

LAFARGE CANADA INC.

# AMBIENT AIR QUALITY MONTHLY REPORT

## FEBRUARY 2022

MARCH 28, 2022





# AMBIENT AIR QUALITY MONTHLY REPORT

FEBRUARY 2022

LAFARGE CANADA INC.

PROJECT NO.: 171-00556-05  
DATE: MARCH 28, 2022

WSP  
SUITE 1000  
840 HOWE STREET  
VANCOUVER, BC, CANADA V6Z 2M1

T: +1 604 685-9381  
F: +1 604 683-8655  
WSP.COM



March 28, 2022

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

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

Dear Mr. Veriotes,

**Subject: Ambient Air Quality Monthly Report – February 2022**

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 February 2022.

Lagoon	Data Completeness (%)	1-Hour Average	24-hour Average
		Exceedances of AAAQO or AAAQG	Exceedances of AAAQO
TSP	99.4%	-	0
PM <sub>2.5</sub>	99.9%	0	0
PM <sub>10</sub>	99.6%	-	-
NO	100%	-	-
NO <sub>2</sub>	100%	0	-
NO <sub>x</sub>	100%	-	-
SO <sub>2</sub>	100%	0	0
Met Parameters	100%	-	-

Note: The precipitation gauge recorded 15.9% uptime due to the analyzer being damaged for the majority of February. An equipment change took place on February 24<sup>th</sup> at 11:00 - 13:00. All other meteorological parameters recorded 100% uptime for the month of February.

SUITE 1000  
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wsp.com

The following table summarizes the data completeness and reported exceedances of Alberta Ambient Air Quality Objectives (AAAQOs) or Guidelines (AAAQG) at the Windridge Station for February 2022.

Windridge	Data Completeness (%)	1-Hour Average	24-hour Average	
		Exceedances of AAAQG	Exceedances of PM <sub>2.5</sub> AAAQO	Exceedances of TSP AAAQO
<b>TSP</b>	100%	-	-	11
<b>PM<sub>2.5</sub></b>	100%	6	1	-
<b>PM<sub>10</sub></b>	100%	-	-	-

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 reported exceedances of the Guidelines at the GRIMM Monitors for February 2022.

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
<b>West</b>	94.8%	0	0	3
<b>Berm</b>	94.8%	1	1	17
<b>Entrance</b>	94.8%	0	0	11

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

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# SIGNATURES

PREPARED BY



March 28, 2022

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Dylan Weyell, B.A.  
Junior Air Quality Specialist, Environment

