

***Report on Quarterly Air Monitoring,  
Area IV, First Quarter 2018***

***Santa Susana Field Laboratory  
Ventura County, California***



***Prepared for:  
United States  
Department of Energy***

***Prepared by:  
North Wind, Inc.***

August 2018

RP Review Draft

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First Quarter 2018**

**Santa Susana Field Laboratory  
Ventura County, CA**

**August 2018**

**Contract No. DE-EM0000837-DT0007583**

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# Professional Certification

Report on Quarterly Air Monitoring, Area IV, First Quarter 2018  
Santa Susana Field Laboratory  
Ventura County, California

August 2018

This Quarterly Air Monitoring Report has been prepared by a team of qualified professionals under the supervision of the senior staff whose seals and signatures appear below.



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## EXECUTIVE SUMMARY

This report summarizes the United States Department of Energy (DOE) air monitoring activities conducted during the first quarter (Q1) 2018 at Area IV within the Santa Susana Field Laboratory (SSFL), located in Ventura County, California.

This quarterly report has been developed by North Wind, Inc., (North Wind) on behalf of DOE in cooperation with The Boeing Company (Boeing) and the National Aeronautics and Space Administration (NASA), to perform a Baseline Air Monitoring Program.

The objective of the Baseline Air Monitoring Program is to evaluate baseline (that is, pre-project) conditions and provide a basis for determining the magnitude of deviation from those baseline conditions resulting from onsite remediation activities (project) at SSFL. In accordance with the *Final Baseline Air Monitoring Work Plan, Santa Susana Field Laboratory, Ventura County, California* (NASA 2017), the responsible parties (RPs) are monitoring for particulate matter less than 10 microns in aerodynamic diameter (PM<sub>10</sub>), particulate matter less than 2.5 microns in aerodynamic diameter (PM<sub>2.5</sub>), volatile organic compounds (VOCs), and radionuclides at 14 locations at SSFL. In addition, the Baseline Air Monitoring Program includes collection of meteorological data.

The following air monitoring activities conducted during Q1 2018 by DOE within Area IV are summarized in this report:

- Collected meteorological data from one location (DOE-4)
- Collected PM<sub>10</sub> data from four locations (DOE-1 through -4)
- Collected air samples from four locations (DOE-1 through -4) for VOC laboratory analysis
- Collected radionuclide samples for laboratory analysis from four locations (DOE-1 through -4), which will be reported annually.

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## ACRONYMS AND ABBREVIATIONS

°C	degrees Celsius
°F	degrees Fahrenheit
µg/m <sup>3</sup>	microgram(s) per cubic meter
Boeing	The Boeing Company
DOE	U.S. Department of Energy
DTSC	State of California Department of Toxic Substances Control
EPA	U.S. Environmental Protection Agency
ETEC	Energy Technology Engineering Center
GC	gas chromatography
MS	mass spectrometry
m	meter
mb	millibar
m/sec	meter per second
NAAQS	National Ambient Air Quality Standards
NASA	National Aeronautics and Space Administration
NIST	National Institute of Standards and Technology
PM <sub>2.5</sub>	particulate matter less than 2.5 microns in aerodynamic diameter
PM <sub>10</sub>	particulate matter less than 10 microns in aerodynamic diameter
PDT	Pacific Daylight Time
PST	Pacific Standard Time
Q1	first quarter
QA	quality assurance
QC	quality control
RP	responsible party
RPD	relative percent difference
RSL	regional screening level
SDG	sample delivery group
SSFL	Santa Susana Field Laboratory
VOC	volatile organic compound

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## 1. INTRODUCTION

National Aeronautics and Space Administration (NASA), the Boeing Company (Boeing), and the U.S. Department of Energy (DOE), also known as the responsible parties (RPs), are performing baseline air monitoring at the Santa Susana Field Laboratory (SSFL) site located in Ventura County, California. The SSFL is a business segment of Boeing. SSFL operates the 2,849-acre SSFL located atop a range of hills between the Simi and San Fernando valleys, north of Los Angeles. The westernmost 290 acres of the SSFL, known as Area IV, contains both DOE and Boeing facilities. The DOE portion is mainly contained within the 90 acres known as the Energy Technology Engineering Center (ETEC).

When opened in the late 1950s, ETEC was ideally remote from population centers to enable development of security-sensitive projects. These projects supported research for DOE and its predecessor agencies for nuclear research and energy development. Area IV includes buildings that house test apparatus for large-scale heat transfer and fluid mechanics experiments, mechanical and chemical test facilities, office buildings, and auxiliary facilities.

Baseline air monitoring is being conducted in accordance with the *Final Baseline Air Monitoring Work Plan, Santa Susana Field Laboratory, Ventura County, California* (NASA 2017), which was submitted to the State of California Department of Toxic Substances Control (DTSC) on September 21, 2017. DTSC approved the Work Plan. Final locations of the air monitoring locations were approved by DTSC on January 30, 2018 (DTSC 2018).

The objective of the Baseline Air Monitoring Program is to evaluate baseline (that is, pre-project) conditions and provide a basis for determining the magnitude of deviation from those baseline conditions resulting from onsite remediation activities (project) at SSFL. RPs are monitoring for particulate matter less than 10 microns in aerodynamic diameter (PM<sub>10</sub>), particulate matter less than 2.5 microns in aerodynamic diameter (PM<sub>2.5</sub>), volatile organic compounds (VOCs), and radionuclides at 14 locations at SSFL. Meteorological data are also collected as a part of the Baseline Air Monitoring Program.

Figure 1 shows the proposed air monitoring locations for the Baseline Air Monitoring Program. These locations were selected based on the areas to be remediated, with consideration of winds in the area, topographic features, and accessibility. The air monitoring sites were selected based on guidance obtained from the U.S. Environmental Protection Agency's (EPA's) *Quality Assurance Handbook for Air Pollution Measurement Systems*, Volume II, Ambient Air Monitoring Program (EPA 2013) and *Meteorological Monitoring Guidance for Regulatory Modeling Applications* (EPA 2000). Sites were evaluated per 40 Code of Federal Regulations (CFR) 58, Appendix E – Probe and Monitoring Path Siting Criteria for Ambient Air Quality Monitoring. DOE is responsible for DOE-1, DOE-2, DOE-3, and DOE-4 of the 14 monitoring locations, represented in Figure 1. VOCs, PM<sub>10</sub>, and radionuclides are monitored at the four DOE monitoring locations and meteorological conditions are monitored at the DOE-4 location. The DOE monitoring locations DOE-1 through DOE-4 are presented in Figure 2.

The duration of the baseline monitoring period is 1 year. This report summarizes the quarterly results and quality assurance (QA) activities performed at the DOE locations between April 15, 2018, and July 14, 2018, which represents the first quarter (Q1) of the 1-year baseline monitoring period.

## **1.1 Regional Climate and Wind Direction**

The climate in the area of SSFL is characterized as “Mediterranean.” The mean temperature during the winter months is approximately 50 degrees Fahrenheit (°F) and the mean temperature in the summer months is approximately 70°F. Based on climate data between 2011 and 2017 from the National Weather Service, rainfall has ranged from approximately 4 inches to approximately 14.5 inches on a calendar year basis. Average rainfall is on the order of 10.45 inches per year. The majority of the rainfall occurs between October and April.

The average hourly wind speed in Simi Valley varies significantly by season. The more turbulent part of the year lasts for 6 months, from November to April, with average western wind speeds of more than 7 miles per hour. The calmer time of year lasts for 6 months, with northerly winds from May to October.

During the fall, winter, and spring, Santa Ana winds can blow from the north or northeast in excess of 30 knots.

## 2. ANALYTICAL SAMPLING EVENTS

VOCs are collected according to the EPA Toxic Compendium Method TO-15, *Determination of Volatile Organic Compounds (VOCs) Air Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/Mass Spectrometry (GC/MS)* (EPA 1999). Twenty-four-hour time-integrated samples are collected into Summa canisters via a flow controller and sent to an offsite laboratory for analysis. VOCs are collected every other week. There were six sampling events in this reporting period. One field duplicate sample was collected during each sampling event.

Radionuclide samples are collected on glass fiber (Type A/E) filters that are changed twice a week. After a minimum 120-hour holding time to allow the decay of short-lived radon and thoron daughters, the samples are simultaneously counted for gross alpha and beta activity with a low-background, thin-window, gas-flow proportional-counting system continually purged with P-10 argon/methane counting gas over a preset time interval. There were 26 sampling events in this reporting period, which will be reported annually.

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### 3. DATA

Sections 3.1 through 3.5 discuss Q1 air monitoring data.

#### 3.1 Meteorological Data

Meteorological data were collected at the onsite monitoring station DOE-4. Monitored meteorological parameters included wind speed, wind direction, air temperature at 2 meters (m) and 10 m, relative humidity, precipitation, barometric pressure, and solar radiation. In addition, statistical parameters were provided by the data logger to include delta temperature (i.e., difference between 10-m and 2-m temperature), maximum wind speed (i.e., wind gust), and standard deviation of wind direction. Meteorological data at this station are being processed and reported in 15-minute intervals (i.e., at :00, :15, :30; and :45 minutes of each hour).

A data validation screening was performed on the monitored meteorological parameters based on Table 8.4 – *Screening Criteria of the EPA’s Meteorological Monitoring Guidance for Regulatory Modeling Applications* (EPA 2000). The screening was performed at the end of the reporting period. The data validation screening provides the basis for evaluating data completeness and for determining sensor performance and/or maintenance status.

There were 91 days in this reporting period. The meteorological data collection did not begin, however, until 38 days into the quarter (22 May 2018) due to equipment issues as described in Section 4.1.5, Corrective Action. Project data completeness goals of 80% for the meteorological data were achieved based on the actual data period of record (22 May 2018 through 14 Jul 2018). However, based on the start date of the reporting period (15 April 2018), the data completeness goal was not achieved due to the 37 days of missed data collection, which accounts for the first 40% of the reporting period. Data completeness statistics are presented in Table 1 relative to both the actual data collection period and for the full reporting period. Specific findings and sensor maintenance recommendations associated with the data screening are presented in Section 4.1.5.

Table 1. Data screening summary for monitored meteorological parameters.

Meteorological Parameter	Screening Criteria <sup>(1)</sup> (for valid sensor responses)	Data Completeness <sup>(2)</sup>	
		Collection Period (22 May 2018 – 14 Jul 2018)	Reporting Period (15 April 2018 – 14 Jul 2018)
Wind Speed	between 0 and 25 m/sec > 0.1 m/sec variation over 3 hours > 0.5 m/sec variation over 12 hours	100%	58.6%
Wind Direction	between 0 and 360 degrees > 1 degree variation over 3 hours > 10 degree variation over 12 hours	100%	58.6%
Standard Deviation of Wind Direction	inherits the completeness stats of Wind Direction	100%	58.6%
Temperature @ 2 m	≤ local record high (monthly basis) ≥ local record low (monthly basis) > 0.5°C variation over 12 hours	98.81%	57.9%
Temperature @ 10 m	≤ local record high (monthly basis) ≥ local record low (monthly basis) > 0.5°C variation over 12 hours	98.57%	57.7%
Delta Temperature	≤ 0.1°C during daytime ≥ -0.1°C during nighttime between -3.0 and 5.0°C	99.61%	58.4%
Relative Humidity (and Dewpoint Temperature)	relative humidity between 0-100% dew point T ≤ ambient T dew point T ≤ 5.0°C variation over 1 hour dew point T > 0.5°C variation over 12 hours	98.65%	57.8%
Precipitation	≤ 1 inch in 1 hour ≤ 4 inches in 24 hours ≥ 2 inches in 3 months	96.87%	56.8%
Barometric Pressure	between 871 and 982 mb (local) (i.e., between 940 and 1060 mb sea level) ≤ 6 mb variation over 3 hours	100%	58.6%
Solar Radiation	> 0 at night ≤ maximum possible for the date and latitude.	99.98%	58.6%
<p>Notes:</p> <p>(1) Screening criteria from EPA Meteorological Monitoring Guidance (EPA 2000), Table 8.4 – Suggested Data Screening Criteria.</p> <p>(2) Data completeness is the percentage of observations that pass screening divided by the total number of possible observations within the period (i.e., [Observations Passing Screening] / [Possible 15-minute observations]). Missing observations are considered as not passing screening and therefore count against the data completeness statistics.</p> <p><b>The number of possible observations in the Collection Period (22 May @ 16:30 – 14 Jul) = 5,118</b></p> <p><b>The number of possible observations in the Reporting Period (15 Apr – 14 Jul) = 8,736</b></p>			

The data validation screening involved comparing, on an individual parameter basis, the recorded values (i.e., observations) against the EPA screening criteria shown in Table 1. Values that fell outside the acceptable screening criteria were flagged as being “suspect.” These were excluded from the final dataset and counted against the data completeness percentage for the respective monitored parameter. No attempts were made to override the flags through meteorological judgment or comparison to observed values from nearby independent meteorological observations (i.e., Ventura County Air Pollution Control District station at Simi Valley – Cochran located 4 miles to the northeast, also referred to as MesoWest Station SV) or other Santa Susana Field Laboratory onsite meteorological observations. However, in the

case of precipitation, meteorological judgment was applied to invalidate the two recorded precipitation events during the month of May due to a determination that the rain gauge signal was being managed incorrectly within the data logger (see Section 4.1.5, Corrective Action, for a discussion).

In summary, the data validation screening determined that the lowest data completeness for all monitored parameters for the actual data collection period ranged from 96.87% for precipitation to 100% for wind speed/direction and barometric pressure. Based on the entire reporting period, data completeness was just below 60% for all parameters.

The final screened 15-minute meteorological dataset was used to develop the windrose presented on Figure 3. A windrose is a graphical representation of wind speed and direction distribution (or climatology) for the period of interest. The frequencies of winds blowing from a particular direction are shown as petals on the windrose. Wind speed is depicted by color bands on the windrose. During this monitoring period, the average wind speed at the site was 3.5 meters per second (m/sec), and the maximum recorded wind speed was 9.7 m/sec. The predominant wind direction was from the east-southeast with a secondary prevalence from the northwest to north-northwest. Calm winds are identified as being less than 0.5 m/sec.

### 3.2 PM<sub>10</sub> Data

PM<sub>10</sub> data are being collected with MetOne E-BAM monitors at four monitoring locations. The MetOne E-BAM uses the principle of beta attenuation to provide a determination of mass concentration. Twenty-four-hour concentrations are calculated from the hourly concentrations. There were 91 days in this reporting period. Monitors at locations DOE-1, DOE-3, and DOE-4 ran for all 91 days. The monitor at location DOE-2 was down for 5 of the 91 days (from July 10 to July 14) due to equipment issues. Data completeness for PM<sub>10</sub> exceeded the project goal of 80% completeness (see Table 2). The complete table of daily averages is presented in Appendix A.

Table 2. PM<sub>10</sub> data completeness for April 15–July 14, 2018.

Location	Valid Readings (Days)	Possible Readings (Days)	Data Completeness (Percent)
DOE-1	91	91	100
DOE-2	86	91	95
DOE-3	91	91	100
DOE-4	91	91	100

The five highest PM<sub>10</sub> results identified for the reporting period are listed in Table 3 along with the National Ambient Air Quality Standard (NAAQS) for PM<sub>10</sub>. PM<sub>10</sub> concentrations were consistent with levels typically found in urban air and were below the NAAQS during this reporting period.

Table 3. Top five PM<sub>10</sub> 24-hour average concentration days.

Date	Location	PM <sub>10</sub> Value (µg/m <sup>3</sup> )	NAAQS* (µg/m <sup>3</sup> )
6/21/18	DOE-1	0.59538	150
6/22/18	DOE-1	0.47555	150
7/9/18	DOE-3	0.06717	150
6/18/18	DOE-4	0.05446	150
6/19/18	DOE-4	0.04675	150

\* Not to be exceeded more than once per year on average over 3 years. <https://www.epa.gov/criteria-air-pollutants/naaqs-table>

### 3.3 Volatile Organic Compound Data

There were six sampling events in this reporting period. Each of the four DOE locations was sampled during each sampling event. Data completeness goals for VOCs exceeded the project goal of 85% (see Table 4).

Table 4. Ambient air VOC data completeness.

Location	Valid Readings (Days)	Possible Readings (Days)	Data Completeness (Percent)
DOE-1	6	6	100
DOE-2	6	6	100
DOE-3	6	6	100
DOE-4	6	6	100

VOC detection results are presented in Table 5, including comparison to the May 2018 EPA Residential Air Regional Screening Levels (RSLs). Ethylbenzene (1.9 µg/m<sup>3</sup>) and trichloroethene (3.8 µg/m<sup>3</sup>) were the only concentrations detected above the respective EPA Residential Air RSLs during the Q1 reporting period. Both analytes were detected once during Q1 at location DOE-1 during separate sampling events. Complete VOC analytical results are presented in Appendix B, and the associated laboratory data packages are presented in Appendix C.

Table 5. Ambient air VOC detection results compared to RSLs.

Location ID	Sample Date	Analyte	Result (µg/m <sup>3</sup> )	EPA Residential Air RSLs (µg/m <sup>3</sup> )
DOE-1	4/25/2018	Dichlorodifluoromethane	2	100
DOE-1	5/25/2018	Toluene	12	5200
DOE-1	6/8/2018	2-Butanone	4.2	5200
DOE-1	6/8/2018	Ethylbenzene	<b>1.9</b>	1.1
DOE-1	6/8/2018	Toluene	4.0	5200
DOE-1	6/21/2018	Chloromethane	1.9	94
DOE-1	6/21/2018	Dichlorodifluoromethane	3	100
DOE-1	6/21/2018	Ethyl acetate	1.4	73

Location ID	Sample Date	Analyte	Result (µg/m <sup>3</sup> )	EPA Residential Air RSLs (µg/m <sup>3</sup> )
DOE-1	7/3/2018	2-Butanone	3.0	5200
DOE-1	7/3/2018	4-Ethyltoluene	2.3*	-----
DOE-1	7/3/2018	Carbon disulfide	3.0	730
DOE-1	7/3/2018	Chloromethane	2.7	94
DOE-1	7/3/2018	Ethyl acetate	1.4	73
DOE-1	7/3/2018	Methylene chloride	6.2	100
DOE-1	7/3/2018	Trichloroethene	<b>3.8</b>	0.48
DOE-2	4/25/2018	Dichlorodifluoromethane	2	100
DOE-2	4/25/2018	Ethyl acetate	8.9	73
DOE-2	4/25/2018	Toluene	1.7	5200
DOE-2	5/25/2018	Carbon disulfide	25	730
DOE-2	5/25/2018	Chloromethane	1.7	94
DOE-2	5/25/2018	Toluene	12	5200
DOE-2	6/21/2018	Chloromethane	1.9	94
DOE-2	6/21/2018	Dichlorodifluoromethane	3	100
DOE-2	6/21/2018	Ethyl acetate	2.3	73
DOE-2	7/3/2018	Chloromethane	2.5	94
DOE-3	4/25/2018	Dichlorodifluoromethane	2	100
DOE-3	5/25/2018	Dichlorodifluoromethane	2	100
DOE-3	5/25/2018	Ethyl acetate	2.9	73
DOE-3	5/25/2018	Styrene	2	1000
DOE-3	5/25/2018	Toluene	78	5200
DOE-3	6/21/2018	Chloromethane	2.0	94
DOE-3	6/21/2018	Dichlorodifluoromethane	3	100
DOE-3	6/21/2018	Ethyl acetate	1.6	73
DOE-3	7/3/2018	Chloromethane	2.5	94
DOE-4	4/25/2018	Dichlorodifluoromethane	2	100
DOE-4	5/25/2018	Toluene	21	5200
DOE-4	6/21/2018	Chloromethane	2.1	94
DOE-4	6/21/2018	Dichlorodifluoromethane	3	100
DOE-4	6/21/2018	Ethyl acetate	1.8	73
DOE-4	7/3/2018	1,2,4-Trimethylbenzene	14	63
DOE-4	7/3/2018	1,3,5-Trimethylbenzene	3.2	63
DOE-4	7/3/2018	2-Butanone	7.7	5200
DOE-4	7/3/2018	4-Ethyltoluene	3.3	-----
DOE-4	7/3/2018	4-Methyl-2-pentanone	13	3100
DOE-4	7/3/2018	Carbon disulfide	26	730
DOE-4	7/3/2018	Chloromethane	3.6	94
DOE-4	7/3/2018	Ethyl acetate	1.1	73

\* = LCS or LCSD is outside acceptance limits

**BOLD** = detection above the reporting limit, and also exceeds the EPA RSL

### **3.4 Radionuclide Data**

There were 26 sampling events this reporting period. Radionuclide samples were collected on glass fiber filters, as discussed in Section 2, and sent to the analytical laboratory. Radionuclide data will be reported in the annual report for monitoring locations DOE-1 through -4.

## 4. QA/QC ACTIVITIES

The following QA/quality control (QC) activities were conducted for the PM<sub>10</sub>, VOC, and meteorological data collection and analysis. Radionuclide data collection and analysis also consisted of QA/QC activities, which will be discussed in the annual report.

### 4.1 Field QA/QC

#### 4.1.1 PM<sub>10</sub>

The twenty-four-hour daily averages for Q1 are presented in Appendix A along with the monthly average minimum, maximum, and 95<sup>th</sup> percentile for each station location.

#### Flow Verifications

Functionality of the MetOne E-BAM units is verified and recorded monthly during instrument audits; however, the instruments are also checked several times a week for operability. During the monthly audits, the MetOne E-BAM temperature, pressure, and flow rate are verified against a National Institute of Standards and Technology (NIST) traceable flowmeter. None of the results exceeded the flow rate measurement quality objective of +/- 7%.

#### 4.1.2 VOCs

A minimum of 20% of the VOC results are undergoing third-party data validation. During this quarter, one of the six sample delivery groups (SDGs), SDG 320-39822-1, underwent data validation. The data validation report for this reporting period is presented in Appendix D.

#### Field Duplicates

Six field duplicates were collected during this reporting period, one per each sampling event, which exceeds the minimum quality objective of 10%. Five of the analytes detected in the six field duplicates exceeded the quality objective of +/- 15% relative percent difference (RPD). Eleven analytes were detected near the reporting limit in either the sample or duplicate, and in comparison, were reported as a non-detect in the associated sample or duplicate. Three sample and duplicate analyte detections were within the quality objective of +/- 15% RPD. There were no other detections associated with the samples and associated duplicates collected during this reporting period.

#### Canister Pressure

Vacuum in the canisters is measured before and after sampling with a digital pressure gauge to ensure proper function. Canister vacuums ranged from -17 inches Hg to -2 inches Hg during this reporting period.

#### 4.1.3 Meteorological

At the close of the reporting period, a data validation screening was performed on the monitored meteorological parameters based on Table 8.4 – *Screening Criteria of the EPA's Meteorological Monitoring Guidance for Regulatory Modeling Applications* (EPA 2000), as discussed in Section 3.1. The data validation screening provided the basis for evaluating data completeness and for determining sensor performance and/or maintenance status.

#### 4.1.4 Maintenance

Equipment maintenance performed during this reporting period included the following:

- Cleaned MetOne E-BAM nozzle/vane, as needed
- Cleaned PM<sub>10</sub> inlets and downtubes, as needed.

#### 4.1.5 Corrective Action

The following issues and corrective actions were noted during this reporting period.

##### PM<sub>10</sub> Monitors

The MetOne E-BAM monitor at DOE-2 shut down on July 10, as discussed in Section 3.2. The monitor was sent back to the manufacturer and was replaced with a new monitor once it was received. At the time that DOE-2 went down, the back-up monitor that was onsite was already in use and a replacement back-up had not yet been received. A back-up monitor is now currently onsite to reduce future downtime.

##### Meteorological Station

During the data validation screening performed on the meteorological dataset from the DOE-4 station, several issues were identified that had an impact on the meteorological data quality and data completeness. Descriptions and recommendations regarding these issues are presented below.

**Start of Data Collection** – Data collection from the DOE-4 meteorological station did not begin at the start of the reporting period but was delayed until 38 days into the reporting period due to problems with the data downloading software. The resolution involved using different software (Comet) for the communications interface. Although the meteorological station and data logger were operational from the beginning of the reporting period, the memory on the data logger had already filled to capacity due to the originally-set monitoring interval of 1-minute and had been overwritten by the time the new software was installed and became operational.

**Data Logger Timestamp** – A timestamp jump of approximately 1 hour was identified in the 01 Jun 2018 raw data records. An investigation into the possible cause provided evidence that the clock settings in the data logger were manually adjusted to Pacific Daylight Time (PDT) on that date rather than being kept in Pacific Standard Time (PST). To remedy this issue, the timestamp in the final screened dataset was adjusted to remove this known offset. In addition, it is recommended to synchronize the data logger clocks for the meteorological station and E-BAM monitors, and to verify that all data logger clocks are set to PST.

**Relative Humidity** – A number of high-humidity events were detected in the raw data record. In several instances, values of 100.1% were recorded over extended periods of time ranging from 30 minutes up to 12 hours. These events occurred during early morning hours. This is consistent with a typical diurnal cycle for relative humidity: lower values during daytime hours when ambient temperatures are higher; and higher values during night time hours when ambient temperatures are lower. The climate at the site in southern California is generally arid to semi-arid, and high relative humidity conditions are uncommon. However, based on the ETEC facility manager's knowledge of local climate conditions at the meteorological station and visual observations, the site is occasionally impacted by fog conditions associated with inland intrusion of the marine boundary layer. While this can occur at any time of the year, it is most frequent in May and June. The onsite ETEC facility manager confirmed that there were several instances of thick fog conditions during late May 2018, which coincides with the 100.1% relative humidity observations from the meteorological station. The coincident E-BAM relative humidity observations were not considered to be reliable for verifying these high-humidity events since the E-BAM monitors use internal relative humidity sensors, which may be shielded from true ambient conditions (i.e.,

temperature and moisture levels) outside the monitor housing. Consequently, there was only one issue associated with the relative humidity observations in the raw dataset: values exceeding 100%. Since the sensor is calibrated by the factory to have an operating range of 0–100%, recorded values of 100.1% are likely associated with mathematical precision/rounding in the scaling equation for the relative humidity sensor within the data logger program. Although this exceedance (of the 100% upper limit for this sensor) is considered extremely small, a value greater than 100% would be flagged as “suspect” in the data validation screening. It is typical in meteorological data collection projects for the data logger programming to internally apply a correction to relative humidity values slightly exceeding 100%. Inspection of the ETEC data logger program reveals that no such correction is being applied. Therefore, even though the data logger comes from the factory pre-configured for the ordered set of sensors, it is recommended that the data logger program be modified to include a correction for observed relative humidity values that slightly exceed 100%. In regard to the raw data record for this reporting period, there were 248 relative humidity observations of 100.1%. A review indicated that very high relative humidity conditions (i.e., 99.9 or 100%) were recorded in the observations prior to and after each occurrence of the 100.1% values. Subsequently, a correction to 100.0% was applied to all observation of 100.1% in the raw data prior to application of the EPA screening criteria.

Precipitation – Two precipitation events were identified in the data record. The rain gauge operates on the principle of a tipping bucket that is calibrated to 0.01 inch of rainfall per bucket tip. During each observation interval, 15 minutes in this case, the data logger counts the number of bucket tips and records the resulting sum (converted to inches) at the end of the observation interval. The data buffer for this value should then be reset to zero for the start of the next observation interval. Review of the precipitation events recorded by the DOE-4 meteorological station indicates that the data logger is not properly resetting the data buffer to zero between 15-minute observations. Instead, it is resetting the buffer at the end of each 24-hour day. The data logger will be reprogrammed to correct the precipitation data management so that it resets the buffer to zero at the end of each 15-minute interval, after the observation is recorded.

Meteorological Data Validation Screening – The goal of a data monitoring program is to collect continuous and valid observations with a minimum of data loss. The data validation screening procedure is a quality assessment tool intended to ensure that the meteorological sensors are responding accurately and in accordance with a set of established standards of performance. Properly used, the data validation screening procedures should be applied on a frequent basis throughout the data collection period, not just at the end of the period, as occurred for this first reporting period. With a frequent data quality review, potential issues with sensors or the data logger can be promptly identified and corrected. Despite the sensor and data logger issues identified through the screening procedure performed at the end of the reporting period, data completeness (based on the 22 May start of data collection) was determined to be well above the 80% goal for all monitored meteorological parameters at station DOE-4. However, since the sensors were just put into service, performance is expected to be good and within acceptable limits. As the sensors age, monitoring their performance and performing regular maintenance become more critical for avoiding or minimizing data loss. Therefore, it is recommended that data validation screening be performed on a frequent basis (e.g., weekly or bi-weekly) during future reporting periods.

## 4.2 Laboratory QA/QC

This report covers 30 air monitoring samples for VOCs collected and analyzed according to the EPA Toxic Compendium Method TO-15, *Determination of Volatile Organic Compounds (VOCs) in Air Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/Mass Spectrometry (GC/MS)* (EPA 1999). These samples were reported under six SDGs by the laboratory. The analyses were performed by Test America Group in Sacramento, CA. For each SDG, the laboratory ran continuing calibration verification, a method blank, and laboratory control samples, and verified surrogate recoveries for each sample.

## 4.3 Audit Results

The PM<sub>10</sub> instruments were installed on April 9. They were calibrated at the manufacturer and were functioning properly upon installation. Beginning in May, the PM<sub>10</sub> instruments were audited monthly with a secondary NIST traceable flow meter. Although audits occur only monthly, the instruments were checked to ensure that they are functioning several times a week. Table 6 lists the dates for audits conducted in May and June. An audit was also conducted on July 17, which is not included in this report because it is outside of this reporting period. No flow rate comparisons exceeded the project's acceptance criterion of +/- 7%. Complete audit reports are presented in Appendix E.

Table 6. PM<sub>10</sub> audit completeness.

Location	MetOne E-BAM Serial Number	Parameter	Date
DOE-1	W23314	PM <sup>10</sup>	5/18/2018
DOE-2	W23310	PM <sup>10</sup>	5/17/2018
DOE-3	W23313	PM <sup>10</sup>	5/22/2018
DOE-4	W23316	PM <sup>10</sup>	5/22/2018
DOE-1	W23314	PM <sup>10</sup>	6/19/2018
DOE -2	W23310	PM <sup>10</sup>	6/19/2018
DOE-3	W23313	PM <sup>10</sup>	6/20/2018
DOE-4	W23316	PM <sup>10</sup>	6/22/2018
DOE-1	X16067	PM <sup>10</sup>	6/22/2018

## **5. SUMMARY**

This report summarizes the air monitoring data collected during the Q1 reporting period: April 15 through July 14, 2018. Field and laboratory QA procedures were acceptable during this monitoring period.

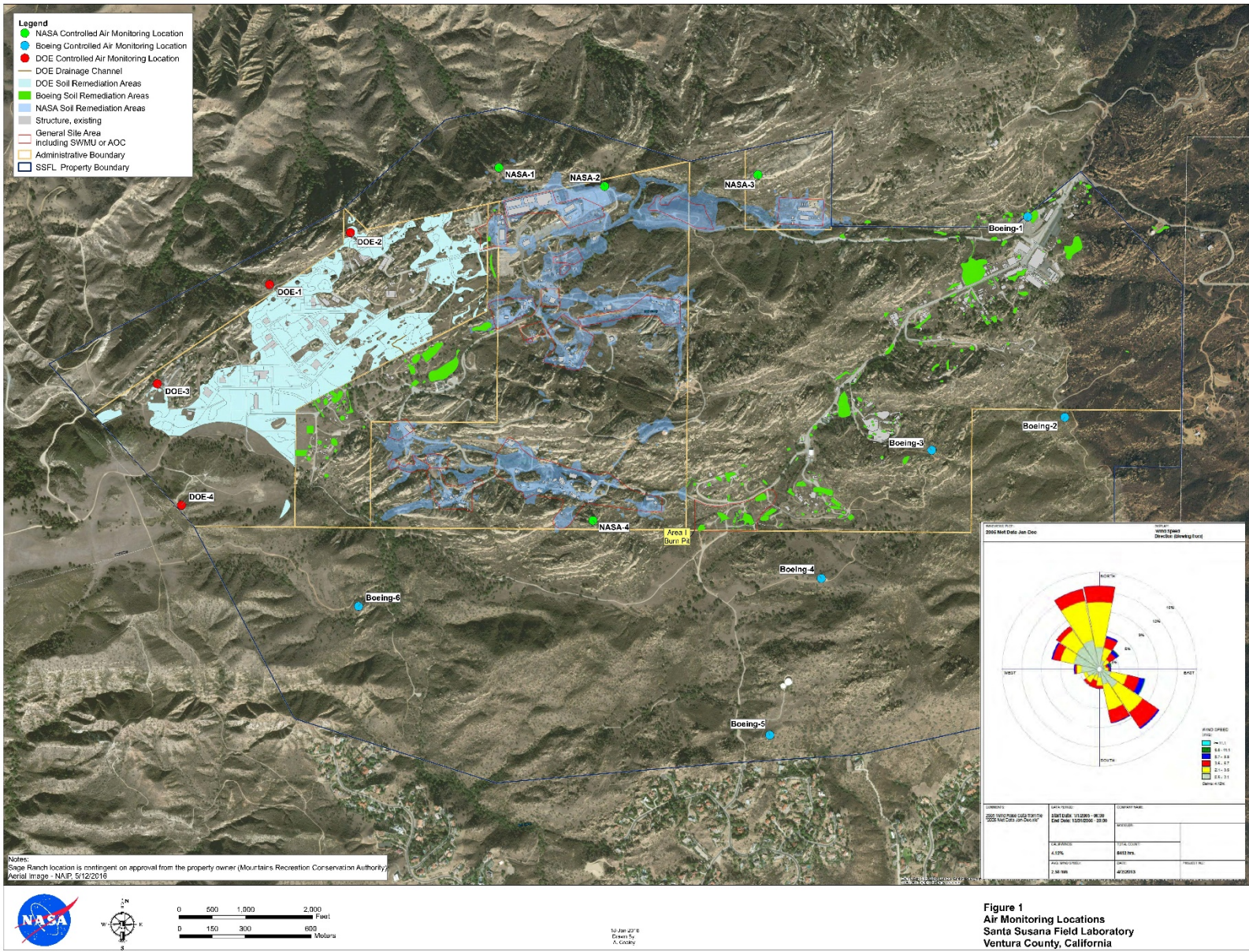
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## 6. REFERENCES

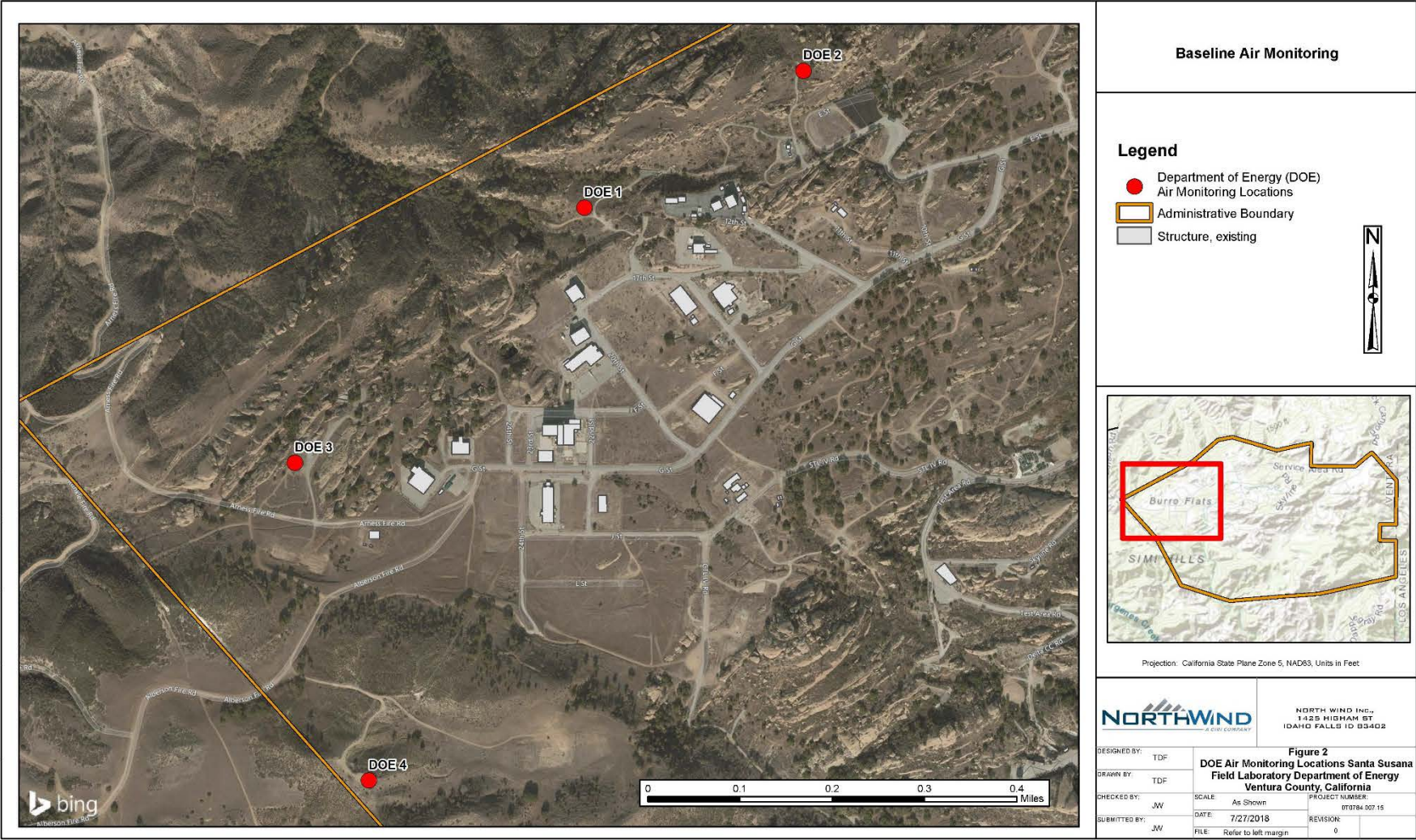
- Department of Toxic Substances Control (DTSC). 2018. *Approval of the Final Air Monitoring Station Locations for the Santa Susana Field Laboratory, Ventura County, California*. January 2018.
- National Aeronautics and Space Administration (NASA). 2017. *Santa Susana Field Laboratory Baseline Air Monitoring Report Work Plan Report*. Prepared for California Department of Toxic Substances Control. Prepared on behalf of National Aeronautics and Space Administration, George C. Marshall Space Flight Center, The Boeing Company, and Department of Energy, Energy Technology and Engineering Center. September. Available online at: [https://www.dtsc-ssfl.com/files/lib air\\_monitor/work\\_plan/67496 SSFL AirMonitoringWorkPlan Final.pdf](https://www.dtsc-ssfl.com/files/lib_air_monitor/work_plan/67496_SSFL_AirMonitoringWorkPlan_Final.pdf)
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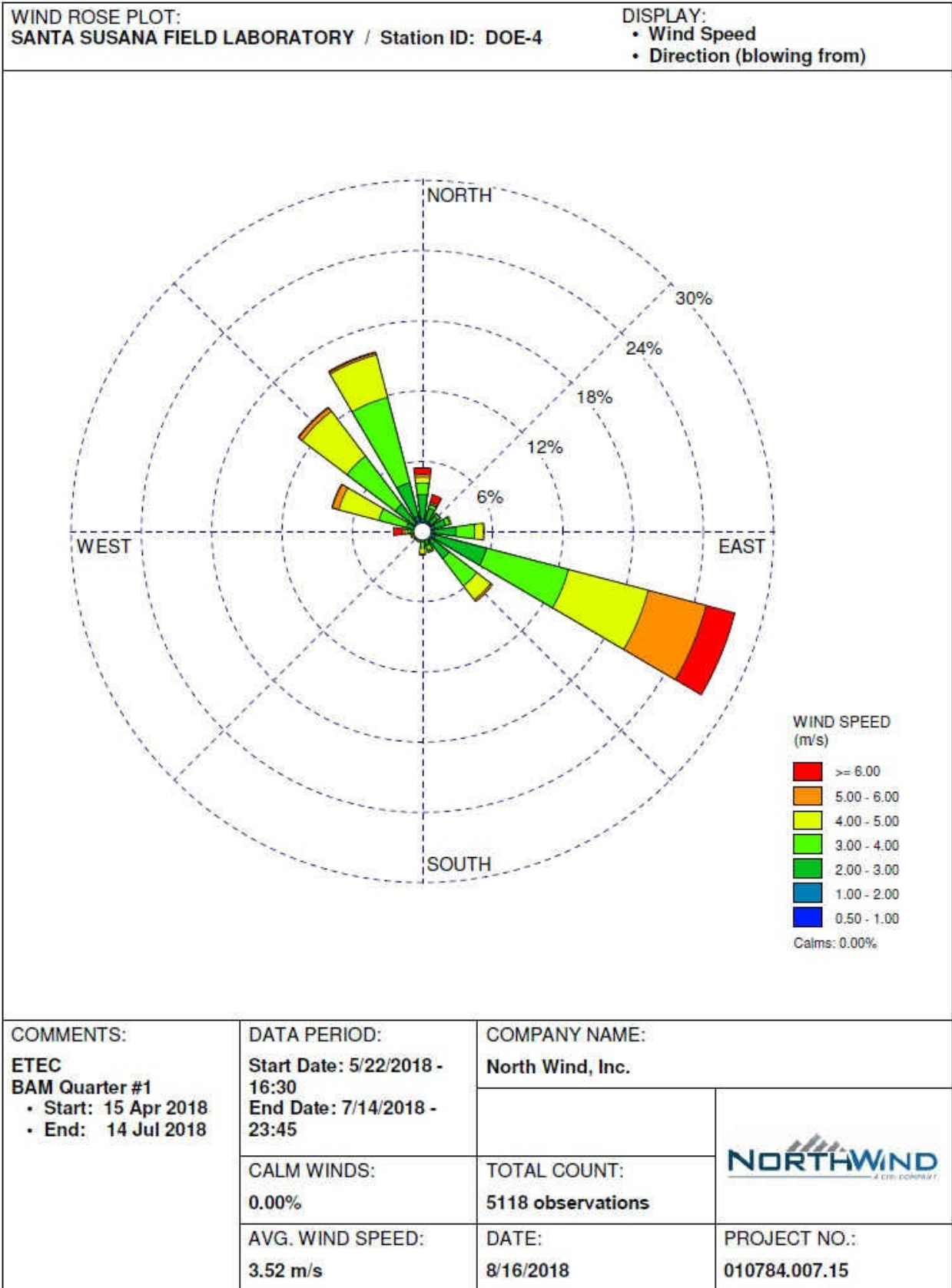
**Figure 1**  
**SSFL Air Monitoring Locations**



**Figure 2**  
**DOE Air Monitoring Locations**



**Figure 3**  
**DOE Quarterly Windrose**



WRPLOT View - Lakes Environmental Software

## **APPENDIX A**

### **PM<sub>10</sub> Daily Averages and Monthly Statistics**

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Appendix A  
PM<sub>10</sub> Daily Averages

Site ID	DOE-1	DOE-2	DOE-3	DOE-4
Sample Date	(ug/m3) (CAAQS 50 ug/m3)	(ug/m3) (CAAQS 50 ug/m3)	(ug/m3) (CAAQS 50 ug/m3)	(ug/m3) (CAAQS 50 ug/m3)
4/15/2018	0.0195417	0.0155417	0.0188750	0.0190000
4/16/2018	0.0170417	0.0035833	0.0204167	0.0215000
4/17/2018	0.0052500	0.0078333	0.0061667	0.0056667
4/18/2018	0.0087083	0.0121667	0.0096667	0.0079167
4/19/2018	0.0107083	0.0111250	0.0097500	0.0078750
4/20/2018	0.0130833	0.0097083	0.0131667	0.0127917
4/21/2018	0.0122083	0.0114167	0.0097917	0.0092500
4/22/2018	0.0131667	0.0181857	0.0130000	0.0121667
4/23/2018	0.0196111	0.0152083	0.0198252	0.0100870
4/24/2018	0.0179583	0.0212917	0.0173750	0.0044167
4/25/2018	0.0248750	0.0206250	0.0215833	0.0202083
4/26/2018	0.0184583	0.0288333	0.0190833	0.0201667
4/27/2018	0.0225417	0.0221250	0.0248750	0.0269583
4/28/2018	0.0215833	0.0204167	0.0244583	0.0165000
4/29/2018	0.0170417	0.0158889	0.0208750	0.0157083
4/30/2018	0.0185000	0.0192444	0.0206667	0.0138636
5/1/2018	0.0153750	0.0250417	0.0198750	0.0111667
5/2/2018	0.0153750	0.0197083	0.0186250	0.0121667
5/3/2018	0.0140417	0.0115833	0.0137500	0.0121667
5/4/2018	0.0151429	0.0138333	0.0150000	0.0169167
5/5/2018	0.0147917	0.0115833	0.0121250	0.0119167
5/6/2018	0.0106250	0.0090417	0.0216250	0.0097500
5/7/2018	0.0132188	0.0110444	0.0122714	0.0129112
5/8/2018	0.0163333	0.0151667	0.0165417	0.0151667
5/9/2018	0.0214583	0.0185000	0.0199583	0.0177083
5/10/2018	0.0262083	0.0265000	0.0285417	0.0245833
5/11/2018	0.0113750	0.0148750	0.0121667	0.0076667
5/12/2018	0.0145000	0.0100000	0.0097917	0.0064167
5/13/2018	0.0100000	0.0107500	0.0091250	0.0090833
5/14/2018	0.0126071	0.0162929	0.0116333	0.0105778
5/15/2018	0.0129167	0.0098333	0.0113750	0.0105000
5/16/2018	0.0117500	0.0102500	0.0145833	0.0095000
5/17/2018	0.0140000	0.0123333	0.0121667	0.0121667
5/18/2018	0.0214167	0.0121667	0.0131667	0.0064167
5/19/2018	0.0137500	0.0149167	0.0141667	0.0060000
5/20/2018	0.0165417	0.0179167	0.0180833	0.0060000
5/21/2018	0.0170175	0.0146503	0.0135833	0.0086620
5/22/2018	0.0115000	0.0123333	0.0127917	0.0105405
5/23/2018	0.0103750	0.0095000	0.0102083	0.0102917
5/24/2018	0.0068750	0.0046667	0.0046250	0.0039583
5/25/2018	0.0139583	0.0040833	0.0060833	0.0046250

Appendix A  
PM<sub>10</sub> Daily Averages

Sample Date	(ug/m3) (CAAQS 50 ug/m3)	(ug/m3) (CAAQS 50 ug/m3)	(ug/m3) (CAAQS 50 ug/m3)	(ug/m3) (CAAQS 50 ug/m3)
5/26/2018	0.0127083	0.0090000	0.0100000	0.0095000
5/27/2018	0.0145000	0.0158750	0.0149583	0.0139583
5/28/2018	0.0168333	0.0164167	0.0173750	0.0151667
5/29/2018	0.0166286	0.0214930	0.0154895	0.0206084
5/30/2018	0.0075000	0.0061250	0.0065000	0.0096250
5/31/2018	0.0125417	0.0108750	0.0129167	0.0109583
6/1/2018	0.0134790	0.0118333	0.0131608	0.0145455
6/2/2018	0.0176667	0.0152917	0.0156667	0.0180833
6/3/2018	0.0222917	0.0189583	0.0222500	0.0230417
6/4/2018	0.0292500	0.0261250	0.0259167	0.0228750
6/5/2018	0.0207500	0.0206250	0.0220000	0.0193750
6/6/2018	0.0155833	0.0178750	0.0162083	0.0133750
6/7/2018	0.0212083	0.0180833	0.0240000	0.0224167
6/8/2018	0.0176189	0.0167902	0.0197714	0.0214556
6/9/2018	0.0255000	0.0235833	0.0263750	0.0256667
6/10/2018	0.0237083	0.0202917	0.0220000	0.0202083
6/11/2018	0.0199167	0.0177917	0.0189167	0.0172917
6/12/2018	0.0199167	0.0177917	0.0202083	0.0183333
6/13/2018	0.0190833	0.0156250	0.0194167	0.0150000
6/14/2018	0.0279583	0.0202917	0.0222500	0.0185417
6/15/2018	0.0245625	0.0234222	0.0252667	0.0210214
6/16/2018	0.0157917	0.0216667	0.0220833	0.0156667
6/17/2018	0.0088333	0.0126667	0.0105417	0.0111250
6/18/2018	0.0124583	0.0237917	0.0135417	0.0544583
6/19/2018	0.0165417	0.0178333	0.0192083	0.0467500
6/20/2018	0.0238333	0.0269167	0.0221250	0.0200417
6/21/2018	0.5953750	0.0223333	0.0255833	0.0172083
6/22/2018	0.4755500	0.0275417	0.0249056	0.0202111
6/23/2018	0.0165000	0.0283750	0.0277500	0.0165833
6/24/2018	0.0133750	0.0191250	0.0215000	0.0103750
6/25/2018	0.0145417	0.0271250	0.0260000	0.0136667
6/26/2018	0.0131667	0.0181250	0.0213750	0.0132500
6/27/2018	0.0207083	0.0302500	0.0321250	0.0189583
6/28/2018	0.0201714	0.0247937	0.0262762	0.0207500
6/29/2018	0.0189167	0.0269167	0.0284583	0.0175833
6/30/2018	0.0155833	0.0212917	0.0228750	0.0150000
7/1/2018	0.0098750	0.0113333	0.0248750	0.0097917
7/2/2018	0.0096667	0.0170000	0.0175833	0.0116250
7/3/2018	0.0112917	0.0187500	0.0145417	0.0101250
7/4/2018	0.0095417	0.0147500	0.0147500	0.0116667
7/5/2018	0.0185833	0.0186667	0.0218750	0.0166250

Appendix A  
PM<sub>10</sub> Daily Averages

Sample Date	(ug/m3) (CAAQS 50 ug/m3)	(ug/m3) (CAAQS 50 ug/m3)	(ug/m3) (CAAQS 50 ug/m3)	(ug/m3) (CAAQS 50 ug/m3)
7/6/2018	0.0148750	0.0130000	0.0220833	0.0150417
7/7/2018	0.0010000	0.0130000	0.0240417	0.0215833
7/8/2018	0.0010000	0.0130000	0.0221250	0.0194583
7/9/2018	0.0352500	0.0130000	0.0671650	0.0431399
7/10/2018	0.0234583		0.0320000	0.0233333
7/11/2018	0.0165417		0.0164167	0.0155833
7/12/2018	0.0133750		0.0142083	0.0136250
7/13/2018	0.0147500		0.0199167	0.0149167
7/14/2018	0.0142083		0.0152083	0.0135000

CAAQS California Ambient Air Quality Standard

The CAAQS annual average PM<sub>10</sub> concentration standard is 20 micrograms per cubic meter (µg/m<sup>3</sup>) and the 24-hour average PM<sub>10</sub> concentration standard is 50 µg/m<sup>3</sup>.

