



Pfizer Inc.
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Peapack, NJ 07977
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Via e-mail

May 30, 2017

Mr. Luis Negrón
Project Manager
US EPA-Region 2
Caribbean Environmental Protection Division
City View Plaza II, Suite 7000
Guaynabo, Puerto Rico 00968

**RE: Pfizer Pharmaceuticals, LLC, Barceloneta Site, EPA ID PRD090346909
SVE – CMS Pilot Study - Progress Report for the Period from January thru March 2017**

Dear Mr. Negrón:

On behalf of Pfizer Pharmaceuticals, LLC (PPLLC), please find attached the progress report prepared by ERTEC that summarizes soil vapor extraction (SVE) Pilot Test activities and data obtained during the period from January thru March 2017.

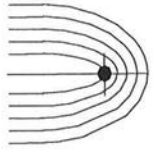
If you have any questions, please don't hesitate to contact me at 908-901-8630 or Wanda Morales with ERTEC at 787-792-8902.

Sincerely,

A handwritten signature in blue ink that reads "William G. Gierke".

William G. Gierke, P.G., Senior Manager
Pfizer Inc.

cc. Ron Schott (Pfizer)
Jorge Esquilín and Ruth Llorens (Pfizer)



ERTEC

**SVE SYSTEM PROGRESS REPORT NO. 6
JANUARY TO MARCH 2017
PFIZER PHARMACEUTICALS LLC
BARCELONETA, PUERTO RICO**

ERTEC JOB NO. E175475

Prepared for:

**US ENVIRONMENTAL PROTECTION AGENCY
City View Plaza II Building, 7th Floor, Suite 7000
#48 Rd. 165 Km. 1.2
Guaynabo, PR 00968-8069**

May 30, 2017

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**SVE SYSTEM PROGRESS REPORT NO. 6
JANUARY TO MARCH 2017
PFIZER PHARMACEUTICALS LLC
BARCELONETA, PUERTO RICO**

Date Prepared: May 30, 2017

Period Covered: January 3 to March 31, 2017

Project: SVE Pilot Test, Pfizer Pharmaceuticals, LLC
Barceloneta, Puerto Rico

Prepared by: Wanda I. Morales
Project Manager

1.0 INTRODUCTION

This progress report contains a summary of the Soil Vapor Extraction (SVE) system operations and maintenance activities performed from January thru March 2017 at the Pfizer Pharmaceuticals LLC site in Barceloneta, Puerto Rico in accordance with the Environmental Quality Board (EQB) construction permit - revised on May 2015. System operation for this reporting period was performed from seven (7) extraction wells: AB-10, AB-10B, AB-19, AB-21, AB-23, B-1 and B-4. **Figure 1** presents the location of the SVE system with extraction wells.

This report includes system operational register including downtime, maintenance, carbon exchange activities, summary of data collected, validated analytical results, mass removal and emissions calculations, and EQB construction permit data requirements.

2.0 WORK PERFORMED DURING JANUARY TO MARCH 2017

Start up of the SVE system began on January 3, 2017 for this reporting period. Site activities included system monitoring for operation and maintenance (O&M) parameters and emissions permit parameters, collection of monthly air samples, and SVE system monthly verification. Other activities performed during this period included an updated concentration testing of individual SVE wells during January and February 2017 as requested by Pfizer and carbon exchange activities during March 2017.

2.1 SVE System Operation

The SVE system operated from Monday thru Friday during January, February and March 2017 except on the dates indicated in **Table 1** and **Section 4.0** of this report. **Table 1** presents a summary of system operation including startup and shutdown dates, hourly meter readings, sampling dates, operational time, and cumulative hours for carbon unit and SVE system, maintenance activities and carbon exchange dates. SVE O&M activities included the collection of the following data:

- Ambient temperature, barometric pressure and humidity readings summarized in **Table 2**.
- SVE extraction wells and system vacuum/pressure readings summarized in **Table 3**.
- Extraction wells combined sampling port (INLET-1) vacuum, flow rate, temperature, Organic Vapor Analyzer (OVA), Lower Explosive Limit (LEL), oxygen (O₂), carbon monoxide (CO) and hydrogen sulfide (H₂S) readings summarized in **Table 4**.
- Sampling port after bleeder valve (INLET-2) pressure, flow rate, temperature, OVA, LEL, O₂, CO and H₂S readings summarized in **Table 5**.
- Outlet stack sampling port (OUTLET) pressure, flow rate, temperature, OVA, LEL, O₂, CO and H₂S readings summarized in **Table 6**.

Ambient readings were obtained with a portable weather station. Vacuum, pressure and temperature readings were obtained from gauges installed at the SVE system. Flow rate readings were obtained with portable anemometer. OVA readings were obtained with a portable OVA equipped with a photoionization detector (PID), and LEL, O₂, CO and H₂S readings with an explosimeter from Tedlar bags collected at each sampling port. Monitoring instruments were calibrated daily. Rain data as provided by Pfizer is included in **Appendix 1**.

2.2 Sample Collection Activities

Monthly samples were obtained from SVE system on January 17, February 21 and March 28, 2017 as described below:

| Date | INLET-1 (header pipe from extraction wells) | INLET-2 (sample after bleeder valve) | OUTLET (exhaust stack) |
|-------------------|---|--|---------------------------|
| January 17, 2017 | INLET-1-16 | INLET-2-16 | OUTLET-16 |
| February 21, 2017 | INLET-1-16 | INLET-2-16 | OUTLET-16 |
| March 28, 2017 | INLET-1-17 | INLET-2-17 | OUTLET-17 |

Co-located samples were obtained during each sampling event as identified as:

- INLET-P from sample INLET-2-16 on January 17, 2017
- INLET-P from sample INLET-2-16 on February 21, 2017
- OUTLET-Q from sample OUTLET-17 on March 28, 2017

Due to an oversight, samples collected on February 21, 2017 were identified with the same sequential number as samples collected on January 17, 2017.

Grab samples for the analysis of selected Volatile Organic Compounds (VOCs), total VOCs reported as non-Methane Organic Compounds as Carbon, and Methane were obtained in Summa canisters from each sampling port. Vapor samples for Methanol analysis were obtained in Sorbent Tubes with a sampling pump for a period of 8-minutes at each sampling location. Sampling data for INLET-1, INLET-2 and OUTLET sampling ports are included in **Table 7**.

Samples collected in Summa canisters were stored and sealed in cardboard boxes for shipment via FedEx to Test America-Burlington in Vermont. Samples collected and shipped on January 17, 2017 were delivered by FedEx on January 19, 2017. Vapor samples and co-located samples collected in Summa canisters were analyzed for:

- Selected VOCs by EPA Method TO-15
- Total VOCs by EPA Method 25C and reported as Total Non-Methane Organic Carbon (TNMOC)
- Methane by EPA Method 3C

Trip blanks were analyzed for selected VOCs by Method TO-15 and Total VOCs by Method 25C.

Samples collected in Sorbent Tubes were preserved in ice for shipment via FedEx to Test America-Phoenix in Arizona. Sorbent tubes samples collected and shipped on January 17, 2017 were delivered by FedEx to TA-Phoenix on January 19, 2017. According to the laboratory samples temperature upon receipt was 0.9 degrees

Centigrade. Vapor samples and co-located samples collected in Sorbent Tubes were analyzed for:

- Methanol by NIOSH 2000

Proper chain-of-custody documentation accompanied the sample to the laboratory. Copies of chain of custody are included in **Appendix 2**.

3.0 VALIDATED ANALYTICAL RESULTS

Analytical results for vapor samples collected during this period were validated in accordance to EPA Region II Standard Operating Procedure (Analysis of VOCs in Air Contained in Canisters by Method TO-15, SOP HW-31 Revision 6, June 2014).

No validation guidelines are available for NIOSH 2000 (Methanol). Data validation was performed in accordance to the specifications of the analytical method. The validation approach was similar to that specified in the EPA Region II SOP, (Analysis of VOCs in Air Contained in Canisters by Method TO-15, SOP HW-31 Revision 6, June 2014).

A summary of validated analytical results for air samples obtained during this period are included in **Table 8**. Copies of the data validation reports are included in **Appendix 3**. Analytical results were also certified by a PR chemist as required by EQB construction permit. Copy of PR chemist certified results are included in **Appendix 4**.

4.0 SVE INDIVIDUAL EXTRACTION WELL TESTING

Testing of each individual SVE wells AB-10, AB-10B, AB-19, AB-21, AB-23, B-1 and B-4 was performed on January and February 2017 as requested by Pfizer. The objective of the individual testing was to determine target compound concentrations at each extraction well to help evaluate system performance and if modifications to system operations are appropriate to increase mass removal. The following activities were performed:

- January 27, 2017 – Screening of each extraction well using the PID. Based on screening results, Pfizer requested individual testing activities at each well, including collection of field parameters and soil gas sample for VOCs by EPA Method TO-15.
- February 14 to 17, 2017 – Monitoring and sampling activities of individual extraction wells.

A summary of field procedures, field monitoring data obtained and analytical results was provided in a technical letter submitted to Pfizer on April 18, 2017. A copy of this letter is included in **Appendix 5**.

5.0 SVE SYSTEM MAINTENANCE / DOWNTIME

Table 1 includes a summary of SVE system operation since year 2015. The system operated for a total of 1167 hours during the period from January thru March 2017. Details of system operational and accumulative time in hours are included in **Table 1**. The SVE operation was performed from Monday thru Friday except for the following:

- January 2, 2017 – System off due to local Holiday.
- January 4, 2017 – System off due to elevated carbon entrance temperatures. SVE operation resumed on January 9, 2017.
- February 7, 2017 – System off due to elevated carbon entrance temperatures. SVE operation resumed on February 8, 2017.
- March 22, 2017 – System off due to carbon efficiency less than 90 percent. Carbon exchange activities were performed on March 23 and 24, 2017. SVE operation resumed on March 27, 2017 after installation of unused carbon vessel and system verification activities.

As indicated in **Table 1**, system verification was performed on the following dates:

- January 16, 2017
- February 6, 2017
- March 6, 2017

Other maintenance activities included replacement of vacuum gauge at extraction well AB-10B and INLET-1 on March 13, 2017.

5.1 Management of Investigation Derived Waste

The following container was generated during this period:

- Tedlar bags/tubing: 1 UN-approved 15-gallons plastic container.

6.0 MASS REMOVAL AND EMISSIONS CALCULATIONS

The mass removal and emission rate calculations were performed based on analytical results for air samples obtained during January, February and March 2017. Mass removal calculations for INLET-1 (combined extraction wells samples) and INLET-2 (samples after bleeder valve) are included in **Tables 9** and **10**, respectively. Emission rate calculations for OUTLET (exhaust stack samples) are included in **Table 11**.

Data used for mass removal and emission rate calculation included:

- Vacuum/pressure readings in inches of Mercury (in Hg)
- Temperature readings in Fahrenheit degrees (°F)
- Flow rate in actual feet per minute (AFPM)
- Barometric pressure (in Hg)

Mass removal and emission rate are presented in pounds per hour (lbs/hr) and pounds per day (lbs/day). During the reporting period, an estimated total mass of 3.0 pounds of VOCs were removed. Emission rates are compared to EQB construction permit emissions requirement of 3 lbs/hr or 15 lbs/day. As indicated in **Table 11**, emissions were well below EQB requirements.

The relation used for mass removal and emission rate calculation is included in **Appendix 6** for reference. Total amount of mass removed per period of operation since August 2015 from seven extraction wells is summarized below:

| Operational Period | Operational Time (hours) | Operational Time (days) | Mass Removed (lbs) |
|---------------------------|--------------------------|-------------------------|--------------------|
| August to December 2015 | 869.5 | 36 | 14.0 |
| January to March 2016 | 548.5 | 23 | 3.5 |
| April to June 2016 | 1268 | 53 | 4.3 |
| July to October 2016 | 1044 | 43.5 | 1.0 |
| November to December 2016 | 538 | 22 | 8.2 |
| January to March 2017 | 1167 | 49 | 3.0 |
| TOTAL | 5435 | 227 | 34 |

7.0 EQB CONSTRUCTION PERMIT REQUIREMENTS LOG

EQB construction permit require daily monitoring of the following data:

- Temperature reading prior to carbon vessel unit
- Temperature reading at exhaust stack (OUTLET sampling port)
- OVA readings at extraction wells combined sampling port (INLET-1)
- OVA readings at exhaust stack (OUTLET sampling port)

Permit shutdown criteria include:

- Temperature equal or above to 120 °F at carbon vessel entrance
- Temperature equal or above to 140 °F at exhaust stack
- Carbon efficiency below 90 % (based on EQB permit formula included in **Appendix 6**).

Monitoring data for EQB requirements are summarized in **Table 12**. As indicated in the table system operational parameters are in compliance with permit requirements.

8.0 RECOMMENDATIONS

Analytical testing of air samples obtained from individual extraction wells (AB-10, AB-10B, AB-19, AB-21, AB-23, B-1 and B-4) was performed on February 2017 to determine target compound concentrations at each extraction well. Based on sample results obtained during February 2017 it is recommended to continue SVE operation by extracting from those wells with the highest benzene concentrations: B-1, B-4 and AB-10B to maximize vacuum and mass removal.

9.0 SVE MONITORING AND SAMPLING SCHEDULE

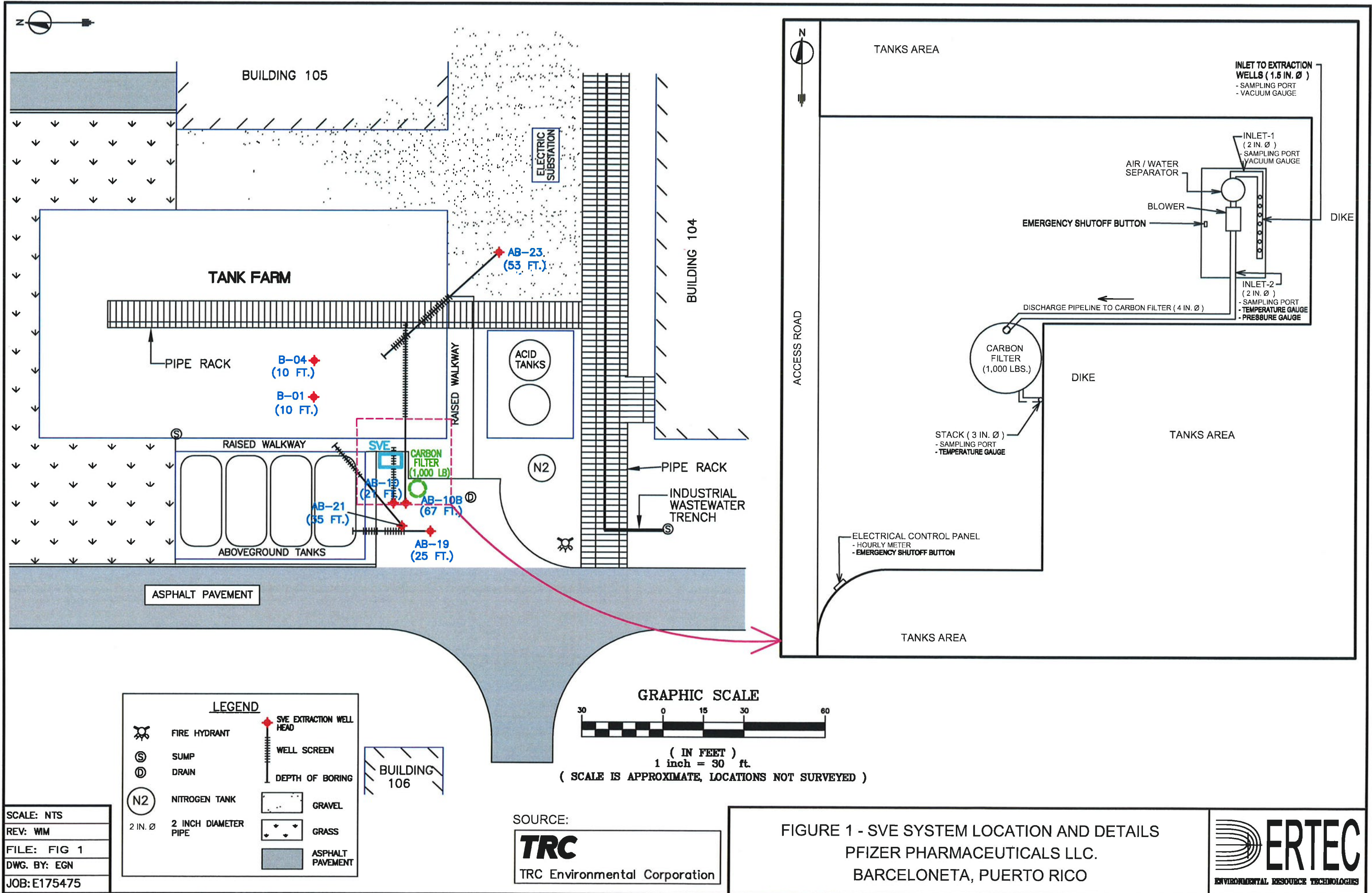
- Start SVE operation with three extraction wells: B-1, B-4 and AB-10B.
- SVE operation: continuous operation from Monday thru Friday.
- Sampling activities: Monthly air samples.

FIGURE

**SVE SYSTEM PROGRESS REPORT NO. 6
JANUARY TO MARCH 2017
PFIZER PHARMACEUTICALS LLC
BARCELONETA, PUERTO RICO**

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| LEGEND | |
|--------|--------------------------|
| | FIRE HYDRANT |
| | SUMP |
| | DRAIN |
| | NITROGEN TANK |
| | 2 INCH DIAMETER PIPE |
| | SVE EXTRACTION WELL HEAD |
| | WELL SCREEN |
| | DEPTH OF BORING |
| | GRAVEL |
| | GRASS |
| | ASPHALT PAVEMENT |

SOURCE:
TRC
 TRC Environmental Corporation

FIGURE 1 - SVE SYSTEM LOCATION AND DETAILS
 PFIZER PHARMACEUTICALS LLC.
 BARCELONETA, PUERTO RICO



TABLES

**SVE SYSTEM PROGRESS REPORT NO. 6
JANUARY TO MARCH 2017
PFIZER PHARMACEUTICALS LLC
BARCELONETA, PUERTO RICO**

ERTEC JOB NO. E175475

TABLE 1

SVE SYSTEM OPERATION AND MAINTENANCE LOG
SVE PROGRESS REPORT NO. 6 - JANUARY TO MARCH 2017
PFIZER PHARMACEUTICALS LLC
BARCELONETA, PUERTO RICO

| Date | SVE On Time | SVE Off Time | Hourly Meter Reading | Operational Time (hours) | Carbon Unit SVE System | | Description |
|------------------|-------------|--------------|----------------------|--------------------------|--------------------------|-------------------------------------|---|
| | | | | | Operational Time (hours) | Cumulative Operational Time (hours) | |
| YEAR 2015 | | | | | | | |
| 22-May-15 | 1100 | 1305 | 1855.6 1857.3 | 1.7 | 1.7 | 1.7 | SVE system carbon vessel verification (wells not connected). |
| 15-Jul-15 | | | | | | | System maintenance including labels replacement, cleanup and set up areas. |
| 16-Jul-15 | 1635 | 1653 | 1857.3 1857.6 | 0.3 | 2.0 | 2.0 | Air filter, gauges and pipe insulation replacement. SVE system vacuum verification. |
| 17-Jul-15 | 1350 | 1440 | 1857.6 1858.4 | 0.8 | 2.8 | 2.8 | SVE system verification for sampling ports and pipeline leaks. |
| 20-Jul-15 | 1340 | 1445 | 1858.4 1859.2 | 0.8 | 3.6 | 3.6 | SVE system start up: adjustment and sealing of pipeline joint at the entrance to carbon vessel required. |
| 7-Aug-15 | | | | | | | Removal of 4-inch pipeline elbow. Replacement of aluminum elbow section required. |
| 18-Aug-15 | | | | | | | Installation and sealing of new 4-inch pipeline elbow and universal joints. |
| 19-Aug-15 | 1400 | 1530 | 1859.2 1860.7 | 1.5 | 5.1 | 5.1 | SVE system verification after replacement of aluminum elbow at the entrance of carbon vessel. |
| 20-Aug-15 | 1015 | 1650 | 1860.7 1867.3 | 6.6 | 11.7 | 11.7 | Start up system. Bi-weekly sampling. |
| 21-Aug-15 | 1020 | 1445 | 1867.3 1871.6 | 4.3 | 16.0 | 16.0 | O&M monitoring. System off for the weekend. |
| 24-Aug-15 | 1020 | | | | | | Start up and O&M monitoring. |
| 25-Aug-15 | | | | | | | O&M monitoring. |
| 26-Aug-15 | | | | | | | O&M monitoring. |
| 27-Aug-16 | | 1050 | 1943.8 | 72.2 | 88.2 | 88.2 | System off due to tropical storm warning. |
| 31-Aug-15 | 1030 | | | | | | Start up and O&M monitoring. |
| 1-Sep-15 | | | | | | | O&M monitoring. |
| 2-Sep-15 | | 1500 | 1996.3 | 52.5 | 140.7 | 140.7 | SVE shutdown due to carbon efficiency <90%. Carbon vessels replacement parts (rubber gasket, bolts) ordered due to suspected system leak. |
| 3-Sep-15 | | | | | | | Pfizer notification to EQB of system shutdown. |
| 23-Oct-15 | | | | | | | Carbon vessels replacement parts installed and unused carbon vessel unit installed at system. |
| 26-Oct-15 | | | | | | | |

TABLE 1

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PFIZER PHARMACEUTICALS LLC
BARCELONETA, PUERTO RICO

| Date | SVE On Time | SVE Off Time | Hourly Meter Reading | Operational Time (hours) | Carbon Unit SVE System | | Description |
|-----------|-------------|--------------|----------------------|--------------------------|--------------------------|-------------------------------------|---|
| | | | | | Operational Time (hours) | Cumulative Operational Time (hours) | |
| 28-Oct-15 | 1435 | 1530 | 1996.3 1997.4 | 1.1 | 1.1 | 141.8 | Start up after carbon vessel exchange, system verification & monitoring. |
| 29-Oct-15 | 950 | | | | | | Start up and O&M monitoring. |
| 30-Oct-15 | | 1305 | 2024.7 | 27.3 | 28.4 | 169.1 | O&M monitoring. System off for the weekend. |
| 2-Nov-15 | 1020 | | | | | | Start up and O&M monitoring. |
| 3-Nov-15 | | | | | | | O&M monitoring. |
| 4-Nov-15 | | | | | | | O&M monitoring. |
| 5-Nov-15 | | | | | | | Bi-weekly sampling. |
| 6-Nov-15 | | 1404 | 2124.3 | 99.6 | 128 | 268.7 | O&M monitoring. System off for the weekend. |
| 9-Nov-15 | 928 | | | | | | Start up and O&M monitoring. |
| 10-Nov-15 | | | | | | | O&M monitoring. |
| 11-Nov-15 | | | | | | | O&M monitoring. |
| 12-Nov-15 | | | | | | | O&M monitoring. |
| 13-Nov-15 | | 1500 | 2225.8 | 101.5 | 229.5 | 370.2 | O&M monitoring. System off for the weekend. |
| 16-Nov-15 | 1100 | | | | | | Start up and O&M monitoring. |
| 17-Nov-15 | | | | | | | O&M monitoring. |
| 18-Nov-15 | | | | | | | Bi-weekly sampling. |
| 19-Nov-15 | | | | | | | OVA/Temp monitoring. |
| 20-Nov-15 | | 1440 | 2325.9 | 100.1 | 329.6 | 470.3 | OVA/Temp monitoring. System off for the weekend. |
| 23-Nov-15 | 945 | | | | | | Start up and O&M monitoring. |
| 24-Nov-15 | | | | | | | O&M monitoring. |
| 25-Nov-15 | | 1200 | 2374.1 | 48.2 | 377.8 | 518.5 | O&M monitoring; system monthly verification. System off for the holiday & weekend. |
| 30-Nov-15 | 940 | | | | | | Start up and O&M monitoring. |
| 1-Dec-15 | | | | | | | OVA/Temp monitoring. |
| 2-Dec-15 | | | | | | | Bi-weekly sampling. |
| 3-Dec-15 | | | | | | | OVA/Temp monitoring. |
| 4-Dec-15 | | 1400 | 2474.6 | 100.5 | 478.3 | 619.0 | OVA/Temp monitoring. System off for the weekend. |
| 7-Dec-15 | 1040 | | | | | | Start up; system monthly verification; O&M monitoring. |
| 8-Dec-15 | | | | | | | OVA/Temp monitoring. |

TABLE 1

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 BARCELONETA, PUERTO RICO

| Date | SVE On Time | SVE Off Time | Hourly Meter Reading | Operational Time (hours) | Carbon Unit SVE System | | Description |
|------------------|-------------|--------------|----------------------|--------------------------|--------------------------|-------------------------------------|--|
| | | | | | Operational Time (hours) | Cumulative Operational Time (hours) | |
| 9-Dec-15 | | | | | | | OVA/Temp monitoring. |
| 10-Dec-15 | | | | | | | OVA/Temp monitoring. |
| 11-Dec-15 | | 1445 | 2574.5 | 99.9 | 578.2 | 718.9 | OVA/Temp monitoring. System off for the weekend. |
| 14-Dec-15 | 1112 | | | | | | Start up and O&M monitoring. |
| 15-Dec-15 | | | | | | | OVA/Temp monitoring. |
| 16-Dec-15 | | | | | | | Bi-weekly sampling. |
| 17-Dec-15 | | | | | | | OVA/Temp monitoring. |
| 18-Dec-15 | | 1445 | 2674.0 | 99.5 | 677.7 | 818.4 | OVA/Temp monitoring. System off for the weekend. |
| 21-Dec-15 | 1030 | | | | | | Start up and O&M monitoring. |
| 22-Dec-15 | | | | | | | OVA/Temp monitoring. |
| 23-Dec-15 | | 1340 | 2725.1 | 51.1 | 728.8 | 869.5 | O&M monitoring. System off for the holidays. |
| YEAR 2016 | | | | | | | |
| 11-Jan-16 | 1106 | | 2725.1 | | | | Start up; system monthly verification ; O&M monitoring. |
| 12-Jan-16 | | | | | | | O&M monitoring. |
| 13-Jan-16 | | | | | | | Monthly sampling. |
| 14-Jan-16 | | 1230 | 2798.5 | 73.4 | 802.2 | 942.9 | OVA/Temp monitoring. System off due to carbon efficiency <90%. |
| 17-Feb-16 | | | | | | | Carbon vessel removal from SVE area. |
| 18-Feb-16 | | | | | | | Carbon exchange activities 2 vessels. |
| 23-Feb-16 | | | | | | | Carbon refill activities 2 vessels. |
| 24-Feb-16 | 1420 | 1515 | 2798.5 | | | | Installation of carbon vessel at SVE system. System verification. |
| 25-Feb-16 | 1010 | | 2799.5 | 1.0 | 1.0 | 943.9 | Start up; system monthly verification ; O&M monitoring. |
| 26-Feb-16 | | 1320 | 2826.6 | 27.1 | 28.1 | 971.0 | O&M monitoring. System off for the weekend. |
| 29-Feb-16 | 1000 | | | | | | Start up and O&M monitoring. |
| 1-Mar-16 | | | | | | | O&M monitoring. |
| 2-Mar-16 | | | | | | | Monthly sampling. |
| 3-Mar-16 | | | | | | | O&M monitoring. |
| 4-Mar-16 | | 1320 | 2926.1 | 99.5 | 127.6 | 1070.5 | O&M monitoring. System off for the weekend. |
| 7-Mar-16 | 1030 | | | | | | Start up; system monthly verification ; O&M monitoring. |
| 8-Mar-16 | | | | | | | OVA/Temp monitoring. |

TABLE 1

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SVE PROGRESS REPORT NO. 6 - JANUARY TO MARCH 2017
PFIZER PHARMACEUTICALS LLC
BARCELONETA, PUERTO RICO

| Date | SVE On Time | SVE Off Time | Hourly Meter Reading | Operational Time (hours) | Carbon Unit SVE System | | Description |
|-----------|-------------|--------------|----------------------|--------------------------|-------------------------------------|-------------------------------------|--|
| | | | | | Cumulative Operational Time (hours) | Cumulative Operational Time (hours) | |
| 9-Mar-16 | | | | | | | OVA/Temp monitoring. |
| 10-Mar-16 | | | | | | | OVA/Temp monitoring. |
| 11-Mar-16 | | 1115 | 3022.7 | 96.6 | 224.2 | 1167.1 | O&M monitoring. System off for the weekend. |
| 14-Mar-16 | 1010 | | | | | | Start up and O&M monitoring. |
| 15-Mar-16 | | | | | | | OVA/Temp monitoring. |
| 16-Mar-16 | | | | | | | OVA/Temp monitoring. |
| 17-Mar-16 | | | | | | | OVA/Temp monitoring. |
| 18-Mar-16 | | | | | | | OVA/Temp monitoring. System off for the weekend. |
| 21-Mar-16 | 1030 | | 3123.3 | 100.6 | 324.8 | 1267.7 | Start up and O&M monitoring. |
| 22-Mar-16 | | | | | | | OVA/Temp monitoring. |
| 23-Mar-16 | | | 3175.2 | 51.9 | 376.7 | 1319.6 | OVA/Temp monitoring. System off for the holidays. |
| 28-Mar-16 | 1130 | | | | | | Start up and O&M monitoring. |
| 29-Mar-16 | | | | | | | OVA/Temp monitoring. |
| 30-Mar-16 | | | | | | | OVA/Temp monitoring. |
| 31-Mar-16 | | | | | | | OVA/Temp monitoring. |
| 1-Apr-16 | | | 3273.9 | 98.7 | 475.4 | 1418.3 | OVA/Temp monitoring. System off for the weekend. |
| 4-Apr-16 | 1005 | | | | | | Start up and O&M monitoring. |
| 5-Apr-16 | | | | | | | OVA/Temp monitoring. |
| 6-Apr-16 | | | | | | | OVA/Temp monitoring. |
| 7-Apr-16 | | | | | | | Monthly sampling. |
| 8-Apr-16 | 1312 | | 3372.9 | 99.0 | 574.4 | 1517.3 | Monthly sampling. System off for the weekend. |
| 11-Apr-16 | 1030 | | | | | | Start up; system monthly verification ; O&M monitoring. |
| 12-Apr-16 | | | | | | | OVA/Temp monitoring. |
| 13-Apr-16 | | | | | | | OVA/Temp monitoring. |
| 14-Apr-16 | | | | | | | O&M monitoring. |
| 15-Apr-16 | | 1450 | 3473.1 | 100.2 | 674.6 | 1617.5 | OVA/Temp monitoring. System off for the weekend. |
| 18-Apr-16 | 1100 | | | | | | Start up and O&M monitoring. |
| 19-Apr-16 | | | | | | | OVA/Temp monitoring. |
| 20-Apr-16 | | | | | | | OVA/Temp monitoring. |

TABLE 1

SVE SYSTEM OPERATION AND MAINTENANCE LOG
 SVE PROGRESS REPORT NO. 6 - JANUARY TO MARCH 2017
 PFIZER PHARMACEUTICALS LLC
 BARCELONETA, PUERTO RICO

| Date | SVE On Time | SVE Off Time | Hourly Meter Reading | Operational Time (hours) | Carbon Unit SVE System | | Description |
|-----------|-------------|--------------|----------------------|--------------------------|--------------------------|-------------------------------------|---|
| | | | | | Operational Time (hours) | Cumulative Operational Time (hours) | |
| 21-Apr-16 | | | | | | | OVA/Temp monitoring. |
| 22-Apr-16 | | 1420 | 3572.5 | 99.4 | 774.0 | 1716.9 | OVA/Temp monitoring. System off for the weekend. |
| 25-Apr-16 | 1020 | | | | | | Start up and O&M monitoring. |
| 26-Apr-16 | | | | | | | OVA/Temp monitoring. |
| 27-Apr-16 | | | | | | | OVA/Temp monitoring. |
| 28-Apr-16 | | | | | | | OVA/Temp monitoring. |
| 29-Apr-16 | | | | | | | OVA/Temp monitoring. System off for the weekend. |
| 2-May-16 | 1030 | | 3673.0 | 100.5 | 874.5 | 1817.4 | Start up and O&M monitoring. |
| 3-May-16 | | | | | | | OVA/Temp monitoring. |
| 4-May-16 | | | | | | | OVA/Temp monitoring. |
| 5-May-16 | | | | | | | Monthly sampling. |
| 6-May-16 | | | 3772.2 | 99.2 | 973.7 | 1916.6 | OVA/Temp monitoring. System off for the weekend. |
| 9-May-16 | 1000 | | | | | | Start up; system monthly verification ; O&M monitoring. |
| 10-May-16 | | | | | | | OVA/Temp monitoring. |
| 11-May-16 | | | | | | | OVA/Temp monitoring. |
| 12-May-16 | | | | | | | OVA/Temp monitoring. |
| 13-May-16 | | | | | | | OVA/Temp monitoring. System off for the weekend. |
| 16-May-16 | 955 | | 3869.0 | 96.8 | 1070.5 | 2013.4 | Start up and O&M monitoring. |
| 17-May-16 | | | | | | | OVA/Temp monitoring. |
| 18-May-16 | | | | | | | OVA/Temp monitoring. |
| 19-May-16 | | | | | | | OVA/Temp monitoring. |
| 20-May-16 | 1240 | | 3967.7 | 98.7 | 1169.2 | 2112.1 | OVA/Temp monitoring. System off for the weekend. |
| 23-May-16 | 945 | | | | | | Start up and O&M monitoring. |
| 24-May-16 | | | | | | | OVA/Temp monitoring. |
| 25-May-16 | | | | | | | OVA/Temp monitoring. |
| 26-May-16 | | | | | | | OVA/Temp monitoring. |
| 27-May-16 | | | 4068.0 | 100.3 | 1269.5 | 2212.4 | OVA/Temp monitoring. System off for the weekend and holiday. |
| 31-May-16 | 1050 | | | | | | Start up; O&M monitoring. Replaced vacuum gauge at air filter. |
| 1-Jun-16 | | | | | | | OVA/Temp monitoring. |

TABLE 1

SVE SYSTEM OPERATION AND MAINTENANCE LOG
SVE PROGRESS REPORT NO. 6 - JANUARY TO MARCH 2017
PFIZER PHARMACEUTICALS LLC
BARCELONETA, PUERTO RICO

| Date | SVE On Time | SVE Off Time | Hourly Meter Reading | Operational Time (hours) | Carbon Unit SVE System | | Description |
|------------------|-------------|--------------|----------------------|--------------------------|-------------------------------------|-------------------------------------|--|
| | | | | | Cumulative Operational Time (hours) | Cumulative Operational Time (hours) | |
| 2-Jun-16 | | | | | | | OVA/Temp monitoring. |
| 3-Jun-16 | | | 4143.4 | 75.4 | 1344.9 | 2287.8 | OVA/Temp monitoring. System off for the weekend. |
| 6-Jun-16 | 1140 | | | | | | Start up and O&M monitoring. |
| 7-Jun-16 | | | | | | | OVA/Temp monitoring. |
| 8-Jun-16 | | | | | | | OVA/Temp monitoring. |
| 9-Jun-16 | | | | | | | OVA/Temp monitoring. |
| 10-Jun-16 | | 1515 | 4242.8 | 99.4 | 1444.3 | 2387.2 | OVA/Temp monitoring. System off for the weekend. Replaced vacuum gauge at air filter. |
| 13-Jun-16 | 1100 | | | | | | Start up; system monthly verification ; O&M monitoring. |
| 14-Jun-16 | | | | | | | OVA/Temp monitoring. |
| 15-Jun-16 | | | | | | | OVA/Temp monitoring. |
| 16-Jun-16 | | | | | | | OVA/Temp monitoring. |
| 17-Jun-16 | | | 4341.8 | 99.0 | 1543.3 | 2486.2 | OVA/Temp monitoring. System off for the weekend. |
| 20-Jun-16 | 1030 | | | | | | Start up and O&M monitoring. |
| 21-Jun-16 | | | | | | | OVA/Temp monitoring. |
| 22-Jun-16 | | | | | | | OVA/Temp monitoring. |
| 23-Jun-16 | | | | | | | OVA/Temp monitoring. |
| 24-Jun-16 | | | 4441.2 | 99.4 | 1642.7 | 2585.6 | OVA/Temp monitoring. System off for the weekend. |
| 27-Jun-16 | 1015 | | | | | | Start up and O&M monitoring. |
| 28-Jun-16 | | | | | | | OVA/Temp monitoring. |
| 29-Jun-16 | | | | | | | OVA/Temp monitoring. |
| 30-Jun-16 | | | | | | | Monthly sampling. |
| 1-Jul-16 | | 1450 | 4541.6 | 100.4 | 1743.1 | 2686.0 | OVA/Temp monitoring. System off for the weekend. |
| 5-Jul-16 | 1020 | | | | | | Start up and O&M monitoring. |
| 6-Jul-16 | | | 4570.4 | 28.8 | 1771.9 | 2714.8 | OVA/Temp monitoring. System off due to carbon efficiency <90%. Used carbon vessel removal from SVE area. |
| 8-Jul-16 | | | | | | | Installation of unused carbon vessel at SVE system. Maintenance of blower motor unit. |
| 12-Jul-16 | | | | | | | Start up; system monthly verification ; O&M monitoring. |
| 13-Jul-16 | 1020 | | 4570.4 | | | | |
| 14-Jul-16 | | | | | | | OVA/Temp monitoring. |

TABLE 1

SVE SYSTEM OPERATION AND MAINTENANCE LOG
SVE PROGRESS REPORT NO. 6 - JANUARY TO MARCH 2017
PFIZER PHARMACEUTICALS LLC
BARCELONETA, PUERTO RICO

| Date | SVE On Time | SVE Off Time | Hourly Meter Reading | Operational Time (hours) | Carbon Unit SVE System | | Description |
|-----------|-------------|--------------|----------------------|--------------------------|--------------------------|-------------------------------------|--|
| | | | | | Operational Time (hours) | Cumulative Operational Time (hours) | |
| 15-Jul-16 | | | 4621.2 | 50.8 | 50.8 | 2765.6 | OVA/Temp monitoring. SVE found off: notification to Pfizer for system verification. |
| 20-Jul-16 | 1230 | | 4621.2 | | | | System electrical verification performed. Start up and O&M monitoring. |
| 21-Jul-16 | | | | | | | OVA/Temp monitoring. |
| 22-Jul-16 | 1500 | | 4671.8 | 50.6 | 101.4 | 2816.2 | Monthly sampling. System off for the weekend. |
| 26-Jul-16 | 920 | | | | | | Start up and O&M monitoring. |
| 27-Jul-16 | | | | | | | OVA/Temp monitoring. |
| 28-Jul-16 | | | | | | | OVA/Temp monitoring. |
| 29-Jul-16 | | | 4748.3 | 76.5 | 177.9 | 2892.7 | OVA/Temp monitoring. System off for the weekend. |
| 1-Aug-16 | | | | | | | System start up delayed due to rain water accumulation at SVE area. |
| 8-Aug-16 | 1100 | | | | | | Start up; system monthly verification ; O&M monitoring. |
| 9-Aug-16 | | | | | | | OVA/Temp monitoring. |
| 10-Aug-16 | | | | | | | OVA/Temp monitoring. |
| 11-Aug-16 | | | | | | | Monthly sampling. |
| 12-Aug-16 | | | 4847.1 | 98.8 | 276.7 | 2991.5 | OVA/Temp monitoring. System off for the weekend. |
| 15-Aug-16 | 1130 | | | | | | Start up and O&M monitoring. |
| 16-Aug-16 | | | | | | | OVA/Temp monitoring. |
| 17-Aug-16 | | | | | | | OVA/Temp monitoring. |
| 18-Aug-16 | | | | | | | OVA/Temp monitoring. |
| 19-Aug-16 | | | 4946.3 | 99.2 | 375.9 | 3090.7 | OVA/Temp monitoring. System off for the weekend. |
| 22-Aug-16 | 1335 | | | | | | Start up and O&M monitoring. |
| 23-Aug-16 | | | | | | | OVA/Temp monitoring. |
| 24-Aug-16 | | | | | | | OVA/Temp monitoring. |
| 25-Aug-16 | | 1335 | 5018.1 | 71.8 | 447.7 | 3162.5 | OVA/Temp monitoring. System off due to temperature >120 °F at carbon entrance. |
| 29-Aug-16 | 1130 | | | | | | Start up and O&M monitoring. |
| 30-Aug-16 | | | | | | | OVA/Temp monitoring. |
| 31-Aug-16 | | | | | | | OVA/Temp monitoring. |
| 1-Sep-16 | | | | | | | OVA/Temp monitoring. |
| 2-Sep-16 | | 1500 | 5117.6 | 99.5 | 547.2 | 3262.0 | OVA/Temp monitoring. System off for the weekend. |
| 6-Sep-16 | 1100 | | | | | | Start up and O&M monitoring. |

TABLE 1

SVE SYSTEM OPERATION AND MAINTENANCE LOG
SVE PROGRESS REPORT NO. 6 - JANUARY TO MARCH 2017
PFIZER PHARMACEUTICALS LLC
BARCELONETA, PUERTO RICO

| Date | SVE On Time | SVE Off Time | Hourly Meter Reading | Operational Time (hours) | Carbon Unit SVE System | | Description |
|------------------|-------------|--------------|----------------------|--------------------------|--------------------------|-------------------------------------|---|
| | | | | | Operational Time (hours) | Cumulative Operational Time (hours) | |
| 7-Sep-16 | | | | | | | OVA/Temp monitoring. |
| 8-Sep-16 | | | | | | | OVA/Temp monitoring. |
| 9-Sep-16 | | | 5193.2 | 75.6 | 622.8 | 3337.6 | OVA/Temp monitoring. System off for the weekend. |
| 12-Sep-16 | 945 | | | | | | Start up; system monthly verification ; O&M monitoring. |
| 13-Sep-16 | | | | | | | OVA/Temp monitoring. |
| 14-Sep-16 | | | | | | | OVA/Temp monitoring. |
| 15-Sep-16 | | | | | | | Monthly sampling. |
| 16-Sep-16 | 1450 | | 5294.2 | 101.0 | 723.8 | 3438.6 | OVA/Temp monitoring. System off for the weekend. |
| 19-Sep-16 | 935 | | | | | | Start up and O&M monitoring. |
| 20-Sep-16 | | | | | | | OVA/Temp monitoring. |
| 21-Sep-16 | | | | | | | OVA/Temp monitoring. Electrical power failure in PR. |
| 23-Sep-16 | 1508 | | 5355.6 | 61.4 | 785.2 | 3500.0 | OVA/Temp monitoring. System off for the weekend. |
| 26-Sep-16 | 930 | | | | | | Start up and O&M monitoring. |
| 27-Sep-16 | | | | | | | OVA/Temp monitoring. |
| 28-Sep-16 | | | | | | | OVA/Temp monitoring. |
| 29-Sep-16 | | | | | | | OVA/Temp monitoring. |
| 30-Sep-16 | 1356 | | 5455.7 | 100.1 | 885.3 | 3600.1 | OVA/Temp monitoring. System off for the weekend. |
| 3-Oct-16 | 1010 | | | | | | Start up; system monthly verification ; O&M monitoring. |
| 4-Oct-16 | | | | | | | OVA/Temp monitoring. |
| 5-Oct-16 | | | | | | | OVA/Temp monitoring. |
| 6-Oct-16 | | | | | | | OVA/Temp monitoring. |
| 7-Oct-16 | 1456 | | 5556.3 | 100.6 | 985.9 | 3700.7 | OVA/Temp monitoring. System off for the weekend. |
| 10-Oct-16 | 910 | | | | | | Start up and O&M monitoring. |
| 11-Oct-16 | 1347 | | 5585.3 | 29.0 | 1014.9 | 3729.7 | OVA/Temp monitoring. System off due to carbon efficiency <90%. System verification; replacement of system gauges. Carbon exchange activities 2 vessels. Carbon refill activities 2 vessels. |
| 15-Nov-16 | | | | | | | Carbon refill activities 2 vessels. Installation of carbon vessel at SVE system. |
| 16-Nov-16 | | | | | | | Start up; system monthly verification ; O&M monitoring. |
| 17-Nov-16 | 1100 | | 5585.3 | 26.6 | 26.6 | 3756.3 | Monthly sampling. System off for the weekend. |
| 18-Nov-16 | 1408 | | 5611.9 | 26.6 | 26.6 | 3756.3 | Monthly sampling. System off for the weekend. |

TABLE 1

SVE SYSTEM OPERATION AND MAINTENANCE LOG
 SVE PROGRESS REPORT NO. 6 - JANUARY TO MARCH 2017
 PFIZER PHARMACEUTICALS LLC
 BARCELONETA, PUERTO RICO

| Date | SVE On Time | SVE Off Time | Hourly Meter Reading | Operational Time (hours) | Carbon Unit SVE System | | Description |
|------------------|-------------|--------------|----------------------|--------------------------|--------------------------|-------------------------------------|--|
| | | | | | Operational Time (hours) | Cumulative Operational Time (hours) | |
| 21-Nov-16 | 910 | | | | | | Start up and O&M monitoring. |
| 22-Nov-16 | | | | | | | O&M monitoring. |
| 23-Nov-16 | | 1448 | 5665.6 | 53.7 | 80.3 | 3810.0 | OVA/Temp monitoring. System off for the holiday & weekend. |
| 28-Nov-16 | 940 | | | | | | Start up and O&M monitoring. |
| 29-Nov-16 | | | | | | | OVA/Temp monitoring. |
| 30-Nov-16 | | | | | | | OVA/Temp monitoring. |
| 1-Dec-16 | | | | | | | OVA/Temp monitoring. |
| 2-Dec-16 | | 1600 | | | | | OVA/Temp monitoring. System off for the weekend. |
| 5-Dec-16 | 925 | | | | | | Start up and O&M monitoring. |
| 6-Dec-16 | | | | | | | OVA/Temp monitoring. |
| 7-Dec-16 | | | | | | | OVA/Temp monitoring. |
| 8-Dec-16 | | | | | | | OVA/Temp monitoring. |
| 9-Dec-16 | | 1538 | 5870.8 | 205.2 | 285.5 | 4015.2 | OVA/Temp monitoring. System off for the weekend. |
| 12-Dec-16 | 1100 | | | | | | Start up and O&M monitoring. |
| 13-Dec-16 | | | | | | | Monthly sampling. |
| 14-Dec-16 | | | | | | | OVA/Temp monitoring. |
| 15-Dec-16 | | | | | | | OVA/Temp monitoring. |
| 16-Dec-16 | | 1440 | 5970.4 | 99.6 | 385.1 | 4114.8 | OVA/Temp monitoring. System off for the weekend. |
| 20-Dec-16 | 930 | | | | | | Start up; system monthly verification ; O&M monitoring. |
| 21-Dec-16 | | | | | | | OVA/Temp monitoring. |
| 22-Dec-16 | | | | | | | OVA/Temp monitoring. |
| 23-Dec-16 | | 1438 | 6047.6 | 77.2 | 462.3 | 4192.0 | OVA/Temp monitoring. System off for the weekend. |
| 27-Dec-16 | 945 | | | | | | Start up and O&M monitoring. |
| 28-Dec-16 | | | | | | | OVA/Temp monitoring. |
| 29-Dec-16 | | | | | | | OVA/Temp monitoring. |
| 30-Dec-16 | | 1400 | 6123.5 | 75.9 | 538.2 | 4267.9 | OVA/Temp monitoring. System off for the weekend. |
| YEAR 2017 | | | | | | | |
| 3-Jan-17 | 1000 | | | | | | Start up and O&M monitoring. |
| 4-Jan-17 | | 1433 | 6152.2 | 28.7 | 566.9 | 4296.6 | OVA/Temp monitoring. System off due to temperature >120 °F at carbon entrance. |

TABLE 1

SVE SYSTEM OPERATION AND MAINTENANCE LOG
SVE PROGRESS REPORT NO. 6 - JANUARY TO MARCH 2017
PFIZER PHARMACEUTICALS LLC
BARCELONETA, PUERTO RICO

| Date | SVE On Time | SVE Off Time | Hourly Meter Reading | Operational Time (hours) | Carbon Unit SVE System | | Description |
|-----------|-------------|--------------|----------------------|--------------------------|--------------------------|-------------------------------------|--|
| | | | | | Operational Time (hours) | Cumulative Operational Time (hours) | |
| 9-Jan-17 | 915 | | | | | | Start up and O&M monitoring. |
| 10-Jan-17 | | | | | | | OVA/Temp monitoring. |
| 11-Jan-17 | | | | | | | OVA/Temp monitoring. |
| 12-Jan-17 | | | | | | | OVA/Temp monitoring. |
| 13-Jan-17 | | 1535 | 6254.8 | 102.6 | 669.5 | 4399.2 | OVA/Temp monitoring. System off for the weekend. |
| 16-Jan-17 | 950 | | | | | | Start up; system monthly verification ; O&M monitoring. |
| 17-Jan-17 | | | | | | | Monthly sampling. |
| 18-Jan-17 | | | | | | | OVA/Temp monitoring. |
| 19-Jan-17 | | | | | | | OVA/Temp monitoring. |
| 20-Jan-17 | | 1620 | 6357.1 | 102.3 | 771.8 | 4501.5 | OVA/Temp monitoring. System off for the weekend. |
| 23-Jan-17 | 1030 | | | | | | OVA/Temp monitoring. |
| 24-Jan-17 | | | | | | | OVA/Temp monitoring. |
| 25-Jan-17 | | | | | | | OVA/Temp monitoring. |
| 26-Jan-17 | | | | | | | OVA/Temp monitoring. |
| 27-Jan-17 | | 1400 | 6456.4 | 99.3 | 871.1 | 4600.8 | OVA/Temp monitoring. System off for the weekend. |
| 30-Jan-17 | 1030 | | | | | | Start up and O&M monitoring. |
| 31-Jan-17 | | | | | | | OVA/Temp monitoring. |
| 1-Feb-17 | | | | | | | OVA/Temp monitoring. |
| 2-Feb-17 | | | | | | | OVA/Temp monitoring. |
| 3-Feb-17 | | 1440 | 6556.6 | 100.2 | 971.3 | 4701.0 | OVA/Temp monitoring. System off for the weekend. |
| 6-Feb-17 | 1008 | | | | | | Start up; system monthly verification ; O&M monitoring. |
| 7-Feb-17 | | | 6583.8 | 27.2 | 998.5 | 4728.2 | OVA/Temp monitoring. System off due to temperature >120 °F at carbon entrance. |
| 8-Feb-17 | 1030 | | | | | | Start up and O&M monitoring. |
| 9-Feb-17 | | | | | | | OVA/Temp monitoring. |
| 10-Feb-17 | | 1440 | 6635.2 | 51.4 | 1049.9 | 4779.6 | OVA/Temp monitoring. System off for the weekend. |
| 13-Feb-17 | 950 | | | | | | Start up and O&M monitoring. |
| 14-Feb-17 | | | | | | | OVA/Temp monitoring. Individual extraction wells monitoring and sampling activities: extraction well B-1. |
| 15-Feb-17 | | | | | | | OVA/Temp monitoring. Individual extraction wells monitoring and sampling activities: extraction wells AB-10B & B-4. |

TABLE 1

SVE SYSTEM OPERATION AND MAINTENANCE LOG
SVE PROGRESS REPORT NO. 6 - JANUARY TO MARCH 2017
PFIZER PHARMACEUTICALS LLC
BARCELONETA, PUERTO RICO

| Date | SVE On Time | SVE Off Time | Hourly Meter Reading | Operational Time (hours) | Carbon Unit SVE System | | Description |
|------------------|-------------|--------------|----------------------|--------------------------|--------------------------|-------------------------------------|---|
| | | | | | Operational Time (hours) | Cumulative Operational Time (hours) | |
| 16-Feb-17 | | | | | | | OVA/Temp monitoring. Individual extraction wells monitoring and sampling activities: extraction wells AB-23 & AB-21. |
| 17-Feb-17 | 1500 | 1500 | 6736.2 | 101.0 | 1150.9 | 4880.6 | OVA/Temp monitoring. Individual extraction wells monitoring and sampling activities: extraction wells AB-10 & AB-19. SVE off for the weekend. |
| 20-Feb-17 | 905 | | | | | | Start up and O&M monitoring. |
| 21-Feb-17 | | | | | | | Monthly sampling. |
| 22-Feb-17 | | | | | | | OVA/Temp monitoring. |
| 23-Feb-17 | | | | | | | OVA/Temp monitoring. |
| 24-Feb-17 | | | 6838.2 | 102.0 | 1252.9 | 4982.6 | OVA/Temp monitoring. System off for the weekend. |
| 27-Feb-17 | 1000 | | | | | | Start up and O&M monitoring. |
| 28-Feb-17 | | | | | | | OVA/Temp monitoring. |
| 1-Mar-17 | | | | | | | OVA/Temp monitoring. |
| 2-Mar-17 | | | | | | | OVA/Temp monitoring. |
| 3-Mar-17 | | 1434 | | | | | OVA/Temp monitoring. System off for the weekend. |
| 6-Mar-17 | 915 | | | | | | Start up. system monthly verification ; O&M monitoring. |
| 7-Mar-17 | | | | | | | OVA/Temp monitoring. |
| 8-Mar-17 | | | | | | | OVA/Temp monitoring. |
| 9-Mar-17 | | | | | | | OVA/Temp monitoring. |
| 10-Mar-17 | | 1410 | 7039.3 | 201.1 | 1454.0 | 5183.7 | OVA/Temp monitoring. System off for the weekend. |
| 13-Mar-17 | 1050 | | | | | | Start up; O&M monitoring. Replaced vacuum gauge at wells AB-10B and INLET-1. |
| 14-Mar-17 | | | | | | | OVA/Temp monitoring. |
| 15-Mar-17 | | | | | | | OVA/Temp monitoring. |
| 16-Mar-17 | | | | | | | OVA/Temp monitoring. |
| 17-Mar-17 | | 1359 | 7138.4 | 99.1 | 1553.1 | 5282.8 | OVA/Temp monitoring. System off for the weekend. |
| 20-Mar-17 | 1030 | | | | | | OVA/Temp monitoring. |
| 21-Mar-17 | | | | | | | OVA/Temp monitoring. |
| 22-Mar-17 | | | 7189.7 | 51.3 | 1604.4 | 5334.1 | OVA/Temp monitoring. System off due to carbon efficiency <90%. |
| 23-Mar-17 | | | | | | | Used carbon vessel removal from SVE system. Began installation of unused carbon vessel at SVE system. System verification. |
| 24-Mar-17 | 1400 | 1428 | | | | | Complete installation of unused carbon vessel at SVE system. System verification. |



TABLE 1

SVE SYSTEM OPERATION AND MAINTENANCE LOG
 SVE PROGRESS REPORT NO. 6 - JANUARY TO MARCH 2017
 PFIZER PHARMACEUTICALS LLC
 BARCELONETA, PUERTO RICO

| Date | SVE On Time | SVE Off Time | Hourly Meter Reading | Operational Time (hours) | Carbon Unit SVE System | | Description |
|-----------|-------------|--------------|----------------------|--------------------------|--------------------------|-------------------------------------|--|
| | | | | | Operational Time (hours) | Cumulative Operational Time (hours) | |
| 27-Mar-17 | 1035 | | | | | | Start up and O&M monitoring. |
| 28-Mar-17 | | | | | | | Monthly sampling. |
| 29-Mar-17 | | | | | | | OVA/Temp monitoring. |
| 30-Mar-17 | | | | | | | OVA/Temp monitoring. |
| 31-Mar-17 | | | 7290.5 | 100.8 | 1705.2 | 5434.9 | OVA/Temp monitoring. System off for the weekend. |

TABLE 2

**AMBIENT TEMPERATURE, BAROMETRIC PRESSURE AND HUMIDITY READINGS
SVE PROGRESS REPORT NO. 6 - JANUARY TO MARCH 2017
PFIZER PHARMACEUTICALS LLC
BARCELONETA, PUERTO RICO**

| Date | Activity Description | Reading Time | Temperature °F | Barometric Pressure in Hg | Humidity % |
|-------------|-----------------------------|---------------------|-----------------------|----------------------------------|-------------------|
| 3-Jan-17 | Monitoring | 1040 | 97.9 | 29.77 | 42 |
| | | 1320 | 95.7 | 29.65 | 39 |
| 9-Jan-17 | Monitoring | 930 | 84.4 | 29.80 | 63 |
| | | 1325 | 96.6 | 29.74 | 46 |
| 16-Jan-17 | Monitoring | 1050 | 102.2 | 29.80 | 26 |
| | | 1305 | 97.9 | 29.74 | 31 |
| 17-Jan-17 | Sampling | 1012 | 104.5 | 29.80 | 27 |
| | | 1305 | 97.0 | 29.74 | 32 |
| 23-Jan-17 | Monitoring | 1100 | 113.2 | 29.70 | 20 |
| | | 1300 | 108.0 | 29.65 | 20 |
| 27-Jan-17 | Monitoring | 1055 | 106.3 | 29.80 | 22 |
| | | 1230 | 104.4 | 29.80 | 28 |
| 30-Jan-17 | Monitoring | 1110 | 111.9 | 29.74 | 20 |
| | | 1330 | 102.9 | 29.77 | 31 |
| 6-Feb-17 | Monitoring | 1120 | 104.9 | 29.77 | 28 |
| | | 1225 | 104.0 | 29.77 | 30 |
| 8-Feb-17 | Monitoring | 1120 | 113.0 | 29.77 | 20 |
| | | 1330 | 115.3 | 29.71 | 20 |
| 13-Feb-17 | Monitoring | 1055 | 107.2 | 29.71 | 24 |
| | | 1300 | 99.5 | 29.68 | 32 |
| 20-Feb-17 | Monitoring | 950 | 111.6 | 29.65 | 20 |
| | | 1325 | 97.3 | 29.59 | 34 |
| 21-Feb-17 | Sampling | 925 | 85.3 | 29.56 | 46 |
| | | 1310 | 107.6 | 29.59 | 20 |
| 27-Feb-17 | Monitoring | 1055 | 99.5 | 29.77 | 40 |
| | | 1300 | 99.9 | 29.77 | 25 |
| 6-Mar-17 | Monitoring | 1150 | 73.8 | 29.77 | 61 |
| | | 1340 | 79.0 | 29.77 | 68 |
| 13-Mar-17 | Monitoring | 1100 | 98.4 | 29.74 | 33 |
| | | 1300 | 105.4 | 29.71 | 30 |

TABLE 2

AMBIENT TEMPERATURE, BAROMETRIC PRESSURE AND HUMIDITY READINGS
 SVE PROGRESS REPORT NO. 6 - JANUARY TO MARCH 2017
 PFIZER PHARMACEUTICALS LLC
 BARCELONETA, PUERTO RICO

| Date | Activity Description | Reading Time | Temperature °F | Barometric Pressure in Hg | Humidity % |
|-----------|----------------------|--------------|----------------|---------------------------|------------|
| 20-Mar-17 | Monitoring | 1130 | 98.1 | 29.71 | 44 |
| | | 1308 | 103.3 | 29.68 | 34 |
| 27-Mar-17 | Monitoring | 1039 | 82.9 | 29.69 | 50 |
| | | 1300 | 111.7 | 29.62 | 26 |
| 28-Mar-17 | Sampling | 950 | 108.0 | 29.66 | 23 |
| | | 1215 | 90.9 | 29.66 | 60 |

Notes:

°F Degrees Farenheit
 in Hg Inches of Mercury
 % Percentage

TABLE 3

**SVE SYSTEM VACUUM AND PRESSURE READINGS
SVE PROGRESS REPORT NO. 6 - JANUARY TO MARCH 2017
PFIZER PHARMACEUTICALS LLC
BARCELONETA, PUERTO RICO**

| Date | Activity Description | Time | AB-10 | | AB-10B | | AB-21 | | AB-19 | | AB-23 | | B-1 | | B-4 | | SVE | | Air Filter-1 | | Air Filter-2 | |
|-----------|----------------------|------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|---------------------------------|-----------------|-----------------|---------------------------------|-----------------|-----------------|--------------|--|
| | | | Vacuum in Hg | Vacuum in Hg | Vacuum in Hg | Vacuum in Hg | Vacuum in Hg | Vacuum in Hg | Vacuum in Hg | Vacuum in Hg | Vacuum in Hg | Vacuum in Hg | Vacuum in Hg | Vacuum in Hg | Pressure in H ₂ O | Vacuum in Hg | Vacuum in Hg | Pressure in H ₂ O | Vacuum in Hg | Vacuum in Hg | | |
| 3-Jan-17 | Monitoring | 1100 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.0 | 2.0 | 2.5 | 2.5 | 3.0 | 3.0 | 2.5 | 2.5 | 0.34 | 2.0 | 2.0 | 3.0 | 3.0 | | |
| | | 1350 | 3.5 | 3.5 | 3.5 | 3.5 | 3.0 | 3.0 | 3.5 | 4.0 | 3.0 | 3.5 | 3.0 | 3.0 | 3.0 | 0.34 | 3.0 | 3.0 | 4.0 | 4.0 | | |
| 9-Jan-17 | Monitoring | 1010 | 1.5 | 1.5 | 1.5 | 1.5 | 1.0 | 1.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 1.5 | 1.5 | 0.30 | 1.0 | 1.0 | 2.5 | 2.5 | | |
| | | 1345 | 2.0 | 2.0 | 2.0 | 2.0 | 1.5 | 1.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.0 | 2.0 | 2.0 | 0.30 | 2.0 | 2.0 | 3.0 | 3.0 | | |
| 16-Jan-17 | Monitoring | 1100 | 2.5 | 2.5 | 2.5 | 2.5 | 2.0 | 2.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 2.5 | 2.5 | 0.38 | 3.0 | 3.0 | 4.0 | 4.0 | | |
| | | 1307 | 3.0 | 3.0 | 3.0 | 3.5 | 3.0 | 3.0 | 3.5 | 3.5 | 3.5 | 3.0 | 3.0 | 3.0 | 3.0 | 0.38 | 3.0 | 3.0 | 4.0 | 4.0 | | |
| 17-Jan-17 | Sampling | 1022 | 1.5 | 1.5 | 2.0 | 2.0 | 1.0 | 1.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 1.5 | 0.32 | 3.0 | 3.0 | 4.0 | 4.0 | | |
| | | 1310 | 2.5 | 2.5 | 2.5 | 2.5 | 2.0 | 2.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 2.5 | 2.0 | 0.30 | 3.0 | 3.0 | 4.0 | 4.0 | | |
| 23-Jan-17 | Monitoring | 1135 | 3.0 | 3.5 | 3.5 | 3.5 | 3.0 | 3.0 | 3.5 | 3.0 | 3.5 | 3.5 | 3.0 | 3.0 | 3.0 | 0.40 | 2.5 | 2.5 | 4.0 | 4.0 | | |
| | | 1305 | 2.5 | 3.0 | 3.0 | 3.0 | 2.5 | 2.5 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 2.5 | 0.36 | 2.5 | 2.5 | 4.0 | 4.0 | | |
| 27-Jan-17 | Monitoring | 1100 | 2.5 | 2.5 | 2.5 | 2.5 | 2.0 | 2.0 | 3.0 | 3.0 | 3.0 | 3.0 | 2.5 | 2.0 | 0.32 | 2.5 | 2.5 | 4.0 | 4.0 | | | |
| 30-Jan-17 | Monitoring | 1130 | 3.0 | 3.5 | 3.5 | 3.5 | 3.0 | 3.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 3.5 | 3.5 | 0.44 | 2.5 | 2.5 | 4.0 | 4.0 | | |
| | | 1330 | 3.0 | 3.0 | 3.0 | 3.0 | 2.5 | 2.5 | 3.5 | 3.5 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 0.40 | 2.5 | 2.5 | 4.0 | 4.0 | | |
| 6-Feb-17 | Monitoring | 1125 | 3.0 | 3.5 | 3.5 | 3.5 | 3.0 | 3.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 3.5 | 3.5 | 0.44 | 2.5 | 2.5 | 4.0 | 4.0 | | |
| | | 1230 | 3.0 | 3.0 | 3.5 | 3.5 | 3.0 | 3.0 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.0 | 0.44 | 2.5 | 2.5 | 4.0 | 4.0 | | |
| 8-Feb-17 | Monitoring | 1130 | 3.0 | 3.0 | 3.0 | 3.5 | 3.0 | 3.0 | 3.5 | 3.0 | 3.5 | 3.5 | 3.5 | 3.0 | 0.34 | 2.5 | 2.5 | 4.0 | 4.0 | | | |
| 13-Feb-17 | Monitoring | 1100 | 2.0 | 2.0 | 2.0 | 2.0 | 1.5 | 1.5 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 1.5 | 1.5 | 0.26 | 2.0 | 2.0 | 3.0 | 3.0 | | |
| | | 1310 | 2.5 | 2.5 | 2.5 | 2.5 | 2.0 | 2.0 | 3.0 | 3.0 | 3.0 | 3.0 | 2.5 | 2.0 | 2.0 | 0.30 | 2.0 | 2.0 | 4.0 | 4.0 | | |
| 20-Feb-17 | Monitoring | 1015 | 1.5 | 2.0 | 2.0 | 2.0 | 1.5 | 1.5 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 0.38 | 2.0 | 2.0 | 3.0 | 3.0 | | |
| | | 1345 | 3.0 | 2.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.0 | 3.0 | 0.32 | 1.0 | 1.0 | 3.0 | 3.0 | | |
| 21-Feb-17 | Sampling | 932 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 1.5 | 1.5 | 0.36 | 2.0 | 2.0 | 3.0 | 3.0 | | |
| | | 1315 | 2.5 | 2.5 | 3.0 | 3.0 | 2.5 | 2.5 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 2.5 | 0.34 | 2.0 | 2.0 | 4.0 | 4.0 | | |

TABLE 3

SVE SYSTEM VACUUM AND PRESSURE READINGS
 SVE PROGRESS REPORT NO. 6 - JANUARY TO MARCH 2017
 PFIZER PHARMACEUTICALS LLC
 BARCELONETA, PUERTO RICO

| Date | Activity Description | Time | AB-10 | | AB-10B | | AB-21 | | AB-19 | | AB-23 | | B-1 | | B-4 | | SVE Pressure in H ₂ O | | Air Filter-1 | | Air Filter-2 | | |
|-----------|----------------------|------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|------------------------------|--------------|----------------------------------|------------------------------|--------------|--------------|--------------|--------------|-----|
| | | | Vacuum in Hg | Vacuum in Hg | Vacuum in Hg | Vacuum in Hg | Vacuum in Hg | Vacuum in Hg | Vacuum in Hg | Vacuum in Hg | Vacuum in Hg | Vacuum in Hg | Vacuum in Hg | Vacuum in Hg | Pressure in H ₂ O | Vacuum in Hg | Vacuum in Hg | Pressure in H ₂ O | Vacuum in Hg | Vacuum in Hg | Vacuum in Hg | Vacuum in Hg | |
| 27-Feb-17 | Monitoring | 1100 | 2.0 | 2.0 | 2.5 | 2.5 | 1.5 | 1.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.0 | 2.0 | 0.34 | 2.0 | 2.0 | 3.0 | 3.0 | 3.0 | 4.0 |
| | | 1308 | 2.5 | 2.5 | 3.0 | 3.0 | 2.5 | 2.5 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 0.36 | 2.0 | 2.0 | 4.0 | 4.0 | 4.0 |
| 6-Mar-17 | Monitoring | 1153 | 1.5 | 1.5 | 1.5 | 2.0 | 1.0 | 1.0 | 1.5 | 1.5 | 2.0 | 2.0 | 2.0 | 1.5 | 1.0 | 1.5 | 0.46 | 1.5 | 1.5 | 2.5 | 2.5 | 2.5 | 2.5 |
| | | 1145 | 2.0 | 3.0 | 2.0 | 2.5 | 1.5 | 1.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.0 | 2.0 | 0.30 | 2.0 | 2.0 | 2.5 | 2.5 | 2.5 | 2.5 |
| 13-Mar-17 | Monitoring | 1305 | 2.5 | 3.5 | 3.0 | 3.5 | 2.5 | 2.5 | 3.0 | 3.0 | 3.5 | 3.5 | 3.0 | 3.0 | 3.0 | 3.0 | 0.28 | 2.0 | 2.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| | | 1310 | 2.5 | 3.5 | 2.5 | 3.0 | 2.0 | 2.0 | 2.5 | 2.5 | 3.0 | 3.0 | 3.0 | 2.5 | 2.5 | 2.5 | 0.28 | 1.0 | 1.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| 27-Mar-17 | Monitoring | 1150 | 2.0 | 3.0 | 2.0 | 2.5 | 1.5 | 1.5 | 2.0 | 2.0 | 2.5 | 2.5 | 2.0 | 2.0 | 1.5 | 1.5 | 0.40 | 2.0 | 2.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| | | 1310 | 2.5 | 4.0 | 2.5 | 3.0 | 2.0 | 2.0 | 2.5 | 2.0 | 3.0 | 3.0 | 3.0 | 3.0 | 2.5 | 2.5 | 0.32 | 2.0 | 2.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| 28-Mar-17 | Sampling | 1030 | 2.0 | 3.0 | 2.0 | 2.5 | 1.5 | 1.5 | 2.0 | 2.0 | 2.5 | 2.5 | 2.5 | 2.5 | 1.5 | 1.5 | 0.32 | 2.0 | 2.0 | 3.0 | 3.0 | 3.0 | 4.0 |
| | | 1406 | 3.0 | 4.0 | 3.0 | 3.0 | 2.5 | 2.5 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 2.5 | 2.5 | 0.28 | 2.0 | 2.0 | 3.0 | 3.0 | 4.0 | 4.0 |

Notes:
 in H₂O Inches of water
 in Hg Inches of Mercury

TABLE 4

INLET-1 MONITORING DATA
SVE PROGRESS REPORT NO. 6 - JANUARY TO MARCH 2017
PFIZER PHARMACEUTICALS LLC
BARCELONETA, PUERTO RICO

| Date | Activity Description | Time | Vacuum (in H ₂ O) | Vacuum (in Hg) | Flow Rate (ft ³ /min) | Temperature (°F) | Temperature (°C) | OVA (ppm) | LEL (%) | O ₂ (%) | CO (ppm) | H ₂ S (ppm) |
|-----------|----------------------|----------|---------------------------------|-------------------|-------------------------------------|---------------------|---------------------|--------------|------------|-----------------------|-------------|---------------------------|
| 1/3/2017 | Monitoring | 1100 | 30.0 | 2.2 | 1773 | 82.0 | 27.8 | 60.1 | 0 | 17.8 | 0 | 0 |
| | | 1350 | 30.0 | 2.2 | 1710 | 94.0 | 34.4 | 64.7 | 0 | 16.3 | 0 | 0 |
| | | Average: | 30.0 | 2.2 | 1742 | 88.0 | 31.1 | | | | | |
| 1/9/2017 | Monitoring | 1010 | 25.0 | 1.8 | 1694 | 82.0 | 27.8 | 53.2 | 0 | 16.8 | 0 | 0 |
| | | 1345 | 25.0 | 1.8 | 1728 | 86.0 | 30.0 | 57.1 | 0 | 17.3 | 0 | 0 |
| | | Average: | 25.0 | 1.8 | 1711 | 84.0 | 28.9 | | | | | |
| 1/16/2017 | Monitoring | 1100 | 30.0 | 2.2 | 1797 | 86.0 | 30.0 | 59.0 | 0 | 17.3 | 0 | 0 |
| | | 1307 | 31.0 | 2.3 | 1465 | 90.0 | 32.2 | 64.2 | 0 | 17.7 | 0 | 0 |
| | | Average: | 30.5 | 2.2 | 1631 | 88.0 | 31.1 | | | | | |
| 1/17/2017 | Sampling | 1022 | 30.0 | 2.2 | 1560 | 80.0 | 26.7 | 51.5 | 0 | 18.7 | 0 | 0 |
| | | 1310 | 29.0 | 2.1 | 1585 | 90.0 | 32.2 | 62.1 | 0 | 18.5 | 0 | 0 |
| | | Average: | 29.7 | 2.2 | 1567 | 83.3 | 28.5 | | | | | |
| 1/23/2017 | Monitoring | 1135 | 30.0 | 2.2 | 2120 | 90.0 | 32.2 | 60.1 | 0 | 18.0 | 0 | 0 |
| | | 1305 | 28.0 | 2.1 | 2130 | 90.0 | 32.2 | 59.1 | 0 | 18.0 | 0 | 0 |
| | | Average: | 29.0 | 2.1 | 2125 | 90.0 | 32.2 | | | | | |
| 1/27/2017 | Monitoring | 1100 | 29.0 | 2.1 | 1443 | 90.0 | 32.2 | 61.8 | 0 | 18.6 | 0 | 0 |
| 1/30/2017 | Monitoring | 1130 | 31.0 | 2.3 | 2043 | 94.0 | 34.4 | 59.4 | 0 | 17.6 | 0 | 0 |
| | | 1330 | 32.0 | 2.4 | 1537 | 93.0 | 33.9 | 57.8 | 0 | 17.5 | 0 | 0 |
| | | Average: | 31.5 | 2.3 | 1790 | 93.5 | 34.2 | | | | | |
| 2/6/2017 | Monitoring | 1125 | 32.0 | 2.4 | 2003 | 90.0 | 32.2 | 66.0 | 0 | 17.7 | 0 | 0 |
| | | 1230 | 33.0 | 2.4 | 1969 | 92.0 | 33.3 | 66.7 | 0 | 18.0 | 0 | 0 |
| | | Average: | 32.5 | 2.4 | 1986 | 91.0 | 32.8 | | | | | |
| 2/8/2017 | Monitoring | 1130 | 27.0 | 2.0 | 2041 | 96.0 | 35.6 | 56.4 | 0 | 18.0 | 0 | 0 |
| 2/13/2017 | Monitoring | 1100 | 20.0 | 1.5 | 1284 | 90.0 | 32.2 | 55.8 | 0 | 17.5 | 0 | 0 |
| | | 1310 | 20.0 | 1.5 | 1296 | 96.0 | 35.6 | 55.3 | 0 | 17.5 | 0 | 0 |
| | | Average: | 20.0 | 1.5 | 1290 | 93.0 | 33.9 | | | | | |

TABLE 4

INLET-1 MONITORING DATA
SVE PROGRESS REPORT NO. 6 - JANUARY TO MARCH 2017
PFIZER PHARMACEUTICALS LLC
BARCELONETA, PUERTO RICO

| Date | Activity Description | Time | Vacuum (in H ₂ O) | Vacuum (in Hg) | Flow Rate (ft/min) | Temperature (°F) | Temperature (°C) | OVA (ppm) | LEL (%) | O ₂ (%) | CO (ppm) | H ₂ S (ppm) |
|-----------|----------------------|----------|---------------------------------|-------------------|-----------------------|---------------------|---------------------|--------------|------------|-----------------------|-------------|---------------------------|
| 2/20/2017 | Monitoring | 1015 | 27.0 | 2.0 | 1461 | 86.0 | 30.0 | 57.6 | 0 | 18.1 | 0 | 0 |
| | | 1345 | 27.0 | 2.0 | 1517 | 98.0 | 36.7 | 56.6 | 0 | 17.8 | 0 | 0 |
| | | Average: | 27.0 | 2.0 | 1489 | 92.0 | 33.3 | | | | | |
| 2/21/2017 | Sampling | 932 | 27.0 | 2.0 | 1849 | 79.0 | 26.1 | 53.1 | 0 | 18.0 | 0 | 0 |
| | | 1315 | 27.0 | 2.0 | 1504 | 82.0 | 27.8 | 53.8 | 0 | 18.7 | 0 | 0 |
| | | Average: | 27.0 | 2.0 | 1621 | 84.3 | 29.1 | | | | | |
| 2/27/2017 | Monitoring | 1100 | 20.0 | 1.5 | 1966 | 88.0 | 31.1 | 67.8 | 0 | 19.9 | 0 | 0 |
| | | 1308 | 27.0 | 2.0 | 1445 | 92.0 | 33.3 | 63.4 | 0 | 20.3 | 0 | 0 |
| | | Average: | 23.5 | 1.7 | 1706 | 90.0 | 32.2 | | | | | |
| 3/6/2017 | Monitoring | 1153 | 27.0 | 2.0 | 1869 | 75.0 | 23.9 | 60.6 | 0 | 20.5 | 0 | 0 |
| 3/13/2017 | Monitoring | 1145 | 22.0 | 1.6 | 1229 | 94.0 | 34.4 | 50.5 | 0 | 20.3 | 0 | 0 |
| | | 1305 | 22.0 | 1.6 | 1093 | 97.0 | 36.1 | 50.6 | 0 | 20.1 | 0 | 0 |
| | | Average: | 22.0 | 1.6 | 1161 | 95.5 | 35.3 | | | | | |
| 3/20/2017 | Monitoring | 1310 | 22.0 | 1.6 | 1124 | 98.0 | 36.7 | 62.2 | 0 | 20.3 | 0 | 0 |
| 3/27/2017 | Monitoring | 1150 | 24.0 | 1.8 | 2605 | 86.0 | 30.0 | 47.1 | 0 | 20.5 | 0 | 0 |
| | | 1310 | 24.0 | 1.8 | 2522 | 97.0 | 36.1 | 62.7 | 0 | 20.5 | 0 | 0 |
| | | Average: | 24.0 | 1.8 | 2564 | 91.5 | 33.1 | | | | | |
| 3/28/2017 | Sampling | 1030 | 23.0 | 1.7 | 1553 | 90.0 | 32.2 | 57.7 | 0 | 20.3 | 0 | 0 |
| | | 1406 | 23.0 | 1.7 | 1544 | 88.0 | 31.1 | 51.8 | 0 | 20.4 | 0 | 0 |
| | | Average: | 23.0 | 1.7 | 1481 | 87.3 | 30.7 | | | | | |

Notes:

| | | | | | |
|---------------------|--------------------|----------------|------------------------|------------------|-------------------|
| in H ₂ O | Inches of water | °C | Degrees Celsius | CO | Carbon monoxide |
| in Hg | Inches of Mercury | OVA | Organic vapor analyzer | H ₂ S | Hydrogen sulfide |
| ft/min | Feet per minute | LEL | Lower explosive limit | % | Percentage |
| °F | Degrees Fahrenheit | O ₂ | Oxygen | ppm | Parts per million |

TABLE 5

INLET-2 MONITORING DATA
SVE PROGRESS REPORT NO. 6 - JANUARY TO MARCH 2017
PFIZER PHARMACEUTICALS LLC
BARCELONETA, PUERTO RICO

| Date | Activity Description | Time | Pressure (in H ₂ O) | Pressure (in Hg) | Flow Rate (ft ³ /min) | Temperature (°F) | Temperature (°C) | OVA (ppm) | LEL (%) | O ₂ (%) | CO (ppm) | H ₂ S (ppm) |
|-----------|----------------------|----------|-----------------------------------|---------------------|-------------------------------------|---------------------|---------------------|--------------|------------|-----------------------|-------------|---------------------------|
| 1/3/2017 | Monitoring | 1100 | 8.0 | 0.6 | 4920 | 110.0 | 43.3 | 16.5 | 0 | 19.5 | 0 | 0 |
| | | 1350 | 8.0 | 0.6 | 4939 | 116.0 | 46.7 | 19.3 | 0 | 20.0 | 0 | 0 |
| | | Average: | 8.0 | 0.6 | 4930 | 113.0 | 45.0 | | | | | |
| 1/9/2017 | Monitoring | 1010 | 8.0 | 0.6 | 4829 | 108.0 | 42.2 | 15.4 | 0 | 20.1 | 0 | 0 |
| | | 1345 | 8.0 | 0.6 | 4835 | 108.0 | 42.2 | 15.0 | 0 | 20.0 | 0 | 0 |
| | | Average: | 8.0 | 0.6 | 4832 | 108.0 | 42.2 | | | | | |
| 1/16/2017 | Monitoring | 1100 | 8.0 | 0.6 | 4792 | 112.0 | 44.4 | 15.4 | 0 | 19.7 | 0 | 0 |
| | | 1307 | 8.0 | 0.6 | 4546 | 114.0 | 45.6 | 15.5 | 0 | 19.9 | 0 | 0 |
| | | Average: | 8.0 | 0.6 | 4669 | 113.0 | 45.0 | | | | | |
| 1/17/2017 | Sampling | 1022 | 8.0 | 0.6 | 5493 | 108.0 | 42.2 | 13.6 | 0 | 20.3 | 0 | 0 |
| | | 1310 | 8.0 | 0.6 | 5481 | 108.0 | 42.2 | 16.0 | 0 | 20.0 | 0 | 0 |
| | | Average: | 8.0 | 0.6 | 5291 | 109.3 | 43.0 | | | | | |
| 1/23/2017 | Monitoring | 1135 | 8.0 | 0.6 | 4613 | 117.0 | 47.2 | 17.0 | 0 | 20.2 | 0 | 0 |
| | | 1305 | 8.0 | 0.6 | 4692 | 114.0 | 45.6 | 16.3 | 0 | 20.4 | 0 | 0 |
| | | Average: | 8.0 | 0.6 | 4653 | 115.5 | 46.4 | | | | | |
| 1/27/2017 | Monitoring | 1100 | 8.0 | 0.6 | 4644 | 114.0 | 45.6 | 14.3 | 0 | 20.3 | 0 | 0 |
| 1/30/2017 | Monitoring | 1130 | 8.0 | 0.6 | 4574 | 120.0 | 48.9 | 19.0 | 0 | 20.2 | 0 | 0 |
| | | 1330 | 8.0 | 0.6 | 4628 | 117.0 | 47.2 | 16.7 | 0 | 20.3 | 0 | 0 |
| | | Average: | 8.0 | 0.6 | 4601 | 118.5 | 48.1 | | | | | |
| 2/6/2017 | Monitoring | 1125 | 8.0 | 0.6 | 4490 | 114.0 | 45.6 | 16.0 | 0 | 19.8 | 0 | 0 |
| | | 1230 | 8.0 | 0.6 | 4426 | 118.0 | 47.8 | 18.0 | 0 | 20.0 | 0 | 0 |
| | | Average: | 8.0 | 0.6 | 4458 | 116.0 | 46.7 | | | | | |
| 2/8/2017 | Monitoring | 1130 | 8.0 | 0.6 | 4546 | 120.0 | 48.9 | 14.8 | 0 | 20.3 | 0 | 0 |
| 2/13/2017 | Monitoring | 1100 | 8.0 | 0.6 | 4763 | 110.0 | 43.3 | 10.4 | 0 | 20.0 | 0 | 0 |
| | | 1310 | 8.0 | 0.6 | 4774 | 116.0 | 46.7 | 15.0 | 0 | 20.0 | 0 | 0 |
| | | Average: | 8.0 | 0.6 | 4769 | 113.0 | 45.0 | | | | | |

TABLE 5

INLET-2 MONITORING DATA
 SVE PROGRESS REPORT NO. 6 - JANUARY TO MARCH 2017
 PFIZER PHARMACEUTICALS LLC
 BARCELONETA, PUERTO RICO

| Date | Activity Description | Time | Pressure (in H ₂ O) | Flow Rate (ft/min) | Temperature (°F) | Temperature (°C) | OVA (ppm) | LEL (%) | O ₂ (%) | CO (ppm) | H ₂ S (ppm) |
|-----------|----------------------|----------|--------------------------------|--------------------|------------------|------------------|-----------|---------|--------------------|----------|------------------------|
| 2/20/2017 | Monitoring | 1015 | 8.0 | 4727 | 110.0 | 43.3 | 16.2 | 0 | 20.0 | 0 | 0 |
| | | 1345 | 8.0 | 4810 | 118.0 | 47.8 | 15.1 | 0 | 20.2 | 0 | 0 |
| | | Average: | 8.0 | 4769 | 114.0 | 45.6 | | | | | |
| 2/21/2017 | Sampling | 932 | 8.0 | 4752 | 104.0 | 40.0 | 14.0 | 0 | 20.2 | 0 | 0 |
| | | 1315 | 8.0 | 4679 | 108.0 | 42.2 | 14.8 | 0 | 20.3 | 0 | 0 |
| | | Average: | 8.0 | 4656 | 108.7 | 42.6 | | | | | |
| 2/27/2017 | Monitoring | 1100 | 8.0 | 4720 | 112.0 | 44.4 | 15.6 | 0 | 20.4 | 0 | 0 |
| | | 1308 | 8.0 | 4772 | 115.0 | 46.1 | 15.4 | 0 | 20.8 | 0 | 0 |
| | | Average: | 8.0 | 4746 | 113.5 | 45.3 | | | | | |
| 3/6/2017 | Monitoring | 1153 | 8.0 | 4743 | 100.0 | 37.8 | 17.5 | 0 | 20.8 | 0 | 0 |
| 3/13/2017 | Monitoring | 1145 | 8.0 | 4891 | 112.0 | 44.4 | 12.6 | 0 | 20.7 | 0 | 0 |
| | | 1305 | 8.0 | 4736 | 116.0 | 46.7 | 12.0 | 0 | 20.7 | 0 | 0 |
| | | Average: | 8.0 | 4814 | 114.0 | 45.6 | | | | | |
| 3/20/2017 | Monitoring | 1310 | 8.0 | 4797 | 118.0 | 47.8 | 14.5 | 0 | 20.7 | 0 | 0 |
| 3/27/2017 | Monitoring | 1150 | 8.0 | 4924 | 110.0 | 43.3 | 10.4 | 0 | 20.7 | 0 | 0 |
| | | 1310 | 8.0 | 4799 | 115.0 | 46.1 | 15.3 | 0 | 20.6 | 0 | 0 |
| | | Average: | 8.0 | 4862 | 112.5 | 44.7 | | | | | |
| 3/28/2017 | Sampling | 1030 | 8.0 | 4788 | 114.0 | 45.6 | 12.7 | 0 | 20.7 | 0 | 0 |
| | | 1406 | 8.0 | 4833 | 108.0 | 42.2 | 13.0 | 0 | 20.7 | 0 | 0 |
| | | Average: | 8.0 | 4811 | 110.0 | 43.3 | | | | | |

Notes:
 in H₂O
 in Hg
 ft/min
 °F

Inches of water
 Inches of Mercury
 Feet per minute
 Degrees Fahrenheit

°C
 OVA
 LEL
 O₂

Degrees Celsius
 Organic vapor analyzer
 Lower explosive limit
 Oxygen

CO
 H₂S
 %
 ppm

Carbon monoxide
 Hydrogen sulfide
 Percentage
 Parts per million

TABLE 6

OUTLET MONITORING DATA
SVE PROGRESS REPORT NO. 6 - JANUARY TO MARCH 2017
PFIZER PHARMACEUTICALS LLC
BARCELONETA, PUERTO RICO

| Date | Activity Description | Time | Pressure (in H ₂ O) | Pressure (in Hg) | Flow Rate (ft/min) | Temperature (°F) | Temperature (°C) | OVA (ppm) | LEL (%) | O ₂ (%) | CO (ppm) | H ₂ S (ppm) |
|-----------|----------------------|----------|--------------------------------|------------------|--------------------|------------------|------------------|-----------|---------|--------------------|----------|------------------------|
| 1/3/2017 | Monitoring | 1100 | 0.0 | 0.0 | 2779 | 82.0 | 27.8 | 0.0 | 0 | 20.2 | 0 | 0 |
| | | 1350 | 0.0 | 0.0 | 2720 | 98.0 | 36.7 | 0.2 | 0 | 20.1 | 0 | 0 |
| | | Average: | 0.0 | 0.0 | 2750 | 90.0 | 32.2 | | | | | |
| 1/9/2017 | Monitoring | 1010 | 0.0 | 0.0 | 2810 | 92.0 | 33.3 | 0.2 | 0 | 20.3 | 0 | 0 |
| | | 1345 | 0.0 | 0.0 | 2831 | 96.0 | 35.6 | 0.0 | 0 | 20.1 | 0 | 0 |
| | | Average: | 0.0 | 0.0 | 2821 | 94.0 | 34.4 | | | | | |
| 1/16/2017 | Monitoring | 1100 | 0.0 | 0.0 | 2831 | 90.0 | 32.2 | 0.3 | 0 | 19.9 | 0 | 0 |
| | | 1307 | 0.0 | 0.0 | 2636 | 94.0 | 34.4 | 0.3 | 0 | 20.0 | 0 | 0 |
| | | Average: | 0.0 | 0.0 | 2734 | 92.0 | 33.3 | | | | | |
| 1/17/2017 | Sampling | 1022 | 0.0 | 0.0 | 2478 | 93.0 | 33.9 | 0.3 | 0 | 20.1 | 0 | 0 |
| | | 1310 | 0.0 | 0.0 | 2506 | 94.0 | 34.4 | 0.3 | 0 | 20.0 | 0 | 0 |
| | | Average: | 0.0 | 0.0 | 2567 | 93.7 | 34.3 | | | | | |
| 1/23/2017 | Monitoring | 1135 | 0.0 | 0.0 | 2864 | 92.0 | 33.3 | 0.0 | 0 | 20.4 | 0 | 0 |
| | | 1305 | 0.0 | 0.0 | 2744 | 97.0 | 36.1 | 0.0 | 0 | 20.5 | 0 | 0 |
| | | Average: | 0.0 | 0.0 | 2804 | 94.5 | 34.7 | | | | | |
| 1/27/2017 | Monitoring | 1100 | 0.0 | 0.0 | 2553 | 98.0 | 36.7 | 0.1 | 0 | 20.4 | 0 | 0 |
| 1/30/2017 | Monitoring | 1130 | 0.0 | 0.0 | 2691 | 96.0 | 35.6 | 0.5 | 0 | 20.3 | 0 | 0 |
| | | 1330 | 0.0 | 0.0 | 2773 | 100.0 | 37.8 | 0.6 | 0 | 20.3 | 0 | 0 |
| | | Average: | 0.0 | 0.0 | 2732 | 98.0 | 36.7 | | | | | |
| 2/6/2017 | Monitoring | 1125 | 0.0 | 0.0 | 2633 | 94.0 | 34.4 | 0.2 | 0 | 20.0 | 0 | 0 |
| | | 1230 | 0.0 | 0.0 | 2619 | 99.0 | 37.2 | 0.4 | 0 | 20.2 | 0 | 0 |
| | | Average: | 0.0 | 0.0 | 2626 | 96.5 | 35.8 | | | | | |
| 2/8/2017 | Monitoring | 1130 | 0.0 | 0.0 | 2678 | 96.0 | 35.6 | 0.9 | 0 | 20.4 | 0 | 0 |
| 2/13/2017 | Monitoring | 1100 | 0.0 | 0.0 | 2747 | 92.0 | 33.3 | 0.5 | 0 | 20.3 | 0 | 0 |
| | | 1310 | 0.0 | 0.0 | 2736 | 100.0 | 37.8 | 1.0 | 0 | 20.1 | 0 | 0 |
| | | Average: | 0.0 | 0.0 | 2742 | 96.0 | 35.6 | | | | | |

TABLE 6

OUTLET MONITORING DATA
 SVE PROGRESS REPORT NO. 6 - JANUARY TO MARCH 2017
 PFIZER PHARMACEUTICALS LLC
 BARCELONETA, PUERTO RICO

| Date | Activity Description | Time | Pressure (in H ₂ O) | Pressure (in Hg) | Flow Rate (ft/min) | Temperature (°F) | Temperature (°C) | OVA (ppm) | LEL (%) | O ₂ (%) | CO (ppm) | H ₂ S (ppm) |
|-----------|----------------------|----------|--------------------------------|------------------|--------------------|------------------|------------------|-----------|---------|--------------------|----------|------------------------|
| 2/20/2017 | Monitoring | 1015 | 0.0 | 0.0 | 2626 | 92.0 | 33.3 | 1.0 | 0 | 20.1 | 0 | 0 |
| | | 1345 | 0.0 | 0.0 | 2589 | 100.0 | 37.8 | 1.4 | 0 | 20.3 | 0 | 0 |
| | | Average: | 0.0 | 0.0 | 2608 | 96.0 | 35.6 | | | | | |
| 2/21/2017 | Sampling | 932 | 0.0 | 0.0 | 2439 | 92.0 | 33.3 | 0.8 | 0 | 20.4 | 0 | 0 |
| | | 1315 | 0.0 | 0.0 | 2471 | 95.0 | 35.0 | 0.8 | 0 | 20.9 | 0 | 0 |
| | | Average: | 0.0 | 0.0 | 2515 | 94.7 | 34.8 | | | | | |
| 2/27/2017 | Monitoring | 1100 | 0.0 | 0.0 | 2707 | 94.0 | 34.4 | 1.6 | 0 | 20.7 | 0 | 0 |
| | | 1308 | 0.0 | 0.0 | 2715 | 97.0 | 36.1 | 2.0 | 0 | 20.9 | 0 | 0 |
| | | Average: | 0.0 | 0.0 | 2711 | 95.5 | 35.3 | | | | | |
| 3/6/2017 | Monitoring | 1153 | 0.0 | 0.0 | 2520 | 88.0 | 31.1 | 1.5 | 0 | 20.8 | 0 | 0 |
| 3/13/2017 | Monitoring | 1145 | 0.0 | 0.0 | 2850 | 84.0 | 28.9 | 3.5 | 0 | 20.7 | 0 | 0 |
| | | 1305 | 0.0 | 0.0 | 2872 | 95.0 | 35.0 | 3.6 | 0 | 20.6 | 0 | 0 |
| | | Average: | 0.0 | 0.0 | 2861 | 89.5 | 31.9 | | | | | |
| 3/20/2017 | Monitoring | 1310 | 0.0 | 0.0 | 2803 | 100.0 | 37.8 | 4.5 | 0 | 20.7 | 0 | 0 |
| 3/27/2017 | Monitoring | 1150 | 0.0 | 0.0 | 2733 | 96.0 | 35.6 | 0.0 | 0 | 20.7 | 0 | 0 |
| | | 1310 | 0.0 | 0.0 | 2702 | 102.0 | 38.9 | 0.0 | 0 | 20.7 | 0 | 0 |
| | | Average: | 0.0 | 0.0 | 2718 | 99.0 | 37.2 | | | | | |
| 3/28/2017 | Sampling | 1030 | 0.0 | 0.0 | 2623 | 100.0 | 37.8 | 0.0 | 0 | 20.7 | 0 | 0 |
| | | 1406 | 0.0 | 0.0 | 2636 | 100.0 | 37.8 | 0.3 | 0 | 20.8 | 0 | 0 |
| | | Average: | 0.0 | 0.0 | 2594 | 99.7 | 37.6 | | | | | |

Notes:

| | | | | | |
|---------------------|--------------------|----------------|------------------------|------------------|-------------------|
| in H ₂ O | Inches of water | °C | Degrees Celsius | CO | Carbon monoxide |
| in Hg | Inches of Mercury | OVA | Organic vapor analyzer | H ₂ S | Hydrogen sulfide |
| ft/min | Feet per minute | LEL | Lower explosive limit | % | Percentage |
| °F | Degrees Fahrenheit | O ₂ | Oxygen | ppm | Parts per million |



TABLE 7

**INLET-1, INLET-2 AND OUTLET SAMPLING DATA
SVE PROGRESS REPORT NO. 6 - JANUARY TO MARCH 2017
PFIZER PHARMACEUTICALS LLC
BARCELONETA, PUERTO RICO**

| JANUARY 2017 MONTHLY SAMPLES | | | | | | | | |
|-------------------------------------|---|-------------|------|----------------------------|---------------------|-----------------------|---------|---------------------|
| Sampling Date | Sample ID | Sample Type | Time | Sampling Point Temperature | Ambient Temperature | Sampling Point Vacuum | | Barometric Pressure |
| | | | | (°F) | (°F) | (in H ₂ O) | (in Hg) | (in Hg) |
| 1/17/17 | INLET-1-16 | Grab | 1055 | 83.0 | 101.5 | 30 | 2.2 | 29.80 |
| 1/17/17 | INLET-2-16 | Grab | 1059 | 110.0 | 99.0 | 8.0 | 0.6 | 29.80 |
| 1/17/17 | INLET-P (Co-located sample of INLET-2-16) | Grab | 1059 | 110.0 | 99.0 | 8.0 | 0.6 | 29.80 |
| 1/17/17 | OUTLET-16 | Grab | 1103 | 94.0 | 98.2 | 0.0 | 0.0 | 29.80 |

| FEBRUARY 2017 MONTHLY SAMPLES | | | | | | | | |
|--------------------------------------|---|-------------|------|----------------------------|---------------------|-----------------------|---------|---------------------|
| Sampling Date | Sample ID | Sample Type | Time | Sampling Point Temperature | Ambient Temperature | Sampling Point Vacuum | | Barometric Pressure |
| | | | | (°F) | (°F) | (in H ₂ O) | (in Hg) | (in Hg) |
| 2/21/17 | INLET-1-16 | Grab | 1030 | 82.0 | 86.2 | 27 | 2.0 | 29.59 |
| 2/21/17 | INLET-2-16 | Grab | 1033 | 108.0 | 86.0 | 8.0 | 0.6 | 29.59 |
| 2/21/17 | INLET-P (Co-located sample of INLET-2-16) | Grab | 1033 | 108.0 | 86.0 | 8.0 | 0.6 | 29.59 |
| 2/21/17 | OUTLET-16 | Grab | 1038 | 95.0 | 85.6 | 0.0 | 0.0 | 29.59 |

| MARCH 2017 MONTHLY SAMPLES | | | | | | | | |
|-----------------------------------|---|-------------|------|----------------------------|---------------------|-----------------------|---------|---------------------|
| Sampling Date | Sample ID | Sample Type | Time | Sampling Point Temperature | Ambient Temperature | Sampling Point Vacuum | | Barometric Pressure |
| | | | | (°F) | (°F) | (in H ₂ O) | (in Hg) | (in Hg) |
| 3/28/17 | INLET-1-17 | Grab | 1256 | 88.0 | 87.8 | 23 | 1.7 | 29.65 |
| 3/28/17 | INLET-2-17 | Grab | 1300 | 108.0 | 87.4 | 8.0 | 0.6 | 29.65 |
| 3/28/17 | OUTLET-17 | Grab | 1308 | 100.0 | 87.1 | 0.0 | 0.0 | 29.62 |
| 3/28/17 | OUTLET-Q (Co-located sample of OUTLET-17) | Grab | 1308 | 100.0 | 87.1 | 0.0 | 0.0 | 29.62 |

Notes:

°F Degrees Fahrenheit in H₂O Inches of water in Hg Inches of Mercury

TABLE 8

VALIDATED ANALYTICAL RESULTS
SVE PROGRESS REPORT NO. 6 - JANUARY TO MARCH 2017
PFIZER PHARMACEUTICALS LLC
BARCELONETA, PUERTO RICO

| Sample ID: | INLET-1-16 | INLET-2-16 | INLET-P | OUTLET-16 | TB-011717 |
|--|----------------|----------------|------------------------------------|----------------|-------------------------|
| Date: | 1/17/2017 | 1/17/2017 | Co-located sample of INLET-2-16 | 1/17/2017 | Trip Blank 1/17/2017 |
| VOCs (EPA Method TO-15) | (ppbv) | (ppbv) | (ppbv) | (ppbv) | (ppbv) |
| Acetone | 700J | 3900U | 4500U | 11J | 5.0U |
| Isopropyl alcohol | 1900U | 3900U | 4500U | 25U | 0.15J |
| Methylene chloride | 190U | 390U | 450U | 90 | 0.50U |
| n-Hexane | 78U | 160U | 180U | 1.3 | 0.20U |
| Chloroform | 36J | 160U | 180U | 1.0U | 0.20U |
| Tetrahydrofuran | 70000 | 13000 | 14000 | 25U | 5.0U |
| Benzene | 1900 | 360 | 380 | 0.21J | 0.20U |
| Toluene | 12000 | 2200 | 2400 | 1.1 | 0.058J |
| Chlorobenzene | 78U | 160U | 180U | 1.0U | 0.20U |
| Ethylbenzene | 3600 | 690 | 730 | 1.0U | 0.091J |
| m,p-Xylene | 17000 | 3200 | 3400 | 2.5U | 0.10J |
| o-Xylene | 2300 | 450 | 480 | 1.0U | 0.20U |
| Xylene (total) | 19000 | 3700 | 3900 | 3.5U | 0.10J |
| Methyl iodide | ND | ND | ND | ND | ND |
| Total NMOC (EPA Method 25C) | (ppm-C) | (ppm-C) | (ppm-C) | (ppm-C) | (ppm-C) |
| Non-Methane Organic Compound as Carbon | 630 | 160 | 130 | 45 | 6.0U |
| VOCs (EPA Method 3C) | (%v/v) | (%v/v) | (%v/v) | (%v/v) | (%v/v) |
| Methane | 0.067U | 0.064U | 0.066U | 0.067U | NA |
| Other (NIOSH 2000) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) |
| Methanol | 53.5J | 30.5J | 32.6J | 18.2J | NA |

| Sample ID: | INLET-1-16 | INLET-2-16 | INLET-P | OUTLET-16 | TB022117 |
|--|----------------|----------------|------------------------------------|----------------|-------------------------|
| Date: | 2/21/2017 | 2/21/2017 | Co-located sample of INLET-2-16 | 2/21/2017 | Trip Blank 2/21/2017 |
| VOCs (EPA Method TO-15) | (ppbv) | (ppbv) | (ppbv) | (ppbv) | (ppbv) |
| Acetone | 640J | 2300U | 2200U | 71J | 5.0U |
| Isopropyl alcohol | 1500U | 2300U | 2200U | 150U | 5.0U |
| Methylene chloride | 150U | 230U | 220U | 27 | 0.50U |
| n-Hexane | 60U | 93U | 90U | 5.8U | 0.20U |
| Chloroform | 34J | 93U | 90U | 5.8U | 0.20U |
| Tetrahydrofuran | 60000 | 15000 | 14000 | 680 | 5.0U |
| Benzene | 1400 | 290 | 290 | 5.8U | 0.20U |
| Toluene | 11000 | 2200 | 2200 | 2.5J | 0.20U |
| Chlorobenzene | 60U | 93U | 90U | 5.8U | 0.20U |
| Ethylbenzene | 3400 | 740 | 720 | 5.8U | 0.20U |
| m,p-Xylene | 16000 | 3500 | 3400 | 15U | 0.50U |
| o-Xylene | 2300 | 460 | 470 | 5.8U | 0.20U |
| Xylene (total) | 18000 | 4000 | 3900 | 20U | 0.70U |
| Methyl iodide | ND | ND | ND | ND | ND |
| Total NMOC (EPA Method 25C) | (ppm-C) | (ppm-C) | (ppm-C) | (ppm-C) | (ppm-C) |
| Non-Methane Organic Compound as Carbon | 490 | 130 | 120 | 27 | 6.0U |
| VOCs (EPA Method 3C) | (%v/v) | (%v/v) | (%v/v) | (%v/v) | (%v/v) |
| Methane | 0.071U | 0.069U | 0.064U | 0.066U | NA |
| Other (NIOSH 2000) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) |
| Methanol | 1.60UJ | 36.1J | 34.5J | 7.73J | NA |

TABLE 8

VALIDATED ANALYTICAL RESULTS
SVE PROGRESS REPORT NO. 6 - JANUARY TO MARCH 2017
PFIZER PHARMACEUTICALS LLC
BARCELONETA, PUERTO RICO

| Sample ID: | INLET-1-17 | INLET-2-17 | OUTLET-17 | OUTLET-Q | TB032817 |
|---|----------------|----------------|----------------|-----------------------------------|-------------------------|
| Date: | 3/28/2017 | 3/28/2017 | 3/28/2017 | Co-located sample of OUTLET-17 | Trip Blank 3/28/2017 |
| VOCs (EPA Method TO-15) | (ppbv) | (ppbv) | (ppbv) | (ppbv) | (ppbv) |
| Acetone | 15000U | 1700U | 11 | 5.1 | 5.0U |
| Isopropyl alcohol | 15000U | 1700U | 8.1 | 7.8 | 5.0U |
| Methylene chloride | 1500U | 58J | 0.11J | 0.50U | 0.50U |
| n-Hexane | 600U | 68U | 0.20U | 0.20U | 0.20U |
| Chloroform | 600U | 68U | 0.20U | 0.20U | 0.20U |
| Tetrahydrofuran | 42000 | 8100 | 5.0U | 5.0U | 5.0U |
| Benzene | 1100 | 190 | 0.36 | 0.093J | 0.20U |
| Toluene | 9700 | 1700 | 0.20 | 0.41 | 0.20U |
| Chlorobenzene | 600U | 68U | 0.20U | 0.20U | 0.20U |
| Ethylbenzene | 3600 | 610 | 0.20U | 0.20U | 0.20U |
| m,p-Xylene | 18000 | 2900 | 0.50U | 0.50U | 0.50U |
| o-Xylene | 2500 | 400 | 0.20U | 0.20U | 0.20U |
| Xylene (total) | 21000 | 3300 | 0.70U | 0.70U | 0.70U |
| Methyl iodide | ND | ND | ND | ND | ND |
| Total NMOC (EPA Method 25C) | (ppm-C) | (ppm-C) | (ppm-C) | (ppm-C) | (ppm-C) |
| Non-Methane Organic Compound as Carbon | 450 | 95 | 27 | 23 | 6.0U |
| VOCs (EPA Method 3C) | (%v/v) | (%v/v) | (%v/v) | (%v/v) | (%v/v) |
| Methane | 0.070U | 0.065U | 0.068U | 0.066U | NA |
| Other (NIOSH 2000) | (ppm) | (ppm) | (ppm) | (ppm) | (ppm) |
| Methanol | 22.6J | 27.2J | 4.50J | 4.35J | NA |

Notes:

ppbv = Parts per billion per volume.

ppm-C = Parts per million as carbon.

