

DURHAM YORK ENERGY CENTRE COURTICE, ONTARIO

2026 Q1 AMBIENT AIR QUALITY MONITORING REPORT

RWDI #2600650

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SUBMITTED TO

**The Director of Waste Management
Services**

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1 INTRODUCTION

RWDI AIR Inc. (RWDI) was retained by Durham Region and York Region (the Regions) to conduct discrete and continuous air quality ambient monitoring at the Durham York Energy Centre (DYEC) monitoring stations. The facility address is 1835 Energy Drive, Clarington, Ontario. The DYEC is an energy from waste facility (EFW) that manages post-diversion municipal solid waste from Durham Region and York Region. Commercial operation of the DYEC commenced on February 1, 2016. The site location is shown below in **Figure 1**.

Condition 11 of the Environmental Assessment Notice of Approval and Condition 7(4) of the Environmental Compliance Approval (ECA) requires ambient air monitoring to be undertaken by the DYEC. An Ambient Air Monitoring and Reporting Plan was prepared and approved by the Ministry of Environment, Conservation and Parks (MECP) to satisfy these conditions. Two (2) monitoring stations were established to monitor ambient air quality around the DYEC and quantify the background ambient air quality levels and DYEC contributed emissions to ambient air quality levels.

This monitoring plan was developed based on the Regional Council mandate to provide ambient monitoring in the area of the DYEC. The purposes of the ambient monitoring program are to:

- Quantify any measurable ground level concentrations resulting from emissions from the DYEC cumulative to local air quality, including validating the predicted concentrations from the dispersion modelling conducted in the Environmental Assessment (2009a);
- Monitor concentration levels of EFW-related air contaminants in nearby residential areas; and,
- Quantify background ambient levels of air contaminants in the area.

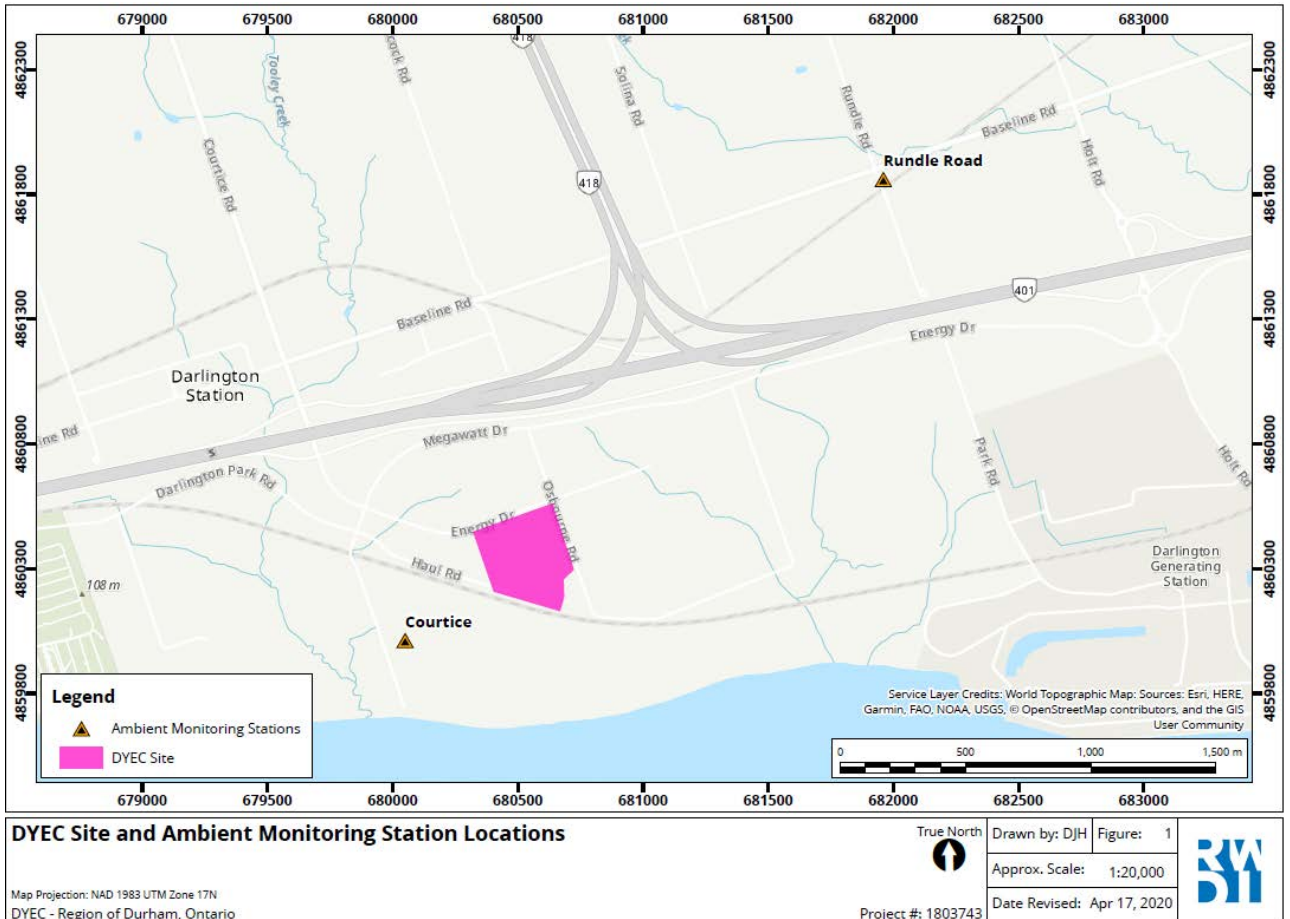
The facility has two (2) monitoring stations which collect continuous and discrete ambient measurements, known as the Courtice station and Rundle Road station. The station locations are shown in **Figure 1**. The Courtice and Rundle Road stations were operational in May of 2013 and have been operated on behalf of the Region of Durham by Stantec Consulting Ltd. since that time up until July 31, 2018. RWDI has overseen the operation of the stations on behalf of the Region of Durham since August 1, 2018.

The Courtice and Rundle Road stations continuously monitor the following air quality parameters: Particulate Matter less than 2.5 microns (PM_{2.5}), Nitrogen Oxides (NO_x) and Sulfur Dioxide (SO₂). In addition, both discretely monitor the following air quality parameters: Total Suspended Particulate (TSP), Metals, Dioxins and Furans (D&F) and Polycyclic Aromatic Hydrocarbons (PAHs).

Continuous meteorological data is collected at the Courtice and Rundle Road stations. The Rundle Road station collects the following meteorological parameters: wind speed, wind direction, ambient temperature, precipitation and relative humidity. The Courtice station collects the following meteorological parameters: wind speed, wind direction, ambient temperature, ambient pressure, precipitation and relative humidity. The meteorological towers at both stations are approximately 10 meters tall.

Throughout this monitoring period there were three (3) exceedance events of the rolling 10-minute SO₂ AAQC and two (2) exceedance events of the rolling 1-hour SO₂ AAQC at the Courtice station. Additionally, at the Courtice station, there was one (1) Benzo(a)Pyrene (BaP) exceedance of the 24-hour BaP AAQC and two (2) exceedances of the 24-hour BaP AAQC at the Rundle station. Data recovery rates were acceptable and valid for all measured Q1 continuous and discreet parameters.

Figure 1: DYECC Site and Ambient Monitoring Station Locations



1.1 Sampling Locations

The station sites were selected in consultation with a working group that included representatives from the MECP, the Region of Durham, York Region, and the Energy from Waste Advisory Committee (EFWAC), as required by Condition 11.3 of the Environmental Assessment Notice of Approval. The Courtice station is predominantly upwind of the DYECC and is located on the Courtice WPCP property just southwest of the DYECC. The Rundle Road station is predominantly downwind of the DYECC and is located just southeast of the intersection of Baseline Road and Rundle Road just northeast of the DYECC. Pictures of the two (2) stations are presented as **Figure 2** and **3**.

Figure 2: Rundle Road Station



Figure 3: Courtice Station



2 SAMPLING METHODOLOGY

The Rundle Road and Courtice stations are both equipped with the following continuous monitors: Thermo Scientific Model 5030 SHARP (Synchronized Hybrid Ambient Real-time Particulate) monitor (PM_{2.5} analyzer), Teledyne Nitrogen Oxides Analyzer Model T200 (NO_x analyzer), and a Teledyne Sulfur Dioxide Analyzer Model T100 (SO₂ analyzer). Both stations also have the following periodic monitors: High Volume (Hi-Vol) Air Sampler outfitted with a TSP inlet head as approved by the United States Environmental Protection Agency (U.S. EPA), and a Hi-Vol Air Sampler outfitted with a polyurethane foam plug and circular quartz filter for measuring PAH's and D&F's as approved by U.S. EPA.

2.1 Nitrogen Oxide Analyzers

The Teledyne T200 Nitrogen Oxide (NO_x) analyzers use chemiluminescence detection, coupled with microprocessor technology to provide sensitivity and stability for ambient air quality applications. The instrument determines real-time concentration of nitric oxide (NO), total nitrogen oxides (NO_x) (the sum of NO and NO₂), and nitrogen dioxide (NO₂). The amount of NO is measured by detecting the chemiluminescence reaction that occurs in the reaction cell when NO molecules are exposed to ozone (O₃). The NO and O₃ molecules collide in the reaction cell and enter a higher energy state.

When these excited molecules return to a stable energy state, they emit a photon of light which is proportional to the amount of NO in the sample stream of gas entering the analyzer.

To determine the total NO_x (NO+NO₂) measurement, sample gas is periodically bypassed through a heated molybdenum converter cartridge that converts any NO₂ molecules in the sample stream into NO (any existing NO molecules in the stream remain as is). The instrument will switch the sample stream through the converter periodically and then through the reaction cell where the same chemiluminescence reaction occurs with ozone.

The resultant response produced is now the sum of NO and converted NO₂ producing a NO_x measurement. The resultant NO₂ determination is the NO_x measurement subtracted from the NO measurement.

The NO_x analyzers were zero and span checked daily using the internal zero and span (IZS) system and calibrated once a month using either EPA protocol span gases and a dilution system or an ESA permeation tube calibrator. Automatic IZS checks were performed on a daily basis commencing at approximately 01:45 and ending at 02:15. The checks consisted of a 10-minute zero check, a 10-minute span check and a 10-minute purge. These checks provide a way to monitor daily performance of the analyzer using an external charcoal and purafil zeroing cartridge for the zero, and an internal permeation oven with a permeation tube for the span. These IZS checks are not for calibration purposes but are merely a diagnostic tool to identify instrument drift.

The instrument collects data using its own data acquisition system (DAS) on a 5-minute interval. Data is collected from the instrument directly to an EnviDAS logger at 1-min, 5-min and 60-min intervals. The logger can be accessed remotely, and all instrument parameters can be examined as well as the measurement data. This allows the tracking of instrument performance. Data was also collected at 1-minute intervals by an external datalogger using analog output connections as a back-up. The measurement data was averaged using Envista processing software over a 1-hour and 24-hour period to compare to the applicable ambient air quality criteria.

2.2 Sulphur Dioxide Analyzers

The Teledyne T100 Sulphur Dioxide (SO₂) Analyzer is a microprocessor-controlled analyzer that determines the concentration of SO₂ in a sample gas drawn through the instrument. In the sample chamber, sample gas is excited by ultraviolet light causing the SO₂ to absorb energy from the light and move to an active state (SO₂*). These active SO₂* molecules must decay into a stable state back to SO₂, and when this happens a photon of light is released which is recognized by the instrument as fluorescence. The instrument measures the amount of fluorescence to determine the amount of SO₂ present in the sample gas.

The SO₂ analyzers were zero and span checked daily using the IZS system and calibrated once a month using either EPA protocol span gases and a dilution system or an ESA permeation tube calibrator. Automatic IZS checks were performed on a daily basis commencing at approximately 01:45 and ending at 02:15. The checks consisted of a 10-minute zero check, a 10-minute span check and a 10-minute purge. These checks provide a way to monitor daily performance of the analyzer using an external charcoal and purafil zeroing cartridge for the zero, and an internal permeation oven with a permeation tube for the span. These IZS checks are not for calibration purposes but are merely a diagnostic tool to identify instrument drift.

The instrument collects data using its own data acquisition system (DAS) on a 5-minute interval. Data is collected from the instrument directly to an EnviDAS logger at 1-min, 5-min and 60-min intervals. The logger can be accessed remotely, and all instrument parameters can be examined as well as the measurement data. This allows the tracking of instrument performance. Data was also collected at 1-minute intervals by an external datalogger using analog output connections as a back-up. The measurement data was averaged using Envista processing software over a 1-hour and 24-hour period to compare to the applicable ambient air quality criteria.

2.3 SHARP 5030 PM_{2.5} Analyzers

The SHARP 5030 is a hybrid nephelometric/radiometric particulate mass monitor capable of providing precise, real-time measurements with a superior detection limit. The SHARP incorporates a high sensitivity light scattering photometer whose output signal is continuously referenced to the time-averaged measurement of an integral beta attenuating mass sensor. The SHARP also incorporates a dynamic inlet heating system designed to maintain the relative humidity of the air passing through the filter tape constant.

The SHARP is calibrated once a month to ensure accuracy and validity of its data. The PM_{2.5} inlet head and sharp cut cyclone is cleaned monthly as well to ensure proper performance. The monthly calibration process consists of the following: zeroing the nephelometer if necessary, calibration of ambient temperature, calibration of barometric pressure, and calibration of the flow.

The instrument collects data using its own data acquisition system (DAS) on a 5-minute interval. Data is collected from the instrument directly to an EnviDAS logger at 1-min, 5-min and 60-min intervals. The logger can be accessed remotely, and all instrument parameters can be examined as well as the measurement data. This allows the tracking of instrument performance. Data was also collected at 1-minute intervals by an external datalogger using analog output connections as a back-up. The measurement data was averaged using Envista processing software over a 1-hour and 24-hour period to compare to the applicable ambient air quality criteria.

2.4 TSP High Volume Air Samplers

The Tisch TE-5170 Total Suspended Particulate (TSP) high volume (Hi-Vol) air samplers were outfitted with a TSP gabled inlet capable of collecting particulate of all aerodynamic diameters. Each Hi-Vol is equipped with a mass flow controller, which ensures a flow rate of 40 cubic feet per minute (CFM), a chart recorder for measuring cfm flow throughout the run time, an elapsed timer and a wheel timer for starting and stopping each sample. In the latter part of 2019, the pin-based wheel timer was modified with an automated relay system controlled by a data logger to toggle the sampler on and off, and the chart recorder system was replaced by a digital pressure transducer to record the blower output pressure. Teflon coated glass fibre filters are outfitted at the top of the hi-vol samplers where air is drawn through the filter, thereby collecting TSP. Each Hi-Vol is calibrated quarterly (every three months) to ensure accuracy and validity of the volume of air drawn through the sampler.

The Teflon coated glass fibre filter media was pre and post weighed by ALS Laboratories in Burlington, Ontario. The filters are then analyzed for total particulate weight, metals analysis and mercury.

2.5 Polyurethane Foam Samplers

The D&F, and PAH samples were collected using Tisch TE-1000 samplers, which are listed as reference devices for U.S. EPA Methods TO-9 and TO-13. The samplers use a collection filter that is 'backed-up' by a polyurethane foam (PUF) plug. The airborne compounds present in the particulate phase are collected on the Teflon coated glass fibre filter and any compounds present in the vapour phase are absorbed in the PUF plug. Each PUF sampler is equipped with a mass flow controller, which can sustain 8 CFM of flow over the sampling period, an elapsed timer and a wheel timer for starting and stopping each sample.

In the latter part of 2019, the pin-based wheel timer was modified with an automated relay system controlled by a data logger to toggle the sampler on and off, and the chart recorder system was replaced by a digital pressure transducer to record the blower output pressure. Each PUF sampler is calibrated quarterly (every three months) to ensure accuracy and validity of the volume of air drawn through the sampler.

The filter and PUF media/glassware is proofed and analyzed by ALS Laboratories in Burlington, Ontario. The filters and PUF/XAD plugs are then analyzed for PAH's and D&F's.

2.6 Meteorological Towers

Meteorological data was collected from the Rundle Road and Courtice stations. This is done so that a vector could be associated with the applicable contaminant concentrations. The Rundle Road and Courtice stations are outfitted with a Campbell Scientific HMP60 Temperature / Relative Humidity probe, and a Texas Instruments TE525M rain gauge. Meteorological data was collected at 1-minute intervals and was averaged using Envista processing software over a 1-hour period.

3 AIR QUALITY CRITERIA AND STANDARDS

The monitored contaminant concentrations were compared to air quality criteria and standards set by the MECP and by Environment Canada. The MECP developed Ambient Air Quality Criteria (AAQCs) which are the maximum desirable concentrations in the outdoor air, based on effects to the environment and health (MECP, 2012). Not all contaminants have an applicable regulatory limit; therefore, other criteria were used for comparison. These included human health risk assessment (HHRA) criteria.

Environment Canada has established a Canadian Ambient Air Quality Standard (CAAQS) which are health-based air quality objectives for the outdoor air (Environment Canada, 2013). The current CAAQS' for PM_{2.5} are 27 µg/m³ for the 3-year average of annual 98th percentile 24-hour concentration, and 8.8 µg/m³ for the 3-year average of annual average concentrations (in effect as of 2020). The CAAQS' are listed in **Table 1**. No direct comparison to the 2020 CAAQS' is appropriate for this report, as the standards are only applicable to 3-year averaged data which is provided in the annual reports.

Table 1: PM_{2.5}, SO₂ and NO₂ CAAQS' by Implementation Year

Parameter	Averaging Time	Year Applied		Statistical Form
		2020	2025	
Fine Particulate Matter (PM _{2.5})	24-hour	27 µg/m ³	-	The 3-year average of the annual 98 th percentile of the daily 24-hour average concentrations
	Annual	8.8 µg/m ³	-	The 3-year average of the annual average of all 1-hour concentrations
Sulphur Dioxide (SO ₂)	1-hour	70 ppb	65 ppb	The 3-year average of the annual 99 th percentile of the SO ₂ daily maximum 1-hour average concentrations
	Annual	5 ppb	4 ppb	The average over a single calendar year of all 1-hour average SO ₂ concentrations
Nitrogen Dioxide (NO ₂)	1-hour	60 ppb	42 ppb	The 3-year average of the annual 98 th percentile of the daily maximum 1-hour average concentrations
	Annual	17 ppb	12 ppb	The average over a single calendar year of all 1-hour average concentrations

(CCME,2019)

All applicable criteria and standards are shown in the 'Summary of Ambient Measurements' section of this report.

4 MECP AUDITS

In Q1, there was a MECP audit conducted on March 17, 2026. All instruments met their respective audit criteria.

5 SUMMARY OF AMBIENT MEASUREMENTS

Ambient air quality monitoring results for all contaminants sampled at the Courtice and Rundle Road stations are discussed herein. Summary statistics from January to March 2026 are presented in a summary format below and in a more detailed matrix format in **Appendix A** for continuous measurements and **Appendix B** for discrete measurements.

5.1 Meteorological Station Results

5.1.1 Courtice Station Results

The Courtice station collected the following meteorological parameters: wind speed, wind direction, relative humidity, ambient temperature, ambient pressure, and precipitation. The meteorological tower at the station is at a height of approximately 10 meters tall. The Courtice station maintained 100% of data collection for all the parameters measured during Q1.

Hourly statistics from the meteorological station are presented in **Table 2**. A wind rose showing trends in wind speed and wind direction during Q1 is provided in **Figure 4**. A wind direction cut-off was applied for wind speeds less than or equal to 1.8 kph for the wind rose.

Figure 4: Wind Roses of Hourly Wind Speed and Wind Direction – January to March 2026

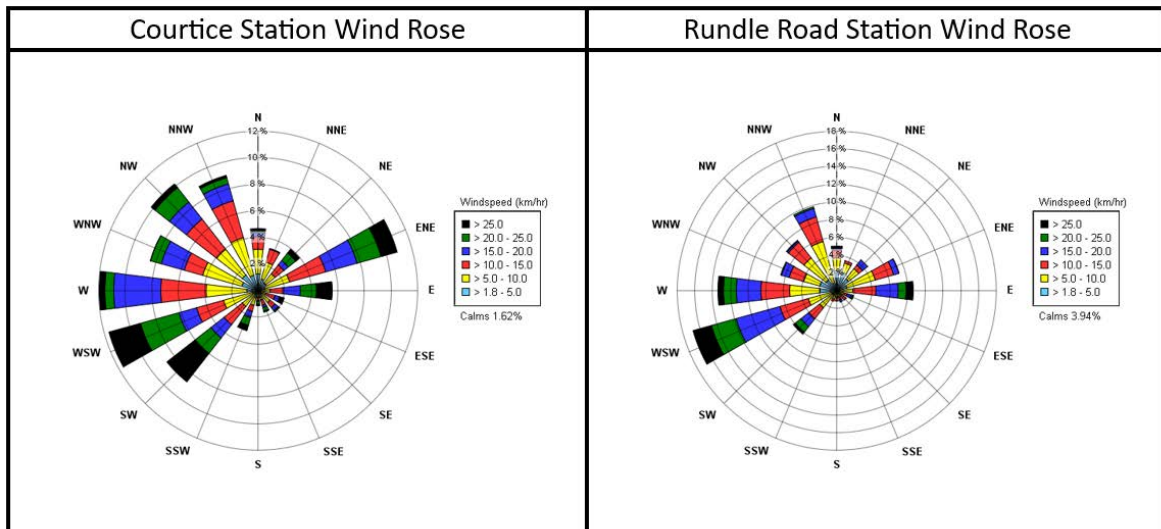


Table 2: Hourly Statistics from the Courtice Meteorological Station

Courtice Station MET Statistics	Maximum 1 hr. Mean					Minimum 1 hr. Mean					Monthly Mean					Total	% Valid hours						
	Parameter	WS	Temp	RH	Pres	Rain	WS	Temp	RH	Pres	Rain	WS	Temp	RH	Pres		Rain	Rain	WS	WD	Temp	RH	Pres
Units	(km/hr.)	(°C)	(%)	"Hg	mm	(km/hr.)	(°C)	(%)	"Hg	mm	(km/hr.)	(°C)	(%)	"Hg	mm	mm	(%)						
January	41.9	9.6	100.0	30.4	3.8	0.5	-22.5	31.6	29.1	0.0	16.2	-5.5	71.5	29.7	0.0	26.2	100.0	100.0	100.0	100.0	100.0	100.0	100.0
February	37.6	5.4	100.0	30.2	1.8	0.1	-22.0	33.9	29.1	0.0	12.9	-4.2	73.0	29.7	0.0	21.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0
March	43.6	16.1	100.0	30.4	9.1	0.6	-15.9	31.8	29.0	0.0	12.9	1.5	73.1	29.7	0.1	93.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Q1 Arithmetic Mean											14.0	-2.7	72.5	29.7	0.1	141.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0

5.1.2 Rundle Road Station Results

The Rundle Road station collected the following meteorological parameters: wind speed, wind direction, relative humidity, ambient temperature, and precipitation. The meteorological tower at the station is at a height of approximately 10 meters tall. The Rundle Road station maintained 100% data collection for all the meteorological parameters during Q1. Hourly statistics from the meteorological station is presented in **Table 3**. A wind rose showing trends in wind speed and wind direction during Q1 is provided in **Figure 4**. A wind direction cut-off was applied for wind speeds less than or equal to 1.8 kph for the wind rose.

Table 3: Hourly Statistics from the Rundle Road Meteorological Station

Rundle Road Station MET Statistics	Maximum 1 hr. Mean				Minimum 1 hr. Mean				Monthly Mean				Total	% Valid Hours					
	Parameter	WS	Temp	RH	Rain	WS	Temp	RH	Rain	WS	Temp	RH		Rain	Rain	WS	WD	Temp	RH
Units	(km/hr.)	(°C)	(%)	mm	(km/hr.)	(°C)	(%)	mm	(km/hr.)	(°C)	(%)	mm	mm	mm	(%)				
January	33.5	9.5	100.0	6.4	1.1	-25.3	39.6	0.0	12.9	-6.5	75.4	0.0	33.3	100.0	100.0	100.0	100.0	100.0	100.0
February	28.2	5.3	100.0	2.5	0.1	-23.2	37.6	0.0	9.7	-5.2	76.3	0.0	23.5	100.0	100.0	100.0	100.0	100.0	100.0
March	31.8	17.6	100.0	8.0	0.1	-18.5	37.2	0.0	10.5	0.8	75.7	0.1	103.8	99.9	99.9	99.9	99.9	99.9	99.9
Q1 Arithmetic Mean									11.1	-3.6	75.8	0.1	160.6	100.0	100.0	100.0	100.0	100.0	100.0

5.2 NO_x, SO₂ and PM_{2.5} Summary Table Results

Table 4 provides a summary of Maximum 1-hour Rolling Means, Maximum 24-hour Rolling Means, Monthly Means, Quarterly Means and Percent valid data for the Courtice station. **Table 5** provides a summary of Maximum 1-hour Means, Maximum 24-hour Means, Monthly Means, Quarterly Means and Percent valid data for the Rundle Road station. **Table 6** provides a summary of exceedance statistics for both Courtice and Rundle Road stations. At the Courtice station, there were three (3) exceedance events of the rolling 10-minute SO₂ AAQC and two (2) exceedance events of the 1-hour SO₂ AAQC in Q1. At the Rundle Road station, there were no exceedance events of the rolling 10-minute SO₂ AAQC or the 1-hour SO₂ AAQC in Q1.

Table 4: Summary of Courtice Station Continuous Data Statistics

Courtice Monitoring Station Data Statistics	Maximum Rolling 10 min Mean	Maximum Rolling 1 hr Mean					Maximum 24 hr Rolling Mean					Monthly Mean					% Valid Hours					
Compound	SO ₂	PM _{2.5}	NO _x	NO	NO ₂	SO ₂	PM _{2.5}	NO _x	NO	NO ₂	SO ₂	PM _{2.5}	NO _x	NO	NO ₂	SO ₂	PM _{2.5}	NO _x	NO	NO ₂	SO ₂	
Units	ppb	(µg/m ³)	ppb				(µg/m ³)	ppb				(µg/m ³)	ppb				(%)					
AAQC/CAAQS	67				200	40	27 ^A			100												
January	73.5	21.0	52.5	19.6	41.7	53.7	15.5	17.1	2.5	14.8	8.1	5.5	6.9	1.2	5.7	1.3	99.9	99.7	99.7	99.7	99.7	
February	45.6	44.0	82.2	38.8	44.9	30.2	28.9	21.7	5.0	17.0	8.8	7.7	8.5	1.7	6.8	2.1	99.6	99.6	99.6	99.6	99.7	
March	47.6	39.3	75.7	45.9	40.3	34.0	25.9	42.2	16.9	25.4	9.8	6.3	8.1	1.9	6.3	1.7	99.5	99.6	99.6	99.6	99.4	
Q1 Arithmetic Mean												6.5	7.8	1.6	6.3	1.7	99.6	99.6	99.6	99.6	99.6	

^A The 24-hour PM_{2.5} CAAQS applies to the 98th percentile over 3 consecutive years.

