I. SUMMARY

Under the *Direct Award Grant 582-18-80075* (DAG) and its amendments, the Texas Commission on Environmental Quality (TCEQ) authorized NTC to implement a regional air monitoring program in TCEQ Regions 3 and 4, as set forth by SB 527 (82R). On September 1, 2019, NTC commenced work on *Plan of Activities 582-18-80730-01-FY20/FY21-05 for TCEQ Project Number 582-18-80730-01*, operating and reporting data from the network's 21 air quality monitoring stations. Total cost to implement the POA was $5,996,259.11. Annually, the network measures over 4,000,000 individual VOC concentrations. No validated samples exceeded either short-term or long-term associated levels of concern. After the conclusion of POA 582-18-80730-01-FY20/FY21-05 on August 31, 2021. NTC will continue implementation of the regional air monitoring program through under POA 582-22-30598-001 FY22/FY23-06.

II. BACKGROUND

During the 82nd Session of the Texas Legislature (2011), the Legislature passed SB 527 to establish a regional air quality monitoring program in TCEQ Regions 3 and 4, a 49-county area encompassing the DFW Metroplex, Abilene, and Wichita Falls. The bill amended state law regarding the allocation Texas Emissions Reduction Plan (TERP) funds described in Sec. 386.051(b)(6) and Sec. 386.252(a)(5) of the Health and Safety Code to read as follows:

> *[…] (5) not more than $7 million shall be allocated in 2012 and 2013 and not more than $3 million shall be allocated in 2014 and in subsequent years to fund a regional air monitoring program in commission Regions 3 and 4 to be implemented under the commission's oversight, including direction regarding the type, number, location, and operation of, and data validation practices for, monitors funded by the program through a regional nonprofit entity located in North Texas having representation from counties, municipalities, higher education institutions, and private sector interests across the area […]*

Following passage of the law and investigation by the Texas Commission on Environmental Quality (TCEQ), the North Texas Commission (NTC) was selected as the only entity eligible to implement the program work according to the stipulations set forth in the law.

In 2012, NTC entered into a series of agreements with the TCEQ to fulfill the implementation of the Regional Air Monitoring Program, culminating with *Direct Award Grant 582-12-23420* (DAG). Executed on August 31, 2012, DAG (and its various amendments) authorize NTC to

implement a regional air monitoring program in TCEQ Regions 3 and 4, as set forth by SB 527. DAG authorized the NTC to conduct four types of work:

1) Review and evaluate current monitoring network in TCEQ Regions 3 and 4
2) Deploy, operate, and report data from new air monitoring sites
3) Data evaluation and communication
4) Other activities related to the Regional Air Monitoring Program

As set forth by DAG, in August 2012 NTC initiated a RFP process to select a vendor to implement the Regional Air Monitoring Program. After evaluating the three submitted proposals, on September 24, 2012 NTC's Selection Committee found URS Corp.'s proposal to be the most qualified and most cost-effective, and URS was unanimously selected to be awarded the contract.[1]

As required by DAG, before conducting any work related to Regional Air Monitoring Program, NTC creates a Plan of Activities (POA) which describes all aspects of the project, including: project manager and key personnel, timeline for implementation, budget, technical approach/method, models and software to be used, grant activities, schedule of progress reports, and miscellaneous information. Upon approval by TCEQ, NTC may then commence work on activities described within the POA.

Since commencement of DAG in 2012, NTC has conducted work under five POAs:

- **POA 582-12-23420-FY13-01**
  Timeframe: October 26, 2012 – January 31, 2014
  Major activities: Constructed and operated 17 air monitors.
  Findings: No exceedances of either short-term or long-term AMCVs.
  Total cost of implementation: $3,489,444.94
- **POA 582-12-23420-FY14-02:**
  Timeframe: February 1, 2014 – August 31, 2015
  Major activities: Continued operation of 17 original monitors; took over operation of 4 existing monitors, bringing total number of monitors in NTC's network to 21.
  Findings: No exceedances of either short-term or long-term AMCVs.
  Total cost of implementation: $4,175,667.92
- **POA 582-16-56277-03-FY16/FY17-03:**
  Timeframe: September 1, 2015 – September 30, 2017
  Major activities: Continued operation of 21 air monitors.

[1] On October 20, 2014, URS Corp. merged with AECOM, and changed its official name to "AECOM." For the remainder of this document, we will refer to URS Corp. as "AECOM."

Findings: No exceedances of either short-term or long-term AMCVs.
Total cost of implementation: $5,694,224.30

- **POA 582-18-80730-01-FY18/FY19-04:**
  Timeframe: October 1, 2017 – August 31, 2019
  Major activities: Continued operation of 21 air monitors.
  Findings: No exceedances of either short-term or long-term AMCVs.
  Total cost of implementation: $4,853,711.99

- **POA 582-18-80730-01-FY20/FY21-05:**
  Timeframe: September 1, 2019 – August 31, 2021
  Major activities: Continued operation of 21 air monitors.
  Findings: No exceedances of either short-term or long-term AMCVs.
  Total cost of implementation: $5,996,259.11

For each POA, NTC has prepared a "Final Report" which summarizes all activities performed under the respective POA.

III. SUMMARY OF WORK

On August 9, 2019, TCEQ issued "Approval to Prepare Plan of Activities" (APPOA) for the Continued Implementation of SB527 Monitoring Program in FY19/FY20, with a maximum possible funding amount of $6,000,000.00. Upon receipt of the APPOA, NTC commenced work preparing a Plan of Activities (POA) and submitted the POA for approval on August 28, 2019. TCEQ issued "Approval to Commence Grant Activities" on September 4, 2019. The initial period of authorized work under the POA was from September 1, 2019 through August 31, 2019, with a total budget of 5,877,389.00. April 2021 TCEQ added $122,611 to the FY21 budget under the contractual category which brings the new total budget to $6,000,000.00.

On August 1, 2019, NTC commenced work on *Plan of Activities 582-18-80730-01-FY20/21-05*. Under this POA, TCEQ authorized NTC to conduct four tasks:

- **Task 1** Operate, report data, and maintain TCEQ approved air monitors throughout Regions 3 and 4
- **Task 2** Decommission or relocate TCEQ approved air monitors throughout Regions 3 and 4
- **Task 3** Respond to Monitoring Issues
- **Task 4** Reporting/Availability for Questions

Monitor Locations

NTC maintained a network of 21 air monitoring stations located in TCEQ Regions 3 and 4.

Table III-1: List of Monitoring Stations

Site Name	Equipment			Date Active	Site ID	County	TCEQ Region
	AutoGC	*VOC Canister*	*Met.*				
Abilene 1939 Industrial Blvd.		X	X	12/18/2013	484411509	Taylor	3
Arlington UT Campus	X		X	9/20/2012	484391018	Tarrant	4
Bowie Patterson Street		X	X	10/01/2013	483371507	Montague	3
Dallas Elm Fork	X		X	11/18/2013	481131505	Dallas	4
Decatur Thompson	X		X	6/5/2013	484970088	Wise	4
DISH Airfield	X		X	5/8/2013	481211013	Wise	4
Eagle Mountain Lake	X			4/8/2013	484390075	Tarrant	4
Everman Johnson Park	X		X	5/8/2013	484391009	Tarrant	4
Flower Mound Shiloh	X		X	5/8/2013	481211007	Denton	4
Ft. Worth Benbrook Lake	X		X	10/1/2013	484391503	Tarrant	4
Gainesville Doss St.		X	X	10/1/2013	480971504	Cooke	4
Godley FM 2331		X	X	7/13/2013	482511501	Johnson	4
Joe B Rushing Rd.	X		X	4/1/2014	484391065	Tarrant	4
Keller		X		7/14/2013	484392003	Tarrant	4
Kennedale Treepoint Dr.	X		X	4/1/2014	484391062	Tarrant	4
Lancaster Cedardale	X		X	9/1/2013	481131500	Dallas	4
Mansfield Flying L Ln.	X		X	4/1/2014	482511063	Johnson	4
Mineral Wells 23rd Street		X	X	8/21/2013	483631502	Palo Pinto	4
Rhome Seven Hills Rd.	X		X	4/1/2014	484971064	Wise	4
Weatherford Tin Top Road		X	X	10/13/2013	483671506	Parker	4
Wichita Falls MWSU		X	X	12/19/2013	484851508	Wichita	3

Implementation of Work

[NOTE: Complete details of NTC's work on the POA FY20/FY21-05 is available in the Monthly Progress Reports, included in Exhibit B to this report.]

Following receipt of the Approval to Commence Grant Activities, NTC and its vendor AECOM continued work on the Regional Air Monitoring Program. Below is a summary of activities in each of the four tasks described above:

Task 1 – Operate, report data, and maintain TCEQ approved air monitors throughout Regions 3 and 4

Throughout the period of authorized work, NTC continued to successfully operate, report data, and maintain the Regional Air Monitor Program. Day-to-day activities included:

- *Monitoring equipment and procedures:* The Regional Air Monitoring Program utilizes two types of monitors; VOC canisters and automated gas chromatographs ("AutoGCs"). Canister stations measure 85 different types of VOCs and sample the air for one 24-hour period every six days. The samples are collected by a technician once every two weeks for off-site laboratory analysis. AutoGC units measure 49 different types of VOCs and take one 5-minute sample every hour, 7-days a week, 365 days a year. The samples are automatically analyzed onsite. Both types of monitors take standard meteorological measurements including wind speed, direction, and humidity, utilizing a 30-ft met tower. After analysis and verification, the data generated by the monitors is made publicly available on the TCEQ's website. AECOM uses two primary vendors to support its monitoring activities; Orsat LLC manages all AutoGCs stations, and GD Air provides analysis for samples from canister sites.

  During the period of authorized work between September 1, 2019 and August 31, 2021, AECOM .

- *Oversight of contract management and execution:* As noted elsewhere in this report, NTC contracted with AECOM to undertake the operation and maintenance of the Regional Air Monitoring Program. Specific contract management and execution tasks included:
    - Conference calls with AECOM and its subcontractors every two weeks, as well as direct communication with key personnel from AECOM and its subcontractors on an as-needed basis.
    - Issuance of Work Orders, Notices to Proceed, and Amendments, including consideration for out-of-scope work (such as installation of new driveways), repairs to non-monitoring equipment (such as fences), and purchase of new replacement equipment (such as meteorological gear).
    - Site inspections of individual monitoring stations.
    - Review and approval of QAPP.
- Liaising with community stakeholders about project and its findings. Specific activities included:
    - Throughout the period of authorized work, NTC has provided information about the project and its findings with various groups, including Metroplex Mayors Association, NTC Finance & Audit Committee, NTC Executive Committee, NTC Board of Directors, and others.
- Managing billing, invoices, and other accounting needs. Specific activities included:
    - In December 2019 and December 2020, NTC underwent annual financial audits, conducted by Weaver . Both reports found that the NTC complied in all material aspects with the types of compliance requirements described in the Uniform Grant Management Standards issued by the Governor's Office of Budget and Planning.
    - Updating equipment inventory logs.
- Facilitate communication between NTC, AECOM, and TCEQ. Specific activities included:
    - Every two weeks conference call with all parties to discuss program.

Task 2 – Decommission or relocate TCEQ approved air monitors throughout Regions 3 and 4

NTC decommissioned and relocated air monitors during the period of authorized work.

- In February 2019 Parker County notified NTC that they were not renewing the lease. In December 2019 new site agreement was signed for Weatherford Tin Top Road.
- In March 2020 TCEQ authorized NTC to purchase 3 new Auto GC and Shelters and relocate old equipment to other TCEQ sites.
- Many of the initial site access agreements' terms concluded during the POA's period of authorized work. NTC and TCEQ renewed the following site access agreements:
    - Mansfield Flying L Road – Renewed on January 16, 2020, authorizing access until January 16, 2025.
    - Everman– Renewed on June 1, 2021, authorizing access until June 1, 2026.
    - Decatur Thompson– Auto renewed on July 18, 2021, authorizing access until July 18, 2026.
    - Flower Mound Shiloh– Auto renewed on August 8, 2021, authorizing access until August 5, 2026.

Task 3 – Respond to Monitoring Issues

On infrequent occasion, certain critical issues relating to the monitoring network arise, such as high readings, extreme weather events, or unscheduled maintenance. All AutoGC monitors within the system are equipped with an alert system that notifies operators of "trigger" readings above certain thresholds via email. Results from VOC canisters are reviewed monthly.

- All of the monitors have undergone routine and preventative maintenance.

Task 4 – Reporting/Availability for Questions

Throughout POA FY20/FY21-05, NTC has submitted monthly progress reports detailing all work conducted (available in full as "Exhibit B: Monthly Progress Reports") and has been available for questions from TCEQ.

Table III-2: Timeline of Events for POA 582-18-80730-01-FY20/FY21-05 and amendment

Date	Description
Aug. 9, 2019	TCEQ issues *Approval to Prepare Plan of Activities* to NTC
Aug 10, 2019	NTC issues *Work Authorization No. 5* to AECOM, requesting AECOM to prepare a Work Plan

Aug 21, 2019	AECOM submits *Plan of Activities – Implementation of SB527 Monitoring Program* to NTC for approval
Aug 28, 2019	NTC submits POA FY20/FY21-05 for approval to TCEQ
Sept. 4, 2019	TCEQ issues *Approval to Commence Grant Activities* to NTC for Project No. 582-18-80730-01 for POA FY20/FY21-05
Sept. 4, 2019	NTC issues *Notice to Proceed* to AECOM
Sept. 4, 2019	NTC commences work on POA FY20/FY21-05 for NTC on Project No. 582-18-80730-01
Dec. 17, 2019	New Lease of Parker County, 2573 Tin Top Road
Jan 16, 2020	Auto Renewal of Mansfield Flying L Road site
Mar 12, 2020	NTC issues Addendum 1 Notice *to Proceed* to AECOM
Jun. 1, 2021	NTC submits draft Final Report to TCEQ
Jun. 1, 2021	Renewal of Everman site
July 18, 2021	Auto Renewal of Decatur Thompson site
Aug 1, 2021	NTC issues Addendum 2 Notice *to Proceed* to AECOM
Aug. 8, 2021	Auto Renewal of Flower Mound Shiloh site
Aug. 20, 2021	NTC issues Addendum 3 Notice *to Proceed* to AECOM
Aug. 26, 2021	TCEQ issues *Approval to Prepare Plan of Activities* to NTC
Aug. 26, 2021	NTC requests AECOM to prepare a Work Plan
Aug. 27, 2021	AECOM submits *Plan of Activities – Implementation of SB527 Monitoring Program* to NTC for approval
Aug. 31, 2021	NTC submits POA FY22/FY23-6 for approval to TCEQ.
Aug. 31, 2021	NTC completes work on POA FY20/FY21-05
Aug. 31, 2021	NTC submits POA FY20/FY21-05 Final Report to TCEQ

POA FY20/FY21-05 Budget Evaluation

The maximum possible amount of funds available for implementation of *POA FY20/FY21-05* was $6,000,000.00. NTC originally budgeted $5,877,389.00 in April 2021 revised the budget to $6,000,000.00 to fully implement the project. The actual expense for implementing *POA FY20/FY21-05* through August 31, 2021 was $5,996,259.11. The difference between the maximum possible amount of funds available and the actual expended for the project totaled $3,740.89 which will be returned to TCEQ.

IV. KEY FINDINGS

AECOM has provided a summary report of the Regional Air Monitoring Program, included as "Exhibit A: Summary of Air Quality Data." In general, they find the network to be high-functioning, and capable of yielding high-quality data:

Throughout the NTC network (canister and AutoGC), the two sampling methods exhibit good correlation. Furthermore, compound concentrations across the network are generally homogenous. (AECOM, pp. ES-1)

They do note "slight seasonal trends" that show relatively higher compound concentrations during winter months (AECOM, pp. ES-1).

Furthermore, they find "short-term and long-term compound concentrations across the network are well below the associated levels of concern" and conclude that "the measured concentrations are acceptable throughout the NTC network and not a threat to human health" (AECOM, pp. ES-1). Below are two summary tables of compound concentrations measured against short-term and long-term AMCVs for seven key compounds studied by the network:

Table IV-1: Summary of Compound Concentrations vs. Short-Term AMCVs

Compound	Highest AutoGC 1-hr Concentration (ppbV)	Highest Canister 24-hr Concentration (ppbV)[1]	Short-term AMCV (ppbV)
Ethane	1,661	348	--
Propane	1,158	50.4	--
Pentane	50.9	4.1	68,000
Benzene	11.7	0.6	180
Toluene	47.1	3.2	4,000
Ethylbenzene	6.1	0.2	20,000
M&p-xylene	20.7	0.5	1,700

[1] *Short-term data but not directly comparable to the 1-hr AMCVs*

Table IV-2: Summary of Compound Concentrations vs. Long-Term AMCVs

Compound	Average Canister 24-hr Concentration (ppbV)	Long-term AMCV (ppbV)
Ethane	11.5	--
Propane	5.9	--
Pentane	0.72	8,100
Benzene	0.17	1.4
Toluene	0.23	1,100
Ethylbenzene	0.03	440
M&p-xylene	0.07	140

Please see Exhibit A for complete findings from the AECOM report, including monthly summary reports through June 2021 (latest available validated data).

V. CONCLUSION

As detailed above, the North Texas Commission successfully implemented all aspects of the Regional Air Monitoring Program, as specified in POA FY20/FY21-05. We look forward to continuing implementation of the project under POA FY22/FY23-06.

EXHIBIT A:

SUMMARY OF AIR QUALITY DATA

AECOM

Final Report

North Texas Commission
Ambient Air and Meteorological Monitoring Network
Summary of Results

September 2019 – June 2021

Prepared for:

North Texas Commission
Irving, TX

Prepared by:

AECOM
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August 2021

STATEMENT OF LIMITATIONS: This report is intended for the sole use of the North Texas Commission. The scope of services performed for this work may not be appropriate to satisfy the needs of other users, and any use or re-use of this document or of the findings, conclusions, or recommendations presented herein is at the sole risk of said user.

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EXECUTIVE SUMMARY

The North Texas Commission (NTC) Air Monitoring Network consists of twenty-one monitoring sites: eight canister sampling sites and thirteen automated gas chromatography (AutoGC) sites. Meteorological parameters are measured at nineteen of these sites. This report follows the reports dated December 2019, October 2017, and August 2015.

The purpose of the network is to measure concentrations of volatile organic hydrocarbon compounds (VOCs) that may negatively affect local air quality. The Texas Emissions Reduction Plan (TERP) was created in 2001 with the goal of assuring that the air in Texas is safe to breathe and meets the federal Clean Air Act's standards. The NTC network helps progress towards this goal by establishing an air monitoring network that provides data about the quality of the air in Texas Commission on Environmental Quality (TCEQ) Regions 3 and 4. Monitoring began in 2013.

Network monitoring includes both continuous monitoring using on-site instruments and periodic sample collection for analysis in an off-site analytical laboratory. The thirteen AutoGC monitors operate on a continuous 24-hour schedule to determine hourly ambient concentrations of 48 VOCs, including both aliphatic and aromatic petroleum hydrocarbons. Canister samples are collected every sixth day from midnight to midnight following the current United States Environmental Protection Agency (U.S. EPA) sampling schedule. Canister sampling provides a 24-hour averaged concentration for 84 target compounds. These target compounds include many of the same petroleum hydrocarbons as the AutoGC monitors, but additionally include various chlorinated hydrocarbons and chlorofluorocarbons. Meteorological parameters measured include wind speed, wind direction, and ambient temperature.

Throughout the NTC network (canister and AutoGC), the two sampling methods exhibit good correlation. Furthermore, compound concentrations across the network are generally homogenous. Slight seasonal trends are apparent as the winter months have relatively higher concentrations, which is likely due to the more stable atmospheric conditions during winter months that minimize the transportation or dispersion of VOCs.

The TCEQ has air monitoring comparison values (AMCVs) for a range of VOCs. AMCVs are screening levels used for evaluating measured levels of common air toxics and are chemical-specific air concentrations set to protect human health and welfare. When compared to the TCEQ AMCVs, short-term and long-term concentrations across the network are well below the associated levels of concern. It can be concluded that the measured concentrations are acceptable throughout the NTC network and are not a threat to human health.

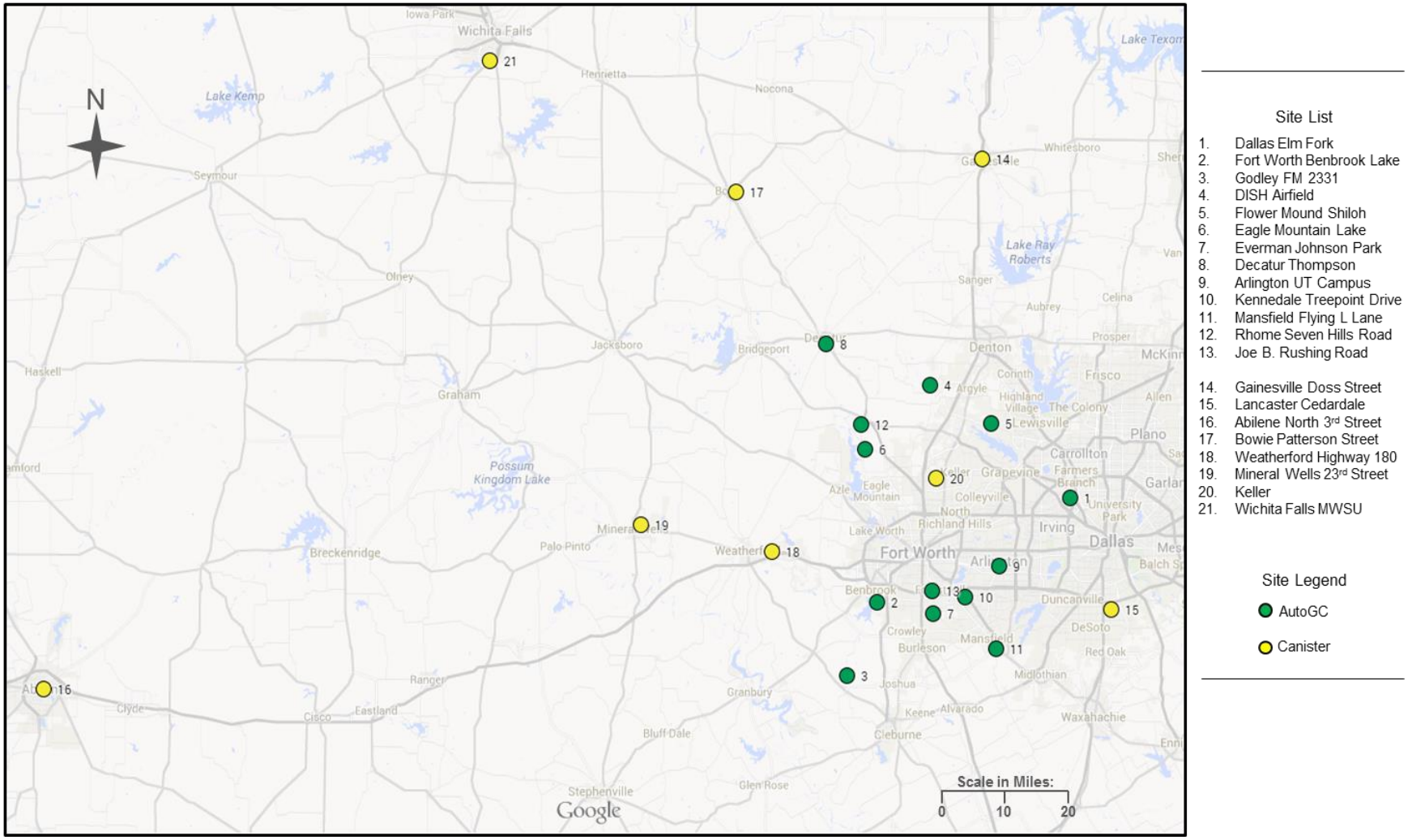
1.0 BACKGROUND

The North Texas Commission (NTC) Air Monitoring Network consists of twenty-one monitoring sites: eight canister sampling sites and thirteen automated gas chromatography (AutoGC) sites. Meteorological parameters are measured at nineteen of these sites. The monitoring locations are shown in Figure 1-1 and listed in Table 1-1. The purpose of the network is to measure concentrations of volatile organic hydrocarbon compounds (VOCs) that may negatively affect local air quality.

There has been an increase in natural gas production in the Barnett Shale region over the last decade. This activity has led to an increase in jobs, property tax revenue, and energy diversity, but the increased activity has triggered scrutiny by the state to ensure that its citizens are breathing clean air. The Texas Emissions Reduction Plan (TERP) was created in 2001 with the goal of assuring that the air in Texas is safe to breathe and meets the federal Clean Air Act's standards. The NTC network helps progress towards this goal by establishing an air monitoring network that provides data about the quality of the air in Texas Commission on Environmental Quality (TCEQ) Regions 3 and 4. Monitoring began in 2013 and was essentially fully operational by the end of that year.

This report covers the time period from September 1, 2019 to June 30, 2021. It follows a report dated December 2019 that covered the time period of July 1, 2017 to August 31, 2019; a report dated October 2017 that covered the time period of June 1, 2015 to June 30, 2017; and a report dated August 2015 that covered the time period of January 1, 2014 to May 31, 2015.

NTC Monitoring Network



Site List

1. Dallas Elm Fork
2. Fort Worth Benbrook Lake
3. Godley FM 2331
4. DISH Airfield
5. Flower Mound Shiloh
6. Eagle Mountain Lake
7. Everman Johnson Park
8. Decatur Thompson
9. Arlington UT Campus
10. Kennedale Treepoint Drive
11. Mansfield Flying L Lane
12. Rhome Seven Hills Road
13. Joe B. Rushing Road
14. Gainesville Doss Street
15. Lancaster Cedardale
16. Abilene North 3rd Street
17. Bowie Patterson Street
18. Weatherford Highway 180
19. Mineral Wells 23rd Street
20. Keller
21. Wichita Falls MWSU

Site Legend

AutoGC

Canister

Figure 1-1. Map for the NTC Air Monitoring Network Sites

Table 1-1. Description of NTC Air Monitoring Network Sites

Site Name	Monitoring Equipment			Date Active
	AutoGC	Canister	Met.	
Abilene		X	X	12/18/2013
Benbrook Lake	X		X	10/1/2013
Bowie Patterson		X	X	10/31/2013
Dallas Elm Fork	X		X	11/18/2013
Decatur Thompson	X		X	6/5/2013
DISH Airfield	X		X	5/8/2013
Eagle Mountain Lake	X			4/8/2013
Everman Johnson Park	X		X	5/8/2013
Flower Mound Shiloh	X		X	5/8/2013
Gainesville Doss		X	X	10/1/2013
Godley	X		X	7/13/2013
Joe B. Rushing Road	X		X	4/1/2014
Keller		X		7/14/2013
Kennedale	X		X	4/1/2014
Lancaster Cedardale		X	X	9/1/2013
Mansfield Flying L. Road	X		X	4/1/2014
Mineral Wells		X	X	8/21/2013
Rhome Seven Hills Road	X		X	4/1/2014
UT-Arlington Campus	X		X	9/20/2012
Weatherford		X	X	10/13/2013
Wichita Falls		X	X	12/19/2013

2.0 MONITORING APPROACH

Monitoring includes both continuous monitoring using on-site instruments and periodic sample collection for analysis in an off-site analytical laboratory. The thirteen AutoGC monitors operate on a continuous 24-hour schedule to determine hourly ambient concentrations of 48 VOCs. A full list of the 48 target compounds is given in Appendix A, which includes both aliphatic and aromatic petroleum hydrocarbons. Canister samples are collected every sixth day from midnight to midnight following the current United States Environmental Protection Agency (U.S. EPA) sampling schedule.[1] Canister sampling provides a 24-hour averaged concentration for the target compounds listed in Appendix B. The compounds analyzed for the canister samples include many of the same petroleum hydrocarbons as the AutoGC monitors and includes various chlorinated hydrocarbons and chlorofluorocarbon. Meteorological data for wind speed, wind direction, and ambient temperature are collected at nineteen of the sites.

VOC analysis of ambient air using the AutoGC systems followed the procedures established in the U.S. EPA *Technical Assistance Document for Sampling and Analysis of Ozone Precursors*. During each clock hour, the AutoGC system collects ambient air continuously for 40 minutes onto a trap; a sample is considered representative and valid only if the sample collection time includes a minimum of 30 minutes during a single clock hour. This is followed by thermal desorption onto two chromatographic columns for determination of the target VOCs over a 48-minute analytical run. This results in 24 discrete analytical sets per day, of which two are QC samples (calibration verification standard and blank). Additional QC samples (retention time standard, calibration verification duplicates, and second-source standards) are run on a weekly routine.

For the Auto GC systems, the method detection limit (MDL) objective is 0.1 ppbv for benzene, 0.3 ppbv for acetylene, ethane, and ethylene, and 0.2 ppbv for propane and all other target compounds. The lighter, more volatile fraction of the air sample is separated on a Porous Layer Open Tubular (PLOT) column. The heavier, less volatile fraction is separated on a dimethyl siloxane (BP1) column. A flame ionization detector (FID) measures the absorbance of each target compound as it is eluted to generate a chromatogram for each column. Each chromatography column separates the components of the air sample based on the distribution equilibrium between the mobile and stationary phases. The separated VOCs are eluted from the column onto the detector, where a signal based on carbon-hydrogen bond response is produced that is proportional to the concentration of the separated compounds. Retention time for each eluted compound is the primary basis for the identification of each compound.

[1] https://www.epa.gov/amtic/sampling-schedule-calendar

The Nutech 2600-4T Auto Canister Samplers are used to collect samples of ambient air in 6-liter, evacuated stainless-steel canisters at a controlled flow rate over a 24-hour period. The VOC sampler must operate so that a measured, consistent amount of air sample is drawn into the sample canister over the 24-hour sampling period. Canister samples are considered valid if sample collection occurs for at least 18 hours of the 24-hour sampling period.

Canister samples are sent to GD Air Testing in Richardson, TX for laboratory analysis by Gas Chromatography Mass Spectrophotometry (GC/MS) adhering to the guidance provided in EPA Method TO-15 (sub-atmospheric sampling). The TO-15 GC/MS analysis is run in full-scan mode and results are reported down to the Reporting Limit, which is approximately 1.5 times the lowest calibration standard, or roughly 0.5 ppbv for all target compounds, except ethane and ethylene, which use a low calibration standard of 10 ppbv.

Nineteen of the AutoGC and canister sampling sites include a 10-meter meteorological tower with wind speed, wind direction, and temperature sensors. Data are collected continuously and reported as 5-minute and hourly averages. A wind vane (direction) and an anemometer (speed) are mounted on a crossarm at a height of 10 meters. Ambient temperature is measured with a thermistor probe located in a fan-driven aspirator housing at a height of 2 meters.

3.0 RESULTS

The NTC Network was originally completed in December 2013, with four additional AutoGC sites incorporated in April 2014. Data presented in this report cover the time period from September 1, 2019 to June 30, 2021, unless otherwise noted. The results are summarized below, followed by discussions of spatial and temporal variability and other topics of interest.

3.1 Summary of Key Results

Table 3-1 shows the percent detection, minimum and maximum concentrations, and average concentrations of the compounds analyzed from the samples collected from all eight canister sites. Low molecular-weight compounds generally had the highest frequencies of detection and the highest maximum concentrations.

Table 3-1. Canister Sample Compound Percent Detection, Minimum and Maximum Concentrations, and Average Concentrations

Compound Name[1]	%Det[2]	Minimum (ppbv)	Maximum (ppbv)	Average[3] (ppbv)
Ethane	100	0.71	347.86	11.49
Propane	100	0.6	50.44	5.85
Benzene	100	0.07	0.62	0.17
Propylene	100	0.05	5.6	0.71
Acetylene	100	0.04	2.72	0.49
Dichlorodifluoromethane	100	0.31	0.8	0.51
Chloromethane	100	0.15	1.13	0.56
Toluene	99.9	ND	3.22	0.23
Trichlorofluoromethane	99.9	ND	0.34	0.21
n-Butane	99.9	ND	14.31	2.22
n-Pentane	99.8	ND	4.05	0.72
Carbon Tetrachloride	99.2	ND	0.17	0.09
1-Butene	99.1	ND	1.47	0.42
Isopentane	98.4	ND	4.82	0.95
p-Xylene + m-Xylene	96.2	ND	0.52	0.07
Methylene Chloride	94.5	ND	0.39	0.1
Ethylbenzene	91	ND	0.19	0.03
n-Hexane	89	ND	1.46	0.24
o-Xylene	86.3	ND	0.19	0.04
Cyclohexane	77.5	ND	0.6	0.14
Isobutane	75	ND	134.5	1.04

Table 3-1. (continued) Canister Sample Compound Percent Detection, Minimum and Maximum Concentrations, and Average Concentrations

Compound Name[1]	%Det[2]	Minimum (ppbv)	Maximum (ppbv)	Average[3] (ppbv)
n-Heptane	57.4	ND	0.58	0.11
Methylcyclohexane	56.7	ND	0.42	0.08
2,2,4-Trimethylpentane	54.1	ND	0.74	0.07
1,2,4-Trimethylbenzene	48.6	ND	0.36	0.04
Isoprene	43.3	ND	1.69	0.21
Styrene	42.8	ND	0.44	0.04
Ethylene	37.2	ND	2.51	0.43
3-Methylpentane	37	ND	0.84	0.12
3-Methylhexane	33.2	ND	0.77	0.1
n-Octane	31.8	ND	0.18	0.05
Chloroform	24.4	ND	0.08	0.04
n-Decane	24.3	ND	25.3	0.13
Methylcyclopentane	22.8	ND	0.9	0.11
n-Nonane	21	ND	7.19	0.07
m-Ethyltoluene	19.2	ND	0.15	0.04
Isohexane	15.5	ND	1.02	0.09
n-Undecane	14.1	ND	5.94	0.08
p-Ethyltoluene	12.8	ND	0.15	0.05
o-Ethyltoluene	11.5	ND	0.22	0.05
1,2,3-Trimethylbenzene	9.5	ND	0.44	0.05
n-Propylbenzene	5.6	ND	0.14	0.05
2,3,4-Trimethylpentane	5.4	ND	0.19	0.05
2-Methyl-2-Butene	5	ND	0.62	0.05
1,3,5-Trimethylbenzene	4.9	ND	0.23	0.05
Isoheptane	3.9	ND	0.48	0.05
p-Diethylbenzene	3.5	ND	0.28	0.05
Bromomethane	3.4	ND	0.24	0.05
2-Methylheptane	3.3	ND	0.22	0.05
1-Pentene	2.9	ND	0.22	0.05
2,3-Dimethylbutane	2.8	ND	0.24	0.05
Cyclopentane	2.5	ND	0.33	0.05
c-2-Pentene	2.1	ND	0.32	0.05
2,4-Dimethylpentane	1.9	ND	0.21	0.05
m-Diethylbenzene	1.9	ND	0.16	0.05

Table 3-1. (continued) Canister Sample Compound Percent Detection, Minimum and Maximum Concentrations, and Average Concentrations

Compound Name[1]	%Det[2]	Minimum (ppbv)	Maximum (ppbv)	Average[3] (ppbv)
Neohexane	1.6	ND	0.23	0.05
Tetrachloroethylene	1.6	ND	0.11	0.05
Cumene	1.4	ND	0.15	0.05
t-2-Pentene	1.4	ND	0.62	0.05
c-2-Butene	1.2	ND	0.77	0.05
3-Methylheptane	1.1	ND	0.19	0.05
Trichloroethylene	1.1	ND	0.07	0.05
2,3-Dimethylpentane	0.8	ND	0.72	0.05
t-2-Butene	0.7	ND	1.24	0.05
1,2-Dichloroethane	0.4	ND	0.04	0.05
Chlorobenzene	0.4	ND	0.03	0.05
1,3-Butadiene	0.2	ND	0.09	0.05
2-Chloropentane	0.1	ND	0.13	0.05
2-Methyl-1-pentene & 1-Hexene	0.1	ND	0.03	0.05
4-Methyl-1-Pentene	0.1	ND	0.33	0.05
3-Methyl-1-Butene	0.1	ND	0.1	0.05
t-2-Hexene	0.1	ND	0.04	0.05
1,2-Dibromoethane	0.1	ND	0.02	0.05
1,1,1-Trichloroethane	0.1	ND	0.07	0.05
1,1,2,2-Tetrachloroethane	0.1	ND	0.01	0.05
Cyclopentene	0.1	ND	0.07	0.05
t-1,3-Dichloropropene	0	ND	ND	NC
c-1,3-Dichloropropene	0	ND	ND	NC
1,2-Dichloropropane	0	ND	ND	NC
1,1-Dichloroethylene	0	ND	ND	NC
1,1-Dichloroethane	0	ND	ND	NC
Vinyl Chloride	0	ND	ND	NC
c-2-Hexene	0	ND	ND	NC
1,1,2-Trichloroethane	0	ND	ND	NC

ND = Not detected

NC = Not calculated

[1] Sites included in statistics: Keller, Mineral Wells, Lancaster Cedardale, Gainesville Doss, Weatherford, Bowie Patterson, Abilene, and Wichita Falls.

[2] 852 valid samples out of a total of 853 collected samples, for a data capture of 99.9%.

[3] Averages calculated with a random number between 0 and the DL substituted for NDs.

Figure 3-1 shows the benzene concentration correlation between canister and AutoGC sites. Canister benzene concentrations trended marginally higher than AutoGC benzene concentrations over several months, but generally benzene concentrations correlated well between the two sampling methods. Average monthly benzene concentrations for all AutoGC and canister sites can be seen in the Monthly Summary Reports in Appendix C.

Meteorological wind roses show wind profiles, or the distributions, of resultant wind direction and wind speeds over a given time period. Figure 3-2 shows a map of the NTC network overlain with representative wind roses for the study period for five of the sites: Abilene, Wichita Falls, Decatur Thompson, Godley, and UT-Arlington Campus. Throughout the network, winds were most commonly from the south.

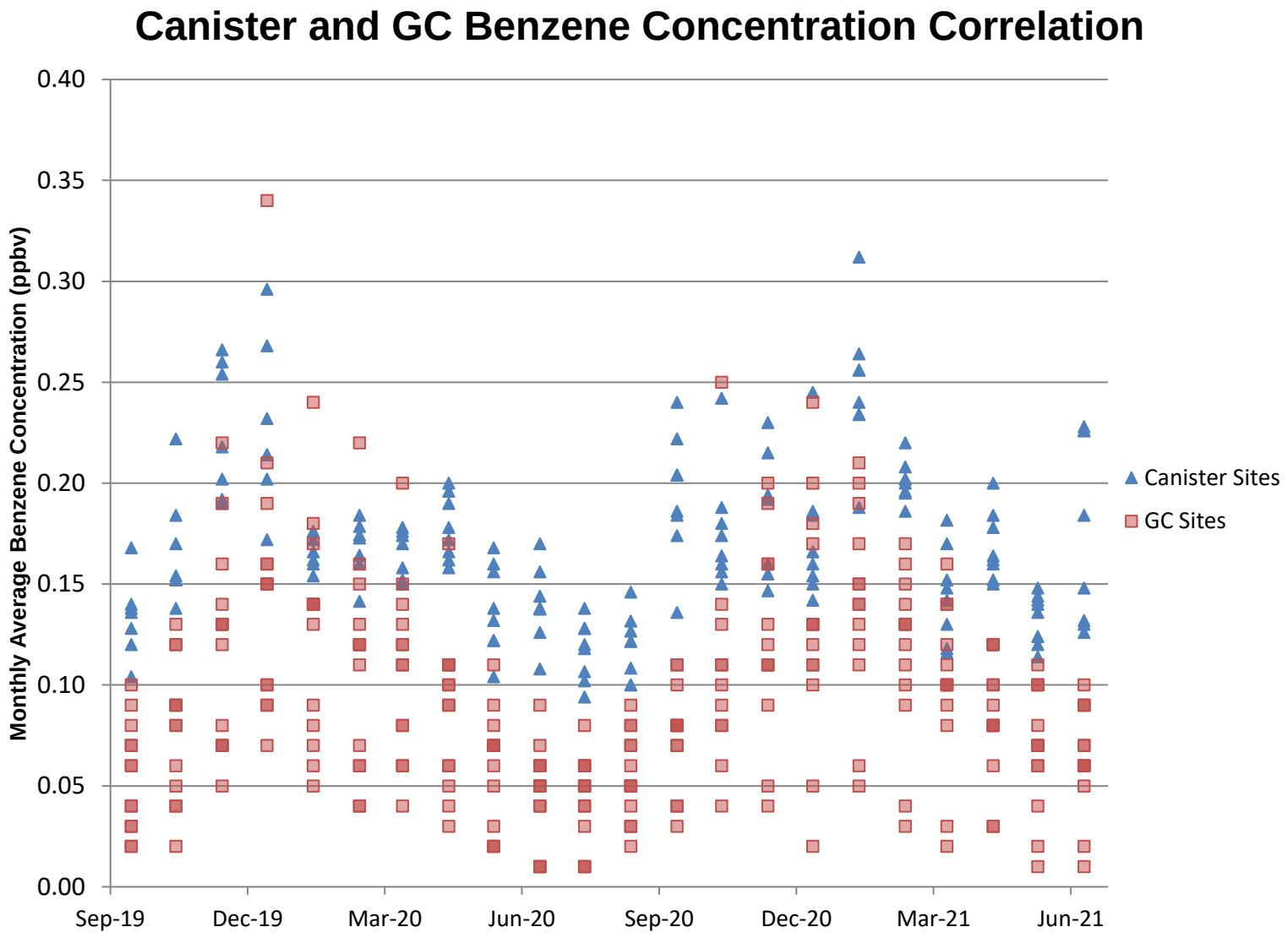


Figure 3-1. Canister and AutoGC Benzene Concentrations

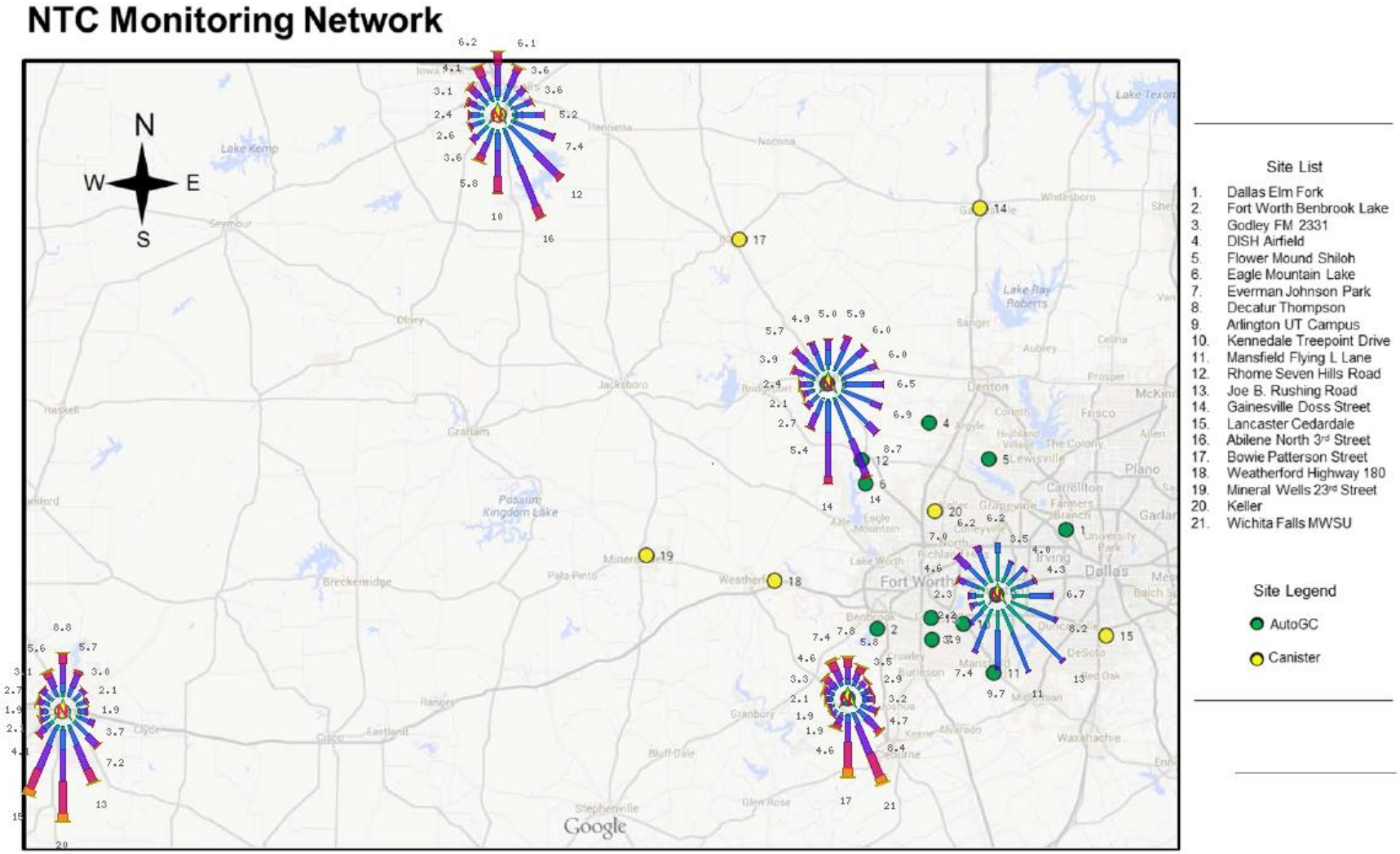


Figure 3-2. Map of NTC Network with September 2019 through June 2021 Wind Roses for Five Sites (2 Canister, 3 AutoGC)

3.2 Spatial Variability

The NTC network spans a large area, and although a small degree of spatial variability is apparent in the measured concentrations, the concentrations measured throughout the network are relatively homogenous overall. Figure 3-3 shows concentrations of benzene, toluene, ethylbenzene, and m&p-xylene versus time for all eight canister sites. Benzene concentrations are consistent throughout the network, with no major outliers. Toluene concentrations are also fairly homogenous throughout the network, though Mineral Wells tends to report higher toluene concentrations than the rest of the canister sites. Both ethylbenzene and m&p-xylene concentrations are comparable at all canister sites.