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Date

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



March 28, 2022

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

---

Date

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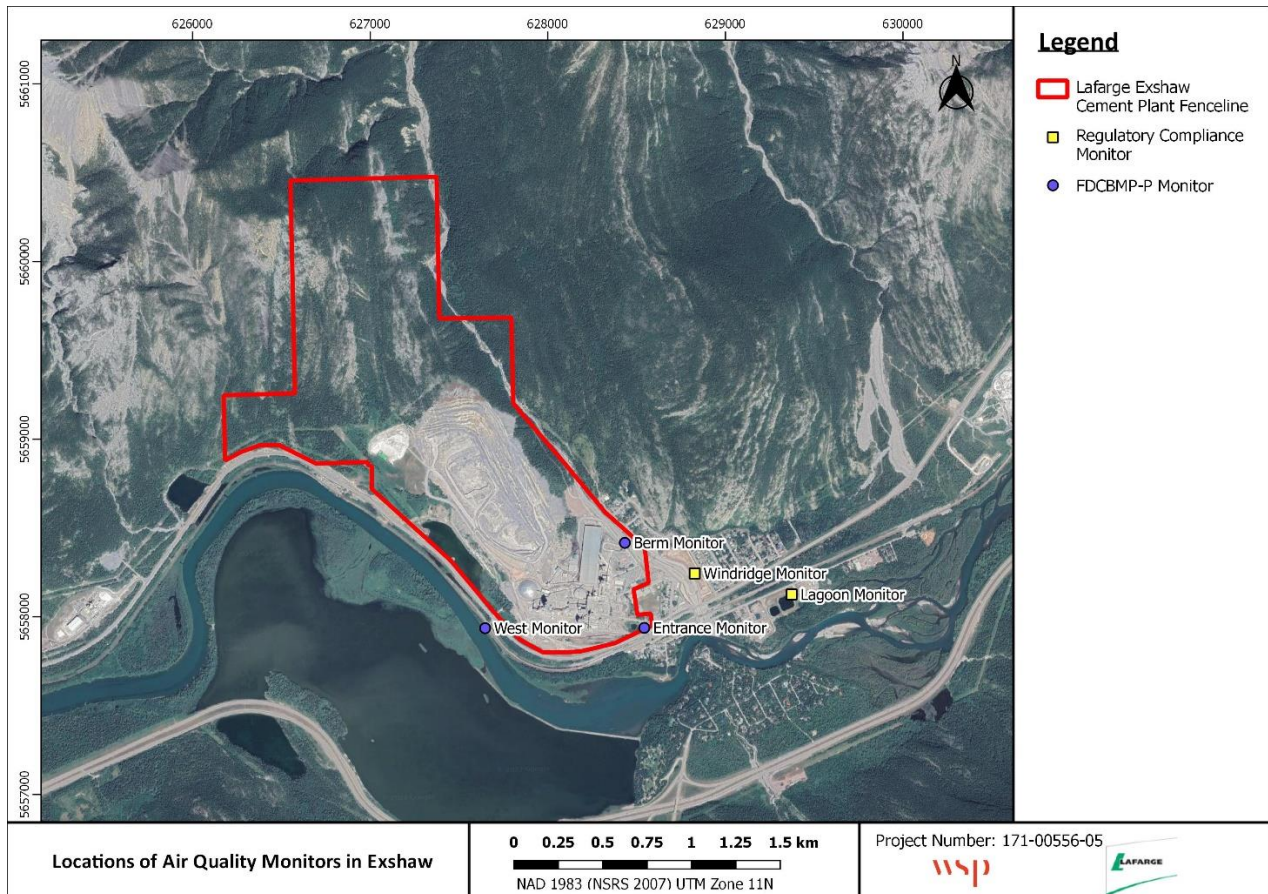
## *APPENDICES*