Table 5: Summary of Rundle Road Station Continuous Data Statistics

Rundle Road Monitoring Station Data Statistics	Maximum Rolling 10 min Mean	Maximum Rolling 1 hr Mean					Maximum 24 hr Rolling Mean					Monthly Mean					% Valid Hours					
Compound	SO ₂	PM _{2.5}	NO _x	NO	NO ₂	SO ₂	PM _{2.5}	NO _x	NO	NO ₂	SO ₂	PM _{2.5}	NO _x	NO	NO ₂	SO ₂	PM _{2.5}	NO _x	NO	NO ₂	SO ₂	
Units	ppb	(µg/m ³)	ppb				(µg/m ³)	ppb				(µg/m ³)	ppb				(%)					
AAQC/CAAQS	67				200	40	27 ^A			100												
January	1.7	22.6	37.1	18.4	28.7	1.3	16.6	18.0	3.8	14.6	0.9	6.1	6.8	1.1	5.8	0.5	99.9	99.7	99.7	99.7	99.7	
February	2.6	49.9	49.9	19.7	31.6	2.1	30.3	17.7	4.2	14.1	1.1	8.4	6.4	1.3	5.1	0.5	99.9	99.6	99.6	99.6	99.7	
March	2.8	45.4	61.2	29.5	38.0	2.4	26.1	28.7	9.2	19.5	1.1	6.4	6.3	1.5	4.8	0.5	99.5	99.3	99.3	99.3	99.2	
Q1 Arithmetic Mean												7.0	6.5	1.3	5.2	0.5	99.7	99.5	99.5	99.5	99.5	

^A The 24-hour PM_{2.5} CAAQS applies to the 98th percentile over 3 consecutive years.

Table 6: Summary of Exceedance Statistics

Event Statistics	Rolling Mean > 10 min AAQC for Courtice	Rolling Mean > 10 min AAQC for Rundle Road	Mean > 1 hr AAQC for Courtice Monitoring Station			Mean > 1 hr AAQC for Rundle Road Monitoring Station			Rolling Mean > 24 hr AAQC for Courtice Monitoring Station			Rolling Mean > 24 hr AAQC for Rundle Road Monitoring Station		
Compound	SO ₂	SO ₂	PM _{2.5}	NO ₂	SO ₂	PM _{2.5}	NO ₂	SO ₂	PM _{2.5}	NO ₂	SO ₂	PM _{2.5}	NO ₂	SO ₂
Units	No.	No.	No.			No.			No.			No.		
January	3	0		0	2		0	0	N/A	0		N/A	0	
February	0	0		0	0		0	0	N/A	0		N/A	0	
March	0	0		0	0		0	0	N/A	0		N/A	0	
Q1 Total	3	0		0	2		0	0	N/A	0		N/A	0	

5.3 Oxides of Nitrogen Results

5.3.1 Courtice Station Results

Data recovery levels were high for oxides of nitrogen (99.6% valid data). Monitoring results were compared to the AAQC for NO₂ only, as it is the only parameter that has AAQC values for 1-hour and 24-hour averaging periods (there are no AAQC's for NO or NO_x). There were no exceedances above the AAQC values for the entirety of the sampling period for rolling 1-hour and 24-hour averaged data. The highest NO₂ value seen among the 1-hour rolling averages was 44.9 ppb, which is 22.5% of the AAQC. The highest NO₂ value seen among the rolling 24-hour averages was 25.4 ppb, which is 25.4% of the AAQC. The measurements are summarized in **Table 4** above. A pollution rose is presented in **Figure 5** for the Courtice station during Q1 composed of hourly average NO₂ concentrations. A pollution rose indicates the percentage of time that the wind originates from a given direction coupled with the pollutant measurement for that time in either ppb or micrograms per meter cubed. In order to show where possible major sources of pollutants are coming from, levels below 5 ppb were omitted from the graphic wind rose representation.

The Courtice station pollution rose in **Figure 5** shows the NO₂ impacts are primarily from the west and east-northeast directions, with minor impacts from the west-southwest, west-northwest to northeast and east directions. The larger impacts are likely from surrounding industries from those directions. The station is downwind of the DYEC when winds are from the northeast and east-northeast directions. Northeastern and east-northeastern winds were observed periodically during the monitoring period, suggesting that the DYEC likely contributed to the observed concentrations from those directions. The smaller impact directions indicate reception from surrounding industry, highway and railway corridors.

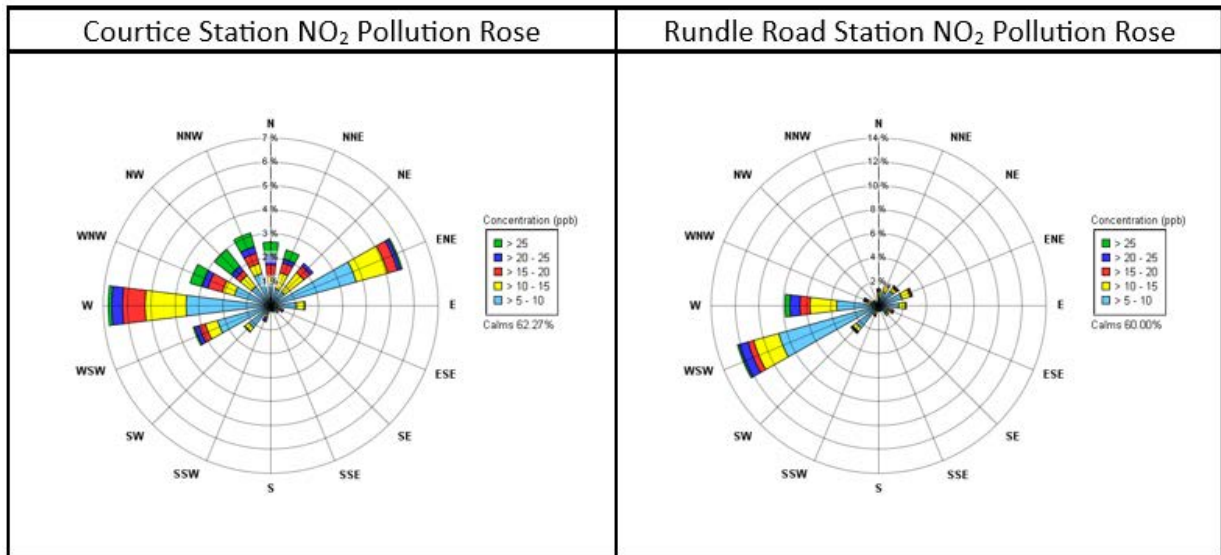
5.3.2 Rundle Road Station Results

Data recovery levels were high for oxides of nitrogen (99.5% valid data). There were no exceedances above the AAQC values for the entirety of the sampling period for rolling 1-hour and 24-hour averaged data. The highest NO₂ value seen among the 1-hour rolling averages was 38.0 ppb, which is 19.0% of the AAQC. The highest NO₂ value seen among the rolling 24-hour averages was 19.5 ppb, which is 19.5% of the AAQC. The measurements are summarized in **Table 5** above.

A pollution rose is presented in **Figure 5** for the Rundle Road station during Q1 composed of hourly average NO₂ concentrations. In order to show where possible major sources of pollutants are coming from, levels below 5 ppb were omitted from the graphic wind rose representation.

The Rundle Road station pollution rose in **Figure 5** shows that the NO₂ impacts are primarily from the west-southwest and west directions. The station is downwind of the DYEC when winds are from the southwest and west-southwest directions. These conditions occurred periodically during the monitoring period, indicating that the DYEC likely contributed to measured concentrations from those wind directions. The additional minor impacts from the other directions indicate likely reception from surrounding industry, highway and railway corridors.

Figure 5: Pollution Roses of Hourly Average NO₂ Concentrations – January to March 2026



5.4 Sulphur Dioxide Results

5.4.1 Courtice Station Results

Data recovery levels were high for sulphur dioxide (99.6% valid data). Monitoring results were compared to the AAQC for 10-minute and 1-hour rolling average periods. In Q1 of 2026, the highest SO₂ value seen among the 10-min rolling averages was 73.5 ppb, which is 109.7% of the AAQC. The highest SO₂ value seen among the 1-hour rolling averages was 53.7 ppb, which is 134.3% of the AAQC. There were three (3) exceedance events of the rolling 10-minute SO₂ AAQC and two (2) exceedance events of the 1-hour SO₂ AAQC in Q1. A table outlining the interpretation of the exceedance period can be found in **Appendix E**.

The SO₂ statistical results are summarized in **Table 4** above. A pollution rose is presented in **Figure 6** for the Courtice station during Q1 composed of hourly average SO₂ concentrations. In order to show where possible major sources of pollutants are coming from, levels below 5 ppb were omitted from the graphic wind rose representation. A pollution rose is presented in **Figure 7** for the Courtice station during Q1 composed of 5-minute average SO₂ concentrations with levels below 67 ppb omitted to illustrate directionality of exceedance concentrations.

The Courtice station pollution rose in **Figure 6** shows that the majority of elevated SO₂ events at Courtice occurred from the north to north-northeast directions. The events were likely a result of emissions from surrounding industrial sources when winds are from the north and north-northeast directions. When winds from the northeast place the Courtice station downwind of the facility, the data suggests the DYEC likely contributed to the measured concentrations during those periods.

The Courtice station pollution rose in **Figure 7** shows that <0.04% of the 5-min SO₂ events are elevated >67 ppb and occurred from the north-northeast direction which suggest reception levels may be related to other industrial activity nearby since the Courtice station is downwind from the DYEC under northeast and east-northeast winds.

A Technical Memorandum summarizing the DYEC SO₂ continuous emissions monitoring system (CEMS) data during the exceedance events recorded at the Courtice Ambient Monitoring stations for Q1, is included in **Appendix F**. The Memorandum indicates that based on the in-stack concentration levels measured by the CEMS, that there were no unusual levels of SO₂ emissions during the ambient station exceedance events and that the facility's impact on ambient air quality would be expected to be quite low.

5.4.2 Rundle Road Station Results

Data recovery levels were high for sulphur dioxide (99.5% valid data). Monitoring results were compared to the AAQC for 10-minute and 1-hour rolling average periods. The highest SO₂ value seen among the 10-min rolling averages was 2.8 ppb, which is 4.2% of the AAQC. The highest SO₂ value seen among the 1-hour rolling averages was 2.4 ppb, which is 6.0% of the AAQC.

The SO₂ statistical results are summarized in **Table 5** above. A pollution rose is presented in **Figure 6** for the Rundle Road station during Q1 composed of hourly average SO₂ concentrations. In order to show where possible major sources of pollutants are coming from, levels below 5 ppb were omitted from the graphic wind rose representation. A pollution rose is presented in **Figure 7** for the Rundle Road station during Q1 composed of 5-minute average SO₂ concentrations with levels below 67 ppb omitted to illustrate directionality of exceedance concentrations.

The Rundle Road station pollution rose in **Figure 6** shows that there are no elevated SO₂ events.

The Rundle Road station pollution rose in **Figure 7** shows that there were no 5-min SO₂ events that are elevated >67 ppb.

Figure 6: Pollution Roses of Hourly Average SO₂ Concentrations – January to March 2026

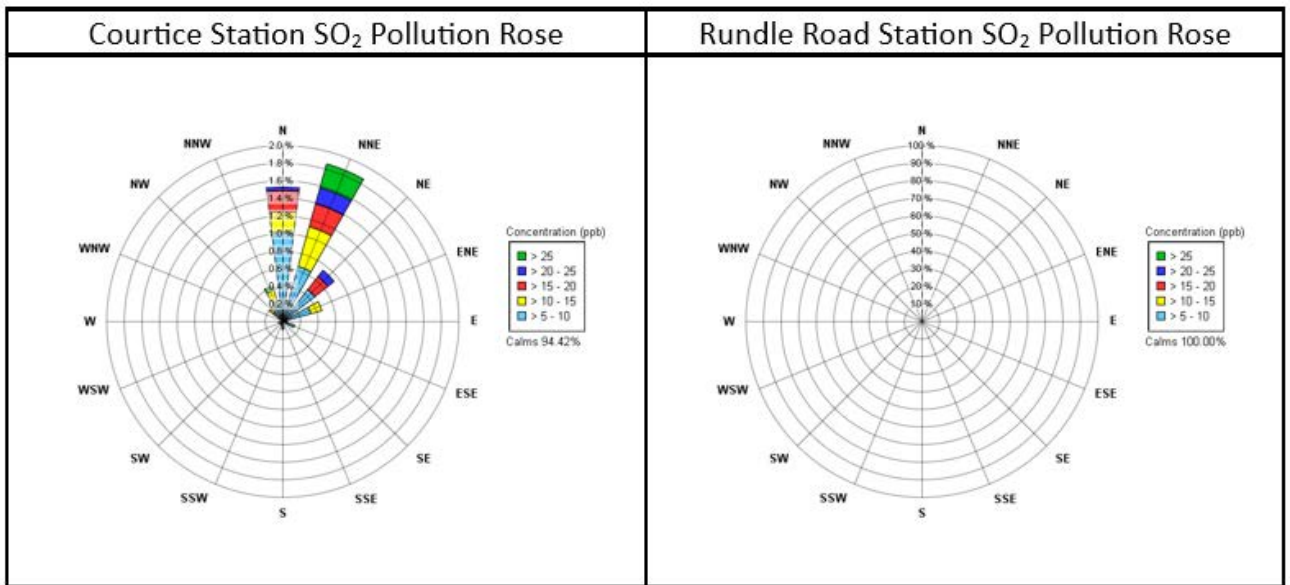
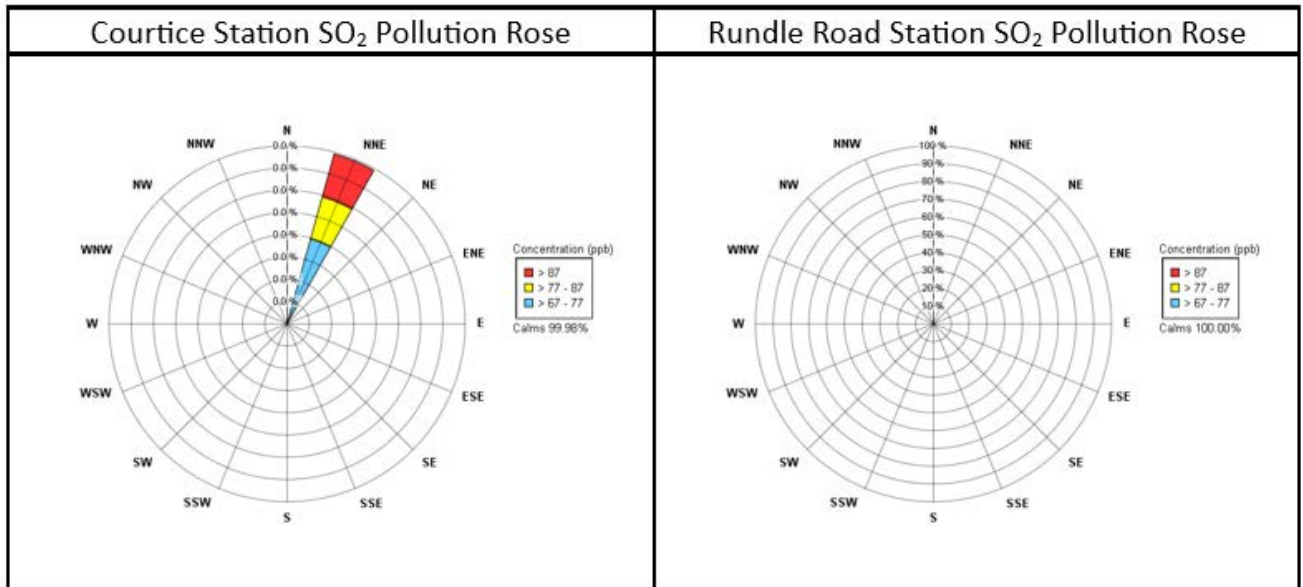


Figure 7: Pollution Roses of 5-minute Average SO₂ Concentrations >67 ppb – January to March 2026



5.5 Fine Particulate Matter (PM_{2.5}) Results

5.5.1 Courtice Station Results

Data recovery levels were high for particulate matter less than 2.5 microns (99.6% valid data). There is no 1-hour AAQC or standard for PM_{2.5}, but there is a 24-hour CAAQS of 27 µg/m³ for the 3-year average of the annual 98th percentile 24-hour concentrations, and 8.8 µg/m³ for the 3-year average of the annual average concentrations (in effect as of 2020). Note that since the reported data is only quarterly and the CAAQS is applicable to the 3-year average, the CAAQS' for PM_{2.5} was not applicable to the data. The highest PM_{2.5} value seen among the 1-hour rolling averages was 44.0 µg/m³ and the highest value seen among the 24-hour rolling averages was 28.9 µg/m³. The results are summarized in **Table 4** above. A pollution rose is presented in **Figure 8** for the Courtice station during Q1 composed of hourly average PM_{2.5} concentrations. In order to show where possible major sources of pollutants are coming from, levels below 5 µg/m³ were omitted from the graphic wind rose representation.

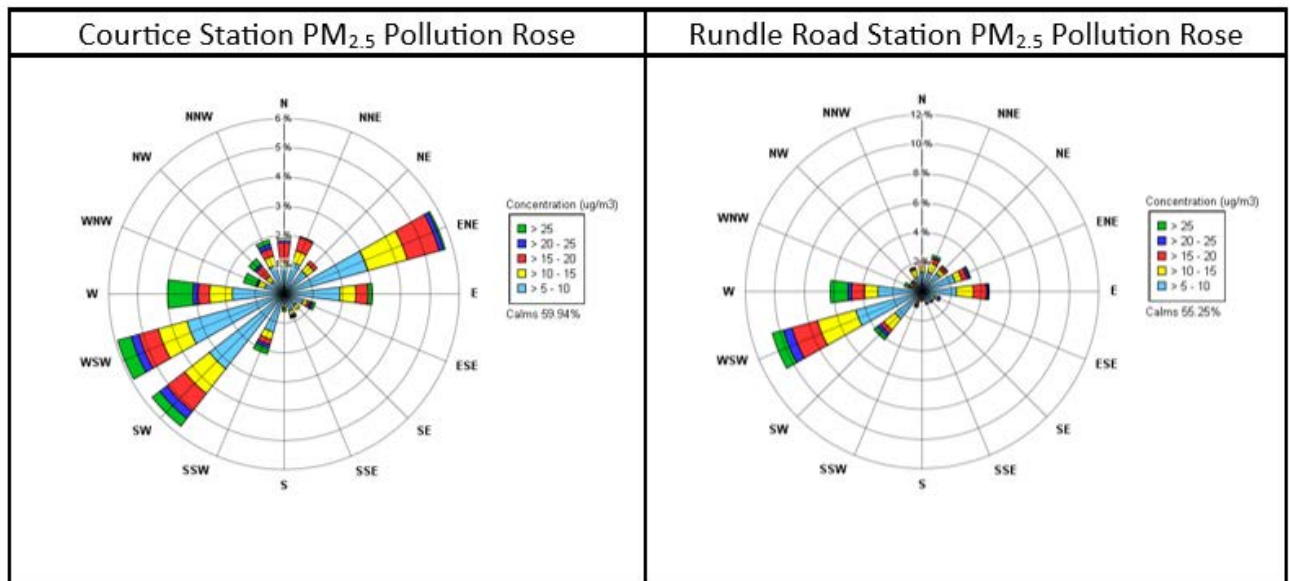
The Courtice station pollution rose in **Figure 8** shows that the primary elevated PM_{2.5} events at Courtice occurred when winds were from the southwest to west and east-northeast directions. Minor contributions resonated from the south-southwest, west-northwest to northeast and east directions. The northeast and east-northeast direction places the station downwind of the DYEC occasionally which may contribute to concentrations from these directions. Other contributions are in line with nearby industrial activity.

5.5.2 Rundle Road Station Results

Data recovery levels were high for particulate matter less than 2.5 microns (99.7% valid data). The highest PM_{2.5} value seen among the 1-hour rolling averages was 49.9 µg/m³ and the highest value seen among the 24-hour rolling averages was 30.3 µg/m³. The results are summarized in **Table 5** above. A pollution rose is presented in **Figure 8** for the Rundle Road station during Q1 composed of hourly average PM_{2.5} concentrations. In order to show where possible major sources of pollutants are coming from, levels below 5 µg/m³ were omitted from the graphic wind rose representation.

The Rundle Road pollution rose in **Figure 8** shows that the primary elevated PM_{2.5} events at the Rundle Road station occurred when winds were from the west-southwest and west direction during the monitoring period. Minor contributions resonated from the east-northeast and east directions. The southwest and west-southwest directions place the DYEC downwind of the station and the DYEC may have contributed to the observed concentrations from these directions. Other possible contributions include surrounding industry, nearby high traffic areas and urban background.

Figure 8: Pollution Roses of Hourly Average PM_{2.5} Concentrations – January to March 2026



5.6 TSP and Metals Hi-Vol Results

All of the TSP Hi-Vols operated on a discrete schedule every 6 days according to the NAPS schedule during Q1 with the sample days being: January 2, 8, 14, 20, 26, February 1, 7, 13, 19, 25, March 3, 9, 15, 21 and 27.

The January 26 sample results for both sites excluded the analysis of Phosphorus and Zirconium due to a lab analysis issue. It is noted that the concentrations for both compounds for the sample days before (January 20) and after (February 1) January 26 contained non-detectable results as well as all of Q1.

5.6.1 Courtice Station Results

Data recovery levels were high for the TSP sampler at the Courtice station (100% valid data). There were no exceedances of any of the AAQC's Criteria for TSP, mercury, or metals during Q1. **Table 7** is a summary of the statistics for this station.

Table 7: Summary of TSP Sampler Courtice Station

Contaminant	Units	MECP Criteria	No. > Criteria	Geometric Mean	Arithmetic Mean	Q1 Minimum Concentration	Q1 Maximum Concentration	January Maximum Concentration	February Maximum Concentration	March Maximum Concentration	Number of Valid Samples	% Valid data
Particulate (TSP)	µg/m ³	120	0	15.5	16.8	7.96	40.91	22.45	18.09	40.91	15	100
Aluminum (Al)	µg/m ³	-	-	8.12E-02	1.02E-01	3.07E-02	2.87E-01	1.04E-01	1.88E-01	2.87E-01	15	100
Antimony (Sb)	µg/m ³	25	0	8.49E-04	1.20E-03	2.25E-04	4.50E-03	1.58E-03	2.99E-03	4.50E-03	15	100
Arsenic (As)	µg/m ³	0.3	0	7.72E-04	8.29E-04	1.26E-04	9.09E-04	9.03E-04	8.99E-04	9.09E-04	15	100
Barium (Ba)	µg/m ³	10	0	4.88E-03	5.26E-03	2.38E-03	1.12E-02	6.91E-03	8.51E-03	1.12E-02	15	100
Beryllium (Be)	µg/m ³	0.01	0	1.63E-05	1.87E-05	1.40E-05	7.54E-05	7.54E-05	1.50E-05	1.52E-05	15	100
Bismuth (Bi)	µg/m ³	-	-	4.80E-04	5.01E-04	1.26E-04	5.46E-04	5.42E-04	5.39E-04	5.46E-04	15	100
Boron (B)	µg/m ³	120	0	4.24E-03	4.27E-03	2.51E-03	4.55E-03	4.52E-03	4.49E-03	4.55E-03	15	100
Cadmium (Cd)	µg/m ³	0.025	0	9.35E-05	1.04E-04	3.81E-05	2.15E-04	1.37E-04	1.56E-04	2.15E-04	15	100
Chromium (Cr)	µg/m ³	0.5	0	1.54E-03	1.69E-03	9.55E-04	3.01E-03	3.01E-03	1.02E-03	2.76E-03	15	100
Cobalt (Co)	µg/m ³	0.1	0	7.98E-05	8.80E-05	3.67E-05	1.97E-04	1.26E-04	1.12E-04	1.97E-04	15	100
Copper (Cu)	µg/m ³	50	0	2.20E-02	2.88E-02	5.19E-03	7.97E-02	7.17E-02	7.97E-02	2.69E-02	15	100
Iron (Fe)	µg/m ³	4	0	2.14E-01	2.37E-01	1.12E-01	6.10E-01	2.27E-01	2.95E-01	6.10E-01	15	100
Lead (Pb)	µg/m ³	0.5	0	1.81E-03	1.94E-03	7.36E-04	2.89E-03	2.82E-03	2.70E-03	2.89E-03	15	100
Magnesium (Mg)	µg/m ³	-	-	1.48E-01	1.70E-01	7.26E-02	4.34E-01	1.61E-01	1.67E-01	4.34E-01	15	100
Manganese (Mn)	µg/m ³	0.4	0	6.20E-03	7.03E-03	2.80E-03	1.49E-02	9.71E-03	8.06E-03	1.49E-02	15	100
Total Mercury (Hg)	µg/m ³	2	0	7.43E-06	1.53E-05	2.88E-06	1.26E-04	1.26E-04	2.25E-05	1.27E-05	15	100
Molybdenum (Mo)	µg/m ³	120	0	1.39E-03	1.65E-03	4.02E-04	4.07E-03	2.75E-03	4.07E-03	1.96E-03	15	100
Nickel (Ni)	µg/m ³	0.2	0	1.00E-03	1.04E-03	6.76E-04	1.73E-03	1.73E-03	1.08E-03	1.36E-03	15	100
Phosphorus (P)	µg/m ³	-	-	2.20E-01	2.20E-01	2.11E-01	2.27E-01	2.26E-01	2.25E-01	2.27E-01	14	93
Selenium (Se)	µg/m ³	10	0	4.03E-04	4.38E-04	2.51E-04	1.38E-03	3.91E-04	1.38E-03	3.94E-04	15	100
Silver (Ag)	µg/m ³	1	0	3.24E-05	4.66E-05	2.51E-05	3.03E-04	5.42E-05	2.70E-05	3.03E-04	15	100
Strontium (Sr)	µg/m ³	120	0	2.79E-03	3.75E-03	8.65E-04	1.28E-02	2.89E-03	5.24E-03	1.28E-02	15	100
Thallium (Tl)	µg/m ³	-	-	3.37E-05	4.56E-05	2.53E-05	2.15E-04	1.26E-04	2.70E-05	2.15E-04	15	100
Tin (Sn)	µg/m ³	10	0	7.41E-04	8.27E-04	3.65E-04	1.47E-03	1.47E-03	1.09E-03	1.47E-03	15	100
Titanium (Ti)	µg/m ³	120	0	4.15E-03	4.85E-03	2.07E-03	1.44E-02	3.31E-03	7.48E-03	1.44E-02	15	100
Uranium (Ur)	µg/m ³	0.3	0	9.79E-06	2.77E-05	1.68E-06	2.51E-04	2.51E-04	2.67E-05	4.99E-05	15	100
Vanadium (V)	µg/m ³	2	0	1.12E-03	1.37E-03	2.51E-05	1.52E-03	1.51E-03	1.50E-03	1.52E-03	15	100
Zinc (Zn)	µg/m ³	120	0	4.03E-02	5.20E-02	1.38E-02	1.30E-01	9.92E-02	1.30E-01	1.22E-01	15	100
Zirconium (Zr)	µg/m ³	-	-	6.18E-04	6.32E-04	5.62E-04	1.21E-03	6.02E-04	5.99E-04	1.21E-03	14	93

Note: All non-detectable results were reported as 1/2 of the detection limit
Phosphorus and Zirconium were not analyzed on January 26

5.6.1 Rundle Road Station Results

Data recovery levels were high for the TSP sampler at the Rundle Road station (100% valid data). There were no exceedances of any of the AAQC's for TSP, mercury, or metals during Q1. **Table 8** is a summary of the station statistics.

