February 21, 2020

VIA UPS TRACKING: 1Z2E23250199048510

Mark Palermo
U.S. EPA
OECA Air Enforcement Division
1200 Pennsylvania Avenue NW
Mail Code 2242A
Washington, DC 20460

Subject: Harmon Creek Fence-line Monitoring Report

On November 22, 2019, the fence-line monitoring system at the Harmon Creek Plant in Smith Township, Washington County, Pennsylvania became operational. Data was generated from three monitoring locations for 39 days as detailed in the attached report. Though this dataset does not represent a full quarter, MarkWest is providing it so that the first complete quarterly dataset will begin on January 1, 2020.

As required by Section XI, Paragraph 63, MarkWest provides the below certification and signature:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I have no personal knowledge that the information submitted is other than true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowingly and willfully submitting a material false statement.

Please feel free to contact me at (740) 942-4889 or ssschupbach@marathonpetroleum.com should you have any questions or comments regarding this report.

Respectfully yours,

MPLX, G&P

Sam Schupbach

Sam Schupbach
VP Operations Processing

February 21, 2020

VIA UPS TRACKING: 1Z2E23250199747523

EES Case Management Unit
Environmental and Natural Resources Division
U.S. Department of Justice
Box 7611 Ben Franklin Station
Washington, DC 20044-7611
Re: DOJ No. 90-5-2-1-11374

Subject: Harmon Creek Fence-line Monitoring Report

On November 22, 2019, the fence-line monitoring system at the Harmon Creek Plant in Smith Township, Washington County, Pennsylvania became operational. Data was generated from three monitoring locations for 39 days as detailed in the attached report. Though this dataset does not represent a full quarter, MarkWest is providing it so that the first complete quarterly dataset will begin on January 1, 2020.

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MPLX, G&P

Sam Schupbach

Sam Schupbach
VP Operations Processing

February 21, 2020

VIA UPS TRACKING: 1Z2E23250199859564

Lori McNabb
Environmental Group Manager
Department of Environmental Protection – Field Operations
Air Quality Program
Northwest Regional Office
230 Chestnut Street
Meadville, PA 16335

Subject: Harmon Creek Fence-line Monitoring Report

On November 22, 2019, the fence-line monitoring system at the Harmon Creek Plant in Smith Township, Washington County, Pennsylvania became operational. Data was generated from three monitoring locations for 39 days as detailed in the attached report. Though this dataset does not represent a full quarter, MarkWest is providing it so that the first complete quarterly dataset will begin on January 1, 2020.

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Respectfully yours,

MPLX, G&P

Sam Schupbach

Sam Schupbach
VP Operations Processing

February 21, 2020

VIA UPS TRACKING: 1Z2E23250195682154

Mark R. Gorog, P.E.
Regional Manager
Department of Environmental Protection
Air Quality Program
Southwest Regional Office
400 Waterfront Drive
Pittsburgh, PA 15222

Subject: Harmon Creek Fence-line Monitoring Report

On November 22, 2019, the fence-line monitoring system at the Harmon Creek Plant in Smith Township, Washington County, Pennsylvania became operational. Data was generated from three monitoring locations for 39 days as detailed in the attached report. Though this dataset does not represent a full quarter, MarkWest is providing it so that the first complete quarterly dataset will begin on January 1, 2020.

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Respectfully yours,

MPLX, G&P

Sam Schupbach

Sam Schupbach
VP Operations Processing

February 21, 2020

VIA UPS TRACKING: 1Z2E23250198248341

Director, Air Enforcement
U.S. EPA Region III
1650 Arch Street
Philadelphia, PA 19103

Subject: Harmon Creek Fence-line Monitoring Report

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Respectfully yours,

MPLX, G&P

Sam Schupbach

Sam Schupbach
VP Operations Processing

February 21, 2020

VIA UPS TRACKING: 1Z2E23250195902139

U.S. EPA Region V
77 W. Jackson Boulevard
Chicago, IL 60604
Attn: Compliance Tracker

Subject: Harmon Creek Fence-line Monitoring Report

On November 22, 2019, the fence-line monitoring system at the Harmon Creek Plant in Smith Township, Washington County, Pennsylvania became operational. Data was generated from three monitoring locations for 39 days as detailed in the attached report. Though this dataset does not represent a full quarter, MarkWest is providing it so that the first complete quarterly dataset will begin on January 1, 2020.

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Respectfully yours,

MPLX, G&P

Sam Schupbach

Sam Schupbach
VP Operations Processing

SUMMARY OF AIR TOXICS AND METEOROLOGICAL DATA FROM MARKWEST'S HARMON CREEK MONITORING STATIONS FOURTH QUARTER 2019

Prepared for:

Mr. Phillip Jereza
Mw Logistics Services, LLC
121 Point Pleasant Road
Bulger, PA 15019

By

MSI Trinity Consultants
Project No. 02201983

February 2020

Meteorological Solutions Inc.
A Trinity Consultants Company

SUMMARY OF AIR TOXICS AND METEOROLOGICAL DATA FROM MARKWEST'S HARMON CREEK MONITORING STATIONS NOVEMBER AND DECEMBER 2019

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1.0 INTRODUCTION

This November and December 2019 report, prepared for MarkWest by Trinity Consultants Company (Trinity), summarizes the air toxics and meteorological data collected at the Harmon Creek Gas Processing Plant monitoring stations. Official data collection began at the Upwind station on November 21; Downwind Station#1 and Downwind Station #2 became operational on November 27 and November 19, 2019, respectively.

1.1 Background

Pursuant to a Consent Decree, Trinity was contracted by Markwest to install, maintain, and operate a fence line monitoring system (FLMS), consisting of Upwind and Downwind monitoring stations, to measure propane, butane, pentane, hexane, benzene, toluene, ethylbenzene, xylene and all its isomers, total volatile organic compounds (VOCs) at Markwest's Harmon Creek Gas Processing Plant which is located near Joffre, Pennsylvania. Two (2) Downwind air toxic stations and one (1) Upwind air toxic and meteorological monitoring station are being operated at the facility. A 10-meter meteorological tower provides continuous meteorological measurements of horizontal wind speed and wind direction, the standard deviation of horizontal wind direction (sigma theta), air temperature, and barometric pressure.

MarkWest is engaged in natural gas gathering/processing operations in western Pennsylvania and is undertaking this program to quantify emissions from natural gas processing plants, pig launchers and receivers in an effort to understand and reduce VOC emissions from these sources.

1.2 Monitoring Station Description

Consolidated Analytical Systems (CAS) AirmOzone Auto-Gas Chromatographs (GCs) are being operated at the Upwind and Downwind sites which provide continuous measurements of the following compounds: Ethane, Ethylene, Propane, Propene, Isobutane, N-butane, Acetylene, Trans-2-Butene, 1-Butene, Cis-2-Butene, Cyclopentane, Isopentane, N-Pentane, 1,3-Butadiene, Trans-2-Pentene, 1-Pentene, Cis-2-Pentene, 3-Methyl-Pentane, N-Hexane, Isoprene, 2,4-Dimethylpentane, 2,3-Dimethylbutane, 2,2-Dimethylbutane, Methylcyclopentane, Benzene, Carbon Tetrachloride, Cyclohexane, 2-Methylhexane, 3-Methylhexane, 2,2,4 Trimethylpentane, N-Heptane, Methyl Cyclohexane, 2,3,4 Trimethylpentane, Toluene, 2-Methylheptane, 3-Methylheptane, N-Octane, Tetrachloroethene, Ethylbenzene, M & P-Xylenes, Styrene, O-xylene, N-nonane, Isopropylbenzene, A-Pinene, N-Propylbenzene, M-Ethyltoluene, P-Ethyltoluene, 1,3,5-Trimethylbenzene, O-Ethyltoluene, B-Pinene, 1,2,4-Trimethylbenzene, N-Decane, 1,2,3-Trimethylbenzene, M-Diethylbenzene, P-diethylebenzene, N-Undecane, and N-Dodecane.

The air toxic and meteorological monitoring stations at the Harmon Creek Gas Processing Facility are located approximately 2.1 miles northeast of Joffre, Pennsylvania. The latitude/longitude coordinates of the upwind and downwind monitoring stations in WGS 84 are presented in Table 1-1.

Table 1-1 MarkWest's Harmon Creek Monitoring Station Locations

Station ID	Latitude	Longitude
Air Toxics – Downwind #1	40.405292 °	-80.357286 °
Air Toxics – Downwind #2	40.403527 °	-80.325296 °
Air Toxics and Meteorological Tower – Upwind	40.404048 °	-80.361167 °

A Google Earth image presenting the locations of the Upwind and Downwind monitoring stations is provided in Figure 1.1. Photographs of the Downwind #1 and Upwind monitoring stations with the meteorological tower are presented as Figures 1.2 and 1.3, respectively. Downwind #2 is similar to the Downwind #1 station. A summary of the air toxic and meteorological equipment installed at the Harmon Creek monitoring stations is presented in Table 1-2.

Figure 1.1 Locations of MarkWest's Harmon Creek Air Toxic and Meteorological Monitoring Stations

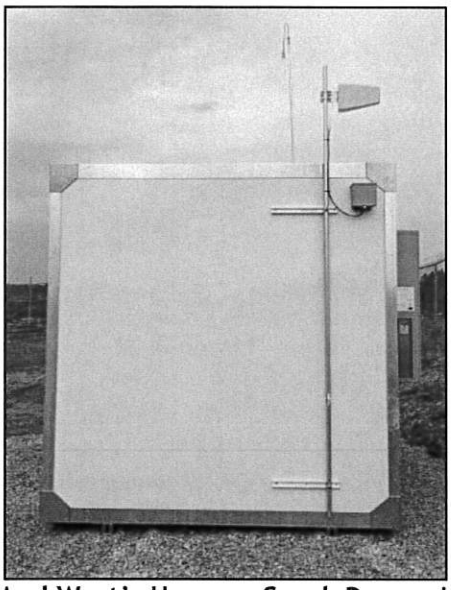


Figure 1.2 Photograph of MarkWest's Harmon Creek Downwind #1 Air Toxic Monitoring Station

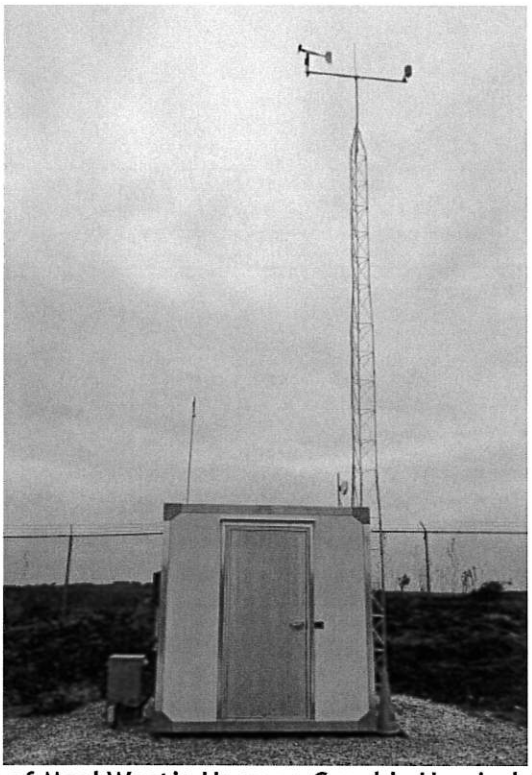


Figure 1.3 Photograph of MarkWest's Harmon Creek's Upwind Air Toxics Station with Meteorological Tower

Table 1-2 Air Toxic and Meteorological Instrumentation at Markwest's Harmon Creek Monitoring Stations

Parameter	Equipment Manufacturer	Model Number	Serial Number
Downwind #1			
Air Toxic	AirmOzone AirmoVOC C2-C6 AirmOzone AirmoVOC C6-C12	A12000 A23022	56080919 26090919
Data Acquisition	Campbell Scientific Inc.	CR300	6596
Downwind #2			
Air Toxic	AirmOzone AirmoVOC C2-C6 AirmOzone AirmoVOC C6-C12	A12000 A23022	56521019 26551019
Data Acquisition	Campbell Scientific Inc.	CR300	6597
Upwind Air Toxic and Meteorological			
Air Toxic	AirmOzone AirmoVOC C2-C6 AirmOzone AirmoVOC C6-C12	A12000 A23022	56180919 26190919
Wind Direction	RM Young	05305-5	171923
Wind Speed	RM Young	05305-5	171923
Temperature	E+E Elektronik	EE181	190916000179FC
Relative Humidity	E+E Elektronik	EE181	190916000179FC
Bar. Pressure	Vaisala	PTB110	P4930777
Data Acquisition	Campbell Scientific Inc.	CR1000X	11572

1.3 Data Acquisition

Data from the instruments listed in Table 1-1 are collected and stored by Campbell Scientific, Inc. Model CR300 or CR1000X loggers. The data loggers record air toxic monitor data as hourly averages. Meteorological data are sampled every second and recorded as five-minute averages on the data logger. The loggers at the monitoring sites are interrogated daily via modem to download and process the data. Data are copied to duplicate computer files and the data logger telecommunications software performs dynamic error checking during download to ensure that an exact duplicate file is created. Any failures in instrumentation or data acquisition are identified within two days of occurrence so that field personnel are able to correct problems in a timely manner in order to prevent excessive data loss.

The data collected during each interrogation are checked for consistency and the parameters are plotted for visual inspection. The quality assurance stacked parameter/time plots for the months of October through December are presented in Appendix A. Data presented in Appendix A represent the final, quality assured data set.

2.0 DATA SUMMARY

This section of the report summarizes the data results and data recovery for November and December 2019. Hourly data for by month are tabulated in the appendices. These appendix tables display the hourly average of measurements recorded in the hour "ending"; that is, the first hour of the day is labeled 01, meaning the hour beginning at midnight and ending at 01:00:00 a.m. The second hour is labeled 02, meaning the values collected from 01:00:01 a.m. to 02:00:00 a.m.

2.1 Upwind Station Air Toxics Data

The monthly averages and maximum hourly concentrations of the air toxic compounds being measured at the Upwind site are presented in Table 2-1 and in Appendix B.

Table 2-1 Concentrations of Air Toxics in Parts Per Billion - Upwind Site

Parameter	Nov. Average (ppb)	Dec. Average (ppb)	Quarterly Average (ppb)	Quarterly Max Date	Quarterly Maximum (ppb)	Quarterly Second High Date	Quarterly Second High (ppb)
Ethane	17.60	13.10	14.85	11/26/2019 18:00	375.75	11/27/2019 02:00	235.73
Ethylene	0.67	0.72	0.70	11/23/2019 10:00	2.40	11/26/2019 18:00	2.34
Propane	2.50	0.94	1.55	12/20/2019 10:00	25.28	12/20/2019 06:00	20.24
Propene	1.64	0.93	1.21	12/19/2019 03:00	13.94	11/21/2019 14:00	6.03
i-Butane	0.67	0.67	0.67	11/26/2019 23:00	3.43	12/20/2019 10:00	3.33
n-Butane	1.72	1.85	1.80	12/31/2019 03:00	11.53	12/20/2019 10:00	10.12
Acetylene	0.90	0.62	0.73	12/20/2019 03:00	1.59	11/23/2019 14:00	1.50
Trans-2-Butene	0.05	0.05	0.05	12/30/2019 20:00	0.14	12/30/2019 22:00	0.11
1-Butene	0.02	0.01	0.01	12/19/2019 17:00	0.08	11/26/2019 22:00	0.06
Cis-2-Butene	0.00	0.02	0.02	12/08/2019 23:00	0.14	12/09/2019 12:00	0.14
Cyclopentane	0.03	0.05	0.04	12/10/2019 05:00	0.91	12/10/2019 04:00	0.90
i-Pentane	0.73	0.60	0.65	12/08/2019 06:00	3.47	11/21/2019 15:00	3.34
n-Pentane	1.19	0.97	1.06	12/08/2019 06:00	5.77	12/08/2019 00:00	5.60
1, 3-Butadiene	0.01	0.02	0.01	11/24/2019 17:00	0.16	11/22/2019 17:00	0.15
Trans-2-Pentene	0.07	0.06	0.06	11/28/2019 03:00	0.09	11/21/2019 15:00	0.08
1-Pentene	0.00	0.02	0.01	12/30/2019 16:00	3.89	12/17/2019 03:00	0.10
Cis-2-Pentene	0.02	0.04	0.03	11/26/2019 23:00	0.30	12/08/2019 06:00	0.29
2, 3- Dimethylbutane	0.15	0.13	0.14	12/08/2019 06:00	1.73	12/08/2019 00:00	1.67
3- Methyl-Pentane	0.07	0.01	0.03	11/26/2019 23:00	0.84	11/26/2019 22:00	0.63
n-Hexane	0.19	0.19	0.19	12/08/2019 00:00	2.85	12/08/2019 06:00	2.83
Isoprene	0.00	0.00	0.00	11/24/2019 11:00	0.15	11/21/2019 14:00	0.00
1-Hexene	0.00	0.00	0.00	11/26/2019 23:00	0.09	12/08/2019 00:00	0.09

Table 2-1 (Continued) Concentrations of Air Toxics in Parts Per Billion - Upwind Site

Parameter	Nov. Average (ppb)	Dec. Average (ppb)	Quarterly Average (ppb)	Quarterly Max Date	Quarterly Maximum (ppb)	Quarterly Second High Date	Quarterly Second High (ppb)
2, 4- Dimethylpentane	0.01	0.01	0.01	11/26/2019 23:00	0.59	11/26/2019 22:00	0.41
2, 3- Dimethylpentane	0.03	0.03	0.03	12/08/2019 06:00	0.74	12/08/2019 00:00	0.72
2, 2- Dimethylbutane	0.00	0.01	0.00	12/08/2019 06:00	0.12	12/08/2019 07:00	0.09
2-Methyl-Pentane	0.11	0.11	0.11	12/08/2019 06:00	1.50	11/26/2019 23:00	1.38
Methyl-Cyclopentane	0.03	0.03	0.03	11/29/2019 11:00	0.21	11/26/2019 23:00	0.15
Benzene	0.12	0.15	0.14	11/23/2019 10:00	1.82	11/23/2019 11:00	1.08
Tetrachloromethane	0.00	0.00	0.00	12/31/2019 11:00	0.28	11/26/2019 23:00	0.18
Cyclohexane	0.02	0.02	0.02	11/26/2019 23:00	0.35	12/08/2019 06:00	0.35
2-Methyl-Hexane	0.03	0.02	0.03	11/26/2019 23:00	0.69	12/08/2019 06:00	0.66
3-Methyl-Hexane	0.07	0.06	0.06	11/26/2019 23:00	0.86	12/08/2019 06:00	0.77
2,2,4- Trimethylpentane	0.01	0.01	0.01	11/25/2019 12:00	0.05	11/25/2019 13:00	0.05
n-Heptane	0.07	0.06	0.07	11/26/2019 23:00	1.75	12/08/2019 06:00	1.52
Methyl-Cyclohexane	0.03	0.03	0.03	11/26/2019 23:00	0.78	12/08/2019 06:00	0.68
2,3,4- Trimethylpentane	0.00	0.00	0.00	12/18/2019 06:00	0.11	12/18/2019 10:00	0.10
Toluene	0.11	0.10	0.10	11/23/2019 10:00	0.47	12/08/2019 06:00	0.39
2-Methyl-Heptane	0.01	0.00	0.01	11/26/2019 23:00	0.44	11/26/2019 22:00	0.29
3-Methyl-Heptane	0.01	0.02	0.02	11/26/2019 23:00	0.57	12/08/2019 06:00	0.35
n-Octane	0.03	0.02	0.02	11/26/2019 23:00	0.98	12/08/2019 06:00	0.64
Tetrachloroethene	0.00	0.01	0.01	12/08/2019 00:00	0.17	12/08/2019 06:00	0.15
Ethylbenzene	0.01	0.01	0.01	11/21/2019 14:00	0.25	11/26/2019 00:00	0.06
m/p-Xylenes	0.05	0.03	0.04	11/21/2019 14:00	1.11	11/26/2019 23:00	0.28
Styrene	0.10	0.04	0.06	11/21/2019 14:00	0.66	11/21/2019 21:00	0.19
o-Xylene	0.02	0.01	0.02	11/21/2019 14:00	2.73	11/25/2019 16:00	0.18

Table 2-1 (Continued) Concentrations of Air Toxics in Parts Per Billion - Upwind Site

Parameter	Nov. Average (ppb)	Dec. Average (ppb)	Quarterly Average (ppb)	Quarterly Max Date	Quarterly Maximum (ppb)	Quarterly Second High Date	Quarterly Second High (ppb)
n-Nonane	0.02	0.01	0.01	11/21/2019 14:00	1.36	11/26/2019 23:00	0.52
i-Propylbenzene	0.01	0.00	0.01	11/21/2019 14:00	2.78	11/26/2019 23:00	0.03
a-Pinene	0.03	0.01	0.02	11/21/2019 14:00	1.98	11/23/2019 03:00	0.09
n-Propylbenzene	0.00	0.01	0.01	11/21/2019 14:00	0.45	11/26/2019 03:00	0.07
m-Ethyltoluene	0.01	0.00	0.00	11/21/2019 14:00	0.19	12/08/2019 06:00	0.06
p-Ethyltoluene	0.00	0.00	0.00	11/21/2019 14:00	0.20	11/26/2019 23:00	0.11
1,3,5- Trimethylbenzene	0.04	0.02	0.03	11/21/2019 14:00	0.19	11/26/2019 23:00	0.15
o-Ethyltoluene	0.00	0.00	0.00	12/31/2019 13:00	0.06	12/19/2019 03:00	0.03
b-Pinene	0.11	0.05	0.07	11/26/2019 15:00	0.18	11/26/2019 16:00	0.18
1,2,4- Trimethylbenzene	0.01	0.00	0.01	11/26/2019 23:00	0.07	11/26/2019 22:00	0.05
n-Decane	0.02	0.01	0.01	11/26/2019 23:00	0.22	11/26/2019 22:00	0.15
1,2,3- Trimethylbenzene	0.00	0.00	0.00	11/28/2019 12:00	0.11	11/22/2019 10:00	0.07
m-Diethylbenzene	0.01	0.01	0.01	11/21/2019 21:00	0.12	11/22/2019 02:00	0.04
p-Diethylbenzene	0.01	0.00	0.01	11/22/2019 08:00	0.06	11/26/2019 23:00	0.04
n-Undecane	0.01	0.00	0.00	11/26/2019 23:00	0.12	11/26/2019 21:00	0.11
n-Dodecane	0.01	0.01	0.01	11/26/2019 21:00	0.08	11/26/2019 23:00	0.07
Total Hydrocarbons	29.41	21.93	24.84	11/26/2019 18:00	387.06	12/08/2019 07:00	263.80

2.2 Downwind Stations #1 and #2 Air Toxics Data

The monthly averages and maximum hourly concentrations of the air toxic compounds being measured at the Downwind stations #1 and #2 are presented in Tables 2-2 and 2-3, and in Appendix B.

Table 2-2 Concentrations of Air Toxics in Parts Per Billion - Downwind #1 Station

Parameter	Nov. Average (ppb)	Dec. Average (ppb)	Quarterly Average (ppb)	Quarterly Max Date	Quarterly Maximum (ppb)	Quarterly Second High Date	Quarterly Second High (ppb)
Ethane	6.48	16.08	14.64	12/16/2019 00:00	169.87	12/13/2019 01:00	160.64
Ethylene	0.62	0.94	0.89	12/24/2019 09:00	2.97	12/25/2019 10:00	2.84
Propane	2.13	2.48	2.43	12/13/2019 01:00	84.14	12/12/2019 19:00	53.38
Propene	0.64	0.65	0.65	12/24/2019 18:00	1.61	12/24/2019 13:00	1.48
i-Butane	0.33	0.81	0.74	12/16/2019 00:00	11.67	12/13/2019 01:00	9.34
n-Butane	0.77	2.00	1.81	12/16/2019 00:00	31.32	12/13/2019 01:00	25.63
Acetylene	1.64	1.10	1.18	12/30/2019 18:00	4.17	12/31/2019 21:00	3.65
Trans-2-Butene	0.04	0.06	0.06	12/24/2019 18:00	0.20	12/24/2019 13:00	0.15
1-Butene	0.01	0.02	0.02	12/13/2019 23:00	0.10	12/14/2019 00:00	0.08
Cis-2-Butene	0.00	0.00	0.00	12/12/2019 00:00	0.10	12/12/2019 02:00	0.10
Cyclopentane	0.01	0.05	0.04	12/24/2019 13:00	1.75	12/24/2019 18:00	1.01
i-Pentane	0.28	0.57	0.53	12/16/2019 00:00	5.06	12/13/2019 01:00	4.73
n-Pentane	0.31	0.65	0.60	12/16/2019 00:00	6.74	12/13/2019 01:00	6.54
1, 3-Butadiene	0.01	0.02	0.02	12/02/2019 23:00	0.37	12/11/2019 14:00	0.36
Trans-2-Pentene	0.00	0.06	0.05	12/24/2019 18:00	0.17	12/24/2019 13:00	0.13
1-Pentene	0.03	0.00	0.01	11/28/2019 11:00	2.11	12/02/2019 22:00	0.32
Cis-2-Pentene	0.00	0.00	0.00	12/07/2019 07:00	0.11	12/13/2019 19:00	0.10
2, 3- Dimethylbutane	0.03	0.10	0.09	12/12/2019 05:00	1.48	12/13/2019 01:00	1.22
3- Methyl-Pentane	0.01	0.03	0.02	12/12/2019 05:00	0.87	12/13/2019 01:00	0.69
n-Hexane	0.08	0.19	0.18	12/12/2019 05:00	2.79	12/13/2019 01:00	2.04
Isoprene	0.00	0.00	0.00	11/27/2019 16:00	0.00	11/27/2019 17:00	0.00
1-Hexene	0.01	0.02	0.02	12/07/2019 12:00	0.58	12/03/2019 03:00	0.54

Table 2-2 (Continued) Concentrations of Air Toxics in Parts Per Billion - Downwind #1 Station

Parameter	Nov. Average (ppb)	Dec. Average (ppb)	Quarterly Average (ppb)	Quarterly Max Date	Quarterly Maximum (ppb)	Quarterly Second High Date	Quarterly Second High (ppb)
2, 4- Dimethylpentane	0.00	0.02	0.02	12/15/2019 23:00	0.21	12/25/2019 10:00	0.20
2, 3- Dimethylpentane	0.11	0.11	0.11	12/30/2019 16:00	3.86	12/12/2019 06:00	0.39
2, 2- Dimethylbutane	0.27	0.01	0.05	11/27/2019 18:00	4.57	11/28/2019 03:00	2.82
2-Methyl-Pentane	1.00	0.13	0.26	11/27/2019 19:00	15.98	11/27/2019 17:00	14.19
Methyl-Cyclopentane	0.54	0.04	0.11	11/27/2019 17:00	19.92	11/27/2019 18:00	3.65
Benzene	0.56	0.16	0.22	11/27/2019 18:00	11.23	11/27/2019 22:00	4.70
Tetrachloromethane	1.74	0.00	0.26	11/27/2019 18:00	31.73	11/27/2019 17:00	22.04
Cyclohexane	0.30	0.02	0.06	11/27/2019 18:00	7.26	11/28/2019 04:00	2.65
2-Methyl-Hexane	0.24	0.04	0.07	11/27/2019 16:00	4.94	11/27/2019 20:00	3.30
3-Methyl-Hexane	0.59	0.06	0.14	11/27/2019 16:00	21.74	11/27/2019 20:00	6.53
2,2,4- Trimethylpentane	0.17	0.01	0.04	11/27/2019 23:00	7.67	11/28/2019 18:00	1.46
n-Heptane	0.13	0.09	0.09	11/28/2019 00:00	2.19	12/12/2019 05:00	2.13
Methyl-Cyclohexane	0.05	0.04	0.04	11/28/2019 05:00	1.56	11/27/2019 19:00	0.84
2,3,4- Trimethylpentane	0.02	0.00	0.00	11/27/2019 22:00	0.57	11/27/2019 19:00	0.27
Toluene	0.11	0.14	0.14	12/01/2019 07:00	10.86	11/28/2019 12:00	0.85
2-Methyl-Heptane	0.11	0.01	0.03	11/27/2019 20:00	4.09	11/27/2019 18:00	2.00
3-Methyl-Heptane	0.06	0.08	0.08	12/01/2019 07:00	28.32	11/27/2019 20:00	2.38
n-Octane	0.02	0.03	0.03	12/12/2019 05:00	0.87	12/13/2019 03:00	0.55
Tetrachloroethene	0.17	0.03	0.05	12/01/2019 00:00	1.96	12/02/2019 09:00	1.86
Ethylbenzene	0.03	0.05	0.05	12/01/2019 07:00	18.35	11/28/2019 14:00	1.14
m/p-Xylenes	0.05	0.13	0.11	12/01/2019 07:00	36.01	11/28/2019 16:00	0.50
Styrene	0.11	0.15	0.15	12/01/2019 07:00	54.62	11/27/2019 22:00	0.61
o-Xylene	0.03	0.01	0.01	11/27/2019 18:00	0.69	11/28/2019 05:00	0.47

Table 2-2 (Continued) Concentrations of Air Toxics in Parts Per Billion - Downwind #1 Station

Parameter	Nov. Average (ppb)	Dec. Average (ppb)	Quarterly Average (ppb)	Quarterly Max Date	Quarterly Maximum (ppb)	Quarterly Second High Date	Quarterly Second High (ppb)
n-Nonane	0.09	0.02	0.03	11/27/2019 22:00	4.09	12/14/2019 08:00	3.93
i-Propylbenzene	0.03	0.00	0.01	11/27/2019 20:00	1.25	11/28/2019 21:00	0.56
a-Pinene	0.04	0.02	0.02	12/01/2019 07:00	3.22	11/27/2019 20:00	0.99
n-Propylbenzene	0.01	0.01	0.01	12/01/2019 07:00	2.52	11/28/2019 07:00	0.18
m-Ethyltoluene	0.01	0.01	0.01	12/01/2019 07:00	1.43	11/28/2019 07:00	0.14
p-Ethyltoluene	0.01	0.00	0.00	11/28/2019 07:00	0.10	11/27/2019 18:00	0.09
1,3,5- Trimethylbenzene	0.03	0.01	0.01	12/01/2019 07:00	2.04	11/28/2019 07:00	0.49
o-Ethyltoluene	0.04	0.01	0.02	12/01/2019 07:00	1.77	11/28/2019 07:00	0.82
b-Pinene	0.12	0.05	0.06	12/01/2019 07:00	1.29	11/28/2019 07:00	0.65
1,2,4- Trimethylbenzene	0.02	0.01	0.02	12/01/2019 07:00	1.10	11/27/2019 19:00	0.42
n-Decane	0.06	0.02	0.02	12/01/2019 07:00	2.36	11/27/2019 19:00	0.86
1,2,3- Trimethylbenzene	0.01	0.01	0.01	12/01/2019 07:00	1.06	11/28/2019 03:00	0.50
m-Diethylbenzene	0.00	0.00	0.00	12/01/2019 07:00	0.37	11/28/2019 14:00	0.14
p-Diethylbenzene	0.01	0.00	0.01	12/01/2019 07:00	0.48	11/28/2019 14:00	0.10
n-Undecane	0.02	0.01	0.01	11/28/2019 06:00	1.37	12/11/2019 11:00	0.71
n-Dodecane	0.02	0.02	0.02	11/29/2019 06:00	0.26	11/28/2019 13:00	0.24
Total Hydrocarbons	20.34	27.43	26.37	12/13/2019 01:00	308.32	12/16/2019 00:00	244.20

Table 2-3 Concentrations of Air Toxics in Parts Per Billion - Downwind #2 Station

Parameter	Nov. Average (ppb)	Dec. Average (ppb)	Quarterly Average (ppb)	Quarterly Max Date	Quarterly Maximum (ppb)	Quarterly Second High Date	Quarterly Second High (ppb)
Ethane	8.27	12.18	11.15	12/13/2019 21:00	189.25	12/24/2019 09:00	58.46
Ethylene	0.48	0.67	0.62	12/21/2019 10:00	3.02	12/25/2019 11:00	2.62
Propane	3.52	5.60	5.05	12/13/2019 21:00	123.55	12/29/2019 19:00	49.11
Propene	1.95	1.74	1.80	12/13/2019 21:00	2.68	12/04/2019 06:00	2.47
i-Butane	0.48	0.74	0.67	12/13/2019 21:00	14.28	12/29/2019 19:00	9.00
n-Butane	1.18	1.85	1.67	12/13/2019 21:00	48.83	12/22/2019 22:00	10.45
Acetylene	0.74	0.74	0.74	12/23/2019 22:00	2.56	12/21/2019 10:00	2.17
Trans-2-Butene	0.06	0.08	0.07	12/19/2019 04:00	0.49	12/11/2019 07:00	0.12
1-Butene	0.03	0.02	0.02	12/04/2019 21:00	0.17	12/04/2019 13:00	0.07
Cis-2-Butene	0.00	0.01	0.01	12/29/2019 19:00	0.16	12/15/2019 07:00	0.13
Cyclopentane	0.00	0.16	0.12	12/29/2019 19:00	8.73	12/26/2019 07:00	1.91
i-Pentane	0.45	0.47	0.46	12/13/2019 21:00	14.38	12/22/2019 22:00	2.56
n-Pentane	0.64	0.62	0.62	12/13/2019 21:00	20.92	12/08/2019 15:00	4.15
1, 3-Butadiene	0.02	0.02	0.02	12/14/2019 09:00	0.51	12/01/2019 00:00	0.30
Trans-2-Pentene	0.00	0.04	0.03	12/09/2019 20:00	0.12	12/09/2019 21:00	0.12
1-Pentene	0.01	0.00	0.00	11/29/2019 03:00	0.55	12/21/2019 19:00	0.38
Cis-2-Pentene	0.00	0.00	0.00	11/21/2019 09:00	0.21	11/27/2019 15:00	0.15
2, 3- Dimethylbutane	0.05	0.09	0.08	12/13/2019 21:00	2.51	12/29/2019 19:00	1.22
3- Methyl-Pentane	0.03	0.01	0.01	11/26/2019 16:00	0.53	12/19/2019 19:00	0.33
n-Hexane	0.13	0.17	0.16	12/13/2019 21:00	7.15	12/08/2019 15:00	2.29
Isoprene	0.00	0.00	0.00	12/25/2019 07:00	0.81	11/19/2019 21:00	0.59
1-Hexene	0.01	0.01	0.01	12/07/2019 12:00	0.77	12/18/2019 22:00	0.60

Table 2-3 (Continued) Concentrations of Air Toxics in Parts Per Billion - Downwind #2 Station

Parameter	Nov. Average (ppb)	Dec. Average (ppb)	Quarterly Average (ppb)	Quarterly Max Date	Quarterly Maximum (ppb)	Quarterly Second High Date	Quarterly Second High (ppb)
2, 4- Dimethylpentane	0.01	0.03	0.02	12/13/2019 21:00	0.68	12/09/2019 04:00	0.42
2, 3- Dimethylpentane	0.01	0.02	0.02	12/29/2019 19:00	1.49	12/19/2019 19:00	0.36
2, 2- Dimethylbutane	0.00	0.00	0.00	12/13/2019 21:00	0.36	12/29/2019 19:00	0.20
2-Methyl-Pentane	0.08	0.14	0.13	12/13/2019 21:00	4.60	12/29/2019 19:00	2.76
Methyl-Cyclopentane	0.02	0.01	0.01	12/13/2019 21:00	0.58	12/29/2019 19:00	0.30
Benzene	0.11	0.17	0.15	11/23/2019 10:00	0.77	12/21/2019 10:00	0.65
Tetrachloromethane	0.00	0.00	0.00	12/13/2019 21:00	0.54	11/19/2019 16:00	0.00
Cyclohexane	0.01	0.02	0.02	12/13/2019 21:00	0.73	12/29/2019 19:00	0.37
2-Methyl-Hexane	0.01	0.03	0.02	12/13/2019 21:00	1.04	12/07/2019 03:00	0.62
3-Methyl-Hexane	0.07	0.06	0.06	12/13/2019 21:00	1.15	12/04/2019 14:00	0.80
2,2,4- Trimethylpentane	0.00	0.01	0.01	12/13/2019 21:00	0.13	12/28/2019 15:00	0.12
n-Heptane	0.04	0.08	0.07	12/13/2019 21:00	1.72	12/07/2019 03:00	1.53
Methyl-Cyclohexane	0.02	0.04	0.04	12/13/2019 21:00	0.88	12/07/2019 03:00	0.66
2,3,4- Trimethylpentane	0.00	0.00	0.00	12/27/2019 20:00	0.06	12/31/2019 16:00	0.05
Toluene	0.12	0.14	0.13	12/13/2019 21:00	0.61	12/24/2019 13:00	0.54
2-Methyl-Heptane	0.00	0.01	0.01	11/26/2019 16:00	0.33	12/07/2019 03:00	0.33
3-Methyl-Heptane	0.00	0.01	0.01	12/07/2019 03:00	0.42	11/26/2019 16:00	0.41
n-Octane	0.01	0.02	0.02	11/26/2019 16:00	0.73	12/07/2019 03:00	0.73
Tetrachloroethene	0.03	0.02	0.02	11/25/2019 19:00	0.93	12/03/2019 15:00	0.91
Ethylbenzene	0.00	0.00	0.00	12/13/2019 20:00	0.07	12/24/2019 12:00	0.07
m/p-Xylenes	0.03	0.03	0.03	12/13/2019 20:00	0.26	12/13/2019 21:00	0.26
Styrene	0.18	0.04	0.08	11/21/2019 21:00	0.33	11/21/2019 20:00	0.32
o-Xylene	0.00	0.00	0.00	11/22/2019 04:00	0.32	11/22/2019 06:00	0.31

Table 2-3 (Continued) Concentrations of Air Toxics in Parts Per Billion - Downwind #2 Station

Parameter	Nov. Average (ppb)	Dec. Average (ppb)	Quarterly Average (ppb)	Quarterly Max Date	Quarterly Maximum (ppb)	Quarterly Second High Date	Quarterly Second High (ppb)
n-Nonane	0.00	0.01	0.00	11/26/2019 16:00	0.30	12/07/2019 03:00	0.27
i-Propylbenzene	0.00	0.00	0.00	12/30/2019 23:00	0.07	11/20/2019 04:00	0.06
a-Pinene	0.02	0.01	0.01	11/19/2019 21:00	0.20	11/19/2019 23:00	0.19
n-Propylbenzene	0.00	0.00	0.00	11/20/2019 04:00	0.07	11/20/2019 14:00	0.06
m-Ethyltoluene	0.00	0.00	0.00	11/20/2019 14:00	0.06	12/07/2019 03:00	0.06
p-Ethyltoluene	0.00	0.00	0.00	11/26/2019 16:00	0.10	11/20/2019 04:00	0.09
1,3,5- Trimethylbenzene	0.02	0.00	0.01	11/25/2019 15:00	0.10	11/25/2019 16:00	0.10
o-Ethyltoluene	0.00	0.00	0.00	11/20/2019 04:00	0.07	11/26/2019 16:00	0.05
b-Pinene	0.13	0.05	0.07	11/22/2019 05:00	0.25	11/22/2019 02:00	0.24
1,2,4- Trimethylbenzene	0.03	0.00	0.01	11/22/2019 04:00	0.32	11/22/2019 06:00	0.32
n-Decane	0.01	0.00	0.00	11/19/2019 16:00	0.13	11/26/2019 16:00	0.12
1,2,3- Trimethylbenzene	0.01	0.00	0.00	11/19/2019 16:00	0.09	11/20/2019 04:00	0.08
m-Diethylbenzene	0.00	0.00	0.00	12/07/2019 22:00	0.11	11/20/2019 04:00	0.09
p-Diethylbenzene	0.01	0.00	0.00	11/20/2019 04:00	0.18	11/20/2019 06:00	0.11
n-Undecane	0.01	0.00	0.00	12/11/2019 14:00	0.25	12/10/2019 22:00	0.15
n-Dodecane	0.01	0.00	0.01	11/23/2019 10:00	0.26	11/20/2019 04:00	0.18
Total Hydrocarbons	19.08	26.17	24.31	12/13/2019 21:00	442.62	12/24/2019 09:00	113.10

2.3 Meteorological Data

Meteorological data records from the Upwind meteorological monitoring site include wind speed and wind direction at 10-meters, wind gust, temperature and relative humidity at two-meters, and barometric pressure.

2.3.1 Wind Speed and Horizontal Wind Direction

The most frequent (and predominant) winds during November and December were from the west-southwest sector. The second most frequent sector was the southwest. Reported wind directions represent the directions from which the wind is blowing. Wind speed records show there were 3.2 percent calm winds during November and December 2019. The percentage of wind speeds that were not calm but were less than or equal to 10.8 meters per second (mps) or 24.2 miles per hour (mph) was 95.9 percent for November and December. There were 0.8 percent of wind records showing greater than 10.8 mps during November and December. The sectors with the highest average wind speed was west-southwest and west at 5.2 mps. The maximum wind gust during November and December was 28.5 mps (63.8 mph) which occurred on November 27 at 16:00.

Figures 2.1 and 2.2 provide diagrams of the joint frequency of occurrence distributions (wind rose) of the vector wind speed and wind direction by month for November and December 2019. Figure 2.3 presents the combined wind rose for November and December 2019. Summary tables of hourly average wind direction and wind speed by month for the November and December are presented in Appendix C.

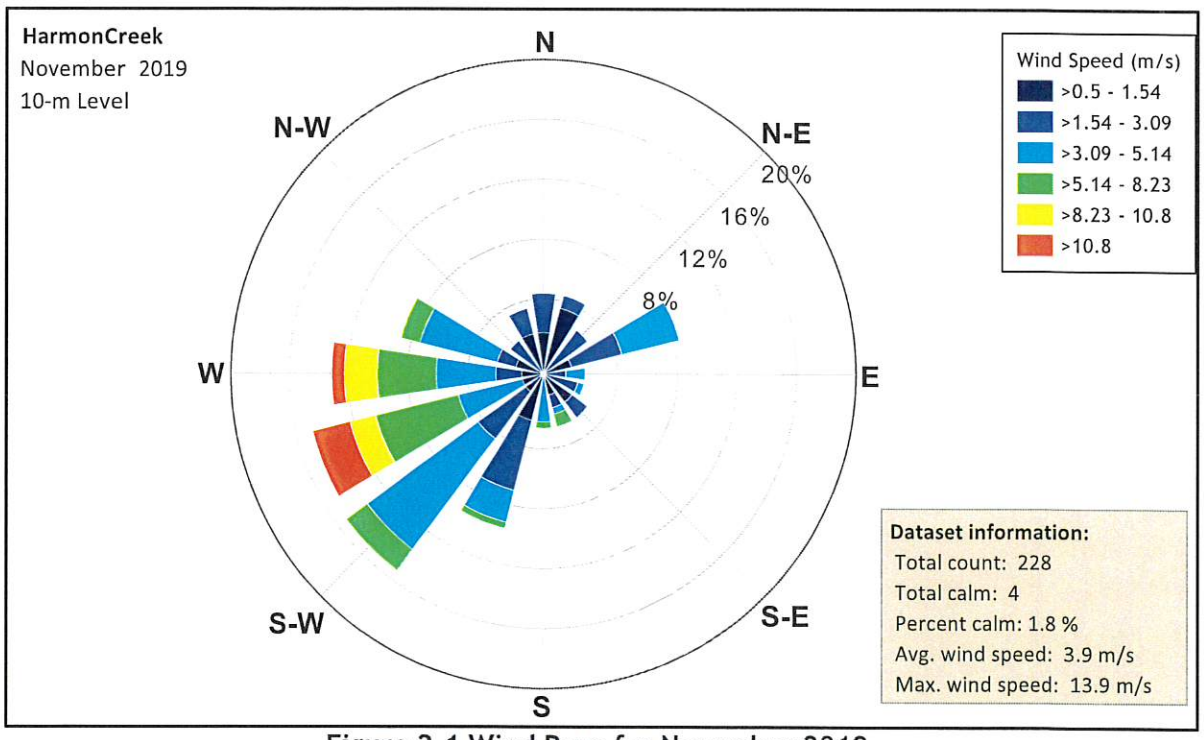


Figure 2.1 Wind Rose for November 2019

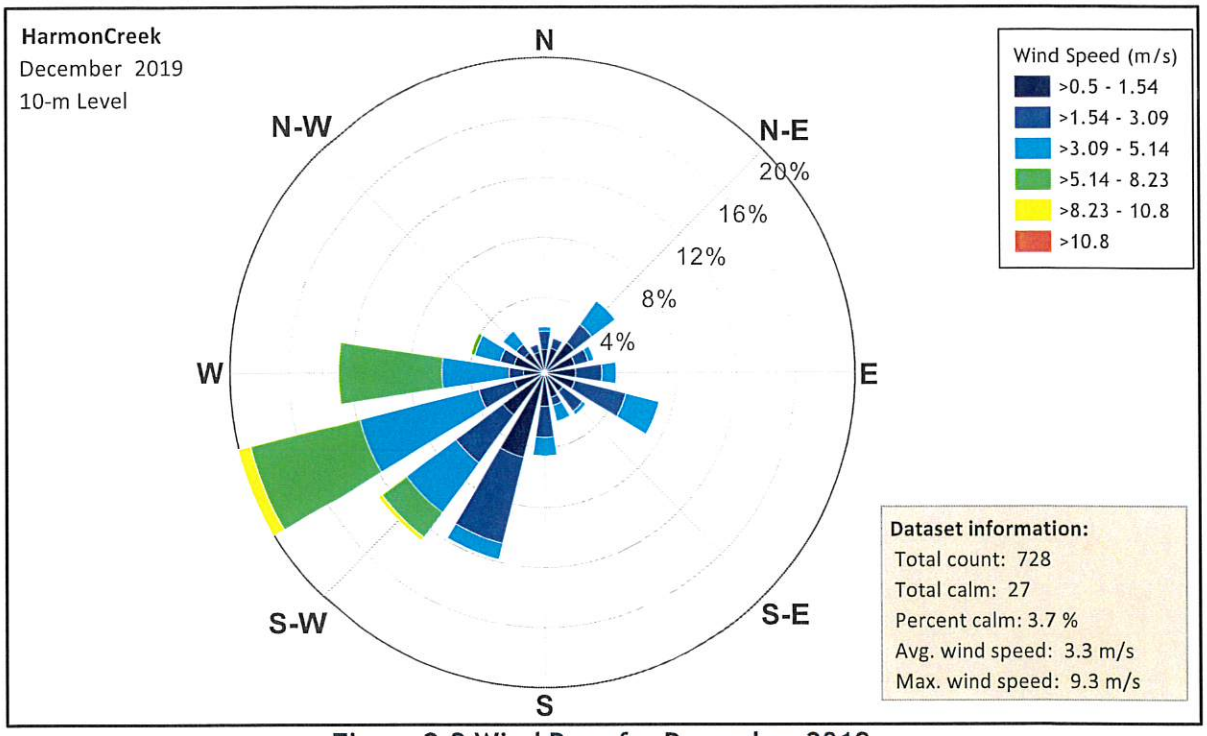


Figure 2.2 Wind Rose for December 2019

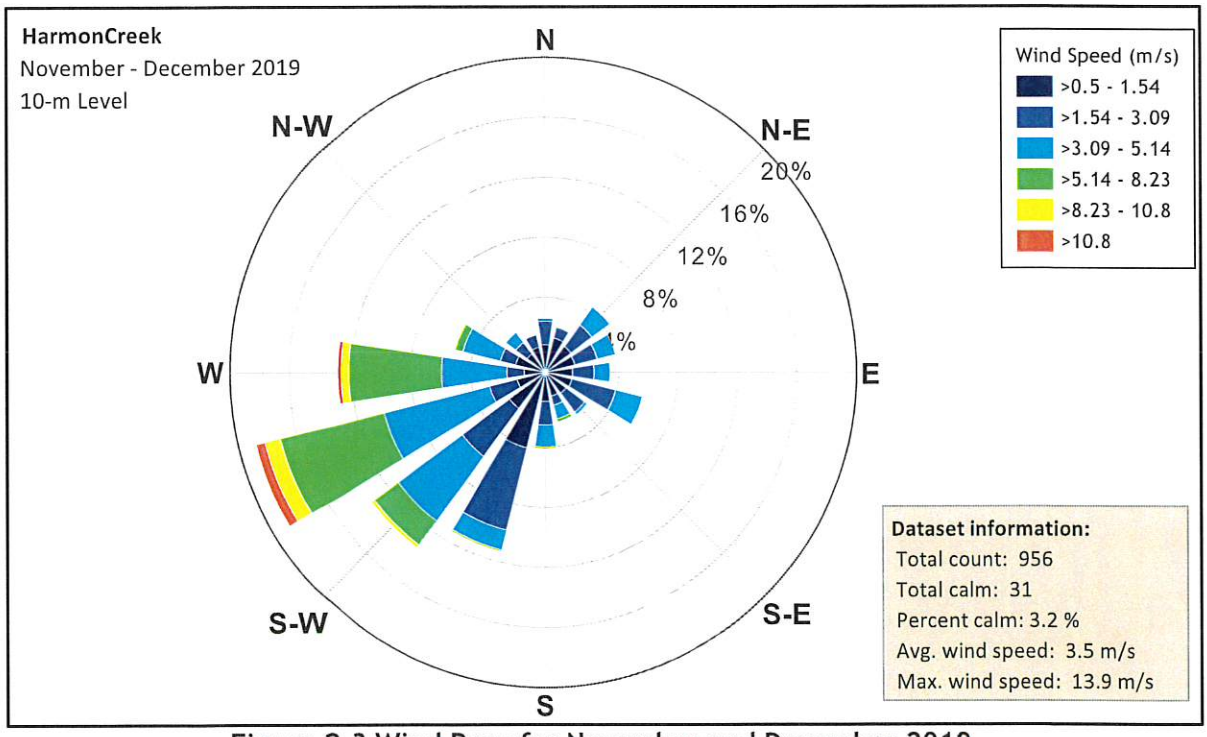


Figure 2.3 Wind Rose for November and December 2019

2.3.2 Temperature

The monthly maximum and minimum daily mean and hourly temperatures for November and December 2019 are summarized in Table 2-3. November and December data are presented in Appendix D.

Table 2-3 Summary of Temperature in Degrees Centigrade (°C) for November and December 2019

Month	Monthly Mean	Maximum Daily Mean	Minimum Daily Mean	Maximum Hour	Minimum Hour
November	4.8	10.2	0.3	15.7	-5.6
December	2.1	12.4	-7.8	16.9	-13.7

2.3.3 Relative Humidity

Table 2-4 presents the monthly means, maximum, and minimum relative humidity information for November and December 2019. Relative humidity data are presented in Appendix E.

Table 2-4 Relative Humidity Data in Percent for November and December 2019

Month	Monthly Mean	Maximum Daily Mean	Minimum Daily Mean	Maximum Hour	Minimum Hour
November	72	86	55	99	44
December	78	97	61	100	36

2.3.4 Barometric Pressure

Barometric pressure data for November and December are presented in Table 2-5 and in Appendix F.

Table 2-5 Barometric Pressure Data in Millibars (mb) for November and December 2019

Month	Monthly Mean	Maximum Daily Mean	Minimum Daily Mean	Maximum Hour	Minimum Hour
November	972	984	963	988	958
December	976	991	958	994	954

2.4 Data Recovery

Data recoveries in percent possible for November and December for the air toxic monitoring stations are provided in Table 2-6. Meteorological measurement data recovery for November and December is presented in Table 2-7

Table 2-6 Data Recovery for Air Toxics and TRS Data for November and December 2019

Month	Air Toxics		
	Upwind (%)	Downwind #1 (%)	Downwind#2 (%)
November[1]	30.0	10.8	34.9
December	45.6	59.5	94.9

[1] Data Collection began on November 21 at the Upwind Station, November 27 at Downwind #1, and November 19 at Downwind #2.

Table 2-7 Meteorological Data Recovery for November and December 2019

Month	Wind Speed (%)	Wind Direction (%)	Temp. (%)	Relative Humidity (%)	Barometric Pressure (%)
November[1]	31.7	31.7	31.7	31.7	31.7
December	97.8	100	100	100	100

[1] Data Collection began on November 21, 2019

3.0 QUALITY CONTROL

Air toxics and meteorological data collected at the Harmon Creek monitoring sites have been subjected to a series of quality control procedures to document the validity of the data and increase the integrity of the data sets. The quality control performed for these data is described in this section.

3.1 Visual Inspection of Equipment

Visual inspection of the CAS-GC's, meteorological tower and sensors is performed monthly by the site technician who alerts Trinity when abnormal conditions are observed. Corrective action is determined based on the problem.

3.2 Remote Interrogation of the Monitoring Station

The data logger at the monitoring sites are interrogated daily to download the data. Abnormal data values or apparent problems are reported immediately to the program manager who initiates corrective action and determines if a special visit to the site is required.

3.3 Quality Control Data Inspections

Data review is conducted daily utilizing electronic and visual scanning to identify outliers and determine whether data are reasonable and representative. Data review includes evaluation of the raw data, daily internal calibration information, flow data, maintenance records, calibration and audit data. Any abnormalities in the data are flagged and noted.

Once data are downloaded via modem, they are subjected to a series of quality control checks by a software package. The software package performs extensive quality control checks of the data, generates a data summary report which lists means, maximums, minimums, time of occurrence, data values which fall outside of prescribed ranges, periods of constant values, and periods of rapid value changes. This software uses selected data flagging criteria. Example criteria that will cause a data flag in the air toxics and meteorological data include:

- Time increments greater than one hour (Air Toxics) between data records;
- Difference between upwind and downwind concentrations greater than 200 ppb;
- Air toxic concentrations less than 0 ppb;
- Operating temperature <15°C;
- Operating temperature >30°C;
- Wind speed >25 m/s for a 5-minute average;
- Temperature change exceeds 4°C in a 5-minute period;
- Time increments greater than 5 minutes between data records;
- Ambient temperature exceeds 35°C;
- Ambient temperature falls below -30°C;
- Wind direction unchanged for 1 or more hours;
- Horizontal wind speed unchanged for 1 or more hours;
- Temperature unchanged for 1 or more hours;
- Battery voltage <11 volts;
- Change in pressure more than 1 mb in 5 minutes;
- Pressure is <795 and >795 mb; and,
- Relative humidity <5% and >100%.

To aid in data review and validation, a password-protected project website is hosted which contains 24-hour air toxic, TRS, and meteorological chart graphics, daily minimum, maximums, and averages, quality assurance reports and wind roses. Historical data can also be reviewed at this website. An example of the website's graphics is presented in Figure 3.1.

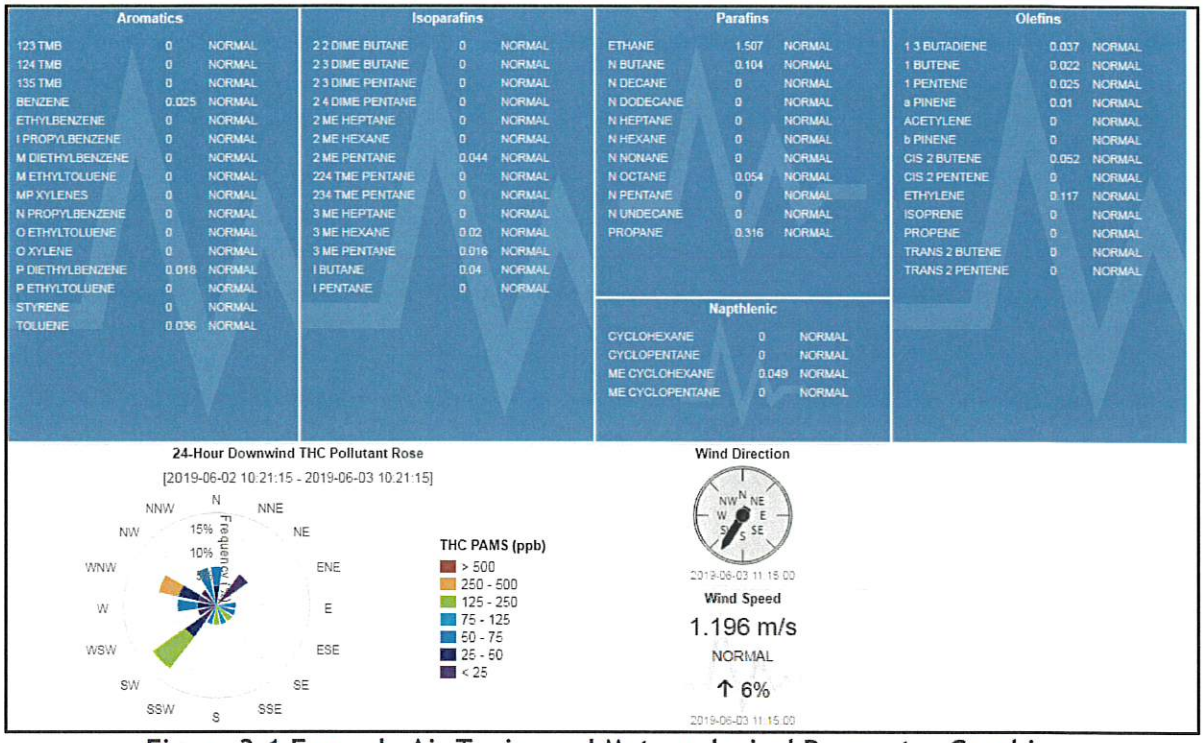


Figure 3.1 Example Air Toxics and Meteorological Parameter Graphic

3.4 Data Validation

When the QC program identifies values that exceed the criteria set for that parameter, the data file is inspected visually. In most cases, a flagged value is not invalid; it merely fell outside of expected ranges or "normal" rates of change for that parameter. If, after investigation, an air quality meteorologist determines that the value is reasonable, the value is not invalidated. If there is a reason to suspect the data point, the value is reset to "missing." (This is done on the data management file only, not on the raw data file collected from the data logger; the raw data file is never manipulated.)

Invalid data parameters for November and December 2019 and corresponding times are presented in Appendix G.

3.5 Equipment Calibration

The air toxic monitoring equipment performs daily internal analyzer self-calibrations; the meteorological sensor calibrations are performed at installation and every six months or when audits indicate the need or when problems are identified. The meteorological sensors were calibrated on November 21, 2019. Copies of the equipment calibrations are presented in Appendix H.

3.6 Statistics for Assessment of Quality Control Checks

Quality checks start with a comparison of a known value or calibration concentration to the concentration/value measured by the analyzer and use percent difference as the comparison statistic. The percent difference is calculated using the following formula:

The percent difference, using equation 1 below, where Y_i = concentration indicated by the analyzer and X_i = the known concentration was calculated as follows:

$$d_i = \frac{Y_i - X_i}{(X_i)} x100$$

The precision and bias estimates, for C_2-C_6 compounds of Butane, Hexane, Benzene, and for C_6-C_{12} compounds of Hexane, Benzene, and Decane are based on the daily calibration checks. The precision estimator is the coefficient of variation upper bound and is calculated using the following equation:

$$\text{CV} = \sqrt{\frac{n\sum_{i=1}^{n} d_i^2 - \left(\sum_{i=1}^{n} d_i\right)^2}{n(n-1)}} \text{ x } \sqrt{\frac{n-1}{x^2{}_{0.1,n-1}}}$$

Where: $x^2{}_{0.1\,n-1}$ is the 10th percentile of a chi-squared distribution with n-1 degrees of freedom.

The bias estimate equation is calculated using the following equation:

$$|AB| = AB + t_{0.95,n-1}\frac{AS}{\sqrt{n}}$$

Where: n is the number of single point checks being aggregated; $t_{0.95,\,n-1}$ is the 95th quantile of a t-distribution with n-1 degrees of freedom.

The quantity AB is the mean of the absolute values of the d i's and is calculated using the following equation:

$$\text{AB} = \frac{1}{n}\sum_{i=1}^{n}|d_i|$$

The standard deviation of the absolute value of the d i's is calculated using the following equation:

$$\text{AS} = \sqrt{\frac{n\sum_{i=1}^{n}|d_i^2| - \left(\sum_{i=1}^{n}|d_i|\right)^2}{n(n-1)}}$$

The upper- and lower-95 percent probability limits are calculated using the following equations:

Upper 95 Percent Probability Limit = m + 1.96 S
Lower 95 Percent Probability Limit = m - 1.96 S

Where: *m* is the mean or average calculated from the total number of daily calibration checks for the interval being evaluated.

The mean percent difference, precision and bias estimates limits for C_2-C_6 and for C_6-C_{12} from the upwind and downwind stations for November and December 2019 are presented in Tables 3-1 and 3-2.