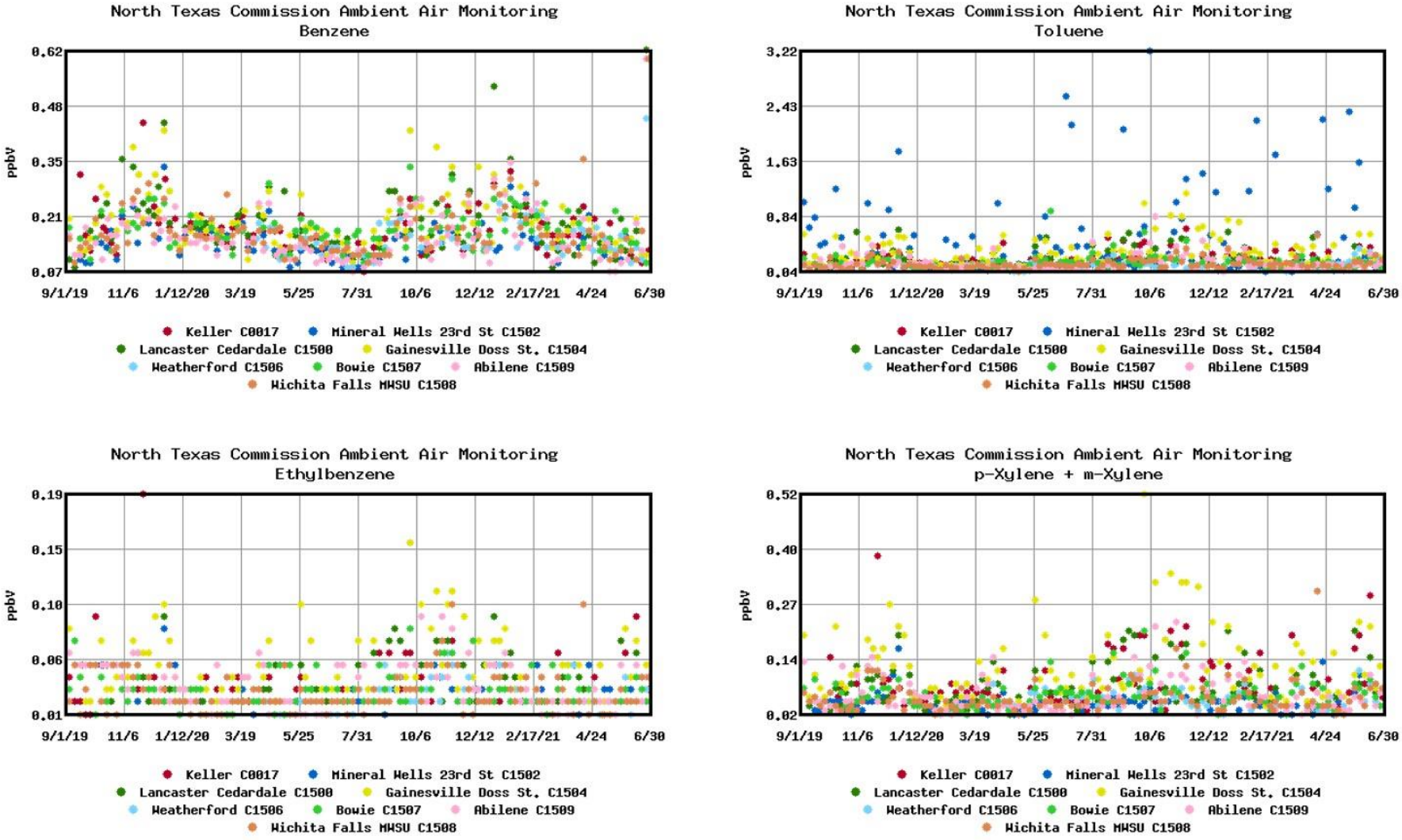


Figure 3-3. Benzene, Toluene, Ethylbenzene, and M&P-xylene Concentrations vs. Time for All Eight Canister Sites

3.3 Temporal Variability

Table 3-2 shows monthly meteorological data for UT-Arlington Campus from September 2019 to June 2021, which is generally representative of all the NTC sites. Figure 3-4 shows a breakdown of wind roses for UT-Arlington Campus by meteorological summer (June through August) and meteorological winter (December through February). There is not a large seasonal variation in wind direction; however, there is an apparent stronger southerly wind component in summer, while winds are more evenly distributed in winter.

Seasonal trends within the data were evaluated with a focus on the compounds that were frequently detected at relatively high concentrations (i.e., low molecular weight hydrocarbons such as ethane, propane, and pentane). Figure 3-5 shows propane concentrations as a function of time for four of the canister sites: Weatherford, Bowie Patterson, Abilene, and Wichita Falls. Higher concentrations of propane are generally seen during the winter months at all four sites. A time series of toluene concentrations can be seen in Figure 3-6 for canister sites Lancaster Cedardale, Mineral Wells, Keller, and Gainesville Doss, and higher concentrations generally are seen during the winter as well. This is believed to be a function of more stable atmospheric conditions during winter months, such as those that occur during temperature inversions or overcast conditions. The stable meteorological conditions in the winter months minimize the transportation or dispersion of VOCs and results in higher VOC concentrations at ground level.

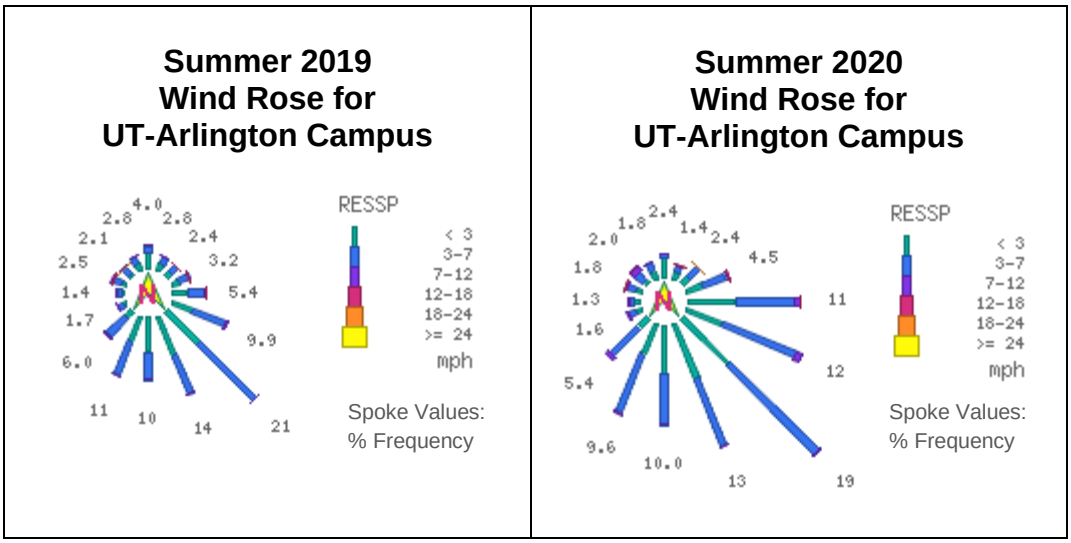
Additional insight into temporal variability can be gleaned from examining the highest detected concentrations of certain compounds throughout the network. Tables 3-3 through 3-6 show the ten highest hourly ethane, pentane, benzene, and toluene concentrations, respectively, measured across all thirteen AutoGC sites. Ethane and pentane are compounds of interest as they are potential indicators of oil and gas activity. Benzene and toluene are of interest due to their presence in gasoline and subsequent widespread existence in ambient air.

Relatively high ethane concentrations were measured across the network. The ten highest hourly ethane concentrations were measured at DISH Airfield and UT-Arlington Campus. The highest hourly pentane concentrations were observed predominantly at Decatur Thompson. The highest hourly toluene concentration was measured at Joe B. Rushing Road, but the majority of the ten highest hourly toluene concentrations were observed at DISH Airfield. Almost all of the ten highest hourly benzene concentrations were measured at Dallas Elm Fork.

Table 3-2. Monthly Meteorological Data from UT-Arlington Campus (September 2019 through June 2021)

Month	Wind Speed (mph)			Wind Gust (mph)	Temperature (°F)		
	Min	Max	Average	Max	Min	Max	Average
Sep-19	0.0	9.0	4.2	27.0	79.4	110.8	93.0
Oct-19	0.0	11.7	4.7	50.8	33.4	107.4	69.8
Nov-19	0.0	13.4	4.0	38.5	26.0	83.4	56.3
Dec-19	0.0	13.0	4.2	28.7	30.2	78.1	53.3
Jan-20	0.0	13.3	4.8	32.2	34.8	82.4	54.1
Feb-20	0.0	14.5	5.4	32.5	30.0	83.1	53.0
Mar-20	0.0	11.7	5.0	35.9	44.9	90.9	66.2
Apr-20	0.0	13.5	4.9	32.0	42.0	97.6	68.2
May-20	0.0	15.2	4.9	57.7	56.0	98.7	77.5
Jun-20	0.0	11.7	4.5	37.6	63.8	103.6	86.0
Jul-20	1.1	13.3	4.5	42.1	77.6	107.0	89.9
Aug-20	0.0	14.1	4.2	46.6	70.7	112.6	91.0
Sep-20	0.0	12.6	4.0	33.7	53.9	98.5	78.8
Oct-20	0.0	11.2	4.3	26.2	41.8	100.5	69.4
Nov-20	0.0	11.0	3.9	28.7	30.9	83.4	61.5
Dec-20	0.0	13.4	4.6	34.9	31.3	82.1	51.4
Jan-21	0.0	17.6	4.8	41.4	32.4	80.6	53.1
Feb-21	0.8	12.3	5.6	30.4	3.3	80.3	43.3
Mar-21	0.3	19.2	5.9	43.4	38.2	81.6	61.7
Apr-21	0.2	13.9	5.1	33.3	39.4	86.7	65.0
May-21	0.4	10.9	4.6	34.9	50.8	90.3	71.5
Jun-21	0.3	8.6	3.9	27.1	62.8	98.1	82.2

Min = minimum
Max = maximum
Mph = Miles per hour
°F = Degrees Fahrenheit



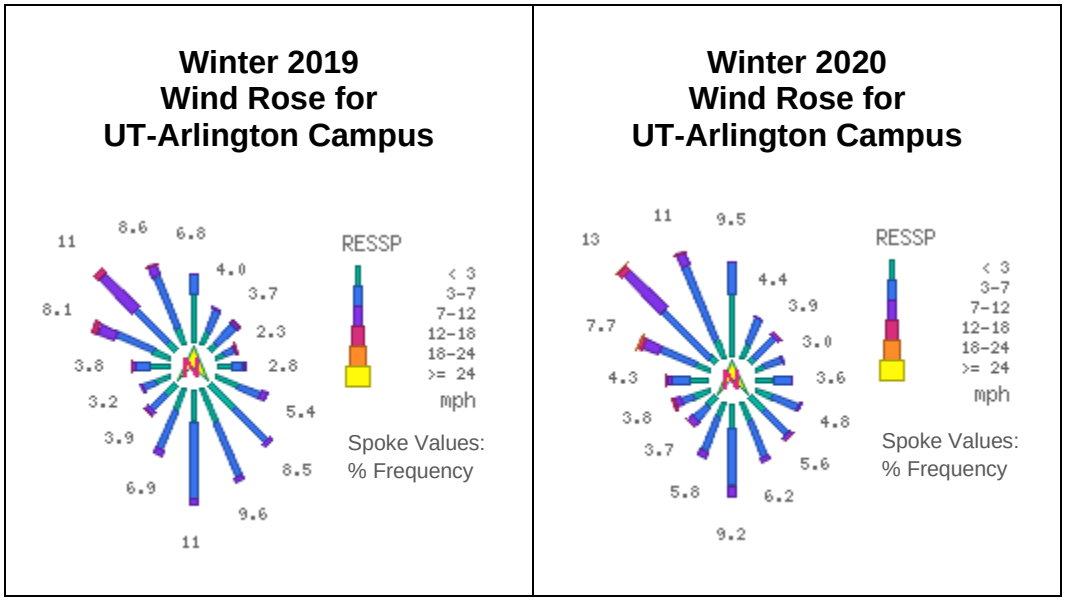


Figure 3-4. Wind Roses for UT-Arlington Campus for Meteorological Summer (top) and Meteorological Winter (bottom)

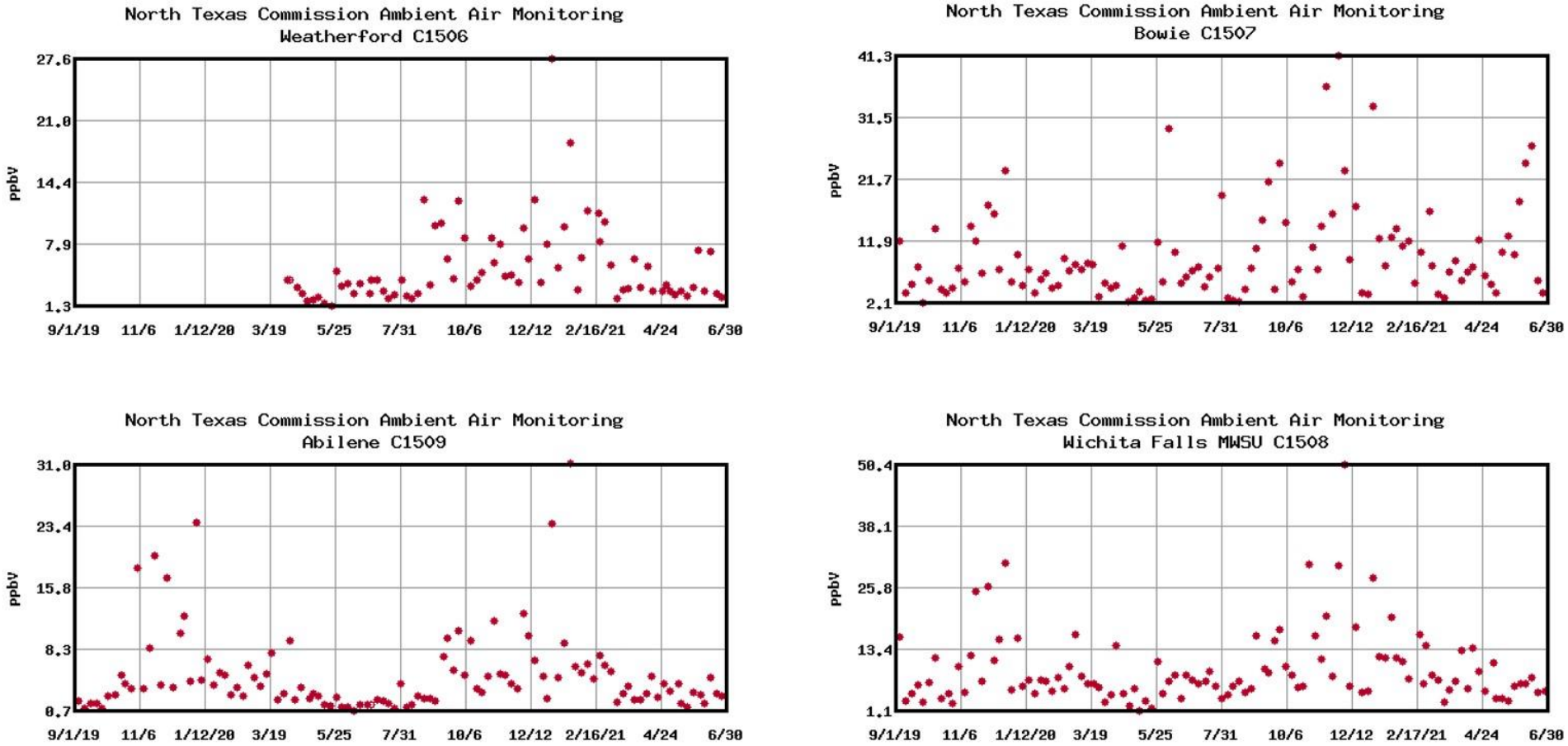


Figure 3-5. Propane Concentrations vs. Time for Weatherford, Bowie Patterson, Abilene, and Wichita Falls

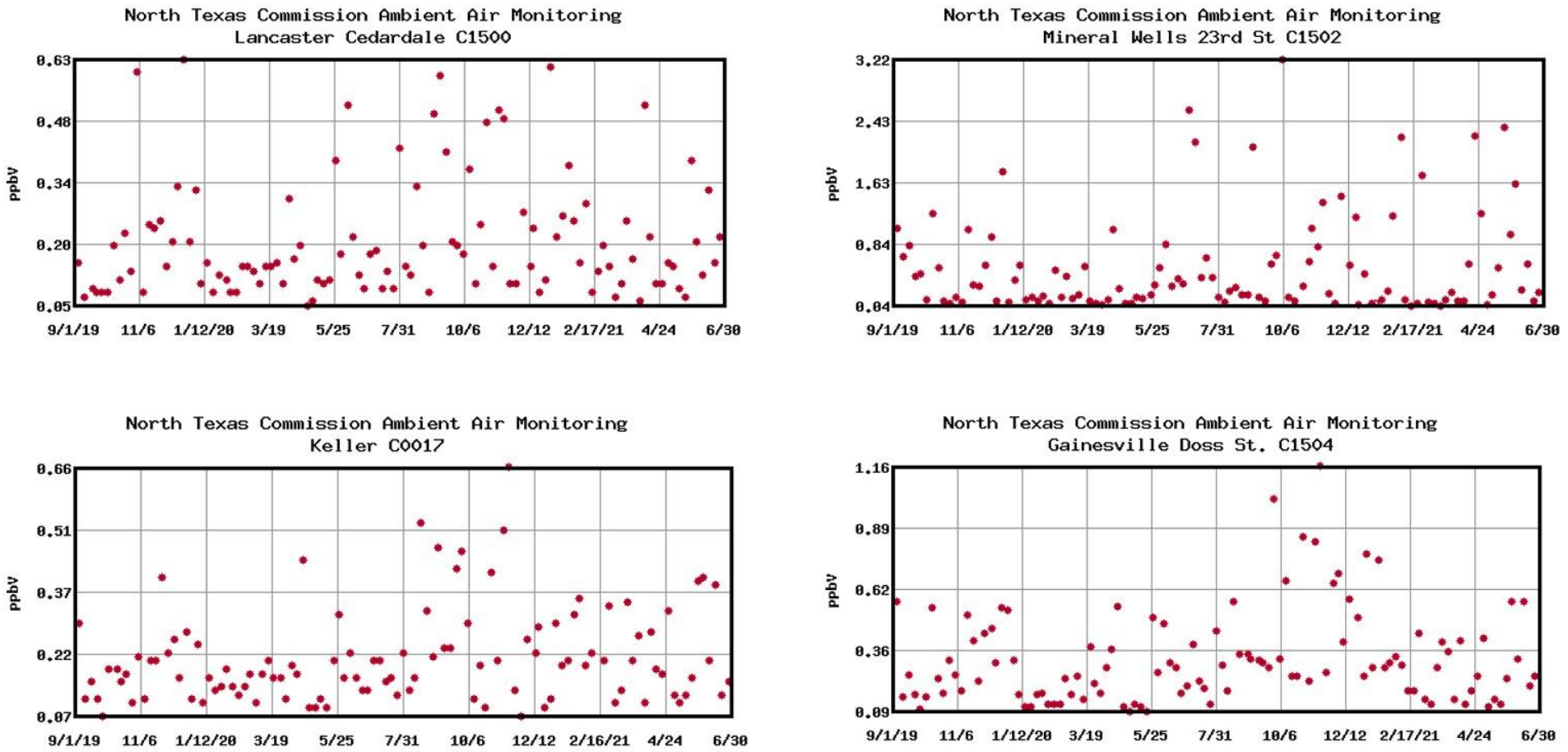


Figure 3-6. Toluene Concentrations vs. Time for Lancaster Cedardale, Mineral Wells, Keller, and Gainesville Doss

Table 3-3. Ten Highest Hourly Ethane Concentrations at GC Sites

Site	Date, Hour	Concentration (ppbv)
DISH Airfield	04/12/2020 10:00	1661
DISH Airfield	04/12/2020 13:00	1639
UT-Arlington Campus	12/04/2019 19:00	1559
DISH Airfield	04/12/2020 12:00	1410
DISH Airfield	12/29/2020 08:00	1360
UT-Arlington Campus	11/02/2019 19:00	1285
DISH Airfield	05/06/2020 06:00	1253
UT-Arlington Campus	12/04/2019 18:00	1224
UT-Arlington Campus	11/02/2019 20:00	1164
UT-Arlington Campus	11/13/2019 02:00	1087

Table 3-4. Ten Highest Hourly Pentane Concentrations at GC Sites

Site	Date, Hour	Concentration (ppbv)
Decatur Thompson	12/12/2020 18:00	50.9
Decatur Thompson	06/29/2021 17:00	46.0
Flower Mound Shiloh	06/14/2021 04:00	36.0
Rhome Seven Hills Road	11/15/2019 05:00	28.9
Decatur Thompson	04/28/2021 16:00	26.2
Rhome Seven Hills Road	11/09/2019 13:00	25.8
Benbrook Lake	08/19/2020 05:00	22.9
Flower Mound Shiloh	11/12/2019 00:00	21.0
Godley	02/19/2021 05:00	20.9
Godley	12/20/2020 07:00	20.9

Table 3-5. Ten Highest Hourly Benzene Concentrations at GC Sites

Site	Date, Hour	Concentration (ppbv)
Dallas Elm Fork	12/23/2019 03:00	11.7
Dallas Elm Fork	12/17/2019 23:00	5.2
Rhome Seven Hills Road	11/09/2019 13:00	5.1
Dallas Elm Fork	12/18/2019 00:00	4.9
Dallas Elm Fork	12/23/2019 02:00	3.7
Dallas Elm Fork	06/19/2021 05:00	3.6
Dallas Elm Fork	11/14/2020 00:00	3.6
Dallas Elm Fork	12/25/2019 03:00	3.5
Dallas Elm Fork	04/26/2020 04:00	3.4
Dallas Elm Fork	01/27/2020 04:00	3.1

Table 3-6. Ten Highest Hourly Toluene Concentrations at GC Sites

Site	Date, Hour	Concentration (ppbv)
Joe B. Rushing Road	09/23/2020 16:00	47.1
DISH Airfield	01/31/2020 14:00	40.8
Dallas Elm Fork	06/19/2021 05:00	37.8
DISH Airfield	06/24/2020 07:00	31.9
DISH Airfield	06/23/2020 12:00	28.5
DISH Airfield	01/31/2020 17:00	24.6
DISH Airfield	06/01/2020 05:00	23.0
DISH Airfield	10/08/2020 06:00	22.6
Rhome Seven Hills Road	11/09/2019 13:00	22.2
DISH Airfield	01/31/2020 15:00	20.1

3.4 Additional Data Evaluation

In addition to the spatial and temporal variability discussed above, certain other topics of possible interest were identified during the data evaluation. Benzene is of interest in VOC networks because of its ubiquity in ambient air and its potential adverse health effects. During the study period, nine of the ten highest hourly benzene concentrations were measured at Dallas Elm Fork: four of the ten highest were observed between December 17 and December 23, 2019. Additionally, concentrations of toluene increased at Dallas Elm Fork during the same time period. Figure 3-7 shows the benzene, toluene, and m&p-xylene concentrations at Dallas Elm Fork from December 17 to 25, 2019. The highest concentration of benzene (11.7 ppbv) was seen on December 23, 2019 at 03:00.

Figure 3-8 shows the ratio of toluene to benzene for December 2019 at Dallas Elm Fork and UT-Arlington Campus, which is generally representative of all sites. The four highest benzene concentrations measured at Dallas Elm Fork were measured from December 17 to 23, 2019. During the time period of elevated toluene and benzene concentrations observed at Dallas Elm Fork, the toluene to benzene ratio is significantly lower compared to both UT-Arlington Campus and the rest of Dallas Elm Fork data for December 2019. This potentially indicates a different pollution source impacting data from December 17 to 23, 2019 compared to the rest of the month.

Using the hourly AutoGC data coupled with meteorological data from the site, pollution roses were created for benzene and toluene concentrations at Dallas Elm Fork from December 17 to 19, 2019, which can be seen in Figure 3-9. The highest benzene and toluene measurements occurred with winds from the east-southeast (wind direction range of 130-145°). A wind rose for December 2019 in Figure 3-10 shows that winds were generally bi-modal during the month. When the pollution rose is overlain on a map of the site and surrounding areas as shown in Figure 3-11, potential sources of the elevated benzene and toluene concentrations might be identified. In this case, a specific source could not be determined from the available information. Similar findings were not noted in previous reports.

Throughout the NTC network, canister and AutoGC concentrations correlated well with slight seasonal trends. Nonetheless, AutoGCs have the additional benefit of time resolution. AutoGC measurements are taken every hour, whereas canister samples are only collected every six days and thus results in a smaller sample size. Furthermore, the canister data are a 24-hour average and cannot be used to determine if the concentration varied within the 24-hour sampling period. The time resolution of the AutoGCs allows for the creation of pollution roses which can potentially help identify the source of short term events.

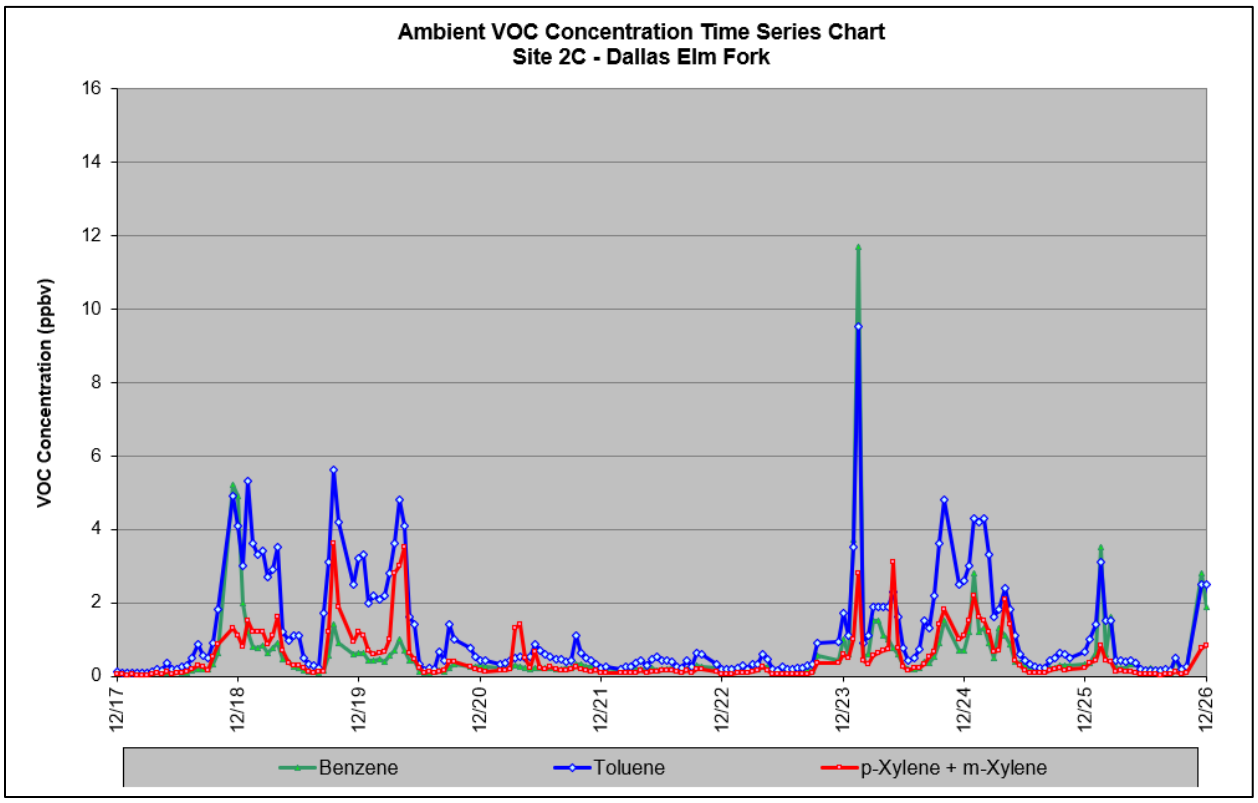


Figure 3-7. VOC Concentrations (ppbv) at Dallas Elm Fork on December 17-25, 2019

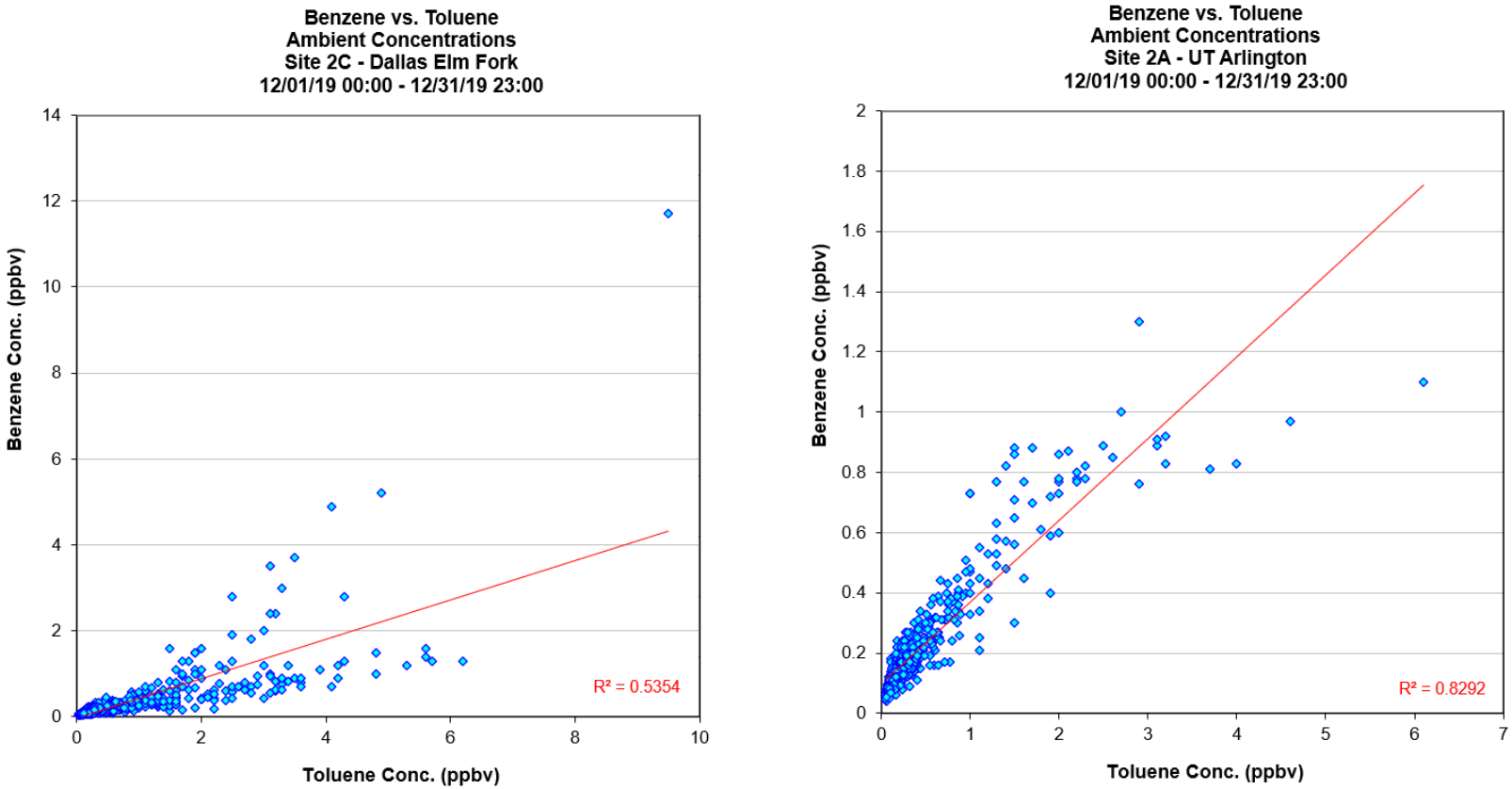
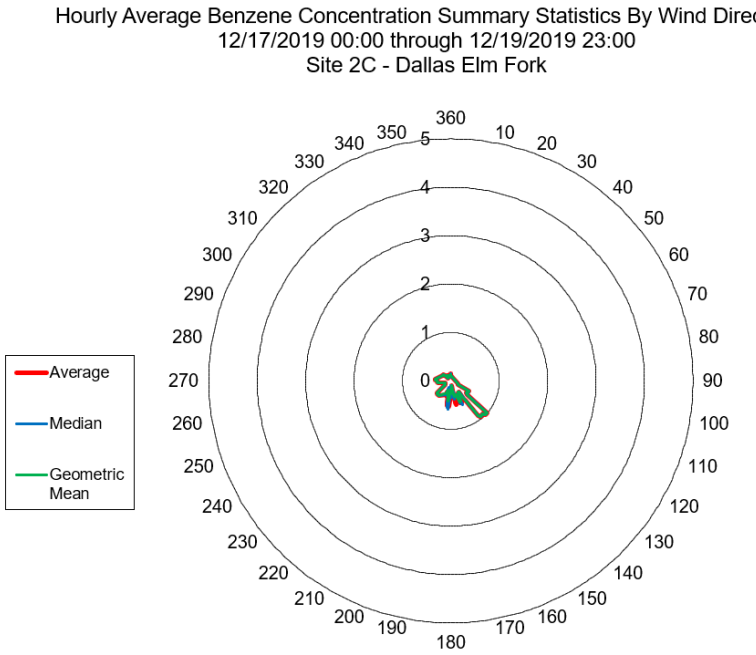


Figure 3-8. Benzene vs. Toluene Comparisons (ppbv) at Dallas Elm Fork and UT-Arlington Campus for December 2019



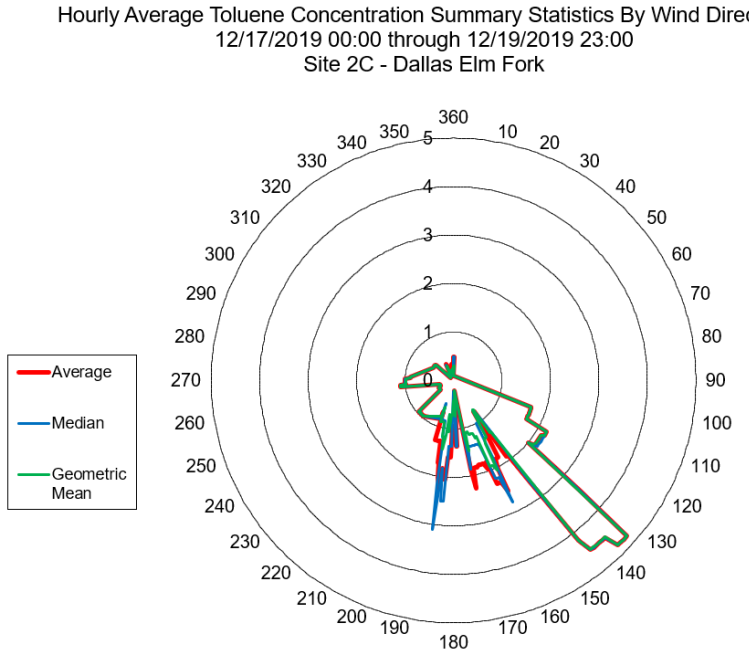


Figure 3-9. Pollution Roses for Benzene and Toluene Concentrations (ppbv) at Dallas Elm Fork on December 17-19, 2019

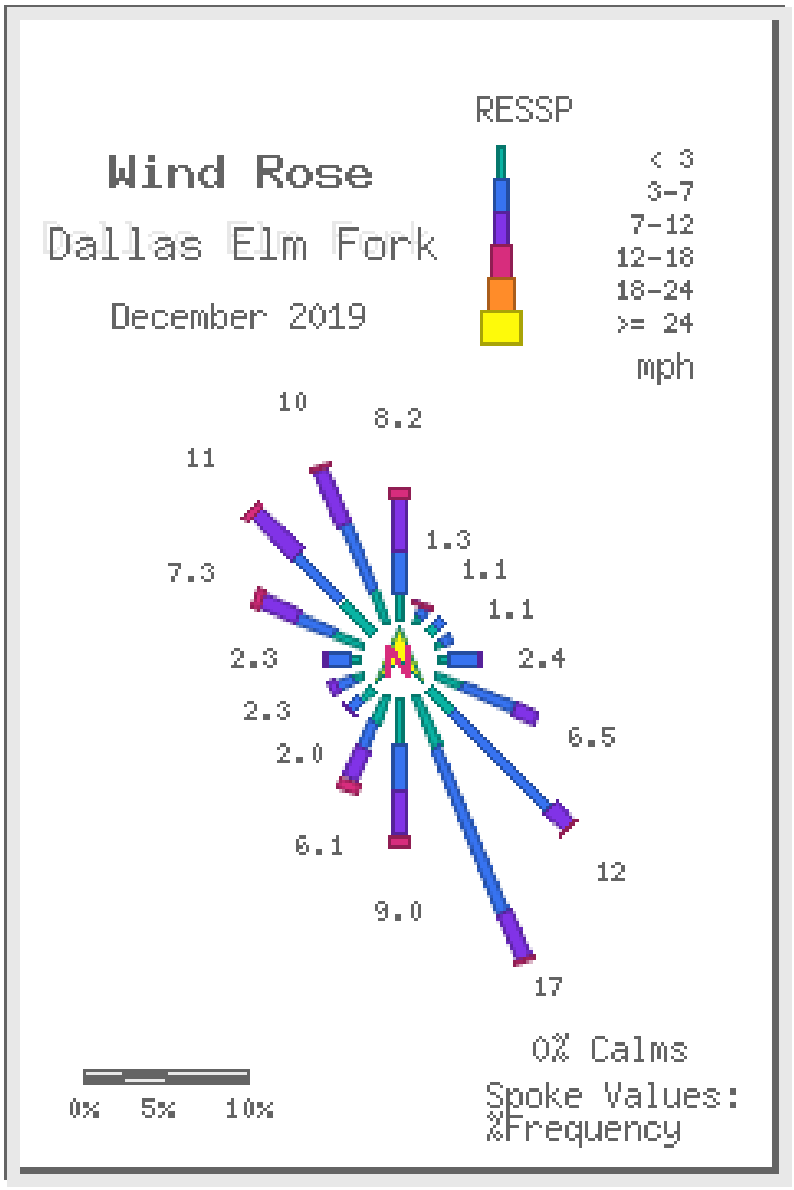


Figure 3-10. Wind Rose at Dallas Elm Fork for December 2019

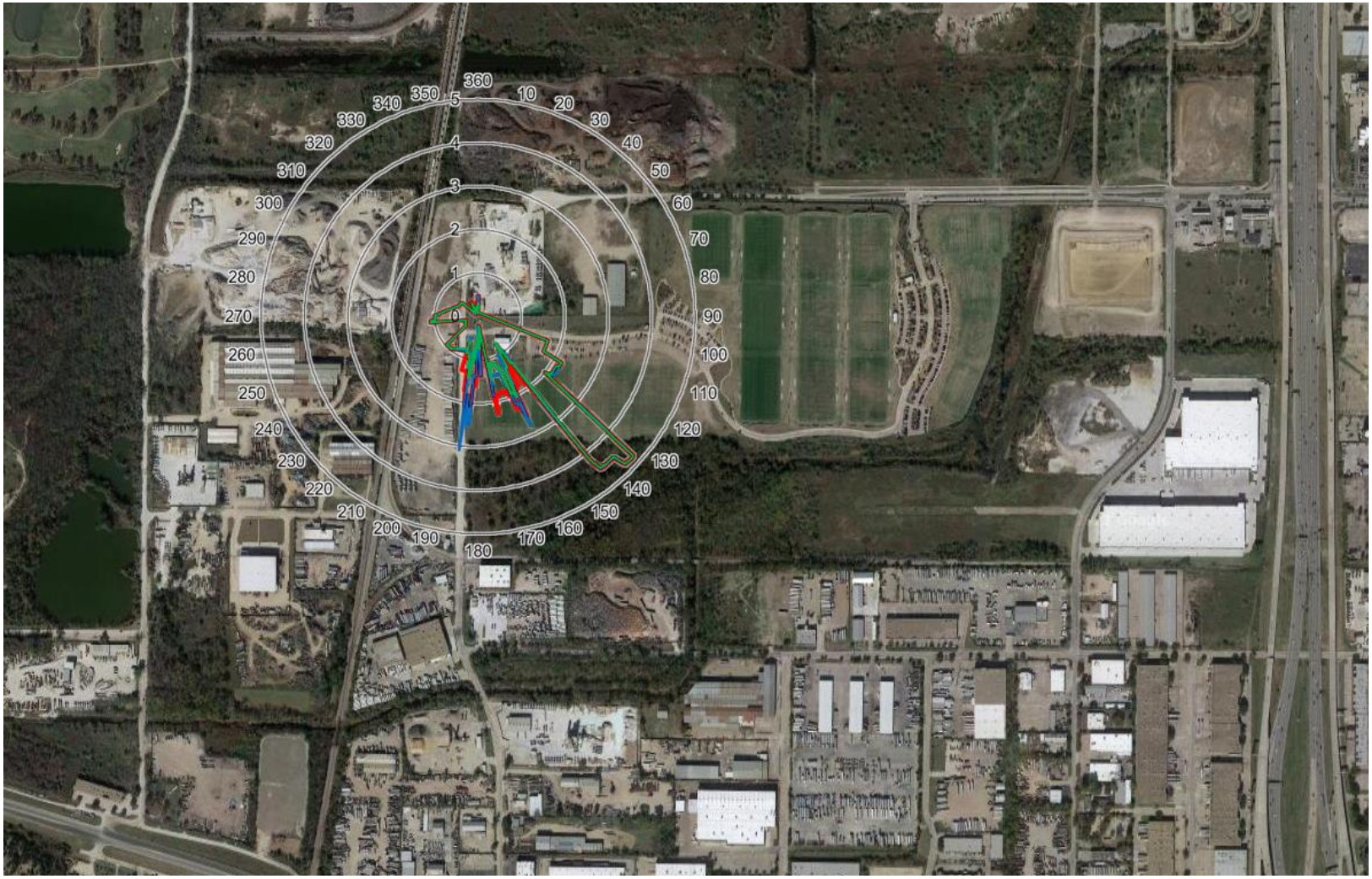


Figure 3-11. Dallas Elm Fork Toluene Pollution Rose (ppbv) for December 17-19, 2019 Overlain on Map of Site Area

4.0 AIR QUALITY IMPACTS

The TCEQ has air monitoring comparison values (AMCVs) that are screening levels used for evaluating measured levels of common air toxics. They are not air quality standards but are chemical-specific air concentrations set to protect human health and welfare and are used for air toxics assessments. The short-term AMCV is based on acute exposure health and welfare data and is intended to be compared to measured concentrations for time periods up to one hour. The long-term AMCV is based on chronic health and welfare data and is used to evaluate annual averaged monitored concentrations or annual concentrations averaged over multiple years

The short- and long-term AMCVs for pentane, benzene, toluene, ethylbenzene, and m&p-xylene can be seen in Tables 4-1 and 4-2. There is no short-term or long-term AMCV for ethane or propane. Tables 3-3 through 3-6 compare the ten highest hourly concentrations measured at the AutoGC sites for pentane, benzene, and toluene to the short-term AMCVs. All high hourly concentrations measured at the NTC network are well below the associated AMCVs. Similarly, the average concentrations of pentane, benzene, toluene, ethylbenzene, and m&p-xylene measured at the canister sites in Table 4-2 are well below the long-term AMCVs. Thus, it can be concluded that measured compound concentrations are acceptable and not a threat to human health.

Table 4-1. Summary of Compound Concentrations vs. Short-Term AMCVs (September 2019 through June 2021)

Compound	Highest AutoGC 1-hr Concentration (ppbv)	Highest Canister 24-hr Concentration (ppbv)[1]	Short Term AMCV (ppbv)	Exceedance (Yes/No)
Ethane	1661	348	--	N/A
Propane	1158	50.4	--	N/A
Pentane	50.9	4.1	68,000	No
Benzene	11.7	0.6	180	No
Toluene	47.1	3.2	4,000	No
Ethylbenzene	6.1	0.2	20,000	No
M&p-xylene	20.7	0.5	1,700	No

N/A = Not Applicable

[1] Short-term data but not directly comparable to the 1-hr AMCVs

Table 4-2. Summary of Compound Concentrations vs. Long-Term AMCVs (September 2019 through June 2021)

Compound	Average Canister 24-hr Concentration (ppbv)	Long Term AMCV (ppbv)	Exceedance (Yes/No)
Ethane	11.5	--	N/A
Propane	5.9	--	N/A
Pentane	0.72	8,100	No
Benzene	0.17	1.4	No
Toluene	0.23	1,100	No
Ethylbenzene	0.03	440	No
M&p-xylene	0.07	140	No

N/A = Not Applicable

5.0 QUALITY ASSURANCE

Various quality assurance or quality control (QA/QC) checks are conducted to help demonstrate that the monitoring data collected are of sufficient quality. The AutoGC systems have automated quality control checks that are used both as feedback for field staff to identify problems or changes in system performance and as indicators of data quality for validators. These include:

- Multipoint calibration;
- Calibration verification standard;
- Laboratory calibration standards;
- Method blank analyses;
- Duplicate CVS analyses; and
- Retention time standard analyses.