### **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 February 1, 2022 and February 28, 2022.

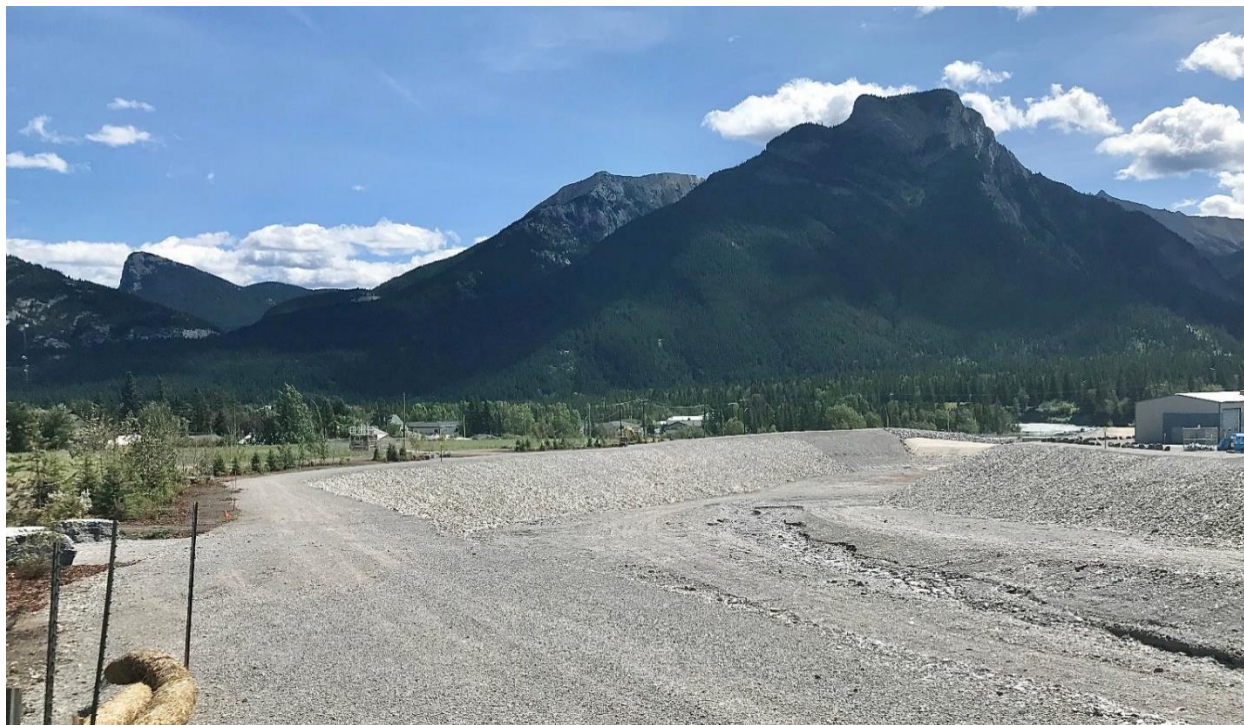
This monthly report was prepared by Dylan Weyell, Junior Air Quality Specialist with WSP, on behalf of Lafarge and was reviewed by Tyler Abel, Senior Air Quality Specialist at WSP.



**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 and is included in this report.



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

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## 1.2 FUGITIVE DUST CONTRIBUTIONS FROM LAC DES ARCS

In the past, Lafarge environmental staff have noted the potential contributions of fugitive dust in the airshed from the exposed lake bed of Lac Des Arcs, immediately southwest of the Lafarge plant site. In some months of the year, low water levels have left more of the lake shore/bed exposed. During high wind events, the sediments from the exposed lake bed can be re-suspended, dispersed in air and become a significant source of fugitive dust impacting the community. This additional source of fugitive dust in the airshed would have an impact on ambient concentration of particulate matter at the monitor and exacerbate any dust originating from the plant site itself.

In February 2022, Lafarge environmental staff noted that water levels were low enough that the lake bed was exposed (Figure 1-3), therefore being a potential source of fugitive dust this month.





**Figure 1-3**      **Photo of Lac Des Arcs (October 2021)**

# 2 FEBRUARY 2022 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 the stations 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
NO <sub>2</sub> (ppb)	100.0	36.1	0	16.2	-
SO <sub>2</sub> (ppb)	100.0	7.9	0	2.3	0
PM <sub>2.5</sub> (µg/m <sup>3</sup> )	99.9	21.1	0 <sup>1</sup>	8.1	0
PM <sub>10</sub> (µg/m <sup>3</sup> )	99.6	468.1	-	70.1	-
TSP (µg/m <sup>3</sup> )	99.4	276.4	-	93.7	0
Temperature (°C)	100.0	12.7	-	9.2	-
Wind Speed (km/hr) /Direction (Degrees)	100.0	62.9/W	-	41.5/WSW	-
Precipitation (mm)	15.9	0.0 <sup>2</sup>	-	0.0 <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)

<sup>3</sup> Monthly Total Accumulation of Precipitation (mm)