%v/v = Percentage per volume.

ppm = Parts per million.

U = The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.

J = The analyte was positively identified. The associated numerical value is the approximate concentration of the analyte in the sample.

NA = Not applicable.

ND = Not detected.

TABLE 9

INLET-1 MASS REMOVAL CALCULATIONS
 SVE PROGRESS REPORT NO. 6 - JANUARY TO MARCH 2017
 PFIZER PHARMACEUTICALS LLC
 BARCELONETA, PUERTO RICO

January 17, 2017 (Operational time: 233.6 hours from 1/3 to 1/20/2017)

| Compound | MW | Vacuum (in H ₂ O) | Vacuum Press. (atm) | Temp. (°C) | Temp. (°K) | Gas Cons. | Gas by Temp | Pressure by MW | Density (g/L) | INLET-1-16 (ppbv) | Flow Rate (AFPM) | Flow Rate (WSCFM) | Mass Removal (lbs/hr) | Mass Removal (lbs/day) |
|--------------------|--------|------------------------------|---------------------|------------|------------|-----------|-------------|----------------|---------------|-------------------|------------------|-------------------|-----------------------|------------------------|
| Isopropyl alcohol | 60.1 | 30 | 2.2 | 28.3 | 301.3 | 0.0821 | 24.74 | 4.43 | 0.1789 | 0 | 1555 | 31.72 | 0.000000 | 0.000000 |
| Methylene chloride | 84.93 | 30 | 2.2 | 28.3 | 301.3 | 0.0821 | 24.74 | 6.26 | 0.2529 | 0 | 1555 | 31.72 | 0.000000 | 0.000000 |
| n-Hexane | 86.17 | 30 | 2.2 | 28.3 | 301.3 | 0.0821 | 24.74 | 6.35 | 0.2566 | 0 | 1555 | 31.72 | 0.000000 | 0.000000 |
| Chloroform | 119.38 | 30 | 2.2 | 28.3 | 301.3 | 0.0821 | 24.74 | 8.79 | 0.3554 | 36 | 1555 | 31.72 | 0.000002 | 0.000036 |
| Tetrahydrofuran | 72.11 | 30 | 2.2 | 28.3 | 301.3 | 0.0821 | 24.74 | 5.31 | 0.2147 | 70000 | 1555 | 31.72 | 0.001786 | 0.042858 |
| Benzene | 78.11 | 30 | 2.2 | 28.3 | 301.3 | 0.0821 | 24.74 | 5.75 | 0.2326 | 1900 | 1555 | 31.72 | 0.000053 | 0.001260 |
| Toluene | 92.14 | 30 | 2.2 | 28.3 | 301.3 | 0.0821 | 24.74 | 6.79 | 0.2743 | 12000 | 1555 | 31.72 | 0.000391 | 0.009388 |
| Chlorobenzene | 112.56 | 30 | 2.2 | 28.3 | 301.3 | 0.0821 | 24.74 | 8.29 | 0.3351 | 0 | 1555 | 31.72 | 0.000000 | 0.000000 |
| Ethylbenzene | 106.16 | 30 | 2.2 | 28.3 | 301.3 | 0.0821 | 24.74 | 7.82 | 0.3161 | 3600 | 1555 | 31.72 | 0.000135 | 0.003245 |
| m,p-Xylene | 106.17 | 30 | 2.2 | 28.3 | 301.3 | 0.0821 | 24.74 | 7.82 | 0.3161 | 17000 | 1555 | 31.72 | 0.000639 | 0.015324 |
| o-Xylene | 106.17 | 30 | 2.2 | 28.3 | 301.3 | 0.0821 | 24.74 | 7.82 | 0.3161 | 2300 | 1555 | 31.72 | 0.000086 | 0.002073 |
| Methyl iodide | 141.95 | 30 | 2.2 | 28.3 | 301.3 | 0.0821 | 24.74 | 10.46 | 0.4226 | 0 | 1555 | 31.72 | 0.000000 | 0.000000 |
| Methanol | 32.04 | 30 | 2.2 | 28.3 | 301.3 | 0.0821 | 24.74 | 2.36 | 0.0954 | 53500 | 1555 | 31.72 | 0.000606 | 0.014554 |

Mass Removal Calculations 1/3 to 1/20/2017 for 233.6 hours operation: **0.003697** **0.088739** **0.863723**

ACETONE & METHANE DATA (FOR INFORMATIVE PURPOSE ONLY)

| Compound | MW | Vacuum (in H ₂ O) | Vacuum Press. (atm) | Temp. (°C) | Temp. (°K) | Gas Cons. | Gas by Temp | Pressure by MW | Density (g/L) | INLET-1-16 (ppbv) | Flow Rate (AFPM) | Flow Rate (WSCFM) | Mass Removal (lbs/hr) | Mass Removal (lbs/day) |
|----------|-------|------------------------------|---------------------|------------|------------|-----------|-------------|----------------|---------------|-------------------|------------------|-------------------|-----------------------|------------------------|
| Acetone | 58.08 | 30 | 2.2 | 28.3 | 301.3 | 0.0821 | 24.74 | 4.28 | 0.1729 | 700 | 1555 | 31.72 | 0.000014 | 0.000345 |
| Methane | 16.04 | 30 | 2.2 | 28.3 | 301.3 | 0.0821 | 24.74 | 1.18 | 0.0478 | 0 | 1555 | 31.72 | 0.000000 | 0.000000 |

Mass Removal Calculations 1/3 to 1/20/2017 for 233.6 hours operation: **0.000014** **0.000345** **0.003360**

Notes:

^{1/} Flow rate calculation TRC report reference formula:

| Flow Data | INLET-1-16 | MW |
|---|------------|---------------------|
| Barometric Pressure, (in Hg) | 1/17/17 | in H ₂ O |
| Net Sampling Time, (minutes) | 29.80 | inches of Mercury. |
| INLET-1 Temperature (°F) | 0 | atm |
| Static Pressure (in Hg) | 83 | °C |
| INLET-1 Diameter (in) | 2.2 | °K |
| INLET-1 Area (square feet) | 2 | g/L |
| INLET-1 Gas Velocity, (actual feet per minute - afpm) | 0.0218 | mg/L |
| INLET-1 Flow rate, (wet standard cubic feet per minute - wscfm) | 1555 | ppbv |
| | 31.72 | lbs/hr |



TABLE 9

INLET-1 MASS REMOVAL CALCULATIONS
SVE PROGRESS REPORT NO. 6 - JANUARY TO MARCH 2017
PFIZER PHARMACEUTICALS LLC
BARCELONETA, PUERTO RICO

February 21, 2017 (Operational time: 481.1 hours from 1/23 to 2/24/2017)

| Compound | MW | Vacuum (in H ₂ O) | Vacuum Press. (atm) | Temp. (°C) | Temp. (°K) | Gas Cons. | Gas by Temp | Pressure by MW | Density (g/L) | INLET-1-16 (ppbv) | Flow Rate (AFPM) | Flow Rate (WSCFM) ^{1/} | Mass Removal (lbs/hr) | Mass Removal (lbs/day) |
|--------------------|--------|------------------------------|---------------------|------------|------------|-----------|-------------|----------------|---------------|-------------------|------------------|---------------------------------|-----------------------|------------------------|
| Isopropyl alcohol | 60.1 | 27 | 2.0 | 27.8 | 300.8 | 0.0821 | 24.69 | 3.98 | 0.1613 | 0 | 1504 | 30.72 | 0.000000 | 0.000000 |
| Methylene chloride | 84.93 | 27 | 2.0 | 27.8 | 300.8 | 0.0821 | 24.69 | 5.63 | 0.2280 | 0 | 1504 | 30.72 | 0.000000 | 0.000000 |
| n-Hexane | 86.17 | 27 | 2.0 | 27.8 | 300.8 | 0.0821 | 24.69 | 5.71 | 0.2313 | 0 | 1504 | 30.72 | 0.000000 | 0.000000 |
| Chloroform | 119.38 | 27 | 2.0 | 27.8 | 300.8 | 0.0821 | 24.69 | 7.91 | 0.3205 | 34 | 1504 | 30.72 | 0.000001 | 0.000030 |
| Tetrahydrofuran | 72.11 | 27 | 2.0 | 27.8 | 300.8 | 0.0821 | 24.69 | 4.78 | 0.1936 | 60000 | 1504 | 30.72 | 0.001337 | 0.032078 |
| Benzene | 78.11 | 27 | 2.0 | 27.8 | 300.8 | 0.0821 | 24.69 | 5.18 | 0.2097 | 1400 | 1504 | 30.72 | 0.000034 | 0.000811 |
| Toluene | 92.14 | 27 | 2.0 | 27.8 | 300.8 | 0.0821 | 24.69 | 6.11 | 0.2474 | 11000 | 1504 | 30.72 | 0.000313 | 0.007515 |
| Chlorobenzene | 112.56 | 27 | 2.0 | 27.8 | 300.8 | 0.0821 | 24.69 | 7.46 | 0.3022 | 0 | 1504 | 30.72 | 0.000000 | 0.000000 |
| Ethylbenzene | 106.16 | 27 | 2.0 | 27.8 | 300.8 | 0.0821 | 24.69 | 7.04 | 0.2850 | 3400 | 1504 | 30.72 | 0.000112 | 0.002676 |
| m,p-Xylene | 106.17 | 27 | 2.0 | 27.8 | 300.8 | 0.0821 | 24.69 | 7.04 | 0.2850 | 16000 | 1504 | 30.72 | 0.000525 | 0.012595 |
| o-Xylene | 106.17 | 27 | 2.0 | 27.8 | 300.8 | 0.0821 | 24.69 | 7.04 | 0.2850 | 2300 | 1504 | 30.72 | 0.000075 | 0.001810 |
| Methyl iodide | 141.95 | 27 | 2.0 | 27.8 | 300.8 | 0.0821 | 24.69 | 9.41 | 0.3811 | 0 | 1504 | 30.72 | 0.000000 | 0.000000 |
| Methanol | 32.04 | 27 | 2.0 | 27.8 | 300.8 | 0.0821 | 24.69 | 2.12 | 0.0860 | 0 | 1504 | 30.72 | 0.000000 | 0.000000 |

Mass Removal Calculations 1/23 to 2/24/2017 for 481.1 hours operation: **0.002396** **0.057515** **1.152942**

ACETONE & METHANE DATA (FOR INFORMATIVE PURPOSE ONLY)

| Compound | MW | Vacuum (in H ₂ O) | Vacuum Press. (atm) | Temp. (°C) | Temp. (°K) | Gas Cons. | Gas by Temp | Pressure by MW | Density (g/L) | INLET-1-16 (ppbv) | Flow Rate (AFPM) | Flow Rate (WSCFM) ^{1/} | Mass Removal (lbs/hr) | Mass Removal (lbs/day) |
|----------|-------|------------------------------|---------------------|------------|------------|-----------|-------------|----------------|---------------|-------------------|------------------|---------------------------------|-----------------------|------------------------|
| Acetone | 58.08 | 27 | 2.0 | 27.8 | 300.8 | 0.0821 | 24.69 | 3.85 | 0.1559 | 640 | 1504 | 30.72 | 0.000011 | 0.000276 |
| Methane | 16.04 | 27 | 2.0 | 27.8 | 300.8 | 0.0821 | 24.69 | 1.06 | 0.0431 | 0 | 1504 | 30.72 | 0.000000 | 0.000000 |

Mass Removal Calculations 1/23 to 2/24/2017 for 481.1 hours operation: **0.000011** **0.000276** **0.005525**

Notes:

^{1/} Flow rate calculation TRC report reference formula:

| Flow Data | INLET-1-16 | MW |
|---|------------|---------------------|
| Barometric Pressure, (in Hg) | 2/21/17 | in H ₂ O |
| Net Sampling Time, (minutes) | 29.59 | in Hg |
| INLET-1 Temperature (°F) | 0 | atm |
| Static Pressure (in Hg) | 82 | °C |
| INLET-1 Diameter (inches) | 2 | °K |
| INLET-1 Area (square feet) | 2 | g/L |
| INLET-1 Gas Velocity, (actual feet per minute - afpm) | 0.0218 | mg/L |
| INLET-1 Flow rate, (wet standard cubic feet per minute - wscfm) | 1504 | ppbv |
| | 30.72 | lbs/hr |
| | | lbs/day |

TABLE 9

INLET-1 MASS REMOVAL CALCULATIONS
SVE PROGRESS REPORT NO. 6 - JANUARY TO MARCH 2017
PFIZER PHARMACEUTICALS LLC
BARCELONETA, PUERTO RICO

March 28, 2017 (Operational time: 452.3 hours from 2/27 to 3/31/2017)

| Compound | MW | Vacuum (in H ₂ O) | Vacuum (in Hg) | Press. (atm) | Temp. (°C) | Temp. (°K) | Gas Cons. | Gas by Temp | Pressure by MW | Density (g/L) | INLET-1-17 (ppbv) | Flow Rate (AFPM) | Flow Rate ^{1/} (WSCFM) | Mass Removal (lbs/hr) | Mass Removal (lbs/day) |
|--------------------|--------|------------------------------|----------------|--------------|------------|------------|-----------|-------------|----------------|---------------|-------------------|------------------|---------------------------------|-----------------------|------------------------|
| Isopropyl alcohol | 60.1 | 23 | 1.7 | 0.06 | 31.1 | 304.1 | 0.0821 | 24.97 | 3.39 | 0.1359 | 0 | 1544 | 31.60 | 0.000000 | 0.000000 |
| Methylene chloride | 84.93 | 23 | 1.7 | 0.06 | 31.1 | 304.1 | 0.0821 | 24.97 | 4.80 | 0.1921 | 0 | 1544 | 31.60 | 0.000000 | 0.000000 |
| n-Hexane | 86.17 | 23 | 1.7 | 0.06 | 31.1 | 304.1 | 0.0821 | 24.97 | 4.87 | 0.1949 | 0 | 1544 | 31.60 | 0.000000 | 0.000000 |
| Chloroform | 119.38 | 23 | 1.7 | 0.06 | 31.1 | 304.1 | 0.0821 | 24.97 | 6.74 | 0.2700 | 0 | 1544 | 31.60 | 0.000000 | 0.000000 |
| Tetrahydrofuran | 72.11 | 23 | 1.7 | 0.06 | 31.1 | 304.1 | 0.0821 | 24.97 | 4.07 | 0.1631 | 42000 | 1544 | 31.60 | 0.000811 | 0.019461 |
| Benzene | 78.11 | 23 | 1.7 | 0.06 | 31.1 | 304.1 | 0.0821 | 24.97 | 4.41 | 0.1767 | 1100 | 1544 | 31.60 | 0.000023 | 0.000552 |
| Toluene | 92.14 | 23 | 1.7 | 0.06 | 31.1 | 304.1 | 0.0821 | 24.97 | 5.20 | 0.2084 | 9700 | 1544 | 31.60 | 0.000239 | 0.005743 |
| Chlorobenzene | 112.56 | 23 | 1.7 | 0.06 | 31.1 | 304.1 | 0.0821 | 24.97 | 6.36 | 0.2546 | 0 | 1544 | 31.60 | 0.000000 | 0.000000 |
| Ethylbenzene | 106.16 | 23 | 1.7 | 0.06 | 31.1 | 304.1 | 0.0821 | 24.97 | 5.99 | 0.2401 | 3600 | 1544 | 31.60 | 0.000102 | 0.002456 |
| m,p-Xylene | 106.17 | 23 | 1.7 | 0.06 | 31.1 | 304.1 | 0.0821 | 24.97 | 6.00 | 0.2401 | 18000 | 1544 | 31.60 | 0.000512 | 0.012280 |
| o-Xylene | 106.17 | 23 | 1.7 | 0.06 | 31.1 | 304.1 | 0.0821 | 24.97 | 6.00 | 0.2401 | 2500 | 1544 | 31.60 | 0.000071 | 0.001706 |
| Methyl iodide | 141.95 | 23 | 1.7 | 0.06 | 31.1 | 304.1 | 0.0821 | 24.97 | 8.02 | 0.3211 | 0 | 1544 | 31.60 | 0.000000 | 0.000000 |
| Methanol | 32.04 | 23 | 1.7 | 0.06 | 31.1 | 304.1 | 0.0821 | 24.97 | 1.81 | 0.0725 | 22600 | 1544 | 31.60 | 0.000194 | 0.004653 |

Mass Removal Calculations 2/27 to 3/31/2017 for 452.3 hours operation:

0.001952
0.046849
0.882910

ACETONE & METHANE DATA (FOR INFORMATIVE PURPOSE ONLY)

| Compound | MW | Vacuum (in H ₂ O) | Vacuum (in Hg) | Press. (atm) | Temp. (°C) | Temp. (°K) | Gas Cons. | Gas by Temp | Pressure by MW | Density (g/L) | INLET-1-17 (ppbv) | Flow Rate (AFPM) | Flow Rate ^{1/} (WSCFM) | Mass Removal (lbs/hr) | Mass Removal (lbs/day) |
|----------|-------|------------------------------|----------------|--------------|------------|------------|-----------|-------------|----------------|---------------|-------------------|------------------|---------------------------------|-----------------------|------------------------|
| Acetone | 58.08 | 23 | 1.7 | 0.06 | 31.1 | 304.1 | 0.0821 | 24.97 | 3.28 | 0.1314 | 0 | 1544 | 31.60 | 0.000000 | 0.000000 |
| Methane | 16.04 | 23 | 1.7 | 0.06 | 31.1 | 304.1 | 0.0821 | 24.97 | 0.91 | 0.0363 | 0 | 1544 | 31.60 | 0.000000 | 0.000000 |

Mass Removal Calculations 2/27 to 3/31/2017 for 452.3 hours operation:

0.000000
0.000000
0.000000

Notes:

^{1/} Flow rate calculation TRC report reference formula:

| Flow Data | INLET-1-17 | MW |
|---|------------|---------------------|
| Barometric Pressure, (in Hg) | 3/28/17 | in H ₂ O |
| Net Sampling Time, (minutes) | 29.65 | in Hg |
| INLET-1 Temperature (°F) | 0 | atm |
| Static Pressure (in Hg) | 88 | °C |
| INLET-1 Diameter (inches) | 1.7 | °K |
| INLET-1 Area (square feet) | 2 | g/L |
| INLET-1 Gas Velocity, (actual feet per minute - afpm) | 0.0218 | mg/L |
| INLET-1 Flow rate, (wet standard cubic feet per minute - wscfm) | 1544 | ppbv |
| | 31.60 | lbs/hr |
| | | lbs/day |



TABLE 10

INLET-2 MASS REMOVAL CALCULATIONS
SVE PROGRESS REPORT NO. 6 - JANUARY TO MARCH 2017
PFIZER PHARMACEUTICALS LLC
BARCELONETA, PUERTO RICO

January 17, 2017 (Operational time: 233.6 hours from 1/3 to 1/20/2017)

| Compound | MW | Pressure (in H ₂ O) | Pressure (atm) | Temp. (°C) | Temp. (°K) | Gas Cons. | Gas Constant by Temp | Density (g/L) | INLET-2-16 (ppbv) | Flow Rate (AFPM) | Flow Rate ^{1/} (WSCFM) | Mass Removal (lbs/hr) | Mass Removal (lbs/day) |
|--------------------|--------|--------------------------------|----------------|------------|------------|-----------|----------------------|---------------|-------------------|------------------|---------------------------------|-----------------------|------------------------|
| Isopropyl alcohol | 60.1 | 8 | 0.6 | 43.3 | 316.3 | 0.0821 | 25.97 | 45.5 | 0 | 5481 | 112.68 | 0.000000 | 0.000000 |
| Methylene chloride | 84.93 | 8 | 0.6 | 43.3 | 316.3 | 0.0821 | 25.97 | 64.2 | 0 | 5481 | 112.68 | 0.000000 | 0.000000 |
| n-Hexane | 86.17 | 8 | 0.6 | 43.3 | 316.3 | 0.0821 | 25.97 | 65.2 | 0 | 5481 | 112.68 | 0.000000 | 0.000000 |
| Chloroform | 119.38 | 8 | 0.6 | 43.3 | 316.3 | 0.0821 | 25.97 | 90.3 | 0 | 5481 | 112.68 | 0.000000 | 0.000000 |
| Tetrahydrofuran | 72.11 | 8 | 0.6 | 43.3 | 316.3 | 0.0821 | 25.97 | 54.5 | 13000 | 5481 | 112.68 | 0.000299 | 0.007182 |
| Benzene | 78.11 | 8 | 0.6 | 43.3 | 316.3 | 0.0821 | 25.97 | 59.1 | 360 | 5481 | 112.68 | 0.000009 | 0.000215 |
| Toluene | 92.14 | 8 | 0.6 | 43.3 | 316.3 | 0.0821 | 25.97 | 69.7 | 2200 | 5481 | 112.68 | 0.000065 | 0.001553 |
| Chlorobenzene | 112.56 | 8 | 0.6 | 43.3 | 316.3 | 0.0821 | 25.97 | 85.1 | 0 | 5481 | 112.68 | 0.000000 | 0.000000 |
| Ethylbenzene | 106.16 | 8 | 0.6 | 43.3 | 316.3 | 0.0821 | 25.97 | 80.3 | 690 | 5481 | 112.68 | 0.000023 | 0.000561 |
| m,p-Xylene | 106.17 | 8 | 0.6 | 43.3 | 316.3 | 0.0821 | 25.97 | 80.3 | 3200 | 5481 | 112.68 | 0.000108 | 0.002603 |
| o-Xylene | 106.17 | 8 | 0.6 | 43.3 | 316.3 | 0.0821 | 25.97 | 80.3 | 450 | 5481 | 112.68 | 0.000015 | 0.000366 |
| Methyl iodide | 141.95 | 8 | 0.6 | 43.3 | 316.3 | 0.0821 | 25.97 | 107.4 | 0 | 5481 | 112.68 | 0.000000 | 0.000000 |
| Methanol | 32.04 | 8 | 0.6 | 43.3 | 316.3 | 0.0821 | 25.97 | 24.2 | 30500 | 5481 | 112.68 | 0.000312 | 0.007487 |

0.000832 0.019968

Mass Removal Calculations 1/3 to 1/20/2017 for 233.6 hours operation: 0.194355

ACETONE & METHANE DATA (FOR INFORMATIVE PURPOSE ONLY)

| Compound | MW | Pressure (in H ₂ O) | Pressure (atm) | Temp. (°C) | Temp. (°K) | Gas Cons. | Gas Constant by Temp | Density (g/L) | INLET-2-16 (ppbv) | Flow Rate (AFPM) | Flow Rate ^{1/} (WSCFM) | Mass Removal (lbs/hr) | Mass Removal (lbs/day) |
|----------|-------|--------------------------------|----------------|------------|------------|-----------|----------------------|---------------|-------------------|------------------|---------------------------------|-----------------------|------------------------|
| Acetone | 58.08 | 8 | 0.6 | 43.3 | 316.3 | 0.0821 | 25.97 | 43.9 | 0 | 5481 | 112.68 | 0.000000 | 0.000000 |
| Methane | 16.04 | 8 | 0.6 | 43.3 | 316.3 | 0.0821 | 25.97 | 12.1 | 0 | 5481 | 112.68 | 0.000000 | 0.000000 |

0.000000 0.000000

Mass Removal Calculations 1/3 to 1/20/2017 for 233.6 hours operation: 0.000000

Notes:

^{1/} Flow rate calculation TRC report reference formula:

| Flow Data | INLET-2-16 1/17/17 | MW | Molecular weight. |
|---|--------------------|---------------------|-------------------------------|
| Barometric Pressure, (in Hg) | 29.80 | in H ₂ O | Inches of water. |
| Net Sampling Time, (minutes) | 0 | in Hg | Inches of Mercury. |
| INLET-2 Temperature (°F) | 110 | atm | Atmosphere. |
| Static Pressure (in Hg) | 0.6 | °C | Degrees Centigrade. |
| INLET-2 Diameter (in) | 2 | °K | Degrees Kelvin. |
| INLET-2 Area (square feet) | 0.0218 | g/L | Grams per liter. |
| INLET-2 Gas Velocity, (actual feet per minute - afpm) | 5481 | mg/L | Milligrams per liter. |
| INLET-2 Flow rate, (wet standard cubic feet per minute - wscfm) | 112.68 | ppbv | Parts per billion per volume. |
| | | lbs/hr | Pounds per hour. |
| | | lbs/day | Pounds per day. |

TABLE 10

**INLET-2 MASS REMOVAL CALCULATIONS
SVE PROGRESS REPORT NO. 6 - JANUARY TO MARCH 2017
PFIZER PHARMACEUTICALS LLC
BARCELONETA, PUERTO RICO**

February 21, 2017 (Operational time: 481.1 hours from 1/23 to 2/24/2017)

| Compound | MW | Pressure (in H ₂ O) | Pressure (in Hg) | Press. (atm) | Temp. (°C) | Temp. (°K) | Gas Cons. | Gas by Temp | Pressure by MW | Density (g/L) | INLET-2-16 (ppbv) | INLET-2-16 (mg/L) | Flow Rate (AFPM) | Flow Rate ^{1/} (WSCFM) | Mass Removal (lbs/hr) | Mass Removal (lbs/day) |
|--------------------|--------|--------------------------------|------------------|--------------|------------|------------|-----------|-------------|----------------|---------------|-------------------|-------------------|------------------|---------------------------------|-----------------------|------------------------|
| | | | | | | | | | | | | | | | | |
| Isopropyl alcohol | 60.1 | 8 | 0.6 | 0.02 | 42.2 | 315.2 | 0.0821 | 25.88 | 1.18 | 0.0456 | 0 | 0.000000 | 4679 | 95.84 | 0.000000 | 0.000000 |
| Methylene chloride | 84.93 | 8 | 0.6 | 0.02 | 42.2 | 315.2 | 0.0821 | 25.88 | 1.67 | 0.0645 | 0 | 0.000000 | 4679 | 95.84 | 0.000000 | 0.000000 |
| n-Hexane | 86.17 | 8 | 0.6 | 0.02 | 42.2 | 315.2 | 0.0821 | 25.88 | 1.69 | 0.0654 | 0 | 0.000000 | 4679 | 95.84 | 0.000000 | 0.000000 |
| Chloroform | 119.38 | 8 | 0.6 | 0.02 | 42.2 | 315.2 | 0.0821 | 25.88 | 2.34 | 0.0906 | 0 | 0.000000 | 4679 | 95.84 | 0.000000 | 0.000000 |
| Tetrahydrofuran | 72.11 | 8 | 0.6 | 0.02 | 42.2 | 315.2 | 0.0821 | 25.88 | 1.42 | 0.0547 | 15000 | 0.000821 | 4679 | 95.84 | 0.000295 | 0.007073 |
| Benzene | 78.11 | 8 | 0.6 | 0.02 | 42.2 | 315.2 | 0.0821 | 25.88 | 1.53 | 0.0593 | 290 | 0.000117 | 4679 | 95.84 | 0.000006 | 0.000148 |
| Toluene | 92.14 | 8 | 0.6 | 0.02 | 42.2 | 315.2 | 0.0821 | 25.88 | 1.81 | 0.0699 | 2200 | 0.000154 | 4679 | 95.84 | 0.000055 | 0.001326 |
| Chlorobenzene | 112.56 | 8 | 0.6 | 0.02 | 42.2 | 315.2 | 0.0821 | 25.88 | 2.21 | 0.0854 | 0 | 0.000000 | 4679 | 95.84 | 0.000000 | 0.000000 |
| Ethylbenzene | 106.16 | 8 | 0.6 | 0.02 | 42.2 | 315.2 | 0.0821 | 25.88 | 2.09 | 0.0806 | 740 | 0.000060 | 4679 | 95.84 | 0.000021 | 0.000514 |
| m,p-Xylene | 106.17 | 8 | 0.6 | 0.02 | 42.2 | 315.2 | 0.0821 | 25.88 | 2.09 | 0.0806 | 3500 | 0.000282 | 4679 | 95.84 | 0.000101 | 0.002430 |
| o-Xylene | 106.17 | 8 | 0.6 | 0.02 | 42.2 | 315.2 | 0.0821 | 25.88 | 2.09 | 0.0806 | 460 | 0.000037 | 4679 | 95.84 | 0.000013 | 0.000319 |
| Methyl iodide | 141.95 | 8 | 0.6 | 0.02 | 42.2 | 315.2 | 0.0821 | 25.88 | 2.79 | 0.1077 | 0 | 0.000000 | 4679 | 95.84 | 0.000000 | 0.000000 |
| Methanol | 32.04 | 8 | 0.6 | 0.02 | 42.2 | 315.2 | 0.0821 | 25.88 | 0.63 | 0.0243 | 36100 | 0.000878 | 4679 | 95.84 | 0.000315 | 0.007564 |

Mass Removal Calculations 1/23 to 2/24/2017 for 481.1 hours operation: **0.000807** **0.019374**
0.388375

ACETONE & METHANE DATA (FOR INFORMATIVE PURPOSE ONLY)

| Compound | MW | Pressure (in H ₂ O) | Pressure (in Hg) | Press. (atm) | Temp. (°C) | Temp. (°K) | Gas Cons. | Gas by Temp | Pressure by MW | Density (g/L) | INLET-2-16 (ppbv) | INLET-2-16 (mg/L) | Flow Rate (AFPM) | Flow Rate ^{1/} (WSCFM) | Mass Removal (lbs/hr) | Mass Removal (lbs/day) |
|----------|-------|--------------------------------|------------------|--------------|------------|------------|-----------|-------------|----------------|---------------|-------------------|-------------------|------------------|---------------------------------|-----------------------|------------------------|
| | | | | | | | | | | | | | | | | |
| Acetone | 58.08 | 8 | 0.6 | 0.02 | 42.2 | 315.2 | 0.0821 | 25.88 | 1.14 | 0.0441 | 44.1 | 0.000000 | 4679 | 95.84 | 0.000000 | 0.000000 |
| Methane | 16.04 | 8 | 0.6 | 0.02 | 42.2 | 315.2 | 0.0821 | 25.88 | 0.32 | 0.0122 | 12.2 | 0.000000 | 4679 | 95.84 | 0.000000 | 0.000000 |

Mass Removal Calculations 1/23 to 2/24/2017 for 481.1 hours operation: **0.000000** **0.000000**

Notes:

^{1/} Flow rate calculation TRC report reference formula:

| Flow Data | INLET-2-16 2/21/17 | MW | Units |
|---|--------------------|---------------------|-------------------------------|
| Barometric Pressure, (in Hg) | 29.59 | in H ₂ O | Molecular weight. |
| Net Sampling Time, (minutes) | 0 | in Hg | Inches of water. |
| INLET-2 Temperature (°F) | 108 | atm | Inches of Mercury. |
| Static Pressure (in Hg) | 0.6 | °C | Atmosphere. |
| INLET-2 Diameter (in) | 2 | °K | Degrees Centigrade. |
| INLET-2 Area (square feet) | 0.0218 | g/L | Degrees Kelvin. |
| INLET-2 Gas Velocity, (actual feet per minute - afpm) | 4679 | mg/L | Grams per liter. |
| INLET-2 Flow rate, (wet standard cubic feet per minute - wscfm) | 95.84 | ppbv | Milligrams per liter. |
| | | lbs/hr | Parts per billion per volume. |
| | | lbs/day | Pounds per hour. |
| | | | Pounds per day. |

TABLE 10

INLET-2 MASS REMOVAL CALCULATIONS
SVE PROGRESS REPORT NO. 6 - JANUARY TO MARCH 2017
PFIZER PHARMACEUTICALS LLC
BARCELONETA, PUERTO RICO

March 28, 2017 (Operational time: 452.3 hours from 2/27 to 3/31/2017)

| Compound | MW | Pressure (in H ₂ O) | Pressure (atm) | Temp. (°C) | Temp. (°K) | Gas Cons. | Gas by Temp | Density (g/L) | INLET-2-17 (ppbv) | Flow Rate (AFPM) | Flow Rate ^{1/} (WSCFM) | Mass Removal (lbs/hr) | Mass Removal (lbs/day) |
|--------------------|--------|--------------------------------|----------------|------------|------------|-----------|-------------|---------------|-------------------|------------------|---------------------------------|-----------------------|------------------------|
| Isopropyl alcohol | 60.1 | 8 | 0.6 | 42.2 | 315.2 | 0.0821 | 25.88 | 45.6 | 0 | 4812 | 98.76 | 0.000000 | 0.000000 |
| Methylene chloride | 84.93 | 8 | 0.6 | 42.2 | 315.2 | 0.0821 | 25.88 | 64.5 | 58 | 4812 | 98.76 | 0.000001 | 0.000033 |
| n-Hexane | 86.17 | 8 | 0.6 | 42.2 | 315.2 | 0.0821 | 25.88 | 65.4 | 0 | 4812 | 98.76 | 0.000000 | 0.000000 |
| Chloroform | 119.38 | 8 | 0.6 | 42.2 | 315.2 | 0.0821 | 25.88 | 90.6 | 0 | 4812 | 98.76 | 0.000000 | 0.000000 |
| Tetrahydrofuran | 72.11 | 8 | 0.6 | 42.2 | 315.2 | 0.0821 | 25.88 | 54.7 | 8100 | 4812 | 98.76 | 0.000164 | 0.003936 |
| Benzene | 78.11 | 8 | 0.6 | 42.2 | 315.2 | 0.0821 | 25.88 | 59.3 | 190 | 4812 | 98.76 | 0.000004 | 0.000100 |
| Toluene | 92.14 | 8 | 0.6 | 42.2 | 315.2 | 0.0821 | 25.88 | 69.9 | 1700 | 4812 | 98.76 | 0.000044 | 0.001056 |
| Chlorobenzene | 112.56 | 8 | 0.6 | 42.2 | 315.2 | 0.0821 | 25.88 | 85.4 | 0 | 4812 | 98.76 | 0.000000 | 0.000000 |
| Ethylbenzene | 106.16 | 8 | 0.6 | 42.2 | 315.2 | 0.0821 | 25.88 | 80.6 | 610 | 4812 | 98.76 | 0.000018 | 0.000436 |
| m,p-Xylene | 106.17 | 8 | 0.6 | 42.2 | 315.2 | 0.0821 | 25.88 | 80.6 | 2900 | 4812 | 98.76 | 0.000086 | 0.002075 |
| o-Xylene | 106.17 | 8 | 0.6 | 42.2 | 315.2 | 0.0821 | 25.88 | 80.6 | 400 | 4812 | 98.76 | 0.000012 | 0.000286 |
| Methyl iodide | 141.95 | 8 | 0.6 | 42.2 | 315.2 | 0.0821 | 25.88 | 107.7 | 0 | 4812 | 98.76 | 0.000000 | 0.000000 |
| Methanol | 32.04 | 8 | 0.6 | 42.2 | 315.2 | 0.0821 | 25.88 | 24.3 | 27200 | 4812 | 98.76 | 0.000245 | 0.005873 |

0.000575 **0.013795**
Mass Removal Calculations 2/27 to 3/31/2017 for 452.3 hours operation: 0.259978

ACETONE & METHANE DATA (FOR INFORMATIVE PURPOSE ONLY)

| Compound | MW | Pressure (in H ₂ O) | Pressure (atm) | Temp. (°C) | Temp. (°K) | Gas Cons. | Gas by Temp | Density (g/L) | INLET-2-17 (ppbv) | Flow Rate (AFPM) | Flow Rate ^{1/} (WSCFM) | Mass Removal (lbs/hr) | Mass Removal (lbs/day) |
|----------|-------|--------------------------------|----------------|------------|------------|-----------|-------------|---------------|-------------------|------------------|---------------------------------|-----------------------|------------------------|
| Acetone | 58.08 | 8 | 0.6 | 42.2 | 315.2 | 0.0821 | 25.88 | 44.1 | 0 | 4812 | 98.76 | 0.000000 | 0.000000 |
| Methane | 16.04 | 8 | 0.6 | 42.2 | 315.2 | 0.0821 | 25.88 | 12.2 | 0 | 4812 | 98.76 | 0.000000 | 0.000000 |

0.000000 **0.000000**
Mass Removal Calculations 2/27 to 3/31/2017 for 452.3 hours operation: 0.000000

Notes:

^{1/} Flow rate calculation TRC report reference formula:

| Flow Data | INLET-2-17 |
|---|------------|
| 3/28/17 | |
| Barometric Pressure, (in Hg) | 29.65 |
| Net Sampling Time, (minutes) | 0 |
| INLET-2 Temperature (°F) | 108 |
| Static Pressure (in Hg) | 0.6 |
| INLET-2 Diameter (in) | 2 |
| INLET-2 Area (square feet) | 0.0218 |
| INLET-2 Gas Velocity, (actual feet per minute - afpm) | 4812 |
| INLET-2 Flow rate, (wet standard cubic feet per minute - wscfm) | 98.76 |

- MW Molecular weight.
- in H₂O Inches of water.
- in Hg Inches of Mercury.
- atm Atmosphere.
- °C Degrees Centigrade.
- °K Degrees Kelvin.
- g/L Grams per liter.
- mg/L Milligrams per liter.
- ppbv Parts per billion per volume.
- lbs/hr Pounds per hour.
- lbs/day Pounds per day.

TABLE 11

OUTLET AIR EMISSIONS CALCULATIONS
SVE PROGRESS REPORT NO. 6 - JANUARY TO MARCH 2017
PFIZER PHARMACEUTICALS LLC
BARCELONETA, PUERTO RICO

| Compound | MW | Temp. | | Gas Cons. | Gas by Temp | Density (g/L) | Density (mg/L) | OUTLET-16 (ppbv) | Flow Rate (AFPM) | Flow Rate ^{1/} (WSCFM) | Emissions Rate | | |
|--------------------|--------|-------|-------|-----------|-------------|---------------|----------------|------------------|------------------|---------------------------------|----------------|-----------|----------|
| | | (°C) | (°K) | | | | | | | | (lbs/hr) | (tons/yr) | |
| Isopropyl alcohol | 60.1 | 34.4 | 307.4 | 0.0821 | 25.24 | 2.3810 | 2381.0 | 0 | 2506 | 121.72 | 0.000000 | 0.000000 | |
| Methylene chloride | 84.93 | 34.4 | 307.4 | 0.0821 | 25.24 | 3.3647 | 3364.7 | 90 | 2506 | 121.72 | 0.000138 | 0.000605 | |
| n-Hexane | 86.17 | 34.4 | 307.4 | 0.0821 | 25.24 | 3.4139 | 3413.9 | 1.3 | 2506 | 121.72 | 0.000002 | 0.000009 | |
| Chloroform | 119.38 | 34.4 | 307.4 | 0.0821 | 25.24 | 4.7296 | 4729.6 | 0 | 2506 | 121.72 | 0.000000 | 0.000000 | |
| Tetrahydrofuran | 72.11 | 34.4 | 307.4 | 0.0821 | 25.24 | 2.8568 | 2856.8 | 0 | 2506 | 121.72 | 0.000000 | 0.000000 | |
| Benzene | 78.11 | 34.4 | 307.4 | 0.0821 | 25.24 | 3.0945 | 3094.5 | 0.21 | 2506 | 121.72 | 0.000000 | 0.000001 | |
| Toluene | 92.14 | 34.4 | 307.4 | 0.0821 | 25.24 | 3.6504 | 3650.4 | 1.1 | 2506 | 121.72 | 0.000002 | 0.000008 | |
| Chlorobenzene | 112.56 | 34.4 | 307.4 | 0.0821 | 25.24 | 4.4594 | 4459.4 | 0 | 2506 | 121.72 | 0.000000 | 0.000000 | |
| Ethylbenzene | 106.16 | 34.4 | 307.4 | 0.0821 | 25.24 | 4.2058 | 4205.8 | 0 | 2506 | 121.72 | 0.000000 | 0.000000 | |
| m,p-Xylene | 106.17 | 34.4 | 307.4 | 0.0821 | 25.24 | 4.2062 | 4206.2 | 0 | 2506 | 121.72 | 0.000000 | 0.000000 | |
| o-Xylene | 106.17 | 34.4 | 307.4 | 0.0821 | 25.24 | 4.2062 | 4206.2 | 0 | 2506 | 121.72 | 0.000000 | 0.000000 | |
| Methyl iodide | 141.95 | 34.4 | 307.4 | 0.0821 | 25.24 | 5.6237 | 5623.7 | 0 | 2506 | 121.72 | 0.000000 | 0.000000 | |
| Methanol | 32.04 | 34.4 | 307.4 | 0.0821 | 25.24 | 1.2694 | 1269.4 | 18200 | 2506 | 121.72 | 0.010534 | 0.252812 | |
| | | | | | | | | | | | 0.010676 | 0.256225 | 0.046138 |

EQB Temporary Emissions Permit Requirement: **3** **15**

Emissions Calculations 1/3 to 1/20/2017 for 233.6 hours operation: **2.493926**

ACETONE & METHANE DATA (FOR INFORMATIVE PURPOSE ONLY)

| Compound | MW | Temp. | | Gas Cons. | Gas by Temp | Density (g/L) | Density (mg/L) | OUTLET-16 (ppbv) | Flow Rate (AFPM) | Flow Rate ^{2/} (WSCFM) | Emissions Rate | |
|----------|-------|-------|-------|-----------|-------------|---------------|----------------|------------------|------------------|---------------------------------|----------------|-----------|
| | | (°C) | (°K) | | | | | | | | (lbs/hr) | (tons/yr) |
| Acetone | 58.08 | 34.4 | 307.4 | 0.0821 | 25.24 | 2.3010 | 2301.0 | 11 | 2506 | 121.72 | 0.000012 | 0.000277 |
| Methane | 16.04 | 34.4 | 307.4 | 0.0821 | 25.24 | 0.6355 | 635.5 | 0 | 2506 | 121.72 | 0.000000 | 0.000000 |
| | | | | | | | | | | | 0.000012 | 0.000277 |

Emissions Calculations 1/3 to 1/20/2017 for 233.6 hours operation: **0.002696**

Notes:

1/

Flow Rate calculation TRC report reference formula:

Flow Data

- Barometric Pressure, (in Hg)
- Net Sampling Time, (minutes)
- Stack Temperature (°F)
- Static Pressure (in Hg)
- Stack Diameter (inches)
- Stack Area (square feet)
- Stack Gas Velocity, (actual feet per minute - afpm)
- Stack Flow rate, (wet standard cubic feet per minute - wscfm)

MW

°C

°K

g/L

mg/L

ppbv

lbs/hr

lbs/day

tons/yr

Molecular weight.

Degrees Centigrade.

Degrees Kelvin.

Grams per liter.

Milligrams per liter.

Parts per billion per volume.

Pounds per hour.

Pounds per day.

Tons per year.

OUTLET-16

1/17/17

29.80

0

94

0

3

0.0491

2506

121.72

TABLE 11

**OUTLET AIR EMISSIONS CALCULATIONS
SVE PROGRESS REPORT NO. 6 - JANUARY TO MARCH 2017
PFIZER PHARMACEUTICALS LLC
BARCELONETA, PUERTO RICO**

February 21, 2017 (Operational time: 481.1 hours from 1/23 to 2/24/2017)

| Compound | MW | Temp. (°C) | Temp. (°K) | Gas Cons. by Temp | Density (g/L) | (mg/L) | OUTLET-16 (ppbv) | (mg/L) | Flow Rate (AFPM) | Flow Rate ^{1/} (WSCFM) | (lbs/hr) | Emissions Rate (lbs/day) | (tons/yr) |
|--------------------|--------|------------|------------|-------------------|---------------|--------|------------------|----------|------------------|---------------------------------|----------|--------------------------|-----------|
| Isopropyl alcohol | 60.1 | 35.0 | 308.0 | 0.0821 | 2.3767 | 2376.7 | 0 | 0.000000 | 2471 | 118.96 | 0.000000 | 0.000000 | 0.000000 |
| Methylene chloride | 84.93 | 35.0 | 308.0 | 0.0821 | 3.3587 | 3358.7 | 27 | 0.000091 | 2471 | 118.96 | 0.000040 | 0.000970 | 0.000177 |
| n-Hexane | 86.17 | 35.0 | 308.0 | 0.0821 | 3.4077 | 3407.7 | 0 | 0.000000 | 2471 | 118.96 | 0.000000 | 0.000000 | 0.000000 |
| Chloroform | 119.38 | 35.0 | 308.0 | 0.0821 | 4.7210 | 4721.0 | 0 | 0.000000 | 2471 | 118.96 | 0.000000 | 0.000000 | 0.000000 |
| Tetrahydrofuran | 72.11 | 35.0 | 308.0 | 0.0821 | 2.8517 | 2851.7 | 680 | 0.001939 | 2471 | 118.96 | 0.000864 | 0.020739 | 0.003785 |
| Benzene | 78.11 | 35.0 | 308.0 | 0.0821 | 3.0890 | 3089.0 | 0 | 0.000000 | 2471 | 118.96 | 0.000000 | 0.000000 | 0.000000 |
| Toluene | 92.14 | 35.0 | 308.0 | 0.0821 | 3.6438 | 3643.8 | 2.5 | 0.000009 | 2471 | 118.96 | 0.000004 | 0.000097 | 0.000018 |
| Chlorobenzene | 112.56 | 35.0 | 308.0 | 0.0821 | 4.4513 | 4451.3 | 0 | 0.000000 | 2471 | 118.96 | 0.000000 | 0.000000 | 0.000000 |
| Ethylbenzene | 106.16 | 35.0 | 308.0 | 0.0821 | 4.1982 | 4198.2 | 0 | 0.000000 | 2471 | 118.96 | 0.000000 | 0.000000 | 0.000000 |
| m,p-Xylene | 106.17 | 35.0 | 308.0 | 0.0821 | 4.1986 | 4198.6 | 0 | 0.000000 | 2471 | 118.96 | 0.000000 | 0.000000 | 0.000000 |
| o-Xylene | 106.17 | 35.0 | 308.0 | 0.0821 | 4.1986 | 4198.6 | 0 | 0.000000 | 2471 | 118.96 | 0.000000 | 0.000000 | 0.000000 |
| Methyl iodide | 141.95 | 35.0 | 308.0 | 0.0821 | 5.6136 | 5613.6 | 0 | 0.000000 | 2471 | 118.96 | 0.000000 | 0.000000 | 0.000000 |
| Methanol | 32.04 | 35.0 | 308.0 | 0.0821 | 1.2671 | 1267.1 | 7730 | 0.009794 | 2471 | 118.96 | 0.004365 | 0.104752 | 0.019117 |

EQB Temporary Emissions Permit Requirement: **0.005273** **3** **0.126558** **15** **0.023097**

Emissions Calculations 1/23 to 2/24/2017 for 481.1 hours operation: **2.536962**

ACETONE & METHANE DATA (FOR INFORMATIVE PURPOSE ONLY)

| Compound | MW | Temp. (°C) | Temp. (°K) | Gas Cons. by Temp | Density (g/L) | (mg/L) | OUTLET-16 (ppbv) | (mg/L) | Flow Rate (AFPM) | Flow Rate ^{1/} (WSCFM) | (lbs/hr) | Emissions Rate (lbs/day) | (tons/yr) |
|----------|-------|------------|------------|-------------------|---------------|--------|------------------|----------|------------------|---------------------------------|----------|--------------------------|-----------|
| Acetone | 58.08 | 35.0 | 308.0 | 0.0821 | 2.2969 | 2296.9 | 71 | 0.000163 | 2471 | 118.96 | 0.000073 | 0.001744 | 0.000318 |
| Methane | 16.04 | 35.0 | 308.0 | 0.0821 | 0.6343 | 634.3 | 0 | 0.000000 | 2471 | 118.96 | 0.000000 | 0.000000 | 0.000000 |

Emissions Calculations 1/23 to 2/24/2017 for 481.1 hours operation: **0.000073** **0.001744** **0.034962**

Notes:

^{1/}

Flow Rate calculation TRC report reference formula:

Flow Data

- Barometric Pressure, (in Hg)
- Net Sampling Time, (minutes)
- Stack Temperature (°F)
- Static Pressure (in Hg)
- Stack Diameter (inches)
- Stack Area (square feet)
- Stack Gas Velocity, (actual feet per minute - afpm)
- Stack Flow rate, (wet standard cubic feet per minute - wscfm)

| OUTLET-16 2/21/17 | MW | °C | °K | g/L | mg/L | ppbv |
|-------------------|----|----|----|-----|------|------|
| 29.59 | | | | | | |
| 0 | | | | | | |
| 95 | | | | | | |
| 0 | | | | | | |
| 3 | | | | | | |
| 0.0491 | | | | | | |
| 2471 | | | | | | |
| 118.96 | | | | | | |

- MW
- °C
- °K
- g/L
- mg/L
- ppbv
- lbs/hr
- lbs/day
- tons/yr
- Molecular weight.
- Degrees Centigrade.
- Degrees Kelvin.
- Grams per liter.
- Milligrams per liter.
- Parts per billion per volume.
- Pounds per hour.
- Pounds per day.
- Tons per year.

TABLE 11

OUTLET AIR EMISSIONS CALCULATIONS
SVE PROGRESS REPORT NO. 6 - JANUARY TO MARCH 2017
PFIZER PHARMACEUTICALS LLC
BARCELONETA, PUERTO RICO

March 28, 2017 (Operational time: 452.3 hours from 2/27 to 3/31/2017)

| Compound | MW | Temp. (°C) | Temp. (°K) | Gas Cons. | Gas by Temp | Density (g/L) | OUTLET-17 (ppbv) | OUTLET-17 (mg/L) | Flow Rate (AFPM) | Flow Rate ^{1/} (WSCFM) | Emissions Rate (lbs/hr) | Emissions Rate (lbs/day) | Emissions Rate (tons/yr) |
|--------------------|--------|------------|------------|-----------|-------------|---------------|------------------|------------------|------------------|---------------------------------|-------------------------|--------------------------|--------------------------|
| Isopropyl alcohol | 60.1 | 37.8 | 310.8 | 0.0821 | 25.51 | 2.3555 | 8.1 | 0.000019 | 2636 | 125.89 | 0.000009 | 0.000216 | 0.000039 |
| Methylene chloride | 84.93 | 37.8 | 310.8 | 0.0821 | 25.51 | 3.3286 | 0.11 | 0.000000 | 2636 | 125.89 | 0.000000 | 0.000004 | 0.000001 |
| n-Hexane | 86.17 | 37.8 | 310.8 | 0.0821 | 25.51 | 3.3772 | 0 | 0.000000 | 2636 | 125.89 | 0.000000 | 0.000000 | 0.000000 |
| Chloroform | 119.38 | 37.8 | 310.8 | 0.0821 | 25.51 | 4.6788 | 0 | 0.000000 | 2636 | 125.89 | 0.000000 | 0.000000 | 0.000000 |
| Tetrahydrofuran | 72.11 | 37.8 | 310.8 | 0.0821 | 25.51 | 2.8262 | 0 | 0.000000 | 2636 | 125.89 | 0.000000 | 0.000000 | 0.000000 |
| Benzene | 78.11 | 37.8 | 310.8 | 0.0821 | 25.51 | 3.0614 | 0.36 | 0.000001 | 2636 | 125.89 | 0.000001 | 0.000012 | 0.000002 |
| Toluene | 92.14 | 37.8 | 310.8 | 0.0821 | 25.51 | 3.6112 | 0.20 | 0.000001 | 2636 | 125.89 | 0.000000 | 0.000008 | 0.000001 |
| Chlorobenzene | 112.56 | 37.8 | 310.8 | 0.0821 | 25.51 | 4.4115 | 0 | 0.000000 | 2636 | 125.89 | 0.000000 | 0.000000 | 0.000000 |
| Ethylbenzene | 106.16 | 37.8 | 310.8 | 0.0821 | 25.51 | 4.1607 | 0 | 0.000000 | 2636 | 125.89 | 0.000000 | 0.000000 | 0.000000 |
| m,p-Xylene | 106.17 | 37.8 | 310.8 | 0.0821 | 25.51 | 4.1611 | 0 | 0.000000 | 2636 | 125.89 | 0.000000 | 0.000000 | 0.000000 |
| o-Xylene | 106.17 | 37.8 | 310.8 | 0.0821 | 25.51 | 4.1611 | 0 | 0.000000 | 2636 | 125.89 | 0.000000 | 0.000000 | 0.000000 |
| Methyl iodide | 141.95 | 37.8 | 310.8 | 0.0821 | 25.51 | 5.5634 | 0 | 0.000000 | 2636 | 125.89 | 0.000000 | 0.000000 | 0.000000 |
| Methanol | 32.04 | 37.8 | 310.8 | 0.0821 | 25.51 | 1.2557 | 4500 | 0.005651 | 2636 | 125.89 | 0.002665 | 0.063956 | 0.011672 |

EQB Temporary Emissions Permit Requirement: 3 15

Emissions Calculations 2/27 to 3/31/2017 for 452.3 hours operation: 1.209850

ACETONE & METHANE DATA (FOR INFORMATIVE PURPOSE ONLY)

| Compound | MW | Temp. (°C) | Temp. (°K) | Gas Cons. | Gas by Temp | Density (mg/L) | OUTLET-17 (ppbv) | OUTLET-17 (mg/L) | Flow Rate (AFPM) | Flow Rate ^{1/} (WSCFM) | Emissions Rate (lbs/hr) | Emissions Rate (lbs/day) | Emissions Rate (tons/yr) |
|----------|-------|------------|------------|-----------|-------------|----------------|------------------|------------------|------------------|---------------------------------|-------------------------|--------------------------|--------------------------|
| Acetone | 58.08 | 37.8 | 310.8 | 0.0821 | 25.51 | 2.2763 | 11 | 0.000025 | 2636 | 125.89 | 0.000012 | 0.000283 | 0.000052 |
| Methane | 16.04 | 37.8 | 310.8 | 0.0821 | 25.51 | 0.6287 | 0 | 0.000000 | 2636 | 125.89 | 0.000000 | 0.000000 | 0.000000 |

Emissions Calculations 2/27 to 3/31/2017 for 452.3 hours operation: 0.000012 0.000283 0.000000 0.000000

Notes:
^{1/} Flow Rate calculation TRC report reference formula:

| Flow Data | OUTLET-17 3/28/17 | MW | Molecular weight. |
|---|-------------------|---------|-------------------------------|
| Barometric Pressure, (in Hg) | 29.62 | °C | Degrees Centigrade. |
| Net Sampling Time, (minutes) | 0 | °K | Degrees Kelvin. |
| Stack Temperature (°F) | 100 | g/L | Grams per liter. |
| Static Pressure (in Hg) | 0 | mg/L | Milligrams per liter. |
| Stack Diameter (inches) | 3 | ppbv | Parts per billion per volume. |
| Stack Area (square feet) | 0.0491 | lbs/hr | Pounds per hour. |
| Stack Gas Velocity, (actual feet per minute - afpm) | 2636 | lbs/day | Pounds per day. |
| Stack Flow rate, (wet standard cubic feet per minute - wscfm) | 125.89 | tons/yr | Tons per year. |

TABLE 12

**EQB CONSTRUCTION PERMIT DATA LOG
SVE PROGRESS REPORT NO. 6 - JANUARY TO MARCH 2017
PFIZER PHARMACEUTICALS LLC
BARCELONETA, PUERTO RICO**

| DATE | ACTIVITY DESCRIPTION | TEMPERATURE DAILY READINGS | | OVA DAILY READINGS | | CARBON EFFICIENCY | INLET-1 FLOW RATE | |
|------------------|----------------------|-----------------------------|----------------|--------------------|--------|-------------------|-------------------|---------|
| | | <i>EQB Permit Criteria:</i> | | | | | <i>117</i> | |
| | | <i>120 ° F</i> | <i>140 ° F</i> | <i><90%</i> | | | | |
| | | Carbon Entrance | OUTLET | INLET-1 | OUTLET | | AFPM | (WSCFM) |
| 3-Jan-17 | O&M Monitoring | 110 | 82 | 60.1 | 0.0 | 100 | 1773 | 36.19 |
| | | 116 | 98 | 64.7 | 0.2 | 100 | 1710 | 34.00 |
| 4-Jan-17 | OVA/Temp Monitoring | 120 | 100 | 49.5 | 0.3 | 99 | | |
| 9-Jan-17 | O&M Monitoring | 106 | 92 | 53.2 | 0.2 | 100 | 1694 | 34.62 |
| | | 106 | 96 | 57.1 | 0.0 | 100 | 1728 | 34.98 |
| 10-Jan-17 | OVA/Temp Monitoring | 110 | 96 | 43.5 | 0.3 | 99 | | |
| 11-Jan-17 | OVA/Temp Monitoring | 104 | 92 | 44.7 | 0.2 | 100 | | |
| 12-Jan-17 | OVA/Temp Monitoring | 102 | 90 | 43.6 | 0.4 | 99 | | |
| 13-Jan-17 | OVA/Temp Monitoring | 106 | 94 | 59.2 | 0.3 | 99 | | |
| | | 82 | 80 | | | | | |
| 16-Jan-17 | O&M Monitoring | 108 | 90 | 59.0 | 0.3 | 99 | 1797 | 36.45 |
| | | 112 | 94 | 64.2 | 0.3 | 100 | 1465 | 29.44 |
| | | 112 | 94 | | | | | |
| | | 100 | 90 | | | | | |
| 17-Jan-17 | Sampling | 107 | 93 | 51.5 | 0.3 | 99 | 1560 | 32.00 |
| | | 108 | 94 | | | | | |
| | | 108 | 94 | 62.1 | 0.3 | 100 | 1585 | 31.85 |
| | | 107 | 96 | | | | | |
| 18-Jan-17 | OVA/Temp Monitoring | 106 | 94 | 43.3 | 0.4 | 99 | | |
| 19-Jan-17 | OVA/Temp Monitoring | 112 | 94 | 40.8 | 0.3 | 99 | | |
| 20-Jan-17 | OVA/Temp Monitoring | 110 | 98 | 68.0 | 0.0 | 100 | | |
| | | 111 | 97 | 68.4 | 0.0 | 100 | | |
| | | 94 | 86 | | | | | |
| 23-Jan-17 | O&M Monitoring | 117 | 92 | 60.1 | 0.0 | 100 | 2120 | 42.54 |
| | | 117 | 97 | | | | | |
| | | 113 | 97 | 59.1 | 0.0 | 100 | 2130 | 42.66 |
| 24-Jan-17 | OVA/Temp Monitoring | 116 | 100 | 41.4 | 0.5 | 99 | | |
| 25-Jan-17 | OVA/Temp Monitoring | 104 | 100 | 32.0 | 0.2 | 99 | | |
| 26-Jan-17 | OVA/Temp Monitoring | 116 | 96 | 39.0 | 0.4 | 99 | | |
| | | 113 | 98 | 61.8 | 0.1 | 100 | 1443 | 29.06 |
| 27-Jan-17 | OVA/Temp Monitoring | 110 | 98 | | | | | |
| | | 104 | 98 | | | | | |

TABLE 12

EQB CONSTRUCTION PERMIT DATA LOG
 SVE PROGRESS REPORT NO. 6 - JANUARY TO MARCH 2017
 PFIZER PHARMACEUTICALS LLC
 BARCELONETA, PUERTO RICO

| DATE | ACTIVITY DESCRIPTION | TEMPERATURE DAILY READINGS | | OVA DAILY READINGS | | CARBON EFFICIENCY | INLET-1 FLOW RATE | |
|-----------------|------------------------------|----------------------------|--------|--------------------|--------|-------------------|-------------------|-------------|
| | | 120 °F | 140 °F | INLET-1 | OUTLET | | AFPM | 117 (WSCFM) |
| | | Carbon Entrance | OUTLET | | | <90% | | |
| | | 100 | 88 | | | | | |
| 30-Jan-17 | O&M Monitoring | 118 | 96 | 59.4 | 0.5 | 99 | 2043 | 40.76 |
| | | 116 | 100 | | | | | |
| | | 116 | 100 | 57.8 | 0.6 | 99 | 1537 | 30.75 |
| 31-Jan-17 | OVA/Temp Monitoring | 114 | 100 | 32.5 | 0.3 | 99 | | |
| 1-Feb-17 | OVA/Temp Monitoring | 114 | 100 | 38.9 | 1.1 | 97 | | |
| 2-Feb-17 | OVA/Temp Monitoring | 108 | 98 | 37.1 | 0.8 | 98 | | |
| 3-Feb-17 | O&M Monitoring | 114 | 100 | 55.6 | 0.6 | 99 | | |
| | | 90 | 90 | | | | | |
| 6-Feb-17 | O&M Monitoring | 112 | 94 | 66.0 | 0.2 | 100 | 2003 | 40.29 |
| | | 114 | 99 | 66.7 | 0.4 | 99 | 1969 | 39.47 |
| 7-Feb-17 | OVA/Temp Monitoring | 120 | 98 | 37.7 | 0.4 | 99 | | |
| | | 94 | 92 | | | | | |
| 8-Feb-17 | O&M Monitoring | 118 | 96 | 56.4 | 0.9 | 98 | 2041 | 40.61 |
| | | 118 | 98 | | | | | |
| | | 118 | 98 | | | | | |
| 9-Feb-17 | OVA/Temp Monitoring | 110 | 102 | 34.2 | 1.4 | 96 | | |
| 10-Feb-17 | OVA/Temp Monitoring | 115 | 100 | 54.4 | 1.5 | 97 | | |
| | | 88 | 84 | | | | | |
| | | 110 | 92 | 55.8 | 0.5 | 99 | 1284 | 25.77 |
| 13-Feb-17 | O&M Monitoring | 114 | 97 | | | | | |
| | | 114 | 100 | 55.3 | 1.0 | 98 | 1296 | 25.71 |
| | | 112 | 98 | | | | | |
| | | 112 | 96 | | | | | |
| 14-Feb-17 | O&M Monitoring ^{1/} | 116 | 97 | 438 | 1.0 | 100 | | |
| | | 116 | 98 | 473 | 0.8 | 100 | | |
| | | 116 | 99 | | | | | |
| | | 111 | 96 | 44.2 | 1.1 | 98 | | |
| 15-Feb-17 | O&M Monitoring ^{1/} | 116 | 97 | | | | | |
| | | 116 | 98 | | | | | |
| | | 110 | 94 | 51.5 | 1.5 | 97 | | |
| 16-Feb-17 | O&M Monitoring ^{1/} | 116 | 98 | | | | | |
| | | 112 | 100 | | | | | |

TABLE 12

**EQB CONSTRUCTION PERMIT DATA LOG
SVE PROGRESS REPORT NO. 6 - JANUARY TO MARCH 2017
PFIZER PHARMACEUTICALS LLC
BARCELONETA, PUERTO RICO**

| DATE | ACTIVITY DESCRIPTION | TEMPERATURE DAILY READINGS | | OVA DAILY READINGS | | CARBON EFFICIENCY <90% | INLET-1 FLOW RATE | |
|-----------|------------------------------|----------------------------|---------|--------------------|---------|---------------------------|-------------------|-------|
| | | EQB Permit Criteria: | 120 ° F | 140 ° F | INLET-1 | | OUTLET | AFPM |
| | | Carbon Entrance | OUTLET | INLET-1 | OUTLET | | | |
| 17-Feb-17 | O&M Monitoring ^{1/} | 108 | 96 | 55.0 | 0.4 | 99 | | |
| | | 117 | 98 | | | | | |
| | | 118 | 100 | | | | | |
| 20-Feb-17 | O&M Monitoring ^{1/} | 108 | 92 | 57.6 | 1.0 | 98 | 1461 | 29.48 |
| | | 116 | 100 | 56.6 | 1.4 | 98 | 1517 | 29.88 |
| 21-Feb-17 | Sampling | 98 | 92 | 53.1 | 0.8 | 98 | 1849 | 37.67 |
| | | 100 | 95 | | | | | |
| | | 112 | 97 | 53.8 | 0.8 | 99 | 1509 | 30.05 |
| 22-Feb-17 | OVA/Temp Monitoring | 114 | 96 | 36.7 | 1.2 | 97 | | |
| 23-Feb-17 | OVA/Temp Monitoring | 110 | 100 | 37.3 | 1.6 | 96 | | |
| 24-Feb-17 | OVA/Temp Monitoring | 119 | 101 | 53.9 | 1.4 | 97 | | |
| 27-Feb-17 | O&M Monitoring | 86 | 85 | | | | | |
| | | 109 | 94 | 67.8 | 1.6 | 98 | 1966 | 39.69 |
| | | 111 | 97 | 63.4 | 2.0 | 97 | 1445 | 28.96 |
| 28-Feb-17 | OVA/Temp Monitoring | 108 | 100 | 35.2 | 2.1 | 94 | | |
| 1-Mar-17 | OVA/Temp Monitoring | 110 | 96 | 35.8 | 2.4 | 93 | | |
| 2-Mar-17 | OVA/Temp Monitoring | 114 | 98 | 35.2 | 3.1 | 91 | | |
| 3-Mar-17 | OVA/Temp Monitoring | 116 | 100 | 47.1 | 2.9 | 94 | | |
| 6-Mar-17 | O&M Monitoring | 88 | 88 | 60.6 | 1.5 | 98 | 1869 | 38.65 |
| 7-Mar-17 | OVA/Temp Monitoring | 86 | 88 | 35.7 | 1.9 | 95 | | |
| 8-Mar-17 | OVA/Temp Monitoring | 106 | 90 | 36.8 | 2.7 | 93 | | |
| 9-Mar-17 | OVA/Temp Monitoring | 104 | 92 | 31.8 | 3.0 | 91 | | |
| 10-Mar-17 | OVA/Temp Monitoring | 110 | 94 | 52.0 | 3.0 | 94 | | |
| 13-Mar-17 | O&M Monitoring | 110 | 84 | 50.5 | 3.5 | 93 | 1229 | 24.52 |
| | | 114 | 95 | 50.6 | 3.6 | 93 | 1093 | 21.66 |
| 14-Mar-17 | OVA/Temp Monitoring | 110 | 98 | 33.1 | 3.1 | 91 | | |
| 15-Mar-17 | OVA/Temp Monitoring | 114 | 100 | 35.5 | 3.2 | 91 | | |
| 16-Mar-17 | OVA/Temp Monitoring | 114 | 100 | 39.4 | 3.4 | 91 | | |

TABLE 12

EQB CONSTRUCTION PERMIT DATA LOG
SVE PROGRESS REPORT NO. 6 - JANUARY TO MARCH 2017
PFIZER PHARMACEUTICALS LLC
BARCELONETA, PUERTO RICO

| DATE | ACTIVITY DESCRIPTION | TEMPERATURE DAILY READINGS | | OVA DAILY READINGS | | CARBON EFFICIENCY | INLET-1 FLOW RATE | |
|-----------------------------|----------------------|----------------------------|--------|--------------------|--------|-------------------|-------------------|---------|
| | | 120 °F | 140 °F | INLET-1 | OUTLET | | <90% | 117 |
| <i>EQB Permit Criteria:</i> | | Carbon Entrance | OUTLET | INLET-1 | OUTLET | | AFPM | (WSCFM) |
| 17-Mar-17 | OVA/Temp Monitoring | 112 | 97 | 47.3 | 3.7 | 92 | | |
| 20-Mar-17 | O&M Monitoring | 115 | 100 | 62.2 | 4.5 | 93 | 1124 | 22.21 |
| 21-Mar-17 | OVA/Temp Monitoring | 116 | 102 | 49.0 | 4.0 | 92 | | |
| 22-Mar-17 | OVA/Temp Monitoring | 96 | 96 | 32.2 | 4.1 | 87 | | |
| | | 90 | 90 | | | | | |
| 27-Mar-17 | O&M Monitoring | 108 | 96 | 47.1 | 0.0 | 100 | 2605 | 52.63 |
| | | 115 | 102 | 62.7 | 0.0 | 100 | 2522 | 49.82 |
| 28-Mar-17 | Sampling | 110 | 98 | | | | | |
| | | 112 | 100 | 57.7 | 0.0 | 100 | 1553 | 31.12 |
| | | 100 | 100 | | | | | |
| | | 100 | 99 | 51.8 | 0.3 | 99 | 1346 | 27.27 |
| 29-Mar-17 | OVA/Temp Monitoring | 112 | 100 | 32.4 | 0.2 | 99 | | |
| 30-Mar-17 | OVA/Temp Monitoring | 110 | 98 | 31.2 | 0.2 | 99 | | |
| 31-Mar-17 | OVA/Temp Monitoring | 112 | 100 | 61.7 | 0.9 | 99 | | |

Notes:

°F Degrees Farenheit.

WSCFM Wet Standard Cubic Feet per Minute

AFPM Actual Feet per Minute

Date System shutdown due to carbon efficiency <90% or carbon entrance or outlet temperature above criteria.

APPENDIX 1

PFIZER RAIN DATA

**SVE SYSTEM PROGRESS REPORT NO. 6
JANUARY TO MARCH 2017
PFIZER PHARMACEUTICALS LLC
BARCELONETA, PUERTO RICO**

ERTEC JOB NO. E175475

APPENDIX 1

PFIZER BARCELONETA SITE RAIN DATA

| Month | Rain (inches) |
|---------------|----------------------|
| January 2017 | 1.37 |
| February 2017 | 1.43 |
| March 2017 | 4.41 |

APPENDIX 2

COPY OF CHAIN OF CUSTODY

**SVE SYSTEM PROGRESS REPORT NO. 6
JANUARY TO MARCH 2017
PFIZER PHARMACEUTICALS LLC
BARCELONETA, PUERTO RICO**


ERTEC JOB NO. E175475

TestAmerica Burlington
30 Community Drive
Suite 11

South Burlington, VT 05403
phone 802-660-1990 fax 802-660-1919

Canister Samples Chain of Custody Record

TestAmerica Analytical Testing Corp. assumes no liability with respect to the collection and shipment of these samples.

| | | | | | | | | | | | | | | | | | |
|--|--|---|-------------------------|--|--|----------------------------------|----------------------------|--------------------|----------------------------|--------------------------------|-------------------------|--|------------------------|-------------------------|----------------------|--------------------------|---|
| Client Contact Information Company: ERTEL, PSC Address: Amar A-5 Rte Landon City/State/Zip: Ris Pichey PE 00921 Phone: 787 - 792-8902 FAX: (787) - 783 - 5555 Project Name: Plaza Barceloneta SUE Site: Barceloneta, PR PO # | | Project Manager: Wanda Morales Phone: (787) - 792 - 8902 Email: wmorales@ertelpr.com Site Contact: Wanda Morales TA Contact: Don Pawlicki Analysis Turnaround Time Standard (Specify) 14 days Rush (Specify) | | Samples Collected By: TNF/AC/RDI 1 of 1 COCs | | | | | | | | | | | | | |
| Sample Identification Inlet - 1-16 | Sample Date(s) 01/17 | Time Start 1055 | Time Stop --- | Canister Vacuum In Field, "Hg (Start) --- | Canister Vacuum In Field, "Hg (Stop) --- | Flow Controller ID --- | Canister ID 4997 | MA-APH X | EPA 3C METHANE X | EPA 25C Total VOCs X | ASTM D-1946 X | Other (Please specify in notes section) TO-15 VOCs | Indoor Air X | Ambient Air X | Soil Gas X | Landfill Gas X | Other (Please specify in notes section) |
| | <div style="text-align: center;">  200-37035 Chain of Custody </div> | | | | | | | | | | | | | | | | |
| Special Instructions/QC Requirements & Comments: | | | | | | | | | | | | | | | | | |
| Samples Shipped by: Robert De Jesus / ROR Date/Time: 01/17/17 @ 1600 Samples Relinquished by: Robert De Jesus Date/Time: 01/17/17 @ 1600 Relinquished by: Robert De Jesus Date/Time: 01/17/17 @ 1600 | | | | | | | | | | | | | | | | | |
| Relinquished by: _____ Date/Time: _____ Received by: Robert De Jesus Date/Time: 1/19/17 10:15 Received by: _____ Date/Time: _____ | | | | | | | | | | | | | | | | | |

Lab Use Only Shipper Name: **Robert De Jesus** Opened by: **Robert De Jesus** Condition: _____

TestAmerica Burlington
30 Community Drive
Suite 11

South Burlington, VT 05403
phone 802-660-1990 fax 802-660-1919

Canister Samples Chain of Custody Record

TestAmerica Analytical Testing Corp. assumes no liability with respect to the collection and shipment of these samples.

| Client Contact Information | | Project Manager: <i>Wanda Morales</i> | | Samples Collected By: <i>JWF/A/R/DJ</i> | | 1 of 1 COCs | |
|--|----------------------------------|---------------------------------------|-----------------------------|---|--------------------|-------------|--|
| Company: | <i>ETEEL, INC</i> | Phone: | <i>789-792-8902</i> | EPA 25C | <i>Total VOC's</i> | MA-APH | |
| Address: | <i>Amur St. A-3, Bob Landrau</i> | Email: | <i>wmorales@eteelpr.com</i> | EPA 3C | <i>RET HANE</i> | | |
| City/State/Zip: | <i>Rte Picard, VT 00921</i> | Site Contact: | <i>Wanda Morales</i> | TO-15 | <i>VOC's</i> | | |
| Phone: | <i>789-792-8902</i> | TA Contact: | <i>Don Dawidch</i> | Flow Controller ID | | | |
| FAX: | <i>789-792-5555</i> | Analysis Turnaround Time | | Canister ID | <i>5032</i> | | |
| Project Name: | <i>Pfizer Barcelona SUE</i> | Standard (Specify) | <i>14 days</i> | Time Start | | | |
| Site: | <i>Barcelona, PR</i> | Rush (Specify) | | Time Stop | | | |
| PO # | | Canister Vacuum in Field, "Hg (Start) | | Canister Vacuum in Field, "Hg (Stop) | | | |
| Sample Identification | <i>Outlet - 10</i> | Sample Date(s) | <i>01/17/17</i> | Temperature (Fahrenheit) | | | |
| | | | | Interior | <i>94</i> | | |
| | | | | Ambient | <i>98.2</i> | | |
| | | | | Pressure (Inches of Hg) | | | |
| | | | | Interior | <i>0</i> | | |
| | | | | Ambient | <i>29.80</i> | | |
| | | | | Start | | | |
| | | | | Stop | | | |
| Special Instructions/QC Requirements & Comments: | | | | | | | |
| Samples Shipped by: <i>Robert De Joux / Robert De Joux</i> Date/Time: <i>01/17/17 @ 1600</i> | | | | | | | |
| Samples Relinquished by: <i>Robert De Joux</i> Date/Time: <i>01/17/17 @ 1600</i> | | | | | | | |
| Relinquished by: <i>Robert De Joux</i> Date/Time: <i>1/19/17 1015</i> | | | | | | | |

Lab Use Only Shipper Name: *Wanda Morales* Opened by: *Wanda Morales* Condition: *Good*

TestAmerica Burlington
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Canister Samples Chain of Custody Record & TO-15 Field Test Data Sheet

TestAmerica Analytical Testing Corp. assumes no liability with respect to the collection and shipment of these samples.

| | | | | | | | |
|---|--|--|--|--|--|---|--|
| Client Contact Information | | Project Manager: Wanda Morales | | Carrier: FedEx | | 1 of 1 COCs | |
| Company: ERTEC TSC | | Phone: (887) 792-8902 | | Sampled By: Roberto De Jesus, Jose L. Rivera, Josue Maldonado | | Analysis Matrix | |
| Address: High St. At 5 Pto. Landrum | | E-mail: wmorales@ertecpr.com | | Flow Controller: --- | | Other (Please specify in notes section) | |
| City/State/Zip: RD Piedras Blancas, PR 00701 | | Site Contact: Wanda Morales | | Can Size: 6 | | Helium Prefill for High Methane (LFGAS) | |
| Phone: (787) 792-8802 | | TA Contact: DON VALLEJO | | Flow Reg. ID: --- | | Landfill Gas | |
| FAX: (787) 703-5535 | | Analysis Turnaround Time | | Can ID: 50946 | | Soil Gas | |
| Project Name: Barceloneta, PR | | Standard (Specify) <input checked="" type="checkbox"/> | | Flow Controller Readout (ml/min): --- | | Indoor/Ambient Air | |
| PO # | | Rush (Specify) | | Can Cert ID: --- | | Other (Please specify in notes section) | |
| Sample Identification | | Time Start (24 hr clock) | | Incoming Canister Pressure ("Hg) (Lab) | | ASTM D-1946 | |
| Inlet-1-16 | | 02/21/17 1030 | | Outgoing Canister Pressure ("Hg) (Lab) | | EPA 25C | |
| | | RAB 02/21/17 | | Interior Temp. (F) (Stop) | | EPA 3C | |
| | | | | Interior Temp. (F) (Start) | | NJDEP LL-TO-15 | |
| | | | | Canister Pressure In Field ("Hg) (Stop) | | TO-15 | |
| | | | | Canister Pressure In Field ("Hg) (Start) | | EPA 3C | |
| | | | | Time Stop (24 hr clock) | | EPA 25C | |
| | | | | Time Start (24 hr clock) | | NJDEP LL-TO-15 | |
| | | | | Temperature (Fahrenheit) | | TO-15 | |
| | | | | Maximum | | EPA 3C | |
| | | | | Minimum | | EPA 25C | |
| | | | | Pressure (inches of Hg) | | ASTM D-1946 | |
| | | | | Maximum | | EPA 3C | |
| | | | | Minimum | | EPA 25C | |
| | | | | Ambient | | NJDEP LL-TO-15 | |
| | | | | Start | | TO-15 | |
| | | | | Stop | | EPA 3C | |
| | | | | Ambient | | EPA 25C | |
| | | | | Start | | NJDEP LL-TO-15 | |
| | | | | Stop | | TO-15 | |
| | | | | Pressure (inches of Hg) | | EPA 3C | |
| | | | | Maximum | | EPA 25C | |
| | | | | Minimum | | ASTM D-1946 | |
| | | | | Ambient | | EPA 3C | |
| | | | | Start | | EPA 25C | |
| | | | | Stop | | NJDEP LL-TO-15 | |
| | | | | Temperature (Fahrenheit) | | TO-15 | |
| | | | | Maximum | | EPA 3C | |
| | | | | Minimum | | EPA 25C | |
| | | | | Pressure (inches of Hg) | | ASTM D-1946 | |
| | | | | Maximum | | EPA 3C | |
| | | | | Minimum | | EPA 25C | |
| | | | | Ambient | | NJDEP LL-TO-15 | |
| | | | | Start | | TO-15 | |
| | | | | Stop | | EPA 3C | |
| | | | | Temperature (Fahrenheit) | | EPA 25C | |
| | | | | Maximum | | NJDEP LL-TO-15 | |
| | | | | Minimum | | TO-15 | |
| | | | | Pressure (inches of Hg) | | EPA 3C | |
| | | | | Maximum | | EPA 25C | |
| | | | | Minimum | | ASTM D-1946 | |
| | | | | Ambient | | EPA 3C | |
| | | | | Start | | EPA 25C | |
| | | | | Stop | | NJDEP LL-TO-15 | |
| | | | | Temperature (Fahrenheit) | | TO-15 | |
| | | | | Maximum | | EPA 3C | |
| | | | | Minimum | | EPA 25C | |
| | | | | Pressure (inches of Hg) | | ASTM D-1946 | |
| | | | | Maximum | | EPA 3C | |
| | | | | Minimum | | EPA 25C | |
| | | | | Ambient | | NJDEP LL-TO-15 | |
| | | | | Start | | TO-15 | |
| | | | | Stop | | EPA 3C | |

Special Instructions/QC Requirements & Comments:

Canisters Shipped by: **Roberto De Jesus** Date/Time: **02/21/17 @ 1600**

Canisters Received by: **FedEx** Date/Time: **02/21/17 @ 1600**

Samples Relinquished by: **Roberto De Jesus** Date/Time: **02/21/17 @ 0935**

Relinquished by: **Roberto De Jesus** Date/Time: **02/21/17 @ 0935**

GC/MS Analyst Signature (TO-15): *[Signature]*

Lab Use Only: **Shipper Name: [Blank] Condition: [Blank]**

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Canister Samples Chain of Custody Record & TO-15 Field Test Data Sheet

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| Client Contact Information | | Project Manager: | | Carrier: | | 1 of 1 COCs | | | | | | | | | | | | | | | | | | | | | | |
|--|----------------|-------------------------------|-------------------------|--|--|--|---------------------------|---------------------------------------|---------------------------------------|--------------|--------|--------------|----------------------------------|-------------|-------|---------|--------|---------------|-------|---|-------------|---|--------------------|----------|--------------|--|--|--|
| Company: ERTEC, PSC | | Wanda Morales | | FedEx | | Analysis Matrix | | | | | | | | | | | | | | | | | | | | | | |
| Address: 45 Rte. 100, South Burlington, VT 05403 | | Phone: (802) 792-8902 | | Sampled By: Robert de Jesus, Jose L. Rivera, Josue Maldonado | | Other (Please specify in notes section) | | | | | | | | | | | | | | | | | | | | | | |
| City/State/Zip: South Burlington, VT 05403 | | E-mail: w.morales@ertecpr.com | | Site Contact: Wanda Morales | | Heilium Prefill for High Methane (LFGas) | | | | | | | | | | | | | | | | | | | | | | |
| Phone: (802) 792-8902 | | Site Contact: Wanda Morales | | TA Contact: Tom Pardo/KP | | Soil Gas | | | | | | | | | | | | | | | | | | | | | | |
| FAX: (802) 783-5555 | | Analysis Turnaround Time | | Standard (Specify) | | Indoor/Ambient Air | | | | | | | | | | | | | | | | | | | | | | |
| Project Name: Pizzeria Barceloneta, PR | | Standard (Specify) | | Rush (Specify) | | Other (Please specify in notes section) | | | | | | | | | | | | | | | | | | | | | | |
| Site: Barceloneta, PR | | Standard (Specify) | | Rush (Specify) | | ASTM D-1946 | | | | | | | | | | | | | | | | | | | | | | |
| PO # | | Standard (Specify) | | Rush (Specify) | | EPA 25C | | | | | | | | | | | | | | | | | | | | | | |
| | | Standard (Specify) | | Rush (Specify) | | EPA 3C | | | | | | | | | | | | | | | | | | | | | | |
| | | Standard (Specify) | | Rush (Specify) | | NDEP LL-TO-15 | | | | | | | | | | | | | | | | | | | | | | |
| | | Standard (Specify) | | Rush (Specify) | | TO-15 | | | | | | | | | | | | | | | | | | | | | | |
| Sample Identification | Sample Date(s) | Time Start (24 hr clock) | Time Stop (24 hr clock) | Canister Pressure In Field (Hg) (Start) | Canister Pressure In Field (Hg) (Stop) | Interior Temp. (F) (Start) | Interior Temp. (F) (Stop) | Incoming Canister Pressure (Hg) (Lab) | Outgoing Canister Pressure (Hg) (Lab) | Flow Reg. ID | Can ID | Can Size (L) | Flow Controller Readout (ml/min) | Can Cert ID | TO-15 | EPA 25C | EPA 3C | NDEP LL-TO-15 | TO-15 | Other (Please specify in notes section) | ASTM D-1946 | Other (Please specify in notes section) | Indoor/Ambient Air | Soil Gas | Landfill Gas | Heilium Prefill for High Methane (LFGas) | | |
| Inlet-2-16 | 02/21/17 | 1033 | 1033 | 108 | 108 | 108 | 108 | --- | --- | --- | 5122 | 6 | --- | --- | X | X | X | X | | | | | X | X | | | | |
| Inlet-7 | 02/21/17 | 1033 | 1033 | 108 | 108 | 108 | 108 | --- | --- | --- | 5675 | 6 | --- | --- | X | X | X | X | | | | | X | X | | | | |
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TestAmerica Burlington
 30 Community Drive
 Suite 11

South Burlington, VT 05403
 phone 802-660-1990 fax 802-660-1919

Canister Samples Chain of Custody Record

TestAmerica Analytical Testing Corp. assumes no liability with respect to the collection and shipment of these samples.

| Client Contact Information | | Project Manager: Wanda Morales | | Samples Collected By: Roberto de Jesus / ERTEC | | 1 of 1 COCs | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|------------|---|------------|--|---------------------------------------|--------------------------------------|--------------------|--------------------------------|-------|------------------|--------|------------------|-------------|---|-------------|------------|-------------|----------|--------------|---|----------|--|---------|------|-------|--------|------|--|----------|--|---------|------------|-------|-------|------|--|
| Company: ERTEC, PSC | | Phone: (787) 792-8902 | | Email: wmorales@ertec.pr.gm | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Address: St. AS Rpto. Landrum | | Site Contact: Wanda Morales | | TA Contact: Don Davenport | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| City/State/Zip: Rio Piedras, PR 00921 | | Phone: (787) 792-8902 | | Project Name: PAPER BAR COLONETA JVE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FAX: (787) 783-5555 | | Project Name: PAPER BAR COLONETA JVE | | Standard (Specify) <input checked="" type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Site: Bar Coloneta, PR | | Rush (Specify) | | Analysis Turnaround Time | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PO # | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 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 | TO-15 | MA-APH | FPA 3C | FPA 25C | ASTM D-1946 | Other (Please specify in notes section) | Sample Type | Indoor Air | Ambient Air | Soil Gas | Landfill Gas | Other (Please specify in notes section) | | | | | | | | | | | | | | | | |
| Inlet-1-17 | | 03/28/17 | 12:56 | | | | | 3248 | X | X | X | X | | | | | | X | | | | | | | | | | | | | | | | | | |
| 787 03/28/17 | | 03/28/17 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <div style="display: flex; justify-content: space-between; align-items: center;"> <div> <p>Temperature (Fahrenheit)</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>Interior</td><td></td></tr> <tr><td>Ambient</td><td>84°F</td></tr> <tr><td>Start</td><td>88.2°F</td></tr> <tr><td>Stop</td><td></td></tr> </table> </div> <div style="text-align: center;">  <p>200-37991 Chain of Custody</p> </div> <div> <p>Pressure (inches of Hg)</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>Interior</td><td></td></tr> <tr><td>Ambient</td><td>-1.7 in Hg</td></tr> <tr><td>Start</td><td>29.62</td></tr> <tr><td>Stop</td><td></td></tr> </table> </div> </div> | | | | | | | | | | | | | | | | | | | | | Interior | | Ambient | 84°F | Start | 88.2°F | Stop | | Interior | | Ambient | -1.7 in Hg | Start | 29.62 | Stop | |
| Interior | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ambient | 84°F | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Start | 88.2°F | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Stop | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Interior | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ambient | -1.7 in Hg | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Start | 29.62 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Stop | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Special Instructions/QC Requirements & Comments: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Samples Shipped by: Roberto de Jesus / ERTEC | | Date/Time: 03/28/17 @ 1930 | | Samples Received by: FedEx on 03/28/17 @ 1930 | | Received by: Don Davenport | | Date/Time: 3/29/17 1035 | | Shipper Name: | | Condition: | | | | | | | | | | | | | | | | | | | | | | | | |
| Samples Relinquished by: | | Date/Time: | | Relinquished by: | | Date/Time: | | Relinquished by: | | Date/Time: | | Relinquished by: | | | | | | | | | | | | | | | | | | | | | | | | |
| Lab Use Only | | Shipper Name: | | Condition: | | Opened by: | | Date/Time: | | Relinquished by: | | Date/Time: | | | | | | | | | | | | | | | | | | | | | | | | |

TestAmerica Burlington
 30 Community Drive
 Suite 11

South Burlington, VT 05403
 phone 802-660-1990 fax 802-660-1919

Canister Samples Chain of Custody Record

TestAmerica Analytical Testing Corp. assumes no liability with respect to the collection and shipment of these samples.

| Client Contact Information | | Project Manager: Wanda Morales | | Samples Collected By: Roberto | | 1 of 1 COCs | |
|---|--|--|---------------------------------------|---------------------------------------|--------------------------------------|--------------------|---|
| Company: ERTEC, PSC | Phone: (787) 792-8902 | Phone: (787) 792-8902 | Email: wmorales@ertecpr.com | DE RESULTS | | | |
| Address: ST. AS RTO. LANDRAU | City/State/Zip: RIO PIEDRAS, PR 00921 | Site Contact: Wanda Morales | TA Contact: Don Valle RLP | MA-APH | EPA 3C | EPA 25C | ASTM D-1946 |
| Phone: (787) 792-8902 | FAX: (787) 783-5555 | Project Name: Piiza Barceloneta SVE | Analysis Turnaround Time | TO-15 | Indoor Air | Ambient Air | Soil Gas |
| Site: Barceloneta, PR | Standard (Specify) <input checked="" type="checkbox"/> | Rush (Specify) | Canister Vacuum in Field, "Hg (Start) | Canister Vacuum in Field, "Hg (Stop) | Flow Controller ID | Canister ID | Other (Please specify in notes section) |
| PO # | | | Time Start | Time Stop | | | Landfill Gas |
| 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 |
| Inlet-2-17 | 03/28/17 | 1300 | --- | --- | --- | --- | 3221 |
| RFB | 03/28/17 | --- | --- | --- | --- | --- | --- |
| RFB | 03/28/17 | --- | --- | --- | --- | --- | --- |
| Temperature (Fahrenheit) | | | | | | | |
| Interior | Ambient | | | | | | |
| Start | 108°F | 88.4°F | | | | | |
| Stop | | | | | | | |
| Pressure (Inches of Hg) | | | | | | | |
| Interior | Ambient | | | | | | |
| Start | 0.274 (in psi) | 29.62 (inches of Hg) | | | | | |
| Stop | | 29.62 | | | | | |
| Special Instructions/QC Requirements & Comments: | | | | | | | |
| Samples Shipped by: Roberto Jesus / Roberto Jesus | | | | | | | |
| Date/Time: | | Date/Time: 03/28/17 @ 1930 | | | | | |
| Samples Relinquished by: | | Samples Received by: Roberto Jesus on 03/28/17 @ 1930 | | | | | |
| Date/Time: | | Date/Time: 03/29/17 1035 | | | | | |
| Relinquished by: | | Received by: Roberto Jesus | | | | | |

TestAmerica Burlington
30 Community Drive
Suite 11

South Burlington, VT 05403
phone 802-660-1990 fax 802-660-1919

Canister Samples Chain of Custody Record

TestAmerica Analytical Testing Corp. assumes no liability with respect to the collection and shipment of these samples.

| Client Contact Information | | Project Manager: Wanda Morales | | Samples Collected By: Roberto | | 1 of 1 COCs | |
|--|--|--|--|---------------------------------------|--|---|--|
| Company: ERTEC, PSC | | Phone: (707) 797-8902 | | EPA 25C | | Other (Please specify in notes section) | |
| Address: St. Asaph, Landrum, RR 00921 | | Email: wmorales@ertecpr.com | | EPA 3C | | Landfill Gas | |
| City/State/Zip: RR 00921, VT 05403 | | Site Contact: Wanda Morales | | MA-APH | | Soil Gas | |
| Phone: (707) 797-8902 | | TA Contact: Don Tapscott | | TO-15 | | Ambient Air | |
| FAX: (707) 793-5555 | | Analysis Turnaround Time | | Canister ID | | Indoor Air | |
| Project Name: Barceloneta SVE | | Standard (Specify) <input checked="" type="checkbox"/> | | Flow Controller ID | | Other (Please specify in notes section) | |
| Site: Barceloneta, VT. | | Rush (Specify) | | 2536 X | | ASTM D-1946 | |
| PO # | | Sample Date(s) | | Canister Vacuum in Field, "Hg (Start) | | Canister Vacuum in Field, "Hg (Stop) | |
| TB032817 | | Time Start | | Time Stop | | Flow Controller ID | |
| | | 03/28/17 | | 03/28/17 | | 2536 | |
| TB032817 | | Temperature (Fahrenheit) | | Canister Vacuum in Field, "Hg (Start) | | Canister Vacuum in Field, "Hg (Stop) | |
| | | Interior | | Ambient | | Flow Controller ID | |
| TB032817 | | Start | | Time Start | | Time Stop | |
| | | Stop | | 03/28/17 | | 03/28/17 | |
| TB032817 | | Pressure (inches of Hg) | | Canister Vacuum in Field, "Hg (Start) | | Canister Vacuum in Field, "Hg (Stop) | |
| | | Interior | | Ambient | | Flow Controller ID | |
| TB032817 | | Start | | Time Start | | Time Stop | |
| | | Stop | | 03/28/17 | | 03/28/17 | |
| TB032817 | | Temperature (Fahrenheit) | | Canister Vacuum in Field, "Hg (Start) | | Canister Vacuum in Field, "Hg (Stop) | |
| | | Interior | | Ambient | | Flow Controller ID | |
| TB032817 | | Start | | Time Start | | Time Stop | |
| | | Stop | | 03/28/17 | | 03/28/17 | |
| TB032817 | | Pressure (inches of Hg) | | Canister Vacuum in Field, "Hg (Start) | | Canister Vacuum in Field, "Hg (Stop) | |
| | | Interior | | Ambient | | Flow Controller ID | |
| TB032817 | | Start | | Time Start | | Time Stop | |
| | | Stop | | 03/28/17 | | 03/28/17 | |
| TB032817 | | Temperature (Fahrenheit) | | Canister Vacuum in Field, "Hg (Start) | | Canister Vacuum in Field, "Hg (Stop) | |
| | | Interior | | Ambient | | Flow Controller ID | |
| TB032817 | | Start | | Time Start | | Time Stop | |
| | | Stop | | 03/28/17 | | 03/28/17 | |
| TB032817 | | Pressure (inches of Hg) | | Canister Vacuum in Field, "Hg (Start) | | Canister Vacuum in Field, "Hg (Stop) | |
| | | Interior | | Ambient | | Flow Controller ID | |
| TB032817 | | Start | | Time Start | | Time Stop | |
| | | Stop | | 03/28/17 | | 03/28/17 | |

Special Instructions/QC Requirements & Comments: **Other: Trip Blank 03/28/17**

Samples Shipped by: **Roberto de Jesus / Roberto de Jesus** Date/Time: **03/28/17 @ 1930**
 Samples Relinquished by: **Roberto de Jesus** Date/Time: **03/28/17 @ 1930**
 Relinquished by: _____ Date/Time: _____
 Received by: **Roberto de Jesus** Date/Time: **03/28/17 @ 1930**
 Received by: _____ Date/Time: _____

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.; Phoenix Laboratory - 4625 E. Cotton Center Blvd., Suite 189, Phoenix, AZ 85040 602.437.3340 Fax 602.454.9303
www.testamericainc.com or Call 1.866.772.5227

Company: ERTEC, PSC Page 1 of 1 Lab Number: 79967

Contact Name: Wanda Morales Sampler Name and Phone Number: Roberto de Jesus - (787) 792-8902

E-Mail Address: wmorales@ertecpr.com (787) 792-8902 Project Name: RTOR Barcelona JVE

Address: Aux St. 45 Rpto. Landrum Project Number: 175475

City, State, Zip: 20 Piedras, PR 00921 P.O. Number: _____ Data Package: _____

Send Report To: Wanda Morales (787) 792-8902 Hardcopy Results: Y N N Standard Level II: _____

E-Mail Address: wmorales@ertecpr.com E-Mail Results: (Y) N N Level III: _____

Send Invoice To: _____ Phone: _____ EDD: Y N N Level IV: ✓

E-Mail Address: _____

Temperature _____ °C ON IR

Sample Seals Intact: Yes _____ No _____

Sample Seals Intact: Yes _____ No _____

Total # of Samples: _____

Turn Around Request

Same Day _____ 3 Business Days _____

1 Business Day _____ 4 Business Days _____

2 Business Days _____ 5 Business Days (Standard) _____

Rushes are subject to availability. (Surcharges apply)

| Sample Information | | | | | | | | | | | | |
|---------------------------|---|----------------|---------------------------|-----------------------------------|-----------------|------------|-----------|------------------------------------|-----------------------|-------------------|---------------------------|--------------------------|
| Lab # (Internal Use Only) | Media Type: Filter, Passive Badge, Tube or Wipe | Pump ID Number | Flow Rate (Liters/minute) | Sample Identification Name/Number | Collection Date | Start Time | Stop Time | Total Minutes Sampled (Badge Only) | Total Volume (Liters) | Area Wiped In cm2 | Sampling Temperature (°C) | Sampling Pressure (mmHg) |
| -01 | Tube | A093608 | 0.2 | Inlet-1-14 | 032817 | 1315 | 1373 | 8 | 1.6 | | | X |
| -02 | Tube | A093608 | 0.2 | Inlet-2-14 | 032817 | 1331 | 1339 | 8 | 1.6 | | | X |
| -03 | Tube | A093608 | 0.2 | Outlet-14 | 032817 | 1350 | 1358 | 8 | 1.6 | | | X |
| -04 | Tube | A093608 | 0.2 | Outlet-Q | 032817 | 1350 | 1358 | 8 | 1.6 | | | X |



Analysis Method(s)/Analyte(s): Methanol (MIST 2000)

Received By: Roberto de Jesus / Kallan Date: 03/28/17 Time: 19:30

Instructions / Special Requirements: _____

APPENDIX 3

DATA VALIDATION REPORTS

**SVE SYSTEM PROGRESS REPORT NO. 6
JANUARY TO MARCH 2017
PFIZER PHARMACEUTICALS LLC
BARCELONETA, PUERTO RICO**

ERTEC JOB NO. E175475



Eden Environmental, LLC

March 6, 2017

Ms. Wanda Morales
ERTEC
Amur St. A - #5
Reparto Landrau
Rio Piedras, PR 00921

RE: Data Validation Report for the SVE TO-15 Air Monitoring of the Pfizer Barceloneta Site

Dear Wanda,

Enclosed is the validation report for selected volatile organic compounds in the air samples collected on January 17, 2017, from the Pfizer Barceloneta Site. The following samples were submitted to TestAmerica in Burlington, Vermont and were assigned to Sample Delivery Group (SDG) 200-37035.

| | | | | |
|------------|------------|---------|-----------|-----------|
| Inlet 1-16 | Inlet-2-16 | Inlet-P | Outlet-16 | TB-011717 |
|------------|------------|---------|-----------|-----------|

The laboratory performed well, but some qualifications of sample results were necessary. See Section XIV. The data package was received for validation on February 17, 2017.

All "E" and "D" qualifiers applied by the laboratory to indicate concentrations that exceeded the calibration range or the instrument and results from a more diluted analysis, respectively, were removed by the validator.

The "J" qualifiers applied by the laboratory to indicate estimated concentrations between the method detection limit (MDL) and the reporting limit (RL), were not removed by the validator unless they were superseded by a qualifier resulting from the validation effort.

All samples were analyzed for acetone, isopropyl alcohol, methylene chloride, n-hexane, chloroform, tetrahydrofuran, benzene, toluene, chlorobenzene, ethylbenzene, m,p-xylenes, and o-xylene in conformance with the specifications of USEPA Compendium Method TO-15. In addition, methyl iodide was included in a library search as a tentatively identified compound (TIC) because this compound was not included in any of the calibration standards. The validation effort was restricted to the reported results and supporting data for these compounds.



Eden Environmental, LLC

Ms. Wanda Morales
March 6, 2017
Page 2 of 2

Results were also reported for total xylenes. The laboratory-reported concentrations for total xylenes were obtained by adding the concentrations for m,p-xylenes and o-xylene.

