

LAFARGE CANADA INC.

# AMBIENT AIR QUALITY MONTHLY REPORT

## JANUARY 2024

FEBRUARY 26, 2024



wsp



# AMBIENT AIR QUALITY MONTHLY REPORT

JANUARY 2024

LAFARGE CANADA INC.

PROJECT NO.: 171-00556-05  
DATE: FEBRUARY 26, 2024

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February 26, 2024

LAFARGE CANADA INC.  
Highway 1A  
Exshaw, AB T0L 2C0

**Attention: Nikolaos Veriotes P. Eng.**

Dear Mr. Veriotes,

**Subject: Ambient Air Quality Monthly Report – January 2024**

The following table summarizes the data completeness and reported exceedances of Alberta Ambient Air Quality Objectives (AAAQOs) or Guidelines (AAAQG) at the Lagoon Station for January 2024.

Lagoon	Data Completeness (%)	1-Hour Average	24-hour Average
		Exceedances of AAAQO or AAAQG	Exceedances of AAAQO
TSP	99.9%	-	0
PM <sub>2.5</sub>	100.0%	0	1
PM <sub>10</sub>	90.5%	-	-
NO	100.0%	-	-
NO <sub>2</sub>	100.0%	0	-
NO <sub>x</sub>	100.0%	-	-
SO <sub>2</sub>	100.0%	0	0
Temperature	100.0%	-	-
Wind Speed / Direction	100.0%	-	-
Pressure	100.0%	-	-
Relative Humidity	100.0%	-	-
Precipitation	100.0%	-	-

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The following table summarizes the data completeness and reported exceedances of Alberta Ambient Air Quality Objectives (AAAOs) or Guidelines (AAAQG) at the Windridge Station for January 2024.

Windridge	Data Completeness (%)	1-Hour Average	24-hour Average	
		Exceedances of AAAQG	Exceedances of PM <sub>2.5</sub> AAAQO	Exceedances of TSP AAAQO
TSP	100.0%	-	-	9
PM <sub>2.5</sub>	100.0%	0	1	-
PM <sub>10</sub>	100.0%	-	-	-

The GRIMM monitors are considered Industrial Ambient Monitors and are meant for assessing the performance of Lafarge Exshaw’s Fugitive Dust Control Best Management Practices – Program; the GRIMM monitors are not Air Monitoring Directive (AMD) compliant. This Program uses the AAAQOs as Guidelines. The following table summarizes the data completeness and exceedances of the Guidelines at the GRIMM Monitors for January 2024.

GRIMM Stations	Data Completeness (%)	1-Hour Average	24-hour Average	
		Exceedances of PM <sub>2.5</sub> Guidelines	Exceedances of PM <sub>2.5</sub> Guidelines	Exceedances of TSP Guidelines
West	56.3%	0	0	0
Berm	36.4%	3	1	7
Entrance	0%	0	0	0

I certify that I have reviewed and verified this report and that the information is complete, accurate and representative of the monitoring results, reporting timeframe and the specified analysis, summarization, and reporting requirements.

Sincerely,

Tyler Abel, M.Sc.  
Senior Air Quality Specialist,  
Vancouver Region

---

# SIGNATURES

PREPARED BY



February 26, 2024

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Tuonan Li, M.Sc.  
Air Quality Specialist  
Vancouver Region, Environment

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Date

APPROVED<sup>1</sup> BY *(must be reviewed for technical accuracy prior to approval)*



February 26, 2024

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Tyler Abel, M.Sc.  
Senior Air Quality Specialist  
Vancouver Region, Environment

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Date

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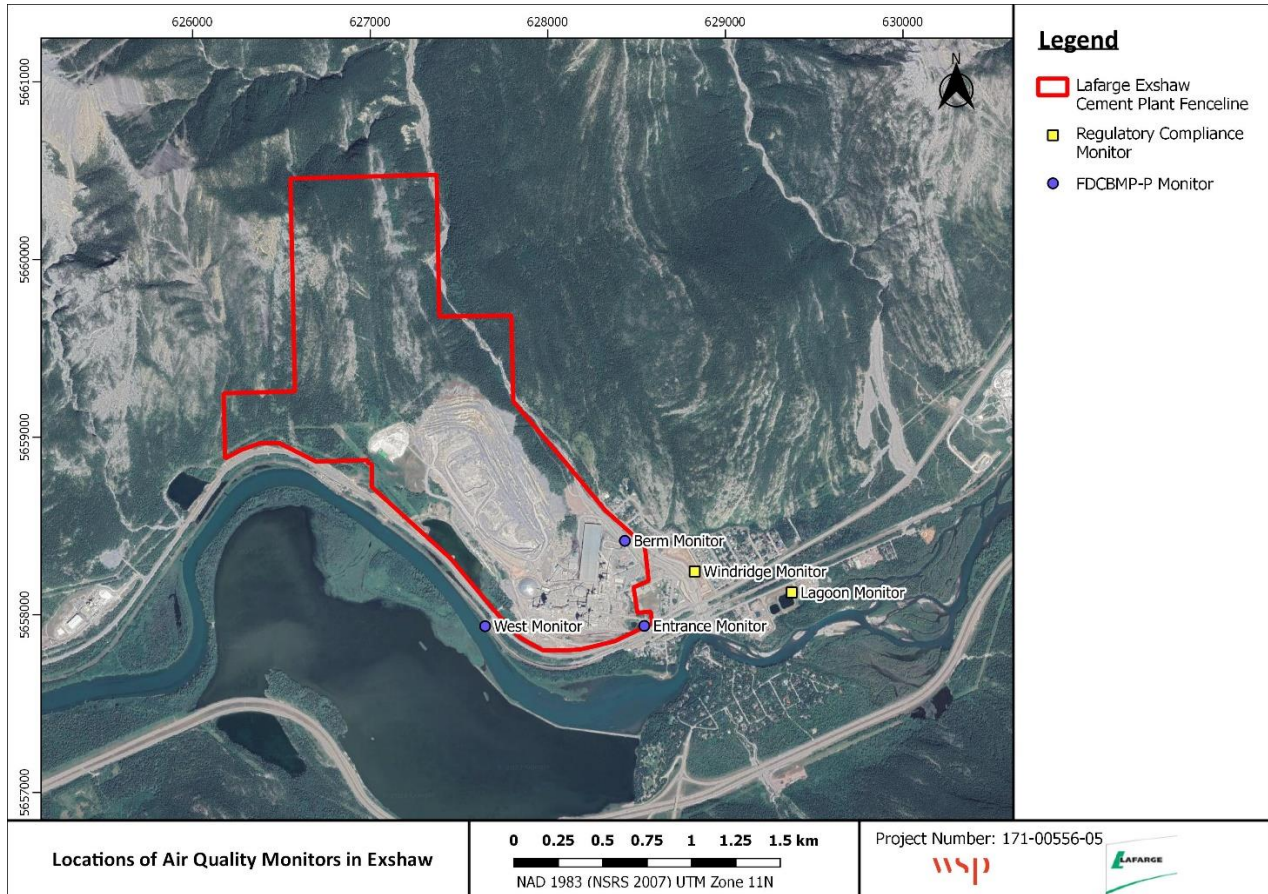
## *APPENDICES*

### **A** DATA & CALIBRATION REPORTS

# 1 INTRODUCTION

This report summarizes the ambient air quality and meteorological data collected at the Lagoon, Windridge, and GRIMM monitors in Exshaw, AB (Figure 1-1). The stations are operated by WSP on behalf of Lafarge Canada Inc. (Lafarge) and are a requirement of Lafarge’s Approval 1702-02-04. This report contains data collected between January 1, 2024 and January 31, 2024.

This monthly report was prepared by Tuonan Li, Air Quality Specialist with WSP, on behalf of Lafarge and was reviewed by Tyler Abel, Senior Air Quality Specialist at WSP.



**Figure 1-1** Locations of Air Quality Monitors in Exshaw

## 1.1 EXSHAW CREEK FLOOD MITIGATION

Due to flood mitigation construction at Exshaw creek (Figure 1-2), the Windridge monitoring station was taken out of operation and removed from the site on April 8, 2019. The flood mitigation work was completed in Summer 2020. The Windridge station was reinstalled on September 1, 2020. The flood mitigation work has left an exposed creek bed area (see Figure below) that is a potential source of fugitive dust between Lafarge’s eastern fenceline and the Windridge station.



**Figure 1-2 Photo of Completed Flood Mitigation Work at Exshaw Creek**

# 2 JANUARY 2024 REPORT SUMMARY

This summary section provides the pertinent details on data collected and maintenance/calibration activities at each of the monitoring locations. The monitoring results for each station are described in further detail in their corresponding sections. Maximum hourly concentrations are shown for all particulate matter size fractions, but there are no Alberta Ambient Air Quality Objectives (AAAQO) for 1-hour PM concentrations. The exceedances reported for 1-hour PM<sub>2.5</sub> are those above the 1-hour PM<sub>2.5</sub> Alberta Ambient Air Quality Guidelines (AAAQG).

## 2.1 LAGOON STATION

**Table 2-1 Lagoon station data summary**

Parameter	Data Completeness (%)	1-Hour Average		24-hour Average	
		Maximum Concentration	Exceedances of AAAQO or AAAQG	Maximum Concentration	Exceedances of AAAQO
<b>NO<sub>2</sub> (ppb)</b>	100.0	31.1	0	20.8	-
<b>SO<sub>2</sub> (ppb)</b>	100.0	13.1	0	5.0	0
<b>PM<sub>2.5</sub> (µg/m<sup>3</sup>)</b>	100.0	61.0	0*	39.3	1
<b>PM<sub>10</sub> (µg/m<sup>3</sup>)</b>	90.5	249.3	-	69.0	-
<b>TSP (µg/m<sup>3</sup>)</b>	99.9	449.7	-	92.5	0
<b>Temperature (°C)</b>	100.0	14.7	-	11.4	-
<b>Wind Speed (km/hr) /Direction (Degrees)</b>	100.0	44.7/W	-	32.2/WSW	-
<b>Precipitation (mm)</b>	100.0	0.3 <sup>2</sup>	-	1 <sup>3</sup>	-

<sup>1</sup> Any exceedances reported for 1-hour PM<sub>2.5</sub> are over the guideline level (AAAQG) of 80 µg/m<sup>3</sup>.

<sup>2</sup> Maximum Daily Total Accumulation of Precipitation (mm) – freezing temperatures can impact the precipitation totals in winter months

<sup>3</sup> Monthly Total Accumulation of Precipitation (mm) - freezing temperatures can impact the precipitation totals in winter months

### Data Quality Notes:

- There was one exceedance of the 24-hour PM<sub>2.5</sub> AAAQO attributed regionally to stagnant winter weather conditions.
- There were no exceedances of the 1-hour PM<sub>2.5</sub> AAAQG.
- There were no exceedances of the 24-hour TSP AAAQO.

### Calibration/Maintenance Notes:

- At the Lagoon station, NO<sub>2</sub> and SO<sub>2</sub> analyzers recorded 100% uptime during the month of January.
- The PM<sub>2.5</sub> analyzers recorded 100% uptime for the month of January.
- The meteorological sensors recorded 100% uptime for the month of January.
- The TSP analyzer had 99.9% uptime for the month of January due to one hour of equipment malfunction occurring on January 24<sup>th</sup> at 2:00.
- The PM<sub>10</sub> analyzer had 90.5% uptime for the month of January due to 65 hours of equipment malfunction occurring on January 7<sup>th</sup> at 23:00; January 10<sup>th</sup> at 11:00 and 24:00; January 11<sup>th</sup> at 2:00, 5:00 – 8:00 and 15:00; January 12<sup>th</sup> at 3:00 – 7:00, and 10:00 – 11:00; January 16<sup>th</sup> at 12:00 to January 18<sup>th</sup> at 13:00. Furthermore, five hours of non-routine maintenance occurring on January 12<sup>th</sup> at 12:00 – 16:00.

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## 2.2 WINDRIDGE STATION

Table 2-2 Windridge station data summary

Parameter	Data Completeness (%)	1-Hour Average		24-hour Average	
		Maximum Concentration	Exceedances of AAAQG	Maximum Concentration	Exceedances of AAAQO
PM <sub>2.5</sub> (µg/m <sup>3</sup> )	100.0	58.0	0*	32.6	1
PM <sub>10</sub> (µg/m <sup>3</sup> )	100.0	485.0	-	188.1	-
TSP (µg/m <sup>3</sup> )	100.0	985.0	-	344.7	9

\* Any exceedances reported for 1-hour PM<sub>2.5</sub> are over the guideline level (AAAQG) of 80 µg/m<sup>3</sup>.

### Data Quality Notes:

- There was one exceedance of the 24-hour PM<sub>2.5</sub> AAAQO attributed regionally to stagnant winter weather conditions.
- There were no exceedances of the 1-hour PM<sub>2.5</sub> AAAQG.
- There were nine days exceeding the 24-hour TSP AAAQO.

### Calibration/Maintenance Notes:

- At the Windridge station, the TSP, PM<sub>10</sub> and PM<sub>2.5</sub> analyzers recorded 100% uptime for the month of January.

---

## 2.3 WEST GRIMM

The GRIMM monitors are Industrial Ambient Monitors meant to aid Lafarge in assessing the performance of their Fugitive Dust Control Best Management Practices – Program (FDCBMP-P). The AAAQO are used as Guidelines to evaluate the performance of the FDCBMP-P; however, these Industrial monitors are not Alberta Air Monitoring Directive (AMD) compliant and not required to show compliance with the AAAQO.



**Table 2-3 West station data summary**

Parameter	Data Completeness (%)	1-Hour Average		24-hour Average	
		Maximum Concentration	Exceedances of AAAQG	Maximum Concentration	Exceedances of AAAQO
PM <sub>2.5</sub> (µg/m <sup>3</sup> )	56.3	22.5	0*	9.2	0
PM <sub>10</sub> (µg/m <sup>3</sup> )	56.3	33.6	-	12.6	-
TSP (µg/m <sup>3</sup> )	56.3	39.0	-	14.2	0

\* Any exceedances reported for 1-hour PM<sub>2.5</sub> are over the guideline level (AAAQG) of 80 µg/m<sup>3</sup>.

**Data Quality Notes:**

- There were no exceedances of the 24-hour PM<sub>2.5</sub> AAAQO.
- There were no exceedances of the 1-hour PM<sub>2.5</sub> AAAQG.
- There were no exceedances the 24-hour TSP AAAQO.

**Calibration/Maintenance Notes:**

- The analyzer had 56.3% uptime for the month of January due to 325 hours of collection error (updating IP address on server) and was sent to the factory for repairs.

## 2.4 BERM GRIMM

The GRIMM monitors are Industrial Ambient Monitors meant to aid Lafarge in assessing the performance of their FDCBMP-P. The AAAQO are used as Guidelines to evaluate the performance of the FDCBMP-P; however, these Industrial monitors are not Alberta Air Monitoring Directive (AMD) compliant and not required to show compliance with the AAAQO.

**Table 2-4 Berm station data summary**

Parameter	Data Completeness (%)	1-Hour Average		24-hour Average	
		Maximum Concentration	Exceedances of AAAQG	Maximum Concentration	Exceedances of AAAQO
PM <sub>2.5</sub> (µg/m <sup>3</sup> )	36.4	84.3	3*	31.0	1
PM <sub>10</sub> (µg/m <sup>3</sup> )	36.4	755.9	-	235.6	-
TSP (µg/m <sup>3</sup> )	36.4	2606.5	-	725.0	7

\* Any exceedances reported for 1-hour PM<sub>2.5</sub> are over the guideline level (AAAQG) of 80 µg/m<sup>3</sup>.

**Data Quality Notes:**

- There was one exceedance of the 24-hour PM<sub>2.5</sub> AAAQO.

- There were three exceedances of the 1-hour PM<sub>2.5</sub> AAAQG.
- There were seven days exceeding the 24-hour TSP AAAQO.

**Calibration/Maintenance Notes:**

- The analyzer had 36.4% uptime for the month of January due to 473 hours of collection error (updating IP address on server) and was sent to the factory for repairs.
- 

## 2.5 ENTRANCE GRIMM

The GRIMM monitors are Industrial Ambient Monitors meant to aid Lafarge in assessing the performance of their FDCBMP-P. The AAAQO are used as Guidelines to evaluate the performance of the FDCBMP-P; however, these Industrial monitors are not Alberta Air Monitoring Directive (AMD) compliant and not required to show compliance with the AAAQO.

**Calibration/Maintenance Notes:**

- The analyzer had 0% uptime for the month of January due to communication error and was sent to the factory for repairs.

# 3 LAGOON STATION

The Lagoon trailer contains NO<sub>x</sub>, SO<sub>2</sub>, TSP, PM<sub>10</sub>, and PM<sub>2.5</sub> analyzers as well as meteorological sensors, and is shown in Figure 3-1. An ambient air quality station has been at this location since 2002, providing a long-term data record for air quality in the Exshaw area.

This section provides a summary of the monitoring activities for the Lagoon ambient air quality station, including: a table of instrumentation (Table 3-1), a data summary table (Table 3-2), site visit notes and tables and graphs illustrating the monitoring results for January 2024.

All of the monitors comply with Alberta Environment and Parks Air Monitoring Directive (2016).

## 3.1 OPERATIONAL SUMMARY

A summary of the station operation for the month is provided in Table 3-1.

**Table 3-1 Instrumentation List at the Lagoon Station**

Parameter Measured	Equipment Description	Notes
<b>PM<sub>2.5</sub> Concentrations</b>	MetOne BAM-1020 FRM Continuous Particulate Monitor	The PM <sub>2.5</sub> monitor was calibrated on January 29 <sup>th</sup> . The monitor had 100% uptime for the month of January.
<b>PM<sub>10</sub> Concentrations</b>	MetOne BAM-1020 Continuous Particulate Monitor	The PM <sub>10</sub> monitor was calibrated on January 29 <sup>th</sup> . The monitor had 90.5% uptime for the month of January due to 65 hours of equipment malfunction occurring on January 7 <sup>th</sup> at 23:00; January 10 <sup>th</sup> at 11:00 and 24:00; January 11 <sup>th</sup> at 2:00, 5:00 – 8:00 and 15:00; January 12 <sup>th</sup> at 3:00 – 7:00, and 10:00 – 11:00; January 16 <sup>th</sup> at 12:00 to January 18 <sup>th</sup> at 13:00. Furthermore, five hours of non-routine maintenance occurring on January 12 <sup>th</sup> at 12:00 – 16:00.
<b>TSP Concentrations</b>	MetOne BAM-1020 Continuous Particulate Monitor	The TSP monitor was calibrated on January 29 <sup>th</sup> . The monitor had 99.9% uptime for the month of January due to one hour of equipment malfunction occurring on January 24 <sup>th</sup> at 2:00.
<b>Oxides of Nitrogen</b>	TEI 42C	The NO <sub>x</sub> monitor was calibrated on January 16 <sup>th</sup> . The monitor had 100% uptime for the month of January.
<b>Sulphur Dioxide</b>	Teledyne API 102A	The SO <sub>2</sub> monitor was calibrated on January 16 <sup>th</sup> . The monitor had 100% uptime for the month of January.



<b>Precipitation</b>	MetOne 130 Rain/Snow Gauge	The monitor had 100% uptime for the month of January.
<b>Wind Speed</b>	MetOne Wind Sensor	The monitor had 100% uptime for the month of January.
<b>Wind Direction</b>		
<b>Ambient Temperature</b>	MetOne Ambient Temperature Sensor	The monitor had 100% uptime for the month of January.



**Figure 3-1** Inlets on the top of WSP’s Lagoon monitor

## 3.2 MONITORING RESULTS AND TRENDS

Table 3-2 summarizes the hourly and daily concentrations recorded in January 2024. Figure 3-2 graphically illustrates the time series for hourly concentrations as well as wind speed and direction, while Figure 3-8 shows daily average concentrations recorded during January 2024 for the pollutants listed in Table 3-2. Additionally, Figure 3-3 to Figure 3-7 show the histograms of the hourly concentrations of NO<sub>2</sub>, SO<sub>2</sub>, PM<sub>2.5</sub>, PM<sub>10</sub>, and TSP measured at the Lagoon station.

There were no exceedances of the 24-hour TSP AAAQO (100 µg/m<sup>3</sup>). There was one day exceeding the 24-hour PM<sub>2.5</sub> AAAQO (29 µg/m<sup>3</sup>). Further, there were no exceedances of the 1-hour PM<sub>2.5</sub> AAQG (80 µg/m<sup>3</sup>) at the station this month.

Historically in January, the average number of 24-hour TSP AAAQO exceedances and 24-hour PM<sub>2.5</sub> AAAQO exceedances are both zero. The maximum number of 24-hour TSP AAAQO exceedances recorded in January were two days in 2021 and 2023. It is unusual to record exceedances of the 24-hour PM<sub>2.5</sub> AAQO in January. The exceedances reported at the Lagoon Station (and Windridge Station) on January 22, 2024 were linked to Environment and Climate Change Canada (ECCC) special air quality statement for the region that cited “stagnant winter weather conditions” creating elevated pollutant levels.

At the Lagoon station strong wind gusting that typically occurs in the area contributes to increased particulate levels that may arise from multiple sources including the Lafarge Plant, Exshaw Creek, dry sections of the Bow River, highway and rail traffic moving past the station and fugitive emissions from open areas.

**Table 3-2 Summary of January 2024 data at Lagoon**

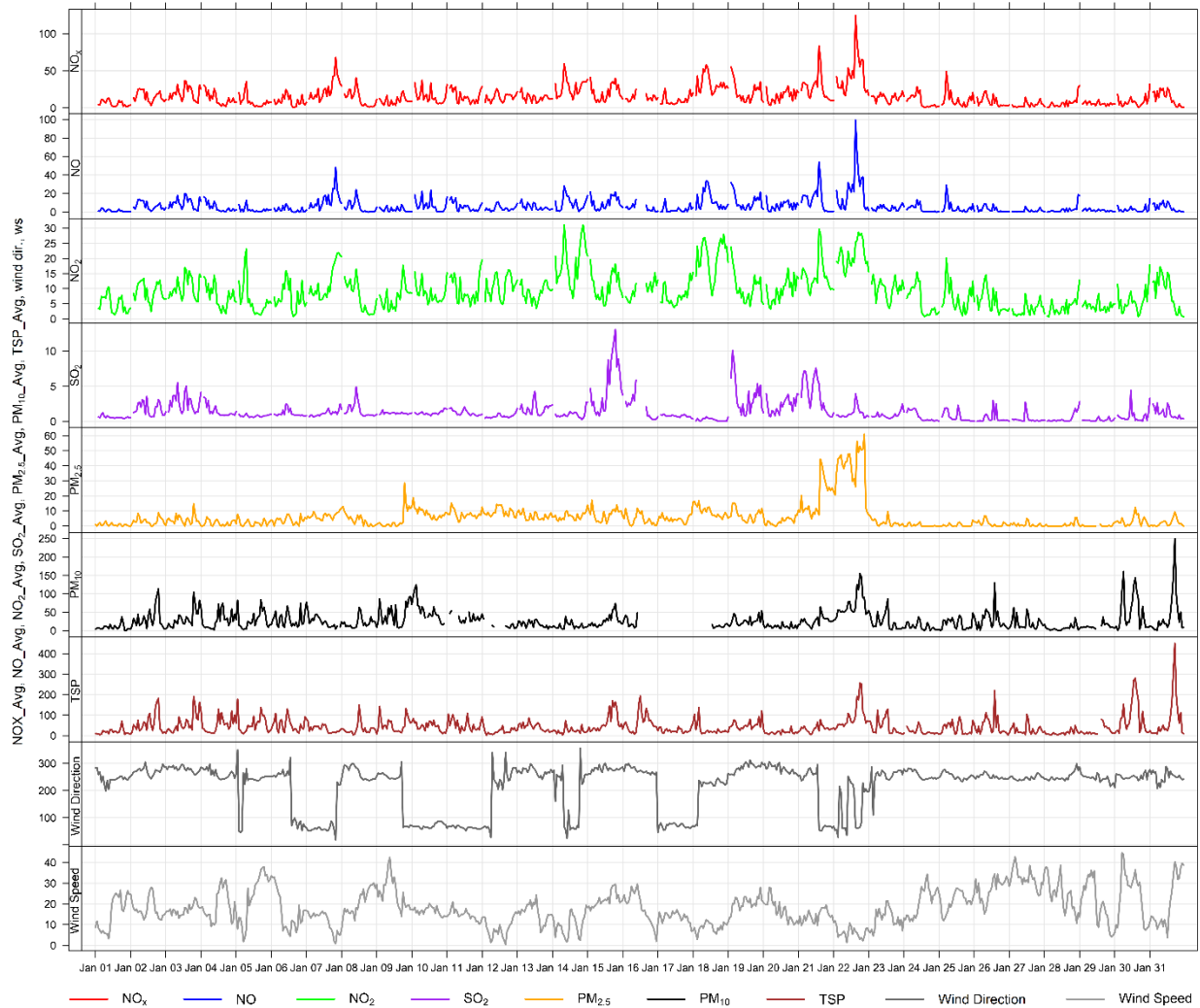
Parameter	Guideline / Objectives		Station	Exceedances		Monthly		1-hour				24-hour		Operational Time (Percent)	
	1-hr	24-hr		1-hr	24-hr	Minimum	Average	Maximum Concentration/ Meteorological Variable	Day	Hour	Wind Speed (km/hr)	Wind Direction (degrees)	Maximum Concentration/ Meteorological Variable		Day
<b>NO<sub>2</sub> (ppb)</b>	159	-	Lagoon	0	-	0.7	9.2	31.1	14	9	4.6	67.6	20.8	22	100.0
<b>SO<sub>2</sub> (ppb)</b>	172	48	Lagoon	0	0	0.0	1.4	13.1	15	20	29.5	276.1	5.0	15	100.0
<b>PM<sub>2.5</sub> (µg/m<sup>3</sup>)</b>	80	29	Lagoon	0	1	0.0	5.7	61.0	22	22	4.2	195.0	39.3	22	100.0
<b>PM<sub>10</sub> (µg/m<sup>3</sup>)</b>	-	-	Lagoon	-	-	0.0	26.7	249.3	31	18	40.3	252.9	69.0	22	90.5
<b>TSP (µg/m<sup>3</sup>)</b>	-	100	Lagoon	-	0	2.1	44.5	449.7	31	18	40.3	252.9	92.5	22	99.9
<b>Temperature (°C)</b>	-	-	Lagoon	-	-	-37.6	-7.0	14.7	30	6	44.7	246.6	11.4	30	100.0
<b>Wind Speed (km/hr)/Direction (degrees)</b>	-	-	Lagoon	-	-	0.4	17.9	44.7/W	30	6	44.7	246.6	32.2/WSW	27	100.0
<b>Precipitation (mm)</b>	-	-	Lagoon	-	-	0.0	0.0	0.3 <sup>1</sup>	6	24	17.0	66.9	1.0 <sup>2</sup>	-	100.0

<sup>1</sup> Maximum Daily Total Accumulation of Precipitation (mm) - freezing temperatures can impact the precipitation totals in winter months

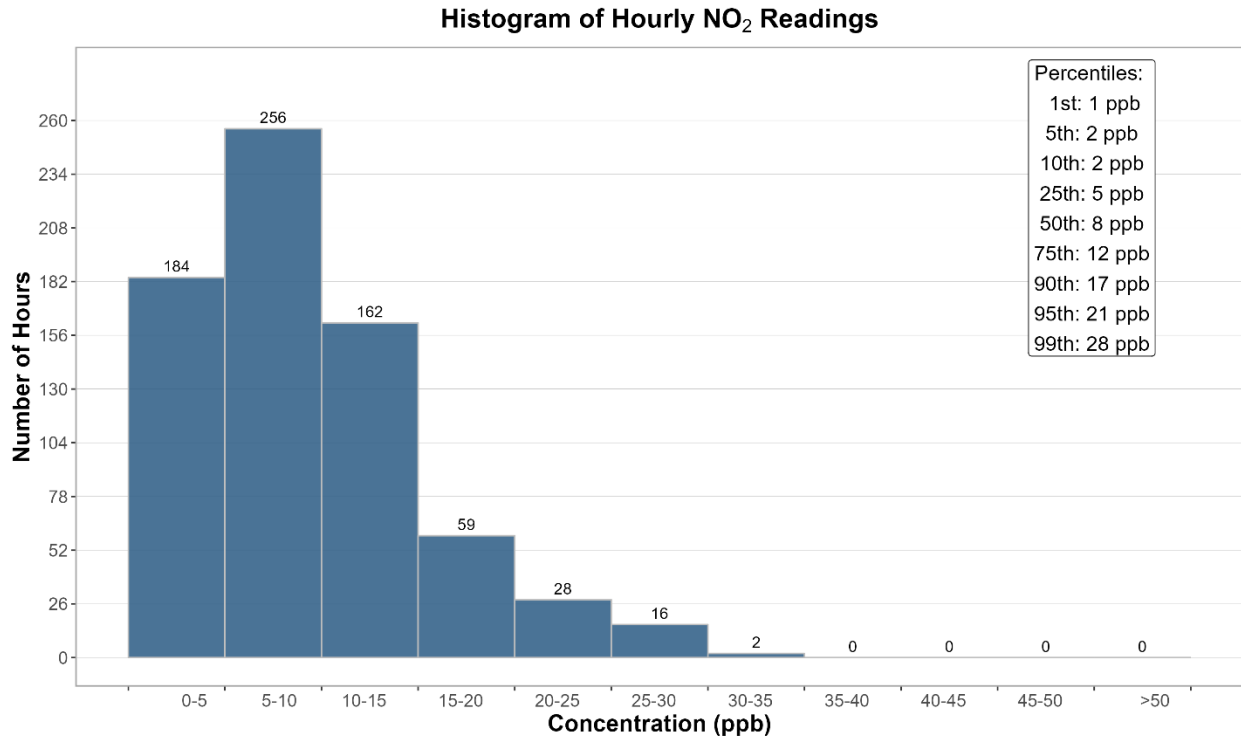
<sup>2</sup> Monthly Total Accumulation of Precipitation (mm) - freezing temperatures can impact the precipitation totals in winter months

**Table 3-3 Days exceeding the TSP AAAQO or PM<sub>2.5</sub> AAAQO at the Lagoon Station**

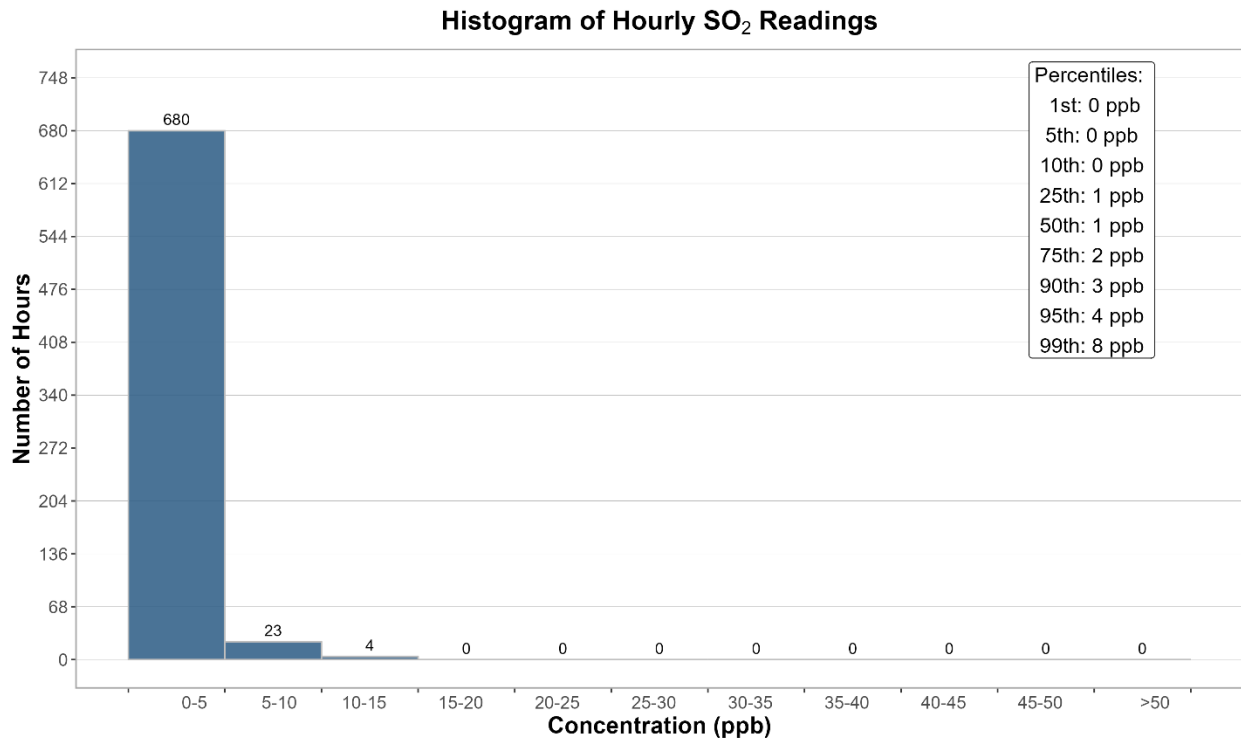
Date	TSP (ug/m <sup>3</sup> )	PM <sub>2.5</sub> (ug/m <sup>3</sup> )	Average Wind Direction (degrees)	Average Wind Speed (km/hr)	Average RH (%)	Root Cause (Provided by Lafarge)
<b>Lagoon</b>						
<b>2024-01-22</b>	-	39.3	121.1	6.3	81.8	Stagnant winter weather conditions (ECCC)
<b>Total # of Exceedances</b>	<b>0</b>	<b>1</b>				
<b>Maximum # of Exceedances (January)</b>	<b>2 (2021, 2023)</b>	<b>0 (2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023)</b>				
<b>Average # of Exceedances (January)</b>	<b>0</b>	<b>0</b>				
<b>Minimum # of Exceedances (January)</b>	<b>0 (2010, 2011, 2012, 2013, 2014, 2017, 2018, 2020, 2022)</b>	<b>0 (2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023)</b>				



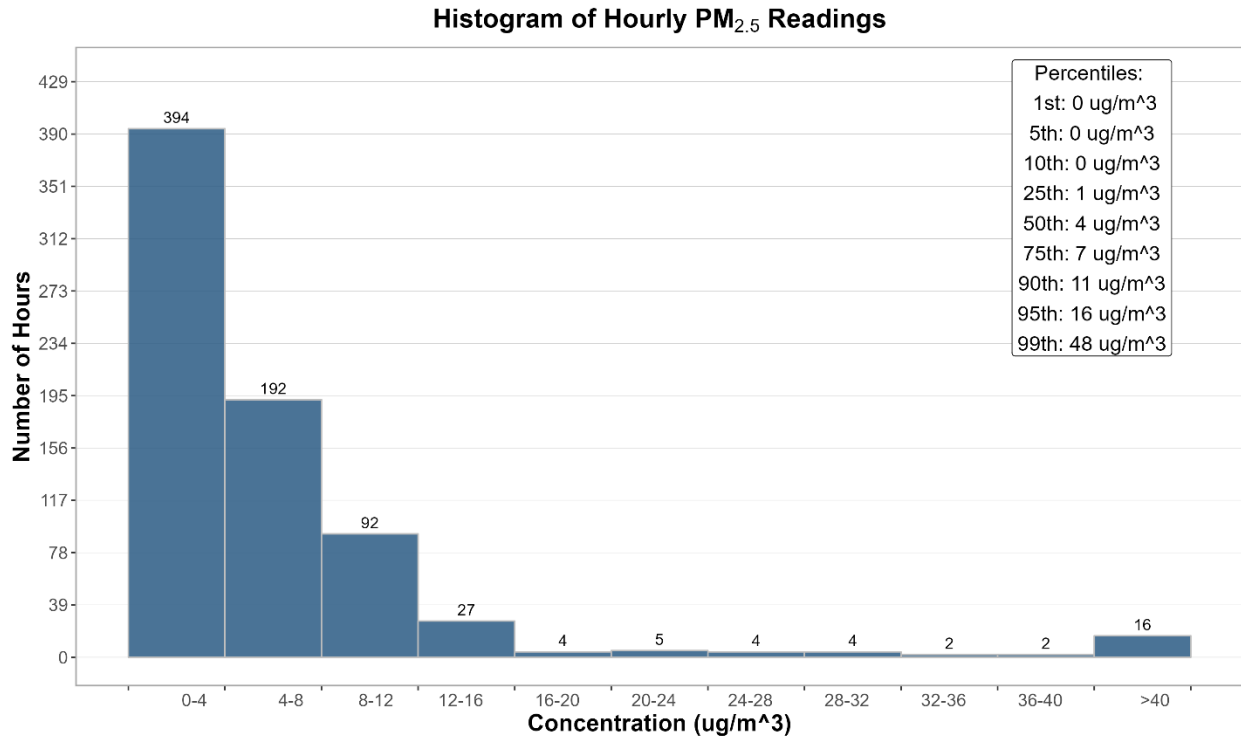
**Figure 3-2 1-hour concentrations of NO<sub>x</sub>, SO<sub>2</sub>, particulate matter, wind direction and wind speed at the Lagoon station**



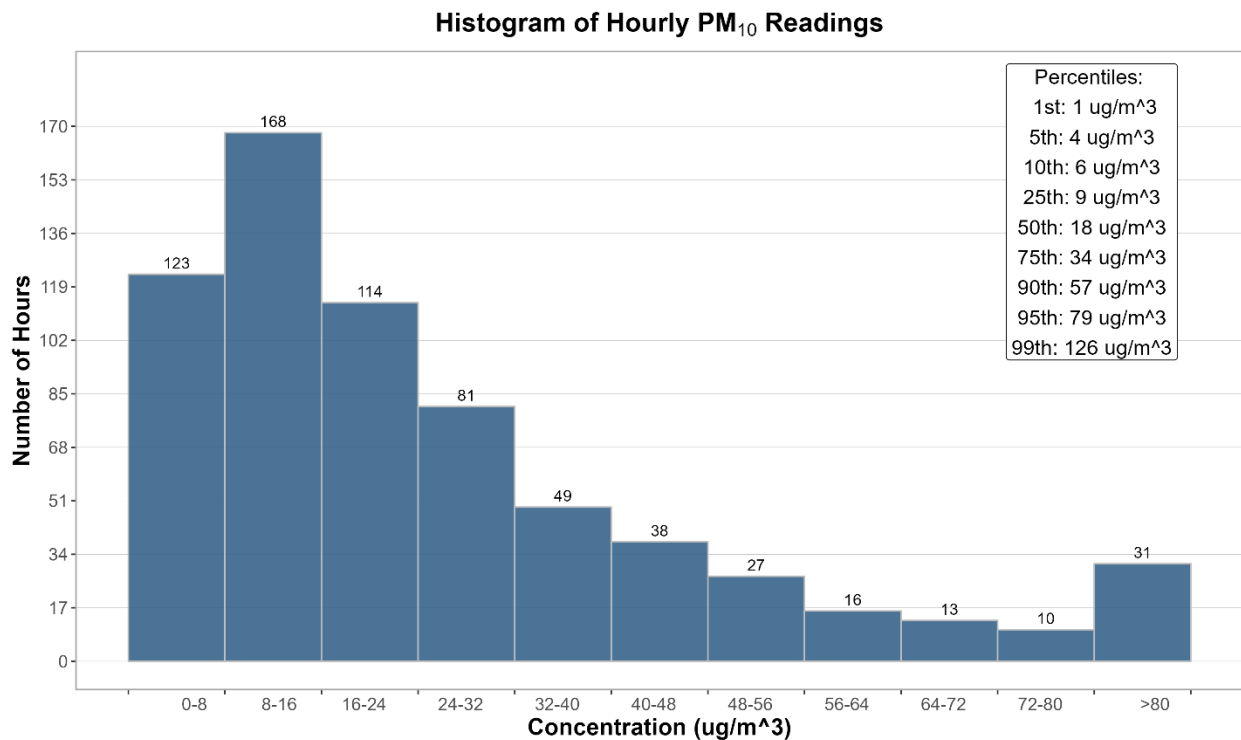
**Figure 3-3** Histogram of hourly NO<sub>2</sub> concentrations at the Lagoon station