### Data Quality Notes:

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

### Calibration/Maintenance Notes:

- At the Lagoon station, NO<sub>2</sub>, and SO<sub>2</sub> analyzers recorded 100.0% uptime for the month of February.
- All meteorological data (excluding precipitation) recorded 100% uptime for the month of February.
- PM<sub>2.5</sub> recorded 99.9% uptime due to one hour of power failure occurring on February 2<sup>nd</sup> at 2:00.
- PM<sub>10</sub> recorded 99.6% uptime due to two hours of equipment malfunction that occurred on February 1<sup>st</sup> at 4:00 & 8:00. And further, one hour of power failure occurring on February 2<sup>nd</sup> at 2:00.
- TSP recorded 99.4% uptime due to three hours of equipment malfunction that occurred on February 1<sup>st</sup> at 11:00 – 13:00. And further, one hour of power failure occurring on February 2<sup>nd</sup> at 2:00.
- In February, the precipitation gauge was found to be damaged and therefore all monthly data leading up to the equipment change has been invalidated. The precipitation analyzer at the Lagoon Station was replaced on February 24<sup>th</sup> from 11:00 – 13:00.

## 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	235.0	6*	41.6	1
PM <sub>10</sub> (µg/m <sup>3</sup> )	100.0	485.0	-	218.2	-
TSP (µg/m <sup>3</sup> )	100.0	733.0	-	288.8	11

\* 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 day exceeding the 24-hour PM<sub>2.5</sub> AAAQO.
- There was 6 hours exceeding the 1-hour PM<sub>2.5</sub> AAAQG.
- There were 11 days exceeding the 24-hour TSP AAAQO.

### Calibration/Maintenance Notes:

- The TSP, PM<sub>10</sub> and PM<sub>2.5</sub> monitor recorded 100% uptime during the month of February.

## 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 Guidelines	Maximum Concentration	Exceedances of Guidelines
PM <sub>2.5</sub> (µg/m <sup>3</sup> )	94.8	28.3	0*	11.0	0
PM <sub>10</sub> (µg/m <sup>3</sup> )	94.8	133.1	-	35.2	-
TSP (µg/m <sup>3</sup> )	94.8	3069.5	-	509.7	3

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

#### Data Quality Notes:

- There were zero exceedances of the 24-hour PM<sub>2.5</sub> Guidelines.
- There were zero exceedances of the 1-hour PM<sub>2.5</sub> Guidelines.
- There were three exceedances of the 24-hour TSP Guidelines.

#### Calibration/Maintenance Notes:

- The analyzer had 94.8% uptime for the month of February due to 35 hours of collection error that occurred from February 9<sup>th</sup> at 17:00 to February 11<sup>th</sup> at 3:00.

## 2.4 BERM GRIMM

The GRIMM monitors are Industrial Ambient Monitors meant to aid Lafarge in assessing the performance of their FDCBMP-P. The AAQO 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 AAQO.

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

Parameter	Data Completeness (%)	1-Hour Average		24-hour Average	
		Maximum Concentration	Exceedances of Guidelines	Maximum Concentration	Exceedances of Guidelines
PM <sub>2.5</sub> (µg/m <sup>3</sup> )	94.8	81.5	1*	43.2	1
PM <sub>10</sub> (µg/m <sup>3</sup> )	94.8	691.5	-	366.1	-
TSP (µg/m <sup>3</sup> )	94.8	2583.7	-	1209.5	17

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

#### Data Quality Notes:

- There was one exceedance of the 24-hour PM<sub>2.5</sub> Guidelines.
- There was one exceedance of the 1-hour PM<sub>2.5</sub> Guidelines.



- There were 17 exceedances of the 24-hour TSP Guidelines.

#### Calibration/Maintenance Notes:

- The analyzer had 94.8% uptime for the month of February due to 35 hours of collection error that occurred from February 9<sup>th</sup> at 17:00 to February 11<sup>th</sup> at 3:00.

