SDG No.: 200-46729-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Butane	200 ppb v/v
							Carbon disulfide	200 ppb v/v
							Carbon tetrachloride	200 ppb v/v
							Chlorobenzene	200 ppb v/v
							Chlorodibromomethane	200 ppb v/v
							Chlorodifluoromethane	200 ppb v/v
							Chloroethane	200 ppb v/v
							Chloroform	200 ppb v/v
							Chloromethane	200 ppb v/v
							cis-1,2-Dichloroethene	200 ppb v/v
							cis-1,3-Dichloropropene	200 ppb v/v
							Cyclohexane	200 ppb v/v
							Dibromomethane	200 ppb v/v
							Dichlorobromomethane	200 ppb v/v
							Dichlorodifluoromethane	200 ppb v/v
							Dodecane	200 ppb v/v
							Ethyl acetate	200 ppb v/v
							Ethyl ether	200 ppb v/v
							Ethylbenzene	200 ppb v/v
							Freon TF	200 ppb v/v
							Hexachlorobutadiene	200 ppb v/v
							Hexane	200 ppb v/v
							Isooctane	200 ppb v/v
							Isopropyl alcohol	200 ppb v/v
							Isopropylbenzene	200 ppb v/v
							m,p-Xylene	400 ppb v/v
							Methyl methacrylate	200 ppb v/v
							Methyl tert-butyl ether	200 ppb v/v
							Methylene Chloride	200 ppb v/v
							n-Butanol	200 ppb v/v
							n-Butylbenzene	200 ppb v/v
							n-Decane	200 ppb v/v
							n-Heptane	200 ppb v/v
							n-Nonane	200 ppb v/v
							n-Octane	200 ppb v/v
							N-Propylbenzene	200 ppb v/v
							Naphthalene	200 ppb v/v
							Pentane	200 ppb v/v
							Propene	200 ppb v/v
							sec-Butylbenzene	200 ppb v/v
							Styrene	200 ppb v/v
							tert-Butylbenzene	200 ppb v/v
							Tetrachloroethene	200 ppb v/v
							Tetrahydrofuran	200 ppb v/v
							Toluene	200 ppb v/v
							trans-1,2-Dichloroethene	200 ppb v/v
							trans-1,3-Dichloropropene	200 ppb v/v
							Trichloroethene	200 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46729-1

SDG No.: 200-46729-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Trichlorofluoromethane	200 ppb v/v
							Undecane	200 ppb v/v
							Vinyl acetate	200 ppb v/v
							Vinyl bromide	200 ppb v/v
							Vinyl chloride	200 ppb v/v
							Xylene, o-	200 ppb v/v
..ATTO15CALs_00031	02/01/19		Linde, Lot CC-133603			(Purchased Reagent)	1,1,1-Trichloroethane	1 ppm v/v
							1,1,2,2-Tetrachloroethane	1 ppm v/v
							1,1,2-Trichloroethane	1 ppm v/v
							1,1-Dichloroethane	1 ppm v/v
							1,1-Dichloroethene	1 ppm v/v
							1,2,3-Trichlorobenzene	1 ppm v/v
							1,2,3-Trichloropropane	1 ppm v/v
							1,2,4-Trichlorobenzene	1 ppm v/v
							1,2,4-Trimethylbenzene	1 ppm v/v
							1,2-Dibromoethane	1 ppm v/v
							1,2-Dichlorobenzene	1 ppm v/v
							1,2-Dichloroethane	1 ppm v/v
							1,2-Dichloropropane	1 ppm v/v
							1,2-Dichlorotetrafluoroethane	1 ppm v/v
							1,3,5-Trimethylbenzene	1 ppm v/v
							1,3-Dichlorobenzene	1 ppm v/v
							1,4-Dichlorobenzene	1 ppm v/v
							1,4-Dioxane	1 ppm v/v
							2-Butanone (MEK)	1 ppm v/v
							2-Chlorotoluene	1 ppm v/v
							2-Hexanone	1 ppm v/v
							2-Methyl-2-propanol	1 ppm v/v
							2-Methylbutane	1 ppm v/v
							3-Chloro-1-propene	1 ppm v/v
							4-Ethyltoluene	1 ppm v/v
							4-Isopropyltoluene	1 ppm v/v
							4-Methyl-2-pentanone (MIBK)	1 ppm v/v
							Acetone	1 ppm v/v
							Acetonitrile	1 ppm v/v
							Acrolein	1 ppm v/v
							Acrylonitrile	1 ppm v/v
							Alpha Methyl Styrene	1 ppm v/v
							Benzene	1 ppm v/v
							Benzyl chloride	1 ppm v/v
							Bromoform	1 ppm v/v
							Bromomethane	1 ppm v/v
							Butadiene	1 ppm v/v
							Butane	1 ppm v/v
							Carbon disulfide	1 ppm v/v
							Carbon tetrachloride	1 ppm v/v
							Chlorobenzene	1 ppm v/v
							Chlorodibromomethane	1 ppm v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46729-1

SDG No.: 200-46729-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Chlorodifluoromethane	1 ppm v/v
							Chloroethane	1 ppm v/v
							Chloroform	1 ppm v/v
							Chloromethane	1 ppm v/v
							cis-1,2-Dichloroethene	1 ppm v/v
							cis-1,3-Dichloropropene	1 ppm v/v
							Cyclohexane	1 ppm v/v
							Dibromomethane	1 ppm v/v
							Dichlorobromomethane	1 ppm v/v
							Dichlorodifluoromethane	1 ppm v/v
							Dodecane	1 ppm v/v
							Ethyl acetate	1 ppm v/v
							Ethyl ether	1 ppm v/v
							Ethylbenzene	1 ppm v/v
							Freon TF	1 ppm v/v
							Hexachlorobutadiene	1 ppm v/v
							Hexane	1 ppm v/v
							Isooctane	1 ppm v/v
							Isopropyl alcohol	1 ppm v/v
							Isopropylbenzene	1 ppm v/v
							m,p-Xylene	2 ppm v/v
							Methyl methacrylate	1 ppm v/v
							Methyl tert-butyl ether	1 ppm v/v
							Methylene Chloride	1 ppm v/v
							n-Butanol	1 ppm v/v
							n-Butylbenzene	1 ppm v/v
							n-Decane	1 ppm v/v
							n-Heptane	1 ppm v/v
							n-Nonane	1 ppm v/v
							n-Octane	1 ppm v/v
							N-Propylbenzene	1 ppm v/v
							Naphthalene	1 ppm v/v
							Pentane	1 ppm v/v
							Propene	1 ppm v/v
							sec-Butylbenzene	1 ppm v/v
							Styrene	1 ppm v/v
							tert-Butylbenzene	1 ppm v/v
							Tetrachloroethene	1 ppm v/v
							Tetrahydrofuran	1 ppm v/v
							Toluene	1 ppm v/v
							trans-1,2-Dichloroethene	1 ppm v/v
							trans-1,3-Dichloropropene	1 ppm v/v
							Trichloroethene	1 ppm v/v
							Trichlorofluoromethane	1 ppm v/v
							Undecane	1 ppm v/v
							Vinyl acetate	1 ppm v/v
							Vinyl bromide	1 ppm v/v
							Vinyl chloride	1 ppm v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46729-1

SDG No.: 200-46729-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.ATTO15EthCALw_00101	02/23/19	11/21/18	Nitrogen, Lot 12	37.5 ppb	ATTO15EthCALs_00009	18.75 uL	Xylene, o-	1 ppm v/v
..ATTO15EthCALs_00009	09/05/21		Chem Service, Lot 5301900		(Purchased Reagent)		Ethanol	500 ppb v/v
ATTO15CISs_00010							Ethanol	1 mL/mL
							1,2-Dichloroethene, Total	
							1,4-Difluorobenzene	100 ppb v/v
							BFB	100 ppb v/v
							Chlorobenzene-d5	100 ppb v/v
							Chlorobromomethane	100 ppb v/v
							Tentatively Identified Compound	
							Total Alkanes	
							Xylenes, Total	
ATTO15LCSW_00791	12/27/18	12/05/18	Nitrogen, Lot 13	15.463 L	ATTO15LCSSTKi_00097	773 mL	1,1,1-Trichloroethane	9.99806 ppb v/v
							1,1,2,2-Tetrachloroethane	9.99806 ppb v/v
							1,1,2-Trichloroethane	9.99806 ppb v/v
							1,1-Dichloroethane	9.99806 ppb v/v
							1,1-Dichloroethene	9.99806 ppb v/v
							1,2,4-Trichlorobenzene	9.99806 ppb v/v
							1,2,4-Trimethylbenzene	9.99806 ppb v/v
							1,2-Dibromoethane	9.99806 ppb v/v
							1,2-Dichlorobenzene	9.99806 ppb v/v
							1,2-Dichloroethane	9.99806 ppb v/v
							1,2-Dichloropropane	9.99806 ppb v/v
							1,2-Dichlorotetrafluoroethane	9.99806 ppb v/v
							1,3,5-Trimethylbenzene	9.99806 ppb v/v
							1,3-Dichlorobenzene	9.99806 ppb v/v
							1,4-Dichlorobenzene	9.99806 ppb v/v
							Benzene	9.99806 ppb v/v
							Bromomethane	9.99806 ppb v/v
							Carbon tetrachloride	9.99806 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46729-1

SDG No.: 200-46729-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Chlorobenzene	9.99806 ppb v/v
							Chloroethane	9.99806 ppb v/v
							Chloroform	9.99806 ppb v/v
							Chloromethane	9.99806 ppb v/v
							cis-1,2-Dichloroethene	9.99806 ppb v/v
							cis-1,3-Dichloropropene	9.99806 ppb v/v
							Dichlorodifluoromethane	9.99806 ppb v/v
							Ethylbenzene	9.99806 ppb v/v
							Freon TF	9.99806 ppb v/v
							Hexachlorobutadiene	9.99806 ppb v/v
							m,p-Xylene	19.9961 ppb v/v
							Methylene Chloride	9.99806 ppb v/v
							Styrene	9.99806 ppb v/v
							Tetrachloroethene	9.99806 ppb v/v
							Toluene	9.99806 ppb v/v
							trans-1,3-Dichloropropene	9.99806 ppb v/v
							Trichloroethene	9.99806 ppb v/v
							Trichlorofluoromethane	9.99806 ppb v/v
							Vinyl chloride	9.99806 ppb v/v
							Xylene, o-	9.99806 ppb v/v
.ATTO15LCSSTKi_00097	12/27/18	11/27/18	Nitrogen, Lot 12	37.5 L	ATTO15LCSS_00024	7500 mL	1,1,1-Trichloroethane	200 ppb v/v
							1,1,2,2-Tetrachloroethane	200 ppb v/v
							1,1,2-Trichloroethane	200 ppb v/v
							1,1-Dichloroethane	200 ppb v/v
							1,1-Dichloroethene	200 ppb v/v
							1,2,4-Trichlorobenzene	200 ppb v/v
							1,2,4-Trimethylbenzene	200 ppb v/v
							1,2-Dibromoethane	200 ppb v/v
							1,2-Dichlorobenzene	200 ppb v/v
							1,2-Dichloroethane	200 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46729-1

SDG No.: 200-46729-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2-Dichloropropane	200 ppb v/v
							1,2-Dichlorotetrafluoroethane	200 ppb v/v
							1,3,5-Trimethylbenzene	200 ppb v/v
							1,3-Dichlorobenzene	200 ppb v/v
							1,4-Dichlorobenzene	200 ppb v/v
							Benzene	200 ppb v/v
							Bromomethane	200 ppb v/v
							Carbon tetrachloride	200 ppb v/v
							Chlorobenzene	200 ppb v/v
							Chloroethane	200 ppb v/v
							Chloroform	200 ppb v/v
							Chloromethane	200 ppb v/v
							cis-1,2-Dichloroethene	200 ppb v/v
							cis-1,3-Dichloropropene	200 ppb v/v
							Dichlorodifluoromethane	200 ppb v/v
							Ethylbenzene	200 ppb v/v
							Freon TF	200 ppb v/v
							Hexachlorobutadiene	200 ppb v/v
							m,p-Xylene	400 ppb v/v
							Methylene Chloride	200 ppb v/v
							Styrene	200 ppb v/v
							Tetrachloroethene	200 ppb v/v
							Toluene	200 ppb v/v
							trans-1,3-Dichloropropene	200 ppb v/v
							Trichloroethene	200 ppb v/v
							Trichlorofluoromethane	200 ppb v/v
							Vinyl chloride	200 ppb v/v
							Xylene, o-	200 ppb v/v
..ATTO15LCSS_00024	02/01/19		Spectra Gases, Lot CC-250179			(Purchased Reagent)	1,1,1-Trichloroethane	1 ppm v/v
							1,1,2,2-Tetrachloroethane	1 ppm v/v
							1,1,2-Trichloroethane	1 ppm v/v
							1,1-Dichloroethane	1 ppm v/v
							1,1-Dichloroethene	1 ppm v/v
							1,2,4-Trichlorobenzene	1 ppm v/v
							1,2,4-Trimethylbenzene	1 ppm v/v
							1,2-Dibromoethane	1 ppm v/v
							1,2-Dichlorobenzene	1 ppm v/v
							1,2-Dichloroethane	1 ppm v/v
							1,2-Dichloropropane	1 ppm v/v
							1,2-Dichlorotetrafluoroethane	1 ppm v/v
							1,3,5-Trimethylbenzene	1 ppm v/v
							1,3-Dichlorobenzene	1 ppm v/v
							1,4-Dichlorobenzene	1 ppm v/v
							Benzene	1 ppm v/v
							Bromomethane	1 ppm v/v
							Carbon tetrachloride	1 ppm v/v
							Chlorobenzene	1 ppm v/v
							Chloroethane	1 ppm v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46729-1

SDG No.: 200-46729-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Chloroform	1 ppm v/v
							Chloromethane	1 ppm v/v
							cis-1,2-Dichloroethene	1 ppm v/v
							cis-1,3-Dichloropropene	1 ppm v/v
							Dichlorodifluoromethane	1 ppm v/v
							Ethylbenzene	1 ppm v/v
							Freon TF	1 ppm v/v
							Hexachlorobutadiene	1 ppm v/v
							m,p-Xylene	2 ppm v/v
							Methylene Chloride	1 ppm v/v
							Styrene	1 ppm v/v
							Tetrachloroethene	1 ppm v/v
							Toluene	1 ppm v/v
							trans-1,3-Dichloropropene	1 ppm v/v
							Trichloroethene	1 ppm v/v
							Trichlorofluoromethane	1 ppm v/v
							Vinyl chloride	1 ppm v/v
							Xylene, o-	1 ppm v/v

Method T015

Volatile Organic Compounds (GC/MS)
by Method T015

FORM III
AIR - GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Burlington

Job No.: 200-46729-1

SDG No.: 200-46729-1

Matrix: Air Level: Low

Lab File ID: 33879-10.D

Lab ID: LCS 200-138574/30

Client ID: _____

COMPOUND	SPIKE ADDED (ppb v/v)	LCS CONCENTRATION (ppb v/v)	LCS % REC	QC LIMITS REC	#
Dichlorodifluoromethane	10.0	10.5	105	68-128	
1,2-Dichlorotetrafluoroethane	10.0	9.94	99	78-138	
Chloromethane	10.0	11.1	111	57-126	
Vinyl chloride	10.0	10.4	104	62-125	
Bromomethane	10.0	9.92	99	68-128	
Chloroethane	10.0	10.7	107	65-125	
Trichlorofluoromethane	10.0	9.65	97	67-127	
Freon TF	10.0	9.69	97	68-128	
1,1-Dichloroethene	10.0	9.64	96	67-127	
Methylene Chloride	10.0	11.2	112	62-122	
1,1-Dichloroethane	10.0	9.83	98	66-126	
cis-1,2-Dichloroethene	10.0	9.42	94	67-127	
Chloroform	10.0	9.93	99	69-129	
1,1,1-Trichloroethane	10.0	9.95	100	70-130	
Carbon tetrachloride	10.0	9.77	98	62-143	
Benzene	10.0	9.99	100	67-127	
1,2-Dichloroethane	10.0	10.5	105	67-132	
Trichloroethene	10.0	9.79	98	68-128	
1,2-Dichloropropane	10.0	10.7	107	67-127	
cis-1,3-Dichloropropene	10.0	10.5	105	70-130	
Toluene	10.0	9.74	97	67-127	
trans-1,3-Dichloropropene	10.0	10.3	103	69-129	
1,1,2-Trichloroethane	10.0	10.2	102	69-129	
Tetrachloroethene	10.0	8.86	89	70-130	
1,2-Dibromoethane	10.0	10.1	101	70-130	
Chlorobenzene	10.0	9.44	94	68-128	
Ethylbenzene	10.0	9.83	98	68-128	
m,p-Xylene	20.0	19.3	97	68-128	
Xylene, o-	10.0	9.64	96	67-127	
Styrene	10.0	10.2	102	68-128	
1,1,2,2-Tetrachloroethane	10.0	10.5	105	69-129	
1,3,5-Trimethylbenzene	10.0	9.65	97	65-125	
1,2,4-Trimethylbenzene	10.0	9.74	97	65-125	
1,3-Dichlorobenzene	10.0	9.17	92	67-127	
1,4-Dichlorobenzene	10.0	9.16	92	66-126	
1,2-Dichlorobenzene	10.0	9.22	92	67-127	
1,2,4-Trichlorobenzene	10.0	9.39	94	59-126	
Hexachlorobutadiene	10.0	8.83	88	62-130	

Column to be used to flag recovery and RPD values

FORM IV
AIR - GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-46729-1
 SDG No.: 200-46729-1
 Lab File ID: 33879-06.D Lab Sample ID: MB 200-138574/6
 Matrix: Air Heated Purge: (Y/N) N
 Instrument ID: CHC.i Date Analyzed: 12/27/2018 14:59
 GC Column: RTX-624 ID: 0.32 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 200-138574/30	33879-10.D	12/27/2018 18:52
SVE-05	200-46729-1	33879-17.D	12/28/2018 01:05
SVE-06	200-46729-2	33879-18.D	12/28/2018 01:58
SVE-07	200-46729-3	33879-19.D	12/28/2018 02:52
SVE-08	200-46729-4	33879-20.D	12/28/2018 03:45

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: TestAmerica Burlington Job No.: 200-46729-1
 SDG No.: 200-46729-1
 Lab File ID: 33879-01.D BFB Injection Date: 12/27/2018
 Instrument ID: CHC.i BFB Injection Time: 10:35
 Analysis Batch No.: 138574

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	8.0 - 40.0% of mass 95	29.1	
75	30.0 - 66.0% of mass 95	60.9	
95	Base peak, 100% relative abundance	100.0	
96	5.0 - 9.0% of mass 95	6.3	
173	Less than 2.0% of mass 174	0.0	(0.0) 1
174	50.0 - 120.0% of mass 95	69.5	
175	4.0 - 9.0 % of mass 174	5.4	(7.8) 1
176	93.0 - 101.0% of mass 174	67.3	(96.9) 1
177	5.0 - 9.0% of mass 176	4.4	(6.5) 2

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 200-138574/2	33879-02.D	12/27/2018	11:26
	ICV 200-138574/5	33879-05.D	12/27/2018	14:05
	MB 200-138574/6	33879-06.D	12/27/2018	14:59
	LCS 200-138574/30	33879-10.D	12/27/2018	18:52
SVE-05	200-46729-1	33879-17.D	12/28/2018	01:05
SVE-06	200-46729-2	33879-18.D	12/28/2018	01:58
SVE-07	200-46729-3	33879-19.D	12/28/2018	02:52
SVE-08	200-46729-4	33879-20.D	12/28/2018	03:45

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-46729-1
 SDG No.: 200-46729-1
 Sample No.: ICIS 200-138548/8 Date Analyzed: 12/26/2018 22:42
 Instrument ID: CHC.i GC Column: RTX-624 ID: 0.32 (mm)
 Lab File ID (Standard): 33872-08.D Heated Purge: (Y/N) N
 Calibration ID: 40854

	BCM		DFBZ		CBNZd5	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT	368025	10.21	2132780	12.20	2084922	18.24
UPPER LIMIT	515235	10.54	2985892	12.53	2918891	18.57
LOWER LIMIT	220815	9.88	1279668	11.87	1250953	17.91
LAB SAMPLE ID	CLIENT SAMPLE ID					
ICV 200-138574/5	278700	10.22	1545459	12.20	1496721	18.24

BCM = Bromochloromethane
 DFBZ = 1,4-Difluorobenzene
 CBNZd5 = Chlorobenzene-d5

Area Limit = 60%-140% of internal standard area
 RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-46729-1
 SDG No.: 200-46729-1
 Sample No.: CCVIS 200-138574/2 Date Analyzed: 12/27/2018 11:26
 Instrument ID: CHC.i GC Column: RTX-624 ID: 0.32 (mm)
 Lab File ID (Standard): 33879-02.D Heated Purge: (Y/N) N
 Calibration ID: 40801

	BCM		DFBZ		CBNZd5			
	AREA #	RT #	AREA #	RT #	AREA #	RT #		
12/24 HOUR STD	285364	10.22	1596272	12.20	1566410	18.24		
UPPER LIMIT	399510	10.55	2234781	12.53	2192974	18.57		
LOWER LIMIT	171218	9.89	957763	11.87	939846	17.91		
LAB SAMPLE ID	CLIENT SAMPLE ID							
MB 200-138574/6			271673	10.22	1551023	12.20	1540260	18.24
LCS 200-138574/30			279770	10.22	1584652	12.20	1560046	18.24
200-46729-1	SVE-05		335710	10.22	1940248	12.20	1894167	18.24
200-46729-2	SVE-06		345705	10.22	2024689	12.20	1963555	18.24
200-46729-3	SVE-07		336950	10.22	1968184	12.20	1899740	18.24
200-46729-4	SVE-08		340428	10.22	1969060	12.20	1906534	18.24

BCM = Bromochloromethane
 DFBZ = 1,4-Difluorobenzene
 CBNZd5 = Chlorobenzene-d5

Area Limit = 60%-140% of internal standard area
 RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-46729-1
 SDG No.: 200-46729-1
 Client Sample ID: SVE-05 Lab Sample ID: 200-46729-1
 Matrix: Air Lab File ID: 33879-17.D
 Analysis Method: TO-15 Date Collected: 12/11/2018 14:00
 Sample wt/vol: 28 (mL) Date Analyzed: 12/28/2018 01:05
 Soil Aliquot Vol: _____ Dilution Factor: 7
 Soil Extract Vol.: _____ GC Column: RTX-624 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 138574 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
75-71-8	Dichlorodifluoromethane	120.91	3.5	U	3.5	
76-14-2	1,2-Dichlorotetrafluoroethane	170.92	1.4	U	1.4	
74-87-3	Chloromethane	50.49	3.5	U	3.5	
75-01-4	Vinyl chloride	62.50	1.4	U	1.4	
74-83-9	Bromomethane	94.94	1.4	U	1.4	
75-00-3	Chloroethane	64.52	3.5	U	3.5	
75-69-4	Trichlorofluoromethane	137.37	1.4	U	1.4	
76-13-1	Freon TF	187.38	1.4	U	1.4	
75-35-4	1,1-Dichloroethene	96.94	1.4	U	1.4	
75-09-2	Methylene Chloride	84.93	3.5	U	3.5	
75-34-3	1,1-Dichloroethane	98.96	1.4	U	1.4	
156-59-2	cis-1,2-Dichloroethene	96.94	1.4	U	1.4	
67-66-3	Chloroform	119.38	1.4	U	1.4	
71-55-6	1,1,1-Trichloroethane	133.41	2.3		1.4	
56-23-5	Carbon tetrachloride	153.81	1.4	U	1.4	
71-43-2	Benzene	78.11	1.4	U	1.4	
107-06-2	1,2-Dichloroethane	98.96	1.4	U	1.4	
79-01-6	Trichloroethene	131.39	1.4	U	1.4	
78-87-5	1,2-Dichloropropane	112.99	1.4	U	1.4	
10061-01-5	cis-1,3-Dichloropropene	110.97	1.4	U	1.4	
108-88-3	Toluene	92.14	1.4	U	1.4	
10061-02-6	trans-1,3-Dichloropropene	110.97	1.4	U	1.4	
79-00-5	1,1,2-Trichloroethane	133.41	1.4	U	1.4	
127-18-4	Tetrachloroethene	165.83	140		1.4	
106-93-4	1,2-Dibromoethane	187.87	1.4	U	1.4	
108-90-7	Chlorobenzene	112.56	1.4	U	1.4	
100-41-4	Ethylbenzene	106.17	1.4	U	1.4	
179601-23-1	m,p-Xylene	106.17	3.5	U	3.5	
95-47-6	Xylene, o-	106.17	1.4	U	1.4	
100-42-5	Styrene	104.15	1.4	U	1.4	
79-34-5	1,1,2,2-Tetrachloroethane	167.85	1.4	U	1.4	
108-67-8	1,3,5-Trimethylbenzene	120.20	1.4	U	1.4	
95-63-6	1,2,4-Trimethylbenzene	120.20	1.4	U	1.4	
541-73-1	1,3-Dichlorobenzene	147.00	1.4	U	1.4	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-46729-1
 SDG No.: 200-46729-1
 Client Sample ID: SVE-05 Lab Sample ID: 200-46729-1
 Matrix: Air Lab File ID: 33879-17.D
 Analysis Method: TO-15 Date Collected: 12/11/2018 14:00
 Sample wt/vol: 28 (mL) Date Analyzed: 12/28/2018 01:05
 Soil Aliquot Vol: _____ Dilution Factor: 7
 Soil Extract Vol.: _____ GC Column: RTX-624 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 138574 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
106-46-7	1,4-Dichlorobenzene	147.00	1.4	U	1.4	
95-50-1	1,2-Dichlorobenzene	147.00	1.4	U	1.4	
120-82-1	1,2,4-Trichlorobenzene	181.45	3.5	U	3.5	
87-68-3	Hexachlorobutadiene	260.76	1.4	U	1.4	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-46729-1
 SDG No.: 200-46729-1
 Client Sample ID: SVE-05 Lab Sample ID: 200-46729-1
 Matrix: Air Lab File ID: 33879-17.D
 Analysis Method: TO-15 Date Collected: 12/11/2018 14:00
 Sample wt/vol: 28 (mL) Date Analyzed: 12/28/2018 01:05
 Soil Aliquot Vol: _____ Dilution Factor: 7
 Soil Extract Vol.: _____ GC Column: RTX-624 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 138574 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL
75-71-8	Dichlorodifluoromethane	120.91	17	U	17
76-14-2	1,2-Dichlorotetrafluoroethane	170.92	9.8	U	9.8
74-87-3	Chloromethane	50.49	7.2	U	7.2
75-01-4	Vinyl chloride	62.50	3.6	U	3.6
74-83-9	Bromomethane	94.94	5.4	U	5.4
75-00-3	Chloroethane	64.52	9.2	U	9.2
75-69-4	Trichlorofluoromethane	137.37	7.9	U	7.9
76-13-1	Freon TF	187.38	11	U	11
75-35-4	1,1-Dichloroethene	96.94	5.6	U	5.6
75-09-2	Methylene Chloride	84.93	12	U	12
75-34-3	1,1-Dichloroethane	98.96	5.7	U	5.7
156-59-2	cis-1,2-Dichloroethene	96.94	5.6	U	5.6
67-66-3	Chloroform	119.38	6.8	U	6.8
71-55-6	1,1,1-Trichloroethane	133.41	12		7.6
56-23-5	Carbon tetrachloride	153.81	8.8	U	8.8
71-43-2	Benzene	78.11	4.5	U	4.5
107-06-2	1,2-Dichloroethane	98.96	5.7	U	5.7
79-01-6	Trichloroethene	131.39	7.5	U	7.5
78-87-5	1,2-Dichloropropane	112.99	6.5	U	6.5
10061-01-5	cis-1,3-Dichloropropene	110.97	6.4	U	6.4
108-88-3	Toluene	92.14	5.3	U	5.3
10061-02-6	trans-1,3-Dichloropropene	110.97	6.4	U	6.4
79-00-5	1,1,2-Trichloroethane	133.41	7.6	U	7.6
127-18-4	Tetrachloroethene	165.83	920		9.5
106-93-4	1,2-Dibromoethane	187.87	11	U	11
108-90-7	Chlorobenzene	112.56	6.4	U	6.4
100-41-4	Ethylbenzene	106.17	6.1	U	6.1
179601-23-1	m,p-Xylene	106.17	15	U	15
95-47-6	Xylene, o-	106.17	6.1	U	6.1
100-42-5	Styrene	104.15	6.0	U	6.0
79-34-5	1,1,2,2-Tetrachloroethane	167.85	9.6	U	9.6
108-67-8	1,3,5-Trimethylbenzene	120.20	6.9	U	6.9
95-63-6	1,2,4-Trimethylbenzene	120.20	6.9	U	6.9
541-73-1	1,3-Dichlorobenzene	147.00	8.4	U	8.4

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-46729-1
 SDG No.: 200-46729-1
 Client Sample ID: SVE-05 Lab Sample ID: 200-46729-1
 Matrix: Air Lab File ID: 33879-17.D
 Analysis Method: TO-15 Date Collected: 12/11/2018 14:00
 Sample wt/vol: 28 (mL) Date Analyzed: 12/28/2018 01:05
 Soil Aliquot Vol: _____ Dilution Factor: 7
 Soil Extract Vol.: _____ GC Column: RTX-624 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 138574 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
106-46-7	1,4-Dichlorobenzene	147.00	8.4	U	8.4	
95-50-1	1,2-Dichlorobenzene	147.00	8.4	U	8.4	
120-82-1	1,2,4-Trichlorobenzene	181.45	26	U	26	
87-68-3	Hexachlorobutadiene	260.76	15	U	15	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-46729-1
 SDG No.: 200-46729-1
 Client Sample ID: SVE-06 Lab Sample ID: 200-46729-2
 Matrix: Air Lab File ID: 33879-18.D
 Analysis Method: TO-15 Date Collected: 12/12/2018 14:00
 Sample wt/vol: 25 (mL) Date Analyzed: 12/28/2018 01:58
 Soil Aliquot Vol: _____ Dilution Factor: 8
 Soil Extract Vol.: _____ GC Column: RTX-624 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 138574 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL
75-71-8	Dichlorodifluoromethane	120.91	4.0	U	4.0
76-14-2	1,2-Dichlorotetrafluoroethane	170.92	1.6	U	1.6
74-87-3	Chloromethane	50.49	4.0	U	4.0
75-01-4	Vinyl chloride	62.50	1.6	U	1.6
74-83-9	Bromomethane	94.94	1.6	U	1.6
75-00-3	Chloroethane	64.52	4.0	U	4.0
75-69-4	Trichlorofluoromethane	137.37	1.6	U	1.6
76-13-1	Freon TF	187.38	1.6	U	1.6
75-35-4	1,1-Dichloroethene	96.94	1.6	U	1.6
75-09-2	Methylene Chloride	84.93	4.0	U	4.0
75-34-3	1,1-Dichloroethane	98.96	1.6	U	1.6
156-59-2	cis-1,2-Dichloroethene	96.94	1.6	U	1.6
67-66-3	Chloroform	119.38	1.6	U	1.6
71-55-6	1,1,1-Trichloroethane	133.41	2.5		1.6
56-23-5	Carbon tetrachloride	153.81	1.6	U	1.6
71-43-2	Benzene	78.11	1.6	U	1.6
107-06-2	1,2-Dichloroethane	98.96	1.6	U	1.6
79-01-6	Trichloroethene	131.39	1.6	U	1.6
78-87-5	1,2-Dichloropropane	112.99	1.6	U	1.6
10061-01-5	cis-1,3-Dichloropropene	110.97	1.6	U	1.6
108-88-3	Toluene	92.14	1.6	U	1.6
10061-02-6	trans-1,3-Dichloropropene	110.97	1.6	U	1.6
79-00-5	1,1,2-Trichloroethane	133.41	1.6	U	1.6
127-18-4	Tetrachloroethene	165.83	150		1.6
106-93-4	1,2-Dibromoethane	187.87	1.6	U	1.6
108-90-7	Chlorobenzene	112.56	1.6	U	1.6
100-41-4	Ethylbenzene	106.17	1.6	U	1.6
179601-23-1	m,p-Xylene	106.17	4.0	U	4.0
95-47-6	Xylene, o-	106.17	1.6	U	1.6
100-42-5	Styrene	104.15	1.6	U	1.6
79-34-5	1,1,2,2-Tetrachloroethane	167.85	1.6	U	1.6
108-67-8	1,3,5-Trimethylbenzene	120.20	1.6	U	1.6
95-63-6	1,2,4-Trimethylbenzene	120.20	1.6	U	1.6
541-73-1	1,3-Dichlorobenzene	147.00	1.6	U	1.6

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-46729-1
 SDG No.: 200-46729-1
 Client Sample ID: SVE-06 Lab Sample ID: 200-46729-2
 Matrix: Air Lab File ID: 33879-18.D
 Analysis Method: TO-15 Date Collected: 12/12/2018 14:00
 Sample wt/vol: 25 (mL) Date Analyzed: 12/28/2018 01:58
 Soil Aliquot Vol: _____ Dilution Factor: 8
 Soil Extract Vol.: _____ GC Column: RTX-624 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 138574 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
106-46-7	1,4-Dichlorobenzene	147.00	1.6	U	1.6	
95-50-1	1,2-Dichlorobenzene	147.00	1.6	U	1.6	
120-82-1	1,2,4-Trichlorobenzene	181.45	4.0	U	4.0	
87-68-3	Hexachlorobutadiene	260.76	1.6	U	1.6	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-46729-1
 SDG No.: 200-46729-1
 Client Sample ID: SVE-06 Lab Sample ID: 200-46729-2
 Matrix: Air Lab File ID: 33879-18.D
 Analysis Method: TO-15 Date Collected: 12/12/2018 14:00
 Sample wt/vol: 25 (mL) Date Analyzed: 12/28/2018 01:58
 Soil Aliquot Vol: _____ Dilution Factor: 8
 Soil Extract Vol.: _____ GC Column: RTX-624 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 138574 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL
75-71-8	Dichlorodifluoromethane	120.91	20	U	20
76-14-2	1,2-Dichlorotetrafluoroethane	170.92	11	U	11
74-87-3	Chloromethane	50.49	8.3	U	8.3
75-01-4	Vinyl chloride	62.50	4.1	U	4.1
74-83-9	Bromomethane	94.94	6.2	U	6.2
75-00-3	Chloroethane	64.52	11	U	11
75-69-4	Trichlorofluoromethane	137.37	9.0	U	9.0
76-13-1	Freon TF	187.38	12	U	12
75-35-4	1,1-Dichloroethene	96.94	6.3	U	6.3
75-09-2	Methylene Chloride	84.93	14	U	14
75-34-3	1,1-Dichloroethane	98.96	6.5	U	6.5
156-59-2	cis-1,2-Dichloroethene	96.94	6.3	U	6.3
67-66-3	Chloroform	119.38	7.8	U	7.8
71-55-6	1,1,1-Trichloroethane	133.41	14		8.7
56-23-5	Carbon tetrachloride	153.81	10	U	10
71-43-2	Benzene	78.11	5.1	U	5.1
107-06-2	1,2-Dichloroethane	98.96	6.5	U	6.5
79-01-6	Trichloroethene	131.39	8.6	U	8.6
78-87-5	1,2-Dichloropropane	112.99	7.4	U	7.4
10061-01-5	cis-1,3-Dichloropropene	110.97	7.3	U	7.3
108-88-3	Toluene	92.14	6.0	U	6.0
10061-02-6	trans-1,3-Dichloropropene	110.97	7.3	U	7.3
79-00-5	1,1,2-Trichloroethane	133.41	8.7	U	8.7
127-18-4	Tetrachloroethene	165.83	1100		11
106-93-4	1,2-Dibromoethane	187.87	12	U	12
108-90-7	Chlorobenzene	112.56	7.4	U	7.4
100-41-4	Ethylbenzene	106.17	6.9	U	6.9
179601-23-1	m,p-Xylene	106.17	17	U	17
95-47-6	Xylene, o-	106.17	6.9	U	6.9
100-42-5	Styrene	104.15	6.8	U	6.8
79-34-5	1,1,2,2-Tetrachloroethane	167.85	11	U	11
108-67-8	1,3,5-Trimethylbenzene	120.20	7.9	U	7.9
95-63-6	1,2,4-Trimethylbenzene	120.20	7.9	U	7.9
541-73-1	1,3-Dichlorobenzene	147.00	9.6	U	9.6

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-46729-1
 SDG No.: 200-46729-1
 Client Sample ID: SVE-06 Lab Sample ID: 200-46729-2
 Matrix: Air Lab File ID: 33879-18.D
 Analysis Method: TO-15 Date Collected: 12/12/2018 14:00
 Sample wt/vol: 25 (mL) Date Analyzed: 12/28/2018 01:58
 Soil Aliquot Vol: _____ Dilution Factor: 8
 Soil Extract Vol.: _____ GC Column: RTX-624 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 138574 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
106-46-7	1,4-Dichlorobenzene	147.00	9.6	U	9.6	
95-50-1	1,2-Dichlorobenzene	147.00	9.6	U	9.6	
120-82-1	1,2,4-Trichlorobenzene	181.45	30	U	30	
87-68-3	Hexachlorobutadiene	260.76	17	U	17	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-46729-1
 SDG No.: 200-46729-1
 Client Sample ID: SVE-07 Lab Sample ID: 200-46729-3
 Matrix: Air Lab File ID: 33879-19.D
 Analysis Method: TO-15 Date Collected: 12/13/2018 14:30
 Sample wt/vol: 28 (mL) Date Analyzed: 12/28/2018 02:52
 Soil Aliquot Vol: _____ Dilution Factor: 7
 Soil Extract Vol.: _____ GC Column: RTX-624 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 138574 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
75-71-8	Dichlorodifluoromethane	120.91	3.5	U	3.5	
76-14-2	1,2-Dichlorotetrafluoroethane	170.92	1.4	U	1.4	
74-87-3	Chloromethane	50.49	3.5	U	3.5	
75-01-4	Vinyl chloride	62.50	1.4	U	1.4	
74-83-9	Bromomethane	94.94	1.4	U	1.4	
75-00-3	Chloroethane	64.52	3.5	U	3.5	
75-69-4	Trichlorofluoromethane	137.37	1.4	U	1.4	
76-13-1	Freon TF	187.38	1.4	U	1.4	
75-35-4	1,1-Dichloroethene	96.94	1.4	U	1.4	
75-09-2	Methylene Chloride	84.93	3.5	U	3.5	
75-34-3	1,1-Dichloroethane	98.96	1.4	U	1.4	
156-59-2	cis-1,2-Dichloroethene	96.94	1.4	U	1.4	
67-66-3	Chloroform	119.38	1.4	U	1.4	
71-55-6	1,1,1-Trichloroethane	133.41	2.5		1.4	
56-23-5	Carbon tetrachloride	153.81	1.4	U	1.4	
71-43-2	Benzene	78.11	1.4	U	1.4	
107-06-2	1,2-Dichloroethane	98.96	1.4	U	1.4	
79-01-6	Trichloroethene	131.39	1.4	U	1.4	
78-87-5	1,2-Dichloropropane	112.99	1.4	U	1.4	
10061-01-5	cis-1,3-Dichloropropene	110.97	1.4	U	1.4	
108-88-3	Toluene	92.14	1.4	U	1.4	
10061-02-6	trans-1,3-Dichloropropene	110.97	1.4	U	1.4	
79-00-5	1,1,2-Trichloroethane	133.41	1.4	U	1.4	
127-18-4	Tetrachloroethene	165.83	140		1.4	
106-93-4	1,2-Dibromoethane	187.87	1.4	U	1.4	
108-90-7	Chlorobenzene	112.56	1.4	U	1.4	
100-41-4	Ethylbenzene	106.17	1.4	U	1.4	
179601-23-1	m,p-Xylene	106.17	3.5	U	3.5	
95-47-6	Xylene, o-	106.17	1.4	U	1.4	
100-42-5	Styrene	104.15	1.4	U	1.4	
79-34-5	1,1,2,2-Tetrachloroethane	167.85	1.4	U	1.4	
108-67-8	1,3,5-Trimethylbenzene	120.20	1.4	U	1.4	
95-63-6	1,2,4-Trimethylbenzene	120.20	1.4	U	1.4	
541-73-1	1,3-Dichlorobenzene	147.00	1.4	U	1.4	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-46729-1
 SDG No.: 200-46729-1
 Client Sample ID: SVE-07 Lab Sample ID: 200-46729-3
 Matrix: Air Lab File ID: 33879-19.D
 Analysis Method: TO-15 Date Collected: 12/13/2018 14:30
 Sample wt/vol: 28 (mL) Date Analyzed: 12/28/2018 02:52
 Soil Aliquot Vol: _____ Dilution Factor: 7
 Soil Extract Vol.: _____ GC Column: RTX-624 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 138574 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
106-46-7	1,4-Dichlorobenzene	147.00	1.4	U	1.4	
95-50-1	1,2-Dichlorobenzene	147.00	1.4	U	1.4	
120-82-1	1,2,4-Trichlorobenzene	181.45	3.5	U	3.5	
87-68-3	Hexachlorobutadiene	260.76	1.4	U	1.4	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-46729-1
 SDG No.: 200-46729-1
 Client Sample ID: SVE-07 Lab Sample ID: 200-46729-3
 Matrix: Air Lab File ID: 33879-19.D
 Analysis Method: TO-15 Date Collected: 12/13/2018 14:30
 Sample wt/vol: 28 (mL) Date Analyzed: 12/28/2018 02:52
 Soil Aliquot Vol: _____ Dilution Factor: 7
 Soil Extract Vol.: _____ GC Column: RTX-624 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 138574 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL
75-71-8	Dichlorodifluoromethane	120.91	17	U	17
76-14-2	1,2-Dichlorotetrafluoroethane	170.92	9.8	U	9.8
74-87-3	Chloromethane	50.49	7.2	U	7.2
75-01-4	Vinyl chloride	62.50	3.6	U	3.6
74-83-9	Bromomethane	94.94	5.4	U	5.4
75-00-3	Chloroethane	64.52	9.2	U	9.2
75-69-4	Trichlorofluoromethane	137.37	7.9	U	7.9
76-13-1	Freon TF	187.38	11	U	11
75-35-4	1,1-Dichloroethene	96.94	5.6	U	5.6
75-09-2	Methylene Chloride	84.93	12	U	12
75-34-3	1,1-Dichloroethane	98.96	5.7	U	5.7
156-59-2	cis-1,2-Dichloroethene	96.94	5.6	U	5.6
67-66-3	Chloroform	119.38	6.8	U	6.8
71-55-6	1,1,1-Trichloroethane	133.41	13		7.6
56-23-5	Carbon tetrachloride	153.81	8.8	U	8.8
71-43-2	Benzene	78.11	4.5	U	4.5
107-06-2	1,2-Dichloroethane	98.96	5.7	U	5.7
79-01-6	Trichloroethene	131.39	7.5	U	7.5
78-87-5	1,2-Dichloropropane	112.99	6.5	U	6.5
10061-01-5	cis-1,3-Dichloropropene	110.97	6.4	U	6.4
108-88-3	Toluene	92.14	5.3	U	5.3
10061-02-6	trans-1,3-Dichloropropene	110.97	6.4	U	6.4
79-00-5	1,1,2-Trichloroethane	133.41	7.6	U	7.6
127-18-4	Tetrachloroethene	165.83	960		9.5
106-93-4	1,2-Dibromoethane	187.87	11	U	11
108-90-7	Chlorobenzene	112.56	6.4	U	6.4
100-41-4	Ethylbenzene	106.17	6.1	U	6.1
179601-23-1	m,p-Xylene	106.17	15	U	15
95-47-6	Xylene, o-	106.17	6.1	U	6.1
100-42-5	Styrene	104.15	6.0	U	6.0
79-34-5	1,1,2,2-Tetrachloroethane	167.85	9.6	U	9.6
108-67-8	1,3,5-Trimethylbenzene	120.20	6.9	U	6.9
95-63-6	1,2,4-Trimethylbenzene	120.20	6.9	U	6.9
541-73-1	1,3-Dichlorobenzene	147.00	8.4	U	8.4

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-46729-1
 SDG No.: 200-46729-1
 Client Sample ID: SVE-07 Lab Sample ID: 200-46729-3
 Matrix: Air Lab File ID: 33879-19.D
 Analysis Method: TO-15 Date Collected: 12/13/2018 14:30
 Sample wt/vol: 28 (mL) Date Analyzed: 12/28/2018 02:52
 Soil Aliquot Vol: _____ Dilution Factor: 7
 Soil Extract Vol.: _____ GC Column: RTX-624 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 138574 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL
106-46-7	1,4-Dichlorobenzene	147.00	8.4	U	8.4
95-50-1	1,2-Dichlorobenzene	147.00	8.4	U	8.4
120-82-1	1,2,4-Trichlorobenzene	181.45	26	U	26
87-68-3	Hexachlorobutadiene	260.76	15	U	15

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-46729-1
 SDG No.: 200-46729-1
 Client Sample ID: SVE-08 Lab Sample ID: 200-46729-4
 Matrix: Air Lab File ID: 33879-20.D
 Analysis Method: TO-15 Date Collected: 12/14/2018 14:00
 Sample wt/vol: 25 (mL) Date Analyzed: 12/28/2018 03:45
 Soil Aliquot Vol: _____ Dilution Factor: 8
 Soil Extract Vol.: _____ GC Column: RTX-624 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 138574 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL
75-71-8	Dichlorodifluoromethane	120.91	4.0	U	4.0
76-14-2	1,2-Dichlorotetrafluoroethane	170.92	1.6	U	1.6
74-87-3	Chloromethane	50.49	4.0	U	4.0
75-01-4	Vinyl chloride	62.50	1.6	U	1.6
74-83-9	Bromomethane	94.94	1.6	U	1.6
75-00-3	Chloroethane	64.52	4.0	U	4.0
75-69-4	Trichlorofluoromethane	137.37	1.6	U	1.6
76-13-1	Freon TF	187.38	1.6	U	1.6
75-35-4	1,1-Dichloroethene	96.94	1.6	U	1.6
75-09-2	Methylene Chloride	84.93	4.0	U	4.0
75-34-3	1,1-Dichloroethane	98.96	1.6	U	1.6
156-59-2	cis-1,2-Dichloroethene	96.94	1.6	U	1.6
67-66-3	Chloroform	119.38	1.6	U	1.6
71-55-6	1,1,1-Trichloroethane	133.41	2.4		1.6
56-23-5	Carbon tetrachloride	153.81	1.6	U	1.6
71-43-2	Benzene	78.11	1.6	U	1.6
107-06-2	1,2-Dichloroethane	98.96	1.6	U	1.6
79-01-6	Trichloroethene	131.39	1.6	U	1.6
78-87-5	1,2-Dichloropropane	112.99	1.6	U	1.6
10061-01-5	cis-1,3-Dichloropropene	110.97	1.6	U	1.6
108-88-3	Toluene	92.14	1.6	U	1.6
10061-02-6	trans-1,3-Dichloropropene	110.97	1.6	U	1.6
79-00-5	1,1,2-Trichloroethane	133.41	1.6	U	1.6
127-18-4	Tetrachloroethene	165.83	150		1.6
106-93-4	1,2-Dibromoethane	187.87	1.6	U	1.6
108-90-7	Chlorobenzene	112.56	1.6	U	1.6
100-41-4	Ethylbenzene	106.17	1.6	U	1.6
179601-23-1	m,p-Xylene	106.17	4.0	U	4.0
95-47-6	Xylene, o-	106.17	1.6	U	1.6
100-42-5	Styrene	104.15	1.6	U	1.6
79-34-5	1,1,2,2-Tetrachloroethane	167.85	1.6	U	1.6
108-67-8	1,3,5-Trimethylbenzene	120.20	1.6	U	1.6
95-63-6	1,2,4-Trimethylbenzene	120.20	1.6	U	1.6
541-73-1	1,3-Dichlorobenzene	147.00	1.6	U	1.6