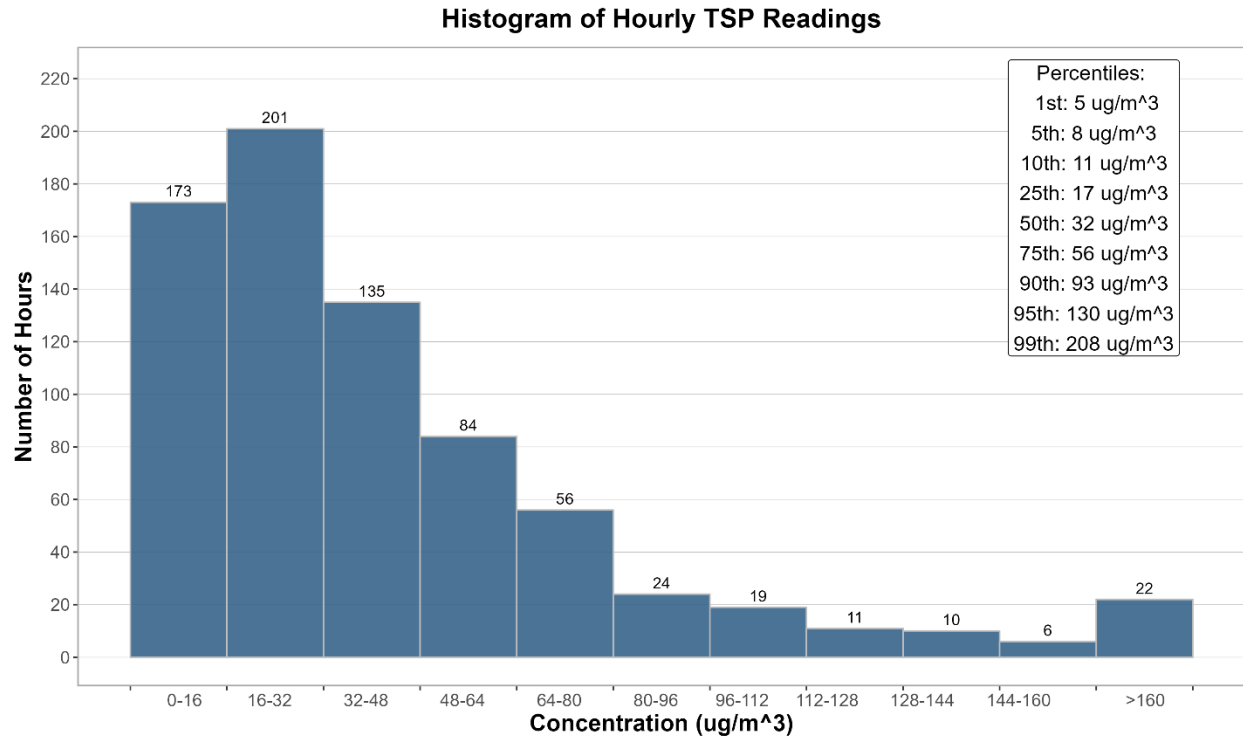
**Figure 3-4** Histogram of hourly SO<sub>2</sub> concentrations at the Lagoon station



**Figure 3-5** Histogram of hourly PM<sub>2.5</sub> concentrations at the Lagoon station

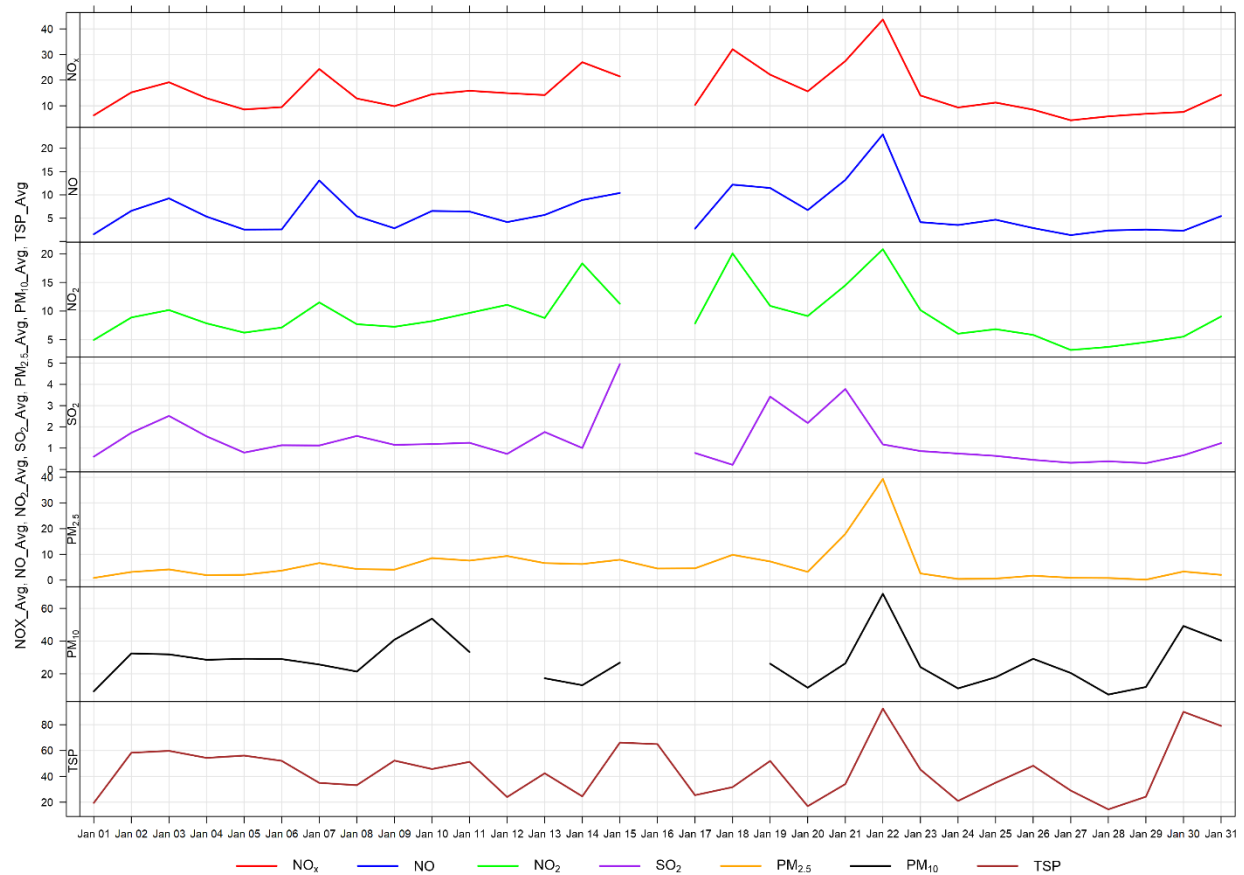


**Figure 3-6** Histogram of hourly PM<sub>10</sub> concentrations at the Lagoon station



**Figure 3-7 Histogram of hourly TSP concentrations at the Lagoon station**



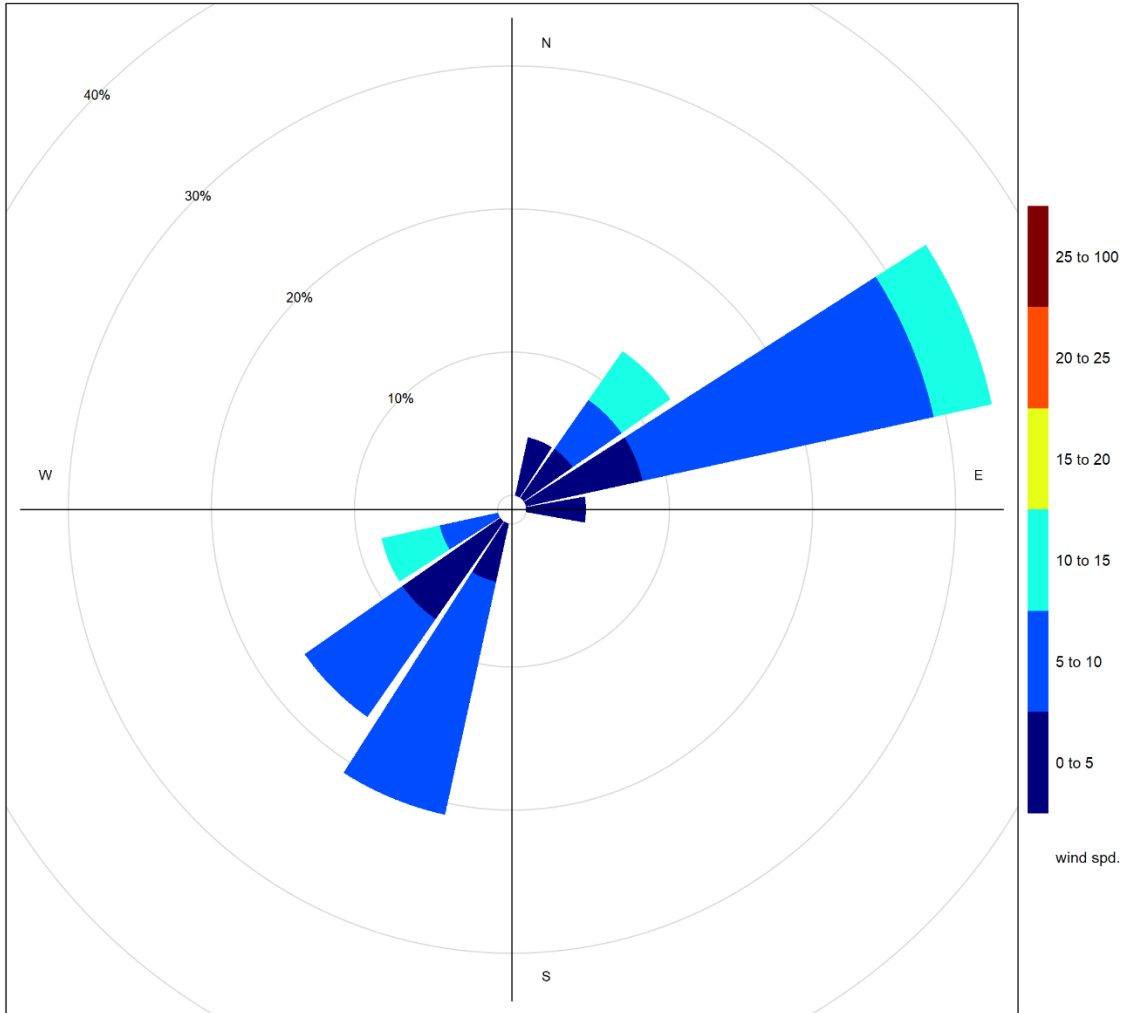


**Figure 3-8 24-hour concentrations of NO<sub>x</sub>, SO<sub>2</sub>, and particulate matter at the Lagoon monitor**

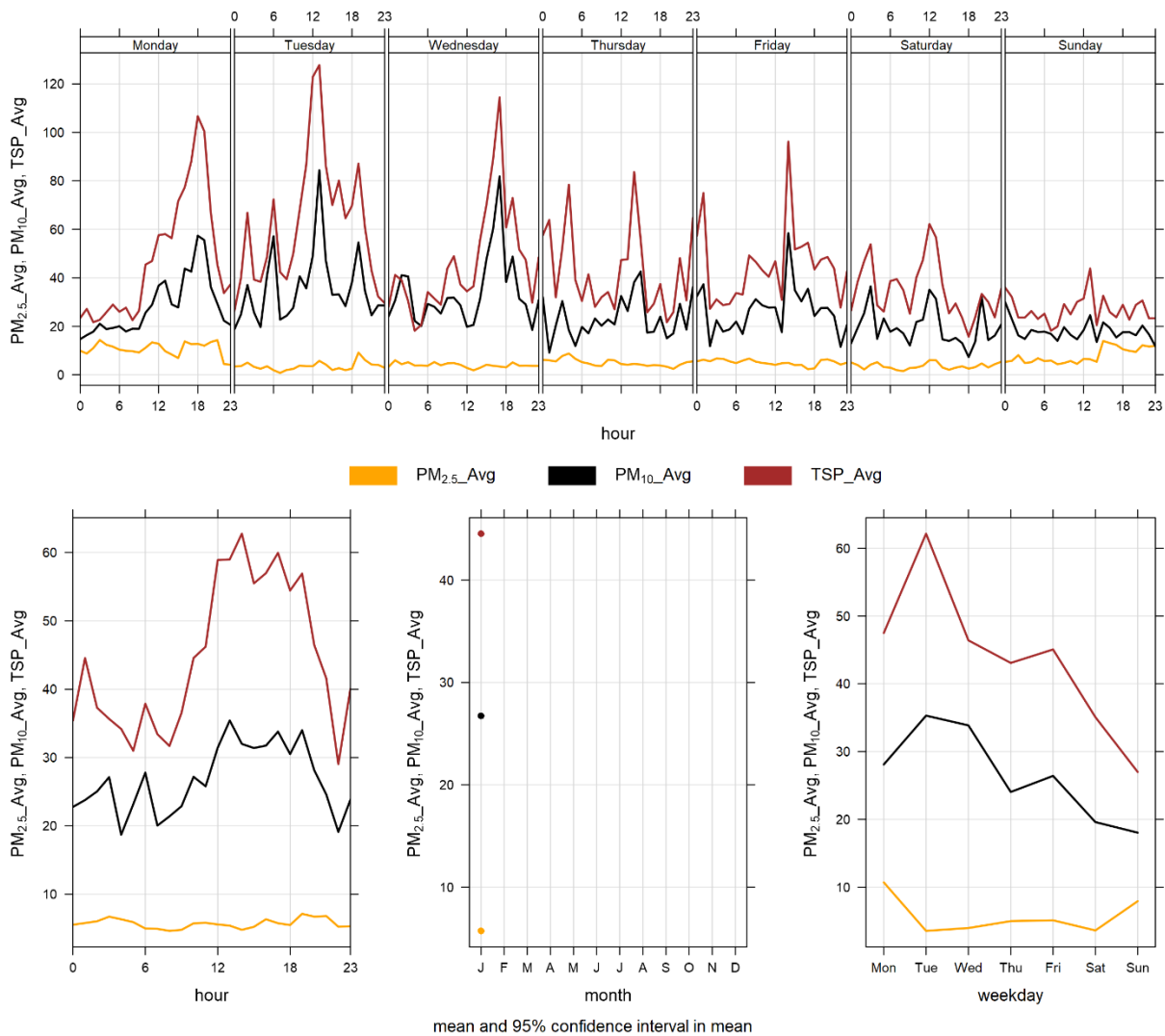
Figure 3-9 shows the wind rose for the one day of PM<sub>2.5</sub> exceedance in January. The wind rose shows that the winds predominately came from the east-northeast, suggesting impacts from sources other than Lafarge Facility. As mentioned above, the PM<sub>2.5</sub> exceedance reported at the Lagoon Station were linked to an ECCC special air quality statement for the region that cited “stagnant winter weather conditions” creating elevated pollutant levels.

Figure 3-10 through Figure 3-12 show the variation in concentrations over various time averaging periods for PM, SO<sub>2</sub> and NO<sub>x</sub>. The particulate matter plot in Figure 3-10 typically shows that PM<sub>10</sub> and TSP concentrations have a diurnal pattern associated with Lafarge operations, daytime emissions from traffic and other airshed activities. The diurnal patterns also typically follow the diurnal pattern of higher wind speeds during the daytime hours.

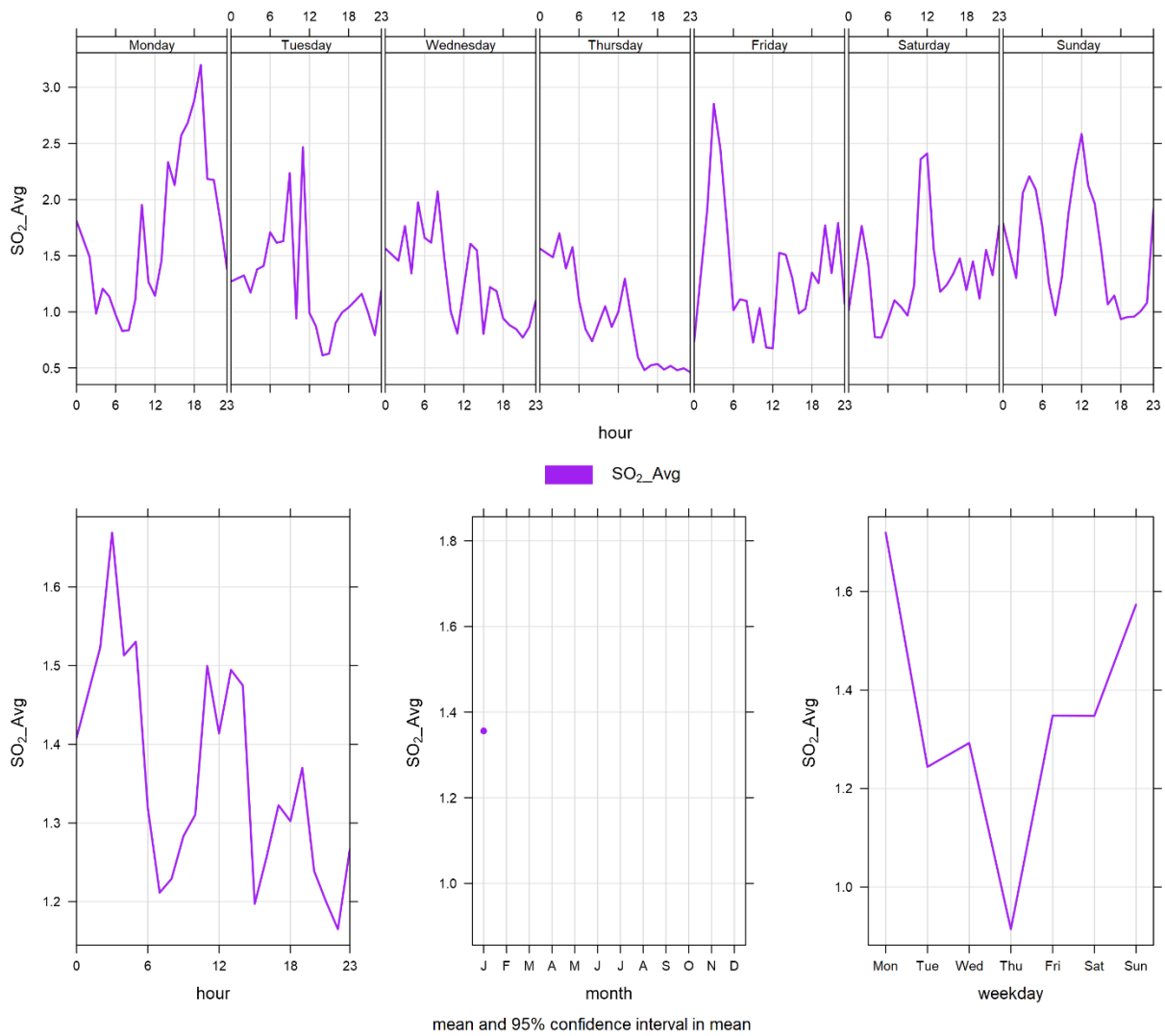
Figure 3-11 shows the variation of SO<sub>2</sub> over various time periods. SO<sub>2</sub> concentrations patterns are dependent on the timing of the highest SO<sub>2</sub> concentrations recorded in the month because in general SO<sub>2</sub> concentrations are very low. Figure 3-12 shows the variation of NO<sub>x</sub>, NO and NO<sub>2</sub>, with the peak of all three pollutants occurring in the early morning. This may be indicative of a peak in traffic.



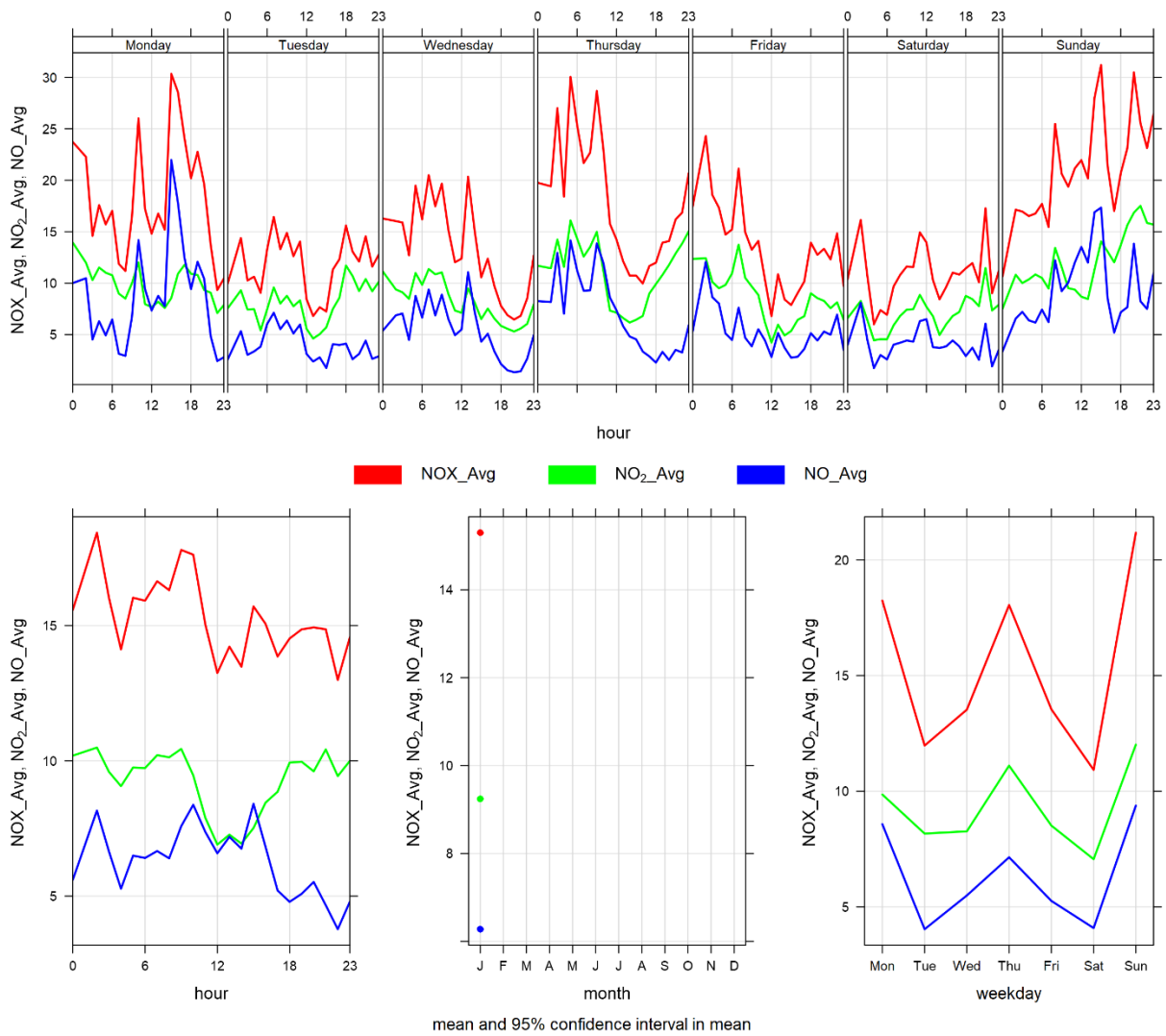
**Figure 3-9 Wind rose for PM<sub>2.5</sub> exceedance days recorded at the Lagoon Station**



**Figure 3-10 Lagoon monitor particulate matter time variation**



**Figure 3-11 Lagoon monitor SO<sub>2</sub> time variation**



**Figure 3-12 Lagoon monitor NO<sub>x</sub> time variation**

# 4 WINDRIDGE STATION

The Windridge station contains TSP, PM<sub>10</sub>, and PM<sub>2.5</sub> analyzers only. This section provides a summary of the monitoring activities for the Windridge ambient air quality station, including: a table of instrumentation (Table 4-1), a data summary table (Table 4-2), a table of recorded exceedances (Table 4-3), site visit notes, and graphs illustrating the monitoring results for January 2024.

All of the monitors comply with Alberta Environment and Parks Air Monitoring Directive (2016).

## 4.1 OPERATIONAL SUMMARY

A summary of the station operation for the month is provided in Table 4-1.

**Table 4-1 Instrumentation List at the Windridge monitoring location**

Parameter Measured	Equipment Description	Notes
<b>PM<sub>2.5</sub> Concentrations</b>	MetOne BAM-1020 FRM Continuous Particulate Monitor	The PM <sub>2.5</sub> monitor was calibrated on January 29 <sup>th</sup> . The monitor had 100% uptime for the month of January.
<b>PM<sub>10</sub> Concentrations</b>	MetOne BAM-1020 Continuous Particulate Monitor	The PM <sub>2.5</sub> monitor was calibrated on January 29 <sup>th</sup> . The monitor had 100% uptime for the month of January.
<b>TSP Concentrations</b>	MetOne BAM-1020 Continuous Particulate Monitor	The TSP monitor was calibrated on January 29 <sup>th</sup> . The monitor had 100% uptime for the month of January.

## 4.2 MONITORING RESULTS AND TRENDS

Table 4-2 summarizes the hourly and daily concentrations recorded in January 2024, and Table 4-3 the recorded exceedances. Figure 4-1 illustrates the time series for hourly PM, Figure 4-2 to Figure 4-4 illustrates the histograms for hourly PM, Figure 4-5 illustrates the time series for daily PM, Figure 4-6 displays the wind rose for the 24-hour TSP and Figure 4-8 illustrates the time series for hourly PM over different time periods.

There was one day exceeding the 24-hour PM<sub>2.5</sub> AAAQO. There were no exceedances the 1-hour PM<sub>2.5</sub> AAAQG, and nine exceedances of the 24-hour TSP AAAQO.

Historically in January, the average number of 24-hour TSP AAAQO exceedances and 24-hour PM<sub>2.5</sub> AAAQO exceedances is nine and zero, respectively. The maximum number of 24-hour TSP AAAQO exceedances recorded in January were 11 days in 2022. It is unusual to record exceedances of the 24-hour PM<sub>2.5</sub> AAQO in January. The exceedances reported at the Windridge Station (and Lagoon Station) on January 22, 2024 were linked to Environment and Climate Change Canada (ECCC) special air quality statement for the region that cited “stagnant winter weather conditions” creating elevated pollutant levels.

Due to flood mitigation construction at Exshaw creek the Windridge monitoring station was taken out of operation and removed from the site on April 8<sup>th</sup>, 2019. The flood mitigation work was completed in August 2020. The Windridge station was reinstalled for September 1<sup>st</sup>, 2020. As per the photo presented in section 1.1 the flood

mitigation work has left an exposed creek bed area immediately west of the Windridge monitor that may contribute to an increase in TSP levels. Further, the strong wind gusting that occurred in January would have contributed to increased particulate levels that may have arisen from multiple sources: Lafarge Plant, Exshaw Creek, dry sections of the Bow River, and open areas.

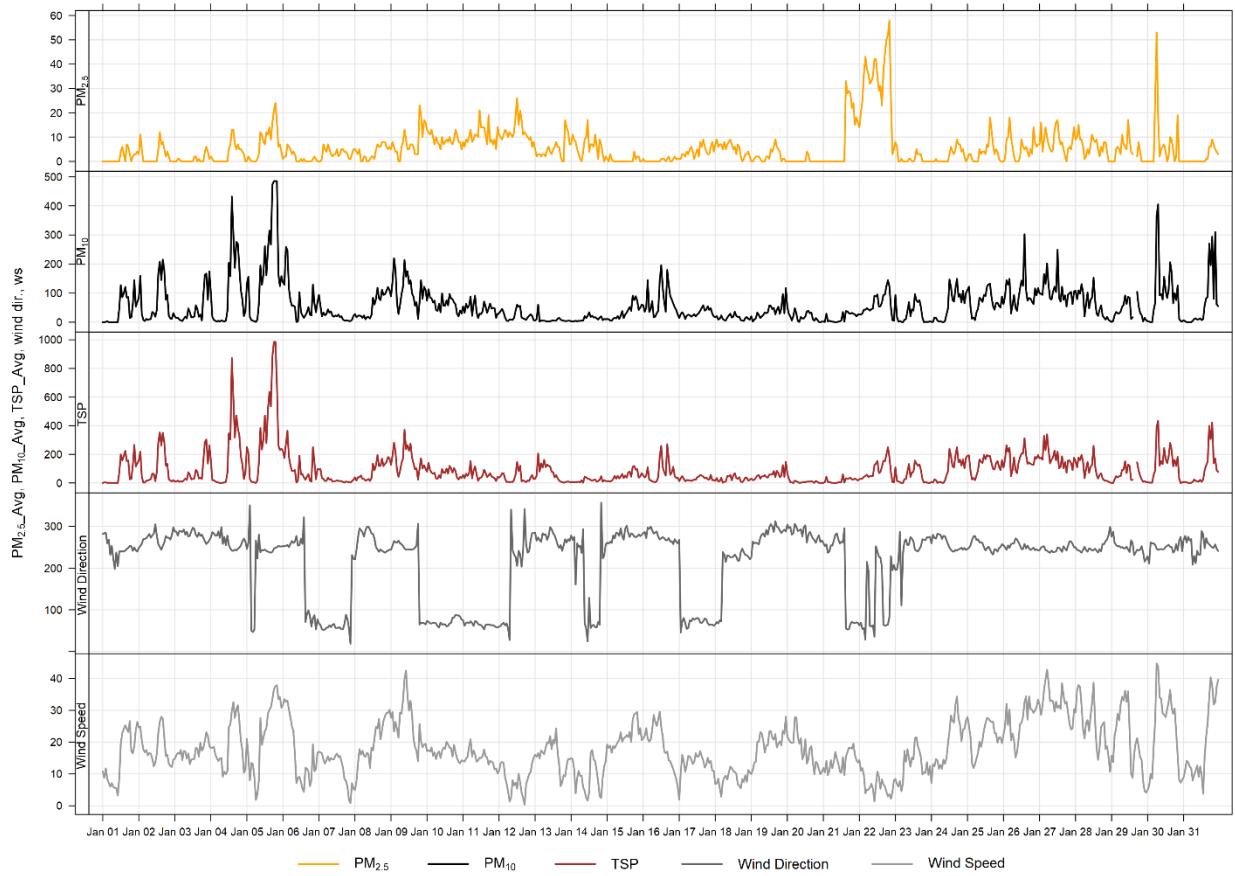
**Table 4-2 Summary of January 2024 data at the Windridge Station**

Parameter	Guideline		Station	Exceedances		Monthly		Maximum 1-hour				Maximum 24-hour		Operational Time (Percent)	
	1-hr	24-hr		1-hr	24-hr	Minimum	Average	Maximum Concentration	Day	Hour	Wind Speed (km/hr)	Wind Direction (degrees)	Maximum Concentration		Day
<b>PM<sub>2.5</sub></b> (µg/m <sup>3</sup> )	80	29	Windridge	0	1	0.0	5.5	58.0	22	20	3.6	83.1	32.6	22	100.0
<b>PM<sub>10</sub></b> (µg/m <sup>3</sup> )	-	-	Windridge	-	-	0.0	57.9	485.0	5	20	37.9	249.8	188.1	5	100.0
<b>TSP</b> (µg/m <sup>3</sup> )	-	100	Windridge	-	9	0.0	88.9	985.0	5	19	37.6	248.8	344.7	5	100.0



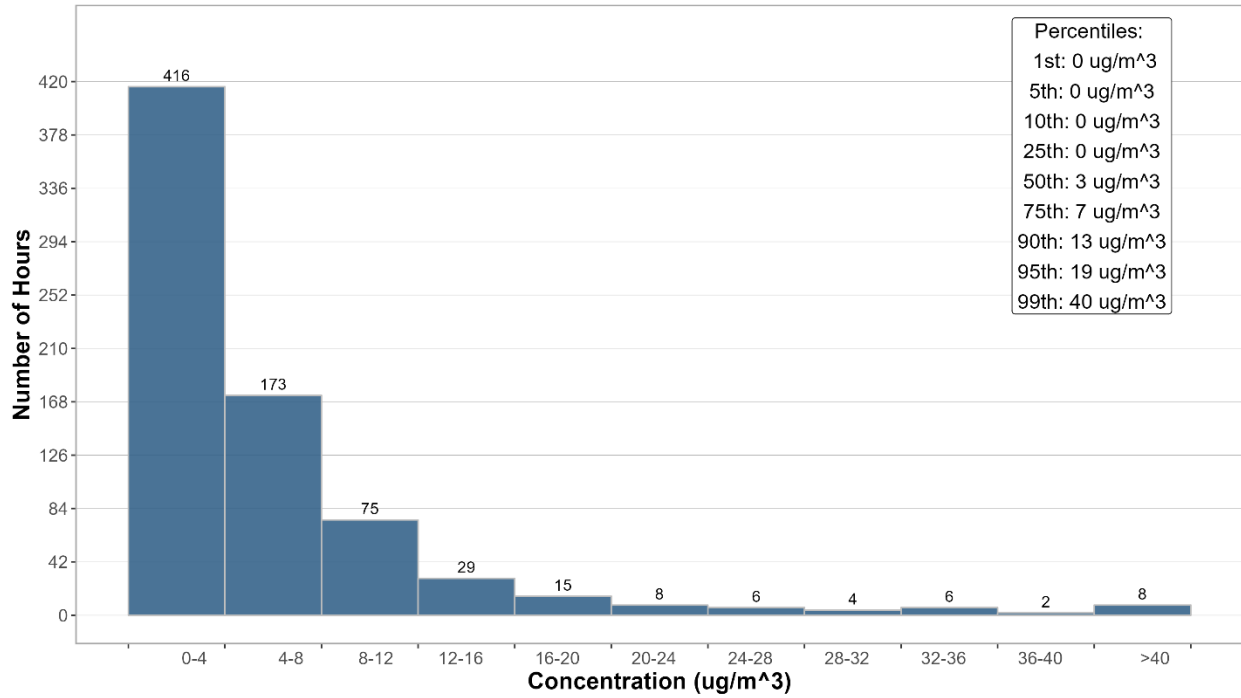
**Table 4-3 Days exceeding the TSP AAAQO or PM<sub>2.5</sub> AAAQO at the Windridge Station**

Date	TSP (ug/m <sup>3</sup> )	PM <sub>2.5</sub> (ug/m <sup>3</sup> )	Average Wind Direction (degrees)	Average Wind Speed (km/hr)	Average RH (%)	Root Cause (Provided by Lafarge)
<b>Windridge</b>						
2024-01-02	101.6	-	268.4	17.8	60.4	
2024-01-04	183.9	-	258.5	19.2	57.4	
2024-01-05	344.7	-	248.3	23.1	48.2	high wind event
2024-01-06	104.7	-	259.7	16.2	67.5	
2024-01-09	158.0	-	254.9	25.6	63.2	high wind event
2024-01-22	-	32.6	121.1	6.3	81.8	Stagnant winter weather conditions (ECCC)
2024-01-25	124.0	-	251.4	21.3	48.9	high wind event
2024-01-26	166.3	-	250.1	27.2	47.9	high wind event
2024-01-27	172.5	-	246.5	32.2	48.8	high wind event
2024-01-30	135.0	-	249.0	23.9	36.7	high wind event
<b>Total # of Exceedances</b>	<b>9</b>	<b>1</b>				
<b>Maximum # of Exceedances (January)</b>	<b>11 (2022)</b>	<b>0 (2018, 2019, 2021, 2022, 2023)</b>				
<b>Average # of Exceedances (January)</b>	<b>9</b>	<b>0</b>				



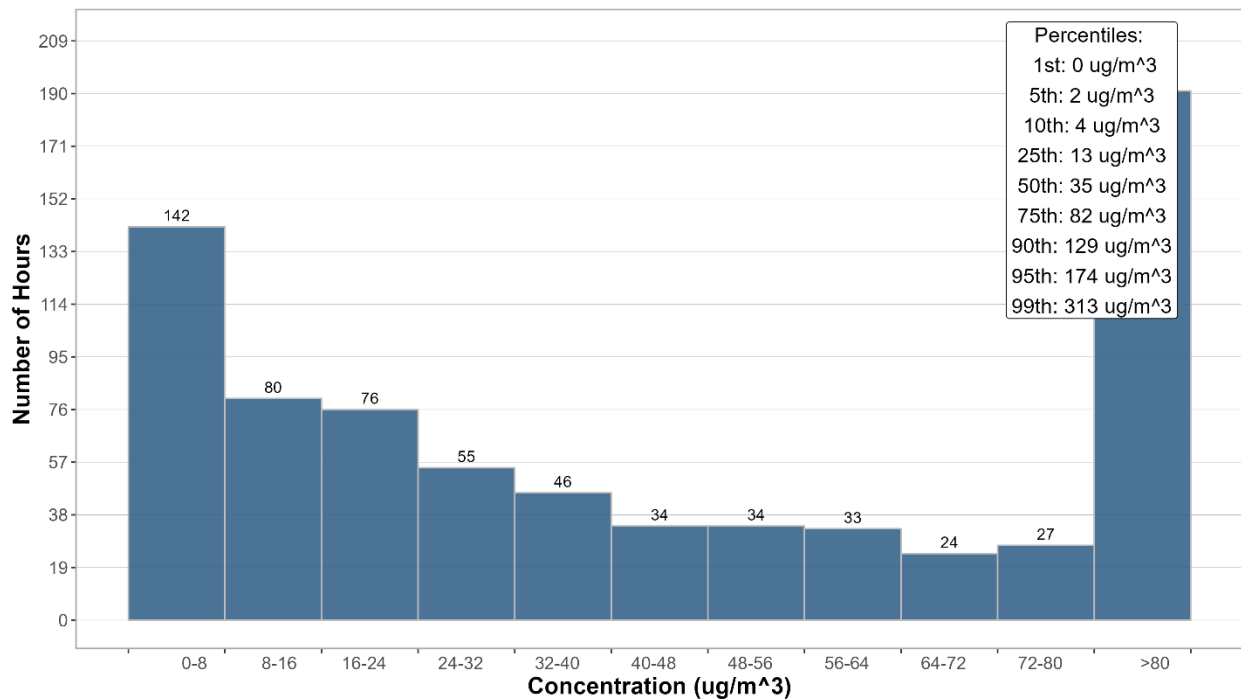
**Figure 4-1 1-hour particulate matter concentrations recorded at the Windridge monitor**