Appendix A  
Monthly Statistics

Location ID	April 2018			May 2018			June 2018			July 2018		
	PM10			PM10			PM10			PM10		
	High	Low	95th PCTL	High	Low	95th PCTL	High	Low	95th PCTL	High	Low	95th PCTL
DOE-1	0.02488	0.00525	0.02313	0.02621	0.00688	0.02144	0.59538	0.00883	0.27471	0.03525	0.00100	0.02759
DOE-2	0.02883	0.00358	0.02380	0.02650	0.00408	0.02327	0.03025	0.02286	0.02824	0.01875	0.01133	0.01872
DOE-3	0.02488	0.00617	0.02456	0.02854	0.00463	0.02079	0.03213	0.01054	0.02814	0.06716	0.01421	0.04431
DOE-4	0.02696	0.00442	0.02286	0.02458	0.00396	0.01916	0.05446	0.01038	0.03726	0.04314	0.00979	0.03027

RP Review Draft

## **APPENDIX B**

### **Analytical Results for Ambient Air VOCs**

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APPENDIX B  
Analytical Results for Ambient Air VOCs

Location ID	Sample ID	Sample Type	Sample Date	Analytical Method	CAS Number	Analyte	Result	Units	Reporting Limit	Lab Flags	EPA Residential Air RSLs
DOE-1	DOE-1_042518_S-04252018	N	4/25/2018	TO15	71-55-6	1,1,1-Trichloroethane	< 1.6	ug/m3	1.6	U	5200
DOE-1	DOE-1_042518_S-04252018	N	4/25/2018	TO15	79-34-5	1,1,2,2-Tetrachloroethane	< 2.7	ug/m3	2.7	U	0.048
DOE-1	DOE-1_042518_S-04252018	N	4/25/2018	TO15	76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	< 3.1	ug/m3	3.1	U	5200
DOE-1	DOE-1_042518_S-04252018	N	4/25/2018	TO15	79-00-5	1,1,2-Trichloroethane	< 2.2	ug/m3	2.2	U	0.18
DOE-1	DOE-1_042518_S-04252018	N	4/25/2018	TO15	75-34-3	1,1-Dichloroethane	< 1.2	ug/m3	1.2	U	1.8
DOE-1	DOE-1_042518_S-04252018	N	4/25/2018	TO15	75-35-4	1,1-Dichloroethene	< 3.2	ug/m3	3.2	U	210
DOE-1	DOE-1_042518_S-04252018	N	4/25/2018	TO15	120-82-1	1,2,4-Trichlorobenzene	< 15	ug/m3	15	U	2.1
DOE-1	DOE-1_042518_S-04252018	N	4/25/2018	TO15	95-63-6	1,2,4-Trimethylbenzene	< 3.9	ug/m3	3.9	U	63
DOE-1	DOE-1_042518_S-04252018	N	4/25/2018	TO15	106-93-4	1,2-Dibromoethane	< 6.1	ug/m3	6.1	U	-----
DOE-1	DOE-1_042518_S-04252018	N	4/25/2018	TO15	95-50-1	1,2-Dichlorobenzene	< 2.4	ug/m3	2.4	U	210
DOE-1	DOE-1_042518_S-04252018	N	4/25/2018	TO15	107-06-2	1,2-Dichloroethane	< 3.2	ug/m3	3.2	U	0.11
DOE-1	DOE-1_042518_S-04252018	N	4/25/2018	TO15	78-87-5	1,2-Dichloropropane	< 1.8	ug/m3	1.8	U	0.76
DOE-1	DOE-1_042518_S-04252018	N	4/25/2018	TO15	76-14-2	1,2-Dichlorotetrafluoroethane	< 2.8	ug/m3	2.8	U	-----
DOE-1	DOE-1_042518_S-04252018	N	4/25/2018	TO15	108-67-8	1,3,5-Trimethylbenzene	< 2.0	ug/m3	2	U	63
DOE-1	DOE-1_042518_S-04252018	N	4/25/2018	TO15	106-99-0	1,3-Butadiene	< 1.8	ug/m3	1.8	U	0.094
DOE-1	DOE-1_042518_S-04252018	N	4/25/2018	TO15	541-73-1	1,3-Dichlorobenzene	< 2.4	ug/m3	2.4	U	-----
DOE-1	DOE-1_042518_S-04252018	N	4/25/2018	TO15	106-46-7	1,4-Dichlorobenzene	< 2.4	ug/m3	2.4	U	0.26
DOE-1	DOE-1_042518_S-04252018	N	4/25/2018	TO15	123-91-1	1,4-Dioxane	< 2.9	ug/m3	2.9	U	0.56
DOE-1	DOE-1_042518_S-04252018	N	4/25/2018	TO15	78-93-3	2-Butanone	< 2.4	ug/m3	2.4	U	5200
DOE-1	DOE-1_042518_S-04252018	N	4/25/2018	TO15	591-78-6	2-Hexanone	< 1.6	ug/m3	1.6	U	31
DOE-1	DOE-1_042518_S-04252018	N	4/25/2018	TO15	622-96-8	4-Ethyltoluene	< 2.0	ug/m3	2	U	-----
DOE-1	DOE-1_042518_S-04252018	N	4/25/2018	TO15	99-87-6	4-Isopropyltoluene	< 4.4	ug/m3	4.4	U	-----
DOE-1	DOE-1_042518_S-04252018	N	4/25/2018	TO15	108-10-1	4-Methyl-2-pentanone	< 1.6	ug/m3	1.6	U	3100
DOE-1	DOE-1_042518_S-04252018	N	4/25/2018	TO15	107-02-8	Acrolein	< 4.6	ug/m3	4.6	U	0.021
DOE-1	DOE-1_042518_S-04252018	N	4/25/2018	TO15	107-13-1	Acrylonitrile	< 4.3	ug/m3	4.3	U	0.041
DOE-1	DOE-1_042518_S-04252018	N	4/25/2018	TO15	71-43-2	Benzene	< 1.3	ug/m3	1.3	U	0.36
DOE-1	DOE-1_042518_S-04252018	N	4/25/2018	TO15	100-44-7	Benzyl chloride	< 4.1	ug/m3	4.1	U	0.057
DOE-1	DOE-1_042518_S-04252018	N	4/25/2018	TO15	75-27-4	Bromodichloromethane	< 2.0	ug/m3	2	U	0.076
DOE-1	DOE-1_042518_S-04252018	N	4/25/2018	TO15	75-25-2	Bromoform	< 4.1	ug/m3	4.1	U	2.6
DOE-1	DOE-1_042518_S-04252018	N	4/25/2018	TO15	74-83-9	Bromomethane	< 3.1	ug/m3	3.1	U	5.2
DOE-1	DOE-1_042518_S-04252018	N	4/25/2018	TO15	104-51-8	Butylbenzene, n-	< 2.2	ug/m3	2.2	U	-----
DOE-1	DOE-1_042518_S-04252018	N	4/25/2018	TO15	135-98-8	Butylbenzene, sec-	< 2.2	ug/m3	2.2	U	-----
DOE-1	DOE-1_042518_S-04252018	N	4/25/2018	TO15	75-15-0	Carbon disulfide	< 2.5	ug/m3	2.5	U	730
DOE-1	DOE-1_042518_S-04252018	N	4/25/2018	TO15	56-23-5	Carbon tetrachloride	< 5.0	ug/m3	5	U	0.47
DOE-1	DOE-1_042518_S-04252018	N	4/25/2018	TO15	75-00-3	Chloroethane	< 2.1	ug/m3	2.1	U	10000
DOE-1	DOE-1_042518_S-04252018	N	4/25/2018	TO15	67-66-3	Chloroform	< 1.5	ug/m3	1.5	U	0.12
DOE-1	DOE-1_042518_S-04252018	N	4/25/2018	TO15	74-87-3	Chloromethane	< 1.7	ug/m3	1.7	U	94
DOE-1	DOE-1_042518_S-04252018	N	4/25/2018	TO15	156-59-2	cis-1,2-Dichloroethene	< 1.6	ug/m3	1.6	U	-----
DOE-1	DOE-1_042518_S-04252018	N	4/25/2018	TO15	10061-01-5	cis-1,3-Dichloropropene	< 1.8	ug/m3	1.8	U	-----
DOE-1	DOE-1_042518_S-04252018	N	4/25/2018	TO15	110-82-7	Cyclohexane	< 1.4	ug/m3	1.4	U	1000
DOE-1	DOE-1_042518_S-04252018	N	4/25/2018	TO15	124-48-1	Dibromochloromethane	< 3.4	ug/m3	3.4	U	-----
DOE-1	DOE-1_042518_S-04252018	N	4/25/2018	TO15	75-71-8	Dichlorodifluoromethane	2	ug/m3	2	U	100
DOE-1	DOE-1_042518_S-04252018	N	4/25/2018	TO15	141-78-6	Ethyl acetate	< 1.1	ug/m3	1.1	U	73
DOE-1	DOE-1_042518_S-04252018	N	4/25/2018	TO15	100-41-4	Ethylbenzene	< 1.7	ug/m3	1.7	U	1.1
DOE-1	DOE-1_042518_S-04252018	N	4/25/2018	TO15	87-68-3	Hexachloro-1,3-butadiene	< 21	ug/m3	21	U	0.13
DOE-1	DOE-1_042518_S-04252018	N	4/25/2018	TO15	110-54-3	Hexane, n-	< 2.8	ug/m3	2.8	U	730
DOE-1	DOE-1_042518_S-04252018	N	4/25/2018	TO15	67-63-0	Isopropanol	< 4.9	ug/m3	4.9	U	210
DOE-1	DOE-1_042518_S-04252018	N	4/25/2018	TO15	98-82-8	Isopropylbenzene	< 3.9	ug/m3	3.9	U	420
DOE-1	DOE-1_042518_S-04252018	N	4/25/2018	TO15	179601-23-1	m,p-Xylene	< 3.5	ug/m3	3.5	U	-----
DOE-1	DOE-1_042518_S-04252018	N	4/25/2018	TO15	1634-04-4	Methyl tert butyl ether	< 2.9	ug/m3	2.9	U	11
DOE-1	DOE-1_042518_S-04252018	N	4/25/2018	TO15	75-09-2	Methylene chloride	< 1.4	ug/m3	1.4	U	100
DOE-1	DOE-1_042518_S-04252018	N	4/25/2018	TO15	91-20-3	Naphthalene	< 4.2	ug/m3	4.2	U	0.083
DOE-1	DOE-1_042518_S-04252018	N	4/25/2018	TO15	142-82-5	n-Heptane	< 3.3	ug/m3	3.3	U	420
DOE-1	DOE-1_042518_S-04252018	N	4/25/2018	TO15	111-65-9	n-Octane	< 1.9	ug/m3	1.9	U	-----
DOE-1	DOE-1_042518_S-04252018	N	4/25/2018	TO15	103-65-1	n-Propylbenzene	< 2.0	ug/m3	2	U	1000

APPENDIX B  
Analytical Results for Ambient Air VOCs

Location ID	Sample ID	Sample Type	Sample Date	Analytical Method	CAS Number	Analyte	Result	Units	Reporting Limit	Lab Flags	EPA Residential Air RSLs
DOE-1	DOE-1_042518_S-04252018	N	4/25/2018	TO15	95-47-6	o-Xylene	< 1.7	ug/m3	1.7	U	100
DOE-1	DOE-1_042518_S-04252018	N	4/25/2018	TO15	100-42-5	Styrene	< 1.7	ug/m3	1.7	U	1000
DOE-1	DOE-1_042518_S-04252018	N	4/25/2018	TO15	127-18-4	Tetrachloroethene	< 2.7	ug/m3	2.7	U	11
DOE-1	DOE-1_042518_S-04252018	N	4/25/2018	TO15	109-99-9	Tetrahydrofuran	< 2.4	ug/m3	2.4	U	2100
DOE-1	DOE-1_042518_S-04252018	N	4/25/2018	TO15	108-88-3	Toluene	< 1.5	ug/m3	1.5	U	5200
DOE-1	DOE-1_042518_S-04252018	N	4/25/2018	TO15	156-60-5	trans-1,2-Dichloroethene	< 1.6	ug/m3	1.6	U	-----
DOE-1	DOE-1_042518_S-04252018	N	4/25/2018	TO15	10061-02-6	trans-1,3-Dichloropropene	< 1.8	ug/m3	1.8	U	-----
DOE-1	DOE-1_042518_S-04252018	N	4/25/2018	TO15	79-01-6	Trichloroethene	< 2.1	ug/m3	2.1	U	0.48
DOE-1	DOE-1_042518_S-04252018	N	4/25/2018	TO15	75-69-4	Trichlorofluoromethane	< 2.2	ug/m3	2.2	U	-----
DOE-1	DOE-1_042518_S-04252018	N	4/25/2018	TO15	108-05-4	Vinyl acetate	< 2.8	ug/m3	2.8	U	210
DOE-1	DOE-1_042518_S-04252018	N	4/25/2018	TO15	75-01-4	Vinyl chloride	< 1.0	ug/m3	1	U	0.17
DOE-2	DOE-2_042518_S-04252018	N	4/25/2018	TO15	71-55-6	1,1,1-Trichloroethane	< 1.6	ug/m3	1.6	U	5200
DOE-2	DOE-2_042518_S-04252018	N	4/25/2018	TO15	79-34-5	1,1,2,2-Tetrachloroethane	< 2.7	ug/m3	2.7	U	0.048
DOE-2	DOE-2_042518_S-04252018	N	4/25/2018	TO15	76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	< 3.1	ug/m3	3.1	U	5200
DOE-2	DOE-2_042518_S-04252018	N	4/25/2018	TO15	79-00-5	1,1,2-Trichloroethane	< 2.2	ug/m3	2.2	U	0.18
DOE-2	DOE-2_042518_S-04252018	N	4/25/2018	TO15	75-34-3	1,1-Dichloroethane	< 1.2	ug/m3	1.2	U	1.8
DOE-2	DOE-2_042518_S-04252018	N	4/25/2018	TO15	75-35-4	1,1-Dichloroethene	< 3.2	ug/m3	3.2	U	210
DOE-2	DOE-2_042518_S-04252018	N	4/25/2018	TO15	120-82-1	1,2,4-Trichlorobenzene	< 15	ug/m3	15	U	2.1
DOE-2	DOE-2_042518_S-04252018	N	4/25/2018	TO15	95-63-6	1,2,4-Trimethylbenzene	< 3.9	ug/m3	3.9	U	63
DOE-2	DOE-2_042518_S-04252018	N	4/25/2018	TO15	106-93-4	1,2-Dibromoethane	< 6.1	ug/m3	6.1	U	-----
DOE-2	DOE-2_042518_S-04252018	N	4/25/2018	TO15	95-50-1	1,2-Dichlorobenzene	< 2.4	ug/m3	2.4	U	210
DOE-2	DOE-2_042518_S-04252018	N	4/25/2018	TO15	107-06-2	1,2-Dichloroethane	< 3.2	ug/m3	3.2	U	0.11
DOE-2	DOE-2_042518_S-04252018	N	4/25/2018	TO15	78-87-5	1,2-Dichloropropane	< 1.8	ug/m3	1.8	U	0.76
DOE-2	DOE-2_042518_S-04252018	N	4/25/2018	TO15	76-14-2	1,2-Dichlorotetrafluoroethane	< 2.8	ug/m3	2.8	U	-----
DOE-2	DOE-2_042518_S-04252018	N	4/25/2018	TO15	108-67-8	1,3,5-Trimethylbenzene	< 2.0	ug/m3	2	U	63
DOE-2	DOE-2_042518_S-04252018	N	4/25/2018	TO15	106-99-0	1,3-Butadiene	< 1.8	ug/m3	1.8	U	0.094
DOE-2	DOE-2_042518_S-04252018	N	4/25/2018	TO15	541-73-1	1,3-Dichlorobenzene	< 2.4	ug/m3	2.4	U	-----
DOE-2	DOE-2_042518_S-04252018	N	4/25/2018	TO15	106-46-7	1,4-Dichlorobenzene	< 2.4	ug/m3	2.4	U	0.26
DOE-2	DOE-2_042518_S-04252018	N	4/25/2018	TO15	123-91-1	1,4-Dioxane	< 2.9	ug/m3	2.9	U	0.56
DOE-2	DOE-2_042518_S-04252018	N	4/25/2018	TO15	78-93-3	2-Butanone	< 2.4	ug/m3	2.4	U	5200
DOE-2	DOE-2_042518_S-04252018	N	4/25/2018	TO15	591-78-6	2-Hexanone	< 1.6	ug/m3	1.6	U	31
DOE-2	DOE-2_042518_S-04252018	N	4/25/2018	TO15	622-96-8	4-Ethyltoluene	< 2.0	ug/m3	2	U	-----
DOE-2	DOE-2_042518_S-04252018	N	4/25/2018	TO15	99-87-6	4-Isopropyltoluene	< 4.4	ug/m3	4.4	U	-----
DOE-2	DOE-2_042518_S-04252018	N	4/25/2018	TO15	108-10-1	4-Methyl-2-pentanone	< 1.6	ug/m3	1.6	U	3100
DOE-2	DOE-2_042518_S-04252018	N	4/25/2018	TO15	107-02-8	Acrolein	< 4.6	ug/m3	4.6	U	0.021
DOE-2	DOE-2_042518_S-04252018	N	4/25/2018	TO15	107-13-1	Acrylonitrile	< 4.3	ug/m3	4.3	U	0.041
DOE-2	DOE-2_042518_S-04252018	N	4/25/2018	TO15	71-43-2	Benzene	< 1.3	ug/m3	1.3	U	0.36
DOE-2	DOE-2_042518_S-04252018	N	4/25/2018	TO15	100-44-7	Benzyl chloride	< 4.1	ug/m3	4.1	U	0.057
DOE-2	DOE-2_042518_S-04252018	N	4/25/2018	TO15	75-27-4	Bromodichloromethane	< 2.0	ug/m3	2	U	0.076
DOE-2	DOE-2_042518_S-04252018	N	4/25/2018	TO15	75-25-2	Bromoform	< 4.1	ug/m3	4.1	U	2.6
DOE-2	DOE-2_042518_S-04252018	N	4/25/2018	TO15	74-83-9	Bromomethane	< 3.1	ug/m3	3.1	U	5.2
DOE-2	DOE-2_042518_S-04252018	N	4/25/2018	TO15	104-51-8	Butylbenzene, n-	< 2.2	ug/m3	2.2	U	-----
DOE-2	DOE-2_042518_S-04252018	N	4/25/2018	TO15	135-98-8	Butylbenzene, sec-	< 2.2	ug/m3	2.2	U	-----
DOE-2	DOE-2_042518_S-04252018	N	4/25/2018	TO15	75-15-0	Carbon disulfide	< 2.5	ug/m3	2.5	U	730
DOE-2	DOE-2_042518_S-04252018	N	4/25/2018	TO15	56-23-5	Carbon tetrachloride	< 5.0	ug/m3	5	U	0.47
DOE-2	DOE-2_042518_S-04252018	N	4/25/2018	TO15	75-00-3	Chloroethane	< 2.1	ug/m3	2.1	U	10000
DOE-2	DOE-2_042518_S-04252018	N	4/25/2018	TO15	67-66-3	Chloroform	< 1.5	ug/m3	1.5	U	0.12
DOE-2	DOE-2_042518_S-04252018	N	4/25/2018	TO15	74-87-3	Chloromethane	< 1.7	ug/m3	1.7	U	94
DOE-2	DOE-2_042518_S-04252018	N	4/25/2018	TO15	156-59-2	cis-1,2-Dichloroethene	< 1.6	ug/m3	1.6	U	-----
DOE-2	DOE-2_042518_S-04252018	N	4/25/2018	TO15	10061-01-5	cis-1,3-Dichloropropene	< 1.8	ug/m3	1.8	U	-----
DOE-2	DOE-2_042518_S-04252018	N	4/25/2018	TO15	110-82-7	Cyclohexane	< 1.4	ug/m3	1.4	U	1000
DOE-2	DOE-2_042518_S-04252018	N	4/25/2018	TO15	124-48-1	Dibromochloromethane	< 3.4	ug/m3	3.4	U	-----
DOE-2	DOE-2_042518_S-04252018	N	4/25/2018	TO15	75-71-8	Dichlorodifluoromethane	2	ug/m3	2	U	100
DOE-2	DOE-2_042518_S-04252018	N	4/25/2018	TO15	141-78-6	Ethyl acetate	8.9	ug/m3	1.1	U	73
DOE-2	DOE-2_042518_S-04252018	N	4/25/2018	TO15	100-41-4	Ethylbenzene	< 1.7	ug/m3	1.7	U	1.1

APPENDIX B  
Analytical Results for Ambient Air VOCs

Location ID	Sample ID	Sample Type	Sample Date	Analytical Method	CAS Number	Analyte	Result	Units	Reporting Limit	Lab Flags	EPA Residential Air RSLs
DOE-2	DOE-2_042518_S-04252018	N	4/25/2018	TO15	87-68-3	Hexachloro-1,3-butadiene	< 21	ug/m3	21	U	0.13
DOE-2	DOE-2_042518_S-04252018	N	4/25/2018	TO15	110-54-3	Hexane, n-	< 2.8	ug/m3	2.8	U	730
DOE-2	DOE-2_042518_S-04252018	N	4/25/2018	TO15	67-63-0	Isopropanol	< 4.9	ug/m3	4.9	U	210
DOE-2	DOE-2_042518_S-04252018	N	4/25/2018	TO15	98-82-8	Isopropylbenzene	< 3.9	ug/m3	3.9	U	420
DOE-2	DOE-2_042518_S-04252018	N	4/25/2018	TO15	179601-23-1	m,p-Xylene	< 3.5	ug/m3	3.5	U	-----
DOE-2	DOE-2_042518_S-04252018	N	4/25/2018	TO15	1634-04-4	Methyl tert butyl ether	< 2.9	ug/m3	2.9	U	11
DOE-2	DOE-2_042518_S-04252018	N	4/25/2018	TO15	75-09-2	Methylene chloride	< 1.4	ug/m3	1.4	U	100
DOE-2	DOE-2_042518_S-04252018	N	4/25/2018	TO15	91-20-3	Naphthalene	< 4.2	ug/m3	4.2	U	0.083
DOE-2	DOE-2_042518_S-04252018	N	4/25/2018	TO15	142-82-5	n-Heptane	< 3.3	ug/m3	3.3	U	420
DOE-2	DOE-2_042518_S-04252018	N	4/25/2018	TO15	111-65-9	n-Octane	< 1.9	ug/m3	1.9	U	-----
DOE-2	DOE-2_042518_S-04252018	N	4/25/2018	TO15	103-65-1	n-Propylbenzene	< 2.0	ug/m3	2	U	1000
DOE-2	DOE-2_042518_S-04252018	N	4/25/2018	TO15	95-47-6	o-Xylene	< 1.7	ug/m3	1.7	U	100
DOE-2	DOE-2_042518_S-04252018	N	4/25/2018	TO15	100-42-5	Styrene	< 1.7	ug/m3	1.7	U	1000
DOE-2	DOE-2_042518_S-04252018	N	4/25/2018	TO15	127-18-4	Tetrachloroethene	< 2.7	ug/m3	2.7	U	11
DOE-2	DOE-2_042518_S-04252018	N	4/25/2018	TO15	109-99-9	Tetrahydrofuran	< 2.4	ug/m3	2.4	U	2100
DOE-2	DOE-2_042518_S-04252018	N	4/25/2018	TO15	108-88-3	Toluene	1.7	ug/m3	1.5	U	5200
DOE-2	DOE-2_042518_S-04252018	N	4/25/2018	TO15	10061-02-6	trans-1,3-Dichloropropene	< 1.8	ug/m3	1.8	U	-----
DOE-2	DOE-2_042518_S-04252018	N	4/25/2018	TO15	79-01-6	Trichloroethene	< 2.1	ug/m3	2.1	U	0.48
DOE-2	DOE-2_042518_S-04252018	N	4/25/2018	TO15	75-69-4	Trichlorofluoromethane	< 2.2	ug/m3	2.2	U	-----
DOE-2	DOE-2_042518_S-04252018	N	4/25/2018	TO15	108-05-4	Vinyl acetate	< 2.8	ug/m3	2.8	U	210
DOE-2	DOE-2_042518_S-04252018	N	4/25/2018	TO15	75-01-4	Vinyl chloride	< 1.0	ug/m3	1	U	0.17
DOE-2	DOE-2_042518_D-04252018	FD	4/25/2018	TO15	71-55-6	1,1,1-Trichloroethane	< 1.6	ug/m3	1.6	U	5200
DOE-2	DOE-2_042518_D-04252018	FD	4/25/2018	TO15	79-34-5	1,1,2,2-Tetrachloroethane	< 2.7	ug/m3	2.7	U	0.048
DOE-2	DOE-2_042518_D-04252018	FD	4/25/2018	TO15	76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	< 3.1	ug/m3	3.1	U	5200
DOE-2	DOE-2_042518_D-04252018	FD	4/25/2018	TO15	79-00-5	1,1,2-Trichloroethane	< 2.2	ug/m3	2.2	U	0.18
DOE-2	DOE-2_042518_D-04252018	FD	4/25/2018	TO15	75-34-3	1,1-Dichloroethane	< 1.2	ug/m3	1.2	U	1.8
DOE-2	DOE-2_042518_D-04252018	FD	4/25/2018	TO15	75-35-4	1,1-Dichloroethene	< 3.2	ug/m3	3.2	U	210
DOE-2	DOE-2_042518_D-04252018	FD	4/25/2018	TO15	120-82-1	1,2,4-Trichlorobenzene	< 15	ug/m3	15	U	2.1
DOE-2	DOE-2_042518_D-04252018	FD	4/25/2018	TO15	95-63-6	1,2,4-Trimethylbenzene	< 3.9	ug/m3	3.9	U	63
DOE-2	DOE-2_042518_D-04252018	FD	4/25/2018	TO15	106-93-4	1,2-Dibromoethane	< 6.1	ug/m3	6.1	U	-----
DOE-2	DOE-2_042518_D-04252018	FD	4/25/2018	TO15	95-50-1	1,2-Dichlorobenzene	< 2.4	ug/m3	2.4	U	210
DOE-2	DOE-2_042518_D-04252018	FD	4/25/2018	TO15	107-06-2	1,2-Dichloroethane	< 3.2	ug/m3	3.2	U	0.11
DOE-2	DOE-2_042518_D-04252018	FD	4/25/2018	TO15	78-87-5	1,2-Dichloropropane	< 1.8	ug/m3	1.8	U	0.76
DOE-2	DOE-2_042518_D-04252018	FD	4/25/2018	TO15	76-14-2	1,2-Dichlorotetrafluoroethane	< 2.8	ug/m3	2.8	U	-----
DOE-2	DOE-2_042518_D-04252018	FD	4/25/2018	TO15	108-67-8	1,3,5-Trimethylbenzene	< 2.0	ug/m3	2	U	63
DOE-2	DOE-2_042518_D-04252018	FD	4/25/2018	TO15	106-99-0	1,3-Butadiene	< 1.8	ug/m3	1.8	U	0.094
DOE-2	DOE-2_042518_D-04252018	FD	4/25/2018	TO15	541-73-1	1,3-Dichlorobenzene	< 2.4	ug/m3	2.4	U	-----
DOE-2	DOE-2_042518_D-04252018	FD	4/25/2018	TO15	106-46-7	1,4-Dichlorobenzene	< 2.4	ug/m3	2.4	U	0.26
DOE-2	DOE-2_042518_D-04252018	FD	4/25/2018	TO15	123-91-1	1,4-Dioxane	< 2.9	ug/m3	2.9	U	0.56
DOE-2	DOE-2_042518_D-04252018	FD	4/25/2018	TO15	78-93-3	2-Butanone	2.6	ug/m3	2.4	U	5200
DOE-2	DOE-2_042518_D-04252018	FD	4/25/2018	TO15	591-78-6	2-Hexanone	< 1.6	ug/m3	1.6	U	31
DOE-2	DOE-2_042518_D-04252018	FD	4/25/2018	TO15	622-96-8	4-Ethyltoluene	< 2.0	ug/m3	2	U	-----
DOE-2	DOE-2_042518_D-04252018	FD	4/25/2018	TO15	99-87-6	4-Isopropyltoluene	< 4.4	ug/m3	4.4	U	-----
DOE-2	DOE-2_042518_D-04252018	FD	4/25/2018	TO15	108-10-1	4-Methyl-2-pentanone	< 1.6	ug/m3	1.6	U	3100
DOE-2	DOE-2_042518_D-04252018	FD	4/25/2018	TO15	107-02-8	Acrolein	< 4.6	ug/m3	4.6	U	0.021
DOE-2	DOE-2_042518_D-04252018	FD	4/25/2018	TO15	107-13-1	Acrylonitrile	< 4.3	ug/m3	4.3	U	0.041
DOE-2	DOE-2_042518_D-04252018	FD	4/25/2018	TO15	71-43-2	Benzene	< 1.3	ug/m3	1.3	U	0.36
DOE-2	DOE-2_042518_D-04252018	FD	4/25/2018	TO15	100-44-7	Benzyl chloride	< 4.1	ug/m3	4.1	U	0.057
DOE-2	DOE-2_042518_D-04252018	FD	4/25/2018	TO15	75-27-4	Bromodichloromethane	< 2.0	ug/m3	2	U	0.076
DOE-2	DOE-2_042518_D-04252018	FD	4/25/2018	TO15	75-25-2	Bromoform	< 4.1	ug/m3	4.1	U	2.6
DOE-2	DOE-2_042518_D-04252018	FD	4/25/2018	TO15	74-83-9	Bromomethane	< 3.1	ug/m3	3.1	U	5.2
DOE-2	DOE-2_042518_D-04252018	FD	4/25/2018	TO15	104-51-8	Butylbenzene, n-	< 2.2	ug/m3	2.2	U	-----
DOE-2	DOE-2_042518_D-04252018	FD	4/25/2018	TO15	135-98-8	Butylbenzene, sec-	< 2.2	ug/m3	2.2	U	-----
DOE-2	DOE-2_042518_D-04252018	FD	4/25/2018	TO15	75-15-0	Carbon disulfide	< 2.5	ug/m3	2.5	U	730
DOE-2	DOE-2_042518_D-04252018	FD	4/25/2018	TO15	56-23-5	Carbon tetrachloride	< 5.0	ug/m3	5	U	0.47

APPENDIX B  
Analytical Results for Ambient Air VOCs

Location ID	Sample ID	Sample Type	Sample Date	Analytical Method	CAS Number	Analyte	Result	Units	Reporting Limit	Lab Flags	EPA Residential Air RSLs
DOE-2	DOE-2_042518_D-04252018	FD	4/25/2018	TO15	75-00-3	Chloroethane	< 2.1	ug/m3	2.1	U	10000
DOE-2	DOE-2_042518_D-04252018	FD	4/25/2018	TO15	67-66-3	Chloroform	< 1.5	ug/m3	1.5	U	0.12
DOE-2	DOE-2_042518_D-04252018	FD	4/25/2018	TO15	74-87-3	Chloromethane	< 1.7	ug/m3	1.7	U	94
DOE-2	DOE-2_042518_D-04252018	FD	4/25/2018	TO15	156-59-2	cis-1,2-Dichloroethene	< 1.6	ug/m3	1.6	U	-----
DOE-2	DOE-2_042518_D-04252018	FD	4/25/2018	TO15	10061-01-5	cis-1,3-Dichloropropene	< 1.8	ug/m3	1.8	U	-----
DOE-2	DOE-2_042518_D-04252018	FD	4/25/2018	TO15	110-82-7	Cyclohexane	< 1.4	ug/m3	1.4	U	1000
DOE-2	DOE-2_042518_D-04252018	FD	4/25/2018	TO15	124-48-1	Dibromochloromethane	< 3.4	ug/m3	3.4	U	-----
DOE-2	DOE-2_042518_D-04252018	FD	4/25/2018	TO15	75-71-8	Dichlorodifluoromethane	3	ug/m3	2		100
DOE-2	DOE-2_042518_D-04252018	FD	4/25/2018	TO15	141-78-6	Ethyl acetate	1.4	ug/m3	1.1		73
DOE-2	DOE-2_042518_D-04252018	FD	4/25/2018	TO15	100-41-4	Ethylbenzene	< 1.7	ug/m3	1.7	U	1.1
DOE-2	DOE-2_042518_D-04252018	FD	4/25/2018	TO15	87-68-3	Hexachloro-1,3-butadiene	< 21	ug/m3	21	U	0.13
DOE-2	DOE-2_042518_D-04252018	FD	4/25/2018	TO15	110-54-3	Hexane, n-	< 2.8	ug/m3	2.8	U	730
DOE-2	DOE-2_042518_D-04252018	FD	4/25/2018	TO15	67-63-0	Isopropanol	< 4.9	ug/m3	4.9	U	210
DOE-2	DOE-2_042518_D-04252018	FD	4/25/2018	TO15	98-82-8	Isopropylbenzene	< 3.9	ug/m3	3.9	U	420
DOE-2	DOE-2_042518_D-04252018	FD	4/25/2018	TO15	179601-23-1	m,p-Xylene	< 3.5	ug/m3	3.5	U	-----
DOE-2	DOE-2_042518_D-04252018	FD	4/25/2018	TO15	1634-04-4	Methyl tert butyl ether	< 2.9	ug/m3	2.9	U	11
DOE-2	DOE-2_042518_D-04252018	FD	4/25/2018	TO15	75-09-2	Methylene chloride	< 1.4	ug/m3	1.4	U	100
DOE-2	DOE-2_042518_D-04252018	FD	4/25/2018	TO15	91-20-3	Naphthalene	< 4.2	ug/m3	4.2	U	0.083
DOE-2	DOE-2_042518_D-04252018	FD	4/25/2018	TO15	142-82-5	n-Heptane	< 3.3	ug/m3	3.3	U	420
DOE-2	DOE-2_042518_D-04252018	FD	4/25/2018	TO15	111-65-9	n-Octane	< 1.9	ug/m3	1.9	U	-----
DOE-2	DOE-2_042518_D-04252018	FD	4/25/2018	TO15	103-65-1	n-Propylbenzene	< 2.0	ug/m3	2	U	1000
DOE-2	DOE-2_042518_D-04252018	FD	4/25/2018	TO15	95-47-6	o-Xylene	< 1.7	ug/m3	1.7	U	100
DOE-2	DOE-2_042518_D-04252018	FD	4/25/2018	TO15	100-42-5	Styrene	< 1.7	ug/m3	1.7	U	1000
DOE-2	DOE-2_042518_D-04252018	FD	4/25/2018	TO15	127-18-4	Tetrachloroethene	< 2.7	ug/m3	2.7	U	11
DOE-2	DOE-2_042518_D-04252018	FD	4/25/2018	TO15	109-99-9	Tetrahydrofuran	< 2.4	ug/m3	2.4	U	2100
DOE-2	DOE-2_042518_D-04252018	FD	4/25/2018	TO15	108-88-3	Toluene	< 1.5	ug/m3	1.5	U	5200
DOE-2	DOE-2_042518_D-04252018	FD	4/25/2018	TO15	10061-02-6	trans-1,3-Dichloropropene	< 1.8	ug/m3	1.8	U	-----
DOE-2	DOE-2_042518_D-04252018	FD	4/25/2018	TO15	79-01-6	Trichloroethene	< 2.1	ug/m3	2.1	U	0.48
DOE-2	DOE-2_042518_D-04252018	FD	4/25/2018	TO15	75-69-4	Trichlorofluoromethane	< 2.2	ug/m3	2.2	U	-----
DOE-2	DOE-2_042518_D-04252018	FD	4/25/2018	TO15	108-05-4	Vinyl acetate	< 2.8	ug/m3	2.8	U	210
DOE-2	DOE-2_042518_D-04252018	FD	4/25/2018	TO15	75-01-4	Vinyl chloride	< 1.0	ug/m3	1	U	0.17
DOE-3	DOE-3_042518_S-04252018	N	4/25/2018	TO15	71-55-6	1,1,1-Trichloroethane	< 1.6	ug/m3	1.6	U	5200
DOE-3	DOE-3_042518_S-04252018	N	4/25/2018	TO15	79-34-5	1,1,2,2-Tetrachloroethane	< 2.7	ug/m3	2.7	U	0.048
DOE-3	DOE-3_042518_S-04252018	N	4/25/2018	TO15	76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	< 3.1	ug/m3	3.1	U	5200
DOE-3	DOE-3_042518_S-04252018	N	4/25/2018	TO15	79-00-5	1,1,2-Trichloroethane	< 2.2	ug/m3	2.2	U	0.18
DOE-3	DOE-3_042518_S-04252018	N	4/25/2018	TO15	75-34-3	1,1-Dichloroethane	< 1.2	ug/m3	1.2	U	1.8
DOE-3	DOE-3_042518_S-04252018	N	4/25/2018	TO15	75-35-4	1,1-Dichloroethene	< 3.2	ug/m3	3.2	U	210
DOE-3	DOE-3_042518_S-04252018	N	4/25/2018	TO15	120-82-1	1,2,4-Trichlorobenzene	< 15	ug/m3	15	U	2.1
DOE-3	DOE-3_042518_S-04252018	N	4/25/2018	TO15	95-63-6	1,2,4-Trimethylbenzene	< 3.9	ug/m3	3.9	U	63
DOE-3	DOE-3_042518_S-04252018	N	4/25/2018	TO15	106-93-4	1,2-Dibromoethane	< 6.1	ug/m3	6.1	U	-----
DOE-3	DOE-3_042518_S-04252018	N	4/25/2018	TO15	95-50-1	1,2-Dichlorobenzene	< 2.4	ug/m3	2.4	U	210
DOE-3	DOE-3_042518_S-04252018	N	4/25/2018	TO15	107-06-2	1,2-Dichloroethane	< 3.2	ug/m3	3.2	U	0.11
DOE-3	DOE-3_042518_S-04252018	N	4/25/2018	TO15	78-87-5	1,2-Dichloropropane	< 1.8	ug/m3	1.8	U	0.76
DOE-3	DOE-3_042518_S-04252018	N	4/25/2018	TO15	76-14-2	1,2-Dichlorotetrafluoroethane	< 2.8	ug/m3	2.8	U	-----
DOE-3	DOE-3_042518_S-04252018	N	4/25/2018	TO15	108-67-8	1,3,5-Trimethylbenzene	< 2.0	ug/m3	2	U	63
DOE-3	DOE-3_042518_S-04252018	N	4/25/2018	TO15	106-99-0	1,3-Butadiene	< 1.8	ug/m3	1.8	U	0.094
DOE-3	DOE-3_042518_S-04252018	N	4/25/2018	TO15	541-73-1	1,3-Dichlorobenzene	< 2.4	ug/m3	2.4	U	-----
DOE-3	DOE-3_042518_S-04252018	N	4/25/2018	TO15	106-46-7	1,4-Dichlorobenzene	< 2.4	ug/m3	2.4	U	0.26
DOE-3	DOE-3_042518_S-04252018	N	4/25/2018	TO15	123-91-1	1,4-Dioxane	< 2.9	ug/m3	2.9	U	0.56
DOE-3	DOE-3_042518_S-04252018	N	4/25/2018	TO15	78-93-3	2-Butanone	< 2.4	ug/m3	2.4	U	5200
DOE-3	DOE-3_042518_S-04252018	N	4/25/2018	TO15	591-78-6	2-Hexanone	< 1.6	ug/m3	1.6	U	31
DOE-3	DOE-3_042518_S-04252018	N	4/25/2018	TO15	622-96-8	4-Ethyltoluene	< 2.0	ug/m3	2	U	-----
DOE-3	DOE-3_042518_S-04252018	N	4/25/2018	TO15	99-87-6	4-Isopropyltoluene	< 4.4	ug/m3	4.4	U	-----
DOE-3	DOE-3_042518_S-04252018	N	4/25/2018	TO15	108-10-1	4-Methyl-2-pentanone	< 1.6	ug/m3	1.6	U	3100
DOE-3	DOE-3_042518_S-04252018	N	4/25/2018	TO15	107-02-8	Acrolein	< 4.6	ug/m3	4.6	U	0.021

APPENDIX B  
Analytical Results for Ambient Air VOCs

Location ID	Sample ID	Sample Type	Sample Date	Analytical Method	CAS Number	Analyte	Result	Units	Reporting Limit	Lab Flags	EPA Residential Air RSLs
DOE-3	DOE-3_042518_S-04252018	N	4/25/2018	TO15	107-13-1	Acrylonitrile	< 4.3	ug/m3	4.3	U	0.041
DOE-3	DOE-3_042518_S-04252018	N	4/25/2018	TO15	71-43-2	Benzene	< 1.3	ug/m3	1.3	U	0.36
DOE-3	DOE-3_042518_S-04252018	N	4/25/2018	TO15	100-44-7	Benzyl chloride	< 4.1	ug/m3	4.1	U	0.057
DOE-3	DOE-3_042518_S-04252018	N	4/25/2018	TO15	75-27-4	Bromodichloromethane	< 2.0	ug/m3	2	U	0.076
DOE-3	DOE-3_042518_S-04252018	N	4/25/2018	TO15	75-25-2	Bromoform	< 4.1	ug/m3	4.1	U	2.6
DOE-3	DOE-3_042518_S-04252018	N	4/25/2018	TO15	74-83-9	Bromomethane	< 3.1	ug/m3	3.1	U	5.2
DOE-3	DOE-3_042518_S-04252018	N	4/25/2018	TO15	104-51-8	Butylbenzene, n-	< 2.2	ug/m3	2.2	U	-----
DOE-3	DOE-3_042518_S-04252018	N	4/25/2018	TO15	135-98-8	Butylbenzene, sec-	< 2.2	ug/m3	2.2	U	-----
DOE-3	DOE-3_042518_S-04252018	N	4/25/2018	TO15	75-15-0	Carbon disulfide	< 2.5	ug/m3	2.5	U	730
DOE-3	DOE-3_042518_S-04252018	N	4/25/2018	TO15	56-23-5	Carbon tetrachloride	< 5.0	ug/m3	5	U	0.47
DOE-3	DOE-3_042518_S-04252018	N	4/25/2018	TO15	75-00-3	Chloroethane	< 2.1	ug/m3	2.1	U	10000
DOE-3	DOE-3_042518_S-04252018	N	4/25/2018	TO15	67-66-3	Chloroform	< 1.5	ug/m3	1.5	U	0.12
DOE-3	DOE-3_042518_S-04252018	N	4/25/2018	TO15	74-87-3	Chloromethane	< 1.7	ug/m3	1.7	U	94
DOE-3	DOE-3_042518_S-04252018	N	4/25/2018	TO15	156-59-2	cis-1,2-Dichloroethene	< 1.6	ug/m3	1.6	U	-----
DOE-3	DOE-3_042518_S-04252018	N	4/25/2018	TO15	10061-01-5	cis-1,3-Dichloropropene	< 1.8	ug/m3	1.8	U	-----
DOE-3	DOE-3_042518_S-04252018	N	4/25/2018	TO15	110-82-7	Cyclohexane	< 1.4	ug/m3	1.4	U	1000
DOE-3	DOE-3_042518_S-04252018	N	4/25/2018	TO15	124-48-1	Dibromochloromethane	< 3.4	ug/m3	3.4	U	-----
DOE-3	DOE-3_042518_S-04252018	N	4/25/2018	TO15	75-71-8	Dichlorodifluoromethane	2	ug/m3	2	U	100
DOE-3	DOE-3_042518_S-04252018	N	4/25/2018	TO15	141-78-6	Ethyl acetate	< 1.1	ug/m3	1.1	U	73
DOE-3	DOE-3_042518_S-04252018	N	4/25/2018	TO15	100-41-4	Ethylbenzene	< 1.7	ug/m3	1.7	U	1.1
DOE-3	DOE-3_042518_S-04252018	N	4/25/2018	TO15	87-68-3	Hexachloro-1,3-butadiene	< 21	ug/m3	21	U	0.13
DOE-3	DOE-3_042518_S-04252018	N	4/25/2018	TO15	110-54-3	Hexane, n-	< 2.8	ug/m3	2.8	U	730
DOE-3	DOE-3_042518_S-04252018	N	4/25/2018	TO15	67-63-0	Isopropanol	< 4.9	ug/m3	4.9	U	210
DOE-3	DOE-3_042518_S-04252018	N	4/25/2018	TO15	98-82-8	Isopropylbenzene	< 3.9	ug/m3	3.9	U	420
DOE-3	DOE-3_042518_S-04252018	N	4/25/2018	TO15	179601-23-1	m,p-Xylene	< 3.5	ug/m3	3.5	U	-----
DOE-3	DOE-3_042518_S-04252018	N	4/25/2018	TO15	1634-04-4	Methyl tert butyl ether	< 2.9	ug/m3	2.9	U	11
DOE-3	DOE-3_042518_S-04252018	N	4/25/2018	TO15	75-09-2	Methylene chloride	< 1.4	ug/m3	1.4	U	100
DOE-3	DOE-3_042518_S-04252018	N	4/25/2018	TO15	91-20-3	Naphthalene	< 4.2	ug/m3	4.2	U	0.083
DOE-3	DOE-3_042518_S-04252018	N	4/25/2018	TO15	142-82-5	n-Heptane	< 3.3	ug/m3	3.3	U	420
DOE-3	DOE-3_042518_S-04252018	N	4/25/2018	TO15	111-65-9	n-Octane	< 1.9	ug/m3	1.9	U	-----
DOE-3	DOE-3_042518_S-04252018	N	4/25/2018	TO15	103-65-1	n-Propylbenzene	< 2.0	ug/m3	2	U	1000
DOE-3	DOE-3_042518_S-04252018	N	4/25/2018	TO15	95-47-6	o-Xylene	< 1.7	ug/m3	1.7	U	100
DOE-3	DOE-3_042518_S-04252018	N	4/25/2018	TO15	100-42-5	Styrene	< 1.7	ug/m3	1.7	U	1000
DOE-3	DOE-3_042518_S-04252018	N	4/25/2018	TO15	127-18-4	Tetrachloroethene	< 2.7	ug/m3	2.7	U	11
DOE-3	DOE-3_042518_S-04252018	N	4/25/2018	TO15	109-99-9	Tetrahydrofuran	< 2.4	ug/m3	2.4	U	2100
DOE-3	DOE-3_042518_S-04252018	N	4/25/2018	TO15	108-88-3	Toluene	< 1.5	ug/m3	1.5	U	5200
DOE-3	DOE-3_042518_S-04252018	N	4/25/2018	TO15	10061-02-6	trans-1,3-Dichloropropene	< 1.8	ug/m3	1.8	U	-----
DOE-3	DOE-3_042518_S-04252018	N	4/25/2018	TO15	79-01-6	Trichloroethene	< 2.1	ug/m3	2.1	U	0.48
DOE-3	DOE-3_042518_S-04252018	N	4/25/2018	TO15	75-69-4	Trichlorofluoromethane	< 2.2	ug/m3	2.2	U	-----
DOE-3	DOE-3_042518_S-04252018	N	4/25/2018	TO15	108-05-4	Vinyl acetate	< 2.8	ug/m3	2.8	U	210
DOE-3	DOE-3_042518_S-04252018	N	4/25/2018	TO15	75-01-4	Vinyl chloride	< 1.0	ug/m3	1	U	0.17
DOE-4	DOE-4_042518_S-04252018	N	4/25/2018	TO15	71-55-6	1,1,1-Trichloroethane	< 1.6	ug/m3	1.6	U	5200
DOE-4	DOE-4_042518_S-04252018	N	4/25/2018	TO15	79-34-5	1,1,2,2-Tetrachloroethane	< 2.7	ug/m3	2.7	U	0.048
DOE-4	DOE-4_042518_S-04252018	N	4/25/2018	TO15	76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	< 3.1	ug/m3	3.1	U	5200
DOE-4	DOE-4_042518_S-04252018	N	4/25/2018	TO15	79-00-5	1,1,2-Trichloroethane	< 2.2	ug/m3	2.2	U	0.18
DOE-4	DOE-4_042518_S-04252018	N	4/25/2018	TO15	75-34-3	1,1-Dichloroethane	< 1.2	ug/m3	1.2	U	1.8
DOE-4	DOE-4_042518_S-04252018	N	4/25/2018	TO15	75-35-4	1,1-Dichloroethene	< 3.2	ug/m3	3.2	U	210
DOE-4	DOE-4_042518_S-04252018	N	4/25/2018	TO15	120-82-1	1,2,4-Trichlorobenzene	< 15	ug/m3	15	U	2.1
DOE-4	DOE-4_042518_S-04252018	N	4/25/2018	TO15	95-63-6	1,2,4-Trimethylbenzene	< 3.9	ug/m3	3.9	U	63
DOE-4	DOE-4_042518_S-04252018	N	4/25/2018	TO15	106-93-4	1,2-Dibromoethane	< 6.1	ug/m3	6.1	U	-----
DOE-4	DOE-4_042518_S-04252018	N	4/25/2018	TO15	95-50-1	1,2-Dichlorobenzene	< 2.4	ug/m3	2.4	U	210
DOE-4	DOE-4_042518_S-04252018	N	4/25/2018	TO15	107-06-2	1,2-Dichloroethane	< 3.2	ug/m3	3.2	U	0.11
DOE-4	DOE-4_042518_S-04252018	N	4/25/2018	TO15	78-87-5	1,2-Dichloropropane	< 1.8	ug/m3	1.8	U	0.76
DOE-4	DOE-4_042518_S-04252018	N	4/25/2018	TO15	76-14-2	1,2-Dichlorotetrafluoroethane	< 2.8	ug/m3	2.8	U	-----
DOE-4	DOE-4_042518_S-04252018	N	4/25/2018	TO15	108-67-8	1,3,5-Trimethylbenzene	< 2.0	ug/m3	2	U	63

APPENDIX B  
Analytical Results for Ambient Air VOCs

Location ID	Sample ID	Sample Type	Sample Date	Analytical Method	CAS Number	Analyte	Result	Units	Reporting Limit	Lab Flags	EPA Residential Air RSLs
DOE-4	DOE-4_042518_S-04252018	N	4/25/2018	TO15	106-99-0	1,3-Butadiene	< 1.8	ug/m3	1.8	U	0.094
DOE-4	DOE-4_042518_S-04252018	N	4/25/2018	TO15	541-73-1	1,3-Dichlorobenzene	< 2.4	ug/m3	2.4	U	-----
DOE-4	DOE-4_042518_S-04252018	N	4/25/2018	TO15	106-46-7	1,4-Dichlorobenzene	< 2.4	ug/m3	2.4	U	0.26
DOE-4	DOE-4_042518_S-04252018	N	4/25/2018	TO15	123-91-1	1,4-Dioxane	< 2.9	ug/m3	2.9	U	0.56
DOE-4	DOE-4_042518_S-04252018	N	4/25/2018	TO15	78-93-3	2-Butanone	< 2.4	ug/m3	2.4	U	5200
DOE-4	DOE-4_042518_S-04252018	N	4/25/2018	TO15	591-78-6	2-Hexanone	< 1.6	ug/m3	1.6	U	31
DOE-4	DOE-4_042518_S-04252018	N	4/25/2018	TO15	622-96-8	4-Ethyltoluene	< 2.0	ug/m3	2	U	-----
DOE-4	DOE-4_042518_S-04252018	N	4/25/2018	TO15	99-87-6	4-Isopropyltoluene	< 4.4	ug/m3	4.4	U	-----
DOE-4	DOE-4_042518_S-04252018	N	4/25/2018	TO15	108-10-1	4-Methyl-2-pentanone	< 1.6	ug/m3	1.6	U	3100
DOE-4	DOE-4_042518_S-04252018	N	4/25/2018	TO15	107-02-8	Acrolein	< 4.6	ug/m3	4.6	U	0.021
DOE-4	DOE-4_042518_S-04252018	N	4/25/2018	TO15	107-13-1	Acrylonitrile	< 4.3	ug/m3	4.3	U	0.041
DOE-4	DOE-4_042518_S-04252018	N	4/25/2018	TO15	71-43-2	Benzene	< 1.3	ug/m3	1.3	U	0.36
DOE-4	DOE-4_042518_S-04252018	N	4/25/2018	TO15	100-44-7	Benzyl chloride	< 4.1	ug/m3	4.1	U	0.057
DOE-4	DOE-4_042518_S-04252018	N	4/25/2018	TO15	75-27-4	Bromodichloromethane	< 2.0	ug/m3	2	U	0.076
DOE-4	DOE-4_042518_S-04252018	N	4/25/2018	TO15	75-25-2	Bromoform	< 4.1	ug/m3	4.1	U	2.6
DOE-4	DOE-4_042518_S-04252018	N	4/25/2018	TO15	74-83-9	Bromomethane	< 3.1	ug/m3	3.1	U	5.2
DOE-4	DOE-4_042518_S-04252018	N	4/25/2018	TO15	104-51-8	Butylbenzene, n-	< 2.2	ug/m3	2.2	U	-----
DOE-4	DOE-4_042518_S-04252018	N	4/25/2018	TO15	135-98-8	Butylbenzene, sec-	< 2.2	ug/m3	2.2	U	-----
DOE-4	DOE-4_042518_S-04252018	N	4/25/2018	TO15	75-15-0	Carbon disulfide	< 2.5	ug/m3	2.5	U	730
DOE-4	DOE-4_042518_S-04252018	N	4/25/2018	TO15	56-23-5	Carbon tetrachloride	< 5.0	ug/m3	5	U	0.47
DOE-4	DOE-4_042518_S-04252018	N	4/25/2018	TO15	75-00-3	Chloroethane	< 2.1	ug/m3	2.1	U	10000
DOE-4	DOE-4_042518_S-04252018	N	4/25/2018	TO15	67-66-3	Chloroform	< 1.5	ug/m3	1.5	U	0.12
DOE-4	DOE-4_042518_S-04252018	N	4/25/2018	TO15	74-87-3	Chloromethane	< 1.7	ug/m3	1.7	U	94
DOE-4	DOE-4_042518_S-04252018	N	4/25/2018	TO15	156-59-2	cis-1,2-Dichloroethene	< 1.6	ug/m3	1.6	U	-----
DOE-4	DOE-4_042518_S-04252018	N	4/25/2018	TO15	10061-01-5	cis-1,3-Dichloropropene	< 1.8	ug/m3	1.8	U	-----
DOE-4	DOE-4_042518_S-04252018	N	4/25/2018	TO15	110-82-7	Cyclohexane	< 1.4	ug/m3	1.4	U	1000
DOE-4	DOE-4_042518_S-04252018	N	4/25/2018	TO15	124-48-1	Dibromochloromethane	< 3.4	ug/m3	3.4	U	-----
DOE-4	DOE-4_042518_S-04252018	N	4/25/2018	TO15	75-71-8	Dichlorodifluoromethane	2	ug/m3	2	U	100
DOE-4	DOE-4_042518_S-04252018	N	4/25/2018	TO15	141-78-6	Ethyl acetate	< 1.1	ug/m3	1.1	U	73
DOE-4	DOE-4_042518_S-04252018	N	4/25/2018	TO15	100-41-4	Ethylbenzene	< 1.7	ug/m3	1.7	U	1.1
DOE-4	DOE-4_042518_S-04252018	N	4/25/2018	TO15	87-68-3	Hexachloro-1,3-butadiene	< 21	ug/m3	21	U	0.13
DOE-4	DOE-4_042518_S-04252018	N	4/25/2018	TO15	110-54-3	Hexane, n-	< 2.8	ug/m3	2.8	U	730
DOE-4	DOE-4_042518_S-04252018	N	4/25/2018	TO15	67-63-0	Isopropanol	< 4.9	ug/m3	4.9	U	210
DOE-4	DOE-4_042518_S-04252018	N	4/25/2018	TO15	98-82-8	Isopropylbenzene	< 3.9	ug/m3	3.9	U	420
DOE-4	DOE-4_042518_S-04252018	N	4/25/2018	TO15	179601-23-1	m,p-Xylene	< 3.5	ug/m3	3.5	U	-----
DOE-4	DOE-4_042518_S-04252018	N	4/25/2018	TO15	1634-04-4	Methyl tert butyl ether	< 2.9	ug/m3	2.9	U	11
DOE-4	DOE-4_042518_S-04252018	N	4/25/2018	TO15	75-09-2	Methylene chloride	< 1.4	ug/m3	1.4	U	100
DOE-4	DOE-4_042518_S-04252018	N	4/25/2018	TO15	91-20-3	Naphthalene	< 4.2	ug/m3	4.2	U	0.083
DOE-4	DOE-4_042518_S-04252018	N	4/25/2018	TO15	142-82-5	n-Heptane	< 3.3	ug/m3	3.3	U	420
DOE-4	DOE-4_042518_S-04252018	N	4/25/2018	TO15	111-65-9	n-Octane	< 1.9	ug/m3	1.9	U	-----
DOE-4	DOE-4_042518_S-04252018	N	4/25/2018	TO15	103-65-1	n-Propylbenzene	< 2.0	ug/m3	2	U	1000
DOE-4	DOE-4_042518_S-04252018	N	4/25/2018	TO15	95-47-6	o-Xylene	< 1.7	ug/m3	1.7	U	100
DOE-4	DOE-4_042518_S-04252018	N	4/25/2018	TO15	100-42-5	Styrene	< 1.7	ug/m3	1.7	U	1000
DOE-4	DOE-4_042518_S-04252018	N	4/25/2018	TO15	127-18-4	Tetrachloroethene	< 2.7	ug/m3	2.7	U	11
DOE-4	DOE-4_042518_S-04252018	N	4/25/2018	TO15	109-99-9	Tetrahydrofuran	< 2.4	ug/m3	2.4	U	2100
DOE-4	DOE-4_042518_S-04252018	N	4/25/2018	TO15	108-88-3	Toluene	< 1.5	ug/m3	1.5	U	5200
DOE-4	DOE-4_042518_S-04252018	N	4/25/2018	TO15	10061-02-6	trans-1,3-Dichloropropene	< 1.8	ug/m3	1.8	U	-----
DOE-4	DOE-4_042518_S-04252018	N	4/25/2018	TO15	79-01-6	Trichloroethene	< 2.1	ug/m3	2.1	U	0.48
DOE-4	DOE-4_042518_S-04252018	N	4/25/2018	TO15	75-69-4	Trichlorofluoromethane	< 2.2	ug/m3	2.2	U	-----
DOE-4	DOE-4_042518_S-04252018	N	4/25/2018	TO15	108-05-4	Vinyl acetate	< 2.8	ug/m3	2.8	U	210
DOE-4	DOE-4_042518_S-04252018	N	4/25/2018	TO15	75-01-4	Vinyl chloride	< 1.0	ug/m3	1	U	0.17
DOE-1	DOE-1_051018_S-05102018	N	5/10/2018	TO15	71-55-6	1,1,1-Trichloroethane	< 1.6	ug/m3	1.6	U	5200
DOE-1	DOE-1_051018_S-05102018	N	5/10/2018	TO15	79-34-5	1,1,2,2-Tetrachloroethane	< 2.7	ug/m3	2.7	U	0.048
DOE-1	DOE-1_051018_S-05102018	N	5/10/2018	TO15	76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	< 3.1	ug/m3	3.1	U	5200
DOE-1	DOE-1_051018_S-05102018	N	5/10/2018	TO15	79-00-5	1,1,2-Trichloroethane	< 2.2	ug/m3	2.2	U	0.18