Table 3-1 November and December 2019 Precision and Bias Statistics - Upwind Station

Statistics	Calibration Check				
	C_2-C_6		C_6-C_{12}		
	n-Butane	n-Hexane	n-Hexane	Benzene	n-Decane
	Upwind				
Mean Percent Difference	12.19	8.39	8.61	1.21	8.10
Standard Deviation	2.73	2.27	2.17	1.08	6.88
Upper 95% Probability	17.54	12.84	12.87	3.33	21.58
Lower 95% Probability	6.83	3.93	4.36	-0.92	-5.39
CV	3.44	2.86	2.73	1.37	8.67
AB	12.19	8.39	8.61	1.36	8.54
AS	2.73	2.27	2.17	0.87	6.30
Bias Estimate	13.19	9.22	9.41	1.68	10.85

Table 3-2 November and December 2019 Precision and Bias Statistics - Downwind #1 Station

Statistics	Calibration Check				
	C_2-C_6		C_6-C_{12}		
	n-Butane	n-Hexane	n-Hexane	Benzene	n-Decane
	Downwind #1				
Mean Percent Difference	-1.47	-6.43	3.76	-7.35	3.79
Standard Deviation	2.69	4.99	1.48	1.24	8.48
Upper 95% Probability	3.80	3.34	6.65	-4.92	20.41
Lower 95% Probability	-6.74	-16.20	0.86	-9.79	-12.84
CV	3.43	6.37	1.89	1.58	10.83
AB	2.37	7.37	3.76	7.35	8.36
AS	1.90	3.35	1.48	1.24	3.67
Bias Estimate	3.10	8.67	4.33	7.83	9.78

Table 3-3 November and December 2019 Precision and Bias Statistics - Downwind #2 Station

Statistics	Calibration Check				
	C_2-C_6		C_6-C_{12}		
	n-Butane	n-Hexane	n-Hexane	Benzene	n-Decane
	Downwind #2				
Mean Percent Difference	-2.18	-7.76	1.29	-2.99	11.35
Standard Deviation	2.41	3.03	2.26	2.25	3.57
Upper 95% Probability	2.55	-1.83	5.72	1.43	18.35
Lower 95% Probability	-6.90	-13.69	-3.14	-7.41	4.36
CV	2.84	3.57	2.67	2.66	4.21
AB	2.62	7.76	2.13	3.12	11.35
AS	1.90	3.03	1.47	2.07	3.57
Bias Estimate	3.13	8.57	2.53	3.68	12.32

3.7 Summary of Facility Activities

During the fourth quarter, the following issues were noted that led to air toxic data loss.

Upwind Site – December 10 through December 16 and December 20 through December 30

Water sensor failure on GC required that the hydrogen generator power to be cycled. Onsite technician performed FID ignition.

Downwind Site – December 17 through December 23 and December 25 through December 30

Water sensor failure on GC required that the hydrogen generator power to be cycled. Onsite technician performed FID ignition.

4.0 QUALITY ASSURANCE AUDITS

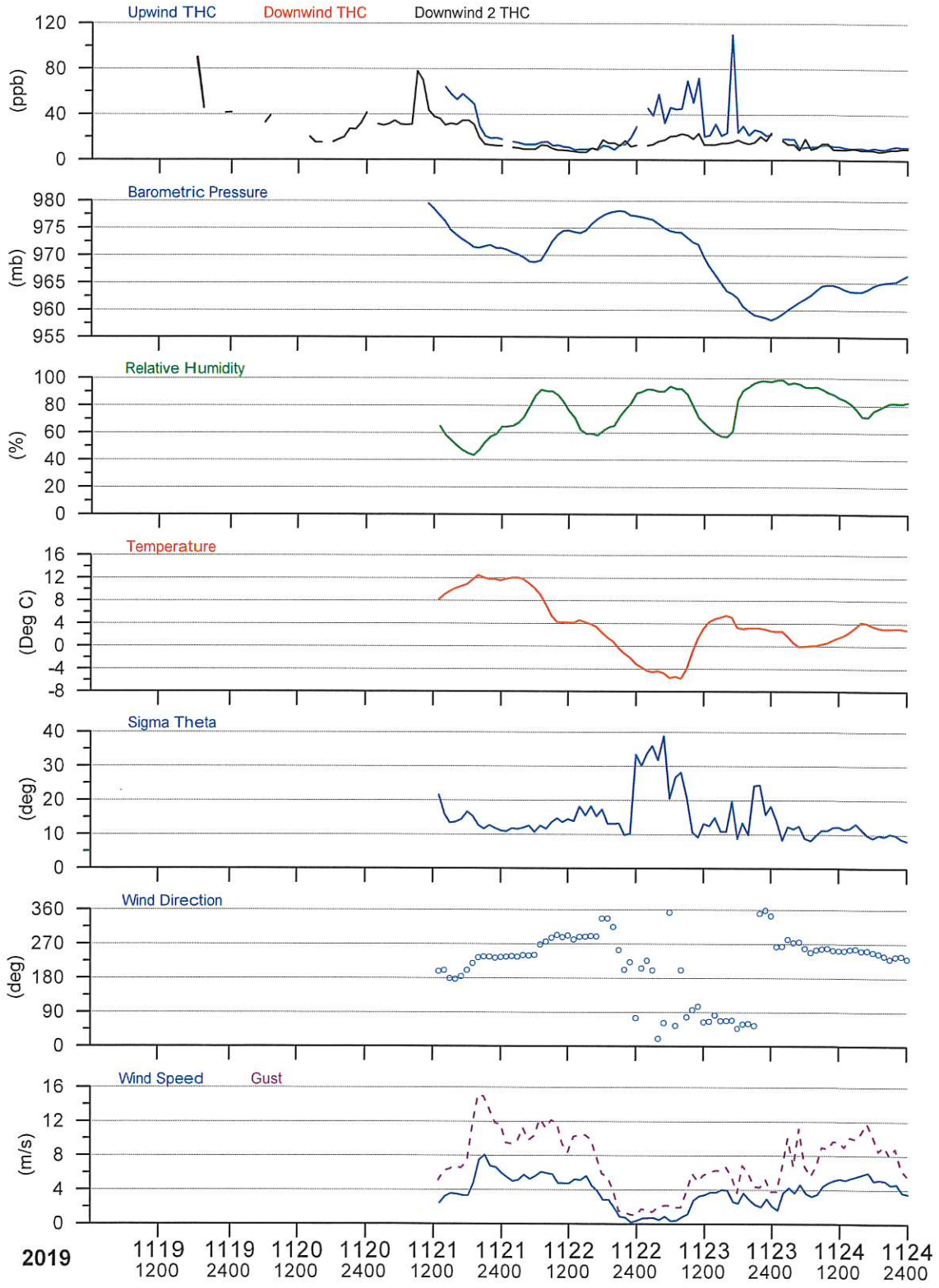
In order to comply with EPA requirements, the monitoring network is required to undergo a performance audit each year. Audit reference standards are independent of those used for calibration checks.

A performance audit of the meteorological equipment is being scheduled with the independent auditor. Detailed descriptions of audit procedures, reference equipment, certifications, and results will be included in a separate report.

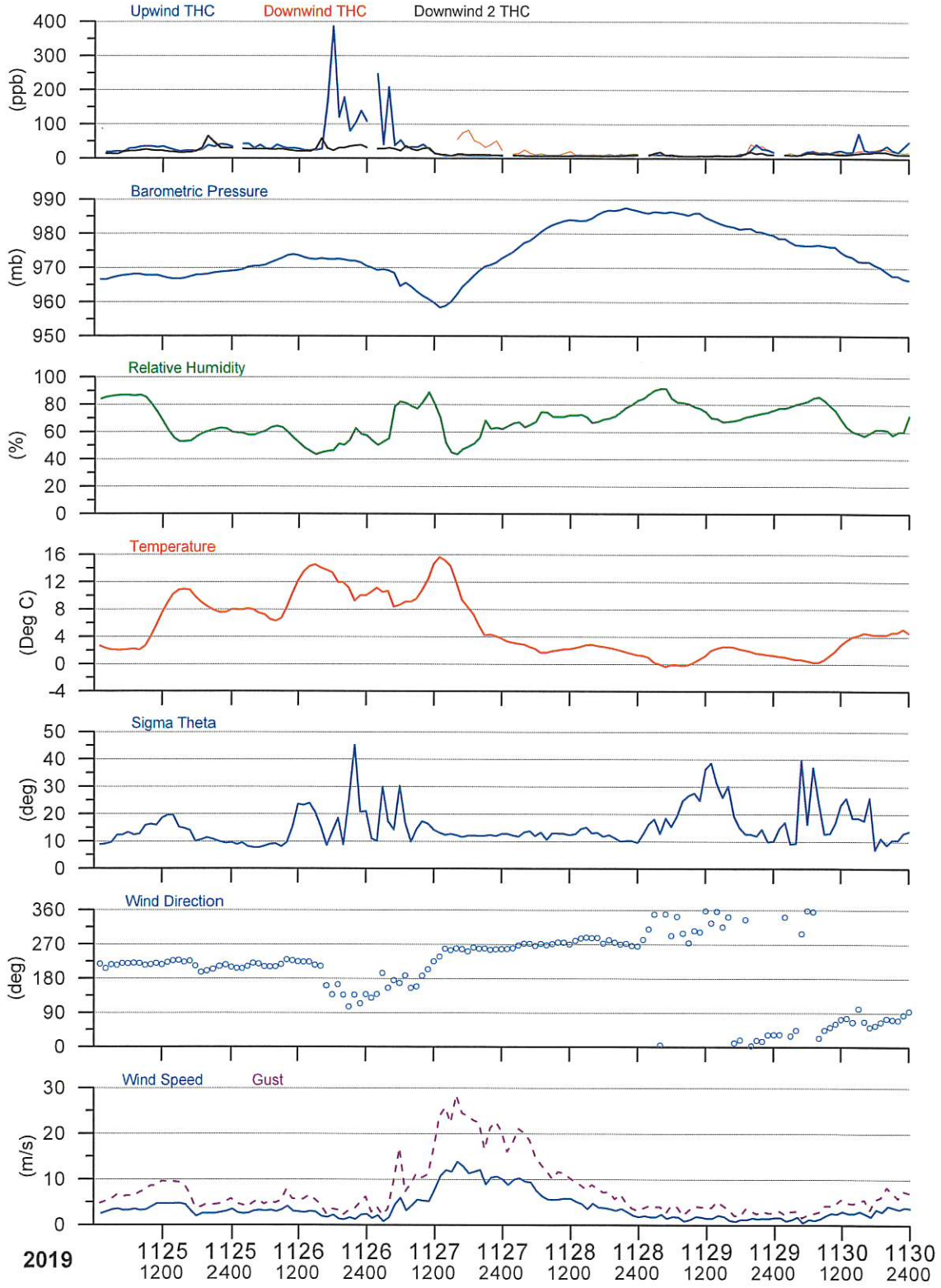
APPENDIX A

Stacked Parameter Plots for November and December 2019

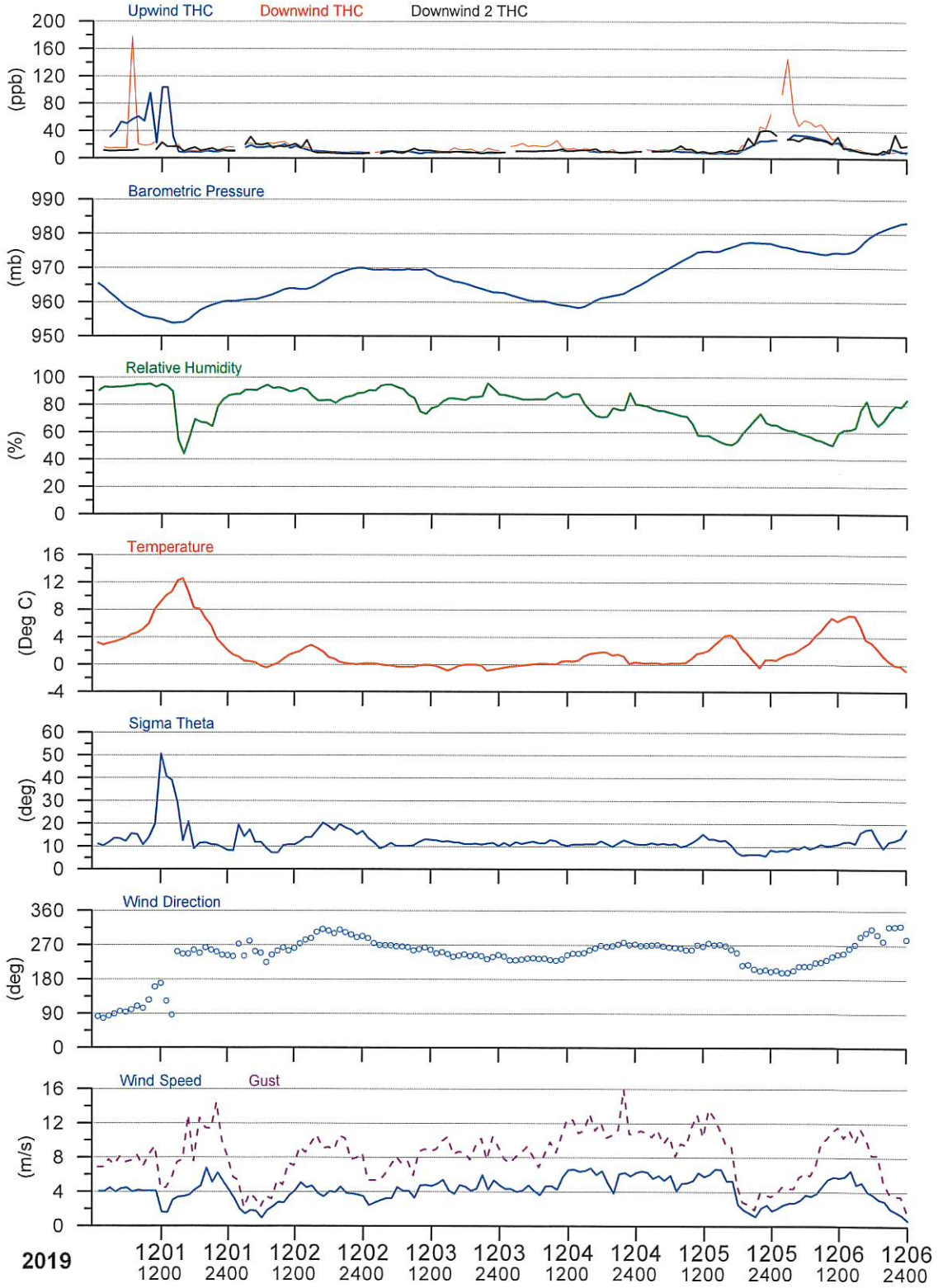
MarkWest HarmonCreek Plots



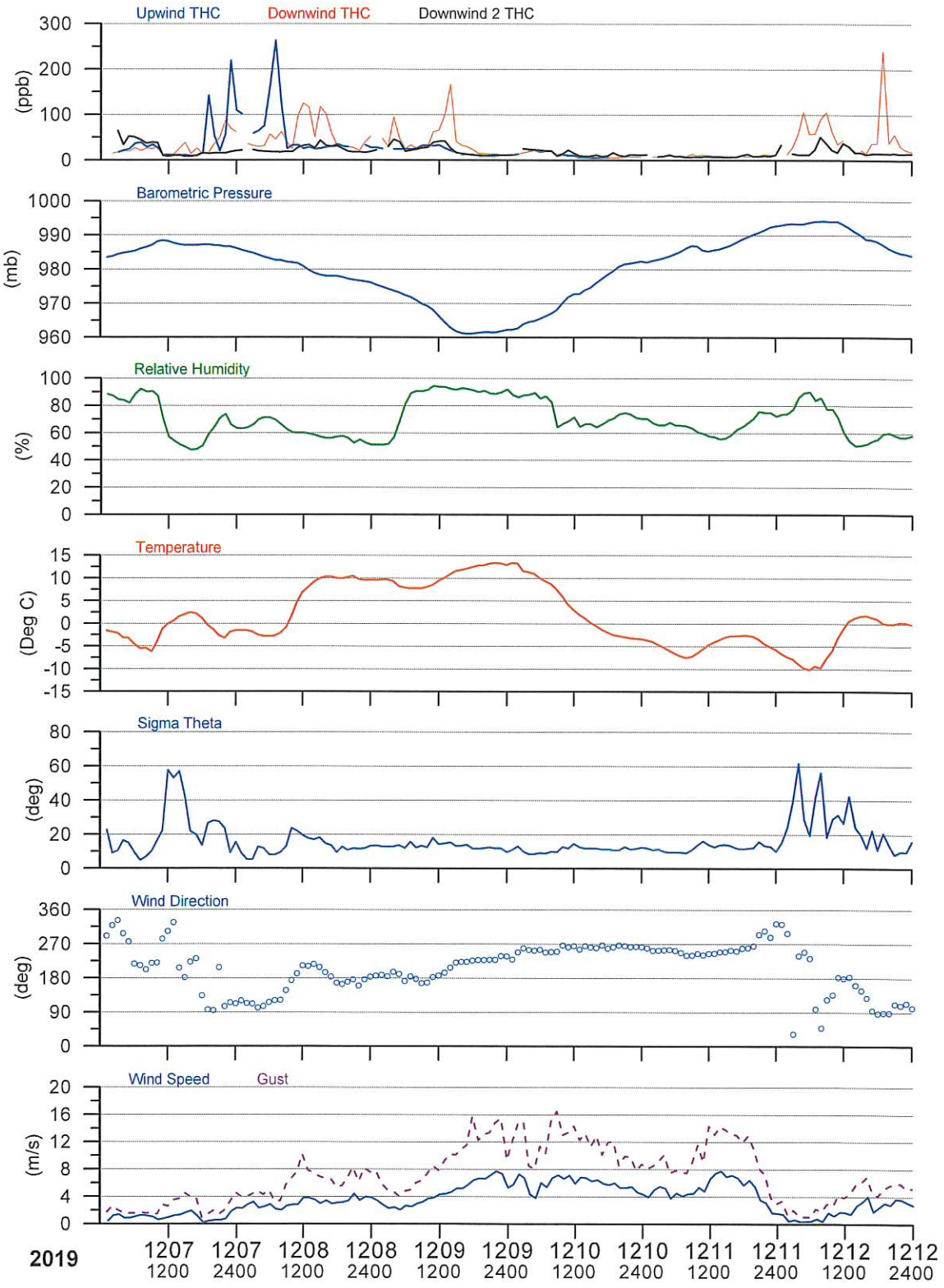
MarkWest HarmonCreek Plots



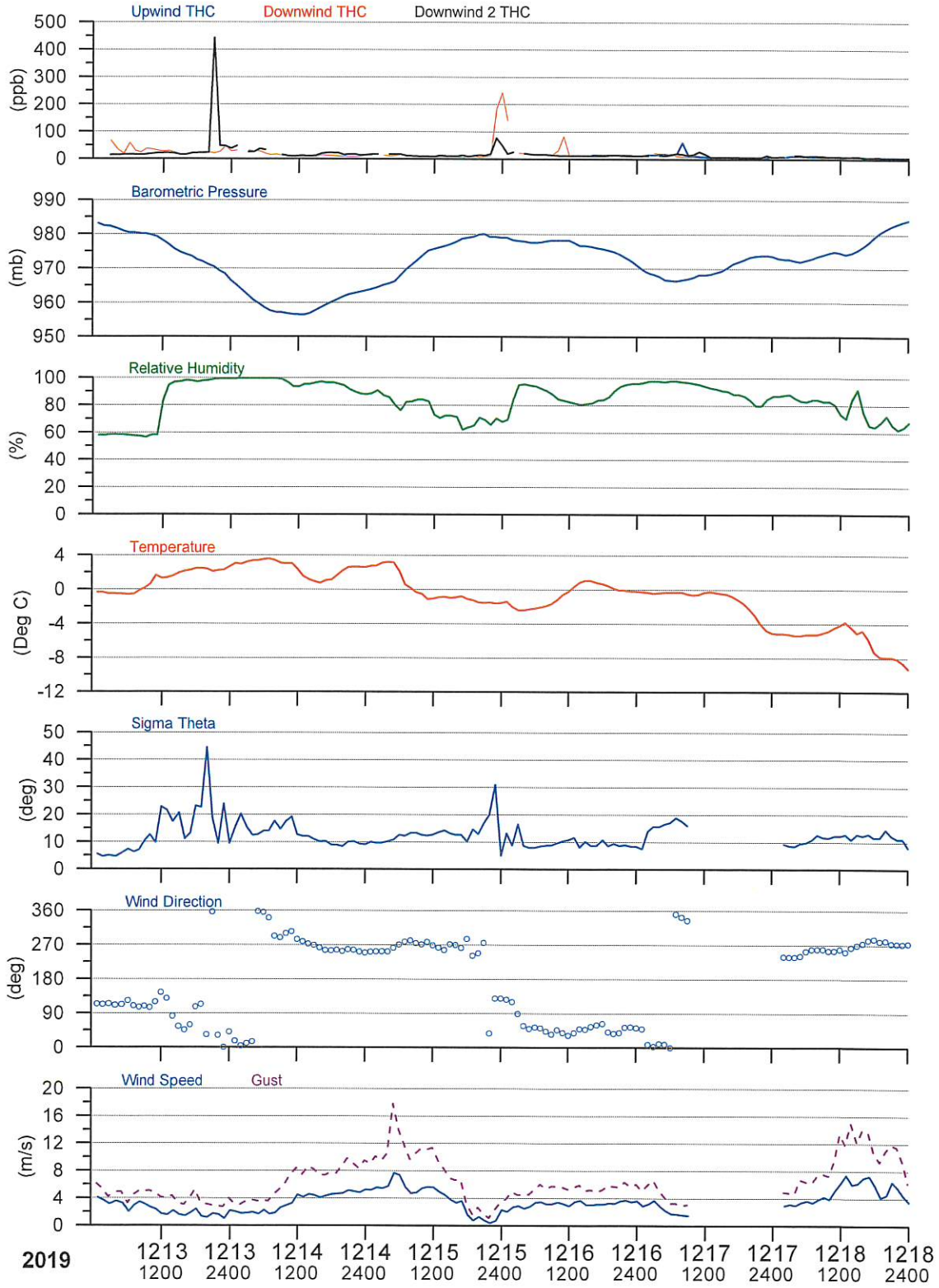
MarkWest HarmonCreek Plots



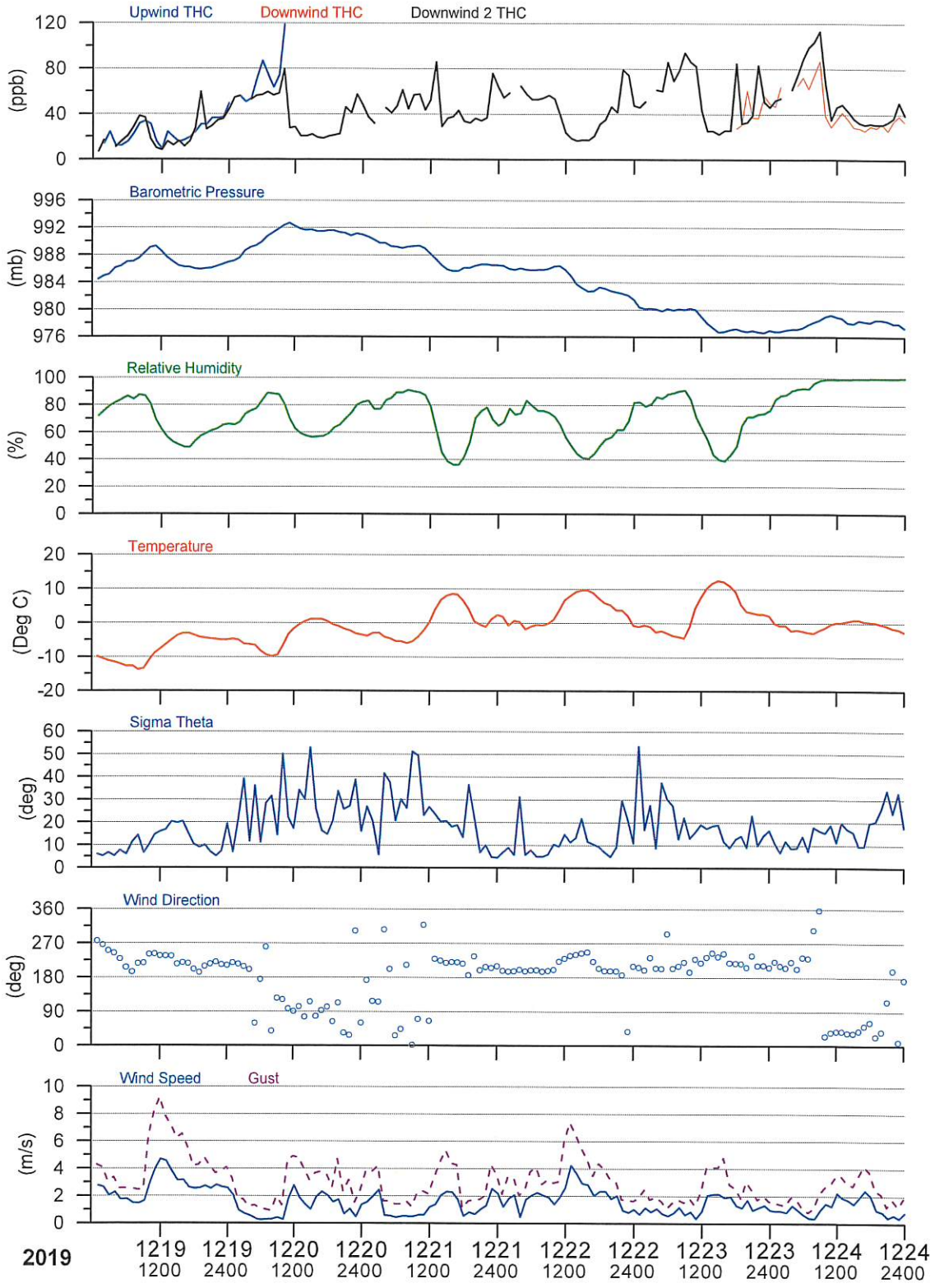
MarkWest HarmonCreek Plots



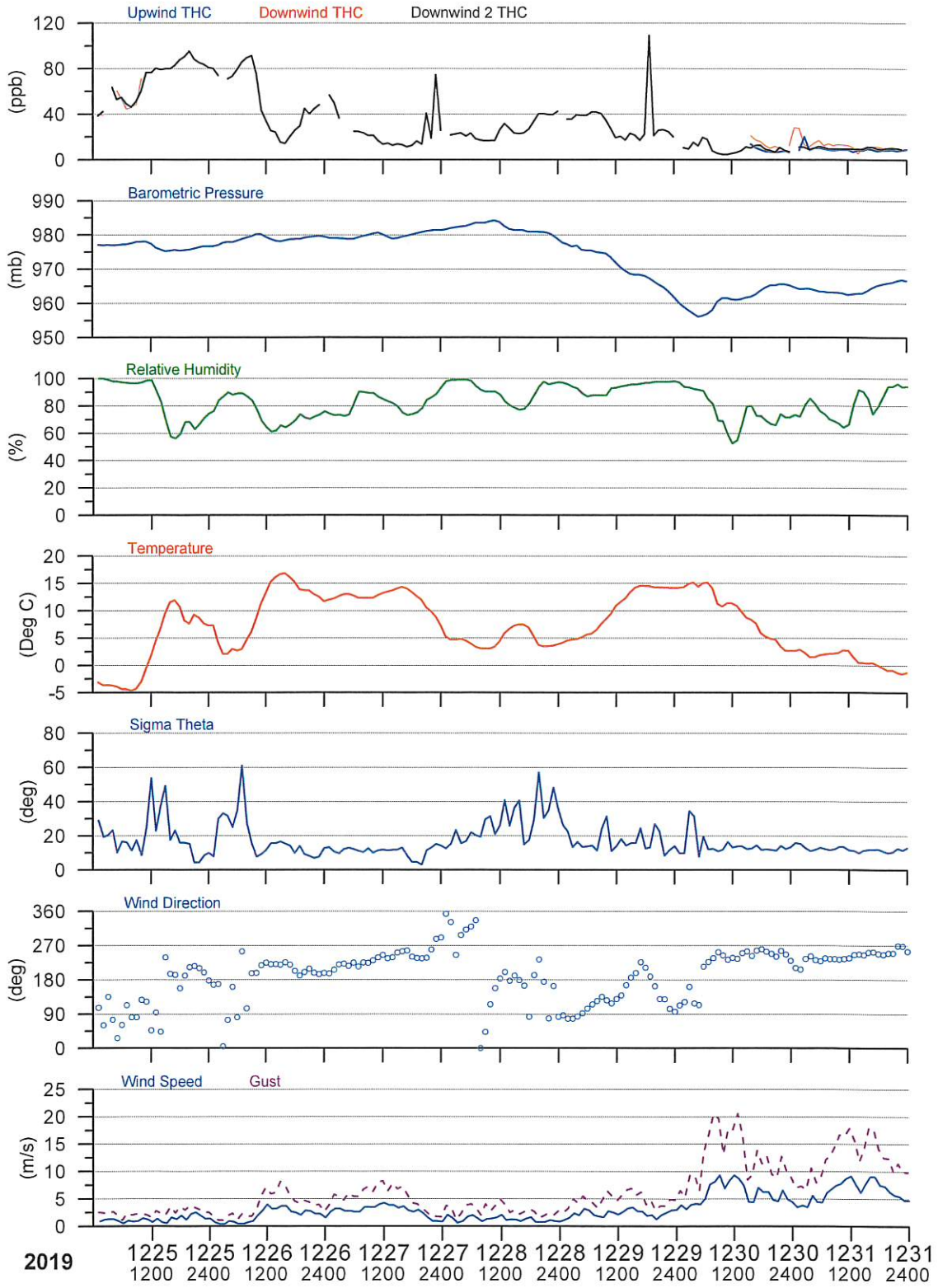
MarkWest HarmonCreek Plots



MarkWest HarmonCreek Plots



MarkWest HarmonCreek Plots



APPENDIX B

Hourly Air Toxic Data for November and December 2019

B.1 Upwind
B.2 Downwind #1
B.3 Downwind #2

B.1 Upwind

HarmonCreek

UPWIND PROPANE in ppb for NOVEMBER, 2019

Hr Beg Hr End Day	0 1	1 2	2 3	3 4	4 5	5 6	6 7	7 8	8 9	9 10	10 11	11 12	12 13	13 14	14 15	15 16	16 17	17 18	18 19	19 20	20 21	21 22	22 23	23 24	MEAN	MAX	MIN
1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---	---	8.0	9.0	8.7	9.5	9.4	9.4	5.4	3.3	3.1	3.2	2.9	---	---	---
22	---	2.4	2.2	1.7	1.6	1.6	0.2	0.2	0.1	2.0	1.5	1.1	1.0	0.9	0.9	0.9	0.9	1.3	1.5	0.8	2.0	1.5	2.8	4.9	1.5	4.9	0.1
23	---	9.8	7.1	6.8	7.6	9.2	8.9	8.8	8.5	4.8	5.0	2.8	2.2	3.6	2.5	2.9	3.5	3.2	4.1	2.7	3.4	3.6	3.0	3.4	5.1	9.8	2.2
24	---	2.8	2.9	2.4	1.2	1.5	1.5	1.7	2.3	2.4	2.1	2.1	1.7	1.5	1.5	1.4	1.3	1.5	1.3	1.3	1.7	2.0	1.7	1.6	1.8	2.9	1.2
25	---	3.4	3.9	4.4	3.7	5.9	6.0	7.2	7.4	7.2	6.7	7.2	6.2	5.1	4.4	4.6	5.0	0.4	0.5	8.0	0.6	0.8	0.7	0.6	4.3	8.0	0.4
26	---	9.2	9.2	0.6	8.6	0.6	0.5	8.9	0.6	0.6	6.4	5.5	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.6	1.5	1.5	1.7	20.0	3.4	20.0	0.4
27	---	0.5	0.6	0.8	0.6	0.2	0.3	0.5	0.4	0.5	0.4	0.2	0.1	0.1	0.1	0.1	0.2	0.1	0.1	1.8	0.1	1.6	0.1	0.1	0.4	1.8	0.1
28	---	1.5	1.4	1.3	1.2	1.2	1.1	1.2	1.2	1.2	1.2	1.3	1.3	1.2	1.3	1.4	1.2	1.3	1.2	1.3	1.4	1.5	1.7	0.2	1.2	1.7	0.2
29	---	1.6	2.0	1.1	1.7	1.0	1.1	1.1	1.0	0.9	0.9	1.0	1.0	1.4	1.0	1.1	1.0	1.7	2.5	4.8	0.8	0.5	0.4	2.9	1.4	4.8	0.4
30	---	2.0	---	---	0.4	0.4	0.3	0.2	2.7	0.2	3.0	3.1	2.5	0.2	0.3	0.3	0.3	0.3	0.3	6.1	0.3	2.7	0.5	0.5	1.3	6.1	0.2
MEAN	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---		
MAX	---	9.8	9.2	6.8	8.6	9.2	8.9	8.9	8.5	7.2	6.7	7.2	6.2	8.0	9.0	8.7	9.5	9.4	9.4	8.0	3.4	3.6	3.2	20.0		20.0	
MIN	---	0.5	0.6	0.6	0.4	0.2	0.2	0.2	0.1	0.2	0.4	0.2	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.6	0.1	0.5	0.1	0.1			0.1

POSSIBLE NUMBER OF OBSERVATIONS = 720 ACTUAL NUMBER OF OBSERVATIONS = 216 DATA RECOVERY RATE = 30.0%

MONTHLY MEAN = 2.5 ppb

MAXIMUM UPWIND PROPANE = 20.0 ppb DATE OF OCCURRENCE = 11/26 AT 2400 MAXIMUM DAILY MEAN = 5.1 ppb DATE OF OCCURRENCE = 11/23

MINIMUM UPWIND PROPANE = 0.1 ppb DATE OF OCCURRENCE = 11/27 AT 2100 MINUMUM DAILY MEAN = 0.4 ppb DATE OF OCCURRENCE = 11/27

MEANS REQUIRE 75% VALID DATA MISSING DATA DENOTED BY ---

HarmonCreek

UPWIND PROPANE in ppb for DECEMBER, 2019

Hr Beg Hr End Day	0 1	1 2	2 3	3 4	4 5	5 6	6 7	7 8	8 9	9 10	10 11	11 12	12 13	13 14	14 15	15 16	16 17	17 18	18 19	19 20	20 21	21 22	22 23	23 24	MEAN	MAX	MIN
1	0.3	---	0.4	0.4	0.5	0.5	0.6	0.4	0.4	0.5	0.2	0.2	0.3	0.4	0.1	0.1	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.3	0.6	0.1
2	0.2	---	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.5	0.2	0.4	0.3	0.2	0.1	1.4	1.6	1.3	1.2	1.1	1.0	1.0	1.1	1.4	0.6	1.6	0.1
3	0.1	---	1.5	0.2	0.1	0.1	0.1	0.2	1.2	0.9	1.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	1.3	0.4	1.5	0.1
4	0.1	---	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.1
5	0.2	---	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.1	0.1	0.2	0.2	0.3	0.4	0.6	0.6	0.6	0.3	0.6	0.1
6	0.7	---	0.6	0.7	0.7	0.7	0.8	0.8	0.8	0.7	0.5	0.6	0.4	0.3	0.3	0.2	0.2	0.2	0.1	0.2	0.3	0.3	0.2	0.2	0.4	0.8	0.1
7	0.3	---	0.3	0.5	0.5	0.9	0.9	0.6	0.8	0.6	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.4	0.6	0.4	1.3	1.3	18.9	1.3	18.9	0.2
8	0.9	---	0.9	0.9	1.3	1.8	1.3	0.9	0.4	0.5	0.5	0.5	0.6	0.5	0.5	0.6	0.6	0.7	0.6	0.5	---	---	5.5	0.7	1.0	5.5	0.4
9	0.6	0.5	---	0.6	0.5	0.5	0.4	0.5	0.5	0.5	0.5	0.6	0.6	0.5	0.5	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.6	0.2
10	0.3	0.3	---	0.6	0.6	0.6	0.6	0.6	0.3	0.4	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.2	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.3	0.4	0.4	0.4	0.3	0.4	0.4	0.4	---	---	---	---
17	0.4	0.4	0.4	0.5	0.5	0.5	0.7	18.7	0.4	0.4	0.4	0.3	0.3	---	---	1.4	0.8	0.6	0.5	0.3	0.3	0.3	0.3	0.3	1.3	18.7	0.3
18	---	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.2	0.3	0.3	0.4	0.4	0.2
19	---	0.5	0.4	0.3	0.4	0.5	0.7	1.0	6.4	6.6	3.5	0.3	3.8	3.3	2.9	3.2	3.6	5.1	6.1	6.2	7.4	1.1	1.1	10.0	3.2	10.0	0.3
20	---	11.6	1.5	1.6	2.1	20.2	2.4	2.5	2.3	25.3	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.5	0.6	0.6	0.5	0.5	0.5	0.6	0.5	0.5	---	---	---
31	---	0.6	0.6	0.5	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.6	0.7	0.7	0.6	0.6	0.6	0.6	0.7	0.5
MEAN	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---		
MAX	0.9	11.6	1.5	1.6	2.1	20.2	2.4	18.7	6.4	25.3	3.5	0.6	3.8	3.3	2.9	3.2	3.6	5.1	6.1	6.2	7.4	1.3	5.5	18.9		25.3	
MIN	0.1	0.3	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2			0.1

POSSIBLE NUMBER OF OBSERVATIONS = 744 ACTUAL NUMBER OF OBSERVATIONS = 339 DATA RECOVERY RATE = 45.6%

MONTHLY MEAN = 0.9 ppb

MAXIMUM UPWIND PROPANE = 25.3 ppb DATE OF OCCURRENCE = 12/20 AT 1000 MAXIMUM DAILY MEAN = 3.2 ppb DATE OF OCCURRENCE = 12/19

MINIMUM UPWIND PROPANE = 0.1 ppb DATE OF OCCURRENCE = 12/3 AT 0100 MINUMUM DAILY MEAN = 0.2 ppb DATE OF OCCURRENCE = 12/4

MEANS REQUIRE 75% VALID DATA MISSING DATA DENOTED BY ---

HarmonCreek

UPWIND BUTANE in ppb for NOVEMBER, 2019

Hr Beg Hr End Day	0 1	1 2	2 3	3 4	4 5	5 6	6 7	7 8	8 9	9 10	10 11	11 12	12 13	13 14	14 15	15 16	16 17	17 18	18 19	19 20	20 21	21 22	22 23	23 24	MEAN	MAX	MIN
1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---	---	5.1	6.9	5.0	5.2	4.4	3.7	1.9	1.2	1.1	1.1	1.0	---	---	---
22	---	0.9	0.8	0.6	0.6	0.7	1.1	1.3	0.8	0.7	0.6	0.5	0.4	0.4	0.4	0.4	0.4	0.6	0.7	0.4	0.9	0.9	1.3	1.6	0.7	1.6	0.4
23	---	3.3	2.8	2.3	1.7	2.7	2.6	3.0	3.0	1.9	2.1	1.4	1.3	1.7	1.2	1.2	1.4	1.2	1.6	1.2	2.4	1.5	1.3	1.2	1.9	3.3	1.2
24	---	1.0	1.0	1.0	0.5	0.6	0.6	0.6	0.8	0.7	0.6	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.7	0.8	0.7	0.6	0.6	1.0	0.5
25	---	1.6	1.4	1.7	1.4	2.4	2.3	2.6	3.1	3.2	2.8	4.0	3.1	2.4	1.7	2.1	2.0	2.3	2.9	2.8	2.9	3.4	3.0	2.7	2.5	4.0	1.4
26	---	3.3	3.5	3.2	3.4	3.1	2.8	3.6	3.7	3.3	3.0	3.4	3.7	3.8	3.8	3.4	2.3	2.0	2.7	3.3	7.2	8.5	10.0	8.2	4.1	10.0	2.0
27	---	2.5	2.8	3.9	3.4	3.1	4.7	2.2	2.4	6.5	3.9	1.5	1.0	0.7	0.7	1.2	1.2	0.9	0.9	0.7	0.7	0.6	1.2	0.7	2.1	6.5	0.6
28	---	0.7	0.6	0.6	0.5	0.5	0.4	0.5	0.5	0.5	0.5	0.5	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.6	0.7	1.0	0.6	1.0	0.4
29	---	0.6	0.7	0.4	0.6	0.4	0.4	0.4	0.3	0.3	0.3	0.4	0.5	0.5	0.4	0.4	0.4	0.6	0.7	1.6	3.1	2.3	2.0	1.0	0.8	3.1	0.3
30	---	0.7	---	---	0.9	1.5	1.3	1.1	1.3	1.3	1.2	1.1	1.1	1.2	1.6	1.5	1.3	1.5	2.0	2.0	1.6	1.0	1.8	1.9	1.4	2.0	0.7
MEAN	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---		
MAX	---	3.3	3.5	3.9	3.4	3.1	4.7	3.6	3.7	6.5	3.9	4.0	3.7	5.1	6.9	5.0	5.2	4.4	3.7	3.3	7.2	8.5	10.0	8.2		10.0	
MIN	---	0.6	0.6	0.4	0.5	0.4	0.4	0.4	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.4	0.6	0.6	0.7	0.6			0.3

POSSIBLE NUMBER OF OBSERVATIONS = 720 ACTUAL NUMBER OF OBSERVATIONS = 216 DATA RECOVERY RATE = 30.0%

MONTHLY MEAN = 1.7 ppb

MAXIMUM UPWIND BUTANE = 10.0 ppb DATE OF OCCURRENCE = 11/26 AT 2300 MAXIMUM DAILY MEAN = 4.1 ppb DATE OF OCCURRENCE = 11/26

MINIMUM UPWIND BUTANE = 0.3 ppb DATE OF OCCURRENCE = 11/29 AT 1000 MINUMUM DAILY MEAN = 0.6 ppb DATE OF OCCURRENCE = 11/28

MEANS REQUIRE 75% VALID DATA MISSING DATA DENOTED BY ---

HarmonCreek

UPWIND BUTANE in ppb for DECEMBER, 2019

Hr Beg Hr End Day	0 1	1 2	2 3	3 4	4 5	5 6	6 7	7 8	8 9	9 10	10 11	11 12	12 13	13 14	14 15	15 16	16 17	17 18	18 19	19 20	20 21	21 22	22 23	23 24	MEAN	MAX	MIN
1	1.4	---	1.6	1.8	1.8	2.0	3.5	2.3	2.6	3.0	3.6	1.9	2.2	2.0	0.8	0.8	1.3	1.0	1.0	1.2	1.1	1.1	1.2	1.2	1.7	3.6	0.8
2	1.1	---	1.9	1.8	1.5	1.5	1.5	1.6	1.7	2.3	1.4	1.7	1.3	1.1	0.9	0.7	0.7	0.6	0.6	0.5	0.5	0.4	0.4	0.5	1.1	2.3	0.4
3	0.5	---	0.5	0.7	0.8	0.7	0.7	0.8	0.5	0.4	0.6	0.7	0.6	0.6	0.6	0.7	0.7	0.9	0.7	0.6	0.5	0.6	0.5	0.5	0.6	0.9	0.4
4	0.6	---	0.9	0.8	0.9	0.9	1.1	0.9	1.0	1.1	1.1	0.9	1.1	1.1	1.1	1.1	1.0	0.8	0.8	0.8	0.7	0.7	0.8	1.1	0.9	1.1	0.6
5	1.2	---	1.1	1.1	1.3	1.2	1.2	1.1	1.0	1.0	0.8	0.8	0.7	0.6	0.7	0.7	0.7	0.8	1.2	1.7	2.1	3.0	2.7	3.2	1.3	3.2	0.6
6	2.8	---	2.6	2.7	2.4	2.7	3.0	3.3	3.0	2.7	2.1	2.6	1.6	1.3	1.2	0.9	0.9	0.8	0.7	0.9	1.3	1.2	0.8	1.0	1.9	3.3	0.7
7	1.5	---	1.5	2.0	2.3	3.9	4.1	2.8	3.3	2.7	1.0	0.8	0.7	1.7	1.9	1.1	1.1	1.0	1.7	2.3	1.9	6.6	6.5	9.5	2.7	9.5	0.7
8	4.9	---	5.3	3.7	5.1	9.9	7.2	5.5	2.4	4.8	4.3	2.6	3.1	2.3	3.0	3.7	4.0	3.8	3.1	4.4	---	---	5.9	4.9	4.5	9.9	2.3
9	4.5	3.8	---	2.7	2.6	3.8	3.8	4.3	3.9	3.9	4.4	5.8	4.4	2.8	2.3	1.7	1.6	1.3	1.0	1.0	1.0	1.1	1.2	1.1	2.8	5.8	1.0
10	1.4	1.7	---	2.8	2.8	2.7	2.7	2.6	1.2	1.5	1.4	1.3	0.8	0.8	0.7	0.6	0.7	0.7	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1.1	1.1	1.1	1.2	1.4	1.1	1.3	1.1	---	---	---	---
17	1.0	1.3	1.2	1.3	1.3	1.5	3.8	8.7	1.0	1.1	0.9	0.7	0.6	---	---	0.7	0.5	0.6	0.5	0.6	0.6	0.5	0.6	0.7	1.4	8.7	0.5
18	---	0.8	1.0	0.9	1.0	0.9	0.9	0.9	0.9	0.9	0.9	0.8	0.8	0.8	0.9	0.8	0.6	0.5	0.4	0.5	0.4	0.4	0.5	0.5	0.7	1.0	0.4
19	---	1.2	0.9	0.8	0.8	1.4	2.0	3.0	2.5	2.6	1.4	0.8	1.1	1.3	1.4	1.9	1.4	2.2	3.5	2.5	2.8	3.6	3.7	4.2	2.0	4.2	0.8
20	---	4.5	5.1	5.5	6.9	6.7	7.0	6.8	9.0	10.1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1.3	1.5	1.2	1.0	0.8	0.8	0.9	0.8	0.8	---	---	---
31	---	0.9	11.5	1.1	1.1	1.3	1.2	1.0	1.0	1.1	1.1	1.1	0.0	0.9	1.0	1.2	1.1	0.0	1.0	1.0	1.0	0.9	0.9	0.9	1.4	11.5	0.0
MEAN	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---		
MAX	4.9	4.5	11.5	5.5	6.9	9.9	7.2	8.7	9.0	10.1	4.4	5.8	4.4	2.8	3.0	3.7	4.0	3.8	3.5	4.4	2.8	6.6	6.5	9.5		11.5	
MIN	0.5	0.8	0.5	0.7	0.8	0.7	0.7	0.8	0.5	0.4	0.6	0.7	0.0	0.6	0.6	0.6	0.5	0.0	0.4	0.5	0.4	0.4	0.4	0.5			0.0

POSSIBLE NUMBER OF OBSERVATIONS = 744 ACTUAL NUMBER OF OBSERVATIONS = 339 DATA RECOVERY RATE = 45.6%

MONTHLY MEAN = 1.8 ppb

MAXIMUM UPWIND BUTANE = 11.5 ppb DATE OF OCCURRENCE = 12/31 AT 0300 MAXIMUM DAILY MEAN = 4.5 ppb DATE OF OCCURRENCE = 12/8

MINIMUM UPWIND BUTANE = 0.0 ppb DATE OF OCCURRENCE = 12/31 AT 1300 MINUMUM DAILY MEAN = 0.6 ppb DATE OF OCCURRENCE = 12/3

MEANS REQUIRE 75% VALID DATA MISSING DATA DENOTED BY ---

HarmonCreek

UPWIND PENTANE in ppb for NOVEMBER, 2019

Hr Beg Hr End Day	0 1	1 2	2 3	3 4	4 5	5 6	6 7	7 8	8 9	9 10	10 11	11 12	12 13	13 14	14 15	15 16	16 17	17 18	18 19	19 20	20 21	21 22	22 23	23 24	MEAN	MAX	MIN
1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---	---	2.3	2.8	2.3	2.4	2.1	2.0	1.4	1.2	1.1	1.1	1.1	---	---	---
22	---	1.0	1.0	0.9	0.9	0.9	1.0	1.1	1.0	0.9	0.9	0.9	0.8	0.9	0.8	0.8	0.9	1.2	1.2	1.0	1.2	1.2	1.7	1.8	1.0	1.8	0.8
23	---	2.0	1.8	1.7	1.6	2.1	1.8	1.9	2.0	1.4	1.5	1.4	1.2	1.3	1.1	1.1	1.3	1.3	1.3	1.2	1.6	1.5	1.5	1.3	1.5	2.1	1.1
24	---	1.0	0.9	1.0	0.8	0.8	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.6	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.8	1.0	0.6
25	---	1.1	1.1	1.2	1.1	1.4	1.4	1.4	1.5	1.4	1.3	1.6	1.4	1.2	1.0	1.1	1.1	1.3	1.5	1.4	1.4	1.5	1.4	1.4	1.3	1.6	1.0
26	---	1.6	1.6	1.6	1.6	1.5	1.4	1.7	1.7	1.5	1.4	1.4	1.6	1.6	1.6	1.6	1.3	1.2	1.3	1.5	3.3	4.4	5.3	4.2	2.0	5.3	1.2
27	---	1.4	1.5	1.9	1.6	1.5	1.8	1.3	1.3	2.2	1.6	0.9	0.8	0.6	0.6	0.8	0.7	0.7	0.6	0.6	0.6	0.6	0.8	0.6	1.1	2.2	0.6
28	---	0.6	0.6	0.6	0.5	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.7	0.6	0.6	0.6	0.6	0.6	0.7	0.7	0.7	0.7	0.7	0.9	0.6	0.9	0.5
29	---	0.8	1.0	1.1	0.9	0.7	0.9	0.8	0.7	0.7	0.7	0.8	0.9	0.9	0.8	0.9	0.8	0.9	0.8	1.3	1.7	1.5	1.6	1.3	1.0	1.7	0.7
30	---	1.0	---	---	1.0	1.1	1.3	1.2	1.3	1.0	1.0	0.9	0.9	0.9	1.2	1.1	1.0	1.1	1.2	1.1	1.0	0.9	1.0	1.1	1.1	1.3	0.9
MEAN	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---		
MAX	---	2.0	1.8	1.9	1.6	2.1	1.8	1.9	2.0	2.2	1.6	1.6	1.6	2.3	2.8	2.3	2.4	2.1	2.0	1.5	3.3	4.4	5.3	4.2		5.3	
MIN	---	0.6	0.6	0.6	0.5	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.6			0.5

POSSIBLE NUMBER OF OBSERVATIONS = 720 ACTUAL NUMBER OF OBSERVATIONS = 216 DATA RECOVERY RATE = 30.0%

MONTHLY MEAN = 1.2 ppb

MAXIMUM UPWIND PENTANE = 5.3 ppb DATE OF OCCURRENCE = 11/26 AT 2300 MAXIMUM DAILY MEAN = 2.0 ppb DATE OF OCCURRENCE = 11/26

MINIMUM UPWIND PENTANE = 0.5 ppb DATE OF OCCURRENCE = 11/28 AT 0600 MINUMUM DAILY MEAN = 0.6 ppb DATE OF OCCURRENCE = 11/28

MEANS REQUIRE 75% VALID DATA MISSING DATA DENOTED BY ---

HarmonCreek

UPWIND PENTANE in ppb for DECEMBER, 2019

Hr Beg Hr End Day	0 1	1 2	2 3	3 4	4 5	5 6	6 7	7 8	8 9	9 10	10 11	11 12	12 13	13 14	14 15	15 16	16 17	17 18	18 19	19 20	20 21	21 22	22 23	23 24	MEAN	MAX	MIN
1	1.0	---	1.0	1.1	1.1	1.1	2.1	1.6	1.8	1.7	1.5	1.1	1.3	1.2	0.8	0.7	0.9	0.7	0.7	0.7	0.7	0.7	0.7	0.8	1.1	2.1	0.7
2	0.8	---	1.1	1.1	1.0	1.1	1.0	1.1	1.1	1.1	0.9	1.0	0.8	0.8	0.7	0.8	0.8	0.7	0.6	0.6	0.7	0.6	0.6	0.7	0.8	1.1	0.6
3	0.7	---	0.7	0.7	0.7	0.6	0.6	0.6	0.7	0.5	0.5	0.6	0.5	0.6	0.6	0.7	0.6	0.6	0.6	0.6	0.5	0.6	0.6	0.5	0.6	0.7	0.5
4	0.6	---	0.7	0.7	0.7	0.7	0.8	0.7	0.7	0.8	0.8	0.6	0.7	0.7	0.7	0.7	0.7	0.6	0.6	0.7	0.6	0.6	0.6	0.7	0.7	0.8	0.6
5	0.7	---	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.6	0.6	0.6	0.5	0.6	0.5	0.6	0.6	0.8	1.0	1.1	1.3	1.3	1.4	0.8	1.4	0.5
6	1.3	---	1.3	1.2	1.1	1.1	1.3	1.3	1.2	1.1	0.9	1.0	0.7	0.7	0.7	0.6	0.7	0.6	0.6	0.7	0.8	0.8	0.7	0.8	0.9	1.3	0.6
7	0.9	---	1.0	1.1	1.2	1.8	1.9	1.4	1.6	1.3	0.9	0.9	0.7	1.0	1.0	0.8	0.8	1.2	1.2	1.3	1.1	3.4	3.5	5.6	1.5	5.6	0.7
8	2.9	---	3.3	2.1	2.5	5.8	4.2	3.3	1.2	1.7	1.5	1.1	1.2	1.0	1.2	1.4	1.4	1.4	1.2	1.5	---	---	1.9	1.6	2.1	5.8	1.0
9	1.5	1.4	---	1.1	1.1	1.4	1.4	1.5	1.4	1.4	1.5	1.9	1.5	1.2	1.0	0.8	0.8	0.7	0.6	0.6	0.6	0.6	0.6	0.6	1.1	1.9	0.6
10	0.7	0.8	---	1.1	1.1	0.0	1.1	1.0	0.6	0.7	0.7	0.7	0.5	0.5	0.5	0.5	0.5	0.5	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.9	0.8	0.7	0.8	0.8	0.8	0.8	0.8	---	---	---	---
17	0.8	0.9	0.9	0.9	1.0	1.0	1.9	3.2	0.8	0.8	0.7	0.7	0.6	---	---	0.6	0.5	0.6	0.5	0.5	0.5	0.5	0.5	0.6	0.9	3.2	0.5
18	---	0.7	0.8	0.6	0.7	0.6	0.6	0.6	0.6	0.5	0.6	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.5	0.5	0.5	0.4	0.5	0.5	0.5	0.8	0.4
19	---	0.9	0.8	0.9	0.9	1.1	1.4	1.7	1.5	1.3	0.9	0.7	0.7	0.9	0.9	1.0	1.0	1.3	1.7	1.5	1.6	1.8	1.8	1.9	1.2	1.9	0.7
20	---	2.1	2.2	2.3	2.8	2.9	2.8	2.8	3.6	4.2	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.4	0.5	---	---	---
31	---	0.8	0.7	0.5	0.6	0.7	0.6	0.5	0.5	0.6	0.5	0.5	0.0	0.0	0.5	0.0	0.0	0.0	0.5	0.5	0.5	0.0	0.6	0.5	0.4	0.8	0.0
MEAN	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---		
MAX	2.9	2.1	3.3	2.3	2.8	5.8	4.2	3.3	3.6	4.2	1.5	1.9	1.5	1.2	1.2	1.4	1.4	1.4	1.7	1.5	1.6	3.4	3.5	5.6		5.8	
MIN	0.6	0.7	0.7	0.5	0.6	0.0	0.6	0.5	0.5	0.5	0.5	0.5	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.5			0.0

POSSIBLE NUMBER OF OBSERVATIONS = 744 ACTUAL NUMBER OF OBSERVATIONS = 339 DATA RECOVERY RATE = 45.6%

MONTHLY MEAN = 1.0 ppb

MAXIMUM UPWIND PENTANE = 5.8 ppb DATE OF OCCURRENCE = 12/8 AT 0600 MAXIMUM DAILY MEAN = 2.1 ppb DATE OF OCCURRENCE = 12/8

MINIMUM UPWIND PENTANE = 0.0 ppb DATE OF OCCURRENCE = 12/10 AT 0600 MINUMUM DAILY MEAN = 0.4 ppb DATE OF OCCURRENCE = 12/31

MEANS REQUIRE 75% VALID DATA MISSING DATA DENOTED BY ---

HarmonCreek

UPWIND HEXANE in ppb for NOVEMBER, 2019

Hr Beg Hr End Day	0 1	1 2	2 3	3 4	4 5	5 6	6 7	7 8	8 9	9 10	10 11	11 12	12 13	13 14	14 15	15 16	16 17	17 18	18 19	19 20	20 21	21 22	22 23	23 24	MEAN	MAX	MIN
1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---	---	0.3	0.4	0.3	0.3	0.3	0.3	0.2	0.1	0.1	0.1	0.1	---	---	---
22	---	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.2	0.1
23	---	0.4	0.3	0.3	0.2	0.3	0.3	0.3	0.3	0.2	0.3	0.2	0.1	0.2	0.1	0.1	0.2	0.2	0.2	0.1	0.2	0.2	0.3	0.2	0.2	0.4	0.1
24	---	0.1	0.1	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.0
25	---	0.2	0.1	0.1	0.1	0.3	0.4	0.3	0.3	0.3	0.2	0.3	0.2	0.2	0.1	0.1	0.2	0.2	0.3	0.3	0.2	0.3	0.2	0.2	0.2	0.4	0.1
26	---	0.3	0.3	0.3	0.3	0.3	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.3	1.3	1.9	2.6	1.8	0.5	2.6	0.2
27	---	0.3	0.3	0.5	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.5	0.1
28	---	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0
29	---	0.2	0.2	0.4	0.1	0.0	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.2	0.1	0.4	0.4	0.4	0.4	0.3	0.2	0.4	0.0
30	---	0.2	---	---	0.1	0.2	0.2	0.4	0.2	0.2	0.1	0.1	0.1	0.1	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.4	0.1
MEAN	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---		
MAX	---	0.4	0.3	0.5	0.3	0.3	0.4	0.4	0.3	0.3	0.3	0.3	0.2	0.3	0.4	0.3	0.3	0.3	0.3	0.4	1.3	1.9	2.6	1.8		2.6	
MIN	---	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.1			0.0

POSSIBLE NUMBER OF OBSERVATIONS = 720 ACTUAL NUMBER OF OBSERVATIONS = 216 DATA RECOVERY RATE = 30.0%

MONTHLY MEAN = 0.2 ppb

MAXIMUM UPWIND HEXANE = 2.6 ppb DATE OF OCCURRENCE = 11/26 AT 2300 MAXIMUM DAILY MEAN = 0.5 ppb DATE OF OCCURRENCE = 11/26

MINIMUM UPWIND HEXANE = 0.0 ppb DATE OF OCCURRENCE = 11/24 AT 1900 MINUMUM DAILY MEAN = 0.1 ppb DATE OF OCCURRENCE = 11/28

MEANS REQUIRE 75% VALID DATA MISSING DATA DENOTED BY ---

HarmonCreek

UPWIND HEXANE in ppb for DECEMBER, 2019

Hr Beg Hr End Day	0 1	1 2	2 3	3 4	4 5	5 6	6 7	7 8	8 9	9 10	10 11	11 12	12 13	13 14	14 15	15 16	16 17	17 18	18 19	19 20	20 21	21 22	22 23	23 24	MEAN	MAX	MIN
1	0.1	---	0.2	0.2	0.2	0.2	0.5	0.4	0.7	0.3	0.2	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.7	0.1
2	0.1	---	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.2	0.0
3	0.0	---	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.0
4	0.1	---	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
5	0.1	---	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.3	0.2	0.1	0.3	0.1
6	0.2	---	0.3	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.1
7	0.1	---	0.2	0.2	0.2	0.4	0.4	0.3	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.2	1.4	1.5	2.9	0.4	2.9	0.1
8	1.2	---	1.6	0.7	0.9	2.8	1.8	1.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	---	---	0.2	0.2	0.6	2.8	0.2
9	0.2	0.2	---	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.1
10	0.1	0.1	---	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.4	0.2	0.1	0.1	0.1	0.1	0.1	0.1	---	---	---	---
17	0.2	0.1	0.1	0.1	0.1	0.2	0.4	0.7	0.1	0.1	0.1	0.1	0.1	---	---	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.7	0.1
18	---	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
19	---	0.2	0.1	0.1	0.1	0.1	0.2	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.4	0.4	0.4	0.4	0.5	0.2	0.5	0.1
20	---	0.5	0.6	0.6	0.7	0.7	0.7	0.8	1.0	1.5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	---	---	---
31	---	0.0	0.1	0.1	0.9	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.9	0.0
MEAN	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---		
MAX	1.2	0.5	1.6	0.7	0.9	2.8	1.8	1.3	1.0	1.5	0.2	0.3	0.2	0.2	0.2	0.4	0.2	0.2	0.3	0.4	0.4	1.4	1.5	2.9		2.9	
MIN	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0

POSSIBLE NUMBER OF OBSERVATIONS = 744 ACTUAL NUMBER OF OBSERVATIONS = 339 DATA RECOVERY RATE = 45.6%

MONTHLY MEAN = 0.2 ppb

MAXIMUM UPWIND HEXANE = 2.9 ppb DATE OF OCCURRENCE = 12/7 AT 2400 MAXIMUM DAILY MEAN = 0.6 ppb DATE OF OCCURRENCE = 12/8

MINIMUM UPWIND HEXANE = 0.0 ppb DATE OF OCCURRENCE = 12/10 AT 0700 MINUMUM DAILY MEAN = 0.1 ppb DATE OF OCCURRENCE = 12/3