**Histogram of Hourly PM<sub>2.5</sub> Readings**

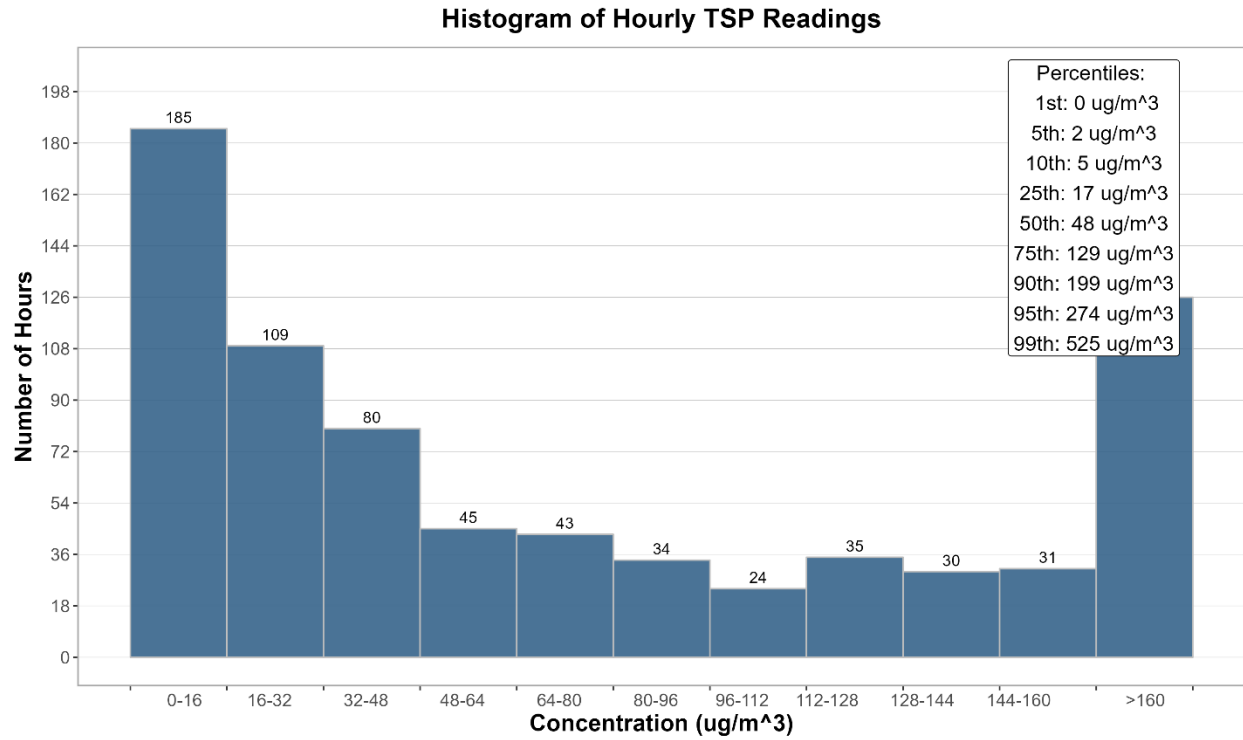


**Figure 4-2 Histogram of hourly PM<sub>2.5</sub> concentrations at the Windridge station**

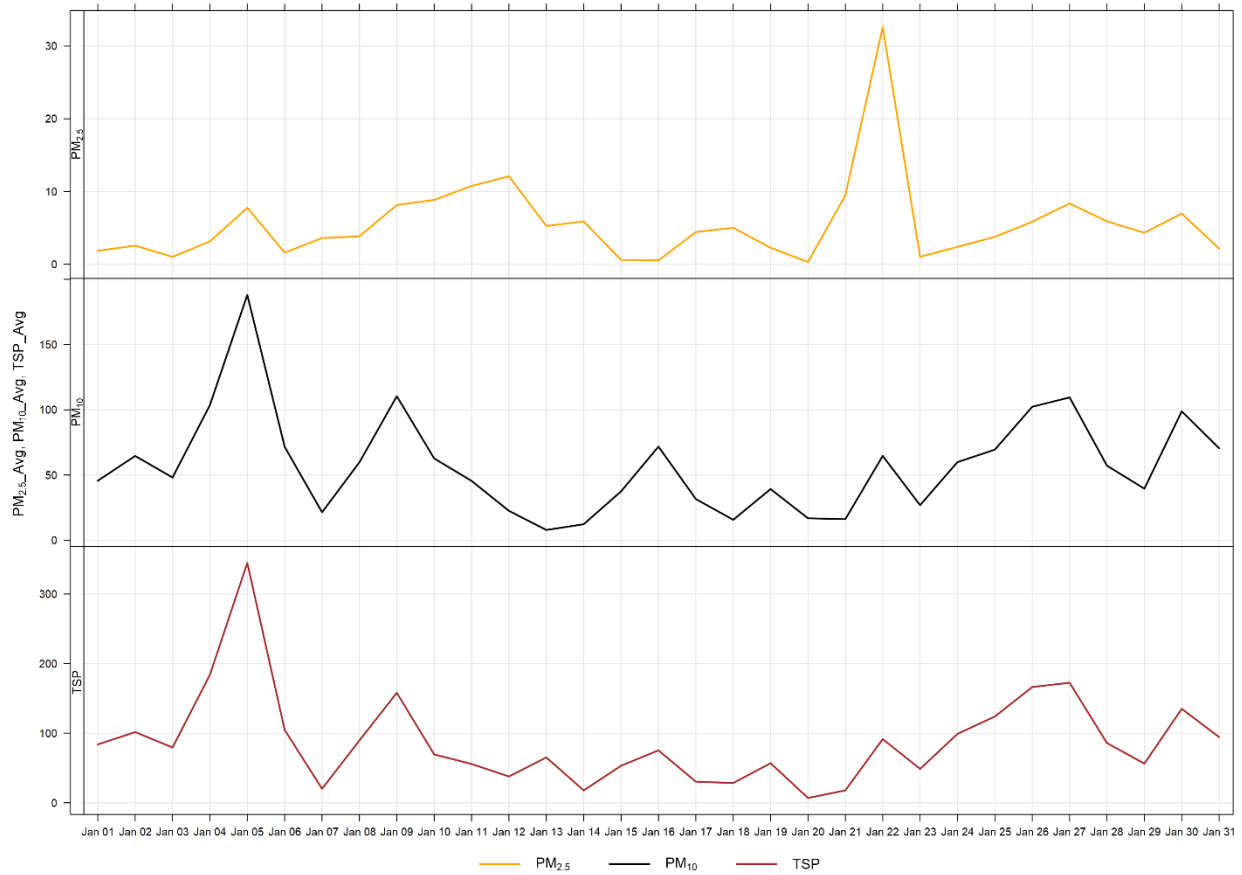
**Histogram of Hourly PM<sub>10</sub> Readings**



**Figure 4-3 Histogram of hourly PM<sub>10</sub> concentrations at the Windridge station**



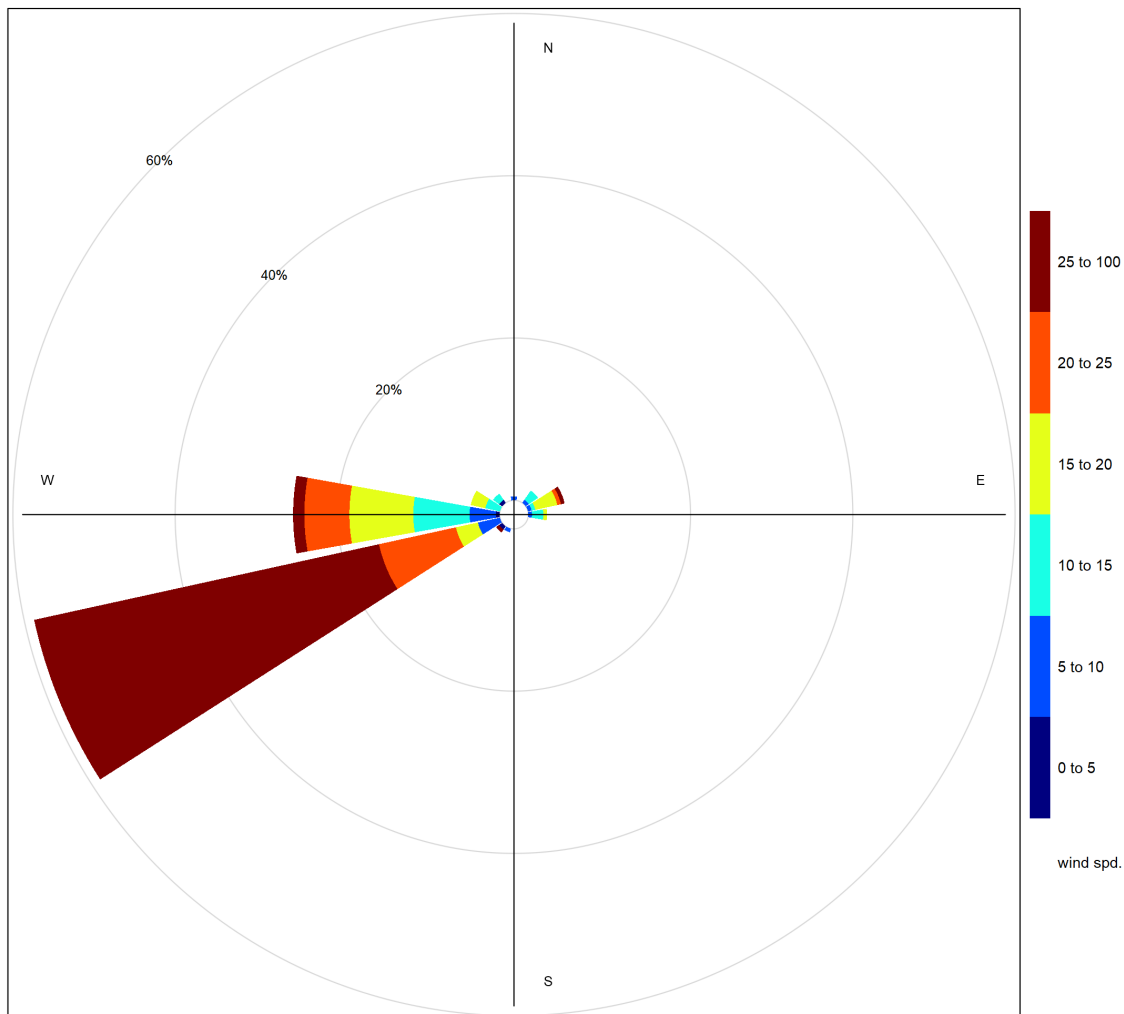
**Figure 4-4** Histogram of hourly TSP concentrations at the Windridge station



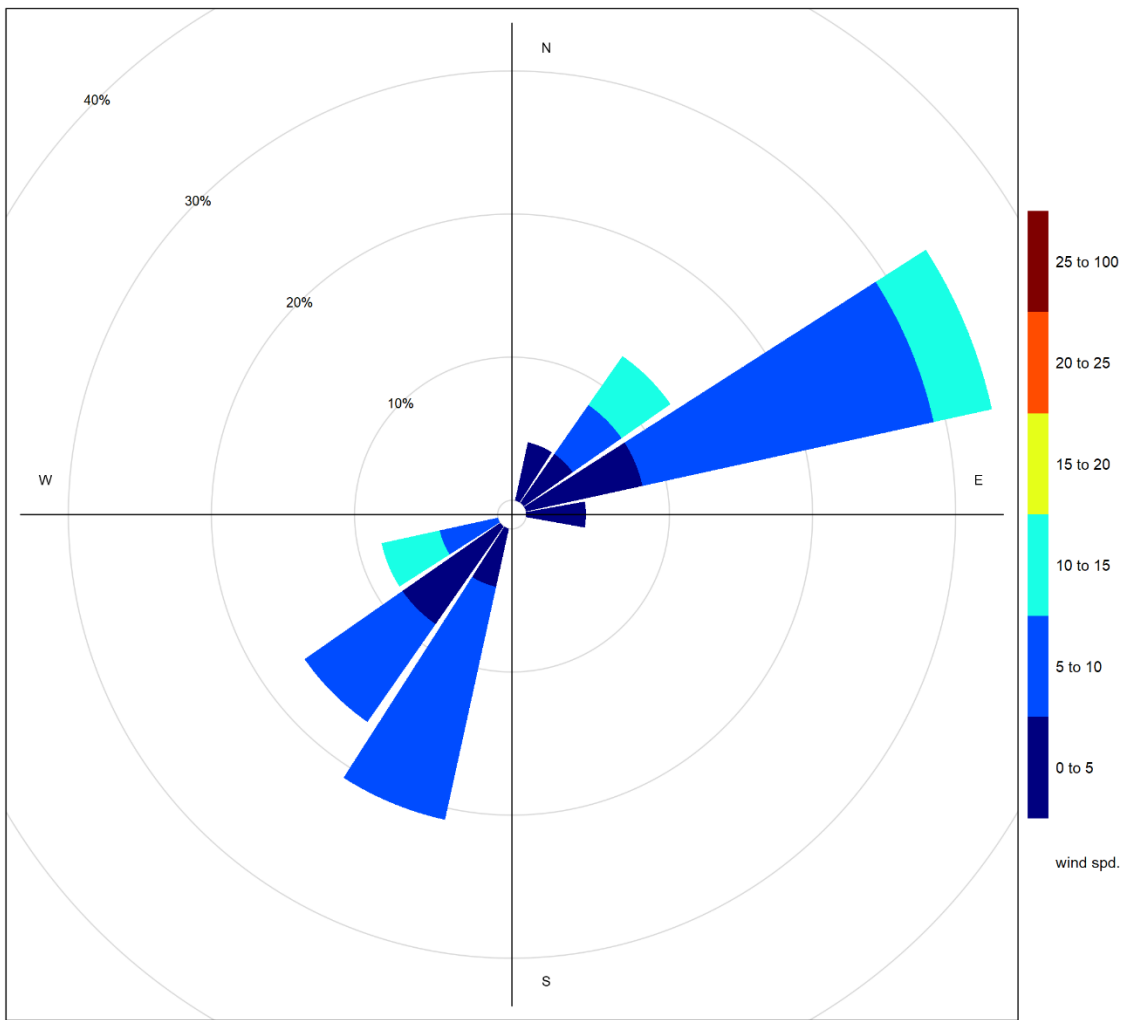
**Figure 4-5 24-hour particulate matter concentrations at the Windridge monitor**

Figure 4-6 shows the wind rose for the nine days of TSP exceedance in January. The wind rose shows that the winds predominately came from the west-southwest, in high wind speed (20 km/h), suggesting impacts of windblown dust from the direction of the Lafarge Facility. Figure 4-7 shows the wind rose for the one day of PM<sub>2.5</sub> exceedance in January. The wind rose shows that the winds predominately came from the east-northeast, suggesting the influence from other sources than Lafarge Facility. As mentioned above, the PM<sub>2.5</sub> exceedance reported at the Windridge Station was linked to an ECCC special air quality statement for the region that cited “stagnant winter weather conditions” creating elevated pollutant levels.

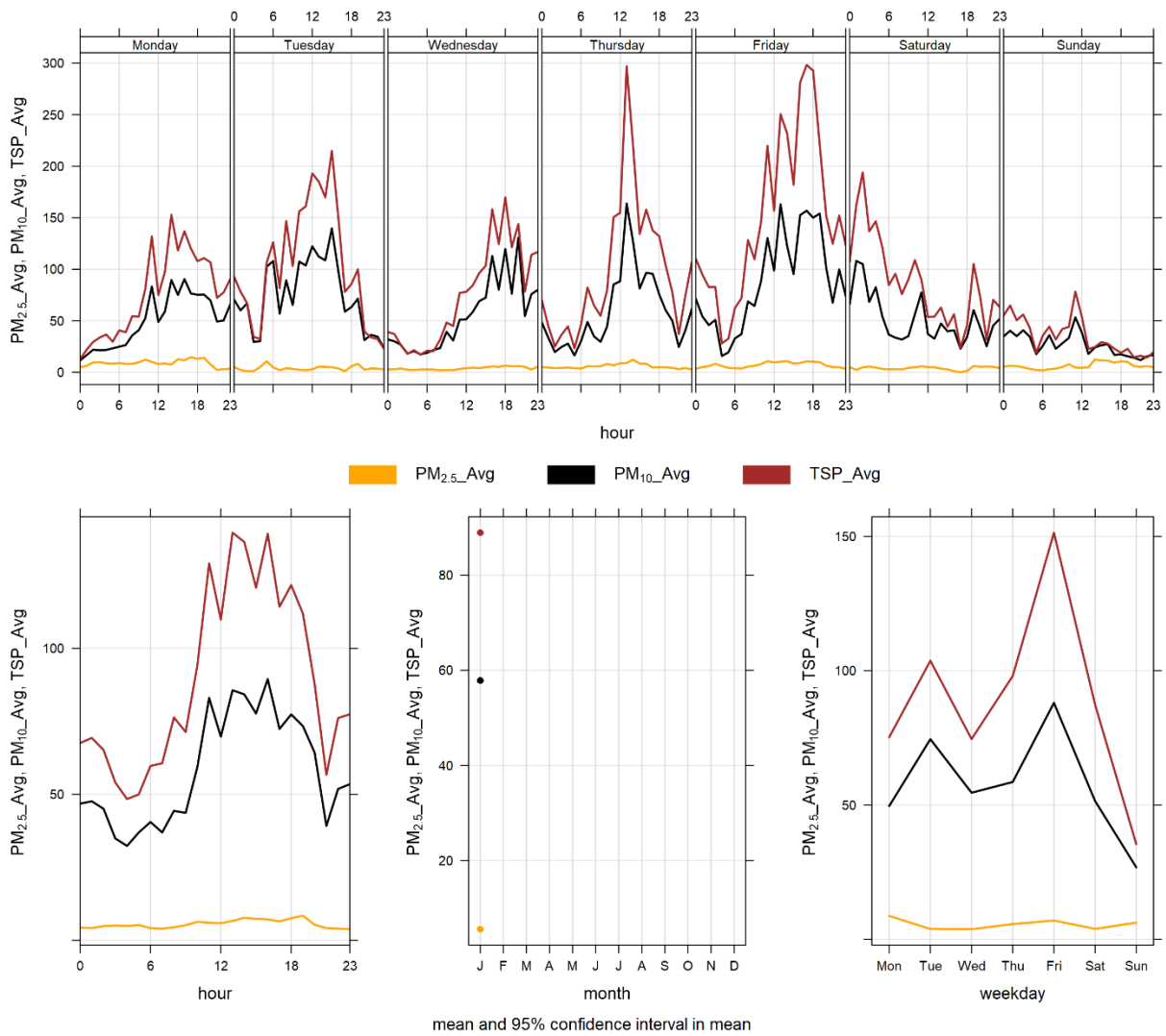
Figure 4-8 illustrates the hourly PM concentrations recorded at the Windridge monitor, averaged over different time periods. The plot across the top shows the variation of PM over the course of a week, while the bottom three plots show the changes in PM over the course of a day, month and weekday, respectively. Figure 4-8 is based on data collected during January 2024. The data shows a diurnal pattern potentially associated with Lafarge daytime operations, daytime emissions from traffic and other airshed activities. The PM concentrations also follow the diurnal pattern of higher wind speeds during the daytime hours.



**Figure 4-6 Wind rose for TSP exceedance days recorded at the Windridge Station**



**Figure 4-7 Wind rose for PM<sub>2.5</sub> exceedance days recorded at the Windridge Station**



**Figure 4-8 Windridge particulate matter time variation**



# 5 WEST INDUSTRIAL GRIMM

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## 5.1 OPERATIONAL SUMMARY

A summary of the station operation for the month is provided in Table 5-1.

**Table 5-1 Instrumentation List at the West monitoring location**

Parameter Measured	Equipment Description	Notes
PM <sub>2.5</sub> , PM <sub>10</sub> , TSP Concentrations	GRIMM 365 Continuous Particulate Monitor	The analyzer had 56.3% uptime for the month of January due to 325 hours of collection error (updating IP address on server) and was sent to the factory for repairs.

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## 5.2 MONITORING RESULTS AND TRENDS

The West GRIMM was moved to its current location in order to monitor “background” PM concentrations since the predominant wind pattern is from west to east in the valley. Table 5-2 summarizes the maximum 1-hour and 24-hour concentrations recorded over the course of the month. This is an industrial monitor that is not Alberta Air Monitoring Directive (AMD) compliant and is not required to show compliance with the AAAQO.

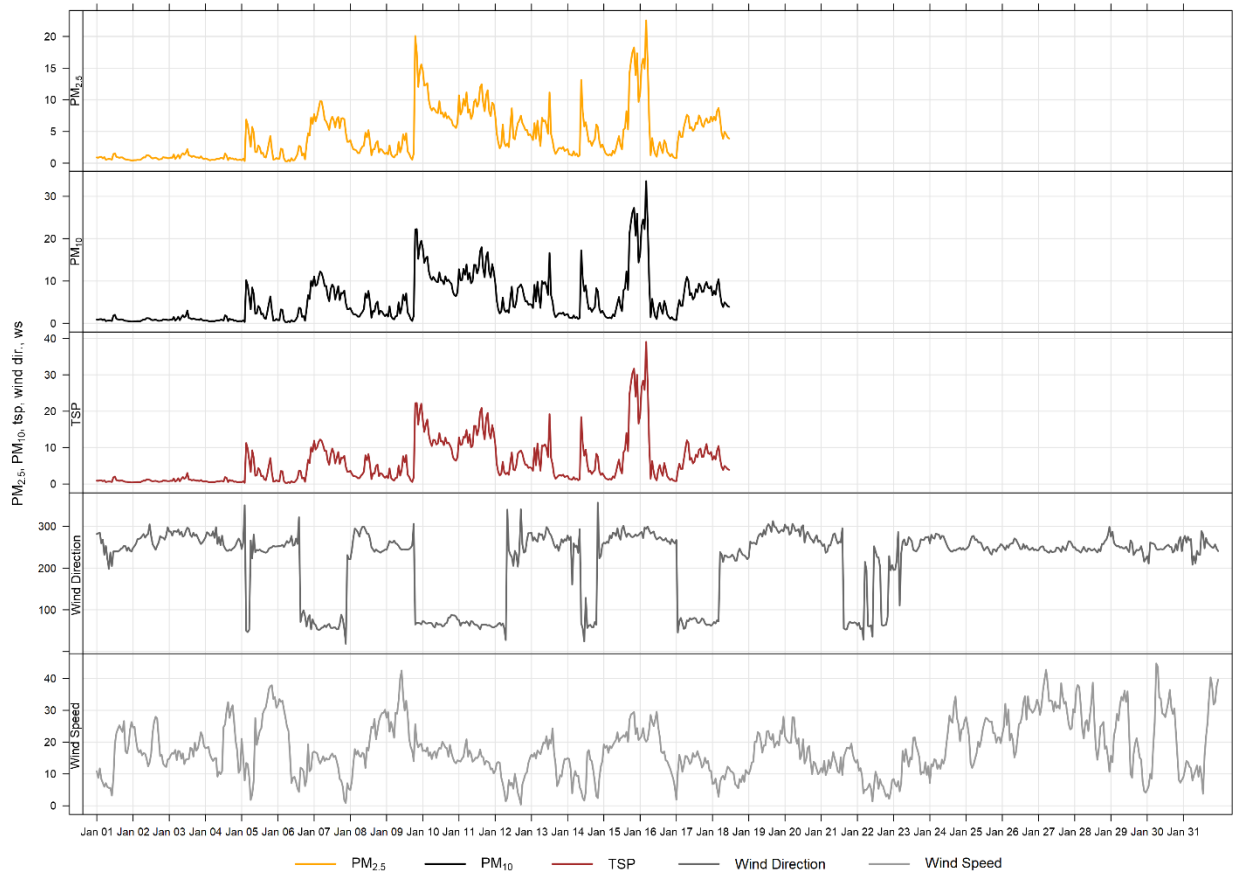
Figure 5-1 and Figure 5-2 show the hourly and daily PM<sub>2.5</sub>, PM<sub>10</sub> and TSP concentrations recorded over the month.

There were zero exceedances of the 24-hour TSP Guideline (100 µg/m<sup>3</sup>) and zero exceedances of the 24-hour PM<sub>2.5</sub> (29µg/m<sup>3</sup>) Guideline. Further, there were zero hours exceeding the 1-hour PM<sub>2.5</sub> Guideline.

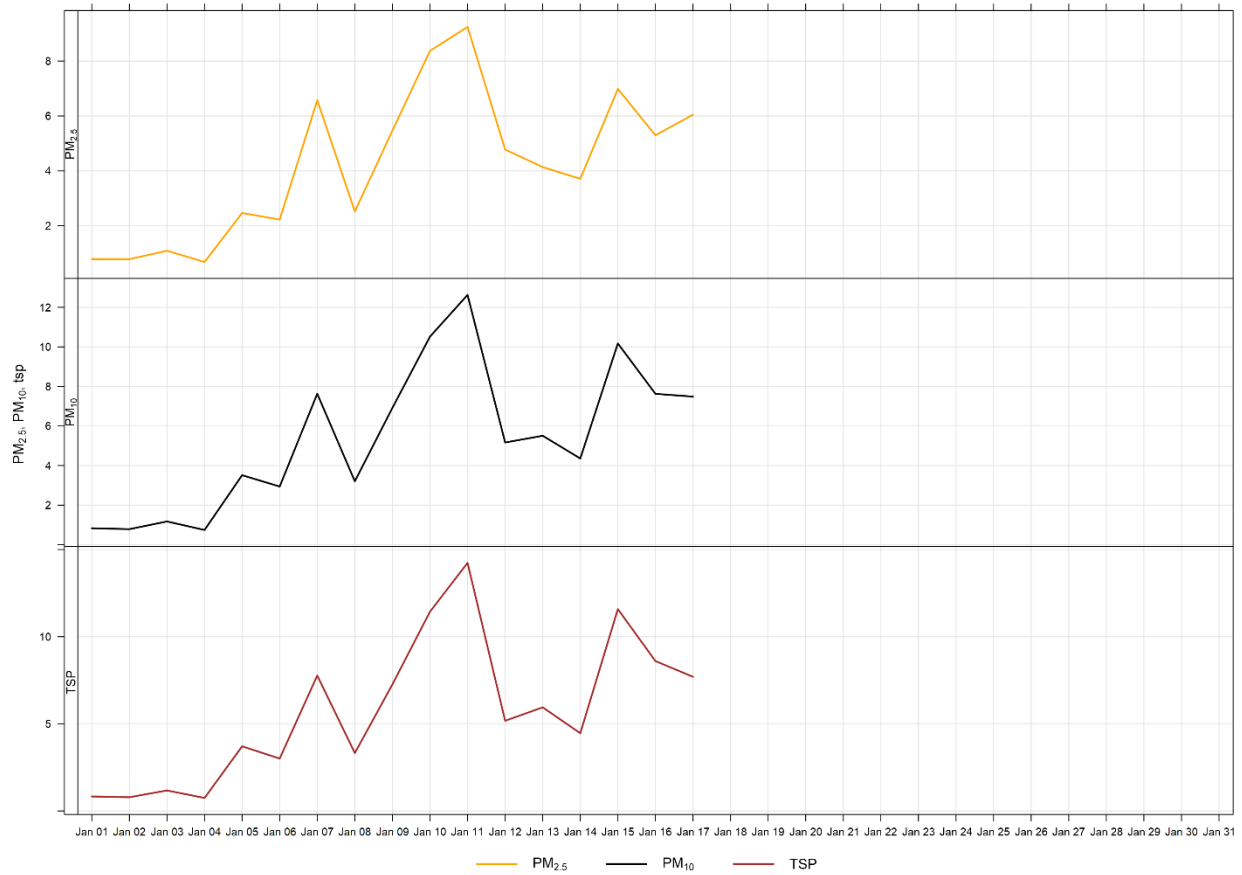
Historically during the month of January, the West monitor records an average of two and zero exceedances of the 24-hour TSP and PM<sub>2.5</sub> guidelines. The maximum number of 24-hour TSP AAAQO exceedances recorded in January was seven days in 2013.

**Table 5-2 Summary of January 2024 data at the West GRIMM**

Parameter	Guideline		Station	Exceedances		Monthly		Maximum 1-hour				Maximum 24-hour		Operational Time (Percent)	
	1-hr	24-hr		1-hr	24-hr	Minimum	Average	Maximum Concentration	Day	Hour	Wind Speed (km/hr)	Wind Direction (degrees)	Maximum Concentration		Day
<b>PM<sub>2.5</sub></b> (µg/m <sup>3</sup> )	80	29	West	0	0	0.3	4.2	22.5	16	4	20.2	294.0	9.2	11	56.3
<b>PM<sub>10</sub></b> (µg/m <sup>3</sup> )	-	-	West	-	-	0.3	5.4	33.6	16	4	20.2	294.0	12.6	11	56.3
<b>TSP</b> (µg/m <sup>3</sup> )	-	100	West	-	0	0.3	5.8	39.0	16	4	20.2	294.0	14.2	11	56.3

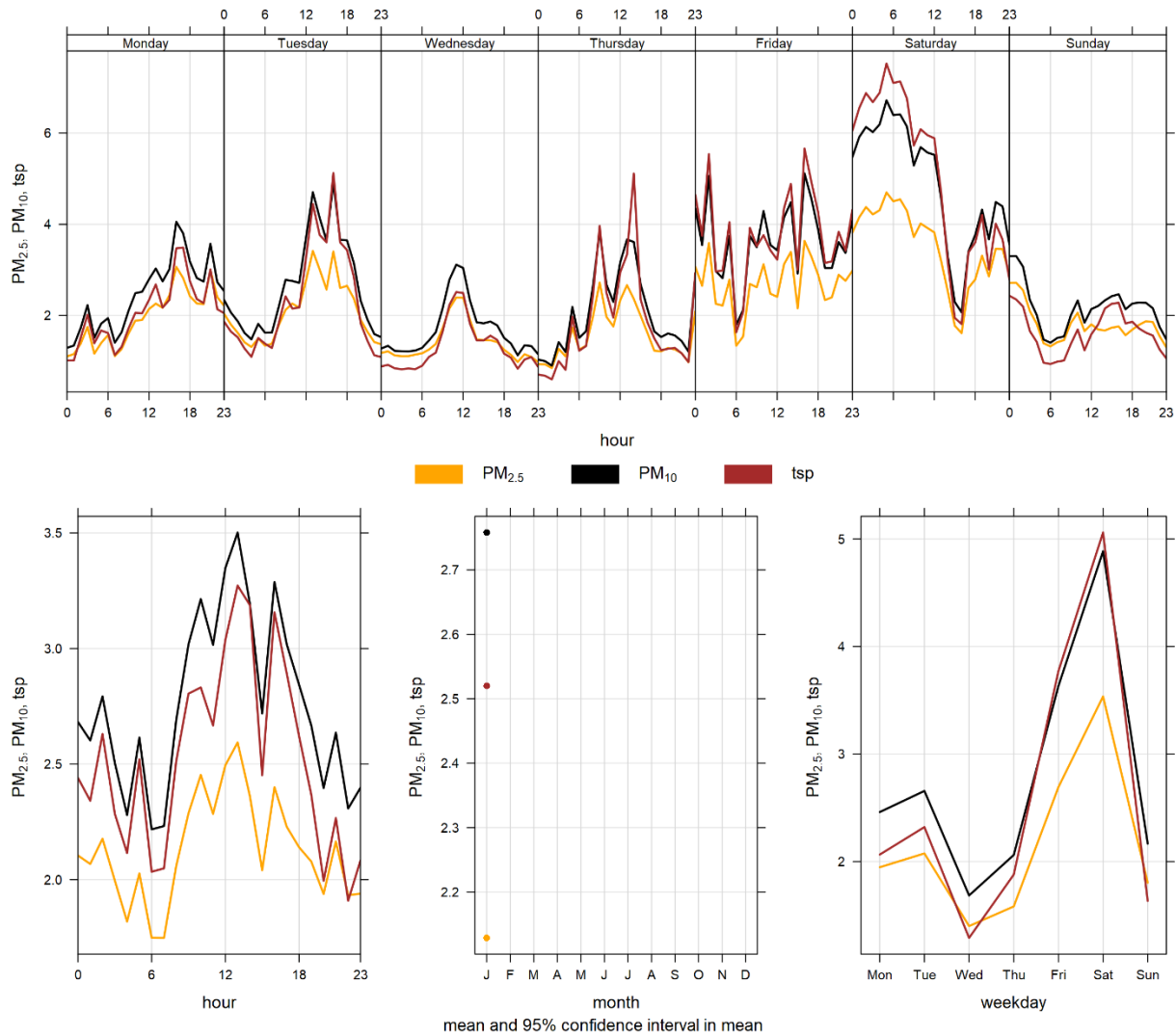


**Figure 5-1 1-hour particulate matter concentrations at the West monitor**



**Figure 5-2 24-hour particulate matter concentrations at the West monitor**

Figure 5-3 illustrates the hourly PM concentrations recorded at the West monitor, averaged over different time periods. The plot across the top shows the variation of PM over the course of a week, while the bottom three plots show the changes in PM over the course of a day, month and weekday, respectively. Figure 5-3 is based on data collected during January 2024. Historically this monitor saw daily variations in PM that were more likely a result of higher traffic volume during daylight hours than specific Lafarge operations. However, for this month, the pattern is skewed due to limited data. The West monitor was moved to its current location (Figure 1-1) on December 1<sup>st</sup>, 2021, and will continue to be evaluated to better understand influences from background sources, Lafarge Exshaw, as well as highway and rail sources.



**Figure 5-3 West monitor particulate matter time variation**

# 6 BERM INDUSTRIAL GRIMM

## 6.1 OPERATIONAL SUMMARY

A summary of the station operation for the month is provided in Table 6-1.

**Table 6-1 Instrumentation List at the Berm monitoring location**

Parameter Measured	Equipment Description	Notes
PM <sub>2.5</sub> , PM <sub>10</sub> , TSP Concentrations	GRIMM 365 Continuous Particulate Monitor	The analyzer had 36.4% uptime for the month of January due to 473 hours of collection error (updating IP address on server) and was sent to the factory for repairs.

## 6.2 MONITORING RESULTS AND TRENDS

The Berm monitor was placed at its current location as a result of the dispersion modelling conducted for the facility. Figure 6-1 and Figure 6-2 show the hourly and daily PM<sub>2.5</sub>, PM<sub>10</sub>, and TSP concentrations recorded over the month. Table 6-2 summarizes the maximum 1-hour and 24-hour PM concentrations recorded during the month, and Table 6-3 summarizes the recorded exceedances. This is an industrial monitor that is not Alberta Air Monitoring Directive (AMD) compliant and is not required to show compliance with the AAAQO.

There were seven and one exceedances of the 24-hour TSP (100 µg/m<sup>3</sup>) and PM<sub>2.5</sub> (29 µg/m<sup>3</sup>) Guidelines, respectively. There were three hours exceeding the 1-hour PM<sub>2.5</sub> Guideline.

Historically during the month of January, the Berm monitor records an average of 19 and 1 exceedances of the 24-hour TSP and PM<sub>2.5</sub> guidelines, respectively. The maximum number of TSP exceedances recorded during January occurred in 2013 where there were 26 days that exceeded the guideline. The maximum number of PM<sub>2.5</sub> exceedances in January was three days in 2015, 2019 and 2021.

It should also be noted that the GRIMM monitors become more conservative in the reported PM concentrations as the size fraction increases. The PM<sub>2.5</sub> size fraction has been shown to match other regulatory approved PM<sub>2.5</sub> monitors, but the TSP concentrations recorded by the GRIMM tend to be higher than regulatory approved monitors (Levelton, 2015).

The Berm monitor is located along a ridge at the edge of the Lafarge property and is in an area where on-site trucks drive through site, which can create fugitive dust. Quarry blasting also has the potential to impact short term PM immediately following a blast. The strong wind gusting that occurred in January would have also contributed to increased particulate levels that may have arisen from multiple sources: Lafarge Plant, Exshaw Creek, dry sections of the Bow River, and open areas.