APPENDIX B  
Analytical Results for Ambient Air VOCs

Location ID	Sample ID	Sample Type	Sample Date	Analytical Method	CAS Number	Analyte	Result	Units	Reporting Limit	Lab Flags	EPA Residential Air RSLs
DOE-1	DOE-1_051018_S-05102018	N	5/10/2018	TO15	75-34-3	1,1-Dichloroethane	< 1.2	ug/m3	1.2	U	1.8
DOE-1	DOE-1_051018_S-05102018	N	5/10/2018	TO15	75-35-4	1,1-Dichloroethene	< 3.2	ug/m3	3.2	U	210
DOE-1	DOE-1_051018_S-05102018	N	5/10/2018	TO15	120-82-1	1,2,4-Trichlorobenzene	< 15	ug/m3	15	U	2.1
DOE-1	DOE-1_051018_S-05102018	N	5/10/2018	TO15	95-63-6	1,2,4-Trimethylbenzene	< 3.9	ug/m3	3.9	U	63
DOE-1	DOE-1_051018_S-05102018	N	5/10/2018	TO15	106-93-4	1,2-Dibromoethane	< 6.1	ug/m3	6.1	U	-----
DOE-1	DOE-1_051018_S-05102018	N	5/10/2018	TO15	95-50-1	1,2-Dichlorobenzene	< 2.4	ug/m3	2.4	U	210
DOE-1	DOE-1_051018_S-05102018	N	5/10/2018	TO15	107-06-2	1,2-Dichloroethane	< 3.2	ug/m3	3.2	U	0.11
DOE-1	DOE-1_051018_S-05102018	N	5/10/2018	TO15	78-87-5	1,2-Dichloropropane	< 1.8	ug/m3	1.8	U	0.76
DOE-1	DOE-1_051018_S-05102018	N	5/10/2018	TO15	76-14-2	1,2-Dichlorotetrafluoroethane	< 2.8	ug/m3	2.8	U	-----
DOE-1	DOE-1_051018_S-05102018	N	5/10/2018	TO15	108-67-8	1,3,5-Trimethylbenzene	< 2.0	ug/m3	2	U	63
DOE-1	DOE-1_051018_S-05102018	N	5/10/2018	TO15	106-99-0	1,3-Butadiene	< 1.8	ug/m3	1.8	U	0.094
DOE-1	DOE-1_051018_S-05102018	N	5/10/2018	TO15	541-73-1	1,3-Dichlorobenzene	< 2.4	ug/m3	2.4	U	-----
DOE-1	DOE-1_051018_S-05102018	N	5/10/2018	TO15	106-46-7	1,4-Dichlorobenzene	< 2.4	ug/m3	2.4	U	0.26
DOE-1	DOE-1_051018_S-05102018	N	5/10/2018	TO15	123-91-1	1,4-Dioxane	< 2.9	ug/m3	2.9	U	0.56
DOE-1	DOE-1_051018_S-05102018	N	5/10/2018	TO15	78-93-3	2-Butanone	< 2.4	ug/m3	2.4	U	5200
DOE-1	DOE-1_051018_S-05102018	N	5/10/2018	TO15	591-78-6	2-Hexanone	< 1.6	ug/m3	1.6	U	31
DOE-1	DOE-1_051018_S-05102018	N	5/10/2018	TO15	622-96-8	4-Ethyltoluene	< 2.0	ug/m3	2	U	-----
DOE-1	DOE-1_051018_S-05102018	N	5/10/2018	TO15	99-87-6	4-Isopropyltoluene	< 4.4	ug/m3	4.4	U	-----
DOE-1	DOE-1_051018_S-05102018	N	5/10/2018	TO15	108-10-1	4-Methyl-2-pentanone	< 1.6	ug/m3	1.6	U	3100
DOE-1	DOE-1_051018_S-05102018	N	5/10/2018	TO15	107-02-8	Acrolein	< 4.6	ug/m3	4.6	U	0.021
DOE-1	DOE-1_051018_S-05102018	N	5/10/2018	TO15	107-13-1	Acrylonitrile	< 4.3	ug/m3	4.3	U	0.041
DOE-1	DOE-1_051018_S-05102018	N	5/10/2018	TO15	71-43-2	Benzene	< 1.3	ug/m3	1.3	U	0.36
DOE-1	DOE-1_051018_S-05102018	N	5/10/2018	TO15	100-44-7	Benzyl chloride	< 4.1	ug/m3	4.1	U	0.057
DOE-1	DOE-1_051018_S-05102018	N	5/10/2018	TO15	75-27-4	Bromodichloromethane	< 2.0	ug/m3	2	U	0.076
DOE-1	DOE-1_051018_S-05102018	N	5/10/2018	TO15	75-25-2	Bromoform	< 4.1	ug/m3	4.1	U	2.6
DOE-1	DOE-1_051018_S-05102018	N	5/10/2018	TO15	74-83-9	Bromomethane	< 3.1	ug/m3	3.1	U	5.2
DOE-1	DOE-1_051018_S-05102018	N	5/10/2018	TO15	104-51-8	Butylbenzene, n-	< 2.2	ug/m3	2.2	U	-----
DOE-1	DOE-1_051018_S-05102018	N	5/10/2018	TO15	135-98-8	Butylbenzene, sec-	< 2.2	ug/m3	2.2	U	-----
DOE-1	DOE-1_051018_S-05102018	N	5/10/2018	TO15	75-15-0	Carbon disulfide	< 2.5	ug/m3	2.5	U	730
DOE-1	DOE-1_051018_S-05102018	N	5/10/2018	TO15	56-23-5	Carbon tetrachloride	< 5.0	ug/m3	5	U	0.47
DOE-1	DOE-1_051018_S-05102018	N	5/10/2018	TO15	75-00-3	Chloroethane	< 2.1	ug/m3	2.1	U	10000
DOE-1	DOE-1_051018_S-05102018	N	5/10/2018	TO15	67-66-3	Chloroform	< 1.5	ug/m3	1.5	U	0.12
DOE-1	DOE-1_051018_S-05102018	N	5/10/2018	TO15	74-87-3	Chloromethane	< 1.7	ug/m3	1.7	U	94
DOE-1	DOE-1_051018_S-05102018	N	5/10/2018	TO15	156-59-2	cis-1,2-Dichloroethene	< 1.6	ug/m3	1.6	U	-----
DOE-1	DOE-1_051018_S-05102018	N	5/10/2018	TO15	10061-01-5	cis-1,3-Dichloropropene	< 1.8	ug/m3	1.8	U	-----
DOE-1	DOE-1_051018_S-05102018	N	5/10/2018	TO15	110-82-7	Cyclohexane	< 1.4	ug/m3	1.4	U	1000
DOE-1	DOE-1_051018_S-05102018	N	5/10/2018	TO15	124-48-1	Dibromochloromethane	< 3.4	ug/m3	3.4	U	-----
DOE-1	DOE-1_051018_S-05102018	N	5/10/2018	TO15	75-71-8	Dichlorodifluoromethane	< 2.0	ug/m3	2	U	100
DOE-1	DOE-1_051018_S-05102018	N	5/10/2018	TO15	141-78-6	Ethyl acetate	< 1.1	ug/m3	1.1	U	73
DOE-1	DOE-1_051018_S-05102018	N	5/10/2018	TO15	100-41-4	Ethylbenzene	< 1.7	ug/m3	1.7	U	1.1
DOE-1	DOE-1_051018_S-05102018	N	5/10/2018	TO15	87-68-3	Hexachloro-1,3-butadiene	< 21	ug/m3	21	U	0.13
DOE-1	DOE-1_051018_S-05102018	N	5/10/2018	TO15	110-54-3	Hexane, n-	< 2.8	ug/m3	2.8	U	730
DOE-1	DOE-1_051018_S-05102018	N	5/10/2018	TO15	67-63-0	Isopropanol	< 4.9	ug/m3	4.9	U	210
DOE-1	DOE-1_051018_S-05102018	N	5/10/2018	TO15	98-82-8	Isopropylbenzene	< 3.9	ug/m3	3.9	U	420
DOE-1	DOE-1_051018_S-05102018	N	5/10/2018	TO15	179601-23-1	m,p-Xylene	< 3.5	ug/m3	3.5	U	-----
DOE-1	DOE-1_051018_S-05102018	N	5/10/2018	TO15	1634-04-4	Methyl tert butyl ether	< 2.9	ug/m3	2.9	U	11
DOE-1	DOE-1_051018_S-05102018	N	5/10/2018	TO15	75-09-2	Methylene chloride	< 1.4	ug/m3	1.4	U	100
DOE-1	DOE-1_051018_S-05102018	N	5/10/2018	TO15	91-20-3	Naphthalene	< 4.2	ug/m3	4.2	U	0.083
DOE-1	DOE-1_051018_S-05102018	N	5/10/2018	TO15	142-82-5	n-Heptane	< 3.3	ug/m3	3.3	U	420
DOE-1	DOE-1_051018_S-05102018	N	5/10/2018	TO15	111-65-9	n-Octane	< 1.9	ug/m3	1.9	U	-----
DOE-1	DOE-1_051018_S-05102018	N	5/10/2018	TO15	103-65-1	n-Propylbenzene	< 2.0	ug/m3	2	U	1000
DOE-1	DOE-1_051018_S-05102018	N	5/10/2018	TO15	95-47-6	o-Xylene	< 1.7	ug/m3	1.7	U	100
DOE-1	DOE-1_051018_S-05102018	N	5/10/2018	TO15	100-42-5	Styrene	< 1.7	ug/m3	1.7	U	1000
DOE-1	DOE-1_051018_S-05102018	N	5/10/2018	TO15	127-18-4	Tetrachloroethene	< 2.7	ug/m3	2.7	U	11
DOE-1	DOE-1_051018_S-05102018	N	5/10/2018	TO15	109-99-9	Tetrahydrofuran	< 2.4	ug/m3	2.4	U	2100

APPENDIX B  
Analytical Results for Ambient Air VOCs

Location ID	Sample ID	Sample Type	Sample Date	Analytical Method	CAS Number	Analyte	Result	Units	Reporting Limit	Lab Flags	EPA Residential Air RSLs
DOE-1	DOE-1_051018_S-05102018	N	5/10/2018	TO15	108-88-3	Toluene	< 1.5	ug/m3	1.5	U	5200
DOE-1	DOE-1_051018_S-05102018	N	5/10/2018	TO15	156-60-5	trans-1,2-Dichloroethene	< 1.6	ug/m3	1.6	U	-----
DOE-1	DOE-1_051018_S-05102018	N	5/10/2018	TO15	10061-02-6	trans-1,3-Dichloropropene	< 1.8	ug/m3	1.8	U	-----
DOE-1	DOE-1_051018_S-05102018	N	5/10/2018	TO15	79-01-6	Trichloroethene	< 2.1	ug/m3	2.1	U	0.48
DOE-1	DOE-1_051018_S-05102018	N	5/10/2018	TO15	75-69-4	Trichlorofluoromethane	< 2.2	ug/m3	2.2	U	-----
DOE-1	DOE-1_051018_S-05102018	N	5/10/2018	TO15	108-05-4	Vinyl acetate	< 2.8	ug/m3	2.8	U	210
DOE-1	DOE-1_051018_S-05102018	N	5/10/2018	TO15	75-01-4	Vinyl chloride	< 1.0	ug/m3	1	U	0.17
DOE-1	DOE-1_051018_S-05102018	N	5/10/2018	TO15	1330-20-7	Xylenes (Total)	< 5.2	ug/m3	5.2	U	-----
DOE-2	DOE-2_051018_S-05102018	N	5/10/2018	TO15	71-55-6	1,1,1-Trichloroethane	< 1.6	ug/m3	1.6	U	5200
DOE-2	DOE-2_051018_S-05102018	N	5/10/2018	TO15	79-34-5	1,1,2,2-Tetrachloroethane	< 2.7	ug/m3	2.7	U	0.048
DOE-2	DOE-2_051018_S-05102018	N	5/10/2018	TO15	76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	< 3.1	ug/m3	3.1	U	5200
DOE-2	DOE-2_051018_S-05102018	N	5/10/2018	TO15	79-00-5	1,1,2-Trichloroethane	< 2.2	ug/m3	2.2	U	0.18
DOE-2	DOE-2_051018_S-05102018	N	5/10/2018	TO15	75-34-3	1,1-Dichloroethane	< 1.2	ug/m3	1.2	U	1.8
DOE-2	DOE-2_051018_S-05102018	N	5/10/2018	TO15	75-35-4	1,1-Dichloroethene	< 3.2	ug/m3	3.2	U	210
DOE-2	DOE-2_051018_S-05102018	N	5/10/2018	TO15	120-82-1	1,2,4-Trichlorobenzene	< 15	ug/m3	15	U	2.1
DOE-2	DOE-2_051018_S-05102018	N	5/10/2018	TO15	95-63-6	1,2,4-Trimethylbenzene	< 3.9	ug/m3	3.9	U	63
DOE-2	DOE-2_051018_S-05102018	N	5/10/2018	TO15	106-93-4	1,2-Dibromoethane	< 6.1	ug/m3	6.1	U	-----
DOE-2	DOE-2_051018_S-05102018	N	5/10/2018	TO15	95-50-1	1,2-Dichlorobenzene	< 2.4	ug/m3	2.4	U	210
DOE-2	DOE-2_051018_S-05102018	N	5/10/2018	TO15	107-06-2	1,2-Dichloroethane	< 3.2	ug/m3	3.2	U	0.11
DOE-2	DOE-2_051018_S-05102018	N	5/10/2018	TO15	78-87-5	1,2-Dichloropropane	< 1.8	ug/m3	1.8	U	0.76
DOE-2	DOE-2_051018_S-05102018	N	5/10/2018	TO15	76-14-2	1,2-Dichlorotetrafluoroethane	< 2.8	ug/m3	2.8	U	-----
DOE-2	DOE-2_051018_S-05102018	N	5/10/2018	TO15	108-67-8	1,3,5-Trimethylbenzene	< 2.0	ug/m3	2	U	63
DOE-2	DOE-2_051018_S-05102018	N	5/10/2018	TO15	106-99-0	1,3-Butadiene	< 1.8	ug/m3	1.8	U	0.094
DOE-2	DOE-2_051018_S-05102018	N	5/10/2018	TO15	541-73-1	1,3-Dichlorobenzene	< 2.4	ug/m3	2.4	U	-----
DOE-2	DOE-2_051018_S-05102018	N	5/10/2018	TO15	106-46-7	1,4-Dichlorobenzene	< 2.4	ug/m3	2.4	U	0.26
DOE-2	DOE-2_051018_S-05102018	N	5/10/2018	TO15	123-91-1	1,4-Dioxane	< 2.9	ug/m3	2.9	U	0.56
DOE-2	DOE-2_051018_S-05102018	N	5/10/2018	TO15	78-93-3	2-Butanone	< 2.4	ug/m3	2.4	U	5200
DOE-2	DOE-2_051018_S-05102018	N	5/10/2018	TO15	591-78-6	2-Hexanone	< 1.6	ug/m3	1.6	U	31
DOE-2	DOE-2_051018_S-05102018	N	5/10/2018	TO15	622-96-8	4-Ethyltoluene	< 2.0	ug/m3	2	U	-----
DOE-2	DOE-2_051018_S-05102018	N	5/10/2018	TO15	99-87-6	4-Isopropyltoluene	< 4.4	ug/m3	4.4	U	-----
DOE-2	DOE-2_051018_S-05102018	N	5/10/2018	TO15	108-10-1	4-Methyl-2-pentanone	< 1.6	ug/m3	1.6	U	3100
DOE-2	DOE-2_051018_S-05102018	N	5/10/2018	TO15	107-02-8	Acrolein	< 4.6	ug/m3	4.6	U	0.021
DOE-2	DOE-2_051018_S-05102018	N	5/10/2018	TO15	107-13-1	Acrylonitrile	< 4.3	ug/m3	4.3	U	0.041
DOE-2	DOE-2_051018_S-05102018	N	5/10/2018	TO15	71-43-2	Benzene	< 1.3	ug/m3	1.3	U	0.36
DOE-2	DOE-2_051018_S-05102018	N	5/10/2018	TO15	100-44-7	Benzyl chloride	< 4.1	ug/m3	4.1	U	0.057
DOE-2	DOE-2_051018_S-05102018	N	5/10/2018	TO15	75-27-4	Bromodichloromethane	< 2.0	ug/m3	2	U	0.076
DOE-2	DOE-2_051018_S-05102018	N	5/10/2018	TO15	75-25-2	Bromoform	< 4.1	ug/m3	4.1	U	2.6
DOE-2	DOE-2_051018_S-05102018	N	5/10/2018	TO15	74-83-9	Bromomethane	< 3.1	ug/m3	3.1	U	5.2
DOE-2	DOE-2_051018_S-05102018	N	5/10/2018	TO15	104-51-8	Butylbenzene, n-	< 2.2	ug/m3	2.2	U	-----
DOE-2	DOE-2_051018_S-05102018	N	5/10/2018	TO15	135-98-8	Butylbenzene, sec-	< 2.2	ug/m3	2.2	U	-----
DOE-2	DOE-2_051018_S-05102018	N	5/10/2018	TO15	75-15-0	Carbon disulfide	< 2.5	ug/m3	2.5	U	730
DOE-2	DOE-2_051018_S-05102018	N	5/10/2018	TO15	56-23-5	Carbon tetrachloride	< 5.0	ug/m3	5	U	0.47
DOE-2	DOE-2_051018_S-05102018	N	5/10/2018	TO15	75-00-3	Chloroethane	< 2.1	ug/m3	2.1	U	10000
DOE-2	DOE-2_051018_S-05102018	N	5/10/2018	TO15	67-66-3	Chloroform	< 1.5	ug/m3	1.5	U	0.12
DOE-2	DOE-2_051018_S-05102018	N	5/10/2018	TO15	74-87-3	Chloromethane	< 1.7	ug/m3	1.7	U	94
DOE-2	DOE-2_051018_S-05102018	N	5/10/2018	TO15	156-59-2	cis-1,2-Dichloroethene	< 1.6	ug/m3	1.6	U	-----
DOE-2	DOE-2_051018_S-05102018	N	5/10/2018	TO15	10061-01-5	cis-1,3-Dichloropropene	< 1.8	ug/m3	1.8	U	-----
DOE-2	DOE-2_051018_S-05102018	N	5/10/2018	TO15	110-82-7	Cyclohexane	< 1.4	ug/m3	1.4	U	1000
DOE-2	DOE-2_051018_S-05102018	N	5/10/2018	TO15	124-48-1	Dibromochloromethane	< 3.4	ug/m3	3.4	U	-----
DOE-2	DOE-2_051018_S-05102018	N	5/10/2018	TO15	75-71-8	Dichlorodifluoromethane	< 2.0	ug/m3	2	U	100
DOE-2	DOE-2_051018_S-05102018	N	5/10/2018	TO15	141-78-6	Ethyl acetate	< 1.1	ug/m3	1.1	U	73
DOE-2	DOE-2_051018_S-05102018	N	5/10/2018	TO15	100-41-4	Ethylbenzene	< 1.7	ug/m3	1.7	U	1.1
DOE-2	DOE-2_051018_S-05102018	N	5/10/2018	TO15	87-68-3	Hexachloro-1,3-butadiene	< 21	ug/m3	21	U	0.13
DOE-2	DOE-2_051018_S-05102018	N	5/10/2018	TO15	110-54-3	Hexane, n-	< 2.8	ug/m3	2.8	U	730
DOE-2	DOE-2_051018_S-05102018	N	5/10/2018	TO15	67-63-0	Isopropanol	< 4.9	ug/m3	4.9	U	210

APPENDIX B  
Analytical Results for Ambient Air VOCs

Location ID	Sample ID	Sample Type	Sample Date	Analytical Method	CAS Number	Analyte	Result	Units	Reporting Limit	Lab Flags	EPA Residential Air RSLs
DOE-2	DOE-2_051018_S-05102018	N	5/10/2018	TO15	98-82-8	Isopropylbenzene	< 3.9	ug/m3	3.9	U	420
DOE-2	DOE-2_051018_S-05102018	N	5/10/2018	TO15	179601-23-1	m,p-Xylene	< 3.5	ug/m3	3.5	U	-----
DOE-2	DOE-2_051018_S-05102018	N	5/10/2018	TO15	1634-04-4	Methyl tert butyl ether	< 2.9	ug/m3	2.9	U	11
DOE-2	DOE-2_051018_S-05102018	N	5/10/2018	TO15	75-09-2	Methylene chloride	< 1.4	ug/m3	1.4	U	100
DOE-2	DOE-2_051018_S-05102018	N	5/10/2018	TO15	91-20-3	Naphthalene	< 4.2	ug/m3	4.2	U	0.083
DOE-2	DOE-2_051018_S-05102018	N	5/10/2018	TO15	142-82-5	n-Heptane	< 3.3	ug/m3	3.3	U	420
DOE-2	DOE-2_051018_S-05102018	N	5/10/2018	TO15	111-65-9	n-Octane	< 1.9	ug/m3	1.9	U	-----
DOE-2	DOE-2_051018_S-05102018	N	5/10/2018	TO15	103-65-1	n-Propylbenzene	< 2.0	ug/m3	2	U	1000
DOE-2	DOE-2_051018_S-05102018	N	5/10/2018	TO15	95-47-6	o-Xylene	< 1.7	ug/m3	1.7	U	100
DOE-2	DOE-2_051018_S-05102018	N	5/10/2018	TO15	100-42-5	Styrene	< 1.7	ug/m3	1.7	U	1000
DOE-2	DOE-2_051018_S-05102018	N	5/10/2018	TO15	127-18-4	Tetrachloroethene	< 2.7	ug/m3	2.7	U	11
DOE-2	DOE-2_051018_S-05102018	N	5/10/2018	TO15	109-99-9	Tetrahydrofuran	< 2.4	ug/m3	2.4	U	2100
DOE-2	DOE-2_051018_S-05102018	N	5/10/2018	TO15	108-88-3	Toluene	< 1.5	ug/m3	1.5	U	5200
DOE-2	DOE-2_051018_S-05102018	N	5/10/2018	TO15	156-60-5	trans-1,2-Dichloroethene	< 1.6	ug/m3	1.6	U	-----
DOE-2	DOE-2_051018_S-05102018	N	5/10/2018	TO15	10061-02-6	trans-1,3-Dichloropropene	< 1.8	ug/m3	1.8	U	-----
DOE-2	DOE-2_051018_S-05102018	N	5/10/2018	TO15	79-01-6	Trichloroethene	< 2.1	ug/m3	2.1	U	0.48
DOE-2	DOE-2_051018_S-05102018	N	5/10/2018	TO15	75-69-4	Trichlorofluoromethane	< 2.2	ug/m3	2.2	U	-----
DOE-2	DOE-2_051018_S-05102018	N	5/10/2018	TO15	108-05-4	Vinyl acetate	< 2.8	ug/m3	2.8	U	210
DOE-2	DOE-2_051018_S-05102018	N	5/10/2018	TO15	75-01-4	Vinyl chloride	< 1.0	ug/m3	1	U	0.17
DOE-2	DOE-2_051018_S-05102018	N	5/10/2018	TO15	1330-20-7	Xylenes (Total)	< 5.2	ug/m3	5.2	U	-----
DOE-3	DOE-3_051018_S-05102018	N	5/10/2018	TO15	71-55-6	1,1,1-Trichloroethane	< 1.6	ug/m3	1.6	U	5200
DOE-3	DOE-3_051018_S-05102018	N	5/10/2018	TO15	79-34-5	1,1,2,2-Tetrachloroethane	< 2.7	ug/m3	2.7	U	0.048
DOE-3	DOE-3_051018_S-05102018	N	5/10/2018	TO15	76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	< 3.1	ug/m3	3.1	U	5200
DOE-3	DOE-3_051018_S-05102018	N	5/10/2018	TO15	79-00-5	1,1,2-Trichloroethane	< 2.2	ug/m3	2.2	U	0.18
DOE-3	DOE-3_051018_S-05102018	N	5/10/2018	TO15	75-34-3	1,1-Dichloroethane	< 1.2	ug/m3	1.2	U	1.8
DOE-3	DOE-3_051018_S-05102018	N	5/10/2018	TO15	75-35-4	1,1-Dichloroethene	< 3.2	ug/m3	3.2	U	210
DOE-3	DOE-3_051018_S-05102018	N	5/10/2018	TO15	120-82-1	1,2,4-Trichlorobenzene	< 15	ug/m3	15	U	2.1
DOE-3	DOE-3_051018_S-05102018	N	5/10/2018	TO15	95-63-6	1,2,4-Trimethylbenzene	< 3.9	ug/m3	3.9	U	63
DOE-3	DOE-3_051018_S-05102018	N	5/10/2018	TO15	106-93-4	1,2-Dibromoethane	< 6.1	ug/m3	6.1	U	-----
DOE-3	DOE-3_051018_S-05102018	N	5/10/2018	TO15	95-50-1	1,2-Dichlorobenzene	< 2.4	ug/m3	2.4	U	210
DOE-3	DOE-3_051018_S-05102018	N	5/10/2018	TO15	107-06-2	1,2-Dichloroethane	< 3.2	ug/m3	3.2	U	0.11
DOE-3	DOE-3_051018_S-05102018	N	5/10/2018	TO15	78-87-5	1,2-Dichloropropane	< 1.8	ug/m3	1.8	U	0.76
DOE-3	DOE-3_051018_S-05102018	N	5/10/2018	TO15	76-14-2	1,2-Dichlorotetrafluoroethane	< 2.8	ug/m3	2.8	U	-----
DOE-3	DOE-3_051018_S-05102018	N	5/10/2018	TO15	108-67-8	1,3,5-Trimethylbenzene	< 2.0	ug/m3	2	U	63
DOE-3	DOE-3_051018_S-05102018	N	5/10/2018	TO15	106-99-0	1,3-Butadiene	< 1.8	ug/m3	1.8	U	0.094
DOE-3	DOE-3_051018_S-05102018	N	5/10/2018	TO15	541-73-1	1,3-Dichlorobenzene	< 2.4	ug/m3	2.4	U	-----
DOE-3	DOE-3_051018_S-05102018	N	5/10/2018	TO15	106-46-7	1,4-Dichlorobenzene	< 2.4	ug/m3	2.4	U	0.26
DOE-3	DOE-3_051018_S-05102018	N	5/10/2018	TO15	123-91-1	1,4-Dioxane	< 2.9	ug/m3	2.9	U	0.56
DOE-3	DOE-3_051018_S-05102018	N	5/10/2018	TO15	78-93-3	2-Butanone	< 2.4	ug/m3	2.4	U	5200
DOE-3	DOE-3_051018_S-05102018	N	5/10/2018	TO15	591-78-6	2-Hexanone	< 1.6	ug/m3	1.6	U	31
DOE-3	DOE-3_051018_S-05102018	N	5/10/2018	TO15	622-96-8	4-Ethyltoluene	< 2.0	ug/m3	2	U	-----
DOE-3	DOE-3_051018_S-05102018	N	5/10/2018	TO15	99-87-6	4-Isopropyltoluene	< 4.4	ug/m3	4.4	U	-----
DOE-3	DOE-3_051018_S-05102018	N	5/10/2018	TO15	108-10-1	4-Methyl-2-pentanone	< 1.6	ug/m3	1.6	U	3100
DOE-3	DOE-3_051018_S-05102018	N	5/10/2018	TO15	107-02-8	Acrolein	< 4.6	ug/m3	4.6	U	0.021
DOE-3	DOE-3_051018_S-05102018	N	5/10/2018	TO15	107-13-1	Acrylonitrile	< 4.3	ug/m3	4.3	U	0.041
DOE-3	DOE-3_051018_S-05102018	N	5/10/2018	TO15	71-43-2	Benzene	< 1.3	ug/m3	1.3	U	0.36
DOE-3	DOE-3_051018_S-05102018	N	5/10/2018	TO15	100-44-7	Benzyl chloride	< 4.1	ug/m3	4.1	U	0.057
DOE-3	DOE-3_051018_S-05102018	N	5/10/2018	TO15	75-27-4	Bromodichloromethane	< 2.0	ug/m3	2	U	0.076
DOE-3	DOE-3_051018_S-05102018	N	5/10/2018	TO15	75-25-2	Bromoform	< 4.1	ug/m3	4.1	U	2.6
DOE-3	DOE-3_051018_S-05102018	N	5/10/2018	TO15	74-83-9	Bromomethane	< 3.1	ug/m3	3.1	U	5.2
DOE-3	DOE-3_051018_S-05102018	N	5/10/2018	TO15	104-51-8	Butylbenzene, n-	< 2.2	ug/m3	2.2	U	-----
DOE-3	DOE-3_051018_S-05102018	N	5/10/2018	TO15	135-98-8	Butylbenzene, sec-	< 2.2	ug/m3	2.2	U	-----
DOE-3	DOE-3_051018_S-05102018	N	5/10/2018	TO15	75-15-0	Carbon disulfide	< 2.5	ug/m3	2.5	U	730
DOE-3	DOE-3_051018_S-05102018	N	5/10/2018	TO15	56-23-5	Carbon tetrachloride	< 5.0	ug/m3	5	U	0.47
DOE-3	DOE-3_051018_S-05102018	N	5/10/2018	TO15	75-00-3	Chloroethane	< 2.1	ug/m3	2.1	U	10000

APPENDIX B  
Analytical Results for Ambient Air VOCs

Location ID	Sample ID	Sample Type	Sample Date	Analytical Method	CAS Number	Analyte	Result	Units	Reporting Limit	Lab Flags	EPA Residential Air RSLs
DOE-3	DOE-3_051018_S-05102018	N	5/10/2018	TO15	67-66-3	Chloroform	< 1.5	ug/m3	1.5	U	0.12
DOE-3	DOE-3_051018_S-05102018	N	5/10/2018	TO15	74-87-3	Chloromethane	< 1.7	ug/m3	1.7	U	94
DOE-3	DOE-3_051018_S-05102018	N	5/10/2018	TO15	156-59-2	cis-1,2-Dichloroethene	< 1.6	ug/m3	1.6	U	-----
DOE-3	DOE-3_051018_S-05102018	N	5/10/2018	TO15	10061-01-5	cis-1,3-Dichloropropene	< 1.8	ug/m3	1.8	U	-----
DOE-3	DOE-3_051018_S-05102018	N	5/10/2018	TO15	110-82-7	Cyclohexane	< 1.4	ug/m3	1.4	U	1000
DOE-3	DOE-3_051018_S-05102018	N	5/10/2018	TO15	124-48-1	Dibromochloromethane	< 3.4	ug/m3	3.4	U	-----
DOE-3	DOE-3_051018_S-05102018	N	5/10/2018	TO15	75-71-8	Dichlorodifluoromethane	< 2.0	ug/m3	2	U	100
DOE-3	DOE-3_051018_S-05102018	N	5/10/2018	TO15	141-78-6	Ethyl acetate	< 1.1	ug/m3	1.1	U	73
DOE-3	DOE-3_051018_S-05102018	N	5/10/2018	TO15	100-41-4	Ethylbenzene	< 1.7	ug/m3	1.7	U	1.1
DOE-3	DOE-3_051018_S-05102018	N	5/10/2018	TO15	87-68-3	Hexachloro-1,3-butadiene	< 21	ug/m3	21	U	0.13
DOE-3	DOE-3_051018_S-05102018	N	5/10/2018	TO15	110-54-3	Hexane, n-	< 2.8	ug/m3	2.8	U	730
DOE-3	DOE-3_051018_S-05102018	N	5/10/2018	TO15	67-63-0	Isopropanol	< 4.9	ug/m3	4.9	U	210
DOE-3	DOE-3_051018_S-05102018	N	5/10/2018	TO15	98-82-8	Isopropylbenzene	< 3.9	ug/m3	3.9	U	420
DOE-3	DOE-3_051018_S-05102018	N	5/10/2018	TO15	179601-23-1	m,p-Xylene	< 3.5	ug/m3	3.5	U	-----
DOE-3	DOE-3_051018_S-05102018	N	5/10/2018	TO15	1634-04-4	Methyl tert butyl ether	< 2.9	ug/m3	2.9	U	11
DOE-3	DOE-3_051018_S-05102018	N	5/10/2018	TO15	75-09-2	Methylene chloride	< 1.4	ug/m3	1.4	U	100
DOE-3	DOE-3_051018_S-05102018	N	5/10/2018	TO15	91-20-3	Naphthalene	< 4.2	ug/m3	4.2	U	0.083
DOE-3	DOE-3_051018_S-05102018	N	5/10/2018	TO15	142-82-5	n-Heptane	< 3.3	ug/m3	3.3	U	420
DOE-3	DOE-3_051018_S-05102018	N	5/10/2018	TO15	111-65-9	n-Octane	< 1.9	ug/m3	1.9	U	-----
DOE-3	DOE-3_051018_S-05102018	N	5/10/2018	TO15	103-65-1	n-Propylbenzene	< 2.0	ug/m3	2	U	1000
DOE-3	DOE-3_051018_S-05102018	N	5/10/2018	TO15	95-47-6	o-Xylene	< 1.7	ug/m3	1.7	U	100
DOE-3	DOE-3_051018_S-05102018	N	5/10/2018	TO15	100-42-5	Styrene	< 1.7	ug/m3	1.7	U	1000
DOE-3	DOE-3_051018_S-05102018	N	5/10/2018	TO15	127-18-4	Tetrachloroethene	< 2.7	ug/m3	2.7	U	11
DOE-3	DOE-3_051018_S-05102018	N	5/10/2018	TO15	109-99-9	Tetrahydrofuran	< 2.4	ug/m3	2.4	U	2100
DOE-3	DOE-3_051018_S-05102018	N	5/10/2018	TO15	108-88-3	Toluene	< 1.5	ug/m3	1.5	U	5200
DOE-3	DOE-3_051018_S-05102018	N	5/10/2018	TO15	156-60-5	trans-1,2-Dichloroethene	< 1.6	ug/m3	1.6	U	-----
DOE-3	DOE-3_051018_S-05102018	N	5/10/2018	TO15	10061-02-6	trans-1,3-Dichloropropene	< 1.8	ug/m3	1.8	U	-----
DOE-3	DOE-3_051018_S-05102018	N	5/10/2018	TO15	79-01-6	Trichloroethene	< 2.1	ug/m3	2.1	U	0.48
DOE-3	DOE-3_051018_S-05102018	N	5/10/2018	TO15	75-69-4	Trichlorofluoromethane	< 2.2	ug/m3	2.2	U	-----
DOE-3	DOE-3_051018_S-05102018	N	5/10/2018	TO15	108-05-4	Vinyl acetate	< 2.8	ug/m3	2.8	U	210
DOE-3	DOE-3_051018_S-05102018	N	5/10/2018	TO15	75-01-4	Vinyl chloride	< 1.0	ug/m3	1	U	0.17
DOE-3	DOE-3_051018_S-05102018	N	5/10/2018	TO15	1330-20-7	Xylenes (Total)	< 5.2	ug/m3	5.2	U	-----
DOE-3	DOE-3_051018_D-05102018	FD	5/10/2018	TO15	71-55-6	1,1,1-Trichloroethane	< 1.6	ug/m3	1.6	U	5200
DOE-3	DOE-3_051018_D-05102018	FD	5/10/2018	TO15	79-34-5	1,1,2,2-Tetrachloroethane	< 2.7	ug/m3	2.7	U	0.048
DOE-3	DOE-3_051018_D-05102018	FD	5/10/2018	TO15	76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	< 3.1	ug/m3	3.1	U	5200
DOE-3	DOE-3_051018_D-05102018	FD	5/10/2018	TO15	79-00-5	1,1,2-Trichloroethane	< 2.2	ug/m3	2.2	U	0.18
DOE-3	DOE-3_051018_D-05102018	FD	5/10/2018	TO15	75-34-3	1,1-Dichloroethane	< 1.2	ug/m3	1.2	U	1.8
DOE-3	DOE-3_051018_D-05102018	FD	5/10/2018	TO15	75-35-4	1,1-Dichloroethene	< 3.2	ug/m3	3.2	U	210
DOE-3	DOE-3_051018_D-05102018	FD	5/10/2018	TO15	120-82-1	1,2,4-Trichlorobenzene	< 15	ug/m3	15	U	2.1
DOE-3	DOE-3_051018_D-05102018	FD	5/10/2018	TO15	95-63-6	1,2,4-Trimethylbenzene	< 3.9	ug/m3	3.9	U	63
DOE-3	DOE-3_051018_D-05102018	FD	5/10/2018	TO15	106-93-4	1,2-Dibromoethane	< 6.1	ug/m3	6.1	U	-----
DOE-3	DOE-3_051018_D-05102018	FD	5/10/2018	TO15	95-50-1	1,2-Dichlorobenzene	< 2.4	ug/m3	2.4	U	210
DOE-3	DOE-3_051018_D-05102018	FD	5/10/2018	TO15	107-06-2	1,2-Dichloroethane	< 3.2	ug/m3	3.2	U	0.11
DOE-3	DOE-3_051018_D-05102018	FD	5/10/2018	TO15	78-87-5	1,2-Dichloropropane	< 1.8	ug/m3	1.8	U	0.76
DOE-3	DOE-3_051018_D-05102018	FD	5/10/2018	TO15	76-14-2	1,2-Dichlorotetrafluoroethane	< 2.8	ug/m3	2.8	U	-----
DOE-3	DOE-3_051018_D-05102018	FD	5/10/2018	TO15	108-67-8	1,3,5-Trimethylbenzene	< 2.0	ug/m3	2	U	63
DOE-3	DOE-3_051018_D-05102018	FD	5/10/2018	TO15	106-99-0	1,3-Butadiene	< 1.8	ug/m3	1.8	U	0.094
DOE-3	DOE-3_051018_D-05102018	FD	5/10/2018	TO15	541-73-1	1,3-Dichlorobenzene	< 2.4	ug/m3	2.4	U	-----
DOE-3	DOE-3_051018_D-05102018	FD	5/10/2018	TO15	106-46-7	1,4-Dichlorobenzene	< 2.4	ug/m3	2.4	U	0.26
DOE-3	DOE-3_051018_D-05102018	FD	5/10/2018	TO15	123-91-1	1,4-Dioxane	< 2.9	ug/m3	2.9	U	0.56
DOE-3	DOE-3_051018_D-05102018	FD	5/10/2018	TO15	78-93-3	2-Butanone	< 2.4	ug/m3	2.4	U	5200
DOE-3	DOE-3_051018_D-05102018	FD	5/10/2018	TO15	591-78-6	2-Hexanone	< 1.6	ug/m3	1.6	U	31
DOE-3	DOE-3_051018_D-05102018	FD	5/10/2018	TO15	622-96-8	4-Ethyltoluene	< 2.0	ug/m3	2	U	-----
DOE-3	DOE-3_051018_D-05102018	FD	5/10/2018	TO15	99-87-6	4-Isopropyltoluene	< 4.4	ug/m3	4.4	U	-----
DOE-3	DOE-3_051018_D-05102018	FD	5/10/2018	TO15	108-10-1	4-Methyl-2-pentanone	< 1.6	ug/m3	1.6	U	3100

APPENDIX B  
Analytical Results for Ambient Air VOCs

Location ID	Sample ID	Sample Type	Sample Date	Analytical Method	CAS Number	Analyte	Result	Units	Reporting Limit	Lab Flags	EPA Residential Air RSLs
DOE-3	DOE-3_051018_D-05102018	FD	5/10/2018	TO15	107-02-8	Acrolein	< 4.6	ug/m3	4.6	U	0.021
DOE-3	DOE-3_051018_D-05102018	FD	5/10/2018	TO15	107-13-1	Acrylonitrile	< 4.3	ug/m3	4.3	U	0.041
DOE-3	DOE-3_051018_D-05102018	FD	5/10/2018	TO15	71-43-2	Benzene	< 1.3	ug/m3	1.3	U	0.36
DOE-3	DOE-3_051018_D-05102018	FD	5/10/2018	TO15	100-44-7	Benzyl chloride	< 4.1	ug/m3	4.1	U	0.057
DOE-3	DOE-3_051018_D-05102018	FD	5/10/2018	TO15	75-27-4	Bromodichloromethane	< 2.0	ug/m3	2	U	0.076
DOE-3	DOE-3_051018_D-05102018	FD	5/10/2018	TO15	75-25-2	Bromoform	< 4.1	ug/m3	4.1	U	2.6
DOE-3	DOE-3_051018_D-05102018	FD	5/10/2018	TO15	74-83-9	Bromomethane	< 3.1	ug/m3	3.1	U	5.2
DOE-3	DOE-3_051018_D-05102018	FD	5/10/2018	TO15	104-51-8	Butylbenzene, n-	< 2.2	ug/m3	2.2	U	-----
DOE-3	DOE-3_051018_D-05102018	FD	5/10/2018	TO15	135-98-8	Butylbenzene, sec-	< 2.2	ug/m3	2.2	U	-----
DOE-3	DOE-3_051018_D-05102018	FD	5/10/2018	TO15	75-15-0	Carbon disulfide	< 2.5	ug/m3	2.5	U	730
DOE-3	DOE-3_051018_D-05102018	FD	5/10/2018	TO15	56-23-5	Carbon tetrachloride	< 5.0	ug/m3	5	U	0.47
DOE-3	DOE-3_051018_D-05102018	FD	5/10/2018	TO15	75-00-3	Chloroethane	< 2.1	ug/m3	2.1	U	10000
DOE-3	DOE-3_051018_D-05102018	FD	5/10/2018	TO15	67-66-3	Chloroform	< 1.5	ug/m3	1.5	U	0.12
DOE-3	DOE-3_051018_D-05102018	FD	5/10/2018	TO15	74-87-3	Chloromethane	< 1.7	ug/m3	1.7	U	94
DOE-3	DOE-3_051018_D-05102018	FD	5/10/2018	TO15	156-59-2	cis-1,2-Dichloroethene	< 1.6	ug/m3	1.6	U	-----
DOE-3	DOE-3_051018_D-05102018	FD	5/10/2018	TO15	10061-01-5	cis-1,3-Dichloropropene	< 1.8	ug/m3	1.8	U	-----
DOE-3	DOE-3_051018_D-05102018	FD	5/10/2018	TO15	110-82-7	Cyclohexane	< 1.4	ug/m3	1.4	U	1000
DOE-3	DOE-3_051018_D-05102018	FD	5/10/2018	TO15	124-48-1	Dibromochloromethane	< 3.4	ug/m3	3.4	U	-----
DOE-3	DOE-3_051018_D-05102018	FD	5/10/2018	TO15	75-71-8	Dichlorodifluoromethane	< 2.0	ug/m3	2	U	100
DOE-3	DOE-3_051018_D-05102018	FD	5/10/2018	TO15	141-78-6	Ethyl acetate	< 1.1	ug/m3	1.1	U	73
DOE-3	DOE-3_051018_D-05102018	FD	5/10/2018	TO15	100-41-4	Ethylbenzene	< 1.7	ug/m3	1.7	U	1.1
DOE-3	DOE-3_051018_D-05102018	FD	5/10/2018	TO15	87-68-3	Hexachloro-1,3-butadiene	< 21	ug/m3	21	U	0.13
DOE-3	DOE-3_051018_D-05102018	FD	5/10/2018	TO15	110-54-3	Hexane, n-	< 2.8	ug/m3	2.8	U	730
DOE-3	DOE-3_051018_D-05102018	FD	5/10/2018	TO15	67-63-0	Isopropanol	< 4.9	ug/m3	4.9	U	210
DOE-3	DOE-3_051018_D-05102018	FD	5/10/2018	TO15	98-82-8	Isopropylbenzene	< 3.9	ug/m3	3.9	U	420
DOE-3	DOE-3_051018_D-05102018	FD	5/10/2018	TO15	179601-23-1	m,p-Xylene	< 3.5	ug/m3	3.5	U	-----
DOE-3	DOE-3_051018_D-05102018	FD	5/10/2018	TO15	1634-04-4	Methyl tert butyl ether	< 2.9	ug/m3	2.9	U	11
DOE-3	DOE-3_051018_D-05102018	FD	5/10/2018	TO15	75-09-2	Methylene chloride	< 1.4	ug/m3	1.4	U	100
DOE-3	DOE-3_051018_D-05102018	FD	5/10/2018	TO15	91-20-3	Naphthalene	< 4.2	ug/m3	4.2	U	0.083
DOE-3	DOE-3_051018_D-05102018	FD	5/10/2018	TO15	142-82-5	n-Heptane	< 3.3	ug/m3	3.3	U	420
DOE-3	DOE-3_051018_D-05102018	FD	5/10/2018	TO15	111-65-9	n-Octane	< 1.9	ug/m3	1.9	U	-----
DOE-3	DOE-3_051018_D-05102018	FD	5/10/2018	TO15	103-65-1	n-Propylbenzene	< 2.0	ug/m3	2	U	1000
DOE-3	DOE-3_051018_D-05102018	FD	5/10/2018	TO15	95-47-6	o-Xylene	< 1.7	ug/m3	1.7	U	100
DOE-3	DOE-3_051018_D-05102018	FD	5/10/2018	TO15	100-42-5	Styrene	< 1.7	ug/m3	1.7	U	1000
DOE-3	DOE-3_051018_D-05102018	FD	5/10/2018	TO15	127-18-4	Tetrachloroethene	< 2.7	ug/m3	2.7	U	11
DOE-3	DOE-3_051018_D-05102018	FD	5/10/2018	TO15	109-99-9	Tetrahydrofuran	< 2.4	ug/m3	2.4	U	2100
DOE-3	DOE-3_051018_D-05102018	FD	5/10/2018	TO15	108-88-3	Toluene	< 1.5	ug/m3	1.5	U	5200
DOE-3	DOE-3_051018_D-05102018	FD	5/10/2018	TO15	10061-02-6	trans-1,3-Dichloropropene	< 1.8	ug/m3	1.8	U	-----
DOE-3	DOE-3_051018_D-05102018	FD	5/10/2018	TO15	79-01-6	Trichloroethene	< 2.1	ug/m3	2.1	U	0.48
DOE-3	DOE-3_051018_D-05102018	FD	5/10/2018	TO15	75-69-4	Trichlorofluoromethane	< 2.2	ug/m3	2.2	U	-----
DOE-3	DOE-3_051018_D-05102018	FD	5/10/2018	TO15	108-05-4	Vinyl acetate	< 2.8	ug/m3	2.8	U	210
DOE-3	DOE-3_051018_D-05102018	FD	5/10/2018	TO15	75-01-4	Vinyl chloride	< 1.0	ug/m3	1	U	0.17
DOE-3	DOE-3_051018_D-05102018	FD	5/10/2018	TO15	1330-20-7	Xylenes (Total)	< 5.2	ug/m3	5.2	U	-----
DOE-4	DOE-4_051018_S-05102018	N	5/10/2018	TO15	71-55-6	1,1,1-Trichloroethane	< 1.6	ug/m3	1.6	U	5200
DOE-4	DOE-4_051018_S-05102018	N	5/10/2018	TO15	79-34-5	1,1,2,2-Tetrachloroethane	< 2.7	ug/m3	2.7	U	0.048
DOE-4	DOE-4_051018_S-05102018	N	5/10/2018	TO15	76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	< 3.1	ug/m3	3.1	U	5200
DOE-4	DOE-4_051018_S-05102018	N	5/10/2018	TO15	79-00-5	1,1,2-Trichloroethane	< 2.2	ug/m3	2.2	U	0.18
DOE-4	DOE-4_051018_S-05102018	N	5/10/2018	TO15	75-34-3	1,1-Dichloroethane	< 1.2	ug/m3	1.2	U	1.8
DOE-4	DOE-4_051018_S-05102018	N	5/10/2018	TO15	75-35-4	1,1-Dichloroethene	< 3.2	ug/m3	3.2	U	210
DOE-4	DOE-4_051018_S-05102018	N	5/10/2018	TO15	120-82-1	1,2,4-Trichlorobenzene	< 15	ug/m3	15	U	2.1
DOE-4	DOE-4_051018_S-05102018	N	5/10/2018	TO15	95-63-6	1,2,4-Trimethylbenzene	< 3.9	ug/m3	3.9	U	63
DOE-4	DOE-4_051018_S-05102018	N	5/10/2018	TO15	106-93-4	1,2-Dibromoethane	< 6.1	ug/m3	6.1	U	-----
DOE-4	DOE-4_051018_S-05102018	N	5/10/2018	TO15	95-50-1	1,2-Dichlorobenzene	< 2.4	ug/m3	2.4	U	210
DOE-4	DOE-4_051018_S-05102018	N	5/10/2018	TO15	107-06-2	1,2-Dichloroethane	< 3.2	ug/m3	3.2	U	0.11
DOE-4	DOE-4_051018_S-05102018	N	5/10/2018	TO15	78-87-5	1,2-Dichloropropane	< 1.8	ug/m3	1.8	U	0.76