MEANS REQUIRE 75% VALID DATA MISSING DATA DENOTED BY ---

HarmonCreek

UPWIND BENZENE in ppb for NOVEMBER, 2019

Hr Beg Hr End Day	0 1	1 2	2 3	3 4	4 5	5 6	6 7	7 8	8 9	9 10	10 11	11 12	12 13	13 14	14 15	15 16	16 17	17 18	18 19	19 20	20 21	21 22	22 23	23 24	MEAN	MAX	MIN
1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	---	---	---
22	---	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.2	0.1
23	---	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.3	1.8	1.1	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	1.8	0.1
24	---	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1
25	---	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
26	---	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.1
27	---	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1
28	---	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
29	---	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
30	---	0.2	---	---	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.3	0.1
MEAN	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---		
MAX	---	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.3	1.8	1.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3		1.8	
MIN	---	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1			0.0

POSSIBLE NUMBER OF OBSERVATIONS = 720 ACTUAL NUMBER OF OBSERVATIONS = 216 DATA RECOVERY RATE = 30.0%

MONTHLY MEAN = 0.1 ppb

MAXIMUM UPWIND BENZENE = 1.8 ppb DATE OF OCCURRENCE = 11/23 AT 1000 MAXIMUM DAILY MEAN = 0.3 ppb DATE OF OCCURRENCE = 11/23

MINIMUM UPWIND BENZENE = 0.0 ppb DATE OF OCCURRENCE = 11/21 AT 1400 MINUMUM DAILY MEAN = 0.1 ppb DATE OF OCCURRENCE = 11/28

MEANS REQUIRE 75% VALID DATA MISSING DATA DENOTED BY ---

HarmonCreek

UPWIND BENZENE in ppb for DECEMBER, 2019

Hr Beg Hr End Day	0 1	1 2	2 3	3 4	4 5	5 6	6 7	7 8	8 9	9 10	10 11	11 12	12 13	13 14	14 15	15 16	16 17	17 18	18 19	19 20	20 21	21 22	22 23	23 24	MEAN	MAX	MIN
1	0.3	---	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.1	0.2	0.3	0.1
2	0.1	---	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.1
3	0.1	---	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
4	0.1	---	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.1
5	0.1	---	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.2	0.3	0.2	0.1	0.1	0.1	0.3	0.1
6	0.1	---	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.2	0.1
7	0.3	---	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.3	0.3	0.3	0.2	0.3	0.1
8	0.3	---	0.4	0.4	0.4	0.4	0.4	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	---	---	0.1	0.1	0.2	0.4	0.1
9	0.1	0.1	---	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
10	0.1	0.1	---	0.3	0.6	0.2	0.4	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	---	---	---	---
17	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	---	---	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1
18	---	0.2	0.2	0.2	0.1	0.3	0.2	0.1	0.1	0.3	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.1
19	---	0.1	0.1	0.2	0.2	0.2	0.3	0.4	0.4	0.6	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.6	0.1
20	---	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.3	0.1	---	---	---
31	---	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.3	0.2	0.0	0.1	0.1	0.2	0.2	0.1	0.2	0.1	0.3	0.0
MEAN	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---		
MAX	0.3	0.4	0.4	0.4	0.6	0.4	0.4	0.4	0.4	0.6	0.2	0.1	0.2	0.2	0.3	0.3	0.2	0.2	0.3	0.2	0.3	0.3	0.3	0.3		0.6	
MIN	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1			0.0

POSSIBLE NUMBER OF OBSERVATIONS = 744 ACTUAL NUMBER OF OBSERVATIONS = 339 DATA RECOVERY RATE = 45.6%

MONTHLY MEAN = 0.1 ppb

MAXIMUM UPWIND BENZENE = 0.6 ppb DATE OF OCCURRENCE = 12/19 AT 1000 MAXIMUM DAILY MEAN = 0.2 ppb DATE OF OCCURRENCE = 12/8

MINIMUM UPWIND BENZENE = 0.0 ppb DATE OF OCCURRENCE = 12/31 AT 1300 MINUMUM DAILY MEAN = 0.1 ppb DATE OF OCCURRENCE = 12/9

MEANS REQUIRE 75% VALID DATA MISSING DATA DENOTED BY ---

HarmonCreek

UPWIND TOLUENE in ppb for NOVEMBER, 2019

Hr Beg Hr End Day	0 1	1 2	2 3	3 4	4 5	5 6	6 7	7 8	8 9	9 10	10 11	11 12	12 13	13 14	14 15	15 16	16 17	17 18	18 19	19 20	20 21	21 22	22 23	23 24	MEAN	MAX	MIN
1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	---	---	---
22	---	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.2	0.1	0.3	0.1
23	---	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.5	0.4	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.5	0.1
24	---	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1
25	---	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
26	---	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.3	0.3	0.3	0.1	0.3	0.1
27	---	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1
28	---	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0
29	---	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0
30	---	0.1	---	---	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.1	0.2	0.2	0.1
MEAN	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---		
MAX	---	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.5	0.4	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3		0.5	
MIN	---	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1			0.0

POSSIBLE NUMBER OF OBSERVATIONS = 720 ACTUAL NUMBER OF OBSERVATIONS = 216 DATA RECOVERY RATE = 30.0%

MONTHLY MEAN = 0.1 ppb

MAXIMUM UPWIND TOLUENE = 0.5 ppb DATE OF OCCURRENCE = 11/23 AT 1000 MAXIMUM DAILY MEAN = 0.2 ppb DATE OF OCCURRENCE = 11/23

MINIMUM UPWIND TOLUENE = 0.0 ppb DATE OF OCCURRENCE = 11/21 AT 1400 MINUMUM DAILY MEAN = 0.1 ppb DATE OF OCCURRENCE = 11/28

MEANS REQUIRE 75% VALID DATA MISSING DATA DENOTED BY ---

HarmonCreek

UPWIND TOLUENE in ppb for DECEMBER, 2019

Hr Beg Hr End Day	0 1	1 2	2 3	3 4	4 5	5 6	6 7	7 8	8 9	9 10	10 11	11 12	12 13	13 14	14 15	15 16	16 17	17 18	18 19	19 20	20 21	21 22	22 23	23 24	MEAN	MAX	MIN
1	0.2	---	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.0
2	0.1	---	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1
3	0.1	---	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
4	0.1	---	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
5	0.1	---	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.2	0.2	0.1	0.1	0.1	0.3	0.1
6	0.1	---	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.2	0.1
7	0.2	---	0.2	0.1	0.2	0.2	0.2	0.2	0.3	0.2	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.1	0.3	0.0
8	0.3	---	0.3	0.3	0.4	0.4	0.3	0.3	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	---	---	0.1	0.1	0.2	0.4	0.1
9	0.1	0.1	---	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0
10	0.1	0.1	---	0.1	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.1	---	---	---	---
17	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	---	---	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
18	---	0.0	0.1	0.0	0.1	0.0	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.0	0.1	0.1	0.1	0.0	0.1	0.0
19	---	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.3	0.1
20	---	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.1	0.1	0.0	0.0	0.1	0.0	0.0	0.1	0.0	---	---	---
31	---	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.1	0.1	0.0	0.1	0.0
MEAN	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---		
MAX	0.3	0.2	0.3	0.3	0.4	0.4	0.3	0.3	0.3	0.3	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.3		0.4	
MIN	0.1	0.0	0.0	0.0	0.1	0.0	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.0			0.0

POSSIBLE NUMBER OF OBSERVATIONS = 744 ACTUAL NUMBER OF OBSERVATIONS = 339 DATA RECOVERY RATE = 45.6%

MONTHLY MEAN = 0.1 ppb

MAXIMUM UPWIND TOLUENE = 0.4 ppb DATE OF OCCURRENCE = 12/8 AT 0600 MAXIMUM DAILY MEAN = 0.2 ppb DATE OF OCCURRENCE = 12/8

MINIMUM UPWIND TOLUENE = 0.0 ppb DATE OF OCCURRENCE = 12/18 AT 0200 MINUMUM DAILY MEAN = 0.0 ppb DATE OF OCCURRENCE = 12/31

MEANS REQUIRE 75% VALID DATA MISSING DATA DENOTED BY ---

HarmonCreek

UPWIND ETHYLBENZENE in ppb for NOVEMBER, 2019

Hr Beg Hr End Day	0 1	1 2	2 3	3 4	4 5	5 6	6 7	7 8	8 9	9 10	10 11	11 12	12 13	13 14	14 15	15 16	16 17	17 18	18 19	19 20	20 21	21 22	22 23	23 24	MEAN	MAX	MIN
1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---	---	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	---	---	---
22	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0
26	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
28	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
29	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30	---	0.0	---	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MEAN	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---		
MAX	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1		0.3	
MIN	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0

POSSIBLE NUMBER OF OBSERVATIONS = 720 ACTUAL NUMBER OF OBSERVATIONS = 216 DATA RECOVERY RATE = 30.0%

MONTHLY MEAN = 0.0 ppb

MAXIMUM UPWIND ETHYLBENZENE = 0.3 ppb DATE OF OCCURRENCE = 11/21 AT 1400 MAXIMUM DAILY MEAN = 0.0 ppb DATE OF OCCURRENCE = 11/23

MINIMUM UPWIND ETHYLBENZENE = 0.0 ppb DATE OF OCCURRENCE = 11/22 AT 1300 MINUMUM DAILY MEAN = 0.0 ppb DATE OF OCCURRENCE = 11/28

MEANS REQUIRE 75% VALID DATA MISSING DATA DENOTED BY ---

HarmonCreek

UPWIND ETHYLBENZENE in ppb for DECEMBER, 2019

Hr Beg Hr End Day	0 1	1 2	2 3	3 4	4 5	5 6	6 7	7 8	8 9	9 10	10 11	11 12	12 13	13 14	14 15	15 16	16 17	17 18	18 19	19 20	20 21	21 22	22 23	23 24	MEAN	MAX	MIN
1	0.0	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	0.0	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	0.0	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	0.0	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	0.0	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	0.0	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	0.0	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	0.0	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	---	---	0.0	0.0	0.0	0.0	0.0
9	0.0	0.0	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	0.0	0.0	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	---	---	---	---
17	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	---	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19	---	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
20	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	---	---	---
31	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MEAN	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---		
MAX	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.1	
MIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0

POSSIBLE NUMBER OF OBSERVATIONS = 744 ACTUAL NUMBER OF OBSERVATIONS = 339 DATA RECOVERY RATE = 45.6%

MONTHLY MEAN = 0.0 ppb

MAXIMUM UPWIND ETHYLBENZENE = 0.1 ppb DATE OF OCCURRENCE = 12/19 AT 0800 MAXIMUM DAILY MEAN = 0.0 ppb DATE OF OCCURRENCE = 12/19

MINIMUM UPWIND ETHYLBENZENE = 0.0 ppb DATE OF OCCURRENCE = 12/1 AT 1500 MINUMUM DAILY MEAN = 0.0 ppb DATE OF OCCURRENCE = 12/31

MEANS REQUIRE 75% VALID DATA MISSING DATA DENOTED BY ---

HarmonCreek

UPWIND TOTAL XYLENES in ppb for NOVEMBER, 2019

Hr Beg Hr End Day	0 1	1 2	2 3	3 4	4 5	5 6	6 7	7 8	8 9	9 10	10 11	11 12	12 13	13 14	14 15	15 16	16 17	17 18	18 19	19 20	20 21	21 22	22 23	23 24	MEAN	MAX	MIN
1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---	---	3.8	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	---	---	---
22	---	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.0
23	---	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1
24	---	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
25	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0
26	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.2	0.3	0.2	0.1	0.3	0.0
27	---	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
28	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
29	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.0
30	---	0.1	---	---	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
MEAN	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---		
MAX	---	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	3.8	0.1	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.2		3.8	
MIN	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0

POSSIBLE NUMBER OF OBSERVATIONS = 720 ACTUAL NUMBER OF OBSERVATIONS = 216 DATA RECOVERY RATE = 30.0%

MONTHLY MEAN = 0.1 ppb

MAXIMUM UPWIND TOTAL XYLENES = 3.8 ppb DATE OF OCCURRENCE = 11/21 AT 1400 MAXIMUM DAILY MEAN = 0.1 ppb DATE OF OCCURRENCE = 11/23

MINIMUM UPWIND TOTAL XYLENES = 0.0 ppb DATE OF OCCURRENCE = 11/27 AT 2400 MINUMUM DAILY MEAN = 0.0 ppb DATE OF OCCURRENCE = 11/28

MEANS REQUIRE 75% VALID DATA MISSING DATA DENOTED BY ---

HarmonCreek

UPWIND TOTAL XYLENES in ppb for DECEMBER, 2019

Hr Beg Hr End Day	0 1	1 2	2 3	3 4	4 5	5 6	6 7	7 8	8 9	9 10	10 11	11 12	12 13	13 14	14 15	15 16	16 17	17 18	18 19	19 20	20 21	21 22	22 23	23 24	MEAN	MAX	MIN
1	0.1	---	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
2	0.0	---	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0
3	0.1	---	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
4	0.0	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
5	0.0	---	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.1	0.1	0.1	0.1	0.0	0.2	0.0
6	0.0	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.0	0.1	0.0	0.1	0.0
7	0.1	---	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.0
8	0.1	---	0.2	0.1	0.2	0.3	0.2	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	---	---	0.0	0.0	0.1	0.3	0.0
9	0.0	0.0	---	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
10	0.0	0.0	---	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	---	---	---	---
17	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.0	0.0	---	---	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.0
18	---	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
19	---	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.2	0.0
20	---	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	---	---	---
31	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MEAN	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---		
MAX	0.1	0.1	0.2	0.1	0.2	0.3	0.2	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.2		0.3	
MIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0

POSSIBLE NUMBER OF OBSERVATIONS = 744 ACTUAL NUMBER OF OBSERVATIONS = 339 DATA RECOVERY RATE = 45.6%

MONTHLY MEAN = 0.0 ppb

MAXIMUM UPWIND TOTAL XYLENES = 0.3 ppb DATE OF OCCURRENCE = 12/8 AT 0600 MAXIMUM DAILY MEAN = 0.1 ppb DATE OF OCCURRENCE = 12/8

MINIMUM UPWIND TOTAL XYLENES = 0.0 ppb DATE OF OCCURRENCE = 12/19 AT 0200 MINUMUM DAILY MEAN = 0.0 ppb DATE OF OCCURRENCE = 12/31

MEANS REQUIRE 75% VALID DATA MISSING DATA DENOTED BY ---

HarmonCreek

UPWIND THC PAMS in ppb for NOVEMBER, 2019

Hr Beg Hr End Day	0 1	1 2	2 3	3 4	4 5	5 6	6 7	7 8	8 9	9 10	10 11	11 12	12 13	13 14	14 15	15 16	16 17	17 18	18 19	19 20	20 21	21 22	22 23	23 24	MEAN	MAX	MIN
1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---	---	64.3	58.1	53.2	58.2	53.6	49.1	30.0	21.3	19.3	19.7	18.4	---	---	---
22	---	16.2	15.3	13.8	13.7	13.8	15.7	16.3	12.7	13.2	11.9	11.2	9.0	9.9	9.6	10.2	8.9	13.0	12.1	9.4	13.7	14.1	20.2	29.6	13.6	29.6	8.9
23	---	45.9	39.4	58.0	33.0	46.6	44.8	45.6	70.0	50.9	72.5	21.1	22.2	32.0	21.7	24.3	110.6	24.5	30.4	22.2	27.2	25.5	21.8	22.7	39.7	110.6	21.1
24	---	19.1	18.7	18.7	10.7	11.6	11.8	11.7	13.5	13.4	12.3	12.2	11.0	10.4	10.7	10.7	9.7	10.8	9.9	9.7	11.3	12.4	11.5	11.5	12.3	19.1	9.7
25	---	19.0	20.2	22.2	20.0	29.1	30.4	34.9	36.2	35.5	33.1	35.5	30.0	25.3	21.6	23.0	23.9	22.4	27.3	39.0	35.1	42.9	40.5	35.0	29.7	42.9	19.0
26	---	43.5	43.1	31.0	39.7	29.3	28.1	41.0	34.2	30.0	30.4	28.3	24.3	24.8	25.7	28.2	165.3	387.1	121.1	179.5	80.3	104.9	140.3	109.2	76.9	387.1	24.3
27	---	247.7	41.1	208.6	38.7	54.1	31.6	34.0	33.1	41.9	28.0	15.8	12.2	7.5	7.7	10.7	10.6	9.0	8.3	9.1	8.3	9.2	9.9	8.0	38.5	247.7	7.5
28	---	9.4	8.8	8.6	8.0	8.4	7.7	8.2	7.8	8.1	8.0	8.8	9.2	8.3	8.4	8.3	7.9	8.6	8.6	8.7	9.6	9.6	11.2	11.8	8.8	11.8	7.7
29	---	11.2	12.7	10.9	12.2	7.7	9.2	8.1	7.1	7.1	7.4	7.7	8.2	10.3	8.3	8.9	8.3	13.2	14.0	26.4	41.5	28.4	26.1	18.9	13.6	41.5	7.1
30	---	14.0	---	---	14.1	21.1	20.9	17.2	18.4	16.3	22.2	23.7	19.5	19.1	74.1	26.6	21.7	22.6	26.3	38.1	25.7	19.6	34.3	49.5	25.9	74.1	14.0
MEAN	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---		
MAX	---	247.7	43.1	208.6	39.7	54.1	44.8	45.6	70.0	50.9	72.5	35.5	30.0	64.3	74.1	53.2	165.3	387.1	121.1	179.5	80.3	104.9	140.3	109.2		387.1	
MIN	---	9.4	8.8	8.6	8.0	7.7	7.7	8.1	7.1	7.1	7.4	7.7	8.2	7.5	7.7	8.3	7.9	8.6	8.3	8.7	8.3	9.2	9.9	8.0			7.1

POSSIBLE NUMBER OF OBSERVATIONS = 720 ACTUAL NUMBER OF OBSERVATIONS = 216 DATA RECOVERY RATE = 30.0%

MONTHLY MEAN = 29.4 ppb

MAXIMUM UPWIND THC PAMS = 387.1 ppb DATE OF OCCURRENCE = 11/26 AT 1800 MAXIMUM DAILY MEAN = 76.9 ppb DATE OF OCCURRENCE = 11/26

MINIMUM UPWIND THC PAMS = 7.1 ppb DATE OF OCCURRENCE = 11/29 AT 1000 MINUMUM DAILY MEAN = 8.8 ppb DATE OF OCCURRENCE = 11/28

MEANS REQUIRE 75% VALID DATA MISSING DATA DENOTED BY ---

HarmonCreek

UPWIND THC PAMS in ppb for DECEMBER, 2019

Hr Beg Hr End Day	0 1	1 2	2 3	3 4	4 5	5 6	6 7	7 8	8 9	9 10	10 11	11 12	12 13	13 14	14 15	15 16	16 17	17 18	18 19	19 20	20 21	21 22	22 23	23 24	MEAN	MAX	MIN
1	25.6	---	31.4	39.6	53.5	50.9	57.1	61.2	54.4	95.4	22.4	103.3	103.8	31.6	9.5	8.4	9.8	9.1	9.4	11.2	9.8	9.6	11.5	10.4	36.0	103.8	8.4
2	10.3	---	15.8	19.3	16.0	16.0	17.5	17.1	17.4	20.8	15.1	18.0	14.8	12.6	10.6	10.0	10.1	9.3	8.8	8.5	8.1	7.8	7.7	8.4	13.0	20.8	7.7
3	7.4	---	9.9	10.7	10.9	9.9	9.6	10.7	9.0	7.5	9.0	8.8	8.4	8.5	8.4	9.7	9.8	10.0	9.3	8.4	7.6	8.4	8.2	9.0	9.1	10.9	7.4
4	8.8	---	11.0	10.3	10.6	10.6	10.9	11.0	11.5	12.3	12.2	11.0	11.6	12.0	12.3	11.2	10.3	9.5	9.7	10.7	9.0	8.4	9.1	10.1	10.6	12.3	8.4
5	11.0	---	10.9	10.6	11.5	11.5	11.7	10.7	10.7	10.5	8.9	9.2	8.1	7.7	9.5	8.1	8.2	8.5	12.9	17.1	21.8	26.6	26.2	27.5	13.0	27.5	7.7
6	27.4	---	28.3	35.5	34.9	34.0	33.2	31.5	28.8	26.9	22.8	24.3	16.9	13.4	13.1	10.2	9.2	9.1	8.4	8.9	15.3	13.9	10.4	11.0	20.3	35.5	8.4
7	16.3	---	17.9	21.8	25.1	37.4	39.5	28.8	34.9	26.9	11.6	12.4	11.3	10.9	11.8	9.7	10.3	15.9	142.1	54.7	20.9	57.8	219.9	109.9	41.2	219.9	9.7
8	101.8	---	59.6	65.2	76.6	164.2	263.8	122.9	25.8	33.5	34.1	26.1	29.5	25.8	26.5	29.4	31.0	36.0	31.2	30.4	---	---	34.4	28.1	60.8	263.8	25.8
9	28.1	26.2	---	25.4	24.9	26.0	25.0	27.2	33.3	33.7	32.3	34.4	27.2	21.8	18.3	14.1	13.4	12.5	10.5	10.1	10.0	10.5	11.5	11.1	21.2	34.4	10.0
10	12.4	14.5	---	22.1	24.2	19.8	21.5	20.6	9.8	13.1	11.1	11.2	7.3	7.3	6.5	6.0	7.0	7.0	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	15.7	16.1	15.4	15.4	16.3	15.2	15.0	14.3	---	---	---	---
17	13.3	17.5	17.0	19.5	18.1	16.5	21.0	62.1	14.1	13.3	11.1	9.4	7.4	---	---	8.7	7.1	7.3	6.8	7.6	7.6	6.7	7.7	9.8	14.1	62.1	6.7
18	---	9.1	12.1	12.5	12.9	11.2	10.6	10.2	8.9	10.2	9.5	8.3	8.3	8.7	9.9	8.6	6.3	6.5	6.7	6.8	6.6	6.6	6.8	7.0	8.9	12.9	6.3
19	---	14.1	24.5	12.2	12.5	16.1	22.9	31.8	34.0	31.3	16.1	9.1	24.5	19.7	15.5	17.3	19.8	24.8	31.1	31.1	36.6	36.5	37.3	49.8	24.7	49.8	9.1
20	---	55.9	50.9	53.9	71.6	87.1	75.2	63.6	74.5	118.8	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	14.1	10.8	9.1	7.6	7.4	6.8	7.5	8.2	6.8	---	---	---
31	---	8.9	20.8	8.8	10.4	10.9	10.0	9.0	8.5	9.0	9.1	9.4	7.2	8.6	8.3	10.0	9.4	7.8	8.8	8.6	9.0	8.1	8.9	9.5	9.5	20.8	7.2
MEAN	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---		
MAX	101.8	55.9	59.6	65.2	76.6	164.2	263.8	122.9	74.5	118.8	34.1	103.3	103.8	31.6	26.5	29.4	31.0	36.0	142.1	54.7	36.6	57.8	219.9	109.9		263.8	
MIN	7.4	8.9	9.9	8.8	10.4	9.9	9.6	9.0	8.5	7.5	8.9	8.3	7.2	7.3	6.5	6.0	6.3	6.5	6.7	6.8	6.6	6.6	6.8	6.8			6.0

POSSIBLE NUMBER OF OBSERVATIONS = 744 ACTUAL NUMBER OF OBSERVATIONS = 339 DATA RECOVERY RATE = 45.6%

MONTHLY MEAN = 21.9 ppb

MAXIMUM UPWIND THC PAMS = 263.8 ppb DATE OF OCCURRENCE = 12/8 AT 0700 MAXIMUM DAILY MEAN = 60.8 ppb DATE OF OCCURRENCE = 12/8

MINIMUM UPWIND THC PAMS = 6.0 ppb DATE OF OCCURRENCE = 12/10 AT 1600 MINUMUM DAILY MEAN = 8.9 ppb DATE OF OCCURRENCE = 12/18

MEANS REQUIRE 75% VALID DATA MISSING DATA DENOTED BY ---

B.2 Downwind #1

HarmonCreek

DOWNWIND PROPANE in ppb for NOVEMBER, 2019

Hr Beg Hr End Day	0 1	1 2	2 3	3 4	4 5	5 6	6 7	7 8	8 9	9 10	10 11	11 12	12 13	13 14	14 15	15 16	16 17	17 18	18 19	19 20	20 21	21 22	22 23	23 24	MEAN	MAX	MIN
1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	3.0	3.0	2.5	2.3	1.9	1.9	1.6	2.8	1.7	---	---	---
28	---	1.6	1.5	1.3	1.3	1.2	1.2	1.2	1.2	1.2	1.2	1.3	1.4	1.4	1.5	1.7	1.6	1.3	1.2	1.3	1.4	1.5	1.7	2.4	1.4	2.4	1.2
29	---	1.8	1.5	1.7	1.3	1.2	1.4	1.3	1.1	1.1	1.0	1.0	1.2	1.3	1.1	1.4	1.2	1.6	1.7	8.5	6.9	8.0	4.6	2.7	2.4	8.5	1.0
30	---	1.7	2.1	1.8	2.0	2.7	2.6	2.9	2.6	2.4	2.2	2.1	2.1	2.2	3.1	3.1	3.0	3.5	3.9	3.7	2.8	2.2	2.2	2.2	2.6	3.9	1.7
MEAN	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---		
MAX	---	1.8	2.1	1.8	2.0	2.7	2.6	2.9	2.6	2.4	2.2	2.1	2.1	2.2	3.1	3.1	3.0	3.5	3.9	8.5	6.9	8.0	4.6	2.7		8.5	
MIN	---	1.6	1.5	1.3	1.3	1.2	1.2	1.2	1.1	1.1	1.0	1.0	1.2	1.3	1.1	1.4	1.2	1.3	1.2	1.3	1.4	1.5	1.7	1.7			1.0

POSSIBLE NUMBER OF OBSERVATIONS = 720 ACTUAL NUMBER OF OBSERVATIONS = 78 DATA RECOVERY RATE = 10.8%

MONTHLY MEAN = 2.1 ppb

MAXIMUM DOWNWIND PROPANE = 8.5 ppb DATE OF OCCURRENCE = 11/29 AT 2000 MAXIMUM DAILY MEAN = 2.6 ppb DATE OF OCCURRENCE = 11/30

MINIMUM DOWNWIND PROPANE = 1.0 ppb DATE OF OCCURRENCE = 11/29 AT 1100 MINUMUM DAILY MEAN = 1.4 ppb DATE OF OCCURRENCE = 11/28

MEANS REQUIRE 75% VALID DATA MISSING DATA DENOTED BY ---

HarmonCreek

DOWNWIND PROPANE in ppb for DECEMBER, 2019

Hr Beg	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23			
Hr End	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
Day																									MEAN	MAX	MIN
1	---	2.2	2.0	2.1	2.1	2.2	0.1	0.1	3.0	2.8	2.8	---	---	0.4	0.2	0.0	2.1	2.2	0.0	2.9	2.8	2.7	0.1	2.8	1.7	3.0	0.0
2	2.7	---	0.1	4.1	3.8	4.0	3.7	3.6	4.3	5.3	3.6	4.1	3.1	2.5	1.9	1.6	1.4	1.5	1.3	1.3	1.2	1.4	1.4	1.6	2.6	5.3	0.1
3	---	1.3	1.3	1.6	1.7	1.4	1.3	1.7	1.2	1.0	1.9	1.7	1.5	1.5	1.6	1.8	1.7	2.0	1.6	1.4	1.3	0.0	1.4	2.3	1.5	2.3	0.0
4	---	1.7	2.1	2.1	2.3	2.2	2.4	2.3	2.4	2.8	0.1	2.4	2.7	0.1	2.7	2.7	0.0	2.2	2.2	2.5	0.0	1.8	2.0	2.5	1.9	2.8	0.0
5	---	2.6	2.6	2.6	2.8	2.6	2.7	2.6	2.4	2.3	1.8	2.1	1.6	1.5	1.7	1.6	1.7	1.8	0.1	0.1	0.2	4.8	5.8	7.2	2.4	7.2	0.1
6	---	8.3	8.0	8.4	8.3	8.2	8.7	8.6	8.0	7.1	5.8	6.0	4.2	0.1	2.8	2.6	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.0	4.1	8.7	0.0
7	---	0.2	0.2	4.1	3.5	0.3	0.3	0.3	5.1	6.1	1.8	1.5	0.1	0.0	2.1	2.1	2.4	2.4	3.0	7.9	10.3	17.8	15.1	12.1	4.3	17.8	0.0
8	---	6.3	5.7	5.2	5.5	10.5	8.4	11.9	6.7	3.8	8.2	9.5	9.1	6.5	0.5	8.8	0.5	0.4	0.4	0.3	0.3	0.3	0.2	0.4	4.7	11.9	0.2
9	---	0.4	0.3	0.4	0.3	0.3	0.3	0.3	0.4	0.4	0.5	0.7	0.9	1.0	0.4	0.4	0.3	0.3	0.2	0.2	0.1	0.3	0.2	0.2	0.4	1.0	0.1
10	---	0.3	0.4	0.5	0.4	0.5	0.4	0.4	0.2	0.2	0.2	0.3	0.0	0.1	0.0	0.1	1.5	0.1	0.0	0.1	0.1	0.0	0.1	0.0	0.3	1.5	0.0
11	---	0.0	0.1	1.3	1.5	1.3	1.6	0.0	1.6	1.7	0.1	1.8	1.7	1.7	1.5	1.5	1.4	1.5	1.5	1.6	1.8	2.1	2.6	2.3	1.4	2.6	0.0
12	---	2.5	7.2	13.6	23.8	12.6	13.6	19.8	29.2	13.2	5.6	7.8	---	---	0.7	0.3	7.7	10.0	53.4	8.5	14.4	5.5	3.8	0.3	12.1	53.4	0.3
13	84.1	---	14.3	6.2	0.4	12.0	6.6	4.6	8.2	6.7	0.5	4.7	0.4	0.4	0.3	0.3	0.3	0.2	0.4	0.3	0.3	0.3	0.3	0.4	6.6	84.1	0.2
14	0.3	---	0.3	0.3	0.3	0.4	0.3	0.3	0.2	0.3	0.2	0.2	0.1	0.2	0.1	0.3	0.4	0.3	0.3	0.2	0.2	0.3	0.3	0.3	0.3	0.4	0.1
15	0.4	---	0.3	0.3	0.4	0.3	0.2	0.3	0.2	0.1	0.2	0.1	0.2	0.1	0.1	0.1	0.2	0.1	0.3	0.1	0.3	0.3	7.4	9.6	0.9	9.6	0.1
16	4.5	---	0.6	0.4	0.4	0.3	0.3	0.3	0.4	0.5	1.5	0.3	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.3	0.3	0.5	4.5	0.2
17	0.3	---	0.5	0.5	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.2	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.7	1.0	1.0	1.2	1.1	1.3	1.7	---	---	---
24	1.6	1.5	---	---	2.0	1.7	2.0	2.3	2.5	1.2	0.8	0.9	0.9	0.9	0.7	0.6	0.6	0.8	0.9	0.9	0.7	0.9	1.0	0.8	1.2	2.5	0.6
25	1.3	1.1	---	---	1.6	1.4	1.4	1.5	1.3	1.7	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	3.5	3.5	2.9	2.2	0.2	1.9	0.3	---	0.3	---	---	---
31	0.5	0.6	0.5	0.3	0.6	0.5	0.5	0.5	0.4	0.4	0.5	0.5	0.5	0.3	0.5	0.4	0.5	0.5	0.4	0.4	0.5	0.5	0.4	---	0.5	0.6	0.3
MEAN	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---		
MAX	84.1	8.3	14.3	13.6	23.8	12.6	13.6	19.8	29.2	13.2	8.2	9.5	9.1	6.5	2.8	8.8	7.7	10.0	53.4	8.5	14.4	17.8	15.1	12.1		84.1	
MIN	0.3	0.0	0.1	0.3	0.3	0.3	0.1	0.0	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0			0.0

POSSIBLE NUMBER OF OBSERVATIONS = 744 ACTUAL NUMBER OF OBSERVATIONS = 443 DATA RECOVERY RATE = 59.5%

MONTHLY MEAN = 2.5 ppb

MAXIMUM DOWNWIND PROPANE = 84.1 ppb DATE OF OCCURRENCE = 12/13 AT 0100 MAXIMUM DAILY MEAN = 12.1 ppb DATE OF OCCURRENCE = 12/12

MINIMUM DOWNWIND PROPANE = 0.0 ppb DATE OF OCCURRENCE = 12/1 AT 1600 MINUMUM DAILY MEAN = 0.3 ppb DATE OF OCCURRENCE = 12/10

MEANS REQUIRE 75% VALID DATA MISSING DATA DENOTED BY ---

HarmonCreek

DOWNWIND BUTANE in ppb for NOVEMBER, 2019

Hr Beg Hr End Day	0 1	1 2	2 3	3 4	4 5	5 6	6 7	7 8	8 9	9 10	10 11	11 12	12 13	13 14	14 15	15 16	16 17	17 18	18 19	19 20	20 21	21 22	22 23	23 24	MEAN	MAX	MIN
1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1.2	1.2	1.0	0.8	0.7	0.7	0.7	1.3	0.7	---	---	---
28	---	0.6	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.5	0.5	0.5	0.5	0.5	0.6	0.6	0.9	0.5	0.9	0.4
29	---	0.6	0.5	0.5	0.4	0.4	0.4	0.4	0.3	0.4	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	2.5	2.0	2.7	1.5	0.8	0.7	2.7	0.3
30	---	0.6	0.7	0.6	0.7	1.1	0.9	1.1	1.2	1.2	1.0	0.8	0.9	1.0	1.4	1.2	1.2	1.4	1.5	1.3	1.1	0.9	0.9	0.8	1.0	1.5	0.6
MEAN	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---		
MAX	---	0.6	0.7	0.6	0.7	1.1	0.9	1.1	1.2	1.2	1.0	0.8	0.9	1.0	1.4	1.2	1.2	1.4	1.5	2.5	2.0	2.7	1.5	0.9		2.7	
MIN	---	0.6	0.5	0.5	0.4	0.4	0.4	0.4	0.3	0.4	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.6	0.6	0.7			0.3

POSSIBLE NUMBER OF OBSERVATIONS = 720 ACTUAL NUMBER OF OBSERVATIONS = 78 DATA RECOVERY RATE = 10.8%

MONTHLY MEAN = 0.8 ppb

MAXIMUM DOWNWIND BUTANE = 2.7 ppb DATE OF OCCURRENCE = 11/29 AT 2200 MAXIMUM DAILY MEAN = 1.0 ppb DATE OF OCCURRENCE = 11/30

MINIMUM DOWNWIND BUTANE = 0.3 ppb DATE OF OCCURRENCE = 11/29 AT 0900 MINUMUM DAILY MEAN = 0.5 ppb DATE OF OCCURRENCE = 11/28

MEANS REQUIRE 75% VALID DATA MISSING DATA DENOTED BY ---

HarmonCreek

DOWNWIND BUTANE in ppb for DECEMBER, 2019

Hr Beg Hr End Day	0 1	1 2	2 3	3 4	4 5	5 6	6 7	7 8	8 9	9 10	10 11	11 12	12 13	13 14	14 15	15 16	16 17	17 18	18 19	19 20	20 21	21 22	22 23	23 24	MEAN	MAX	MIN
1	---	0.8	0.7	0.8	0.7	0.8	0.9	2.2	1.2	1.2	0.9	---	---	1.4	1.1	0.8	0.8	1.0	1.0	1.1	1.1	1.2	1.2	1.2	1.1	2.2	0.7
2	1.2	---	1.4	1.5	1.4	1.5	1.4	1.6	1.7	2.0	1.4	1.5	1.1	1.0	0.8	0.7	0.7	0.6	0.5	0.5	0.5	0.5	0.5	0.5	1.1	2.0	0.5
3	---	0.4	0.4	0.5	0.6	0.5	0.5	0.6	0.5	0.4	0.5	0.6	0.6	0.6	0.8	0.6	0.7	0.9	0.6	0.6	0.6	0.5	0.5	0.5	0.6	0.9	0.4
4	---	0.6	0.8	0.8	0.8	0.8	1.0	0.8	0.9	1.0	1.0	0.9	1.1	1.1	1.1	1.0	0.9	0.7	0.7	0.8	0.6	0.6	0.7	1.0	0.8	1.1	0.6
5	---	1.0	1.0	1.0	1.1	1.0	1.0	1.0	1.0	0.9	0.7	0.7	0.6	0.5	0.6	0.6	0.7	0.8	1.0	1.2	1.4	1.7	2.2	2.6	1.1	2.6	0.5
6	---	2.9	2.4	2.3	2.3	2.4	2.7	2.9	2.7	2.4	2.0	2.3	1.5	1.2	1.1	0.9	0.8	0.7	0.9	0.8	1.0	1.0	1.1	0.7	1.7	2.9	0.7
7	---	1.4	1.5	1.3	1.3	2.4	2.0	1.8	1.8	2.1	0.7	0.5	0.6	0.7	0.7	0.8	0.9	0.9	1.1	2.6	4.1	8.3	7.4	5.2	2.2	8.3	0.5
8	---	2.3	2.1	1.7	1.8	4.7	3.8	6.2	3.3	1.2	2.2	2.5	2.4	1.9	2.5	2.4	2.2	2.1	1.8	1.6	1.4	1.4	1.6	1.8	2.4	6.2	1.2
9	---	1.7	1.7	2.0	1.7	1.6	1.5	1.5	1.7	1.8	2.0	3.0	3.3	3.5	2.2	1.6	1.4	1.2	1.0	1.0	0.9	1.0	1.1	1.1	1.7	3.5	0.9
10	---	1.7	2.5	2.8	2.7	2.6	2.7	2.5	1.2	1.3	1.3	1.2	0.8	0.7	0.6	0.6	0.6	0.7	0.6	0.6	0.6	0.6	0.6	0.6	1.3	2.8	0.6
11	---	0.7	0.5	0.5	0.7	0.6	0.8	0.7	0.8	0.7	0.7	0.7	0.6	0.6	0.6	0.6	0.6	0.5	0.6	0.6	0.6	0.7	0.9	0.8	0.7	0.9	0.5
12	---	0.9	2.9	6.9	13.1	6.4	5.8	7.0	10.0	5.2	1.8	1.8	---	---	1.4	1.0	2.4	3.1	15.9	2.7	4.7	1.9	1.3	1.3	4.6	15.9	0.9
13	25.6	---	8.0	3.0	2.1	5.1	2.1	1.4	2.6	2.4	2.9	1.5	2.4	1.4	1.4	1.3	1.9	2.3	2.5	2.2	2.0	2.3	2.3	2.7	3.5	25.6	1.3
14	2.2	---	1.4	1.3	1.3	1.5	1.2	1.0	1.2	1.0	0.7	0.7	0.7	0.7	0.9	1.6	1.4	1.3	1.1	1.1	1.0	1.1	1.2	1.4	1.2	2.2	0.7
15	1.7	---	1.7	1.6	1.6	1.7	1.1	1.0	0.9	0.7	0.8	0.7	0.8	0.9	0.8	0.8	0.8	0.8	1.0	1.0	1.2	1.0	24.9	31.3	3.4	31.3	0.7
16	16.9	---	2.2	1.5	1.3	1.4	1.3	1.4	1.6	2.5	4.7	1.0	0.8	0.8	1.4	1.0	0.9	1.0	1.0	1.2	1.0	1.1	1.0	0.9	2.1	16.9	0.8
17	0.9	---	1.6	1.6	1.1	1.7	0.9	1.0	0.8	0.9	0.7	0.6	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	2.5	3.7	4.3	5.1	4.8	5.1	5.5	---	---	---
24	5.9	6.0	---	---	7.5	6.3	7.0	8.0	8.8	4.1	3.0	4.2	5.1	4.5	2.9	3.2	2.3	2.9	3.5	3.4	3.1	3.6	4.0	3.7	4.7	8.8	2.3
25	5.9	3.8	---	---	6.2	5.6	5.1	5.0	4.8	6.9	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1.5	1.6	1.2	1.0	0.8	0.8	0.9	---	0.8	---	---	---
31	1.5	1.6	1.1	1.0	1.1	1.2	1.1	1.0	0.9	1.0	1.0	1.0	0.9	0.9	0.9	1.1	1.0	1.0	1.0	1.0	1.0	0.8	0.8	---	1.0	1.6	0.8
MEAN	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---		
MAX	25.6	6.0	8.0	6.9	13.1	6.4	7.0	8.0	10.0	6.9	4.7	4.2	5.1	4.5	2.9	3.2	2.4	3.1	15.9	4.3	5.1	8.3	24.9	31.3		31.3	
MIN	0.9	0.4	0.4	0.5	0.6	0.5	0.5	0.6	0.5	0.4	0.5	0.5	0.6	0.5	0.6	0.6	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5			0.4

POSSIBLE NUMBER OF OBSERVATIONS = 744 ACTUAL NUMBER OF OBSERVATIONS = 443 DATA RECOVERY RATE = 59.5%

MONTHLY MEAN = 2.0 ppb

MAXIMUM DOWNWIND BUTANE = 31.3 ppb DATE OF OCCURRENCE = 12/15 AT 2400 MAXIMUM DAILY MEAN = 4.7 ppb DATE OF OCCURRENCE = 12/24

MINIMUM DOWNWIND BUTANE = 0.4 ppb DATE OF OCCURRENCE = 12/3 AT 0200 MINUMUM DAILY MEAN = 0.6 ppb DATE OF OCCURRENCE = 12/3

MEANS REQUIRE 75% VALID DATA MISSING DATA DENOTED BY ---

HarmonCreek

DOWNWIND PENTANE in ppb for NOVEMBER, 2019

Hr Beg Hr End Day	0 1	1 2	2 3	3 4	4 5	5 6	6 7	7 8	8 9	9 10	10 11	11 12	12 13	13 14	14 15	15 16	16 17	17 18	18 19	19 20	20 21	21 22	22 23	23 24	MEAN	MAX	MIN
1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.5	0.3	---	---	---
28	---	0.3	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.3	0.3	0.3	0.4	0.2	0.4	0.2
29	---	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.7	0.6	0.9	0.7	0.4	0.3	0.9	0.2
30	---	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.6	0.4	0.3	0.3	0.3	0.3	0.6	0.4	0.4	0.5	0.5	0.4	0.4	0.3	0.3	0.3	0.4	0.6	0.3
MEAN	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---		
MAX	---	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.6	0.4	0.3	0.3	0.3	0.3	0.6	0.4	0.4	0.5	0.5	0.7	0.6	0.9	0.7	0.4		0.9	
MIN	---	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3			0.2

POSSIBLE NUMBER OF OBSERVATIONS = 720 ACTUAL NUMBER OF OBSERVATIONS = 78 DATA RECOVERY RATE = 10.8%

MONTHLY MEAN = 0.3 ppb

MAXIMUM DOWNWIND PENTANE = 0.9 ppb DATE OF OCCURRENCE = 11/29 AT 2200 MAXIMUM DAILY MEAN = 0.4 ppb DATE OF OCCURRENCE = 11/30

MINIMUM DOWNWIND PENTANE = 0.2 ppb DATE OF OCCURRENCE = 11/29 AT 0900 MINUMUM DAILY MEAN = 0.2 ppb DATE OF OCCURRENCE = 11/28

MEANS REQUIRE 75% VALID DATA MISSING DATA DENOTED BY ---

HarmonCreek

DOWNWIND PENTANE in ppb for DECEMBER, 2019

Hr Beg Hr End Day	0 1	1 2	2 3	3 4	4 5	5 6	6 7	7 8	8 9	9 10	10 11	11 12	12 13	13 14	14 15	15 16	16 17	17 18	18 19	19 20	20 21	21 22	22 23	23 24	MEAN	MAX	MIN
1	---	0.3	0.3	0.3	0.3	0.3	0.4	1.2	0.6	0.6	0.3	---	---	0.5	0.4	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	1.2	0.3
2	0.4	---	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.6	0.5	0.5	0.4	0.4	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.4	0.6	0.2
3	---	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.3	0.2	0.2	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2
4	---	0.2	0.3	0.3	0.3	0.3	0.4	0.3	0.3	0.3	0.4	0.3	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.2	0.3	0.3	0.3	0.4	0.2
5	---	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.2	0.3	0.2	0.3	0.3	0.4	0.4	0.5	0.5	0.7	0.8	0.4	0.8	0.2
6	---	0.9	0.7	0.6	0.6	0.7	0.7	0.8	0.8	0.7	0.6	0.7	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.4	0.3	0.4	0.3	0.5	0.9	0.3
7	---	0.5	0.4	0.4	0.4	0.8	0.6	0.6	0.6	0.6	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.9	1.7	3.9	3.6	2.2	0.9	3.9	0.3
8	---	0.9	0.8	0.6	0.7	2.0	1.7	2.8	1.4	0.4	0.7	0.8	0.7	0.6	0.7	0.7	0.6	0.6	0.5	0.4	0.4	0.4	0.5	0.5	0.8	2.8	0.4
9	---	0.5	0.5	0.6	0.5	0.4	0.5	0.4	0.5	0.5	0.6	0.8	0.9	1.0	0.6	0.5	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.5	1.0	0.3
10	---	0.5	0.7	0.8	0.7	0.7	0.8	0.7	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.2	0.2	0.3	0.2	0.2	0.2	0.3	0.2	0.2	0.4	0.8	0.2
11	---	0.2	0.2	0.2	0.2	0.2	0.3	0.2	1.5	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.4	0.3	0.3	1.5	0.2
12	---	0.3	1.2	3.1	5.9	2.8	2.3	2.3	2.7	1.8	0.6	0.7	---	---	0.5	0.4	0.8	0.9	3.5	0.8	1.2	0.6	0.5	0.5	1.6	5.9	0.3
13	6.5	---	3.7	1.5	0.8	2.2	0.8	0.5	0.9	1.0	1.3	0.4	0.9	0.5	0.5	0.5	0.9	0.7	0.8	0.7	0.6	0.8	0.8	0.8	1.2	6.5	0.4
14	0.7	---	0.5	0.5	0.5	0.5	0.4	0.4	0.3	0.3	0.2	0.3	0.3	0.3	0.3	0.5	0.4	0.4	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.7	0.2
15	0.5	---	0.5	0.4	0.5	0.5	0.4	0.3	0.3	0.3	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	5.6	6.7	0.8	6.7	0.2
16	5.0	---	0.6	0.5	0.4	0.4	0.4	0.4	0.5	0.7	1.1	0.3	0.3	0.3	0.8	0.6	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.6	5.0	0.3
17	0.3	---	0.5	0.5	0.3	0.5	0.4	0.4	0.2	0.3	0.2	0.2	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.7	1.1	1.2	1.4	1.3	1.4	1.5	---	---	---
24	1.7	1.8	---	---	2.0	1.7	1.9	2.1	2.8	1.4	1.0	1.2	1.3	1.0	0.7	0.8	0.6	0.7	0.8	0.8	0.8	0.9	1.0	1.2	1.3	2.8	0.6
25	2.7	1.1	---	---	1.8	1.7	1.5	1.4	1.4	2.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.4	0.5	0.4	0.4	0.3	0.3	0.3	---	0.3	---	---	---
31	0.5	0.6	0.4	0.3	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	---	0.3	0.6	0.2
MEAN	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---		
MAX	6.5	1.8	3.7	3.1	5.9	2.8	2.3	2.8	2.8	2.0	1.3	1.2	1.3	1.0	0.8	0.8	0.9	0.9	3.5	1.2	1.7	3.9	5.6	6.7		6.7	
MIN	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2			0.2

POSSIBLE NUMBER OF OBSERVATIONS = 744 ACTUAL NUMBER OF OBSERVATIONS = 443 DATA RECOVERY RATE = 59.5%

MONTHLY MEAN = 0.6 ppb

MAXIMUM DOWNWIND PENTANE = 6.7 ppb DATE OF OCCURRENCE = 12/15 AT 2400 MAXIMUM DAILY MEAN = 1.6 ppb DATE OF OCCURRENCE = 12/12

MINIMUM DOWNWIND PENTANE = 0.2 ppb DATE OF OCCURRENCE = 12/3 AT 0200 MINUMUM DAILY MEAN = 0.2 ppb DATE OF OCCURRENCE = 12/3

MEANS REQUIRE 75% VALID DATA MISSING DATA DENOTED BY ---

HarmonCreek

DOWNWIND HEXANE in ppb for NOVEMBER, 2019

Hr Beg Hr End Day	0 1	1 2	2 3	3 4	4 5	5 6	6 7	7 8	8 9	9 10	10 11	11 12	12 13	13 14	14 15	15 16	16 17	17 18	18 19	19 20	20 21	21 22	22 23	23 24	MEAN	MAX	MIN
1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	---	---	---
28	---	0.2	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.2	0.0
29	---	0.2	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.2	0.2	0.1	0.1	0.2	0.0
30	---	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1
MEAN	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---		
MAX	---	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.2	0.1		0.2	
MIN	---	0.2	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1			0.0

POSSIBLE NUMBER OF OBSERVATIONS = 720 ACTUAL NUMBER OF OBSERVATIONS = 78 DATA RECOVERY RATE = 10.8%

MONTHLY MEAN = 0.1 ppb

MAXIMUM DOWNWIND HEXANE = 0.2 ppb DATE OF OCCURRENCE = 11/30 AT 1500 MAXIMUM DAILY MEAN = 0.1 ppb DATE OF OCCURRENCE = 11/30

MINIMUM DOWNWIND HEXANE = 0.0 ppb DATE OF OCCURRENCE = 11/29 AT 0900 MINUMUM DAILY MEAN = 0.1 ppb DATE OF OCCURRENCE = 11/29

MEANS REQUIRE 75% VALID DATA MISSING DATA DENOTED BY ---

HarmonCreek

DOWNWIND HEXANE in ppb for DECEMBER, 2019

Hr Beg Hr End Day	0 1	1 2	2 3	3 4	4 5	5 6	6 7	7 8	8 9	9 10	10 11	11 12	12 13	13 14	14 15	15 16	16 17	17 18	18 19	19 20	20 21	21 22	22 23	23 24	MEAN	MAX	MIN
1	---	0.2	0.1	0.1	0.1	0.1	0.1	0.6	0.3	0.3	0.1	---	---	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.6	0.1
2	0.1	---	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.0
3	---	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.0
4	---	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1
5	---	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.2	0.0
6	---	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.1
7	---	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.7	1.8	1.8	0.9	0.3	1.8	0.1
8	---	0.4	0.3	0.2	0.2	0.8	0.7	1.1	0.5	0.1	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	1.1	0.1
9	---	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1
10	---	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.1	0.1	0.0	0.0	0.1	0.2	0.0
11	---	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.0
12	---	0.2	0.5	1.4	2.8	1.3	0.9	0.8	0.9	0.6	0.2	0.2	---	---	0.1	0.1	0.2	0.3	0.8	0.2	0.3	0.2	0.1	0.1	0.6	2.8	0.1
13	2.0	---	1.8	0.7	0.3	0.9	0.2	0.1	0.3	0.4	0.6	0.1	0.4	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.4	0.4	0.3	0.4	2.0	0.1
14	0.3	---	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.1
15	0.1	---	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	1.3	1.5	0.2	1.5	0.1
16	1.8	---	0.3	0.2	0.1	0.2	0.1	0.1	0.2	0.2	0.3	0.1	0.1	0.1	0.3	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	1.8	0.1
17	0.1	---	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.2	0.3	0.3	0.4	0.3	0.4	0.4	---	---	---
24	0.4	0.4	---	---	0.6	0.4	0.4	0.5	0.7	0.4	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.0	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.7	0.0
25	0.9	0.3	---	---	0.7	0.5	0.4	0.4	0.4	0.6	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.1	0.1	0.1	0.1	0.1	0.1	0.1	---	0.2	---	---	---
31	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	---	0.1	0.2	0.1
MEAN	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---		
MAX	2.0	0.4	1.8	1.4	2.8	1.3	0.9	1.1	0.9	0.6	0.6	0.3	0.4	0.3	0.3	0.3	0.2	0.3	0.8	0.3	0.7	1.8	1.8	1.5		2.8	
MIN	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0

POSSIBLE NUMBER OF OBSERVATIONS = 744 ACTUAL NUMBER OF OBSERVATIONS = 443 DATA RECOVERY RATE = 59.5%

MONTHLY MEAN = 0.2 ppb

MAXIMUM DOWNWIND HEXANE = 2.8 ppb DATE OF OCCURRENCE = 12/12 AT 0500 MAXIMUM DAILY MEAN = 0.6 ppb DATE OF OCCURRENCE = 12/12

MINIMUM DOWNWIND HEXANE = 0.0 ppb DATE OF OCCURRENCE = 12/24 AT 1800 MINUMUM DAILY MEAN = 0.1 ppb DATE OF OCCURRENCE = 12/3

MEANS REQUIRE 75% VALID DATA MISSING DATA DENOTED BY ---

HarmonCreek

DOWNWIND BENZENE in ppb for NOVEMBER, 2019

Hr Beg Hr End Day	0 1	1 2	2 3	3 4	4 5	5 6	6 7	7 8	8 9	9 10	10 11	11 12	12 13	13 14	14 15	15 16	16 17	17 18	18 19	19 20	20 21	21 22	22 23	23 24	MEAN	MAX	MIN
1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1.8	1.2	11.2	4.5	3.5	2.8	4.7	2.8	0.9	---	---	---
28	---	0.9	0.1	0.3	0.2	0.1	0.1	0.1	0.1	0.5	0.1	0.5	0.1	0.3	0.1	0.6	0.1	0.1	0.5	0.1	0.1	0.2	0.1	0.1	0.2	0.9	0.1
29	---	0.2	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.0
30	---	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.2	0.2	0.2	0.1	0.2	0.3	0.1	0.3	0.1
MEAN	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---		
MAX	---	0.9	0.1	0.3	0.2	0.1	0.1	0.1	0.2	0.5	0.1	0.5	0.1	0.3	0.1	1.8	1.2	11.2	4.5	3.5	2.8	4.7	2.8	0.9		11.2	
MIN	---	0.2	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1			0.0

POSSIBLE NUMBER OF OBSERVATIONS = 720 ACTUAL NUMBER OF OBSERVATIONS = 78 DATA RECOVERY RATE = 10.8%

MONTHLY MEAN = 0.6 ppb

MAXIMUM DOWNWIND BENZENE = 11.2 ppb DATE OF OCCURRENCE = 11/27 AT 1800 MAXIMUM DAILY MEAN = 0.2 ppb DATE OF OCCURRENCE = 11/28

MINIMUM DOWNWIND BENZENE = 0.0 ppb DATE OF OCCURRENCE = 11/29 AT 0700 MINUMUM DAILY MEAN = 0.1 ppb DATE OF OCCURRENCE = 11/29

MEANS REQUIRE 75% VALID DATA MISSING DATA DENOTED BY ---

HarmonCreek

DOWNWIND BENZENE in ppb for DECEMBER, 2019

Hr Beg Hr End Day	0 1	1 2	2 3	3 4	4 5	5 6	6 7	7 8	8 9	9 10	10 11	11 12	12 13	13 14	14 15	15 16	16 17	17 18	18 19	19 20	20 21	21 22	22 23	23 24	MEAN	MAX	MIN
1	---	0.3	0.2	0.2	0.3	0.2	0.2	0.1	0.1	0.2	0.1	---	---	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.3	0.1
2	0.1	---	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.1
3	---	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1
4	---	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1
5	---	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.2	0.1
6	---	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.1	0.2	0.1	0.1	0.3	0.1
7	---	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.3	0.1
8	---	0.4	0.3	0.3	0.3	0.4	0.3	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.4	0.1
9	---	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1
10	---	0.2	0.2	0.3	0.5	0.2	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.5	0.1
11	---	0.3	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.3	0.1
12	---	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	---	---	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.3	0.1
13	0.2	---	0.4	0.3	0.4	0.3	0.4	0.4	0.5	0.5	0.4	0.2	0.3	0.3	0.2	0.3	0.6	0.3	0.3	0.3	0.3	0.3	0.4	0.3	0.4	0.6	0.2
14	0.3	---	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.2	0.5	0.2	0.5	0.1
15	0.2	---	0.3	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.3	0.1
16	0.2	---	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.1
17	0.2	---	0.3	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.2	0.3	0.2	0.2	0.2	0.3	0.4	---	---	---
24	0.4	0.4	---	---	0.4	0.3	0.4	0.4	0.4	0.4	0.3	0.4	0.4	0.4	0.3	0.3	0.2	0.3	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.4	0.2
25	0.3	0.3	---	---	0.4	0.4	0.4	0.4	0.4	0.5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.1	0.1	0.1	0.1	0.2	0.1	0.1	---	0.2	---	---	---
31	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	---	0.1	0.2	0.1
MEAN	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---		
MAX	0.4	0.4	0.4	0.3	0.5	0.4	0.4	0.4	0.5	0.5	0.4	0.4	0.4	0.4	0.3	0.3	0.6	0.3	0.3	0.3	0.3	0.3	0.4	0.5		0.6	
MIN	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1			0.1

POSSIBLE NUMBER OF OBSERVATIONS = 744 ACTUAL NUMBER OF OBSERVATIONS = 443 DATA RECOVERY RATE = 59.5%

MONTHLY MEAN = 0.2 ppb

MAXIMUM DOWNWIND BENZENE = 0.6 ppb DATE OF OCCURRENCE = 12/13 AT 1700 MAXIMUM DAILY MEAN = 0.4 ppb DATE OF OCCURRENCE = 12/13

MINIMUM DOWNWIND BENZENE = 0.1 ppb DATE OF OCCURRENCE = 12/1 AT 1800 MINUMUM DAILY MEAN = 0.1 ppb DATE OF OCCURRENCE = 12/9

MEANS REQUIRE 75% VALID DATA MISSING DATA DENOTED BY ---

HarmonCreek

DOWNWIND TOLUENE in ppb for NOVEMBER, 2019

Hr Beg Hr End Day	0 1	1 2	2 3	3 4	4 5	5 6	6 7	7 8	8 9	9 10	10 11	11 12	12 13	13 14	14 15	15 16	16 17	17 18	18 19	19 20	20 21	21 22	22 23	23 24	MEAN	MAX	MIN
1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0	0.0	0.7	0.1	0.0	0.5	0.0	0.1	0.1	---	---	---
28	---	0.0	0.0	0.3	0.1	0.0	0.0	0.0	0.0	0.3	0.1	0.9	0.1	0.1	0.1	0.1	0.1	0.1	0.4	0.0	0.1	0.1	0.3	0.1	0.1	0.9	0.0
29	---	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0
30	---	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.1
MEAN	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---		
MAX	---	0.1	0.1	0.3	0.1	0.1	0.1	0.1	0.1	0.3	0.1	0.9	0.1	0.1	0.2	0.1	0.2	0.7	0.4	0.2	0.5	0.1	0.3	0.1		0.9	
MIN	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.1	0.1			0.0

POSSIBLE NUMBER OF OBSERVATIONS = 720 ACTUAL NUMBER OF OBSERVATIONS = 78 DATA RECOVERY RATE = 10.8%

MONTHLY MEAN = 0.1 ppb

MAXIMUM DOWNWIND TOLUENE = 0.9 ppb DATE OF OCCURRENCE = 11/28 AT 1200 MAXIMUM DAILY MEAN = 0.1 ppb DATE OF OCCURRENCE = 11/28

MINIMUM DOWNWIND TOLUENE = 0.0 ppb DATE OF OCCURRENCE = 11/27 AT 1700 MINUMUM DAILY MEAN = 0.1 ppb DATE OF OCCURRENCE = 11/29

MEANS REQUIRE 75% VALID DATA MISSING DATA DENOTED BY ---

HarmonCreek

DOWNWIND TOLUENE in ppb for DECEMBER, 2019

Hr Beg Hr End Day	0 1	1 2	2 3	3 4	4 5	5 6	6 7	7 8	8 9	9 10	10 11	11 12	12 13	13 14	14 15	15 16	16 17	17 18	18 19	19 20	20 21	21 22	22 23	23 24	MEAN	MAX	MIN
1	---	0.1	0.1	0.1	0.2	0.2	10.9	0.2	0.1	0.1	0.1	---	---	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.6	10.9	0.0
2	0.1	---	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1
3	---	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0
4	---	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.0
5	---	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0
6	---	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.2	0.1
7	---	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.2	0.0
8	---	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.1
9	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0
10	---	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.1	0.2	0.0
11	---	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0
12	---	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	---	---	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.3	0.3	0.2	0.2	0.3	0.1
13	0.4	---	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.1	0.1	0.2	0.3	0.3	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.3	0.5	0.1
14	0.3	---	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.3	0.1
15	0.2	---	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1
16	0.2	---	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1
17	0.1	---	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.1	0.2	0.2	0.3	0.2	0.3	0.3	---	---	---
24	0.3	0.3	---	---	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.5	0.5	0.5	0.3	0.3	0.0	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.5	0.0
25	0.2	0.3	---	---	0.3	0.3	0.3	0.4	0.4	0.4	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.1	0.0	0.0	0.0	0.1	0.0	0.0	---	0.0	---	---	---
31	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	---	0.0	0.1	0.0
MEAN	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---		
MAX	0.4	0.3	0.3	0.3	0.3	0.3	10.9	0.4	0.4	0.4	0.3	0.5	0.5	0.5	0.3	0.3	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.4		10.9	
MIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0