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-46729-1
 SDG No.: 200-46729-1
 Client Sample ID: SVE-08 Lab Sample ID: 200-46729-4
 Matrix: Air Lab File ID: 33879-20.D
 Analysis Method: TO-15 Date Collected: 12/14/2018 14:00
 Sample wt/vol: 25 (mL) Date Analyzed: 12/28/2018 03:45
 Soil Aliquot Vol: _____ Dilution Factor: 8
 Soil Extract Vol.: _____ GC Column: RTX-624 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 138574 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
106-46-7	1,4-Dichlorobenzene	147.00	1.6	U	1.6	
95-50-1	1,2-Dichlorobenzene	147.00	1.6	U	1.6	
120-82-1	1,2,4-Trichlorobenzene	181.45	4.0	U	4.0	
87-68-3	Hexachlorobutadiene	260.76	1.6	U	1.6	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-46729-1
 SDG No.: 200-46729-1
 Client Sample ID: SVE-08 Lab Sample ID: 200-46729-4
 Matrix: Air Lab File ID: 33879-20.D
 Analysis Method: TO-15 Date Collected: 12/14/2018 14:00
 Sample wt/vol: 25 (mL) Date Analyzed: 12/28/2018 03:45
 Soil Aliquot Vol: _____ Dilution Factor: 8
 Soil Extract Vol.: _____ GC Column: RTX-624 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 138574 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
75-71-8	Dichlorodifluoromethane	120.91	20	U	20	
76-14-2	1,2-Dichlorotetrafluoroethane	170.92	11	U	11	
74-87-3	Chloromethane	50.49	8.3	U	8.3	
75-01-4	Vinyl chloride	62.50	4.1	U	4.1	
74-83-9	Bromomethane	94.94	6.2	U	6.2	
75-00-3	Chloroethane	64.52	11	U	11	
75-69-4	Trichlorofluoromethane	137.37	9.0	U	9.0	
76-13-1	Freon TF	187.38	12	U	12	
75-35-4	1,1-Dichloroethene	96.94	6.3	U	6.3	
75-09-2	Methylene Chloride	84.93	14	U	14	
75-34-3	1,1-Dichloroethane	98.96	6.5	U	6.5	
156-59-2	cis-1,2-Dichloroethene	96.94	6.3	U	6.3	
67-66-3	Chloroform	119.38	7.8	U	7.8	
71-55-6	1,1,1-Trichloroethane	133.41	13		8.7	
56-23-5	Carbon tetrachloride	153.81	10	U	10	
71-43-2	Benzene	78.11	5.1	U	5.1	
107-06-2	1,2-Dichloroethane	98.96	6.5	U	6.5	
79-01-6	Trichloroethene	131.39	8.6	U	8.6	
78-87-5	1,2-Dichloropropane	112.99	7.4	U	7.4	
10061-01-5	cis-1,3-Dichloropropene	110.97	7.3	U	7.3	
108-88-3	Toluene	92.14	6.0	U	6.0	
10061-02-6	trans-1,3-Dichloropropene	110.97	7.3	U	7.3	
79-00-5	1,1,2-Trichloroethane	133.41	8.7	U	8.7	
127-18-4	Tetrachloroethene	165.83	1000		11	
106-93-4	1,2-Dibromoethane	187.87	12	U	12	
108-90-7	Chlorobenzene	112.56	7.4	U	7.4	
100-41-4	Ethylbenzene	106.17	6.9	U	6.9	
179601-23-1	m,p-Xylene	106.17	17	U	17	
95-47-6	Xylene, o-	106.17	6.9	U	6.9	
100-42-5	Styrene	104.15	6.8	U	6.8	
79-34-5	1,1,2,2-Tetrachloroethane	167.85	11	U	11	
108-67-8	1,3,5-Trimethylbenzene	120.20	7.9	U	7.9	
95-63-6	1,2,4-Trimethylbenzene	120.20	7.9	U	7.9	
541-73-1	1,3-Dichlorobenzene	147.00	9.6	U	9.6	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-46729-1
 SDG No.: 200-46729-1
 Client Sample ID: SVE-08 Lab Sample ID: 200-46729-4
 Matrix: Air Lab File ID: 33879-20.D
 Analysis Method: TO-15 Date Collected: 12/14/2018 14:00
 Sample wt/vol: 25 (mL) Date Analyzed: 12/28/2018 03:45
 Soil Aliquot Vol: _____ Dilution Factor: 8
 Soil Extract Vol.: _____ GC Column: RTX-624 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 138574 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
106-46-7	1,4-Dichlorobenzene	147.00	9.6	U	9.6	
95-50-1	1,2-Dichlorobenzene	147.00	9.6	U	9.6	
120-82-1	1,2,4-Trichlorobenzene	181.45	30	U	30	
87-68-3	Hexachlorobutadiene	260.76	17	U	17	

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Burlington Job No.: 200-46729-1 Analy Batch No.: 138548

SDG No.: 200-46729-1

Instrument ID: CHC.i GC Column: RTX-624 ID: 0.32 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/26/2018 19:09 Calibration End Date: 12/27/2018 01:22 Calibration ID: 40854

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-138548/4	33872-04.D
Level 2	IC 200-138548/5	33872-05.D
Level 3	IC 200-138548/6	33872-06.D
Level 4	IC 200-138548/7	33872-07.D
Level 5	ICIS 200-138548/8	33872-08.D
Level 6	IC 200-138548/9	33872-09.D
Level 7	IC 200-138548/10	33872-10.D
Level 8	IC 200-138548/11	33872-11.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Propylene	++++ 0.7233	++++ 0.7081	++++ 0.7122	0.6607	0.6403	Ave		0.6889			5.3		30.0				
Dichlorodifluoromethane	++++ 2.1809	++++ 1.9760	2.3195 2.1420	2.1372	2.0481	Ave		2.1340			5.5		30.0				
Freon 22	++++ 1.4567	++++ 1.4541	1.7131 1.4521	1.3467	1.3408	Ave		1.4606			9.2		30.0				
1,2-Dichlorotetrafluoroethane	++++ 1.9340	2.2791 1.9196	2.3461 1.9034	1.8945	1.8487	Ave		2.0179			10.1		30.0				
Chloromethane	++++ 0.6743	++++ 0.6803	0.8041 0.6742	0.6222	0.6169	Ave		0.6787			9.9		30.0				
n-Butane	++++ 1.1264	++++ 1.1282	1.2742 1.1179	1.0007	1.0008	Ave		1.1080			9.2		30.0				
Vinyl chloride	0.7430 0.7002	0.9133 0.7018	0.7966 0.7011	0.6440	0.6367	Ave		0.7296			12.3		30.0				
1,3-Butadiene	0.6145 0.5206	0.6701 0.5218	0.5713 0.5135	0.4630	0.4645	Ave		0.5424			13.3		30.0				
Bromomethane	++++ 0.5692	0.6998 0.5752	0.6891 0.5697	0.5611	0.5394	Ave		0.6005			10.9		30.0				
Chloroethane	++++ 0.3166	++++ 0.3166	0.3882 0.3185	0.3028	0.2894	Ave		0.3220			10.7		30.0				
Isopentane	++++ 0.7668	1.1170 0.7714	0.8824 0.7639	0.7148	0.6866	Ave		0.8147			18.0		30.0				
Bromoethene (Vinyl Bromide)	++++ 0.5749	0.6672 0.5708	0.7073 0.5823	0.5745	0.5516	Ave		0.6041			9.7		30.0				
Trichlorofluoromethane	++++ 1.9696	2.4114 1.9424	2.4445 1.9509	1.9923	1.9088	Ave		2.0886			11.2		30.0				
n-Pentane	++++ 1.3222	++++ 1.2943	1.5252 1.2658	1.2160	1.1791	Ave		1.3005			9.4		30.0				

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Burlington

Job No.: 200-46729-1

Analy Batch No.: 138548

SDG No.: 200-46729-1

Instrument ID: CHC.i

GC Column: RTX-624

ID: 0.32 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 12/26/2018 19:09

Calibration End Date: 12/27/2018 01:22

Calibration ID: 40854

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8														
Ethanol	++++ 0.2715	++++ 0.2588	0.2379 0.2494	0.2482	0.2385	Ave		0.2507			5.1		30.0				
Ethyl ether	++++ 0.4815	0.6549 0.4791	0.5456 0.4749	0.4574	0.4470	Ave		0.5058			14.4		30.0				
Acrolein	++++ 0.2513	++++ 0.2500	++++ 0.2438	0.2277	0.2337	Ave		0.2413			4.3		30.0				
Freon TF	++++ 1.4516	1.7175 1.4310	1.7976 1.4280	1.4510	1.4107	Ave		1.5268			10.5		30.0				
1,1-Dichloroethene	0.7551 0.6275	0.7723 0.6193	0.7592 0.6191	0.6293	0.6190	Ave		0.6751			10.7		30.0				
Acetone	++++ 1.3513	++++ 1.3185	++++ 1.3155	1.2754	1.2353	Ave		1.2992			3.4		30.0				
Carbon disulfide	++++ 1.9416	++++ 1.9287	2.3447 1.9353	1.8921	1.8372	Ave		1.9799			9.2		30.0				
Isopropyl alcohol	++++ 1.2866	++++ 1.2534	++++ 1.2402	1.1856	1.1984	Ave		1.2328			3.3		30.0				
Acetonitrile	++++ 0.9932	++++ 0.9789	++++ 0.9262	0.9182	0.9022	Ave		0.9437			4.2		30.0				
3-Chloropropene	++++ 0.5240	0.7227 0.5220	0.6122 0.5168	0.4800	0.4703	Ave		0.5497			16.2		30.0				
Methylene Chloride	++++ 0.9580	++++ 0.9467	1.1163 0.9436	0.9110	0.8893	Ave		0.9608			8.4		30.0				
tert-Butyl alcohol	1.7068 1.7268	++++ 1.6979	++++ 1.6910	1.6155	1.6179	Ave		1.6760			2.8		30.0				
Methyl tert-butyl ether	++++ 2.2110	2.6358 2.1975	2.5796 2.2005	2.1497	2.1118	Ave		2.2980			9.4		30.0				
trans-1,2-Dichloroethene	++++ 1.1713	1.5475 1.1648	1.3929 1.1540	1.1332	1.0972	Ave		1.2373			13.5		30.0				
Acrylonitrile	++++ 0.5086	++++ 0.5102	0.5391 0.5101	0.4626	0.4701	Ave		0.5001			5.7		30.0				
n-Hexane	++++ 1.1092	1.4189 1.0979	1.2948 1.0837	1.0661	1.0295	Ave		1.1571			12.4		30.0				
1,1-Dichloroethane	1.8458 1.4486	1.8723 1.4337	1.7077 1.4296	1.3904	1.3524	Ave		1.5601			13.7		30.0				
Vinyl acetate	++++ 2.2067	++++ 2.1694	++++ 2.1813	1.9746	1.9689	Ave		2.1002			5.6		30.0				
cis-1,2-Dichloroethene	0.9920 0.7604	0.9547 0.7418	0.9452 0.7554	0.7506	0.7350	Ave		0.8294			13.6		30.0				
Methyl Ethyl Ketone	++++ 0.3851	++++ 0.3762	++++ 0.3845	0.3714	0.3705	Ave		0.3896			7.7		30.0				

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Burlington

Job No.: 200-46729-1

Analy Batch No.: 138548

SDG No.: 200-46729-1

Instrument ID: CHC.i

GC Column: RTX-624

ID: 0.32 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 12/26/2018 19:09

Calibration End Date: 12/27/2018 01:22

Calibration ID: 40854

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R ² OR COD	#	MIN R ² OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8														
Ethyl acetate	++++ 0.0651	++++ 0.0651	++++ 0.0663	0.0630	0.0615	Ave		0.0642			3.0		30.0				
Tetrahydrofuran	++++ 0.1824	++++ 0.1682	++++ 0.1781	0.1643	0.1654	Ave		0.1717			4.7		30.0				
Chloroform	++++ 1.9098	2.3607 1.8399	2.2871 1.8691	1.8976	1.8224	Ave		1.9981			11.3		30.0				
Cyclohexane	++++ 0.1892	0.2295 0.1817	0.2238 0.1882	0.1830	0.1814	Ave		0.1967			10.6		30.0				
1,1,1-Trichloroethane	++++ 0.3488	0.4042 0.3347	0.4117 0.3487	0.3415	0.3352	Ave		0.3607			9.1		30.0				
Carbon tetrachloride	0.3488 0.3507	0.3995 0.3411	0.4011 0.3587	0.3395	0.3395	Ave		0.3599			7.2		30.0				
Benzene	++++ 0.4857	0.6181 0.4587	0.5952 0.4703	0.4720	0.4612	Ave		0.5088			13.3		30.0				
2,2,4-Trimethylpentane	++++ 0.8659	1.0521 0.8069	0.9697 0.8288	0.8065	0.7999	Ave		0.8757			11.2		30.0				
1,2-Dichloroethane	++++ 0.2812	0.3528 0.2668	0.3238 0.2781	0.2634	0.2607	Ave		0.2896			12.1		30.0				
n-Heptane	++++ 0.3767	0.5019 0.3442	0.4154 0.3566	0.3435	0.3411	Ave		0.3828			15.4		30.0				
n-Butanol	++++ 0.1275	++++ 0.1177	++++ 0.1216	0.1123	0.1162	Ave		0.1191			4.9		30.0				
Trichloroethene	0.2754 0.2269	0.2731 0.2168	0.2817 0.2228	0.2373	0.2182	Ave		0.2440			11.4		30.0				
1,2-Dichloropropane	0.2164 0.2290	0.2936 0.2164	0.2676 0.2218	0.2202	0.2164	Ave		0.2352			12.4		30.0				
Methyl methacrylate	++++ 0.2111	++++ 0.2043	0.2089 0.2098	0.1925	0.1979	Ave		0.2041			3.7		30.0				
1,4-Dioxane	++++ 0.1089	++++ 0.1007	++++ 0.0994	0.1087	0.1081	Ave		0.1052			4.5		30.0				
Dibromomethane	++++ 0.1783	0.1937 0.1771	0.2172 0.1871	0.1783	0.1751	Ave		0.1867			8.0		30.0				
Bromodichloromethane	++++ 0.4265	0.4768 0.4096	0.4687 0.4168	0.4028	0.4015	Ave		0.4289			7.3		30.0				
cis-1,3-Dichloropropene	++++ 0.3588	0.4201 0.3413	0.3989 0.3462	0.3398	0.3357	Ave		0.3630			9.1		30.0				
Methyl isobutyl ketone	++++ 0.6081	++++ 0.5686	0.5931 0.5693	0.5430	0.5453	Ave		0.5712			4.5		30.0				
Toluene	++++ 0.3915	0.4531 0.3787	0.4516 0.3983	0.3787	0.3752	Ave		0.4039			8.4		30.0				

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Burlington

Job No.: 200-46729-1

Analy Batch No.: 138548

SDG No.: 200-46729-1

Instrument ID: CHC.i

GC Column: RTX-624

ID: 0.32 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 12/26/2018 19:09

Calibration End Date: 12/27/2018 01:22

Calibration ID: 40854

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R ² OR COD	#	MIN R ² OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8														
n-Octane	++++ 0.6349	0.8146 0.5835	0.6742 0.5744	0.5838	0.5817	Ave		0.6353			13.7		30.0				
trans-1,3-Dichloropropene	++++ 0.3469	0.4014 0.3320	0.3966 0.3354	0.3261	0.3255	Ave		0.3520			9.4		30.0				
1,1,2-Trichloroethane	++++ 0.2033	0.2433 0.1947	0.2308 0.2015	0.1938	0.1922	Ave		0.2085			9.7		30.0				
Tetrachloroethene	0.3544 0.2747	0.2923 0.2756	0.3243 0.2986	0.2712	0.2723	Ave		0.2954			10.1		30.0				
Methyl Butyl Ketone (2-Hexanone)	++++ 0.6024	++++ 0.5721	0.5894 0.5830	0.5163	0.5345	Ave		0.5663			5.9		30.0				
Dibromochloromethane	++++ 0.3709	0.3385 0.3672	0.3724 0.3881	0.3264	0.3397	Ave		0.3576			6.3		30.0				
1,2-Dibromoethane	++++ 0.3279	0.3462 0.3196	0.3648 0.3308	0.3194	0.3162	Ave		0.3321			5.3		30.0				
Chlorobenzene	++++ 0.4688	0.5591 0.4587	0.5821 0.4825	0.4683	0.4567	Ave		0.4966			10.4		30.0				
Ethylbenzene	++++ 0.8853	1.0337 0.8580	1.0279 0.8913	0.8642	0.8558	Ave		0.9166			8.6		30.0				
n-Nonane	++++ 0.5273	0.6069 0.4982	0.5525 0.5017	0.4894	0.4891	Ave		0.5236			8.3		30.0				
m,p-Xylene	++++ 0.3087	0.3378 0.3020	0.3550 0.3168	0.3087	0.3026	Ave		0.3188			6.3		30.0				
Xylene, o-	++++ 0.2963	0.3303 0.2899	0.3480 0.3022	0.2897	0.2911	Ave		0.3068			7.5		30.0				
Styrene	++++ 0.4940	0.4213 0.4878	0.4622 0.5160	0.4666	0.4803	Ave		0.4754			6.3		30.0				
Bromoform	++++ 0.3506	0.2650 0.3548	0.3100 0.3712	0.2539	0.2761	Ave		0.3117			15.3		30.0				
Cumene	++++ 0.9187	1.0151 0.8940	1.0761 0.9264	0.9195	0.9018	Ave		0.9502			7.2		30.0				
1,1,2,2-Tetrachloroethane	++++ 0.5110	0.6237 0.4885	0.5610 0.4946	0.4674	0.4913	Ave		0.5196			10.5		30.0				
n-Propylbenzene	++++ 1.1754	1.3290 1.1365	1.3342 1.1697	1.1632	1.1455	Ave		1.2076			7.1		30.0				
1,2,3-Trichloropropane	++++ 0.4460	++++ 0.4237	0.5305 0.4276	0.4400	0.4359	Ave		0.4506			8.9		30.0				
4-Ethyltoluene	++++ 0.9110	0.9787 0.8857	1.0381 0.8942	0.9069	0.8958	Ave		0.9301			6.1		30.0				
2-Chlorotoluene	++++ 0.8157	0.9604 0.7812	0.9449 0.7843	0.8102	0.7942	Ave		0.8415			9.2		30.0				

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Burlington

Job No.: 200-46729-1

Analy Batch No.: 138548

SDG No.: 200-46729-1

Instrument ID: CHC.i

GC Column: RTX-624

ID: 0.32 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 12/26/2018 19:09

Calibration End Date: 12/27/2018 01:22

Calibration ID: 40854

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8														
n-Decane	++++ 0.6556	++++ 0.6074	0.6799 0.5680	0.6176	0.6115	Ave		0.6233			6.3		30.0				
1,3,5-Trimethylbenzene	++++ 0.7556	0.8216 0.7362	0.8809 0.7539	0.7577	0.7485	Ave		0.7792			6.7		30.0				
Alpha Methyl Styrene	++++ 0.3576	0.2825 0.3532	0.3180 0.3673	0.3394	0.3545	Ave		0.3389			8.7		30.0				
tert-Butylbenzene	++++ 0.6823	0.7638 0.6676	0.8263 0.6883	0.6971	0.6844	Ave		0.7157			8.1		30.0				
1,2,4-Trimethylbenzene	++++ 0.7443	0.8278 0.7274	0.8433 0.7312	0.7517	0.7380	Ave		0.7662			6.3		30.0				
sec-Butylbenzene	++++ 1.0933	1.2188 1.0597	1.2740 1.0702	1.1091	1.0813	Ave		1.1295			7.3		30.0				
4-Isopropyltoluene	++++ 0.8958	0.9549 0.8779	1.0208 0.8859	0.8974	0.8955	Ave		0.9183			5.6		30.0				
1,3-Dichlorobenzene	++++ 0.4634	0.5114 0.4606	0.5409 0.4805	0.4697	0.4679	Ave		0.4849			6.2		30.0				
1,4-Dichlorobenzene	++++ 0.4485	0.5222 0.4464	0.5376 0.4564	0.4625	0.4596	Ave		0.4762			7.9		30.0				
Benzyl chloride	++++ 0.7684	0.8513 0.7321	0.8382 0.7178	0.7830	0.7663	Ave		0.7796			6.4		30.0				
n-Butylbenzene	++++ 0.9309	1.0218 0.8929	1.0010 0.8753	0.9343	0.9175	Ave		0.9391			5.7		30.0				
n-Undecane	++++ 0.6829	++++ 0.6211	++++ 0.6355	0.6708	0.6596	Ave		0.6540			3.9		30.0				
1,2-Dichlorobenzene	++++ 0.4272	0.4826 0.4196	0.5192 0.4274	0.4423	0.4325	Ave		0.4501			8.2		30.0				
n-Dodecane	++++ 0.6462	++++ 0.5875	++++ 0.6101	0.6725	0.6479	Ave		0.6328			5.3		30.0				
1,2,4-Trichlorobenzene	++++ 0.3397	++++ 0.3335	0.3367 0.3772	0.3491	0.3559	Ave		0.3487			4.7		30.0				
Hexachlorobutadiene	++++ 0.3224	0.3458 0.3202	0.3974 0.3460	0.3489	0.3401	Ave		0.3458			7.4		30.0				
Naphthalene	++++ 0.7078	++++ 0.6621	0.6538 0.7287	0.7489	0.7427	Ave		0.7073			5.8		30.0				
1,2,3-Trichlorobenzene	++++ 0.3074	++++ 0.2970	0.3301 0.3220	0.3151	0.3191	Ave		0.3151			3.7		30.0				

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Burlington

Job No.: 200-46729-1

Analy Batch No.: 138548

SDG No.: 200-46729-1

Instrument ID: CHC.i

GC Column: RTX-624

ID: 0.32 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 12/26/2018 19:09

Calibration End Date: 12/27/2018 01:22

Calibration ID: 40854

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-138548/4	33872-04.D
Level 2	IC 200-138548/5	33872-05.D
Level 3	IC 200-138548/6	33872-06.D
Level 4	IC 200-138548/7	33872-07.D
Level 5	ICIS 200-138548/8	33872-08.D
Level 6	IC 200-138548/9	33872-09.D
Level 7	IC 200-138548/10	33872-10.D
Level 8	IC 200-138548/11	33872-11.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
Propylene	BCM	Ave	++++ 371932	++++ 490185	++++ 1038410	116100	235586	++++ 15.0	++++ 20.0	++++ 40.0	4.99	10.00
Dichlorodifluoromethane	BCM	Ave	++++ 1121419	++++ 1367938	41705 3123260	375566	753592	++++ 15.0	++++ 20.0	0.500 40.0	4.99	10.00
Freon 22	BCM	Ave	++++ 749056	++++ 1006655	30802 2117371	236645	493366	++++ 15.0	++++ 20.0	0.500 40.0	4.99	10.00
1,2-Dichlorotetrafluoroethane	BCM	Ave	++++ 994472	11526 1328869	42183 2775303	332911	680237	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Chloromethane	BCM	Ave	++++ 346737	++++ 470972	14457 983079	109345	226981	++++ 15.0	++++ 20.0	0.500 40.0	4.99	10.00
n-Butane	BCM	Ave	++++ 579210	++++ 780999	22910 1629957	175846	368265	++++ 15.0	++++ 20.0	0.500 40.0	4.99	10.00
Vinyl chloride	BCM	Ave	919 360018	4619 485804	14323 1022341	113176	234289	0.0351 15.0	0.200 20.0	0.500 40.0	4.99	10.00
1,3-Butadiene	BCM	Ave	760 267699	3389 361195	10272 748778	81369	170918	0.0351 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Bromomethane	BCM	Ave	++++ 292683	3539 398197	12390 830676	98608	198468	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Chloroethane	BCM	Ave	++++ 162820	++++ 219199	6980 464422	53211	106493	++++ 15.0	++++ 20.0	0.500 40.0	4.99	10.00
Isopentane	BCM	Ave	++++ 394287	5649 534004	15866 1113793	125617	252647	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Bromoethene (Vinyl Bromide)	BCM	Ave	++++ 295634	3374 395177	12718 849124	100946	202953	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Trichlorofluoromethane	BCM	Ave	++++ 1012788	12195 1344672	43953 2844613	350106	702361	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
n-Pentane	BCM	Ave	++++ 679884	++++ 896022	27424 1845702	213690	433845	++++ 15.0	++++ 20.0	0.500 40.0	4.99	10.00
Ethanol	BCM	Ave	++++ 186551	++++ 358325	42831 909231	87288	131678	++++ 20.0	++++ 40.0	5.01 100.0	9.99	15.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Burlington

Job No.: 200-46729-1

Analy Batch No.: 138548

SDG No.: 200-46729-1

Instrument ID: CHC.i

GC Column: RTX-624

ID: 0.32 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 12/26/2018 19:09

Calibration End Date: 12/27/2018 01:22

Calibration ID: 40854

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
Ethyl ether	BCM	Ave	++++ 247606	3312 331677	9810 692476	80380	164482	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Acrolein	BCM	Ave	++++ 129231	++++ 173098	++++ 355498	40006	85976	++++ 15.0	++++ 20.0	++++ 40.0	4.99	10.00
Freon TF	BCM	Ave	++++ 746395	8686 990665	32321 2082253	254979	519089	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
1,1-Dichloroethene	BCM	Ave	934 322676	3906 428701	13651 902738	110590	227778	0.0351 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Acetone	BCM	Ave	++++ 694834	++++ 912728	++++ 1918099	224128	454531	++++ 15.0	++++ 20.0	++++ 40.0	4.99	10.00
Carbon disulfide	BCM	Ave	++++ 998353	++++ 1335204	++++ 2821917	332497	675995	++++ 15.0	++++ 20.0	0.500 40.0	4.99	10.00
Isopropyl alcohol	BCM	Ave	++++ 661585	++++ 867690	++++ 1808391	208334	440951	++++ 15.0	++++ 20.0	++++ 40.0	4.99	10.00
Acetonitrile	BCM	Ave	++++ 510681	++++ 677642	++++ 1350537	161354	331979	++++ 15.0	++++ 20.0	++++ 40.0	4.99	10.00
3-Chloropropene	BCM	Ave	++++ 269464	3655 361383	11007 753539	84354	173045	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Methylene Chloride	BCM	Ave	++++ 492589	++++ 655403	++++ 1375915	160082	327236	++++ 15.0	++++ 20.0	0.500 40.0	4.99	10.00
tert-Butyl alcohol	BCM	Ave	2111 887937	++++ 1175431	++++ 2465734	283882	595327	0.0351 15.0	++++ 20.0	++++ 40.0	4.99	10.00
Methyl tert-butyl ether	BCM	Ave	++++ 1136881	13330 1521275	46382 3208646	377764	777051	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
trans-1,2-Dichloroethene	BCM	Ave	++++ 602294	7826 806361	25045 1682730	199129	403719	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Acrylonitrile	BCM	Ave	++++ 261500	++++ 353217	++++ 743770	81293	172980	++++ 15.0	++++ 20.0	0.500 40.0	4.99	10.00
n-Hexane	BCM	Ave	++++ 570323	7176 760062	23280 1580097	187337	378807	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
1,1-Dichloroethane	BCM	Ave	2283 744872	9469 992495	30705 2084509	244337	497636	0.0351 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Vinyl acetate	BCM	Ave	++++ 1134696	++++ 1501828	++++ 3180625	346993	724465	++++ 15.0	++++ 20.0	++++ 40.0	4.99	10.00
cis-1,2-Dichloroethene	BCM	Ave	1227 391011	4828 513532	16994 1101524	131899	270433	0.0351 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Methyl Ethyl Ketone	BCM	Ave	++++ 198012	++++ 260466	8089 560600	65273	136342	++++ 15.0	++++ 20.0	0.500 40.0	4.99	10.00
Ethyl acetate	BCM	Ave	++++ 33479	++++ 45095	++++ 96731	11067	22636	++++ 15.0	++++ 20.0	++++ 40.0	4.99	10.00
Tetrahydrofuran	DFBZ	Ave	++++ 536351	++++ 675975	++++ 1466453	169545	352641	++++ 15.0	++++ 20.0	++++ 40.0	4.99	10.00

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Burlington

Job No.: 200-46729-1

Analy Batch No.: 138548

SDG No.: 200-46729-1

Instrument ID: CHC.i

GC Column: RTX-624

ID: 0.32 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 12/26/2018 19:09

Calibration End Date: 12/27/2018 01:22

Calibration ID: 40854

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
Chloroform	BCM	Ave	++++ 981999	11939 1273675	41123 2725352	333461	670553	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Cyclohexane	DFBZ	Ave	++++ 556318	6689 730339	23608 1549420	188881	386743	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
1,1,1-Trichloroethane	DFBZ	Ave	++++ 1025614	11780 1345487	43425 2870168	352447	714772	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Carbon tetrachloride	DFBZ	Ave	2631 1031193	11641 1371097	42312 2952303	350464	723925	0.0351 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Benzene	DFBZ	Ave	++++ 1428201	18012 1843870	62780 3871565	487211	983425	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
2,2,4-Trimethylpentane	DFBZ	Ave	++++ 2545984	30659 3243292	102287 6821996	832441	1705587	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
1,2-Dichloroethane	DFBZ	Ave	++++ 826880	10281 1072396	34151 2289293	271910	555957	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
n-Heptane	DFBZ	Ave	++++ 1107733	14625 1383487	43811 2935672	354537	727448	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
n-Butanol	DFBZ	Ave	++++ 374944	++++ 473045	++++ 1000684	115914	247858	++++ 15.0	++++ 20.0	++++ 40.0	4.99	10.00
Trichloroethene	DFBZ	Ave	2077 667139	7959 871323	29715 1834164	244925	465330	0.0351 15.0	0.200 20.0	0.500 40.0	4.99	10.00
1,2-Dichloropropane	DFBZ	Ave	1632 673460	8555 869635	28227 1825678	227319	461358	0.0351 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Methyl methacrylate	DFBZ	Ave	++++ 620802	++++ 821161	22039 1727178	198675	422065	++++ 15.0	++++ 20.0	0.500 40.0	4.99	10.00
1,4-Dioxane	DFBZ	Ave	++++ 320095	++++ 404832	++++ 818450	112235	230531	++++ 15.0	++++ 20.0	++++ 40.0	4.99	10.00
Dibromomethane	DFBZ	Ave	++++ 524380	5644 711665	22907 1540253	184024	373291	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Bromodichloromethane	DFBZ	Ave	++++ 1253994	13894 1646327	49435 3430643	415719	856220	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
cis-1,3-Dichloropropene	DFBZ	Ave	++++ 1055078	12243 1371954	42070 2849729	350790	715753	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Methyl isobutyl ketone	DFBZ	Ave	++++ 1788030	++++ 2285266	62555 4686513	560482	1162792	++++ 15.0	++++ 20.0	0.500 40.0	4.99	10.00
Toluene	CBNZ d5	Ave	++++ 1112595	13181 1460556	47276 3046797	385543	782163	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
n-Octane	DFBZ	Ave	++++ 1866853	23739 2345397	71113 4728200	602569	1240340	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
trans-1,3-Dichloropropene	DFBZ	Ave	++++ 1020067	11698 1334472	41834 2761198	336559	693989	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
1,1,2-Trichloroethane	CBNZ d5	Ave	++++ 577642	7078 751007	24165 1541138	197302	400553	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Burlington

Job No.: 200-46729-1

Analy Batch No.: 138548

SDG No.: 200-46729-1

Instrument ID: CHC.i

GC Column: RTX-624

ID: 0.32 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 12/26/2018 19:09

Calibration End Date: 12/27/2018 01:22

Calibration ID: 40854

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
Tetrachloroethene	CBNZ d5	Ave	2677 780579	8502 1062924	33953 2283898	276092	567706	0.0351 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Methyl Butyl Ketone (2-Hexanone)	CBNZ d5	Ave	++++ 1711660	++++ 2206708	61705 4459047	525670	1114075	++++ 15.0	++++ 20.0	0.500 40.0	4.99	10.00
Dibromochloromethane	CBNZ d5	Ave	++++ 1054027	9846 1416395	38986 2968761	332326	708063	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
1,2-Dibromoethane	CBNZ d5	Ave	++++ 931736	10071 1232610	38193 2530349	325215	659046	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Chlorobenzene	CBNZ d5	Ave	++++ 1332254	16263 1769363	60932 3690464	476825	951897	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Ethylbenzene	CBNZ d5	Ave	++++ 2515605	30069 3309410	107605 6816822	879867	1783900	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
n-Nonane	CBNZ d5	Ave	++++ 1498297	17654 1921542	57841 3837131	498256	1019528	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
m,p-Xylene	CBNZ d5	Ave	++++ 1754495	19651 2329572	74321 4846025	628700	1261427	++++ 30.0	0.401 40.0	1.00 80.0	9.99	20.0
Xylene, o-	CBNZ d5	Ave	++++ 841871	9607 1118269	36428 2311617	294983	606864	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Styrene	CBNZ d5	Ave	++++ 1403856	12256 1881488	48384 3946570	475025	1001115	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Bromoform	CBNZ d5	Ave	++++ 996264	7709 1368534	32447 2838927	258513	575620	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Cumene	CBNZ d5	Ave	++++ 2610435	29529 3448356	112652 7085822	936214	1879769	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
1,1,2,2-Tetrachloroethane	CBNZ d5	Ave	++++ 1451946	18144 1884066	58730 3783071	475855	1024210	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
n-Propylbenzene	CBNZ d5	Ave	++++ 3340062	38662 4383575	139669 8946241	1184344	2387728	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
1,2,3-Trichloropropane	CBNZ d5	Ave	++++ 1267416	++++ 1634186	55538 3270640	448020	908601	++++ 15.0	++++ 20.0	0.500 40.0	4.99	10.00
4-Ethyltoluene	CBNZ d5	Ave	++++ 2588742	28469 3416481	108670 6839499	923353	1867223	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
2-Chlorotoluene	CBNZ d5	Ave	++++ 2317898	27938 3013318	98917 5998453	824872	1655425	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
n-Decane	CBNZ d5	Ave	++++ 1862963	++++ 2342811	71169 4344047	628806	1274658	++++ 15.0	++++ 20.0	0.500 40.0	4.99	10.00
1,3,5-Trimethylbenzene	CBNZ d5	Ave	++++ 2147147	23899 2839546	92212 5766415	771407	1560162	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Alpha Methyl Styrene	CBNZ d5	Ave	++++ 1016134	8217 1362523	33285 2809205	345552	738873	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
tert-Butylbenzene	CBNZ d5	Ave	++++ 1938683	22219 2575104	86497 5264420	709705	1426662	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Burlington

Job No.: 200-46729-1

Analy Batch No.: 138548

SDG No.: 200-46729-1

Instrument ID: CHC.i

GC Column: RTX-624

ID: 0.32 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 12/26/2018 19:09

Calibration End Date: 12/27/2018 01:22

Calibration ID: 40854

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
1,2,4-Trimethylbenzene	CBNZ d5	Ave	++++ 2114934	24080 2805868	88278 5592614	765333	1538368	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
sec-Butylbenzene	CBNZ d5	Ave	++++ 3106758	35456 4087513	133364 8185340	1129257	2253943	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
4-Isopropyltoluene	CBNZ d5	Ave	++++ 2545393	27779 3386398	106860 6775794	913700	1866621	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
1,3-Dichlorobenzene	CBNZ d5	Ave	++++ 1316749	14876 1776688	56623 3675172	478220	975446	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
1,4-Dichlorobenzene	CBNZ d5	Ave	++++ 1274444	15192 1721840	56277 3491006	470861	958053	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Benzyl chloride	CBNZ d5	Ave	++++ 2183550	24765 2823958	87749 5490407	797170	1597422	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
n-Butylbenzene	CBNZ d5	Ave	++++ 2645246	29723 3444172	104789 6694940	951281	1912477	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
n-Undecane	CBNZ d5	Ave	++++ 1940390	++++ 2395768	++++ 4860745	682919	1374891	++++ 15.0	++++ 20.0	++++ 40.0	4.99	10.00
1,2-Dichlorobenzene	CBNZ d5	Ave	++++ 1213916	14039 1618376	54351 3269121	450359	901541	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
n-Dodecane	CBNZ d5	Ave	++++ 1836243	++++ 2266217	++++ 4666452	684658	1350494	++++ 15.0	++++ 20.0	++++ 40.0	4.99	10.00
1,2,4-Trichlorobenzene	CBNZ d5	Ave	++++ 965396	++++ 1286288	35249 2884912	355426	741825	++++ 15.0	++++ 20.0	0.500 40.0	4.99	10.00
Hexachlorobutadiene	CBNZ d5	Ave	++++ 916050	10058 1235128	41606 2646099	355272	708903	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Naphthalene	CBNZ d5	Ave	++++ 2011186	++++ 2553797	68440 5573607	762451	1548245	++++ 15.0	++++ 20.0	0.500 40.0	4.99	10.00
1,2,3-Trichlorobenzene	CBNZ d5	Ave	++++ 873509	++++ 1145585	34551 2463019	320824	665161	++++ 15.0	++++ 20.0	0.500 40.0	4.99	10.00

Curve Type Legend:

Ave = Average ISTD

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 200-46729-1
 SDG No.: 200-46729-1
 Lab Sample ID: CCVIS 200-138574/2 Calibration Date: 12/27/2018 11:26
 Instrument ID: CHC.i Calib Start Date: 12/10/2018 18:38
 GC Column: RTX-624 ID: 0.32 (mm) Calib End Date: 12/11/2018 11:42
 Lab File ID: 33879-02.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Isopentane	Ave	0.5922	0.8156		10.0	10.0	37.7*	30.0
n-Pentane	Ave	0.9512	1.372		10.6	10.0	44.3*	30.0
Ethyl ether	Ave	0.3814	0.4911		9.71	10.0	28.8	30.0
Acrolein	Ave	0.1508	0.2626		10.9	10.0	74.1*	30.0
Acetonitrile	Ave	0.3765	1.081		11.5	10.0	187.1*	30.0
Acrylonitrile	Ave	0.3770	0.5368		10.7	10.0	42.4*	30.0
n-Butanol	Ave	0.0898	0.1345		11.3	10.0	49.8*	30.0
Dibromomethane	Ave	0.2209	0.1728		9.25	10.0	-21.8	30.0
n-Octane	Ave	0.3627	0.6959		11.0	10.0	91.9*	30.0
n-Nonane	Ave	0.3576	0.5537		10.6	10.0	54.9*	30.0
1,2,3-Trichloropropane	Ave	0.3826	0.4689		10.4	10.0	22.5	30.0
n-Decane	Ave	0.4570	0.6920		11.1	10.0	51.4*	30.0
Alpha Methyl Styrene	Ave	0.3438	0.3420		10.1	10.0	-0.5	30.0
n-Undecane	Ave	0.5318	0.7376		11.3	10.0	38.7*	30.0
n-Dodecane	Ave	0.5241	0.7011		11.1	10.0	33.8*	30.0
1,2,3-Trichlorobenzene	Ave	0.4011	0.2840		9.01	10.0	-29.2	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 200-46729-1
 SDG No.: 200-46729-1
 Lab Sample ID: CCVIS 200-138574/2 Calibration Date: 12/27/2018 11:26
 Instrument ID: CHC.i Calib Start Date: 12/26/2018 19:09
 GC Column: RTX-624 ID: 0.32 (mm) Calib End Date: 12/27/2018 01:22
 Lab File ID: 33879-02.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Propylene	Ave	0.6889	0.7796		11.3	10.0	13.2	30.0
Dichlorodifluoromethane	Ave	2.134	2.154		10.1	10.0	0.9	30.0
Freon 22	Ave	1.461	1.537		10.5	10.0	5.3	30.0
1,2-Dichlorotetrafluoroethane	Ave	2.018	1.950		9.66	10.0	-3.4	30.0
Chloromethane	Ave	0.6787	0.7019		10.3	10.0	3.4	30.0
n-Butane	Ave	1.108	1.152		10.4	10.0	4.0	30.0
Vinyl chloride	Ave	0.7296	0.7084		9.71	10.0	-2.9	30.0
1,3-Butadiene	Ave	0.5424	0.5191		9.57	10.0	-4.3	30.0
Bromomethane	Ave	0.6005	0.5698		9.49	10.0	-5.1	30.0
Chloroethane	Ave	0.3220	0.3183		9.88	10.0	-1.2	30.0
Bromoethene (Vinyl Bromide)	Ave	0.6041	0.5661		9.37	10.0	-6.3	30.0
Trichlorofluoromethane	Ave	2.089	1.988		9.52	10.0	-4.8	30.0
Ethanol	Ave	0.2507	0.2817		16.9	15.0	12.4	30.0
Freon TF	Ave	1.527	1.462		9.58	10.0	-4.2	30.0
1,1-Dichloroethene	Ave	0.6751	0.6303		9.33	10.0	-6.6	30.0
Acetone	Ave	1.299	1.483		11.4	10.0	14.2	30.0
Carbon disulfide	Ave	1.980	1.998		10.1	10.0	0.9	30.0
Isopropyl alcohol	Ave	1.233	1.393		11.3	10.0	13.0	30.0
3-Chloropropene	Ave	0.5497	0.5692		10.4	10.0	3.5	30.0
Methylene Chloride	Ave	0.9608	1.035		10.8	10.0	7.7	30.0
tert-Butyl alcohol	Ave	1.676	1.802		10.7	10.0	7.5	30.0
Methyl tert-butyl ether	Ave	2.298	2.248		9.78	10.0	-2.2	30.0
trans-1,2-Dichloroethene	Ave	1.237	1.239		10.0	10.0	0.1	30.0
n-Hexane	Ave	1.157	1.151		9.94	10.0	-0.6	30.0
1,1-Dichloroethane	Ave	1.560	1.498		9.60	10.0	-4.0	30.0
Vinyl acetate	Ave	2.100	2.361		11.2	10.0	12.4	30.0
cis-1,2-Dichloroethene	Ave	0.8294	0.7651		9.22	10.0	-7.7	30.0
Methyl Ethyl Ketone	Ave	0.3896	0.3971		10.2	10.0	1.9	30.0
Ethyl acetate	Ave	0.0642	0.0640		9.96	10.0	-0.3	30.0
Tetrahydrofuran	Ave	0.1717	0.2006		11.7	10.0	16.8	30.0
Chloroform	Ave	1.998	1.948		9.75	10.0	-2.5	30.0
Cyclohexane	Ave	0.1967	0.1912		9.72	10.0	-2.8	30.0
1,1,1-Trichloroethane	Ave	0.3607	0.3593		9.96	10.0	-0.4	30.0
Carbon tetrachloride	Ave	0.3599	0.3531		9.81	10.0	-1.9	30.0
Benzene	Ave	0.5088	0.5000		9.83	10.0	-1.7	30.0
2,2,4-Trimethylpentane	Ave	0.8757	0.9141		10.4	10.0	4.4	30.0
1,2-Dichloroethane	Ave	0.2896	0.3004		10.4	10.0	3.7	30.0
n-Heptane	Ave	0.3828	0.4095		10.7	10.0	7.0	30.0
Trichloroethene	Ave	0.2440	0.2363		9.68	10.0	-3.2	30.0
1,2-Dichloropropane	Ave	0.2352	0.2443		10.4	10.0	3.9	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 200-46729-1
 SDG No.: 200-46729-1
 Lab Sample ID: CCVIS 200-138574/2 Calibration Date: 12/27/2018 11:26
 Instrument ID: CHC.i Calib Start Date: 12/26/2018 19:09
 GC Column: RTX-624 ID: 0.32 (mm) Calib End Date: 12/27/2018 01:22
 Lab File ID: 33879-02.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methyl methacrylate	Ave	0.2041	0.2197		10.8	10.0	7.6	30.0
1,4-Dioxane	Ave	0.1052	0.1137		10.8	10.0	8.1	30.0
Bromodichloromethane	Ave	0.4289	0.4423		10.3	10.0	3.1	30.0
cis-1,3-Dichloropropene	Ave	0.3630	0.3700		10.2	10.0	1.9	30.0
Methyl isobutyl ketone	Ave	0.5712	0.6716		11.8	10.0	17.6	30.0
Toluene	Ave	0.4039	0.3843		9.51	10.0	-4.9	30.0
trans-1,3-Dichloropropene	Ave	0.3520	0.3603		10.2	10.0	2.4	30.0
1,1,2-Trichloroethane	Ave	0.2085	0.2097		10.1	10.0	0.6	30.0
Tetrachloroethene	Ave	0.2954	0.2542		8.60	10.0	-14.0	30.0
Methyl Butyl Ketone (2-Hexanone)	Ave	0.5663	0.6480		11.4	10.0	14.4	30.0
Dibromochloromethane	Ave	0.3576	0.3462		9.68	10.0	-3.2	30.0
1,2-Dibromoethane	Ave	0.3321	0.3299		9.93	10.0	-0.7	30.0
Chlorobenzene	Ave	0.4966	0.4584		9.23	10.0	-7.7	30.0
Ethylbenzene	Ave	0.9166	0.8760		9.56	10.0	-4.4	30.0
m,p-Xylene	Ave	0.3188	0.3010		18.9	20.0	-5.6	30.0
Xylene, o-	Ave	0.3068	0.2873		9.36	10.0	-6.4	30.0
Styrene	Ave	0.4754	0.4797		10.1	10.0	0.9	30.0
Bromoform	Ave	0.3117	0.2627		8.43	10.0	-15.7	30.0
Cumene	Ave	0.9502	0.9001		9.47	10.0	-5.3	30.0
1,1,2,2-Tetrachloroethane	Ave	0.5196	0.5330		10.3	10.0	2.6	30.0
n-Propylbenzene	Ave	1.208	1.182		9.78	10.0	-2.2	30.0
4-Ethyltoluene	Ave	0.9301	0.8903		9.57	10.0	-4.3	30.0
2-Chlorotoluene	Ave	0.8415	0.8221		9.77	10.0	-2.3	30.0
1,3,5-Trimethylbenzene	Ave	0.7792	0.7418		9.52	10.0	-4.8	30.0
tert-Butylbenzene	Ave	0.7157	0.6582		9.19	10.0	-8.0	30.0
1,2,4-Trimethylbenzene	Ave	0.7662	0.7335		9.57	10.0	-4.3	30.0
sec-Butylbenzene	Ave	1.129	1.078		9.54	10.0	-4.6	30.0
4-Isopropyltoluene	Ave	0.9183	0.8603		9.37	10.0	-6.3	30.0
1,3-Dichlorobenzene	Ave	0.4849	0.4426		9.13	10.0	-8.7	30.0
1,4-Dichlorobenzene	Ave	0.4762	0.4311		9.05	10.0	-9.5	30.0
Benzyl chloride	Ave	0.7796	0.7919		10.2	10.0	1.6	30.0
n-Butylbenzene	Ave	0.9391	0.9438		10.0	10.0	0.5	30.0
1,2-Dichlorobenzene	Ave	0.4501	0.4063		9.03	10.0	-9.7	30.0
1,2,4-Trichlorobenzene	Ave	0.3487	0.3151		9.03	10.0	-9.6	30.0
Hexachlorobutadiene	Ave	0.3458	0.2950		8.53	10.0	-14.7	30.0
Naphthalene	Ave	0.7073	0.6856		9.69	10.0	-3.1	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 200-46729-1
 SDG No.: 200-46729-1
 Lab Sample ID: ICV 200-138574/5 Calibration Date: 12/27/2018 14:05
 Instrument ID: CHC.i Calib Start Date: 12/10/2018 18:38
 GC Column: RTX-624 ID: 0.32 (mm) Calib End Date: 12/11/2018 11:42
 Lab File ID: 33879-05.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Isopentane	Ave	0.5922	0.8322		10.2	10.0	40.5*	30.0
n-Pentane	Ave	0.9512	1.434		11.0	10.0	50.8*	30.0
Ethyl ether	Ave	0.3814	0.5103		10.1	10.0	33.8*	30.0
Acrolein	Ave	0.1508	0.2707		11.2	10.0	79.5*	30.0
Acetonitrile	Ave	0.3765	1.104		11.7	10.0	193.3*	30.0
n-Butanol	Ave	0.0898	0.1386		11.6	10.0	54.4*	30.0
Dibromomethane	Ave	0.2209	0.1710		9.16	10.0	-22.6	30.0
n-Octane	Ave	0.3627	0.7203		11.3	10.0	98.6*	30.0
n-Nonane	Ave	0.3576	0.5718		10.9	10.0	59.9*	30.0
1,2,3-Trichloropropane	Ave	0.3826	0.4806		10.7	10.0	25.6	30.0
n-Decane	Ave	0.4570	0.7193		11.5	10.0	57.4*	30.0
Alpha Methyl Styrene	Ave	0.3438	0.3436		10.1	10.0	-0.0	30.0
n-Undecane	Ave	0.5318	0.7605		11.6	10.0	43.0*	30.0
n-Dodecane	Ave	0.5241	0.7482		11.8	10.0	42.8*	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 200-46729-1
 SDG No.: 200-46729-1
 Lab Sample ID: ICV 200-138574/5 Calibration Date: 12/27/2018 14:05
 Instrument ID: CHC.i Calib Start Date: 12/26/2018 19:09
 GC Column: RTX-624 ID: 0.32 (mm) Calib End Date: 12/27/2018 01:22
 Lab File ID: 33879-05.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Propylene	Ave	0.6889	0.7618		11.1	10.0	10.6	30.0
Dichlorodifluoromethane	Ave	2.134	2.126		9.96	10.0	-0.4	30.0
Freon 22	Ave	1.461	1.541		10.6	10.0	5.5	30.0
1,2-Dichlorotetrafluoroethane	Ave	2.018	1.936		9.59	10.0	-4.0	30.0
Chloromethane	Ave	0.6787	0.7289		10.7	10.0	7.4	30.0
n-Butane	Ave	1.108	1.180		10.6	10.0	6.5	30.0
Vinyl chloride	Ave	0.7296	0.7268		9.96	10.0	-0.4	30.0
1,3-Butadiene	Ave	0.5424	0.5305		9.78	10.0	-2.2	30.0
Bromomethane	Ave	0.6005	0.5760		9.59	10.0	-4.1	30.0
Chloroethane	Ave	0.3220	0.3320		10.3	10.0	3.1	30.0
Bromoethene (Vinyl Bromide)	Ave	0.6041	0.5708		9.45	10.0	-5.5	30.0
Trichlorofluoromethane	Ave	2.089	1.965		9.40	10.0	-5.9	30.0
Ethanol	Ave	0.2507	0.2924		17.5	15.0	16.6	30.0
Freon TF	Ave	1.527	1.459		9.55	10.0	-4.4	30.0
1,1-Dichloroethene	Ave	0.6751	0.6409		9.49	10.0	-5.1	30.0
Acetone	Ave	1.299	1.506		11.6	10.0	15.9	30.0
Carbon disulfide	Ave	1.980	2.017		10.2	10.0	1.9	30.0
Isopropyl alcohol	Ave	1.233	1.435		11.6	10.0	16.4	30.0
3-Chloropropene	Ave	0.5497	0.6110		11.1	10.0	11.1	30.0
Methylene Chloride	Ave	0.9608	1.064		11.1	10.0	10.8	30.0
tert-Butyl alcohol	Ave	1.676	1.816		10.8	10.0	8.3	30.0
Methyl tert-butyl ether	Ave	2.298	2.257		9.82	10.0	-1.8	30.0
trans-1,2-Dichloroethene	Ave	1.237	1.258		10.2	10.0	1.7	30.0
Acrylonitrile	Ave	0.5001	0.5517		11.0	10.0	10.3	30.0
n-Hexane	Ave	1.157	1.178		10.2	10.0	1.8	30.0
1,1-Dichloroethane	Ave	1.560	1.532		9.82	10.0	-1.8	30.0
Vinyl acetate	Ave	2.100	2.416		11.5	10.0	15.1	30.0
cis-1,2-Dichloroethene	Ave	0.8294	0.7639		9.21	10.0	-7.9	30.0
Methyl Ethyl Ketone	Ave	0.3896	0.3996		10.3	10.0	2.6	30.0
Ethyl acetate	Ave	0.0642	0.0654		10.2	10.0	1.9	30.0
Tetrahydrofuran	Ave	0.1717	0.2107		12.3	10.0	22.8	30.0
Chloroform	Ave	1.998	1.962		9.82	10.0	-1.8	30.0
Cyclohexane	Ave	0.1967	0.1957		9.95	10.0	-0.5	30.0
1,1,1-Trichloroethane	Ave	0.3607	0.3580		9.92	10.0	-0.7	30.0
Carbon tetrachloride	Ave	0.3599	0.3533		9.82	10.0	-1.8	30.0
2,2,4-Trimethylpentane	Ave	0.8757	0.9412		10.7	10.0	7.5	30.0
Benzene	Ave	0.5088	0.5082		9.99	10.0	-0.1	30.0
1,2-Dichloroethane	Ave	0.2896	0.3073		10.6	10.0	6.1	30.0
n-Heptane	Ave	0.3828	0.4296		11.2	10.0	12.2	30.0
Trichloroethene	Ave	0.2440	0.2346		9.61	10.0	-3.9	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 200-46729-1
 SDG No.: 200-46729-1
 Lab Sample ID: ICV 200-138574/5 Calibration Date: 12/27/2018 14:05
 Instrument ID: CHC.i Calib Start Date: 12/26/2018 19:09
 GC Column: RTX-624 ID: 0.32 (mm) Calib End Date: 12/27/2018 01:22
 Lab File ID: 33879-05.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dichloropropane	Ave	0.2352	0.2499		10.6	10.0	6.3	30.0
Methyl methacrylate	Ave	0.2041	0.2204		10.8	10.0	8.0	30.0
1,4-Dioxane	Ave	0.1052	0.1128		10.7	10.0	7.3	30.0
Bromodichloromethane	Ave	0.4289	0.4410		10.3	10.0	2.8	30.0
cis-1,3-Dichloropropene	Ave	0.3630	0.3739		10.3	10.0	3.0	30.0
Methyl isobutyl ketone	Ave	0.5712	0.6898		12.1	10.0	20.8	30.0
Toluene	Ave	0.4039	0.3891		9.63	10.0	-3.7	30.0
trans-1,3-Dichloropropene	Ave	0.3520	0.3598		10.2	10.0	2.2	30.0
1,1,2-Trichloroethane	Ave	0.2085	0.2147		10.3	10.0	3.0	30.0
Tetrachloroethene	Ave	0.2954	0.2575		8.71	10.0	-12.8	30.0
Methyl Butyl Ketone (2-Hexanone)	Ave	0.5663	0.6803		12.0	10.0	20.1	30.0
Dibromochloromethane	Ave	0.3576	0.3437		9.61	10.0	-3.9	30.0
1,2-Dibromoethane	Ave	0.3321	0.3259		9.81	10.0	-1.9	30.0
Chlorobenzene	Ave	0.4966	0.4590		9.24	10.0	-7.6	30.0
Ethylbenzene	Ave	0.9166	0.8860		9.66	10.0	-3.3	30.0
m,p-Xylene	Ave	0.3188	0.3013		18.9	20.0	-5.5	30.0
Xylene, o-	Ave	0.3068	0.2902		9.46	10.0	-5.4	30.0
Styrene	Ave	0.4754	0.4806		10.1	10.0	1.1	30.0
Bromoform	Ave	0.3117	0.2647		8.49	10.0	-15.1	30.0
Cumene	Ave	0.9502	0.8999		9.47	10.0	-5.3	30.0
1,1,2,2-Tetrachloroethane	Ave	0.5196	0.5403		10.4	10.0	4.0	30.0
n-Propylbenzene	Ave	1.208	1.191		9.86	10.0	-1.4	30.0
4-Ethyltoluene	Ave	0.9301	0.8975		9.65	10.0	-3.5	30.0
2-Chlorotoluene	Ave	0.8415	0.8337		9.91	10.0	-0.9	30.0
1,3,5-Trimethylbenzene	Ave	0.7792	0.7453		9.56	10.0	-4.3	30.0
tert-Butylbenzene	Ave	0.7157	0.6626		9.26	10.0	-7.4	30.0
1,2,4-Trimethylbenzene	Ave	0.7662	0.7424		9.69	10.0	-3.1	30.0
sec-Butylbenzene	Ave	1.129	1.075		9.52	10.0	-4.8	30.0
4-Isopropyltoluene	Ave	0.9183	0.8623		9.39	10.0	-6.1	30.0
1,3-Dichlorobenzene	Ave	0.4849	0.4446		9.17	10.0	-8.3	30.0
1,4-Dichlorobenzene	Ave	0.4762	0.4346		9.13	10.0	-8.7	30.0
Benzyl chloride	Ave	0.7796	0.8030		10.3	10.0	3.0	30.0
n-Butylbenzene	Ave	0.9391	0.9523		10.1	10.0	1.4	30.0
1,2-Dichlorobenzene	Ave	0.4501	0.4101		9.11	10.0	-8.9	30.0
1,2,4-Trichlorobenzene	Ave	0.3487	0.3230		9.26	10.0	-7.4	30.0
Hexachlorobutadiene	Ave	0.3458	0.2978		8.61	10.0	-13.9	30.0
Naphthalene	Ave	0.7073	0.6952		9.83	10.0	-1.7	30.0
1,2,3-Trichlorobenzene	Ave	0.3151	0.2865		9.09	10.0	-9.1	30.0