Data validation was performed in conformance with the specifications of the EPA Region II Standard Operating Procedure (Analysis of Volatile Organic Compounds in Air Contained in Canisters by Method TO-15," SOP HW-31 Revision 6, June, 2014). When necessary, professional judgment was applied and appropriately noted in the applicable section of the attached report. The validation effort for these data has the label Stage 4 Validation Manual (S4VM).

Anomalies detected during the validation effort (if any) are included in the appropriate section of the attached report. The Laboratory Analytical Data Forms with all qualifiers resulting from the validation effort (if any were necessary) are included in Attachment A. The EPA Region II qualifiers and their definitions are included in Attachment B.

If you have any questions regarding this report, please give me a call at 225-355-0163 or contact me by e-mail at engrid@eden-env.com

Kindest regards,

Engrid S. Carpenter
President



Eden Environmental, LLC

ANALYTICAL DATA VALIDATION

ERTEC JOB DESCRIPTION – PFIZER BARCELONETA – SVE

ERTEC JOB NUMBER: 16-5440

ORGANIC ANALYSIS DATA

**Prepared by: TestAmerica Laboratory, Burlington Vermont
Sample Delivery Group: 200-37035
Selected Volatile Organic Compounds in Air Samples**

VALIDATION REPORT

**Prepared by: Eden Environmental, LLC
Eden Project Number 13104**

Date: March 6, 2017

**13104/ESC/CEW
200-37035-TO-15**



Eden Environmental, LLC

INTRODUCTION

Enclosed is the validation report for selected volatile organic compounds in the air samples collected on January 17, 2017, from the Pfizer Barceloneta Site. The following samples were submitted to TestAmerica in Burlington, Vermont and were assigned to Sample Delivery Group (SDG) 200-37035.

| | | | | |
|------------|------------|---------|-----------|-----------|
| Inlet 1-16 | Inlet-2-16 | Inlet-P | Outlet-16 | TB-011717 |
|------------|------------|---------|-----------|-----------|

The laboratory performed well, but some qualifications of sample results were necessary. See Section XIV. The data package was received for validation on February 17, 2017.

All “E” and “D” qualifiers applied by the laboratory to indicate concentrations that exceeded the calibration range or the instrument and results from a more diluted analysis, respectively, were removed by the validator.

The “J” qualifiers applied by the laboratory to indicate estimated concentrations between the method detection limit (MDL) and the reporting limit (RL), were not removed by the validator unless they were superseded by a qualifier resulting from the validation effort.

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Results were also reported for total xylenes. The laboratory-reported concentrations for total xylenes were obtained by adding the concentrations for m,p-xylenes and o-xylene.

Data validation was performed in conformance with the specifications of the EPA Region II Standard Operating Procedure (Analysis of Volatile Organic Compounds in Air Contained in Canisters by Method TO-15,” SOP HW-31 Revision 6, June, 2014). When necessary, professional judgment was applied and appropriately noted in the applicable section of the attached report. The validation effort for these data has the label Stage 4 Validation Manual (S4VM).



Eden Environmental, LLC

Anomalies detected during the validation effort (if any) are included in the appropriate section of the attached report. The Laboratory Analytical Data Forms with all qualifiers resulting from the validation effort (if any were necessary) are included in Attachment A. The EPA Region II qualifiers and their definitions are included in Attachment B.



Eden Environmental, LLC

I. Holding Times, Preservation, and Sample Integrity

All TO-15 analyses were performed within holding time. A copy of the Laboratory Login Sample Receipt Checklist noted that all site samples were received in good condition and custody seals were intact. Copies of the chain of custody records were also present in the data package and included all samples in this data set. No physical preservation requirements are specified for Summa® canisters.

II. GC/MS Instrument Performance Checks

Results were reported for four bromofluorobenzene (BFB) instrument performance checks. Requirements for all instrument performance checks were met.

III. Calibration

These samples were analyzed on two single gas chromatography/mass spectrometry (GC/MS) systems identified as "CHC" and "CHW." Manual integrations were performed on the peak areas for benzene in the 0.2 and 0.5 parts per billion volume to volume (ppb v/v) initial calibration standards analyzed on CHC. Documentation of these integrations were included in the data package and confirming they were properly performed and correctly incorporated into the associated quantitation reports. No evidence was presented in the data package to indicate that any other manual integrations were performed on any of the project-specified target compounds or on any of the internal standards in any of the calibration standards.

A. Initial Calibration (IC) and Initial Calibration Verification (ICV)

ICs were established on January 24, 2017, on instrument CHC and on November 15, 2016, on instrument CHW. An ICV was analyzed following each IC. EPA Region II-specified acceptance criteria were met for all standards.

B. Continuing Verification (CV)

Documentation of two CV standards (one on each instrument) associated with the reported samples was present in the data package. All EPA Region II-specified acceptance criteria were met for these standards.

IV. Blanks

A laboratory blank was analyzed in each analytical sequence containing the site samples. No project-specified target analytes were detected above the method detection limit (MDL) in either laboratory blank.



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A trip blank (TB-111717) was submitted with the samples in this data set. The following project-specified target compounds were reported at estimated concentrations below the reporting limit in TB-111717:

| <u>Compound</u> | <u>ppb v/v</u> |
|-------------------|----------------|
| Isopropyl alcohol | 0.15 |
| Toluene | 0.058 |
| Ethylbenzene | 0.091 |
| m,p-Xylenes | 0.10 |

Based on contamination in the associated trip blank, results for isopropyl alcohol in the less diluted analysis of Inlet-1-16, in Inlet-2-16, and Inlet-P were qualified as less than the sample-specific reporting limit (U). Results for isopropyl alcohol and the remaining compounds noted above were either not detected or were greater than the action level for qualification based on blank contamination and no further action was required. No other project-specified target analytes required qualification based on trip blank contamination.

V. Surrogate Recoveries

The use of a surrogate compound is not addressed in Method TO-15. A surrogate compound was not employed in the analyses of these samples.

VI. Laboratory Check Standard (Audit Accuracy Standard)

A 10 ppbv laboratory check standard (identified as LCS) was analyzed in each analytical sequence containing the reported samples. Each LCS was spiked with all project-specified target analytes. All recoveries of the target analytes were within the laboratory-established analyte-specific quality control limits as included on the summary forms.

VII. Laboratory Replicate Analyses

A laboratory replicate analysis was not reported in this data package.

VIII. Field Duplicates

Collection of true field duplicates is not feasible for air samples; therefore, a better description of these quality control samples would be co-located samples. The validation guidance document does not provide an acceptance criterion for RPDs between reported concentrations in "field duplicate" samples. For this validation effort, a maximum acceptance limit of 100 RPD was used to define acceptable agreement between reported concentrations greater than the RL and \pm RL for



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concentrations below the RL in the co-located samples. Results with RPD values greater than 100 RPD should be used with caution as the concentration and source of these compounds in the reported samples is uncertain.

Inlet-P was collected as a co-located sample of Inlet 2-16. Acceptable reproducibility between positively paired results was achieved for tetrahydrofuran, benzene, toluene, ethylbenzene, m,p-xylenes, and o-xylene. Results for isopropyl alcohol in these samples were previously qualified based on blank contamination and the remaining project-specified target analytes were not detected in either of these samples; therefore, no further quantitative evaluation of precision could be made from these data.

IX. Internal Standard Performance

The validator confirmed that the areas and retention times of all three internal standards were within the method-specified acceptance limits for the reported site and quality control analyses.

X. Target Compound Identification

When detected, the target analyte was correctly identified with acceptable supporting mass spectral data present in the data package.

XI. Compound Quantitation and Reporting Limits (RLs)

Unadjusted RLs were equal to the low concentration standard used to establish the IC for the project-specified target compounds and are supported by the reported data. All sample results were correctly calculated and accurately reported, including adjustments for dilutions where necessary.

Inlet 1-16 was reanalyzed at a dilution necessary to obtain a reliable result for tetrahydrofuran. The concentration for tetrahydrofuran only was taken from the more diluted analysis of Inlet 1-16. The Form I for the less diluted analyses of Inlet 1-16 was "hybridized" by the validator to reflect the results recommended for use from both analyses of this sample. The Form I from the more diluted analysis of this sample has been marked "Do Not Use" for clarity.

All "E" and "D" qualifiers applied by the laboratory to indicate concentrations that exceeded the calibration range or the instrument and results from a more diluted analysis, respectively, were removed by the validator.



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XII. Tentatively Identified Compounds (TICs)

Since methyl iodide was not included in any of the calibration standards, a library search was performed for this compound. Methyl iodide was not detected in any of the samples in this SDG. The Form I TIC represents not detected for methyl iodide only.

XIII. Documentation

Chain of custody records were provided in the data package and included all samples in this data set. The following observations were noted:

The samples were shipped by FedEx on the date of collection (01/17/17) but were not received by the laboratory until 01/19/17. A reason for the delayed arrival at the laboratory was not provided.

All laboratory “received by” signatures are illegible.

The laboratory-generated Login Sample Receipt Checklist indicated custody seals were used and were intact upon laboratory receipt.

A copy of the FedEx airbill was included in the data package to document the transfer of the samples from the field to the laboratory.

The laboratory sample identifications were not in the same format of those used on the chain of custody records. The validator used the identifications as presented on the chain of custody records throughout this report.

The Laboratory Analytical Data Forms also include a column identified as MDL. Unadjusted MDLs for the target compounds are not supported by the data as received. Therefore, it is recommended that the RLs rather than the MDLs be used as the lowest supported limit of detection.

XIV. Overall Assessment

Based on the findings of the validation effort, the sample results were qualified as follows:

- Based on contamination in the associated trip blank, results for isopropyl alcohol in the less diluted analysis of Inlet-1-16, in Inlet-2-16, and Inlet-P were qualified as less than the sample-specific reporting limit (U).
- The concentration of tetrahydrofuran in the less diluted analyses of Inlet 1-16 exceeded the calibration range of the instrument and was qualified as estimated (J) on this basis.



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Inlet 1-16 was reanalyzed at a dilution necessary to obtain a reliable result for tetrahydrofuran. The concentration for tetrahydrofuran only was taken from the more diluted analysis of Inlet 1-16. The Form I for the less diluted analyses of Inlet 1-16 was “hybridized” by the validator to reflect the results recommended for use from both analyses of this sample. The Form I from the more diluted analysis of this sample has been marked “Do Not Use” for clarity.

All “E” and “D” qualifiers applied by the laboratory to indicate concentrations that exceeded the calibration range or the instrument and results from a more diluted analysis, respectively, were removed by the validator.

The “J” qualifiers applied by the laboratory to indicate estimated concentrations between the MDL and the RL were not removed by the validator unless they were superseded by a qualification resulting from the validation effort.

This validation effort is based on the data as provided by the laboratory. Software manipulation cannot be routinely detected during validation and is outside the scope of this review.

This validation report should be added to the data package for all future distributions of the TO-15 data reported in SDG 200-37035.



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ATTACHMENT A
LABORATORY ANALYTICAL DATA FORMS

Analytical Data

Client: Ertec

Job Number: 200-37035-1
Sdg Number: 200-37035-1

Client Sample ID: ~~INLET-146~~ Inlet-1-16 *see*
03/06/17

Lab Sample ID: 200-37035-1
Client Matrix: Air

Date Sampled: 01/17/2017 1055
Date Received: 01/19/2017 1015

TO-15 Volatile Organic Compounds in Ambient Air

Analysis Method: TO-15 Analysis Batch: 200-113644 Instrument ID: CHC.i
Prep Method: Summa Canister Prep Batch: N/A Lab File ID: 23705_16.D
Dilution: 388, ~~3880~~ *see* *03/06/17* Initial Weight/Volume: 200 mL
Analysis Date: 01/30/2017 2206 Final Weight/Volume: 200 mL
Prep Date: 01/30/2017 2206 Injection Volume: 200 mL

| Analyte | Result (ppb v/v) | Qualifier | MDL | RL |
|--------------------|-------------------------|-----------------------|---------------------|-----------------------|
| Acetone | 700 | J | 500 | 1900 |
| Isopropyl alcohol | 140 1900 | U <i>U</i> | 50 | 1900 |
| Methylene Chloride | 190 | U | 26 | 190 |
| n-Hexane | 78 | U | 18 | 78 |
| Chloroform | 36 | J | 9.7 | 78 |
| Tetrahydrofuran | 77000 70,000 | E | 470 4700 | 1900 19000 |
| Benzene | 1900 | | 11 | 78 |
| Toluene | 12000 | | 14 | 78 |
| Chlorobenzene | 78 | U | 9.7 | 78 |
| Ethylbenzene | 3600 | | 13 | 78 |
| m,p-Xylene | 17000 | | 30 | 190 |
| Xylene, o- | 2300 | | 16 | 78 |
| Xylene (total) | 19000 | | 16 | 270 |

| Analyte | Result (ug/m3) | Qualifier | MDL | RL |
|--------------------|---------------------------|-----------------------|------------------------|------------------------|
| Acetone | 1700 | J | 1200 | 4600 |
| Isopropyl alcohol | 260 4800 | U <i>U</i> | 120 | 4800 |
| Methylene Chloride | 670 | U | 92 | 670 |
| n-Hexane | 270 | U | 63 | 270 |
| Chloroform | 170 | J | 47 | 380 |
| Tetrahydrofuran | 230000 210,000 | E | 1400 14,000 | 5700 57,000 |
| Benzene | 6100 | | 35 | 250 |
| Toluene | 46000 | | 51 | 290 |
| Chlorobenzene | 360 | U | 45 | 360 |
| Ethylbenzene | 16000 | | 57 | 340 |
| m,p-Xylene | 72000 | | 130 | 840 |
| Xylene, o- | 10000 | | 67 | 340 |
| Xylene (total) | 84000 | | 67 | 1200 |

03/06/17

Analytical Data

Client: Ertec

Job Number: 200-37035-1

Sdg Number: 200-37035-1

Client Sample ID: ~~INLET-4-16~~ Inlet -1-16 in 03/06/17

Lab Sample ID: 200-37035-1

Date Sampled: 01/17/2017 1055

Client Matrix: Air

Date Received: 01/19/2017 1015

TO-15 Volatile Organic Compounds in Ambient Air

| | | | | | |
|------------------|-----------------|-----------------|------------|------------------------|------------|
| Analysis Method: | TO-15 | Analysis Batch: | 200-113644 | Instrument ID: | CHC.i |
| Prep Method: | Summa Canister | Prep Batch: | N/A | Lab File ID: | 23705_16.D |
| Dilution: | 388 | | | Initial Weight/Volume: | 200 mL |
| Analysis Date: | 01/30/2017 2206 | | | Final Weight/Volume: | 200 mL |
| Prep Date: | 01/30/2017 2206 | | | Injection Volume: | 200 mL |

Tentatively Identified Compounds **Number TIC's Found: 0**

| Cas Number | Analyte | RT | Est. Result (ppb v/v) | Qualifier |
|------------|---------------------------------|----|-----------------------|-----------|
| | Tentatively Identified Compound | | None | |

Analytical Data

Client: Ertec

Job Number: 200-37035-1

Sdg Number: 200-37035-1

Client Sample ID: ~~INLET-1-16~~ Inlet-1-16 DL
see 03/06/17

Lab Sample ID: 200-37035-1

Date Sampled: 01/17/2017 1055

Client Matrix: Air

Date Received: 01/19/2017 1015

TO-15 Volatile Organic Compounds in Ambient Air

| | | | | | |
|------------------|-----------------|-----------------|------------|------------------------|------------|
| Analysis Method: | TO-15 | Analysis Batch: | 200-113644 | Instrument ID: | CHC.i |
| Prep Method: | Summa Canister | Prep Batch: | N/A | Lab File ID: | 23705_17.D |
| Dilution: | 3880 | | | Initial Weight/Volume: | 20 mL |
| Analysis Date: | 01/30/2017 2259 | Run Type: | DL | Final Weight/Volume: | 200 mL |
| Prep Date: | 01/30/2017 2259 | | | Injection Volume: | 200 mL |

| Analyte | Result (ppb v/v) | Qualifier | MDL | RL |
|--------------------|------------------|--------------|------|-------|
| Acetone | 19000 | U | 5000 | 19000 |
| Isopropyl alcohol | 19000 | U | 500 | 19000 |
| Methylene Chloride | 1900 | U | 260 | 1900 |
| n-Hexane | 780 | U | 180 | 780 |
| Chloroform | 780 | U | 97 | 780 |
| Tetrahydrofuran | 70000 | U | 4700 | 19000 |
| Benzene | 1800 | U | 110 | 780 |
| Toluene | 11000 | U | 140 | 780 |
| Chlorobenzene | 780 | U | 97 | 780 |
| Ethylbenzene | 3200 | U | 130 | 780 |
| m,p-Xylene | 13000 | U | 300 | 1900 |
| Xylene, o- | 2000 | U | 160 | 780 |
| Xylene (total) | 15000 | U | 160 | 2700 |

| Analyte | Result (ug/m3) | Qualifier | MDL | RL |
|--------------------|----------------|--------------|-------|-------|
| Acetone | 46000 | U | 12000 | 46000 |
| Isopropyl alcohol | 48000 | U | 1200 | 48000 |
| Methylene Chloride | 6700 | U | 920 | 6700 |
| n-Hexane | 2700 | U | 630 | 2700 |
| Chloroform | 3800 | U | 470 | 3800 |
| Tetrahydrofuran | 210000 | U | 14000 | 57000 |
| Benzene | 5600 | U | 350 | 2500 |
| Toluene | 40000 | U | 510 | 2900 |
| Chlorobenzene | 3600 | U | 450 | 3600 |
| Ethylbenzene | 14000 | U | 570 | 3400 |
| m,p-Xylene | 59000 | U | 1300 | 8400 |
| Xylene, o- | 8800 | U | 670 | 3400 |
| Xylene (total) | 65000 | U | 670 | 12000 |

Do Not Use

see 03/06/17

Analytical Data

Client: Ertec

Job Number: 200-37035-1

Sdg Number: 200-37035-1

Client Sample ID: ~~INLET-1-16~~

Inlet - 1-16 DL see 03/06/16

Lab Sample ID: 200-37035-1

Date Sampled: 01/17/2017 1055

Client Matrix: Air

Date Received: 01/19/2017 1015

TO-15 Volatile Organic Compounds in Ambient Air

| | | | | | |
|------------------|-----------------|-----------------|------------|------------------------|------------|
| Analysis Method: | TO-15 | Analysis Batch: | 200-113644 | Instrument ID: | CHC.i |
| Prep Method: | Summa Canister | Prep Batch: | N/A | Lab File ID: | 23705_17.D |
| Dilution: | 3880 | | | Initial Weight/Volume: | 20 mL |
| Analysis Date: | 01/30/2017 2259 | Run Type: | DL | Final Weight/Volume: | 200 mL |
| Prep Date: | 01/30/2017 2259 | | | Injection Volume: | 200 mL |

Tentatively Identified Compounds

Number TIC's Found: 0

| Cas Number | Analyte | RT | Est. Result (ppb v/v) | Qualifier |
|------------|---------------------------------|----|-----------------------|-----------|
| | Tentatively Identified Compound | | None | |

Do Not Use see 03/06/17

Analytical Data

Client: Ertec

Job Number: 200-37035-1

Sdg Number: 200-37035-1

Client Sample ID: ~~INLET-2-10~~ Inlet-2-16 use 03/06/17

Lab Sample ID: 200-37035-2

Date Sampled: 01/17/2017 1059

Client Matrix: Air

Date Received: 01/19/2017 1015

TO-15 Volatile Organic Compounds in Ambient Air

| | | | |
|--------------------------------|----------------------------|------------------------------|--|
| Analysis Method: TO-15 | Analysis Batch: 200-113625 | Instrument ID: CHW.i | |
| Prep Method: Summa Canister | Prep Batch: N/A | Lab File ID: 23692_15.d | |
| Dilution: 787 | | Initial Weight/Volume: 16 mL | |
| Analysis Date: 01/28/2017 0100 | | Final Weight/Volume: 200 mL | |
| Prep Date: 01/28/2017 0100 | | Injection Volume: 200 mL | |

| Analyte | Result (ppb v/v) | Qualifier | MDL | RL |
|--------------------|---------------------|-----------|------|------|
| Acetone | 3900 | U | 1000 | 3900 |
| Isopropyl alcohol | 190 3900 | + U | 100 | 3900 |
| Methylene Chloride | 390 | U | 54 | 390 |
| n-Hexane | 160 | U | 36 | 160 |
| Chloroform | 160 | U | 20 | 160 |
| Tetrahydrofuran | 13000 | | 940 | 3900 |
| Benzene | 360 | | 22 | 160 |
| Toluene | 2200 | | 28 | 160 |
| Chlorobenzene | 160 | U | 20 | 160 |
| Ethylbenzene | 690 | | 27 | 160 |
| m,p-Xylene | 3200 | | 61 | 390 |
| Xylene, o- | 450 | | 31 | 160 |
| Xylene (total) | 3700 | | 31 | 550 |

| Analyte | Result (ug/m3) | Qualifier | MDL | RL |
|--------------------|---------------------|-----------|------|-------|
| Acetone | 9300 | U | 2400 | 9300 |
| Isopropyl alcohol | 460 9700 | + U | 250 | 9700 |
| Methylene Chloride | 1400 | U | 190 | 1400 |
| n-Hexane | 550 | U | 130 | 550 |
| Chloroform | 770 | U | 96 | 770 |
| Tetrahydrofuran | 38000 | | 2800 | 12000 |
| Benzene | 1100 | | 70 | 500 |
| Toluene | 8300 | | 100 | 590 |
| Chlorobenzene | 720 | U | 91 | 720 |
| Ethylbenzene | 3000 | | 120 | 680 |
| m,p-Xylene | 14000 | | 260 | 1700 |
| Xylene, o- | 2000 | | 140 | 680 |
| Xylene (total) | 16000 | | 140 | 2400 |

use 03/06/17

Analytical Data

Client: Ertec

Job Number: 200-37035-1

Sdg Number: 200-37035-1

Client Sample ID: ~~INLET-2-16~~

Inlet-2-16 use 03/06/17

Lab Sample ID: 200-37035-2

Date Sampled: 01/17/2017 1059

Client Matrix: Air

Date Received: 01/19/2017 1015

TO-15 Volatile Organic Compounds in Ambient Air

| | | | | | |
|------------------|-----------------|-----------------|------------|------------------------|------------|
| Analysis Method: | TO-15 | Analysis Batch: | 200-113625 | Instrument ID: | CHW.i |
| Prep Method: | Summa Canister | Prep Batch: | N/A | Lab File ID: | 23692_15.d |
| Dilution: | 787 | | | Initial Weight/Volume: | 16 mL |
| Analysis Date: | 01/28/2017 0100 | | | Final Weight/Volume: | 200 mL |
| Prep Date: | 01/28/2017 0100 | | | Injection Volume: | 200 mL |

Tentatively Identified Compounds

Number TIC's Found: 0

| Cas Number | Analyte | RT | Est. Result (ppb v/v) | Qualifier |
|------------|---------------------------------|----|-----------------------|-----------|
| | Tentatively Identified Compound | | None | |

Analytical Data

Client: Ertec

Job Number: 200-37035-1
Sdg Number: 200-37035-1

Client Sample ID: ~~INLET-P~~ Inlet-P use 03/06/17

Lab Sample ID: 200-37035-3
Client Matrix: Air

Date Sampled: 01/17/2017 1059
Date Received: 01/19/2017 1015

TO-15 Volatile Organic Compounds in Ambient Air

| | | | | | |
|------------------|-----------------|-----------------|------------|------------------------|------------|
| Analysis Method: | TO-15 | Analysis Batch: | 200-113625 | Instrument ID: | CHW.i |
| Prep Method: | Summa Canister | Prep Batch: | N/A | Lab File ID: | 23692_17.d |
| Dilution: | 900 | | | Initial Weight/Volume: | 15 mL |
| Analysis Date: | 01/28/2017 0239 | | | Final Weight/Volume: | 200 mL |
| Prep Date: | 01/28/2017 0239 | | | Injection Volume: | 200 mL |

| Analyte | Result (ppb v/v) | Qualifier | MDL | RL |
|--------------------|---------------------|-----------|------|------|
| Acetone | 4500 | U | 1200 | 4500 |
| Isopropyl alcohol | 220 4500 | + U | 120 | 4500 |
| Methylene Chloride | 450 | U | 61 | 450 |
| n-Hexane | 180 | U | 41 | 180 |
| Chloroform | 180 | U | 23 | 180 |
| Tetrahydrofuran | 14000 | | 1100 | 4500 |
| Benzene | 380 | | 25 | 180 |
| Toluene | 2400 | | 32 | 180 |
| Chlorobenzene | 180 | U | 23 | 180 |
| Ethylbenzene | 730 | | 31 | 180 |
| m,p-Xylene | 3400 | | 69 | 450 |
| Xylene, o- | 480 | | 36 | 180 |
| Xylene (total) | 3900 | | 36 | 630 |

| Analyte | Result (ug/m3) | Qualifier | MDL | RL |
|--------------------|----------------------|-----------|------|-------|
| Acetone | 11000 | U | 2800 | 11000 |
| Isopropyl alcohol | 590 11000 | + U | 290 | 11000 |
| Methylene Chloride | 1600 | U | 210 | 1600 |
| n-Hexane | 630 | U | 150 | 630 |
| Chloroform | 880 | U | 110 | 880 |
| Tetrahydrofuran | 43000 | | 3200 | 13000 |
| Benzene | 1200 | | 81 | 580 |
| Toluene | 8900 | | 120 | 680 |
| Chlorobenzene | 830 | U | 100 | 830 |
| Ethylbenzene | 3200 | | 130 | 780 |
| m,p-Xylene | 15000 | | 300 | 2000 |
| Xylene, o- | 2100 | | 160 | 780 |
| Xylene (total) | 17000 | | 160 | 2700 |

use 03/06/17

Analytical Data

Client: Ertec

Job Number: 200-37035-1

Sdg Number: 200-37035-1

Client Sample ID: ~~INLET-P~~ *Inlet-P use 03/06/17*

Lab Sample ID: 200-37035-3

Date Sampled: 01/17/2017 1059

Client Matrix: Air

Date Received: 01/19/2017 1015

TO-15 Volatile Organic Compounds in Ambient Air

| | | | | | |
|------------------|-----------------|-----------------|------------|------------------------|------------|
| Analysis Method: | TO-15 | Analysis Batch: | 200-113625 | Instrument ID: | CHW.i |
| Prep Method: | Summa Canister | Prep Batch: | N/A | Lab File ID: | 23692_17.d |
| Dilution: | 900 | | | Initial Weight/Volume: | 15 mL |
| Analysis Date: | 01/28/2017 0239 | | | Final Weight/Volume: | 200 mL |
| Prep Date: | 01/28/2017 0239 | | | Injection Volume: | 200 mL |

Tentatively Identified Compounds

Number TIC's Found: 0

| Cas Number | Analyte | RT | Est. Result (ppb v/v) | Qualifier |
|------------|---------------------------------|----|-----------------------|-----------|
| | Tentatively Identified Compound | | None | |

Analytical Data

Client: Ertec

Job Number: 200-37035-1
Sdg Number: 200-37035-1

Client Sample ID: ~~OUTLET-16~~

Outlet-16 see 02/06/17

Lab Sample ID: 200-37035-4

Date Sampled: 01/17/2017 1103

Client Matrix: Air

Date Received: 01/19/2017 1015

TO-15 Volatile Organic Compounds in Ambient Air

| | | | | | |
|------------------|-----------------|-----------------|------------|------------------------|------------|
| Analysis Method: | TO-15 | Analysis Batch: | 200-113625 | Instrument ID: | CHW.i |
| Prep Method: | Summa Canister | Prep Batch: | N/A | Lab File ID: | 23692_16.d |
| Dilution: | 5.0 | | | Initial Weight/Volume: | 40 mL |
| Analysis Date: | 01/28/2017 0149 | | | Final Weight/Volume: | 200 mL |
| Prep Date: | 01/28/2017 0149 | | | Injection Volume: | 200 mL |

| Analyte | Result (ppb v/v) | Qualifier | MDL | RL |
|--------------------|------------------|-----------|------|-----|
| Acetone | 11 | J | 6.5 | 25 |
| Isopropyl alcohol | 25 | U | 0.65 | 25 |
| Methylene Chloride | 90 | | 0.34 | 2.5 |
| n-Hexane | 1.3 | | 0.23 | 1.0 |
| Chloroform | 1.0 | U | 0.13 | 1.0 |
| Tetrahydrofuran | 25 | U | 6.0 | 25 |
| Benzene | 0.21 | J | 0.14 | 1.0 |
| Toluene | 1.1 | | 0.18 | 1.0 |
| Chlorobenzene | 1.0 | U | 0.13 | 1.0 |
| Ethylbenzene | 1.0 | U | 0.17 | 1.0 |
| m,p-Xylene | 2.5 | U | 0.39 | 2.5 |
| Xylene, o- | 1.0 | U | 0.20 | 1.0 |
| Xylene (total) | 3.5 | U | 0.20 | 3.5 |

| Analyte | Result (ug/m3) | Qualifier | MDL | RL |
|--------------------|----------------|-----------|------|-----|
| Acetone | 26 | J | 15 | 59 |
| Isopropyl alcohol | 61 | U | 1.6 | 61 |
| Methylene Chloride | 310 | | 1.2 | 8.7 |
| n-Hexane | 4.7 | | 0.81 | 3.5 |
| Chloroform | 4.9 | U | 0.61 | 4.9 |
| Tetrahydrofuran | 74 | U | 18 | 74 |
| Benzene | 0.68 | J | 0.45 | 3.2 |
| Toluene | 4.1 | | 0.66 | 3.8 |
| Chlorobenzene | 4.6 | U | 0.58 | 4.6 |
| Ethylbenzene | 4.3 | U | 0.74 | 4.3 |
| m,p-Xylene | 11 | U | 1.7 | 11 |
| Xylene, o- | 4.3 | U | 0.87 | 4.3 |
| Xylene (total) | 15 | U | 0.87 | 15 |

Analytical Data

Client: Ertec

Job Number: 200-37035-1

Sdg Number: 200-37035-1

Client Sample ID: ~~OUTLET-16~~ outlet-16 .es 03/06/17

Lab Sample ID: 200-37035-4

Date Sampled: 01/17/2017 1103

Client Matrix: Air

Date Received: 01/19/2017 1015

TO-15 Volatile Organic Compounds in Ambient Air

| | | | | | |
|------------------|-----------------|-----------------|------------|------------------------|------------|
| Analysis Method: | TO-15 | Analysis Batch: | 200-113625 | Instrument ID: | CHW.i |
| Prep Method: | Summa Canister | Prep Batch: | N/A | Lab File ID: | 23692_16.d |
| Dilution: | 5.0 | | | Initial Weight/Volume: | 40 mL |
| Analysis Date: | 01/28/2017 0149 | | | Final Weight/Volume: | 200 mL |
| Prep Date: | 01/28/2017 0149 | | | Injection Volume: | 200 mL |

Tentatively Identified Compounds

Number TIC's Found: 0

| Cas Number | Analyte | RT | Est. Result (ppb v/v) | Qualifier |
|------------|---------------------------------|----|-----------------------|-----------|
| | Tentatively Identified Compound | | None | |

Analytical Data

Client: Ertec

Job Number: 200-37035-1

Sdg Number: 200-37035-1

Client Sample ID: TB-011717

Lab Sample ID: 200-37035-5

Date Sampled: 01/17/2017 0000

Client Matrix: Air

Date Received: 01/19/2017 1015

TO-15 Volatile Organic Compounds in Ambient Air

| | | |
|--------------------------------|----------------------------|-------------------------------|
| Analysis Method: TO-15 | Analysis Batch: 200-113625 | Instrument ID: CHW.i |
| Prep Method: Summa Canister | Prep Batch: N/A | Lab File ID: 23692_18.d |
| Dilution: 1.0 | | Initial Weight/Volume: 200 mL |
| Analysis Date: 01/28/2017 0332 | | Final Weight/Volume: 200 mL |
| Prep Date: 01/28/2017 0332 | | Injection Volume: 200 mL |

| Analyte | Result (ppb v/v) | Qualifier | MDL | RL |
|--------------------|------------------|-----------|-------|------|
| Acetone | 5.0 | U | 1.3 | 5.0 |
| Isopropyl alcohol | 0.15 | J | 0.13 | 5.0 |
| Methylene Chloride | 0.50 | U | 0.068 | 0.50 |
| n-Hexane | 0.20 | U | 0.046 | 0.20 |
| Chloroform | 0.20 | U | 0.025 | 0.20 |
| Tetrahydrofuran | 5.0 | U | 1.2 | 5.0 |
| Benzene | 0.20 | U | 0.028 | 0.20 |
| Toluene | 0.058 | J | 0.035 | 0.20 |
| Chlorobenzene | 0.20 | U | 0.025 | 0.20 |
| Ethylbenzene | 0.091 | J | 0.034 | 0.20 |
| m,p-Xylene | 0.10 | J | 0.077 | 0.50 |
| Xylene, o- | 0.20 | U | 0.040 | 0.20 |
| Xylene (total) | 0.10 | J | 0.040 | 0.70 |

| Analyte | Result (ug/m3) | Qualifier | MDL | RL |
|--------------------|----------------|-----------|-------|------|
| Acetone | 12 | U | 3.1 | 12 |
| Isopropyl alcohol | 0.36 | J | 0.32 | 12 |
| Methylene Chloride | 1.7 | U | 0.24 | 1.7 |
| n-Hexane | 0.70 | U | 0.16 | 0.70 |
| Chloroform | 0.98 | U | 0.12 | 0.98 |
| Tetrahydrofuran | 15 | U | 3.5 | 15 |
| Benzene | 0.64 | U | 0.089 | 0.64 |
| Toluene | 0.22 | J | 0.13 | 0.75 |
| Chlorobenzene | 0.92 | U | 0.12 | 0.92 |
| Ethylbenzene | 0.40 | J | 0.15 | 0.87 |
| m,p-Xylene | 0.45 | J | 0.33 | 2.2 |
| Xylene, o- | 0.87 | U | 0.17 | 0.87 |
| Xylene (total) | 0.43 | J | 0.17 | 3.0 |

Analytical Data

Client: Ertec

Job Number: 200-37035-1
Sdg Number: 200-37035-1

Client Sample ID: TB-011717

Lab Sample ID: 200-37035-5
Client Matrix: Air

Date Sampled: 01/17/2017 0000
Date Received: 01/19/2017 1015

TO-15 Volatile Organic Compounds in Ambient Air

| | | | | | |
|------------------|-----------------|-----------------|------------|------------------------|------------|
| Analysis Method: | TO-15 | Analysis Batch: | 200-113625 | Instrument ID: | CHW.i |
| Prep Method: | Summa Canister | Prep Batch: | N/A | Lab File ID: | 23692_18.d |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 200 mL |
| Analysis Date: | 01/28/2017 0332 | | | Final Weight/Volume: | 200 mL |
| Prep Date: | 01/28/2017 0332 | | | Injection Volume: | 200 mL |

Tentatively Identified Compounds **Number TIC's Found: 0**

| Cas Number | Analyte | RT | Est. Result (ppb v/v) | Qualifier |
|------------|---------------------------------|----|-----------------------|-----------|
| | Tentatively Identified Compound | | None | |



Eden Environmental, LLC

ATTACHMENT B

EPA REGION II QUALIFIERS AND THEIR DEFINITIONS

- U The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.
- J The analyte was positively identified. The associated numerical value is the approximate concentration of the analyte in the sample.
- J+ The result is an estimated quantity; but the result may be biased high.
- J- The result is an estimated quantity; but the result may be biased low.
- NJ The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.
- UJ The analyte was analyzed for but not detected. The reported quantitation limit may be inaccurate or imprecise.
- R The data are unusable. The sample results are rejected due to serious deficiencies in meeting Quality Control (QC) criteria. The analyte may or may not be present in the sample.



Eden Environmental, LLC

March 6, 2017

Ms. Wanda Morales
ERTEC
Amur St. A - #5
Reparto Landrau
Rio Piedras, PR 00921

RE: Validation Report for the SVE EPA 3C Methane Air Monitoring
of the Pfizer Barceloneta Site

Dear Wanda,

Enclosed is the validation report for methane in the air samples collected on January 17, 2017, from the Pfizer Barceloneta Site. The following samples were submitted to TestAmerica in Burlington, Vermont and were assigned to Sample Delivery Group (SDG) 200-37035.

Inlet 1-16

Inlet-2-16

Inlet-P

Outlet-16

The laboratory performed well, but some corrections of sample results were necessary. See Section XI. The data package was received for validation on February 17, 2017.

All samples were analyzed for methane only in conformance with the specifications of USEPA Method 3C. The validation effort was restricted to the reported results and supporting data for this compound.

Data validation was performed in conformance with the specifications of the EPA Region II Standard Operating Procedure (Analysis of Volatile Organic Compounds in Air Contained in Canisters by Method TO-15," SOP HW-31 Revision 6, June, 2014). When necessary, professional judgment was applied and appropriately noted in the applicable section of the attached report. The validation effort for these data has the label Stage 4 Validation Manual (S4VM).



Eden Environmental, LLC

Ms. Wanda Morales
March 6, 2017
Page 2 of 2

Anomalies detected during the validation effort (if any) are included in the appropriate section of the attached report. The Laboratory Analytical Data Forms with all qualifiers resulting from the validation effort (if any were necessary) are included in Attachment A. The EPA Region II qualifiers and their definitions are included in Attachment B.

If you have any questions regarding this report, please give me a call at 225-355-0163 or contact me by e-mail at engrid@eden-env.com

Kindest regards,

A handwritten signature in black ink that reads "Engrid Carpenter". The signature is written in a cursive, flowing style.

Engrid Carpenter
President



Eden Environmental, LLC

ANALYTICAL DATA VALIDATION

ERTEC JOB DESCRIPTION – PFIZER BARCELONETA – SVE

ERTEC JOB NUMBER: 16-5440

ORGANIC ANALYSIS DATA

**Prepared by: TestAmerica Laboratory, Burlington Vermont
Sample Delivery Group Number 200-37035
Methane in Air Samples**

VALIDATION REPORT

**Prepared by: Eden Environmental, LLC
Eden Project Number 13104**

March 6, 2017

**13104/ESC/CEW
200-37035-EPA 3C**



Eden Environmental, LLC

EXECUTIVE SUMMARY

Enclosed is the validation report for methane in the air samples collected on January 17, 2017, from the Pfizer Barceloneta Site. The following samples were submitted to TestAmerica in Burlington, Vermont and were assigned to Sample Delivery Group (SDG) 200-37035.

| Inlet 1-16 | Inlet-2-16 | Inlet-P | Outlet-16 |
|------------|------------|---------|-----------|
|------------|------------|---------|-----------|

The laboratory performed well, but some corrections of sample results were necessary. See Section XI. The data package was received for validation on February 17, 2017.

Data validation was performed in conformance with the specifications of the EPA Region II Standard Operating Procedure (Analysis of Volatile Organic Compounds in Air Contained in Canisters by Method TO-15," SOP HW-31 Revision 6, June, 2014). When necessary, professional judgment was applied and appropriately noted in the applicable section of the attached report. The validation effort for these data has the label Stage 4 Validation Manual (S4VM).

Anomalies detected during the validation effort (if any) are included in the appropriate section of the attached report. The Laboratory Analytical Data Forms with all qualifiers resulting from the validation effort (if any were necessary) are included in Attachment A. The EPA Region II qualifiers and their definitions are included in Attachment B.



Eden Environmental, LLC

INTRODUCTION

Analyses were performed using EPA Method 3C, "Determination of Carbon Dioxide, Methane, Nitrogen, and Oxygen from Stationary Sources." Each standard and sample was analyzed in duplicate. Responses from both analyses were averaged and the average was used to calculate all results as required by the analytical method.

The laboratory modified the analytical method as follows:

- The target analyte list was limited to methane; therefore, the validation effort was restricted to the supporting data for this analyte.
- The initial calibration was established using five concentration levels while a minimum of three concentrations are required by Method 3C. Concentrations of 0.040 percent volume to volume (% v/v), 0.40% v/v, 2.0% v/v, 4.0% v/v, and 99% v/v were used to establish the calibration range for methane.

Data validation was performed in conformance with the specifications of the EPA Region II Standard Operating Procedure (Analysis of Volatile Organic Compounds in Air Contained in Canisters by Method TO-15," SOP HW-31 Revision 6, June, 2014). When necessary, professional judgment was applied and appropriately noted in the applicable section of the attached report. The validation effort for these data has the label Stage 4 Validation Manual (S4VM).

Anomalies detected during the validation effort (if any) are included in the appropriate section of the attached report. The Laboratory Analytical Data Forms with all qualifiers resulting from the validation effort (if any were necessary) are included in Attachment A. The EPA Region II qualifiers and their definitions are included in Attachment B.



Eden Environmental, LLC

I. Holding Times, Preservation, and Sample Integrity

These air samples were collected in Summa® Canisters on January 17, 2017. A copy of the Laboratory Login Sample Receipt Checklist noted that all site samples were received in good condition with custody seals intact. Copies of the chain of custody records were also present in the data package and included all samples in this data set. No physical preservation requirements are specified for Summa® canisters. Therefore, all requirements for holding times and sample integrity were met. No physical preservation requirements are specified for Summa® canisters.

II. Calibration and Instrument Performance

The samples in this data set were analyzed on a single gas chromatograph (GC) instrument identified in the data package as "CH0001." The GC was equipped with a thermal conductivity detector (TCD) and a column identified as "CTR-1."

Peaks for methane and carbon monoxide overlap in all calibration standards. Under the analytical conditions used, methane eluted at approximately 7.9 minutes, which was prior to carbon monoxide at 8.6 minutes. The methane peak area was determined by dropping a perpendicular line to the baseline at the onset of the carbon monoxide peak. This served to under-estimate the methane peak area and resulted in a decreased methane calibration factor and an over-estimated methane sample concentration. Methane was not detected in any of the site samples and no action by the validator was necessary.

A. Initial Calibration (IC) and Initial Calibration Verification (ICV)

An IC was performed on August 17, 2015. Documentation of all IC standards was provided in the data package. The calibration factor (CF) was correctly calculated and accurately reported. The percent relative standard deviation (%RSD) for the calibration curve was acceptable (<20%).

An ICV was analyzed after the IC. The percent difference (%D) value for calculated versus true value was acceptable ($\leq 30\%$).

B. Continuing Calibration (CC)

The samples in this data set were bracketed by CC standards; therefore, an acceptable analytical sequence was performed. The concentration of each CC standard was 4.0% v/v. Percent difference (%D) values for calculated versus true value of both CC standards were acceptable (<20%).



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III. Blanks

A laboratory blank was analyzed with the samples in this data set. Methane was not detected in the laboratory blank.

IV. Surrogate Recovery

The use of a surrogate compound is not addressed in Method 3C. No surrogate compound was employed with the analyses of these samples.

V. Spike Analyses

The laboratory control sample (LCS) was spiked with methane at 4.0% v/v, and the recovery of methane (99%) was correctly calculated, accurately reported, and within the method-specified acceptance limits (70-130%).

VI. Field Duplicate

Collection of true field duplicates is not feasible for air samples; therefore, a better description of these quality control samples would be co-located samples. The analytical method and the validation guidance document do not provide an acceptance criterion for RPDs between reported concentrations in "field duplicate" samples. For this validation effort, a maximum acceptance limit of 100 RPD was used to define acceptable agreement between reported results in the co-located samples. Results with RPD values greater than 100 RPD should be used with caution as the concentration and source of these compounds in the reported samples is uncertain.

Inlet-P was collected as a co-located sample of Inlet-2-16. Methane was not detected in either of these samples; therefore, no quantitative evaluation of precision could be made from these data.

VII. Compound Identification

Methane was correctly identified in the LCS based on the presence of a response on the quantitation report and a peak in the chromatogram within the retention time window specified for this compound during the associated IC.



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VIII. Compound Quantitation and Reporting Limit (RL)

The true value of the low concentration standard used to establish the IC was 0.040% v/v. However, the averaged concentration of reported results for this standard is 0.050% v/v. The RL for these samples was corrected by the validator to reflect an unadjusted concentration of 0.050% v/v on the answer forms in this report. Unadjusted RLs were also properly adjusted by the validator for dilution factors arising from the final canister pressure of each sample. The laboratory does not measure the moisture content of the canisters; therefore, no adjustment for moisture content was made for the reported sample results.

The peaks for methane and carbon monoxide overlapped in all calibration standards. This does present a problem of over-estimated methane results when this compound is detected.

Method 3C specifies agreement between paired responses must be $\leq 5\%$ difference (%D). Acceptable agreement was noted between positive paired responses in the quality control samples.

IX. System Performance

The analytical system did not resolve methane from carbon monoxide at the time of these analyses. The laboratory should ensure the low concentration standard can be used as the RL and resolve the issue with the overlap of peaks for methane and carbon monoxide.

X. Documentation

Chain of custody records were provided in the data package and included the samples in this data set. The following observations were noted:

The samples were shipped the day of sample collection (11/17/17) but were not received by the laboratory until 11/19/17. A reason for the delayed laboratory arrival was not provided.

All laboratory "received by" signatures are illegible.

The laboratory-generated Login Sample Receipt Checklist indicated custody seals were used and were intact on the site samples upon laboratory receipt.

A copy of the FedEx airbill was included in the data package to document the transfer of the samples from the field to the laboratory.

The laboratory sample identifications were not in the same format of those used on the chain of custody records. The validator used the identifications as presented on the chain of custody records throughout this report.



Eden Environmental, LLC

XI. Overall Assessment

Findings of the validation effort resulted in the correction of the unadjusted sample reporting limit to accurately reflect the concentration observed by the laboratory in the low concentration standard used to establish the IC. Unadjusted RLs were also properly adjusted by the validator for dilution factors arising from the final canister pressure of each sample. These corrections were made by the validator to the answer forms in this report. The laboratory does not measure the moisture content of the canisters; therefore, no adjustment for moisture content was made for the reported sample results.

This validation effort is based on the data as provided by the laboratory. Software manipulation cannot be routinely detected during validation and is outside the scope of this review.

This validation report should be added to the data package for all future distributions of the methane data reported in SDG 200-37035.



Eden Environmental, LLC

ATTACHMENT A
LABORATORY ANALYTICAL DATA FORMS

Analytical Data

Client: Ertec

Job Number: 200-37035-1
Sdg Number: 200-37035-1

Client Sample ID: ~~INLET-1-16~~ Inlet-1-16 use 03/06/17

Lab Sample ID: 200-37035-1
Client Matrix: Air

Date Sampled: 01/17/2017 1055
Date Received: 01/19/2017 1015

EPA 3C Fixed Gases from Stationary Sources

| | | | | | |
|------------------|-----------------|-----------------|------------|------------------------|-----------------------|
| Analysis Method: | EPA 3C | Analysis Batch: | 200-113629 | Instrument ID: | CH0001.i |
| Prep Method: | Summa Canister | Prep Batch: | N/A | Lab File ID: | 2017-01-23 20:07:01 2 |
| Dilution: | 1.34 | | | Initial Weight/Volume: | 2 mL |
| Analysis Date: | 01/23/2017 2007 | | | Final Weight/Volume: | 2 mL |
| Prep Date: | 01/23/2017 2007 | | | Injection Volume: | 2 mL |

| Analyte | Result (% v/v) | Qualifier | RL | RL |
|---------|----------------|-----------|-------------|-------------|
| Methane | 0.054 0.067 | U | 0.054 0.067 | 0.054 0.067 |

use 03/06/17

Analytical Data

Client: Ertec

Job Number: 200-37035-1

Sdg Number: 200-37035-1

Client Sample ID: ~~INLET-2-16~~ Inlet-2-16 see 03/06/17

Lab Sample ID: 200-37035-2

Date Sampled: 01/17/2017 1059

Client Matrix: Air

Date Received: 01/19/2017 1015

EPA 3C Fixed Gases from Stationary Sources

| | | | | | |
|------------------|-----------------|-----------------|------------|------------------------|-----------------------|
| Analysis Method: | EPA 3C | Analysis Batch: | 200-113629 | Instrument ID: | CH0001.i |
| Prep Method: | Summa Canister | Prep Batch: | N/A | Lab File ID: | 2017-01-23 21:11:30 2 |
| Dilution: | 1.29 | | | Initial Weight/Volume: | 2 mL |
| Analysis Date: | 01/23/2017 2111 | | | Final Weight/Volume: | 2 mL |
| Prep Date: | 01/23/2017 2111 | | | Injection Volume: | 2 mL |

| Analyte | Result (% v/v) | Qualifier | RL | RL |
|---------|------------------------|-----------|------------------------|------------------------|
| Methane | 0.052 0.064 | U | 0.052 0.064 | 0.052 0.064 |

see 03/06/17

Analytical Data

Client: Ertec

Job Number: 200-37035-1

Sdg Number: 200-37035-1

Client Sample ID: ~~INLET-P~~ Inlet-P use 03/06/17

Lab Sample ID: 200-37035-3

Date Sampled: 01/17/2017 1059

Client Matrix: Air

Date Received: 01/19/2017 1015

EPA 3C Fixed Gases from Stationary Sources

| | | | | | |
|------------------|-----------------|-----------------|------------|------------------------|-----------------------|
| Analysis Method: | EPA 3C | Analysis Batch: | 200-113629 | Instrument ID: | CH0001.i |
| Prep Method: | Summa Canister | Prep Batch: | N/A | Lab File ID: | 2017-01-23 22:16:05 2 |
| Dilution: | 1.33 | | | Initial Weight/Volume: | 2 mL |
| Analysis Date: | 01/23/2017 2216 | | | Final Weight/Volume: | 2 mL |
| Prep Date: | 01/23/2017 2216 | | | Injection Volume: | 2 mL |

| Analyte | Result (% v/v) | Qualifier | RL | RL |
|---------|------------------------|-----------|-------------|-------------|
| Methane | 0.053 0.066 | U | 0.059 0.066 | 0.053 0.066 |

use 03/06/17

Analytical Data

Client: Ertec

Job Number: 200-37035-1
Sdg Number: 200-37035-1

Client Sample ID: ~~OUTLET-46~~ Outlet-16 *see 03/06/17*

Lab Sample ID: 200-37035-4
Client Matrix: Air

Date Sampled: 01/17/2017 1103
Date Received: 01/19/2017 1015

EPA 3C Fixed Gases from Stationary Sources

| | | | | | |
|------------------|-----------------|-----------------|------------|------------------------|-----------------------|
| Analysis Method: | EPA 3C | Analysis Batch: | 200-113629 | Instrument ID: | CH0001.i |
| Prep Method: | Summa Canister | Prep Batch: | N/A | Lab File ID: | 2017-01-23 23;20;34 2 |
| Dilution: | 1.34 | | | Initial Weight/Volume: | 2 mL |
| Analysis Date: | 01/23/2017 2320 | | | Final Weight/Volume: | 2 mL |
| Prep Date: | 01/23/2017 2320 | | | Injection Volume: | 2 mL |

| Analyte | Result (% v/v) | Qualifier | RL | RL |
|---------|------------------------|-----------|-------|-------|
| Methane | 0.054 0.067 | U | 0.054 | 0.067 |

see 03/06/17



Eden Environmental, LLC

ATTACHMENT B

EPA REGION II QUALIFIERS AND THEIR DEFINITIONS

- U The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.
- J The analyte was positively identified. The associated numerical value is the approximate concentration of the analyte in the sample.
- J+ The result is an estimated quantity; but the result may be biased high.
- J- The result is an estimated quantity; but the result may be biased low.
- NJ The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.
- UJ The analyte was analyzed for but not detected. The reported quantitation limit may be inaccurate or imprecise.
- R The data are unusable. The sample results are rejected due to serious deficiencies in meeting Quality Control (QC) criteria. The analyte may or may not be present in the sample.



Eden Environmental, LLC

March 6, 2017

Ms. Wanda Morales
ERTEC
Amur St. A - #5
Reparto Landrau
Rio Piedras, PR 00921

RE: Validation Report for the SVE EPA 25C NMOC Air Monitoring
of the Pfizer Barceloneta Site

Dear Wanda,

Enclosed is the validation report for NMOC in the air samples collected on January 17, 2017, from the Pfizer Barceloneta Site. The following samples were submitted to TestAmerica in Burlington, Vermont and were assigned to Sample Delivery Group (SDG) 200-37035.

| | | | | |
|------------|------------|---------|-----------|-----------|
| Inlet 1-16 | Inlet-2-16 | Inlet-P | Outlet-16 | TB-011717 |
|------------|------------|---------|-----------|-----------|

Based on the findings of the validation effort, all sample results were determined to be valid as reported. The validator did not add any qualifiers to the laboratory-reported results. The data package was received for validation on February 17, 2017.

All samples were analyzed for NMOC in conformance with the specifications of USEPA Method 25C. Each standard, quality control sample, and all five site samples were measured in triplicate and the average of the three runs was used to calculate the final results as required by the analytical method.

Data validation was performed in conformance with the specifications of the EPA Region II Standard Operating Procedure (Analysis of Volatile Organic Compounds in Air Contained in Canisters by Method TO-15," SOP HW-31 Revision 6, June, 2014). When necessary, professional judgment was applied and appropriately noted in the applicable section of the attached report. The validation effort for these data has the label Stage 4 Validation Manual (S4VM).



Eden Environmental, LLC

Ms. Wanda Morales
March 6, 2017
Page 2 of 2

Anomalies detected during the validation effort (if any) are included in the appropriate section of the attached report. The Laboratory Analytical Data Forms with all qualifiers resulting from the validation effort (if any were necessary) are included in Attachment A. The EPA Region II qualifiers and their definitions are included in Attachment B.

If you have any questions regarding this report, please give me a call at 225-355-0163 or contact me by e-mail at engrid@eden-env.com

Kindest regards,

Engrid Carpenter
President



Eden Environmental, LLC

ANALYTICAL DATA VALIDATION

ERTEC JOB DESCRIPTION – PFIZER BARCELONETA – SVE

ERTEC JOB NUMBER: 16-5440

ORGANIC ANALYSIS DATA

**Prepared by: TestAmerica Laboratory, Burlington Vermont
Sample Delivery Group Number 200-37035
NMOC in Air Samples**

VALIDATION REPORT

**Prepared by: Eden Environmental, LLC
Eden Project Number 13104**

March 6, 2017

**13104/ESC/CEW
200-37035-EPA 25C**



Eden Environmental, LLC

EXECUTIVE SUMMARY

Enclosed is the validation report for NMOC in the air samples collected on January 17, 2017, from the Pfizer Barceloneta Site. The following samples were submitted to TestAmerica in Burlington, Vermont and were assigned to Sample Delivery Group (SDG) 200-37035.

| | | | | |
|------------|------------|---------|-----------|-----------|
| Inlet 1-16 | Inlet-2-16 | Inlet-P | Outlet-16 | TB-011717 |
|------------|------------|---------|-----------|-----------|

Based on the findings of the validation effort, all sample results were determined to be valid as reported. The validator did not add any qualifiers to the laboratory-reported results. The data package was received for validation on February 17, 2017.

All samples were analyzed for NMOC in conformance with the specifications of USEPA Method 25C. Each standard, quality control sample, and all five site samples were measured in triplicate and the average of the three runs was used to calculate the final results as required by the analytical method.

Data validation was performed in conformance with the specifications of the EPA Region II Standard Operating Procedure (Analysis of Volatile Organic Compounds in Air Contained in Canisters by Method TO-15," SOP HW-31 Revision 6, June, 2014). When necessary, professional judgment was applied and appropriately noted in the applicable section of the attached report. The validation effort for these data has the label Stage 4 Validation Manual (S4VM).

Anomalies detected during the validation effort (if any) are included in the appropriate section of the attached report. The Laboratory Analytical Data Forms with all qualifiers resulting from the validation effort (if any were necessary) are included in Attachment A. The EPA Region II qualifiers and their definitions are included in Attachment B.



Eden Environmental, LLC

INTRODUCTION

Analyses were performed using EPA Method 25C, "Determination of Total Gaseous Non-Methane Organic Emissions as Carbon." Each standard, quality control sample and all five site samples were measured in triplicate. Responses from all three analyses were averaged and the average was used to calculate all results as required by the analytical method.

Data validation was performed in conformance with the specifications of the EPA Region II Standard Operating Procedure (Analysis of Volatile Organic Compounds in Air Contained in Canisters by Method TO-15," SOP HW-31 Revision 6, June, 2014). When necessary, professional judgment was applied and appropriately noted in the applicable section of the attached report. The validation effort for these data has the label Stage 4 Validation Manual (S4VM).

Anomalies detected during the validation effort (if any) are included in the appropriate section of the attached report. The Laboratory Analytical Data Forms with all qualifiers resulting from the validation effort (if any were necessary) are included in Attachment A. The EPA Region II qualifiers and their definitions are included in Attachment B.



I. Holding Times, Preservation, and Sample Integrity

All NMOC analyses were performed within holding time. A copy of the Laboratory Login Sample Receipt Checklist noted that all site samples were received in good condition and custody seals were intact. Copies of the chain of custody records were also present in the data package and included all the samples in this data set. No physical preservation requirements are specified for Summa® canisters.

II. Calibration and Instrument Performance

The samples in this data set were analyzed on a single gas chromatograph (GC) instrument identified in the data package as “CH0001.” The GC was equipped with a flame ionization detector (FID) and a stationary phase column identified as “Carbo/Unibeads.”

A. Initial Calibration (IC) and Initial Calibration Verification (ICV)

An IC was established on January 8, 2015. Concentrations of 6.0 parts per million carbon (ppm-C), 750 ppm-C, and 1800 ppm-C were used to establish the IC curve. Documentation of all IC standards was provided in the data package. The calibration factors (CFs) were correctly calculated and accurately reported. The percent relative standard deviation (%RSD) for the calibration curve was acceptable ($\leq 15\%$).

An ICV at 750 ppm-C was analyzed after the IC. The percent difference (%D) value for calculated versus true value was acceptable ($\leq 30\%$).

B. Continuing Calibration (CC)

The samples in this data set associated with opening and closing sequence CC standards. The concentration of each CC standard was 750 ppm-C and all %D values for calculated versus true value were acceptable ($\leq 10\%$).

III. Blanks

A laboratory blank was analyzed in the run sequence associated with the samples in this data set. NMOC was not detected above the reporting limit (RL) in the laboratory blanks.

A trip blank (TB-111717) was associated with the samples in this data set. NMOC was not detected above the RL in TB-111717.



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IV. Surrogate Recovery

The use of a surrogate compound is not addressed in Method 25C. No surrogate compound was employed with the analyses of these samples.

V. Spike Analyses

A laboratory control sample (LCS) was analyzed in the analytical sequence containing the site samples. The LCS was spiked with NMOC at 750 ppm-C. The recovery (96%) was correctly calculated, accurately reported, and within the method-specified acceptance limits (70-130%).

VI. Field Duplicate

Collection of true field duplicates is not feasible for air samples; therefore, a better description of these quality control samples would be co-located samples. The analytical method and the validation guidance document do not provide an acceptance criterion for RPDs between reported concentrations in “field duplicate” samples. For this validation effort, a maximum acceptance limit of 100 RPD was used to define acceptable agreement between reported results in the co-located samples. Results with RPD values greater than 100 RPD should be used with caution as the concentration and source of these compounds in the reported samples is uncertain.

Inlet-P was collected as a co-located sample of Inlet 2-16. Agreement between reported NMOC results (21 RPD) was acceptable.

VII. Compound Identification

Where detected, NMOC was correctly identified based on the presence of responses on the quantitation reports and peaks in the chromatograms within the retention time window established for this compound during the associated IC.

VIII. Compound Quantitation and Reporting Limit (RL)

Target compound concentrations and sample-specific RLs were correctly calculated, accurately reported, and properly adjusted for dilution factors based on the final pressure in the canister. All positively reported results met Method 25C specified agreement among the triplicate responses (\leq % RSD).

The unadjusted RL for NMOC is equivalent to the low concentration standard used to establish the IC; therefore, this RL is supported by the data as presented. The laboratory does not measure the moisture content of the canisters; therefore, no adjustment for moisture content was made for the reported sample results.



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IX. System Performance

The analytical system was working satisfactorily at the time of these analyses, based on the evaluation of the available raw data.

X. Documentation

Chain of custody records were provided in the data package and included all samples in this data set. The following observations were noted:

The samples were shipped by FedEx on the date of collection (01/17/17) but were not received by the laboratory until 01/19/17. A reason for the delayed arrival at the laboratory was not provided.

All laboratory “received by” signatures are illegible.

The laboratory-generated Login Sample Receipt Checklist indicated custody seals were used and were intact upon laboratory receipt.

A copy of the FedEx airbill was included in the data package to document the transfer of the samples from the field to the laboratory.

The laboratory sample identifications were not in the same format of those used on the chain of custody records. The validator used the identifications as presented on the chain of custody records throughout this report.

XI. Overall Assessment

Based on the findings of the validation effort, all sample results were determined to be valid as reported. The validator did not add any qualifiers to the laboratory-reported results.

This validation effort is based on the data as provided by the laboratory. Software manipulation cannot be routinely detected during validation and is outside the scope of this review.

This validation report should be added to the data package for all future distributions of the NMOC data reported in SDG 200-37035.



Eden Environmental, LLC

ATTACHMENT A

LABORATORY ANALYTICAL DATA FORMS

Analytical Data

Client: Ertec

Job Number: 200-37035-1

Sdg Number: 200-37035-1

Client Sample ID: ~~INLET-1-16~~ Inlet-1-16 use 03/06/17

Lab Sample ID: 200-37035-1

Date Sampled: 01/17/2017 1055

Client Matrix: Air

Date Received: 01/19/2017 1015

EPA 25C Nonmethane Organic Compounds (NMOC)

| | | | | | |
|------------------|-----------------|-----------------|------------|------------------------|-----------------------|
| Analysis Method: | EPA 25C | Analysis Batch: | 200-113628 | Instrument ID: | CH0001.i |
| Prep Method: | Summa Canister | Prep Batch: | N/A | Lab File ID: | 2017-01-23 20;23;06 2 |
| Dilution: | 1.34 | | | Initial Weight/Volume: | 2 mL |
| Analysis Date: | 01/23/2017 2023 | | | Final Weight/Volume: | 2 mL |
| Prep Date: | 01/23/2017 2023 | | | Injection Volume: | 2 mL |

| Analyte | Result (ppm-C) | Qualifier | RL | RL |
|----------------|----------------|-----------|-----|-----|
| NMOC as Carbon | 630 | | 8.0 | 8.0 |

Analytical Data

Client: Ertec

Job Number: 200-37035-1
Sdg Number: 200-37035-1

Client Sample ID: INLET-2-16 *Inlet-2-16 use 03/06/17*

Lab Sample ID: 200-37035-2
Client Matrix: Air

Date Sampled: 01/17/2017 1059
Date Received: 01/19/2017 1015

EPA 25C Nonmethane Organic Compounds (NMOC)

| | | | | | |
|------------------|-----------------|-----------------|------------|------------------------|-----------------------|
| Analysis Method: | EPA 25C | Analysis Batch: | 200-113628 | Instrument ID: | CH0001.i |
| Prep Method: | Summa Canister | Prep Batch: | N/A | Lab File ID: | 2017-01-23 21:11:30 2 |
| Dilution: | 1.29 | | | Initial Weight/Volume: | 2 mL |
| Analysis Date: | 01/23/2017 2111 | | | Final Weight/Volume: | 2 mL |
| Prep Date: | 01/23/2017 2111 | | | Injection Volume: | 2 mL |

| Analyte | Result (ppm-C) | Qualifier | RL | RL |
|----------------|----------------|-----------|-----|-----|
| NMOC as Carbon | 160 | | 7.7 | 7.7 |

Analytical Data

Client: Ertec

Job Number: 200-37035-1

Sdg Number: 200-37035-1

Client Sample ID: ~~INLET-P~~ Inlet-P use 03/06/17

Lab Sample ID: 200-37035-3

Date Sampled: 01/17/2017 1059

Client Matrix: Air

Date Received: 01/19/2017 1015

EPA 25C Nonmethane Organic Compounds (NMOC)

| | | | | | |
|------------------|-----------------|-----------------|------------|------------------------|-----------------------|
| Analysis Method: | EPA 25C | Analysis Batch: | 200-113628 | Instrument ID: | CH0001.i |
| Prep Method: | Summa Canister | Prep Batch: | N/A | Lab File ID: | 2017-01-23 22;16;05 2 |
| Dilution: | 1.33 | | | Initial Weight/Volume: | 2 mL |
| Analysis Date: | 01/23/2017 2216 | | | Final Weight/Volume: | 2 mL |
| Prep Date: | 01/23/2017 2216 | | | Injection Volume: | 2 mL |

| Analyte | Result (ppm-C) | Qualifier | RL | RL |
|----------------|----------------|-----------|-----|-----|
| NMOC as Carbon | 130 | | 8.0 | 8.0 |

Analytical Data

Client: Ertec

Job Number: 200-37035-1
Sdg Number: 200-37035-1

Client Sample ID: ~~OUTLET-10~~ outlet-16 see 03/06/17

Lab Sample ID: 200-37035-4
Client Matrix: Air

Date Sampled: 01/17/2017 1103
Date Received: 01/19/2017 1015

EPA 25C Nonmethane Organic Compounds (NMOC)

| | | | | | |
|------------------|-----------------|-----------------|------------|------------------------|-----------------------|
| Analysis Method: | EPA 25C | Analysis Batch: | 200-113628 | Instrument ID: | CH0001.i |
| Prep Method: | Summa Canister | Prep Batch: | N/A | Lab File ID: | 2017-01-23 23;20;34 2 |
| Dilution: | 1.34 | | | Initial Weight/Volume: | 2 mL |
| Analysis Date: | 01/23/2017 2320 | | | Final Weight/Volume: | 2 mL |
| Prep Date: | 01/23/2017 2320 | | | Injection Volume: | 2 mL |

| Analyte | Result (ppm-C) | Qualifier | RL | RL |
|----------------|----------------|-----------|-----|-----|
| NMOC as Carbon | 45 | | 8.0 | 8.0 |

Analytical Data

Client: Ertec

Job Number: 200-37035-1

Sdg Number: 200-37035-1

Client Sample ID: TB-011717

Lab Sample ID: 200-37035-5

Date Sampled: 01/17/2017 0000

Client Matrix: Air

Date Received: 01/19/2017 1015

EPA 25C Nonmethane Organic Compounds (NMOC)

| | | | | | |
|------------------|-----------------|-----------------|------------|------------------------|-----------------------|
| Analysis Method: | EPA 25C | Analysis Batch: | 200-113628 | Instrument ID: | CH0001.i |
| Prep Method: | Summa Canister | Prep Batch: | N/A | Lab File ID: | 2017-01-24 00;26;41 2 |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 2 mL |
| Analysis Date: | 01/24/2017 0026 | | | Final Weight/Volume: | 2 mL |
| Prep Date: | 01/24/2017 0026 | | | Injection Volume: | 2 mL |

| Analyte | Result (ppm-C) | Qualifier | RL | RL |
|----------------|----------------|-----------|-----|-----|
| NMOC as Carbon | 6.0 | U | 6.0 | 6.0 |



Eden Environmental, LLC

ATTACHMENT B

EPA REGION II QUALIFIERS AND THEIR DEFINITIONS

- U The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.
- J The analyte was positively identified. The associated numerical value is the approximate concentration of the analyte in the sample.
- J+ The result is an estimated quantity; but the result may be biased high.
- J- The result is an estimated quantity; but the result may be biased low.
- NJ The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.
- UJ The analyte was analyzed for but not detected. The reported quantitation limit may be inaccurate or imprecise.
- R The data are unusable. The sample results are rejected due to serious deficiencies in meeting Quality Control (QC) criteria. The analyte may or may not be present in the sample.



Eden Environmental, LLC

March 6, 2017

Ms. Wanda Morales
ERTEC
Amur St. A - #5
Reparto Landrau
Rio Piedras, PR 00921

RE: Validation Report for the NIOSH 2000 Air Monitoring for Methanol at the
Pfizer Barceloneta Site

Dear Wanda,

Enclosed is the validation report for the methanol air samples collected on January 17, 2017, from the Pfizer Barceloneta Site. The following samples were submitted directly to TestAmerica in Phoenix Arizona, and were assigned to TestAmerica Vermont Sample Delivery Group (SDG) 200-37035.

| Inlet-1-16 | Inlet-2-16 | Inlet-P | Outlet-16 |
|------------|------------|---------|-----------|
|------------|------------|---------|-----------|

This data package was received for validation on February 17, 2017. The analyses were performed by TestAmerica Phoenix and was identified as Job Number 550-76133.

Based on the finding of the validation effort, all sample results were determined qualified as estimated (J, UJ).

Analyses were performed using NIOSH 2000, Issue 3, January 1998. Method modifications were not explicitly stated and a copy of the laboratory standard operating procedure (SOP) was not provided. Obvious deviations from the method identified in the validation effort are described in the applicable section of this report.

Each sample was collected on a 780 mg silica gel tube. The sample volume for each air sample was documented as 1.6 liters. The front and back sections of each sorbent tube was extracted independently with 2 ml of 5% isopropanol, 95% deionized water, and were analyzed independently.



Eden Environmental, LLC

Ms. Wanda Morales
March 6, 2017
Page 2 of 2

No validation guidelines are available for NIOSH 2000 and data validation was performed in conformance with the specifications of the analytical method. The validation approach was similar to that specified in the EPA Region II SOP, (Analysis of Volatile Organic Compounds in Air Contained in Canisters by Method TO-15," SOP HW-31 Revision 6, June, 2014). When necessary, professional judgment was applied and appropriately noted in the applicable section of the attached report. The validation effort for these data has the label Stage 4 Validation Manual (S4VM).

Anomalies detected during the validation effort (if any) are included in the appropriate section of the attached report. The Laboratory Analytical Data Forms with all qualifiers resulting from the validation effort (if any were necessary) are included in Attachment A. The EPA Region II qualifiers and their definitions are included in Attachment B.

If you have any questions regarding this report, please give me a call at 225-355-0163 or contact me by e-mail at engrid@eden-env.com

Kindest regards,

Charlie E. Westerman, Ph.D.
Vice President



Eden Environmental, LLC

ANALYTICAL DATA VALIDATION

ERTEC JOB DESCRIPTION – PFIZER BARCELONETA – SVE

ERTEC JOB NUMBER: 16-5440

ORGANIC ANALYSIS DATA

**Prepared by: TestAmerica Laboratory, Phoenix Arizona
TestAmerica Vermont Sample Delivery Group Number 200-37035
TestAmerica Phoenix Job Number 550-76133
Methanol in Air Samples**

VALIDATION REPORT

**Prepared by: Eden Environmental, LLC
Eden Project Number 13104**

March 6, 2017

**13104/CEW/ESC
200-37035-NIOSH 2000**



Eden Environmental, LLC

EXECUTIVE SUMMARY

Enclosed is the validation report for the methanol air samples collected on January 17, 2017, from the Pfizer Barceloneta Site. The following samples were submitted directly to TestAmerica in Phoenix Arizona, and were assigned to TestAmerica Vermont Sample Delivery Group (SDG) 200-37035.

| Inlet-1-16 | Inlet-2-16 | Inlet-P | Outlet-16 |
|------------|------------|---------|-----------|
|------------|------------|---------|-----------|

This data package was received for validation on February 17, 2017. The analyses were performed by TestAmerica Phoenix and was identified as Job Number 550-76133.

Based on the finding of the validation effort, all sample results were determined qualified as estimated (J, UJ).

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Each sample was collected on a 780 mg silica gel tube. The sample volume for each air sample was documented as 1.6 liters. The front and back sections of each sorbent tube was extracted independently with 2 ml of 5% isopropanol, 95% deionized water, and were analyzed independently.

No validation guidelines are available for NIOSH 2000 and data validation was performed in conformance with the specifications of the analytical method. The validation approach was similar to that specified in the EPA Region II SOP, (Analysis of Volatile Organic Compounds in Air Contained in Canisters by Method TO-15," SOP HW-31 Revision 6, June, 2014). When necessary, professional judgment was applied and appropriately noted in the applicable section of the attached report. The validation effort for these data has the label Stage 4 Validation Manual (S4VM).

Anomalies detected during the validation effort (if any) are included in the appropriate section of the attached report. The Laboratory Analytical Data Forms with all qualifiers resulting from the validation effort (if any were necessary) are included in Attachment A. The EPA Region II qualifiers and their definitions are included in Attachment B.



Eden Environmental, LLC

INTRODUCTION

Analyses were performed using NIOSH 2000, Issue 3, January 1998. Method modifications were not explicitly stated and a copy for the laboratory standard operating procedure (SOP) was not provided. Obvious deviations from the method identified in the validation effort are described in the applicable section of this report.

Each sample was collected on a 780 mg silica gel tube. The sample volume for each air sample was documented as 1.6 liters. The front and back sections of each sorbent tube was extracted independently with 2 ml of 5% isopropanol, 95% deionized water, and were analyzed independently.

No validation guidelines are available for NIOSH 2000 and data validation was performed in conformance with the specifications of the analytical method. The validation approach was similar to that specified in the EPA Region II SOP, (Analysis of Volatile Organic Compounds in Air Contained in Canisters by Method TO-15," SOP HW-31 Revision 6, June, 2014). When necessary, professional judgment was applied and appropriately noted in the applicable section of the attached report. The validation effort for these data has the label Stage 4 Validation Manual (S4VM).

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Eden Environmental, LLC

I. Holding Times, Preservation, and Sample Integrity

These air samples were collected using NIOSH silica gel sorbent tubes on January 17, 2017, and were shipped directly to TestAmerica Phoenix. The job narrative stated the samples were received in good condition. A copy of the Laboratory Login Sample Receipt Checklist noted, "The cooler's custody seal, if present, is intact." The job narrative stated, "the samples arrived in good condition."

A copy of the chain of custody record was also present in the data package and included all samples in this data set. NIOSH 2000 specifies sample stability as "at least 30 days at 5°C." All extractions and analyses were performed within 30 days. An acceptable cooler temperature of 0.9°C was noted on the chain of custody record.

II. Calibration and Instrument Performance

The samples in this data set were analyzed on a single gas chromatograph (GC) instrument identified as "GC14." The GC was equipped with a flame ionization detector (FID) identified as "FID1 A" and a DB-1 column.

A. Initial Calibration (IC) and Initial Calibration Verification (ICV)

An IC was performed on January 24, 2017. NIOSH 2000 specifies that three standards are to be prepared in duplicate and analyzed at three levels as the IC. For this project, four calibration standards at 3.16 µg, 31.6 µg, 316 µg, and 3160 µg were used to establish the calibration curve on each column. Documentation of all IC standards analyzed was provided in the data package. An acceptable coefficient of determination was obtained (1.000).

An initial calibration verification (ICV) standard is not required by NIOSH 2000 but an ICV was analyzed after the IC. A percent drift (%D) value for the data provided was within the laboratory-specified 40% maximum acceptance limit.

B. Continuing Calibration (CC)

The use of CC standards is not a NIOSH 2000 requirement. All samples and the associated quality control samples were analyzed on January 24, 2017, containing bracketing CC standards. Acceptable %D values were observed for both CC standards (laboratory's 20% maximum acceptance limit).

III. Blanks

A laboratory blank was analyzed with the site samples. Methanol was not detected in the laboratory blank. A trip blank was not collected for methanol analysis.



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IV. Surrogate Recovery

The use of a surrogate compound is not addressed in NIOSH 2000, and no surrogate compound was employed.

V. Spike Analyses

Recoveries for a laboratory control sample (LCS) and LCS duplicate (LCSD) each spiked at 7.91 μg were included in the analytical sequence containing the site samples. Recoveries (80% and 83%, respectively) and a relative percent difference (RPD) value (4 RPD) were within the laboratory-specified control limits (69-128% and ≤ 29 RPD).

VI. Co-located Samples

For this validation effort, a maximum acceptance limit of 100 RPD was used to define acceptable agreement between reported results in the co-located samples. Results with RPD values greater than 100 RPD should be used with caution as the concentration and source of these compounds in the reported samples is uncertain.

Inlet-P was collected as a co-located sample of Inlet-2-16. Agreement between positively paired results for methanol (7 RPD) was acceptable.

VII. Compound Identification

Where detected, methanol was correctly identified based on the presence of a peak within the retention time window on the single column used to establish the IC.

VIII. Compound Quantitation and Reporting Limit (RL)

Sample-specific RLs were correctly calculated and accurately reported. The RL is equivalent to the low concentration standard used to establish the IC and is therefore supported by the data as presented. Laboratory-reported results were reported as total $\mu\text{g}/\text{sample}$, mg/m^3 , and ppm. The ppm concentration units employed on the answer forms are ppmv. NIOSH employs ppm units, where in other situation, ppmv units would be reported.

All analytical site sample results and associated quality control results were acquired on the sample instrument during the same run sequence.

The back and front sections of the 780 mg silica gel tubes were desorbed independently in the customary manner. The resultant extracts were analyzed independently employing sequentially duplicate injections. An explanation for performing the duplicate analyses was not provided. The results are summarized in the following table.



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| Sample | Analysis | | Result µg/sample | Result Reported |
|------------------|----------|-------|---------------------|--------------------|
| | Date | Time | | |
| Inlet-1-16 Back | 01/24/17 | 14:48 | <3.36 | Yes |
| | | 15:00 | <3.36 | |
| Inlet-1-16 Front | 01/24/17 | 16:46 | 112 | Yes |
| | | 16:58 | <3.36 | |
| Inlet-2-16 Back | 01/24/17 | 15:12 | <3.36 | Yes |
| | | 15:24 | <3.36 | |
| Inlet-2-16 Front | 01/24/17 | 17:10 | 63.9 | Yes |
| | | 17:21 | <3.36 | |
| Inlet-P Back | 01/24/17 | 15:35 | <3.36 | Yes |
| | | 15:47 | <3.36 | |
| Inlet-P Front | 01/24/17 | 17:33 | 68.4 | Yes |
| | | 17:45 | <3.36 | |
| Outlet-16 Back | 01/24/17 | 15:59 | <3.36 | Yes |
| | | 16:11 | <3.36 | |
| Outlet-16 Front | 01/24/17 | 17:57 | 38.1 | Yes |
| | 01/25/17 | 07:41 | <3.36 | |

Unfortunately, poor agreement resulted among the results of the duplicate injections of extracts for the front sections for all four field samples. The time interval between some of the associated duplicate injections was only eleven to twelve minutes. Repeated instrument instability would not be expected with such short time intervals. The validator was unable to determine any apparent reason for the poor reproducibility of reported results.

The nature and extent of the variation of duplicate injections of the same solvent extracts was sufficiently divergent and random to suggest that all values should be considered as estimated (UJ, J) and the direction of bias cannot be determined. The reported data are consistent with the presence of low amounts of methanol. Raw data and associated answer forms were provided for each of the individual analyses.

Evidently, the amounts on the “Client Sample Results” were intended to constitute the final answers; however, no explanation for any of the various laboratory actions were provided.



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IX. System Performance

NIOSH 2000 states, “at high relative humidity or high methanol concentrations, use a larger tube: 15 cm long, 8-mm ID, with three sections of silica gel (700 mg, 150 mg, and 150 mg). Both high relative humidity and high methanol concentration are potentially present with this project. The sample preparation log in the data package documented the fact that 780 mg two-section silica gel tubes currently available were used for the present work.

X. Documentation

A copy of the chain of custody record was present and included all reported samples.

The following discrepancies were noted with the data package:

The samples collected on January 17, 2017, were relinquished to FedEx on the same day. The samples were received by the laboratory on January 19, 2017. No explanation for the delayed laboratory receipt was provided in the data package.

A copy of the Laboratory Login Sample Receipt Checklist noted, “The cooler’s custody seal, if present, is intact.” It is not apparent if custody seals were employed.

The laboratory “received by” signature on the chain of custody record is illegible.

A copy of the FedEx airbill was not included in the data package to document the transfer of the samples from the field to the laboratory.

No explanation was provided for performing duplicate instrumental injections of the four site samples. Poor replication of the various injections of the solvent extracts for the front sections of all four site samples was not addressed in the Job Narrative. The data user is cautioned that for this data set, raw data and associated answer forms were provided for each of the individual extract analyses.

No explanation was provided for the observed divergent results for multiple injections for the four site samples. The laboratory reported the higher concentration observed for each sample. No explanation for the laboratory’s selection of the data reported on the final answer forms was provided. The reporting of the higher concentration values would generally be considered the more conservative approach. The Job Narrative stated “No analytical quality issues were noted, other than those described in the Definitions/Glossary page.” The Definition/Glossary page noted no analytical quality issues.



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The analyses of the front and back sections of the silica gel samples tubes were performed on January 24, 2017. The analysis date for summed values was noted as January 25, 2017, and was corrected by the validator on the Laboratory Analytical Data Forms in Attachment A of this report.

A sample tube size of 780 mg was specified in the sample preparation section but 150 mg was indicated on the answer forms.

The TestAmerica Phoenix data package page numbers were overwritten (obliterated) when the TestAmerica Burling printed the hardcopy data package using their page numbers.

Data presentation issues do not affect the validity of the results, but they could be problematic if these data are reviewed by a regulatory agency or if they are used in litigation.

XI. Overall Assessment

Based on the finding of the validation effort, all sample results were qualified as estimated (J, UJ) due to the lack of reproducibility of multiple duplicate of each associated solvent extract.

This validation effort is based on the data as provided by the laboratory. Software manipulation cannot be routinely detected during validation and is outside the scope of this review.

This validation report should be added to the data package for all future distributions of the methanol data reported in SDG 200-37035.



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ATTACHMENT A
LABORATORY ANALYTICAL DATA FORMS

Client Sample Results

Client: TestAmerica Laboratories, Inc.
Project/Site: Pfizer Barceloneta SVE

TestAmerica Job ID: 550-76133-1
SDG: 16-5440

Client Sample ID: Inlet-1-16

Lab Sample ID: 550-76133-1

Date Collected: 01/17/17 00:00

Matrix: Air
780

Date Received: 01/19/17 09:30

Sample Container: IH - Silica Gel tube, 150 mg

Sample Air Volume: 1.6 L

| Method: 2000 Back - NIOSH 2000 (Modified) | | | | | | | | | |
|---|---------------------|-----------------|----------------|-----------|-----------------|----------------|----------------|---------|--|
| Analyte | Result ug/Sample | Result mg/m3 | Result ppm | Qualifier | RL ug/Sample | Prepared | Analyzed | Dil Fac | |
| Methanol | 3.36 <i>us</i> | 2.10 <i>us</i> | 1.60 <i>us</i> | | 3.36 | 01/24/17 11:24 | 01/24/17 14:48 | 1 | |

| Method: 2000 Front - NIOSH 2000 (Modified) | | | | | | | | | |
|--|---------------------|-----------------|---------------|-----------|-----------------|----------------|----------------|---------|--|
| Analyte | Result ug/Sample | Result mg/m3 | Result ppm | Qualifier | RL ug/Sample | Prepared | Analyzed | Dil Fac | |
| Methanol | 112 <i>J</i> | 70.1 <i>J</i> | 53.5 <i>J</i> | | 3.36 | 01/24/17 11:24 | 01/24/17 16:46 | 1 | |

| Method: 2000 Sum - NIOSH 2000 (Modified) | | | | | | | | | |
|--|---------------------|-----------------|---------------|-----------|-----------------|----------|----------------------|---------|--|
| Analyte | Result ug/Sample | Result mg/m3 | Result ppm | Qualifier | RL ug/Sample | Prepared | Analyzed | Dil Fac | |
| Methanol | 112 <i>J</i> | 70.1 <i>J</i> | 53.5 <i>J</i> | | 3.36 | | 01/24/17 13:15 24 | 1 | |

Client Sample ID: Inlet-2-16

Lab Sample ID: 550-76133-2

Date Collected: 01/17/17 00:00

Matrix: Air
780

Date Received: 01/19/17 09:30

Sample Container: IH - Silica Gel tube, 150 mg

Sample Air Volume: 1.6 L

| Method: 2000 Back - NIOSH 2000 (Modified) | | | | | | | | | |
|---|---------------------|-----------------|----------------|-----------|-----------------|----------------|----------------|---------|--|
| Analyte | Result ug/Sample | Result mg/m3 | Result ppm | Qualifier | RL ug/Sample | Prepared | Analyzed | Dil Fac | |
| Methanol | 3.36 <i>us</i> | 2.10 <i>us</i> | 1.60 <i>us</i> | | 3.36 | 01/24/17 11:24 | 01/24/17 15:12 | 1 | |

| Method: 2000 Front - NIOSH 2000 (Modified) | | | | | | | | | |
|--|---------------------|-----------------|---------------|-----------|-----------------|----------------|----------------|---------|--|
| Analyte | Result ug/Sample | Result mg/m3 | Result ppm | Qualifier | RL ug/Sample | Prepared | Analyzed | Dil Fac | |
| Methanol | 63.9 <i>J</i> | 39.9 <i>J</i> | 30.5 <i>J</i> | | 3.36 | 01/24/17 11:24 | 01/24/17 17:10 | 1 | |

| Method: 2000 Sum - NIOSH 2000 (Modified) | | | | | | | | | |
|--|---------------------|-----------------|---------------|-----------|-----------------|----------|----------------------|---------|--|
| Analyte | Result ug/Sample | Result mg/m3 | Result ppm | Qualifier | RL ug/Sample | Prepared | Analyzed | Dil Fac | |
| Methanol | 63.9 <i>J</i> | 39.9 <i>J</i> | 30.5 <i>J</i> | | 3.36 | | 01/24/17 13:15 24 | 1 | |

Client Sample ID: Inlet-P

Lab Sample ID: 550-76133-3

Date Collected: 01/17/17 00:00

Matrix: Air
780

Date Received: 01/19/17 09:30

Sample Container: IH - Silica Gel tube, 150 mg

Sample Air Volume: 1.6 L

| Method: 2000 Back - NIOSH 2000 (Modified) | | | | | | | | | |
|---|---------------------|-----------------|----------------|-----------|-----------------|----------------|----------------|---------|--|
| Analyte | Result ug/Sample | Result mg/m3 | Result ppm | Qualifier | RL ug/Sample | Prepared | Analyzed | Dil Fac | |
| Methanol | 3.36 <i>us</i> | 2.10 <i>us</i> | 1.60 <i>us</i> | | 3.36 | 01/24/17 11:24 | 01/24/17 15:35 | 1 | |

| Method: 2000 Front - NIOSH 2000 (Modified) | | | | | | | | | |
|--|---------------------|-----------------|---------------|-----------|-----------------|----------------|----------------|---------|--|
| Analyte | Result ug/Sample | Result mg/m3 | Result ppm | Qualifier | RL ug/Sample | Prepared | Analyzed | Dil Fac | |
| Methanol | 68.4 <i>J</i> | 42.8 <i>J</i> | 32.6 <i>J</i> | | 3.36 | 01/24/17 11:24 | 01/24/17 17:33 | 1 | |

cew 02/17/17

TestAmerica Phoenix

Client Sample Results

Client: TestAmerica Laboratories, Inc.
 Project/Site: Pfizer Barceloneta SVE

TestAmerica Job ID: 550-76133-1
 SDG: 16-5440

Client Sample ID: Inlet-P

Lab Sample ID: 550-76133-3

Date Collected: 01/17/17 00:00

Matrix: Air

Date Received: 01/19/17 09:30

Sample Air Volume: 1.6 L

Sample Container: IH - Silica Gel tube, 150 mg

Method: 2000 Sum - NIOSH 2000 (Modified)

| Analyte | Result ug/Sample | Result mg/m3 | Result ppm | Qualifier | RL ug/Sample | Prepared | Analyzed | Dil Fac |
|----------|---------------------|-----------------|---------------|-----------|-----------------|----------|-----------------------------|---------|
| Methanol | 68.4 <i>J</i> | 42.8 <i>J</i> | 32.6 <i>J</i> | | 3.36 | | 01/25/17 13:15 <i>24</i> | 1 |

Client Sample ID: Outlet-16

Lab Sample ID: 550-76133-4

Date Collected: 01/17/17 00:00

Matrix: Air

Date Received: 01/19/17 09:30

Sample Air Volume: 1.6 L

Sample Container: IH - Silica Gel tube, ~~150~~ *780* mg

Method: 2000 Back - NIOSH 2000 (Modified)

| Analyte | Result ug/Sample | Result mg/m3 | Result ppm | Qualifier | RL ug/Sample | Prepared | Analyzed | Dil Fac |
|----------|-----------------------|-----------------------|-----------------------|-----------|-----------------|----------------|----------------|---------|
| Methanol | <i>3.36</i> <i>NS</i> | <i>2.10</i> <i>NS</i> | <i>1.60</i> <i>NS</i> | | 3.36 | 01/24/17 11:24 | 01/24/17 15:59 | 1 |

Method: 2000 Front - NIOSH 2000 (Modified)

| Analyte | Result ug/Sample | Result mg/m3 | Result ppm | Qualifier | RL ug/Sample | Prepared | Analyzed | Dil Fac |
|----------|---------------------|-----------------|---------------|-----------|-----------------|----------------|----------------|---------|
| Methanol | 38.1 <i>J</i> | 23.8 <i>J</i> | 18.2 <i>J</i> | | 3.36 | 01/24/17 11:24 | 01/24/17 17:57 | 1 |

Method: 2000 Sum - NIOSH 2000 (Modified)

| Analyte | Result ug/Sample | Result mg/m3 | Result ppm | Qualifier | RL ug/Sample | Prepared | Analyzed | Dil Fac |
|----------|---------------------|-----------------|---------------|-----------|-----------------|----------|-----------------------------|---------|
| Methanol | 38.1 <i>J</i> | 23.8 <i>J</i> | 18.2 <i>J</i> | | 3.36 | | 01/25/17 13:15 <i>24</i> | 1 |

cev 02/17/17



Eden Environmental, LLC

ATTACHMENT B

EPA REGION II QUALIFIERS AND THEIR DEFINITIONS

- U The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.
- J The analyte was positively identified. The associated numerical value is the approximate concentration of the analyte in the sample.
- J+ The result is an estimated quantity; but the result may be biased high.
- J- The result is an estimated quantity; but the result may be biased low.
- NJ The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.
- UJ The analyte was analyzed for but not detected. The reported quantitation limit may be inaccurate or imprecise.
- R The data are unusable. The sample results are rejected due to serious deficiencies in meeting Quality Control (QC) criteria. The analyte may or may not be present in the sample.



Eden Environmental, LLC

April 12, 2017

Ms. Wanda Morales
ERTEC
Amur St. A - #5
Reparto Landrau
Rio Piedras, PR 00921

RE: Data Validation Report for the SVE TO-15 Air Monitoring of the Pfizer Barceloneta Site

Dear Wanda,

Enclosed is the validation report for selected volatile organic compounds in the air samples collected on February 21, 2017, from the Pfizer Barceloneta Site. The following samples were submitted to TestAmerica in Burlington, Vermont and were assigned to Sample Delivery Group (SDG) 200-37474.

| | | | | |
|------------|------------|---------|-----------|----------|
| Inlet-1-16 | Inlet-2-16 | Inlet-P | Outlet-16 | TB012117 |
|------------|------------|---------|-----------|----------|

The laboratory performed well, but some qualifications of sample results were necessary. See Section XIV. The data package was received for validation on April 10, 2017.

All "E" and "D" qualifiers applied by the laboratory to indicate concentrations that exceeded the calibration range or the instrument and results from a more diluted analysis, respectively, were removed by the validator.

The "J" qualifiers applied by the laboratory to indicate estimated concentrations between the method detection limit (MDL) and the reporting limit (RL), were not removed by the validator unless they were superseded by a qualifier resulting from the validation effort.

All samples were analyzed for acetone, isopropyl alcohol, methylene chloride, n-hexane, chloroform, tetrahydrofuran, benzene, toluene, chlorobenzene, ethylbenzene, m,p-xylenes, and o-xylene in conformance with the specifications of USEPA Compendium Method TO-15. In addition, methyl iodide was included in a library search as a tentatively identified compound (TIC) because this compound was not included in any of the calibration standards. The validation effort was restricted to the reported results and supporting data for these compounds.



Eden Environmental, LLC

Ms. Wanda Morales
April 12, 2017
Page 2 of 2

Results were also reported for total xylenes. The laboratory-reported concentrations for total xylenes were obtained by adding the concentrations for m,p-xylenes and o-xylene.

Data validation was performed in conformance with the specifications of the EPA Region II Standard Operating Procedure (Analysis of Volatile Organic Compounds in Air Contained in Canisters by Method TO-15," SOP HW-31 Revision 6, June, 2014). When necessary, professional judgment was applied and appropriately noted in the applicable section of the attached report. The validation effort for these data has the label Stage 4 Validation Manual (S4VM).

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If you have any questions regarding this report, please give me a call at 225-355-0163 or contact me by e-mail at engrid@eden-env.com

Kindest regards,

Engrid S. Carpenter
President



Eden Environmental, LLC

ANALYTICAL DATA VALIDATION

ERTEC JOB DESCRIPTION – PFIZER BARCELONETA – SVE

ERTEC JOB NUMBER: 17-5475

ORGANIC ANALYSIS DATA

**Prepared by: TestAmerica Laboratory, Burlington Vermont
Sample Delivery Group: 200-37474
Selected Volatile Organic Compounds in Air Samples**

VALIDATION REPORT

**Prepared by: Eden Environmental, LLC
Eden Project Number 13104**

Date: April 12, 2017

**13104/ESC/CEW
200-37474-TO-15**



Eden Environmental, LLC

INTRODUCTION

Enclosed is the validation report for selected volatile organic compounds in the air samples collected on February 21, 2017, from the Pfizer Barceloneta Site. The following samples were submitted to TestAmerica in Burlington, Vermont and were assigned to Sample Delivery Group (SDG) 200-37474.

| | | | | |
|------------|------------|---------|-----------|----------|
| Inlet-1-16 | Inlet-2-16 | Inlet-P | Outlet-16 | TB012117 |
|------------|------------|---------|-----------|----------|

The laboratory performed well, but some qualifications of sample results were necessary. See Section XIV. The data package was received for validation on April 10, 2017.

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Results were also reported for total xylenes. The laboratory-reported concentrations for total xylenes were obtained by adding the concentrations for m,p-xylenes and o-xylene.

Data validation was performed in conformance with the specifications of the EPA Region II Standard Operating Procedure (Analysis of Volatile Organic Compounds in Air Contained in Canisters by Method TO-15,” SOP HW-31 Revision 6, June, 2014). When necessary, professional judgment was applied and appropriately noted in the applicable section of the attached report. The validation effort for these data has the label Stage 4 Validation Manual (S4VM).



Eden Environmental, LLC

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Eden Environmental, LLC

I. Holding Times, Preservation, and Sample Integrity

All TO-15 analyses were performed within holding time. A copy of the Laboratory Login Sample Receipt Checklist noted that all site samples were received in good condition and custody seals were intact. Copies of the chain of custody records were also present in the data package and included all samples in this data set. No physical preservation requirements are specified for Summa® canisters.

II. GC/MS Instrument Performance Checks

Results were reported for five bromofluorobenzene (BFB) instrument performance checks. Requirements for all instrument performance checks were met.

III. Calibration

These samples were analyzed on two single gas chromatography/mass spectrometry (GC/MS) systems identified as “CHB” and “CHW.” Manual integrations were performed on the peak areas for isopropyl alcohol in the 0.2 2 parts per billion volume to volume (ppb v/v) initial calibration standard analyzed on CHB and for benzene in the 0.2 ppb v/v IC standard analyzed on CHW. Documentation of these integrations were included in the data package and confirming they were properly performed and correctly incorporated into the associated quantitation reports. No evidence was presented in the data package to indicate that any other manual integrations were performed on any of the project-specified target compounds or on any of the internal standards in any of the calibration standards.

A. Initial Calibration (IC) and Initial Calibration Verification (ICV)

ICs were established on January 25, 2017, on instrument CHB and February 18, 2017, on instrument CHW. An ICV was analyzed following each IC. EPA Region II-specified acceptance criteria were met for all standards.

B. Continuing Verification (CV)

Documentation of three CV standards (one on instrument CHB and two on instrument CHW) associated with the reported samples was present in the data package. All EPA Region II-specified acceptance criteria were met for these standards.

IV. Blanks

A laboratory blank was analyzed in each analytical sequence containing the site samples. No project-specified target analytes were detected above the method detection limit (MDL) in the laboratory blank analyzed on instrument CHB.



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Two laboratory blanks were analyzed on instrument CHW. Isopropyl alcohol (0.198 ppb v/v) and methylene chloride (0.0807 ppb v/v) were detected at estimated concentrations below the reporting limit in the laboratory blank analyzed on March 9, 2017. Isopropyl alcohol (0.208 ppb v/v) and chlorobenzene (0.0254 ppb v/v) were detected at estimated concentrations below the reporting limit in the laboratory blank analyzed on March 10, 2017.

Based on contamination in the associated laboratory blank, results for isopropyl alcohol in Outlet-16, the diluted and more diluted analyses of Inlet-1-16, Inlet-2-16, and Inlet-P were qualified as less than the sample-specific reporting limit (U). Results for isopropyl alcohol and the remaining compounds noted above were either not detected or were greater than the action level for qualification based on blank contamination and no further action was required. No other project-specified target analytes required qualification based on trip blank contamination.

A trip blank (TB022117) was submitted with the samples in this data set. No project-specified target compounds were detected in TB022117

V. Surrogate Recoveries

The use of a surrogate compound is not addressed in Method TO-15. A surrogate compound was not employed in the analyses of these samples.

VI. Laboratory Check Standard (Audit Accuracy Standard)

A 10 ppbv laboratory check standard (identified as LCS) was analyzed in each analytical sequence containing the reported samples. Each LCS was spiked with all project-specified target analytes. All recoveries of the target analytes were within the laboratory-established analyte-specific quality control limits as included on the summary forms.

VII. Laboratory Replicate Analyses

A laboratory replicate analysis was not reported in this data package.

VIII. Field Duplicates

Collection of true field duplicates is not feasible for air samples; therefore, a better description of these quality control samples would be co-located samples. The validation guidance document does not provide an acceptance criterion for RPDs between reported concentrations in "field duplicate" samples. For this validation effort, a maximum acceptance limit of 100 RPD was used to define acceptable agreement between reported concentrations greater than the RL and \pm RL for



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concentrations below the RL in the co-located samples. Results with RPD values greater than 100 RPD should be used with caution as the concentration and source of these compounds in the reported samples is uncertain.

Inlet-P was collected as a co-located sample of Inlet-2-16. Acceptable reproducibility between positively paired results was achieved for tetrahydrofuran, benzene, toluene, ethylbenzene, m,p-xylenes, and o-xylene. Results for isopropyl alcohol in these samples were previously qualified based on blank contamination and the remaining project-specified target analytes were not detected in either of these samples; therefore, no further quantitative evaluation of precision could be made from these data.

IX. Internal Standard Performance

The validator confirmed that the areas and retention times of all three internal standards were within the method-specified acceptance limits for the reported site and quality control analyses.

X. Target Compound Identification

When detected, the target analyte was correctly identified with acceptable supporting mass spectral data present in the data package.

XI. Compound Quantitation and Reporting Limits (RLs)

Unadjusted RLs were equal to the low concentration standard used to establish the IC for the project-specified target compounds and are supported by the reported data. All sample results were correctly calculated and accurately reported, including adjustments for dilutions where necessary.

Inlet 1-16 was reanalyzed at a dilution necessary to obtain a reliable result for tetrahydrofuran. The concentration for tetrahydrofuran only was taken from the more diluted analysis of Inlet 1-16. The Form I for the less diluted analyses of Inlet 1-16 was “hybridized” by the validator to reflect the results recommended for use from both analyses of this sample. The Form I from the more diluted analysis of this sample has been marked “Do Not Use” for clarity.

All “E” and “D” qualifiers applied by the laboratory to indicate concentrations that exceeded the calibration range or the instrument and results from a more diluted analysis, respectively, were removed by the validator.

XII. Tentatively Identified Compounds (TICs)

Since methyl iodide was not included in any of the calibration standards, a library search was performed for this compound. Methyl iodide was not detected in any of the samples in this SDG. The Form I TIC represents not detected for methyl iodide only.



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XIII. Documentation

Chain of custody records were provided in the data package and included all samples in this data set. The following observations were noted:

All laboratory “received by” signatures are illegible.

The laboratory-generated Login Sample Receipt Checklist indicated custody seals were used and were intact upon laboratory receipt.

A copy of the FedEx airbill was included in the data package to document the transfer of the samples from the field to the laboratory.

The laboratory sample identifications were not in the same format of those used on the chain of custody records. The validator used the identifications as presented on the chain of custody records throughout this report.

The Laboratory Analytical Data Forms also include a column identified as MDL. Unadjusted MDLs for the target compounds are not supported by the data as received. Therefore, it is recommended that the RLs rather than the MDLs be used as the lowest supported limit of detection.

XIV. Overall Assessment

Based on the findings of the validation effort, the sample results were qualified as follows:

- Based on contamination in the associated laboratory blank, results for isopropyl alcohol in Outlet-16, the diluted and more diluted analyses of Inlet-1-16, Inlet-2-16, and Inlet-P were qualified as less than the sample-specific reporting limit (U).
- The concentration of tetrahydrofuran in the less diluted analyses of Inlet 1-16 exceeded the calibration range of the instrument and was qualified as estimated (J) on this basis.

Inlet 1-16 was reanalyzed at a dilution necessary to obtain a reliable result for tetrahydrofuran. The concentration for tetrahydrofuran only was taken from the more diluted analysis of Inlet 1-16. The Form I for the less diluted analyses of Inlet 1-16 was “hybridized” by the validator to reflect the results recommended for use from both analyses of this sample. The Form I from the more diluted analysis of this sample has been marked “Do Not Use” for clarity.

All “E” and “D” qualifiers applied by the laboratory to indicate concentrations that exceeded the calibration range or the instrument and results from a more diluted analysis, respectively, were removed by the validator.



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The “J” qualifiers applied by the laboratory to indicate estimated concentrations between the MDL and the RL were not removed by the validator unless they were superseded by a qualification resulting from the validation effort.

This validation effort is based on the data as provided by the laboratory. Software manipulation cannot be routinely detected during validation and is outside the scope of this review.

This validation report should be added to the data package for all future distributions of the TO-15 data reported in SDG 200-37474.