## 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.

**Table 2-5 Entrance station data summary**

Parameter	Data Completeness (%)	1-Hour Average		24-hour Average	
		Maximum Concentration	Exceedances of Guidelines	Maximum Concentration	Exceedances of Guidelines
PM <sub>2.5</sub> (µg/m <sup>3</sup> )	94.8	43.0	0*	16.6	0
PM <sub>10</sub> (µg/m <sup>3</sup> )	94.8	338.8	-	120.8	-
TSP (µg/m <sup>3</sup> )	94.8	2673.4	-	795.0	11

\* 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 zero exceedances of the 24-hour PM<sub>2.5</sub> Guidelines.
- There were zero exceedances of the 1-hour PM<sub>2.5</sub> Guidelines.
- There were 11 exceedances of the 24-hour TSP Guidelines.

#### Calibration/Maintenance Notes:

- The analyzer had 94.8% uptime for the month of February due to 35 hours of collection error that occurred from February 9<sup>th</sup> at 17:00 to February 11<sup>th</sup> at 3:00.

## 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, a wind rose (Figure 3-9) and tables and graphs illustrating the monitoring results for February 2022.

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 February 1 <sup>st</sup> . The monitor had 99.9% uptime due to one hour of power failure that occurred on February 2 <sup>nd</sup> at 2:00.
<b>PM<sub>10</sub> Concentrations</b>	MetOne BAM-1020 Continuous Particulate Monitor	The PM <sub>10</sub> monitor was calibrated on February 1 <sup>st</sup> . The monitor had 99.6% uptime due to two hours of equipment malfunction that occurred on February 1 <sup>st</sup> at 4:00 & 8:00. And further, one hour of power failure occurring on February 2 <sup>nd</sup> at 2:00.
<b>TSP Concentrations</b>	MetOne BAM-1020 Continuous Particulate Monitor	The TSP monitor was calibrated on February 9 <sup>th</sup> . The monitor had 99.4% uptime due to three hours of equipment malfunction that occurred on February 1 <sup>st</sup> at 11:00 – 13:00. And further, one hour of power failure occurring on February 2 <sup>nd</sup> at 2:00.
<b>Oxides of Nitrogen</b>	TEI 42C	The NO <sub>x</sub> monitor was calibrated on February 9 <sup>th</sup> . The monitor had 100% uptime for the month of February.
<b>Sulphur Dioxide</b>	Teledyne API 102A	The SO <sub>2</sub> monitor was calibrated on February 9 <sup>th</sup> . The monitor had 100% uptime for the month of February.

<b>Precipitation</b>	MetOne 130 Rain/Snow Gauge	The monitor had 15.9% uptime for the month of February. In February, a WSP field technician investigated the precipitation analyzer. The outcome was that the analyzer was found to be damaged and therefore all monthly data leading up to the equipment change has been invalidated. The precipitation analyzer at the Lagoon Station was replaced on February 24 <sup>th</sup> from 11:00 – 13:00.
<b>Wind Speed</b>	MetOne Wind Sensor	The monitor had 100% uptime for the month of February.
<b>Wind Direction</b>		
<b>Ambient Temperature</b>	MetOne Ambient Temperature Sensor	The monitor had 100% uptime for the month of February.



**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 February 2022. 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 February 2022 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.