APPENDIX B  
Analytical Results for Ambient Air VOCs

Location ID	Sample ID	Sample Type	Sample Date	Analytical Method	CAS Number	Analyte	Result	Units	Reporting Limit	Lab Flags	EPA Residential Air RSLs
DOE-4	DOE-4_051018_S-05102018	N	5/10/2018	TO15	76-14-2	1,2-Dichlorotetrafluoroethane	< 2.8	ug/m3	2.8	U	-----
DOE-4	DOE-4_051018_S-05102018	N	5/10/2018	TO15	108-67-8	1,3,5-Trimethylbenzene	< 2.0	ug/m3	2	U	63
DOE-4	DOE-4_051018_S-05102018	N	5/10/2018	TO15	106-99-0	1,3-Butadiene	< 1.8	ug/m3	1.8	U	0.094
DOE-4	DOE-4_051018_S-05102018	N	5/10/2018	TO15	541-73-1	1,3-Dichlorobenzene	< 2.4	ug/m3	2.4	U	-----
DOE-4	DOE-4_051018_S-05102018	N	5/10/2018	TO15	106-46-7	1,4-Dichlorobenzene	< 2.4	ug/m3	2.4	U	0.26
DOE-4	DOE-4_051018_S-05102018	N	5/10/2018	TO15	123-91-1	1,4-Dioxane	< 2.9	ug/m3	2.9	U	0.56
DOE-4	DOE-4_051018_S-05102018	N	5/10/2018	TO15	78-93-3	2-Butanone	< 2.4	ug/m3	2.4	U	5200
DOE-4	DOE-4_051018_S-05102018	N	5/10/2018	TO15	591-78-6	2-Hexanone	< 1.6	ug/m3	1.6	U	31
DOE-4	DOE-4_051018_S-05102018	N	5/10/2018	TO15	622-96-8	4-Ethyltoluene	< 2.0	ug/m3	2	U	-----
DOE-4	DOE-4_051018_S-05102018	N	5/10/2018	TO15	99-87-6	4-Isopropyltoluene	< 4.4	ug/m3	4.4	U	-----
DOE-4	DOE-4_051018_S-05102018	N	5/10/2018	TO15	108-10-1	4-Methyl-2-pentanone	< 1.6	ug/m3	1.6	U	3100
DOE-4	DOE-4_051018_S-05102018	N	5/10/2018	TO15	107-02-8	Acrolein	< 4.6	ug/m3	4.6	U	0.021
DOE-4	DOE-4_051018_S-05102018	N	5/10/2018	TO15	107-13-1	Acrylonitrile	< 4.3	ug/m3	4.3	U	0.041
DOE-4	DOE-4_051018_S-05102018	N	5/10/2018	TO15	71-43-2	Benzene	< 1.3	ug/m3	1.3	U	0.36
DOE-4	DOE-4_051018_S-05102018	N	5/10/2018	TO15	100-44-7	Benzyl chloride	< 4.1	ug/m3	4.1	U	0.057
DOE-4	DOE-4_051018_S-05102018	N	5/10/2018	TO15	75-27-4	Bromodichloromethane	< 2.0	ug/m3	2	U	0.076
DOE-4	DOE-4_051018_S-05102018	N	5/10/2018	TO15	75-25-2	Bromoform	< 4.1	ug/m3	4.1	U	2.6
DOE-4	DOE-4_051018_S-05102018	N	5/10/2018	TO15	74-83-9	Bromomethane	< 3.1	ug/m3	3.1	U	5.2
DOE-4	DOE-4_051018_S-05102018	N	5/10/2018	TO15	104-51-8	Butylbenzene, n-	< 2.2	ug/m3	2.2	U	-----
DOE-4	DOE-4_051018_S-05102018	N	5/10/2018	TO15	135-98-8	Butylbenzene, sec-	< 2.2	ug/m3	2.2	U	-----
DOE-4	DOE-4_051018_S-05102018	N	5/10/2018	TO15	75-15-0	Carbon disulfide	< 2.5	ug/m3	2.5	U	730
DOE-4	DOE-4_051018_S-05102018	N	5/10/2018	TO15	56-23-5	Carbon tetrachloride	< 5.0	ug/m3	5	U	0.47
DOE-4	DOE-4_051018_S-05102018	N	5/10/2018	TO15	75-00-3	Chloroethane	< 2.1	ug/m3	2.1	U	10000
DOE-4	DOE-4_051018_S-05102018	N	5/10/2018	TO15	67-66-3	Chloroform	< 1.5	ug/m3	1.5	U	0.12
DOE-4	DOE-4_051018_S-05102018	N	5/10/2018	TO15	74-87-3	Chloromethane	< 1.7	ug/m3	1.7	U	94
DOE-4	DOE-4_051018_S-05102018	N	5/10/2018	TO15	156-59-2	cis-1,2-Dichloroethene	< 1.6	ug/m3	1.6	U	-----
DOE-4	DOE-4_051018_S-05102018	N	5/10/2018	TO15	10061-01-5	cis-1,3-Dichloropropene	< 1.8	ug/m3	1.8	U	-----
DOE-4	DOE-4_051018_S-05102018	N	5/10/2018	TO15	110-82-7	Cyclohexane	< 1.4	ug/m3	1.4	U	1000
DOE-4	DOE-4_051018_S-05102018	N	5/10/2018	TO15	124-48-1	Dibromochloromethane	< 3.4	ug/m3	3.4	U	-----
DOE-4	DOE-4_051018_S-05102018	N	5/10/2018	TO15	75-71-8	Dichlorodifluoromethane	< 2.0	ug/m3	2	U	100
DOE-4	DOE-4_051018_S-05102018	N	5/10/2018	TO15	141-78-6	Ethyl acetate	< 1.1	ug/m3	1.1	U	73
DOE-4	DOE-4_051018_S-05102018	N	5/10/2018	TO15	100-41-4	Ethylbenzene	< 1.7	ug/m3	1.7	U	1.1
DOE-4	DOE-4_051018_S-05102018	N	5/10/2018	TO15	87-68-3	Hexachloro-1,3-butadiene	< 21	ug/m3	21	U	0.13
DOE-4	DOE-4_051018_S-05102018	N	5/10/2018	TO15	110-54-3	Hexane, n-	< 2.8	ug/m3	2.8	U	730
DOE-4	DOE-4_051018_S-05102018	N	5/10/2018	TO15	67-63-0	Isopropanol	< 4.9	ug/m3	4.9	U	210
DOE-4	DOE-4_051018_S-05102018	N	5/10/2018	TO15	98-82-8	Isopropylbenzene	< 3.9	ug/m3	3.9	U	420
DOE-4	DOE-4_051018_S-05102018	N	5/10/2018	TO15	179601-23-1	m,p-Xylene	< 3.5	ug/m3	3.5	U	-----
DOE-4	DOE-4_051018_S-05102018	N	5/10/2018	TO15	1634-04-4	Methyl tert butyl ether	< 2.9	ug/m3	2.9	U	11
DOE-4	DOE-4_051018_S-05102018	N	5/10/2018	TO15	75-09-2	Methylene chloride	< 1.4	ug/m3	1.4	U	100
DOE-4	DOE-4_051018_S-05102018	N	5/10/2018	TO15	91-20-3	Naphthalene	< 4.2	ug/m3	4.2	U	0.083
DOE-4	DOE-4_051018_S-05102018	N	5/10/2018	TO15	142-82-5	n-Heptane	< 3.3	ug/m3	3.3	U	420
DOE-4	DOE-4_051018_S-05102018	N	5/10/2018	TO15	111-65-9	n-Octane	< 1.9	ug/m3	1.9	U	-----
DOE-4	DOE-4_051018_S-05102018	N	5/10/2018	TO15	103-65-1	n-Propylbenzene	< 2.0	ug/m3	2	U	1000
DOE-4	DOE-4_051018_S-05102018	N	5/10/2018	TO15	95-47-6	o-Xylene	< 1.7	ug/m3	1.7	U	100
DOE-4	DOE-4_051018_S-05102018	N	5/10/2018	TO15	100-42-5	Styrene	< 1.7	ug/m3	1.7	U	1000
DOE-4	DOE-4_051018_S-05102018	N	5/10/2018	TO15	127-18-4	Tetrachloroethene	< 2.7	ug/m3	2.7	U	11
DOE-4	DOE-4_051018_S-05102018	N	5/10/2018	TO15	109-99-9	Tetrahydrofuran	< 2.4	ug/m3	2.4	U	2100
DOE-4	DOE-4_051018_S-05102018	N	5/10/2018	TO15	108-88-3	Toluene	< 1.5	ug/m3	1.5	U	5200
DOE-4	DOE-4_051018_S-05102018	N	5/10/2018	TO15	10061-02-6	trans-1,3-Dichloropropene	< 1.8	ug/m3	1.8	U	-----
DOE-4	DOE-4_051018_S-05102018	N	5/10/2018	TO15	79-01-6	Trichloroethene	< 2.1	ug/m3	2.1	U	0.48
DOE-4	DOE-4_051018_S-05102018	N	5/10/2018	TO15	75-69-4	Trichlorofluoromethane	< 2.2	ug/m3	2.2	U	-----
DOE-4	DOE-4_051018_S-05102018	N	5/10/2018	TO15	108-05-4	Vinyl acetate	< 2.8	ug/m3	2.8	U	210
DOE-4	DOE-4_051018_S-05102018	N	5/10/2018	TO15	75-01-4	Vinyl chloride	< 1.0	ug/m3	1	U	0.17
DOE-4	DOE-4_051018_S-05102018	N	5/10/2018	TO15	1330-20-7	Xylenes (Total)	< 5.2	ug/m3	5.2	U	-----
DOE-1	DOE-1_052518_S-05252018	N	5/25/2018	TO15	71-55-6	1,1,1-Trichloroethane	< 1.6	ug/m3	1.6	U	5200

APPENDIX B  
Analytical Results for Ambient Air VOCs

Location ID	Sample ID	Sample Type	Sample Date	Analytical Method	CAS Number	Analyte	Result	Units	Reporting Limit	Lab Flags	EPA Residential Air RSLs
DOE-1	DOE-1_052518_S-05252018	N	5/25/2018	TO15	79-34-5	1,1,2,2-Tetrachloroethane	< 2.7	ug/m3	2.7	U	0.048
DOE-1	DOE-1_052518_S-05252018	N	5/25/2018	TO15	76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	< 3.1	ug/m3	3.1	U	5200
DOE-1	DOE-1_052518_S-05252018	N	5/25/2018	TO15	79-00-5	1,1,2-Trichloroethane	< 2.2	ug/m3	2.2	U	0.18
DOE-1	DOE-1_052518_S-05252018	N	5/25/2018	TO15	75-34-3	1,1-Dichloroethane	< 1.2	ug/m3	1.2	U	1.8
DOE-1	DOE-1_052518_S-05252018	N	5/25/2018	TO15	75-35-4	1,1-Dichloroethene	< 3.2	ug/m3	3.2	U	210
DOE-1	DOE-1_052518_S-05252018	N	5/25/2018	TO15	120-82-1	1,2,4-Trichlorobenzene	< 15	ug/m3	15	U	2.1
DOE-1	DOE-1_052518_S-05252018	N	5/25/2018	TO15	95-63-6	1,2,4-Trimethylbenzene	< 3.9	ug/m3	3.9	U	63
DOE-1	DOE-1_052518_S-05252018	N	5/25/2018	TO15	106-93-4	1,2-Dibromoethane	< 6.1	ug/m3	6.1	U	-----
DOE-1	DOE-1_052518_S-05252018	N	5/25/2018	TO15	95-50-1	1,2-Dichlorobenzene	< 2.4	ug/m3	2.4	U	210
DOE-1	DOE-1_052518_S-05252018	N	5/25/2018	TO15	107-06-2	1,2-Dichloroethane	< 3.2	ug/m3	3.2	U	0.11
DOE-1	DOE-1_052518_S-05252018	N	5/25/2018	TO15	78-87-5	1,2-Dichloropropane	< 1.8	ug/m3	1.8	U	0.76
DOE-1	DOE-1_052518_S-05252018	N	5/25/2018	TO15	76-14-2	1,2-Dichlorotetrafluoroethane	< 2.8	ug/m3	2.8	U	-----
DOE-1	DOE-1_052518_S-05252018	N	5/25/2018	TO15	108-67-8	1,3,5-Trimethylbenzene	< 2.0	ug/m3	2	U	63
DOE-1	DOE-1_052518_S-05252018	N	5/25/2018	TO15	106-99-0	1,3-Butadiene	< 1.8	ug/m3	1.8	U	0.094
DOE-1	DOE-1_052518_S-05252018	N	5/25/2018	TO15	541-73-1	1,3-Dichlorobenzene	< 2.4	ug/m3	2.4	U	-----
DOE-1	DOE-1_052518_S-05252018	N	5/25/2018	TO15	106-46-7	1,4-Dichlorobenzene	< 2.4	ug/m3	2.4	U	0.26
DOE-1	DOE-1_052518_S-05252018	N	5/25/2018	TO15	123-91-1	1,4-Dioxane	< 2.9	ug/m3	2.9	U	0.56
DOE-1	DOE-1_052518_S-05252018	N	5/25/2018	TO15	78-93-3	2-Butanone	< 2.4	ug/m3	2.4	U	5200
DOE-1	DOE-1_052518_S-05252018	N	5/25/2018	TO15	591-78-6	2-Hexanone	< 1.6	ug/m3	1.6	U	31
DOE-1	DOE-1_052518_S-05252018	N	5/25/2018	TO15	622-96-8	4-Ethyltoluene	< 2.0	ug/m3	2	U	-----
DOE-1	DOE-1_052518_S-05252018	N	5/25/2018	TO15	99-87-6	4-Isopropyltoluene	< 4.4	ug/m3	4.4	U	-----
DOE-1	DOE-1_052518_S-05252018	N	5/25/2018	TO15	108-10-1	4-Methyl-2-pentanone	< 1.6	ug/m3	1.6	U	3100
DOE-1	DOE-1_052518_S-05252018	N	5/25/2018	TO15	107-02-8	Acrolein	< 4.6	ug/m3	4.6	U	0.021
DOE-1	DOE-1_052518_S-05252018	N	5/25/2018	TO15	107-13-1	Acrylonitrile	< 4.3	ug/m3	4.3	U	0.041
DOE-1	DOE-1_052518_S-05252018	N	5/25/2018	TO15	71-43-2	Benzene	< 1.3	ug/m3	1.3	U	0.36
DOE-1	DOE-1_052518_S-05252018	N	5/25/2018	TO15	100-44-7	Benzyl chloride	< 4.1	ug/m3	4.1	U	0.057
DOE-1	DOE-1_052518_S-05252018	N	5/25/2018	TO15	75-27-4	Bromodichloromethane	< 2.0	ug/m3	2	U	0.076
DOE-1	DOE-1_052518_S-05252018	N	5/25/2018	TO15	75-25-2	Bromoform	< 4.1	ug/m3	4.1	U	2.6
DOE-1	DOE-1_052518_S-05252018	N	5/25/2018	TO15	74-83-9	Bromomethane	< 3.1	ug/m3	3.1	U	5.2
DOE-1	DOE-1_052518_S-05252018	N	5/25/2018	TO15	104-51-8	Butylbenzene, n-	< 2.2	ug/m3	2.2	U	-----
DOE-1	DOE-1_052518_S-05252018	N	5/25/2018	TO15	135-98-8	Butylbenzene, sec-	< 2.2	ug/m3	2.2	U	-----
DOE-1	DOE-1_052518_S-05252018	N	5/25/2018	TO15	75-15-0	Carbon disulfide	< 2.5	ug/m3	2.5	U	730
DOE-1	DOE-1_052518_S-05252018	N	5/25/2018	TO15	56-23-5	Carbon tetrachloride	< 5.0	ug/m3	5	U	0.47
DOE-1	DOE-1_052518_S-05252018	N	5/25/2018	TO15	75-00-3	Chloroethane	< 2.1	ug/m3	2.1	U	10000
DOE-1	DOE-1_052518_S-05252018	N	5/25/2018	TO15	67-66-3	Chloroform	< 1.5	ug/m3	1.5	U	0.12
DOE-1	DOE-1_052518_S-05252018	N	5/25/2018	TO15	74-87-3	Chloromethane	< 1.7	ug/m3	1.7	U	94
DOE-1	DOE-1_052518_S-05252018	N	5/25/2018	TO15	156-59-2	cis-1,2-Dichloroethene	< 1.6	ug/m3	1.6	U	-----
DOE-1	DOE-1_052518_S-05252018	N	5/25/2018	TO15	10061-01-5	cis-1,3-Dichloropropene	< 1.8	ug/m3	1.8	U	-----
DOE-1	DOE-1_052518_S-05252018	N	5/25/2018	TO15	110-82-7	Cyclohexane	< 1.4	ug/m3	1.4	U	1000
DOE-1	DOE-1_052518_S-05252018	N	5/25/2018	TO15	124-48-1	Dibromochloromethane	< 3.4	ug/m3	3.4	U	-----
DOE-1	DOE-1_052518_S-05252018	N	5/25/2018	TO15	75-71-8	Dichlorodifluoromethane	< 2.0	ug/m3	2	U	100
DOE-1	DOE-1_052518_S-05252018	N	5/25/2018	TO15	141-78-6	Ethyl acetate	< 1.1	ug/m3	1.1	U	73
DOE-1	DOE-1_052518_S-05252018	N	5/25/2018	TO15	100-41-4	Ethylbenzene	< 1.7	ug/m3	1.7	U	1.1
DOE-1	DOE-1_052518_S-05252018	N	5/25/2018	TO15	87-68-3	Hexachloro-1,3-butadiene	< 21	ug/m3	21	U	0.13
DOE-1	DOE-1_052518_S-05252018	N	5/25/2018	TO15	110-54-3	Hexane, n-	< 2.8	ug/m3	2.8	U	730
DOE-1	DOE-1_052518_S-05252018	N	5/25/2018	TO15	67-63-0	Isopropanol	< 4.9	ug/m3	4.9	U	210
DOE-1	DOE-1_052518_S-05252018	N	5/25/2018	TO15	98-82-8	Isopropylbenzene	< 3.9	ug/m3	3.9	U	420
DOE-1	DOE-1_052518_S-05252018	N	5/25/2018	TO15	179601-23-1	m,p-Xylene	< 3.5	ug/m3	3.5	U	-----
DOE-1	DOE-1_052518_S-05252018	N	5/25/2018	TO15	1634-04-4	Methyl tert butyl ether	< 2.9	ug/m3	2.9	U	11
DOE-1	DOE-1_052518_S-05252018	N	5/25/2018	TO15	75-09-2	Methylene chloride	< 1.4	ug/m3	1.4	U	100
DOE-1	DOE-1_052518_S-05252018	N	5/25/2018	TO15	91-20-3	Naphthalene	< 4.2	ug/m3	4.2	U	0.083
DOE-1	DOE-1_052518_S-05252018	N	5/25/2018	TO15	142-82-5	n-Heptane	< 3.3	ug/m3	3.3	U	420
DOE-1	DOE-1_052518_S-05252018	N	5/25/2018	TO15	111-65-9	n-Octane	< 1.9	ug/m3	1.9	U	-----
DOE-1	DOE-1_052518_S-05252018	N	5/25/2018	TO15	103-65-1	n-Propylbenzene	< 2.0	ug/m3	2	U	1000
DOE-1	DOE-1_052518_S-05252018	N	5/25/2018	TO15	95-47-6	o-Xylene	< 1.7	ug/m3	1.7	U	100

APPENDIX B  
Analytical Results for Ambient Air VOCs

Location ID	Sample ID	Sample Type	Sample Date	Analytical Method	CAS Number	Analyte	Result	Units	Reporting Limit	Lab Flags	EPA Residential Air RSLs
DOE-1	DOE-1_052518_S-05252018	N	5/25/2018	TO15	100-42-5	Styrene	< 1.7	ug/m3	1.7	U	1000
DOE-1	DOE-1_052518_S-05252018	N	5/25/2018	TO15	127-18-4	Tetrachloroethene	< 2.7	ug/m3	2.7	U	11
DOE-1	DOE-1_052518_S-05252018	N	5/25/2018	TO15	109-99-9	Tetrahydrofuran	< 2.4	ug/m3	2.4	U	2100
DOE-1	DOE-1_052518_S-05252018	N	5/25/2018	TO15	108-88-3	Toluene	12	ug/m3	1.5		5200
DOE-1	DOE-1_052518_S-05252018	N	5/25/2018	TO15	156-60-5	trans-1,2-Dichloroethene	< 1.6	ug/m3	1.6	U	-----
DOE-1	DOE-1_052518_S-05252018	N	5/25/2018	TO15	10061-02-6	trans-1,3-Dichloropropene	< 1.8	ug/m3	1.8	U	-----
DOE-1	DOE-1_052518_S-05252018	N	5/25/2018	TO15	79-01-6	Trichloroethene	< 2.1	ug/m3	2.1	U	0.48
DOE-1	DOE-1_052518_S-05252018	N	5/25/2018	TO15	75-69-4	Trichlorofluoromethane	< 2.2	ug/m3	2.2	U	-----
DOE-1	DOE-1_052518_S-05252018	N	5/25/2018	TO15	108-05-4	Vinyl acetate	< 2.8	ug/m3	2.8	U	210
DOE-1	DOE-1_052518_S-05252018	N	5/25/2018	TO15	75-01-4	Vinyl chloride	< 1.0	ug/m3	1	U	0.17
DOE-1	DOE-1_052518_S-05252018	N	5/25/2018	TO15	1330-20-7	Xylenes (Total)	< 5.2	ug/m3	5.2	U	-----
DOE-2	DOE-2_052518_S-05252018	N	5/25/2018	TO15	71-55-6	1,1,1-Trichloroethane	< 1.6	ug/m3	1.6	U	5200
DOE-2	DOE-2_052518_S-05252018	N	5/25/2018	TO15	79-34-5	1,1,2,2-Tetrachloroethane	< 2.7	ug/m3	2.7	U	0.048
DOE-2	DOE-2_052518_S-05252018	N	5/25/2018	TO15	76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	< 3.1	ug/m3	3.1	U	5200
DOE-2	DOE-2_052518_S-05252018	N	5/25/2018	TO15	79-00-5	1,1,2-Trichloroethane	< 2.2	ug/m3	2.2	U	0.18
DOE-2	DOE-2_052518_S-05252018	N	5/25/2018	TO15	75-34-3	1,1-Dichloroethane	< 1.2	ug/m3	1.2	U	1.8
DOE-2	DOE-2_052518_S-05252018	N	5/25/2018	TO15	75-35-4	1,1-Dichloroethene	< 3.2	ug/m3	3.2	U	210
DOE-2	DOE-2_052518_S-05252018	N	5/25/2018	TO15	120-82-1	1,2,4-Trichlorobenzene	< 15	ug/m3	15	U	2.1
DOE-2	DOE-2_052518_S-05252018	N	5/25/2018	TO15	95-63-6	1,2,4-Trimethylbenzene	< 3.9	ug/m3	3.9	U	63
DOE-2	DOE-2_052518_S-05252018	N	5/25/2018	TO15	106-93-4	1,2-Dibromoethane	< 6.1	ug/m3	6.1	U	-----
DOE-2	DOE-2_052518_S-05252018	N	5/25/2018	TO15	95-50-1	1,2-Dichlorobenzene	< 2.4	ug/m3	2.4	U	210
DOE-2	DOE-2_052518_S-05252018	N	5/25/2018	TO15	107-06-2	1,2-Dichloroethane	< 3.2	ug/m3	3.2	U	0.11
DOE-2	DOE-2_052518_S-05252018	N	5/25/2018	TO15	78-87-5	1,2-Dichloropropane	< 1.8	ug/m3	1.8	U	0.76
DOE-2	DOE-2_052518_S-05252018	N	5/25/2018	TO15	76-14-2	1,2-Dichlorotetrafluoroethane	< 2.8	ug/m3	2.8	U	-----
DOE-2	DOE-2_052518_S-05252018	N	5/25/2018	TO15	108-67-8	1,3,5-Trimethylbenzene	< 2.0	ug/m3	2	U	63
DOE-2	DOE-2_052518_S-05252018	N	5/25/2018	TO15	106-99-0	1,3-Butadiene	< 1.8	ug/m3	1.8	U	0.094
DOE-2	DOE-2_052518_S-05252018	N	5/25/2018	TO15	541-73-1	1,3-Dichlorobenzene	< 2.4	ug/m3	2.4	U	-----
DOE-2	DOE-2_052518_S-05252018	N	5/25/2018	TO15	106-46-7	1,4-Dichlorobenzene	< 2.4	ug/m3	2.4	U	0.26
DOE-2	DOE-2_052518_S-05252018	N	5/25/2018	TO15	123-91-1	1,4-Dioxane	< 2.9	ug/m3	2.9	U	0.56
DOE-2	DOE-2_052518_S-05252018	N	5/25/2018	TO15	78-93-3	2-Butanone	< 2.4	ug/m3	2.4	U	5200
DOE-2	DOE-2_052518_S-05252018	N	5/25/2018	TO15	591-78-6	2-Hexanone	< 1.6	ug/m3	1.6	U	31
DOE-2	DOE-2_052518_S-05252018	N	5/25/2018	TO15	622-96-8	4-Ethyltoluene	< 2.0	ug/m3	2	U	-----
DOE-2	DOE-2_052518_S-05252018	N	5/25/2018	TO15	99-87-6	4-Isopropyltoluene	< 4.4	ug/m3	4.4	U	-----
DOE-2	DOE-2_052518_S-05252018	N	5/25/2018	TO15	108-10-1	4-Methyl-2-pentanone	< 1.6	ug/m3	1.6	U	3100
DOE-2	DOE-2_052518_S-05252018	N	5/25/2018	TO15	107-02-8	Acrolein	< 4.6	ug/m3	4.6	U	0.021
DOE-2	DOE-2_052518_S-05252018	N	5/25/2018	TO15	107-13-1	Acrylonitrile	< 4.3	ug/m3	4.3	U	0.041
DOE-2	DOE-2_052518_S-05252018	N	5/25/2018	TO15	71-43-2	Benzene	< 1.3	ug/m3	1.3	U	0.36
DOE-2	DOE-2_052518_S-05252018	N	5/25/2018	TO15	100-44-7	Benzyl chloride	< 4.1	ug/m3	4.1	U	0.057
DOE-2	DOE-2_052518_S-05252018	N	5/25/2018	TO15	75-27-4	Bromodichloromethane	< 2.0	ug/m3	2	U	0.076
DOE-2	DOE-2_052518_S-05252018	N	5/25/2018	TO15	75-25-2	Bromoform	< 4.1	ug/m3	4.1	U	2.6
DOE-2	DOE-2_052518_S-05252018	N	5/25/2018	TO15	74-83-9	Bromomethane	< 3.1	ug/m3	3.1	U	5.2
DOE-2	DOE-2_052518_S-05252018	N	5/25/2018	TO15	104-51-8	Butylbenzene, n-	< 2.2	ug/m3	2.2	U	-----
DOE-2	DOE-2_052518_S-05252018	N	5/25/2018	TO15	135-98-8	Butylbenzene, sec-	< 2.2	ug/m3	2.2	U	-----
DOE-2	DOE-2_052518_S-05252018	N	5/25/2018	TO15	75-15-0	Carbon disulfide	25	ug/m3	2.5		730
DOE-2	DOE-2_052518_S-05252018	N	5/25/2018	TO15	56-23-5	Carbon tetrachloride	< 5.0	ug/m3	5	U	0.47
DOE-2	DOE-2_052518_S-05252018	N	5/25/2018	TO15	75-00-3	Chloroethane	< 2.1	ug/m3	2.1	U	10000
DOE-2	DOE-2_052518_S-05252018	N	5/25/2018	TO15	67-66-3	Chloroform	< 1.5	ug/m3	1.5	U	0.12
DOE-2	DOE-2_052518_S-05252018	N	5/25/2018	TO15	74-87-3	Chloromethane	1.7	ug/m3	1.7		94
DOE-2	DOE-2_052518_S-05252018	N	5/25/2018	TO15	156-59-2	cis-1,2-Dichloroethene	< 1.6	ug/m3	1.6	U	-----
DOE-2	DOE-2_052518_S-05252018	N	5/25/2018	TO15	10061-01-5	cis-1,3-Dichloropropene	< 1.8	ug/m3	1.8	U	-----
DOE-2	DOE-2_052518_S-05252018	N	5/25/2018	TO15	110-82-7	Cyclohexane	< 1.4	ug/m3	1.4	U	1000
DOE-2	DOE-2_052518_S-05252018	N	5/25/2018	TO15	124-48-1	Dibromochloromethane	< 3.4	ug/m3	3.4	U	-----
DOE-2	DOE-2_052518_S-05252018	N	5/25/2018	TO15	75-71-8	Dichlorodifluoromethane	< 2.0	ug/m3	2	U	100
DOE-2	DOE-2_052518_S-05252018	N	5/25/2018	TO15	141-78-6	Ethyl acetate	< 1.1	ug/m3	1.1	U	73
DOE-2	DOE-2_052518_S-05252018	N	5/25/2018	TO15	100-41-4	Ethylbenzene	< 1.7	ug/m3	1.7	U	1.1

APPENDIX B  
Analytical Results for Ambient Air VOCs

Location ID	Sample ID	Sample Type	Sample Date	Analytical Method	CAS Number	Analyte	Result	Units	Reporting Limit	Lab Flags	EPA Residential Air RSLs
DOE-2	DOE-2_052518_S-05252018	N	5/25/2018	TO15	87-68-3	Hexachloro-1,3-butadiene	< 21	ug/m3	21	U	0.13
DOE-2	DOE-2_052518_S-05252018	N	5/25/2018	TO15	110-54-3	Hexane, n-	< 2.8	ug/m3	2.8	U	730
DOE-2	DOE-2_052518_S-05252018	N	5/25/2018	TO15	67-63-0	Isopropanol	< 4.9	ug/m3	4.9	U	210
DOE-2	DOE-2_052518_S-05252018	N	5/25/2018	TO15	98-82-8	Isopropylbenzene	< 3.9	ug/m3	3.9	U	420
DOE-2	DOE-2_052518_S-05252018	N	5/25/2018	TO15	179601-23-1	m,p-Xylene	< 3.5	ug/m3	3.5	U	-----
DOE-2	DOE-2_052518_S-05252018	N	5/25/2018	TO15	1634-04-4	Methyl tert butyl ether	< 2.9	ug/m3	2.9	U	11
DOE-2	DOE-2_052518_S-05252018	N	5/25/2018	TO15	75-09-2	Methylene chloride	< 1.4	ug/m3	1.4	U	100
DOE-2	DOE-2_052518_S-05252018	N	5/25/2018	TO15	91-20-3	Naphthalene	< 4.2	ug/m3	4.2	U	0.083
DOE-2	DOE-2_052518_S-05252018	N	5/25/2018	TO15	142-82-5	n-Heptane	< 3.3	ug/m3	3.3	U	420
DOE-2	DOE-2_052518_S-05252018	N	5/25/2018	TO15	111-65-9	n-Octane	< 1.9	ug/m3	1.9	U	-----
DOE-2	DOE-2_052518_S-05252018	N	5/25/2018	TO15	103-65-1	n-Propylbenzene	< 2.0	ug/m3	2	U	1000
DOE-2	DOE-2_052518_S-05252018	N	5/25/2018	TO15	95-47-6	o-Xylene	< 1.7	ug/m3	1.7	U	100
DOE-2	DOE-2_052518_S-05252018	N	5/25/2018	TO15	100-42-5	Styrene	< 1.7	ug/m3	1.7	U	1000
DOE-2	DOE-2_052518_S-05252018	N	5/25/2018	TO15	127-18-4	Tetrachloroethene	< 2.7	ug/m3	2.7	U	11
DOE-2	DOE-2_052518_S-05252018	N	5/25/2018	TO15	109-99-9	Tetrahydrofuran	< 2.4	ug/m3	2.4	U	2100
DOE-2	DOE-2_052518_S-05252018	N	5/25/2018	TO15	108-88-3	Toluene	12	ug/m3	1.5	U	5200
DOE-2	DOE-2_052518_S-05252018	N	5/25/2018	TO15	156-60-5	trans-1,2-Dichloroethene	< 1.6	ug/m3	1.6	U	-----
DOE-2	DOE-2_052518_S-05252018	N	5/25/2018	TO15	10061-02-6	trans-1,3-Dichloropropene	< 1.8	ug/m3	1.8	U	-----
DOE-2	DOE-2_052518_S-05252018	N	5/25/2018	TO15	79-01-6	Trichloroethene	< 2.1	ug/m3	2.1	U	0.48
DOE-2	DOE-2_052518_S-05252018	N	5/25/2018	TO15	75-69-4	Trichlorofluoromethane	< 2.2	ug/m3	2.2	U	-----
DOE-2	DOE-2_052518_S-05252018	N	5/25/2018	TO15	108-05-4	Vinyl acetate	< 2.8	ug/m3	2.8	U	210
DOE-2	DOE-2_052518_S-05252018	N	5/25/2018	TO15	75-01-4	Vinyl chloride	< 1.0	ug/m3	1	U	0.17
DOE-2	DOE-2_052518_S-05252018	N	5/25/2018	TO15	1330-20-7	Xylenes (Total)	< 5.2	ug/m3	5.2	U	-----
DOE-3	DOE-3_052518_S-05252018	N	5/25/2018	TO15	71-55-6	1,1,1-Trichloroethane	< 1.6	ug/m3	1.6	U	5200
DOE-3	DOE-3_052518_S-05252018	N	5/25/2018	TO15	79-34-5	1,1,2,2-Tetrachloroethane	< 2.7	ug/m3	2.7	U	0.048
DOE-3	DOE-3_052518_S-05252018	N	5/25/2018	TO15	76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	< 3.1	ug/m3	3.1	U	5200
DOE-3	DOE-3_052518_S-05252018	N	5/25/2018	TO15	79-00-5	1,1,2-Trichloroethane	< 2.2	ug/m3	2.2	U	0.18
DOE-3	DOE-3_052518_S-05252018	N	5/25/2018	TO15	75-34-3	1,1-Dichloroethane	< 1.2	ug/m3	1.2	U	1.8
DOE-3	DOE-3_052518_S-05252018	N	5/25/2018	TO15	75-35-4	1,1-Dichloroethene	< 3.2	ug/m3	3.2	U	210
DOE-3	DOE-3_052518_S-05252018	N	5/25/2018	TO15	120-82-1	1,2,4-Trichlorobenzene	< 15	ug/m3	15	U	2.1
DOE-3	DOE-3_052518_S-05252018	N	5/25/2018	TO15	95-63-6	1,2,4-Trimethylbenzene	< 3.9	ug/m3	3.9	U	63
DOE-3	DOE-3_052518_S-05252018	N	5/25/2018	TO15	106-93-4	1,2-Dibromoethane	< 6.1	ug/m3	6.1	U	-----
DOE-3	DOE-3_052518_S-05252018	N	5/25/2018	TO15	95-50-1	1,2-Dichlorobenzene	< 2.4	ug/m3	2.4	U	210
DOE-3	DOE-3_052518_S-05252018	N	5/25/2018	TO15	107-06-2	1,2-Dichloroethane	< 3.2	ug/m3	3.2	U	0.11
DOE-3	DOE-3_052518_S-05252018	N	5/25/2018	TO15	78-87-5	1,2-Dichloropropane	< 1.8	ug/m3	1.8	U	0.76
DOE-3	DOE-3_052518_S-05252018	N	5/25/2018	TO15	76-14-2	1,2-Dichlorotetrafluoroethane	< 2.8	ug/m3	2.8	U	-----
DOE-3	DOE-3_052518_S-05252018	N	5/25/2018	TO15	108-67-8	1,3,5-Trimethylbenzene	< 2.0	ug/m3	2	U	63
DOE-3	DOE-3_052518_S-05252018	N	5/25/2018	TO15	106-99-0	1,3-Butadiene	< 1.8	ug/m3	1.8	U	0.094
DOE-3	DOE-3_052518_S-05252018	N	5/25/2018	TO15	541-73-1	1,3-Dichlorobenzene	< 2.4	ug/m3	2.4	U	-----
DOE-3	DOE-3_052518_S-05252018	N	5/25/2018	TO15	106-46-7	1,4-Dichlorobenzene	< 2.4	ug/m3	2.4	U	0.26
DOE-3	DOE-3_052518_S-05252018	N	5/25/2018	TO15	123-91-1	1,4-Dioxane	< 2.9	ug/m3	2.9	U	0.56
DOE-3	DOE-3_052518_S-05252018	N	5/25/2018	TO15	78-93-3	2-Butanone	< 2.4	ug/m3	2.4	U	5200
DOE-3	DOE-3_052518_S-05252018	N	5/25/2018	TO15	591-78-6	2-Hexanone	< 1.6	ug/m3	1.6	U	31
DOE-3	DOE-3_052518_S-05252018	N	5/25/2018	TO15	622-96-8	4-Ethyltoluene	< 2.0	ug/m3	2	U	-----
DOE-3	DOE-3_052518_S-05252018	N	5/25/2018	TO15	99-87-6	4-Isopropyltoluene	< 4.4	ug/m3	4.4	U	-----
DOE-3	DOE-3_052518_S-05252018	N	5/25/2018	TO15	108-10-1	4-Methyl-2-pentanone	< 1.6	ug/m3	1.6	U	3100
DOE-3	DOE-3_052518_S-05252018	N	5/25/2018	TO15	107-02-8	Acrolein	< 4.6	ug/m3	4.6	U	0.021
DOE-3	DOE-3_052518_S-05252018	N	5/25/2018	TO15	107-13-1	Acrylonitrile	< 4.3	ug/m3	4.3	U	0.041
DOE-3	DOE-3_052518_S-05252018	N	5/25/2018	TO15	71-43-2	Benzene	< 1.3	ug/m3	1.3	U	0.36
DOE-3	DOE-3_052518_S-05252018	N	5/25/2018	TO15	100-44-7	Benzyl chloride	< 4.1	ug/m3	4.1	U	0.057
DOE-3	DOE-3_052518_S-05252018	N	5/25/2018	TO15	75-27-4	Bromodichloromethane	< 2.0	ug/m3	2	U	0.076
DOE-3	DOE-3_052518_S-05252018	N	5/25/2018	TO15	75-25-2	Bromoform	< 4.1	ug/m3	4.1	U	2.6
DOE-3	DOE-3_052518_S-05252018	N	5/25/2018	TO15	74-83-9	Bromomethane	< 3.1	ug/m3	3.1	U	5.2
DOE-3	DOE-3_052518_S-05252018	N	5/25/2018	TO15	104-51-8	Butylbenzene, n-	< 2.2	ug/m3	2.2	U	-----
DOE-3	DOE-3_052518_S-05252018	N	5/25/2018	TO15	135-98-8	Butylbenzene, sec-	< 2.2	ug/m3	2.2	U	-----

APPENDIX B  
Analytical Results for Ambient Air VOCs

Location ID	Sample ID	Sample Type	Sample Date	Analytical Method	CAS Number	Analyte	Result	Units	Reporting Limit	Lab Flags	EPA Residential Air RSLs
DOE-3	DOE-3_052518_S-05252018	N	5/25/2018	TO15	75-15-0	Carbon disulfide	< 2.5	ug/m3	2.5	U	730
DOE-3	DOE-3_052518_S-05252018	N	5/25/2018	TO15	56-23-5	Carbon tetrachloride	< 5.0	ug/m3	5	U	0.47
DOE-3	DOE-3_052518_S-05252018	N	5/25/2018	TO15	75-00-3	Chloroethane	< 2.1	ug/m3	2.1	U	10000
DOE-3	DOE-3_052518_S-05252018	N	5/25/2018	TO15	67-66-3	Chloroform	< 1.5	ug/m3	1.5	U	0.12
DOE-3	DOE-3_052518_S-05252018	N	5/25/2018	TO15	74-87-3	Chloromethane	< 1.7	ug/m3	1.7	U	94
DOE-3	DOE-3_052518_S-05252018	N	5/25/2018	TO15	156-59-2	cis-1,2-Dichloroethene	< 1.6	ug/m3	1.6	U	-----
DOE-3	DOE-3_052518_S-05252018	N	5/25/2018	TO15	10061-01-5	cis-1,3-Dichloropropene	< 1.8	ug/m3	1.8	U	-----
DOE-3	DOE-3_052518_S-05252018	N	5/25/2018	TO15	110-82-7	Cyclohexane	< 1.4	ug/m3	1.4	U	1000
DOE-3	DOE-3_052518_S-05252018	N	5/25/2018	TO15	124-48-1	Dibromochloromethane	< 3.4	ug/m3	3.4	U	-----
DOE-3	DOE-3_052518_S-05252018	N	5/25/2018	TO15	75-71-8	Dichlorodifluoromethane	2	ug/m3	2		100
DOE-3	DOE-3_052518_S-05252018	N	5/25/2018	TO15	141-78-6	Ethyl acetate	2.9	ug/m3	1.1		73
DOE-3	DOE-3_052518_S-05252018	N	5/25/2018	TO15	100-41-4	Ethylbenzene	< 1.7	ug/m3	1.7	U	1.1
DOE-3	DOE-3_052518_S-05252018	N	5/25/2018	TO15	87-68-3	Hexachloro-1,3-butadiene	< 21	ug/m3	21	U	0.13
DOE-3	DOE-3_052518_S-05252018	N	5/25/2018	TO15	110-54-3	Hexane, n-	< 2.8	ug/m3	2.8	U	730
DOE-3	DOE-3_052518_S-05252018	N	5/25/2018	TO15	67-63-0	Isopropanol	< 4.9	ug/m3	4.9	U	210
DOE-3	DOE-3_052518_S-05252018	N	5/25/2018	TO15	98-82-8	Isopropylbenzene	< 3.9	ug/m3	3.9	U	420
DOE-3	DOE-3_052518_S-05252018	N	5/25/2018	TO15	179601-23-1	m,p-Xylene	< 3.5	ug/m3	3.5	U	-----
DOE-3	DOE-3_052518_S-05252018	N	5/25/2018	TO15	1634-04-4	Methyl tert butyl ether	< 2.9	ug/m3	2.9	U	11
DOE-3	DOE-3_052518_S-05252018	N	5/25/2018	TO15	75-09-2	Methylene chloride	< 1.4	ug/m3	1.4	U	100
DOE-3	DOE-3_052518_S-05252018	N	5/25/2018	TO15	91-20-3	Naphthalene	< 4.2	ug/m3	4.2	U	0.083
DOE-3	DOE-3_052518_S-05252018	N	5/25/2018	TO15	142-82-5	n-Heptane	< 3.3	ug/m3	3.3	U	420
DOE-3	DOE-3_052518_S-05252018	N	5/25/2018	TO15	111-65-9	n-Octane	< 1.9	ug/m3	1.9	U	-----
DOE-3	DOE-3_052518_S-05252018	N	5/25/2018	TO15	103-65-1	n-Propylbenzene	< 2.0	ug/m3	2	U	1000
DOE-3	DOE-3_052518_S-05252018	N	5/25/2018	TO15	95-47-6	o-Xylene	< 1.7	ug/m3	1.7	U	100
DOE-3	DOE-3_052518_S-05252018	N	5/25/2018	TO15	100-42-5	Styrene	2	ug/m3	1.7		1000
DOE-3	DOE-3_052518_S-05252018	N	5/25/2018	TO15	127-18-4	Tetrachloroethene	< 2.7	ug/m3	2.7	U	11
DOE-3	DOE-3_052518_S-05252018	N	5/25/2018	TO15	109-99-9	Tetrahydrofuran	< 2.4	ug/m3	2.4	U	2100
DOE-3	DOE-3_052518_S-05252018	N	5/25/2018	TO15	108-88-3	Toluene	78	ug/m3	1.5		5200
DOE-3	DOE-3_052518_S-05252018	N	5/25/2018	TO15	156-60-5	trans-1,2-Dichloroethene	< 1.6	ug/m3	1.6	U	-----
DOE-3	DOE-3_052518_S-05252018	N	5/25/2018	TO15	10061-02-6	trans-1,3-Dichloropropene	< 1.8	ug/m3	1.8	U	-----
DOE-3	DOE-3_052518_S-05252018	N	5/25/2018	TO15	79-01-6	Trichloroethene	< 2.1	ug/m3	2.1	U	0.48
DOE-3	DOE-3_052518_S-05252018	N	5/25/2018	TO15	75-69-4	Trichlorofluoromethane	< 2.2	ug/m3	2.2	U	-----
DOE-3	DOE-3_052518_S-05252018	N	5/25/2018	TO15	108-05-4	Vinyl acetate	< 2.8	ug/m3	2.8	U	210
DOE-3	DOE-3_052518_S-05252018	N	5/25/2018	TO15	75-01-4	Vinyl chloride	< 1.0	ug/m3	1	U	0.17
DOE-3	DOE-3_052518_S-05252018	N	5/25/2018	TO15	1330-20-7	Xylenes (Total)	< 5.2	ug/m3	5.2	U	-----
DOE-4	DOE-4_052518_S-05252018	N	5/25/2018	TO15	71-55-6	1,1,1-Trichloroethane	< 1.6	ug/m3	1.6	U	5200
DOE-4	DOE-4_052518_S-05252018	N	5/25/2018	TO15	79-34-5	1,1,2,2-Tetrachloroethane	< 2.7	ug/m3	2.7	U	0.048
DOE-4	DOE-4_052518_S-05252018	N	5/25/2018	TO15	76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	< 3.1	ug/m3	3.1	U	5200
DOE-4	DOE-4_052518_S-05252018	N	5/25/2018	TO15	79-00-5	1,1,2-Trichloroethane	< 2.2	ug/m3	2.2	U	0.18
DOE-4	DOE-4_052518_S-05252018	N	5/25/2018	TO15	75-34-3	1,1-Dichloroethane	< 1.2	ug/m3	1.2	U	1.8
DOE-4	DOE-4_052518_S-05252018	N	5/25/2018	TO15	75-35-4	1,1-Dichloroethene	< 3.2	ug/m3	3.2	U	210
DOE-4	DOE-4_052518_S-05252018	N	5/25/2018	TO15	120-82-1	1,2,4-Trichlorobenzene	< 15	ug/m3	15	U	2.1
DOE-4	DOE-4_052518_S-05252018	N	5/25/2018	TO15	95-63-6	1,2,4-Trimethylbenzene	< 3.9	ug/m3	3.9	U	63
DOE-4	DOE-4_052518_S-05252018	N	5/25/2018	TO15	106-93-4	1,2-Dibromoethane	< 6.1	ug/m3	6.1	U	-----
DOE-4	DOE-4_052518_S-05252018	N	5/25/2018	TO15	95-50-1	1,2-Dichlorobenzene	< 2.4	ug/m3	2.4	U	210
DOE-4	DOE-4_052518_S-05252018	N	5/25/2018	TO15	107-06-2	1,2-Dichloroethane	< 3.2	ug/m3	3.2	U	0.11
DOE-4	DOE-4_052518_S-05252018	N	5/25/2018	TO15	78-87-5	1,2-Dichloropropane	< 1.8	ug/m3	1.8	U	0.76
DOE-4	DOE-4_052518_S-05252018	N	5/25/2018	TO15	76-14-2	1,2-Dichlorotetrafluoroethane	< 2.8	ug/m3	2.8	U	-----
DOE-4	DOE-4_052518_S-05252018	N	5/25/2018	TO15	108-67-8	1,3,5-Trimethylbenzene	< 2.0	ug/m3	2	U	63
DOE-4	DOE-4_052518_S-05252018	N	5/25/2018	TO15	106-99-0	1,3-Butadiene	< 1.8	ug/m3	1.8	U	0.094
DOE-4	DOE-4_052518_S-05252018	N	5/25/2018	TO15	541-73-1	1,3-Dichlorobenzene	< 2.4	ug/m3	2.4	U	-----
DOE-4	DOE-4_052518_S-05252018	N	5/25/2018	TO15	106-46-7	1,4-Dichlorobenzene	< 2.4	ug/m3	2.4	U	0.26
DOE-4	DOE-4_052518_S-05252018	N	5/25/2018	TO15	123-91-1	1,4-Dioxane	< 2.9	ug/m3	2.9	U	0.56
DOE-4	DOE-4_052518_S-05252018	N	5/25/2018	TO15	78-93-3	2-Butanone	< 2.4	ug/m3	2.4	U	5200
DOE-4	DOE-4_052518_S-05252018	N	5/25/2018	TO15	591-78-6	2-Hexanone	< 1.6	ug/m3	1.6	U	31

APPENDIX B  
Analytical Results for Ambient Air VOCs

Location ID	Sample ID	Sample Type	Sample Date	Analytical Method	CAS Number	Analyte	Result	Units	Reporting Limit	Lab Flags	EPA Residential Air RSLs
DOE-4	DOE-4_052518_S-05252018	N	5/25/2018	TO15	622-96-8	4-Ethyltoluene	< 2.0	ug/m3	2	U	-----
DOE-4	DOE-4_052518_S-05252018	N	5/25/2018	TO15	99-87-6	4-Isopropyltoluene	< 4.4	ug/m3	4.4	U	-----
DOE-4	DOE-4_052518_S-05252018	N	5/25/2018	TO15	108-10-1	4-Methyl-2-pentanone	< 1.6	ug/m3	1.6	U	3100
DOE-4	DOE-4_052518_S-05252018	N	5/25/2018	TO15	107-02-8	Acrolein	< 4.6	ug/m3	4.6	U	0.021
DOE-4	DOE-4_052518_S-05252018	N	5/25/2018	TO15	107-13-1	Acrylonitrile	< 4.3	ug/m3	4.3	U	0.041
DOE-4	DOE-4_052518_S-05252018	N	5/25/2018	TO15	71-43-2	Benzene	< 1.3	ug/m3	1.3	U	0.36
DOE-4	DOE-4_052518_S-05252018	N	5/25/2018	TO15	100-44-7	Benzyl chloride	< 4.1	ug/m3	4.1	U	0.057
DOE-4	DOE-4_052518_S-05252018	N	5/25/2018	TO15	75-27-4	Bromodichloromethane	< 2.0	ug/m3	2	U	0.076
DOE-4	DOE-4_052518_S-05252018	N	5/25/2018	TO15	75-25-2	Bromoform	< 4.1	ug/m3	4.1	U	2.6
DOE-4	DOE-4_052518_S-05252018	N	5/25/2018	TO15	74-83-9	Bromomethane	< 3.1	ug/m3	3.1	U	5.2
DOE-4	DOE-4_052518_S-05252018	N	5/25/2018	TO15	104-51-8	Butylbenzene, n-	< 2.2	ug/m3	2.2	U	-----
DOE-4	DOE-4_052518_S-05252018	N	5/25/2018	TO15	135-98-8	Butylbenzene, sec-	< 2.2	ug/m3	2.2	U	-----
DOE-4	DOE-4_052518_S-05252018	N	5/25/2018	TO15	75-15-0	Carbon disulfide	< 2.5	ug/m3	2.5	U	730
DOE-4	DOE-4_052518_S-05252018	N	5/25/2018	TO15	56-23-5	Carbon tetrachloride	< 5.0	ug/m3	5	U	0.47
DOE-4	DOE-4_052518_S-05252018	N	5/25/2018	TO15	75-00-3	Chloroethane	< 2.1	ug/m3	2.1	U	10000
DOE-4	DOE-4_052518_S-05252018	N	5/25/2018	TO15	67-66-3	Chloroform	< 1.5	ug/m3	1.5	U	0.12
DOE-4	DOE-4_052518_S-05252018	N	5/25/2018	TO15	74-87-3	Chloromethane	< 1.7	ug/m3	1.7	U	94
DOE-4	DOE-4_052518_S-05252018	N	5/25/2018	TO15	156-59-2	cis-1,2-Dichloroethene	< 1.6	ug/m3	1.6	U	-----
DOE-4	DOE-4_052518_S-05252018	N	5/25/2018	TO15	10061-01-5	cis-1,3-Dichloropropene	< 1.8	ug/m3	1.8	U	-----
DOE-4	DOE-4_052518_S-05252018	N	5/25/2018	TO15	110-82-7	Cyclohexane	< 1.4	ug/m3	1.4	U	1000
DOE-4	DOE-4_052518_S-05252018	N	5/25/2018	TO15	124-48-1	Dibromochloromethane	< 3.4	ug/m3	3.4	U	-----
DOE-4	DOE-4_052518_S-05252018	N	5/25/2018	TO15	75-71-8	Dichlorodifluoromethane	< 2.0	ug/m3	2	U	100
DOE-4	DOE-4_052518_S-05252018	N	5/25/2018	TO15	141-78-6	Ethyl acetate	< 1.1	ug/m3	1.1	U	73
DOE-4	DOE-4_052518_S-05252018	N	5/25/2018	TO15	100-41-4	Ethylbenzene	< 1.7	ug/m3	1.7	U	1.1
DOE-4	DOE-4_052518_S-05252018	N	5/25/2018	TO15	87-68-3	Hexachloro-1,3-butadiene	< 21	ug/m3	21	U	0.13
DOE-4	DOE-4_052518_S-05252018	N	5/25/2018	TO15	110-54-3	Hexane, n-	< 2.8	ug/m3	2.8	U	730
DOE-4	DOE-4_052518_S-05252018	N	5/25/2018	TO15	67-63-0	Isopropanol	< 4.9	ug/m3	4.9	U	210
DOE-4	DOE-4_052518_S-05252018	N	5/25/2018	TO15	98-82-8	Isopropylbenzene	< 3.9	ug/m3	3.9	U	420
DOE-4	DOE-4_052518_S-05252018	N	5/25/2018	TO15	179601-23-1	m,p-Xylene	< 3.5	ug/m3	3.5	U	-----
DOE-4	DOE-4_052518_S-05252018	N	5/25/2018	TO15	1634-04-4	Methyl tert butyl ether	< 2.9	ug/m3	2.9	U	11
DOE-4	DOE-4_052518_S-05252018	N	5/25/2018	TO15	75-09-2	Methylene chloride	< 1.4	ug/m3	1.4	U	100
DOE-4	DOE-4_052518_S-05252018	N	5/25/2018	TO15	91-20-3	Naphthalene	< 4.2	ug/m3	4.2	U	0.083
DOE-4	DOE-4_052518_S-05252018	N	5/25/2018	TO15	142-82-5	n-Heptane	< 3.3	ug/m3	3.3	U	420
DOE-4	DOE-4_052518_S-05252018	N	5/25/2018	TO15	111-65-9	n-Octane	< 1.9	ug/m3	1.9	U	-----
DOE-4	DOE-4_052518_S-05252018	N	5/25/2018	TO15	103-65-1	n-Propylbenzene	< 2.0	ug/m3	2	U	1000
DOE-4	DOE-4_052518_S-05252018	N	5/25/2018	TO15	95-47-6	o-Xylene	< 1.7	ug/m3	1.7	U	100
DOE-4	DOE-4_052518_S-05252018	N	5/25/2018	TO15	100-42-5	Styrene	< 1.7	ug/m3	1.7	U	1000
DOE-4	DOE-4_052518_S-05252018	N	5/25/2018	TO15	127-18-4	Tetrachloroethene	< 2.7	ug/m3	2.7	U	11
DOE-4	DOE-4_052518_S-05252018	N	5/25/2018	TO15	109-99-9	Tetrahydrofuran	< 2.4	ug/m3	2.4	U	2100
DOE-4	DOE-4_052518_S-05252018	N	5/25/2018	TO15	108-88-3	Toluene	21	ug/m3	1.5	U	5200
DOE-4	DOE-4_052518_S-05252018	N	5/25/2018	TO15	10061-02-6	trans-1,3-Dichloropropene	< 1.8	ug/m3	1.8	U	-----
DOE-4	DOE-4_052518_S-05252018	N	5/25/2018	TO15	79-01-6	Trichloroethene	< 2.1	ug/m3	2.1	U	0.48
DOE-4	DOE-4_052518_S-05252018	N	5/25/2018	TO15	75-69-4	Trichlorofluoromethane	< 2.2	ug/m3	2.2	U	-----
DOE-4	DOE-4_052518_S-05252018	N	5/25/2018	TO15	108-05-4	Vinyl acetate	< 2.8	ug/m3	2.8	U	210
DOE-4	DOE-4_052518_S-05252018	N	5/25/2018	TO15	75-01-4	Vinyl chloride	< 1.0	ug/m3	1	U	0.17
DOE-4	DOE-4_052518_S-05252018	N	5/25/2018	TO15	1330-20-7	Xylenes (Total)	< 5.2	ug/m3	5.2	U	-----
DOE-4	DOE-4_052518_D-05252018	FD	5/25/2018	TO15	71-55-6	1,1,1-Trichloroethane	< 1.6	ug/m3	1.6	U	5200
DOE-4	DOE-4_052518_D-05252018	FD	5/25/2018	TO15	79-34-5	1,1,2,2-Tetrachloroethane	< 2.7	ug/m3	2.7	U	0.048
DOE-4	DOE-4_052518_D-05252018	FD	5/25/2018	TO15	76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	< 3.1	ug/m3	3.1	U	5200
DOE-4	DOE-4_052518_D-05252018	FD	5/25/2018	TO15	79-00-5	1,1,2-Trichloroethane	< 2.2	ug/m3	2.2	U	0.18
DOE-4	DOE-4_052518_D-05252018	FD	5/25/2018	TO15	75-34-3	1,1-Dichloroethane	< 1.2	ug/m3	1.2	U	1.8
DOE-4	DOE-4_052518_D-05252018	FD	5/25/2018	TO15	75-35-4	1,1-Dichloroethene	< 3.2	ug/m3	3.2	U	210
DOE-4	DOE-4_052518_D-05252018	FD	5/25/2018	TO15	120-82-1	1,2,4-Trichlorobenzene	< 15	ug/m3	15	U	2.1
DOE-4	DOE-4_052518_D-05252018	FD	5/25/2018	TO15	95-63-6	1,2,4-Trimethylbenzene	< 3.9	ug/m3	3.9	U	63
DOE-4	DOE-4_052518_D-05252018	FD	5/25/2018	TO15	106-93-4	1,2-Dibromoethane	< 6.1	ug/m3	6.1	U	-----