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-46729-1
 SDG No.: 200-46729-1
 Client Sample ID: _____ Lab Sample ID: MB 200-138574/6
 Matrix: Air Lab File ID: 33879-06.D
 Analysis Method: TO-15 Date Collected: _____
 Sample wt/vol: 200 (mL) Date Analyzed: 12/27/2018 14:59
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: RTX-624 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 138574 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
75-71-8	Dichlorodifluoromethane	120.91	0.50	U	0.50	
76-14-2	1,2-Dichlorotetrafluoroethane	170.92	0.20	U	0.20	
74-87-3	Chloromethane	50.49	0.50	U	0.50	
75-01-4	Vinyl chloride	62.50	0.20	U	0.20	
74-83-9	Bromomethane	94.94	0.20	U	0.20	
75-00-3	Chloroethane	64.52	0.50	U	0.50	
75-69-4	Trichlorofluoromethane	137.37	0.20	U	0.20	
76-13-1	Freon TF	187.38	0.20	U	0.20	
75-35-4	1,1-Dichloroethene	96.94	0.20	U	0.20	
75-09-2	Methylene Chloride	84.93	0.50	U	0.50	
75-34-3	1,1-Dichloroethane	98.96	0.20	U	0.20	
156-59-2	cis-1,2-Dichloroethene	96.94	0.20	U	0.20	
67-66-3	Chloroform	119.38	0.20	U	0.20	
71-55-6	1,1,1-Trichloroethane	133.41	0.20	U	0.20	
56-23-5	Carbon tetrachloride	153.81	0.20	U	0.20	
71-43-2	Benzene	78.11	0.20	U	0.20	
107-06-2	1,2-Dichloroethane	98.96	0.20	U	0.20	
79-01-6	Trichloroethene	131.39	0.20	U	0.20	
78-87-5	1,2-Dichloropropane	112.99	0.20	U	0.20	
10061-01-5	cis-1,3-Dichloropropene	110.97	0.20	U	0.20	
108-88-3	Toluene	92.14	0.20	U	0.20	
10061-02-6	trans-1,3-Dichloropropene	110.97	0.20	U	0.20	
79-00-5	1,1,2-Trichloroethane	133.41	0.20	U	0.20	
127-18-4	Tetrachloroethene	165.83	0.20	U	0.20	
106-93-4	1,2-Dibromoethane	187.87	0.20	U	0.20	
108-90-7	Chlorobenzene	112.56	0.20	U	0.20	
100-41-4	Ethylbenzene	106.17	0.20	U	0.20	
179601-23-1	m,p-Xylene	106.17	0.50	U	0.50	
95-47-6	Xylene, o-	106.17	0.20	U	0.20	
100-42-5	Styrene	104.15	0.20	U	0.20	
79-34-5	1,1,2,2-Tetrachloroethane	167.85	0.20	U	0.20	
108-67-8	1,3,5-Trimethylbenzene	120.20	0.20	U	0.20	
95-63-6	1,2,4-Trimethylbenzene	120.20	0.20	U	0.20	
541-73-1	1,3-Dichlorobenzene	147.00	0.20	U	0.20	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-46729-1
 SDG No.: 200-46729-1
 Client Sample ID: _____ Lab Sample ID: MB 200-138574/6
 Matrix: Air Lab File ID: 33879-06.D
 Analysis Method: TO-15 Date Collected: _____
 Sample wt/vol: 200 (mL) Date Analyzed: 12/27/2018 14:59
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: RTX-624 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 138574 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
106-46-7	1,4-Dichlorobenzene	147.00	0.20	U	0.20	
95-50-1	1,2-Dichlorobenzene	147.00	0.20	U	0.20	
120-82-1	1,2,4-Trichlorobenzene	181.45	0.50	U	0.50	
87-68-3	Hexachlorobutadiene	260.76	0.20	U	0.20	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-46729-1
 SDG No.: 200-46729-1
 Client Sample ID: _____ Lab Sample ID: MB 200-138574/6
 Matrix: Air Lab File ID: 33879-06.D
 Analysis Method: TO-15 Date Collected: _____
 Sample wt/vol: 200 (mL) Date Analyzed: 12/27/2018 14:59
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: RTX-624 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 138574 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL
75-71-8	Dichlorodifluoromethane	120.91	2.5	U	2.5
76-14-2	1,2-Dichlorotetrafluoroethane	170.92	1.4	U	1.4
74-87-3	Chloromethane	50.49	1.0	U	1.0
75-01-4	Vinyl chloride	62.50	0.51	U	0.51
74-83-9	Bromomethane	94.94	0.78	U	0.78
75-00-3	Chloroethane	64.52	1.3	U	1.3
75-69-4	Trichlorofluoromethane	137.37	1.1	U	1.1
76-13-1	Freon TF	187.38	1.5	U	1.5
75-35-4	1,1-Dichloroethene	96.94	0.79	U	0.79
75-09-2	Methylene Chloride	84.93	1.7	U	1.7
75-34-3	1,1-Dichloroethane	98.96	0.81	U	0.81
156-59-2	cis-1,2-Dichloroethene	96.94	0.79	U	0.79
67-66-3	Chloroform	119.38	0.98	U	0.98
71-55-6	1,1,1-Trichloroethane	133.41	1.1	U	1.1
56-23-5	Carbon tetrachloride	153.81	1.3	U	1.3
71-43-2	Benzene	78.11	0.64	U	0.64
107-06-2	1,2-Dichloroethane	98.96	0.81	U	0.81
79-01-6	Trichloroethene	131.39	1.1	U	1.1
78-87-5	1,2-Dichloropropane	112.99	0.92	U	0.92
10061-01-5	cis-1,3-Dichloropropene	110.97	0.91	U	0.91
108-88-3	Toluene	92.14	0.75	U	0.75
10061-02-6	trans-1,3-Dichloropropene	110.97	0.91	U	0.91
79-00-5	1,1,2-Trichloroethane	133.41	1.1	U	1.1
127-18-4	Tetrachloroethene	165.83	1.4	U	1.4
106-93-4	1,2-Dibromoethane	187.87	1.5	U	1.5
108-90-7	Chlorobenzene	112.56	0.92	U	0.92
100-41-4	Ethylbenzene	106.17	0.87	U	0.87
179601-23-1	m,p-Xylene	106.17	2.2	U	2.2
95-47-6	Xylene, o-	106.17	0.87	U	0.87
100-42-5	Styrene	104.15	0.85	U	0.85
79-34-5	1,1,2,2-Tetrachloroethane	167.85	1.4	U	1.4
108-67-8	1,3,5-Trimethylbenzene	120.20	0.98	U	0.98
95-63-6	1,2,4-Trimethylbenzene	120.20	0.98	U	0.98
541-73-1	1,3-Dichlorobenzene	147.00	1.2	U	1.2

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-46729-1
 SDG No.: 200-46729-1
 Client Sample ID: _____ Lab Sample ID: MB 200-138574/6
 Matrix: Air Lab File ID: 33879-06.D
 Analysis Method: TO-15 Date Collected: _____
 Sample wt/vol: 200 (mL) Date Analyzed: 12/27/2018 14:59
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: RTX-624 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 138574 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
106-46-7	1,4-Dichlorobenzene	147.00	1.2	U	1.2	
95-50-1	1,2-Dichlorobenzene	147.00	1.2	U	1.2	
120-82-1	1,2,4-Trichlorobenzene	181.45	3.7	U	3.7	
87-68-3	Hexachlorobutadiene	260.76	2.1	U	2.1	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-46729-1
 SDG No.: 200-46729-1
 Client Sample ID: _____ Lab Sample ID: LCS 200-138574/30
 Matrix: Air Lab File ID: 33879-10.D
 Analysis Method: TO-15 Date Collected: _____
 Sample wt/vol: 200 (mL) Date Analyzed: 12/27/2018 18:52
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: RTX-624 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 138574 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL
75-71-8	Dichlorodifluoromethane	120.91	10.5		0.50
76-14-2	1,2-Dichlorotetrafluoroethane	170.92	9.94		0.20
74-87-3	Chloromethane	50.49	11.1		0.50
75-01-4	Vinyl chloride	62.50	10.4		0.20
74-83-9	Bromomethane	94.94	9.92		0.20
75-00-3	Chloroethane	64.52	10.7		0.50
75-69-4	Trichlorofluoromethane	137.37	9.65		0.20
76-13-1	Freon TF	187.38	9.69		0.20
75-35-4	1,1-Dichloroethene	96.94	9.64		0.20
75-09-2	Methylene Chloride	84.93	11.2		0.50
75-34-3	1,1-Dichloroethane	98.96	9.83		0.20
156-59-2	cis-1,2-Dichloroethene	96.94	9.42		0.20
67-66-3	Chloroform	119.38	9.93		0.20
71-55-6	1,1,1-Trichloroethane	133.41	9.95		0.20
56-23-5	Carbon tetrachloride	153.81	9.77		0.20
71-43-2	Benzene	78.11	9.99		0.20
107-06-2	1,2-Dichloroethane	98.96	10.5		0.20
79-01-6	Trichloroethene	131.39	9.79		0.20
78-87-5	1,2-Dichloropropane	112.99	10.7		0.20
10061-01-5	cis-1,3-Dichloropropene	110.97	10.5		0.20
108-88-3	Toluene	92.14	9.74		0.20
10061-02-6	trans-1,3-Dichloropropene	110.97	10.3		0.20
79-00-5	1,1,2-Trichloroethane	133.41	10.2		0.20
127-18-4	Tetrachloroethene	165.83	8.86		0.20
106-93-4	1,2-Dibromoethane	187.87	10.1		0.20
108-90-7	Chlorobenzene	112.56	9.44		0.20
100-41-4	Ethylbenzene	106.17	9.83		0.20
179601-23-1	m,p-Xylene	106.17	19.3		0.50
95-47-6	Xylene, o-	106.17	9.64		0.20
100-42-5	Styrene	104.15	10.2		0.20
79-34-5	1,1,2,2-Tetrachloroethane	167.85	10.5		0.20
108-67-8	1,3,5-Trimethylbenzene	120.20	9.65		0.20
95-63-6	1,2,4-Trimethylbenzene	120.20	9.74		0.20
541-73-1	1,3-Dichlorobenzene	147.00	9.17		0.20

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-46729-1
 SDG No.: 200-46729-1
 Client Sample ID: _____ Lab Sample ID: LCS 200-138574/30
 Matrix: Air Lab File ID: 33879-10.D
 Analysis Method: TO-15 Date Collected: _____
 Sample wt/vol: 200 (mL) Date Analyzed: 12/27/2018 18:52
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: RTX-624 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 138574 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
106-46-7	1,4-Dichlorobenzene	147.00	9.16		0.20	
95-50-1	1,2-Dichlorobenzene	147.00	9.22		0.20	
120-82-1	1,2,4-Trichlorobenzene	181.45	9.39		0.50	
87-68-3	Hexachlorobutadiene	260.76	8.83		0.20	

AIR - GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Burlington Job No.: 200-46729-1

SDG No.: 200-46729-1

Instrument ID: CHC.i Start Date: 12/26/2018 19:09

Analysis Batch Number: 138548 End Date: 12/27/2018 01:22

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
IC 200-138548/4		12/26/2018 19:09	1	33872-04.D	RTX-624 0.32 (mm)
IC 200-138548/5		12/26/2018 20:02	1	33872-05.D	RTX-624 0.32 (mm)
IC 200-138548/6		12/26/2018 20:55	1	33872-06.D	RTX-624 0.32 (mm)
IC 200-138548/7		12/26/2018 21:49	1	33872-07.D	RTX-624 0.32 (mm)
ICIS 200-138548/8		12/26/2018 22:42	1	33872-08.D	RTX-624 0.32 (mm)
IC 200-138548/9		12/26/2018 23:35	1	33872-09.D	RTX-624 0.32 (mm)
IC 200-138548/10		12/27/2018 00:29	1	33872-10.D	RTX-624 0.32 (mm)
IC 200-138548/11		12/27/2018 01:22	1	33872-11.D	RTX-624 0.32 (mm)

AIR - GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Burlington Job No.: 200-46729-1

SDG No.: 200-46729-1

Instrument ID: CHC.i Start Date: 12/27/2018 10:35

Analysis Batch Number: 138574 End Date: 12/28/2018 09:05

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 200-138574/1		12/27/2018 10:35	1	33879-01.D	RTX-624 0.32 (mm)
CCVIS 200-138574/2		12/27/2018 11:26	1	33879-02.D	RTX-624 0.32 (mm)
ICV 200-138574/5		12/27/2018 14:05	1	33879-05.D	RTX-624 0.32 (mm)
MB 200-138574/6		12/27/2018 14:59	1	33879-06.D	RTX-624 0.32 (mm)
LCS 200-138574/30		12/27/2018 18:52	1	33879-10.D	RTX-624 0.32 (mm)
ZZZZZ		12/27/2018 19:45	21.5		RTX-624 0.32 (mm)
ZZZZZ		12/27/2018 20:39	21.5		RTX-624 0.32 (mm)
ZZZZZ		12/27/2018 21:32	10		RTX-624 0.32 (mm)
ZZZZZ		12/27/2018 22:25	10		RTX-624 0.32 (mm)
ZZZZZ		12/27/2018 23:18	1		RTX-624 0.32 (mm)
ZZZZZ		12/28/2018 00:12	10		RTX-624 0.32 (mm)
200-46729-1		12/28/2018 01:05	7	33879-17.D	RTX-624 0.32 (mm)
200-46729-2		12/28/2018 01:58	8	33879-18.D	RTX-624 0.32 (mm)
200-46729-3		12/28/2018 02:52	7	33879-19.D	RTX-624 0.32 (mm)
200-46729-4		12/28/2018 03:45	8	33879-20.D	RTX-624 0.32 (mm)
ZZZZZ		12/28/2018 04:38	1		RTX-624 0.32 (mm)
ZZZZZ		12/28/2018 05:32	1		RTX-624 0.32 (mm)
ZZZZZ		12/28/2018 06:25	1		RTX-624 0.32 (mm)
ZZZZZ		12/28/2018 07:19	1		RTX-624 0.32 (mm)
ZZZZZ		12/28/2018 08:12	1		RTX-624 0.32 (mm)
ZZZZZ		12/28/2018 09:05	1		RTX-624 0.32 (mm)

AIR - GC/MS VOA BATCH WORKSHEET

Lab Name: TestAmerica Burlington Job No.: 200-46729-1

SDG No.: 200-46729-1

Batch Number: 138574 Batch Start Date: 12/27/18 10:35 Batch Analyst: Bunma, Arthit 1

Batch Method: TO-15 Batch End Date: _____

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialPressure	FinalPressure	InitialAmount	FinalAmount	ATTO15CAL4w 00719	ATTO15CISs 00010
BFB 200-138574/1		TO-15		1	1	200 mL	200 mL		20 mL
CCVIS 200-138574/2		TO-15		1	1	200 mL	200 mL	200 mL	20 mL
ICV 200-138574/5		TO-15		1	1	200 mL	200 mL		20 mL
MB 200-138574/6		TO-15		1	1	200 mL	200 mL		20 mL
200-46729-A-1	SVE-05	TO-15	T	1	1	28 mL	200 mL		20 mL
200-46729-A-2	SVE-06	TO-15	T	1	1	25 mL	200 mL		20 mL
200-46729-A-3	SVE-07	TO-15	T	1	1	28 mL	200 mL		20 mL
200-46729-A-4	SVE-08	TO-15	T	1	1	25 mL	200 mL		20 mL
LCS 200-138574/30		TO-15		1	1	200 mL	200 mL		20 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	ATTO15LCSW 00791					
BFB 200-138574/1		TO-15							
CCVIS 200-138574/2		TO-15							
ICV 200-138574/5		TO-15		200 mL					
MB 200-138574/6		TO-15							
200-46729-A-1	SVE-05	TO-15	T						
200-46729-A-2	SVE-06	TO-15	T						
200-46729-A-3	SVE-07	TO-15	T						
200-46729-A-4	SVE-08	TO-15	T						
LCS 200-138574/30		TO-15		200 mL					

Batch Notes	

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

AIR - GC/MS VOA BATCH WORKSHEET

Lab Name: TestAmerica Burlington Job No.: 200-46729-1

SDG No.: 200-46729-1

Batch Number: 138574 Batch Start Date: 12/27/18 10:35 Batch Analyst: Bunma, Arthit 1

Batch Method: TO-15 Batch End Date: _____

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Shipping and Receiving Documents



Page _____ of _____

Requires EDD

SAMPLING CHAIN OF CUSTODY

Analysis Requested By		Sampling Contractor		Analytical Laboratory	
Name: ADRIAN STENHAUFF	Name: GRG	Name: Test Area - Burlington			
Life No: 07065	Contact: ADRIAN STENHAUFF	Address: 50 Community Dr. Suite 11			
Acct No: 20335	Phone: 516 807-1656	City: Burlington St: VT Zip: 05403			
	Email/Fax: astenhauff@bnl.gov	Contact: Kathy Kathryn			
1 VSR e bul.gov	Sampler: AUS	Phone: 802-1923-1621			
2 Stenhauff@bnl.gov		Email/Fax: Kathryn.Kelly@bnl.gov			
	Project Name: ORU	Field Engineer:			
	Project Manager: Vinnie Kacemello				

Comments:

Sample Information		Additional Sample Information		Preservative	
Type	Site ID/Bldg/Life #	Cont. Vol/Units	Conc./Type	# of Cont.	
001 E G Bldg. 96 SVE Pilot	12/11/18	SVE-05	CAN# 3462	1	✓
002 E G Bldg. 76 SVE Pilot	12/12/18	SVE-06	CAN# 3246	1	✓
003 E G Bldg. 96 SVE Pilot	12/13/18	SVE-07	CAN# 3011	1	✓
004 E G Bldg. 96 SVE Pilot	12/14/18	SVE-08	CAN# 5721	1	✓

NOV 12/14/18 →

Analysis Requested	Alpha/Beta	
	Tritium	
	Gamma	
	Sr-90	
	5242	
	624	
	Nucleide-specific Alpha	
	PCBs	
	Metals	

1 Relinquished By/Date/Time	2 Relinquished By/Date/Time	3 Relinquished By/Date/Time
Print ADRIAN STENHAUFF 12/14/18	Print	Print
Signature ADRIAN STENHAUFF 1500	Signature	Signature
1 Received By/Date/Time	2 Received By/Date/Time	3 Received By/Date/Time
Print Elaine Johnson 12/14/18	Print	Print
Signature Elaine Johnson 0955	Signature	Signature

Contractor Lab Sample Disposal:

Return To Client Disposal by Lab

Archive For _____ Months

Data Package: Full Summary

Turn-Around Time Required:

Rush (1 Day) 7-14 Days 30 Days

7 Days Other ()

ORIGIN ID: ISPA (631) 344-2311
BNL SHIPPING DEPT
BROOKHAVEN NATIONAL LAB
BLDG98, ROCHESTER STREET

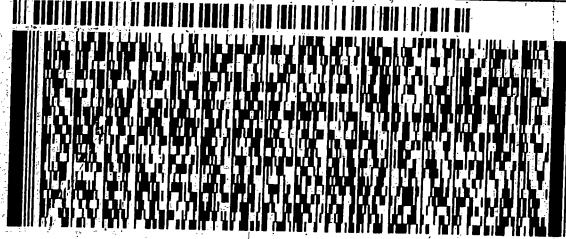
SHIP DATE: 14DEC18
ACTWGT: 34.00 LB MAN
CAD: 0620132/CAFE3211

UPTON, NY 11973
UNITED STATES US

BILL RECIPIENT

TO RECEIVING DEPT.
TEST AMERICA, VT
30 COMMUNITY DRIVE
SUITE 11
SOUTH BURLINGTON VT 05403

(802) 923-1021
REF: 0000059729



FedEx
Express



5512121E1004
J1811808050104

TRK# 6583 4853 9064
0201

SATURDAY 12:00P
PRIORITY OVERNIGHT

XO BTVA

05403
VT-US BTV

Part #: 156148-434 RIT EXP 11/18



SDR

FedEx
Express

aturday Delivery

151966 10/04.MWI

FedEx® Satu

Login Sample Receipt Checklist

Client: Brookhaven National Labs

Job Number: 200-46729-1

SDG Number: 200-46729-1

Login Number: 46729
List Number: 1
Creator: Hall, Samuel C

List Source: TestAmerica Burlington

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	Seal present with no number.
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	Thermal preservation not required.
Cooler Temperature is acceptable.	N/A	
Cooler Temperature is recorded.	N/A	Thermal preservation not required.
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	AMS
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.	N/A	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

ANALYTICAL REPORT

Job Number: 200-46792-1
SDG Number: 200-46792-1
Job Description: System Samples

For:
Brookhaven National Labs
Contracts Section
Building 134B
Upton, NY 11973
Attention: Mr. Adrian Steinhauff



Approved for release.
Kathryn A Kelly
Project Manager II
1/16/2019 2:45 PM

Kathryn A Kelly, Project Manager II
30 Community Drive, South Burlington, VT, 05403
(802)923-1021
kathryn.kelly@testamericainc.com
01/16/2019

The test results in this report relate only to sample(s) as received by the laboratory. These test results were derived under a quality system that adheres to the requirements of NELAC. Pursuant to NELAC, this report may not be produced in full without written approval from the laboratory

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Definitions/Glossary

Client: Brookhaven National Labs
Project/Site: System Samples

TestAmerica Job ID: 200-46792-1
SDG: 200-46792-1

Qualifiers

Air - GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
*	LCS or LCSD is outside acceptance limits.

Glossary

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

CASE NARRATIVE

Client: Brookhaven National Labs

Project: System Samples

Report Number: 200-46792-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT

The samples were received on 12/19/2018; the samples arrived in good condition.

VOLATILE ORGANIC COMPOUNDS

Sample SVE-09 was analyzed for Volatile Organic Compounds in accordance with EPA Method TO-15. The samples were analyzed on 01/04/2019.

1,2,4-Trichlorobenzene and Hexachlorobutadiene failed the recovery criteria high for LCS 200-138764/4. Refer to the QC report for details.

Sample SVE-09[10X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

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

Detection Summary

Client: Brookhaven National Labs
Project/Site: System Samples

TestAmerica Job ID: 200-46792-1
SDG: 200-46792-1

Client Sample ID: SVE-09

Lab Sample ID: 200-46792-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	2.5		2.0		ppb v/v	10		TO-15	Total/NA
Tetrachloroethene	160		2.0		ppb v/v	10		TO-15	Total/NA
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	14		11		ug/m3	10		TO-15	Total/NA
Tetrachloroethene	1100		14		ug/m3	10		TO-15	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Burlington

Client Sample Results

Client: Brookhaven National Labs
Project/Site: System Samples

TestAmerica Job ID: 200-46792-1
SDG: 200-46792-1

Client Sample ID: SVE-09

Lab Sample ID: 200-46792-1

Date Collected: 12/17/18 13:00

Matrix: Air

Date Received: 12/19/18 11:11

Sample Container: Summa Canister 6L

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	5.0	U	5.0		ppb v/v			01/04/19 00:27	10
1,2-Dichlorotetrafluoroethane	2.0	U	2.0		ppb v/v			01/04/19 00:27	10
Chloromethane	5.0	U	5.0		ppb v/v			01/04/19 00:27	10
Vinyl chloride	2.0	U	2.0		ppb v/v			01/04/19 00:27	10
Bromomethane	2.0	U	2.0		ppb v/v			01/04/19 00:27	10
Chloroethane	5.0	U	5.0		ppb v/v			01/04/19 00:27	10
Trichlorofluoromethane	2.0	U	2.0		ppb v/v			01/04/19 00:27	10
Freon TF	2.0	U	2.0		ppb v/v			01/04/19 00:27	10
1,1-Dichloroethene	2.0	U	2.0		ppb v/v			01/04/19 00:27	10
Methylene Chloride	5.0	U	5.0		ppb v/v			01/04/19 00:27	10
1,1-Dichloroethane	2.0	U	2.0		ppb v/v			01/04/19 00:27	10
cis-1,2-Dichloroethene	2.0	U	2.0		ppb v/v			01/04/19 00:27	10
Chloroform	2.0	U	2.0		ppb v/v			01/04/19 00:27	10
1,1,1-Trichloroethane	2.5		2.0		ppb v/v			01/04/19 00:27	10
Carbon tetrachloride	2.0	U	2.0		ppb v/v			01/04/19 00:27	10
Benzene	2.0	U	2.0		ppb v/v			01/04/19 00:27	10
1,2-Dichloroethane	2.0	U	2.0		ppb v/v			01/04/19 00:27	10
Trichloroethene	2.0	U	2.0		ppb v/v			01/04/19 00:27	10
1,2-Dichloropropane	2.0	U	2.0		ppb v/v			01/04/19 00:27	10
cis-1,3-Dichloropropene	2.0	U	2.0		ppb v/v			01/04/19 00:27	10
Toluene	2.0	U	2.0		ppb v/v			01/04/19 00:27	10
trans-1,3-Dichloropropene	2.0	U	2.0		ppb v/v			01/04/19 00:27	10
1,1,2-Trichloroethane	2.0	U	2.0		ppb v/v			01/04/19 00:27	10
Tetrachloroethene	160		2.0		ppb v/v			01/04/19 00:27	10
1,2-Dibromoethane	2.0	U	2.0		ppb v/v			01/04/19 00:27	10
Chlorobenzene	2.0	U	2.0		ppb v/v			01/04/19 00:27	10
Ethylbenzene	2.0	U	2.0		ppb v/v			01/04/19 00:27	10
m,p-Xylene	5.0	U	5.0		ppb v/v			01/04/19 00:27	10
Xylene, o-	2.0	U	2.0		ppb v/v			01/04/19 00:27	10
Styrene	2.0	U	2.0		ppb v/v			01/04/19 00:27	10
1,1,2,2-Tetrachloroethane	2.0	U	2.0		ppb v/v			01/04/19 00:27	10
1,3,5-Trimethylbenzene	2.0	U	2.0		ppb v/v			01/04/19 00:27	10
1,2,4-Trimethylbenzene	2.0	U	2.0		ppb v/v			01/04/19 00:27	10
1,3-Dichlorobenzene	2.0	U	2.0		ppb v/v			01/04/19 00:27	10
1,4-Dichlorobenzene	2.0	U	2.0		ppb v/v			01/04/19 00:27	10
1,2-Dichlorobenzene	2.0	U	2.0		ppb v/v			01/04/19 00:27	10
1,2,4-Trichlorobenzene	5.0	U *	5.0		ppb v/v			01/04/19 00:27	10
Hexachlorobutadiene	2.0	U *	2.0		ppb v/v			01/04/19 00:27	10
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	25	U	25		ug/m3			01/04/19 00:27	10
1,2-Dichlorotetrafluoroethane	14	U	14		ug/m3			01/04/19 00:27	10
Chloromethane	10	U	10		ug/m3			01/04/19 00:27	10
Vinyl chloride	5.1	U	5.1		ug/m3			01/04/19 00:27	10
Bromomethane	7.8	U	7.8		ug/m3			01/04/19 00:27	10
Chloroethane	13	U	13		ug/m3			01/04/19 00:27	10
Trichlorofluoromethane	11	U	11		ug/m3			01/04/19 00:27	10
Freon TF	15	U	15		ug/m3			01/04/19 00:27	10
1,1-Dichloroethene	7.9	U	7.9		ug/m3			01/04/19 00:27	10

Client Sample Results

Client: Brookhaven National Labs
Project/Site: System Samples

TestAmerica Job ID: 200-46792-1
SDG: 200-46792-1

Client Sample ID: SVE-09

Lab Sample ID: 200-46792-1

Date Collected: 12/17/18 13:00

Matrix: Air

Date Received: 12/19/18 11:11

Sample Container: Summa Canister 6L

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	17	U	17		ug/m3			01/04/19 00:27	10
1,1-Dichloroethane	8.1	U	8.1		ug/m3			01/04/19 00:27	10
cis-1,2-Dichloroethene	7.9	U	7.9		ug/m3			01/04/19 00:27	10
Chloroform	9.8	U	9.8		ug/m3			01/04/19 00:27	10
1,1,1-Trichloroethane	14		11		ug/m3			01/04/19 00:27	10
Carbon tetrachloride	13	U	13		ug/m3			01/04/19 00:27	10
Benzene	6.4	U	6.4		ug/m3			01/04/19 00:27	10
1,2-Dichloroethane	8.1	U	8.1		ug/m3			01/04/19 00:27	10
Trichloroethene	11	U	11		ug/m3			01/04/19 00:27	10
1,2-Dichloropropane	9.2	U	9.2		ug/m3			01/04/19 00:27	10
cis-1,3-Dichloropropene	9.1	U	9.1		ug/m3			01/04/19 00:27	10
Toluene	7.5	U	7.5		ug/m3			01/04/19 00:27	10
trans-1,3-Dichloropropene	9.1	U	9.1		ug/m3			01/04/19 00:27	10
1,1,2-Trichloroethane	11	U	11		ug/m3			01/04/19 00:27	10
Tetrachloroethene	1100		14		ug/m3			01/04/19 00:27	10
1,2-Dibromoethane	15	U	15		ug/m3			01/04/19 00:27	10
Chlorobenzene	9.2	U	9.2		ug/m3			01/04/19 00:27	10
Ethylbenzene	8.7	U	8.7		ug/m3			01/04/19 00:27	10
m,p-Xylene	22	U	22		ug/m3			01/04/19 00:27	10
Xylene, o-	8.7	U	8.7		ug/m3			01/04/19 00:27	10
Styrene	8.5	U	8.5		ug/m3			01/04/19 00:27	10
1,1,2,2-Tetrachloroethane	14	U	14		ug/m3			01/04/19 00:27	10
1,3,5-Trimethylbenzene	9.8	U	9.8		ug/m3			01/04/19 00:27	10
1,2,4-Trimethylbenzene	9.8	U	9.8		ug/m3			01/04/19 00:27	10
1,3-Dichlorobenzene	12	U	12		ug/m3			01/04/19 00:27	10
1,4-Dichlorobenzene	12	U	12		ug/m3			01/04/19 00:27	10
1,2-Dichlorobenzene	12	U	12		ug/m3			01/04/19 00:27	10
1,2,4-Trichlorobenzene	37	U *	37		ug/m3			01/04/19 00:27	10
Hexachlorobutadiene	21	U *	21		ug/m3			01/04/19 00:27	10

Default Detection Limits

Client: Brookhaven National Labs
 Project/Site: System Samples

TestAmerica Job ID: 200-46792-1
 SDG: 200-46792-1

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	RL	MDL	Units	Method
1,1,1-Trichloroethane	0.20	0.068	ppb v/v	TO-15
1,1,1-Trichloroethane	1.1	0.37	ug/m3	TO-15
1,1,2,2-Tetrachloroethane	0.20	0.076	ppb v/v	TO-15
1,1,2,2-Tetrachloroethane	1.4	0.52	ug/m3	TO-15
1,1,2-Trichloroethane	0.20	0.078	ppb v/v	TO-15
1,1,2-Trichloroethane	1.1	0.43	ug/m3	TO-15
1,1-Dichloroethane	0.20	0.026	ppb v/v	TO-15
1,1-Dichloroethane	0.81	0.11	ug/m3	TO-15
1,1-Dichloroethene	0.20	0.034	ppb v/v	TO-15
1,1-Dichloroethene	0.79	0.13	ug/m3	TO-15
1,2,4-Trichlorobenzene	0.50	0.24	ppb v/v	TO-15
1,2,4-Trichlorobenzene	3.7	1.8	ug/m3	TO-15
1,2,4-Trimethylbenzene	0.20	0.080	ppb v/v	TO-15
1,2,4-Trimethylbenzene	0.98	0.39	ug/m3	TO-15
1,2-Dibromoethane	0.20	0.069	ppb v/v	TO-15
1,2-Dibromoethane	1.5	0.53	ug/m3	TO-15
1,2-Dichlorobenzene	0.20	0.071	ppb v/v	TO-15
1,2-Dichlorobenzene	1.2	0.43	ug/m3	TO-15
1,2-Dichloroethane	0.20	0.063	ppb v/v	TO-15
1,2-Dichloroethane	0.81	0.25	ug/m3	TO-15
1,2-Dichloropropane	0.20	0.12	ppb v/v	TO-15
1,2-Dichloropropane	0.92	0.55	ug/m3	TO-15
1,2-Dichlorotetrafluoroethane	0.20	0.068	ppb v/v	TO-15
1,2-Dichlorotetrafluoroethane	1.4	0.48	ug/m3	TO-15
1,3,5-Trimethylbenzene	0.20	0.058	ppb v/v	TO-15
1,3,5-Trimethylbenzene	0.98	0.29	ug/m3	TO-15
1,3-Dichlorobenzene	0.20	0.082	ppb v/v	TO-15
1,3-Dichlorobenzene	1.2	0.49	ug/m3	TO-15
1,4-Dichlorobenzene	0.20	0.065	ppb v/v	TO-15
1,4-Dichlorobenzene	1.2	0.39	ug/m3	TO-15
Benzene	0.20	0.071	ppb v/v	TO-15
Benzene	0.64	0.23	ug/m3	TO-15
Bromomethane	0.20	0.062	ppb v/v	TO-15
Bromomethane	0.78	0.24	ug/m3	TO-15
Carbon tetrachloride	0.20	0.024	ppb v/v	TO-15
Carbon tetrachloride	1.3	0.15	ug/m3	TO-15
Chlorobenzene	0.20	0.040	ppb v/v	TO-15
Chlorobenzene	0.92	0.18	ug/m3	TO-15
Chloroethane	0.50	0.21	ppb v/v	TO-15
Chloroethane	1.3	0.55	ug/m3	TO-15
Chloroform	0.20	0.052	ppb v/v	TO-15
Chloroform	0.98	0.25	ug/m3	TO-15
Chloromethane	0.50	0.25	ppb v/v	TO-15
Chloromethane	1.0	0.52	ug/m3	TO-15
cis-1,2-Dichloroethene	0.20	0.037	ppb v/v	TO-15
cis-1,2-Dichloroethene	0.79	0.15	ug/m3	TO-15
cis-1,3-Dichloropropene	0.20	0.098	ppb v/v	TO-15
cis-1,3-Dichloropropene	0.91	0.44	ug/m3	TO-15
Dichlorodifluoromethane	0.50	0.20	ppb v/v	TO-15
Dichlorodifluoromethane	2.5	0.99	ug/m3	TO-15
Ethylbenzene	0.20	0.073	ppb v/v	TO-15
Ethylbenzene	0.87	0.32	ug/m3	TO-15

Default Detection Limits

Client: Brookhaven National Labs
 Project/Site: System Samples

TestAmerica Job ID: 200-46792-1
 SDG: 200-46792-1

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	RL	MDL	Units	Method
Freon TF	0.20	0.031	ppb v/v	TO-15
Freon TF	1.5	0.24	ug/m3	TO-15
Hexachlorobutadiene	0.20	0.082	ppb v/v	TO-15
Hexachlorobutadiene	2.1	0.87	ug/m3	TO-15
m,p-Xylene	0.50	0.070	ppb v/v	TO-15
m,p-Xylene	2.2	0.30	ug/m3	TO-15
Methylene Chloride	0.50	0.20	ppb v/v	TO-15
Methylene Chloride	1.7	0.69	ug/m3	TO-15
Styrene	0.20	0.086	ppb v/v	TO-15
Styrene	0.85	0.37	ug/m3	TO-15
Tetrachloroethene	0.20	0.029	ppb v/v	TO-15
Tetrachloroethene	1.4	0.20	ug/m3	TO-15
Toluene	0.20	0.069	ppb v/v	TO-15
Toluene	0.75	0.26	ug/m3	TO-15
trans-1,3-Dichloropropene	0.20	0.12	ppb v/v	TO-15
trans-1,3-Dichloropropene	0.91	0.54	ug/m3	TO-15
Trichloroethene	0.20	0.030	ppb v/v	TO-15
Trichloroethene	1.1	0.16	ug/m3	TO-15
Trichlorofluoromethane	0.20	0.062	ppb v/v	TO-15
Trichlorofluoromethane	1.1	0.35	ug/m3	TO-15
Vinyl chloride	0.20	0.041	ppb v/v	TO-15
Vinyl chloride	0.51	0.10	ug/m3	TO-15
Xylene, o-	0.20	0.071	ppb v/v	TO-15
Xylene, o-	0.87	0.31	ug/m3	TO-15

QC Sample Results

Client: Brookhaven National Labs
Project/Site: System Samples

TestAmerica Job ID: 200-46792-1
SDG: 200-46792-1

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Lab Sample ID: MB 200-138764/6
Matrix: Air
Analysis Batch: 138764