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ATTACHMENT A
LABORATORY ANALYTICAL DATA FORMS

Analytical Data

Client: Ertec

Job Number: 200-37474-1

Sdg Number: 200-37474-1

Client Sample ID: ~~INLET-1-16~~ Inlet-1-16 *see 04/10/17*

Lab Sample ID: 200-37474-1

Date Sampled: 02/21/2017 1030

Client Matrix: Air

Date Received: 02/22/2017 0935

TO-15 Volatile Organic Compounds in Ambient Air

| | | | | | |
|------------------|------------------|-----------------|------------|------------------------|------------|
| Analysis Method: | TO-15 | Analysis Batch: | 200-114780 | Instrument ID: | CHW.i |
| Prep Method: | Summa Canister | Prep Batch: | N/A | Lab File ID: | 24260_10.d |
| Dilution: | 300, <i>2640</i> | | | Initial Weight/Volume: | 176 mL |
| Analysis Date: | 03/09/2017 2041 | | | Final Weight/Volume: | 200 mL |
| Prep Date: | 03/09/2017 2041 | | | Injection Volume: | 200 mL |

| Analyte | Result (ppb v/v) | Qualifier | MDL | RL |
|--------------------|-----------------------------------|-------------------------|----------------------------|------------------------------|
| Acetone | 640 | J | 390 | 1500 |
| Isopropyl alcohol | 160 <i>1500</i> | J-B <i>U</i> | 39 | 1500 |
| Methylene Chloride | 150 | U | 20 | 150 |
| n-Hexane | 60 | U | 14 | 60 |
| Chloroform | 34 | J | 7.5 | 60 |
| Tetrahydrofuran | <i>60,000</i> 60000 | E | 360 <i>3200</i> | 1500 <i>13000</i> |
| Benzene | 1400 | | 8.4 | 60 |
| Toluene | 11000 | | 11 | 60 |
| Chlorobenzene | 60 | U | 7.5 | 60 |
| Ethylbenzene | 3400 | | 10 | 60 |
| m,p-Xylene | 16000 | | 23 | 150 |
| Xylene, o- | 2300 | | 12 | 60 |
| Xylene (total) | 18000 | | 12 | 210 |

| Analyte | Result (ug/m3) | Qualifier | MDL | RL |
|--------------------|-------------------------------------|-------------------------|-----------------------------|-------------------------------|
| Acetone | 1500 | J | 930 | 3600 |
| Isopropyl alcohol | 390 <i>3700</i> | J-B <i>U</i> | 96 | 3700 |
| Methylene Chloride | 520 | U | 71 | 520 |
| n-Hexane | 210 | U | 49 | 210 |
| Chloroform | 170 | J | 37 | 290 |
| Tetrahydrofuran | <i>180,000</i> 180000 | E | 1100 <i>9300</i> | 4400 <i>39,000</i> |
| Benzene | 4400 | | 27 | 190 |
| Toluene | 40000 | | 40 | 230 |
| Chlorobenzene | 280 | U | 35 | 280 |
| Ethylbenzene | 15000 | | 44 | 260 |
| m,p-Xylene | 68000 | | 100 | 650 |
| Xylene, o- | 10000 | | 52 | 260 |
| Xylene (total) | 79000 | | 52 | 910 |

see 04/10/17

Analytical Data

Client: Ertec

Job Number: 200-37474-1
Sdg Number: 200-37474-1

Client Sample ID: ~~INLET 446~~ Inlet -1-16 see 04/10/17

Lab Sample ID: 200-37474-1
Client Matrix: Air

Date Sampled: 02/21/2017 1030
Date Received: 02/22/2017 0935

TO-15 Volatile Organic Compounds in Ambient Air

| | | | | | |
|------------------|-----------------|-----------------|------------|------------------------|------------|
| Analysis Method: | TO-15 | Analysis Batch: | 200-114780 | Instrument ID: | CHW.i |
| Prep Method: | Summa Canister | Prep Batch: | N/A | Lab File ID: | 24260_10.d |
| Dilution: | 300 | | | Initial Weight/Volume: | 176 mL |
| Analysis Date: | 03/09/2017 2041 | | | Final Weight/Volume: | 200 mL |
| Prep Date: | 03/09/2017 2041 | | | Injection Volume: | 200 mL |

Tentatively Identified Compounds **Number TIC's Found: 0**

| Cas Number | Analyte | RT | Est. Result (ppb v/v) | Qualifier |
|------------|---------------------------------|----|-----------------------|-----------|
| | Tentatively Identified Compound | | None | |

Analytical Data

Client: Ertec

Job Number: 200-37474-1
Sdg Number: 200-37474-1

Client Sample ID: ~~INLET-116~~ Inlet-1-16 DL are 04/10/17

Lab Sample ID: 200-37474-1
Client Matrix: Air

Date Sampled: 02/21/2017 1030
Date Received: 02/22/2017 0935

TO-15 Volatile Organic Compounds in Ambient Air

| | | | | | |
|------------------|-----------------|-----------------|------------|------------------------|------------|
| Analysis Method: | TO-15 | Analysis Batch: | 200-114827 | Instrument ID: | CHW.i |
| Prep Method: | Summa Canister | Prep Batch: | N/A | Lab File ID: | 24282_06.d |
| Dilution: | 2640 | | | Initial Weight/Volume: | 20 mL |
| Analysis Date: | 03/10/2017 1554 | Run Type: | DL | Final Weight/Volume: | 200 mL |
| Prep Date: | 03/10/2017 1554 | | | Injection Volume: | 200 mL |

| Analyte | Result (ppb v/v) | Qualifier | MDL | RL |
|--------------------|----------------------|----------------|------|-------|
| Acetone | 13000 | U | 3400 | 13000 |
| Isopropyl alcohol | 340 13000 | U U | 340 | 13000 |
| Methylene Chloride | 1300 | U | 180 | 1300 |
| n-Hexane | 530 | U | 120 | 530 |
| Chloroform | 530 | U | 66 | 530 |
| Tetrahydrofuran | 60000 | D | 3200 | 13000 |
| Benzene | 1400 | U | 74 | 530 |
| Toluene | 10000 | U | 92 | 530 |
| Chlorobenzene | 530 | U | 66 | 530 |
| Ethylbenzene | 3100 | D | 90 | 530 |
| m,p-Xylene | 15000 | D | 200 | 1300 |
| Xylene, o- | 2000 | D | 110 | 530 |
| Xylene (total) | 17000 | D | 110 | 1800 |

| Analyte | Result (ug/m3) | Qualifier | MDL | RL |
|--------------------|----------------------|----------------|------|-------|
| Acetone | 31000 | U | 8200 | 31000 |
| Isopropyl alcohol | 840 32000 | U U | 840 | 32000 |
| Methylene Chloride | 4600 | U | 620 | 4600 |
| n-Hexane | 1900 | U | 430 | 1900 |
| Chloroform | 2600 | U | 320 | 2600 |
| Tetrahydrofuran | 180000 | D | 9300 | 39000 |
| Benzene | 4400 | D | 240 | 1700 |
| Toluene | 38000 | D | 350 | 2000 |
| Chlorobenzene | 2400 | U | 300 | 2400 |
| Ethylbenzene | 13000 | D | 390 | 2300 |
| m,p-Xylene | 63000 | D | 880 | 5700 |
| Xylene, o- | 8800 | D | 460 | 2300 |
| Xylene (total) | 74000 | D | 460 | 8000 |

Do Not use 04/10/17
 are 04/10/17

Analytical Data

Client: Ertec

Job Number: 200-37474-1
Sdg Number: 200-37474-1

Client Sample ID: ~~INLET-1-16~~ Inlet -1-16 DL use 04/12/17

Lab Sample ID: 200-37474-1
Client Matrix: Air

Date Sampled: 02/21/2017 1030
Date Received: 02/22/2017 0935

TO-15 Volatile Organic Compounds in Ambient Air

Analysis Method: TO-15 Analysis Batch: 200-114827 Instrument ID: CHW.i
Prep Method: Summa Canister Prep Batch: N/A Lab File ID: 24282_06.d
Dilution: 2640 Run Type: DL Initial Weight/Volume: 20 mL
Analysis Date: 03/10/2017 1554 Final Weight/Volume: 200 mL
Prep Date: 03/10/2017 1554 Injection Volume: 200 mL

Tentatively Identified Compounds Number TIC's Found: 0

| Cas Number | Analyte | RT | Est. Result (ppb v/v) | Qualifier |
|------------|---------------------------------|----|-----------------------|-----------|
| | Tentatively Identified Compound | | None | |

Do Not Use use 04/12/17

Analytical Data

Client: Ertec

Job Number: 200-37474-1

Sdg Number: 200-37474-1

Client Sample ID: ~~INLET-2-T6~~ Inlet-2-16 use 04/12/17

Lab Sample ID: 200-37474-2

Date Sampled: 02/21/2017 1033

Client Matrix: Air

Date Received: 02/22/2017 0935

TO-15 Volatile Organic Compounds in Ambient Air

| | | | | | |
|------------------|-----------------|-----------------|------------|------------------------|------------|
| Analysis Method: | TO-15 | Analysis Batch: | 200-114780 | Instrument ID: | CHW.i |
| Prep Method: | Summa Canister | Prep Batch: | N/A | Lab File ID: | 24260_12.d |
| Dilution: | 467 | | | Initial Weight/Volume: | 29 mL |
| Analysis Date: | 03/09/2017 2221 | | | Final Weight/Volume: | 200 mL |
| Prep Date: | 03/09/2017 2221 | | | Injection Volume: | 200 mL |

| Analyte | Result (ppb v/v) | Qualifier | MDL | RL |
|--------------------|---------------------|----------------|-----|------|
| Acetone | 2300 | U | 610 | 2300 |
| Isopropyl alcohol | 120 2300 | U U | 61 | 2300 |
| Methylene Chloride | 230 | U | 32 | 230 |
| n-Hexane | 93 | U | 21 | 93 |
| Chloroform | 93 | U | 12 | 93 |
| Tetrahydrofuran | 15000 | | 560 | 2300 |
| Benzene | 290 | | 13 | 93 |
| Toluene | 2200 | | 16 | 93 |
| Chlorobenzene | 93 | U | 12 | 93 |
| Ethylbenzene | 740 | | 16 | 93 |
| m,p-Xylene | 3500 | | 36 | 230 |
| Xylene, o- | 460 | | 19 | 93 |
| Xylene (total) | 4000 | | 19 | 330 |

| Analyte | Result (ug/m3) | Qualifier | MDL | RL |
|--------------------|---------------------|----------------|------|------|
| Acetone | 5500 | U | 1400 | 5500 |
| Isopropyl alcohol | 200 5700 | U U | 150 | 5700 |
| Methylene Chloride | 810 | U | 110 | 810 |
| n-Hexane | 330 | U | 76 | 330 |
| Chloroform | 460 | U | 57 | 460 |
| Tetrahydrofuran | 44000 | | 1700 | 6900 |
| Benzene | 920 | | 42 | 300 |
| Toluene | 8300 | | 62 | 350 |
| Chlorobenzene | 430 | U | 54 | 430 |
| Ethylbenzene | 3200 | | 69 | 410 |
| m,p-Xylene | 15000 | | 160 | 1000 |
| Xylene, o- | 2000 | | 81 | 410 |
| Xylene (total) | 17000 | | 81 | 1400 |

use 04/12/17

Analytical Data

Client: Ertec

Job Number: 200-37474-1
Sdg Number: 200-37474-1

Client Sample ID: ~~INLET-2-16~~ Inlet-2-16 in 04/12/17

Lab Sample ID: 200-37474-2
Client Matrix: Air

Date Sampled: 02/21/2017 1033
Date Received: 02/22/2017 0935

TO-15 Volatile Organic Compounds in Ambient Air

| | | | | | |
|------------------|-----------------|-----------------|------------|------------------------|------------|
| Analysis Method: | TO-15 | Analysis Batch: | 200-114780 | Instrument ID: | CHW.i |
| Prep Method: | Summa Canister | Prep Batch: | N/A | Lab File ID: | 24260_12.d |
| Dilution: | 467 | | | Initial Weight/Volume: | 29 mL |
| Analysis Date: | 03/09/2017 2221 | | | Final Weight/Volume: | 200 mL |
| Prep Date: | 03/09/2017 2221 | | | Injection Volume: | 200 mL |

Tentatively Identified Compounds **Number TIC's Found: 0**

| Cas Number | Analyte | RT | Est. Result (ppb v/v) | Qualifier |
|------------|---------------------------------|----|-----------------------|-----------|
| | Tentatively Identified Compound | | None | |

Analytical Data

Client: Ertec

Job Number: 200-37474-1

Sdg Number: 200-37474-1

Client Sample ID: ~~INLEP~~ Inlet P *see 04/12/17*

Lab Sample ID: 200-37474-3

Date Sampled: 02/21/2017 1033

Client Matrix: Air

Date Received: 02/22/2017 0935

TO-15 Volatile Organic Compounds in Ambient Air

| | | | | | |
|------------------|-----------------|-----------------|------------|------------------------|------------|
| Analysis Method: | TO-15 | Analysis Batch: | 200-114827 | Instrument ID: | CHW.i |
| Prep Method: | Summa Canister | Prep Batch: | N/A | Lab File ID: | 24282_07.d |
| Dilution: | 449 | | | Initial Weight/Volume: | 28 mL |
| Analysis Date: | 03/10/2017 1643 | | | Final Weight/Volume: | 200 mL |
| Prep Date: | 03/10/2017 1643 | | | Injection Volume: | 200 mL |

| Analyte | Result (ppb v/v) | Qualifier | MDL | RL |
|--------------------|---------------------|----------------|-----|------|
| Acetone | 2200 | U | 580 | 2200 |
| Isopropyl alcohol | 120 2200 | U U | 58 | 2200 |
| Methylene Chloride | 220 | U | 31 | 220 |
| n-Hexane | 90 | U | 21 | 90 |
| Chloroform | 90 | U | 11 | 90 |
| Tetrahydrofuran | 14000 | | 540 | 2200 |
| Benzene | 290 | | 13 | 90 |
| Toluene | 2200 | | 16 | 90 |
| Chlorobenzene | 90 | U | 11 | 90 |
| Ethylbenzene | 720 | | 15 | 90 |
| m,p-Xylene | 3400 | | 35 | 220 |
| Xylene, o- | 470 | | 18 | 90 |
| Xylene (total) | 3900 | | 18 | 310 |

| Analyte | Result (ug/m3) | Qualifier | MDL | RL |
|--------------------|---------------------|----------------|------|------|
| Acetone | 5300 | U | 1400 | 5300 |
| Isopropyl alcohol | 300 5500 | U U | 140 | 5500 |
| Methylene Chloride | 780 | U | 110 | 780 |
| n-Hexane | 320 | U | 73 | 320 |
| Chloroform | 440 | U | 55 | 440 |
| Tetrahydrofuran | 40000 | | 1600 | 6600 |
| Benzene | 930 | | 40 | 290 |
| Toluene | 8300 | | 59 | 340 |
| Chlorobenzene | 410 | U | 52 | 410 |
| Ethylbenzene | 3100 | | 66 | 390 |
| m,p-Xylene | 15000 | | 150 | 970 |
| Xylene, o- | 2000 | | 78 | 390 |
| Xylene (total) | 17000 | | 78 | 1400 |

see 04/12/17

Analytical Data

Client: Ertec

Job Number: 200-37474-1

Sdg Number: 200-37474-1

Client Sample ID: ~~INLET~~ Inlet-P era 04/12/17

Lab Sample ID: 200-37474-3

Date Sampled: 02/21/2017 1033

Client Matrix: Air

Date Received: 02/22/2017 0935

TO-15 Volatile Organic Compounds in Ambient Air

| | | | | | |
|------------------|-----------------|-----------------|------------|------------------------|------------|
| Analysis Method: | TO-15 | Analysis Batch: | 200-114827 | Instrument ID: | CHW.i |
| Prep Method: | Summa Canister | Prep Batch: | N/A | Lab File ID: | 24282_07.d |
| Dilution: | 449 | | | Initial Weight/Volume: | 28 mL |
| Analysis Date: | 03/10/2017 1643 | | | Final Weight/Volume: | 200 mL |
| Prep Date: | 03/10/2017 1643 | | | Injection Volume: | 200 mL |

Tentatively Identified Compounds

Number TIC's Found: 0

| Cas Number | Analyte | RT | Est. Result (ppb v/v) | Qualifier |
|------------|---------------------------------|----|-----------------------|-----------|
| | Tentatively Identified Compound | | None | |

Analytical Data

Client: Ertec

Job Number: 200-37474-1

Sdg Number: 200-37474-1

Client Sample ID: ~~OUTLET-16~~

Outlet-16 use 04/12/17

Lab Sample ID: 200-37474-4

Date Sampled: 02/21/2017 1038

Client Matrix: Air

Date Received: 02/22/2017 0935

TO-15 Volatile Organic Compounds in Ambient Air

| | | |
|--------------------------------|----------------------------|------------------------------|
| Analysis Method: TO-15 | Analysis Batch: 200-114827 | Instrument ID: CHW.i |
| Prep Method: Summa Canister | Prep Batch: N/A | Lab File ID: 24282_08.d |
| Dilution: 29.2 | | Initial Weight/Volume: 32 mL |
| Analysis Date: 03/10/2017 1733 | | Final Weight/Volume: 200 mL |
| Prep Date: 03/10/2017 1733 | | Injection Volume: 200 mL |

| Analyte | Result (ppb v/v) | Qualifier | MDL | RL |
|--------------------|-------------------|-----------------|------|-----|
| Acetone | 71 | J | 38 | 150 |
| Isopropyl alcohol | 44 150 | JB U | 3.8 | 150 |
| Methylene Chloride | 27 | | 2.0 | 15 |
| n-Hexane | 5.8 | U | 1.3 | 5.8 |
| Chloroform | 5.8 | U | 0.73 | 5.8 |
| Tetrahydrofuran | 680 | | 35 | 150 |
| Benzene | 5.8 | U | 0.82 | 5.8 |
| Toluene | 2.5 | J | 1.0 | 5.8 |
| Chlorobenzene | 5.8 | U | 0.73 | 5.8 |
| Ethylbenzene | 5.8 | U | 0.99 | 5.8 |
| m,p-Xylene | 15 | U | 2.2 | 15 |
| Xylene, o- | 5.8 | U | 1.2 | 5.8 |
| Xylene (total) | 20 | U | 1.2 | 20 |

| Analyte | Result (ug/m3) | Qualifier | MDL | RL |
|--------------------|-------------------|-----------------|-----|-----|
| Acetone | 170 | J | 90 | 350 |
| Isopropyl alcohol | 30 150 | JB U | 9.3 | 360 |
| Methylene Chloride | 95 | | 6.9 | 51 |
| n-Hexane | 21 | U | 4.7 | 21 |
| Chloroform | 29 | U | 3.6 | 29 |
| Tetrahydrofuran | 2000 | | 100 | 430 |
| Benzene | 19 | U | 2.6 | 19 |
| Toluene | 9.3 | J | 3.9 | 22 |
| Chlorobenzene | 27 | U | 3.4 | 27 |
| Ethylbenzene | 25 | U | 4.3 | 25 |
| m,p-Xylene | 63 | U | 9.8 | 63 |
| Xylene, o- | 25 | U | 5.1 | 25 |
| Xylene (total) | 89 | U | 5.1 | 89 |

use 04/12/17

Analytical Data

Client: Ertec

Job Number: 200-37474-1
Sdg Number: 200-37474-1

Client Sample ID: OUTLET-16

Lab Sample ID: 200-37474-4
Client Matrix: Air

Date Sampled: 02/21/2017 1038
Date Received: 02/22/2017 0935

TO-15 Volatile Organic Compounds in Ambient Air

Analysis Method: TO-15
Prep Method: Summa Canister
Dilution: 29.2
Analysis Date: 03/10/2017 1733
Prep Date: 03/10/2017 1733

Analysis Batch: 200-114827
Prep Batch: N/A

Instrument ID: CHW.i
Lab File ID: 24282_08.d
Initial Weight/Volume: 32 mL
Final Weight/Volume: 200 mL
Injection Volume: 200 mL

Tentatively Identified Compounds

Number TIC's Found: 0

| Cas Number | Analyte | RT | Est. Result (ppb v/v) | Qualifier |
|------------|---------------------------------|----|-----------------------|-----------|
| | Tentatively Identified Compound | | None | |

Analytical Data

Client: Ertec

Job Number: 200-37474-1
Sdg Number: 200-37474-1

Client Sample ID: TB022117

Lab Sample ID: 200-37474-5
Client Matrix: Air

Date Sampled: 02/21/2017 0000
Date Received: 02/22/2017 0935

TO-15 Volatile Organic Compounds In Ambient Air

| | | |
|--------------------------------|----------------------------|-------------------------------|
| Analysis Method: TO-15 | Analysis Batch: 200-114595 | Instrument ID: CHB.i |
| Prep Method: Summa Canister | Prep Batch: N/A | Lab File ID: 24174-24.D |
| Dilution: 1.0 | | Initial Weight/Volume: 200 mL |
| Analysis Date: 03/04/2017 0924 | | Final Weight/Volume: 200 mL |
| Prep Date: 03/04/2017 0924 | | Injection Volume: 200 mL |

| Analyte | Result (ppb v/v) | Qualifier | MDL | RL |
|--------------------|------------------|-----------|-------|------|
| Acetone | 5.0 | U | 1.3 | 5.0 |
| Isopropyl alcohol | 5.0 | U | 0.13 | 5.0 |
| Methylene Chloride | 0.50 | U | 0.068 | 0.50 |
| n-Hexane | 0.20 | U | 0.046 | 0.20 |
| Chloroform | 0.20 | U | 0.025 | 0.20 |
| Tetrahydrofuran | 5.0 | U | 1.2 | 5.0 |
| Benzene | 0.20 | U | 0.028 | 0.20 |
| Toluene | 0.20 | U | 0.035 | 0.20 |
| Chlorobenzene | 0.20 | U | 0.025 | 0.20 |
| Ethylbenzene | 0.20 | U | 0.034 | 0.20 |
| m,p-Xylene | 0.50 | U | 0.077 | 0.50 |
| Xylene, o- | 0.20 | U | 0.040 | 0.20 |
| Xylene (total) | 0.70 | U | 0.040 | 0.70 |

| Analyte | Result (ug/m3) | Qualifier | MDL | RL |
|--------------------|----------------|-----------|-------|------|
| Acetone | 12 | U | 3.1 | 12 |
| Isopropyl alcohol | 12 | U | 0.32 | 12 |
| Methylene Chloride | 1.7 | U | 0.24 | 1.7 |
| n-Hexane | 0.70 | U | 0.16 | 0.70 |
| Chloroform | 0.98 | U | 0.12 | 0.98 |
| Tetrahydrofuran | 15 | U | 3.5 | 15 |
| Benzene | 0.64 | U | 0.089 | 0.64 |
| Toluene | 0.75 | U | 0.13 | 0.75 |
| Chlorobenzene | 0.92 | U | 0.12 | 0.92 |
| Ethylbenzene | 0.87 | U | 0.15 | 0.87 |
| m,p-Xylene | 2.2 | U | 0.33 | 2.2 |
| Xylene, o- | 0.87 | U | 0.17 | 0.87 |
| Xylene (total) | 3.0 | U | 0.17 | 3.0 |

Analytical Data

Client: Ertec

Job Number: 200-37474-1
Sdg Number: 200-37474-1

Client Sample ID: TB022117

Lab Sample ID: 200-37474-5
Client Matrix: Air

Date Sampled: 02/21/2017 0000
Date Received: 02/22/2017 0935

TO-15 Volatile Organic Compounds in Ambient Air

| | | | | | |
|------------------|-----------------|-----------------|------------|------------------------|------------|
| Analysis Method: | TO-15 | Analysis Batch: | 200-114595 | Instrument ID: | CHB.i |
| Prep Method: | Summa Canister | Prep Batch: | N/A | Lab File ID: | 24174-24.D |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 200 mL |
| Analysis Date: | 03/04/2017 0924 | | | Final Weight/Volume: | 200 mL |
| Prep Date: | 03/04/2017 0924 | | | Injection Volume: | 200 mL |

Tentatively Identified Compounds

Number TIC's Found: 0

| Cas Number | Analyte | RT | Est. Result (ppb v/v) | Qualifier |
|------------|---------------------------------|----|-----------------------|-----------|
| | Tentatively Identified Compound | | None | |



Eden Environmental, LLC

ATTACHMENT B

EPA REGION II QUALIFIERS AND THEIR DEFINITIONS

- U The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.
- J The analyte was positively identified. The associated numerical value is the approximate concentration of the analyte in the sample.
- J+ The result is an estimated quantity; but the result may be biased high.
- J- The result is an estimated quantity; but the result may be biased low.
- NJ The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.
- UJ The analyte was analyzed for but not detected. The reported quantitation limit may be inaccurate or imprecise.
- R The data are unusable. The sample results are rejected due to serious deficiencies in meeting Quality Control (QC) criteria. The analyte may or may not be present in the sample.



Eden Environmental, LLC

April 12, 2017

Ms. Wanda Morales
ERTEC
Amur St. A - #5
Reparto Landrau
Rio Piedras, PR 00921

RE: Validation Report for the SVE EPA 3C Methane Air Monitoring
of the Pfizer Barceloneta Site

Dear Wanda,

Enclosed is the validation report for methane in the air samples collected on February 21, 2017, from the Pfizer Barceloneta Site. The following samples were submitted to TestAmerica in Burlington, Vermont and were assigned to Sample Delivery Group (SDG) 200-37474.

Inlet-1-16

Inlet-2-16

Inlet-P

Outlet-16

The laboratory performed well, but some corrections of sample results were necessary. See Section XI. The data package was received for validation on April 10, 2017.

All samples were analyzed for methane only in conformance with the specifications of USEPA Method 3C. The validation effort was restricted to the reported results and supporting data for this compound.

Data validation was performed in conformance with the specifications of the EPA Region II Standard Operating Procedure (Analysis of Volatile Organic Compounds in Air Contained in Canisters by Method TO-15," SOP HW-31 Revision 6, June, 2014). When necessary, professional judgment was applied and appropriately noted in the applicable section of the attached report. The validation effort for these data has the label Stage 4 Validation Manual (S4VM).



Eden Environmental, LLC

Ms. Wanda Morales
April 12, 2017
Page 2 of 2

Anomalies detected during the validation effort (if any) are included in the appropriate section of the attached report. The Laboratory Analytical Data Forms with all qualifiers resulting from the validation effort (if any were necessary) are included in Attachment A. The EPA Region II qualifiers and their definitions are included in Attachment B.

If you have any questions regarding this report, please give me a call at 225-355-0163 or contact me by e-mail at engrid@eden-env.com

Kindest regards,

Engrid Carpenter
President



Eden Environmental, LLC

ANALYTICAL DATA VALIDATION

ERTEC JOB DESCRIPTION – PFIZER BARCELONETA – SVE

ERTEC JOB NUMBER: 17-5475

ORGANIC ANALYSIS DATA

**Prepared by: TestAmerica Laboratory, Burlington Vermont
Sample Delivery Group Number 200-37474
Methane in Air Samples**

VALIDATION REPORT

**Prepared by: Eden Environmental, LLC
Eden Project Number 13104**

April 12, 2017

**13104/ESC/CEW
200-37474-EPA 3C**



Eden Environmental, LLC

EXECUTIVE SUMMARY

Enclosed is the validation report for methane in the air samples collected on February 21, 2017, from the Pfizer Barceloneta Site. The following samples were submitted to TestAmerica in Burlington, Vermont and were assigned to Sample Delivery Group (SDG) 200-37474.

| Inlet-1-16 | Inlet-2-16 | Inlet-P | Outlet-16 |
|------------|------------|---------|-----------|
|------------|------------|---------|-----------|

The laboratory performed well, but some corrections of sample results were necessary. See Section XI. The data package was received for validation on April 10, 2017.

Data validation was performed in conformance with the specifications of the EPA Region II Standard Operating Procedure (Analysis of Volatile Organic Compounds in Air Contained in Canisters by Method TO-15," SOP HW-31 Revision 6, June, 2014). When necessary, professional judgment was applied and appropriately noted in the applicable section of the attached report. The validation effort for these data has the label Stage 4 Validation Manual (S4VM).

Anomalies detected during the validation effort (if any) are included in the appropriate section of the attached report. The Laboratory Analytical Data Forms with all qualifiers resulting from the validation effort (if any were necessary) are included in Attachment A. The EPA Region II qualifiers and their definitions are included in Attachment B.



Eden Environmental, LLC

INTRODUCTION

Analyses were performed using EPA Method 3C, "Determination of Carbon Dioxide, Methane, Nitrogen, and Oxygen from Stationary Sources." Each standard and sample was analyzed in duplicate. Responses from both analyses were averaged and the average was used to calculate all results as required by the analytical method.

The laboratory modified the analytical method as follows:

- The target analyte list was limited to methane; therefore, the validation effort was restricted to the supporting data for this analyte.
- The initial calibration was established using five concentration levels while a minimum of three concentrations are required by Method 3C. Concentrations of 0.040 percent volume to volume (% v/v), 0.40% v/v, 2.0% v/v, 4.0% v/v, and 99% v/v were used to establish the calibration range for methane.

Data validation was performed in conformance with the specifications of the EPA Region II Standard Operating Procedure (Analysis of Volatile Organic Compounds in Air Contained in Canisters by Method TO-15," SOP HW-31 Revision 6, June, 2014). When necessary, professional judgment was applied and appropriately noted in the applicable section of the attached report. The validation effort for these data has the label Stage 4 Validation Manual (S4VM).

Anomalies detected during the validation effort (if any) are included in the appropriate section of the attached report. The Laboratory Analytical Data Forms with all qualifiers resulting from the validation effort (if any were necessary) are included in Attachment A. The EPA Region II qualifiers and their definitions are included in Attachment B.



Eden Environmental, LLC

I. Holding Times, Preservation, and Sample Integrity

These air samples were collected in Summa® Canisters on February 21, 2017. A copy of the Laboratory Login Sample Receipt Checklist noted that all site samples were received in good condition with custody seals intact. Copies of the chain of custody records were also present in the data package and included all samples in this data set. No physical preservation requirements are specified for Summa® canisters. Therefore, all requirements for holding times and sample integrity were met. No physical preservation requirements are specified for Summa® canisters.

II. Calibration and Instrument Performance

The samples in this data set were analyzed on a single gas chromatograph (GC) instrument identified in the data package as “CH0001.” The GC was equipped with a thermal conductivity detector (TCD) and a column identified as “CTR-1.”

Peaks for methane and carbon monoxide overlap in all calibration standards. Under the analytical conditions used, methane eluted at approximately 7.9 minutes, which was prior to carbon monoxide at 8.6 minutes. The methane peak area was determined by dropping a perpendicular line to the baseline at the onset of the carbon monoxide peak. This served to under-estimate the methane peak area and resulted in a decreased methane calibration factor and an over-estimated methane sample concentration. Methane was not detected in any of the site samples and no action by the validator was necessary.

A. Initial Calibration (IC) and Initial Calibration Verification (ICV)

An IC was performed on August 17, 2015. Documentation of all IC standards was provided in the data package. The calibration factor (CF) was correctly calculated and accurately reported. The percent relative standard deviation (%RSD) for the calibration curve was acceptable (<20%).

An ICV was analyzed after the IC. The percent difference (%D) value for calculated versus true value was acceptable ($\leq 30\%$).

B. Continuing Calibration (CC)

The samples in this data set were bracketed by CC standards; therefore, an acceptable analytical sequence was performed. The concentration of each CC standard was 4.0% v/v. Percent difference (%D) values for calculated versus true value of both CC standards were acceptable (<20%).



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III. Blanks

A laboratory blank was analyzed with the samples in this data set. Methane was not detected in the laboratory blank.

IV. Surrogate Recovery

The use of a surrogate compound is not addressed in Method 3C. No surrogate compound was employed with the analyses of these samples.

V. Spike Analyses

The laboratory control sample (LCS) was spiked with methane at 4.0% v/v, and the recovery of methane (100%) was correctly calculated, accurately reported, and within the method-specified acceptance limits (70-130%).

VI. Field Duplicate

Collection of true field duplicates is not feasible for air samples; therefore, a better description of these quality control samples would be co-located samples. The analytical method and the validation guidance document do not provide an acceptance criterion for RPDs between reported concentrations in "field duplicate" samples. For this validation effort, a maximum acceptance limit of 100 RPD was used to define acceptable agreement between reported results in the co-located samples. Results with RPD values greater than 100 RPD should be used with caution as the concentration and source of these compounds in the reported samples is uncertain.

Inlet-P was collected as a co-located sample of Inlet-2-16. Methane was not detected in either of these samples; therefore, no quantitative evaluation of precision could be made from these data.

VII. Compound Identification

Methane was correctly identified in the LCS based on the presence of a response on the quantitation report and a peak in the chromatogram within the retention time window specified for this compound during the associated IC.

VIII. Compound Quantitation and Reporting Limit (RL)

The true value of the low concentration standard used to establish the IC was 0.040% v/v. However, the averaged concentration of reported results for this standard is 0.050% v/v. The RL for these samples was corrected by the validator to reflect an unadjusted concentration of 0.050% v/v on the answer forms in this report. Unadjusted RLs were also properly adjusted by the validator



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for dilution factors arising from the final canister pressure of each sample. The laboratory does not measure the moisture content of the canisters; therefore, no adjustment for moisture content was made for the reported sample results.

The peaks for methane and carbon monoxide overlapped in all calibration standards. This does present a problem of over-estimated methane results when this compound is detected.

Method 3C specifies agreement between paired responses must be $\leq 5\%$ difference (%D). Acceptable agreement was noted between positive paired responses in the quality control samples.

IX. System Performance

The analytical system did not resolve methane from carbon monoxide at the time of these analyses. The laboratory should ensure the low concentration standard can be used as the RL and resolve the issue with the overlap of peaks for methane and carbon monoxide.

X. Documentation

Chain of custody records were provided in the data package and included the samples in this data set. The following observations were noted:

All laboratory "received by" signatures are illegible.

The laboratory-generated Login Sample Receipt Checklist indicated custody seals were used and were intact on the site samples upon laboratory receipt.

A copy of the FedEx airbill was included in the data package to document the transfer of the samples from the field to the laboratory.

The laboratory sample identifications were not in the same format of those used on the chain of custody records. The validator used the identifications as presented on the chain of custody records throughout this report.

XI. Overall Assessment

Findings of the validation effort resulted in the correction of the unadjusted sample reporting limit to accurately reflect the concentration observed by the laboratory in the low concentration standard used to establish the IC. Unadjusted RLs were also properly adjusted by the validator for dilution factors arising from the final canister pressure of each sample. These corrections were made by the validator to the answer forms in this report. The laboratory does not measure the moisture content of the canisters; therefore, no adjustment for moisture content was made for the reported sample results.



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This validation effort is based on the data as provided by the laboratory. Software manipulation cannot be routinely detected during validation and is outside the scope of this review.

This validation report should be added to the data package for all future distributions of the methane data reported in SDG 200-37474.



Eden Environmental, LLC

ATTACHMENT A
LABORATORY ANALYTICAL DATA FORMS

Analytical Data

Client: Ertec

Job Number: 200-37474-1
Sdg Number: 200-37474-1

Client Sample ID: ~~INLET-1-16~~ Inlet-1-16 *erc 04/12/17*

Lab Sample ID: 200-37474-1

Date Sampled: 02/21/2017 1030

Client Matrix: Air

Date Received: 02/22/2017 0935

EPA 3C Fixed Gases from Stationary Sources

| | | | | | |
|------------------|-----------------|-----------------|------------|------------------------|-----------------------|
| Analysis Method: | EPA 3C | Analysis Batch: | 200-114501 | Instrument ID: | CH0001.i |
| Prep Method: | Summa Canister | Prep Batch: | N/A | Lab File ID: | 2017-02-27 17:15:22 2 |
| Dilution: | 1.42 | | | Initial Weight/Volume: | 2 mL |
| Analysis Date: | 02/27/2017 1715 | | | Final Weight/Volume: | 2 mL |
| Prep Date: | 02/27/2017 1715 | | | Injection Volume: | 2 mL |

| Analyte | Result (% v/v) | Qualifier | RL | RL |
|---------|------------------------|-----------|------------------------|------------------------|
| Methane | 0.057 0.071 | U | 0.057 0.071 | 0.057 0.071 |

erc 04/12/17

Analytical Data

Client: Ertec

Job Number: 200-37474-1
Sdg Number: 200-37474-1

Client Sample ID: ~~INLET-2-16~~ Inlet - 2-16 eu 04/12/17

Lab Sample ID: 200-37474-2
Client Matrix: Air

Date Sampled: 02/21/2017 1033
Date Received: 02/22/2017 0935

EPA 3C Fixed Gases from Stationary Sources

| | | | | | |
|------------------|-----------------|-----------------|------------|------------------------|-----------------------|
| Analysis Method: | EPA 3C | Analysis Batch: | 200-114501 | Instrument ID: | CH0001.i |
| Prep Method: | Summa Canister | Prep Batch: | N/A | Lab File ID: | 2017-02-27 18;20;27 2 |
| Dilution: | 1.37 | | | Initial Weight/Volume: | 2 mL |
| Analysis Date: | 02/27/2017 1820 | | | Final Weight/Volume: | 2 mL |
| Prep Date: | 02/27/2017 1820 | | | Injection Volume: | 2 mL |

| Analyte | Result (% v/v) | Qualifier | RL | RL |
|---------|------------------------|-----------|-------------|-------------|
| Methane | 0.066 0.069 | U | 0.055 0.069 | 0.055 0.069 |

eu 04/12/17

Analytical Data

Client: Ertec

Job Number: 200-37474-1

Sdg Number: 200-37474-1

Client Sample ID: ~~INLET-R~~ Inlet-P see 04/12/17

Lab Sample ID: 200-37474-3

Date Sampled: 02/21/2017 1033

Client Matrix: Air

Date Received: 02/22/2017 0935

EPA 3C Fixed Gases from Stationary Sources

| | | | | | |
|------------------|-----------------|-----------------|------------|------------------------|-----------------------|
| Analysis Method: | EPA 3C | Analysis Batch: | 200-114501 | Instrument ID: | CH0001.i |
| Prep Method: | Summa Canister | Prep Batch: | N/A | Lab File ID: | 2017-02-27 19:25:32 2 |
| Dilution: | 1.27 | | | Initial Weight/Volume: | 2 mL |
| Analysis Date: | 02/27/2017 1925 | | | Final Weight/Volume: | 2 mL |
| Prep Date: | 02/27/2017 1925 | | | Injection Volume: | 2 mL |

| Analyte | Result (% v/v) | Qualifier | RL | RL |
|---------|------------------------|-----------|-------|-------|
| Methane | 0.051 0.064 | U | 0.051 | 0.064 |

see 04/12/17

Analytical Data

Client: Ertec

Job Number: 200-37474-1
Sdg Number: 200-37474-1

Client Sample ID: OUTLET-16

Lab Sample ID: 200-37474-4
Client Matrix: Air

Date Sampled: 02/21/2017 1038
Date Received: 02/22/2017 0935

EPA 3C Fixed Gases from Stationary Sources

| | | | | | |
|------------------|-----------------|-----------------|------------|------------------------|-----------------------|
| Analysis Method: | EPA 3C | Analysis Batch: | 200-114501 | Instrument ID: | CH0001.i |
| Prep Method: | Summa Canister | Prep Batch: | N/A | Lab File ID: | 2017-02-27 20;30;33 2 |
| Dilution: | 1.31 | | | Initial Weight/Volume: | 2 mL |
| Analysis Date: | 02/27/2017 2030 | | | Final Weight/Volume: | 2 mL |
| Prep Date: | 02/27/2017 2030 | | | Injection Volume: | 2 mL |

| Analyte | Result (% v/v) | Qualifier | RL | RL |
|---------|------------------------|-----------|------------------------|------------------------|
| Methane | 0.052 0.066 | U | 0.052 0.066 | 0.052 0.066 |

ere 04/12/17



Eden Environmental, LLC

ATTACHMENT B

EPA REGION II QUALIFIERS AND THEIR DEFINITIONS

- U The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.
- J The analyte was positively identified. The associated numerical value is the approximate concentration of the analyte in the sample.
- J+ The result is an estimated quantity; but the result may be biased high.
- J- The result is an estimated quantity; but the result may be biased low.
- NJ The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.
- UJ The analyte was analyzed for but not detected. The reported quantitation limit may be inaccurate or imprecise.
- R The data are unusable. The sample results are rejected due to serious deficiencies in meeting Quality Control (QC) criteria. The analyte may or may not be present in the sample.



Eden Environmental, LLC

April 12, 2017

Ms. Wanda Morales
ERTEC
Amur St. A - #5
Reparto Landrau
Rio Piedras, PR 00921

RE: Validation Report for the SVE EPA 25C NMOC Air Monitoring
of the Pfizer Barceloneta Site

Dear Wanda,

Enclosed is the validation report for NMOC in the air samples collected on February 21, 2017, from the Pfizer Barceloneta Site. The following samples were submitted to TestAmerica in Burlington, Vermont and were assigned to Sample Delivery Group (SDG) 200-37474.

| | | | | |
|------------|------------|---------|-----------|----------|
| Inlet-1-16 | Inlet-2-16 | Inlet-P | Outlet-16 | TB022117 |
|------------|------------|---------|-----------|----------|

Based on the findings of the validation effort, all sample results were determined to be valid as reported. The validator did not add any qualifiers to the laboratory-reported results. The data package was received for validation on April 10, 2017.

All samples were analyzed for NMOC in conformance with the specifications of USEPA Method 25C. Each standard, quality control sample, and all five site samples were measured in triplicate and the average of the three runs was used to calculate the final results as required by the analytical method.

Data validation was performed in conformance with the specifications of the EPA Region II Standard Operating Procedure (Analysis of Volatile Organic Compounds in Air Contained in Canisters by Method TO-15," SOP HW-31 Revision 6, June, 2014). When necessary, professional judgment was applied and appropriately noted in the applicable section of the attached report. The validation effort for these data has the label Stage 4 Validation Manual (S4VM).



Eden Environmental, LLC

Ms. Wanda Morales
April 12, 2017
Page 2 of 2

Anomalies detected during the validation effort (if any) are included in the appropriate section of the attached report. The Laboratory Analytical Data Forms with all qualifiers resulting from the validation effort (if any were necessary) are included in Attachment A. The EPA Region II qualifiers and their definitions are included in Attachment B.

If you have any questions regarding this report, please give me a call at 225-355-0163 or contact me by e-mail at cngid@eden-env.com

Kindest regards,

A handwritten signature in cursive script that reads "Engrid Carpenter". The signature is written in a dark ink and is positioned above the printed name and title.

Engrid Carpenter
President



Eden Environmental, LLC

ANALYTICAL DATA VALIDATION

ERTEC JOB DESCRIPTION – PFIZER BARCELONETA – SVE

ERTEC JOB NUMBER: 17-5475

ORGANIC ANALYSIS DATA

**Prepared by: TestAmerica Laboratory, Burlington Vermont
Sample Delivery Group Number 200-37474
NMOC in Air Samples**

VALIDATION REPORT

**Prepared by: Eden Environmental, LLC
Eden Project Number 13104**

April 12, 2017

**13104/ESC/CEW
200-37474-EPA 25C**



Eden Environmental, LLC

EXECUTIVE SUMMARY

Enclosed is the validation report for NMOC in the air samples collected on February 21, 2017, from the Pfizer Barceloneta Site. The following samples were submitted to TestAmerica in Burlington, Vermont and were assigned to Sample Delivery Group (SDG) 200-37474.

| | | | | |
|------------|------------|---------|-----------|----------|
| Inlet-1-16 | Inlet-2-16 | Inlet-P | Outlet-16 | TB022117 |
|------------|------------|---------|-----------|----------|

Based on the findings of the validation effort, all sample results were determined to be valid as reported. The validator did not add any qualifiers to the laboratory-reported results. The data package was received for validation on April 10, 2017.

All samples were analyzed for NMOC in conformance with the specifications of USEPA Method 25C. Each standard, quality control sample, and all five site samples were measured in triplicate and the average of the three runs was used to calculate the final results as required by the analytical method.

Data validation was performed in conformance with the specifications of the EPA Region II Standard Operating Procedure (Analysis of Volatile Organic Compounds in Air Contained in Canisters by Method TO-15," SOP HW-31 Revision 6, June, 2014). When necessary, professional judgment was applied and appropriately noted in the applicable section of the attached report. The validation effort for these data has the label Stage 4 Validation Manual (S4VM).

Anomalies detected during the validation effort (if any) are included in the appropriate section of the attached report. The Laboratory Analytical Data Forms with all qualifiers resulting from the validation effort (if any were necessary) are included in Attachment A. The EPA Region II qualifiers and their definitions are included in Attachment B.



Eden Environmental, LLC

INTRODUCTION

Analyses were performed using EPA Method 25C, "Determination of Total Gaseous Non-Methane Organic Emissions as Carbon." Each standard, quality control sample and all five site samples were measured in triplicate. Responses from all three analyses were averaged and the average was used to calculate all results as required by the analytical method.

Data validation was performed in conformance with the specifications of the EPA Region II Standard Operating Procedure (Analysis of Volatile Organic Compounds in Air Contained in Canisters by Method TO-15," SOP HW-31 Revision 6, June, 2014). When necessary, professional judgment was applied and appropriately noted in the applicable section of the attached report. The validation effort for these data has the label Stage 4 Validation Manual (S4VM).

Anomalies detected during the validation effort (if any) are included in the appropriate section of the attached report. The Laboratory Analytical Data Forms with all qualifiers resulting from the validation effort (if any were necessary) are included in Attachment A. The EPA Region II qualifiers and their definitions are included in Attachment B.



Eden Environmental, LLC

I. Holding Times, Preservation, and Sample Integrity

All NMOC analyses were performed within holding time. A copy of the Laboratory Login Sample Receipt Checklist noted that all site samples were received in good condition and custody seals were intact. Copies of the chain of custody records were also present in the data package and included all the samples in this data set. No physical preservation requirements are specified for Summa® canisters.

II. Calibration and Instrument Performance

The samples in this data set were analyzed on a single gas chromatograph (GC) instrument identified in the data package as “CH0001.” The GC was equipped with a flame ionization detector (FID) and a stationary phase column identified as “Carbo/Unibeads.”

A. Initial Calibration (IC) and Initial Calibration Verification (ICV)

An IC was established on January 8, 2015. Concentrations of 6.0 parts per million carbon (ppm-C), 750 ppm-C, and 1800 ppm-C were used to establish the IC curve. Documentation of all IC standards was provided in the data package. The calibration factors (CFs) were correctly calculated and accurately reported. The percent relative standard deviation (%RSD) for the calibration curve was acceptable ($\leq 15\%$).

An ICV at 750 ppm-C was analyzed after the IC. The percent difference (%D) value for calculated versus true value was acceptable ($\leq 30\%$).

B. Continuing Calibration (CC)

The samples in this data set associated with opening and closing sequence CC standards. The concentration of each CC standard was 750 ppm-C and all %D values for calculated versus true value were acceptable ($\leq 10\%$).

III. Blanks

A laboratory blank was analyzed in the run sequence associated with the samples in this data set. NMOC was not detected above the reporting limit (RL) in the laboratory blanks.

A trip blank (TB022117) was associated with the samples in this data set. NMOC was not detected above the RL in TB022117.



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IV. Surrogate Recovery

The use of a surrogate compound is not addressed in Method 25C. No surrogate compound was employed with the analyses of these samples.

V. Spike Analyses

A laboratory control sample (LCS) was analyzed in the analytical sequence containing the site samples. The LCS was spiked with NMOC at 750 ppm-C. The recovery (92%) was correctly calculated, accurately reported, and within the method-specified acceptance limits (70-130%).

VI. Field Duplicate

Collection of true field duplicates is not feasible for air samples; therefore, a better description of these quality control samples would be co-located samples. The analytical method and the validation guidance document do not provide an acceptance criterion for RPDs between reported concentrations in "field duplicate" samples. For this validation effort, a maximum acceptance limit of 100 RPD was used to define acceptable agreement between reported results in the co-located samples. Results with RPD values greater than 100 RPD should be used with caution as the concentration and source of these compounds in the reported samples is uncertain.

Inlet-P was collected as a co-located sample of Inlet 2-16. Agreement between reported NMOC results (8 RPD) was acceptable.

VII. Compound Identification

Where detected, NMOC was correctly identified based on the presence of responses on the quantitation reports and peaks in the chromatograms within the retention time window established for this compound during the associated IC.

VIII. Compound Quantitation and Reporting Limit (RL)

Target compound concentrations and sample-specific RLs were correctly calculated, accurately reported, and properly adjusted for dilution factors based on the final pressure in the canister. All positively reported results met Method 25C-specified agreement among the triplicate responses ($\leq 5\%$ RSD).

The unadjusted RL for NMOC is equivalent to the low concentration standard used to establish the IC; therefore, this RL is supported by the data as presented. The laboratory does not measure the moisture content of the canisters; therefore, no adjustment for moisture content was made for the reported sample results.



Eden Environmental, LLC

IX. System Performance

The analytical system was working satisfactorily at the time of these analyses, based on the evaluation of the available raw data.

X. Documentation

Chain of custody records were provided in the data package and included all samples in this data set. The following observations were noted:

All laboratory “received by” signatures are illegible.

The laboratory-generated Login Sample Receipt Checklist indicated custody seals were used and were intact upon laboratory receipt.

A copy of the FedEx airbill was included in the data package to document the transfer of the samples from the field to the laboratory.

The laboratory sample identifications were not in the same format of those used on the chain of custody records. The validator used the identifications as presented on the chain of custody records throughout this report.

XI. Overall Assessment

Based on the findings of the validation effort, all sample results were determined to be valid as reported. The validator did not add any qualifiers to the laboratory-reported results.

This validation effort is based on the data as provided by the laboratory. Software manipulation cannot be routinely detected during validation and is outside the scope of this review.

This validation report should be added to the data package for all future distributions of the NMOC data reported in SDG 200-37474.



Eden Environmental, LLC

ATTACHMENT A
LABORATORY ANALYTICAL DATA FORMS

Analytical Data

Client: Ertec

Job Number: 200-37474-1
Sdg Number: 200-37474-1

Client Sample ID: ~~INLET 446~~ Inlet-1-16 use 04/12/17

Lab Sample ID: 200-37474-1
Client Matrix: Air

Date Sampled: 02/21/2017 1030
Date Received: 02/22/2017 0935

EPA 25C Nonmethane Organic Compounds (NMOC)

| | | | | | |
|------------------|-----------------|-----------------|------------|------------------------|-----------------------|
| Analysis Method: | EPA 25C | Analysis Batch: | 200-114502 | Instrument ID: | CH0001.i |
| Prep Method: | Summa Canister | Prep Batch: | N/A | Lab File ID: | 2017-02-27 17:31:34 2 |
| Dilution: | 1.42 | | | Initial Weight/Volume: | 2 mL |
| Analysis Date: | 02/27/2017 1731 | | | Final Weight/Volume: | 2 mL |
| Prep Date: | 02/27/2017 1731 | | | Injection Volume: | 2 mL |

| Analyte | Result (ppm-C) | Qualifier | RL | RL |
|----------------|----------------|-----------|-----|-----|
| NMOC as Carbon | 490 | | 8.5 | 8.5 |

Analytical Data

Client: Ertec

Job Number: 200-37474-1
Sdg Number: 200-37474-1

Client Sample ID: ~~INLET-246~~ Inlet-2-16 on 04/12/17

Lab Sample ID: 200-37474-2
Client Matrix: Air

Date Sampled: 02/21/2017 1033
Date Received: 02/22/2017 0935

EPA 25C Nonmethane Organic Compounds (NMOC)

| | | | | | |
|------------------|-----------------|-----------------|------------|------------------------|-----------------------|
| Analysis Method: | EPA 25C | Analysis Batch: | 200-114502 | Instrument ID: | CH0001.i |
| Prep Method: | Summa Canister | Prep Batch: | N/A | Lab File ID: | 2017-02-27 18:20:27 2 |
| Dilution: | 1.37 | | | Initial Weight/Volume: | 2 mL |
| Analysis Date: | 02/27/2017 1820 | | | Final Weight/Volume: | 2 mL |
| Prep Date: | 02/27/2017 1820 | | | Injection Volume: | 2 mL |

| Analyte | Result (ppm-C) | Qualifier | RL | RL |
|----------------|----------------|-----------|-----|-----|
| NMOC as Carbon | 130 | | 8.2 | 8.2 |

Analytical Data

Client: Ertec

Job Number: 200-37474-1
Sdg Number: 200-37474-1

Client Sample ID: ~~INLET-P~~ Inlet - P see 04/21/17

Lab Sample ID: 200-37474-3
Client Matrix: Air

Date Sampled: 02/21/2017 1033
Date Received: 02/22/2017 0935

EPA 25C Nonmethane Organic Compounds (NMOC)

| | | | | | |
|------------------|-----------------|-----------------|------------|------------------------|-----------------------|
| Analysis Method: | EPA 25C | Analysis Batch: | 200-114502 | Instrument ID: | CH0001.i |
| Prep Method: | Summa Canister | Prep Batch: | N/A | Lab File ID: | 2017-02-27 19:25:32 2 |
| Dilution: | 1.27 | | | Initial Weight/Volume: | 2 mL |
| Analysis Date: | 02/27/2017 1925 | | | Final Weight/Volume: | 2 mL |
| Prep Date: | 02/27/2017 1925 | | | Injection Volume: | 2 mL |

| Analyte | Result (ppm-C) | Qualifier | RL | RL |
|----------------|----------------|-----------|-----|-----|
| NMOC as Carbon | 120 | | 7.6 | 7.6 |

Analytical Data

Client: Ertec

Job Number: 200-37474-1
Sdg Number: 200-37474-1

Client Sample ID: ~~OUTLET-16~~ *outlet -16 see 04/12/17*

Lab Sample ID: 200-37474-4
Client Matrix: Air

Date Sampled: 02/21/2017 1038
Date Received: 02/22/2017 0935

EPA 25C Nonmethane Organic Compounds (NMOC)

| | | | | | |
|------------------|-----------------|-----------------|------------|------------------------|-----------------------|
| Analysis Method: | EPA 25C | Analysis Batch: | 200-114502 | Instrument ID: | CH0001.i |
| Prep Method: | Summa Canister | Prep Batch: | N/A | Lab File ID: | 2017-02-27 20:30:33 2 |
| Dilution: | 1.31 | | | Initial Weight/Volume: | 2 mL |
| Analysis Date: | 02/27/2017 2030 | | | Final Weight/Volume: | 2 mL |
| Prep Date: | 02/27/2017 2030 | | | Injection Volume: | 2 mL |

| Analyte | Result (ppm-C) | Qualifier | RL | RL |
|----------------|----------------|-----------|-----|-----|
| NMOC as Carbon | 27 | | 7.9 | 7.9 |

Analytical Data

Client: Ertec

Job Number: 200-37474-1
Sdg Number: 200-37474-1

Client Sample ID: TB022117

Lab Sample ID: 200-37474-5
Client Matrix: Air

Date Sampled: 02/21/2017 0000
Date Received: 02/22/2017 0935

EPA 25C Nonmethane Organic Compounds (NMOC)

| | | | | | |
|------------------|-----------------|-----------------|------------|------------------------|-----------------------|
| Analysis Method: | EPA 25C | Analysis Batch: | 200-114502 | Instrument ID: | CH0001.i |
| Prep Method: | Summa Canister | Prep Batch: | N/A | Lab File ID: | 2017-02-27 21:35:33 2 |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 2 mL |
| Analysis Date: | 02/27/2017 2135 | | | Final Weight/Volume: | 2 mL |
| Prep Date: | 02/27/2017 2135 | | | Injection Volume: | 2 mL |

| Analyte | Result (ppm-C) | Qualifier | RL | RL |
|----------------|----------------|-----------|-----|-----|
| NMOC as Carbon | 6.0 | U | 6.0 | 6.0 |



Eden Environmental, LLC

ATTACHMENT B

EPA REGION II QUALIFIERS AND THEIR DEFINITIONS

- U The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.
- J The analyte was positively identified. The associated numerical value is the approximate concentration of the analyte in the sample.
- J+ The result is an estimated quantity; but the result may be biased high.
- J- The result is an estimated quantity; but the result may be biased low.
- NJ The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.
- UJ The analyte was analyzed for but not detected. The reported quantitation limit may be inaccurate or imprecise.
- R The data are unusable. The sample results are rejected due to serious deficiencies in meeting Quality Control (QC) criteria. The analyte may or may not be present in the sample.



Eden Environmental, LLC

April 12, 2017

Ms. Wanda Morales
ERTEC
Amur St. A - #5
Reparto Landrau
Rio Piedras, PR 00921

RE: Validation Report for the NIOSH 2000 Air Monitoring for Methanol at the
Pfizer Barceloneta Site

Dear Wanda,

Enclosed is the validation report for the methanol air samples collected on February 21, 2017, from the Pfizer Barceloneta Site. The following samples were submitted directly to TestAmerica in Phoenix Arizona, and were assigned to TestAmerica Vermont Sample Delivery Group (SDG) 200-37474.

| Inlet-1-16 | Inlet-2-16 | Inlet-P | Outlet-16 |
|------------|------------|---------|-----------|
|------------|------------|---------|-----------|

This data package was received for validation on April 10, 2017. The analyses were performed by TestAmerica Phoenix and was identified as Job Number 550-78003.

Based on the finding of the validation effort, all sample results were determined qualified as estimated (J, UJ).

Analyses were performed using NIOSH 2000, Issue 3, January 1998. Method modifications were not explicitly stated and a copy of the laboratory standard operating procedure (SOP) was not provided. Obvious deviations from the method identified in the validation effort are described in the applicable section of this report.

Each sample was collected on a 780 mg silica gel tube. The sample volume for each air sample was documented as 1.6 liters. The front and back sections of each sorbent tube was extracted independently with 2 ml of 5% isopropanol, 95% deionized water, and were analyzed independently.



Eden Environmental, LLC

Ms. Wanda Morales
April 12, 2017
Page 2 of 2

No validation guidelines are available for NIOSH 2000 and data validation was performed in conformance with the specifications of the analytical method. The validation approach was similar to that specified in the EPA Region II SOP, (Analysis of Volatile Organic Compounds in Air Contained in Canisters by Method TO-15," SOP HW-31 Revision 6, June, 2014). When necessary, professional judgment was applied and appropriately noted in the applicable section of the attached report. The validation effort for these data has the label Stage 4 Validation Manual (S4VM).

Anomalies detected during the validation effort (if any) are included in the appropriate section of the attached report. The Laboratory Analytical Data Forms with all qualifiers resulting from the validation effort (if any were necessary) are included in Attachment A. The EPA Region II qualifiers and their definitions are included in Attachment B.

If you have any questions regarding this report, please give me a call at 225-355-0163 or contact me by e-mail at engrid@eden-env.com

Kindest regards,

Charlie E. Westerman, Ph.D.
Vice President



Eden Environmental, LLC

ANALYTICAL DATA VALIDATION

ERTEC JOB DESCRIPTION – PFIZER BARCELONETA – SVE

ERTEC JOB NUMBER: 17-5475

ORGANIC ANALYSIS DATA

**Prepared by: TestAmerica Laboratory, Phoenix Arizona
TestAmerica Vermont Sample Delivery Group Number 200-37474
TestAmerica Phoenix Job Number 550-78003
Methanol in Air Samples**

VALIDATION REPORT

**Prepared by: Eden Environmental, LLC
Eden Project Number 13104**

April 12, 2017

**13104/CEW/ESC
200-37474-NIOSH 2000**



Eden Environmental, LLC

EXECUTIVE SUMMARY

Enclosed is the validation report for the methanol air samples collected on February 21, 2017, from the Pfizer Barceloneta Site. The following samples were submitted directly to TestAmerica in Phoenix Arizona, and were assigned to TestAmerica Vermont Sample Delivery Group (SDG) 200-37474.

Inlet-1-16

Inlet-2-16

Inlet-P

Outlet-16

This data package was received for validation on April 10, 2017. The analyses were performed by TestAmerica Phoenix and was identified as Job Number 550-78003.

Based on the finding of the validation effort, all sample results were determined qualified as estimated (J, UJ).

Analyses were performed using NIOSH 2000, Issue 3, January 1998. Method modifications were not explicitly stated and a copy of the laboratory standard operating procedure (SOP) was not provided. Obvious deviations from the method identified in the validation effort are described in the applicable section of this report.

Each sample was collected on a 780 mg silica gel tube. The sample volume for each air sample was documented as 1.6 liters. The front and back sections of each sorbent tube was extracted independently with 2 ml of 5% isopropanol, 95% deionized water, and were analyzed independently.

No validation guidelines are available for NIOSH 2000 and data validation was performed in conformance with the specifications of the analytical method. The validation approach was similar to that specified in the EPA Region II SOP, (Analysis of Volatile Organic Compounds in Air Contained in Canisters by Method TO-15," SOP HW-31 Revision 6, June, 2014). When necessary, professional judgment was applied and appropriately noted in the applicable section of the attached report. The validation effort for these data has the label Stage 4 Validation Manual (S4VM).

Anomalies detected during the validation effort (if any) are included in the appropriate section of the attached report. The Laboratory Analytical Data Forms with all qualifiers resulting from the validation effort (if any were necessary) are included in Attachment A. The EPA Region II qualifiers and their definitions are included in Attachment B.



Eden Environmental, LLC

INTRODUCTION

Analyses were performed using NIOSH 2000, Issue 3, January 1998. Method modifications were not explicitly stated and a copy for the laboratory standard operating procedure (SOP) was not provided. Obvious deviations from the method identified in the validation effort are described in the applicable section of this report.

Each sample was collected on a 780 mg silica gel tube. The sample volume for each air sample was documented as 1.6 liters. The front and back sections of each sorbent tube was extracted independently with 2 ml of 5% isopropanol, 95% deionized water, and were analyzed independently.

No validation guidelines are available for NIOSH 2000 and data validation was performed in conformance with the specifications of the analytical method. The validation approach was similar to that specified in the EPA Region II SOP, (Analysis of Volatile Organic Compounds in Air Contained in Canisters by Method TO-15," SOP HW-31 Revision 6, June, 2014). When necessary, professional judgment was applied and appropriately noted in the applicable section of the attached report. The validation effort for these data has the label Stage 4 Validation Manual (S4VM).

Anomalies detected during the validation effort (if any) are included in the appropriate section of the attached report. The Laboratory Analytical Data Forms with all qualifiers resulting from the validation effort (if any were necessary) are included in Attachment A. The EPA Region II qualifiers and their definitions are included in Attachment B.



Eden Environmental, LLC

I. Holding Times, Preservation, and Sample Integrity

These air samples were collected using NIOSH silica gel sorbent tubes on February 21, 2017, and were shipped directly to TestAmerica Phoenix. The job narrative stated the samples were received in good condition. A copy of the Laboratory Login Sample Receipt Checklist noted, "The cooler's custody seal, if present, is intact." The job narrative stated, "the samples arrived in good condition."

A copy of the chain of custody record was also present in the data package and included all samples in this data set. NIOSH 2000 specifies sample stability as "at least 30 days at 5°C." All extractions and analyses were performed within 30 days. An acceptable cooler temperature of 0.2°C was noted on the chain of custody record.

II. Calibration and Instrument Performance

The samples in this data set were analyzed on a single gas chromatograph (GC) instrument identified as "GC14." The GC was equipped with a flame ionization detector (FID) identified as "FID1 A" and a DB-1 column.

A. Initial Calibration (IC) and Initial Calibration Verification (ICV)

An IC was performed on February 27, 2017. NIOSH 2000 specifies that three standards are to be prepared in duplicate and analyzed at three levels as the IC. For this project, four calibration standards at 3.16 µg, 31.6 µg, 316 µg, and 3160 µg were used to establish the calibration curve. Documentation of all IC standards analyzed was provided in the data package. An acceptable coefficient of determination was obtained (1.000).

An initial calibration verification (ICV) standard is not required by NIOSH 2000. Data for an ICV analyzed immediately after the IC was provided. A percent drift (%D) value for the data provided was within the laboratory-specified 40% maximum acceptance limit.

B. Continuing Calibration (CC)

The use of CC standards is not a NIOSH 2000 requirement. All samples and the associated quality control samples were analyzed on February 27, 2017, containing bracketing CC standards. Acceptable %D values were observed for both CC standards (laboratory's 20% maximum acceptance limit).

III. Blanks

A laboratory blank was analyzed with the site samples. Methanol was not detected in the laboratory blank. A trip blank was not collected for methanol analysis.



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IV. Surrogate Recovery

The use of a surrogate compound is not addressed in NIOSH 2000, and no surrogate compound was employed.

V. Spike Analyses

Recoveries for a laboratory control sample (LCS) and LCS duplicate (LCSD) each spiked at 7.91 μg were included in the analytical sequence containing the site samples. Recoveries (90% and 81%, respectively) and a relative percent difference (RPD) value (11 RPD) were within the laboratory-specified control limits (69-128% and ≤ 29 RPD).

VI. Co-located Samples

For this validation effort, a maximum acceptance limit of 100 RPD was used to define acceptable agreement between reported results in the co-located samples. Results with RPD values greater than 100 RPD should be used with caution as the concentration and source of these compounds in the reported samples is uncertain.

Inlet-P was collected as a co-located sample of Inlet-2-16. Agreement between positively paired results for methanol (2 RPD) was acceptable.

VII. Compound Identification

Where detected, methanol was correctly identified based on the presence of a peak within the retention time window on the single column used to established the IC.

VIII. Compound Quantitation and Reporting Limit (RL)

Sample-specific RLs were correctly calculated and accurately reported. The RL is equivalent to the low concentration standard used to establish the IC and is therefore supported by the data as presented. Laboratory-reported results were reported as total $\mu\text{g}/\text{sample}$, mg/m^3 , and ppm. The ppm concentration unites employed on the answer forms are ppmv. NIOSH employs ppm units, where in other situation, ppmv units would be reported.

All analytical site sample results and associated quality control results were acquired on the sample instrument during the same run sequence.

The back and front sections of the 780 mg silica gel tubes were desorbed independently in the customary manner. The resultant extracts were analyzed independently employing sequentially duplicate injections. An explanation for performing the duplicate analyses was not provided. The results are summarized in the following table.



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| Sample | Analysis | | Result µg/sample | Result Reported |
|------------------|----------|-------|---------------------|--------------------|
| | Date | Time | | |
| Inlet-1-16 Back | 02/27/17 | 12:56 | <3.36 | Yes |
| | | 13:08 | <3.36 | |
| Inlet-1-16 Front | 02/27/17 | 15:05 | <3.36 | Yes |
| | | 15:17 | <3.36 | |
| Inlet-2-16 Back | 02/27/17 | 13:31 | <3.36 | Yes |
| | | 13:43 | <3.36 | |
| Inlet-2-16 Front | 02/27/17 | 15:29 | <3.36 | No |
| | | 15:40 | 75.7 | Yes |
| Inlet-P Back | 02/27/17 | 13:55 | <3.36 | Yes |
| | | 14:06 | <3.36 | |
| Inlet-P Front | 02/27/17 | 15:52 | <3.36 | |
| | | 16:04 | 72.3 | Yes |
| Outlet-16 Back | 02/27/17 | 14:18 | <3.36 | Yes |
| | | 14:30 | <3.36 | |
| Outlet-16 Front | 02/27/17 | 16:15 | <3.36 | |
| | | 16:27 | 16.2 | Yes |

Unfortunately, poor agreement resulted among the results of the duplicate injections of extracts for the front sections of three of the four field samples. The time interval between some of the associated duplicate injections was only eleven to twelve minutes. Repeated instrument instability would not be expected with such short time intervals. The validator was unable to determine any apparent reason for the poor reproducibility of reported results.

The nature and extent of the variation of duplicate injections of the same solvent extracts was sufficiently divergent and random to suggest that all values should be considered as estimated (UJ, J) and the direction of bias cannot be determined. The reported data are consistent with the presence of low amounts of methanol. Raw data and associated answer forms were provided for each of the individual analyses.

Evidently, the amounts on the “Client Sample Results” were intended to constitute the final answers; however, no explanation for any of the various laboratory actions were provided.



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IX. System Performance

NIOSH 2000 states, “at high relative humidity or high methanol concentrations, use a larger tube: 15 cm long, 8-mm ID, with three sections of silica gel (700 mg, 150 mg, and 150 mg). Both high relative humidity and high methanol concentration are potentially present with this project. The sample preparation log in the data package documented the fact that 780 mg two-section silica gel tubes currently available were used for the present work.

X. Documentation

A copy of the chain of custody record was present and included all reported samples.

The following discrepancies were noted with the data package:

A copy of the Laboratory Login Sample Receipt Checklist noted, “The cooler’s custody seal, if present, is intact.” It is not apparent if custody seals were employed.

The laboratory “received by” signature on the chain of custody record is illegible.

A copy of the FedEx airbill was not included in the data package to document the transfer of the samples from the field to the laboratory.

No explanation was provided for performing duplicate instrumental injections of the four site samples. Poor replication of the various injections of the solvent extracts for the front sections of three of the four site samples was not addressed in the Job Narrative. The data user is cautioned that for this data set, raw data and associated answer forms were provided for each of the individual extract analyses.

No explanation was provided for the observed divergent results for multiple injections for the four site samples. The laboratory reported the higher concentration observed for each sample. No explanation for the laboratory’s selection of the data reported on the final answer forms was provided. The reporting of the higher concentration values would generally be considered the more conservative approach. The Job Narrative stated “No analytical quality issues were noted, other than those described in the Definitions/Glossary page.” The Definition/Glossary page noted no analytical quality issues.

The analyses of the front and back sections of the silica gel samples tubes were performed on February 27, 2017. The analysis date for summed values was noted as February 28, 2017, and was corrected by the validator on the Laboratory Analytical Data Forms in Attachment A of this report.



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A sample tube size of 780 mg was specified in the sample preparation section but 150 mg was indicated on the answer forms.

The TestAmerica Phoenix data package page numbers were overwritten (obliterated) when the TestAmerica Burling printed the hardcopy data package using their page numbers.

Data presentation issues do not affect the validity of the results, but they could be problematic if these data are reviewed by a regulatory agency or if they are used in litigation.

XI. Overall Assessment

Based on the finding of the validation effort, all sample results were qualified as estimated (J, UJ) due to the lack of reproducibility of multiple duplicate injections of some of the associated solvent extracts.

This validation effort is based on the data as provided by the laboratory. Software manipulation cannot be routinely detected during validation and is outside the scope of this review.

This validation report should be added to the data package for all future distributions of the methanol data reported in SDG 200-37474.



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ATTACHMENT A
LABORATORY ANALYTICAL DATA FORMS

Client Sample Results

Client: TestAmerica Laboratories, Inc.
Project/Site: Pfizer Barceloneta SVE

TestAmerica Job ID: 550-78003-1
SDG: 165440

Client Sample ID: Inlet-1-16

Lab Sample ID: 550-78003-1

Date Collected: 02/21/17 00:00

Matrix: Air

Date Received: 02/22/17 09:30

Sample Air Volume: 1.6 L

Sample Container: IH - Silica Gel tube, ⁷⁸⁰150 mg

Method: 2000 Back - NIOSH 2000 (Modified)

| Analyte | Result ug/Sample | Result mg/m3 | Result ppm | Qualifier | RL ug/Sample | Prepared | Analyzed | Dil Fac |
|----------|-------------------------------|-------------------------------|-------------------------------|-----------|-----------------|----------------|----------------|---------|
| Methanol | 3.36 ^{UJ} | 2.10 ^{UJ} | 1.60 ^{UJ} | | 3.36 | 02/27/17 08:41 | 02/27/17 12:56 | 1 |

Method: 2000 Front - NIOSH 2000 (Modified)

| Analyte | Result ug/Sample | Result mg/m3 | Result ppm | Qualifier | RL ug/Sample | Prepared | Analyzed | Dil Fac |
|----------|-------------------------------|-------------------------------|-------------------------------|-----------|-----------------|----------------|----------------|---------|
| Methanol | 3.36 ^{UJ} | 2.10 ^{UJ} | 1.60 ^{UJ} | | 3.36 | 02/27/17 08:41 | 02/27/17 15:17 | 1 |

Method: 2000 Sum - NIOSH 2000 (Modified)

| Analyte | Result ug/Sample | Result mg/m3 | Result ppm | Qualifier | RL ug/Sample | Prepared | Analyzed | Dil Fac |
|----------|-------------------------------|-------------------------------|-------------------------------|-----------|-----------------|----------|----------------|---------|
| Methanol | 3.36 ^{UJ} | 2.10 ^{UJ} | 1.60 ^{UJ} | | 3.36 | | 02/28/17 15:52 | 1 |

Client Sample ID: Inlet-2-16

Lab Sample ID: 550-78003-2

Date Collected: 02/21/17 00:00

Matrix: Air

Date Received: 02/22/17 09:30

Sample Air Volume: 1.6 L

Sample Container: IH - Silica Gel tube, ⁷⁸⁰150 mg

Method: 2000 Back - NIOSH 2000 (Modified)

| Analyte | Result ug/Sample | Result mg/m3 | Result ppm | Qualifier | RL ug/Sample | Prepared | Analyzed | Dil Fac |
|----------|-------------------------------|-------------------------------|-------------------------------|-----------|-----------------|----------------|----------------|---------|
| Methanol | 3.36 ^{UJ} | 2.10 ^{UJ} | 1.60 ^{UJ} | | 3.36 | 02/27/17 08:41 | 02/27/17 13:43 | 1 |

Method: 2000 Front - NIOSH 2000 (Modified)

| Analyte | Result ug/Sample | Result mg/m3 | Result ppm | Qualifier | RL ug/Sample | Prepared | Analyzed | Dil Fac |
|----------|---------------------|-------------------|-------------------|-----------|-----------------|----------------|----------------|---------|
| Methanol | 75.7 ^J | 47.3 ^J | 36.1 ^J | | 3.36 | 02/27/17 08:41 | 02/27/17 15:40 | 1 |

Method: 2000 Sum - NIOSH 2000 (Modified)

| Analyte | Result ug/Sample | Result mg/m3 | Result ppm | Qualifier | RL ug/Sample | Prepared | Analyzed | Dil Fac |
|----------|---------------------|-------------------|-------------------|-----------|-----------------|----------|----------------|---------|
| Methanol | 75.7 ^J | 47.3 ^J | 36.1 ^J | | 3.36 | | 02/28/17 15:52 | 1 |

Client Sample ID: Inlet-P

Lab Sample ID: 550-78003-3

Date Collected: 02/21/17 00:00

Matrix: Air

Date Received: 02/22/17 09:30

Sample Air Volume: 1.6 L

Sample Container: IH - Silica Gel tube, ⁷⁸⁰150 mg

Method: 2000 Back - NIOSH 2000 (Modified)

| Analyte | Result ug/Sample | Result mg/m3 | Result ppm | Qualifier | RL ug/Sample | Prepared | Analyzed | Dil Fac |
|----------|-------------------------------|-------------------------------|-------------------------------|-----------|-----------------|----------------|----------------|---------|
| Methanol | 3.36 ^{UJ} | 2.10 ^{UJ} | 1.60 ^{UJ} | | 3.36 | 02/27/17 08:41 | 02/27/17 13:55 | 1 |

Method: 2000 Front - NIOSH 2000 (Modified)

| Analyte | Result ug/Sample | Result mg/m3 | Result ppm | Qualifier | RL ug/Sample | Prepared | Analyzed | Dil Fac |
|----------|---------------------|-------------------|-------------------|-----------|-----------------|----------------|----------------|---------|
| Methanol | 72.3 ^J | 45.2 ^J | 34.5 ^J | | 3.36 | 02/27/17 08:41 | 02/27/17 16:04 | 1 |

cew 04/11/17

TestAmerica Phoenix

Client Sample Results

Client: TestAmerica Laboratories, Inc.
 Project/Site: Pfizer Barceloneta SVE

TestAmerica Job ID: 550-78003-1
 SDG: 165440

Client Sample ID: Inlet-P

Lab Sample ID: 550-78003-3

Date Collected: 02/21/17 00:00

Matrix: Air

Date Received: 02/22/17 09:30

780

Sample Air Volume: 1.6 L

Sample Container: IH - Silica Gel tube, 150 mg

| Method: 2000 Sum - NIOSH 2000 (Modified) | | | | | | | | | |
|--|---------------------|-----------------|---------------|-----------|-----------------|----------|----------------|---------|--|
| Analyte | Result ug/Sample | Result mg/m3 | Result ppm | Qualifier | RL ug/Sample | Prepared | Analyzed | Dil Fac | |
| Methanol | 72.3 <i>J</i> | 45.2 <i>J</i> | 34.5 <i>J</i> | | 3.36 | | 02/21/17 15:52 | 1 | |
| | | | | | | | 27 | | |

Client Sample ID: Outlet-16

Lab Sample ID: 550-78003-4

Date Collected: 02/21/17 00:00

Matrix: Air

Date Received: 02/22/17 09:30

780

Sample Air Volume: 1.6 L

Sample Container: IH - Silica Gel tube, 150 mg

| Method: 2000 Back - NIOSH 2000 (Modified) | | | | | | | | | |
|---|---------------------|-----------------|----------------|-----------|-----------------|----------------|----------------|---------|--|
| Analyte | Result ug/Sample | Result mg/m3 | Result ppm | Qualifier | RL ug/Sample | Prepared | Analyzed | Dil Fac | |
| Methanol | 3.36 <i>UJ</i> | 2.10 <i>UJ</i> | 1.60 <i>UJ</i> | | 3.36 | 02/27/17 08:41 | 02/27/17 14:18 | 1 | |

| Method: 2000 Front - NIOSH 2000 (Modified) | | | | | | | | | |
|--|---------------------|-----------------|---------------|-----------|-----------------|----------------|----------------|---------|--|
| Analyte | Result ug/Sample | Result mg/m3 | Result ppm | Qualifier | RL ug/Sample | Prepared | Analyzed | Dil Fac | |
| Methanol | 16.2 <i>J</i> | 10.1 <i>J</i> | 7.73 <i>J</i> | | 3.36 | 02/27/17 08:41 | 02/27/17 16:27 | 1 | |

| Method: 2000 Sum - NIOSH 2000 (Modified) | | | | | | | | | |
|--|---------------------|-----------------|---------------|-----------|-----------------|----------|----------------|---------|--|
| Analyte | Result ug/Sample | Result mg/m3 | Result ppm | Qualifier | RL ug/Sample | Prepared | Analyzed | Dil Fac | |
| Methanol | 16.2 <i>J</i> | 10.1 <i>J</i> | 7.73 <i>J</i> | | 3.36 | | 02/28/17 15:52 | 1 | |
| | | | | | | | 27 | | |

cew 04/11/17



Eden Environmental, LLC

ATTACHMENT B

EPA REGION II QUALIFIERS AND THEIR DEFINITIONS

- U The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.
- J The analyte was positively identified. The associated numerical value is the approximate concentration of the analyte in the sample.
- J+ The result is an estimated quantity; but the result may be biased high.
- J- The result is an estimated quantity; but the result may be biased low.
- NJ The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.
- UJ The analyte was analyzed for but not detected. The reported quantitation limit may be inaccurate or imprecise.
- R The data are unusable. The sample results are rejected due to serious deficiencies in meeting Quality Control (QC) criteria. The analyte may or may not be present in the sample.



Eden Environmental, LLC

May 1, 2017

Ms. Wanda Morales
ERTEC
Amur St. A - #5
Reparto Landrau
Rio Piedras, PR 00921

RE: Data Validation Report for the SVE TO-15 Air Monitoring of the Pfizer Barceloneta Site

Dear Wanda,

Enclosed is the validation report for selected volatile organic compounds in the air samples collected on March 28, 2017, from the Pfizer Barceloneta Site. The following samples were submitted to TestAmerica in Burlington, Vermont and were assigned to Sample Delivery Group (SDG) 200-37991.

| | | | | |
|------------|------------|-----------|----------|----------|
| Inlet-1-17 | Inlet-2-17 | Outlet-17 | Outlet-Q | TB032817 |
|------------|------------|-----------|----------|----------|

The laboratory performed well, but some qualifications of sample results were necessary. See Section XIV. The data package was received for validation on April 28, 2017.

All "B" qualifiers applied by the laboratory to indicate contamination in an associated method blank were removed by the validator.

The "J" qualifiers applied by the laboratory to indicate estimated concentrations between the method detection limit (MDL) and the reporting limit (RL), were not removed by the validator unless they were superseded by a qualifier resulting from the validation effort.

All samples were analyzed for acetone, isopropyl alcohol, methylene chloride, n-hexane, chloroform, tetrahydrofuran, benzene, toluene, chlorobenzene, ethylbenzene, m,p-xylenes, and o-xylene in conformance with the specifications of USEPA Compendium Method TO-15. In addition, methyl iodide was included in a library search as a tentatively identified compound (TIC) because this compound was not included in any of the calibration standards. The validation effort was restricted to the reported results and supporting data for these compounds.



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Ms. Wanda Morales
May 1, 2017
Page 2 of 2

Results were also reported for total xylenes. The laboratory-reported concentrations for total xylenes were obtained by adding the concentrations for m,p-xylenes and o-xylene.

Data validation was performed in conformance with the specifications of the EPA Region II Standard Operating Procedure (Analysis of Volatile Organic Compounds in Air Contained in Canisters by Method TO-15," SOP HW-31 Revision 6, June, 2014). When necessary, professional judgment was applied and appropriately noted in the applicable section of the attached report. The validation effort for these data has the label Stage 4 Validation Manual (S4VM).

Anomalies detected during the validation effort (if any) are included in the appropriate section of the attached report. The Laboratory Analytical Data Forms with all qualifiers resulting from the validation effort (if any were necessary) are included in Attachment A. The EPA Region II qualifiers and their definitions are included in Attachment B.

If you have any questions regarding this report, please give me a call at 225-355-0163 or contact me by e-mail at engrid@eden-env.com

Kindest regards,

Engrid S. Carpenter
President



Eden Environmental, LLC

ANALYTICAL DATA VALIDATION

ERTEC JOB DESCRIPTION – PFIZER BARCELONETA – SVE

ERTEC JOB NUMBER: 17-5475

ORGANIC ANALYSIS DATA

**Prepared by: TestAmerica Laboratory, Burlington Vermont
Sample Delivery Group: 200-37991
Selected Volatile Organic Compounds in Air Samples**

VALIDATION REPORT

**Prepared by: Eden Environmental, LLC
Eden Project Number 13104**

Date: May 1, 2017

**13104/ESC/CEW
200-37991-TO-15**



Eden Environmental, LLC

INTRODUCTION

Enclosed is the validation report for selected volatile organic compounds in the air samples collected on March 28, 2017, from the Pfizer Barceloneta Site. The following samples were submitted to TestAmerica in Burlington, Vermont and were assigned to Sample Delivery Group (SDG) 200-37991.

| | | | | |
|------------|------------|-----------|----------|----------|
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|------------|------------|-----------|----------|----------|

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All samples were analyzed for acetone, isopropyl alcohol, methylene chloride, n-hexane, chloroform, tetrahydrofuran, benzene, toluene, chlorobenzene, ethylbenzene, m,p-xylenes, and o-xylene in conformance with the specifications of USEPA Compendium Method TO-15. In addition, methyl iodide was included in a library search as a tentatively identified compound (TIC) because this compound was not included in any of the calibration standards. The validation effort was restricted to the reported results and supporting data for these compounds.

Results were also reported for total xylenes. The laboratory-reported concentrations for total xylenes were obtained by adding the concentrations for m,p-xylenes and o-xylene.

Data validation was performed in conformance with the specifications of the EPA Region II Standard Operating Procedure (Analysis of Volatile Organic Compounds in Air Contained in Canisters by Method TO-15," SOP HW-31 Revision 6, June, 2014). When necessary, professional judgment was applied and appropriately noted in the applicable section of the attached report. The validation effort for these data has the label Stage 4 Validation Manual (S4VM).



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Anomalies detected during the validation effort (if any) are included in the appropriate section of the attached report. The Laboratory Analytical Data Forms with all qualifiers resulting from the validation effort (if any were necessary) are included in Attachment A. The EPA Region II qualifiers and their definitions are included in Attachment B.



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I. Holding Times, Preservation, and Sample Integrity

All TO-15 analyses were performed within holding time. A copy of the Laboratory Login Sample Receipt Checklist noted that all site samples were received in good condition and custody seals were intact. Copies of the chain of custody records were also present in the data package and included all samples in this data set. No physical preservation requirements are specified for Summa® canisters.

II. GC/MS Instrument Performance Checks

Results were reported for two bromofluorobenzene (BFB) instrument performance checks. Requirements for both instrument performance checks were met.

III. Calibration

These samples were analyzed on a single gas chromatography/mass spectrometry (GC/MS) system identified as "CHW." Manual integrations were performed on the peak area for benzene in the 0.2 parts per billion volume to volume (ppb v/v) initial calibration standard. Documentation of this integration was included in the data package and confirming it was properly performed and correctly incorporated into the associated quantitation report. No evidence was presented in the data package to indicate that any other manual integrations were performed on any of the project-specified target compounds or on any of the internal standards in any of the calibration standards.

A. Initial Calibration (IC) and Initial Calibration Verification (ICV)

IC was established on February 18, 2017. An ICV was analyzed following the IC. EPA Region II-specified acceptance criteria were met for all standards.

B. Continuing Verification (CV)

Documentation of a single CV standard associated with the reported samples was present in the data package. All EPA Region II-specified acceptance criteria were met for this standard.

IV. Blanks

A laboratory blank was analyzed in the analytical sequence containing the site samples. Isopropyl alcohol (0.173 ppb v/v) was detected at an estimated concentration below the reporting limit in the laboratory blank.



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Based on contamination in the associated laboratory blank, the result for isopropyl alcohol in Inlet -2-17 was qualified as less than the sample-specific reporting limit (U). Results for isopropyl alcohol in the remaining samples were either not detected or were greater than the action level for qualification based on blank contamination and no further action was required. No other project-specified target analytes required qualification based on laboratory contamination.

A trip blank (TB032817) was submitted with the samples in this data set. No project-specified target compounds were detected in TB032817.

V. Surrogate Recoveries

The use of a surrogate compound is not addressed in Method TO-15. A surrogate compound was not employed in the analyses of these samples.

VI. Laboratory Check Standard (Audit Accuracy Standard)

A 10 ppbv laboratory check standard (identified as LCS) was analyzed in the analytical sequence containing the reported samples. The LCS was spiked with all project-specified target analytes. All recoveries of the target analytes were within the laboratory-established analyte-specific quality control limits as included on the summary form.

VII. Laboratory Replicate Analyses

A laboratory replicate analysis was not reported in this data package.

VIII. Field Duplicates

Collection of true field duplicates is not feasible for air samples; therefore, a better description of these quality control samples would be co-located samples. The validation guidance document does not provide an acceptance criterion for RPDs between reported concentrations in "field duplicate" samples. For this validation effort, a maximum acceptance limit of 100 RPD was used to define acceptable agreement between reported concentrations greater than the RL and \pm RL for concentrations below the RL in the co-located samples. Results with RPD values greater than 100 RPD should be used with caution as the concentration and source of these compounds in the reported samples is uncertain.

Outlet-Q was collected as a co-located sample of Outlet-17. Acceptable reproducibility between positively paired results was achieved for acetone, isopropyl alcohol, methylene chloride, benzene, and toluene. The remaining project-specified target analytes were not detected in either of these samples; therefore, no further quantitative evaluation of precision could be made from these data.



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IX. Internal Standard Performance

The validator confirmed that the areas and retention times of all three internal standards were within the method-specified acceptance limits for the reported site and quality control analyses.

X. Target Compound Identification

When detected, the target analyte was correctly identified with acceptable supporting mass spectral data present in the data package.

XI. Compound Quantitation and Reporting Limits (RLs)

Unadjusted RLs were equal to the low concentration standard used to establish the IC for the project-specified target compounds and are supported by the reported data. All sample results were correctly calculated and accurately reported, including adjustments for dilutions where necessary.

XII. Tentatively Identified Compounds (TICs)

Since methyl iodide was not included in any of the calibration standards, a library search was performed for this compound. Methyl iodide was not detected in any of the samples in this SDG. The Form I TIC represents not detected for methyl iodide only.

XIII. Documentation

Chain of custody records were provided in the data package and included all samples in this data set. The following observations were noted:

All laboratory "received by" signatures are illegible.

The laboratory-generated Login Sample Receipt Checklist indicated custody seals were used and were intact upon laboratory receipt.

A copy of the FedEx airbill was included in the data package to document the transfer of the samples from the field to the laboratory.

The laboratory sample identifications were not in the same format of those used on the chain of custody records. The validator used the identifications as presented on the chain of custody records throughout this report.

The Laboratory Analytical Data Forms also include a column identified as MDL. Unadjusted MDLs for the target compounds are not supported by the data as received. Therefore, it is recommended that the RLs rather than the MDLs be used as the lowest supported limit of detection.



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XIV. Overall Assessment

Based on the findings of the validation effort, the sample results were qualified as follows:

- Based on contamination in the associated laboratory blank, the result for isopropyl alcohol in Inlet-2-17 was qualified as less than the sample-specific reporting limit (U).

All "B" qualifiers appropriately applied by the laboratory to indicate a result associated with laboratory contamination were removed by the validator.

The "J" qualifiers applied by the laboratory to indicate estimated concentrations between the MDL and the RL were not removed by the validator unless they were superseded by a qualification resulting from the validation effort.

This validation effort is based on the data as provided by the laboratory. Software manipulation cannot be routinely detected during validation and is outside the scope of this review.

This validation report should be added to the data package for all future distributions of the TO-15 data reported in SDG 200-37991.



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ATTACHMENT A
LABORATORY ANALYTICAL DATA FORMS

Analytical Data

Client: Ertec

Job Number: 200-37991-1
Sdg Number: 200-37991-1

Client Sample ID: ~~INLET-117~~ Inlet-1-17 in 05/01/17

Lab Sample ID: 200-37991-1
Client Matrix: Air

Date Sampled: 03/28/2017 1256
Date Received: 03/29/2017 1035

TO-15 Volatile Organic Compounds in Ambient Air

| | | | | | |
|------------------|-----------------|-----------------|------------|------------------------|------------|
| Analysis Method: | TO-15 | Analysis Batch: | 200-115820 | Instrument ID: | CHW.i |
| Prep Method: | Summa Canister | Prep Batch: | N/A | Lab File ID: | 24735_08.d |
| Dilution: | 3010 | | | Initial Weight/Volume: | 44 mL |
| Analysis Date: | 04/14/2017 1544 | | | Final Weight/Volume: | 200 mL |
| Prep Date: | 04/14/2017 1544 | | | Injection Volume: | 200 mL |

| Analyte | Result (ppb v/v) | Qualifier | MDL | RL |
|--------------------|------------------|-----------|------|-------|
| Acetone | 15000 | U | 3900 | 15000 |
| Isopropyl alcohol | 15000 | U | 390 | 15000 |
| Methylene Chloride | 1500 | U | 200 | 1500 |
| n-Hexane | 600 | U | 140 | 600 |
| Chloroform | 600 | U | 75 | 600 |
| Tetrahydrofuran | 42000 | | 3600 | 15000 |
| Benzene | 1100 | | 84 | 600 |
| Toluene | 9700 | | 110 | 600 |
| Chlorobenzene | 600 | U | 75 | 600 |
| Ethylbenzene | 3600 | | 100 | 600 |
| m,p-Xylene | 18000 | | 230 | 1500 |
| Xylene, o- | 2500 | | 120 | 600 |
| Xylene (total) | 21000 | | 120 | 2100 |

| Analyte | Result (ug/m3) | Qualifier | MDL | RL |
|--------------------|----------------|-----------|-------|-------|
| Acetone | 36000 | U | 9300 | 36000 |
| Isopropyl alcohol | 37000 | U | 960 | 37000 |
| Methylene Chloride | 5200 | U | 710 | 5200 |
| n-Hexane | 2100 | U | 490 | 2100 |
| Chloroform | 2900 | U | 370 | 2900 |
| Tetrahydrofuran | 120000 | | 11000 | 44000 |
| Benzene | 3500 | | 270 | 1900 |
| Toluene | 37000 | | 400 | 2300 |
| Chlorobenzene | 2800 | U | 350 | 2800 |
| Ethylbenzene | 16000 | | 440 | 2600 |
| m,p-Xylene | 77000 | | 1000 | 6500 |
| Xylene, o- | 11000 | | 520 | 2600 |
| Xylene (total) | 89000 | | 520 | 9100 |

Analytical Data

Client: Ertec

Job Number: 200-37991-1
Sdg Number: 200-37991-1

Client Sample ID: ~~INLET-1-17~~ Inlet-1-17 use 05/01/17

Lab Sample ID: 200-37991-1
Client Matrix: Air

Date Sampled: 03/28/2017 1256
Date Received: 03/29/2017 1035

TO-15 Volatile Organic Compounds in Ambient Air

Analysis Method: TO-15 Analysis Batch: 200-115820 Instrument ID: CHW.i
Prep Method: Summa Canister Prep Batch: N/A Lab File ID: 24735_08.d
Dilution: 3010 Initial Weight/Volume: 44 mL
Analysis Date: 04/14/2017 1544 Final Weight/Volume: 200 mL
Prep Date: 04/14/2017 1544 Injection Volume: 200 mL

Tentatively Identified Compounds Number TIC's Found: 0

| Cas Number | Analyte | RT | Est. Result (ppb v/v) | Qualifier |
|------------|---------------------------------|----|-----------------------|-----------|
| | Tentatively Identified Compound | | None | |

Analytical Data

Client: Ertec

Job Number: 200-37991-1

Sdg Number: 200-37991-1

Client Sample ID: ~~INLET-2-17~~ Inlet-2-17 use 05/01/17

Lab Sample ID: 200-37991-2

Date Sampled: 03/28/2017 1300

Client Matrix: Air

Date Received: 03/29/2017 1035

TO-15 Volatile Organic Compounds in Ambient Air

| | | | | | |
|------------------|-----------------|-----------------|------------|------------------------|------------|
| Analysis Method: | TO-15 | Analysis Batch: | 200-115820 | Instrument ID: | CHW.i |
| Prep Method: | Summa Canister | Prep Batch: | N/A | Lab File ID: | 24735_09.d |
| Dilution: | 339 | | | Initial Weight/Volume: | 36 mL |
| Analysis Date: | 04/14/2017 1633 | | | Final Weight/Volume: | 200 mL |
| Prep Date: | 04/14/2017 1633 | | | Injection Volume: | 200 mL |

| Analyte | Result (ppb v/v) | Qualifier | MDL | RL |
|--------------------|--------------------|----------------|-----|------|
| Acetone | 1700 | U | 440 | 1700 |
| Isopropyl alcohol | 79 1700 | J U | 44 | 1700 |
| Methylene Chloride | 58 | J | 23 | 170 |
| n-Hexane | 68 | U | 16 | 68 |
| Chloroform | 68 | U | 8.5 | 68 |
| Tetrahydrofuran | 8100 | | 410 | 1700 |
| Benzene | 190 | | 9.5 | 68 |
| Toluene | 1700 | | 12 | 68 |
| Chlorobenzene | 68 | U | 8.5 | 68 |
| Ethylbenzene | 610 | | 12 | 68 |
| m,p-Xylene | 2900 | | 26 | 170 |
| Xylene, o- | 400 | | 14 | 68 |
| Xylene (total) | 3300 | | 14 | 240 |

| Analyte | Result (ug/m3) | Qualifier | MDL | RL |
|--------------------|---------------------|----------------|------|------|
| Acetone | 4000 | U | 1000 | 4000 |
| Isopropyl alcohol | 188 4200 | J U | 110 | 4200 |
| Methylene Chloride | 200 | J | 80 | 590 |
| n-Hexane | 240 | U | 55 | 240 |
| Chloroform | 330 | U | 41 | 330 |
| Tetrahydrofuran | 24000 | | 1200 | 5000 |
| Benzene | 590 | | 30 | 220 |
| Toluene | 6500 | | 45 | 260 |
| Chlorobenzene | 310 | U | 39 | 310 |
| Ethylbenzene | 2700 | | 50 | 290 |
| m,p-Xylene | 12000 | | 110 | 740 |
| Xylene, o- | 1700 | | 59 | 290 |
| Xylene (total) | 14000 | | 59 | 1000 |

use 05/01/17

Analytical Data

Client: Ertec

Job Number: 200-37991-1
Sdg Number: 200-37991-1

Client Sample ID: ~~INLET-17~~ Inlet-2-17 use 03/01/17

Lab Sample ID: 200-37991-2

Date Sampled: 03/28/2017 1300

Client Matrix: Air

Date Received: 03/29/2017 1035

TO-15 Volatile Organic Compounds in Ambient Air

Analysis Method: TO-15
Prep Method: Summa Canister
Dilution: 339
Analysis Date: 04/14/2017 1633
Prep Date: 04/14/2017 1633

Analysis Batch: 200-115820
Prep Batch: N/A

Instrument ID: CHW.i
Lab File ID: 24735_09.d
Initial Weight/Volume: 36 mL
Final Weight/Volume: 200 mL
Injection Volume: 200 mL

Tentatively Identified Compounds

Number TIC's Found: 0

| Cas Number | Analyte | RT | Est. Result (ppb v/v) | Qualifier |
|------------|---------------------------------|----|-----------------------|-----------|
| | Tentatively Identified Compound | | None | |

Analytical Data

Client: Ertec

Job Number: 200-37991-1
Sdg Number: 200-37991-1

Client Sample ID: ~~OUTLET-Q~~ Outlet-Q *see 05/01/17*

Lab Sample ID: 200-37991-4
Client Matrix: Air

Date Sampled: 03/28/2017 1308
Date Received: 03/29/2017 1035

TO-15 Volatile Organic Compounds in Ambient Air

| | | | | | |
|------------------|-----------------|-----------------|------------|------------------------|------------|
| Analysis Method: | TO-15 | Analysis Batch: | 200-115820 | Instrument ID: | CHW.i |
| Prep Method: | Summa Canister | Prep Batch: | N/A | Lab File ID: | 24735_11.d |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 264 mL |
| Analysis Date: | 04/14/2017 1823 | | | Final Weight/Volume: | 200 mL |
| Prep Date: | 04/14/2017 1823 | | | Injection Volume: | 200 mL |

| Analyte | Result (ppb v/v) | Qualifier | MDL | RL |
|--------------------|------------------|--------------|-------|------|
| Acetone | 5.1 | | 1.3 | 5.0 |
| Isopropyl alcohol | 7.8 | B | 0.13 | 5.0 |
| Methylene Chloride | 0.50 | U | 0.068 | 0.50 |
| n-Hexane | 0.20 | U | 0.046 | 0.20 |
| Chloroform | 0.20 | U | 0.025 | 0.20 |
| Tetrahydrofuran | 5.0 | U | 1.2 | 5.0 |
| Benzene | 0.093 | J | 0.028 | 0.20 |
| Toluene | 0.41 | | 0.035 | 0.20 |
| Chlorobenzene | 0.20 | U | 0.025 | 0.20 |
| Ethylbenzene | 0.20 | U | 0.034 | 0.20 |
| m,p-Xylene | 0.50 | U | 0.077 | 0.50 |
| Xylene, o- | 0.20 | U | 0.040 | 0.20 |
| Xylene (total) | 0.70 | U | 0.040 | 0.70 |

| Analyte | Result (ug/m3) | Qualifier | MDL | RL |
|--------------------|----------------|--------------|-------|------|
| Acetone | 12 | | 3.1 | 12 |
| Isopropyl alcohol | 19 | B | 0.32 | 12 |
| Methylene Chloride | 1.7 | U | 0.24 | 1.7 |
| n-Hexane | 0.70 | U | 0.16 | 0.70 |
| Chloroform | 0.98 | U | 0.12 | 0.98 |
| Tetrahydrofuran | 15 | U | 3.5 | 15 |
| Benzene | 0.30 | J | 0.089 | 0.64 |
| Toluene | 1.5 | | 0.13 | 0.75 |
| Chlorobenzene | 0.92 | U | 0.12 | 0.92 |
| Ethylbenzene | 0.87 | U | 0.15 | 0.87 |
| m,p-Xylene | 2.2 | U | 0.33 | 2.2 |
| Xylene, o- | 0.87 | U | 0.17 | 0.87 |
| Xylene (total) | 3.0 | U | 0.17 | 3.0 |

see 05/01/17

Analytical Data

Client: Ertec

Job Number: 200-37991-1
Sdg Number: 200-37991-1

Client Sample ID: ~~OUTLET-Q~~ Outlet-Q me 05/01/17

Lab Sample ID: 200-37991-4
Client Matrix: Air

Date Sampled: 03/28/2017 1308
Date Received: 03/29/2017 1035

TO-15 Volatile Organic Compounds in Ambient Air

Analysis Method: TO-15 Analysis Batch: 200-115820 Instrument ID: CHW.i
Prep Method: Summa Canister Prep Batch: N/A Lab File ID: 24735_11.d
Dilution: 1.0 Initial Weight/Volume: 264 mL
Analysis Date: 04/14/2017 1823 Final Weight/Volume: 200 mL
Prep Date: 04/14/2017 1823 Injection Volume: 200 mL

Tentatively Identified Compounds Number TIC's Found: 0

| Cas Number | Analyte | RT | Est. Result (ppb v/v) | Qualifier |
|------------|---------------------------------|----|-----------------------|-----------|
| | Tentatively Identified Compound | | None | |

Analytical Data

Client: Ertec

Job Number: 200-37991-1
Sdg Number: 200-37991-1

Client Sample ID: ~~OUTLET-47~~

Outlet -17 see 05/01/17

Lab Sample ID: 200-37991-3

Date Sampled: 03/28/2017 1308

Client Matrix: Air

Date Received: 03/29/2017 1035

TO-15 Volatile Organic Compounds in Ambient Air

| | | | | | |
|------------------|-----------------|-----------------|------------|------------------------|------------|
| Analysis Method: | TO-15 | Analysis Batch: | 200-115820 | Instrument ID: | CHW.i |
| Prep Method: | Summa Canister | Prep Batch: | N/A | Lab File ID: | 24735_10.d |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 272 mL |
| Analysis Date: | 04/14/2017 1728 | | | Final Weight/Volume: | 200 mL |
| Prep Date: | 04/14/2017 1728 | | | Injection Volume: | 200 mL |

| Analyte | Result (ppb v/v) | Qualifier | MDL | RL |
|--------------------|------------------|--------------|-------|------|
| Acetone | 11 | | 1.3 | 5.0 |
| Isopropyl alcohol | 8.1 | B | 0.13 | 5.0 |
| Methylene Chloride | 0.11 | J | 0.068 | 0.50 |
| n-Hexane | 0.20 | U | 0.046 | 0.20 |
| Chloroform | 0.20 | U | 0.025 | 0.20 |
| Tetrahydrofuran | 5.0 | U | 1.2 | 5.0 |
| Benzene | 0.36 | | 0.028 | 0.20 |
| Toluene | 0.20 | | 0.035 | 0.20 |
| Chlorobenzene | 0.20 | U | 0.025 | 0.20 |
| Ethylbenzene | 0.20 | U | 0.034 | 0.20 |
| m,p-Xylene | 0.50 | U | 0.077 | 0.50 |
| Xylene, o- | 0.20 | U | 0.040 | 0.20 |
| Xylene (total) | 0.70 | U | 0.040 | 0.70 |

| Analyte | Result (ug/m3) | Qualifier | MDL | RL |
|--------------------|----------------|--------------|-------|------|
| Acetone | 26 | | 3.1 | 12 |
| Isopropyl alcohol | 20 | B | 0.32 | 12 |
| Methylene Chloride | 0.37 | J | 0.24 | 1.7 |
| n-Hexane | 0.70 | U | 0.16 | 0.70 |
| Chloroform | 0.98 | U | 0.12 | 0.98 |
| Tetrahydrofuran | 15 | U | 3.5 | 15 |
| Benzene | 1.1 | | 0.089 | 0.64 |
| Toluene | 0.76 | | 0.13 | 0.75 |
| Chlorobenzene | 0.92 | U | 0.12 | 0.92 |
| Ethylbenzene | 0.87 | U | 0.15 | 0.87 |
| m,p-Xylene | 2.2 | U | 0.33 | 2.2 |
| Xylene, o- | 0.87 | U | 0.17 | 0.87 |
| Xylene (total) | 3.0 | U | 0.17 | 3.0 |

see 05/01/17

Analytical Data

Client: Ertec

Job Number: 200-37991-1
Sdg Number: 200-37991-1

Client Sample ID: ~~OUTLET-17~~ Outlet-17 see 05/01/17

Lab Sample ID: 200-37991-3
Client Matrix: Air

Date Sampled: 03/28/2017 1308
Date Received: 03/29/2017 1035

TO-15 Volatile Organic Compounds in Ambient Air

Analysis Method: TO-15 Analysis Batch: 200-115820 Instrument ID: CHW.i
Prep Method: Summa Canister Prep Batch: N/A Lab File ID: 24735_10.d
Dilution: 1.0 Initial Weight/Volume: 272 mL
Analysis Date: 04/14/2017 1728 Final Weight/Volume: 200 mL
Prep Date: 04/14/2017 1728 Injection Volume: 200 mL

Tentatively Identified Compounds Number TIC's Found: 0

| Cas Number | Analyte | RT | Est. Result (ppb v/v) | Qualifier |
|------------|---------------------------------|----|-----------------------|-----------|
| | Tentatively Identified Compound | | None | |

Analytical Data

Client: Ertec

Job Number: 200-37991-1

Sdg Number: 200-37991-1

Client Sample ID: TB032817

Lab Sample ID: 200-37991-5

Date Sampled: 03/28/2017 0000

Client Matrix: Air

Date Received: 03/29/2017 1035

TO-15 Volatile Organic Compounds in Ambient Air

| | | |
|--------------------------------|----------------------------|-------------------------------|
| Analysis Method: TO-15 | Analysis Batch: 200-115820 | Instrument ID: CHW.i |
| Prep Method: Summa Canister | Prep Batch: N/A | Lab File ID: 24735_12.d |
| Dilution: 1.0 | | Initial Weight/Volume: 200 mL |
| Analysis Date: 04/14/2017 1916 | | Final Weight/Volume: 200 mL |
| Prep Date: 04/14/2017 1916 | | Injection Volume: 200 mL |

| Analyte | Result (ppb v/v) | Qualifier | MDL | RL |
|--------------------|------------------|-----------|-------|------|
| Acetone | 5.0 | U | 1.3 | 5.0 |
| Isopropyl alcohol | 5.0 | U | 0.13 | 5.0 |
| Methylene Chloride | 0.50 | U | 0.068 | 0.50 |
| n-Hexane | 0.20 | U | 0.046 | 0.20 |
| Chloroform | 0.20 | U | 0.025 | 0.20 |
| Tetrahydrofuran | 5.0 | U | 1.2 | 5.0 |
| Benzene | 0.20 | U | 0.028 | 0.20 |
| Toluene | 0.20 | U | 0.035 | 0.20 |
| Chlorobenzene | 0.20 | U | 0.025 | 0.20 |
| Ethylbenzene | 0.20 | U | 0.034 | 0.20 |
| m,p-Xylene | 0.50 | U | 0.077 | 0.50 |
| Xylene, o- | 0.20 | U | 0.040 | 0.20 |
| Xylene (total) | 0.70 | U | 0.040 | 0.70 |

| Analyte | Result (ug/m3) | Qualifier | MDL | RL |
|--------------------|----------------|-----------|-------|------|
| Acetone | 12 | U | 3.1 | 12 |
| Isopropyl alcohol | 12 | U | 0.32 | 12 |
| Methylene Chloride | 1.7 | U | 0.24 | 1.7 |
| n-Hexane | 0.70 | U | 0.16 | 0.70 |
| Chloroform | 0.98 | U | 0.12 | 0.98 |
| Tetrahydrofuran | 15 | U | 3.5 | 15 |
| Benzene | 0.64 | U | 0.089 | 0.64 |
| Toluene | 0.75 | U | 0.13 | 0.75 |
| Chlorobenzene | 0.92 | U | 0.12 | 0.92 |
| Ethylbenzene | 0.87 | U | 0.15 | 0.87 |
| m,p-Xylene | 2.2 | U | 0.33 | 2.2 |
| Xylene, o- | 0.87 | U | 0.17 | 0.87 |
| Xylene (total) | 3.0 | U | 0.17 | 3.0 |

Analytical Data

Client: Ertec

Job Number: 200-37991-1

Sdg Number: 200-37991-1

Client Sample ID: TB032817

Lab Sample ID: 200-37991-5

Client Matrix: Air

Date Sampled: 03/28/2017 0000

Date Received: 03/29/2017 1035

TO-15 Volatile Organic Compounds in Ambient Air

Analysis Method: TO-15
Prep Method: Summa Canister
Dilution: 1.0
Analysis Date: 04/14/2017 1916
Prep Date: 04/14/2017 1916

Analysis Batch: 200-115820
Prep Batch: N/A

Instrument ID: CHW.i
Lab File ID: 24735_12.d
Initial Weight/Volume: 200 mL
Final Weight/Volume: 200 mL
Injection Volume: 200 mL

Tentatively Identified Compounds

Number TIC's Found: 0

| Cas Number | Analyte | RT | Est. Result (ppb v/v) | Qualifier |
|------------|---------------------------------|----|-----------------------|-----------|
| | Tentatively Identified Compound | | None | |



Eden Environmental, LLC

ATTACHMENT B

EPA REGION II QUALIFIERS AND THEIR DEFINITIONS

- U The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.
- J The analyte was positively identified. The associated numerical value is the approximate concentration of the analyte in the sample.
- J+ The result is an estimated quantity; but the result may be biased high.
- J- The result is an estimated quantity; but the result may be biased low.
- NJ The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.
- UJ The analyte was analyzed for but not detected. The reported quantitation limit may be inaccurate or imprecise.
- R The data are unusable. The sample results are rejected due to serious deficiencies in meeting Quality Control (QC) criteria. The analyte may or may not be present in the sample.