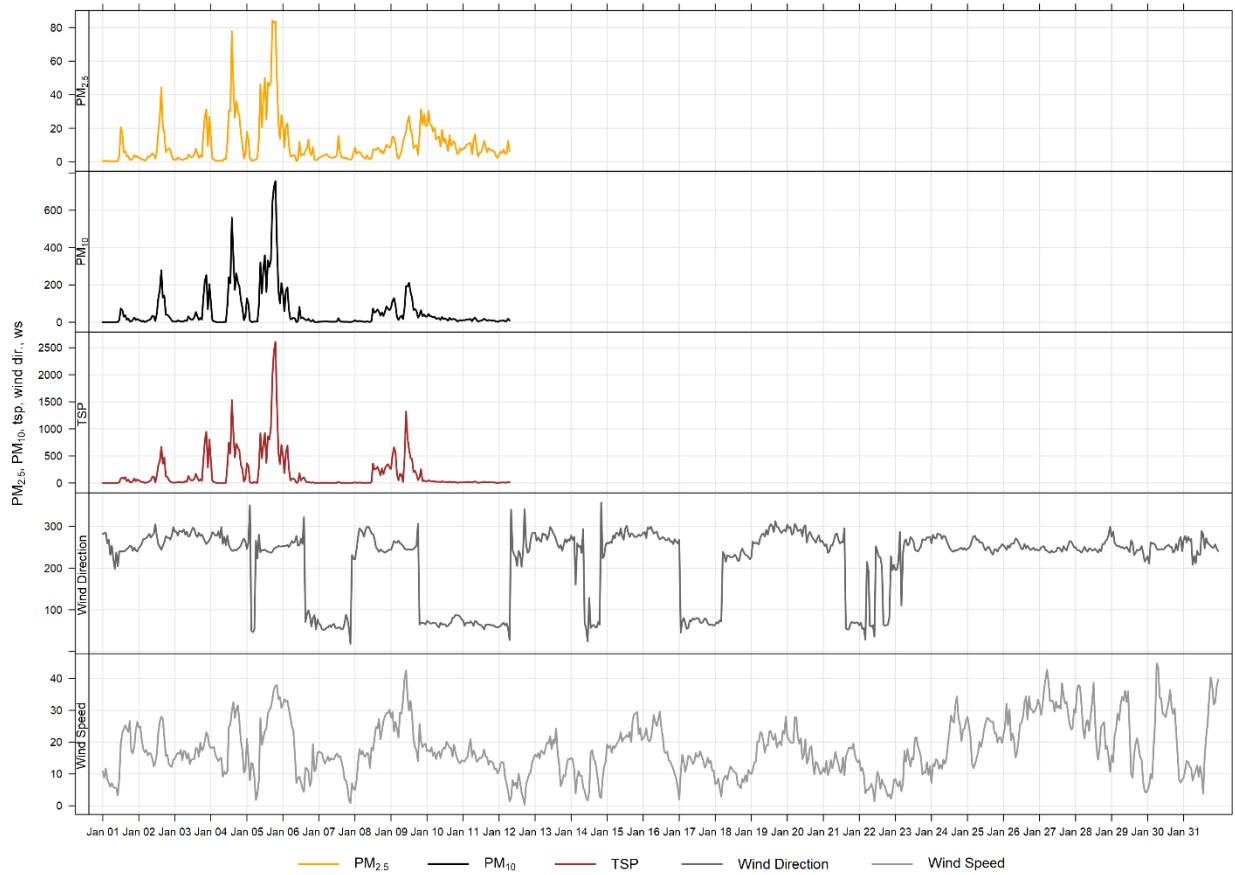
**Table 6-2 Summary of January 2024 data at the Berm GRIMM**

Parameter	Guideline		Station	Exceedances		Monthly		Maximum 1-hour					Maximum 24-hour		Operational Time (Percent)
	1-hr	24-hr		1-hr	24-hr	Minimum	Average	Maximum Concentration	Day	Hour	Wind Speed (km/hr)	Wind Direction (degrees)	Maximum Concentration	Day	
<b>PM<sub>2.5</sub></b> (µg/m <sup>3</sup> )	80	29	Berm	3	1	0.2	10.6	84.3	5	17	33.5	239.2	31.0	5	36.4
<b>PM<sub>10</sub></b> (µg/m <sup>3</sup> )	-	-	Berm	-	-	0.2	57.3	755.9	5	19	37.6	248.8	235.6	5	36.4
<b>TSP</b> (µg/m <sup>3</sup> )	-	100	Berm	-	7	0.2	177.2	2606.5	5	19	37.6	248.8	725.0	5	36.4

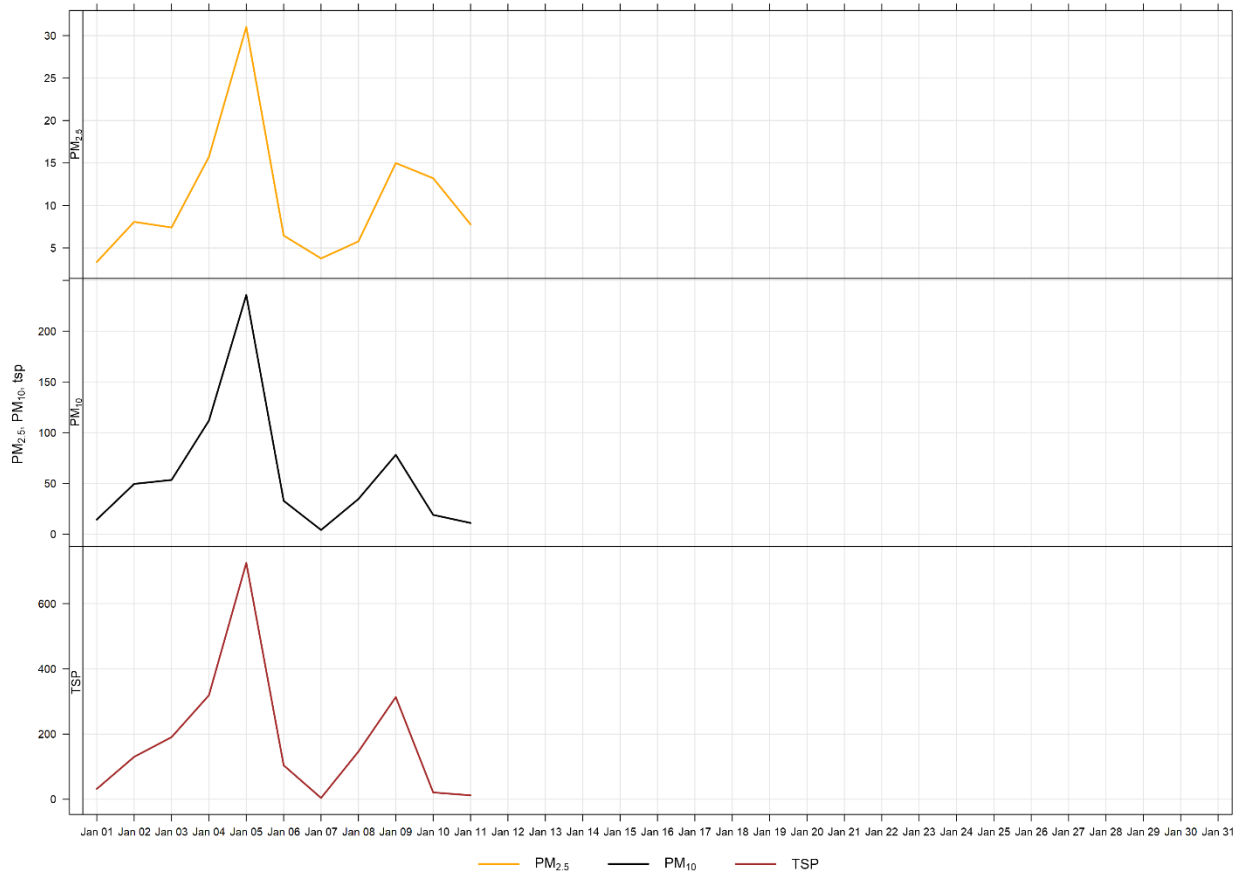
**Table 6-3 Days exceeding the Guideline for TSP or PM<sub>2.5</sub> at the Berm Monitor**

Date	TSP (ug/m <sup>3</sup> )	PM <sub>2.5</sub> (ug/m <sup>3</sup> )	Average Wind Direction (degrees)	Average Wind Speed (km/hr)	Average RH (%)	Root Cause (Provided by Lafarge)
<b>Berm</b>						
2024-01-02	130.3	-	268.4	17.8	60.4	
2024-01-03	190.6	-	278.6	17.2	64.8	
2024-01-04	319.0	-	258.5	19.2	57.4	
2024-01-05	725.0	31.0	248.3	23.1	48.2	high wind event
2024-01-06	104.2	-	259.7	16.2	67.5	
2024-01-08	146.4	-	259.2	20.7	62.3	high wind event
2024-01-09	313.6	-	254.9	25.6	63.2	high wind event
<b>Total # of Exceedances</b>	<b>7</b>	<b>1</b>				
<b>Maximum # of Exceedances (January)</b>	<b>26 (2013)</b>	<b>3 (2015, 2019, 2021)</b>				
<b>Average # of Exceedances (January)</b>	<b>19</b>	<b>1</b>				
<b>Minimum # of Exceedances (January)</b>	<b>13 (2016)</b>	<b>0 (2011, 2014, 2016, 2017, 2018)</b>				





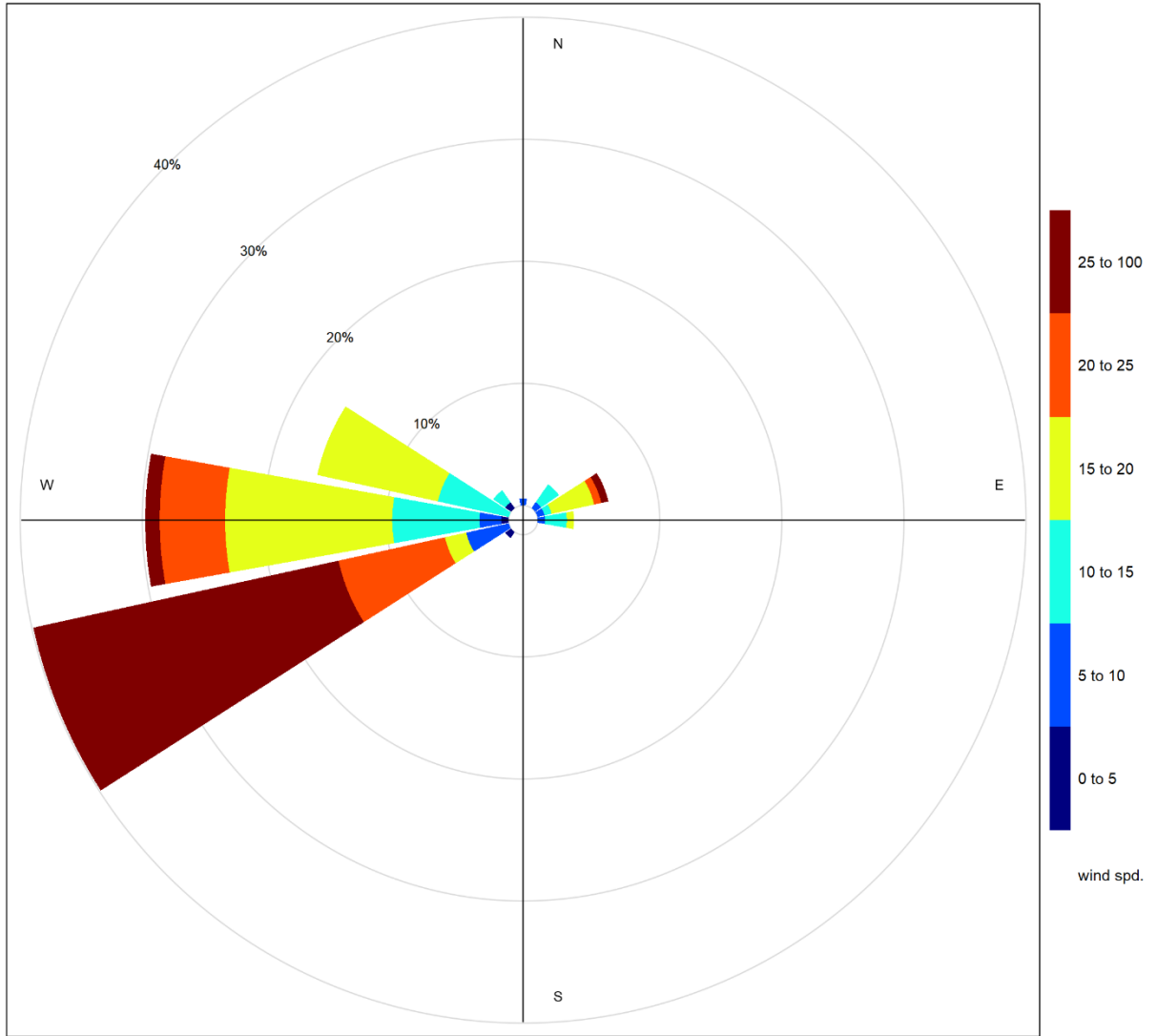
**Figure 6-1 1-hour particulate matter concentrations recorded at the Berm monitor**



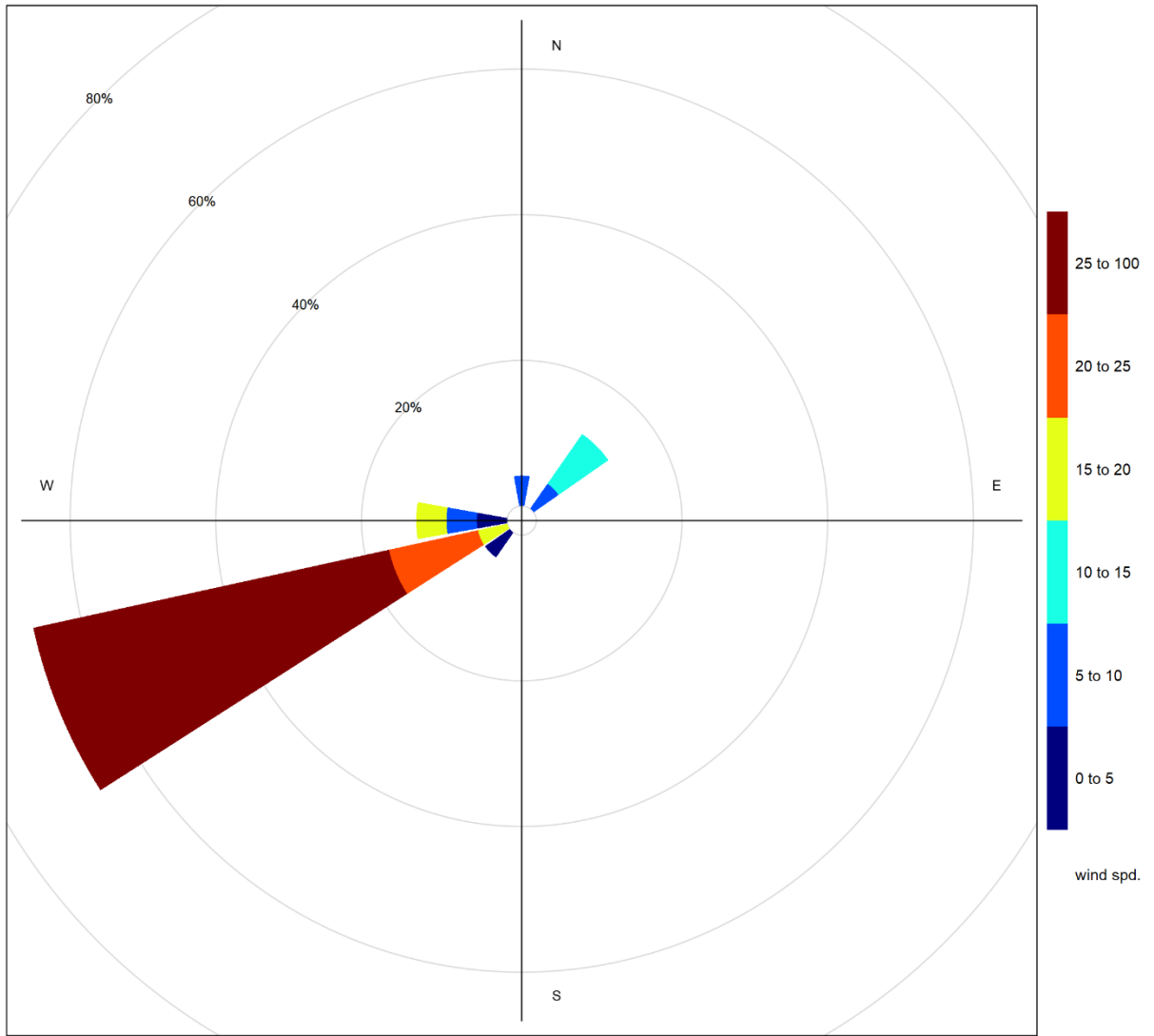
**Figure 6-2 24-hour particulate matter concentrations recorded at the Berm monitor**

Figure 6-3 shows the wind rose for the seven days of TSP exceedances. Figure 6-4 shows the wind rose for the one day of PM<sub>2.5</sub> exceedance. Both wind roses show that the wind predominately came from the west-southwest direction. This month many of the TSP exceedances were driven by windblown fugitive dust, and winds from the west which suggest impacts from the Lafarge Facility.

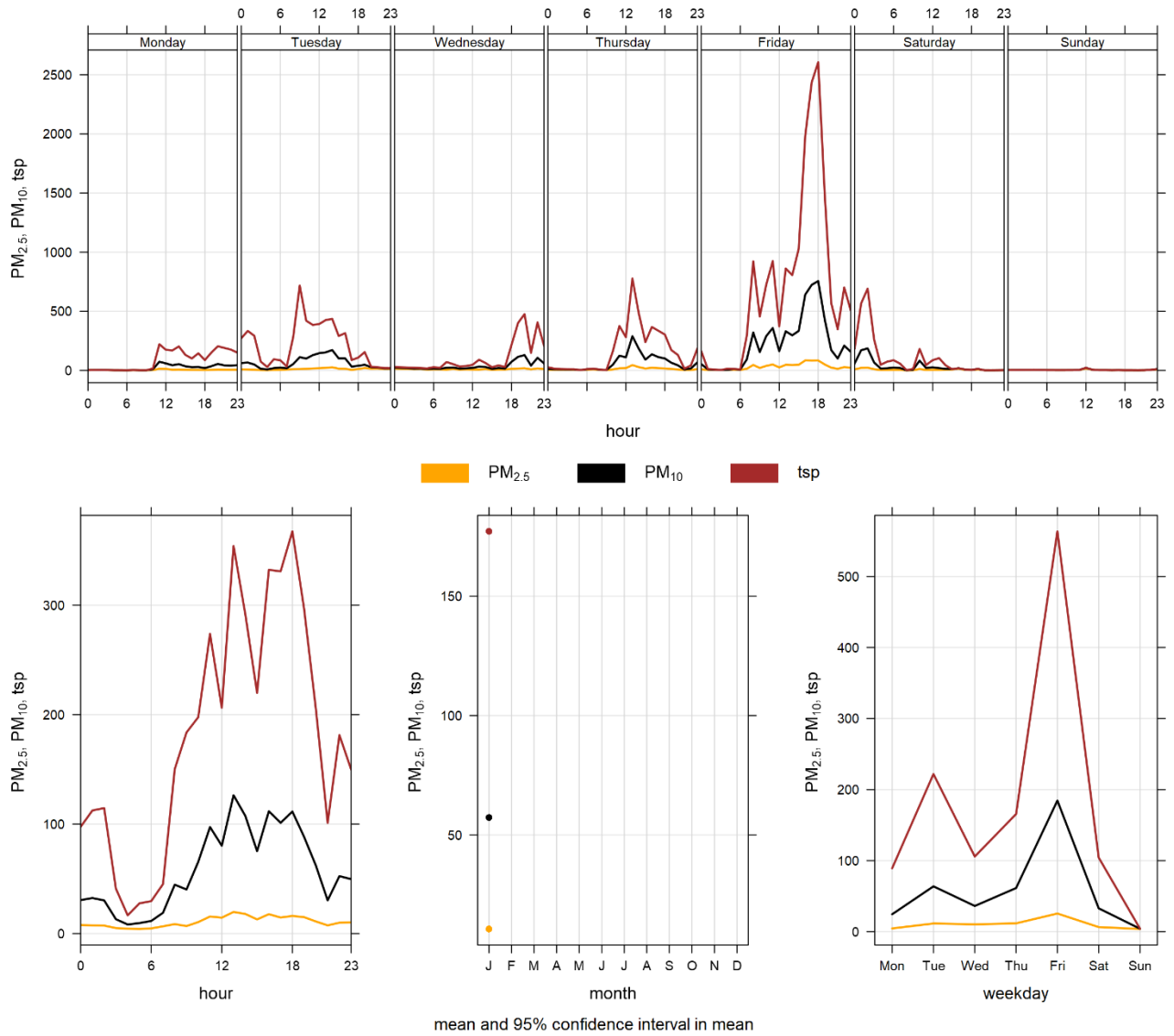
Figure 6-5 shows the variation of PM recorded at the Berm monitor over various time averaging periods. Historically, the diurnal pattern of the Berm monitor was associated with Lafarge operations, as well as daytime emissions from other activities and sources in Exshaw. However, for this month, the pattern is skewed due to limited data.



**Figure 6-3 Windrose for TSP exceedance days recorded at the Berm GRIMM**



**Figure 6-4 Windrose for PM<sub>2.5</sub> exceedance days recorded at the Berm GRIMM**



**Figure 6-5 Berm particulate matter time variation**

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- Levelton Consultants Ltd. (2015, June 15). Comparison of GRIMM and E-BAM Data. Alberta, Can

# APPENDIX

## A DATA & CALIBRATION REPORTS

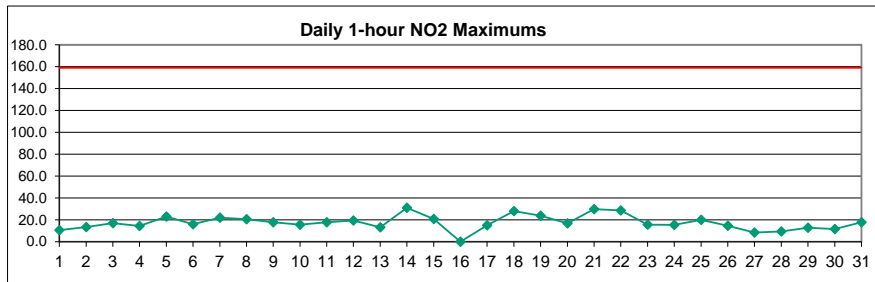
# APPENDIX





# Lagoon NO<sub>2</sub> (ppb) – January 2024

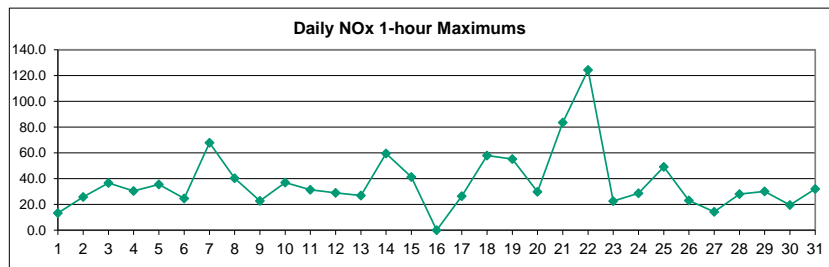
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	5.8	S	3.4	3.3	7.4	7.1	7.3	6.9	9.8	10.6	7.0	2.2	1.9	1.4	2.1	3.7	7.0	6.6	7.7	2.3	3.9	1.7	1.7	3.1	5.0	10.6
2	3.5	S	8.4	6.1	9.2	11.8	12.2	12.6	12.8	13.4	6.4	10.2	5.7	5.2	2.5	6.4	9.1	9.9	12.3	11.5	12.7	8.9	7.1	6.5	8.9	13.4
3	6.6	S	6.8	8.8	7.6	9.5	10.2	8.5	13.8	10.7	8.5	5.9	7.7	16.9	16.2	11.4	15.9	14.5	13.6	8.0	6.7	5.8	5.7	14.8	10.2	16.9
4	13.8	S	14.0	13.3	8.8	11.6	6.3	10.2	8.5	14.4	12.0	5.0	4.7	3.2	1.9	4.3	2.7	1.7	5.3	9.3	6.5	7.4	9.7	6.0	7.9	14.4
5	5.6	S	12.5	4.8	6.8	11.3	20.2	23.1	5.5	6.7	4.2	5.1	2.4	1.5	2.0	1.8	1.4	1.4	2.5	3.6	3.9	6.4	5.1	5.8	6.2	23.1
6	5.2	S	7.2	4.1	4.9	6.6	5.7	5.8	11.5	9.9	15.9	14.6	9.5	13.3	2.7	0.8	1.3	1.8	9.2	5.0	5.6	12.7	6.3	4.2	7.1	15.9
7	5.3	S	8.4	10.7	8.2	7.7	9.1	8.3	11.8	6.3	6.6	7.8	8.4	7.0	10.7	9.0	13.4	16.9	18.3	19.9	21.7	21.9	21.1	11.5	21.9	
8	20.6	S	13.9	11.9	10.4	11.9	13.2	9.4	9.1	11.7	16.5	12.5	8.6	4.5	2.4	2.3	4.5	2.7	1.7	1.4	1.5	1.4	1.5	3.4	7.7	20.6
9	6.7	S	7.9	6.5	4.2	3.1	6.2	9.9	2.3	2.7	6.0	3.3	4.0	2.7	8.7	7.8	6.4	11.6	17.7	13.8	9.6	8.8	8.6	8.7	7.3	17.7
10	8.5	S	15.5	10.7	7.9	7.8	11.2	14.9	7.7	9.2	8.5	4.7	5.7	10.2	6.0	6.5	8.0	5.9	5.5	6.1	5.8	6.3	7.1	9.6	8.2	15.5
11	15.2	S	13.7	14.6	12.0	15.2	13.0	5.2	5.0	13.8	6.8	5.8	8.2	7.6	8.1	6.8	4.0	6.9	7.9	5.0	9.0	5.9	14.7	17.8	9.7	17.8
12	19.4	S	5.7	13.4	8.6	8.6	5.8	10.2	11.7	15.2	15.5	11.9	6.7	5.3	4.8	6.6	13.7	14.6	16.2	16.0	13.8	9.1	10.8	11.6	11.1	19.4
13	12.8	S	11.3	13.1	7.5	7.5	5.2	9.7	9.7	7.5	4.3	7.3	6.2	3.5	5.2	7.5	9.4	8.6	11.4	12.7	12.8	10.1	9.7	9.3	8.8	13.1
14	9.8	S	20.7	11.8	14.1	14.3	16.1	19.3	31.1	26.0	18.1	15.3	9.7	9.4	6.7	11.0	20.3	13.2	19.8	25.1	29.2	31.0	27.0	22.3	18.3	31.1
15	20.8	S	19.5	12.9	12.6	8.9	6.5	8.1	6.4	6.5	10.6	4.4	4.3	6.6	12.1	8.3	14.1	16.8	15.4	18.1	12.2	15.4	10.0	9.0	11.3	20.8
16	7.1	S	7.3	6.6	5.5	5.3	7.3	9.3	7.5	11.7	C	C	C	C	C	C	11.7	9.0	10.4	12.2	8.8	12.0	15.2	11.1	-	-
17	12.8	S	5.6	5.3	11.9	12.3	6.1	6.0	5.1	6.0	4.6	3.7	4.5	4.5	7.6	7.7	6.3	7.7	7.3	9.2	7.0	10.5	15.1	12.8	7.8	15.1
18	15.4	S	14.1	24.0	17.1	17.5	23.9	26.5	26.9	24.0	21.4	15.5	11.2	7.6	10.6	12.4	19.4	22.0	25.0	26.7	24.7	27.9	23.4	23.9	20.1	27.9
19	18.7	S	23.8	19.4	16.5	12.8	8.5	8.6	10.3	7.0	8.8	5.1	5.1	6.9	8.4	4.2	7.4	9.8	14.5	11.5	12.2	11.7	13.8	5.7	10.9	23.8
20	5.0	S	11.4	7.2	3.7	3.3	5.9	6.5	4.8	10.2	8.3	5.2	10.0	7.7	10.8	11.1	13.6	16.8	10.5	12.0	7.4	15.4	9.3	14.1	9.1	16.8
21	13.3	S	13.3	16.8	16.0	14.9	13.3	8.8	7.8	11.5	12.2	13.5	13.2	11.9	29.7	28.1	21.4	16.6	13.6	14.1	12.6	10.7	9.7	10.0	14.5	29.7
22	9.6	S	18.9	18.5	21.3	23.7	21.9	15.6	14.0	16.9	22.3	18.4	17.5	20.2	18.7	25.3	26.0	28.6	27.7	28.2	26.4	21.2	18.4	18.9	20.8	28.6
23	15.6	S	11.5	14.7	12.1	5.1	9.5	11.3	13.3	11.4	11.2	10.8	7.3	4.6	3.5	5.0	9.5	11.2	14.5	10.6	8.3	11.0	9.4	12.7	10.2	15.6
24	10.0	S	6.8	8.2	8.3	10.2	10.5	10.2	11.7	15.5	12.4	12.5	2.4	1.4	0.8	1.0	1.5	1.2	1.6	3.2	3.0	3.7	1.4	1.6	6.0	15.5
25	2.3	S	4.0	5.0	8.4	20.1	14.1	8.4	13.7	7.8	4.5	3.0	4.4	8.0	4.0	2.3	1.1	5.4	1.4	2.3	6.8	10.2	7.5	12.4	6.8	20.1
26	5.7	S	7.7	2.9	6.2	6.6	9.3	13.1	14.5	9.9	7.0	2.8	2.7	10.2	4.5	8.9	3.1	1.3	2.9	3.1	3.2	3.2	2.9	2.6	5.8	14.5
27	3.4	S	3.3	1.3	1.6	0.9	1.4	1.6	1.3	2.0	1.4	8.4	5.1	2.7	1.2	4.6	2.9	1.6	3.9	4.1	5.3	7.7	4.1	4.0	3.2	8.4
28	1.7	S	0.9	0.7	3.2	6.5	3.4	1.5	3.1	2.4	1.5	2.1	4.0	4.2	1.8	6.3	1.7	4.9	4.5	5.0	5.8	6.6	4.8	9.4	3.7	9.4
29	12.9	S	4.1	4.9	6.0	3.5	5.0	5.0	3.3	4.2	3.7	2.3	6.1	8.3	2.6	3.2	2.9	4.1	2.1	4.0	2.6	5.6	3.8	4.9	4.6	12.9
30	5.0	S	11.4	3.4	6.4	1.8	2.2	4.8	4.2	4.5	7.5	9.1	5.3	6.0	5.6	3.7	0.8	1.3	3.6	5.4	6.7	11.3	5.8	11.7	5.5	11.7
31	17.8	S	12.2	12.5	6.8	15.3	11.1	17.1	15.9	13.9	10.7	9.9	15.3	14.4	10.0	5.9	5.9	3.5	1.3	1.2	4.0	1.6	0.9	0.8	9.1	17.8
NO.	31	-	31	31	31	31	31	31	31	31	30	30	30	30	30	30	31	31	31	31	31	31	31	31	707	100.0%
MEAN	10.2	-	10.5	9.6	9.1	9.8	9.7	10.2	10.1	10.4	9.5	7.9	6.9	7.3	6.9	7.5	8.5	8.9	9.9	10.0	9.6	10.4	9.4	10.0		
MAX	20.8	-	23.8	24.0	21.3	23.7	23.9	26.5	31.1	26.0	22.3	18.4	17.5	20.2	29.7	28.1	26.0	28.6	27.7	28.2	29.2	31.0	27.0	23.9		



Number of 1HR Exceedences	0
Number of Non-Zero Readings	707
Maximum 1-HR Average	31.1 PPB
Maximum 24-HR Average	20.8 PPB
Operational Time	744 HRS
Operational Uptime	100.0 %
Monthly Calibration	6
Standard Deviation	6.0
Monthly Average	9.2 PPB

# Lagoon NOx (ppb) – January 2024

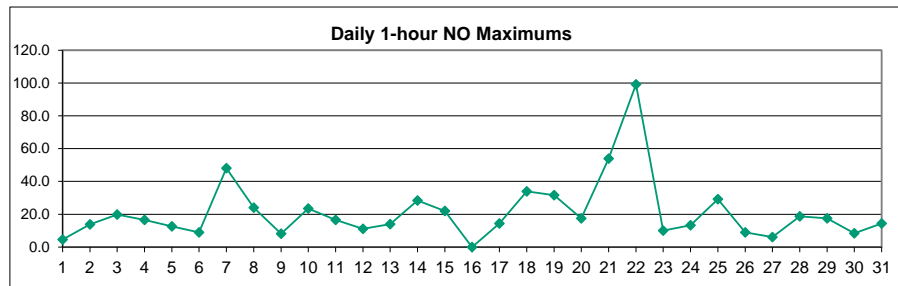
Day	HOURLY																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	10.2	S	4.4	4.1	11.1	11.1	8.7	6.9	11.9	13.3	9.0	2.7	2.4	1.6	2.4	4.6	10.2	7.4	9.1	2.3	4.3	1.9	1.8	3.6	6.3	13.3
2	3.8	S	13.4	9.2	16.4	24.8	25.8	24.5	25.2	24.8	10.9	21.7	9.0	7.6	3.2	8.3	13.3	15.8	18.8	19.3	22.6	12.1	11.3	8.7	15.2	25.8
3	11.2	S	10.6	19.0	12.2	19.7	20.9	17.7	31.5	20.4	16.0	8.5	14.1	36.5	35.2	22.0	29.9	28.2	22.3	10.4	10.0	7.4	6.7	30.9	19.2	36.5
4	25.4	S	30.4	28.3	16.2	24.2	9.8	16.4	12.2	25.8	20.5	6.9	6.6	4.2	2.5	5.8	3.3	2.0	7.8	13.5	7.5	8.8	13.1	7.5	13.0	30.4
5	7.8	S	20.4	5.4	9.7	11.4	25.6	35.5	6.9	9.3	5.1	7.3	3.3	1.8	3.1	2.3	1.7	1.6	3.3	6.6	4.7	9.8	6.6	8.2	8.6	35.5
6	7.8	S	11.1	4.8	6.1	11.8	7.5	6.8	18.2	12.1	24.6	21.4	11.5	17.3	3.2	0.7	1.2	1.8	11.2	4.9	5.9	17.9	6.3	4.3	9.5	24.6
7	7.3	S	12.0	20.1	12.9	12.3	17.4	14.8	26.2	7.6	11.1	15.6	24.3	26.4	15.6	29.1	16.6	20.4	42.0	43.1	67.8	45.6	39.5	32.5	24.4	67.8
8	29.7	S	18.6	14.1	15.4	24.4	24.8	12.7	15.4	22.3	40.3	27.4	17.0	6.8	3.3	2.8	5.5	3.0	1.6	1.3	1.7	1.5	1.7	4.5	12.9	40.3
9	11.6	S	12.5	9.4	5.7	3.7	10.2	16.6	2.8	3.4	10.7	4.3	6.2	3.5	14.7	10.1	7.5	19.5	22.7	15.1	10.0	9.0	8.9	8.9	9.9	22.7
10	8.7	S	33.8	20.0	11.3	12.1	22.2	37.0	10.6	15.7	18.1	8.3	11.3	33.5	12.3	11.5	13.4	6.4	5.8	6.4	5.9	6.5	8.9	14.3	14.5	37.0
11	31.3	S	26.6	31.0	21.3	26.5	27.9	6.5	5.7	21.7	11.4	9.9	15.3	13.1	15.2	11.0	4.8	8.6	10.7	5.9	11.1	6.6	17.9	25.0	15.9	31.3
12	28.9	S	7.3	17.5	10.3	11.6	5.8	11.4	12.6	20.9	25.7	22.6	12.8	9.5	6.7	8.8	18.0	18.5	17.4	17.6	17.1	11.5	14.4	17.0	15.0	28.9
13	21.8	S	20.9	26.9	12.0	13.2	6.8	19.8	17.7	13.0	6.5	17.2	15.8	6.5	7.4	10.1	14.3	10.2	14.7	17.3	17.3	13.5	11.8	11.9	14.2	26.9
14	12.6	S	32.4	12.7	15.4	15.1	18.4	30.0	59.5	48.7	35.3	32.4	20.2	18.8	10.8	19.7	33.9	18.7	20.4	27.2	33.4	35.4	35.5	35.1	27.0	59.5
15	38.4	S	41.3	19.7	24.7	12.0	7.7	11.1	7.6	10.1	21.2	8.7	7.8	14.2	25.6	15.1	32.8	34.9	32.6	39.8	24.8	31.3	17.5	15.1	21.5	41.3
16	12.2	S	12.0	12.3	8.2	8.9	12.4	18.0	12.3	25.1	C	C	C	C	C	C	18.8	10.3	12.5	13.4	9.6	17.2	15.9	10.9	-	-
17	13.6	S	5.6	5.6	18.3	26.4	6.6	6.5	5.1	7.3	5.6	4.7	6.0	6.0	12.2	10.6	7.3	7.9	7.7	12.8	7.6	13.6	24.8	15.8	10.3	26.4
18	19.9	S	16.4	42.8	22.0	20.4	33.3	52.6	49.1	57.9	54.5	41.9	28.5	17.3	19.6	22.7	30.3	28.6	28.1	34.1	27.7	34.0	26.4	29.4	32.1	57.9
19	26.8	S	55.2	48.1	41.0	28.3	14.9	15.9	17.4	9.4	16.1	7.7	7.3	13.4	17.3	6.4	12.5	19.0	31.2	23.6	27.8	24.4	35.0	10.5	22.2	55.2
20	8.1	S	28.7	9.9	4.0	3.7	11.8	10.3	5.9	19.1	13.7	6.9	20.2	13.2	21.8	21.0	25.0	29.7	15.1	21.1	9.4	25.3	12.6	23.5	15.6	29.7
21	20.8	S	23.3	34.3	33.9	31.9	30.6	15.4	12.9	23.5	29.3	33.9	36.2	28.5	83.5	65.9	33.2	20.2	14.3	15.5	12.8	11.0	10.2	10.2	27.5	83.5
22	10.3	S	42.1	27.5	27.1	26.5	36.3	19.5	16.4	30.7	53.9	44.4	39.2	50.2	40.6	124.3	89.0	69.3	55.5	65.1	64.3	27.0	20.9	23.9	43.7	124.3
23	17.1	S	15.8	16.3	14.0	5.8	15.3	15.0	20.9	15.2	18.8	15.0	11.1	6.9	4.5	5.9	16.1	14.5	19.8	11.5	9.4	14.8	16.2	22.5	14.0	22.5
24	15.8	S	9.2	12.6	13.1	16.6	17.4	14.8	16.2	28.6	19.8	23.9	3.7	2.0	0.9	1.2	1.7	1.4	1.8	3.5	3.1	4.6	1.3	1.7	9.3	28.6
25	2.5	S	4.3	5.9	14.2	49.1	30.4	11.1	23.8	9.3	5.7	4.4	6.6	14.0	5.6	3.5	1.4	7.5	1.3	2.2	10.1	15.3	10.0	20.8	11.3	49.1
26	6.3	S	14.3	3.3	8.3	7.6	14.6	21.7	23.0	13.4	9.4	4.0	3.8	18.7	6.5	14.1	4.0	1.5	3.9	3.2	3.7	3.6	3.3	3.1	8.5	23.0
27	3.9	S	3.9	1.4	1.9	0.9	1.6	1.8	1.5	2.3	1.5	14.2	8.3	4.1	1.3	6.6	3.6	1.6	4.8	4.6	7.7	12.5	5.4	4.9	4.4	14.2
28	1.9	S	0.8	0.7	3.9	7.8	4.5	1.6	3.4	2.7	1.8	2.7	7.1	7.1	2.2	10.1	1.9	8.8	6.1	6.7	8.0	10.1	7.3	27.9	5.9	27.9
29	30.1	S	5.0	7.6	9.7	4.5	7.6	9.1	4.6	5.7	5.6	2.8	7.6	11.1	4.1	5.0	5.4	6.0	2.2	5.3	2.9	6.9	4.7	5.1	6.9	30.1
30	5.3	S	18.2	4.1	8.8	2.1	2.8	8.0	5.3	5.9	10.1	15.2	7.4	9.2	8.2	4.6	0.9	1.5	4.1	6.0	8.8	19.5	5.8	12.9	7.6	19.5
31	32.0	S	21.0	22.1	8.6	22.6	13.9	26.6	24.0	26.4	16.3	14.8	26.8	23.7	14.8	7.5	9.6	4.8	1.4	1.4	5.7	2.0	0.9	0.8	14.3	32.0
NO.	31	-	31	31	31	31	31	31	31	31	30	30	30	30	30	30	31	31	31	31	31	31	31	31	707	100.0%
MEAN	15.6	-	18.4	16.0	14.1	16.0	15.9	16.6	16.3	17.8	17.6	15.0	13.2	14.2	13.5	15.7	15.1	13.9	14.5	14.9	14.9	14.9	13.0	14.6		
MAX	38.4	-	55.2	48.1	41.0	49.1	36.3	52.6	59.5	57.9	54.5	44.4	39.2	50.2	83.5	124.3	89.0	69.3	55.5	65.1	67.8	45.6	39.5	35.1		



Number of Non-Zero Readings	707	Operational Time	744 HRS
Maximum 1-HR Average	124.3 PPB	Operational Uptime	100.0 %
Maximum 24-HR Average	43.7 PPB	Monthly Average	15.3 PPB
Monthly Calibration	6		
Standard Deviation	13.01		