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

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Dichlorodifluoromethane	0.50	U	0.50		ppb v/v			01/03/19 14:53	1
1,2-Dichlorotetrafluoroethane	0.20	U	0.20		ppb v/v			01/03/19 14:53	1
Chloromethane	0.50	U	0.50		ppb v/v			01/03/19 14:53	1
Vinyl chloride	0.20	U	0.20		ppb v/v			01/03/19 14:53	1
Bromomethane	0.20	U	0.20		ppb v/v			01/03/19 14:53	1
Chloroethane	0.50	U	0.50		ppb v/v			01/03/19 14:53	1
Trichlorofluoromethane	0.20	U	0.20		ppb v/v			01/03/19 14:53	1
Freon TF	0.20	U	0.20		ppb v/v			01/03/19 14:53	1
1,1-Dichloroethene	0.20	U	0.20		ppb v/v			01/03/19 14:53	1
Methylene Chloride	0.50	U	0.50		ppb v/v			01/03/19 14:53	1
1,1-Dichloroethane	0.20	U	0.20		ppb v/v			01/03/19 14:53	1
cis-1,2-Dichloroethene	0.20	U	0.20		ppb v/v			01/03/19 14:53	1
Chloroform	0.20	U	0.20		ppb v/v			01/03/19 14:53	1
1,1,1-Trichloroethane	0.20	U	0.20		ppb v/v			01/03/19 14:53	1
Carbon tetrachloride	0.20	U	0.20		ppb v/v			01/03/19 14:53	1
Benzene	0.20	U	0.20		ppb v/v			01/03/19 14:53	1
1,2-Dichloroethane	0.20	U	0.20		ppb v/v			01/03/19 14:53	1
Trichloroethene	0.20	U	0.20		ppb v/v			01/03/19 14:53	1
1,2-Dichloropropane	0.20	U	0.20		ppb v/v			01/03/19 14:53	1
cis-1,3-Dichloropropene	0.20	U	0.20		ppb v/v			01/03/19 14:53	1
Toluene	0.20	U	0.20		ppb v/v			01/03/19 14:53	1
trans-1,3-Dichloropropene	0.20	U	0.20		ppb v/v			01/03/19 14:53	1
1,1,2-Trichloroethane	0.20	U	0.20		ppb v/v			01/03/19 14:53	1
Tetrachloroethene	0.20	U	0.20		ppb v/v			01/03/19 14:53	1
1,2-Dibromoethane	0.20	U	0.20		ppb v/v			01/03/19 14:53	1
Chlorobenzene	0.20	U	0.20		ppb v/v			01/03/19 14:53	1
Ethylbenzene	0.20	U	0.20		ppb v/v			01/03/19 14:53	1
m,p-Xylene	0.50	U	0.50		ppb v/v			01/03/19 14:53	1
Xylene, o-	0.20	U	0.20		ppb v/v			01/03/19 14:53	1
Styrene	0.20	U	0.20		ppb v/v			01/03/19 14:53	1
1,1,2,2-Tetrachloroethane	0.20	U	0.20		ppb v/v			01/03/19 14:53	1
1,3,5-Trimethylbenzene	0.20	U	0.20		ppb v/v			01/03/19 14:53	1
1,2,4-Trimethylbenzene	0.20	U	0.20		ppb v/v			01/03/19 14:53	1
1,3-Dichlorobenzene	0.20	U	0.20		ppb v/v			01/03/19 14:53	1
1,4-Dichlorobenzene	0.20	U	0.20		ppb v/v			01/03/19 14:53	1
1,2-Dichlorobenzene	0.20	U	0.20		ppb v/v			01/03/19 14:53	1
1,2,4-Trichlorobenzene	0.50	U	0.50		ppb v/v			01/03/19 14:53	1
Hexachlorobutadiene	0.20	U	0.20		ppb v/v			01/03/19 14:53	1

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Dichlorodifluoromethane	2.5	U	2.5		ug/m3			01/03/19 14:53	1
1,2-Dichlorotetrafluoroethane	1.4	U	1.4		ug/m3			01/03/19 14:53	1
Chloromethane	1.0	U	1.0		ug/m3			01/03/19 14:53	1
Vinyl chloride	0.51	U	0.51		ug/m3			01/03/19 14:53	1
Bromomethane	0.78	U	0.78		ug/m3			01/03/19 14:53	1
Chloroethane	1.3	U	1.3		ug/m3			01/03/19 14:53	1
Trichlorofluoromethane	1.1	U	1.1		ug/m3			01/03/19 14:53	1
Freon TF	1.5	U	1.5		ug/m3			01/03/19 14:53	1

TestAmerica Burlington

QC Sample Results

Client: Brookhaven National Labs
Project/Site: System Samples

TestAmerica Job ID: 200-46792-1
SDG: 200-46792-1

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: MB 200-138764/6
Matrix: Air
Analysis Batch: 138764

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

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,1-Dichloroethene	0.79	U	0.79		ug/m3			01/03/19 14:53	1
Methylene Chloride	1.7	U	1.7		ug/m3			01/03/19 14:53	1
1,1-Dichloroethane	0.81	U	0.81		ug/m3			01/03/19 14:53	1
cis-1,2-Dichloroethene	0.79	U	0.79		ug/m3			01/03/19 14:53	1
Chloroform	0.98	U	0.98		ug/m3			01/03/19 14:53	1
1,1,1-Trichloroethane	1.1	U	1.1		ug/m3			01/03/19 14:53	1
Carbon tetrachloride	1.3	U	1.3		ug/m3			01/03/19 14:53	1
Benzene	0.64	U	0.64		ug/m3			01/03/19 14:53	1
1,2-Dichloroethane	0.81	U	0.81		ug/m3			01/03/19 14:53	1
Trichloroethene	1.1	U	1.1		ug/m3			01/03/19 14:53	1
1,2-Dichloropropane	0.92	U	0.92		ug/m3			01/03/19 14:53	1
cis-1,3-Dichloropropene	0.91	U	0.91		ug/m3			01/03/19 14:53	1
Toluene	0.75	U	0.75		ug/m3			01/03/19 14:53	1
trans-1,3-Dichloropropene	0.91	U	0.91		ug/m3			01/03/19 14:53	1
1,1,2-Trichloroethane	1.1	U	1.1		ug/m3			01/03/19 14:53	1
Tetrachloroethene	1.4	U	1.4		ug/m3			01/03/19 14:53	1
1,2-Dibromoethane	1.5	U	1.5		ug/m3			01/03/19 14:53	1
Chlorobenzene	0.92	U	0.92		ug/m3			01/03/19 14:53	1
Ethylbenzene	0.87	U	0.87		ug/m3			01/03/19 14:53	1
m,p-Xylene	2.2	U	2.2		ug/m3			01/03/19 14:53	1
Xylene, o-	0.87	U	0.87		ug/m3			01/03/19 14:53	1
Styrene	0.85	U	0.85		ug/m3			01/03/19 14:53	1
1,1,2,2-Tetrachloroethane	1.4	U	1.4		ug/m3			01/03/19 14:53	1
1,3,5-Trimethylbenzene	0.98	U	0.98		ug/m3			01/03/19 14:53	1
1,2,4-Trimethylbenzene	0.98	U	0.98		ug/m3			01/03/19 14:53	1
1,3-Dichlorobenzene	1.2	U	1.2		ug/m3			01/03/19 14:53	1
1,4-Dichlorobenzene	1.2	U	1.2		ug/m3			01/03/19 14:53	1
1,2-Dichlorobenzene	1.2	U	1.2		ug/m3			01/03/19 14:53	1
1,2,4-Trichlorobenzene	3.7	U	3.7		ug/m3			01/03/19 14:53	1
Hexachlorobutadiene	2.1	U	2.1		ug/m3			01/03/19 14:53	1

Lab Sample ID: LCS 200-138764/4
Matrix: Air
Analysis Batch: 138764

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

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
Dichlorodifluoromethane	10.0	11.2		ppb v/v		112	68 - 128
1,2-Dichlorotetrafluoroethane	10.0	10.6		ppb v/v		106	78 - 138
Chloromethane	10.0	9.92		ppb v/v		99	57 - 126
Vinyl chloride	10.0	10.2		ppb v/v		102	62 - 125
Bromomethane	10.0	11.4		ppb v/v		114	68 - 128
Chloroethane	10.0	10.9		ppb v/v		109	65 - 125
Trichlorofluoromethane	10.0	12.0		ppb v/v		120	67 - 127
Freon TF	10.0	11.1		ppb v/v		111	68 - 128
1,1-Dichloroethene	10.0	10.4		ppb v/v		104	67 - 127
Methylene Chloride	10.0	10.4		ppb v/v		104	62 - 122
1,1-Dichloroethane	10.0	10.5		ppb v/v		105	66 - 126
cis-1,2-Dichloroethene	10.0	10.4		ppb v/v		104	67 - 127

QC Sample Results

Client: Brookhaven National Labs
Project/Site: System Samples

TestAmerica Job ID: 200-46792-1
SDG: 200-46792-1

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: LCS 200-138764/4
Matrix: Air
Analysis Batch: 138764

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloroform	10.0	11.2		ppb v/v		112	69 - 129
1,1,1-Trichloroethane	10.0	11.7		ppb v/v		117	70 - 130
Carbon tetrachloride	10.0	12.3		ppb v/v		123	62 - 143
Benzene	10.0	10.5		ppb v/v		105	67 - 127
1,2-Dichloroethane	10.0	11.7		ppb v/v		117	67 - 132
Trichloroethene	10.0	10.6		ppb v/v		106	68 - 128
1,2-Dichloropropane	10.0	10.5		ppb v/v		105	67 - 127
cis-1,3-Dichloropropene	10.0	10.9		ppb v/v		109	70 - 130
Toluene	10.0	10.3		ppb v/v		103	67 - 127
trans-1,3-Dichloropropene	10.0	11.3		ppb v/v		113	69 - 129
1,1,2-Trichloroethane	10.0	10.7		ppb v/v		107	69 - 129
Tetrachloroethene	10.0	11.0		ppb v/v		110	70 - 130
1,2-Dibromoethane	10.0	11.1		ppb v/v		111	70 - 130
Chlorobenzene	10.0	10.9		ppb v/v		109	68 - 128
Ethylbenzene	10.0	10.5		ppb v/v		105	68 - 128
m,p-Xylene	20.0	21.6		ppb v/v		108	68 - 128
Xylene, o-	10.0	10.7		ppb v/v		107	67 - 127
Styrene	10.0	10.8		ppb v/v		108	68 - 128
1,1,2,2-Tetrachloroethane	10.0	11.0		ppb v/v		110	69 - 129
1,3,5-Trimethylbenzene	10.0	10.9		ppb v/v		109	65 - 125
1,2,4-Trimethylbenzene	10.0	11.1		ppb v/v		111	65 - 125
1,3-Dichlorobenzene	10.0	11.7		ppb v/v		117	67 - 127
1,4-Dichlorobenzene	10.0	11.7		ppb v/v		118	66 - 126
1,2-Dichlorobenzene	10.0	11.5		ppb v/v		115	67 - 127
1,2,4-Trichlorobenzene	10.0	13.6	*	ppb v/v		136	59 - 126
Hexachlorobutadiene	10.0	13.6	*	ppb v/v		136	62 - 130
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dichlorodifluoromethane	49	55.3		ug/m3		112	68 - 128
1,2-Dichlorotetrafluoroethane	70	74.2		ug/m3		106	78 - 138
Chloromethane	21	20.5		ug/m3		99	57 - 126
Vinyl chloride	26	26.2		ug/m3		102	62 - 125
Bromomethane	39	44.2		ug/m3		114	68 - 128
Chloroethane	26	28.8		ug/m3		109	65 - 125
Trichlorofluoromethane	56	67.3		ug/m3		120	67 - 127
Freon TF	77	84.9		ug/m3		111	68 - 128
1,1-Dichloroethene	40	41.2		ug/m3		104	67 - 127
Methylene Chloride	35	36.1		ug/m3		104	62 - 122
1,1-Dichloroethane	40	42.5		ug/m3		105	66 - 126
cis-1,2-Dichloroethene	40	41.4		ug/m3		104	67 - 127
Chloroform	49	54.9		ug/m3		112	69 - 129
1,1,1-Trichloroethane	55	63.6		ug/m3		117	70 - 130
Carbon tetrachloride	63	77.3		ug/m3		123	62 - 143
Benzene	32	33.4		ug/m3		105	67 - 127
1,2-Dichloroethane	40	47.2		ug/m3		117	67 - 132
Trichloroethene	54	56.8		ug/m3		106	68 - 128
1,2-Dichloropropane	46	48.3		ug/m3		105	67 - 127
cis-1,3-Dichloropropene	45	49.6		ug/m3		109	70 - 130

QC Sample Results

Client: Brookhaven National Labs
 Project/Site: System Samples

TestAmerica Job ID: 200-46792-1
 SDG: 200-46792-1

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: LCS 200-138764/4

Matrix: Air

Analysis Batch: 138764

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Toluene	38	38.7		ug/m3		103	67 - 127
trans-1,3-Dichloropropene	45	51.4		ug/m3		113	69 - 129
1,1,2-Trichloroethane	55	58.6		ug/m3		107	69 - 129
Tetrachloroethane	68	74.6		ug/m3		110	70 - 130
1,2-Dibromoethane	77	85.4		ug/m3		111	70 - 130
Chlorobenzene	46	50.4		ug/m3		109	68 - 128
Ethylbenzene	43	45.6		ug/m3		105	68 - 128
m,p-Xylene	87	94.0		ug/m3		108	68 - 128
Xylene, o-	43	46.3		ug/m3		107	67 - 127
Styrene	43	46.1		ug/m3		108	68 - 128
1,1,2,2-Tetrachloroethane	69	75.5		ug/m3		110	69 - 129
1,3,5-Trimethylbenzene	49	53.7		ug/m3		109	65 - 125
1,2,4-Trimethylbenzene	49	54.6		ug/m3		111	65 - 125
1,3-Dichlorobenzene	60	70.1		ug/m3		117	67 - 127
1,4-Dichlorobenzene	60	70.6		ug/m3		118	66 - 126
1,2-Dichlorobenzene	60	69.4		ug/m3		115	67 - 127
1,2,4-Trichlorobenzene	74	101	*	ug/m3		136	59 - 126
Hexachlorobutadiene	110	145	*	ug/m3		136	62 - 130

QC Association Summary

Client: Brookhaven National Labs
Project/Site: System Samples

TestAmerica Job ID: 200-46792-1
SDG: 200-46792-1

Air - GC/MS VOA

Analysis Batch: 138764

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
200-46792-1	SVE-09	Total/NA	Air	TO-15	
MB 200-138764/6	Method Blank	Total/NA	Air	TO-15	
LCS 200-138764/4	Lab Control Sample	Total/NA	Air	TO-15	

Lab Chronicle

Client: Brookhaven National Labs
Project/Site: System Samples

TestAmerica Job ID: 200-46792-1
SDG: 200-46792-1

Client Sample ID: SVE-09
Date Collected: 12/17/18 13:00
Date Received: 12/19/18 11:11

Lab Sample ID: 200-46792-1
Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		10	138764	01/04/19 00:27	A1B	TAL BUR

Laboratory References:

TAL BUR = TestAmerica Burlington, 30 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

Accreditation/Certification Summary

Client: Brookhaven National Labs
 Project/Site: System Samples

TestAmerica Job ID: 200-46792-1
 SDG: 200-46792-1

Laboratory: TestAmerica Burlington

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
ANAB	DoD ELAP		L2336	02-25-20
Connecticut	State Program	1	PH-0751	09-30-19
DE Haz. Subst. Cleanup Act (HSCA)	State Program	3	NA	02-01-19 *
Florida	NELAP	4	E87467	06-30-19
Maine	State Program	1	VT00008	04-17-19
Minnesota	NELAP	5	050-999-436	12-31-19
New Hampshire	NELAP	1	2006	12-18-18 *
New Jersey	NELAP	2	VT972	06-30-19
New York	NELAP	2	10391	04-01-19
Pennsylvania	NELAP	3	68-00489	04-30-19
Rhode Island	State Program	1	LAO00298	12-30-19
US Fish & Wildlife	Federal		LE-058448-0	07-31-19
USDA	Federal		P330-11-00093	07-24-20
Vermont	State Program	1	VT-4000	12-31-19
Virginia	NELAP	3	460209	12-14-19

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: Brookhaven National Labs
Project/Site: System Samples

TestAmerica Job ID: 200-46792-1
SDG: 200-46792-1

Method	Method Description	Protocol	Laboratory
TO-15	Volatile Organic Compounds in Ambient Air	EPA	TAL BUR

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

TAL BUR = TestAmerica Burlington, 30 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

Sample Summary

Client: Brookhaven National Labs
Project/Site: System Samples

TestAmerica Job ID: 200-46792-1
SDG: 200-46792-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
200-46792-1	SVE-09	Air	12/17/18 13:00	12/19/18 11:11

AIR - GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-46792-1

SDG No.: 200-46792-1

Instrument ID: CHB.i Analysis Batch Number: 137349

Lab Sample ID: IC 200-137349/4 Client Sample ID: _____

Date Analyzed: 11/26/18 13:07 Lab File ID: 33353-04.D GC Column: RTX-624 ID: 0.32 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,1-Dichloroethane	8.39	Incomplete Integration	phamvu	11/26/18 21:34

Lab Sample ID: IC 200-137349/5 Client Sample ID: _____

Date Analyzed: 11/26/18 14:00 Lab File ID: 33353-05.D GC Column: RTX-624 ID: 0.32 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
n-Dodecane	19.74	Peak Tail	phamvu	11/26/18 21:40
Naphthalene	21.32	Peak Tail	phamvu	11/26/18 21:41

Lab Sample ID: IC 200-137349/6 Client Sample ID: _____

Date Analyzed: 11/26/18 14:52 Lab File ID: 33353-06.D GC Column: RTX-624 ID: 0.32 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Ethyl acetate	9.32	Peak assignment corrected	phamvu	11/26/18 21:42
Naphthalene	21.31	Peak Tail	phamvu	11/26/18 21:45
1,2,3-Trichlorobenzene	21.78	Peak Tail	phamvu	11/26/18 21:45

AIR - GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-46792-1

SDG No.: 200-46792-1

Instrument ID: CHB.i Analysis Batch Number: 138764

Lab Sample ID: MB 200-138764/6 Client Sample ID: _____

Date Analyzed: 01/03/19 14:53 Lab File ID: 33978-06.D GC Column: RTX-624 ID: 0.32 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,2-Dichlorobenzene		Invalid Compound ID	bunmaa	01/04/19 12:47
1,3,5-Trimethylbenzene		Invalid Compound ID	bunmaa	01/04/19 12:46
1,3-Dichlorobenzene		Invalid Compound ID	bunmaa	01/04/19 12:47
1,4-Dichlorobenzene		Invalid Compound ID	bunmaa	01/04/19 12:47
Chlorobenzene		Invalid Compound ID	bunmaa	01/04/19 12:46
m,p-Xylene		Invalid Compound ID	bunmaa	01/04/19 12:46
Methylene Chloride		Invalid Compound ID	bunmaa	01/04/19 12:44
Toluene	13.23	Assign Peak	bunmaa	01/04/19 12:45
Ethylbenzene	15.29	Assign Peak	bunmaa	01/04/19 12:46
Xylene, o-	15.94	Assign Peak	bunmaa	01/04/19 12:46

Lab Sample ID: 200-46792-1 Client Sample ID: SVE-09

Date Analyzed: 01/04/19 00:27 Lab File ID: 33978-17.D GC Column: RTX-624 ID: 0.32 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,1,2-Trichloroethane		Invalid Compound ID	bunmaa	01/04/19 13:19
1,2,4-Trimethylbenzene		Invalid Compound ID	bunmaa	01/04/19 13:20
1,2-Dichlorotetrafluoroethane		Invalid Compound ID	bunmaa	01/04/19 13:18
1,3,5-Trimethylbenzene		Invalid Compound ID	bunmaa	01/04/19 13:20
1,3-Dichlorobenzene		Invalid Compound ID	bunmaa	01/04/19 13:20
1,4-Dichlorobenzene		Invalid Compound ID	bunmaa	01/04/19 13:20
Carbon tetrachloride		Invalid Compound ID	bunmaa	01/04/19 13:19
Chloromethane		Invalid Compound ID	bunmaa	01/04/19 13:18
m,p-Xylene		Invalid Compound ID	bunmaa	01/04/19 13:19
Methylene Chloride		Invalid Compound ID	bunmaa	01/04/19 13:18
Styrene		Invalid Compound ID	bunmaa	01/04/19 13:20
trans-1,3-Dichloropropene		Invalid Compound ID	bunmaa	01/04/19 13:19
Trichlorofluoromethane		Invalid Compound ID	bunmaa	01/04/19 13:18
Trichloroethene	11.45	Assign Peak	bunmaa	01/04/19 13:19

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46792-1

SDG No.: 200-46792-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
ATTO15BISs_00006							1,2-Dichloroethene, Total	
							1,4-Difluorobenzene	100 ppb v/v
							BFB	100 ppb v/v
							Chlorobenzene-d5	100 ppb v/v
							Chlorobromomethane	100 ppb v/v
							Tentatively Identified Compound	
							Total Alkanes	
Xylenes, Total								
ATTO15CAL1w_00200	12/23/18	11/24/18	Nitrogen, Lot 12	15.463 L	ATTO15CAL6w_00161	155 mL	1,1,1-Trichloroethane	0.20044 ppb v/v
							1,1,2,2-Tetrachloroethane	0.20044 ppb v/v
							1,1,2-Trichloroethane	0.20044 ppb v/v
							1,1-Dichloroethane	0.20044 ppb v/v
							1,1-Dichloroethene	0.20044 ppb v/v
							1,2,3-Trichlorobenzene	0.20044 ppb v/v
							1,2,3-Trichloropropane	0.20044 ppb v/v
							1,2,4-Trichlorobenzene	0.20044 ppb v/v
							1,2,4-Trimethylbenzene	0.20044 ppb v/v
							1,2-Dibromoethane	0.20044 ppb v/v
							1,2-Dichlorobenzene	0.20044 ppb v/v
							1,2-Dichloroethane	0.20044 ppb v/v
							1,2-Dichloropropane	0.20044 ppb v/v
							1,2-Dichlorotetrafluoroethane	0.20044 ppb v/v
							1,3,5-Trimethylbenzene	0.20044 ppb v/v
							1,3-Dichlorobenzene	0.20044 ppb v/v
							1,4-Dichlorobenzene	0.20044 ppb v/v
							1,4-Dioxane	0.20044 ppb v/v
							2-Butanone (MEK)	0.20044 ppb v/v
							2-Chlorotoluene	0.20044 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46792-1

SDG No.: 200-46792-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Hexanone	0.20044 ppb v/v
							2-Methyl-2-propanol	0.20044 ppb v/v
							2-Methylbutane	0.20044 ppb v/v
							3-Chloro-1-propene	0.20044 ppb v/v
							4-Ethyltoluene	0.20044 ppb v/v
							4-Isopropyltoluene	0.20044 ppb v/v
							4-Methyl-2-pentanone (MIBK)	0.20044 ppb v/v
							Acetone	0.20044 ppb v/v
							Acetonitrile	0.20044 ppb v/v
							Acrolein	0.20044 ppb v/v
							Acrylonitrile	0.20044 ppb v/v
							Alpha Methyl Styrene	0.20044 ppb v/v
							Benzene	0.20044 ppb v/v
							Benzyl chloride	0.20044 ppb v/v
							Bromoform	0.20044 ppb v/v
							Bromomethane	0.20044 ppb v/v
							Butadiene	0.20044 ppb v/v
							Butane	0.20044 ppb v/v
							Carbon disulfide	0.20044 ppb v/v
							Carbon tetrachloride	0.20044 ppb v/v
							Chlorobenzene	0.20044 ppb v/v
							Chlorodibromomethane	0.20044 ppb v/v
							Chlorodifluoromethane	0.20044 ppb v/v
							Chloroethane	0.20044 ppb v/v
							Chloroform	0.20044 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46792-1

SDG No.: 200-46792-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Chloromethane	0.20044 ppb v/v
							cis-1,2-Dichloroethene	0.20044 ppb v/v
							cis-1,3-Dichloropropene	0.20044 ppb v/v
							Cyclohexane	0.20044 ppb v/v
							Dibromomethane	0.20044 ppb v/v
							Dichlorobromomethane	0.20044 ppb v/v
							Dichlorodifluoromethane	0.20044 ppb v/v
							Dodecane	0.20044 ppb v/v
							Ethyl acetate	0.20044 ppb v/v
							Ethyl ether	0.20044 ppb v/v
							Ethylbenzene	0.20044 ppb v/v
							Freon TF	0.20044 ppb v/v
							Hexachlorobutadiene	0.20044 ppb v/v
							Hexane	0.20044 ppb v/v
							Isooctane	0.20044 ppb v/v
							Isopropyl alcohol	0.20044 ppb v/v
							Isopropylbenzene	0.20044 ppb v/v
							m,p-Xylene	0.400879 ppb v/v
							Methyl methacrylate	0.20044 ppb v/v
							Methyl tert-butyl ether	0.20044 ppb v/v
							Methylene Chloride	0.20044 ppb v/v
							n-Butanol	0.20044 ppb v/v
							n-Butylbenzene	0.20044 ppb v/v
							n-Decane	0.20044 ppb v/v
							n-Heptane	0.20044 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46792-1

SDG No.: 200-46792-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							n-Nonane	0.20044 ppb v/v
							n-Octane	0.20044 ppb v/v
							N-Propylbenzene	0.20044 ppb v/v
							Naphthalene	0.20044 ppb v/v
							Pentane	0.20044 ppb v/v
							Propene	0.20044 ppb v/v
							sec-Butylbenzene	0.20044 ppb v/v
							Styrene	0.20044 ppb v/v
							tert-Butylbenzene	0.20044 ppb v/v
							Tetrachloroethene	0.20044 ppb v/v
							Tetrahydrofuran	0.20044 ppb v/v
							Toluene	0.20044 ppb v/v
							trans-1,2-Dichloroethene	0.20044 ppb v/v
							trans-1,3-Dichloropropene	0.20044 ppb v/v
							Trichloroethene	0.20044 ppb v/v
							Trichlorofluoromethane	0.20044 ppb v/v
							Undecane	0.20044 ppb v/v
							Vinyl acetate	0.20044 ppb v/v
							Vinyl bromide	0.20044 ppb v/v
							Vinyl chloride	0.20044 ppb v/v
							Xylene, o-	0.20044 ppb v/v
							Ethanol	0.400944 ppb v/v
.ATTO15CAL6w_00161	12/23/18	11/23/18	Nitrogen, Lot 1	15.463 L	ATTO15CALSTKi_00106	1546 mL	1,1,1-Trichloroethane	19.9961 ppb v/v
							1,1,2,2-Tetrachloroethane	19.9961 ppb v/v
							1,1,2-Trichloroethane	19.9961 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46792-1

SDG No.: 200-46792-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,1-Dichloroethane	19.9961 ppb v/v
							1,1-Dichloroethene	19.9961 ppb v/v
							1,2,3-Trichlorobenzene	19.9961 ppb v/v
							1,2,3-Trichloropropane	19.9961 ppb v/v
							1,2,4-Trichlorobenzene	19.9961 ppb v/v
							1,2,4-Trimethylbenzene	19.9961 ppb v/v
							1,2-Dibromoethane	19.9961 ppb v/v
							1,2-Dichlorobenzene	19.9961 ppb v/v
							1,2-Dichloroethane	19.9961 ppb v/v
							1,2-Dichloropropane	19.9961 ppb v/v
							1,2-Dichlorotetrafluoroethane	19.9961 ppb v/v
							1,3,5-Trimethylbenzene	19.9961 ppb v/v
							1,3-Dichlorobenzene	19.9961 ppb v/v
							1,4-Dichlorobenzene	19.9961 ppb v/v
							1,4-Dioxane	19.9961 ppb v/v
							2-Butanone (MEK)	19.9961 ppb v/v
							2-Chlorotoluene	19.9961 ppb v/v
							2-Hexanone	19.9961 ppb v/v
							2-Methyl-2-propanol	19.9961 ppb v/v
							2-Methylbutane	19.9961 ppb v/v
							3-Chloro-1-propene	19.9961 ppb v/v
							4-Ethyltoluene	19.9961 ppb v/v
							4-Isopropyltoluene	19.9961 ppb v/v
							4-Methyl-2-pentanone (MIBK)	19.9961 ppb v/v
							Acetone	19.9961 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46792-1

SDG No.: 200-46792-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Acetonitrile	19.9961 ppb v/v
							Acrolein	19.9961 ppb v/v
							Acrylonitrile	19.9961 ppb v/v
							Alpha Methyl Styrene	19.9961 ppb v/v
							Benzene	19.9961 ppb v/v
							Benzyl chloride	19.9961 ppb v/v
							Bromoform	19.9961 ppb v/v
							Bromomethane	19.9961 ppb v/v
							Butadiene	19.9961 ppb v/v
							Butane	19.9961 ppb v/v
							Carbon disulfide	19.9961 ppb v/v
							Carbon tetrachloride	19.9961 ppb v/v
							Chlorobenzene	19.9961 ppb v/v
							Chlorodibromomethane	19.9961 ppb v/v
							Chlorodifluoromethane	19.9961 ppb v/v
							Chloroethane	19.9961 ppb v/v
							Chloroform	19.9961 ppb v/v
							Chloromethane	19.9961 ppb v/v
							cis-1,2-Dichloroethene	19.9961 ppb v/v
							cis-1,3-Dichloropropene	19.9961 ppb v/v
							Cyclohexane	19.9961 ppb v/v
							Dibromomethane	19.9961 ppb v/v
							Dichlorobromomethane	19.9961 ppb v/v
							Dichlorodifluoromethane	19.9961 ppb v/v
							Dodecane	19.9961 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46792-1

SDG No.: 200-46792-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Ethyl acetate	19.9961 ppb v/v
							Ethyl ether	19.9961 ppb v/v
							Ethylbenzene	19.9961 ppb v/v
							Freon TF	19.9961 ppb v/v
							Hexachlorobutadiene	19.9961 ppb v/v
							Hexane	19.9961 ppb v/v
							Isooctane	19.9961 ppb v/v
							Isopropyl alcohol	19.9961 ppb v/v
							Isopropylbenzene	19.9961 ppb v/v
							m,p-Xylene	39.9922 ppb v/v
							Methyl methacrylate	19.9961 ppb v/v
							Methyl tert-butyl ether	19.9961 ppb v/v
							Methylene Chloride	19.9961 ppb v/v
							n-Butanol	19.9961 ppb v/v
							n-Butylbenzene	19.9961 ppb v/v
							n-Decane	19.9961 ppb v/v
							n-Heptane	19.9961 ppb v/v
							n-Nonane	19.9961 ppb v/v
							n-Octane	19.9961 ppb v/v
							N-Propylbenzene	19.9961 ppb v/v
							Naphthalene	19.9961 ppb v/v
							Pentane	19.9961 ppb v/v
							Propene	19.9961 ppb v/v
							sec-Butylbenzene	19.9961 ppb v/v
							Styrene	19.9961 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46792-1

SDG No.: 200-46792-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							tert-Butylbenzene	19.9961 ppb v/v
							Tetrachloroethene	19.9961 ppb v/v
							Tetrahydrofuran	19.9961 ppb v/v
							Toluene	19.9961 ppb v/v
							trans-1,2-Dichloroethene	19.9961 ppb v/v
							trans-1,3-Dichloropropene	19.9961 ppb v/v
							Trichloroethene	19.9961 ppb v/v
							Trichlorofluoromethane	19.9961 ppb v/v
							Undecane	19.9961 ppb v/v
							Vinyl acetate	19.9961 ppb v/v
							Vinyl bromide	19.9961 ppb v/v
							Vinyl chloride	19.9961 ppb v/v
							Xylene, o-	19.9961 ppb v/v
					ATTO15EthCALw_00101	1237 mL	Ethanol	39.9987 ppb v/v
..ATTO15CALSTKi_00106	02/01/19	11/21/18	Nitrogen, Lot 13	37.5 L	ATTO15CALs_00031	7500 mL	1,1,1-Trichloroethane	200 ppb v/v
							1,1,2,2-Tetrachloroethane	200 ppb v/v
							1,1,2-Trichloroethane	200 ppb v/v
							1,1-Dichloroethane	200 ppb v/v
							1,1-Dichloroethene	200 ppb v/v
							1,2,3-Trichlorobenzene	200 ppb v/v
							1,2,3-Trichloropropane	200 ppb v/v
							1,2,4-Trichlorobenzene	200 ppb v/v
							1,2,4-Trimethylbenzene	200 ppb v/v
							1,2-Dibromoethane	200 ppb v/v
							1,2-Dichlorobenzene	200 ppb v/v
							1,2-Dichloroethane	200 ppb v/v
							1,2-Dichloropropane	200 ppb v/v
							1,2-Dichlorotetrafluoroethane	200 ppb v/v
							1,3,5-Trimethylbenzene	200 ppb v/v
							1,3-Dichlorobenzene	200 ppb v/v
							1,4-Dichlorobenzene	200 ppb v/v
							1,4-Dioxane	200 ppb v/v
							2-Butanone (MEK)	200 ppb v/v
							2-Chlorotoluene	200 ppb v/v
							2-Hexanone	200 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46792-1

SDG No.: 200-46792-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Methyl-2-propanol	200 ppb v/v
							2-Methylbutane	200 ppb v/v
							3-Chloro-1-propene	200 ppb v/v
							4-Ethyltoluene	200 ppb v/v
							4-Isopropyltoluene	200 ppb v/v
							4-Methyl-2-pentanone (MIBK)	200 ppb v/v
							Acetone	200 ppb v/v
							Acetonitrile	200 ppb v/v
							Acrolein	200 ppb v/v
							Acrylonitrile	200 ppb v/v
							Alpha Methyl Styrene	200 ppb v/v
							Benzene	200 ppb v/v
							Benzyl chloride	200 ppb v/v
							Bromoform	200 ppb v/v
							Bromomethane	200 ppb v/v
							Butadiene	200 ppb v/v
							Butane	200 ppb v/v
							Carbon disulfide	200 ppb v/v
							Carbon tetrachloride	200 ppb v/v
							Chlorobenzene	200 ppb v/v
							Chlorodibromomethane	200 ppb v/v
							Chlorodifluoromethane	200 ppb v/v
							Chloroethane	200 ppb v/v
							Chloroform	200 ppb v/v
							Chloromethane	200 ppb v/v
							cis-1,2-Dichloroethene	200 ppb v/v
							cis-1,3-Dichloropropene	200 ppb v/v
							Cyclohexane	200 ppb v/v
							Dibromomethane	200 ppb v/v
							Dichlorobromomethane	200 ppb v/v
							Dichlorodifluoromethane	200 ppb v/v
							Dodecane	200 ppb v/v
							Ethyl acetate	200 ppb v/v
							Ethyl ether	200 ppb v/v
							Ethylbenzene	200 ppb v/v
							Freon TF	200 ppb v/v
							Hexachlorobutadiene	200 ppb v/v
							Hexane	200 ppb v/v
							Isooctane	200 ppb v/v
							Isopropyl alcohol	200 ppb v/v
							Isopropylbenzene	200 ppb v/v
							m,p-Xylene	400 ppb v/v
							Methyl methacrylate	200 ppb v/v
							Methyl tert-butyl ether	200 ppb v/v
							Methylene Chloride	200 ppb v/v
							n-Butanol	200 ppb v/v
							n-Butylbenzene	200 ppb v/v
							n-Decane	200 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46792-1

SDG No.: 200-46792-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							n-Heptane	200 ppb v/v
							n-Nonane	200 ppb v/v
							n-Octane	200 ppb v/v
							N-Propylbenzene	200 ppb v/v
							Naphthalene	200 ppb v/v
							Pentane	200 ppb v/v
							Propene	200 ppb v/v
							sec-Butylbenzene	200 ppb v/v
							Styrene	200 ppb v/v
							tert-Butylbenzene	200 ppb v/v
							Tetrachloroethene	200 ppb v/v
							Tetrahydrofuran	200 ppb v/v
							Toluene	200 ppb v/v
							trans-1,2-Dichloroethene	200 ppb v/v
							trans-1,3-Dichloropropene	200 ppb v/v
							Trichloroethene	200 ppb v/v
							Trichlorofluoromethane	200 ppb v/v
							Undecane	200 ppb v/v
							Vinyl acetate	200 ppb v/v
							Vinyl bromide	200 ppb v/v
							Vinyl chloride	200 ppb v/v
							Xylene, o-	200 ppb v/v
...ATTO15CALs_00031	02/01/19		Linde, Lot CC-133603			(Purchased Reagent)	1,1,1-Trichloroethane	1 ppm v/v
							1,1,2,2-Tetrachloroethane	1 ppm v/v
							1,1,2-Trichloroethane	1 ppm v/v
							1,1-Dichloroethane	1 ppm v/v
							1,1-Dichloroethene	1 ppm v/v
							1,2,3-Trichlorobenzene	1 ppm v/v
							1,2,3-Trichloropropane	1 ppm v/v
							1,2,4-Trichlorobenzene	1 ppm v/v
							1,2,4-Trimethylbenzene	1 ppm v/v
							1,2-Dibromoethane	1 ppm v/v
							1,2-Dichlorobenzene	1 ppm v/v
							1,2-Dichloroethane	1 ppm v/v
							1,2-Dichloropropane	1 ppm v/v
							1,2-Dichlorotetrafluoroethane	1 ppm v/v
							1,3,5-Trimethylbenzene	1 ppm v/v
							1,3-Dichlorobenzene	1 ppm v/v
							1,4-Dichlorobenzene	1 ppm v/v
							1,4-Dioxane	1 ppm v/v
							2-Butanone (MEK)	1 ppm v/v
							2-Chlorotoluene	1 ppm v/v
							2-Hexanone	1 ppm v/v
							2-Methyl-2-propanol	1 ppm v/v
							2-Methylbutane	1 ppm v/v
							3-Chloro-1-propene	1 ppm v/v
							4-Ethyltoluene	1 ppm v/v
							4-Isopropyltoluene	1 ppm v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46792-1

SDG No.: 200-46792-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Methyl-2-pentanone (MIBK)	1 ppm v/v
							Acetone	1 ppm v/v
							Acetonitrile	1 ppm v/v
							Acrolein	1 ppm v/v
							Acrylonitrile	1 ppm v/v
							Alpha Methyl Styrene	1 ppm v/v
							Benzene	1 ppm v/v
							Benzyl chloride	1 ppm v/v
							Bromoform	1 ppm v/v
							Bromomethane	1 ppm v/v
							Butadiene	1 ppm v/v
							Butane	1 ppm v/v
							Carbon disulfide	1 ppm v/v
							Carbon tetrachloride	1 ppm v/v
							Chlorobenzene	1 ppm v/v
							Chlorodibromomethane	1 ppm v/v
							Chlorodifluoromethane	1 ppm v/v
							Chloroethane	1 ppm v/v
							Chloroform	1 ppm v/v
							Chloromethane	1 ppm v/v
							cis-1,2-Dichloroethene	1 ppm v/v
							cis-1,3-Dichloropropene	1 ppm v/v
							Cyclohexane	1 ppm v/v
							Dibromomethane	1 ppm v/v
							Dichlorobromomethane	1 ppm v/v
							Dichlorodifluoromethane	1 ppm v/v
							Dodecane	1 ppm v/v
							Ethyl acetate	1 ppm v/v
							Ethyl ether	1 ppm v/v
							Ethylbenzene	1 ppm v/v
							Freon TF	1 ppm v/v
							Hexachlorobutadiene	1 ppm v/v
							Hexane	1 ppm v/v
							Isooctane	1 ppm v/v
							Isopropyl alcohol	1 ppm v/v
							Isopropylbenzene	1 ppm v/v
							m,p-Xylene	2 ppm v/v
							Methyl methacrylate	1 ppm v/v
							Methyl tert-butyl ether	1 ppm v/v
							Methylene Chloride	1 ppm v/v
							n-Butanol	1 ppm v/v
							n-Butylbenzene	1 ppm v/v
							n-Decane	1 ppm v/v
							n-Heptane	1 ppm v/v
							n-Nonane	1 ppm v/v
							n-Octane	1 ppm v/v
							N-Propylbenzene	1 ppm v/v
							Naphthalene	1 ppm v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46792-1

SDG No.: 200-46792-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Pentane	1 ppm v/v
							Propene	1 ppm v/v
							sec-Butylbenzene	1 ppm v/v
							Styrene	1 ppm v/v
							tert-Butylbenzene	1 ppm v/v
							Tetrachloroethene	1 ppm v/v
							Tetrahydrofuran	1 ppm v/v
							Toluene	1 ppm v/v
							trans-1,2-Dichloroethene	1 ppm v/v
							trans-1,3-Dichloropropene	1 ppm v/v
							Trichloroethene	1 ppm v/v
							Trichlorofluoromethane	1 ppm v/v
							Undecane	1 ppm v/v
							Vinyl acetate	1 ppm v/v
							Vinyl bromide	1 ppm v/v
							Vinyl chloride	1 ppm v/v
							Xylene, o-	1 ppm v/v
..ATTO15EthCALw_00101	02/23/19	11/21/18	Nitrogen, Lot 12	37.5 ppb	ATTO15EthCALs_00009	18.75 uL	Ethanol	500 ppb v/v
...ATTO15EthCALs_00009	09/05/21		Chem Service, Lot 5301900		(Purchased Reagent)		Ethanol	1 mL/mL
ATTO15CAL2w_00274	12/23/18	11/24/18	Nitrogen, Lot 12	15.463 L	ATTO15CAL6w_00161	387 mL	1,1,1-Trichloroethane	0.500453 ppb v/v
							1,1,2,2-Tetrachloroethane	0.500453 ppb v/v
							1,1,2-Trichloroethane	0.500453 ppb v/v
							1,1-Dichloroethane	0.500453 ppb v/v
							1,1-Dichloroethene	0.500453 ppb v/v
							1,2,3-Trichlorobenzene	0.500453 ppb v/v
							1,2,3-Trichloropropane	0.500453 ppb v/v
							1,2,4-Trichlorobenzene	0.500453 ppb v/v
							1,2,4-Trimethylbenzene	0.500453 ppb v/v
							1,2-Dibromoethane	0.500453 ppb v/v
							1,2-Dichlorobenzene	0.500453 ppb v/v
							1,2-Dichloroethane	0.500453 ppb v/v
							1,2-Dichloropropane	0.500453 ppb v/v
							1,2-Dichlorotetrafluoroethane	0.500453 ppb v/v
							1,3,5-Trimethylbenzene	0.500453 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46792-1

SDG No.: 200-46792-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,3-Dichlorobenzene	0.500453 ppb v/v
							1,4-Dichlorobenzene	0.500453 ppb v/v
							1,4-Dioxane	0.500453 ppb v/v
							2-Butanone (MEK)	0.500453 ppb v/v
							2-Chlorotoluene	0.500453 ppb v/v
							2-Hexanone	0.500453 ppb v/v
							2-Methyl-2-propanol	0.500453 ppb v/v
							2-Methylbutane	0.500453 ppb v/v
							3-Chloro-1-propene	0.500453 ppb v/v
							4-Ethyltoluene	0.500453 ppb v/v
							4-Isopropyltoluene	0.500453 ppb v/v
							4-Methyl-2-pentanone (MIBK)	0.500453 ppb v/v
							Acetone	0.500453 ppb v/v
							Acetonitrile	0.500453 ppb v/v
							Acrolein	0.500453 ppb v/v
							Acrylonitrile	0.500453 ppb v/v
							Alpha Methyl Styrene	0.500453 ppb v/v
							Benzene	0.500453 ppb v/v
							Benzyl chloride	0.500453 ppb v/v
							Bromoform	0.500453 ppb v/v
							Bromomethane	0.500453 ppb v/v
							Butadiene	0.500453 ppb v/v
							Butane	0.500453 ppb v/v
							Carbon disulfide	0.500453 ppb v/v
							Carbon tetrachloride	0.500453 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46792-1

SDG No.: 200-46792-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Chlorobenzene	0.500453 ppb v/v
							Chlorodibromomethane	0.500453 ppb v/v
							Chlorodifluoromethane	0.500453 ppb v/v
							Chloroethane	0.500453 ppb v/v
							Chloroform	0.500453 ppb v/v
							Chloromethane	0.500453 ppb v/v
							cis-1,2-Dichloroethene	0.500453 ppb v/v
							cis-1,3-Dichloropropene	0.500453 ppb v/v
							Cyclohexane	0.500453 ppb v/v
							Dibromomethane	0.500453 ppb v/v
							Dichlorobromomethane	0.500453 ppb v/v
							Dichlorodifluoromethane	0.500453 ppb v/v
							Dodecane	0.500453 ppb v/v
							Ethyl acetate	0.500453 ppb v/v
							Ethyl ether	0.500453 ppb v/v
							Ethylbenzene	0.500453 ppb v/v
							Freon TF	0.500453 ppb v/v
							Hexachlorobutadiene	0.500453 ppb v/v
							Hexane	0.500453 ppb v/v
							Isooctane	0.500453 ppb v/v
							Isopropyl alcohol	0.500453 ppb v/v
							Isopropylbenzene	0.500453 ppb v/v
							m,p-Xylene	1.00091 ppb v/v
							Methyl methacrylate	0.500453 ppb v/v
							Methyl tert-butyl ether	0.500453 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46792-1

SDG No.: 200-46792-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Methylene Chloride	0.500453 ppb v/v
							n-Butanol	0.500453 ppb v/v
							n-Butylbenzene	0.500453 ppb v/v
							n-Decane	0.500453 ppb v/v
							n-Heptane	0.500453 ppb v/v
							n-Nonane	0.500453 ppb v/v
							n-Octane	0.500453 ppb v/v
							N-Propylbenzene	0.500453 ppb v/v
							Naphthalene	0.500453 ppb v/v
							Pentane	0.500453 ppb v/v
							Propene	0.500453 ppb v/v
							sec-Butylbenzene	0.500453 ppb v/v
							Styrene	0.500453 ppb v/v
							tert-Butylbenzene	0.500453 ppb v/v
							Tetrachloroethene	0.500453 ppb v/v
							Tetrahydrofuran	0.500453 ppb v/v
							Toluene	0.500453 ppb v/v
							trans-1,2-Dichloroethene	0.500453 ppb v/v
							trans-1,3-Dichloropropene	0.500453 ppb v/v
							Trichloroethene	0.500453 ppb v/v
							Trichlorofluoromethane	0.500453 ppb v/v
							Undecane	0.500453 ppb v/v
							Vinyl acetate	0.500453 ppb v/v
							Vinyl bromide	0.500453 ppb v/v
							Vinyl chloride	0.500453 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46792-1

SDG No.: 200-46792-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Xylene, o-	0.500453 ppb v/v
							Ethanol	5.01064 ppb v/v
					ATTO15EthCALw_00101	124 mL	Ethanol	5.01064 ppb v/v
.ATTO15CAL6w_00161	12/23/18	11/23/18	Nitrogen, Lot 1	15.463 L	ATTO15CALSTKi_00106	1546 mL	1,1,1-Trichloroethane	19.9961 ppb v/v
							1,1,2,2-Tetrachloroethane	19.9961 ppb v/v
							1,1,2-Trichloroethane	19.9961 ppb v/v
							1,1-Dichloroethane	19.9961 ppb v/v
							1,1-Dichloroethene	19.9961 ppb v/v
							1,2,3-Trichlorobenzene	19.9961 ppb v/v
							1,2,3-Trichloropropane	19.9961 ppb v/v
							1,2,4-Trichlorobenzene	19.9961 ppb v/v
							1,2,4-Trimethylbenzene	19.9961 ppb v/v
							1,2-Dibromoethane	19.9961 ppb v/v
							1,2-Dichlorobenzene	19.9961 ppb v/v
							1,2-Dichloroethane	19.9961 ppb v/v
							1,2-Dichloropropane	19.9961 ppb v/v
							1,2-Dichlorotetrafluoroethane	19.9961 ppb v/v
							1,3,5-Trimethylbenzene	19.9961 ppb v/v
							1,3-Dichlorobenzene	19.9961 ppb v/v
							1,4-Dichlorobenzene	19.9961 ppb v/v
							1,4-Dioxane	19.9961 ppb v/v
							2-Butanone (MEK)	19.9961 ppb v/v
							2-Chlorotoluene	19.9961 ppb v/v
							2-Hexanone	19.9961 ppb v/v
							2-Methyl-2-propanol	19.9961 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46792-1