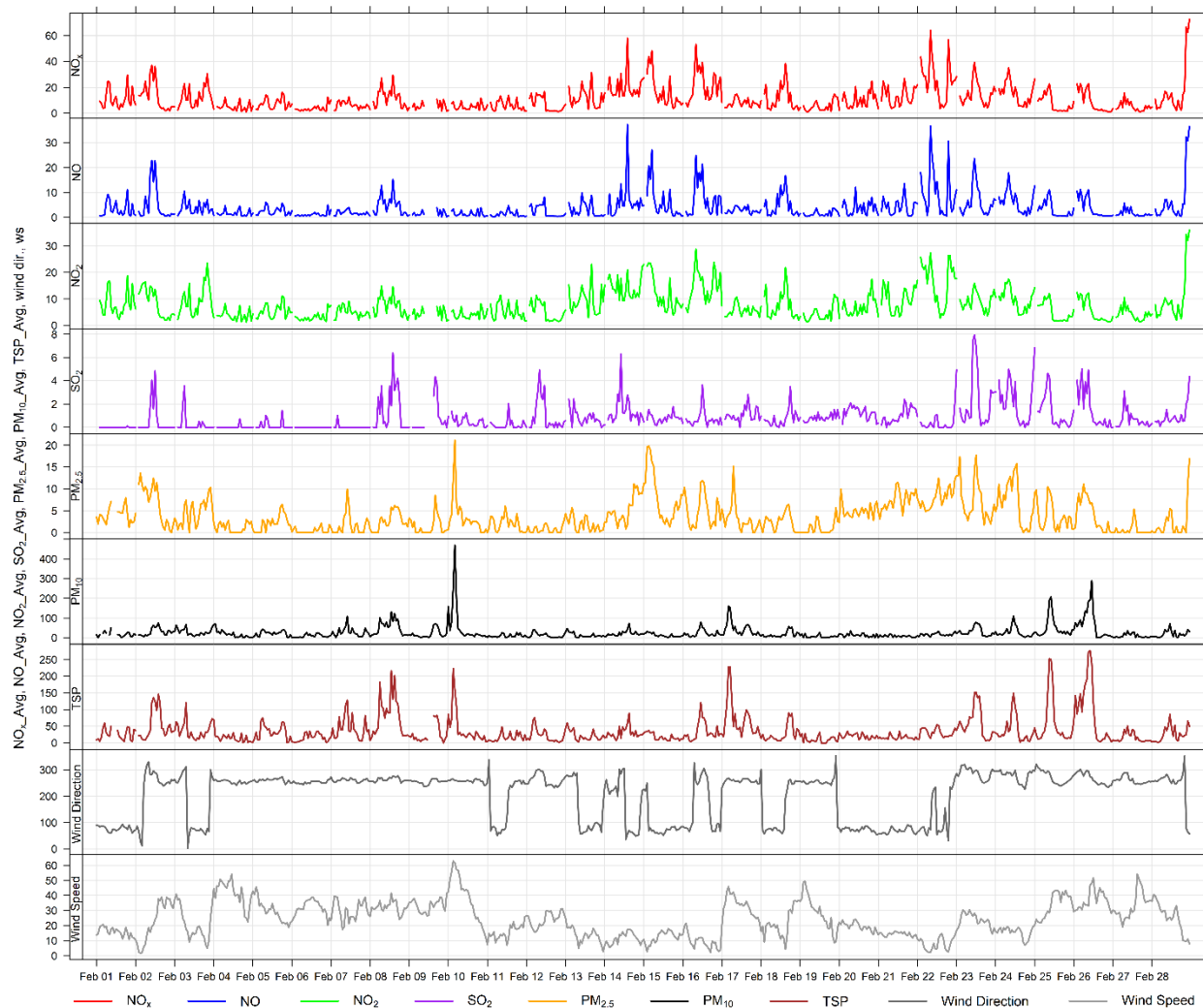
There were zero days exceeding the 24-hour TSP (100 µg/m<sup>3</sup>) AAAQO. There were zero exceedances of the 24-hour PM<sub>2.5</sub> (29 µg/m<sup>3</sup>) AAAQO. Further, there were zero exceedances of the 1-hour PM<sub>2.5</sub> AAAQG (80 µg/m<sup>3</sup>).

Historically in February, the average number of 24-hour TSP AAAQO exceedances and 24-hour PM<sub>2.5</sub> AAAQO exceedances is zero and zero, respectively.