POSSIBLE NUMBER OF OBSERVATIONS = 744 ACTUAL NUMBER OF OBSERVATIONS = 443 DATA RECOVERY RATE = 59.5%

MONTHLY MEAN = 0.1 ppb

MAXIMUM DOWNWIND TOLUENE = 10.9 ppb DATE OF OCCURRENCE = 12/1 AT 0700 MAXIMUM DAILY MEAN = 0.6 ppb DATE OF OCCURRENCE = 12/1

MINIMUM DOWNWIND TOLUENE = 0.0 ppb DATE OF OCCURRENCE = 12/24 AT 1700 MINUMUM DAILY MEAN = 0.0 ppb DATE OF OCCURRENCE = 12/9

MEANS REQUIRE 75% VALID DATA MISSING DATA DENOTED BY ---

HarmonCreek

DOWNWIND ETHYLBENZENE in ppb for NOVEMBER, 2019

Hr Beg Hr End Day	0 1	1 2	2 3	3 4	4 5	5 6	6 7	7 8	8 9	9 10	10 11	11 12	12 13	13 14	14 15	15 16	16 17	17 18	18 19	19 20	20 21	21 22	22 23	23 24	MEAN	MAX	MIN
1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	---	---	---
28	---	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	1.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	1.1	0.0
29	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MEAN	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---		
MAX	---	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	1.1	0.0	0.1	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0		1.1	
MIN	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0

POSSIBLE NUMBER OF OBSERVATIONS = 720 ACTUAL NUMBER OF OBSERVATIONS = 78 DATA RECOVERY RATE = 10.8%

MONTHLY MEAN = 0.0 ppb

MAXIMUM DOWNWIND ETHYLBENZENE = 1.1 ppb DATE OF OCCURRENCE = 11/28 AT 1400 MAXIMUM DAILY MEAN = 0.1 ppb DATE OF OCCURRENCE = 11/28

MINIMUM DOWNWIND ETHYLBENZENE = 0.0 ppb DATE OF OCCURRENCE = 11/27 AT 1600 MINUMUM DAILY MEAN = 0.0 ppb DATE OF OCCURRENCE = 11/29

MEANS REQUIRE 75% VALID DATA MISSING DATA DENOTED BY ---

HarmonCreek

DOWNWIND ETHYLBENZENE in ppb for DECEMBER, 2019

Hr Beg Hr End Day	0 1	1 2	2 3	3 4	4 5	5 6	6 7	7 8	8 9	9 10	10 11	11 12	12 13	13 14	14 15	15 16	16 17	17 18	18 19	19 20	20 21	21 22	22 23	23 24	MEAN	MAX	MIN
1	---	0.0	0.0	0.0	0.0	0.0	18.4	0.0	0.0	0.0	0.0	---	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	18.4	0.0
2	0.0	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	---	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	0.0	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.0
14	0.1	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
15	0.0	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16	0.0	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17	0.0	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	---	---	---
24	0.0	0.0	---	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
25	0.0	0.0	---	---	0.0	0.0	0.0	0.0	0.0	0.1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	---	0.0	---	---	---
31	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	---	0.0	0.0	0.0
MEAN	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---		
MAX	0.1	0.0	0.0	0.0	0.0	0.0	18.4	0.0	0.0	0.1	0.0	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		18.4	
MIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0

POSSIBLE NUMBER OF OBSERVATIONS = 744 ACTUAL NUMBER OF OBSERVATIONS = 443 DATA RECOVERY RATE = 59.5%

MONTHLY MEAN = 0.1 ppb

MAXIMUM DOWNWIND ETHYLBENZENE = 18.4 ppb DATE OF OCCURRENCE = 12/1 AT 0700 MAXIMUM DAILY MEAN = 0.9 ppb DATE OF OCCURRENCE = 12/1

MINIMUM DOWNWIND ETHYLBENZENE = 0.0 ppb DATE OF OCCURRENCE = 12/1 AT 1500 MINUMUM DAILY MEAN = 0.0 ppb DATE OF OCCURRENCE = 12/9

MEANS REQUIRE 75% VALID DATA MISSING DATA DENOTED BY ---

HarmonCreek

DOWNWIND TOTAL XYLENES in ppb for NOVEMBER, 2019

Hr Beg Hr End Day	0 1	1 2	2 3	3 4	4 5	5 6	6 7	7 8	8 9	9 10	10 11	11 12	12 13	13 14	14 15	15 16	16 17	17 18	18 19	19 20	20 21	21 22	22 23	23 24	MEAN	MAX	MIN
1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0	0.0	0.7	0.1	0.1	0.4	0.3	0.1	0.0	---	---	---
28	---	0.1	0.0	0.0	0.5	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.5	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.1	0.1	0.5	0.0
29	---	0.0	0.0	0.1	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.0
30	---	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0
MEAN	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---		
MAX	---	0.1	0.0	0.1	0.5	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.1	0.5	0.1	0.7	0.1	0.1	0.4	0.3	0.1	0.1		0.7	
MIN	---	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0			0.0

POSSIBLE NUMBER OF OBSERVATIONS = 720 ACTUAL NUMBER OF OBSERVATIONS = 78 DATA RECOVERY RATE = 10.8%

MONTHLY MEAN = 0.1 ppb

MAXIMUM DOWNWIND TOTAL XYLENES = 0.7 ppb DATE OF OCCURRENCE = 11/27 AT 1800 MAXIMUM DAILY MEAN = 0.1 ppb DATE OF OCCURRENCE = 11/28

MINIMUM DOWNWIND TOTAL XYLENES = 0.0 ppb DATE OF OCCURRENCE = 11/27 AT 1600 MINUMUM DAILY MEAN = 0.0 ppb DATE OF OCCURRENCE = 11/29

MEANS REQUIRE 75% VALID DATA MISSING DATA DENOTED BY ---

HarmonCreek

DOWNWIND TOTAL XYLENES in ppb for DECEMBER, 2019

Hr Beg Hr End Day	0 1	1 2	2 3	3 4	4 5	5 6	6 7	7 8	8 9	9 10	10 11	11 12	12 13	13 14	14 15	15 16	16 17	17 18	18 19	19 20	20 21	21 22	22 23	23 24	MEAN	MAX	MIN
1	---	0.1	0.1	0.1	0.1	0.1	36.0	0.1	0.1	0.1	0.0	---	---	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	36.0	0.0
2	0.0	---	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.0	0.1	0.1	0.0
3	---	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
4	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
5	---	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.0
6	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.0
7	---	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.2	0.1	0.1	0.2	0.0
8	---	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
9	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	---	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
11	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	---	0.0	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	---	---	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.2	0.0
13	0.2	---	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.3	0.1
14	0.2	---	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.0
15	0.1	---	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.1	0.0
16	0.2	---	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1
17	0.1	---	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.1	0.1	0.1	0.2	0.1	0.2	0.2	---	---	---
24	0.2	0.2	---	---	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.0	0.3	0.3	0.2	0.2	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.0
25	0.1	0.2	---	---	0.2	0.2	0.2	0.2	0.2	0.2	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	---	0.0	---	---	---
31	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	---	0.0	0.0	0.0
MEAN	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---		
MAX	0.2	0.2	0.2	0.1	0.2	0.2	36.0	0.2	0.2	0.2	0.2	0.1	0.3	0.3	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3		36.0	
MIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0

POSSIBLE NUMBER OF OBSERVATIONS = 744 ACTUAL NUMBER OF OBSERVATIONS = 443 DATA RECOVERY RATE = 59.5%

MONTHLY MEAN = 0.1 ppb

MAXIMUM DOWNWIND TOTAL XYLENES = 36.0 ppb DATE OF OCCURRENCE = 12/1 AT 0700 MAXIMUM DAILY MEAN = 1.8 ppb DATE OF OCCURRENCE = 12/1

MINIMUM DOWNWIND TOTAL XYLENES = 0.0 ppb DATE OF OCCURRENCE = 12/5 AT 0500 MINUMUM DAILY MEAN = 0.0 ppb DATE OF OCCURRENCE = 12/31

MEANS REQUIRE 75% VALID DATA MISSING DATA DENOTED BY ---

HarmonCreek

DOWNWIND THC PAMS in ppb for NOVEMBER, 2019

Hr Beg Hr End Day	0 1	1 2	2 3	3 4	4 5	5 6	6 7	7 8	8 9	9 10	10 11	11 12	12 13	13 14	14 15	15 16	16 17	17 18	18 19	19 20	20 21	21 22	22 23	23 24	MEAN	MAX	MIN
1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	55.4	75.2	83.1	52.6	46.4	33.3	41.2	52.8	23.9	---	---	---
28	---	13.9	15.5	26.2	16.1	11.8	15.2	10.8	10.9	10.6	15.4	21.6	11.2	12.3	11.0	12.9	11.2	11.0	14.0	10.3	13.7	12.6	14.7	14.7	13.8	26.2	10.3
29	---	13.1	11.6	12.9	11.4	10.0	11.9	9.2	8.1	8.5	7.7	8.0	10.4	9.8	9.0	10.7	9.2	11.5	11.7	43.1	33.5	37.5	26.3	18.2	14.9	43.1	7.7
30	---	13.4	17.2	12.7	13.6	21.1	25.7	19.1	18.3	18.9	18.8	16.7	15.6	17.9	23.7	24.2	24.6	26.1	30.0	27.9	21.4	19.0	17.9	18.4	20.1	30.0	12.7
MEAN	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---		
MAX	---	13.9	17.2	26.2	16.1	21.1	25.7	19.1	18.3	18.9	18.8	21.6	15.6	17.9	23.7	55.4	75.2	83.1	52.6	46.4	33.5	41.2	52.8	23.9		83.1	
MIN	---	13.1	11.6	12.7	11.4	10.0	11.9	9.2	8.1	8.5	7.7	8.0	10.4	9.8	9.0	10.7	9.2	11.0	11.7	10.3	13.7	12.6	14.7	14.7			7.7

POSSIBLE NUMBER OF OBSERVATIONS = 720 ACTUAL NUMBER OF OBSERVATIONS = 78 DATA RECOVERY RATE = 10.8%

MONTHLY MEAN = 20.3 ppb

MAXIMUM DOWNWIND THC PAMS = 83.1 ppb DATE OF OCCURRENCE = 11/27 AT 1800 MAXIMUM DAILY MEAN = 20.1 ppb DATE OF OCCURRENCE = 11/30

MINIMUM DOWNWIND THC PAMS = 7.7 ppb DATE OF OCCURRENCE = 11/29 AT 1100 MINUMUM DAILY MEAN = 13.8 ppb DATE OF OCCURRENCE = 11/28

MEANS REQUIRE 75% VALID DATA MISSING DATA DENOTED BY ---

HarmonCreek

DOWNWIND THC PAMS in ppb for DECEMBER, 2019

Hr Beg Hr End Day	0 1	1 2	2 3	3 4	4 5	5 6	6 7	7 8	8 9	9 10	10 11	11 12	12 13	13 14	14 15	15 16	16 17	17 18	18 19	19 20	20 21	21 22	22 23	23 24	MEAN	MAX	MIN
1	---	16.2	14.7	15.3	15.0	14.8	178.5	21.0	19.0	19.3	25.4	---	---	18.1	19.9	9.3	11.7	11.1	10.3	13.6	13.7	12.5	14.6	17.1	23.4	178.5	9.3
2	16.2	---	21.7	21.9	20.4	20.2	22.7	21.5	23.5	24.8	19.1	22.3	17.8	16.4	12.9	12.1	10.0	10.5	9.6	9.3	8.8	10.5	10.1	9.7	16.2	24.8	8.8
3	---	8.9	9.8	11.4	12.0	10.6	10.1	11.7	9.8	8.1	10.4	11.1	11.6	10.6	10.8	16.0	13.1	13.2	14.0	11.1	10.1	15.5	12.9	12.1	11.5	16.0	8.1
4	---	18.1	19.4	22.8	18.1	19.6	18.4	18.1	20.7	27.2	16.8	14.3	15.3	12.6	15.3	14.3	10.9	11.8	11.7	13.7	9.1	10.3	11.1	12.7	15.7	27.2	9.1
5	---	13.6	13.2	12.9	14.2	13.7	14.5	13.9	13.5	13.0	10.9	11.6	9.9	9.4	11.3	9.9	10.3	10.8	21.1	15.8	22.6	47.9	44.2	65.4	18.4	65.4	9.4
6	---	94.9	146.4	68.2	48.4	56.6	54.2	47.9	51.0	41.0	29.4	30.3	21.5	13.5	15.9	13.9	10.7	7.5	10.1	8.2	10.1	11.0	13.5	7.3	35.3	146.4	7.3
7	---	14.8	18.8	20.1	19.5	27.2	21.4	26.9	25.5	30.6	11.9	10.8	14.3	27.1	39.4	14.5	26.4	13.4	16.8	36.4	49.8	88.0	70.3	62.1	29.8	88.0	10.8
8	---	36.3	32.4	30.2	32.1	57.6	46.3	63.2	39.8	25.2	98.6	126.1	117.2	51.8	118.8	102.1	59.4	31.2	31.4	30.6	27.6	22.1	40.6	53.7	55.4	126.1	22.1
9	---	48.5	30.8	95.6	48.4	25.8	34.2	28.0	28.7	30.7	63.3	67.3	102.5	167.8	41.9	33.4	30.6	24.4	15.9	15.8	14.4	15.2	12.8	10.8	42.9	167.8	10.8
10	---	13.9	17.4	19.5	21.3	18.2	19.2	19.4	9.5	11.5	10.4	10.5	7.1	6.6	6.2	5.8	7.6	6.4	6.0	6.3	8.0	8.6	8.2	8.0	11.1	21.3	5.8
11	---	8.9	7.8	8.4	9.6	8.8	10.9	8.7	14.5	10.6	12.7	11.7	10.6	10.7	9.2	9.7	9.4	9.6	9.1	9.6	10.7	13.1	12.1	13.0	10.4	14.5	7.8
12	---	13.5	29.0	59.3	106.7	58.3	59.3	90.4	106.1	63.8	35.0	45.4	---	---	23.0	16.4	37.7	38.0	239.8	38.8	57.6	31.5	23.6	19.5	56.8	239.8	13.5
13	308.3	---	69.7	36.1	20.7	60.0	31.5	24.6	38.7	36.3	31.6	29.2	30.6	24.1	17.5	16.0	20.6	20.4	25.7	25.5	22.5	28.1	46.8	30.1	43.2	308.3	16.0
14	33.1	---	33.8	28.3	30.4	21.3	17.1	18.5	13.4	13.0	8.2	8.9	8.7	9.1	9.8	15.4	14.9	12.8	11.6	10.7	9.5	10.0	11.1	13.0	15.8	33.8	8.2
15	13.2	---	13.9	12.9	13.5	15.5	10.3	9.9	8.6	8.2	8.0	7.1	8.3	9.1	8.5	8.0	7.9	8.4	10.7	8.8	10.6	13.0	184.7	244.2	28.0	244.2	7.1
16	140.4	---	23.3	22.4	18.8	17.9	16.8	16.4	17.2	32.5	83.6	13.6	11.4	10.6	13.9	13.3	12.6	11.8	12.5	12.4	12.1	12.1	11.3	11.5	23.9	140.4	10.6
17	10.7	---	23.1	22.2	15.4	21.2	12.4	10.4	9.6	11.0	9.1	7.8	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	27.7	31.3	61.4	37.5	37.0	56.6	49.7	---	---	---
24	47.2	64.7	---	---	65.5	72.8	62.6	74.5	87.3	38.6	29.2	35.6	42.0	36.1	28.9	28.2	25.9	30.0	28.4	31.6	25.8	34.3	38.9	33.6	43.7	87.3	25.8
25	40.2	39.1	---	---	60.9	53.4	44.7	46.1	48.8	71.7	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	21.7	17.9	16.5	12.9	10.5	12.4	10.1	---	12.6	---	---	---
31	28.5	28.1	13.5	11.8	15.0	17.3	12.9	14.3	12.7	13.6	13.4	12.9	11.2	5.6	10.4	12.2	11.5	11.7	10.7	10.6	11.3	10.4	9.6	---	13.4	28.5	5.6
MEAN	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---		
MAX	308.3	94.9	146.4	95.6	106.7	72.8	178.5	90.4	106.1	71.7	98.6	126.1	117.2	167.8	118.8	102.1	59.4	38.0	239.8	61.4	57.6	88.0	184.7	244.2		308.3	
MIN	10.7	8.9	7.8	8.4	9.6	8.8	10.1	8.7	8.6	8.1	8.0	7.1	7.1	5.6	6.2	5.8	7.6	6.4	6.0	6.3	8.0	8.6	8.2	7.3			5.6

POSSIBLE NUMBER OF OBSERVATIONS = 744 ACTUAL NUMBER OF OBSERVATIONS = 443 DATA RECOVERY RATE = 59.5%

MONTHLY MEAN = 27.4 ppb

MAXIMUM DOWNWIND THC PAMS = 308.3 ppb DATE OF OCCURRENCE = 12/13 AT 0100 MAXIMUM DAILY MEAN = 56.8 ppb DATE OF OCCURRENCE = 12/12

MINIMUM DOWNWIND THC PAMS = 5.6 ppb DATE OF OCCURRENCE = 12/31 AT 1400 MINUMUM DAILY MEAN = 10.4 ppb DATE OF OCCURRENCE = 12/11

MEANS REQUIRE 75% VALID DATA MISSING DATA DENOTED BY ---

B.3 Downwind #2

HarmonCreek

DOWNWIND2 PROPANE in ppb for NOVEMBER, 2019

Hr Beg Hr End Day	0 1	1 2	2 3	3 4	4 5	5 6	6 7	7 8	8 9	9 10	10 11	11 12	12 13	13 14	14 15	15 16	16 17	17 18	18 19	19 20	20 21	21 22	22 23	23 24	MEAN	MAX	MIN
1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	6.4	---	19.1	10.0	---	9.0	---	8.7	8.8	---	---	---
20	---	---	---	6.6	---	7.2	8.1	---	6.5	---	---	4.1	---	3.7	2.7	2.7	---	2.9	3.6	4.0	5.9	5.5	7.0	10.2	---	---	---
21	---	6.8	6.7	7.6	7.5	6.8	6.5	6.7	15.8	13.7	8.0	6.9	6.6	6.0	6.4	6.1	7.1	7.2	7.1	4.3	2.5	2.3	2.5	2.4	6.7	15.8	2.3
22	---	1.9	1.7	1.5	1.3	1.5	2.8	3.0	2.1	1.6	1.5	1.3	1.1	0.8	0.9	1.7	1.4	3.4	2.6	2.8	1.2	3.3	2.0	2.3	1.9	3.4	0.8
23	---	2.2	2.3	3.0	3.8	4.4	4.8	4.9	4.0	2.4	3.9	1.6	1.3	1.5	1.8	1.9	2.0	2.4	2.0	1.8	1.9	3.4	2.7	4.3	2.8	4.9	1.3
24	---	2.4	2.1	2.0	1.1	1.8	1.2	1.4	1.9	2.3	1.6	1.6	1.4	1.3	1.3	1.1	1.2	1.2	1.0	1.1	1.4	1.5	1.6	1.6	1.5	2.4	1.0
25	---	2.6	2.7	2.5	3.9	4.3	4.6	5.2	5.7	5.0	4.7	5.0	4.3	4.2	3.4	3.6	3.9	4.6	6.5	14.3	10.6	6.5	6.2	6.3	5.2	14.3	2.5
26	---	5.8	5.8	5.9	5.9	6.1	5.7	5.9	5.9	5.5	5.2	4.7	4.6	4.2	5.5	11.1	6.1	4.8	6.1	6.2	6.9	7.4	7.7	6.0	6.0	11.1	4.2
27	---	4.8	4.7	5.5	5.2	3.9	6.8	4.4	3.7	5.2	5.9	2.9	2.1	1.7	0.1	2.4	2.5	1.9	2.0	1.7	1.9	1.7	1.6	1.6	3.2	6.8	0.1
28	---	1.4	1.2	1.0	1.0	1.0	0.9	1.0	0.8	1.1	0.9	0.9	1.2	1.1	1.1	1.2	1.4	0.9	1.0	1.0	1.1	1.0	1.3	1.5	1.1	1.5	0.8
29	---	1.3	2.9	3.6	1.3	2.0	1.3	0.8	0.9	1.0	1.3	1.0	1.0	1.4	1.3	1.2	1.3	1.1	3.1	3.7	2.5	2.8	1.7	1.9	1.7	3.7	0.8
30	---	1.7	1.6	1.5	1.8	2.8	2.7	2.1	2.0	1.8	1.7	1.5	1.6	1.9	2.2	2.4	2.2	2.9	2.9	2.8	2.1	1.6	1.6	1.7	2.0	2.9	1.5
MEAN	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---		
MAX	---	6.8	6.7	7.6	7.5	7.2	8.1	6.7	15.8	13.7	8.0	6.9	6.6	6.0	6.4	11.1	7.1	19.1	10.0	14.3	10.6	7.4	8.7	10.2		19.1	
MIN	---	1.3	1.2	1.0	1.0	1.0	0.9	0.8	0.8	1.0	0.9	0.9	1.0	0.8	0.1	1.1	1.2	0.9	1.0	1.0	1.1	1.0	1.3	1.5			0.1

POSSIBLE NUMBER OF OBSERVATIONS = 720 ACTUAL NUMBER OF OBSERVATIONS = 251 DATA RECOVERY RATE = 34.9%

MONTHLY MEAN = 3.5 ppb

MAXIMUM DOWNWIND2 PROPANE = 19.1 ppb DATE OF OCCURRENCE = 11/19 AT 1800 MAXIMUM DAILY MEAN = 6.7 ppb DATE OF OCCURRENCE = 11/21

MINIMUM DOWNWIND2 PROPANE = 0.1 ppb DATE OF OCCURRENCE = 11/27 AT 1500 MINUMUM DAILY MEAN = 1.1 ppb DATE OF OCCURRENCE = 11/28

MEANS REQUIRE 75% VALID DATA MISSING DATA DENOTED BY ---

HarmonCreek

DOWNWIND2 PROPANE in ppb for DECEMBER, 2019

Hr Beg Hr End Day	0 1	1 2	2 3	3 4	4 5	5 6	6 7	7 8	8 9	9 10	10 11	11 12	12 13	13 14	14 15	15 16	16 17	17 18	18 19	19 20	20 21	21 22	22 23	23 24	MEAN	MAX	MIN
1	---	1.6	1.4	1.5	1.6	1.6	1.7	2.0	---	---	2.0	4.1	2.8	2.8	2.6	1.6	2.0	2.3	1.9	2.3	2.6	2.1	2.4	2.0	2.1	4.1	1.4
2	2.1	---	3.0	6.2	3.1	3.2	3.4	2.7	3.4	3.4	4.3	5.3	2.8	5.5	1.5	1.1	1.1	0.9	1.0	0.8	0.8	0.8	0.8	1.0	2.5	6.2	0.8
3	1.3	---	0.9	1.2	1.5	1.1	1.0	1.4	2.2	1.9	1.8	1.8	1.3	1.3	1.1	1.5	1.4	1.3	1.2	1.3	0.9	1.3	1.3	1.1	1.3	2.2	0.9
4	1.1	---	1.7	1.6	1.7	1.7	2.0	2.0	1.9	2.2	3.0	1.9	2.1	2.2	2.2	2.4	3.2	1.8	2.0	1.8	1.6	1.5	1.6	2.0	2.0	3.2	1.1
5	2.2	---	2.0	2.1	2.1	2.1	2.6	3.5	2.5	2.7	1.5	2.0	1.3	1.4	2.2	2.0	3.0	1.6	2.2	6.2	4.1	7.9	8.2	8.0	3.2	8.2	1.3
6	7.1	---	5.8	6.1	5.5	6.6	6.5	6.7	6.4	5.8	4.7	7.3	3.1	3.0	2.3	2.1	1.8	1.3	1.1	2.2	1.7	7.9	3.5	2.7	4.4	7.9	1.1
7	6.1	---	12.9	6.5	11.7	11.1	10.8	10.4	10.0	7.3	1.6	1.1	1.7	1.6	1.1	1.3	1.9	3.3	3.3	3.8	3.8	3.6	4.5	4.7	5.4	12.9	1.1
8	4.4	---	4.6	3.3	3.3	3.3	3.2	3.2	2.9	2.9	4.8	6.5	6.9	4.9	6.4	5.8	6.1	6.3	4.8	3.5	3.2	3.4	2.9	3.4	4.4	6.9	2.9
9	4.0	---	5.7	8.2	8.0	3.9	4.3	4.8	4.8	4.5	7.2	8.3	7.8	5.3	3.6	3.2	2.7	2.6	2.2	2.4	2.2	2.4	2.3	2.5	4.5	8.3	2.2
10	2.7	---	5.9	5.9	5.6	5.7	5.4	5.4	2.3	3.3	9.6	4.6	2.4	1.9	2.1	2.5	1.1	1.8	4.5	2.4	1.5	2.2	2.2	2.1	3.6	9.6	1.1
11	2.5	---	1.4	1.6	2.1	1.3	1.2	1.1	1.2	1.3	1.5	1.5	1.3	1.3	1.2	1.2	1.2	1.8	2.3	1.4	1.4	1.9	1.7	2.5	1.6	2.5	1.1
12	7.4	---	3.9	3.9	2.9	3.3	6.4	13.0	9.8	4.6	3.2	7.5	6.7	3.3	3.2	2.1	2.3	3.4	3.1	2.9	2.5	2.2	2.5	3.0	4.5	13.0	2.1
13	2.6	---	2.7	2.6	3.0	3.1	3.3	2.7	2.7	3.5	3.5	3.6	3.6	3.0	2.1	2.1	2.6	2.8	3.0	3.2	123.6	9.7	7.9	7.0	8.9	123.6	2.1
14	7.9	---	3.7	3.2	5.9	5.5	---	---	2.5	2.0	1.6	1.9	2.0	1.6	2.0	3.5	4.1	4.2	4.2	2.8	3.6	3.5	2.4	2.7	3.4	7.9	1.6
15	3.5	3.8	---	3.3	3.5	3.5	2.5	2.2	1.9	1.7	1.9	1.6	2.3	1.8	1.8	1.9	2.6	1.6	1.8	2.5	2.3	5.1	21.4	13.4	3.8	21.4	1.6
16	4.1	5.3	---	3.6	3.0	2.7	2.5	2.6	2.4	2.1	1.9	2.1	2.0	2.0	1.9	2.1	2.0	2.0	2.4	2.3	2.2	2.0	2.0	2.0	2.5	5.3	1.9
17	2.1	2.5	---	2.6	2.3	3.0	4.3	4.1	2.9	3.7	5.9	3.9	1.6	1.2	1.1	1.0	1.6	1.1	1.0	1.1	0.9	1.0	2.3	1.3	2.3	5.9	0.9
18	1.6	1.6	---	2.5	2.8	1.9	2.3	2.3	2.2	1.8	1.8	1.9	1.7	1.8	2.1	1.5	1.3	1.2	1.2	1.0	0.7	0.8	0.7	0.9	1.6	2.8	0.7
19	1.0	2.0	---	2.0	2.9	4.0	5.3	7.9	7.7	3.5	1.9	1.3	2.7	2.1	3.2	2.2	3.1	5.9	15.2	5.6	6.4	7.0	8.4	10.5	4.9	15.2	1.0
20	14.1	14.6	---	14.1	15.4	15.5	16.3	16.7	17.0	21.8	5.8	5.4	3.7	3.9	4.5	3.9	3.6	4.1	4.7	4.9	9.1	8.5	10.5	10.7	9.9	21.8	3.6
21	9.6	5.9	---	8.3	8.4	10.4	13.4	9.8	12.4	11.1	7.4	9.5	23.0	6.4	8.5	8.6	9.6	7.9	7.5	8.3	8.7	8.9	18.2	15.0	10.3	23.0	5.9
22	12.8	15.2	---	16.6	14.9	13.6	13.9	13.2	14.4	13.5	9.1	5.0	3.9	3.3	3.5	3.1	4.1	7.1	8.5	11.5	9.9	21.8	21.6	12.8	11.0	21.8	3.1
23	11.1	12.9	---	15.6	15.1	21.4	18.2	20.2	23.4	21.7	19.9	10.0	5.6	6.0	5.2	5.7	5.8	20.1	7.8	7.9	9.2	19.1	12.8	12.5	13.4	23.4	5.2
24	13.7	14.3	---	17.2	20.0	23.0	26.0	27.0	26.4	16.1	6.6	7.8	7.5	6.7	6.2	5.5	5.5	5.8	5.7	5.8	6.0	7.4	10.8	7.7	12.1	27.0	5.5
25	7.4	8.2	---	13.0	10.4	10.7	9.4	8.3	9.6	10.0	13.2	12.9	13.5	13.8	14.4	14.8	15.2	16.1	16.5	18.3	18.4	18.3	18.5	19.0	13.5	19.0	7.4
26	18.9	18.0	---	17.6	17.7	19.0	19.0	21.3	20.7	17.1	9.7	7.8	6.1	6.0	3.4	3.1	5.0	6.4	7.0	10.6	9.5	10.9	11.6	---	12.1	21.3	3.1
27	13.8	12.4	8.9	---	---	5.7	5.6	5.8	5.3	5.2	4.3	3.0	3.1	3.1	3.1	2.6	2.4	2.4	2.7	3.2	9.5	4.5	17.5	6.4	5.9	17.5	2.4
28	---	5.2	5.6	6.1	5.6	6.1	4.8	4.1	4.0	4.1	4.1	6.6	8.4	7.4	5.7	5.6	5.5	6.3	8.0	9.9	9.7	10.3	10.0	8.7	6.6	10.3	4.0
29	---	8.3	7.4	7.0	7.0	7.1	7.6	7.3	7.4	6.4	4.5	3.0	3.2	2.9	4.2	4.5	3.6	5.3	49.1	5.8	6.0	5.5	5.0	3.8	7.5	49.1	2.9
30	---	2.1	1.7	3.2	2.5	4.3	5.1	1.9	1.0	1.1	1.0	1.3	1.7	1.8	2.6	2.5	3.2	3.0	2.1	1.6	1.4	2.1	1.5	1.5	2.2	5.1	1.0
31	---	2.5	2.2	2.0	2.4	2.9	2.4	2.0	2.1	2.1	2.1	2.1	1.9	1.9	2.0	2.3	2.3	2.1	1.9	2.1	2.0	2.0	1.8	---	2.1	2.9	1.8
MEAN	6.3	---	---	6.3	6.4	6.7	7.0	7.2	7.1	6.3	4.9	4.6	4.4	3.6	3.4	3.3	3.6	4.3	5.8	4.5	8.6	6.0	7.1	5.9	5.6		
MAX	18.9	18.0	12.9	17.6	20.0	23.0	26.0	27.0	26.4	21.8	19.9	12.9	23.0	13.8	14.4	14.8	15.2	20.1	49.1	18.3	123.6	21.8	21.6	19.0		123.6	
MIN	1.0	1.6	0.9	1.2	1.5	1.1	1.0	1.1	1.0	1.1	1.0	1.1	1.3	1.2	1.1	1.0	1.1	0.9	1.0	0.8	0.7	0.8	0.7	0.9			0.7

POSSIBLE NUMBER OF OBSERVATIONS = 744 ACTUAL NUMBER OF OBSERVATIONS = 706 DATA RECOVERY RATE = 94.9%

MONTHLY MEAN = 5.6 ppb

MAXIMUM DOWNWIND2 PROPANE = 123.6 ppb DATE OF OCCURRENCE = 12/13 AT 2100 MAXIMUM DAILY MEAN = 13.5 ppb DATE OF OCCURRENCE = 12/25

MINIMUM DOWNWIND2 PROPANE = 0.7 ppb DATE OF OCCURRENCE = 12/18 AT 2100 MINUMUM DAILY MEAN = 1.3 ppb DATE OF OCCURRENCE = 12/3

MEANS REQUIRE 75% VALID DATA MISSING DATA DENOTED BY ---

HarmonCreek

DOWNWIND2 BUTANE in ppb for NOVEMBER, 2019

Hr Beg Hr End Day	0 1	1 2	2 3	3 4	4 5	5 6	6 7	7 8	8 9	9 10	10 11	11 12	12 13	13 14	14 15	15 16	16 17	17 18	18 19	19 20	20 21	21 22	22 23	23 24	MEAN	MAX	MIN
1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	2.1	---	5.7	3.2	---	2.9	---	2.7	2.6	---	---	---
20	---	---	---	2.0	---	2.6	3.6	---	2.0	---	---	1.3	---	1.2	0.9	1.0	---	1.0	1.2	1.2	1.5	1.6	2.0	2.6	---	---	---
21	---	2.0	1.9	2.0	2.1	2.0	2.0	2.1	4.2	3.8	2.3	1.9	1.7	1.6	1.8	1.6	1.9	1.9	2.2	1.4	0.8	0.8	0.8	0.8	1.9	4.2	0.8
22	---	0.7	0.6	0.5	0.5	0.5	0.9	0.9	0.7	0.6	0.5	0.5	0.4	0.3	0.4	0.6	0.5	1.1	0.9	1.0	0.5	1.0	0.6	0.7	0.6	1.1	0.3
23	---	0.7	0.7	0.9	1.0	1.1	1.2	1.4	1.3	1.1	1.8	0.9	0.9	0.9	0.8	0.8	0.9	0.9	0.9	0.9	1.6	1.4	0.9	1.3	1.1	1.8	0.7
24	---	0.8	0.7	0.7	0.4	0.6	0.4	0.5	0.6	0.8	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.6	0.6	0.6	0.6	0.5	0.8	0.4
25	---	0.9	0.9	0.9	1.3	1.5	1.5	1.7	1.8	1.5	1.4	1.6	1.6	1.6	1.2	1.3	1.4	1.5	2.0	4.2	3.0	1.8	1.7	1.7	1.7	4.2	0.9
26	---	1.9	2.1	2.1	2.1	2.2	2.0	2.2	2.2	2.1	2.0	1.8	1.8	1.5	2.3	5.6	2.3	1.5	2.0	1.9	2.1	2.2	2.2	1.9	2.2	5.6	1.5
27	---	1.6	1.5	1.7	1.8	1.4	2.8	1.3	1.2	2.0	2.4	1.0	0.8	0.7	0.5	0.9	0.9	0.7	0.7	0.6	0.7	0.5	0.5	0.5	1.2	2.8	0.5
28	---	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.4	0.4	0.4	0.4	0.5	0.5	0.6	0.4	0.6	0.4
29	---	0.5	0.9	1.1	0.4	0.6	0.4	0.3	0.3	0.3	0.4	0.3	0.3	0.4	0.4	0.4	0.4	0.4	1.0	1.2	0.8	0.9	0.6	0.6	0.6	1.2	0.3
30	---	0.6	0.5	0.5	0.6	1.3	1.3	0.9	1.0	0.8	0.8	0.6	0.8	0.8	0.9	1.0	0.9	1.2	1.1	1.0	0.8	0.7	0.7	0.7	0.8	1.3	0.5
MEAN	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---		
MAX	---	2.0	2.1	2.1	2.1	2.6	3.6	2.2	4.2	3.8	2.4	1.9	1.8	1.6	2.3	5.6	2.3	5.7	3.2	4.2	3.0	2.2	2.7	2.6		5.7	
MIN	---	0.5	0.5	0.5	0.4	0.4	0.4	0.3	0.3	0.3	0.4	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5			0.3

POSSIBLE NUMBER OF OBSERVATIONS = 720 ACTUAL NUMBER OF OBSERVATIONS = 251 DATA RECOVERY RATE = 34.9%

MONTHLY MEAN = 1.2 ppb

MAXIMUM DOWNWIND2 BUTANE = 5.7 ppb DATE OF OCCURRENCE = 11/19 AT 1800 MAXIMUM DAILY MEAN = 2.2 ppb DATE OF OCCURRENCE = 11/26

MINIMUM DOWNWIND2 BUTANE = 0.3 ppb DATE OF OCCURRENCE = 11/29 AT 0800 MINUMUM DAILY MEAN = 0.4 ppb DATE OF OCCURRENCE = 11/28

MEANS REQUIRE 75% VALID DATA MISSING DATA DENOTED BY ---

HarmonCreek

DOWNWIND2 BUTANE in ppb for DECEMBER, 2019

Hr Beg Hr End Day	0 1	1 2	2 3	3 4	4 5	5 6	6 7	7 8	8 9	9 10	10 11	11 12	12 13	13 14	14 15	15 16	16 17	17 18	18 19	19 20	20 21	21 22	22 23	23 24	MEAN	MAX	MIN
1	---	0.7	0.6	0.6	0.6	0.6	0.6	0.7	---	---	0.7	2.0	1.0	1.1	1.0	0.6	0.8	0.8	0.7	0.9	1.0	0.8	0.9	0.8	0.8	2.0	0.6
2	0.8	---	1.0	1.9	1.1	1.1	1.2	1.0	1.2	1.3	1.1	1.2	1.0	1.7	0.7	0.5	0.5	0.5	0.4	0.4	0.4	0.3	0.3	0.3	0.9	1.9	0.3
3	0.4	---	0.3	0.4	0.5	0.4	0.4	0.5	0.6	0.5	0.6	0.5	0.4	0.5	0.4	0.5	0.6	0.5	0.5	0.5	0.3	0.5	0.5	0.4	0.5	0.6	0.3
4	0.4	---	0.6	0.6	0.6	0.6	0.7	0.8	0.7	0.8	1.3	0.7	0.8	0.8	0.8	0.8	0.7	0.5	0.5	0.5	0.5	0.5	0.6	0.8	0.7	1.3	0.4
5	0.8	---	0.8	0.8	0.8	0.8	0.9	1.0	0.8	0.8	0.6	0.6	0.5	0.5	0.5	0.5	0.6	0.6	0.8	1.9	1.5	3.6	3.8	3.3	1.2	3.8	0.5
6	2.8	---	1.9	1.8	1.6	2.2	2.2	2.3	2.2	1.9	1.6	3.2	1.1	1.0	0.9	0.8	0.7	0.6	0.5	0.8	0.7	2.3	1.0	0.9	1.5	3.2	0.5
7	1.9	---	6.3	3.1	5.2	4.3	3.5	2.7	3.0	2.7	0.6	0.4	0.8	0.6	0.4	0.5	0.7	1.1	0.9	1.0	1.0	1.1	1.2	1.3	1.9	6.3	0.4
8	1.4	---	1.4	1.1	1.0	0.9	0.9	0.9	0.9	1.0	1.6	2.6	3.8	1.9	3.4	2.1	1.8	1.7	1.4	1.0	1.0	1.1	0.9	1.1	1.5	3.8	0.9
9	1.4	---	2.2	3.9	3.4	1.1	1.2	1.3	1.2	1.2	2.7	3.0	3.4	2.1	1.3	1.2	1.0	0.9	0.8	0.8	0.8	0.8	0.8	0.9	1.6	3.9	0.8
10	1.0	---	2.2	2.1	2.0	2.0	2.0	2.0	0.9	1.1	1.2	1.0	0.6	0.6	0.6	0.6	0.5	0.6	1.0	0.8	0.5	0.7	0.6	0.7	1.1	2.2	0.5
11	0.7	---	0.0	0.5	0.7	0.5	0.5	0.4	0.4	0.5	0.5	0.6	0.5	0.5	0.4	0.4	0.4	0.6	0.8	0.5	0.5	0.7	0.6	0.8	0.5	0.8	0.0
12	2.2	---	0.9	0.7	0.7	0.8	1.5	3.7	2.7	1.6	1.3	2.5	2.6	1.0	1.1	0.7	0.8	1.1	0.9	1.1	1.1	0.9	0.9	1.0	1.4	3.7	0.7
13	0.9	---	0.8	0.8	0.9	0.9	0.9	0.9	0.9	1.0	1.1	1.1	1.1	1.2	1.0	1.1	1.5	1.6	1.6	1.7	48.8	4.1	3.5	2.9	3.5	48.8	0.8
14	3.0	---	1.4	1.2	1.8	1.7	---	---	0.8	0.7	0.5	0.6	0.6	0.6	0.7	1.3	1.4	1.4	1.5	1.0	1.4	1.2	0.9	1.0	1.2	3.0	0.5
15	1.3	1.4	---	1.3	1.3	1.4	0.9	0.8	0.7	0.7	0.7	0.6	0.8	0.7	0.7	0.7	0.9	0.6	0.6	0.8	0.8	1.2	6.0	3.8	1.2	6.0	0.6
16	1.3	1.8	---	1.1	1.0	0.9	1.1	1.0	1.1	1.2	0.8	1.3	0.8	0.9	0.7	0.7	0.8	0.8	0.9	1.0	1.0	0.8	0.8	0.8	1.0	1.8	0.7
17	0.8	0.9	---	0.8	0.7	0.9	1.3	1.2	0.9	1.1	2.0	1.4	0.6	0.5	0.6	0.5	0.6	0.5	0.4	0.5	0.4	0.4	0.8	0.5	0.8	2.0	0.4
18	0.6	0.6	---	0.9	1.0	0.7	0.8	0.8	0.7	0.6	0.6	0.7	0.6	0.6	0.7	0.6	0.5	0.4	0.4	0.4	0.3	0.3	0.3	0.4	0.6	1.0	0.3
19	0.4	0.7	---	0.0	0.9	1.1	2.3	2.7	2.5	1.2	0.7	0.5	0.8	0.7	1.2	0.8	1.2	2.7	7.3	2.1	2.2	2.5	2.9	3.8	1.8	7.3	0.0
20	5.5	5.5	---	4.7	5.3	5.4	5.3	5.0	5.1	8.2	2.1	2.2	1.4	1.4	1.6	1.3	1.2	1.3	1.3	1.4	2.5	2.3	3.1	2.9	3.3	8.2	1.2
21	2.3	2.0	---	3.0	2.7	3.2	4.0	3.1	4.0	3.8	2.7	3.2	7.8	2.0	2.9	2.8	3.6	2.5	2.2	2.7	2.3	2.5	6.7	5.1	3.4	7.8	2.0
22	4.6	5.2	---	6.7	5.7	4.8	4.3	4.5	4.4	4.0	3.1	1.9	1.5	1.3	1.3	1.1	1.4	2.5	3.2	4.5	3.5	10.5	9.4	4.3	4.1	10.5	1.1
23	3.7	4.0	---	5.0	4.5	7.3	5.2	5.8	7.0	6.2	6.3	3.2	1.9	2.0	1.8	2.0	2.1	5.7	2.6	2.7	2.9	5.2	3.7	3.4	4.1	7.3	1.8
24	3.8	3.9	---	4.1	5.5	7.4	8.5	9.3	10.0	5.7	2.5	3.6	4.1	3.5	2.4	2.5	2.2	2.5	2.2	2.3	2.4	2.8	4.1	3.1	4.3	10.0	2.2
25	2.5	2.7	---	5.1	4.0	4.1	3.4	3.1	3.4	3.9	4.6	3.9	4.0	4.0	4.2	4.3	4.3	4.4	4.5	5.3	5.5	5.3	5.5	5.6	4.2	5.6	2.5
26	5.8	5.5	---	5.1	5.2	5.3	5.6	6.2	6.0	5.1	2.7	2.4	2.0	2.1	1.3	1.1	1.7	2.3	2.3	3.3	2.8	3.4	3.5	---	3.7	6.2	1.1
27	4.1	3.6	2.9	---	---	1.7	1.7	2.0	1.8	1.8	0.1	1.0	1.1	0.0	1.1	0.9	0.0	0.9	1.0	1.1	2.8	1.6	5.0	1.6	1.7	5.0	0.0
28	---	2.0	2.0	2.2	2.0	2.1	1.7	1.5	1.5	1.5	1.5	2.6	3.4	3.0	2.3	2.2	2.1	2.2	2.6	2.9	2.9	3.0	3.6	2.9	2.3	3.6	1.5
29	---	2.6	2.6	2.9	3.0	3.0	3.3	3.3	2.8	2.3	1.5	1.0	1.0	0.9	1.2	1.4	1.1	1.8	0.0	0.0	0.0	0.0	0.0	0.0	1.6	3.3	0.0
30	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.9	0.9	1.2	1.1	0.8	0.6	0.5	0.8	0.6	0.6	0.4	1.2	0.0
31	---	1.0	0.8	0.7	0.9	1.0	0.9	0.7	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.8	0.9	0.8	0.8	0.8	0.8	0.7	0.6	---	0.8	1.0	0.6
MEAN	2.1	---	---	2.1	2.2	2.2	2.2	2.3	2.3	2.1	1.5	1.6	1.6	1.3	1.2	1.2	1.2	1.5	1.5	1.5	3.0	2.0	2.4	1.9	1.9		
MAX	5.8	5.5	6.3	6.7	5.7	7.4	8.5	9.3	10.0	8.2	6.3	3.9	7.8	4.0	4.2	4.3	4.3	5.7	7.3	5.3	48.8	10.5	9.4	5.6		48.8	
MIN	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.4	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0			0.0

POSSIBLE NUMBER OF OBSERVATIONS = 744 ACTUAL NUMBER OF OBSERVATIONS = 706 DATA RECOVERY RATE = 94.9%

MONTHLY MEAN = 1.9 ppb

MAXIMUM DOWNWIND2 BUTANE = 48.8 ppb DATE OF OCCURRENCE = 12/13 AT 2100 MAXIMUM DAILY MEAN = 4.3 ppb DATE OF OCCURRENCE = 12/24

MINIMUM DOWNWIND2 BUTANE = 0.0 ppb DATE OF OCCURRENCE = 12/19 AT 0400 MINUMUM DAILY MEAN = 0.4 ppb DATE OF OCCURRENCE = 12/30

MEANS REQUIRE 75% VALID DATA MISSING DATA DENOTED BY ---

HarmonCreek

DOWNWIND2 PENTANE in ppb for NOVEMBER, 2019

Hr Beg Hr End Day	0 1	1 2	2 3	3 4	4 5	5 6	6 7	7 8	8 9	9 10	10 11	11 12	12 13	13 14	14 15	15 16	16 17	17 18	18 19	19 20	20 21	21 22	22 23	23 24	MEAN	MAX	MIN
1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	2.1	---	2.3	3.0	---	1.9	---	---	1.4	---	1.4	1.3	1.3	---	1.2	1.3	1.3	1.7	1.6	1.5	1.7	---	---	---
21	---	1.4	1.5	1.4	1.5	1.3	1.3	1.4	1.9	1.8	1.3	1.2	1.1	0.7	0.8	1.1	1.1	0.8	0.9	0.7	0.9	0.8	0.5	0.5	1.1	1.9	0.5
22	---	0.4	0.4	0.4	0.4	0.4	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.4	0.4	0.5	0.5	0.5	0.4	0.5	0.4	0.4	0.4	0.5	0.3
23	---	0.4	0.4	0.6	0.6	0.6	0.6	0.7	0.6	0.5	0.8	0.5	0.4	0.5	0.5	0.4	0.4	0.5	0.5	0.4	0.5	0.6	0.5	0.6	0.5	0.8	0.4
24	---	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.3
25	---	0.4	0.4	0.4	0.5	0.6	0.6	0.6	0.6	0.5	0.5	0.6	0.6	0.6	0.5	0.5	0.5	0.6	0.7	1.4	1.0	0.6	0.6	0.6	0.6	1.4	0.4
26	---	0.7	0.7	0.8	0.8	0.8	0.7	0.8	0.8	0.7	0.7	0.7	0.7	0.6	1.1	3.1	1.1	0.6	0.7	0.6	0.7	0.7	0.7	0.7	0.8	3.1	0.6
27	---	0.6	0.6	0.6	0.7	0.5	1.3	0.5	0.4	0.8	1.1	0.4	0.3	0.3	0.2	0.4	0.4	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.5	1.3	0.2
28	---	0.2	0.2	0.3	0.4	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.4	0.2	0.4	0.2
29	---	0.2	0.4	0.4	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.4	0.3	0.6	0.5	0.4	0.3	0.6	0.2
30	---	0.4	0.3	0.3	0.6	0.5	0.5	0.5	0.4	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.4	0.6	0.3
MEAN	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---		
MAX	---	1.4	1.5	2.1	1.5	2.3	3.0	1.4	1.9	1.8	1.3	1.4	1.1	1.4	1.3	3.8	1.1	3.5	2.7	1.4	2.8	1.6	2.7	2.4		3.8	
MIN	---	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2			0.2

POSSIBLE NUMBER OF OBSERVATIONS = 720 ACTUAL NUMBER OF OBSERVATIONS = 251 DATA RECOVERY RATE = 34.9%

MONTHLY MEAN = 0.6 ppb

MAXIMUM DOWNWIND2 PENTANE = 3.8 ppb DATE OF OCCURRENCE = 11/19 AT 1600 MAXIMUM DAILY MEAN = 1.1 ppb DATE OF OCCURRENCE = 11/21

MINIMUM DOWNWIND2 PENTANE = 0.2 ppb DATE OF OCCURRENCE = 11/29 AT 0800 MINUMUM DAILY MEAN = 0.2 ppb DATE OF OCCURRENCE = 11/28

MEANS REQUIRE 75% VALID DATA MISSING DATA DENOTED BY ---

HarmonCreek

DOWNWIND2 PENTANE in ppb for DECEMBER, 2019

Hr Beg Hr End Day	0 1	1 2	2 3	3 4	4 5	5 6	6 7	7 8	8 9	9 10	10 11	11 12	12 13	13 14	14 15	15 16	16 17	17 18	18 19	19 20	20 21	21 22	22 23	23 24	MEAN	MAX	MIN
1	---	0.3	0.3	0.3	0.3	0.3	0.3	0.3	---	---	0.3	1.0	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.4	0.4	0.3	0.4	0.3	0.4	1.0	0.3
2	0.3	---	0.4	0.7	0.4	0.4	0.4	0.4	0.5	0.5	0.4	0.5	0.4	0.5	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.7	0.2
3	0.2	---	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2
4	0.2	---	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.4	0.2
5	0.3	---	0.3	0.3	0.3	0.3	0.3	0.4	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.3	0.3	0.5	0.7	0.7	2.1	1.9	1.5	0.5	2.1	0.2
6	1.2	---	0.7	0.6	0.5	0.8	0.8	0.7	0.7	0.6	0.5	1.0	0.4	0.4	0.4	0.3	0.3	0.2	0.2	0.3	0.3	0.7	0.4	0.4	0.5	1.2	0.2
7	0.7	---	3.2	1.6	2.6	2.0	1.5	1.2	1.3	1.2	0.3	0.3	0.5	0.3	0.3	0.3	0.3	0.5	0.4	0.4	0.4	0.4	0.5	0.5	0.9	3.2	0.3
8	0.6	---	0.6	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.7	1.1	1.8	1.2	4.2	1.6	0.6	0.6	0.4	0.4	0.3	0.4	0.4	0.5	0.8	4.2	0.3
9	0.6	---	1.0	2.2	1.6	0.4	0.4	0.4	0.4	0.4	1.2	1.2	1.9	1.0	0.5	0.4	0.3	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.6	2.2	0.0
10	0.0	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.2	0.2	0.4	0.3	0.2	0.3	0.3	0.3	0.2	0.4	0.0
11	0.3	---	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.3	0.3	0.3	0.2	0.3	0.2
12	0.7	---	0.3	0.3	0.3	0.3	0.5	1.3	0.9	0.6	0.5	1.0	1.1	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	1.3	0.3
13	0.4	---	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.4	0.5	0.6	0.6	0.6	0.6	20.9	1.5	1.4	1.3	1.4	20.9	0.4
14	1.0	---	0.6	0.6	0.6	0.6	---	---	0.3	0.3	0.2	0.3	0.3	0.3	0.3	0.5	0.5	0.5	0.5	0.4	0.5	0.5	0.3	0.4	0.4	1.0	0.2
15	0.4	0.5	---	0.4	0.4	0.5	0.3	0.3	0.3	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.3	0.4	0.6	1.5	1.0	0.4	1.5	0.2
16	0.6	0.6	---	0.4	0.3	0.3	0.4	0.4	0.4	0.3	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.3	0.3	0.3	0.4	0.6	0.3
17	0.3	0.3	---	0.3	0.3	0.3	0.4	0.5	0.3	0.4	0.8	0.6	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.3	0.8	0.2
18	0.2	0.2	---	0.3	0.4	0.3	0.3	0.3	0.3	0.2	0.3	0.3	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.4	0.1
19	0.2	0.3	---	0.0	0.3	0.5	1.3	1.1	1.0	0.4	0.3	0.2	0.3	0.3	0.5	0.3	0.5	1.2	2.7	0.8	0.8	0.9	1.0	1.3	0.7	2.7	0.0
20	1.9	1.9	---	1.7	1.8	1.8	1.9	1.7	1.7	2.9	0.8	0.8	0.5	0.6	0.6	0.5	0.5	0.5	0.5	0.5	0.9	0.8	1.1	1.0	1.2	2.9	0.5
21	0.8	0.7	---	1.0	1.0	1.1	1.3	1.1	1.4	1.3	0.9	1.1	2.2	0.7	0.9	0.9	1.4	0.8	0.7	1.0	0.7	0.8	2.2	1.7	1.1	2.2	0.7
22	1.5	1.7	---	2.1	1.8	1.5	1.3	1.4	1.4	1.4	1.0	0.6	0.5	0.5	0.4	0.4	0.5	0.9	1.0	1.5	1.1	3.3	3.0	1.4	1.3	3.3	0.4
23	1.1	1.2	---	1.5	1.4	2.2	1.6	1.8	2.2	2.0	2.1	1.0	0.6	0.6	0.6	0.6	0.7	1.7	0.9	0.9	1.0	1.6	1.2	1.2	1.3	2.2	0.6
24	1.3	1.2	---	1.4	1.7	2.3	2.6	3.0	3.1	1.9	0.8	1.1	1.1	0.9	0.8	0.7	0.6	0.7	0.7	0.7	0.7	1.0	1.4	1.4	1.3	3.1	0.6
25	0.9	0.8	---	1.7	1.4	1.4	1.1	1.0	1.1	1.3	1.5	1.1	1.2	1.3	1.3	1.2	1.3	1.3	1.3	1.6	1.7	1.6	1.7	1.7	1.3	1.7	0.8
26	1.8	1.7	---	1.6	1.5	1.6	1.7	1.9	1.8	1.5	0.8	0.7	0.6	0.6	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	---	0.9	1.9	0.0
27	0.0	0.0	0.0	---	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
28	---	0.0	0.0	0.0	0.0	0.6	0.0	0.6	0.5	0.6	0.5	0.7	0.9	0.9	0.7	0.7	0.6	0.6	0.8	0.9	0.9	1.0	1.4	0.9	0.6	1.4	0.0
29	---	0.8	0.8	0.9	0.8	0.8	0.9	1.0	0.9	0.7	0.5	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	1.0	0.0
30	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.3	0.2	0.2	0.0	0.3	0.0
31	---	0.3	0.3	0.2	0.3	0.3	0.3	0.2	0.3	0.3	0.2	0.3	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	---	0.3	0.3	0.2
MEAN	0.7	---	---	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.6	0.6	0.6	0.4	0.5	0.4	0.4	0.4	0.5	0.5	1.1	0.7	0.7	0.7	0.6		
MAX	1.9	1.9	3.2	2.2	2.6	2.3	2.6	3.0	3.1	2.9	2.1	1.2	2.2	1.3	4.2	1.6	1.4	1.7	2.7	1.6	20.9	3.3	3.0	1.7		20.9	
MIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0

POSSIBLE NUMBER OF OBSERVATIONS = 744 ACTUAL NUMBER OF OBSERVATIONS = 706 DATA RECOVERY RATE = 94.9%

MONTHLY MEAN = 0.6 ppb

MAXIMUM DOWNWIND2 PENTANE = 20.9 ppb DATE OF OCCURRENCE = 12/13 AT 2100 MAXIMUM DAILY MEAN = 1.4 ppb DATE OF OCCURRENCE = 12/13

MINIMUM DOWNWIND2 PENTANE = 0.0 ppb DATE OF OCCURRENCE = 12/9 AT 1800 MINUMUM DAILY MEAN = 0.0 ppb DATE OF OCCURRENCE = 12/27

MEANS REQUIRE 75% VALID DATA MISSING DATA DENOTED BY ---

HarmonCreek

DOWNWIND2 HEXANE in ppb for NOVEMBER, 2019

Hr Beg Hr End Day	0 1	1 2	2 3	3 4	4 5	5 6	6 7	7 8	8 9	9 10	10 11	11 12	12 13	13 14	14 15	15 16	16 17	17 18	18 19	19 20	20 21	21 22	22 23	23 24	MEAN	MAX	MIN
1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.2	---	0.5	0.3	---	0.3	---	0.3	0.3	---	---	---
20	---	---	---	0.2	---	0.4	0.6	---	0.2	---	---	0.2	---	0.1	0.1	0.1	---	0.1	0.1	0.1	0.1	0.2	0.2	0.3	---	---	---
21	---	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.4	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.4	0.1
22	---	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0
23	---	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1
24	---	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.1	0.1	0.0
25	---	0.1	0.1	0.1	0.1	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.4	0.3	0.1	0.1	0.1	0.2	0.4	0.1
26	---	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.5	1.8	0.5	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	1.8	0.2
27	---	0.2	0.2	0.2	0.3	0.1	0.6	0.1	0.1	0.3	0.5	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.6	0.0
28	---	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.1	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.1	0.1	0.2	0.1	0.2	0.0
29	---	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0
30	---	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
MEAN	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---		
MAX	---	0.2	0.2	0.2	0.3	0.4	0.6	0.2	0.4	0.3	0.5	0.2	0.2	0.2	0.5	1.8	0.5	0.5	0.3	0.4	0.3	0.2	0.3	0.3		1.8	
MIN	---	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0			0.0

POSSIBLE NUMBER OF OBSERVATIONS = 720 ACTUAL NUMBER OF OBSERVATIONS = 251 DATA RECOVERY RATE = 34.9%

MONTHLY MEAN = 0.1 ppb

MAXIMUM DOWNWIND2 HEXANE = 1.8 ppb DATE OF OCCURRENCE = 11/26 AT 1600 MAXIMUM DAILY MEAN = 0.3 ppb DATE OF OCCURRENCE = 11/26

MINIMUM DOWNWIND2 HEXANE = 0.0 ppb DATE OF OCCURRENCE = 11/28 AT 2000 MINUMUM DAILY MEAN = 0.1 ppb DATE OF OCCURRENCE = 11/24

MEANS REQUIRE 75% VALID DATA MISSING DATA DENOTED BY ---

HarmonCreek

DOWNWIND2 HEXANE in ppb for DECEMBER, 2019

Hr Beg	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23			
Hr End	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
Day																									MEAN	MAX	MIN
1	---	0.1	0.1	0.1	0.1	0.1	0.1	0.1	---	---	0.1	0.4	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.4	0.1
2	0.1	---	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.0
3	0.0	---	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
4	0.0	---	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0
5	0.1	---	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.0	0.1	0.1	0.1	0.2	0.3	0.9	1.0	0.6	0.2	1.0	0.0
6	0.4	---	0.3	0.2	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.4	0.1
7	0.2	---	1.5	0.7	1.1	0.8	0.6	0.5	0.5	0.4	0.1	0.1	0.2	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	1.5	0.0
8	0.1	---	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.4	0.5	0.4	2.3	1.0	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3	2.3	0.1
9	0.3	---	0.6	1.5	0.9	0.1	0.1	0.1	0.1	0.1	0.6	0.6	1.2	0.6	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.3	1.5	0.0
10	0.0	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.0
11	0.1	---	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0
12	0.2	---	0.1	0.1	0.1	0.1	0.1	0.3	0.3	0.2	0.2	0.4	0.4	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.4	0.1
13	0.1	---	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	7.2	0.5	0.4	0.3	0.5	7.2	0.1
14	0.4	---	0.2	0.1	0.2	0.2	---	---	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.4	0.1
15	0.1	0.1	---	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.4	0.3	0.1	0.4	0.1
16	0.1	0.2	---	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1
17	0.1	0.1	---	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.1	0.3	0.0
18	0.0	0.0	---	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.0
19	0.1	0.1	---	0.0	0.1	0.1	0.7	0.5	0.3	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.2	0.5	1.1	0.3	0.3	0.3	0.3	0.4	0.3	1.1	0.0
20	0.6	0.6	---	0.5	0.5	0.5	0.5	0.5	0.5	1.0	0.2	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.4	0.3	0.3	1.0	0.1
21	0.2	0.2	---	0.3	0.3	0.3	0.4	0.3	0.4	0.4	0.2	0.3	0.6	0.2	0.2	0.2	0.7	0.3	0.2	0.3	0.2	0.2	0.7	0.5	0.3	0.7	0.2
22	0.5	0.5	---	0.6	0.5	0.4	0.3	0.3	0.3	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.3	0.3	0.3	0.3	0.7	0.6	0.3	0.3	0.7	0.1
23	0.3	0.3	---	0.4	0.4	0.5	0.4	0.5	0.5	0.5	0.5	0.2	0.1	0.1	0.1	0.2	0.2	0.5	0.2	0.2	0.3	0.4	0.3	0.3	0.3	0.5	0.1
24	0.3	0.3	---	0.3	0.4	0.5	0.6	0.7	0.7	0.5	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.5	0.5	0.3	0.7	0.2
25	0.3	0.3	---	0.6	0.5	0.5	0.4	0.3	0.4	0.4	0.5	0.3	0.4	0.3	0.3	0.3	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.4	0.6	0.3
26	0.5	0.5	---	0.5	0.4	0.4	0.5	0.5	0.6	0.4	0.2	0.2	0.2	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	---	0.2	0.6	0.0
27	0.0	0.0	0.0	---	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
28	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.3	0.0
29	---	0.3	0.2	0.2	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.0
30	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0
31	---	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	---	0.1	0.1	0.1
MEAN	0.2	---	---	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.3	0.2	0.2	0.2	0.2		
MAX	0.6	0.6	1.5	1.5	1.1	0.8	0.7	0.7	0.7	1.0	0.6	0.6	1.2	0.6	2.3	1.0	0.7	0.5	1.1	0.5	7.2	0.9	1.0	0.6		7.2	
MIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0