APPENDIX B  
Analytical Results for Ambient Air VOCs

Location ID	Sample ID	Sample Type	Sample Date	Analytical Method	CAS Number	Analyte	Result	Units	Reporting Limit	Lab Flags	EPA Residential Air RSLs
DOE-4	DOE-4_052518_D-05252018	FD	5/25/2018	TO15	95-50-1	1,2-Dichlorobenzene	< 2.4	ug/m3	2.4	U	210
DOE-4	DOE-4_052518_D-05252018	FD	5/25/2018	TO15	107-06-2	1,2-Dichloroethane	< 3.2	ug/m3	3.2	U	0.11
DOE-4	DOE-4_052518_D-05252018	FD	5/25/2018	TO15	78-87-5	1,2-Dichloropropane	< 1.8	ug/m3	1.8	U	0.76
DOE-4	DOE-4_052518_D-05252018	FD	5/25/2018	TO15	76-14-2	1,2-Dichlorotetrafluoroethane	< 2.8	ug/m3	2.8	U	-----
DOE-4	DOE-4_052518_D-05252018	FD	5/25/2018	TO15	108-67-8	1,3,5-Trimethylbenzene	< 2.0	ug/m3	2	U	63
DOE-4	DOE-4_052518_D-05252018	FD	5/25/2018	TO15	106-99-0	1,3-Butadiene	< 1.8	ug/m3	1.8	U	0.094
DOE-4	DOE-4_052518_D-05252018	FD	5/25/2018	TO15	541-73-1	1,3-Dichlorobenzene	< 2.4	ug/m3	2.4	U	-----
DOE-4	DOE-4_052518_D-05252018	FD	5/25/2018	TO15	106-46-7	1,4-Dichlorobenzene	< 2.4	ug/m3	2.4	U	0.26
DOE-4	DOE-4_052518_D-05252018	FD	5/25/2018	TO15	123-91-1	1,4-Dioxane	< 2.9	ug/m3	2.9	U	0.56
DOE-4	DOE-4_052518_D-05252018	FD	5/25/2018	TO15	78-93-3	2-Butanone	< 2.4	ug/m3	2.4	U	5200
DOE-4	DOE-4_052518_D-05252018	FD	5/25/2018	TO15	591-78-6	2-Hexanone	< 1.6	ug/m3	1.6	U	31
DOE-4	DOE-4_052518_D-05252018	FD	5/25/2018	TO15	622-96-8	4-Ethyltoluene	< 2.0	ug/m3	2	U	-----
DOE-4	DOE-4_052518_D-05252018	FD	5/25/2018	TO15	99-87-6	4-Isopropyltoluene	< 4.4	ug/m3	4.4	U	-----
DOE-4	DOE-4_052518_D-05252018	FD	5/25/2018	TO15	108-10-1	4-Methyl-2-pentanone	< 1.6	ug/m3	1.6	U	3100
DOE-4	DOE-4_052518_D-05252018	FD	5/25/2018	TO15	107-02-8	Acrolein	< 4.6	ug/m3	4.6	U	0.021
DOE-4	DOE-4_052518_D-05252018	FD	5/25/2018	TO15	107-13-1	Acrylonitrile	< 4.3	ug/m3	4.3	U	0.041
DOE-4	DOE-4_052518_D-05252018	FD	5/25/2018	TO15	71-43-2	Benzene	< 1.3	ug/m3	1.3	U	0.36
DOE-4	DOE-4_052518_D-05252018	FD	5/25/2018	TO15	100-44-7	Benzyl chloride	< 4.1	ug/m3	4.1	U	0.057
DOE-4	DOE-4_052518_D-05252018	FD	5/25/2018	TO15	75-27-4	Bromodichloromethane	< 2.0	ug/m3	2	U	0.076
DOE-4	DOE-4_052518_D-05252018	FD	5/25/2018	TO15	75-25-2	Bromoform	< 4.1	ug/m3	4.1	U	2.6
DOE-4	DOE-4_052518_D-05252018	FD	5/25/2018	TO15	74-83-9	Bromomethane	< 3.1	ug/m3	3.1	U	5.2
DOE-4	DOE-4_052518_D-05252018	FD	5/25/2018	TO15	104-51-8	Butylbenzene, n-	< 2.2	ug/m3	2.2	U	-----
DOE-4	DOE-4_052518_D-05252018	FD	5/25/2018	TO15	135-98-8	Butylbenzene, sec-	< 2.2	ug/m3	2.2	U	-----
DOE-4	DOE-4_052518_D-05252018	FD	5/25/2018	TO15	75-15-0	Carbon disulfide	< 2.5	ug/m3	2.5	U	730
DOE-4	DOE-4_052518_D-05252018	FD	5/25/2018	TO15	56-23-5	Carbon tetrachloride	< 5.0	ug/m3	5	U	0.47
DOE-4	DOE-4_052518_D-05252018	FD	5/25/2018	TO15	75-00-3	Chloroethane	< 2.1	ug/m3	2.1	U	10000
DOE-4	DOE-4_052518_D-05252018	FD	5/25/2018	TO15	67-66-3	Chloroform	< 1.5	ug/m3	1.5	U	0.12
DOE-4	DOE-4_052518_D-05252018	FD	5/25/2018	TO15	74-87-3	Chloromethane	< 1.7	ug/m3	1.7	U	94
DOE-4	DOE-4_052518_D-05252018	FD	5/25/2018	TO15	156-59-2	cis-1,2-Dichloroethene	< 1.6	ug/m3	1.6	U	-----
DOE-4	DOE-4_052518_D-05252018	FD	5/25/2018	TO15	10061-01-5	cis-1,3-Dichloropropene	< 1.8	ug/m3	1.8	U	-----
DOE-4	DOE-4_052518_D-05252018	FD	5/25/2018	TO15	110-82-7	Cyclohexane	< 1.4	ug/m3	1.4	U	1000
DOE-4	DOE-4_052518_D-05252018	FD	5/25/2018	TO15	124-48-1	Dibromochloromethane	< 3.4	ug/m3	3.4	U	-----
DOE-4	DOE-4_052518_D-05252018	FD	5/25/2018	TO15	75-71-8	Dichlorodifluoromethane	< 2.0	ug/m3	2	U	100
DOE-4	DOE-4_052518_D-05252018	FD	5/25/2018	TO15	141-78-6	Ethyl acetate	< 1.1	ug/m3	1.1	U	73
DOE-4	DOE-4_052518_D-05252018	FD	5/25/2018	TO15	100-41-4	Ethylbenzene	< 1.7	ug/m3	1.7	U	1.1
DOE-4	DOE-4_052518_D-05252018	FD	5/25/2018	TO15	87-68-3	Hexachloro-1,3-butadiene	< 21	ug/m3	21	U	0.13
DOE-4	DOE-4_052518_D-05252018	FD	5/25/2018	TO15	110-54-3	Hexane, n-	< 2.8	ug/m3	2.8	U	730
DOE-4	DOE-4_052518_D-05252018	FD	5/25/2018	TO15	67-63-0	Isopropanol	< 4.9	ug/m3	4.9	U	210
DOE-4	DOE-4_052518_D-05252018	FD	5/25/2018	TO15	98-82-8	Isopropylbenzene	< 3.9	ug/m3	3.9	U	420
DOE-4	DOE-4_052518_D-05252018	FD	5/25/2018	TO15	179601-23-1	m,p-Xylene	< 3.5	ug/m3	3.5	U	-----
DOE-4	DOE-4_052518_D-05252018	FD	5/25/2018	TO15	1634-04-4	Methyl tert butyl ether	< 2.9	ug/m3	2.9	U	11
DOE-4	DOE-4_052518_D-05252018	FD	5/25/2018	TO15	75-09-2	Methylene chloride	< 1.4	ug/m3	1.4	U	100
DOE-4	DOE-4_052518_D-05252018	FD	5/25/2018	TO15	91-20-3	Naphthalene	< 4.2	ug/m3	4.2	U	0.083
DOE-4	DOE-4_052518_D-05252018	FD	5/25/2018	TO15	142-82-5	n-Heptane	< 3.3	ug/m3	3.3	U	420
DOE-4	DOE-4_052518_D-05252018	FD	5/25/2018	TO15	111-65-9	n-Octane	< 1.9	ug/m3	1.9	U	-----
DOE-4	DOE-4_052518_D-05252018	FD	5/25/2018	TO15	103-65-1	n-Propylbenzene	< 2.0	ug/m3	2	U	1000
DOE-4	DOE-4_052518_D-05252018	FD	5/25/2018	TO15	95-47-6	o-Xylene	< 1.7	ug/m3	1.7	U	100
DOE-4	DOE-4_052518_D-05252018	FD	5/25/2018	TO15	100-42-5	Styrene	< 1.7	ug/m3	1.7	U	1000
DOE-4	DOE-4_052518_D-05252018	FD	5/25/2018	TO15	127-18-4	Tetrachloroethene	< 2.7	ug/m3	2.7	U	11
DOE-4	DOE-4_052518_D-05252018	FD	5/25/2018	TO15	109-99-9	Tetrahydrofuran	< 2.4	ug/m3	2.4	U	2100
DOE-4	DOE-4_052518_D-05252018	FD	5/25/2018	TO15	108-88-3	Toluene	9.8	ug/m3	1.5		5200
DOE-4	DOE-4_052518_D-05252018	FD	5/25/2018	TO15	10061-02-6	trans-1,3-Dichloropropene	< 1.8	ug/m3	1.8	U	-----
DOE-4	DOE-4_052518_D-05252018	FD	5/25/2018	TO15	79-01-6	Trichloroethene	< 2.1	ug/m3	2.1	U	0.48
DOE-4	DOE-4_052518_D-05252018	FD	5/25/2018	TO15	75-69-4	Trichlorofluoromethane	< 2.2	ug/m3	2.2	U	-----
DOE-4	DOE-4_052518_D-05252018	FD	5/25/2018	TO15	108-05-4	Vinyl acetate	< 2.8	ug/m3	2.8	U	210

APPENDIX B  
Analytical Results for Ambient Air VOCs

Location ID	Sample ID	Sample Type	Sample Date	Analytical Method	CAS Number	Analyte	Result	Units	Reporting Limit	Lab Flags	EPA Residential Air RSLs
DOE-4	DOE-4_052518_D-05252018	FD	5/25/2018	TO15	75-01-4	Vinyl chloride	< 1.0	ug/m3	1	U	0.17
DOE-4	DOE-4_052518_D-05252018	FD	5/25/2018	TO15	1330-20-7	Xylenes (Total)	< 5.2	ug/m3	5.2	U	-----
DOE-1	DOE-1_060818_S-06082018	N	6/8/2018	TO15	71-55-6	1,1,1-Trichloroethane	< 1.7	ug/m3	1.7	U	5200
DOE-1	DOE-1_060818_S-06082018	N	6/8/2018	TO15	79-34-5	1,1,2,2-Tetrachloroethane	< 2.9	ug/m3	2.9	U	0.048
DOE-1	DOE-1_060818_S-06082018	N	6/8/2018	TO15	76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	< 3.2	ug/m3	3.2	U	5200
DOE-1	DOE-1_060818_S-06082018	N	6/8/2018	TO15	79-00-5	1,1,2-Trichloroethane	< 2.3	ug/m3	2.3	U	0.18
DOE-1	DOE-1_060818_S-06082018	N	6/8/2018	TO15	75-34-3	1,1-Dichloroethane	< 1.3	ug/m3	1.3	U	1.8
DOE-1	DOE-1_060818_S-06082018	N	6/8/2018	TO15	75-35-4	1,1-Dichloroethene	< 3.4	ug/m3	3.4	U	210
DOE-1	DOE-1_060818_S-06082018	N	6/8/2018	TO15	120-82-1	1,2,4-Trichlorobenzene	< 16	ug/m3	16	U	2.1
DOE-1	DOE-1_060818_S-06082018	N	6/8/2018	TO15	95-63-6	1,2,4-Trimethylbenzene	< 4.2	ug/m3	4.2	U	63
DOE-1	DOE-1_060818_S-06082018	N	6/8/2018	TO15	106-93-4	1,2-Dibromoethane	< 6.5	ug/m3	6.5	U	-----
DOE-1	DOE-1_060818_S-06082018	N	6/8/2018	TO15	95-50-1	1,2-Dichlorobenzene	< 2.5	ug/m3	2.5	U	210
DOE-1	DOE-1_060818_S-06082018	N	6/8/2018	TO15	107-06-2	1,2-Dichloroethane	< 3.4	ug/m3	3.4	U	0.11
DOE-1	DOE-1_060818_S-06082018	N	6/8/2018	TO15	78-87-5	1,2-Dichloropropane	< 2.0	ug/m3	2	U	0.76
DOE-1	DOE-1_060818_S-06082018	N	6/8/2018	TO15	76-14-2	1,2-Dichlorotetrafluoroethane	< 3.0	ug/m3	3	U	-----
DOE-1	DOE-1_060818_S-06082018	N	6/8/2018	TO15	108-67-8	1,3,5-Trimethylbenzene	< 2.1	ug/m3	2.1	U	63
DOE-1	DOE-1_060818_S-06082018	N	6/8/2018	TO15	106-99-0	1,3-Butadiene	< 1.9	ug/m3	1.9	U	0.094
DOE-1	DOE-1_060818_S-06082018	N	6/8/2018	TO15	541-73-1	1,3-Dichlorobenzene	< 2.5	ug/m3	2.5	U	-----
DOE-1	DOE-1_060818_S-06082018	N	6/8/2018	TO15	106-46-7	1,4-Dichlorobenzene	< 2.5	ug/m3	2.5	U	0.26
DOE-1	DOE-1_060818_S-06082018	N	6/8/2018	TO15	123-91-1	1,4-Dioxane	< 3.1	ug/m3	3.1	U	0.56
DOE-1	DOE-1_060818_S-06082018	N	6/8/2018	TO15	78-93-3	2-Butanone	4.2	ug/m3	2.5	U	5200
DOE-1	DOE-1_060818_S-06082018	N	6/8/2018	TO15	591-78-6	2-Hexanone	< 1.7	ug/m3	1.7	U	31
DOE-1	DOE-1_060818_S-06082018	N	6/8/2018	TO15	622-96-8	4-Ethyltoluene	< 2.1	ug/m3	2.1	U	-----
DOE-1	DOE-1_060818_S-06082018	N	6/8/2018	TO15	99-87-6	4-Isopropyltoluene	< 4.7	ug/m3	4.7	U	-----
DOE-1	DOE-1_060818_S-06082018	N	6/8/2018	TO15	108-10-1	4-Methyl-2-pentanone	< 1.7	ug/m3	1.7	U	3100
DOE-1	DOE-1_060818_S-06082018	N	6/8/2018	TO15	107-02-8	Acrolein	< 4.9	ug/m3	4.9	U	0.021
DOE-1	DOE-1_060818_S-06082018	N	6/8/2018	TO15	107-13-1	Acrylonitrile	< 4.6	ug/m3	4.6	U	0.041
DOE-1	DOE-1_060818_S-06082018	N	6/8/2018	TO15	71-43-2	Benzene	< 1.4	ug/m3	1.4	U	0.36
DOE-1	DOE-1_060818_S-06082018	N	6/8/2018	TO15	100-44-7	Benzyl chloride	< 4.4	ug/m3	4.4	U	0.057
DOE-1	DOE-1_060818_S-06082018	N	6/8/2018	TO15	75-27-4	Bromodichloromethane	< 2.1	ug/m3	2.1	U	0.076
DOE-1	DOE-1_060818_S-06082018	N	6/8/2018	TO15	75-25-2	Bromoform	< 4.4	ug/m3	4.4	U	2.6
DOE-1	DOE-1_060818_S-06082018	N	6/8/2018	TO15	74-83-9	Bromomethane	< 3.3	ug/m3	3.3	U	5.2
DOE-1	DOE-1_060818_S-06082018	N	6/8/2018	TO15	104-51-8	Butylbenzene, n-	< 2.3	ug/m3	2.3	U	-----
DOE-1	DOE-1_060818_S-06082018	N	6/8/2018	TO15	135-98-8	Butylbenzene, sec-	< 2.3	ug/m3	2.3	U	-----
DOE-1	DOE-1_060818_S-06082018	N	6/8/2018	TO15	75-15-0	Carbon disulfide	< 2.6	ug/m3	2.6	U	730
DOE-1	DOE-1_060818_S-06082018	N	6/8/2018	TO15	56-23-5	Carbon tetrachloride	< 5.3	ug/m3	5.3	U	0.47
DOE-1	DOE-1_060818_S-06082018	N	6/8/2018	TO15	75-00-3	Chloroethane	< 2.2	ug/m3	2.2	U	10000
DOE-1	DOE-1_060818_S-06082018	N	6/8/2018	TO15	67-66-3	Chloroform	< 1.6	ug/m3	1.6	U	0.12
DOE-1	DOE-1_060818_S-06082018	N	6/8/2018	TO15	74-87-3	Chloromethane	< 1.8	ug/m3	1.8	U	94
DOE-1	DOE-1_060818_S-06082018	N	6/8/2018	TO15	156-59-2	cis-1,2-Dichloroethene	< 1.7	ug/m3	1.7	U	-----
DOE-1	DOE-1_060818_S-06082018	N	6/8/2018	TO15	10061-01-5	cis-1,3-Dichloropropene	< 1.9	ug/m3	1.9	U	-----
DOE-1	DOE-1_060818_S-06082018	N	6/8/2018	TO15	110-82-7	Cyclohexane	< 1.5	ug/m3	1.5	U	1000
DOE-1	DOE-1_060818_S-06082018	N	6/8/2018	TO15	124-48-1	Dibromochloromethane	< 3.6	ug/m3	3.6	U	-----
DOE-1	DOE-1_060818_S-06082018	N	6/8/2018	TO15	75-71-8	Dichlorodifluoromethane	< 2.1	ug/m3	2.1	U	100
DOE-1	DOE-1_060818_S-06082018	N	6/8/2018	TO15	141-78-6	Ethyl acetate	< 1.1	ug/m3	1.1	U	73
DOE-1	DOE-1_060818_S-06082018	N	6/8/2018	TO15	100-41-4	Ethylbenzene	1.9	ug/m3	1.8	U	1.1
DOE-1	DOE-1_060818_S-06082018	N	6/8/2018	TO15	87-68-3	Hexachloro-1,3-butadiene	< 23	ug/m3	23	U	0.13
DOE-1	DOE-1_060818_S-06082018	N	6/8/2018	TO15	110-54-3	Hexane, n-	< 3.0	ug/m3	3	U	730
DOE-1	DOE-1_060818_S-06082018	N	6/8/2018	TO15	67-63-0	Isopropanol	< 5.2	ug/m3	5.2	U	210
DOE-1	DOE-1_060818_S-06082018	N	6/8/2018	TO15	98-82-8	Isopropylbenzene	< 4.2	ug/m3	4.2	U	420
DOE-1	DOE-1_060818_S-06082018	N	6/8/2018	TO15	179601-23-1	m,p-Xylene	< 3.7	ug/m3	3.7	U	-----
DOE-1	DOE-1_060818_S-06082018	N	6/8/2018	TO15	1634-04-4	Methyl tert butyl ether	< 3.1	ug/m3	3.1	U	11
DOE-1	DOE-1_060818_S-06082018	N	6/8/2018	TO15	75-09-2	Methylene chloride	< 1.5	ug/m3	1.5	U	100
DOE-1	DOE-1_060818_S-06082018	N	6/8/2018	TO15	91-20-3	Naphthalene	< 4.4	ug/m3	4.4	U	0.083
DOE-1	DOE-1_060818_S-06082018	N	6/8/2018	TO15	142-82-5	n-Heptane	< 3.5	ug/m3	3.5	U	420

APPENDIX B  
Analytical Results for Ambient Air VOCs

Location ID	Sample ID	Sample Type	Sample Date	Analytical Method	CAS Number	Analyte	Result	Units	Reporting Limit	Lab Flags	EPA Residential Air RSLs
DOE-1	DOE-1_060818_S-06082018	N	6/8/2018	TO15	111-65-9	n-Octane	< 2.0	ug/m3	2	U	-----
DOE-1	DOE-1_060818_S-06082018	N	6/8/2018	TO15	103-65-1	n-Propylbenzene	< 2.1	ug/m3	2.1	U	1000
DOE-1	DOE-1_060818_S-06082018	N	6/8/2018	TO15	95-47-6	o-Xylene	< 1.8	ug/m3	1.8	U	100
DOE-1	DOE-1_060818_S-06082018	N	6/8/2018	TO15	100-42-5	Styrene	< 1.8	ug/m3	1.8	U	1000
DOE-1	DOE-1_060818_S-06082018	N	6/8/2018	TO15	127-18-4	Tetrachloroethene	< 2.9	ug/m3	2.9	U	11
DOE-1	DOE-1_060818_S-06082018	N	6/8/2018	TO15	109-99-9	Tetrahydrofuran	< 2.5	ug/m3	2.5	U	2100
DOE-1	DOE-1_060818_S-06082018	N	6/8/2018	TO15	108-88-3	Toluene	4.0	ug/m3	1.6		5200
DOE-1	DOE-1_060818_S-06082018	N	6/8/2018	TO15	156-60-5	trans-1,2-Dichloroethene	< 1.7	ug/m3	1.7	U	-----
DOE-1	DOE-1_060818_S-06082018	N	6/8/2018	TO15	10061-02-6	trans-1,3-Dichloropropene	< 1.9	ug/m3	1.9	U	-----
DOE-1	DOE-1_060818_S-06082018	N	6/8/2018	TO15	79-01-6	Trichloroethene	< 2.3	ug/m3	2.3	U	0.48
DOE-1	DOE-1_060818_S-06082018	N	6/8/2018	TO15	75-69-4	Trichlorofluoromethane	< 2.4	ug/m3	2.4	U	-----
DOE-1	DOE-1_060818_S-06082018	N	6/8/2018	TO15	108-05-4	Vinyl acetate	< 3.0	ug/m3	3	U	210
DOE-1	DOE-1_060818_S-06082018	N	6/8/2018	TO15	75-01-4	Vinyl chloride	< 1.1	ug/m3	1.1	U	0.17
DOE-1	DOE-1_060818_S-06082018	N	6/8/2018	TO15	1330-20-7	Xylenes (Total)	< 5.5	ug/m3	5.5	U	-----
DOE-1	DOE-1_060818_D-06082018	FD	6/8/2018	TO15	71-55-6	1,1,1-Trichloroethane	< 1.7	ug/m3	1.7	U	5200
DOE-1	DOE-1_060818_D-06082018	FD	6/8/2018	TO15	79-34-5	1,1,2,2-Tetrachloroethane	< 2.8	ug/m3	2.8	U	0.048
DOE-1	DOE-1_060818_D-06082018	FD	6/8/2018	TO15	76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	< 3.2	ug/m3	3.2	U	5200
DOE-1	DOE-1_060818_D-06082018	FD	6/8/2018	TO15	79-00-5	1,1,2-Trichloroethane	< 2.2	ug/m3	2.2	U	0.18
DOE-1	DOE-1_060818_D-06082018	FD	6/8/2018	TO15	75-34-3	1,1-Dichloroethane	< 1.3	ug/m3	1.3	U	1.8
DOE-1	DOE-1_060818_D-06082018	FD	6/8/2018	TO15	75-35-4	1,1-Dichloroethene	< 3.3	ug/m3	3.3	U	210
DOE-1	DOE-1_060818_D-06082018	FD	6/8/2018	TO15	120-82-1	1,2,4-Trichlorobenzene	< 15	ug/m3	15	U	2.1
DOE-1	DOE-1_060818_D-06082018	FD	6/8/2018	TO15	95-63-6	1,2,4-Trimethylbenzene	< 4.1	ug/m3	4.1	U	63
DOE-1	DOE-1_060818_D-06082018	FD	6/8/2018	TO15	106-93-4	1,2-Dibromoethane	< 6.3	ug/m3	6.3	U	-----
DOE-1	DOE-1_060818_D-06082018	FD	6/8/2018	TO15	95-50-1	1,2-Dichlorobenzene	< 2.5	ug/m3	2.5	U	210
DOE-1	DOE-1_060818_D-06082018	FD	6/8/2018	TO15	107-06-2	1,2-Dichloroethane	< 3.3	ug/m3	3.3	U	0.11
DOE-1	DOE-1_060818_D-06082018	FD	6/8/2018	TO15	78-87-5	1,2-Dichloropropane	< 1.9	ug/m3	1.9	U	0.76
DOE-1	DOE-1_060818_D-06082018	FD	6/8/2018	TO15	76-14-2	1,2-Dichlorotetrafluoroethane	< 2.9	ug/m3	2.9	U	-----
DOE-1	DOE-1_060818_D-06082018	FD	6/8/2018	TO15	108-67-8	1,3,5-Trimethylbenzene	< 2.0	ug/m3	2	U	63
DOE-1	DOE-1_060818_D-06082018	FD	6/8/2018	TO15	106-99-0	1,3-Butadiene	< 1.8	ug/m3	1.8	U	0.094
DOE-1	DOE-1_060818_D-06082018	FD	6/8/2018	TO15	541-73-1	1,3-Dichlorobenzene	< 2.5	ug/m3	2.5	U	-----
DOE-1	DOE-1_060818_D-06082018	FD	6/8/2018	TO15	106-46-7	1,4-Dichlorobenzene	< 2.5	ug/m3	2.5	U	0.26
DOE-1	DOE-1_060818_D-06082018	FD	6/8/2018	TO15	123-91-1	1,4-Dioxane	< 3.0	ug/m3	3	U	0.56
DOE-1	DOE-1_060818_D-06082018	FD	6/8/2018	TO15	78-93-3	2-Butanone	5.4	ug/m3	2.4		5200
DOE-1	DOE-1_060818_D-06082018	FD	6/8/2018	TO15	591-78-6	2-Hexanone	< 1.7	ug/m3	1.7	U	31
DOE-1	DOE-1_060818_D-06082018	FD	6/8/2018	TO15	622-96-8	4-Ethyltoluene	< 2.0	ug/m3	2	U	-----
DOE-1	DOE-1_060818_D-06082018	FD	6/8/2018	TO15	99-87-6	4-Isopropyltoluene	< 4.5	ug/m3	4.5	U	-----
DOE-1	DOE-1_060818_D-06082018	FD	6/8/2018	TO15	108-10-1	4-Methyl-2-pentanone	< 1.7	ug/m3	1.7	U	3100
DOE-1	DOE-1_060818_D-06082018	FD	6/8/2018	TO15	107-02-8	Acrolein	< 4.7	ug/m3	4.7	U	0.021
DOE-1	DOE-1_060818_D-06082018	FD	6/8/2018	TO15	107-13-1	Acrylonitrile	< 4.5	ug/m3	4.5	U	0.041
DOE-1	DOE-1_060818_D-06082018	FD	6/8/2018	TO15	71-43-2	Benzene	< 1.3	ug/m3	1.3	U	0.36
DOE-1	DOE-1_060818_D-06082018	FD	6/8/2018	TO15	100-44-7	Benzyl chloride	< 4.3	ug/m3	4.3	U	0.057
DOE-1	DOE-1_060818_D-06082018	FD	6/8/2018	TO15	75-27-4	Bromodichloromethane	< 2.1	ug/m3	2.1	U	0.076
DOE-1	DOE-1_060818_D-06082018	FD	6/8/2018	TO15	75-25-2	Bromoform	< 4.3	ug/m3	4.3	U	2.6
DOE-1	DOE-1_060818_D-06082018	FD	6/8/2018	TO15	74-83-9	Bromomethane	< 3.2	ug/m3	3.2	U	5.2
DOE-1	DOE-1_060818_D-06082018	FD	6/8/2018	TO15	104-51-8	Butylbenzene, n-	< 2.3	ug/m3	2.3	U	-----
DOE-1	DOE-1_060818_D-06082018	FD	6/8/2018	TO15	135-98-8	Butylbenzene, sec-	< 2.3	ug/m3	2.3	U	-----
DOE-1	DOE-1_060818_D-06082018	FD	6/8/2018	TO15	75-15-0	Carbon disulfide	3.5	ug/m3	2.6		730
DOE-1	DOE-1_060818_D-06082018	FD	6/8/2018	TO15	56-23-5	Carbon tetrachloride	< 5.2	ug/m3	5.2	U	0.47
DOE-1	DOE-1_060818_D-06082018	FD	6/8/2018	TO15	75-00-3	Chloroethane	< 2.2	ug/m3	2.2	U	10000
DOE-1	DOE-1_060818_D-06082018	FD	6/8/2018	TO15	67-66-3	Chloroform	< 1.5	ug/m3	1.5	U	0.12
DOE-1	DOE-1_060818_D-06082018	FD	6/8/2018	TO15	74-87-3	Chloromethane	1.9	ug/m3	1.7		94
DOE-1	DOE-1_060818_D-06082018	FD	6/8/2018	TO15	156-59-2	cis-1,2-Dichloroethene	< 1.6	ug/m3	1.6	U	-----
DOE-1	DOE-1_060818_D-06082018	FD	6/8/2018	TO15	10061-01-5	cis-1,3-Dichloropropene	< 1.9	ug/m3	1.9	U	-----
DOE-1	DOE-1_060818_D-06082018	FD	6/8/2018	TO15	110-82-7	Cyclohexane	< 1.4	ug/m3	1.4	U	1000
DOE-1	DOE-1_060818_D-06082018	FD	6/8/2018	TO15	124-48-1	Dibromochloromethane	< 3.5	ug/m3	3.5	U	-----

APPENDIX B  
Analytical Results for Ambient Air VOCs

Location ID	Sample ID	Sample Type	Sample Date	Analytical Method	CAS Number	Analyte	Result	Units	Reporting Limit	Lab Flags	EPA Residential Air RSLs
DOE-1	DOE-1_060818_D-06082018	FD	6/8/2018	TO15	75-71-8	Dichlorodifluoromethane	3	ug/m3	2		100
DOE-1	DOE-1_060818_D-06082018	FD	6/8/2018	TO15	141-78-6	Ethyl acetate	1.4	ug/m3	1.1		73
DOE-1	DOE-1_060818_D-06082018	FD	6/8/2018	TO15	100-41-4	Ethylbenzene	< 1.8	ug/m3	1.8	U	1.1
DOE-1	DOE-1_060818_D-06082018	FD	6/8/2018	TO15	87-68-3	Hexachloro-1,3-butadiene	< 22	ug/m3	22	U	0.13
DOE-1	DOE-1_060818_D-06082018	FD	6/8/2018	TO15	110-54-3	Hexane, n-	< 2.9	ug/m3	2.9	U	730
DOE-1	DOE-1_060818_D-06082018	FD	6/8/2018	TO15	67-63-0	Isopropanol	< 5.1	ug/m3	5.1	U	210
DOE-1	DOE-1_060818_D-06082018	FD	6/8/2018	TO15	98-82-8	Isopropylbenzene	< 4.1	ug/m3	4.1	U	420
DOE-1	DOE-1_060818_D-06082018	FD	6/8/2018	TO15	179601-23-1	m,p-Xylene	< 3.6	ug/m3	3.6	U	-----
DOE-1	DOE-1_060818_D-06082018	FD	6/8/2018	TO15	1634-04-4	Methyl tert butyl ether	< 3.0	ug/m3	3	U	11
DOE-1	DOE-1_060818_D-06082018	FD	6/8/2018	TO15	75-09-2	Methylene chloride	2	ug/m3	1.4		100
DOE-1	DOE-1_060818_D-06082018	FD	6/8/2018	TO15	91-20-3	Naphthalene	< 4.3	ug/m3	4.3	U	0.083
DOE-1	DOE-1_060818_D-06082018	FD	6/8/2018	TO15	142-82-5	n-Heptane	< 3.4	ug/m3	3.4	U	420
DOE-1	DOE-1_060818_D-06082018	FD	6/8/2018	TO15	111-65-9	n-Octane	< 1.9	ug/m3	1.9	U	-----
DOE-1	DOE-1_060818_D-06082018	FD	6/8/2018	TO15	103-65-1	n-Propylbenzene	< 2.0	ug/m3	2	U	1000
DOE-1	DOE-1_060818_D-06082018	FD	6/8/2018	TO15	95-47-6	o-Xylene	< 1.8	ug/m3	1.8	U	100
DOE-1	DOE-1_060818_D-06082018	FD	6/8/2018	TO15	100-42-5	Styrene	< 1.8	ug/m3	1.8	U	1000
DOE-1	DOE-1_060818_D-06082018	FD	6/8/2018	TO15	127-18-4	Tetrachloroethene	< 2.8	ug/m3	2.8	U	11
DOE-1	DOE-1_060818_D-06082018	FD	6/8/2018	TO15	109-99-9	Tetrahydrofuran	< 2.4	ug/m3	2.4	U	2100
DOE-1	DOE-1_060818_D-06082018	FD	6/8/2018	TO15	108-88-3	Toluene	2.3	ug/m3	1.6		5200
DOE-1	DOE-1_060818_D-06082018	FD	6/8/2018	TO15	156-60-5	trans-1,2-Dichloroethene	< 1.6	ug/m3	1.6	U	-----
DOE-1	DOE-1_060818_D-06082018	FD	6/8/2018	TO15	10061-02-6	trans-1,3-Dichloropropene	< 1.9	ug/m3	1.9	U	-----
DOE-1	DOE-1_060818_D-06082018	FD	6/8/2018	TO15	79-01-6	Trichloroethene	< 2.2	ug/m3	2.2	U	0.48
DOE-1	DOE-1_060818_D-06082018	FD	6/8/2018	TO15	75-69-4	Trichlorofluoromethane	< 2.3	ug/m3	2.3	U	-----
DOE-1	DOE-1_060818_D-06082018	FD	6/8/2018	TO15	108-05-4	Vinyl acetate	< 2.9	ug/m3	2.9	U	210
DOE-1	DOE-1_060818_D-06082018	FD	6/8/2018	TO15	75-01-4	Vinyl chloride	< 1.1	ug/m3	1.1	U	0.17
DOE-1	DOE-1_060818_D-06082018	FD	6/8/2018	TO15	1330-20-7	Xylenes (Total)	< 5.4	ug/m3	5.4	U	-----
DOE-2	DOE-2_060818_S-06082018	N	6/8/2018	TO15	71-55-6	1,1,1-Trichloroethane	< 1.6	ug/m3	1.6	U	5200
DOE-2	DOE-2_060818_S-06082018	N	6/8/2018	TO15	79-34-5	1,1,2,2-Tetrachloroethane	< 2.7	ug/m3	2.7	U	0.048
DOE-2	DOE-2_060818_S-06082018	N	6/8/2018	TO15	76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	< 3.1	ug/m3	3.1	U	5200
DOE-2	DOE-2_060818_S-06082018	N	6/8/2018	TO15	79-00-5	1,1,2-Trichloroethane	< 2.2	ug/m3	2.2	U	0.18
DOE-2	DOE-2_060818_S-06082018	N	6/8/2018	TO15	75-34-3	1,1-Dichloroethane	< 1.2	ug/m3	1.2	U	1.8
DOE-2	DOE-2_060818_S-06082018	N	6/8/2018	TO15	75-35-4	1,1-Dichloroethene	< 3.2	ug/m3	3.2	U	210
DOE-2	DOE-2_060818_S-06082018	N	6/8/2018	TO15	120-82-1	1,2,4-Trichlorobenzene	< 15	ug/m3	15	U	2.1
DOE-2	DOE-2_060818_S-06082018	N	6/8/2018	TO15	95-63-6	1,2,4-Trimethylbenzene	< 3.9	ug/m3	3.9	U	63
DOE-2	DOE-2_060818_S-06082018	N	6/8/2018	TO15	106-93-4	1,2-Dibromoethane	< 6.1	ug/m3	6.1	U	-----
DOE-2	DOE-2_060818_S-06082018	N	6/8/2018	TO15	95-50-1	1,2-Dichlorobenzene	< 2.4	ug/m3	2.4	U	210
DOE-2	DOE-2_060818_S-06082018	N	6/8/2018	TO15	107-06-2	1,2-Dichloroethane	< 3.2	ug/m3	3.2	U	0.11
DOE-2	DOE-2_060818_S-06082018	N	6/8/2018	TO15	78-87-5	1,2-Dichloropropane	< 1.8	ug/m3	1.8	U	0.76
DOE-2	DOE-2_060818_S-06082018	N	6/8/2018	TO15	76-14-2	1,2-Dichlorotetrafluoroethane	< 2.8	ug/m3	2.8	U	-----
DOE-2	DOE-2_060818_S-06082018	N	6/8/2018	TO15	108-67-8	1,3,5-Trimethylbenzene	< 2.0	ug/m3	2	U	63
DOE-2	DOE-2_060818_S-06082018	N	6/8/2018	TO15	106-99-0	1,3-Butadiene	< 1.8	ug/m3	1.8	U	0.094
DOE-2	DOE-2_060818_S-06082018	N	6/8/2018	TO15	541-73-1	1,3-Dichlorobenzene	< 2.4	ug/m3	2.4	U	-----
DOE-2	DOE-2_060818_S-06082018	N	6/8/2018	TO15	106-46-7	1,4-Dichlorobenzene	< 2.4	ug/m3	2.4	U	0.26
DOE-2	DOE-2_060818_S-06082018	N	6/8/2018	TO15	123-91-1	1,4-Dioxane	< 2.9	ug/m3	2.9	U	0.56
DOE-2	DOE-2_060818_S-06082018	N	6/8/2018	TO15	78-93-3	2-Butanone	< 2.4	ug/m3	2.4	U	5200
DOE-2	DOE-2_060818_S-06082018	N	6/8/2018	TO15	591-78-6	2-Hexanone	< 1.6	ug/m3	1.6	U	31
DOE-2	DOE-2_060818_S-06082018	N	6/8/2018	TO15	622-96-8	4-Ethyltoluene	< 2.0	ug/m3	2	U	-----
DOE-2	DOE-2_060818_S-06082018	N	6/8/2018	TO15	99-87-6	4-Isopropyltoluene	< 4.4	ug/m3	4.4	U	-----
DOE-2	DOE-2_060818_S-06082018	N	6/8/2018	TO15	108-10-1	4-Methyl-2-pentanone	< 1.6	ug/m3	1.6	U	3100
DOE-2	DOE-2_060818_S-06082018	N	6/8/2018	TO15	107-02-8	Acrolein	< 4.6	ug/m3	4.6	U	0.021
DOE-2	DOE-2_060818_S-06082018	N	6/8/2018	TO15	107-13-1	Acrylonitrile	< 4.3	ug/m3	4.3	U	0.041
DOE-2	DOE-2_060818_S-06082018	N	6/8/2018	TO15	71-43-2	Benzene	< 1.3	ug/m3	1.3	U	0.36
DOE-2	DOE-2_060818_S-06082018	N	6/8/2018	TO15	100-44-7	Benzyl chloride	< 4.1	ug/m3	4.1	U	0.057
DOE-2	DOE-2_060818_S-06082018	N	6/8/2018	TO15	75-27-4	Bromodichloromethane	< 2.0	ug/m3	2	U	0.076
DOE-2	DOE-2_060818_S-06082018	N	6/8/2018	TO15	75-25-2	Bromoform	< 4.1	ug/m3	4.1	U	2.6

APPENDIX B  
Analytical Results for Ambient Air VOCs

Location ID	Sample ID	Sample Type	Sample Date	Analytical Method	CAS Number	Analyte	Result	Units	Reporting Limit	Lab Flags	EPA Residential Air RSLs
DOE-2	DOE-2_060818_S-06082018	N	6/8/2018	TO15	74-83-9	Bromomethane	< 3.1	ug/m3	3.1	U	5.2
DOE-2	DOE-2_060818_S-06082018	N	6/8/2018	TO15	104-51-8	Butylbenzene, n-	< 2.2	ug/m3	2.2	U	-----
DOE-2	DOE-2_060818_S-06082018	N	6/8/2018	TO15	135-98-8	Butylbenzene, sec-	< 2.2	ug/m3	2.2	U	-----
DOE-2	DOE-2_060818_S-06082018	N	6/8/2018	TO15	75-15-0	Carbon disulfide	< 2.5	ug/m3	2.5	U	730
DOE-2	DOE-2_060818_S-06082018	N	6/8/2018	TO15	56-23-5	Carbon tetrachloride	< 5.0	ug/m3	5	U	0.47
DOE-2	DOE-2_060818_S-06082018	N	6/8/2018	TO15	75-00-3	Chloroethane	< 2.1	ug/m3	2.1	U	10000
DOE-2	DOE-2_060818_S-06082018	N	6/8/2018	TO15	67-66-3	Chloroform	< 1.5	ug/m3	1.5	U	0.12
DOE-2	DOE-2_060818_S-06082018	N	6/8/2018	TO15	74-87-3	Chloromethane	< 1.7	ug/m3	1.7	U	94
DOE-2	DOE-2_060818_S-06082018	N	6/8/2018	TO15	156-59-2	cis-1,2-Dichloroethene	< 1.6	ug/m3	1.6	U	-----
DOE-2	DOE-2_060818_S-06082018	N	6/8/2018	TO15	10061-01-5	cis-1,3-Dichloropropene	< 1.8	ug/m3	1.8	U	-----
DOE-2	DOE-2_060818_S-06082018	N	6/8/2018	TO15	110-82-7	Cyclohexane	< 1.4	ug/m3	1.4	U	1000
DOE-2	DOE-2_060818_S-06082018	N	6/8/2018	TO15	124-48-1	Dibromochloromethane	< 3.4	ug/m3	3.4	U	-----
DOE-2	DOE-2_060818_S-06082018	N	6/8/2018	TO15	75-71-8	Dichlorodifluoromethane	< 2.0	ug/m3	2	U	100
DOE-2	DOE-2_060818_S-06082018	N	6/8/2018	TO15	141-78-6	Ethyl acetate	< 1.1	ug/m3	1.1	U	73
DOE-2	DOE-2_060818_S-06082018	N	6/8/2018	TO15	100-41-4	Ethylbenzene	< 1.7	ug/m3	1.7	U	1.1
DOE-2	DOE-2_060818_S-06082018	N	6/8/2018	TO15	87-68-3	Hexachloro-1,3-butadiene	< 21	ug/m3	21	U	0.13
DOE-2	DOE-2_060818_S-06082018	N	6/8/2018	TO15	110-54-3	Hexane, n-	< 2.8	ug/m3	2.8	U	730
DOE-2	DOE-2_060818_S-06082018	N	6/8/2018	TO15	67-63-0	Isopropanol	< 4.9	ug/m3	4.9	U	210
DOE-2	DOE-2_060818_S-06082018	N	6/8/2018	TO15	98-82-8	Isopropylbenzene	< 3.9	ug/m3	3.9	U	420
DOE-2	DOE-2_060818_S-06082018	N	6/8/2018	TO15	179601-23-1	m,p-Xylene	< 3.5	ug/m3	3.5	U	-----
DOE-2	DOE-2_060818_S-06082018	N	6/8/2018	TO15	1634-04-4	Methyl tert butyl ether	< 2.9	ug/m3	2.9	U	11
DOE-2	DOE-2_060818_S-06082018	N	6/8/2018	TO15	75-09-2	Methylene chloride	< 1.4	ug/m3	1.4	U	100
DOE-2	DOE-2_060818_S-06082018	N	6/8/2018	TO15	91-20-3	Naphthalene	< 4.2	ug/m3	4.2	U	0.083
DOE-2	DOE-2_060818_S-06082018	N	6/8/2018	TO15	142-82-5	n-Heptane	< 3.3	ug/m3	3.3	U	420
DOE-2	DOE-2_060818_S-06082018	N	6/8/2018	TO15	111-65-9	n-Octane	< 1.9	ug/m3	1.9	U	-----
DOE-2	DOE-2_060818_S-06082018	N	6/8/2018	TO15	103-65-1	n-Propylbenzene	< 2.0	ug/m3	2	U	1000
DOE-2	DOE-2_060818_S-06082018	N	6/8/2018	TO15	95-47-6	o-Xylene	< 1.7	ug/m3	1.7	U	100
DOE-2	DOE-2_060818_S-06082018	N	6/8/2018	TO15	100-42-5	Styrene	< 1.7	ug/m3	1.7	U	1000
DOE-2	DOE-2_060818_S-06082018	N	6/8/2018	TO15	127-18-4	Tetrachloroethene	< 2.7	ug/m3	2.7	U	11
DOE-2	DOE-2_060818_S-06082018	N	6/8/2018	TO15	109-99-9	Tetrahydrofuran	< 2.4	ug/m3	2.4	U	2100
DOE-2	DOE-2_060818_S-06082018	N	6/8/2018	TO15	108-88-3	Toluene	< 1.5	ug/m3	1.5	U	5200
DOE-2	DOE-2_060818_S-06082018	N	6/8/2018	TO15	10061-02-6	trans-1,3-Dichloropropene	< 1.8	ug/m3	1.8	U	-----
DOE-2	DOE-2_060818_S-06082018	N	6/8/2018	TO15	79-01-6	Trichloroethene	< 2.1	ug/m3	2.1	U	0.48
DOE-2	DOE-2_060818_S-06082018	N	6/8/2018	TO15	75-69-4	Trichlorofluoromethane	< 2.2	ug/m3	2.2	U	-----
DOE-2	DOE-2_060818_S-06082018	N	6/8/2018	TO15	108-05-4	Vinyl acetate	< 2.8	ug/m3	2.8	U	210
DOE-2	DOE-2_060818_S-06082018	N	6/8/2018	TO15	75-01-4	Vinyl chloride	< 1.0	ug/m3	1	U	0.17
DOE-2	DOE-2_060818_S-06082018	N	6/8/2018	TO15	1330-20-7	Xylenes (Total)	< 5.2	ug/m3	5.2	U	-----
DOE-3	DOE-3_060818_S-06082018	N	6/8/2018	TO15	71-55-6	1,1,1-Trichloroethane	< 1.6	ug/m3	1.6	U	5200
DOE-3	DOE-3_060818_S-06082018	N	6/8/2018	TO15	79-34-5	1,1,2,2-Tetrachloroethane	< 2.7	ug/m3	2.7	U	0.048
DOE-3	DOE-3_060818_S-06082018	N	6/8/2018	TO15	76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	< 3.1	ug/m3	3.1	U	5200
DOE-3	DOE-3_060818_S-06082018	N	6/8/2018	TO15	79-00-5	1,1,2-Trichloroethane	< 2.2	ug/m3	2.2	U	0.18
DOE-3	DOE-3_060818_S-06082018	N	6/8/2018	TO15	75-34-3	1,1-Dichloroethane	< 1.2	ug/m3	1.2	U	1.8
DOE-3	DOE-3_060818_S-06082018	N	6/8/2018	TO15	75-35-4	1,1-Dichloroethene	< 3.2	ug/m3	3.2	U	210
DOE-3	DOE-3_060818_S-06082018	N	6/8/2018	TO15	120-82-1	1,2,4-Trichlorobenzene	< 15	ug/m3	15	U	2.1
DOE-3	DOE-3_060818_S-06082018	N	6/8/2018	TO15	95-63-6	1,2,4-Trimethylbenzene	< 3.9	ug/m3	3.9	U	63
DOE-3	DOE-3_060818_S-06082018	N	6/8/2018	TO15	106-93-4	1,2-Dibromoethane	< 6.1	ug/m3	6.1	U	-----
DOE-3	DOE-3_060818_S-06082018	N	6/8/2018	TO15	95-50-1	1,2-Dichlorobenzene	< 2.4	ug/m3	2.4	U	210
DOE-3	DOE-3_060818_S-06082018	N	6/8/2018	TO15	107-06-2	1,2-Dichloroethane	< 3.2	ug/m3	3.2	U	0.11
DOE-3	DOE-3_060818_S-06082018	N	6/8/2018	TO15	78-87-5	1,2-Dichloropropane	< 1.8	ug/m3	1.8	U	0.76
DOE-3	DOE-3_060818_S-06082018	N	6/8/2018	TO15	76-14-2	1,2-Dichlorotetrafluoroethane	< 2.8	ug/m3	2.8	U	-----
DOE-3	DOE-3_060818_S-06082018	N	6/8/2018	TO15	108-67-8	1,3,5-Trimethylbenzene	< 2.0	ug/m3	2	U	63
DOE-3	DOE-3_060818_S-06082018	N	6/8/2018	TO15	106-99-0	1,3-Butadiene	< 1.8	ug/m3	1.8	U	0.094
DOE-3	DOE-3_060818_S-06082018	N	6/8/2018	TO15	541-73-1	1,3-Dichlorobenzene	< 2.4	ug/m3	2.4	U	-----
DOE-3	DOE-3_060818_S-06082018	N	6/8/2018	TO15	106-46-7	1,4-Dichlorobenzene	< 2.4	ug/m3	2.4	U	0.26
DOE-3	DOE-3_060818_S-06082018	N	6/8/2018	TO15	123-91-1	1,4-Dioxane	< 2.9	ug/m3	2.9	U	0.56

APPENDIX B  
Analytical Results for Ambient Air VOCs

Location ID	Sample ID	Sample Type	Sample Date	Analytical Method	CAS Number	Analyte	Result	Units	Reporting Limit	Lab Flags	EPA Residential Air RSLs
DOE-3	DOE-3_060818_S-06082018	N	6/8/2018	TO15	78-93-3	2-Butanone	< 2.4	ug/m3	2.4	U	5200
DOE-3	DOE-3_060818_S-06082018	N	6/8/2018	TO15	591-78-6	2-Hexanone	< 1.6	ug/m3	1.6	U	31
DOE-3	DOE-3_060818_S-06082018	N	6/8/2018	TO15	622-96-8	4-Ethyltoluene	< 2.0	ug/m3	2	U	-----
DOE-3	DOE-3_060818_S-06082018	N	6/8/2018	TO15	99-87-6	4-Isopropyltoluene	< 4.4	ug/m3	4.4	U	-----
DOE-3	DOE-3_060818_S-06082018	N	6/8/2018	TO15	108-10-1	4-Methyl-2-pentanone	< 1.6	ug/m3	1.6	U	3100
DOE-3	DOE-3_060818_S-06082018	N	6/8/2018	TO15	107-02-8	Acrolein	< 4.6	ug/m3	4.6	U	0.021
DOE-3	DOE-3_060818_S-06082018	N	6/8/2018	TO15	107-13-1	Acrylonitrile	< 4.3	ug/m3	4.3	U	0.041
DOE-3	DOE-3_060818_S-06082018	N	6/8/2018	TO15	71-43-2	Benzene	< 1.3	ug/m3	1.3	U	0.36
DOE-3	DOE-3_060818_S-06082018	N	6/8/2018	TO15	100-44-7	Benzyl chloride	< 4.1	ug/m3	4.1	U	0.057
DOE-3	DOE-3_060818_S-06082018	N	6/8/2018	TO15	75-27-4	Bromodichloromethane	< 2.0	ug/m3	2	U	0.076
DOE-3	DOE-3_060818_S-06082018	N	6/8/2018	TO15	75-25-2	Bromoform	< 4.1	ug/m3	4.1	U	2.6
DOE-3	DOE-3_060818_S-06082018	N	6/8/2018	TO15	74-83-9	Bromomethane	< 3.1	ug/m3	3.1	U	5.2
DOE-3	DOE-3_060818_S-06082018	N	6/8/2018	TO15	104-51-8	Butylbenzene, n-	< 2.2	ug/m3	2.2	U	-----
DOE-3	DOE-3_060818_S-06082018	N	6/8/2018	TO15	135-98-8	Butylbenzene, sec-	< 2.2	ug/m3	2.2	U	-----
DOE-3	DOE-3_060818_S-06082018	N	6/8/2018	TO15	75-15-0	Carbon disulfide	< 2.5	ug/m3	2.5	U	730
DOE-3	DOE-3_060818_S-06082018	N	6/8/2018	TO15	56-23-5	Carbon tetrachloride	< 5.0	ug/m3	5	U	0.47
DOE-3	DOE-3_060818_S-06082018	N	6/8/2018	TO15	75-00-3	Chloroethane	< 2.1	ug/m3	2.1	U	10000
DOE-3	DOE-3_060818_S-06082018	N	6/8/2018	TO15	67-66-3	Chloroform	< 1.5	ug/m3	1.5	U	0.12
DOE-3	DOE-3_060818_S-06082018	N	6/8/2018	TO15	74-87-3	Chloromethane	< 1.7	ug/m3	1.7	U	94
DOE-3	DOE-3_060818_S-06082018	N	6/8/2018	TO15	156-59-2	cis-1,2-Dichloroethene	< 1.6	ug/m3	1.6	U	-----
DOE-3	DOE-3_060818_S-06082018	N	6/8/2018	TO15	10061-01-5	cis-1,3-Dichloropropene	< 1.8	ug/m3	1.8	U	-----
DOE-3	DOE-3_060818_S-06082018	N	6/8/2018	TO15	110-82-7	Cyclohexane	< 1.4	ug/m3	1.4	U	1000
DOE-3	DOE-3_060818_S-06082018	N	6/8/2018	TO15	124-48-1	Dibromochloromethane	< 3.4	ug/m3	3.4	U	-----
DOE-3	DOE-3_060818_S-06082018	N	6/8/2018	TO15	75-71-8	Dichlorodifluoromethane	< 2.0	ug/m3	2	U	100
DOE-3	DOE-3_060818_S-06082018	N	6/8/2018	TO15	141-78-6	Ethyl acetate	< 1.1	ug/m3	1.1	U	73
DOE-3	DOE-3_060818_S-06082018	N	6/8/2018	TO15	100-41-4	Ethylbenzene	< 1.7	ug/m3	1.7	U	1.1
DOE-3	DOE-3_060818_S-06082018	N	6/8/2018	TO15	87-68-3	Hexachloro-1,3-butadiene	< 21	ug/m3	21	U	0.13
DOE-3	DOE-3_060818_S-06082018	N	6/8/2018	TO15	110-54-3	Hexane, n-	< 2.8	ug/m3	2.8	U	730
DOE-3	DOE-3_060818_S-06082018	N	6/8/2018	TO15	67-63-0	Isopropanol	< 4.9	ug/m3	4.9	U	210
DOE-3	DOE-3_060818_S-06082018	N	6/8/2018	TO15	98-82-8	Isopropylbenzene	< 3.9	ug/m3	3.9	U	420
DOE-3	DOE-3_060818_S-06082018	N	6/8/2018	TO15	179601-23-1	m,p-Xylene	< 3.5	ug/m3	3.5	U	-----
DOE-3	DOE-3_060818_S-06082018	N	6/8/2018	TO15	1634-04-4	Methyl tert butyl ether	< 2.9	ug/m3	2.9	U	11
DOE-3	DOE-3_060818_S-06082018	N	6/8/2018	TO15	75-09-2	Methylene chloride	< 1.4	ug/m3	1.4	U	100
DOE-3	DOE-3_060818_S-06082018	N	6/8/2018	TO15	91-20-3	Naphthalene	< 4.2	ug/m3	4.2	U	0.083
DOE-3	DOE-3_060818_S-06082018	N	6/8/2018	TO15	142-82-5	n-Heptane	< 3.3	ug/m3	3.3	U	420
DOE-3	DOE-3_060818_S-06082018	N	6/8/2018	TO15	111-65-9	n-Octane	< 1.9	ug/m3	1.9	U	-----
DOE-3	DOE-3_060818_S-06082018	N	6/8/2018	TO15	103-65-1	n-Propylbenzene	< 2.0	ug/m3	2	U	1000
DOE-3	DOE-3_060818_S-06082018	N	6/8/2018	TO15	95-47-6	o-Xylene	< 1.7	ug/m3	1.7	U	100
DOE-3	DOE-3_060818_S-06082018	N	6/8/2018	TO15	100-42-5	Styrene	< 1.7	ug/m3	1.7	U	1000
DOE-3	DOE-3_060818_S-06082018	N	6/8/2018	TO15	127-18-4	Tetrachloroethene	< 2.7	ug/m3	2.7	U	11
DOE-3	DOE-3_060818_S-06082018	N	6/8/2018	TO15	109-99-9	Tetrahydrofuran	< 2.4	ug/m3	2.4	U	2100
DOE-3	DOE-3_060818_S-06082018	N	6/8/2018	TO15	108-88-3	Toluene	< 1.5	ug/m3	1.5	U	5200
DOE-3	DOE-3_060818_S-06082018	N	6/8/2018	TO15	156-60-5	trans-1,2-Dichloroethene	< 1.6	ug/m3	1.6	U	-----
DOE-3	DOE-3_060818_S-06082018	N	6/8/2018	TO15	10061-02-6	trans-1,3-Dichloropropene	< 1.8	ug/m3	1.8	U	-----
DOE-3	DOE-3_060818_S-06082018	N	6/8/2018	TO15	79-01-6	Trichloroethene	< 2.1	ug/m3	2.1	U	0.48
DOE-3	DOE-3_060818_S-06082018	N	6/8/2018	TO15	75-69-4	Trichlorofluoromethane	< 2.2	ug/m3	2.2	U	-----
DOE-3	DOE-3_060818_S-06082018	N	6/8/2018	TO15	108-05-4	Vinyl acetate	< 2.8	ug/m3	2.8	U	210
DOE-3	DOE-3_060818_S-06082018	N	6/8/2018	TO15	75-01-4	Vinyl chloride	< 1.0	ug/m3	1	U	0.17
DOE-3	DOE-3_060818_S-06082018	N	6/8/2018	TO15	1330-20-7	Xylenes (Total)	< 5.2	ug/m3	5.2	U	-----
DOE-4	DOE-4_060818_S-06082018	N	6/8/2018	TO15	71-55-6	1,1,1-Trichloroethane	< 1.6	ug/m3	1.6	U	5200
DOE-4	DOE-4_060818_S-06082018	N	6/8/2018	TO15	79-34-5	1,1,2,2-Tetrachloroethane	< 2.7	ug/m3	2.7	U	0.048
DOE-4	DOE-4_060818_S-06082018	N	6/8/2018	TO15	76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	< 3.1	ug/m3	3.1	U	5200
DOE-4	DOE-4_060818_S-06082018	N	6/8/2018	TO15	79-00-5	1,1,2-Trichloroethane	< 2.2	ug/m3	2.2	U	0.18
DOE-4	DOE-4_060818_S-06082018	N	6/8/2018	TO15	75-34-3	1,1-Dichloroethane	< 1.2	ug/m3	1.2	U	1.8
DOE-4	DOE-4_060818_S-06082018	N	6/8/2018	TO15	75-35-4	1,1-Dichloroethene	< 3.2	ug/m3	3.2	U	210