Eden Environmental, LLC

May 21, 2017

Ms. Wanda Morales
ERTEC
Amur St. A - #5
Reparto Landrau
Rio Piedras, PR 00921

RE: Validation Report for the SVE EPA 3C Methane Air Monitoring
of the Pfizer Barceloneta Site

Dear Wanda,

Enclosed is the validation report for methane in the air samples collected on March 28, 2017, from the Pfizer Barceloneta Site. The following samples were submitted to TestAmerica in Burlington, Vermont and were assigned to Sample Delivery Group (SDG) 200-37991.

| | | | |
|------------|------------|-----------|----------|
| Inlet-1-17 | Inlet-2-17 | Outlet-17 | Outlet-Q |
|------------|------------|-----------|----------|

The laboratory performed well, but some corrections of sample results were necessary. See Section XI. The data package was received for validation on April 28, 2017.

All samples were analyzed for methane only in conformance with the specifications of USEPA Method 3C. The validation effort was restricted to the reported results and supporting data for this compound.

Data validation was performed in conformance with the specifications of the EPA Region II Standard Operating Procedure (Analysis of Volatile Organic Compounds in Air Contained in Canisters by Method TO-15," SOP HW-31 Revision 6, June, 2014). When necessary, professional judgment was applied and appropriately noted in the applicable section of the attached report. The validation effort for these data has the label Stage 4 Validation Manual (S4VM).



Eden Environmental, LLC

Ms. Wanda Morales
May 1, 2017
Page 2 of 2

Anomalies detected during the validation effort (if any) are included in the appropriate section of the attached report. The Laboratory Analytical Data Forms with all qualifiers resulting from the validation effort (if any were necessary) are included in Attachment A. The EPA Region II qualifiers and their definitions are included in Attachment B.

If you have any questions regarding this report, please give me a call at 225-355-0163 or contact me by e-mail at engrid@eden-env.com

Kindest regards,

Engrid Carpenter
President



Eden Environmental, LLC

ANALYTICAL DATA VALIDATION

ERTEC JOB DESCRIPTION – PFIZER BARCELONETA – SVE

ERTEC JOB NUMBER: 17-5475

ORGANIC ANALYSIS DATA

**Prepared by: TestAmerica Laboratory, Burlington Vermont
Sample Delivery Group Number 200-37991
Methane in Air Samples**

VALIDATION REPORT

**Prepared by: Eden Environmental, LLC
Eden Project Number 13104**

May 1, 2017

**13104/ESC/CEW
200-37991-EPA 3C**



Eden Environmental, LLC

EXECUTIVE SUMMARY

Enclosed is the validation report for methane in the air samples collected on March 28, 2017, from the Pfizer Barceloneta Site. The following samples were submitted to TestAmerica in Burlington, Vermont and were assigned to Sample Delivery Group (SDG) 200-37991.

| | | | |
|------------|------------|-----------|----------|
| Inlet-1-17 | Inlet-2-17 | Outlet-17 | Outlet-Q |
|------------|------------|-----------|----------|

The laboratory performed well, but some corrections of sample results were necessary. See Section XI. The data package was received for validation on April 28, 2017.

Data validation was performed in conformance with the specifications of the EPA Region II Standard Operating Procedure (Analysis of Volatile Organic Compounds in Air Contained in Canisters by Method TO-15," SOP HW-31 Revision 6, June, 2014). When necessary, professional judgment was applied and appropriately noted in the applicable section of the attached report. The validation effort for these data has the label Stage 4 Validation Manual (S4VM).

Anomalies detected during the validation effort (if any) are included in the appropriate section of the attached report. The Laboratory Analytical Data Forms with all qualifiers resulting from the validation effort (if any were necessary) are included in Attachment A. The EPA Region II qualifiers and their definitions are included in Attachment B.



Eden Environmental, LLC

INTRODUCTION

Analyses were performed using EPA Method 3C, "Determination of Carbon Dioxide, Methane, Nitrogen, and Oxygen from Stationary Sources." Each standard and sample was analyzed in duplicate. Responses from both analyses were averaged and the average was used to calculate all results as required by the analytical method.

The laboratory modified the analytical method as follows:

- The target analyte list was limited to methane; therefore, the validation effort was restricted to the supporting data for this analyte.
- The initial calibration was established using five concentration levels while a minimum of three concentrations are required by Method 3C. Concentrations of 0.040 percent volume to volume (% v/v), 0.40% v/v, 2.0% v/v, 4.0% v/v, and 99% v/v were used to establish the calibration range for methane.

Data validation was performed in conformance with the specifications of the EPA Region II Standard Operating Procedure (Analysis of Volatile Organic Compounds in Air Contained in Canisters by Method TO-15," SOP HW-31 Revision 6, June, 2014). When necessary, professional judgment was applied and appropriately noted in the applicable section of the attached report. The validation effort for these data has the label Stage 4 Validation Manual (S4VM).

Anomalies detected during the validation effort (if any) are included in the appropriate section of the attached report. The Laboratory Analytical Data Forms with all qualifiers resulting from the validation effort (if any were necessary) are included in Attachment A. The EPA Region II qualifiers and their definitions are included in Attachment B.



Eden Environmental, LLC

I. Holding Times, Preservation, and Sample Integrity

These air samples were collected in Summa® Canisters on March 28, 2017. A copy of the Laboratory Login Sample Receipt Checklist noted that all site samples were received in good condition with custody seals intact. Copies of the chain of custody records were also present in the data package and included all samples in this data set. No physical preservation requirements are specified for Summa® canisters. Therefore, all requirements for holding times and sample integrity were met. No physical preservation requirements are specified for Summa® canisters.

II. Calibration and Instrument Performance

The samples in this data set were analyzed on a single gas chromatograph (GC) instrument identified in the data package as "CH0001." The GC was equipped with a thermal conductivity detector (TCD) and a column identified as "CTR-1."

Peaks for methane and carbon monoxide overlap in all calibration standards. Under the analytical conditions used, methane eluted at approximately 7.9 minutes, which was prior to carbon monoxide at 8.6 minutes. The methane peak area was determined by dropping a perpendicular line to the baseline at the onset of the carbon monoxide peak. This served to under-estimate the methane peak area and resulted in a decreased methane calibration factor and an over-estimated methane sample concentration. Methane was not detected in any of the site samples and no action by the validator was necessary.

A. Initial Calibration (IC) and Initial Calibration Verification (ICV)

An IC was performed on August 17, 2015. Documentation of all IC standards was provided in the data package. The calibration factor (CF) was correctly calculated and accurately reported. The percent relative standard deviation (%RSD) for the calibration curve was acceptable (<20%).

An ICV was analyzed after the IC. The percent difference (%D) value for calculated versus true value was acceptable ($\leq 30\%$).

B. Continuing Calibration (CC)

The samples in this data set were bracketed by CC standards; therefore, an acceptable analytical sequence was performed. The concentration of each CC standard was 4.0% v/v. Percent difference (%D) values for calculated versus true value of both CC standards were acceptable (<20%).



Eden Environmental, LLC

III. Blanks

A laboratory blank was analyzed with the samples in this data set. Methane was not detected in the laboratory blank.

IV. Surrogate Recovery

The use of a surrogate compound is not addressed in Method 3C. No surrogate compound was employed with the analyses of these samples.

V. Spike Analyses

The laboratory control sample (LCS) was spiked with methane at 4.0% v/v, and the recovery of methane (98%) was correctly calculated, accurately reported, and within the method-specified acceptance limits (70-130%).

VI. Field Duplicate

Collection of true field duplicates is not feasible for air samples; therefore, a better description of these quality control samples would be co-located samples. The analytical method and the validation guidance document do not provide an acceptance criterion for RPDs between reported concentrations in "field duplicate" samples. For this validation effort, a maximum acceptance limit of 100 RPD was used to define acceptable agreement between reported results in the co-located samples. Results with RPD values greater than 100 RPD should be used with caution as the concentration and source of these compounds in the reported samples is uncertain.

Outlet-Q was collected as a co-located sample of Outlet-17. Methane was not detected in either of these samples; therefore, no quantitative evaluation of precision could be made from these data.

VII. Compound Identification

Methane was correctly identified in the LCS based on the presence of a response on the quantitation report and a peak in the chromatogram within the retention time window specified for this compound during the associated IC.



Eden Environmental, LLC

VIII. Compound Quantitation and Reporting Limit (RL)

The true value of the low concentration standard used to establish the IC was 0.040% v/v. However, the averaged concentration of reported results for this standard is 0.050% v/v. The RL for these samples was corrected by the validator to reflect an unadjusted concentration of 0.050% v/v on the answer forms in this report. Unadjusted RLs were also properly adjusted by the validator for dilution factors arising from the final canister pressure of each sample. The laboratory does not measure the moisture content of the canisters; therefore, no adjustment for moisture content was made for the reported sample results.

The peaks for methane and carbon monoxide overlapped in all calibration standards. This does present a problem of over-estimated methane results when this compound is detected.

Method 3C specifies agreement between paired responses must be $\leq 5\%$ difference (%D). Acceptable agreement was noted between positive paired responses in the quality control samples.

IX. System Performance

The analytical system did not resolve methane from carbon monoxide at the time of these analyses. The laboratory should ensure the low concentration standard can be used as the RL and resolve the issue with the overlap of peaks for methane and carbon monoxide.

X. Documentation

Chain of custody records were provided in the data package and included the samples in this data set. The following observations were noted:

All laboratory "received by" signatures are illegible.

The laboratory-generated Login Sample Receipt Checklist indicated custody seals were used and were intact on the site samples upon laboratory receipt.

A copy of the FedEx airbill was included in the data package to document the transfer of the samples from the field to the laboratory.

The laboratory sample identifications were not in the same format of those used on the chain of custody records. The validator used the identifications as presented on the chain of custody records throughout this report.



Eden Environmental, LLC

XI. Overall Assessment

Findings of the validation effort resulted in the correction of the unadjusted sample reporting limit to accurately reflect the concentration observed by the laboratory in the low concentration standard used to establish the IC. Unadjusted RLs were also properly adjusted by the validator for dilution factors arising from the final canister pressure of each sample. These corrections were made by the validator to the answer forms in this report. The laboratory does not measure the moisture content of the canisters; therefore, no adjustment for moisture content was made for the reported sample results.

This validation effort is based on the data as provided by the laboratory. Software manipulation cannot be routinely detected during validation and is outside the scope of this review.

This validation report should be added to the data package for all future distributions of the methane data reported in SDG 200-37991.



Eden Environmental, LLC

ATTACHMENT A
LABORATORY ANALYTICAL DATA FORMS

Analytical Data

Client: Ertec

Job Number: 200-37991-1
Sdg Number: 200-37991-1

Client Sample ID: ~~INLET-1-17~~ Inlet-1-17 *see 05/01/17*

Lab Sample ID: 200-37991-1
Client Matrix: Air

Date Sampled: 03/28/2017 1256
Date Received: 03/29/2017 1035

EPA 3C Fixed Gases from Stationary Sources

| | | | | | |
|------------------|-----------------|-----------------|------------|------------------------|---------------------|
| Analysis Method: | EPA 3C | Analysis Batch: | 200-115658 | Instrument ID: | CH0001.i |
| Prep Method: | Summa Canister | Prep Batch: | N/A | Lab File ID: | 200-3791-a-1b.d-avg |
| Dilution: | 1.41 | | | Initial Weight/Volume: | 2 mL |
| Analysis Date: | 04/05/2017 2107 | | | Final Weight/Volume: | 2 mL |
| Prep Date: | 04/05/2017 2107 | | | Injection Volume: | 2 mL |

| Analyte | Result (% v/v) | Qualifier | RL | RL |
|---------|------------------------|-----------|------------------------|-------------|
| Methane | 0.056 0.070 | U | 0.056 0.070 | 0.056 0.070 |

see 05/01/17

Analytical Data

Client: Ertec

Job Number: 200-37991-1

Sdg Number: 200-37991-1

Client Sample ID: INLET-2-17

Inlet-2-17 see 05/01/17

Lab Sample ID: 200-37991-2

Date Sampled: 03/28/2017 1300

Client Matrix: Air

Date Received: 03/29/2017 1035

EPA 3C Fixed Gases from Stationary Sources

| | | | | | |
|------------------|-----------------|-----------------|------------|------------------------|---------------------|
| Analysis Method: | EPA 3C | Analysis Batch: | 200-115658 | Instrument ID: | CH0001.i |
| Prep Method: | Summa Canister | Prep Batch: | N/A | Lab File ID: | 200-3791-a-2b.d-avg |
| Dilution: | 1.3 | | | Initial Weight/Volume: | 2 mL |
| Analysis Date: | 04/05/2017 2212 | | | Final Weight/Volume: | 2 mL |
| Prep Date: | 04/05/2017 2212 | | | Injection Volume: | 2 mL |

| Analyte | Result (% v/v) | Qualifier | RL | RL |
|---------|------------------------|-----------|------------------------|------------------------|
| Methane | 0.052 0.065 | U | 0.052 0.065 | 0.052 0.065 |

see 05/01/17

Analytical Data

Client: Ertec

Job Number: 200-37991-1
Sdg Number: 200-37991-1

Client Sample ID: ~~OUTLET-Q~~ *outlet-q see 05/01/17*

Lab Sample ID: 200-37991-4
Client Matrix: Air

Date Sampled: 03/28/2017 1308
Date Received: 03/29/2017 1035

EPA 3C Fixed Gases from Stationary Sources

Analysis Method: EPA 3C Analysis Batch: 200-115658 Instrument ID: CH0001.i
Prep Method: Summa Canister Prep Batch: N/A Lab File ID: 200-3791-a-4b.d-avg
Dilution: 1.32 Initial Weight/Volume: 2 mL
Analysis Date: 04/06/2017 0024 Final Weight/Volume: 2 mL
Prep Date: 04/06/2017 0024 Injection Volume: 2 mL

| Analyte | Result (% v/v) | Qualifier | RL | RL |
|---------|------------------------|-----------|------------------------|------------------------|
| Methane | 0.053 0.066 | U | 0.053 0.066 | 0.053 0.066 |

see 05/01/17

Analytical Data

Client: Ertec

Job Number: 200-37991-1

Sdg Number: 200-37991-1

Client Sample ID: **OUTLET-17**

Outlet-17 in os/01/17

Lab Sample ID: 200-37991-3

Date Sampled: 03/28/2017 1308

Client Matrix: Air

Date Received: 03/29/2017 1035

EPA 3C Fixed Gases from Stationary Sources

Analysis Method: EPA 3C
Prep Method: Summa Canister
Dilution: 1.36
Analysis Date: 04/05/2017 2317
Prep Date: 04/05/2017 2317

Analysis Batch: 200-115658
Prep Batch: N/A

Instrument ID: CH0001.i
Lab File ID: 200-3791-a-3b.d-avg
Initial Weight/Volume: 2 mL
Final Weight/Volume: 2 mL
Injection Volume: 2 mL

| Analyte | Result (% v/v) | Qualifier | RL | RL |
|---------|------------------------|-----------|------------------------|------------------------|
| Methane | 0.054 0.068 | U | 0.054 0.068 | 0.054 0.068 |

in os/01/17



Eden Environmental, LLC

ATTACHMENT B

EPA REGION II QUALIFIERS AND THEIR DEFINITIONS

- U The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.
- J The analyte was positively identified. The associated numerical value is the approximate concentration of the analyte in the sample.
- J+ The result is an estimated quantity; but the result may be biased high.
- J- The result is an estimated quantity; but the result may be biased low.
- NJ The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.
- UJ The analyte was analyzed for but not detected. The reported quantitation limit may be inaccurate or imprecise.
- R The data are unusable. The sample results are rejected due to serious deficiencies in meeting Quality Control (QC) criteria. The analyte may or may not be present in the sample.



Eden Environmental, LLC

May 1, 2017

Ms. Wanda Morales
ERTEC
Amur St. A - #5
Reparto Landrau
Rio Piedras, PR 00921

RE: Validation Report for the SVE EPA 25C NMOC Air Monitoring
of the Pfizer Barceloneta Site

Dear Wanda,

Enclosed is the validation report for NMOC in the air samples collected on March 28, 2017, from the Pfizer Barceloneta Site. The following samples were submitted to TestAmerica in Burlington, Vermont and were assigned to Sample Delivery Group (SDG) 200-37991.

| | | | | |
|------------|------------|-----------|----------|----------|
| Inlet-1-17 | Inlet-2-17 | Outlet-17 | Outlet-Q | TB032817 |
|------------|------------|-----------|----------|----------|

Based on the findings of the validation effort, all sample results were determined to be valid as reported. The validator did not add any qualifiers to the laboratory-reported results. The data package was received for validation on April 28, 2017.

All samples were analyzed for NMOC in conformance with the specifications of USEPA Method 25C. Each standard, quality control sample, and all five site samples were measured in triplicate and the average of the three runs was used to calculate the final results as required by the analytical method.

Data validation was performed in conformance with the specifications of the EPA Region II Standard Operating Procedure (Analysis of Volatile Organic Compounds in Air Contained in Canisters by Method TO-15," SOP HW-31 Revision 6, June, 2014). When necessary, professional judgment was applied and appropriately noted in the applicable section of the attached report. The validation effort for these data has the label Stage 4 Validation Manual (S4VM).



Eden Environmental, LLC

Ms. Wanda Morales
May 1, 2017
Page 2 of 2

Anomalies detected during the validation effort (if any) are included in the appropriate section of the attached report. The Laboratory Analytical Data Forms with all qualifiers resulting from the validation effort (if any were necessary) are included in Attachment A. The EPA Region II qualifiers and their definitions are included in Attachment B.

If you have any questions regarding this report, please give me a call at 225-355-0163 or contact me by e-mail at engrid@eden-env.com

Kindest regards,

A handwritten signature in cursive script that reads "Engrid Carpenter". The ink is dark and the signature is fluid and legible.

Engrid Carpenter
President



Eden Environmental, LLC

ANALYTICAL DATA VALIDATION

ERTEC JOB DESCRIPTION – PFIZER BARCELONETA – SVE

ERTEC JOB NUMBER: 17-5475

ORGANIC ANALYSIS DATA

**Prepared by: TestAmerica Laboratory, Burlington Vermont
Sample Delivery Group Number 200-37991
NMOC in Air Samples**

VALIDATION REPORT

**Prepared by: Eden Environmental, LLC
Eden Project Number 13104**

May 1, 2017

**13104/ESC/CEW
200-37991-EPA 25C**



Eden Environmental, LLC

EXECUTIVE SUMMARY

Enclosed is the validation report for NMOC in the air samples collected on March 28, 2017, from the Pfizer Barceloneta Site. The following samples were submitted to TestAmerica in Burlington, Vermont and were assigned to Sample Delivery Group (SDG) 200-37991.

| | | | | |
|------------|------------|-----------|----------|----------|
| Inlet-1-17 | Inlet-2-17 | Outlet-17 | Outlet-Q | TB032817 |
|------------|------------|-----------|----------|----------|

Based on the findings of the validation effort, all sample results were determined to be valid as reported. The validator did not add any qualifiers to the laboratory-reported results. The data package was received for validation on April 28, 2017.

All samples were analyzed for NMOC in conformance with the specifications of USEPA Method 25C. Each standard, quality control sample, and all five site samples were measured in triplicate and the average of the three runs was used to calculate the final results as required by the analytical method.

Data validation was performed in conformance with the specifications of the EPA Region II Standard Operating Procedure (Analysis of Volatile Organic Compounds in Air Contained in Canisters by Method TO-15," SOP HW-31 Revision 6, June, 2014). When necessary, professional judgment was applied and appropriately noted in the applicable section of the attached report. The validation effort for these data has the label Stage 4 Validation Manual (S4VM).

Anomalies detected during the validation effort (if any) are included in the appropriate section of the attached report. The Laboratory Analytical Data Forms with all qualifiers resulting from the validation effort (if any were necessary) are included in Attachment A. The EPA Region II qualifiers and their definitions are included in Attachment B.



Eden Environmental, LLC

INTRODUCTION

Analyses were performed using EPA Method 25C, "Determination of Total Gaseous Non-Methane Organic Emissions as Carbon." Each standard, quality control sample and all five site samples were measured in triplicate. Responses from all three analyses were averaged and the average was used to calculate all results as required by the analytical method.

Data validation was performed in conformance with the specifications of the EPA Region II Standard Operating Procedure (Analysis of Volatile Organic Compounds in Air Contained in Canisters by Method 'TO-15,' SOP HW-31 Revision 6, June, 2014). When necessary, professional judgment was applied and appropriately noted in the applicable section of the attached report. The validation effort for these data has the label Stage 4 Validation Manual (S4VM).

Anomalies detected during the validation effort (if any) are included in the appropriate section of the attached report. The Laboratory Analytical Data Forms with all qualifiers resulting from the validation effort (if any were necessary) are included in Attachment A. The EPA Region II qualifiers and their definitions are included in Attachment B.



Eden Environmental, LLC

I. Holding Times, Preservation, and Sample Integrity

All NMOC analyses were performed within holding time. A copy of the Laboratory Login Sample Receipt Checklist noted that all site samples were received in good condition and custody seals were intact. Copies of the chain of custody records were also present in the data package and included all the samples in this data set. No physical preservation requirements are specified for Summa® canisters.

II. Calibration and Instrument Performance

The samples in this data set were analyzed on a single gas chromatograph (GC) instrument identified in the data package as "CH0001." The GC was equipped with a flame ionization detector (FID) and a stationary phase column identified as "Carbo/Unibeads."

A. Initial Calibration (IC) and Initial Calibration Verification (ICV)

An IC was established on January 8, 2015. Concentrations of 6.0 parts per million carbon (ppm-C), 750 ppm-C, and 1800 ppm-C were used to establish the IC curve. Documentation of all IC standards was provided in the data package. The calibration factors (CFs) were correctly calculated and accurately reported. The percent relative standard deviation (%RSD) for the calibration curve was acceptable ($\leq 15\%$).

An ICV at 750 ppm-C was analyzed after the IC. The percent difference (%D) value for calculated versus true value was acceptable ($\leq 30\%$).

B. Continuing Calibration (CC)

The samples in this data set associated with opening and closing sequence CC standards. The concentration of each CC standard was 750 ppm-C and all %D values for calculated versus true value were acceptable ($\leq 10\%$).

III. Blanks

A laboratory blank was analyzed in the run sequence associated with the samples in this data set. NMOC was not detected above the reporting limit (RL) in the laboratory blanks.

A trip blank (TB032817) was associated with the samples in this data set. NMOC was not detected above the RL in TB032817.



Eden Environmental, LLC

IV. Surrogate Recovery

The use of a surrogate compound is not addressed in Method 25C. No surrogate compound was employed with the analyses of these samples.

V. Spike Analyses

A laboratory control sample (LCS) was analyzed in the analytical sequence containing the site samples. The LCS was spiked with NMOC at 750 ppm-C. The recovery (97%) was correctly calculated, accurately reported, and within the method-specified acceptance limits (70-130%).

VI. Field Duplicate

Collection of true field duplicates is not feasible for air samples; therefore, a better description of these quality control samples would be co-located samples. The analytical method and the validation guidance document do not provide an acceptance criterion for RPDs between reported concentrations in "field duplicate" samples. For this validation effort, a maximum acceptance limit of 100 RPD was used to define acceptable agreement between reported results in the co-located samples. Results with RPD values greater than 100 RPD should be used with caution as the concentration and source of these compounds in the reported samples is uncertain.

Outlet-Q was collected as a co-located sample of Outlet-17. Agreement between reported NMOC results (16 RPD) was acceptable.

VII. Compound Identification

Where detected, NMOC was correctly identified based on the presence of responses on the quantitation reports and peaks in the chromatograms within the retention time window established for this compound during the associated IC.

VIII. Compound Quantitation and Reporting Limit (RL)

Target compound concentrations and sample-specific RLs were correctly calculated, accurately reported, and properly adjusted for dilution factors based on the final pressure in the canister. All positively reported results met Method 25C-specified agreement among the triplicate responses ($\leq 5\%$ RSD).

The unadjusted RL for NMOC is equivalent to the low concentration standard used to establish the IC; therefore, this RL is supported by the data as presented. The laboratory does not measure the moisture content of the canisters; therefore, no adjustment for moisture content was made for the reported sample results.



Eden Environmental, LLC

IX. System Performance

The analytical system was working satisfactorily at the time of these analyses, based on the evaluation of the available raw data.

X. Documentation

Chain of custody records were provided in the data package and included all samples in this data set. The following observations were noted:

All laboratory "received by" signatures are illegible.

The laboratory-generated Login Sample Receipt Checklist indicated custody seals were used and were intact upon laboratory receipt.

A copy of the FedEx airbill was included in the data package to document the transfer of the samples from the field to the laboratory.

The laboratory sample identifications were not in the same format of those used on the chain of custody records. The validator used the identifications as presented on the chain of custody records throughout this report.

XI. Overall Assessment

Based on the findings of the validation effort, all sample results were determined to be valid as reported. The validator did not add any qualifiers to the laboratory-reported results.

This validation effort is based on the data as provided by the laboratory. Software manipulation cannot be routinely detected during validation and is outside the scope of this review.

This validation report should be added to the data package for all future distributions of the NMOC data reported in SDG 200-37991.



Eden Environmental, LLC

ATTACHMENT A
LABORATORY ANALYTICAL DATA FORMS

Analytical Data

Client: Ertec

Job Number: 200-37991-1
Sdg Number: 200-37991-1

Client Sample ID: ~~INLET-117~~ Inlet-1-17
Lab Sample ID: 200-37991-1
Client Matrix: Air

see 05/01/17

Date Sampled: 03/28/2017 1256
Date Received: 03/29/2017 1035

EPA 25C Nonmethane Organic Compounds (NMOC)

| | | | | | |
|------------------|-----------------|-----------------|------------|------------------------|----------------------|
| Analysis Method: | EPA 25C | Analysis Batch: | 200-115659 | Instrument ID: | CH0001.i |
| Prep Method: | Summa Canister | Prep Batch: | N/A | Lab File ID: | 200-3791--a-1b.d-avg |
| Dilution: | 1.41 | | | Initial Weight/Volume: | 2 mL |
| Analysis Date: | 04/05/2017 2107 | | | Final Weight/Volume: | 2 mL |
| Prep Date: | 04/05/2017 2107 | | | Injection Volume: | 2 mL |

| Analyte | Result (ppm-C) | Qualifier | RL | RL |
|----------------|----------------|-----------|-----|-----|
| NMOC as Carbon | 450 | | 8.5 | 8.5 |

Analytical Data

Client: Ertec

Job Number: 200-37991-1
Sdg Number: 200-37991-1

Client Sample ID: ~~INLET-2-17~~ Inlet-2-17 use 05/01/17

Lab Sample ID: 200-37991-2
Client Matrix: Air

Date Sampled: 03/28/2017 1300
Date Received: 03/29/2017 1035

EPA 25C Nonmethane Organic Compounds (NMOC)

Analysis Method: EPA 25C Analysis Batch: 200-115659 Instrument ID: CH0001.i
Prep Method: Summa Canister Prep Batch: N/A Lab File ID: 200-3791--a-2b.d-avg
Dilution: 1.3 Initial Weight/Volume: 2 mL
Analysis Date: 04/05/2017 2212 Final Weight/Volume: 2 mL
Prep Date: 04/05/2017 2212 Injection Volume: 2 mL

| Analyte | Result (ppm-C) | Qualifier | RL | RL |
|----------------|----------------|-----------|-----|-----|
| NMOC as Carbon | 95 | | 7.8 | 7.8 |

Analytical Data

Client: Ertec

Job Number: 200-37991-1

Sdg Number: 200-37991-1

Client Sample ID: ~~OUTLET-17~~ Outlet-17 see 05/01/17

Lab Sample ID: 200-37991-3

Date Sampled: 03/28/2017 1308

Client Matrix: Air

Date Received: 03/29/2017 1035

EPA 25C Nonmethane Organic Compounds (NMOC)

| | | | | | |
|------------------|-----------------|-----------------|------------|------------------------|----------------------|
| Analysis Method: | EPA 25C | Analysis Batch: | 200-115659 | Instrument ID: | CH0001.I |
| Prep Method: | Summa Canister | Prep Batch: | N/A | Lab File ID: | 200-3791--a-3b.d-avg |
| Dilution: | 1.32 | | | Initial Weight/Volume: | 2 mL |
| Analysis Date: | 04/05/2017 2317 | | | Final Weight/Volume: | 2 mL |
| Prep Date: | 04/05/2017 2317 | | | Injection Volume: | 2 mL |

| Analyte | Result (ppm-C) | Qualifier | RL | RL |
|----------------|----------------|-----------|-----|-----|
| NMOC as Carbon | 27 | | 7.9 | 7.9 |

Analytical Data

Client: Ertec

Job Number: 200-37991-1

Sdg Number: 200-37991-1

Client Sample ID: ~~OUTLET-Q~~ Outlet - Q use 05/01/17

Lab Sample ID: 200-37991-4

Date Sampled: 03/28/2017 1308

Client Matrix: Air

Date Received: 03/29/2017 1035

EPA 25C Nonmethane Organic Compounds (NMOC)

| | | | | | |
|------------------|-----------------|-----------------|------------|------------------------|----------------------|
| Analysis Method: | EPA 25C | Analysis Batch: | 200-115659 | Instrument ID: | CH0001.i |
| Prep Method: | Summa Canister | Prep Batch: | N/A | Lab File ID: | 200-3791--a-4b.d-avg |
| Dilution: | 1.32 | | | Initial Weight/Volume: | 2 mL |
| Analysis Date: | 04/06/2017 0024 | | | Final Weight/Volume: | 2 mL |
| Prep Date: | 04/06/2017 0024 | | | Injection Volume: | 2 mL |

| Analyte | Result (ppm-C) | Qualifier | RL | RL |
|----------------|----------------|-----------|-----|-----|
| NMOC as Carbon | 23 | | 7.9 | 7.9 |

Analytical Data

Client: Ertec

Job Number: 200-37991-1

Sdg Number: 200-37991-1

Client Sample ID: TB032817

Lab Sample ID: 200-37991-5

Date Sampled: 03/28/2017 0000

Client Matrix: Air

Date Received: 03/29/2017 1035

EPA 25C Nonmethane Organic Compounds (NMOC)

| | | | | | |
|------------------|-----------------|-----------------|------------|------------------------|---------------------|
| Analysis Method: | EPA 25C | Analysis Batch: | 200-115659 | Instrument ID: | CH0001.i |
| Prep Method: | Summa Canister | Prep Batch: | N/A | Lab File ID: | 200-3791-a-5b.d-avg |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 2 mL |
| Analysis Date: | 04/06/2017 0132 | | | Final Weight/Volume: | 2 mL |
| Prep Date: | 04/06/2017 0132 | | | Injection Volume: | 2 mL |

| Analyte | Result (ppm-C) | Qualifier | RL | RL |
|----------------|----------------|-----------|-----|-----|
| NMOC as Carbon | 6.0 | U | 6.0 | 6.0 |



Eden Environmental, LLC

ATTACHMENT B

EPA REGION II QUALIFIERS AND THEIR DEFINITIONS

- U The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.
- J The analyte was positively identified. The associated numerical value is the approximate concentration of the analyte in the sample.
- J+ The result is an estimated quantity; but the result may be biased high.
- J- The result is an estimated quantity; but the result may be biased low.
- NJ The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.
- UJ The analyte was analyzed for but not detected. The reported quantitation limit may be inaccurate or imprecise.
- R The data are unusable. The sample results are rejected due to serious deficiencies in meeting Quality Control (QC) criteria. The analyte may or may not be present in the sample.



Eden Environmental, LLC

May 2, 2017

Ms. Wanda Morales
ERTEC
Amur St. A - #5
Reparto Landrau
Rio Piedras, PR 00921

RE: Validation Report for the NIOSH 2000 Air Monitoring for Methanol at the
Pfizer Barceloneta Site

Dear Wanda,

Enclosed is the validation report for the methanol air samples collected on March 28, 2017, from the Pfizer Barceloneta Site. The following samples were submitted directly to TestAmerica in Phoenix Arizona, and were assigned to TestAmerica Vermont Sample Delivery Group (SDG) 200-37991.

| | | | |
|------------|------------|-----------|----------|
| Inlet-1-17 | Inlet-2-17 | Outlet-17 | Outlet-Q |
|------------|------------|-----------|----------|

The data package received April 28, 2017, for validation did not contain raw data. A data package containing raw data was received on May 2, 2017. The analyses were performed by TestAmerica Phoenix and was identified as Job Number 550-79967.

Based on the finding of the validation effort, all sample results were determined qualified as estimated (J, UJ).

Analyses were performed using NIOSH 2000, Issue 3, January 1998. Method modifications were not explicitly stated and a copy of the laboratory standard operating procedure (SOP) was not provided. Obvious deviations from the method identified in the validation effort are described in the applicable section of this report.

Each sample was collected on a 780 mg silica gel tube. The sample volume for each air sample was documented as 1.6 liters. The front and back sections of each sorbent tube was extracted independently with 2 ml of 5% isopropanol, 95% deionized water, and were analyzed independently.



Eden Environmental, LLC

Ms. Wanda Morales
May 2, 2017
Page 2 of 2

No validation guidelines are available for NIOSH 2000 and data validation was performed in conformance with the specifications of the analytical method. The validation approach was similar to that specified in the EPA Region II SOP, (Analysis of Volatile Organic Compounds in Air Contained in Canisters by Method TO-15," SOP HW-31 Revision 6, June, 2014). When necessary, professional judgment was applied and appropriately noted in the applicable section of the attached report. The validation effort for these data has the label Stage 4 Validation Manual (S4VM).

Anomalies detected during the validation effort (if any) are included in the appropriate section of the attached report. The Laboratory Analytical Data Forms with all qualifiers resulting from the validation effort (if any were necessary) are included in Attachment A. The EPA Region II qualifiers and their definitions are included in Attachment B.

If you have any questions regarding this report, please give me a call at 225-355-0163 or contact me by e-mail at engrid@eden-env.com

Kindest regards,

Charlie E. Westerman, Ph.D.
Vice President



Eden Environmental, LLC

ANALYTICAL DATA VALIDATION

ERTEC JOB DESCRIPTION – PFIZER BARCELONETA – SVE

ERTEC JOB NUMBER: 17-5475

ORGANIC ANALYSIS DATA

Prepared by: TestAmerica Laboratory, Phoenix Arizona
TestAmerica Vermont Sample Delivery Group Number 200-37991
TestAmerica Phoenix Job Number 550-79967
Methanol in Air Samples

VALIDATION REPORT

Prepared by: Eden Environmental, LLC
Eden Project Number 13104

May 2, 2017

13104/CEW/ESC
200-37991-NIOSH 2000



Eden Environmental, LLC

EXECUTIVE SUMMARY

Enclosed is the validation report for the methanol air samples collected on March 28, 2017, from the Pfizer Barceloneta Site. The following samples were submitted directly to TestAmerica in Phoenix Arizona, and were assigned to TestAmerica Vermont Sample Delivery Group (SDG) 200-37991.

| | | | |
|------------|------------|-----------|----------|
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No validation guidelines are available for NIOSH 2000 and data validation was performed in conformance with the specifications of the analytical method. The validation approach was similar to that specified in the EPA Region II SOP, (Analysis of Volatile Organic Compounds in Air Contained in Canisters by Method TO-15," SOP HW-31 Revision 6, June, 2014). When necessary, professional judgment was applied and appropriately noted in the applicable section of the attached report. The validation effort for these data has the label Stage 4 Validation Manual (S4VM).

Anomalies detected during the validation effort (if any) are included in the appropriate section of the attached report. The Laboratory Analytical Data Forms with all qualifiers resulting from the validation effort (if any were necessary) are included in Attachment A. The EPA Region II qualifiers and their definitions are included in Attachment B.



Eden Environmental, LLC

INTRODUCTION

Analyses were performed using NIOSH 2000, Issue 3, January 1998. Method modifications were not explicitly stated and a copy for the laboratory standard operating procedure (SOP) was not provided. Obvious deviations from the method identified in the validation effort are described in the applicable section of this report.

Each sample was collected on a 780 mg silica gel tube. The sample volume for each air sample was documented as 1.6 liters. The front and back sections of each sorbent tube was extracted independently with 2 ml of 5% isopropanol, 95% deionized water, and were analyzed independently.

No validation guidelines are available for NIOSH 2000 and data validation was performed in conformance with the specifications of the analytical method. The validation approach was similar to that specified in the EPA Region II SOP, (Analysis of Volatile Organic Compounds in Air Contained in Canisters by Method TO-15," SOP HW-31 Revision 6, June, 2014). When necessary, professional judgment was applied and appropriately noted in the applicable section of the attached report. The validation effort for these data has the label Stage 4 Validation Manual (S4VM).

Anomalies detected during the validation effort (if any) are included in the appropriate section of the attached report. The Laboratory Analytical Data Forms with all qualifiers resulting from the validation effort (if any were necessary) are included in Attachment A. The EPA Region II qualifiers and their definitions are included in Attachment B.



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I. Holding Times, Preservation, and Sample Integrity

These air samples were collected using NIOSH silica gel sorbent tubes on March 28, 2017, and were shipped directly to TestAmerica Phoenix. The job narrative stated the samples were received in good condition. A copy of the Laboratory Login Sample Receipt Checklist noted, "The cooler's custody seal, if present, is intact." The job narrative stated, "the samples arrived in good condition."

A copy of the chain of custody record was also present in the data package and included all samples in this data set. NIOSH 2000 specifies sample stability as "at least 30 days at 5°C." All extractions and analyses were performed within 30 days. An acceptable cooler temperature of 3.1°C was noted on the chain of custody record.

II. Calibration and Instrument Performance

The samples in this data set were analyzed on a single gas chromatograph (GC) instrument identified as "GC14." The GC was equipped with a flame ionization detector (FID) identified as "FID1 A" and a DB-1 column.

A. Initial Calibration (IC) and Initial Calibration Verification (ICV)

An IC was performed on April 3, 2017. NIOSH 2000 specifies that three standards are to be prepared in duplicate and analyzed at three levels as the IC. For this project, four calibration standards at 3.16 µg, 31.6 µg, 316 µg, and 3160 µg were used to establish the calibration curve. Documentation of all IC standards analyzed was provided in the data package. An acceptable coefficient of determination was obtained (1.000).

An initial calibration verification (ICV) standard is not required by NIOSH 2000. An ICV standard was analyzed immediately following the IC and the percent drift (%D) value for the data provided was within the laboratory-specified 40% maximum acceptance limit.

B. Continuing Calibration (CC)

The use of CC standards is not a NIOSH 2000 requirement. All samples and the associated quality control samples were analyzed between four bracketing CC standards at the customary concentration of 3160 µg. Acceptable %D values were observed for all four of these standards (laboratory's 20% maximum acceptance limit).

An additional 3.16 µg ICV standard was also included in the run sequence associated with these samples. The laboratory's 40% maximum acceptance limit was applied to the lower level standard and was found to be acceptable



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III. Blanks

A laboratory blank was analyzed with the site samples. Methanol was not detected in the laboratory blank. A trip blank was not collected for methanol analysis.

IV. Surrogate Recovery

The use of a surrogate compound is not addressed in NIOSH 2000, and no surrogate compound was employed.

V. Spike Analyses

Recoveries for a laboratory control sample (LCS) and LCS duplicate (LCSD) each spiked at 7.91 µg were included in the analytical sequence containing the site samples. Recoveries (99% and 78%, respectively) and a relative percent difference (RPD) value (24 RPD) were within the laboratory-specified control limits (69-128% and ≤29 RPD).

VI. Co-located Samples

For this validation effort, a maximum acceptance limit of 100 RPD was used to define acceptable agreement between reported results in the co-located samples. Results with RPD values greater than 100 RPD should be used with caution as the concentration and source of these compounds in the reported samples is uncertain.

Outlet-Q was collected as a co-located sample of Outlet-17. Acceptable agreement (3 RPD) was observed between methanol concentrations.

VII. Compound Identification

Where detected, methanol was correctly identified based on the presence of a peak within the retention time window on the single column used to establish the IC.

VIII. Compound Quantitation and Reporting Limit (RL)

Sample-specific RLs were correctly calculated and accurately reported. The RL is equivalent to the low concentration standard used to establish the IC and is therefore supported by the data as presented. Laboratory-reported results were reported as total µg/sample, mg/m³, and ppm. The ppm concentration units employed on the answer forms are ppmv. NIOSH employs ppm units, where in other situation, ppmv units would be reported.



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All analytical site sample results and associated quality control results were acquired on the same instrument during the same run sequence.

The back and front sections of the 780 mg silica gel tubes were desorbed independently in the customary manner. The resultant extracts were analyzed independently employing sequentially duplicate injections. An explanation for performing the duplicate analyses was not provided. The results are summarized in the following table.

| Sample | Analysis | | Result µg/sample | Result Reported |
|------------------|----------|-------|---------------------|-----------------|
| | Date | Time | | |
| Inlet-1-17 Back | 04/03/17 | 16:49 | <3.36 | Yes |
| | 04/04/17 | 11:11 | <3.36 | |
| | 04/04/17 | 13:55 | <3.36 | |
| Inlet-1-17 Front | 04/03/17 | 18:35 | 47.5 | Yes |
| | 04/03/17 | 18:47 | <3.36 | |
| | 04/04/17 | 14:30 | 46.2 | |
| Inlet-2-17 Back | 04/03/17 | 17:00 | <3.36 | Yes |
| | 04/03/17 | 17:12 | <3.36 | |
| Inlet-2-17 Front | 04/03/17 | 18:52 | 57.0 | Yes |
| | 04/03/17 | 19:10 | <3.36 | |
| | 04/04/17 | 15:42 | 54.0 | |
| Outlet-17 Back | 04/04/17 | 11:23 | <3.36 | Yes |
| | 04/04/17 | 14:06 | <3.36 | |
| Outlet-17 Front | 04/03/17 | 19:22 | 9.43 | Yes |
| | 04/03/17 | 19:33 | <3.36 | |
| | 04/04/17 | 14:53 | 6.73 | |
| Outlet-Q Back | 04/04/17 | 11:35 | <3.36 | Yes |
| | 04/04/17 | 14:18 | <3.36 | |
| Outlet-Q Front | 04/03/17 | 19:45 | 9.12 | Yes |
| | 04/03/17 | 19:57 | <3.36 | |
| | 04/04/17 | 15:05 | 7.31 | |

Unfortunately, poor agreement resulted among the results of the duplicate injections of extracts for the front sections of all three field samples and the back section of one field sample. The time interval between some of the associated duplicate injections was only eleven to twelve minutes. Repeated instrument instability would not be expected with such short time intervals. The validator was unable to determine any apparent reason for the poor reproducibility of reported results.



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The nature and extent of the variation of duplicate injections of the same solvent extracts was sufficiently divergent and random to suggest that all values should be considered as estimated (UJ, J) and the direction of bias cannot be determined. The reported data are consistent with the presence of low amounts of methanol. Raw data and associated answer forms were provided for each of the individual analyses.

Evidently, the amounts on the "Client Sample Results" were intended to constitute the final answers; however, no explanation for any of the various laboratory actions were provided.

IX. System Performance

NIOSH 2000 states, "at high relative humidity or high methanol concentrations, use a larger tube: 15 cm long, 8-mm ID, with three sections of silica gel (700 mg, 150 mg, and 150 mg). Both high relative humidity and high methanol concentration are potentially present with this project. The sample preparation log in the data package documented the fact that 780 mg two-section silica gel tubes currently available were used for the present work.

X. Documentation

A copy of the chain of custody record was present and included all reported samples.

The following discrepancies were noted with the data package:

A copy of the Laboratory Login Sample Receipt Checklist noted, "The cooler's custody seal, if present, is intact." It is not apparent if custody seals were employed.

Documentation of sample receipt at the laboratory was not provided on the chain of custody record in terms of a signature and the date and time of receipt. The Job Narrative stated that the samples were received on March 29, 1017 at 9:30 am.

A copy of the FedEx airbill was not included in the data package to document the transfer of the samples from the field to the laboratory.

No explanation was provided for performing replicate instrumental injections of the four site samples. Poor replication of the various injections of the solvent extracts for the front sections of three of the four site samples was not addressed in the Job Narrative. The data user is cautioned that for this data set, raw data and associated answer forms were provided for each of the individual extract analyses.



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No explanation was provided for the observed divergent results for multiple injections for the four site samples. The laboratory reported the highest concentration observed for each sample. No explanation for the laboratory's selection of the data reported on the final answer forms was provided. The reporting of the higher concentration values would generally be considered the more conservative approach. The Job Narrative stated, "No analytical quality issues were noted, other than those described in the Definitions/Glossary page." The Definition/Glossary page noted no analytical quality issues.

The analyses of the front and back sections of the silica gel samples tubes were performed on April 3 and 4, 2017. The analysis date for summed values was noted as April 5, 2017. The validator corrected the summed values on the Laboratory Analytical Data Forms in Attachment A of this report to agree with the reported raw data.

A sample tube size of 780 mg was specified in the sample preparation section but 150 mg was indicated on the answer forms.

Data presentation issues do not affect the validity of the results, but they could be problematic if these data are reviewed by a regulatory agency or if they are used in litigation.

XI. Overall Assessment

Based on the finding of the validation effort, all sample results were qualified as estimated (J, UJ) due to the lack of reproducibility of multiple duplicate injections of some of the associated solvent extracts.

This validation effort is based on the data as provided by the laboratory. Software manipulation cannot be routinely detected during validation and is outside the scope of this review.

This validation report should be added to the data package for all future distributions of the methanol data reported in SDG 200-37991.



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ATTACHMENT A
LABORATORY ANALYTICAL DATA FORMS

Client Sample Results

Client: TestAmerica Laboratories, Inc.
Project/Site: Pfizer Barceloeta SVE

TestAmerica Job ID: 550-79967-1

Client Sample ID: ~~INLET-1-17~~ *Inlet - 1-17*

Lab Sample ID: 550-79967-1

Date Collected: 03/28/17 00:00

Matrix: Air

Date Received: 03/29/17 09:30

780

Sample Air Volume: 1.6 L

Sample Container: IH - Silica Gel tube, *150* mg

| Method: 2000 Back - NIOSH 2000 (Modified) | | | | | | | | |
|---|---------------------|-----------------|----------------|-----------|-----------------|----------------|----------------|---------|
| Analyte | Result ug/Sample | Result mg/m3 | Result ppm | Qualifier | RL ug/Sample | Prepared | Analyzed | Dil Fac |
| Methanol | <i>3.36 UJ</i> | <i>2.10 UJ</i> | <i>1.60 UJ</i> | | 3.36 | 04/03/17 13:58 | 04/04/17 11:11 | 1 |

| Method: 2000 Front - NIOSH 2000 (Modified) | | | | | | | | |
|--|---------------------|-----------------|---------------|-----------|-----------------|----------------|----------------|---------|
| Analyte | Result ug/Sample | Result mg/m3 | Result ppm | Qualifier | RL ug/Sample | Prepared | Analyzed | Dil Fac |
| Methanol | <i>47.5 J</i> | <i>29.7 J</i> | <i>22.6 J</i> | | 3.36 | 04/03/17 13:58 | 04/03/17 18:35 | 1 |

| Method: 2000 Sum - NIOSH 2000 (Modified) | | | | | | | | |
|--|---------------------|-----------------|---------------|-----------|-----------------|----------|---|---------|
| Analyte | Result ug/Sample | Result mg/m3 | Result ppm | Qualifier | RL ug/Sample | Prepared | Analyzed | Dil Fac |
| Methanol | <i>47.5 J</i> | <i>29.7 J</i> | <i>22.6 J</i> | | 3.36 | | <i>04/03/17 19:56</i> <i>03 and 04</i> | 1 |

Client Sample ID: ~~INLET-2-17~~ *Inlet - 2-17*

Lab Sample ID: 550-79967-2

Date Collected: 03/28/17 00:00

Matrix: Air

Date Received: 03/29/17 09:30

780

Sample Air Volume: 1.6 L

Sample Container: IH - Silica Gel tube, *150* mg

| Method: 2000 Back - NIOSH 2000 (Modified) | | | | | | | | |
|---|---------------------|-----------------|----------------|-----------|-----------------|----------------|----------------|---------|
| Analyte | Result ug/Sample | Result mg/m3 | Result ppm | Qualifier | RL ug/Sample | Prepared | Analyzed | Dil Fac |
| Methanol | <i>3.36 UJ</i> | <i>2.10 UJ</i> | <i>1.60 UJ</i> | | 3.36 | 04/03/17 13:58 | 04/03/17 17:00 | 1 |

| Method: 2000 Front - NIOSH 2000 (Modified) | | | | | | | | |
|--|---------------------|-----------------|---------------|-----------|-----------------|----------------|----------------|---------|
| Analyte | Result ug/Sample | Result mg/m3 | Result ppm | Qualifier | RL ug/Sample | Prepared | Analyzed | Dil Fac |
| Methanol | <i>57.0 J</i> | <i>35.6 J</i> | <i>27.2 J</i> | | 3.36 | 04/03/17 13:58 | 04/03/17 18:58 | 1 |

| Method: 2000 Sum - NIOSH 2000 (Modified) | | | | | | | | |
|--|---------------------|-----------------|---------------|-----------|-----------------|----------|---|---------|
| Analyte | Result ug/Sample | Result mg/m3 | Result ppm | Qualifier | RL ug/Sample | Prepared | Analyzed | Dil Fac |
| Methanol | <i>57.0 J</i> | <i>35.6 J</i> | <i>27.2 J</i> | | 3.36 | | <i>04/03/17 19:56</i> <i>03 and 04</i> | 1 |

Client Sample ID: ~~OUTLET-17~~ *Outlet - 17*

Lab Sample ID: 550-79967-3

Date Collected: 03/28/17 00:00

Matrix: Air

Date Received: 03/29/17 09:30

780

Sample Air Volume: 1.6 L

Sample Container: IH - Silica Gel tube, *150* mg

| Method: 2000 Back - NIOSH 2000 (Modified) | | | | | | | | |
|---|---------------------|-----------------|----------------|-----------|-----------------|----------------|----------------|---------|
| Analyte | Result ug/Sample | Result mg/m3 | Result ppm | Qualifier | RL ug/Sample | Prepared | Analyzed | Dil Fac |
| Methanol | <i>3.36 UJ</i> | <i>2.10 UJ</i> | <i>1.60 UJ</i> | | 3.36 | 04/03/17 13:58 | 04/04/17 11:23 | 1 |

| Method: 2000 Front - NIOSH 2000 (Modified) | | | | | | | | |
|--|---------------------|-----------------|---------------|-----------|-----------------|----------------|----------------|---------|
| Analyte | Result ug/Sample | Result mg/m3 | Result ppm | Qualifier | RL ug/Sample | Prepared | Analyzed | Dil Fac |
| Methanol | <i>9.43 J</i> | <i>5.89 J</i> | <i>4.50 J</i> | | 3.36 | 04/03/17 13:58 | 04/03/17 19:22 | 1 |

see 05/02/17

TestAmerica Phoenix

Client Sample Results

Client: TestAmerica Laboratories, Inc.
Project/Site: Pfizer Barcelbeta SVE

TestAmerica Job ID: 550-79967-1

Client Sample ID: **OUTLET-17**

Lab Sample ID: **550-79967-3**

Date Collected: 03/28/17 00:00

Matrix: Air

Date Received: 03/29/17 09:30

780

Sample Air Volume: 1.6 L

Sample Container: IH - Silica Gel tube, 450 mg

| Method: 2000 Sum - NIOSH 2000 (Modified) | | | | | | | | |
|--|---------------------|-----------------|---------------|-----------|-----------------|----------|-----------------------------|---------|
| Analyte | Result ug/Sample | Result mg/m3 | Result ppm | Qualifier | RL ug/Sample | Prepared | Analyzed | Dil Fac |
| Methanol | 9.43 J | 5.89 J | 4.50 J | | 3.36 | | 04/03/17 19:56 03 and 04 | 1 |

Client Sample ID: ~~OUTLET-Q~~ Outlet-Q

Lab Sample ID: **550-79967-4**

Date Collected: 03/28/17 00:00

Matrix: Air

Date Received: 03/29/17 09:30

780

Sample Air Volume: 1.6 L

Sample Container: IH - Silica Gel tube, 450 mg

| Method: 2000 Back - NIOSH 2000 (Modified) | | | | | | | | |
|---|---------------------|-----------------|---------------|-----------|-----------------|----------------|----------------|---------|
| Analyte | Result ug/Sample | Result mg/m3 | Result ppm | Qualifier | RL ug/Sample | Prepared | Analyzed | Dil Fac |
| Methanol | 3.36 US | 2.10 US | 1.60 US | | 3.36 | 04/03/17 13:58 | 04/04/17 11:35 | 1 |

Method: 2000 Front - NIOSH 2000 (Modified)

| Analyte | Result ug/Sample | Result mg/m3 | Result ppm | Qualifier | RL ug/Sample | Prepared | Analyzed | Dil Fac |
|----------|---------------------|-----------------|---------------|-----------|-----------------|----------------|----------------|---------|
| Methanol | 9.12 J | 5.70 J | 4.35 J | | 3.36 | 04/03/17 13:58 | 04/03/17 19:45 | 1 |

Method: 2000 Sum - NIOSH 2000 (Modified)

| Analyte | Result ug/Sample | Result mg/m3 | Result ppm | Qualifier | RL ug/Sample | Prepared | Analyzed | Dil Fac |
|----------|---------------------|-----------------|---------------|-----------|-----------------|----------|-----------------------------|---------|
| Methanol | 9.12 J | 5.70 J | 4.35 J | | 3.36 | | 04/03/17 19:56 03 and 04 | 1 |

new 05/02/17



Eden Environmental, LLC

ATTACHMENT B

EPA REGION II QUALIFIERS AND THEIR DEFINITIONS

- U The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.
- J The analyte was positively identified. The associated numerical value is the approximate concentration of the analyte in the sample.
- J+ The result is an estimated quantity; but the result may be biased high.
- J- The result is an estimated quantity; but the result may be biased low.
- NJ The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.
- UJ The analyte was analyzed for but not detected. The reported quantitation limit may be inaccurate or imprecise.
- R The data are unusable. The sample results are rejected due to serious deficiencies in meeting Quality Control (QC) criteria. The analyte may or may not be present in the sample.

APPENDIX 4

PR CHEMIST CERTIFICATION RESULTS

SVE SYSTEM PROGRESS REPORT NO. 6

JANUARY TO MARCH 2017

PFIZER PHARMACEUTICALS LLC

BARCELONETA, PUERTO RICO

ERTEC JOB NO. E175475

Daliz Estades Santaliz

Licensed Chemist

To Whom It May Concern:

I, Daliz M. Estades Santaliz, in my capacity as Puerto Rico Certified Chemist, hereby certify the attached Analytical Results from Project Pfizer Barceloneta and Laboratory ID Numbers:

200-37035-1
200-37035-2
200-37035-3
200-37035-4
200-37035-5
550-76133-1
550-76133-2
550-76133-3
550-76133-4



Lcda. Daliz M. Estades Santaliz

PO Box 727
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Analytical Data

Client: Ertec

Job Number: 200-37035-1
Sdg Number: 200-37035-1

Client Sample ID: **INLET-1-16**

Lab Sample ID: 200-37035-1
Client Matrix: Air

Date Sampled: 01/17/2017 1055
Date Received: 01/19/2017 1015

TO-15 Volatile Organic Compounds in Ambient Air

| | | | | | |
|------------------|-----------------|-----------------|------------|------------------------|------------|
| Analysis Method: | TO-15 | Analysis Batch: | 200-113644 | Instrument ID: | CHC.I |
| Prep Method: | Summa Canister | Prep Batch: | N/A | Lab File ID: | 23705_16.D |
| Dilution: | 388 | | | Initial Weight/Volume: | 200 mL |
| Analysis Date: | 01/30/2017 2206 | | | Final Weight/Volume: | 200 mL |
| Prep Date: | 01/30/2017 2206 | | | Injection Volume: | 200 mL |

| Analyte | Result (ppb v/v) | Qualifier | MDL | RL |
|--------------------|------------------|-----------|-----|------|
| Acetone | 700 | J | 500 | 1900 |
| Isopropyl alcohol | 110 | J | 50 | 1900 |
| Methylene Chloride | 190 | U | 26 | 190 |
| n-Hexane | 78 | U | 18 | 78 |
| Chloroform | 36 | J | 9.7 | 78 |
| Tetrahydrofuran | 77000 | E | 470 | 1900 |
| Benzene | 1900 | | 11 | 78 |
| Toluene | 12000 | | 14 | 78 |
| Chlorobenzene | 78 | U | 9.7 | 78 |
| Ethylbenzene | 3600 | | 13 | 78 |
| m,p-Xylene | 17000 | | 30 | 190 |
| Xylene, o- | 2300 | | 16 | 78 |
| Xylene (total) | 19000 | | 16 | 270 |

| Analyte | Result (ug/m3) | Qualifier | MDL | RL |
|--------------------|----------------|-----------|------|------|
| Acetone | 1700 | J | 1200 | 4600 |
| Isopropyl alcohol | 260 | J | 120 | 4800 |
| Methylene Chloride | 670 | U | 92 | 670 |
| n-Hexane | 270 | U | 63 | 270 |
| Chloroform | 170 | J | 47 | 380 |
| Tetrahydrofuran | 230000 | E | 1400 | 5700 |
| Benzene | 6100 | | 35 | 250 |
| Toluene | 46000 | | 51 | 290 |
| Chlorobenzene | 360 | U | 45 | 360 |
| Ethylbenzene | 16000 | | 57 | 340 |
| m,p-Xylene | 72000 | | 130 | 840 |
| Xylene, o- | 10000 | | 67 | 340 |
| Xylene (total) | 84000 | | 67 | 1200 |



Analytical Data

Client: Ertec

Job Number: 200-37035-1
Sdg Number: 200-37035-1

Client Sample ID: INLET-1-16

Lab Sample ID: 200-37035-1
Client Matrix: Air

Date Sampled: 01/17/2017 1055
Date Received: 01/19/2017 1015

TO-15 Volatile Organic Compounds in Ambient Air

Analysis Method: TO-15 Analysis Batch: 200-113644 Instrument ID: CHC.i
Prep Method: Summa Canister Prep Batch: N/A Lab File ID: 23705_16.D
Dilution: 388 Initial Weight/Volume: 200 mL
Analysis Date: 01/30/2017 2206 Final Weight/Volume: 200 mL
Prep Date: 01/30/2017 2206 Injection Volume: 200 mL

Tentatively Identified Compounds Number TIC's Found: 0

| Cas Number | Analyte | RT | Est. Result (ppb v/v) | Qualifier |
|------------|---------------------------------|----|-----------------------|-----------|
| | Tentatively Identified Compound | | None | |



Analytical Data

Client: Ertec

Job Number: 200-37035-1
Sdg Number: 200-37035-1

Client Sample ID: **INLET-1-16**

Lab Sample ID: 200-37035-1

Date Sampled: 01/17/2017 1055

Client Matrix: Air

Date Received: 01/19/2017 1015

TO-15 Volatile Organic Compounds in Ambient Air

| | | |
|--------------------------------|----------------------------|------------------------------|
| Analysis Method: TO-15 | Analysis Batch: 200-113644 | Instrument ID: CHC.i |
| Prep Method: Summa Canister | Prep Batch: N/A | Lab File ID: 23705_17.D |
| Dilution: 3880 | | Initial Weight/Volume: 20 mL |
| Analysis Date: 01/30/2017 2259 | Run Type: DL | Final Weight/Volume: 200 mL |
| Prep Date: 01/30/2017 2259 | | Injection Volume: 200 mL |

| Analyte | Result (ppb v/v) | Qualifier | MDL | RL |
|--------------------|------------------|-----------|------|-------|
| Acetone | 19000 | U | 5000 | 19000 |
| Isopropyl alcohol | 19000 | U | 500 | 19000 |
| Methylene Chloride | 1900 | U | 260 | 1900 |
| n-Hexane | 780 | U | 180 | 780 |
| Chloroform | 780 | U | 97 | 780 |
| Tetrahydrofuran | 70000 | D | 4700 | 19000 |
| Benzene | 1800 | D | 110 | 780 |
| Toluene | 11000 | D | 140 | 780 |
| Chlorobenzene | 780 | U | 97 | 780 |
| Ethylbenzene | 3200 | D | 130 | 780 |
| m,p-Xylene | 13000 | D | 300 | 1900 |
| Xylene, o- | 2000 | D | 160 | 780 |
| Xylene (total) | 15000 | D | 160 | 2700 |

| Analyte | Result (ug/m3) | Qualifier | MDL | RL |
|--------------------|----------------|-----------|-------|-------|
| Acetone | 46000 | U | 12000 | 46000 |
| Isopropyl alcohol | 48000 | U | 1200 | 48000 |
| Methylene Chloride | 6700 | U | 920 | 6700 |
| n-Hexane | 2700 | U | 630 | 2700 |
| Chloroform | 3800 | U | 470 | 3800 |
| Tetrahydrofuran | 210000 | D | 14000 | 57000 |
| Benzene | 5600 | D | 350 | 2500 |
| Toluene | 40000 | D | 510 | 2900 |
| Chlorobenzene | 3600 | U | 450 | 3600 |
| Ethylbenzene | 14000 | D | 570 | 3400 |
| m,p-Xylene | 59000 | D | 1300 | 8400 |
| Xylene, o- | 8800 | D | 670 | 3400 |
| Xylene (total) | 65000 | D | 670 | 12000 |



Analytical Data

Client: Ertec

Job Number: 200-37035-1
Sdg Number: 200-37035-1

Client Sample ID: INLET-1-16

Lab Sample ID: 200-37035-1
Client Matrix: Air

Date Sampled: 01/17/2017 1055
Date Received: 01/19/2017 1015

TO-15 Volatile Organic Compounds in Ambient Air

| | | | | | |
|------------------|-----------------|-----------------|------------|------------------------|------------|
| Analysis Method: | TO-15 | Analysis Batch: | 200-113644 | Instrument ID: | CHC.i |
| Prep Method: | Summa Canister | Prep Batch: | N/A | Lab File ID: | 23705_17.D |
| Dilution: | 3880 | Run Type: | DL | Initial Weight/Volume: | 20 mL |
| Analysis Date: | 01/30/2017 2259 | | | Final Weight/Volume: | 200 mL |
| Prep Date: | 01/30/2017 2259 | | | Injection Volume: | 200 mL |

Tentatively Identified Compounds **Number TIC's Found: 0**

| Cas Number | Analyte | RT | Est. Result (ppb v/v) | Qualifier |
|------------|---------------------------------|----|-----------------------|-----------|
| | Tentatively Identified Compound | | None | |



Analytical Data

Client: Ertec

Job Number: 200-37035-1
Sdg Number: 200-37035-1

Client Sample ID: **INLET-2-16**

Lab Sample ID: 200-37035-2
Client Matrix: Air

Date Sampled: 01/17/2017 1059
Date Received: 01/19/2017 1015

TO-15 Volatile Organic Compounds in Ambient Air

| | | | |
|--------------------------------|----------------------------|------------------------------|--|
| Analysis Method: TO-15 | Analysis Batch: 200-113625 | Instrument ID: CHW.i | |
| Prep Method: Summa Canister | Prep Batch: N/A | Lab File ID: 23692_15.d | |
| Dilution: 787 | | Initial Weight/Volume: 16 mL | |
| Analysis Date: 01/28/2017 0100 | | Final Weight/Volume: 200 mL | |
| Prep Date: 01/28/2017 0100 | | Injection Volume: 200 mL | |

| Analyte | Result (ppb v/v) | Qualifier | MDL | RL |
|--------------------|------------------|-----------|------|------|
| Acetone | 3900 | U | 1000 | 3900 |
| Isopropyl alcohol | 190 | J | 100 | 3900 |
| Methylene Chloride | 390 | U | 54 | 390 |
| n-Hexane | 160 | U | 36 | 160 |
| Chloroform | 160 | U | 20 | 160 |
| Tetrahydrofuran | 13000 | | 940 | 3900 |
| Benzene | 360 | | 22 | 160 |
| Toluene | 2200 | | 28 | 160 |
| Chlorobenzene | 160 | U | 20 | 160 |
| Ethylbenzene | 690 | | 27 | 160 |
| m,p-Xylene | 3200 | | 61 | 390 |
| Xylene, o- | 450 | | 31 | 160 |
| Xylene (total) | 3700 | | 31 | 550 |

| Analyte | Result (ug/m3) | Qualifier | MDL | RL |
|--------------------|----------------|-----------|------|-------|
| Acetone | 9300 | U | 2400 | 9300 |
| Isopropyl alcohol | 460 | J | 250 | 9700 |
| Methylene Chloride | 1400 | U | 190 | 1400 |
| n-Hexane | 550 | U | 130 | 550 |
| Chloroform | 770 | U | 96 | 770 |
| Tetrahydrofuran | 38000 | | 2800 | 12000 |
| Benzene | 1100 | | 70 | 500 |
| Toluene | 8300 | | 100 | 590 |
| Chlorobenzene | 720 | U | 91 | 720 |
| Ethylbenzene | 3000 | | 120 | 680 |
| m,p-Xylene | 14000 | | 260 | 1700 |
| Xylene, o- | 2000 | | 140 | 680 |
| Xylene (total) | 16000 | | 140 | 2400 |



Analytical Data

Client: Ertec

Job Number: 200-37035-1
Sdg Number: 200-37035-1

Client Sample ID: **INLET-2-16**

Lab Sample ID: 200-37035-2
Client Matrix: Air

Date Sampled: 01/17/2017 1059
Date Received: 01/19/2017 1015

TO-15 Volatile Organic Compounds in Ambient Air

Analysis Method: TO-15
Prep Method: Summa Canister
Dilution: 787
Analysis Date: 01/28/2017 0100
Prep Date: 01/28/2017 0100

Analysis Batch: 200-113625
Prep Batch: N/A

Instrument ID: CHW.i
Lab File ID: 23692_15.d
Initial Weight/Volume: 16 mL
Final Weight/Volume: 200 mL
Injection Volume: 200 mL

Tentatively Identified Compounds **Number TIC's Found: 0**

| Gas Number | Analyte | RT | Est. Result (ppb v/v) | Qualifier |
|------------|---------------------------------|----|-----------------------|-----------|
| | Tentatively Identified Compound | | None | |



Analytical Data

Client: Ertec

Job Number: 200-37035-1
Sdg Number: 200-37035-1

Client Sample ID: **INLET-P**

Lab Sample ID: 200-37035-3
Client Matrix: Air

Date Sampled: 01/17/2017 1059
Date Received: 01/19/2017 1015

TO-15 Volatile Organic Compounds in Ambient Air

| | | | |
|--------------------------------|----------------------------|------------------------------|--|
| Analysis Method: TO-15 | Analysis Batch: 200-113625 | Instrument ID: CHW.i | |
| Prep Method: Summa Canister | Prep Batch: N/A | Lab File ID: 23692_17.d | |
| Dilution: 900 | | Initial Weight/Volume: 15 mL | |
| Analysis Date: 01/28/2017 0239 | | Final Weight/Volume: 200 mL | |
| Prep Date: 01/28/2017 0239 | | Injection Volume: 200 mL | |

| Analyte | Result (ppb v/v) | Qualifier | MDL | RL |
|--------------------|------------------|-----------|------|------|
| Acetone | 4500 | U | 1200 | 4500 |
| Isopropyl alcohol | 220 | J | 120 | 4500 |
| Methylene Chloride | 450 | U | 61 | 450 |
| n-Hexane | 180 | U | 41 | 180 |
| Chloroform | 180 | U | 23 | 180 |
| Tetrahydrofuran | 14000 | | 1100 | 4500 |
| Benzene | 380 | | 25 | 180 |
| Toluene | 2400 | | 32 | 180 |
| Chlorobenzene | 180 | U | 23 | 180 |
| Ethylbenzene | 730 | | 31 | 180 |
| m,p-Xylene | 3400 | | 69 | 450 |
| Xylene, o- | 480 | | 36 | 180 |
| Xylene (total) | 3900 | | 36 | 630 |

| Analyte | Result (ug/m3) | Qualifier | MDL | RL |
|--------------------|----------------|-----------|------|-------|
| Acetone | 11000 | U | 2800 | 11000 |
| Isopropyl alcohol | 530 | J | 290 | 11000 |
| Methylene Chloride | 1600 | U | 210 | 1600 |
| n-Hexane | 630 | U | 150 | 630 |
| Chloroform | 880 | U | 110 | 880 |
| Tetrahydrofuran | 43000 | | 3200 | 13000 |
| Benzene | 1200 | | 81 | 580 |
| Toluene | 8900 | | 120 | 680 |
| Chlorobenzene | 830 | U | 100 | 830 |
| Ethylbenzene | 3200 | | 130 | 780 |
| m,p-Xylene | 15000 | | 300 | 2000 |
| Xylene, o- | 2100 | | 160 | 780 |
| Xylene (total) | 17000 | | 160 | 2700 |



Analytical Data

Client: Ertec

Job Number: 200-37035-1
Sdg Number: 200-37035-1

Client Sample ID: INLET-P

Lab Sample ID: 200-37035-3
Client Matrix: Air

Date Sampled: 01/17/2017 1059
Date Received: 01/19/2017 1015

TO-15 Volatile Organic Compounds in Ambient Air

Analysis Method: TO-15
Prep Method: Summa Canister
Dilution: 900
Analysis Date: 01/28/2017 0239
Prep Date: 01/28/2017 0239

Analysis Batch: 200-113625
Prep Batch: N/A

Instrument ID: CHW.i
Lab File ID: 23692_17.d
Initial Weight/Volume: 15 mL
Final Weight/Volume: 200 mL
Injection Volume: 200 mL

Tentatively Identified Compounds

Number TIC's Found: 0

| Cas Number | Analyte | RT | Est. Result (ppb v/v) | Qualifier |
|------------|---------------------------------|----|-----------------------|-----------|
| | Tentatively Identified Compound | | None | |



Analytical Data

Client: Ertec

Job Number: 200-37035-1
Sdg Number: 200-37035-1

Client Sample ID: **OUTLET-16**

Lab Sample ID: 200-37035-4
Client Matrix: Air

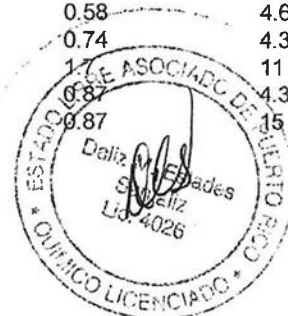
Date Sampled: 01/17/2017 1103
Date Received: 01/19/2017 1015

TO-15 Volatile Organic Compounds in Ambient Air

| | | | |
|--------------------------------|----------------------------|------------------------------|--|
| Analysis Method: TO-15 | Analysis Batch: 200-113625 | Instrument ID: CHW.i | |
| Prep Method: Summa Canister | Prep Batch: N/A | Lab File ID: 23692_16.d | |
| Dilution: 5.0 | | Initial Weight/Volume: 40 mL | |
| Analysis Date: 01/28/2017 0149 | | Final Weight/Volume: 200 mL | |
| Prep Date: 01/28/2017 0149 | | Injection Volume: 200 mL | |

| Analyte | Result (ppb v/v) | Qualifier | MDL | RL |
|--------------------|------------------|-----------|------|-----|
| Acetone | 11 | J | 6.5 | 25 |
| Isopropyl alcohol | 25 | U | 0.65 | 25 |
| Methylene Chloride | 90 | | 0.34 | 2.5 |
| n-Hexane | 1.3 | | 0.23 | 1.0 |
| Chloroform | 1.0 | U | 0.13 | 1.0 |
| Tetrahydrofuran | 25 | U | 6.0 | 25 |
| Benzene | 0.21 | J | 0.14 | 1.0 |
| Toluene | 1.1 | | 0.18 | 1.0 |
| Chlorobenzene | 1.0 | U | 0.13 | 1.0 |
| Ethylbenzene | 1.0 | U | 0.17 | 1.0 |
| m,p-Xylene | 2.5 | U | 0.39 | 2.5 |
| Xylene, o- | 1.0 | U | 0.20 | 1.0 |
| Xylene (total) | 3.5 | U | 0.20 | 3.5 |

| Analyte | Result (ug/m3) | Qualifier | MDL | RL |
|--------------------|----------------|-----------|------|-----|
| Acetone | 26 | J | 15 | 59 |
| Isopropyl alcohol | 61 | U | 1.6 | 61 |
| Methylene Chloride | 310 | | 1.2 | 8.7 |
| n-Hexane | 4.7 | | 0.81 | 3.5 |
| Chloroform | 4.9 | U | 0.61 | 4.9 |
| Tetrahydrofuran | 74 | U | 18 | 74 |
| Benzene | 0.68 | J | 0.45 | 3.2 |
| Toluene | 4.1 | | 0.66 | 3.8 |
| Chlorobenzene | 4.6 | U | 0.58 | 4.6 |
| Ethylbenzene | 4.3 | U | 0.74 | 4.3 |
| m,p-Xylene | 11 | U | 1.7 | 11 |
| Xylene, o- | 4.3 | U | 0.87 | 4.3 |
| Xylene (total) | 15 | U | 0.87 | 15 |



Analytical Data

Client: Ertec

Job Number: 200-37035-1
Sdg Number: 200-37035-1

Client Sample ID: OUTLET-16

Lab Sample ID: 200-37035-4
Client Matrix: Air

Date Sampled: 01/17/2017 1103
Date Received: 01/19/2017 1015

TO-15 Volatile Organic Compounds in Ambient Air

Analysis Method: TO-15
Prep Method: Summa Canister
Dilution: 5.0
Analysis Date: 01/28/2017 0149
Prep Date: 01/28/2017 0149

Analysis Batch: 200-113625
Prep Batch: N/A

Instrument ID: CHW.i
Lab File ID: 23692_16.d
Initial Weight/Volume: 40 mL
Final Weight/Volume: 200 mL
Injection Volume: 200 mL

Tentatively Identified Compounds

Number TIC's Found: 0

| Cas Number | Analyte | RT | Est. Result (ppb v/v) | Qualifier |
|------------|---------------------------------|----|-----------------------|-----------|
| | Tentatively Identified Compound | | None | |



Analytical Data

Client: Ertec

Job Number: 200-37035-1
Sdg Number: 200-37035-1

Client Sample ID: TB-011717

Lab Sample ID: 200-37035-5
Client Matrix: Air

Date Sampled: 01/17/2017 0000
Date Received: 01/19/2017 1015

TO-15 Volatile Organic Compounds in Ambient Air

| | | | | | |
|------------------|-----------------|-----------------|------------|------------------------|------------|
| Analysis Method: | TO-15 | Analysis Batch: | 200-113625 | Instrument ID: | CHW.i |
| Prep Method: | Summa Canister | Prep Batch: | N/A | Lab File ID: | 23692_18.d |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 200 mL |
| Analysis Date: | 01/28/2017 0332 | | | Final Weight/Volume: | 200 mL |
| Prep Date: | 01/28/2017 0332 | | | Injection Volume: | 200 mL |

| Analyte | Result (ppb v/v) | Qualifier | MDL | RL |
|--------------------|------------------|-----------|-------|------|
| Acetone | 5.0 | U | 1.3 | 5.0 |
| Isopropyl alcohol | 0.15 | J | 0.13 | 5.0 |
| Methylene Chloride | 0.50 | U | 0.068 | 0.50 |
| n-Hexane | 0.20 | U | 0.046 | 0.20 |
| Chloroform | 0.20 | U | 0.025 | 0.20 |
| Tetrahydrofuran | 5.0 | U | 1.2 | 5.0 |
| Benzene | 0.20 | U | 0.028 | 0.20 |
| Toluene | 0.058 | J | 0.035 | 0.20 |
| Chlorobenzene | 0.20 | U | 0.025 | 0.20 |
| Ethylbenzene | 0.091 | J | 0.034 | 0.20 |
| m,p-Xylene | 0.10 | J | 0.077 | 0.50 |
| Xylene, o- | 0.20 | U | 0.040 | 0.20 |
| Xylene (total) | 0.10 | J | 0.040 | 0.70 |

| Analyte | Result (ug/m3) | Qualifier | MDL | RL |
|--------------------|----------------|-----------|-------|------|
| Acetone | 12 | U | 3.1 | 12 |
| Isopropyl alcohol | 0.36 | J | 0.32 | 12 |
| Methylene Chloride | 1.7 | U | 0.24 | 1.7 |
| n-Hexane | 0.70 | U | 0.16 | 0.70 |
| Chloroform | 0.98 | U | 0.12 | 0.98 |
| Tetrahydrofuran | 15 | U | 3.5 | 15 |
| Benzene | 0.64 | U | 0.089 | 0.64 |
| Toluene | 0.22 | J | 0.13 | 0.75 |
| Chlorobenzene | 0.92 | U | 0.12 | 0.92 |
| Ethylbenzene | 0.40 | J | 0.15 | 0.87 |
| m,p-Xylene | 0.45 | J | 0.33 | 2.2 |
| Xylene, o- | 0.87 | U | 0.17 | 0.87 |
| Xylene (total) | 0.43 | J | 0.17 | 3.0 |



Analytical Data

Client: Ertec

Job Number: 200-37035-1
Sdg Number: 200-37035-1

Client Sample ID: TB-011717

Lab Sample ID: 200-37035-5
Client Matrix: Air

Date Sampled: 01/17/2017 0000
Date Received: 01/19/2017 1015

TO-15 Volatile Organic Compounds in Ambient Air

Analysis Method: TO-15
Prep Method: Summa Canister
Dilution: 1.0
Analysis Date: 01/28/2017 0332
Prep Date: 01/28/2017 0332

Analysis Batch: 200-113625
Prep Batch: N/A

Instrument ID: CHW.i
Lab File ID: 23692_18.d
Initial Weight/Volume: 200 mL
Final Weight/Volume: 200 mL
Injection Volume: 200 mL

Tentatively Identified Compounds

Number TIC's Found: 0

| Cas Number | Analyte | RT | Est. Result (ppb v/v) | Qualifier |
|------------|---------------------------------|----|-----------------------|-----------|
| | Tentatively Identified Compound | | None | |



Analytical Data

Client: Ertec

Job Number: 200-37035-1
Sdg Number: 200-37035-1

Client Sample ID: INLET-1-16

Lab Sample ID: 200-37035-1
Client Matrix: Air

Date Sampled: 01/17/2017 1055
Date Received: 01/19/2017 1015

EPA 25C Nonmethane Organic Compounds (NMOC)

| | | | | | |
|------------------|-----------------|-----------------|------------|------------------------|-----------------------|
| Analysis Method: | EPA 25C | Analysis Batch: | 200-113628 | Instrument ID: | CH0001.i |
| Prep Method: | Summa Canister | Prep Batch: | N/A | Lab File ID: | 2017-01-23 20;23;06 2 |
| Dilution: | 1.34 | | | Initial Weight/Volume: | 2 mL |
| Analysis Date: | 01/23/2017 2023 | | | Final Weight/Volume: | 2 mL |
| Prep Date: | 01/23/2017 2023 | | | Injection Volume: | 2 mL |

| Analyte | Result (ppm-C) | Qualifier | RL | RL |
|----------------|----------------|-----------|-----|-----|
| NMOC as Carbon | 630 | | 8.0 | 8.0 |



Analytical Data

Client: Ertec

Job Number: 200-37035-1
Sdg Number: 200-37035-1

Client Sample ID: INLET-2-16

Lab Sample ID: 200-37035-2
Client Matrix: Air

Date Sampled: 01/17/2017 1059
Date Received: 01/19/2017 1015

EPA 25C Nonmethane Organic Compounds (NMOC)

| | | | | | |
|------------------|-----------------|-----------------|------------|------------------------|-----------------------|
| Analysis Method: | EPA 25C | Analysis Batch: | 200-113628 | Instrument ID: | CH0001.i |
| Prep Method: | Summa Canister | Prep Batch: | N/A | Lab File ID: | 2017-01-23 21;11;30 2 |
| Dilution: | 1.29 | | | Initial Weight/Volume: | 2 mL |
| Analysis Date: | 01/23/2017 2111 | | | Final Weight/Volume: | 2 mL |
| Prep Date: | 01/23/2017 2111 | | | Injection Volume: | 2 mL |

| Analyte | Result (ppm-C) | Qualifier | RL | RL |
|----------------|----------------|-----------|-----|-----|
| NMOC as Carbon | 160 | | 7.7 | 7.7 |



Analytical Data

Client: Ertec

Job Number: 200-37035-1

Sdg Number: 200-37035-1

Client Sample ID: INLET-P

Lab Sample ID: 200-37035-3

Date Sampled: 01/17/2017 1059

Client Matrix: Air

Date Received: 01/19/2017 1015

EPA 25C Nonmethane Organic Compounds (NMOC)

| | | | | | |
|------------------|-----------------|-----------------|------------|------------------------|-----------------------|
| Analysis Method: | EPA 25C | Analysis Batch: | 200-113628 | Instrument ID: | CH0001.i |
| Prep Method: | Summa Canister | Prep Batch: | N/A | Lab File ID: | 2017-01-23 22:16:05 2 |
| Dilution: | 1.33 | | | Initial Weight/Volume: | 2 mL |
| Analysis Date: | 01/23/2017 2216 | | | Final Weight/Volume: | 2 mL |
| Prep Date: | 01/23/2017 2216 | | | Injection Volume: | 2 mL |

| Analyte | Result (ppm-C) | Qualifier | RL | RL |
|----------------|----------------|-----------|-----|-----|
| NMOC as Carbon | 130 | | 8.0 | 8.0 |



Analytical Data

Client: Ertec

Job Number: 200-37035-1

Sdg Number: 200-37035-1

Client Sample ID: OUTLET-16

Lab Sample ID: 200-37035-4

Date Sampled: 01/17/2017 1103

Client Matrix: Air

Date Received: 01/19/2017 1015

EPA 25C Nonmethane Organic Compounds (NMOC)

| | | | | | |
|------------------|-----------------|-----------------|------------|------------------------|-----------------------|
| Analysis Method: | EPA 25C | Analysis Batch: | 200-113628 | Instrument ID: | CH0001.i |
| Prep Method: | Summa Canister | Prep Batch: | N/A | Lab File ID: | 2017-01-23 23;20;34 2 |
| Dilution: | 1.34 | | | Initial Weight/Volume: | 2 mL |
| Analysis Date: | 01/23/2017 2320 | | | Final Weight/Volume: | 2 mL |
| Prep Date: | 01/23/2017 2320 | | | Injection Volume: | 2 mL |

| Analyte | Result (ppm-C) | Qualifier | RL | RL |
|----------------|----------------|-----------|-----|-----|
| NMOC as Carbon | 45 | | 8.0 | 8.0 |



Analytical Data

Client: Ertec

Job Number: 200-37035-1
Sdg Number: 200-37035-1

Client Sample ID: TB-011717

Lab Sample ID: 200-37035-5
Client Matrix: Air

Date Sampled: 01/17/2017 0000
Date Received: 01/19/2017 1015

EPA 25C Nonmethane Organic Compounds (NMOC)

| | | | | | |
|------------------|-----------------|-----------------|------------|------------------------|-----------------------|
| Analysis Method: | EPA 25C | Analysis Batch: | 200-113628 | Instrument ID: | CH0001.i |
| Prep Method: | Summa Canister | Prep Batch: | N/A | Lab File ID: | 2017-01-24 00;26;41 2 |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 2 mL |
| Analysis Date: | 01/24/2017 0026 | | | Final Weight/Volume: | 2 mL |
| Prep Date: | 01/24/2017 0026 | | | Injection Volume: | 2 mL |

| Analyte | Result (ppm-C) | Qualifier | RL | RL |
|----------------|----------------|-----------|-----|-----|
| NMOC as Carbon | 6.0 | U | 6.0 | 6.0 |



Analytical Data

Client: Ertec

Job Number: 200-37035-1
Sdg Number: 200-37035-1

Client Sample ID: INLET-1-16

Lab Sample ID: 200-37035-1
Client Matrix: Air

Date Sampled: 01/17/2017 1055
Date Received: 01/19/2017 1015

EPA 3C Fixed Gases from Stationary Sources

Analysis Method: EPA 3C
Prep Method: Summa Canister
Dilution: 1.34
Analysis Date: 01/23/2017 2007
Prep Date: 01/23/2017 2007

Analysis Batch: 200-113629
Prep Batch: N/A

Instrument ID: CH0001.i
Lab File ID: 2017-01-23 20:07:01 2
Initial Weight/Volume: 2 mL
Final Weight/Volume: 2 mL
Injection Volume: 2 mL

| Analyte | Result (% v/v) | Qualifier | RL | RL |
|---------|----------------|-----------|-------|-------|
| Methane | 0.054 | U | 0.054 | 0.054 |



Analytical Data

Client: Ertec

Job Number: 200-37035-1
Sdg Number: 200-37035-1

Client Sample ID: INLET-2-16

Lab Sample ID: 200-37035-2
Client Matrix: Air

Date Sampled: 01/17/2017 1059
Date Received: 01/19/2017 1015

EPA 3C Fixed Gases from Stationary Sources

| | | | | | |
|------------------|-----------------|-----------------|------------|------------------------|-----------------------|
| Analysis Method: | EPA 3C | Analysis Batch: | 200-113629 | Instrument ID: | CH0001.i |
| Prep Method: | Summa Canister | Prep Batch: | N/A | Lab File ID: | 2017-01-23 21:11:30 2 |
| Dilution: | 1.29 | | | Initial Weight/Volume: | 2 mL |
| Analysis Date: | 01/23/2017 2111 | | | Final Weight/Volume: | 2 mL |
| Prep Date: | 01/23/2017 2111 | | | Injection Volume: | 2 mL |

| Analyte | Result (% v/v) | Qualifier | RL | RL |
|---------|----------------|-----------|-------|-------|
| Methane | 0.052 | U | 0.052 | 0.052 |



Analytical Data

Client: Ertec

Job Number: 200-37035-1
Sdg Number: 200-37035-1

Client Sample ID: INLET-P

Lab Sample ID: 200-37035-3
Client Matrix: Air

Date Sampled: 01/17/2017 1059
Date Received: 01/19/2017 1015

EPA 3C Fixed Gases from Stationary Sources

Analysis Method: EPA 3C
Prep Method: Summa Canister
Dilution: 1.33
Analysis Date: 01/23/2017 2216
Prep Date: 01/23/2017 2216

Analysis Batch: 200-113629
Prep Batch: N/A

Instrument ID: CH0001.i
Lab File ID: 2017-01-23 22:16;05 2
Initial Weight/Volume: 2 mL
Final Weight/Volume: 2 mL
Injection Volume: 2 mL

| Analyte | Result (% v/v) | Qualifier | RL | RL |
|---------|----------------|-----------|-------|-------|
| Methane | 0.053 | U | 0.053 | 0.053 |



Analytical Data

Client: Ertec

Job Number: 200-37035-1
Sdg Number: 200-37035-1

Client Sample ID: OUTLET-16

Lab Sample ID: 200-37035-4
Client Matrix: Air

Date Sampled: 01/17/2017 1103
Date Received: 01/19/2017 1015

EPA 3C Fixed Gases from Stationary Sources

| | | | | | |
|------------------|-----------------|-----------------|------------|------------------------|-----------------------|
| Analysis Method: | EPA 3C | Analysis Batch: | 200-113629 | Instrument ID: | CH0001.i |
| Prep Method: | Summa Canister | Prep Batch: | N/A | Lab File ID: | 2017-01-23 23;20;34 2 |
| Dilution: | 1.34 | | | Initial Weight/Volume: | 2 mL |
| Analysis Date: | 01/23/2017 2320 | | | Final Weight/Volume: | 2 mL |
| Prep Date: | 01/23/2017 2320 | | | Injection Volume: | 2 mL |

| Analyte | Result (% v/v) | Qualifier | RL | RL |
|---------|----------------|-----------|-------|-------|
| Methane | 0.054 | U | 0.054 | 0.054 |



Quality Control Results

Client: Ertec

Job Number: 200-37035-1

Sdg Number: 200-37035-1

QC Association Summary

| Lab Sample ID | Client Sample ID | Report Basis | Client Matrix | Method | Prep Batch |
|----------------------------------|--------------------|--------------|---------------|---------|------------|
| Air - GC/MS VOA | | | | | |
| Analysis Batch:200-113625 | | | | | |
| LCS 200-113625/4 | Lab Control Sample | T | Air | TO-15 | |
| MB 200-113625/6 | Method Blank | T | Air | TO-15 | |
| 200-37035-2 | INLET-2-16 | T | Air | TO-15 | |
| 200-37035-3 | INLET-P | T | Air | TO-15 | |
| 200-37035-4 | OUTLET-16 | T | Air | TO-15 | |
| 200-37035-5 | TB-011717 | T | Air | TO-15 | |
| Analysis Batch:200-113628 | | | | | |
| LCS 200-113628/2 | Lab Control Sample | T | Air | EPA 25C | |
| MB 200-113628/3 | Method Blank | T | Air | EPA 25C | |
| 200-37035-1 | INLET-1-16 | T | Air | EPA 25C | |
| 200-37035-2 | INLET-2-16 | T | Air | EPA 25C | |
| 200-37035-3 | INLET-P | T | Air | EPA 25C | |
| 200-37035-4 | OUTLET-16 | T | Air | EPA 25C | |
| 200-37035-5 | TB-011717 | T | Air | EPA 25C | |
| Analysis Batch:200-113629 | | | | | |
| LCS 200-113629/2 | Lab Control Sample | T | Air | EPA 3C | |
| MB 200-113629/3 | Method Blank | T | Air | EPA 3C | |
| 200-37035-1 | INLET-1-16 | T | Air | EPA 3C | |
| 200-37035-2 | INLET-2-16 | T | Air | EPA 3C | |
| 200-37035-3 | INLET-P | T | Air | EPA 3C | |
| 200-37035-4 | OUTLET-16 | T | Air | EPA 3C | |
| Analysis Batch:200-113644 | | | | | |
| LCS 200-113644/3 | Lab Control Sample | T | Air | TO-15 | |
| MB 200-113644/4 | Method Blank | T | Air | TO-15 | |
| 200-37035-1 | INLET-1-16 | T | Air | TO-15 | |
| 200-37035-1DL | INLET-1-16 | T | Air | TO-15 | |



Report Basis

T = Total

Quality Control Results

Client: Ertec

Job Number: 200-37035-1
Sdg Number: 200-37035-1

Method Blank - Batch: 200-113625

Method: TO-15
Preparation: Summa Canister

Lab Sample ID: MB 200-113625/6
Client Matrix: Air
Dilution: 1.0
Analysis Date: 01/27/2017 1725
Prep Date: 01/27/2017 1725
Leach Date: N/A

Analysis Batch: 200-113625
Prep Batch: N/A
Leach Batch: N/A
Units: ppb v/v

Instrument ID: CHW.I
Lab File ID: 23692_06.d
Initial Weight/Volume: 200 mL
Final Weight/Volume: 200 mL
Injection Volume: 200 mL

| Analyte | Result | Qual | MDL | RL |
|--------------------|--------|------|-------|------|
| Acetone | 5.0 | U | 1.3 | 5.0 |
| Isopropyl alcohol | 5.0 | U | 0.13 | 5.0 |
| Methylene Chloride | 0.50 | U | 0.068 | 0.50 |
| n-Hexane | 0.20 | U | 0.046 | 0.20 |
| Chloroform | 0.20 | U | 0.025 | 0.20 |
| Tetrahydrofuran | 5.0 | U | 1.2 | 5.0 |
| Benzene | 0.20 | U | 0.028 | 0.20 |
| Toluene | 0.20 | U | 0.035 | 0.20 |
| Chlorobenzene | 0.20 | U | 0.025 | 0.20 |
| Ethylbenzene | 0.20 | U | 0.034 | 0.20 |
| m,p-Xylene | 0.50 | U | 0.077 | 0.50 |
| Xylene, o- | 0.20 | U | 0.040 | 0.20 |
| Xylene (total) | 0.70 | U | 0.040 | 0.70 |

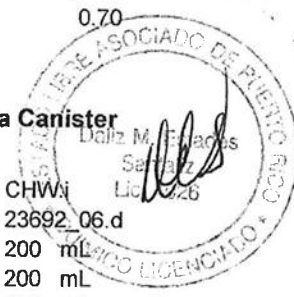
Method Blank - Batch: 200-113625

Method: TO-15
Preparation: Summa Canister

Lab Sample ID: MB 200-113625/6
Client Matrix: Air
Dilution: 1.0
Analysis Date: 01/27/2017 1725
Prep Date: 01/27/2017 1725
Leach Date: N/A

Analysis Batch: 200-113625
Prep Batch: N/A
Leach Batch: N/A
Units: ug/m3

Instrument ID: CHW.I
Lab File ID: 23692_06.d
Initial Weight/Volume: 200 mL
Final Weight/Volume: 200 mL
Injection Volume: 200 mL



| Analyte | Result | Qual | MDL | RL |
|--------------------|--------|------|-------|------|
| Acetone | 12 | U | 3.1 | 12 |
| Isopropyl alcohol | 12 | U | 0.32 | 12 |
| Methylene Chloride | 1.7 | U | 0.24 | 1.7 |
| n-Hexane | 0.70 | U | 0.16 | 0.70 |
| Chloroform | 0.98 | U | 0.12 | 0.98 |
| Tetrahydrofuran | 15 | U | 3.5 | 15 |
| Benzene | 0.64 | U | 0.089 | 0.64 |
| Toluene | 0.75 | U | 0.13 | 0.75 |
| Chlorobenzene | 0.92 | U | 0.12 | 0.92 |
| Ethylbenzene | 0.87 | U | 0.15 | 0.87 |
| m,p-Xylene | 2.2 | U | 0.33 | 2.2 |
| Xylene, o- | 0.87 | U | 0.17 | 0.87 |
| Xylene (total) | 3.0 | U | 0.17 | 3.0 |

Quality Control Results

Client: Ertec

Job Number: 200-37035-1
Sdg Number: 200-37035-1

Method Blank TICs- Batch: 200-113625

| Cas Number | Analyte | RT | Est. Result (ppb) | Qual |
|------------|---------------------------------|----|-------------------|------|
| | Tentatively Identified Compound | | None | |

Lab Control Sample - Batch: 200-113625

Method: TO-15
Preparation: Summa Canister

| | | | | | |
|----------------|------------------|-----------------|------------|------------------------|------------|
| Lab Sample ID: | LCS 200-113625/4 | Analysis Batch: | 200-113625 | Instrument ID: | CHW.i |
| Client Matrix: | Air | Prep Batch: | N/A | Lab File ID: | 23692_04.d |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | 200 mL |
| Analysis Date: | 01/27/2017 1513 | Units: | ppb v/v | Final Weight/Volume: | 200 mL |
| Prep Date: | 01/27/2017 1513 | | | Injection Volume: | 200 mL |
| Leach Date: | N/A | | | | |