Verification of AutoGC system calibration is checked daily using a Calibration Verification Standard (CVS). A second-source Laboratory Calibration Standard (LCS) is analyzed weekly to verify the reliability of the daily CVS. Precision checks are also conducted weekly to ensure data quality. A summary of the AutoGC quality control checks can be seen in Table 5-1. Field operators review QC checks daily and take corrective actions as necessary to maintain system control, optimize performance, and minimize data loss. Monitoring data that do not meet certain QA/QC criteria (e.g., calibration check criteria, precision check criteria, etc.) are invalidated as necessary.

For canister sampling QC, canister sampling rates, durations, and pressures are continuously measured to ensure a valid sample, and chain-of-custody documentation is maintained to further ensure sample integrity. Duplicate (collocated) samples are collected at or about a 10% frequency across the NTC network. These duplicate sample results provide a measure of precision for the canister data. Furthermore, the laboratory that analyzes the canister samples follows the quality control specifications defined in EPA Organic Compendium Method TO-15. Quality control for these analyses includes the following procedures:

- Five-point initial calibration;
- Continuing calibration verification;
- Laboratory blank analyses;
- Blank spike/blank spike duplicate;
- Surrogate spikes; and
- Duplicate sample analyses.

Table 5-1. AutoGC QA/QC Checks

QA/QC Checks	Purpose	Minimum Frequency	Objective
Retention Time Check	Confirm retention time windows	Weekly	100% of compounds are identified correctly in the RTS
Calibration Check (Calibration Verification Standard)	Assess instrument drift and verify instrument calibration	Daily	1) Propane and benzene percent recoveries are within 75-125% and all other compounds are within 55-145% 2) Data must be bracketed by valid calibration checks
Blank Check	Assess system contribution/bias	Daily	1) All target compounds <2 ppbc 2) TNMOC <20 ppbc 3) Data must be bracketed by valid blanks
Precision Check	Assess analytical precision	Weekly	Propane and benzene relative percent difference (RPD) <20% in two consecutive calibration checks
Accuracy Check /2nd Source Standard (Laboratory Calibration Standard)	Assess calibration accuracy	Weekly	Propane and benzene percent recoveries within 70-130%
Method Detection Limit Check	Verify instrument level of detection	Annually	All target compounds <0.4 ppbc

Meteorological data collected as a part of this monitoring program are reviewed each workday to identify any issues with instrument performance in a timely manner. On site, technicians inspect the equipment from time to time for signs of deterioration or damage. Inspections include visually observing that the wind speed cups are intact and turning, the wind direction vane is intact, and the aspirator motor for the temperature sensor is on and the cables appear to be in good shape.

Furthermore, semi-annual field audits of the NTC network are conducted by AECOM's Ambient Air Monitoring (AAM) Quality Assurance team. The audits evaluate overall system effectiveness for both the AutoGC and canister sampling systems, and independently test the measurement equipment to ensure that it is functioning properly. Full audit reports prepared by the AECOM AAM Quality Assurance team and submitted under separate cover can be viewed in Appendix D.

Appendix A

AutoGC Target VOC Compounds

Number	AQS Parameter Code	Compound/Parameter	CAS
1	43202	ethane	74-84-0
2	43203	ethylene	74-85-1
3	43204	propane	74-98-6
4	43205	propylene	115-07-1
5	43214	isobutane	75-28-5
6	43212	n-butane	106-97-8
7	43206	acetylene	74-86-2
8	43216	trans-2-butene	624-64-6
9	43280	1-butene	106-98-9
10	43217	cis-2-butene	590-18-1
11	43242	cyclopentane	287-92-3
12	43221	isopentane	78-78-4
13	43220	n-pentane	109-66-0
14	43218	1,3-butadiene	106-99-0
15	43226	trans-2-pentene	624-64-6
16#	43228	2-methyl-2-butene	513-35-9
17	43224	1-pentene	109-67-1
18	43227	cis-2-pentene	627-20-3
19	43244	2,2-dimethylbutane	75-83-2
20*	43285	2-methylpentane	107-83-5
21	43243	isoprene	78-79-5
22	43231	n-hexane	110-54-3
23	43262	methylcyclopentane	96-37-7
24	43247	2,4-dimethylpentane	108-08-7
25	45201	benzene	71-43-2
26	43248	cyclohexane	110-82-7
27	43263	2-methylhexane	591-76-4
28	43291	2,3-dimethylpentane	565-59-3
29	43249	3-methylhexane	589-34-4
30	43250	2,2,4-trimethylpentane	540-84-1
31	43232	n-heptane	142-82-5
32	43261	methylcyclohexane	108-87-2
33	43252	2,3,4-trimethylpentane	565-75-3
34	45202	toluene	108-88-3
35	43960	2-methylheptane	592-27-8
36	43253	3-methylheptane	589-81-1
37	43233	n-octane	111-65-9
38	45203	ethylbenzene	100-41-4
39	45109	m&p-xylene	1330-20-7
40	45220	styrene	100-42-5

41	45204	o-xylene	95-47-6
42	43235	n-nonane	111-84-2
43	45210	isopropylbenzene (cumene)	98-82-8
44	45209	n-propylbenzene	103-65-1
45	45207	1,3,5-trimethylbenzene	108-67-8
46	45208	1,2,4-trimethylbenzene	95-63-6
47	43238	n-decane	124-18-5
48	45225	1,2,3-trimethylbenzene	526-73-8
49#	43954	n-undecane	1120-21-4
50**	43000	PAMHC	NA
51**	43102	TNMOC	NA

Compound not reported by TCEQ AutoGC's

* This compound is a calibrant not reported in ambient air data; however it is reported to TCEQ LEADS for QC purposes.

** Sum totals, not a chemical compound.

Appendix B

Canister Target Compounds

Number	AIRS Code	Parameter Name	CAS	LOD (ppbv)	LOQ (ppbv)	SQL (ppbv)
1	43814	1,1,1-trichloroethane*	71-55-6	0.1	0.5	0.8
2	43818	1,1,2,2-tetrachloroethane*	79-34-5	0.1	0.5	0.8
3	43820	1,1,2-trichloroethane*	79-00-5	0.1	0.5	0.8
4	43813	1,1-dichloroethane*	75-34-3	0.1	0.5	0.8
5	43826	1,1-dichloroethylene*	75-35-4	0.1	0.5	0.8
6	45225	1,2,3-trimethylbenzene*	526-73-8	0.1	0.5	0.8
7	45208	1,2,4-trimethylbenzene*	95-63-6	0.1	0.5	0.8
8	43843	1,2-dibromoethane*	106-93-4	0.1	0.5	0.8
9	43815	1,2-dichloroethane*	107-06-2	0.1	0.5	0.8
10	43829	1,2-dichloropropane*	78-87-5	0.1	0.5	0.8
11	45207	1,3,5-trimethylbenzene*	108-67-8	0.1	0.5	0.8
12	43218	1,3-butadiene*	106-99-0	0.1	0.5	0.8
13	43280	1-butene*	106-98-9	0.1	0.5	0.8
14	43224	1-pentene*	109-67-1	0.1	0.5	0.8
15	43250	2,2,4-trimethylpentane (isooctane)*	540-84-1	0.1	0.5	0.8
16	43244	2,2-dimethylbutane*	75-83-2	0.1	0.5	0.8
17	43252	2,3,4-trimethylpentane*	565-75-3	0.1	0.5	0.8
18	43284	2,3-dimethylbutane*	79-29-8	0.1	0.5	0.8
19	43291	2,3-dimethylpentane*	565-59-3	0.1	0.5	0.8
20	43247	2,4-dimethylpentane*	108-08-7	0.1	0.5	0.8
21	43331	2-chloropentane	625-29-6	0.1	0.5	0.8
22	43173	2-methyl-1-pentene + 1-hexene	763-29-1 and 592-41-6	0.2	0.5	0.8
23	43228	2-methyl-2-butene*	513-35-9	0.1	0.5	0.8
24	43960	2-methylheptane*	592-27-8	0.1	0.5	0.8
25	43263	2-methylhexane*	591-76-4	0.1	0.5	0.8
26	43285	2-methylpentane*	107-83-5	0.3	0.5	0.8
27	43282	3-methyl-1-butene*	563-45-1	0.1	0.5	0.8
28	43253	3-methylheptane*	589-81-1	0.1	0.5	0.8
29	43249	3-methylhexane*	589-34-4	0.1	0.5	0.8
30	43230	3-methylpentane*	96-14-0	0.1	0.5	0.8
31	43234	4-methyl-1-pentene*	691-37-2	0.2	0.5	0.8
32	43206	acetylene*	74-86-2	0.1	0.5	0.8
33	45201	benzene*	71-43-2	0.1	0.5	0.8
34	43819	bromomethane*	74-83-9	0.1	0.5	0.8
35	43831	c-1,3-dichloropropylene*	10061-01-5	0.1	0.5	0.8
36	43217	c-2-butene*	590-18-1	0.1	0.5	0.8
37	43290	c-2-hexene*	7688-21-3	0.1	0.5	0.8
38	43227	c-2-pentene*	627-20-3	0.1	0.5	0.8
39	43804	carbon tetrachloride*	56-23-5	0.1	0.5	0.8
40	45801	chlorobenzene*	108-90-7	0.1	0.5	0.8
41	43803	chloroform*	67-66-3	0.1	0.5	0.8
42	43248	cyclohexane*	110-82-7	0.1	0.5	0.8
43	43242	cyclopentane*	287-92-3	0.1	0.5	0.8
44	43283	cyclopentene*	142-29-0	0.1	0.5	0.8
45	43823	dichlorodifluoromethane*	75-71-8	0.1	0.5	0.8
46	43202	ethane*	74-84-0	0.3	10	15
47	45203	ethylbenzene*	100-41-4	0.1	0.5	0.8
48	43203	ethylene (ethene)	74-85-1	0.1	10	15
49	43214	isobutane*	75-28-5	0.1	0.5	0.8

50	43221	isopentane*	78-78-4	0.1	0.5	0.8
51	43243	isoprene (2-methyl-1,3-butadiene)*	78-79-5	0.1	0.5	0.8
52	45210	isopropylbenzene (cumene)*	98-82-8	0.1	0.5	0.8
53	45218	m-diethylbenzene*	141-93-5	0.1	0.5	0.8
54	43801	methyl chloride*	74-87-3	0.1	0.5	0.8
55	43261	Methylcyclohexane*	108-87-2	0.1	0.5	0.8
56	43262	methylcyclopentane*	96-37-7	0.1	0.5	0.8
57	43802	methylene chloride (dichloromethane)*	75-09-2	0.1	0.5	0.8
58	45212	m-ethyltoluene (3-ethyltoluene)*	620-14-4	0.1	0.5	0.8
59	43212	n-butane*	106-97-8	0.1	0.5	0.8
60	43238	n-decane*	124-18-5	0.1	0.5	0.8
61	43232	n-heptane*	142-82-5	0.1	0.5	0.8
62	43231	n-hexane*	110-54-3	0.1	0.5	0.8
63	43235	n-nonane*	111-84-2	0.1	0.5	0.8
64	43233	n-octane*	111-65-9	0.1	0.5	0.8
65	43220	n-pentane*	109-66-0	0.1	0.5	0.8
66	45209	n-propylbenzene*	103-65-1	0.1	0.5	0.8
67	43954	n-undecane*	1120-21-4	0.1	0.5	0.8
68	45211	o-ethyltoluene (2-ethyltoluene)*	611-14-3	0.1	0.5	0.8
69	45204	o-xylene*	95-47-6	0.1	0.5	0.8
70	45219	p-diethylbenzene*	105-05-5	0.1	0.5	0.8
71	45213	p-ethyltoluene (4-ethyltoluene)*	622-96-8	0.1	0.5	0.8
72	43204	propane*	74-98-6	0.1	0.5	0.8
73	43205	propylene (propene)	115-07-1	0.1	0.5	0.8
74	45109	p-xylene, m-xylene*	106-42-3 and 108-38-3	0.2	0.5	0.8
75	45220	styrene*	100-42-5	0.1	0.5	0.8
76	43830	t-1,3-dichloropropylene*	10061-02-6	0.1	0.5	0.8
77	43216	t-2-butene*	624-64-6	0.1	0.5	0.8
78	43289	t-2-hexene*	4050-45-7	0.1	0.5	0.8
79	43226	t-2-pentene*	646-04-8	0.1	0.5	0.8
80	43817	tetrachloroethylene (perchloroethylene)*	127-18-4	0.1	0.5	0.8
81	45202	toluene*	108-88-3	0.1	0.5	0.8
82	43824	trichloroethylene*	79-01-6	0.1	0.5	0.8
83	43811	trichlorofluoromethane*	75-69-4	0.1	0.5	0.8
84	43860	vinyl chloride*	75-01-4	0.1	0.5	0.8

*TCEQ NELAP Accredited Compound

Appendix C

Monthly Summary Reports

Summary of Auto GC Data through September 2019

Site Name	Start Date	Last QA Audit	To Date					September				
			Auto GC Data Capture (%)	Met Data Capture (%)[1]	Average Benzene Concentration		Any Value > AMCV (Y/N)	Auto GC Data Capture (%)	Met Data Capture (%)[1]	Average Benzene Concentration		Any Value > AMCV (Y/N)
Arlington UT Campus (2A)	9/20/2012	5/21/2019	95	99	0.14 ppbv	0.86 ppbc	No	94	100	0.09 ppbv	0.56 ppbc	No
Eagle Mountain Lake (2E)	4/8/2013	5/22/2019	96	98[2]	0.09 ppbv	0.57 ppbc	No	100	100[2]	0.06 ppbv	0.37 ppbc	No
Dish Airfield (2D)	5/8/2013	5/22/2019	97	98	0.12 ppbv	0.71 ppbc	No	100	100	0.07 ppbv	0.43 ppbc	No
Flower Mound Shiloh (2F)	5/8/2013	5/23/2019	97	99	0.09 ppbv	0.57 ppbc	No	100	100	0.06 ppbv	0.37 ppbc	No
Everman Johnson Park (2J)	5/8/2013	5/20/2019	96	99	0.09 ppbv	0.52 ppbc	No	98	100	0.03 ppbv	0.18 ppbc	No
Decatur Thompson (2T)	6/5/2013	5/22/2019	97	99	0.11 ppbv	0.64 ppbc	No	99	100	0.04 ppbv	0.25 ppbc	No
Godley FM 2331 (2G)	7/13/2013	5/23/2019	96	99	0.08 ppbv	0.48 ppbc	No	98	100	0.02 ppbv	0.14 ppbc	No
Fort Worth Benbrook Lake (2B)	10/1/2013	5/23/2019	96	99	0.09 ppbv	0.53 ppbc	No	98	100	0.03 ppbv	0.20 ppbc	No
Dallas Elm Fork (2C)	11/18/2013	5/21/2019	96	99	0.16 ppbv	0.94 ppbc	No	96	100	0.10 ppbv	0.62 ppbc	No
Kennedale Treepoint Drive (62)	4/1/2014	5/20/2019	95	99	0.12 ppbv	0.71 ppbc	No	100	100	0.08 ppbv	0.48 ppbc	No
Mansfield Flying L Lane (63)	4/1/2014	5/21/2019	96	99	0.10 ppbv	0.59 ppbc	No	98	100	0.04 ppbv	0.25 ppbc	No
Rhome Seven Hills Road (64)	4/1/2014	5/22/2019	95	99	0.10 ppbv	0.63 ppbc	No	89	100	0.07 ppbv	0.44 ppbc	No
Fort Worth Joe B. Rushing Road (65)	4/1/2014	5/20/2019	96	99	0.08 ppbv	0.50 ppbc	No	93	100	0.02 ppbv	0.13 ppbc	No

[1] Statistics for wind speed and wind direction data

[2] Met validated by TCEQ

Summary of Canister Data through September 2019

Site Name	Start Date	Last QA Audit	To Date					September				
			# EPA Samples Scheduled	# Valid Samples	Met Data Capture (%)[1]	Average Measured Benzene Concentration	Benzene Detection Frequency (%)	# EPA Samples Scheduled	# Valid Samples	Met Data Capture (%)[1]	Average Measured Benzene Concentration	Benzene Detection Frequency (%)
Keller	7/14/2013	5/20/2019	379	372	99[2]	0.16 ppbv	99	5	5	97[2]	0.17 ppbv	100
Mineral Wells 23rd St.	8/21/2013	5/20/2019	373	369	98	0.15 ppbv	99	5	5	100	0.10 ppbv	100
Lancaster Cedardale	9/1/2013	5/20/2019	371	368	99	0.17 ppbv	99	5	5	100	0.12 ppbv	100
Gainesville Doss	10/1/2013	5/21/2019	364	356	97	0.18 ppbv	99	5	5	100	0.14 ppbv	100
Weatherford Highway 180	10/13/2013	11/13/2018	322	318	99	0.14 ppbv	99					
Bowie Patterson St.	10/31/2013	5/20/2019	364	355	99	0.17 ppbv	99	5	5	100	0.14 ppbv	100
Abilene N. 3rd St.	12/18/2013	5/21/2019	311	309	99	0.14 ppbv	99	5	5	100	0.14 ppbv	100
Wichita Falls MWSU	12/19/2013	5/21/2019	353	344	99	0.14 ppbv	99	5	5	100	0.13 ppbv	100

General Comments:

- To Date refers to start date through current month
- Benzene reported as compound of most interest from a health perspective
- Air monitoring comparison values (AMCVs) are defined by the TCEQ as chemical-specific air concentrations set to protect human health and welfare
- To Date Value > AMCV refers to if any target compound concentration found greater than AMCV
- The Weatherford Highway 180 site was decommissioned on 01/22/19.

[1] Statistics for wind speed and wind direction data

[2] Met data validated by TCEQ

Summary of Auto GC Data through October 2019

Site Name	Start Date	Last QA Audit	To Date					October				
			Auto GC Data Capture (%)	Met Data Capture (%)[1]	Average Benzene Concentration		Any Value > AMCV (Y/N)	Auto GC Data Capture (%)	Met Data Capture (%)[1]	Average Benzene Concentration		Any Value > AMCV (Y/N)
Arlington UT Campus (2A)	9/20/2012	5/21/2019	95	99	0.14 ppbv	0.85 ppbc	No	100	100	0.13 ppbv	0.80 ppbc	No
Eagle Mountain Lake (2E)	4/8/2013	5/22/2019	96	98[2]	0.09 ppbv	0.57 ppbc	No	100	100[2]	0.08 ppbv	0.48 ppbc	No
Dish Airfield (2D)	5/8/2013	5/22/2019	97	98	0.12 ppbv	0.70 ppbc	No	96	100	0.09 ppbv	0.55 ppbc	No
Flower Mound Shiloh (2F)	5/8/2013	5/23/2019	97	99	0.09 ppbv	0.57 ppbc	No	96	100	0.09 ppbv	0.53 ppbc	No
Everman Johnson Park (2J)	5/8/2013	5/20/2019	96	99	0.09 ppbv	0.52 ppbc	No	89	100	0.06 ppbv	0.34 ppbc	No
Decatur Thompson (2T)	6/5/2013	5/22/2019	97	99	0.11 ppbv	0.64 ppbc	No	95	100	0.05 ppbv	0.27 ppbc	No
Godley FM 2331 (2G)	7/13/2013	5/23/2019	96	99	0.08 ppbv	0.48 ppbc	No	100	100	0.04 ppbv	0.22 ppbc	No
Fort Worth Benbrook Lake (2B)	10/1/2013	5/23/2019	96	99	0.09 ppbv	0.52 ppbc	No	97	100	0.04 ppbv	0.25 ppbc	No
Dallas Elm Fork (2C)	11/18/2013	5/21/2019	96	99	0.16 ppbv	0.94 ppbc	No	89	92	0.12 ppbv	0.73 ppbc	No
Kennedale Treepoint Drive (62)	4/1/2014	5/20/2019	96	99	0.12 ppbv	0.71 ppbc	No	100	100	0.12 ppbv	0.69 ppbc	No
Mansfield Flying L Lane (63)	4/1/2014	5/21/2019	96	99	0.10 ppbv	0.59 ppbc	No	98	100	0.09 ppbv	0.52 ppbc	No
Rhome Seven Hills Road (64)	4/1/2014	5/22/2019	95	99	0.10 ppbv	0.62 ppbc	No	100	100	0.08 ppbv	0.50 ppbc	No
Fort Worth Joe B. Rushing Road (65)	4/1/2014	5/20/2019	96	99	0.08 ppbv	0.49 ppbc	No	99	100	0.02 ppbv	0.12 ppbc	No

[1] Statistics for wind speed and wind direction data

[2] Met validated by TCEQ

Summary of Canister Data through October 2019

Site Name	Start Date	Last QA Audit	To Date					October				
			# EPA Samples Scheduled	# Valid Samples	Met Data Capture (%)[1]	Average Measured Benzene Concentration	Benzene Detection Frequency (%)	# EPA Samples Scheduled	# Valid Samples	Met Data Capture (%)[1]	Average Measured Benzene Concentration	Benzene Detection Frequency (%)
Keller	7/14/2013	5/20/2019	384	377	99[2]	0.16 ppbv	99	5	5	100[2]	0.17 ppbv	100
Mineral Wells 23rd St.	8/21/2013	5/20/2019	378	374	99	0.15 ppbv	99	5	5	100	0.14 ppbv	100
Lancaster Cedardale	9/1/2013	5/20/2019	376	373	99	0.17 ppbv	99	5	5	100	0.18 ppbv	100
Gainesville Doss	10/1/2013	5/21/2019	369	361	97	0.18 ppbv	99	5	5	98	0.22 ppbv	100
Weatherford Highway 180	10/13/2013	11/13/2018	322	318	99	0.14 ppbv	99					
Bowie Patterson St.	10/31/2013	5/20/2019	369	360	99	0.17 ppbv	99	5	5	100	0.15 ppbv	100
Abilene N. 3rd St.	12/18/2013	5/21/2019	316	314	99	0.14 ppbv	99	5	5	100	0.15 ppbv	100
Wichita Falls MWSU	12/19/2013	5/21/2019	358	349	99	0.14 ppbv	99	5	5	100	0.15 ppbv	100

General Comments:

- To Date refers to start date through current month
- Benzene reported as compound of most interest from a health perspective
- Air monitoring comparison values (AMCVs) are defined by the TCEQ as chemical-specific air concentrations set to protect human health and welfare
- To Date Value > AMCV refers to if any target compound concentration found greater than AMCV
- The Weatherford Highway 180 site was decommissioned on 01/22/19.

[1] Statistics for wind speed and wind direction data

[2] Met data validated by TCEQ

Summary of Auto GC Data through November 2019

Site Name	Start Date	Last QA Audit	To Date					November				
			Auto GC Data Capture (%)	Met Data Capture (%)[1]	Average Benzene Concentration		Any Value > AMCV (Y/N)	Auto GC Data Capture (%)	Met Data Capture (%)[1]	Average Benzene Concentration		Any Value > AMCV (Y/N)
Arlington UT Campus (2A)	9/20/2012	11/11/2019	95	99	0.14 ppbv	0.86 ppbc	No	85	100	0.19 ppbv	1.12 ppbc	No
Eagle Mountain Lake (2E)	4/8/2013	11/13/2019	96	98[2]	0.09 ppbv	0.57 ppbc	No	99	100[2]	0.12 ppbv	0.72 ppbc	No
Dish Airfield (2D)	5/8/2013	11/13/2019	97	98	0.12 ppbv	0.71 ppbc	No	99	100	0.14 ppbv	0.83 ppbc	No
Flower Mound Shiloh (2F)	5/8/2013	11/14/2019	97	99	0.09 ppbv	0.57 ppbc	No	98	100	0.13 ppbv	0.80 ppbc	No
Everman Johnson Park (2J)	5/8/2013	11/12/2019	96	99	0.09 ppbv	0.52 ppbc	No	99	100	0.08 ppbv	0.48 ppbc	No
Decatur Thompson (2T)	6/5/2013	11/13/2019	97	99	0.11 ppbv	0.63 ppbc	No	97	100	0.07 ppbv	0.41 ppbc	No
Godley FM 2331 (2G)	7/13/2013	11/14/2019	96	99	0.08 ppbv	0.48 ppbc	No	91	100	0.07 ppbv	0.44 ppbc	No
Fort Worth Benbrook Lake (2B)	10/1/2013	11/12/2019	96	99	0.09 ppbv	0.52 ppbc	No	91	100	0.07 ppbv	0.43 ppbc	No
Dallas Elm Fork (2C)	11/18/2013	11/11/2019	96	99	0.16 ppbv	0.94 ppbc	No	99	100	0.22 ppbv	1.30 ppbc	No
Kennedale Treepoint Drive (62)	4/1/2014	11/14/2019	96	99	0.12 ppbv	0.71 ppbc	No	99	100	0.16 ppbv	0.94 ppbc	No
Mansfield Flying L Lane (63)	4/1/2014	11/12/2019	96	99	0.10 ppbv	0.60 ppbc	No	99	100	0.13 ppbv	0.77 ppbc	No
Rhome Seven Hills Road (64)	4/1/2014	11/13/2019	95	99	0.10 ppbv	0.63 ppbc	No	97	100	0.13 ppbv	0.78 ppbc	No
Fort Worth Joe B. Rushing Road (65)	4/1/2014	11/12/2019	96	99	0.08 ppbv	0.49 ppbc	No	91	100	0.05 ppbv	0.32 ppbc	No

[1] Statistics for wind speed and wind direction data

[2] Met validated by TCEQ

Summary of Canister Data through November 2019

Site Name	Start Date	Last QA Audit	To Date					November				
			# EPA Samples Scheduled	# Valid Samples	Met Data Capture (%)[1]	Average Measured Benzene Concentration	Benzene Detection Frequency (%)	# EPA Samples Scheduled	# Valid Samples	Met Data Capture (%)[1]	Average Measured Benzene Concentration	Benzene Detection Frequency (%)
Keller	7/14/2013	11/14/2019	389	382	99[2]	0.16 ppbv	99	5	5	99[2]	0.25 ppbv	100
Mineral Wells 23rd St.	8/21/2013	11/15/2019	383	379	99	0.15 ppbv	99	5	5	99	0.19 ppbv	100
Lancaster Cedardale	9/1/2013	11/14/2019	381	378	99	0.17 ppbv	99	5	5	100	0.27 ppbv	100
Gainesville Doss	10/1/2013	11/14/2019	374	366	97	0.18 ppbv	99	5	5	100	0.26 ppbv	100
Weatherford Highway 180	10/13/2013	11/13/2018	322	318	99	0.14 ppbv	99					
Bowie Patterson St.	10/31/2013	11/14/2019	374	365	99	0.17 ppbv	99	5	5	100	0.19 ppbv	100
Abilene N. 3rd St.	12/18/2013	11/13/2019	321	319	99	0.14 ppbv	99	5	5	100	0.20 ppbv	100
Wichita Falls MWSU	12/19/2013	11/14/2019	363	354	99	0.14 ppbv	99	5	5	100	0.22 ppbv	100

General Comments:

- To Date refers to start date through current month
- Benzene reported as compound of most interest from a health perspective
- Air monitoring comparison values (AMCVs) are defined by the TCEQ as chemical-specific air concentrations set to protect human health and welfare
- To Date Value > AMCV refers to if any target compound concentration found greater than AMCV
- The Weatherford Highway 180 site was decommissioned on 01/22/19.

[1] Statistics for wind speed and wind direction data

[2] Met data validated by TCEQ

Summary of Auto GC Data through December 2019

Site Name	Start Date	Last QA Audit	To Date					December				
			Auto GC Data Capture (%)	Met Data Capture (%)[1]	Average Benzene Concentration		Any Value > AMCV (Y/N)	Auto GC Data Capture (%)	Met Data Capture (%)[1]	Average Benzene Concentration		Any Value > AMCV (Y/N)
Arlington UT Campus (2A)	9/20/2012	11/11/2019	95	99	0.14 ppbv	0.86 ppbc	No	99[2]	100	0.21 ppbv	1.28 ppbc	No
Eagle Mountain Lake (2E)	4/8/2013	11/13/2019	96	98[3]	0.10 ppbv	0.57 ppbc	No	100	100[3]	0.15 ppbv	0.89 ppbc	No
Dish Airfield (2D)	5/8/2013	11/13/2019	97	99	0.12 ppbv	0.71 ppbc	No	89	100	0.16 ppbv	0.93 ppbc	No
Flower Mound Shiloh (2F)	5/8/2013	11/14/2019	97	99	0.10 ppbv	0.58 ppbc	No	99	100	0.15 ppbv	0.91 ppbc	No
Everman Johnson Park (2J)	5/8/2013	11/12/2019	96	99	0.09 ppbv	0.52 ppbc	No	100	100	0.10 ppbv	0.57 ppbc	No
Decatur Thompson (2T)	6/5/2013	11/13/2019	97	99	0.11 ppbv	0.63 ppbc	No	100	100	0.10 ppbv	0.62 ppbc	No
Godley FM 2331 (2G)	7/13/2013	11/14/2019	96	99	0.08 ppbv	0.48 ppbc	No	100	100	0.09 ppbv	0.53 ppbc	No
Fort Worth Benbrook Lake (2B)	10/1/2013	11/12/2019	96	99	0.09 ppbv	0.52 ppbc	No	96	100	0.09 ppbv	0.53 ppbc	No
Dallas Elm Fork (2C)	11/18/2013	11/11/2019	96	99	0.16 ppbv	0.96 ppbc	No	100	100	0.34 ppbv	2.06 ppbc	No
Kennedale Treepoint Drive (62)	4/1/2014	11/14/2019	96	99	0.12 ppbv	0.72 ppbc	No	100	100	0.19 ppbv	1.17 ppbc	No
Mansfield Flying L Lane (63)	4/1/2014	11/12/2019	96	99	0.10 ppbv	0.60 ppbc	No	100	100	0.16 ppbv	0.96 ppbc	No
Rhome Seven Hills Road (64)	4/1/2014	11/13/2019	95	99	0.11 ppbv	0.63 ppbc	No	100	100	0.15 ppbv	0.93 ppbc	No
Fort Worth Joe B. Rushing Road (65)	4/1/2014	11/12/2019	96	99	0.08 ppbv	0.49 ppbc	No	100	100	0.07 ppbv	0.41 ppbc	No

[1] Statistics for wind speed and wind direction data

[2] PM conducted in November 2019

[3] Met validated by TCEQ

Summary of Canister Data through December 2019

Site Name	Start Date	Last QA Audit	To Date					December				
			# EPA Samples Scheduled	# Valid Samples	Met Data Capture (%)[1]	Average Measured Benzene Concentration	Benzene Detection Frequency (%)	# EPA Samples Scheduled	# Valid Samples	Met Data Capture (%)[1]	Average Measured Benzene Concentration	Benzene Detection Frequency (%)
Keller	7/14/2013	11/14/2019	394	387	99[2]	0.16 ppbv	99	5	5	93[2]	0.23 ppbv	100
Mineral Wells 23rd St.	8/21/2013	11/15/2019	388	384	98	0.15 ppbv	99	5	5	89	0.20 ppbv	100
Lancaster Cedardale	9/1/2013	11/14/2019	386	383	99	0.17 ppbv	99	5	5	100	0.27 ppbv	100
Gainesville Doss	10/1/2013	11/14/2019	379	371	97	0.18 ppbv	99	5	5	100	0.30 ppbv	100
Weatherford Highway 180	10/13/2013	11/13/2018	322	318	99	0.14 ppbv	99					
Bowie Patterson St.	10/31/2013	11/14/2019	379	370	99	0.17 ppbv	99	5	5	100	0.21 ppbv	100
Abilene N. 3rd St.	12/18/2013	11/13/2019	326	324	99	0.14 ppbv	99	5	5	100	0.17 ppbv	100
Wichita Falls MWSU	12/19/2013	11/14/2019	368	359	99	0.14 ppbv	99	5	5	100	0.21 ppbv	100

General Comments:

- To Date refers to start date through current month
- Benzene reported as compound of most interest from a health perspective
- Air monitoring comparison values (AMCVs) are defined by the TCEQ as chemical-specific air concentrations set to protect human health and welfare
- To Date Value > AMCV refers to if any target compound concentration found greater than AMCV
- The Weatherford Highway 180 site was decommissioned on 01/22/19.

[1] Statistics for wind speed and wind direction data

[2] Met data validated by TCEQ

Summary of Auto GC Data through January 2020

Site Name	Start Date	Last QA Audit	To Date					January				
			Auto GC Data Capture (%)	Met Data Capture (%)[1]	Average Benzene Concentration		Any Value > AMCV (Y/N)	Auto GC Data Capture (%)	Met Data Capture (%)[1]	Average Benzene Concentration		Any Value > AMCV (Y/N)
Arlington UT Campus (2A)	9/20/2012	11/11/2019	95	99	0.14 ppbv	0.86 ppbc	No	100	100	0.17 ppbv	1.00 ppbc	No
Eagle Mountain Lake (2E)	4/8/2013	11/13/2019	96	98[2]	0.10 ppbv	0.58 ppbc	No	100	100[2]	0.13 ppbv	0.79 ppbc	No
Dish Airfield (2D)	5/8/2013	11/13/2019	97	99	0.12 ppbv	0.71 ppbc	No	100	100	0.14 ppbv	0.84 ppbc	No
Flower Mound Shiloh (2F)	5/8/2013	11/14/2019	97	99	0.10 ppbv	0.58 ppbc	No	96	100	0.14 ppbv	0.87 ppbc	No
Everman Johnson Park (2J)	5/8/2013	11/12/2019	96	99	0.09 ppbv	0.52 ppbc	No	91	100	0.08 ppbv	0.48 ppbc	No
Decatur Thompson (2T)	6/5/2013	11/13/2019	97	99	0.11 ppbv	0.63 ppbc	No	100	100	0.09 ppbv	0.55 ppbc	No
Godley FM 2331 (2G)	7/13/2013	11/14/2019	96	99	0.08 ppbv	0.48 ppbc	No	98	85	0.07 ppbv	0.45 ppbc	No
Fort Worth Benbrook Lake (2B)	10/1/2013	11/12/2019	96	99	0.09 ppbv	0.52 ppbc	No	91	100	0.06 ppbv	0.37 ppbc	No
Dallas Elm Fork (2C)	11/18/2013	11/11/2019	96	99	0.16 ppbv	0.96 ppbc	No	100	100	0.24 ppbv	1.45 ppbc	No
Kennedale Treepoint Drive (62)	4/1/2014	11/14/2019	96	99	0.12 ppbv	0.72 ppbc	No	88	100	0.18 ppbv	1.06 ppbc	No
Mansfield Flying L Lane (63)	4/1/2014	11/12/2019	96	99	0.10 ppbv	0.60 ppbc	No	100	100	0.14 ppbv	0.87 ppbc	No
Rhome Seven Hills Road (64)	4/1/2014	11/13/2019	95	99	0.11 ppbv	0.63 ppbc	No	88	100	0.14 ppbv	0.86 ppbc	No
Fort Worth Joe B. Rushing Road (65)	4/1/2014	11/12/2019	96	99	0.08 ppbv	0.48 ppbc	No	100	100	0.05 ppbv	0.28 ppbc	No

[1] Statistics for wind speed and wind direction data

[2] Met data validated by TCEQ

Summary of Canister Data through January 2020

Site Name	Start Date	Last QA Audit	To Date					January				
			# EPA Samples Scheduled	# Valid Samples	Met Data Capture (%)[1]	Average Measured Benzene Concentration	Benzene Detection Frequency (%)	# EPA Samples Scheduled	# Valid Samples	Met Data Capture (%)[1]	Average Measured Benzene Concentration	Benzene Detection Frequency (%)
Keller	7/14/2013	11/14/2019	399	392	98[2]	0.16 ppbv	99	5	5	35[2]	0.17 ppbv	100
Mineral Wells 23rd St.	8/21/2013	11/15/2019	393	389	98	0.15 ppbv	99	5	5	100	0.16 ppbv	100
Lancaster Cedardale	9/1/2013	11/14/2019	391	388	99	0.17 ppbv	99	5	5	100	0.18 ppbv	100
Gainesville Doss	10/1/2013	11/14/2019	384	376	97	0.18 ppbv	99	5	5	100	0.18 ppbv	100
Weatherford Highway 180	10/13/2013	11/13/2018	322	318	99	0.14 ppbv	99					
Bowie Patterson St.	10/31/2013	11/14/2019	384	375	99	0.17 ppbv	99	5	5	100	0.16 ppbv	100
Abilene N. 3rd St.	12/18/2013	11/13/2019	331	329	99	0.14 ppbv	99	5	5	100	0.17 ppbv	100
Wichita Falls MWSU	12/19/2013	11/14/2019	373	364	99	0.14 ppbv	99	5	5	100	0.15 ppbv	100

General Comments:

- To Date refers to start date through current month
- Benzene reported as compound of most interest from a health perspective
- Air monitoring comparison values (AMCVs) are defined by the TCEQ as chemical-specific air concentrations set to protect human health and welfare
- To Date Value > AMCV refers to if any target compound concentration found greater than AMCV
- The Weatherford Highway 180 site was decommissioned on 01/22/19.

[1] Statistics for wind speed and wind direction data

[2] Met data validated by TCEQ

Summary of Auto GC Data through February 2020

Site Name	Start Date	Last QA Audit	To Date					February				
			Auto GC Data Capture (%)	Met Data Capture (%)[1]	Average Benzene Concentration		Any Value > AMCV (Y/N)	Auto GC Data Capture (%)	Met Data Capture (%)[1]	Average Benzene Concentration		Any Value > AMCV (Y/N)
Arlington UT Campus (2A)	9/20/2012	11/11/2019	95	99	0.14 ppbv	0.86 ppbc	No	99	100	0.15 ppbv	0.89 ppbc	No
Eagle Mountain Lake (2E)	4/8/2013	11/13/2019	96	98[2]	0.10 ppbv	0.58 ppbc	No	88[3]	99[2]	0.12 ppbv	0.73 ppbc	No
Dish Airfield (2D)	5/8/2013	11/13/2019	97	99	0.12 ppbv	0.71 ppbc	No	99	100	0.11 ppbv	0.66 ppbc	No
Flower Mound Shiloh (2F)	5/8/2013	11/14/2019	97	99	0.10 ppbv	0.58 ppbc	No	99	100	0.12 ppbv	0.72 ppbc	No
Everman Johnson Park (2J)	5/8/2013	11/12/2019	96	99	0.09 ppbv	0.52 ppbc	No	96	100	0.06 ppbv	0.38 ppbc	No
Decatur Thompson (2T)	6/5/2013	11/13/2019	97	99	0.10 ppbv	0.63 ppbc	No	96	100	0.07 ppbv	0.45 ppbc	No
Godley FM 2331 (2G)	7/13/2013	11/14/2019	96	99	0.08 ppbv	0.47 ppbc	No	99	100	0.06 ppbv	0.37 ppbc	No
Fort Worth Benbrook Lake (2B)	10/1/2013	11/12/2019	96	99	0.09 ppbv	0.52 ppbc	No	93	100	0.04 ppbv	0.27 ppbc	No
Dallas Elm Fork (2C)	11/18/2013	11/11/2019	96	99	0.16 ppbv	0.97 ppbc	No	99	100	0.22 ppbv	1.30 ppbc	No
Kennedale Treepoint Drive (62)	4/1/2014	11/14/2019	96	99	0.12 ppbv	0.72 ppbc	No	100	100	0.16 ppbv	0.93 ppbc	No
Mansfield Flying L Lane (63)	4/1/2014	11/12/2019	96	99	0.10 ppbv	0.61 ppbc	No	89[3]	100	0.13 ppbv	0.78 ppbc	No
Rhome Seven Hills Road (64)	4/1/2014	11/13/2019	95	99	0.11 ppbv	0.64 ppbc	No	99	100	0.12 ppbv	0.75 ppbc	No
Fort Worth Joe B. Rushing Road (65)	4/1/2014	11/12/2019	96	99	0.08 ppbv	0.48 ppbc	No	100	100	0.04 ppbv	0.21 ppbc	No

[1] Statistics for wind speed and wind direction data

[2] Met data validated by TCEQ

[3] PM conducted this month

Summary of Canister Data through February 2020

Site Name	Start Date	Last QA Audit	To Date					February				
			# EPA Samples Scheduled	# Valid Samples	Met Data Capture (%)[1]	Average Measured Benzene Concentration	Benzene Detection Frequency (%)	# EPA Samples Scheduled	# Valid Samples	Met Data Capture (%)[1]	Average Measured Benzene Concentration	Benzene Detection Frequency (%)
Keller	7/14/2013	11/14/2019	404	397	97[2]	0.16 ppbv	99	5	5	15[2]	0.18 ppbv	100
Mineral Wells 23rd St.	8/21/2013	11/15/2019	398	394	98	0.15 ppbv	99	5	5	100	0.15 ppbv	100
Lancaster Cedardale	9/1/2013	11/14/2019	396	393	99	0.17 ppbv	99	5	5	100	0.17 ppbv	100
Gainesville Doss	10/1/2013	11/14/2019	389	381	97	0.18 ppbv	99	5	5	100	0.18 ppbv	100
Weatherford Highway 180	10/13/2013	11/13/2018	322	318	99	0.14 ppbv	99					
Bowie Patterson St.	10/31/2013	11/14/2019	389	380	99	0.17 ppbv	99	5	5	100	0.16 ppbv	100
Abilene N. 3rd St.	12/18/2013	11/13/2019	336	334	99	0.14 ppbv	99	5	5	100	0.14 ppbv	100
Wichita Falls MWSU	12/19/2013	11/14/2019	378	369	99	0.14 ppbv	99	5	5	100	0.17 ppbv	100

General Comments:

- To Date refers to start date through current month
- Benzene reported as compound of most interest from a health perspective
- Air monitoring comparison values (AMCVs) are defined by the TCEQ as chemical-specific air concentrations set to protect human health and welfare
- To Date Value > AMCV refers to if any target compound concentration found greater than AMCV
- The Weatherford Highway 180 site was decommissioned on 01/22/19.

[1] Statistics for wind speed and wind direction data

[2] Met data validated by TCEQ

Summary of Auto GC Data through March 2020

Site Name	Start Date	Last QA Audit	To Date					March				
			Auto GC Data Capture (%)	Met Data Capture (%)[1]	Average Benzene Concentration		Any Value > AMCV (Y/N)	Auto GC Data Capture (%)	Met Data Capture (%)[1]	Average Benzene Concentration		Any Value > AMCV (Y/N)
Arlington UT Campus (2A)	9/20/2012	11/11/2019	95	99	0.14 ppbv	0.86 ppbc	No	100	100	0.14 ppbv	0.82 ppbc	No
Eagle Mountain Lake (2E)	4/8/2013	11/13/2019	96	98[2]	0.10 ppbv	0.58 ppbc	No	94	100[2]	0.12 ppbv	0.71 ppbc	No
Dish Airfield (2D)	5/8/2013	11/13/2019	97	99	0.12 ppbv	0.71 ppbc	No	89[3]	100	0.11 ppbv	0.68 ppbc	No
Flower Mound Shiloh (2F)	5/8/2013	11/14/2019	97	99	0.10 ppbv	0.58 ppbc	No	89[3]	100	0.11 ppbv	0.69 ppbc	No
Everman Johnson Park (2J)	5/8/2013	11/12/2019	96	99	0.09 ppbv	0.52 ppbc	No	100	100	0.08 ppbv	0.49 ppbc	No
Decatur Thompson (2T)	6/5/2013	11/13/2019	97	99	0.10 ppbv	0.63 ppbc	No	99	100	0.08 ppbv	0.47 ppbc	No
Godley FM 2331 (2G)	7/13/2013	11/14/2019	96	99	0.08 ppbv	0.47 ppbc	No	97	100	0.06 ppbv	0.38 ppbc	No
Fort Worth Benbrook Lake (2B)	10/1/2013	11/12/2019	96	99	0.09 ppbv	0.51 ppbc	No	79[4]	100	0.06 ppbv	0.35 ppbc	No
Dallas Elm Fork (2C)	11/18/2013	11/11/2019	96	99	0.16 ppbv	0.97 ppbc	No	98	100	0.20 ppbv	1.18 ppbc	No
Kennedale Treepoint Drive (62)	4/1/2014	11/14/2019	96	99	0.12 ppbv	0.73 ppbc	No	94	100	0.15 ppbv	0.88 ppbc	No
Mansfield Flying L Lane (63)	4/1/2014	11/12/2019	96	99	0.10 ppbv	0.61 ppbc	No	89	100	0.12 ppbv	0.71 ppbc	No
Rhome Seven Hills Road (64)	4/1/2014	11/13/2019	95	99	0.11 ppbv	0.64 ppbc	No	100	100	0.13 ppbv	0.75 ppbc	No
Fort Worth Joe B. Rushing Road (65)	4/1/2014	11/12/2019	96	99	0.08 ppbv	0.48 ppbc	No	97	100	0.04 ppbv	0.23 ppbc	No

[1] Statistics for wind speed and wind direction data

[2] Met data validated by TCEQ

[3] PM conducted this month

[4] Auto GC data capture at Fort Worth Benbrook Lake was below 80% due to a trap replacement

Summary of Canister Data through March 2020

Site Name	Start Date	Last QA Audit	To Date					March				
			# EPA Samples Scheduled	# Valid Samples	Met Data Capture (%)[1]	Average Measured Benzene Concentration	Benzene Detection Frequency (%)	# EPA Samples Scheduled	# Valid Samples	Met Data Capture (%)[1]	Average Measured Benzene Concentration	Benzene Detection Frequency (%)
Keller	7/14/2013	11/14/2019	409	402	97[2]	0.16 ppbv	99	5	5	100[2]	0.18 ppbv	100
Mineral Wells 23rd St.	8/21/2013	11/15/2019	403	399	98	0.15 ppbv	99	5	5	100	0.16 ppbv	100
Lancaster Cedardale	9/1/2013	11/14/2019	401	398	99	0.17 ppbv	99	5	5	100	0.17 ppbv	100
Gainesville Doss	10/1/2013	11/14/2019	394	386	97	0.18 ppbv	99	5	5	100	0.17 ppbv	100
Weatherford Highway 180	10/13/2013	11/13/2018	322	318	99	0.14 ppbv	99	0	0	100		
Bowie Patterson St.	10/31/2013	11/14/2019	394	385	99	0.17 ppbv	99	5	5	100	0.15 ppbv	100
Abilene N. 3rd St.	12/18/2013	11/13/2019	341	339	99	0.14 ppbv	99	5	5	100	0.15 ppbv	100
Wichita Falls MWSU	12/19/2013	11/14/2019	383	374	99	0.14 ppbv	99	5	5	100	0.18 ppbv	100

General Comments:

- To Date refers to start date through current month
- Benzene reported as compound of most interest from a health perspective
- Air monitoring comparison values (AMCVs) are defined by the TCEQ as chemical-specific air concentrations set to protect human health and welfare
- To Date Value > AMCV refers to if any target compound concentration found greater than AMCV
- The Weatherford Highway 180 site was decommissioned on 01/22/2019 and recommissioned on 03/17/2020. First VOC sample scheduled on 04/03/2020.