APPENDIX B  
Analytical Results for Ambient Air VOCs

Location ID	Sample ID	Sample Type	Sample Date	Analytical Method	CAS Number	Analyte	Result	Units	Reporting Limit	Lab Flags	EPA Residential Air RSLs
DOE-4	DOE-4_060818_S-06082018	N	6/8/2018	TO15	120-82-1	1,2,4-Trichlorobenzene	< 15	ug/m3	15	U	2.1
DOE-4	DOE-4_060818_S-06082018	N	6/8/2018	TO15	95-63-6	1,2,4-Trimethylbenzene	< 3.9	ug/m3	3.9	U	63
DOE-4	DOE-4_060818_S-06082018	N	6/8/2018	TO15	106-93-4	1,2-Dibromoethane	< 6.1	ug/m3	6.1	U	-----
DOE-4	DOE-4_060818_S-06082018	N	6/8/2018	TO15	95-50-1	1,2-Dichlorobenzene	< 2.4	ug/m3	2.4	U	210
DOE-4	DOE-4_060818_S-06082018	N	6/8/2018	TO15	107-06-2	1,2-Dichloroethane	< 3.2	ug/m3	3.2	U	0.11
DOE-4	DOE-4_060818_S-06082018	N	6/8/2018	TO15	78-87-5	1,2-Dichloropropane	< 1.8	ug/m3	1.8	U	0.76
DOE-4	DOE-4_060818_S-06082018	N	6/8/2018	TO15	76-14-2	1,2-Dichlorotetrafluoroethane	< 2.8	ug/m3	2.8	U	-----
DOE-4	DOE-4_060818_S-06082018	N	6/8/2018	TO15	108-67-8	1,3,5-Trimethylbenzene	< 2.0	ug/m3	2	U	63
DOE-4	DOE-4_060818_S-06082018	N	6/8/2018	TO15	106-99-0	1,3-Butadiene	< 1.8	ug/m3	1.8	U	0.094
DOE-4	DOE-4_060818_S-06082018	N	6/8/2018	TO15	541-73-1	1,3-Dichlorobenzene	< 2.4	ug/m3	2.4	U	-----
DOE-4	DOE-4_060818_S-06082018	N	6/8/2018	TO15	106-46-7	1,4-Dichlorobenzene	< 2.4	ug/m3	2.4	U	0.26
DOE-4	DOE-4_060818_S-06082018	N	6/8/2018	TO15	123-91-1	1,4-Dioxane	< 2.9	ug/m3	2.9	U	0.56
DOE-4	DOE-4_060818_S-06082018	N	6/8/2018	TO15	78-93-3	2-Butanone	< 2.4	ug/m3	2.4	U	5200
DOE-4	DOE-4_060818_S-06082018	N	6/8/2018	TO15	591-78-6	2-Hexanone	< 1.6	ug/m3	1.6	U	31
DOE-4	DOE-4_060818_S-06082018	N	6/8/2018	TO15	622-96-8	4-Ethyltoluene	< 2.0	ug/m3	2	U	-----
DOE-4	DOE-4_060818_S-06082018	N	6/8/2018	TO15	99-87-6	4-Isopropyltoluene	< 4.4	ug/m3	4.4	U	-----
DOE-4	DOE-4_060818_S-06082018	N	6/8/2018	TO15	108-10-1	4-Methyl-2-pentanone	< 1.6	ug/m3	1.6	U	3100
DOE-4	DOE-4_060818_S-06082018	N	6/8/2018	TO15	107-02-8	Acrolein	< 4.6	ug/m3	4.6	U	0.021
DOE-4	DOE-4_060818_S-06082018	N	6/8/2018	TO15	107-13-1	Acrylonitrile	< 4.3	ug/m3	4.3	U	0.041
DOE-4	DOE-4_060818_S-06082018	N	6/8/2018	TO15	71-43-2	Benzene	< 1.3	ug/m3	1.3	U	0.36
DOE-4	DOE-4_060818_S-06082018	N	6/8/2018	TO15	100-44-7	Benzyl chloride	< 4.1	ug/m3	4.1	U	0.057
DOE-4	DOE-4_060818_S-06082018	N	6/8/2018	TO15	75-27-4	Bromodichloromethane	< 2.0	ug/m3	2	U	0.076
DOE-4	DOE-4_060818_S-06082018	N	6/8/2018	TO15	75-25-2	Bromoform	< 4.1	ug/m3	4.1	U	2.6
DOE-4	DOE-4_060818_S-06082018	N	6/8/2018	TO15	74-83-9	Bromomethane	< 3.1	ug/m3	3.1	U	5.2
DOE-4	DOE-4_060818_S-06082018	N	6/8/2018	TO15	104-51-8	Butylbenzene, n-	< 2.2	ug/m3	2.2	U	-----
DOE-4	DOE-4_060818_S-06082018	N	6/8/2018	TO15	135-98-8	Butylbenzene, sec-	< 2.2	ug/m3	2.2	U	-----
DOE-4	DOE-4_060818_S-06082018	N	6/8/2018	TO15	75-15-0	Carbon disulfide	< 2.5	ug/m3	2.5	U	730
DOE-4	DOE-4_060818_S-06082018	N	6/8/2018	TO15	56-23-5	Carbon tetrachloride	< 5.0	ug/m3	5	U	0.47
DOE-4	DOE-4_060818_S-06082018	N	6/8/2018	TO15	75-00-3	Chloroethane	< 2.1	ug/m3	2.1	U	10000
DOE-4	DOE-4_060818_S-06082018	N	6/8/2018	TO15	67-66-3	Chloroform	< 1.5	ug/m3	1.5	U	0.12
DOE-4	DOE-4_060818_S-06082018	N	6/8/2018	TO15	74-87-3	Chloromethane	< 1.7	ug/m3	1.7	U	94
DOE-4	DOE-4_060818_S-06082018	N	6/8/2018	TO15	156-59-2	cis-1,2-Dichloroethene	< 1.6	ug/m3	1.6	U	-----
DOE-4	DOE-4_060818_S-06082018	N	6/8/2018	TO15	10061-01-5	cis-1,3-Dichloropropene	< 1.8	ug/m3	1.8	U	-----
DOE-4	DOE-4_060818_S-06082018	N	6/8/2018	TO15	110-82-7	Cyclohexane	< 1.4	ug/m3	1.4	U	1000
DOE-4	DOE-4_060818_S-06082018	N	6/8/2018	TO15	124-48-1	Dibromochloromethane	< 3.4	ug/m3	3.4	U	-----
DOE-4	DOE-4_060818_S-06082018	N	6/8/2018	TO15	75-71-8	Dichlorodifluoromethane	< 2.0	ug/m3	2	U	100
DOE-4	DOE-4_060818_S-06082018	N	6/8/2018	TO15	141-78-6	Ethyl acetate	< 1.1	ug/m3	1.1	U	73
DOE-4	DOE-4_060818_S-06082018	N	6/8/2018	TO15	100-41-4	Ethylbenzene	< 1.7	ug/m3	1.7	U	1.1
DOE-4	DOE-4_060818_S-06082018	N	6/8/2018	TO15	87-68-3	Hexachloro-1,3-butadiene	< 21	ug/m3	21	U	0.13
DOE-4	DOE-4_060818_S-06082018	N	6/8/2018	TO15	110-54-3	Hexane, n-	< 2.8	ug/m3	2.8	U	730
DOE-4	DOE-4_060818_S-06082018	N	6/8/2018	TO15	67-63-0	Isopropanol	< 4.9	ug/m3	4.9	U	210
DOE-4	DOE-4_060818_S-06082018	N	6/8/2018	TO15	98-82-8	Isopropylbenzene	< 3.9	ug/m3	3.9	U	420
DOE-4	DOE-4_060818_S-06082018	N	6/8/2018	TO15	179601-23-1	m,p-Xylene	< 3.5	ug/m3	3.5	U	-----
DOE-4	DOE-4_060818_S-06082018	N	6/8/2018	TO15	1634-04-4	Methyl tert butyl ether	< 2.9	ug/m3	2.9	U	11
DOE-4	DOE-4_060818_S-06082018	N	6/8/2018	TO15	75-09-2	Methylene chloride	< 1.4	ug/m3	1.4	U	100
DOE-4	DOE-4_060818_S-06082018	N	6/8/2018	TO15	91-20-3	Naphthalene	< 4.2	ug/m3	4.2	U	0.083
DOE-4	DOE-4_060818_S-06082018	N	6/8/2018	TO15	142-82-5	n-Heptane	< 3.3	ug/m3	3.3	U	420
DOE-4	DOE-4_060818_S-06082018	N	6/8/2018	TO15	111-65-9	n-Octane	< 1.9	ug/m3	1.9	U	-----
DOE-4	DOE-4_060818_S-06082018	N	6/8/2018	TO15	103-65-1	n-Propylbenzene	< 2.0	ug/m3	2	U	1000
DOE-4	DOE-4_060818_S-06082018	N	6/8/2018	TO15	95-47-6	o-Xylene	< 1.7	ug/m3	1.7	U	100
DOE-4	DOE-4_060818_S-06082018	N	6/8/2018	TO15	100-42-5	Styrene	< 1.7	ug/m3	1.7	U	1000
DOE-4	DOE-4_060818_S-06082018	N	6/8/2018	TO15	127-18-4	Tetrachloroethene	< 2.7	ug/m3	2.7	U	11
DOE-4	DOE-4_060818_S-06082018	N	6/8/2018	TO15	109-99-9	Tetrahydrofuran	< 2.4	ug/m3	2.4	U	2100
DOE-4	DOE-4_060818_S-06082018	N	6/8/2018	TO15	108-88-3	Toluene	< 1.5	ug/m3	1.5	U	5200
DOE-4	DOE-4_060818_S-06082018	N	6/8/2018	TO15	10061-02-6	trans-1,3-Dichloropropene	< 1.8	ug/m3	1.8	U	-----

APPENDIX B  
Analytical Results for Ambient Air VOCs

Location ID	Sample ID	Sample Type	Sample Date	Analytical Method	CAS Number	Analyte	Result	Units	Reporting Limit	Lab Flags	EPA Residential Air RSLs
DOE-4	DOE-4_060818_S-06082018	N	6/8/2018	TO15	79-01-6	Trichloroethene	< 2.1	ug/m3	2.1	U	0.48
DOE-4	DOE-4_060818_S-06082018	N	6/8/2018	TO15	75-69-4	Trichlorofluoromethane	< 2.2	ug/m3	2.2	U	-----
DOE-4	DOE-4_060818_S-06082018	N	6/8/2018	TO15	108-05-4	Vinyl acetate	< 2.8	ug/m3	2.8	U	210
DOE-4	DOE-4_060818_S-06082018	N	6/8/2018	TO15	75-01-4	Vinyl chloride	< 1.0	ug/m3	1	U	0.17
DOE-4	DOE-4_060818_S-06082018	N	6/8/2018	TO15	1330-20-7	Xylenes (Total)	< 5.2	ug/m3	5.2	U	-----
DOE-1	DOE-1_062118_S-06212018	N	6/21/2018	TO15	71-55-6	1,1,1-Trichloroethane	< 1.6	ug/m3	1.6	U	5200
DOE-1	DOE-1_062118_S-06212018	N	6/21/2018	TO15	79-34-5	1,1,2,2-Tetrachloroethane	< 2.7	ug/m3	2.7	U	0.048
DOE-1	DOE-1_062118_S-06212018	N	6/21/2018	TO15	76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	< 3.1	ug/m3	3.1	U	5200
DOE-1	DOE-1_062118_S-06212018	N	6/21/2018	TO15	79-00-5	1,1,2-Trichloroethane	< 2.2	ug/m3	2.2	U	0.18
DOE-1	DOE-1_062118_S-06212018	N	6/21/2018	TO15	75-34-3	1,1-Dichloroethane	< 1.2	ug/m3	1.2	U	1.8
DOE-1	DOE-1_062118_S-06212018	N	6/21/2018	TO15	75-35-4	1,1-Dichloroethene	< 3.2	ug/m3	3.2	U	210
DOE-1	DOE-1_062118_S-06212018	N	6/21/2018	TO15	120-82-1	1,2,4-Trichlorobenzene	< 15	ug/m3	15	U	2.1
DOE-1	DOE-1_062118_S-06212018	N	6/21/2018	TO15	95-63-6	1,2,4-Trimethylbenzene	< 3.9	ug/m3	3.9	U	63
DOE-1	DOE-1_062118_S-06212018	N	6/21/2018	TO15	106-93-4	1,2-Dibromoethane	< 6.1	ug/m3	6.1	U	-----
DOE-1	DOE-1_062118_S-06212018	N	6/21/2018	TO15	95-50-1	1,2-Dichlorobenzene	< 2.4	ug/m3	2.4	U	210
DOE-1	DOE-1_062118_S-06212018	N	6/21/2018	TO15	107-06-2	1,2-Dichloroethane	< 3.2	ug/m3	3.2	U	0.11
DOE-1	DOE-1_062118_S-06212018	N	6/21/2018	TO15	78-87-5	1,2-Dichloropropane	< 1.8	ug/m3	1.8	U	0.76
DOE-1	DOE-1_062118_S-06212018	N	6/21/2018	TO15	76-14-2	1,2-Dichlorotetrafluoroethane	< 2.8	ug/m3	2.8	U	-----
DOE-1	DOE-1_062118_S-06212018	N	6/21/2018	TO15	108-67-8	1,3,5-Trimethylbenzene	< 2.0	ug/m3	2	U	63
DOE-1	DOE-1_062118_S-06212018	N	6/21/2018	TO15	106-99-0	1,3-Butadiene	< 1.8	ug/m3	1.8	U	0.094
DOE-1	DOE-1_062118_S-06212018	N	6/21/2018	TO15	541-73-1	1,3-Dichlorobenzene	< 2.4	ug/m3	2.4	U	-----
DOE-1	DOE-1_062118_S-06212018	N	6/21/2018	TO15	106-46-7	1,4-Dichlorobenzene	< 2.4	ug/m3	2.4	U	0.26
DOE-1	DOE-1_062118_S-06212018	N	6/21/2018	TO15	123-91-1	1,4-Dioxane	< 2.9	ug/m3	2.9	U	0.56
DOE-1	DOE-1_062118_S-06212018	N	6/21/2018	TO15	78-93-3	2-Butanone	< 2.4	ug/m3	2.4	U	5200
DOE-1	DOE-1_062118_S-06212018	N	6/21/2018	TO15	591-78-6	2-Hexanone	< 1.6	ug/m3	1.6	U	31
DOE-1	DOE-1_062118_S-06212018	N	6/21/2018	TO15	622-96-8	4-Ethyltoluene	< 2.0	ug/m3	2	U	-----
DOE-1	DOE-1_062118_S-06212018	N	6/21/2018	TO15	99-87-6	4-Isopropyltoluene	< 4.4	ug/m3	4.4	U	-----
DOE-1	DOE-1_062118_S-06212018	N	6/21/2018	TO15	108-10-1	4-Methyl-2-pentanone	< 1.6	ug/m3	1.6	U	3100
DOE-1	DOE-1_062118_S-06212018	N	6/21/2018	TO15	107-02-8	Acrolein	< 4.6	ug/m3	4.6	U	0.021
DOE-1	DOE-1_062118_S-06212018	N	6/21/2018	TO15	107-13-1	Acrylonitrile	< 4.3	ug/m3	4.3	U	0.041
DOE-1	DOE-1_062118_S-06212018	N	6/21/2018	TO15	71-43-2	Benzene	< 1.3	ug/m3	1.3	U	0.36
DOE-1	DOE-1_062118_S-06212018	N	6/21/2018	TO15	100-44-7	Benzyl chloride	< 4.1	ug/m3	4.1	U	0.057
DOE-1	DOE-1_062118_S-06212018	N	6/21/2018	TO15	75-27-4	Bromodichloromethane	< 2.0	ug/m3	2	U	0.076
DOE-1	DOE-1_062118_S-06212018	N	6/21/2018	TO15	75-25-2	Bromoform	< 4.1	ug/m3	4.1	U	2.6
DOE-1	DOE-1_062118_S-06212018	N	6/21/2018	TO15	74-83-9	Bromomethane	< 3.1	ug/m3	3.1	U	5.2
DOE-1	DOE-1_062118_S-06212018	N	6/21/2018	TO15	104-51-8	Butylbenzene, n-	< 2.2	ug/m3	2.2	U	-----
DOE-1	DOE-1_062118_S-06212018	N	6/21/2018	TO15	135-98-8	Butylbenzene, sec-	< 2.2	ug/m3	2.2	U	-----
DOE-1	DOE-1_062118_S-06212018	N	6/21/2018	TO15	75-15-0	Carbon disulfide	< 2.5	ug/m3	2.5	U	730
DOE-1	DOE-1_062118_S-06212018	N	6/21/2018	TO15	56-23-5	Carbon tetrachloride	< 5.0	ug/m3	5	U	0.47
DOE-1	DOE-1_062118_S-06212018	N	6/21/2018	TO15	75-00-3	Chloroethane	< 2.1	ug/m3	2.1	U	10000
DOE-1	DOE-1_062118_S-06212018	N	6/21/2018	TO15	67-66-3	Chloroform	< 1.5	ug/m3	1.5	U	0.12
DOE-1	DOE-1_062118_S-06212018	N	6/21/2018	TO15	74-87-3	Chloromethane	1.9	ug/m3	1.7	U	94
DOE-1	DOE-1_062118_S-06212018	N	6/21/2018	TO15	156-59-2	cis-1,2-Dichloroethene	< 1.6	ug/m3	1.6	U	-----
DOE-1	DOE-1_062118_S-06212018	N	6/21/2018	TO15	10061-01-5	cis-1,3-Dichloropropene	< 1.8	ug/m3	1.8	U	-----
DOE-1	DOE-1_062118_S-06212018	N	6/21/2018	TO15	110-82-7	Cyclohexane	< 1.4	ug/m3	1.4	U	1000
DOE-1	DOE-1_062118_S-06212018	N	6/21/2018	TO15	124-48-1	Dibromochloromethane	< 3.4	ug/m3	3.4	U	-----
DOE-1	DOE-1_062118_S-06212018	N	6/21/2018	TO15	75-71-8	Dichlorodifluoromethane	3	ug/m3	2	U	100
DOE-1	DOE-1_062118_S-06212018	N	6/21/2018	TO15	141-78-6	Ethyl acetate	1.4	ug/m3	1.1	U	73
DOE-1	DOE-1_062118_S-06212018	N	6/21/2018	TO15	100-41-4	Ethylbenzene	< 1.7	ug/m3	1.7	U	1.1
DOE-1	DOE-1_062118_S-06212018	N	6/21/2018	TO15	87-68-3	Hexachloro-1,3-butadiene	< 21	ug/m3	21	U	0.13
DOE-1	DOE-1_062118_S-06212018	N	6/21/2018	TO15	110-54-3	Hexane, n-	< 2.8	ug/m3	2.8	U	730
DOE-1	DOE-1_062118_S-06212018	N	6/21/2018	TO15	67-63-0	Isopropanol	< 4.9	ug/m3	4.9	U	210
DOE-1	DOE-1_062118_S-06212018	N	6/21/2018	TO15	98-82-8	Isopropylbenzene	< 3.9	ug/m3	3.9	U	420
DOE-1	DOE-1_062118_S-06212018	N	6/21/2018	TO15	179601-23-1	m,p-Xylene	< 3.5	ug/m3	3.5	U	-----
DOE-1	DOE-1_062118_S-06212018	N	6/21/2018	TO15	1634-04-4	Methyl tert butyl ether	< 2.9	ug/m3	2.9	U	11

APPENDIX B  
Analytical Results for Ambient Air VOCs

Location ID	Sample ID	Sample Type	Sample Date	Analytical Method	CAS Number	Analyte	Result	Units	Reporting Limit	Lab Flags	EPA Residential Air RSLs
DOE-1	DOE-1_062118_S-06212018	N	6/21/2018	TO15	75-09-2	Methylene chloride	< 1.4	ug/m3	1.4	U	100
DOE-1	DOE-1_062118_S-06212018	N	6/21/2018	TO15	91-20-3	Naphthalene	< 4.2	ug/m3	4.2	U	0.083
DOE-1	DOE-1_062118_S-06212018	N	6/21/2018	TO15	142-82-5	n-Heptane	< 3.3	ug/m3	3.3	U	420
DOE-1	DOE-1_062118_S-06212018	N	6/21/2018	TO15	111-65-9	n-Octane	< 1.9	ug/m3	1.9	U	-----
DOE-1	DOE-1_062118_S-06212018	N	6/21/2018	TO15	103-65-1	n-Propylbenzene	< 2.0	ug/m3	2	U	1000
DOE-1	DOE-1_062118_S-06212018	N	6/21/2018	TO15	95-47-6	o-Xylene	< 1.7	ug/m3	1.7	U	100
DOE-1	DOE-1_062118_S-06212018	N	6/21/2018	TO15	100-42-5	Styrene	< 1.7	ug/m3	1.7	U	1000
DOE-1	DOE-1_062118_S-06212018	N	6/21/2018	TO15	127-18-4	Tetrachloroethene	< 2.7	ug/m3	2.7	U	11
DOE-1	DOE-1_062118_S-06212018	N	6/21/2018	TO15	109-99-9	Tetrahydrofuran	< 2.4	ug/m3	2.4	U	2100
DOE-1	DOE-1_062118_S-06212018	N	6/21/2018	TO15	108-88-3	Toluene	< 1.5	ug/m3	1.5	U	5200
DOE-1	DOE-1_062118_S-06212018	N	6/21/2018	TO15	156-60-5	trans-1,2-Dichloroethene	< 1.6	ug/m3	1.6	U	-----
DOE-1	DOE-1_062118_S-06212018	N	6/21/2018	TO15	10061-02-6	trans-1,3-Dichloropropene	< 1.8	ug/m3	1.8	U	-----
DOE-1	DOE-1_062118_S-06212018	N	6/21/2018	TO15	79-01-6	Trichloroethene	< 2.1	ug/m3	2.1	U	0.48
DOE-1	DOE-1_062118_S-06212018	N	6/21/2018	TO15	75-69-4	Trichlorofluoromethane	< 2.2	ug/m3	2.2	U	-----
DOE-1	DOE-1_062118_S-06212018	N	6/21/2018	TO15	108-05-4	Vinyl acetate	< 2.8	ug/m3	2.8	U	210
DOE-1	DOE-1_062118_S-06212018	N	6/21/2018	TO15	75-01-4	Vinyl chloride	< 1.0	ug/m3	1	U	0.17
DOE-1	DOE-1_062118_S-06212018	N	6/21/2018	TO15	1330-20-7	Xylenes (Total)	< 5.2	ug/m3	5.2	U	-----
DOE-2	DOE-2_062118_S-06212018	N	6/21/2018	TO15	71-55-6	1,1,1-Trichloroethane	< 1.6	ug/m3	1.6	U	5200
DOE-2	DOE-2_062118_S-06212018	N	6/21/2018	TO15	79-34-5	1,1,2,2-Tetrachloroethane	< 2.7	ug/m3	2.7	U	0.048
DOE-2	DOE-2_062118_S-06212018	N	6/21/2018	TO15	76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	< 3.1	ug/m3	3.1	U	5200
DOE-2	DOE-2_062118_S-06212018	N	6/21/2018	TO15	79-00-5	1,1,2-Trichloroethane	< 2.2	ug/m3	2.2	U	0.18
DOE-2	DOE-2_062118_S-06212018	N	6/21/2018	TO15	75-34-3	1,1-Dichloroethane	< 1.2	ug/m3	1.2	U	1.8
DOE-2	DOE-2_062118_S-06212018	N	6/21/2018	TO15	75-35-4	1,1-Dichloroethene	< 3.2	ug/m3	3.2	U	210
DOE-2	DOE-2_062118_S-06212018	N	6/21/2018	TO15	120-82-1	1,2,4-Trichlorobenzene	< 15	ug/m3	15	U	2.1
DOE-2	DOE-2_062118_S-06212018	N	6/21/2018	TO15	95-63-6	1,2,4-Trimethylbenzene	< 3.9	ug/m3	3.9	U	63
DOE-2	DOE-2_062118_S-06212018	N	6/21/2018	TO15	106-93-4	1,2-Dibromoethane	< 6.1	ug/m3	6.1	U	-----
DOE-2	DOE-2_062118_S-06212018	N	6/21/2018	TO15	95-50-1	1,2-Dichlorobenzene	< 2.4	ug/m3	2.4	U	210
DOE-2	DOE-2_062118_S-06212018	N	6/21/2018	TO15	107-06-2	1,2-Dichloroethane	< 3.2	ug/m3	3.2	U	0.11
DOE-2	DOE-2_062118_S-06212018	N	6/21/2018	TO15	78-87-5	1,2-Dichloropropane	< 1.8	ug/m3	1.8	U	0.76
DOE-2	DOE-2_062118_S-06212018	N	6/21/2018	TO15	76-14-2	1,2-Dichlorotetrafluoroethane	< 2.8	ug/m3	2.8	U	-----
DOE-2	DOE-2_062118_S-06212018	N	6/21/2018	TO15	108-67-8	1,3,5-Trimethylbenzene	< 2.0	ug/m3	2	U	63
DOE-2	DOE-2_062118_S-06212018	N	6/21/2018	TO15	106-99-0	1,3-Butadiene	< 1.8	ug/m3	1.8	U	0.094
DOE-2	DOE-2_062118_S-06212018	N	6/21/2018	TO15	541-73-1	1,3-Dichlorobenzene	< 2.4	ug/m3	2.4	U	-----
DOE-2	DOE-2_062118_S-06212018	N	6/21/2018	TO15	106-46-7	1,4-Dichlorobenzene	< 2.4	ug/m3	2.4	U	0.26
DOE-2	DOE-2_062118_S-06212018	N	6/21/2018	TO15	123-91-1	1,4-Dioxane	< 2.9	ug/m3	2.9	U	0.56
DOE-2	DOE-2_062118_S-06212018	N	6/21/2018	TO15	78-93-3	2-Butanone	< 2.4	ug/m3	2.4	U	5200
DOE-2	DOE-2_062118_S-06212018	N	6/21/2018	TO15	591-78-6	2-Hexanone	< 1.6	ug/m3	1.6	U	31
DOE-2	DOE-2_062118_S-06212018	N	6/21/2018	TO15	622-96-8	4-Ethyltoluene	< 2.0	ug/m3	2	U	-----
DOE-2	DOE-2_062118_S-06212018	N	6/21/2018	TO15	99-87-6	4-Isopropyltoluene	< 4.4	ug/m3	4.4	U	-----
DOE-2	DOE-2_062118_S-06212018	N	6/21/2018	TO15	108-10-1	4-Methyl-2-pentanone	< 1.6	ug/m3	1.6	U	3100
DOE-2	DOE-2_062118_S-06212018	N	6/21/2018	TO15	107-02-8	Acrolein	< 4.6	ug/m3	4.6	U	0.021
DOE-2	DOE-2_062118_S-06212018	N	6/21/2018	TO15	107-13-1	Acrylonitrile	< 4.3	ug/m3	4.3	U	0.041
DOE-2	DOE-2_062118_S-06212018	N	6/21/2018	TO15	71-43-2	Benzene	< 1.3	ug/m3	1.3	U	0.36
DOE-2	DOE-2_062118_S-06212018	N	6/21/2018	TO15	100-44-7	Benzyl chloride	< 4.1	ug/m3	4.1	U	0.057
DOE-2	DOE-2_062118_S-06212018	N	6/21/2018	TO15	75-27-4	Bromodichloromethane	< 2.0	ug/m3	2	U	0.076
DOE-2	DOE-2_062118_S-06212018	N	6/21/2018	TO15	75-25-2	Bromoform	< 4.1	ug/m3	4.1	U	2.6
DOE-2	DOE-2_062118_S-06212018	N	6/21/2018	TO15	74-83-9	Bromomethane	< 3.1	ug/m3	3.1	U	5.2
DOE-2	DOE-2_062118_S-06212018	N	6/21/2018	TO15	104-51-8	Butylbenzene, n-	< 2.2	ug/m3	2.2	U	-----
DOE-2	DOE-2_062118_S-06212018	N	6/21/2018	TO15	135-98-8	Butylbenzene, sec-	< 2.2	ug/m3	2.2	U	-----
DOE-2	DOE-2_062118_S-06212018	N	6/21/2018	TO15	75-15-0	Carbon disulfide	< 2.5	ug/m3	2.5	U	730
DOE-2	DOE-2_062118_S-06212018	N	6/21/2018	TO15	56-23-5	Carbon tetrachloride	< 5.0	ug/m3	5	U	0.47
DOE-2	DOE-2_062118_S-06212018	N	6/21/2018	TO15	75-00-3	Chloroethane	< 2.1	ug/m3	2.1	U	10000
DOE-2	DOE-2_062118_S-06212018	N	6/21/2018	TO15	67-66-3	Chloroform	< 1.5	ug/m3	1.5	U	0.12
DOE-2	DOE-2_062118_S-06212018	N	6/21/2018	TO15	74-87-3	Chloromethane	1.9	ug/m3	1.7		94
DOE-2	DOE-2_062118_S-06212018	N	6/21/2018	TO15	156-59-2	cis-1,2-Dichloroethene	< 1.6	ug/m3	1.6	U	-----

APPENDIX B  
Analytical Results for Ambient Air VOCs

Location ID	Sample ID	Sample Type	Sample Date	Analytical Method	CAS Number	Analyte	Result	Units	Reporting Limit	Lab Flags	EPA Residential Air RSLs
DOE-2	DOE-2_062118_S-06212018	N	6/21/2018	TO15	10061-01-5	cis-1,3-Dichloropropene	< 1.8	ug/m3	1.8	U	-----
DOE-2	DOE-2_062118_S-06212018	N	6/21/2018	TO15	110-82-7	Cyclohexane	< 1.4	ug/m3	1.4	U	1000
DOE-2	DOE-2_062118_S-06212018	N	6/21/2018	TO15	124-48-1	Dibromochloromethane	< 3.4	ug/m3	3.4	U	-----
DOE-2	DOE-2_062118_S-06212018	N	6/21/2018	TO15	75-71-8	Dichlorodifluoromethane	3	ug/m3	2		100
DOE-2	DOE-2_062118_S-06212018	N	6/21/2018	TO15	141-78-6	Ethyl acetate	2.3	ug/m3	1.1		73
DOE-2	DOE-2_062118_S-06212018	N	6/21/2018	TO15	100-41-4	Ethylbenzene	< 1.7	ug/m3	1.7	U	1.1
DOE-2	DOE-2_062118_S-06212018	N	6/21/2018	TO15	87-68-3	Hexachloro-1,3-butadiene	< 21	ug/m3	21	U	0.13
DOE-2	DOE-2_062118_S-06212018	N	6/21/2018	TO15	110-54-3	Hexane, n-	< 2.8	ug/m3	2.8	U	730
DOE-2	DOE-2_062118_S-06212018	N	6/21/2018	TO15	67-63-0	Isopropanol	< 4.9	ug/m3	4.9	U	210
DOE-2	DOE-2_062118_S-06212018	N	6/21/2018	TO15	98-82-8	Isopropylbenzene	< 3.9	ug/m3	3.9	U	420
DOE-2	DOE-2_062118_S-06212018	N	6/21/2018	TO15	179601-23-1	m,p-Xylene	< 3.5	ug/m3	3.5	U	-----
DOE-2	DOE-2_062118_S-06212018	N	6/21/2018	TO15	1634-04-4	Methyl tert butyl ether	< 2.9	ug/m3	2.9	U	11
DOE-2	DOE-2_062118_S-06212018	N	6/21/2018	TO15	75-09-2	Methylene chloride	< 1.4	ug/m3	1.4	U	100
DOE-2	DOE-2_062118_S-06212018	N	6/21/2018	TO15	91-20-3	Napthalene	< 4.2	ug/m3	4.2	U	0.083
DOE-2	DOE-2_062118_S-06212018	N	6/21/2018	TO15	142-82-5	n-Heptane	< 3.3	ug/m3	3.3	U	420
DOE-2	DOE-2_062118_S-06212018	N	6/21/2018	TO15	111-65-9	n-Octane	< 1.9	ug/m3	1.9	U	-----
DOE-2	DOE-2_062118_S-06212018	N	6/21/2018	TO15	103-65-1	n-Propylbenzene	< 2.0	ug/m3	2	U	1000
DOE-2	DOE-2_062118_S-06212018	N	6/21/2018	TO15	95-47-6	o-Xylene	< 1.7	ug/m3	1.7	U	100
DOE-2	DOE-2_062118_S-06212018	N	6/21/2018	TO15	100-42-5	Styrene	< 1.7	ug/m3	1.7	U	1000
DOE-2	DOE-2_062118_S-06212018	N	6/21/2018	TO15	127-18-4	Tetrachloroethene	< 2.7	ug/m3	2.7	U	11
DOE-2	DOE-2_062118_S-06212018	N	6/21/2018	TO15	109-99-9	Tetrahydrofuran	< 2.4	ug/m3	2.4	U	2100
DOE-2	DOE-2_062118_S-06212018	N	6/21/2018	TO15	108-88-3	Toluene	< 1.5	ug/m3	1.5	U	5200
DOE-2	DOE-2_062118_S-06212018	N	6/21/2018	TO15	10061-02-6	trans-1,3-Dichloropropene	< 1.8	ug/m3	1.8	U	-----
DOE-2	DOE-2_062118_S-06212018	N	6/21/2018	TO15	79-01-6	Trichloroethene	< 2.1	ug/m3	2.1	U	0.48
DOE-2	DOE-2_062118_S-06212018	N	6/21/2018	TO15	75-69-4	Trichlorofluoromethane	< 2.2	ug/m3	2.2	U	-----
DOE-2	DOE-2_062118_S-06212018	N	6/21/2018	TO15	108-05-4	Vinyl acetate	< 2.8	ug/m3	2.8	U	210
DOE-2	DOE-2_062118_S-06212018	N	6/21/2018	TO15	75-01-4	Vinyl chloride	< 1.0	ug/m3	1	U	0.17
DOE-2	DOE-2_062118_S-06212018	N	6/21/2018	TO15	1330-20-7	Xylenes (Total)	< 5.2	ug/m3	5.2	U	-----
DOE-2	DOE-2_062118_D-06212018	FD	6/21/2018	TO15	71-55-6	1,1,1-Trichloroethane	< 1.6	ug/m3	1.6	U	5200
DOE-2	DOE-2_062118_D-06212018	FD	6/21/2018	TO15	79-34-5	1,1,2,2-Tetrachloroethane	< 2.7	ug/m3	2.7	U	0.048
DOE-2	DOE-2_062118_D-06212018	FD	6/21/2018	TO15	76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	< 3.1	ug/m3	3.1	U	5200
DOE-2	DOE-2_062118_D-06212018	FD	6/21/2018	TO15	79-00-5	1,1,2-Trichloroethane	< 2.2	ug/m3	2.2	U	0.18
DOE-2	DOE-2_062118_D-06212018	FD	6/21/2018	TO15	75-34-3	1,1-Dichloroethane	< 1.2	ug/m3	1.2	U	1.8
DOE-2	DOE-2_062118_D-06212018	FD	6/21/2018	TO15	75-35-4	1,1-Dichloroethene	< 3.2	ug/m3	3.2	U	210
DOE-2	DOE-2_062118_D-06212018	FD	6/21/2018	TO15	120-82-1	1,2,4-Trichlorobenzene	< 15	ug/m3	15	U	2.1
DOE-2	DOE-2_062118_D-06212018	FD	6/21/2018	TO15	95-63-6	1,2,4-Trimethylbenzene	< 3.9	ug/m3	3.9	U	63
DOE-2	DOE-2_062118_D-06212018	FD	6/21/2018	TO15	106-93-4	1,2-Dibromoethane	< 6.1	ug/m3	6.1	U	-----
DOE-2	DOE-2_062118_D-06212018	FD	6/21/2018	TO15	95-50-1	1,2-Dichlorobenzene	< 2.4	ug/m3	2.4	U	210
DOE-2	DOE-2_062118_D-06212018	FD	6/21/2018	TO15	107-06-2	1,2-Dichloroethane	< 3.2	ug/m3	3.2	U	0.11
DOE-2	DOE-2_062118_D-06212018	FD	6/21/2018	TO15	78-87-5	1,2-Dichloropropane	< 1.8	ug/m3	1.8	U	0.76
DOE-2	DOE-2_062118_D-06212018	FD	6/21/2018	TO15	76-14-2	1,2-Dichlorotetrafluoroethane	< 2.8	ug/m3	2.8	U	-----
DOE-2	DOE-2_062118_D-06212018	FD	6/21/2018	TO15	108-67-8	1,3,5-Trimethylbenzene	< 2.0	ug/m3	2	U	63
DOE-2	DOE-2_062118_D-06212018	FD	6/21/2018	TO15	106-99-0	1,3-Butadiene	< 1.8	ug/m3	1.8	U	0.094
DOE-2	DOE-2_062118_D-06212018	FD	6/21/2018	TO15	541-73-1	1,3-Dichlorobenzene	< 2.4	ug/m3	2.4	U	-----
DOE-2	DOE-2_062118_D-06212018	FD	6/21/2018	TO15	106-46-7	1,4-Dichlorobenzene	< 2.4	ug/m3	2.4	U	0.26
DOE-2	DOE-2_062118_D-06212018	FD	6/21/2018	TO15	123-91-1	1,4-Dioxane	< 2.9	ug/m3	2.9	U	0.56
DOE-2	DOE-2_062118_D-06212018	FD	6/21/2018	TO15	78-93-3	2-Butanone	< 2.4	ug/m3	2.4	U	5200
DOE-2	DOE-2_062118_D-06212018	FD	6/21/2018	TO15	591-78-6	2-Hexanone	< 1.6	ug/m3	1.6	U	31
DOE-2	DOE-2_062118_D-06212018	FD	6/21/2018	TO15	622-96-8	4-Ethyltoluene	< 2.0	ug/m3	2	U	-----
DOE-2	DOE-2_062118_D-06212018	FD	6/21/2018	TO15	99-87-6	4-Isopropyltoluene	< 4.4	ug/m3	4.4	U	-----
DOE-2	DOE-2_062118_D-06212018	FD	6/21/2018	TO15	108-10-1	4-Methyl-2-pentanone	< 1.6	ug/m3	1.6	U	3100
DOE-2	DOE-2_062118_D-06212018	FD	6/21/2018	TO15	107-02-8	Acrolein	< 4.6	ug/m3	4.6	U	0.021
DOE-2	DOE-2_062118_D-06212018	FD	6/21/2018	TO15	107-13-1	Acrylonitrile	< 4.3	ug/m3	4.3	U	0.041
DOE-2	DOE-2_062118_D-06212018	FD	6/21/2018	TO15	71-43-2	Benzene	< 1.3	ug/m3	1.3	U	0.36
DOE-2	DOE-2_062118_D-06212018	FD	6/21/2018	TO15	100-44-7	Benzyl chloride	< 4.1	ug/m3	4.1	U	0.057

APPENDIX B  
Analytical Results for Ambient Air VOCs

Location ID	Sample ID	Sample Type	Sample Date	Analytical Method	CAS Number	Analyte	Result	Units	Reporting Limit	Lab Flags	EPA Residential Air RSLs
DOE-2	DOE-2_062118_D-06212018	FD	6/21/2018	TO15	75-27-4	Bromodichloromethane	< 2.0	ug/m3	2	U	0.076
DOE-2	DOE-2_062118_D-06212018	FD	6/21/2018	TO15	75-25-2	Bromoform	< 4.1	ug/m3	4.1	U	2.6
DOE-2	DOE-2_062118_D-06212018	FD	6/21/2018	TO15	74-83-9	Bromomethane	< 3.1	ug/m3	3.1	U	5.2
DOE-2	DOE-2_062118_D-06212018	FD	6/21/2018	TO15	104-51-8	Butylbenzene, n-	< 2.2	ug/m3	2.2	U	-----
DOE-2	DOE-2_062118_D-06212018	FD	6/21/2018	TO15	135-98-8	Butylbenzene, sec-	< 2.2	ug/m3	2.2	U	-----
DOE-2	DOE-2_062118_D-06212018	FD	6/21/2018	TO15	75-15-0	Carbon disulfide	< 2.5	ug/m3	2.5	U	730
DOE-2	DOE-2_062118_D-06212018	FD	6/21/2018	TO15	56-23-5	Carbon tetrachloride	< 5.0	ug/m3	5	U	0.47
DOE-2	DOE-2_062118_D-06212018	FD	6/21/2018	TO15	75-00-3	Chloroethane	< 2.1	ug/m3	2.1	U	10000
DOE-2	DOE-2_062118_D-06212018	FD	6/21/2018	TO15	67-66-3	Chloroform	< 1.5	ug/m3	1.5	U	0.12
DOE-2	DOE-2_062118_D-06212018	FD	6/21/2018	TO15	74-87-3	Chloromethane	1.8	ug/m3	1.7	U	94
DOE-2	DOE-2_062118_D-06212018	FD	6/21/2018	TO15	156-59-2	cis-1,2-Dichloroethene	< 1.6	ug/m3	1.6	U	-----
DOE-2	DOE-2_062118_D-06212018	FD	6/21/2018	TO15	10061-01-5	cis-1,3-Dichloropropene	< 1.8	ug/m3	1.8	U	-----
DOE-2	DOE-2_062118_D-06212018	FD	6/21/2018	TO15	110-82-7	Cyclohexane	< 1.4	ug/m3	1.4	U	1000
DOE-2	DOE-2_062118_D-06212018	FD	6/21/2018	TO15	124-48-1	Dibromochloromethane	< 3.4	ug/m3	3.4	U	-----
DOE-2	DOE-2_062118_D-06212018	FD	6/21/2018	TO15	75-71-8	Dichlorodifluoromethane	2	ug/m3	2	U	100
DOE-2	DOE-2_062118_D-06212018	FD	6/21/2018	TO15	141-78-6	Ethyl acetate	1.9	ug/m3	1.1	U	73
DOE-2	DOE-2_062118_D-06212018	FD	6/21/2018	TO15	100-41-4	Ethylbenzene	< 1.7	ug/m3	1.7	U	1.1
DOE-2	DOE-2_062118_D-06212018	FD	6/21/2018	TO15	87-68-3	Hexachloro-1,3-butadiene	< 21	ug/m3	21	U	0.13
DOE-2	DOE-2_062118_D-06212018	FD	6/21/2018	TO15	110-54-3	Hexane, n-	< 2.8	ug/m3	2.8	U	730
DOE-2	DOE-2_062118_D-06212018	FD	6/21/2018	TO15	67-63-0	Isopropanol	< 4.9	ug/m3	4.9	U	210
DOE-2	DOE-2_062118_D-06212018	FD	6/21/2018	TO15	98-82-8	Isopropylbenzene	< 3.9	ug/m3	3.9	U	420
DOE-2	DOE-2_062118_D-06212018	FD	6/21/2018	TO15	179601-23-1	m,p-Xylene	< 3.5	ug/m3	3.5	U	-----
DOE-2	DOE-2_062118_D-06212018	FD	6/21/2018	TO15	1634-04-4	Methyl tert butyl ether	< 2.9	ug/m3	2.9	U	11
DOE-2	DOE-2_062118_D-06212018	FD	6/21/2018	TO15	75-09-2	Methylene chloride	< 1.4	ug/m3	1.4	U	100
DOE-2	DOE-2_062118_D-06212018	FD	6/21/2018	TO15	91-20-3	Naphthalene	< 4.2	ug/m3	4.2	U	0.083
DOE-2	DOE-2_062118_D-06212018	FD	6/21/2018	TO15	142-82-5	n-Heptane	< 3.3	ug/m3	3.3	U	420
DOE-2	DOE-2_062118_D-06212018	FD	6/21/2018	TO15	111-65-9	n-Octane	< 1.9	ug/m3	1.9	U	-----
DOE-2	DOE-2_062118_D-06212018	FD	6/21/2018	TO15	103-65-1	n-Propylbenzene	< 2.0	ug/m3	2	U	1000
DOE-2	DOE-2_062118_D-06212018	FD	6/21/2018	TO15	95-47-6	o-Xylene	< 1.7	ug/m3	1.7	U	100
DOE-2	DOE-2_062118_D-06212018	FD	6/21/2018	TO15	100-42-5	Styrene	< 1.7	ug/m3	1.7	U	1000
DOE-2	DOE-2_062118_D-06212018	FD	6/21/2018	TO15	127-18-4	Tetrachloroethene	< 2.7	ug/m3	2.7	U	11
DOE-2	DOE-2_062118_D-06212018	FD	6/21/2018	TO15	109-99-9	Tetrahydrofuran	< 2.4	ug/m3	2.4	U	2100
DOE-2	DOE-2_062118_D-06212018	FD	6/21/2018	TO15	108-88-3	Toluene	< 1.5	ug/m3	1.5	U	5200
DOE-2	DOE-2_062118_D-06212018	FD	6/21/2018	TO15	10061-02-6	trans-1,3-Dichloropropene	< 1.8	ug/m3	1.8	U	-----
DOE-2	DOE-2_062118_D-06212018	FD	6/21/2018	TO15	79-01-6	Trichloroethene	< 2.1	ug/m3	2.1	U	0.48
DOE-2	DOE-2_062118_D-06212018	FD	6/21/2018	TO15	75-69-4	Trichlorofluoromethane	< 2.2	ug/m3	2.2	U	-----
DOE-2	DOE-2_062118_D-06212018	FD	6/21/2018	TO15	108-05-4	Vinyl acetate	< 2.8	ug/m3	2.8	U	210
DOE-2	DOE-2_062118_D-06212018	FD	6/21/2018	TO15	75-01-4	Vinyl chloride	< 1.0	ug/m3	1	U	0.17
DOE-2	DOE-2_062118_D-06212018	FD	6/21/2018	TO15	1330-20-7	Xylenes (Total)	< 5.2	ug/m3	5.2	U	-----
DOE-3	DOE-3_062118_S-06212018	N	6/21/2018	TO15	71-55-6	1,1,1-Trichloroethane	< 1.6	ug/m3	1.6	U	5200
DOE-3	DOE-3_062118_S-06212018	N	6/21/2018	TO15	79-34-5	1,1,2,2-Tetrachloroethane	< 2.7	ug/m3	2.7	U	0.048
DOE-3	DOE-3_062118_S-06212018	N	6/21/2018	TO15	76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	< 3.1	ug/m3	3.1	U	5200
DOE-3	DOE-3_062118_S-06212018	N	6/21/2018	TO15	79-00-5	1,1,2-Trichloroethane	< 2.2	ug/m3	2.2	U	0.18
DOE-3	DOE-3_062118_S-06212018	N	6/21/2018	TO15	75-34-3	1,1-Dichloroethane	< 1.2	ug/m3	1.2	U	1.8
DOE-3	DOE-3_062118_S-06212018	N	6/21/2018	TO15	75-35-4	1,1-Dichloroethene	< 3.2	ug/m3	3.2	U	210
DOE-3	DOE-3_062118_S-06212018	N	6/21/2018	TO15	120-82-1	1,2,4-Trichlorobenzene	< 15	ug/m3	15	U	2.1
DOE-3	DOE-3_062118_S-06212018	N	6/21/2018	TO15	95-63-6	1,2,4-Trimethylbenzene	< 3.9	ug/m3	3.9	U	63
DOE-3	DOE-3_062118_S-06212018	N	6/21/2018	TO15	106-93-4	1,2-Dibromoethane	< 6.1	ug/m3	6.1	U	-----
DOE-3	DOE-3_062118_S-06212018	N	6/21/2018	TO15	95-50-1	1,2-Dichlorobenzene	< 2.4	ug/m3	2.4	U	210
DOE-3	DOE-3_062118_S-06212018	N	6/21/2018	TO15	107-06-2	1,2-Dichloroethane	< 3.2	ug/m3	3.2	U	0.11
DOE-3	DOE-3_062118_S-06212018	N	6/21/2018	TO15	78-87-5	1,2-Dichloropropane	< 1.8	ug/m3	1.8	U	0.76
DOE-3	DOE-3_062118_S-06212018	N	6/21/2018	TO15	76-14-2	1,2-Dichlorotetrafluoroethane	< 2.8	ug/m3	2.8	U	-----
DOE-3	DOE-3_062118_S-06212018	N	6/21/2018	TO15	108-67-8	1,3,5-Trimethylbenzene	< 2.0	ug/m3	2	U	63
DOE-3	DOE-3_062118_S-06212018	N	6/21/2018	TO15	106-99-0	1,3-Butadiene	< 1.8	ug/m3	1.8	U	0.094
DOE-3	DOE-3_062118_S-06212018	N	6/21/2018	TO15	541-73-1	1,3-Dichlorobenzene	< 2.4	ug/m3	2.4	U	-----