Table 8: Summary of TSP Sampler Rundle Road Station

Contaminant	Units	MECP Criteria	No. > Criteria	Geometric Mean	Arithmetic Mean	Q1 Minimum Concentration	Q1 Maximum Concentration	January Maximum Concentration	February Maximum Concentration	March Maximum Concentration	Number of Valid Samples	% Valid data
Particulate (TSP)	µg/m ³	120	0	19.4	22.8	5.80	47.75	46.25	36.34	47.75	15	100
Aluminum (Al)	µg/m ³	-	-	1.09E-01	1.36E-01	2.81E-02	3.05E-01	1.26E-01	1.74E-01	3.05E-01	15	100
Antimony (Sb)	µg/m ³	25	0	3.86E-04	4.82E-04	7.20E-05	9.36E-04	9.23E-04	6.50E-04	9.36E-04	15	100
Arsenic (As)	µg/m ³	0.3	0	7.70E-04	8.30E-04	1.29E-04	9.11E-04	9.11E-04	8.98E-04	9.06E-04	15	100
Barium (Ba)	µg/m ³	10	0	4.96E-03	5.71E-03	1.26E-03	1.05E-02	8.14E-03	8.39E-03	1.05E-02	15	100
Beryllium (Be)	µg/m ³	0.01	0	1.66E-05	1.92E-05	1.40E-05	7.76E-05	7.76E-05	1.50E-05	1.51E-05	15	100
Bismuth (Bi)	µg/m ³	-	-	4.79E-04	5.01E-04	1.29E-04	5.47E-04	5.47E-04	5.39E-04	5.43E-04	15	100
Boron (B)	µg/m ³	120	0	4.25E-03	4.29E-03	2.59E-03	4.56E-03	4.56E-03	4.49E-03	4.53E-03	15	100
Cadmium (Cd)	µg/m ³	0.025	0	8.43E-05	9.07E-05	4.46E-05	1.60E-04	1.60E-04	9.90E-05	1.59E-04	15	100
Chromium (Cr)	µg/m ³	0.5	0	1.58E-03	1.73E-03	9.71E-04	3.02E-03	2.69E-03	2.13E-03	3.02E-03	15	100
Cobalt (Co)	µg/m ³	0.1	0	9.54E-05	1.07E-04	3.86E-05	2.39E-04	1.29E-04	1.37E-04	2.39E-04	15	100
Copper (Cu)	µg/m ³	50	0	4.89E-02	5.52E-02	2.21E-02	9.85E-02	8.26E-02	8.04E-02	9.85E-02	15	100
Iron (Fe)	µg/m ³	4	0	2.29E-01	2.86E-01	5.47E-02	7.73E-01	3.27E-01	3.81E-01	7.73E-01	15	100
Lead (Pb)	µg/m ³	0.5	0	1.74E-03	1.90E-03	5.58E-04	3.15E-03	3.15E-03	2.23E-03	2.75E-03	15	100
Magnesium (Mg)	µg/m ³	-	-	2.22E-01	2.93E-01	6.89E-02	1.17E+00	2.69E-01	4.07E-01	1.17E+00	15	100
Manganese (Mn)	µg/m ³	0.4	0	6.63E-03	8.60E-03	1.52E-03	2.64E-02	1.33E-02	1.13E-02	2.64E-02	15	100
Total Mercury (Hg)	µg/m ³	2	0	6.79E-06	1.55E-05	2.80E-06	1.29E-04	1.29E-04	2.24E-05	8.45E-06	15	100
Molybdenum (Mo)	µg/m ³	120	0	2.13E-03	2.34E-03	1.10E-03	3.66E-03	3.54E-03	3.52E-03	3.66E-03	15	100
Nickel (Ni)	µg/m ³	0.2	0	9.26E-04	9.56E-04	5.20E-04	1.45E-03	1.38E-03	1.04E-03	1.45E-03	15	100
Phosphorus (P)	µg/m ³	-	-	2.21E-01	2.21E-01	2.10E-01	2.28E-01	2.28E-01	2.24E-01	2.26E-01	14	93
Selenium (Se)	µg/m ³	10	0	4.03E-04	4.31E-04	2.59E-04	1.18E-03	3.95E-04	1.18E-03	3.92E-04	15	100
Silver (Ag)	µg/m ³	1	0	3.32E-05	4.78E-05	2.52E-05	2.93E-04	6.01E-05	2.69E-05	2.93E-04	15	100
Strontium (Sr)	µg/m ³	120	0	4.18E-03	5.58E-03	8.63E-04	1.63E-02	5.33E-03	9.69E-03	1.63E-02	15	100
Thallium (Tl)	µg/m ³	-	-	2.97E-05	3.38E-05	2.52E-05	1.29E-04	1.29E-04	2.69E-05	2.72E-05	15	100
Tin (Sn)	µg/m ³	10	0	6.41E-04	7.54E-04	1.71E-04	1.35E-03	1.35E-03	1.21E-03	1.11E-03	15	100
Titanium (Ti)	µg/m ³	120	0	4.70E-03	5.98E-03	1.49E-03	1.81E-02	3.34E-03	1.00E-02	1.81E-02	15	100
Uranium (Ur)	µg/m ³	0.3	0	1.32E-05	3.17E-05	1.73E-06	2.59E-04	2.59E-04	2.75E-05	3.45E-05	15	100
Vanadium (V)	µg/m ³	2	0	1.10E-03	1.37E-03	2.59E-05	1.52E-03	1.52E-03	1.50E-03	1.51E-03	15	100
Zinc (Zn)	µg/m ³	120	0	3.35E-02	4.27E-02	1.26E-02	1.51E-01	6.73E-02	5.15E-02	1.51E-01	15	100
Zirconium (Zr)	µg/m ³	-	-	5.89E-04	5.89E-04	5.61E-04	6.07E-04	6.07E-04	5.98E-04	6.04E-04	14	93

Note: All non-detectable results were reported as 1/2 of the detection limit
Phosphorus and Zirconium were not analyzed on January 26

5.7 PAH Results

All of the PUF Hi-Vols operated on a discrete schedule every 12 days for PAH's according to the NAPS schedule during Q1 with the sample days being: January 8, 20, February 1, 13, 25, March 9 and 21.

5.7.1 Courtice Station Results

Data recovery levels were acceptable for the PAH results at the Courtice station (100% valid data) in Q1. There was one (1) exceedance of the BaP 24-hour AAQC during Q1 from the available results on March 9. All other contaminants were below their respective AAQC's during Q1 of 2026. **Table 9** outlines the statistics summary for this station.

During the March 9 sampling day, winds were from the southwest to west directions as recorded at the Courtice Meteorological Tower. **Figure 10** shows the location of the Courtice station with a wind rose which indicates the wind speed and direction during the sampling day as well as the concentrations for both stations. The one-hour average wind speeds recorded range from 1 to 18 km/hr. Given the wind directions throughout March 9, the Courtice station was not downwind of the DYEC meaning the DYEC likely did not contribute to the recorded BaP concentration. Offsite sources are likely to have contributed to the exceeding concentration.

Table 9: Statistics Summary of PAH Results for Courtice Station

Contaminant	Units	MECP Criteria (µg/m³)	No. > Criteria	Arithmetic Mean	Minimum Q1 Concentration	Maximum Q1 Concentration	January Maximum Concentration	February Maximum Concentration	March Maximum Concentration	Number of Valid Samples	% Valid data
1-Methylnaphthalene	ng/m³	-	-	2.76E+00	1.72E+00	4.41E+00	4.33E+00	4.41E+00	1.87E+00	7	100
2-Methylnaphthalene	ng/m³	-	-	4.91E+00	2.83E+00	8.55E+00	7.83E+00	8.55E+00	3.20E+00	7	100
Acenaphthene	ng/m³	-	-	1.25E+00	3.77E-01	2.20E+00	1.35E+00	2.20E+00	1.87E+00	7	100
Acenaphthylene	ng/m³	-	-	1.64E-01	7.83E-02	2.91E-01	2.91E-01	2.35E-01	1.30E-01	7	100
Anthracene	ng/m³	-	-	5.86E-02	3.68E-02	9.50E-02	9.50E-02	7.65E-02	5.65E-02	7	100
Benzo(a)Anthracene	ng/m³	-	-	2.57E-02	7.20E-03	6.39E-02	2.56E-02	3.62E-02	6.39E-02	7	100
Benzo(a)fluorene	ng/m³	-	-	2.27E-02	7.60E-03	3.39E-02	3.22E-02	3.04E-02	3.39E-02	7	100
Benzo(a)Pyrene (Historically High)	ng/m³	0.05	1	2.81E-02	7.80E-03	7.67E-02	3.34E-02	3.19E-02	7.67E-02	7	100
Benzo(b)Fluoranthene	ng/m³	-	-	7.47E-02	2.97E-02	1.44E-01	7.37E-02	8.36E-02	1.44E-01	7	100
Benzo(b)fluorene	ng/m³	-	-	1.20E-02	5.50E-03	1.84E-02	1.60E-02	1.70E-02	1.84E-02	7	100
Benzo(e)Pyrene	ng/m³	-	-	4.89E-02	2.02E-02	1.07E-01	4.95E-02	5.16E-02	1.07E-01	7	100
Benzo(g,h,i)Perylene	ng/m³	-	-	5.22E-02	2.29E-02	1.22E-01	4.98E-02	6.11E-02	1.22E-01	7	100
Benzo(k)Fluoranthene	ng/m³	-	-	2.82E-02	8.40E-03	6.13E-02	2.77E-02	2.84E-02	6.13E-02	7	100
Biphenyl	ng/m³	-	-	1.99E+00	1.30E+00	3.03E+00	3.03E+00	2.43E+00	1.75E+00	7	100
Chrysene	ng/m³	-	-	7.84E-02	3.69E-02	1.63E-01	6.53E-02	8.88E-02	1.63E-01	7	100
Dibenzo(a,h)Anthracene	ng/m³	-	-	6.60E-03	1.49E-03	2.01E-02	6.80E-03	7.00E-03	2.01E-02	7	100
Fluoranthene	ng/m³	-	-	5.21E-01	2.72E-01	7.43E-01	7.43E-01	6.78E-01	5.85E-01	7	100
Fluorene	ng/m³	-	-	1.24E+00	5.73E-01	1.72E+00	1.72E+00	1.68E+00	1.58E+00	7	100
Indeno(1,2,3-cd)Pyrene	ng/m³	-	-	4.84E-02	2.32E-02	1.03E-01	5.57E-02	4.74E-02	1.03E-01	7	100
Naphthalene	ng/m³	22500	0	1.84E+01	9.64E+00	3.02E+01	3.02E+01	2.53E+01	1.47E+01	7	100
o-Terphenyl	ng/m³	-	-	1.17E-02	8.60E-03	1.93E-02	1.93E-02	1.04E-02	1.13E-02	6	86
Perylene	ng/m³	-	-	3.14E-01	3.00E-03	2.15E+00	7.40E-03	9.50E-03	2.15E+00	7	100
Phenanthrene	ng/m³	-	-	1.56E+00	1.93E-01	2.59E+00	2.59E+00	2.31E+00	1.44E+00	7	100
Pyrene	ng/m³	-	-	2.42E-01	1.26E-02	3.46E-01	3.25E-01	3.46E-01	2.91E-01	7	100
Tetralin	ng/m³	-	-	1.59E+00	6.29E-01	3.49E+00	2.66E+00	3.49E+00	8.18E-01	7	100
Total PAH	ng/m³	-	-	3.54E+01	2.34E+01	5.56E+01	5.56E+01	4.90E+01	2.89E+01	7	100

Notes: All non-detectable results were reported as 1/2 of the detection limit

5.7.2 Rundle Road Station Results

Data recovery levels were acceptable for the PAH results at the Rundle Road station (100% valid data). There were two (2) exceedances of the BaP AAQC during Q1 on January 20 and March 9. All other contaminants were below their respective AAQC's during Q1 of 2026. **Table 10** outlines the statistics summary for this station.

During the January 20 sampling day, wind was predominately from the west-southwest and west directions as recorded at the Rundle Meteorological Tower. **Figure 9** in **Appendix G** shows the location of the Rundle station with a wind rose which indicates the wind speed and direction during the sampling day along with the concentrations for both stations. The one-hour average wind speeds recorded range from 17 to 29 km/hr. Given the wind directions throughout January 20, the Rundle station was not downwind of the DYEC, meaning the DYEC likely did not contribute to the recorded BaP concentration. Offsite sources are likely to have contributed to the exceeding concentration.

During the March 9 sampling day, wind was predominately from the west-southwest direction with a minor contribution from the southwest, as recorded at the Rundle Meteorological Tower. **Figure 10** in **Appendix G** shows the location of the Rundle station with a wind rose which indicates the wind speed and direction during the sampling day as well as the concentrations for both stations. The one-hour average wind speeds recorded range from 1 to 22 km/hr. Given the wind directions throughout March 9, the Rundle station was downwind of the DYEC when the winds were from the southwest and it is likely the DYEC contributed to the recorded BaP concentration during those periods. Additional offsite sources are likely to have contributed to the exceeding concentration.

Table 10: Statistics Summary of PAH Results for Rundle Road Station

Contaminant	Units	MECP Criteria (µg/m³)	No. > Criteria	Arithmetic Mean	Minimum Q1 Concentration	Maximum Q1 Concentration	January Maximum Concentration	February Maximum Concentration	March Maximum Concentration	Number of Valid Samples	% Valid data
	ng/m³	-	-	2.95E+00	1.48E+00	4.53E+00	4.53E+00	3.77E+00	2.88E+00	7	100
	ng/m³	-	-	5.28E+00	2.37E+00	8.49E+00	8.49E+00	7.41E+00	5.11E+00	7	100
	ng/m³	-	-	1.28E+00	2.81E-01	2.31E+00	2.31E+00	1.51E+00	2.07E+00	7	100
	ng/m³	-	-	4.05E-01	1.40E-01	1.51E+00	2.49E-01	1.51E+00	1.88E-01	7	100
	ng/m³	-	-	1.98E-01	6.38E-02	6.66E-01	1.54E-01	6.66E-01	1.97E-01	7	100
	ng/m³	-	-	3.83E-02	1.14E-02	7.67E-02	2.92E-02	5.44E-02	7.67E-02	7	100
	ng/m³	-	-	3.48E-02	1.26E-02	9.02E-02	2.82E-02	9.02E-02	3.87E-02	7	100
	ng/m³	0.05	2	3.75E-02	1.32E-02	6.77E-02	5.05E-02	3.84E-02	6.77E-02	7	100
	ng/m³	-	-	1.11E-01	2.98E-02	2.70E-01	6.53E-02	2.70E-01	1.58E-01	7	100
	ng/m³	-	-	1.94E-02	9.00E-03	5.31E-02	1.24E-02	5.31E-02	2.24E-02	7	100
	ng/m³	-	-	7.53E-02	3.66E-02	1.46E-01	4.71E-02	1.46E-01	1.28E-01	7	100
	ng/m³	-	-	7.66E-02	3.97E-02	1.47E-01	4.95E-02	1.42E-01	1.47E-01	7	100
	ng/m³	-	-	4.45E-02	1.56E-02	7.51E-02	4.43E-02	7.15E-02	7.51E-02	7	100
	ng/m³	-	-	2.34E+00	1.19E+00	3.38E+00	3.02E+00	3.38E+00	2.11E+00	7	100
	ng/m³	-	-	1.10E-01	5.62E-02	1.65E-01	8.88E-02	1.62E-01	1.65E-01	7	100
	ng/m³	-	-	8.86E-03	4.60E-03	2.02E-02	6.30E-03	1.15E-02	2.02E-02	7	100
	ng/m³	-	-	8.41E-01	3.59E-01	2.06E+00	7.85E-01	2.06E+00	1.00E+00	7	100
	ng/m³	-	-	1.64E+00	5.93E-01	2.77E+00	2.10E+00	2.36E+00	2.77E+00	7	100
	ng/m³	-	-	7.34E-02	3.63E-02	1.45E-01	5.32E-02	1.45E-01	1.12E-01	7	100
	ng/m³	22500	0	2.04E+01	8.80E+00	3.51E+01	3.32E+01	3.51E+01	1.62E+01	7	100
	ng/m³	-	-	1.05E-02	3.10E-03	1.60E-02	1.60E-02	1.42E-02	1.55E-02	7	100
	ng/m³	-	-	8.58E-01	4.50E-03	3.32E+00	5.20E-02	8.10E-03	3.32E+00	7	100
	ng/m³	-	-	2.08E+00	3.25E-01	5.57E+00	3.23E+00	5.57E+00	5.27E-01	7	100
	ng/m³	-	-	3.63E-01	1.46E-02	1.30E+00	3.41E-01	1.30E+00	1.85E-02	7	100
	ng/m³	-	-	1.62E+00	4.86E-01	2.96E+00	2.96E+00	2.02E+00	1.28E+00	7	100
	ng/m³	-	-	4.09E+01	2.04E+01	6.75E+01	6.18E+01	6.75E+01	3.86E+01	7	100

Notes: All non-detectable results were reported as 1/2 of the detection limit

5.8 Dioxin and Furan Results

All of the PUF Hi-Vols operated on a discrete schedule every 24 days for D&F's according to the NAPS schedule during Q1 with the sample days being: January 8, February 1, 25 and March 21.

5.8.1 Courtice Station Results

Data recovery levels were acceptable for the D&F results at the Courtice station (100% valid data). There were no exceedances of any of the AAQC's for any of the D&F's during Q1. **Table 11** is a summary of the statistics for this station.

Table 11: Courtice Station Q1 Monitoring Results for Dioxins and Furans

Contaminant	Units	MECP Criteria	No. > Criteria	Arithmetic Mean	Q1 Minimum Concentration	Q1 Maximum Concentration	January Maximum Concentration	February Maximum Concentration	March Maximum Concentration	Number of Valid Samples	% Valid data
2,3,7,8-TCDD	pg/m ³	-	-	8.54E-04	2.87E-04	1.29E-03	1.29E-03	7.57E-04	1.09E-03	4	100
1,2,3,7,8-PeCDD	pg/m ³	-	-	2.27E-03	7.32E-04	6.51E-03	6.51E-03	9.87E-04	8.45E-04	4	100
1,2,3,4,7,8-HxCDD	pg/m ³	-	-	3.09E-04	6.94E-05	9.64E-04	9.64E-04	1.22E-04	6.94E-05	4	100
1,2,3,6,7,8-HxCDD	pg/m ³	-	-	4.67E-04	1.39E-04	1.12E-03	1.12E-03	4.54E-04	1.39E-04	4	100
1,2,3,7,8,9-HxCDD	pg/m ³	-	-	2.76E-04	6.64E-05	5.27E-04	5.27E-04	1.97E-04	6.64E-05	4	100
1,2,3,4,6,7,8-HpCDD	pg/m ³	-	-	7.74E-04	2.92E-04	1.76E-03	1.76E-03	5.66E-04	2.92E-04	4	100
OCDD	pg/m ³	-	-	7.01E-05	2.25E-05	1.61E-04	1.61E-04	5.00E-05	2.25E-05	4	100
2,3,7,8-TCDF	pg/m ³	-	-	1.24E-04	6.95E-05	1.51E-04	1.46E-04	1.30E-04	1.51E-04	4	100
1,2,3,7,8-PeCDF	pg/m ³	-	-	1.10E-04	3.58E-05	2.62E-04	2.62E-04	1.04E-04	3.76E-05	4	100
2,3,4,7,8-PeCDF	pg/m ³	-	-	6.39E-04	2.20E-04	1.70E-03	1.70E-03	2.91E-04	3.44E-04	4	100
1,2,3,4,7,8-HxCDF	pg/m ³	-	-	1.96E-04	7.04E-05	4.99E-04	4.99E-04	1.28E-04	8.45E-05	4	100
1,2,3,6,7,8-HxCDF	pg/m ³	-	-	2.05E-04	8.75E-05	4.74E-04	4.74E-04	9.05E-05	8.75E-05	4	100
2,3,4,6,7,8-HxCDF	pg/m ³	-	-	1.06E-04	4.02E-05	2.01E-04	2.01E-04	1.04E-04	8.00E-05	4	100
1,2,3,7,8,9-HxCDF	pg/m ³	-	-	1.23E-04	4.59E-05	3.03E-04	3.03E-04	5.10E-05	9.21E-05	4	100
1,2,3,4,6,7,8-HpCDF	pg/m ³	-	-	1.21E-04	3.62E-05	2.31E-04	2.31E-04	1.47E-04	3.62E-05	4	100
1,2,3,4,7,8,9-HpCDF	pg/m ³	-	-	1.74E-05	6.46E-06	3.56E-05	3.56E-05	1.23E-05	1.51E-05	4	100
OCDF	pg/m ³	-	-	3.71E-06	9.51E-07	7.44E-06	7.44E-06	1.78E-06	9.51E-07	4	100
Total Toxic Equivalency	pg TEQ/m ³	0.1 1 ^[1]	0	6.66E-03	2.83E-03	1.62E-02	1.62E-02	4.19E-03	3.45E-03	4	100

Notes: All non-detectable results were reported as 1/2 of the detection limit
[1] O. Reg. 419/05 Schedule Upper Risk Thresholds

5.8.2 Rundle Road Station Results

Data recovery levels were acceptable for the D&F results at the Rundle Road station (100% valid data). There were no exceedances of any of the AAQC's Criteria for any of the D&F's during Q1. **Table 12** is a summary of the statistics for this station.

Table 12: Rundle Road Station Q1 Monitoring Results for Dioxins and Furans

Contaminant	Units	MECP Criteria	No. > Criteria	Arithmetic Mean	Q1 Minimum Concentration	Q1 Maximum Concentration	January Maximum Concentration	February Maximum Concentration	March Maximum Concentration	Number of Valid Samples	% Valid data
2,3,7,8-TCDD	pg/m ³	-	-	6.11E-04	3.23E-04	7.70E-04	6.11E-04	7.70E-04	7.41E-04	4	100
1,2,3,7,8-PeCDD	pg/m ³	-	-	1.20E-03	7.25E-04	2.00E-03	2.00E-03	1.02E-03	7.25E-04	4	100
1,2,3,4,7,8-HxCDD	pg/m ³	-	-	2.20E-04	5.90E-05	3.70E-04	3.70E-04	2.97E-04	1.53E-04	4	100
1,2,3,6,7,8-HxCDD	pg/m ³	-	-	2.66E-04	1.32E-04	5.15E-04	5.15E-04	2.13E-04	1.32E-04	4	100
1,2,3,7,8,9-HxCDD	pg/m ³	-	-	3.49E-04	7.41E-05	9.84E-04	9.84E-04	1.80E-04	7.41E-05	4	100
1,2,3,4,6,7,8-HpCDD	pg/m ³	-	-	6.37E-04	2.05E-04	1.78E-03	1.78E-03	2.46E-04	3.15E-04	4	100
OCDD	pg/m ³	-	-	6.19E-05	1.31E-05	1.51E-04	1.51E-04	5.79E-05	2.50E-05	4	100
2,3,7,8-TCDF	pg/m ³	-	-	1.21E-04	2.95E-05	2.22E-04	2.22E-04	1.25E-04	1.07E-04	4	100
1,2,3,7,8-PeCDF	pg/m ³	-	-	8.29E-05	1.80E-05	2.44E-04	2.44E-04	3.83E-05	1.80E-05	4	100
2,3,4,7,8-PeCDF	pg/m ³	-	-	5.83E-04	1.66E-04	1.30E-03	1.30E-03	3.98E-04	1.66E-04	4	100
1,2,3,4,7,8-HxCDF	pg/m ³	-	-	1.21E-04	4.49E-05	2.09E-04	2.09E-04	1.23E-04	1.06E-04	4	100
1,2,3,6,7,8-HxCDF	pg/m ³	-	-	8.70E-05	4.57E-05	1.61E-04	1.61E-04	9.50E-05	4.57E-05	4	100
2,3,4,6,7,8-HxCDF	pg/m ³	-	-	1.41E-04	2.95E-05	4.31E-04	4.31E-04	5.57E-05	4.73E-05	4	100
1,2,3,7,8,9-HxCDF	pg/m ³	-	-	9.98E-05	3.37E-05	2.50E-04	2.50E-04	6.23E-05	5.36E-05	4	100
1,2,3,4,6,7,8-HpCDF	pg/m ³	-	-	9.48E-05	1.26E-05	2.25E-04	2.25E-04	1.04E-04	1.26E-05	4	100
1,2,3,4,7,8,9-HpCDF	pg/m ³	-	-	2.39E-05	7.73E-06	6.37E-05	6.37E-05	9.01E-06	7.73E-06	4	100
OCDF	pg/m ³	-	-	7.00E-06	2.74E-07	2.42E-05	2.42E-05	1.82E-06	1.69E-06	4	100
				4.71E-03	2.73E-03	8.62E-03	8.62E-03	3.79E-03	2.73E-03	4	100

Notes: All non-detectable results were reported as 1/2 of the detection limit
[1] O. Reg. 419/05 Schedule Upper Risk Thresholds

6 DATA REQUESTS

The following sections outline any instrumentation issues encountered that have caused data loss at any of the monitors at each of the stations.

Appendix C contains monthly IZS zero trends for the NO_x and SO₂ analyzers at the Courtice and Rundle Road stations.

Edit logs identifying missing data, maintenance times, calibrations and any other missing data have been included in **Appendix D**.

6.1 Continuous Monitoring

On March 17, 2026, from 13:00 to 14:00, the Rundle station experienced a power outage affecting all monitors.

6.2 Discrete Monitoring

In Q1, there were no instances where the discrete monitoring instrumentation encountered issues that created data loss.

7 CONCLUSIONS

This Q1 report provides a summary of the ambient air quality data collected at the Courtice and Rundle Road stations. There were three (3) events of the rolling 10-minute SO₂ AAQC and two (2) exceedance events of the 1-hour SO₂ AAQC at the Courtice station. These exceedances are associated with the Courtice WWTP chemical storage building due to its proximity to the ambient air monitoring station.

There was one (1) exceedance of the Benzo(a) Pyrene AAQC at the Courtice station and two (2) exceedances of the Benzo(a) Pyrene AAQC at the Rundle Road station. The DYEC may have contributed to the BaP exceedances when the DYEC was downwind of the stations, which occurred at the Rundle station during the March 9 sample period. However, BaP offsite sources from surrounding industries are also likely to have contributed to the exceedances.

While the Rundle station was downwind of the DYEC on March 9, the exceedance recorded at the Courtice station also on March 9 suggests that both exceedances were influenced by sources beyond the immediate area. These additional contributions may originate from southwestern Ontario, including but not limited to waterfront industrial activities in Hamilton and Toronto and other parts of the Greater Toronto Area. These sources line up with the Courtice and Rundle station under prevailing west to southwest winds. This is consistent with the wind directions recorded on March 9. At the time of this report, there are no publicly available results from other Ontario regions for BaP for Q1 of 2026 to compare against.

Data recovery rates were acceptable and valid for all measured Q1 continuous and discrete parameters at both stations.

8 REFERENCES

1. Canadian Council of Ministers of the Environment (CCME), 2012. Guidance Document on Achievement Determination Canadian Ambient Air Quality Standards for Fine Particulate Matter and Ozone. PN 1483 978-1-896997-91-9 PDF
2. Canadian Council of Ministers of the Environment (CCME), 2019. Guidance Document on Air Zone Management. PN 1593978-1-77202-050-2 PDF
3. Ontario Ministry of the Environment and Climate Change, 2018. [Technical Assessment and Standards Development Branch] Ontario Air Standards for Sulphur Dioxide (SO₂). [Online]
4. Human Toxicology and Air Standards Section, Technical Assessment and Standards Development Branch, Ontario Ministry of the Environment, Conservation and Parks (MECP). 2020. Ontario's Ambient Air Quality Criteria. MECP, Toronto, ON, Canada.