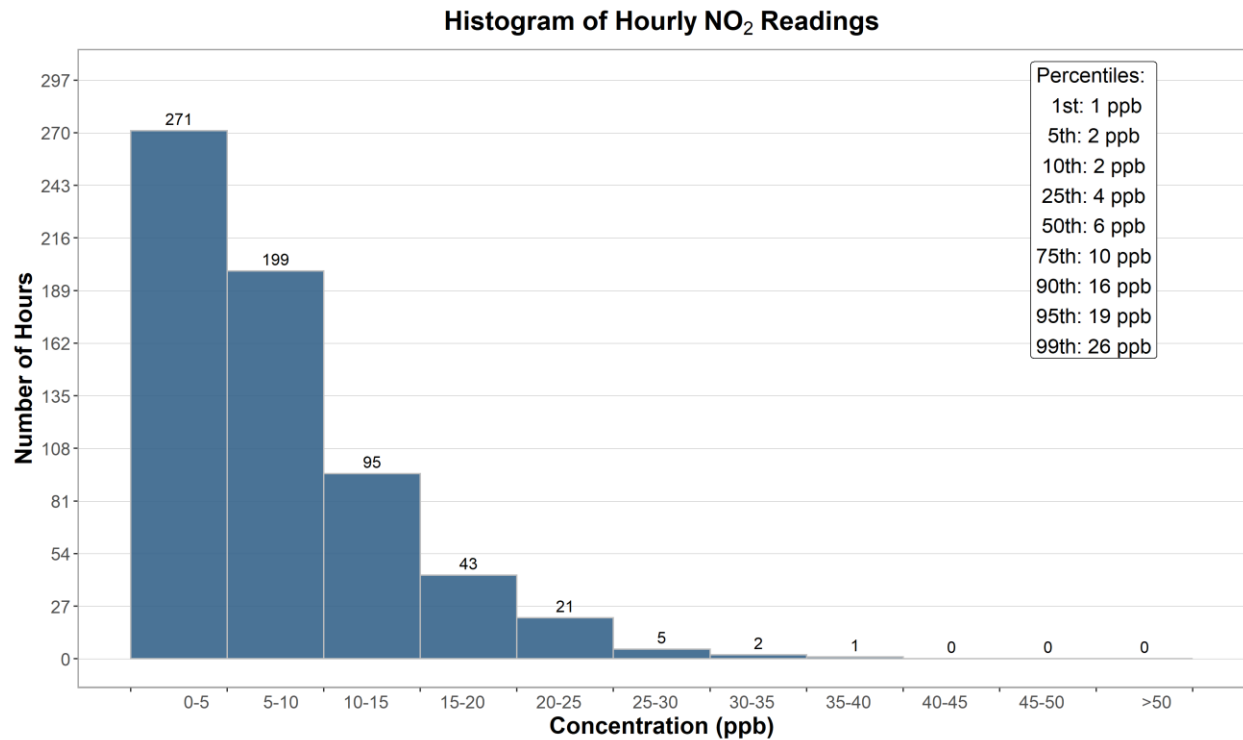
At the Lagoon station strong wind gusting that typically occurs in the area contributes to increased particulate levels that may arise from multiple sources including the Lafarge Plant, Exshaw Creek, dry sections of the Bow River, highway and rail traffic moving past the station and fugitive emissions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