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|--------------------|--------------|--------|--------|----------|------|
| Acetone | 10.0 | 11.5 | 115 | 64 - 136 | |
| Isopropyl alcohol | 10.0 | 10.2 | 102 | 55 - 124 | |
| Methylene Chloride | 10.0 | 9.53 | 95 | 62 - 122 | |
| n-Hexane | 10.0 | 10.8 | 108 | 71 - 131 | |
| Chloroform | 10.0 | 10.4 | 104 | 69 - 129 | |
| Tetrahydrofuran | 10.0 | 9.87 | 99 | 61 - 136 | |
| Benzene | 10.0 | 10.1 | 101 | 67 - 127 | |
| Toluene | 10.0 | 10.6 | 107 | 67 - 127 | |
| Chlorobenzene | 10.0 | 10.7 | 107 | 68 - 128 | |
| Ethylbenzene | 10.0 | 10.6 | 106 | 68 - 128 | |
| m,p-Xylene | 20.0 | 21.8 | 109 | 68 - 128 | |
| Xylene, o- | 10.0 | 10.9 | 109 | 67 - 127 | |



Quality Control Results

Client: Ertec

Job Number: 200-37035-1
Sdg Number: 200-37035-1

Method Blank - Batch: 200-113644

Method: TO-15
Preparation: Summa Canister

Lab Sample ID: MB 200-113644/4
Client Matrix: Air
Dilution: 1.0
Analysis Date: 01/30/2017 1128
Prep Date: 01/30/2017 1128
Leach Date: N/A

Analysis Batch: 200-113644
Prep Batch: N/A
Leach Batch: N/A
Units: ppb v/v

Instrument ID: CHC.i
Lab File ID: 23705_04.D
Initial Weight/Volume: 200 mL
Final Weight/Volume: 200 mL
Injection Volume: 200 mL

| Analyte | Result | Qual | MDL | RL |
|--------------------|--------|------|-------|------|
| Acetone | 5.0 | U | 1.3 | 5.0 |
| Isopropyl alcohol | 5.0 | U | 0.13 | 5.0 |
| Methylene Chloride | 0.50 | U | 0.068 | 0.50 |
| n-Hexane | 0.20 | U | 0.046 | 0.20 |
| Chloroform | 0.20 | U | 0.025 | 0.20 |
| Tetrahydrofuran | 5.0 | U | 1.2 | 5.0 |
| Benzene | 0.20 | U | 0.028 | 0.20 |
| Toluene | 0.20 | U | 0.035 | 0.20 |
| Chlorobenzene | 0.20 | U | 0.025 | 0.20 |
| Ethylbenzene | 0.20 | U | 0.034 | 0.20 |
| m,p-Xylene | 0.50 | U | 0.077 | 0.50 |
| Xylene, o- | 0.20 | U | 0.040 | 0.20 |
| Xylene (total) | 0.70 | U | 0.040 | 0.70 |

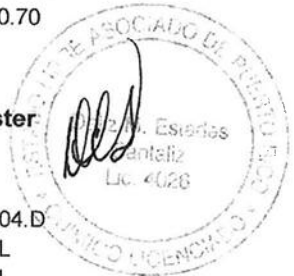
Method Blank - Batch: 200-113644

Method: TO-15
Preparation: Summa Canister

Lab Sample ID: MB 200-113644/4
Client Matrix: Air
Dilution: 1.0
Analysis Date: 01/30/2017 1128
Prep Date: 01/30/2017 1128
Leach Date: N/A

Analysis Batch: 200-113644
Prep Batch: N/A
Leach Batch: N/A
Units: ug/m3

Instrument ID: CHC.i
Lab File ID: 23705_04.D
Initial Weight/Volume: 200 mL
Final Weight/Volume: 200 mL
Injection Volume: 200 mL



| Analyte | Result | Qual | MDL | RL |
|--------------------|--------|------|-------|------|
| Acetone | 12 | U | 3.1 | 12 |
| Isopropyl alcohol | 12 | U | 0.32 | 12 |
| Methylene Chloride | 1.7 | U | 0.24 | 1.7 |
| n-Hexane | 0.70 | U | 0.16 | 0.70 |
| Chloroform | 0.98 | U | 0.12 | 0.98 |
| Tetrahydrofuran | 15 | U | 3.5 | 15 |
| Benzene | 0.64 | U | 0.089 | 0.64 |
| Toluene | 0.75 | U | 0.13 | 0.75 |
| Chlorobenzene | 0.92 | U | 0.12 | 0.92 |
| Ethylbenzene | 0.87 | U | 0.15 | 0.87 |
| m,p-Xylene | 2.2 | U | 0.33 | 2.2 |
| Xylene, o- | 0.87 | U | 0.17 | 0.87 |
| Xylene (total) | 3.0 | U | 0.17 | 3.0 |

Quality Control Results

Client: Ertec

Job Number: 200-37035-1

Sdg Number: 200-37035-1

Method Blank TICs- Batch: 200-113644

| Cas Number | Analyte | RT | Est. Result (ppb) | Qual |
|------------|---------------------------------|----|-------------------|------|
| | Tentatively Identified Compound | | None | |

Lab Control Sample - Batch: 200-113644

Method: TO-15
Preparation: Summa Canister

| | | | | | |
|----------------|------------------|-----------------|------------|------------------------|------------|
| Lab Sample ID: | LCS 200-113644/3 | Analysis Batch: | 200-113644 | Instrument ID: | CHC.i |
| Client Matrix: | Air | Prep Batch: | N/A | Lab File ID: | 23705_03.D |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | 200 mL |
| Analysis Date: | 01/30/2017 1035 | Units: | ppb v/v | Final Weight/Volume: | 200 mL |
| Prep Date: | 01/30/2017 1035 | | | Injection Volume: | 200 mL |
| Leach Date: | N/A | | | | |

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|--------------------|--------------|--------|--------|----------|------|
| Acetone | 10.0 | 8.41 | 84 | 64 - 136 | |
| Isopropyl alcohol | 10.0 | 8.47 | 85 | 55 - 124 | |
| Methylene Chloride | 10.0 | 9.32 | 93 | 62 - 122 | |
| n-Hexane | 10.0 | 10.1 | 101 | 71 - 131 | |
| Chloroform | 10.0 | 9.25 | 92 | 69 - 129 | |
| Tetrahydrofuran | 10.0 | 10.3 | 103 | 61 - 136 | |
| Benzene | 10.0 | 9.63 | 96 | 67 - 127 | |
| Toluene | 10.0 | 9.99 | 100 | 67 - 127 | |
| Chlorobenzene | 10.0 | 9.78 | 98 | 68 - 128 | |
| Ethylbenzene | 10.0 | 9.86 | 99 | 68 - 128 | |
| m,p-Xylene | 20.0 | 19.6 | 98 | 68 - 128 | |
| Xylene, o- | 10.0 | 9.56 | 96 | 67 - 127 | |



Quality Control Results

Client: Ertec

Job Number: 200-37035-1
Sdg Number: 200-37035-1

Method Blank - Batch: 200-113628

Method: EPA 25C
Preparation: Summa Canister

Lab Sample ID: MB 200-113628/3
Client Matrix: Air
Dilution: 1.0
Analysis Date: 01/23/2017 1245
Prep Date: 01/23/2017 1245
Leach Date: N/A

Analysis Batch: 200-113628
Prep Batch: N/A
Leach Batch: N/A
Units: ppm-C

Instrument ID: CH0001.i
Lab File ID: 2017-01-23 12;45;17 mt
Initial Weight/Volume: 2 mL
Final Weight/Volume: 2 mL
Injection Volume: 2 mL

| Analyte | Result | Qual | RL | RL |
|----------------|--------|------|-----|-----|
| NMOC as Carbon | 6.0 | U | 6.0 | 6.0 |

Lab Control Sample - Batch: 200-113628

Method: EPA 25C
Preparation: Summa Canister

Lab Sample ID: LCS 200-113628/2
Client Matrix: Air
Dilution: 1.0
Analysis Date: 01/23/2017 1156
Prep Date: 01/23/2017 1156
Leach Date: N/A

Analysis Batch: 200-113628
Prep Batch: N/A
Leach Batch: N/A
Units: ppm-C

Instrument ID: CH0001.i
Lab File ID: 2017-01-23 11;56;47 25
Initial Weight/Volume: 2 mL
Final Weight/Volume: 2 mL
Injection Volume: 2 mL

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|----------------|--------------|--------|--------|----------|------|
| NMOC as Carbon | 750 | 723 | 96 | 70 - 130 | |



Quality Control Results

Client: Ertec

Job Number: 200-37035-1
Sdg Number: 200-37035-1

Method Blank - Batch: 200-113629

Method: EPA 3C
Preparation: Summa Canister

| | | |
|--------------------------------|----------------------------|-------------------------------------|
| Lab Sample ID: MB 200-113629/3 | Analysis Batch: 200-113629 | Instrument ID: CH0001.i |
| Client Matrix: Air | Prep Batch: N/A | Lab File ID: 2017-01-23 12;45;17 mt |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 2 mL |
| Analysis Date: 01/23/2017 1245 | Units: % v/v | Final Weight/Volume: 2 mL |
| Prep Date: 01/23/2017 1245 | | Injection Volume: 2 mL |
| Leach Date: N/A | | |

| Analyte | Result | Qual | RL | RL |
|---------|--------|------|-------|-------|
| Methane | 0.040 | U | 0.040 | 0.040 |

Lab Control Sample - Batch: 200-113629

Method: EPA 3C
Preparation: Summa Canister

| | | |
|---------------------------------|----------------------------|-------------------------------------|
| Lab Sample ID: LCS 200-113629/2 | Analysis Batch: 200-113629 | Instrument ID: CH0001.i |
| Client Matrix: Air | Prep Batch: N/A | Lab File ID: 2017-01-23 10;31;38 3c |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 2 mL |
| Analysis Date: 01/23/2017 1031 | Units: % v/v | Final Weight/Volume: 2 mL |
| Prep Date: 01/23/2017 1031 | | Injection Volume: 2 mL |
| Leach Date: N/A | | |

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|---------|--------------|--------|--------|----------|------|
| Methane | 4.00 | 3.97 | 99 | 70 - 130 | |



Client Sample Results

Client: TestAmerica Laboratories, Inc.
Project/Site: Pfizer Barceloneta SVE

TestAmerica Job ID: 550-76133-1
SDG: 16-5440

Client Sample ID: Inlet-1-16
Date Collected: 01/17/17 00:00
Date Received: 01/19/17 09:30
Sample Air Volume: 1.6 L

Lab Sample ID: 550-76133-1
Matrix: Air

Sample Container: IH - Silica Gel tube, 150 mg

| Method: 2000 Back - NIOSH 2000 (Modified) | | | | | | | | | |
|---|---------------------|-----------------|---------------|-----------|-----------------|----------------|----------------|---------|--|
| Analyte | Result ug/Sample | Result mg/m3 | Result ppm | Qualifier | RL ug/Sample | Prepared | Analyzed | Dil Fac | |
| Methanol | <3.36 | <2.10 | <1.60 | | 3.36 | 01/24/17 11:24 | 01/24/17 14:48 | 1 | |

| Method: 2000 Front - NIOSH 2000 (Modified) | | | | | | | | | |
|--|---------------------|-----------------|---------------|-----------|-----------------|----------------|----------------|---------|--|
| Analyte | Result ug/Sample | Result mg/m3 | Result ppm | Qualifier | RL ug/Sample | Prepared | Analyzed | Dil Fac | |
| Methanol | 112 | 70.1 | 53.5 | | 3.36 | 01/24/17 11:24 | 01/24/17 16:46 | 1 | |

| Method: 2000 Sum - NIOSH 2000 (Modified) | | | | | | | | | |
|--|---------------------|-----------------|---------------|-----------|-----------------|----------|----------------|---------|--|
| Analyte | Result ug/Sample | Result mg/m3 | Result ppm | Qualifier | RL ug/Sample | Prepared | Analyzed | Dil Fac | |
| Methanol | 112 | 70.1 | 53.5 | | 3.36 | | 01/25/17 13:15 | 1 | |

Client Sample ID: Inlet-2-16
Date Collected: 01/17/17 00:00
Date Received: 01/19/17 09:30
Sample Air Volume: 1.6 L

Lab Sample ID: 550-76133-2
Matrix: Air

Sample Container: IH - Silica Gel tube, 150 mg

| Method: 2000 Back - NIOSH 2000 (Modified) | | | | | | | | | |
|---|---------------------|-----------------|---------------|-----------|-----------------|----------------|----------------|---------|--|
| Analyte | Result ug/Sample | Result mg/m3 | Result ppm | Qualifier | RL ug/Sample | Prepared | Analyzed | Dil Fac | |
| Methanol | <3.36 | <2.10 | <1.60 | | 3.36 | 01/24/17 11:24 | 01/24/17 15:12 | 1 | |

| Method: 2000 Front - NIOSH 2000 (Modified) | | | | | | | | | |
|--|---------------------|-----------------|---------------|-----------|-----------------|----------------|----------------|---------|--|
| Analyte | Result ug/Sample | Result mg/m3 | Result ppm | Qualifier | RL ug/Sample | Prepared | Analyzed | Dil Fac | |
| Methanol | 63.9 | 39.9 | 30.5 | | 3.36 | 01/24/17 11:24 | 01/24/17 17:10 | 1 | |

| Method: 2000 Sum - NIOSH 2000 (Modified) | | | | | | | | | |
|--|---------------------|-----------------|---------------|-----------|-----------------|----------|----------------|---------|--|
| Analyte | Result ug/Sample | Result mg/m3 | Result ppm | Qualifier | RL ug/Sample | Prepared | Analyzed | Dil Fac | |
| Methanol | 63.9 | 39.9 | 30.5 | | 3.36 | | 01/25/17 13:15 | 1 | |



Client Sample ID: Inlet-P
Date Collected: 01/17/17 00:00
Date Received: 01/19/17 09:30
Sample Air Volume: 1.6 L

Lab Sample ID: 550-76133-3
Matrix: Air

Sample Container: IH - Silica Gel tube, 150 mg

| Method: 2000 Back - NIOSH 2000 (Modified) | | | | | | | | | |
|---|---------------------|-----------------|---------------|-----------|-----------------|----------------|----------------|---------|--|
| Analyte | Result ug/Sample | Result mg/m3 | Result ppm | Qualifier | RL ug/Sample | Prepared | Analyzed | Dil Fac | |
| Methanol | <3.36 | <2.10 | <1.60 | | 3.36 | 01/24/17 11:24 | 01/24/17 15:35 | 1 | |

| Method: 2000 Front - NIOSH 2000 (Modified) | | | | | | | | | |
|--|---------------------|-----------------|---------------|-----------|-----------------|----------------|----------------|---------|--|
| Analyte | Result ug/Sample | Result mg/m3 | Result ppm | Qualifier | RL ug/Sample | Prepared | Analyzed | Dil Fac | |
| Methanol | 68.4 | 42.8 | 32.6 | | 3.36 | 01/24/17 11:24 | 01/24/17 17:33 | 1 | |

TestAmerica Phoenix

Client Sample Results

Client: TestAmerica Laboratories, Inc.
Project/Site: Pfizer Barceloneta SVE

TestAmerica Job ID: 550-76133-1
SDG: 16-5440

Client Sample ID: Inlet-P

Lab Sample ID: 550-76133-3

Date Collected: 01/17/17 00:00

Matrix: Air

Date Received: 01/19/17 09:30

Sample Air Volume: 1.6 L

Sample Container: IH - Silica Gel tube, 150 mg

Method: 2000 Sum - NIOSH 2000 (Modified)

| Analyte | Result ug/Sample | Result mg/m3 | Result ppm | Qualifier | RL ug/Sample | Prepared | Analyzed | Dil Fac |
|----------|---------------------|-----------------|---------------|-----------|-----------------|----------|----------------|---------|
| Methanol | 68.4 | 42.8 | 32.6 | | 3.36 | | 01/25/17 13:15 | 1 |

Client Sample ID: Outlet-16

Lab Sample ID: 550-76133-4

Date Collected: 01/17/17 00:00

Matrix: Air

Date Received: 01/19/17 09:30

Sample Air Volume: 1.6 L

Sample Container: IH - Silica Gel tube, 150 mg

Method: 2000 Back - NIOSH 2000 (Modified)

| Analyte | Result ug/Sample | Result mg/m3 | Result ppm | Qualifier | RL ug/Sample | Prepared | Analyzed | Dil Fac |
|----------|---------------------|-----------------|---------------|-----------|-----------------|----------------|----------------|---------|
| Methanol | <3.36 | <2.10 | <1.60 | | 3.36 | 01/24/17 11:24 | 01/24/17 15:59 | 1 |

Method: 2000 Front - NIOSH 2000 (Modified)

| Analyte | Result ug/Sample | Result mg/m3 | Result ppm | Qualifier | RL ug/Sample | Prepared | Analyzed | Dil Fac |
|----------|---------------------|-----------------|---------------|-----------|-----------------|----------------|----------------|---------|
| Methanol | 38.1 | 23.8 | 18.2 | | 3.36 | 01/24/17 11:24 | 01/24/17 17:57 | 1 |

Method: 2000 Sum - NIOSH 2000 (Modified)

| Analyte | Result ug/Sample | Result mg/m3 | Result ppm | Qualifier | RL ug/Sample | Prepared | Analyzed | Dil Fac |
|----------|---------------------|-----------------|---------------|-----------|-----------------|----------|----------------|---------|
| Methanol | 38.1 | 23.8 | 18.2 | | 3.36 | | 01/25/17 13:15 | 1 |



TestAmerica Phoenix

QC Sample Results

Client: TestAmerica Laboratories, Inc.
Project/Site: Pfizer Barceloneta SVE

TestAmerica Job ID: 550-76133-1
SDG: 16-5440

Method: 2000 Back - NIOSH 2000 (Modified)

Lab Sample ID: MB 550-108561/1-A
Matrix: Air
Analysis Batch: 108563

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 108561

| Analyte | MB MB | | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|----------|--------|-----------|------|-----------|---|----------------|----------------|---------|
| | Result | Qualifier | | | | | | |
| Methanol | <3.36 | | 3.36 | ug/Sample | | 01/24/17 11:24 | 01/24/17 13:37 | 1 |

Method: 2000 Front - NIOSH 2000 (Modified)

Lab Sample ID: MB 550-108562/1-A
Matrix: Air
Analysis Batch: 108563

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 108562

| Analyte | MB MB | | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|----------|--------|-----------|------|-----------|---|----------------|----------------|---------|
| | Result | Qualifier | | | | | | |
| Methanol | <3.36 | | 3.36 | ug/Sample | | 01/24/17 11:24 | 01/24/17 13:49 | 1 |

Lab Sample ID: LCS 550-108562/10-A
Matrix: Air
Analysis Batch: 108563

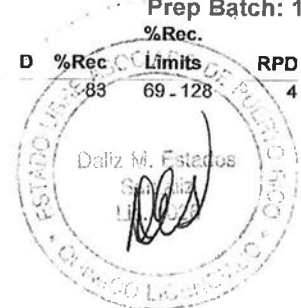
Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 108562

| Analyte | Spike Added | LCS LCS | | Unit | D | %Rec | Limits |
|----------|-------------|---------|-----------|-----------|---|------|----------|
| | | Result | Qualifier | | | | |
| Methanol | 7.91 | 6.300 | | ug/Sample | | 80 | 69 - 128 |

Lab Sample ID: LCSD 550-108562/11-A
Matrix: Air
Analysis Batch: 108563

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 108562

| Analyte | Spike Added | LCSD LCSD | | Unit | D | %Rec | Limits | RPD | Limit |
|----------|-------------|-----------|-----------|-----------|---|------|----------|-----|-------|
| | | Result | Qualifier | | | | | | |
| Methanol | 7.91 | 6.589 | | ug/Sample | | 83 | 69 - 128 | 4 | 29 |



Daliz Estades Santaliz

Licensed Chemist

To Whom It May Concern:

I, Daliz M. Estades Santaliz, in my capacity as Puerto Rico Certified Chemist, hereby certify the attached Analytical Results from Project Pfizer Barceloneta and Laboratory ID Numbers:

200-37474-1
200-37474-2
200-37474-3
200-37474-4
200-37474-5



Lcda. Daliz M. Estades Santaliz

PO Box 727
Dorado, PR 00646-0727

Analytical Data

Client: Ertec

Job Number: 200-37474-1
Sdg Number: 200-37474-1

Client Sample ID: **INLET-1-16**
Lab Sample ID: 200-37474-1
Client Matrix: Air

Date Sampled: 02/21/2017 1030
Date Received: 02/22/2017 0935

TO-15 Volatile Organic Compounds in Ambient Air

| | | |
|--------------------------------|----------------------------|-------------------------------|
| Analysis Method: TO-15 | Analysis Batch: 200-114780 | Instrument ID: CHW.i |
| Prep Method: Summa Canister | Prep Batch: N/A | Lab File ID: 24260_10.d |
| Dilution: 300 | | Initial Weight/Volume: 176 mL |
| Analysis Date: 03/09/2017 2041 | | Final Weight/Volume: 200 mL |
| Prep Date: 03/09/2017 2041 | | Injection Volume: 200 mL |

| Analyte | Result (ppb v/v) | Qualifier | MDL | RL |
|--------------------|------------------|-----------|-----|------|
| Acetone | 640 | J | 390 | 1500 |
| Isopropyl alcohol | 160 | J B | 39 | 1500 |
| Methylene Chloride | 150 | U | 20 | 150 |
| n-Hexane | 60 | U | 14 | 60 |
| Chloroform | 34 | J | 7.5 | 60 |
| Tetrahydrofuran | 60000 | E | 360 | 1500 |
| Benzene | 1400 | | 8.4 | 60 |
| Toluene | 11000 | | 11 | 60 |
| Chlorobenzene | 60 | U | 7.5 | 60 |
| Ethylbenzene | 3400 | | 10 | 60 |
| m,p-Xylene | 16000 | | 23 | 150 |
| Xylene, o- | 2300 | | 12 | 60 |
| Xylene (total) | 18000 | | 12 | 210 |

| Analyte | Result (ug/m3) | Qualifier | MDL | RL |
|--------------------|----------------|-----------|------|------|
| Acetone | 1500 | J | 930 | 3600 |
| Isopropyl alcohol | 390 | J B | 96 | 3700 |
| Methylene Chloride | 520 | U | 71 | 520 |
| n-Hexane | 210 | U | 49 | 210 |
| Chloroform | 170 | J | 37 | 290 |
| Tetrahydrofuran | 180000 | E | 1100 | 4400 |
| Benzene | 4400 | | 27 | 190 |
| Toluene | 40000 | | 40 | 230 |
| Chlorobenzene | 280 | U | 35 | 280 |
| Ethylbenzene | 15000 | | 44 | 260 |
| m,p-Xylene | 68000 | | 100 | 650 |
| Xylene, o- | 10000 | | 52 | 260 |
| Xylene (total) | 79000 | | 52 | 910 |



Analytical Data

Client: Ertec

Job Number: 200-37474-1

Sdg Number: 200-37474-1

Client Sample ID: INLET-1-16

Lab Sample ID: 200-37474-1

Client Matrix: Air

Date Sampled: 02/21/2017 1030

Date Received: 02/22/2017 0935

TO-15 Volatile Organic Compounds in Ambient Air

Analysis Method: TO-15
Prep Method: Summa Canister
Dilution: 300
Analysis Date: 03/09/2017 2041
Prep Date: 03/09/2017 2041

Analysis Batch: 200-114780
Prep Batch: N/A

Instrument ID: CHW.i
Lab File ID: 24260_10.d
Initial Weight/Volume: 176 mL
Final Weight/Volume: 200 mL
Injection Volume: 200 mL

Tentatively Identified Compounds

Number TIC's Found: 0

| Cas Number | Analyte | RT | Est. Result (ppb v/v) | Qualifier |
|------------|---------------------------------|----|-----------------------|-----------|
| | Tentatively Identified Compound | | None | |



Analytical Data

Client: Ertec

Job Number: 200-37474-1
Sdg Number: 200-37474-1

Client Sample ID: **INLET-1-16**

Lab Sample ID: 200-37474-1
Client Matrix: Air

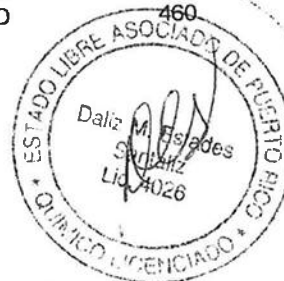
Date Sampled: 02/21/2017 1030
Date Received: 02/22/2017 0935

TO-15 Volatile Organic Compounds in Ambient Air

| | | |
|--------------------------------|----------------------------|------------------------------|
| Analysis Method: TO-15 | Analysis Batch: 200-114827 | Instrument ID: CHW.i |
| Prep Method: Summa Canister | Prep Batch: N/A | Lab File ID: 24282_06.d |
| Dilution: 2640 | | Initial Weight/Volume: 20 mL |
| Analysis Date: 03/10/2017 1554 | Run Type: DL | Final Weight/Volume: 200 mL |
| Prep Date: 03/10/2017 1554 | | Injection Volume: 200 mL |

| Analyte | Result (ppb v/v) | Qualifier | MDL | RL |
|--------------------|------------------|-----------|------|-------|
| Acetone | 13000 | U | 3400 | 13000 |
| Isopropyl alcohol | 340 | J B D | 340 | 13000 |
| Methylene Chloride | 1300 | U | 180 | 1300 |
| n-Hexane | 530 | U | 120 | 530 |
| Chloroform | 530 | U | 66 | 530 |
| Tetrahydrofuran | 60000 | D | 3200 | 13000 |
| Benzene | 1400 | D | 74 | 530 |
| Toluene | 10000 | D | 92 | 530 |
| Chlorobenzene | 530 | U | 66 | 530 |
| Ethylbenzene | 3100 | D | 90 | 530 |
| m,p-Xylene | 15000 | D | 200 | 1300 |
| Xylene, o- | 2000 | D | 110 | 530 |
| Xylene (total) | 17000 | D | 110 | 1800 |

| Analyte | Result (ug/m3) | Qualifier | MDL | RL |
|--------------------|----------------|-----------|------|-------|
| Acetone | 31000 | U | 8200 | 31000 |
| Isopropyl alcohol | 840 | J B D | 840 | 32000 |
| Methylene Chloride | 4600 | U | 620 | 4600 |
| n-Hexane | 1900 | U | 430 | 1900 |
| Chloroform | 2600 | U | 320 | 2600 |
| Tetrahydrofuran | 180000 | D | 9300 | 39000 |
| Benzene | 4400 | D | 240 | 1700 |
| Toluene | 38000 | D | 350 | 2000 |
| Chlorobenzene | 2400 | U | 300 | 2400 |
| Ethylbenzene | 13000 | D | 390 | 2300 |
| m,p-Xylene | 63000 | D | 880 | 5700 |
| Xylene, o- | 8800 | D | 460 | 2300 |
| Xylene (total) | 74000 | D | 460 | 8000 |



Analytical Data

Client: Ertec

Job Number: 200-37474-1
Sdg Number: 200-37474-1

Client Sample ID: INLET-1-16

Lab Sample ID: 200-37474-1
Client Matrix: Air

Date Sampled: 02/21/2017 1030
Date Received: 02/22/2017 0935

TO-15 Volatile Organic Compounds in Ambient Air

Analysis Method: TO-15
Prep Method: Summa Canister
Dilution: 2640
Analysis Date: 03/10/2017 1554
Prep Date: 03/10/2017 1554

Analysis Batch: 200-114827
Prep Batch: N/A
Run Type: DL

Instrument ID: CHW.i
Lab File ID: 24282_06.d
Initial Weight/Volume: 20 mL
Final Weight/Volume: 200 mL
Injection Volume: 200 mL

Tentatively Identified Compounds

Number TIC's Found: 0

| Cas Number | Analyte | RT | Est. Result (ppb v/v) | Qualifier |
|------------|---------------------------------|----|-----------------------|-----------|
| | Tentatively Identified Compound | | None | |



Analytical Data

Client: Ertec

Job Number: 200-37474-1
Sdg Number: 200-37474-1

Client Sample ID: **INLET-2-16**

Lab Sample ID: 200-37474-2
Client Matrix: Air

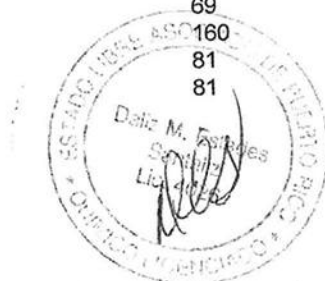
Date Sampled: 02/21/2017 1033
Date Received: 02/22/2017 0935

TO-15 Volatile Organic Compounds in Ambient Air

| | | |
|--------------------------------|----------------------------|------------------------------|
| Analysis Method: TO-15 | Analysis Batch: 200-114780 | Instrument ID: CHW.i |
| Prep Method: Summa Canister | Prep Batch: N/A | Lab File ID: 24260_12.d |
| Dilution: 467 | | Initial Weight/Volume: 29 mL |
| Analysis Date: 03/09/2017 2221 | | Final Weight/Volume: 200 mL |
| Prep Date: 03/09/2017 2221 | | Injection Volume: 200 mL |

| Analyte | Result (ppb v/v) | Qualifier | MDL | RL |
|--------------------|------------------|-----------|-----|------|
| Acetone | 2300 | U | 610 | 2300 |
| Isopropyl alcohol | 120 | J B | 61 | 2300 |
| Methylene Chloride | 230 | U | 32 | 230 |
| n-Hexane | 93 | U | 21 | 93 |
| Chloroform | 93 | U | 12 | 93 |
| Tetrahydrofuran | 15000 | | 560 | 2300 |
| Benzene | 290 | | 13 | 93 |
| Toluene | 2200 | | 16 | 93 |
| Chlorobenzene | 93 | U | 12 | 93 |
| Ethylbenzene | 740 | | 16 | 93 |
| m,p-Xylene | 3500 | | 36 | 230 |
| Xylene, o- | 460 | | 19 | 93 |
| Xylene (total) | 4000 | | 19 | 330 |

| Analyte | Result (ug/m3) | Qualifier | MDL | RL |
|--------------------|----------------|-----------|------|------|
| Acetone | 5500 | U | 1400 | 5500 |
| Isopropyl alcohol | 290 | J B | 150 | 5700 |
| Methylene Chloride | 810 | U | 110 | 810 |
| n-Hexane | 330 | U | 76 | 330 |
| Chloroform | 460 | U | 57 | 460 |
| Tetrahydrofuran | 44000 | | 1700 | 6900 |
| Benzene | 920 | | 42 | 300 |
| Toluene | 8300 | | 62 | 350 |
| Chlorobenzene | 430 | U | 54 | 430 |
| Ethylbenzene | 3200 | | 69 | 410 |
| m,p-Xylene | 15000 | | 160 | 1000 |
| Xylene, o- | 2000 | | 81 | 410 |
| Xylene (total) | 17000 | | 81 | 1400 |



Analytical Data

Client: Ertec

Job Number: 200-37474-1
Sdg Number: 200-37474-1

Client Sample ID: INLET-2-16

Lab Sample ID: 200-37474-2
Client Matrix: Air

Date Sampled: 02/21/2017 1033
Date Received: 02/22/2017 0935

TO-15 Volatile Organic Compounds in Ambient Air

Analysis Method: TO-15
Prep Method: Summa Canister
Dilution: 467
Analysis Date: 03/09/2017 2221
Prep Date: 03/09/2017 2221

Analysis Batch: 200-114780
Prep Batch: N/A

Instrument ID: CHW.i
Lab File ID: 24260_12.d
Initial Weight/Volume: 29 mL
Final Weight/Volume: 200 mL
Injection Volume: 200 mL

Tentatively Identified Compounds

Number TIC's Found: 0

| Cas Number | Analyte | RT | Est. Result (ppb v/v) | Qualifier |
|------------|---------------------------------|----|-----------------------|-----------|
| | Tentatively Identified Compound | | None | |



Analytical Data

Client: Ertec

Job Number: 200-37474-1
Sdg Number: 200-37474-1

Client Sample ID: **INLET-P**

Date Sampled: 02/21/2017 1033
Date Received: 02/22/2017 0935

Lab Sample ID: 200-37474-3

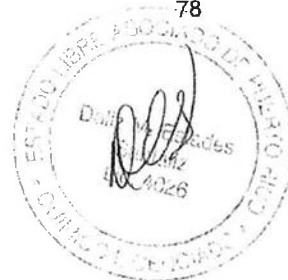
Client Matrix: Air

TO-15 Volatile Organic Compounds in Ambient Air

| | | |
|--------------------------------|----------------------------|------------------------------|
| Analysis Method: TO-15 | Analysis Batch: 200-114827 | Instrument ID: CHW.i |
| Prep Method: Summa Canister | Prep Batch: N/A | Lab File ID: 24282_07.d |
| Dilution: 449 | | Initial Weight/Volume: 28 mL |
| Analysis Date: 03/10/2017 1643 | | Final Weight/Volume: 200 mL |
| Prep Date: 03/10/2017 1643 | | Injection Volume: 200 mL |

| Analyte | Result (ppb v/v) | Qualifier | MDL | RL |
|--------------------|------------------|-----------|-----|------|
| Acetone | 2200 | U | 580 | 2200 |
| Isopropyl alcohol | 120 | J B | 58 | 2200 |
| Methylene Chloride | 220 | U | 31 | 220 |
| n-Hexane | 90 | U | 21 | 90 |
| Chloroform | 90 | U | 11 | 90 |
| Tetrahydrofuran | 14000 | | 540 | 2200 |
| Benzene | 290 | | 13 | 90 |
| Toluene | 2200 | | 16 | 90 |
| Chlorobenzene | 90 | U | 11 | 90 |
| Ethylbenzene | 720 | | 15 | 90 |
| m,p-Xylene | 3400 | | 35 | 220 |
| Xylene, o- | 470 | | 18 | 90 |
| Xylene (total) | 3900 | | 18 | 310 |

| Analyte | Result (ug/m3) | Qualifier | MDL | RL |
|--------------------|----------------|-----------|------|------|
| Acetone | 5300 | U | 1400 | 5300 |
| Isopropyl alcohol | 300 | J B | 140 | 5500 |
| Methylene Chloride | 780 | U | 110 | 780 |
| n-Hexane | 320 | U | 73 | 320 |
| Chloroform | 440 | U | 55 | 440 |
| Tetrahydrofuran | 40000 | | 1600 | 6600 |
| Benzene | 930 | | 40 | 290 |
| Toluene | 8300 | | 59 | 340 |
| Chlorobenzene | 410 | U | 52 | 410 |
| Ethylbenzene | 3100 | | 66 | 390 |
| m,p-Xylene | 15000 | | 150 | 970 |
| Xylene, o- | 2000 | | 78 | 390 |
| Xylene (total) | 17000 | | 78 | 1400 |



Analytical Data

Client: Ertec

Job Number: 200-37474-1
Sdg Number: 200-37474-1

Client Sample ID: INLET-P

Lab Sample ID: 200-37474-3
Client Matrix: Air

Date Sampled: 02/21/2017 1033
Date Received: 02/22/2017 0935

TO-15 Volatile Organic Compounds in Ambient Air

Analysis Method: TO-15
Prep Method: Summa Canister
Dilution: 449
Analysis Date: 03/10/2017 1643
Prep Date: 03/10/2017 1643

Analysis Batch: 200-114827
Prep Batch: N/A

Instrument ID: CHW.i
Lab File ID: 24282_07.d
Initial Weight/Volume: 28 mL
Final Weight/Volume: 200 mL
Injection Volume: 200 mL

Tentatively Identified Compounds

Number TIC's Found: 0

| Cas Number | Analyte | RT | Est. Result (ppb v/v) | Qualifier |
|------------|---------------------------------|----|-----------------------|-----------|
| | Tentatively Identified Compound | | None | |



Analytical Data

Client: Ertec

Job Number: 200-37474-1
Sdg Number: 200-37474-1

Client Sample ID: **OUTLET-16**

Lab Sample ID: 200-37474-4
Client Matrix: Air

Date Sampled: 02/21/2017 1038
Date Received: 02/22/2017 0935

TO-15 Volatile Organic Compounds in Ambient Air

| | | |
|--------------------------------|----------------------------|------------------------------|
| Analysis Method: TO-15 | Analysis Batch: 200-114827 | Instrument ID: CHW.i |
| Prep Method: Summa Canister | Prep Batch: N/A | Lab File ID: 24282_08.d |
| Dilution: 29.2 | | Initial Weight/Volume: 32 mL |
| Analysis Date: 03/10/2017 1733 | | Final Weight/Volume: 200 mL |
| Prep Date: 03/10/2017 1733 | | Injection Volume: 200 mL |

| Analyte | Result (ppb v/v) | Qualifier | MDL | RL |
|--------------------|------------------|-----------|------|-----|
| Acetone | 71 | J | 38 | 150 |
| Isopropyl alcohol | 14 | J B | 3.8 | 150 |
| Methylene Chloride | 27 | | 2.0 | 15 |
| n-Hexane | 5.8 | U | 1.3 | 5.8 |
| Chloroform | 5.8 | U | 0.73 | 5.8 |
| Tetrahydrofuran | 680 | | 35 | 150 |
| Benzene | 5.8 | U | 0.82 | 5.8 |
| Toluene | 2.5 | J | 1.0 | 5.8 |
| Chlorobenzene | 5.8 | U | 0.73 | 5.8 |
| Ethylbenzene | 5.8 | U | 0.99 | 5.8 |
| m,p-Xylene | 15 | U | 2.2 | 15 |
| Xylene, o- | 5.8 | U | 1.2 | 5.8 |
| Xylene (total) | 20 | U | 1.2 | 20 |

| Analyte | Result (ug/m3) | Qualifier | MDL | RL |
|--------------------|----------------|-----------|-----|-----|
| Acetone | 170 | J | 90 | 350 |
| Isopropyl alcohol | 33 | J B | 9.3 | 360 |
| Methylene Chloride | 95 | | 6.9 | 51 |
| n-Hexane | 21 | U | 4.7 | 21 |
| Chloroform | 29 | U | 3.6 | 29 |
| Tetrahydrofuran | 2000 | | 100 | 430 |
| Benzene | 19 | U | 2.6 | 19 |
| Toluene | 9.3 | J | 3.9 | 22 |
| Chlorobenzene | 27 | U | 3.4 | 27 |
| Ethylbenzene | 25 | U | 4.3 | 25 |
| m,p-Xylene | 63 | U | 9.8 | 63 |
| Xylene, o- | 25 | U | 5.1 | 25 |
| Xylene (total) | 89 | U | 5.1 | 89 |



Analytical Data

Client: Ertec

Job Number: 200-37474-1
Sdg Number: 200-37474-1

Client Sample ID: OUTLET-16
Lab Sample ID: 200-37474-4
Client Matrix: Air

Date Sampled: 02/21/2017 1038
Date Received: 02/22/2017 0935

TO-15 Volatile Organic Compounds in Ambient Air

| | | | | | |
|------------------|-----------------|-----------------|------------|------------------------|------------|
| Analysis Method: | TO-15 | Analysis Batch: | 200-114827 | Instrument ID: | CHW.I |
| Prep Method: | Summa Canister | Prep Batch: | N/A | Lab File ID: | 24282_08.d |
| Dilution: | 29.2 | | | Initial Weight/Volume: | 32 mL |
| Analysis Date: | 03/10/2017 1733 | | | Final Weight/Volume: | 200 mL |
| Prep Date: | 03/10/2017 1733 | | | Injection Volume: | 200 mL |

Tentatively Identified Compounds

Number TIC's Found: 0

| Cas Number | Analyte | RT | Est. Result (ppb v/v) | Qualifier |
|------------|---------------------------------|----|-----------------------|-----------|
| | Tentatively Identified Compound | | None | |



Analytical Data

Client: Ertec

Job Number: 200-37474-1
Sdg Number: 200-37474-1

Client Sample ID: TB022117

Date Sampled: 02/21/2017 0000
Date Received: 02/22/2017 0935

Lab Sample ID: 200-37474-5

Client Matrix: Air

TO-15 Volatile Organic Compounds in Ambient Air

Analysis Method: TO-15
Prep Method: Summa Canister
Dilution: 1.0
Analysis Date: 03/04/2017 0924
Prep Date: 03/04/2017 0924

Analysis Batch: 200-114595
Prep Batch: N/A

Instrument ID: CHB.i
Lab File ID: 24174-24.D
Initial Weight/Volume: 200 mL
Final Weight/Volume: 200 mL
Injection Volume: 200 mL

| Analyte | Result (ppb v/v) | Qualifier | MDL | RL |
|--------------------|------------------|-----------|-------|------|
| Acetone | 5.0 | U | 1.3 | 5.0 |
| Isopropyl alcohol | 5.0 | U | 0.13 | 5.0 |
| Methylene Chloride | 0.50 | U | 0.068 | 0.50 |
| n-Hexane | 0.20 | U | 0.046 | 0.20 |
| Chloroform | 0.20 | U | 0.025 | 0.20 |
| Tetrahydrofuran | 5.0 | U | 1.2 | 5.0 |
| Benzene | 0.20 | U | 0.028 | 0.20 |
| Toluene | 0.20 | U | 0.035 | 0.20 |
| Chlorobenzene | 0.20 | U | 0.025 | 0.20 |
| Ethylbenzene | 0.20 | U | 0.034 | 0.20 |
| m,p-Xylene | 0.50 | U | 0.077 | 0.50 |
| Xylene, o- | 0.20 | U | 0.040 | 0.20 |
| Xylene (total) | 0.70 | U | 0.040 | 0.70 |

| Analyte | Result (ug/m3) | Qualifier | MDL | RL |
|--------------------|----------------|-----------|-------|------|
| Acetone | 12 | U | 3.1 | 12 |
| Isopropyl alcohol | 12 | U | 0.32 | 12 |
| Methylene Chloride | 1.7 | U | 0.24 | 1.7 |
| n-Hexane | 0.70 | U | 0.16 | 0.70 |
| Chloroform | 0.98 | U | 0.12 | 0.98 |
| Tetrahydrofuran | 15 | U | 3.5 | 15 |
| Benzene | 0.64 | U | 0.089 | 0.64 |
| Toluene | 0.75 | U | 0.13 | 0.75 |
| Chlorobenzene | 0.92 | U | 0.12 | 0.92 |
| Ethylbenzene | 0.87 | U | 0.15 | 0.87 |
| m,p-Xylene | 2.2 | U | 0.33 | 2.2 |
| Xylene, o- | 0.87 | U | 0.17 | 0.87 |
| Xylene (total) | 3.0 | U | 0.17 | 3.0 |



Analytical Data

Client: Ertec

Job Number: 200-37474-1
Sdg Number: 200-37474-1

Client Sample ID: TB022117
Lab Sample ID: 200-37474-5
Client Matrix: Air

Date Sampled: 02/21/2017 0000
Date Received: 02/22/2017 0935

TO-15 Volatile Organic Compounds in Ambient Air

| | | | | | |
|------------------|-----------------|-----------------|------------|------------------------|------------|
| Analysis Method: | TO-15 | Analysis Batch: | 200-114595 | Instrument ID: | CHB.1 |
| Prep Method: | Summa Canister | Prep Batch: | N/A | Lab File ID: | 24174-24.D |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 200 mL |
| Analysis Date: | 03/04/2017 0924 | | | Final Weight/Volume: | 200 mL |
| Prep Date: | 03/04/2017 0924 | | | Injection Volume: | 200 mL |

Tentatively Identified Compounds

Number TIC's Found: 0

| Gas Number | Analyte | RT | Est. Result (ppb v/v) | Qualifier |
|------------|---------------------------------|----|-----------------------|-----------|
| | Tentatively Identified Compound | | None | |



Analytical Data

Client: Ertec

Job Number: 200-37474-1
Sdg Number: 200-37474-1

Client Sample ID: INLET-1-16
Lab Sample ID: 200-37474-1
Client Matrix: Air

Date Sampled: 02/21/2017 1030
Date Received: 02/22/2017 0935

EPA 25C Nonmethane Organic Compounds (NMOC)

| | | | | | |
|------------------|-----------------|-----------------|------------|------------------------|-----------------------|
| Analysis Method: | EPA 25C | Analysis Batch: | 200-114502 | Instrument ID: | CH0001.I |
| Prep Method: | Summa Canister | Prep Batch: | N/A | Lab File ID: | 2017-02-27 17:31:34 2 |
| Dilution: | 1.42 | | | Initial Weight/Volume: | 2 mL |
| Analysis Date: | 02/27/2017 1731 | | | Final Weight/Volume: | 2 mL |
| Prep Date: | 02/27/2017 1731 | | | Injection Volume: | 2 mL |

| Analyte | Result (ppm-C) | Qualifier | RL | RL |
|----------------|----------------|-----------|-----|-----|
| NMOC as Carbon | 490 | | 8.5 | 8.5 |



Analytical Data

Job Number: 200-37474-1
Sdg Number: 200-37474-1

Client: Ertec

Client Sample ID: INLET-2-16
Lab Sample ID: 200-37474-2
Client Matrix: Air

Date Sampled: 02/21/2017 1033
Date Received: 02/22/2017 0935

EPA 25C Nonmethane Organic Compounds (NMOC)

| | | | | | |
|------------------|-----------------|-----------------|------------|------------------------|-----------------------|
| Analysis Method: | EPA 25C | Analysis Batch: | 200-114502 | Instrument ID: | CH0001.I |
| Prep Method: | Summa Canister | Prep Batch: | N/A | Lab File ID: | 2017-02-27 18;20;27 2 |
| Dilution: | 1.37 | | | Initial Weight/Volume: | 2 mL |
| Analysis Date: | 02/27/2017 1820 | | | Final Weight/Volume: | 2 mL |
| Prep Date: | 02/27/2017 1820 | | | Injection Volume: | 2 mL |

| Analyte | Result (ppm-C) | Qualifier | RL | RL |
|----------------|----------------|-----------|-----|-----|
| NMOC as Carbon | 130 | | 8.2 | 8.2 |



Analytical Data

Client: Ertec

Job Number: 200-37474-1
Sdg Number: 200-37474-1

Client Sample ID: INLET-P
Lab Sample ID: 200-37474-3
Client Matrix: Air

Date Sampled: 02/21/2017 1033
Date Received: 02/22/2017 0935

EPA 25C Nonmethane Organic Compounds (NMOC)

Analysis Method: EPA 25C
Prep Method: Summa Canister
Dilution: 1.27
Analysis Date: 02/27/2017 1925
Prep Date: 02/27/2017 1925

Analysis Batch: 200-114502
Prep Batch: N/A

Instrument ID: CH0001.i
Lab File ID: 2017-02-27 19;25;32 2
Initial Weight/Volume: 2 mL
Final Weight/Volume: 2 mL
Injection Volume: 2 mL

| Analyte | Result (ppm-C) | Qualifier | RL | RL |
|----------------|----------------|-----------|-----|-----|
| NMOC as Carbon | 120 | | 7.6 | 7.6 |



Analytical Data

Client: Ertec

Job Number: 200-37474-1
Sdg Number: 200-37474-1

Client Sample ID: **OUTLET-16**
Lab Sample ID: 200-37474-4
Client Matrix: Air

Date Sampled: 02/21/2017 1038
Date Received: 02/22/2017 0935

EPA 25C Nonmethane Organic Compounds (NMOC)

| | | | | | |
|------------------|-----------------|-----------------|------------|------------------------|-----------------------|
| Analysis Method: | EPA 25C | Analysis Batch: | 200-114502 | Instrument ID: | CH0001.i |
| Prep Method: | Summa Canister | Prep Batch: | N/A | Lab File ID: | 2017-02-27 20:30:33 2 |
| Dilution: | 1.31 | | | Initial Weight/Volume: | 2 mL |
| Analysis Date: | 02/27/2017 2030 | | | Final Weight/Volume: | 2 mL |
| Prep Date: | 02/27/2017 2030 | | | Injection Volume: | 2 mL |

| Analyte | Result (ppm-C) | Qualifier | RL | RL |
|----------------|----------------|-----------|-----|-----|
| NMOC as Carbon | 27 | | 7.9 | 7.9 |



Analytical Data

Client: Ertec

Job Number: 200-37474-1
Sdg Number: 200-37474-1

Client Sample ID: TB022117
Lab Sample ID: 200-37474-5
Client Matrix: Air

Date Sampled: 02/21/2017 0000
Date Received: 02/22/2017 0935

EPA 25C Nonmethane Organic Compounds (NMOC)

| | | | | | |
|------------------|-----------------|-----------------|------------|------------------------|-----------------------|
| Analysis Method: | EPA 25C | Analysis Batch: | 200-114502 | Instrument ID: | CH0001.i |
| Prep Method: | Summa Canister | Prep Batch: | N/A | Lab File ID: | 2017-02-27 21:35:33 2 |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 2 mL |
| Analysis Date: | 02/27/2017 2135 | | | Final Weight/Volume: | 2 mL |
| Prep Date: | 02/27/2017 2135 | | | Injection Volume: | 2 mL |

| Analyte | Result (ppm-C) | Qualifier | RL | RL |
|----------------|----------------|-----------|-----|-----|
| NMOC as Carbon | 6.0 | U | 6.0 | 6.0 |



Analytical Data

Client: Ertec

Job Number: 200-37474-1
Sdg Number: 200-37474-1

Client Sample ID: TB022117
Lab Sample ID: 200-37474-5
Client Matrix: Air

Date Sampled: 02/21/2017 0000
Date Received: 02/22/2017 0935

EPA 25C Nonmethane Organic Compounds (NMOC)

| | | | | | |
|------------------|-----------------|-----------------|------------|------------------------|-----------------------|
| Analysis Method: | EPA 25C | Analysis Batch: | 200-114502 | Instrument ID: | CH0001.i |
| Prep Method: | Summa Canister | Prep Batch: | N/A | Lab File ID: | 2017-02-27 21:35:33 2 |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 2 mL |
| Analysis Date: | 02/27/2017 2135 | | | Final Weight/Volume: | 2 mL |
| Prep Date: | 02/27/2017 2135 | | | Injection Volume: | 2 mL |

| Analyte | Result (ppm-C) | Qualifier | RL | RL |
|----------------|----------------|-----------|-----|-----|
| NMOC as Carbon | 6.0 | U | 6.0 | 6.0 |



Analytical Data

Client: Ertec

Job Number: 200-37474-1
Sdg Number: 200-37474-1

Client Sample ID: INLET-1-16

Lab Sample ID: 200-37474-1
Client Matrix: Air

Date Sampled: 02/21/2017 1030
Date Received: 02/22/2017 0935

EPA 3C Fixed Gases from Stationary Sources

Analysis Method: EPA 3C
Prep Method: Summa Canister
Dilution: 1.42
Analysis Date: 02/27/2017 1715
Prep Date: 02/27/2017 1715

Analysis Batch: 200-114501
Prep Batch: N/A

Instrument ID: CH0001.i
Lab File ID: 2017-02-27 17;15;22 2
Initial Weight/Volume: 2 mL
Final Weight/Volume: 2 mL
Injection Volume: 2 mL

| Analyte | Result (% v/v) | Qualifier | RL | RL |
|---------|----------------|-----------|-------|-------|
| Methane | 0.057 | U | 0.057 | 0.057 |



Analytical Data

Client: Ertec

Job Number: 200-37474-1
Sdg Number: 200-37474-1

Client Sample ID: INLET-2-16

Lab Sample ID: 200-37474-2
Client Matrix: Air

Date Sampled: 02/21/2017 1033
Date Received: 02/22/2017 0935

EPA 3C Fixed Gases from Stationary Sources

Analysis Method: EPA 3C
Prep Method: Summa Canister
Dilution: 1.37
Analysis Date: 02/27/2017 1820
Prep Date: 02/27/2017 1820

Analysis Batch: 200-114501
Prep Batch: N/A

Instrument ID: CH0001.i
Lab File ID: 2017-02-27 18;20;27 2
Initial Weight/Volume: 2 mL
Final Weight/Volume: 2 mL
Injection Volume: 2 mL

| Analyte | Result (% v/v) | Qualifier | RL | RL |
|---------|----------------|-----------|-------|-------|
| Methane | 0.055 | U | 0.055 | 0.055 |



Analytical Data

Client: Ertec

Job Number: 200-37474-1
Sdg Number: 200-37474-1

Client Sample ID: INLET-P
Lab Sample ID: 200-37474-3
Client Matrix: Air

Date Sampled: 02/21/2017 1033
Date Received: 02/22/2017 0935

EPA 3C Fixed Gases from Stationary Sources

| | | | | | |
|------------------|-----------------|-----------------|------------|------------------------|-----------------------|
| Analysis Method: | EPA 3C | Analysis Batch: | 200-114501 | Instrument ID: | CH0001.i |
| Prep Method: | Summa Canister | Prep Batch: | N/A | Lab File ID: | 2017-02-27 19:25:32 2 |
| Dilution: | 1.27 | | | Initial Weight/Volume: | 2 mL |
| Analysis Date: | 02/27/2017 1925 | | | Final Weight/Volume: | 2 mL |
| Prep Date: | 02/27/2017 1925 | | | Injection Volume: | 2 mL |

| Analyte | Result (% v/v) | Qualifier | RL | RL |
|---------|----------------|-----------|-------|-------|
| Methane | 0.051 | U | 0.051 | 0.051 |



Analytical Data

Client: Ertec

Job Number: 200-37474-1
Sdg Number: 200-37474-1

Client Sample ID: OUTLET-16

Lab Sample ID: 200-37474-4

Client Matrix: Air

Date Sampled: 02/21/2017 1038
Date Received: 02/22/2017 0935

EPA 3C Fixed Gases from Stationary Sources

Analysis Method: EPA 3C
Prep Method: Summa Canister
Dilution: 1.31
Analysis Date: 02/27/2017 2030
Prep Date: 02/27/2017 2030

Analysis Batch: 200-114501
Prep Batch: N/A

Instrument ID: CH0001.i
Lab File ID: 2017-02-27 20:30:33 2
Initial Weight/Volume: 2 mL
Final Weight/Volume: 2 mL
Injection Volume: 2 mL

| Analyte | Result (% v/v) | Qualifier | RL | RL |
|---------|----------------|-----------|-------|-------|
| Methane | 0.052 | U | 0.052 | 0.052 |



Quality Control Results

Client: Ertec

Job Number: 200-37474-1
Sdg Number: 200-37474-1

QC Association Summary

| Lab Sample ID | Client Sample ID | Report Basis | Client Matrix | Method | Prep Batch |
|----------------------------------|--------------------|--------------|---------------|---------|------------|
| Air - GC VOA | | | | | |
| Analysis Batch:200-114501 | | | | | |
| LCS 200-114501/2 | Lab Control Sample | T | Air | EPA 3C | |
| MB 200-114501/3 | Method Blank | T | Air | EPA 3C | |
| 200-37474-1 | INLET-1-16 | T | Air | EPA 3C | |
| 200-37474-2 | INLET-2-16 | T | Air | EPA 3C | |
| 200-37474-3 | INLET-P | T | Air | EPA 3C | |
| 200-37474-4 | OUTLET-16 | T | Air | EPA 3C | |
| Analysis Batch:200-114502 | | | | | |
| LCS 200-114502/2 | Lab Control Sample | T | Air | EPA 25C | |
| MB 200-114502/3 | Method Blank | T | Air | EPA 25C | |
| 200-37474-1 | INLET-1-16 | T | Air | EPA 25C | |
| 200-37474-2 | INLET-2-16 | T | Air | EPA 25C | |
| 200-37474-3 | INLET-P | T | Air | EPA 25C | |
| 200-37474-4 | OUTLET-16 | T | Air | EPA 25C | |
| 200-37474-5 | TB022117 | T | Air | EPA 25C | |
| Analysis Batch:200-114595 | | | | | |
| LCS 200-114595/3 | Lab Control Sample | T | Air | TO-15 | |
| MB 200-114595/4 | Method Blank | T | Air | TO-15 | |
| 200-37474-5 | TB022117 | T | Air | TO-15 | |
| Analysis Batch:200-114780 | | | | | |
| LCS 200-114780/3 | Lab Control Sample | T | Air | TO-15 | |
| MB 200-114780/4 | Method Blank | T | Air | TO-15 | |
| 200-37474-1 | INLET-1-16 | T | Air | TO-15 | |
| 200-37474-2 | INLET-2-16 | T | Air | TO-15 | |
| Analysis Batch:200-114827 | | | | | |
| LCS 200-114827/3 | Lab Control Sample | T | Air | TO-15 | |
| MB 200-114827/4 | Method Blank | T | Air | TO-15 | |
| 200-37474-1DL | INLET-1-16 | T | Air | TO-15 | |
| 200-37474-3 | INLET-P | T | Air | TO-15 | |
| 200-37474-4 | OUTLET-16 | T | Air | TO-15 | |

Report Basis

T = Total



Quality Control Results

Client: Ertec

Job Number: 200-37474-1
Sdg Number: 200-37474-1

Method Blank - Batch: 200-114595

Method: TO-15 Preparation: Summa Canister

Lab Sample ID: MB 200-114595/4
Client Matrix: Air
Dilution: 1.0
Analysis Date: 03/03/2017 1455
Prep Date: 03/03/2017 1455
Leach Date: N/A

Analysis Batch: 200-114595
Prep Batch: N/A
Leach Batch: N/A
Units: ppb v/v

Instrument ID: CHB.i
Lab File ID: 24174-04.D
Initial Weight/Volume: 200 mL
Final Weight/Volume: 200 mL
Injection Volume: 200 mL

| Analyte | Result | Qual | MDL | RL |
|--------------------|--------|------|-------|------|
| Acetone | 5.0 | U | 1.3 | 5.0 |
| Isopropyl alcohol | 5.0 | U | 0.13 | 5.0 |
| Methylene Chloride | 0.50 | U | 0.068 | 0.50 |
| n-Hexane | 0.20 | U | 0.046 | 0.20 |
| Chloroform | 0.20 | U | 0.025 | 0.20 |
| Tetrahydrofuran | 5.0 | U | 1.2 | 5.0 |
| Benzene | 0.20 | U | 0.028 | 0.20 |
| Toluene | 0.20 | U | 0.035 | 0.20 |
| Chlorobenzene | 0.20 | U | 0.025 | 0.20 |
| Ethylbenzene | 0.20 | U | 0.034 | 0.20 |
| m,p-Xylene | 0.50 | U | 0.077 | 0.50 |
| Xylene, o- | 0.20 | U | 0.040 | 0.20 |
| Xylene (total) | 0.70 | U | 0.040 | 0.70 |

Method Blank - Batch: 200-114595

Method: TO-15 Preparation: Summa Canister

Lab Sample ID: MB 200-114595/4
Client Matrix: Air
Dilution: 1.0
Analysis Date: 03/03/2017 1455
Prep Date: 03/03/2017 1455
Leach Date: N/A

Analysis Batch: 200-114595
Prep Batch: N/A
Leach Batch: N/A
Units: ug/m3

Instrument ID: CHB.i
Lab File ID: 24174-04.D
Initial Weight/Volume: 200 mL
Final Weight/Volume: 200 mL
Injection Volume: 200 mL

| Analyte | Result | Qual | MDL | RL |
|--------------------|--------|------|-------|------|
| Acetone | 12 | U | 3.1 | 12 |
| Isopropyl alcohol | 12 | U | 0.32 | 12 |
| Methylene Chloride | 1.7 | U | 0.24 | 1.7 |
| n-Hexane | 0.70 | U | 0.16 | 0.70 |
| Chloroform | 0.98 | U | 0.12 | 0.98 |
| Tetrahydrofuran | 15 | U | 3.5 | 15 |
| Benzene | 0.64 | U | 0.089 | 0.64 |
| Toluene | 0.75 | U | 0.13 | 0.75 |
| Chlorobenzene | 0.92 | U | 0.12 | 0.92 |
| Ethylbenzene | 0.87 | U | 0.15 | 0.87 |
| m,p-Xylene | 2.2 | U | 0.33 | 2.2 |
| Xylene, o- | 0.87 | U | 0.17 | 0.87 |
| Xylene (total) | 3.0 | U | 0.17 | 3.0 |



Quality Control Results

Client: Ertec

Job Number: 200-37474-1
Sdg Number: 200-37474-1

Method Blank TICs- Batch: 200-114595

| Cas Number | Analyte | RT | Est. Result (ppl) | Qual |
|------------|---------------------------------|----|-------------------|------|
| | Tentatively Identified Compound | | None | |

Lab Control Sample - Batch: 200-114595

Method: TO-15
Preparation: Summa Canister

| | | |
|---------------------------------|----------------------------|-------------------------------|
| Lab Sample ID: LCS 200-114595/3 | Analysis Batch: 200-114595 | Instrument ID: CHB.i |
| Client Matrix: Air | Prep Batch: N/A | Lab File ID: 24174-03.D |
| Dilution: 1.0 | Leach Batch: N/A | Initial Weight/Volume: 200 mL |
| Analysis Date: 03/03/2017 1402 | Units: ppb v/v | Final Weight/Volume: 200 mL |
| Prep Date: 03/03/2017 1402 | | Injection Volume: 200 mL |
| Leach Date: N/A | | |

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|--------------------|--------------|--------|--------|----------|------|
| Acetone | 10.0 | 11.5 | 115 | 64 - 136 | |
| Isopropyl alcohol | 10.0 | 12.0 | 120 | 55 - 124 | |
| Methylene Chloride | 10.0 | 11.3 | 113 | 62 - 122 | |
| n-Hexane | 10.0 | 12.4 | 124 | 71 - 131 | |
| Chloroform | 10.0 | 12.2 | 122 | 69 - 129 | |
| Tetrahydrofuran | 10.0 | 12.9 | 129 | 61 - 136 | |
| Benzene | 10.0 | 11.7 | 117 | 67 - 127 | |
| Toluene | 10.0 | 11.8 | 118 | 67 - 127 | |
| Chlorobenzene | 10.0 | 11.9 | 119 | 68 - 128 | |
| Ethylbenzene | 10.0 | 12.0 | 120 | 68 - 128 | |
| m,p-Xylene | 20.0 | 24.1 | 120 | 68 - 128 | |
| Xylene, o- | 10.0 | 11.9 | 119 | 67 - 127 | |



Quality Control Results

Client: Ertec

Job Number: 200-37474-1
Sdg Number: 200-37474-1

Method Blank - Batch: 200-114780

Method: TO-15
Preparation: Summa Canister

Lab Sample ID: MB 200-114780/4
Client Matrix: Air
Dilution: 1.0
Analysis Date: 03/09/2017 1527
Prep Date: 03/09/2017 1527
Leach Date: N/A

Analysis Batch: 200-114780
Prep Batch: N/A
Leach Batch: N/A
Units: ppb v/v

Instrument ID: CHW.i
Lab File ID: 24260_04.d
Initial Weight/Volume: 200 mL
Final Weight/Volume: 200 mL
Injection Volume: 200 mL

| Analyte | Result | Qual | MDL | RL |
|--------------------|--------|------|-------|------|
| Acetone | 5.0 | U | 1.3 | 5.0 |
| Isopropyl alcohol | 0.198 | J | 0.13 | 5.0 |
| Methylene Chloride | 0.0807 | J | 0.068 | 0.50 |
| n-Hexane | 0.20 | U | 0.046 | 0.20 |
| Chloroform | 0.20 | U | 0.025 | 0.20 |
| Tetrahydrofuran | 5.0 | U | 1.2 | 5.0 |
| Benzene | 0.20 | U | 0.028 | 0.20 |
| Toluene | 0.20 | U | 0.035 | 0.20 |
| Chlorobenzene | 0.20 | U | 0.025 | 0.20 |
| Ethylbenzene | 0.20 | U | 0.034 | 0.20 |
| m,p-Xylene | 0.50 | U | 0.077 | 0.50 |
| Xylene, o- | 0.20 | U | 0.040 | 0.20 |
| Xylene (total) | 0.70 | U | 0.040 | 0.70 |

Method Blank - Batch: 200-114780

Method: TO-15
Preparation: Summa Canister

Lab Sample ID: MB 200-114780/4
Client Matrix: Air
Dilution: 1.0
Analysis Date: 03/09/2017 1527
Prep Date: 03/09/2017 1527
Leach Date: N/A

Analysis Batch: 200-114780
Prep Batch: N/A
Leach Batch: N/A
Units: ug/m3

Instrument ID: CHW.i
Lab File ID: 24260_04.d
Initial Weight/Volume: 200 mL
Final Weight/Volume: 200 mL
Injection Volume: 200 mL

| Analyte | Result | Qual | MDL | RL |
|--------------------|--------|------|-------|------|
| Acetone | 12 | U | 3.1 | 12 |
| Isopropyl alcohol | 0.487 | J | 0.32 | 12 |
| Methylene Chloride | 0.280 | J | 0.24 | 1.7 |
| n-Hexane | 0.70 | U | 0.16 | 0.70 |
| Chloroform | 0.98 | U | 0.12 | 0.98 |
| Tetrahydrofuran | 15 | U | 3.5 | 15 |
| Benzene | 0.64 | U | 0.089 | 0.64 |
| Toluene | 0.75 | U | 0.13 | 0.75 |
| Chlorobenzene | 0.92 | U | 0.12 | 0.92 |
| Ethylbenzene | 0.87 | U | 0.15 | 0.87 |
| m,p-Xylene | 2.2 | U | 0.33 | 2.2 |
| Xylene, o- | 0.87 | U | 0.17 | 0.87 |
| Xylene (total) | 3.0 | U | 0.17 | 3.0 |



Quality Control Results

Client: Ertec

Job Number: 200-37474-1
Sdg Number: 200-37474-1

Method Blank TICs- Batch: 200-114780

| Cas Number | Analyte | RT | Est. Result (ppb) | Qual |
|------------|--------------------|-------|-------------------|------|
| 106-93-4 | Ethylene Dibromide | 19.01 | 0.0273 | J |

Lab Control Sample - Batch: 200-114780

Method: TO-15
Preparation: Summa Canister

| | | | | | |
|----------------|------------------|-----------------|------------|------------------------|------------|
| Lab Sample ID: | LCS 200-114780/3 | Analysis Batch: | 200-114780 | Instrument ID: | CHW.i |
| Client Matrix: | Air | Prep Batch: | N/A | Lab File ID: | 24260_03.d |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | 200 mL |
| Analysis Date: | 03/09/2017 1434 | Units: | ppb v/v | Final Weight/Volume: | 200 mL |
| Prep Date: | 03/09/2017 1434 | | | Injection Volume: | 200 mL |
| Leach Date: | N/A | | | | |

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|--------------------|--------------|--------|--------|----------|------|
| Acetone | 10.0 | 10.4 | 104 | 64 - 136 | |
| Isopropyl alcohol | 10.0 | 9.28 | 93 | 55 - 124 | |
| Methylene Chloride | 10.0 | 10.1 | 101 | 62 - 122 | |
| n-Hexane | 10.0 | 10.7 | 108 | 71 - 131 | |
| Chloroform | 10.0 | 10.6 | 106 | 69 - 129 | |
| Tetrahydrofuran | 10.0 | 10.6 | 106 | 61 - 136 | |
| Benzene | 10.0 | 9.87 | 99 | 67 - 127 | |
| Toluene | 10.0 | 10.3 | 103 | 67 - 127 | |
| Chlorobenzene | 10.0 | 10.4 | 104 | 68 - 128 | |
| Ethylbenzene | 10.0 | 10.3 | 103 | 68 - 128 | |
| m,p-Xylene | 20.0 | 21.0 | 105 | 68 - 128 | |
| Xylene, o- | 10.0 | 10.3 | 103 | 67 - 127 | |



Quality Control Results

Client: Ertec

Job Number: 200-37474-1
Sdg Number: 200-37474-1

Method Blank - Batch: 200-114827

Method: TO-15 Preparation: Summa Canister

Lab Sample ID: MB 200-114827/4
Client Matrix: Air
Dilution: 1.0
Analysis Date: 03/10/2017 1410
Prep Date: 03/10/2017 1410
Leach Date: N/A

Analysis Batch: 200-114827
Prep Batch: N/A
Leach Batch: N/A
Units: ppb v/v

Instrument ID: CHW.i
Lab File ID: 24282_04.d
Initial Weight/Volume: 200 mL
Final Weight/Volume: 200 mL
Injection Volume: 200 mL

| Analyte | Result | Qual | MDL | RL |
|--------------------|--------|------|-------|------|
| Acetone | 5.0 | U | 1.3 | 5.0 |
| Isopropyl alcohol | 0.208 | J | 0.13 | 5.0 |
| Methylene Chloride | 0.50 | U | 0.068 | 0.50 |
| n-Hexane | 0.20 | U | 0.046 | 0.20 |
| Chloroform | 0.20 | U | 0.025 | 0.20 |
| Tetrahydrofuran | 5.0 | U | 1.2 | 5.0 |
| Benzene | 0.20 | U | 0.028 | 0.20 |
| Toluene | 0.20 | U | 0.035 | 0.20 |
| Chlorobenzene | 0.0254 | J | 0.025 | 0.20 |
| Ethylbenzene | 0.20 | U | 0.034 | 0.20 |
| m,p-Xylene | 0.50 | U | 0.077 | 0.50 |
| Xylene, o- | 0.20 | U | 0.040 | 0.20 |
| Xylene (total) | 0.70 | U | 0.040 | 0.70 |

Method Blank - Batch: 200-114827

Method: TO-15 Preparation: Summa Canister

Lab Sample ID: MB 200-114827/4
Client Matrix: Air
Dilution: 1.0
Analysis Date: 03/10/2017 1410
Prep Date: 03/10/2017 1410
Leach Date: N/A

Analysis Batch: 200-114827
Prep Batch: N/A
Leach Batch: N/A
Units: ug/m3

Instrument ID: CHW.i
Lab File ID: 24282_04.d
Initial Weight/Volume: 200 mL
Final Weight/Volume: 200 mL
Injection Volume: 200 mL

| Analyte | Result | Qual | MDL | RL |
|--------------------|--------|------|-------|------|
| Acetone | 12 | U | 3.1 | 12 |
| Isopropyl alcohol | 0.512 | J | 0.32 | 12 |
| Methylene Chloride | 1.7 | U | 0.24 | 1.7 |
| n-Hexane | 0.70 | U | 0.16 | 0.70 |
| Chloroform | 0.98 | U | 0.12 | 0.98 |
| Tetrahydrofuran | 15 | U | 3.5 | 15 |
| Benzene | 0.64 | U | 0.089 | 0.64 |
| Toluene | 0.75 | U | 0.13 | 0.75 |
| Chlorobenzene | 0.117 | J | 0.12 | 0.92 |
| Ethylbenzene | 0.87 | U | 0.15 | 0.87 |
| m,p-Xylene | 2.2 | U | 0.33 | 2.2 |
| Xylene, o- | 0.87 | U | 0.17 | 0.87 |
| Xylene (total) | 3.0 | U | 0.17 | 3.0 |



Quality Control Results

Client: Ertec

Job Number: 200-37474-1
Sdg Number: 200-37474-1

Method Blank TICs- Batch: 200-114827

| Cas Number | Analyte | RT | Est. Result (ppb) | Qual |
|------------|------------------|------|-------------------|------|
| 75-15-0 | Carbon disulfide | 9.43 | 0.0400 | J |

Lab Control Sample - Batch: 200-114827

Method: TO-15
Preparation: Summa Canister

| | | | | | |
|----------------|------------------|-----------------|------------|------------------------|------------|
| Lab Sample ID: | LCS 200-114827/3 | Analysis Batch: | 200-114827 | Instrument ID: | CHW.i |
| Client Matrix: | Air | Prep Batch: | N/A | Lab File ID: | 24282_03.d |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | 200 mL |
| Analysis Date: | 03/10/2017 1317 | Units: | ppb v/v | Final Weight/Volume: | 200 mL |
| Prep Date: | 03/10/2017 1317 | | | Injection Volume: | 200 mL |
| Leach Date: | N/A | | | | |

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|--------------------|--------------|--------|--------|----------|------|
| Acetone | 10.0 | 10.4 | 104 | 64 - 136 | |
| Isopropyl alcohol | 10.0 | 9.04 | 90 | 55 - 124 | |
| Methylene Chloride | 10.0 | 10.1 | 101 | 62 - 122 | |
| n-Hexane | 10.0 | 10.9 | 109 | 71 - 131 | |
| Chloroform | 10.0 | 10.8 | 108 | 69 - 129 | |
| Tetrahydrofuran | 10.0 | 10.8 | 108 | 61 - 136 | |
| Benzene | 10.0 | 10.2 | 102 | 67 - 127 | |
| Toluene | 10.0 | 10.7 | 107 | 67 - 127 | |
| Chlorobenzene | 10.0 | 10.9 | 109 | 68 - 128 | |
| Ethylbenzene | 10.0 | 10.8 | 108 | 68 - 128 | |
| m,p-Xylene | 20.0 | 21.8 | 109 | 68 - 128 | |
| Xylene, o- | 10.0 | 10.8 | 108 | 67 - 127 | |



Quality Control Results

Client: Ertec

Job Number: 200-37474-1
Sdg Number: 200-37474-1

Method Blank - Batch: 200-114502

Method: EPA 25C
Preparation: Summa Canister

Lab Sample ID: MB 200-114502/3
Client Matrix: Air
Dilution: 1.0
Analysis Date: 02/27/2017 1207
Prep Date: 02/27/2017 1207
Leach Date: N/A

Analysis Batch: 200-114502
Prep Batch: N/A
Leach Batch: N/A
Units: ppm-C

Instrument ID: CH0001.i
Lab File ID: 2017-02-27 12:07:40 mt
Initial Weight/Volume: 2 mL
Final Weight/Volume: 2 mL
Injection Volume: 2 mL

| Analyte | Result | Qual | RL | RL |
|----------------|--------|------|-----|-----|
| NMOC as Carbon | 6.0 | U | 6.0 | 6.0 |

Lab Control Sample - Batch: 200-114502

Method: EPA 25C
Preparation: Summa Canister

Lab Sample ID: LCS 200-114502/2
Client Matrix: Air
Dilution: 1.0
Analysis Date: 02/27/2017 1119
Prep Date: 02/27/2017 1119
Leach Date: N/A

Analysis Batch: 200-114502
Prep Batch: N/A
Leach Batch: N/A
Units: ppm-C

Instrument ID: CH0001.i
Lab File ID: 2017-02-27 11:19:57 25
Initial Weight/Volume: 2 mL
Final Weight/Volume: 2 mL
Injection Volume: 2 mL

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|----------------|--------------|--------|--------|----------|------|
| NMOC as Carbon | 750 | 690 | 92 | 70 - 130 | |



Quality Control Results

Client: Ertec

Job Number: 200-37474-1
Sdg Number: 200-37474-1

Method Blank - Batch: 200-114501

**Method: EPA 3C
Preparation: Summa Canister**

Lab Sample ID: MB 200-114501/3
Client Matrix: Air
Dilution: 1.0
Analysis Date: 02/27/2017 1207
Prep Date: 02/27/2017 1207
Leach Date: N/A

Analysis Batch: 200-114501
Prep Batch: N/A
Leach Batch: N/A
Units: % v/v

Instrument ID: CH0001.i
Lab File ID: 2017-02-27 12:07:40 mt
Initial Weight/Volume: 2 mL
Final Weight/Volume: 2 mL
Injection Volume: 2 mL

| Analyte | Result | Qual | RL | RL |
|---------|--------|------|-------|-------|
| Methane | 0.040 | U | 0.040 | 0.040 |

Lab Control Sample - Batch: 200-114501

**Method: EPA 3C
Preparation: Summa Canister**

Lab Sample ID: LCS 200-114501/2
Client Matrix: Air
Dilution: 1.0
Analysis Date: 02/27/2017 0956
Prep Date: 02/27/2017 0956
Leach Date: N/A

Analysis Batch: 200-114501
Prep Batch: N/A
Leach Batch: N/A
Units: % v/v

Instrument ID: CH0001.i
Lab File ID: 2017-02-27 09:56:29 3c
Initial Weight/Volume: 2 mL
Final Weight/Volume: 2 mL
Injection Volume: 2 mL

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|---------|--------------|--------|--------|----------|------|
| Methane | 4.00 | 4.01 | 100 | 70 - 130 | |



Client Sample Results

Client: TestAmerica Laboratories, Inc.
Project/Site: Pfizer Barceloneta SVE

TestAmerica Job ID: 550-78003-1
SDG: 165440

Client Sample ID: Inlet-1-16

Lab Sample ID: 550-78003-1
Matrix: Air

Date Collected: 02/21/17 00:00
Date Received: 02/22/17 09:30
Sample Air Volume: 1.6 L

Sample Container: IH - Silica Gel tube, 150 mg

Method: 2000 Back - NIOSH 2000 (Modified)

| Analyte | Result ug/Sample | Result mg/m3 | Result ppm | Qualifier | RL ug/Sample | Prepared | Analyzed | Dil Fac |
|----------|---------------------|-----------------|---------------|-----------|-----------------|----------------|----------------|---------|
| Methanol | <3.36 | <2.10 | <1.60 | | 3.36 | 02/27/17 08:41 | 02/27/17 12:56 | 1 |

Method: 2000 Front - NIOSH 2000 (Modified)

| Analyte | Result ug/Sample | Result mg/m3 | Result ppm | Qualifier | RL ug/Sample | Prepared | Analyzed | Dil Fac |
|----------|---------------------|-----------------|---------------|-----------|-----------------|----------------|----------------|---------|
| Methanol | <3.36 | <2.10 | <1.60 | | 3.36 | 02/27/17 08:41 | 02/27/17 15:17 | 1 |

Method: 2000 Sum - NIOSH 2000 (Modified)

| Analyte | Result ug/Sample | Result mg/m3 | Result ppm | Qualifier | RL ug/Sample | Prepared | Analyzed | Dil Fac |
|----------|---------------------|-----------------|---------------|-----------|-----------------|----------|----------------|---------|
| Methanol | <3.36 | <2.10 | <1.60 | | 3.36 | | 02/28/17 15:52 | 1 |

Client Sample ID: Inlet-2-16

Lab Sample ID: 550-78003-2
Matrix: Air

Date Collected: 02/21/17 00:00
Date Received: 02/22/17 09:30
Sample Air Volume: 1.6 L

Sample Container: IH - Silica Gel tube, 150 mg

Method: 2000 Back - NIOSH 2000 (Modified)

| Analyte | Result ug/Sample | Result mg/m3 | Result ppm | Qualifier | RL ug/Sample | Prepared | Analyzed | Dil Fac |
|----------|---------------------|-----------------|---------------|-----------|-----------------|----------------|----------------|---------|
| Methanol | <3.36 | <2.10 | <1.60 | | 3.36 | 02/27/17 08:41 | 02/27/17 13:43 | 1 |

Method: 2000 Front - NIOSH 2000 (Modified)

| Analyte | Result ug/Sample | Result mg/m3 | Result ppm | Qualifier | RL ug/Sample | Prepared | Analyzed | Dil Fac |
|----------|---------------------|-----------------|---------------|-----------|-----------------|----------------|----------------|---------|
| Methanol | 75.7 | 47.3 | 36.1 | | 3.36 | 02/27/17 08:41 | 02/27/17 15:40 | 1 |

Method: 2000 Sum - NIOSH 2000 (Modified)

| Analyte | Result ug/Sample | Result mg/m3 | Result ppm | Qualifier | RL ug/Sample | Prepared | Analyzed | Dil Fac |
|----------|---------------------|-----------------|---------------|-----------|-----------------|----------|----------------|---------|
| Methanol | 75.7 | 47.3 | 36.1 | | 3.36 | | 02/28/17 15:52 | 1 |

Client Sample ID: Inlet-P

Lab Sample ID: 550-78003-3
Matrix: Air

Date Collected: 02/21/17 00:00
Date Received: 02/22/17 09:30
Sample Air Volume: 1.6 L

Sample Container: IH - Silica Gel tube, 150 mg

Method: 2000 Back - NIOSH 2000 (Modified)

| Analyte | Result ug/Sample | Result mg/m3 | Result ppm | Qualifier | RL ug/Sample | Prepared | Analyzed | Dil Fac |
|----------|---------------------|-----------------|---------------|-----------|-----------------|----------------|----------------|---------|
| Methanol | <3.36 | <2.10 | <1.60 | | 3.36 | 02/27/17 08:41 | 02/27/17 13:55 | 1 |

Method: 2000 Front - NIOSH 2000 (Modified)

| Analyte | Result ug/Sample | Result mg/m3 | Result ppm | Qualifier | RL ug/Sample | Prepared | Analyzed | Dil Fac |
|----------|---------------------|-----------------|---------------|-----------|-----------------|----------------|----------------|---------|
| Methanol | 72.3 | 45.2 | 34.5 | | 3.36 | 02/27/17 08:41 | 02/27/17 16:04 | 1 |



TestAmerica Phoenix

Client Sample Results

Client: TestAmerica Laboratories, Inc.
 Project/Site: Pfizer Barceloneta SVE

TestAmerica Job ID: 550-78003-1
 SDG: 165440

Client Sample ID: Inlet-P

Date Collected: 02/21/17 00:00
 Date Received: 02/22/17 09:30
 Sample Air Volume: 1.6 L

Lab Sample ID: 550-78003-3
 Matrix: Air

Sample Container: IH - Silica Gel tube, 150 mg

Method: 2000 Sum - NIOSH 2000 (Modified)

| Analyte | Result ug/Sample | Result mg/m3 | Result ppm | Qualifier | RL ug/Sample | Prepared | Analyzed | Dil Fac |
|----------|---------------------|-----------------|---------------|-----------|-----------------|----------|----------------|---------|
| Methanol | 72.3 | 45.2 | 34.5 | | 3.36 | | 02/28/17 15:52 | 1 |

Client Sample ID: Outlet-16

Date Collected: 02/21/17 00:00
 Date Received: 02/22/17 09:30
 Sample Air Volume: 1.6 L

Lab Sample ID: 550-78003-4
 Matrix: Air

Sample Container: IH - Silica Gel tube, 150 mg

Method: 2000 Back - NIOSH 2000 (Modified)

| Analyte | Result ug/Sample | Result mg/m3 | Result ppm | Qualifier | RL ug/Sample | Prepared | Analyzed | Dil Fac |
|----------|---------------------|-----------------|---------------|-----------|-----------------|----------------|----------------|---------|
| Methanol | <3.36 | <2.10 | <1.60 | | 3.36 | 02/27/17 08:41 | 02/27/17 14:18 | 1 |

Method: 2000 Front - NIOSH 2000 (Modified)

| Analyte | Result ug/Sample | Result mg/m3 | Result ppm | Qualifier | RL ug/Sample | Prepared | Analyzed | Dil Fac |
|----------|---------------------|-----------------|---------------|-----------|-----------------|----------------|----------------|---------|
| Methanol | 16.2 | 10.1 | 7.73 | | 3.36 | 02/27/17 08:41 | 02/27/17 16:27 | 1 |

Method: 2000 Sum - NIOSH 2000 (Modified)

| Analyte | Result ug/Sample | Result mg/m3 | Result ppm | Qualifier | RL ug/Sample | Prepared | Analyzed | Dil Fac |
|----------|---------------------|-----------------|---------------|-----------|-----------------|----------|----------------|---------|
| Methanol | 16.2 | 10.1 | 7.73 | | 3.36 | | 02/28/17 15:52 | 1 |



QC Sample Results

Client: TestAmerica Laboratories, Inc.
 Project/Site: Pfizer Barceloneta SVE

TestAmerica Job ID: 550-78003-1
 SDG: 165440

Method: 2000 Back - NIOSH 2000 (Modified)

Lab Sample ID: MB 550-111113/1-A
 Matrix: Air
 Analysis Batch: 111119

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 111113

| Analyte | MB Result | MB Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|----------|-----------|--------------|------|-----------|---|----------------|----------------|---------|
| Methanol | <3.36 | | 3.36 | ug/Sample | | 02/27/17 08:41 | 02/27/17 11:20 | 1 |

Method: 2000 Front - NIOSH 2000 (Modified)

Lab Sample ID: MB 550-111114/1-A
 Matrix: Air
 Analysis Batch: 111119

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 111114

| Analyte | MB Result | MB Qualifier | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|----------|-----------|--------------|------|-----------|---|----------------|----------------|---------|
| Methanol | <3.36 | | 3.36 | ug/Sample | | 02/27/17 08:41 | 02/27/17 11:45 | 1 |

Lab Sample ID: LCS 550-111114/10-A
 Matrix: Air
 Analysis Batch: 111119

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 111114
 %Rec.

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | Limits |
|----------|-------------|------------|---------------|-----------|---|------|----------|
| Methanol | 7.91 | 7.156 | | ug/Sample | | 90 | 69 - 128 |

Lab Sample ID: LCSD 550-111114/11-A
 Matrix: Air
 Analysis Batch: 111119

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total/NA
 Prep Batch: 111114
 %Rec. RPD

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | Limits | RPD | Limit |
|----------|-------------|-------------|----------------|-----------|---|------|----------|-----|-------|
| Methanol | 7.91 | 6.428 | | ug/Sample | | 81 | 69 - 128 | 11 | 29 |



Daliz Estades Santaliz

Licensed Chemist

To Whom It May Concern:

I, Daliz M. Estades Santaliz, in my capacity as Puerto Rico Certified Chemist, hereby certify the attached Analytical Results from Project Pfizer, Barceloneta and Laboratory ID Numbers:

200-37991-1
200-37991-2
200-37991-3
200-37991-4
200-37991-5
550-79967-1
550-79967-2
550-79967-3
550-79967-4



Lcda. Daliz M. Estades Santaliz

PO Box 727
Dorado, PR 00646-0727

Analytical Data

Client: Ertec

Job Number: 200-37991-1
Sdg Number: 200-37991-1

Client Sample ID: INLET-1-17

Lab Sample ID: 200-37991-1
Client Matrix: Air

Date Sampled: 03/28/2017 1256
Date Received: 03/29/2017 1035

TO-15 Volatile Organic Compounds in Ambient Air

| | | | | | |
|------------------|-----------------|-----------------|------------|------------------------|------------|
| Analysis Method: | TO-15 | Analysis Batch: | 200-115820 | Instrument ID: | CHW.i |
| Prep Method: | Summa Canister | Prep Batch: | N/A | Lab File ID: | 24735_08.d |
| Dilution: | 3010 | | | Initial Weight/Volume: | 44 mL |
| Analysis Date: | 04/14/2017 1544 | | | Final Weight/Volume: | 200 mL |
| Prep Date: | 04/14/2017 1544 | | | Injection Volume: | 200 mL |

| Analyte | Result (ppb v/v) | Qualifier | MDL | RL |
|--------------------|------------------|-----------|------|-------|
| Acetone | 15000 | U | 3900 | 15000 |
| Isopropyl alcohol | 15000 | U | 390 | 15000 |
| Methylene Chloride | 1500 | U | 200 | 1500 |
| n-Hexane | 600 | U | 140 | 600 |
| Chloroform | 600 | U | 75 | 600 |
| Tetrahydrofuran | 42000 | | 3600 | 15000 |
| Benzene | 1100 | | 84 | 600 |
| Toluene | 9700 | | 110 | 600 |
| Chlorobenzene | 600 | U | 75 | 600 |
| Ethylbenzene | 3600 | | 100 | 600 |
| m,p-Xylene | 18000 | | 230 | 1500 |
| Xylene, o- | 2500 | | 120 | 600 |
| Xylene (total) | 21000 | | 120 | 2100 |

| Analyte | Result (ug/m3) | Qualifier | MDL | RL |
|--------------------|----------------|-----------|-------|-------|
| Acetone | 36000 | U | 9300 | 36000 |
| Isopropyl alcohol | 37000 | U | 960 | 37000 |
| Methylene Chloride | 5200 | U | 710 | 5200 |
| n-Hexane | 2100 | U | 490 | 2100 |
| Chloroform | 2900 | U | 370 | 2900 |
| Tetrahydrofuran | 120000 | | 11000 | 44000 |
| Benzene | 3500 | | 270 | 1900 |
| Toluene | 37000 | | 400 | 2300 |
| Chlorobenzene | 2800 | U | 350 | 2800 |
| Ethylbenzene | 16000 | | 440 | 2600 |
| m,p-Xylene | 77000 | | 1000 | 6500 |
| Xylene, o- | 11000 | | 520 | 2600 |
| Xylene (total) | 89000 | | 520 | 9100 |



Analytical Data

Client: Ertec

Job Number: 200-37991-1
Sdg Number: 200-37991-1

Client Sample ID: INLET-1-17

Lab Sample ID: 200-37991-1
Client Matrix: Air

Date Sampled: 03/28/2017 1256
Date Received: 03/29/2017 1035

TO-15 Volatile Organic Compounds in Ambient Air

| | | | | | |
|------------------|-----------------|-----------------|------------|------------------------|------------|
| Analysis Method: | TO-15 | Analysis Batch: | 200-115820 | Instrument ID: | CHW.i |
| Prep Method: | Summa Canister | Prep Batch: | N/A | Lab File ID: | 24735_08.d |
| Dilution: | 3010 | | | Initial Weight/Volume: | 44 mL |
| Analysis Date: | 04/14/2017 1544 | | | Final Weight/Volume: | 200 mL |
| Prep Date: | 04/14/2017 1544 | | | Injection Volume: | 200 mL |

Tentatively Identified Compounds Number TIC's Found: 0

| Cas Number | Analyte | RT | Est. Result (ppb v/v) | Qualifier |
|------------|---------------------------------|----|-----------------------|-----------|
| | Tentatively Identified Compound | | None | |



Analytical Data

Client: Ertec

Job Number: 200-37991-1
Sdg Number: 200-37991-1

Client Sample ID: **INLET-2-17**

Lab Sample ID: 200-37991-2
Client Matrix: Air

Date Sampled: 03/28/2017 1300
Date Received: 03/29/2017 1035

TO-15 Volatile Organic Compounds in Ambient Air

| | | |
|--------------------------------|----------------------------|------------------------------|
| Analysis Method: TO-15 | Analysis Batch: 200-115820 | Instrument ID: CHW.i |
| Prep Method: Summa Canister | Prep Batch: N/A | Lab File ID: 24735_09.d |
| Dilution: 339 | | Initial Weight/Volume: 36 mL |
| Analysis Date: 04/14/2017 1633 | | Final Weight/Volume: 200 mL |
| Prep Date: 04/14/2017 1633 | | Injection Volume: 200 mL |

| Analyte | Result (ppb v/v) | Qualifier | MDL | RL |
|--------------------|------------------|-----------|-----|------|
| Acetone | 1700 | U | 440 | 1700 |
| Isopropyl alcohol | 73 | J B | 44 | 1700 |
| Methylene Chloride | 58 | J | 23 | 170 |
| n-Hexane | 68 | U | 16 | 68 |
| Chloroform | 68 | U | 8.5 | 68 |
| Tetrahydrofuran | 8100 | | 410 | 1700 |
| Benzene | 190 | | 9.5 | 68 |
| Toluene | 1700 | | 12 | 68 |
| Chlorobenzene | 68 | U | 8.5 | 68 |
| Ethylbenzene | 610 | | 12 | 68 |
| m,p-Xylene | 2900 | | 26 | 170 |
| Xylene, o- | 400 | | 14 | 68 |
| Xylene (total) | 3300 | | 14 | 240 |

| Analyte | Result (ug/m3) | Qualifier | MDL | RL |
|--------------------|----------------|-----------|------|------|
| Acetone | 4000 | U | 1000 | 4000 |
| Isopropyl alcohol | 180 | J B | 110 | 4200 |
| Methylene Chloride | 200 | J | 80 | 590 |
| n-Hexane | 240 | U | 55 | 240 |
| Chloroform | 330 | U | 41 | 330 |
| Tetrahydrofuran | 24000 | | 1200 | 5000 |
| Benzene | 590 | | 30 | 220 |
| Toluene | 6500 | | 45 | 260 |
| Chlorobenzene | 310 | U | 39 | 310 |
| Ethylbenzene | 2700 | | 50 | 290 |
| m,p-Xylene | 12000 | | 110 | 740 |
| Xylene, o- | 1700 | | 59 | 290 |
| Xylene (total) | 14000 | | 59 | 1000 |



Analytical Data

Client: Ertec

Job Number: 200-37991-1
Sdg Number: 200-37991-1

Client Sample ID: INLET-2-17

Lab Sample ID: 200-37991-2
Client Matrix: Air

Date Sampled: 03/28/2017 1300
Date Received: 03/29/2017 1035

TO-15 Volatile Organic Compounds in Ambient Air

| | | | | | |
|------------------|-----------------|-----------------|------------|------------------------|------------|
| Analysis Method: | TO-15 | Analysis Batch: | 200-115820 | Instrument ID: | CHW.i |
| Prep Method: | Summa Canister | Prep Batch: | N/A | Lab File ID: | 24735_09.d |
| Dilution: | 339 | | | Initial Weight/Volume: | 36 mL |
| Analysis Date: | 04/14/2017 1633 | | | Final Weight/Volume: | 200 mL |
| Prep Date: | 04/14/2017 1633 | | | Injection Volume: | 200 mL |

Tentatively Identified Compounds **Number TIC's Found: 0**

| Cas Number | Analyte | RT | Est. Result (ppb v/v) | Qualifier |
|------------|---------------------------------|----|-----------------------|-----------|
| | Tentatively Identified Compound | | None | |



Analytical Data

Client: Ertec

Job Number: 200-37991-1
Sdg Number: 200-37991-1

Client Sample ID: **OUTLET-17**

Lab Sample ID: 200-37991-3
Client Matrix: Air

Date Sampled: 03/28/2017 1308
Date Received: 03/29/2017 1035

TO-15 Volatile Organic Compounds in Ambient Air

| | | | | | |
|------------------|-----------------|-----------------|------------|------------------------|------------|
| Analysis Method: | TO-15 | Analysis Batch: | 200-115820 | Instrument ID: | CHW.i |
| Prep Method: | Summa Canister | Prep Batch: | N/A | Lab File ID: | 24735_10.d |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 272 mL |
| Analysis Date: | 04/14/2017 1728 | | | Final Weight/Volume: | 200 mL |
| Prep Date: | 04/14/2017 1728 | | | Injection Volume: | 200 mL |

| Analyte | Result (ppb v/v) | Qualifier | MDL | RL |
|--------------------|------------------|-----------|-------|------|
| Acetone | 11 | | 1.3 | 5.0 |
| Isopropyl alcohol | 8.1 | B | 0.13 | 5.0 |
| Methylene Chloride | 0.11 | J | 0.068 | 0.50 |
| n-Hexane | 0.20 | U | 0.046 | 0.20 |
| Chloroform | 0.20 | U | 0.025 | 0.20 |
| Tetrahydrofuran | 5.0 | U | 1.2 | 5.0 |
| Benzene | 0.36 | | 0.028 | 0.20 |
| Toluene | 0.20 | | 0.035 | 0.20 |
| Chlorobenzene | 0.20 | U | 0.025 | 0.20 |
| Ethylbenzene | 0.20 | U | 0.034 | 0.20 |
| m,p-Xylene | 0.50 | U | 0.077 | 0.50 |
| Xylene, o- | 0.20 | U | 0.040 | 0.20 |
| Xylene (total) | 0.70 | U | 0.040 | 0.70 |

| Analyte | Result (ug/m3) | Qualifier | MDL | RL |
|--------------------|----------------|-----------|-------|------|
| Acetone | 26 | | 3.1 | 12 |
| Isopropyl alcohol | 20 | B | 0.32 | 12 |
| Methylene Chloride | 0.37 | J | 0.24 | 1.7 |
| n-Hexane | 0.70 | U | 0.16 | 0.70 |
| Chloroform | 0.98 | U | 0.12 | 0.98 |
| Tetrahydrofuran | 15 | U | 3.5 | 15 |
| Benzene | 1.1 | | 0.089 | 0.64 |
| Toluene | 0.76 | | 0.13 | 0.75 |
| Chlorobenzene | 0.92 | U | 0.12 | 0.92 |
| Ethylbenzene | 0.87 | U | 0.15 | 0.87 |
| m,p-Xylene | 2.2 | U | 0.33 | 2.2 |
| Xylene, o- | 0.87 | U | 0.17 | 0.87 |
| Xylene (total) | 3.0 | U | 0.17 | 3.0 |



Analytical Data

Client: Ertec

Job Number: 200-37991-1
Sdg Number: 200-37991-1

Client Sample ID: OUTLET-17

Lab Sample ID: 200-37991-3
Client Matrix: Air

Date Sampled: 03/28/2017 1308
Date Received: 03/29/2017 1035

TO-15 Volatile Organic Compounds in Ambient Air

Analysis Method: TO-15
Prep Method: Summa Canister
Dilution: 1.0
Analysis Date: 04/14/2017 1728
Prep Date: 04/14/2017 1728

Analysis Batch: 200-115820
Prep Batch: N/A

Instrument ID: CHW.i
Lab File ID: 24735_10.d
Initial Weight/Volume: 272 mL
Final Weight/Volume: 200 mL
Injection Volume: 200 mL

Tentatively Identified Compounds **Number TIC's Found: 0**

| Cas Number | Analyte | RT | Est. Result (ppb v/v) | Qualifier |
|------------|---------------------------------|----|-----------------------|-----------|
| | Tentatively Identified Compound | | None | |



Analytical Data

Client: Ertec

Job Number: 200-37991-1
Sdg Number: 200-37991-1

Client Sample ID: **OUTLET-Q**

Lab Sample ID: 200-37991-4
Client Matrix: Air

Date Sampled: 03/28/2017 1308
Date Received: 03/29/2017 1035

TO-15 Volatile Organic Compounds in Ambient Air

| | | | | | |
|------------------|-----------------|-----------------|------------|------------------------|------------|
| Analysis Method: | TO-15 | Analysis Batch: | 200-115820 | Instrument ID: | CHW.i |
| Prep Method: | Summa Canister | Prep Batch: | N/A | Lab File ID: | 24735_11.d |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 264 mL |
| Analysis Date: | 04/14/2017 1823 | | | Final Weight/Volume: | 200 mL |
| Prep Date: | 04/14/2017 1823 | | | Injection Volume: | 200 mL |

| Analyte | Result (ppb v/v) | Qualifier | MDL | RL |
|--------------------|------------------|-----------|-------|------|
| Acetone | 5.1 | | 1.3 | 5.0 |
| Isopropyl alcohol | 7.8 | B | 0.13 | 5.0 |
| Methylene Chloride | 0.50 | U | 0.068 | 0.50 |
| n-Hexane | 0.20 | U | 0.046 | 0.20 |
| Chloroform | 0.20 | U | 0.025 | 0.20 |
| Tetrahydrofuran | 5.0 | U | 1.2 | 5.0 |
| Benzene | 0.093 | J | 0.028 | 0.20 |
| Toluene | 0.41 | | 0.035 | 0.20 |
| Chlorobenzene | 0.20 | U | 0.025 | 0.20 |
| Ethylbenzene | 0.20 | U | 0.034 | 0.20 |
| m,p-Xylene | 0.50 | U | 0.077 | 0.50 |
| Xylene, o- | 0.20 | U | 0.040 | 0.20 |
| Xylene (total) | 0.70 | U | 0.040 | 0.70 |

| Analyte | Result (ug/m3) | Qualifier | MDL | RL |
|--------------------|----------------|-----------|-------|------|
| Acetone | 12 | | 3.1 | 12 |
| Isopropyl alcohol | 19 | B | 0.32 | 12 |
| Methylene Chloride | 1.7 | U | 0.24 | 1.7 |
| n-Hexane | 0.70 | U | 0.16 | 0.70 |
| Chloroform | 0.98 | U | 0.12 | 0.98 |
| Tetrahydrofuran | 15 | U | 3.5 | 15 |
| Benzene | 0.30 | J | 0.089 | 0.64 |
| Toluene | 1.5 | | 0.13 | 0.75 |
| Chlorobenzene | 0.92 | U | 0.12 | 0.92 |
| Ethylbenzene | 0.87 | U | 0.15 | 0.87 |
| m,p-Xylene | 2.2 | U | 0.33 | 2.2 |
| Xylene, o- | 0.87 | U | 0.17 | 0.87 |
| Xylene (total) | 3.0 | U | 0.17 | 3.0 |



Analytical Data

Client: Ertec

Job Number: 200-37991-1
Sdg Number: 200-37991-1

Client Sample ID: OUTLET-Q

Lab Sample ID: 200-37991-4
Client Matrix: Air

Date Sampled: 03/28/2017 1308
Date Received: 03/29/2017 1035

TO-15 Volatile Organic Compounds in Ambient Air

Analysis Method: TO-15
Prep Method: Summa Canister
Dilution: 1.0
Analysis Date: 04/14/2017 1823
Prep Date: 04/14/2017 1823

Analysis Batch: 200-115820
Prep Batch: N/A

Instrument ID: CHW.i
Lab File ID: 24735_11.d
Initial Weight/Volume: 264 mL
Final Weight/Volume: 200 mL
Injection Volume: 200 mL

Tentatively Identified Compounds

Number TIC's Found: 0

| Gas Number | Analyte | RT | Est. Result (ppb v/v) | Qualifier |
|------------|---------------------------------|----|-----------------------|-----------|
| | Tentatively Identified Compound | | None | |



Analytical Data

Client: Ertec

Job Number: 200-37991-1
Sdg Number: 200-37991-1

Client Sample ID: TB032817

Lab Sample ID: 200-37991-5
Client Matrix: Air

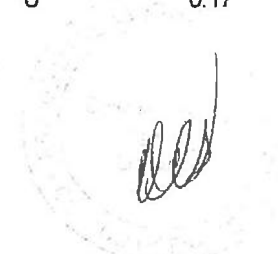
Date Sampled: 03/28/2017 0000
Date Received: 03/29/2017 1035