9 GENERAL STATEMENT OF LIMITATIONS

This report entitled "2026 Q1 Ambient Air Quality Monitoring Report", dated May 15, 2026, was prepared by RWDI AIR Inc. ("RWDI") for The Regional Municipality of Durham ("Client"). The findings and conclusions presented in this report have been prepared for the Client and are specific to the project described herein ("Project"). This report was prepared using scientific principles, published methodologies and professional judgment in assessing available information and data. The findings presented within this document are based on available data within the limits of the existing information, budgeted scope of work, and schedule. The conclusions contained in this report are based on the information available to RWDI when this report was prepared; subsequent changes made by the Client after the date of this report have not been reflected in the conclusions.

This report was prepared for the exclusive use of The Regional Municipality of Durham and the MECP. Any use which a third party makes of this report, or any reliance on or decisions made based on it, are the responsibility of such third parties. RWDI accepts no responsibility for damages, if any, suffered by any third party as result of decisions made or actions based on this report.

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APPENDIX A

Table A1: 2026 Summary Statistics for Q1

Courtice Monitoring Station Data Statistics	Maximum 10 min Rolling Mean	Maximum 1 hr Rolling Mean					Maximum 24 hr Rolling Mean					Monthly Mean					Valid Data							
		Compound	SO ₂	PM _{2.5}	NO _x	NO	NO ₂	SO ₂	PM _{2.5}	NO _x	NO	NO ₂	SO ₂	PM _{2.5}	NO _x	NO	NO ₂	SO ₂	PM _{2.5}	NO _x	NO	NO ₂	SO ₂	
Units	ppb	(µg/m ³)	ppb					(µg/m ³)	ppb					(µg/m ³)	ppb					(%)				
AAQC/CAAQS	67				200	40	27 ^A				100													
January	73.5	21.0	52.5	19.6	41.7	53.7	15.5	17.1	2.5	14.8	8.1	5.5	6.9	1.2	5.7	1.3	99.9	99.7	99.7	99.7	99.7	99.7		
February	45.6	44.0	82.2	38.8	44.9	30.2	28.9	21.7	5.0	17.0	8.8	7.7	8.5	1.7	6.8	2.1	99.6	99.6	99.6	99.6	99.6	99.7		
March	47.6	39.3	75.7	45.9	40.3	34.0	25.9	42.2	16.9	25.4	9.8	6.3	8.1	1.9	6.3	1.7	99.5	99.6	99.6	99.6	99.6	99.4		
Q1 Arithmetic Mean												6.5	7.8	1.6	6.3	1.7	99.6	99.6	99.6	99.6	99.6	99.6		

Rundle Monitoring Station Data Statistics	Maximum 10 min Rolling Mean	Maximum 1 hr Rolling Mean					Maximum 24 hr Rolling Mean					Monthly Mean					Valid Data							
		Compound	SO ₂	PM _{2.5}	NO _x	NO	NO ₂	SO ₂	PM _{2.5}	NO _x	NO	NO ₂	SO ₂	PM _{2.5}	NO _x	NO	NO ₂	SO ₂	PM _{2.5}	NO _x	NO	NO ₂	SO ₂	
Units	ppb	(µg/m ³)	ppb					(µg/m ³)	ppb					(µg/m ³)	ppb					(%)				
AAQC/CAAQS	67				200	40	27 ^A				100													
January	1.7	22.6	37.1	18.4	28.7	1.3	16.6	18.0	3.8	14.6	0.9	6.1	6.8	1.1	5.8	0.5	99.9	99.7	99.7	99.7	99.7	99.7		
February	2.6	49.9	49.9	19.7	31.6	2.1	30.3	17.7	4.2	14.1	1.1	8.4	6.4	1.3	5.1	0.5	99.9	99.6	99.6	99.6	99.6	99.7		
March	2.8	45.4	61.2	29.5	38.0	2.4	26.1	28.7	9.2	19.5	1.1	6.4	6.3	1.5	4.8	0.5	99.5	99.3	99.3	99.3	99.3	99.2		
Q1 Arithmetic Mean												7.0	6.5	1.3	5.2	0.5	99.7	99.5	99.5	99.5	99.5	99.5		

Event Statistics	Rolling Mean > 10 min AAQC for Courtice	Rolling Mean > 10 min AAQC for Rundle	Rolling Mean > 1 hr AAQC for Courtice	Rolling Mean > 1 hr AAQC for Rundle	Rolling Mean > 24 hr AAQC for Courtice Monitoring Station	Rolling Mean > 24 hr AAQC for Rundle Monitoring Station								
Compound	SO ₂	SO ₂	PM _{2.5}	NO ₂	SO ₂	PM _{2.5}	NO ₂	SO ₂	PM _{2.5}	NO ₂	SO ₂	PM _{2.5}	NO ₂	SO ₂
Units	No.	No.	No.			No.			No.			No.		
January	3	0		0	2		0	0	N/A	0		N/A	0	
February	0	0		0	0		0	0	N/A	0		N/A	0	
March	0	0		0	0		0	0	N/A	0		N/A	0	
Q1 Total	3	0		0	2		0	0	N/A	0		N/A	0	

Courtice Station MET Statistics	Maximum 1 hr Mean					Minimum 1 hr Mean					Monthly Mean					Total	Valid Data						
	Parameter	WS	Temp	RH	Pres	Rain	WS	Temp	RH	Pres	Rain	WS	Temp	RH	Pres		Rain	Rain	WS	WD	Temp	RH	Pres
Units	(km/hr)	(°C)	(%)	"Hg	mm	(km/hr)	(°C)	(%)	"Hg	mm	(km/hr)	(°C)	(%)	"Hg	mm	mm	(%)						
January	41.9	9.6	100.0	30.4	3.8	0.5	-22.5	31.6	29.1	0.0	16.2	-5.5	71.5	29.7	0.0	26.2	100.0	100.0	100.0	100.0	100.0	100.0	100.0
February	37.6	5.4	100.0	30.2	1.8	0.1	-22.0	33.9	29.1	0.0	12.9	-4.2	73.0	29.7	0.0	21.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0
March	43.6	16.1	100.0	30.4	9.1	0.6	-15.9	31.8	29.0	0.0	12.9	1.5	73.1	29.7	0.1	93.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Q1 Arithmetic Mean																	141.9	100.0	100.0	100.0	100.0	100.0	100.0

Rundle Station MET Statistics	Maximum 1 hr Mean				Minimum 1 hr Mean				Monthly Mean				Total	Valid Data					
	Parameter	WS	Temp	RH	Rain	WS	Temp	RH	Rain	WS	Temp	RH		Rain	Rain	WS	WD	Temp	RH
Units	(km/hr)	(°C)	(%)	mm	(km/hr)	(°C)	(%)	mm	(km/hr)	(°C)	(%)	mm	mm	(%)					
January	33.5	9.5	100.0	6.4	1.1	-25.3	39.6	0.0	12.9	-6.5	75.4	0.0	33.3	100.0	100.0	100.0	100.0	100.0	100.0
February	28.2	5.3	100.0	2.5	0.1	-23.2	37.6	0.0	9.7	-5.2	76.3	0.0	23.5	100.0	100.0	100.0	100.0	100.0	100.0
March	31.8	17.6	100.0	8.0	0.1	-18.5	37.2	0.0	10.5	0.8	75.7	0.1	103.8	99.9	99.9	99.9	99.9	99.9	99.9
Q1 Arithmetic Mean									11.1	-3.6	75.8	0.1	160.6	100.0	100.0	100.0	100.0	100.0	100.0

A - PM2.5 CAAQS 3-year average of annual 98th percentile of the daily 24-hr average concentrations; this value is used "as is" for comparison to the 24-hour measurement of air quality data

Table A2: 2026 Q1 Station Courtice Monitoring Results for PM2.5

Data Statistics	Rolling Mean > 24 hr AAQC	Arithmetic Mean	Maximum 1 hr Rolling Mean	Maximum 24 hr Rolling Mean	Number of Valid Hours	Valid Data
Month	PM _{2.5}	PM _{2.5}	PM _{2.5}	PM _{2.5}	PM _{2.5}	PM _{2.5}
	No.	(ug/m ³)	(ug/m ³)	(ug/m ³)	No.	%
January	N/A	5.5	21.0	15.5	743	99.9
February	N/A	7.7	44.0	28.9	669	99.6
March	N/A	6.3	39.3	25.9	740	99.5

Table A3: 2026 Q1 Station Rundle Monitoring Results for PM2.5

Data Statistics	Rolling Mean > 24 hr AAQC	Arithmetic Mean	Maximum 1 hr Rolling Mean	Maximum 24 hr Rolling Mean	Number of Valid Hours	Valid Data
Month	PM _{2.5}	PM _{2.5}	PM _{2.5}	PM _{2.5}	PM _{2.5}	PM _{2.5}
	No.	(ug/m ³)	(ug/m ³)	(ug/m ³)	No.	%
January	N/A	6.1	22.6	16.6	743	99.9
February	N/A	8.4	49.9	30.3	671	99.9
March	N/A	6.4	45.4	26.1	740	99.5

Table A4: 2026 Q1 Station Courtice Monitoring Results for NO_x

Data Statistics	Events > 1 hr AAQC	Events > 24 hr AAQC	Arithmetic Mean	Maximum 1 hr Rolling Mean	Maximum 24 hr Rolling Mean	Number of Valid Hours	Valid Data
Month	NO _x	NO _x	NO _x	NO _x	NO _x	NO _x	NO _x
	No.	No.	(ppb)	(ppb)	(ppb)	No.	%
January	N/A	N/A	6.9	52.5	17.1	742	99.7
February	N/A	N/A	8.5	82.2	21.7	669	99.6
March	N/A	N/A	8.1	75.7	42.2	741	99.6

Table A5: 2026 Q1 Station Rundle Monitoring Results for NOx

Data Statistics	Events > 1 hr AAQC	Events > 24 hr AAQC	Arithmetic Mean	Maximum 1 hr Rolling Mean	Maximum 24 hr Rolling Mean	Number of Valid Hours	Valid Data
Month	NO _x	NO _x	NO _x	NO _x	NO _x	NO _x	NO _x
	No.	No.	(ppb)	(ppb)	(ppb)	No.	%
January	N/A	N/A	6.8	37.1	18.0	742	99.7
February	N/A	N/A	6.4	49.9	17.7	669	99.6
March	N/A	N/A	6.3	61.2	28.7	739	99.3

Table A6: 2026 Q1 Station Courtice Monitoring Results for NO

Data Statistics	Events > 1 hr AAQC	Events > 24 hr AAQC	Arithmetic Mean	Maximum 1 hr Rolling Mean	Maximum 24 hr Rolling Mean	Number of Valid Hours	Valid Data
Month	NO	NO	NO	NO	NO	NO	NO
	No.	No.	(ppb)	(ppb)	(ppb)	No.	%
January	N/A	N/A	1.2	19.6	2.5	742	99.7
February	N/A	N/A	1.7	38.8	5.0	669	99.6
March	N/A	N/A	1.9	45.9	16.9	741	99.6

Table A7: 2026 Q1 Station Rundle Monitoring Results for NO

Data Statistics	Events > 1 hr AAQC	Events > 24 hr AAQC	Arithmetic Mean	Maximum 1 hr Rolling Mean	Maximum 24 hr Rolling Mean	Number of Valid Hours	Valid Data
Month	NO	NO	NO	NO	NO	NO	NO
	No.	No.	(ppb)	(ppb)	(ppb)	No.	%
January	N/A	N/A	1.1	18.4	3.8	742	99.7
February	N/A	N/A	1.3	19.7	4.2	669	99.6
March	N/A	N/A	1.5	29.5	9.2	739	99.3

Table A8: 2026 Q1 Station Courtice Monitoring Results for NO2

Data Statistics	Events > 1 hr AAQC	Events > 24 hr AAQC	Arithmetic Mean	Maximum 1 hr Rolling Mean	Maximum 24 hr Rolling Mean	Number of Valid Hours	Valid Data
Month	NO ₂	NO ₂	NO ₂	NO ₂	NO ₂	NO ₂	NO ₂
	No.	No.	(ppb)	(ppb)	(ppb)	No.	%
January	0	0	5.7	41.7	14.8	742	99.7
February	0	0	6.8	44.9	17.0	669	99.6
March	0	0	6.3	40.3	25.4	741	99.6

Table A9: 2026 Q1 Station Rundle Monitoring Results for NO2

Data Statistics	Events > 1 hr AAQC	Events > 24 hr AAQC	Arithmetic Mean	Maximum 1 hr Rolling Mean	Maximum 24 hr Rolling Mean	Number of Valid Hours	Valid Data
Month	NO ₂	NO ₂	NO ₂	NO ₂	NO ₂	NO ₂	NO ₂
	No.	No.	(ppb)	(ppb)	(ppb)	No.	%
January	0	0	5.8	28.7	14.6	742	99.7
February	0	0	5.1	31.6	14.1	669	99.6
March	0	0	4.8	38.0	19.5	691	99.3

Table A10: 2026 Q1 Station Courtice Monitoring Results for SO2

Data Statistics	Events > 10 min AAQC	Events > 1 hr AAQC	Arithmetic Mean	Maximum 10 min Rolling Mean	Maximum 1 hr Rolling Mean	Maximum 24 hr Rolling Mean	Number of Valid Hours	Valid Data
Month	SO ₂	SO ₂	SO ₂	SO ₂	SO ₂	SO ₂	SO ₂	SO ₂
	No.	No.	(ppb)	(ppb)	(ppb)	(ppb)	No.	%
January	3	2	1.3	73.5	53.7	8.1	742	99.7
February	0	0	2.1	45.6	30.2	8.8	670	99.7
March	0	0	1.7	47.6	34.0	9.8	692	99.4

Table A11: 2026 Q1 Station Rundle Monitoring Results for SO2

Data Statistics	Events > 10 min AAQC	Events > 1 hr AAQC	Arithmetic Mean	Maximum 10 min Rolling Mean	Maximum 1 hr Rolling Mean	Maximum 24 hr Rolling Mean	Number of Valid Hours	Valid Data
Month	SO ₂	SO ₂	SO ₂	SO ₂	SO ₂	SO ₂	SO ₂	SO ₂
	No.	No.	(ppb)	(ppb)	(ppb)	(ppb)	No.	%
January	0	0	0.5	1.7	1.3	0.9	742	99.7
February	0	0	0.5	2.6	2.1	1.1	670	99.7
March	0	0	0.5	2.8	2.4	1.1	738	99.2

Table A12: 2026 Q1 Courtice Meterological Station Windspeed Data Summary

MET Statistics	Maximum 1 hr Mean	Minimum 1 hr	Monthly Mean	Valid Data
Month	Wind Speed	Wind Speed	Wind Speed	Wind Speed
	(km/hr)	(km/hr)	(km/hr)	(%)
January	41.9	0.5	16.2	100.0
February	37.6	0.1	12.9	100.0
March	43.6	0.6	12.9	100.0

Table A13: 2026 Q1 Rundle Meterological Station Windspeed Data Summary

MET Statistics	Maximum 1 hr Mean	Minimum 1 hr	Monthly Mean	Valid Hours
Month	Wind Speed	Wind Speed	Wind Speed	Wind Speed
	(km/hr)	(km/hr)	(km/hr)	(%)
January	33.5	1.1	12.9	100.0
February	28.2	0.1	9.7	100.0
March	31.8	0.1	10.5	99.9

Table A14: 2026 Q1 Courtice Meterological Station Wind Direction Data Summary

MET Statistics	Valid Data
Month	Wind Direction (%)
January	100.0
February	100.0
March	100.0

Table A15: 2026 Q1 Rundle Meterological Station Wind Direction Data Summary

MET Statistics	Valid Data
Month	Wind Direction
	(%)
January	100.0
February	100.0
March	99.9

Table A16: 2026 Q1 Courtice Meterological Station Temperature Data Summary

MET Statistics	Maximum 1 hr Mean	Minimum 1 hr	Monthly Mean	Valid Data
Month	Temperature	Temperature	Temperature	Temperature
	(°C)	(°C)	(°C)	(%)
January	9.6	-22.5	-5.5	100.0
February	5.4	-22.0	-4.2	100.0
March	16.1	-15.9	1.5	100.0

Table A17: 2026 Q1 Rundle Meterological Station Temperature Data Summary

MET Statistics	Maximum 1 hr Mean	Minimum 1 hr	Monthly Mean	Valid Data
Month	Temperature	Temperature	Temperature	Temperature
	(°C)	(°C)	(°C)	(%)
January	9.5	-25.3	-6.5	100.0
February	5.3	-23.2	-5.2	100.0
March	17.6	-18.5	0.8	99.9

Table A18: 2026 Q1 Courtice Meterological Station Relative Humidity Data Summary

MET Statistics	Maximum 1 hr Mean	Minimum 1 hr	Monthly Mean	Valid Data
Month	Relative Humidity	Relative Humidity	Relative Humidity	Relative Humidity
	(%)	(%)	(%)	(%)
January	100.0	31.6	71.5	100.0
February	100.0	33.9	73.0	100.0
March	100.0	31.8	73.1	100.0

Table A19: 2026 Q1 Rundle Meterological Station Relative Humidity Data Summary

MET Statistics	Maximum 1 hr Mean	Minimum 1 hr	Monthly Mean	Valid Data
Month	Relative Humidity	Relative Humidity	Relative Humidity	Relative Humidity
	(%)	(%)	(%)	(%)
January	100.0	39.6	75.4	100.0
February	100.0	37.6	76.3	100.0
March	100.0	37.2	75.7	99.9

Table A20: 2026 Q1 Courtice Meterological Station Precipitation Data Summary

MET Statistics	Maximum 1 hr Total	Minimum 1 hr Total	Monthly Mean	Total	Valid Data
Month	Precipitation	Precipitation	Precipitation	Precipitation	Precipitation
	(mm)	(mm)	(mm)	(mm)	%
January	3.8	0.0	0.0	26.2	100.0
February	1.8	0.0	0.0	21.8	100.0
March	9.1	0.0	0.1	93.9	100.0

Table A21: 2026 Q1 Rundle Meterological Station Precipitation Data Summary

MET Statistics	Maximum 1 hr Total	Minimum 1 hr Total	Monthly Mean	Total	Valid Data
Month	Precipitation	Precipitation	Precipitation	Precipitation	Precipitation
	(mm)	(mm)	(mm)	(mm)	%
January	6.4	0.0	0.0	33.3	100.0
February	2.5	0.0	0.0	23.5	100.0
March	8.0	0.0	0.1	103.8	99.9

Table A22: 2026 Q1 Courtice Meterological Station Pressure Data Summary

MET Statistics	Maximum 1 hr Mean	Minimum 1 hr	Monthly Mean	Valid Data
Month	Pressure	Pressure	Pressure	Pressure
	("Hg)	("Hg)	("Hg)	(%)
January	30.4	29.1	29.7	100.0
February	30.2	29.1	29.7	100.0
March	30.4	29.0	29.7	100.0

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APPENDIX B

Table B1: Summary of Sample Flow Rate and Sample Duration for Dioxins & Furans

Sample Date	Courtice			Rundle		
	Filter ID	Sample Duration	Sample Volume	Filter ID	Sample Duration	Sample Volume
	No.	(min)	(m ³)	No.	(min)	(m ³)
January 8, 2026	BU2600062-001	1440	323	BU2600062-002	1440	311
February 1, 2026	BU2600304-001	1440	348	BU2600304-002	1440	356
February 25, 2026	BU2600552-001	1440	304	BU2600552-002	1440	305
March 21, 2026	BU2600837-001	1440	331	BU2600837-002	1440	317

Table B2: 2026 Courtice Station Q1 Monitoring Results for Dioxins & Furans

Contaminant	Units	8-Jan-26	1-Feb-26	25-Feb-26	21-Mar-26	MECP Criteria	No. > Criteria	Arithmetic Mean	Q1 Minimum Concentration	Q1 Maximum Concentration	January Maximum Concentration	February Maximum Concentration	March Maximum Concentration	Number of Valid Samples	% Valid data
2,3,7,8-TCDD	pg TEQ/m ³	1.29E-03	2.87E-04	7.57E-04	1.09E-03	-	-	8.54E-04	2.87E-04	1.29E-03	1.29E-03	7.57E-04	1.09E-03	4	100
1,2,3,7,8-PeCDD	pg TEQ/m ³	6.51E-03	7.32E-04	9.87E-04	8.45E-04	-	-	2.27E-03	7.32E-04	6.51E-03	6.51E-03	9.87E-04	8.45E-04	4	100
1,2,3,4,7,8-HxCDD	pg TEQ/m ³	9.64E-04	8.18E-05	1.22E-04	6.94E-05	-	-	3.09E-04	6.94E-05	9.64E-04	9.64E-04	1.22E-04	6.94E-05	4	100
1,2,3,6,7,8-HxCDD	pg TEQ/m ³	1.12E-03	1.58E-04	4.54E-04	1.39E-04	-	-	4.67E-04	1.39E-04	1.12E-03	1.12E-03	4.54E-04	1.39E-04	4	100
1,2,3,7,8,9-HxCDD	pg TEQ/m ³	5.27E-04	3.13E-04	1.97E-04	6.64E-05	-	-	2.76E-04	6.64E-05	5.27E-04	5.27E-04	1.97E-04	6.64E-05	4	100
1,2,3,4,6,7,8-HpCDD	pg TEQ/m ³	1.76E-03	4.80E-04	5.66E-04	2.92E-04	-	-	7.74E-04	2.92E-04	1.76E-03	1.76E-03	5.66E-04	2.92E-04	4	100
OCDD	pg TEQ/m ³	1.61E-04	4.70E-05	5.00E-05	2.25E-05	-	-	7.01E-05	2.25E-05	1.61E-04	1.61E-04	5.00E-05	2.25E-05	4	100
2,3,7,8-TCDF	pg TEQ/m ³	1.46E-04	6.95E-05	1.30E-04	1.51E-04	-	-	1.24E-04	6.95E-05	1.46E-04	1.46E-04	1.30E-04	1.51E-04	4	100
1,2,3,7,8-PeCDF	pg TEQ/m ³	2.62E-04	3.58E-05	1.04E-04	3.76E-05	-	-	1.10E-04	3.58E-05	2.62E-04	2.62E-04	1.04E-04	3.76E-05	4	100
2,3,4,7,8-PeCDF	pg TEQ/m ³	1.70E-03	2.20E-04	2.91E-04	3.44E-04	-	-	6.39E-04	2.20E-04	1.70E-03	1.70E-03	2.91E-04	3.44E-04	4	100
1,2,3,4,7,8-HxCDF	pg TEQ/m ³	4.99E-04	7.04E-05	1.28E-04	8.45E-05	-	-	1.96E-04	7.04E-05	4.99E-04	4.99E-04	1.28E-04	8.45E-05	4	100
1,2,3,6,7,8-HxCDF	pg TEQ/m ³	4.74E-04	1.67E-04	9.05E-05	8.75E-05	-	-	2.05E-04	8.75E-05	4.74E-04	4.74E-04	9.05E-05	8.75E-05	4	100
2,3,4,6,7,8-HxCDF	pg TEQ/m ³	2.01E-04	4.02E-05	1.04E-04	8.00E-05	-	-	1.06E-04	4.02E-05	2.01E-04	2.01E-04	1.04E-04	8.00E-05	4	100
1,2,3,7,8,9-HxCDF	pg TEQ/m ³	3.03E-04	4.59E-05	5.10E-05	9.21E-05	-	-	1.23E-04	4.59E-05	3.03E-04	3.03E-04	5.10E-05	9.21E-05	4	100
1,2,3,4,6,7,8-HpCDF	pg TEQ/m ³	2.31E-04	7.09E-05	1.47E-04	3.62E-05	-	-	1.21E-04	3.62E-05	2.31E-04	2.31E-04	1.47E-04	3.62E-05	4	100
1,2,3,4,7,8,9-HpCDF	pg TEQ/m ³	3.56E-05	6.46E-06	1.23E-05	1.51E-05	-	-	1.74E-05	6.46E-06	3.56E-05	3.56E-05	1.23E-05	1.51E-05	4	100
OCDF	pg TEQ/m ³	7.44E-06	4.68E-06	1.78E-06	9.51E-07	-	-	3.71E-06	9.51E-07	7.44E-06	7.44E-06	1.78E-06	9.51E-07	4	100
Total Toxic Equivalency	pg TEQ/m ³	1.62E-02	2.83E-03	4.19E-03	3.45E-03	0.1	0	6.66E-03	2.83E-03	1.62E-02	1.62E-02	4.19E-03	3.45E-03	4	100