POSSIBLE NUMBER OF OBSERVATIONS = 744 ACTUAL NUMBER OF OBSERVATIONS = 706 DATA RECOVERY RATE = 94.9%

MONTHLY MEAN = 0.2 ppb

MAXIMUM DOWNWIND2 HEXANE = 7.2 ppb DATE OF OCCURRENCE = 12/13 AT 2100 MAXIMUM DAILY MEAN = 0.5 ppb DATE OF OCCURRENCE = 12/13

MINIMUM DOWNWIND2 HEXANE = 0.0 ppb DATE OF OCCURRENCE = 12/9 AT 1900 MINUMUM DAILY MEAN = 0.0 ppb DATE OF OCCURRENCE = 12/27

MEANS REQUIRE 75% VALID DATA MISSING DATA DENOTED BY ---

HarmonCreek

DOWNWIND2 BENZENE in ppb for NOVEMBER, 2019

Hr Beg Hr End Day	0 1	1 2	2 3	3 4	4 5	5 6	6 7	7 8	8 9	9 10	10 11	11 12	12 13	13 14	14 15	15 16	16 17	17 18	18 19	19 20	20 21	21 22	22 23	23 24	MEAN	MAX	MIN
1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.2	---	0.3	0.2	---	0.3	---	0.5	0.6	---	---	---
20	---	---	---	0.3	---	0.3	0.3	---	0.2	---	---	0.2	---	0.1	0.1	0.1	---	0.1	0.1	0.1	0.1	0.2	0.2	0.2	---	---	---
21	---	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1
22	---	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0
23	---	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.8	0.4	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.8	0.1
24	---	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1
25	---	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0
26	---	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.1
27	---	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.0
28	---	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.0
29	---	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0
30	---	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.1	0.3	0.1
MEAN	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---		
MAX	---	0.2	0.2	0.3	0.2	0.3	0.3	0.2	0.3	0.8	0.4	0.2	0.2	0.1	0.1	0.2	0.2	0.3	0.2	0.2	0.3	0.2	0.5	0.6		0.8	
MIN	---	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1			0.0

POSSIBLE NUMBER OF OBSERVATIONS = 720 ACTUAL NUMBER OF OBSERVATIONS = 251 DATA RECOVERY RATE = 34.9%

MONTHLY MEAN = 0.1 ppb

MAXIMUM DOWNWIND2 BENZENE = 0.8 ppb DATE OF OCCURRENCE = 11/23 AT 1000 MAXIMUM DAILY MEAN = 0.2 ppb DATE OF OCCURRENCE = 11/23

MINIMUM DOWNWIND2 BENZENE = 0.0 ppb DATE OF OCCURRENCE = 11/22 AT 1300 MINUMUM DAILY MEAN = 0.0 ppb DATE OF OCCURRENCE = 11/28

MEANS REQUIRE 75% VALID DATA MISSING DATA DENOTED BY ---

HarmonCreek

DOWNWIND2 BENZENE in ppb for DECEMBER, 2019

Hr Beg Hr End Day	0 1	1 2	2 3	3 4	4 5	5 6	6 7	7 8	8 9	9 10	10 11	11 12	12 13	13 14	14 15	15 16	16 17	17 18	18 19	19 20	20 21	21 22	22 23	23 24	MEAN	MAX	MIN
1	---	0.2	0.2	0.2	0.3	0.2	0.1	0.1	---	---	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.3	0.0
2	0.1	---	0.2	0.3	0.2	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.1
3	0.1	---	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
4	0.1	---	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1
5	0.1	---	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.1
6	0.1	---	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.1
7	0.1	---	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.3	0.1
8	0.3	---	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.1
9	0.1	---	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0
10	0.1	---	0.2	0.2	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.3	0.0
11	0.1	---	0.1	0.1	0.1	0.1	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.1
12	0.1	---	0.1	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.3	0.1	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.3	0.1
13	0.2	---	0.2	0.3	0.3	0.5	0.5	0.5	0.5	0.5	0.4	0.3	0.4	0.3	0.3	0.5	0.5	0.3	0.3	0.3	0.4	0.3	0.4	0.3	0.4	0.5	0.2
14	0.3	---	0.2	0.2	0.2	0.2	---	---	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.5	0.2	0.5	0.1
15	0.3	0.3	---	0.4	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.4	0.1
16	0.2	0.2	---	0.2	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1
17	0.2	0.2	---	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.1
18	0.1	0.1	---	0.2	0.1	0.2	0.2	0.1	0.1	0.3	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.1
19	0.1	0.1	---	0.2	0.1	0.2	0.2	0.2	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.2	0.1	0.3	0.1
20	0.2	0.2	---	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.5	0.5	0.5	0.5	0.5	0.3	0.5	0.2
21	0.5	0.4	---	0.5	0.5	0.5	0.5	0.5	0.5	0.7	0.5	0.5	0.3	0.1	0.1	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.7	0.1
22	0.2	0.2	---	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1
23	0.2	0.2	---	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.1
24	0.2	0.2	---	0.3	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.2
25	0.3	0.3	---	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.6	0.6	0.5	0.4	0.4	0.3	0.3	0.4	0.4	0.3	0.2	0.3	0.2	0.2	0.4	0.6	0.2
26	0.2	0.2	---	0.2	0.2	0.3	0.3	0.3	0.3	0.2	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	---	0.1	0.3	0.0
27	0.2	0.1	0.1	---	---	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.2	0.0
28	---	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.4	0.3	0.3	0.4	0.2	0.4	0.1
29	---	0.3	0.4	0.4	0.4	0.4	0.4	0.5	0.6	0.5	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.6	0.1
30	---	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.2	0.0	0.0	0.0	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.2	0.0	0.1	0.3	0.1	0.1	0.3	0.0
31	---	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.0	---	0.1	0.2	0.0
MEAN	0.2	---	---	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2		
MAX	0.5	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.6	0.7	0.6	0.6	0.5	0.4	0.4	0.5	0.5	0.4	0.4	0.5	0.5	0.5	0.5	0.5		0.7	
MIN	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0			0.0

POSSIBLE NUMBER OF OBSERVATIONS = 744 ACTUAL NUMBER OF OBSERVATIONS = 706 DATA RECOVERY RATE = 94.9%

MONTHLY MEAN = 0.2 ppb

MAXIMUM DOWNWIND2 BENZENE = 0.7 ppb DATE OF OCCURRENCE = 12/21 AT 1000 MAXIMUM DAILY MEAN = 0.4 ppb DATE OF OCCURRENCE = 12/13

MINIMUM DOWNWIND2 BENZENE = 0.0 ppb DATE OF OCCURRENCE = 12/1 AT 1800 MINUMUM DAILY MEAN = 0.1 ppb DATE OF OCCURRENCE = 12/9

MEANS REQUIRE 75% VALID DATA MISSING DATA DENOTED BY ---

HarmonCreek

DOWNWIND2 TOLUENE in ppb for NOVEMBER, 2019

Hr Beg Hr End Day	0 1	1 2	2 3	3 4	4 5	5 6	6 7	7 8	8 9	9 10	10 11	11 12	12 13	13 14	14 15	15 16	16 17	17 18	18 19	19 20	20 21	21 22	22 23	23 24	MEAN	MAX	MIN
1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.3	---	0.3	0.3	---	0.3	---	0.4	0.4	---	---	---
20	---	---	---	0.4	---	0.4	0.3	---	0.3	---	---	0.3	---	0.2	0.2	0.2	---	0.2	0.2	0.2	0.2	0.2	0.2	0.2	---	---	---
21	---	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.1
22	---	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
23	---	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.3	0.1
24	---	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1
25	---	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
26	---	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.3	0.1
27	---	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.2	0.0
28	---	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.0
29	---	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.0
30	---	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.1
MEAN	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---		
MAX	---	0.2	0.2	0.4	0.2	0.4	0.3	0.3	0.3	0.3	0.2	0.3	0.2	0.2	0.2	0.3	0.2	0.3	0.3	0.2	0.3	0.2	0.4	0.4		0.4	
MIN	---	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.0			0.0

POSSIBLE NUMBER OF OBSERVATIONS = 720 ACTUAL NUMBER OF OBSERVATIONS = 251 DATA RECOVERY RATE = 34.9%

MONTHLY MEAN = 0.1 ppb

MAXIMUM DOWNWIND2 TOLUENE = 0.4 ppb DATE OF OCCURRENCE = 11/20 AT 0600 MAXIMUM DAILY MEAN = 0.2 ppb DATE OF OCCURRENCE = 11/23

MINIMUM DOWNWIND2 TOLUENE = 0.0 ppb DATE OF OCCURRENCE = 11/27 AT 2400 MINUMUM DAILY MEAN = 0.0 ppb DATE OF OCCURRENCE = 11/29

MEANS REQUIRE 75% VALID DATA MISSING DATA DENOTED BY ---

HarmonCreek

DOWNWIND2 TOLUENE in ppb for DECEMBER, 2019

Hr Beg Hr End Day	0 1	1 2	2 3	3 4	4 5	5 6	6 7	7 8	8 9	9 10	10 11	11 12	12 13	13 14	14 15	15 16	16 17	17 18	18 19	19 20	20 21	21 22	22 23	23 24	MEAN	MAX	MIN
1	---	0.1	0.1	0.2	0.2	0.2	0.2	0.3	---	---	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.0
2	0.1	---	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1
3	0.1	---	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0
4	0.1	---	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
5	0.1	---	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.2	0.2	0.1	0.2	0.0
6	0.1	---	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1
7	0.1	---	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.3	0.0
8	0.3	---	0.4	0.3	0.4	0.4	0.4	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.4	0.1
9	0.1	---	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.0
10	0.1	---	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.2	0.0
11	0.1	---	0.0	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.0
12	0.1	---	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.3	0.3	0.3	0.1	0.3	0.1
13	0.3	---	0.3	0.2	0.2	0.3	0.2	0.2	0.3	0.3	0.2	0.1	0.2	0.2	0.3	0.4	0.5	0.5	0.5	0.5	0.6	0.5	0.5	0.4	0.3	0.6	0.1
14	0.4	---	0.2	0.2	0.2	0.2	---	---	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.4	0.1
15	0.2	0.2	---	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1
16	0.1	0.2	---	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.1
17	0.1	0.1	---	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
18	0.1	0.1	---	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.1	0.1	0.0
19	0.1	0.1	---	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.0
20	0.1	0.1	---	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.4	0.2	0.4	0.1
21	0.4	0.4	---	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.4	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.5	0.1
22	0.2	0.2	---	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.1
23	0.2	0.2	---	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.0	0.1	0.1	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.0
24	0.2	0.2	---	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.4	0.5	0.5	0.5	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.5	0.2
25	0.3	0.3	---	0.4	0.3	0.3	0.3	0.4	0.4	0.5	0.5	0.5	0.4	0.3	0.3	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.5	0.2
26	0.2	0.2	---	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	---	0.1	0.3	0.0
27	0.1	0.1	0.1	---	---	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.2	0.0
28	---	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.3	0.2	0.3	0.2	0.3	0.3	0.2	0.3	0.1
29	---	0.3	0.4	0.5	0.5	0.4	0.5	0.5	0.5	0.4	0.3	0.2	0.2	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.5	0.0
30	---	0.2	0.1	0.2	0.2	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.0	0.1	0.1	0.1	0.2	0.0
31	---	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.0	---	0.0	0.1	0.0
MEAN	0.2	---	---	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		
MAX	0.4	0.4	0.4	0.5	0.5	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.3	0.4	0.5	0.5	0.5	0.5	0.6	0.5	0.5	0.4		0.6	
MIN	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0

POSSIBLE NUMBER OF OBSERVATIONS = 744 ACTUAL NUMBER OF OBSERVATIONS = 706 DATA RECOVERY RATE = 94.9%

MONTHLY MEAN = 0.1 ppb

MAXIMUM DOWNWIND2 TOLUENE = 0.6 ppb DATE OF OCCURRENCE = 12/13 AT 2100 MAXIMUM DAILY MEAN = 0.3 ppb DATE OF OCCURRENCE = 12/13

MINIMUM DOWNWIND2 TOLUENE = 0.0 ppb DATE OF OCCURRENCE = 12/1 AT 1800 MINUMUM DAILY MEAN = 0.0 ppb DATE OF OCCURRENCE = 12/31

MEANS REQUIRE 75% VALID DATA MISSING DATA DENOTED BY ---

HarmonCreek

DOWNWIND2 ETHYLBENZENE in ppb for NOVEMBER, 2019

Hr Beg Hr End Day	0 1	1 2	2 3	3 4	4 5	5 6	6 7	7 8	8 9	9 10	10 11	11 12	12 13	13 14	14 15	15 16	16 17	17 18	18 19	19 20	20 21	21 22	22 23	23 24	MEAN	MAX	MIN
1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0	---	0.0	0.0	---	0.0	---	0.0	0.0	---	---	---
20	---	---	---	0.1	---	0.0	0.0	---	0.0	---	---	0.0	---	0.0	0.0	0.0	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	---	---	---
21	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
28	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
29	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MEAN	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---		
MAX	---	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.1	
MIN	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0

POSSIBLE NUMBER OF OBSERVATIONS = 720 ACTUAL NUMBER OF OBSERVATIONS = 251 DATA RECOVERY RATE = 34.9%

MONTHLY MEAN = 0.0 ppb

MAXIMUM DOWNWIND2 ETHYLBENZENE = 0.1 ppb DATE OF OCCURRENCE = 11/20 AT 0400 MAXIMUM DAILY MEAN = 0.0 ppb DATE OF OCCURRENCE = 11/21

MINIMUM DOWNWIND2 ETHYLBENZENE = 0.0 ppb DATE OF OCCURRENCE = 11/19 AT 1600 MINUMUM DAILY MEAN = 0.0 ppb DATE OF OCCURRENCE = 11/21

MEANS REQUIRE 75% VALID DATA MISSING DATA DENOTED BY ---

HarmonCreek

DOWNWIND2 ETHYLBENZENE in ppb for DECEMBER, 2019

Hr Beg Hr End Day	0 1	1 2	2 3	3 4	4 5	5 6	6 7	7 8	8 9	9 10	10 11	11 12	12 13	13 14	14 15	15 16	16 17	17 18	18 19	19 20	20 21	21 22	22 23	23 24	MEAN	MAX	MIN
1	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	---	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	0.0	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	0.0	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	0.0	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	0.0	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	0.0	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	0.0	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	0.0	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9	0.0	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	0.0	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11	0.0	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	0.0	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	0.0	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.0
14	0.1	---	0.0	0.0	0.0	0.0	---	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
15	0.0	0.0	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16	0.0	0.0	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17	0.0	0.0	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18	0.0	0.0	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19	0.0	0.0	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	0.0	0.0	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21	0.0	0.1	---	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
22	0.0	0.0	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23	0.0	0.0	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24	0.0	0.0	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
25	0.0	0.0	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
26	0.0	0.0	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	---	0.0	0.0	0.0
27	0.0	0.0	0.0	---	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
28	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
29	---	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
30	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
31	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	---	0.0	0.0	0.0
MEAN	0.0	---	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
MAX	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		0.1	
MIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0

POSSIBLE NUMBER OF OBSERVATIONS = 744 ACTUAL NUMBER OF OBSERVATIONS = 706 DATA RECOVERY RATE = 94.9%

MONTHLY MEAN = 0.0 ppb

MAXIMUM DOWNWIND2 ETHYLBENZENE = 0.1 ppb DATE OF OCCURRENCE = 12/13 AT 2000 MAXIMUM DAILY MEAN = 0.0 ppb DATE OF OCCURRENCE = 12/13

MINIMUM DOWNWIND2 ETHYLBENZENE = 0.0 ppb DATE OF OCCURRENCE = 12/1 AT 0200 MINUMUM DAILY MEAN = 0.0 ppb DATE OF OCCURRENCE = 12/1

MEANS REQUIRE 75% VALID DATA MISSING DATA DENOTED BY ---

HarmonCreek

DOWNWIND2 TOTAL XYLENES in ppb for NOVEMBER, 2019

Hr Beg Hr End Day	0 1	1 2	2 3	3 4	4 5	5 6	6 7	7 8	8 9	9 10	10 11	11 12	12 13	13 14	14 15	15 16	16 17	17 18	18 19	19 20	20 21	21 22	22 23	23 24	MEAN	MAX	MIN
1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.1	---	0.1	0.1	---	0.1	---	0.1	0.1	---	---	---
20	---	---	---	0.2	---	0.1	0.1	---	0.1	---	---	0.1	---	0.1	0.1	0.1	---	0.1	0.1	0.1	0.1	0.1	0.1	0.1	---	---	---
21	---	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
22	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23	---	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
24	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.2	0.0
27	---	0.1	0.1	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
28	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
29	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0
30	---	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.0
MEAN	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---		
MAX	---	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1		0.2	
MIN	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0

POSSIBLE NUMBER OF OBSERVATIONS = 720 ACTUAL NUMBER OF OBSERVATIONS = 251 DATA RECOVERY RATE = 34.9%

MONTHLY MEAN = 0.0 ppb

MAXIMUM DOWNWIND2 TOTAL XYLENES = 0.2 ppb DATE OF OCCURRENCE = 11/20 AT 0400 MAXIMUM DAILY MEAN = 0.1 ppb DATE OF OCCURRENCE = 11/23

MINIMUM DOWNWIND2 TOTAL XYLENES = 0.0 ppb DATE OF OCCURRENCE = 11/21 AT 1200 MINUMUM DAILY MEAN = 0.0 ppb DATE OF OCCURRENCE = 11/22

MEANS REQUIRE 75% VALID DATA MISSING DATA DENOTED BY ---

HarmonCreek

DOWNWIND2 TOTAL XYLENES in ppb for DECEMBER, 2019

Hr Beg Hr End Day	0 1	1 2	2 3	3 4	4 5	5 6	6 7	7 8	8 9	9 10	10 11	11 12	12 13	13 14	14 15	15 16	16 17	17 18	18 19	19 20	20 21	21 22	22 23	23 24	MEAN	MAX	MIN
1	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	---	---	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
2	0.0	---	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
3	0.0	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	0.0	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	0.0	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.0
6	0.1	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
7	0.0	---	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.3	0.0
8	0.1	---	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
9	0.0	---	0.1	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0
10	0.0	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11	0.0	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	0.0	---	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.0
13	0.0	---	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.1	0.3	0.0
14	0.2	---	0.1	0.1	0.1	0.1	---	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.1	0.1	0.0	0.2	0.0
15	0.1	0.1	---	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0
16	0.1	0.1	---	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.1	0.0
17	0.1	0.0	---	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
18	0.0	0.0	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19	0.0	0.0	---	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0
20	0.1	0.0	---	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0
21	0.1	0.2	---	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.1	0.0	0.1	0.1	0.1	0.2	0.0
22	0.1	0.1	---	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.1	0.0
23	0.1	0.1	---	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0
24	0.1	0.1	---	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.1
25	0.1	0.1	---	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1
26	0.1	0.1	---	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	---	0.0	0.1	0.0
27	0.0	0.0	0.0	---	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.0
28	---	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0
29	---	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.0
30	---	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0
31	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	---	0.0	0.0	0.0
MEAN	0.0	---	---	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
MAX	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.1	0.1	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2		0.3	
MIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0

POSSIBLE NUMBER OF OBSERVATIONS = 744 ACTUAL NUMBER OF OBSERVATIONS = 706 DATA RECOVERY RATE = 94.9%

MONTHLY MEAN = 0.0 ppb

MAXIMUM DOWNWIND2 TOTAL XYLENES = 0.3 ppb DATE OF OCCURRENCE = 12/13 AT 2000 MAXIMUM DAILY MEAN = 0.1 ppb DATE OF OCCURRENCE = 12/24

MINIMUM DOWNWIND2 TOTAL XYLENES = 0.0 ppb DATE OF OCCURRENCE = 12/1 AT 0200 MINUMUM DAILY MEAN = 0.0 ppb DATE OF OCCURRENCE = 12/3

MEANS REQUIRE 75% VALID DATA MISSING DATA DENOTED BY ---

HarmonCreek

DOWNWIND2 THC PAMS in ppb for NOVEMBER, 2019

Hr Beg Hr End Day	0 1	1 2	2 3	3 4	4 5	5 6	6 7	7 8	8 9	9 10	10 11	11 12	12 13	13 14	14 15	15 16	16 17	17 18	18 19	19 20	20 21	21 22	22 23	23 24	MEAN	MAX	MIN
1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	33.2	---	90.2	45.6	---	44.0	---	41.5	41.9	---	---	---
20	---	---	---	31.6	---	33.0	39.2	---	31.5	---	---	19.1	---	20.0	15.4	15.3	---	15.8	18.1	19.9	27.3	26.9	32.4	41.7	---	---	---
21	---	31.5	30.4	31.7	34.4	31.3	30.8	31.3	78.0	69.9	43.6	38.1	36.0	30.5	31.9	31.0	34.4	34.7	31.0	19.8	13.6	12.9	12.6	12.4	32.7	78.0	12.4
22	---	11.0	10.4	9.4	9.2	9.6	13.1	12.6	9.9	8.6	8.6	8.2	7.5	6.7	6.9	10.5	9.4	17.5	14.8	15.0	12.6	16.9	11.8	13.0	11.0	17.5	6.7
23	---	12.8	13.6	16.6	17.7	21.0	21.3	23.1	22.0	18.9	23.5	13.3	13.3	13.8	14.8	15.1	16.1	17.8	15.8	14.4	15.7	20.8	17.1	24.0	17.5	24.0	12.8
24	---	17.1	13.8	13.8	9.0	18.6	9.6	11.0	14.4	14.5	9.6	9.5	9.3	9.9	10.0	8.8	9.0	8.9	7.6	8.3	9.1	9.6	10.2	10.1	10.9	18.6	7.6
25	---	14.5	13.8	13.1	19.1	22.2	22.2	24.2	26.4	24.4	22.7	22.9	20.0	19.6	16.9	17.4	18.5	21.9	31.0	65.6	47.8	31.1	30.3	30.2	25.0	65.6	13.1
26	---	28.2	27.4	26.9	27.1	27.7	26.0	26.9	27.5	25.0	23.2	21.3	20.9	20.4	28.3	58.6	30.1	23.5	30.7	30.8	35.5	37.8	39.0	32.1	29.3	58.6	20.4
27	---	28.0	27.9	30.8	27.9	22.7	36.4	27.1	23.1	28.9	31.0	14.7	12.1	10.9	7.9	12.5	12.6	9.8	11.9	10.4	11.1	9.7	9.4	10.1	18.6	36.4	7.9
28	---	10.1	8.9	7.6	7.6	7.2	6.8	7.0	7.0	7.5	6.9	7.2	8.2	7.9	7.5	7.6	8.3	7.1	7.4	7.5	8.3	8.9	9.6	10.4	7.9	10.4	6.8
29	---	9.2	15.6	18.9	9.0	11.8	8.1	7.0	7.3	7.1	8.4	7.0	7.3	9.1	8.6	8.1	9.0	8.3	15.9	20.2	15.2	17.0	11.1	12.9	11.0	20.2	7.0
30	---	11.3	10.8	10.1	11.3	16.3	17.0	13.9	14.5	14.5	13.6	11.5	12.6	14.2	15.9	17.8	16.9	20.3	19.4	19.1	15.3	12.9	12.6	12.7	14.5	20.3	10.1
MEAN	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---		
MAX	---	31.5	30.4	31.7	34.4	33.0	39.2	31.3	78.0	69.9	43.6	38.1	36.0	30.5	31.9	58.6	34.4	90.2	45.6	65.6	47.8	37.8	41.5	41.9		90.2	
MIN	---	9.2	8.9	7.6	7.6	7.2	6.8	7.0	7.0	7.1	6.9	7.0	7.3	6.7	6.9	7.6	8.3	7.1	7.4	7.5	8.3	8.9	9.4	10.1			6.7

POSSIBLE NUMBER OF OBSERVATIONS = 720 ACTUAL NUMBER OF OBSERVATIONS = 251 DATA RECOVERY RATE = 34.9%

MONTHLY MEAN = 19.1 ppb

MAXIMUM DOWNWIND2 THC PAMS = 90.2 ppb DATE OF OCCURRENCE = 11/19 AT 1800 MAXIMUM DAILY MEAN = 32.7 ppb DATE OF OCCURRENCE = 11/21

MINIMUM DOWNWIND2 THC PAMS = 6.7 ppb DATE OF OCCURRENCE = 11/22 AT 1400 MINUMUM DAILY MEAN = 7.9 ppb DATE OF OCCURRENCE = 11/28

MEANS REQUIRE 75% VALID DATA MISSING DATA DENOTED BY ---

HarmonCreek

DOWNWIND2 THC PAMS in ppb for DECEMBER, 2019

Hr Beg Hr End Day	0 1	1 2	2 3	3 4	4 5	5 6	6 7	7 8	8 9	9 10	10 11	11 12	12 13	13 14	14 15	15 16	16 17	17 18	18 19	19 20	20 21	21 22	22 23	23 24	MEAN	MAX	MIN
1	---	11.7	10.7	10.7	11.7	11.1	11.4	12.7	---	---	12.8	22.6	17.1	17.1	16.6	9.9	13.3	15.8	11.4	12.9	14.5	11.4	12.5	11.0	13.3	22.6	9.9
2	11.2	---	20.2	31.2	20.4	19.6	21.7	15.0	18.3	16.6	18.4	21.2	14.6	26.6	10.0	7.9	8.3	7.4	7.6	6.9	7.1	6.5	6.9	7.1	14.4	31.2	6.5
3	8.2	---	7.5	8.7	10.7	8.6	7.9	10.9	14.1	11.2	11.5	11.1	9.1	8.9	9.0	9.6	9.6	9.0	8.6	8.8	7.4	9.1	9.0	8.1	9.4	14.1	7.4
4	8.8	---	10.5	10.4	10.2	10.4	11.1	11.6	11.3	12.2	14.0	10.9	11.4	12.4	11.9	12.5	14.4	9.7	10.5	9.9	9.0	8.9	8.9	10.0	10.9	14.4	8.8
5	10.5	---	11.1	10.2	11.0	11.4	14.1	18.7	13.4	13.6	8.7	10.3	8.3	8.8	10.9	9.8	12.8	11.2	13.0	30.2	19.9	40.2	41.8	40.5	16.5	41.8	8.3
6	34.6	---	28.8	28.5	26.0	30.9	30.3	28.3	27.5	25.4	21.4	32.0	15.5	16.0	12.6	10.9	10.1	8.4	7.9	12.7	9.5	36.0	18.0	19.3	21.3	36.0	7.9
7	29.7	---	64.7	34.0	53.0	50.7	45.2	36.8	39.5	38.4	10.1	8.2	10.5	11.0	7.8	8.3	10.3	16.4	14.4	15.6	15.4	16.0	18.4	20.8	25.0	64.7	7.8
8	22.0	---	23.2	20.1	19.0	18.8	17.9	18.0	19.3	18.6	27.9	31.9	34.3	26.7	43.1	32.3	30.2	31.2	24.9	20.0	18.1	18.6	16.7	19.4	24.0	43.1	16.7
9	22.3	---	29.9	45.7	40.8	19.9	22.1	24.6	27.4	28.6	39.6	41.9	41.8	26.6	16.7	15.1	12.9	12.2	10.7	10.9	10.5	11.3	10.9	11.5	23.2	45.7	10.5
10	12.3	---	25.4	24.7	23.5	22.5	21.0	20.6	10.5	14.2	22.2	15.8	10.1	9.0	9.5	11.6	8.1	9.9	16.8	11.4	8.8	12.7	12.3	11.7	15.0	25.4	8.1
11	12.7	---	8.2	9.7	12.1	9.0	8.8	7.2	7.5	8.0	8.3	8.7	7.7	8.1	7.2	7.5	7.7	11.1	14.1	9.5	8.5	10.6	9.3	12.4	9.3	14.1	7.2
12	34.3	---	15.1	13.0	12.2	13.0	24.3	51.6	38.0	23.1	17.4	38.2	31.7	18.0	17.5	13.6	15.0	15.9	15.2	15.2	16.3	14.4	15.1	15.9	21.0	51.6	12.2
13	14.6	---	15.2	14.8	16.5	17.1	16.6	15.9	16.6	19.0	21.2	22.6	22.4	20.1	15.6	16.6	20.8	21.8	22.0	24.0	442.6	49.4	47.3	39.2	40.5	442.6	14.6
14	47.8	---	26.7	25.7	37.3	33.6	---	---	15.6	11.7	10.0	11.6	11.7	10.3	12.2	20.2	23.1	23.1	22.6	16.1	18.5	17.9	13.8	15.7	20.2	47.8	10.0
15	17.2	18.3	---	17.2	17.3	17.7	12.5	11.3	10.4	9.4	10.0	8.8	13.7	11.2	10.3	10.7	14.5	9.4	12.7	15.8	13.2	19.6	77.2	50.8	17.8	77.2	8.8
16	19.4	25.9	---	21.2	18.9	17.1	16.5	17.0	15.1	13.1	12.2	13.5	12.8	12.3	12.1	13.0	12.8	12.8	15.0	14.6	14.0	13.0	12.3	12.5	15.1	25.9	12.1
17	13.1	14.6	---	15.4	13.5	16.4	20.9	19.9	14.8	18.7	28.0	19.5	9.0	7.8	8.0	7.6	9.2	7.8	7.3	8.3	7.1	7.3	14.3	8.7	12.9	28.0	7.1
18	9.5	9.6	---	14.0	15.1	11.6	13.6	12.5	12.0	10.1	10.4	10.1	9.2	9.5	10.8	7.9	7.4	7.5	7.8	6.8	5.7	6.5	5.7	6.9	9.6	15.1	5.7
19	7.1	17.1	---	11.2	16.0	21.0	28.7	38.5	36.8	18.1	10.1	8.3	15.9	12.6	16.1	11.6	16.2	27.5	59.4	26.6	29.7	34.4	35.9	44.2	23.6	59.4	7.1
20	54.7	56.0	---	53.0	56.2	56.8	59.5	56.4	58.2	79.5	27.7	28.7	21.0	20.7	22.2	19.5	18.8	20.5	21.6	22.6	46.2	41.1	57.4	48.1	41.2	79.5	18.8
21	37.6	31.9	---	45.6	41.1	47.2	61.2	44.7	56.8	57.7	43.7	52.4	85.8	29.2	36.3	37.9	43.2	33.8	32.5	36.2	34.2	36.7	75.8	63.9	46.3	85.8	29.2
22	54.8	58.8	---	64.8	57.9	53.2	53.1	54.3	56.6	53.5	39.5	23.8	18.7	16.6	17.3	17.0	20.8	31.1	35.3	46.5	41.7	79.1	74.2	47.7	44.2	79.1	16.6
23	46.1	51.2	---	61.5	60.4	86.0	69.4	78.7	94.3	86.3	82.4	42.8	25.5	25.3	22.4	25.7	25.6	84.6	31.9	33.2	39.2	83.0	51.0	46.4	54.5	94.3	22.4
24	52.3	54.2	---	61.7	74.0	88.3	98.7	103.7	113.1	67.9	35.2	46.7	48.8	42.9	36.4	32.6	31.0	32.1	31.0	31.0	33.3	36.7	50.4	39.3	54.0	113.1	31.0
25	38.6	42.3	---	63.7	52.9	54.8	49.1	46.3	51.4	60.4	76.7	76.4	80.4	79.2	79.8	79.8	82.9	87.7	90.4	95.3	88.4	85.4	83.8	80.9	70.7	95.3	38.6
26	80.1	74.1	---	71.1	73.3	79.2	85.7	89.6	91.4	75.3	43.6	34.4	25.6	24.4	15.6	14.4	20.5	25.9	29.6	44.8	40.4	44.7	48.2	---	51.4	91.4	14.4
27	56.6	50.0	36.5	---	---	25.1	24.8	23.6	21.4	21.5	16.9	13.6	14.6	12.7	13.8	13.3	11.2	12.7	16.5	13.6	40.8	19.0	74.6	25.9	25.4	74.6	11.2
28	---	21.9	22.7	23.7	20.9	23.5	18.5	17.3	16.6	16.9	17.2	26.3	31.7	27.8	23.7	23.0	23.6	26.9	33.3	40.2	40.4	39.8	39.6	42.5	26.9	42.5	16.6
29	---	35.6	35.9	39.6	39.0	39.1	41.9	41.9	40.5	35.0	27.3	19.4	20.7	17.4	23.2	21.6	17.2	22.5	109.1	21.4	25.9	26.5	24.5	20.1	32.4	109.1	17.2
30	---	10.7	9.5	15.4	12.4	19.7	17.7	7.8	5.7	4.9	4.7	5.6	6.6	8.0	11.4	10.5	12.7	12.7	9.3	8.4	6.7	10.9	8.2	7.2	9.9	19.7	4.7
31	---	11.2	11.1	9.4	10.5	11.8	10.9	9.5	9.5	9.7	9.6	9.5	9.5	9.3	9.2	10.9	11.3	9.8	9.2	10.1	10.0	10.3	9.4	---	10.1	11.8	9.2
MEAN	29.1	---	---	29.2	29.5	30.5	31.2	31.5	32.1	29.3	23.8	23.5	22.4	18.9	18.4	17.5	18.6	21.6	24.2	21.9	36.2	27.6	31.7	27.2	26.2		
MAX	80.1	74.1	64.7	71.1	74.0	88.3	98.7	103.7	113.1	86.3	82.4	76.4	85.8	79.2	79.8	79.8	82.9	87.7	109.1	95.3	442.6	85.4	83.8	80.9		442.6	
MIN	7.1	9.6	7.5	8.7	10.2	8.6	7.9	7.2	5.7	4.9	4.7	5.6	6.6	7.8	7.2	7.5	7.4	7.4	7.3	6.8	5.7	6.5	5.7	6.9			4.7

POSSIBLE NUMBER OF OBSERVATIONS = 744 ACTUAL NUMBER OF OBSERVATIONS = 706 DATA RECOVERY RATE = 94.9%

MONTHLY MEAN = 26.2 ppb

MAXIMUM DOWNWIND2 THC PAMS = 442.6 ppb DATE OF OCCURRENCE = 12/13 AT 2100 MAXIMUM DAILY MEAN = 70.7 ppb DATE OF OCCURRENCE = 12/25

MINIMUM DOWNWIND2 THC PAMS = 4.7 ppb DATE OF OCCURRENCE = 12/30 AT 1100 MINUMUM DAILY MEAN = 9.3 ppb DATE OF OCCURRENCE = 12/11

MEANS REQUIRE 75% VALID DATA MISSING DATA DENOTED BY ---

APPENDIX C

Wind Information for November and December 2019

C.1 Hourly Average Wind Speed/Direction
C.2 Joint Frequency of Occurrence Distributions of Wind Speeds and Directions
C.3 Hourly Wind Gust

C.1 Hourly Average Wind Speed/Direction

HarmonCreek

Wind Speed and Direction in mps for November, 2019

Hr Beg Hr End Day	0 1	1 2	2 3	3 4	4 5	5 6	6 7	7 8	8 9	9 10	10 11	11 12	12 13
1	---	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---	198/02.5
22	236/05.5	238/05.0	236/05.1	241/05.8	240/05.3	241/05.6	269/06.1	277/06.0	287/05.8	294/04.8	288/04.8	293/04.7	282/05.2
23	206/00.7	227/00.7	201/00.8	021/00.5	063/00.9	354/00.4	055/00.4	202/00.8	078/01.2	097/02.8	106/03.2	065/03.4	066/03.7
24	263/01.6	264/03.6	283/04.2	274/03.6	276/04.6	259/03.6	248/03.2	255/03.5	258/04.4	259/04.9	254/05.1	253/05.3	253/05.2
25	218/02.6	207/03.0	217/03.4	215/03.6	220/03.2	220/03.3	221/03.5	220/03.2	215/03.4	217/04.1	220/04.8	217/04.6	223/04.7
26	208/02.8	207/02.5	213/02.6	221/03.1	219/03.3	212/03.1	211/03.3	212/03.0	218/03.4	230/04.2	228/03.0	225/03.0	224/02.8
27	129/01.5	139/02.1	195/00.8	156/01.7	176/04.4	168/06.0	188/03.2	156/04.4	160/05.6	188/05.3	205/05.2	225/07.9	238/10.8
28	258/08.8	260/09.9	268/10.3	273/09.5	272/09.4	267/07.6	272/06.4	269/05.7	272/05.6	276/05.7	275/05.9	271/05.8	280/05.1
29	283/02.0	311/01.8	350/01.7	005/02.4	350/01.4	293/01.8	344/01.7	300/00.9	274/01.2	306/01.8	303/01.7	359/01.4	327/01.5
30	033/01.6	343/00.9	030/01.2	045/01.8	299/00.5	359/01.3	357/01.0	024/01.4	045/02.1	052/02.6	061/02.4	074/03.0	077/02.6
MEAN	---	---	---	---	---	---	---	---	---	---	---	---	---
MAX	258/08.8	260/09.9	268/10.3	273/09.5	272/09.4	267/07.6	272/06.4	277/06.0	287/05.8	276/05.7	275/05.9	225/07.9	238/10.8
MIN	206/00.7	227/00.7	201/00.8	021/00.5	299/00.5	354/00.4	055/00.4	202/00.8	078/01.2	306/01.8	303/01.7	359/01.4	327/01.5

MEANS REQUIRE 75% VALID DATA

MISSING DATA DENOTED BY ---

HarmonCreek

Wind Speed and Direction in mps for November, 2019

Hr Beg Hr End Day	13 14	14 15	15 16	16 17	17 18	18 19	19 20	20 21	21 22	22 23	23 24	MEAN	MAX SPD	MIN SPD
1	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---	---	---
21	201/03.2	179/03.6	178/03.5	185/03.4	201/03.3	219/04.9	235/07.5	237/08.1	237/06.8	234/06.6	236/06.0	---	237/08.1	198/02.5
22	289/05.1	290/05.7	291/04.5	290/03.9	338/02.8	338/02.9	316/01.9	255/00.9	203/00.8	223/00.2	075/00.4	273/04.1	269/06.1	223/00.2
23	083/03.7	068/04.1	068/03.9	069/02.6	048/02.4	059/03.7	061/02.9	055/02.3	351/02.0	359/03.0	345/02.1	060/02.2	068/04.1	354/00.4
24	256/05.4	257/05.6	252/05.8	253/06.0	248/05.0	244/05.1	239/05.0	231/04.6	237/04.6	238/03.7	231/03.5	254/04.5	253/06.0	263/01.6
25	227/04.7	229/04.8	224/04.5	227/03.1	214/02.0	197/02.5	201/02.6	205/02.5	213/02.8	217/03.0	210/03.5	216/03.5	229/04.8	214/02.0
26	224/03.0	216/02.9	213/02.0	162/01.7	138/02.2	165/01.4	137/01.2	106/01.6	137/01.3	115/02.2	139/02.4	194/02.6	230/04.2	137/01.2
27	259/12.0	255/11.7	260/13.9	258/12.9	252/11.3	262/11.7	259/12.1	260/08.9	256/10.4	257/10.6	258/10.0	218/07.7	260/13.9	195/00.8
28	286/04.6	289/03.5	287/04.7	288/03.9	273/03.8	282/03.5	275/03.2	271/03.6	273/02.9	267/02.2	266/01.8	274/05.5	268/10.3	266/01.8
29	357/02.1	316/01.9	343/01.0	012/00.8	019/01.3	336/01.2	004/01.6	018/01.4	016/01.5	033/01.4	033/01.7	341/01.6	005/02.4	012/00.8
30	066/02.5	102/03.0	067/02.4	053/01.9	057/03.4	066/02.9	075/04.1	073/03.8	071/03.4	085/03.9	095/03.7	052/02.4	075/04.1	299/00.5
MEAN	---	---	---	---	---	---	---	---	---	---	---	251/03.8		
MAX	259/12.0	255/11.7	260/13.9	258/12.9	252/11.3	262/11.7	259/12.1	260/08.9	256/10.4	257/10.6	258/10.0		260/13.9	
MIN	357/02.1	316/01.9	343/01.0	012/00.8	019/01.3	336/01.2	137/01.2	255/00.9	203/00.8	223/00.2	075/00.4			223/00.2

POSSIBLE NUMBER OF OBSERVATIONS = 720 ACTUAL NUMBER OF OBSERVATIONS = 228 DATA RECOVERY RATE = 31.7%

MONTHLY MEAN = 251/03.8 MAXIMUM WIND SPEED = 13.9 AT 260 DEGREES DATE OF OCCURRENCE = 11/27 AT 1600

MEANS REQUIRE 75% VALID DATA MISSING DATA DENOTED BY ---

HarmonCreek

Wind Speed and Direction in mps for December, 2019

Hr Beg Hr End Day	0 1	1 2	2 3	3 4	4 5	5 6	6 7	7 8	8 9	9 10	10 11	11 12	12 13
1	083/04.1	078/04.0	084/04.5	089/04.0	096/04.4	094/04.5	101/04.0	110/04.2	104/04.1	126/04.1	160/04.1	170/01.6	123/01.6
2	241/03.3	273/02.0	242/01.4	281/01.8	254/01.8	249/01.0	225/01.9	245/02.3	255/02.8	264/02.7	255/03.6	262/04.2	274/05.1
3	288/02.4	275/02.8	270/03.0	270/03.2	269/03.3	267/04.6	267/04.1	265/04.1	256/03.3	260/04.8	264/04.8	258/04.7	249/05.0
4	241/04.4	231/04.3	231/04.0	233/04.2	235/04.8	237/04.1	235/03.6	235/04.7	232/04.7	230/04.3	233/05.7	244/06.6	249/06.6
5	269/06.4	270/06.3	271/05.6	272/05.9	268/05.4	266/06.0	264/04.1	263/05.0	258/05.1	258/05.3	271/06.3	268/05.8	276/06.1
6	205/02.1	199/02.5	199/02.7	204/02.7	215/03.0	216/03.7	216/03.5	225/03.8	226/04.7	232/05.4	241/05.8	247/05.7	249/05.8
7	291/00.4	319/01.2	332/01.4	298/00.9	276/00.9	218/01.1	214/01.3	203/01.2	220/01.0	221/00.6	283/00.7	304/00.9	327/01.2
8	121/02.3	114/02.9	112/03.2	102/02.4	106/02.5	116/02.9	121/02.2	122/02.0	148/02.6	174/02.8	192/02.9	213/03.8	212/03.8
9	187/03.5	189/02.8	185/02.3	197/02.5	191/02.1	173/02.7	185/02.5	178/03.0	167/03.2	169/03.7	183/03.8	187/04.3	195/04.4
10	230/05.8	249/07.3	260/06.7	255/04.3	253/03.8	256/06.1	248/05.4	250/06.8	251/07.2	267/06.6	262/07.1	265/05.9	256/06.8
11	260/03.9	253/05.0	254/05.5	255/05.3	256/03.8	253/04.5	248/04.1	240/04.4	241/04.5	245/05.4	242/04.8	245/06.6	246/07.4
12	323/01.4	299/00.4	033/00.6	239/00.4	249/00.4	233/00.5	099/00.8	049/00.4	124/01.7	137/01.2	183/01.7	180/01.8	184/01.4
13	115/04.1	114/03.7	115/03.2	112/03.6	113/03.3	124/02.0	110/03.0	106/03.4	109/03.1	106/02.7	120/02.4	145/01.7	130/01.6
14	018/02.1	005/01.8	011/01.8	016/02.0	359/01.7	356/02.3	342/01.7	294/01.9	290/02.6	301/02.9	306/03.3	285/04.5	279/04.2
15	252/05.2	253/05.6	253/05.5	253/05.8	263/07.7	271/07.4	279/05.7	282/04.7	275/04.9	272/05.5	279/05.6	270/05.6	263/05.0
16	127/02.0	121/02.7	089/02.9	058/02.5	050/02.8	054/03.4	052/03.5	043/03.2	036/03.2	047/03.4	040/03.2	032/02.9	039/03.5
17	050/02.9	009/03.2	004/03.7	011/02.9	010/02.2	001/01.8	352/01.7	344/01.6	335/01.5	---	---	---	---
18	---	240/02.9	239/03.2	239/03.0	242/03.4	254/03.7	259/03.4	260/03.9	260/04.2	255/03.9	255/05.2	259/06.3	253/07.4
19	277/02.8	266/02.7	251/02.0	245/02.3	229/01.8	207/01.8	195/01.5	217/01.5	218/01.7	241/02.9	242/04.0	237/04.7	237/04.6
20	219/02.1	216/01.0	209/00.7	201/00.6	060/00.4	175/00.3	261/00.3	039/00.3	126/00.4	122/00.3	098/01.9	091/02.8	104/01.9
21	173/01.6	118/02.0	116/02.5	307/00.6	203/00.6	027/00.4	044/00.5	213/00.5	003/00.5	071/00.6	319/00.6	066/01.2	230/01.4
22	198/01.2	196/01.8	197/02.1	201/00.5	197/01.8	200/02.1	200/02.3	196/02.1	198/01.9	201/01.4	223/01.9	231/02.6	238/04.3
23	207/00.7	200/01.1	233/00.9	205/01.1	204/00.7	296/00.6	205/00.8	211/01.2	221/00.6	196/00.9	230/00.4	220/00.9	235/02.1
24	223/00.9	212/00.9	207/00.8	222/01.3	204/01.0	234/00.7	232/00.4	306/00.4	358/01.0	026/01.5	036/01.3	039/02.2	039/01.9
25	107/00.9	061/01.2	136/01.4	075/01.3	027/01.0	062/00.5	114/01.1	082/00.9	082/00.9	128/01.5	123/01.3	047/00.7	094/01.4
26	167/00.8	169/00.4	005/00.4	075/00.9	162/00.8	082/00.4	255/00.4	105/00.7	197/01.0	198/02.0	218/02.9	226/04.0	221/03.2
27	197/02.6	207/03.2	221/03.2	223/02.8	217/02.8	225/02.7	215/02.7	226/03.5	225/03.5	231/03.5	239/04.0	246/04.3	237/03.9
28	354/02.1	332/01.6	246/00.7	298/01.0	313/01.8	321/02.1	337/01.6	001/00.9	043/01.4	116/01.4	158/01.6	184/02.1	201/01.2
29	087/01.2	078/01.6	078/02.4	084/02.0	093/03.2	105/02.9	116/02.1	125/01.8	136/01.7	127/02.8	119/02.5	130/02.2	140/02.6
30	114/03.9	122/03.1	162/04.0	119/04.1	114/04.1	215/05.0	228/07.6	238/08.2	253/09.3	245/06.9	234/08.3	239/09.3	236/08.7
31	212/03.5	208/03.8	236/03.5	243/05.6	233/04.5	230/04.4	237/06.1	235/06.8	235/07.5	234/07.8	236/08.7	238/09.2	247/07.6
MEAN	**207/02.7**	**218/02.8**	**219/02.8**	**235/02.6**	**225/02.6**	**230/02.8**	**224/02.7**	**228/02.9**	**222/03.1**	**208/03.3**	**229/03.7**	**233/04.0**	**231/04.1**
MAX	**269/06.4**	**249/07.3**	**260/06.7**	**272/05.9**	**263/07.7**	**271/07.4**	**228/07.6**	**238/08.2**	**253/09.3**	**234/07.8**	**236/08.7**	**239/09.3**	**236/08.7**
MIN	**291/00.4**	**169/00.4**	**005/00.4**	**239/00.4**	**060/00.4**	**175/00.3**	**261/00.3**	**039/00.3**	**126/00.4**	**122/00.3**	**230/00.4**	**047/00.7**	**201/01.2**

MEANS REQUIRE 75% VALID DATA

MISSING DATA DENOTED BY ---

HarmonCreek

Wind Speed and Direction in mps for December, 2019

Hr Beg Hr End Day	13 14	14 15	15 16	16 17	17 18	18 19	19 20	20 21	21 22	22 23	23 24	MEAN	MAX SPD	MIN SPD
1	087/03.1	253/03.4	247/03.4	247/03.6	257/04.2	249/04.7	264/06.8	257/05.1	252/06.2	244/05.3	243/04.3	159/04.1	264/06.8	123/01.6
2	284/04.5	288/04.7	305/03.9	312/03.5	308/04.1	301/04.0	311/04.6	304/03.8	298/03.8	291/03.7	294/03.5	276/03.2	274/05.1	249/01.0
3	252/05.4	247/04.2	240/03.8	243/04.8	246/04.6	241/04.1	244/04.4	242/06.0	234/04.3	239/05.3	245/04.8	255/04.2	242/06.0	288/02.4
4	248/06.4	250/06.5	257/06.8	263/06.0	270/06.4	267/05.1	269/03.8	273/06.1	278/06.3	271/05.9	273/06.2	249/05.3	257/06.8	235/03.6
5	271/06.7	272/06.6	269/05.3	260/05.3	251/02.6	218/01.9	220/01.5	208/01.1	204/02.2	207/02.5	202/01.8	253/04.6	271/06.7	208/01.1
6	262/06.5	273/04.9	294/05.1	304/04.0	314/03.7	299/03.1	282/02.9	320/02.1	320/01.7	322/01.3	287/00.7	255/03.6	262/06.5	287/00.7
7	207/01.3	182/01.7	223/01.9	232/01.1	134/00.2	097/00.4	095/00.5	208/00.5	106/00.8	116/01.8	113/02.3	225/01.1	113/02.3	134/00.2
8	217/03.5	209/03.0	195/03.4	184/03.0	168/03.1	164/03.2	170/03.4	177/04.4	160/03.5	177/04.0	184/03.9	161/03.1	177/04.4	122/02.0
9	208/04.7	222/05.2	224/05.2	224/05.7	227/06.5	228/06.7	228/06.6	229/07.2	229/07.8	239/07.4	238/05.3	203/04.5	229/07.8	191/02.1
10	265/06.7	262/06.3	260/06.5	267/05.9	259/05.7	262/06.0	267/05.3	265/05.3	263/05.5	264/04.7	263/04.4	258/05.9	249/07.3	253/03.8
11	250/07.8	250/06.9	254/07.2	252/06.7	259/05.7	260/06.4	265/05.5	295/03.5	305/03.1	289/01.7	324/01.6	259/05.1	250/07.8	324/01.6
12	162/02.7	148/03.3	129/04.0	095/01.8	088/02.4	089/03.1	089/02.8	112/03.7	109/03.6	114/03.2	102/02.8	128/01.9	129/04.0	249/00.4
13	083/02.2	056/01.6	047/01.4	060/01.9	107/02.4	114/01.4	034/01.2	357/01.8	033/01.6	001/01.0	041/02.2	091/02.4	115/04.1	001/01.0
14	273/04.6	270/04.4	263/04.1	257/04.3	256/04.6	257/04.7	254/04.8	259/05.2	257/05.0	253/04.9	250/05.3	294/03.5	250/05.3	359/01.7
15	257/04.5	272/03.8	271/03.4	263/03.6	286/01.6	242/00.8	249/01.3	276/00.8	038/00.4	130/00.7	130/02.3	264/04.1	263/07.7	038/00.4
16	050/03.7	048/03.1	056/03.0	060/03.1	064/03.1	042/03.3	038/03.2	040/03.6	054/03.7	055/03.5	053/03.6	055/03.2	054/03.7	127/02.0
17	---	---	---	---	---	---	---	---	---	---	---	---	004/03.7	335/01.5
18	264/06.0	270/06.2	275/07.0	284/07.3	287/06.0	281/04.2	282/04.5	275/06.4	274/05.6	273/04.4	275/03.5	263/04.9	253/07.4	240/02.9
19	237/03.8	216/03.1	219/03.2	217/02.6	202/02.6	193/02.6	210/02.7	216/02.6	221/02.8	214/02.6	212/02.6	225/02.7	237/04.7	217/01.5
20	076/01.4	116/01.0	078/02.0	093/02.3	103/02.0	064/01.5	114/01.8	034/00.7	028/01.1	303/00.5	061/01.4	102/01.2	091/02.8	175/00.3
21	225/02.1	219/02.3	221/02.3	221/01.7	217/00.5	187/00.8	236/00.7	200/01.0	208/01.3	206/02.5	210/02.2	206/01.3	206/02.5	027/00.4
22	241/03.7	245/02.9	248/02.8	223/02.0	205/02.4	198/02.4	198/01.8	198/02.0	188/01.0	038/00.8	210/01.0	209/02.0	238/04.3	201/00.5
23	246/02.2	236/02.2	244/01.9	220/02.0	219/01.3	218/01.2	208/01.7	239/01.0	212/01.2	213/01.4	208/01.0	221/01.2	236/02.2	230/00.4
24	035/01.7	034/01.4	040/01.9	053/02.4	063/02.0	025/01.0	038/00.8	118/00.4	199/00.6	011/00.4	174/00.8	037/01.2	053/02.4	306/00.4
25	044/00.8	239/00.6	196/01.6	193/01.3	158/02.0	191/01.2	214/02.3	217/02.5	211/02.0	200/01.4	178/01.4	132/01.3	217/02.5	062/00.5
26	222/03.3	220/03.7	226/03.7	220/02.7	204/02.5	191/02.1	201/02.9	209/02.8	199/02.3	195/02.3	198/01.6	197/02.0	226/04.0	005/00.4
27	239/03.8	252/03.4	255/03.6	257/03.0	241/02.6	238/03.0	237/02.4	238/01.6	260/01.0	288/01.0	292/00.8	237/02.9	246/04.3	292/00.8
28	178/01.3	192/01.3	180/01.0	165/01.4	083/01.7	193/00.8	234/00.8	176/00.8	079/01.1	164/00.9	083/00.9	183/01.3	354/02.1	246/00.7
29	167/03.3	187/03.5	199/02.8	227/02.7	213/01.9	189/02.1	164/01.3	130/02.1	130/02.5	104/02.9	097/03.0	132/02.4	187/03.5	087/01.2
30	251/07.5	256/04.5	244/04.4	258/07.1	261/06.3	255/06.3	249/04.9	242/04.6	257/06.6	247/05.0	231/04.5	230/06.0	253/09.3	122/03.1
31	248/06.2	246/07.7	253/09.1	254/09.1	249/07.5	247/07.3	251/06.3	251/05.7	270/05.4	269/04.8	255/04.7	242/06.4	238/09.2	236/03.5
MEAN	236/04.0	239/03.8	241/03.9	239/03.7	228/03.4	225/03.2	235/03.1	237/03.2	234/03.1	240/02.9	221/02.8	230/03.2		
MAX	250/07.8	246/07.7	253/09.1	254/09.1	249/07.5	247/07.3	264/06.8	229/07.2	229/07.8	239/07.4	273/06.2		253/09.3	
MIN	044/00.8	239/00.6	180/01.0	232/01.1	134/00.2	097/00.4	095/00.5	118/00.4	038/00.4	011/00.4	287/00.7			134/00.2

POSSIBLE NUMBER OF OBSERVATIONS = 744 ACTUAL NUMBER OF OBSERVATIONS = 728 DATA RECOVERY RATE = 97.8%

MONTHLY MEAN = 230/03.2 MAXIMUM WIND SPEED = 09.3 AT 253 DEGREES DATE OF OCCURRENCE = 12/30 AT 900

MEANS REQUIRE 75% VALID DATA MISSING DATA DENOTED BY ---

C.2 Joint Frequency of Occurrence Distributions of Wind Speeds and Directions

HarmonCreek

Joint Frequency Distribution for November, 2019

Percentage frequency of occurence of hourly wind velocities for all stability classes

Wind Direction		Wind Speed (mps) OVER 0.5	1.54 - 3.09	3.09 - 5.14	5.14 - 8.23	8.23 - 10.8	OVER 10.8	TOTAL	AVG SPEED
N	348.75 - 11.25	1.8	2.6	0.0	0.0	0.0	0.0	4.4	1.8
NNE	11.25 - 33.75	3.5	0.9	0.0	0.0	0.0	0.0	4.4	1.3
NE	33.75 - 56.25	0.0	2.6	0.0	0.0	0.0	0.0	2.6	2.2
ENE	56.25 - 78.75	0.9	3.5	3.9	0.0	0.0	0.0	8.3	3.0
E	78.75 - 101.25	0.0	0.4	1.3	0.0	0.0	0.0	1.8	3.5
ESE	101.25 - 123.75	0.0	1.3	0.4	0.0	0.0	0.0	1.8	2.5
SE	123.75 - 146.25	1.3	1.3	0.0	0.0	0.0	0.0	2.6	1.8
SSE	146.25 - 168.75	0.4	0.9	0.4	0.9	0.0	0.0	2.6	3.4
S	168.75 - 191.25	0.0	0.0	2.2	0.4	0.0	0.0	2.6	3.9
SSW	191.25 - 213.75	2.2	4.8	2.2	0.4	0.0	0.0	9.6	2.5
SW	213.75 - 236.25	0.4	3.9	9.2	1.8	0.0	0.0	15.4	3.9
WSW	236.25 - 258.75	0.4	0.0	4.4	5.7	1.8	2.6	14.9	6.8
W	258.75 - 281.25	0.4	1.8	3.9	3.9	2.2	0.9	13.2	5.8
WNW	281.25 - 303.75	0.9	1.3	5.3	1.3	0.0	0.0	8.8	3.8
NW	303.75 - 326.25	0.0	1.8	0.0	0.0	0.0	0.0	1.8	1.8
NNW	326.25 - 348.75	1.8	1.8	0.0	0.0	0.0	0.0	3.5	1.8
	CALM							1.8	
	TOTAL	14.0	28.9	33.3	14.5	3.9	3.5	100.0	3.9

TOTAL NUMBER OF OBSERVATIONS = 228

POSSIBLE NUMBER OF OBSERVATIONS = 720

DATA RECOVERY = 31.7%

HarmonCreek

Joint Frequency Distribution for December, 2019

Percentage frequency of occurence of hourly wind velocities for all stability classes

Wind Direction		Wind Speed (mps) OVER 0.5	1.54 - 3.09	3.09 - 5.14	5.14 - 8.23	8.23 - 10.8	OVER 10.8	TOTAL	AVG SPEED
N	348.75 - 11.25	0.5	1.2	0.3	0.0	0.0	0.0	2.1	1.9
NNE	11.25 - 33.75	0.7	0.7	0.0	0.0	0.0	0.0	1.4	1.5
NE	33.75 - 56.25	1.5	1.5	1.9	0.0	0.0	0.0	4.9	2.4
ENE	56.25 - 78.75	1.1	1.0	0.4	0.0	0.0	0.0	2.5	1.8
E	78.75 - 101.25	1.1	1.8	1.0	0.0	0.0	0.0	3.8	2.4
ESE	101.25 - 123.75	1.1	3.6	2.3	0.0	0.0	0.0	7.0	2.6
SE	123.75 - 146.25	0.5	1.6	0.3	0.0	0.0	0.0	2.5	2.1
SSE	146.25 - 168.75	0.7	0.5	1.1	0.0	0.0	0.0	2.3	2.5
S	168.75 - 191.25	1.2	2.1	1.2	0.0	0.0	0.0	4.5	2.4
SSW	191.25 - 213.75	4.8	5.9	1.1	0.0	0.0	0.0	11.8	1.9
SW	213.75 - 236.25	2.5	4.0	4.1	2.1	0.3	0.0	12.9	3.4
WSW	236.25 - 258.75	1.1	2.5	8.2	7.4	0.8	0.0	20.1	4.8
W	258.75 - 281.25	0.4	1.0	4.5	7.0	0.0	0.0	12.9	5.0
WNW	281.25 - 303.75	1.1	1.0	1.8	0.3	0.0	0.0	4.1	3.0
NW	303.75 - 326.25	0.7	0.7	1.1	0.0	0.0	0.0	2.5	2.5
NNW	326.25 - 348.75	0.4	0.5	0.0	0.0	0.0	0.0	1.0	1.5
	CALM							3.7	
	TOTAL	19.5	29.5	29.4	16.8	1.1	0.0	100.0	3.3