[1] Statistics for wind speed and wind direction data

[2] Met data validated by TCEQ

Summary of Auto GC Data through April 2020

Site Name	Start Date	Last QA Audit	To Date					April				
			Auto GC Data Capture (%)	Met Data Capture (%)[1]	Average Benzene Concentration		Any Value > AMCV (Y/N)	Auto GC Data Capture (%)	Met Data Capture (%)[1]	Average Benzene Concentration		Any Value > AMCV (Y/N)
Arlington UT Campus (2A)	9/20/2012	11/11/2019	95	99	0.14 ppbv	0.86 ppbc	No	95	100	0.11 ppbv	0.69 ppbc	No
Eagle Mountain Lake (2E)	4/8/2013	11/13/2019	96	98[2]	0.10 ppbv	0.58 ppbc	No	99	64[2]	0.10 ppbv	0.60 ppbc	No
Dish Airfield (2D)	5/8/2013	11/13/2019	97	99	0.12 ppbv	0.71 ppbc	No	99	100	0.11 ppbv	0.67 ppbc	No
Flower Mound Shiloh (2F)	5/8/2013	11/14/2019	97	99	0.10 ppbv	0.58 ppbc	No	97	100	0.09 ppbv	0.52 ppbc	No
Everman Johnson Park (2J)	5/8/2013	11/12/2019	96	99	0.09 ppbv	0.51 ppbc	No	98	100	0.06 ppbv	0.34 ppbc	No
Decatur Thompson (2T)	6/5/2013	11/13/2019	97	99	0.10 ppbv	0.63 ppbc	No	99	100	0.06 ppbv	0.37 ppbc	No
Godley FM 2331 (2G)	7/13/2013	11/14/2019	96	99	0.08 ppbv	0.47 ppbc	No	95	100	0.05 ppbv	0.30 ppbc	No
Fort Worth Benbrook Lake (2B)	10/1/2013	11/12/2019	96	99	0.09 ppbv	0.51 ppbc	No	100	100	0.04 ppbv	0.22 ppbc	No
Dallas Elm Fork (2C)	11/18/2013	11/11/2019	96	99	0.16 ppbv	0.97 ppbc	No	98	100	0.17 ppbv	0.99 ppbc	No
Kennedale Treepoint Drive (62)	4/1/2014	11/14/2019	96	99	0.12 ppbv	0.73 ppbc	No	100	100	0.11 ppbv	0.69 ppbc	No
Mansfield Flying L Lane (63)	4/1/2014	11/12/2019	96	99	0.10 ppbv	0.61 ppbc	No	100	100	0.09 ppbv	0.56 ppbc	No
Rhome Seven Hills Road (64)	4/1/2014	11/13/2019	95	99	0.11 ppbv	0.64 ppbc	No	92	100	0.10 ppbv	0.62 ppbc	No
Fort Worth Joe B. Rushing Road (65)	4/1/2014	11/12/2019	96	99	0.08 ppbv	0.47 ppbc	No	100	100	0.03 ppbv	0.16 ppbc	No

[1] Statistics for wind speed and wind direction data

[2] Met data validated by TCEQ

Summary of Canister Data through April 2020

Site Name	Start Date	Last QA Audit	To Date					April				
			# EPA Samples Scheduled	# Valid Samples	Met Data Capture (%)[1]	Average Measured Benzene Concentration	Benzene Detection Frequency (%)	# EPA Samples Scheduled	# Valid Samples	Met Data Capture (%)[1]	Average Measured Benzene Concentration	Benzene Detection Frequency (%)
Keller	7/14/2013	11/14/2019	414	407	97[2]	0.16 ppbv	99	5	5	100[2]	0.18 ppbv	100
Mineral Wells 23rd St.	8/21/2013	11/15/2019	408	404	98	0.15 ppbv	99	5	5	100	0.16 ppbv	100
Lancaster Cedardale	9/1/2013	11/14/2019	406	403	99	0.17 ppbv	99	5	5	100	0.19 ppbv	100
Gainesville Doss	10/1/2013	11/14/2019	399	391	98	0.18 ppbv	99	5	5	100	0.20 ppbv	100
Weatherford Highway 180	10/13/2013	11/13/2018	327	323	99	0.14 ppbv	99	5	5	100	0.17 ppbv	100
Bowie Patterson St.	10/31/2013	11/14/2019	399	390	99	0.17 ppbv	99	5	5	100	0.20 ppbv	100
Abilene N. 3rd St.	12/18/2013	11/13/2019	346	344	99	0.14 ppbv	99	5	5	100	0.17 ppbv	100
Wichita Falls MWSU	12/19/2013	11/14/2019	388	379	99	0.14 ppbv	99	5	5	92	0.16 ppbv	100

General Comments:

- To Date refers to start date through current month
- Benzene reported as compound of most interest from a health perspective
- Air monitoring comparison values (AMCVs) are defined by the TCEQ as chemical-specific air concentrations set to protect human health and welfare
- To Date Value > AMCV refers to if any target compound concentration found greater than AMCV

[1] Statistics for wind speed and wind direction data

[2] Met data validated by TCEQ

Summary of Auto GC Data through May 2020

Site Name	Start Date	Last QA Audit	To Date					May				
			Auto GC Data Capture (%)	Met Data Capture (%)[1]	Average Benzene Concentration		Any Value > AMCV (Y/N)	Auto GC Data Capture (%)	Met Data Capture (%)[1]	Average Benzene Concentration		Any Value > AMCV (Y/N)
Arlington UT Campus (2A)	9/20/2012	05/27/2020	95	99	0.14 ppbv	0.86 ppbc	No	100	100	0.08 ppbv	0.47 ppbc	No
Eagle Mountain Lake (2E)	4/8/2013	05/28/2020	96	98[2]	0.10 ppbv	0.58 ppbc	No	99	97[2]	0.07 ppbv	0.40 ppbc	No
Dish Airfield (2D)	5/8/2013	05/27/2020	97	99	0.12 ppbv	0.71 ppbc	No	91	100	0.07 ppbv	0.45 ppbc	No
Flower Mound Shiloh (2F)	5/8/2013	05/27/2020	97	99	0.10 ppbv	0.58 ppbc	No	96	100	0.05 ppbv	0.29 ppbc	No
Everman Johnson Park (2J)	5/8/2013	05/26/2020	96	99	0.09 ppbv	0.51 ppbc	No	87[3]	100	0.07 ppbv	0.42 ppbc	No
Decatur Thompson (2T)	6/5/2013	05/28/2020	97	99	0.10 ppbv	0.62 ppbc	No	96	100	0.03 ppbv	0.20 ppbc	No
Godley FM 2331 (2G)	7/13/2013	05/29/2020	96	99	0.08 ppbv	0.47 ppbc	No	93	100	0.02 ppbv	0.14 ppbc	No
Fort Worth Benbrook Lake (2B)	10/1/2013	05/26/2020	96	99	0.08 ppbv	0.51 ppbc	No	98	100	0.02 ppbv	0.13 ppbc	No
Dallas Elm Fork (2C)	11/18/2013	05/27/2020	96	99	0.16 ppbv	0.97 ppbc	No	99	100	0.11 ppbv	0.69 ppbc	No
Kennedale Treepoint Drive (62)	4/1/2014	05/26/2020	96	99	0.12 ppbv	0.72 ppbc	No	91	100	0.09 ppbv	0.51 ppbc	No
Mansfield Flying L Lane (63)	4/1/2014	05/27/2020	96	99	0.10 ppbv	0.60 ppbc	No	93	100	0.06 ppbv	0.36 ppbc	No
Rhome Seven Hills Road (64)	4/1/2014	05/28/2020	95	99	0.11 ppbv	0.63 ppbc	No	86	100	0.07 ppbv	0.45 ppbc	No
Fort Worth Joe B. Rushing Road (65)	4/1/2014	05/26/2020	96	99	0.08 ppbv	0.47 ppbc	No	99	100	0.02 ppbv	0.10 ppbc	No

[1] Statistics for wind speed and wind direction data

[2] Met data validated by TCEQ

[3] PM conducted this month

Summary of Canister Data through May 2020

Site Name	Start Date	Last QA Audit	To Date					May				
			# EPA Samples Scheduled	# Valid Samples	Met Data Capture (%)[1]	Average Measured Benzene Concentration	Benzene Detection Frequency (%)	# EPA Samples Scheduled	# Valid Samples	Met Data Capture (%)[1]	Average Measured Benzene Concentration	Benzene Detection Frequency (%)
Keller	7/14/2013	05/27/2020	419	412	97[2]	0.16 ppbv	99	5	5	100[2]	0.16 ppbv	100
Mineral Wells 23rd St.	8/21/2013	05/27/2020	413	409	98	0.15 ppbv	99	5	5	100	0.10 ppbv	100
Lancaster Cedardale	9/1/2013	05/27/2020	411	408	99	0.17 ppbv	99	5	5	100	0.17 ppbv	100
Gainesville Doss	10/1/2013	05/27/2020	404	396	98	0.18 ppbv	99	5	5	100	0.16 ppbv	100
Weatherford Highway 180	10/13/2013	05/27/2020	332	328	99	0.14 ppbv	99	5	5	100	0.12 ppbv	100
Bowie Patterson St.	10/31/2013	05/26/2020	404	395	99	0.17 ppbv	99	5	5	99	0.14 ppbv	100
Abilene N. 3rd St.	12/18/2013	05/26/2020	351	349	99	0.14 ppbv	99	5	5	100	0.12 ppbv	100
Wichita Falls MWSU	12/19/2013	05/26/2020	393	384	99	0.14 ppbv	99	5	5	100	0.13 ppbv	100

General Comments:

- To Date refers to start date through current month
- Benzene reported as compound of most interest from a health perspective
- Air monitoring comparison values (AMCVs) are defined by the TCEQ as chemical-specific air concentrations set to protect human health and welfare
- To Date Value > AMCV refers to if any target compound concentration found greater than AMCV

[1] Statistics for wind speed and wind direction data

[2] Met data validated by TCEQ

Summary of Auto GC Data through June 2020

Site Name	Start Date	Last QA Audit	To Date					June				
			Auto GC Data Capture (%)	Met Data Capture (%)[1]	Average Benzene Concentration		Any Value > AMCV (Y/N)	Auto GC Data Capture (%)	Met Data Capture (%)[1]	Average Benzene Concentration		Any Value > AMCV (Y/N)
Arlington UT Campus (2A)	9/20/2012	05/27/2020	95	99	0.14 ppbv	0.85 ppbc	No	100	100	0.06 ppbv	0.38 ppbc	No
Eagle Mountain Lake (2E)	4/8/2013	05/28/2020	96	98[2]	0.10 ppbv	0.58 ppbc	No	99	99[2]	0.05 ppbv	0.31 ppbc	No
Dish Airfield (2D)	5/8/2013	05/27/2020	96	99	0.12 ppbv	0.70 ppbc	No	93	100	0.06 ppbv	0.39 ppbc	No
Flower Mound Shiloh (2F)	5/8/2013	05/27/2020	97	99	0.10 ppbv	0.57 ppbc	No	98	100	0.04 ppbv	0.21 ppbc	No
Everman Johnson Park (2J)	5/8/2013	05/26/2020	96	99	0.09 ppbv	0.51 ppbc	No	100	100	0.05 ppbv	0.31 ppbc	No
Decatur Thompson (2T)	6/5/2013	05/28/2020	97	99	0.10 ppbv	0.62 ppbc	No	91[3]	100	0.05 ppbv	0.28 ppbc	No
Godley FM 2331 (2G)	7/13/2013	05/29/2020	96	99	0.08 ppbv	0.46 ppbc	No	87	100	0.01 ppbv	0.07 ppbc	No
Fort Worth Benbrook Lake (2B)	10/1/2013	05/26/2020	96	99	0.08 ppbv	0.50 ppbc	No	98	100	0.01 ppbv	0.07 ppbc	No
Dallas Elm Fork (2C)	11/18/2013	05/27/2020	96	99	0.16 ppbv	0.96 ppbc	No	97	100	0.09 ppbv	0.52 ppbc	No
Kennedale Treepoint Drive (62)	4/1/2014	05/26/2020	96	99	0.12 ppbv	0.72 ppbc	No	90	100	0.07 ppbv	0.42 ppbc	No
Mansfield Flying L Lane (63)	4/1/2014	05/27/2020	96	99	0.10 ppbv	0.60 ppbc	No	100	100	0.04 ppbv	0.23 ppbc	No
Rhome Seven Hills Road (64)	4/1/2014	05/28/2020	95	99	0.11 ppbv	0.63 ppbc	No	98	100	0.06 ppbv	0.36 ppbc	No
Fort Worth Joe B. Rushing Road (65)	4/1/2014	05/26/2020	96	99	0.08 ppbv	0.46 ppbc	No	90	100	0.01 ppbv	0.07 ppbc	No

[1] Statistics for wind speed and wind direction data

[2] Met data validated by TCEQ

[3] PM conducted this month

Summary of Canister Data through June 2020

Site Name	Start Date	Last QA Audit	To Date					June				
			# EPA Samples Scheduled	# Valid Samples	Met Data Capture (%)[1]	Average Measured Benzene Concentration	Benzene Detection Frequency (%)	# EPA Samples Scheduled	# Valid Samples	Met Data Capture (%)[1]	Average Measured Benzene Concentration	Benzene Detection Frequency (%)
Keller	7/14/2013	05/27/2020	424	417	97[2]	0.16 ppbv	99	5	5	100[2]	0.14 ppbv	100
Mineral Wells 23rd St.	8/21/2013	05/27/2020	418	414	99	0.15 ppbv	99	5	5	100	0.13 ppbv	100
Lancaster Cedardale	9/1/2013	05/27/2020	416	413	99	0.17 ppbv	99	5	5	100	0.14 ppbv	100
Gainesville Doss	10/1/2013	05/27/2020	409	401	98	0.18 ppbv	99	5	5	100	0.16 ppbv	100
Weatherford Highway 180	10/13/2013	05/27/2020	337	333	99	0.14 ppbv	99	5	5	100	0.13 ppbv	100
Bowie Patterson St.	10/31/2013	05/26/2020	409	400	99	0.17 ppbv	99	5	5	100	0.17 ppbv	100
Abilene N. 3rd St.	12/18/2013	05/26/2020	356	354	99	0.14 ppbv	99	5	5	100	0.11 ppbv	100
Wichita Falls MWSU	12/19/2013	05/26/2020	398	389	99	0.14 ppbv	99	5	5	100	0.14 ppbv	100

General Comments:

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- Air monitoring comparison values (AMCVs) are defined by the TCEQ as chemical-specific air concentrations set to protect human health and welfare
- To Date Value > AMCV refers to if any target compound concentration found greater than AMCV

[1] Statistics for wind speed and wind direction data

[2] Met data validated by TCEQ

Summary of Auto GC Data through July 2020

Site Name	Start Date	Last QA Audit	To Date					July				
			Auto GC Data Capture (%)	Met Data Capture (%)[1]	Average Benzene Concentration		Any Value > AMCV (Y/N)	Auto GC Data Capture (%)	Met Data Capture (%)[1]	Average Benzene Concentration		Any Value > AMCV (Y/N)
Arlington UT Campus (2A)	9/20/2012	05/27/2020	96	99	0.14 ppbv	0.85 ppbc	No	100	100	0.06 ppbv	0.34 ppbc	No
Eagle Mountain Lake (2E)	4/8/2013	05/28/2020	96	98[2]	0.10 ppbv	0.57 ppbc	No	100	100[2]	0.05 ppbv	0.31 ppbc	No
Dish Airfield (2D)	5/8/2013	05/27/2020	97	99	0.12 ppbv	0.70 ppbc	No	98	100	0.06 ppbv	0.34 ppbc	No
Flower Mound Shiloh (2F)	5/8/2013	05/27/2020	97	99	0.09 ppbv	0.57 ppbc	No	100	100	0.04 ppbv	0.22 ppbc	No
Everman Johnson Park (2J)	5/8/2013	05/26/2020	96	99	0.08 ppbv	0.51 ppbc	No	95	100	0.04 ppbv	0.24 ppbc	No
Decatur Thompson (2T)	6/5/2013	05/28/2020	97	99	0.10 ppbv	0.61 ppbc	No	98	100	0.05 ppbv	0.29 ppbc	No
Godley FM 2331 (2G)	7/13/2013	05/29/2020	96	99	0.08 ppbv	0.46 ppbc	No	71[3]	100	0.01 ppbv	0.08 ppbc	No
Fort Worth Benbrook Lake (2B)	10/1/2013	05/26/2020	95	99	0.08 ppbv	0.49 ppbc	No	64[3]	100	0.01 ppbv	0.06 ppbc	No
Dallas Elm Fork (2C)	11/18/2013	05/27/2020	96	99	0.16 ppbv	0.95 ppbc	No	100	100	0.08 ppbv	0.47 ppbc	No
Kennedale Treepoint Drive (62)	4/1/2014	05/26/2020	96	99	0.12 ppbv	0.71 ppbc	No	99	100	0.05 ppbv	0.33 ppbc	No
Mansfield Flying L Lane (63)	4/1/2014	05/27/2020	96	99	0.10 ppbv	0.59 ppbc	No	91	100	0.03 ppbv	0.20 ppbc	No
Rhome Seven Hills Road (64)	4/1/2014	05/28/2020	95	99	0.10 ppbv	0.63 ppbc	No	91	100	0.06 ppbv	0.37 ppbc	No
Fort Worth Joe B. Rushing Road (65)	4/1/2014	05/26/2020	96	99	0.08 ppbv	0.46 ppbc	No	100	100	0.01 ppbv	0.04 ppbc	No

[1] Statistics for wind speed and wind direction data

[2] Met data validated by TCEQ

[3] PM conducted this month

Summary of Canister Data through July 2020

Site Name	Start Date	Last QA Audit	To Date					July				
			# EPA Samples Scheduled	# Valid Samples	Met Data Capture (%)[1]	Average Measured Benzene Concentration	Benzene Detection Frequency (%)	# EPA Samples Scheduled	# Valid Samples	Met Data Capture (%)[1]	Average Measured Benzene Concentration	Benzene Detection Frequency (%)
Keller	7/14/2013	05/27/2020	429	422	97[2]	0.16 ppbv	99	5	5	100[2]	0.12 ppbv	100
Mineral Wells 23rd St.	8/21/2013	05/27/2020	423	419	99	0.15 ppbv	99	5	5	100	0.10 ppbv	100
Lancaster Cedardale	9/1/2013	05/27/2020	421	418	99	0.17 ppbv	99	5	5	100	0.13 ppbv	100
Gainesville Doss	10/1/2013	05/27/2020	414	406	98	0.18 ppbv	99	5	5	100	0.13 ppbv	100
Weatherford Highway 180	10/13/2013	05/27/2020	342	338	99	0.14 ppbv	99	5	5	100	0.10 ppbv	100
Bowie Patterson St.	10/31/2013	05/26/2020	414	405	99	0.17 ppbv	99	5	5	100	0.14 ppbv	100
Abilene N. 3rd St.	12/18/2013	05/26/2020	361	359	99	0.14 ppbv	99	5	5	100	0.09 ppbv	100
Wichita Falls MWSU	12/19/2013	05/26/2020	403	394	99	0.14 ppbv	99	5	5	100	0.12 ppbv	100

General Comments:

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- To Date Value > AMCV refers to if any target compound concentration found greater than AMCV

[1] Statistics for wind speed and wind direction data

[2] Met data validated by TCEQ

Summary of Auto GC Data through August 2020

Site Name	Start Date	Last QA Audit	To Date					August				
			Auto GC Data Capture (%)	Met Data Capture (%)[1]	Average Benzene Concentration		Any Value > AMCV (Y/N)	Auto GC Data Capture (%)	Met Data Capture (%)[1]	Average Benzene Concentration		Any Value > AMCV (Y/N)
Arlington UT Campus (2A)	9/20/2012	05/27/2020	96	99	0.14 ppbv	0.84 ppbc	No	99	100	0.08 ppbv	0.46 ppbc	No
Eagle Mountain Lake (2E)	4/8/2013	05/28/2020	96	98[2]	0.09 ppbv	0.57 ppbc	No	94	100[2]	0.07 ppbv	0.40 ppbc	No
Dish Airfield (2D)	5/8/2013	05/27/2020	96	99	0.12 ppbv	0.69 ppbc	No	94	100	0.06 ppbv	0.37 ppbc	No
Flower Mound Shiloh (2F)	5/8/2013	05/27/2020	97	99	0.09 ppbv	0.57 ppbc	No	99	100	0.04 ppbv	0.26 ppbc	No
Everman Johnson Park (2J)	5/8/2013	05/26/2020	96	99	0.08 ppbv	0.51 ppbc	No	95	100	0.05 ppbv	0.30 ppbc	No
Decatur Thompson (2T)	6/5/2013	05/28/2020	97	99	0.10 ppbv	0.61 ppbc	No	95	100	0.05 ppbv	0.33 ppbc	No
Godley FM 2331 (2G)	7/13/2013	05/29/2020	96	99	0.08 ppbv	0.45 ppbc	No	91	100	0.03 ppbv	0.16 ppbc	No
Fort Worth Benbrook Lake (2B)	10/1/2013	05/26/2020	95	99	0.08 ppbv	0.49 ppbc	No	96	100	0.03 ppbv	0.17 ppbc	No
Dallas Elm Fork (2C)	11/18/2013	05/27/2020	96	99	0.16 ppbv	0.95 ppbc	No	81[3]	100	0.09 ppbv	0.56 ppbc	No
Kennedale Treepoint Drive (62)	4/1/2014	05/26/2020	96	99	0.12 ppbv	0.71 ppbc	No	94	100	0.08 ppbv	0.47 ppbc	No
Mansfield Flying L Lane (63)	4/1/2014	05/27/2020	96	99	0.10 ppbv	0.59 ppbc	No	100	100	0.05 ppbv	0.31 ppbc	No
Rhome Seven Hills Road (64)	4/1/2014	05/28/2020	95	99	0.10 ppbv	0.62 ppbc	No	99	100	0.07 ppbv	0.40 ppbc	No
Fort Worth Joe B. Rushing Road (65)	4/1/2014	05/26/2020	96	99	0.08 ppbv	0.45 ppbc	No	79[4]	100	0.02 ppbv	0.13 ppbc	No

[1] Statistics for wind speed and wind direction data

[2] Met data validated by TCEQ

[3] PM conducted this month

[4] Auto GC data capture at Fort Worth Joe B. Rushing Road was below 80% due to a trap replacement

Summary of Canister Data through August 2020

Site Name	Start Date	Last QA Audit	To Date					August				
			# EPA Samples Scheduled	# Valid Samples	Met Data Capture (%)[1]	Average Measured Benzene Concentration	Benzene Detection Frequency (%)	# EPA Samples Scheduled	# Valid Samples	Met Data Capture (%)[1]	Average Measured Benzene Concentration	Benzene Detection Frequency (%)
Keller	7/14/2013	05/27/2020	435	428	98[2]	0.16 ppbv	99	6	6	100[2]	0.12 ppbv	100
Mineral Wells 23rd St.	8/21/2013	05/27/2020	429	425	99	0.15 ppbv	99	6	6	100	0.10 ppbv	100
Lancaster Cedardale	9/1/2013	05/27/2020	427	424	99	0.17 ppbv	99	6	6	100	0.13 ppbv	100
Gainesville Doss	10/1/2013	05/27/2020	420	412	98	0.18 ppbv	99	6	6	100	0.16 ppbv	100
Weatherford Highway 180	10/13/2013	05/27/2020	348	344	99	0.14 ppbv	99	6	6	100	0.12 ppbv	100
Bowie Patterson St.	10/31/2013	05/26/2020	420	411	99	0.17 ppbv	99	6	6	100	0.13 ppbv	100
Abilene N. 3rd St.	12/18/2013	05/26/2020	367	365	99	0.14 ppbv	99	6	6	100	0.10 ppbv	100
Wichita Falls MWSU	12/19/2013	05/26/2020	409	400	99	0.14 ppbv	99	6	6	100	0.11 ppbv	100

General Comments:

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- To Date Value > AMCV refers to if any target compound concentration found greater than AMCV

[1] Statistics for wind speed and wind direction data

[2] Met data validated by TCEQ

Summary of Auto GC Data through September 2020

Site Name	Start Date	Last QA Audit	To Date					September				
			Auto GC Data Capture (%)	Met Data Capture (%)[1]	Average Benzene Concentration		Any Value > AMCV (Y/N)	Auto GC Data Capture (%)	Met Data Capture (%)[1]	Average Benzene Concentration		Any Value > AMCV (Y/N)
Arlington UT Campus (2A)	9/20/2012	05/27/2020	96	99	0.14 ppbv	0.84 ppbc	No	100	100	0.10 ppbv	0.59 ppbc	No
Eagle Mountain Lake (2E)	4/8/2013	05/28/2020	96	98[2]	0.09 ppbv	0.57 ppbc	No	89	100[2]	0.08 ppbv	0.50 ppbc	No
Dish Airfield (2D)	5/8/2013	05/27/2020	97	99	0.12 ppbv	0.69 ppbc	No	99	100	0.08 ppbv	0.47 ppbc	No
Flower Mound Shiloh (2F)	5/8/2013	05/27/2020	97	99	0.09 ppbv	0.56 ppbc	No	95	100	0.07 ppbv	0.42 ppbc	No
Everman Johnson Park (2J)	5/8/2013	05/26/2020	96	99	0.08 ppbv	0.51 ppbc	No	100	100	0.08 ppbv	0.50 ppbc	No
Decatur Thompson (2T)	6/5/2013	05/28/2020	97	99	0.10 ppbv	0.61 ppbc	No	99	100	0.07 ppbv	0.42 ppbc	No
Godley FM 2331 (2G)	7/13/2013	05/29/2020	95	99	0.07 ppbv	0.45 ppbc	No	73[3]	100	0.04 ppbv	0.22 ppbc	No
Fort Worth Benbrook Lake (2B)	10/1/2013	05/26/2020	95	99	0.08 ppbv	0.49 ppbc	No	97	100	0.04 ppbv	0.22 ppbc	No
Dallas Elm Fork (2C)	11/18/2013	05/27/2020	96	99	0.16 ppbv	0.95 ppbc	No	99	100	0.11 ppbv	0.67 ppbc	No
Kennedale Treepoint Drive (62)	4/1/2014	05/26/2020	95	99	0.12 ppbv	0.71 ppbc	No	81[4]	75[4]	0.11 ppbv	0.67 ppbc	No
Mansfield Flying L Lane (63)	4/1/2014	05/27/2020	96	99	0.10 ppbv	0.59 ppbc	No	100	100	0.08 ppbv	0.51 ppbc	No
Rhome Seven Hills Road (64)	4/1/2014	05/28/2020	95	99	0.10 ppbv	0.62 ppbc	No	87[4]	75[4]	0.08 ppbv	0.51 ppbc	No
Fort Worth Joe B. Rushing Road (65)	4/1/2014	05/26/2020	96	99	0.08 ppbv	0.45 ppbc	No	86[4]	75[4]	0.03 ppbv	0.18 ppbc	No

[1] Statistics for wind speed and wind direction data

[2] Met data validated by TCEQ

[3] Auto GC data capture at Godley FM 2331 was below 80% due to baseline noise

[4] Data capture impacted due to sites being decommissioned for shelter and GC replacement

Summary of Canister Data through September 2020

Site Name	Start Date	Last QA Audit	To Date					September				
			# EPA Samples Scheduled	# Valid Samples	Met Data Capture (%)[1]	Average Measured Benzene Concentration	Benzene Detection Frequency (%)	# EPA Samples Scheduled	# Valid Samples	Met Data Capture (%)[1]	Average Measured Benzene Concentration	Benzene Detection Frequency (%)
Keller	7/14/2013	05/27/2020	440	433	98[2]	0.16 ppbv	99	5	5	100[2]	0.20 ppbv	100
Mineral Wells 23rd St.	8/21/2013	05/27/2020	434	430	99	0.15 ppbv	99	5	5	100	0.14 ppbv	100
Lancaster Cedardale	9/1/2013	05/27/2020	432	429	99	0.17 ppbv	99	5	5	100	0.22 ppbv	100
Gainesville Doss	10/1/2013	05/27/2020	425	417	98	0.18 ppbv	99	5	5	100	0.25 ppbv	100
Weatherford Highway 180	10/13/2013	05/27/2020	353	349	99	0.14 ppbv	99	5	5	93	0.17 ppbv	100
Bowie Patterson St.	10/31/2013	05/26/2020	425	416	99	0.17 ppbv	99	5	5	100	0.20 ppbv	100
Abilene N. 3rd St.	12/18/2013	05/26/2020	372	370	99	0.14 ppbv	99	5	5	100	0.18 ppbv	100
Wichita Falls MWSU	12/19/2013	05/26/2020	414	405	99	0.14 ppbv	99	5	5	100	0.18 ppbv	100

General Comments:

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- Air monitoring comparison values (AMCVs) are defined by the TCEQ as chemical-specific air concentrations set to protect human health and welfare
- To Date Value > AMCV refers to if any target compound concentration found greater than AMCV
- Kennedale Treepoint Drive, Rhome Seven Hills Road, and Fort Worth Joe B. Rushing Road were decommissioned in September 2020 for shelter and GC replacement

[1] Statistics for wind speed and wind direction data

[2] Met data validated by TCEQ

Summary of Auto GC Data through October 2020

Site Name	Start Date	Last QA Audit	To Date					October				
			Auto GC Data Capture (%)	Met Data Capture (%)[1]	Average Benzene Concentration		Any Value > AMCV (Y/N)	Auto GC Data Capture (%)	Met Data Capture (%)[1]	Average Benzene Concentration		Any Value > AMCV (Y/N)
Arlington UT Campus (2A)	9/20/2012	05/27/2020	96	99	0.14 ppbv	0.84 ppbc	No	96	100	0.13 ppbv	0.80 ppbc	No
Eagle Mountain Lake (2E)	4/8/2013	05/28/2020	96	98[2]	0.09 ppbv	0.57 ppbc	No	87	100[2]	0.10 ppbv	0.60 ppbc	No
Dish Airfield (2D)	5/8/2013	05/27/2020	97	99	0.12 ppbv	0.69 ppbc	No	100	100	0.11 ppbv	0.64 ppbc	No
Flower Mound Shiloh (2F)	5/8/2013	05/27/2020	97	99	0.09 ppbv	0.56 ppbc	No	100	100	0.09 ppbv	0.52 ppbc	No
Everman Johnson Park (2J)	5/8/2013	05/26/2020	96	99	0.08 ppbv	0.51 ppbc	No	94	100	0.08 ppbv	0.51 ppbc	No
Decatur Thompson (2T)	6/5/2013	05/28/2020	97	99	0.10 ppbv	0.61 ppbc	No	100	100	0.08 ppbv	0.50 ppbc	No
Godley FM 2331 (2G)	7/13/2013	05/29/2020	95	99	0.07 ppbv	0.45 ppbc	No	87	100	0.06 ppbv	0.38 ppbc	No
Fort Worth Benbrook Lake (2B)	10/1/2013	05/26/2020	95	99	0.08 ppbv	0.48 ppbc	No	96	100	0.04 ppbv	0.26 ppbc	No
Dallas Elm Fork (2C)	11/18/2013	05/27/2020	96	99	0.16 ppbv	0.94 ppbc	No	96	100	0.14 ppbv	0.85 ppbc	No
Kennedale Treepoint Drive (62)	4/1/2014	05/26/2020	95	99	0.12 ppbv	0.71 ppbc	No	N/A[3]	N/A[3]	N/A	N/A	No
Mansfield Flying L Lane (63)	4/1/2014	05/27/2020	96	99	0.10 ppbv	0.59 ppbc	No	100	100	0.11 ppbv	0.64 ppbc	No
Rhome Seven Hills Road (64)	4/1/2014	05/28/2020	95	99	0.10 ppbv	0.62 ppbc	No	N/A[3]	N/A[3]	N/A	N/A	No
Fort Worth Joe B. Rushing Road (65)	4/1/2014	05/26/2020	95	99	0.08 ppbv	0.46 ppbc	No	17[3]	60[3]	0.25 ppbv	1.49 ppbc	No

[1] Statistics for wind speed and wind direction data

[2] Met data validated by TCEQ

[3] Data capture impacted due to sites being decommissioned for shelter and GC replacement

Summary of Canister Data through October 2020

Site Name	Start Date	Last QA Audit	To Date					October				
			# EPA Samples Scheduled	# Valid Samples	Met Data Capture (%)[1]	Average Measured Benzene Concentration	Benzene Detection Frequency (%)	# EPA Samples Scheduled	# Valid Samples	Met Data Capture (%)[1]	Average Measured Benzene Concentration	Benzene Detection Frequency (%)
Keller	7/14/2013	10/27/2020	445	438	98[2]	0.16 ppbv	99	5	5	100[2]	0.16 ppbv	100
Mineral Wells 23rd St.	8/21/2013	10/28/2020	439	435	99	0.15 ppbv	99	5	5	99	0.16 ppbv	100
Lancaster Cedardale	9/1/2013	10/27/2020	437	434	99	0.17 ppbv	99	5	5	100	0.19 ppbv	100
Gainesville Doss	10/1/2013	10/27/2020	430	422	98	0.18 ppbv	99	5	5	100	0.24 ppbv	100
Weatherford Highway 180	10/13/2013	10/28/2020	358	354	99	0.14 ppbv	99	5	5	100	0.15 ppbv	100
Bowie Patterson St.	10/31/2013	10/27/2020	430	421	99	0.17 ppbv	99	5	5	100	0.18 ppbv	100
Abilene N. 3rd St.	12/18/2013	10/26/2020	377	375	99	0.14 ppbv	99	5	5	96	0.17 ppbv	100
Wichita Falls MWSU	12/19/2013	10/26/2020	419	410	99	0.14 ppbv	99	5	5	98	0.16 ppbv	100

General Comments:

- To Date refers to start date through current month
- Benzene reported as compound of most interest from a health perspective
- Air monitoring comparison values (AMCVs) are defined by the TCEQ as chemical-specific air concentrations set to protect human health and welfare
- To Date Value > AMCV refers to if any target compound concentration found greater than AMCV
- Kennedale Treepoint Drive, Rhome Seven Hills Road, and Fort Worth Joe B. Rushing Road were decommissioned in September 2020 for shelter and GC replacement. Fort Worth Joe B. Rushing Road replacements were completed in October 2020.

[1] Statistics for wind speed and wind direction data

[2] Met data validated by TCEQ

Summary of Auto GC Data through November 2020

Site Name	Start Date	Last QA Audit	To Date					November				
			Auto GC Data Capture (%)	Met Data Capture (%)[1]	Average Benzene Concentration		Any Value > AMCV (Y/N)	Auto GC Data Capture (%)	Met Data Capture (%)[1]	Average Benzene Concentration		Any Value > AMCV (Y/N)
Arlington UT Campus (2A)	9/20/2012	11/12/2020	96	99	0.14 ppbv	0.84 ppbc	No	100	100	0.16 ppbv	0.98 ppbc	No
Eagle Mountain Lake (2E)	4/8/2013	11/12/2020	96	98[2]	0.10 ppbv	0.57 ppbc	No	88	100[2]	0.12 ppbv	0.71 ppbc	No
Dish Airfield (2D)	5/8/2013	11/11/2020	97	99	0.12 ppbv	0.69 ppbc	No	99	100	0.13 ppbv	0.76 ppbc	No
Flower Mound Shiloh (2F)	5/8/2013	11/11/2020	97	99	0.09 ppbv	0.57 ppbc	No	99	100	0.11 ppbv	0.66 ppbc	No
Everman Johnson Park (2J)	5/8/2013	11/10/2020	96	99	0.08 ppbv	0.51 ppbc	No	98	100	0.11 ppbv	0.69 ppbc	No
Decatur Thompson (2T)	6/5/2013	11/11/2020	97	99	0.10 ppbv	0.61 ppbc	No	99	100	0.09 ppbv	0.56 ppbc	No
Godley FM 2331 (2G)	7/13/2013	11/10/2020	95	99	0.07 ppbv	0.45 ppbc	No	94	100	0.04 ppbv	0.21 ppbc	No
Fort Worth Benbrook Lake (2B)	10/1/2013	11/10/2020	95	99	0.08 ppbv	0.48 ppbc	No	97	100	0.05 ppbv	0.29 ppbc	No
Dallas Elm Fork (2C)	11/18/2013	11/12/2020	96	99	0.16 ppbv	0.95 ppbc	No	98	100	0.20 ppbv	1.20 ppbc	No
Kennedale Treepoint Drive (62)	4/1/2014	05/26/2020	95	99	0.12 ppbv	0.71 ppbc	No	42[3]	82[3]	0.16 ppbv	0.99 ppbc	No
Mansfield Flying L Lane (63)	4/1/2014	11/12/2020	96	99	0.10 ppbv	0.59 ppbc	No	100	47	0.11 ppbv	0.67 ppbc	No
Rhome Seven Hills Road (64)	4/1/2014	05/28/2020	95	99	0.10 ppbv	0.62 ppbc	No	N/A[3]	N/A[3]	N/A	N/A	No
Fort Worth Joe B. Rushing Road (65)	4/1/2014	11/10/2020	95	99	0.08 ppbv	0.47 ppbc	No	98	100	0.19 ppbv	1.16 ppbc	No

[1] Statistics for wind speed and wind direction data

[2] Met data validated by TCEQ

[3] Data capture impacted due to sites being decommissioned for shelter and GC replacement

Summary of Canister Data through November 2020

Site Name	Start Date	Last QA Audit	To Date					November				
			# EPA Samples Scheduled	# Valid Samples	Met Data Capture (%)[1]	Average Measured Benzene Concentration	Benzene Detection Frequency (%)	# EPA Samples Scheduled	# Valid Samples	Met Data Capture (%)[1]	Average Measured Benzene Concentration	Benzene Detection Frequency (%)
Keller	7/14/2013	10/27/2020	450	443	98[2]	0.16 ppbv	99	5	5	100[2]	0.19 ppbv	100
Mineral Wells 23rd St.	8/21/2013	10/28/2020	444	440	99	0.15 ppbv	99	5	5	100	0.15 ppbv	100
Lancaster Cedardale	9/1/2013	10/27/2020	442	439	99	0.17 ppbv	99	5	5	100	0.19 ppbv	100
Gainesville Doss	10/1/2013	10/27/2020	435	427	98	0.18 ppbv	99	5	5	100	0.23 ppbv	100
Weatherford Highway 180	10/13/2013	10/28/2020	363	359	99	0.14 ppbv	99	5	5	100	0.15 ppbv	100
Bowie Patterson St.	10/31/2013	10/27/2020	435	426	99	0.17 ppbv	99	5	5	83	0.22 ppbv	100
Abilene N. 3rd St.	12/18/2013	10/26/2020	382	380	99	0.14 ppbv	99	5	5	100	0.16 ppbv	100
Wichita Falls MWSU	12/19/2013	10/26/2020	424	415	99	0.14 ppbv	99	5	5	100	0.19 ppbv	100

General Comments:

- To Date refers to start date through current month
- Benzene reported as compound of most interest from a health perspective
- Air monitoring comparison values (AMCVs) are defined by the TCEQ as chemical-specific air concentrations set to protect human health and welfare
- To Date Value > AMCV refers to if any target compound concentration found greater than AMCV
- Kennedale Treepoint Drive and Rhome Seven Hills Road were decommissioned in September 2020 for shelter and GC replacement. Kennedale Treepoint Drive replacements were completed in November 2020.
- Met data capture at the Mansfield Flying L Lane site was below 90% due to damage to the met tower. Repairs were completed in December 2020.
- Met data capture at the Bowie Patterson St. site was below 90% due to a wind speed sensor error.

[1] Statistics for wind speed and wind direction data

[2] Met data validated by TCEQ

Summary of Auto GC Data through December 2020

Site Name	Start Date	Last QA Audit	To Date					December				
			Auto GC Data Capture (%)	Met Data Capture (%)[1]	Average Benzene Concentration		Any Value > AMCV (Y/N)	Auto GC Data Capture (%)	Met Data Capture (%)[1]	Average Benzene Concentration		Any Value > AMCV (Y/N)
Arlington UT Campus (2A)	9/20/2012	11/12/2020	96	99	0.14 ppbv	0.84 ppbc	No	92	100	0.18 ppbv	1.05 ppbc	No
Eagle Mountain Lake (2E)	4/8/2013	11/12/2020	96	98[2]	0.10 ppbv	0.57 ppbc	No	100	100[2]	0.13 ppbv	0.79 ppbc	No
Dish Airfield (2D)	5/8/2013	11/11/2020	97	99	0.12 ppbv	0.69 ppbc	No	100	100	0.13 ppbv	0.75 ppbc	No
Flower Mound Shiloh (2F)	5/8/2013	11/11/2020	97	99	0.09 ppbv	0.57 ppbc	No	100	100	0.11 ppbv	0.68 ppbc	No
Everman Johnson Park (2J)	5/8/2013	11/10/2020	96	99	0.08 ppbv	0.51 ppbc	No	99	100	0.11 ppbv	0.64 ppbc	No
Decatur Thompson (2T)	6/5/2013	11/11/2020	97	99	0.10 ppbv	0.61 ppbc	No	92	100	0.10 ppbv	0.60 ppbc	No
Godley FM 2331 (2G)	7/13/2013	11/10/2020	95	99	0.07 ppbv	0.45 ppbc	No	87	99	0.02 ppbv	0.15 ppbc	No
Fort Worth Benbrook Lake (2B)	10/1/2013	11/10/2020	95	99	0.08 ppbv	0.48 ppbc	No	96	100	0.05 ppbv	0.27 ppbc	No
Dallas Elm Fork (2C)	11/18/2013	11/12/2020	96	99	0.16 ppbv	0.95 ppbc	No	98	99	0.24 ppbv	1.42 ppbc	No
Kennedale Treepoint Drive (62)	4/1/2014	12/22/2020	95	99	0.12 ppbv	0.72 ppbc	No	90	100	0.20 ppbv	1.17 ppbc	No
Mansfield Flying L Lane (63)	4/1/2014	11/12/2020	96	98	0.10 ppbv	0.59 ppbc	No	100	34	0.12 ppbv	0.74 ppbc	No
Rhome Seven Hills Road (64)	4/1/2014	12/22/2020	95	99	0.10 ppbv	0.62 ppbc	No	69[3]	87[3]	0.13 ppbv	0.81 ppbc	No
Fort Worth Joe B. Rushing Road (65)	4/1/2014	11/10/2020	95	99	0.08 ppbv	0.48 ppbc	No	97	100	0.17 ppbv	1.03 ppbc	No

[1] Statistics for wind speed and wind direction data

[2] Met data validated by TCEQ

[3] Data capture impacted due to site being decommissioned for shelter and GC replacement

Summary of Canister Data through December 2020

Site Name	Start Date	Last QA Audit	To Date					December				
			# EPA Samples Scheduled	# Valid Samples	Met Data Capture (%)[1]	Average Measured Benzene Concentration	Benzene Detection Frequency (%)	# EPA Samples Scheduled	# Valid Samples	Met Data Capture (%)[1]	Average Measured Benzene Concentration	Benzene Detection Frequency (%)
Keller	7/14/2013	10/27/2020	455	448	98[2]	0.16 ppbv	99	5	5	100[2]	0.19 ppbv	100
Mineral Wells 23rd St.	8/21/2013	10/28/2020	449	445	99	0.15 ppbv	99	5	5	100	0.16 ppbv	100
Lancaster Cedardale	9/1/2013	10/27/2020	447	444	99	0.17 ppbv	99	5	5	100	0.18 ppbv	100
Gainesville Doss	10/1/2013	10/27/2020	440	432	98	0.18 ppbv	99	5	5	100	0.22 ppbv	100
Weatherford Highway 180	10/13/2013	10/28/2020	368	364	99	0.14 ppbv	99	5	5	100	0.14 ppbv	100
Bowie Patterson St.	10/31/2013	10/27/2020	440	431	99	0.17 ppbv	99	5	5	100	0.15 ppbv	100
Abilene N. 3rd St.	12/18/2013	10/26/2020	387	385	99	0.14 ppbv	99	5	5	99	0.15 ppbv	100
Wichita Falls MWSU	12/19/2013	10/26/2020	429	420	99	0.14 ppbv	99	5	5	100	0.17 ppbv	100

General Comments:

- To Date refers to start date through current month
- Benzene reported as compound of most interest from a health perspective
- Air monitoring comparison values (AMCVs) are defined by the TCEQ as chemical-specific air concentrations set to protect human health and welfare
- To Date Value > AMCV refers to if any target compound concentration found greater than AMCV
- Rhome Seven Hills Road was decommissioned in September 2020 for shelter and GC replacement; replacements were completed in December 2020.
- Met data capture at the Mansfield Flying L Lane site was below 90% due to damage to the met tower. Repairs were completed in December 2020.