NOTE: All non-detectable results were reported as 1/2 of the detection limit

Table B3: 2026 Rundle Road Station Q1 Monitoring Results for Dioxins & Furans

Contaminant	Units	8-Jan-26	1-Feb-26	25-Feb-26	21-Mar-26	MECP Criteria	No. > Criteria	Arithmetic Mean	Q1 Minimum Concentration	Q1 Maximum Concentration	January Maximum Concentration	February Maximum Concentration	March Maximum Concentration	Number of Valid Samples	% Valid data
2,3,7,8-TCDD	pg TEQ/m ³	6.11E-04	3.23E-04	7.70E-04	7.41E-04	-	-	6.11E-04	3.23E-04	7.70E-04	6.11E-04	7.70E-04	7.41E-04	4	100
1,2,3,7,8-PeCDD	pg TEQ/m ³	1.08E-03	2.00E-03	1.02E-03	7.25E-04	-	-	1.20E-03	7.25E-04	2.00E-03	2.00E-03	1.02E-03	7.25E-04	4	100
1,2,3,4,7,8-HxCDD	pg TEQ/m ³	3.70E-04	5.90E-05	2.97E-04	1.53E-04	-	-	2.20E-04	5.90E-05	3.70E-04	3.70E-04	2.97E-04	1.53E-04	4	100
1,2,3,6,7,8-HxCDD	pg TEQ/m ³	5.15E-04	2.03E-04	2.13E-04	1.32E-04	-	-	2.66E-04	1.32E-04	5.15E-04	5.15E-04	2.13E-04	1.32E-04	4	100
1,2,3,7,8,9-HxCDD	pg TEQ/m ³	9.84E-04	1.58E-04	1.80E-04	7.41E-05	-	-	3.49E-04	7.41E-05	9.84E-04	9.84E-04	1.80E-04	7.41E-05	4	100
1,2,3,4,6,7,8-HpCDD	pg TEQ/m ³	1.78E-03	2.05E-04	2.46E-04	3.15E-04	-	-	6.37E-04	2.05E-04	1.78E-03	1.78E-03	2.46E-04	3.15E-04	4	100
OCDD	pg TEQ/m ³	1.51E-04	1.31E-05	5.79E-05	2.50E-05	-	-	6.19E-05	1.31E-05	1.51E-04	1.51E-04	5.79E-05	2.50E-05	4	100
2,3,7,8-TCDF	pg TEQ/m ³	2.22E-04	2.95E-05	1.25E-04	1.07E-04	-	-	1.21E-04	2.95E-05	2.22E-04	2.22E-04	1.25E-04	1.07E-04	4	100
1,2,3,7,8-PeCDF	pg TEQ/m ³	2.44E-04	3.12E-05	3.83E-05	1.80E-05	-	-	8.29E-05	1.80E-05	2.44E-04	2.44E-04	3.83E-05	1.80E-05	4	100
2,3,4,7,8-PeCDF	pg TEQ/m ³	1.30E-03	4.65E-04	3.98E-04	1.66E-04	-	-	5.83E-04	1.66E-04	1.30E-03	1.30E-03	3.98E-04	1.66E-04	4	100
1,2,3,4,7,8-HxCDF	pg TEQ/m ³	2.09E-04	4.49E-05	1.23E-04	1.06E-04	-	-	1.21E-04	4.49E-05	2.09E-04	2.09E-04	1.23E-04	1.06E-04	4	100
1,2,3,6,7,8-HxCDF	pg TEQ/m ³	1.61E-04	4.63E-05	9.50E-05	4.57E-05	-	-	8.70E-05	4.57E-05	1.61E-04	1.61E-04	9.50E-05	4.57E-05	4	100
2,3,4,6,7,8-HxCDF	pg TEQ/m ³	4.31E-04	2.95E-05	5.57E-05	4.73E-05	-	-	1.41E-04	2.95E-05	4.31E-04	4.31E-04	5.57E-05	4.73E-05	4	100
1,2,3,7,8,9-HxCDF	pg TEQ/m ³	2.50E-04	3.37E-05	6.23E-05	5.36E-05	-	-	9.98E-05	3.37E-05	2.50E-04	2.50E-04	6.23E-05	5.36E-05	4	100
1,2,3,4,6,7,8-HpCDF	pg TEQ/m ³	2.25E-04	3.68E-05	1.04E-04	1.26E-05	-	-	9.48E-05	1.26E-05	2.25E-04	2.25E-04	1.04E-04	1.26E-05	4	100
1,2,3,4,7,8,9-HpCDF	pg TEQ/m ³	6.37E-05	1.53E-05	9.01E-06	7.73E-06	-	-	2.39E-05	7.73E-06	6.37E-05	6.37E-05	9.01E-06	7.73E-06	4	100
OCDF	pg TEQ/m ³	2.42E-05	2.74E-07	1.82E-06	1.69E-06	-	-	7.00E-06	2.74E-07	2.42E-05	2.42E-05	1.82E-06	1.69E-06	4	100
Total Toxic Equivalency	pg TEQ/m ³	8.62E-03	3.69E-03	3.79E-03	2.73E-03	0.1	0	4.71E-03	2.73E-03	8.62E-03	8.62E-03	3.79E-03	2.73E-03	4	100

NOTE: All non-detectable results were reported as 1/2 of the detection limit

Table B4: Summary of Sample Flow Rate and Sample Duration for PAHs

Sample Date	Courtice			Rundle		
	Filter ID	Sample Duration	Sample Volume	Filter ID	Sample Duration	Sample Volume
	No.	(min)	(m3)	No.	(min)	(m3)
January 8, 2026	BU2600062-001	1440	323	BU2600062-002	1440	311
January 20, 2026	BU2600169-001	1440	337	BU2600169-002	1440	323
February 1, 2026	BU2600304-001	1440	348	BU2600304-002	1440	356
February 13, 2026	BU2600412-001	1440	323	BU2600412-002	1440	340
February 25, 2026	BU2600552-001	1440	303	BU2600552-002	1440	306
March 9, 2026	BU2600664-001	1440	311	BU2600664-002	1440	315
March 21, 2026	BU2600837-001	1440	331	BU2600837-002	1440	317

Table B5: 2026 Courtice Station Q1 Monitoring Results for PAHs

Contaminant	Units	MECP Criteria	8-Jan-26	20-Jan-26	1-Feb-26	13-Feb-26	25-Feb-26	9-Mar-26	21-Mar-26	No. > Criteria	Arithmetic Mean	Q1 Minimum Concentration	Q1 Maximum Concentration	January Maximum Concentration	February Maximum Concentration	March Maximum Concentration	Number of Valid Samples	% Valid data
1-Methylnaphthalene	ng/m3	-	4.33E+00	2.31E+00	1.72E+00	4.41E+00	2.83E+00	1.82E+00	1.87E+00	-	2.76E+00	1.72E+00	4.41E+00	4.33E+00	4.41E+00	1.87E+00	7	100
2-Methylnaphthalene	ng/m3	-	7.83E+00	3.59E+00	2.83E+00	8.55E+00	5.30E+00	3.06E+00	3.20E+00	-	4.91E+00	2.83E+00	8.55E+00	7.83E+00	8.55E+00	3.20E+00	7	100
Acenaphthene	ng/m3	-	1.35E+00	3.77E-01	4.02E-01	9.57E-01	2.20E+00	1.87E+00	1.59E+00	-	1.25E+00	3.77E-01	2.20E+00	1.35E+00	2.20E+00	1.87E+00	7	100
Acenaphthylene	ng/m3	-	2.91E-01	7.83E-02	2.01E-01	2.35E-01	9.28E-02	1.22E-01	1.30E-01	-	1.64E-01	7.83E-02	2.91E-01	2.91E-01	2.35E-01	1.30E-01	7	100
Anthracene	ng/m3	-	9.50E-02	3.71E-02	5.20E-02	7.65E-02	3.68E-02	5.65E-02	5.65E-02	-	5.86E-02	3.68E-02	9.50E-02	9.50E-02	7.65E-02	5.65E-02	7	100
Benzo(a)Anthracene	ng/m3	-	2.56E-02	7.20E-03	1.86E-02	1.76E-02	3.62E-02	6.39E-02	1.07E-02	-	2.57E-02	7.20E-03	6.39E-02	2.56E-02	3.62E-02	6.39E-02	7	100
Benzo(a)fluorene	ng/m3	-	3.22E-02	7.60E-03	2.41E-02	1.93E-02	3.04E-02	3.39E-02	1.11E-02	-	2.27E-02	7.60E-03	3.39E-02	3.22E-02	3.04E-02	3.39E-02	7	100
Benzo(a)Pyrene	ng/m3	0.05	3.34E-02	7.80E-03	1.81E-02	1.79E-02	3.19E-02	7.67E-02	1.07E-02	1	2.81E-02	7.80E-03	7.67E-02	3.34E-02	3.19E-02	7.67E-02	7	100
Benzo(b)Fluoranthene	ng/m3	-	7.37E-02	4.42E-02	8.36E-02	6.57E-02	8.22E-02	1.44E-01	2.97E-02	-	7.47E-02	2.97E-02	1.44E-01	7.37E-02	8.36E-02	1.44E-01	7	100
Benzo(b)fluorene	ng/m3	-	1.60E-02	6.30E-03	1.19E-02	9.00E-03	1.70E-02	1.84E-02	5.50E-03	-	1.20E-02	5.50E-03	1.84E-02	1.60E-02	1.70E-02	1.84E-02	7	100
Benzo(e)Pyrene	ng/m3	-	4.95E-02	3.00E-02	4.57E-02	3.86E-02	5.16E-02	1.07E-01	2.02E-02	-	4.89E-02	2.02E-02	1.07E-01	4.95E-02	5.16E-02	1.07E-01	7	100
Benzo(g,h,i)Perylene	ng/m3	-	4.98E-02	2.29E-02	3.05E-02	6.11E-02	5.53E-02	1.22E-01	2.41E-02	-	5.22E-02	2.29E-02	1.22E-01	4.98E-02	6.11E-02	1.22E-01	7	100
Benzo(k)Fluoranthene	ng/m3	-	2.77E-02	2.66E-02	2.50E-02	2.01E-02	2.84E-02	6.13E-02	8.40E-03	-	2.82E-02	8.40E-03	6.13E-02	2.77E-02	2.84E-02	6.13E-02	7	100
Biphenyl	ng/m3	-	3.03E+00	1.51E+00	1.30E+00	2.30E+00	2.43E+00	1.64E+00	1.75E+00	-	1.99E+00	1.30E+00	3.03E+00	3.03E+00	2.43E+00	1.75E+00	7	100
Chrysene	ng/m3	-	6.53E-02	4.93E-02	8.88E-02	7.22E-02	7.34E-02	1.63E-01	3.69E-02	-	7.84E-02	3.69E-02	1.63E-01	6.53E-02	8.88E-02	1.63E-01	7	100
Dibenzo(a,h)Anthracene	ng/m3	-	6.80E-03	1.49E-03	4.00E-03	5.30E-03	7.00E-03	2.01E-02	1.51E-03	-	6.60E-03	1.49E-03	2.01E-02	6.80E-03	7.00E-03	2.01E-02	7	100
Fluoranthene	ng/m3	-	7.43E-01	2.72E-01	4.80E-01	5.00E-01	6.78E-01	5.85E-01	3.87E-01	-	5.21E-01	2.72E-01	7.43E-01	7.43E-01	6.78E-01	5.85E-01	7	100
Fluorene	ng/m3	-	1.72E+00	5.73E-01	6.24E-01	9.81E-01	1.68E+00	1.58E+00	1.50E+00	-	1.24E+00	5.73E-01	1.72E+00	1.72E+00	1.68E+00	1.58E+00	7	100
Indeno(1,2,3-cd)Pyrene	ng/m3	-	5.57E-02	2.32E-02	4.28E-02	4.32E-02	4.74E-02	1.03E-01	2.37E-02	-	4.84E-02	2.32E-02	1.03E-01	5.57E-02	4.74E-02	1.03E-01	7	100
Naphthalene	ng/m3	22500	3.02E+01	1.77E+01	1.30E+01	2.53E+01	1.83E+01	1.47E+01	9.64E+00	0	1.84E+01	9.64E+00	3.02E+01	3.02E+01	2.53E+01	1.47E+01	7	100
o-Terphenyl	ng/m3	-	1.93E-02	1.04E-02	8.60E-03	1.01E-02	1.04E-02	1.13E-02	1.51E-03	-	1.02E-02	1.51E-03	1.93E-02	1.93E-02	1.04E-02	1.13E-02	7	100
Perylene	ng/m3	-	7.40E-03	6.50E-03	3.00E-03	4.00E-03	9.50E-03	1.59E-02	2.15E+00	-	3.14E-01	3.00E-03	2.15E+00	7.40E-03	9.50E-03	2.15E+00	7	100
Phenanthrene	ng/m3	-	2.59E+00	1.33E+00	1.55E+00	1.50E+00	2.31E+00	1.44E+00	1.93E-01	-	1.56E+00	1.93E-01	2.59E+00	2.59E+00	2.31E+00	1.44E+00	7	100
Pyrene	ng/m3	-	3.25E-01	1.34E-01	2.99E-01	3.46E-01	2.84E-01	2.91E-01	1.26E-02	-	2.42E-01	1.26E-02	3.46E-01	3.25E-01	3.46E-01	2.91E-01	7	100
Tetralin	ng/m3	-	2.66E+00	1.74E+00	6.29E-01	3.49E+00	1.00E+00	8.18E-01	7.85E-01	-	1.59E+00	6.29E-01	3.49E+00	2.66E+00	3.49E+00	8.18E-01	7	100
Total PAH	ng/m3	-	5.56E+01	2.99E+01	2.35E+01	4.90E+01	3.76E+01	2.89E+01	2.34E+01	-	3.54E+01	2.34E+01	5.56E+01	5.56E+01	4.90E+01	2.89E+01	7	100

NOTE: All non-detectable results were reported as 1/2 of the detection limit

Table B6: 2026 Rundle Road Station Q1 Monitoring Results for PAHs

Contaminant	Units	MECP Criteria	8-Jan-26	20-Jan-26	1-Feb-26	13-Feb-26	25-Feb-26	9-Mar-26	21-Mar-26	No. > Criteria	Arithmetic Mean	Q1 Minimum Concentration	Q1 Maximum Concentration	January Maximum Concentration	February Maximum Concentration	March Maximum Concentration	Number of Valid Samples	% Valid data
1-Methylnaphthalene	ng/m3	-	4.53E+00	3.05E+00	1.48E+00	3.06E+00	3.77E+00	2.88E+00	1.89E+00	-	2.95E+00	1.48E+00	4.53E+00	4.53E+00	3.77E+00	2.88E+00	7	100
2-Methylnaphthalene	ng/m3	-	8.49E+00	4.83E+00	2.37E+00	5.50E+00	7.41E+00	5.11E+00	3.28E+00	-	5.28E+00	2.37E+00	8.49E+00	8.49E+00	7.41E+00	5.11E+00	7	100
Acenaphthene	ng/m3	-	2.31E+00	6.16E-01	2.81E-01	9.65E-01	1.51E+00	2.07E+00	1.22E+00	-	1.28E+00	2.81E-01	2.31E+00	2.31E+00	1.51E+00	2.07E+00	7	100
Acenaphthylene	ng/m3	-	2.49E-01	2.01E-01	1.40E-01	3.85E-01	1.51E+00	1.62E-01	1.88E-01	-	4.05E-01	1.40E-01	1.51E+00	2.49E-01	1.51E+00	1.88E-01	7	100
Anthracene	ng/m3	-	1.54E-01	6.38E-02	8.06E-02	1.05E-01	6.66E-01	1.20E-01	1.97E-01	-	1.98E-01	6.38E-02	6.66E-01	1.54E-01	6.66E-01	1.97E-01	7	100
Benzo(a)Anthracene	ng/m3	-	2.92E-02	1.14E-02	3.20E-02	4.00E-02	5.44E-02	7.67E-02	2.43E-02	-	3.83E-02	1.14E-02	7.67E-02	2.92E-02	5.44E-02	7.67E-02	7	100
Benzo(a)fluorene	ng/m3	-	2.82E-02	1.26E-02	2.98E-02	2.69E-02	9.02E-02	3.87E-02	1.69E-02	-	3.48E-02	1.26E-02	9.02E-02	2.82E-02	9.02E-02	3.87E-02	7	100
Benzo(a)Pyrene	ng/m3	0.05	3.84E-02	5.05E-02	2.65E-02	2.78E-02	3.84E-02	6.77E-02	1.32E-02	2	3.75E-02	1.32E-02	6.77E-02	5.05E-02	3.84E-02	6.77E-02	7	100
Benzo(b)Fluoranthene	ng/m3	-	6.53E-02	2.98E-02	9.92E-02	1.03E-01	2.70E-01	1.58E-01	5.36E-02	-	1.11E-01	2.98E-02	2.70E-01	6.53E-02	2.70E-01	1.58E-01	7	100
Benzo(b)fluorene	ng/m3	-	1.24E-02	9.10E-03	1.59E-02	1.36E-02	5.31E-02	2.24E-02	9.00E-03	-	1.94E-02	9.00E-03	5.31E-02	1.24E-02	5.31E-02	2.24E-02	7	100
Benzo(e)Pyrene	ng/m3	-	4.56E-02	4.71E-02	5.98E-02	6.41E-02	1.46E-01	1.28E-01	3.66E-02	-	7.53E-02	3.66E-02	1.46E-01	4.71E-02	1.46E-01	1.28E-01	7	100
Benzo(g,h,i)Perylene	ng/m3	-	4.95E-02	4.24E-02	4.33E-02	7.21E-02	1.42E-01	1.47E-01	3.97E-02	-	7.66E-02	3.97E-02	1.47E-01	4.95E-02	1.42E-01	1.47E-01	7	100
Benzo(k)Fluoranthene	ng/m3	-	2.92E-02	4.43E-02	3.74E-02	3.82E-02	7.15E-02	7.51E-02	1.56E-02	-	4.45E-02	1.56E-02	7.51E-02	4.43E-02	7.15E-02	7.51E-02	7	100
Biphenyl	ng/m3	-	3.02E+00	1.91E+00	1.19E+00	3.06E+00	3.38E+00	2.11E+00	1.68E+00	-	2.34E+00	1.19E+00	3.38E+00	3.02E+00	3.38E+00	2.11E+00	7	100
Chrysene	ng/m3	-	8.88E-02	7.21E-02	1.04E-01	1.23E-01	1.62E-01	1.65E-01	5.62E-02	-	1.10E-01	5.62E-02	1.65E-01	8.88E-02	1.62E-01	1.65E-01	7	100
Dibenzo(a,h)Anthracene	ng/m3	-	6.30E-03	4.60E-03	6.00E-03	7.40E-03	1.15E-02	2.02E-02	6.00E-03	-	8.86E-03	4.60E-03	2.02E-02	6.30E-03	1.15E-02	2.02E-02	7	100
Fluoranthene	ng/m3	-	7.85E-01	3.59E-01	4.27E-01	6.35E-01	2.06E+00	1.00E+00	6.18E-01	-	8.41E-01	3.59E-01	2.06E+00	7.85E-01	2.06E+00	1.00E+00	7	100
Fluorene	ng/m3	-	2.10E+00	6.87E-01	5.93E-01	1.32E+00	2.36E+00	2.77E+00	1.65E+00	-	1.64E+00	5.93E-01	2.77E+00	2.10E+00	2.36E+00	2.77E+00	7	100
Indeno(1,2,3-cd)Pyrene	ng/m3	-	5.32E-02	4.71E-02	5.81E-02	6.21E-02	1.45E-01	1.12E-01	3.63E-02	-	7.34E-02	3.63E-02	1.45E-01	5.32E-02	1.45E-01	1.12E-01	7	100
Naphthalene	ng/m3	22500	3.32E+01	2.10E+01	1.11E+01	1.71E+01	3.51E+01	1.62E+01	8.80E+00	0	2.04E+01	8.80E+00	3.51E+01	3.32E+01	3.51E+01	1.62E+01	7	100
o-Terphenyl	ng/m3	-	1.60E-02	1.01E-02	3.10E-03	1.42E-02	1.11E-02	1.55E-02	3.80E-03	-	1.05E-02	3.10E-03	1.60E-02	1.60E-02	1.42E-02	1.55E-02	7	100
Perylene	ng/m3	-	7.70E-03	5.20E-02	4.50E-03	5.60E-03	8.10E-03	3.32E+00	2.61E+00	-	8.58E-01	4.50E-03	3.32E+00	5.20E-02	8.10E-03	3.32E+00	7	100
Phenanthrene	ng/m3	-	3.23E+00	1.56E+00	1.47E+00	1.89E+00	5.57E+00	5.27E-01	3.25E-01	-	2.08E+00	3.25E-01	5.57E+00	3.23E+00	5.57E+00	5.27E-01	7	100
Pyrene	ng/m3	-	3.41E-01	2.22E-01	2.74E-01	3.68E-01	1.30E+00	1.85E-02	1.46E-02	-	3.63E-01	1.46E-02	1.30E+00	3.41E-01	1.30E+00	1.85E-02	7	100
Tetralin	ng/m3	-	2.96E+00	2.25E+00	4.86E-01	2.02E+00	1.62E+00	1.28E+00	7.22E-01	-	1.62E+00	4.86E-01	2.96E+00	2.96E+00	2.02E+00	1.28E+00	7	100
Total PAH	ng/m3	-	6.18E+01	3.72E+01	2.04E+01	3.70E+01	6.75E+01	3.86E+01	2.35E+01	-	4.09E+01	2.04E+01	6.75E+01	6.18E+01	6.75E+01	3.86E+01	7	100

NOTE: All non-detectable results were reported as 1/2 of the detection limit

Table B7: Summary of Sample Flow Rate and Sample Duration for TSP & Metals

Sample Date	Courtice			Rundle		
	Filter ID	Sample Duration	Sample Volume	Filter ID	Sample Duration	Sample Volume
	No.	(min)	(m3)	No.	(min)	(m3)
January 2, 2026	BU2600063-001	1440	1693	BU2600063-003	1440	1784
January 8, 2026	BU2600063-002	1440	1661	BU2600063-004	1440	1646
January 14, 2026	BU2600170-001	1440	1684	BU2600170-003	1440	1690
January 20, 2026	BU2600170-002	1440	1710	BU2600170-004	1440	1710
January 26, 2026	AZWE65	1440	1790	AZWE66	1440	1741
February 1, 2026	BU2600305-001	1440	1730	BU2600305-002	1440	1751
February 7, 2026	BU2600413-001	1440	1781	BU2600413-003	1440	1737
February 13, 2026	BU2600413-002	1440	1669	BU2600413-004	1440	1692
February 19, 2026	BU2600554-001	1440	1738	BU2600554-003	1440	1671
February 25, 2026	BU2600554-002	1440	1734	BU2600554-004	1440	1679
March 3, 2026	BU2600665-001	1440	1738	BU2600665-003	1440	1695
March 9, 2026	BU2600665-002	1440	1650	BU2600665-004	1440	1656
March 15, 2026	BU2600838-001	1440	1691	BU2600838-003	1438	1684
March 21, 2026	BU2600838-002	1440	1692	BU2600838-004	1440	1675
March 27, 2026	BU2600948-001	1440	1716	BU2600948-003	1440	1702