SDG No.: 200-46792-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Methylbutane	19.9961 ppb v/v
							3-Chloro-1-propene	19.9961 ppb v/v
							4-Ethyltoluene	19.9961 ppb v/v
							4-Isopropyltoluene	19.9961 ppb v/v
							4-Methyl-2-pentanone (MIBK)	19.9961 ppb v/v
							Acetone	19.9961 ppb v/v
							Acetonitrile	19.9961 ppb v/v
							Acrolein	19.9961 ppb v/v
							Acrylonitrile	19.9961 ppb v/v
							Alpha Methyl Styrene	19.9961 ppb v/v
							Benzene	19.9961 ppb v/v
							Benzyl chloride	19.9961 ppb v/v
							Bromoform	19.9961 ppb v/v
							Bromomethane	19.9961 ppb v/v
							Butadiene	19.9961 ppb v/v
							Butane	19.9961 ppb v/v
							Carbon disulfide	19.9961 ppb v/v
							Carbon tetrachloride	19.9961 ppb v/v
							Chlorobenzene	19.9961 ppb v/v
							Chlorodibromomethane	19.9961 ppb v/v
							Chlorodifluoromethane	19.9961 ppb v/v
							Chloroethane	19.9961 ppb v/v
							Chloroform	19.9961 ppb v/v
							Chloromethane	19.9961 ppb v/v
							cis-1,2-Dichloroethene	19.9961 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46792-1

SDG No.: 200-46792-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							cis-1,3-Dichloropropene	19.9961 ppb v/v
							Cyclohexane	19.9961 ppb v/v
							Dibromomethane	19.9961 ppb v/v
							Dichlorobromomethane	19.9961 ppb v/v
							Dichlorodifluoromethane	19.9961 ppb v/v
							Dodecane	19.9961 ppb v/v
							Ethyl acetate	19.9961 ppb v/v
							Ethyl ether	19.9961 ppb v/v
							Ethylbenzene	19.9961 ppb v/v
							Freon TF	19.9961 ppb v/v
							Hexachlorobutadiene	19.9961 ppb v/v
							Hexane	19.9961 ppb v/v
							Isooctane	19.9961 ppb v/v
							Isopropyl alcohol	19.9961 ppb v/v
							Isopropylbenzene	19.9961 ppb v/v
							m,p-Xylene	39.9922 ppb v/v
							Methyl methacrylate	19.9961 ppb v/v
							Methyl tert-butyl ether	19.9961 ppb v/v
							Methylene Chloride	19.9961 ppb v/v
							n-Butanol	19.9961 ppb v/v
							n-Butylbenzene	19.9961 ppb v/v
							n-Decane	19.9961 ppb v/v
							n-Heptane	19.9961 ppb v/v
							n-Nonane	19.9961 ppb v/v
							n-Octane	19.9961 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46792-1

SDG No.: 200-46792-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							N-Propylbenzene	19.9961 ppb v/v
							Naphthalene	19.9961 ppb v/v
							Pentane	19.9961 ppb v/v
							Propene	19.9961 ppb v/v
							sec-Butylbenzene	19.9961 ppb v/v
							Styrene	19.9961 ppb v/v
							tert-Butylbenzene	19.9961 ppb v/v
							Tetrachloroethene	19.9961 ppb v/v
							Tetrahydrofuran	19.9961 ppb v/v
							Toluene	19.9961 ppb v/v
							trans-1,2-Dichloroethene	19.9961 ppb v/v
							trans-1,3-Dichloropropene	19.9961 ppb v/v
							Trichloroethene	19.9961 ppb v/v
							Trichlorofluoromethane	19.9961 ppb v/v
							Undecane	19.9961 ppb v/v
							Vinyl acetate	19.9961 ppb v/v
							Vinyl bromide	19.9961 ppb v/v
							Vinyl chloride	19.9961 ppb v/v
							Xylene, o-	19.9961 ppb v/v
					ATTO15EthCALw_00101	1237 mL	Ethanol	39.9987 ppb v/v
..ATTO15CALSTKi_00106	02/01/19	11/21/18	Nitrogen, Lot 13	37.5 L	ATTO15CALs_00031	7500 mL	1,1,1-Trichloroethane	200 ppb v/v
							1,1,2,2-Tetrachloroethane	200 ppb v/v
							1,1,2-Trichloroethane	200 ppb v/v
							1,1-Dichloroethane	200 ppb v/v
							1,1-Dichloroethene	200 ppb v/v
							1,2,3-Trichlorobenzene	200 ppb v/v
							1,2,3-Trichloropropane	200 ppb v/v
							1,2,4-Trichlorobenzene	200 ppb v/v
							1,2,4-Trimethylbenzene	200 ppb v/v
							1,2-Dibromoethane	200 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46792-1

SDG No.: 200-46792-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2-Dichlorobenzene	200 ppb v/v
							1,2-Dichloroethane	200 ppb v/v
							1,2-Dichloropropane	200 ppb v/v
							1,2-Dichlorotetrafluoroethane	200 ppb v/v
							1,3,5-Trimethylbenzene	200 ppb v/v
							1,3-Dichlorobenzene	200 ppb v/v
							1,4-Dichlorobenzene	200 ppb v/v
							1,4-Dioxane	200 ppb v/v
							2-Butanone (MEK)	200 ppb v/v
							2-Chlorotoluene	200 ppb v/v
							2-Hexanone	200 ppb v/v
							2-Methyl-2-propanol	200 ppb v/v
							2-Methylbutane	200 ppb v/v
							3-Chloro-1-propene	200 ppb v/v
							4-Ethyltoluene	200 ppb v/v
							4-Isopropyltoluene	200 ppb v/v
							4-Methyl-2-pentanone (MIBK)	200 ppb v/v
							Acetone	200 ppb v/v
							Acetonitrile	200 ppb v/v
							Acrolein	200 ppb v/v
							Acrylonitrile	200 ppb v/v
							Alpha Methyl Styrene	200 ppb v/v
							Benzene	200 ppb v/v
							Benzyl chloride	200 ppb v/v
							Bromoform	200 ppb v/v
							Bromomethane	200 ppb v/v
							Butadiene	200 ppb v/v
							Butane	200 ppb v/v
							Carbon disulfide	200 ppb v/v
							Carbon tetrachloride	200 ppb v/v
							Chlorobenzene	200 ppb v/v
							Chlorodibromomethane	200 ppb v/v
							Chlorodifluoromethane	200 ppb v/v
							Chloroethane	200 ppb v/v
							Chloroform	200 ppb v/v
							Chloromethane	200 ppb v/v
							cis-1,2-Dichloroethene	200 ppb v/v
							cis-1,3-Dichloropropene	200 ppb v/v
							Cyclohexane	200 ppb v/v
							Dibromomethane	200 ppb v/v
							Dichlorobromomethane	200 ppb v/v
							Dichlorodifluoromethane	200 ppb v/v
							Dodecane	200 ppb v/v
							Ethyl acetate	200 ppb v/v
							Ethyl ether	200 ppb v/v
							Ethylbenzene	200 ppb v/v
							Freon TF	200 ppb v/v
							Hexachlorobutadiene	200 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46792-1

SDG No.: 200-46792-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Hexane	200 ppb v/v
							Isooctane	200 ppb v/v
							Isopropyl alcohol	200 ppb v/v
							Isopropylbenzene	200 ppb v/v
							m,p-Xylene	400 ppb v/v
							Methyl methacrylate	200 ppb v/v
							Methyl tert-butyl ether	200 ppb v/v
							Methylene Chloride	200 ppb v/v
							n-Butanol	200 ppb v/v
							n-Butylbenzene	200 ppb v/v
							n-Decane	200 ppb v/v
							n-Heptane	200 ppb v/v
							n-Nonane	200 ppb v/v
							n-Octane	200 ppb v/v
							N-Propylbenzene	200 ppb v/v
							Naphthalene	200 ppb v/v
							Pentane	200 ppb v/v
							Propene	200 ppb v/v
							sec-Butylbenzene	200 ppb v/v
							Styrene	200 ppb v/v
							tert-Butylbenzene	200 ppb v/v
							Tetrachloroethene	200 ppb v/v
							Tetrahydrofuran	200 ppb v/v
							Toluene	200 ppb v/v
							trans-1,2-Dichloroethene	200 ppb v/v
							trans-1,3-Dichloropropene	200 ppb v/v
							Trichloroethene	200 ppb v/v
							Trichlorofluoromethane	200 ppb v/v
							Undecane	200 ppb v/v
							Vinyl acetate	200 ppb v/v
							Vinyl bromide	200 ppb v/v
							Vinyl chloride	200 ppb v/v
							Xylene, o-	200 ppb v/v
...ATTO15CALs_00031	02/01/19		Linde, Lot CC-133603			(Purchased Reagent)	1,1,1-Trichloroethane	1 ppm v/v
							1,1,2,2-Tetrachloroethane	1 ppm v/v
							1,1,2-Trichloroethane	1 ppm v/v
							1,1-Dichloroethane	1 ppm v/v
							1,1-Dichloroethene	1 ppm v/v
							1,2,3-Trichlorobenzene	1 ppm v/v
							1,2,3-Trichloropropane	1 ppm v/v
							1,2,4-Trichlorobenzene	1 ppm v/v
							1,2,4-Trimethylbenzene	1 ppm v/v
							1,2-Dibromoethane	1 ppm v/v
							1,2-Dichlorobenzene	1 ppm v/v
							1,2-Dichloroethane	1 ppm v/v
							1,2-Dichloropropane	1 ppm v/v
							1,2-Dichlorotetrafluoroethane	1 ppm v/v
							1,3,5-Trimethylbenzene	1 ppm v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46792-1

SDG No.: 200-46792-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,3-Dichlorobenzene	1 ppm v/v
							1,4-Dichlorobenzene	1 ppm v/v
							1,4-Dioxane	1 ppm v/v
							2-Butanone (MEK)	1 ppm v/v
							2-Chlorotoluene	1 ppm v/v
							2-Hexanone	1 ppm v/v
							2-Methyl-2-propanol	1 ppm v/v
							2-Methylbutane	1 ppm v/v
							3-Chloro-1-propene	1 ppm v/v
							4-Ethyltoluene	1 ppm v/v
							4-Isopropyltoluene	1 ppm v/v
							4-Methyl-2-pentanone (MIBK)	1 ppm v/v
							Acetone	1 ppm v/v
							Acetonitrile	1 ppm v/v
							Acrolein	1 ppm v/v
							Acrylonitrile	1 ppm v/v
							Alpha Methyl Styrene	1 ppm v/v
							Benzene	1 ppm v/v
							Benzyl chloride	1 ppm v/v
							Bromoform	1 ppm v/v
							Bromomethane	1 ppm v/v
							Butadiene	1 ppm v/v
							Butane	1 ppm v/v
							Carbon disulfide	1 ppm v/v
							Carbon tetrachloride	1 ppm v/v
							Chlorobenzene	1 ppm v/v
							Chlorodibromomethane	1 ppm v/v
							Chlorodifluoromethane	1 ppm v/v
							Chloroethane	1 ppm v/v
							Chloroform	1 ppm v/v
							Chloromethane	1 ppm v/v
							cis-1,2-Dichloroethene	1 ppm v/v
							cis-1,3-Dichloropropene	1 ppm v/v
							Cyclohexane	1 ppm v/v
							Dibromomethane	1 ppm v/v
							Dichlorobromomethane	1 ppm v/v
							Dichlorodifluoromethane	1 ppm v/v
							Dodecane	1 ppm v/v
							Ethyl acetate	1 ppm v/v
							Ethyl ether	1 ppm v/v
							Ethylbenzene	1 ppm v/v
							Freon TF	1 ppm v/v
							Hexachlorobutadiene	1 ppm v/v
							Hexane	1 ppm v/v
							Isooctane	1 ppm v/v
							Isopropyl alcohol	1 ppm v/v
							Isopropylbenzene	1 ppm v/v
							m,p-Xylene	2 ppm v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46792-1

SDG No.: 200-46792-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Methyl methacrylate	1 ppm v/v
							Methyl tert-butyl ether	1 ppm v/v
							Methylene Chloride	1 ppm v/v
							n-Butanol	1 ppm v/v
							n-Butylbenzene	1 ppm v/v
							n-Decane	1 ppm v/v
							n-Heptane	1 ppm v/v
							n-Nonane	1 ppm v/v
							n-Octane	1 ppm v/v
							N-Propylbenzene	1 ppm v/v
							Naphthalene	1 ppm v/v
							Pentane	1 ppm v/v
							Propene	1 ppm v/v
							sec-Butylbenzene	1 ppm v/v
							Styrene	1 ppm v/v
							tert-Butylbenzene	1 ppm v/v
							Tetrachloroethene	1 ppm v/v
							Tetrahydrofuran	1 ppm v/v
							Toluene	1 ppm v/v
							trans-1,2-Dichloroethene	1 ppm v/v
							trans-1,3-Dichloropropene	1 ppm v/v
							Trichloroethene	1 ppm v/v
							Trichlorofluoromethane	1 ppm v/v
							Undecane	1 ppm v/v
							Vinyl acetate	1 ppm v/v
							Vinyl bromide	1 ppm v/v
							Vinyl chloride	1 ppm v/v
							Xylene, o-	1 ppm v/v
..ATTO15EthCALw_00101	02/23/19	11/21/18	Nitrogen, Lot 12	37.5 ppb	ATTO15EthCALs_00009	18.75 uL	Ethanol	500 ppb v/v
...ATTO15EthCALs_00009	09/05/21		Chem Service, Lot 5301900		(Purchased Reagent)		Ethanol	1 mL/mL
.ATTO15EthCALw_00101	02/23/19	11/21/18	Nitrogen, Lot 12	37.5 ppb	ATTO15EthCALs_00009	18.75 uL	Ethanol	500 ppb v/v
..ATTO15EthCALs_00009	09/05/21		Chem Service, Lot 5301900		(Purchased Reagent)		Ethanol	1 mL/mL
ATTO15CAL3w_00210	12/23/18	11/23/18	Nitrogen, Lot 12	15.463 L	ATTO15CALSTKi_00106	386 mL	1,1,1-Trichloroethane	4.99256 ppb v/v
							1,1,2,2-Tetrachloroethane	4.99256 ppb v/v
							1,1,2-Trichloroethane	4.99256 ppb v/v
							1,1-Dichloroethane	4.99256 ppb v/v
							1,1-Dichloroethene	4.99256 ppb v/v
							1,2,3-Trichlorobenzene	4.99256 ppb v/v
							1,2,3-Trichloropropane	4.99256 ppb v/v
							1,2,4-Trichlorobenzene	4.99256 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46792-1

SDG No.: 200-46792-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2,4-Trimethylbenzene	4.99256 ppb v/v
							1,2-Dibromoethane	4.99256 ppb v/v
							1,2-Dichlorobenzene	4.99256 ppb v/v
							1,2-Dichloroethane	4.99256 ppb v/v
							1,2-Dichloropropane	4.99256 ppb v/v
							1,2-Dichlorotetrafluoroethane	4.99256 ppb v/v
							1,3,5-Trimethylbenzene	4.99256 ppb v/v
							1,3-Dichlorobenzene	4.99256 ppb v/v
							1,4-Dichlorobenzene	4.99256 ppb v/v
							1,4-Dioxane	4.99256 ppb v/v
							2-Butanone (MEK)	4.99256 ppb v/v
							2-Chlorotoluene	4.99256 ppb v/v
							2-Hexanone	4.99256 ppb v/v
							2-Methyl-2-propanol	4.99256 ppb v/v
							2-Methylbutane	4.99256 ppb v/v
							3-Chloro-1-propene	4.99256 ppb v/v
							4-Ethyltoluene	4.99256 ppb v/v
							4-Isopropyltoluene	4.99256 ppb v/v
							4-Methyl-2-pentanone (MIBK)	4.99256 ppb v/v
							Acetone	4.99256 ppb v/v
							Acetonitrile	4.99256 ppb v/v
							Acrolein	4.99256 ppb v/v
							Acrylonitrile	4.99256 ppb v/v
							Alpha Methyl Styrene	4.99256 ppb v/v
							Benzene	4.99256 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46792-1

SDG No.: 200-46792-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Benzyl chloride	4.99256 ppb v/v
							Bromoform	4.99256 ppb v/v
							Bromomethane	4.99256 ppb v/v
							Butadiene	4.99256 ppb v/v
							Butane	4.99256 ppb v/v
							Carbon disulfide	4.99256 ppb v/v
							Carbon tetrachloride	4.99256 ppb v/v
							Chlorobenzene	4.99256 ppb v/v
							Chlorodibromomethane	4.99256 ppb v/v
							Chlorodifluoromethane	4.99256 ppb v/v
							Chloroethane	4.99256 ppb v/v
							Chloroform	4.99256 ppb v/v
							Chloromethane	4.99256 ppb v/v
							cis-1,2-Dichloroethene	4.99256 ppb v/v
							cis-1,3-Dichloropropene	4.99256 ppb v/v
							Cyclohexane	4.99256 ppb v/v
							Dibromomethane	4.99256 ppb v/v
							Dichlorobromomethane	4.99256 ppb v/v
							Dichlorodifluoromethane	4.99256 ppb v/v
							Dodecane	4.99256 ppb v/v
							Ethyl acetate	4.99256 ppb v/v
							Ethyl ether	4.99256 ppb v/v
							Ethylbenzene	4.99256 ppb v/v
							Freon TF	4.99256 ppb v/v
							Hexachlorobutadiene	4.99256 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46792-1

SDG No.: 200-46792-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Hexane	4.99256 ppb v/v
							Isooctane	4.99256 ppb v/v
							Isopropyl alcohol	4.99256 ppb v/v
							Isopropylbenzene	4.99256 ppb v/v
							m,p-Xylene	9.98513 ppb v/v
							Methyl methacrylate	4.99256 ppb v/v
							Methyl tert-butyl ether	4.99256 ppb v/v
							Methylene Chloride	4.99256 ppb v/v
							n-Butanol	4.99256 ppb v/v
							n-Butylbenzene	4.99256 ppb v/v
							n-Decane	4.99256 ppb v/v
							n-Heptane	4.99256 ppb v/v
							n-Nonane	4.99256 ppb v/v
							n-Octane	4.99256 ppb v/v
							N-Propylbenzene	4.99256 ppb v/v
							Naphthalene	4.99256 ppb v/v
							Pentane	4.99256 ppb v/v
							Propene	4.99256 ppb v/v
							sec-Butylbenzene	4.99256 ppb v/v
							Styrene	4.99256 ppb v/v
							tert-Butylbenzene	4.99256 ppb v/v
							Tetrachloroethene	4.99256 ppb v/v
							Tetrahydrofuran	4.99256 ppb v/v
							Toluene	4.99256 ppb v/v
							trans-1,2-Dichloroethene	4.99256 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46792-1

SDG No.: 200-46792-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							trans-1,3-Dichloropropene	4.99256 ppb v/v
							Trichloroethene	4.99256 ppb v/v
							Trichlorofluoromethane	4.99256 ppb v/v
							Undecane	4.99256 ppb v/v
							Vinyl acetate	4.99256 ppb v/v
							Vinyl bromide	4.99256 ppb v/v
							Vinyl chloride	4.99256 ppb v/v
							Xylene, o-	4.99256 ppb v/v
					ATTO15EthCALw_00101	309 mL	Ethanol	9.99159 ppb v/v
.ATTO15CALSTKi_00106	02/01/19	11/21/18	Nitrogen, Lot 13	37.5 L	ATTO15CALs_00031	7500 mL	1,1,1-Trichloroethane	200 ppb v/v
							1,1,2,2-Tetrachloroethane	200 ppb v/v
							1,1,2-Trichloroethane	200 ppb v/v
							1,1-Dichloroethane	200 ppb v/v
							1,1-Dichloroethene	200 ppb v/v
							1,2,3-Trichlorobenzene	200 ppb v/v
							1,2,3-Trichloropropane	200 ppb v/v
							1,2,4-Trichlorobenzene	200 ppb v/v
							1,2,4-Trimethylbenzene	200 ppb v/v
							1,2-Dibromoethane	200 ppb v/v
							1,2-Dichlorobenzene	200 ppb v/v
							1,2-Dichloroethane	200 ppb v/v
							1,2-Dichloropropane	200 ppb v/v
							1,2-Dichlorotetrafluoroethane	200 ppb v/v
							1,3,5-Trimethylbenzene	200 ppb v/v
							1,3-Dichlorobenzene	200 ppb v/v
							1,4-Dichlorobenzene	200 ppb v/v
							1,4-Dioxane	200 ppb v/v
							2-Butanone (MEK)	200 ppb v/v
							2-Chlorotoluene	200 ppb v/v
							2-Hexanone	200 ppb v/v
							2-Methyl-2-propanol	200 ppb v/v
							2-Methylbutane	200 ppb v/v
							3-Chloro-1-propene	200 ppb v/v
							4-Ethyltoluene	200 ppb v/v
							4-Isopropyltoluene	200 ppb v/v
							4-Methyl-2-pentanone (MIBK)	200 ppb v/v
							Acetone	200 ppb v/v
							Acetonitrile	200 ppb v/v
							Acrolein	200 ppb v/v
							Acrylonitrile	200 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46792-1

SDG No.: 200-46792-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Alpha Methyl Styrene	200 ppb v/v
							Benzene	200 ppb v/v
							Benzyl chloride	200 ppb v/v
							Bromoform	200 ppb v/v
							Bromomethane	200 ppb v/v
							Butadiene	200 ppb v/v
							Butane	200 ppb v/v
							Carbon disulfide	200 ppb v/v
							Carbon tetrachloride	200 ppb v/v
							Chlorobenzene	200 ppb v/v
							Chlorodibromomethane	200 ppb v/v
							Chlorodifluoromethane	200 ppb v/v
							Chloroethane	200 ppb v/v
							Chloroform	200 ppb v/v
							Chloromethane	200 ppb v/v
							cis-1,2-Dichloroethene	200 ppb v/v
							cis-1,3-Dichloropropene	200 ppb v/v
							Cyclohexane	200 ppb v/v
							Dibromomethane	200 ppb v/v
							Dichlorobromomethane	200 ppb v/v
							Dichlorodifluoromethane	200 ppb v/v
							Dodecane	200 ppb v/v
							Ethyl acetate	200 ppb v/v
							Ethyl ether	200 ppb v/v
							Ethylbenzene	200 ppb v/v
							Freon TF	200 ppb v/v
							Hexachlorobutadiene	200 ppb v/v
							Hexane	200 ppb v/v
							Isooctane	200 ppb v/v
							Isopropyl alcohol	200 ppb v/v
							Isopropylbenzene	200 ppb v/v
							m,p-Xylene	400 ppb v/v
							Methyl methacrylate	200 ppb v/v
							Methyl tert-butyl ether	200 ppb v/v
							Methylene Chloride	200 ppb v/v
							n-Butanol	200 ppb v/v
							n-Butylbenzene	200 ppb v/v
							n-Decane	200 ppb v/v
							n-Heptane	200 ppb v/v
							n-Nonane	200 ppb v/v
							n-Octane	200 ppb v/v
							N-Propylbenzene	200 ppb v/v
							Naphthalene	200 ppb v/v
							Pentane	200 ppb v/v
							Propene	200 ppb v/v
							sec-Butylbenzene	200 ppb v/v
							Styrene	200 ppb v/v
							tert-Butylbenzene	200 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46792-1

SDG No.: 200-46792-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Tetrachloroethene	200 ppb v/v
							Tetrahydrofuran	200 ppb v/v
							Toluene	200 ppb v/v
							trans-1,2-Dichloroethene	200 ppb v/v
							trans-1,3-Dichloropropene	200 ppb v/v
							Trichloroethene	200 ppb v/v
							Trichlorofluoromethane	200 ppb v/v
							Undecane	200 ppb v/v
							Vinyl acetate	200 ppb v/v
							Vinyl bromide	200 ppb v/v
							Vinyl chloride	200 ppb v/v
							Xylene, o-	200 ppb v/v
..ATTO15CALs_00031	02/01/19		Linde, Lot CC-133603		(Purchased Reagent)		1,1,1-Trichloroethane	1 ppm v/v
							1,1,2,2-Tetrachloroethane	1 ppm v/v
							1,1,2-Trichloroethane	1 ppm v/v
							1,1-Dichloroethane	1 ppm v/v
							1,1-Dichloroethene	1 ppm v/v
							1,2,3-Trichlorobenzene	1 ppm v/v
							1,2,3-Trichloropropane	1 ppm v/v
							1,2,4-Trichlorobenzene	1 ppm v/v
							1,2,4-Trimethylbenzene	1 ppm v/v
							1,2-Dibromoethane	1 ppm v/v
							1,2-Dichlorobenzene	1 ppm v/v
							1,2-Dichloroethane	1 ppm v/v
							1,2-Dichloropropane	1 ppm v/v
							1,2-Dichlorotetrafluoroethane	1 ppm v/v
							1,3,5-Trimethylbenzene	1 ppm v/v
							1,3-Dichlorobenzene	1 ppm v/v
							1,4-Dichlorobenzene	1 ppm v/v
							1,4-Dioxane	1 ppm v/v
							2-Butanone (MEK)	1 ppm v/v
							2-Chlorotoluene	1 ppm v/v
							2-Hexanone	1 ppm v/v
							2-Methyl-2-propanol	1 ppm v/v
							2-Methylbutane	1 ppm v/v
							3-Chloro-1-propene	1 ppm v/v
							4-Ethyltoluene	1 ppm v/v
							4-Isopropyltoluene	1 ppm v/v
							4-Methyl-2-pentanone (MIBK)	1 ppm v/v
							Acetone	1 ppm v/v
							Acetonitrile	1 ppm v/v
							Acrolein	1 ppm v/v
							Acrylonitrile	1 ppm v/v
							Alpha Methyl Styrene	1 ppm v/v
							Benzene	1 ppm v/v
							Benzyl chloride	1 ppm v/v
							Bromoform	1 ppm v/v
							Bromomethane	1 ppm v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46792-1

SDG No.: 200-46792-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Butadiene	1 ppm v/v
							Butane	1 ppm v/v
							Carbon disulfide	1 ppm v/v
							Carbon tetrachloride	1 ppm v/v
							Chlorobenzene	1 ppm v/v
							Chlorodibromomethane	1 ppm v/v
							Chlorodifluoromethane	1 ppm v/v
							Chloroethane	1 ppm v/v
							Chloroform	1 ppm v/v
							Chloromethane	1 ppm v/v
							cis-1,2-Dichloroethene	1 ppm v/v
							cis-1,3-Dichloropropene	1 ppm v/v
							Cyclohexane	1 ppm v/v
							Dibromomethane	1 ppm v/v
							Dichlorobromomethane	1 ppm v/v
							Dichlorodifluoromethane	1 ppm v/v
							Dodecane	1 ppm v/v
							Ethyl acetate	1 ppm v/v
							Ethyl ether	1 ppm v/v
							Ethylbenzene	1 ppm v/v
							Freon TF	1 ppm v/v
							Hexachlorobutadiene	1 ppm v/v
							Hexane	1 ppm v/v
							Isooctane	1 ppm v/v
							Isopropyl alcohol	1 ppm v/v
							Isopropylbenzene	1 ppm v/v
							m,p-Xylene	2 ppm v/v
							Methyl methacrylate	1 ppm v/v
							Methyl tert-butyl ether	1 ppm v/v
							Methylene Chloride	1 ppm v/v
							n-Butanol	1 ppm v/v
							n-Butylbenzene	1 ppm v/v
							n-Decane	1 ppm v/v
							n-Heptane	1 ppm v/v
							n-Nonane	1 ppm v/v
							n-Octane	1 ppm v/v
							N-Propylbenzene	1 ppm v/v
							Naphthalene	1 ppm v/v
							Pentane	1 ppm v/v
							Propene	1 ppm v/v
							sec-Butylbenzene	1 ppm v/v
							Styrene	1 ppm v/v
							tert-Butylbenzene	1 ppm v/v
							Tetrachloroethene	1 ppm v/v
							Tetrahydrofuran	1 ppm v/v
							Toluene	1 ppm v/v
							trans-1,2-Dichloroethene	1 ppm v/v
							trans-1,3-Dichloropropene	1 ppm v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46792-1

SDG No.: 200-46792-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Trichloroethene	1 ppm v/v
							Trichlorofluoromethane	1 ppm v/v
							Undecane	1 ppm v/v
							Vinyl acetate	1 ppm v/v
							Vinyl bromide	1 ppm v/v
							Vinyl chloride	1 ppm v/v
							Xylene, o-	1 ppm v/v
.ATTO15EthCALw_00101	02/23/19	11/21/18	Nitrogen, Lot 12	37.5 ppb	ATTO15EthCALs_00009	18.75 uL	Ethanol	500 ppb v/v
..ATTO15EthCALs_00009	09/05/21		Chem Service, Lot 5301900		(Purchased Reagent)		Ethanol	1 mL/mL
ATTO15CAL4w_00715	12/23/18	11/23/18	Nitrogen, Lot 12	15.463 L	ATTO15CALSTKi_00106	773 mL	1,1,1-Trichloroethane	9.99806 ppb v/v
							1,1,2,2-Tetrachloroethane	9.99806 ppb v/v
							1,1,2-Trichloroethane	9.99806 ppb v/v
							1,1-Dichloroethane	9.99806 ppb v/v
							1,1-Dichloroethene	9.99806 ppb v/v
							1,2,3-Trichlorobenzene	9.99806 ppb v/v
							1,2,3-Trichloropropane	9.99806 ppb v/v
							1,2,4-Trichlorobenzene	9.99806 ppb v/v
							1,2,4-Trimethylbenzene	9.99806 ppb v/v
							1,2-Dibromoethane	9.99806 ppb v/v
							1,2-Dichlorobenzene	9.99806 ppb v/v
							1,2-Dichloroethane	9.99806 ppb v/v
							1,2-Dichloropropane	9.99806 ppb v/v
							1,2-Dichlorotetrafluoroethane	9.99806 ppb v/v
							1,3,5-Trimethylbenzene	9.99806 ppb v/v
							1,3-Dichlorobenzene	9.99806 ppb v/v
							1,4-Dichlorobenzene	9.99806 ppb v/v
							1,4-Dioxane	9.99806 ppb v/v
							2-Butanone (MEK)	9.99806 ppb v/v
							2-Chlorotoluene	9.99806 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46792-1

SDG No.: 200-46792-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Hexanone	9.99806 ppb v/v
							2-Methyl-2-propanol	9.99806 ppb v/v
							2-Methylbutane	9.99806 ppb v/v
							3-Chloro-1-propene	9.99806 ppb v/v
							4-Ethyltoluene	9.99806 ppb v/v
							4-Isopropyltoluene	9.99806 ppb v/v
							4-Methyl-2-pentanone (MIBK)	9.99806 ppb v/v
							Acetone	9.99806 ppb v/v
							Acetonitrile	9.99806 ppb v/v
							Acrolein	9.99806 ppb v/v
							Acrylonitrile	9.99806 ppb v/v
							Alpha Methyl Styrene	9.99806 ppb v/v
							Benzene	9.99806 ppb v/v
							Benzyl chloride	9.99806 ppb v/v
							Bromoform	9.99806 ppb v/v
							Bromomethane	9.99806 ppb v/v
							Butadiene	9.99806 ppb v/v
							Butane	9.99806 ppb v/v
							Carbon disulfide	9.99806 ppb v/v
							Carbon tetrachloride	9.99806 ppb v/v
							Chlorobenzene	9.99806 ppb v/v
							Chlorodibromomethane	9.99806 ppb v/v
							Chlorodifluoromethane	9.99806 ppb v/v
							Chloroethane	9.99806 ppb v/v
							Chloroform	9.99806 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46792-1

SDG No.: 200-46792-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Chloromethane	9.99806 ppb v/v
							cis-1,2-Dichloroethene	9.99806 ppb v/v
							cis-1,3-Dichloropropene	9.99806 ppb v/v
							Cyclohexane	9.99806 ppb v/v
							Dibromomethane	9.99806 ppb v/v
							Dichlorobromomethane	9.99806 ppb v/v
							Dichlorodifluoromethane	9.99806 ppb v/v
							Dodecane	9.99806 ppb v/v
							Ethyl acetate	9.99806 ppb v/v
							Ethyl ether	9.99806 ppb v/v
							Ethylbenzene	9.99806 ppb v/v
							Freon TF	9.99806 ppb v/v
							Hexachlorobutadiene	9.99806 ppb v/v
							Hexane	9.99806 ppb v/v
							Isooctane	9.99806 ppb v/v
							Isopropyl alcohol	9.99806 ppb v/v
							Isopropylbenzene	9.99806 ppb v/v
							m,p-Xylene	19.9961 ppb v/v
							Methyl methacrylate	9.99806 ppb v/v
							Methyl tert-butyl ether	9.99806 ppb v/v
							Methylene Chloride	9.99806 ppb v/v
							n-Butanol	9.99806 ppb v/v
							n-Butylbenzene	9.99806 ppb v/v
							n-Decane	9.99806 ppb v/v
							n-Heptane	9.99806 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46792-1

SDG No.: 200-46792-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							n-Nonane	9.99806 ppb v/v
							n-Octane	9.99806 ppb v/v
							N-Propylbenzene	9.99806 ppb v/v
							Naphthalene	9.99806 ppb v/v
							Pentane	9.99806 ppb v/v
							Propene	9.99806 ppb v/v
							sec-Butylbenzene	9.99806 ppb v/v
							Styrene	9.99806 ppb v/v
							tert-Butylbenzene	9.99806 ppb v/v
							Tetrachloroethene	9.99806 ppb v/v
							Tetrahydrofuran	9.99806 ppb v/v
							Toluene	9.99806 ppb v/v
							trans-1,2-Dichloroethene	9.99806 ppb v/v
							trans-1,3-Dichloropropene	9.99806 ppb v/v
							Trichloroethene	9.99806 ppb v/v
							Trichlorofluoromethane	9.99806 ppb v/v
							Undecane	9.99806 ppb v/v
							Vinyl acetate	9.99806 ppb v/v
							Vinyl bromide	9.99806 ppb v/v
							Vinyl chloride	9.99806 ppb v/v
							Xylene, o-	9.99806 ppb v/v
					ATTO15EthCALw_00101	464 mL	Ethanol	15.0036 ppb v/v
.ATTO15CALSTKi_00106	02/01/19	11/21/18	Nitrogen, Lot 13	37.5 L	ATTO15CALs_00031	7500 mL	1,1,1-Trichloroethane	200 ppb v/v
							1,1,2,2-Tetrachloroethane	200 ppb v/v
							1,1,2-Trichloroethane	200 ppb v/v
							1,1-Dichloroethane	200 ppb v/v
							1,1-Dichloroethene	200 ppb v/v
							1,2,3-Trichlorobenzene	200 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46792-1

SDG No.: 200-46792-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2,3-Trichloropropane	200 ppb v/v
							1,2,4-Trichlorobenzene	200 ppb v/v
							1,2,4-Trimethylbenzene	200 ppb v/v
							1,2-Dibromoethane	200 ppb v/v
							1,2-Dichlorobenzene	200 ppb v/v
							1,2-Dichloroethane	200 ppb v/v
							1,2-Dichloropropane	200 ppb v/v
							1,2-Dichlorotetrafluoroethane	200 ppb v/v
							1,3,5-Trimethylbenzene	200 ppb v/v
							1,3-Dichlorobenzene	200 ppb v/v
							1,4-Dichlorobenzene	200 ppb v/v
							1,4-Dioxane	200 ppb v/v
							2-Butanone (MEK)	200 ppb v/v
							2-Chlorotoluene	200 ppb v/v
							2-Hexanone	200 ppb v/v
							2-Methyl-2-propanol	200 ppb v/v
							2-Methylbutane	200 ppb v/v
							3-Chloro-1-propene	200 ppb v/v
							4-Ethyltoluene	200 ppb v/v
							4-Isopropyltoluene	200 ppb v/v
							4-Methyl-2-pentanone (MIBK)	200 ppb v/v
							Acetone	200 ppb v/v
							Acetonitrile	200 ppb v/v
							Acrolein	200 ppb v/v
							Acrylonitrile	200 ppb v/v
							Alpha Methyl Styrene	200 ppb v/v
							Benzene	200 ppb v/v
							Benzyl chloride	200 ppb v/v
							Bromoform	200 ppb v/v
							Bromomethane	200 ppb v/v
							Butadiene	200 ppb v/v
							Butane	200 ppb v/v
							Carbon disulfide	200 ppb v/v
							Carbon tetrachloride	200 ppb v/v
							Chlorobenzene	200 ppb v/v
							Chlorodibromomethane	200 ppb v/v
							Chlorodifluoromethane	200 ppb v/v
							Chloroethane	200 ppb v/v
							Chloroform	200 ppb v/v
							Chloromethane	200 ppb v/v
							cis-1,2-Dichloroethene	200 ppb v/v
							cis-1,3-Dichloropropene	200 ppb v/v
							Cyclohexane	200 ppb v/v
							Dibromomethane	200 ppb v/v
							Dichlorobromomethane	200 ppb v/v
							Dichlorodifluoromethane	200 ppb v/v
							Dodecane	200 ppb v/v
							Ethyl acetate	200 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46792-1

SDG No.: 200-46792-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Ethyl ether	200 ppb v/v
							Ethylbenzene	200 ppb v/v
							Freon TF	200 ppb v/v
							Hexachlorobutadiene	200 ppb v/v
							Hexane	200 ppb v/v
							Isooctane	200 ppb v/v
							Isopropyl alcohol	200 ppb v/v
							Isopropylbenzene	200 ppb v/v
							m,p-Xylene	400 ppb v/v
							Methyl methacrylate	200 ppb v/v
							Methyl tert-butyl ether	200 ppb v/v
							Methylene Chloride	200 ppb v/v
							n-Butanol	200 ppb v/v
							n-Butylbenzene	200 ppb v/v
							n-Decane	200 ppb v/v
							n-Heptane	200 ppb v/v
							n-Nonane	200 ppb v/v
							n-Octane	200 ppb v/v
							N-Propylbenzene	200 ppb v/v
							Naphthalene	200 ppb v/v
							Pentane	200 ppb v/v
							Propene	200 ppb v/v
							sec-Butylbenzene	200 ppb v/v
							Styrene	200 ppb v/v
							tert-Butylbenzene	200 ppb v/v
							Tetrachloroethene	200 ppb v/v
							Tetrahydrofuran	200 ppb v/v
							Toluene	200 ppb v/v
							trans-1,2-Dichloroethene	200 ppb v/v
							trans-1,3-Dichloropropene	200 ppb v/v
							Trichloroethene	200 ppb v/v
							Trichlorofluoromethane	200 ppb v/v
							Undecane	200 ppb v/v
							Vinyl acetate	200 ppb v/v
							Vinyl bromide	200 ppb v/v
							Vinyl chloride	200 ppb v/v
							Xylene, o-	200 ppb v/v
..ATTO15CALs_00031	02/01/19		Linde, Lot CC-133603		(Purchased Reagent)		1,1,1-Trichloroethane	1 ppm v/v
							1,1,2,2-Tetrachloroethane	1 ppm v/v
							1,1,2-Trichloroethane	1 ppm v/v
							1,1-Dichloroethane	1 ppm v/v
							1,1-Dichloroethene	1 ppm v/v
							1,2,3-Trichlorobenzene	1 ppm v/v
							1,2,3-Trichloropropane	1 ppm v/v
							1,2,4-Trichlorobenzene	1 ppm v/v
							1,2,4-Trimethylbenzene	1 ppm v/v
							1,2-Dibromoethane	1 ppm v/v
							1,2-Dichlorobenzene	1 ppm v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46792-1

SDG No.: 200-46792-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2-Dichloroethane	1 ppm v/v
							1,2-Dichloropropane	1 ppm v/v
							1,2-Dichlorotetrafluoroethane	1 ppm v/v
							1,3,5-Trimethylbenzene	1 ppm v/v
							1,3-Dichlorobenzene	1 ppm v/v
							1,4-Dichlorobenzene	1 ppm v/v
							1,4-Dioxane	1 ppm v/v
							2-Butanone (MEK)	1 ppm v/v
							2-Chlorotoluene	1 ppm v/v
							2-Hexanone	1 ppm v/v
							2-Methyl-2-propanol	1 ppm v/v
							2-Methylbutane	1 ppm v/v
							3-Chloro-1-propene	1 ppm v/v
							4-Ethyltoluene	1 ppm v/v
							4-Isopropyltoluene	1 ppm v/v
							4-Methyl-2-pentanone (MIBK)	1 ppm v/v
							Acetone	1 ppm v/v
							Acetonitrile	1 ppm v/v
							Acrolein	1 ppm v/v
							Acrylonitrile	1 ppm v/v
							Alpha Methyl Styrene	1 ppm v/v
							Benzene	1 ppm v/v
							Benzyl chloride	1 ppm v/v
							Bromoform	1 ppm v/v
							Bromomethane	1 ppm v/v
							Butadiene	1 ppm v/v
							Butane	1 ppm v/v
							Carbon disulfide	1 ppm v/v
							Carbon tetrachloride	1 ppm v/v
							Chlorobenzene	1 ppm v/v
							Chlorodibromomethane	1 ppm v/v
							Chlorodifluoromethane	1 ppm v/v
							Chloroethane	1 ppm v/v
							Chloroform	1 ppm v/v
							Chloromethane	1 ppm v/v
							cis-1,2-Dichloroethene	1 ppm v/v
							cis-1,3-Dichloropropene	1 ppm v/v
							Cyclohexane	1 ppm v/v
							Dibromomethane	1 ppm v/v
							Dichlorobromomethane	1 ppm v/v
							Dichlorodifluoromethane	1 ppm v/v
							Dodecane	1 ppm v/v
							Ethyl acetate	1 ppm v/v
							Ethyl ether	1 ppm v/v
							Ethylbenzene	1 ppm v/v
							Freon TF	1 ppm v/v
							Hexachlorobutadiene	1 ppm v/v
							Hexane	1 ppm v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46792-1

SDG No.: 200-46792-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Isooctane	1 ppm v/v
							Isopropyl alcohol	1 ppm v/v
							Isopropylbenzene	1 ppm v/v
							m,p-Xylene	2 ppm v/v
							Methyl methacrylate	1 ppm v/v
							Methyl tert-butyl ether	1 ppm v/v
							Methylene Chloride	1 ppm v/v
							n-Butanol	1 ppm v/v
							n-Butylbenzene	1 ppm v/v
							n-Decane	1 ppm v/v
							n-Heptane	1 ppm v/v
							n-Nonane	1 ppm v/v
							n-Octane	1 ppm v/v
							N-Propylbenzene	1 ppm v/v
							Naphthalene	1 ppm v/v
							Pentane	1 ppm v/v
							Propene	1 ppm v/v
							sec-Butylbenzene	1 ppm v/v
							Styrene	1 ppm v/v
							tert-Butylbenzene	1 ppm v/v
							Tetrachloroethene	1 ppm v/v
							Tetrahydrofuran	1 ppm v/v
							Toluene	1 ppm v/v
							trans-1,2-Dichloroethene	1 ppm v/v
							trans-1,3-Dichloropropene	1 ppm v/v
							Trichloroethene	1 ppm v/v
							Trichlorofluoromethane	1 ppm v/v
							Undecane	1 ppm v/v
							Vinyl acetate	1 ppm v/v
							Vinyl bromide	1 ppm v/v
							Vinyl chloride	1 ppm v/v
							Xylene, o-	1 ppm v/v
.ATTO15EthCALw_00101	02/23/19	11/21/18	Nitrogen, Lot 12	37.5 ppb	ATTO15EthCALs_00009	18.75 uL	Ethanol	500 ppb v/v
.ATTO15EthCALs_00009	09/05/21		Chem Service, Lot 5301900		(Purchased Reagent)		Ethanol	1 mL/mL
ATTO15CAL5w_00078	12/23/18	11/23/18	Nitrogen, Lot 12	15.463 L	ATTO15CALSTKi_00106	1160 mL	1,1,1-Trichloroethane	15.0036 ppb v/v
							1,1,2,2-Tetrachloroethane	15.0036 ppb v/v
							1,1,2-Trichloroethane	15.0036 ppb v/v
							1,1-Dichloroethane	15.0036 ppb v/v
							1,1-Dichloroethene	15.0036 ppb v/v
							1,2,3-Trichlorobenzene	15.0036 ppb v/v
							1,2,3-Trichloropropane	15.0036 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46792-1

SDG No.: 200-46792-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2,4-Trichlorobenzene	15.0036 ppb v/v
							1,2,4-Trimethylbenzene	15.0036 ppb v/v
							1,2-Dibromoethane	15.0036 ppb v/v
							1,2-Dichlorobenzene	15.0036 ppb v/v
							1,2-Dichloroethane	15.0036 ppb v/v
							1,2-Dichloropropane	15.0036 ppb v/v
							1,2-Dichlorotetrafluoroethane	15.0036 ppb v/v
							1,3,5-Trimethylbenzene	15.0036 ppb v/v
							1,3-Dichlorobenzene	15.0036 ppb v/v
							1,4-Dichlorobenzene	15.0036 ppb v/v
							1,4-Dioxane	15.0036 ppb v/v
							2-Butanone (MEK)	15.0036 ppb v/v
							2-Chlorotoluene	15.0036 ppb v/v
							2-Hexanone	15.0036 ppb v/v
							2-Methyl-2-propanol	15.0036 ppb v/v
							2-Methylbutane	15.0036 ppb v/v
							3-Chloro-1-propene	15.0036 ppb v/v
							4-Ethyltoluene	15.0036 ppb v/v
							4-Isopropyltoluene	15.0036 ppb v/v
							4-Methyl-2-pentanone (MIBK)	15.0036 ppb v/v
							Acetone	15.0036 ppb v/v
							Acetonitrile	15.0036 ppb v/v
							Acrolein	15.0036 ppb v/v
							Acrylonitrile	15.0036 ppb v/v
							Alpha Methyl Styrene	15.0036 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46792-1

SDG No.: 200-46792-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Benzene	15.0036 ppb v/v
							Benzyl chloride	15.0036 ppb v/v
							Bromoform	15.0036 ppb v/v
							Bromomethane	15.0036 ppb v/v
							Butadiene	15.0036 ppb v/v
							Butane	15.0036 ppb v/v
							Carbon disulfide	15.0036 ppb v/v
							Carbon tetrachloride	15.0036 ppb v/v
							Chlorobenzene	15.0036 ppb v/v
							Chlorodibromomethane	15.0036 ppb v/v
							Chlorodifluoromethane	15.0036 ppb v/v
							Chloroethane	15.0036 ppb v/v
							Chloroform	15.0036 ppb v/v
							Chloromethane	15.0036 ppb v/v
							cis-1,2-Dichloroethene	15.0036 ppb v/v
							cis-1,3-Dichloropropene	15.0036 ppb v/v
							Cyclohexane	15.0036 ppb v/v
							Dibromomethane	15.0036 ppb v/v
							Dichlorobromomethane	15.0036 ppb v/v
							Dichlorodifluoromethane	15.0036 ppb v/v
							Dodecane	15.0036 ppb v/v
							Ethyl acetate	15.0036 ppb v/v
							Ethyl ether	15.0036 ppb v/v
							Ethylbenzene	15.0036 ppb v/v
							Freon TF	15.0036 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46792-1

SDG No.: 200-46792-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Hexachlorobutadiene	15.0036 ppb v/v
							Hexane	15.0036 ppb v/v
							Isooctane	15.0036 ppb v/v
							Isopropyl alcohol	15.0036 ppb v/v
							Isopropylbenzene	15.0036 ppb v/v
							m,p-Xylene	30.0071 ppb v/v
							Methyl methacrylate	15.0036 ppb v/v
							Methyl tert-butyl ether	15.0036 ppb v/v
							Methylene Chloride	15.0036 ppb v/v
							n-Butanol	15.0036 ppb v/v
							n-Butylbenzene	15.0036 ppb v/v
							n-Decane	15.0036 ppb v/v
							n-Heptane	15.0036 ppb v/v
							n-Nonane	15.0036 ppb v/v
							n-Octane	15.0036 ppb v/v
							N-Propylbenzene	15.0036 ppb v/v
							Naphthalene	15.0036 ppb v/v
							Pentane	15.0036 ppb v/v
							Propene	15.0036 ppb v/v
							sec-Butylbenzene	15.0036 ppb v/v
							Styrene	15.0036 ppb v/v
							tert-Butylbenzene	15.0036 ppb v/v
							Tetrachloroethene	15.0036 ppb v/v
							Tetrahydrofuran	15.0036 ppb v/v
							Toluene	15.0036 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46792-1