APPENDIX B  
Analytical Results for Ambient Air VOCs

Location ID	Sample ID	Sample Type	Sample Date	Analytical Method	CAS Number	Analyte	Result	Units	Reporting Limit	Lab Flags	EPA Residential Air RSLs
DOE-3	DOE-3_062118_S-06212018	N	6/21/2018	TO15	106-46-7	1,4-Dichlorobenzene	< 2.4	ug/m3	2.4	U	0.26
DOE-3	DOE-3_062118_S-06212018	N	6/21/2018	TO15	123-91-1	1,4-Dioxane	< 2.9	ug/m3	2.9	U	0.56
DOE-3	DOE-3_062118_S-06212018	N	6/21/2018	TO15	78-93-3	2-Butanone	< 2.4	ug/m3	2.4	U	5200
DOE-3	DOE-3_062118_S-06212018	N	6/21/2018	TO15	591-78-6	2-Hexanone	< 1.6	ug/m3	1.6	U	31
DOE-3	DOE-3_062118_S-06212018	N	6/21/2018	TO15	622-96-8	4-Ethyltoluene	< 2.0	ug/m3	2	U	-----
DOE-3	DOE-3_062118_S-06212018	N	6/21/2018	TO15	99-87-6	4-Isopropyltoluene	< 4.4	ug/m3	4.4	U	-----
DOE-3	DOE-3_062118_S-06212018	N	6/21/2018	TO15	108-10-1	4-Methyl-2-pentanone	< 1.6	ug/m3	1.6	U	3100
DOE-3	DOE-3_062118_S-06212018	N	6/21/2018	TO15	107-02-8	Acrolein	< 4.6	ug/m3	4.6	U	0.021
DOE-3	DOE-3_062118_S-06212018	N	6/21/2018	TO15	107-13-1	Acrylonitrile	< 4.3	ug/m3	4.3	U	0.041
DOE-3	DOE-3_062118_S-06212018	N	6/21/2018	TO15	71-43-2	Benzene	< 1.3	ug/m3	1.3	U	0.36
DOE-3	DOE-3_062118_S-06212018	N	6/21/2018	TO15	100-44-7	Benzyl chloride	< 4.1	ug/m3	4.1	U	0.057
DOE-3	DOE-3_062118_S-06212018	N	6/21/2018	TO15	75-27-4	Bromodichloromethane	< 2.0	ug/m3	2	U	0.076
DOE-3	DOE-3_062118_S-06212018	N	6/21/2018	TO15	75-25-2	Bromoform	< 4.1	ug/m3	4.1	U	2.6
DOE-3	DOE-3_062118_S-06212018	N	6/21/2018	TO15	74-83-9	Bromomethane	< 3.1	ug/m3	3.1	U	5.2
DOE-3	DOE-3_062118_S-06212018	N	6/21/2018	TO15	104-51-8	Butylbenzene, n-	< 2.2	ug/m3	2.2	U	-----
DOE-3	DOE-3_062118_S-06212018	N	6/21/2018	TO15	135-98-8	Butylbenzene, sec-	< 2.2	ug/m3	2.2	U	-----
DOE-3	DOE-3_062118_S-06212018	N	6/21/2018	TO15	75-15-0	Carbon disulfide	< 2.5	ug/m3	2.5	U	730
DOE-3	DOE-3_062118_S-06212018	N	6/21/2018	TO15	56-23-5	Carbon tetrachloride	< 5.0	ug/m3	5	U	0.47
DOE-3	DOE-3_062118_S-06212018	N	6/21/2018	TO15	75-00-3	Chloroethane	< 2.1	ug/m3	2.1	U	10000
DOE-3	DOE-3_062118_S-06212018	N	6/21/2018	TO15	67-66-3	Chloroform	< 1.5	ug/m3	1.5	U	0.12
DOE-3	DOE-3_062118_S-06212018	N	6/21/2018	TO15	74-87-3	Chloromethane	2.0	ug/m3	1.7		94
DOE-3	DOE-3_062118_S-06212018	N	6/21/2018	TO15	156-59-2	cis-1,2-Dichloroethene	< 1.6	ug/m3	1.6	U	-----
DOE-3	DOE-3_062118_S-06212018	N	6/21/2018	TO15	10061-01-5	cis-1,3-Dichloropropene	< 1.8	ug/m3	1.8	U	-----
DOE-3	DOE-3_062118_S-06212018	N	6/21/2018	TO15	110-82-7	Cyclohexane	< 1.4	ug/m3	1.4	U	1000
DOE-3	DOE-3_062118_S-06212018	N	6/21/2018	TO15	124-48-1	Dibromochloromethane	< 3.4	ug/m3	3.4	U	-----
DOE-3	DOE-3_062118_S-06212018	N	6/21/2018	TO15	75-71-8	Dichlorodifluoromethane	3	ug/m3	2		100
DOE-3	DOE-3_062118_S-06212018	N	6/21/2018	TO15	141-78-6	Ethyl acetate	1.6	ug/m3	1.1		73
DOE-3	DOE-3_062118_S-06212018	N	6/21/2018	TO15	100-41-4	Ethylbenzene	< 1.7	ug/m3	1.7	U	1.1
DOE-3	DOE-3_062118_S-06212018	N	6/21/2018	TO15	87-68-3	Hexachloro-1,3-butadiene	< 21	ug/m3	21	U	0.13
DOE-3	DOE-3_062118_S-06212018	N	6/21/2018	TO15	110-54-3	Hexane, n-	< 2.8	ug/m3	2.8	U	730
DOE-3	DOE-3_062118_S-06212018	N	6/21/2018	TO15	67-63-0	Isopropanol	< 4.9	ug/m3	4.9	U	210
DOE-3	DOE-3_062118_S-06212018	N	6/21/2018	TO15	98-82-8	Isopropylbenzene	< 3.9	ug/m3	3.9	U	420
DOE-3	DOE-3_062118_S-06212018	N	6/21/2018	TO15	179601-23-1	m,p-Xylene	< 3.5	ug/m3	3.5	U	-----
DOE-3	DOE-3_062118_S-06212018	N	6/21/2018	TO15	1634-04-4	Methyl tert butyl ether	< 2.9	ug/m3	2.9	U	11
DOE-3	DOE-3_062118_S-06212018	N	6/21/2018	TO15	75-09-2	Methylene chloride	< 1.4	ug/m3	1.4	U	100
DOE-3	DOE-3_062118_S-06212018	N	6/21/2018	TO15	91-20-3	Naphthalene	< 4.2	ug/m3	4.2	U	0.083
DOE-3	DOE-3_062118_S-06212018	N	6/21/2018	TO15	142-82-5	n-Heptane	< 3.3	ug/m3	3.3	U	420
DOE-3	DOE-3_062118_S-06212018	N	6/21/2018	TO15	111-65-9	n-Octane	< 1.9	ug/m3	1.9	U	-----
DOE-3	DOE-3_062118_S-06212018	N	6/21/2018	TO15	103-65-1	n-Propylbenzene	< 2.0	ug/m3	2	U	1000
DOE-3	DOE-3_062118_S-06212018	N	6/21/2018	TO15	95-47-6	o-Xylene	< 1.7	ug/m3	1.7	U	100
DOE-3	DOE-3_062118_S-06212018	N	6/21/2018	TO15	100-42-5	Styrene	< 1.7	ug/m3	1.7	U	1000
DOE-3	DOE-3_062118_S-06212018	N	6/21/2018	TO15	127-18-4	Tetrachloroethene	< 2.7	ug/m3	2.7	U	11
DOE-3	DOE-3_062118_S-06212018	N	6/21/2018	TO15	109-99-9	Tetrahydrofuran	< 2.4	ug/m3	2.4	U	2100
DOE-3	DOE-3_062118_S-06212018	N	6/21/2018	TO15	108-88-3	Toluene	< 1.5	ug/m3	1.5	U	5200
DOE-3	DOE-3_062118_S-06212018	N	6/21/2018	TO15	10061-02-6	trans-1,3-Dichloropropene	< 1.8	ug/m3	1.8	U	-----
DOE-3	DOE-3_062118_S-06212018	N	6/21/2018	TO15	79-01-6	Trichloroethene	< 2.1	ug/m3	2.1	U	0.48
DOE-3	DOE-3_062118_S-06212018	N	6/21/2018	TO15	75-69-4	Trichlorofluoromethane	< 2.2	ug/m3	2.2	U	-----
DOE-3	DOE-3_062118_S-06212018	N	6/21/2018	TO15	108-05-4	Vinyl acetate	< 2.8	ug/m3	2.8	U	210
DOE-3	DOE-3_062118_S-06212018	N	6/21/2018	TO15	75-01-4	Vinyl chloride	< 1.0	ug/m3	1	U	0.17
DOE-3	DOE-3_062118_S-06212018	N	6/21/2018	TO15	1330-20-7	Xylenes (Total)	< 5.2	ug/m3	5.2	U	-----
DOE-4	DOE-4_062118_S-06212018	N	6/21/2018	TO15	71-55-6	1,1,1-Trichloroethane	< 1.6	ug/m3	1.6	U	5200
DOE-4	DOE-4_062118_S-06212018	N	6/21/2018	TO15	79-34-5	1,1,2,2-Tetrachloroethane	< 2.7	ug/m3	2.7	U	0.048
DOE-4	DOE-4_062118_S-06212018	N	6/21/2018	TO15	76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	< 3.1	ug/m3	3.1	U	5200
DOE-4	DOE-4_062118_S-06212018	N	6/21/2018	TO15	79-00-5	1,1,2-Trichloroethane	< 2.2	ug/m3	2.2	U	0.18
DOE-4	DOE-4_062118_S-06212018	N	6/21/2018	TO15	75-34-3	1,1-Dichloroethane	< 1.2	ug/m3	1.2	U	1.8

APPENDIX B  
Analytical Results for Ambient Air VOCs

Location ID	Sample ID	Sample Type	Sample Date	Analytical Method	CAS Number	Analyte	Result	Units	Reporting Limit	Lab Flags	EPA Residential Air RSLs
DOE-4	DOE-4_062118_S-06212018	N	6/21/2018	TO15	75-35-4	1,1-Dichloroethene	< 3.2	ug/m3	3.2	U	210
DOE-4	DOE-4_062118_S-06212018	N	6/21/2018	TO15	120-82-1	1,2,4-Trichlorobenzene	< 15	ug/m3	15	U	2.1
DOE-4	DOE-4_062118_S-06212018	N	6/21/2018	TO15	95-63-6	1,2,4-Trimethylbenzene	< 3.9	ug/m3	3.9	U	63
DOE-4	DOE-4_062118_S-06212018	N	6/21/2018	TO15	106-93-4	1,2-Dibromoethane	< 6.1	ug/m3	6.1	U	-----
DOE-4	DOE-4_062118_S-06212018	N	6/21/2018	TO15	95-50-1	1,2-Dichlorobenzene	< 2.4	ug/m3	2.4	U	210
DOE-4	DOE-4_062118_S-06212018	N	6/21/2018	TO15	107-06-2	1,2-Dichloroethane	< 3.2	ug/m3	3.2	U	0.11
DOE-4	DOE-4_062118_S-06212018	N	6/21/2018	TO15	78-87-5	1,2-Dichloropropane	< 1.8	ug/m3	1.8	U	0.76
DOE-4	DOE-4_062118_S-06212018	N	6/21/2018	TO15	76-14-2	1,2-Dichlorotetrafluoroethane	< 2.8	ug/m3	2.8	U	-----
DOE-4	DOE-4_062118_S-06212018	N	6/21/2018	TO15	108-67-8	1,3,5-Trimethylbenzene	< 2.0	ug/m3	2	U	63
DOE-4	DOE-4_062118_S-06212018	N	6/21/2018	TO15	106-99-0	1,3-Butadiene	< 1.8	ug/m3	1.8	U	0.094
DOE-4	DOE-4_062118_S-06212018	N	6/21/2018	TO15	541-73-1	1,3-Dichlorobenzene	< 2.4	ug/m3	2.4	U	-----
DOE-4	DOE-4_062118_S-06212018	N	6/21/2018	TO15	106-46-7	1,4-Dichlorobenzene	< 2.4	ug/m3	2.4	U	0.26
DOE-4	DOE-4_062118_S-06212018	N	6/21/2018	TO15	123-91-1	1,4-Dioxane	< 2.9	ug/m3	2.9	U	0.56
DOE-4	DOE-4_062118_S-06212018	N	6/21/2018	TO15	78-93-3	2-Butanone	< 2.4	ug/m3	2.4	U	5200
DOE-4	DOE-4_062118_S-06212018	N	6/21/2018	TO15	591-78-6	2-Hexanone	< 1.6	ug/m3	1.6	U	31
DOE-4	DOE-4_062118_S-06212018	N	6/21/2018	TO15	622-96-8	4-Ethyltoluene	< 2.0	ug/m3	2	U	-----
DOE-4	DOE-4_062118_S-06212018	N	6/21/2018	TO15	99-87-6	4-Isopropyltoluene	< 4.4	ug/m3	4.4	U	-----
DOE-4	DOE-4_062118_S-06212018	N	6/21/2018	TO15	108-10-1	4-Methyl-2-pentanone	< 1.6	ug/m3	1.6	U	3100
DOE-4	DOE-4_062118_S-06212018	N	6/21/2018	TO15	107-02-8	Acrolein	< 4.6	ug/m3	4.6	U	0.021
DOE-4	DOE-4_062118_S-06212018	N	6/21/2018	TO15	107-13-1	Acrylonitrile	< 4.3	ug/m3	4.3	U	0.041
DOE-4	DOE-4_062118_S-06212018	N	6/21/2018	TO15	71-43-2	Benzene	< 1.3	ug/m3	1.3	U	0.36
DOE-4	DOE-4_062118_S-06212018	N	6/21/2018	TO15	100-44-7	Benzyl chloride	< 4.1	ug/m3	4.1	U	0.057
DOE-4	DOE-4_062118_S-06212018	N	6/21/2018	TO15	75-27-4	Bromodichloromethane	< 2.0	ug/m3	2	U	0.076
DOE-4	DOE-4_062118_S-06212018	N	6/21/2018	TO15	75-25-2	Bromoform	< 4.1	ug/m3	4.1	U	2.6
DOE-4	DOE-4_062118_S-06212018	N	6/21/2018	TO15	74-83-9	Bromomethane	< 3.1	ug/m3	3.1	U	5.2
DOE-4	DOE-4_062118_S-06212018	N	6/21/2018	TO15	104-51-8	Butylbenzene, n-	< 2.2	ug/m3	2.2	U	-----
DOE-4	DOE-4_062118_S-06212018	N	6/21/2018	TO15	135-98-8	Butylbenzene, sec-	< 2.2	ug/m3	2.2	U	-----
DOE-4	DOE-4_062118_S-06212018	N	6/21/2018	TO15	75-15-0	Carbon disulfide	< 2.5	ug/m3	2.5	U	730
DOE-4	DOE-4_062118_S-06212018	N	6/21/2018	TO15	56-23-5	Carbon tetrachloride	< 5.0	ug/m3	5	U	0.47
DOE-4	DOE-4_062118_S-06212018	N	6/21/2018	TO15	75-00-3	Chloroethane	< 2.1	ug/m3	2.1	U	10000
DOE-4	DOE-4_062118_S-06212018	N	6/21/2018	TO15	67-66-3	Chloroform	< 1.5	ug/m3	1.5	U	0.12
DOE-4	DOE-4_062118_S-06212018	N	6/21/2018	TO15	74-87-3	Chloromethane	2.1	ug/m3	1.7		94
DOE-4	DOE-4_062118_S-06212018	N	6/21/2018	TO15	156-59-2	cis-1,2-Dichloroethene	< 1.6	ug/m3	1.6	U	-----
DOE-4	DOE-4_062118_S-06212018	N	6/21/2018	TO15	10061-01-5	cis-1,3-Dichloropropene	< 1.8	ug/m3	1.8	U	-----
DOE-4	DOE-4_062118_S-06212018	N	6/21/2018	TO15	110-82-7	Cyclohexane	< 1.4	ug/m3	1.4	U	1000
DOE-4	DOE-4_062118_S-06212018	N	6/21/2018	TO15	124-48-1	Dibromochloromethane	< 3.4	ug/m3	3.4	U	-----
DOE-4	DOE-4_062118_S-06212018	N	6/21/2018	TO15	75-71-8	Dichlorodifluoromethane	3	ug/m3	2		100
DOE-4	DOE-4_062118_S-06212018	N	6/21/2018	TO15	141-78-6	Ethyl acetate	1.8	ug/m3	1.1		73
DOE-4	DOE-4_062118_S-06212018	N	6/21/2018	TO15	100-41-4	Ethylbenzene	< 1.7	ug/m3	1.7	U	1.1
DOE-4	DOE-4_062118_S-06212018	N	6/21/2018	TO15	87-68-3	Hexachloro-1,3-butadiene	< 21	ug/m3	21	U	0.13
DOE-4	DOE-4_062118_S-06212018	N	6/21/2018	TO15	110-54-3	Hexane, n-	< 2.8	ug/m3	2.8	U	730
DOE-4	DOE-4_062118_S-06212018	N	6/21/2018	TO15	67-63-0	Isopropanol	< 4.9	ug/m3	4.9	U	210
DOE-4	DOE-4_062118_S-06212018	N	6/21/2018	TO15	98-82-8	Isopropylbenzene	< 3.9	ug/m3	3.9	U	420
DOE-4	DOE-4_062118_S-06212018	N	6/21/2018	TO15	179601-23-1	m,p-Xylene	< 3.5	ug/m3	3.5	U	-----
DOE-4	DOE-4_062118_S-06212018	N	6/21/2018	TO15	1634-04-4	Methyl tert butyl ether	< 2.9	ug/m3	2.9	U	11
DOE-4	DOE-4_062118_S-06212018	N	6/21/2018	TO15	75-09-2	Methylene chloride	< 1.4	ug/m3	1.4	U	100
DOE-4	DOE-4_062118_S-06212018	N	6/21/2018	TO15	91-20-3	Naphthalene	< 4.2	ug/m3	4.2	U	0.083
DOE-4	DOE-4_062118_S-06212018	N	6/21/2018	TO15	142-82-5	n-Heptane	< 3.3	ug/m3	3.3	U	420
DOE-4	DOE-4_062118_S-06212018	N	6/21/2018	TO15	111-65-9	n-Octane	< 1.9	ug/m3	1.9	U	-----
DOE-4	DOE-4_062118_S-06212018	N	6/21/2018	TO15	103-65-1	n-Propylbenzene	< 2.0	ug/m3	2	U	1000
DOE-4	DOE-4_062118_S-06212018	N	6/21/2018	TO15	95-47-6	o-Xylene	< 1.7	ug/m3	1.7	U	100
DOE-4	DOE-4_062118_S-06212018	N	6/21/2018	TO15	100-42-5	Styrene	< 1.7	ug/m3	1.7	U	1000
DOE-4	DOE-4_062118_S-06212018	N	6/21/2018	TO15	127-18-4	Tetrachloroethene	< 2.7	ug/m3	2.7	U	11
DOE-4	DOE-4_062118_S-06212018	N	6/21/2018	TO15	109-99-9	Tetrahydrofuran	< 2.4	ug/m3	2.4	U	2100
DOE-4	DOE-4_062118_S-06212018	N	6/21/2018	TO15	108-88-3	Toluene	< 1.5	ug/m3	1.5	U	5200

APPENDIX B  
Analytical Results for Ambient Air VOCs

Location ID	Sample ID	Sample Type	Sample Date	Analytical Method	CAS Number	Analyte	Result	Units	Reporting Limit	Lab Flags	EPA Residential Air RSLs
DOE-4	DOE-4_062118_S-06212018	N	6/21/2018	TO15	10061-02-6	trans-1,3-Dichloropropene	< 1.8	ug/m3	1.8	U	-----
DOE-4	DOE-4_062118_S-06212018	N	6/21/2018	TO15	79-01-6	Trichloroethene	< 2.1	ug/m3	2.1	U	0.48
DOE-4	DOE-4_062118_S-06212018	N	6/21/2018	TO15	75-69-4	Trichlorofluoromethane	< 2.2	ug/m3	2.2	U	-----
DOE-4	DOE-4_062118_S-06212018	N	6/21/2018	TO15	108-05-4	Vinyl acetate	< 2.8	ug/m3	2.8	U	210
DOE-4	DOE-4_062118_S-06212018	N	6/21/2018	TO15	75-01-4	Vinyl chloride	< 1.0	ug/m3	1	U	0.17
DOE-4	DOE-4_062118_S-06212018	N	6/21/2018	TO15	1330-20-7	Xylenes (Total)	< 5.2	ug/m3	5.2	U	-----
DOE-1	DOE-1_070318_S-07032018	N	7/3/2018	TO15	71-55-6	1,1,1-Trichloroethane	< 1.6	ug/m3	1.6	U	5200
DOE-1	DOE-1_070318_S-07032018	N	7/3/2018	TO15	79-34-5	1,1,2,2-Tetrachloroethane	< 2.7	ug/m3	2.7	U*	0.048
DOE-1	DOE-1_070318_S-07032018	N	7/3/2018	TO15	76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	< 3.1	ug/m3	3.1	U	5200
DOE-1	DOE-1_070318_S-07032018	N	7/3/2018	TO15	79-00-5	1,1,2-Trichloroethane	< 2.2	ug/m3	2.2	U*	0.18
DOE-1	DOE-1_070318_S-07032018	N	7/3/2018	TO15	75-34-3	1,1-Dichloroethane	< 1.2	ug/m3	1.2	U	1.8
DOE-1	DOE-1_070318_S-07032018	N	7/3/2018	TO15	75-35-4	1,1-Dichloroethene	< 3.2	ug/m3	3.2	U	210
DOE-1	DOE-1_070318_S-07032018	N	7/3/2018	TO15	120-82-1	1,2,4-Trichlorobenzene	< 15	ug/m3	15	U*	2.1
DOE-1	DOE-1_070318_S-07032018	N	7/3/2018	TO15	95-63-6	1,2,4-Trimethylbenzene	< 3.9	ug/m3	3.9	U*	63
DOE-1	DOE-1_070318_S-07032018	N	7/3/2018	TO15	106-93-4	1,2-Dibromoethane	< 6.1	ug/m3	6.1	U*	-----
DOE-1	DOE-1_070318_S-07032018	N	7/3/2018	TO15	95-50-1	1,2-Dichlorobenzene	< 2.4	ug/m3	2.4	U*	210
DOE-1	DOE-1_070318_S-07032018	N	7/3/2018	TO15	107-06-2	1,2-Dichloroethane	< 3.2	ug/m3	3.2	U	0.11
DOE-1	DOE-1_070318_S-07032018	N	7/3/2018	TO15	78-87-5	1,2-Dichloropropane	< 1.8	ug/m3	1.8	U	0.76
DOE-1	DOE-1_070318_S-07032018	N	7/3/2018	TO15	76-14-2	1,2-Dichlorotetrafluoroethane	< 2.8	ug/m3	2.8	U	-----
DOE-1	DOE-1_070318_S-07032018	N	7/3/2018	TO15	108-67-8	1,3,5-Trimethylbenzene	< 2.0	ug/m3	2.0	U*	63
DOE-1	DOE-1_070318_S-07032018	N	7/3/2018	TO15	106-99-0	1,3-Butadiene	< 1.8	ug/m3	1.8	U	0.094
DOE-1	DOE-1_070318_S-07032018	N	7/3/2018	TO15	541-73-1	1,3-Dichlorobenzene	< 2.4	ug/m3	2.4	U*	-----
DOE-1	DOE-1_070318_S-07032018	N	7/3/2018	TO15	106-46-7	1,4-Dichlorobenzene	< 2.4	ug/m3	2.4	U*	0.26
DOE-1	DOE-1_070318_S-07032018	N	7/3/2018	TO15	123-91-1	1,4-Dioxane	< 2.9	ug/m3	2.9	U	0.56
DOE-1	DOE-1_070318_S-07032018	N	7/3/2018	TO15	78-93-3	2-Butanone	3.0	ug/m3	2.4		5200
DOE-1	DOE-1_070318_S-07032018	N	7/3/2018	TO15	591-78-6	2-Hexanone	< 1.6	ug/m3	1.6	U	31
DOE-1	DOE-1_070318_S-07032018	N	7/3/2018	TO15	622-96-8	4-Ethyltoluene	2.3	ug/m3	2.0	*	-----
DOE-1	DOE-1_070318_S-07032018	N	7/3/2018	TO15	99-87-6	4-Isopropyltoluene	< 4.4	ug/m3	4.4	U*	-----
DOE-1	DOE-1_070318_S-07032018	N	7/3/2018	TO15	108-10-1	4-Methyl-2-pentanone	< 1.6	ug/m3	1.6	U	3100
DOE-1	DOE-1_070318_S-07032018	N	7/3/2018	TO15	107-02-8	Acrolein	< 4.6	ug/m3	4.6	U	0.021
DOE-1	DOE-1_070318_S-07032018	N	7/3/2018	TO15	107-13-1	Acrylonitrile	< 4.3	ug/m3	4.3	U	0.041
DOE-1	DOE-1_070318_S-07032018	N	7/3/2018	TO15	71-43-2	Benzene	< 1.3	ug/m3	1.3	U	0.36
DOE-1	DOE-1_070318_S-07032018	N	7/3/2018	TO15	100-44-7	Benzyl chloride	< 4.1	ug/m3	4.1	U*	0.057
DOE-1	DOE-1_070318_S-07032018	N	7/3/2018	TO15	75-27-4	Bromodichloromethane	< 2.0	ug/m3	2.0	U	0.076
DOE-1	DOE-1_070318_S-07032018	N	7/3/2018	TO15	75-25-2	Bromoform	< 4.1	ug/m3	4.1	U*	2.6
DOE-1	DOE-1_070318_S-07032018	N	7/3/2018	TO15	74-83-9	Bromomethane	< 3.1	ug/m3	3.1	U	5.2
DOE-1	DOE-1_070318_S-07032018	N	7/3/2018	TO15	104-51-8	Butylbenzene, n-	< 2.2	ug/m3	2.2	U*	-----
DOE-1	DOE-1_070318_S-07032018	N	7/3/2018	TO15	135-98-8	Butylbenzene, sec-	< 2.2	ug/m3	2.2	U*	-----
DOE-1	DOE-1_070318_S-07032018	N	7/3/2018	TO15	75-15-0	Carbon disulfide	3.0	ug/m3	2.5		730
DOE-1	DOE-1_070318_S-07032018	N	7/3/2018	TO15	56-23-5	Carbon tetrachloride	< 5.0	ug/m3	5.0	U	0.47
DOE-1	DOE-1_070318_S-07032018	N	7/3/2018	TO15	75-00-3	Chloroethane	< 2.1	ug/m3	2.1	U	10000
DOE-1	DOE-1_070318_S-07032018	N	7/3/2018	TO15	67-66-3	Chloroform	< 1.5	ug/m3	1.5	U	0.12
DOE-1	DOE-1_070318_S-07032018	N	7/3/2018	TO15	74-87-3	Chloromethane	2.7	ug/m3	1.7		94
DOE-1	DOE-1_070318_S-07032018	N	7/3/2018	TO15	156-59-2	cis-1,2-Dichloroethene	< 1.6	ug/m3	1.6	U	-----
DOE-1	DOE-1_070318_S-07032018	N	7/3/2018	TO15	10061-01-5	cis-1,3-Dichloropropene	< 1.8	ug/m3	1.8	U	-----
DOE-1	DOE-1_070318_S-07032018	N	7/3/2018	TO15	110-82-7	Cyclohexane	< 1.4	ug/m3	1.4	U	1000
DOE-1	DOE-1_070318_S-07032018	N	7/3/2018	TO15	124-48-1	Dibromochloromethane	< 3.4	ug/m3	3.4	U*	-----
DOE-1	DOE-1_070318_S-07032018	N	7/3/2018	TO15	75-71-8	Dichlorodifluoromethane	< 2.0	ug/m3	2.0	U	100
DOE-1	DOE-1_070318_S-07032018	N	7/3/2018	TO15	141-78-6	Ethyl acetate	1.4	ug/m3	1.1		73
DOE-1	DOE-1_070318_S-07032018	N	7/3/2018	TO15	100-41-4	Ethylbenzene	< 1.7	ug/m3	1.7	U*	1.1
DOE-1	DOE-1_070318_S-07032018	N	7/3/2018	TO15	87-68-3	Hexachloro-1,3-butadiene	< 21	ug/m3	21	U*	0.13
DOE-1	DOE-1_070318_S-07032018	N	7/3/2018	TO15	110-54-3	Hexane, n-	< 2.8	ug/m3	2.8	U	730
DOE-1	DOE-1_070318_S-07032018	N	7/3/2018	TO15	67-63-0	Isopropanol	< 4.9	ug/m3	4.9	U	210
DOE-1	DOE-1_070318_S-07032018	N	7/3/2018	TO15	98-82-8	Isopropylbenzene	< 3.9	ug/m3	3.9	U*	420
DOE-1	DOE-1_070318_S-07032018	N	7/3/2018	TO15	179601-23-1	m,p-Xylene	< 3.5	ug/m3	3.5	U*	-----

APPENDIX B  
Analytical Results for Ambient Air VOCs

Location ID	Sample ID	Sample Type	Sample Date	Analytical Method	CAS Number	Analyte	Result	Units	Reporting Limit	Lab Flags	EPA Residential Air RSLs
DOE-1	DOE-1_070318_S-07032018	N	7/3/2018	TO15	1634-04-4	Methyl tert butyl ether	< 2.9	ug/m3	2.9	U	11
DOE-1	DOE-1_070318_S-07032018	N	7/3/2018	TO15	75-09-2	Methylene chloride	6.2	ug/m3	1.4		100
DOE-1	DOE-1_070318_S-07032018	N	7/3/2018	TO15	91-20-3	Naphthalene	< 4.2	ug/m3	4.2	U*	0.083
DOE-1	DOE-1_070318_S-07032018	N	7/3/2018	TO15	142-82-5	n-Heptane	< 3.3	ug/m3	3.3	U	420
DOE-1	DOE-1_070318_S-07032018	N	7/3/2018	TO15	111-65-9	n-Octane	< 1.9	ug/m3	1.9	U*	-----
DOE-1	DOE-1_070318_S-07032018	N	7/3/2018	TO15	103-65-1	n-Propylbenzene	< 2.0	ug/m3	2.0	U*	1000
DOE-1	DOE-1_070318_S-07032018	N	7/3/2018	TO15	95-47-6	o-Xylene	< 1.7	ug/m3	1.7	U*	100
DOE-1	DOE-1_070318_S-07032018	N	7/3/2018	TO15	100-42-5	Styrene	< 1.7	ug/m3	1.7	U*	1000
DOE-1	DOE-1_070318_S-07032018	N	7/3/2018	TO15	127-18-4	Tetrachloroethene	< 2.7	ug/m3	2.7	U*	11
DOE-1	DOE-1_070318_S-07032018	N	7/3/2018	TO15	109-99-9	Tetrahydrofuran	< 2.4	ug/m3	2.4	U	2100
DOE-1	DOE-1_070318_S-07032018	N	7/3/2018	TO15	108-88-3	Toluene	< 1.5	ug/m3	1.5	U	5200
DOE-1	DOE-1_070318_S-07032018	N	7/3/2018	TO15	156-60-5	trans-1,2-Dichloroethene	< 1.6	ug/m3	1.6	U	-----
DOE-1	DOE-1_070318_S-07032018	N	7/3/2018	TO15	10061-02-6	trans-1,3-Dichloropropene	< 1.8	ug/m3	1.8	U*	-----
DOE-1	DOE-1_070318_S-07032018	N	7/3/2018	TO15	79-01-6	Trichloroethene	3.8	ug/m3	2.1		0.48
DOE-1	DOE-1_070318_S-07032018	N	7/3/2018	TO15	75-69-4	Trichlorofluoromethane	< 2.2	ug/m3	2.2	U	-----
DOE-1	DOE-1_070318_S-07032018	N	7/3/2018	TO15	108-05-4	Vinyl acetate	< 2.8	ug/m3	2.8	U	210
DOE-1	DOE-1_070318_S-07032018	N	7/3/2018	TO15	75-01-4	Vinyl chloride	< 1.0	ug/m3	1.0	U	0.17
DOE-1	DOE-1_070318_S-07032018	N	7/3/2018	TO15	1330-20-7	Xylenes (Total)	< 5.2	ug/m3	5.2	U*	-----
DOE-2	DOE-2_070318_S-07032018	N	7/3/2018	TO15	71-55-6	1,1,1-Trichloroethane	< 1.6	ug/m3	1.6	U	5200
DOE-2	DOE-2_070318_S-07032018	N	7/3/2018	TO15	79-34-5	1,1,2,2-Tetrachloroethane	< 2.7	ug/m3	2.7	U	0.048
DOE-2	DOE-2_070318_S-07032018	N	7/3/2018	TO15	76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	< 3.1	ug/m3	3.1	U	5200
DOE-2	DOE-2_070318_S-07032018	N	7/3/2018	TO15	79-00-5	1,1,2-Trichloroethane	< 2.2	ug/m3	2.2	U	0.18
DOE-2	DOE-2_070318_S-07032018	N	7/3/2018	TO15	75-34-3	1,1-Dichloroethane	< 1.2	ug/m3	1.2	U	1.8
DOE-2	DOE-2_070318_S-07032018	N	7/3/2018	TO15	75-35-4	1,1-Dichloroethene	< 3.2	ug/m3	3.2	U	210
DOE-2	DOE-2_070318_S-07032018	N	7/3/2018	TO15	120-82-1	1,2,4-Trichlorobenzene	< 15	ug/m3	15	U	2.1
DOE-2	DOE-2_070318_S-07032018	N	7/3/2018	TO15	95-63-6	1,2,4-Trimethylbenzene	< 3.9	ug/m3	3.9	U	63
DOE-2	DOE-2_070318_S-07032018	N	7/3/2018	TO15	106-93-4	1,2-Dibromoethane	< 6.1	ug/m3	6.1	U	-----
DOE-2	DOE-2_070318_S-07032018	N	7/3/2018	TO15	95-50-1	1,2-Dichlorobenzene	< 2.4	ug/m3	2.4	U	210
DOE-2	DOE-2_070318_S-07032018	N	7/3/2018	TO15	107-06-2	1,2-Dichloroethane	< 3.2	ug/m3	3.2	U	0.11
DOE-2	DOE-2_070318_S-07032018	N	7/3/2018	TO15	78-87-5	1,2-Dichloropropane	< 1.8	ug/m3	1.8	U	0.76
DOE-2	DOE-2_070318_S-07032018	N	7/3/2018	TO15	76-14-2	1,2-Dichlorotetrafluoroethane	< 2.8	ug/m3	2.8	U	-----
DOE-2	DOE-2_070318_S-07032018	N	7/3/2018	TO15	108-67-8	1,3,5-Trimethylbenzene	< 2.0	ug/m3	2.0	U	63
DOE-2	DOE-2_070318_S-07032018	N	7/3/2018	TO15	106-99-0	1,3-Butadiene	< 1.8	ug/m3	1.8	U	0.094
DOE-2	DOE-2_070318_S-07032018	N	7/3/2018	TO15	541-73-1	1,3-Dichlorobenzene	< 2.4	ug/m3	2.4	U	-----
DOE-2	DOE-2_070318_S-07032018	N	7/3/2018	TO15	106-46-7	1,4-Dichlorobenzene	< 2.4	ug/m3	2.4	U	0.26
DOE-2	DOE-2_070318_S-07032018	N	7/3/2018	TO15	123-91-1	1,4-Dioxane	< 2.9	ug/m3	2.9	U	0.56
DOE-2	DOE-2_070318_S-07032018	N	7/3/2018	TO15	78-93-3	2-Butanone	< 2.4	ug/m3	2.4	U	5200
DOE-2	DOE-2_070318_S-07032018	N	7/3/2018	TO15	591-78-6	2-Hexanone	< 1.6	ug/m3	1.6	U	31
DOE-2	DOE-2_070318_S-07032018	N	7/3/2018	TO15	622-96-8	4-Ethyltoluene	< 2.0	ug/m3	2.0	U	-----
DOE-2	DOE-2_070318_S-07032018	N	7/3/2018	TO15	99-87-6	4-Isopropyltoluene	< 4.4	ug/m3	4.4	U	-----
DOE-2	DOE-2_070318_S-07032018	N	7/3/2018	TO15	108-10-1	4-Methyl-2-pentanone	< 1.6	ug/m3	1.6	U	3100
DOE-2	DOE-2_070318_S-07032018	N	7/3/2018	TO15	107-02-8	Acrolein	< 4.6	ug/m3	4.6	U	0.021
DOE-2	DOE-2_070318_S-07032018	N	7/3/2018	TO15	107-13-1	Acrylonitrile	< 4.3	ug/m3	4.3	U	0.041
DOE-2	DOE-2_070318_S-07032018	N	7/3/2018	TO15	71-43-2	Benzene	< 1.3	ug/m3	1.3	U	0.36
DOE-2	DOE-2_070318_S-07032018	N	7/3/2018	TO15	100-44-7	Benzyl chloride	< 4.1	ug/m3	4.1	U	0.057
DOE-2	DOE-2_070318_S-07032018	N	7/3/2018	TO15	75-27-4	Bromodichloromethane	< 2.0	ug/m3	2.0	U	0.076
DOE-2	DOE-2_070318_S-07032018	N	7/3/2018	TO15	75-25-2	Bromoform	< 4.1	ug/m3	4.1	U	2.6
DOE-2	DOE-2_070318_S-07032018	N	7/3/2018	TO15	74-83-9	Bromomethane	< 3.1	ug/m3	3.1	U	5.2
DOE-2	DOE-2_070318_S-07032018	N	7/3/2018	TO15	104-51-8	Butylbenzene, n-	< 2.2	ug/m3	2.2	U	-----
DOE-2	DOE-2_070318_S-07032018	N	7/3/2018	TO15	135-98-8	Butylbenzene, sec-	< 2.2	ug/m3	2.2	U	-----
DOE-2	DOE-2_070318_S-07032018	N	7/3/2018	TO15	75-15-0	Carbon disulfide	< 2.5	ug/m3	2.5	U	730
DOE-2	DOE-2_070318_S-07032018	N	7/3/2018	TO15	56-23-5	Carbon tetrachloride	< 5.0	ug/m3	5.0	U	0.47
DOE-2	DOE-2_070318_S-07032018	N	7/3/2018	TO15	75-00-3	Chloroethane	< 2.1	ug/m3	2.1	U	10000
DOE-2	DOE-2_070318_S-07032018	N	7/3/2018	TO15	67-66-3	Chloroform	< 1.5	ug/m3	1.5	U	0.12
DOE-2	DOE-2_070318_S-07032018	N	7/3/2018	TO15	74-87-3	Chloromethane	2.5	ug/m3	1.7		94

APPENDIX B  
Analytical Results for Ambient Air VOCs

Location ID	Sample ID	Sample Type	Sample Date	Analytical Method	CAS Number	Analyte	Result	Units	Reporting Limit	Lab Flags	EPA Residential Air RSLs
DOE-2	DOE-2_070318_S-07032018	N	7/3/2018	TO15	156-59-2	cis-1,2-Dichloroethene	< 1.6	ug/m3	1.6	U	-----
DOE-2	DOE-2_070318_S-07032018	N	7/3/2018	TO15	10061-01-5	cis-1,3-Dichloropropene	< 1.8	ug/m3	1.8	U	-----
DOE-2	DOE-2_070318_S-07032018	N	7/3/2018	TO15	110-82-7	Cyclohexane	< 1.4	ug/m3	1.4	U	1000
DOE-2	DOE-2_070318_S-07032018	N	7/3/2018	TO15	124-48-1	Dibromochloromethane	< 3.4	ug/m3	3.4	U	-----
DOE-2	DOE-2_070318_S-07032018	N	7/3/2018	TO15	75-71-8	Dichlorodifluoromethane	< 2.0	ug/m3	2.0	U	100
DOE-2	DOE-2_070318_S-07032018	N	7/3/2018	TO15	141-78-6	Ethyl acetate	< 1.1	ug/m3	1.1	U	73
DOE-2	DOE-2_070318_S-07032018	N	7/3/2018	TO15	100-41-4	Ethylbenzene	< 1.7	ug/m3	1.7	U	1.1
DOE-2	DOE-2_070318_S-07032018	N	7/3/2018	TO15	87-68-3	Hexachloro-1,3-butadiene	< 21	ug/m3	21	U	0.13
DOE-2	DOE-2_070318_S-07032018	N	7/3/2018	TO15	110-54-3	Hexane, n-	< 2.8	ug/m3	2.8	U	730
DOE-2	DOE-2_070318_S-07032018	N	7/3/2018	TO15	67-63-0	Isopropanol	< 4.9	ug/m3	4.9	U	210
DOE-2	DOE-2_070318_S-07032018	N	7/3/2018	TO15	98-82-8	Isopropylbenzene	< 3.9	ug/m3	3.9	U	420
DOE-2	DOE-2_070318_S-07032018	N	7/3/2018	TO15	179601-23-1	m,p-Xylene	< 3.5	ug/m3	3.5	U	-----
DOE-2	DOE-2_070318_S-07032018	N	7/3/2018	TO15	1634-04-4	Methyl tert butyl ether	< 2.9	ug/m3	2.9	U	11
DOE-2	DOE-2_070318_S-07032018	N	7/3/2018	TO15	75-09-2	Methylene chloride	< 1.4	ug/m3	1.4	U	100
DOE-2	DOE-2_070318_S-07032018	N	7/3/2018	TO15	91-20-3	Naphthalene	< 4.2	ug/m3	4.2	U	0.083
DOE-2	DOE-2_070318_S-07032018	N	7/3/2018	TO15	142-82-5	n-Heptane	< 3.3	ug/m3	3.3	U	420
DOE-2	DOE-2_070318_S-07032018	N	7/3/2018	TO15	111-65-9	n-Octane	< 1.9	ug/m3	1.9	U	-----
DOE-2	DOE-2_070318_S-07032018	N	7/3/2018	TO15	103-65-1	n-Propylbenzene	< 2.0	ug/m3	2.0	U	1000
DOE-2	DOE-2_070318_S-07032018	N	7/3/2018	TO15	95-47-6	o-Xylene	< 1.7	ug/m3	1.7	U	100
DOE-2	DOE-2_070318_S-07032018	N	7/3/2018	TO15	100-42-5	Styrene	< 1.7	ug/m3	1.7	U	1000
DOE-2	DOE-2_070318_S-07032018	N	7/3/2018	TO15	127-18-4	Tetrachloroethene	< 2.7	ug/m3	2.7	U	11
DOE-2	DOE-2_070318_S-07032018	N	7/3/2018	TO15	109-99-9	Tetrahydrofuran	< 2.4	ug/m3	2.4	U	2100
DOE-2	DOE-2_070318_S-07032018	N	7/3/2018	TO15	108-88-3	Toluene	< 1.5	ug/m3	1.5	U	5200
DOE-2	DOE-2_070318_S-07032018	N	7/3/2018	TO15	156-60-5	trans-1,2-Dichloroethene	< 1.6	ug/m3	1.6	U	-----
DOE-2	DOE-2_070318_S-07032018	N	7/3/2018	TO15	10061-02-6	trans-1,3-Dichloropropene	< 1.8	ug/m3	1.8	U	-----
DOE-2	DOE-2_070318_S-07032018	N	7/3/2018	TO15	79-01-6	Trichloroethene	< 2.1	ug/m3	2.1	U	0.48
DOE-2	DOE-2_070318_S-07032018	N	7/3/2018	TO15	75-69-4	Trichlorofluoromethane	< 2.2	ug/m3	2.2	U	-----
DOE-2	DOE-2_070318_S-07032018	N	7/3/2018	TO15	108-05-4	Vinyl acetate	< 2.8	ug/m3	2.8	U	210
DOE-2	DOE-2_070318_S-07032018	N	7/3/2018	TO15	75-01-4	Vinyl chloride	< 1.0	ug/m3	1.0	U	0.17
DOE-2	DOE-2_070318_S-07032018	N	7/3/2018	TO15	1330-20-7	Xylenes (Total)	< 5.2	ug/m3	5.2	U	-----
DOE-3	DOE-3_070318_D-07032018	FD	7/3/2018	TO15	71-55-6	1,1,1-Trichloroethane	< 1.6	ug/m3	1.6	U	5200
DOE-3	DOE-3_070318_D-07032018	FD	7/3/2018	TO15	79-34-5	1,1,2,2-Tetrachloroethane	< 2.7	ug/m3	2.7	U	0.048
DOE-3	DOE-3_070318_D-07032018	FD	7/3/2018	TO15	76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	< 3.1	ug/m3	3.1	U	5200
DOE-3	DOE-3_070318_D-07032018	FD	7/3/2018	TO15	79-00-5	1,1,2-Trichloroethane	< 2.2	ug/m3	2.2	U	0.18
DOE-3	DOE-3_070318_D-07032018	FD	7/3/2018	TO15	75-34-3	1,1-Dichloroethane	< 1.2	ug/m3	1.2	U	1.8
DOE-3	DOE-3_070318_D-07032018	FD	7/3/2018	TO15	75-35-4	1,1-Dichloroethene	< 3.2	ug/m3	3.2	U	210
DOE-3	DOE-3_070318_D-07032018	FD	7/3/2018	TO15	120-82-1	1,2,4-Trichlorobenzene	< 15	ug/m3	15	U	2.1
DOE-3	DOE-3_070318_D-07032018	FD	7/3/2018	TO15	95-63-6	1,2,4-Trimethylbenzene	< 3.9	ug/m3	3.9	U	63
DOE-3	DOE-3_070318_D-07032018	FD	7/3/2018	TO15	106-93-4	1,2-Dibromoethane	< 6.1	ug/m3	6.1	U	-----
DOE-3	DOE-3_070318_D-07032018	FD	7/3/2018	TO15	95-50-1	1,2-Dichlorobenzene	< 2.4	ug/m3	2.4	U	210
DOE-3	DOE-3_070318_D-07032018	FD	7/3/2018	TO15	107-06-2	1,2-Dichloroethane	< 3.2	ug/m3	3.2	U	0.11
DOE-3	DOE-3_070318_D-07032018	FD	7/3/2018	TO15	78-87-5	1,2-Dichloropropane	< 1.8	ug/m3	1.8	U	0.76
DOE-3	DOE-3_070318_D-07032018	FD	7/3/2018	TO15	76-14-2	1,2-Dichlorotetrafluoroethane	< 2.8	ug/m3	2.8	U	-----
DOE-3	DOE-3_070318_D-07032018	FD	7/3/2018	TO15	108-67-8	1,3,5-Trimethylbenzene	< 2.0	ug/m3	2.0	U	63
DOE-3	DOE-3_070318_D-07032018	FD	7/3/2018	TO15	106-99-0	1,3-Butadiene	< 1.8	ug/m3	1.8	U	0.094
DOE-3	DOE-3_070318_D-07032018	FD	7/3/2018	TO15	541-73-1	1,3-Dichlorobenzene	< 2.4	ug/m3	2.4	U	-----
DOE-3	DOE-3_070318_D-07032018	FD	7/3/2018	TO15	106-46-7	1,4-Dichlorobenzene	< 2.4	ug/m3	2.4	U	0.26
DOE-3	DOE-3_070318_D-07032018	FD	7/3/2018	TO15	123-91-1	1,4-Dioxane	< 2.9	ug/m3	2.9	U	0.56
DOE-3	DOE-3_070318_D-07032018	FD	7/3/2018	TO15	78-93-3	2-Butanone	< 2.4	ug/m3	2.4	U	5200
DOE-3	DOE-3_070318_D-07032018	FD	7/3/2018	TO15	591-78-6	2-Hexanone	< 1.6	ug/m3	1.6	U	31
DOE-3	DOE-3_070318_D-07032018	FD	7/3/2018	TO15	622-96-8	4-Ethyltoluene	< 2.0	ug/m3	2.0	U	-----
DOE-3	DOE-3_070318_D-07032018	FD	7/3/2018	TO15	99-87-6	4-Isopropyltoluene	< 4.4	ug/m3	4.4	U	-----
DOE-3	DOE-3_070318_D-07032018	FD	7/3/2018	TO15	108-10-1	4-Methyl-2-pentanone	< 1.6	ug/m3	1.6	U	3100
DOE-3	DOE-3_070318_D-07032018	FD	7/3/2018	TO15	107-02-8	Acrolein	< 4.6	ug/m3	4.6	U	0.021
DOE-3	DOE-3_070318_D-07032018	FD	7/3/2018	TO15	107-13-1	Acrylonitrile	< 4.3	ug/m3	4.3	U	0.041

APPENDIX B  
Analytical Results for Ambient Air VOCs

Location ID	Sample ID	Sample Type	Sample Date	Analytical Method	CAS Number	Analyte	Result	Units	Reporting Limit	Lab Flags	EPA Residential Air RSLs
DOE-3	DOE-3_070318_D-07032018	FD	7/3/2018	TO15	71-43-2	Benzene	< 1.3	ug/m3	1.3	U	0.36
DOE-3	DOE-3_070318_D-07032018	FD	7/3/2018	TO15	100-44-7	Benzyl chloride	< 4.1	ug/m3	4.1	U	0.057
DOE-3	DOE-3_070318_D-07032018	FD	7/3/2018	TO15	75-27-4	Bromodichloromethane	< 2.0	ug/m3	2.0	U	0.076
DOE-3	DOE-3_070318_D-07032018	FD	7/3/2018	TO15	75-25-2	Bromoform	< 4.1	ug/m3	4.1	U	2.6
DOE-3	DOE-3_070318_D-07032018	FD	7/3/2018	TO15	74-83-9	Bromomethane	< 3.1	ug/m3	3.1	U	5.2
DOE-3	DOE-3_070318_D-07032018	FD	7/3/2018	TO15	104-51-8	Butylbenzene, n-	< 2.2	ug/m3	2.2	U	-----
DOE-3	DOE-3_070318_D-07032018	FD	7/3/2018	TO15	135-98-8	Butylbenzene, sec-	< 2.2	ug/m3	2.2	U	-----
DOE-3	DOE-3_070318_D-07032018	FD	7/3/2018	TO15	75-15-0	Carbon disulfide	< 2.5	ug/m3	2.5	U	730
DOE-3	DOE-3_070318_D-07032018	FD	7/3/2018	TO15	56-23-5	Carbon tetrachloride	< 5.0	ug/m3	5.0	U	0.47
DOE-3	DOE-3_070318_D-07032018	FD	7/3/2018	TO15	75-00-3	Chloroethane	< 2.1	ug/m3	2.1	U	10000
DOE-3	DOE-3_070318_D-07032018	FD	7/3/2018	TO15	67-66-3	Chloroform	< 1.5	ug/m3	1.5	U	0.12
DOE-3	DOE-3_070318_D-07032018	FD	7/3/2018	TO15	74-87-3	Chloromethane	< 1.7	ug/m3	1.7	U	94
DOE-3	DOE-3_070318_D-07032018	FD	7/3/2018	TO15	156-59-2	cis-1,2-Dichloroethene	< 1.6	ug/m3	1.6	U	-----
DOE-3	DOE-3_070318_D-07032018	FD	7/3/2018	TO15	10061-01-5	cis-1,3-Dichloropropene	< 1.8	ug/m3	1.8	U	-----
DOE-3	DOE-3_070318_D-07032018	FD	7/3/2018	TO15	110-82-7	Cyclohexane	< 1.4	ug/m3	1.4	U	1000
DOE-3	DOE-3_070318_D-07032018	FD	7/3/2018	TO15	124-48-1	Dibromochloromethane	< 3.4	ug/m3	3.4	U	-----
DOE-3	DOE-3_070318_D-07032018	FD	7/3/2018	TO15	75-71-8	Dichlorodifluoromethane	2.4	ug/m3	2.0	U	100
DOE-3	DOE-3_070318_D-07032018	FD	7/3/2018	TO15	141-78-6	Ethyl acetate	3.0	ug/m3	1.1	U	73
DOE-3	DOE-3_070318_D-07032018	FD	7/3/2018	TO15	100-41-4	Ethylbenzene	< 1.7	ug/m3	1.7	U	1.1
DOE-3	DOE-3_070318_D-07032018	FD	7/3/2018	TO15	87-68-3	Hexachloro-1,3-butadiene	< 21	ug/m3	21	U	0.13
DOE-3	DOE-3_070318_D-07032018	FD	7/3/2018	TO15	110-54-3	Hexane, n-	< 2.8	ug/m3	2.8	U	730
DOE-3	DOE-3_070318_D-07032018	FD	7/3/2018	TO15	67-63-0	Isopropanol	< 4.9	ug/m3	4.9	U	210
DOE-3	DOE-3_070318_D-07032018	FD	7/3/2018	TO15	98-82-8	Isopropylbenzene	< 3.9	ug/m3	3.9	U	420
DOE-3	DOE-3_070318_D-07032018	FD	7/3/2018	TO15	179601-23-1	m,p-Xylene	< 3.5	ug/m3	3.5	U	-----
DOE-3	DOE-3_070318_D-07032018	FD	7/3/2018	TO15	1634-04-4	Methyl tert butyl ether	< 2.9	ug/m3	2.9	U	11
DOE-3	DOE-3_070318_D-07032018	FD	7/3/2018	TO15	75-09-2	Methylene chloride	< 1.4	ug/m3	1.4	U	100
DOE-3	DOE-3_070318_D-07032018	FD	7/3/2018	TO15	91-20-3	Naphthalene	< 4.2	ug/m3	4.2	U	0.083
DOE-3	DOE-3_070318_D-07032018	FD	7/3/2018	TO15	142-82-5	n-Heptane	< 3.3	ug/m3	3.3	U	420
DOE-3	DOE-3_070318_D-07032018	FD	7/3/2018	TO15	111-65-9	n-Octane	< 1.9	ug/m3	1.9	U	-----
DOE-3	DOE-3_070318_D-07032018	FD	7/3/2018	TO15	103-65-1	n-Propylbenzene	< 2.0	ug/m3	2.0	U	1000
DOE-3	DOE-3_070318_D-07032018	FD	7/3/2018	TO15	95-47-6	o-Xylene	< 1.7	ug/m3	1.7	U	100
DOE-3	DOE-3_070318_D-07032018	FD	7/3/2018	TO15	100-42-5	Styrene	< 1.7	ug/m3	1.7	U	1000
DOE-3	DOE-3_070318_D-07032018	FD	7/3/2018	TO15	127-18-4	Tetrachloroethene	< 2.7	ug/m3	2.7	U	11
DOE-3	DOE-3_070318_D-07032018	FD	7/3/2018	TO15	109-99-9	Tetrahydrofuran	< 2.4	ug/m3	2.4	U	2100
DOE-3	DOE-3_070318_D-07032018	FD	7/3/2018	TO15	108-88-3	Toluene	< 1.5	ug/m3	1.5	U	5200
DOE-3	DOE-3_070318_D-07032018	FD	7/3/2018	TO15	156-60-5	trans-1,2-Dichloroethene	< 1.6	ug/m3	1.6	U	-----
DOE-3	DOE-3_070318_D-07032018	FD	7/3/2018	TO15	10061-02-6	trans-1,3-Dichloropropene	< 1.8	ug/m3	1.8	U	-----
DOE-3	DOE-3_070318_D-07032018	FD	7/3/2018	TO15	79-01-6	Trichloroethene	< 2.1	ug/m3	2.1	U	0.48
DOE-3	DOE-3_070318_D-07032018	FD	7/3/2018	TO15	75-69-4	Trichlorofluoromethane	< 2.2	ug/m3	2.2	U	-----
DOE-3	DOE-3_070318_D-07032018	FD	7/3/2018	TO15	108-05-4	Vinyl acetate	< 2.8	ug/m3	2.8	U	210
DOE-3	DOE-3_070318_D-07032018	FD	7/3/2018	TO15	75-01-4	Vinyl chloride	< 1.0	ug/m3	1.0	U	0.17
DOE-3	DOE-3_070318_D-07032018	FD	7/3/2018	TO15	1330-20-7	Xylenes (Total)	< 5.2	ug/m3	5.2	U	-----
DOE-3	DOE-3_070318_S-07032018	N	7/3/2018	TO15	71-55-6	1,1,1-Trichloroethane	< 1.6	ug/m3	1.6	U	5200
DOE-3	DOE-3_070318_S-07032018	N	7/3/2018	TO15	79-34-5	1,1,2,2-Tetrachloroethane	< 2.7	ug/m3	2.7	U	0.048
DOE-3	DOE-3_070318_S-07032018	N	7/3/2018	TO15	76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	< 3.1	ug/m3	3.1	U	5200
DOE-3	DOE-3_070318_S-07032018	N	7/3/2018	TO15	79-00-5	1,1,2-Trichloroethane	< 2.2	ug/m3	2.2	U	0.18
DOE-3	DOE-3_070318_S-07032018	N	7/3/2018	TO15	75-34-3	1,1-Dichloroethane	< 1.2	ug/m3	1.2	U	1.8
DOE-3	DOE-3_070318_S-07032018	N	7/3/2018	TO15	75-35-4	1,1-Dichloroethene	< 3.2	ug/m3	3.2	U	210
DOE-3	DOE-3_070318_S-07032018	N	7/3/2018	TO15	120-82-1	1,2,4-Trichlorobenzene	< 15	ug/m3	15	U	2.1
DOE-3	DOE-3_070318_S-07032018	N	7/3/2018	TO15	95-63-6	1,2,4-Trimethylbenzene	< 3.9	ug/m3	3.9	U	63
DOE-3	DOE-3_070318_S-07032018	N	7/3/2018	TO15	106-93-4	1,2-Dibromoethane	< 6.1	ug/m3	6.1	U	-----
DOE-3	DOE-3_070318_S-07032018	N	7/3/2018	TO15	95-50-1	1,2-Dichlorobenzene	< 2.4	ug/m3	2.4	U	210
DOE-3	DOE-3_070318_S-07032018	N	7/3/2018	TO15	107-06-2	1,2-Dichloroethane	< 3.2	ug/m3	3.2	U	0.11
DOE-3	DOE-3_070318_S-07032018	N	7/3/2018	TO15	78-87-5	1,2-Dichloropropane	< 1.8	ug/m3	1.8	U	0.76
DOE-3	DOE-3_070318_S-07032018	N	7/3/2018	TO15	76-14-2	1,2-Dichlorotetrafluoroethane	< 2.8	ug/m3	2.8	U	-----