Table B8: 2026 Courtice Station Q1 Monitoring Results for TSP and Metals

Contaminant	Units	2-Jan-26	8-Jan-26	14-Jan-26	20-Jan-26	26-Jan-26	1-Feb-26	7-Feb-26	13-Feb-26	19-Feb-26	25-Feb-26	3-Mar-26	9-Mar-26	15-Mar-26	21-Mar-26	27-Mar-26	MECP Criteria (µg/m3)	No. > Criteria	Geometric Mean	Arithmetic Mean	Q1 Minimum Concentration	Q1 Maximum Concentration	January Maximum Concentration	February Maximum Concentration	March Maximum Concentration	Number of Valid Samples	% Valid data
Total particulate	µg/m3	22.45	14.93	7.96	14.27	13.80	18.09	11.46	16.60	16.57	13.38	40.91	13.34	21.77	9.04	16.96	120	0	15.5	16.8	7.96	40.91	22.45	18.09	40.91	15	100
Aluminum (Al)	µg/m3	4.83E-02	4.28E-02	7.07E-02	1.04E-01	3.07E-02	4.77E-02	6.35E-02	6.83E-02	1.88E-01	5.94E-02	2.87E-01	8.73E-02	2.37E-01	4.57E-02	1.53E-01	-	-	8.12E-02	1.02E-01	3.07E-02	2.87E-01	1.04E-01	1.88E-01	2.87E-01	15	100
Antimony (Sb)	µg/m3	1.58E-03	7.41E-04	7.60E-04	6.37E-04	2.63E-04	3.87E-04	2.25E-04	1.28E-03	2.99E-03	6.80E-04	1.19E-03	1.03E-03	4.50E-03	1.39E-03	3.32E-04	25	0	8.49E-04	1.20E-03	2.25E-04	4.50E-03	1.58E-03	2.99E-03	4.50E-03	15	100
Arsenic (As)	µg/m3	8.86E-04	9.03E-04	8.91E-04	8.77E-04	1.26E-04	8.67E-04	8.42E-04	8.99E-04	8.63E-04	8.65E-04	8.63E-04	9.09E-04	8.87E-04	8.87E-04	8.74E-04	0.3	0	7.72E-04	8.29E-04	1.26E-04	9.09E-04	9.03E-04	8.99E-04	9.09E-04	15	100
Barium (Ba)	µg/m3	6.91E-03	5.47E-03	5.74E-03	4.91E-03	3.86E-03	4.58E-03	2.68E-03	8.51E-03	4.67E-03	3.89E-03	1.12E-02	4.83E-03	4.24E-03	2.38E-03	4.97E-03	10	0	4.88E-03	5.26E-03	2.38E-03	1.12E-02	6.91E-03	8.51E-03	1.12E-02	15	100
Beryllium (Be)	µg/m3	1.48E-05	1.51E-05	1.48E-05	1.46E-05	7.54E-05	1.44E-05	1.40E-05	1.50E-05	1.44E-05	1.44E-05	1.44E-05	1.52E-05	1.48E-05	1.48E-05	1.46E-05	0.07	0	1.63E-05	1.87E-05	1.40E-05	7.54E-05	7.54E-05	1.50E-05	1.52E-05	15	100
Bismuth (Bi)	µg/m3	5.32E-04	5.42E-04	5.34E-04	5.26E-04	1.26E-04	5.20E-04	5.05E-04	5.39E-04	5.18E-04	5.19E-04	5.18E-04	5.46E-04	5.32E-04	5.32E-04	5.24E-04	-	-	4.80E-04	5.01E-04	1.26E-04	5.46E-04	5.42E-04	5.39E-04	5.46E-04	15	100
Boron (B)	µg/m3	4.43E-03	4.52E-03	4.45E-03	4.39E-03	2.51E-03	4.33E-03	4.21E-03	4.49E-03	4.32E-03	4.33E-03	4.32E-03	4.55E-03	4.44E-03	4.43E-03	4.37E-03	120	0	4.24E-03	4.27E-03	2.51E-03	4.55E-03	4.52E-03	4.49E-03	4.55E-03	15	100
Cadmium (Cd)	µg/m3	1.28E-04	8.85E-05	1.37E-04	1.12E-04	6.15E-05	3.81E-05	7.30E-05	9.47E-05	1.56E-04	1.12E-04	1.47E-04	1.27E-04	6.85E-05	2.15E-04	6.98E-05	0.025	0	9.35E-05	1.04E-04	3.81E-05	2.15E-04	1.37E-04	1.56E-04	2.15E-04	15	100
Chromium (Cr)	µg/m3	3.01E-03	2.29E-03	2.08E-03	2.46E-03	1.73E-03	9.82E-04	9.55E-04	1.02E-03	9.78E-04	9.80E-04	2.76E-03	1.03E-03	2.07E-03	1.00E-03	1.98E-03	0.5	0	1.54E-03	1.69E-03	9.55E-04	3.01E-03	3.01E-03	1.02E-03	2.76E-03	15	100
Cobalt (Co)	µg/m3	6.14E-05	5.36E-05	6.77E-05	8.19E-05	1.26E-04	5.61E-05	5.39E-05	7.79E-05	1.12E-04	5.54E-05	1.97E-04	8.73E-05	1.15E-04	3.67E-05	1.39E-04	0.1	0	7.98E-05	8.80E-05	3.67E-05	1.97E-04	1.26E-04	1.12E-04	1.97E-04	15	100
Copper (Cu)	µg/m3	4.07E-02	7.17E-02	1.78E-02	1.38E-02	2.74E-02	4.27E-02	2.81E-02	7.97E-02	1.28E-02	1.95E-02	2.69E-02	2.63E-02	6.27E-03	1.30E-02	5.19E-03	50	0	2.20E-02	2.88E-02	5.19E-03	7.97E-02	7.17E-02	7.97E-02	2.69E-02	15	100
Iron (Fe)	µg/m3	1.91E-01	2.02E-01	1.95E-01	2.27E-01	1.12E-01	1.56E-01	1.25E-01	2.71E-01	2.95E-01	1.52E-01	6.10E-01	3.10E-01	2.87E-01	1.18E-01	3.03E-01	4	0	2.14E-01	2.37E-01	1.12E-01	6.10E-01	2.27E-01	2.95E-01	6.10E-01	15	100
Lead (Pb)	µg/m3	2.24E-03	2.14E-03	1.70E-03	2.82E-03	2.46E-03	1.43E-03	7.36E-04	1.32E-03	2.70E-03	1.89E-03	2.89E-03	2.63E-03	1.90E-03	9.87E-04	1.30E-03	0.5	0	1.81E-03	1.94E-03	7.36E-04	2.89E-03	2.82E-03	2.70E-03	2.89E-03	15	100
Magnesium (Mg)	µg/m3	1.06E-01	7.65E-02	1.37E-01	1.61E-01	7.26E-02	1.03E-01	1.54E-01	1.37E-01	1.67E-01	1.16E-01	4.34E-01	3.07E-01	8.28E-02	2.62E-01	1.16E-01	-	-	1.48E-01	1.70E-01	7.26E-02	4.34E-01	1.61E-01	1.67E-01	4.34E-01	15	100
Manganese (Mn)	µg/m3	8.51E-03	6.44E-03	4.76E-03	9.71E-03	3.24E-03	3.03E-03	2.97E-03	6.35E-03	8.06E-03	5.01E-03	1.49E-02	1.07E-02	9.76E-03	2.80E-03	9.27E-03	0.4	0	6.20E-03	7.03E-03	2.80E-03	1.49E-02	9.71E-03	8.06E-03	1.49E-02	15	100
Mercury (Hg)	µg/m3	1.12E-05	6.62E-06	2.97E-06	7.02E-06	1.26E-04	8.09E-06	2.25E-05	3.00E-06	6.33E-06	2.88E-06	1.27E-05	6.67E-06	8.28E-06	2.96E-06	2.91E-06	2	0	7.43E-06	1.53E-05	2.88E-06	1.26E-04	1.26E-04	2.25E-05	1.27E-05	15	100
Molybdenum (Mo)	µg/m3	1.72E-03	2.75E-03	1.35E-03	1.13E-03	1.90E-03	2.54E-03	1.75E-03	4.07E-03	8.52E-04	1.19E-03	1.89E-03	1.96E-03	4.02E-04	7.92E-04	4.89E-04	120	0	1.39E-03	1.65E-03	4.02E-04	4.07E-03	2.75E-03	4.07E-03	1.96E-03	15	100
Nickel (Ni)	µg/m3	1.26E-03	1.06E-03	8.73E-04	9.18E-04	1.73E-03	6.76E-04	8.70E-04	1.08E-03	1.01E-03	7.96E-04	1.33E-03	8.73E-04	1.36E-03	7.21E-04	9.67E-04	0.2	0	1.00E-03	1.04E-03	6.76E-04	1.73E-03	1.73E-03	1.08E-03	1.36E-03	15	100
Phosphorus (P)	µg/m3	2.22E-01	2.26E-01	2.23E-01	2.19E-01	N/A	2.17E-01	2.11E-01	2.25E-01	2.16E-01	2.16E-01	2.16E-01	2.27E-01	2.22E-01	2.22E-01	2.19E-01	-	-	2.20E-01	2.20E-01	2.11E-01	2.27E-01	2.26E-01	2.25E-01	2.27E-01	14	93
Selenium (Se)	µg/m3	3.84E-04	3.91E-04	3.86E-04	3.80E-04	2.51E-04	3.76E-04	3.65E-04	1.38E-03	3.74E-04	3.75E-04	3.74E-04	3.94E-04	3.85E-04	3.84E-04	3.79E-04	10	0	4.03E-04	4.38E-04	2.51E-04	1.38E-03	3.91E-04	1.38E-03	3.94E-04	15	100
Silver (Ag)	µg/m3	2.66E-05	5.42E-05	2.67E-05	2.63E-05	2.51E-05	2.60E-05	2.53E-05	2.70E-05	2.59E-05	2.60E-05	3.03E-04	2.73E-05	2.66E-05	2.66E-05	2.62E-05	1	0	3.24E-05	4.66E-05	2.51E-05	3.03E-04	5.42E-05	2.70E-05	3.03E-04	15	100
Strontium (Sr)	µg/m3	2.89E-03	9.03E-04	2.73E-03	2.16E-03	1.79E-03	2.60E-03	1.97E-03	2.82E-03	5.24E-03	8.65E-04	1.28E-02	5.88E-03	5.97E-03	8.87E-04	6.82E-03	120	0	2.79E-03	3.75E-03	8.65E-04	1.28E-02	2.89E-03	5.24E-03	1.28E-02	15	100
Thallium (Tl)	µg/m3	2.66E-05	2.71E-05	2.67E-05	2.63E-05	1.26E-04	2.60E-05	2.53E-05	2.70E-05	2.59E-05	2.60E-05	2.15E-04	2.73E-05	2.66E-05	2.62E-05	2.62E-05	-	-	3.37E-05	4.56E-05	2.53E-05	2.15E-04	1.26E-04	2.70E-05	2.15E-04	15	100
Tin (Sn)	µg/m3	1.47E-03	1.10E-03	7.78E-04	1.46E-03	6.71E-04	4.74E-04	3.65E-04	1.09E-03	7.42E-04	6.92E-04	1.47E-03	7.64E-04	5.38E-04	3.72E-04	4.20E-04	10	0	7.41E-04	8.27E-04	3.65E-04	1.47E-03	1.47E-03	1.09E-03	1.47E-03	15	100
Titanium (Ti)	µg/m3	3.25E-03	3.31E-03	3.27E-03	3.22E-03	2.07E-03	3.18E-03	3.09E-03	3.30E-03	7.48E-03	3.17E-03	1.44E-02	3.33E-03	7.69E-03	3.25E-03	8.74E-03	120	0	4.15E-03	4.85E-03	2.07E-03	1.44E-02	3.31E-03	7.48E-03	1.44E-02	15	100
Uranium (U)	µg/m3	4.02E-06	3.79E-06	6.41E-06	6.55E-06	2.51E-04	4.16E-06	1.68E-06	4.85E-06	2.67E-05	6.46E-06	4.99E-05	1.15E-05	2.05E-05	5.32E-06	1.24E-05	0.3	0	9.79E-06	2.77E-05	1.68E-06	2.51E-04	2.51E-04	2.67E-05	4.99E-05	15	100
Vanadium (V)	µg/m3	1.48E-03	1.51E-03	1.48E-03	1.46E-03	2.51E-05	1.44E-03	1.40E-03	1.50E-03	1.44E-03	1.44E-03	1.44E-03	1.52E-03	1.48E-03	1.48E-03	1.46E-03	2	0	1.12E-03	1.37E-03	2.51E-05	1.52E-03	1.51E-03	1.50E-03	1.52E-03	15	100
Zinc (Zn)	µg/m3	9.92E-02	3.37E-02	3.66E-02	5.18E-02	2.35E-02	2.05E-02	2.55E-02	6.35E-02	1.30E-01	8.71E-02	3.02E-02	2.45E-02	1.22E-01	1.72E-02	1.38E-02	120	0	4.03E-02	5.20E-02	1.38E-02	1.30E-01	9.92E-02	1.30E-01	1.22E-01	15	100
Zirconium (Zr)	µg/m3	5.91E-04	6.02E-04	5.94E-04	5.85E-04	N/A	5.78E-04	5.62E-04	5.99E-04	5.76E-04	5.77E-04	1.21E-03	6.06E-04	5.92E-04	5.91E-04	5.83E-04	-	-	6.18E-04	6.32E-04	5.62E-04	1.21E-03	6.02E-04	5.99E-04	1.21E-03	14	93

NOTE: All non-detectable results were reported as 1/2 of the detection limit
 N/A - Phosphorus and Zirconium were not analyzed on January 26

Table B9: 2026 Rundle Road Station Q1 Monitoring Results for TSP and Metals

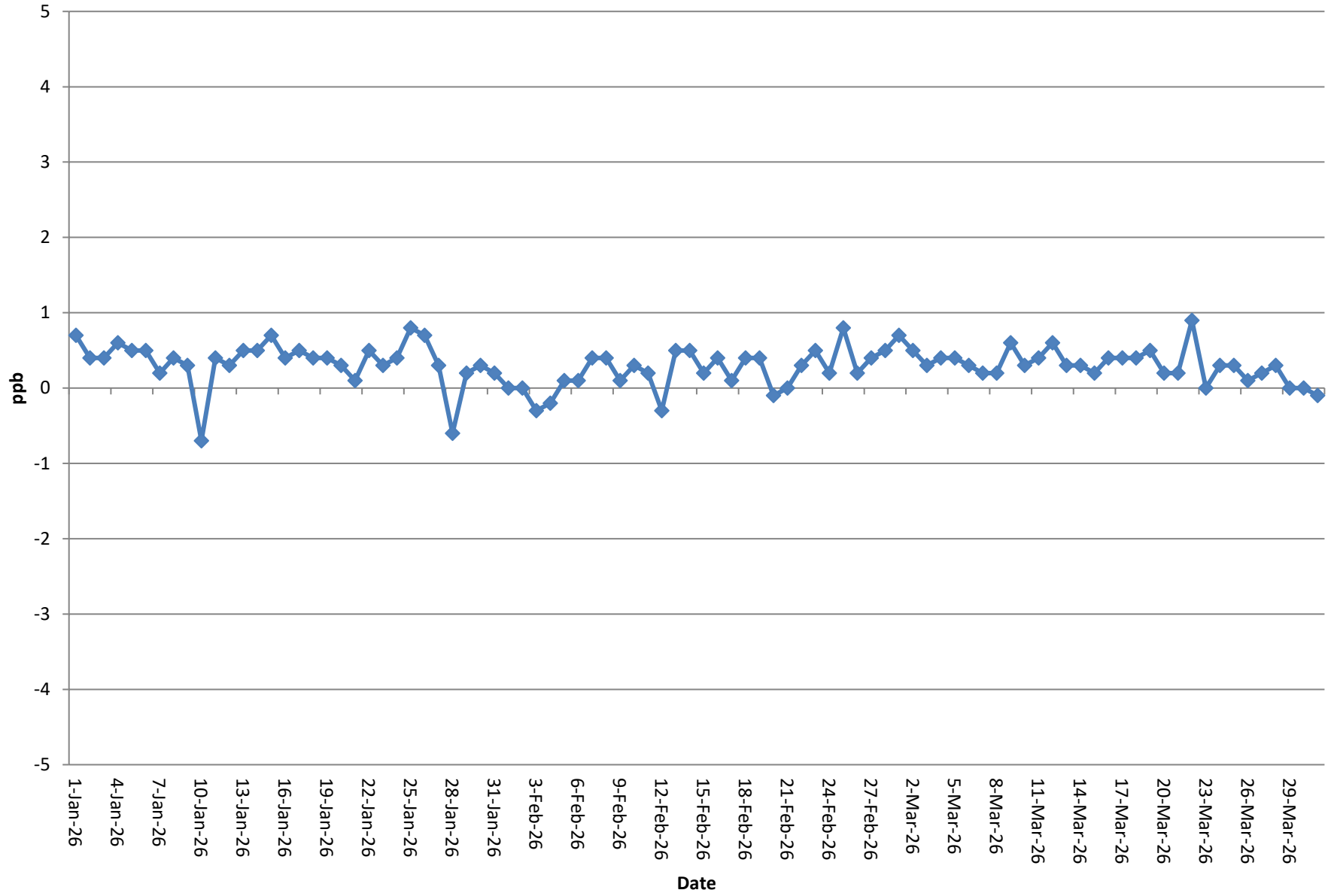
Contaminant	Units	2-Jan-26	8-Jan-26	14-Jan-26	20-Jan-26	26-Jan-26	1-Feb-26	7-Feb-26	13-Feb-26	19-Feb-26	25-Feb-26	3-Mar-26	9-Mar-26	15-Mar-26	21-Mar-26	27-Mar-26	MECP Criteria (µg/m3)	No. > Criteria	Geometric Mean	Arithmetic Mean	Q1 Minimum Concentration	Q1 Maximum Concentration	January Maximum Concentration	February Maximum Concentration	March Maximum Concentration	Number of Valid Samples	% Valid data
Total particulate	µg/m3	46.25	15.79	9.29	29.24	5.80	15.54	8.35	36.34	16.10	19.60	29.73	47.75	24.04	14.68	24.20	120	0	19.4	22.8	5.80	47.75	46.25	36.34	47.75	15	100
Aluminum (Al)	µg/m3	9.64E-02	4.58E-02	5.12E-02	1.26E-01	2.81E-02	6.23E-02	3.50E-02	1.59E-01	1.74E-01	9.23E-02	1.56E-01	3.05E-01	2.67E-01	1.16E-01	2.43E-01	-	-	1.09E-01	1.36E-01	2.81E-02	3.05E-01	1.26E-01	1.74E-01	3.05E-01	15	100
Antimony (Sb)	µg/m3	4.43E-04	9.23E-04	6.86E-04	5.50E-04	1.29E-04	2.00E-04	7.20E-05	6.50E-04	5.03E-04	6.14E-04	8.67E-04	9.36E-04	2.97E-04	2.98E-04	2.70E-04	25	0	3.86E-04	4.82E-04	2.98E-05	9.36E-04	9.23E-04	6.50E-04	9.36E-04	15	100
Arsenic (As)	µg/m3	8.41E-04	9.11E-04	8.87E-04	8.77E-04	1.29E-04	8.57E-04	8.63E-04	8.86E-04	8.98E-04	8.94E-04	8.85E-04	9.06E-04	8.91E-04	8.95E-04	8.81E-04	0.3	0	7.70E-04	8.30E-04	1.29E-04	9.11E-04	9.11E-04	8.98E-04	9.06E-04	15	100
Barium (Ba)	µg/m3	6.95E-03	8.14E-03	4.73E-03	6.73E-03	2.76E-03	2.79E-03	1.26E-03	8.39E-03	4.68E-03	4.60E-03	1.05E-02	9.90E-03	5.43E-03	3.06E-03	4.79E-03	10	0	4.96E-03	5.71E-03	1.26E-03	1.05E-02	8.14E-03	8.39E-03	1.05E-02	15	100
Beryllium (Be)	µg/m3	1.40E-05	1.52E-05	1.48E-05	1.46E-05	7.76E-05	1.43E-05	1.44E-05	1.48E-05	1.50E-05	1.49E-05	1.47E-05	1.51E-05	1.48E-05	1.49E-05	1.47E-05	0.01	0	1.66E-05	1.92E-05	1.40E-05	7.76E-05	7.76E-05	1.50E-05	1.51E-05	15	100
Bismuth (Bi)	µg/m3	5.05E-04	5.47E-04	5.32E-04	5.26E-04	1.29E-04	5.14E-04	5.18E-04	5.32E-04	5.39E-04	5.36E-04	5.31E-04	5.43E-04	5.34E-04	5.37E-04	5.29E-04	-	-	4.79E-04	5.01E-04	1.29E-04	5.47E-04	5.47E-04	5.39E-04	5.43E-04	15	100
Boron (B)	µg/m3	4.20E-03	4.56E-03	4.44E-03	4.39E-03	2.59E-03	4.28E-03	4.32E-03	4.43E-03	4.49E-03	4.47E-03	4.42E-03	4.53E-03	4.45E-03	4.48E-03	4.41E-03	120	0	4.25E-03	4.29E-03	2.59E-03	4.56E-03	4.56E-03	4.49E-03	4.53E-03	15	100
Cadmium (Cd)	µg/m3	1.39E-04	9.72E-05	1.06E-04	1.60E-04	5.34E-05	8.85E-05	9.90E-05	7.56E-05	5.75E-05	7.09E-05	8.55E-05	7.67E-05	1.59E-04	6.27E-05	4.46E-05	0.025	0	8.43E-05	9.07E-05	4.46E-05	1.60E-04	1.60E-04	9.90E-05	1.59E-04	15	100
Chromium (Cr)	µg/m3	2.58E-03	2.25E-03	2.13E-03	2.69E-03	1.49E-03	9.71E-04	9.79E-04	2.13E-03	1.02E-03	1.01E-03	2.06E-03	3.02E-03	1.01E-03	1.01E-03	2.00E-03	0.5	0	1.58E-03	1.73E-03	9.71E-04	3.02E-03	2.69E-03	2.13E-03	3.02E-03	15	100
Cobalt (Co)	µg/m3	6.28E-05	6.92E-05	5.74E-05	1.02E-04	1.29E-04	4.74E-05	3.86E-05	1.37E-04	1.13E-04	8.04E-05	1.59E-04	2.39E-04	1.23E-04	6.57E-05	1.29E-04	0.1	0	9.54E-05	1.07E-04	3.86E-05	2.39E-04	1.29E-04	1.37E-04	2.39E-04	15	100
Copper (Cu)	µg/m3	5.49E-02	8.26E-02	3.93E-02	4.90E-02	2.36E-02	3.52E-02	2.39E-02	8.04E-02	2.21E-02	4.74E-02	9.85E-02	8.03E-02	4.13E-02	9.55E-02	3.85E-02	50	0	4.89E-02	5.52E-02	2.21E-02	9.85E-02	8.26E-02	8.04E-02	9.85E-02	15	100
Iron (Fe)	µg/m3	2.07E-01	2.27E-01	1.74E-01	3.27E-01	5.74E-02	1.07E-01	5.47E-02	3.81E-01	2.89E-01	2.05E-01	4.24E-01	7.73E-01	3.81E-01	2.15E-01	3.58E-01	4	0	2.29E-01	2.86E-01	5.47E-02	7.73E-01	3.27E-01	3.81E-01	7.73E-01	15	100
Lead (Pb)	µg/m3	1.45E-03	3.15E-03	1.58E-03	2.76E-03	2.24E-03	1.37E-03	5.58E-04	1.52E-03	2.23E-03	1.82E-03	2.15E-03	2.75E-03	2.36E-03	8.71E-04	1.40E-03	0.5	0	1.74E-03	1.90E-03	5.58E-04	3.15E-03	3.15E-03	2.23E-03	2.75E-03	15	100
Magnesium (Mg)	µg/m3	1.81E-01	8.50E-02	1.24E-01	2.69E-01	6.89E-02	1.35E-01	1.24E-01	4.07E-01	1.74E-01	2.14E-01	3.14E-01	1.17E+00	2.89E-01	1.96E-01	4.71E-01	-	-	2.22E-01	2.93E-01	6.89E-02	1.17E+00	2.69E-01	4.07E-01	1.17E+00	15	100
Manganese (Mn)	µg/m3	6.05E-03	5.07E-03	5.16E-03	1.33E-02	1.72E-03	3.13E-03	1.52E-03	1.13E-02	6.76E-03	6.79E-03	1.13E-02	2.64E-02	9.62E-03	5.24E-03	1.22E-02	0.4	0	6.63E-03	8.60E-03	1.52E-03	2.64E-02	1.33E-02	1.13E-02	2.64E-02	15	100
Mercury (Hg)	µg/m3	2.80E-06	3.04E-06	2.96E-06	8.77E-06	1.29E-06	6.85E-06	2.24E-05	7.09E-06	2.99E-06	2.98E-06	8.26E-06	8.45E-06	7.72E-06	2.98E-06	2.94E-06	2	0	6.79E-06	1.55E-05	2.80E-06	1.29E-06	1.29E-06	2.24E-05	8.45E-06	15	100
Molybdenum (Mo)	µg/m3	3.03E-03	3.54E-03	1.91E-03	2.01E-03	1.26E-03	2.11E-03	1.27E-03	3.52E-03	1.10E-03	1.61E-03	3.51E-03	3.06E-03	1.29E-03	3.66E-03	1.75E-03	120	0	2.13E-03	2.34E-03	1.10E-03	3.66E-03	3.54E-03	3.52E-03	3.66E-03	15	100
Nickel (Ni)	µg/m3	9.31E-04	1.15E-03	8.64E-04	1.03E-03	1.38E-03	5.20E-04	7.43E-04	1.04E-03	8.02E-04	7.86E-04	1.01E-03	1.45E-03	9.56E-04	7.34E-04	8.52E-04	0.2	0	9.26E-04	9.56E-04	5.20E-04	1.45E-03	1.38E-03	1.04E-03	1.45E-03	15	100
Phosphorus (P)	µg/m3	2.10E-01	2.28E-01	2.22E-01	2.19E-01	N/A	2.14E-01	2.16E-01	2.22E-01	2.24E-01	2.23E-01	2.21E-01	2.26E-01	2.23E-01	2.24E-01	2.20E-01	-	-	2.21E-01	2.21E-01	2.10E-01	2.28E-01	2.28E-01	2.24E-01	2.26E-01	14	93
Selenium (Se)	µg/m3	3.64E-04	3.95E-04	3.85E-04	3.80E-04	2.59E-04	3.71E-04	3.74E-04	1.18E-03	3.89E-04	3.87E-04	3.83E-04	3.92E-04	3.86E-04	3.88E-04	3.82E-04	10	0	4.03E-04	4.31E-04	2.59E-04	1.18E-03	3.95E-04	1.18E-03	3.92E-04	15	100
Silver (Ag)	µg/m3	2.52E-05	6.01E-05	2.66E-05	2.63E-05	2.59E-05	2.57E-05	2.59E-05	2.66E-05	2.69E-05	2.68E-05	2.93E-04	2.72E-05	2.67E-05	2.69E-05	2.64E-05	1	0	3.32E-05	4.78E-05	2.52E-05	2.93E-04	6.01E-05	2.69E-05	2.93E-04	15	100
Strontium (Sr)	µg/m3	5.33E-03	9.11E-04	2.13E-03	4.39E-03	1.44E-03	4.23E-03	8.63E-04	9.69E-03	4.37E-03	4.17E-03	7.20E-03	1.63E-02	5.05E-03	4.24E-03	9.93E-03	120	0	4.18E-03	5.58E-03	8.63E-04	1.63E-02	5.33E-03	9.69E-03	1.63E-02	15	100
Thallium (Tl)	µg/m3	2.52E-05	2.73E-05	2.66E-05	2.63E-05	1.29E-04	2.57E-05	2.59E-05	2.66E-05	2.69E-05	2.68E-05	2.65E-05	2.72E-05	2.67E-05	2.69E-05	2.64E-05	-	-	2.97E-05	3.38E-05	2.52E-05	1.29E-04	1.29E-04	2.69E-05	2.72E-05	15	100
Tin (Sn)	µg/m3	1.25E-03	1.25E-03	1.02E-03	1.35E-03	4.54E-04	1.71E-04	4.89E-04	1.21E-03	5.33E-04	4.65E-04	1.11E-03	1.03E-03	4.93E-04	3.64E-04	3.99E-04	10	0	6.41E-04	7.54E-04	1.71E-04	1.35E-03	1.35E-03	1.21E-03	1.11E-03	15	100
Titanium (Ti)	µg/m3	3.08E-03	3.34E-03	3.25E-03	3.22E-03	1.49E-03	3.14E-03	3.17E-03	1.00E-02	3.29E-03	3.28E-03	8.26E-03	1.81E-02	8.91E-03	3.28E-03	1.12E-02	120	0	4.70E-03	5.98E-03	1.49E-03	1.81E-02	3.34E-03	1.00E-02	1.81E-02	15	100
Uranium (U)	µg/m3	7.06E-06	4.92E-06	5.56E-06	8.95E-06	2.59E-04	4.11E-06	1.73E-06	1.30E-05	2.75E-05	8.04E-06	3.45E-05	2.48E-05	2.70E-05	8.60E-06	1.46E-05	0.3	0	1.32E-05	3.17E-05	1.73E-06	2.59E-04	2.59E-04	2.75E-05	3.45E-05	15	100
Vanadium (V)	µg/m3	1.40E-03	1.52E-03	1.48E-03	1.46E-03	2.59E-05	1.43E-03	1.44E-03	1.48E-03	1.50E-03	1.49E-03	1.47E-03	1.51E-03	1.48E-03	1.49E-03	1.47E-03	2	0	1.10E-03	1.37E-03	2.59E-05	1.52E-03	1.52E-03	1.50E-03	1.51E-03	15	100
Zinc (Zn)	µg/m3	4.53E-02	5.05E-02	2.88E-02	6.73E-02	3.39E-02	1.70E-02	1.26E-02	2.97E-02	5.15E-02	4.53E-02	2.86E-02	3.84E-02	1.51E-01	1.31E-02	1.36E-02	120	0	3.35E-02	4.27E-02	1.26E-02	1.51E-01	6.73E-02	5.15E-02	1.51E-01	15	100
Zirconium (Zr)	µg/m3	5.61E-04	6.07E-04	5.92E-04	5.85E-04	N/A	5.71E-04	5.76E-04	5.91E-04	5.98E-04	5.96E-04	5.90E-04	6.04E-04	5.94E-04	5.97E-04	5.87E-04	-	-	5.89E-04	5.89E-04	5.61E-04	6.07E-04	6.07E-04	5.98E-04	6.04E-04	14	93

NOTE: All non-detectable results were reported as 1/2 of the detection limit
N/A - Phosphorus and Zirconium were not analyzed on January 26

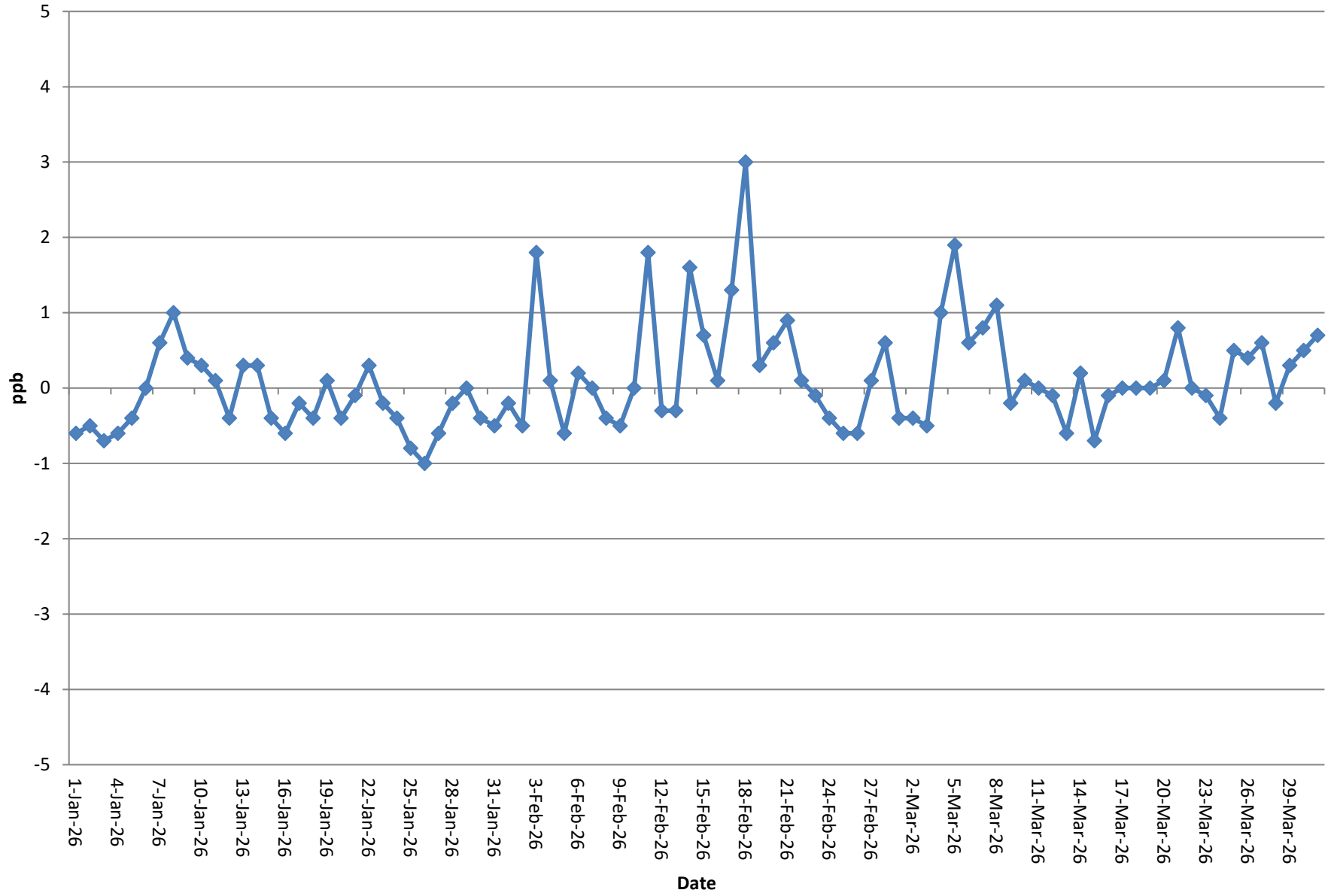
A large decorative graphic on the left side of the page, featuring a blue triangle at the top left corner and a large, light beige circular shape that overlaps the triangle and extends across the page.