SDG No.: 200-46792-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							trans-1,2-Dichloroethene	15.0036 ppb v/v
							trans-1,3-Dichloropropene	15.0036 ppb v/v
							Trichloroethene	15.0036 ppb v/v
							Trichlorofluoromethane	15.0036 ppb v/v
							Undecane	15.0036 ppb v/v
							Vinyl acetate	15.0036 ppb v/v
							Vinyl bromide	15.0036 ppb v/v
							Vinyl chloride	15.0036 ppb v/v
							Xylene, o-	15.0036 ppb v/v
					ATTO15EthCALw_00101	620 mL	Ethanol	20.0479 ppb v/v
.ATTO15CALSTKi_00106	02/01/19	11/21/18	Nitrogen, Lot 13	37.5 L	ATTO15CALs_00031	7500 mL	1,1,1-Trichloroethane	200 ppb v/v
							1,1,2,2-Tetrachloroethane	200 ppb v/v
							1,1,2-Trichloroethane	200 ppb v/v
							1,1-Dichloroethane	200 ppb v/v
							1,1-Dichloroethene	200 ppb v/v
							1,2,3-Trichlorobenzene	200 ppb v/v
							1,2,3-Trichloropropane	200 ppb v/v
							1,2,4-Trichlorobenzene	200 ppb v/v
							1,2,4-Trimethylbenzene	200 ppb v/v
							1,2-Dibromoethane	200 ppb v/v
							1,2-Dichlorobenzene	200 ppb v/v
							1,2-Dichloroethane	200 ppb v/v
							1,2-Dichloropropane	200 ppb v/v
							1,2-Dichlorotetrafluoroethane	200 ppb v/v
							1,3,5-Trimethylbenzene	200 ppb v/v
							1,3-Dichlorobenzene	200 ppb v/v
							1,4-Dichlorobenzene	200 ppb v/v
							1,4-Dioxane	200 ppb v/v
							2-Butanone (MEK)	200 ppb v/v
							2-Chlorotoluene	200 ppb v/v
							2-Hexanone	200 ppb v/v
							2-Methyl-2-propanol	200 ppb v/v
							2-Methylbutane	200 ppb v/v
							3-Chloro-1-propene	200 ppb v/v
							4-Ethyltoluene	200 ppb v/v
							4-Isopropyltoluene	200 ppb v/v
							4-Methyl-2-pentanone (MIBK)	200 ppb v/v
							Acetone	200 ppb v/v
							Acetonitrile	200 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46792-1

SDG No.: 200-46792-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Acrolein	200 ppb v/v
							Acrylonitrile	200 ppb v/v
							Alpha Methyl Styrene	200 ppb v/v
							Benzene	200 ppb v/v
							Benzyl chloride	200 ppb v/v
							Bromoform	200 ppb v/v
							Bromomethane	200 ppb v/v
							Butadiene	200 ppb v/v
							Butane	200 ppb v/v
							Carbon disulfide	200 ppb v/v
							Carbon tetrachloride	200 ppb v/v
							Chlorobenzene	200 ppb v/v
							Chlorodibromomethane	200 ppb v/v
							Chlorodifluoromethane	200 ppb v/v
							Chloroethane	200 ppb v/v
							Chloroform	200 ppb v/v
							Chloromethane	200 ppb v/v
							cis-1,2-Dichloroethene	200 ppb v/v
							cis-1,3-Dichloropropene	200 ppb v/v
							Cyclohexane	200 ppb v/v
							Dibromomethane	200 ppb v/v
							Dichlorobromomethane	200 ppb v/v
							Dichlorodifluoromethane	200 ppb v/v
							Dodecane	200 ppb v/v
							Ethyl acetate	200 ppb v/v
							Ethyl ether	200 ppb v/v
							Ethylbenzene	200 ppb v/v
							Freon TF	200 ppb v/v
							Hexachlorobutadiene	200 ppb v/v
							Hexane	200 ppb v/v
							Isooctane	200 ppb v/v
							Isopropyl alcohol	200 ppb v/v
							Isopropylbenzene	200 ppb v/v
							m,p-Xylene	400 ppb v/v
							Methyl methacrylate	200 ppb v/v
							Methyl tert-butyl ether	200 ppb v/v
							Methylene Chloride	200 ppb v/v
							n-Butanol	200 ppb v/v
							n-Butylbenzene	200 ppb v/v
							n-Decane	200 ppb v/v
							n-Heptane	200 ppb v/v
							n-Nonane	200 ppb v/v
							n-Octane	200 ppb v/v
							N-Propylbenzene	200 ppb v/v
							Naphthalene	200 ppb v/v
							Pentane	200 ppb v/v
							Propene	200 ppb v/v
							sec-Butylbenzene	200 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46792-1

SDG No.: 200-46792-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Styrene	200 ppb v/v
							tert-Butylbenzene	200 ppb v/v
							Tetrachloroethene	200 ppb v/v
							Tetrahydrofuran	200 ppb v/v
							Toluene	200 ppb v/v
							trans-1,2-Dichloroethene	200 ppb v/v
							trans-1,3-Dichloropropene	200 ppb v/v
							Trichloroethene	200 ppb v/v
							Trichlorofluoromethane	200 ppb v/v
							Undecane	200 ppb v/v
							Vinyl acetate	200 ppb v/v
							Vinyl bromide	200 ppb v/v
							Vinyl chloride	200 ppb v/v
							Xylene, o-	200 ppb v/v
..ATTO15CALs_00031	02/01/19		Linde, Lot CC-133603		(Purchased Reagent)		1,1,1-Trichloroethane	1 ppm v/v
							1,1,2,2-Tetrachloroethane	1 ppm v/v
							1,1,2-Trichloroethane	1 ppm v/v
							1,1-Dichloroethane	1 ppm v/v
							1,1-Dichloroethene	1 ppm v/v
							1,2,3-Trichlorobenzene	1 ppm v/v
							1,2,3-Trichloropropane	1 ppm v/v
							1,2,4-Trichlorobenzene	1 ppm v/v
							1,2,4-Trimethylbenzene	1 ppm v/v
							1,2-Dibromoethane	1 ppm v/v
							1,2-Dichlorobenzene	1 ppm v/v
							1,2-Dichloroethane	1 ppm v/v
							1,2-Dichloropropane	1 ppm v/v
							1,2-Dichlorotetrafluoroethane	1 ppm v/v
							1,3,5-Trimethylbenzene	1 ppm v/v
							1,3-Dichlorobenzene	1 ppm v/v
							1,4-Dichlorobenzene	1 ppm v/v
							1,4-Dioxane	1 ppm v/v
							2-Butanone (MEK)	1 ppm v/v
							2-Chlorotoluene	1 ppm v/v
							2-Hexanone	1 ppm v/v
							2-Methyl-2-propanol	1 ppm v/v
							2-Methylbutane	1 ppm v/v
							3-Chloro-1-propene	1 ppm v/v
							4-Ethyltoluene	1 ppm v/v
							4-Isopropyltoluene	1 ppm v/v
							4-Methyl-2-pentanone (MIBK)	1 ppm v/v
							Acetone	1 ppm v/v
							Acetonitrile	1 ppm v/v
							Acrolein	1 ppm v/v
							Acrylonitrile	1 ppm v/v
							Alpha Methyl Styrene	1 ppm v/v
							Benzene	1 ppm v/v
							Benzyl chloride	1 ppm v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46792-1

SDG No.: 200-46792-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Bromoform	1 ppm v/v
							Bromomethane	1 ppm v/v
							Butadiene	1 ppm v/v
							Butane	1 ppm v/v
							Carbon disulfide	1 ppm v/v
							Carbon tetrachloride	1 ppm v/v
							Chlorobenzene	1 ppm v/v
							Chlorodibromomethane	1 ppm v/v
							Chlorodifluoromethane	1 ppm v/v
							Chloroethane	1 ppm v/v
							Chloroform	1 ppm v/v
							Chloromethane	1 ppm v/v
							cis-1,2-Dichloroethene	1 ppm v/v
							cis-1,3-Dichloropropene	1 ppm v/v
							Cyclohexane	1 ppm v/v
							Dibromomethane	1 ppm v/v
							Dichlorobromomethane	1 ppm v/v
							Dichlorodifluoromethane	1 ppm v/v
							Dodecane	1 ppm v/v
							Ethyl acetate	1 ppm v/v
							Ethyl ether	1 ppm v/v
							Ethylbenzene	1 ppm v/v
							Freon TF	1 ppm v/v
							Hexachlorobutadiene	1 ppm v/v
							Hexane	1 ppm v/v
							Isooctane	1 ppm v/v
							Isopropyl alcohol	1 ppm v/v
							Isopropylbenzene	1 ppm v/v
							m,p-Xylene	2 ppm v/v
							Methyl methacrylate	1 ppm v/v
							Methyl tert-butyl ether	1 ppm v/v
							Methylene Chloride	1 ppm v/v
							n-Butanol	1 ppm v/v
							n-Butylbenzene	1 ppm v/v
							n-Decane	1 ppm v/v
							n-Heptane	1 ppm v/v
							n-Nonane	1 ppm v/v
							n-Octane	1 ppm v/v
							N-Propylbenzene	1 ppm v/v
							Naphthalene	1 ppm v/v
							Pentane	1 ppm v/v
							Propene	1 ppm v/v
							sec-Butylbenzene	1 ppm v/v
							Styrene	1 ppm v/v
							tert-Butylbenzene	1 ppm v/v
							Tetrachloroethene	1 ppm v/v
							Tetrahydrofuran	1 ppm v/v
							Toluene	1 ppm v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46792-1

SDG No.: 200-46792-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							trans-1,2-Dichloroethene	1 ppm v/v
							trans-1,3-Dichloropropene	1 ppm v/v
							Trichloroethene	1 ppm v/v
							Trichlorofluoromethane	1 ppm v/v
							Undecane	1 ppm v/v
							Vinyl acetate	1 ppm v/v
							Vinyl bromide	1 ppm v/v
							Vinyl chloride	1 ppm v/v
							Xylene, o-	1 ppm v/v
.ATTO15EthCALw_00101	02/23/19	11/21/18	Nitrogen, Lot 12	37.5 ppb	ATTO15EthCALs_00009	18.75 uL	Ethanol	500 ppb v/v
..ATTO15EthCALs_00009	09/05/21		Chem Service, Lot 5301900		(Purchased Reagent)		Ethanol	1 mL/mL
ATTO15CAL6w_00161	12/23/18	11/23/18	Nitrogen, Lot 1	15.463 L	ATTO15CALSTKi_00106	1546 mL	1,1,1-Trichloroethane	19.9961 ppb v/v
							1,1,2,2-Tetrachloroethane	19.9961 ppb v/v
							1,1,2-Trichloroethane	19.9961 ppb v/v
							1,1-Dichloroethane	19.9961 ppb v/v
							1,1-Dichloroethane	19.9961 ppb v/v
							1,2,3-Trichlorobenzene	19.9961 ppb v/v
							1,2,3-Trichloropropane	19.9961 ppb v/v
							1,2,4-Trichlorobenzene	19.9961 ppb v/v
							1,2,4-Trimethylbenzene	19.9961 ppb v/v
							1,2-Dibromoethane	19.9961 ppb v/v
							1,2-Dichlorobenzene	19.9961 ppb v/v
							1,2-Dichloroethane	19.9961 ppb v/v
							1,2-Dichloropropane	19.9961 ppb v/v
							1,2-Dichlorotetrafluoroethane	19.9961 ppb v/v
							1,3,5-Trimethylbenzene	19.9961 ppb v/v
							1,3-Dichlorobenzene	19.9961 ppb v/v
							1,4-Dichlorobenzene	19.9961 ppb v/v
							1,4-Dioxane	19.9961 ppb v/v
							2-Butanone (MEK)	19.9961 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46792-1

SDG No.: 200-46792-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Chlorotoluene	19.9961 ppb v/v
							2-Hexanone	19.9961 ppb v/v
							2-Methyl-2-propanol	19.9961 ppb v/v
							2-Methylbutane	19.9961 ppb v/v
							3-Chloro-1-propene	19.9961 ppb v/v
							4-Ethyltoluene	19.9961 ppb v/v
							4-Isopropyltoluene	19.9961 ppb v/v
							4-Methyl-2-pentanone (MIBK)	19.9961 ppb v/v
							Acetone	19.9961 ppb v/v
							Acetonitrile	19.9961 ppb v/v
							Acrolein	19.9961 ppb v/v
							Acrylonitrile	19.9961 ppb v/v
							Alpha Methyl Styrene	19.9961 ppb v/v
							Benzene	19.9961 ppb v/v
							Benzyl chloride	19.9961 ppb v/v
							Bromoform	19.9961 ppb v/v
							Bromomethane	19.9961 ppb v/v
							Butadiene	19.9961 ppb v/v
							Butane	19.9961 ppb v/v
							Carbon disulfide	19.9961 ppb v/v
							Carbon tetrachloride	19.9961 ppb v/v
							Chlorobenzene	19.9961 ppb v/v
							Chlorodibromomethane	19.9961 ppb v/v
							Chlorodifluoromethane	19.9961 ppb v/v
							Chloroethane	19.9961 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46792-1

SDG No.: 200-46792-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Chloroform	19.9961 ppb v/v
							Chloromethane	19.9961 ppb v/v
							cis-1,2-Dichloroethene	19.9961 ppb v/v
							cis-1,3-Dichloropropene	19.9961 ppb v/v
							Cyclohexane	19.9961 ppb v/v
							Dibromomethane	19.9961 ppb v/v
							Dichlorobromomethane	19.9961 ppb v/v
							Dichlorodifluoromethane	19.9961 ppb v/v
							Dodecane	19.9961 ppb v/v
							Ethyl acetate	19.9961 ppb v/v
							Ethyl ether	19.9961 ppb v/v
							Ethylbenzene	19.9961 ppb v/v
							Freon TF	19.9961 ppb v/v
							Hexachlorobutadiene	19.9961 ppb v/v
							Hexane	19.9961 ppb v/v
							Isooctane	19.9961 ppb v/v
							Isopropyl alcohol	19.9961 ppb v/v
							Isopropylbenzene	19.9961 ppb v/v
							m,p-Xylene	39.9922 ppb v/v
							Methyl methacrylate	19.9961 ppb v/v
							Methyl tert-butyl ether	19.9961 ppb v/v
							Methylene Chloride	19.9961 ppb v/v
							n-Butanol	19.9961 ppb v/v
							n-Butylbenzene	19.9961 ppb v/v
							n-Decane	19.9961 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46792-1

SDG No.: 200-46792-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							n-Heptane	19.9961 ppb v/v
							n-Nonane	19.9961 ppb v/v
							n-Octane	19.9961 ppb v/v
							N-Propylbenzene	19.9961 ppb v/v
							Naphthalene	19.9961 ppb v/v
							Pentane	19.9961 ppb v/v
							Propene	19.9961 ppb v/v
							sec-Butylbenzene	19.9961 ppb v/v
							Styrene	19.9961 ppb v/v
							tert-Butylbenzene	19.9961 ppb v/v
							Tetrachloroethene	19.9961 ppb v/v
							Tetrahydrofuran	19.9961 ppb v/v
							Toluene	19.9961 ppb v/v
							trans-1,2-Dichloroethene	19.9961 ppb v/v
							trans-1,3-Dichloropropene	19.9961 ppb v/v
							Trichloroethene	19.9961 ppb v/v
							Trichlorofluoromethane	19.9961 ppb v/v
							Undecane	19.9961 ppb v/v
							Vinyl acetate	19.9961 ppb v/v
							Vinyl bromide	19.9961 ppb v/v
							Vinyl chloride	19.9961 ppb v/v
							Xylene, o-	19.9961 ppb v/v
					ATTO15EthCALw_00101	1237 mL	Ethanol	39.9987 ppb v/v
.ATTO15CALSTKi_00106	02/01/19	11/21/18	Nitrogen, Lot 13	37.5 L	ATTO15CALs_00031	7500 mL	1,1,1-Trichloroethane	200 ppb v/v
							1,1,2,2-Tetrachloroethane	200 ppb v/v
							1,1,2-Trichloroethane	200 ppb v/v
							1,1-Dichloroethane	200 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46792-1

SDG No.: 200-46792-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,1-Dichloroethene	200 ppb v/v
							1,2,3-Trichlorobenzene	200 ppb v/v
							1,2,3-Trichloropropane	200 ppb v/v
							1,2,4-Trichlorobenzene	200 ppb v/v
							1,2,4-Trimethylbenzene	200 ppb v/v
							1,2-Dibromoethane	200 ppb v/v
							1,2-Dichlorobenzene	200 ppb v/v
							1,2-Dichloroethane	200 ppb v/v
							1,2-Dichloropropane	200 ppb v/v
							1,2-Dichlorotetrafluoroethane	200 ppb v/v
							1,3,5-Trimethylbenzene	200 ppb v/v
							1,3-Dichlorobenzene	200 ppb v/v
							1,4-Dichlorobenzene	200 ppb v/v
							1,4-Dioxane	200 ppb v/v
							2-Butanone (MEK)	200 ppb v/v
							2-Chlorotoluene	200 ppb v/v
							2-Hexanone	200 ppb v/v
							2-Methyl-2-propanol	200 ppb v/v
							2-Methylbutane	200 ppb v/v
							3-Chloro-1-propene	200 ppb v/v
							4-Ethyltoluene	200 ppb v/v
							4-Isopropyltoluene	200 ppb v/v
							4-Methyl-2-pentanone (MIBK)	200 ppb v/v
							Acetone	200 ppb v/v
							Acetonitrile	200 ppb v/v
							Acrolein	200 ppb v/v
							Acrylonitrile	200 ppb v/v
							Alpha Methyl Styrene	200 ppb v/v
							Benzene	200 ppb v/v
							Benzyl chloride	200 ppb v/v
							Bromoform	200 ppb v/v
							Bromomethane	200 ppb v/v
							Butadiene	200 ppb v/v
							Butane	200 ppb v/v
							Carbon disulfide	200 ppb v/v
							Carbon tetrachloride	200 ppb v/v
							Chlorobenzene	200 ppb v/v
							Chlorodibromomethane	200 ppb v/v
							Chlorodifluoromethane	200 ppb v/v
							Chloroethane	200 ppb v/v
							Chloroform	200 ppb v/v
							Chloromethane	200 ppb v/v
							cis-1,2-Dichloroethene	200 ppb v/v
							cis-1,3-Dichloropropene	200 ppb v/v
							Cyclohexane	200 ppb v/v
							Dibromomethane	200 ppb v/v
							Dichlorobromomethane	200 ppb v/v
							Dichlorodifluoromethane	200 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46792-1

SDG No.: 200-46792-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Dodecane	200 ppb v/v
							Ethyl acetate	200 ppb v/v
							Ethyl ether	200 ppb v/v
							Ethylbenzene	200 ppb v/v
							Freon TF	200 ppb v/v
							Hexachlorobutadiene	200 ppb v/v
							Hexane	200 ppb v/v
							Isooctane	200 ppb v/v
							Isopropyl alcohol	200 ppb v/v
							Isopropylbenzene	200 ppb v/v
							m,p-Xylene	400 ppb v/v
							Methyl methacrylate	200 ppb v/v
							Methyl tert-butyl ether	200 ppb v/v
							Methylene Chloride	200 ppb v/v
							n-Butanol	200 ppb v/v
							n-Butylbenzene	200 ppb v/v
							n-Decane	200 ppb v/v
							n-Heptane	200 ppb v/v
							n-Nonane	200 ppb v/v
							n-Octane	200 ppb v/v
							N-Propylbenzene	200 ppb v/v
							Naphthalene	200 ppb v/v
							Pentane	200 ppb v/v
							Propene	200 ppb v/v
							sec-Butylbenzene	200 ppb v/v
							Styrene	200 ppb v/v
							tert-Butylbenzene	200 ppb v/v
							Tetrachloroethene	200 ppb v/v
							Tetrahydrofuran	200 ppb v/v
							Toluene	200 ppb v/v
							trans-1,2-Dichloroethene	200 ppb v/v
							trans-1,3-Dichloropropene	200 ppb v/v
							Trichloroethene	200 ppb v/v
							Trichlorofluoromethane	200 ppb v/v
							Undecane	200 ppb v/v
							Vinyl acetate	200 ppb v/v
							Vinyl bromide	200 ppb v/v
							Vinyl chloride	200 ppb v/v
							Xylene, o-	200 ppb v/v
..ATTO15CALs_00031	02/01/19		Linde, Lot CC-133603			(Purchased Reagent)	1,1,1-Trichloroethane	1 ppm v/v
							1,1,2,2-Tetrachloroethane	1 ppm v/v
							1,1,2-Trichloroethane	1 ppm v/v
							1,1-Dichloroethane	1 ppm v/v
							1,1-Dichloroethene	1 ppm v/v
							1,2,3-Trichlorobenzene	1 ppm v/v
							1,2,3-Trichloropropene	1 ppm v/v
							1,2,4-Trichlorobenzene	1 ppm v/v
							1,2,4-Trimethylbenzene	1 ppm v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46792-1

SDG No.: 200-46792-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2-Dibromoethane	1 ppm v/v
							1,2-Dichlorobenzene	1 ppm v/v
							1,2-Dichloroethane	1 ppm v/v
							1,2-Dichloropropane	1 ppm v/v
							1,2-Dichlorotetrafluoroethane	1 ppm v/v
							1,3,5-Trimethylbenzene	1 ppm v/v
							1,3-Dichlorobenzene	1 ppm v/v
							1,4-Dichlorobenzene	1 ppm v/v
							1,4-Dioxane	1 ppm v/v
							2-Butanone (MEK)	1 ppm v/v
							2-Chlorotoluene	1 ppm v/v
							2-Hexanone	1 ppm v/v
							2-Methyl-2-propanol	1 ppm v/v
							2-Methylbutane	1 ppm v/v
							3-Chloro-1-propene	1 ppm v/v
							4-Ethyltoluene	1 ppm v/v
							4-Isopropyltoluene	1 ppm v/v
							4-Methyl-2-pentanone (MIBK)	1 ppm v/v
							Acetone	1 ppm v/v
							Acetonitrile	1 ppm v/v
							Acrolein	1 ppm v/v
							Acrylonitrile	1 ppm v/v
							Alpha Methyl Styrene	1 ppm v/v
							Benzene	1 ppm v/v
							Benzyl chloride	1 ppm v/v
							Bromoform	1 ppm v/v
							Bromomethane	1 ppm v/v
							Butadiene	1 ppm v/v
							Butane	1 ppm v/v
							Carbon disulfide	1 ppm v/v
							Carbon tetrachloride	1 ppm v/v
							Chlorobenzene	1 ppm v/v
							Chlorodibromomethane	1 ppm v/v
							Chlorodifluoromethane	1 ppm v/v
							Chloroethane	1 ppm v/v
							Chloroform	1 ppm v/v
							Chloromethane	1 ppm v/v
							cis-1,2-Dichloroethene	1 ppm v/v
							cis-1,3-Dichloropropene	1 ppm v/v
							Cyclohexane	1 ppm v/v
							Dibromomethane	1 ppm v/v
							Dichlorobromomethane	1 ppm v/v
							Dichlorodifluoromethane	1 ppm v/v
							Dodecane	1 ppm v/v
							Ethyl acetate	1 ppm v/v
							Ethyl ether	1 ppm v/v
							Ethylbenzene	1 ppm v/v
							Freon TF	1 ppm v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46792-1

SDG No.: 200-46792-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Hexachlorobutadiene	1 ppm v/v
							Hexane	1 ppm v/v
							Isooctane	1 ppm v/v
							Isopropyl alcohol	1 ppm v/v
							Isopropylbenzene	1 ppm v/v
							m,p-Xylene	2 ppm v/v
							Methyl methacrylate	1 ppm v/v
							Methyl tert-butyl ether	1 ppm v/v
							Methylene Chloride	1 ppm v/v
							n-Butanol	1 ppm v/v
							n-Butylbenzene	1 ppm v/v
							n-Decane	1 ppm v/v
							n-Heptane	1 ppm v/v
							n-Nonane	1 ppm v/v
							n-Octane	1 ppm v/v
							N-Propylbenzene	1 ppm v/v
							Naphthalene	1 ppm v/v
							Pentane	1 ppm v/v
							Propene	1 ppm v/v
							sec-Butylbenzene	1 ppm v/v
							Styrene	1 ppm v/v
							tert-Butylbenzene	1 ppm v/v
							Tetrachloroethene	1 ppm v/v
							Tetrahydrofuran	1 ppm v/v
							Toluene	1 ppm v/v
							trans-1,2-Dichloroethene	1 ppm v/v
							trans-1,3-Dichloropropene	1 ppm v/v
							Trichloroethene	1 ppm v/v
							Trichlorofluoromethane	1 ppm v/v
							Undecane	1 ppm v/v
							Vinyl acetate	1 ppm v/v
							Vinyl bromide	1 ppm v/v
							Vinyl chloride	1 ppm v/v
							Xylene, o-	1 ppm v/v
.ATTO15EthCALw_00101	02/23/19	11/21/18	Nitrogen, Lot 12	37.5 ppb	ATTO15EthCALs_00009	18.75 uL	Ethanol	500 ppb v/v
.ATTO15EthCALs_00009	09/05/21		Chem Service, Lot 5301900		(Purchased Reagent)		Ethanol	1 mL/mL
ATTO15CAL7w_00080	12/23/18	11/23/18	Nitrogen, Lot 12	15.463 L	ATTO15CALSTKi_00106	3092 mL	1,1,1-Trichloroethane	39.9922 ppb v/v
							1,1,2,2-Tetrachloroethane	39.9922 ppb v/v
							1,1,2-Trichloroethane	39.9922 ppb v/v
							1,1-Dichloroethane	39.9922 ppb v/v
							1,1-Dichloroethene	39.9922 ppb v/v
							1,2,3-Trichlorobenzene	39.9922 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46792-1

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Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2,3-Trichloropropane	39.9922 ppb v/v
							1,2,4-Trichlorobenzene	39.9922 ppb v/v
							1,2,4-Trimethylbenzene	39.9922 ppb v/v
							1,2-Dibromoethane	39.9922 ppb v/v
							1,2-Dichlorobenzene	39.9922 ppb v/v
							1,2-Dichloroethane	39.9922 ppb v/v
							1,2-Dichloropropane	39.9922 ppb v/v
							1,2-Dichlorotetrafluoroethane	39.9922 ppb v/v
							1,3,5-Trimethylbenzene	39.9922 ppb v/v
							1,3-Dichlorobenzene	39.9922 ppb v/v
							1,4-Dichlorobenzene	39.9922 ppb v/v
							1,4-Dioxane	39.9922 ppb v/v
							2-Butanone (MEK)	39.9922 ppb v/v
							2-Chlorotoluene	39.9922 ppb v/v
							2-Hexanone	39.9922 ppb v/v
							2-Methyl-2-propanol	39.9922 ppb v/v
							2-Methylbutane	39.9922 ppb v/v
							3-Chloro-1-propene	39.9922 ppb v/v
							4-Ethyltoluene	39.9922 ppb v/v
							4-Isopropyltoluene	39.9922 ppb v/v
							4-Methyl-2-pentanone (MIBK)	39.9922 ppb v/v
							Acetone	39.9922 ppb v/v
							Acetonitrile	39.9922 ppb v/v
							Acrolein	39.9922 ppb v/v
							Acrylonitrile	39.9922 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46792-1

SDG No.: 200-46792-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Alpha Methyl Styrene	39.9922 ppb v/v
							Benzene	39.9922 ppb v/v
							Benzyl chloride	39.9922 ppb v/v
							Bromoform	39.9922 ppb v/v
							Bromomethane	39.9922 ppb v/v
							Butadiene	39.9922 ppb v/v
							Butane	39.9922 ppb v/v
							Carbon disulfide	39.9922 ppb v/v
							Carbon tetrachloride	39.9922 ppb v/v
							Chlorobenzene	39.9922 ppb v/v
							Chlorodibromomethane	39.9922 ppb v/v
							Chlorodifluoromethane	39.9922 ppb v/v
							Chloroethane	39.9922 ppb v/v
							Chloroform	39.9922 ppb v/v
							Chloromethane	39.9922 ppb v/v
							cis-1,2-Dichloroethene	39.9922 ppb v/v
							cis-1,3-Dichloropropene	39.9922 ppb v/v
							Cyclohexane	39.9922 ppb v/v
							Dibromomethane	39.9922 ppb v/v
							Dichlorobromomethane	39.9922 ppb v/v
							Dichlorodifluoromethane	39.9922 ppb v/v
							Dodecane	39.9922 ppb v/v
							Ethyl acetate	39.9922 ppb v/v
							Ethyl ether	39.9922 ppb v/v
							Ethylbenzene	39.9922 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46792-1

SDG No.: 200-46792-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Freon TF	39.9922 ppb v/v
							Hexachlorobutadiene	39.9922 ppb v/v
							Hexane	39.9922 ppb v/v
							Isooctane	39.9922 ppb v/v
							Isopropyl alcohol	39.9922 ppb v/v
							Isopropylbenzene	39.9922 ppb v/v
							m,p-Xylene	79.9845 ppb v/v
							Methyl methacrylate	39.9922 ppb v/v
							Methyl tert-butyl ether	39.9922 ppb v/v
							Methylene Chloride	39.9922 ppb v/v
							n-Butanol	39.9922 ppb v/v
							n-Butylbenzene	39.9922 ppb v/v
							n-Decane	39.9922 ppb v/v
							n-Heptane	39.9922 ppb v/v
							n-Nonane	39.9922 ppb v/v
							n-Octane	39.9922 ppb v/v
							N-Propylbenzene	39.9922 ppb v/v
							Naphthalene	39.9922 ppb v/v
							Pentane	39.9922 ppb v/v
							Propene	39.9922 ppb v/v
							sec-Butylbenzene	39.9922 ppb v/v
							Styrene	39.9922 ppb v/v
							tert-Butylbenzene	39.9922 ppb v/v
							Tetrachloroethene	39.9922 ppb v/v
							Tetrahydrofuran	39.9922 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46792-1

SDG No.: 200-46792-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Toluene	39.9922 ppb v/v
							trans-1,2-Dichloroethene	39.9922 ppb v/v
							trans-1,3-Dichloropropene	39.9922 ppb v/v
							Trichloroethene	39.9922 ppb v/v
							Trichlorofluoromethane	39.9922 ppb v/v
							Undecane	39.9922 ppb v/v
							Vinyl acetate	39.9922 ppb v/v
							Vinyl bromide	39.9922 ppb v/v
							Vinyl chloride	39.9922 ppb v/v
							Xylene, o-	39.9922 ppb v/v
					ATTO15EthCALw_00101	3092 mL	Ethanol	99.9806 ppb v/v
.ATTO15CALSTKi_00106	02/01/19	11/21/18	Nitrogen, Lot 13	37.5 L	ATTO15CALs_00031	7500 mL	1,1,1-Trichloroethane	200 ppb v/v
							1,1,2,2-Tetrachloroethane	200 ppb v/v
							1,1,2-Trichloroethane	200 ppb v/v
							1,1-Dichloroethane	200 ppb v/v
							1,1-Dichloroethene	200 ppb v/v
							1,2,3-Trichlorobenzene	200 ppb v/v
							1,2,3-Trichloropropane	200 ppb v/v
							1,2,4-Trichlorobenzene	200 ppb v/v
							1,2,4-Trimethylbenzene	200 ppb v/v
							1,2-Dibromoethane	200 ppb v/v
							1,2-Dichlorobenzene	200 ppb v/v
							1,2-Dichloroethane	200 ppb v/v
							1,2-Dichloropropane	200 ppb v/v
							1,2-Dichlorotetrafluoroethane	200 ppb v/v
							1,3,5-Trimethylbenzene	200 ppb v/v
							1,3-Dichlorobenzene	200 ppb v/v
							1,4-Dichlorobenzene	200 ppb v/v
							1,4-Dioxane	200 ppb v/v
							2-Butanone (MEK)	200 ppb v/v
							2-Chlorotoluene	200 ppb v/v
							2-Hexanone	200 ppb v/v
							2-Methyl-2-propanol	200 ppb v/v
							2-Methylbutane	200 ppb v/v
							3-Chloro-1-propene	200 ppb v/v
							4-Ethyltoluene	200 ppb v/v
							4-Isopropyltoluene	200 ppb v/v
							4-Methyl-2-pentanone (MIBK)	200 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46792-1

SDG No.: 200-46792-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Acetone	200 ppb v/v
							Acetonitrile	200 ppb v/v
							Acrolein	200 ppb v/v
							Acrylonitrile	200 ppb v/v
							Alpha Methyl Styrene	200 ppb v/v
							Benzene	200 ppb v/v
							Benzyl chloride	200 ppb v/v
							Bromoform	200 ppb v/v
							Bromomethane	200 ppb v/v
							Butadiene	200 ppb v/v
							Butane	200 ppb v/v
							Carbon disulfide	200 ppb v/v
							Carbon tetrachloride	200 ppb v/v
							Chlorobenzene	200 ppb v/v
							Chlorodibromomethane	200 ppb v/v
							Chlorodifluoromethane	200 ppb v/v
							Chloroethane	200 ppb v/v
							Chloroform	200 ppb v/v
							Chloromethane	200 ppb v/v
							cis-1,2-Dichloroethene	200 ppb v/v
							cis-1,3-Dichloropropene	200 ppb v/v
							Cyclohexane	200 ppb v/v
							Dibromomethane	200 ppb v/v
							Dichlorobromomethane	200 ppb v/v
							Dichlorodifluoromethane	200 ppb v/v
							Dodecane	200 ppb v/v
							Ethyl acetate	200 ppb v/v
							Ethyl ether	200 ppb v/v
							Ethylbenzene	200 ppb v/v
							Freon TF	200 ppb v/v
							Hexachlorobutadiene	200 ppb v/v
							Hexane	200 ppb v/v
							Isooctane	200 ppb v/v
							Isopropyl alcohol	200 ppb v/v
							Isopropylbenzene	200 ppb v/v
							m,p-Xylene	400 ppb v/v
							Methyl methacrylate	200 ppb v/v
							Methyl tert-butyl ether	200 ppb v/v
							Methylene Chloride	200 ppb v/v
							n-Butanol	200 ppb v/v
							n-Butylbenzene	200 ppb v/v
							n-Decane	200 ppb v/v
							n-Heptane	200 ppb v/v
							n-Nonane	200 ppb v/v
							n-Octane	200 ppb v/v
							N-Propylbenzene	200 ppb v/v
							Naphthalene	200 ppb v/v
							Pentane	200 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46792-1

SDG No.: 200-46792-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Propene	200 ppb v/v
							sec-Butylbenzene	200 ppb v/v
							Styrene	200 ppb v/v
							tert-Butylbenzene	200 ppb v/v
							Tetrachloroethene	200 ppb v/v
							Tetrahydrofuran	200 ppb v/v
							Toluene	200 ppb v/v
							trans-1,2-Dichloroethene	200 ppb v/v
							trans-1,3-Dichloropropene	200 ppb v/v
							Trichloroethene	200 ppb v/v
							Trichlorofluoromethane	200 ppb v/v
							Undecane	200 ppb v/v
							Vinyl acetate	200 ppb v/v
							Vinyl bromide	200 ppb v/v
							Vinyl chloride	200 ppb v/v
							Xylene, o-	200 ppb v/v
..ATTO15CALs_00031	02/01/19		Linde, Lot CC-133603		(Purchased Reagent)		1,1,1-Trichloroethane	1 ppm v/v
							1,1,2,2-Tetrachloroethane	1 ppm v/v
							1,1,2-Trichloroethane	1 ppm v/v
							1,1-Dichloroethane	1 ppm v/v
							1,1-Dichloroethene	1 ppm v/v
							1,2,3-Trichlorobenzene	1 ppm v/v
							1,2,3-Trichloropropane	1 ppm v/v
							1,2,4-Trichlorobenzene	1 ppm v/v
							1,2,4-Trimethylbenzene	1 ppm v/v
							1,2-Dibromoethane	1 ppm v/v
							1,2-Dichlorobenzene	1 ppm v/v
							1,2-Dichloroethane	1 ppm v/v
							1,2-Dichloropropane	1 ppm v/v
							1,2-Dichlorotetrafluoroethane	1 ppm v/v
							1,3,5-Trimethylbenzene	1 ppm v/v
							1,3-Dichlorobenzene	1 ppm v/v
							1,4-Dichlorobenzene	1 ppm v/v
							1,4-Dioxane	1 ppm v/v
							2-Butanone (MEK)	1 ppm v/v
							2-Chlorotoluene	1 ppm v/v
							2-Hexanone	1 ppm v/v
							2-Methyl-2-propanol	1 ppm v/v
							2-Methylbutane	1 ppm v/v
							3-Chloro-1-propene	1 ppm v/v
							4-Ethyltoluene	1 ppm v/v
							4-Isopropyltoluene	1 ppm v/v
							4-Methyl-2-pentanone (MIBK)	1 ppm v/v
							Acetone	1 ppm v/v
							Acetonitrile	1 ppm v/v
							Acrolein	1 ppm v/v
							Acrylonitrile	1 ppm v/v
							Alpha Methyl Styrene	1 ppm v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46792-1

SDG No.: 200-46792-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Benzene	1 ppm v/v
							Benzyl chloride	1 ppm v/v
							Bromoform	1 ppm v/v
							Bromomethane	1 ppm v/v
							Butadiene	1 ppm v/v
							Butane	1 ppm v/v
							Carbon disulfide	1 ppm v/v
							Carbon tetrachloride	1 ppm v/v
							Chlorobenzene	1 ppm v/v
							Chlorodibromomethane	1 ppm v/v
							Chlorodifluoromethane	1 ppm v/v
							Chloroethane	1 ppm v/v
							Chloroform	1 ppm v/v
							Chloromethane	1 ppm v/v
							cis-1,2-Dichloroethene	1 ppm v/v
							cis-1,3-Dichloropropene	1 ppm v/v
							Cyclohexane	1 ppm v/v
							Dibromomethane	1 ppm v/v
							Dichlorobromomethane	1 ppm v/v
							Dichlorodifluoromethane	1 ppm v/v
							Dodecane	1 ppm v/v
							Ethyl acetate	1 ppm v/v
							Ethyl ether	1 ppm v/v
							Ethylbenzene	1 ppm v/v
							Freon TF	1 ppm v/v
							Hexachlorobutadiene	1 ppm v/v
							Hexane	1 ppm v/v
							Isooctane	1 ppm v/v
							Isopropyl alcohol	1 ppm v/v
							Isopropylbenzene	1 ppm v/v
							m,p-Xylene	2 ppm v/v
							Methyl methacrylate	1 ppm v/v
							Methyl tert-butyl ether	1 ppm v/v
							Methylene Chloride	1 ppm v/v
							n-Butanol	1 ppm v/v
							n-Butylbenzene	1 ppm v/v
							n-Decane	1 ppm v/v
							n-Heptane	1 ppm v/v
							n-Nonane	1 ppm v/v
							n-Octane	1 ppm v/v
							N-Propylbenzene	1 ppm v/v
							Naphthalene	1 ppm v/v
							Pentane	1 ppm v/v
							Propene	1 ppm v/v
							sec-Butylbenzene	1 ppm v/v
							Styrene	1 ppm v/v
							tert-Butylbenzene	1 ppm v/v
							Tetrachloroethene	1 ppm v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46792-1

SDG No.: 200-46792-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Tetrahydrofuran	1 ppm v/v
							Toluene	1 ppm v/v
							trans-1,2-Dichloroethene	1 ppm v/v
							trans-1,3-Dichloropropene	1 ppm v/v
							Trichloroethene	1 ppm v/v
							Trichlorofluoromethane	1 ppm v/v
							Undecane	1 ppm v/v
							Vinyl acetate	1 ppm v/v
							Vinyl bromide	1 ppm v/v
							Vinyl chloride	1 ppm v/v
							Xylene, o-	1 ppm v/v
.ATTO15EthCALw_00101	02/23/19	11/21/18	Nitrogen, Lot 12	37.5 ppb	ATTO15EthCALs_00009	18.75 uL	Ethanol	500 ppb v/v
..ATTO15EthCALs_00009	09/05/21		Chem Service, Lot 5301900		(Purchased Reagent)		Ethanol	1 mL/mL
ATTO15LCSW_00783	12/04/18	09/11/18	Nitrogen, Lot 13	15.463 L	ATTO15LCSSTKi_00096	773 mL	1,1,1-Trichloroethane	9.99806 ppb v/v
							1,1,2,2-Tetrachloroethane	9.99806 ppb v/v
							1,1,2-Trichloroethane	9.99806 ppb v/v
							1,1-Dichloroethane	9.99806 ppb v/v
							1,1-Dichloroethene	9.99806 ppb v/v
							1,2,4-Trichlorobenzene	9.99806 ppb v/v
							1,2,4-Trimethylbenzene	9.99806 ppb v/v
							1,2-Dibromoethane	9.99806 ppb v/v
							1,2-Dichlorobenzene	9.99806 ppb v/v
							1,2-Dichloroethane	9.99806 ppb v/v
							1,2-Dichloropropane	9.99806 ppb v/v
							1,2-Dichlorotetrafluoroethane	9.99806 ppb v/v
							1,3,5-Trimethylbenzene	9.99806 ppb v/v
							1,3-Dichlorobenzene	9.99806 ppb v/v
							1,4-Dichlorobenzene	9.99806 ppb v/v
							Benzene	9.99806 ppb v/v
							Bromomethane	9.99806 ppb v/v
							Carbon tetrachloride	9.99806 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46792-1

SDG No.: 200-46792-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Chlorobenzene	9.99806 ppb v/v
							Chloroethane	9.99806 ppb v/v
							Chloroform	9.99806 ppb v/v
							Chloromethane	9.99806 ppb v/v
							cis-1,2-Dichloroethene	9.99806 ppb v/v
							cis-1,3-Dichloropropene	9.99806 ppb v/v
							Dichlorodifluoromethane	9.99806 ppb v/v
							Ethylbenzene	9.99806 ppb v/v
							Freon TF	9.99806 ppb v/v
							Hexachlorobutadiene	9.99806 ppb v/v
							m,p-Xylene	19.9961 ppb v/v
							Methylene Chloride	9.99806 ppb v/v
							Styrene	9.99806 ppb v/v
							Tetrachloroethene	9.99806 ppb v/v
							Toluene	9.99806 ppb v/v
							trans-1,3-Dichloropropene	9.99806 ppb v/v
							Trichloroethene	9.99806 ppb v/v
							Trichlorofluoromethane	9.99806 ppb v/v
							Vinyl chloride	9.99806 ppb v/v
							Xylene, o-	9.99806 ppb v/v
.ATTO15LCSSTKi_00096	12/04/18	09/04/18	Nitrogen, Lot 12	37.5 L	ATTO15LCSS_00024	7500 mL	1,1,1-Trichloroethane	200 ppb v/v
							1,1,2,2-Tetrachloroethane	200 ppb v/v
							1,1,2-Trichloroethane	200 ppb v/v
							1,1-Dichloroethane	200 ppb v/v
							1,1-Dichloroethene	200 ppb v/v
							1,2,4-Trichlorobenzene	200 ppb v/v
							1,2,4-Trimethylbenzene	200 ppb v/v
							1,2-Dibromoethane	200 ppb v/v
							1,2-Dichlorobenzene	200 ppb v/v
							1,2-Dichloroethane	200 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46792-1

SDG No.: 200-46792-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2-Dichloropropane	200 ppb v/v
							1,2-Dichlorotetrafluoroethane	200 ppb v/v
							1,3,5-Trimethylbenzene	200 ppb v/v
							1,3-Dichlorobenzene	200 ppb v/v
							1,4-Dichlorobenzene	200 ppb v/v
							Benzene	200 ppb v/v
							Bromomethane	200 ppb v/v
							Carbon tetrachloride	200 ppb v/v
							Chlorobenzene	200 ppb v/v
							Chloroethane	200 ppb v/v
							Chloroform	200 ppb v/v
							Chloromethane	200 ppb v/v
							cis-1,2-Dichloroethene	200 ppb v/v
							cis-1,3-Dichloropropene	200 ppb v/v
							Dichlorodifluoromethane	200 ppb v/v
							Ethylbenzene	200 ppb v/v
							Freon TF	200 ppb v/v
							Hexachlorobutadiene	200 ppb v/v
							m,p-Xylene	400 ppb v/v
							Methylene Chloride	200 ppb v/v
							Styrene	200 ppb v/v
							Tetrachloroethene	200 ppb v/v
							Toluene	200 ppb v/v
							trans-1,3-Dichloropropene	200 ppb v/v
							Trichloroethene	200 ppb v/v
							Trichlorofluoromethane	200 ppb v/v
							Vinyl chloride	200 ppb v/v
							Xylene, o-	200 ppb v/v
..ATTO15LCs_00024	02/01/19		Spectra Gases, Lot CC-250179			(Purchased Reagent)	1,1,1-Trichloroethane	1 ppm v/v
							1,1,2,2-Tetrachloroethane	1 ppm v/v
							1,1,2-Trichloroethane	1 ppm v/v
							1,1-Dichloroethane	1 ppm v/v
							1,1-Dichloroethene	1 ppm v/v
							1,2,4-Trichlorobenzene	1 ppm v/v
							1,2,4-Trimethylbenzene	1 ppm v/v
							1,2-Dibromoethane	1 ppm v/v
							1,2-Dichlorobenzene	1 ppm v/v
							1,2-Dichloroethane	1 ppm v/v
							1,2-Dichloropropane	1 ppm v/v
							1,2-Dichlorotetrafluoroethane	1 ppm v/v
							1,3,5-Trimethylbenzene	1 ppm v/v
							1,3-Dichlorobenzene	1 ppm v/v
							1,4-Dichlorobenzene	1 ppm v/v
							Benzene	1 ppm v/v
							Bromomethane	1 ppm v/v
							Carbon tetrachloride	1 ppm v/v
							Chlorobenzene	1 ppm v/v
							Chloroethane	1 ppm v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46792-1

SDG No.: 200-46792-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Chloroform	1 ppm v/v
							Chloromethane	1 ppm v/v
							cis-1,2-Dichloroethene	1 ppm v/v
							cis-1,3-Dichloropropene	1 ppm v/v
							Dichlorodifluoromethane	1 ppm v/v
							Ethylbenzene	1 ppm v/v
							Freon TF	1 ppm v/v
							Hexachlorobutadiene	1 ppm v/v
							m,p-Xylene	2 ppm v/v
							Methylene Chloride	1 ppm v/v
							Styrene	1 ppm v/v
							Tetrachloroethene	1 ppm v/v
							Toluene	1 ppm v/v
							trans-1,3-Dichloropropene	1 ppm v/v
							Trichloroethene	1 ppm v/v
							Trichlorofluoromethane	1 ppm v/v
							Vinyl chloride	1 ppm v/v
							Xylene, o-	1 ppm v/v
ATTO15LCSW_00793	02/01/19	12/19/18	Nitrogen, Lot 13	15.463 L	ATTO15LCSSTKi_00098	773 mL	1,1,1-Trichloroethane	9.99806 ppb v/v
							1,1,2,2-Tetrachloroethane	9.99806 ppb v/v
							1,1,2-Trichloroethane	9.99806 ppb v/v
							1,1-Dichloroethane	9.99806 ppb v/v
							1,1-Dichloroethene	9.99806 ppb v/v
							1,2,4-Trichlorobenzene	9.99806 ppb v/v
							1,2,4-Trimethylbenzene	9.99806 ppb v/v
							1,2-Dibromoethane	9.99806 ppb v/v
							1,2-Dichlorobenzene	9.99806 ppb v/v
							1,2-Dichloroethane	9.99806 ppb v/v
							1,2-Dichloropropane	9.99806 ppb v/v
							1,2-Dichlorotetrafluoroethane	9.99806 ppb v/v
							1,3,5-Trimethylbenzene	9.99806 ppb v/v
							1,3-Dichlorobenzene	9.99806 ppb v/v
							1,4-Dichlorobenzene	9.99806 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46792-1