# Lagoon NO (ppb) – January 2024

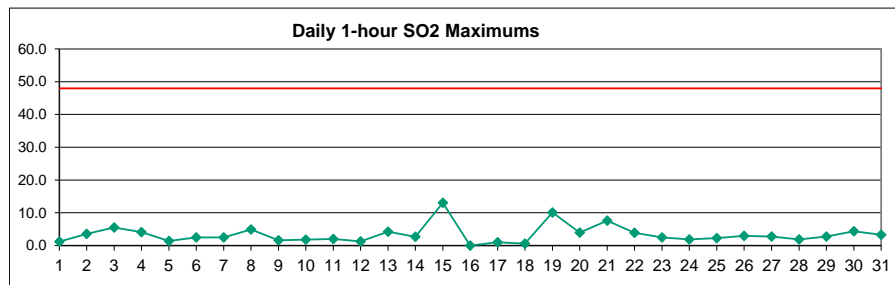
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	4.5	S	1.1	1.0	4.0	4.2	1.6	0.3	2.5	3.0	2.2	0.7	0.7	0.4	0.6	1.1	3.3	1.0	1.6	0.2	0.6	0.3	0.3	0.6	1.5	4.5
2	0.4	S	5.3	3.3	7.4	13.2	13.8	12.2	12.6	11.6	4.7	11.8	3.5	2.5	0.9	2.1	4.4	6.2	6.7	8.0	10.1	3.5	4.4	2.4	6.6	13.8
3	4.8	S	4.1	10.5	4.9	10.5	11.0	9.4	17.9	9.9	7.7	2.8	6.7	19.8	19.2	10.9	14.3	14.0	9.0	2.7	3.4	1.8	1.1	16.3	9.2	19.8
4	11.8	S	16.6	15.3	7.6	12.9	3.6	6.5	3.9	11.6	8.7	2.1	2.1	1.2	0.8	1.6	0.8	0.5	2.7	4.4	1.2	1.5	3.6	1.7	5.3	16.6
5	2.4	S	8.0	0.7	3.1	0.2	5.5	12.6	1.6	2.8	1.2	2.5	1.0	0.5	1.3	0.7	0.5	0.5	1.1	3.2	1.1	3.7	1.8	2.6	2.5	12.6
6	2.8	S	4.1	1.0	1.4	5.4	2.0	1.1	6.9	2.4	9.0	7.0	2.3	4.3	0.7	0.1	0.1	0.1	2.2	0.0	0.5	5.4	0.2	0.3	2.6	9.0
7	2.2	S	3.9	9.7	4.9	4.8	8.5	6.8	14.6	1.5	5.1	9.3	16.8	18.2	8.9	18.6	7.9	7.3	25.2	25.0	48.1	24.1	17.8	11.7	13.1	48.1
8	9.3	S	5.0	2.5	5.3	12.9	11.9	3.6	6.7	10.8	24.0	15.2	8.8	2.5	1.0	0.7	1.2	0.4	0.1	0.2	0.4	0.2	0.3	1.3	5.4	24.0
9	5.1	S	4.9	3.2	1.7	0.8	4.3	7.0	0.6	0.8	4.9	1.2	2.4	1.0	6.2	2.6	1.3	8.2	5.2	1.5	0.6	0.4	0.6	0.4	2.8	8.2
10	0.5	S	18.5	9.6	3.6	4.6	11.3	22.3	3.2	6.9	10.0	3.9	5.9	23.5	6.6	5.2	5.7	0.7	0.5	0.4	0.3	0.3	2.0	4.9	6.5	23.5
11	16.2	S	13.0	16.6	9.5	11.5	15.0	1.4	0.7	8.1	4.6	4.3	7.4	5.9	7.4	4.5	1.0	2.0	3.1	1.1	2.3	0.9	3.6	7.4	6.4	16.6
12	9.7	S	1.9	4.4	2.0	3.2	0.2	1.5	1.2	6.0	10.5	11.1	6.5	4.5	2.2	2.5	4.6	4.2	1.4	1.9	3.6	2.7	4.0	5.8	4.2	11.1
13	9.3	S	9.8	14.0	4.7	6.0	1.9	10.4	8.3	5.7	2.4	10.2	9.9	3.3	2.5	3.0	5.1	2.0	3.5	4.9	4.8	3.7	2.4	2.9	5.7	14.0
14	3.1	S	12.0	1.3	1.6	0.9	2.4	10.8	28.3	22.6	17.3	17.3	10.8	9.7	4.3	8.9	13.8	5.7	0.8	2.2	4.3	4.5	8.6	13.1	8.9	28.3
15	17.7	S	21.9	7.0	12.4	3.3	1.4	3.3	1.4	3.9	10.9	4.5	3.7	7.9	13.7	7.0	18.9	18.1	17.4	21.7	12.8	16.1	7.8	6.4	10.4	21.9
16	5.2	S	4.9	5.9	2.8	3.8	5.2	9.0	5.0	13.6	C	C	C	C	C	C	7.5	1.7	2.4	1.6	1.1	5.5	0.9	0.1	-	-
17	1.1	S	0.2	0.5	6.7	14.3	0.8	0.7	0.2	1.5	1.2	1.2	1.7	1.7	4.8	3.1	1.1	0.4	0.6	3.8	0.8	3.3	9.9	3.3	2.7	14.3
18	4.8	S	2.5	18.9	5.1	3.1	9.6	26.1	22.2	33.9	33.0	26.4	17.6	10.0	9.3	10.6	11.1	6.7	3.3	7.7	3.1	6.3	3.2	5.8	12.2	33.9
19	8.3	S	31.6	28.9	24.8	15.7	6.6	7.5	7.3	2.7	7.6	2.9	2.5	6.8	9.2	2.4	5.3	9.5	16.9	12.3	15.8	12.9	21.4	5.0	11.5	31.6
20	3.3	S	17.6	2.9	0.4	0.5	6.1	4.1	1.2	9.1	5.6	1.9	10.5	5.8	11.2	10.2	11.7	13.0	4.8	9.3	2.3	10.2	3.5	9.7	6.7	17.6
21	7.8	S	10.2	17.7	18.1	17.3	17.5	7.0	5.4	12.2	17.4	20.6	23.2	16.9	53.9	37.9	12.0	3.8	0.9	1.6	0.4	0.5	0.7	0.4	13.2	53.9
22	1.0	S	23.3	9.2	5.9	3.0	14.6	4.2	2.7	14.0	31.6	26.0	21.7	30.0	22.0	99.1	63.1	40.7	27.7	36.8	37.9	6.0	2.7	5.2	23.0	99.1
23	1.7	S	4.6	1.9	2.2	0.9	6.1	4.0	8.0	4.2	8.0	4.6	4.2	2.6	1.2	1.2	6.9	3.6	5.6	1.2	1.4	4.2	7.1	10.0	4.1	10.0
24	6.1	S	2.6	4.7	5.1	6.7	7.1	4.9	4.8	13.3	7.7	11.7	1.5	0.8	0.3	0.4	0.4	0.3	0.4	0.5	0.3	1.1	0.0	0.2	3.5	13.3
25	0.3	S	0.5	1.1	6.0	29.2	16.6	3.0	10.4	1.8	1.5	1.6	2.4	6.2	1.8	1.4	0.5	2.3	0.1	0.2	3.5	5.3	2.7	8.7	4.7	29.2
26	0.9	S	6.8	0.5	2.3	1.3	5.5	8.9	8.7	3.9	2.8	1.4	1.3	8.8	2.3	5.5	1.1	0.3	1.2	0.3	0.7	0.6	0.6	0.6	2.9	8.9
27	0.6	S	0.8	0.2	0.5	0.2	0.3	0.4	0.4	0.4	0.3	6.1	3.4	1.7	0.4	2.2	0.9	0.3	1.1	0.7	2.6	5.0	1.5	1.0	1.4	6.1
28	0.5	S	0.1	0.2	0.9	1.6	1.3	0.3	0.5	0.5	0.4	0.8	3.3	3.1	0.5	4.1	0.4	4.0	1.8	1.9	2.5	3.8	2.8	18.7	2.3	18.7
29	17.5	S	1.1	2.9	3.9	1.3	2.9	4.3	1.5	1.7	2.2	0.7	1.7	3.0	1.6	2.0	2.7	2.1	0.3	1.6	0.5	1.6	1.1	0.5	2.5	17.5
30	0.6	S	7.1	1.0	2.7	0.5	0.8	3.4	1.4	1.6	2.9	6.4	2.3	3.4	2.9	1.1	0.3	0.4	0.7	0.7	2.4	8.5	0.2	1.5	2.3	8.5
31	14.4	S	9.0	9.9	2.1	7.6	3.1	9.6	8.2	12.7	5.9	5.2	11.7	9.5	5.2	1.9	3.9	1.5	0.3	0.3	1.9	0.6	0.3	0.2	5.4	14.4
NO.	31	-	31	31	31	31	31	31	31	31	30	30	30	30	30	30	31	31	31	31	31	31	31	31	707	100.0%
MEAN	5.6	-	8.2	6.6	5.3	6.5	6.4	6.7	6.4	7.6	8.4	7.4	6.6	7.2	6.8	8.4	6.8	5.2	4.8	5.1	5.5	4.7	3.8	4.8		
MAX	17.7	-	31.6	28.9	24.8	29.2	17.5	26.1	28.3	33.9	33.0	26.4	23.2	30.0	53.9	99.1	63.1	40.7	27.7	36.8	48.1	24.1	21.4	18.7		



Number of Non-Zero Readings	707	Operational Time	744 HRS
Maximum 1-HR Average	99.1 PPB	Operational Uptime	100.0 %
Maximum 24-HR Average	23.0 PPB	Monthly Average	6.3 PPB
Monthly Calibration	6		
Standard Deviation	8.184		

# Lagoon SO<sub>2</sub> (ppb) – January 2024

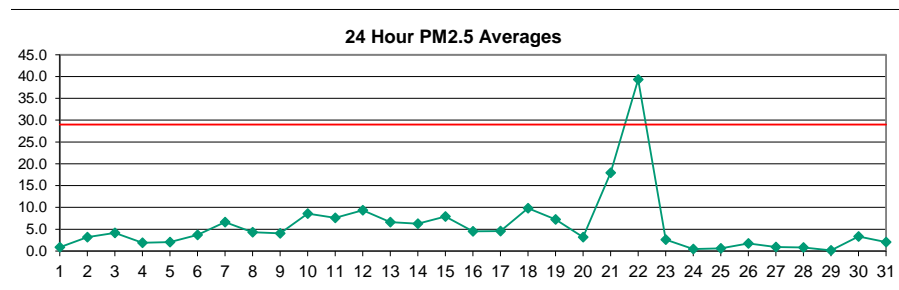
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	0.6	S	0.6	0.5	1.0	1.2	0.7	0.5	0.8	0.6	0.5	0.5	0.6	0.4	0.5	0.6	0.5	0.5	0.6	0.4	0.4	0.5	0.6	0.5	0.6	1.2
2	0.5	S	1.3	1.4	1.4	2.6	2.7	2.0	3.1	2.9	1.0	3.5	1.4	0.7	0.7	0.7	2.1	2.0	3.1	2.7	1.4	0.9	0.9	0.9	3.5	
3	1.3	S	1.3	2.9	2.0	3.7	3.7	3.0	5.5	2.7	1.6	1.1	1.5	4.3	5.0	1.6	3.3	3.2	2.1	1.5	1.1	1.4	1.3	2.8	5.5	
4	4.1	S	3.4	3.3	2.0	2.9	1.1	1.4	1.1	1.7	2.2	1.2	1.1	0.9	0.9	0.9	0.8	0.9	0.8	0.9	1.1	1.1	1.0	0.9	4.1	
5	1.4	S	1.0	0.7	0.7	0.6	0.9	1.1	0.8	0.6	0.6	0.6	0.6	0.7	0.8	0.9	0.7	0.6	0.7	0.8	0.8	0.8	0.9	1.0	1.4	
6	1.0	S	1.0	0.9	0.8	1.0	1.0	0.9	1.6	0.9	2.5	2.4	1.3	1.8	1.0	1.0	0.9	0.9	0.9	0.9	0.8	0.9	0.8	0.8	2.5	
7	0.8	S	0.7	0.9	0.8	0.6	0.7	0.8	0.9	0.8	1.0	1.1	1.1	1.2	1.4	1.9	1.3	1.0	1.3	1.2	1.4	1.0	1.5	2.5	2.5	
8	1.7	S	1.1	1.1	1.4	2.3	2.4	1.4	2.0	2.6	4.9	3.3	2.3	1.1	0.9	0.8	0.7	0.9	0.9	0.9	0.9	0.9	0.8	0.8	4.9	
9	1.0	S	1.0	1.2	1.6	1.1	1.3	1.3	1.2	1.1	1.2	1.2	1.3	1.0	1.2	1.1	1.1	1.3	1.1	1.1	1.2	1.0	1.1	1.1	1.6	
10	1.2	S	1.2	1.1	1.0	1.1	1.2	1.3	1.1	1.0	1.1	1.0	0.9	0.8	1.1	1.1	1.2	1.1	1.0	1.3	1.5	1.4	1.8	1.8	1.8	
11	1.8	S	1.8	1.9	1.5	1.5	1.4	0.9	1.0	0.9	1.2	1.6	2.0	1.6	1.3	1.1	0.8	1.1	1.1	0.9	0.8	0.7	0.9	0.9	2.0	
12	1.0	S	0.5	0.6	0.5	0.6	0.5	0.6	0.6	0.6	0.7	1.2	1.2	0.7	0.6	0.8	0.6	0.7	0.5	0.6	0.7	0.8	1.0	1.3	1.3	
13	1.8	S	1.7	2.4	1.3	1.2	1.0	2.0	1.7	1.1	1.0	3.4	4.3	2.1	0.9	0.8	0.8	1.1	1.4	2.1	2.2	1.9	2.2	2.2	4.3	
14	2.3	S	1.0	0.7	0.7	0.7	0.8	0.8	1.1	0.8	0.7	1.0	1.4	1.2	1.1	1.3	1.3	1.0	0.6	0.6	0.2	0.5	0.8	2.7	2.7	
15	2.7	S	4.7	2.3	2.8	1.4	0.9	1.3	0.8	1.5	3.3	1.5	1.5	3.8	8.7	5.3	8.6	10.1	11.5	13.1	7.7	8.8	7.0	4.5	13.1	
16	3.7	S	2.8	2.1	2.6	2.3	2.8	3.8	2.9	5.9	C	C	C	C	C	C	2.1	0.7	0.8	0.5	0.3	0.2	0.2	0.3	-	
17	0.7	S	1.0	0.9	1.0	0.9	0.7	0.8	0.8	0.8	0.9	0.8	0.8	0.7	0.6	0.6	0.9	0.8	1.0	0.9	0.6	0.7	0.7	0.4	1.0	
18	0.3	S	0.1	0.4	0.2	0.0	0.2	0.4	0.4	0.6	0.5	0.4	0.4	0.4	0.3	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	
19	0.6	S	6.2	10.1	8.5	5.9	2.7	2.0	1.9	0.9	2.5	0.8	0.7	1.7	4.3	1.1	2.4	2.7	4.1	3.4	5.3	3.6	5.2	1.9	10.1	
20	1.2	S	4.0	2.2	0.7	0.7	1.5	1.3	0.8	1.8	1.5	0.9	2.7	2.0	2.6	3.1	3.4	3.8	2.4	2.7	1.4	3.3	2.2	3.9	4.0	
21	3.8	S	3.5	6.5	7.2	7.1	5.4	3.3	1.9	3.5	5.7	6.9	7.6	6.0	5.4	3.0	1.6	2.6	1.6	1.4	1.0	0.7	0.7	0.7	7.6	
22	1.2	S	0.9	0.9	0.7	0.6	0.8	0.7	0.6	0.7	1.0	1.0	1.0	1.2	1.4	3.9	3.0	1.8	1.2	1.3	1.2	0.5	0.6	0.8	3.9	
23	0.7	S	0.7	0.6	0.7	0.7	1.3	0.7	0.7	1.1	0.8	0.7	0.6	0.5	0.4	0.5	0.5	0.7	1.1	0.7	0.8	1.2	1.7	2.5	2.5	
24	1.4	S	1.3	1.9	1.6	1.6	1.7	1.9	1.7	1.2	0.6	0.5	0.2	0.1	0.1	0.1	0.2	0.1	0.2	0.2	0.1	0.1	0.1	0.1	1.9	
25	0.0	S	0.6	1.2	1.9	1.9	1.8	0.6	0.5	0.3	0.3	0.2	0.5	2.3	1.4	0.2	0.1	0.1	0.2	0.1	0.2	0.1	0.0	0.0	2.3	
26	0.0	S	0.0	0.0	0.1	0.0	0.0	0.7	1.0	0.8	0.3	0.1	0.2	3.0	0.3	2.5	0.2	0.1	0.1	0.2	0.2	0.1	0.1	0.1	3.0	
27	0.0	S	0.3	0.2	0.3	0.2	0.2	0.2	0.1	0.1	0.0	2.7	1.4	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.2	2.7	
28	0.2	S	0.1	0.1	0.0	0.0	0.1	0.2	0.0	0.1	0.1	0.2	0.2	0.1	0.0	0.0	0.1	0.0	0.2	0.6	1.3	1.8	1.3	1.8	1.8	
29	2.8	S	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.0	0.4	0.7	0.2	0.2	0.0	0.1	0.2	0.3	0.7	0.1	0.1	0.2	2.8	
30	0.5	S	0.9	0.6	0.5	0.4	0.4	0.3	0.3	0.2	0.7	4.4	0.8	1.2	0.2	0.3	0.1	0.1	0.1	0.0	0.8	1.1	0.1	1.2	4.4	
31	3.3	S	2.5	2.0	1.1	2.6	1.0	1.1	1.3	1.7	0.7	0.6	2.6	2.1	0.9	0.6	0.6	0.7	0.5	0.4	0.9	0.3	0.4	0.4	3.3	
NO.	31	-	31	31	31	31	31	31	31	31	30	30	30	30	30	30	31	31	31	31	31	31	31	31	707	
MEAN	1.4	-	1.5	1.7	1.5	1.5	1.3	1.2	1.2	1.3	1.3	1.5	1.4	1.5	1.5	1.2	1.3	1.3	1.3	1.4	1.2	1.2	1.2	1.3	100.0%	
MAX	4.1	-	6.2	10.1	8.5	7.1	5.4	3.8	5.5	5.9	5.7	6.9	7.6	6.0	8.7	5.3	8.6	10.1	11.5	13.1	7.7	8.8	7.0	4.5		



Number of 1HR Exceedences	0
Number of Non-Zero Readings	694
Maximum 1-HR Average	13.1 PPB
Maximum 24-HR Average	5.0 PPB
Monthly Calibration	6
Standard Deviation	1.544
Operational Time	744 HRS
Operational Uptime	100.0 %
Monthly Average	1.4 PPB

# Lagoon PM<sub>2.5</sub> (µg/m<sup>3</sup>) – January 2024

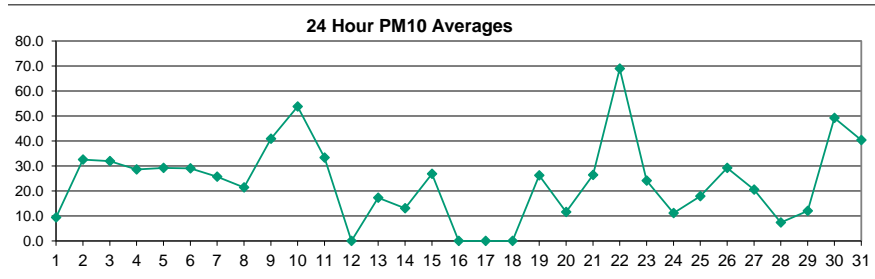
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	0.8	0.0	1.5	2.3	0.2	0.5	1.9	3.4	0.9	0.0	0.8	2.2	0.7	0.5	0.4	0.0	1.3	1.3	0.0	0.0	1.1	0.9	0.2	0.0	0.9	3.4
2	0.0	1.6	3.7	2.6	2.7	8.4	6.2	2.0	2.6	4.1	4.5	2.3	2.4	1.9	0.0	0.0	1.3	1.3	2.9	8.7	6.3	4.9	4.1	1.4	3.2	8.7
3	0.5	4.2	5.2	3.6	3.3	2.9	1.5	8.5	4.1	7.3	6.0	3.4	1.7	0.0	4.2	5.3	3.4	1.1	2.1	14.8	8.2	3.2	3.5	1.9	4.2	14.8
4	0.1	0.0	0.4	2.1	6.0	4.7	4.0	0.3	0.0	1.7	3.7	4.4	2.6	0.5	0.0	1.2	0.0	0.8	2.5	0.2	0.4	3.0	3.7	3.8	1.9	6.0
5	1.5	7.8	5.3	0.6	0.1	0.0	1.6	2.6	4.6	2.4	0.0	0.0	0.0	2.9	2.0	1.9	1.7	0.0	1.3	5.1	3.5	0.0	1.8	2.9	2.1	7.8
6	4.0	3.1	0.0	3.4	5.2	4.2	5.1	3.3	1.3	2.3	5.4	7.8	7.7	5.6	3.3	0.5	1.2	2.9	1.4	0.0	8.1	4.0	3.2	5.6	3.7	8.1
7	4.8	6.4	5.2	6.1	6.6	9.7	7.5	5.1	5.2	5.0	3.6	3.5	7.6	8.3	6.6	7.7	7.4	5.3	4.0	6.8	7.8	8.8	9.3	10.9	6.6	10.9
8	12.1	12.8	9.6	8.0	6.3	4.5	6.3	4.7	2.6	1.1	3.9	7.2	4.5	7.3	4.8	0.0	3.7	2.5	0.0	0.0	1.4	0.0	0.0	0.4	4.3	12.8
9	1.1	1.7	2.0	0.9	0.0	0.0	0.0	1.0	1.2	0.0	0.0	2.3	2.3	0.0	0.0	0.8	2.0	1.3	2.6	28.5	15.4	9.8	13.2	11.6	4.1	28.5
10	12.8	18.8	11.4	11.3	8.2	12.5	10.6	11.0	9.7	7.1	10.4	7.6	8.0	5.3	4.2	7.0	4.3	3.9	5.5	7.0	5.6	7.3	6.8	9.0	8.6	18.8
11	8.6	7.6	7.6	15.3	12.4	11.5	8.1	5.4	2.5	3.5	9.0	6.7	5.2	6.9	8.0	7.5	8.8	7.2	6.5	7.1	5.0	6.5	8.0	7.1	7.6	15.3
12	12.6	8.7	8.1	7.4	9.1	7.2	6.2	7.5	8.9	8.8	14.4	13.6	14.0	14.1	11.7	6.3	9.6	7.3	6.3	11.7	10.8	9.5	5.9	5.4	9.4	14.4
13	9.1	10.5	7.7	7.9	11.7	7.4	3.7	3.8	4.1	8.4	4.8	4.0	9.3	9.1	5.3	4.2	4.3	5.2	4.0	7.9	5.9	4.6	7.2	8.7	6.6	11.7
14	6.0	6.1	7.1	4.3	3.3	5.7	3.8	5.2	4.3	9.6	10.1	6.7	7.1	6.7	6.0	3.7	3.7	8.0	5.4	4.3	6.5	8.8	8.0	9.7	6.3	10.1
15	13.8	10.2	7.6	17.1	9.9	5.8	2.9	3.3	2.6	2.0	3.3	9.6	6.2	1.7	4.2	8.4	7.6	10.6	11.0	9.5	13.9	9.7	9.7	9.9	7.9	17.1
16	6.3	5.0	11.5	7.1	3.0	0.5	0.0	0.9	4.7	5.6	11.8	9.8	8.2	10.1	5.1	1.6	2.2	3.0	4.9	3.3	1.0	2.3	0.3	0.2	4.5	11.8
17	3.1	6.4	5.2	8.7	5.1	3.8	6.0	4.1	3.2	5.3	2.9	4.5	4.3	3.6	4.8	4.8	4.6	2.9	1.1	0.8	3.3	6.5	7.6	7.5	4.6	8.7
18	15.9	16.2	14.0	12.8	16.6	10.1	8.5	10.9	11.9	9.3	12.2	12.6	9.8	7.3	7.4	6.7	6.0	7.9	6.5	6.0	4.3	7.0	8.8	7.4	9.8	16.6
19	5.2	5.9	6.7	15.2	15.3	14.6	9.4	6.6	6.8	7.0	3.6	3.6	2.4	2.0	5.0	7.7	5.1	1.8	3.2	7.7	8.5	10.8	8.2	11.5	7.3	15.3
20	7.1	1.0	0.2	3.3	3.0	1.2	1.3	0.6	0.0	0.0	1.9	2.7	1.9	5.5	3.4	3.6	5.4	5.8	4.7	4.8	3.6	1.8	7.0	7.2	3.2	7.2
21	10.6	9.3	20.0	9.1	10.7	11.9	11.2	13.3	7.9	4.7	9.1	7.7	11.6	10.2	7.4	44.4	41.1	35.6	30.7	26.9	23.5	25.6	23.7	25.1	18.0	44.4
22	22.9	20.7	35.7	44.4	45.6	47.2	40.7	38.2	42.4	42.8	47.7	47.8	39.8	29.5	31.3	26.0	56.2	48.9	52.9	50.4	51.0	61.0	12.2	8.9	39.3	61.0
23	7.3	6.6	4.5	3.7	4.7	3.5	0.4	0.0	1.4	1.4	2.6	1.7	1.7	9.7	3.7	0.0	0.0	1.5	2.2	1.5	1.8	0.1	0.8	1.4	2.6	9.7
24	0.0	0.0	0.0	2.0	2.5	0.1	0.1	0.9	0.1	1.0	1.5	2.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.5	2.7
25	0.0	0.0	0.0	0.8	0.2	0.0	0.3	2.0	0.9	0.0	0.0	0.1	0.0	1.9	2.6	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.1	3.9	0.6	3.9
26	3.0	2.5	2.2	3.6	1.8	0.4	2.1	6.6	6.5	3.5	1.5	1.1	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	2.6	1.8	0.8	0.3	1.7	6.6
27	0.1	1.5	1.0	2.2	1.0	0.0	1.8	0.0	0.7	0.6	0.0	0.4	5.1	3.8	0.0	0.0	0.9	0.1	0.0	0.0	1.0	1.8	0.0	0.0	0.9	5.1
28	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	1.5	0.1	0.2	0.5	2.0	1.6	0.0	5.5	5.5	1.7	0.8	5.5
29	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C	C	1.2	0.0	0.0	0.0	0.0	0.3	0.0	0.0	1.5	0.2	1.5
30	2.4	2.9	3.4	2.1	2.0	5.3	2.9	0.0	0.0	1.0	0.1	1.6	3.1	7.1	12.3	7.5	8.2	2.5	0.0	3.7	5.8	4.1	2.1	0.0	3.3	12.3
31	0.0	0.6	0.0	0.3	0.0	0.0	0.4	1.8	2.4	2.9	3.4	2.6	0.1	0.3	1.2	3.7	6.3	9.3	6.6	3.0	1.7	1.8	0.7	0.0	2.0	9.3
NO.	31	31	31	31	31	31	31	31	31	31	31	31	30	30	31	31	31	31	31	31	31	31	31	31	742	100.0%
MEAN	5.5	5.8	6.0	6.7	6.3	5.9	5.0	4.9	4.6	4.8	5.7	5.8	5.6	5.4	4.8	5.2	6.3	5.8	5.5	7.1	6.7	6.8	5.2	5.3		
MAX	22.9	20.7	35.7	44.4	45.6	47.2	40.7	38.2	42.4	42.8	47.7	47.8	39.8	29.5	31.3	44.4	56.2	48.9	52.9	50.4	51.0	61.0	23.7	25.1		



Number of 24HR Exceedences	1
Number of Non-Zero Readings	622
Maximum 1-HR Average	61.0 UG/M3
Maximum 24-HR Average	39.3 UG/M3
Operational Time	744 HRS
Operational Uptime	100.0 %
Monthly Calibration	2
Standard Deviation	8.257
Monthly Average	5.7 UG/M3

# Lagoon PM<sub>10</sub> (µg/m<sup>3</sup>) – January 2024

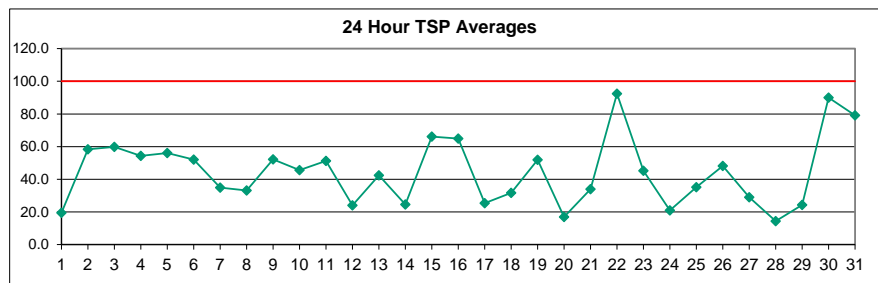
Day	HOUR																								MEAN	MAX		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24				
1	3.8	6.9	7.5	5.9	4.3	5.7	11.7	11.9	10.1	5.3	17.1	7.6	4.7	13.5	8.8	5.4	8.0	17.6	37.7	20.7	0.0	0.3	4.9	4.2	9.3	37.7		
2	4.0	13.6	33.6	24.2	13.9	44.4	14.7	16.5	22.3	39.1	29.0	5.8	39.7	57.7	30.6	14.5	32.6	80.1	96.5	113.6	20.8	17.8	10.4	4.5	32.5	113.6		
3	5.4	8.9	19.6	10.8	9.5	6.4	28.6	24.2	19.0	42.3	40.0	29.6	18.2	19.4	37.5	33.0	23.9	22.0	14.0	104.6	75.9	45.8	45.3	82.0	31.9	104.6		
4	64.4	17.7	10.6	8.3	9.7	8.6	7.6	4.6	6.0	1.5	23.1	26.2	72.2	25.9	66.2	74.5	29.4	30.2	33.8	14.2	24.1	59.0	24.8	43.8	28.6	74.5		
5	29.6	82.1	14.4	12.4	5.8	3.2	4.6	4.6	25.1	22.4	18.3	23.2	46.9	13.9	29.2	37.3	40.7	83.8	52.9	63.6	45.3	16.1	9.1	16.8	29.2	83.8		
6	15.6	29.4	38.1	52.8	15.0	9.2	39.9	43.3	13.3	8.9	37.3	66.7	47.5	24.9	12.3	19.2	14.2	22.7	9.7	13.7	73.9	17.5	18.6	52.9	29.0	73.9		
7	77.1	54.8	19.7	24.3	32.7	27.2	42.8	44.2	38.9	33.9	25.1	16.8	23.4	26.1	19.0	9.4	9.0	10.7	12.1	16.2	4.4	12.4	X	10.4	25.7	77.1		
8	23.6	19.0	22.6	10.9	13.5	11.3	14.3	7.6	7.0	8.0	8.9	24.2	63.0	30.6	14.5	21.0	12.3	15.5	18.5	37.8	24.3	25.9	22.8	21.4	63.0	29.2	83.8	
9	8.8	23.8	85.9	49.1	17.5	25.9	40.6	18.7	62.1	44.9	68.0	34.3	14.7	70.3	10.0	7.6	9.1	8.9	18.8	34.3	79.7	65.0	90.4	92.2	40.9	92.2		
10	71.2	95.5	113.7	124.1	68.9	65.6	46.0	64.7	56.9	35.0	X	36.6	46.4	41.5	38.6	64.3	47.4	41.6	41.4	30.3	17.9	16.2	18.3	X	53.7	124.1		
11	28.5	X	47.0	53.9	X	X	X	X	39.5	23.9	21.2	28.1	20.3	34.5	X	50.1	24.5	25.9	45.5	28.0	29.7	38.4	27.0	34.1	33.3	53.9		
12	45.3	31.6	X	X	X	X	X	14.0	10.5	X	X	NRM	NRM	NRM	NRM	NRM	12.9	10.8	8.6	6.4	17.0	18.1	6.0	7.0	-	-		
13	12.3	26.3	23.0	12.5	24.6	21.0	6.4	17.2	30.2	19.6	25.4	9.2	28.7	31.1	23.2	18.0	13.0	14.8	10.2	8.5	13.9	4.6	11.1	10.2	17.3	31.1		
14	9.7	13.1	8.8	6.8	7.7	18.8	6.9	3.6	4.8	38.5	22.5	17.4	16.0	29.6	15.9	5.5	12.4	9.9	7.5	11.8	20.0	7.6	8.5	9.6	13.0	38.5		
15	11.2	16.8	14.3	21.6	12.9	18.0	10.5	9.8	16.3	13.2	17.2	28.2	24.2	33.7	26.8	43.2	28.4	55.5	60.1	73.4	39.4	24.1	25.8	19.7	26.8	73.4		
16	18.8	31.8	41.6	37.7	12.0	12.9	17.8	16.1	7.9	10.9	48.2	X	X	X	X	X	X	X	X	X	X	X	X	X	-	-		
17	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	-		
18	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	16.6	6.9	8.3	12.1	11.9	14.0	10.7	9.0	10.4	16.1	19.2	-	-
19	15.1	12.0	17.8	31.2	46.5	40.2	18.9	14.8	14.5	19.5	19.9	28.5	27.3	23.9	16.9	38.4	14.7	22.8	25.0	26.0	28.6	49.7	22.5	53.9	26.2	53.9		
20	17.5	8.0	10.5	18.1	11.7	13.2	6.8	8.8	13.8	9.9	14.4	7.6	5.5	24.3	11.8	8.9	12.5	8.0	5.4	23.2	8.2	7.6	15.4	5.8	11.5	24.3		
21	16.2	17.0	31.5	24.3	32.4	22.6	17.6	14.6	9.8	5.2	17.1	24.3	30.7	36.3	13.2	64.3	47.8	35.1	32.2	32.4	33.4	25.7	24.6	24.7	26.4	64.3		
22	28.4	30.0	36.3	56.3	55.0	50.1	52.8	49.8	53.6	58.0	78.1	79.2	55.1	51.8	50.1	62.8	125.0	111.0	154.6	145.8	89.0	89.3	44.9	48.1	69.0	154.6		
23	54.3	43.4	22.9	10.5	11.6	12.1	52.1	30.0	14.7	19.4	34.6	44.6	62.9	85.5	5.1	3.6	2.6	20.5	20.2	4.6	4.8	5.8	4.4	8.6	24.1	85.5		
24	7.0	7.3	23.1	23.9	7.8	7.4	15.9	9.3	6.4	18.8	36.8	29.4	5.8	2.8	0.7	4.6	22.0	14.3	0.6	5.8	8.5	3.9	2.3	1.9	11.1	36.8		
25	3.3	0.6	3.3	29.1	27.1	15.2	31.9	29.6	24.1	35.3	24.0	8.1	5.0	28.2	41.5	37.3	3.5	3.2	2.6	7.3	5.5	9.3	6.7	47.8	17.9	47.8		
26	39.5	23.6	3.2	23.6	1.1	12.8	42.3	34.1	58.7	51.6	47.8	31.3	9.2	15.0	129.2	28.9	52.9	24.5	10.5	14.2	19.6	13.3	8.7	5.0	29.2	129.2		
27	6.4	13.4	30.0	62.4	8.0	49.5	17.9	7.6	10.9	9.9	10.1	7.4	58.6	44.8	11.0	9.8	21.2	6.8	3.9	9.0	32.1	27.6	19.6	14.2	20.5	62.4		
28	16.7	7.2	4.8	3.7	1.2	1.9	3.9	5.0	2.5	0.9	1.1	0.0	3.5	6.2	6.0	7.3	8.2	5.8	18.3	10.1	7.4	35.5	17.0	2.0	7.4	35.5		
29	6.5	9.1	8.2	10.5	8.6	11.5	10.7	10.2	8.0	10.3	6.9	5.1	C	C	C	13.0	36.6	16.4	18.9	19.3	14.6	8.5	10.1	8.3	12.0	36.6		
30	7.7	11.9	1.2	7.3	43.5	109.9	160.5	32.6	14.8	23.7	23.3	58.0	79.0	124.2	143.1	106.2	88.2	3.7	17.0	65.8	32.8	9.5	9.3	9.0	49.2	160.5		
31	12.8	10.9	7.8	3.4	2.7	1.0	26.5	14.0	18.7	30.7	18.6	19.2	8.7	18.6	47.7	89.3	147.0	249.3	97.1	54.4	23.2	50.1	8.3	8.5	40.4	249.3		
NO.	29	28	28	28	27	27	27	28	29	28	27	27	26	27	26	28	29	29	29	29	29	29	28	28	670	90.5%		
MEAN	22.8	23.8	25.0	27.1	18.7	23.2	27.8	20.0	21.4	22.9	27.2	25.8	31.4	35.4	32.0	31.4	31.7	33.8	30.5	34.0	28.2	24.6	19.1	23.8				
MAX	77.1	95.5	113.7	124.1	68.9	109.9	160.5	64.7	62.1	58.0	78.1	79.2	79.0	124.2	143.1	106.2	147.0	249.3	154.6	145.8	89.0	89.3	90.4	92.2				



Number of Non-Zero Readings	668	Operational Time	673 HRS
Maximum 1-HR Average	249.3 UG/M3	Operational Uptime	90.5 %
Maximum 24-HR Average	69.0 UG/M3	Monthly Average	26.7 UG/M3
Monthly Calibration	3		
Standard Deviation	26.43		