APPENDIX C

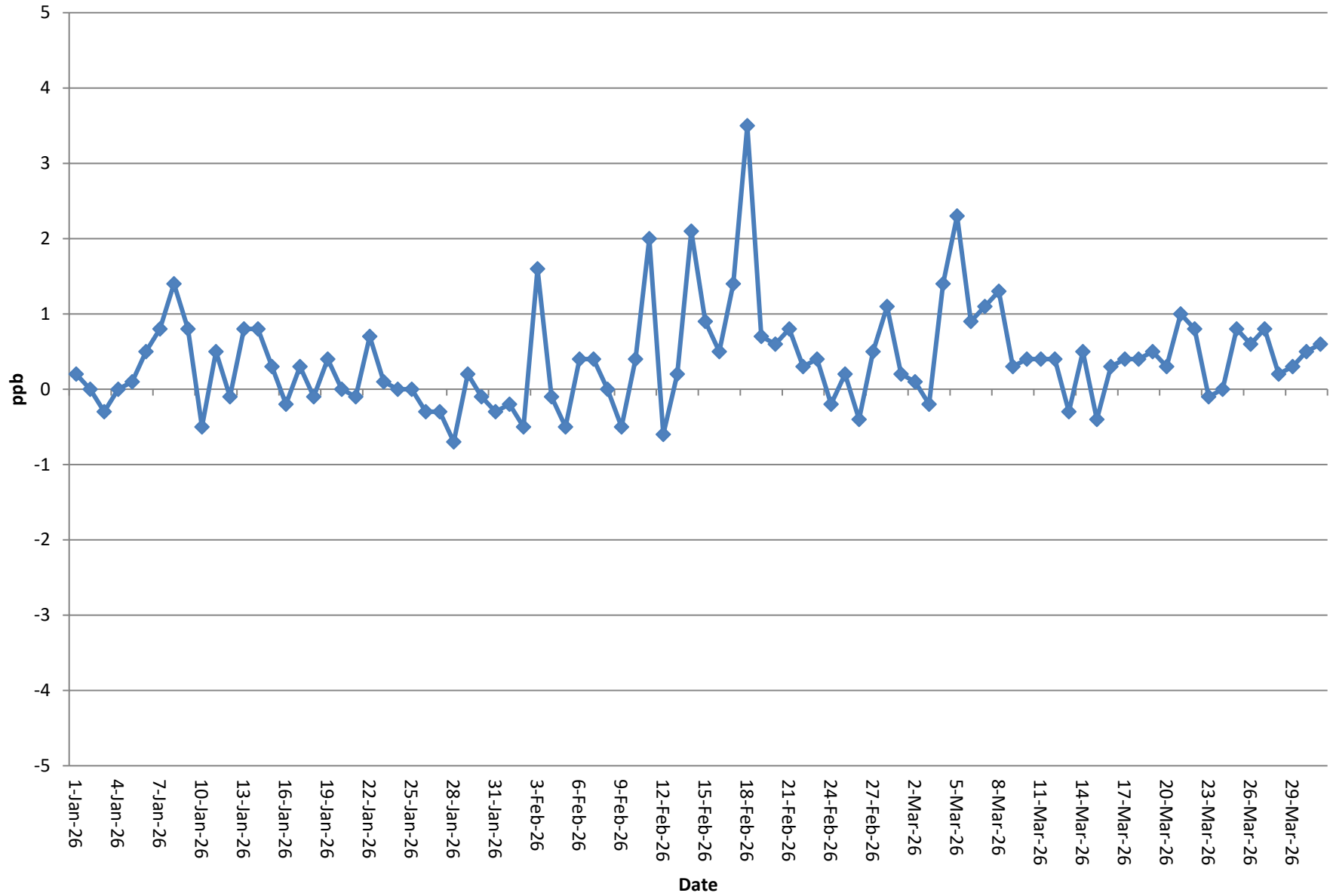
NO Zeros (Courtice Monitoring Station)



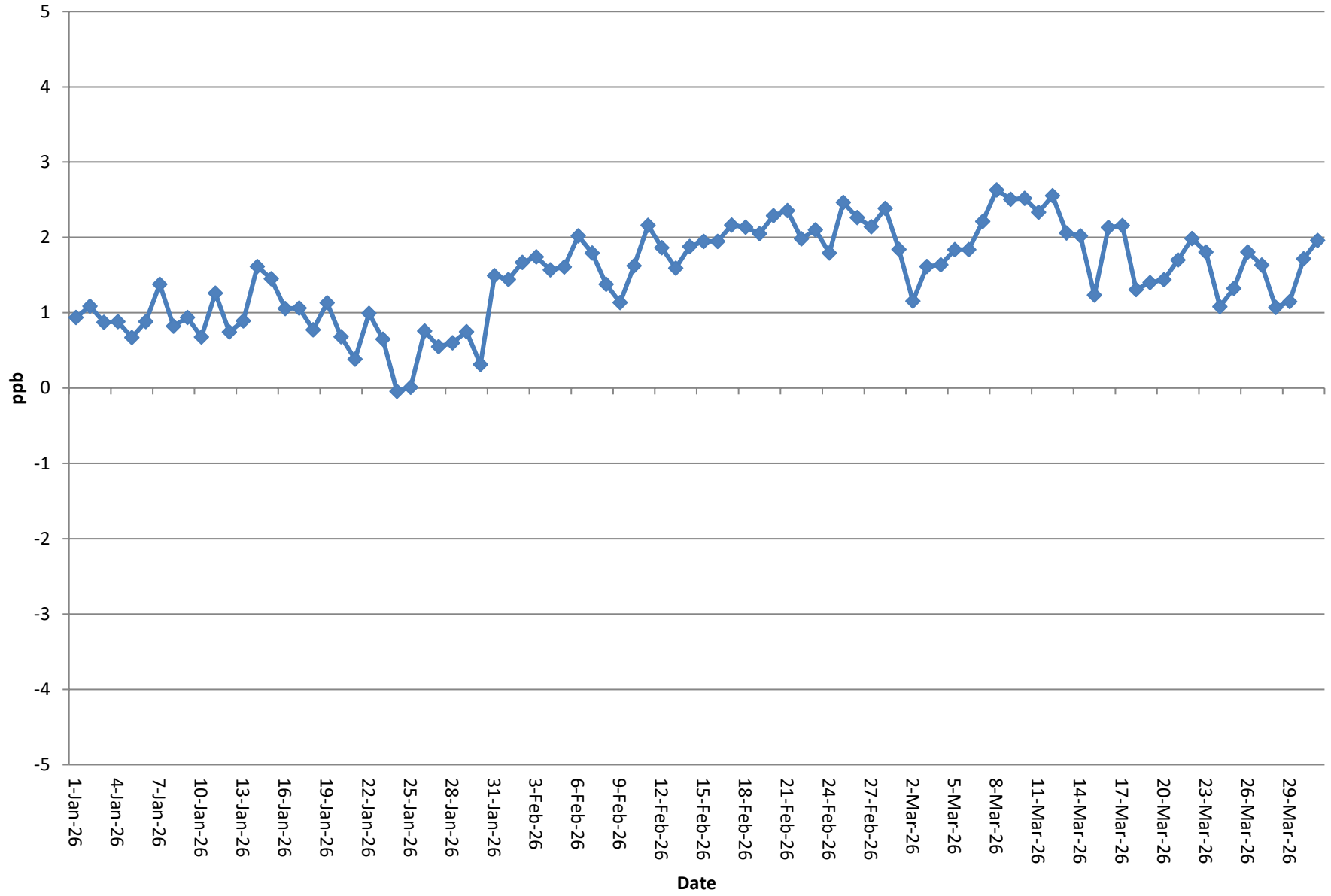
NO₂ Zeros (Courtice Monitoring Station)



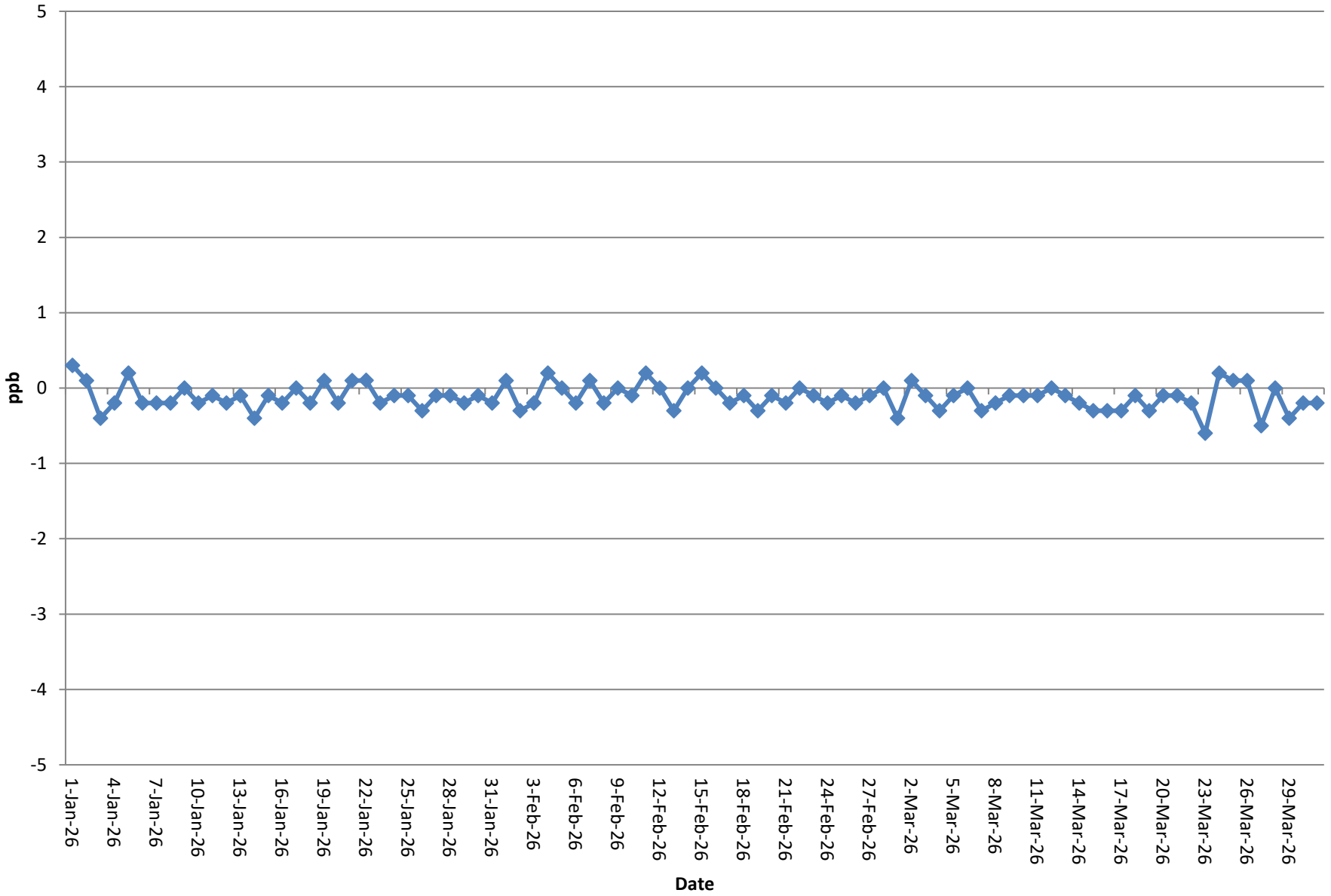
NO_x Zeros (Courtice Monitoring Station)



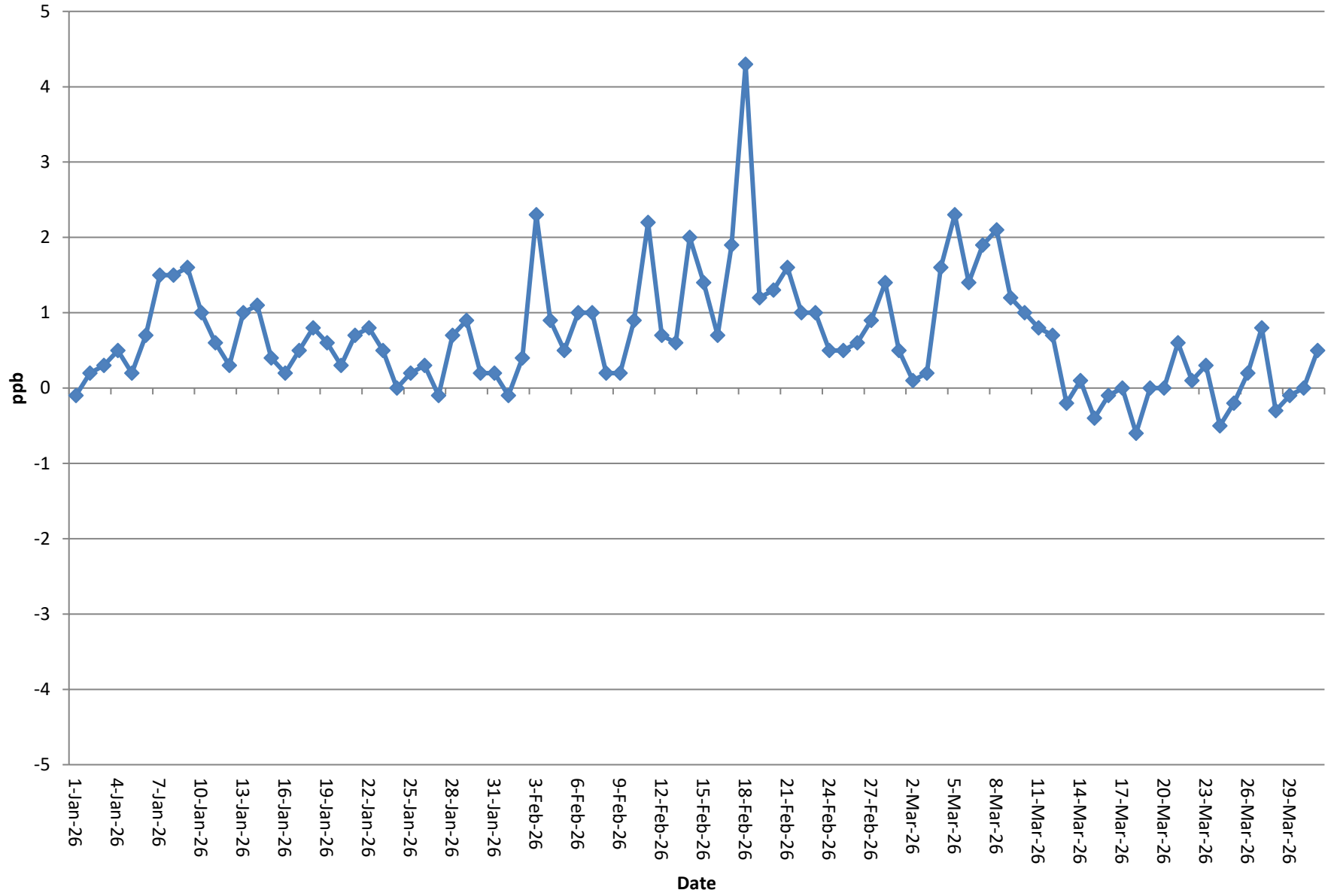
SO₂ Zeros (Courtice Monitoring Station)



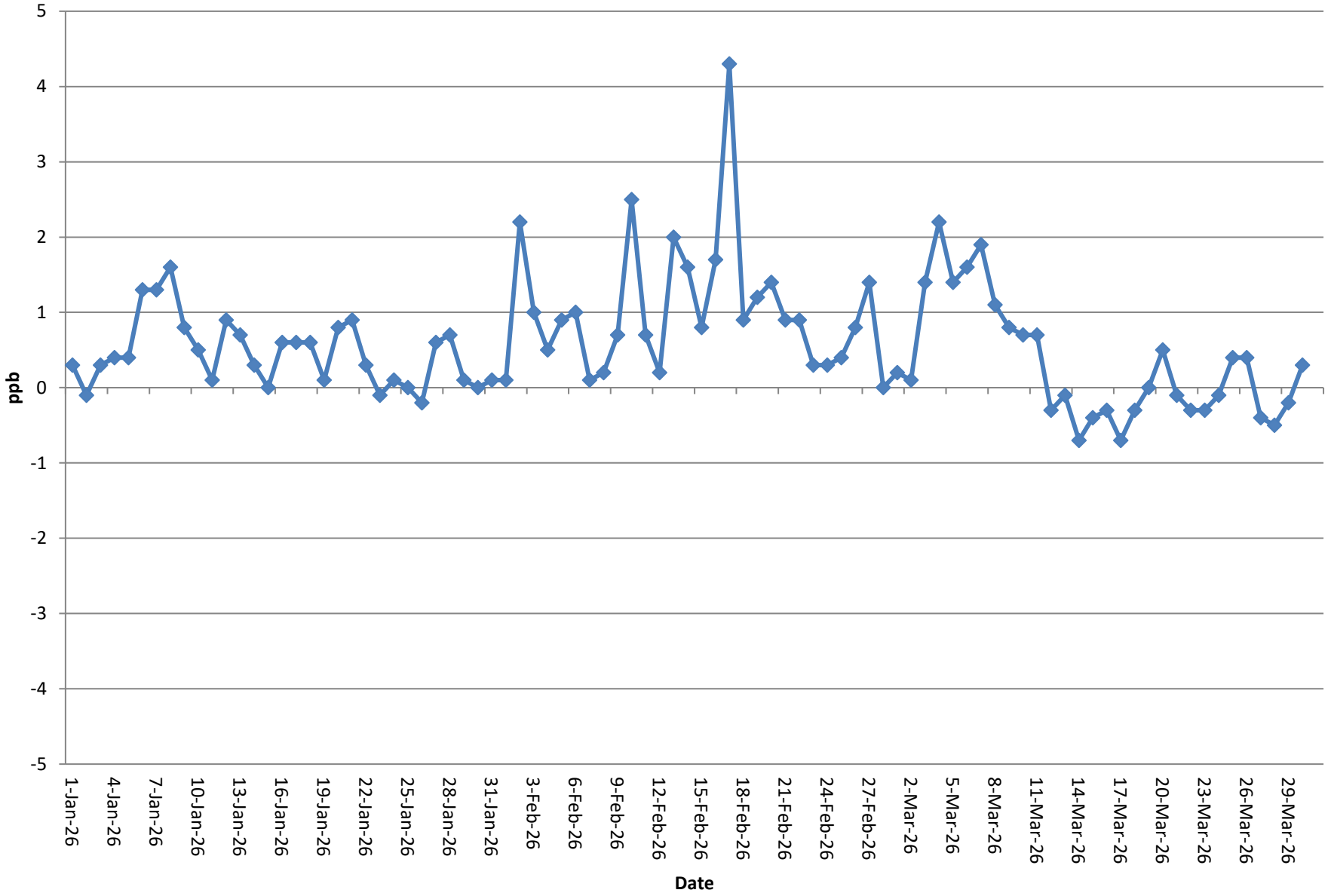
NO Zeros (Rundle Monitoring Station)



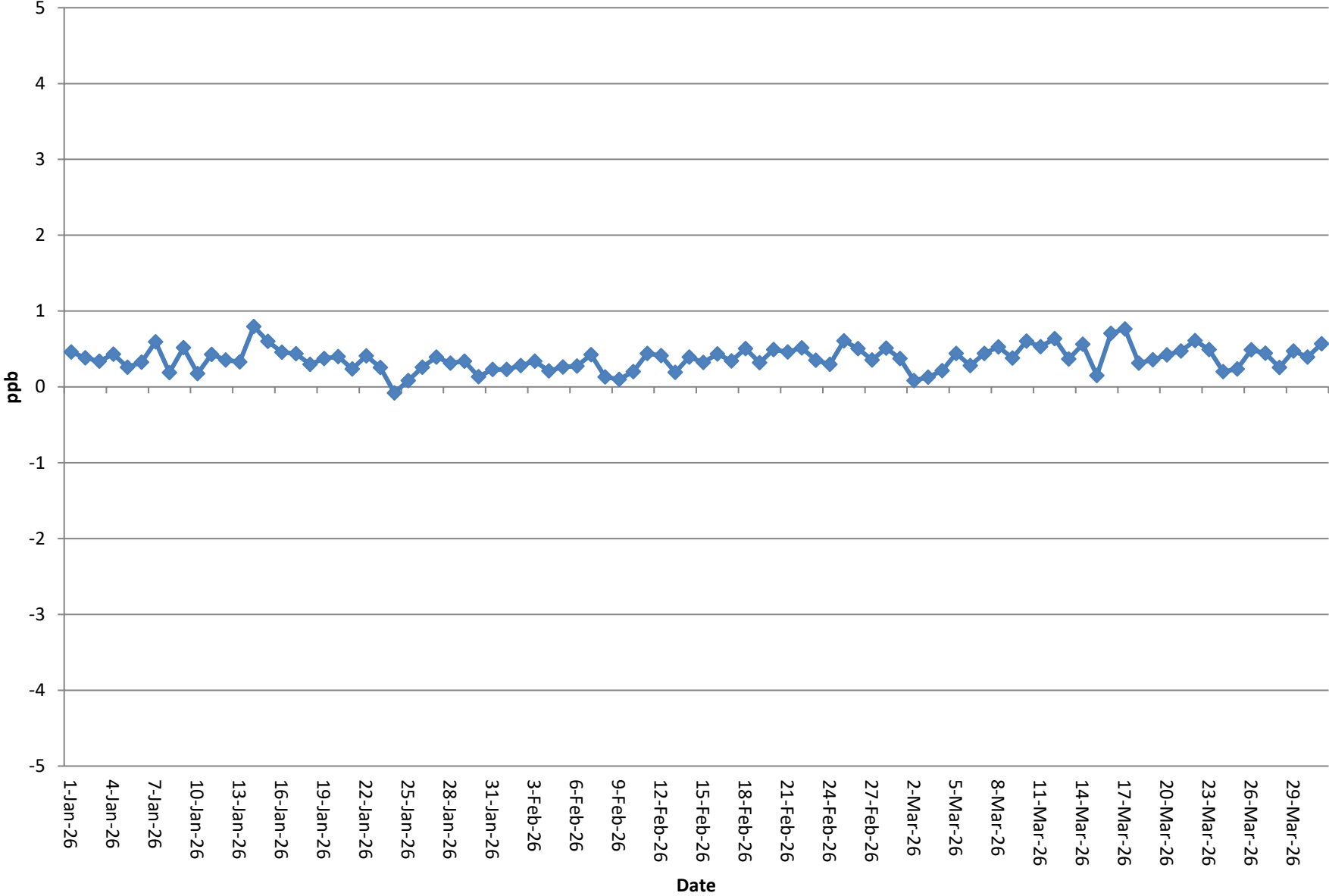
NO₂ Zeros (Rundle Monitoring Station)



NO_x Zeros (Rundle Monitoring Station)



SO₂ Zeros (Rundle Monitoring Station)



The background features a large, light beige curved shape on the right side, and a blue curved shape on the left side, separated by a white curved line.