TOTAL NUMBER OF OBSERVATIONS = 728

POSSIBLE NUMBER OF OBSERVATIONS = 744

DATA RECOVERY = 97.8%

HarmonCreek

10M Joint Frequency Distribution for November - December 2019

Percentage frequency of occurence of hourly wind velocities for all stability classes

Wind Direction		Wind Speed (mps) OVER 0.5	1.54 - 3.09	3.09 - 5.14	5.14 - 8.23	8.23 - 10.8	OVER 10.8	TOTAL	AVG SPEED
N	348.75 - 11.25	0.8	1.6	0.2	0.0	0.0	0.0	2.6	1.9
NNE	11.25 - 33.75	1.4	0.7	0.0	0.0	0.0	0.0	2.1	1.4
NE	33.75 - 56.25	1.2	1.8	1.5	0.0	0.0	0.0	4.4	2.3
ENE	56.25 - 78.75	1.0	1.6	1.3	0.0	0.0	0.0	3.9	2.4
E	78.75 - 101.25	0.8	1.5	1.0	0.0	0.0	0.0	3.3	2.6
ESE	101.25 - 123.75	0.8	3.0	1.9	0.0	0.0	0.0	5.8	2.6
SE	123.75 - 146.25	0.7	1.6	0.2	0.0	0.0	0.0	2.5	2.0
SSE	146.25 - 168.75	0.6	0.6	0.9	0.2	0.0	0.0	2.4	2.7
S	168.75 - 191.25	0.9	1.6	1.5	0.1	0.0	0.0	4.1	2.6
SSW	191.25 - 213.75	4.2	5.6	1.4	0.1	0.0	0.0	11.3	2.0
SW	213.75 - 236.25	2.0	4.0	5.3	2.0	0.2	0.0	13.5	3.5
WSW	236.25 - 258.75	0.9	1.9	7.3	7.0	1.0	0.6	18.8	5.2
W	258.75 - 281.25	0.4	1.2	4.4	6.3	0.5	0.2	13.0	5.2
WNW	281.25 - 303.75	1.0	1.0	2.6	0.5	0.0	0.0	5.2	3.3
NW	303.75 - 326.25	0.5	0.9	0.8	0.0	0.0	0.0	2.3	2.4
NNW	326.25 - 348.75	0.7	0.8	0.0	0.0	0.0	0.0	1.6	1.7
	CALM							3.2	
	TOTAL	18.2	29.4	30.3	16.2	1.8	0.8	100.0	3.5

TOTAL NUMBER OF OBSERVATIONS = 956

POSSIBLE NUMBER OF OBSERVATIONS = 1464

DATA RECOVERY = 65.3%

C.3 Hourly Wind Gust

HarmonCreek

WIND GUST in mps for NOVEMBER, 2019

Hr Beg Hr End Day	0 1	1 2	2 3	3 4	4 5	5 6	6 7	7 8	8 9	9 10	10 11	11 12	12 13	13 14	14 15	15 16	16 17	17 18	18 19	19 20	20 21	21 22	22 23	23 24	MEAN	MAX	MIN
1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---	5.1	6.2	6.5	6.8	6.6	7.3	11.8	15.1	15.0	13.5	11.9	11.7	---	---	---
22	9.5	9.4	9.7	11.3	9.8	10.3	12.3	11.3	12.2	11.8	9.4	8.4	10.2	10.4	10.4	9.9	8.0	5.9	5.5	4.0	1.5	1.4	1.1	1.0	8.1	12.3	1.0
23	1.7	1.6	1.4	1.9	2.2	2.2	1.9	1.9	3.8	5.9	5.0	5.7	6.0	6.2	6.2	6.7	5.5	3.7	6.9	6.0	4.4	4.3	5.2	3.8	4.2	6.9	1.4
24	3.8	6.7	10.0	6.8	11.2	6.8	5.6	6.8	9.0	8.8	9.6	9.6	9.0	10.1	9.9	10.7	11.8	10.3	8.5	9.1	8.0	8.8	6.3	5.6	8.5	11.8	3.8
25	4.8	5.2	5.7	6.7	6.2	6.5	6.3	7.2	7.7	8.6	8.6	9.6	9.5	9.5	9.4	8.9	7.0	4.0	4.0	4.7	4.5	4.7	5.1	5.8	6.7	9.6	4.0
26	4.8	4.5	4.1	4.9	5.6	4.6	5.2	4.9	5.4	7.8	5.8	5.6	5.7	6.6	5.7	4.6	2.5	3.6	3.4	2.3	3.2	3.6	4.9	6.2	4.8	7.8	2.3
27	2.9	4.1	2.3	3.6	9.6	16.9	7.3	9.1	11.3	10.4	11.2	16.9	24.0	25.7	22.4	28.5	24.6	23.9	22.9	22.4	16.6	21.2	22.6	20.6	15.9	28.5	2.3
28	16.1	18.0	21.1	20.2	18.5	15.2	13.3	11.9	10.1	11.7	11.4	10.3	9.4	8.7	7.8	8.8	8.0	7.2	7.3	5.7	6.8	4.9	3.7	3.2	10.8	21.1	3.2
29	3.7	4.2	4.0	4.0	2.7	4.3	3.9	2.2	3.3	4.1	4.0	3.9	3.8	5.1	4.3	3.5	2.2	1.9	3.6	3.1	2.5	3.1	2.7	2.7	3.4	5.1	1.9
30	3.1	2.3	3.0	3.1	1.6	2.3	2.6	2.9	4.2	4.2	4.6	5.6	4.9	4.7	5.1	5.5	3.3	5.5	6.0	8.3	7.1	5.8	7.4	7.1	4.6	8.3	1.6
MEAN	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---		
MAX	16.1	18.0	21.1	20.2	18.5	16.9	13.3	11.9	12.2	11.8	11.4	16.9	24.0	25.7	22.4	28.5	24.6	23.9	22.9	22.4	16.6	21.2	22.6	20.6		28.5	
MIN	1.7	1.6	1.4	1.9	1.6	2.2	1.9	1.9	3.3	4.1	4.0	3.9	3.8	4.7	4.3	3.5	2.2	1.9	3.4	2.3	1.5	1.4	1.1	1.0			1.0

POSSIBLE NUMBER OF OBSERVATIONS = 720 ACTUAL NUMBER OF OBSERVATIONS = 228 DATA RECOVERY RATE = 31.7%

MONTHLY MEAN = 7.6 mps

MAXIMUM WIND GUST = 28.5 mps DATE OF OCCURRENCE = 11/27 AT 1600 MAXIMUM DAILY MEAN = 15.9 mps DATE OF OCCURRENCE = 11/27

MINIMUM WIND GUST = 1.0 mps DATE OF OCCURRENCE = 11/22 AT 2400 MINUMUM DAILY MEAN = 3.4 mps DATE OF OCCURRENCE = 11/29

MEANS REQUIRE 75% VALID DATA MISSING DATA DENOTED BY ---

HarmonCreek

WIND GUST in mps for DECEMBER, 2019

Hr Beg Hr End Day	0 1	1 2	2 3	3 4	4 5	5 6	6 7	7 8	8 9	9 10	10 11	11 12	12 13	13 14	14 15	15 16	16 17	17 18	18 19	19 20	20 21	21 22	22 23	23 24	MEAN	MAX	MIN
1	6.9	6.9	7.8	7.2	8.1	7.5	7.7	8.3	7.0	8.3	9.3	4.4	4.5	5.6	7.5	7.8	12.9	7.6	12.6	11.5	11.4	14.4	10.0	8.2	8.5	14.4	4.4
2	5.7	5.3	2.2	3.8	3.3	2.3	3.5	3.2	5.3	4.8	7.4	7.1	9.2	8.6	9.6	10.7	9.1	9.2	8.9	10.6	10.2	7.8	8.0	8.5	6.8	10.7	2.2
3	5.3	5.3	5.3	6.0	7.1	8.1	7.3	7.6	5.9	8.7	9.0	8.7	9.0	9.9	10.4	8.4	8.7	8.6	7.8	9.3	10.2	7.8	10.4	9.2	8.1	10.4	5.3
4	7.9	7.4	8.1	8.6	9.3	8.2	6.9	8.4	9.8	8.6	10.6	12.5	12.4	10.9	11.2	13.1	11.2	12.1	10.3	10.7	11.3	16.0	10.8	10.9	10.3	16.0	6.9
5	11.2	10.9	10.4	11.3	9.6	10.6	8.2	9.6	9.4	11.7	13.0	10.4	13.6	12.7	11.3	9.6	9.4	4.8	2.9	2.6	1.9	3.9	3.7	3.5	8.6	13.6	1.9
6	3.8	4.6	4.4	4.4	5.7	6.1	5.9	7.0	9.7	10.2	11.1	11.6	10.3	11.3	9.8	11.4	10.2	8.3	8.3	5.2	3.9	3.6	3.5	1.7	7.2	11.6	1.7
7	1.7	2.6	2.0	1.6	1.5	1.5	1.7	1.5	1.6	1.4	2.9	2.6	3.5	3.7	4.5	4.0	3.9	0.9	1.4	1.9	1.4	2.0	3.3	4.6	2.4	4.6	0.9
8	4.0	4.0	4.4	4.8	4.3	4.9	3.4	3.4	5.7	6.7	7.6	10.2	7.9	7.5	7.0	6.7	6.6	5.4	5.6	6.8	8.3	6.2	8.2	7.6	6.1	10.2	3.4
9	7.8	5.9	5.0	4.8	4.1	4.8	5.0	6.0	6.3	7.4	8.5	7.9	9.3	10.2	10.1	11.0	11.6	15.8	12.3	13.1	13.4	14.9	15.5	9.4	9.2	15.8	4.1
10	12.1	14.6	15.1	8.5	8.1	11.4	10.3	15.3	16.5	13.0	13.4	14.3	12.3	13.3	11.4	12.9	10.1	12.0	12.1	8.6	9.9	9.8	7.9	8.8	11.7	16.5	7.9
11	8.1	8.5	9.2	10.1	7.5	7.9	7.7	7.5	9.0	11.6	9.1	14.3	13.1	14.2	13.8	13.2	13.0	12.0	12.9	11.1	8.1	7.3	3.9	3.0	9.8	14.3	3.0
12	3.4	1.3	2.0	1.2	1.0	1.0	2.3	1.8	3.0	2.7	4.2	3.9	4.3	5.7	6.1	6.9	4.7	4.1	5.1	5.6	5.8	5.9	5.1	5.2	3.9	6.9	1.0
13	6.1	5.4	4.2	4.9	4.9	3.3	4.5	5.0	5.0	5.1	4.8	4.2	4.0	4.4	3.3	3.1	4.0	5.2	3.4	3.2	3.0	2.9	2.8	4.0	4.2	6.1	2.8
14	3.2	3.1	3.6	3.8	3.6	3.7	3.6	4.6	5.3	6.2	7.6	8.4	7.5	8.6	8.3	7.5	7.4	7.8	7.7	8.7	9.8	9.1	8.4	9.5	6.5	9.8	3.1
15	9.1	10.1	9.5	10.6	17.8	13.9	11.8	9.7	10.6	11.3	11.2	11.4	9.5	8.3	7.0	6.7	6.8	3.2	1.6	2.7	1.7	1.1	2.4	3.4	8.0	17.8	1.1
16	3.9	4.9	4.5	4.5	4.6	5.3	6.0	5.4	5.7	5.7	5.6	5.3	5.6	5.9	5.1	5.2	4.9	5.2	5.8	5.7	5.6	6.3	5.7	6.0	5.4	6.3	3.9
17	5.1	5.9	6.7	5.2	4.2	3.3	3.3	3.0	3.1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
18	---	4.9	4.8	4.7	6.8	6.5	6.2	7.3	7.6	7.3	9.3	13.4	11.9	15.0	12.2	14.0	13.7	10.7	9.3	11.0	11.9	11.5	9.4	6.2	9.4	15.0	4.7
19	4.3	4.1	3.1	3.4	2.6	2.6	2.6	2.5	2.5	6.5	8.2	9.2	7.9	7.2	6.2	6.6	5.5	4.2	4.3	4.8	4.2	3.7	3.8	4.1	4.7	9.2	2.5
20	3.3	1.8	1.7	1.2	1.3	1.1	1.0	0.9	1.9	1.3	4.6	4.9	4.8	4.0	3.2	3.7	3.8	3.6	2.7	4.7	2.4	3.2	1.5	2.5	2.7	4.9	0.9
21	3.9	3.8	4.2	1.6	1.6	1.4	1.4	1.6	1.2	2.3	2.4	2.2	3.4	4.5	5.3	4.4	4.3	1.1	1.6	1.7	1.7	2.0	4.3	3.6	2.7	5.3	1.1
22	2.2	3.4	3.4	2.0	2.5	3.8	4.1	2.9	3.2	3.0	3.1	6.0	7.4	6.6	5.5	4.7	3.5	4.4	4.0	3.3	3.1	1.7	1.7	1.6	3.6	7.4	1.6
23	1.8	2.5	1.7	1.9	1.6	1.1	1.5	1.7	1.5	1.8	1.3	2.3	4.1	4.1	4.1	4.8	2.9	2.6	1.8	3.1	2.5	1.7	2.0	1.6	2.3	4.8	1.1
24	1.5	1.4	1.3	1.9	1.7	1.1	0.8	1.1	2.2	2.7	2.9	3.5	3.5	3.0	2.8	3.5	4.2	3.8	2.5	2.2	1.2	1.7	1.2	1.8	2.2	4.2	0.8
25	2.6	2.5	2.4	2.7	2.0	1.1	2.4	2.0	2.3	2.3	2.2	1.6	2.9	2.4	2.0	3.6	2.5	3.6	3.0	3.7	3.5	3.1	2.6	2.6	2.5	3.7	1.1
26	1.8	1.1	1.1	1.9	2.4	1.2	2.3	1.8	1.8	3.2	5.6	7.1	5.9	6.1	8.2	7.5	5.6	4.6	4.2	4.7	4.4	3.8	4.0	2.7	3.9	8.2	1.1
27	3.9	5.8	5.4	4.8	6.0	5.4	5.4	6.8	7.3	6.3	8.1	8.3	6.5	7.8	6.9	7.3	5.8	4.3	4.1	3.4	2.6	1.8	1.8	1.7	5.3	8.3	1.7
28	3.8	3.5	1.2	2.5	3.9	4.1	3.4	2.0	4.1	2.9	3.8	4.9	4.0	2.6	3.0	2.3	2.7	3.2	2.7	1.5	1.9	2.5	2.2	2.9	3.0	4.9	1.2
29	2.6	3.3	5.0	4.3	5.5	4.6	4.3	3.4	4.8	6.5	5.5	4.7	5.6	6.7	7.0	5.7	6.2	4.0	4.8	3.0	3.7	3.7	4.9	4.8	4.8	7.0	2.6
30	6.6	5.3	9.4	9.3	6.6	13.6	16.8	20.6	19.7	13.2	17.8	17.7	20.6	16.7	8.5	9.4	13.8	11.5	12.7	9.5	8.9	12.8	10.2	8.9	12.5	20.6	5.3
31	7.1	7.4	6.8	10.7	8.0	9.0	12.2	12.9	14.6	16.7	16.5	17.9	15.7	11.9	14.0	17.9	17.8	14.1	12.5	12.4	9.9	11.5	9.9	9.8	12.4	17.9	6.8
MEAN	5.0	5.1	5.0	5.0	5.1	5.2	5.3	5.6	6.2	6.6	7.5	8.0	8.0	8.0	7.5	7.8	7.6	6.6	6.3	6.2	5.9	6.1	5.6	5.3	6.3		
MAX	12.1	14.6	15.1	11.3	17.8	13.9	16.8	20.6	19.7	16.7	17.8	17.9	20.6	16.7	14.0	17.9	17.8	15.8	12.9	13.1	13.4	16.0	15.5	10.9		20.6	
MIN	1.5	1.1	1.1	1.2	1.0	1.0	0.8	0.9	1.2	1.3	1.3	1.6	2.9	2.4	2.0	2.3	2.5	0.9	1.4	1.5	1.2	1.1	1.2	1.6			0.8

POSSIBLE NUMBER OF OBSERVATIONS = 744 ACTUAL NUMBER OF OBSERVATIONS = 728 DATA RECOVERY RATE = 97.8%

MONTHLY MEAN = 6.3 mps

MAXIMUM WIND GUST = 20.6 mps DATE OF OCCURRENCE = 12/30 AT 0800 MAXIMUM DAILY MEAN = 12.5 mps DATE OF OCCURRENCE = 12/30

MINIMUM WIND GUST = 0.8 mps DATE OF OCCURRENCE = 12/24 AT 0700 MINUMUM DAILY MEAN = 2.2 mps DATE OF OCCURRENCE = 12/24

MEANS REQUIRE 75% VALID DATA MISSING DATA DENOTED BY ---

APPENDIX D

Hourly Temperature Data for November and December 2019

HarmonCreek

TEMPERATURE in Deg C for NOVEMBER, 2019

Hr Beg Hr End Day	0 1	1 2	2 3	3 4	4 5	5 6	6 7	7 8	8 9	9 10	10 11	11 12	12 13	13 14	14 15	15 16	16 17	17 18	18 19	19 20	20 21	21 22	22 23	23 24	MEAN	MAX	MIN
1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---	8.2	9.1	9.7	10.2	10.6	10.9	11.8	12.5	12.1	11.8	11.8	11.6	---	---	---
22	11.9	12.1	12.1	11.8	11.1	10.3	9.1	7.4	5.4	4.3	4.2	4.2	4.1	4.6	4.2	3.9	3.4	2.4	1.5	0.8	-0.3	-1.2	-1.9	-3.1	5.1	12.1	-3.1
23	-3.7	-4.3	-4.5	-4.3	-4.7	-5.5	-5.4	-5.6	-4.0	-1.0	1.4	3.1	4.3	4.8	5.1	5.4	5.1	3.3	3.1	3.2	3.3	3.2	3.1	2.7	0.3	5.4	-5.6
24	2.6	2.7	1.8	0.7	0.0	0.0	0.1	0.2	0.4	0.6	1.1	1.5	1.9	2.6	3.4	4.3	4.1	3.6	3.3	3.1	3.1	3.2	3.1	2.9	2.1	4.3	0.0
25	2.7	2.4	2.1	2.1	2.1	2.1	2.2	2.1	2.7	4.0	5.7	7.5	8.9	10.2	10.9	11.0	10.9	9.9	9.1	8.5	8.0	7.6	7.6	8.0	6.2	11.0	2.1
26	8.0	8.0	8.1	8.0	7.5	7.3	6.6	6.3	6.7	8.4	10.5	12.2	13.6	14.3	14.6	14.2	13.8	13.4	12.0	12.0	11.2	9.3	10.1	10.1	10.2	14.6	6.3
27	10.6	11.2	10.5	10.7	8.4	8.7	9.1	9.1	9.5	10.8	12.4	14.7	15.7	15.2	14.4	12.0	9.5	8.4	7.3	5.7	4.3	4.4	4.1	3.8	9.6	15.7	3.8
28	3.3	3.2	3.0	2.9	2.5	2.2	1.7	1.7	1.9	2.0	2.2	2.2	2.4	2.6	2.8	2.9	2.7	2.6	2.4	2.3	2.0	1.8	1.5	1.3	2.3	3.3	1.3
29	1.3	1.0	0.3	0.0	-0.4	-0.1	-0.1	-0.2	-0.1	0.3	0.8	1.2	2.0	2.3	2.5	2.6	2.5	2.2	2.1	1.9	1.6	1.5	1.4	1.3	1.2	2.6	-0.4
30	1.2	1.1	0.9	0.7	0.7	0.5	0.3	0.3	0.6	1.2	1.9	2.8	3.4	4.0	4.2	4.6	4.5	4.3	4.3	4.3	4.7	4.7	5.1	4.6	2.7	5.1	0.3
MEAN	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---		
MAX	11.9	12.1	12.1	11.8	11.1	10.3	9.1	9.1	9.5	10.8	12.4	14.7	15.7	15.2	14.6	14.2	13.8	13.4	12.0	12.5	12.1	11.8	11.8	11.6		15.7	
MIN	-3.7	-4.3	-4.5	-4.3	-4.7	-5.5	-5.4	-5.6	-4.0	-1.0	0.8	1.2	1.9	2.3	2.5	2.6	2.5	2.2	1.5	0.8	-0.3	-1.2	-1.9	-3.1			-5.6

POSSIBLE NUMBER OF OBSERVATIONS = 720 ACTUAL NUMBER OF OBSERVATIONS = 228 DATA RECOVERY RATE = 31.7%

MONTHLY MEAN = 4.8 Deg C

MAXIMUM TEMPERATURE = 15.7 Deg C DATE OF OCCURRENCE = 11/27 AT 1300 MAXIMUM DAILY MEAN = 10.2 Deg C DATE OF OCCURRENCE = 11/26

MINIMUM TEMPERATURE = -5.6 Deg C DATE OF OCCURRENCE = 11/23 AT 0800 MINUMUM DAILY MEAN = 0.3 Deg C DATE OF OCCURRENCE = 11/23

MEANS REQUIRE 75% VALID DATA MISSING DATA DENOTED BY ---

HarmonCreek

TEMPERATURE in Deg C for DECEMBER, 2019

Hr Beg Hr End Day	0 1	1 2	2 3	3 4	4 5	5 6	6 7	7 8	8 9	9 10	10 11	11 12	12 13	13 14	14 15	15 16	16 17	17 18	18 19	19 20	20 21	21 22	22 23	23 24	MEAN	MAX	MIN
1	3.2	2.9	3.1	3.3	3.6	3.8	4.4	4.6	5.2	6.0	8.1	9.2	10.1	10.6	12.2	12.6	10.6	8.3	8.1	6.7	5.7	3.7	3.0	2.1	6.3	12.6	2.1
2	1.4	1.1	0.5	0.4	0.3	-0.2	-0.4	-0.1	0.2	0.8	1.4	1.7	2.0	2.5	2.8	2.4	1.9	1.1	0.8	0.4	0.2	0.1	0.0	0.2	0.9	2.8	-0.4
3	0.1	0.2	0.0	-0.1	-0.1	-0.3	-0.4	-0.3	-0.3	-0.1	0.0	-0.1	-0.2	-0.6	-0.9	-0.6	-0.2	0.0	0.0	0.0	-0.1	-0.9	-0.7	-0.6	-0.2	0.2	-0.9
4	-0.4	-0.3	-0.2	-0.1	0.0	0.1	0.1	0.2	0.1	0.1	0.5	0.6	0.5	0.7	1.2	1.6	1.7	1.8	1.8	1.4	1.5	1.2	0.2	0.4	0.6	1.8	-0.4
5	0.3	0.2	0.3	0.3	0.2	0.2	0.2	0.3	0.3	0.9	1.6	1.8	2.1	2.9	3.6	4.3	4.4	3.6	2.4	1.5	0.5	-0.4	0.7	0.8	1.4	4.4	-0.4
6	0.7	1.2	1.6	1.7	2.2	2.7	3.2	4.2	4.9	6.0	6.9	6.4	6.8	7.2	7.2	5.7	3.7	3.3	2.4	1.3	0.6	0.0	-0.1	-0.8	3.3	7.2	-0.8
7	-1.6	-1.9	-2.1	-3.0	-3.2	-4.5	-5.5	-5.3	-6.2	-4.0	-1.2	0.0	0.6	1.6	2.0	2.5	2.2	1.2	-0.4	-1.4	-2.6	-3.1	-1.8	-1.5	-1.6	2.5	-6.2
8	-1.4	-1.5	-1.8	-2.5	-2.7	-2.8	-2.6	-2.0	-0.8	1.6	4.8	7.0	8.1	9.2	10.0	10.4	10.4	10.1	10.0	10.3	10.5	9.8	9.6	9.7	4.7	10.5	-2.8
9	9.6	9.7	9.7	9.4	8.3	8.0	7.8	7.8	7.8	8.1	8.6	9.5	10.2	10.9	11.7	11.8	12.1	12.5	12.9	12.9	13.2	13.4	13.3	13.0	10.5	13.4	7.8
10	13.4	13.3	11.6	11.4	11.1	10.2	9.4	8.8	7.6	6.1	4.3	3.1	2.0	1.3	0.3	-0.5	-1.3	-1.9	-2.4	-2.6	-2.9	-3.1	-3.2	-3.4	3.9	13.4	-3.4
11	-3.6	-3.9	-4.6	-5.2	-5.9	-6.5	-7.1	-7.4	-7.2	-6.5	-5.6	-4.7	-4.0	-3.5	-3.0	-2.7	-2.6	-2.6	-2.6	-2.8	-3.4	-4.4	-5.1	-5.7	-4.6	-2.6	-7.4
12	-6.6	-7.3	-7.7	-8.9	-9.7	-10.1	-9.3	-9.7	-7.6	-6.0	-3.3	-1.2	0.6	1.3	1.7	1.9	1.5	1.1	0.2	0.0	0.0	0.3	0.2	-0.1	-3.3	1.9	-10.1
13	-0.3	-0.3	-0.5	-0.5	-0.5	-0.6	-0.5	-0.1	0.2	0.7	1.7	1.3	1.4	1.6	2.0	2.2	2.3	2.5	2.5	2.4	2.1	2.3	2.3	2.7	1.1	2.7	-0.6
14	3.1	3.0	3.2	3.4	3.4	3.6	3.6	3.4	3.1	3.1	3.1	2.4	1.6	1.2	1.0	0.8	1.1	1.2	1.7	2.2	2.7	2.7	2.7	2.6	2.5	3.6	0.8
15	2.8	2.8	3.1	3.2	3.2	2.1	0.6	0.2	-0.3	-0.5	-1.1	-1.0	-0.9	-0.8	-1.0	-0.9	-0.8	-1.1	-1.2	-1.5	-1.5	-1.5	-1.6	-1.5	0.0	3.2	-1.6
16	-1.4	-2.0	-2.3	-2.4	-2.3	-2.2	-2.1	-1.9	-1.6	-1.2	-0.6	-0.2	0.4	0.9	1.1	1.1	0.8	0.7	0.5	0.2	0.0	-0.1	-0.1	-0.2	-0.6	1.1	-2.4
17	-0.2	-0.3	-0.4	-0.4	-0.3	-0.3	-0.3	-0.3	-0.5	-0.6	-0.5	-0.3	-0.2	-0.3	-0.4	-0.5	-0.8	-1.2	-1.6	-2.3	-3.0	-4.0	-4.7	-5.0	-1.2	-0.2	-5.0
18	-5.2	-5.1	-5.2	-5.3	-5.4	-5.2	-5.2	-5.2	-5.1	-4.8	-4.5	-4.1	-3.7	-4.4	-5.0	-4.8	-5.7	-7.2	-7.8	-7.9	-7.9	-8.1	-8.5	-9.2	-5.9	-3.7	-9.2
19	-9.8	-10.5	-11.1	-11.5	-12.0	-12.7	-12.7	-13.7	-13.3	-11.0	-8.9	-7.6	-6.3	-4.9	-3.7	-3.1	-3.0	-3.6	-4.1	-4.4	-4.6	-4.8	-5.0	-5.0	-7.8	-3.0	-13.7
20	-4.7	-5.0	-6.2	-6.3	-6.6	-8.3	-9.3	-9.8	-9.4	-6.7	-3.3	-1.7	-0.5	0.5	1.0	1.1	1.1	0.4	-0.5	-0.9	-1.7	-2.3	-3.1	-3.4	-3.6	1.1	-9.8
21	-3.7	-2.9	-2.9	-4.1	-4.6	-5.3	-5.4	-5.9	-5.4	-4.0	-2.1	0.1	4.0	6.8	8.0	8.5	8.4	6.6	4.0	0.6	-0.4	-1.1	1.1	2.4	0.1	8.5	-5.9
22	1.9	-0.7	0.7	0.4	-1.8	-1.0	-0.5	-0.6	-0.2	1.1	3.7	6.8	8.1	9.2	9.7	9.7	9.0	7.3	6.1	5.4	3.8	3.8	2.2	-0.6	3.5	9.7	-1.8
23	-1.0	-0.5	-1.0	-2.6	-2.2	-2.9	-3.6	-3.9	-4.3	-1.0	4.4	7.6	10.3	11.8	12.6	12.2	11.1	9.3	5.5	3.6	3.2	2.7	2.7	2.2	3.2	12.6	-4.3
24	0.0	-0.7	-0.6	-2.1	-1.9	-2.2	-2.6	-2.8	-2.0	-1.3	-0.3	0.3	0.3	0.6	1.0	1.1	0.6	0.4	0.2	-0.2	-0.7	-1.4	-1.7	-2.4	-0.8	1.1	-2.8
25	-3.1	-3.6	-3.6	-3.7	-3.9	-4.3	-4.3	-4.7	-4.3	-2.9	-0.5	1.7	4.4	6.7	9.5	11.5	12.0	10.8	8.3	7.6	9.3	8.7	7.7	7.3	2.8	12.0	-4.7
26	7.3	4.3	2.1	2.1	3.0	2.7	3.0	4.7	6.2	8.7	11.3	13.2	15.3	16.1	16.7	16.9	16.2	15.3	14.0	13.8	13.7	13.1	12.6	11.8	10.2	16.9	2.1
27	12.0	12.3	12.7	13.0	13.1	12.8	12.4	12.4	12.4	12.4	12.9	13.2	13.5	13.7	14.1	14.4	14.1	13.5	12.7	12.0	10.7	9.9	8.9	7.3	12.4	14.4	7.3
28	5.3	4.8	4.8	4.9	4.6	4.0	3.4	3.2	3.1	3.1	3.4	4.4	5.9	6.7	7.3	7.5	7.5	6.9	5.4	3.8	3.5	3.5	3.7	3.9	4.8	7.5	3.1
29	4.2	4.6	4.8	4.9	5.2	5.7	5.8	6.6	7.6	8.5	9.4	10.9	11.6	12.3	13.4	14.2	14.6	14.6	14.5	14.4	14.3	14.3	14.2	14.2	10.2	14.6	4.2
30	14.3	14.3	15.0	15.2	14.4	15.1	15.2	14.1	11.3	10.8	11.4	11.4	11.0	9.9	8.8	8.4	7.7	6.0	5.3	5.0	4.8	3.6	2.8	2.7	9.9	15.2	2.7
31	2.7	2.9	2.3	1.5	1.6	1.9	2.1	2.2	2.2	2.3	2.8	2.7	1.5	0.6	0.5	0.4	0.5	0.1	-0.4	-0.9	-0.8	-1.3	-1.5	-1.3	1.0	2.9	-1.5
MEAN	1.3	1.0	0.8	0.5	0.4	0.1	0.0	0.0	0.1	1.0	2.2	3.0	3.7	4.3	4.7	4.9	4.5	3.9	3.2	2.6	2.3	1.8	1.6	1.4	2.1		
MAX	14.3	14.3	15.0	15.2	14.4	15.1	15.2	14.1	12.4	12.4	12.9	13.2	15.3	16.1	16.7	16.9	16.2	15.3	14.5	14.4	14.3	14.3	14.2	14.2		16.9	
MIN	-9.8	-10.5	-11.1	-11.5	-12.0	-12.7	-12.7	-13.7	-13.3	-11.0	-8.9	-7.6	-6.3	-4.9	-5.0	-4.8	-5.7	-7.2	-7.8	-7.9	-7.9	-8.1	-8.5	-9.2			-13.7

POSSIBLE NUMBER OF OBSERVATIONS = 744 ACTUAL NUMBER OF OBSERVATIONS = 744 DATA RECOVERY RATE = 100.0%

MONTHLY MEAN = 2.1 Deg C

MAXIMUM TEMPERATURE = 16.9 Deg C DATE OF OCCURRENCE = 12/26 AT 1600 MAXIMUM DAILY MEAN = 12.4 Deg C DATE OF OCCURRENCE = 12/27

MINIMUM TEMPERATURE = -13.7 Deg C DATE OF OCCURRENCE = 12/19 AT 0800 MINUMUM DAILY MEAN = -7.8 Deg C DATE OF OCCURRENCE = 12/19

MEANS REQUIRE 75% VALID DATA MISSING DATA DENOTED BY ---

APPENDIX E

Hourly Relative Humidity Data for November and December 2019

HarmonCreek

RELATIVE HUMIDITY in % for NOVEMBER, 2019

Hr Beg Hr End Day	0 1	1 2	2 3	3 4	4 5	5 6	6 7	7 8	8 9	9 10	10 11	11 12	12 13	13 14	14 15	15 16	16 17	17 18	18 19	19 20	20 21	21 22	22 23	23 24	MEAN	MAX	MIN
1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---	65	59	55	51	47	45	44	47	53	57	59	64	---	---	---
22	65	65	67	72	79	87	92	91	90	88	83	76	71	62	59	60	58	61	64	65	72	77	82	89	74	92	58
23	90	92	92	90	91	94	93	92	88	79	71	67	63	60	58	57	61	84	91	94	97	98	98	98	83	98	57
24	99	99	96	97	96	94	94	94	92	90	88	86	84	82	77	72	72	76	78	80	82	82	82	83	86	99	72
25	84	86	86	87	87	87	87	87	85	81	75	68	61	56	53	53	54	56	59	61	62	63	63	60	71	87	53
26	60	59	58	58	60	61	63	64	63	60	56	52	48	46	44	45	46	47	52	50	54	63	59	58	55	64	44
27	54	51	53	55	79	82	81	79	77	82	89	81	70	52	45	44	47	49	52	56	69	63	63	62	64	89	44
28	64	67	67	64	65	68	75	74	71	71	71	73	72	73	71	67	68	69	70	72	75	78	80	83	71	83	64
29	85	88	91	92	92	85	82	82	81	79	77	75	70	70	67	68	68	69	71	72	73	74	75	76	78	92	67
30	78	78	79	80	81	83	85	86	83	79	76	69	64	60	59	57	60	62	62	61	58	60	61	72	70	86	57
MEAN	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---		
MAX	99	99	96	97	96	94	94	94	92	90	89	86	84	82	77	72	72	84	91	94	97	98	98	98		99	
MIN	54	51	53	55	60	61	63	64	63	60	56	52	48	46	44	44	46	45	44	47	53	57	59	58			44

POSSIBLE NUMBER OF OBSERVATIONS = 720 ACTUAL NUMBER OF OBSERVATIONS = 228 DATA RECOVERY RATE = 31.7%

MONTHLY MEAN = 72 %

MAXIMUM RELATIVE HUMIDITY = 99 % DATE OF OCCURRENCE = 11/24 AT 0200 MAXIMUM DAILY MEAN = 86 % DATE OF OCCURRENCE = 11/24

MINIMUM RELATIVE HUMIDITY = 44 % DATE OF OCCURRENCE = 11/26 AT 1500 MINUMUM DAILY MEAN = 55 % DATE OF OCCURRENCE = 11/26

MEANS REQUIRE 75% VALID DATA MISSING DATA DENOTED BY ---

HarmonCreek

RELATIVE HUMIDITY in % for DECEMBER, 2019

Hr Beg Hr End Day	0 1	1 2	2 3	3 4	4 5	5 6	6 7	7 8	8 9	9 10	10 11	11 12	12 13	13 14	14 15	15 16	16 17	17 18	18 19	19 20	20 21	21 22	22 23	23 24	MEAN	MAX	MIN
1	90	93	93	93	93	94	94	95	95	95	93	95	93	90	54	44	56	69	67	67	64	79	84	87	82	95	44
2	88	88	91	91	91	93	94	92	93	92	90	91	92	91	86	83	83	84	81	84	86	87	89	89	89	94	81
3	91	90	94	95	95	93	92	87	85	75	73	78	79	83	85	85	84	84	86	86	87	96	92	88	87	96	73
4	87	86	85	84	84	84	84	85	87	89	86	86	88	88	81	76	72	71	72	78	77	76	89	81	82	89	71
5	80	79	78	76	76	75	73	72	72	66	58	58	58	55	53	52	51	54	59	64	69	74	67	66	66	80	51
6	66	63	62	61	60	58	57	55	54	52	51	60	62	62	64	77	83	71	65	69	75	80	79	84	65	84	51
7	89	87	85	84	82	89	92	90	91	87	70	57	54	52	50	48	48	51	59	64	71	74	66	64	71	92	48
8	63	64	66	70	71	71	70	66	63	61	60	60	60	59	57	56	56	57	58	56	53	55	53	51	61	71	51
9	51	51	52	57	69	82	90	91	91	92	95	94	94	93	92	93	93	92	90	91	89	89	90	92	84	95	51
10	88	86	88	88	90	86	87	83	64	67	69	72	65	67	67	64	67	69	71	74	75	74	71	71	75	90	64
11	71	68	66	66	68	66	66	65	64	61	60	58	57	56	56	59	62	65	68	71	76	75	75	72	65	76	56
12	74	74	78	86	90	90	84	86	78	78	71	61	54	51	51	52	54	56	60	60	59	57	57	58	67	90	51
13	58	58	59	59	59	58	58	57	57	58	58	84	95	97	97	98	98	97	98	98	99	100	100	100	79	100	57
14	100	100	100	100	100	100	100	100	99	97	94	94	96	96	97	97	97	97	96	95	92	90	89	88	96	100	88
15	89	91	87	86	80	76	83	83	84	84	83	73	71	73	73	71	62	64	65	71	69	66	71	68	76	91	62
16	70	84	95	96	95	94	92	91	88	85	84	83	82	81	81	82	84	84	86	91	94	95	96	96	88	96	70
17	97	98	98	98	97	98	98	97	97	96	95	94	93	92	91	90	88	88	87	84	80	80	85	87	92	98	80
18	87	88	88	85	84	83	84	84	83	83	81	74	71	84	92	75	65	64	68	72	66	63	64	68	77	92	63
19	72	76	79	82	84	87	84	88	87	81	69	62	56	53	51	49	49	54	57	59	61	63	65	66	68	88	49
20	66	68	74	76	78	83	89	88	88	81	70	63	59	58	56	57	57	59	64	66	70	74	80	82	71	89	56
21	83	77	77	84	85	90	89	91	90	90	87	79	62	45	39	36	36	42	53	71	76	78	70	65	71	91	36
22	68	78	73	74	84	80	76	76	75	71	66	56	50	45	42	41	45	50	55	57	62	62	69	82	64	84	41
23	83	79	81	86	85	88	89	91	91	85	72	63	55	44	40	39	44	50	66	72	72	74	74	76	71	91	39
24	85	87	88	91	92	93	92	97	99	99	99	99	100	100	100	100	100	100	100	100	100	100	100	100	97	100	85
25	100	100	99	98	98	97	97	97	97	97	99	99	91	83	70	58	56	60	68	68	63	67	71	75	84	100	56
26	76	84	87	90	88	89	89	87	84	78	69	65	61	62	66	64	67	70	74	71	71	72	74	76	76	90	61
27	74	73	74	73	74	83	91	90	90	89	87	85	84	82	80	75	73	74	75	79	85	87	89	94	82	94	73
28	98	99	99	99	99	99	95	92	91	91	91	88	84	81	79	77	78	82	88	94	98	96	97	98	91	99	77
29	97	96	94	93	89	87	88	88	88	88	93	94	95	95	96	96	96	97	97	98	98	98	98	98	94	98	87
30	97	94	94	93	92	91	85	81	69	69	59	53	55	66	80	80	73	73	69	67	66	74	72	72	76	97	53
31	74	72	81	86	82	76	74	70	69	67	64	66	82	92	91	85	74	80	87	94	95	96	94	95	81	96	64
MEAN	81	82	83	84	84	85	85	84	83	81	77	76	74	73	71	70	70	71	74	76	77	79	80	80	78		
MAX	100	100	100	100	100	100	100	100	99	99	99	99	100	100	100	100	100	100	100	100	100	100	100	100		100	
MIN	51	51	52	57	59	58	57	55	54	52	51	53	50	44	39	36	36	42	53	56	53	55	53	51			36

POSSIBLE NUMBER OF OBSERVATIONS = 744 ACTUAL NUMBER OF OBSERVATIONS = 744 DATA RECOVERY RATE = 100.0%

MONTHLY MEAN = 78 %

MAXIMUM RELATIVE HUMIDITY = 100 % DATE OF OCCURRENCE = 12/24 AT 1900 MAXIMUM DAILY MEAN = 97 % DATE OF OCCURRENCE = 12/24

MINIMUM RELATIVE HUMIDITY = 36 % DATE OF OCCURRENCE = 12/21 AT 1700 MINUMUM DAILY MEAN = 61 % DATE OF OCCURRENCE = 12/8

MEANS REQUIRE 75% VALID DATA MISSING DATA DENOTED BY ---

HarmonCreek

DEW POINT TEMPERATURE in Deg C for NOVEMBER, 2019

Hr Beg Hr End Day	0 1	1 2	2 3	3 4	4 5	5 6	6 7	7 8	8 9	9 10	10 11	11 12	12 13	13 14	14 15	15 16	16 17	17 18	18 19	19 20	20 21	21 22	22 23	23 24	MEAN	MAX	MIN
1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---	2.0	1.4	1.0	0.4	-0.2	-0.6	-0.2	1.6	2.8	3.6	4.1	5.1	---	---	---
22	5.4	5.8	6.2	6.9	7.7	8.2	7.8	5.9	4.0	2.5	1.6	0.4	-0.7	-2.0	-3.0	-3.2	-4.0	-4.2	-4.5	-4.9	-4.8	-4.7	-4.6	-4.6	0.7	8.2	-4.9
23	-5.0	-5.3	-5.7	-5.7	-6.0	-6.3	-6.4	-6.7	-5.6	-4.1	-3.3	-2.4	-2.0	-2.3	-2.6	-2.4	-1.7	0.9	1.8	2.3	2.8	3.0	2.8	2.4	-2.4	3.0	-6.7
24	2.4	2.5	1.2	0.2	-0.6	-0.9	-0.8	-0.7	-0.7	-0.9	-0.6	-0.6	-0.4	-0.2	-0.2	-0.3	-0.6	-0.2	-0.2	0.0	0.3	0.4	0.3	0.3	0.0	2.5	-0.9
25	0.3	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.4	0.9	1.5	1.9	1.9	1.8	1.7	1.8	1.8	1.6	1.5	1.3	1.1	1.0	0.9	0.8	1.0	1.9	0.1
26	0.6	0.5	0.4	0.2	0.1	0.2	0.1	0.1	0.3	1.0	2.0	2.7	2.9	2.9	2.3	2.5	2.4	2.2	2.3	2.0	2.2	2.5	2.3	2.1	1.5	2.9	0.1
27	1.6	1.3	1.3	2.1	4.9	5.8	6.1	5.7	5.7	7.9	10.7	11.4	10.3	5.4	2.7	0.1	-1.2	-1.6	-2.0	-2.5	-1.0	-2.2	-2.2	-2.8	2.8	11.4	-2.8
28	-2.7	-2.5	-2.5	-3.4	-3.3	-3.1	-2.3	-2.4	-2.7	-2.6	-2.5	-2.2	-2.1	-1.8	-1.9	-2.7	-2.7	-2.5	-2.4	-2.3	-2.0	-1.7	-1.5	-1.2	-2.4	-1.2	-3.4
29	-1.0	-0.8	-1.1	-1.2	-1.5	-2.4	-2.8	-3.0	-3.0	-3.0	-2.8	-2.7	-2.8	-2.7	-2.9	-2.8	-2.7	-2.8	-2.6	-2.6	-2.7	-2.6	-2.6	-2.5	-2.4	-0.8	-3.0
30	-2.3	-2.4	-2.4	-2.3	-2.2	-2.2	-1.9	-1.8	-1.9	-2.0	-2.0	-2.3	-2.8	-3.0	-3.1	-3.1	-2.7	-2.4	-2.3	-2.4	-2.9	-2.4	-1.9	-0.2	-2.3	-0.2	-3.1
MEAN	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---		
MAX	5.4	5.8	6.2	6.9	7.7	8.2	7.8	5.9	5.7	7.9	10.7	11.4	10.3	5.4	2.7	2.5	2.4	2.2	2.3	2.3	2.8	3.6	4.1	5.1		11.4	
MIN	-5.0	-5.3	-5.7	-5.7	-6.0	-6.3	-6.4	-6.7	-5.6	-4.1	-3.3	-2.7	-2.8	-3.0	-3.1	-3.2	-4.0	-4.2	-4.5	-4.9	-4.8	-4.7	-4.6	-4.6			-6.7

POSSIBLE NUMBER OF OBSERVATIONS = 720 ACTUAL NUMBER OF OBSERVATIONS = 228 DATA RECOVERY RATE = 31.7%

MONTHLY MEAN = -0.3 Deg C

MAXIMUM DEW POINT TEMPERATURE = 11.4 Deg C DATE OF OCCURRENCE = 11/27 AT 1200 MAXIMUM DAILY MEAN = 2.8 Deg C DATE OF OCCURRENCE = 11/27

MINIMUM DEW POINT TEMPERATURE = -6.7 Deg C DATE OF OCCURRENCE = 11/23 AT 0800 MINUMUM DAILY MEAN = -2.4 Deg C DATE OF OCCURRENCE = 11/29

MEANS REQUIRE 75% VALID DATA MISSING DATA DENOTED BY ---

HarmonCreek

DEW POINT TEMPERATURE in Deg C for DECEMBER, 2019

Hr Beg Hr End Day	0 1	1 2	2 3	3 4	4 5	5 6	6 7	7 8	8 9	9 10	10 11	11 12	12 13	13 14	14 15	15 16	16 17	17 18	18 19	19 20	20 21	21 22	22 23	23 24	MEAN	MAX	MIN
1	1.8	1.9	2.0	2.3	2.6	2.9	3.5	3.9	4.4	5.3	7.0	8.4	9.1	9.0	2.7	0.7	2.1	3.0	2.5	0.9	-0.5	0.4	0.5	0.1	3.2	9.1	-0.5
2	-0.4	-0.7	-0.8	-0.9	-1.1	-1.2	-1.2	-1.2	-0.9	-0.4	-0.2	0.3	0.9	1.2	0.8	-0.1	-0.7	-1.4	-2.0	-2.0	-1.9	-1.8	-1.6	-1.5	-0.8	1.2	-2.0
3	-1.2	-1.2	-0.9	-0.8	-0.9	-1.3	-1.6	-2.1	-2.5	-4.0	-4.2	-3.5	-3.4	-3.2	-3.1	-2.8	-2.5	-2.5	-2.1	-2.1	-2.1	-1.4	-1.9	-2.4	-2.2	-0.8	-4.2
4	-2.3	-2.3	-2.3	-2.5	-2.4	-2.3	-2.2	-2.1	-1.8	-1.5	-1.6	-1.5	-1.2	-1.1	-1.7	-2.2	-2.7	-2.8	-2.7	-2.0	-2.1	-2.4	-1.4	-2.5	-2.1	-1.1	-2.8
5	-2.7	-2.9	-3.2	-3.5	-3.6	-3.7	-4.0	-4.1	-4.2	-4.7	-5.8	-5.7	-5.4	-5.2	-5.1	-4.8	-4.9	-4.9	-4.7	-4.5	-4.5	-4.5	-4.6	-4.9	-4.4	-2.7	-5.8
6	-5.0	-5.0	-5.0	-4.9	-4.9	-4.7	-4.5	-4.1	-3.6	-3.1	-2.7	-0.9	0.0	0.5	0.7	2.0	1.1	-1.6	-3.4	-3.7	-3.3	-3.1	-3.3	-3.2	-2.7	2.0	-5.0
7	-3.2	-3.7	-4.3	-5.4	-5.8	-6.1	-6.6	-6.7	-7.4	-5.9	-6.1	-7.5	-7.6	-7.3	-7.4	-7.5	-7.6	-7.8	-7.4	-7.3	-7.1	-7.1	-7.3	-7.5	-6.6	-3.2	-7.8
8	-7.5	-7.4	-7.3	-7.2	-7.2	-7.3	-7.4	-7.5	-7.0	-5.2	-2.2	-0.2	0.7	1.5	1.9	2.0	2.1	2.0	2.1	1.9	1.3	1.3	0.5	0.2	-2.3	2.1	-7.5
9	0.1	0.2	0.4	1.3	3.0	5.0	6.2	6.5	6.4	6.9	7.8	8.6	9.2	9.8	10.4	10.8	11.0	11.2	11.3	11.5	11.5	11.6	11.7	11.7	7.7	11.7	0.1
10	11.5	11.1	9.7	9.6	9.4	7.8	7.4	6.0	1.3	0.4	-0.9	-1.6	-3.9	-4.2	-5.2	-6.4	-6.7	-6.7	-7.0	-6.6	-6.7	-7.2	-7.7	-7.9	-0.2	11.5	-7.9
11	-8.1	-9.1	-10.0	-10.6	-10.8	-11.8	-12.4	-12.9	-13.0	-12.8	-12.2	-11.7	-11.3	-11.1	-10.5	-9.7	-8.8	-8.3	-7.7	-7.3	-7.1	-8.1	-8.8	-9.9	-10.2	-7.1	-13.0
12	-10.5	-11.1	-11.0	-10.8	-11.1	-11.4	-11.5	-11.6	-10.9	-9.2	-7.8	-7.8	-7.6	-7.7	-7.2	-6.9	-6.7	-6.8	-6.7	-6.8	-7.2	-7.2	-7.2	-7.3	-8.8	-6.7	-11.6
13	-7.5	-7.6	-7.6	-7.6	-7.6	-7.9	-7.8	-7.5	-7.4	-6.6	-5.7	-1.2	0.6	1.2	1.6	1.9	2.0	2.1	2.2	2.2	2.0	2.2	2.3	2.6	-2.5	2.6	-7.9
14	3.1	3.0	3.2	3.3	3.4	3.5	3.6	3.4	3.0	2.6	2.1	1.5	1.0	0.6	0.5	0.4	0.6	0.7	1.1	1.5	1.4	1.2	1.0	0.9	1.9	3.6	0.4
15	1.1	1.5	1.3	1.1	0.1	-1.6	-2.0	-2.4	-2.6	-2.8	-3.6	-5.2	-5.5	-5.1	-5.3	-5.4	-7.0	-7.0	-6.9	-6.1	-6.4	-7.0	-6.3	-6.7	-3.7	1.5	-7.0
16	-6.2	-4.3	-3.0	-3.0	-3.0	-3.0	-3.1	-3.2	-3.4	-3.4	-3.0	-2.8	-2.4	-2.1	-1.8	-1.7	-1.6	-1.7	-1.6	-1.2	-0.9	-0.7	-0.7	-0.7	-2.4	-0.7	-6.2
17	-0.7	-0.6	-0.7	-0.7	-0.6	-0.6	-0.6	-0.6	-0.9	-1.1	-1.2	-1.1	-1.2	-1.4	-1.7	-1.9	-2.5	-2.9	-3.6	-4.6	-6.0	-7.0	-6.9	-6.9	-2.3	-0.6	-7.0
18	-7.0	-6.9	-6.9	-7.4	-7.7	-7.7	-7.4	-7.5	-7.5	-7.3	-7.3	-8.1	-8.3	-6.7	-6.2	-8.6	-11.2	-12.8	-12.7	-12.0	-13.2	-14.0	-14.1	-14.1	-9.3	-6.2	-14.1
19	-13.9	-13.9	-13.9	-14.0	-14.1	-14.5	-14.8	-15.3	-15.1	-13.6	-13.5	-13.7	-13.6	-13.1	-12.4	-12.3	-12.2	-11.6	-11.3	-11.2	-11.0	-10.7	-10.5	-10.3	-12.9	-10.3	-15.3
20	-10.2	-10.0	-10.1	-9.9	-9.8	-10.6	-10.8	-11.4	-11.1	-9.4	-8.0	-7.8	-7.4	-6.9	-6.7	-6.5	-6.5	-6.5	-6.5	-6.6	-6.5	-6.2	-6.0	-6.0	-8.2	-6.0	-11.4
21	-6.2	-6.4	-6.3	-6.5	-6.7	-6.8	-6.9	-7.1	-6.8	-5.5	-3.9	-3.1	-2.8	-4.3	-5.2	-5.5	-5.6	-5.3	-4.8	-4.2	-4.2	-4.4	-3.9	-3.5	-5.2	-2.8	-7.1
22	-3.4	-4.1	-3.6	-3.6	-4.2	-4.0	-4.2	-4.3	-4.1	-3.5	-2.1	-1.3	-1.7	-2.3	-2.7	-2.9	-2.5	-2.3	-2.3	-2.5	-2.7	-2.8	-2.9	-3.3	-3.1	-1.3	-4.3
23	-3.6	-3.7	-3.8	-4.5	-4.4	-4.6	-5.2	-5.2	-5.6	-3.2	-0.3	1.0	1.6	-0.1	-0.6	-1.2	-0.7	-0.6	-0.5	-1.1	-1.4	-1.5	-1.4	-1.5	-2.2	1.6	-5.6
24	-2.3	-2.6	-2.4	-3.4	-3.0	-3.2	-3.7	-3.3	-2.2	-1.4	-0.4	0.2	0.3	0.6	1.0	1.0	0.6	0.4	0.2	-0.2	-0.7	-1.4	-1.7	-2.4	-1.3	1.0	-3.7
25	-3.1	-3.6	-3.7	-3.9	-4.1	-4.7	-4.8	-5.1	-4.7	-3.3	-0.7	1.5	3.1	4.0	4.2	3.5	3.5	3.2	2.7	2.1	2.6	2.9	2.8	3.1	-0.1	4.2	-5.1
26	3.4	1.9	0.2	0.6	1.3	1.1	1.4	2.7	3.7	4.9	5.8	6.7	7.9	8.9	10.3	10.1	10.0	9.8	9.4	8.7	8.5	8.2	8.0	7.7	5.9	10.3	0.2
27	7.6	7.6	8.1	8.3	8.5	10.0	10.9	10.9	10.7	10.7	10.7	10.8	10.8	10.8	10.7	10.1	9.4	9.0	8.5	8.4	8.2	7.8	7.2	6.4	9.3	10.9	6.4
28	5.1	4.6	4.6	4.8	4.5	3.8	2.7	2.0	1.7	1.8	2.1	2.6	3.3	3.6	3.9	3.8	3.9	4.1	3.6	3.0	3.2	3.0	3.2	3.6	3.4	5.1	1.7
29	3.8	4.0	3.9	3.8	3.5	3.7	4.0	4.7	5.7	6.7	8.4	9.9	10.8	11.6	12.8	13.6	14.0	14.1	14.1	14.0	14.0	14.0	13.9	13.9	9.3	14.1	3.5
30	13.8	13.4	14.0	14.0	13.2	13.7	12.8	11.0	5.9	5.4	3.7	2.1	2.3	3.7	5.5	5.2	3.2	1.4	0.1	-0.7	-1.0	-0.6	-1.8	-1.9	5.8	14.0	-1.9
31	-1.6	-1.6	-0.6	-0.6	-1.2	-1.8	-2.0	-2.7	-2.9	-3.1	-3.3	-2.9	-1.3	-0.6	-0.9	-1.8	-3.5	-3.0	-2.3	-1.7	-1.6	-1.8	-2.3	-2.0	-2.0	-0.6	-3.5
MEAN	-1.8	-1.9	-1.9	-2.0	-2.1	-2.2	-2.3	-2.5	-2.7	-2.1	-1.6	-1.1	-0.7	-0.5	-0.5	-0.7	-1.0	-1.1	-1.2	-1.3	-1.5	-1.6	-1.7	-1.8	-1.6		
MAX	13.8	13.4	14.0	14.0	13.2	13.7	12.8	11.0	10.7	10.7	10.7	10.8	10.8	11.6	12.8	13.6	14.0	14.1	14.1	14.0	14.0	14.0	13.9	13.9		14.1	
MIN	-13.9	-13.9	-13.9	-14.0	-14.1	-14.5	-14.8	-15.3	-15.1	-13.6	-13.5	-13.7	-13.6	-13.1	-12.4	-12.3	-12.2	-12.8	-12.7	-12.0	-13.2	-14.0	-14.1	-14.1			-15.3

POSSIBLE NUMBER OF OBSERVATIONS = 744 ACTUAL NUMBER OF OBSERVATIONS = 744 DATA RECOVERY RATE = 100.0%

MONTHLY MEAN = -1.6 Deg C

MAXIMUM DEW POINT TEMPERATURE = 14.1 Deg C DATE OF OCCURRENCE = 12/29 AT 1800 MAXIMUM DAILY MEAN = 9.3 Deg C DATE OF OCCURRENCE = 12/29

MINIMUM DEW POINT TEMPERATURE = -15.3 Deg C DATE OF OCCURRENCE = 12/19 AT 0800 MINUMUM DAILY MEAN = -12.9 Deg C DATE OF OCCURRENCE = 12/19

MEANS REQUIRE 75% VALID DATA MISSING DATA DENOTED BY ---

APPENDIX F

Hourly Barometric Pressure Data for November and December 2019

HarmonCreek

PRESSURE in mb for NOVEMBER, 2019

Hr Beg Hr End Day	0 1	1 2	2 3	3 4	4 5	5 6	6 7	7 8	8 9	9 10	10 11	11 12	12 13	13 14	14 15	15 16	16 17	17 18	18 19	19 20	20 21	21 22	22 23	23 24	MEAN	MAX	MIN
1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	980	979	977	976	975	974	973	972	972	971	972	972	971	971	---	---	---
22	971	971	970	970	969	969	969	971	973	974	975	975	974	974	975	976	977	977	978	978	978	978	977	977	974	978	969
23	977	977	977	976	975	975	974	974	973	973	972	970	968	967	965	964	963	962	961	960	959	959	959	958	968	977	958
24	959	959	960	961	961	962	963	964	964	965	965	964	964	964	963	963	964	964	965	965	965	965	966	966	963	966	959
25	967	967	967	968	968	968	968	968	968	968	968	967	967	967	967	967	968	968	968	968	969	969	969	969	968	969	967
26	969	970	970	971	971	971	972	972	973	974	974	974	973	973	973	973	973	973	973	972	972	972	972	971	972	974	969
27	970	969	970	969	969	965	966	965	963	962	961	960	958	959	960	962	964	966	968	969	970	971	972	973	966	973	958
28	974	975	976	977	978	979	981	982	983	983	984	984	984	984	984	985	986	987	987	987	987	988	987	987	983	988	974
29	986	986	987	986	986	986	986	986	985	986	986	985	984	983	983	982	982	981	982	982	981	981	980	980	984	987	980
30	979	979	978	977	977	977	977	977	977	976	976	975	974	973	972	972	972	971	970	969	968	968	967	967	974	979	967
MEAN	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---		
MAX	986	986	987	986	986	986	986	986	985	986	986	985	984	984	984	985	986	987	987	987	987	988	987	987		988	
MIN	959	959	960	961	961	962	963	964	963	962	961	960	958	959	960	962	963	962	961	960	959	959	959	958			958