[1] Statistics for wind speed and wind direction data

[2] Met data validated by TCEQ

Summary of Auto GC Data through January 2021

Site Name	Start Date	Last QA Audit	To Date					January				
			Auto GC Data Capture (%)	Met Data Capture (%)[1]	Average Benzene Concentration		Any Value > AMCV (Y/N)	Auto GC Data Capture (%)	Met Data Capture (%)[1]	Average Benzene Concentration		Any Value > AMCV (Y/N)
Arlington UT Campus (2A)	9/20/2012	11/12/2020	96	99	0.14 ppbv	0.85 ppbc	No	100	100	0.17 ppbv	1.01 ppbc	No
Eagle Mountain Lake (2E)	4/8/2013	11/12/2020	96	98[2]	0.10 ppbv	0.58 ppbc	No	99	100[2]	0.15 ppbv	0.87 ppbc	No
Dish Airfield (2D)	5/8/2013	11/11/2020	97	99	0.12 ppbv	0.69 ppbc	No	99	100	0.14 ppbv	0.83 ppbc	No
Flower Mound Shiloh (2F)	5/8/2013	11/11/2020	97	99	0.09 ppbv	0.57 ppbc	No	92	100	0.13 ppbv	0.77 ppbc	No
Everman Johnson Park (2J)	5/8/2013	11/10/2020	96	99	0.09 ppbv	0.51 ppbc	No	98	100	0.12 ppbv	0.75 ppbc	No
Decatur Thompson (2T)	6/5/2013	11/11/2020	97	99	0.10 ppbv	0.61 ppbc	No	99	100	0.11 ppbv	0.65 ppbc	No
Godley FM 2331 (2G)	7/13/2013	11/10/2020	95	99	0.07 ppbv	0.44 ppbc	No	94	100	0.06 ppbv	0.35 ppbc	No
Fort Worth Benbrook Lake (2B)	10/1/2013	11/10/2020	95	99	0.08 ppbv	0.48 ppbc	No	94	100	0.05 ppbv	0.31 ppbc	No
Dallas Elm Fork (2C)	11/18/2013	11/12/2020	96	99	0.16 ppbv	0.96 ppbc	No	88	100	0.19 ppbv	1.14 ppbc	No
Kennedale Treepoint Drive (62)	4/1/2014	12/22/2020	95	99	0.12 ppbv	0.73 ppbc	No	89	100	0.21 ppbv	1.28 ppbc	No
Mansfield Flying L Lane (63)	4/1/2014	11/12/2020	96	98	0.10 ppbv	0.60 ppbc	No	94	99	0.14 ppbv	0.87 ppbc	No
Rhome Seven Hills Road (64)	4/1/2014	12/22/2020	95	99	0.10 ppbv	0.63 ppbc	No	98	100	0.15 ppbv	0.88 ppbc	No
Fort Worth Joe B. Rushing Road (65)	4/1/2014	11/10/2020	95	99	0.08 ppbv	0.49 ppbc	No	99	100	0.20 ppbv	1.18 ppbc	No

[1] Statistics for wind speed and wind direction data

[2] Met data validated by TCEQ

Summary of Canister Data through January 2021

Site Name	Start Date	Last QA Audit	To Date					January				
			# EPA Samples Scheduled	# Valid Samples	Met Data Capture (%)[1]	Average Measured Benzene Concentration	Benzene Detection Frequency (%)	# EPA Samples Scheduled	# Valid Samples	Met Data Capture (%)[1]	Average Measured Benzene Concentration	Benzene Detection Frequency (%)
Keller	7/14/2013	10/27/2020	460	453	98[2]	0.16 ppbv	99	5	5	100[2]	0.26 ppbv	100
Mineral Wells 23rd St.	8/21/2013	10/28/2020	454	450	99	0.15 ppbv	99	5	5	100	0.19 ppbv	100
Lancaster Cedardale	9/1/2013	10/27/2020	452	449	99	0.17 ppbv	99	5	5	100	0.31 ppbv	100
Gainesville Doss	10/1/2013	10/27/2020	445	437	98	0.18 ppbv	99	5	5	100	0.26 ppbv	100
Weatherford Highway 180	10/13/2013	10/28/2020	373	369	99	0.14 ppbv	99	5	5	100	0.23 ppbv	100
Bowie Patterson St.	10/31/2013	10/27/2020	445	436	99	0.17 ppbv	99	5	5	100	0.23 ppbv	100
Abilene N. 3rd St.	12/18/2013	10/26/2020	392	390	99	0.14 ppbv	99	5	5	99	0.26 ppbv	100
Wichita Falls MWSU	12/19/2013	10/26/2020	434	425	99	0.14 ppbv	99	5	5	100	0.26 ppbv	100

General Comments:

- To Date refers to start date through current month
- Benzene reported as compound of most interest from a health perspective
- Air monitoring comparison values (AMCVs) are defined by the TCEQ as chemical-specific air concentrations set to protect human health and welfare
- To Date Value > AMCV refers to if any target compound concentration found greater than AMCV

[1] Statistics for wind speed and wind direction data

[2] Met data validated by TCEQ

Summary of Auto GC Data through February 2021

Site Name	Start Date	Last QA Audit	To Date					February				
			Auto GC Data Capture (%)	Met Data Capture (%)[1]	Average Benzene Concentration		Any Value > AMCV (Y/N)	Auto GC Data Capture (%)	Met Data Capture (%)[1]	Average Benzene Concentration		Any Value > AMCV (Y/N)
Arlington UT Campus (2A)	9/20/2012	11/12/2020	96	99	0.14 ppbv	0.84 ppbc	No	92	90	0.13 ppbv	0.79 ppbc	No
Eagle Mountain Lake (2E)	4/8/2013	11/12/2020	96	98[2]	0.10 ppbv	0.58 ppbc	No	76[3]	95[2]	0.13 ppbv	0.79 ppbc	No
Dish Airfield (2D)	5/8/2013	11/11/2020	97	99	0.12 ppbv	0.69 ppbc	No	84	95	0.12 ppbv	0.75 ppbc	No
Flower Mound Shiloh (2F)	5/8/2013	11/11/2020	97	99	0.09 ppbv	0.57 ppbc	No	84	90	0.11 ppbv	0.68 ppbc	No
Everman Johnson Park (2J)	5/8/2013	11/10/2020	96	99	0.09 ppbv	0.51 ppbc	No	100	100	0.10 ppbv	0.59 ppbc	No
Decatur Thompson (2T)	6/5/2013	11/11/2020	97	99	0.10 ppbv	0.61 ppbc	No	82	96	0.09 ppbv	0.57 ppbc	No
Godley FM 2331 (2G)	7/13/2013	11/10/2020	95	99	0.07 ppbv	0.44 ppbc	No	100	99	0.03 ppbv	0.21 ppbc	No
Fort Worth Benbrook Lake (2B)	10/1/2013	11/10/2020	95	99	0.08 ppbv	0.48 ppbc	No	99	100	0.04 ppbv	0.26 ppbc	No
Dallas Elm Fork (2C)	11/18/2013	11/12/2020	96	99	0.16 ppbv	0.96 ppbc	No	82	91	0.16 ppbv	0.95 ppbc	No
Kennedale Treepoint Drive (62)	4/1/2014	12/22/2020	94	99	0.12 ppbv	0.73 ppbc	No	78[3]	96	0.17 ppbv	1.04 ppbc	No
Mansfield Flying L Lane (63)	4/1/2014	11/12/2020	96	98	0.10 ppbv	0.60 ppbc	No	92[4]	97	0.13 ppbv	0.78 ppbc	No
Rhome Seven Hills Road (64)	4/1/2014	12/22/2020	95	99	0.11 ppbv	0.63 ppbc	No	91	100	0.14 ppbv	0.82 ppbc	No
Fort Worth Joe B. Rushing Road (65)	4/1/2014	11/10/2020	95	99	0.08 ppbv	0.49 ppbc	No	94	100	0.15 ppbv	0.90 ppbc	No

[1] Statistics for wind speed and wind direction data

[2] Met data validated by TCEQ

[3] AutoGC data capture was below 80% due to power outages

[4] PM conducted this month

Summary of Canister Data through February 2021

Site Name	Start Date	Last QA Audit	To Date					February				
			# EPA Samples Scheduled	# Valid Samples	Met Data Capture (%)[1]	Average Measured Benzene Concentration	Benzene Detection Frequency (%)	# EPA Samples Scheduled	# Valid Samples	Met Data Capture (%)[1]	Average Measured Benzene Concentration	Benzene Detection Frequency (%)
Keller	7/14/2013	10/27/2020	465	457	98[2]	0.16 ppbv	99	5	4	91[2]	0.20 ppbv	100
Mineral Wells 23rd St.	8/21/2013	10/28/2020	459	455	99	0.15 ppbv	99	5	5	100	0.19 ppbv	100
Lancaster Cedardale	9/1/2013	10/27/2020	457	454	99	0.17 ppbv	99	5	5	100	0.21 ppbv	100
Gainesville Doss	10/1/2013	10/27/2020	450	442	98	0.18 ppbv	99	5	5	100	0.22 ppbv	100
Weatherford Highway 180	10/13/2013	10/28/2020	378	374	99	0.15 ppbv	99	5	5	91	0.20 ppbv	100
Bowie Patterson St.	10/31/2013	10/27/2020	450	441	99	0.17 ppbv	99	5	5	100	0.21 ppbv	100
Abilene N. 3rd St.	12/18/2013	10/26/2020	397	395	99	0.15 ppbv	99	5	5	100	0.20 ppbv	100
Wichita Falls MWSU	12/19/2013	10/26/2020	439	430	99	0.14 ppbv	99	5	5	97	0.20 ppbv	100

General Comments:

- To Date refers to start date through current month
- Benzene reported as compound of most interest from a health perspective
- Air monitoring comparison values (AMCVs) are defined by the TCEQ as chemical-specific air concentrations set to protect human health and welfare
- To Date Value > AMCV refers to if any target compound concentration found greater than AMCV
- Unprecedented winter weather impacted Texas in February 2021; most NTC sites experienced power outages during this time.

[1] Statistics for wind speed and wind direction data

[2] Met data validated by TCEQ

Summary of Auto GC Data through March 2021

Site Name	Start Date	Last QA Audit	To Date					March				
			Auto GC Data Capture (%)	Met Data Capture (%)[1]	Average Benzene Concentration		Any Value > AMCV (Y/N)	Auto GC Data Capture (%)	Met Data Capture (%)[1]	Average Benzene Concentration		Any Value > AMCV (Y/N)
Arlington UT Campus (2A)	9/20/2012	11/12/2020	96	99	0.14 ppbv	0.84 ppbc	No	100	100	0.12 ppbv	0.70 ppbc	No
Eagle Mountain Lake (2E)	4/8/2013	11/12/2020	96	98[2]	0.10 ppbv	0.58 ppbc	No	79[3]	100[2]	0.10 ppbv	0.60 ppbc	No
Dish Airfield (2D)	5/8/2013	11/11/2020	96	99	0.12 ppbv	0.69 ppbc	No	90[3]	100	0.11 ppbv	0.66 ppbc	No
Flower Mound Shiloh (2F)	5/8/2013	11/11/2020	97	99	0.09 ppbv	0.57 ppbc	No	89[3]	100	0.10 ppbv	0.57 ppbc	No
Everman Johnson Park (2J)	5/8/2013	11/10/2020	96	99	0.09 ppbv	0.51 ppbc	No	99	100	0.09 ppbv	0.53 ppbc	No
Decatur Thompson (2T)	6/5/2013	11/11/2020	97	99	0.10 ppbv	0.60 ppbc	No	95	100	0.08 ppbv	0.47 ppbc	No
Godley FM 2331 (2G)	7/13/2013	11/10/2020	95	99	0.07 ppbv	0.44 ppbc	No	100	91	0.02 ppbv	0.14 ppbc	No
Fort Worth Benbrook Lake (2B)	10/1/2013	11/10/2020	95	99	0.08 ppbv	0.47 ppbc	No	94	99	0.03 ppbv	0.17 ppbc	No
Dallas Elm Fork (2C)	11/18/2013	11/12/2020	96	99	0.16 ppbv	0.96 ppbc	No	96	100	0.16 ppbv	0.96 ppbc	No
Kennedale Treepoint Drive (62)	4/1/2014	12/22/2020	94	99	0.12 ppbv	0.73 ppbc	No	91	100	0.14 ppbv	0.82 ppbc	No
Mansfield Flying L Lane (63)	4/1/2014	11/12/2020	96	98	0.10 ppbv	0.60 ppbc	No	100	100	0.10 ppbv	0.63 ppbc	No
Rhome Seven Hills Road (64)	4/1/2014	12/22/2020	95	99	0.11 ppbv	0.63 ppbc	No	99	100	0.10 ppbv	0.62 ppbc	No
Fort Worth Joe B. Rushing Road (65)	4/1/2014	11/10/2020	95	99	0.08 ppbv	0.49 ppbc	No	100	100	0.14 ppbv	0.84 ppbc	No

[1] Statistics for wind speed and wind direction data

[2] Met data validated by TCEQ

[3] PM conducted this month

Summary of Canister Data through March 2021

Site Name	Start Date	Last QA Audit	To Date					March				
			# EPA Samples Scheduled	# Valid Samples	Met Data Capture (%)[1]	Average Measured Benzene Concentration	Benzene Detection Frequency (%)	# EPA Samples Scheduled	# Valid Samples	Met Data Capture (%)[1]	Average Measured Benzene Concentration	Benzene Detection Frequency (%)
Keller	7/14/2013	10/27/2020	470	462	98[2]	0.16 ppbv	99	5	5	100[2]	0.14 ppbv	100
Mineral Wells 23rd St.	8/21/2013	10/28/2020	464	460	99	0.15 ppbv	99	5	5	100	0.12 ppbv	100
Lancaster Cedardale	9/1/2013	10/27/2020	462	459	99	0.17 ppbv	99	5	5	100	0.15 ppbv	100
Gainesville Doss	10/1/2013	10/27/2020	455	447	98	0.18 ppbv	99	5	5	100	0.17 ppbv	100
Weatherford Highway 180	10/13/2013	10/28/2020	383	379	99	0.15 ppbv	99	5	5	100	0.12 ppbv	100
Bowie Patterson St.	10/31/2013	10/27/2020	455	446	99	0.17 ppbv	99	5	5	100	0.17 ppbv	100
Abilene N. 3rd St.	12/18/2013	10/26/2020	402	400	99	0.15 ppbv	99	5	5	100	0.13 ppbv	100
Wichita Falls MWSU	12/19/2013	10/26/2020	444	435	99	0.14 ppbv	99	5	5	100	0.15 ppbv	100

General Comments:

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- Benzene reported as compound of most interest from a health perspective
- Air monitoring comparison values (AMCVs) are defined by the TCEQ as chemical-specific air concentrations set to protect human health and welfare
- To Date Value > AMCV refers to if any target compound concentration found greater than AMCV

[1] Statistics for wind speed and wind direction data

[2] Met data validated by TCEQ

Summary of Auto GC Data through April 2021

Site Name	Start Date	Last QA Audit	To Date					April				
			Auto GC Data Capture (%)	Met Data Capture (%)[1]	Average Benzene Concentration		Any Value > AMCV (Y/N)	Auto GC Data Capture (%)	Met Data Capture (%)[1]	Average Benzene Concentration		Any Value > AMCV (Y/N)
Arlington UT Campus (2A)	9/20/2012	11/12/2020	96	99	0.14 ppbv	0.84 ppbc	No	100	100	0.09 ppbv	0.56 ppbc	No
Eagle Mountain Lake (2E)	4/8/2013	11/12/2020	96	98[2]	0.10 ppbv	0.58 ppbc	No	99	100[2]	0.08 ppbv	0.51 ppbc	No
Dish Airfield (2D)	5/8/2013	11/11/2020	96	99	0.12 ppbv	0.69 ppbc	No	98	100	0.10 ppbv	0.59 ppbc	No
Flower Mound Shiloh (2F)	5/8/2013	11/11/2020	97	99	0.09 ppbv	0.57 ppbc	No	99	100	0.08 ppbv	0.50 ppbc	No
Everman Johnson Park (2J)	5/8/2013	11/10/2020	96	99	0.09 ppbv	0.51 ppbc	No	100	100	0.08 ppbv	0.47 ppbc	No
Decatur Thompson (2T)	6/5/2013	11/11/2020	97	99	0.10 ppbv	0.60 ppbc	No	100	100	0.06 ppbv	0.36 ppbc	No
Godley FM 2331 (2G)	7/13/2013	11/10/2020	95	99	0.07 ppbv	0.44 ppbc	No	94	100	0.03 ppbv	0.16 ppbc	No
Fort Worth Benbrook Lake (2B)	10/1/2013	11/10/2020	95	99	0.08 ppbv	0.47 ppbc	No	100	96	0.03 ppbv	0.17 ppbc	No
Dallas Elm Fork (2C)	11/18/2013	11/12/2020	96	99	0.16 ppbv	0.95 ppbc	No	99	100	0.12 ppbv	0.72 ppbc	No
Kennedale Treepoint Drive (62)	4/1/2014	12/22/2020	94	99	0.12 ppbv	0.73 ppbc	No	100	100	0.12 ppbv	0.74 ppbc	No
Mansfield Flying L Lane (63)	4/1/2014	11/12/2020	96	98	0.10 ppbv	0.60 ppbc	No	90	100	0.10 ppbv	0.58 ppbc	No
Rhome Seven Hills Road (64)	4/1/2014	12/22/2020	95	99	0.10 ppbv	0.63 ppbc	No	97	100	0.08 ppbv	0.51 ppbc	No
Fort Worth Joe B. Rushing Road (65)	4/1/2014	11/10/2020	95	99	0.08 ppbv	0.50 ppbc	No	100	100	0.12 ppbv	0.72 ppbc	No

[1] Statistics for wind speed and wind direction data

[2] Met data validated by TCEQ

Summary of Canister Data through April 2021

Site Name	Start Date	Last QA Audit	To Date					April				
			# EPA Samples Scheduled	# Valid Samples	Met Data Capture (%)[1]	Average Measured Benzene Concentration	Benzene Detection Frequency (%)	# EPA Samples Scheduled	# Valid Samples	Met Data Capture (%)[1]	Average Measured Benzene Concentration	Benzene Detection Frequency (%)
Keller	7/14/2013	10/27/2020	475	467	98[2]	0.16 ppbv	99	5	5	100[2]	0.20 ppbv	100
Mineral Wells 23rd St.	8/21/2013	10/28/2020	469	465	98	0.15 ppbv	99	5	5	71[3]	0.16 ppbv	100
Lancaster Cedardale	9/1/2013	10/27/2020	467	464	99	0.17 ppbv	99	5	5	95	0.15 ppbv	100
Gainesville Doss	10/1/2013	10/27/2020	460	452	98	0.18 ppbv	99	5	5	100	0.18 ppbv	100
Weatherford Highway 180	10/13/2013	10/28/2020	388	384	99	0.15 ppbv	99	5	5	100	0.16 ppbv	100
Bowie Patterson St.	10/31/2013	10/27/2020	460	451	99	0.17 ppbv	99	5	5	100	0.16 ppbv	100
Abilene N. 3rd St.	12/18/2013	10/26/2020	407	405	99	0.15 ppbv	99	5	5	100	0.15 ppbv	100
Wichita Falls MWSU	12/19/2013	10/26/2020	449	440	99	0.14 ppbv	99	5	5	97	0.18 ppbv	100

General Comments:

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- To Date Value > AMCV refers to if any target compound concentration found greater than AMCV

[1] Statistics for wind speed and wind direction data

[2] Met data validated by TCEQ

[3] Met data capture at Mineral Wells 23rd St. was below 90% due to wind speed sensor issues

Summary of Auto GC Data through May 2021

Site Name	Start Date	Last QA Audit	To Date					May				
			Auto GC Data Capture (%)	Met Data Capture (%)[1]	Average Benzene Concentration		Any Value > AMCV (Y/N)	Auto GC Data Capture (%)	Met Data Capture (%)[1]	Average Benzene Concentration		Any Value > AMCV (Y/N)
Arlington UT Campus (2A)	9/20/2012	5/18/2021	96	99	0.14 ppbv	0.84 ppbc	No	99	100	0.08 ppbv	0.47 ppbc	No
Eagle Mountain Lake (2E)	4/8/2013	5/26/2021	96	98[2]	0.10 ppbv	0.58 ppbc	No	99	100[2]	0.06 ppbv	0.37 ppbc	No
Dish Airfield (2D)	5/8/2013	5/24/2021	96	99	0.12 ppbv	0.69 ppbc	No	98	100	0.07 ppbv	0.44 ppbc	No
Flower Mound Shiloh (2F)	5/8/2013	5/24/2021	97	99	0.09 ppbv	0.57 ppbc	No	95	100	0.06 ppbv	0.37 ppbc	No
Everman Johnson Park (2J)	5/8/2013	5/18/2021	96	99	0.09 ppbv	0.51 ppbc	No	85[3]	100	0.07 ppbv	0.40 ppbc	No
Decatur Thompson (2T)	6/5/2013	5/25/2021	97	99	0.10 ppbv	0.60 ppbc	No	89[3]	100	0.04 ppbv	0.27 ppbc	No
Godley FM 2331 (2G)	7/13/2013	5/17/2021	95	99	0.07 ppbv	0.43 ppbc	No	99	100	0.01 ppbv	0.08 ppbc	No
Fort Worth Benbrook Lake (2B)	10/1/2013	5/18/2021	95	99	0.08 ppbv	0.47 ppbc	No	95	92	0.02 ppbv	0.12 ppbc	No
Dallas Elm Fork (2C)	11/18/2013	5/24/2021	96	99	0.16 ppbv	0.95 ppbc	No	97	100	0.11 ppbv	0.64 ppbc	No
Kennedale Treepoint Drive (62)	4/1/2014	5/18/2021	94	99	0.12 ppbv	0.73 ppbc	No	99	100	0.10 ppbv	0.62 ppbc	No
Mansfield Flying L Lane (63)	4/1/2014	5/19/2021	96	98	0.10 ppbv	0.60 ppbc	No	98	99	0.07 ppbv	0.41 ppbc	No
Rhome Seven Hills Road (64)	4/1/2014	5/26/2021	95	99	0.10 ppbv	0.63 ppbc	No	65[4]	100	0.10 ppbv	0.58 ppbc	No
Fort Worth Joe B. Rushing Road (65)	4/1/2014	5/18/2021	95	99	0.08 ppbv	0.50 ppbc	No	96	100	0.10 ppbv	0.59 ppbc	No

[1] Statistics for wind speed and wind direction data

[2] Met data validated by TCEQ; May 2021 data are unvalidated

[3] PM conducted this month

[4] AutoGC data capture at Rhome Seven Hills was below 80% due to instrument repairs

Summary of Canister Data through May 2021

Site Name	Start Date	Last QA Audit	To Date					May				
			# EPA Samples Scheduled	# Valid Samples	Met Data Capture (%)[1]	Average Measured Benzene Concentration	Benzene Detection Frequency (%)	# EPA Samples Scheduled	# Valid Samples	Met Data Capture (%)[1]	Average Measured Benzene Concentration	Benzene Detection Frequency (%)
Keller	7/14/2013	5/25/2021	480	472	98[2]	0.16 ppbv	99	5	5	100[2]	0.14 ppbv	100
Mineral Wells 23rd St.	8/21/2013	5/17/2021	474	470	98	0.15 ppbv	99	5	5	97	0.11 ppbv	100
Lancaster Cedardale	9/1/2013	5/19/2021	472	469	99	0.17 ppbv	99	5	5	95	0.14 ppbv	100
Gainesville Doss	10/1/2013	5/25/2021	465	457	98	0.18 ppbv	99	5	5	100	0.14 ppbv	100
Weatherford Highway 180	10/13/2013	5/17/2021	393	389	99	0.15 ppbv	99	5	5	100	0.13 ppbv	100
Bowie Patterson St.	10/31/2013	5/25/2021	465	456	99	0.17 ppbv	99	5	5	100	0.15 ppbv	100
Abilene N. 3rd St.	12/18/2013	5/17/2021	412	410	99	0.14 ppbv	99	5	5	100	0.09 ppbv	100
Wichita Falls MWSU	12/19/2013	5/25/2021	454	445	99	0.14 ppbv	99	5	5	100	0.12 ppbv	100

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[1] Statistics for wind speed and wind direction data

[2] Met data validated by TCEQ; May 2021 data are unvalidated

Summary of Auto GC Data through June 2021

Site Name	Start Date	Last QA Audit	To Date					June				
			Auto GC Data Capture (%)	Met Data Capture (%)[1]	Average Benzene Concentration		Any Value > AMCV (Y/N)	Auto GC Data Capture (%)	Met Data Capture (%)[1]	Average Benzene Concentration		Any Value > AMCV (Y/N)
Arlington UT Campus (2A)	9/20/2012	5/18/2021	96	99	0.14 ppbv	0.83 ppbv	No	99	100	0.07 ppbv	0.45 ppbc	No
Eagle Mountain Lake (2E)	4/8/2013	5/26/2021	96	98[2]	0.10 ppbv	0.57 ppbv	No	99	100[2]	0.05 ppbv	0.31 ppbc	No
Dish Airfield (2D)	5/8/2013	5/24/2021	96	99	0.11 ppbv	0.69 ppbv	No	92	100	0.07 ppbv	0.44 ppbc	No
Flower Mound Shiloh (2F)	5/8/2013	5/24/2021	97	99	0.09 ppbv	0.56 ppbv	No	100	100	0.06 ppbv	0.36 ppbc	No
Everman Johnson Park (2J)	5/8/2013	5/18/2021	96	99	0.08 ppbv	0.51 ppbv	No	94	100	0.06 ppbv	0.38 ppbc	No
Decatur Thompson (2T)	6/5/2013	5/25/2021	97	99	0.10 ppbv	0.60 ppbv	No	83[3]	86[4]	0.06 ppbv	0.37 ppbc	No
Godley FM 2331 (2G)	7/13/2013	5/17/2021	95	99	0.07 ppbv	0.43 ppbv	No	99	100	0.01 ppbv	0.07 ppbc	No
Fort Worth Benbrook Lake (2B)	10/1/2013	5/18/2021	95	99	0.08 ppbv	0.46 ppbv	No	100	100	0.02 ppbv	0.11 ppbc	No
Dallas Elm Fork (2C)	11/18/2013	5/24/2021	96	99	0.16 ppbv	0.95 ppbv	No	98	100	0.10 ppbv	0.59 ppbc	No
Kennedale Treepoint Drive (62)	4/1/2014	5/18/2021	95	99	0.12 ppbv	0.73 ppbv	No	100	100	0.09 ppbv	0.57 ppbc	No
Mansfield Flying L Lane (63)	4/1/2014	5/19/2021	96	98	0.10 ppbv	0.59 ppbv	No	100	100	0.06 ppbv	0.34 ppbc	No
Rhome Seven Hills Road (64)	4/1/2014	5/26/2021	95	99	0.10 ppbv	0.63 ppbv	No	87	100	0.09 ppbv	0.57 ppbc	No
Fort Worth Joe B. Rushing Road (65)	4/1/2014	5/18/2021	95	99	0.08 ppbv	0.50 ppbv	No	78[5]	100	0.09 ppbv	0.53 ppbc	No

[1] Statistics for wind speed and wind direction data

[2] Met data validated by TCEQ; June 2021 data are unvalidated

[3] PM conducted this month

[4] Met data capture at Decatur Thompson was below 90% due to a sensor malfunction

[5] AutoGC data capture at Fort Worth Joe B. Rushing Road was below 80% due to instrument repairs

Summary of Canister Data through June 2021

Site Name	Start Date	Last QA Audit	To Date					June				
			# EPA Samples Scheduled	# Valid Samples	Met Data Capture (%)[1]	Average Measured Benzene Concentration	Benzene Detection Frequency (%)	# EPA Samples Scheduled	# Valid Samples	Met Data Capture (%)[1]	Average Measured Benzene Concentration	Benzene Detection Frequency (%)
Keller	7/14/2013	5/25/2021	485	477	98[2]	0.16 ppbv	99	5	5	100[2]	0.13 ppbv	100
Mineral Wells 23rd St.	8/21/2013	5/17/2021	479	475	98	0.15 ppbv	99	5	5	95	0.13 ppbv	100
Lancaster Cedardale	9/1/2013	5/19/2021	477	474	99	0.17 ppbv	99	5	5	87[3]	0.23 ppbv	100
Gainesville Doss	10/1/2013	5/25/2021	470	462	98	0.18 ppbv	99	5	5	100	0.15 ppbv	100
Weatherford Highway 180	10/13/2013	5/17/2021	398	394	99	0.15 ppbv	99	5	5	100	0.18 ppbv	100
Bowie Patterson St.	10/31/2013	5/25/2021	470	461	99	0.17 ppbv	99	5	5	100	0.13 ppbv	100
Abilene N. 3rd St.	12/18/2013	5/17/2021	417	415	99	0.15 ppbv	99	5	5	100	0.23 ppbv	100
Wichita Falls MWSU	12/19/2013	5/25/2021	459	450	99	0.14 ppbv	99	5	5	100	0.23 ppbv	100

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- To Date Value > AMCV refers to if any target compound concentration found greater than AMCV

[1] Statistics for wind speed and wind direction data

[2] Met data validated by TCEQ; June 2021 data are unvalidated

[3] Met data capture at Lancaster Cedardale was below 90% due to a power outage

Appendix D

Audit Reports

QUALITY ASSURANCE AUDIT REPORT

North Texas Commission
Ambient Air and Meteorological Monitoring

Prepared for:

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EXECUTIVE SUMMARY

On November 11th – 15th, 2019, an audit team from the AECOM ambient air group in Austin, Texas conducted performance and technical system audits of the North Texas Commission (NTC) ambient air monitoring network. The audits provide an independent assessment of the monitoring program.

The monitoring program at NTC consists of continuous gas chromatographs (GC), volatile organic compound (VOC) canister collection systems, and meteorological sensors including wind speed, wind direction, and temperature.

The performance audit results indicate acceptable responses for measurement systems with the exceptions summarized below.

The wind direction sensor at Mineral Wells was within audit guidelines for linearity, but was outside of audit guidelines for alignment, with an alignment error of -8.8°. This resulted in a maximum total error of -9.4°, which is outside the audit specification of ± 5.0° for maximum total error. The audit staff realigned the sensor taking into account the 3.8° easterly magnetic declination in this specific area, resulting in a new maximum total error of 1.5°. The operations and data validation staff were notified of this problem and a corrective action report (CAR) was written to track these concerns and ensure that affected data are properly managed.

The wind speed sensors at Mineral Wells, Elm Fork, and Mansfield were marginally outside of audit parameters for the starting threshold, which is specified as less than 0.4 g/cm. The bearings were replaced on all sensors, resulting in responses within the audit parameter. The data validation staff concluded no significant edits were needed on these findings.

The safety placards across all sites in the network were missing an emergency route map from the site to the nearest hospital. Safety placards should contain this route in case of an emergency. The operations staff were notified of this problem and a CAR was written to track this concern.

The VOC sample inlet funnel at Wichita Falls had a noticeable amount of dust and should be cleaned soon to prevent flow restrictions. The operations staff were notified of this problem and a CAR was written to track this concern.

Out of the 48 compounds being analyzed, eleven compounds (acetylene, isoprene, 2-methylhexane, m&p-xylene, styrene, isopropylbenzene, n-propylbenzene, 1,3,5-trimethylbenzene, 1,2,4-trimethylbenzene, 1,2,3-trimethylbenzene, and n-undecane) were found

to be outside of the audit objective of 70% - 130% recovery at several sites. In addition, the DISH, Kennedale, UT Arlington, and Rushing sites had the following GC compound recoveries outside of the audit specification:

Locations	Compounds
DISH	ethylene
Kennedale	n-decane
UT Arlington	cis-2-pentene
Rushing	propylene, methylcyclopentane, benzene

These network GC audit results are comparable historically to other AECOM auto-GC audits, with the exception of the benzene recovery at Rushing. The daily calibration results during the time of the audit were trending downward and operations were aware of the issue. Following the audit, operations performed maintenance on the GC, which appears to have alleviated the low Benzene recoveries. No problems were identified in the quality control procedures at any of these sites that would indicate a persistent measurement error. The GC audit results are contained in table ES-2. Technical systems audit results demonstrate satisfactory operational procedures for collecting valid data.

A performance evaluation (PE) sample is prepared by the AECOM QA group on a quarterly basis and submitted to the VOC laboratory for analysis. This performance evaluation sample contained known (spiked) concentrations of the target VOCs. A review of the sample recoveries for the spiked target VOCs shows that eleven of the forty-four compounds were not within the range of expected values (70-130%). Nine of these compounds were below the acceptable sample recovery, while two compounds were above the acceptable sample recovery.

- 1,2,4-trimethylbenzene (46.1%),
- 1,3,5-trimethylbenzene (58.7%),
- 1-hexene (60.0%),
- 4-ethyltoluene (42.6%),
- Ethane (216.9%),
- Ethene (161.2%),
- Ethylbenzene (63.3%),
- M&P-xylene (65.9%),
- o-xylene (60.8%),
- Styrene (55.8%),
- Toluene (65.4%),

Over the past year, the PE sample recoveries have been lower than expected for heavier, non-halogenated VOCs. 1-hexene has historically been a problematic compound for VOC work and typically has lower recoveries. AECOM QA staff and the sampling lab have been working together to investigate the low recoveries of these compounds. The percent recovery for ethane and ethene was surprising this quarter with the addition of a 50 ml spike for each compound. Other C2 compounds can be challenging for lower concentrations due to the lab's level of quantification limit being higher than the theoretical input. AECOM QA staff shared the performance evaluation results with the VOC laboratory, and no other corrective action was taken. We will continue to evaluate these compounds in our PE samples and work with the lab to resolve these discrepancies. GD Air's most recent performance evaluation canister results for the third quarter of 2019 are contained below in Table ES-1.

Table ES-1. Results of Performance Standard for Off-Site Analytical Lab

Compound Name	CAS Number	Concentration (ppb-v)	Concentration Results (ppb-v)	Percent Recovery
1,1,1-Trichloroethane	71-55-6	2.8	2.4	86.6%
1,1,2,2-Tetrachloroethane	79-34-5	2.9	2.0	71.0%
1,1,2-Trichloroethane	79-00-5	2.9	2.2	75.5%
1,1-Dichloroethane	75-34-3	2.8	2.2	78.8%
1,1-Dichloroethene	75-35-4	2.9	2.2	77.2%
1,2,4-Trimethylbenzene	95-63-6	2.8	1.3	**46.1%**
1,2-Dibromoethane	106-93-4	2.8	2.3	80.8%
1,2-Dichloroethane	107-06-2	2.9	2.2	77.2%
1,2-Dichloropropane	78-87-5	2.9	2.3	81.8%
1,3,5-Trimethylbenzene	108-67-8	2.8	1.6	**58.7%**
1,3-Butadiene	106-99-0	5.8	4.8	82.5%
1-Butene	106-98-9	2.9	2.2	77.2%
1-Hexene	592-41-6	2.7	1.6	**60.0%**
1-Pentene	109-67-1	2.8	2.1	74.1%
2,2,4-Trimethylpentane	540-84-1	2.9	2.5	85.5%
4-Ethyltoluene (p-Ethyltoluene)	622-96-8	2.7	1.2	**42.6%**
Benzene	71-43-2	2.9	2.3	80.0%
Bromomethane	74-83-9	2.7	2.5	92.4%
c-1,3-Dichloropropene	10061-01-5	2.9	2.3	79.0%
Carbon tetrachloride	56-23-5	2.9	2.5	87.0%
Chlorobenzene	108-90-7	2.9	2.1	73.7%
Chloroform	67-66-3	2.8	2.4	86.1%
Chloromethane (Methyl Chloride)	74-87-3	2.9	2.5	88.4%
Cyclohexane	110-82-7	2.9	2.3	80.3%
Dichlorodifluoromethane (Freon-12)	75-71-8	2.8	2.7	97.8%
Ethane	74-84-0	17.2	37.3	**216.9%**
Ethene	74-85-1	5.8	9.4	**161.2%**
Ethylbenzene	100-41-4	2.9	1.8	**63.3%**
Methylene Chloride (Dichloromethane)	75-09-2	2.8	2.2	79.9%
m-Xylene & p-Xylene	106-42-3+108-38-3	5.6	3.7	**65.9%**
n-Butane	106-97-8	2.9	2.3	78.5%
n-Heptane	142-82-5	2.9	2.0	71.3%
n-Hexane	110-54-3	8.6	6.6	76.8%
n-Pentane	109-66-0	2.8	2.1	74.5%
o-Xylene	95-47-6	2.9	1.7	**60.8%**
Propane	74-98-6	2.9	2.2	75.8%
Propylene	115-07-1	5.9	4.5	76.8%
Styrene	100-42-5	2.8	1.6	**55.8%**
t-1,3-Dichloropropene	10061-02-6	2.9	2.2	76.5%
Tetrachloroethene	127-18-4	2.9	2.2	76.8%
Toluene	108-88-3	2.9	1.9	**65.4%**
Trichloroethene	79-01-6	2.9	2.4	83.0%
Trichlorofluoromethane (Freon-11)	75-69-4	2.9	2.3	78.5%
Vinyl Chloride	75-01-4	2.9	2.5	87.9%

Table ES-2. Audit Standard Results for all Network GCs

			Benbrook		Decatur		Dish		Eagle Mountain Lake	
Compound Name	CAS Number	Audit Concentration (ppbc)	Post Processed ppbc	Percent Recovery	Post Processed ppbc	Percent Recovery	Post Processed ppbc	Percent Recovery	Post Processed ppbc	Percent Recovery
Ethane	74-84-0	49.6	47.5	95.8%	47.3	95.5%	40.4	81.4%	45.4	91.6%
Ethylene	74-85-1	16.1	13.5	83.6%	14.2	88.1%	8.5	**52.6%**	12.3	76.6%
Propane	74-98-6	11.7	11.1	94.7%	10.3	88.6%	10.5	90.0%	10.6	90.6%
Propylene	115-07-1	11.7	8.8	75.5%	14.2	121.7%	9.1	78.3%	8.6	74.1%
Iso-Butane	75-28-5	14.7	17.1	116.4%	15.4	104.5%	13.9	94.7%	16.0	108.8%
N-Butane	106-97-8	15.1	17.8	117.6%	16.0	105.7%	15.5	102.4%	16.8	110.9%
Acetylene	74-86-2	7.7	5.8	74.7%	6.1	78.6%	5.6	72.7%	6.2	80.2%
Trans-2-Butene	624-64-6	14.7	17.3	117.3%	15.5	105.5%	14.5	98.6%	16.0	109.0%
1-Butene	106-98-9	14.7	17.0	115.6%	15.1	102.9%	13.4	90.7%	15.9	108.4%
Cis-2-Butene	590-18-1	15.6	17.7	113.8%	15.7	101.0%	14.6	93.5%	16.5	105.9%
Cyclopentane	287-92-3	18.4	21.7	117.8%	19.2	104.3%	18.5	100.4%	20.2	109.8%
Iso-Pentane	78-78-4	18.8	22.0	117.5%	19.5	103.9%	18.9	100.6%	20.8	111.2%
N-Pentane	109-66-0	18.8	22.6	120.4%	19.8	105.8%	19.5	104.1%	21.2	112.9%
1,3-Butadiene	106-99-0	14.6	16.4	112.6%	13.9	95.2%	12.1	83.2%	14.8	101.7%
Trans-2-Pentene	646-04-8	19.5	21.3	109.5%	18.1	93.0%	16.8	86.6%	20.2	103.6%
1-Pentene	109-67-1	19.5	19.2	98.8%	15.5	79.7%	15.0	77.2%	18.9	97.4%
Cis-2-Pentene	627-20-3	17.7	17.8	100.8%	14.7	83.0%	14.3	80.5%	15.3	86.5%
2,2-Dimethylbutane	75-83-2	22.5	25.0	110.9%	22.5	100.0%	22.2	98.6%	24.5	108.7%
2-Methylpentane	107-83-5	22.1	25.1	113.5%	22.6	102.2%	21.2	95.8%	24.6	111.2%
Isoprene	78-79-5	19.3	14.6	75.9%	12.1	**62.9%**	12.5	**64.7%**	14.1	73.2%
n-Hexane	110-54-3	22.7	23.7	104.3%	21.9	96.4%	21.5	94.8%	19.9	87.6%
Methylcyclopentane	108-87-2	22.9	19.1	83.4%	17.4	75.8%	17.9	78.3%	20.3	88.7%
2,4-Dimethylpentane	108-08-7	26.7	28.4	106.1%	26.4	98.7%	25.9	96.8%	27.1	101.2%
Benzene	71-43-2	22.9	19.0	83.0%	18.9	82.5%	20.6	90.0%	19.3	84.3%
Cyclohexane	110-82-7	22.9	22.5	98.3%	20.5	89.6%	20.9	91.3%	21.7	94.5%
2-Methylhexane	591-76-4	26.3	20.2	76.9%	17.7	**67.4%**	19.0	72.3%	22.1	84.0%
2,3-Dimethylpentane	565-59-3	26.5	28.9	109.4%	26.9	101.8%	27.0	102.0%	26.9	101.8%
3-Methylhexane	589-34-4	26.5	24.0	90.7%	22.3	84.2%	23.4	88.5%	25.1	94.8%
2,2,4-Trimethylpentane	540-84-1	30.2	28.1	92.9%	26.1	86.3%	26.1	86.1%	28.5	94.2%
n-Heptane	142-82-5	26.7	24.8	92.7%	23.1	86.5%	23.0	85.8%	25.1	94.0%
Methylcyclohexane	108-87-2	26.5	24.4	92.2%	22.0	83.1%	22.8	86.0%	24.9	94.2%
2,3,4-Trimethylpentane	565-75-3	30.8	27.9	90.5%	26.5	86.1%	26.0	84.3%	28.2	91.7%
Toluene	108-88-3	26.7	24.0	89.7%	22.8	85.2%	23.5	87.9%	23.9	89.3%
2-Methylheptane	592-27-8	30.2	27.4	90.6%	26.1	86.5%	24.6	81.2%	27.0	89.3%
3-Methylheptane	589-81-1	30.6	27.7	90.7%	27.0	88.5%	25.4	83.3%	27.7	90.5%
n-Octane	111-65-9	30.6	26.7	87.2%	25.9	84.6%	25.4	83.2%	27.2	88.9%
Ethylbenzene	100-41-4	31.1	24.4	78.3%	22.7	73.0%	21.8	70.2%	24.0	77.1%
M&P-Xylene	108-38-3	61.1	46.0	75.2%	44.8	73.3%	41.5	**67.8%**	44.9	73.4%
Styrene	100-42-5	30.6	18.7	**61.2%**	15.6	**51.0%**	21.4	70.0%	20.0	**65.6%**
O-Xylene	95-47-6	30.6	25.3	82.8%	23.4	76.7%	22.4	73.2%	24.3	79.6%
N-Nonane	111-84-2	33.8	28.2	83.6%	26.1	77.2%	25.5	75.6%	28.2	83.5%
Isopropylbenzene	98-82-8	33.4	26.3	78.7%	25.0	74.9%	22.6	**67.7%**	26.3	78.7%
n-Propylbenzene	103-65-1	32.8	24.7	75.5%	24.2	73.8%	22.6	**69.0%**	25.0	76.4%
1,3,5-Trimethylbenzene	108-67-8	34.7	24.1	**69.5%**	25.9	74.8%	23.2	**66.9%**	25.5	73.6%
1,2,4-Trimethylbenzene	95-63-6	35.0	23.8	**67.9%**	27.2	77.6%	26.3	75.2%	26.2	74.9%
n-Decane	124-18-5	35.0	27.1	77.4%	26.9	76.8%	24.9	71.2%	26.8	76.6%
1,2,3-Trimethylbenzene	526-73-8	34.7	19.4	**55.8%**	22.5	**65.0%**	22.4	**64.7%**	23.8	**68.8%**
n-Undecane	1120-21-4	42.8	22.9	**53.4%**	27.3	**63.9%**	27.7	**64.8%**	29.1	**67.9%**

[a] Compound order based on elution time.