SDG No.: 200-46792-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Benzene	9.99806 ppb v/v
							Bromomethane	9.99806 ppb v/v
							Carbon tetrachloride	9.99806 ppb v/v
							Chlorobenzene	9.99806 ppb v/v
							Chloroethane	9.99806 ppb v/v
							Chloroform	9.99806 ppb v/v
							Chloromethane	9.99806 ppb v/v
							cis-1,2-Dichloroethene	9.99806 ppb v/v
							cis-1,3-Dichloropropene	9.99806 ppb v/v
							Dichlorodifluoromethane	9.99806 ppb v/v
							Ethylbenzene	9.99806 ppb v/v
							Freon TF	9.99806 ppb v/v
							Hexachlorobutadiene	9.99806 ppb v/v
							m,p-Xylene	19.9961 ppb v/v
							Methylene Chloride	9.99806 ppb v/v
							Styrene	9.99806 ppb v/v
							Tetrachloroethene	9.99806 ppb v/v
							Toluene	9.99806 ppb v/v
							trans-1,3-Dichloropropene	9.99806 ppb v/v
							Trichloroethene	9.99806 ppb v/v
							Trichlorofluoromethane	9.99806 ppb v/v
							Vinyl chloride	9.99806 ppb v/v
							Xylene, o-	9.99806 ppb v/v
.ATTO15LCSSTKi_00098	02/01/19	12/18/18	Nitrogen, Lot 12	37.5 L	ATTO15LCSs_00024	7500 mL	1,1,1-Trichloroethane	200 ppb v/v
							1,1,2,2-Tetrachloroethane	200 ppb v/v
							1,1,2-Trichloroethane	200 ppb v/v
							1,1-Dichloroethane	200 ppb v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46792-1

SDG No.: 200-46792-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,1-Dichloroethene	200 ppb v/v
							1,2,4-Trichlorobenzene	200 ppb v/v
							1,2,4-Trimethylbenzene	200 ppb v/v
							1,2-Dibromoethane	200 ppb v/v
							1,2-Dichlorobenzene	200 ppb v/v
							1,2-Dichloroethane	200 ppb v/v
							1,2-Dichloropropane	200 ppb v/v
							1,2-Dichlorotetrafluoroethane	200 ppb v/v
							1,3,5-Trimethylbenzene	200 ppb v/v
							1,3-Dichlorobenzene	200 ppb v/v
							1,4-Dichlorobenzene	200 ppb v/v
							Benzene	200 ppb v/v
							Bromomethane	200 ppb v/v
							Carbon tetrachloride	200 ppb v/v
							Chlorobenzene	200 ppb v/v
							Chloroethane	200 ppb v/v
							Chloroform	200 ppb v/v
							Chloromethane	200 ppb v/v
							cis-1,2-Dichloroethene	200 ppb v/v
							cis-1,3-Dichloropropene	200 ppb v/v
							Dichlorodifluoromethane	200 ppb v/v
							Ethylbenzene	200 ppb v/v
							Freon TF	200 ppb v/v
							Hexachlorobutadiene	200 ppb v/v
							m,p-Xylene	400 ppb v/v
							Methylene Chloride	200 ppb v/v
							Styrene	200 ppb v/v
							Tetrachloroethene	200 ppb v/v
							Toluene	200 ppb v/v
							trans-1,3-Dichloropropene	200 ppb v/v
							Trichloroethene	200 ppb v/v
							Trichlorofluoromethane	200 ppb v/v
							Vinyl chloride	200 ppb v/v
							Xylene, o-	200 ppb v/v
..ATTO15LCSS_00024	02/01/19		Spectra Gases, Lot CC-250179			(Purchased Reagent)	1,1,1-Trichloroethane	1 ppm v/v
							1,1,2,2-Tetrachloroethane	1 ppm v/v
							1,1,2-Trichloroethane	1 ppm v/v
							1,1-Dichloroethane	1 ppm v/v
							1,1-Dichloroethene	1 ppm v/v
							1,2,4-Trichlorobenzene	1 ppm v/v
							1,2,4-Trimethylbenzene	1 ppm v/v
							1,2-Dibromoethane	1 ppm v/v
							1,2-Dichlorobenzene	1 ppm v/v
							1,2-Dichloroethane	1 ppm v/v
							1,2-Dichloropropane	1 ppm v/v
							1,2-Dichlorotetrafluoroethane	1 ppm v/v
							1,3,5-Trimethylbenzene	1 ppm v/v
							1,3-Dichlorobenzene	1 ppm v/v

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Burlington

Job No.: 200-46792-1

SDG No.: 200-46792-1

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,4-Dichlorobenzene	1 ppm v/v
							Benzene	1 ppm v/v
							Bromomethane	1 ppm v/v
							Carbon tetrachloride	1 ppm v/v
							Chlorobenzene	1 ppm v/v
							Chloroethane	1 ppm v/v
							Chloroform	1 ppm v/v
							Chloromethane	1 ppm v/v
							cis-1,2-Dichloroethene	1 ppm v/v
							cis-1,3-Dichloropropene	1 ppm v/v
							Dichlorodifluoromethane	1 ppm v/v
							Ethylbenzene	1 ppm v/v
							Freon TF	1 ppm v/v
							Hexachlorobutadiene	1 ppm v/v
							m,p-Xylene	2 ppm v/v
							Methylene Chloride	1 ppm v/v
							Styrene	1 ppm v/v
							Tetrachloroethene	1 ppm v/v
							Toluene	1 ppm v/v
							trans-1,3-Dichloropropene	1 ppm v/v
							Trichloroethene	1 ppm v/v
							Trichlorofluoromethane	1 ppm v/v
							Vinyl chloride	1 ppm v/v
							Xylene, o-	1 ppm v/v

Method T015

Volatile Organic Compounds (GC/MS)
by Method T015

FORM III
AIR - GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Burlington

Job No.: 200-46792-1

SDG No.: 200-46792-1

Matrix: Air Level: Low

Lab File ID: 33978-04.D

Lab ID: LCS 200-138764/4

Client ID: _____

COMPOUND	SPIKE ADDED (ppb v/v)	LCS CONCENTRATION (ppb v/v)	LCS % REC	QC LIMITS REC	#
Dichlorodifluoromethane	10.0	11.2	112	68-128	
1,2-Dichlorotetrafluoroethane	10.0	10.6	106	78-138	
Chloromethane	10.0	9.92	99	57-126	
Vinyl chloride	10.0	10.2	102	62-125	
Bromomethane	10.0	11.4	114	68-128	
Chloroethane	10.0	10.9	109	65-125	
Trichlorofluoromethane	10.0	12.0	120	67-127	
Freon TF	10.0	11.1	111	68-128	
1,1-Dichloroethene	10.0	10.4	104	67-127	
Methylene Chloride	10.0	10.4	104	62-122	
1,1-Dichloroethane	10.0	10.5	105	66-126	
cis-1,2-Dichloroethene	10.0	10.4	104	67-127	
Chloroform	10.0	11.2	112	69-129	
1,1,1-Trichloroethane	10.0	11.7	117	70-130	
Carbon tetrachloride	10.0	12.3	123	62-143	
Benzene	10.0	10.5	105	67-127	
1,2-Dichloroethane	10.0	11.7	117	67-132	
Trichloroethene	10.0	10.6	106	68-128	
1,2-Dichloropropane	10.0	10.5	105	67-127	
cis-1,3-Dichloropropene	10.0	10.9	109	70-130	
Toluene	10.0	10.3	103	67-127	
trans-1,3-Dichloropropene	10.0	11.3	113	69-129	
1,1,2-Trichloroethane	10.0	10.7	107	69-129	
Tetrachloroethene	10.0	11.0	110	70-130	
1,2-Dibromoethane	10.0	11.1	111	70-130	
Chlorobenzene	10.0	10.9	109	68-128	
Ethylbenzene	10.0	10.5	105	68-128	
m,p-Xylene	20.0	21.6	108	68-128	
Xylene, o-	10.0	10.7	107	67-127	
Styrene	10.0	10.8	108	68-128	
1,1,2,2-Tetrachloroethane	10.0	11.0	110	69-129	
1,3,5-Trimethylbenzene	10.0	10.9	109	65-125	
1,2,4-Trimethylbenzene	10.0	11.1	111	65-125	
1,3-Dichlorobenzene	10.0	11.7	117	67-127	
1,4-Dichlorobenzene	10.0	11.7	118	66-126	
1,2-Dichlorobenzene	10.0	11.5	115	67-127	
1,2,4-Trichlorobenzene	10.0	13.6	136	59-126	*
Hexachlorobutadiene	10.0	13.6	136	62-130	*

Column to be used to flag recovery and RPD values

FORM IV
AIR - GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-46792-1
 SDG No.: 200-46792-1
 Lab File ID: 33978-06.D Lab Sample ID: MB 200-138764/6
 Matrix: Air Heated Purge: (Y/N) N
 Instrument ID: CHB.i Date Analyzed: 01/03/2019 14:53
 GC Column: RTX-624 ID: 0.32 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 200-138764/4	33978-04.D	01/03/2019 13:09
SVE-09	200-46792-1	33978-17.D	01/04/2019 00:27

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: TestAmerica Burlington Job No.: 200-46792-1
 SDG No.: 200-46792-1
 Lab File ID: 33353-01.D BFB Injection Date: 11/26/2018
 Instrument ID: CHB.i BFB Injection Time: 10:36
 Analysis Batch No.: 137349

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	8.0 - 40.0% of mass 95	14.9	
75	30.0 - 66.0% of mass 95	42.7	
95	Base peak, 100% relative abundance	100.0	
96	5.0 - 9.0% of mass 95	6.6	
173	Less than 2.0% of mass 174	0.0	(0.0) 1
174	50.0 - 120.0% of mass 95	102.5	
175	4.0 - 9.0 % of mass 174	7.4	(7.3) 1
176	93.0 - 101.0% of mass 174	100.5	(98.1) 1
177	5.0 - 9.0% of mass 176	6.4	(6.4) 2

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 200-137349/4	33353-04.D	11/26/2018	13:07
	IC 200-137349/5	33353-05.D	11/26/2018	14:00
	IC 200-137349/6	33353-06.D	11/26/2018	14:52
	IC 200-137349/7	33353-07.D	11/26/2018	15:45
	ICIS 200-137349/8	33353-08.D	11/26/2018	16:37
	IC 200-137349/9	33353-09.D	11/26/2018	17:30
	IC 200-137349/10	33353-10.D	11/26/2018	18:23
	IC 200-137349/11	33353-11.D	11/26/2018	19:15
	ICV 200-137349/14	33353-14.D	11/26/2018	21:52

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: TestAmerica Burlington Job No.: 200-46792-1
 SDG No.: 200-46792-1
 Lab File ID: 33978-01.D BFB Injection Date: 01/03/2019
 Instrument ID: CHB.i BFB Injection Time: 10:38
 Analysis Batch No.: 138764

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	8.0 - 40.0% of mass 95	19.3	
75	30.0 - 66.0% of mass 95	51.1	
95	Base peak, 100% relative abundance	100.0	
96	5.0 - 9.0% of mass 95	6.9	
173	Less than 2.0% of mass 174	0.0	(0.0) 1
174	50.0 - 120.0% of mass 95	107.4	
175	4.0 - 9.0 % of mass 174	8.4	(7.8) 1
176	93.0 - 101.0% of mass 174	105.4	(98.2) 1
177	5.0 - 9.0% of mass 176	6.7	(6.3) 2

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 200-138764/3	33978-03.D	01/03/2019	12:16
	LCS 200-138764/4	33978-04.D	01/03/2019	13:09
	MB 200-138764/6	33978-06.D	01/03/2019	14:53
SVE-09	200-46792-1	33978-17.D	01/04/2019	00:27

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-46792-1
 SDG No.: 200-46792-1
 Sample No.: ICIS 200-137349/8 Date Analyzed: 11/26/2018 16:37
 Instrument ID: CHB.i GC Column: RTX-624 ID: 0.32 (mm)
 Lab File ID (Standard): 33353-08.D Heated Purge: (Y/N) N
 Calibration ID: 40619

	BCM		DFBZ		CBNZd5	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT	387141	9.67	1924637	11.07	1795022	15.18
UPPER LIMIT	541997	10.00	2694492	11.40	2513031	15.51
LOWER LIMIT	232285	9.34	1154782	10.74	1077013	14.85
LAB SAMPLE ID	CLIENT SAMPLE ID					
ICV 200-137349/14	535380	9.66	2622898	11.07	2353536	15.18

BCM = Bromochloromethane
 DFBZ = 1,4-Difluorobenzene
 CBNZd5 = Chlorobenzene-d5

Area Limit = 60%-140% of internal standard area
 RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-46792-1
 SDG No.: 200-46792-1
 Sample No.: CCVIS 200-138764/3 Date Analyzed: 01/03/2019 12:16
 Instrument ID: CHB.i GC Column: RTX-624 ID: 0.32 (mm)
 Lab File ID (Standard): 33978-03.D Heated Purge: (Y/N) N
 Calibration ID: 40619

	BCM		DFBZ		CBNZd5		
	AREA #	RT #	AREA #	RT #	AREA #	RT #	
12/24 HOUR STD	252238	9.66	1223890	11.07	1161566	15.18	
UPPER LIMIT	353133	9.99	1713446	11.40	1626192	15.51	
LOWER LIMIT	151343	9.33	734334	10.74	696940	14.85	
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 200-138764/4	317397	9.66	1530398	11.07	1421052	15.17	
MB 200-138764/6	335020	9.66	1601864	11.07	1354568	15.17	
200-46792-1	SVE-09	282498	9.66	1373855	11.06	1204451	15.18

BCM = Bromochloromethane
 DFBZ = 1,4-Difluorobenzene
 CBNZd5 = Chlorobenzene-d5

Area Limit = 60%-140% of internal standard area
 RT Limit = ± 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-46792-1
 SDG No.: 200-46792-1
 Client Sample ID: SVE-09 Lab Sample ID: 200-46792-1
 Matrix: Air Lab File ID: 33978-17.D
 Analysis Method: TO-15 Date Collected: 12/17/2018 13:00
 Sample wt/vol: 20 (mL) Date Analyzed: 01/04/2019 00:27
 Soil Aliquot Vol: _____ Dilution Factor: 10
 Soil Extract Vol.: _____ GC Column: RTX-624 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 138764 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
75-71-8	Dichlorodifluoromethane	120.91	5.0	U	5.0	
76-14-2	1,2-Dichlorotetrafluoroethane	170.92	2.0	U	2.0	
74-87-3	Chloromethane	50.49	5.0	U	5.0	
75-01-4	Vinyl chloride	62.50	2.0	U	2.0	
74-83-9	Bromomethane	94.94	2.0	U	2.0	
75-00-3	Chloroethane	64.52	5.0	U	5.0	
75-69-4	Trichlorofluoromethane	137.37	2.0	U	2.0	
76-13-1	Freon TF	187.38	2.0	U	2.0	
75-35-4	1,1-Dichloroethene	96.94	2.0	U	2.0	
75-09-2	Methylene Chloride	84.93	5.0	U	5.0	
75-34-3	1,1-Dichloroethane	98.96	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	96.94	2.0	U	2.0	
67-66-3	Chloroform	119.38	2.0	U	2.0	
71-55-6	1,1,1-Trichloroethane	133.41	2.5		2.0	
56-23-5	Carbon tetrachloride	153.81	2.0	U	2.0	
71-43-2	Benzene	78.11	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	98.96	2.0	U	2.0	
79-01-6	Trichloroethene	131.39	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	112.99	2.0	U	2.0	
10061-01-5	cis-1,3-Dichloropropene	110.97	2.0	U	2.0	
108-88-3	Toluene	92.14	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	110.97	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	133.41	2.0	U	2.0	
127-18-4	Tetrachloroethene	165.83	160		2.0	
106-93-4	1,2-Dibromoethane	187.87	2.0	U	2.0	
108-90-7	Chlorobenzene	112.56	2.0	U	2.0	
100-41-4	Ethylbenzene	106.17	2.0	U	2.0	
179601-23-1	m,p-Xylene	106.17	5.0	U	5.0	
95-47-6	Xylene, o-	106.17	2.0	U	2.0	
100-42-5	Styrene	104.15	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	167.85	2.0	U	2.0	
108-67-8	1,3,5-Trimethylbenzene	120.20	2.0	U	2.0	
95-63-6	1,2,4-Trimethylbenzene	120.20	2.0	U	2.0	
541-73-1	1,3-Dichlorobenzene	147.00	2.0	U	2.0	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-46792-1
 SDG No.: 200-46792-1
 Client Sample ID: SVE-09 Lab Sample ID: 200-46792-1
 Matrix: Air Lab File ID: 33978-17.D
 Analysis Method: TO-15 Date Collected: 12/17/2018 13:00
 Sample wt/vol: 20 (mL) Date Analyzed: 01/04/2019 00:27
 Soil Aliquot Vol: _____ Dilution Factor: 10
 Soil Extract Vol.: _____ GC Column: RTX-624 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 138764 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
106-46-7	1,4-Dichlorobenzene	147.00	2.0	U	2.0	
95-50-1	1,2-Dichlorobenzene	147.00	2.0	U	2.0	
120-82-1	1,2,4-Trichlorobenzene	181.45	5.0	U *	5.0	
87-68-3	Hexachlorobutadiene	260.76	2.0	U *	2.0	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-46792-1
 SDG No.: 200-46792-1
 Client Sample ID: SVE-09 Lab Sample ID: 200-46792-1
 Matrix: Air Lab File ID: 33978-17.D
 Analysis Method: TO-15 Date Collected: 12/17/2018 13:00
 Sample wt/vol: 20 (mL) Date Analyzed: 01/04/2019 00:27
 Soil Aliquot Vol: _____ Dilution Factor: 10
 Soil Extract Vol.: _____ GC Column: RTX-624 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 138764 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL
75-71-8	Dichlorodifluoromethane	120.91	25	U	25
76-14-2	1,2-Dichlorotetrafluoroethane	170.92	14	U	14
74-87-3	Chloromethane	50.49	10	U	10
75-01-4	Vinyl chloride	62.50	5.1	U	5.1
74-83-9	Bromomethane	94.94	7.8	U	7.8
75-00-3	Chloroethane	64.52	13	U	13
75-69-4	Trichlorofluoromethane	137.37	11	U	11
76-13-1	Freon TF	187.38	15	U	15
75-35-4	1,1-Dichloroethene	96.94	7.9	U	7.9
75-09-2	Methylene Chloride	84.93	17	U	17
75-34-3	1,1-Dichloroethane	98.96	8.1	U	8.1
156-59-2	cis-1,2-Dichloroethene	96.94	7.9	U	7.9
67-66-3	Chloroform	119.38	9.8	U	9.8
71-55-6	1,1,1-Trichloroethane	133.41	14		11
56-23-5	Carbon tetrachloride	153.81	13	U	13
71-43-2	Benzene	78.11	6.4	U	6.4
107-06-2	1,2-Dichloroethane	98.96	8.1	U	8.1
79-01-6	Trichloroethene	131.39	11	U	11
78-87-5	1,2-Dichloropropane	112.99	9.2	U	9.2
10061-01-5	cis-1,3-Dichloropropene	110.97	9.1	U	9.1
108-88-3	Toluene	92.14	7.5	U	7.5
10061-02-6	trans-1,3-Dichloropropene	110.97	9.1	U	9.1
79-00-5	1,1,2-Trichloroethane	133.41	11	U	11
127-18-4	Tetrachloroethene	165.83	1100		14
106-93-4	1,2-Dibromoethane	187.87	15	U	15
108-90-7	Chlorobenzene	112.56	9.2	U	9.2
100-41-4	Ethylbenzene	106.17	8.7	U	8.7
179601-23-1	m,p-Xylene	106.17	22	U	22
95-47-6	Xylene, o-	106.17	8.7	U	8.7
100-42-5	Styrene	104.15	8.5	U	8.5
79-34-5	1,1,2,2-Tetrachloroethane	167.85	14	U	14
108-67-8	1,3,5-Trimethylbenzene	120.20	9.8	U	9.8
95-63-6	1,2,4-Trimethylbenzene	120.20	9.8	U	9.8
541-73-1	1,3-Dichlorobenzene	147.00	12	U	12

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-46792-1
 SDG No.: 200-46792-1
 Client Sample ID: SVE-09 Lab Sample ID: 200-46792-1
 Matrix: Air Lab File ID: 33978-17.D
 Analysis Method: TO-15 Date Collected: 12/17/2018 13:00
 Sample wt/vol: 20 (mL) Date Analyzed: 01/04/2019 00:27
 Soil Aliquot Vol: _____ Dilution Factor: 10
 Soil Extract Vol.: _____ GC Column: RTX-624 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 138764 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
106-46-7	1,4-Dichlorobenzene	147.00	12	U	12	
95-50-1	1,2-Dichlorobenzene	147.00	12	U	12	
120-82-1	1,2,4-Trichlorobenzene	181.45	37	U *	37	
87-68-3	Hexachlorobutadiene	260.76	21	U *	21	

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Burlington Job No.: 200-46792-1 Analy Batch No.: 137349

SDG No.: 200-46792-1

Instrument ID: CHB.i GC Column: RTX-624 ID: 0.32 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/26/2018 13:07 Calibration End Date: 11/26/2018 19:15 Calibration ID: 40619

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-137349/4	33353-04.D
Level 2	IC 200-137349/5	33353-05.D
Level 3	IC 200-137349/6	33353-06.D
Level 4	IC 200-137349/7	33353-07.D
Level 5	ICIS 200-137349/8	33353-08.D
Level 6	IC 200-137349/9	33353-09.D
Level 7	IC 200-137349/10	33353-10.D
Level 8	IC 200-137349/11	33353-11.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R ² OR COD	#	MIN R ² OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8														
Propylene	+++++	+++++	+++++	0.4977	0.5475	Ave		0.4998			6.0		30.0				
	0.5007	0.4882	0.4651														
Dichlorodifluoromethane	+++++	+++++	2.1943	1.9584	2.1294	Ave		2.0142			5.9		30.0				
	1.9710	1.9356	1.8966														
Freon 22	+++++	+++++	1.1658	1.0177	1.1342	Ave		1.0555			7.3		30.0				
	1.0278	1.0218	0.9657														
1,2-Dichlorotetrafluoroethane	+++++	2.2891	2.2486	1.9527	2.1839	Ave		2.1029			6.4		30.0				
	2.0218	2.0240	2.0004														
Chloromethane	+++++	+++++	0.6853	0.5927	0.6749	Ave		0.6325			6.2		30.0				
	0.6251	0.6187	0.5983														
n-Butane	+++++	+++++	1.2895	1.0432	1.1802	Ave		1.1122			9.6		30.0				
	1.1030	1.0646	0.9930														
Vinyl chloride	0.8782	0.8613	0.8151	0.7358	0.8414	Ave		0.8129			5.8		30.0				
	0.8094	0.7929	0.7689														
1,3-Butadiene	0.6451	0.6220	0.6040	0.5293	0.6100	Ave		0.5863			7.0		30.0				
	0.5781	0.5617	0.5398														
Bromomethane	+++++	0.9660	0.9175	0.8280	0.9438	Ave		0.9243			4.8		30.0				
	0.9348	0.9429	0.9368														
Chloroethane	+++++	+++++	0.4598	0.4302	0.4981	Ave		0.4778			5.9		30.0				
	0.4793	0.4993	0.5000														
Isopentane	+++++	1.2175	1.1415	0.9825	1.1148	Ave		1.0803			7.6		30.0				
	1.0237	1.0629	1.0191														
Bromoethene (Vinyl Bromide)	+++++	0.9322	0.9968	0.8460	0.9451	Ave		0.9413			5.1		30.0				
	0.9295	0.9685	0.9707														
Trichlorofluoromethane	+++++	2.2963	2.3153	2.1119	2.2796	Ave		2.2168			3.6		30.0				
	2.1652	2.1900	2.1594														
n-Pentane	+++++	+++++	1.9913	1.5140	1.6854	Ave		1.6590			10.5		30.0				
	1.5375	1.6384	1.5877														

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Burlington

Job No.: 200-46792-1

Analy Batch No.: 137349

SDG No.: 200-46792-1

Instrument ID: CHB.i

GC Column: RTX-624

ID: 0.32 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 11/26/2018 13:07

Calibration End Date: 11/26/2018 19:15

Calibration ID: 40619

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R ² OR COD	#	MIN R ² OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8														
Ethanol	++++ 0.3273	++++ 0.3002	0.4170 0.2778	0.3262	0.3636	Ave		0.3353			14.7		30.0				
Ethyl ether	++++ 0.5807	0.6043 0.6069	0.6356 0.6046	0.5514	0.6064	Ave		0.5986			4.4		30.0				
Acrolein	++++ 0.2473	++++ 0.3637	++++ 0.3333	0.3169	0.3545	Ave		0.3231			14.3		30.0				
Freon TF	++++ 1.9609	2.0831 2.0610	2.1381 2.0830	1.8865	2.0628	Ave		2.0393			4.2		30.0				
1,1-Dichloroethene	1.2296 0.9531	1.0382 1.0090	1.0416 1.0190	0.9161	1.0054	Ave		1.0265			9.0		30.0				
Acetone	++++ 1.2341	++++ 1.2610	++++ 1.1941	1.2957	1.3731	Ave		1.2716			5.3		30.0				
Isopropyl alcohol	++++ 1.3434	++++ 1.3381	++++ 1.2758	1.2658	1.4449	Ave		1.3336			5.4		30.0				
Carbon disulfide	++++ 2.6506	++++ 2.7928	++++ 2.8258	2.4957	2.7953	Ave		2.7350			5.0		30.0				
3-Chloropropene	++++ 1.1894	1.2722 1.2837	1.2885 1.1344	1.1136	1.2869	Ave		1.2241			6.3		30.0				
Acetonitrile	++++ 0.6711	++++ 0.7003	++++ 0.6731	0.6278	0.6563	Ave		0.6657			4.0		30.0				
Methylene Chloride	++++ 1.0111	++++ 1.0305	1.1484 0.9999	0.9872	1.0750	Ave		1.0420			5.8		30.0				
tert-Butyl alcohol	++++ 1.7686	++++ 1.8001	++++ 1.7472	1.6799	1.9211	Ave		1.7834			5.0		30.0				
Methyl tert-butyl ether	++++ 2.6036	2.7213 2.7203	2.7599 2.7117	2.5287	2.7850	Ave		2.6901			3.4		30.0				
trans-1,2-Dichloroethene	++++ 1.2883	1.2912 1.3387	1.4280 1.3303	1.2464	1.3802	Ave		1.3290			4.6		30.0				
Acrylonitrile	++++ 0.6314	++++ 0.6803	0.6553 0.6746	0.6033	0.6742	Ave		0.6532			4.6		30.0				
n-Hexane	++++ 1.4389	2.4049 1.5161	1.9529 1.5000	1.4269	1.5440	Ave		1.6834			21.7		30.0				
1,1-Dichloroethane	1.9137 1.6442	1.6733 1.7076	1.8421 1.6937	1.6016	1.7590	Ave		1.7294			6.0		30.0				
Vinyl acetate	++++ 2.2806	++++ 2.3369	++++ 2.2440	2.2339	2.4929	Ave		2.3177			4.6		30.0				
Methyl Ethyl Ketone	++++ 0.4838	++++ 0.5171	0.5240 0.5099	0.4693	0.5213	Ave		0.5042			4.5		30.0				
cis-1,2-Dichloroethene	1.4480 1.0767	1.1018 1.1256	1.1929 1.1338	1.0384	1.1311	Ave		1.1561			10.9		30.0				

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Burlington

Job No.: 200-46792-1

Analy Batch No.: 137349

SDG No.: 200-46792-1

Instrument ID: CHB.i

GC Column: RTX-624

ID: 0.32 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 11/26/2018 13:07

Calibration End Date: 11/26/2018 19:15

Calibration ID: 40619

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R ² OR COD	#	MIN R ² OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8														
Ethyl acetate	++++ 0.0935	++++ 0.0979	++++ 0.1000	0.0897	0.0976	Ave		0.0958			4.3		30.0				
Tetrahydrofuran	++++ 0.2186	++++ 0.2151	++++ 0.2047	0.2048	0.2254	Ave		0.2137			4.2		30.0				
Chloroform	++++ 1.9263	2.0260 1.9962	2.1053 1.9779	1.9080	2.0743	Ave		2.0020			3.6		30.0				
1,1,1-Trichloroethane	++++ 0.4233	0.4200 0.4107	0.4415 0.4072	0.3993	0.4300	Ave		0.4189			3.4		30.0				
Cyclohexane	++++ 0.2970	0.2732 0.2956	0.3013 0.2984	0.2676	0.2939	Ave		0.2896			4.6		30.0				
Carbon tetrachloride	0.4247 0.4455	0.4064 0.4315	0.4438 0.4302	0.4187	0.4552	Ave		0.4320			3.7		30.0				
2,2,4-Trimethylpentane	++++ 1.0169	0.9529 1.0169	1.0368 1.0081	0.9210	1.0266	Ave		0.9970			4.3		30.0				
Benzene	++++ 0.6660	0.7317 0.6698	0.7232 0.6788	0.6023	0.6685	Ave		0.6772			6.3		30.0				
1,2-Dichloroethane	++++ 0.2534	0.2370 0.2428	0.2719 0.2337	0.2400	0.2623	Ave		0.2487			5.7		30.0				
n-Heptane	++++ 0.3787	0.3962 0.3703	0.4058 0.3546	0.3548	0.3918	Ave		0.3789			5.3		30.0				
n-Butanol	++++ 0.1280	++++ 0.1194	++++ 0.1240	0.1059	0.1253	Ave		0.1205			7.3		30.0				
Trichloroethene	0.3873 0.2931	0.2812 0.2912	0.3066 0.2938	0.2682	0.2955	Ave		0.3021			12.0		30.0				
1,2-Dichloropropane	++++ 0.2393	0.2396 0.2379	0.2465 0.2354	0.2192	0.2423	Ave		0.2372			3.7		30.0				
Methyl methacrylate	++++ 0.2354	++++ 0.2353	++++ 0.2335	0.2139	0.2366	Ave		0.2304			3.8		30.0				
1,4-Dioxane	++++ 0.1337	++++ 0.1268	++++ 0.1250	0.1188	0.1349	Ave		0.1278			5.2		30.0				
Dibromomethane	++++ 0.3790	0.3370 0.3302	0.3428 0.3389	0.3123	0.3393	Ave		0.3399			5.9		30.0				
Bromodichloromethane	++++ 0.4438	0.4284 0.4479	0.4628 0.4397	0.4252	0.4697	Ave		0.4454			3.7		30.0				
cis-1,3-Dichloropropene	++++ 0.4029	0.3759 0.4017	0.3986 0.4001	0.3684	0.4109	Ave		0.3941			4.0		30.0				
Methyl isobutyl ketone	++++ 0.4768	++++ 0.4736	0.4871 0.4518	0.4533	0.5046	Ave		0.4745			4.3		30.0				
n-Octane	++++ 0.5384	0.5421 0.5169	0.5699 0.4801	0.5101	0.5609	Ave		0.5312			5.9		30.0				

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Burlington

Job No.: 200-46792-1

Analy Batch No.: 137349

SDG No.: 200-46792-1

Instrument ID: CHB.i

GC Column: RTX-624

ID: 0.32 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 11/26/2018 13:07

Calibration End Date: 11/26/2018 19:15

Calibration ID: 40619

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8	LVL 8													
Toluene	++++ 0.5533	0.6158 0.5580	0.5846 0.5642	0.5381	0.5463	Ave		0.5658			4.7		30.0				
trans-1,3-Dichloropropene	++++ 0.3667	0.3245 0.3628	0.3580 0.3554	0.3397	0.3781	Ave		0.3550			5.0		30.0				
1,1,2-Trichloroethane	++++ 0.2640	0.2465 0.2633	0.2667 0.2629	0.2609	0.2630	Ave		0.2610			2.5		30.0				
Tetrachloroethene	++++ 0.6229 0.5406	0.5014 0.5381	0.5482 0.5531	0.5306	0.5338	Ave		0.5461			6.4		30.0				
Methyl Butyl Ketone (2-Hexanone)	++++ 0.5002	++++ 0.4994	0.4862 0.4774	0.4985	0.5145	Ave		0.4960			2.6		30.0				
Dibromochloromethane	++++ 0.5187	0.5435 0.5983	0.5783 0.6010	0.5815	0.5946	Ave		0.5737			5.4		30.0				
1,2-Dibromoethane	++++ 0.5145	0.4594 0.5137	0.5096 0.5198	0.5024	0.5165	Ave		0.5051			4.1		30.0				
Chlorobenzene	++++ 0.8131	0.7500 0.8146	0.8024 0.8327	0.7773	0.8069	Ave		0.7996			3.4		30.0				
Ethylbenzene	++++ 1.2456	1.2923 1.2482	1.3086 1.2646	1.2007	1.2326	Ave		1.2561			2.9		30.0				
n-Nonane	++++ 0.5578	0.5246 0.5580	0.5545 0.5421	0.5411	0.5653	Ave		0.5490			2.5		30.0				
m,p-Xylene	++++ 0.5093	0.4760 0.5136	0.4996 0.5272	0.4896	0.5036	Ave		0.5027			3.3		30.0				
Xylene, o-	++++ 0.4873	0.5113 0.4911	0.5006 0.5019	0.4850	0.4880	Ave		0.4950			2.0		30.0				
Styrene	++++ 0.8164	0.7219 0.8238	0.7761 0.8397	0.7760	0.8117	Ave		0.7951			5.0		30.0				
Bromoform	++++ 0.3844	0.5712 0.6777	0.6236 0.6796	0.6426	0.6600	Ave		0.6056			17.2		30.0				
Cumene	++++ 1.4503	1.3172 1.4501	1.3844 1.4553	1.4155	1.4347	Ave		1.4154			3.5		30.0				
1,1,2,2-Tetrachloroethane	++++ 0.7079	0.6453 0.7168	0.7133 0.6893	0.6947	0.7191	Ave		0.6981			3.7		30.0				
n-Propylbenzene	++++ 1.6943	1.4853 1.6938	1.6381 1.5704	1.6421	1.6996	Ave		1.6319			4.9		30.0				
1,2,3-Trichloropropane	++++ 0.5485	++++ 0.5448	0.5553 0.5152	0.5431	0.5589	Ave		0.5443			2.8		30.0				
n-Decane	++++ 0.7254	++++ 0.6884	0.7083 0.6734	0.7108	0.7364	Ave		0.7071			3.3		30.0				
4-Ethyltoluene	++++ 1.4459	1.4039 1.4344	1.4039 1.3843	1.4078	1.4454	Ave		1.4000			4.2		30.0				

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Burlington

Job No.: 200-46792-1

Analy Batch No.: 137349

SDG No.: 200-46792-1

Instrument ID: CHB.i

GC Column: RTX-624

ID: 0.32 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 11/26/2018 13:07

Calibration End Date: 11/26/2018 19:15

Calibration ID: 40619

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R ² OR COD	#	MIN R ² OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8														
2-Chlorotoluene	++++ 1.1260	1.0407 1.1276	1.0875 1.1027	1.0923	1.1294	Ave		1.1009			2.9		30.0				
1,3,5-Trimethylbenzene	++++ 1.1957	1.0870 1.1376	1.1452 1.1753	1.1666	1.1881	Ave		1.1565			3.2		30.0				
Alpha Methyl Styrene	++++ 0.6720	0.5620 0.6472	0.6215 0.6496	0.6506	0.6679	Ave		0.6387			5.9		30.0				
tert-Butylbenzene	++++ 1.1911	1.0825 1.1319	1.1846 1.1445	1.1809	1.1937	Ave		1.1585			3.6		30.0				
1,2,4-Trimethylbenzene	++++ 1.1950	1.0405 1.1280	1.1811 1.1635	1.1674	1.2004	Ave		1.1537			4.8		30.0				
sec-Butylbenzene	++++ 1.8293	1.5963 1.7121	1.7632 1.7114	1.7770	1.8167	Ave		1.7437			4.6		30.0				
4-Isopropyltoluene	++++ 1.5951	1.3778 1.4827	1.4899 1.5529	1.5456	1.5773	Ave		1.5173			4.9		30.0				
1,3-Dichlorobenzene	++++ 0.9386	0.8042 0.8739	0.8623 0.8997	0.9073	0.9280	Ave		0.8877			5.2		30.0				
1,4-Dichlorobenzene	++++ 0.9382	0.7897 0.8687	0.8509 0.9084	0.9046	0.9275	Ave		0.8840			5.9		30.0				
Benzyl chloride	++++ 1.1393	0.8787 1.0575	0.9904 1.0970	1.0663	1.1486	Ave		1.0540			8.9		30.0				
n-Undecane	++++ 0.7961	++++ 0.8129	++++ 0.7696	0.8042	0.8124	Ave		0.7990			2.2		30.0				
n-Butylbenzene	++++ 1.3975	1.1879 1.3359	1.3061 1.3667	1.3801	1.3871	Ave		1.3373			5.5		30.0				
1,2-Dichlorobenzene	++++ 0.9008	0.8290 0.8228	0.8528 0.8738	0.8781	0.8971	Ave		0.8649			3.6		30.0				
n-Dodecane	++++ 0.6877	++++ 0.6307	++++ 0.4081	0.5977	0.6323	Ave		0.5913			18.2		30.0				
1,2,4-Trichlorobenzene	++++ 0.7799	++++ 0.7768	0.4376 0.6817	0.6739	0.7376	Ave		0.6812			18.7		30.0				
Hexachlorobutadiene	++++ 0.7026	0.5732 0.6856	0.6160 0.5662	0.6927	0.6902	Ave		0.6466			9.3		30.0				
Naphthalene	++++ 1.5757	++++ 1.5748	0.7590 1.3668	1.2749	1.4582	Ave		1.3349			22.9		30.0				
1,2,3-Trichlorobenzene	++++ 0.6856	++++ 0.6578	0.3385 0.4980	0.5768	0.6257	Ave		0.5637			22.8		30.0				

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Burlington Job No.: 200-46792-1 Analy Batch No.: 137349

SDG No.: 200-46792-1

Instrument ID: CHB.i GC Column: RTX-624 ID: 0.32 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/26/2018 13:07 Calibration End Date: 11/26/2018 19:15 Calibration ID: 40619

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-137349/4	33353-04.D
Level 2	IC 200-137349/5	33353-05.D
Level 3	IC 200-137349/6	33353-06.D
Level 4	IC 200-137349/7	33353-07.D
Level 5	ICIS 200-137349/8	33353-08.D
Level 6	IC 200-137349/9	33353-09.D
Level 7	IC 200-137349/10	33353-10.D
Level 8	IC 200-137349/11	33353-11.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
Propylene	BCM	Ave	++++ 349606	++++ 483469	++++ 1051046	94025	211928	++++ 15.0	++++ 20.0	++++ 40.0	4.99	10.00
Dichlorodifluoromethane	BCM	Ave	++++ 1376240	++++ 1916920	42108 4286261	369950	824230	++++ 15.0	++++ 20.0	0.500 40.0	4.99	10.00
Freon 22	BCM	Ave	++++ 717645	++++ 1012004	22371 2182501	192258	439006	++++ 15.0	++++ 20.0	0.500 40.0	4.99	10.00
1,2-Dichlorotetrafluoroethane	BCM	Ave	++++ 1411771	20602 2004492	43151 4520976	368878	845322	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Chloromethane	BCM	Ave	++++ 436466	++++ 612746	13150 1352037	111964	261235	++++ 15.0	++++ 20.0	0.500 40.0	4.99	10.00
n-Butane	BCM	Ave	++++ 770153	++++ 1054306	24745 2244256	197066	456818	++++ 15.0	++++ 20.0	0.500 40.0	4.99	10.00
Vinyl chloride	BCM	Ave	1669 565165	7752 785222	15641 1737735	139005	325661	0.0351 15.0	0.200 20.0	0.500 40.0	4.99	10.00
1,3-Butadiene	BCM	Ave	1226 403669	5598 556324	11591 1220016	99984	236113	0.0351 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Bromomethane	BCM	Ave	++++ 652723	8694 933862	17606 2117153	156424	365314	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Chloroethane	BCM	Ave	++++ 334710	++++ 494513	8823 1129920	81277	192780	++++ 15.0	++++ 20.0	0.500 40.0	4.99	10.00
Isopentane	BCM	Ave	++++ 714813	10958 1052650	21906 2303098	185609	431501	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Bromoethene (Vinyl Bromide)	BCM	Ave	++++ 649027	8390 959156	19129 2193743	159821	365833	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Trichlorofluoromethane	BCM	Ave	++++ 1511866	20667 2168932	44430 4880202	398954	882349	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
n-Pentane	BCM	Ave	++++ 1073566	++++ 1622601	38213 3588151	286001	652368	++++ 15.0	++++ 20.0	0.500 40.0	4.99	10.00
Ethanol	BCM	Ave	++++ 305358	++++ 594622	80111 1569822	123335	211214	++++ 20.0	++++ 40.0	5.01 100.0	9.99	15.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Burlington

Job No.: 200-46792-1

Analy Batch No.: 137349

SDG No.: 200-46792-1

Instrument ID: CHB.i

GC Column: RTX-624

ID: 0.32 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 11/26/2018 13:07

Calibration End Date: 11/26/2018 19:15

Calibration ID: 40619

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
Ethyl ether	BCM	Ave	++++ 405456	5439 601018	12198 1366390	104167	234701	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Acrolein	BCM	Ave	++++ 172666	++++ 360216	++++ 753206	59872	137221	++++ 15.0	++++ 20.0	++++ 40.0	4.99	10.00
Freon TF	BCM	Ave	++++ 1369185	18748 2041182	41031 4707508	356370	798422	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
1,1-Dichloroethene	BCM	Ave	2337 665501	9344 999293	19988 2303015	173067	389153	0.0351 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Acetone	BCM	Ave	++++ 861710	++++ 1248886	++++ 2698705	244775	531490	++++ 15.0	++++ 20.0	++++ 40.0	4.99	10.00
Isopropyl alcohol	BCM	Ave	++++ 938068	++++ 1325203	++++ 2883275	239123	559260	++++ 15.0	++++ 20.0	++++ 40.0	4.99	10.00
Carbon disulfide	BCM	Ave	++++ 1850790	++++ 2765904	54685 6386171	471458	1081952	++++ 15.0	++++ 20.0	0.500 40.0	4.99	10.00
3-Chloropropene	BCM	Ave	++++ 830488	++++ 11450 1271324	++++ 24726 2563662	210359	498103	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Acetonitrile	BCM	Ave	++++ 468616	++++ 693539	++++ 1521205	118601	254044	++++ 15.0	++++ 20.0	++++ 40.0	4.99	10.00
Methylene Chloride	BCM	Ave	++++ 706001	++++ 1020597	++++ 2259839	22037	186496	++++ 15.0	++++ 20.0	0.500 40.0	4.99	10.00
tert-Butyl alcohol	BCM	Ave	++++ 1234908	++++ 1782719	++++ 3948743	317353	743585	++++ 15.0	++++ 20.0	++++ 40.0	4.99	10.00
Methyl tert-butyl ether	BCM	Ave	++++ 1818003	++++ 24492 2694047	52963 6128369	477686	1077978	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
trans-1,2-Dichloroethene	BCM	Ave	++++ 899548	11621 1325772	27403 3006511	235447	534244	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Acrylonitrile	BCM	Ave	++++ 440869	++++ 673720	++++ 1524559	113972	260945	++++ 15.0	++++ 20.0	0.500 40.0	4.99	10.00
n-Hexane	BCM	Ave	++++ 1004726	21644 1501537	37477 3389995	269555	597611	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
1,1-Dichloroethane	BCM	Ave	3637 1148053	15060 1691156	35349 3827796	302554	680833	0.0351 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Vinyl acetate	BCM	Ave	++++ 1592479	++++ 2314407	++++ 5071340	421994	964935	++++ 15.0	++++ 20.0	++++ 40.0	4.99	10.00
Methyl Ethyl Ketone	BCM	Ave	++++ 337785	++++ 512166	10056 1152380	88663	201778	++++ 15.0	++++ 20.0	0.500 40.0	4.99	10.00
cis-1,2-Dichloroethene	BCM	Ave	2752 751830	9916 1114800	22892 2562452	196163	437816	0.0351 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Ethyl acetate	BCM	Ave	++++ 65292	++++ 96984	++++ 226008	16943	37793	++++ 15.0	++++ 20.0	++++ 40.0	4.99	10.00
Tetrahydrofuran	DFBZ	Ave	++++ 715097	++++ 1052426	++++ 2278099	194391	433706	++++ 15.0	++++ 20.0	++++ 40.0	4.99	10.00

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Burlington

Job No.: 200-46792-1

Analy Batch No.: 137349

SDG No.: 200-46792-1

Instrument ID: CHB.i

GC Column: RTX-624

ID: 0.32 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 11/26/2018 13:07

Calibration End Date: 11/26/2018 19:15

Calibration ID: 40619

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
Chloroform	BCM	Ave	++++ 1345033	18234 1976919	40400 4469924	360428	802896	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
1,1,1-Trichloroethane	DFBZ	Ave	++++ 1384751	18372 2010068	42112 4531311	378931	827478	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Cyclohexane	DFBZ	Ave	++++ 971609	11954 1446570	28737 3320297	253904	565557	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Carbon tetrachloride	DFBZ	Ave	3957 1457483	17781 2111559	42329 4787376	397334	875904	0.0351 15.0	0.200 20.0	0.500 40.0	4.99	10.00
2,2,4-Trimethylpentane	DFBZ	Ave	++++ 3326454	41688 4976637	98887 11218444	873976	1975504	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Benzene	DFBZ	Ave	++++ 2178765	32012 3277881	68974 7554028	571512	1286398	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
1,2-Dichloroethane	DFBZ	Ave	++++ 828935	10367 1188450	25929 2600828	227705	504695	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
n-Heptane	DFBZ	Ave	++++ 1238986	17331 1812382	38705 3946191	336660	753984	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
n-Butanol	DFBZ	Ave	++++ 418884	++++ 584237	++++ 1379867	100466	241057	++++ 15.0	++++ 20.0	++++ 40.0	4.99	10.00
Trichloroethene	DFBZ	Ave	3609 958824	12304 1425108	29241 3268860	254531	568685	0.0351 15.0	0.200 20.0	0.500 40.0	4.99	10.00
1,2-Dichloropropane	DFBZ	Ave	++++ 782800	10480 1164219	23510 2619186	207969	466292	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Methyl methacrylate	DFBZ	Ave	++++ 769906	++++ 1151333	21735 2598164	202961	455276	++++ 15.0	++++ 20.0	0.500 40.0	4.99	10.00
1,4-Dioxane	DFBZ	Ave	++++ 437383	++++ 620410	++++ 1391207	112693	259496	++++ 15.0	++++ 20.0	++++ 40.0	4.99	10.00
Dibromomethane	DFBZ	Ave	++++ 1239928	14745 1615979	32697 3771296	296333	652867	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Bromodichloromethane	DFBZ	Ave	++++ 1451705	18743 2191954	44141 4893200	403528	903874	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
cis-1,3-Dichloropropene	DFBZ	Ave	++++ 1317872	16443 1965655	38014 4452650	349604	790667	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Methyl isobutyl ketone	DFBZ	Ave	++++ 1559819	++++ 2317585	46453 5027021	430126	970920	++++ 15.0	++++ 20.0	0.500 40.0	4.99	10.00
n-Octane	DFBZ	Ave	++++ 1761400	23717 2529856	54359 5342079	484103	1079380	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Toluene	CBNZ d5	Ave	++++ 1660208	24205 2477211	50610 5686889	442094	980509	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
trans-1,3-Dichloropropene	DFBZ	Ave	++++ 1199505	14198 1775387	34143 3954796	322316	727543	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
1,1,2-Trichloroethane	CBNZ d5	Ave	++++ 792193	9688 1168832	23090 2650212	214330	471935	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Burlington