POSSIBLE NUMBER OF OBSERVATIONS = 720 ACTUAL NUMBER OF OBSERVATIONS = 230 DATA RECOVERY RATE = 31.9%

MONTHLY MEAN = 972 mb

MAXIMUM PRESSURE = 988 mb DATE OF OCCURRENCE = 11/28 AT 2200 MAXIMUM DAILY MEAN = 984 mb DATE OF OCCURRENCE = 11/29

MINIMUM PRESSURE = 958 mb DATE OF OCCURRENCE = 11/23 AT 2400 MINUMUM DAILY MEAN = 963 mb DATE OF OCCURRENCE = 11/24

MEANS REQUIRE 75% VALID DATA MISSING DATA DENOTED BY ---

HarmonCreek

PRESSURE in mb for DECEMBER, 2019

Hr Beg Hr End Day	0 1	1 2	2 3	3 4	4 5	5 6	6 7	7 8	8 9	9 10	10 11	11 12	12 13	13 14	14 15	15 16	16 17	17 18	18 19	19 20	20 21	21 22	22 23	23 24	MEAN	MAX	MIN
1	965	964	963	962	960	959	958	957	956	956	955	955	954	954	954	954	955	956	958	959	959	960	960	960	958	965	954
2	960	960	961	961	961	961	962	962	963	964	964	964	964	964	964	965	966	967	968	969	969	970	970	970	965	970	960
3	970	969	969	970	969	969	969	970	969	969	970	969	968	967	967	966	966	966	965	964	964	963	963	963	967	970	963
4	963	962	962	961	961	960	960	960	960	960	959	959	959	958	959	960	961	961	962	962	962	963	964	965	961	965	958
5	965	966	967	968	969	970	971	972	973	974	975	975	975	975	975	976	976	977	977	978	978	977	977	977	973	978	965
6	977	976	976	976	975	975	975	975	974	974	974	975	974	975	975	977	978	980	981	981	982	983	983	983	977	983	974
7	984	984	985	985	985	985	986	987	987	988	988	988	988	987	987	987	987	987	987	987	987	987	987	986	987	988	984
8	986	985	985	984	984	983	983	983	982	982	982	981	980	979	979	978	978	978	978	977	977	977	977	976	981	986	976
9	976	975	974	974	973	973	972	971	970	969	968	966	965	963	962	961	961	961	962	962	962	962	962	962	967	976	961
10	962	963	964	965	965	966	966	967	968	970	972	973	973	974	975	976	977	979	980	981	982	982	982	982	973	982	962
11	982	983	983	983	984	985	985	986	987	987	986	985	986	986	987	987	988	989	990	990	991	992	992	993	987	993	982
12	993	993	993	993	993	994	994	994	994	994	994	993	992	991	990	989	989	988	987	986	986	985	985	984	991	994	984
13	983	983	982	982	981	981	980	980	980	980	979	978	977	976	975	974	974	973	972	971	971	969	969	967	977	983	967
14	965	964	962	961	960	959	958	957	957	957	957	957	957	957	958	959	960	960	961	962	963	963	963	964	960	965	957
15	964	965	965	966	966	968	970	971	972	974	975	976	976	977	977	978	979	979	979	980	980	979	979	979	974	980	964
16	979	978	978	978	978	978	978	978	978	978	978	978	978	977	977	976	976	976	975	975	974	973	972	971	977	979	971
17	970	969	968	968	967	967	967	967	967	968	968	968	968	969	969	970	971	972	973	973	974	974	974	974	970	974	967
18	973	973	973	972	972	973	973	974	974	975	975	975	974	975	976	976	978	979	981	982	983	983	984	984	976	984	972
19	984	985	985	986	986	987	987	988	988	989	989	989	988	987	986	986	986	986	986	986	986	986	987	987	987	989	984
20	987	988	989	989	989	990	991	991	992	992	993	992	992	992	992	991	991	992	992	991	991	991	991	991	991	993	987
21	991	990	990	990	989	989	989	989	989	989	989	988	987	987	986	986	986	986	986	986	987	987	987	987	988	991	986
22	986	986	986	986	986	986	986	986	986	986	986	986	985	984	983	983	983	983	983	983	983	982	982	982	985	986	982
23	980	980	980	980	980	980	980	980	980	980	980	979	978	977	977	977	977	977	977	977	977	977	977	977	979	980	977
24	977	977	977	977	977	977	978	978	979	979	979	979	979	978	978	979	978	978	979	979	978	978	978	977	978	979	977
25	977	977	977	977	977	977	977	978	978	978	978	978	976	976	975	975	976	976	976	976	976	976	977	977	977	978	975
26	977	977	978	978	978	978	979	979	980	980	980	979	979	978	978	978	979	979	979	979	979	980	980	980	979	980	977
27	979	979	979	979	979	979	979	980	980	981	981	980	980	979	979	980	980	980	981	981	981	981	982	981	980	982	979
28	982	982	982	983	983	983	984	984	984	984	984	984	983	982	982	982	981	981	981	981	981	981	980	979	982	984	979
29	978	977	977	977	976	976	976	975	975	975	974	972	971	970	969	968	968	968	968	967	966	965	964	962	971	978	962
30	960	959	958	957	956	956	957	958	961	962	962	961	961	961	962	962	963	964	965	965	965	966	966	965	961	966	956
31	965	964	964	964	964	964	964	963	963	963	963	963	963	963	963	964	965	965	966	966	966	967	967	967	964	967	963
MEAN	976	975	975	975	975	975	975	976	976	976	976	976	975	975	975	975	975	976	976	976	976	976	976	976	976		
MAX	993	993	993	993	993	994	994	994	994	994	994	993	992	992	992	991	991	992	992	991	991	992	992	993		994	
MIN	960	959	958	957	956	956	957	957	956	956	955	955	954	954	954	954	955	956	958	959	959	960	960	960			954

POSSIBLE NUMBER OF OBSERVATIONS = 744 ACTUAL NUMBER OF OBSERVATIONS = 744 DATA RECOVERY RATE = 100.0%

MONTHLY MEAN = 976 mb

MAXIMUM PRESSURE = 994 mb DATE OF OCCURRENCE = 12/12 AT 0900 MAXIMUM DAILY MEAN = 991 mb DATE OF OCCURRENCE = 12/20

MINIMUM PRESSURE = 954 mb DATE OF OCCURRENCE = 12/1 AT 1400 MINUMUM DAILY MEAN = 958 mb DATE OF OCCURRENCE = 12/1

MEANS REQUIRE 75% VALID DATA MISSING DATA DENOTED BY ---

APPENDIX G

Invalid Data Periods for November and December 2019

Harmon Creek Upwind Invalidation Code Description						
AM - Miscellaneous Void						
BM - Accuracy check						
Parameter	**Start Date**	**Start Time**	**End Date**	**End Time**	**# of Hours**	**Reason**
Upwind PAMS	11/22/2019	00:01	11/22/2019	01:00	1	BM
Upwind PAMS	11/23/2019	00:01	11/23/2019	01:00	1	BM
Upwind PAMS	11/24/2019	00:01	11/24/2019	01:00	1	BM
Upwind PAMS	11/25/2019	00:01	11/25/2019	01:00	1	BM
Upwind PAMS	11/26/2019	00:01	11/26/2019	01:00	1	BM
Upwind PAMS	11/27/2019	00:01	11/27/2019	01:00	1	BM
Upwind PAMS	11/28/2019	00:01	11/28/2019	01:00	1	BM
Upwind PAMS	11/29/2019	00:01	11/29/2019	01:00	1	BM
Upwind PAMS	11/30/2019	00:01	11/30/2019	01:00	1	BM
Upwind PAMS	11/30/2019	02:01	11/30/2019	04:00	2	AM
Upwind PAMS	12/01/2019	01:01	12/01/2019	02:00	1	BM
Upwind PAMS	12/02/2019	01:01	12/02/2019	02:00	1	BM
Upwind PAMS	12/03/2019	01:01	12/03/2019	02:00	1	BM
Upwind PAMS	12/04/2019	01:01	12/04/2019	02:00	1	BM
Upwind PAMS	12/05/2019	01:01	12/05/2019	02:00	1	BM
Upwind PAMS	12/06/2019	01:01	12/06/2019	02:00	1	BM
Upwind PAMS	12/07/2019	01:01	12/07/2019	02:00	1	BM
Upwind PAMS	12/08/2019	01:01	12/08/2019	02:00	1	BM
Upwind PAMS	12/08/2019	20:01	12/08/2019	22:00	2	AM
Upwind PAMS	12/09/2019	02:01	12/09/2019	03:00	1	BM
Upwind PAMS	12/10/2019	02:01	12/10/2019	03:00	1	BM
Upwind PAMS	12/10/2019	18:01	12/16/2019	15:00	141	AM
Upwind PAMS	12/17/2019	23:01	12/17/2019	00:00	1	BM
Upwind PAMS	12/17/2019	13:01	12/17/2019	15:00	2	AM
Upwind PAMS	12/18/2019	00:01	12/18/2019	01:00	1	BM
Upwind PAMS	12/19/2019	00:01	12/19/2019	01:00	1	BM
Upwind PAMS	12/20/2019	00:01	12/20/2019	01:00	1	BM
Upwind PAMS	12/20/2019	10:01	12/30/2019	15:00	245	AM
Upwind PAMS	12/31/2019	00:01	12/31/2019	01:00	1	BM
Upwind PAMS	12/01/2019	04:01	12/01/2019	05:00	1	BM
Upwind PAMS	12/02/2019	04:01	12/02/2019	05:00	1	BM
Upwind PAMS	12/03/2019	04:01	12/03/2019	05:00	1	BM
Upwind PAMS	12/04/2019	04:01	12/04/2019	05:00	1	BM
Upwind PAMS	12/05/2019	04:01	12/05/2019	05:00	1	BM
Upwind PAMS	12/06/2019	04:01	12/06/2019	05:00	1	BM
Upwind PAMS	12/07/2019	04:01	12/07/2019	05:00	1	BM
Upwind PAMS	12/08/2019	04:01	12/08/2019	05:00	1	BM
Upwind PAMS	12/09/2019	04:01	12/09/2019	05:00	1	BM
Upwind PAMS	12/10/2019	04:01	12/10/2019	05:00	1	BM
Upwind PAMS	12/11/2019	04:01	12/11/2019	05:00	1	BM
Upwind PAMS	12/12/2019	04:01	12/12/2019	05:00	1	BM
Upwind PAMS	12/13/2019	04:01	12/13/2019	05:00	1	BM
Upwind PAMS	12/14/2019	04:01	12/14/2019	05:00	1	BM

Harmon Creek Upwind Invalidation Code Description						
AM - Miscellaneous Void BM - Accuracy check						
Parameter	Start Date	Start Time	End Date	End Time	# of Hours	Reason
Upwind PAMS	12/14/2019	12:01	12/14/2019	14:00	2	AM
Upwind PAMS	12/15/2019	05:01	12/15/2019	06:00	1	BM
Upwind PAMS	12/16/2019	05:01	12/16/2019	06:00	1	BM
Upwind PAMS	12/17/2019	05:01	12/17/2019	06:00	1	BM
Upwind PAMS	12/18/2019	05:01	12/18/2019	06:00	1	BM
Upwind PAMS	12/19/2019	05:01	12/19/2019	06:00	1	BM
Upwind PAMS	12/20/2019	05:01	12/20/2019	06:00	1	BM
Upwind PAMS	12/21/2019	05:01	12/21/2019	06:00	1	BM
Upwind PAMS	12/22/2019	05:01	12/22/2019	06:00	1	BM
Upwind PAMS	12/23/2019	05:01	12/23/2019	06:00	1	BM
Upwind PAMS	12/24/2019	05:01	12/24/2019	06:00	1	BM
Upwind PAMS	12/25/2019	05:01	12/25/2019	06:00	1	BM
Upwind PAMS	12/26/2019	05:01	12/26/2019	06:00	1	BM
Upwind PAMS	12/27/2019	05:01	12/27/2019	06:00	1	BM
Upwind PAMS	12/28/2019	05:01	12/28/2019	06:00	1	BM
Upwind PAMS	12/29/2019	05:01	12/29/2019	06:00	1	BM
Upwind PAMS	12/30/2019	05:01	12/30/2019	06:00	1	BM
Upwind PAMS	12/31/2019	05:01	12/31/2019	06:00	1	BM

Harmon Creek Downwind Station #1 Invalidation Code Description

AM - Miscellaneous Void

BM - Accuracy check

Parameter	Start Date	Start Time	End Date	End Time	# of Hours	Reason
Downwind PAMS	11/28/2019	00:01	11/28/2019	01:00	1	BM
Downwind PAMS	11/29/2019	00:01	11/29/2019	01:00	1	BM
Downwind PAMS	11/30/2019	00:01	11/30/2019	01:00	1	BM
Downwind PAMS	12/01/2019	00:01	12/01/2019	01:00	1	BM
Downwind PAMS	12/01/2019	11:01	12/01/2019	13:00	2	AM
Downwind PAMS	12/02/2019	01:01	12/02/2019	02:00	1	BM
Downwind PAMS	12/03/2019	00:01	12/03/2019	01:00	1	BM
Downwind PAMS	12/04/2019	00:01	12/04/2019	01:00	1	BM
Downwind PAMS	12/05/2019	00:01	12/05/2019	01:00	1	BM
Downwind PAMS	12/06/2019	00:01	12/06/2019	01:00	1	BM
Downwind PAMS	12/07/2019	00:01	12/07/2019	01:00	1	BM
Downwind PAMS	12/08/2019	00:01	12/08/2019	01:00	1	BM
Downwind PAMS	12/09/2019	00:01	12/09/2019	01:00	1	BM
Downwind PAMS	12/10/2019	00:01	12/10/2019	01:00	1	BM
Downwind PAMS	12/11/2019	00:01	12/11/2019	01:00	1	BM
Downwind PAMS	12/12/2019	00:01	12/12/2019	01:00	1	BM
Downwind PAMS	12/12/2019	12:01	12/12/2019	14:00	2	AM
Downwind PAMS	12/13/2019	01:01	12/13/2019	02:00	1	BM
Downwind PAMS	12/14/2019	01:01	12/14/2019	02:00	1	BM
Downwind PAMS	12/15/2019	01:01	12/15/2019	02:00	1	BM
Downwind PAMS	12/16/2019	01:01	12/16/2019	02:00	1	BM
Downwind PAMS	12/17/2019	01:01	12/17/2019	02:00	1	BM
Downwind PAMS	12/17/2019	12:01	12/23/2019	17:00	149	AM
Downwind PAMS	12/24/2019	02:01	12/24/2019	04:00	2	BM
Downwind PAMS	12/25/2019	02:01	12/25/2019	04:00	2	BM
Downwind PAMS	12/25/2019	10:01	12/30/2019	15:00	125	AM
Downwind PAMS	12/30/2019	22:01	12/30/2019	23:00	1	BM
Downwind PAMS	01/01/2020	23:01	01/01/2020	00:00	1	BM
Downwind PAMS	12/01/2019	10:01	12/01/2019	11:00	1	BM
Downwind PAMS	12/02/2019	10:01	12/02/2019	11:00	1	BM
Downwind PAMS	12/03/2019	10:01	12/03/2019	11:00	1	BM
Downwind PAMS	12/04/2019	10:01	12/04/2019	11:00	1	BM
Downwind PAMS	12/05/2019	10:01	12/05/2019	11:00	1	BM
Downwind PAMS	12/06/2019	10:01	12/06/2019	11:00	1	BM
Downwind PAMS	12/07/2019	10:01	12/07/2019	11:00	1	BM
Downwind PAMS	12/08/2019	10:01	12/08/2019	11:00	1	BM
Downwind PAMS	12/09/2019	10:01	12/09/2019	11:00	1	BM
Downwind PAMS	12/10/2019	10:01	12/10/2019	11:00	1	BM
Downwind PAMS	12/11/2019	10:01	12/13/2019	18:00	56	AM
Downwind PAMS	12/14/2019	14:01	12/14/2019	16:00	2	BM
Downwind PAMS	12/15/2019	14:01	12/15/2019	16:00	2	BM
Downwind PAMS	12/16/2019	14:01	12/16/2019	16:00	2	BM
Downwind PAMS	12/17/2019	23:01	12/17/2019	00:00	1	BM

Harmon Creek Downwind Station #1 Invalidation Code Description

AM - Miscellaneous Void

BM - Accuracy check

Parameter	Start Date	Start Time	End Date	End Time	# of Hours	Reason
Downwind PAMS	12/18/2019	23:01	12/18/2019	00:00	1	BM
Downwind PAMS	12/19/2019	23:01	12/19/2019	00:00	1	BM
Downwind PAMS	12/20/2019	23:01	12/20/2019	00:00	1	BM
Downwind PAMS	12/21/2019	23:01	12/21/2019	00:00	1	BM
Downwind PAMS	12/22/2019	23:01	12/22/2019	00:00	1	BM
Downwind PAMS	12/23/2019	23:01	12/23/2019	00:00	1	BM
Downwind PAMS	12/24/2019	23:01	12/24/2019	00:00	1	BM
Downwind PAMS	12/24/2019	10:01	12/24/2019	12:00	2	AM
Downwind PAMS	12/25/2019	00:01	12/25/2019	01:00	1	BM
Downwind PAMS	12/26/2019	00:01	12/26/2019	01:00	1	BM
Downwind PAMS	12/27/2019	00:01	12/27/2019	01:00	1	BM
Downwind PAMS	12/28/2019	00:01	12/28/2019	01:00	1	BM
Downwind PAMS	12/29/2019	00:01	12/29/2019	01:00	1	BM
Downwind PAMS	12/30/2019	00:01	12/30/2019	01:00	1	BM
Downwind PAMS	12/31/2019	00:01	12/31/2019	01:00	1	BM

Harmon Creek Downwind Station #2 Invalidation Code Description						
AM - Miscellaneous Void BM - Accuracy check						
Parameter	Start Date	Start Time	End Date	End Time	# of Hours	Reason
Downwind PAMS	11/19/2019	16:01	11/19/2019	17:00	1	BM
Downwind PAMS	11/19/2019	19:01	11/19/2019	20:00	1	AM
Downwind PAMS	11/19/2019	21:01	11/19/2019	22:00	1	BM
Downwind PAMS	11/20/2019	00:01	11/20/2019	03:00	3	AM
Downwind PAMS	11/20/2019	04:01	11/20/2019	05:00	1	BM
Downwind PAMS	11/20/2019	07:01	11/20/2019	08:00	1	AM
Downwind PAMS	11/20/2019	09:01	11/20/2019	11:00	2	BM
Downwind PAMS	11/20/2019	12:01	11/20/2019	13:00	1	AM
Downwind PAMS	11/20/2019	16:01	11/20/2019	17:00	1	AM
Downwind PAMS	11/21/2019	00:01	11/21/2019	01:00	1	BM
Downwind PAMS	11/22/2019	00:01	11/22/2019	01:00	1	BM
Downwind PAMS	11/23/2019	00:01	11/23/2019	01:00	1	BM
Downwind PAMS	11/24/2019	00:01	11/24/2019	01:00	1	BM
Downwind PAMS	11/25/2019	00:01	11/25/2019	01:00	1	BM
Downwind PAMS	11/26/2019	00:01	11/26/2019	01:00	1	BM
Downwind PAMS	11/27/2019	00:01	11/27/2019	01:00	1	BM
Downwind PAMS	11/28/2019	00:01	11/28/2019	01:00	1	BM
Downwind PAMS	11/29/2019	00:01	11/29/2019	01:00	1	BM
Downwind PAMS	11/30/2019	00:01	11/30/2019	01:00	1	BM
Downwind PAMS	12/01/2019	00:01	12/01/2019	01:00	1	BM
Downwind PAMS	12/01/2019	08:01	12/01/2019	10:00	2	AM
Downwind PAMS	12/02/2019	01:01	12/02/2019	02:00	1	BM
Downwind PAMS	12/03/2019	01:01	12/03/2019	02:00	1	BM
Downwind PAMS	12/04/2019	01:01	12/04/2019	02:00	1	BM
Downwind PAMS	12/05/2019	01:01	12/05/2019	02:00	1	BM
Downwind PAMS	12/06/2019	01:01	12/06/2019	02:00	1	BM
Downwind PAMS	12/07/2019	01:01	12/07/2019	02:00	1	BM
Downwind PAMS	12/08/2019	01:01	12/08/2019	02:00	1	BM
Downwind PAMS	12/09/2019	01:01	12/09/2019	02:00	1	BM
Downwind PAMS	12/10/2019	01:01	12/10/2019	02:00	1	BM
Downwind PAMS	12/11/2019	01:01	12/11/2019	02:00	1	BM
Downwind PAMS	12/12/2019	01:01	12/12/2019	02:00	1	BM
Downwind PAMS	12/13/2019	01:01	12/13/2019	02:00	1	BM
Downwind PAMS	12/14/2019	01:01	12/14/2019	02:00	1	BM
Downwind PAMS	12/14/2019	06:01	12/14/2019	08:00	2	AM
Downwind PAMS	12/15/2019	02:01	12/15/2019	03:00	1	BM
Downwind PAMS	12/16/2019	02:01	12/16/2019	03:00	1	BM
Downwind PAMS	12/17/2019	02:01	12/17/2019	03:00	1	BM
Downwind PAMS	12/18/2019	02:01	12/18/2019	03:00	1	BM
Downwind PAMS	12/19/2019	02:01	12/19/2019	03:00	1	BM
Downwind PAMS	12/20/2019	02:01	12/20/2019	03:00	1	BM
Downwind PAMS	12/21/2019	02:01	12/21/2019	03:00	1	BM
Downwind PAMS	12/22/2019	02:01	12/22/2019	03:00	1	BM

Harmon Creek Downwind Station #2 Invalidation Code Description						
AM - Miscellaneous Void BM - Accuracy check						
Parameter	Start Date	Start Time	End Date	End Time	# of Hours	Reason
Downwind PAMS	12/23/2019	02:01	12/23/2019	03:00	1	BM
Downwind PAMS	12/24/2019	02:01	12/24/2019	03:00	1	BM
Downwind PAMS	12/25/2019	02:01	12/25/2019	03:00	1	BM
Downwind PAMS	12/26/2019	02:01	12/26/2019	03:00	1	BM
Downwind PAMS	12/27/2019	23:01	12/27/2019	00:00	1	BM
Downwind PAMS	12/27/2019	03:01	12/27/2019	05:00	2	AM
Downwind PAMS	12/28/2019	00:01	12/28/2019	01:00	1	BM
Downwind PAMS	12/29/2019	00:01	12/29/2019	01:00	1	BM
Downwind PAMS	12/30/2019	00:01	12/30/2019	01:00	1	BM
Downwind PAMS	12/31/2019	00:01	12/31/2019	01:00	1	BM
Downwind PAMS	01/01/2020	23:01	01/01/2020	00:00	1	BM
Downwind PAMS	12/01/2019	10:01	12/01/2019	11:00	1	BM
Downwind PAMS	12/02/2019	10:01	12/02/2019	11:00	1	BM
Downwind PAMS	12/03/2019	10:01	12/03/2019	11:00	1	BM
Downwind PAMS	12/04/2019	10:01	12/04/2019	11:00	1	BM
Downwind PAMS	12/05/2019	10:01	12/05/2019	11:00	1	BM
Downwind PAMS	12/06/2019	10:01	12/06/2019	11:00	1	BM
Downwind PAMS	12/07/2019	10:01	12/07/2019	11:00	1	BM
Downwind PAMS	12/08/2019	10:01	12/08/2019	11:00	1	BM
Downwind PAMS	12/09/2019	10:01	12/09/2019	11:00	1	BM
Downwind PAMS	12/10/2019	10:01	12/10/2019	11:00	1	BM
Downwind PAMS	12/11/2019	10:01	12/13/2019	18:00	56	AM
Downwind PAMS	12/14/2019	14:01	12/14/2019	16:00	2	BM
Downwind PAMS	12/15/2019	14:01	12/15/2019	16:00	2	BM
Downwind PAMS	12/16/2019	14:01	12/16/2019	16:00	2	BM
Downwind PAMS	12/17/2019	23:01	12/17/2019	00:00	1	BM
Downwind PAMS	12/18/2019	23:01	12/18/2019	00:00	1	BM
Downwind PAMS	12/19/2019	23:01	12/19/2019	00:00	1	BM
Downwind PAMS	12/20/2019	23:01	12/20/2019	00:00	1	BM
Downwind PAMS	12/21/2019	23:01	12/21/2019	00:00	1	BM
Downwind PAMS	12/22/2019	23:01	12/22/2019	00:00	1	BM
Downwind PAMS	12/23/2019	23:01	12/23/2019	00:00	1	BM
Downwind PAMS	12/24/2019	23:01	12/24/2019	00:00	1	BM
Downwind PAMS	12/24/2019	10:01	12/24/2019	12:00	2	AM
Downwind PAMS	12/25/2019	00:01	12/25/2019	01:00	1	BM
Downwind PAMS	12/26/2019	00:01	12/26/2019	01:00	1	BM
Downwind PAMS	12/27/2019	00:01	12/27/2019	01:00	1	BM
Downwind PAMS	12/28/2019	00:01	12/28/2019	01:00	1	BM
Downwind PAMS	12/29/2019	00:01	12/29/2019	01:00	1	BM
Downwind PAMS	12/30/2019	00:01	12/30/2019	01:00	1	BM
Downwind PAMS	12/31/2019	00:01	12/31/2019	01:00	1	BM

Harmon Creek Meteorological Tower - Invalidation Code Description

AM - Miscellaneous Void			AZ - Performance Audit			
Parameter	**Start Date**	**Start Time**	**End Date**	**End Time**	**# of Hours**	**Reason**
Wind Speed, Direction, Gust, Temperature, Relative Humidity	11/01/2019	00:01	11/21/2019	10:00	489	AM
Wind Speed, Direction, Gust, Temperature, Relative Humidity	11/21/2019	10:01	11/21/2019	12:00	2	AZ

APPENDIX H

Calibration Data for November and December 2019

CONSOLIDATED ANALYTICAL SYSTEMS

airmOzone Service Report
airmoVOC C6-C12

Customer Co./Org.	MSI Trinity
Customer Contact	Casey Lenhart
Location	MarkWest Harmon Creek/Bulger PA/Upwind
Project No.	19-3870

Date	11/21/2019
Technician Initials	KT
Instrument Model	airmoVOC C6-C12
ID/Serial No.	26190919

Support Gas Equipment

		Notes
Zero Air Source Model	Thomas Pump	
ID/Serial No.	N/A	
Drying System	SMC Dryer Assembly	Dew point indicator color of blue or dark green indicates dry air; pink or orange color indicates humid air
Pressure after the Dryer (bars)	4	
Purifying System	Catalyzer	Temperature = 300°C
	Zero Air purifier	
Zero Air Pressure on Manifold (bars)	3.5	
Zero Air Pressure for Internal Calibration (bars)	2	Gauge inside airmoCAL
Zero Air Pressure for Detector (bars)	3	Gauge inside airmoCAL

Hydrogen Source Model	Hydroxychrom	
ID/Serial No.	56611019	
Hydrogen Pressure (mbars)	4000	Value displayed on Hydroxychrom Viewer
H2 Dryer Flow - Pressure (ml/min)	186.5	+200 ml/min ± 30
H2 Dryer Flow - Vacuum (ml/min)	-17.6	-20 ml/min ± 5

Vacuum Pump	Thomas Pump	
ID/Serial No.	N/A	
Vacuum (inHg and bar)	-28 inHg or -0.95 bar	< -24 inHg or -0.8 bar
Bypass flow (ml/min)	-285.4	between -200 and -600

Calibration Equipment

Gas Calibrator Used	☑ Yes ☐ No	**Gas Std. Cylinder Used**	☑ Yes ☐ No
Calibrator Model	airmoCAL	**Gas Std. Cylinder Serial No.**	CC707044
ID/Serial No.	56480919	**Cylinder Expiration Date**	on file
Zero Air Source Model	Thomas Pump and purifier	**Cylinder Pressure (psi)**	50
ID/Serial No.	N/A		

Permeation Tube	☑ Yes ☐ No	**Vistachrom & Firmware Ver.**	Vistachrom 1.55 - FW V.6.8
Serial/Part No.	20190902-G427	**AUTO CAL**	☐ On ☑ Off
Substance	Benzene	**Instrument Com Port**	3
Permeation Rate (ng/min)	12.2	**Modbus Com Port**	5
Permeation Temperature (°C)	40	**Modbus Driver File Name**	DRVMJBUS_STD_PAMS61_FLOAT-USEPA.INI
Expiration Date	9/30/2020		

CONSOLIDATED ANALYTICAL SYSTEMS

airmOzone Service Report
airmoVOC C6-C12

Diagnostic Parameters

Parameter	Recorded Value	Expected Value	Notes
Detector Offset Amplification	Broad	Broad	
Detector Temperature (°C)	170	170 ± 0.2	FID
FID H2 Flow (ml/min)	27	27	
FID Zero Air Flow (ml/min)	180	180	
Detector Amplification	Middle	Middle	
Signal Strength	6000	N/A	Auto-adjust

Column Model	MXT1, 60m x 0.28mm x 1.0µm SN: 1593490		
Column Temperature (°C)	36 to 203	N/A	Ramp
Carrier Gas	Hydrogen	Hydrogen	
Carrier Gas Flow (ml/min)	≈ 3	≈ 3	through column
Column Pressure (hPa)	696	696 ± 5	≈ 700 hPa with 60m column or ≈ 400 hPa with 30m column

PT Chamber Flow (ml/min)	46.8	≈ 50	
PT Total Dilution Flow (ml/min)	271.8	≈ 150 to 350	depends on critical orifice
PT Chamber Temperature (°C)	40	40	
Concentration **n-Butane**	39.37 µg/m3 or **16.56 ppb**		Permeation rate = 10.7 ng/min
Concentration **n-Hexane**	38.26 µg/m3 or **10.86 ppb**		Permeation rate = 10.4 ng/min
Concentration **Benzene**	44.89 µg/m3 or **4.05 ppb**		Permeation rate = 12.2 ng/min
Concentration **n-Decane**	31.64 µg/m3 or **5.44 ppb**		Permeation rate = 8.6 ng/min

Trap Model	2 phases C6+	2 phases C6+	
Trap Temperature (°C)	380	380	
Sample Flow (ml/min)	-15.5	-15 ± 1	MFC set to ≈ -15 ml/min

Base Sensitivity (au/ng)	4482	between 3000 and 5300	

CONSOLIDATED ANALYTICAL SYSTEMS

airmOzone Service Report
airmoVOC C6-C12

Post-Calibration Substance Table Parameters **File Name:** **VOC-60MN**

Substance Name	Molecular Weight	Select Peak	RT Min (seconds)	RT Max (seconds)	Factor A x X with X = Area/BS
Calibration Substance Table					
Benzene	78.11	Middle	545	585	1.00
Analysis Substance Table					
Benzene	78.11	Middle	554	574	1.00
Cyclohexane	84.16	Middle	595	615	1.10
n-Heptane	100.20	Middle	796	816	1.12
Toluene	92.14	Middle	1050	1070	1.05
n-Octane	114.23	Middle	1218	1232	1.12
Ethylbenzene	106.17	Middle	1374	1394	1.10
m-Xylene / p-Xylene	106.17	Middle	1400	1420	1.10
o-Xylene	106.17	Middle	1463	1477	1.10
n-Nonane	128.26	Middle	1499	1519	1.14
n-Decane	142.28	Middle	1711	1731	1.20

Post-Calibration Multi-Component Cylinder Results

Substance	Run 1 - 2019-11-21 0211		Run 2 - 2019-11-21 0311	
	Result	RT	Result	RT
Benzene	5.571	563.9	5.598	563.7
Cyclohexane	7.957	605.6	7.945	605.3
n-Heptane	4.322	806.3	4.328	805.9
Toluene	6.407	1060.4	6.493	1060.4
n-Octane	4.303	1225.1	4.352	1224.9
Ethylbenzene	3.444	1383.8	3.527	1383.9
m-Xylene / p-Xylene	5.289	1409.5	5.495	1409.5
o-Xylene	3.524	1470.1	3.703	1470.3
n-Nonane	3.166	1509.3	3.220	1509.5
n-Decane	3.376	1721.5	3.538	1721.5

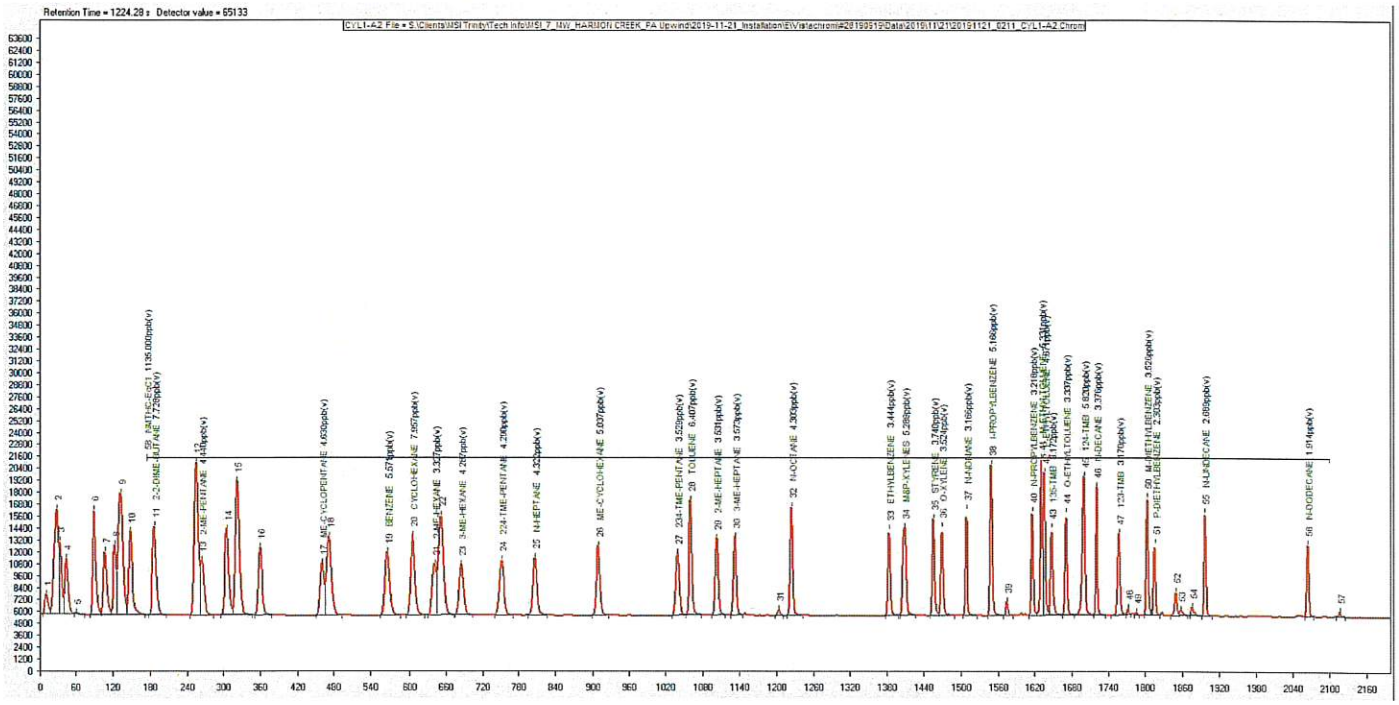
Substance	Average		Expected Result	Error %
	Result	RT		
Benzene	**5.58**	563.8	5.46	2.3%
Cyclohexane	**7.95**	605.5	7.76	2.5%
n-Heptane	**4.33**	806.1	4.12	5.0%
Toluene	**6.45**	1060.4	6.26	3.0%
n-Octane	**4.33**	1225.0	4.34	0.3%
Ethylbenzene	**3.49**	1383.9	3.30	5.6%
m-Xylene / p-Xylene	**5.39**	1409.5	5.21	3.5%
o-Xylene	**3.61**	1470.2	3.28	10.2%
n-Nonane	**3.19**	1509.4	3.18	0.4%
n-Decane	**3.46**	1721.5	3.40	1.7%

New Response Factors required?	**No**

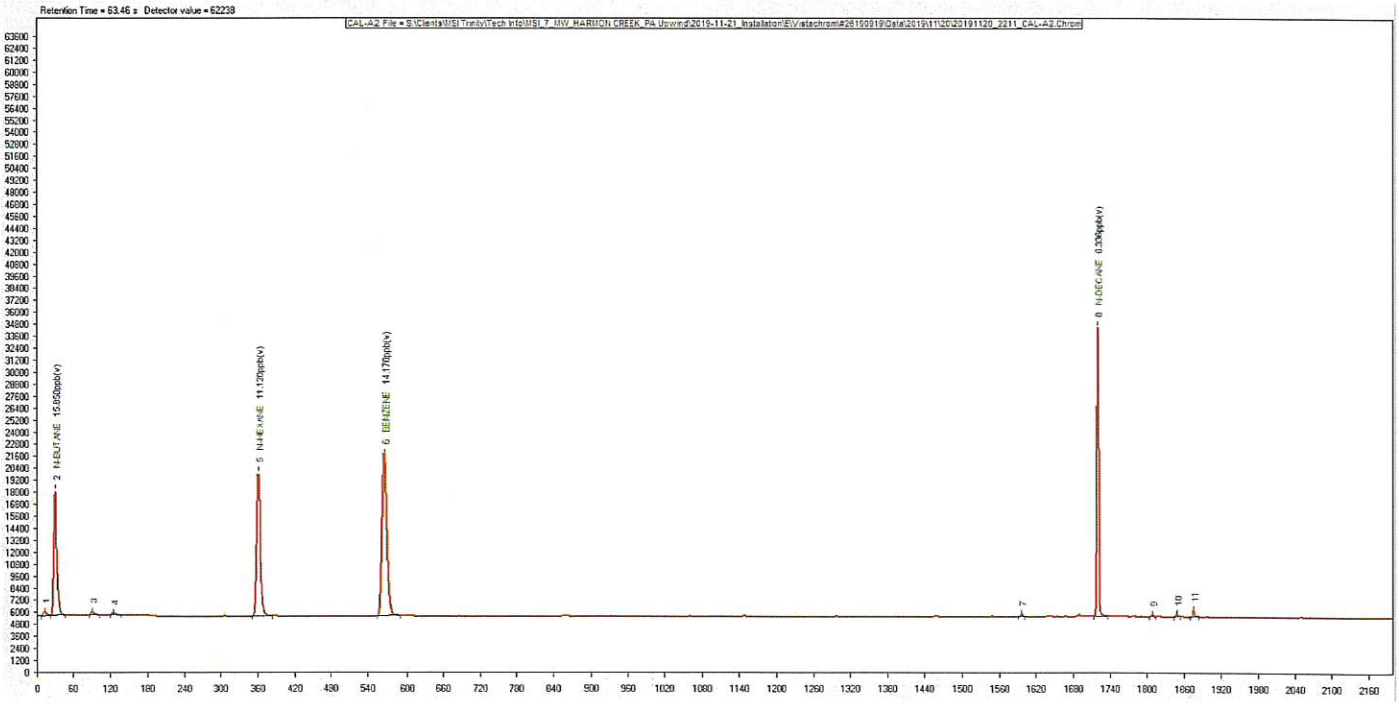
CONSOLIDATED ANALYTICAL SYSTEMS

airmOzone Service Report
airmoVOC C6-C12

Post-Calibration Chromatogram - Multi-Component Cylinder



Post-Calibration Chromatogram - Internal Standard



CONSOLIDATED ANALYTICAL SYSTEMS

airmOzone Service Report
airmoVOC C6-C12

Chromatogram Evaluation

Peak Definition	**Good**
Peak Integration	**Good**

Peak Identification	**Good**
Baseline	**Good**

Permeation Tube Verification Check

PT Serial/Part Number: 20190902-G427

Substance	Run 1 - 2019-11-20 2211		Run 2 - 2019-11-21 0711		Average		Expected Result (ppb)	Error %
	Result (ppb)	RT (seconds)	Result (ppb)	RT (seconds)	Result (ppb)	RT (seconds)		
n-Hexane	11.12	360	11.11	361	**11.11**	361	10.86	2.3%
Benzene	14.18	564	14.06	565	**14.12**	565	14.05	0.5%
n-Decane	6.34	1720	6.04	1721	**6.19**	1721	5.44	13.8%

Permeation Tube Verification Pass/Fail	**PASS**

Diagnostic Tools and Calibration Equipment Used for Maintenance/Service

Type	Serial No.	Model	Range	Accuracy	Expiration
Flow Meter	185675	MWB-500SCCM-D	0-500 ml/min	± 1%	on file
Multi-Component Cylinder	CC707044	N/A	3-20 ppb(v)	± 10%	on file

Notes

Start-up the system.

Retention times adjusted using standard cylinder; calibration check performed.

Recommendations

Maintain shelter temperature at 68°F, HVAC in AUTO mode.

Inspect the dryer dew point indicator and pressures.

Signatures

		Date
Service Technician	Karine Traulle	12/16/2019
Reviewer	Tomek Marchlewski	1/6/2020

CONSOLIDATED ANALYTICAL SYSTEMS

airmOzone Service Report
airmoVOC C2-C6

Customer Co./Org.	MSI Trinity
Customer Contact	Casey Lenhart
Location	MarkWest Harmon Creek/Bulger PA/Upwind
Project No.	19-3870

Date	11/21/2019
Technician Initials	KT
Instrument Model	airmoVOC C2-C6
ID/Serial No.	56180919

Support Gas Equipment

		Notes
Zero Air Source Model	Thomas Pump	
ID/Serial No.	N/A	
Drying System	SMC Dryer Assembly	Dew point indicator color of blue or dark green indicates dry air; pink or orange color indicates humid air
Pressure after the Dryer (bars)	4	
Purifying System	Catalyzer	Temperature = 300°C
	Zero Air purifier	
Zero Air Pressure on Manifold (bars)	3.5	
Zero Air Pressure for Internal Calibration (bars)	2	Gauge inside airmoCAL
Zero Air Pressure for Detector (bars)	3	Gauge inside airmoCAL

Hydrogen Source Model	Hydroxychrom	
ID/Serial No.	56210919	
Hydrogen Pressure (mbars)	4000	Value displayed on Hydroxychrom Viewer
H2 Dryer Flow - Pressure (ml/min)	186.5	+200 ml/min ± 30
H2 Dryer Flow - Vacuum (ml/min)	-17.6	-20 ml/min ± 5

Vacuum Pump	Thomas Pump	
ID/Serial No.	N/A	
Vacuum (inHg and bar)	-28 inHg or -0.95 bar	< -24 inHg or -0.8 bar
Bypass flow (ml/min)	-285.4	between -200 and -600

Calibration Equipment

Gas Calibrator Used	☑ Yes ☐ No	**Gas Std. Cylinder Used**	☑ Yes ☐ No
Calibrator Model	airmoCAL	**Gas Std. Cylinder Serial No.**	CC707044
ID/Serial No.	56480919	**Cylinder Expiration Date**	on file
Zero Air Source Model	Thomas Pump and purifier	**Cylinder Pressure (psi)**	50
ID/Serial No.	N/A		

Permeation Tube	☑ Yes ☐ No	**Vistachrom & Firmware Ver.**	Vistachrom 1.55 - FW V.6.8
Serial/Part No.	201909026-G385	**AUTO CAL**	☐ On ☑ Off
Substance	n-Butane	**Instrument Com Port**	1
Permeation Rate (ng/min)	10.7	**Modbus Com Port**	N/A
Permeation Temperature (°C)	40	**Modbus Driver File Name**	DRVMJBUS_STD_PAMS61_FLOAT-USEPA.INI
Expiration Date	9/30/2020		

CONSOLIDATED ANALYTICAL SYSTEMS

airmOzone Service Report
airmoVOC C2-C6

Diagnostic Parameters

Parameter	Recorded Value	Expected Value	Notes
Detector Offset Amplification	Broad	Broad	
Detector Temperature (°C)	170	170 ± 0.2	FID
FID H2 Flow (ml/min)	23.0	23	
FID Zero Air Flow (ml/min)	180.0	180	
Detector Amplification	Middle	Middle	
Signal Strength	6000	N/A	Auto-adjust

Column Model	Plot Al_2O_3/Na_2SO_4, 25m x 0.53mm x 10.0µm SN: NLR0542850		
Column Temperature (°C)	36 to 203	N/A	Ramp
Carrier Gas	Hydrogen	Hydrogen	
Carrier Gas Flow (ml/min)	≈ 7	≈ 7	through column
Column Pressure (hPa)	175	175 ± 5	≈ 200 hPa with 25m column

PT Chamber Flow (ml/min)	46.8	≈ 50	
PT Total Dilution Flow (ml/min)	271.8	≈ 150 to 350	depends on critical orifice
PT Chamber Temperature (°C)	40	40	
Concentration **n-Butane**	39.37 µg/m3 or **16.56 ppb**		Permeation rate = 10.7 ng/min
Concentration **n-Hexane**	38.26 µg/m3 or **10.86 ppb**		Permeation rate = 10.4 ng/min
Concentration **Benzene**	44.89 µg/m3 or **14.05 ppb**		Permeation rate = 12.2 ng/min
Concentration **n-Decane**	31.63 µg/m3 or **5.44 ppb**		Permeation rate = 8.6 ng/min

Trap Model	3 phases	3 phases	
Peltier Cooler Temperature Setting (°C)	-10	-10	
Trap Temperature (°C)	220	220	
Sample Flow (ml/min)	-4.6	-4 ± 1	MFC set to ≈ -4 ml/min
Dryer Flow for Sample (ml/min)	-17.7	≈ -20	

Base Sensitivity (au/ng)	3783	between 3000 and 5300	

CONSOLIDATED ANALYTICAL SYSTEMS

airmOzone Service Report
airmoVOC C2-C6

Post-Calibration Substance Table Parameters — **File Name:** VOC-60MN

Substance Name	Molecular Weight	Select Peak	RT Min (seconds)	RT Max (seconds)	Factor A x X with X = Area/BS
Calibration Substance Table					
n-Butane	58.12	Middle	244	284	1.00
Analysis Substance Table					
Ethylene	28.05	Middle	21	41	1.10
Propane	44.10	Middle	57	77	1.05
Propene	42.08	Middle	200	220	1.10
Isobutane	58.12	Middle	231	251	1.00
n-Butane	58.12	Middle	254	274	1.00
Isopentane	72.15	Middle	483	497	1.00
n-Pentane	72.15	Middle	504	524	1.00
1,3-Butadiene	54.09	Middle	590	610	0.93
1-Pentene	70.13	Middle	646	666	0.98
n-Hexane	86.18	Middle	727	747	1.00

Post-Calibration Multi-Component Cylinder Results

Substance	Run 1 - 2019-11-21 0212		Run 2 - 2019-11-21 0312	
	Result	RT	Result	RT
Ethylene	4.794	31.1	5.069	31.2
Propane	14.078	67.0	14.243	67.2
Propene	15.229	210.0	15.550	210.1
Isobutane	6.234	240.5	6.314	240.7
n-Butane	10.759	264.3	10.813	264.5
Isopentane	8.576	490.3	8.607	490.4
n-Pentane	6.409	514.0	6.384	514.1
1,3-Butadiene	5.128	600.0	5.197	600.1
1-Pentene	5.013	655.6	5.037	655.8
n-Hexane	5.400	737.4	5.422	737.5

Substance	Average		Expected Result	Error %
	Result	RT		
Ethylene	**4.93**	31.1	11.13	55.7%
Propane	**14.16**	67.1	14.58	2.9%
Propene	**15.39**	210.1	8.02	91.9%
Isobutane	**6.27**	240.6	6.95	9.7%
n-Butane	**10.79**	264.4	10.99	1.9%
Isopentane	**8.59**	490.3	8.41	2.2%
n-Pentane	**6.40**	514.1	5.40	18.5%
1,3-Butadiene	**5.16**	600.1	5.49	6.0%
1-Pentene	**5.03**	655.7	5.22	3.7%
n-Hexane	**5.41**	737.4	5.71	5.2%

Error due to Peltier cooler set temperature of +5 ° C instead of -10°C.

Pollution due to new Nafion dryer. Pollution will dissipate over several weeks.

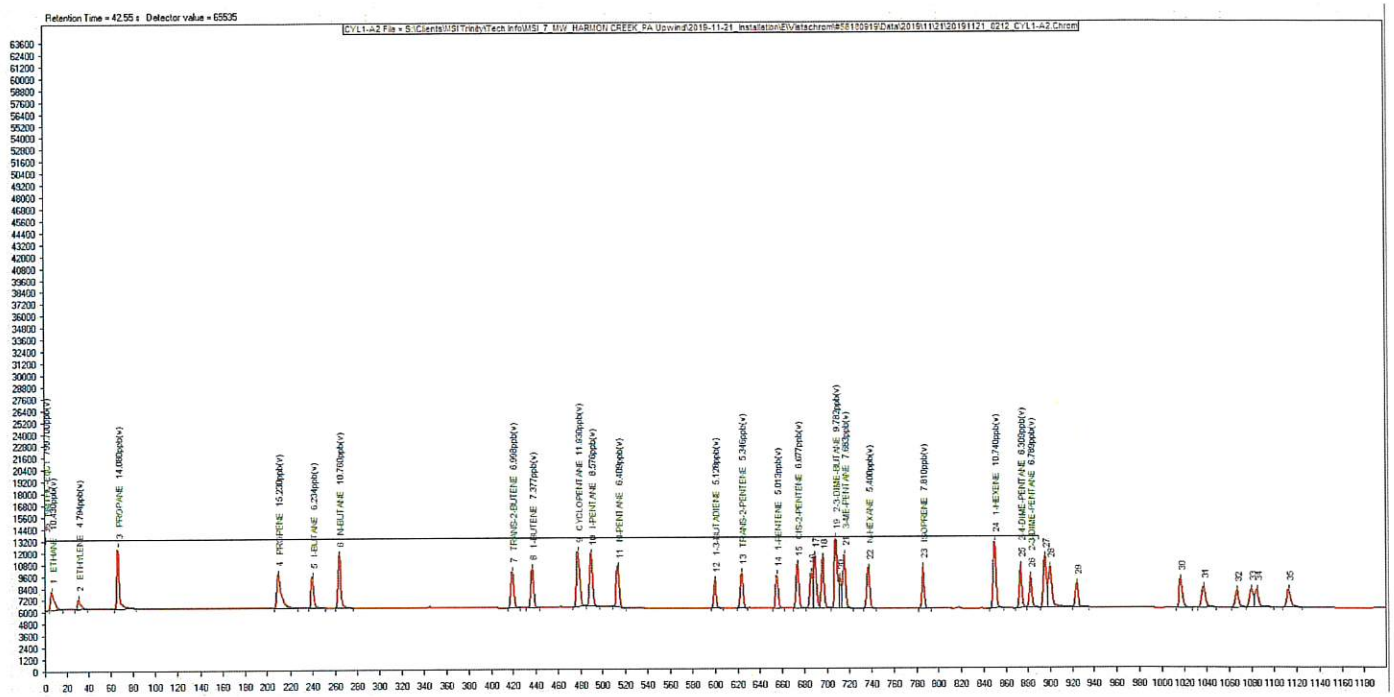
New Response Factors required?	Yes

No adjustment of response factors required because the Peltier cooler was not set to -10 ° C during the Calibration

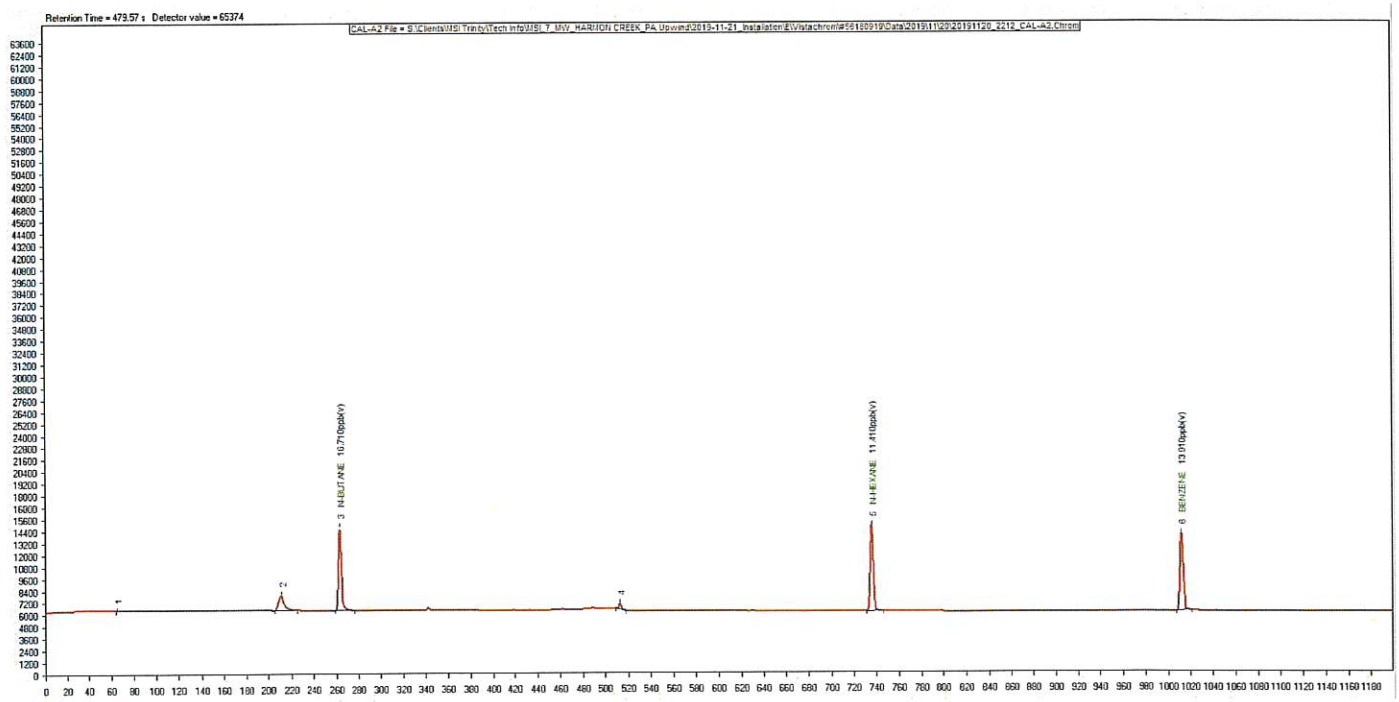
CONSOLIDATED ANALYTICAL SYSTEMS

airmOzone Service Report
airmoVOC C2-C6

Post-Calibration Chromatogram - Multi-Component Cylinder



Post-Calibration Chromatogram - Internal Standard



CONSOLIDATED ANALYTICAL SYSTEMS

airmOzone Service Report
airmoVOC C2-C6

Chromatogram Evaluation

Peak Definition	**Good**
Peak Integration	**Good**

Peak Identification	**Good**
Baseline	**Good**

Permeation Tube Verification Check

PT Serial/Part Number: 20190926-G385

Substance	Run 1 - 2019-11-20 2212		Run 2 - 2019-11-21 0712		Average		Expected Result (ppb)	Error %
	Result (ppb)	RT (seconds)	Result (ppb)	RT (seconds)	Result (ppb)	RT (seconds)		
n-Butane	16.71	263	16.69	264	**16.70**	264	16.56	0.8%
n-Hexane	11.41	736	11.47	737	**11.44**	737	10.86	5.3%
Benzene	13.91	1012	13.92	1014	**13.92**	1013	14.05	1.0%

Permeation Tube Verification Pass/Fail	**PASS**

Diagnostic Tools and Calibration Equipment Used for Maintenance/Service

Type	Serial No.	Model	Range	Accuracy	Expiration
Flow Meter	185675	MWB-500SCCM-D	5-500 ml/min	± 1%	on file
Multi-Component Cylinder	CC707044	N/A	3-20 ppb(v)	± 10%	on file

Notes

System start-up.

Retention times adjusted using standard canister, calibration check performed.

Recommendations

Maintain shelter temperature at 68°F, HVAC in AUTO mode.

Inspect the dryer dew point indicator and pressures.

Signatures

		Date
Service Technician	Karine Traulle	12/16/2019
Reviewer	Tomek Marchlewski	1/6/2020

CONSOLIDATED ANALYTICAL SYSTEMS

airmOzone Service Report
airmoVOC C6-C12

Customer Co./Org.	MSI Trinity
Customer Contact	Casey Lenhart
Location	MarkWest Harmon Creek/ Bulger PA/Far Downwind
Project No.	19-3870

Date	11/20/2019
Technician Initials	KT
Instrument Model	airmoVOC C6-C12
ID/Serial No.	26551019

Support Gas Equipment

		Notes
Zero Air Source Model	Thomas Pump	
ID/Serial No.	N/A	
Drying System	SMC Dryer Assembly	Dew point indicator color of blue or dark green indicates dry air; pink or orange color indicates humid air
Pressure after the Dryer (bars)	4	
Purifying System	Catalyzer	Temperature = 300°C
	Zero Air purifier	
Zero Air Pressure on Manifold (bars)	3.5	
Zero Air Pressure for Internal Calibration (bars)	2	Gauge inside airmoCAL
Zero Air Pressure for Detector (bars)	3	Gauge inside airmoCAL

Hydrogen Source Model	Hydroxychrom	
ID/Serial No.	56611019	
Hydrogen Pressure (mbars)	4000	Value displayed on Hydroxychrom Viewer
H2 Dryer Flow - Pressure (ml/min)	181.8	+200 ml/min ± 30
H2 Dryer Flow - Vacuum (ml/min)	-17.6	-20 ml/min ± 5

Vacuum Pump	Thomas Pump	
ID/Serial No.	N/A	
Vacuum (inHg and bar)	-27 inHg or -0.90 bar	< -24 inHg or -0.8 bar
Bypass flow (ml/min)	-262	between -200 and -600

Calibration Equipment

Gas Calibrator Used	☑ Yes ☐ No	**Gas Std. Cylinder Used**	☑ Yes ☐ No
Calibrator Model	airmoCAL	**Gas Std. Cylinder Serial No.**	CC707044
ID/Serial No.	56581019	**Cylinder Expiration Date**	on file
Zero Air Source Model	Thomas Pump and purifier	**Cylinder Pressure (psi)**	50
ID/Serial No.	N/A		

Permeation Tube	☑ Yes ☐ No	**Vistachrom & Firmware Ver.**	Vistachrom 1.55 - FW V.6.8
Serial/Part No.	20190911-G455	**AUTO CAL**	☐ On ☑ Off
Substance	Benzene	**Instrument Com Port**	3
Permeation Rate (ng/min)	12.7	**Modbus Com Port**	5
Permeation Temperature (°C)	40	**Modbus Driver File Name**	DRVMJBUS_STD_PAMS61_ FLOAT-USEPA.INI
Expiration Date	10/23/2020		

CONSOLIDATED ANALYTICAL SYSTEMS

airmOzone Service Report
airmoVOC C6-C12

Diagnostic Parameters

Parameter	Recorded Value	Expected Value	Notes
Detector Offset Amplification	Broad	Broad	
Detector Temperature (°C)	170	170 ± 0.2	FID
FID H2 Flow (ml/min)	27	27	
FID Zero Air Flow (ml/min)	180	180	
Detector Amplification	Middle	Middle	
Signal Strength	6000	N/A	Auto-adjust

Column Model	MXT1, 60m x 0.28mm x 1.0µm SN: 4		
Column Temperature (°C)	36 to 203	N/A	Ramp
Carrier Gas	Hydrogen	Hydrogen	
Carrier Gas Flow (ml/min)	≈ 3	≈ 3	through column
Column Pressure (hPa)	702	702 ± 5	≈ 700 hPa with 60m column or ≈ 400 hPa with 30m column

PT Chamber Flow (ml/min)	41.5	≈ 50	
PT Total Dilution Flow (ml/min)	294.0	≈ 150 to 350	depends on critical orifice
PT Chamber Temperature (°C)	40	40	
Concentration **n-Butane**	28.30 µg/m3 or **11.90 ppb**		Permeation rate = 8.32 ng/min
Concentration **n-Hexane**	34.01 µg/m3 or **9.65 ppb**		Permeation rate = 10.0 ng/min
Concentration **Benzene**	43.20 µg/m3 or **13.52 ppb**		Permeation rate = 12.7 ng/min
Concentration **n-Decane**	14.73 µg/m3 or **2.53 ppb**		Permeation rate = 4.33 ng/min

Trap Model	2 phases C6+	2 phases C6+	
Trap Temperature (°C)	380	380	
Sample Flow (ml/min)	-16.8	-15 ± 1	MFC set to ≈ -15 ml/min

Base Sensitivity (au/ng)	4310	between 3000 and 5300	

CONSOLIDATED ANALYTICAL SYSTEMS

airmOzone Service Report
airmoVOC C6-C12

Post-Calibration Substance Table Parameters **File Name:** **VOC-60MN**

Substance Name	Molecular Weight	Select Peak	RT Min (seconds)	RT Max (seconds)	Factor A x X with X = Area/BS
Calibration Substance Table					
Benzene	78.11	Middle	553	593	1.00
Analysis Substance Table					
Benzene	78.11	Middle	561	581	1.00
Cyclohexane	84.16	Middle	601	621	1.10
n-Heptane	100.20	Middle	787	807	1.12
Toluene	92.14	Middle	1027	1047	1.05
n-Octane	114.23	Middle	1176	1196	1.12
Ethylbenzene	106.17	Middle	1328	1348	1.10
m-Xylene / p-Xylene	106.17	Middle	1352	1372	1.10
o-Xylene	106.17	Middle	1412	1430	1.10
n-Nonane	128.26	Middle	1444	1464	1.14
n-Decane	142.28	Middle	1646	1666	1.20

Post-Calibration Multi-Component Cylinder Results

Substance	Run 1 - 2019-11-20 0135		Run 2 - 2019-11-20 0235	
	Result	RT	Result	RT
Benzene	5.077	570.7	5.110	570.5
Cyclohexane	6.922	610.8	6.973	610.5
n-Heptane	3.648	797.5	3.729	797.0
Toluene	5.749	1037.1	5.804	1036.5
n-Octane	3.666	1188.5	3.740	1188.0
Ethylbenzene	3.029	1338.8	3.119	1338.3
m-Xylene / p-Xylene	4.644	1362.3	4.829	1361.9
o-Xylene	3.012	1420.0	3.216	1419.7
n-Nonane	2.678	1454.1	2.743	1453.7
n-Decane	2.759	1656.5	2.963	1656.3

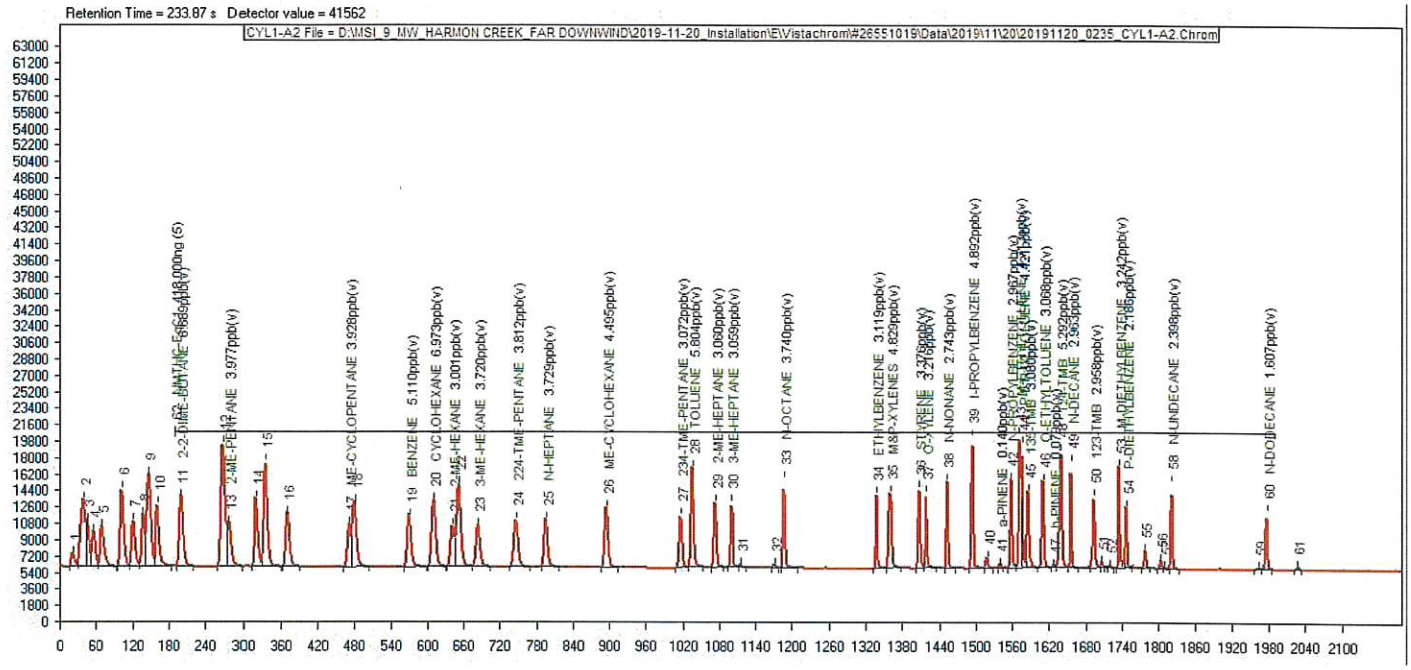
Substance	Average		Expected Result	Error %
	Result	RT		
Benzene	**5.09**	570.6	5.46	6.7%
Cyclohexane	**6.95**	610.7	7.76	10.5%
n-Heptane	**3.69**	797.2	4.12	10.5%
Toluene	**5.78**	1036.8	6.26	7.7%
n-Octane	**3.70**	1188.3	4.34	14.7%
Ethylbenzene	**3.07**	1338.6	3.30	6.8%
m-Xylene / p-Xylene	**4.74**	1362.1	5.21	9.1%
o-Xylene	**3.11**	1419.9	3.28	5.1%
n-Nonane	**2.71**	1453.9	3.18	14.8%
n-Decane	**2.86**	1656.4	3.40	15.9%

New Response Factors required?	No

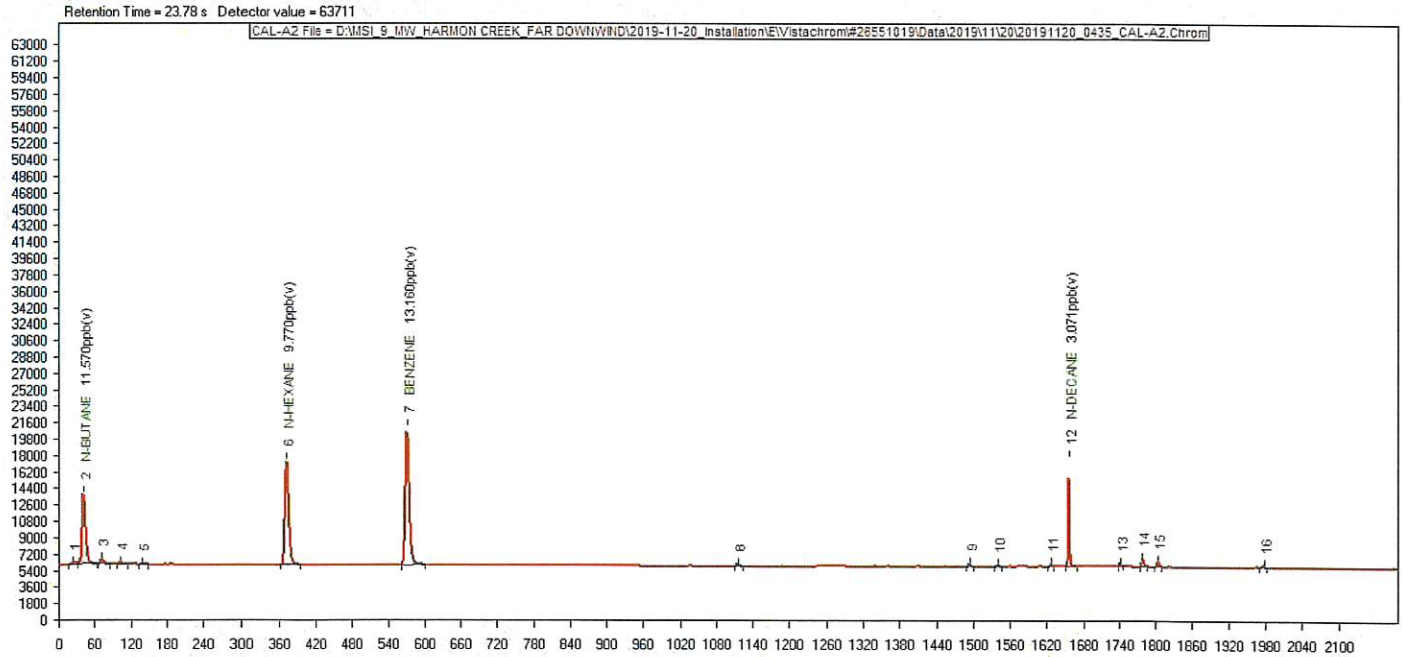
CONSOLIDATED ANALYTICAL SYSTEMS

airmOzone Service Report
airmoVOC C6-C12

Post-Calibration Chromatogram - Multi-Component Cylinder



Post-Calibration Chromatogram - Internal Standard



CONSOLIDATED ANALYTICAL SYSTEMS

airmOzone Service Report
airmoVOC C6-C12

Chromatogram Evaluation

Peak Definition	**Good**
Peak Integration	**Good**

Peak Identification	**Good**
Baseline	**Good**

Permeation Tube Verification Check

PT Serial/Part Number: 20190911-G455

Substance	Run 1 - 2019-11-20 2135		Run 2 - 2019-11-20 0435		Average		Expected Result (ppb)	Error %
	Result (ppb)	RT (seconds)	Result (ppb)	RT (seconds)	Result (ppb)	RT (seconds)		
n-Hexane	9.88	373	9.77	373	**9.82**	373	9.65	1.8%
Benzene	13.29	572	13.16	571	**13.22**	572	13.52	2.2%
n-Decane	3.14	1657	3.07	1656	**3.10**	1656	2.53	22.7%

Permeation Tube Verification Pass/Fail	**PASS**

Diagnostic Tools and Calibration Equipment Used for Maintenance/Service

Type	Serial No.	Model	Range	Accuracy	Expiration
Flow Meter	185675	MWB-500SCCM-D	0-500 ml/min	± 1%	on file
Multi-Component Cylinder	CC707044	N/A	3-20 ppb(v)	± 10%	on file

Notes

Systen start-up.