# Lagoon TSP ( $\mu\text{g}/\text{m}^3$ ) – January 2024

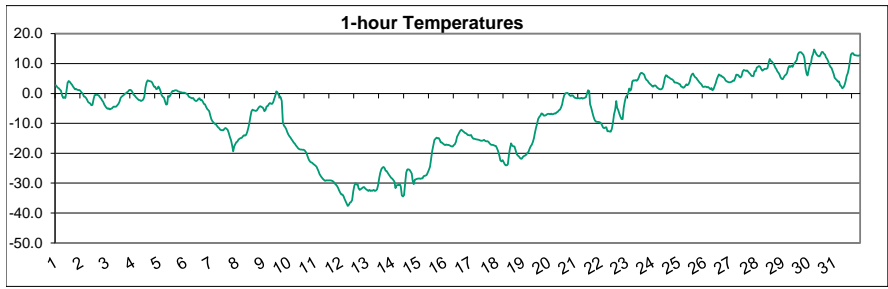
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	10.4	10.2	8.4	5.3	7.7	24.6	20.7	17.5	20.6	9.9	29.9	30.4	15.8	21.8	21.7	14.2	15.7	35.4	70.6	33.9	6.5	13.9	11.9	10.2	19.5	70.6
2	7.1	18.1	52.9	44.1	30.6	74.3	23.2	29.2	42.3	67.5	60.0	27.1	91.3	109.0	51.0	26.5	60.3	144.1	167.3	181.4	34.6	26.7	12.0	19.0	58.3	181.4
3	12.1	27.1	33.6	25.0	14.9	14.1	30.3	45.7	24.4	91.3	65.5	40.2	35.1	41.5	78.1	71.7	39.1	48.5	28.9	191.3	150.4	85.1	77.8	162.8	59.8	191.3
4	125.1	37.2	32.8	22.1	19.0	16.3	15.5	13.7	14.2	12.8	25.5	56.1	130.1	58.0	112.8	81.4	54.1	57.6	61.0	31.7	46.1	120.7	59.3	100.5	54.3	130.1
5	60.7	178.2	31.9	24.0	14.2	9.5	16.1	23.8	50.5	43.3	45.0	45.6	94.1	27.5	58.8	72.0	65.1	137.7	97.2	99.2	80.4	33.5	14.6	24.0	56.1	178.2
6	30.8	52.2	69.5	108.6	31.4	14.1	72.0	78.4	30.6	14.9	75.2	130.5	93.3	61.9	47.5	25.2	33.2	31.4	16.8	13.4	56.4	37.0	31.7	92.8	52.0	130.5
7	82.1	70.8	22.3	42.1	26.7	43.6	47.9	43.2	47.1	33.5	30.8	57.2	50.6	54.5	31.8	13.6	12.2	12.0	18.0	16.7	14.5	22.0	19.1	26.4	35.0	82.1
8	34.0	32.2	26.1	18.7	17.5	16.3	19.0	20.7	3.1	8.7	26.6	49.4	148.9	89.5	36.6	20.5	36.8	15.3	19.7	14.9	37.7	36.5	36.7	31.3	33.2	148.9
9	8.8	33.2	142.9	75.7	32.9	49.0	48.8	34.0	77.3	68.1	69.4	30.2	20.5	22.9	22.2	23.1	18.7	14.2	39.9	44.8	132.3	103.0	79.1	62.1	52.2	142.9
10	67.4	83.0	61.4	67.0	32.5	32.0	40.8	53.5	46.3	23.7	62.4	41.7	71.3	67.7	50.7	74.9	44.9	45.3	50.5	23.6	17.2	10.2	16.0	12.1	45.7	83.0
11	35.8	105.5	49.3	78.1	102.3	77.8	35.5	75.6	43.2	13.2	47.0	28.5	24.8	56.2	109.7	52.1	30.4	18.3	55.3	32.9	27.4	35.9	29.1	65.5	51.2	109.7
12	91.0	49.8	18.3	2.1	15.4	8.9	9.4	5.9	7.8	17.0	15.7	20.0	29.1	30.0	49.2	13.5	15.0	15.5	15.7	14.8	38.4	29.8	39.6	23.8	24.0	91.0
13	26.1	54.3	60.6	36.7	65.8	36.1	48.5	50.0	85.9	58.7	46.6	32.6	46.5	54.3	63.5	54.8	33.1	29.2	23.6	18.8	25.4	29.2	17.7	19.3	42.4	85.9
14	22.1	27.3	24.2	10.0	26.0	11.6	14.8	3.4	19.1	72.8	37.6	18.1	23.0	41.0	24.3	21.2	18.6	27.4	24.5	11.5	54.4	22.0	16.0	17.7	24.5	72.8
15	22.2	41.5	20.8	25.6	36.9	35.3	23.7	36.6	23.7	38.3	49.8	52.5	47.0	57.6	95.1	145.7	69.4	171.3	140.5	163.8	135.3	52.4	44.3	57.9	66.1	171.3
16	32.9	55.1	66.9	47.1	28.2	16.5	13.7	20.1	7.5	15.9	69.1	156.4	193.2	107.4	66.3	72.9	134.2	111.3	72.4	74.3	62.8	47.7	44.0	43.8	65.0	193.2
17	24.1	40.8	43.3	14.4	11.3	28.4	32.7	22.1	28.3	17.6	21.4	20.9	21.4	17.2	44.9	32.0	34.0	11.2	14.5	22.6	16.8	20.7	24.1	46.1	25.4	46.1
18	60.9	103.8	30.1	61.2	136.6	24.3	9.9	13.2	12.7	21.7	26.5	15.8	22.4	17.2	19.3	19.4	11.6	32.6	22.1	15.5	19.5	19.3	25.0	19.3	31.7	136.6
19	17.9	43.0	44.5	53.2	76.8	72.1	41.6	34.1	26.6	38.7	34.5	47.3	49.4	44.1	57.7	80.3	30.9	42.1	49.8	53.7	52.6	93.4	41.4	120.6	51.9	120.6
20	35.3	13.4	14.4	9.1	6.0	14.5	17.2	11.1	6.5	14.5	22.1	21.1	5.0	30.7	18.0	14.2	18.0	18.7	14.5	45.7	14.5	9.5	18.7	13.0	16.9	45.7
21	19.1	23.6	40.4	35.6	47.4	31.5	23.1	17.7	6.5	6.4	24.0	35.8	38.8	65.2	23.2	78.5	53.3	45.4	32.5	36.0	37.5	29.4	31.3	34.5	34.0	78.5
22	37.0	29.9	37.8	54.1	56.3	52.5	56.5	46.0	56.6	61.8	108.6	93.8	67.6	63.4	72.0	98.3	192.1	175.2	256.0	251.8	116.8	100.5	62.4	72.6	92.5	256.0
23	71.1	71.2	45.4	16.6	18.3	13.8	123.5	60.5	38.6	45.2	81.3	87.8	119.0	128.0	11.4	10.9	10.8	37.0	32.2	16.8	15.7	12.7	11.2	6.8	45.2	128.0
24	12.3	X	46.0	32.5	20.0	18.8	24.4	14.2	13.5	34.9	66.0	49.4	19.3	9.4	7.0	9.5	15.0	17.3	14.4	10.9	12.9	8.5	14.7	11.4	21.0	66.0
25	8.0	9.0	15.6	48.1	55.7	37.9	60.8	63.2	42.0	80.3	37.6	7.7	12.0	59.3	92.8	69.3	6.9	8.5	11.4	6.5	10.5	16.6	9.3	73.6	35.1	92.8
26	59.7	29.0	14.1	45.0	8.6	26.4	67.9	68.6	112.0	87.3	77.3	48.9	14.8	22.1	219.1	41.1	100.3	22.6	11.3	22.2	22.9	18.8	15.2	2.6	48.2	219.1
27	13.8	33.3	42.9	61.0	11.3	39.6	16.8	18.3	16.6	12.7	16.7	5.3	103.9	79.9	18.9	7.1	33.2	14.7	8.0	16.7	37.3	44.4	26.6	17.0	29.0	103.9
28	20.5	6.7	7.5	6.8	5.1	5.5	14.9	8.5	6.9	4.1	7.2	9.2	13.4	14.7	2.6	17.1	19.5	10.1	40.4	26.8	8.9	49.2	26.8	14.5	14.4	49.2
29	13.5	22.2	15.4	9.7	10.5	15.9	10.0	17.5	8.7	13.2	12.4	8.6	8.7	C	C	79.5	72.8	42.9	46.4	37.8	36.8	23.8	13.3	14.2	24.3	79.5
30	11.8	21.7	26.1	12.7	81.7	89.9	152.5	68.0	31.4	52.5	60.7	131.3	190.3	271.4	280.1	216.6	176.6	16.1	36.9	118.2	57.4	24.6	15.3	16.3	90.0	280.1
31	24.3	13.8	10.8	12.9	12.1	9.5	42.5	21.9	32.1	52.0	29.3	33.9	25.2	46.8	96.7	163.3	310.9	449.7	195.5	116.3	60.9	112.6	16.1	10.0	79.1	449.7
NO.	31	30	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	741	99.9%
MEAN	35.4	44.6	37.3	35.7	34.2	31.0	37.9	33.4	31.7	36.5	44.6	46.2	58.9	59.0	62.8	55.5	57.0	60.0	54.4	56.9	46.5	41.6	29.0	40.0		
MAX	125.1	178.2	142.9	108.6	136.6	89.9	152.5	78.4	112.0	91.3	108.6	156.4	193.2	271.4	280.1	216.6	310.9	449.7	256.0	251.8	150.4	120.7	79.1	162.8		



Number of 24HR Exceedences	0	Operational time	743 HRS
Number of Non-Zero Readings	741	Operational Uptime	99.9 %
Maximum 1-HR Average	449.7 UG/M3	Monthly Average	44.5 UG/M3
Maximum 24-HR Average	92.5 UG/M3		
Monthly Calibration	2		
Standard Deviation	43.8		

# Lagoon Temperature (°C) – January 2024

Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	2.7	2.3	1.9	1.7	1.3	0.9	-0.7	-1.5	-1.3	-1.5	0.8	3.6	4.1	3.8	3.3	2.9	2.4	1.9	1.3	1.5	1.2	1.1	1.1	0.8	1.5	4.1
2	0.3	-0.1	-1.0	-1.1	-1.4	-2.0	-2.8	-3.2	-3.3	-3.9	-3.9	-2.0	-0.6	-0.5	-0.4	-0.5	-0.8	-1.3	-1.7	-2.3	-2.8	-3.7	-4.3	-4.8	-2.0	0.3
3	-5.1	-5.0	-5.3	-5.1	-5.0	-4.6	-4.4	-4.4	-4.4	-4.0	-3.5	-2.8	-1.5	-1.1	-0.8	-0.5	0.0	0.0	0.4	0.7	1.1	1.2	1.0	0.4	-2.2	1.2
4	-0.4	-0.7	-1.2	-1.6	-1.9	-2.2	-2.2	-2.5	-2.4	-2.1	-1.1	1.9	3.6	4.4	4.2	4.1	4.1	3.7	2.9	2.3	2.2	1.5	1.6	2.3	0.9	4.4
5	1.7	0.7	-0.7	-1.1	-1.3	-2.6	-3.7	-3.5	-0.8	-1.1	-0.7	0.3	0.9	0.8	1.0	1.1	1.0	0.7	0.6	0.4	0.4	0.3	0.3	0.3	-0.2	1.7
6	0.1	-0.1	-0.3	-1.0	-1.3	-1.5	-1.7	-1.5	-2.1	-2.4	-2.5	-2.3	-1.8	-1.6	-2.2	-2.2	-2.8	-3.5	-3.6	-4.5	-5.2	-5.5	-5.9	-7.4	-2.6	0.1
7	-8.6	-9.3	-9.7	-10.1	-10.3	-10.8	-11.3	-11.6	-12.1	-12.3	-12.3	-12.3	-11.8	-11.5	-11.9	-12.2	-13.3	-14.6	-15.6	-17.3	-19.3	-17.6	-16.9	-16.3	-12.9	-8.6
8	-16.1	-15.4	-15.2	-14.9	-14.8	-14.3	-14.0	-14.1	-13.8	-12.9	-11.4	-10.2	-8.0	-6.0	-5.4	-5.6	-5.7	-5.9	-5.6	-5.0	-4.6	-4.3	-4.5	-4.7	-9.7	-4.3
9	-5.0	-5.9	-5.6	-4.3	-4.2	-3.6	-3.2	-3.4	-3.5	-2.9	-1.7	-0.6	0.7	0.4	-0.4	-0.9	-1.3	-2.6	-9.7	-10.8	-11.3	-11.9	-12.9	-13.8	-4.9	0.7
10	-14.3	-14.7	-15.3	-15.8	-16.4	-16.8	-17.4	-17.8	-18.3	-18.6	-18.8	-18.8	-18.8	-18.8	-19.0	-19.4	-20.1	-21.2	-22.1	-22.7	-23.0	-23.2	-23.6	-23.9	-19.1	-14.3
11	-24.2	-24.5	-25.2	-26.0	-27.0	-27.6	-28.2	-28.6	-29.0	-29.2	-29.1	-29.1	-29.1	-29.1	-29.1	-29.2	-29.3	-29.6	-30.1	-30.5	-30.9	-31.6	-32.5	-33.2	-28.8	-24.2
12	-33.8	-33.8	-34.4	-35.2	-36.0	-36.8	-37.6	-37.3	-36.6	-36.3	-35.6	-32.8	-30.9	-30.0	-30.5	-30.4	-31.7	-32.2	-32.0	-31.7	-31.4	-31.3	-31.7	-32.1	-33.4	-30.0
13	-32.4	-32.6	-32.2	-32.6	-32.5	-32.5	-32.2	-32.6	-32.4	-32.1	-30.7	-28.3	-26.5	-25.3	-24.8	-24.6	-25.1	-25.9	-26.0	-26.6	-27.2	-27.7	-28.2	-28.5	-29.2	-24.6
14	-29.0	-29.5	-31.7	-30.8	-30.6	-30.7	-30.3	-31.0	-34.1	-34.5	-34.0	-30.1	-26.5	-25.4	-25.4	-25.5	-26.2	-26.8	-29.1	-30.3	-28.9	-28.7	-28.6	-28.5	-29.4	-25.4
15	-28.4	-28.6	-28.4	-28.5	-27.7	-27.6	-27.5	-27.3	-26.5	-25.6	-24.5	-21.9	-19.3	-17.4	-15.6	-15.1	-14.8	-15.0	-15.0	-15.4	-16.4	-16.4	-16.8	-17.1	-21.5	-14.8
16	-17.3	-17.0	-17.2	-17.2	-17.4	-17.6	-17.7	-17.7	-17.3	-17.0	-16.2	-14.5	-13.8	-13.1	-12.4	-12.1	-12.5	-12.8	-13.1	-13.3	-13.6	-13.9	-14.0	-14.0	-15.1	-12.1
17	-13.9	-14.7	-15.2	-15.2	-15.3	-15.4	-15.4	-15.5	-15.7	-15.9	-15.8	-15.8	-15.5	-15.9	-16.0	-16.0	-16.2	-16.7	-17.1	-17.2	-17.2	-17.4	-17.5	-17.6	-16.0	-13.9
18	-18.4	-19.4	-20.7	-22.3	-22.7	-22.3	-23.0	-23.7	-24.1	-24.0	-23.7	-20.5	-18.3	-16.7	-17.5	-17.7	-17.7	-18.9	-20.2	-20.8	-21.1	-21.5	-21.9	-21.8	-20.8	-16.7
19	-21.2	-20.9	-20.8	-20.5	-19.9	-19.5	-18.5	-17.7	-17.1	-16.2	-14.9	-13.2	-11.5	-10.1	-8.5	-7.8	-7.4	-6.7	-6.8	-7.4	-7.4	-7.3	-6.9	-6.8	-13.1	-6.7
20	-6.8	-6.9	-6.8	-6.9	-6.9	-6.7	-6.7	-6.3	-6.2	-5.7	-5.4	-4.7	-3.6	-2.1	-0.7	0.0	0.1	0.2	-0.1	-0.7	-0.8	-0.6	-0.7	-1.2	-3.6	0.2
21	-1.5	-1.5	-1.7	-1.5	-1.6	-1.6	-1.4	-1.7	-1.6	-1.4	-1.3	-0.1	1.0	0.8	-3.6	-4.7	-6.2	-7.6	-8.8	-9.3	-9.5	-9.6	-9.5	-9.7	-3.9	1.0
22	-10.0	-10.8	-11.4	-11.6	-11.4	-11.3	-12.7	-12.7	-12.8	-11.9	-9.8	-6.9	-5.5	-2.5	-4.8	-5.6	-6.8	-7.8	-8.6	-8.6	-8.8	-8.8	-2.7	-1.1	-8.5	-1.1
23	-0.7	0.0	1.7	0.9	1.5	4.0	4.4	4.3	4.5	4.2	4.6	5.4	6.5	6.9	6.8	6.5	6.3	5.2	4.5	4.3	3.8	3.3	3.0	2.5	3.9	6.9
24	2.2	2.6	2.7	2.4	1.9	1.7	1.4	1.4	1.4	1.9	3.3	5.2	6.1	5.9	5.4	5.3	5.0	4.8	4.7	4.3	3.7	3.6	3.5	3.4	3.5	6.1
25	3.2	3.0	2.3	2.1	1.9	2.1	2.6	3.1	2.8	3.1	3.9	5.6	6.4	6.7	5.9	5.4	5.2	4.6	4.2	3.7	3.4	3.0	2.2	2.2	3.7	6.7
26	2.4	2.3	2.0	2.2	1.8	1.4	1.8	1.1	1.3	2.4	3.4	4.7	5.6	6.4	5.9	6.0	5.6	5.4	5.0	4.4	4.1	3.9	3.7	3.7	3.6	6.4
27	3.8	3.9	4.3	4.2	5.2	6.3	6.2	6.1	5.6	5.3	5.9	7.4	7.8	7.7	7.6	7.7	7.3	6.9	6.4	5.9	5.9	5.8	7.4	7.4	6.2	7.8
28	8.7	8.9	9.2	8.9	8.2	7.6	7.9	8.2	8.2	8.2	8.5	10.3	11.5	10.9	10.7	10.2	9.6	8.7	8.1	7.4	6.9	6.2	5.4	4.9	8.5	11.5
29	4.8	5.4	6.0	6.3	6.9	8.5	9.2	8.9	9.2	8.9	9.9	10.2	10.7	11.2	13.1	13.7	13.9	13.8	13.3	12.9	11.7	8.3	6.6	6.0	9.6	13.9
30	7.7	9.4	9.9	12.2	13.1	14.7	13.9	13.1	12.7	12.4	12.4	13.1	13.9	13.9	13.3	13.0	12.1	11.6	10.7	9.6	8.9	8.5	7.5	6.5	11.4	14.7
31	5.3	4.8	4.5	3.9	4.0	2.8	2.4	1.8	2.1	2.8	4.1	5.9	6.9	8.2	10.4	12.9	13.5	13.4	12.9	12.8	12.8	12.7	12.6	12.8	7.8	13.5
NO.	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	744	100.0%
MEAN	-7.9	-8.0	-8.2	-8.3	-8.4	-8.3	-8.5	-8.6	-8.6	-8.5	-7.8	-6.3	-5.1	-4.6	-4.5	-4.5	-4.9	-5.4	-6.1	-6.6	-6.9	-7.0	-7.2	-7.4		
MAX	8.7	9.4	9.9	12.2	13.1	14.7	13.9	13.1	12.7	12.4	12.4	13.1	13.9	13.9	13.3	13.7	13.9	13.8	13.3	12.9	12.8	12.7	12.6	12.8		

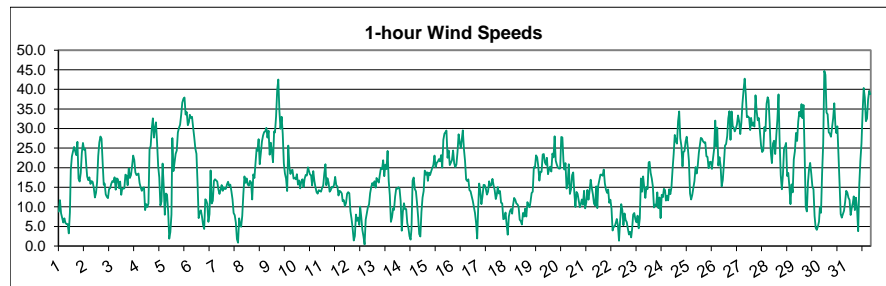


Number of Non-Zero Readings	744		
Maximum 1-HR Average	14.7 C		
Maximum 24-HR Average	11.4 C		
Monthly Calibration	0	Operational Time	744 HRS
Standard Deviation	12.93	Operational Uptime	100.0 %
		Monthly Average	-7.0 C



# Lagoon Wind Speed (km/hr) – January 2024

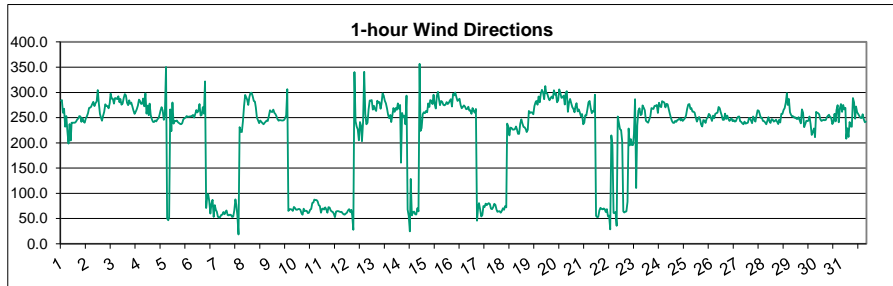
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	8.8	11.7	8.4	7.2	6.0	7.1	5.9	5.6	5.6	3.2	8.6	19.4	22.9	24.1	25.3	24.2	23.2	26.6	17.2	16.4	18.7	23.8	26.3	24.6	15.5	26.6
2	24.8	20.6	17.8	16.8	17.5	15.8	16.6	16.4	14.8	12.4	13.6	16.3	22.9	26.4	28.0	27.4	21.3	15.6	16.0	13.2	12.5	12.2	14.5	14.8	17.8	28.0
3	15.9	16.6	16.3	17.5	14.4	17.2	17.0	14.8	16.4	13.1	14.5	14.7	14.7	18.2	17.9	15.5	19.8	17.4	18.1	20.4	23.1	22.0	18.8	18.1	17.2	23.1
4	18.3	18.5	16.1	14.9	14.1	14.8	15.0	9.2	10.7	10.0	10.9	24.7	25.5	29.9	32.6	27.7	30.3	31.6	26.4	20.4	17.5	10.4	11.4	21.1	19.2	32.6
5	15.3	8.0	13.4	13.1	8.9	1.8	3.6	8.0	27.6	19.1	21.4	23.5	24.4	29.0	30.2	31.0	33.5	36.6	37.6	37.9	33.6	34.2	30.9	31.6	23.1	37.9
6	33.5	32.7	33.0	30.3	27.8	24.9	23.5	16.0	7.1	8.7	9.1	7.5	5.4	4.4	12.0	11.6	10.8	6.2	8.2	19.3	10.9	11.5	16.7	17.0	16.2	33.5
7	16.8	16.5	14.5	13.3	14.3	15.6	14.1	15.0	14.5	14.6	15.8	16.4	15.3	15.7	14.0	11.9	8.4	7.9	6.0	1.8	0.9	7.1	5.4	4.9	11.7	16.8
8	7.7	13.3	17.8	16.1	17.3	15.7	15.4	16.7	16.2	11.9	18.3	17.4	21.2	24.9	24.3	27.3	20.9	23.7	26.7	28.2	29.1	29.2	30.2	27.7	20.7	30.2
9	29.4	23.3	26.3	24.1	21.4	29.2	29.0	33.2	39.8	42.5	34.4	29.9	33.0	28.7	21.1	18.5	17.2	14.0	25.7	20.3	18.4	19.2	19.5	17.2	25.6	42.5
10	17.5	17.0	18.3	15.7	16.7	14.7	16.5	17.1	15.0	17.2	18.2	18.0	20.1	19.3	18.3	18.1	15.4	19.1	16.6	15.0	13.8	13.3	14.3	14.1	16.6	20.1
11	13.9	14.8	15.4	18.5	20.9	15.5	17.3	16.2	13.8	14.3	15.1	15.0	15.6	17.7	15.5	15.2	12.9	14.1	13.9	13.4	11.4	11.7	10.2	11.0	14.7	20.9
12	13.4	13.8	13.5	8.9	6.9	4.5	1.4	2.5	8.1	6.4	7.2	5.4	10.0	7.4	4.1	2.4	0.4	6.7	8.3	9.9	10.6	13.5	15.0	16.1	8.2	16.1
13	15.4	16.5	14.9	17.4	16.8	16.2	18.2	20.0	19.6	21.9	17.8	20.7	19.6	24.3	16.6	13.0	6.2	7.3	9.6	9.2	12.6	14.7	14.6	15.0	15.8	24.3
14	14.6	11.5	3.9	8.8	10.9	9.4	9.5	5.8	4.6	2.5	1.6	4.3	16.7	17.5	14.5	14.0	11.0	7.4	3.1	2.4	8.7	12.4	14.0	19.3	9.5	19.3
15	18.2	18.9	16.7	18.7	18.1	19.1	19.9	20.7	23.1	20.1	21.2	21.5	22.2	21.6	23.2	20.0	27.1	28.7	29.0	29.5	22.5	24.4	20.6	21.3	21.9	29.5
16	21.9	24.4	21.1	20.2	20.8	24.0	28.5	26.4	25.1	27.1	29.5	24.8	21.7	17.0	16.6	17.0	14.3	14.0	12.7	11.6	10.0	8.4	5.9	1.9	18.5	29.5
17	10.5	16.0	14.0	10.7	12.7	15.6	15.5	14.6	13.1	13.8	16.5	15.4	15.6	17.2	15.5	14.2	12.0	12.9	15.1	13.4	14.0	11.0	10.9	6.8	13.6	17.2
18	7.0	8.5	5.5	2.9	7.5	8.9	9.4	8.2	10.4	12.3	11.9	10.9	10.6	10.1	6.7	6.3	5.5	8.4	7.5	9.6	7.5	11.2	10.5	9.9	8.6	12.3
19	11.3	13.5	13.8	20.1	20.0	23.2	22.6	20.4	16.7	19.0	19.0	23.4	23.5	21.3	20.7	22.5	18.3	19.5	20.2	19.0	23.6	22.6	28.0	21.8	20.2	28.0
20	20.8	20.0	19.7	19.8	27.8	27.7	21.6	19.5	21.2	14.7	16.0	20.9	13.3	14.5	18.1	18.8	13.6	9.9	13.8	13.3	11.6	9.9	10.7	11.9	17.0	27.8
21	10.5	14.1	9.6	11.1	14.3	11.8	14.0	16.9	14.7	13.2	10.8	10.4	15.2	9.7	15.4	16.8	18.2	18.2	17.9	19.5	16.0	14.4	13.6	14.4	14.2	19.5
22	11.1	11.8	9.6	3.9	5.0	5.1	5.8	6.9	5.3	1.4	6.4	10.7	9.2	5.3	8.3	6.6	6.1	4.4	2.9	3.6	2.2	4.2	8.0	8.4	6.3	11.8
23	6.8	6.0	7.7	4.5	7.0	17.2	13.8	17.8	15.0	12.3	15.1	14.5	21.3	21.5	18.7	17.2	15.2	9.8	10.6	10.3	13.7	9.7	12.4	7.2	12.7	21.5
24	13.1	12.4	14.6	14.3	11.6	12.9	11.7	14.5	13.2	14.9	19.5	23.4	28.3	26.8	26.1	31.9	34.3	27.5	25.5	20.3	24.0	24.2	26.7	27.9	20.8	34.3
25	25.1	21.6	13.4	11.9	13.0	14.8	16.6	20.1	18.5	20.6	23.9	25.9	27.6	27.4	26.7	26.4	26.5	22.9	22.8	19.9	21.4	21.5	19.7	22.4	21.3	27.6
26	24.8	32.0	25.4	30.2	20.5	22.7	20.5	15.2	16.8	20.8	25.7	26.1	28.1	32.6	34.4	27.1	34.4	30.6	30.1	29.2	29.9	31.0	33.3	31.8	27.2	34.4
27	28.6	31.5	36.4	39.8	42.7	38.7	32.9	33.1	32.8	29.6	32.7	30.7	31.5	30.5	38.5	34.5	32.1	32.7	29.2	25.7	24.0	24.4	30.3	29.4	32.2	42.7
28	36.3	37.9	37.3	31.4	24.1	21.2	26.2	26.9	23.5	28.2	32.4	38.7	26.7	18.1	14.5	18.2	24.9	25.5	26.3	17.9	18.7	15.2	10.7	15.7	24.9	38.7
29	13.7	22.1	24.2	28.9	26.8	31.8	34.3	33.1	36.2	32.7	36.0	23.5	10.0	8.8	16.2	19.6	21.2	18.5	15.2	14.5	7.6	4.6	4.1	5.0	20.4	36.2
30	6.2	10.0	8.5	18.6	26.3	44.7	43.7	34.1	33.6	29.0	28.7	27.9	30.3	32.7	36.4	30.8	28.9	30.5	23.3	15.8	8.1	7.3	8.1	9.0	23.9	44.7
31	11.2	14.1	13.7	12.3	11.8	7.9	9.7	11.0	12.7	9.1	12.4	9.4	3.8	15.7	21.8	26.2	34.1	40.3	37.9	31.8	32.5	37.5	39.6	38.8	20.6	40.3
NO.	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	744	100.0%
MEAN	16.9	17.7	16.8	16.8	16.9	17.7	17.7	17.3	17.6	16.7	18.2	19.1	19.6	19.9	20.4	19.7	19.3	19.0	18.5	17.2	16.4	16.7	17.3	17.3		
MAX	36.3	37.9	37.3	39.8	42.7	44.7	43.7	34.1	39.8	42.5	36.0	38.7	33.0	32.7	38.5	34.5	34.4	40.3	37.9	37.9	33.6	37.5	39.6	38.8		



Number of Non-Zero Readings	744		
Maximum 1-HR Average	44.7 KM/HR		
Maximum 24-HR Average	32.2 KM/HR		
Monthly Calibration	0	Operational Time	744 HRS
Standard Deviation	8.639	Operational Uptime	100.0 %
		Monthly Average	17.9 KM/HR

# Lagoon Wind Direction (°) – January 2024

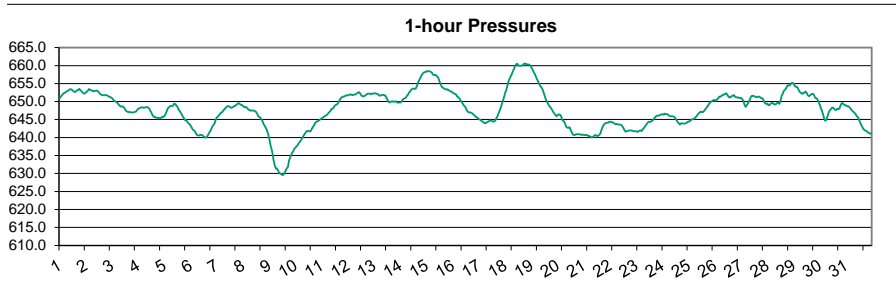
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	283.4	284.8	259.5	267.8	231.8	253.1	223.1	198.3	237.3	204.8	239.7	239.7	240.1	239.8	241.9	246.0	248.2	253.3	252.4	241.5	249.3	242.3	239.7	248.2	246.0	284.8
2	252.7	258.7	269.3	270.0	271.7	276.7	281.4	273.1	278.5	282.3	304.8	277.6	257.2	250.8	243.8	253.4	261.4	276.5	273.1	272.7	268.3	278.5	297.7	287.6	268.4	304.8
3	287.4	277.8	288.8	288.2	286.6	292.3	280.3	287.2	275.5	277.6	288.6	296.8	293.9	279.4	274.8	284.5	277.2	280.1	272.6	264.3	257.7	261.5	266.9	273.7	278.6	296.8
4	285.9	283.3	277.4	277.5	287.8	272.6	297.9	258.0	273.9	255.0	277.6	254.8	247.1	241.7	241.4	244.2	242.6	246.5	248.9	254.5	263.8	270.7	264.1	245.8	258.5	297.9
5	260.6	350.4	50.0	46.4	52.4	266.2	223.2	280.0	238.0	243.7	242.4	244.3	240.9	239.6	237.9	236.8	239.2	246.3	248.8	249.8	253.3	251.7	251.9	252.3	248.3	350.4
6	252.5	253.4	255.4	250.1	257.7	264.8	260.3	263.4	277.0	253.9	255.1	270.6	258.0	321.7	70.8	89.8	98.6	84.6	59.8	79.5	87.0	53.0	76.6	66.9	259.7	321.7
7	63.6	53.5	51.8	52.8	56.9	57.6	62.8	58.4	63.9	66.0	56.8	56.1	57.5	57.3	53.1	53.6	65.9	88.1	77.5	55.0	18.5	231.1	222.1	221.2	60.1	231.1
8	243.1	272.9	294.8	291.1	285.7	275.3	291.1	298.8	299.3	292.1	283.0	281.9	270.5	249.9	244.8	239.1	244.4	241.5	239.1	236.9	239.9	241.7	244.2	243.6	259.2	299.3
9	253.5	264.7	262.0	261.1	265.9	259.4	257.4	253.0	246.9	243.9	245.2	244.8	244.3	244.2	245.6	248.8	254.6	306.2	64.8	68.2	68.6	67.7	65.1	73.0	254.9	306.2
10	71.3	67.5	67.2	68.5	69.1	67.2	60.6	57.6	69.3	64.6	65.3	65.0	60.4	61.3	67.0	68.8	80.8	81.7	87.6	86.6	86.5	83.8	76.6	74.9	70.7	87.6
11	61.6	68.8	69.7	67.7	72.2	68.3	61.4	72.7	71.5	65.9	63.7	63.3	59.1	52.9	63.7	64.4	64.6	63.9	62.6	63.3	60.8	58.3	57.7	59.7	64.4	72.7
12	61.5	65.9	68.7	62.7	67.1	55.6	27.4	340.1	242.9	232.3	226.5	205.3	241.2	233.1	203.4	241.8	340.8	256.9	237.0	239.9	266.9	283.8	283.8	284.7	267.9	340.8
13	265.8	273.3	266.8	263.3	283.3	279.4	281.0	267.7	277.2	298.2	293.4	283.4	278.3	268.0	255.5	248.5	255.1	241.4	254.4	269.1	261.5	269.0	265.5	278.0	272.3	298.2
14	267.6	274.9	160.7	259.1	250.9	253.8	236.6	293.4	67.6	55.1	24.3	128.6	56.4	62.1	63.7	58.6	57.8	70.4	64.3	356.7	223.4	229.5	256.4	260.7	288.8	356.7
15	258.9	263.1	260.4	278.0	271.3	284.7	283.5	277.1	295.4	276.4	268.2	293.8	301.1	284.9	274.8	282.9	281.4	275.6	274.1	276.1	280.7	276.8	279.4	283.7	278.7	301.1
16	286.5	272.0	297.1	294.0	299.6	290.4	282.9	285.1	287.5	275.1	268.7	271.2	274.2	271.6	266.6	267.0	271.6	263.9	264.4	257.6	269.1	263.2	259.5	267.3	277.9	299.6
17	45.5	72.1	80.3	68.0	54.2	56.5	74.5	72.4	79.5	76.6	78.7	80.4	78.5	69.3	68.4	72.4	79.2	76.8	67.7	63.4	64.3	64.6	61.7	65.2	70.2	80.4
18	70.3	67.3	74.7	72.2	238.2	232.6	214.8	230.4	229.4	226.2	226.1	227.1	232.3	227.3	217.7	218.0	238.1	246.4	238.0	231.6	230.6	226.9	221.5	225.7	225.4	246.4
19	263.4	259.3	260.5	260.1	256.8	273.0	280.6	283.0	275.5	291.7	280.3	298.2	305.2	299.7	286.7	312.6	299.1	297.6	289.7	284.2	288.9	291.9	287.8	304.2	286.2	312.6
20	295.6	298.4	280.3	284.0	306.1	299.0	289.0	290.2	293.4	276.2	298.3	302.4	261.3	279.7	286.8	278.8	270.8	267.3	260.6	271.4	278.6	262.5	266.2	260.2	285.1	306.1
21	252.8	256.9	236.7	239.8	254.4	254.1	266.2	280.4	283.0	268.5	258.9	263.2	261.9	295.4	55.4	52.8	53.1	65.8	71.1	68.8	68.2	69.8	68.6	62.6	336.1	295.4
22	68.7	53.8	55.6	28.5	214.8	194.3	61.0	60.5	62.8	35.6	252.2	239.8	227.0	225.2	203.0	64.2	61.9	63.1	64.3	83.1	228.5	195.0	207.1	195.3	121.1	252.2
23	196.0	217.5	286.4	110.4	234.6	263.5	268.6	254.9	256.4	274.2	270.0	264.4	243.9	241.6	240.0	245.9	252.5	268.9	267.9	261.1	273.4	273.5	274.9	259.4	256.5	286.4
24	279.6	272.6	270.5	282.4	281.1	279.8	270.1	277.2	276.4	266.8	257.5	249.1	243.7	239.9	239.5	243.4	241.8	245.1	246.2	248.7	244.1	247.9	243.5	246.0	253.0	282.4
25	248.6	254.2	267.1	275.9	277.0	267.4	268.9	261.8	262.1	259.7	249.8	242.2	247.5	251.2	245.2	236.4	232.5	245.2	244.1	239.5	247.8	250.5	257.3	254.7	251.4	277.0
26	249.8	243.6	254.1	248.9	257.3	258.8	259.5	271.0	268.5	261.6	254.2	245.4	245.7	257.8	247.4	253.8	247.2	243.3	245.7	248.8	243.0	245.1	242.1	243.1	250.1	271.0
27	248.8	251.8	252.0	242.8	241.8	238.5	236.7	242.0	238.2	238.8	240.0	249.0	248.7	244.5	238.9	252.2	246.0	242.3	245.8	264.4	263.7	258.0	249.6	250.0	246.5	264.4
28	243.5	242.9	240.3	237.0	243.8	250.8	243.1	239.3	247.0	245.9	242.1	243.3	246.1	241.6	237.3	245.6	240.5	257.7	257.6	264.8	268.8	279.4	298.6	275.3	248.2	298.6
29	287.1	260.8	255.1	252.3	252.8	249.4	250.4	247.5	247.3	251.0	244.3	238.5	266.4	259.9	231.1	237.2	243.8	242.8	243.9	252.4	237.2	215.7	221.5	228.5	248.5	287.1
30	211.2	261.3	259.5	258.8	256.0	246.6	243.6	244.9	245.8	244.8	245.6	250.6	253.5	255.8	251.0	250.2	237.1	241.4	257.3	242.7	265.3	274.7	240.8	268.4	249.0	274.7
31	277.0	261.3	274.9	266.4	269.5	208.1	228.8	211.6	241.1	232.5	232.0	288.6	280.6	247.6	271.9	260.4	257.0	252.9	249.5	249.2	256.7	246.5	240.9	242.1	251.5	288.6
NO.	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	744	100.0%
MEAN	215.9	221.3	211.2	207.3	224.1	228.7	221.5	233.3	226.1	220.5	226.9	230.9	226.5	225.6	205.5	204.9	209.2	210.8	201.3	211.3	213.4	218.2	219.0	219.4		
MAX	295.6	350.4	297.1	294.0	306.1	299.0	297.9	340.1	299.3	298.2	304.8	302.4	305.2	321.7	286.8	312.6	340.8	306.2	289.7	356.7	288.9	291.9	298.6	304.2		



Number of Non-Zero Readings	744		
Maximum 1-HR Average	357 degrees		
Maximum 24-HR Average	336 degrees		
		Operational Time	744 HRS
Monthly Calibration	0	Operational Uptime	100.0 %
Standard Deviation	81.91	Monthly Average	218.0 degrees