Table ES-2. (Continued) Audit Standard Results for all Network GCs

			Elm Fork		Everman		Flower Mound		Godley	
Compound Name	CAS Number	Audit Concentration (ppbc)	Post Processed ppbc	Percent Recovery	Post Processed ppbc	Percent Recovery	Post Processed ppbc	Percent Recovery	Post Processed ppbc	Percent Recovery
Ethane	74-84-0	49.6	44.7	90.1%	47.1	95.1%	46.3	93.4%	45.6	92.1%
Ethylene	74-85-1	16.1	13.2	81.7%	12.6	78.1%	13.8	85.6%	13.8	85.7%
Propane	74-98-6	11.7	10.2	87.3%	10.1	86.8%	10.7	91.7%	10.5	90.3%
Propylene	115-07-1	11.7	9.5	81.0%	8.3	71.3%	9.7	82.9%	8.9	76.2%
Iso-Butane	75-28-5	14.7	14.8	100.8%	16.5	112.4%	15.1	102.4%	15.8	107.3%
N-Butane	106-97-8	15.1	15.6	103.2%	17.2	113.8%	15.7	104.0%	16.6	109.9%
Acetylene	74-86-2	7.7	5.7	73.9%	5.5	71.8%	6.4	82.9%	5.8	75.4%
Trans-2-Butene	624-64-6	14.7	15.0	101.8%	16.6	112.8%	15.3	104.3%	16.7	113.5%
1-Butene	106-98-9	14.7	14.9	101.3%	16.0	108.9%	15.1	102.3%	15.9	107.9%
Cis-2-Butene	590-18-1	15.6	15.9	102.2%	17.2	110.6%	16.0	102.8%	16.9	108.5%
Cyclopentane	287-92-3	18.4	18.8	102.3%	21.2	115.2%	19.0	103.2%	20.0	108.9%
Iso-Pentane	78-78-4	18.8	19.7	105.0%	21.2	113.0%	19.3	103.2%	20.7	110.6%
N-Pentane	109-66-0	18.8	19.6	104.5%	21.7	115.5%	19.7	105.2%	21.0	111.9%
1,3-Butadiene	106-99-0	14.6	14.5	99.5%	13.0	89.4%	12.8	88.1%	15.8	108.8%
Trans-2-Pentene	646-04-8	19.5	18.2	93.4%	19.7	101.4%	18.1	92.8%	20.4	104.7%
1-Pentene	109-67-1	19.5	17.5	89.8%	16.5	85.0%	15.0	77.2%	20.1	103.6%
Cis-2-Pentene	627-20-3	17.7	15.0	84.6%	13.9	78.6%	14.3	80.5%	18.0	101.6%
2,2-Dimethylbutane	75-83-2	22.5	20.0	88.9%	24.8	110.1%	22.5	100.0%	24.2	107.6%
2-Methylpentane	107-83-5	22.1	21.0	95.0%	24.4	110.7%	22.4	101.6%	23.2	104.9%
Isoprene	78-79-5	19.3	14.3	74.1%	12.2	**63.3%**	12.5	**64.7%**	16.8	87.3%
n-Hexane	110-54-3	22.7	23.3	102.9%	19.5	86.2%	20.4	90.0%	22.7	100.0%
Methylcyclopentane	108-87-2	22.9	21.0	91.7%	19.3	84.2%	18.7	81.7%	18.2	79.2%
2,4-Dimethylpentane	108-08-7	26.7	32.2	120.5%	27.3	102.1%	25.4	95.1%	25.2	94.4%
Benzene	71-43-2	22.9	20.9	91.1%	19.5	85.2%	19.2	83.8%	17.6	76.7%
Cyclohexane	110-82-7	22.9	22.9	100.1%	23.0	100.5%	20.4	89.1%	20.5	89.7%
2-Methylhexane	591-76-4	26.3	21.8	82.9%	19.3	73.5%	21.5	81.8%	18.6	70.8%
2,3-Dimethylpentane	565-59-3	26.5	32.1	121.5%	29.6	112.0%	25.1	94.9%	26.3	99.3%
3-Methylhexane	589-34-4	26.5	28.2	106.7%	24.9	93.9%	23.7	89.5%	23.4	88.3%
2,2,4-Trimethylpentane	540-84-1	30.2	32.0	105.7%	27.7	91.4%	27.2	90.0%	25.6	84.7%
n-Heptane	142-82-5	26.7	27.6	103.3%	23.7	88.8%	23.7	88.8%	22.1	82.5%
Methylcyclohexane	108-87-2	26.5	27.6	104.3%	24.9	94.0%	23.7	89.7%	22.7	85.8%
2,3,4-Trimethylpentane	565-75-3	30.8	31.4	102.0%	28.2	91.5%	27.1	87.9%	25.7	83.3%
Toluene	108-88-3	26.7	26.9	100.5%	23.1	86.5%	23.3	87.2%	22.3	83.4%
2-Methylheptane	592-27-8	30.2	30.3	100.3%	26.5	87.6%	26.1	86.2%	25.5	84.4%
3-Methylheptane	589-81-1	30.6	31.5	103.2%	27.0	88.5%	26.5	86.7%	25.3	82.9%
n-Octane	111-65-9	30.6	31.4	102.6%	27.6	90.3%	26.3	86.1%	24.6	80.3%
Ethylbenzene	100-41-4	31.1	27.9	89.5%	25.6	82.1%	23.3	74.9%	23.1	74.2%
M&P-Xylene	108-38-3	61.1	53.6	87.8%	51.6	84.5%	43.9	71.8%	44.4	72.7%
Styrene	100-42-5	30.6	23.6	77.3%	18.9	**61.8%**	17.2	**56.2%**	18.7	**61.2%**
O-Xylene	95-47-6	30.6	28.8	94.4%	27.1	88.8%	21.5	70.5%	24.2	79.2%
N-Nonane	111-84-2	33.8	32.1	95.2%	30.5	90.4%	26.4	78.3%	27.3	80.9%
Isopropylbenzene	98-82-8	33.4	29.9	89.5%	28.3	84.7%	25.6	76.8%	24.3	72.7%
n-Propylbenzene	103-65-1	32.8	28.4	86.7%	26.5	80.8%	25.5	77.7%	23.5	71.6%
1,3,5-Trimethylbenzene	108-67-8	34.7	28.2	81.4%	27.5	79.2%	24.5	70.6%	23.2	**66.9%**
1,2,4-Trimethylbenzene	95-63-6	35.0	29.2	83.4%	25.9	74.0%	27.8	79.3%	23.3	**66.6%**
n-Decane	124-18-5	35.0	30.1	85.9%	26.7	76.4%	26.6	76.1%	26.0	74.2%
1,2,3-Trimethylbenzene	526-73-8	34.7	27.7	79.9%	23.7	**68.3%**	24.9	72.0%	19.9	**57.5%**
n-Undecane	1120-21-4	42.8	31.7	74.1%	28.3	**66.2%**	30.7	71.7%	21.2	**49.5%**

[a] Compound order based on elution time.

Table ES-2. (Continued) Audit Standard Results for all Network GCs

			Kennedale		Mansfield		Rhome		Rushing		UTA	
Compound Name	CAS Number	Audit Concentration (ppbc)	Post Processed ppbc	Percent Recovery	Post Processed ppbc	Percent Recovery	Post Processed ppbc	Percent Recovery	Post Processed ppbc	Percent Recovery	Post Processed ppbc	Percent Recovery
Ethane	74-84-0	49.6	40.9	82.6%	47.3	95.4%	51.5	104.0%	46.2	93.2%	45.9	92.7%
Ethylene	74-85-1	16.1	11.8	73.0%	11.5	71.5%	13.1	81.2%	12.4	76.7%	12.3	76.3%
Propane	74-98-6	11.7	10.0	85.8%	10.7	91.9%	11.5	98.2%	9.7	83.2%	11.0	94.3%
Propylene	115-07-1	11.7	8.3	71.0%	8.8	75.2%	9.5	81.6%	7.7	66.0%	9.2	78.6%
Iso-Butane	75-28-5	14.7	15.9	108.2%	16.9	114.8%	18.6	126.2%	16.0	108.8%	17.8	121.1%
N-Butane	106-97-8	15.1	16.3	108.1%	18.2	120.7%	19.4	128.6%	16.8	111.0%	18.6	123.3%
Acetylene	74-86-2	7.7	5.3	68.8%	6.1	79.8%	5.6	73.1%	5.0	65.4%	5.5	71.9%
Trans-2-Butene	624-64-6	14.7	15.5	105.5%	17.3	117.8%	18.7	127.1%	16.0	108.5%	17.5	119.0%
1-Butene	106-98-9	14.7	15.3	104.2%	16.7	113.2%	18.1	123.3%	15.3	104.1%	16.9	114.8%
Cis-2-Butene	590-18-1	15.6	16.1	103.8%	17.8	114.6%	18.9	121.4%	16.3	105.1%	17.7	113.5%
Cyclopentane	287-92-3	18.4	19.7	106.8%	21.9	119.0%	23.0	124.9%	19.8	107.8%	22.3	121.5%
Iso-Pentane	78-78-4	18.8	20.3	108.1%	22.7	121.1%	23.7	126.6%	20.3	108.2%	22.8	121.8%
N-Pentane	109-66-0	18.8	20.2	107.9%	23.0	122.9%	24.2	129.0%	20.9	111.2%	22.8	121.7%
1,3-Butadiene	106-99-0	14.6	14.2	97.4%	16.2	111.6%	16.2	111.1%	14.6	100.2%	14.2	97.5%
Trans-2-Pentene	646-04-8	19.5	19.4	100.0%	21.6	111.3%	23.0	118.4%	19.5	100.2%	19.4	99.6%
1-Pentene	109-67-1	19.5	18.6	95.6%	20.9	107.3%	20.6	105.8%	18.0	92.3%	18.4	94.8%
Cis-2-Pentene	627-20-3	17.7	17.2	96.9%	19.2	108.3%	19.0	107.3%	17.2	97.2%	11.0	62.3%
2,2-Dimethylbutane	75-83-2	22.5	23.8	105.6%	26.8	119.2%	28.1	124.9%	24.2	107.7%	26.0	115.6%
2-Methylpentane	107-83-5	22.1	22.9	103.9%	25.7	116.3%	26.9	121.7%	22.4	101.7%	26.0	117.7%
Isoprene	78-79-5	19.3	15.5	80.6%	16.5	85.5%	16.1	83.4%	15.1	78.4%	15.0	78.0%
n-Hexane	110-54-3	22.7	20.9	92.4%	21.6	95.3%	21.4	94.2%	20.3	89.4%	21.0	92.8%
Methylcyclopentane	108-87-2	22.9	20.4	89.0%	19.0	82.7%	20.0	87.3%	15.2	66.3%	20.9	91.3%
2,4-Dimethylpentane	108-08-7	26.7	24.2	90.5%	25.7	96.2%	28.5	106.8%	27.5	102.9%	24.6	91.8%
Benzene	71-43-2	22.9	20.3	88.4%	20.2	88.3%	20.7	90.5%	14.9	64.9%	19.1	83.3%
Cyclohexane	110-82-7	22.9	22.0	95.9%	21.2	92.4%	24.2	105.5%	21.4	93.2%	21.3	93.1%
2-Methylhexane	591-76-4	26.3	22.2	84.7%	21.4	81.6%	20.9	79.4%	13.1	49.9%	22.4	85.2%
2,3-Dimethylpentane	565-59-3	26.5	24.8	93.8%	26.9	101.6%	29.6	111.8%	30.1	113.7%	24.2	91.6%
3-Methylhexane	589-34-4	26.5	24.2	91.6%	24.4	92.1%	28.0	106.0%	22.1	83.5%	23.7	89.5%
2,2,4-Trimethylpentane	540-84-1	30.2	25.9	85.7%	27.6	91.2%	28.5	94.4%	25.6	84.6%	26.5	87.7%
n-Heptane	142-82-5	26.7	22.7	84.8%	24.7	92.3%	24.3	90.8%	21.2	79.5%	23.6	88.1%
Methylcyclohexane	108-87-2	26.5	23.1	87.5%	23.8	90.0%	23.8	90.0%	22.5	84.9%	23.8	90.0%
2,3,4-Trimethylpentane	565-75-3	30.8	25.5	82.8%	27.4	89.0%	28.8	93.4%	26.1	84.9%	26.2	85.0%
Toluene	108-88-3	26.7	22.0	82.3%	24.0	89.8%	25.1	93.9%	20.2	75.6%	22.0	82.2%
2-Methylheptane	592-27-8	30.2	24.2	79.9%	26.5	87.8%	28.8	95.1%	25.9	85.8%	25.3	83.7%
3-Methylheptane	589-81-1	30.6	24.7	80.9%	27.1	88.6%	30.4	99.6%	27.0	88.2%	25.8	84.4%
n-Octane	111-65-9	30.6	24.1	78.9%	27.2	89.1%	27.6	90.3%	25.1	82.0%	24.8	81.2%
Ethylbenzene	100-41-4	31.1	21.8	70.1%	23.9	76.7%	24.6	78.9%	22.0	70.8%	23.3	74.9%
M&P-Xylene	108-38-3	61.1	40.7	66.6%	45.6	74.7%	46.8	76.6%	46.9	76.8%	44.0	72.0%
Styrene	100-42-5	30.6	17.8	58.1%	22.1	72.2%	20.1	65.8%	15.0	49.2%	19.3	63.2%
O-Xylene	95-47-6	30.6	21.6	70.6%	23.4	76.4%	25.8	84.4%	28.7	94.0%	23.3	76.2%
N-Nonane	111-84-2	33.8	25.3	75.0%	28.3	83.9%	28.0	83.1%	28.6	84.8%	26.0	77.1%
Isopropylbenzene	98-82-8	33.4	23.0	68.8%	25.2	75.4%	26.7	80.0%	25.1	75.2%	24.8	74.3%
n-Propylbenzene	103-65-1	32.8	21.6	66.1%	24.5	74.9%	25.8	78.6%	22.8	69.6%	23.1	70.4%
1,3,5-Trimethylbenzene	108-67-8	34.7	19.8	57.2%	24.4	70.5%	28.1	81.1%	25.4	73.2%	22.5	65.0%
1,2,4-Trimethylbenzene	95-63-6	35.0	20.2	57.8%	26.8	76.6%	26.6	75.8%	26.6	75.9%	22.9	65.3%
n-Decane	124-18-5	35.0	23.0	65.8%	25.7	73.5%	28.7	82.0%	27.6	78.8%	24.6	70.4%
1,2,3-Trimethylbenzene	526-73-8	34.7	17.6	50.8%	24.3	70.1%	22.6	65.2%	21.2	61.1%	19.4	55.9%
n-Undecane	1120-21-4	42.8	21.5	50.3%	27.1	63.3%	24.1	56.3%	20.4	47.6%	22.6	52.9%

[a] Compound order based on elution time.

QUALITY ASSURANCE AUDIT REPORT

North Texas Commission
Ambient Air and Meteorological Monitoring

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May 2020

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EXECUTIVE SUMMARY

On May 26th – 29th, 2020, an audit team from the AECOM ambient air group in Austin, Texas conducted performance and technical system audits of the North Texas Commission (NTC) ambient air monitoring network. The audits provide an independent assessment of the monitoring program.

The monitoring program at NTC consists of continuous gas chromatographs (GC), volatile organic compound (VOC) canister collection systems, and meteorological sensors including wind speed, wind direction, and temperature.

The performance audit results indicate acceptable responses for measurement systems with the exceptions summarized below.

The wind speed sensor at Decatur was marginally outside of audit parameters for the starting threshold, which is specified as less than 0.4 g/cm. The bearings were replaced on the sensor, resulting in responses within the audit parameter. The data validation staff concluded no significant edits were needed on these findings.

Out of the 48 compounds being analyzed, eleven compounds (ethylene, acetylene, styrene, isopropylbenzene, n-propylbenzene, 1,3,5-trimethylbenzene, 1,2,4-trimethylbenzene, 1,2,3-trimethylbenzene, and n-undecane) were found to be outside of the audit objective of 70% - 130% recovery at several sites. In addition, the Rhome, Rushing, and Elm Fork sites had the following GC compound recoveries outside of the audit specification:

Locations	Compounds
Rhome	cyclopentane
Rushing	2-methylhexane
Elm Fork	methylcyclopentane, 2,3-dimethylpentane

These network GC audit results are comparable historically to other AECOM auto-GC audits, except for low ethylene recoveries found at nine out of the thirteen GC sites. Orsat has been informed and is investigating the low ethylene recoveries. The GC audit results are contained in table ES-2. Technical systems audit results demonstrate satisfactory operational procedures for collecting valid data.

A performance evaluation (PE) sample is prepared by the AECOM QA group on a quarterly basis and submitted to the VOC laboratory for analysis. This performance evaluation sample contained known (spiked) concentrations of the target VOCs. A review of the sample recoveries for the spiked target VOCs shows that four out of the forty-four compounds were not within the range of expected values (70-130%).

- 1,2,4-trimethylbenzene (54.0%),
- 1,3,5-trimethylbenzene (69.9%),
- 1-hexene (64.7%),
- 4-ethyltoluene (66.1%),

Over the past year, the PE sample recoveries have been lower than expected for heavier, non-halogenated VOCs. 1-hexene has historically been a problematic compound for VOC work and typically has lower recoveries. AECOM QA staff and the sampling lab have been working together to investigate the low recoveries of these compounds. AECOM QA staff shared the performance evaluation results with the VOC laboratory, and no other corrective action was taken. We will continue to evaluate these compounds in our PE samples and work with the lab to resolve these discrepancies. GD Air's most recent performance evaluation canister results for the second quarter of 2020 are contained below in Table ES-1.

Table ES-1. Results of Performance Standard for Off-Site Analytical Lab

Compound Name	CAS Number	Input Concentr	Lab Results	Percent Recovery
1,1,1-Trichloroethane	71-55-6	3.4	3.4	100.7%
1,1,2,2-Tetrachloroethane	79-34-5	3.4	2.8	82.7%
1,1,2-Trichloroethane	79-00-5	3.5	3.1	90.6%
1,1-Dichloroethane	75-34-3	3.4	3.0	88.8%
1,1-Dichloroethene	75-35-4	3.4	3.1	90.9%
1,2,4-Trimethylbenzene	95-63-6	3.3	1.8	**54.0%**
1,2-Dibromoethane	106-93-4	3.4	3.1	91.8%
1,2-Dichloroethane	107-06-2	3.4	3.1	88.8%
1,2-Dichloropropane	78-87-5	3.4	2.9	85.0%
1,3,5-Trimethylbenzene	108-67-8	3.3	2.3	**69.9%**
1,3-Butadiene	106-99-0	7.0	5.7	80.9%
1-Butene	106-98-9	3.4	2.8	80.4%
1-Hexene	592-41-6	3.2	2.1	**64.7%**
1-Pentene	109-67-1	3.4	3.4	99.1%
2,2,4-Trimethylpentane	540-84-1	3.5	3.1	88.3%
4-Ethyltoluene (p-Ethyltoluene)	622-96-8	3.3	2.2	**66.1%**
Benzene	71-43-2	3.5	2.9	84.2%
Bromomethane	74-83-9	3.2	3.2	97.7%
c-1,3-Dichloropropene	10061-01-	3.4	3.4	97.9%
Carbon tetrachloride	56-23-5	3.4	3.4	99.6%
Chlorobenzene	108-90-7	3.5	3.0	86.5%
Chloroform	67-66-3	3.4	3.3	96.2%
Chloromethane (Methyl Chloride)	74-87-3	3.4	3.0	88.3%
Cyclohexane	110-82-7	3.5	3.1	88.8%
Dichlorodifluoromethane (Freon-12)	75-71-8	3.3	3.2	96.7%
Ethane	74-84-0	20.6	20.0	97.1%
Ethene	74-85-1	7.0	6.4	91.3%
Ethylbenzene	100-41-4	3.5	2.9	82.5%
Methylene Chloride (Dichloromethane)	75-09-2	3.3	2.7	81.3%
m-Xylene & p-Xylene	106-42-3+	6.7	5.6	82.7%
n-Butane	106-97-8	3.5	2.8	79.4%
n-Heptane	142-82-5	3.4	3.0	88.5%
n-Hexane	110-54-3	10.3	10.0	97.4%
n-Pentane	109-66-0	3.4	3.0	87.1%
o-Xylene	95-47-6	3.4	2.6	75.1%
Propane	74-98-6	3.5	2.7	77.0%
Propylene	115-07-1	7.1	5.2	73.0%
Styrene	100-42-5	3.4	2.5	73.2%
t-1,3-Dichloropropene	10061-02-	3.4	3.0	87.4%
Tetrachloroethene	127-18-4	3.5	3.1	89.1%
Toluene	108-88-3	3.5	2.9	82.2%
Trichloroethene	79-01-6	3.5	3.3	94.9%
Trichlorofluoromethane (Freon-11)	75-69-4	3.5	3.2	89.7%
Vinyl Chloride	75-01-4	3.5	3.0	85.7%

Table ES-2. Audit Standard Results for all Network GCs

				Benbrook		Decatur		Dish		Eagle Mountain Lake	
Compound Name	CAS Number	Audit Concentration (ppbv)	Audit Concentration (ppbc)	Post Processed ppbc	Percent Recovery	Post Processed ppbc	Percent Recovery	Post Processed ppbc	Percent Recovery	Post Processed ppbc	Percent Recovery
Ethane	74-84-0	22.2	44.3	41.2	92.8%	40.8	92.0%	39.28	88.6%	42.7	96.3%
Ethylene	74-85-1	7.5	15.1	11.7	77.8%	11.4	75.5%	7.69	**51.1%**	9.7	**64.2%**
Propane	74-98-6	3.9	11.7	10.1	86.3%	10.7	92.0%	9.85	84.4%	10.9	93.6%
Propylene	115-07-1	3.9	11.7	8.9	76.2%	9.2	78.8%	9.56	81.9%	10.1	86.4%
Iso-Butane	75-28-5	3.7	14.7	15.7	106.8%	15.6	105.8%	14.14	96.1%	16.1	109.7%
N-Butane	106-97-8	3.8	15.1	16.3	108.1%	16.4	108.2%	14.66	97.0%	16.6	110.0%
Acetylene	74-86-2	3.9	7.7	4.7	**60.9%**	5.9	76.8%	5.08	**65.9%**	6.6	85.3%
Trans-2-Butene	624-64-6	3.7	14.7	16.1	109.3%	16.1	109.4%	14.50	98.5%	16.2	110.1%
1-Butene	106-98-9	3.7	14.7	15.9	108.0%	15.7	106.4%	14.49	98.4%	16.5	111.8%
Cis-2-Butene	590-18-1	3.9	15.6	16.1	103.8%	16.5	106.3%	15.26	98.1%	16.7	107.0%
Cyclopentane	287-92-3	3.7	18.4	20.0	108.7%	19.8	107.9%	17.98	97.7%	20.0	108.9%
Iso-Pentane	78-78-4	3.8	18.8	20.4	108.9%	20.4	108.8%	18.77	100.1%	20.9	111.7%
N-Pentane	109-66-0	3.8	18.8	20.7	110.3%	20.6	109.9%	18.84	100.5%	21.2	112.8%
1,3-Butadiene	106-99-0	3.6	14.6	14.4	98.6%	13.5	92.8%	14.23	97.7%	16.1	110.6%
Trans-2-Pentene	646-04-8	3.7	18.4	19.7	107.2%	19.2	104.3%	18.47	100.4%	21.3	116.0%
1-Pentene	109-67-1	3.9	19.5	16.8	86.4%	16.3	83.7%	17.84	91.7%	21.2	108.9%
Cis-2-Pentene	627-20-3	3.5	17.7	15.5	87.8%	14.6	82.4%	16.27	91.9%	19.1	107.8%
2,2-Dimethylbutane	75-83-2	3.8	22.5	23.3	103.6%	22.7	100.7%	20.33	90.3%	25.0	111.1%
2-Methylpentane	107-83-5	3.7	22.1	22.8	103.3%	23.2	105.2%	20.64	93.5%	24.6	111.5%
Isoprene	78-79-5	3.9	19.3	14.0	72.5%	13.7	70.9%	15.68	81.5%	17.7	92.0%
n-Hexane	110-54-3	3.8	22.7	22.6	99.8%	22.0	97.1%	24.58	108.4%	22.3	98.1%
Methylcyclopentane	108-87-2	3.8	22.9	18.8	82.1%	18.2	79.3%	19.62	85.6%	20.0	87.3%
2,4-Dimethylpentane	108-08-7	3.8	26.7	26.9	100.5%	26.5	99.0%	28.32	105.9%	26.7	99.9%
Benzene	71-43-2	3.8	22.9	19.5	84.9%	20.5	89.5%	21.18	92.4%	21.7	94.6%
Cyclohexane	110-82-7	3.8	22.9	22.8	99.4%	22.1	96.5%	21.05	91.8%	22.8	99.5%
2-Methylhexane	591-76-4	3.8	26.3	19.8	75.5%	19.9	75.6%	21.91	83.5%	22.3	84.9%
2,3-Dimethylpentane	565-59-3	3.8	26.5	28.8	108.8%	28.3	106.9%	27.20	102.8%	28.1	106.2%
3-Methylhexane	589-34-4	3.8	26.5	25.5	96.2%	25.5	96.3%	25.00	94.5%	25.8	97.7%
2,2,4-Trimethylpentane	540-84-1	3.8	30.2	27.0	89.3%	27.0	89.4%	28.99	95.9%	28.3	93.7%
n-Heptane	142-82-5	3.8	26.7	22.8	85.2%	23.7	88.5%	26.37	98.6%	25.8	96.6%
Methylcyclohexane	108-87-2	3.8	26.5	23.6	89.2%	24.1	91.0%	24.98	94.4%	25.2	95.3%
2,3,4-Trimethylpentane	565-75-3	3.9	30.8	26.7	86.7%	27.4	88.9%	28.79	93.5%	28.6	92.8%
Toluene	108-88-3	3.8	26.7	22.8	85.3%	23.6	88.3%	24.59	92.0%	24.6	92.2%
2-Methylheptane	592-27-8	3.8	30.2	26.0	85.9%	26.5	87.6%	28.29	93.5%	27.9	92.4%
3-Methylheptane	589-81-1	3.8	30.6	26.2	85.9%	27.5	89.9%	28.62	93.7%	28.3	92.5%
n-Octane	111-65-9	3.8	30.6	25.5	83.4%	26.5	86.6%	28.78	94.2%	28.4	92.8%
Ethylbenzene	100-41-4	3.9	31.1	23.5	75.5%	23.6	75.9%	26.64	85.6%	25.3	81.4%
M&P-Xylene	108-38-3	3.8	61.1	44.4	72.6%	46.4	75.9%	51.54	84.3%	48.6	79.5%
Styrene	100-42-5	3.8	30.6	19.3	**63.2%**	18.9	**62.0%**	22.23	72.7%	20.4	**66.8%**
O-Xylene	95-47-6	3.8	30.6	25.1	82.2%	24.1	78.8%	26.90	88.0%	25.5	83.5%
N-Nonane	111-84-2	3.8	33.8	27.6	81.7%	27.2	80.5%	30.87	91.5%	30.5	90.3%
Isopropylbenzene	98-82-8	3.7	33.4	26.3	78.7%	25.3	75.7%	28.35	84.9%	27.5	82.4%
n-Propylbenzene	103-65-1	3.6	32.8	24.7	75.3%	24.6	75.1%	27.68	84.5%	25.8	78.8%
1,3,5-Trimethylbenzene	108-67-8	3.9	34.7	25.7	74.1%	26.7	76.9%	25.13	72.5%	24.4	70.5%
1,2,4-Trimethylbenzene	95-63-6	3.9	35.0	26.1	74.5%	26.9	76.8%	26.68	76.2%	24.4	**69.6%**
n-Decane	124-18-5	3.5	35.0	27.2	77.8%	28.7	81.9%	30.48	87.1%	28.0	80.0%
1,2,3-Trimethylbenzene	526-73-8	3.9	34.7	21.9	**63.3%**	24.0	**69.1%**	23.88	**68.9%**	21.7	**62.7%**
n-Undecane	1120-21-4	3.9	42.8	24.8	**57.9%**	32.3	75.4%	27.47	**64.2%**	25.1	**58.5%**

[a] Compound order based on elution time.

Table ES-2. (Continued) Audit Standard Results for all Network GCs

			Elm Fork		Everman		Flower Mound		Godley	
Compound Name	CAS Number	Audit Concentration (ppbc)	Post Processed ppbc	Percent Recovery	Post Processed ppbc	Percent Recovery	Post Processed ppbc	Percent Recovery	Post Processed ppbc	Percent Recovery
Ethane	74-84-0	44.3	42.2	95.2%	39.6	89.3%	36.5	82.3%	38.64	87.1%
Ethylene	74-85-1	15.1	11.6	76.8%	8.6	**57.4%**	8.9	**59.3%**	11.72	77.9%
Propane	74-98-6	11.7	10.8	92.3%	9.9	85.0%	9.6	82.2%	10.20	87.4%
Propylene	115-07-1	11.7	10.0	85.8%	9.7	82.7%	9.3	79.3%	8.64	74.1%
Iso-Butane	75-28-5	14.7	16.0	108.8%	16.1	109.2%	13.7	93.1%	14.91	101.3%
N-Butane	106-97-8	15.1	16.9	111.7%	16.5	109.0%	14.2	93.8%	15.76	104.2%
Acetylene	74-86-2	7.7	6.3	81.5%	5.1	**66.1%**	5.9	76.8%	4.87	**63.3%**
Trans-2-Butene	624-64-6	14.7	16.4	111.7%	15.9	107.8%	14.0	95.3%	14.96	101.6%
1-Butene	106-98-9	14.7	16.2	109.8%	16.2	109.8%	14.0	95.0%	14.78	100.4%
Cis-2-Butene	590-18-1	15.6	17.4	111.9%	16.7	107.6%	14.7	94.3%	15.40	99.0%
Cyclopentane	287-92-3	18.4	20.6	112.1%	20.2	109.9%	17.4	94.7%	18.21	99.0%
Iso-Pentane	78-78-4	18.8	20.9	111.6%	20.6	109.6%	18.0	96.1%	19.15	102.1%
N-Pentane	109-66-0	18.8	21.1	112.7%	20.8	111.1%	18.3	97.4%	19.84	105.8%
1,3-Butadiene	106-99-0	14.6	15.1	103.9%	15.9	109.4%	13.9	95.2%	14.39	98.9%
Trans-2-Pentene	646-04-8	18.4	19.4	105.7%	20.9	113.3%	18.0	98.0%	18.71	101.7%
1-Pentene	109-67-1	19.5	17.5	89.9%	20.7	106.2%	17.9	92.0%	17.84	91.7%
Cis-2-Pentene	627-20-3	17.7	16.2	91.7%	18.8	105.9%	16.0	90.7%	16.24	91.8%
2,2-Dimethylbutane	75-83-2	22.5	23.9	106.1%	24.8	110.0%	20.6	91.6%	22.43	99.7%
2-Methylpentane	107-83-5	22.1	22.9	103.7%	23.6	106.9%	20.2	91.7%	20.91	94.7%
Isoprene	78-79-5	19.3	15.2	78.7%	18.4	95.5%	15.3	79.3%	14.97	77.8%
n-Hexane	110-54-3	22.7	21.2	93.3%	20.0	88.0%	22.2	98.0%	19.60	86.4%
Methylcyclopentane	108-87-2	22.9	30.2	**131.6%**	18.7	81.7%	17.8	77.6%	17.94	78.3%
2,4-Dimethylpentane	108-08-7	26.7	27.1	101.3%	26.4	98.7%	24.6	92.0%	25.48	95.3%
Benzene	71-43-2	22.9	24.4	106.3%	20.3	88.5%	19.2	83.7%	17.65	77.0%
Cyclohexane	110-82-7	22.9	26.6	116.0%	22.0	95.9%	19.9	87.0%	20.09	87.7%
2-Methylhexane	591-76-4	26.3	21.8	82.9%	20.1	76.7%	19.7	74.9%	18.48	70.4%
2,3-Dimethylpentane	565-59-3	26.5	37.2	**140.7%**	27.8	104.9%	24.8	93.9%	26.44	99.9%
3-Methylhexane	589-34-4	26.5	31.0	117.2%	25.0	94.6%	22.5	85.1%	23.36	88.3%
2,2,4-Trimethylpentane	540-84-1	30.2	34.2	113.2%	27.0	89.3%	26.3	86.9%	25.97	85.9%
n-Heptane	142-82-5	26.7	28.4	106.1%	23.1	86.4%	22.6	84.4%	22.17	82.9%
Methylcyclohexane	108-87-2	26.5	29.1	110.0%	23.7	89.5%	22.4	84.8%	23.16	87.5%
2,3,4-Trimethylpentane	565-75-3	30.8	33.5	108.8%	26.9	87.3%	26.0	84.5%	25.68	83.4%
Toluene	108-88-3	26.7	29.4	109.8%	23.0	86.2%	22.1	82.8%	21.49	80.4%
2-Methylheptane	592-27-8	30.2	32.4	107.2%	26.5	87.5%	25.1	83.0%	23.84	78.8%
3-Methylheptane	589-81-1	30.6	33.7	110.4%	26.9	87.9%	24.8	81.3%	24.51	80.2%
n-Octane	111-65-9	30.6	33.7	110.3%	25.9	84.7%	25.7	84.1%	24.64	80.6%
Ethylbenzene	100-41-4	31.1	30.4	97.8%	24.5	78.8%	23.9	76.9%	22.18	71.3%
M&P-Xylene	108-38-3	61.1	60.6	99.1%	47.0	76.9%	45.4	74.3%	43.00	70.4%
Styrene	100-42-5	30.6	28.2	92.4%	18.9	**61.8%**	18.5	**60.7%**	17.84	**58.4%**
O-Xylene	95-47-6	30.6	32.1	105.1%	25.6	83.6%	22.6	73.9%	23.42	76.7%
N-Nonane	111-84-2	33.8	36.9	109.3%	28.8	85.4%	26.9	79.6%	26.30	77.9%
Isopropylbenzene	98-82-8	33.4	34.3	102.7%	27.5	82.5%	25.3	75.7%	25.74	77.1%
n-Propylbenzene	103-65-1	32.8	33.4	102.0%	25.9	78.9%	24.5	74.8%	24.62	75.2%
1,3,5-Trimethylbenzene	108-67-8	34.7	33.4	96.5%	26.3	76.0%	23.1	**66.6%**	27.26	78.7%
1,2,4-Trimethylbenzene	95-63-6	35.0	35.3	100.8%	24.6	70.3%	23.2	**66.3%**	26.18	74.8%
n-Decane	124-18-5	35.0	40.8	116.5%	28.0	80.0%	26.6	76.0%	26.89	76.8%
1,2,3-Trimethylbenzene	526-73-8	34.7	34.0	98.2%	23.1	**66.7%**	21.1	**61.0%**	25.17	72.6%
n-Undecane	1120-21-4	42.8	43.9	102.5%	26.7	**62.3%**	24.8	**58.1%**	31.21	72.9%

[a] Compound order based on elution time.

Table ES-2. (Continued) Audit Standard Results for all Network GCs

			Kennedale		Mansfield		Rhome		Rushing		UT Arlington	
Compound Name	CAS Number	Audit Concentration (ppbc)	Post Processed ppbc	Percent Recovery	Post Processed ppbc	Percent Recovery	Post Processed ppbc	Percent Recovery	Post Processed ppbc	Percent Recovery	Post Processed ppbc	Percent Recovery
Ethane	74-84-0	44.3	37.2	83.8%	40.0	90.2%	45.1	101.6%	40.7	91.7%	39.2	88.4%
Ethylene	74-85-1	15.1	8.7	**57.4%**	8.6	**57.2%**	10.1	**67.3%**	10.4	**69.3%**	10.2	**67.7%**
Propane	74-98-6	11.7	10.0	85.3%	10.3	88.6%	11.6	99.6%	10.1	86.4%	10.7	91.4%
Propylene	115-07-1	11.7	9.5	81.0%	9.8	84.2%	10.4	89.0%	8.4	71.7%	9.2	79.2%
Iso-Butane	75-28-5	14.7	14.9	101.3%	15.6	106.1%	17.4	118.5%	17.1	116.4%	17.1	116.5%
N-Butane	106-97-8	15.1	15.6	103.2%	16.5	109.4%	17.9	118.3%	17.9	118.6%	18.0	119.0%
Acetylene	74-86-2	7.7	3.9	**50.3%**	4.2	**54.1%**	4.3	**55.8%**	4.0	**52.0%**	5.6	73.0%
Trans-2-Butene	624-64-6	14.7	14.5	98.6%	15.6	106.2%	16.7	113.4%	16.9	114.5%	17.7	120.2%
1-Butene	106-98-9	14.7	14.6	99.2%	15.3	103.8%	17.5	118.6%	16.5	112.2%	17.0	115.4%
Cis-2-Butene	590-18-1	15.6	15.3	98.1%	16.3	104.8%	12.2	78.4%	17.5	112.4%	18.0	115.8%
Cyclopentane	287-92-3	18.4	18.9	102.4%	19.7	107.3%	27.0	**146.5%**	21.5	117.1%	21.5	116.8%
Iso-Pentane	78-78-4	18.8	19.5	104.2%	20.5	109.1%	22.5	119.8%	21.9	116.7%	22.3	119.0%
N-Pentane	109-66-0	18.8	19.7	105.3%	20.6	110.1%	22.7	121.0%	22.5	120.1%	22.5	119.9%
1,3-Butadiene	106-99-0	14.6	13.2	90.7%	15.5	106.5%	14.7	100.8%	14.8	101.5%	16.7	114.8%
Trans-2-Pentene	646-04-8	18.4	18.3	99.4%	20.1	109.2%	20.2	109.7%	20.3	110.5%	21.8	118.7%
1-Pentene	109-67-1	19.5	19.4	99.5%	19.9	102.2%	19.5	100.0%	19.6	101.0%	20.8	107.0%
Cis-2-Pentene	627-20-3	17.7	15.1	85.3%	18.0	101.7%	13.2	74.9%	17.4	98.6%	19.2	108.5%
2,2-Dimethylbutane	75-83-2	22.5	23.3	103.5%	24.0	106.5%	26.5	117.6%	25.7	114.2%	26.1	115.9%
2-Methylpentane	107-83-5	22.1	22.6	102.2%	23.3	105.4%	25.5	115.3%	23.4	105.9%	24.8	112.4%
Isoprene	78-79-5	19.3	15.8	82.2%	17.6	91.3%	15.3	79.6%	16.4	85.2%	17.3	90.1%
n-Hexane	110-54-3	22.7	21.1	93.2%	20.8	91.9%	23.5	103.6%	25.1	110.8%	20.8	91.9%
Methylcyclopentane	108-87-2	22.9	20.2	88.1%	18.1	78.9%	19.4	84.5%	16.8	73.4%	20.4	89.0%
2,4-Dimethylpentane	108-08-7	26.7	25.6	95.6%	28.1	105.0%	28.6	106.8%	28.9	108.1%	25.6	95.9%
Benzene	71-43-2	22.9	19.5	85.0%	21.0	91.4%	20.6	90.1%	17.5	76.5%	19.1	83.2%
Cyclohexane	110-82-7	22.9	21.2	92.4%	21.7	94.7%	23.3	101.8%	22.4	97.7%	20.7	90.2%
2-Methylhexane	591-76-4	26.3	22.0	83.9%	20.4	77.6%	21.1	80.5%	15.6	**59.3%**	21.1	80.3%
2,3-Dimethylpentane	565-59-3	26.5	24.7	93.2%	27.9	105.5%	28.6	108.0%	30.7	116.0%	24.9	93.9%
3-Methylhexane	589-34-4	26.5	23.7	89.5%	24.9	94.2%	27.3	103.1%	24.2	91.5%	23.3	87.9%
2,2,4-Trimethylpentane	540-84-1	30.2	26.7	88.2%	27.4	90.5%	27.5	90.9%	26.8	88.5%	27.2	89.9%
n-Heptane	142-82-5	26.7	23.6	88.4%	23.7	88.8%	23.8	88.9%	23.0	86.1%	22.7	84.8%
Methylcyclohexane	108-87-2	26.5	23.8	89.8%	23.9	90.3%	26.4	99.7%	24.5	92.4%	23.7	89.5%
2,3,4-Trimethylpentane	565-75-3	30.8	26.8	86.9%	26.9	87.3%	28.4	92.3%	27.1	88.0%	25.8	83.6%
Toluene	108-88-3	26.7	22.1	82.7%	23.3	87.0%	24.4	91.4%	22.3	83.3%	21.3	79.7%
2-Methylheptane	592-27-8	30.2	25.0	82.8%	26.0	85.9%	27.4	90.7%	26.6	88.0%	24.9	82.4%
3-Methylheptane	589-81-1	30.6	25.6	83.7%	26.9	88.2%	29.8	97.4%	27.6	90.2%	25.5	83.4%
n-Octane	111-65-9	30.6	25.8	84.3%	27.2	89.0%	27.3	89.3%	26.1	85.4%	25.6	83.6%
Ethylbenzene	100-41-4	31.1	23.3	74.8%	24.8	79.7%	25.3	81.3%	22.2	71.4%	22.9	73.6%
M&P-Xylene	108-38-3	61.1	43.7	71.5%	48.0	78.5%	48.0	78.6%	44.5	72.8%	43.4	71.1%
Styrene	100-42-5	30.6	18.4	**60.3%**	21.6	70.5%	20.3	**66.5%**	15.7	**51.3%**	18.9	**61.8%**
O-Xylene	95-47-6	30.6	23.5	76.8%	25.1	82.1%	26.4	86.5%	23.8	77.7%	21.4	70.0%
N-Nonane	111-84-2	33.8	26.4	78.1%	28.8	85.5%	29.9	88.5%	25.7	76.0%	26.0	77.0%
Isopropylbenzene	98-82-8	33.4	25.5	76.4%	27.1	81.1%	28.1	84.1%	25.5	76.3%	24.3	72.8%
n-Propylbenzene	103-65-1	32.8	23.6	72.2%	25.8	78.9%	25.7	78.6%	24.0	73.3%	23.6	71.9%
1,3,5-Trimethylbenzene	108-67-8	34.7	24.7	71.2%	26.0	75.1%	28.5	82.2%	26.4	76.1%	23.2	**67.0%**
1,2,4-Trimethylbenzene	95-63-6	35.0	23.1	**66.1%**	26.2	74.8%	25.1	71.8%	28.6	81.8%	24.5	70.0%
n-Decane	124-18-5	35.0	25.8	73.6%	27.8	79.4%	29.3	83.6%	26.1	74.6%	25.8	73.6%
1,2,3-Trimethylbenzene	526-73-8	34.7	21.2	**61.2%**	24.3	70.2%	22.2	**64.2%**	24.8	71.5%	22.9	**66.0%**
n-Undecane	1120-21-4	42.8	23.5	**54.8%**	28.0	**65.5%**	24.3	**56.8%**	31.1	72.7%	29.1	**68.0%**

[a] Compound order based on elution time.

QUALITY ASSURANCE AUDIT REPORT

North Texas Commission
Ambient Air and Meteorological Monitoring

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EXECUTIVE SUMMARY

On October 26th – 28th, November 10th – 12th, and December 22nd, 2020, an audit team from the AECOM ambient air group in Austin, Texas conducted performance and technical system audits of the North Texas Commission (NTC) ambient air monitoring network. The audits provide an independent assessment of the monitoring program.

The monitoring program at NTC consists of continuous gas chromatographs (GC), volatile organic compound (VOC) canister collection systems, and meteorological sensors including wind speed, wind direction, and temperature.

The performance audit results indicate acceptable responses for measurement systems with the exceptions summarized below.

The wind direction sensor at Mansfield was outside the audit objective for alignment with an alignment error of -15.7°. The wind direction sensor was realigned following the discovery of the alignment error and passed the audit with a new alignment error of -0.7°.

Out of the 48 compounds being analyzed, eight compounds (ethylene, acetylene, 2-methylhexane, styrene, 1,3,5-trimethylbenzene, 1,2,4-trimethylbenzene, 1,2,3-trimethylbenzene, and n-undecane) were found to be outside of the audit objective of 70% - 130% recovery at several sites. In addition, the Everman, Rushing, and Kennedale sites had the following GC compound recoveries outside of the audit specification:

Locations	Compounds
Everman	2-methylhexane
Rushing	Propylene
Kennedale	N-Butane & Iso-Butane

These network GC audit results are comparable historically to other AECOM auto-GC audits. The GC audit results are contained in table ES-1. Technical systems audit results demonstrate satisfactory operational procedures for collecting valid data.

A performance evaluation (PE) sample is prepared by the AECOM QA group on a quarterly basis and submitted to the VOC laboratory for analysis. This performance evaluation sample contained known (spiked) concentrations of the target VOCs. A review of the sample recoveries for the spiked target VOCs shows that four out of the forty-four compounds were not within the range of expected values (70-130%).

- 1,2,4-trimethylbenzene (50.8%)
- 1,3,5-trimethylbenzene (60.5%),
- 4-ethyltoluene (54.7%)
- Styrene (69.1%)

Over the past year, the PE sample recoveries have been lower than expected for heavier, non-halogenated VOCs. AECOM QA staff and the sampling lab have been working together to investigate the low recoveries of these compounds. AECOM QA staff shared the performance evaluation results with the VOC laboratory, and no other corrective action was taken. We will continue to evaluate these compounds in our PE samples and work with the lab to resolve these discrepancies. GD Air's most recent performance evaluation canister results for the fourth quarter of 2020 are contained below in Table ES-2.