TO-15 Volatile Organic Compounds in Ambient Air

| | | | | | |
|------------------|-----------------|-----------------|------------|------------------------|------------|
| Analysis Method: | TO-15 | Analysis Batch: | 200-115820 | Instrument ID: | CHW.i |
| Prep Method: | Summa Canister | Prep Batch: | N/A | Lab File ID: | 24735_12.d |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 200 mL |
| Analysis Date: | 04/14/2017 1916 | | | Final Weight/Volume: | 200 mL |
| Prep Date: | 04/14/2017 1916 | | | Injection Volume: | 200 mL |

| Analyte | Result (ppb v/v) | Qualifier | MDL | RL |
|--------------------|------------------|-----------|-------|------|
| Acetone | 5.0 | U | 1.3 | 5.0 |
| Isopropyl alcohol | 5.0 | U | 0.13 | 5.0 |
| Methylene Chloride | 0.50 | U | 0.068 | 0.50 |
| n-Hexane | 0.20 | U | 0.046 | 0.20 |
| Chloroform | 0.20 | U | 0.025 | 0.20 |
| Tetrahydrofuran | 5.0 | U | 1.2 | 5.0 |
| Benzene | 0.20 | U | 0.028 | 0.20 |
| Toluene | 0.20 | U | 0.035 | 0.20 |
| Chlorobenzene | 0.20 | U | 0.025 | 0.20 |
| Ethylbenzene | 0.20 | U | 0.034 | 0.20 |
| m,p-Xylene | 0.50 | U | 0.077 | 0.50 |
| Xylene, o- | 0.20 | U | 0.040 | 0.20 |
| Xylene (total) | 0.70 | U | 0.040 | 0.70 |

| Analyte | Result (ug/m3) | Qualifier | MDL | RL |
|--------------------|----------------|-----------|-------|------|
| Acetone | 12 | U | 3.1 | 12 |
| Isopropyl alcohol | 12 | U | 0.32 | 12 |
| Methylene Chloride | 1.7 | U | 0.24 | 1.7 |
| n-Hexane | 0.70 | U | 0.16 | 0.70 |
| Chloroform | 0.98 | U | 0.12 | 0.98 |
| Tetrahydrofuran | 15 | U | 3.5 | 15 |
| Benzene | 0.64 | U | 0.089 | 0.64 |
| Toluene | 0.75 | U | 0.13 | 0.75 |
| Chlorobenzene | 0.92 | U | 0.12 | 0.92 |
| Ethylbenzene | 0.87 | U | 0.15 | 0.87 |
| m,p-Xylene | 2.2 | U | 0.33 | 2.2 |
| Xylene, o- | 0.87 | U | 0.17 | 0.87 |
| Xylene (total) | 3.0 | U | 0.17 | 3.0 |



Analytical Data

Client: Ertec

Job Number: 200-37991-1
Sdg Number: 200-37991-1

Client Sample ID: TB032817

Lab Sample ID: 200-37991-5
Client Matrix: Air

Date Sampled: 03/28/2017 0000
Date Received: 03/29/2017 1035

TO-15 Volatile Organic Compounds in Ambient Air

| | | | | | |
|------------------|-----------------|-----------------|------------|------------------------|------------|
| Analysis Method: | TO-15 | Analysis Batch: | 200-115820 | Instrument ID: | CHW.i |
| Prep Method: | Summa Canister | Prep Batch: | N/A | Lab File ID: | 24735_12.d |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 200 mL |
| Analysis Date: | 04/14/2017 1916 | | | Final Weight/Volume: | 200 mL |
| Prep Date: | 04/14/2017 1916 | | | Injection Volume: | 200 mL |

Tentatively Identified Compounds **Number TIC's Found: 0**

| Cas Number | Analyte | RT | Est. Result (ppb v/v) | Qualifier |
|------------|---------------------------------|----|-----------------------|-----------|
| | Tentatively Identified Compound | | None | |



Analytical Data

Client: Ertec

Job Number: 200-37991-1
Sdg Number: 200-37991-1

Client Sample ID: INLET-1-17

Lab Sample ID: 200-37991-1
Client Matrix: Air

Date Sampled: 03/28/2017 1256
Date Received: 03/29/2017 1035

EPA 25C Nonmethane Organic Compounds (NMOC)

| | | | | | |
|------------------|-----------------|-----------------|------------|------------------------|----------------------|
| Analysis Method: | EPA 25C | Analysis Batch: | 200-115659 | Instrument ID: | CH0001.i |
| Prep Method: | Summa Canister | Prep Batch: | N/A | Lab File ID: | 200-3791--a-1b.d-avg |
| Dilution: | 1.41 | | | Initial Weight/Volume: | 2 mL |
| Analysis Date: | 04/05/2017 2107 | | | Final Weight/Volume: | 2 mL |
| Prep Date: | 04/05/2017 2107 | | | Injection Volume: | 2 mL |

| Analyte | Result (ppm-C) | Qualifier | RL | RL |
|----------------|----------------|-----------|-----|-----|
| NMOC as Carbon | 450 | | 8.5 | 8.5 |



Analytical Data

Client: Ertec

Job Number: 200-37991-1
Sdg Number: 200-37991-1

Client Sample ID: INLET-2-17

Lab Sample ID: 200-37991-2
Client Matrix: Air

Date Sampled: 03/28/2017 1300
Date Received: 03/29/2017 1035

EPA 25C Nonmethane Organic Compounds (NMOC)

| | | | | | |
|------------------|-----------------|-----------------|------------|------------------------|----------------------|
| Analysis Method: | EPA 25C | Analysis Batch: | 200-115659 | Instrument ID: | CH0001.i |
| Prep Method: | Summa Canister | Prep Batch: | N/A | Lab File ID: | 200-3791--a-2b.d-avg |
| Dilution: | 1.3 | | | Initial Weight/Volume: | 2 mL |
| Analysis Date: | 04/05/2017 2212 | | | Final Weight/Volume: | 2 mL |
| Prep Date: | 04/05/2017 2212 | | | Injection Volume: | 2 mL |

| Analyte | Result (ppm-C) | Qualifier | RL | RL |
|----------------|----------------|-----------|-----|-----|
| NMOC as Carbon | 95 | | 7.8 | 7.8 |



Analytical Data

Client: Ertec

Job Number: 200-37991-1
Sdg Number: 200-37991-1

Client Sample ID: OUTLET-17

Lab Sample ID: 200-37991-3
Client Matrix: Air

Date Sampled: 03/28/2017 1308
Date Received: 03/29/2017 1035

EPA 25C Nonmethane Organic Compounds (NMOC)

| | | | | | |
|------------------|-----------------|-----------------|------------|------------------------|---------------------|
| Analysis Method: | EPA 25C | Analysis Batch: | 200-115659 | Instrument ID: | CH0001.i |
| Prep Method: | Summa Canister | Prep Batch: | N/A | Lab File ID: | 200-3791-a-3b.d-avg |
| Dilution: | 1.32 | | | Initial Weight/Volume: | 2 mL |
| Analysis Date: | 04/05/2017 2317 | | | Final Weight/Volume: | 2 mL |
| Prep Date: | 04/05/2017 2317 | | | Injection Volume: | 2 mL |

| Analyte | Result (ppm-C) | Qualifier | RL | RL |
|----------------|----------------|-----------|-----|-----|
| NMOC as Carbon | 27 | | 7.9 | 7.9 |



Analytical Data

Client: Ertec

Job Number: 200-37991-1
Sdg Number: 200-37991-1

Client Sample ID: OUTLET-Q

Lab Sample ID: 200-37991-4
Client Matrix: Air

Date Sampled: 03/28/2017 1308
Date Received: 03/29/2017 1035

EPA 25C Nonmethane Organic Compounds (NMOC)

| | | | | | |
|------------------|-----------------|-----------------|------------|------------------------|---------------------|
| Analysis Method: | EPA 25C | Analysis Batch: | 200-115659 | Instrument ID: | CH0001.i |
| Prep Method: | Summa Canister | Prep Batch: | N/A | Lab File ID: | 200-3791-a-4b.d-avg |
| Dilution: | 1.32 | | | Initial Weight/Volume: | 2 mL |
| Analysis Date: | 04/06/2017 0024 | | | Final Weight/Volume: | 2 mL |
| Prep Date: | 04/06/2017 0024 | | | Injection Volume: | 2 mL |

| Analyte | Result (ppm-C) | Qualifier | RL | RL |
|----------------|----------------|-----------|-----|-----|
| NMOC as Carbon | 23 | | 7.9 | 7.9 |



Analytical Data

Client: Ertec

Job Number: 200-37991-1
Sdg Number: 200-37991-1

Client Sample ID: TB032817

Lab Sample ID: 200-37991-5
Client Matrix: Air

Date Sampled: 03/28/2017 0000
Date Received: 03/29/2017 1035

EPA 25C Nonmethane Organic Compounds (NMOC)

| | | | | | |
|------------------|-----------------|-----------------|------------|------------------------|---------------------|
| Analysis Method: | EPA 25C | Analysis Batch: | 200-115859 | Instrument ID: | CH0001.i |
| Prep Method: | Summa Canister | Prep Batch: | N/A | Lab File ID: | 200-3791-a-5b.d-avg |
| Dilution: | 1.0 | | | Initial Weight/Volume: | 2 mL |
| Analysis Date: | 04/06/2017 0132 | | | Final Weight/Volume: | 2 mL |
| Prep Date: | 04/06/2017 0132 | | | Injection Volume: | 2 mL |

| Analyte | Result (ppm-C) | Qualifier | RL | RL |
|----------------|----------------|-----------|-----|-----|
| NMOC as Carbon | 6.0 | U | 6.0 | 6.0 |



Analytical Data

Client: Ertec

Job Number: 200-37991-1
Sdg Number: 200-37991-1

Client Sample ID: INLET-1-17

Lab Sample ID: 200-37991-1
Client Matrix: Air

Date Sampled: 03/28/2017 1256
Date Received: 03/29/2017 1035

EPA 3C Fixed Gases from Stationary Sources

| | | | | | |
|------------------|-----------------|-----------------|------------|------------------------|---------------------|
| Analysis Method: | EPA 3C | Analysis Batch: | 200-115658 | Instrument ID: | CH0001.i |
| Prep Method: | Summa Canister | Prep Batch: | N/A | Lab File ID: | 200-3791-a-1b.d-avg |
| Dilution: | 1.41 | | | Initial Weight/Volume: | 2 mL |
| Analysis Date: | 04/05/2017 2107 | | | Final Weight/Volume: | 2 mL |
| Prep Date: | 04/05/2017 2107 | | | Injection Volume: | 2 mL |

| Analyte | Result (% v/v) | Qualifier | RL | RL |
|---------|----------------|-----------|-------|-------|
| Methane | 0.056 | U | 0.056 | 0.056 |



Analytical Data

Client: Ertec

Job Number: 200-37991-1
Sdg Number: 200-37991-1

Client Sample ID: **INLET-2-17**

Lab Sample ID: 200-37991-2
Client Matrix: Air

Date Sampled: 03/28/2017 1300
Date Received: 03/29/2017 1035

EPA 3C Fixed Gases from Stationary Sources

| | | | | | |
|------------------|-----------------|-----------------|------------|------------------------|----------------------|
| Analysis Method: | EPA 3C | Analysis Batch: | 200-115658 | Instrument ID: | CH0001.i |
| Prep Method: | Summa Canister | Prep Batch: | N/A | Lab File ID: | 200-3791--a-2b.d-avg |
| Dilution: | 1.3 | | | Initial Weight/Volume: | 2 mL |
| Analysis Date: | 04/05/2017 2212 | | | Final Weight/Volume: | 2 mL |
| Prep Date: | 04/05/2017 2212 | | | Injection Volume: | 2 mL |

| Analyte | Result (% v/v) | Qualifier | RL | RL |
|---------|----------------|-----------|-------|-------|
| Methane | 0.052 | U | 0.052 | 0.052 |



Analytical Data

Client: Ertec

Job Number: 200-37991-1
Sdg Number: 200-37991-1

Client Sample ID: OUTLET-17

Lab Sample ID: 200-37991-3
Client Matrix: Air

Date Sampled: 03/28/2017 1308
Date Received: 03/29/2017 1035

EPA 3C Fixed Gases from Stationary Sources

| | | | | | |
|------------------|-----------------|-----------------|------------|------------------------|---------------------|
| Analysis Method: | EPA 3C | Analysis Batch: | 200-115658 | Instrument ID: | CH0001.i |
| Prep Method: | Summa Canister | Prep Batch: | N/A | Lab File ID: | 200-3791-a-3b.d-avg |
| Dilution: | 1.36 | | | Initial Weight/Volume: | 2 mL |
| Analysis Date: | 04/05/2017 2317 | | | Final Weight/Volume: | 2 mL |
| Prep Date: | 04/05/2017 2317 | | | Injection Volume: | 2 mL |

| Analyte | Result (% v/v) | Qualifier | RL | RL |
|---------|----------------|-----------|-------|-------|
| Methane | 0.054 | U | 0.054 | 0.054 |



Analytical Data

Client: Ertec

Job Number: 200-37991-1
Sdg Number: 200-37991-1

Client Sample ID: OUTLET-Q

Lab Sample ID: 200-37991-4
Client Matrix: Air

Date Sampled: 03/28/2017 1308
Date Received: 03/29/2017 1035

EPA 3C Fixed Gases from Stationary Sources

| | | |
|--------------------------------|----------------------------|-----------------------------------|
| Analysis Method: EPA 3C | Analysis Batch: 200-115658 | Instrument ID: CH0001.i |
| Prep Method: Summa Canister | Prep Batch: N/A | Lab File ID: 200-3791--a-4b.d-avg |
| Dilution: 1.32 | | Initial Weight/Volume: 2 mL |
| Analysis Date: 04/06/2017 0024 | | Final Weight/Volume: 2 mL |
| Prep Date: 04/06/2017 0024 | | Injection Volume: 2 mL |

| Analyte | Result (% v/v) | Qualifier | RL | RL |
|---------|----------------|-----------|-------|-------|
| Methane | 0.053 | U | 0.053 | 0.053 |



Quality Control Results

Client: Ertec

Job Number: 200-37991-1

Sdg Number: 200-37991-1

QC Association Summary

| Lab Sample ID | Client Sample ID | Report | | Method | Prep Batch |
|----------------------------------|--------------------|--------|---------------|---------|------------|
| | | Basis | Client Matrix | | |
| Air - GC VOA | | | | | |
| Analysis Batch:200-115658 | | | | | |
| LCS 200-115658/2 | Lab Control Sample | T | Air | EPA 3C | |
| MB 200-115658/3 | Method Blank | T | Air | EPA 3C | |
| 200-37991-1 | INLET-1-17 | T | Air | EPA 3C | |
| 200-37991-2 | INLET-2-17 | T | Air | EPA 3C | |
| 200-37991-3 | OUTLET-17 | T | Air | EPA 3C | |
| 200-37991-4 | OUTLET-Q | T | Air | EPA 3C | |
| Analysis Batch:200-115659 | | | | | |
| LCS 200-115659/2 | Lab Control Sample | T | Air | EPA 25C | |
| MB 200-115659/3 | Method Blank | T | Air | EPA 25C | |
| 200-37991-1 | INLET-1-17 | T | Air | EPA 25C | |
| 200-37991-2 | INLET-2-17 | T | Air | EPA 25C | |
| 200-37991-3 | OUTLET-17 | T | Air | EPA 25C | |
| 200-37991-4 | OUTLET-Q | T | Air | EPA 25C | |
| 200-37991-5 | TB032817 | T | Air | EPA 25C | |
| Analysis Batch:200-115820 | | | | | |
| LCS 200-115820/6 | Lab Control Sample | T | Air | TO-15 | |
| MB 200-115820/7 | Method Blank | T | Air | TO-15 | |
| 200-37991-1 | INLET-1-17 | T | Air | TO-15 | |
| 200-37991-2 | INLET-2-17 | T | Air | TO-15 | |
| 200-37991-3 | OUTLET-17 | T | Air | TO-15 | |
| 200-37991-4 | OUTLET-Q | T | Air | TO-15 | |
| 200-37991-5 | TB032817 | T | Air | TO-15 | |

Report Basis

T = Total



Quality Control Results

Client: Ertec

Job Number: 200-37991-1
Sdg Number: 200-37991-1

Method Blank - Batch: 200-115820

Method: TO-15
Preparation: Summa Canister

Lab Sample ID: MB 200-115820/7
Client Matrix: Air
Dilution: 1.0
Analysis Date: 04/14/2017 1454
Prep Date: 04/14/2017 1454
Leach Date: N/A

Analysis Batch: 200-115820
Prep Batch: N/A
Leach Batch: N/A
Units: ppb v/v

Instrument ID: CHW.i
Lab File ID: 24735_07.d
Initial Weight/Volume: 200 mL
Final Weight/Volume: 200 mL
Injection Volume: 200 mL

| Analyte | Result | Qual | MDL | RL |
|--------------------|--------|------|-------|------|
| Acetone | 5.0 | U | 1.3 | 5.0 |
| Isopropyl alcohol | 0.173 | J | 0.13 | 5.0 |
| Methylene Chloride | 0.50 | U | 0.068 | 0.50 |
| n-Hexane | 0.20 | U | 0.046 | 0.20 |
| Chloroform | 0.20 | U | 0.025 | 0.20 |
| Tetrahydrofuran | 5.0 | U | 1.2 | 5.0 |
| Benzene | 0.20 | U | 0.028 | 0.20 |
| Toluene | 0.20 | U | 0.035 | 0.20 |
| Chlorobenzene | 0.20 | U | 0.025 | 0.20 |
| Ethylbenzene | 0.20 | U | 0.034 | 0.20 |
| m,p-Xylene | 0.50 | U | 0.077 | 0.50 |
| Xylene, o- | 0.20 | U | 0.040 | 0.20 |
| Xylene (total) | 0.70 | U | 0.040 | 0.70 |

Method Blank - Batch: 200-115820

Method: TO-15
Preparation: Summa Canister

Lab Sample ID: MB 200-115820/7
Client Matrix: Air
Dilution: 1.0
Analysis Date: 04/14/2017 1454
Prep Date: 04/14/2017 1454
Leach Date: N/A

Analysis Batch: 200-115820
Prep Batch: N/A
Leach Batch: N/A
Units: ug/m3

Instrument ID: CHW.i
Lab File ID: 24735_07.d
Initial Weight/Volume: 200 mL
Final Weight/Volume: 200 mL
Injection Volume: 200 mL

| Analyte | Result | Qual | MDL | RL |
|--------------------|--------|------|-------|------|
| Acetone | 12 | U | 3.1 | 12 |
| Isopropyl alcohol | 0.426 | J | 0.32 | 12 |
| Methylene Chloride | 1.7 | U | 0.24 | 1.7 |
| n-Hexane | 0.70 | U | 0.16 | 0.70 |
| Chloroform | 0.98 | U | 0.12 | 0.98 |
| Tetrahydrofuran | 15 | U | 3.5 | 15 |
| Benzene | 0.64 | U | 0.089 | 0.64 |
| Toluene | 0.75 | U | 0.13 | 0.75 |
| Chlorobenzene | 0.92 | U | 0.12 | 0.92 |
| Ethylbenzene | 0.87 | U | 0.15 | 0.87 |
| m,p-Xylene | 2.2 | U | 0.33 | 2.2 |
| Xylene, o- | 0.87 | U | 0.17 | 0.87 |
| Xylene (total) | 3.0 | U | 0.17 | 3.0 |



Quality Control Results

Client: Ertec

Job Number: 200-37991-1
Sdg Number: 200-37991-1

Method Blank TICs- Batch: 200-115820

| Gas Number | Analyte | RT | Est. Result (ppb) | Qual |
|------------|---------------------------------|----|-------------------|------|
| | Tentatively Identified Compound | | None | |

Lab Control Sample - Batch: 200-115820

Method: TO-15
Preparation: Summa Canister

| | | | | | |
|----------------|------------------|-----------------|------------|------------------------|------------|
| Lab Sample ID: | LCS 200-115820/6 | Analysis Batch: | 200-115820 | Instrument ID: | CHW.i |
| Client Matrix: | Air | Prep Batch: | N/A | Lab File ID: | 24735_06.d |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | 200 mL |
| Analysis Date: | 04/14/2017 1401 | Units: | ppb v/v | Final Weight/Volume: | 200 mL |
| Prep Date: | 04/14/2017 1401 | | | Injection Volume: | 200 mL |
| Leach Date: | N/A | | | | |

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|--------------------|--------------|--------|--------|----------|------|
| Acetone | 10.0 | 8.03 | 80 | 64 - 136 | |
| Isopropyl alcohol | 10.0 | 6.69 | 67 | 55 - 124 | |
| Methylene Chloride | 10.0 | 7.37 | 74 | 62 - 122 | |
| n-Hexane | 10.0 | 8.04 | 80 | 71 - 131 | |
| Chloroform | 10.0 | 9.19 | 92 | 69 - 129 | |
| Tetrahydrofuran | 10.0 | 7.16 | 72 | 61 - 136 | |
| Benzene | 10.0 | 8.23 | 82 | 67 - 127 | |
| Toluene | 10.0 | 9.20 | 92 | 67 - 127 | |
| Chlorobenzene | 10.0 | 9.61 | 96 | 68 - 128 | |
| Ethylbenzene | 10.0 | 9.30 | 93 | 68 - 128 | |
| m,p-Xylene | 20.0 | 19.5 | 97 | 68 - 128 | |
| Xylene, o- | 10.0 | 9.59 | 96 | 67 - 127 | |



Quality Control Results

Client: Ertec

Job Number: 200-37991-1
Sdg Number: 200-37991-1

Method Blank - Batch: 200-115659

Method: EPA 25C
Preparation: Summa Canister

Lab Sample ID: MB 200-115659/3
Client Matrix: Air
Dilution: 1.0
Analysis Date: 04/05/2017 1737
Prep Date: 04/05/2017 1737
Leach Date: N/A

Analysis Batch: 200-115659
Prep Batch: N/A
Leach Batch: N/A
Units: ppm-C

Instrument ID: CH0001.i
Lab File ID: mb201704015a.d-avg
Initial Weight/Volume: 2 mL
Final Weight/Volume: 2 mL
Injection Volume: 2 mL

| Analyte | Result | Qual | RL | RL |
|----------------|--------|------|-----|-----|
| NMOC as Carbon | 6.0 | U | 6.0 | 6.0 |

Lab Control Sample - Batch: 200-115659

Method: EPA 25C
Preparation: Summa Canister

Lab Sample ID: LCS 200-115659/2
Client Matrix: Air
Dilution: 1.0
Analysis Date: 04/05/2017 1648
Prep Date: 04/05/2017 1648
Leach Date: N/A

Analysis Batch: 200-115659
Prep Batch: N/A
Leach Batch: N/A
Units: ppm-C

Instrument ID: CH0001.i
Lab File ID: 25clcs201704015a.d-av
Initial Weight/Volume: 2 mL
Final Weight/Volume: 2 mL
Injection Volume: 2 mL

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|----------------|--------------|--------|--------|----------|------|
| NMOC as Carbon | 750 | 725 | 97 | 70 - 130 | |



Quality Control Results

Client: Ertec

Job Number: 200-37991-1
Sdg Number: 200-37991-1

Method Blank - Batch: 200-115658

Method: EPA 3C
Preparation: Summa Canister

Lab Sample ID: MB 200-115658/3
Client Matrix: Air
Dilution: 1.0
Analysis Date: 04/05/2017 1737
Prep Date: 04/05/2017 1737
Leach Date: N/A

Analysis Batch: 200-115658
Prep Batch: N/A
Leach Batch: N/A
Units: % v/v

Instrument ID: CH0001.i
Lab File ID: mb201704015a.d-avg
Initial Weight/Volume: 2 mL
Final Weight/Volume: 2 mL
Injection Volume: 2 mL

| Analyte | Result | Qual | RL | RL |
|---------|--------|------|-------|-------|
| Methane | 0.040 | U | 0.040 | 0.040 |

Lab Control Sample - Batch: 200-115658

Method: EPA 3C
Preparation: Summa Canister

Lab Sample ID: LCS 200-115658/2
Client Matrix: Air
Dilution: 1.0
Analysis Date: 04/05/2017 1523
Prep Date: 04/05/2017 1523
Leach Date: N/A

Analysis Batch: 200-115658
Prep Batch: N/A
Leach Batch: N/A
Units: % v/v

Instrument ID: CH0001.i
Lab File ID: 3clcs20170405a.d-avg
Initial Weight/Volume: 2 mL
Final Weight/Volume: 2 mL
Injection Volume: 2 mL

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|---------|--------------|--------|--------|----------|------|
| Methane | 4.00 | 3.90 | 98 | 70 - 130 | |



Client Sample Results

Client: TestAmerica Laboratories, Inc.
Project/Site: Pfizer Barceloeta SVE

TestAmerica Job ID: 550-79967-1

Client Sample ID: INLET-1-17

Lab Sample ID: 550-79967-1

Date Collected: 03/28/17 00:00

Matrix: Air

Date Received: 03/29/17 09:30

Sample Air Volume: 1.6 L

Sample Container: IH - Silica Gel tube, 150 mg

Method: 2000 Back - NIOSH 2000 (Modified)

| Analyte | Result ug/Sample | Result mg/m3 | Result ppm | Qualifier | RL ug/Sample | Prepared | Analyzed | Dil Fac |
|----------|---------------------|-----------------|---------------|-----------|-----------------|----------------|----------------|---------|
| Methanol | <3.36 | <2.10 | <1.60 | | 3.36 | 04/03/17 13:58 | 04/04/17 11:11 | 1 |

Method: 2000 Front - NIOSH 2000 (Modified)

| Analyte | Result ug/Sample | Result mg/m3 | Result ppm | Qualifier | RL ug/Sample | Prepared | Analyzed | Dil Fac |
|----------|---------------------|-----------------|---------------|-----------|-----------------|----------------|----------------|---------|
| Methanol | 47.5 | 29.7 | 22.6 | | 3.36 | 04/03/17 13:58 | 04/03/17 18:35 | 1 |

Method: 2000 Sum - NIOSH 2000 (Modified)

| Analyte | Result ug/Sample | Result mg/m3 | Result ppm | Qualifier | RL ug/Sample | Prepared | Analyzed | Dil Fac |
|----------|---------------------|-----------------|---------------|-----------|-----------------|----------|----------------|---------|
| Methanol | 47.5 | 29.7 | 22.6 | | 3.36 | | 04/05/17 19:56 | 1 |

Client Sample ID: INLET-2-17

Lab Sample ID: 550-79967-2

Date Collected: 03/28/17 00:00

Matrix: Air

Date Received: 03/29/17 09:30

Sample Air Volume: 1.6 L

Sample Container: IH - Silica Gel tube, 150 mg

Method: 2000 Back - NIOSH 2000 (Modified)

| Analyte | Result ug/Sample | Result mg/m3 | Result ppm | Qualifier | RL ug/Sample | Prepared | Analyzed | Dil Fac |
|----------|---------------------|-----------------|---------------|-----------|-----------------|----------------|----------------|---------|
| Methanol | <3.36 | <2.10 | <1.60 | | 3.36 | 04/03/17 13:58 | 04/03/17 17:00 | 1 |

Method: 2000 Front - NIOSH 2000 (Modified)

| Analyte | Result ug/Sample | Result mg/m3 | Result ppm | Qualifier | RL ug/Sample | Prepared | Analyzed | Dil Fac |
|----------|---------------------|-----------------|---------------|-----------|-----------------|----------------|----------------|---------|
| Methanol | 57.0 | 35.6 | 27.2 | | 3.36 | 04/03/17 13:58 | 04/03/17 18:58 | 1 |

Method: 2000 Sum - NIOSH 2000 (Modified)

| Analyte | Result ug/Sample | Result mg/m3 | Result ppm | Qualifier | RL ug/Sample | Prepared | Analyzed | Dil Fac |
|----------|---------------------|-----------------|---------------|-----------|-----------------|----------|----------------|---------|
| Methanol | 57.0 | 35.6 | 27.2 | | 3.36 | | 04/05/17 19:56 | 1 |



Client Sample ID: OUTLET-17

Lab Sample ID: 550-79967-3

Date Collected: 03/28/17 00:00

Matrix: Air

Date Received: 03/29/17 09:30

Sample Air Volume: 1.6 L

Sample Container: IH - Silica Gel tube, 150 mg

Method: 2000 Back - NIOSH 2000 (Modified)

| Analyte | Result ug/Sample | Result mg/m3 | Result ppm | Qualifier | RL ug/Sample | Prepared | Analyzed | Dil Fac |
|----------|---------------------|-----------------|---------------|-----------|-----------------|----------------|----------------|---------|
| Methanol | <3.36 | <2.10 | <1.60 | | 3.36 | 04/03/17 13:58 | 04/04/17 11:23 | 1 |

Method: 2000 Front - NIOSH 2000 (Modified)

| Analyte | Result ug/Sample | Result mg/m3 | Result ppm | Qualifier | RL ug/Sample | Prepared | Analyzed | Dil Fac |
|----------|---------------------|-----------------|---------------|-----------|-----------------|----------------|----------------|---------|
| Methanol | 9.43 | 5.89 | 4.50 | | 3.36 | 04/03/17 13:58 | 04/03/17 19:22 | 1 |

TestAmerica Phoenix

Client Sample Results

Client: TestAmerica Laboratories, Inc.
 Project/Site: Pfizer Barceloeta SVE

TestAmerica Job ID: 550-79967-1

Client Sample ID: OUTLET-17

Lab Sample ID: 550-79967-3

Date Collected: 03/28/17 00:00

Matrix: Air

Date Received: 03/29/17 09:30

Sample Air Volume: 1.6 L

Sample Container: IH - Silica Gel tube, 150 mg

Method: 2000 Sum - NIOSH 2000 (Modified)

| Analyte | Result ug/Sample | Result mg/m3 | Result ppm | Qualifier | RL ug/Sample | Prepared | Analyzed | Dil Fac |
|----------|---------------------|-----------------|---------------|-----------|-----------------|----------|----------------|---------|
| Methanol | 9.43 | 5.89 | 4.50 | | 3.36 | | 04/05/17 19:56 | 1 |

Client Sample ID: OUTLET-Q

Lab Sample ID: 550-79967-4

Date Collected: 03/28/17 00:00

Matrix: Air

Date Received: 03/29/17 09:30

Sample Air Volume: 1.6 L

Sample Container: IH - Silica Gel tube, 150 mg

Method: 2000 Back - NIOSH 2000 (Modified)

| Analyte | Result ug/Sample | Result mg/m3 | Result ppm | Qualifier | RL ug/Sample | Prepared | Analyzed | Dil Fac |
|----------|---------------------|-----------------|---------------|-----------|-----------------|----------------|----------------|---------|
| Methanol | <3.36 | <2.10 | <1.60 | | 3.36 | 04/03/17 13:58 | 04/04/17 11:35 | 1 |

Method: 2000 Front - NIOSH 2000 (Modified)

| Analyte | Result ug/Sample | Result mg/m3 | Result ppm | Qualifier | RL ug/Sample | Prepared | Analyzed | Dil Fac |
|----------|---------------------|-----------------|---------------|-----------|-----------------|----------------|----------------|---------|
| Methanol | 9.12 | 5.70 | 4.35 | | 3.36 | 04/03/17 13:58 | 04/03/17 19:45 | 1 |

Method: 2000 Sum - NIOSH 2000 (Modified)

| Analyte | Result ug/Sample | Result mg/m3 | Result ppm | Qualifier | RL ug/Sample | Prepared | Analyzed | Dil Fac |
|----------|---------------------|-----------------|---------------|-----------|-----------------|----------|----------------|---------|
| Methanol | 9.12 | 5.70 | 4.35 | | 3.36 | | 04/05/17 19:56 | 1 |



TestAmerica Phoenix

QC Sample Results

Client: TestAmerica Laboratories, Inc.
Project/Site: Pfizer Barceloeta SVE

TestAmerica Job ID: 550-79967-1

Method: 2000 Back - NIOSH 2000 (Modified)

Lab Sample ID: MB 550-113879/1-A
Matrix: Air
Analysis Batch: 113881

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 113879

| Analyte | MB MB | | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|----------|--------|-----------|------|-----------|---|----------------|----------------|---------|
| | Result | Qualifier | | | | | | |
| Methanol | <3.36 | | 3.36 | ug/Sample | | 04/03/17 13:58 | 04/03/17 15:38 | 1 |

Method: 2000 Front - NIOSH 2000 (Modified)

Lab Sample ID: MB 550-113880/1-A
Matrix: Air
Analysis Batch: 113946

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 113880

| Analyte | MB MB | | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|----------|--------|-----------|------|-----------|---|----------------|----------------|---------|
| | Result | Qualifier | | | | | | |
| Methanol | <3.36 | | 3.36 | ug/Sample | | 04/03/17 13:58 | 04/04/17 10:13 | 1 |

Lab Sample ID: LCS 550-113880/10-A
Matrix: Air
Analysis Batch: 113881

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 113880

| Analyte | Spike Added | LCS LCS | | Unit | D | %Rec | Limits |
|----------|-------------|---------|-----------|-----------|---|------|----------|
| | | Result | Qualifier | | | | |
| Methanol | 7.91 | 7.866 | | ug/Sample | | 99 | 69 - 128 |

Lab Sample ID: LCSD 550-113880/11-A
Matrix: Air
Analysis Batch: 113946

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 113880

| Analyte | Spike Added | LCSD LCSD | | Unit | D | %Rec | Limits | RPD | Limit |
|----------|-------------|-----------|-----------|-----------|---|------|----------|-----|-------|
| | | Result | Qualifier | | | | | | |
| Methanol | 7.91 | 6.161 | | ug/Sample | | 78 | 69 - 128 | 24 | 29 |



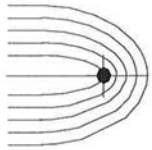
TestAmerica Phoenix

APPENDIX 5

**SVE INDIVIDUAL EXTRACTION WELL TESTING TECHNICAL
LETTER – APRIL 18, 2017**

**SVE SYSTEM PROGRESS REPORT NO. 6
JANUARY TO MARCH 2017
PFIZER PHARMACEUTICALS LLC
BARCELONETA, PUERTO RICO**

ERTEC JOB NO. E175475



ERTEC

April 18, 2017

Mr. William G. Gierke
Senior Manager, ERT
Pfizer Global Engineering – Pfizer, Inc.
100 Route 206 North M/S 610
Peapack, NJ 07977

Re: Pfizer Barceloneta SVE Individual Extraction Well Testing, Pfizer Pharmaceuticals, LLC, Barceloneta, Puerto Rico

Dear Mr. Gierke,

Updated concentration testing of individual soil vapor extraction (SVE) wells located at Pfizer Barceloneta Site was performed by ERTEC, PSC during January and February 2017 as requested by Pfizer Pharmaceuticals, LLC. The objective of the testing was to determine target compound concentrations (e.g. benzene) at each extraction well to help evaluate system performance and if modifications to system operations are appropriate to increase mass removal.

Individual wells monitoring and testing activities were performed on January and February 2017. This technical letter provides a description of field monitoring and sampling activities, summary of data collected and analytical results.

BACKGROUND

SVE activities began on August 20, 2015 with extraction procedures from seven (7) wells identified as: AB-10, AB-10B, AB-19, AB-21, AB-23, B-1 and B-4. SVE cumulative operational time was approximately 5000 hours from August 2015 to February 2017. **Figure 1** presents the location of extraction wells.

Field operational parameters and validated analytical results were summarized in progress reports submitted to EPA for the following periods:

- Progress Report No. 1 - August to December 2015
- Progress Report No. 2 - January to March 2016
- Progress Report No. 3 - April to June 2016
- Progress Report No. 4 - July to October 2016
- Progress Report No. 5 - November to December 2016

Currently, the SVE system is operating with seven extraction wells.

FIELD ACTIVITIES

Screening of individual extraction wells was performed during extraction procedures from seven (7) wells on January 27, 2017 using a photoionization detector (PID). Based on the results obtained on this date, Pfizer requested individual testing activities at each well, including collection of soil gas sample from each well. Monitoring and sampling activities were performed on February 14 thru 17, 2017.

Monitoring Activities – January 2017

Field parameters obtained during January 27, 2017 included well vacuum (from gauge installed at each well sampling port), flow rate and temperature readings with portable anemometer, and Organic Vapor Analyzer (OVA) readings with a portable OVA equipped with a photoionization detector (PID) equipped with a 10.6 eV lamp. Field readings were obtained during system operation from seven (7) wells. PID instrument was calibrated prior to collection of field parameters.

OVA readings were obtained from individual Tedlar bags collected at each sampling port by means of a SKC pump and vacuum chamber. Extraction well monitoring data is included in **Attachment A**.

Monitoring Activities – February 2017

Testing activities began on February 14, 2017 and concluded on February 17, 2017 as per the following schedule:

- February 14, 2017 Extraction well B-1
- February 15, 2017 Extraction wells AB-10B and B-4
- February 16, 2017 Extraction wells AB-23 and AB-21
- February 17, 2017 Extraction wells AB-10 and AB-19

Field monitoring parameters were obtained at the beginning, 1-hour and 2-hours period during individual operation of each extraction well. Other wells were closed during testing period.

The following field monitoring data was obtained during each testing period:

- Vacuum/pressure readings at extraction well, INLET-1, INLET-2, air filter, and OUTLET.
- Flow rate readings at extraction well, INLET-1, INLET-2 and OUTLET.
- Temperature readings at extraction well, INLET-1, INLET-2, carbon entrance and OUTLET.

- OVA, Lower Explosive Limit (LEL), oxygen (O₂), carbon monoxide (CO), and hydrogen sulfide (H₂S) readings at extraction well, INLET-1, INLET-2 and OUTLET.

Vacuum readings were obtained from gauge installed at well sampling port. Flow rate and temperature readings were obtained with a portable anemometer. OVA readings were obtained with a portable OVA-PID and LEL, O₂, CO and H₂S readings with an explosimeter from individual Tedlar bags collected at each sampling port by means of a SKC pump and vacuum chamber. PID and explosimeter instruments were calibrated daily prior to collection of field parameters.

Ambient readings of temperature, barometric pressure and humidity were obtained with a portable anemometer. Summary of monitoring and sampling data during testing of each extraction well is included in **Attachment B**.

Sampling Activities – February 2017

A grab sample for laboratory analysis of selected VOCs by EPA Method TO-15 was obtained from well sampling port after 2-hours testing period. Vapor sample was collected in one Summa canister provided by the laboratory. Upon completion of sample collection activity, the SVE system operation continues with extraction procedures from seven (7) extraction wells.

Samples were identified as per each well ID: B-1, B-4, AB-10, AB-10B, AB-19, AB-21 and AB-23. Samples were stored and sealed in cardboard boxes for shipment via FedEx to Test America Laboratories in Burlington, Vermont. Samples collected on February 14 and 15, 2017 were secured until shipment on February 16, 2017. Samples collected on February 16, 2017 were secured until shipment on February 17, 2017.

Proper chain of custody documentation accompanied the samples to the laboratory. Copy of chain of custody documentation is included in **Attachment C**.

ANALYTICAL RESULTS

Vapor samples were analyzed for project selected VOCs:

- Acetone
- Isopropyl alcohol
- Methylene chloride
- Hexane
- Chloroform
- Tetrahydrofuran
- Benzene

- Toluene
- Chlorobenzene
- Ethylbenzene
- m,p-Xylene
- o-Xylene
- Total Xylene
- Methyl iodide (as a tentatively identified compound)

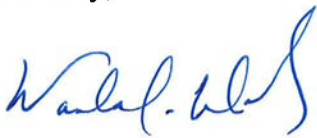
Analytical results are summarized in **Attachment D**. Detected compounds were included in **Figure 1** for reference.

No validation or PR Chemist certification was required for this baseline sampling activity. Copy of laboratory report is included in **Attachment E**.

Based on sampling results (i.e. low-level concentrations in wells AB-10, AB-19, AB-21 and AB-23, it is recommended that SVE operations be focused on the following wells with the highest benzene concentrations: B-1, B-4 and AB-10B to maximize vacuum and mass removal.

If you need additional information, please contact us at your convenience.

Cordially,



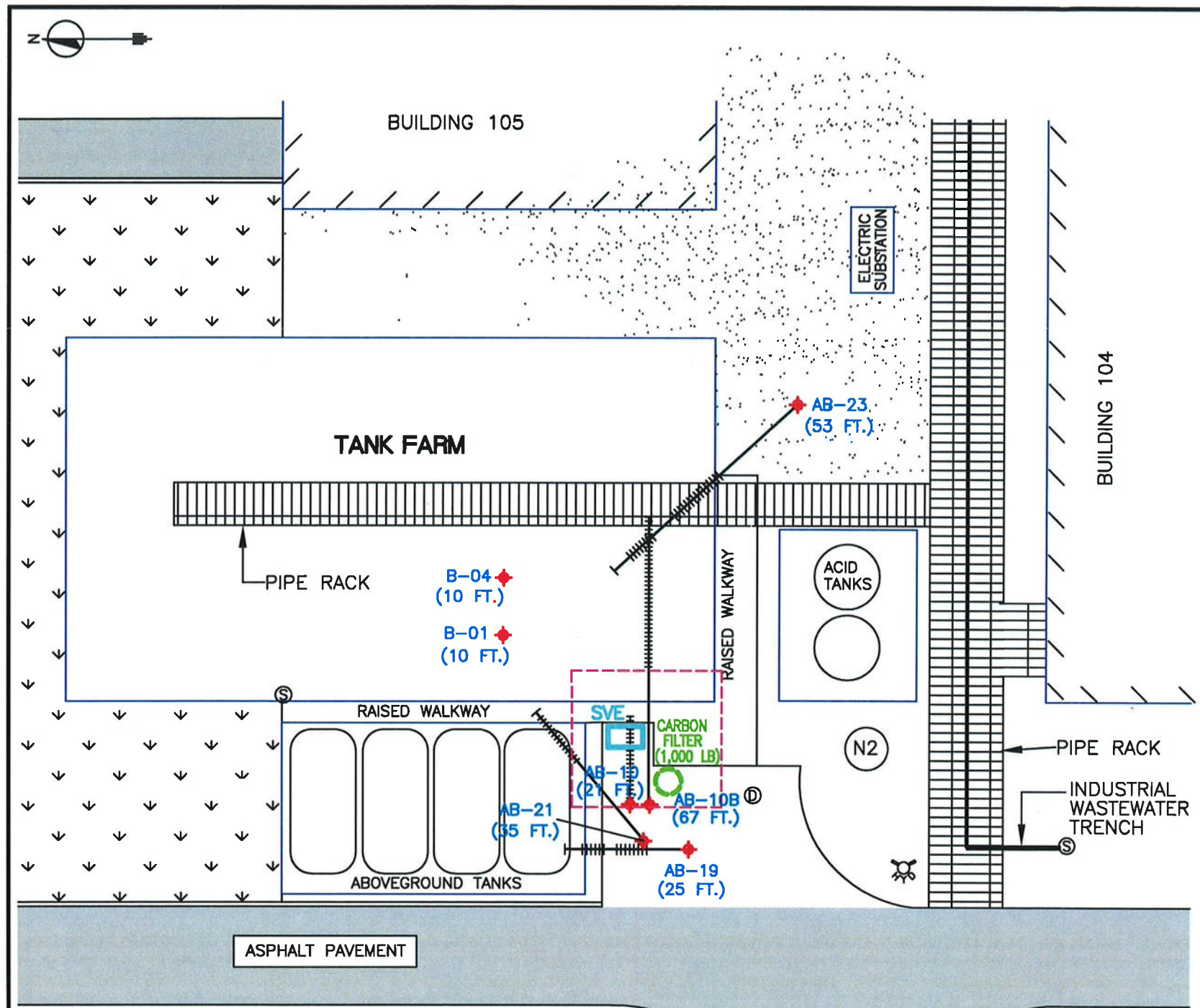
Wanda I. Morales
Project Manager

Enclosures:
Figure
Attachment A to E

FIGURE

**PFIZER BARCELONETA SVE BASELINE TESTING
OF INDIVIDUAL EXTRACTION WELLS
PFIZER PHARMACEUTICALS, LLC
BARCELONETA, PUERTO RICO
E175475**

D:\ERTEC NEW ARCHIVE BY EDH\9-PFIZER BARCELONETA\17-5475\FIG 1.dwg, 3/31/2017 11:13:46 AM, IR-ADV C7055



| AB-10 | |
|--------------------|--------|
| VOCs | (ppbv) |
| ACETONE | 9.1J |
| METHYLENE CHLORIDE | 4.9 |
| CHLOROFORM | 54 |
| TETRAHYDROFURAN | 9.4J |
| BENZENE | 1.4 |
| TOLUENE | 0.67 |
| ETHYLBENZENE | 0.19J |
| m,p-XYLENE | 1.6 |
| o-XYLENE | 0.47 |
| TOTAL XYLENE | 2.1 |

| AB-21 | |
|--------------------|--------|
| VOCs | (ppbv) |
| ACETONE | 110 |
| ISOPROPYL ALCOHOL | 6.1J |
| METHYLENE CHLORIDE | 25 |
| TETRAHYDROFURAN | 120E |
| BENZENE | 2.4 |
| TOLUENE | 15 |
| ETHYLBENZENE | 2.8 |
| m,p-XYLENE | 13 |
| o-XYLENE | 2.5 |
| TOTAL XYLENE | 16 |

| AB-10B | |
|-----------------|---------|
| VOCs | (ppbv) |
| TETRAHYDROFURAN | 1500000 |
| BENZENE | 42000 |

| AB-23 | |
|-----------------|--------|
| VOCs | (ppbv) |
| TETRAHYDROFURAN | 59000 |

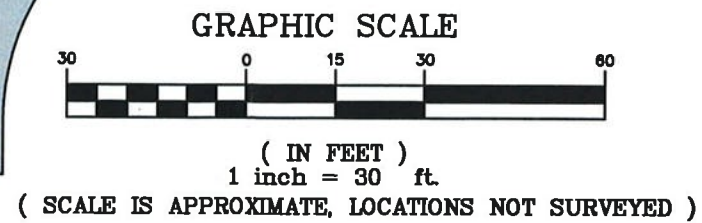
| AB-19 | |
|--------------------|--------|
| VOCs | (ppbv) |
| ACETONE | 20 |
| ISOPROPYL ALCOHOL | 23 |
| METHYLENE CHLORIDE | 11 |
| n-HEXANE | 0.23J |
| CHLOROFORM | 50 |
| TETRAHYDROFURAN | 2.5J |
| BENZENE | 0.26J |
| TOLUENE | 4.3 |
| ETHYLBENZENE | 0.26J |
| m,p-XYLENE | 1.5 |
| o-XYLENE | 0.37 |
| TOTAL XYLENE | 1.9 |

| B-1 | |
|-----------------|---------|
| VOCs | (ppbv) |
| TETRAHYDROFURAN | 1300000 |
| BENZENE | 19000 |
| TOLUENE | 590000 |
| ETHYLBENZENE | 170000 |
| m,p-XYLENE | 1000000 |
| o-XYLENE | 190000 |
| TOTAL XYLENE | 1200000 |

| B-4 | |
|-----------------|--------|
| VOCs | (ppbv) |
| TETRAHYDROFURAN | 170000 |
| BENZENE | 3700 |
| TOLUENE | 39000 |
| ETHYLBENZENE | 15000 |
| m,p-XYLENE | 69000 |
| TOTAL XYLENE | 79000 |

LEGEND

| | | | |
|--|----------------------|--|--------------------------|
| | FIRE HYDRANT | | SVE EXTRACTION WELL HEAD |
| | SUMP | | WELL SCREEN |
| | DRAIN | | DEPTH OF BORING |
| | NITROGEN TANK | | GRAVEL |
| | 2 INCH DIAMETER PIPE | | GRASS |
| | | | ASPHALT PAVEMENT |



LEGEND:

| | |
|------|--|
| ppbv | PARTS PER BILLION PER VOLUME |
| E | RESULT EXCEEDED CALIBRATION RANGE. |
| J | RESULT IS LESS THAN THE RL, BUT GREATER THAN OR EQUAL TO THE MDL AND THE CONCENTRATION IS AN APPROXIMATE VALUE |

ESCALA: NTS
 REV: WM
 FILE: FIG 1
 DWG. BY: EGN
 JOB: E175475

SOURCE:
TRC
 TRC Environmental Corporation

FIGURE 1 - SVE EXTRACTION WELL LOCATIONS
 PFIZER PHARMACEUTICALS LLC.
 BARCELONETA, PUERTO RICO



ATTACHMENT A

EXTRACTION WELLS MONITORING DATA – JANUARY 2017

**PFIZER BARCELONETA SVE BASELINE TESTING
OF INDIVIDUAL EXTRACTION WELLS
PFIZER PHARMACEUTICALS, LLC
BARCELONETA, PUERTO RICO
E175475**

ATTACHMENT A

**EXTRACTION WELLS MONITORING DATA - JANUARY 27, 2017
SVE INDIVIDUAL EXTRACTION WELL BASELINE TESTING
PFIZER PHARMACEUTICALS LLC
BARCELONETA, PUERTO RICO**

| Well ID | Reading Time | Well Vacuum | | Flow Rate (ft/min) | Temperature | | OVA (ppm) |
|---------|--------------|-------------|-----------------------|--------------------|-------------|------|-----------|
| | | (in Hg) | (in H ₂ O) | | (°F) | (°C) | |
| AB-10 | 1232 | 2.5 | 34.0 | 767 | 86.7 | 30.4 | 1.1 |
| AB-10B | 1243 | 2.5 | 34.0 | 724 | 90.5 | 32.5 | 237 |
| AB-21 | 1253 | 2.5 | 34.0 | 646 | 92.8 | 33.8 | 16.3 |
| AB-19 | 1304 | 2.0 | 27.2 | 700 | 91.7 | 33.2 | 1.1 |
| AB-23 | 1314 | 3.0 | 40.8 | 657 | 88.9 | 31.6 | 19.4 |
| B-1 | 1325 | 3.0 | 40.8 | 602 | 87.9 | 31.1 | 905 |
| B-4 | 1334 | 2.5 | 34.0 | 699 | 85.4 | 29.7 | 154 |

Notes:

in Hg Inches of Mercury
in H₂O Inches of water
ft/min Feet per minute
°F Degrees Farenheit
°C Degrees Celsius
OVA Organic vapor analyzer
ppm Parts per million

ATTACHMENT B

EXTRACTION WELLS MONITORING AND SAMPLING DATA – FEBRUARY 2017

**PFIZER BARCELONETA SVE BASELINE TESTING
OF INDIVIDUAL EXTRACTION WELLS
PFIZER PHARMACEUTICALS, LLC
BARCELONETA, PUERTO RICO
E175475**

ATTACHMENT B

**EXTRACTION WELL B-1 MONITORING AND SAMPLING DATA
SVE INDIVIDUAL EXTRACTION WELL BASELINE TESTING - FEBRUARY 2017
PFIZER PHARMACEUTICALS LLC
BARCELONETA, PUERTO RICO**

Well ID: B-1
Date: 2/14/2017

Weather Data

| Reading Time | Temperature (°F) | Barometric Pressure (in Hg) | Humidity (%) |
|--------------|------------------|-----------------------------|--------------|
| 1030 | 113.5 | 29.68 | 20 |
| 1310 | 117.4 | 29.68 | 20 |

Extraction Well B-1 Monitoring Data

| Test Period | Reading Time | Well Vacuum (in Hg) | Flow Rate (ft/min) | Temperature (°F) | Temperature (°C) | OVA (ppm) | LEL (%) | O ₂ (%) | CO (ppm) | H ₂ S (ppm) |
|-------------|--------------|---------------------|--------------------|------------------|------------------|-----------|---------|--------------------|----------|------------------------|
| Initial | 1115 | 4.0 | 537 | 95.4 | 35.2 | 820 | 0 | 18.0 | 0 | 0 |
| 1-hr | 1215 | 4.0 | 519 | 105.1 | 40.6 | 414 | 0 | 17.9 | 0 | 0 |
| 2-hr | 1315 | 3.5 | 678 | 104.5 | 40.3 | 575 | 0 | 17.9 | 0 | 0 |

SVE System Monitoring Data

| Test Period | Reading Time | SVE | | Air Filter-1 | | Air Filter-2 | | Carbon Entrance | |
|-------------|--------------|--------------------------------|----------------|----------------|----------------|------------------|------------------|-----------------|--|
| | | Pressure (in H ₂ O) | Vacuum (in Hg) | Vacuum (in Hg) | Vacuum (in Hg) | Temperature (°F) | Temperature (°C) | | |
| Initial | 1115 | | 2.5 | 4.0 | 112 | 44.4 | | | |
| 1-hr | 1215 | 0.06 | 2.0 | 4.0 | 116 | 46.7 | | | |
| 2-hr | 1315 | 0.06 | 2.0 | 4.0 | 116 | 46.7 | | | |

INLET-1 Monitoring Data

| Test Period | Reading Time | Vacuum (in Hg) | Flow Rate (ft/min) | Temperature (°F) | Temperature (°C) | OVA (ppm) | LEL (%) | O ₂ (%) | CO (ppm) | H ₂ S (ppm) |
|-------------|--------------|----------------|--------------------|------------------|------------------|-----------|---------|--------------------|----------|------------------------|
| Initial | 1115 | 1.5 | 570 | 92 | 33.3 | | | | | |
| 1-hr | 1215 | 2.0 | 490 | 106 | 41.1 | 438 | 0 | 17.9 | 0 | 0 |
| 2-hr | 1315 | 2.0 | 703 | 108 | 42.2 | 473 | 0 | 17.9 | 0 | 0 |

INLET-2 Monitoring Data

| Test Period | Reading Time | Pressure (in Hg) | Flow Rate (ft/min) | Temperature (°F) | Temperature (°C) | OVA (ppm) | LEL (%) | O ₂ (%) | CO (ppm) | H ₂ S (ppm) |
|-------------|--------------|------------------|--------------------|------------------|------------------|-----------|---------|--------------------|----------|------------------------|
| Initial | 1115 | 0.6 | 4636 | 114 | 45.6 | 15.7 | 0 | 20.2 | 0 | 0 |
| 1-hr | 1215 | 0.6 | 4736 | 117 | 47.2 | 6.3 | 0 | 20.0 | 0 | 0 |
| 2-hr | 1315 | 0.6 | 4719 | 118 | 47.8 | 6.5 | 0 | 20.0 | 0 | 0 |

ATTACHMENT B

**EXTRACTION WELL B-1 MONITORING AND SAMPLING DATA
SVE INDIVIDUAL EXTRACTION WELL BASELINE TESTING - FEBRUARY 2017
PFIZER PHARMACEUTICALS LLC
BARCELONETA, PUERTO RICO**

Well ID: B-1

Date: 2/14/2017

OUTLET Monitoring Data

| Test Period | Reading Time | Pressure (in Hg) | Pressure (in H ₂ O) | Flow Rate (ft/min) | Temperature (°F) | Temperature (°C) | OVA (ppm) | LEL (%) | O ₂ (%) | CO (ppm) | H ₂ S (ppm) |
|-------------|--------------|------------------|--------------------------------|--------------------|------------------|------------------|-----------|---------|--------------------|----------|------------------------|
| Initial | 1115 | 0.0 | 0.0 | 2693 | 96 | 35.6 | 0.9 | 0 | 20.1 | 0 | 0 |
| 1-hr | 1215 | 0.0 | 0.0 | 2765 | 97 | 36.1 | 1.0 | 0 | 20.0 | 0 | 0 |
| 2-hr | 1315 | 0.0 | 0.0 | 2747 | 98 | 36.7 | 0.8 | 0 | 20.0 | 0 | 0 |

Extraction Well B-1 Sample Collection Data

| Sample ID | Sampling Date | Sample Type | Time | Sampling Point Temperature (°F) | Ambient Temperature (°F) | Sampling Point Vacuum (in Hg) | Barometric Pressure (in Hg) |
|-----------|---------------|-------------|------|---------------------------------|--------------------------|-------------------------------|-----------------------------|
| B-1 | 2/14/2017 | Grab | 1329 | 104.1 | 119.1 | 3.5 | 29.68 |

Notes:

- °F Degrees Fahrenheit
- in Hg Inches of Mercury
- % Percentage
- in H₂O Inches of water
- ft/min Feet per minute
- °C Degrees Celsius
- OVA Organic vapor analyzer
- ppm Parts per million
- LEL Lower explosive limit
- O₂ Oxygen
- CO Carbon monoxide
- H₂S Hydrogen sulfide

ATTACHMENT B

EXTRACTION WELL AB-10B MONITORING AND SAMPLING DATA
 SVE INDIVIDUAL EXTRACTION WELL BASELINE TESTING - FEBRUARY 2017
 PFIZER PHARMACEUTICALS LLC
 BARCELONETA, PUERTO RICO

Well ID: AB-10B
 Date: 2/15/2017

Weather Data

| Reading Time | Temperature (°F) | Barometric Pressure (in Hg) | Humidity (%) |
|--------------|------------------|-----------------------------|--------------|
| 1000 | 112.1 | 29.77 | 20 |

Extraction Well AB-10B Monitoring Data

| Test Period | Reading Time | Well Vacuum | | Flow Rate (ft/min) | Temperature | | OVA (ppm) | LEL (%) | O ₂ (%) | CO (ppm) | H ₂ S (ppm) |
|-------------|--------------|-------------|-----------------------|--------------------|-------------|------|-----------|---------|--------------------|----------|------------------------|
| | | (in Hg) | (in H ₂ O) | | (°F) | (°C) | | | | | |
| Initial | 1050 | 4.0 | 54.5 | 717 | 87.8 | 31.0 | 149 | 0 | 13.8 | 0 | 0 |
| 1-hr | 1150 | 4.0 | 54.5 | 575 | 97.6 | 36.4 | 174 | 0 | 11.1 | 0 | 0 |
| 2-hr | 1250 | 3.5 | 47.6 | 610 | 98.7 | 37.1 | 191 | 0 | 11.7 | 0 | 0 |

SVE System Monitoring Data

| Test Period | Reading Time | SVE Pressure | | Air Filter-1 Vacuum | | Air Filter-2 Vacuum | | Carbon Entrance Temperature | |
|-------------|--------------|-----------------------|---------|---------------------|-----------------------|---------------------|------|-----------------------------|--|
| | | (in H ₂ O) | (in Hg) | (in Hg) | (in H ₂ O) | (in Hg) | (°F) | (°C) | |
| Initial | 1050 | 0.06 | 2.0 | 2.0 | 5.0 | 116 | 46.7 | | |
| 1-hr | 1150 | 0.06 | 2.0 | 4.0 | 114 | 45.6 | | | |
| 2-hr | 1250 | 0.06 | 2.0 | 4.0 | 114 | 45.6 | | | |

INLET-1 Monitoring Data

| Test Period | Reading Time | Vacuum | | Flow Rate (ft/min) | Temperature | | OVA (ppm) | LEL (%) | O ₂ (%) | CO (ppm) | H ₂ S (ppm) |
|-------------|--------------|---------|-----------------------|--------------------|-------------|------|-----------|---------|--------------------|----------|------------------------|
| | | (in Hg) | (in H ₂ O) | | (°F) | (°C) | | | | | |
| Initial | 1050 | 3.0 | 40.8 | 729 | 98 | 36.7 | 102 | 0 | 16.1 | 0 | 0 |
| 1-hr | 1150 | 2.0 | 27.2 | 544 | 106 | 41.1 | 189 | 0 | 11.2 | 0 | 0 |
| 2-hr | 1250 | 2.0 | 27.2 | 526 | 106 | 41.1 | 179 | 0 | 12.4 | 0 | 0 |

INLET-2 Monitoring Data

| Test Period | Reading Time | Pressure | | Flow Rate (ft/min) | Temperature | | OVA (ppm) | LEL (%) | O ₂ (%) | CO (ppm) | H ₂ S (ppm) |
|-------------|--------------|----------|-----------------------|--------------------|-------------|------|-----------|---------|--------------------|----------|------------------------|
| | | (in Hg) | (in H ₂ O) | | (°F) | (°C) | | | | | |
| Initial | 1050 | 0.6 | 8.0 | 4752 | 118 | 47.8 | 3.2 | 0 | 20.9 | 0 | 0 |
| 1-hr | 1150 | 0.6 | 8.0 | 4675 | 115 | 46.1 | 2.8 | 0 | 20.9 | 0 | 0 |
| 2-hr | 1250 | 0.6 | 8.0 | 4719 | 114 | 45.6 | 5.1 | 0 | 20.9 | 0 | 0 |

ATTACHMENT B

EXTRACTION WELL AB-10B MONITORING AND SAMPLING DATA
 SVE INDIVIDUAL EXTRACTION WELL BASELINE TESTING - FEBRUARY 2017
 PFIZER PHARMACEUTICALS LLC
 BARCELONETA, PUERTO RICO

Well ID: AB-10B
 Date: 2/15/2017

OUTLET Monitoring Data

| Test Period | Reading Time | Pressure (in Hg) | Pressure (in H ₂ O) | Flow Rate (ft/min) | Temperature (°F) | Temperature (°C) | OVA (ppm) | LEL (%) | O ₂ (%) | CO (ppm) | H ₂ S (ppm) |
|-------------|--------------|------------------|--------------------------------|--------------------|------------------|------------------|-----------|---------|--------------------|----------|------------------------|
| Initial | 1050 | 0.0 | 0.0 | 2646 | 97 | 36.1 | 1.8 | 0 | 20.9 | 0 | 0 |
| 1-hr | 1150 | 0.0 | 0.0 | 2782 | 97 | 36.1 | 2.1 | 0 | 20.9 | 0 | 0 |
| 2-hr | 1250 | 0.0 | 0.0 | 2747 | 97 | 36.1 | 3.0 | 0 | 20.9 | 0 | 0 |

Extraction Well AB-10B Sample Collection Data

| Sample ID | Sampling Date | Sample Type | Time | Sampling Point Temperature (°F) | Ambient Temperature (°F) | Sampling Point Vacuum (in Hg) | Barometric Pressure (in Hg) |
|-----------|---------------|-------------|------|---------------------------------|--------------------------|-------------------------------|-----------------------------|
| AB-10B | 2/15/2017 | Grab | 1310 | 98.7 | 114.4 | 3.5 | 29.77 |

Notes:

- °F Degrees Fahrenheit
- in Hg Inches of Mercury
- % Percentage
- in H₂O Inches of water
- ft/min Feet per minute
- °C Degrees Celsius
- OVA Organic vapor analyzer
- ppm Parts per million
- LEL Lower explosive limit
- O₂ Oxygen
- CO Carbon monoxide
- H₂S Hydrogen sulfide

ATTACHMENT B

EXTRACTION WELL B-4 MONITORING AND SAMPLING DATA
 SVE INDIVIDUAL EXTRACTION WELL BASELINE TESTING - FEBRUARY 2017
 PFIZER PHARMACEUTICALS LLC
 BARCELONETA, PUERTO RICO

Well ID: B-4
 Date: 2/15/2017

Weather Data

| Reading Time | Temperature (°F) | Barometric Pressure (in Hg) | Humidity (%) |
|--------------|------------------|-----------------------------|--------------|
| 1340 | 115.7 | 29.77 | 20 |

Extraction Well B-4 Monitoring Data

| Test Period | Reading Time | Well Vacuum (in Hg) | Flow Rate (ft/min) | Temperature (°F) | Temperature (°C) | OVA (ppm) | LEL (%) | O ₂ (%) | CO (ppm) | H ₂ S (ppm) |
|-------------|--------------|---------------------|--------------------|------------------|------------------|-----------|---------|--------------------|----------|------------------------|
| Initial | 1340 | 3.0 | 692 | 102.5 | 39.2 | 117 | 0 | 20.4 | 0 | 0 |
| 1-hr | 1440 | 2.5 | 572 | 95.8 | 35.4 | 128 | 0 | 20.9 | 0 | 0 |
| 2-hr | 1540 | 3.0 | 646 | 93.8 | 34.3 | 120 | 0 | 20.9 | 0 | 0 |

SVE System Monitoring Data

| Test Period | Reading Time | SVE | | Air Filter-1 | | Air Filter-2 | | Carbon Entrance | |
|-------------|--------------|--------------------------------|----------------|----------------|----------------|------------------|------------------|------------------|------------------|
| | | Pressure (in H ₂ O) | Vacuum (in Hg) | Vacuum (in Hg) | Vacuum (in Hg) | Temperature (°F) | Temperature (°C) | Temperature (°F) | Temperature (°C) |
| Initial | 1340 | 0.08 | 2.0 | 2.0 | 4.0 | 116 | 46.7 | | |
| 1-hr | 1440 | 0.08 | 2.0 | 2.0 | 4.0 | 116 | 46.7 | | |
| 2-hr | 1540 | 0.08 | 2.0 | 2.0 | 4.0 | 116 | 46.7 | | |

INLET-1 Monitoring Data

| Test Period | Reading Time | Vacuum (in Hg) | Flow Rate (ft/min) | Temperature (°F) | Temperature (°C) | OVA (ppm) | LEL (%) | O ₂ (%) | CO (ppm) | H ₂ S (ppm) |
|-------------|--------------|----------------|--------------------|------------------|------------------|-----------|---------|--------------------|----------|------------------------|
| Initial | 1340 | 1.5 | 507 | 106 | 41.1 | 124 | 0 | 20.9 | 0 | 0 |
| 1-hr | 1440 | 1.5 | 745 | 104 | 40.0 | 135 | 0 | 20.9 | 0 | 0 |
| 2-hr | 1540 | 1.5 | 683 | 104 | 40.0 | 152 | 0 | 20.3 | 0 | 0 |

INLET-2 Monitoring Data

| Test Period | Reading Time | Pressure (in Hg) | Flow Rate (ft/min) | Temperature (°F) | Temperature (°C) | OVA (ppm) | LEL (%) | O ₂ (%) | CO (ppm) | H ₂ S (ppm) |
|-------------|--------------|------------------|--------------------|------------------|------------------|-----------|---------|--------------------|----------|------------------------|
| Initial | 1340 | 0.6 | 4663 | 117 | 47.2 | 10.2 | 0 | 20.9 | 0 | 0 |
| 1-hr | 1440 | 0.6 | 4632 | 117 | 47.2 | 10.5 | 0 | 20.9 | 0 | 0 |
| 2-hr | 1540 | 0.6 | 4628 | 116 | 46.7 | 10.7 | 0 | 20.9 | 0 | 0 |

ATTACHMENT B

EXTRACTION WELL B-4 MONITORING AND SAMPLING DATA
 SVE INDIVIDUAL EXTRACTION WELL BASELINE TESTING - FEBRUARY 2017
 PFIZER PHARMACEUTICALS LLC
 BARCELONETA, PUERTO RICO

Well ID: B-4
 Date: 2/15/2017

OUTLET Monitoring Data

| Test Period | Reading Time | Pressure (in Hg) | Pressure (in H ₂ O) | Flow Rate (ft ³ /min) | Temperature (°F) | Temperature (°C) | OVA (ppm) | LEL (%) | O ₂ (%) | CO (ppm) | H ₂ S (ppm) |
|-------------|--------------|------------------|--------------------------------|----------------------------------|------------------|------------------|-----------|---------|--------------------|----------|------------------------|
| Initial | 1340 | 0.0 | 0.0 | 2554 | 98 | 36.7 | 4.4 | 0 | 20.9 | 0 | 0 |
| 1-hr | 1440 | 0.0 | 0.0 | 2672 | 98 | 36.7 | 1.2 | 0 | 20.9 | 0 | 0 |
| 2-hr | 1540 | 0.0 | 0.0 | 2562 | 98 | 36.7 | 1.1 | 0 | 20.9 | 0 | 0 |

Extraction Well B-4 Sample Collection Data

| Sample ID | Sampling Date | Sample Type | Time | Sampling Point Temperature (°F) | Ambient Temperature (°F) | Sampling Point Vacuum (in Hg) | Barometric Pressure (in Hg) |
|-----------|---------------|-------------|------|---------------------------------|--------------------------|-------------------------------|-----------------------------|
| B-4 | 2/15/2017 | Grab | 1556 | 93.8 | 102.0 | 3.0 | 29.71 |

Notes:

- °F Degrees Fahrenheit
- in Hg Inches of Mercury
- % Percentage
- in H₂O Inches of water
- ft³/min Feet per minute
- °C Degrees Celsius
- OVA Organic vapor analyzer
- ppm Parts per million
- LEL Lower explosive limit
- O₂ Oxygen
- CO Carbon monoxide
- H₂S Hydrogen sulfide

ATTACHMENT B

EXTRACTION WELL AB-23 MONITORING AND SAMPLING DATA
SVE INDIVIDUAL EXTRACTION WELL BASELINE TESTING - FEBRUARY 2017
PFIZER PHARMACEUTICALS LLC
BARCELONETA, PUERTO RICO

Well ID: AB-23
Date: 2/16/2017

Weather Data

| Reading Time | Temperature (°F) | Barometric Pressure (in Hg) | Humidity (%) |
|--------------|------------------|-----------------------------|--------------|
| 1010 | 111.4 | 29.80 | 20 |

Extraction Well AB-23 Monitoring Data

| Test Period | Reading Time | Well Vacuum (in Hg) | Flow Rate (ft/min) | Temperature (°F) | Temperature (°C) | OVA (ppm) | LEL (%) | O ₂ (%) | CO (ppm) | H ₂ S (ppm) |
|-------------|--------------|---------------------|--------------------|------------------|------------------|-----------|---------|--------------------|----------|------------------------|
| Initial | 1012 | 2.5 | 34.0 | 625 | 34.7 | 15.8 | 0 | 16.0 | 0 | 0 |
| 1-hr | 1112 | 3.5 | 47.6 | 642 | 35.4 | 15.6 | 0 | 15.5 | 0 | 0 |
| 2-hr | 1212 | 4.0 | 54.5 | 726 | 36.2 | 14.6 | 0 | 15.6 | 0 | 0 |

SVE System Monitoring Data

| Test Period | Reading Time | SVE | | Air Filter-1 | | Air Filter-2 | | Carbon Entrance | |
|-------------|--------------|--------------------------------|----------------|----------------|----------------|----------------|------------------|------------------|--|
| | | Pressure (in H ₂ O) | Vacuum (in Hg) | Vacuum (in Hg) | Vacuum (in Hg) | Vacuum (in Hg) | Temperature (°F) | Temperature (°C) | |
| Initial | 1012 | 0.06 | 2.0 | 4.0 | 112 | 44.4 | | | |
| 1-hr | 1112 | 0.06 | 2.0 | 4.0 | 115 | 46.1 | | | |
| 2-hr | 1212 | 0.06 | 2.0 | 4.0 | 116 | 46.7 | | | |

INLET-1 Monitoring Data

| Test Period | Reading Time | Vacuum (in Hg) | Flow Rate (ft/min) | Temperature (°F) | Temperature (°C) | OVA (ppm) | LEL (%) | O ₂ (%) | CO (ppm) | H ₂ S (ppm) |
|-------------|--------------|----------------|--------------------|------------------|------------------|-----------|---------|--------------------|----------|------------------------|
| Initial | 1012 | 2.0 | 27.2 | 683 | 31.1 | 14.5 | 0 | 16.3 | 0 | 0 |
| 1-hr | 1112 | 2.0 | 27.2 | 659 | 37.8 | 15.1 | 0 | 15.6 | 0 | 0 |
| 2-hr | 1212 | 2.0 | 27.2 | 621 | 38.9 | 14.2 | 0 | 15.8 | 0 | 0 |

INLET-2 Monitoring Data

| Test Period | Reading Time | Pressure (in Hg) | Flow Rate (ft/min) | Temperature (°F) | Temperature (°C) | OVA (ppm) | LEL (%) | O ₂ (%) | CO (ppm) | H ₂ S (ppm) |
|-------------|--------------|------------------|--------------------|------------------|------------------|-----------|---------|--------------------|----------|------------------------|
| Initial | 1012 | 0.6 | 8.0 | 4660 | 44.4 | 1.7 | 0 | 20.9 | 0 | 0 |
| 1-hr | 1112 | 0.6 | 8.0 | 4682 | 46.1 | 0.9 | 0 | 20.9 | 0 | 0 |
| 2-hr | 1212 | 0.6 | 8.0 | 4667 | 47.2 | 1.5 | 0 | 20.9 | 0 | 0 |

ATTACHMENT B

EXTRACTION WELL AB-23 MONITORING AND SAMPLING DATA
 SVE INDIVIDUAL EXTRACTION WELL BASELINE TESTING - FEBRUARY 2017
 PFIZER PHARMACEUTICALS LLC
 BARCELONETA, PUERTO RICO

Well ID: AB-23
 Date: 2/16/2017

OUTLET Monitoring Data

| Test Period | Reading Time | Pressure (in Hg) | Pressure (in H ₂ O) | Flow Rate (ft ³ /min) | Temperature (°F) | Temperature (°C) | OVA (ppm) | LEL (%) | O ₂ (%) | CO (ppm) | H ₂ S (ppm) |
|-------------|--------------|------------------|--------------------------------|----------------------------------|------------------|------------------|-----------|---------|--------------------|----------|------------------------|
| Initial | 1012 | 0.0 | 0.0 | 2773 | 96 | 35.6 | 0.7 | 0 | 20.9 | 0 | 0 |
| 1-hr | 1112 | 0.0 | 0.0 | 2751 | 97 | 36.1 | 0.8 | 0 | 20.9 | 0 | 0 |
| 2-hr | 1212 | 0.0 | 0.0 | 2505 | 98 | 36.7 | 0.7 | 0 | 20.9 | 0 | 0 |

Extraction Well AB-23 Sample Collection Data

| Sample ID | Sampling Date | Sample Type | Time | Sampling Point Temperature (°F) | Ambient Temperature (°F) | Sampling Point Vacuum (in Hg) | Barometric Pressure (in Hg) |
|-----------|---------------|-------------|------|---------------------------------|--------------------------|-------------------------------|-----------------------------|
| AB-23 | 2/16/2017 | Grab | 1221 | 97.5 | 114.8 | 4.0 | 29.80 |

Notes:

- °F Degrees Fahrenheit
- in Hg Inches of Mercury
- % Percentage
- in H₂O Inches of water
- ft/min Feet per minute
- °C Degrees Celsius
- OVA Organic vapor analyzer
- ppm Parts per million
- LEL Lower explosive limit
- O₂ Oxygen
- CO Carbon monoxide
- H₂S Hydrogen sulfide

ATTACHMENT B

EXTRACTION WELL AB-21 MONITORING AND SAMPLING DATA
 SVE INDIVIDUAL EXTRACTION WELL BASELINE TESTING - FEBRUARY 2017
 PFIZER PHARMACEUTICALS LLC
 BARCELONETA, PUERTO RICO

Well ID: AB-21
 Date: 2/16/2017

Weather Data

| Reading Time | Temperature (°F) | Barometric Pressure (in Hg) | Humidity (%) |
|--------------|------------------|-----------------------------|--------------|
| 1225 | 114.4 | 29.80 | 20 |

Extraction Well AB-21 Monitoring Data

| Test Period | Reading Time | Well Vacuum | | Flow Rate (ft/min) | Temperature | | LEL (%) | OVA (ppm) | O ₂ (%) | CO (ppm) | H ₂ S (ppm) |
|-------------|--------------|-------------|-----------------------|--------------------|-------------|------|---------|-----------|--------------------|----------|------------------------|
| | | (in Hg) | (in H ₂ O) | | (°F) | (°C) | | | | | |
| Initial | 1230 | 4.0 | 54.5 | 702 | 98.4 | 36.9 | 0 | 2.6 | 19.8 | 0 | 0 |
| 1-hr | 1330 | 3.5 | 47.6 | 674 | 94.5 | 34.7 | 0 | 0.9 | 20.9 | 0 | 0 |
| 2-hr | 1430 | 3.0 | 40.8 | 672 | 89.5 | 31.9 | 0 | 0.7 | 20.9 | 0 | 0 |

SVE System Monitoring Data

| Test Period | Reading Time | SVE Pressure | | Air Filter-1 Vacuum | | Air Filter-2 Vacuum | | Carbon Entrance Temperature | |
|-------------|--------------|-----------------------|---------|---------------------|-----------------------|---------------------|------|-----------------------------|--|
| | | (in H ₂ O) | (in Hg) | (in Hg) | (in H ₂ O) | (in Hg) | (°F) | (°C) | |
| Initial | 1230 | 0.06 | 2.0 | 2.0 | 4.0 | 117 | 47.2 | | |
| 1-hr | 1330 | 0.06 | 2.0 | 2.0 | 4.0 | 116 | 46.7 | | |
| 2-hr | 1430 | 0.06 | 2.0 | 2.0 | 4.0 | 112 | 44.4 | | |

INLET-1 Monitoring Data

| Test Period | Reading Time | Vacuum | | Flow Rate (ft/min) | Temperature | | LEL (%) | OVA (ppm) | O ₂ (%) | CO (ppm) | H ₂ S (ppm) |
|-------------|--------------|---------|-----------------------|--------------------|-------------|------|---------|-----------|--------------------|----------|------------------------|
| | | (in Hg) | (in H ₂ O) | | (°F) | (°C) | | | | | |
| Initial | 1230 | 2.0 | 27.2 | 596 | 106 | 41.1 | 0 | 2.4 | 19.9 | 0 | 0 |
| 1-hr | 1330 | 2.0 | 27.2 | 629 | 104 | 40.0 | 0 | 1.3 | 20.9 | 0 | 0 |
| 2-hr | 1430 | 1.5 | 20.4 | 928 | 99 | 37.2 | 0 | 1.0 | 20.9 | 0 | 0 |

INLET-2 Monitoring Data

| Test Period | Reading Time | Pressure | | Flow Rate (ft/min) | Temperature | | LEL (%) | OVA (ppm) | O ₂ (%) | CO (ppm) | H ₂ S (ppm) |
|-------------|--------------|----------|-----------------------|--------------------|-------------|------|---------|-----------|--------------------|----------|------------------------|
| | | (in Hg) | (in H ₂ O) | | (°F) | (°C) | | | | | |
| Initial | 1230 | 0.6 | 8.0 | 4462 | 117 | 47.2 | 0 | 1.6 | 20.9 | 0 | 0 |
| 1-hr | 1330 | 0.6 | 8.0 | 4601 | 117 | 47.2 | 0 | 1.5 | 20.9 | 0 | 0 |
| 2-hr | 1430 | 0.6 | 8.0 | 4663 | 114 | 45.6 | 0 | 1.0 | 20.9 | 0 | 0 |

ATTACHMENT B

EXTRACTION WELL AB-21 MONITORING AND SAMPLING DATA
 SVE INDIVIDUAL EXTRACTION WELL BASELINE TESTING - FEBRUARY 2017
 PFIZER PHARMACEUTICALS LLC
 BARCELONETA, PUERTO RICO

Well ID: AB-21
 Date: 2/16/2017

OUTLET Monitoring Data

| Test Period | Reading Time | Pressure (in Hg) | Pressure (in H ₂ O) | Flow Rate (ft/min) | Temperature (°F) | Temperature (°C) | OVA (ppm) | LEL (%) | O ₂ (%) | CO (ppm) | H ₂ S (ppm) |
|-------------|--------------|------------------|--------------------------------|--------------------|------------------|------------------|-----------|---------|--------------------|----------|------------------------|
| Initial | 1230 | 0.0 | 0.0 | 2592 | 99 | 37.2 | 1.0 | 0 | 20.9 | 0 | 0 |
| 1-hr | 1330 | 0.0 | 0.0 | 2636 | 100 | 37.8 | 1.3 | 0 | 20.9 | 0 | 0 |
| 2-hr | 1430 | 0.0 | 0.0 | 2561 | 100 | 37.8 | 1.5 | 0 | 20.9 | 0 | 0 |

Extraction Well AB-21 Sample Collection Data

| Sample ID | Sampling Date | Sample Type | Time | Sampling Point Temperature (°F) | Ambient Temperature (°F) | Sampling Point Vacuum (in Hg) | Barometric Pressure (in Hg) |
|-----------|---------------|-------------|------|---------------------------------|--------------------------|-------------------------------|-----------------------------|
| AB-21 | 2/16/2017 | Grab | 1500 | 89.8 | 102.7 | 3.0 | 29.71 |

Notes:

- °F Degrees Fahrenheit
- in Hg Inches of Mercury
- % Percentage
- in H₂O Inches of water
- ft/min Feet per minute
- °C Degrees Celsius
- OVA Organic vapor analyzer
- ppm Parts per million
- LEL Lower explosive limit
- O₂ Oxygen
- CO Carbon monoxide
- H₂S Hydrogen sulfide

ATTACHMENT B

EXTRACTION WELL AB-10 MONITORING AND SAMPLING DATA
SVE INDIVIDUAL EXTRACTION WELL BASELINE TESTING - FEBRUARY 2017
PFIZER PHARMACEUTICALS LLC
BARCELONETA, PUERTO RICO

Well ID: AB-10
Date: 2/17/2017

Weather Data

| Reading Time | Temperature (°F) | Barometric Pressure (in Hg) | Humidity (%) |
|--------------|------------------|-----------------------------|--------------|
| 942 | 111.7 | 29.77 | 20 |

Extraction Well AB-10 Monitoring Data

| Test Period | Reading Time | Well Vacuum (in Hg) | Flow Rate (ft/min) | Temperature (°C) | | O ₂ (%) | CO (ppm) | H ₂ S (ppm) |
|-------------|--------------|---------------------|--------------------|------------------|------|--------------------|----------|------------------------|
| | | | | (°F) | (°C) | | | |
| Initial | 945 | 3.0 | 980 | 96.3 | 35.7 | 20.9 | 0 | 0 |
| 1-hr | 1045 | 3.0 | 995 | 97.1 | 36.2 | 19.3 | 0 | 0 |
| 2-hr | 1145 | 3.0 | 904 | 96.6 | 35.9 | 19.6 | 0 | 0 |

SVE System Monitoring Data

| Test Period | Reading Time | SVE Pressure (in H ₂ O) | | Air Filter-1 Vacuum (in Hg) | | Air Filter-2 Vacuum (in Hg) | | Carbon Entrance Temperature (°C) | |
|-------------|--------------|------------------------------------|---------|-----------------------------|---------|-----------------------------|------|----------------------------------|--|
| | | (in H ₂ O) | (in Hg) | (in Hg) | (in Hg) | (°F) | (°C) | | |
| Initial | 945 | 0.08 | 2.0 | 2.0 | 4.0 | 116 | 46.7 | | |
| 1-hr | 1045 | 0.10 | 2.0 | 2.0 | 4.0 | 117 | 47.2 | | |
| 2-hr | 1145 | 0.10 | 2.0 | 2.0 | 4.0 | 117 | 47.2 | | |

INLET-1 Monitoring Data

| Test Period | Reading Time | Vacuum (in Hg) | Flow Rate (ft/min) | Temperature (°C) | | O ₂ (%) | CO (ppm) | H ₂ S (ppm) |
|-------------|--------------|----------------|--------------------|------------------|------|--------------------|----------|------------------------|
| | | | | (°F) | (°C) | | | |
| Initial | 945 | 2.0 | 571 | 90 | 32.2 | 19.0 | 0 | 0 |
| 1-hr | 1045 | 2.0 | 554 | 96 | 35.6 | 18.8 | 0 | 0 |
| 2-hr | 1145 | 2.0 | 545 | 98 | 36.7 | 18.7 | 0 | 0 |

INLET-2 Monitoring Data

| Test Period | Reading Time | Pressure (in Hg) | Flow Rate (ft/min) | Temperature (°C) | | O ₂ (%) | CO (ppm) | H ₂ S (ppm) |
|-------------|--------------|------------------|--------------------|------------------|------|--------------------|----------|------------------------|
| | | | | (°F) | (°C) | | | |
| Initial | 945 | 0.6 | 4636 | 116 | 46.7 | 20.9 | 0 | 0 |
| 1-hr | 1045 | 0.6 | 4704 | 118 | 47.8 | 20.9 | 0 | 0 |
| 2-hr | 1145 | 0.6 | 4792 | 118 | 47.8 | 20.9 | 0 | 0 |

ATTACHMENT B

**EXTRACTION WELL AB-10 MONITORING AND SAMPLING DATA
SVE INDIVIDUAL EXTRACTION WELL BASELINE TESTING - FEBRUARY 2017
PFIZER PHARMACEUTICALS LLC
BARCELONETA, PUERTO RICO**

Well ID: AB-10
Date: 2/17/2017

OUTLET Monitoring Data

| Test Period | Reading Time | Pressure (in Hg) | Pressure (in H ₂ O) | Flow Rate (ft/min) | Temperature (°F) | Temperature (°C) | OVA (ppm) | LEL (%) | O ₂ (%) | CO (ppm) | H ₂ S (ppm) |
|-------------|--------------|------------------|--------------------------------|--------------------|------------------|------------------|-----------|---------|--------------------|----------|------------------------|
| Initial | 945 | 0.0 | 0.0 | 2659 | 96 | 35.6 | 0.3 | 0 | 20.9 | 0 | 0 |
| 1-hr | 1045 | 0.0 | 0.0 | 2644 | 98 | 36.7 | 0.9 | 0 | 20.9 | 0 | 0 |
| 2-hr | 1145 | 0.0 | 0.0 | 2532 | 98 | 36.7 | 0.4 | 0 | 20.9 | 0 | 0 |

Extraction Well AB-10 Sample Collection Data

| Sample ID | Sampling Date | Sample Type | Time | Sampling Point Temperature (°F) | Ambient Temperature (°F) | Sampling Point Vacuum (in Hg) | Barometric Pressure (in Hg) |
|-----------|---------------|-------------|------|---------------------------------|--------------------------|-------------------------------|-----------------------------|
| AB-10 | 2/17/2017 | Grab | 1201 | 96.7 | 113.4 | 3.0 | 29.80 |

Notes:

- °F Degrees Fahrenheit
- in Hg Inches of Mercury
- % Percentage
- in H₂O Inches of water
- ft/min Feet per minute
- °C Degrees Celsius
- OVA Organic vapor analyzer
- ppm Parts per million
- LEL Lower explosive limit
- O₂ Oxygen
- CO Carbon monoxide
- H₂S Hydrogen sulfide

ATTACHMENT B

EXTRACTION WELL AB-19 MONITORING AND SAMPLING DATA
 SVE INDIVIDUAL EXTRACTION WELL BASELINE TESTING - FEBRUARY 2017
 PFIZER PHARMACEUTICALS LLC
 BARCELONETA, PUERTO RICO

Well ID: AB-19
 Date: 2/17/2017

Weather Data

| Reading Time | Temperature (°F) | Barometric Pressure (in Hg) | Humidity (%) |
|--------------|------------------|-----------------------------|--------------|
| 1218 | 114.3 | 29.80 | 20 |

Extraction Well AB-19 Monitoring Data

| Test Period | Reading Time | Well Vacuum | | Flow Rate (ft/min) | Temperature | | LEL (%) | O ₂ (%) | CO (ppm) | H ₂ S (ppm) |
|-------------|--------------|-------------|-----------------------|--------------------|-------------|------|---------|--------------------|----------|------------------------|
| | | (in Hg) | (in H ₂ O) | | (°F) | (°C) | | | | |
| Initial | 1220 | 3.0 | 40.8 | 798 | 37.2 | 99.0 | 0 | 20.0 | 0 | 0 |
| 1-hr | 1320 | 3.0 | 40.8 | 720 | 36.6 | 97.8 | 0 | 20.0 | 0 | 0 |
| 2-hr | 1420 | 2.5 | 34.0 | 738 | 36.1 | 97.0 | 0 | 20.0 | 0 | 0 |

SVE System Monitoring Data

| Test Period | Reading Time | SVE Pressure | | Air Filter-1 Vacuum | | Air Filter-2 Vacuum | | Carbon Entranche Temperature | |
|-------------|--------------|-----------------------|---------|---------------------|-----------------------|---------------------|---------|------------------------------|------|
| | | (in H ₂ O) | (in Hg) | (in Hg) | (in H ₂ O) | (in Hg) | (in Hg) | (°F) | (°C) |
| Initial | 1220 | 0.06 | 2.0 | 2.0 | 4.0 | 4.0 | 117 | 47.2 | |
| 1-hr | 1320 | 0.06 | 2.0 | 2.0 | 4.0 | 4.0 | 118 | 47.8 | |
| 2-hr | 1420 | 0.06 | 2.0 | 2.0 | 4.5 | 4.5 | 118 | 47.8 | |

INLET-1 Monitoring Data

| Test Period | Reading Time | Vacuum | | Flow Rate (ft/min) | Temperature | | LEL (%) | O ₂ (%) | CO (ppm) | H ₂ S (ppm) |
|-------------|--------------|---------|-----------------------|--------------------|-------------|------|---------|--------------------|----------|------------------------|
| | | (in Hg) | (in H ₂ O) | | (°F) | (°C) | | | | |
| Initial | 1220 | 2.0 | 27.2 | 890 | 100 | 37.8 | 0 | 19.4 | 0 | 0 |
| 1-hr | 1320 | 2.0 | 27.2 | 977 | 101 | 38.3 | 0 | 19.4 | 0 | 0 |
| 2-hr | 1420 | 2.0 | 27.2 | 988 | 104 | 40.0 | 0 | 19.5 | 0 | 0 |

INLET-2 Monitoring Data

| Test Period | Reading Time | Pressure | | Flow Rate (ft/min) | Temperature | | LEL (%) | O ₂ (%) | CO (ppm) | H ₂ S (ppm) |
|-------------|--------------|----------|-----------------------|--------------------|-------------|------|---------|--------------------|----------|------------------------|
| | | (in Hg) | (in H ₂ O) | | (°F) | (°C) | | | | |
| Initial | 1220 | 0.6 | 8.0 | 4688 | 118 | 47.8 | 0 | 20.1 | 0 | 0 |
| 1-hr | 1320 | 0.6 | 8.0 | 4570 | 118 | 47.8 | 0 | 20.9 | 0 | 0 |
| 2-hr | 1420 | 0.6 | 8.0 | 4752 | 119 | 48.3 | 0 | 20.9 | 0 | 0 |

ATTACHMENT B

EXTRACTION WELL AB-19 MONITORING AND SAMPLING DATA
SVE INDIVIDUAL EXTRACTION WELL BASELINE TESTING - FEBRUARY 2017
PFIZER PHARMACEUTICALS LLC
BARCELONETA, PUERTO RICO

Well ID: AB-19
Date: 2/17/2017

OUTLET Monitoring Data

| Test Period | Reading Time | Pressure (in Hg) | Pressure (in H ₂ O) | Flow Rate (ft/min) | Temperature (°F) | Temperature (°C) | OVA (ppm) | LEL (%) | O ₂ (%) | CO (ppm) | H ₂ S (ppm) |
|-------------|--------------|------------------|--------------------------------|--------------------|------------------|------------------|-----------|---------|--------------------|----------|------------------------|
| Initial | 1220 | 0.0 | 0.0 | 2636 | 100 | 37.8 | 0.8 | 0 | 20.4 | 0 | 0 |
| 1-hr | 1320 | 0.0 | 0.0 | 2757 | 100 | 37.8 | 0.5 | 0 | 20.9 | 0 | 0 |
| 2-hr | 1420 | 0.0 | 0.0 | 2557 | 100 | 37.8 | 0.4 | 0 | 20.4 | 0 | 0 |

Extraction Well AB-19 Sample Collection Data

| Sample ID | Sampling Date | Sample Type | Time | Sampling Point Temperature (°F) | Ambient Temperature (°F) | Sampling Point Vacuum (in Hg) | Barometric Pressure (in Hg) |
|-----------|---------------|-------------|------|---------------------------------|--------------------------|-------------------------------|-----------------------------|
| AB-19 | 2/17/2017 | Grab | 1436 | 97.4 | 115.9 | 2.5 | 29.71 |

Notes:

- °F Degrees Fahrenheit
- in Hg Inches of Mercury
- % Percentage
- in H₂O Inches of water
- ft/min Feet per minute
- °C Degrees Celsius
- OVA Organic vapor analyzer
- ppm Parts per million
- LEL Lower explosive limit
- O₂ Oxygen
- CO Carbon monoxide
- H₂S Hydrogen sulfide

ATTACHMENT C

CHAIN OF CUSTODY DOCUMENTATION

**PFIZER BARCELONETA SVE BASELINE TESTING
OF INDIVIDUAL EXTRACTION WELLS
PFIZER PHARMACEUTICALS, LLC
BARCELONETA, PUERTO RICO
E175475**

TestAmerica Burlington
 30 Community Drive
 Suite 11

South Burlington, VT 05403
 phone 802-660-1990 fax 802-660-1919

Canister Samples Chain of Custody Record & TO-15 Field Test Data Sheet

TestAmerica Analytical Testing Corp. assumes no liability with respect to the collection and shipment of these samples.

| Client Contact Information | | Project Manager: Wanda Morales | | Carrier: FedEx | | 1 of 1 COCs | | | | | | | | | | |
|---|--|---------------------------------------|--------------------------|---|----------------------------|--|--------------|---------------------------------|-----------------|----------------------------------|-------------|--------------|----------------|--------------|--------------|--|
| Company: ERTEL PSC | | Phone: (807) 792-8902 | | Sampled By: Roberto De Jesus / Josue Maldonado | | Analysis Matrix | | | | | | | | | | |
| Address: Amar St 15 Pto. Lindero | | E-mail: wmorales@ertelpr.com | | | | Other (Please specify in notes section) | | | | | | | | | | |
| City/State/Zip: Rio Piedras, PR 00971 | | Site Contact: Wanda Morales | | | | Helium Prefill for High Methane (LF Gas) | | | | | | | | | | |
| Phone: (807) 792-8902 | | TA Contact: Don Dauspeck | | | | Landfill Gas | | | | | | | | | | |
| FAX: (807) 783-5555 | | Analysis Turnaround Time | | | | Soil Gas | | | | | | | | | | |
| Project Name: Parcer Barcojona | | Standard (Specify) | | | | Indoor/Ambient Air | | | | | | | | | | |
| Site: Barcojona, PR | | Rush (Specify) | | | | Other (Please specify in notes section) | | | | | | | | | | |
| PO # | | | | | | ASTM D-1946 | | | | | | | | | | |
| Sample Identification | | Sample Date(s) | Time Start (24 hr clock) | Time Stop (24 hr clock) | Interior Temp. (F) (Start) | Interior Temp. (F) (Stop) | Flow Reg. ID | Can ID | Can Size (L) | Flow Controller Readout (ml/min) | Can Cert ID | TO-15 | NJDEP LL-TO-15 | EPA 3C | EPA 25C | |
| AB-10 B | | 02/15/17 | | | 98.7 | | | | 5043 | | | X | X | X | X | |
| AB-10 B | | 02/15/17 | | | 98.7 | | | | 5043 | | | X | X | X | X | |
| <p>Special Instructions/QC Requirements & Comments: sample was collected on 02/15/17 & secure until delivery at FedEx on 02/16/17. RJB</p> | | | | | | | | | | | | | | | | |
| Canisters Shipped by: Roberto De Jesus | | Date/Time: 02/16/17 @ 1000 | | Canisters Received by: FedEx | | Date/Time: 02/16/17 @ 1000 | | GC/MS Analyst Signature (TO-15) | | | | | | | | |
| Samples Relinquished by: | | Date/Time: | | Received by: | | Date/Time: | | | | | | | | | | |
| Relinquished by: | | Date/Time: | | Received by: RJB | | Date/Time: 2/17/17 | | 1030 | | | | | | | | |

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Canister Samples Chain of Custody Record & TO-15 Field Test Data Sheet

TestAmerica Analytical Testing Corp. assumes no liability with respect to the collection and shipment of these samples.

| | | | | | | | |
|---|--|---|--|--|--|--|--|
| Client Contact Information Company: ERTEC, PSC Address: Annex St. 45 Rpto. Lombard City/State/Zip: Rio Piedras, PR 00971 Phone: (787) 797-8902 FAX: (787) 783-5555 Project Name: Perez Bar Coloneta Site: Bar Coloneta, PR PO # | | Project Manager: Wanda Morales Phone: (787) 797-8902 E-mail: wmorales@ertec.com Site Contact: Wanda Morales TA Contact: Don Walker | | Carrier: FedEx Sampled By: Roberto de Jesus Maldonado | | 1 of 1 COCs Analysis Matrix | |
| Analysis Turnaround Time Standard (Specify) <input checked="" type="checkbox"/> Rush (Specify) | | Incoming Canister Pressure ("Hg) (Lab) Outgoing Canister Pressure ("Hg) (Lab) Interior Temp. (F) (Start) 93.0 Interior Temp. (F) (Stop) | | Flow Reg. ID Can ID 4357 Can Size (L) Flow Controller Readout (ml/min) 798 02/15/17 | | Other (Please specify in notes section) ASTM D-1946 EPA 3C EPA 25C TO-15 NJDEP LL-TO-15 Other (Please specify in notes section) Indoor/Ambient Air Soil Gas Landfill Gas Helium Prefill for High Methane (LFG) | |
| B-4 Sample Date(s) 02/15/17 | | Canister Pressure in Field ("Hg) (Start) --- Canister Pressure in Field ("Hg) (Stop) | | Can ID --- Flow Reg. ID | | Can Cert ID | |
| Time Start (24 hr clock) 1556 Time Stop (24 hr clock) | | Rush (Specify) <input checked="" type="checkbox"/> | | Temperature (Fahrenheit) Ambient Maximum Ambient Minimum 102.0 | | GC/MS Analyst Signature (TO-15) | |
| Pressure (Inches of Hg) Ambient Maximum Ambient Minimum 29.71 | | Analysis Turnaround Time Standard (Specify) | | Rush (Specify) | | Special Instructions/QC Requirements & Comments: sample was collected on 02/15/17 secure until delivery at FedEx on 02/16/17. 798 | |
| Date/Time: 02/16/17 @ 1000 Date/Time: | | Date/Time: 02/16/17 @ 1000 Date/Time: | | Date/Time: 02/16/17 @ 1000 Date/Time: | | Date/Time: | |
| Date/Time: 02/16/17 @ 1000 Date/Time: | | Date/Time: | | Date/Time: | | Date/Time: | |

Lab Use Only Shipper Name: Condition:

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Canister Samples Chain of Custody Record & TO-15 Field Test Data Sheet

TestAmerica Analytical Testing Corp. assumes no liability with respect to the collection and shipment of these samples.

| Client Contact Information | | Project Manager: <i>Wanda Morales</i> | | Carrier: <i>FedEx</i> | | 1 of 1 COCs | |
|---|--|--|--|--|--|---|--|
| Company: <i>ERTEC, PSC</i> | | Phone: <i>(787) 792-8902</i> | | Sampled By: <i>R. De Jesus / J. McRanada</i> | | ANALYSIS: <i>Matrix</i> | |
| Address: <i>Aguas St AS Rpto Landrum</i> | | E-mail: <i>wmorales@ertes.psc.m</i> | | | | Other (Please specify in notes section) | |
| City/State/Zip: <i>R20 Piedra 5 P R 0072</i> | | Site Contact: <i>Wanda Morales</i> | | | | Helium Puff for High Methane (LF Gas) | |
| Phone: <i>(787) 792-8902</i> | | TA Contact: <i>704 2441000</i> | | | | Landfill Gas | |
| FAX: <i>(787) 793-5555</i> | | Analysis Turnaround Time | | | | Soil Gas | |
| Project Name: <i>Proxer Barajoneta</i> | | Standard (Specify) <input checked="" type="checkbox"/> | | | | Indoor/Ambient Air | |
| Site: <i>Barajoneta, PR</i> | | Rush (Specify) | | | | Other (Please specify in notes section) | |
| PO # | | | | | | ASTM D-1946 | |
| Sample Identification | | Time Start (24 hr clock) | | Interior Temp. (F) (Start) | | EPA 3C | |
| <i>AB-23</i> | | <i>02/16/17 12:21</i> | | <i>77.5</i> | | EPA 25C | |
| | | <i>79 B</i> | | | | NJDEP LL-TO-15 | |
| | | <i>02/16/17</i> | | | | TO-15 | |
| | | | | | | Can Cert ID | |
| | | | | | | Flow Reg. ID | |
| | | | | | | Can ID | |
| | | | | | | Can Size (L) | |
| | | | | | | Flow Controller Readout (ml/min) | |
| | | | | | | Incoming Canister Pressure ("Hg) (Lab) | |
| | | | | | | Outgoing Canister Pressure ("Hg) (Lab) | |
| | | | | | | GC/MS Analyst Signature (TO-15) | |
| Temperature (Fahrenheit) | | Maximum | | Minimum | | | |
| Start | | <i>114.8</i> | | | | | |
| Stop | | | | | | | |
| Pressure (Inches of Hg) | | Maximum | | Minimum | | | |
| Start | | <i>29.80</i> | | | | | |
| Stop | | | | | | | |
| Special Instructions/QC Requirements & Comments: <i>sample was collected on 02/16/17 and secure until shipment @ FedEx on 02/17/17. RJB</i> | | | | | | | |
| Canisters Shipped by: <i>Robert de Jesus</i> | | Date/Time: <i>02/17/17 @ 1700</i> | | Canisters Received by: <i>FedEx</i> | | Date/Time: <i>02/17/17 @ 1700</i> | |
| Samples Relinquished by: | | Date/Time: | | Received by: <i>RJB</i> | | Date/Time: <i>2/18/17 1010</i> | |
| Relinquished by: | | Date/Time: | | Received by: | | Date/Time: | |

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Canister Samples Chain of Custody Record & TO-15 Field Test Data Sheet

TestAmerica Analytical Testing Corp. assumes no liability with respect to the collection and shipment of these samples.

| Client Contact Information | | Project Manager: <u>Wanda Morales</u> | | Carrier: <u>FedEx</u> | | 1 of 1 COCs | | | | | | | | | |
|--|-----------------|---------------------------------------|-------------------------|---|---------------------------|--|---|--|--|--------------|-------------|--------------|----------------------------------|--------------|---------------------------------|
| Company: <u>ERTEC, PSC</u> | | Phone: <u>(877) 792-8902</u> | | Sampled By: <u>R. De Jesus / J. Maldonado</u> | | Analysis Matrix | | | | | | | | | |
| Address: <u>Route 45 P.O. Box 1000</u> | | E-mail: <u>wmorales@ertecpr.com</u> | | | | Helium Prefill for High Methane (LF Gas) | | | | | | | | | |
| City/State/Zip: <u>PO Pedras PR 00921</u> | | Site Contact: <u>Wanda Morales</u> | | | | Landfill Gas | | | | | | | | | |
| Phone: <u>(787) 792-8902</u> | | TA Contact: <u>Don Dalgado</u> | | | | Soil Gas | | | | | | | | | |
| FAX: <u>(787) 783-5555</u> | | | | | | Indoor/Ambient Air | | | | | | | | | |
| Project Name: <u>San Juan Botanical</u> | | Analysis Turnaround Time | | | | Other (Please specify in notes section) | | | | | | | | | |
| Site: <u>San Juan Botanical</u> | | Standard (Specify) | | | | ASTM D-1946 | | | | | | | | | |
| PO # | | Rush (Specify) | | | | EPA 25C | | | | | | | | | |
| | | | | | | EPA 3C | | | | | | | | | |
| | | | | | | NJ DEP LL-TO-15 | | | | | | | | | |
| | | | | | | TO-15 | | | | | | | | | |
| Sample Identification | Sample Date(s) | Time Start (24 hr clock) | Time Stop (24 hr clock) | Interior Temp. (F) (Start) | Interior Temp. (F) (Stop) | Canister Pressure in Field (Psi) (Start) | Canister Pressure in Field (Psi) (Stop) | Incoming Canister Pressure (Psi) (Lab) | Outgoing Canister Pressure (Psi) (Lab) | Flow Reg. ID | Can ID | Can Size (L) | Flow Controller Readout (ml/min) | Can Cert. ID | GC/MS Analyst Signature (TO-15) |
| <u>AB-21</u> | <u>02/16/17</u> | <u>1500</u> | <u>---</u> | <u>898</u> | <u>---</u> | <u>---</u> | <u>---</u> | <u>---</u> | <u>---</u> | <u>---</u> | <u>3486</u> | <u>6</u> | <u>---</u> | <u>---</u> | <u>---</u> |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| Special Instructions/QC Requirements & Comments: <u>sample was collected on 02/16/17 and secure with shipment @ FedEx on 02/17/17. RJB</u> | | | | | | | | | | | | | | | |
| Canisters Shipped by: <u>Robert De Jesus</u> | | Date/Time: <u>02/17/17 @ 1700</u> | | Canisters Received by: <u>FedEx</u> | | Date/Time: <u>02/17/17 @ 1700</u> | | | | | | | | | |
| Samples Relinquished by: | | Date/Time: | | Received by: <u>[Signature]</u> | | Date/Time: <u>2/18/17 10:10</u> | | | | | | | | | |
| Relinquished by: | | Date/Time: | | Received by: | | Date/Time: | | | | | | | | | |

Lab Use Only Shipper Name: _____ Condition: _____

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Canister Samples Chain of Custody Record & TO-15 Field Test Data Sheet

TestAmerica Analytical Testing Corp. assumes no liability with respect to the collection and shipment of these samples.

| Client Contact Information | | | | | Carrier: FedEx | | | | 1 of 1 COCS | | |
|--------------------------------------|--|---------------------------------------|--|---|-----------------------|------------------------------------|--|-----------------------------------|-------------|--|--|
| Company: ERTEC, PSC | | Project Manager: Wanda Morales | | Sampled By: R. De Jesus / S. Maldonado | | | | Analysis Matrix | | | |
| Address: St. Asen. Landrum | | Phone: (787) 792-8902 | | E-mail: wmorales@ertecpr.com | | | | | | | |
| City/State/Zip: PR 00921 | | Site Contact: Wanda Morales | | TA Contact: Don Pardo | | | | | | | |
| Phone: (787) 792-8902 | | Analysis Turnaround Time | | Standard (Specify) | | | | | | | |
| FAX: (787) 783-5155 | | Rush (Specify) | | ✓ | | | | | | | |
| Project Name: PAPER BARCELONA | | Canister Pressure in Field (Start) | | Canister Pressure in Field (Stop) | | Interior Temp. (Start) | | Interior Temp. (Stop) | | TO-15 | |
| Site: BARCELONA, PR | | Time Start (24 hr clock) | | Time Stop (24 hr clock) | | Interior Temp. (Start) | | Interior Temp. (Stop) | | EPA 3C | |
| PO # | | Sample Date(s) | | | | Canister Pressure in Field (Start) | | Canister Pressure in Field (Stop) | | EPA 25C | |
| | | 02/17/17 | | 02/17/17 | | 96.7 | | | | NJD 92.10-15 | |
| | | 02/17/17 | | 02/17/17 | | --- | | --- | | ASTM D-1946 | |
| | | 02/17/17 | | 02/17/17 | | --- | | --- | | Other (Please specify in notes section) | |
| | | 02/17/17 | | 02/17/17 | | --- | | --- | | Helium Prefill for High Methane (LF Gas) | |
| | | 02/17/17 | | 02/17/17 | | --- | | --- | | Landfill Gas | |
| | | 02/17/17 | | 02/17/17 | | --- | | --- | | Soil Gas | |
| | | 02/17/17 | | 02/17/17 | | --- | | --- | | Indoor Ambient Air | |

| Temperature (Fahrenheit) | | GC/MS Analyst Signature (TO-15) | |
|--------------------------|---------|---------------------------------|--|
| Ambient | Maximum | <i>(Signature)</i> | |
| Start | 113.4 | | |
| Stop | | | |
| Pressure (Inches of Hg) | | | |
| Ambient | Maximum | | |
| Start | 29.80 | | |
| Stop | | | |

Special Instructions/QC Requirements & Comments:

200-37422 Chain of Custody

| | | | |
|---|-----------------------------------|-------------------------------------|-----------------------------------|
| Canisters Shipped by: ROBERTO DE JESUS | Date/Time: 02/17/17 @ 1700 | Canisters Received by: FedEx | Date/Time: 02/17/17 @ 1700 |
| Samples Relinquished by: | Date/Time: | Received by: <i>(Signature)</i> | Date/Time: 2/18/17 1010 |
| Relinquished by: | Date/Time: | Received by: | Date/Time: |

| | | | |
|--------------|--------------|-----------|-----------|
| Lab Use Only | Shipped Name | Opened By | Condition |
|--------------|--------------|-----------|-----------|

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Canister Samples Chain of Custody Record & TO-15 Field Test Data Sheet

TestAmerica Analytical Testing Corp. assumes no liability with respect to the collection and shipment of these samples.

| | | | |
|---|---------------------------------------|---|--|
| Client Contact Information | Project Manager: <u>Wanda Morales</u> | Carrier: <u>FedEx</u> | 1 of 7 COCs |
| Company: <u>ERTEC, PSC</u> | Phone: <u>(887) 992-8902</u> | Sampled By: <u>R. de Jesus / J. Maldonado</u> | Analysis Matrix |
| Address: <u>St. AS Rt. 6, Cambridge</u> | E-mail: <u>wmorales@ertecpr.com</u> | | |
| City/State/Zip: <u>San Juan, PR 00924</u> | Site Contact: <u>Wanda Morales</u> | | TO-15 |
| Phone: <u>(887) 992-8902</u> | TA Contact: <u>Don Tappecker</u> | | NJDEP LL-TO-15 |
| FAX: <u>(887) 983-5555</u> | | | EPA 3C |
| Project Name: <u>ROPER BOA OLONDA</u> | | | EPA 25C |
| Site: <u>San Juan, PR</u> | | | ASTM D-1946 |
| PO # | | | Other (Please specify in notes section) |
| | | | Indoor/Ambient Air |
| | | | Soil Gas |
| | | | Landfill Gas |
| | | | Helium Prefill for High Methane (LF Gas) |
| | | | Other (Please specify in notes section) |

| | | | | | | | | | | | | |
|-----------------------|-----------------|--------------------------|-------------------------|----------------------------|---------------------------|--|--|--------------|-------------|--------------|----------------------------------|-------------|
| Sample Identification | Sample Date(s) | Time Start (24 hr clock) | Time Stop (24 hr clock) | Interior Temp. (F) (Start) | Interior Temp. (F) (Stop) | Outgoing Canister Pressure ("Hg) (Lab) | Incoming Canister Pressure ("Hg) (Lab) | Flow Reg. ID | Can ID | Can Size (L) | Flow Controller Readout (ml/min) | Can Cert ID |
| <u>AB-19</u> | <u>02/17/17</u> | <u>1436</u> | <u>1436</u> | <u>97.4</u> | <u>---</u> | <u>---</u> | <u>---</u> | <u>---</u> | <u>3286</u> | <u>6</u> | <u>---</u> | <u>---</u> |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |

| | |
|--------------------------|------------|
| Temperature (Fahrenheit) | |
| Maximum | Minimum |
| <u>---</u> | <u>---</u> |
| Pressure (Inches of Hg) | |
| Maximum | Minimum |
| <u>---</u> | <u>---</u> |

GC/MS Analyst Signature (TO-15)

Special Instructions/QC Requirements & Comments:

| | | | |
|--------------------------|------------------------|------------------------|------------------------|
| Canisters Shipped by: | Date/Time: | Canisters Received by: | Date/Time: |
| <u>Roberto de Jesus</u> | <u>02/17/17 @ 1700</u> | <u>FedEx</u> | <u>02/17/17 @ 1700</u> |
| Samples Relinquished by: | Date/Time: | Received by: | Date/Time: |
| | | <u>[Signature]</u> | <u>2/18/17 1010</u> |
| Relinquished by: | Date/Time: | Received by: | Date/Time: |
| | | | |

Lab Use Only / Shipped Name / Condition

ATTACHMENT D

TABULATED ANALYTICAL RESULTS

**PFIZER BARCELONETA SVE BASELINE TESTING
OF INDIVIDUAL EXTRACTION WELLS
PFIZER PHARMACEUTICALS, LLC
BARCELONETA, PUERTO RICO
E175475**

ATTACHMENT D

EXTRACTION WELLS TESTING ANALYTICAL RESULTS
 SVE INDIVIDUAL WELLS BASELINE TESTING - FEBRUARY 2017
 PFIZER PHARMACEUTICALS LLC
 BARCELONETA, PUERTO RICO

| Sample ID: | B-1 | AB-10B | B-4 | AB-23 | AB-21 | AB-10 | AB-19 |
|-------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Date: | 2/14/2017 | 2/15/2017 | 2/15/2017 | 2/16/2017 | 2/16/2017 | 2/17/2017 | 2/17/2017 |
| VOCs (EPA Method TO-15) | (ppbv) | (ppbv) | (ppbv) | (ppbv) | (ppbv) | (ppbv) | (ppbv) |
| Acetone | 260000U | 280000U | 39000U | 8400U | 110 | 9.1J | 20 |
| Isopropyl alcohol | 260000U | 280000U | 39000U | 8400U | 6.1J | 10U | 23 |
| Methylene chloride | 26000U | 28000U | 3900U | 840U | 25 | 4.9 | 11 |
| n-Hexane | 10000U | 11000U | 1600U | 340U | 0.60U | 0.40U | 0.23J |
| Chloroform | 10000U | 11000U | 1600U | 340U | 0.60U | 54 | 50 |
| Tetrahydrofuran | 1300000 | 1500000 | 170000 | 59000 | 120E | 9.4J | 2.5J |
| Benzene | 19000 | 42000 | 3700 | 340U | 2.4 | 1.4 | 0.26J |
| Toluene | 590000 | 11000U | 39000 | 340U | 15 | 0.67 | 4.3 |
| Chlorobenzene | 10000U | 11000U | 1600U | 340U | 0.60U | 0.40U | 0.30U |
| Ethylbenzene | 170000 | 11000U | 15000 | 340U | 2.8 | 0.19J | 0.26J |
| m,p-Xylene | 1000000 | 28000U | 69000 | 840U | 13 | 1.6 | 1.5 |
| o-Xylene | 190000 | 11000U | 10000 | 340U | 2.5 | 0.47 | 0.37 |
| Xylene (total) | 1200000 | 39000U | 79000 | 1200U | 16 | 2.1 | 1.9 |
| Methyl iodide | ND | ND | ND | ND | ND | ND | ND |

Notes:

- ppbv Parts per billion per volume.
- U Indicates the analyte was analyzed for but not detected.
- E Result exceeded calibration range.
- J Result is less than the Reporting Limit (RL), but greater than or equal to the Method Detection Limit (MDL) and the concentration is an approximate value.