APPENDIX B  
Analytical Results for Ambient Air VOCs

Location ID	Sample ID	Sample Type	Sample Date	Analytical Method	CAS Number	Analyte	Result	Units	Reporting Limit	Lab Flags	EPA Residential Air RSLs
DOE-3	DOE-3_070318_S-07032018	N	7/3/2018	TO15	108-67-8	1,3,5-Trimethylbenzene	< 2.0	ug/m3	2.0	U	63
DOE-3	DOE-3_070318_S-07032018	N	7/3/2018	TO15	106-99-0	1,3-Butadiene	< 1.8	ug/m3	1.8	U	0.094
DOE-3	DOE-3_070318_S-07032018	N	7/3/2018	TO15	541-73-1	1,3-Dichlorobenzene	< 2.4	ug/m3	2.4	U	-----
DOE-3	DOE-3_070318_S-07032018	N	7/3/2018	TO15	106-46-7	1,4-Dichlorobenzene	< 2.4	ug/m3	2.4	U	0.26
DOE-3	DOE-3_070318_S-07032018	N	7/3/2018	TO15	123-91-1	1,4-Dioxane	< 2.9	ug/m3	2.9	U	0.56
DOE-3	DOE-3_070318_S-07032018	N	7/3/2018	TO15	78-93-3	2-Butanone	< 2.4	ug/m3	2.4	U	5200
DOE-3	DOE-3_070318_S-07032018	N	7/3/2018	TO15	591-78-6	2-Hexanone	< 1.6	ug/m3	1.6	U	31
DOE-3	DOE-3_070318_S-07032018	N	7/3/2018	TO15	622-96-8	4-Ethyltoluene	< 2.0	ug/m3	2.0	U	-----
DOE-3	DOE-3_070318_S-07032018	N	7/3/2018	TO15	99-87-6	4-Isopropyltoluene	< 4.4	ug/m3	4.4	U	-----
DOE-3	DOE-3_070318_S-07032018	N	7/3/2018	TO15	108-10-1	4-Methyl-2-pentanone	< 1.6	ug/m3	1.6	U	3100
DOE-3	DOE-3_070318_S-07032018	N	7/3/2018	TO15	107-02-8	Acrolein	< 4.6	ug/m3	4.6	U	0.021
DOE-3	DOE-3_070318_S-07032018	N	7/3/2018	TO15	107-13-1	Acrylonitrile	< 4.3	ug/m3	4.3	U	0.041
DOE-3	DOE-3_070318_S-07032018	N	7/3/2018	TO15	71-43-2	Benzene	< 1.3	ug/m3	1.3	U	0.36
DOE-3	DOE-3_070318_S-07032018	N	7/3/2018	TO15	100-44-7	Benzyl chloride	< 4.1	ug/m3	4.1	U	0.057
DOE-3	DOE-3_070318_S-07032018	N	7/3/2018	TO15	75-27-4	Bromodichloromethane	< 2.0	ug/m3	2.0	U	0.076
DOE-3	DOE-3_070318_S-07032018	N	7/3/2018	TO15	75-25-2	Bromoform	< 4.1	ug/m3	4.1	U	2.6
DOE-3	DOE-3_070318_S-07032018	N	7/3/2018	TO15	74-83-9	Bromomethane	< 3.1	ug/m3	3.1	U	5.2
DOE-3	DOE-3_070318_S-07032018	N	7/3/2018	TO15	104-51-8	Butylbenzene, n-	< 2.2	ug/m3	2.2	U	-----
DOE-3	DOE-3_070318_S-07032018	N	7/3/2018	TO15	135-98-8	Butylbenzene, sec-	< 2.2	ug/m3	2.2	U	-----
DOE-3	DOE-3_070318_S-07032018	N	7/3/2018	TO15	75-15-0	Carbon disulfide	< 2.5	ug/m3	2.5	U	730
DOE-3	DOE-3_070318_S-07032018	N	7/3/2018	TO15	56-23-5	Carbon tetrachloride	< 5.0	ug/m3	5.0	U	0.47
DOE-3	DOE-3_070318_S-07032018	N	7/3/2018	TO15	75-00-3	Chloroethane	< 2.1	ug/m3	2.1	U	10000
DOE-3	DOE-3_070318_S-07032018	N	7/3/2018	TO15	67-66-3	Chloroform	< 1.5	ug/m3	1.5	U	0.12
DOE-3	DOE-3_070318_S-07032018	N	7/3/2018	TO15	74-87-3	Chloromethane	2.5	ug/m3	1.7	U	94
DOE-3	DOE-3_070318_S-07032018	N	7/3/2018	TO15	156-59-2	cis-1,2-Dichloroethene	< 1.6	ug/m3	1.6	U	-----
DOE-3	DOE-3_070318_S-07032018	N	7/3/2018	TO15	10061-01-5	cis-1,3-Dichloropropene	< 1.8	ug/m3	1.8	U	-----
DOE-3	DOE-3_070318_S-07032018	N	7/3/2018	TO15	110-82-7	Cyclohexane	< 1.4	ug/m3	1.4	U	1000
DOE-3	DOE-3_070318_S-07032018	N	7/3/2018	TO15	124-48-1	Dibromochloromethane	< 3.4	ug/m3	3.4	U	-----
DOE-3	DOE-3_070318_S-07032018	N	7/3/2018	TO15	75-71-8	Dichlorodifluoromethane	< 2.0	ug/m3	2.0	U	100
DOE-3	DOE-3_070318_S-07032018	N	7/3/2018	TO15	141-78-6	Ethyl acetate	< 1.1	ug/m3	1.1	U	73
DOE-3	DOE-3_070318_S-07032018	N	7/3/2018	TO15	100-41-4	Ethylbenzene	< 1.7	ug/m3	1.7	U	1.1
DOE-3	DOE-3_070318_S-07032018	N	7/3/2018	TO15	87-68-3	Hexachloro-1,3-butadiene	< 21	ug/m3	21	U	0.13
DOE-3	DOE-3_070318_S-07032018	N	7/3/2018	TO15	110-54-3	Hexane, n-	< 2.8	ug/m3	2.8	U	730
DOE-3	DOE-3_070318_S-07032018	N	7/3/2018	TO15	67-63-0	Isopropanol	< 4.9	ug/m3	4.9	U	210
DOE-3	DOE-3_070318_S-07032018	N	7/3/2018	TO15	98-82-8	Isopropylbenzene	< 3.9	ug/m3	3.9	U	420
DOE-3	DOE-3_070318_S-07032018	N	7/3/2018	TO15	179601-23-1	m,p-Xylene	< 3.5	ug/m3	3.5	U	-----
DOE-3	DOE-3_070318_S-07032018	N	7/3/2018	TO15	1634-04-4	Methyl tert butyl ether	< 2.9	ug/m3	2.9	U	11
DOE-3	DOE-3_070318_S-07032018	N	7/3/2018	TO15	75-09-2	Methylene chloride	< 1.4	ug/m3	1.4	U	100
DOE-3	DOE-3_070318_S-07032018	N	7/3/2018	TO15	91-20-3	Naphthalene	< 4.2	ug/m3	4.2	U	0.083
DOE-3	DOE-3_070318_S-07032018	N	7/3/2018	TO15	142-82-5	n-Heptane	< 3.3	ug/m3	3.3	U	420
DOE-3	DOE-3_070318_S-07032018	N	7/3/2018	TO15	111-65-9	n-Octane	< 1.9	ug/m3	1.9	U	-----
DOE-3	DOE-3_070318_S-07032018	N	7/3/2018	TO15	103-65-1	n-Propylbenzene	< 2.0	ug/m3	2.0	U	1000
DOE-3	DOE-3_070318_S-07032018	N	7/3/2018	TO15	95-47-6	o-Xylene	< 1.7	ug/m3	1.7	U	100
DOE-3	DOE-3_070318_S-07032018	N	7/3/2018	TO15	100-42-5	Styrene	< 1.7	ug/m3	1.7	U	1000
DOE-3	DOE-3_070318_S-07032018	N	7/3/2018	TO15	127-18-4	Tetrachloroethene	< 2.7	ug/m3	2.7	U	11
DOE-3	DOE-3_070318_S-07032018	N	7/3/2018	TO15	109-99-9	Tetrahydrofuran	< 2.4	ug/m3	2.4	U	2100
DOE-3	DOE-3_070318_S-07032018	N	7/3/2018	TO15	108-88-3	Toluene	< 1.5	ug/m3	1.5	U	5200
DOE-3	DOE-3_070318_S-07032018	N	7/3/2018	TO15	10061-02-6	trans-1,3-Dichloropropene	< 1.8	ug/m3	1.8	U	-----
DOE-3	DOE-3_070318_S-07032018	N	7/3/2018	TO15	79-01-6	Trichloroethene	< 2.1	ug/m3	2.1	U	0.48
DOE-3	DOE-3_070318_S-07032018	N	7/3/2018	TO15	75-69-4	Trichlorofluoromethane	< 2.2	ug/m3	2.2	U	-----
DOE-3	DOE-3_070318_S-07032018	N	7/3/2018	TO15	108-05-4	Vinyl acetate	< 2.8	ug/m3	2.8	U	210
DOE-3	DOE-3_070318_S-07032018	N	7/3/2018	TO15	75-01-4	Vinyl chloride	< 1.0	ug/m3	1.0	U	0.17
DOE-3	DOE-3_070318_S-07032018	N	7/3/2018	TO15	1330-20-7	Xylenes (Total)	< 5.2	ug/m3	5.2	U	-----
DOE-4	DOE-4_070318_S-07032018	N	7/3/2018	TO15	71-55-6	1,1,1-Trichloroethane	< 1.6	ug/m3	1.6	U	5200
DOE-4	DOE-4_070318_S-07032018	N	7/3/2018	TO15	79-34-5	1,1,2,2-Tetrachloroethane	< 2.7	ug/m3	2.7	U	0.048

APPENDIX B  
Analytical Results for Ambient Air VOCs

Location ID	Sample ID	Sample Type	Sample Date	Analytical Method	CAS Number	Analyte	Result	Units	Reporting Limit	Lab Flags	EPA Residential Air RSLs
DOE-4	DOE-4_070318_S-07032018	N	7/3/2018	TO15	76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	< 3.1	ug/m3	3.1	U	5200
DOE-4	DOE-4_070318_S-07032018	N	7/3/2018	TO15	79-00-5	1,1,2-Trichloroethane	< 2.2	ug/m3	2.2	U	0.18
DOE-4	DOE-4_070318_S-07032018	N	7/3/2018	TO15	75-34-3	1,1-Dichloroethane	< 1.2	ug/m3	1.2	U	1.8
DOE-4	DOE-4_070318_S-07032018	N	7/3/2018	TO15	75-35-4	1,1-Dichloroethene	< 3.2	ug/m3	3.2	U	210
DOE-4	DOE-4_070318_S-07032018	N	7/3/2018	TO15	120-82-1	1,2,4-Trichlorobenzene	< 15	ug/m3	15	U	2.1
DOE-4	DOE-4_070318_S-07032018	N	7/3/2018	TO15	95-63-6	1,2,4-Trimethylbenzene	14	ug/m3	3.9		63
DOE-4	DOE-4_070318_S-07032018	N	7/3/2018	TO15	106-93-4	1,2-Dibromoethane	< 6.1	ug/m3	6.1	U	-----
DOE-4	DOE-4_070318_S-07032018	N	7/3/2018	TO15	95-50-1	1,2-Dichlorobenzene	< 2.4	ug/m3	2.4	U	210
DOE-4	DOE-4_070318_S-07032018	N	7/3/2018	TO15	107-06-2	1,2-Dichloroethane	< 3.2	ug/m3	3.2	U	0.11
DOE-4	DOE-4_070318_S-07032018	N	7/3/2018	TO15	78-87-5	1,2-Dichloropropane	< 1.8	ug/m3	1.8	U	0.76
DOE-4	DOE-4_070318_S-07032018	N	7/3/2018	TO15	76-14-2	1,2-Dichlorotetrafluoroethane	< 2.8	ug/m3	2.8	U	-----
DOE-4	DOE-4_070318_S-07032018	N	7/3/2018	TO15	108-67-8	1,3,5-Trimethylbenzene	3.2	ug/m3	2.0		63
DOE-4	DOE-4_070318_S-07032018	N	7/3/2018	TO15	106-99-0	1,3-Butadiene	< 1.8	ug/m3	1.8	U	0.094
DOE-4	DOE-4_070318_S-07032018	N	7/3/2018	TO15	541-73-1	1,3-Dichlorobenzene	< 2.4	ug/m3	2.4	U	-----
DOE-4	DOE-4_070318_S-07032018	N	7/3/2018	TO15	106-46-7	1,4-Dichlorobenzene	< 2.4	ug/m3	2.4	U	0.26
DOE-4	DOE-4_070318_S-07032018	N	7/3/2018	TO15	123-91-1	1,4-Dioxane	< 2.9	ug/m3	2.9	U	0.56
DOE-4	DOE-4_070318_S-07032018	N	7/3/2018	TO15	78-93-3	2-Butanone	7.7	ug/m3	2.4		5200
DOE-4	DOE-4_070318_S-07032018	N	7/3/2018	TO15	591-78-6	2-Hexanone	< 1.6	ug/m3	1.6	U	31
DOE-4	DOE-4_070318_S-07032018	N	7/3/2018	TO15	622-96-8	4-Ethyltoluene	3.3	ug/m3	2.0		-----
DOE-4	DOE-4_070318_S-07032018	N	7/3/2018	TO15	99-87-6	4-Isopropyltoluene	< 4.4	ug/m3	4.4	U	-----
DOE-4	DOE-4_070318_S-07032018	N	7/3/2018	TO15	108-10-1	4-Methyl-2-pentanone	13	ug/m3	1.6		3100
DOE-4	DOE-4_070318_S-07032018	N	7/3/2018	TO15	107-02-8	Acrolein	< 4.6	ug/m3	4.6	U	0.021
DOE-4	DOE-4_070318_S-07032018	N	7/3/2018	TO15	107-13-1	Acrylonitrile	< 4.3	ug/m3	4.3	U	0.041
DOE-4	DOE-4_070318_S-07032018	N	7/3/2018	TO15	71-43-2	Benzene	< 1.3	ug/m3	1.3	U	0.36
DOE-4	DOE-4_070318_S-07032018	N	7/3/2018	TO15	100-44-7	Benzyl chloride	< 4.1	ug/m3	4.1	U	0.057
DOE-4	DOE-4_070318_S-07032018	N	7/3/2018	TO15	75-27-4	Bromodichloromethane	< 2.0	ug/m3	2.0	U	0.076
DOE-4	DOE-4_070318_S-07032018	N	7/3/2018	TO15	75-25-2	Bromoform	< 4.1	ug/m3	4.1	U	2.6
DOE-4	DOE-4_070318_S-07032018	N	7/3/2018	TO15	74-83-9	Bromomethane	< 3.1	ug/m3	3.1	U	5.2
DOE-4	DOE-4_070318_S-07032018	N	7/3/2018	TO15	104-51-8	Butylbenzene, n-	< 2.2	ug/m3	2.2	U	-----
DOE-4	DOE-4_070318_S-07032018	N	7/3/2018	TO15	135-98-8	Butylbenzene, sec-	< 2.2	ug/m3	2.2	U	-----
DOE-4	DOE-4_070318_S-07032018	N	7/3/2018	TO15	75-15-0	Carbon disulfide	26	ug/m3	2.5		730
DOE-4	DOE-4_070318_S-07032018	N	7/3/2018	TO15	56-23-5	Carbon tetrachloride	< 5.0	ug/m3	5.0	U	0.47
DOE-4	DOE-4_070318_S-07032018	N	7/3/2018	TO15	75-00-3	Chloroethane	< 2.1	ug/m3	2.1	U	10000
DOE-4	DOE-4_070318_S-07032018	N	7/3/2018	TO15	67-66-3	Chloroform	< 1.5	ug/m3	1.5	U	0.12
DOE-4	DOE-4_070318_S-07032018	N	7/3/2018	TO15	74-87-3	Chloromethane	3.6	ug/m3	1.7		94
DOE-4	DOE-4_070318_S-07032018	N	7/3/2018	TO15	156-59-2	cis-1,2-Dichloroethene	< 1.6	ug/m3	1.6	U	-----
DOE-4	DOE-4_070318_S-07032018	N	7/3/2018	TO15	10061-01-5	cis-1,3-Dichloropropene	< 1.8	ug/m3	1.8	U	-----
DOE-4	DOE-4_070318_S-07032018	N	7/3/2018	TO15	110-82-7	Cyclohexane	< 1.4	ug/m3	1.4	U	1000
DOE-4	DOE-4_070318_S-07032018	N	7/3/2018	TO15	124-48-1	Dibromochloromethane	< 3.4	ug/m3	3.4	U	-----
DOE-4	DOE-4_070318_S-07032018	N	7/3/2018	TO15	75-71-8	Dichlorodifluoromethane	< 2.0	ug/m3	2.0	U	100
DOE-4	DOE-4_070318_S-07032018	N	7/3/2018	TO15	141-78-6	Ethyl acetate	1.1	ug/m3	1.1		73
DOE-4	DOE-4_070318_S-07032018	N	7/3/2018	TO15	100-41-4	Ethylbenzene	< 1.7	ug/m3	1.7	U	1.1
DOE-4	DOE-4_070318_S-07032018	N	7/3/2018	TO15	87-68-3	Hexachloro-1,3-butadiene	< 21	ug/m3	21	U	0.13
DOE-4	DOE-4_070318_S-07032018	N	7/3/2018	TO15	110-54-3	Hexane, n-	< 2.8	ug/m3	2.8	U	730
DOE-4	DOE-4_070318_S-07032018	N	7/3/2018	TO15	67-63-0	Isopropanol	< 4.9	ug/m3	4.9	U	210
DOE-4	DOE-4_070318_S-07032018	N	7/3/2018	TO15	98-82-8	Isopropylbenzene	< 3.9	ug/m3	3.9	U	420
DOE-4	DOE-4_070318_S-07032018	N	7/3/2018	TO15	179601-23-1	m,p-Xylene	< 3.5	ug/m3	3.5	U	-----
DOE-4	DOE-4_070318_S-07032018	N	7/3/2018	TO15	1634-04-4	Methyl tert butyl ether	< 2.9	ug/m3	2.9	U	11
DOE-4	DOE-4_070318_S-07032018	N	7/3/2018	TO15	75-09-2	Methylene chloride	< 1.4	ug/m3	1.4	U	100
DOE-4	DOE-4_070318_S-07032018	N	7/3/2018	TO15	91-20-3	Naphthalene	< 4.2	ug/m3	4.2	U	0.083
DOE-4	DOE-4_070318_S-07032018	N	7/3/2018	TO15	142-82-5	n-Heptane	< 3.3	ug/m3	3.3	U	420
DOE-4	DOE-4_070318_S-07032018	N	7/3/2018	TO15	111-65-9	n-Octane	< 1.9	ug/m3	1.9	U	-----
DOE-4	DOE-4_070318_S-07032018	N	7/3/2018	TO15	103-65-1	n-Propylbenzene	< 2.0	ug/m3	2.0	U	1000
DOE-4	DOE-4_070318_S-07032018	N	7/3/2018	TO15	95-47-6	o-Xylene	< 1.7	ug/m3	1.7	U	100
DOE-4	DOE-4_070318_S-07032018	N	7/3/2018	TO15	100-42-5	Styrene	< 1.7	ug/m3	1.7	U	1000

APPENDIX B  
Analytical Results for Ambient Air VOCs

Location ID	Sample ID	Sample Type	Sample Date	Analytical Method	CAS Number	Analyte	Result	Units	Reporting Limit	Lab Flags	EPA Residential Air RSLs
DOE-4	DOE-4_070318_S-07032018	N	7/3/2018	TO15	127-18-4	Tetrachloroethene	< 2.7	ug/m3	2.7	U	11
DOE-4	DOE-4_070318_S-07032018	N	7/3/2018	TO15	109-99-9	Tetrahydrofuran	< 2.4	ug/m3	2.4	U	2100
DOE-4	DOE-4_070318_S-07032018	N	7/3/2018	TO15	108-88-3	Toluene	< 1.5	ug/m3	1.5	U	5200
DOE-4	DOE-4_070318_S-07032018	N	7/3/2018	TO15	156-60-5	trans-1,2-Dichloroethene	< 1.6	ug/m3	1.6	U	-----
DOE-4	DOE-4_070318_S-07032018	N	7/3/2018	TO15	10061-02-6	trans-1,3-Dichloropropene	< 1.8	ug/m3	1.8	U	-----
DOE-4	DOE-4_070318_S-07032018	N	7/3/2018	TO15	79-01-6	Trichloroethene	< 2.1	ug/m3	2.1	U	0.48
DOE-4	DOE-4_070318_S-07032018	N	7/3/2018	TO15	75-69-4	Trichlorofluoromethane	< 2.2	ug/m3	2.2	U	-----
DOE-4	DOE-4_070318_S-07032018	N	7/3/2018	TO15	108-05-4	Vinyl acetate	< 2.8	ug/m3	2.8	U	210
DOE-4	DOE-4_070318_S-07032018	N	7/3/2018	TO15	75-01-4	Vinyl chloride	< 1.0	ug/m3	1.0	U	0.17
DOE-4	DOE-4_070318_S-07032018	N	7/3/2018	TO15	1330-20-7	Xylenes (Total)	< 5.2	ug/m3	5.2	U	-----

Legend

N = Normal (Parent) Sample

FD = Field Duplicate Sample

U = Non-Detect

\* = LCS or LCSD is outside acceptance limits

----- = RSL Not Available

= Detection above the Reporting Limit, but below the EPA RSL

**BOLD** = Detection above the Reporting Limit, and also exceeds the EPA RSL

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## **APPENDIX C**

### **Test America Analytical Data Packages for Ambient Air VOCs (included on CD)**

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## **APPENDIX D**

### **Data Validation Report for Ambient Air VOCs (included on CD)**

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**APPENDIX E**  
**PM<sub>10</sub> Monthly Audit Reports**

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Baseline Air Monitoring Program - DOE

E-BAM Monthly Audit and Calibration

Station # DOE-1 Serial # W23314  
 Audit Date: 5/18/2018 Audited By: T.S. Williford

Flow Audit						
Flow Audit Device Model:	BGI Delta Cal DC-1A	Serial No:	158047	Calibration Date:	12/19/2017	
Leak Check Value:	as found: <u>0.4</u>			as left: <u>0.4</u>		
Ambient Temperature:	as found: <u>16.4</u> C	Ref. Std.:	<u>16.5</u> C	as left: <u>16.4</u> C	Ref. Std.:	<u>16.5</u> C
Barometric Pressure:	as found: <u>713.6</u> mmHg	Ref. Std.:	<u>711.5</u> mmHg	as left: <u>713.6</u> mmHg	Ref. Std.:	<u>711.5</u> mmHg
16.7 lpm Flow Rate (Actual)	as found: <u>16.7</u> lpm	Ref. Std.:	<u>16.98</u> lpm	as left: <u>16.7</u> lpm	Ref. Std.:	<u>16.98</u> lpm

Mechanical Audits ( Y = Yes N = No )					
Sample nozzle clean:	as found	<u>Y</u>	as left	<u>Y</u>	
Tape support vane clean:	as found	<u>Y</u>	as left	<u>Y</u>	
Tape spool covers tight:	as found	<u>Y</u>	as left	<u>Y</u>	
PM10 particle trap clean:	as found	<u>Y</u>	as left	<u>Y</u>	
PM10 drip jar empty:	as found	<u>Y</u>	as left	<u>Y</u>	
PM10 bug screen clear:	as found	<u>Y</u>	as left	<u>Y</u>	

Manual Span Membrane Test		Pump Test		
Expected Span Mass (mg/cm <sup>2</sup> ):	<u>0.914</u>	Flow Rate	Vacuum Value	Quality Category
Measured Span Mass (mg/cm <sup>2</sup> ):	<u>0.935</u>	14.0 - 15.0		Good / Marginal / Poor
Difference (mg/cm <sup>2</sup> ):	<u>0.21</u>			
% Difference / Pass or Fail:	<u>2.2% Pass</u>	<u>14.8 lpm</u>	<u>413.4</u>	<u>Marginal</u>

Setup and Calibration Values								
Parameter	Expected	Found	Parameter	Expected	Found	Parameter	Expected	Found
Clock	<u>1027</u>	<u>1027</u>	Analog Mode	<u>Hourly</u>	<u>Hourly</u>	Flow Type	<u>Actual</u>	<u>Actual</u>
Location	<u>01</u>	<u>01</u>	Baud Rate	<u>9600</u>	<u>9600</u>	Restart Voltage	<u>12.5</u>	<u>12.5</u>
Tape Advance	<u>24 hr</u>	<u>24 hr</u>	RH Setpoint	<u>45%</u>	<u>45%</u>	Std Cond Temp	<u>25°C</u>	<u>25°C</u>
Realtime Avg	<u>60 min</u>	<u>60 min</u>	Delta T Setpoint	<u>15°C</u>	<u>15°C</u>			
Machine Type	<u>PM10</u>	<u>PM10</u>	RH Control	<u>ON</u>	<u>ON</u>			
Analog FS	<u>1.0</u>	<u>1.0</u>	Flow Setpoint	<u>16.7</u>	<u>16.7</u>			

Last 6 Errors in E-BAM Error Log					
Error	Date	Time	Error	Date	Time
<u>1 NONE</u>					
<u>2</u>					
<u>3</u>					

Audit Notes:  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_



Baseline Air Monitoring Program - DOE

E-BAM Monthly Audit and Calibration

Station # DOE-2

Serial # W23310

Audit Date: 5/17/2018

Audited By: T. Stewart Williford

Flow Audit					
Flow Audit Device Model:	BGI Delta Cal DC-1A	Serial No:	158047	Calibration Date:	12/19/2017
Leak Check Value:	as found: <u>0.6</u>		as left: <u>0.6</u>		
Ambient Temperature:	as found:	E-BAM	Ref. Std.	as left:	E-BAM
Barometric Pressure:	as found:	710.8 mmHg	709.0 mmHg	as left:	710.8 mmHg
16.7 lpm Flow Rate (Actual)	as found:	16.7 lpm	16.7 lpm	as left:	16.7 lpm

Mechanical Audits ( Y = Yes N = No )					
Sample nozzle clean:	as found	<u>Y</u>	as left	<u>Y</u>	
Tape support vane clean:	as found	<u>Y</u>	as left	<u>Y</u>	
Tape spool covers tight:	as found	<u>Y</u>	as left	<u>Y</u>	
PM10 particle trap clean:	as found	<u>Y</u>	as left	<u>Y</u>	
PM10 drip jar empty:	as found	<u>Y</u>	as left	<u>Y</u>	
PM10 bug screen clear:	as found	<u>Y</u>	as left	<u>Y</u>	

Manual Span Membrane Test		Pump Test		
Expected Span Mass (mg/cm <sup>2</sup> ):	<u>0.921</u>	Flow Rate	Vacuum Value	Quality Category
Measured Span Mass (mg/cm <sup>2</sup> ):	<u>0.936</u>	14.0 - 15.0		Good / Marginal / Poor
Difference (mg/cm <sup>2</sup> ):	<u>0.015</u>			
% Difference / Pass or Fail:	<u>1.6% Pass</u>	<u>14.9</u>	<u>407.3</u>	<u>Good to Marginal</u>

Setup and Calibration Values								
Parameter	Expected	Found	Parameter	Expected	Found	Parameter	Expected	Found
Clock	<u>1246</u>	<u>1246</u>	Analog Mode	<u>Hourly</u>	<u>Hourly</u>	Flow Type	<u>Actual</u>	<u>Actual</u>
Location	<u>02</u>	<u>02</u>	Baud Rate	<u>9600</u>	<u>9600</u>	Restart Voltage	<u>12.5V</u>	<u>12.5V</u>
Tape Advance	<u>24</u>	<u>24</u>	RH Setpoint	<u>45%</u>	<u>45%</u>	Std Cond Temp	<u>25°C</u>	<u>25°C</u>
Realtime Avg	<u>60</u>	<u>60</u>	Delta T Setpoint	<u>15°C</u>	<u>15°C</u>			
Machine Type	<u>PM10</u>	<u>PM10</u>	RH Control	<u>ON</u>	<u>ON</u>			
Analog FS	<u>1.0</u>	<u>1.0</u>	Flow Setpoint	<u>16.7</u>	<u>16.7</u>			

Last 6 Errors in E-BAM Error Log						
Error	Date	Time	Error	Date	Time	
<u>1 Filter Press failure 225.0</u>	<u>5/17/18</u>	<u>1153</u>	<u>4</u>			
<u>2 Inlet Press failure 224.5</u>	<u>5/17/18</u>	<u>1153</u>	<u>5</u>			
<u>3</u>			<u>6</u>			

Audit Notes:

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Baseline Air Monitoring Program - DOE

E-BAM Monthly Audit and Calibration

Station # DOE-3 Serial # W23313  
 Audit Date: 5/22/2018 Audited By: T. S. Williams

Flow Audit					
Flow Audit Device Model:	BGI Delta Cal DC-1A	Serial No:	158047	Calibration Date:	12/19/2017
Leak Check Value:	as found: <u>0.6</u>	as left:	<u>0.6</u>		
	E-BAM	Ref. Std.		E-BAM	Ref. Std.
Ambient Temperature:	as found: <u>14.8</u> C	<u>14.4</u> C	as left:	<u>14.8</u> C	<u>14.4</u> C
Barometric Pressure:	as found: <u>711.6</u> mmHg	<u>709.5</u> mmHg	as left:	<u>711.6</u> mmHg	<u>709.5</u> mmHg
16.7 lpm Flow Rate (Actual)	as found: <u>16.7</u> lpm	<u>16.97</u> lpm	as left:	<u>16.7</u> lpm	<u>16.97</u> lpm

Mechanical Audits ( Y = Yes N = No )					
Sample nozzle clean:	as found	<u>Y</u>	as left	<u>Y</u>	
Tape support vane clean:	as found	<u>Y</u>	as left	<u>Y</u>	
Tape spool covers tight:	as found	<u>Y</u>	as left	<u>Y</u>	
PM10 particle trap clean:	as found	<u>Y</u>	as left	<u>Y</u>	
PM10 drip jar empty:	as found	<u>Y</u>	as left	<u>Y</u>	
PM10 bug screen clear:	as found	<u>Y</u>	as left	<u>Y</u>	

Manual Span Membrane Test		Pump Test		
Expected Span Mass (mg/cm2) :	<u>0.896</u>	Flow Rate	Vacuum Value	Quality Category
Measured Span Mass (mg/cm2) :	<u>0.894</u>	14.0 - 15.0		Good / Marginal / Poor
Difference (mg/cm2) :	<u>0.002</u>	14.5	399.1	Good to Marginal
% Difference / Pass or Fail:	<u>0.22% Pass</u>			

Setup and Calibration Values								
Parameter	Expected	Found	Parameter	Expected	Found	Parameter	Expected	Found
Clock	<u>0910</u>	<u>0910</u>	Analog Mode	<u>hourly</u>	<u>hourly</u>	Flow Type	<u>Actual</u>	<u>Actual</u>
Location	<u>03</u>	<u>03</u>	Baud Rate	<u>9600</u>	<u>9600</u>	Restart Voltage	<u>12.5</u>	<u>12.5</u>
Tape Advance	<u>24hr</u>	<u>24hr</u>	RH Setpoint	<u>45%</u>	<u>45%</u>	Std Cond Temp	<u>25°C</u>	<u>25°C</u>
Realtime Avg	<u>60 min</u>	<u>60 min</u>	Delta T Setpoint	<u>15°C</u>	<u>15°C</u>			
Machine Type	<u>PM10</u>	<u>PM10</u>	RH Control	<u>ON</u>	<u>ON</u>			
Analog FS	<u>1.0 v</u>	<u>1.0 v</u>	Flow Setpoint	<u>16.7</u>	<u>16.7</u>			

Last 6 Errors in E-BAM Error Log					
Error	Date	Time	Error	Date	Time
1 <u>NONE</u>					
2					
3					

Audit Notes:  
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Baseline Air Monitoring Program - DOE

E-BAM Monthly Audit and Calibration

Station # DOE-4

Serial # W23316

Audit Date: 5/22/2018

Audited By: T.S. Williford

Flow Audit					
Flow Audit Device Model:	<u>BGI Delta Cal DC-1A</u>	Serial No:	<u>158047</u>	Calibration Date:	<u>12/19/2017</u>
Leak Check Value:	as found: <u>0.4</u>	as left:	<u>0.4</u>		
Ambient Temperature:	as found: <u>14.5 °C</u>	Ref. Std.:	<u>14.2 °C</u>	as left:	<u>14.5 °C</u>
Barometric Pressure:	as found: <u>703.5 mmHg</u>	Ref. Std.:	<u>701.5 mmHg</u>	as left:	<u>703.5 mmHg</u>
16.7 lpm Flow Rate (Actual)	as found: <u>16.7 lpm</u>	Ref. Std.:	<u>16.76 lpm</u>	as left:	<u>16.7 lpm</u>

Mechanical Audits ( Y = Yes N = No )					
Sample nozzle clean:	as found	<u>Y</u>	as left	<u>Y</u>	
Tape support vane clean:	as found	<u>Y</u>	as left	<u>Y</u>	
Tape spool covers tight:	as found	<u>Y</u>	as left	<u>Y</u>	
PM10 particle trap clean:	as found	<u>Y</u>	as left	<u>Y</u>	
PM10 drip jar empty:	as found	<u>Y</u>	as left	<u>Y</u>	
PM10 bug screen clear:	as found	<u>Y</u>	as left	<u>Y</u>	

Manual Span Membrane Test		Pump Test		
Expected Span Mass (mg/cm <sup>2</sup> ):	<u>0.884</u>	Flow Rate	Vacuum Value	Quality Category
Measured Span Mass (mg/cm <sup>2</sup> ):	<u>0.889</u>	<u>14.0 - 15.0</u>		Good / Marginal / Poor
Difference (mg/cm <sup>2</sup> ):	<u>0.005</u>			
% Difference / Pass or Fail:	<u>0.5% PASS</u>	<u>14.7</u>	<u>417.8</u>	<u>Marginal</u>

Setup and Calibration Values								
Parameter	Expected	Found	Parameter	Expected	Found	Parameter	Expected	Found
Clock	<u>1002</u>	<u>1002</u>	Analog Mode	<u>hourly</u>	<u>hourly</u>	Flow Type	<u>Actual</u>	<u>Actual</u>
Location	<u>04</u>	<u>04</u>	Baud Rate	<u>9600</u>	<u>9600</u>	Restart Voltage	<u>12.5V</u>	<u>12.5V</u>
Tape Advance	<u>24 hr</u>	<u>24 hr</u>	RH Setpoint	<u>45%</u>	<u>45%</u>	Std Cond Temp	<u>25°C</u>	<u>25°C</u>
Realtime Avg	<u>60 min</u>	<u>60 min</u>	Delta T Setpoint	<u>15%</u>	<u>15%</u>			
Machine Type	<u>PM10</u>	<u>PM10</u>	RH Control	<u>ON</u>	<u>ON</u>			
Analog FS	<u>1.0</u>	<u>1.0</u>	Flow Setpoint	<u>16.7</u>	<u>16.7</u>			

Last 6 Errors in E-BAM Error Log						
Error	Date	Time	Error	Date	Time	
<u>1 Flow Fail - Flow 3.2 lpm</u>	<u>5/18/18</u>	<u>0521</u>	<u>4</u>			
<u>2 Beta Count failed</u>	<u>4/23/18</u>	<u>0451</u>	<u>5</u>			
<u>3</u>			<u>6</u>			

Audit Notes:

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**Baseline Air Monitoring Program - DOE**  
**E-BAM Monthly Audit and Maintenance**

Station # DOE-1 Serial # W23314  
 Audit Date: 6/19/2018 Audited By: TS Williford

Flow Audit					
Flow Audit Device Model:	<u>BGI Delta Cal DC-1A</u>	Serial No:	<u>158047</u>	Calibration Date:	<u>12/19/2017</u>
Leak Check Value:	as found: <u>0.4</u>			as left: <u>0.4</u>	
Ambient Temperature:	as found: <u>20.9</u> °C	Ref. Std.:	<u>21.2</u> °C	as left: <u>21.6</u> °C	Ref. Std. <u>22.0</u> °C
Barometric Pressure:	as found: <u>714.0</u> mmHg	Ref. Std.:	<u>712.0</u> mmHg	as left: <u>714.0</u> mmHg	Ref. Std. <u>712.0</u> mmHg
16.7 lpm Flow Rate (Actual)	as found: <u>16.7</u> lpm	Ref. Std.:	<u>16.9</u> lpm	as left: <u>16.7</u> lpm	Ref. Std. <u>16.9</u> lpm

Mechanical Audits ( Y = Yes N = No )					
Sample nozzle clean:	as found	<u>Y</u>	as left	<u>Y</u>	
Tape support vane clean:	as found	<u>Y</u>	as left	<u>Y</u>	
Tape spool covers tight:	as found	<u>Y</u>	as left	<u>Y</u>	
PM10 particle trap clean:	as found	<u>Y</u>	as left	<u>Y</u>	
PM10 drip jar empty:	as found	<u>Y</u>	as left	<u>Y</u>	
PM10 bug screen clear:	as found	<u>Y</u>	as left	<u>Y</u>	

Manual Span Membrane Test		Pump Test		
Expected Span Mass (mg/cm2):	<u>0.914</u>	Flow Rate	Vacuum Value	Quality Category
Measured Span Mass (mg/cm2):	<u>0.924</u>	14.0 - 15.0		Good / Marginal / Poor
Difference (mg/cm2):	<u>0.010</u>	<u>14.8</u>	<u>409.3</u>	<u>Marginal</u>
% Difference / Pass or Fail:	<u>1.0% Passed</u>			

Setup and Calibration Values								
Parameter	Expected	Found	Parameter	Expected	Found	Parameter	Expected	Found
Clock	<u>1312</u>	<u>1312</u>	Analog Mode	<u>hourly</u>	<u>hourly</u>	Flow Type	<u>actual</u>	<u>actual</u>
Location	<u>1</u>	<u>1</u>	Baud Rate	<u>9600</u>	<u>9600</u>	Restart Voltage	<u>12.5</u>	<u>12.5</u>
Tape Advance	<u>24 hrs</u>	<u>24 hrs</u>	RH Setpoint	<u>45%</u>	<u>45%</u>	Std Cond Temp	<u>25°C</u>	<u>25°C</u>
Realtime Avg	<u>60 min</u>	<u>60 min</u>	Delta T Setpoint	<u>15°C</u>	<u>15°C</u>			
Machine Type	<u>PM-10</u>	<u>PM-10</u>	RH Control	<u>ON</u>	<u>ON</u>			
Analog FS	<u>1.0</u>	<u>1.0</u>	Flow Setpoint	<u>16.7</u>	<u>16.7</u>			

Last 6 Errors in E-BAM Error Log						
Error	Date	Time	Error	Date	Time	
<u>1 Sensor Failure</u>	<u>6/19/18</u>	<u>1354</u>	<u>4</u>			
<u>2</u>			<u>5</u>			
<u>3</u>			<u>6</u>			

Audit Notes: 1035 Hardware Failure, Sensor failure, filter pressure  
826.1



**Baseline Air Monitoring Program - DOE  
E-BAM Monthly Audit and Maintenance**

Station # DOE-2 Serial # W23310  
 Audit Date: 6/19/2018 Audited By: TSwilliford

Flow Audit					
Flow Audit Device Model:	BGI Delta Cal DC-1A	Serial No:	158047	Calibration Date:	12/19/2017
Leak Check Value:	as found: <u>0.5</u>		as left: <u>0.5</u>		
Ambient Temperature:	as found:	E-BAM	Ref. Std.	as left:	E-BAM
Barometric Pressure:	as found:	24.5 °C	25.3 °C	as left:	25.2 °C
16.7 lpm Flow Rate (Actual)	as found:	709.4 mmHg	709.5 mmHg	as left:	709.4 mmHg
		16.7 lpm	16.89 lpm	as left:	16.7 lpm

Mechanical Audits ( Y = Yes N = No )					
Sample nozzle clean:	as found	<u>Y</u>	as left	<u>Y</u>	
Tape support vane clean:	as found	<u>Y</u>	as left	<u>Y</u>	
Tape spool covers tight:	as found	<u>Y</u>	as left	<u>Y</u>	
PM10 particle trap clean:	as found	<u>Y</u>	as left	<u>Y</u>	
PM10 drip jar empty:	as found	<u>Y</u>	as left	<u>Y</u>	
PM10 bug screen clear:	as found	<u>Y</u>	as left	<u>Y</u>	

Manual Span Membrane Test	Pump Test		
Expected Span Mass (mg/cm2): <u>0.921</u>	Flow Rate	Vacuum Value	Quality Category
Measured Span Mass (mg/cm2): <u>0.938</u>	14.0 - 15.0		Good / Marginal / Poor
Difference (mg/cm2): <u>0.017</u>	<u>14.8</u>	<u>402.1</u>	<u>Good</u>
% Difference / Pass or Fail: <u>1.8% Pass</u>			

Setup and Calibration Values								
Parameter	Expected	Found	Parameter	Expected	Found	Parameter	Expected	Found
Clock	1423	1423	Analog Mode	hourly	hourly	Flow Type	actual	actual
Location	2	2	Baud Rate	9600	9600	Restart Voltage	12.5	12.5
Tape Advance	24hr	24hr	RH Setpoint	45%	45%	Std Cond Temp	25°C	25°C
Realtime Avg	60min	60min	Delta T Setpoint	15°C	15°C			
Machine Type	PM-10	PM-10	RH Control	ON	ON			
Analog FS	8.0 v	8.0 v	Flow Setpoint	16.7	16.7			

Last 6 Errors in E-BAM Error Log						
Error	Date	Time	Error	Date	Time	
1 <u>None</u>						4
2						5
3						6

Audit Notes:  
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Baseline Air Monitoring Program - DOE

E-BAM Monthly Audit and Maintenance

Station # DOE-3 Serial # W23313  
 Audit Date: 6/20/2018 Audited By: TBW

Flow Audit						
Flow Audit Device Model:	BGI Delta Cal DC-1A	Serial No:	158047	Calibration Date:	12/19/2017	
Leak Check Value:	as found: <u>0.5</u>		as left: <u>0.5</u>			
Ambient Temperature:	as found: <u>25.6</u> °C	Ref. Std.:	<u>24.8</u> °C	as left: <u>25.6</u> °C	Ref. Std.:	<u>24.8</u> °C
Barometric Pressure:	as found: <u>712</u> mmHg	Ref. Std.:	<u>711.5</u> mmHg	as left: <u>712.0</u> mmHg	Ref. Std.:	<u>711.5</u> mmHg
16.7 lpm Flow Rate (Actual)	as found: <u>16.7</u> lpm	Ref. Std.:	<u>16.89</u> lpm	as left: <u>16.7</u> lpm	Ref. Std.:	<u>16.89</u> lpm

Mechanical Audits ( Y = Yes N = No )					
Sample nozzle clean:	as found	<u>Y</u>	as left	<u>Y</u>	
Tape support vane clean:	as found	<u>Y</u>	as left	<u>Y</u>	
Tape spool covers tight:	as found	<u>Y</u>	as left	<u>Y</u>	
PM10 particle trap clean:	as found	<u>Y</u>	as left	<u>Y</u>	
PM10 drip jar empty:	as found	<u>Y</u>	as left	<u>Y</u>	
PM10 bug screen clear:	as found	<u>Y</u>	as left	<u>Y</u>	

Manual Span Membrane Test		Pump Test		
Expected Span Mass (mg/cm2):	<u>0.896</u>	Flow Rate	Vacuum Value	Quality Category
Measured Span Mass (mg/cm2):	<u>0.893</u>	14.0 - 15.0		Good / Marginal / Poor
Difference (mg/cm2):	<u>0.003</u>	<u>14.8</u>	<u>418.3</u>	<u>Marginal</u>
% Difference / Pass or Fail:	<u>0.3% Pass</u>			

Setup and Calibration Values								
Parameter	Expected	Found	Parameter	Expected	Found	Parameter	Expected	Found
Clock	<u>1015</u>	<u>1015</u>	Analog Mode	<u>hourly</u>	<u>hourly</u>	Flow Type	<u>Act</u>	<u>Act</u>
Location	<u>3</u>	<u>3</u>	Baud Rate	<u>9600</u>	<u>9600</u>	Restart Voltage	<u>12.5</u>	<u>12.5</u>
Tape Advance	<u>24hrs</u>	<u>24hrs</u>	RH Setpoint	<u>45%</u>	<u>45%</u>	Std Cond Temp	<u>25.0</u>	<u>25.0</u>
Realtime Avg	<u>60 min</u>	<u>60 min</u>	Delta T Setpoint	<u>15°C</u>	<u>15°C</u>			
Machine Type	<u>PM10</u>	<u>PM10</u>	RH Control	<u>ON</u>	<u>ON</u>			
Analog FS	<u>1.0V</u>	<u>1.0V</u>	Flow Setpoint	<u>16.7</u>	<u>16.7</u>			

Last 6 Errors in E-BAM Error Log					
Error	Date	Time	Error	Date	Time
<u>1 NONE</u>					
<u>2</u>					
<u>3</u>					

Audit Notes:

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**Baseline Air Monitoring Program - DOE  
E-BAM Monthly Audit and Maintenance**

Station # DOE-4 Serial # W23316  
 Audit Date: 6/22/2018 Audited By: T.S. Williford

Flow Audit					
Flow Audit Device Model:	BGI Delta Cal DC-1A	Serial No:	158047	Calibration Date:	12/19/2017
Leak Check Value:	as found: <u>0.4 LPM</u>		as left: <u>0.4 LPM</u>		
Ambient Temperature:	as found:	E-BAM	Ref. Std.	as left:	E-BAM
		<u>22.9</u> °C	<u>21.8</u> °C		<u>22.9</u> °C
Barometric Pressure:	as found:	<u>703.8</u> mmHg	<u>702.0</u> mmHg	as left:	<u>703.8</u> mmHg
16.7 lpm Flow Rate (Actual)	as found:	<u>16.7</u> lpm	<u>16.79</u> lpm	as left:	<u>16.7</u> lpm

Mechanical Audits ( Y = Yes N = No )					
Sample nozzle clean:	as found	<u>Y</u>	as left	<u>Y</u>	
Tape support vane clean:	as found	<u>Y</u>	as left	<u>Y</u>	
Tape spool covers tight:	as found	<u>Y</u>	as left	<u>Y</u>	
PM10 particle trap clean:	as found	<u>Y</u>	as left	<u>Y</u>	
PM10 drip jar empty:	as found	<u>Y</u>	as left	<u>Y</u>	
PM10 bug screen clear:	as found	<u>Y</u>	as left	<u>Y</u>	

Manual Span Membrane Test		Pump Test		
Expected Span Mass (mg/cm2)	<u>0.884</u>	Flow Rate	Vacuum Value	Quality Category
Measured Span Mass (mg/cm2)	<u>0.888</u>	14.0 - 15.0		Good / Marginal / Poor
Difference (mg/cm2)	<u>0.004</u>	<u>14.5</u>	<u>443.3</u>	<u>Good to Marginal</u>
% Difference / Pass or Fail:	<u>0.4% Pass</u>			

Setup and Calibration Values								
Parameter	Expected	Found	Parameter	Expected	Found	Parameter	Expected	Found
Clock	<u>0932</u>	<u>0932</u>	Analog Mode	<u>hourly</u>	<u>hourly</u>	Flow Type	<u>Actual</u>	<u>Actual</u>
Location	<u>4</u>	<u>4</u>	Baud Rate	<u>9600</u>	<u>9600</u>	Restart Voltage	<u>12.5V</u>	<u>12.5V</u>
Tape Advance	<u>24hrs</u>	<u>24hr</u>	RH Setpoint	<u>45%</u>	<u>45%</u>	Std Cond Temp	<u>25°C</u>	<u>25°C</u>
Realtime Avg	<u>60min</u>	<u>60min</u>	Delta T Setpoint	<u>15°C</u>	<u>15°C</u>			
Machine Type	<u>PM-10</u>	<u>PM-10</u>	RH Control	<u>ON</u>	<u>ON</u>			
Analog FS	<u>1.0V</u>	<u>1.0V</u>	Flow Setpoint	<u>16.7 LPM</u>	<u>16.7 LPM</u>			

Last 6 Errors in E-BAM Error Log						
Error	Date	Time	Error	Date	Time	
<u>1 Flow Fail 3.2 LPM</u>	<u>5/18</u>	<u>TSW</u>				4
<u>2 TSW</u>						5
<u>3 None</u>						6

Audit Notes:  
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**Baseline Air Monitoring Program - DOE  
E-BAM Monthly Audit and Maintenance**

Station # DOE-1 Serial # X16067  
 Audit Date: 6/22/2018 Audited By: JRW

Flow Audit						
Flow Audit Device Model:	BGI Delta Cal DC-1A	Serial No:	158047	Calibration Date:	12/19/2017	
Leak Check Value:	as found: <u>0.5 LPM</u>		as left: <u>0.5 LPM</u>			
Ambient Temperature:	as found: <u>27.1</u> °C	Ref. Std.:	<u>26.8</u> °C	as left: <u>27.1</u> °C	Ref. Std.:	<u>26.8</u> °C
Barometric Pressure:	as found: <u>711.5</u> mmHg	Ref. Std.:	<u>710.5</u> mmHg	as left: <u>711.5</u> mmHg	Ref. Std.:	<u>710.5</u> mmHg
16.7 lpm Flow Rate (Actual)	as found: <u>16.7</u> lpm	Ref. Std.:	<u>16.98</u> lpm	as left: <u>16.7</u> lpm	Ref. Std.:	<u>16.98</u> lpm

Mechanical Audits (Y = Yes N = No)					
Sample nozzle clean:	as found	<u>Y</u>	as left	<u>Y</u>	
Tape support vane clean:	as found	<u>Y</u>	as left	<u>Y</u>	
Tape spool covers tight:	as found	<u>Y</u>	as left	<u>Y</u>	
PM10 particle trap clean:	as found	<u>Y</u>	as left	<u>Y</u>	
PM10 drip jar empty:	as found	<u>Y</u>	as left	<u>Y</u>	
PM10 bug screen clear:	as found	<u>Y</u>	as left	<u>Y</u>	

Manual Span Membrane Test		Pump Test		
Expected Span Mass (mg/cm <sup>2</sup> ):	<u>0.906</u>	Flow Rate	Vacuum Value	Quality Category
Measured Span Mass (mg/cm <sup>2</sup> ):	<u>0.900</u>	14.0 - 15.0		Good / Marginal / Poor
Difference (mg/cm <sup>2</sup> ):	<u>0.006</u>	<u>15.0</u>	<u>416.3</u>	<u>Good to Marginal</u>
% Difference / Pass or Fail:	<u>Pass</u>			

Setup and Calibration Values								
Parameter	Expected	Found	Parameter	Expected	Found	Parameter	Expected	Found
Clock	<u>1354</u>	<u>1354</u>	Analog Mode	<u>hourly</u>	<u>hourly</u>	Flow Type	<u>Actual</u>	<u>Actual</u>
Location	<u>1</u>	<u>1</u>	Baud Rate	<u>9600</u>	<u>9600</u>	Restart Voltage	<u>12.5</u>	<u>12.5</u>
Tape Advance	<u>24 hr</u>	<u>24 hr</u>	RH Setpoint	<u>45%</u>	<u>45%</u>	Std Cond Temp	<u>25°C</u>	<u>25°C</u>
Realtime Avg	<u>60 min</u>	<u>60 min</u>	Delta T Setpoint	<u>15°C</u>	<u>15°C</u>			
Machine Type	<u>PM-10</u>	<u>PM-10</u>	RH Control	<u>ON</u>	<u>ON</u>			
Analog FS	<u>1.0</u>	<u>1.0</u>	Flow Setpoint	<u>16.7</u>	<u>16.7</u>			

Last 6 Errors in E-BAM Error Log					
Error	Date	Time	Error	Date	Time
<u>1 None</u>			4		
2			5		
3			6		

Audit Notes:  
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