Table ES-2. Audit Standard Results for all Network GCs

			Benbrook		Decatur		Dish		Eagle Mountain Lake	
Compound Name	CAS Number	Audit Concentration (ppbc)	Post Processed ppbc	Percent Recovery	Post Processed ppbc	Percent Recovery	Post Processed ppbc	Percent Recovery	Post Processed ppbc	Percent Recovery
Ethane	74-84-0	50.2	49.0	97.6%	43.5	86.7%	42.2	84.1%	36.5	72.8%
Ethylene	74-85-1	16.8	15.1	90.1%	10.7	**63.8%**	8.3	**49.2%**	9.6	**57.2%**
Propane	74-98-6	12.6	12.1	96.1%	11.1	88.3%	11.2	88.9%	11.6	92.1%
Propylene	115-07-1	12.6	10.8	86.1%	10.1	80.1%	10.5	83.4%	10.2	80.9%
Iso-Butane	75-28-5	16.3	20.1	123.4%	16.9	103.3%	16.5	101.2%	17.1	104.5%
N-Butane	106-97-8	16.6	20.5	123.5%	17.5	104.9%	17.2	103.1%	17.9	107.5%
Acetylene	74-86-2	8.4	6.4	76.0%	6.3	74.9%	6.2	74.2%	5.3	**63.1%**
Trans-2-Butene	624-64-6	16.3	19.9	122.0%	17.1	105.0%	16.9	103.7%	17.4	106.4%
1-Butene	106-98-9	16.3	19.9	122.2%	17.0	103.9%	16.7	102.2%	17.3	106.2%
Cis-2-Butene	590-18-1	17.3	20.8	120.6%	18.0	104.0%	17.8	103.0%	18.3	105.9%
Cyclopentane	287-92-3	20.4	25.1	122.9%	21.1	103.2%	20.7	101.5%	21.8	106.8%
Iso-Pentane	78-78-4	21.0	25.7	122.6%	22.0	104.8%	21.5	102.3%	22.6	107.4%
N-Pentane	109-66-0	21.0	25.9	123.1%	22.2	105.5%	21.8	103.6%	22.6	107.6%
1,3-Butadiene	106-99-0	16.3	19.7	120.6%	16.7	102.1%	15.9	97.2%	17.1	104.5%
Trans-2-Pentene	646-04-8	20.4	25.5	124.9%	21.8	106.9%	20.7	101.6%	22.5	110.3%
1-Pentene	109-67-1	21.4	24.6	115.2%	21.4	100.1%	18.2	85.1%	21.2	99.2%
Cis-2-Pentene	627-20-3	19.6	21.8	111.2%	19.1	97.5%	17.2	88.0%	18.9	96.6%
2,2-Dimethylbutane	75-83-2	25.0	29.4	117.6%	25.4	101.7%	23.6	94.4%	26.2	105.1%
2-Methylpentane	107-83-5	24.2	28.5	117.6%	24.0	99.2%	23.8	98.3%	26.0	107.2%
Isoprene	78-79-5	21.0	18.8	89.5%	17.2	81.8%	16.3	77.5%	16.1	76.9%
n-Hexane	110-54-3	25.0	23.9	95.6%	22.5	90.3%	23.0	92.1%	24.4	97.6%
Methylcyclopentane	108-87-2	25.0	23.9	95.7%	20.3	81.2%	21.4	85.7%	23.2	93.1%
2,4-Dimethylpentane	108-08-7	29.7	31.6	106.3%	29.0	97.9%	30.1	101.5%	31.4	105.9%
Benzene	71-43-2	25.4	23.7	93.1%	21.9	86.2%	23.0	90.5%	25.2	99.0%
Cyclohexane	110-82-7	25.2	27.3	108.4%	22.4	88.9%	23.1	91.7%	27.4	108.7%
2-Methylhexane	591-76-4	29.4	23.7	80.5%	21.8	74.1%	23.5	80.1%	25.7	87.4%
2,3-Dimethylpentane	565-59-3	28.6	34.4	120.3%	29.3	102.7%	29.2	102.1%	32.7	114.4%
3-Methylhexane	589-34-4	29.1	29.5	101.4%	26.9	92.5%	26.8	92.2%	29.9	102.6%
2,2,4-Trimethylpentane	540-84-1	33.3	32.9	98.8%	29.8	89.6%	30.5	91.8%	32.2	96.8%
n-Heptane	142-82-5	29.4	28.3	96.1%	26.1	88.9%	26.9	91.6%	29.6	100.6%
Methylcyclohexane	108-87-2	29.1	28.6	98.1%	25.8	88.5%	26.9	92.3%	29.1	99.9%
2,3,4-Trimethylpentane	565-75-3	33.9	32.6	96.0%	29.3	86.4%	30.9	91.0%	33.1	97.6%
Toluene	108-88-3	29.1	27.2	93.5%	25.8	88.6%	26.7	91.8%	29.4	100.8%
2-Methylheptane	592-27-8	33.0	31.2	94.7%	28.2	85.6%	30.0	91.1%	32.4	98.4%
3-Methylheptane	589-81-1	33.3	32.0	96.1%	29.2	87.8%	30.7	92.1%	33.0	99.3%
n-Octane	111-65-9	33.6	30.7	91.3%	29.5	87.9%	31.0	92.1%	33.1	98.6%
Ethylbenzene	100-41-4	33.6	28.0	83.2%	27.1	80.7%	28.0	83.4%	29.1	86.5%
M&P-Xylene	108-38-3	66.6	53.9	81.0%	51.7	77.7%	53.8	80.9%	55.9	84.0%
Styrene	100-42-5	33.0	23.3	70.7%	22.0	**66.8%**	22.9	**69.6%**	23.4	71.1%
O-Xylene	95-47-6	33.0	30.0	91.0%	27.7	84.2%	28.2	85.5%	30.7	93.3%
N-Nonane	111-84-2	36.4	32.6	89.5%	30.8	84.8%	32.3	88.7%	36.1	99.3%
Isopropylbenzene	98-82-8	36.7	30.9	84.1%	28.9	78.8%	29.5	80.3%	32.6	88.9%
n-Propylbenzene	103-65-1	36.0	28.9	80.2%	27.2	75.5%	28.7	79.8%	30.9	85.8%
1,3,5-Trimethylbenzene	108-67-8	37.8	30.0	79.5%	28.9	76.4%	26.0	**68.9%**	30.8	81.5%
1,2,4-Trimethylbenzene	95-63-6	37.8	30.0	79.3%	27.4	72.4%	28.1	74.3%	31.0	82.0%
n-Decane	124-18-5	40.0	31.2	78.0%	30.1	75.3%	31.2	77.9%	35.1	87.7%
1,2,3-Trimethylbenzene	526-73-8	39.6	25.4	**64.2%**	24.4	**61.5%**	25.0	**63.1%**	27.4	**69.3%**
n-Undecane	1120-21-4	48.0	27.5	**57.3%**	26.7	**55.7%**	28.3	**59.0%**	32.0	**66.7%**

[a] Compound order based on elution time.

Table ES-1. (Continued) Audit Standard Results for all Network GCs

			Elm Fork		Everman		Flower Mound		Godley	
Compound Name	CAS Number	Audit Concentration (ppbc)	Post Processed ppbc	Percent Recovery	Post Processed ppbc	Percent Recovery	Post Processed ppbc	Percent Recovery	Post Processed ppbc	Percent Recovery
Ethane	74-84-0	50.2	44.8	89.3%	42.9	85.4%	40.3	80.3%	44.9	89.4%
Ethylene	74-85-1	16.8	12.6	75.2%	12.3	73.5%	10.7	**63.8%**	13.0	77.3%
Propane	74-98-6	12.6	11.7	92.8%	10.8	85.7%	11.0	87.6%	11.2	88.6%
Propylene	115-07-1	12.6	10.6	84.3%	9.8	77.7%	10.0	79.2%	11.0	87.5%
Iso-Butane	75-28-5	16.3	17.1	105.0%	16.4	100.6%	16.2	99.5%	18.7	114.7%
N-Butane	106-97-8	16.6	17.8	107.0%	17.2	103.5%	16.7	100.5%	19.1	114.8%
Acetylene	74-86-2	8.4	6.5	77.3%	5.2	**61.4%**	6.7	79.8%	5.1	**60.3%**
Trans-2-Butene	624-64-6	16.3	17.3	105.8%	16.5	101.2%	16.3	99.8%	18.4	113.0%
1-Butene	106-98-9	16.3	17.1	105.0%	16.4	100.8%	16.1	98.8%	18.4	112.5%
Cis-2-Butene	590-18-1	17.3	18.1	104.8%	17.3	100.2%	17.1	98.8%	19.2	111.2%
Cyclopentane	287-92-3	20.4	21.9	107.4%	21.1	103.3%	20.3	99.7%	23.2	113.6%
Iso-Pentane	78-78-4	21.0	22.6	107.4%	21.5	102.6%	21.0	99.8%	23.5	112.0%
N-Pentane	109-66-0	21.0	23.4	111.3%	21.8	103.9%	21.4	101.7%	24.2	115.1%
1,3-Butadiene	106-99-0	16.3	17.1	104.6%	16.3	99.8%	15.9	97.5%	17.9	109.5%
Trans-2-Pentene	646-04-8	20.4	22.2	108.8%	21.2	104.0%	20.5	100.7%	23.4	114.5%
1-Pentene	109-67-1	21.4	21.3	99.4%	19.8	92.5%	19.0	88.7%	21.9	102.5%
Cis-2-Pentene	627-20-3	19.6	18.8	96.1%	17.6	89.8%	16.9	86.3%	19.5	99.5%
2,2-Dimethylbutane	75-83-2	25.0	25.5	102.1%	24.6	98.6%	23.5	94.0%	26.2	105.1%
2-Methylpentane	107-83-5	24.2	25.9	106.9%	24.5	101.2%	25.0	103.3%	24.7	102.0%
Isoprene	78-79-5	21.0	17.1	81.2%	15.8	75.4%	14.8	70.6%	16.8	80.0%
n-Hexane	110-54-3	25.0	23.7	95.1%	21.6	86.6%	25.6	102.7%	24.1	96.4%
Methylcyclopentane	108-87-2	25.0	21.1	84.6%	20.0	80.2%	20.5	82.0%	23.0	92.3%
2,4-Dimethylpentane	108-08-7	29.7	30.8	103.8%	28.2	94.9%	28.7	96.7%	29.9	100.8%
Benzene	71-43-2	25.4	24.3	95.6%	20.1	79.0%	22.3	87.8%	21.8	85.9%
Cyclohexane	110-82-7	25.2	25.1	99.4%	21.9	86.9%	23.5	93.1%	25.2	99.8%
2-Methylhexane	591-76-4	29.4	24.3	82.7%	20.2	**68.6%**	23.0	78.4%	23.4	79.4%
2,3-Dimethylpentane	565-59-3	28.6	32.0	112.1%	30.0	105.1%	29.7	104.1%	30.5	106.7%
3-Methylhexane	589-34-4	29.1	29.1	100.0%	26.5	91.1%	27.0	92.8%	27.5	94.5%
2,2,4-Trimethylpentane	540-84-1	33.3	31.9	95.8%	28.8	86.4%	30.0	90.2%	31.4	94.4%
n-Heptane	142-82-5	29.4	28.2	95.8%	24.6	83.7%	26.2	89.3%	26.6	90.4%
Methylcyclohexane	108-87-2	29.1	27.8	95.5%	25.7	88.2%	25.7	88.4%	27.7	95.1%
2,3,4-Trimethylpentane	565-75-3	33.9	31.9	94.1%	29.3	86.4%	30.2	89.0%	31.4	92.6%
Toluene	108-88-3	29.1	27.5	94.4%	24.3	83.6%	25.5	87.7%	25.4	87.2%
2-Methylheptane	592-27-8	33.0	30.7	93.1%	26.9	81.6%	29.1	88.4%	29.2	88.6%
3-Methylheptane	589-81-1	33.3	31.4	94.3%	26.8	80.4%	29.9	89.9%	29.9	89.8%
n-Octane	111-65-9	33.6	31.0	92.1%	28.5	84.7%	29.5	87.8%	29.5	87.8%
Ethylbenzene	100-41-4	33.6	28.8	85.8%	26.7	79.3%	26.7	79.5%	26.7	79.4%
M&P-Xylene	108-38-3	66.6	54.7	82.2%	51.3	77.0%	50.6	76.0%	49.5	74.4%
Styrene	100-42-5	33.0	23.1	70.2%	21.2	**64.4%**	19.5	**59.2%**	21.7	**65.7%**
O-Xylene	95-47-6	33.0	28.9	87.6%	27.9	84.7%	25.9	78.5%	27.7	84.1%
N-Nonane	111-84-2	36.4	33.0	90.8%	30.5	83.8%	30.1	82.9%	30.2	83.0%
Isopropylbenzene	98-82-8	36.7	30.9	84.2%	30.3	82.6%	27.4	74.7%	29.6	80.5%
n-Propylbenzene	103-65-1	36.0	29.1	80.9%	28.2	78.4%	26.7	74.2%	27.2	75.5%
1,3,5-Trimethylbenzene	108-67-8	37.8	28.2	74.6%	29.7	78.6%	24.0	**63.5%**	28.7	75.9%
1,2,4-Trimethylbenzene	95-63-6	37.8	28.4	75.0%	29.1	76.9%	24.0	**63.5%**	27.7	73.4%
n-Decane	124-18-5	40.0	30.9	77.2%	30.5	76.1%	29.1	72.8%	29.0	72.6%
1,2,3-Trimethylbenzene	526-73-8	39.6	25.7	**64.9%**	26.0	**65.8%**	21.9	**55.3%**	24.7	**62.3%**
n-Undecane	1120-21-4	48.0	29.6	**61.7%**	22.8	**47.5%**	26.4	**55.0%**	25.9	**54.0%**

[a] Compound order based on elution time.

Table ES-1. (Continued) Audit Standard Results for all Network GCs

			Kennedale		Mansfield		Rhome		Rushing		UT Arlington	
Compound Name	CAS Number	Audit Concentration (ppbc)	Post Processed ppbc	Percent Recovery	Post Processed ppbc	Percent Recovery	Post Processed ppbc	Percent Recovery	Post Processed ppbc	Percent Recovery	Post Processed ppbc	Percent Recovery
Ethane	74-84-0	50.2	57.1	113.7%	43.9	87.4%	54.1	107.8%	53.4	106.4%	42.9	85.5%
Ethylene	74-85-1	16.8	19.5	116.2%	10.5	62.4%	18.1	107.9%	16.6	98.8%	13.0	77.3%
Propane	74-98-6	12.6	14.3	113.8%	11.7	92.9%	13.3	105.6%	13.6	108.3%	11.1	88.0%
Propylene	115-07-1	12.6	13.5	106.9%	9.7	77.0%	12.4	98.0%	18.2	144.8%	10.6	84.0%
Iso-Butane	75-28-5	16.3	22.0	134.6%	18.4	112.8%	19.0	116.5%	19.6	120.3%	16.9	103.8%
N-Butane	106-97-8	16.6	21.7	130.3%	19.2	115.6%	19.6	118.0%	20.4	122.5%	17.8	106.9%
Acetylene	74-86-2	8.4	8.8	105.1%	6.2	74.0%	8.5	101.7%	8.1	96.8%	5.5	65.0%
Trans-2-Butene	624-64-6	16.3	20.8	127.7%	18.5	113.4%	18.5	113.4%	19.6	120.3%	17.1	105.1%
1-Butene	106-98-9	16.3	20.6	126.4%	18.2	111.4%	18.8	115.4%	19.5	119.4%	16.8	103.2%
Cis-2-Butene	590-18-1	17.3	21.7	125.5%	19.3	111.8%	19.1	110.8%	20.7	119.5%	17.7	102.6%
Cyclopentane	287-92-3	20.4	26.2	128.3%	23.3	114.3%	23.6	115.5%	24.4	119.8%	21.2	104.0%
Iso-Pentane	78-78-4	21.0	26.7	127.3%	24.2	115.2%	24.7	117.6%	26.3	125.3%	22.1	105.0%
N-Pentane	109-66-0	21.0	26.6	126.8%	24.6	117.2%	24.7	117.5%	26.0	123.9%	22.4	106.5%
1,3-Butadiene	106-99-0	16.3	20.3	124.6%	18.2	111.4%	18.2	111.2%	19.2	117.5%	16.2	99.1%
Trans-2-Pentene	646-04-8	20.4	26.5	129.7%	23.4	114.8%	24.0	117.7%	25.0	122.3%	21.5	105.5%
1-Pentene	109-67-1	21.4	26.7	124.8%	22.9	107.1%	23.7	110.9%	24.9	116.5%	20.3	95.0%
Cis-2-Pentene	627-20-3	19.6	23.7	120.8%	20.9	106.8%	21.0	107.2%	22.4	114.2%	16.8	85.6%
2,2-Dimethylbutane	75-83-2	25.0	30.6	122.7%	28.4	113.9%	28.3	113.2%	29.3	117.3%	25.8	103.5%
2-Methylpentane	107-83-5	24.2	30.4	125.4%	27.2	112.3%	27.7	114.4%	28.5	117.8%	24.2	100.0%
Isoprene	78-79-5	21.0	23.2	110.4%	18.1	86.0%	19.1	91.0%	21.7	103.4%	16.1	76.9%
n-Hexane	110-54-3	25.0	29.1	116.5%	24.9	99.7%	27.0	108.0%	26.5	106.0%	24.0	96.1%
Methylcyclopentane	108-87-2	25.0	28.7	114.9%	21.2	84.8%	24.7	98.8%	25.3	101.3%	22.5	90.3%
2,4-Dimethylpentane	108-08-7	29.7	34.7	117.0%	33.2	112.0%	34.9	117.7%	33.1	111.7%	28.1	94.6%
Benzene	71-43-2	25.4	29.4	115.5%	21.0	82.7%	25.9	101.9%	24.3	95.4%	20.7	81.4%
Cyclohexane	110-82-7	25.2	29.5	117.0%	25.7	102.0%	26.6	105.7%	26.2	104.0%	23.2	92.2%
2-Methylhexane	591-76-4	29.4	31.3	106.5%	23.4	79.4%	28.6	97.1%	28.3	96.2%	23.4	79.5%
2,3-Dimethylpentane	565-59-3	28.6	33.4	117.1%	34.1	119.6%	33.2	116.3%	31.7	111.0%	29.2	102.4%
3-Methylhexane	589-34-4	29.1	33.7	115.7%	31.4	107.8%	31.4	107.8%	30.8	105.8%	26.9	92.5%
2,2,4-Trimethylpentane	540-84-1	33.3	38.1	114.6%	33.9	101.7%	35.6	106.9%	34.6	103.9%	31.1	93.4%
n-Heptane	142-82-5	29.4	32.6	110.9%	28.7	97.5%	31.9	108.5%	31.4	106.7%	25.4	86.4%
Methylcyclohexane	108-87-2	29.1	33.2	114.1%	27.9	95.8%	31.4	107.8%	30.9	106.1%	27.0	92.9%
2,3,4-Trimethylpentane	565-75-3	33.9	36.9	108.7%	31.7	93.5%	35.8	105.5%	34.7	102.3%	30.0	88.5%
Toluene	108-88-3	29.1	31.5	108.2%	27.4	94.2%	30.7	105.5%	31.4	107.8%	24.8	85.0%
2-Methylheptane	592-27-8	33.0	36.4	110.4%	29.8	90.5%	35.3	107.0%	34.0	103.3%	28.7	87.0%
3-Methylheptane	589-81-1	33.3	36.7	110.2%	31.2	93.8%	35.7	107.3%	34.4	103.2%	28.8	86.5%
n-Octane	111-65-9	33.6	36.9	109.9%	32.1	95.4%	35.7	106.2%	35.1	104.3%	29.9	89.0%
Ethylbenzene	100-41-4	33.6	34.7	103.4%	28.0	83.2%	33.2	98.7%	32.5	96.9%	27.1	80.7%
M&P-Xylene	108-38-3	66.6	67.1	100.8%	53.2	80.0%	64.6	97.1%	63.0	94.7%	52.1	78.2%
Styrene	100-42-5	33.0	30.6	92.8%	21.5	65.3%	28.8	87.4%	28.5	86.4%	22.9	69.5%
O-Xylene	95-47-6	33.0	33.2	100.6%	28.5	86.5%	34.4	104.5%	32.8	99.5%	27.9	84.7%
N-Nonane	111-84-2	36.4	39.2	107.7%	33.2	91.3%	39.7	109.2%	38.2	104.9%	30.9	85.1%
Isopropylbenzene	98-82-8	36.7	38.0	103.4%	30.0	81.7%	37.4	101.8%	36.1	98.4%	29.8	81.2%
n-Propylbenzene	103-65-1	36.0	36.2	100.6%	28.5	79.1%	35.0	97.3%	33.7	93.7%	27.5	76.3%
1,3,5-Trimethylbenzene	108-67-8	37.8	34.8	92.2%	28.1	74.4%	35.9	95.0%	34.0	89.9%	26.8	70.8%
1,2,4-Trimethylbenzene	95-63-6	37.8	36.8	97.4%	28.5	75.3%	35.2	93.2%	34.6	91.5%	26.7	70.6%
n-Decane	124-18-5	40.0	40.1	100.2%	30.7	76.8%	38.8	97.0%	37.6	94.1%	29.6	73.9%
1,2,3-Trimethylbenzene	526-73-8	39.6	33.3	84.2%	25.9	65.5%	32.0	80.9%	31.7	80.0%	24.3	61.3%
n-Undecane	1120-21-4	48.0	35.98	75.0%	30.1	62.8%	33.5	69.8%	36.2	75.6%	25.3	52.7%

[a] Compound order based on elution time.

Table ES-2. Results of Performance Standard for Off-Site Analytical Lab

Compound Name	CAS Number	Input Concentr	Lab Results	Percent Recovery
1,1,1-Trichloroethane	71-55-6	2.9	3.0	103.5%
1,1,2,2-Tetrachloroethane	79-34-5	2.8	2.1	74.9%
1,1,2-Trichloroethane	79-00-5	2.8	2.8	98.5%
1,1-Dichloroethane	75-34-3	2.8	2.8	98.8%
1,1-Dichloroethene	75-35-4	2.8	2.7	94.9%
1,2,4-Trimethylbenzene	95-63-6	2.8	1.4	50.8%
1,2-Dibromoethane	106-93-4	2.8	2.7	96.6%
1,2-Dichloroethane	107-06-2	2.9	2.7	95.4%
1,2-Dichloropropane	78-87-5	2.9	2.8	96.8%
1,3,5-Trimethylbenzene	108-67-8	2.8	1.7	60.5%
1,3-Butadiene	106-99-0	5.8	5.3	91.0%
1-Butene	106-98-9	2.9	2.4	81.3%
1-Hexene	592-41-6	2.7	2.5	92.4%
1-Pentene	109-67-1	2.9	2.5	85.5%
2,2,4-Trimethylpentane	540-84-1	2.9	2.7	93.1%
4-Ethyltoluene (p-Ethyltoluene)	622-96-8	2.7	1.5	54.7%
Benzene	71-43-2	2.9	2.7	94.5%
Bromomethane	74-83-9	2.8	2.6	94.9%
c-1,3-Dichloropropene	10061-01-5	2.4	2.4	101.7%
Carbon tetrachloride	56-23-5	2.8	2.8	100.5%
Chlorobenzene	108-90-7	2.9	2.4	83.2%
Chloroform	67-66-3	2.8	2.9	100.6%
Chloromethane (Methyl Chloride)	74-87-3	2.9	2.6	86.6%
Cyclohexane	110-82-7	2.9	2.7	94.7%
Dichlorodifluoromethane (Freon-12)	75-71-8	2.8	2.6	93.0%
Ethane	74-84-0	17.2	14.3	83.1%
Ethene	74-85-1	5.8	5.4	93.7%
Ethylbenzene	100-41-4	2.9	2.2	76.9%
Methylene Chloride (Dichloromethane	75-09-2	2.9	2.7	94.4%
m-Xylene & p-Xylene	106-42-3+	5.6	4.4	79.9%
n-Butane	106-97-8	2.9	2.5	86.3%
n-Heptane	142-82-5	2.8	2.8	99.5%
n-Hexane	110-54-3	8.7	7.8	89.4%
n-Pentane	109-66-0	2.9	2.6	90.3%
o-Xylene	95-47-6	2.8	2.1	76.3%
Propane	74-98-6	2.9	2.7	92.8%
Propylene	115-07-1	5.8	4.5	77.8%
Styrene	100-42-5	2.8	1.9	69.1%
t-1,3-Dichloropropene	10061-02-	2.6	2.4	92.1%
Tetrachloroethene	127-18-4	2.9	2.5	87.4%
Toluene	108-88-3	2.8	2.5	86.8%
Trichloroethene	79-01-6	2.9	2.8	96.8%
Trichlorofluoromethane (Freon-11)	75-69-4	2.9	2.6	92.3%
Vinyl Chloride	75-01-4	2.9	2.4	84.5%

QUALITY ASSURANCE AUDIT REPORT

North Texas Commission
Ambient Air and Meteorological Monitoring

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EXECUTIVE SUMMARY

On May 17th – 19th and May 24th – 26th, an audit team from the AECOM ambient air group in Austin, Texas conducted performance and technical system audits of the North Texas Commission (NTC) ambient air monitoring network. The audits provide an independent assessment of the monitoring program.

The monitoring program at NTC consists of continuous gas chromatographs (GC), volatile organic compound (VOC) canister collection systems, and meteorological sensors including wind speed, wind direction, and temperature.

The performance audit results indicate acceptable responses for measurement systems with the exceptions summarized below.

The wind speed sensors at Benbrook and Elm Fork were outside audit parameters for starting threshold (<0.4 g/cm). The bearings were replaced on both sensors and the sensors then passed the audit for starting threshold. The data validation staff concluded no significant edits were needed for these findings.

The wind direction sensors at Decatur and Wichita Falls were outside audit guidance for linearity and maximum total error. Decatur had a maximum linearity error of 14.1° and an alignment error of -14.3°, resulting in a maximum total error of -28.3°. Wichita Falls had a maximum linearity error of 19.4° and an alignment error of -17.6°, resulting in a maximum total error of -36.0°.

Out of the 48 compounds being analyzed, seven compounds (ethylene, acetylene, styrene, 1,3,5-trimethylbenzene, 1,2,4-trimethylbenzene, 1,2,3-trimethylbenzene, and n-undecane) were found to be outside of the audit objective of 70% - 130% recovery at several sites. In addition, the Decatur and UTA sites had the following GC compound recoveries outside of the audit specification:

Locations	Compounds
Decatur	2-methylhexane Isopropylbenzene N-Propylbenzene
UTA	M&P-Xylene n-Decane

These network GC audit results are comparable historically to other AECOM auto-GC audits. The GC audit results are contained in table ES-1. Technical systems audit results demonstrate satisfactory operational procedures for collecting valid data.

A performance evaluation (PE) sample is prepared by the AECOM QA group on a quarterly basis and submitted to the VOC laboratory for analysis. This performance evaluation sample contained known (spiked) concentrations of the target VOCs. A review of the sample recoveries for the spiked target VOCs shows that two out of the forty-four compounds were not within the range of expected values (70-130%).

- 1,1,2,2-Tetrachloroethane (130.8%)
- c-1,3-Dichloropropene (158.7%)

AECOM QA staff shared the performance evaluation results with the VOC laboratory, and no other corrective action was taken. We will continue to evaluate these compounds in our PE samples and work with the lab to resolve these discrepancies. GD Air's most recent performance evaluation canister results for the second quarter of 2021 are contained below in Table ES-2.

Table ES-1. Audit Standard Results for all Network GCs

			Benbrook		Decatur		Dish		Eagle Mountain Lake	
Compound Name	CAS Number	Audit Conc (ppbc)	Post Processed ppbc	Percent Recovery	Post Processed ppbc	Percent Recovery	Post Processed ppbc	Percent Recovery	Post Processed ppbc	Percent Recovery
Ethane	74-84-0	50.26	45.3	90.1%	36.7	73.0%	44.7	88.9%	44.9	89.3%
Ethylene	74-85-1	16.80	14.9	88.7%	8.2	**49.0%**	9.6	**57.1%**	12.4	73.8%
Propane	74-98-6	12.60	11.7	92.8%	11.4	90.5%	10.9	86.9%	11.0	86.9%
Propylene	115-07-1	12.60	11.5	90.9%	10.5	83.3%	10.7	84.8%	10.8	85.6%
Iso-Butane	75-28-5	16.32	17.7	108.7%	16.8	102.7%	16.2	99.4%	16.7	102.4%
N-Butane	106-97-8	16.64	18.1	108.9%	17.7	106.3%	16.6	100.0%	17.5	105.0%
Acetylene	74-86-2	8.40	6.2	73.5%	5.9	70.8%	5.2	**61.6%**	5.9	70.4%
Trans-2-Butene	624-64-6	16.32	17.5	107.1%	17.2	105.3%	16.2	99.6%	16.7	102.3%
1-Butene	106-98-9	16.32	17.5	107.4%	16.6	101.5%	16.4	100.3%	16.8	103.2%
Cis-2-Butene	590-18-1	17.28	18.4	106.3%	18.0	104.3%	16.9	98.0%	17.2	99.5%
Cyclopentane	287-92-3	20.40	22.0	108.0%	21.3	104.4%	20.1	98.7%	20.7	101.6%
Iso-Pentane	78-78-4	21.00	22.6	107.5%	21.8	103.7%	20.8	98.8%	21.5	102.2%
N-Pentane	109-66-0	21.00	22.6	107.7%	22.4	106.6%	21.1	100.4%	21.3	101.4%
1,3-Butadiene	106-99-0	16.32	17.1	104.9%	16.9	103.7%	16.1	98.9%	16.9	103.7%
Trans-2-Pentene	646-04-8	21.80	22.4	109.9%	21.4	98.2%	20.8	95.3%	21.7	99.4%
1-Pentene	109-67-1	21.40	21.2	99.2%	21.2	99.2%	20.4	95.5%	21.2	99.2%
Cis-2-Pentene	627-20-3	19.60	18.6	95.0%	18.4	94.0%	18.6	94.7%	19.2	98.0%
2,2-Dimethylbutane	75-83-2	24.96	26.3	105.3%	25.4	101.7%	24.3	97.2%	25.1	100.7%
2-Methylpentane	107-83-5	24.24	25.7	105.8%	24.1	99.3%	24.1	99.2%	24.8	102.3%
Isoprene	78-79-5	21.00	15.8	75.4%	16.4	78.3%	17.8	84.7%	17.7	84.1%
n-Hexane	110-54-3	24.96	26.0	104.1%	23.3	93.3%	24.2	96.9%	25.7	103.1%
Methylcyclopentane	108-87-2	24.96	22.9	91.9%	21.9	87.6%	22.1	88.4%	23.4	93.6%
2,4-Dimethylpentane	108-08-7	29.68	30.3	102.2%	28.5	96.1%	27.9	94.2%	30.3	102.2%
Benzene	71-43-2	25.44	22.8	89.7%	24.2	94.9%	21.8	85.5%	23.0	90.6%
Cyclohexane	110-82-7	25.20	26.2	103.9%	24.9	98.9%	22.8	90.5%	25.0	99.3%
2-Methylhexane	591-76-4	29.40	23.0	78.2%	20.2	**68.7%**	24.9	84.8%	25.3	86.0%
2,3-Dimethylpentane	565-59-3	28.56	33.5	117.3%	32.5	113.6%	28.2	98.7%	29.5	103.4%
3-Methylhexane	589-34-4	29.12	28.7	98.6%	28.4	97.4%	27.1	93.0%	27.5	94.6%
2,2,4-Trimethylpentane	540-84-1	33.28	31.5	94.7%	30.2	90.7%	30.7	92.3%	32.0	96.0%
n-Heptane	142-82-5	29.40	27.1	92.2%	26.3	89.5%	27.2	92.6%	27.4	93.0%
Methylcyclohexane	108-87-2	29.12	28.4	97.6%	26.2	89.9%	26.7	91.7%	27.8	95.6%
2,3,4-Trimethylpentane	565-75-3	33.92	31.9	94.1%	28.7	84.5%	30.1	88.7%	32.7	96.4%
Toluene	108-88-3	29.12	26.4	90.5%	28.3	97.3%	26.5	91.0%	26.7	91.6%
2-Methylheptane	592-27-8	32.96	30.58	92.8%	29.4	89.3%	30.2	91.5%	31.3	95.0%
3-Methylheptane	589-81-1	33.28	31.22	93.8%	32.2	96.7%	30.6	92.1%	31.8	95.6%
n-Octane	111-65-9	33.60	30.54	90.9%	29.6	88.0%	30.4	90.6%	31.5	93.9%
Ethylbenzene	100-41-4	33.60	27.41	81.6%	24.9	74.0%	28.1	83.5%	29.6	88.0%
M&P-Xylene	108-38-3	66.56	52.85	79.4%	47.8	71.9%	53.8	80.8%	57.1	85.8%
Styrene	100-42-5	32.96	21.82	**66.2%**	23.2	70.5%	24.5	74.3%	25.3	76.7%
O-Xylene	95-47-6	32.96	29.44	89.3%	26.8	81.2%	27.8	84.4%	30.5	92.6%
N-Nonane	111-84-2	36.36	32.33	88.9%	29.0	79.7%	31.7	87.2%	35.5	97.7%
Isopropylbenzene	98-82-8	36.72	31.26	85.1%	25.2	**68.6%**	30.1	82.0%	33.7	91.8%
n-Propylbenzene	103-65-1	36.00	28.90	80.3%	24.6	**68.3%**	29.3	81.5%	32.1	89.2%
1,3,5-Trimethylbenzene	108-67-8	37.80	31.37	83.0%	27.4	72.6%	28.7	76.0%	34.1	90.2%
1,2,4-Trimethylbenzene	95-63-6	37.80	30.69	81.2%	30.0	79.4%	31.0	82.1%	35.3	93.4%
n-Decane	124-18-5	40.00	31.04	77.6%	29.4	73.5%	30.9	77.3%	38.0	94.9%
1,2,3-Trimethylbenzene	526-73-8	39.60	27.83	70.3%	25.3	**64.0%**	28.0	70.8%	31.1	78.6%
n-Undecane	1120-21-4	47.96	31.32	**65.3%**	36.3	75.7%	33.3	**69.4%**	42.4	88.5%

[a] Compound order based on elution time.

Table ES-1. (Continued) Audit Standard Results for all Network GCs

			Elm Fork		Everman		Flower Mound		Godley	
Compound Name	CAS Number	Audit Conc (ppbc)	Post Processed ppbc	Percent Recovery	Post Processed ppbc	Percent Recovery	Post Processed ppbc	Percent Recovery	Post Processed ppbc	Percent Recovery
Ethane	74-84-0	50.26	35.6	70.8%	41.0	81.5%	45.6	90.7%	43.1	85.8%
Ethylene	74-85-1	16.80	12.2	72.8%	10.1	**59.9%**	13.8	82.3%	11.9	70.6%
Propane	74-98-6	12.60	11.1	87.7%	10.5	83.1%	11.2	89.2%	11.2	88.7%
Propylene	115-07-1	12.60	9.7	76.7%	9.8	78.1%	10.8	86.1%	10.3	81.5%
Iso-Butane	75-28-5	16.32	17.2	105.1%	16.5	101.3%	16.7	102.0%	17.9	109.9%
N-Butane	106-97-8	16.64	17.3	103.9%	16.9	101.5%	17.0	102.2%	18.1	108.5%
Acetylene	74-86-2	8.40	6.9	82.2%	5.6	**66.8%**	7.0	83.5%	6.0	71.3%
Trans-2-Butene	624-64-6	16.32	16.8	103.2%	16.3	100.0%	16.6	101.9%	17.0	104.1%
1-Butene	106-98-9	16.32	16.7	102.3%	18.0	110.2%	16.7	102.5%	17.0	104.0%
Cis-2-Butene	590-18-1	17.28	17.8	103.2%	17.2	99.4%	17.5	101.4%	18.0	104.0%
Cyclopentane	287-92-3	20.40	21.5	105.4%	20.4	100.1%	20.0	98.1%	21.7	106.5%
Iso-Pentane	78-78-4	21.00	21.6	103.0%	21.4	102.1%	21.5	102.2%	21.9	104.4%
N-Pentane	109-66-0	21.00	21.7	103.3%	21.3	101.5%	21.9	104.5%	22.5	107.0%
1,3-Butadiene	106-99-0	16.32	16.0	98.2%	16.7	102.0%	16.8	102.9%	15.9	97.2%
Trans-2-Pentene	646-04-8	21.80	21.7	99.3%	21.3	104.6%	21.5	98.8%	20.8	102.1%
1-Pentene	109-67-1	21.40	20.0	93.4%	21.0	98.1%	21.1	98.4%	18.1	84.8%
Cis-2-Pentene	627-20-3	19.60	18.7	95.5%	19.9	101.4%	19.1	97.4%	16.8	85.8%
2,2-Dimethylbutane	75-83-2	24.96	25.8	103.3%	25.1	100.8%	25.1	100.8%	24.4	97.6%
2-Methylpentane	107-83-5	24.24	25.5	105.0%	24.4	100.5%	24.9	102.7%	24.6	101.6%
Isoprene	78-79-5	21.00	16.6	79.3%	18.6	88.8%	18.0	85.5%	15.1	71.8%
n-Hexane	110-54-3	24.96	22.6	90.5%	17.7	70.8%	23.7	95.1%	23.2	92.9%
Methylcyclopentane	108-87-2	24.96	20.4	81.9%	19.0	76.1%	20.4	81.8%	22.3	89.2%
2,4-Dimethylpentane	108-08-7	29.68	30.0	101.0%	29.0	97.6%	30.2	101.8%	28.4	95.8%
Benzene	71-43-2	25.44	23.0	90.6%	21.6	84.9%	21.9	86.2%	20.9	82.2%
Cyclohexane	110-82-7	25.20	24.0	95.4%	22.6	89.6%	23.3	92.6%	24.7	97.9%
2-Methylhexane	591-76-4	29.40	23.6	80.4%	21.2	72.2%	23.4	79.6%	22.1	75.1%
2,3-Dimethylpentane	565-59-3	28.56	30.6	107.0%	28.6	100.3%	29.3	102.5%	32.1	112.5%
3-Methylhexane	589-34-4	29.12	30.1	103.4%	25.7	88.1%	26.5	90.9%	28.1	96.4%
2,2,4-Trimethylpentane	540-84-1	33.28	30.6	92.0%	27.8	83.4%	30.2	90.7%	30.8	92.5%
n-Heptane	142-82-5	29.40	26.9	91.6%	23.8	81.1%	26.3	89.3%	26.4	89.9%
Methylcyclohexane	108-87-2	29.12	26.7	91.6%	24.0	82.3%	26.3	90.4%	27.4	94.0%
2,3,4-Trimethylpentane	565-75-3	33.92	30.6	90.3%	28.7	84.5%	31.0	91.5%	30.7	90.5%
Toluene	108-88-3	29.12	26.3	90.2%	24.1	82.9%	25.3	86.8%	25.3	86.8%
2-Methylheptane	592-27-8	32.96	29.5	89.6%	27.2	82.6%	29.8	90.5%	29.3	88.9%
3-Methylheptane	589-81-1	33.28	30.1	90.5%	27.7	83.1%	30.3	91.1%	29.8	89.5%
n-Octane	111-65-9	33.60	30.0	89.4%	27.8	82.7%	29.9	89.1%	29.2	87.0%
Ethylbenzene	100-41-4	33.60	27.3	81.2%	26.4	78.5%	28.2	83.9%	25.5	75.8%
M&P-Xylene	108-38-3	66.56	51.6	77.5%	50.6	75.9%	53.5	80.4%	49.1	73.8%
Styrene	100-42-5	32.96	21.3	**64.7%**	22.1	**67.1%**	22.9	**69.4%**	20.8	**63.2%**
O-Xylene	95-47-6	32.96	27.3	82.8%	26.5	80.4%	28.0	84.8%	27.4	83.0%
N-Nonane	111-84-2	36.36	31.0	85.3%	29.9	82.2%	31.2	85.8%	30.3	83.4%
Isopropylbenzene	98-82-8	36.72	28.6	77.9%	29.7	80.9%	30.2	82.3%	27.6	75.3%
n-Propylbenzene	103-65-1	36.00	27.3	75.8%	27.7	77.1%	28.9	80.3%	26.4	73.2%
1,3,5-Trimethylbenzene	108-67-8	37.80	26.2	**69.2%**	29.4	77.7%	29.1	76.9%	27.2	72.1%
1,2,4-Trimethylbenzene	95-63-6	37.80	26.7	70.6%	29.2	77.2%	29.5	78.0%	27.2	71.8%
n-Decane	124-18-5	40.00	29.3	73.1%	30.0	75.1%	31.2	78.1%	27.1	**67.7%**
1,2,3-Trimethylbenzene	526-73-8	39.60	24.2	**61.2%**	28.0	70.6%	27.1	**68.5%**	23.9	**60.4%**
n-Undecane	1120-21-4	47.96	31.3	**65.3%**	34.5	72.0%	31.9	**66.6%**	30.1	**62.7%**

[a] Compound order based on elution time.

Table ES-1. (Continued) Audit Standard Results for all Network GCs

			Kennedale		Mansfield		Rhome		Rushing		UTA	
Compound Name	CAS Number	Audit Conc (ppbc)	Post Processed ppbc	Percent Recovery	Post Processed ppbc	Percent Recovery	Post Processed ppbc	Percent Recovery	Post Processed ppbc	Percent Recovery	Post Processed ppbc	Percent Recovery
Ethane	74-84-0	50.26	51.1	101.6%	39.5	78.7%	50.8	101.2%	44.7	88.9%	41.7	82.9%
Ethylene	74-85-1	16.80	17.0	101.2%	11.0	**65.6%**	16.5	98.4%	12.2	72.7%	10.5	**62.6%**
Propane	74-98-6	12.60	13.2	104.6%	10.4	82.8%	12.5	99.5%	12.8	101.8%	10.8	85.7%
Propylene	115-07-1	12.60	11.5	91.1%	9.8	77.8%	11.9	94.1%	11.6	91.9%	10.3	81.9%
Iso-Butane	75-28-5	16.32	20.2	123.9%	16.8	102.8%	17.8	108.8%	19.3	118.4%	17.0	104.5%
N-Butane	106-97-8	16.64	20.4	122.7%	17.2	103.1%	17.6	105.5%	19.4	116.9%	17.5	105.1%
Acetylene	74-86-2	8.40	7.9	93.8%	5.9	70.2%	7.4	88.5%	7.3	86.3%	6.1	72.7%
Trans-2-Butene	624-64-6	16.32	19.6	120.2%	16.1	98.5%	16.3	99.9%	18.7	114.8%	16.9	103.4%
1-Butene	106-98-9	16.32	19.6	120.0%	16.5	101.2%	20.2	123.8%	18.5	113.4%	16.6	101.8%
Cis-2-Butene	590-18-1	17.28	20.5	118.4%	16.8	97.3%	17.2	99.3%	19.4	112.2%	17.6	102.1%
Cyclopentane	287-92-3	20.40	24.6	120.6%	19.8	97.0%	21.3	104.3%	23.5	115.4%	20.9	102.5%
Iso-Pentane	78-78-4	21.00	25.1	119.5%	20.9	99.5%	22.5	107.3%	24.6	117.0%	21.7	103.4%
N-Pentane	109-66-0	21.00	25.0	119.1%	20.9	99.7%	22.3	106.2%	24.3	115.9%	21.8	103.7%
1,3-Butadiene	106-99-0	16.32	19.1	117.3%	16.0	98.2%	16.2	99.4%	18.1	111.1%	16.4	100.7%
Trans-2-Pentene	646-04-8	21.80	24.7	121.0%	20.5	100.3%	20.4	93.4%	23.8	116.6%	21.1	103.7%
1-Pentene	109-67-1	21.40	24.1	112.8%	20.4	95.1%	24.1	112.5%	23.5	109.9%	21.2	99.1%
Cis-2-Pentene	627-20-3	19.60	21.9	111.6%	18.6	94.9%	15.5	79.0%	20.8	106.1%	18.9	96.5%
2,2-Dimethylbutane	75-83-2	24.96	28.6	114.7%	24.6	98.4%	25.5	102.3%	28.0	112.1%	25.2	101.1%
2-Methylpentane	107-83-5	24.24	29.7	122.4%	23.8	98.3%	24.7	101.9%	27.3	112.8%	24.3	100.1%
Isoprene	78-79-5	21.00	20.5	97.5%	17.9	85.2%	18.1	86.1%	18.6	88.8%	17.1	81.3%
n-Hexane	110-54-3	24.96	26.8	107.5%	21.6	86.6%	32.2	129.2%	26.7	107.1%	24.6	98.5%
Methylcyclopentane	108-87-2	24.96	26.6	106.6%	21.3	85.2%	23.9	95.9%	24.8	99.2%	22.1	88.6%
2,4-Dimethylpentane	108-08-7	29.68	32.5	109.4%	25.1	84.5%	33.6	113.3%	30.6	103.2%	27.8	93.8%
Benzene	71-43-2	25.44	27.4	107.7%	20.5	80.5%	28.0	110.3%	26.5	104.2%	22.4	88.1%
Cyclohexane	110-82-7	25.20	27.5	109.1%	22.1	87.5%	28.1	111.4%	28.1	111.7%	22.8	90.6%
2-Methylhexane	591-76-4	29.40	28.8	98.0%	23.6	80.3%	27.5	93.4%	28.3	96.3%	22.4	76.3%
2,3-Dimethylpentane	565-59-3	28.56	31.2	109.1%	25.1	87.8%	34.2	119.6%	33.1	116.0%	28.0	98.2%
3-Methylhexane	589-34-4	29.12	30.7	105.5%	24.8	85.0%	32.2	110.5%	32.5	111.5%	25.7	88.4%
2,2,4-Trimethylpentane	540-84-1	33.28	35.1	105.5%	27.6	83.0%	35.3	106.0%	35.1	105.4%	30.1	90.3%
n-Heptane	142-82-5	29.40	30.5	103.7%	24.6	83.7%	31.6	107.5%	31.4	106.8%	26.0	88.3%
Methylcyclohexane	108-87-2	29.12	30.8	105.8%	24.5	84.3%	30.6	105.0%	30.2	103.6%	26.1	89.7%
2,3,4-Trimethylpentane	565-75-3	33.92	33.8	99.6%	27.4	80.7%	35.7	105.4%	34.3	101.2%	28.6	84.4%
Toluene	108-88-3	29.12	29.1	99.8%	23.2	79.7%	31.1	106.7%	30.2	103.6%	24.1	82.6%
2-Methylheptane	592-27-8	32.96	33.3	101.0%	26.3	79.8%	35.4	107.4%	34.0	103.2%	27.4	83.0%
3-Methylheptane	589-81-1	33.28	33.8	101.7%	26.8	80.5%	35.7	107.4%	34.6	103.8%	28.1	84.4%
n-Octane	111-65-9	33.60	33.8	100.6%	26.2	78.1%	36.0	107.1%	35.2	104.8%	28.0	83.3%
Ethylbenzene	100-41-4	33.60	31.8	94.7%	25.0	74.4%	33.9	100.9%	31.0	92.4%	24.2	72.1%
M&P-Xylene	108-38-3	66.56	61.7	92.6%	47.7	71.7%	66.8	100.3%	61.1	91.8%	46.3	**69.6%**
Styrene	100-42-5	32.96	29.6	89.7%	20.0	**60.7%**	30.0	91.1%	27.5	83.6%	20.9	**63.5%**
O-Xylene	95-47-6	32.96	30.5	92.5%	24.0	72.9%	35.0	106.1%	32.6	99.0%	25.3	76.6%
N-Nonane	111-84-2	36.36	36.0	99.1%	26.9	74.0%	41.0	112.8%	40.4	111.1%	28.7	79.0%
Isopropylbenzene	98-82-8	36.72	34.4	93.8%	27.7	75.3%	39.1	106.4%	34.7	94.6%	27.2	74.1%
n-Propylbenzene	103-65-1	36.00	33.1	91.9%	26.9	74.6%	36.9	102.4%	33.7	93.7%	26.5	73.6%
1,3,5-Trimethylbenzene	108-67-8	37.80	31.8	84.0%	27.0	71.3%	38.2	101.0%	35.1	92.9%	27.8	73.6%
1,2,4-Trimethylbenzene	95-63-6	37.80	33.1	87.5%	28.6	75.6%	39.9	105.6%	36.6	96.9%	28.6	75.7%
n-Decane	124-18-5	40.00	36.6	91.6%	28.3	70.8%	41.9	104.9%	42.8	106.9%	27.8	**69.5%**
1,2,3-Trimethylbenzene	526-73-8	39.60	30.6	77.3%	26.9	**67.9%**	37.5	94.8%	32.5	82.2%	26.6	**67.1%**
n-Undecane	1120-21-4	47.96	35.1	73.2%	32.5	**67.8%**	42.5	88.7%	44.4	92.6%	33.0	**68.9%**

[a] Compound order based on elution time.