# Lagoon Pressure (mmHg) – January 2024

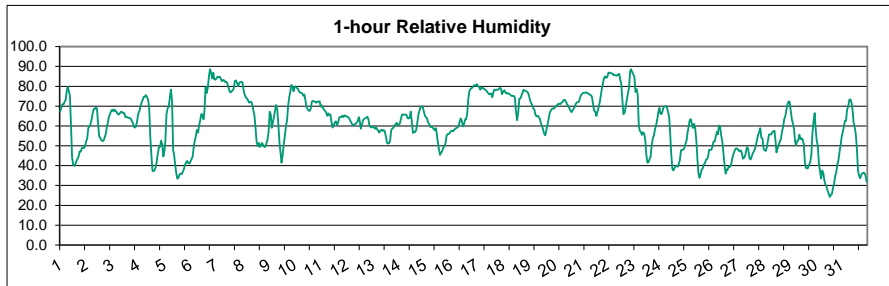
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	651.0	651.3	651.7	652.0	652.4	652.5	652.8	652.9	653.1	653.4	653.4	653.3	653.1	652.8	652.7	652.9	653.1	653.3	653.6	653.2	653.0	652.6	652.2	652.3	652.7	653.6
2	652.5	652.7	653.1	653.5	653.2	653.1	653.0	652.8	652.9	653.0	653.0	652.9	652.6	652.1	651.9	651.8	651.8	651.8	651.8	651.7	651.6	651.5	651.3	651.2	652.4	653.5
3	650.9	650.6	650.2	650.1	649.8	649.6	649.2	648.9	648.6	648.6	648.7	648.3	647.8	647.4	647.1	647.1	647.0	647.1	647.0	647.0	647.0	647.2	647.2	647.7	648.3	650.9
4	647.9	648.1	648.3	648.4	648.4	648.3	648.3	648.4	648.4	648.4	648.1	647.5	647.0	646.3	645.8	645.8	645.5	645.5	645.5	645.4	645.4	645.5	645.8	645.7	647.0	648.4
5	645.9	646.6	647.3	648.0	648.4	648.7	648.8	648.8	648.9	649.5	649.3	648.9	648.6	647.7	647.4	646.9	646.4	645.7	645.2	644.7	644.8	644.4	644.0	643.7	647.0	649.5
6	643.3	642.7	642.2	642.0	641.7	641.1	640.7	640.5	640.6	640.7	640.8	640.6	640.2	640.0	640.0	640.2	640.7	641.4	641.8	642.5	643.2	643.5	644.1	645.0	641.6	645.0
7	645.6	645.8	646.2	646.6	646.9	647.1	647.6	647.9	648.2	648.5	648.7	648.7	648.5	648.3	648.4	648.5	648.7	648.9	649.2	649.4	649.5	649.3	649.1	649.0	648.1	649.5
8	648.8	648.5	648.5	648.5	648.1	647.8	647.6	647.5	647.5	647.5	647.3	647.1	646.6	645.8	645.7	645.4	645.0	644.4	643.7	643.1	642.6	641.9	640.9	640.9	646.1	648.8
9	639.6	638.0	636.7	635.4	633.7	632.3	631.4	630.9	630.2	630.0	629.9	629.5	629.7	630.1	630.8	631.4	631.8	633.5	634.5	635.2	635.8	636.2	636.9	639.6	633.1	639.6
10	637.2	637.5	637.9	638.5	638.8	639.3	639.8	640.2	640.8	641.2	641.7	641.8	641.8	641.7	641.9	642.4	642.9	643.4	644.0	644.3	644.5	644.6	644.9	645.1	641.5	645.1
11	645.3	645.5	645.8	646.0	646.2	646.4	646.8	647.1	647.5	647.9	648.0	648.4	648.9	649.1	649.2	649.6	650.2	650.7	651.1	651.3	651.4	651.5	651.7	651.7	648.6	651.7
12	651.7	651.9	652.0	651.9	651.8	651.9	651.9	652.0	652.2	652.5	652.6	652.4	651.9	651.5	651.5	651.6	651.7	652.0	652.2	652.2	652.2	652.1	652.2	652.2	652.0	652.6
13	652.2	652.3	652.2	652.2	651.8	651.6	651.7	651.8	651.9	651.8	651.7	651.3	650.6	650.0	649.8	649.9	650.1	650.1	649.9	650.0	650.1	649.7	649.7	649.8	650.9	652.3
14	649.7	650.0	650.5	650.8	650.9	651.1	651.6	651.9	652.5	652.8	653.3	653.6	653.6	653.5	653.6	654.3	655.1	655.8	656.4	657.0	657.5	658.0	658.2	658.2	653.7	658.2
15	658.5	658.4	658.5	658.4	658.2	658.0	657.4	657.4	657.4	657.1	656.9	656.4	655.5	654.6	654.1	653.8	653.6	653.4	653.3	653.4	653.2	653.0	652.8	652.8	655.7	658.5
16	652.5	652.2	652.1	651.9	651.4	651.2	650.9	650.4	649.9	649.5	649.0	648.6	648.1	647.5	647.2	646.9	647.0	646.9	646.6	646.4	646.1	645.8	645.6	645.4	648.7	652.5
17	645.1	644.9	644.7	644.4	644.3	644.0	644.0	644.2	644.3	644.5	644.7	644.7	644.5	644.4	644.5	644.7	645.3	645.9	646.8	647.6	648.4	649.5	650.4	651.4	645.7	651.4
18	652.4	653.3	654.3	655.6	656.3	657.0	657.7	658.5	659.1	659.8	660.4	660.6	660.0	660.0	660.0	660.2	660.5	660.6	660.4	660.4	660.3	660.3	660.3	660.0	658.6	660.6
19	659.5	658.8	658.3	657.7	657.0	656.3	655.7	655.0	654.3	654.0	653.5	652.8	651.8	650.8	650.0	649.5	648.9	648.5	648.1	647.6	647.1	646.7	646.3	645.9	652.3	659.5
20	646.2	646.4	646.4	646.0	645.1	644.6	644.5	643.7	642.9	642.7	642.7	642.8	642.0	641.3	640.8	640.6	640.7	640.9	640.9	640.9	640.9	640.8	640.8	640.8	642.7	646.4
21	640.7	640.6	640.7	640.7	640.4	640.4	640.2	640.0	640.1	640.4	640.6	640.7	640.4	640.5	640.7	641.1	641.9	642.8	643.4	643.8	644.1	644.1	644.1	644.3	641.5	644.3
22	644.4	644.3	644.3	644.1	643.9	643.7	643.8	643.6	643.6	643.6	643.6	643.3	642.8	642.1	641.7	641.7	641.8	641.9	642.0	642.0	641.9	641.8	641.8	641.7	642.9	644.4
23	641.7	641.6	641.7	641.9	642.0	641.8	642.3	642.7	643.1	643.6	644.0	644.3	644.4	644.4	644.5	644.8	645.1	645.5	645.9	646.1	646.1	646.2	646.3	646.5	644.0	646.5
24	646.5	646.3	646.6	646.5	646.5	646.3	646.1	646.0	645.9	645.9	645.8	645.7	645.2	644.7	644.2	644.0	643.6	644.0	643.9	643.8	643.9	643.9	644.1	644.3	645.2	646.6
25	644.5	644.5	644.8	645.1	645.1	645.3	645.5	645.9	646.3	646.6	646.9	647.2	647.1	647.1	647.4	647.8	648.2	648.7	649.0	649.5	649.8	650.1	650.3	650.4	647.2	650.4
26	650.4	650.2	650.6	650.9	651.4	651.3	651.6	651.8	651.9	652.1	652.3	652.2	651.6	651.2	651.1	651.5	651.6	651.8	651.5	651.2	651.1	651.2	651.0	651.0	651.3	652.3
27	651.0	650.7	650.2	649.2	648.5	648.9	649.4	649.9	650.5	651.4	651.6	651.6	651.5	651.3	651.2	651.3	651.4	651.3	651.0	650.9	650.7	649.9	649.4	649.4	650.5	651.6
28	649.4	649.0	649.0	649.4	649.6	649.6	649.2	649.1	649.3	649.6	649.8	649.3	650.3	651.5	652.2	652.9	653.3	653.5	654.2	654.5	654.4	654.7	655.2	655.2	651.4	655.2
29	655.0	654.4	654.1	654.1	653.8	653.0	652.6	652.3	652.1	652.4	652.5	652.8	652.4	651.8	651.5	651.7	652.0	652.2	652.1	651.6	651.0	650.9	650.5	649.8	652.4	655.0
30	649.1	648.1	647.4	646.3	645.4	644.6	644.9	645.8	646.8	647.5	647.8	648.3	648.3	648.1	647.7	647.7	648.0	647.8	648.1	648.9	649.5	649.6	649.2	649.0	647.7	649.6
31	649.0	648.6	648.7	648.5	648.1	647.7	647.4	647.1	646.8	646.4	645.9	645.6	644.9	644.1	643.4	642.9	642.4	642.0	641.9	641.7	641.4	641.3	641.0	641.2	644.9	649.0
NO.	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	744	100.0%
MEAN	648.3	648.2	648.2	648.2	648.0	647.9	647.9	647.9	648.0	648.2	648.2	648.1	647.8	647.5	647.3	647.4	647.6	647.7	647.9	648.0	648.0	648.0	648.0	648.0		
MAX	659.5	658.8	658.5	658.4	658.2	658.0	657.7	658.5	659.1	659.8	660.4	660.6	660.0	660.0	660.0	660.0	660.2	660.5	660.6	660.4	660.4	660.3	660.3	660.0		



Number of Non-Zero Readings	744
Maximum 1-HR Average	661 MMHg
Maximum 24-HR Average	659 MMHg
Monthly Calibration	0
Standard Deviation	5.383
Operational Time	744 HRS
Operational Uptime	100.0 %
Monthly Average	647.9 MMHg

# Lagoon Relative Humidity (%) – January 2024

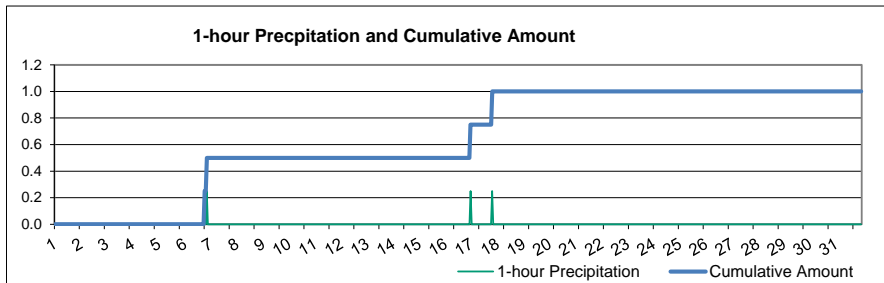
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	67.3	69.1	70.9	70.9	72.1	73.1	77.8	79.7	77.7	75.3	60.8	44.0	40.5	39.9	40.8	42.5	43.3	44.6	47.2	47.1	48.7	49.2	48.9	50.1	57.6	79.7
2	52.6	53.7	59.0	59.6	60.9	63.4	66.6	68.6	68.7	69.5	68.6	61.1	54.7	54.0	52.8	52.4	52.8	54.4	56.1	59.3	61.7	64.6	66.1	67.6	60.4	69.5
3	68.1	67.4	68.3	67.5	67.2	66.2	65.7	66.3	67.2	67.1	66.5	66.5	64.5	64.7	64.3	64.2	64.0	63.7	62.4	61.4	59.5	59.2	60.0	62.6	64.8	68.3
4	66.4	67.4	70.0	71.9	73.3	74.8	74.7	75.6	74.7	73.4	69.4	54.8	45.4	37.4	37.2	37.9	39.2	41.9	46.0	49.3	49.6	52.6	50.6	44.6	57.4	75.6
5	47.5	52.3	65.9	68.9	69.6	74.2	78.2	72.7	47.9	45.1	40.4	36.3	33.4	33.9	35.7	36.0	35.8	37.0	38.4	40.3	41.6	42.4	41.2	41.1	48.2	78.2
6	42.2	43.4	44.6	49.7	52.3	54.6	57.9	56.7	60.3	62.9	66.1	65.6	63.4	67.6	79.6	76.6	79.1	84.8	88.6	87.0	84.0	86.8	83.6	83.3	67.5	88.6
7	83.9	84.9	84.6	84.7	83.8	82.5	83.1	82.2	82.4	81.4	79.5	77.4	77.0	77.6	77.9	78.9	82.7	83.0	81.6	80.0	81.8	82.1	82.2	82.2	81.6	84.9
8	82.1	78.3	75.8	74.5	73.9	73.0	71.8	72.1	72.2	70.8	68.1	65.5	59.0	51.9	49.8	51.4	49.5	50.4	51.5	50.5	49.4	49.4	51.1	53.2	62.3	82.1
9	57.3	67.2	65.6	59.1	61.8	64.4	67.8	70.6	68.2	60.4	51.5	46.1	41.5	45.2	50.9	55.0	59.8	62.9	70.3	74.6	77.4	80.6	80.2	77.5	63.2	80.6
10	79.5	79.9	79.1	78.8	77.4	76.9	76.7	76.5	75.3	75.9	72.7	69.4	68.4	67.6	67.8	69.0	72.3	72.6	72.4	72.1	71.8	72.3	72.2	72.5	73.7	79.9
11	69.7	70.4	69.1	68.4	67.6	66.9	65.2	66.4	65.4	65.8	62.0	59.2	60.5	61.8	62.4	60.5	61.7	64.2	64.4	64.5	65.3	64.5	65.3	65.3	64.8	70.4
12	64.7	64.6	63.9	63.0	62.0	60.9	60.2	60.5	61.1	61.5	62.4	64.5	62.9	58.7	60.4	62.9	63.4	63.9	64.2	64.7	63.1	60.2	59.4	59.2	62.2	64.7
13	59.6	59.4	58.6	59.3	58.2	57.7	56.6	57.7	58.0	57.5	58.0	57.3	54.8	51.6	51.1	51.2	52.5	57.9	58.8	59.1	60.2	61.1	61.6	60.5	57.4	61.6
14	60.6	61.4	63.7	65.8	65.6	65.9	65.7	65.6	64.0	63.8	64.1	67.3	62.0	56.5	56.8	57.0	58.2	61.3	65.4	67.7	69.6	69.9	69.5	67.3	63.9	69.9
15	65.2	64.4	63.9	61.7	61.0	59.5	59.4	59.4	58.5	57.9	58.9	56.3	51.7	48.2	45.5	46.5	47.4	49.1	49.8	51.4	54.9	56.0	56.0	56.5	55.8	65.2
16	57.4	57.7	57.3	58.2	58.6	59.0	59.2	59.7	62.0	63.8	62.4	59.8	61.0	63.3	63.3	65.9	73.4	77.6	78.6	79.1	79.4	80.5	80.4	80.6	66.6	80.6
17	81.0	79.9	79.7	78.2	79.0	79.5	78.9	78.5	78.2	77.5	76.8	76.0	76.1	76.3	74.4	76.8	78.4	78.0	78.2	78.1	78.6	79.1	79.0	76.1	78.0	81.0
18	77.3	78.1	77.3	76.4	76.5	76.5	76.1	75.6	75.1	75.1	75.1	74.2	67.3	62.9	66.8	73.8	73.9	75.5	76.9	78.3	77.8	77.7	77.3	76.8	74.9	78.3
19	75.0	72.6	71.4	70.2	68.9	68.2	65.5	64.8	65.2	64.5	63.4	61.0	59.9	58.1	56.1	55.3	58.1	60.7	63.6	66.6	67.8	68.6	68.8	68.8	65.1	75.0
20	69.4	70.0	70.6	71.3	71.1	71.1	71.9	72.1	73.3	73.1	72.3	70.9	70.3	69.0	67.7	66.9	67.7	68.7	69.5	71.1	71.9	72.0	72.4	74.5	70.8	74.5
21	75.7	76.2	76.7	76.7	76.8	77.0	76.4	76.3	75.7	75.4	74.7	71.1	67.8	67.2	65.1	67.2	69.4	71.8	75.4	78.4	81.1	84.0	85.0	84.3	75.2	85.0
22	84.6	86.7	86.9	86.5	86.5	86.4	85.6	85.7	85.5	85.3	86.0	86.2	83.0	81.3	73.0	65.9	66.8	69.5	73.4	76.4	79.5	87.5	88.6	87.2	81.8	88.6
23	86.0	84.8	77.2	78.6	75.9	60.0	57.5	57.1	55.6	56.8	56.1	53.2	45.4	41.5	41.8	43.5	44.4	50.2	53.7	55.1	58.3	60.4	63.3	67.0	59.3	86.0
24	69.1	66.4	65.9	67.5	69.7	69.8	70.1	69.3	66.9	64.2	56.8	46.1	38.5	37.5	38.9	39.6	40.0	39.5	40.9	42.9	47.7	47.9	48.0	48.8	53.8	70.1
25	50.9	52.7	57.0	59.2	62.8	63.5	61.1	59.0	61.1	58.8	52.7	43.2	36.8	33.9	35.6	37.9	38.6	40.6	41.2	43.0	43.4	44.7	48.0	48.0	48.9	63.5
26	48.0	50.0	52.2	52.3	55.0	57.1	55.8	60.2	59.6	55.3	52.2	46.5	40.6	36.0	38.1	37.9	39.7	39.4	40.2	43.2	45.5	47.0	48.5	48.7	47.9	60.2
27	48.5	47.6	47.2	47.7	46.4	43.5	43.9	45.0	47.9	49.3	48.2	43.9	43.1	44.4	46.1	47.1	48.5	50.4	53.0	55.5	56.9	58.8	53.9	53.8	48.8	58.8
28	48.6	47.7	47.5	49.0	52.3	55.6	55.9	55.7	56.7	57.5	57.5	52.1	46.6	48.7	50.3	52.2	53.5	57.1	59.8	63.4	65.0	67.8	70.6	72.3	56.0	72.3
29	72.2	67.9	63.5	61.3	58.5	51.9	50.4	52.3	52.7	55.6	53.4	53.8	53.2	50.7	41.5	39.0	38.6	38.8	40.5	41.7	45.4	56.7	62.4	66.5	52.9	72.2
30	59.3	52.7	50.1	41.2	37.2	33.5	37.5	36.3	32.9	30.7	29.5	27.5	25.9	24.2	25.3	25.9	29.1	30.5	34.6	36.6	40.4	42.7	47.0	50.6	36.7	59.3
31	54.7	57.3	59.3	62.5	62.6	68.1	69.9	73.3	73.3	71.6	67.7	62.0	59.3	56.0	48.7	37.8	34.9	33.7	35.4	36.2	36.4	36.3	35.0	31.8	52.7	73.3
NO.	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	744	100.0%
MEAN	65.3	65.6	65.9	65.8	65.9	65.6	65.9	66.2	65.3	64.6	62.4	58.7	55.3	53.8	53.7	54.0	55.3	57.2	59.1	60.5	61.7	63.3	63.7	63.8		
MAX	86.0	86.7	86.9	86.5	86.5	86.4	85.6	85.7	85.5	85.3	86.0	86.2	83.0	81.3	79.6	77.9	79.1	84.8	88.6	87.0	84.0	87.5	88.6	87.2		



Number of Non-Zero Readings	744	Operational Time	744 HRS
Maximum 1-HR Average	88.6 %	Operational Uptime	100.0 %
Maximum 24-HR Average	81.8 %	Monthly Average	61.6 %
Monthly Calibration	0		
Standard Deviation	13.65		

# Lagoon Precipitation (mm) – January 2024

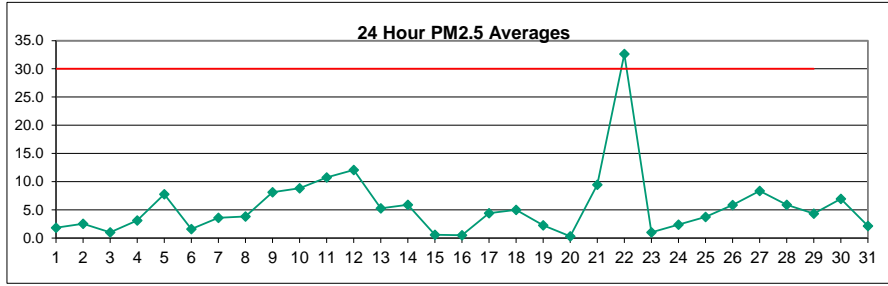
Day	HOUR																								DAILY MAX 24-HOUR TOTAL				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24					
1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.3	0.0	0.0	0.0	0.0	0.0		
7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.3		
17	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
18	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
22	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
23	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
24	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
26	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
27	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
28	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
29	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
31	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
<b>NO.</b>	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	744	100%
<b>MEAN</b>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>MAX</b>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.3



Number of Non-Zero Readings	4		
Maximum 1-HR Average	0.5 MM		
Maximum 24-HR Average	0.3 MM		
Monthly Calibration	0	Operational Time	744 HRS
Standard Deviation	0.018	Operational Uptime	100.0 %
		Monthly Average	0.00 MM

# Windridge PM<sub>2.5</sub> (µg/m<sup>3</sup>) – January 2024

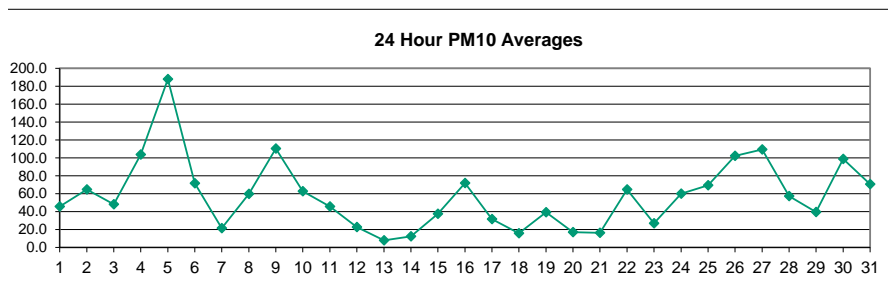
Day	HOUR																								MEAN	MAX	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	6.0	3.0	0.0	7.0	6.0	3.0	0.0	2.0	3.0	3.0	4.0	3.0	1.8	7.0	
2	11.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	12.0	7.0	8.0	5.0	2.0	4.0	2.0	0.0	0.0	0.0	0.0	2.5	12.0	
3	0.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	2.0	0.0	1.0	0.0	0.0	0.0	4.0	6.0	4.0	1.0	2.0	1.0	6.0	
4	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	7.0	13.0	13.0	7.0	5.0	7.0	5.0	5.0	4.0	3.0	0.0	0.0	3.1	13.0	
5	2.0	1.0	0.0	0.0	0.0	0.0	1.0	3.0	12.0	11.0	8.0	7.0	12.0	11.0	14.0	9.0	16.0	21.0	24.0	16.0	6.0	7.0	4.0	1.0	7.8	24.0	
6	2.0	2.0	7.0	6.0	5.0	3.0	4.0	3.0	0.0	0.0	0.0	1.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	1.0	2.0	1.0	0.0	0.0	1.6	7.0	
7	0.0	1.0	7.0	5.0	4.0	7.0	5.0	3.0	2.0	3.0	3.0	5.0	2.0	3.0	5.0	5.0	4.0	4.0	3.0	1.0	1.0	3.0	5.0	5.0	3.6	7.0	
8	4.0	3.0	5.0	0.0	0.0	2.0	2.0	0.0	0.0	1.0	2.0	2.0	1.0	5.0	7.0	6.0	6.0	8.0	8.0	8.0	6.0	5.0	6.0	5.0	3.8	8.0	
9	8.0	6.0	4.0	4.0	0.0	0.0	6.0	8.0	13.0	9.0	5.0	5.0	7.0	7.0	6.0	3.0	3.0	3.0	23.0	19.0	10.0	17.0	16.0	13.0	8.1	23.0	
10	12.0	11.0	13.0	10.0	7.0	10.0	8.0	7.0	5.0	10.0	7.0	8.0	9.0	8.0	10.0	8.0	7.0	9.0	13.0	11.0	8.0	8.0	5.0	8.0	8.8	13.0	
11	6.0	9.0	8.0	10.0	13.0	8.0	9.0	11.0	11.0	10.0	21.0	14.0	14.0	14.0	11.0	7.0	19.0	8.0	9.0	7.0	9.0	5.0	14.0	11.0	10.8	21.0	
12	10.0	9.0	11.0	13.0	12.0	10.0	12.0	11.0	10.0	12.0	19.0	26.0	15.0	21.0	17.0	11.0	12.0	11.0	10.0	9.0	10.0	6.0	8.0	5.0	12.1	26.0	
13	2.0	3.0	3.0	2.0	3.0	3.0	2.0	5.0	6.0	4.0	3.0	5.0	6.0	8.0	6.0	6.0	2.0	0.0	0.0	17.0	14.0	12.0	7.0	7.0	5.3	17.0	
14	11.0	9.0	8.0	5.0	3.0	1.0	0.0	4.0	9.0	10.0	17.0	4.0	7.0	7.0	6.0	11.0	6.0	1.0	9.0	7.0	3.0	0.0	2.0	1.0	5.9	17.0	
15	0.0	3.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	1.0	2.0	2.0	0.0	0.0	1.0	0.6	4.0	
16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0	1.0	0.0	1.0	2.0	0.0	0.0	1.0	2.0	1.0	1.0	1.0	0.5	2.0	
17	1.0	3.0	3.0	2.0	4.0	3.0	5.0	6.0	4.0	1.0	3.0	5.0	2.0	8.0	6.0	9.0	6.0	4.0	3.0	3.0	6.0	8.0	4.0	7.0	4.4	9.0	
18	9.0	6.0	7.0	7.0	5.0	8.0	5.0	7.0	8.0	9.0	7.0	5.0	6.0	3.0	7.0	6.0	2.0	0.0	1.0	3.0	3.0	4.0	2.0	0.0	5.0	9.0	
19	0.0	1.0	2.0	2.0	2.0	1.0	0.0	0.0	0.0	2.0	2.0	1.0	5.0	4.0	6.0	9.0	6.0	5.0	4.0	0.0	1.0	1.0	0.0	0.0	2.3	9.0	
20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	4.0	
21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	33.0	28.0	29.0	28.0	22.0	24.0	15.0	18.0	16.0	14.0	9.5	33.0
22	20.0	25.0	36.0	43.0	38.0	36.0	32.0	33.0	35.0	42.0	42.0	35.0	29.0	31.0	23.0	37.0	44.0	50.0	52.0	58.0	26.0	3.0	5.0	8.0	32.6	58.0	
23	6.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	1.0	1.0	0.0	0.0	1.0	5.0	3.0	3.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	6.0	
24	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	6.0	4.0	3.0	5.0	9.0	7.0	7.0	4.0	5.0	2.0	0.0	1.0	2.4	9.0
25	3.0	3.0	1.0	0.0	0.0	0.0	0.0	5.0	3.0	4.0	4.0	3.0	7.0	6.0	18.0	13.0	7.0	3.0	5.0	4.0	1.0	0.0	0.0	0.0	3.8	18.0	
26	1.0	9.0	10.0	18.0	10.0	6.0	2.0	0.0	0.0	0.0	2.0	9.0	6.0	5.0	6.0	4.0	2.0	5.0	3.0	14.0	8.0	6.0	7.0	7.0	5.8	18.0	
27	16.0	4.0	9.0	14.0	10.0	7.0	5.0	4.0	5.0	13.0	16.0	17.0	10.0	7.0	8.0	5.0	2.0	0.0	5.0	6.0	5.0	9.0	14.0	9.0	8.3	17.0	
28	10.0	15.0	9.0	9.0	6.0	1.0	2.0	5.0	3.0	7.0	11.0	9.0	8.0	9.0	5.0	2.0	6.0	4.0	8.0	8.0	4.0	0.0	0.0	0.0	5.9	15.0	
29	0.0	0.0	5.0	6.0	5.0	3.0	11.0	7.0	6.0	5.0	17.0	9.0	4.0	3.0	C	C	2.0	8.0	4.0	0.0	0.0	0.0	0.0	0.0	4.3	17.0	
30	0.0	0.0	0.0	0.0	25.0	53.0	18.0	2.0	5.0	6.0	7.0	4.0	0.0	2.0	10.0	9.0	5.0	0.0	2.0	19.0	0.0	0.0	0.0	0.0	7.0	53.0	
31	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0	6.0	6.0	9.0	7.0	5.0	4.0	3.0	9.0	2.1	9.0	
NO.	31	31	31	31	31	31	31	31	31	31	31	31	31	31	30	30	31	31	31	31	31	31	31	31	742	100.0%	
MEAN	4.4	4.2	4.9	5.1	4.9	5.2	4.2	4.0	4.5	5.2	6.3	6.0	5.9	6.6	7.7	7.4	7.2	6.5	7.5	8.5	5.3	4.2	4.0	3.8	7.5		
MAX	20.0	25.0	36.0	43.0	38.0	53.0	32.0	33.0	35.0	42.0	42.0	35.0	29.0	31.0	33.0	37.0	44.0	50.0	52.0	58.0	26.0	18.0	16.0	14.0	17.4	70.0	



Number of 24HR Exceedences	1	Proposed Guideline
Number of Non-Zero Readings	516	
Maximum 1-HR Average	58.0 UG/M3	
Maximum 24-HR Average	32.6 UG/M3	
Monthly Calibration	2	Operational Time
Standard Deviation	7.8	Operational Uptime
		Monthly Average
		744 HRS
		100.0 %
		5.5 UG/M3

# Windridge PM<sub>10</sub> (µg/m<sup>3</sup>) – January 2024

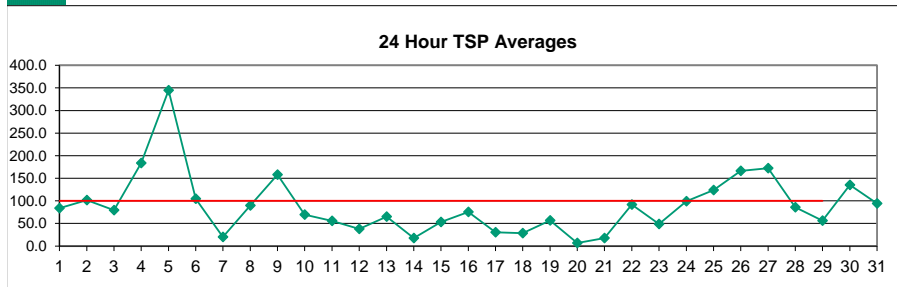
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	0.0	1.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	47.0	127.0	86.0	99.0	121.0	85.0	86.0	14.0	17.0	60.0	144.0	53.0	69.0	83.0	45.6	144.0
2	159.0	28.0	8.0	4.0	11.0	8.0	10.0	11.0	35.0	31.0	19.0	42.0	169.0	208.0	145.0	215.0	178.0	78.0	94.0	22.0	13.0	12.0	31.0	20.0	64.6	215.0
3	14.0	15.0	9.0	6.0	4.0	12.0	19.0	13.0	47.0	34.0	17.0	17.0	20.0	58.0	46.0	19.0	26.0	6.0	91.0	163.0	167.0	77.0	174.0	101.0	48.1	174.0
4	18.0	8.0	5.0	2.0	5.0	2.0	6.0	4.0	3.0	5.0	38.0	204.0	158.0	432.0	301.0	187.0	276.0	269.0	185.0	110.0	78.0	21.0	37.0	133.0	103.6	432.0
5	156.0	18.0	7.0	5.0	3.0	1.0	9.0	64.0	195.0	129.0	162.0	261.0	161.0	249.0	315.0	267.0	473.0	485.0	485.0	485.0	165.0	124.0	158.0	137.0	188.1	485.0
6	129.0	259.0	247.0	115.0	75.0	56.0	57.0	53.0	1.0	2.0	103.0	35.0	23.0	15.0	24.0	34.0	52.0	26.0	23.0	129.0	65.0	34.0	68.0	94.0	71.6	259.0
7	56.0	20.0	33.0	24.0	28.0	44.0	33.0	37.0	22.0	19.0	23.0	20.0	26.0	17.0	20.0	9.0	6.0	6.0	6.0	4.0	4.0	8.0	22.0	28.0	21.5	56.0
8	17.0	22.0	23.0	21.0	15.0	23.0	10.0	17.0	18.0	13.0	25.0	84.0	61.0	80.0	118.0	82.0	76.0	112.0	94.0	96.0	108.0	121.0	110.0	89.0	59.8	121.0
9	138.0	220.0	178.0	66.0	28.0	59.0	96.0	122.0	214.0	157.0	175.0	132.0	144.0	99.0	87.0	57.0	68.0	11.0	68.0	144.0	80.0	122.0	111.0	74.0	110.4	220.0
10	113.0	85.0	82.0	68.0	74.0	42.0	39.0	63.0	34.0	99.0	57.0	57.0	75.0	58.0	97.0	82.0	79.0	68.0	61.0	28.0	20.0	40.0	30.0	54.0	62.7	113.0
11	32.0	63.0	49.0	57.0	88.0	22.0	62.0	91.0	34.0	14.0	29.0	28.0	37.0	71.0	54.0	32.0	47.0	64.0	47.0	49.0	48.0	15.0	28.0	31.0	45.5	91.0
12	38.0	46.0	34.0	16.0	5.0	4.0	9.0	9.0	8.0	15.0	40.0	60.0	53.0	56.0	16.0	13.0	11.0	8.0	16.0	22.0	27.0	22.0	7.0	6.0	22.5	60.0
13	10.0	60.0	2.0	6.0	5.0	5.0	4.0	2.0	3.0	3.0	5.0	6.0	5.0	5.0	12.0	15.0	9.0	6.0	5.0	4.0	4.0	5.0	5.0	3.0	7.9	60.0
14	3.0	3.0	5.0	3.0	5.0	4.0	6.0	5.0	21.0	14.0	22.0	34.0	18.0	22.0	16.0	17.0	13.0	9.0	16.0	20.0	7.0	11.0	10.0	11.0	12.3	34.0
15	10.0	6.0	5.0	12.0	15.0	13.0	21.0	11.0	22.0	38.0	14.0	26.0	33.0	43.0	52.0	39.0	91.0	76.0	89.0	74.0	42.0	50.0	60.0	58.0	37.5	91.0
16	36.0	50.0	144.0	35.0	45.0	72.0	17.0	19.0	31.0	39.0	143.0	196.0	119.0	68.0	36.0	180.0	128.0	90.0	78.0	64.0	51.0	42.0	26.0	14.0	71.8	196.0
17	28.0	34.0	26.0	11.0	22.0	26.0	24.0	19.0	23.0	27.0	20.0	27.0	31.0	40.0	49.0	58.0	40.0	43.0	55.0	42.0	48.0	29.0	20.0	17.0	31.6	58.0
18	21.0	9.0	12.0	23.0	11.0	7.0	6.0	16.0	23.0	29.0	16.0	19.0	36.0	22.0	18.0	19.0	7.0	6.0	4.0	14.0	18.0	11.0	9.0	20.0	15.7	36.0
19	2.0	9.0	13.0	33.0	25.0	14.0	20.0	25.0	33.0	31.0	34.0	57.0	56.0	45.0	49.0	27.0	43.0	53.0	29.0	47.0	97.0	31.0	117.0	52.0	39.3	117.0
20	29.0	19.0	6.0	21.0	48.0	30.0	4.0	1.0	18.0	13.0	13.0	20.0	37.0	39.0	31.0	33.0	10.0	5.0	14.0	8.0	1.0	0.0	2.0	2.0	16.8	48.0
21	1.0	29.0	3.0	5.0	3.0	2.0	1.0	0.0	0.0	2.0	3.0	6.0	35.0	2.0	38.0	37.0	31.0	29.0	32.0	29.0	27.0	20.0	26.0	27.0	16.2	38.0
22	26.0	30.0	43.0	43.0	48.0	44.0	40.0	45.0	47.0	90.0	89.0	95.0	53.0	55.0	67.0	94.0	95.0	124.0	144.0	123.0	51.0	7.0	5.0	94.0	64.7	144.0
23	18.0	2.0	4.0	1.0	0.0	8.0	11.0	39.0	69.0	21.0	44.0	40.0	96.0	75.0	69.0	76.0	51.0	15.0	0.0	1.0	1.0	1.0	3.0	1.0	26.9	96.0
24	1.0	16.0	15.0	6.0	2.0	3.0	1.0	0.0	4.0	26.0	47.0	147.0	120.0	77.0	71.0	116.0	149.0	88.0	97.0	68.0	108.0	65.0	100.0	111.0	59.9	149.0
25	122.0	53.0	12.0	16.0	7.0	34.0	46.0	84.0	79.0	70.0	94.0	90.0	122.0	130.0	132.0	87.0	56.0	43.0	66.0	67.0	56.0	51.0	88.0	62.0	69.5	132.0
26	89.0	144.0	129.0	149.0	30.0	58.0	93.0	50.0	39.0	82.0	116.0	143.0	125.0	302.0	111.0	74.0	83.0	81.0	70.0	62.0	116.0	93.0	117.0	100.0	102.3	302.0
27	97.0	94.0	165.0	131.0	202.0	126.0	81.0	78.0	105.0	122.0	104.0	249.0	83.0	71.0	122.0	77.0	92.0	54.0	95.0	100.0	104.0	62.0	106.0	108.0	109.5	249.0
28	79.0	109.0	99.0	131.0	102.0	20.0	62.0	102.0	48.0	77.0	85.0	153.0	75.0	30.0	22.0	42.0	58.0	23.0	15.0	9.0	18.0	8.0	4.0	1.0	57.2	153.0
29	4.0	24.0	35.0	31.0	30.0	36.0	53.0	59.0	92.0	63.0	87.0	84.0	11.0	17.0	C	C	104.0	56.0	32.0	24.0	3.0	15.0	7.0	3.0	39.5	104.0
30	2.0	0.0	0.0	41.0	66.0	365.0	405.0	93.0	97.0	78.0	156.0	108.0	83.0	111.0	206.0	170.0	65.0	100.0	76.0	126.0	11.0	4.0	2.0	7.0	98.8	405.0
31	3.0	0.0	0.0	0.0	0.0	4.0	11.0	13.0	9.0	10.0	13.0	7.0	11.0	59.0	82.0	87.0	270.0	196.0	294.0	80.0	310.0	61.0	55.0	117.0	70.5	310.0
NO.	31	31	31	31	31	31	31	31	31	31	31	31	31	31	30	30	31	31	31	31	31	31	31	31	742	100.0%
MEAN	46.8	47.6	45.0	34.9	32.3	36.9	40.5	36.9	44.3	43.6	59.4	83.0	69.7	85.6	84.2	77.7	89.5	72.4	77.4	73.4	64.3	39.2	51.8	53.5	42.0	38.0
MAX	159.0	259.0	247.0	149.0	202.0	365.0	405.0	122.0	214.0	157.0	175.0	261.0	169.0	432.0	315.0	267.0	473.0	485.0	485.0	485.0	310.0	124.0	174.0	137.0	91.1	433.3



Number of Non-Zero Readings	722	Operational Time	744 HRS
Maximum 1-HR Average	485.0 UG/M3	Operational Uptime	100.0 %
Maximum 24-HR Average	188.1 UG/M3	Monthly Average	57.9 UG/M3
Monthly Calibration	2		
Standard Deviation	67.74		