Job No.: 200-46792-1

Analy Batch No.: 137349

SDG No.: 200-46792-1

Instrument ID: CHB.i

GC Column: RTX-624

ID: 0.32 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 11/26/2018 13:07

Calibration End Date: 11/26/2018 19:15

Calibration ID: 40619

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
Tetrachloroethene	CBNZ d5	Ave	5066 1622182	19710 2388824	47454 5575238	435956	957937	0.0351 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Methyl Butyl Ketone (2-Hexanone)	CBNZ d5	Ave	++++ 1500857	++++ 2217137	42091 4812200	409532	923380	++++ 15.0	++++ 20.0	0.500 40.0	4.99	10.00
Dibromochloromethane	CBNZ d5	Ave	++++ 1556375	21362 2655968	50058 6058480	477746	1067075	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
1,2-Dibromoethane	CBNZ d5	Ave	++++ 1543781	18057 2280434	44117 5240166	412781	927033	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Chlorobenzene	CBNZ d5	Ave	++++ 2439963	29481 3616477	69464 8393562	638580	1448053	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Ethylbenzene	CBNZ d5	Ave	++++ 3737807	50796 5541388	113282 12747394	986427	2212113	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
n-Nonane	CBNZ d5	Ave	++++ 1673712	20620 2477278	47999 5464331	444516	1014451	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
m,p-Xylene	CBNZ d5	Ave	++++ 3056430	37422 4560071	86491 10627753	804488	1807601	++++ 30.0	0.401 40.0	1.00 80.0	9.99	20.0
Xylene, o-	CBNZ d5	Ave	++++ 1462286	20096 2180246	43334 5058823	398460	875849	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Styrene	CBNZ d5	Ave	++++ 2449706	28374 3657440	67187 8464385	637558	1456778	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Bromoform	CBNZ d5	Ave	++++ 1153615	22451 3008778	53979 6850244	527942	1184563	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Cumene	CBNZ d5	Ave	++++ 4351923	51776 6437896	119837 14670006	1162913	2574794	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
1,1,2,2-Tetrachloroethane	CBNZ d5	Ave	++++ 2124377	25366 3182316	61744 6948777	570782	1290567	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
n-Propylbenzene	CBNZ d5	Ave	++++ 5084113	58384 7519492	141803 15830318	1349103	3050199	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
1,2,3-Trichloropropane	CBNZ d5	Ave	++++ 1645994	++++ 2418686	48067 5192888	446177	1003035	++++ 15.0	++++ 20.0	0.500 40.0	4.99	10.00
n-Decane	CBNZ d5	Ave	++++ 2176803	++++ 3056097	61313 6788394	583984	1321623	++++ 15.0	++++ 20.0	0.500 40.0	4.99	10.00
4-Ethyltoluene	CBNZ d5	Ave	++++ 4338861	50246 6367920	121528 13954386	1156609	2594051	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
2-Chlorotoluene	CBNZ d5	Ave	++++ 3378883	40905 5005764	94141 11115025	897431	2026876	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
1,3,5-Trimethylbenzene	CBNZ d5	Ave	++++ 3588047	42728 5050552	99137 11846783	958451	2132257	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Alpha Methyl Styrene	CBNZ d5	Ave	++++ 2016515	22090 2873263	53802 6548378	534518	1198635	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
tert-Butylbenzene	CBNZ d5	Ave	++++ 3574083	42548 5025092	102549 11537178	970225	2142353	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Burlington

Job No.: 200-46792-1

Analy Batch No.: 137349

SDG No.: 200-46792-1

Instrument ID: CHB.i

GC Column: RTX-624

ID: 0.32 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 11/26/2018 13:07

Calibration End Date: 11/26/2018 19:15

Calibration ID: 40619

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
1,2,4-Trimethylbenzene	CBNZ d5	Ave	++++ 3586022	40899 5007885	102245 11727933	959096	2154324	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
sec-Butylbenzene	CBNZ d5	Ave	++++ 5489261	62746 7600876	152635 17251460	1459954	3260422	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
4-Isopropyltoluene	CBNZ d5	Ave	++++ 4786547	54158 6582529	128971 15654002	1269817	2830723	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
1,3-Dichlorobenzene	CBNZ d5	Ave	++++ 2816474	31612 3879479	74644 9069467	745442	1665416	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
1,4-Dichlorobenzene	CBNZ d5	Ave	++++ 2815393	31040 3856647	73662 9156592	743220	1664619	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Benzyl chloride	CBNZ d5	Ave	++++ 3418871	34541 4694575	85736 11057752	876072	2061419	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
n-Undecane	CBNZ d5	Ave	++++ 2388860	++++ 3608888	++++ 7757438	660740	1458006	++++ 15.0	++++ 20.0	++++ 40.0	4.99	10.00
n-Butylbenzene	CBNZ d5	Ave	++++ 4193522	46692 5930733	113064 13776454	1133826	2489428	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
1,2-Dichlorobenzene	CBNZ d5	Ave	++++ 2703210	32584 3652710	73819 8808034	721441	1609990	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
n-Dodecane	CBNZ d5	Ave	++++ 2063593	++++ 2799856	++++ 4114089	491084	1134723	++++ 15.0	++++ 20.0	++++ 40.0	4.99	10.00
1,2,4-Trichlorobenzene	CBNZ d5	Ave	++++ 2340269	++++ 3448551	37881 6871465	553635	1323726	++++ 15.0	++++ 20.0	0.500 40.0	4.99	10.00
Hexachlorobutadiene	CBNZ d5	Ave	++++ 2108184	22530 3043562	53322 5707148	569123	1238612	++++ 15.0	0.200 20.0	0.500 40.0	4.99	10.00
Naphthalene	CBNZ d5	Ave	++++ 4728319	++++ 6991435	65701 13777861	1047417	2616969	++++ 15.0	++++ 20.0	0.500 40.0	4.99	10.00
1,2,3-Trichlorobenzene	CBNZ d5	Ave	++++ 2057179	++++ 2920402	29306 5019597	473913	1122991	++++ 15.0	++++ 20.0	0.500 40.0	4.99	10.00

Curve Type Legend:

Ave = Average ISTD

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 200-46792-1
 SDG No.: 200-46792-1
 Lab Sample ID: ICV 200-137349/14 Calibration Date: 11/26/2018 21:52
 Instrument ID: CHB.i Calib Start Date: 11/26/2018 13:07
 GC Column: RTX-624 ID: 0.32 (mm) Calib End Date: 11/26/2018 19:15
 Lab File ID: 33353-14.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Propylene	Ave	0.4998	0.4818		9.64	10.0	-3.6	30.0
Dichlorodifluoromethane	Ave	2.014	2.000		9.93	10.0	-0.7	30.0
Freon 22	Ave	1.056	1.059		10.0	10.0	0.3	30.0
1,2-Dichlorotetrafluoroethane	Ave	2.103	2.325		11.1	10.0	10.6	30.0
Chloromethane	Ave	0.6325	0.6404		10.1	10.0	1.2	30.0
n-Butane	Ave	1.112	1.134		10.2	10.0	2.0	30.0
Vinyl chloride	Ave	0.8129	0.8478		10.4	10.0	4.3	30.0
1,3-Butadiene	Ave	0.5863	0.6008		10.2	10.0	2.5	30.0
Bromomethane	Ave	0.9243	0.9877		10.7	10.0	6.9	30.0
Chloroethane	Ave	0.4778	0.5307		11.1	10.0	11.1	30.0
Isopentane	Ave	1.080	1.104		10.2	10.0	2.2	30.0
Bromoethene (Vinyl Bromide)	Ave	0.9413	1.048		11.1	10.0	11.3	30.0
Trichlorofluoromethane	Ave	2.217	2.252		10.2	10.0	1.6	30.0
n-Pentane	Ave	1.659	1.692		10.2	10.0	2.0	30.0
Ethanol	Ave	0.3353	0.4243		19.0	15.0	26.5	30.0
Ethyl ether	Ave	0.5986	0.6922		11.6	10.0	15.6	30.0
Acrolein	Ave	0.3231	0.3533		10.9	10.0	9.3	30.0
Freon TF	Ave	2.039	1.899		9.31	10.0	-6.9	30.0
1,1-Dichloroethene	Ave	1.027	0.9396		9.15	10.0	-8.5	30.0
Acetone	Ave	1.272	1.236		9.72	10.0	-2.8	30.0
Isopropyl alcohol	Ave	1.334	1.283		9.62	10.0	-3.8	30.0
Carbon disulfide	Ave	2.735	2.863		10.5	10.0	4.7	30.0
3-Chloropropene	Ave	1.224	1.089		8.89	10.0	-11.0	30.0
Acetonitrile	Ave	0.6657	0.7119		10.7	10.0	6.9	30.0
Methylene Chloride	Ave	1.042	0.9679		9.29	10.0	-7.1	30.0
tert-Butyl alcohol	Ave	1.783	1.829		10.3	10.0	2.6	30.0
Methyl tert-butyl ether	Ave	2.690	2.686		9.98	10.0	-0.1	30.0
trans-1,2-Dichloroethene	Ave	1.329	1.357		10.2	10.0	2.1	30.0
Acrylonitrile	Ave	0.6532	0.6882		10.5	10.0	5.4	30.0
n-Hexane	Ave	1.683	1.549		9.20	10.0	-8.0	30.0
1,1-Dichloroethane	Ave	1.729	1.693		9.79	10.0	-2.1	30.0
Vinyl acetate	Ave	2.318	2.365		10.2	10.0	2.0	30.0
Methyl Ethyl Ketone	Ave	0.5042	0.5116		10.1	10.0	1.5	30.0
cis-1,2-Dichloroethene	Ave	1.156	1.085		9.38	10.0	-6.2	30.0
Ethyl acetate	Ave	0.0958	0.0961		10.0	10.0	0.4	30.0
Tetrahydrofuran	Ave	0.2137	0.2229		10.4	10.0	4.3	30.0
Chloroform	Ave	2.002	1.909		9.53	10.0	-4.6	30.0
1,1,1-Trichloroethane	Ave	0.4189	0.3941		9.41	10.0	-5.9	30.0
Cyclohexane	Ave	0.2896	0.2973		10.3	10.0	2.7	30.0
Carbon tetrachloride	Ave	0.4320	0.4149		9.60	10.0	-4.0	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 200-46792-1
 SDG No.: 200-46792-1
 Lab Sample ID: ICV 200-137349/14 Calibration Date: 11/26/2018 21:52
 Instrument ID: CHB.i Calib Start Date: 11/26/2018 13:07
 GC Column: RTX-624 ID: 0.32 (mm) Calib End Date: 11/26/2018 19:15
 Lab File ID: 33353-14.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,2,4-Trimethylpentane	Ave	0.997	1.006		10.1	10.0	0.9	30.0
Benzene	Ave	0.6772	0.6530		9.64	10.0	-3.6	30.0
1,2-Dichloroethane	Ave	0.2487	0.2325		9.34	10.0	-6.5	30.0
n-Heptane	Ave	0.3789	0.3625		9.57	10.0	-4.3	30.0
n-Butanol	Ave	0.1205	0.1392		11.6	10.0	15.5	30.0
Trichloroethene	Ave	0.3021	0.2863		9.47	10.0	-5.2	30.0
1,2-Dichloropropane	Ave	0.2372	0.2365		9.97	10.0	-0.3	30.0
Methyl methacrylate	Ave	0.2304	0.2387		10.4	10.0	3.6	30.0
1,4-Dioxane	Ave	0.1278	0.1301		10.2	10.0	1.8	30.0
Dibromomethane	Ave	0.3399	0.3222		9.48	10.0	-5.2	30.0
Bromodichloromethane	Ave	0.4454	0.4381		9.84	10.0	-1.6	30.0
cis-1,3-Dichloropropene	Ave	0.3941	0.3720		9.44	10.0	-5.6	30.0
Methyl isobutyl ketone	Ave	0.4745	0.4549		9.59	10.0	-4.1	30.0
n-Octane	Ave	0.5312	0.5136		9.67	10.0	-3.3	30.0
Toluene	Ave	0.5658	0.5607		9.91	10.0	-0.9	30.0
trans-1,3-Dichloropropene	Ave	0.3550	0.3674		10.3	10.0	3.5	30.0
1,1,2-Trichloroethane	Ave	0.2610	0.2697		10.3	10.0	3.3	30.0
Tetrachloroethene	Ave	0.5461	0.5328		9.76	10.0	-2.4	30.0
Methyl Butyl Ketone (2-Hexanone)	Ave	0.4960	0.4944		9.96	10.0	-0.3	30.0
Dibromochloromethane	Ave	0.5737	0.5654		9.85	10.0	-1.4	30.0
1,2-Dibromoethane	Ave	0.5051	0.5201		10.3	10.0	3.0	30.0
Chlorobenzene	Ave	0.7996	0.7996		10.0	10.0	0.0	30.0
Ethylbenzene	Ave	1.256	1.220		9.71	10.0	-2.8	30.0
n-Nonane	Ave	0.5490	0.5557		10.1	10.0	1.2	30.0
m,p-Xylene	Ave	0.5027	0.5034		20.0	20.0	0.1	30.0
Xylene, o-	Ave	0.4950	0.4902		9.90	10.0	-1.0	30.0
Styrene	Ave	0.7951	0.7859		9.88	10.0	-1.2	30.0
Bromoform	Ave	0.6056	0.6003		9.91	10.0	-0.9	30.0
Cumene	Ave	1.415	1.389		9.81	10.0	-1.9	30.0
1,1,2,2-Tetrachloroethane	Ave	0.6981	0.7186		10.3	10.0	2.9	30.0
n-Propylbenzene	Ave	1.632	1.656		10.1	10.0	1.5	30.0
1,2,3-Trichloropropane	Ave	0.5443	0.5170		9.50	10.0	-5.0	30.0
n-Decane	Ave	0.7071	0.7036		9.95	10.0	-0.5	30.0
4-Ethyltoluene	Ave	1.400	1.436		10.3	10.0	2.6	30.0
2-Chlorotoluene	Ave	1.101	1.085		9.86	10.0	-1.4	30.0
1,3,5-Trimethylbenzene	Ave	1.157	1.157		10.0	10.0	0.0	30.0
Alpha Methyl Styrene	Ave	0.6387	0.6281		9.83	10.0	-1.7	30.0
tert-Butylbenzene	Ave	1.158	1.138		9.82	10.0	-1.8	30.0
1,2,4-Trimethylbenzene	Ave	1.154	1.156		10.0	10.0	0.2	30.0
sec-Butylbenzene	Ave	1.744	1.716		9.84	10.0	-1.6	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 200-46792-1
 SDG No.: 200-46792-1
 Lab Sample ID: ICV 200-137349/14 Calibration Date: 11/26/2018 21:52
 Instrument ID: CHB.i Calib Start Date: 11/26/2018 13:07
 GC Column: RTX-624 ID: 0.32 (mm) Calib End Date: 11/26/2018 19:15
 Lab File ID: 33353-14.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Isopropyltoluene	Ave	1.517	1.485		9.79	10.0	-2.1	30.0
1,3-Dichlorobenzene	Ave	0.8877	0.8861		9.98	10.0	-0.2	30.0
1,4-Dichlorobenzene	Ave	0.8840	0.8897		10.1	10.0	0.6	30.0
Benzyl chloride	Ave	1.054	0.9845		9.34	10.0	-6.6	30.0
n-Undecane	Ave	0.7990	0.7616		9.53	10.0	-4.7	30.0
n-Butylbenzene	Ave	1.337	1.274		9.53	10.0	-4.7	30.0
1,2-Dichlorobenzene	Ave	0.8649	0.8431		9.75	10.0	-2.5	30.0
n-Dodecane	Ave	0.5913	0.5533		9.36	10.0	-6.4	30.0
1,2,4-Trichlorobenzene	Ave	0.6812	0.6320		9.28	10.0	-7.2	30.0
Hexachlorobutadiene	Ave	0.6466	0.5952		9.20	10.0	-7.9	30.0
Naphthalene	Ave	1.335	1.161		8.69	10.0	-13.0	30.0
1,2,3-Trichlorobenzene	Ave	0.5637	0.4930		8.74	10.0	-12.6	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 200-46792-1
 SDG No.: 200-46792-1
 Lab Sample ID: CCVIS 200-138764/3 Calibration Date: 01/03/2019 12:16
 Instrument ID: CHB.i Calib Start Date: 11/26/2018 13:07
 GC Column: RTX-624 ID: 0.32 (mm) Calib End Date: 11/26/2018 19:15
 Lab File ID: 33978-03.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Propylene	Ave	0.4998	0.4589		9.18	10.0	-8.2	30.0
Dichlorodifluoromethane	Ave	2.014	2.290		11.4	10.0	13.7	30.0
Freon 22	Ave	1.056	1.130		10.7	10.0	7.0	30.0
1,2-Dichlorotetrafluoroethane	Ave	2.103	2.320		11.0	10.0	10.3	30.0
Chloromethane	Ave	0.6325	0.5911		9.34	10.0	-6.5	30.0
n-Butane	Ave	1.112	1.094		9.84	10.0	-1.6	30.0
Vinyl chloride	Ave	0.8129	0.7895		9.71	10.0	-2.9	30.0
1,3-Butadiene	Ave	0.5863	0.5807		9.90	10.0	-1.0	30.0
Bromomethane	Ave	0.9243	0.998		10.8	10.0	8.0	30.0
Chloroethane	Ave	0.4778	0.5043		10.6	10.0	5.5	30.0
Isopentane	Ave	1.080	1.121		10.4	10.0	3.8	30.0
Bromoethene (Vinyl Bromide)	Ave	0.9413	1.062		11.3	10.0	12.8	30.0
Trichlorofluoromethane	Ave	2.217	2.739		12.4	10.0	23.5	30.0
n-Pentane	Ave	1.659	1.725		10.4	10.0	4.0	30.0
Ethanol	Ave	0.3353	0.2906		13.0	15.0	-13.4	30.0
Ethyl ether	Ave	0.5986	0.6586		11.0	10.0	10.0	30.0
Acrolein	Ave	0.3231	0.3690		11.4	10.0	14.2	30.0
Freon TF	Ave	2.039	1.974		9.68	10.0	-3.2	30.0
1,1-Dichloroethene	Ave	1.027	0.9248		9.01	10.0	-9.9	30.0
Acetone	Ave	1.272	1.359		10.7	10.0	6.8	30.0
Isopropyl alcohol	Ave	1.334	1.326		9.94	10.0	-0.6	30.0
Carbon disulfide	Ave	2.735	2.841		10.4	10.0	3.9	30.0
3-Chloropropene	Ave	1.224	1.125		9.19	10.0	-8.1	30.0
Acetonitrile	Ave	0.6657	0.7332		11.0	10.0	10.1	30.0
Methylene Chloride	Ave	1.042	0.9933		9.53	10.0	-4.7	30.0
tert-Butyl alcohol	Ave	1.783	1.906		10.7	10.0	6.9	30.0
Methyl tert-butyl ether	Ave	2.690	2.848		10.6	10.0	5.9	30.0
trans-1,2-Dichloroethene	Ave	1.329	1.395		10.5	10.0	5.0	30.0
Acrylonitrile	Ave	0.6532	0.6815		10.4	10.0	4.3	30.0
n-Hexane	Ave	1.683	1.521		9.04	10.0	-9.6	30.0
1,1-Dichloroethane	Ave	1.729	1.759		10.2	10.0	1.7	30.0
Vinyl acetate	Ave	2.318	2.502		10.8	10.0	8.0	30.0
Methyl Ethyl Ketone	Ave	0.5042	0.5076		10.1	10.0	0.7	30.0
cis-1,2-Dichloroethene	Ave	1.156	1.100		9.51	10.0	-4.9	30.0
Ethyl acetate	Ave	0.0958	0.0883		9.22	10.0	-7.8	30.0
Tetrahydrofuran	Ave	0.2137	0.2301		10.8	10.0	7.7	30.0
Chloroform	Ave	2.002	2.173		10.9	10.0	8.5	30.0
1,1,1-Trichloroethane	Ave	0.4189	0.4819		11.5	10.0	15.0	30.0
Cyclohexane	Ave	0.2896	0.3046		10.5	10.0	5.2	30.0
Carbon tetrachloride	Ave	0.4320	0.5198		12.0	10.0	20.3	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 200-46792-1
 SDG No.: 200-46792-1
 Lab Sample ID: CCVIS 200-138764/3 Calibration Date: 01/03/2019 12:16
 Instrument ID: CHB.i Calib Start Date: 11/26/2018 13:07
 GC Column: RTX-624 ID: 0.32 (mm) Calib End Date: 11/26/2018 19:15
 Lab File ID: 33978-03.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,2,4-Trimethylpentane	Ave	0.997	1.008		10.1	10.0	1.1	30.0
Benzene	Ave	0.6772	0.6633		9.79	10.0	-2.0	30.0
1,2-Dichloroethane	Ave	0.2487	0.2961		11.9	10.0	19.0	30.0
n-Heptane	Ave	0.3789	0.3731		9.85	10.0	-1.5	30.0
n-Butanol	Ave	0.1205	0.1385		11.5	10.0	14.9	30.0
Trichloroethene	Ave	0.3021	0.3066		10.1	10.0	1.5	30.0
1,2-Dichloropropane	Ave	0.2372	0.2399		10.1	10.0	1.2	30.0
Methyl methacrylate	Ave	0.2304	0.2413		10.5	10.0	4.7	30.0
1,4-Dioxane	Ave	0.1278	0.1314		10.3	10.0	2.8	30.0
Dibromomethane	Ave	0.3399	0.3608		10.6	10.0	6.1	30.0
Bromodichloromethane	Ave	0.4454	0.5175		11.6	10.0	16.2	30.0
cis-1,3-Dichloropropene	Ave	0.3941	0.4058		10.3	10.0	3.0	30.0
Methyl isobutyl ketone	Ave	0.4745	0.4784		10.1	10.0	0.8	30.0
n-Octane	Ave	0.5312	0.5382		10.1	10.0	1.3	30.0
Toluene	Ave	0.5658	0.5591		9.88	10.0	-1.2	30.0
trans-1,3-Dichloropropene	Ave	0.3550	0.4218		11.9	10.0	18.8	30.0
1,1,2-Trichloroethane	Ave	0.2610	0.2718		10.4	10.0	4.1	30.0
Tetrachloroethene	Ave	0.5461	0.5805		10.6	10.0	6.3	30.0
Methyl Butyl Ketone (2-Hexanone)	Ave	0.4960	0.4985		10.0	10.0	0.5	30.0
Dibromochloromethane	Ave	0.5737	0.6271		10.9	10.0	9.3	30.0
1,2-Dibromoethane	Ave	0.5051	0.5575		11.0	10.0	10.4	30.0
Chlorobenzene	Ave	0.7996	0.8484		10.6	10.0	6.1	30.0
Ethylbenzene	Ave	1.256	1.271		10.1	10.0	1.2	30.0
n-Nonane	Ave	0.5490	0.5389		9.81	10.0	-1.8	30.0
m,p-Xylene	Ave	0.5027	0.5269		21.0	20.0	4.8	30.0
Xylene, o-	Ave	0.4950	0.5242		10.6	10.0	5.9	30.0
Styrene	Ave	0.7951	0.8253		10.4	10.0	3.8	30.0
Bromoform	Ave	0.6056	0.6696		11.1	10.0	10.6	30.0
Cumene	Ave	1.415	1.493		10.5	10.0	5.5	30.0
1,1,2,2-Tetrachloroethane	Ave	0.6981	0.7513		10.8	10.0	7.6	30.0
n-Propylbenzene	Ave	1.632	1.789		11.0	10.0	9.6	30.0
1,2,3-Trichloropropane	Ave	0.5443	0.5708		10.5	10.0	4.9	30.0
n-Decane	Ave	0.7071	0.6864		9.70	10.0	-2.9	30.0
4-Ethyltoluene	Ave	1.400	1.548		11.1	10.0	10.6	30.0
2-Chlorotoluene	Ave	1.101	1.208		11.0	10.0	9.7	30.0
1,3,5-Trimethylbenzene	Ave	1.157	1.214		10.5	10.0	5.0	30.0
Alpha Methyl Styrene	Ave	0.6387	0.6789		10.6	10.0	6.3	30.0
tert-Butylbenzene	Ave	1.158	1.234		10.7	10.0	6.5	30.0
1,2,4-Trimethylbenzene	Ave	1.154	1.237		10.7	10.0	7.2	30.0
sec-Butylbenzene	Ave	1.744	1.844		10.6	10.0	5.8	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 200-46792-1
 SDG No.: 200-46792-1
 Lab Sample ID: CCVIS 200-138764/3 Calibration Date: 01/03/2019 12:16
 Instrument ID: CHB.i Calib Start Date: 11/26/2018 13:07
 GC Column: RTX-624 ID: 0.32 (mm) Calib End Date: 11/26/2018 19:15
 Lab File ID: 33978-03.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Isopropyltoluene	Ave	1.517	1.563		10.3	10.0	3.0	30.0
1,3-Dichlorobenzene	Ave	0.8877	1.017		11.5	10.0	14.6	30.0
1,4-Dichlorobenzene	Ave	0.8840	1.016		11.5	10.0	14.9	30.0
Benzyl chloride	Ave	1.054	1.124		10.7	10.0	6.6	30.0
n-Undecane	Ave	0.7990	0.8018		10.0	10.0	0.3	30.0
n-Butylbenzene	Ave	1.337	1.393		10.4	10.0	4.1	30.0
1,2-Dichlorobenzene	Ave	0.8649	0.9471		10.9	10.0	9.5	30.0
n-Dodecane	Ave	0.5913	0.5278		8.92	10.0	-10.7	30.0
1,2,4-Trichlorobenzene	Ave	0.6812	0.8069		11.8	10.0	18.4	30.0
Hexachlorobutadiene	Ave	0.6466	0.7763		12.0	10.0	20.1	30.0
Naphthalene	Ave	1.335	1.486		11.1	10.0	11.3	30.0
1,2,3-Trichlorobenzene	Ave	0.5637	0.6016		10.7	10.0	6.7	30.0

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-46792-1
 SDG No.: 200-46792-1
 Client Sample ID: _____ Lab Sample ID: MB 200-138764/6
 Matrix: Air Lab File ID: 33978-06.D
 Analysis Method: TO-15 Date Collected: _____
 Sample wt/vol: 200 (mL) Date Analyzed: 01/03/2019 14:53
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: RTX-624 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 138764 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
75-71-8	Dichlorodifluoromethane	120.91	0.50	U	0.50	
76-14-2	1,2-Dichlorotetrafluoroethane	170.92	0.20	U	0.20	
74-87-3	Chloromethane	50.49	0.50	U	0.50	
75-01-4	Vinyl chloride	62.50	0.20	U	0.20	
74-83-9	Bromomethane	94.94	0.20	U	0.20	
75-00-3	Chloroethane	64.52	0.50	U	0.50	
75-69-4	Trichlorofluoromethane	137.37	0.20	U	0.20	
76-13-1	Freon TF	187.38	0.20	U	0.20	
75-35-4	1,1-Dichloroethene	96.94	0.20	U	0.20	
75-09-2	Methylene Chloride	84.93	0.50	U	0.50	
75-34-3	1,1-Dichloroethane	98.96	0.20	U	0.20	
156-59-2	cis-1,2-Dichloroethene	96.94	0.20	U	0.20	
67-66-3	Chloroform	119.38	0.20	U	0.20	
71-55-6	1,1,1-Trichloroethane	133.41	0.20	U	0.20	
56-23-5	Carbon tetrachloride	153.81	0.20	U	0.20	
71-43-2	Benzene	78.11	0.20	U	0.20	
107-06-2	1,2-Dichloroethane	98.96	0.20	U	0.20	
79-01-6	Trichloroethene	131.39	0.20	U	0.20	
78-87-5	1,2-Dichloropropane	112.99	0.20	U	0.20	
10061-01-5	cis-1,3-Dichloropropene	110.97	0.20	U	0.20	
108-88-3	Toluene	92.14	0.20	U	0.20	
10061-02-6	trans-1,3-Dichloropropene	110.97	0.20	U	0.20	
79-00-5	1,1,2-Trichloroethane	133.41	0.20	U	0.20	
127-18-4	Tetrachloroethene	165.83	0.20	U	0.20	
106-93-4	1,2-Dibromoethane	187.87	0.20	U	0.20	
108-90-7	Chlorobenzene	112.56	0.20	U	0.20	
100-41-4	Ethylbenzene	106.17	0.20	U	0.20	
179601-23-1	m,p-Xylene	106.17	0.50	U	0.50	
95-47-6	Xylene, o-	106.17	0.20	U	0.20	
100-42-5	Styrene	104.15	0.20	U	0.20	
79-34-5	1,1,2,2-Tetrachloroethane	167.85	0.20	U	0.20	
108-67-8	1,3,5-Trimethylbenzene	120.20	0.20	U	0.20	
95-63-6	1,2,4-Trimethylbenzene	120.20	0.20	U	0.20	
541-73-1	1,3-Dichlorobenzene	147.00	0.20	U	0.20	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-46792-1
 SDG No.: 200-46792-1
 Client Sample ID: _____ Lab Sample ID: MB 200-138764/6
 Matrix: Air Lab File ID: 33978-06.D
 Analysis Method: TO-15 Date Collected: _____
 Sample wt/vol: 200 (mL) Date Analyzed: 01/03/2019 14:53
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: RTX-624 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 138764 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
106-46-7	1,4-Dichlorobenzene	147.00	0.20	U	0.20	
95-50-1	1,2-Dichlorobenzene	147.00	0.20	U	0.20	
120-82-1	1,2,4-Trichlorobenzene	181.45	0.50	U	0.50	
87-68-3	Hexachlorobutadiene	260.76	0.20	U	0.20	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-46792-1
 SDG No.: 200-46792-1
 Client Sample ID: _____ Lab Sample ID: MB 200-138764/6
 Matrix: Air Lab File ID: 33978-06.D
 Analysis Method: TO-15 Date Collected: _____
 Sample wt/vol: 200 (mL) Date Analyzed: 01/03/2019 14:53
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: RTX-624 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 138764 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL
75-71-8	Dichlorodifluoromethane	120.91	2.5	U	2.5
76-14-2	1,2-Dichlorotetrafluoroethane	170.92	1.4	U	1.4
74-87-3	Chloromethane	50.49	1.0	U	1.0
75-01-4	Vinyl chloride	62.50	0.51	U	0.51
74-83-9	Bromomethane	94.94	0.78	U	0.78
75-00-3	Chloroethane	64.52	1.3	U	1.3
75-69-4	Trichlorofluoromethane	137.37	1.1	U	1.1
76-13-1	Freon TF	187.38	1.5	U	1.5
75-35-4	1,1-Dichloroethene	96.94	0.79	U	0.79
75-09-2	Methylene Chloride	84.93	1.7	U	1.7
75-34-3	1,1-Dichloroethane	98.96	0.81	U	0.81
156-59-2	cis-1,2-Dichloroethene	96.94	0.79	U	0.79
67-66-3	Chloroform	119.38	0.98	U	0.98
71-55-6	1,1,1-Trichloroethane	133.41	1.1	U	1.1
56-23-5	Carbon tetrachloride	153.81	1.3	U	1.3
71-43-2	Benzene	78.11	0.64	U	0.64
107-06-2	1,2-Dichloroethane	98.96	0.81	U	0.81
79-01-6	Trichloroethene	131.39	1.1	U	1.1
78-87-5	1,2-Dichloropropane	112.99	0.92	U	0.92
10061-01-5	cis-1,3-Dichloropropene	110.97	0.91	U	0.91
108-88-3	Toluene	92.14	0.75	U	0.75
10061-02-6	trans-1,3-Dichloropropene	110.97	0.91	U	0.91
79-00-5	1,1,2-Trichloroethane	133.41	1.1	U	1.1
127-18-4	Tetrachloroethene	165.83	1.4	U	1.4
106-93-4	1,2-Dibromoethane	187.87	1.5	U	1.5
108-90-7	Chlorobenzene	112.56	0.92	U	0.92
100-41-4	Ethylbenzene	106.17	0.87	U	0.87
179601-23-1	m,p-Xylene	106.17	2.2	U	2.2
95-47-6	Xylene, o-	106.17	0.87	U	0.87
100-42-5	Styrene	104.15	0.85	U	0.85
79-34-5	1,1,2,2-Tetrachloroethane	167.85	1.4	U	1.4
108-67-8	1,3,5-Trimethylbenzene	120.20	0.98	U	0.98
95-63-6	1,2,4-Trimethylbenzene	120.20	0.98	U	0.98
541-73-1	1,3-Dichlorobenzene	147.00	1.2	U	1.2

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-46792-1
 SDG No.: 200-46792-1
 Client Sample ID: _____ Lab Sample ID: MB 200-138764/6
 Matrix: Air Lab File ID: 33978-06.D
 Analysis Method: TO-15 Date Collected: _____
 Sample wt/vol: 200 (mL) Date Analyzed: 01/03/2019 14:53
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: RTX-624 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 138764 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL
106-46-7	1,4-Dichlorobenzene	147.00	1.2	U	1.2
95-50-1	1,2-Dichlorobenzene	147.00	1.2	U	1.2
120-82-1	1,2,4-Trichlorobenzene	181.45	3.7	U	3.7
87-68-3	Hexachlorobutadiene	260.76	2.1	U	2.1

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-46792-1
 SDG No.: 200-46792-1
 Client Sample ID: _____ Lab Sample ID: LCS 200-138764/4
 Matrix: Air Lab File ID: 33978-04.D
 Analysis Method: TO-15 Date Collected: _____
 Sample wt/vol: 200 (mL) Date Analyzed: 01/03/2019 13:09
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: RTX-624 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 138764 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL
75-71-8	Dichlorodifluoromethane	120.91	11.2		0.50
76-14-2	1,2-Dichlorotetrafluoroethane	170.92	10.6		0.20
74-87-3	Chloromethane	50.49	9.92		0.50
75-01-4	Vinyl chloride	62.50	10.2		0.20
74-83-9	Bromomethane	94.94	11.4		0.20
75-00-3	Chloroethane	64.52	10.9		0.50
75-69-4	Trichlorofluoromethane	137.37	12.0		0.20
76-13-1	Freon TF	187.38	11.1		0.20
75-35-4	1,1-Dichloroethene	96.94	10.4		0.20
75-09-2	Methylene Chloride	84.93	10.4		0.50
75-34-3	1,1-Dichloroethane	98.96	10.5		0.20
156-59-2	cis-1,2-Dichloroethene	96.94	10.4		0.20
67-66-3	Chloroform	119.38	11.2		0.20
71-55-6	1,1,1-Trichloroethane	133.41	11.7		0.20
56-23-5	Carbon tetrachloride	153.81	12.3		0.20
71-43-2	Benzene	78.11	10.5		0.20
107-06-2	1,2-Dichloroethane	98.96	11.7		0.20
79-01-6	Trichloroethene	131.39	10.6		0.20
78-87-5	1,2-Dichloropropane	112.99	10.5		0.20
10061-01-5	cis-1,3-Dichloropropene	110.97	10.9		0.20
108-88-3	Toluene	92.14	10.3		0.20
10061-02-6	trans-1,3-Dichloropropene	110.97	11.3		0.20
79-00-5	1,1,2-Trichloroethane	133.41	10.7		0.20
127-18-4	Tetrachloroethene	165.83	11.0		0.20
106-93-4	1,2-Dibromoethane	187.87	11.1		0.20
108-90-7	Chlorobenzene	112.56	10.9		0.20
100-41-4	Ethylbenzene	106.17	10.5		0.20
179601-23-1	m,p-Xylene	106.17	21.6		0.50
95-47-6	Xylene, o-	106.17	10.7		0.20
100-42-5	Styrene	104.15	10.8		0.20
79-34-5	1,1,2,2-Tetrachloroethane	167.85	11.0		0.20
108-67-8	1,3,5-Trimethylbenzene	120.20	10.9		0.20
95-63-6	1,2,4-Trimethylbenzene	120.20	11.1		0.20
541-73-1	1,3-Dichlorobenzene	147.00	11.7		0.20

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-46792-1
 SDG No.: 200-46792-1
 Client Sample ID: _____ Lab Sample ID: LCS 200-138764/4
 Matrix: Air Lab File ID: 33978-04.D
 Analysis Method: TO-15 Date Collected: _____
 Sample wt/vol: 200 (mL) Date Analyzed: 01/03/2019 13:09
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: RTX-624 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 138764 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
106-46-7	1,4-Dichlorobenzene	147.00	11.7		0.20	
95-50-1	1,2-Dichlorobenzene	147.00	11.5		0.20	
120-82-1	1,2,4-Trichlorobenzene	181.45	13.6		0.50	
87-68-3	Hexachlorobutadiene	260.76	13.6		0.20	

AIR - GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Burlington Job No.: 200-46792-1

SDG No.: 200-46792-1

Instrument ID: CHB.i Start Date: 11/26/2018 10:36

Analysis Batch Number: 137349 End Date: 11/27/2018 09:32

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 200-137349/1		11/26/2018 10:36	1	33353-01.D	RTX-624 0.32 (mm)
VIBLK 200-137349/2		11/26/2018 11:22	1		RTX-624 0.32 (mm)
VIBLK 200-137349/3		11/26/2018 12:15	1		RTX-624 0.32 (mm)
IC 200-137349/4		11/26/2018 13:07	1	33353-04.D	RTX-624 0.32 (mm)
IC 200-137349/5		11/26/2018 14:00	1	33353-05.D	RTX-624 0.32 (mm)
IC 200-137349/6		11/26/2018 14:52	1	33353-06.D	RTX-624 0.32 (mm)
IC 200-137349/7		11/26/2018 15:45	1	33353-07.D	RTX-624 0.32 (mm)
ICIS 200-137349/8		11/26/2018 16:37	1	33353-08.D	RTX-624 0.32 (mm)
IC 200-137349/9		11/26/2018 17:30	1	33353-09.D	RTX-624 0.32 (mm)
IC 200-137349/10		11/26/2018 18:23	1	33353-10.D	RTX-624 0.32 (mm)
IC 200-137349/11		11/26/2018 19:15	1	33353-11.D	RTX-624 0.32 (mm)
VIBLK 200-137349/12		11/26/2018 20:07	1		RTX-624 0.32 (mm)
VIBLK 200-137349/13		11/26/2018 21:00	1		RTX-624 0.32 (mm)
ICV 200-137349/14		11/26/2018 21:52	1	33353-14.D	RTX-624 0.32 (mm)
ZZZZZ		11/26/2018 22:45	1		RTX-624 0.32 (mm)
ZZZZZ		11/26/2018 23:37	1		RTX-624 0.32 (mm)
MB 200-137349/17 VIBLK		11/27/2018 00:30	1		RTX-624 0.32 (mm)
ZZZZZ		11/27/2018 01:22	1		RTX-624 0.32 (mm)
ZZZZZ		11/27/2018 08:40	10		RTX-624 0.32 (mm)
ZZZZZ		11/27/2018 09:32	10		RTX-624 0.32 (mm)

AIR - GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Burlington Job No.: 200-46792-1

SDG No.: 200-46792-1

Instrument ID: CHB.i Start Date: 01/03/2019 10:38

Analysis Batch Number: 138764 End Date: 01/04/2019 07:26

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 200-138764/1		01/03/2019 10:38	1	33978-01.D	RTX-624 0.32 (mm)
CCVIS 200-138764/3		01/03/2019 12:16	1	33978-03.D	RTX-624 0.32 (mm)
LCS 200-138764/4		01/03/2019 13:09	1	33978-04.D	RTX-624 0.32 (mm)
MB 200-138764/6		01/03/2019 14:53	1	33978-06.D	RTX-624 0.32 (mm)
ZZZZZ		01/03/2019 15:45	1		RTX-624 0.32 (mm)
ZZZZZ		01/03/2019 16:38	20		RTX-624 0.32 (mm)
ZZZZZ		01/03/2019 17:30	200		RTX-624 0.32 (mm)
ZZZZZ		01/03/2019 20:07	600		RTX-624 0.32 (mm)
ZZZZZ		01/03/2019 21:51	700		RTX-624 0.32 (mm)
ZZZZZ		01/03/2019 23:35	800		RTX-624 0.32 (mm)
200-46792-1		01/04/2019 00:27	10	33978-17.D	RTX-624 0.32 (mm)
ZZZZZ		01/04/2019 03:04	36		RTX-624 0.32 (mm)
ZZZZZ		01/04/2019 03:57	180		RTX-624 0.32 (mm)
ZZZZZ		01/04/2019 06:33	1		RTX-624 0.32 (mm)
ZZZZZ		01/04/2019 07:26	1		RTX-624 0.32 (mm)

AIR - GC/MS VOA BATCH WORKSHEET

Lab Name: TestAmerica Burlington Job No.: 200-46792-1

SDG No.: 200-46792-1

Batch Number: 137349 Batch Start Date: 11/26/18 10:36 Batch Analyst: Pham, Vu T

Batch Method: TO-15 Batch End Date: _____

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialPressure	FinalPressure	InitialAmount	FinalAmount	ATTO15BISs 00006	ATTO15CAL1w 00200
BFB 200-137349/1		TO-15		1	1	0 mL	0 mL	20 mL	
IC 200-137349/4		TO-15		1	1	200 mL	200 mL	20 mL	35 mL
IC 200-137349/5		TO-15		1	1	200 mL	200 mL	20 mL	200 mL
IC 200-137349/6		TO-15		1	1	200 mL	200 mL	20 mL	
IC 200-137349/7		TO-15		1	1	200 mL	200 mL	20 mL	
ICIS 200-137349/8		TO-15		1	1	200 mL	200 mL	20 mL	
IC 200-137349/9		TO-15		1	1	200 mL	200 mL	20 mL	
IC 200-137349/10		TO-15		1	1	200 mL	200 mL	20 mL	
IC 200-137349/11		TO-15		1	1	200 mL	200 mL	20 mL	
ICV 200-137349/14		TO-15		1	1	200 mL	200 mL	20 mL	

Lab Sample ID	Client Sample ID	Method Chain	Basis	ATTO15CAL2w 00274	ATTO15CAL3w 00210	ATTO15CAL4w 00715	ATTO15CAL5w 00078	ATTO15CAL6w 00161	ATTO15CAL7w 00080
BFB 200-137349/1		TO-15							
IC 200-137349/4		TO-15							
IC 200-137349/5		TO-15							
IC 200-137349/6		TO-15		200 mL					
IC 200-137349/7		TO-15			200 mL				
ICIS 200-137349/8		TO-15				200 mL			
IC 200-137349/9		TO-15					200 mL		
IC 200-137349/10		TO-15						200 mL	
IC 200-137349/11		TO-15							200 mL
ICV 200-137349/14		TO-15							

Lab Sample ID	Client Sample ID	Method Chain	Basis	ATTO15LCSW 00783					

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

AIR - GC/MS VOA BATCH WORKSHEET

Lab Name: TestAmerica Burlington Job No.: 200-46792-1

SDG No.: 200-46792-1

Batch Number: 137349 Batch Start Date: 11/26/18 10:36 Batch Analyst: Pham, Vu T

Batch Method: TO-15 Batch End Date: _____

Lab Sample ID	Client Sample ID	Method Chain	Basis	ATTO15LCSW 00783					
BFB 200-137349/1		TO-15							
IC 200-137349/4		TO-15							
IC 200-137349/5		TO-15							
IC 200-137349/6		TO-15							
IC 200-137349/7		TO-15							
ICIS 200-137349/8		TO-15							
IC 200-137349/9		TO-15							
IC 200-137349/10		TO-15							
IC 200-137349/11		TO-15							
ICV 200-137349/14		TO-15		200 mL					

Batch Notes	

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

AIR - GC/MS VOA BATCH WORKSHEET

Lab Name: TestAmerica Burlington Job No.: 200-46792-1

SDG No.: 200-46792-1

Batch Number: 138764 Batch Start Date: 01/03/19 10:38 Batch Analyst: Bunma, Arthit 1

Batch Method: TO-15 Batch End Date: _____

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialPressure	FinalPressure	InitialAmount	FinalAmount	ATTO15BISs 00006	ATTO15LCSW 00793
BFB 200-138764/1		TO-15		1	1	0 mL	0 mL	20 mL	
CCVIS 200-138764/3		TO-15		1	1	200 mL	200 mL	20 mL	200 mL
LCS 200-138764/4		TO-15		1	1	200 mL	200 mL	20 mL	200 mL
MB 200-138764/6		TO-15		1	1	200 mL	200 mL	20 mL	
200-46792-A-1	SVE-09	TO-15	T	1	1	20 mL	200 mL	20 mL	

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Shipping and Receiving Documents

ORIGIN ID: ISPA (631) 344-2311
BNL SHIPPING DEPT
BROOKHAVEN NATIONAL LAB
BLDG98, ROCHESTER STREET

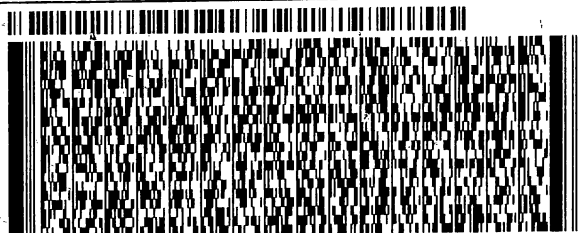
SHIP DATE: 18DEC18
ACTWGT: 28.00 LB MAN
CAD: 0620132/CAFE9211

UPTON, NY 11973
UNITED STATES US

BILL RECIPIENT

TO RECEIVING DEPT.
TEST AMERICA, VT
30 COMMUNITY DRIVE
SUITE 11
SOUTH BURLINGTON VT 05403

(802) 923-1021
REF: 0000059750



FedEx
Express



J181118060501 US

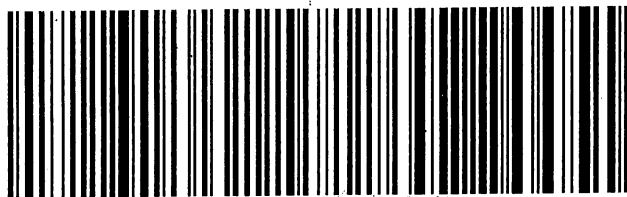
TRK# 6583 4853 9292
0201

WED - 19 DEC 10:30A
PRIORITY OVERNIGHT

• XH BTVA

05403
VT-US BTV

• 156148-434 RIT EXP 11/18 •



Login Sample Receipt Checklist

Client: Brookhaven National Labs

Job Number: 200-46792-1

SDG Number: 200-46792-1

Login Number: 46792
List Number: 1
Creator: McNabb, Robert W

List Source: TestAmerica Burlington

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	Seal present with no number.
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	Thermal preservation not required.
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	N/A	Thermal preservation not required.
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	AMS
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.	N/A	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	No analysis requiring residual chlorine check assigned.