APPENDIX D

Table D1: Q1 Edit Log for PM2.5 at Courtice Station

Emitter's Name: Durham York Energy Centre										
Contact		Name: Nicia Williams		Phone: 365-662-3268			Email: Nicia.Williams@durham.ca			
Station Number: 45201				Station Name: Courtice Station						
Station Address: 100 Osbourne Road				Emitter Address: The Region of Durham, 605 Rossland Road, Whitby, ON						
Pollutants or Parameter: PM _{2.5}			Instrument Make & Model: Thermo Scientific Model 5030 SHARP Monitor				s/n: E-1563			
Data Edit Period		Start Date: January 1, 2026			End Date: March 31, 2026			All testing done in EST		
Edit #	Edit date (dd/mm/yyyy)	Editor's Name	Edit Action	Starting		Ending		Duration Deleted Hours	Reason	
				Date (dd/mm/yyyy)	Hour (xx:xx)	Date (dd/mm/yyyy)	Hour (xx:xx)			
1	30/01/2026	SRS	Hours Deleted	30/01/2026	13:00	30/01/2026	14:00	1	Monthly calibration	
2	12/02/2026	PKB	Hours Deleted	12/02/2026	10:00	12/02/2026	13:00	3	Monthly calibration	
3	13/03/2026	SRS	Hours Deleted	13/03/2026	12:00	13/03/2026	14:00	2	Monthly calibration	
4	17/03/2026	SRS	Hours Deleted	17/03/2026	09:00	17/03/2026	11:00	2	Quarterly audit	
5	01/04/2026	AXT	Zero Correction	01/01/2026	00:00	01/04/2026	00:00	-	Correcting Values <0 to 0	

Table D2: Q1 Edit Log for PM2.5 at Rundle Road Station

Emitter's Name: Durham York Energy Centre									
Contact		Name: Nicia Williams		Phone: 365-662-3268		Email: Nicia.Williams@durham.ca			
Station Number: 45200				Station Name: Rundle Road Station					
Station Address: Rundle Road				Emitter Address: The Region of Durham, 605 Rossland Road, Whitby, ON					
Pollutants or Parameter: PM _{2.5}			Instrument Make & Model: Thermo Scientific Model 5030 SHARP Monitor				s/n: E-1569		
Data Edit Period		Start Date: January 1, 2026		End Date: March 31, 2026		All testing done in EST			
Edit #	Edit date (dd/mm/yyyy)	Editor's Name	Edit Action	Starting		Ending		Duration Deleted Hours	Reason
				Date (dd/mm/yyyy)	Hour (xx:xx)	Date (dd/mm/yyyy)	Hour (xx:xx)		
1	29/01/2026	SRS	Hours Deleted	29/01/2026	14:00	29/01/2026	15:00	1	Monthly calibration
2	03/02/2026	AXT	Zero Correction	01/01/2025	00:00	01/02/2025	00:00	-	Correcting Values <0 to 0
3	11/02/2026	PKB	Hours Deleted	11/02/2026	13:00	11/02/2026	14:00	1	Monthly calibration
4	12/03/2026	SRS	Hours Deleted	12/03/2026	14:00	12/03/2026	15:00	1	Monthly calibration
5	17/03/2026	SRS	Hours Deleted	17/03/2026	11:00	17/03/2026	13:00	2	Quarterly audit
6	31/03/2026	AXT	Hours Deleted	17/03/2026	13:00	17/03/2026	14:00	1	Power outage - no data
7	01/04/2026	AXT	Zero Correction	01/02/2025	00:00	01/04/2026	00:00	-	Correcting Values <0 to 0

Table D3: Q1 Edit Log for NOX at Courtice Station

Emitter's Name: Durham York Energy Centre									
Contact		Name: Nicia Williams		Phone: 365-662-3268		Email: Nicia.Williams@durham.ca			
Station Number: 45201				Station Name: Courtice Station					
Station Address: 100 Osbourne Road				Emitter Address: The Region of Durham, 605 Rossland Road, Whitby, ON					
Pollutants or Parameter: NOx			Instrument Make & Model: Teledyne Nitrogen Oxide Analyzer Model T200				s/n: 675		
Data Edit Period		Start Date: January 1, 2026		End Date: March 31, 2026		All testing done in EST			
Edit #	Edit date (dd/mm/yyyy)	Editor's Name	Edit Action	Starting		Ending		Duration Deleted Hours	Reason
				Date (dd/mm/yyyy)	Hour (xx:xx)	Date (dd/mm/yyyy)	Hour (xx:xx)		
1	30/01/2026	SRS	Hours Deleted	30/01/2026	12:00	30/01/2026	14:00	2	Monthly calibration
2	03/02/2026	AXT	Zero Correction	01/01/2025	00:00	01/02/2025	00:00	-	Correcting Values <0 to 0
3	12/02/2026	PKB	Hours Deleted	12/02/2026	10:00	12/02/2026	13:00	3	Monthly calibration
4	03/03/2026	AXT	Zero Offset Adjustment	01/02/2025	00:00	01/03/2026	00:00	-	Baseline corrected based off overnight zeros
5	03/03/2026	AXT	Zero Correction	01/02/2025	00:00	01/03/2026	00:00	-	Correcting Values <0 to 0
6	13/03/2026	SRS	Hours Deleted	13/03/2026	12:00	13/03/2026	14:00	2	Monthly calibration
7	17/03/2026	SRS	Hours Deleted	17/03/2026	09:00	17/03/2026	10:00	1	Quarterly audit
8	01/04/2026	AXT	Zero Offset Adjustment	01/03/2026	00:00	04/01/2026	00:00	-	Baseline corrected based off overnight zeros
9	01/04/2026	AXT	Zero Correction	01/03/2026	00:00	04/01/2026	00:00	-	Correcting Values <0 to 0

Table D4: Q1 Edit Log for NOX at Rundle Road Station

Emitter's Name: Durham York Energy Centre										
Contact		Name: Nicia Williams		Phone: 365-662-3268		Email: Nicia.Williams@durham.ca				
Station Number: 45200				Station Name: Rundle Road Station						
Station Address: Rundle Road				Emitter Address: The Region of Durham, 605 Rossland Road, Whitby, ON						
Pollutants or Parameter: NOx			Instrument Make & Model: Teledyne Nitrogen Oxide Analyzer Model T200				s/n: 676			
Data Edit Period		Start Date: January 1, 2026			End Date: March 31, 2026			All testing done in EST		
Edit #	Edit date (dd/mm/yyyy)	Editor's Name	Edit Action	Starting		Ending		Duration Deleted Hours	Reason	
				Date (dd/mm/yyyy)	Hour (xx:xx)	Date (dd/mm/yyyy)	Hour (xx:xx)			
1	29/01/2026	SRS	Hours Deleted	29/01/2026	14:00	29/01/2026	16:00	2	Monthly calibration	
2	03/02/2026	AXT	Zero Correction	01/01/2025	00:00	01/02/2025	00:00	-	Correcting Values <0 to 0	
3	11/02/2026	PKB	Hours Deleted	11/02/2026	12:00	11/02/2026	15:00	3	Monthly calibration	
4	03/03/2026	AXT	Zero Offset Adjustment	01/02/2025	00:00	01/03/2026	00:00	-	Baseline corrected based off overnight zeros	
5	03/03/2026	AXT	Zero Correction	01/02/2025	00:00	01/03/2026	00:00	-	Correcting Values <0 to 0	
6	12/03/2026	SRS	Hours Deleted	12/03/2026	13:00	12/03/2026	16:00	3	Monthly calibration	
7	17/03/2026	SRS	Hours Deleted	17/03/2026	11:00	17/03/2026	12:00	1	Quarterly audit	
8	31/03/2026	AXT	Hours Deleted	17/03/2026	13:00	17/03/2026	14:00	1	Power outage - no data	
9	01/04/2026	AXT	Zero Offset Adjustment	01/03/2026	00:00	04/01/2026	00:00	-	Baseline corrected based off overnight zeros	
10	01/04/2026	AXT	Zero Correction	01/03/2026	00:00	04/01/2026	00:00	-	Correcting Values <0 to 0	

Table D5: Q1 Edit Log for SO2 at Courtice Station

Emitter's Name: Durham York Energy Centre									
Contact		Name: Nicia Williams		Phone: 365-662-3268		Email: Nicia.Williams@durham.ca			
Station Number: 45201				Station Name: Courtice Station					
Station Address: 100 Osbourne Road				Emitter Address: The Region of Durham, 605 Rossland Road, Whitby, ON					
Pollutants or Parameter: SO ₂			Instrument Make & Model: Teledyne Sulfur Dioxide Analyzer Model T100				s/n: 565		
Data Edit Period		Start Date: January 1, 2026		End Date: March 31, 2026		All testing done in EST			
Edit #	Edit Date (dd/mm/yyyy)	Editor's Name	Edit Action	Starting		Ending		Duration Deleted Hours	Reason
				Date (dd/mm/yyyy)	Hour (xx:xx)	Date (dd/mm/yyyy)	Hour (xx:xx)		
1	30/01/2026	SRS	Hours Deleted	30/01/2026	11:00	30/01/2026	13:00	2	Monthly calibration
2	03/02/2026	AXT	Zero Offset Adjustment	30/01/2026	13:00	01/02/2026	00:00	-	Baseline corrected based off overnight zeros
3	03/02/2026	AXT	Zero Correction	01/01/2026	00:00	01/02/2026	00:00	-	Correcting Values <0 to 0
4	12/02/2026	PKB	Hours Deleted	12/02/2026	09:00	12/02/2026	11:00	2	Monthly calibration
5	02/03/2026	AXT	Zero Correction	01/02/2026	00:00	01/03/2026	00:00	-	Baseline corrected based off overnight zeros
6	02/03/2026	AXT	Zero Correction	01/02/2025	00:00	01/03/2026	00:00	-	Correcting Values <0 to 0
7	13/03/2026	SRS	Hours Deleted	13/03/2026	09:00	13/03/2026	12:00	3	Monthly calibration
8	17/03/2026	SRS	Hours Deleted	17/03/2026	09:00	17/03/2026	10:00	1	Quarterly audit
9	01/04/2026	AXT	Zero Offset Adjustment	01/03/2026	00:00	04/01/2026	00:00	-	Baseline corrected based off overnight zeros
10	01/04/2026	AXT	Zero Correction	01/03/2026	00:00	04/01/2026	00:00	-	Correcting Values <0 to 0

Table D6: Q1 Edit Log for SO2 at Rundle Road Station

Emitter's Name: Durham York Energy Centre									
Contact		Name: Nicia Williams		Phone: 365-662-3268		Email: Nicia.Williams@durham.ca			
Station Number: 45200				Station Name: Rundle Road Station					
Station Address: Rundle Road				Emitter Address: The Region of Durham, 605 Rossland Road, Whitby, ON					
Pollutants or Parameter: SO ₂			Instrument Make & Model: Teledyne Sulfur Dioxide Analyzer Model T100				s/n: 566		
Data Edit Period		Start Date: January 1, 2026		End Date: March 31, 2026		All testing done in EST			
Edit #	Edit date (dd/mm/yyyy)	Editor's Name	Edit Action	Starting		Ending		Duration	Reason
				Date (dd/mm/yyyy)	Hour (xx:xx)	Date (dd/mm/yyyy)	Hour (xx:xx)	Deleted Hours	
1	29/01/2026	SRS	Hours Deleted	29/01/2026	13:00	29/01/2026	15:00	2	Monthly calibration
2	03/02/2026	AXT	Zero Correction	01/01/2025	00:00	01/02/2025	00:00	-	Correcting Values <0 to 0
3	11/02/2026	PKB	Hours Deleted	11/02/2026	11:00	11/02/2026	13:00	2	Monthly calibration
4	02/03/2026	AXT	Zero Correction	01/02/2025	00:00	01/03/2026	00:00	-	Correcting Values <0 to 0
5	12/03/2026	SRS	Hours Deleted	12/03/2026	11:00	12/03/2026	14:00	3	Monthly calibration
6	17/03/2026	SRS	Hours Deleted	17/03/2026	11:00	17/03/2026	13:00	2	Quarterly audit
7	31/03/2026	AXT	Hours Deleted	17/03/2026	13:00	17/03/2026	14:00	1	Power outage - no data
8	01/04/2026	AXT	Zero Correction	01/03/2026	00:00	04/01/2026	00:00	-	Correcting Values <0 to 0

Table D7: Q1 Edit Log for Meteorological Parameters at Courtice Road Station

Emitter's Name: Durham York Energy Centre										
Contact		Name: Nicia Williams			Phone: 365-662-3268			Email: Nicia.Williams@durham.ca		
Station Number: 45201					Station Name: Courtice Station					
Station Address: 100 Osbourne Road					Emitter Address: The Region of Durham, 605 Rossland Road, Whitby, ON					
Pollutants or Parameter: WS, WD, Ambient T, P, RH				Instrument Make & Model: Miscellaneous Meterological Instrumentation				s/n: N/A		
Data Edit Period		Start Date: January 1, 2026			End Date: March 31, 2026			All testing done in EST		
Edit #	Edit date (dd/mm/yyyy)	Editor's Name	Edit Action	Starting		Ending		Duration Deleted Hours	Reason	
				Date (dd/mm/yyyy)	Hour (xx:xx)	Date (dd/mm/yyyy)	Hour (xx:xx)			

Table D8: Q1 Edit Log for Meteorological Parameters at Rundle Road Station

Emitter's Name: Durham York Energy Centre									
Contact		Name: Nicia Williams		Phone: 365-662-3268		Email: Nicia.Williams@durham.ca			
Station Number: 45200				Station Name: Rundle Station					
Station Address: Rundle Road				Emitter Address: The Region of Durham, 605 Rossland Road, Whitby, ON					
Pollutants or Parameter: WS, WD, Ambient T, P, RH			Instrument Make & Model: Miscellaneous Meterological Instrumentation				s/n: N/A		
Data Edit Period		Start Date: January 1, 2026		End Date: March 31, 2026		All testing done in EST			
Edit #	Edit date (dd/mm/yyyy)	Editor's Name	Edit Action	Starting		Ending		Duration Deleted Hours	Reason
				Date (dd/mm/yyyy)	Hour (xx:xx)	Date (dd/mm/yyyy)	Hour (xx:xx)		
1	31/03/2026	AXT	Hours Deleted	17/03/2026	13:00	17/03/2026	14:00	1	Power outage - no data

Table D9: Q1 Edit Log for Discrete Sampling at Courtice Station

Emitter's Name: Durham York Energy Center										
Contact		Name: Nicia Williams		Phone: 365-662-3268			Email: Nicia.Williams@durham.ca			
Station Number: 45201				Station Name: Courtice Station						
Station Address: 100 Osbourne Road				Emitter Address: The Region of Durham, 605 Rossland Road, Whitby, ON						
Pollutants or Parameter: N/A			Instrument Make & Model: N/A				s/n:			
Data Edit Period		Start Date: January 1, 2026			End Date: March 31, 2026			All testing done in EST		
Edit #	Edit date (dd/mm/yyyy)	Editor's Name	Edit Action	Starting		Ending		Duration	Reason	
				Date (dd/mm/yyyy)	Hour (xx:xx)	Date (dd/mm/yyyy)	Hour (xx:xx)	Deleted Hours		
-										

Table D10: Q1 Edit Log for Discrete Sampling at Rundle Station

Emitter's Name: Durham York Energy Center										
Contact		Name: Nicia Williams		Phone: 365-662-3268			Email: Nicia.Williams@durham.ca			
Station Number: 45200				Station Name: Rundle Station						
Station Address: Rundle Rd				Emitter Address: The Region of Durham, 605 Rossland Road, Whitby, ON						
Pollutants or Parameter: N/A			Instrument Make & Model: N/A				s/n:			
Data Edit Period		Start Date: January 1, 2026			End Date: March 31, 2026			All testing done in EST		
Edit #	Edit date (dd/mm/yyyy)	Editor's Name	Edit Action	Starting		Ending		Duration	Reason	
				Date (dd/mm/yyyy)	Hour (xx:xx)	Date (dd/mm/yyyy)	Hour (xx:xx)	Deleted Hours		

The page features a decorative background. On the left, there is a blue right-angled triangle. A large, light grey circle overlaps the right side of this triangle and extends across the middle and bottom of the page. The text 'APPENDIX E' is centered within the grey circle.

APPENDIX E

SO2 Exceedance Report - Table E1

Durham York Energy Centre
 Courtice, Ontario
 Courtice Station
 Baseline Corrected Data

Date (dd/mm/yyyy)	Time (EST)	SO ₂	SO ₂
		5-min Avg. (ppb)	10-minute Running Avg. (ppb)
24/01/2026	18:00	29	31
24/01/2026	18:05	44	36
24/01/2026	18:10	76	60
24/01/2026	18:15	67	71
24/01/2026	18:20	69	68
24/01/2026	18:25	78	<u>73</u>
24/01/2026	18:30	51	64
24/01/2026	18:35	19	35
24/01/2026	18:40	37	28
24/01/2026	18:45	94	66
24/01/2026	18:50	42	68
24/01/2026	18:55	39	<u>41</u>
24/01/2026	19:00	17	28
24/01/2026	19:05	53	35

Notes:

D, T & V	- Date, Time & Exceedance Value Reported
Faded Values	- Not used to calculate the number of reportable exceedances
	- Range of 5-minute measurements that contribute to the Exceedance Value Reported
<u>Max</u>	- Maximum of the Range
<u>Min</u>	- Minimum of the Range

Ambient Air Quality Criteria (AAQC) for SO₂ = 67 ppb for 10-minute running average

Total Number of Reportable Exceedances:

3

SO2 Exceedance Report - Table E2

Durham York Energy Centre
 Courtice, Ontario
 Courtice Station
 Baseline Corrected Data

Date (dd/mm/yyyy)	Time (EST)	SO ₂	SO ₂
		5-min Avg. (ppb)	1-hr Running Avg. (ppb)
24/01/2026	17:15	7	4
24/01/2026	17:20	18	6
24/01/2026	17:25	32	8
24/01/2026	17:30	24	10
24/01/2026	17:35	59	15
24/01/2026	17:40	25	17
24/01/2026	17:45	19	19
24/01/2026	17:50	40	22
24/01/2026	17:55	34	25
24/01/2026	18:00	29	26
24/01/2026	18:05	44	29
24/01/2026	18:10	76	34
24/01/2026	18:15	67	39
24/01/2026	18:20	69	43
24/01/2026	18:25	78	47
24/01/2026	18:30	51	49
24/01/2026	18:35	19	46
24/01/2026	18:40	37	47
24/01/2026	18:45	94	53
24/01/2026	18:50	42	53
24/01/2026	18:55	39	54
24/01/2026	19:00	17	53
24/01/2026	19:05	53	54
24/01/2026	19:10	59	52
24/01/2026	19:15	39	50
24/01/2026	19:20	25	46
24/01/2026	19:25	26	42
24/01/2026	19:30	31	40
24/01/2026	19:35	38	42
24/01/2026	19:40	27	41
24/01/2026	19:45	15	34
24/01/2026	19:50	9	32
24/01/2026	19:55	6	29
24/01/2026	20:00	5	28
24/01/2026	20:05	4	24
24/01/2026	20:10	3	19

Date	Time	SO ₂	SO ₂
		5-min Avg.	1-hr Running Avg.
(dd/mm/yyyy)	(EST)	(ppb)	(ppb)
24/01/2026	20:15	3	16
24/01/2026	20:20	2	14
24/01/2026	20:25	2	12

Notes:

D, T & V	- Date, Time & Exceedence Value Reported
Faded Values	- Not used to calculate the number of reportable exceedences
	- Range of 5-minute measurements that contribute to the Exceedence Value Reported
<u>Max</u>	- Maximum of the Range
<u>Min</u>	- Minimum of the Range

Ambient Air Quality Criteria (AAQC) for SO₂ = 40 ppb for 1-hour running average

Total Number of Reportable Exceedences:

2

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APPENDIX F



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May 16, 2026

Nicia Williams, M.E.Sc, P.Eng
Project Manager, Waste Management Services
The Regional Municipality of Durham
Durham York Energy Centre
1835 Energy Drive
Courtice, ON L1E 2R2
Nicia.Williams@durham.ca

**Re: Durham York Energy Centre (DYEC)
2026 Ambient Air Q1 Sulphur Dioxide Emissions
RWDI Reference No. 2600650**

In support of the 2026, Q1 Ambient Air Quality Monitoring Report prepared by RWDI Inc., the following information is provided in relation to the performance of the DYEC during the periods of elevated sulphur dioxide (SO₂) concentrations observed at the facility's Courtice and Rundle ambient air monitoring stations.

The Emission Summary and Dispersion Modelling (ESDM) report submitted as part of the DYEC ECA Application modelled SO₂ concentrations at the maximum point of impingement (POI) for a facility operating at 110% maximum continuous rating (MCR) with in-stack SO₂ concentrations at the permit limit of 35 mg/m³. Under this conservative assumed facility operating condition, the predicted maximum 1-hour average concentration at the POI was 8.62 µg/m³, which represents 8.62% of the new ambient air standard of 100 µg/m³, which was implemented in 2020.

During Q1, there were three (3) exceedance events above the rolling 10-minute SO₂ Ambient Air Quality Criteria (AAQC) and two (2) exceedance events above the rolling 1-hour SO₂ AAQC recorded at the Courtice station. There were no exceedance events above the rolling 10-minute SO₂ Ambient Air Quality Criteria (AAQC) or rolling 1-hour SO₂ AAQC recorded at the Rundle Road station.

Each of the date and times of the SO₂ AAQC exceedances were compared against the wind direction recorded at the ambient air stations as well as the SO₂ concentrations measured at the DYEC by the continuous emissions monitoring system (CEMS).

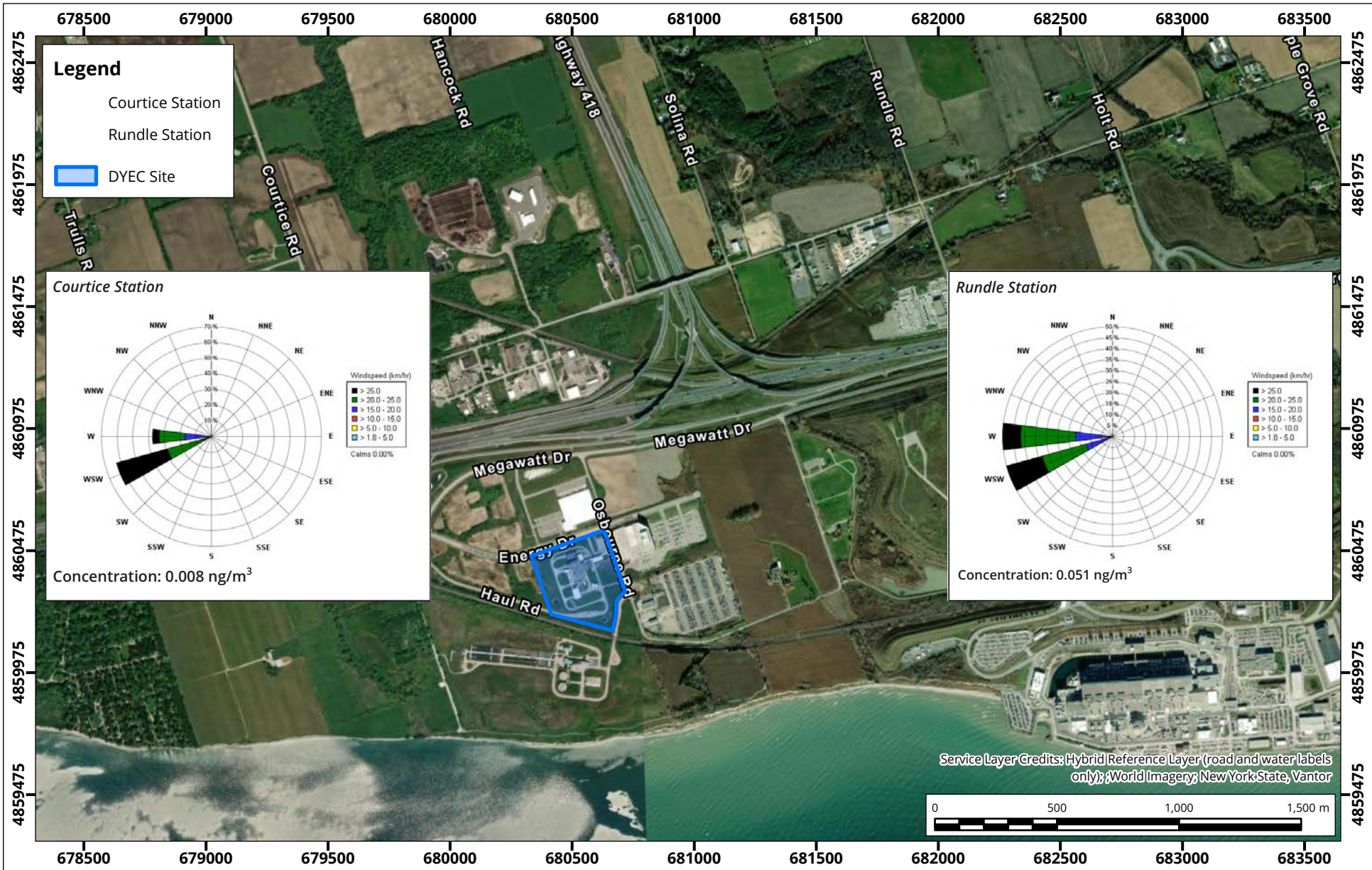
As indicated by RWDI in the 2026 DYEC Ambient Air Q1 Report, the Courtice Station pollution rose in **Figure 6** shows the majority of elevated SO₂ events at Courtice occurred from the north to northeast directions. The events were likely a result of emissions from surrounding industrial sources when winds are from the north and north-northeast directions. When winds from the northeast place the Courtice station downwind of the facility, the data suggests the DYEC likely contributed to the measured concentrations during those periods. The Courtice station pollution rose in **Figure 7** shows that <0.04% of the 5-min SO₂ events are elevated >67 ppb which occurred from the north-northeast direction.

The Rundle Road Station pollution rose in **Figure 6** shows no elevated SO₂ events at Rundle Road. The Rundle Road station pollution rose in **Figure 7** shows that there were no 5-min SO₂ events elevated >67 ppb.

During the times the SO₂ AAQC events occurred, both boilers CEMS concentrations, comprised of 24-hour rolling arithmetic average, were recorded between 0-13 mg/Rm³. The DYEC's CEMS concentrations for both boilers were below the DYEC regulatory compliance limit of 35 mg/Rm³ and the facility was operating under normal conditions.

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APPENDIX G



DYEC Site and Ambient Monitoring Station Locations January 20th, 2026 - Rundle BaP Exceedance

Map Projection: NAD 1983 UTM Zone 17N
Courtice WWTP - Clarington, Ontario

True North

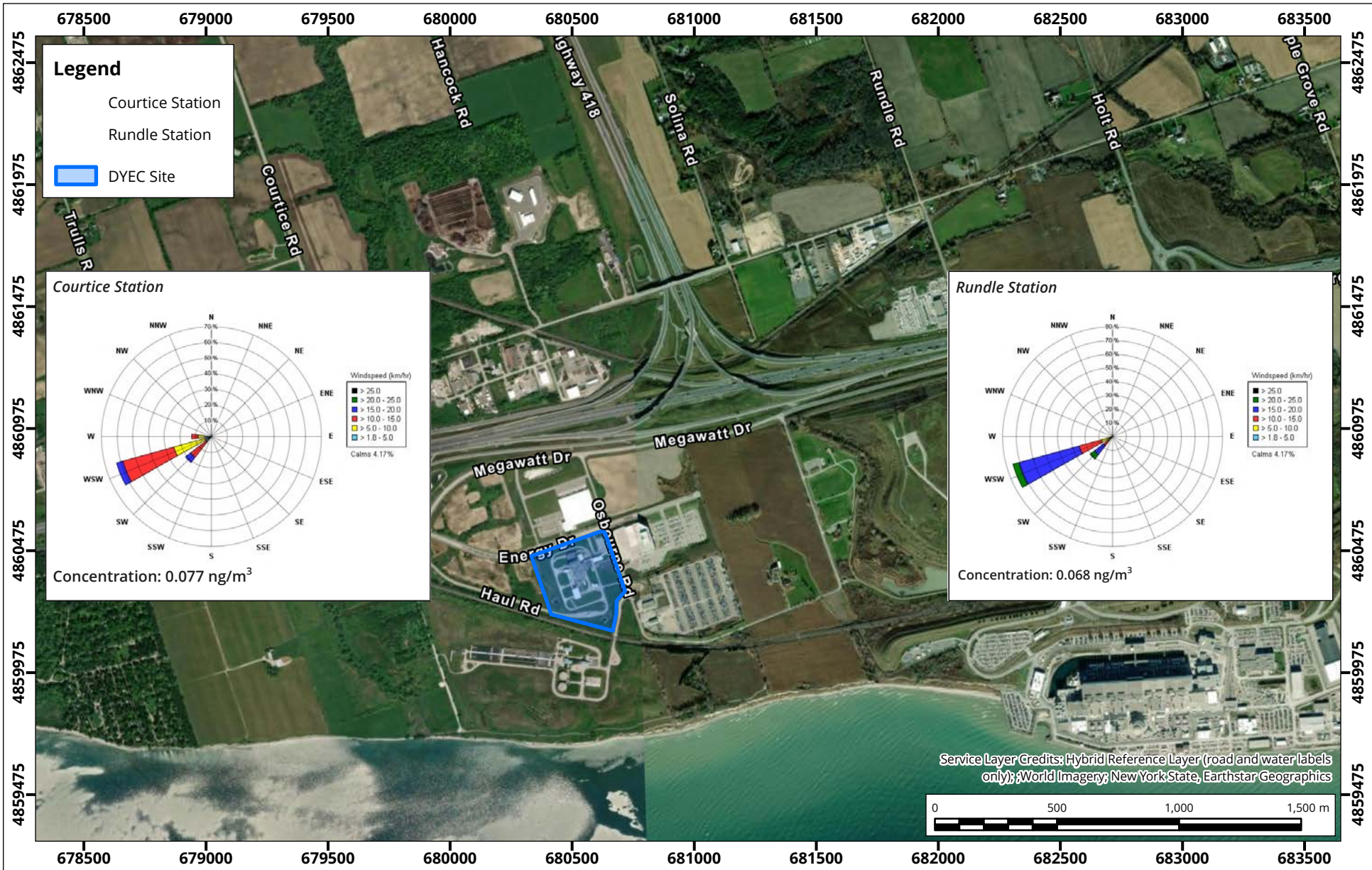
Drawn by: PIP | Figure: 9

Approx. Scale: 1:22,000

Date Revised: Apr 23, 2026

Project #: 2600650





DYEC Site and Ambient Monitoring Station Locations March 9th, 2026 - Courtice and Rundle BaP Exceedances

Map Projection: NAD 1983 UTM Zone 17N
Courtice WWTP - Clarington, Ontario

True North

Drawn by: PIP | Figure: 10

Approx. Scale: 1:22,000

Date Revised: Apr 23, 2026

Project #: 2600650