# Windridge TSP ( $\mu\text{g}/\text{m}^3$ ) – January 2024

Day	HOUR																								MEAN	MAX	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1	4.0	4.0	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	71.0	199.0	158.0	189.0	224.0	154.0	156.0	26.0	28.0	120.0	266.0	115.0	137.0	158.0	83.8	266.0	
2	218.0	44.0	3.0	3.0	15.0	17.0	22.0	27.0	65.0	63.0	13.0	76.0	286.0	353.0	262.0	350.0	283.0	122.0	133.0	26.0	17.0	11.0	20.0	9.0	101.6	353.0	
3	11.0	16.0	8.0	11.0	9.0	19.0	31.0	21.0	75.0	56.0	26.0	28.0	32.0	92.0	78.0	31.0	37.0	27.0	155.0	286.0	303.0	136.0	262.0	158.0	79.5	303.0	
4	20.0	19.0	11.0	6.0	3.0	0.0	0.0	2.0	3.0	8.0	69.0	346.0	304.0	873.0	588.0	318.0	471.0	381.0	329.0	183.0	130.0	27.0	72.0	251.0	183.9	873.0	
5	210.0	28.0	8.0	7.0	3.0	1.0	18.0	143.0	384.0	234.0	304.0	470.0	278.0	510.0	636.0	535.0	885.0	985.0	985.0	692.0	262.0	230.0	239.0	225.0	344.7	985.0	
6	174.0	274.0	364.0	182.0	124.0	83.0	84.0	90.0	3.0	16.0	190.0	60.0	62.0	38.0	23.0	44.0	62.0	16.0	10.0	250.0	145.0	26.0	97.0	95.0	104.7	364.0	
7	98.0	34.0	29.0	14.0	15.0	37.0	24.0	28.0	11.0	13.0	13.0	18.0	14.0	14.0	13.0	7.0	3.0	10.0	8.0	5.0	3.0	13.0	22.0	39.0	20.2	98.0	
8	17.0	39.0	41.0	52.0	28.0	28.0	16.0	21.0	28.0	14.0	35.0	135.0	89.0	125.0	195.0	120.0	119.0	170.0	118.0	133.0	147.0	181.0	172.0	127.0	89.6	195.0	
9	190.0	281.0	216.0	88.0	43.0	84.0	139.0	172.0	372.0	236.0	264.0	225.0	274.0	178.0	135.0	96.0	102.0	24.0	99.0	172.0	101.0	123.0	100.0	79.0	158.0	372.0	
10	140.0	91.0	72.0	65.0	71.0	32.0	30.0	53.0	35.0	97.0	73.0	70.0	100.0	66.0	119.0	101.0	73.0	104.0	82.0	36.0	25.0	42.0	35.0	56.0	69.5	140.0	
11	34.0	65.0	50.0	69.0	153.0	32.0	87.0	115.0	60.0	15.0	34.0	38.0	51.0	93.0	71.0	41.0	52.0	68.0	45.0	40.0	32.0	14.0	42.0	38.0	55.8	153.0	
12	47.0	67.0	68.0	27.0	7.0	9.0	6.0	8.0	7.0	23.0	60.0	146.0	82.0	121.0	12.0	18.0	12.0	6.0	17.0	14.0	38.0	55.0	27.0	30.0	37.8	146.0	
13	50.0	206.0	80.0	136.0	107.0	161.0	111.0	128.0	119.0	115.0	79.0	75.0	39.0	55.0	33.0	17.0	9.0	6.0	2.0	5.0	9.0	10.0	7.0	6.0	65.2	206.0	
14	7.0	5.0	6.0	7.0	9.0	4.0	19.0	2.0	44.0	38.0	31.0	28.0	21.0	16.0	21.0	24.0	9.0	13.0	22.0	47.0	9.0	19.0	14.0	12.0	17.8	47.0	
15	14.0	10.0	15.0	28.0	50.0	30.0	49.0	32.0	44.0	63.0	34.0	52.0	38.0	73.0	79.0	44.0	113.0	118.0	93.0	96.0	37.0	46.0	68.0	52.0	53.3	118.0	
16	39.0	52.0	109.0	24.0	18.0	11.0	8.0	6.0	12.0	41.0	186.0	259.0	111.0	74.0	52.0	271.0	160.0	57.0	74.0	113.0	46.0	35.0	37.0	13.0	75.3	271.0	
17	33.0	48.0	29.0	12.0	20.0	20.0	17.0	15.0	18.0	25.0	22.0	40.0	45.0	55.0	52.0	44.0	33.0	38.0	26.0	24.0	57.0	20.0	21.0	15.0	30.4	57.0	
18	34.0	10.0	14.0	36.0	2.0	9.0	9.0	48.0	46.0	56.0	19.0	52.0	69.0	35.0	28.0	40.0	9.0	6.0	17.0	38.0	35.0	17.0	22.0	31.0	28.4	69.0	
19	20.0	22.0	36.0	51.0	55.0	30.0	46.0	46.0	54.0	41.0	38.0	58.0	59.0	59.0	83.0	41.0	85.0	69.0	40.0	51.0	125.0	43.0	148.0	65.0	56.9	148.0	
20	31.0	5.0	4.0	0.0	16.0	12.0	6.0	1.0	2.0	4.0	8.0	5.0	9.0	10.0	9.0	12.0	8.0	1.0	14.0	8.0	1.0	0.0	1.0	0.0	7.0	31.0	
21	6.0	43.0	7.0	7.0	3.0	0.0	0.0	0.0	1.0	5.0	5.0	7.0	60.0	3.0	33.0	30.0	31.0	37.0	26.0	24.0	31.0	24.0	18.0	27.0	17.8	60.0	
22	29.0	31.0	43.0	48.0	57.0	42.0	47.0	48.0	49.0	124.0	135.0	154.0	69.0	77.0	113.0	155.0	152.0	199.0	249.0	180.0	75.0	7.0	4.0	109.0	91.5	249.0	
23	15.0	11.0	5.0	0.0	0.0	27.0	27.0	82.0	132.0	43.0	74.0	77.0	156.0	135.0	120.0	130.0	90.0	26.0	3.0	6.0	3.0	0.0	1.0	6.0	48.7	156.0	
24	3.0	25.0	20.0	1.0	6.0	7.0	2.0	0.0	17.0	54.0	81.0	239.0	189.0	117.0	109.0	192.0	249.0	146.0	163.0	122.0	164.0	104.0	175.0	191.0	99.0	108.0	
25	192.0	84.0	25.0	34.0	20.0	52.0	89.0	164.0	150.0	140.0	196.0	166.0	195.0	187.0	188.0	138.0	99.0	95.0	137.0	153.0	114.0	90.0	160.0	108.0	124.0	196.0	
26	164.0	263.0	218.0	246.0	47.0	90.0	179.0	90.0	68.0	141.0	179.0	205.0	208.0	312.0	197.0	134.0	143.0	133.0	129.0	127.0	182.0	171.0	194.0	172.0	166.3	312.0	
27	175.0	162.0	328.0	229.0	339.0	230.0	137.0	163.0	179.0	225.0	158.0	219.0	104.0	113.0	186.0	104.0	146.0	72.0	156.0	157.0	139.0	90.0	176.0	152.0	172.5	339.0	
28	109.0	177.0	160.0	196.0	146.0	34.0	99.0	147.0	71.0	112.0	127.0	260.0	120.0	57.0	31.0	56.0	67.0	31.0	19.0	15.0	15.0	8.0	3.0	0.0	85.8	260.0	
29	0.0	25.0	47.0	39.0	47.0	48.0	91.0	93.0	151.0	69.0	129.0	119.0	21.0	22.0	C	C	144.0	87.0	51.0	25.0	8.0	12.0	6.0	5.0	56.3	151.0	
30	2.0	3.0	2.0	57.0	85.0	392.0	434.0	121.0	153.0	132.0	244.0	168.0	138.0	185.0	280.0	227.0	116.0	161.0	119.0	182.0	30.0	0.0	3.0	7.0	135.0	434.0	
31	8.0	5.0	1.0	0.0	1.0	7.0	24.0	14.0	13.0	9.0	22.0	8.0	24.0	91.0	123.0	149.0	399.0	307.0	422.0	138.0	170.0	89.0	77.0	164.0	94.4	422.0	
NO.	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	30	30	31	31	31	31	31	31	31	31	742	100.0%
MEAN	67.5	69.3	65.2	54.1	48.4	49.9	59.7	60.6	76.3	71.4	94.2	129.1	109.8	139.6	136.4	120.8	139.3	114.2	121.6	111.9	87.7	56.7	76.1	77.4			
MAX	218.0	281.0	364.0	246.0	339.0	392.0	434.0	172.0	384.0	236.0	304.0	470.0	304.0	873.0	636.0	535.0	885.0	985.0	985.0	692.0	303.0	230.0	262.0	251.0			

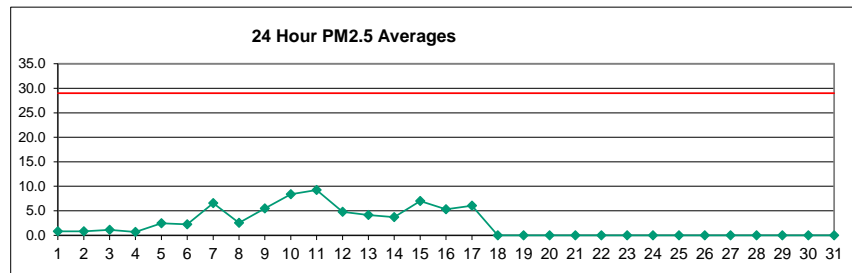


Number of 24HR Exceedences	9	Proposed Guideline
Number of Non-Zero Readings	721	
Maximum 1-HR Average	985.0 UG/M3	
Maximum 24-HR Average	344.7 UG/M3	
IZS Calibration Time		Operational Time 744 HRS
Down Time	0	Operational Uptime 100.0 %
Standard Deviation	113.6	Monthly Average 88.9 UG/M3



# West PM<sub>2.5</sub> (µg/m<sup>3</sup>) – January 2024

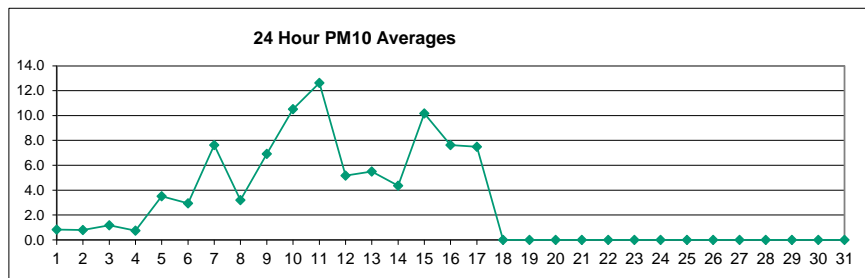
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	0.9	1.0	1.0	0.8	1.0	0.5	0.6	0.7	0.6	0.6	1.4	1.6	1.0	0.9	0.9	0.9	0.9	0.7	0.6	0.6	0.5	0.5	0.4	0.4	0.8	1.6
2	0.5	0.5	0.5	0.5	0.5	0.7	0.9	0.9	1.2	1.2	1.1	0.9	0.7	0.8	0.9	0.7	0.6	0.6	0.7	0.9	0.9	0.9	0.8	0.8	0.8	1.2
3	0.9	0.8	1.4	0.7	1.0	1.3	0.8	1.3	1.6	1.3	1.6	2.2	1.2	1.2	1.0	1.1	1.0	0.9	0.9	0.8	1.1	0.8	0.6	0.7	2.2	
4	0.7	0.5	0.5	0.5	0.5	0.5	0.6	0.7	0.7	0.8	0.8	0.7	1.5	1.2	0.5	0.9	0.7	0.8	0.6	0.7	0.5	0.5	0.6	0.5	1.5	
5	0.7	0.3	6.9	6.0	4.3	2.6	5.7	4.8	1.8	1.8	2.8	2.5	1.5	1.6	1.0	0.9	1.8	3.1	4.3	2.1	0.6	0.6	0.8	0.7	6.9	
6	0.7	2.3	2.2	0.8	0.3	0.3	0.5	0.3	0.8	0.5	0.5	0.9	1.4	2.7	2.6	1.2	1.5	0.6	3.0	4.7	4.4	7.2	6.2	7.7	7.7	
7	6.6	7.5	8.6	9.8	9.7	8.5	6.9	6.6	6.0	5.3	6.7	7.3	6.8	5.7	6.9	7.3	5.5	7.0	7.1	6.9	4.8	3.4	3.4	3.6	9.8	
8	2.8	2.2	2.1	2.0	1.6	1.6	2.2	2.6	2.8	4.8	4.1	5.2	3.4	1.3	2.2	2.2	3.2	3.5	1.7	2.2	2.1	1.7	1.5	1.7	5.2	
9	1.4	2.8	1.4	1.0	0.9	1.3	1.3	3.4	1.7	2.4	4.5	3.6	4.7	1.9	1.5	0.9	0.6	1.5	20.1	17.5	12.0	14.6	15.6	14.6	20.1	
10	12.3	12.3	12.6	10.0	8.8	8.3	8.7	8.4	8.0	7.9	9.8	7.8	8.0	7.2	8.0	7.1	7.4	7.0	6.8	6.0	5.8	5.5	6.3	10.7	12.6	
11	7.7	8.2	10.1	9.0	11.2	8.0	8.5	7.0	7.6	9.7	10.0	8.9	9.5	12.0	12.4	9.6	8.2	10.8	11.5	8.2	7.4	9.5	9.2	7.6	12.4	
12	4.7	3.3	2.4	2.8	6.1	3.2	2.7	3.1	2.5	5.8	8.7	4.0	3.8	5.2	6.3	6.7	7.5	6.3	5.8	5.2	5.3	4.4	4.6	4.2	8.7	
13	3.6	6.3	3.9	6.7	4.5	2.7	7.2	6.6	6.7	5.9	4.6	11.1	4.6	3.6	2.1	1.5	1.9	2.3	2.4	2.3	2.6	1.9	2.1	2.2	11.1	
14	1.4	1.3	1.2	1.9	1.3	1.5	1.0	1.3	13.2	8.1	5.8	6.4	4.9	3.4	3.5	2.7	3.4	3.8	6.1	5.7	3.5	2.5	2.9	2.3	13.2	
15	1.6	1.4	1.2	1.4	1.2	2.0	1.6	2.3	3.4	4.3	2.8	2.2	5.3	5.5	8.2	5.3	14.2	16.1	17.6	18.3	13.9	17.3	9.7	10.9	18.3	
16	15.4	16.5	14.9	22.5	16.1	7.0	1.3	3.9	2.3	1.4	1.0	2.5	3.3	2.3	1.6	3.6	3.1	1.8	1.5	1.1	1.5	1.0	0.8	0.8	22.5	
17	3.4	5.0	4.2	4.1	5.7	6.7	7.6	7.4	5.5	5.6	5.1	5.4	6.4	6.2	7.5	7.1	6.0	5.7	6.6	7.1	6.4	6.5	7.3	6.6	7.6	
18	7.3	6.8	8.2	8.7	6.9	4.8	3.9	4.9	4.5	4.1	3.9	G	G	G	G	G	G	G	G	G	G	G	G	G	-	
19	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	
20	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	
21	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	
22	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	
23	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	
24	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	
25	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	
26	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	
27	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	
28	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	
29	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	
30	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	
31	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	
NO.	18	18	18	18	18	18	18	18	18	18	17	17	17	17	17	17	17	17	17	17	17	17	17	17	419	
MEAN	4.0	4.4	4.6	5.0	4.5	3.4	3.4	3.7	3.9	4.0	4.2	4.3	4.0	3.7	3.9	3.5	4.0	4.3	5.7	5.3	4.3	4.6	4.3	4.5	56%	
MAX	15.4	16.5	14.9	22.5	16.1	8.5	8.7	8.4	13.2	9.7	10.0	11.1	9.5	12.0	12.4	9.6	14.2	16.1	20.1	18.3	13.9	17.3	15.6	14.6		



Number of 24HR Exceedences	0	Proposed Guideline
Number of Non-Zero Readings	419	
Maximum 1-HR Average	22.5 UG/M3	
Maximum 24-HR Average	9.2 UG/M3	
IZS Calibration Time		Operational Time
Down Time	0	Operational Uptime
Standard Deviation	3.932	Monthly Average
		419 HRS
		56.3 %
		4.2 UG/M3

# West PM<sub>10</sub> (µg/m<sup>3</sup>) – January 2024

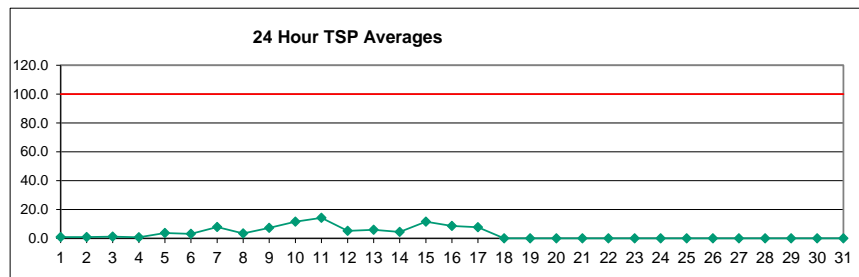
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	0.9	1.0	1.0	0.8	1.0	0.5	0.6	0.7	0.6	0.6	1.8	2.0	1.1	0.9	0.9	0.9	0.9	0.7	0.6	0.6	0.5	0.5	0.4	0.4	0.8	2.0
2	0.5	0.5	0.5	0.5	0.5	0.7	0.9	0.9	1.2	1.2	1.1	0.9	0.7	0.8	0.9	0.7	0.6	0.6	0.7	0.9	0.9	0.9	0.8	0.8	0.8	1.2
3	0.9	0.8	1.5	0.7	1.0	1.6	0.8	1.4	1.9	1.4	1.8	3.0	1.2	1.2	1.0	1.1	1.0	0.9	0.9	0.8	1.1	0.8	0.6	0.7	1.2	3.0
4	0.7	0.5	0.5	0.5	0.5	0.5	0.6	0.7	0.7	0.8	0.8	0.7	1.9	1.7	0.5	1.1	0.9	0.9	0.6	0.7	0.5	0.5	0.6	0.5	0.7	1.9
5	0.7	0.3	10.2	9.0	6.3	3.3	8.5	6.9	2.3	2.4	4.1	3.6	2.1	2.3	1.3	1.1	2.7	4.6	6.3	3.1	0.6	0.7	1.0	0.7	3.5	10.2
6	0.8	3.3	3.2	0.8	0.3	0.3	0.5	0.3	0.8	0.5	0.5	0.9	1.6	3.7	3.6	1.6	1.7	0.6	3.4	6.6	5.8	10.1	8.8	11.1	2.9	11.1
7	8.9	9.2	10.9	12.2	11.8	10.6	8.8	8.8	6.4	5.3	8.1	9.2	8.6	5.7	7.2	8.8	5.5	7.2	7.1	7.7	4.8	3.4	3.4	3.6	7.6	12.2
8	2.8	2.2	2.1	2.0	1.6	1.6	2.2	2.7	3.4	7.0	6.0	7.6	5.0	1.3	2.9	2.8	4.6	5.1	2.1	3.0	2.8	2.1	1.7	2.2	3.2	7.6
9	1.6	4.0	1.7	1.2	0.9	1.7	1.8	4.9	2.3	3.6	6.8	5.4	7.0	2.6	2.0	1.0	0.6	1.8	22.2	22.3	15.2	18.3	19.5	17.7	6.9	22.3
10	14.3	15.4	15.8	12.4	10.9	10.3	11.0	10.4	9.9	9.7	12.0	10.2	10.1	9.2	11.1	10.0	10.3	9.7	9.4	7.4	6.7	6.4	7.4	12.8	10.5	15.8
11	10.2	10.2	12.8	11.5	13.9	10.4	11.9	9.5	10.0	13.8	13.8	11.8	12.9	17.0	18.0	13.0	10.9	15.7	16.8	12.2	10.9	14.0	12.3	9.7	12.6	18.0
12	5.5	3.3	2.4	2.8	6.1	3.2	2.7	3.1	2.5	5.8	8.7	4.0	3.8	5.2	8.3	8.7	9.2	8.3	6.5	5.2	5.3	4.4	4.6	4.4	5.2	9.2
13	3.6	9.1	5.1	9.8	6.5	3.7	10.0	9.3	9.7	8.7	6.7	16.6	6.7	5.1	2.4	1.5	1.9	2.3	2.4	2.3	2.6	1.9	2.1	2.2	5.5	16.6
14	1.4	1.3	1.2	1.9	1.3	1.5	1.0	1.3	17.2	10.4	7.6	8.9	5.5	3.4	3.6	2.7	3.4	3.8	8.3	7.5	3.5	2.5	2.9	2.3	4.4	17.2
15	1.6	1.4	1.2	1.4	1.2	2.1	1.7	3.2	4.8	6.2	4.0	2.9	7.8	8.2	12.3	7.9	21.2	24.1	26.3	27.3	20.7	25.9	14.4	16.3	10.2	27.3
16	22.9	24.5	22.3	33.6	24.0	10.4	1.5	5.8	3.3	1.7	1.0	3.6	4.8	3.3	2.2	5.3	4.1	2.1	1.5	1.1	1.5	1.0	0.8	0.8	7.6	33.6
17	3.6	5.5	4.2	4.1	6.8	9.5	11.0	10.0	6.6	7.1	5.7	6.1	8.1	7.4	9.4	8.8	7.4	7.5	9.0	9.8	8.5	8.2	8.8	6.6	7.5	11.0
18	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
19	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
20	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
21	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
22	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
23	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
24	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
25	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
26	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
27	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
28	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
29	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
30	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
31	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
NO.	18	18	18	18	18	18	18	18	18	18	17	17	17	17	17	17	17	17	17	17	17	17	17	17	419	56%
MEAN	4.9	5.5	5.9	6.4	5.6	4.3	4.4	4.7	4.9	5.0	5.2	5.7	5.2	4.6	5.1	4.5	5.1	5.7	7.3	7.0	5.4	6.0	5.3	5.5		
MAX	22.9	24.5	22.3	33.6	24.0	10.6	11.9	10.4	17.2	13.8	13.8	16.6	12.9	17.0	18.0	13.0	21.2	24.1	26.3	27.3	20.7	25.9	19.5	17.7		



Number of Non-Zero Readings	419	
Maximum 1-HR Average	33.6 UG/M3	
Maximum 24-HR Average	12.6 UG/M3	
IZS Calibration Time	OperatioEI Time	419 HRS
Down Time	OperatioEI Uptime	56.3 %
Standard Deviation	Monthly Average	5.4 UG/M3

# West TSP ( $\mu\text{g}/\text{m}^3$ ) – January 2024

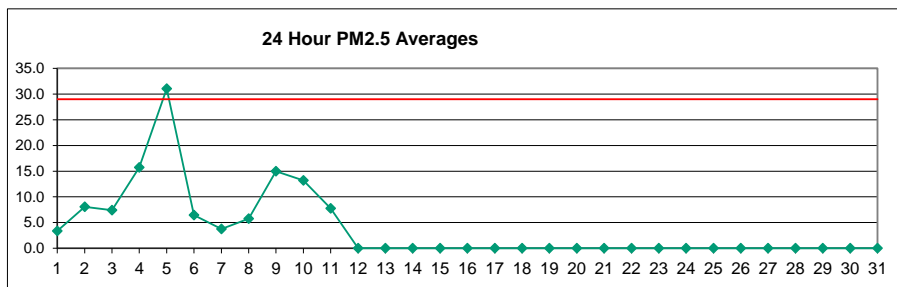
Day	HOUR																								MEAN	MAX	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1	0.9	1.0	1.0	0.8	1.0	0.5	0.6	0.7	0.6	0.6	1.8	2.0	1.1	0.9	0.9	0.9	0.7	0.6	0.6	0.5	0.5	0.4	0.4	0.8	2.0		
2	0.5	0.5	0.5	0.5	0.5	0.7	0.9	0.9	1.2	1.2	1.1	0.9	0.7	0.8	0.9	0.7	0.6	0.6	0.7	0.9	0.9	0.9	0.8	0.8	0.8	1.2	
3	0.9	0.8	1.5	0.7	1.0	1.6	0.8	1.4	1.9	1.4	1.8	3.0	1.2	1.2	1.0	1.1	1.0	0.9	0.9	0.8	1.1	0.8	0.6	0.7	3.0		
4	0.7	0.5	0.5	0.5	0.5	0.6	0.6	0.7	0.7	0.8	0.8	0.7	1.9	1.7	0.5	1.1	0.9	0.9	0.6	0.7	0.5	0.5	0.6	0.5	1.9		
5	0.7	0.3	11.3	9.7	6.5	3.3	9.3	7.1	2.3	2.4	4.4	3.8	2.1	2.3	1.3	1.1	2.8	5.0	7.1	3.2	0.6	0.7	1.0	0.7	11.3		
6	0.8	3.6	3.5	0.8	0.3	0.3	0.5	0.3	0.8	0.5	0.5	0.9	1.6	3.7	3.6	1.6	1.7	0.6	3.4	6.6	5.8	10.1	8.9	11.9	11.9		
7	9.5	10.1	11.5	12.2	11.8	10.6	9.1	9.1	6.4	5.3	8.1	9.7	8.6	5.7	7.2	8.8	5.5	7.2	7.1	7.7	4.8	3.4	3.4	3.6	12.2		
8	2.8	2.2	2.1	2.0	1.6	1.6	2.2	2.7	3.4	7.9	6.5	8.2	5.4	1.3	2.9	2.8	4.9	5.3	2.1	3.0	2.8	2.1	1.7	2.2	8.2		
9	1.6	4.3	1.7	1.2	0.9	1.7	1.8	5.0	2.3	3.7	7.6	5.9	7.9	2.6	2.0	1.0	0.6	1.8	22.2	22.3	16.3	20.2	22.0	17.7	22.3		
10	14.3	16.3	17.7	13.6	11.6	10.4	12.1	12.0	10.9	11.2	14.0	11.7	11.7	10.7	12.7	11.2	11.4	10.6	9.7	7.4	6.7	6.4	7.4	12.8	17.7		
11	10.7	10.9	13.0	12.8	14.8	11.4	13.6	10.1	10.5	16.0	15.9	13.4	15.0	19.8	20.9	14.8	12.3	18.1	19.5	14.1	12.5	16.2	14.3	11.1	20.9		
12	5.5	3.3	2.4	2.8	6.1	3.2	2.7	3.1	2.5	5.8	8.7	4.0	3.8	5.2	8.3	8.9	9.2	8.3	6.5	5.2	5.3	4.4	4.6	4.4	9.2		
13	3.6	9.9	5.1	11.1	6.8	3.7	10.6	10.4	10.9	9.8	7.4	19.2	7.2	5.4	2.4	1.5	1.9	2.3	2.4	2.3	2.6	1.9	2.1	2.2	19.2		
14	1.4	1.3	1.2	1.9	1.3	1.5	1.0	1.3	18.4	11.0	7.8	9.4	5.5	3.4	3.6	2.7	3.4	3.8	8.3	7.5	3.5	2.5	2.9	2.3	18.4		
15	1.6	1.4	1.2	1.4	1.2	2.1	1.7	3.2	5.1	6.7	4.0	2.9	8.7	9.4	14.0	9.0	24.6	28.0	30.6	31.7	24.0	30.0	16.6	18.8	31.7		
16	26.6	28.4	25.9	39.0	27.9	11.6	1.5	6.3	3.3	1.7	1.0	3.8	5.2	3.4	2.2	5.8	4.1	2.1	1.5	1.1	1.5	1.0	0.8	0.8	39.0		
17	3.6	5.5	4.2	4.1	6.8	9.7	12.0	11.3	6.6	7.1	5.7	6.1	8.1	7.4	9.4	9.7	7.4	7.5	9.4	11.0	8.5	8.2	8.8	6.6	12.0		
18	7.6	6.8	9.2	10.4	6.9	4.8	3.9	4.9	4.5	4.1	3.9	G	G	G	G	G	G	G	G	G	G	G	G	G	-		
19	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	
20	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	
21	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	
22	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	
23	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	
24	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	
25	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	
26	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	
27	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	
28	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	
29	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	
30	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	
31	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	
NO.	18	18	18	18	18	18	18	18	18	18	18	17	17	17	17	17	17	17	17	17	17	17	17	17	17	419	56%
MEAN	5.2	5.9	6.3	7.0	6.0	4.4	4.7	5.0	5.1	5.4	5.6	6.2	5.6	5.0	5.5	4.9	5.5	6.1	7.8	7.4	5.7	6.5	5.7	5.7			
MAX	26.6	28.4	25.9	39.0	27.9	11.6	13.6	12.0	18.4	16.0	15.9	19.2	15.0	19.8	20.9	14.8	24.6	28.0	30.6	31.7	24.0	30.0	22.0	18.8			



Number of 24HR Exceedences	0	Proposed Guideline	
Number of Non-Zero Readings	419		
Maximum 1-HR Average	39.0 UG/M3		
Maximum 24-HR Average	14.2 UG/M3		
IZS Calibration Time		Operational Time	419 HRS
Down Time	0	Operational Uptime	56.3 %
Standard Deviation	6.191	Monthly Average	5.8 UG/M3

# Berm PM<sub>2.5</sub> (µg/m<sup>3</sup>) – January 2024

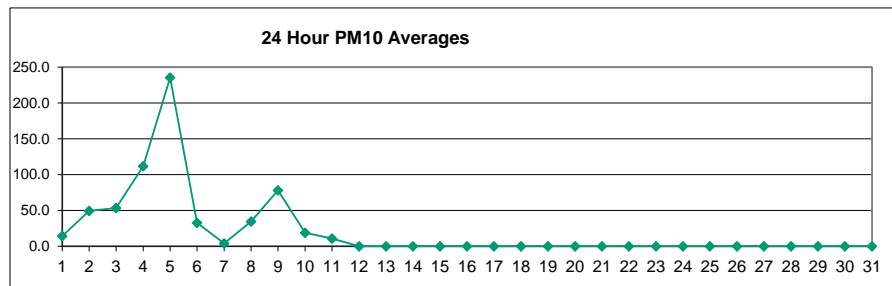
DAY	HOUR																								MEAN	MAX	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1	0.4	0.5	0.5	0.4	0.3	0.3	0.3	0.2	0.4	0.5	3.7	20.5	17.1	5.6	6.2	3.1	3.3	1.3	1.1	2.2	4.0	2.8	3.3	2.3	3.3	20.5	
2	2.2	1.1	1.3	0.7	1.2	3.3	2.7	3.8	5.0	4.2	2.0	6.0	17.7	26.6	44.2	20.3	17.4	5.7	7.1	8.0	7.1	3.4	1.3	1.4	8.1	44.2	
3	1.2	2.7	1.8	1.6	1.0	1.4	2.1	1.6	4.4	3.4	2.6	3.1	4.4	7.8	5.0	2.4	3.8	2.7	16.2	27.1	31.3	9.4	27.0	13.8	7.4	31.3	
4	2.0	1.3	0.9	0.6	0.4	0.7	0.5	0.7	1.8	1.4	11.6	30.5	30.3	77.8	45.6	26.2	36.2	30.1	27.1	16.9	10.5	1.9	4.4	17.9	15.7	77.8	
5	13.1	2.2	0.8	0.9	1.0	1.2	2.7	13.5	46.4	20.6	38.3	49.9	25.2	47.3	45.2	47.5	84.3	82.9	83.8	50.3	23.3	13.6	27.8	22.6	31.0	84.3	
6	8.6	21.4	22.8	10.1	3.3	3.1	4.1	3.6	0.4	1.4	11.9	3.7	4.5	4.1	6.9	7.7	13.3	5.6	3.9	8.7	1.2	1.0	1.4	2.2	6.5	22.8	
7	2.9	3.2	3.7	3.9	4.7	3.7	2.6	2.6	2.3	2.6	2.7	4.3	15.5	6.0	2.6	2.7	1.9	2.6	1.6	1.6	1.2	1.8	5.2	8.5	3.8	15.5	
8	4.8	5.6	5.9	4.9	3.2	2.7	1.6	4.0	2.2	1.5	2.2	7.1	7.6	7.0	8.3	8.0	5.6	6.6	4.8	7.4	10.2	9.1	8.4	10.0	5.8	10.2	
9	15.1	14.5	10.8	3.7	1.8	3.9	6.4	11.6	15.1	17.7	23.9	27.2	19.3	16.5	8.1	9.5	9.9	4.1	15.8	31.3	22.3	28.3	21.8	21.3	15.0	31.3	
10	30.3	22.3	21.7	18.0	20.3	13.2	14.6	14.9	9.1	19.1	11.7	13.8	10.3	6.4	15.9	9.6	11.3	12.3	9.4	4.7	5.1	8.0	6.8	8.0	13.2	30.3	
11	8.0	9.6	10.5	10.9	11.4	4.5	12.7	16.4	8.3	3.3	5.2	5.6	8.2	12.4	9.3	5.7	8.1	7.6	6.6	6.8	5.6	3.3	2.4	4.3	7.8	16.4	
12	6.0	5.3	7.3	4.9	4.9	12.5	6.5	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-	
13	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
14	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
15	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
16	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
17	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
18	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
19	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
20	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
21	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
22	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
23	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
24	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
25	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
26	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
27	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
28	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
29	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
30	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
31	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
NO.	12	12	12	12	12	12	12	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	271	36%
MEAN	7.9	7.5	7.3	5.0	4.5	4.2	4.7	6.6	8.7	6.9	10.5	15.6	14.5	19.8	17.9	13.0	17.7	14.7	16.1	15.0	11.1	7.5	10.0	10.2			
MAX	30.3	22.3	22.8	18.0	20.3	13.2	14.6	16.4	46.4	20.6	38.3	49.9	30.3	77.8	45.6	47.5	84.3	82.9	83.8	50.3	31.3	28.3	27.8	22.6			



Number of 24HR Exceedences	1	Proposed Guideline	
Number of Non-Zero Readings	271		
Maximum 1-HR Average	84.3 UG/M3		
Maximum 24-HR Average	31.0 UG/M3		
Monthly Calibration	0	Operational Time	271 HRS
Standard Deviation	13.5	Operational Uptime	36.4 %
		Monthly Average	10.6 UG/M3

# Berm PM<sub>10</sub> (µg/m<sup>3</sup>) – January 2024

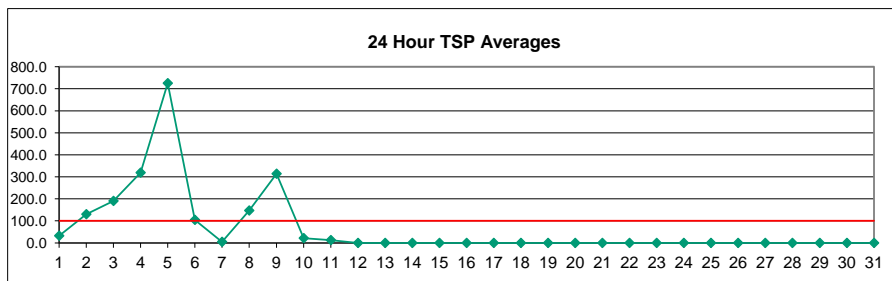
DAY	HOUR																								MEAN	MAX	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1	0.4	0.5	0.5	0.4	0.3	0.3	0.3	0.2	0.4	0.6	12.1	73.3	66.0	30.1	37.2	14.1	18.8	5.5	4.4	13.2	25.2	12.1	17.6	11.6	14.4	73.3	
2	9.9	3.4	7.5	1.3	3.5	10.5	11.8	18.1	33.9	31.8	6.7	46.4	129.1	173.3	278.2	132.2	142.4	40.2	39.8	31.8	21.5	8.5	3.0	3.6	49.5	278.2	
3	2.8	9.8	6.0	5.5	2.5	5.6	10.0	6.5	31.1	20.2	13.6	14.6	26.7	54.6	33.5	12.5	23.0	14.0	131.8	223.7	252.3	69.9	203.9	107.8	53.4	252.3	
4	11.8	4.9	2.3	0.8	0.4	0.7	0.5	0.7	1.8	1.5	90.5	240.7	209.8	559.9	349.6	174.1	260.9	213.9	191.9	119.1	78.3	10.9	30.5	128.1	111.8	559.9	
5	98.7	10.2	1.6	1.3	3.4	3.1	4.3	92.7	320.4	155.1	290.3	358.3	162.5	330.8	296.7	334.0	640.7	723.6	755.9	431.7	172.1	100.4	209.2	158.0	235.6	755.9	
6	59.3	170.4	186.2	66.8	16.2	17.9	23.8	20.1	0.6	6.3	82.0	20.6	25.9	19.1	13.4	10.3	18.7	7.5	5.2	12.4	1.2	1.0	1.4	2.2	32.9	186.2	
7	2.9	3.2	3.7	3.9	4.7	3.7	2.6	2.6	2.3	2.6	2.7	4.3	21.7	6.0	2.6	2.7	1.9	2.6	1.6	1.6	1.2	1.8	5.2	11.0	4.1	21.7	
8	4.8	5.8	6.8	5.7	3.2	2.7	1.6	5.3	2.2	1.5	6.7	73.1	52.3	56.8	68.7	55.8	35.2	52.1	34.5	58.1	84.1	73.0	64.3	77.4	34.6	84.1	
9	113.5	129.0	92.3	25.3	12.7	27.8	34.7	17.3	74.1	192.3	193.2	211.3	162.4	132.0	66.0	70.5	59.8	24.7	38.1	63.6	32.6	41.0	30.8	30.3	78.1	211.3	
10	44.3	32.1	31.3	25.7	29.4	18.6	20.8	21.4	12.7	27.9	16.8	20.2	15.0	9.1	23.4	13.9	16.5	18.0	13.8	5.8	6.8	11.6	9.4	11.4	19.0	44.3	
11	10.6	13.5	14.9	15.8	16.6	5.9	18.6	24.1	12.0	3.7	6.9	8.0	12.0	18.4	13.6	8.1	11.7	11.0	9.5	9.8	7.9	3.9	2.4	5.7	11.0	24.1	
12	8.1	7.3	10.6	5.1	6.7	18.5	9.5	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-	
13	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
14	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
15	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
16	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
17	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
18	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
19	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
20	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
21	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
22	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
23	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
24	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
25	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
26	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
27	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
28	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
29	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
30	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
31	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
NO.	12	12	12	12	12	12	12	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	271	36%
MEAN	30.6	32.5	30.3	13.1	8.3	9.6	11.5	19.0	44.7	40.3	65.6	97.3	80.3	126.4	107.5	75.3	111.8	101.2	111.5	88.3	62.1	30.4	52.5	49.7			
MAX	113.5	170.4	186.2	66.8	29.4	27.8	34.7	92.7	320.4	192.3	290.3	358.3	209.8	559.9	349.6	334.0	640.7	723.6	755.9	431.7	252.3	100.4	209.2	158.0			



Number of Non-Zero Readings	271
Maximum 1-HR Average	755.9 UG/M3
Maximum 24-HR Average	235.6 UG/M3
Monthly Calibration	0
Standard Deviation	107.7
Operational Time	271 HRS
Operational Uptime	36.4 %
Monthly Average	57.3 UG/M3

# Berm TSP ( $\mu\text{g}/\text{m}^3$ ) – January 2024

DAY	HOUR																								MEAN	MAX	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1	0.4	0.5	0.5	0.4	0.3	0.3	0.3	0.2	0.4	1.4	13.8	83.4	99.8	78.7	106.8	34.0	61.3	19.3	8.8	31.6	84.3	34.1	64.6	41.1	31.9	106.8	
2	37.6	10.4	20.8	2.2	8.1	15.1	29.0	48.1	115.1	116.7	11.5	140.6	324.6	406.8	669.0	357.9	471.4	122.1	115.6	56.0	25.3	9.8	6.1	6.9	130.3	669.0	
3	8.0	17.4	12.6	17.2	6.4	13.6	32.5	20.4	128.8	73.9	48.1	51.4	77.9	170.7	98.7	38.6	66.8	37.5	416.9	796.1	945.0	285.9	802.6	406.8	190.6	945.0	
4	42.2	16.1	7.5	2.6	0.4	0.7	0.5	0.7	1.8	1.5	320.6	742.4	547.9	1531.6	941.1	469.9	721.2	657.9	595.5	331.4	253.2	26.2	80.8	362.2	319.0	1531.6	
5	314.1	15.3	3.6	2.0	20.7	3.3	5.4	292.2	922.2	456.3	724.9	924.8	373.1	861.8	805.7	1028.3	1982.1	2437.1	2606.5	1491.6	570.8	348.1	701.0	509.1	725.0	2606.5	
6	184.5	566.0	691.8	261.0	47.5	73.5	86.0	56.8	2.4	12.9	181.1	45.4	86.1	103.7	43.0	10.3	18.7	7.5	5.2	12.4	1.2	1.0	1.4	2.2	104.2	691.8	
7	2.9	3.2	3.7	3.9	4.7	3.7	2.6	2.6	2.3	2.6	2.7	4.3	21.7	6.0	2.6	2.7	1.9	2.6	1.6	1.6	1.2	1.8	5.2	11.0	4.1	21.7	
8	4.8	5.8	6.8	5.7	3.2	2.7	1.6	5.3	2.2	1.5	18.1	359.1	248.3	259.3	299.0	228.7	140.4	270.0	165.8	269.2	324.3	345.9	287.5	259.5	146.4	359.1	
9	506.4	656.9	565.3	145.5	49.5	171.8	143.4	19.5	451.6	1318.8	828.9	628.9	459.6	444.7	201.7	224.4	159.2	53.3	100.4	253.5	34.6	44.5	33.1	31.2	313.6	1318.8	
10	50.0	36.0	35.6	28.8	33.3	19.8	22.5	23.7	12.8	32.0	18.5	22.7	16.8	9.9	25.9	14.8	18.6	20.5	15.4	5.8	6.8	11.7	9.4	12.2	21.0	50.0	
11	10.6	14.4	15.3	17.7	19.0	5.9	21.3	27.7	13.2	3.7	6.9	8.5	13.5	21.3	15.7	9.1	13.3	12.5	10.8	11.2	8.6	3.9	2.4	5.7	12.2	27.7	
12	8.6	7.5	12.0	5.1	6.9	21.2	10.7	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-	
13	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
14	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
15	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
16	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
17	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
18	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
19	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
20	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
21	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
22	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
23	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
24	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
25	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
26	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
27	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
28	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
29	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
30	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
31	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
NO.	12	12	12	12	12	12	12	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	271	36%	
MEAN	97.5	112.5	114.6	41.0	16.7	27.6	29.7	45.2	150.3	183.7	197.7	273.8	206.3	354.1	291.7	219.9	332.3	330.9	367.5	296.4	205.0	101.2	181.3	149.8			
MAX	506.4	656.9	691.8	261.0	49.5	171.8	143.4	292.2	922.2	1318.8	828.9	924.8	547.9	1531.6	941.1	1028.3	1982.1	2437.1	2606.5	1491.6	945.0	348.1	802.6	509.1			



Number of 24HR Exceedences	7	Proposed Guideline
Number of Non-Zero Readings	271	
Maximum 1-HR Average	2606.5	UG/M3
Maximum 24-HR Average	725.0	UG/M3
IZS Calibration Time		Operational Time 271 HRS
Monthly Calibration	0	Operational Uptime 36.4 %
Standard Deviation	351.6	Monthly Average 177.2 UG/M3