Retention times adjusted using standard cylinder; calibration check performed.

Recommendations

Maintain shelter temperature at 68°F, HVAC in AUTO mode.

Inspect the dryer dew point indicator and pressures.

Signatures

		Date
Service Technician	Karine Traulle	12/16/2019
Reviewer	Tomek Marchlewski	1/8/2020

CONSOLIDATED ANALYTICAL SYSTEMS

airmOzone Service Report
airmoVOC C2-C6

Customer Co./Org.	MSI Trinity
Customer Contact	Casey Lenhart
Location	MarkWest Harmon Creek/ Bulger PA/Far Downwind
Project No.	19-3870

Date	11/20/2019
Technician Initials	KT
Instrument Model	airmoVOC C2-C6
ID/Serial No.	56521019

Support Gas Equipment

		Notes
Zero Air Source Model	Thomas Pump	
ID/Serial No.	N/A	
Drying System	SMC Dryer Assembly	Dew point indicator color of blue or dark green indicates dry air; pink or orange color indicates humid air
Pressure after the Dryer (bars)	4	
Purifying System	Catalyzer	Temperature = 300°C
	Zero Air purifier	
Zero Air Pressure on Manifold (bars)	3.5	
Zero Air Pressure for Internal Calibration (bars)	2	Gauge inside airmoCAL
Zero Air Pressure for Detector (bars)	3	Gauge inside airmoCAL

Hydrogen Source Model	Hydroxychrom	
ID/Serial No.	56611019	
Hydrogen Pressure (mbars)	4000	Value displayed on Hydroxychrom Viewer
H2 Dryer Flow - Pressure (ml/min)	181.8	+200 ml/min ± 30
H2 Dryer Flow - Vacuum (ml/min)	-17.6	-20 ml/min ± 5

Vacuum Pump	Thomas Pump	
ID/Serial No.	N/A	
Vacuum (inHg and bar)	-27 inHg or -0.90 bar	< -24 inHg or -0.8 bar
Bypass flow (ml/min)	-262	between -200 and -600

Calibration Equipment

Gas Calibrator Used	☑ Yes ☐ No	**Gas Std. Cylinder Used**	☑ Yes ☐ No
Calibrator Model	airmoCAL	**Gas Std. Cylinder Serial No.**	CC707044
ID/Serial No.	56581019	**Cylinder Expiration Date**	on file
Zero Air Source Model	Thomas Pump and purifier	**Cylinder Pressure (psi)**	50
ID/Serial No.	N/A		

Permeation Tube	☑ Yes ☐ No	**Vistachrom & Firmware Ver.**	Vistachrom 1.55 - FW V.6.8
Serial/Part No.	20190902-G489	**AUTO CAL**	☐ On ☑ Off
Substance	n-Butane	**Instrument Com Port**	1
Permeation Rate (ng/min)	8.32	**Modbus Com Port**	N/A
Permeation Temperature (°C)	40	**Modbus Driver File Name**	DRVMJBUS_STD_PAMS61_ FLOAT-USEPA.INI
Expiration Date	10/23/2020		

CONSOLIDATED ANALYTICAL SYSTEMS

airmOzone Service Report
airmoVOC C2-C6

Diagnostic Parameters

Parameter	Recorded Value	Expected Value	Notes
Detector Offset Amplification	Broad	Broad	
Detector Temperature (°C)	170	170 ± 0.2	FID
FID H2 Flow (ml/min)	23.0	23	
FID Zero Air Flow (ml/min)	180.0	180	
Detector Amplification	Middle	Middle	
Signal Strength	6000	N/A	Auto-adjust

Column Model	Plot Al_2O_3/Na_2SO_4, 25m x 0.53mm x 10.0µm SN: NLR0542848		
Column Temperature (°C)	36 to 203	N/A	Ramp
Carrier Gas	Hydrogen	Hydrogen	
Carrier Gas Flow (ml/min)	≈ 7	≈ 7	through column
Column Pressure (hPa)	190	190 ± 5	≈ 200 hPa with 25m column

PT Chamber Flow (ml/min)	41.5	≈ 50	
PT Total Dilution Flow (ml/min)	294.0	≈ 150 to 350	depends on critical orifice
PT Chamber Temperature (°C)	40	40	
Concentration **n-Butane**	28.30 µg/m3 or **11.90 ppb**		Permeation rate = 8.32 ng/min
Concentration **n-Hexane**	34.01 µg/m3 or **9.65 ppb**		Permeation rate = 10.0 ng/min
Concentration **Benzene**	43.20 µg/m3 or **13.52 ppb**		Permeation rate = 12.7 ng/min
Concentration **n-Decane**	14.73 µg/m3 or **2.53 ppb**		Permeation rate = 4.33 ng/min

Trap Model	3 phases	3 phases	
Peltier Cooler Temperature Setting (°C)	-10	-10	
Trap Temperature (°C)	220	220	
Sample Flow (ml/min)	-4.5	-4 ± 1	MFC set to ≈ -4 ml/min
Dryer Flow for Sample (ml/min)	-17.7	≈ -20	

Base Sensitivity (au/ng)	4089	between 3000 and 5300	

CONSOLIDATED ANALYTICAL SYSTEMS

airmOzone Service Report
airmoVOC C2-C6

Post-Calibration Substance Table Parameters **File Name:** **VOC-60MN**

Substance Name	Molecular Weight	Select Peak	RT Min (seconds)	RT Max (seconds)	Factor A x X with X = Area/BS
Calibration Substance Table					
n-Butane	58.12	Middle	257	297	1.00
Analysis Substance Table					
Ethylene	28.05	Middle	21	41	1.10
Propane	44.10	Middle	63	83	1.05
Propene	42.08	Middle	190	210	1.10
Isobutane	58.12	Middle	239	259	1.05
n-Butane	58.12	Middle	263	283	1.00
Isopentane	72.15	Middle	489	507	1.00
n-Pentane	72.15	Middle	511	531	1.00
1,3-Butadiene	54.09	Middle	569	589	1.05
1-Pentene	70.13	Middle	634	654	1.00
n-Hexane	86.18	Middle	730	750	1.00

Post-Calibration Multi-Component Cylinder Results

Substance	Run 1 - 2019-11-20 0135		Run 2 - 2019-11-20 0235	
	Result	RT	Result	RT
Ethylene	8.763	31.4	8.972	31.5
Propane	11.427	73.2	11.483	73.3
Propene	8.090	200.1	8.127	200.1
Isobutane	5.134	248.9	5.202	248.8
n-Butane	8.604	272.9	8.676	272.8
Isopentane	6.919	496.9	6.955	497.1
n-Pentane	5.108	520.7	4.970	521.0
1,3-Butadiene	4.156	578.9	4.219	579.1
1-Pentene	4.064	644.0	4.123	643.7
n-Hexane	4.366	739.9	4.444	740.1

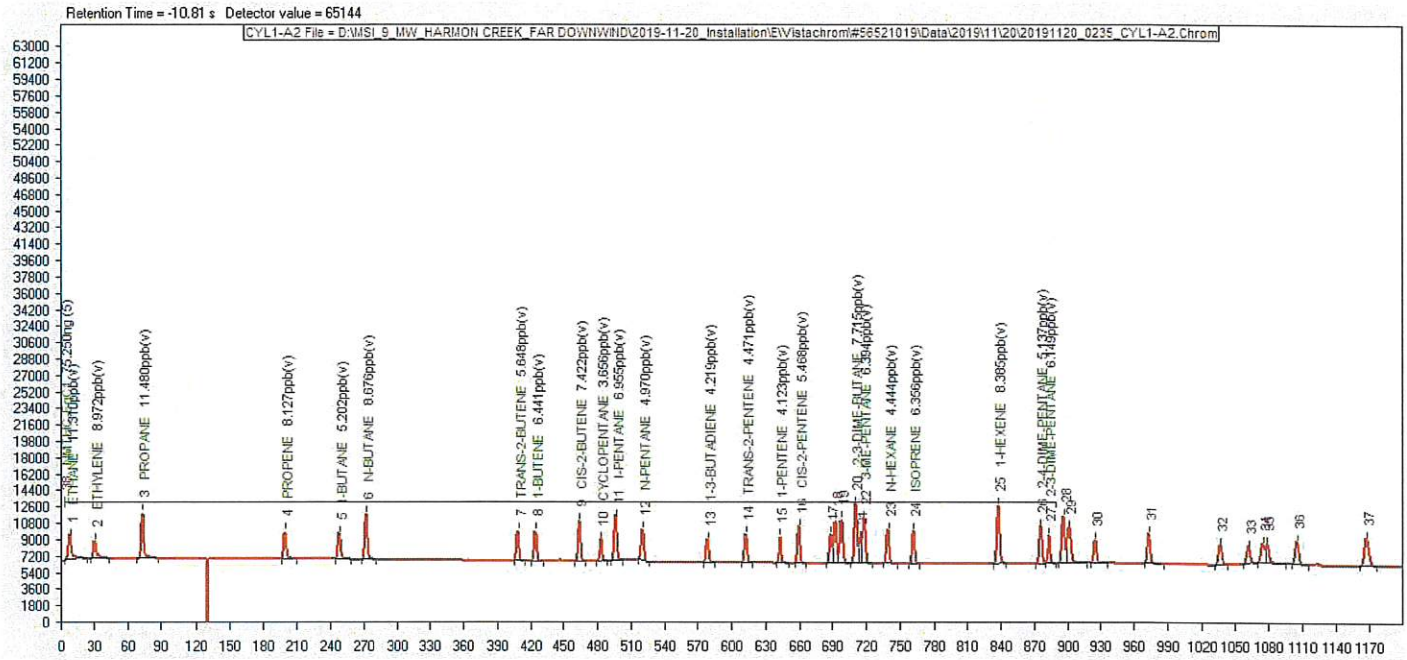
Substance	Average		Expected Result	Error %
	Result	RT		
Ethylene	**8.87**	31.4	11.13	20.3%
Propane	**11.46**	73.3	14.58	21.4%
Propene	**8.11**	200.1	8.02	1.1%
Isobutane	**5.17**	248.9	6.95	25.6%
n-Butane	**8.64**	272.8	10.99	21.4%
Isopentane	**6.94**	497.0	8.41	17.5%
n-Pentane	**5.04**	520.9	5.40	6.7%
1,3-Butadiene	**4.19**	579.0	5.49	23.7%
1-Pentene	**4.09**	643.9	5.22	21.6%
n-Hexane	**4.41**	740.0	5.71	22.9%

New Response Factors required?	No

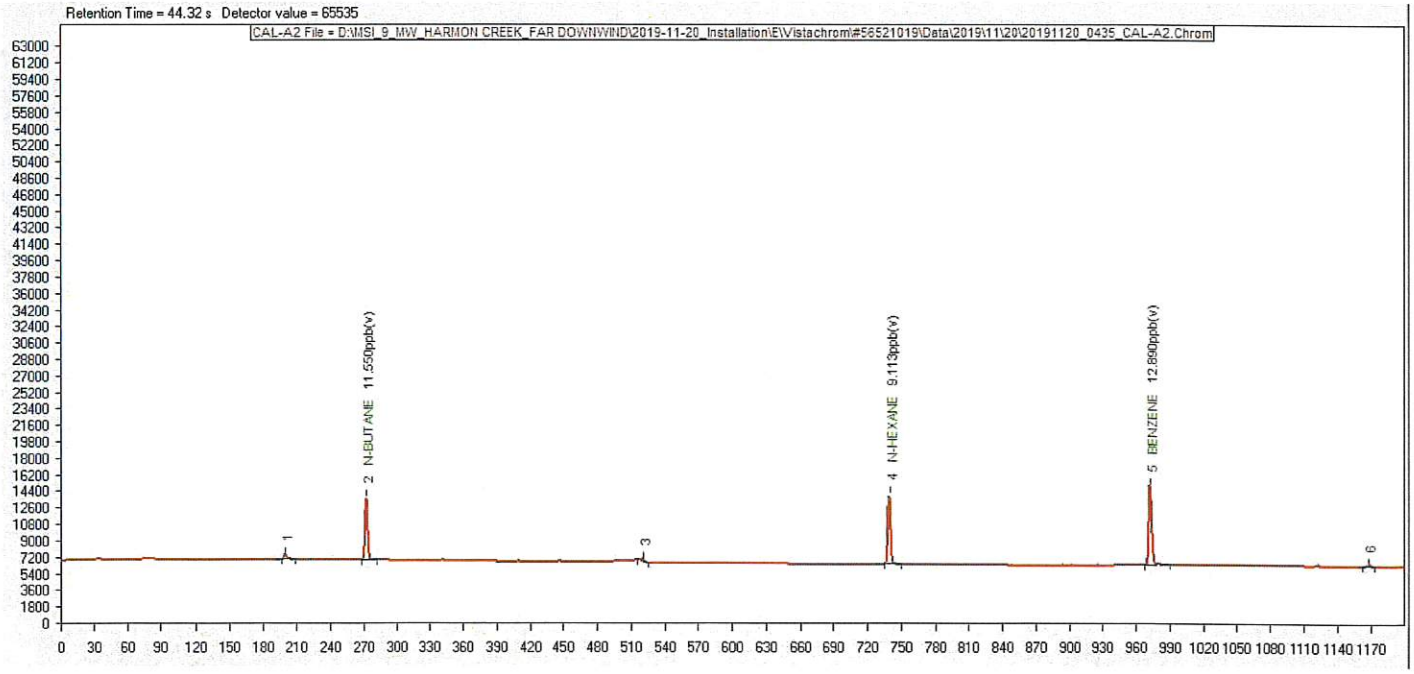
CONSOLIDATED ANALYTICAL SYSTEMS

airmOzone Service Report
airmoVOC C2-C6

Post-Calibration Chromatogram - Multi-Component Cylinder



Post-Calibration Chromatogram - Internal Standard



CONSOLIDATED ANALYTICAL SYSTEMS

airmOzone Service Report
airmoVOC C2-C6

Chromatogram Evaluation

Peak Definition	**Good**
Peak Integration	**Good**

Peak Identification	**Good**
Baseline	**Good**

Permeation Tube Verification Check

PT Serial/Part Number: 20190902-G489

Substance	Run 1 - 2019-11-19 2135		Run 2 - 2019-11-20 0435		Average		Expected Result (ppb)	Error %
	Result (ppb)	RT (seconds)	Result (ppb)	RT (seconds)	Result (ppb)	RT (seconds)		
n-Butane	11.71	273	11.55	273	**11.63**	273	11.90	2.3%
n-Hexane	9.16	740	9.11	740	**9.14**	740	9.65	5.3%
Benzene	13.01	973	12.89	973	**12.95**	973	13.52	4.2%

Permeation Tube Verification Pass/Fail	**PASS**

Diagnostic Tools and Calibration Equipment Used for Maintenance/Service

Type	Serial No.	Model	Range	Accuracy	Expiration
Flow Meter	185675	MWB-500SCCM-D	5-500 ml/min	± 1%	on file
Multi-Component Cylinder	CC707044	N/A	3-20 ppb(v)	± 10%	on file

Notes

System start-up.

Retention times adjusted using standard canister, calibration check performed.

Recommendations

Maintain shelter temperature at 68°F, HVAC in AUTO mode.

Inspect the dryer dew point indicator and pressures.

Signatures

		Date
Service Technician	Karine Traulle	12/16/2019
Reviewer	Tomek Marchlewski	1/8/2020

CONSOLIDATED ANALYTICAL SYSTEMS

airmOzone Service Report
airmoVOC C6-C12

Customer Co./Org.	MSI Trinity
Customer Contact	Casey Lenhart
Location	MarkWest Harmon Creek/ Bulger PA/Near Downwind
Project No.	19-3870

Date	11/21/2019
Technician Initials	KT
Instrument Model	airmoVOC C6-C12
ID/Serial No.	26090919

Support Gas Equipment

		Notes
Zero Air Source Model	Thomas Pump	
ID/Serial No.	N/A	
Drying System	SMC Dryer Assembly	Dew point indicator color of blue or dark green indicates dry air; pink or orange color indicates humid air
Pressure after the Dryer (bars)	4	
Purifying System	Catalyzer	Temperature = 300°C
	Zero Air purifier	
Zero Air Pressure on Manifold (bars)	3.5	
Zero Air Pressure for Internal Calibration (bars)	2	Gauge inside airmoCAL
Zero Air Pressure for Detector (bars)	3	Gauge inside airmoCAL

Hydrogen Source Model	Hydroxychrom	
ID/Serial No.	56200919	
Hydrogen Pressure (mbars)	4000	Value displayed on Hydroxychrom Viewer
H2 Dryer Flow - Pressure (ml/min)	179.8	+200 ml/min ± 30
H2 Dryer Flow - Vacuum (ml/min)	-17.6	-20 ml/min ± 5

Vacuum Pump	Thomas Pump	
ID/Serial No.	N/A	
Vacuum (inHg and bar)	-27.5 inHg or -0.92 bar	< -24 inHg or -0.8 bar
Bypass flow (ml/min)	-288	between -200 and -600

Calibration Equipment

Gas Calibrator Used	☑ Yes ☐ No	**Gas Std. Cylinder Used**	☑ Yes ☐ No
Calibrator Model	airmoCAL	**Gas Std. Cylinder Serial No.**	CC707044
ID/Serial No.	56470919	**Cylinder Expiration Date**	on file
Zero Air Source Model	Thomas Pump and purifier	**Cylinder Pressure (psi)**	50
ID/Serial No.	N/A		

Permeation Tube	☑ Yes ☐ No	**Vistachrom & Firmware Ver.**	Vistachrom 1.55 - FW V.6.8
Serial/Part No.	20190717-G319	**AUTO CAL**	☐ On ☑ Off
Substance	Benzene	**Instrument Com Port**	3
Permeation Rate (ng/min)	11.2	**Modbus Com Port**	5
Permeation Temperature (°C)	40	**Modbus Driver File Name**	DRVMJBUS_STD_PAMS61_ FLOAT-USEPA.INI
Expiration Date	10/1/2020		

CONSOLIDATED ANALYTICAL SYSTEMS

airmOzone Service Report
airmoVOC C6-C12

Diagnostic Parameters

Parameter	Recorded Value	Expected Value	Notes
Detector Offset Amplification	Broad	Broad	
Detector Temperature (°C)	170	170 ± 0.2	FID
FID H2 Flow (ml/min)	27	27	
FID Zero Air Flow (ml/min)	180	180	
Detector Amplification	Middle	Middle	
Signal Strength	6000	N/A	Auto-adjust

Column Model	MXT1, 60m x 0.28mm x 1.0µm SN: 1593489		
Column Temperature (°C)	36 to 203	N/A	Ramp
Carrier Gas	Hydrogen	Hydrogen	
Carrier Gas Flow (ml/min)	≈ 3	≈ 3	through column
Column Pressure (hPa)	697	697 ± 5	≈ 700 hPa with 60m column or ≈ 400 hPa with 30m column

PT Chamber Flow (ml/min)		48.5	≈ 50	
PT Total Dilution Flow (ml/min)		293.2	≈ 150 to 350	depends on critical orifice
PT Chamber Temperature (°C)		40	40	
Concentration	**n-Butane**	36.83 µg/m3 or **15.50 ppb**		Permeation rate = 10.8 ng/min
	n-Hexane	28.96 µg/m3 or **8.22 ppb**		Permeation rate = 8.49 ng/min
	Benzene	38.20 µg/m3 or **11.96 ppb**		Permeation rate = 11.2 ng/min
	n-Decane	16.47 µg/m3 or **2.83 ppb**		Permeation rate = 4.83 ng/min

Trap Model	2 phases C6+	2 phases C6+	
Trap Temperature (°C)	380	380	
Sample Flow (ml/min)	-15.6	-15 ± 1	MFC set to ≈ -15 ml/min

Base Sensitivity (au/ng)	4637	between 3000 and 5300	

CONSOLIDATED ANALYTICAL SYSTEMS

airmOzone Service Report
airmoVOC C6-C12

Post-Calibration Substance Table Parameters **File Name:** **VOC-60MN**

Substance Name	Molecular Weight	Select Peak	RT Min (seconds)	RT Max (seconds)	Factor A x X with X = Area/BS
Calibration Substance Table					
Benzene	78.11	Middle	562	582	1.00
Analysis Substance Table					
Benzene	78.11	Middle	561	581	1.00
Cyclohexane	84.16	Middle	603	623	1.10
n-Heptane	100.20	Middle	805	825	1.12
Toluene	92.14	Middle	1061	1081	1.05
n-Octane	114.23	Middle	1227	1247	1.12
Ethylbenzene	106.17	Middle	1386	1406	1.10
m-Xylene / p-Xylene	106.17	Middle	1412	1432	1.10
o-Xylene	106.17	Middle	1477	1491	1.10
n-Nonane	128.26	Middle	1515	1535	1.14
n-Decane	142.28	Middle	1734	1754	1.20

Post-Calibration Multi-Component Cylinder Results

Substance	Run 1 - 2019-11-21 0159		Run 2 - 2019-11-21 0259	
	Result	RT	Result	RT
Benzene	5.048	570.7	5.152	570.7
Cyclohexane	7.251	613.1	7.276	613.1
n-Heptane	3.968	814.7	4.006	814.7
Toluene	6.130	1070.9	6.192	1071.1
n-Octane	3.995	1236.5	4.034	1236.7
Ethylbenzene	3.193	1396.3	3.253	1396.5
m-Xylene / p-Xylene	4.961	1422.5	5.058	1422.7
o-Xylene	3.502	1484.3	3.562	1484.5
n-Nonane	2.896	1524.8	2.931	1525.1
n-Decane	3.084	1743.7	3.148	1743.7

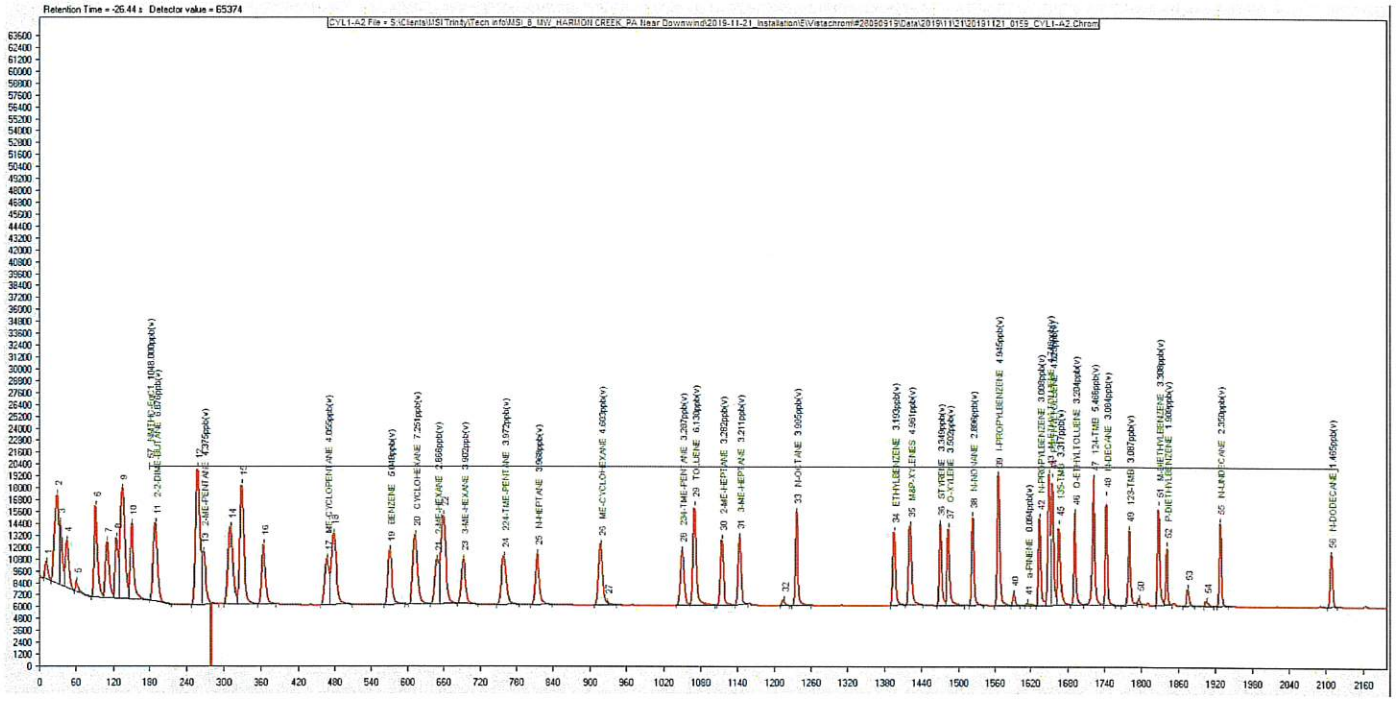
Substance	Average		Expected Result	Error %
	Result	RT		
Benzene	**5.10**	570.7	5.46	6.6%
Cyclohexane	**7.26**	613.1	7.76	6.4%
n-Heptane	**3.99**	814.7	4.12	3.2%
Toluene	**6.16**	1071.0	6.26	1.6%
n-Octane	**4.01**	1236.6	4.34	7.5%
Ethylbenzene	**3.22**	1396.4	3.30	2.3%
m-Xylene / p-Xylene	**5.01**	1422.6	5.21	3.8%
o-Xylene	**3.53**	1484.4	3.28	7.7%
n-Nonane	**2.91**	1525.0	3.18	8.4%
n-Decane	**3.12**	1743.7	3.40	8.4%

New Response Factors required?	No

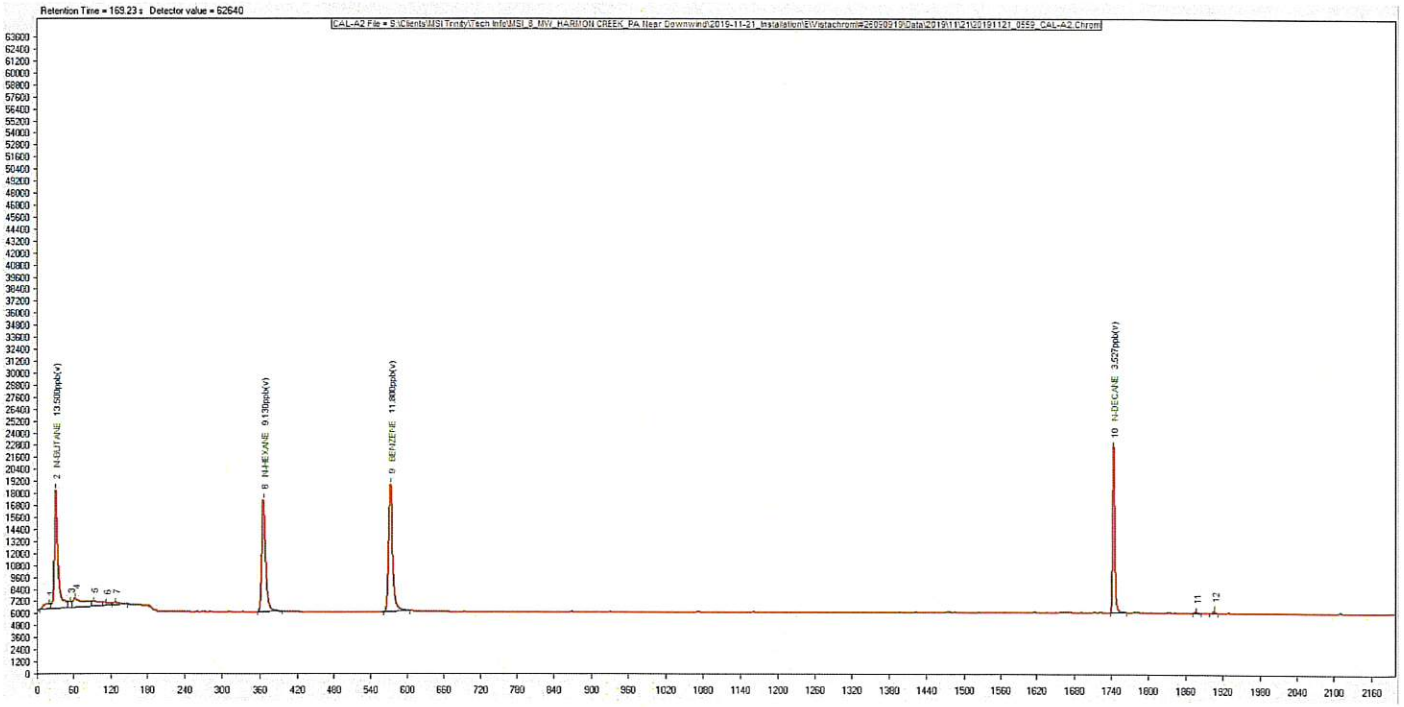
CONSOLIDATED ANALYTICAL SYSTEMS

airmOzone Service Report
airmoVOC C6-C12

Post-Calibration Chromatogram - Multi-Component Cylinder



Post-Calibration Chromatogram - Internal Standard



CONSOLIDATED ANALYTICAL SYSTEMS

airmOzone Service Report
airmoVOC C6-C12

Chromatogram Evaluation

Peak Definition	**Good**
Peak Integration	**Good**

Peak Identification	**Good**
Baseline	**Good**

Permeation Tube Verification Check

PT Serial/Part Number: 20190717-G319

Substance	Run 1 - 2019-11-20 2059		Run 2 - 2019-11-21 0559		Average		Expected Result (ppb)	Error %
	Result (ppb)	RT (seconds)	Result (ppb)	RT (seconds)	Result (ppb)	RT (seconds)		
n-Hexane	9.17	366	9.13	366	**9.15**	366	8.22	11.3%
Benzene	12.04	572	11.80	572	**11.92**	572	11.96	0.3%
n-Decane	3.89	1744	3.53	1744	**3.71**	1744	2.83	31.1%

Permeation Tube Verification Pass/Fail	**PASS**

Diagnostic Tools and Calibration Equipment Used for Maintenance/Service

Type	Serial No.	Model	Range	Accuracy	Expiration
Flow Meter	185675	MWB-500SCCM-D	0-500 ml/min	± 1%	on file
Multi-Component Cylinder	CC707044	N/A	3-20 ppb(v)	± 10%	on file

Notes

System start-up.

Retention times adjusted using standard cylinder; calibration check performed.

Recommendations

Maintain shelter temperature at 68°F, HVAC in AUTO mode.

Inspect the dryer dew point indicator and pressures.

Signatures

		Date
Service Technician	Karine Traulle	12/16/2019
Reviewer	Tomek Marchlewski	1/78/2020

CONSOLIDATED ANALYTICAL SYSTEMS

airmOzone Service Report
airmoVOC C2-C6

Customer Co./Org.	MSI Trinity
Customer Contact	Casey Lenhart
Location	MarkWest Harmon Creek/ Bulger PA/Near Downwind
Project No.	19-3870

Date	11/21/2019
Technician Initials	KT
Instrument Model	airmoVOC C2-C6
ID/Serial No.	56080919

Support Gas Equipment

		Notes
Zero Air Source Model	Thomas Pump	
ID/Serial No.	N/A	
Drying System	SMC Dryer Assembly	Dew point indicator color of blue or dark green indicates dry air; pink or orange color indicates humid air
Pressure after the Dryer (bars)	4	
Purifying System	Catalyzer	Temperature = 300°C
	Zero Air purifier	
Zero Air Pressure on Manifold (bars)	3.5	
Zero Air Pressure for Internal Calibration (bars)	2	Gauge inside airmoCAL
Zero Air Pressure for Detector (bars)	3	Gauge inside airmoCAL

Hydrogen Source Model	Hydroxychrom	
ID/Serial No.	56200919	
Hydrogen Pressure (mbars)	4000	Value displayed on Hydroxychrom Viewer
H2 Dryer Flow - Pressure (ml/min)	179.8	+200 ml/min ± 30
H2 Dryer Flow - Vacuum (ml/min)	-17.6	-20 ml/min ± 5

Vacuum Pump	Thomas Pump	
ID/Serial No.	N/A	
Vacuum (inHg and bar)	-27.5 inHg or -0.92 bar	< -24 inHg or -0.8 bar
Bypass flow (ml/min)	-288	between -200 and -600

Calibration Equipment

Gas Calibrator Used	☑ Yes ☐ No	**Gas Std. Cylinder Used**	☑ Yes ☐ No
Calibrator Model	airmoCAL	**Gas Std. Cylinder Serial No.**	CC707044
ID/Serial No.	56470919	**Cylinder Expiration Date**	on file
Zero Air Source Model	Thomas Pump and purifier	**Cylinder Pressure (psi)**	50
ID/Serial No.	N/A		

Permeation Tube	☑ Yes ☐ No	**Vistachrom & Firmware Ver.**	Vistachrom 1.55 - FW V.6.8
Serial/Part No.	20190603-G299	**AUTO CAL**	☐ On ☑ Off
Substance	n-Butane	**Instrument Com Port**	1
Permeation Rate (ng/min)	10.8	**Modbus Com Port**	N/A
Permeation Temperature (°C)	40	**Modbus Driver File Name**	DRVMJBUS_STD_PAMS61_ FLOAT-USEPA.INI
Expiration Date	10/1/2020		

CONSOLIDATED ANALYTICAL SYSTEMS

airmOzone Service Report
airmoVOC C2-C6

Diagnostic Parameters

Parameter	Recorded Value	Expected Value	Notes
Detector Offset Amplification	Broad	Broad	
Detector Temperature (°C)	170	170 ± 0.2	FID
FID H2 Flow (ml/min)	23.0	23	
FID Zero Air Flow (ml/min)	180.0	180	
Detector Amplification	Middle	Middle	
Signal Strength	6000	N/A	Auto-adjust

Column Model	Plot Al_2O_3/Na_2SO_4, 25m x 0.53mm x 10.0µm SN: NLR0542850		
Column Temperature (°C)	36 to 203	N/A	Ramp
Carrier Gas	Hydrogen	Hydrogen	
Carrier Gas Flow (ml/min)	≈ 7	≈ 7	through column
Column Pressure (hPa)	178	178 ± 5	≈ 200 hPa with 25m column

PT Chamber Flow (ml/min)	48.5	≈ 50	
PT Total Dilution Flow (ml/min)	293.2	≈ 150 to 350	depends on critical orifice
PT Chamber Temperature (°C)	40	40	
Concentration **n-Butane**	36.83 µg/m3 or **15.50 ppb**		Permeation rate = 10.8 ng/min
Concentration **n-Hexane**	28.96 µg/m3 or **8.22 ppb**		Permeation rate = 8.49 ng/min
Concentration **Benzene**	38.20 µg/m3 or **11.96 ppb**		Permeation rate = 11.2 ng/min
Concentration **n-Decane**	16.47 µg/m3 or **2.83 ppb**		Permeation rate = 4.83 ng/min

Trap Model	3 phases	3 phases	
Peltier Cooler Temperature Setting (°C)	-10	-10	
Trap Temperature (°C)	220	220	
Sample Flow (ml/min)	-4.6	-4 ± 1	MFC set to ≈ -4 ml/min
Dryer Flow for Sample (ml/min)	-17.5	≈ -20	

Base Sensitivity (au/ng)	4072	between 3000 and 5300	

CONSOLIDATED ANALYTICAL SYSTEMS

airmOzone Service Report
airmoVOC C2-C6

Post-Calibration Substance Table Parameters

File Name: VOC-60MN

Substance Name	Molecular Weight	Select Peak	RT Min (seconds)	RT Max (seconds)	Factor A x X with X = Area/BS
Calibration Substance Table					
n-Butane	58.12	Middle	253	293	1.00
Analysis Substance Table					
Ethylene	28.05	Middle	19	39	1.20
Propane	44.10	Middle	61	81	1.05
Propene	42.08	Middle	192	212	1.10
Isobutane	58.12	Middle	240	260	1.00
n-Butane	58.12	Middle	265	285	1.00
Isopentane	72.15	Middle	492	508	1.00
n-Pentane	72.15	Middle	513	533	1.00
1,3-Butadiene	54.09	Middle	573	593	0.93
1-Pentene	70.13	Middle	639	655	0.98
n-Hexane	86.18	Middle	733	753	1.00

Post-Calibration Multi-Component Cylinder Results

Substance	Run 1 - 2019-11-21 0200		Run 2 - 2019-11-21 0300	
	Result	RT	Result	RT
Ethylene	9.382	29.3	9.412	29.2
Propane	13.708	71.3	13.725	71.3
Propene	9.180	202.4	9.166	202.7
Isobutane	6.849	250.3	6.827	250.5
n-Butane	10.610	274.6	10.625	274.8
Isopentane	7.685	498.6	7.727	498.7
n-Pentane	5.296	522.5	5.280	522.7
1,3-Butadiene	4.962	582.6	4.995	582.8
1-Pentene	4.430	646.6	4.451	646.8
n-Hexane	4.160	742.0	4.231	742.0

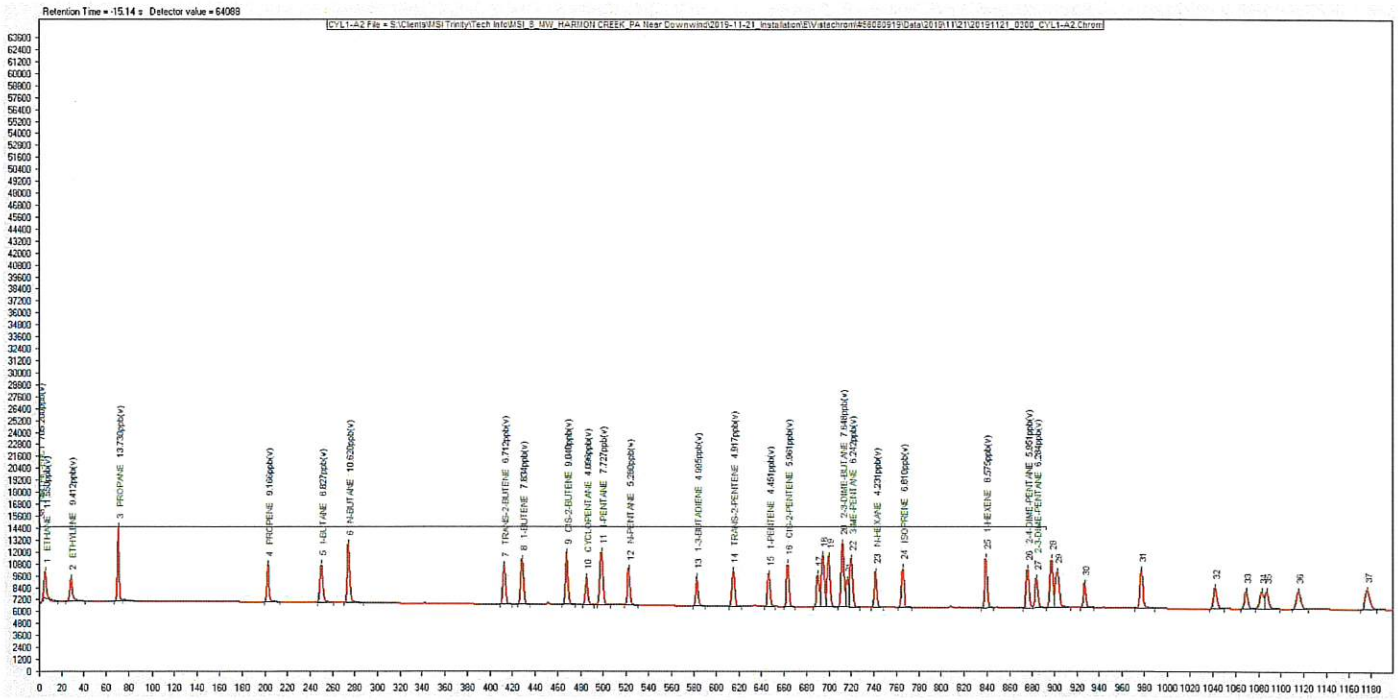
Substance	Average		Expected Result	Error %
	Result	RT		
Ethylene	**9.40**	29.2	11.13	15.6%
Propane	**13.72**	71.3	14.58	5.9%
Propene	**9.17**	202.5	8.02	14.4%
Isobutane	**6.84**	250.4	6.95	1.6%
n-Butane	**10.62**	274.7	10.99	3.4%
Isopentane	**7.71**	498.7	8.41	8.4%
n-Pentane	**5.29**	522.6	5.40	2.1%
1,3-Butadiene	**4.98**	582.7	5.49	9.3%
1-Pentene	**4.44**	646.7	5.22	14.9%
n-Hexane	**4.20**	742.0	5.71	26.5%

New Response Factors required?	No

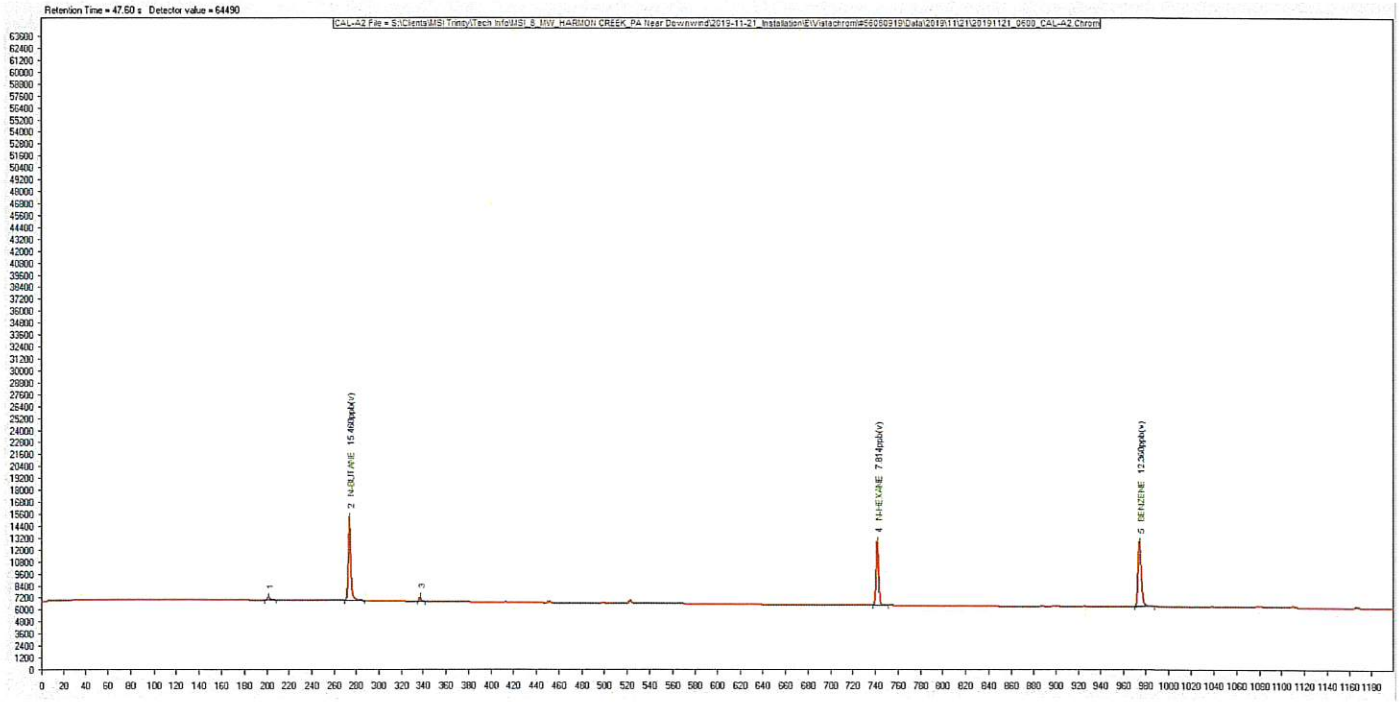
CONSOLIDATED ANALYTICAL SYSTEMS

airmOzone Service Report
airmoVOC C2-C6

Post-Calibration Chromatogram - Multi-Component Cylinder



Post-Calibration Chromatogram - Internal Standard



CONSOLIDATED ANALYTICAL SYSTEMS

airmOzone Service Report
airmoVOC C2-C6

Chromatogram Evaluation

Peak Definition	**Good**
Peak Integration	**Good**

Peak Identification	**Good**
Baseline	**Good**

Permeation Tube Verification Check

PT Serial/Part Number: 20190603-G299

Substance	Run 1 - 2019-11-20 2100		Run 2 - 2019-11-21 0600		Average		Expected Result (ppb)	Error %
	Result (ppb)	RT (seconds)	Result (ppb)	RT (seconds)	Result (ppb)	RT (seconds)		
n-Butane	15.65	274	15.46	274	**15.55**	274	15.50	0.4%
n-Hexane	7.80	742	7.81	742	**7.81**	742	8.22	5.0%
Benzene	11.98	974	12.36	975	**12.17**	974	11.96	1.8%

Permeation Tube Verification Pass/Fail	**PASS**

Diagnostic Tools and Calibration Equipment Used for Maintenance/Service

Type	Serial No.	Model	Range	Accuracy	Expiration
Flow Meter	185675	MWB-500SCCM-D	5-500 ml/min	± 1%	on file
Multi-Component Cylinder	CC707044	N/A	3-20 ppb(v)	± 10%	on file

Notes

System start-up.

Retention times adjusted using standard canister, calibration check performed.

Recommendations

Maintain shelter temperature at 68°F, HVAC in AUTO mode.

Inspect the dryer dew point indicator and pressures.

Signatures

		Date
Service Technician	Karine Traulle	12/16/2019
Reviewer	Tomek Marchlewski	1/8/2020

Fill in five universal items below

Operator:	MSI
Site Name:	Mark West
Project:	19-60
Stn ID:	Harmon Creek
Client:	Mark West

Latitude:
Longitude:
CR1000X datalogger s/n: 11572

Site History	Date	Kit	Tech
Install Calibration	1/20-21/2019	Kit 3	Mike Peterson

SITE VISIT CHECKLIST

Meteorological Solutions Inc.
A Trinity Consultants Company

Operator MSI
Site Name Mark West
Project 19-60

Date 11/20-21/2019
Stn ID Harmon Creek
Time 8:00

MET TOWER AND SENSORS:

	YES	NO	N/A	Comments
Solar Panel Clean			X	Ac powered site.
Tower straight,guy wires taut, secured			X	No guy wires.
Wind Sensors Intact (Propeller, Cups, Vane)	X			
Temperature Aspirators Operational			X	
Pyranometer Domes Clean			X	
Rain Gauge Funnel Clear of Debris/Snow/Ice			X	
Signs of Sensor Damage		X		
Sensors Level and Oriented Correctly	X			
Boom Orientation OK	X			
Sensor Outputs Check and Functioning Correctly	X			
Grounding System Intact	X			
Cellular Antenna Correctly Oriented	X			
Area Free of Vandalism	X			
Shelter Temp Check degrees C	X			Cal = 23.1 Site = 22.7 Diff = 0.4 Cal Ref s/n 072409005

BAROMETRIC PRESSURE CALIBRATION SHEET

Meteorological Solutions Inc.
A Trinity Consultants Company

Operator: MSI
Site Name: Mark West
Project: 19-60

Date: 11/20-21/2019
Stn ID: Harmon Creek
Client: Mark West

Start Time: 11/20/2019 8:00
Stop Time: 11/21/2019 12:30

Sensor Mfg: Vaisala
Sensor Model: PTB 110
Serial No.: P4930777
Range: 500-1100

Sensor Height: 1.5 m

Last Calibration Date: N/A

	Cal. INPUT			DAS RESPONSE	
	Time	(mb)		DAS (mb)	DIFF mb
11/20	19:03	980.2		980.3	0.1
11/20	20:00	980.4		980.8	0.4
11/21	9:58	979.6		979.9	0.3
	AVERAGE				0.27

Cal. Criteria: ± 3.0 mb

Pressure Cal. Device: Vaisala
Cal. Device Model: PTB110
Cal. Device SER #: L0310539

Comments: Side by side comparison in ambient conditions.

Calibrated By: Mike Peterson

RELATIVE HUMIDITY CALIBRATION SHEET

Meteorological Solutions Inc.
A Trinity Consultants Company

Operator: MSI
Site Name: Mark West
Project: 19-60

Date: 11/20-21/2019
Stn ID: Harmon Creek
Client: Mark West

Start Time: 11/20/2019 8:00
Stop Time: 11/21/2019 12:30

Sensor Mfg: E+E Elektronik
Sensor Model: EE 181
Serial No.: 190916000179FC
Range: 0-100%

Height: 10 m

Last Date Calibrated: N/A

	CALIBRATION INPUT			DAS RESPONSE		
	(Time)	(%)		DAS (%)	DIFF (%)	
11/20	19;04	58.0		57.2	-0.8	
11/20	20:00	61.9		60.5	-1.4	
11/21	9:56	77.7		75.8	-1.9	
11/21	10:08	32.0		29.0	-3.0	Inside Shelter
	AVERAGE				**-1.8**	
Cal. Criteria:	± 10 % RH					

Rel. Humidity Cal. Device: Vaisala
Rel. Humidity Cal. Model: HMP45AC
Rel. Humidity Cal. SER #: F1640024

Comments: Side by side comparison in ambient conditions.

Calibrated By: Mike Peterson

TEMPERATURE CALIBRATION SHEET

Meteorological Solutions Inc.
A Trinity Consultants Company

Operator	MSI	Date	11/20-21/2019	Start Time	8:00
Site Name	Mark West	Stn ID	Harmon Creek	Stop Time	12:30
Project	19-60	Client	Mark West		

Sensor Mfg	Elektronik
Sensor Model	EE 181
Serial No.	190916000179FC
Range	-50 to +100 deg. C

Height: 10 m

	CALIBRATION INPUT (Time)	CALIBRATION INPUT (deg. C)		DAS RESPONSE DAS (deg. C)	DAS RESPONSE DIFF (deg. C)	
11/20	19:04	7.1		7.0	-0.1	
11/20	20:00	6.6		6.6	0.0	
11/21	10:00	5.4		5.3	-0.1	
11/21	10:08	19.7		19.8	0.1	Inside Shelter
	AVERAGE				**0.0**	
	Cal. Criteria:	± 1.0 deg. C				

Temperature Cal. Device	REO TEMP
Temperature Cal. Model	TM-99A
Temperature Cal. SER #	072409005

Comments: Side by side comparison in ambient and water bath conditions.

Calibrated By: Mike Peterson

HORIZONTAL WIND DIRECTION CALIBRATION SHEET

Meteorological Solutions Inc.
A Trinity Consultants Company

Operator	MSI	Date 11/20-21/2019	Start Time 11/20/2019 8:00
Site Name	Mark West	Stn ID Harmon Creek	Stop Time 11/21/2019 12:30
Project	19-60	Client	Mark West

Sensor Mfg	RM Young	WD Sensor Model	05305-5
Serial No.	171923	WD Sensor Ht (m)	10
Crossarm Alignment	0.0	WD Sensor Range 0-	360 degrees
Crossarm Difference	0.0	Vane parallel to crossarm=	|| 0.6 / 180.5
Site Declination (degrees)	-9	WD Shaft Rotational Torque	<10.0 gm-cm
Last Calibration Date	N/A	Starting Threshold	< 0.5 m/s

CALIBRATION INPUT		CLOCKWISE DAS RESPONSE			COUNTERCLOCKWISE DAS RESPONSE		
(direction)	(deg)	DAS (deg)	DIFF (deg)	TOTAL DIFF (deg)	DAS (deg)	DIFF (deg)	TOTAL DIFF (deg)
North	0/360	0.2	0.2	0.2	0.2	0.2	0.2
	30	29.5	-0.5	-0.5	29.7	-0.3	-0.3
	60	59.9	-0.1	-0.1	60.0	0.0	0.0
East	90	90.0	0.0	0.0	90.2	0.2	0.2
	120	120.0	0.0	0.0	119.1	-0.9	-0.9
	150	149.3	-0.7	-0.7	149.5	-0.5	-0.5
South	180	179.0	-1.0	-1.0	178.4	-1.6	-1.6
	210	208.7	-1.3	-1.3	208.7	-1.3	-1.3
	240	238.4	-1.6	-1.6	238.2	-1.8	-1.8
West	270	268.4	-1.6	-1.6	268.9	-1.1	-1.1
	300	298.5	-1.5	-1.5	298.0	-2.0	-2.0
	330	328.0	-2.0	-2.0	328.4	-1.6	-1.6

Cal. Criteria: Alignment with true North plus Linearity: ± 5 degrees
Starting Threshold: <= 0.5 m/s
TOTAL DIFF is the total difference when including Orientation and Linearity

WD Cal. Device RM Young
WD Cal. Model 18212
WD Cal. Serial # Vane Angle Fixture

Comments Brunton s/n: 2610508929
Vane torque gauge model # 18331

Calibrated By Mike Peterson

HORIZONTAL WIND SPEED CALIBRATION SHEET

Meteorological Solutions Inc.
A Trinity Consultants Company

Operator: MSI
Site Name: Mark West
Project: 19-60

Date: 11/20-21/2019
Stn ID: Harmon Creek
Client: Mark West

Start Time: 11/20/2019 8:00
Stop Time: 11/21/2019 12:30

Sensor Mfg: RM Young
Serial No.: 171923
WS Range: 0 - 60 mps

WS Sensor Model: 05305-5
WS Sensor Ht (m): 10
Last Calibration Date: N/A

WS Shaft Rotational Torque: < 0.1 gm - cm
Sensor Starting Threshold: <0.5 mps

Cal. INPUT		DAS RESPONSE		
(rpm)	(mps)		DAS (mps)	DIFF (mps)
0.0	0.0		0.0	0.00
300	1.536		1.536	0.00
600	3.072		3.072	0.00
900	4.608		4.608	0.00
1500	7.68		7.68	0.00
3000	15.36		15.36	0.00
5000	25.6		25.6	0.00
7000	35.84		35.84	0.00
8000	40.96		40.96	0.00

Cal. Criteria: ± .25 m/s when wind speed <= 5 m/s
± 5% when ws > 5 m/s

WS Cal. Device: RM Young
WS Cal. Model: 18802
WS Cal. SER #: CA03365

Comments: RM Young torque disc model # 18310

Calibrated By: Mike Peterson