Table ES-2. Results of Performance Standard for Off-Site Analytical Lab

Compound Name	CAS Number	Input Concentration	Lab Results	Percent Recovery
1,1,1-Trichloroethane	71-55-6	2.9	3.4	117.1%
1,1,2,2-Tetrachloroethane	79-34-5	2.8	3.7	**130.8%**
1,1,2-Trichloroethane	79-00-5	2.8	3.3	116.1%
1,1-Dichloroethane	75-34-3	2.8	3.1	110.1%
1,1-Dichloroethene	75-35-4	2.8	3.0	104.5%
1,2,4-Trimethylbenzene	95-63-6	2.8	2.6	92.9%
1,2-Dibromoethane	106-93-4	2.8	3.4	122.6%
1,2-Dichloroethane	107-06-2	2.9	3.2	112.5%
1,2-Dichloropropane	78-87-5	2.9	3.5	122.0%
1,3,5-Trimethylbenzene	108-67-8	2.8	2.8	100.8%
1,3-Butadiene	106-99-0	5.8	6.6	113.4%
1-Butene	106-98-9	2.9	2.8	95.2%
1-Hexene	592-41-6	2.7	2.9	106.9%
1-Pentene	109-67-1	2.9	2.9	100.0%
2,2,4-Trimethylpentane	540-84-1	2.9	2.9	100.7%
4-Ethyltoluene (p-Ethyltoluene)	622-96-8	2.7	2.3	83.4%
Benzene	71-43-2	2.9	3.5	121.2%
Bromomethane	74-83-9	2.8	3.1	112.4%
c-1,3-Dichloropropene	10061-01-5	2.4	3.8	**158.7%**
Carbon tetrachloride	56-23-5	2.8	3.3	116.6%
Chlorobenzene	108-90-7	2.9	3.0	105.9%
Chloroform	67-66-3	2.8	3.1	110.1%
Chloromethane (Methyl Chloride)	74-87-3	2.9	3.1	106.3%
Cyclohexane	110-82-7	2.9	3.4	117.1%
Dichlorodifluoromethane (Freon-12)	75-71-8	2.8	3.1	110.9%
Ethane	74-84-0	17.4	15.4	88.7%
Ethene	74-85-1	5.8	5.4	91.7%
Ethylbenzene	100-41-4	2.9	2.9	101.4%
lethylene Chloride (Dichloromethane	75-09-2	2.9	3.0	106.3%
m-Xylene & p-Xylene	6-42-3+108-38	5.6	6.1	110.3%
n-Butane	106-97-8	2.9	3.0	102.6%
n-Heptane	142-82-5	2.8	3.1	109.1%
n-Hexane	110-54-3	8.7	8.8	101.2%
n-Pentane	109-66-0	2.9	2.9	100.7%
o-Xylene	95-47-6	2.8	3.0	107.3%
Propane	74-98-6	2.9	3.1	108.7%
Propylene	115-07-1	5.8	5.2	89.5%
Styrene	100-42-5	2.8	2.7	97.6%
t-1,3-Dichloropropene	10061-02-6	2.6	2.7	100.8%
Tetrachloroethene	127-18-4	2.9	3.0	105.9%
Toluene	108-88-3	2.8	2.9	103.4%
Trichloroethene	79-01-6	2.9	3.1	108.3%
Trichlorofluoromethane (Freon-11)	75-69-4	2.9	2.9	101.7%
Vinyl Chloride	75-01-4	2.9	3.0	104.2%

EXHIBIT B:

MONTHLY PROGRESS REPORTS

PROGRESS REPORT, #1

September, 2019

Project Title: Continued Implementation of SB527 Monitoring Program in FY20/FY21

Project No.: 582-18-80730-01
POA No.: FY20/FY21-05

Summary of recent activity: Since submitting the previous progress report on September 6, 2019, the North Texas Commission has performed the following activities:

Task 1 – Operate, report data, and maintain TCEQ approved monitors throughout Regions 3 and 4: NTC and its vendor AECOM have continued to operate, report data, and maintain the 21 air monitors that compose the NTC Regional Air Monitoring Program. Work on this task has included:

- *Oversight of contract management and execution*
    - TCEQ has issued NTC an "Approval to Commence Grant Activities" for POA 5
    - NTC has approved a new Plan of Activities from AECOM for continued operation of the Regional Air Monitoring Program.
- *Liaising with community stakeholders about project and its findings*
    - NTC staff has represented the air monitoring project and its findings to community stakeholders.
- *Managing billing, invoices, and other accounting needs*
    - NTC has reviewed and approved the September 2019 invoice from AECOM.
- *Facilitate communication between NTC, AECOM, and TCEQ*
    - NTC staff was in communication with AECOM and TCEQ via email and telephone.

Task 2 – Decommission or relocate TCEQ approved air monitors throughout Regions 3 and 4:

- In January, AECOM temporarily decommission the Weatherford monitor and move it to storage, in anticipation of identifying an alternative location for the monitor in the near future. There are no other specific planned activities that deviate from normal project activities.

Task 3 – Respond to Monitoring Issues:

- Various monitors have undergone routine maintenance.
- There were no other incidences to report.

Task 4– Reporting/Availability for Questions:

- NTC has been available for questions from TCEQ Project Manager.
- NTC has created a progress report for the month of August.

Planned future activities: NTC Staff will continue work on all four tasks associated with this project. In September, NTC, AECOM, and TCEQ will continue work to resolve the Dallas Elm Fork permitting issue There are no other specific planned activities that deviate from normal project activities.

PROGRESS REPORT, #2

October, 2019

Project Title: Continued Implementation of SB527 Monitoring Program in FY20/FY21

Project No.: 582-18-80730-01
POA No.: FY20/FY21-05

Summary of recent activity: Since submitting the previous progress report on October 2, 2019, the North Texas Commission has performed the following activities:

Task 1 – Operate, report data, and maintain TCEQ approved monitors throughout Regions 3 and 4: NTC and its vendor AECOM have continued to operate, report data, and maintain the 21 air monitors that compose the NTC Regional Air Monitoring Program. Work on this task has included:

- *Oversight of contract management and execution*
- *Liaising with community stakeholders about project and its findings*
    - NTC staff has represented the air monitoring project and its findings to community stakeholders.
- *Managing billing, invoices, and other accounting needs*
    - NTC has reviewed and approved the October 2019 invoice from AECOM.
- *Facilitate communication between NTC, AECOM, and TCEQ*
    - NTC staff was in communication with AECOM and TCEQ via email and telephone.

Task 2 – Decommission or relocate TCEQ approved air monitors throughout Regions 3 and 4:

- In January, AECOM temporarily decommission the Weatherford monitor and move it to storage, in anticipation of identifying an alternative location for the monitor in the near future. There are no other

specific planned activities that deviate from normal project activities.

Task 3 – Respond to Monitoring Issues:

- Various monitors have undergone routine maintenance.
- NTC has reviewed the Network Summary Reports for March, April, May, June & July 2019.
- There were no other incidences to report.

Task 4– Reporting/Availability for Questions:

- NTC has been available for questions from TCEQ Project Manager.
- NTC has created a progress report for the month of September.
- NTC has prepared and submitted a Draft Final Report detailing the background, summary of work, and key findings from implementing the Regional Air Monitoring Program under POA 4.

Planned future activities: NTC Staff will continue work on all four tasks associated with this project. In November, NTC, AECOM, and TCEQ will continue work to resolve the Dallas Elm Fork permitting issue There are no other specific planned activities that deviate from normal project activities.

PROGRESS REPORT, #4

November, 2019

Project Title: Continued Implementation of SB527 Monitoring Program in FY20/FY21

Project No.: 582-18-80730-01
POA No.: FY20/FY21-05

Summary of recent activity: Since submitting the previous progress report on November 5, 2019, the North Texas Commission has performed the following activities:

Task 1 – Operate, report data, and maintain TCEQ approved monitors throughout Regions 3 and 4: NTC and its vendor AECOM have continued to operate, report data, and maintain the 21 air monitors that compose the NTC Regional Air Monitoring Program. Work on this task has included:

- *Oversight of contract management and execution*
- *Liaising with community stakeholders about project and its findings*
    - NTC staff has represented the air monitoring project and its findings to community stakeholders.
- *Managing billing, invoices, and other accounting needs*
    - NTC has reviewed and approved the November 2019 invoice from AECOM.
- *Facilitate communication between NTC, AECOM, and TCEQ*
    - NTC staff was in communication with AECOM and TCEQ via email and telephone.

Task 2 – Decommission or relocate TCEQ approved air monitors throughout Regions 3 and 4:

- In January, AECOM temporarily decommission the Weatherford monitor and moved it to storage, in anticipation of identifying an alternative location for the monitor in the near future. There are no other

specific planned activities that deviate from normal project activities.

Task 3 – Respond to Monitoring Issues:

- Various monitors have undergone routine maintenance.
- NTC has reviewed the Network Summary Reports for August 2019.
- There were no other incidences to report.

Task 4– Reporting/Availability for Questions:

- NTC has been available for questions from TCEQ Project Manager.
- NTC has created a progress report for the month of October.

Planned future activities: NTC Staff will continue work on all four tasks associated with this project. In December, NTC, AECOM, and TCEQ will continue work to resolve the Dallas Elm Fork permitting issue There are no other specific planned activities that deviate from normal project activities.

PROGRESS REPORT, #5

December, 2019

Project Title: Continued Implementation of SB527 Monitoring Program in FY20/FY21

Project No.: 582-18-80730-01
POA No.: FY20/FY21-05

Summary of recent activity: Since submitting the previous progress report on December 6, 2019, the North Texas Commission has performed the following activities:

Task 1 – Operate, report data, and maintain TCEQ approved monitors throughout Regions 3 and 4: NTC and its vendor AECOM have continued to operate, report data, and maintain the 21 air monitors that compose the NTC Regional Air Monitoring Program. Work on this task has included:

- *Oversight of contract management and execution*
- *Liaising with community stakeholders about project and its findings*
    - NTC staff has represented the air monitoring project and its findings to community stakeholders.
- *Managing billing, invoices, and other accounting needs*
    - NTC has reviewed and approved the December 2019 invoice from AECOM.
    - NTC underwent its annual financial audit. Results will be available in the February, 2020 progress report
- *Facilitate communication between NTC, AECOM, and TCEQ*
    - NTC staff was in communication with AECOM and TCEQ via email and telephone.

Task 2 – Decommission or relocate TCEQ approved air monitors throughout Regions 3 and 4:

- On December 16, NTC received the signed Air Monitoring Site Agreement from Parker County for Tin Top Road location. The site

agreement is for five years, and automatically renews with an annual License Fee of $4,000. AECOM is working to install the air monitoring equipment on the site, with completion anticipated in January 2020.

Task 3 – Respond to Monitoring Issues:

- Various monitors have undergone routine maintenance.
- There were no other incidences to report.

Task 4– Reporting/Availability for Questions:

- NTC has been available for questions from TCEQ Project Manager.
- NTC has created a progress report for the month of November.
- NTC has prepared and submitted the Final Report detailing the background, summary of work, and key findings from implementing the Regional Air Monitoring Program under POA 4.

Planned future activities: NTC Staff will continue work on all four tasks associated with this project. There are no other specific planned activities that deviate from normal project activities.

PROGRESS REPORT, #6

January, 2020

Project Title: Continued Implementation of SB527 Monitoring Program in FY20/FY21

Project No.: 582-18-80730-01
POA No.: FY20/FY21-05

Summary of recent activity: Since submitting the previous progress report on January 7, 2020, the North Texas Commission has performed the following activities:

Task 1 – Operate, report data, and maintain TCEQ approved monitors throughout Regions 3 and 4: NTC and its vendor AECOM have continued to operate, report data, and maintain the 21 air monitors that compose the NTC Regional Air Monitoring Program. Work on this task has included:

- *Oversight of contract management and execution*
- *Liaising with community stakeholders about project and its findings*
    - NTC staff has represented the air monitoring project and its findings to community stakeholders.
- *Managing billing, invoices, and other accounting needs*
    - NTC has reviewed and approved the January 2020 invoice from AECOM.

- *Facilitate communication between NTC, AECOM, and TCEQ*
    - NTC staff was in communication with AECOM and TCEQ via email and telephone.

Task 2 – Decommission or relocate TCEQ approved air monitors throughout Regions 3 and 4:

- NTC renewed the site access agreement for Mansfield Flying L site.

Task 3 – Respond to Monitoring Issues:

- Various monitors have undergone routine maintenance.
- NTC has reviewed the Network Summary Reports September 2019
- There were no other incidences to report.

Task 4– Reporting/Availability for Questions:

- NTC has been available for questions from TCEQ Project Manager.
- NTC has created a progress report for the month of December.

Planned future activities: NTC Staff will continue work on all four tasks associated with this project. There are no other specific planned activities that deviate from normal project activities.

PROGRESS REPORT, #7

February, 2020

Project Title: Continued Implementation of SB527 Monitoring Program in FY20/FY21

Project No.: 582-18-80730-01
POA No.: FY20/FY21-05

Summary of recent activity: Since submitting the previous progress report on February 10, 2020, the North Texas Commission has performed the following activities:

Task 1 – Operate, report data, and maintain TCEQ approved monitors throughout Regions 3 and 4: NTC and its vendor AECOM have continued to operate, report data, and maintain the 21 air monitors that compose the NTC Regional Air Monitoring Program. Work on this task has included:

- *Oversight of contract management and execution*
- *Liaising with community stakeholders about project and its findings*
    - NTC staff has represented the air monitoring project and its findings to community stakeholders.
- *Managing billing, invoices, and other accounting needs*
    - NTC has reviewed and approved the February 2020 invoice from AECOM.
    - In December 2019, NTC underwent its annual financial audit. The final report to the board of directors did not identify "any deficiencies in internal control," "material weaknesses," or "instances of noncompliance" with *Government Auditing Standards*.

- *Facilitate communication between NTC, AECOM, and TCEQ*
    - NTC staff was in communication with AECOM and TCEQ via email and telephone.

Task 2 – Decommission or relocate TCEQ approved air monitors throughout Regions 3 and 4:

- NTC did not conduct any activities related to this task in the month of February.

Task 3 – Respond to Monitoring Issues:

- Various monitors have undergone routine maintenance.
- NTC has reviewed the Network Summary Reports October 2019
- There were no other incidences to report.

Task 4– Reporting/Availability for Questions:

- NTC has been available for questions from TCEQ Project Manager.
- NTC has created a progress report for the month of January.
- NTC has reviewed AECOM 2019 Q4 Audit Report Executive Summary

Planned future activities: NTC Staff will continue work on all four tasks associated with this project. There are no other specific planned activities that deviate from normal project activities.

PROGRESS REPORT, #8

March, 2020

Project Title: Continued Implementation of SB527 Monitoring Program in FY20/FY21

Project No.: 582-18-80730-01
POA No.: FY20/FY21-05

Summary of recent activity: Since submitting the previous progress report on March 11, 2020, the North Texas Commission has performed the following activities:

Task 1 – Operate, report data, and maintain TCEQ approved monitors throughout Regions 3 and 4: NTC and its vendor AECOM have continued to operate, report data, and maintain the 21 air monitors that compose the NTC Regional Air Monitoring Program. Work on this task has included:

- *Oversight of contract management and execution*
  - NTC issued an addendum #1 to September 4, 2019 Notice to Proceed to replace 3 Auto GC systems and trailers so TCEQ will relocate to the Permian area.
- *Liaising with community stakeholders about project and its findings*
  - NTC staff has represented the air monitoring project and its findings to community stakeholders.
- *Managing billing, invoices, and other accounting needs*
  - NTC has reviewed and approved the March 2020 invoice from AECOM.

- *Facilitate communication between NTC, AECOM, and TCEQ*
  - NTC staff was in communication with AECOM and TCEQ via email and telephone.

Task 2 – Decommission or relocate TCEQ approved air monitors throughout Regions 3 and 4:

- NTC did not conduct any activities related to this task in the month of March.

Task 3 – Respond to Monitoring Issues:

- Various monitors have undergone routine maintenance.
- NTC has reviewed the Network Summary Reports November 2019
- There were no other incidences to report.

Task 4– Reporting/Availability for Questions:

- NTC has been available for questions from TCEQ Project Manager.
- NTC has created a progress report for the month of February.

Planned future activities: NTC Staff will continue work on all four tasks associated with this project. There are no other specific planned activities that deviate from normal project activities.

PROGRESS REPORT, #9

April, 2020

Project Title: Continued Implementation of SB527 Monitoring Program in FY20/FY21

Project No.: 582-18-80730-01
POA No.: FY20/FY21-05

Summary of recent activity: Since submitting the previous progress report on April 6, 2020, the North Texas Commission has performed the following activities:

Task 1 – Operate, report data, and maintain TCEQ approved monitors throughout Regions 3 and 4: NTC and its vendor AECOM have continued to operate, report data, and maintain the 21 air monitors that compose the NTC Regional Air Monitoring Program. Work on this task has included:

- *Oversight of contract management and execution*
- *Liaising with community stakeholders about project and its findings*
    - NTC staff has represented the air monitoring project and its findings to community stakeholders.
- *Managing billing, invoices, and other accounting needs*
    - NTC has reviewed and approved the April 2020 invoice from AECOM.

- *Facilitate communication between NTC, AECOM, and TCEQ*
    - NTC staff was in communication with AECOM and TCEQ via email and telephone.

Task 2 – Decommission or relocate TCEQ approved air monitors throughout Regions 3 and 4:

- NTC did not conduct any activities related to this task in the month of April.

Task 3 – Respond to Monitoring Issues:

- Various monitors have undergone routine maintenance.
- NTC has reviewed the Network Summary Reports December 2019
- There were no other incidences to report.

Task 4– Reporting/Availability for Questions:

- NTC has been available for questions from TCEQ Project Manager.
- NTC has created a progress report for the month of March.

Planned future activities: NTC Staff will continue work on all four tasks associated with this project. There are no other specific planned activities that deviate from normal project activities.

PROGRESS REPORT, #10

May, 2020

Project Title: Continued Implementation of SB527 Monitoring Program in FY20/FY21

Project No.: 582-18-80730-01
POA No.: FY20/FY21-05

Summary of recent activity: Since submitting the previous progress report on May 12, 2020, the North Texas Commission has performed the following activities:

Task 1 – Operate, report data, and maintain TCEQ approved monitors throughout Regions 3 and 4: NTC and its vendor AECOM have continued to operate, report data, and maintain the 21 air monitors that compose the NTC Regional Air Monitoring Program. Work on this task has included:

- *Oversight of contract management and execution*
- *Liaising with community stakeholders about project and its findings*
    - NTC staff has represented the air monitoring project and its findings to community stakeholders.
- *Managing billing, invoices, and other accounting needs*
    - NTC has reviewed and approved the May 2020 invoice from AECOM.

- *Facilitate communication between NTC, AECOM, and TCEQ*
    - NTC staff was in communication with AECOM and TCEQ via email and telephone.

Task 2 – Decommission or relocate TCEQ approved air monitors throughout Regions 3 and 4:

- NTC did not conduct any activities related to this task in the month of May.

Task 3 – Respond to Monitoring Issues:

- Various monitors have undergone routine maintenance.
- NTC has reviewed the Network Summary Reports January 2020
- There were no other incidences to report.

Task 4– Reporting/Availability for Questions:

- NTC has been available for questions from TCEQ Project Manager.
- NTC has created a progress report for the month of April.

Planned future activities: NTC Staff will continue work on all four tasks associated with this project. There are no other specific planned activities that deviate from normal project activities.

PROGRESS REPORT, #11

June, 2020

Project Title: Continued Implementation of SB527 Monitoring Program in FY20/FY21

Project No.: 582-18-80730-01
POA No.: FY20/FY21-05

Summary of recent activity: Since submitting the previous progress report on June 9, 2020, the North Texas Commission has performed the following activities:

Task 1 – Operate, report data, and maintain TCEQ approved monitors throughout Regions 3 and 4: NTC and its vendor AECOM have continued to operate, report data, and maintain the 21 air monitors that compose the NTC Regional Air Monitoring Program. Work on this task has included:

- *Oversight of contract management and execution*
- *Liaising with community stakeholders about project and its findings*
    - NTC staff has represented the air monitoring project and its findings to community stakeholders.
- *Managing billing, invoices, and other accounting needs*
    - NTC has reviewed and approved the June 2020 invoice from AECOM.

- *Facilitate communication between NTC, AECOM, and TCEQ*
    - NTC staff was in communication with AECOM and TCEQ via email and telephone.

Task 2 – Decommission or relocate TCEQ approved air monitors throughout Regions 3 and 4:

- NTC did not conduct any activities related to this task in the month of June.

Task 3 – Respond to Monitoring Issues:

- Various monitors have undergone routine maintenance.
- There were no other incidences to report.

Task 4– Reporting/Availability for Questions:

- NTC has been available for questions from TCEQ Project Manager.
- NTC has created a progress report for the month of May.

Planned future activities: NTC Staff will continue work on all four tasks associated with this project. There are no other specific planned activities that deviate from normal project activities.

PROGRESS REPORT, #12

July, 2020

Project Title: Continued Implementation of SB527 Monitoring Program in FY20/FY21

Project No.: 582-18-80730-01
POA No.: FY20/FY21-05

Summary of recent activity: Since submitting the previous progress report on July 10, 2020, the North Texas Commission has performed the following activities:

Task 1 – Operate, report data, and maintain TCEQ approved monitors throughout Regions 3 and 4: NTC and its vendor AECOM have continued to operate, report data, and maintain the 21 air monitors that compose the NTC Regional Air Monitoring Program. Work on this task has included:

- *Oversight of contract management and execution*
- *Liaising with community stakeholders about project and its findings*
    - NTC staff has represented the air monitoring project and its findings to community stakeholders.
- *Managing billing, invoices, and other accounting needs*
    - NTC has reviewed and approved the July 2020 invoice from AECOM.

- *Facilitate communication between NTC, AECOM, and TCEQ*
    - NTC staff was in communication with AECOM and TCEQ via email and telephone.

Task 2 – Decommission or relocate TCEQ approved air monitors throughout Regions 3 and 4:

- NTC did not conduct any activities related to this task in the month of July.

Task 3 – Respond to Monitoring Issues:

- Various monitors have undergone routine maintenance.
- NTC has reviewed the Network Summary Reports for February, March & April 2020
- There were no other incidences to report.

Task 4– Reporting/Availability for Questions:

- NTC has been available for questions from TCEQ Project Manager.
- NTC has created a progress report for the month of June.

Planned future activities: NTC Staff will continue work on all four tasks associated with this project. There are no other specific planned activities that deviate from normal project activities.

PROGRESS REPORT, #13

August, 2020

Project Title: Continued Implementation of SB527 Monitoring Program in FY20/FY21

Project No.: 582-18-80730-01
POA No.: FY20/FY21-05

Summary of recent activity: Since submitting the previous progress report on August 12, 2020, the North Texas Commission has performed the following activities:

Task 1 – Operate, report data, and maintain TCEQ approved monitors throughout Regions 3 and 4: NTC and its vendor AECOM have continued to operate, report data, and maintain the 21 air monitors that compose the NTC Regional Air Monitoring Program. Work on this task has included:

- *Oversight of contract management and execution*
- *Liaising with community stakeholders about project and its findings*
    - NTC staff has represented the air monitoring project and its findings to community stakeholders.
- *Managing billing, invoices, and other accounting needs*
    - NTC has reviewed and approved the August 2020 invoice from AECOM.

- *Facilitate communication between NTC, AECOM, and TCEQ*
    - NTC staff was in communication with AECOM and TCEQ via email and telephone.

Task 2 – Decommission or relocate TCEQ approved air monitors throughout Regions 3 and 4:

- NTC did not conduct any activities related to this task in the month of August.

Task 3 – Respond to Monitoring Issues:

- Various monitors have undergone routine maintenance.
- There were no other incidences to report.

Task 4– Reporting/Availability for Questions:

- NTC has been available for questions from TCEQ Project Manager.
- NTC has created a progress report for the month of July.

Planned future activities: NTC Staff will continue work on all four tasks associated with this project. There are no other specific planned activities that deviate from normal project activities.

PROGRESS REPORT, #14

September, 2020

Project Title: Continued Implementation of SB527 Monitoring Program in FY20/FY21

Project No.: 582-18-80730-01
POA No.: FY20/FY21-05

Summary of recent activity: Since submitting the previous progress report on September 9, 2020, the North Texas Commission has performed the following activities:

Task 1 – Operate, report data, and maintain TCEQ approved monitors throughout Regions 3 and 4: NTC and its vendor AECOM have continued to operate, report data, and maintain the 21 air monitors that compose the NTC Regional Air Monitoring Program. Work on this task has included:

- *Oversight of contract management and execution*
- *Liaising with community stakeholders about project and its findings*
    - NTC staff has represented the air monitoring project and its findings to community stakeholders.
- *Managing billing, invoices, and other accounting needs*
    - NTC has reviewed and approved the September 2020 invoice from AECOM.
- *Facilitate communication between NTC, AECOM, and TCEQ*
    - NTC staff was in communication with AECOM and TCEQ via email and telephone.

Task 2 – Decommission or relocate TCEQ approved air monitors throughout Regions 3 and 4:

- NTC assisted with the transfer of AutoGC equipment, shelters, and meteorological towers to the TCEQ Monitoring Division at the Kennedale Treepoint Drive, Fort Worth Joe B. Rushing Road and the Rhome Seven Hills Road sites. Replacement

AutoGCs and shelters will be installed by AECOM and Orsat during FY21 beginning in September. Planning and coordination for this equipment transfer and replacement began at the end of 2019.

Task 3 – Respond to Monitoring Issues:

- Various monitors have undergone routine maintenance.
- NTC has reviewed the Network Summary Reports for May & June 2020
- There were no other incidences to report.

Task 4– Reporting/Availability for Questions:

- NTC has been available for questions from TCEQ Project Manager.
- NTC has created a progress report for the month of August.

Planned future activities: NTC Staff will continue work on all four tasks associated with this project. There are no other specific planned activities that deviate from normal project activities.

PROGRESS REPORT, #15

October, 2020

Project Title: Continued Implementation of SB527 Monitoring Program in FY20/FY21

Project No.: 582-18-80730-01
POA No.: FY20/FY21-05

Summary of recent activity: Since submitting the previous progress report on October 6, 2020, the North Texas Commission has performed the following activities:

Task 1 – Operate, report data, and maintain TCEQ approved monitors throughout Regions 3 and 4: NTC and its vendor AECOM have continued to operate, report data, and maintain the 21 air monitors that compose the NTC Regional Air Monitoring Program. Work on this task has included:

- *Oversight of contract management and execution*
- *Liaising with community stakeholders about project and its findings*
    - NTC staff has represented the air monitoring project and its findings to community stakeholders.
- *Managing billing, invoices, and other accounting needs*
    - NTC has reviewed and approved the October 2020 invoice from AECOM.

- *Facilitate communication between NTC, AECOM, and TCEQ*
    - NTC staff was in communication with AECOM and TCEQ via email and telephone.

Task 2 – Decommission or relocate TCEQ approved air monitors throughout Regions 3 and 4:

- NTC did not conduct any activities related to this task in the month of October.

Task 3 – Respond to Monitoring Issues:

- Various monitors have undergone routine maintenance.
- There were no other incidences to report.

Task 4– Reporting/Availability for Questions:

- NTC has been available for questions from TCEQ Project Manager.
- NTC has created a progress report for the month of September.

Planned future activities: NTC Staff will continue work on all four tasks associated with this project. There are no other specific planned activities that deviate from normal project activities.

PROGRESS REPORT, #16

November, 2020

Project Title: Continued Implementation of SB527 Monitoring Program in FY20/FY21

Project No.: 582-18-80730-01
POA No.: FY20/FY21-05

Summary of recent activity: Since submitting the previous progress report on November 5, 2020, the North Texas Commission has performed the following activities:

Task 1 – Operate, report data, and maintain TCEQ approved monitors throughout Regions 3 and 4: NTC and its vendor AECOM have continued to operate, report data, and maintain the 21 air monitors that compose the NTC Regional Air Monitoring Program. Work on this task has included:

- *Oversight of contract management and execution*
- *Liaising with community stakeholders about project and its findings*
    - NTC staff has represented the air monitoring project and its findings to community stakeholders.
- *Managing billing, invoices, and other accounting needs*
    - NTC has reviewed and approved the November 2020 invoice from AECOM.

- *Facilitate communication between NTC, AECOM, and TCEQ*
    - NTC staff was in communication with AECOM and TCEQ via email and telephone.

Task 2 – Decommission or relocate TCEQ approved air monitors throughout Regions 3 and 4:

- NTC did not conduct any activities related to this task in the month of November.

Task 3 – Respond to Monitoring Issues:

- Various monitors have undergone routine maintenance.
- There were no other incidences to report.

Task 4– Reporting/Availability for Questions:

- NTC has been available for questions from TCEQ Project Manager.
- NTC has created a progress report for the month of October.

Planned future activities: NTC Staff will continue work on all four tasks associated with this project. There are no other specific planned activities that deviate from normal project activities.

PROGRESS REPORT, #17

December, 2020

Project Title: Continued Implementation of SB527 Monitoring Program in FY20/FY21

Project No.: 582-18-80730-01
POA No.: FY20/FY21-05

Summary of recent activity: Since submitting the previous progress report on December 9, 2020, the North Texas Commission has performed the following activities:

Task 1 – Operate, report data, and maintain TCEQ approved monitors throughout Regions 3 and 4: NTC and its vendor AECOM have continued to operate, report data, and maintain the 21 air monitors that compose the NTC Regional Air Monitoring Program. Work on this task has included:

- *Oversight of contract management and execution*
- *Liaising with community stakeholders about project and its findings*
    - NTC staff has represented the air monitoring project and its findings to community stakeholders.
- *Managing billing, invoices, and other accounting needs*
    - NTC has reviewed and approved the December 2020 invoice from AECOM.

- *Facilitate communication between NTC, AECOM, and TCEQ*
    - NTC staff was in communication with AECOM and TCEQ via email and telephone.

Task 2 – Decommission or relocate TCEQ approved air monitors throughout Regions 3 and 4:

- NTC did not conduct any activities related to this task in the month of December.

Task 3 – Respond to Monitoring Issues:

- Various monitors have undergone routine maintenance.
- NTC has reviewed the Network Summary Report July 2020
- There were no other incidences to report.

Task 4– Reporting/Availability for Questions:

- NTC has been available for questions from TCEQ Project Manager.
- NTC has created a progress report for the month of November.

Planned future activities: NTC Staff will continue work on all four tasks associated with this project. There are no other specific planned activities that deviate from normal project activities.

PROGRESS REPORT, #18

January, 2021

Project Title: Continued Implementation of SB527 Monitoring Program in FY20/FY21

Project No.: 582-18-80730-01
POA No.: FY20/FY21-05

Summary of recent activity: Since submitting the previous progress report on January 8, 2021, the North Texas Commission has performed the following activities:

Task 1 – Operate, report data, and maintain TCEQ approved monitors throughout Regions 3 and 4: NTC and its vendor AECOM have continued to operate, report data, and maintain the 21 air monitors that compose the NTC Regional Air Monitoring Program. Work on this task has included:

- *Oversight of contract management and execution*
- *Liaising with community stakeholders about project and its findings*
    - NTC staff has represented the air monitoring project and its findings to community stakeholders.
- *Managing billing, invoices, and other accounting needs*
    - NTC has reviewed and approved the January 2021 invoice from AECOM.

- *Facilitate communication between NTC, AECOM, and TCEQ*
    - NTC staff was in communication with AECOM and TCEQ via email and telephone.

Task 2 – Decommission or relocate TCEQ approved air monitors throughout Regions 3 and 4:

- NTC did not conduct any activities related to this task in the month of January.

Task 3 – Respond to Monitoring Issues:

- Various monitors have undergone routine maintenance.
- NTC has reviewed the Network Summary Report August 2020
- There were no other incidences to report.

Task 4– Reporting/Availability for Questions:

- NTC has been available for questions from TCEQ Project Manager.
- NTC has created a progress report for the month of December.

Planned future activities: NTC Staff will continue work on all four tasks associated with this project. There are no other specific planned activities that deviate from normal project activities.

PROGRESS REPORT, #19

February, 2021

Project Title: Continued Implementation of SB527 Monitoring Program in FY20/FY21

Project No.: 582-18-80730-01
POA No.: FY20/FY21-05

Summary of recent activity: Since submitting the previous progress report on February 3, 2021, the North Texas Commission has performed the following activities:

Task 1 – Operate, report data, and maintain TCEQ approved monitors throughout Regions 3 and 4: NTC and its vendor AECOM have continued to operate, report data, and maintain the 21 air monitors that compose the NTC Regional Air Monitoring Program. Work on this task has included:

- *Oversight of contract management and execution*
- *Liaising with community stakeholders about project and its findings*
    - NTC staff has represented the air monitoring project and its findings to community stakeholders.
- *Managing billing, invoices, and other accounting needs*
    - NTC has reviewed and approved the February 2021 invoice from AECOM.

    - In December 2020, NTC underwent its annual financial audit. The final report to the board of directors did not identify "any deficiencies in internal control," "material weaknesses," or "instances of noncompliance" with *Government Auditing Standards*.

- *Facilitate communication between NTC, AECOM, and TCEQ*

- NTC staff was in communication with AECOM and TCEQ via email and telephone.

Task 2 – Decommission or relocate TCEQ approved air monitors throughout Regions 3 and 4:

- NTC did not conduct any activities related to this task in the month of February.

Task 3 – Respond to Monitoring Issues:

- Various monitors have undergone routine maintenance.
- There were no other incidences to report.

Task 4– Reporting/Availability for Questions:

- NTC has been available for questions from TCEQ Project Manager.
- NTC has created a progress report for the month of January.

Planned future activities: NTC Staff will continue work on all four tasks associated with this project. There are no other specific planned activities that deviate from normal project activities.

PROGRESS REPORT, #20

March 2021

Project Title: Continued Implementation of SB527 Monitoring Program in FY20/FY21

Project No.: 582-18-80730-01
POA No.: FY20/FY21-05

Summary of recent activity: Since submitting the previous progress report on March 5, 2021, the North Texas Commission has performed the following activities:

Task 1 – Operate, report data, and maintain TCEQ approved monitors throughout Regions 3 and 4: NTC and its vendor AECOM have continued to operate, report data, and maintain the 21 air monitors that compose the NTC Regional Air Monitoring Program. Work on this task has included:

- *Oversight of contract management and execution*
- *Liaising with community stakeholders about project and its findings*
    - NTC staff has represented the air monitoring project and its findings to community stakeholders.
- *Managing billing, invoices, and other accounting needs*
    - NTC has reviewed and approved the March 2021 invoice from AECOM.
- *Facilitate communication between NTC, AECOM, and TCEQ*
    - NTC staff was in communication with AECOM and TCEQ via email and telephone.

Task 2 – Decommission or relocate TCEQ approved air monitors throughout Regions 3 and 4:

- NTC did not conduct any activities related to this task in the month of March.

Task 3 – Respond to Monitoring Issues:

- Various monitors have undergone routine maintenance.
- NTC has reviewed the Network Summary Report September and October 2020
- There were no other incidences to report.

Task 4– Reporting/Availability for Questions:

- NTC has been available for questions from TCEQ Project Manager.
- NTC has created a progress report for the month of February.

Planned future activities: NTC Staff will continue work on all four tasks associated with this project. There are no other specific planned activities that deviate from normal project activities.

PROGRESS REPORT, #21

April 2021

Project Title: Continued Implementation of SB527 Monitoring Program in FY20/FY21

Project No.: 582-18-80730-01
POA No.: FY20/FY21-05

Summary of recent activity: Since submitting the previous progress report on April 5, 2021, the North Texas Commission has performed the following activities:

Task 1 – Operate, report data, and maintain TCEQ approved monitors throughout Regions 3 and 4: NTC and its vendor AECOM have continued to operate, report data, and maintain the 21 air monitors that compose the NTC Regional Air Monitoring Program. Work on this task has included:

- *Oversight of contract management and execution*
- *Liaising with community stakeholders about project and its findings*
    - NTC staff has represented the air monitoring project and its findings to community stakeholders.
- *Managing billing, invoices, and other accounting needs*
    - NTC has reviewed and approved the April 2021 invoice from AECOM.
- *Facilitate communication between NTC, AECOM, and TCEQ*
    - NTC staff was in communication with AECOM and TCEQ via email and telephone.

Task 2 – Decommission or relocate TCEQ approved air monitors throughout Regions 3 and 4:

- NTC did not conduct any activities related to this task in the month of April.

Task 3 – Respond to Monitoring Issues:

- Various monitors have undergone routine maintenance.
- NTC has reviewed the Network Summary Report November and December 2020
- There were no other incidences to report.

Task 4– Reporting/Availability for Questions:

- NTC has been available for questions from TCEQ Project Manager.
- NTC has created a progress report for the month of March.

Planned future activities: NTC Staff will continue work on all four tasks associated with this project. There are no other specific planned activities that deviate from normal project activities.

PROGRESS REPORT, #22

May 2021

Project Title: Continued Implementation of SB527 Monitoring Program in FY20/FY21

Project No.: 582-18-80730-01
POA No.: FY20/FY21-05

Summary of recent activity: Since submitting the previous progress report on May 10, 2021, the North Texas Commission has performed the following activities:

Task 1 – Operate, report data, and maintain TCEQ approved monitors throughout Regions 3 and 4: NTC and its vendor AECOM have continued to operate, report data, and maintain the 21 air monitors that compose the NTC Regional Air Monitoring Program. Work on this task has included:

- *Oversight of contract management and execution*
- *Liaising with community stakeholders about project and its findings*
    - NTC staff has represented the air monitoring project and its findings to community stakeholders.
- *Managing billing, invoices, and other accounting needs*
    - NTC has reviewed and approved the May 2021 invoice from AECOM.
- *Facilitate communication between NTC, AECOM, and TCEQ*
    - NTC staff was in communication with AECOM and TCEQ via email and telephone.

Task 2 – Decommission or relocate TCEQ approved air monitors throughout Regions 3 and 4:

- NTC did not conduct any activities related to this task in the month of May.

Task 3 – Respond to Monitoring Issues:

- Various monitors have undergone routine maintenance.
- NTC has reviewed the Network Summary Report January 2021
- There were no other incidences to report.

Task 4– Reporting/Availability for Questions:

- NTC has been available for questions from TCEQ Project Manager.
- NTC has created a progress report for the month of April.

Planned future activities: NTC Staff will continue work on all four tasks associated with this project. There are no other specific planned activities that deviate from normal project activities.

PROGRESS REPORT, #23

June 2021

Project Title: Continued Implementation of SB527 Monitoring Program in FY20/FY21

Project No.: 582-18-80730-01
POA No.: FY20/FY21-05

Summary of recent activity: Since submitting the previous progress report on June 1, 2021, the North Texas Commission has performed the following activities:

Task 1 – Operate, report data, and maintain TCEQ approved monitors throughout Regions 3 and 4: NTC and its vendor AECOM have continued to operate, report data, and maintain the 21 air monitors that compose the NTC Regional Air Monitoring Program. Work on this task has included:

- *Oversight of contract management and execution*
- *Liaising with community stakeholders about project and its findings*
    - NTC staff has represented the air monitoring project and its findings to community stakeholders.
- *Managing billing, invoices, and other accounting needs*
    - NTC has reviewed and approved the June 2021 invoice from AECOM.

- *Facilitate communication between NTC, AECOM, and TCEQ*
    - NTC staff was in communication with AECOM and TCEQ via email and telephone.

Task 2 – Decommission or relocate TCEQ approved air monitors throughout Regions 3 and 4:

- On June 1, 2021, Everman Johnson Park executed a renewal agreement with NTC authorizing continued site access. The

agreement's term will provide access from June 1, 2021 – May 31, 2026.

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Task 3 – Respond to Monitoring Issues:

- Various monitors have undergone routine maintenance.
- There were no other incidences to report.

Task 4– Reporting/Availability for Questions:

- NTC has been available for questions from TCEQ Project Manager.
- NTC has created a progress report for the month of May.
- NTC has prepared and submitted a Draft Final Report detailing the background, summary of work, and key findings from implementing the Regional Air Monitoring Program under POA 5.

Planned future activities: NTC Staff will continue work on all four tasks associated with this project. There are no other specific planned activities that deviate from normal project activities.

PROGRESS REPORT, #24

July 2021

Project Title: Continued Implementation of SB527 Monitoring Program in FY20/FY21

Project No.: 582-18-80730-01
POA No.: FY20/FY21-05

Summary of recent activity: Since submitting the previous progress report on July 1, 2021, the North Texas Commission has performed the following activities:

Task 1 – Operate, report data, and maintain TCEQ approved monitors throughout Regions 3 and 4: NTC and its vendor AECOM have continued to operate, report data, and maintain the 21 air monitors that compose the NTC Regional Air Monitoring Program. Work on this task has included:

- *Oversight of contract management and execution*
- *Liaising with community stakeholders about project and its findings*
    - NTC staff has represented the air monitoring project and its findings to community stakeholders.
- *Managing billing, invoices, and other accounting needs*
    - NTC has reviewed and approved the July 2021 invoice from AECOM.

- *Facilitate communication between NTC, AECOM, and TCEQ*
    - NTC staff was in communication with AECOM and TCEQ via email and telephone.

Task 2 – Decommission or relocate TCEQ approved air monitors throughout Regions 3 and 4:

- NTC did not conduct any activities related to this task in the month of July.
-

Task 3 – Respond to Monitoring Issues:

- Various monitors have undergone routine maintenance.
- NTC has reviewed the Network Summary Report February, March & April 2021
- There were no other incidences to report.

Task 4– Reporting/Availability for Questions:

- NTC has been available for questions from TCEQ Project Manager.
- NTC has created a progress report for the month of June.

Planned future activities: NTC Staff will continue work on all four tasks associated with this project. There are no other specific planned activities that deviate from normal project activities.

PROGRESS REPORT, #25

August 2021

Project Title: Continued Implementation of SB527 Monitoring Program in FY20/FY21

Project No.: 582-18-80730-01

POA No.: FY20/FY21-05

Summary of recent activity: Since submitting the previous progress report on August 9, 2021, the North Texas Commission has performed the following activities:

Task 1 – Operate, report data, and maintain TCEQ approved monitors throughout Regions 3 and 4: NTC and its vendor AECOM have continued to operate, report data, and maintain the 21 air monitors that compose the NTC Regional Air Monitoring Program. Work on this task has included:

- *Oversight of contract management and execution*
    - TCEQ has issued NTC an "Approval to Prepare Plan of Activities" for POA 6
    - NTC requests AECOM to prepare Work Plan.
- *Liaising with community stakeholders about project and its findings*
    - NTC staff has represented the air monitoring project and its findings to community stakeholders.
- *Managing billing, invoices, and other accounting needs*
    - NTC has reviewed and approved the August 2021 invoice from AECOM.
- *Facilitate communication between NTC, AECOM, and TCEQ*
    - NTC staff was in communication with AECOM and TCEQ via email and telephone.

Task 2 – Decommission or relocate TCEQ approved air monitors throughout Regions 3 and 4:

- NTC did not conduct any activities related to this task in the month of August.
-

Task 3 – Respond to Monitoring Issues:

- Various monitors have undergone routine maintenance.
- NTC has reviewed the Network Summary Report May & June 2021
- There were no other incidences to report.

Task 4– Reporting/Availability for Questions:

- NTC has been available for questions from TCEQ Project Manager.
- NTC has created a progress report for the months of July and August.
- NTC has prepared and submitted the Final Report detailing the background, summary of work, and key findings from implementing the Regional Air Monitoring Program under POA 5.

Planned future activities: NTC Staff will continue work on all four tasks associated with this project. There are no other specific planned activities that deviate from normal project activities.