ATTACHMENT E

LABORATORY ANALYTICAL REPORT

**PFIZER BARCELONETA SVE BASELINE TESTING
OF INDIVIDUAL EXTRACTION WELLS
PFIZER PHARMACEUTICALS, LLC
BARCELONETA, PUERTO RICO
E175475**

ANALYTICAL REPORT

Job Number: 200-37412-1

SDG Number: 200-37412-1

Job Description: Pfizer Barceloneta SVE Wells

For:

Ertec

Amur St. A-#5

Reparto Landrau

Rio Piedras, PR 00921

Attention: Mrs. Wanda I Morales



Approved for release.
Kathryn A. Kelly
Project Manager I
3/9/2017 2:23 PM

Designee for

Don C Dawicki, Manager of Project Management
30 Community Drive, South Burlington, VT, 05403

(802)660-1990

don.dawicki@testamericainc.com

03/09/2017

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

TestAmerica Laboratories, Inc.

TestAmerica Burlington 30 Community Drive, Suite 11, South Burlington, VT 05403

Tel (802) 660-1990 Fax (802) 660-1919 www.testamericainc.com

CASE NARRATIVE

Client: Ertec

Project: Pfizer Barceloneta SVE Wells

Report Number: 200-37412-1

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 02/17/2017 and 02/18/2017; the samples arrived in good condition.

VOLATILE ORGANIC COMPOUNDS

Samples B-1, AB-10, AB-10B, AB-23, B-4, AB-19 and AB-21 were analyzed for Volatile Organic Compounds in accordance with EPA Method TO-15. The samples were analyzed on 03/04/2017 and 03/06/2017.

The laboratory control sample (LCS) for analytical batch 200-114285 recovered outside control limits for Acetone. The analyte was biased high in the LCS and was not detected in the associated samples; therefore, the data have been reported.

Samples AB-10[2X], B-1[51400X], AB-23[1680X], AB-10B[56200X], AB-19[1.5X], B-4[7870X] and AB-21[2.99X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

Methyl iodide was evaluated as a TIC in this sample set and was not detected.

The concentration of Tetrahydrofuran in sample AB-21 marginally exceeded the calibration range of the instrument.

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

EXECUTIVE SUMMARY - Detections

Client: Ertec

Job Number: 200-37412-1

Sdg Number: 200-37412-1

| Lab Sample ID Analyte | Client Sample ID | Result | Qualifier | Reporting Limit | Units | Method |
|--------------------------|------------------|---------|-----------|--------------------|---------|--------|
| 200-37412-1 | B-1 | | | | | |
| Tetrahydrofuran | | 1300000 | | 260000 | ppb v/v | TO-15 |
| Tetrahydrofuran | | 3900000 | | 760000 | ug/m3 | TO-15 |
| Benzene | | 19000 | | 10000 | ppb v/v | TO-15 |
| Benzene | | 62000 | | 33000 | ug/m3 | TO-15 |
| Toluene | | 590000 | | 10000 | ppb v/v | TO-15 |
| Toluene | | 2200000 | | 39000 | ug/m3 | TO-15 |
| Ethylbenzene | | 170000 | | 10000 | ppb v/v | TO-15 |
| Ethylbenzene | | 740000 | | 45000 | ug/m3 | TO-15 |
| m,p-Xylene | | 1000000 | | 26000 | ppb v/v | TO-15 |
| m,p-Xylene | | 4400000 | | 110000 | ug/m3 | TO-15 |
| Xylene, o- | | 190000 | | 10000 | ppb v/v | TO-15 |
| Xylene, o- | | 820000 | | 45000 | ug/m3 | TO-15 |
| Xylene (total) | | 1200000 | | 36000 | ppb v/v | TO-15 |
| Xylene (total) | | 5200000 | | 160000 | ug/m3 | TO-15 |
| 200-37412-2 | AB-10B | | | | | |
| Tetrahydrofuran | | 1500000 | | 280000 | ppb v/v | TO-15 |
| Tetrahydrofuran | | 4300000 | | 830000 | ug/m3 | TO-15 |
| Benzene | | 42000 | | 11000 | ppb v/v | TO-15 |
| Benzene | | 130000 | | 36000 | ug/m3 | TO-15 |
| 200-37412-3 | B-4 | | | | | |
| Tetrahydrofuran | | 170000 | | 39000 | ppb v/v | TO-15 |
| Tetrahydrofuran | | 490000 | | 120000 | ug/m3 | TO-15 |
| Benzene | | 3700 | | 1600 | ppb v/v | TO-15 |
| Benzene | | 12000 | | 5000 | ug/m3 | TO-15 |
| Toluene | | 39000 | | 1600 | ppb v/v | TO-15 |
| Toluene | | 150000 | | 5900 | ug/m3 | TO-15 |
| Ethylbenzene | | 15000 | | 1600 | ppb v/v | TO-15 |
| Ethylbenzene | | 65000 | | 6800 | ug/m3 | TO-15 |
| m,p-Xylene | | 69000 | | 3900 | ppb v/v | TO-15 |
| m,p-Xylene | | 300000 | | 17000 | ug/m3 | TO-15 |
| Xylene, o- | | 10000 | | 1600 | ppb v/v | TO-15 |
| Xylene, o- | | 45000 | | 6800 | ug/m3 | TO-15 |
| Xylene (total) | | 79000 | | 5500 | ppb v/v | TO-15 |
| Xylene (total) | | 340000 | | 24000 | ug/m3 | TO-15 |

EXECUTIVE SUMMARY - Detections

Client: Ertec

Job Number: 200-37412-1
Sdg Number: 200-37412-1

| Lab Sample ID Analyte | Client Sample ID | Result | Qualifier | Reporting Limit | Units | Method |
|--------------------------|------------------|--------|-----------|--------------------|---------|--------|
| 200-37422-1 | AB-10 | | | | | |
| Acetone | | 9.1 | J | 10 | ppb v/v | TO-15 |
| Acetone | | 22 | J | 24 | ug/m3 | TO-15 |
| Methylene Chloride | | 4.9 | | 1.0 | ppb v/v | TO-15 |
| Methylene Chloride | | 17 | | 3.5 | ug/m3 | TO-15 |
| Chloroform | | 54 | | 0.40 | ppb v/v | TO-15 |
| Chloroform | | 260 | | 2.0 | ug/m3 | TO-15 |
| Tetrahydrofuran | | 9.4 | J | 10 | ppb v/v | TO-15 |
| Tetrahydrofuran | | 28 | J | 29 | ug/m3 | TO-15 |
| Benzene | | 1.4 | | 0.40 | ppb v/v | TO-15 |
| Benzene | | 4.6 | | 1.3 | ug/m3 | TO-15 |
| Toluene | | 0.67 | | 0.40 | ppb v/v | TO-15 |
| Toluene | | 2.5 | | 1.5 | ug/m3 | TO-15 |
| Ethylbenzene | | 0.19 | J | 0.40 | ppb v/v | TO-15 |
| Ethylbenzene | | 0.82 | J | 1.7 | ug/m3 | TO-15 |
| m,p-Xylene | | 1.6 | | 1.0 | ppb v/v | TO-15 |
| m,p-Xylene | | 6.7 | | 4.3 | ug/m3 | TO-15 |
| Xylene, o- | | 0.47 | | 0.40 | ppb v/v | TO-15 |
| Xylene, o- | | 2.1 | | 1.7 | ug/m3 | TO-15 |
| Xylene (total) | | 2.1 | | 1.4 | ppb v/v | TO-15 |
| Xylene (total) | | 9.0 | | 6.1 | ug/m3 | TO-15 |
| 200-37422-2 | AB-23 | | | | | |
| Tetrahydrofuran | | 59000 | | 8400 | ppb v/v | TO-15 |
| Tetrahydrofuran | | 170000 | | 25000 | ug/m3 | TO-15 |

EXECUTIVE SUMMARY - Detections

Client: Ertec

Job Number: 200-37412-1

Sdg Number: 200-37412-1

| Lab Sample ID Analyte | Client Sample ID | Result | Qualifier | Reporting Limit | Units | Method |
|--------------------------|------------------|--------|-----------|--------------------|---------|--------|
| 200-37422-3 | AB-19 | | | | | |
| Acetone | | 20 | | 7.5 | ppb v/v | TO-15 |
| Acetone | | 49 | | 18 | ug/m3 | TO-15 |
| Isopropyl alcohol | | 23 | | 7.5 | ppb v/v | TO-15 |
| Isopropyl alcohol | | 56 | | 18 | ug/m3 | TO-15 |
| Methylene Chloride | | 11 | | 0.75 | ppb v/v | TO-15 |
| Methylene Chloride | | 39 | | 2.6 | ug/m3 | TO-15 |
| n-Hexane | | 0.23 | J | 0.30 | ppb v/v | TO-15 |
| n-Hexane | | 0.79 | J | 1.1 | ug/m3 | TO-15 |
| Chloroform | | 50 | | 0.30 | ppb v/v | TO-15 |
| Chloroform | | 240 | | 1.5 | ug/m3 | TO-15 |
| Tetrahydrofuran | | 2.5 | J | 7.5 | ppb v/v | TO-15 |
| Tetrahydrofuran | | 7.3 | J | 22 | ug/m3 | TO-15 |
| Benzene | | 0.26 | J | 0.30 | ppb v/v | TO-15 |
| Benzene | | 0.82 | J | 0.96 | ug/m3 | TO-15 |
| Toluene | | 4.3 | | 0.30 | ppb v/v | TO-15 |
| Toluene | | 16 | | 1.1 | ug/m3 | TO-15 |
| Ethylbenzene | | 0.26 | J | 0.30 | ppb v/v | TO-15 |
| Ethylbenzene | | 1.1 | J | 1.3 | ug/m3 | TO-15 |
| m,p-Xylene | | 1.5 | | 0.75 | ppb v/v | TO-15 |
| m,p-Xylene | | 6.4 | | 3.3 | ug/m3 | TO-15 |
| Xylene, o- | | 0.37 | | 0.30 | ppb v/v | TO-15 |
| Xylene, o- | | 1.6 | | 1.3 | ug/m3 | TO-15 |
| Xylene (total) | | 1.9 | | 1.1 | ppb v/v | TO-15 |
| Xylene (total) | | 8.1 | | 4.6 | ug/m3 | TO-15 |

EXECUTIVE SUMMARY - Detections

Client: Ertec

Job Number: 200-37412-1
Sdg Number: 200-37412-1

| Lab Sample ID Analyte | Client Sample ID | Result | Qualifier | Reporting Limit | Units | Method |
|--------------------------|------------------|--------|-----------|--------------------|---------|--------|
| 200-37422-4 | AB-21 | | | | | |
| Acetone | | 110 | | 15 | ppb v/v | TO-15 |
| Acetone | | 260 | | 36 | ug/m3 | TO-15 |
| Isopropyl alcohol | | 6.1 | J | 15 | ppb v/v | TO-15 |
| Isopropyl alcohol | | 15 | J | 37 | ug/m3 | TO-15 |
| Methylene Chloride | | 25 | | 1.5 | ppb v/v | TO-15 |
| Methylene Chloride | | 86 | | 5.2 | ug/m3 | TO-15 |
| Tetrahydrofuran | | 120 | E | 15 | ppb v/v | TO-15 |
| Tetrahydrofuran | | 350 | E | 44 | ug/m3 | TO-15 |
| Benzene | | 2.4 | | 0.60 | ppb v/v | TO-15 |
| Benzene | | 7.6 | | 1.9 | ug/m3 | TO-15 |
| Toluene | | 15 | | 0.60 | ppb v/v | TO-15 |
| Toluene | | 56 | | 2.3 | ug/m3 | TO-15 |
| Ethylbenzene | | 2.8 | | 0.60 | ppb v/v | TO-15 |
| Ethylbenzene | | 12 | | 2.6 | ug/m3 | TO-15 |
| m,p-Xylene | | 13 | | 1.5 | ppb v/v | TO-15 |
| m,p-Xylene | | 58 | | 6.5 | ug/m3 | TO-15 |
| Xylene, o- | | 2.5 | | 0.60 | ppb v/v | TO-15 |
| Xylene, o- | | 11 | | 2.6 | ug/m3 | TO-15 |
| Xylene (total) | | 16 | | 2.1 | ppb v/v | TO-15 |
| Xylene (total) | | 67 | | 9.1 | ug/m3 | TO-15 |

METHOD SUMMARY

Client: Ertec

Job Number: 200-37412-1
Sdg Number: 200-37412-1

| Description | Lab Location | Method | Preparation Method |
|--|--------------------|-----------|--------------------|
| Matrix: Air | | | |
| Volatile Organic Compounds in Ambient Air Collection via Summa Canister | TAL BUR TAL BUR | EPA TO-15 | Summa Canister |

Lab References:

TAL BUR = TestAmerica Burlington

Method References:

EPA = US Environmental Protection Agency

METHOD / ANALYST SUMMARY

Client: Ertec

Job Number: 200-37412-1
Sdg Number: 200-37412-1

| Method | Analyst | Analyst ID |
|---------------|-----------------------|-------------------|
| EPA TO-15 | Desjardins, William R | WRD |
| EPA TO-15 | Mahesee, Pucharat 1 | P1M |

SAMPLE SUMMARY

Client: Ertec

Job Number: 200-37412-1
Sdg Number: 200-37412-1

| Lab Sample ID | Client Sample ID | Client Matrix | Date/Time Sampled | Date/Time Received |
|----------------------|-------------------------|----------------------|------------------------------|-------------------------------|
| 200-37412-1 | B-1 | Air | 02/14/2017 1329 | 02/17/2017 1030 |
| 200-37412-2 | AB-10B | Air | 02/15/2017 1310 | 02/17/2017 1030 |
| 200-37412-3 | B-4 | Air | 02/15/2017 1556 | 02/17/2017 1030 |
| 200-37422-1 | AB-10 | Air | 02/17/2017 1201 | 02/18/2017 1010 |
| 200-37422-2 | AB-23 | Air | 02/16/2017 1221 | 02/18/2017 1010 |
| 200-37422-3 | AB-19 | Air | 02/17/2017 1436 | 02/18/2017 1010 |
| 200-37422-4 | AB-21 | Air | 02/16/2017 1500 | 02/18/2017 1010 |

SAMPLE RESULTS

Analytical Data

Client: Ertec

Job Number: 200-37412-1

Sdg Number: 200-37412-1

Client Sample ID: B-1

Lab Sample ID: 200-37412-1

Date Sampled: 02/14/2017 1329

Client Matrix: Air

Date Received: 02/17/2017 1030

TO-15 Volatile Organic Compounds in Ambient Air

| | | | |
|--------------------------------|----------------------------|------------------------------|--|
| Analysis Method: TO-15 | Analysis Batch: 200-114595 | Instrument ID: CHB.i | |
| Prep Method: Summa Canister | Prep Batch: N/A | Lab File ID: 24174-26.D | |
| Dilution: 51400 | | Initial Weight/Volume: 40 mL | |
| Analysis Date: 03/04/2017 1149 | | Final Weight/Volume: 200 mL | |
| Prep Date: 03/04/2017 1149 | | Injection Volume: 200 mL | |

| Analyte | Result (ppb v/v) | Qualifier | MDL | RL |
|--------------------|------------------|-----------|-------|--------|
| Acetone | 260000 | U | 67000 | 260000 |
| Isopropyl alcohol | 260000 | U | 6700 | 260000 |
| Methylene Chloride | 26000 | U | 3500 | 26000 |
| n-Hexane | 10000 | U | 2400 | 10000 |
| Chloroform | 10000 | U | 1300 | 10000 |
| Tetrahydrofuran | 1300000 | | 62000 | 260000 |
| Benzene | 19000 | | 1400 | 10000 |
| Toluene | 590000 | | 1800 | 10000 |
| Chlorobenzene | 10000 | U | 1300 | 10000 |
| Ethylbenzene | 170000 | | 1700 | 10000 |
| m,p-Xylene | 1000000 | | 4000 | 26000 |
| Xylene, o- | 190000 | | 2100 | 10000 |
| Xylene (total) | 1200000 | | 2100 | 36000 |

| Analyte | Result (ug/m3) | Qualifier | MDL | RL |
|--------------------|----------------|-----------|--------|--------|
| Acetone | 610000 | U | 160000 | 610000 |
| Isopropyl alcohol | 630000 | U | 16000 | 630000 |
| Methylene Chloride | 89000 | U | 12000 | 89000 |
| n-Hexane | 36000 | U | 8300 | 36000 |
| Chloroform | 50000 | U | 6300 | 50000 |
| Tetrahydrofuran | 3900000 | | 180000 | 760000 |
| Benzene | 62000 | | 4600 | 33000 |
| Toluene | 2200000 | | 6800 | 39000 |
| Chlorobenzene | 47000 | U | 5900 | 47000 |
| Ethylbenzene | 740000 | | 7600 | 45000 |
| m,p-Xylene | 4400000 | | 17000 | 110000 |
| Xylene, o- | 820000 | | 8900 | 45000 |
| Xylene (total) | 5200000 | | 8900 | 160000 |

Analytical Data

Client: Ertec

Job Number: 200-37412-1

Sdg Number: 200-37412-1

Client Sample ID: B-1

Lab Sample ID: 200-37412-1

Date Sampled: 02/14/2017 1329

Client Matrix: Air

Date Received: 02/17/2017 1030

TO-15 Volatile Organic Compounds in Ambient Air

| | | | | | |
|------------------|-----------------|-----------------|------------|------------------------|------------|
| Analysis Method: | TO-15 | Analysis Batch: | 200-114595 | Instrument ID: | CHB.i |
| Prep Method: | Summa Canister | Prep Batch: | N/A | Lab File ID: | 24174-26.D |
| Dilution: | 51400 | | | Initial Weight/Volume: | 40 mL |
| Analysis Date: | 03/04/2017 1149 | | | Final Weight/Volume: | 200 mL |
| Prep Date: | 03/04/2017 1149 | | | Injection Volume: | 200 mL |

Tentatively Identified Compounds

Number TIC's Found: 0

| Cas Number | Analyte | RT | Est. Result (ppb v/v) | Qualifier |
|------------|---------------------------------|----|-----------------------|-----------|
| | Tentatively Identified Compound | | None | |

Analytical Data

Client: Ertec

Job Number: 200-37412-1

Sdg Number: 200-37412-1

Client Sample ID: AB-10B

Lab Sample ID: 200-37412-2

Date Sampled: 02/15/2017 1310

Client Matrix: Air

Date Received: 02/17/2017 1030

TO-15 Volatile Organic Compounds in Ambient Air

| | | |
|--------------------------------|----------------------------|------------------------------|
| Analysis Method: TO-15 | Analysis Batch: 200-114630 | Instrument ID: CHB.i |
| Prep Method: Summa Canister | Prep Batch: N/A | Lab File ID: 24189-07.D |
| Dilution: 56200 | | Initial Weight/Volume: 28 mL |
| Analysis Date: 03/06/2017 1632 | | Final Weight/Volume: 200 mL |
| Prep Date: 03/06/2017 1632 | | Injection Volume: 200 mL |

| Analyte | Result (ppb v/v) | Qualifier | MDL | RL |
|--------------------|------------------|-----------|-------|--------|
| Acetone | 280000 | U | 73000 | 280000 |
| Isopropyl alcohol | 280000 | U | 7300 | 280000 |
| Methylene Chloride | 28000 | U | 3800 | 28000 |
| n-Hexane | 11000 | U | 2600 | 11000 |
| Chloroform | 11000 | U | 1400 | 11000 |
| Tetrahydrofuran | 1500000 | | 67000 | 280000 |
| Benzene | 42000 | | 1600 | 11000 |
| Toluene | 11000 | U | 2000 | 11000 |
| Chlorobenzene | 11000 | U | 1400 | 11000 |
| Ethylbenzene | 11000 | U | 1900 | 11000 |
| m,p-Xylene | 28000 | U | 4300 | 28000 |
| Xylene, o- | 11000 | U | 2200 | 11000 |
| Xylene (total) | 39000 | U | 2200 | 39000 |

| Analyte | Result (ug/m3) | Qualifier | MDL | RL |
|--------------------|----------------|-----------|--------|--------|
| Acetone | 670000 | U | 170000 | 670000 |
| Isopropyl alcohol | 690000 | U | 18000 | 690000 |
| Methylene Chloride | 98000 | U | 13000 | 98000 |
| n-Hexane | 40000 | U | 9100 | 40000 |
| Chloroform | 55000 | U | 6900 | 55000 |
| Tetrahydrofuran | 4300000 | | 200000 | 830000 |
| Benzene | 130000 | | 5000 | 36000 |
| Toluene | 42000 | U | 7400 | 42000 |
| Chlorobenzene | 52000 | U | 6500 | 52000 |
| Ethylbenzene | 49000 | U | 8300 | 49000 |
| m,p-Xylene | 120000 | U | 19000 | 120000 |
| Xylene, o- | 49000 | U | 9800 | 49000 |
| Xylene (total) | 170000 | U | 9800 | 170000 |

Analytical Data

Client: Ertec

Job Number: 200-37412-1

Sdg Number: 200-37412-1

Client Sample ID: AB-10B

Lab Sample ID: 200-37412-2

Client Matrix: Air

Date Sampled: 02/15/2017 1310

Date Received: 02/17/2017 1030

TO-15 Volatile Organic Compounds in Ambient Air

| | | | | | |
|------------------|-----------------|-----------------|------------|------------------------|------------|
| Analysis Method: | TO-15 | Analysis Batch: | 200-114630 | Instrument ID: | CHB.i |
| Prep Method: | Summa Canister | Prep Batch: | N/A | Lab File ID: | 24189-07.D |
| Dilution: | 56200 | | | Initial Weight/Volume: | 28 mL |
| Analysis Date: | 03/06/2017 1632 | | | Final Weight/Volume: | 200 mL |
| Prep Date: | 03/06/2017 1632 | | | Injection Volume: | 200 mL |

Tentatively Identified Compounds

Number TIC's Found: 0

| Cas Number | Analyte | RT | Est. Result (ppb v/v) | Qualifier |
|------------|---------------------------------|----|-----------------------|-----------|
| | Tentatively Identified Compound | | None | |

Analytical Data

Client: Ertec

Job Number: 200-37412-1

Sdg Number: 200-37412-1

Client Sample ID: B-4

Lab Sample ID: 200-37412-3

Date Sampled: 02/15/2017 1556

Client Matrix: Air

Date Received: 02/17/2017 1030

TO-15 Volatile Organic Compounds in Ambient Air

| | | |
|--------------------------------|----------------------------|------------------------------|
| Analysis Method: TO-15 | Analysis Batch: 200-114630 | Instrument ID: CHB.i |
| Prep Method: Summa Canister | Prep Batch: N/A | Lab File ID: 24189-08.D |
| Dilution: 7870 | | Initial Weight/Volume: 51 mL |
| Analysis Date: 03/06/2017 1724 | | Final Weight/Volume: 200 mL |
| Prep Date: 03/06/2017 1724 | | Injection Volume: 200 mL |

| Analyte | Result (ppb v/v) | Qualifier | MDL | RL |
|--------------------|------------------|-----------|-------|-------|
| Acetone | 39000 | U | 10000 | 39000 |
| Isopropyl alcohol | 39000 | U | 1000 | 39000 |
| Methylene Chloride | 3900 | U | 540 | 3900 |
| n-Hexane | 1600 | U | 360 | 1600 |
| Chloroform | 1600 | U | 200 | 1600 |
| Tetrahydrofuran | 170000 | | 9400 | 39000 |
| Benzene | 3700 | | 220 | 1600 |
| Toluene | 39000 | | 280 | 1600 |
| Chlorobenzene | 1600 | U | 200 | 1600 |
| Ethylbenzene | 15000 | | 270 | 1600 |
| m,p-Xylene | 69000 | | 610 | 3900 |
| Xylene, o- | 10000 | | 310 | 1600 |
| Xylene (total) | 79000 | | 310 | 5500 |

| Analyte | Result (ug/m3) | Qualifier | MDL | RL |
|--------------------|----------------|-----------|-------|--------|
| Acetone | 93000 | U | 24000 | 93000 |
| Isopropyl alcohol | 97000 | U | 2500 | 97000 |
| Methylene Chloride | 14000 | U | 1900 | 14000 |
| n-Hexane | 5500 | U | 1300 | 5500 |
| Chloroform | 7700 | U | 960 | 7700 |
| Tetrahydrofuran | 490000 | | 28000 | 120000 |
| Benzene | 12000 | | 700 | 5000 |
| Toluene | 150000 | | 1000 | 5900 |
| Chlorobenzene | 7200 | U | 910 | 7200 |
| Ethylbenzene | 65000 | | 1200 | 6800 |
| m,p-Xylene | 300000 | | 2600 | 17000 |
| Xylene, o- | 45000 | | 1400 | 6800 |
| Xylene (total) | 340000 | | 1400 | 24000 |

Analytical Data

Client: Ertec

Job Number: 200-37412-1

Sdg Number: 200-37412-1

Client Sample ID: B-4

Lab Sample ID: 200-37412-3

Date Sampled: 02/15/2017 1556

Client Matrix: Air

Date Received: 02/17/2017 1030

TO-15 Volatile Organic Compounds in Ambient Air

| | | | | | |
|------------------|-----------------|-----------------|------------|------------------------|------------|
| Analysis Method: | TO-15 | Analysis Batch: | 200-114630 | Instrument ID: | CHB.i |
| Prep Method: | Summa Canister | Prep Batch: | N/A | Lab File ID: | 24189-08.D |
| Dilution: | 7870 | | | Initial Weight/Volume: | 51 mL |
| Analysis Date: | 03/06/2017 1724 | | | Final Weight/Volume: | 200 mL |
| Prep Date: | 03/06/2017 1724 | | | Injection Volume: | 200 mL |

Tentatively Identified Compounds

Number TIC's Found: 0

| Cas Number | Analyte | RT | Est. Result (ppb v/v) | Qualifier |
|------------|---------------------------------|----|-----------------------|-----------|
| | Tentatively Identified Compound | | None | |

Analytical Data

Client: Ertec

Job Number: 200-37412-1

Sdg Number: 200-37412-1

Client Sample ID: AB-10

Lab Sample ID: 200-37422-1

Date Sampled: 02/17/2017 1201

Client Matrix: Air

Date Received: 02/18/2017 1010

TO-15 Volatile Organic Compounds in Ambient Air

| | | | | | |
|------------------|-----------------|-----------------|------------|------------------------|------------|
| Analysis Method: | TO-15 | Analysis Batch: | 200-114595 | Instrument ID: | CHB.i |
| Prep Method: | Summa Canister | Prep Batch: | N/A | Lab File ID: | 24174-25.D |
| Dilution: | 2.0 | | | Initial Weight/Volume: | 100 mL |
| Analysis Date: | 03/04/2017 1056 | | | Final Weight/Volume: | 200 mL |
| Prep Date: | 03/04/2017 1056 | | | Injection Volume: | 200 mL |

| Analyte | Result (ppb v/v) | Qualifier | MDL | RL |
|--------------------|------------------|-----------|-------|------|
| Acetone | 9.1 | J | 2.6 | 10 |
| Isopropyl alcohol | 10 | U | 0.26 | 10 |
| Methylene Chloride | 4.9 | | 0.14 | 1.0 |
| n-Hexane | 0.40 | U | 0.092 | 0.40 |
| Chloroform | 54 | | 0.050 | 0.40 |
| Tetrahydrofuran | 9.4 | J | 2.4 | 10 |
| Benzene | 1.4 | | 0.056 | 0.40 |
| Toluene | 0.67 | | 0.070 | 0.40 |
| Chlorobenzene | 0.40 | U | 0.050 | 0.40 |
| Ethylbenzene | 0.19 | J | 0.068 | 0.40 |
| m,p-Xylene | 1.6 | | 0.15 | 1.0 |
| Xylene, o- | 0.47 | | 0.080 | 0.40 |
| Xylene (total) | 2.1 | | 0.080 | 1.4 |

| Analyte | Result (ug/m3) | Qualifier | MDL | RL |
|--------------------|----------------|-----------|------|-----|
| Acetone | 22 | J | 6.2 | 24 |
| Isopropyl alcohol | 25 | U | 0.64 | 25 |
| Methylene Chloride | 17 | | 0.47 | 3.5 |
| n-Hexane | 1.4 | U | 0.32 | 1.4 |
| Chloroform | 260 | | 0.24 | 2.0 |
| Tetrahydrofuran | 28 | J | 7.1 | 29 |
| Benzene | 4.6 | | 0.18 | 1.3 |
| Toluene | 2.5 | | 0.26 | 1.5 |
| Chlorobenzene | 1.8 | U | 0.23 | 1.8 |
| Ethylbenzene | 0.82 | J | 0.30 | 1.7 |
| m,p-Xylene | 6.7 | | 0.67 | 4.3 |
| Xylene, o- | 2.1 | | 0.35 | 1.7 |
| Xylene (total) | 9.0 | | 0.35 | 6.1 |

Analytical Data

Client: Ertec

Job Number: 200-37412-1

Sdg Number: 200-37412-1

Client Sample ID: AB-10

Lab Sample ID: 200-37422-1

Date Sampled: 02/17/2017 1201

Client Matrix: Air

Date Received: 02/18/2017 1010

TO-15 Volatile Organic Compounds in Ambient Air

Analysis Method: TO-15
Prep Method: Summa Canister
Dilution: 2.0
Analysis Date: 03/04/2017 1056
Prep Date: 03/04/2017 1056

Analysis Batch: 200-114595
Prep Batch: N/A

Instrument ID: CHB.i
Lab File ID: 24174-25.D
Initial Weight/Volume: 100 mL
Final Weight/Volume: 200 mL
Injection Volume: 200 mL

Tentatively Identified Compounds

Number TIC's Found: 0

| Cas Number | Analyte | RT | Est. Result (ppb v/v) | Qualifier |
|------------|---------------------------------|----|-----------------------|-----------|
| | Tentatively Identified Compound | | None | |

Analytical Data

Client: Ertec

Job Number: 200-37412-1

Sdg Number: 200-37412-1

Client Sample ID: AB-23

Lab Sample ID: 200-37422-2

Date Sampled: 02/16/2017 1221

Client Matrix: Air

Date Received: 02/18/2017 1010

TO-15 Volatile Organic Compounds in Ambient Air

| | | | | | |
|------------------|-----------------|-----------------|------------|------------------------|------------|
| Analysis Method: | TO-15 | Analysis Batch: | 200-114595 | Instrument ID: | CHB.i |
| Prep Method: | Summa Canister | Prep Batch: | N/A | Lab File ID: | 24174-21.D |
| Dilution: | 1680 | | | Initial Weight/Volume: | 26 mL |
| Analysis Date: | 03/04/2017 0646 | | | Final Weight/Volume: | 200 mL |
| Prep Date: | 03/04/2017 0646 | | | Injection Volume: | 200 mL |

| Analyte | Result (ppb v/v) | Qualifier | MDL | RL |
|--------------------|------------------|-----------|------|------|
| Acetone | 8400 | U | 2200 | 8400 |
| Isopropyl alcohol | 8400 | U | 220 | 8400 |
| Methylene Chloride | 840 | U | 110 | 840 |
| n-Hexane | 340 | U | 77 | 340 |
| Chloroform | 340 | U | 42 | 340 |
| Tetrahydrofuran | 59000 | | 2000 | 8400 |
| Benzene | 340 | U | 47 | 340 |
| Toluene | 340 | U | 59 | 340 |
| Chlorobenzene | 340 | U | 42 | 340 |
| Ethylbenzene | 340 | U | 57 | 340 |
| m,p-Xylene | 840 | U | 130 | 840 |
| Xylene, o- | 340 | U | 67 | 340 |
| Xylene (total) | 1200 | U | 67 | 1200 |

| Analyte | Result (ug/m3) | Qualifier | MDL | RL |
|--------------------|----------------|-----------|------|-------|
| Acetone | 20000 | U | 5200 | 20000 |
| Isopropyl alcohol | 21000 | U | 540 | 21000 |
| Methylene Chloride | 2900 | U | 400 | 2900 |
| n-Hexane | 1200 | U | 270 | 1200 |
| Chloroform | 1600 | U | 210 | 1600 |
| Tetrahydrofuran | 170000 | | 5900 | 25000 |
| Benzene | 1100 | U | 150 | 1100 |
| Toluene | 1300 | U | 220 | 1300 |
| Chlorobenzene | 1500 | U | 190 | 1500 |
| Ethylbenzene | 1500 | U | 250 | 1500 |
| m,p-Xylene | 3600 | U | 560 | 3600 |
| Xylene, o- | 1500 | U | 290 | 1500 |
| Xylene (total) | 5100 | U | 290 | 5100 |

Analytical Data

Client: Ertec

Job Number: 200-37412-1

Sdg Number: 200-37412-1

Client Sample ID: AB-23

Lab Sample ID: 200-37422-2

Client Matrix: Air

Date Sampled: 02/16/2017 1221

Date Received: 02/18/2017 1010

TO-15 Volatile Organic Compounds in Ambient Air

Analysis Method: TO-15
Prep Method: Summa Canister
Dilution: 1680
Analysis Date: 03/04/2017 0646
Prep Date: 03/04/2017 0646

Analysis Batch: 200-114595
Prep Batch: N/A

Instrument ID: CHB.i
Lab File ID: 24174-21.D
Initial Weight/Volume: 26 mL
Final Weight/Volume: 200 mL
Injection Volume: 200 mL

Tentatively Identified Compounds

Number TIC's Found: 0

| Cas Number | Analyte | RT | Est. Result (ppb v/v) | Qualifier |
|------------|---------------------------------|----|-----------------------|-----------|
| | Tentatively Identified Compound | | None | |

Analytical Data

Client: Ertec

Job Number: 200-37412-1

Sdg Number: 200-37412-1

Client Sample ID: AB-19

Lab Sample ID: 200-37422-3

Date Sampled: 02/17/2017 1436

Client Matrix: Air

Date Received: 02/18/2017 1010

TO-15 Volatile Organic Compounds in Ambient Air

| | | |
|--------------------------------|----------------------------|-------------------------------|
| Analysis Method: TO-15 | Analysis Batch: 200-114595 | Instrument ID: CHB.i |
| Prep Method: Summa Canister | Prep Batch: N/A | Lab File ID: 24174-22.D |
| Dilution: 1.5 | | Initial Weight/Volume: 133 mL |
| Analysis Date: 03/04/2017 0738 | | Final Weight/Volume: 200 mL |
| Prep Date: 03/04/2017 0738 | | Injection Volume: 200 mL |

| Analyte | Result (ppb v/v) | Qualifier | MDL | RL |
|--------------------|------------------|-----------|-------|------|
| Acetone | 20 | | 2.0 | 7.5 |
| Isopropyl alcohol | 23 | | 0.20 | 7.5 |
| Methylene Chloride | 11 | | 0.10 | 0.75 |
| n-Hexane | 0.23 | J | 0.069 | 0.30 |
| Chloroform | 50 | | 0.038 | 0.30 |
| Tetrahydrofuran | 2.5 | J | 1.8 | 7.5 |
| Benzene | 0.26 | J | 0.042 | 0.30 |
| Toluene | 4.3 | | 0.053 | 0.30 |
| Chlorobenzene | 0.30 | U | 0.038 | 0.30 |
| Ethylbenzene | 0.26 | J | 0.051 | 0.30 |
| m,p-Xylene | 1.5 | | 0.12 | 0.75 |
| Xylene, o- | 0.37 | | 0.060 | 0.30 |
| Xylene (total) | 1.9 | | 0.060 | 1.1 |

| Analyte | Result (ug/m3) | Qualifier | MDL | RL |
|--------------------|----------------|-----------|------|------|
| Acetone | 49 | | 4.6 | 18 |
| Isopropyl alcohol | 56 | | 0.48 | 18 |
| Methylene Chloride | 39 | | 0.35 | 2.6 |
| n-Hexane | 0.79 | J | 0.24 | 1.1 |
| Chloroform | 240 | | 0.18 | 1.5 |
| Tetrahydrofuran | 7.3 | J | 5.3 | 22 |
| Benzene | 0.82 | J | 0.13 | 0.96 |
| Toluene | 16 | | 0.20 | 1.1 |
| Chlorobenzene | 1.4 | U | 0.17 | 1.4 |
| Ethylbenzene | 1.1 | J | 0.22 | 1.3 |
| m,p-Xylene | 6.4 | | 0.50 | 3.3 |
| Xylene, o- | 1.6 | | 0.26 | 1.3 |
| Xylene (total) | 8.1 | | 0.26 | 4.6 |

Analytical Data

Client: Ertec

Job Number: 200-37412-1

Sdg Number: 200-37412-1

Client Sample ID: AB-19

Lab Sample ID: 200-37422-3

Date Sampled: 02/17/2017 1436

Client Matrix: Air

Date Received: 02/18/2017 1010

TO-15 Volatile Organic Compounds in Ambient Air

Analysis Method: TO-15

Analysis Batch: 200-114595

Instrument ID: CHB.i

Prep Method: Summa Canister

Prep Batch: N/A

Lab File ID: 24174-22.D

Dilution: 1.5

Initial Weight/Volume: 133 mL

Analysis Date: 03/04/2017 0738

Final Weight/Volume: 200 mL

Prep Date: 03/04/2017 0738

Injection Volume: 200 mL

Tentatively Identified Compounds

Number TIC's Found: 0

| Cas Number | Analyte | RT | Est. Result (ppb v/v) | Qualifier |
|------------|---------------------------------|----|-----------------------|-----------|
| | Tentatively Identified Compound | | None | |

Analytical Data

Client: Ertec

Job Number: 200-37412-1

Sdg Number: 200-37412-1

Client Sample ID: AB-21

Lab Sample ID: 200-37422-4

Date Sampled: 02/16/2017 1500

Client Matrix: Air

Date Received: 02/18/2017 1010

TO-15 Volatile Organic Compounds in Ambient Air

| | | | |
|--------------------------------|----------------------------|------------------------------|--|
| Analysis Method: TO-15 | Analysis Batch: 200-114595 | Instrument ID: CHB.i | |
| Prep Method: Summa Canister | Prep Batch: N/A | Lab File ID: 24174-23.D | |
| Dilution: 2.99 | | Initial Weight/Volume: 67 mL | |
| Analysis Date: 03/04/2017 0831 | | Final Weight/Volume: 200 mL | |
| Prep Date: 03/04/2017 0831 | | Injection Volume: 200 mL | |

| Analyte | Result (ppb v/v) | Qualifier | MDL | RL |
|--------------------|------------------|-----------|-------|------|
| Acetone | 110 | | 3.9 | 15 |
| Isopropyl alcohol | 6.1 | J | 0.39 | 15 |
| Methylene Chloride | 25 | | 0.20 | 1.5 |
| n-Hexane | 0.60 | U | 0.14 | 0.60 |
| Chloroform | 0.60 | U | 0.075 | 0.60 |
| Tetrahydrofuran | 120 | E | 3.6 | 15 |
| Benzene | 2.4 | | 0.084 | 0.60 |
| Toluene | 15 | | 0.10 | 0.60 |
| Chlorobenzene | 0.60 | U | 0.075 | 0.60 |
| Ethylbenzene | 2.8 | | 0.10 | 0.60 |
| m,p-Xylene | 13 | | 0.23 | 1.5 |
| Xylene, o- | 2.5 | | 0.12 | 0.60 |
| Xylene (total) | 16 | | 0.12 | 2.1 |

| Analyte | Result (ug/m3) | Qualifier | MDL | RL |
|--------------------|----------------|-----------|------|-----|
| Acetone | 260 | | 9.2 | 36 |
| Isopropyl alcohol | 15 | J | 0.96 | 37 |
| Methylene Chloride | 86 | | 0.71 | 5.2 |
| n-Hexane | 2.1 | U | 0.48 | 2.1 |
| Chloroform | 2.9 | U | 0.36 | 2.9 |
| Tetrahydrofuran | 350 | E | 11 | 44 |
| Benzene | 7.6 | | 0.27 | 1.9 |
| Toluene | 56 | | 0.39 | 2.3 |
| Chlorobenzene | 2.8 | U | 0.34 | 2.8 |
| Ethylbenzene | 12 | | 0.44 | 2.6 |
| m,p-Xylene | 58 | | 1.0 | 6.5 |
| Xylene, o- | 11 | | 0.52 | 2.6 |
| Xylene (total) | 67 | | 0.52 | 9.1 |

Analytical Data

Client: Ertec

Job Number: 200-37412-1

Sdg Number: 200-37412-1

Client Sample ID: AB-21

Lab Sample ID: 200-37422-4

Client Matrix: Air

Date Sampled: 02/16/2017 1500

Date Received: 02/18/2017 1010

TO-15 Volatile Organic Compounds in Ambient Air

Analysis Method: TO-15

Analysis Batch: 200-114595

Instrument ID: CHB.i

Prep Method: Summa Canister

Prep Batch: N/A

Lab File ID: 24174-23.D

Dilution: 2.99

Initial Weight/Volume: 67 mL

Analysis Date: 03/04/2017 0831

Final Weight/Volume: 200 mL

Prep Date: 03/04/2017 0831

Injection Volume: 200 mL

Tentatively Identified Compounds

Number TIC's Found: 0

| Gas Number | Analyte | RT | Est. Result (ppb v/v) | Qualifier |
|------------|---------------------------------|----|-----------------------|-----------|
| | Tentatively Identified Compound | | None | |

DATA REPORTING QUALIFIERS

Client: Ertec

Job Number: 200-37412-1

Sdg Number: 200-37412-1

| Lab Section | Qualifier | Description |
|--------------------|------------------|--|
| Air - GC/MS VOA | U | Indicates the analyte was analyzed for but not detected. |
| | E | Result exceeded calibration range. |
| | J | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |

QUALITY CONTROL RESULTS

Quality Control Results

Client: Ertec

Job Number: 200-37412-1

Sdg Number: 200-37412-1

QC Association Summary

| Lab Sample ID | Client Sample ID | Report Basis | Client Matrix | Method | Prep Batch |
|----------------------------------|--------------------|--------------|---------------|--------|------------|
| Air - GC/MS VOA | | | | | |
| Analysis Batch:200-114595 | | | | | |
| LCS 200-114595/3 | Lab Control Sample | T | Air | TO-15 | |
| MB 200-114595/4 | Method Blank | T | Air | TO-15 | |
| 200-37412-1 | B-1 | T | Air | TO-15 | |
| 200-37422-1 | AB-10 | T | Air | TO-15 | |
| 200-37422-2 | AB-23 | T | Air | TO-15 | |
| 200-37422-3 | AB-19 | T | Air | TO-15 | |
| 200-37422-4 | AB-21 | T | Air | TO-15 | |
| Analysis Batch:200-114630 | | | | | |
| LCS 200-114630/3 | Lab Control Sample | T | Air | TO-15 | |
| MB 200-114630/4 | Method Blank | T | Air | TO-15 | |
| 200-37412-2 | AB-10B | T | Air | TO-15 | |
| 200-37412-3 | B-4 | T | Air | TO-15 | |

Report Basis

T = Total

Quality Control Results

Client: Ertec

Job Number: 200-37412-1
Sdg Number: 200-37412-1

Method Blank - Batch: 200-114595

Method: TO-15
Preparation: Summa Canister

Lab Sample ID: MB 200-114595/4
Client Matrix: Air
Dilution: 1.0
Analysis Date: 03/03/2017 1455
Prep Date: 03/03/2017 1455
Leach Date: N/A

Analysis Batch: 200-114595
Prep Batch: N/A
Leach Batch: N/A
Units: ppb v/v

Instrument ID: CHB.i
Lab File ID: 24174-04.D
Initial Weight/Volume: 200 mL
Final Weight/Volume: 200 mL
Injection Volume: 200 mL

| Analyte | Result | Qual | MDL | RL |
|--------------------|--------|------|-------|------|
| Acetone | 5.0 | U | 1.3 | 5.0 |
| Isopropyl alcohol | 5.0 | U | 0.13 | 5.0 |
| Methylene Chloride | 0.50 | U | 0.068 | 0.50 |
| n-Hexane | 0.20 | U | 0.046 | 0.20 |
| Chloroform | 0.20 | U | 0.025 | 0.20 |
| Tetrahydrofuran | 5.0 | U | 1.2 | 5.0 |
| Benzene | 0.20 | U | 0.028 | 0.20 |
| Toluene | 0.20 | U | 0.035 | 0.20 |
| Chlorobenzene | 0.20 | U | 0.025 | 0.20 |
| Ethylbenzene | 0.20 | U | 0.034 | 0.20 |
| m,p-Xylene | 0.50 | U | 0.077 | 0.50 |
| Xylene, o- | 0.20 | U | 0.040 | 0.20 |
| Xylene (total) | 0.70 | U | 0.040 | 0.70 |

Method Blank - Batch: 200-114595

Method: TO-15
Preparation: Summa Canister

Lab Sample ID: MB 200-114595/4
Client Matrix: Air
Dilution: 1.0
Analysis Date: 03/03/2017 1455
Prep Date: 03/03/2017 1455
Leach Date: N/A

Analysis Batch: 200-114595
Prep Batch: N/A
Leach Batch: N/A
Units: ug/m3

Instrument ID: CHB.i
Lab File ID: 24174-04.D
Initial Weight/Volume: 200 mL
Final Weight/Volume: 200 mL
Injection Volume: 200 mL

| Analyte | Result | Qual | MDL | RL |
|--------------------|--------|------|-------|------|
| Acetone | 12 | U | 3.1 | 12 |
| Isopropyl alcohol | 12 | U | 0.32 | 12 |
| Methylene Chloride | 1.7 | U | 0.24 | 1.7 |
| n-Hexane | 0.70 | U | 0.16 | 0.70 |
| Chloroform | 0.98 | U | 0.12 | 0.98 |
| Tetrahydrofuran | 15 | U | 3.5 | 15 |
| Benzene | 0.64 | U | 0.089 | 0.64 |
| Toluene | 0.75 | U | 0.13 | 0.75 |
| Chlorobenzene | 0.92 | U | 0.12 | 0.92 |
| Ethylbenzene | 0.87 | U | 0.15 | 0.87 |
| m,p-Xylene | 2.2 | U | 0.33 | 2.2 |
| Xylene, o- | 0.87 | U | 0.17 | 0.87 |
| Xylene (total) | 3.0 | U | 0.17 | 3.0 |

Quality Control Results

Client: Ertec

Job Number: 200-37412-1
Sdg Number: 200-37412-1

Method Blank TICs- Batch: 200-114595

| Cas Number | Analyte | RT | Est. Result (ppb) | Qual |
|------------|---------------------------------|----|-------------------|------|
| | Tentatively Identified Compound | | None | |

Lab Control Sample - Batch: 200-114595

Method: TO-15
Preparation: Summa Canister

| | | | | | |
|----------------|------------------|-----------------|------------|------------------------|------------|
| Lab Sample ID: | LCS 200-114595/3 | Analysis Batch: | 200-114595 | Instrument ID: | CHB.i |
| Client Matrix: | Air | Prep Batch: | N/A | Lab File ID: | 24174-03.D |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | 200 mL |
| Analysis Date: | 03/03/2017 1402 | Units: | ppb v/v | Final Weight/Volume: | 200 mL |
| Prep Date: | 03/03/2017 1402 | | | Injection Volume: | 200 mL |
| Leach Date: | N/A | | | | |

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|--------------------|--------------|--------|--------|----------|------|
| Acetone | 10.0 | 11.5 | 115 | 64 - 136 | |
| Isopropyl alcohol | 10.0 | 12.0 | 120 | 55 - 124 | |
| Methylene Chloride | 10.0 | 11.3 | 113 | 62 - 122 | |
| n-Hexane | 10.0 | 12.4 | 124 | 71 - 131 | |
| Chloroform | 10.0 | 12.2 | 122 | 69 - 129 | |
| Tetrahydrofuran | 10.0 | 12.9 | 129 | 61 - 136 | |
| Benzene | 10.0 | 11.7 | 117 | 67 - 127 | |
| Toluene | 10.0 | 11.8 | 118 | 67 - 127 | |
| Chlorobenzene | 10.0 | 11.9 | 119 | 68 - 128 | |
| Ethylbenzene | 10.0 | 12.0 | 120 | 68 - 128 | |
| m,p-Xylene | 20.0 | 24.1 | 120 | 68 - 128 | |
| Xylene, o- | 10.0 | 11.9 | 119 | 67 - 127 | |

Quality Control Results

Client: Ertec

Job Number: 200-37412-1
Sdg Number: 200-37412-1

Method Blank - Batch: 200-114630

Method: TO-15
Preparation: Summa Canister

Lab Sample ID: MB 200-114630/4
Client Matrix: Air
Dilution: 1.0
Analysis Date: 03/06/2017 1209
Prep Date: 03/06/2017 1209
Leach Date: N/A

Analysis Batch: 200-114630
Prep Batch: N/A
Leach Batch: N/A
Units: ppb v/v

Instrument ID: CHB.i
Lab File ID: 24189-04.D
Initial Weight/Volume: 200 mL
Final Weight/Volume: 200 mL
Injection Volume: 200 mL

| Analyte | Result | Qual | MDL | RL |
|--------------------|--------|------|-------|------|
| Acetone | 5.0 | U | 1.3 | 5.0 |
| Isopropyl alcohol | 5.0 | U | 0.13 | 5.0 |
| Methylene Chloride | 0.50 | U | 0.068 | 0.50 |
| n-Hexane | 0.20 | U | 0.046 | 0.20 |
| Chloroform | 0.20 | U | 0.025 | 0.20 |
| Tetrahydrofuran | 5.0 | U | 1.2 | 5.0 |
| Benzene | 0.20 | U | 0.028 | 0.20 |
| Toluene | 0.20 | U | 0.035 | 0.20 |
| Chlorobenzene | 0.20 | U | 0.025 | 0.20 |
| Ethylbenzene | 0.20 | U | 0.034 | 0.20 |
| m,p-Xylene | 0.50 | U | 0.077 | 0.50 |
| Xylene, o- | 0.20 | U | 0.040 | 0.20 |
| Xylene (total) | 0.70 | U | 0.040 | 0.70 |

Method Blank - Batch: 200-114630

Method: TO-15
Preparation: Summa Canister

Lab Sample ID: MB 200-114630/4
Client Matrix: Air
Dilution: 1.0
Analysis Date: 03/06/2017 1209
Prep Date: 03/06/2017 1209
Leach Date: N/A

Analysis Batch: 200-114630
Prep Batch: N/A
Leach Batch: N/A
Units: ug/m3

Instrument ID: CHB.i
Lab File ID: 24189-04.D
Initial Weight/Volume: 200 mL
Final Weight/Volume: 200 mL
Injection Volume: 200 mL

| Analyte | Result | Qual | MDL | RL |
|--------------------|--------|------|-------|------|
| Acetone | 12 | U | 3.1 | 12 |
| Isopropyl alcohol | 12 | U | 0.32 | 12 |
| Methylene Chloride | 1.7 | U | 0.24 | 1.7 |
| n-Hexane | 0.70 | U | 0.16 | 0.70 |
| Chloroform | 0.98 | U | 0.12 | 0.98 |
| Tetrahydrofuran | 15 | U | 3.5 | 15 |
| Benzene | 0.64 | U | 0.089 | 0.64 |
| Toluene | 0.75 | U | 0.13 | 0.75 |
| Chlorobenzene | 0.92 | U | 0.12 | 0.92 |
| Ethylbenzene | 0.87 | U | 0.15 | 0.87 |
| m,p-Xylene | 2.2 | U | 0.33 | 2.2 |
| Xylene, o- | 0.87 | U | 0.17 | 0.87 |
| Xylene (total) | 3.0 | U | 0.17 | 3.0 |

Quality Control Results

Client: Ertec

Job Number: 200-37412-1
Sdg Number: 200-37412-1

Method Blank TICs- Batch: 200-114630

| Gas Number | Analyte | RT | Est. Result (ppl) | Qual |
|------------|---------------------------------|----|-------------------|------|
| | Tentatively Identified Compound | | None | |

Lab Control Sample - Batch: 200-114630

Method: TO-15
Preparation: Summa Canister

| | | | | | |
|----------------|------------------|-----------------|------------|------------------------|------------|
| Lab Sample ID: | LCS 200-114630/3 | Analysis Batch: | 200-114630 | Instrument ID: | CHB.i |
| Client Matrix: | Air | Prep Batch: | N/A | Lab File ID: | 24189-03.D |
| Dilution: | 1.0 | Leach Batch: | N/A | Initial Weight/Volume: | 200 mL |
| Analysis Date: | 03/06/2017 1117 | Units: | ppb v/v | Final Weight/Volume: | 200 mL |
| Prep Date: | 03/06/2017 1117 | | | Injection Volume: | 200 mL |
| Leach Date: | N/A | | | | |

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|--------------------|--------------|--------|--------|----------|------|
| Acetone | 10.0 | 9.02 | 90 | 64 - 136 | |
| Isopropyl alcohol | 10.0 | 8.85 | 88 | 55 - 124 | |
| Methylene Chloride | 10.0 | 8.81 | 88 | 62 - 122 | |
| n-Hexane | 10.0 | 9.84 | 98 | 71 - 131 | |
| Chloroform | 10.0 | 9.74 | 97 | 69 - 129 | |
| Tetrahydrofuran | 10.0 | 9.81 | 98 | 61 - 136 | |
| Benzene | 10.0 | 9.28 | 93 | 67 - 127 | |
| Toluene | 10.0 | 9.80 | 98 | 67 - 127 | |
| Chlorobenzene | 10.0 | 9.90 | 99 | 68 - 128 | |
| Ethylbenzene | 10.0 | 9.73 | 97 | 68 - 128 | |
| m,p-Xylene | 20.0 | 19.8 | 99 | 68 - 128 | |
| Xylene, o- | 10.0 | 9.83 | 98 | 67 - 127 | |

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Canister Samples Chain of Custody Record & TO-15 Field Test Data Sheet

TestAmerica Analytical Testing Corp. assumes no liability with respect to the collection and shipment of these samples.


| Client Contact Information | | Project Manager: <u>Wanda Morales</u> | | Carrier: <u>FedEx</u> | | ? of ? COCs | | | | | | | | | | | | | | | | | | | |
|--|----------------|---------------------------------------|-------------------------|---|---------------------------|-----------------------------------|------------|--------------|----------------------------------|--------------|------------|----------|----------|-------------|---|--------------------|----------|--------------|--|---|--|--------------|--|------------|--|
| Company: <u>ERTEC, PSC</u> | | Phone: <u>(887) 992-8902</u> | | Sampled By: <u>R. de Jesus / J. Maldonado</u> | | Matrix | | | | | | | | | | | | | | | | | | | |
| Address: <u>St. As Stb. Lakram</u> | | E-mail: <u>wmorales@ertecp.com</u> | | | | | | | | | | | | | | | | | | | | | | | |
| City/State/Zip: <u>Portland, ME 04102</u> | | Site Contact: <u>Wanda Morales</u> | | | | | | | | | | | | | | | | | | | | | | | |
| Phone: <u>(887) 997-8902</u> | | TA Contact: <u>Don Pauleck</u> | | | | | | | | | | | | | | | | | | | | | | | |
| FAX: <u>(887) 983-5553</u> | | Analysis Turnaround Time: | | | | | | | | | | | | | | | | | | | | | | | |
| Project Name: <u>Ben-0200004, PR</u> | | Standard (Specify): <u>✓</u> | | | | | | | | | | | | | | | | | | | | | | | |
| PO # | | Rush (Specify) | | | | | | | | | | | | | | | | | | | | | | | |
| Sample Identification | Sample Date(s) | Time Start (24 hr clock) | Time Stop (24 hr clock) | Interior Temp. (F) (Start) | Interior Temp. (F) (Stop) | Flow Reg. ID | Can ID | Can Size (L) | Flow Controller Readout (ml/min) | Can Cert. ID | TO-15 | EPA 3C | EPA 25C | ASTM D-1946 | Other (Please specify in notes section) | Indoor/Ambient Air | Soil Gas | Landfill Gas | Helium Prefill for High Methane (LF Gas) | Other (Please specify in notes section) | | | | | |
| | <u>AB-19</u> | <u>02/17/17</u> | <u>1436</u> | <u>---</u> | <u>97.4</u> | <u>---</u> | <u>---</u> | <u>32866</u> | <u>6</u> | <u>---</u> | <u>---</u> | <u>X</u> | <u>X</u> | <u>X</u> | | <u>X</u> | | | | | | | | | |
| | | <u>2976</u> | <u>02/17/17</u> | | | | | | <u>208</u> | | | | | | | | | | | | | | | | |
| | | | | | | | | | <u>22/17/17</u> | | | | | | | | | | | | | | | | |
| Special Instructions/QC Requirements & Comments: | | GC/MS Analyst Signature (TO-15) | | | | | | | | | | | | | | | | | | | | | | | |
| Canisters Shipped by: <u>Roberto de Jesus</u> | | Date/Time: <u>02/17/17 @ 1700</u> | | Canisters Received by: <u>FedEx</u> | | Date/Time: <u>02/17/17 @ 1700</u> | | | | | | | | | | | | | | | | Received by: | | Date/Time: | |
| Samples Relinquished by: | | Date/Time: | | Received by: | | Date/Time: | | | | | | | | | | | | | | | | Received by: | | Date/Time: | |
| Relinquished by: | | Date/Time: | | Received by: | | Date/Time: | | | | | | | | | | | | | | | | Received by: | | Date/Time: | |
| Shipper Name: | | Opened by: | | Condition: | | | | | | | | | | | | | | | | | | | | | |

TestAmerica Burlington
30 Community Drive
Suite 11

South Burlington, VT 05403
phone 802-860-1990 fax 802-860-1919

Canister Samples Chain of Custody Record & TO-15 Field Test Data Sheet

TestAmerica Analytical Testing Corp. assumes no liability with respect to the collection and shipment of these samples.

| Client Contact Information | | Project Manager: wanda morales | | Carrier: FedEx | | 1 of 1 COCs | |
|--|---------------------------------------|--|----------------------------|---|--|--|---------------------------------|
| Company: ERTEC PSI | Phone: (887) 797-8902 | Sampled By: Roberto de Jesus / Josue Negron | | Analysis: Matrix | | Other (Please specify in notes section) | |
| Address: Anna Stas Rte Landran | E-mail: w.morales@ertecpsi.com | Site Contact: wanda morales | | Barcode:  | | Helium Prefill for High Methane (LF Gas) | |
| City/State/Zip: 200 Pedro's Pr | Phone: (887) 797-8902 | TA Contact: ton dawpckp | | 200-37412 Chain of Custody | | Landfill Gas | |
| FAX: (887) 783-5555 | Project Name: Asper Barcelona | Analysis Turnaround Time | | Flow Reg. ID | | Soil Gas | |
| Site: Barceloneta PR | Standard (Specify) | Rush (Specify) | | Can ID | | Indoor Ambient Air | |
| PO # | | | | Flow Controller | | Other (Please specify in notes section) | |
| Sample Date(s) | Time Start (24 hr clock) | Time Stop (24 hr clock) | Interior Temp. (F) (Start) | Interior Temp. (F) (Stop) | Outgoing Canister Pressure ("Hg) (Lab) | Incoming Canister Pressure ("Hg) (Lab) | ASTM D-1946 |
| B-1 | 02/14/17 1329 | — | — | 104.1 | — | — | EPA 25C |
| | | | | | | | EPA 3C |
| | | | | | | | NJDEP LL-TO-15 |
| | | | | | | | TO-15 |
| | | | | | | | Can Cert ID |
| | | | | | | | Can Size (L) |
| | | | | | | | Flow Controller (ml/min) |
| | | | | | | | GC/MS Analyst Signature (TO-15) |
| | | | | | | | |
| Temperature (Fahrenheit) | | Maximum | Minimum | | | | |
| Start | 119.1 | | | | | | |
| Stop | | | | | | | |
| Pressure (Inches of Hg) | | Maximum | Minimum | | | | |
| Start | 29.68 | | | | | | |
| Stop | | | | | | | |
| Special Instructions/QC Requirements & Comments: sample was collected on 02/14/17 & secure until delivery at FedEx on 02/16/17. RGB | | | | | | | |
| Canisters Shipped by: Roberto de Jesus | | Canisters Received by: FedEx | | Date/Time: 02/16/17 @ 1000 | | Date/Time: 02/16/17 @ 1000 | |
| Samples Relinquished by: | | Received by: | | Date/Time: | | Date/Time: | |
| Relinquished by: | | Received by: Roberto | | Date/Time: | | Date/Time: 2/17/17 1030 | |
| Lab Use Only | | Shipper Name: | | Opened by: | | Condition: | |

TestAmerica Burlington
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Canister Samples Chain of Custody Record & TO-15 Field Test Data Sheet

TestAmerica Analytical Testing Corp. assumes no liability with respect to the collection and shipment of these samples.

| Client Contact Information | | Project Manager: Wanda Morales | | Carrier: FedEX | | 1 of 1 COCS | |
|--|--|--|--|---|--|---|--|
| Company: ERTEL, PSC | | Phone: (877) 792-8902 | | Sampled By: Roberto de Jesus / Jesus Maldonado | | Analysis Matrix | |
| Address: Amar St 45 Pto. Landrau | | E-mail: wmorales@ertelcorp.com | | TO-15 | | Other (Please specify in notes section) | |
| City/State/Zip: PR 00921 | | Site Contact: Wanda Morales | | EPA 3C | | Indoor / Ambient Air | |
| Phone: (787) 792-8902 | | TA Contact: Don Davenport | | EPA 26C | | Soil Gas | |
| FAX: (787) 783-5555 | | Analysis Turnaround Time | | NDEP LL-TO-15 | | Landfill Gas | |
| Project Name: Puerto Rico | | Standard (Specify) | | ASTM D-1946 | | Helium Puff for High Methane (LF Gas) | |
| Site: Barceloneta, PR | | Rush (Specify) | | Flow Reg. ID | | Other (Please specify in notes section) | |
| PO # | | Canister Pressure In Field ("Hg) (Start) | | Outgoing Canister Pressure ("Hg) (Lab) | | Flow Controller Readout (ml/min) | |
| Sample Identification | | Time Start (24 hr clock) | | Interior Temp. (F) (Start) | | Can Size (L) | |
| AB-10B | | 0215171310 | | 98.7 | | 5043 | |
| | | Time Stop (24 hr clock) | | Interior Temp. (F) (Stop) | | Can Cert. ID | |
| | | 79B 021517 | | | | | |
| | | Canister Pressure In Field ("Hg) (Stop) | | Incoming Canister Pressure ("Hg) (Lab) | | | |
| | | | | | | | |
| | | Temperature (Fahrenheit) | | | | | |
| | | Maximum | | Minimum | | | |
| Start | | 114.4 | | N/A | | | |
| Stop | | | | | | | |
| | | Pressure (Inches of Hg) | | | | | |
| | | Maximum | | Minimum | | | |
| Start | | 29.77 | | | | | |
| Stop | | | | | | | |
| Special Instructions/QC Requirements & Comments: at FedEX on 02/16/17. 79B sample was collected on 02/15/17 & secure until delivery at FedEX on 02/16/17 @ 1000 | | | | | | | |
| Canisters Shipped by: Roberto de Jesus | | Date/Time: 02/16/17 @ 1000 | | Canisters Received by: FedEX | | Date/Time: 02/16/17 @ 1000 | |
| Samples Relinquished by: | | Date/Time: | | Received by: | | Date/Time: | |
| Relinquished by: | | Date/Time: | | Received by: 79B | | Date/Time: 2/17/17 1030 | |
| Lab Use Only | | Shipped Name: | | Opened by: | | Condition: | |

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TestAmerica Analytical Testing Corp. assumes no liability with respect to the collection and shipment of these samples.

Canister Samples Chain of Custody Record & TO-15 Field Test Data Sheet

| Client Contact Information | Project Manager: <u>Wanda Morales</u> | Carrier: <u>FedEx</u> | 1 of 1 COCs |
|--|--|---|--|
| Company: <u>ERTEC, PJC</u> | Phone: <u>(787) 792-8902</u> | Sampled By: <u>Roberto de Jesús / Torué Maldonado</u> | Matrix |
| Address: <u>Auxil St. A5 Rpto. Bayamón</u> | E-mail: <u>wmorales@ertecpr.com</u> | Analysis | Other (Please specify in notes section) |
| City/State/Zip: <u>Río Piedras, PR 00921</u> | Site Contact: <u>Wanda Morales</u> | TO-15 | Helium Prefill for High Methane (LF Gas) |
| Phone: <u>(787) 792-8902</u> | TA Contact: <u>DON RAUPEK</u> | EPA 3C | Landfill Gas |
| FAX: <u>(787) 783-5535</u> | Project Name: <u>Kaiser Bar Celoneta</u> | EPA 25C | Soil Gas |
| Site: <u>Bar Celoneta, PR</u> | Analysis Turnaround Time | NDEP LL-TO-15 | Indoor / Ambient Air |
| PO # | Standard (Specify) | ASTM D-1946 | Other (Please specify in notes section) |
| | Rush (Specify) | Flow Reg. ID | Can Cert ID |
| Sample Identification | Canister Pressure In Field ("Hg) (Start) | Outgoing Canister Pressure ("Hg) (Lab) | Incoming Canister Pressure ("Hg) (Lab) |
| B-4 | Time Start (24 hr clock) | Interior Temp. (F) (Start) | Interior Temp. (F) (Stop) |
| 02/15/17 1556 | -- | 93.8 | -- |
| | Time Stop (24 hr clock) | Canister Pressure In Field ("Hg) (Stop) | Flow Controller Readout (ml/min) |
| | 02/15/17 1517 | -- | -- |
| | Canister Pressure In Field ("Hg) (Start) | Can Size (L) | Flow Controller Readout (ml/min) |
| | -- | 4357 | -- |
| | Time Stop (24 hr clock) | Can ID | Flow Controller Readout (ml/min) |
| | 02/15/17 1517 | -- | 248 02/15/17 |
| | Temperature (Fahrenheit) | GC/MS Analyst Signature (TO-15) | |
| | Maximum | | |
| | Minimum | | |
| | Ambient | | |
| | Start | | |
| | 102.0 | | |
| | Stop | | |
| | Pressure (Inches of Hg) | | |
| | Maximum | | |
| | Minimum | | |
| | Ambient | | |
| | Start | | |
| | 29.71 | | |
| | Stop | | |

Special Instructions/QC Requirements & Comments: sample was collected on 02/15/17 & secure until delivery at FedEx on 02/16/17. 02/16/17. 248

| | | | |
|--------------------------|------------------------|------------------------|------------------------|
| Canisters Shipped by: | Date/Time: | Canisters Received by: | Date/Time: |
| <u>Roberto de Jesús</u> | <u>02/16/17 @ 1000</u> | <u>FedEx</u> | <u>02/16/17 @ 1000</u> |
| Samples Relinquished by: | Date/Time: | Received by: | Date/Time: |
| | | <u>Sam J. JASH</u> | <u>2/17/17 1030</u> |
| Relinquished by: | Date/Time: | Received by: | Date/Time: |
| | | | |

Lab Use Only: Shipper Name: _____ Condition: _____

1 From
 Date 02/16/13 Sender's FedEx Account Number 1064-8731-7
 Sender's Name José Negre Foster Phone 787 752-8702
 Company ERTEC-PSC
 Address _____
 Address AMOUR A-5 REPARTO LANDRAU
 City RIO PIEDRAS State Province PR
 Country US ZIP Postal Code 00721
2 To
 Recipient's Name Don Dawicki Phone (802)-660-1990
 Company Tot America Burlington
 Address 30 Community Drive
 Address Suite 11
 City South Burlington State Province VT
 Country USA ZIP Postal Code 05403

4 Express Package Service
 FedEx Intl. Priority 6 FedEx Intl. First
 FedEx Intl. Economy
5 Packaging
 FedEx Envelope 2 FedEx Pak 3 FedEx Box 4 FedEx Tube
 Other Box PW FedEx 10kg Box* FedEx 25kg Box*
6 Special Handling
 HOLD at FedEx Location 3 SATURDAY Delivery
7 Payment
 Bill transportation charges to:
 Sender Acct. No. in Section 1 will be billed. 2 Recipient 3 Third Party 4 Credit Card 5 Check/Cheque
 Emer. FedEx Acct. No. or Credit Card No. below. 6 Cash
 Recipient 3 Third Party 4 Card 5 Check/Cheque
 Total Transportation Charges _____
 FedEx Acct. No. _____
 Credit Card Exp. Date _____
 Bill duties and taxes to:
 Sender Acct. No. in Section 1 will be billed. 2 Recipient 3 Third Party 4 Cash
 Emer. FedEx Acct. No. below. 5 Check/Cheque
 FedEx Acct. No. _____
8 Your Internal Billing Reference 16-5440
 First 24 characters will appear on invoice.



9 Required Signature
 Use of this Air Waybill constitutes your agreement to the Conditions of Contract on the back of this Air Waybill, and you represent that this shipment does not require a U.S. State Department license or contain dangerous goods. Certain international treaties, including the Warsaw Convention, may apply to this shipment and limit our liability for damage, loss, or delay, as described in the Conditions of Contract, WAREHOUSE: These commodities, technology, or software were exported from the United States in accordance with Export Administration Regulations. Diversion contrary to U.S. law prohibited.
 Sender's Signature: _____
 This is not authorization to deliver this shipment without a recipient signature.
 Received above shipment in good order and condition. We agree to pay all charges, including Customs duties and taxes as applicable, and we agree to the Conditions of Contract as stated on the reverse side of the Recipient's Copy.
 Recipient's Signature: _____

3 Shipment Information
 Total Packages 1 Total Weight 1 lbs. 00 oz. 00 in. 00 cm
 Commodity Description air samples (canisters) Harmonized Code _____ Country of Manufacture _____ Value for Customs \$98.00
 Has EEI been filed in AEST? No EEI required, value \$500 or less per Sch. B Number. For U.S. Export Only: Check One No license required (NLR), not subject to ITR. Yes, enter license number: _____
 Total Declared Value for Carriage \$91.00
 Total Value for Customs (Specify Currency) \$91.00
 Yes - Enter AEST proof of filing citation: _____

568
 PART 154003 Rev. Date 11/08 ©1994-2008 FedEx. PRINTED IN U.S.A. IRDA
 Form ID No. _____
 Origin Station ID SLAW Country Code/Definition Station ID US Handling Units 0402
 Received At: 1 Reg. Stop 2 On-Call Stop 3 Drop Box 4 Waifu Service Center 5 Station 6 CD
 Declared Net. Chgs. 779.22 Other DDW Del. Counter Card Amt. _____
 Date _____ Time _____
 Non-Negotiable International Air Waybill • ©1994-2008 FedEx

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Canister Samples Chain of Custody Record & TO-15 Field Test Data Sheet

TestAmerica Analytical Testing Corp. assumes no liability with respect to the collection and shipment of these samples.

| | | | | | | | |
|---------------------------------------|--|--|--|---|--|--|--|
| Client Contact Information | | Project Manager: <u>Wanda Morales</u> | | Carrier: <u>FedEx</u> | | 1 of 1 COCs | |
| Company: <u>ERTEC PSC</u> | | Phone: <u>(787) 792-8903</u> | | Sampled By: <u>R. De Jesus / J. Macdonado</u> | | Analysis Matrix | |
| Address: <u>45 Rte. Landrum</u> | | E-mail: <u>wmorales@ertecpr.com</u> | | Other (Please specify in notes section) | | Helium Prefill for High Methane (LF Gas) | |
| City/State/Zip: <u>PR 00971</u> | | Site Contact: <u>Wanda Morales</u> | | ASTM D-1946 | | Landfill Gas | |
| Phone: <u>(787) 792-8903</u> | | TA Contact: <u>Don Padowick</u> | | EPA 25C | | Soil Gas | |
| FAX: <u>(787) 783-5155</u> | | Analysis Turnaround Time | | EPA 3C | | Indoor / Ambient Air | |
| Project Name: <u>Parzen Barcojona</u> | | Standard (Specify) <input checked="" type="checkbox"/> | | NJDEP LL-TO-15 | | Other (Please specify in notes section) | |
| Site: <u>Barcojona, PR</u> | | Rush (Specify) | | TO-15 | | Other (Please specify in notes section) | |
| PO # | | | | Can ID | | Can Cent ID | |
| Sample Identification | | Time | | Interior Temp. (F) | | Flow Controller | |
| AB-10 | | Start (24 hr clock) | | (Start) | | Readout (ml/min) | |
| 02/17/17 | | 1201 | | 96.7 | | Can Size (L) | |
| 02/17/17 | | 17 | | 96.7 | | 482764 | |
| 02/17/17 | | 17 | | 96.7 | | 02/17/17 | |
| Start | | Maximum | | Incoming Canister Pressure (Hig) (Lab) | | GC/MS Analyst Signature (TO-15) | |
| 113.4 | | Minimum | | Outgoing Canister Pressure (Hig) (Lab) | | 200-37422 Chain of Custody | |
| Stop | | Pressure (Inches of Hg) | | Interior Temp. (F) (Stop) | | | |
| Start | | Maximum | | Interior Temp. (F) (Start) | | 200-37422 Chain of Custody | |
| 29.80 | | Minimum | | Canister Pressure in Field (Hig) (Stop) | | | |
| Stop | | Pressure (Inches of Hg) | | Canister Pressure in Field (Hig) (Start) | | | |

Special Instructions/QC Requirements & Comments:

| | | | |
|--------------------------|-----------------|------------------------|-----------------|
| Canisters Shipped by: | Date/Time: | Canisters Received by: | Date/Time: |
| Robert de Jesus | 02/17/17 @ 1700 | FedEx | 02/17/17 @ 1700 |
| Samples Relinquished by: | Date/Time: | Received by: | Date/Time: |
| | | [Signature] | 2/16/17 1010 |
| Relinquished by: | Date/Time: | Received by: | Date/Time: |
| | | | |

Lab Use Only Shipper Name: Condition: Opened by:

TestAmerica Burlington
30 Community Drive
Suite 11

South Burlington, VT 05403
phone 802-660-1990 fax 802-660-1919

Canister Samples Chain of Custody Record & TO-15 Field Test Data Sheet

TestAmerica Analytical Testing Corp. assumes no liability with respect to the collection and shipment of these samples.

| | | | | | | | | | | | | | | | | |
|---|----------------|---------------------------------------|-------------------------|---|---------------------------|---|--|--------------|-------------|--------------|----------------------------------|-------------|-----------------------------------|----------|-----------------------------------|----------------|
| Client Contact Information | | Project Manager: <u>Wanda Morales</u> | | Carrier: <u>FEDEX</u> | | 1 of 1 COCs | | | | | | | | | | |
| Company: <u>ER-TEC, PSC</u> | | Phone: <u>(787) 792-8902</u> | | Sampled By: <u>R. De Jesus / J. Maldonado</u> | | Analysis Matrix | | | | | | | | | | |
| Address: <u>Amer St 45 Rpte Landrum</u> | | E-mail: <u>w.morales@er-tec.com</u> | | | | Other (Please specify in notes section) | | | | | | | | | | |
| City/State/Zip: <u>Rio Piedras P.R. 00912</u> | | Site Contact: <u>Wanda Morales</u> | | | | Helium Prefill for High Methane (LFGAS) | | | | | | | | | | |
| Phone: <u>(787) 792-8902</u> | | TA Contact: <u>Don PAVOPKP</u> | | | | Landfill Gas | | | | | | | | | | |
| FAX: <u>(787) 793-5555</u> | | | | | | Soil Gas | | | | | | | | | | |
| Project Name: <u>Prozer Barajoneta</u> | | Analysis Turnaround Time | | | | Indoor Ambient Air | | | | | | | | | | |
| Site: <u>Barajoneta PR</u> | | Standard (Specify) <u>✓</u> | | | | Other (Please specify in notes section) | | | | | | | | | | |
| PO # | | Rush (Specify) | | | | ASTM D-1946 | | | | | | | | | | |
| Sample Identification | Sample Date(s) | Time Start (24 hr clock) | Time Stop (24 hr clock) | Interior Temp. (F) (Start) | Interior Temp. (F) (Stop) | Outgoing Canister Pressure (Psi) (Lab) | Incoming Canister Pressure (Psi) (Lab) | Flow Reg. ID | Can ID | Can Size (L) | Flow Controller Readout (ml/min) | Can Cert ID | TO-15 | EPA 3C | EPA 25C | NJDEP LL-TO-15 |
| | <u>AB-23</u> | <u>02/16/17</u> | <u>1221</u> | <u>—</u> | <u>—</u> | <u>—</u> | <u>—</u> | <u>—</u> | <u>4362</u> | <u>6</u> | <u>—</u> | <u>—</u> | <u>X</u> | <u>X</u> | <u>X</u> | <u>X</u> |
| | | <u>02/16/17</u> | <u>1221</u> | <u>—</u> | <u>97.5</u> | <u>—</u> | <u>—</u> | <u>—</u> | <u>—</u> | <u>—</u> | <u>—</u> | <u>—</u> | <u>—</u> | <u>—</u> | <u>—</u> | <u>—</u> |
| <p><u>RJB</u> <u>02/16/17</u></p> <p><u>RJB</u> <u>02/16/17</u></p> | | | | | | | | | | | | | GC/MS Analyst Signature (TO-15) | | | |
| Special Instructions/QC Requirements & Comments: <u>sample was collected on 02/16/17 and secure until shipment @ FedEx on 02/17/17. RJB</u> | | | | | | | | | | | | | Date/Time: <u>02/17/17 @ 1700</u> | | Date/Time: <u>02/17/17 @ 1700</u> | |
| Canisters Shipped by: <u>Rodrigo de Jesus</u> | | | | | | | | | | | | | Date/Time: <u>02/17/17 @ 1700</u> | | Date/Time: <u>02/17/17 @ 1700</u> | |
| Samples Relinquished by: | | | | | | | | | | | | | Date/Time: <u>2/18/17 1010</u> | | Date/Time: <u>2/18/17 1010</u> | |
| Relinquished by: | | | | | | | | | | | | | Date/Time: | | Date/Time: | |
| Lab Use Only: Shipper Name | | | | | | | | | | | | | Opened by: | | Condition: | |

TestAmerica Burlington
 30 Community Drive
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 phone 802-660-1990 fax 802-660-1919

Canister Samples Chain of Custody Record & TO-15 Field Test Data Sheet

TestAmerica Analytical Testing Corp. assumes no liability with respect to the collection and shipment of these samples.

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|----------------|--|-------------------------|---|---|---|---------------------------|--|--|--------------|--------|--------------|----------------------------------|-------------|-------|--------|---------|---|--------------------------|----------|---------|-----|---------|------|-------|---------|---------|---------|-----|-----|-----|------|---------|---------|---------|-----|-----|--|-------------------------|--|---------|--|---------|--|-------|---------|---------|---------|--|--|--|------|---------|---------|---------|--|--|--|
| Client Contact Information | | Project Manager: <u>Wanda Morales</u> | | Carrier: <u>FedEx</u> | | 1 of 7 COCS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Company: <u>ERTEC, PSC</u> | | Phone: <u>(887) 792-8902</u> | | Sampled By: <u>R. de Jesus / J. Maldonado</u> | | Analysis | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Address: <u>515 St. Asph. Landrum</u> | | E-mail: <u>wmorales@ertec.com</u> | | | | Matrix | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| City/State/Zip: <u>Piedras Blancas, PR 00971</u> | | Site Contact: <u>Wanda Morales</u> | | | | Helium Puff for High Methane (LF Gas) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Phone: <u>(887) 792-8902</u> | | TA Contact: <u>Don Pampick</u> | | | | Landfill Gas | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FAX: <u>(887) 983-5555</u> | | | | | | Soil Gas | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Project Name: <u>Barceloneta, PR</u> | | Analysis Turnaround Time | | | | Indoor/Ambient Air | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Site: <u>Barceloneta, PR</u> | | Standard (Specify) <input checked="" type="checkbox"/> | | | | Other (Please specify in notes section) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PO # | | Rush (Specify) | | | | ASTM D-1946 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sample Identification | Sample Date(s) | Time Start (24 hr clock) | Time Stop (24 hr clock) | Canister Pressure in Field ("Hg) (Start) | Canister Pressure in Field ("Hg) (Stop) | Interior Temp. (F) (Start) | Interior Temp. (F) (Stop) | Outgoing Canister Pressure ("Hg) (Lab) | Incoming Canister Pressure ("Hg) (Lab) | Flow Reg. ID | Can ID | Can Size (L) | Flow Controller Readout (ml/min) | Can Cert ID | TO-15 | EPA 3C | EPA 25C | Other (Please specify in notes section) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | AB-19 | 02/17/17 | 1436 | --- | --- | 97.4 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | | | | | | | | | | | | | | | | | | | | |
| <table border="1"> <tr> <td colspan="2">Temperature (Fahrenheit)</td> <td colspan="2">Minimum</td> <td colspan="2">Maximum</td> </tr> <tr> <td>Start</td> <td>Ambient</td> <td>Minimum</td> <td>Maximum</td> <td colspan="3"></td> </tr> <tr> <td>Stop</td> <td>Ambient</td> <td>Minimum</td> <td>Maximum</td> <td colspan="3"></td> </tr> <tr> <td colspan="2">Pressure (Inches of Hg)</td> <td colspan="2">Minimum</td> <td colspan="2">Maximum</td> </tr> <tr> <td>Start</td> <td>Ambient</td> <td>Minimum</td> <td>Maximum</td> <td colspan="3"></td> </tr> <tr> <td>Stop</td> <td>Ambient</td> <td>Minimum</td> <td>Maximum</td> <td colspan="3"></td> </tr> </table> | | | | | | | | | | | | | | | | | | | Temperature (Fahrenheit) | | Minimum | | Maximum | | Start | Ambient | Minimum | Maximum | | | | Stop | Ambient | Minimum | Maximum | | | | Pressure (Inches of Hg) | | Minimum | | Maximum | | Start | Ambient | Minimum | Maximum | | | | Stop | Ambient | Minimum | Maximum | | | |
| Temperature (Fahrenheit) | | Minimum | | Maximum | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Start | Ambient | Minimum | Maximum | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Stop | Ambient | Minimum | Maximum | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pressure (Inches of Hg) | | Minimum | | Maximum | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Start | Ambient | Minimum | Maximum | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Stop | Ambient | Minimum | Maximum | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Special Instructions/QC Requirements & Comments: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| GC/MS Analyst Signature (TO-15) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| | | | |
|---|-----------------------------------|-------------------------------------|-----------------------------------|
| Canisters Shipped by: <u>Roberto de Jesus</u> | Date/Time: <u>02/17/17 @ 1700</u> | Canisters Received by: <u>FedEx</u> | Date/Time: <u>02/17/17 @ 1700</u> |
| Samples Relinquished by: | Date/Time: | Received by: <u>[Signature]</u> | Date/Time: <u>2/18/17 1010</u> |
| Relinquished by: | Date/Time: | Received by: | Date/Time: |

Lab Use Only Shipper Name: _____ Operated By: _____ Condition: _____

TestAmerica Burlington
30 Community Drive
Suite 11

South Burlington, VT 05403
phone 802-660-1990 fax 802-660-1919

Canister Samples Chain of Custody Record & TO-15 Field Test Data Sheet

TestAmerica Analytical Testing Corp. assumes no liability with respect to the collection and shipment of these samples.

| | | | | | | | |
|--|--|--|--|---|--|---|--|
| Client Contact Information | | Project Manager: <u>Wanda Morales</u> | | Carrier: <u>FedEx</u> | | 1 of 1 COCs | |
| Company: <u>ERTEC, PSC</u> | | Phone: <u>887-797-8902</u> | | Sampled By: <u>R. De Jesus / J. Maldonado</u> | | Analysis Matrix | |
| Address: <u>Route 15 P.O. Landrum</u> | | E-mail: <u>wmorales@ertec.com</u> | | | | Helium Prefill for High Methane (LFGas) | |
| City/State/Zip: <u>PO Pedras Blancas, PR 00971</u> | | Site Contact: <u>Wanda Morales</u> | | | | Landfill Gas | |
| Phone: <u>787-797-8902</u> | | TA Contact: <u>Don Daley, PCKP</u> | | | | Soil Gas | |
| FAX: <u>787-783-5555</u> | | Analysis Turnaround Time | | | | Indoor Ambient Air | |
| Project Name: <u>Barceloneta, PR</u> | | Standard (Specify) | | | | Other (Please specify in notes section) | |
| Site: <u>Barceloneta, PR</u> | | Rush (Specify) | | | | ASTM D-1946 | |
| PO # | | | | | | EPA 25C | |
| Sample Identification | | Time Start (24 hr clock) | | Interior Temp. (F) (Start) | | EPA 3C | |
| <u>AB-21</u> | | <u>1500</u> | | <u>898</u> | | NJDEP LL-TO-15 | |
| | | Time Stop (hr clock) | | Interior Temp. (F) (Stop) | | TO-15 | |
| | | <u>1700</u> | | <u>898</u> | | X | |
| | | Canister Pressure In Field ("Hg) (Start) | | Outgoing Canister Pressure ("Hg) (Lab) | | X | |
| | | <u>---</u> | | <u>---</u> | | X | |
| | | Canister Pressure In Field ("Hg) (Stop) | | Incoming Canister Pressure ("Hg) (Lab) | | X | |
| | | <u>---</u> | | <u>---</u> | | X | |
| | | Flow Reg. ID | | Flow Controller Readout (ml/min) | | X | |
| | | <u>---</u> | | <u>---</u> | | X | |
| | | Can Size (L) | | Can ID | | X | |
| | | <u>---</u> | | <u>3486</u> | | X | |
| | | GC/MS Analyst Signature (TO-15) | | Can Cert ID | | X | |
| | | <u>---</u> | | <u>---</u> | | X | |
| | | Temperature (Fahrenheit) | | Flow Controller Readout (ml/min) | | X | |
| | | Maximum | | <u>---</u> | | X | |
| | | Minimum | | <u>---</u> | | X | |
| | | Ambient | | <u>---</u> | | X | |
| | | Start | | <u>---</u> | | X | |
| | | Stop | | <u>---</u> | | X | |
| | | Pressure (Inches of Hg) | | Can Size (L) | | X | |
| | | Maximum | | <u>---</u> | | X | |
| | | Minimum | | <u>---</u> | | X | |
| | | Ambient | | <u>---</u> | | X | |
| | | Start | | <u>---</u> | | X | |
| | | Stop | | <u>---</u> | | X | |
| Special Instructions/QC Requirements & Comments: <u>sample was collected on 02/16/17 and secure w/HP shipment @ FedEx on 02/17/17. RJB</u> | | | | | | | |
| Canisters Shipped by: <u>Robert De Jesus</u> | | Date/Time: <u>02/17/17 @ 1700</u> | | Canisters Received by: <u>FedEx</u> | | Date/Time: <u>02/17/17 @ 1700</u> | |
| Samples Relinquished by: | | Date/Time: | | Received by: <u>[Signature]</u> | | Date/Time: <u>2/18/17 10:10</u> | |
| Relinquished by: | | Date/Time: | | Received by: | | Date/Time: | |
| Lab Use Only | | Shipper Name | | Opened by | | Condition | |

FedEx Express International Air Waybill

1 From
 Date 02/17/17
 Sender's Name Roberto de Jesus
 Company ERTEC-PSC
 Address
 Address AMOUR A-5 REPARTO LANDRAU
 City RIO PIEDRAS
 State Province PR
 Country USA
 ZIP Postal Code 00921
 Recipients Name DON DALWICKI
 Company Test America
 Address 30 Community Drive, Suite 11
 City South Burlington
 State Province VT
 Country USA
 ZIP Postal Code 05403

3 Shipment Information
 Total Packages 1
 Total Weight 2.8 lbs. 0.00 kg
 Recipient's Tax ID Number for Customs Purposes
 Total Declared Value for Customs \$198.00
 Country of Manufacture
 Value for Customs \$198.00

Origin Copy

Not all services and options are available to all destinations. Dangerous goods cannot be shipped using this Air Waybill.

4 Express Package Service
 FedEx Intl. Priority
 FedEx Intl. First
 FedEx Intl. Economy

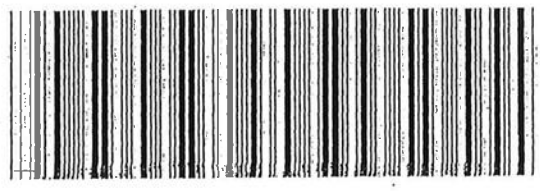
5 Packaging
 FedEx Envelope
 FedEx Pak
 FedEx Box
 Other BOX
 FedEx 10kg Box
 FedEx 25kg Box

6 Special Handling
 HOLD at FedEx Location
 SATURDAY Delivery

7 Payment
 Bill transportation charges for:
 Sender Acct. No. in Section 1 will be billed.
 Recipient 3
 Third Party 4
 Cash 5
 Check/Cheque

8 Your Internal Billing Reference
 165440

9 Required Signature
 Signature: [Handwritten Signature]



568

PART 18408
 REV. DATE 11/08
 ©1984-2008 FedEx
 PRINTED IN U.S.A. R30A
 Form ID No.

| | | | |
|-------------------|-------------------------------------|--------------|---------------|
| Origin Station ID | Country Code/Destination Station ID | URSA Routing | Heading Units |
| 8098 | 6584 | 8255 | 0402 |
| Received At | Rep. Stop | Drop Box | Station |
| BTVA | | | |
| Declared Value | Emp. A | Emp. B | Emp. C |
| \$198.00 | | | |

PACKAGE LABEL 809865848255
 COMMERCIAL INVOICE LABEL 809865848255
 DELIVERY RECORD LABEL
 DELIVERY REATTEMPT LABEL 809865848255

Login Sample Receipt Checklist

Client: Ertec

Job Number: 200-37412-1

SDG Number: 200-37412-1

Login Number: 37412

List Source: TestAmerica Burlington

List Number: 1

Creator: Hayden, Anita L

| 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 | 076608 |
| 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 | R. de Jesus and J. Negrou/J. Maldouado |
| 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 | No analysis requiring residual chlorine check assigned. |

Login Sample Receipt Checklist

Client: Ertec

Job Number: 200-37412-1

SDG Number: 200-37412-1

Login Number: 37422

List Number: 1

Creator: Hayden, Anita L

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 | 076609, 076610 |
| 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 | R. de Jesus, J Maldouado |
| 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"). | N/A | |
| 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. |

APPENDIX 6

MASS REMOVAL/EMISSION RATE AND EQB CARBON EFFICIENCY FORMULAS

**SVE SYSTEM PROGRESS REPORT NO. 6
JANUARY TO MARCH 2017
PFIZER PHARMACEUTICALS LLC
BARCELONETA, PUERTO RICO**

ERTEC JOB NO. E175475

APPENDIX 6

MASS REMOVAL / EMISSION RATE FORMULA

$$R = Q \times C$$

where: R = removal rate (lbs/hr)
Q = air flow rate (ft³/min; ACFM)
C = compound concentration (mg/L)

As flow rate and compound concentration are the only two variables in this equation, it was simplified as follows:

$$R = \text{ft}^3/\text{min} \times \text{mg/L} \times 60 \text{ min/hr} \times 28.32 \text{ L/ft}^3 \times 1\text{lbs}/453.6 \times 10^3$$

$$R = (\text{ft}^3/\text{min} \times \text{mg/L})/266.95$$

Where: R = removal rate in lbs/hr
ft³/min = air velocity measured prior to sample collection
mg/L = detected concentration of each compound analyzed
266.95 = constant resulting from the reduction of conversion factors in the equation

EQB CONSTRUCTION PERMIT CARBON EFFICIENCY CALCULATION FORMULA

Absolute Difference = Absolute Value [Inlet-1 Concentration – Outlet Concentration]

% Difference Absolute = [Absolute Difference / Inlet-1 Concentration] x 100