**Table 3-2 Summary of February 2022 data at Lagoon**

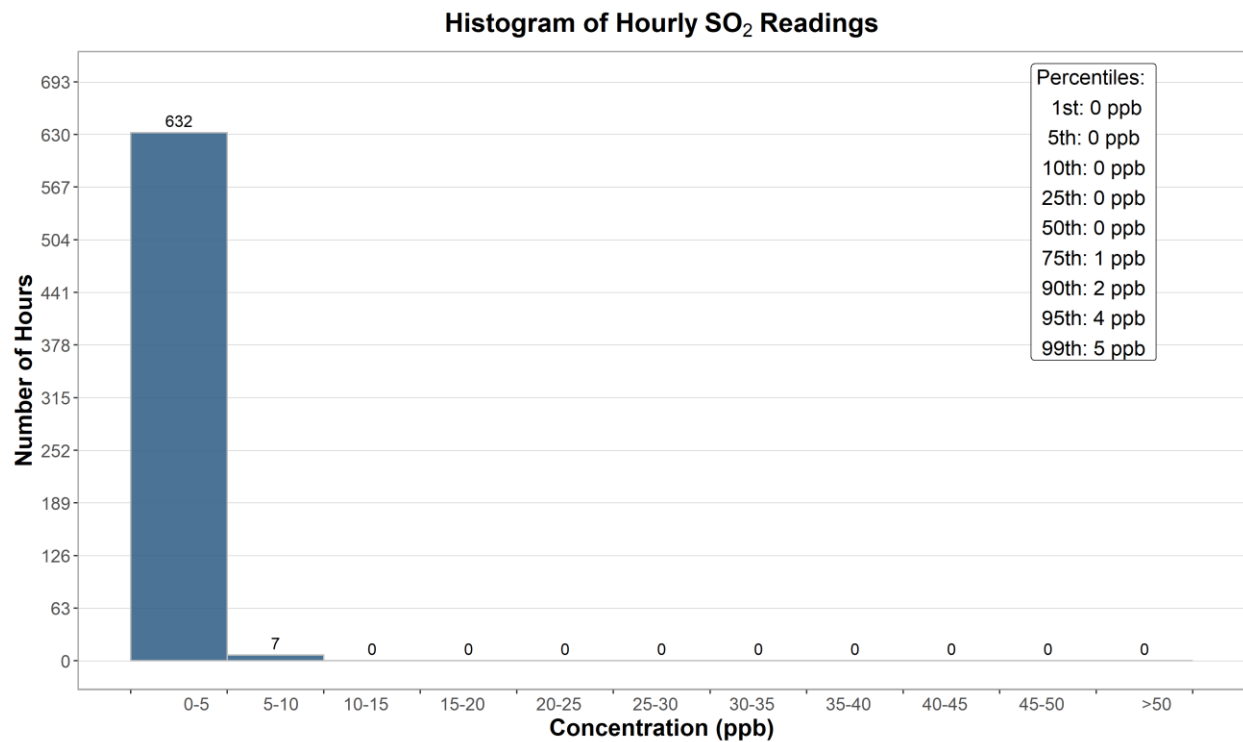
Parameter	Guideline / Objectives		Station	Exceedances		Monthly		1-hour					24-hour		Operational Time (Percent)
	1-hr	24-hr		1-hr	24-hr	Minimum	Average	Maximum Concentration/ Meteorological Variable	Day	Hour	Wind Speed (km/h r)	Wind Direction (degrees)	Maximum Concentration/ Meteorological Variable	Day	
NO <sub>2</sub> (ppb)	159	-	Lagoon	0	-	1.2	7.6	36.1	28	24	8.0	57.7	16.2	22	100.0
SO <sub>2</sub> (ppb)	172	48	Lagoon	0	0	0.0	0.8	7.9	23	12	28.1	293.7	2.3	23	100.0
PM <sub>2.5</sub> (µg/m <sup>3</sup> )	80	29	Lagoon	0	0	0.0	3.7	21.1	10	5	61.6	259.6	8.1	15	99.9
PM <sub>10</sub> (µg/m <sup>3</sup> )	-	-	Lagoon	-	-	0.0	24.7	468.1	10	5	61.6	259.6	70.1	26	99.6
TSP (µg/m <sup>3</sup> )	-	100	Lagoon	-	0	0.0	35.1	276.4	26	11	46.8	274.4	93.7	26	99.4
Temperature (°C)	-	-	Lagoon	-	-	-29.8	-3.2	12.7	10	4	62.9	264.9	9.2	10	100.0
Wind Speed (km/hr)/Direction (degrees)	-	-	Lagoon	-	-	1.6	24.1	62.9/W	10	4	62.9	264.9	41.5/WSW	4	100.0
Precipitation (mm)	-	-	Lagoon	-	-	0.0	0.0	0.0	1	24	11.8	69.3	0.0	-	15.9



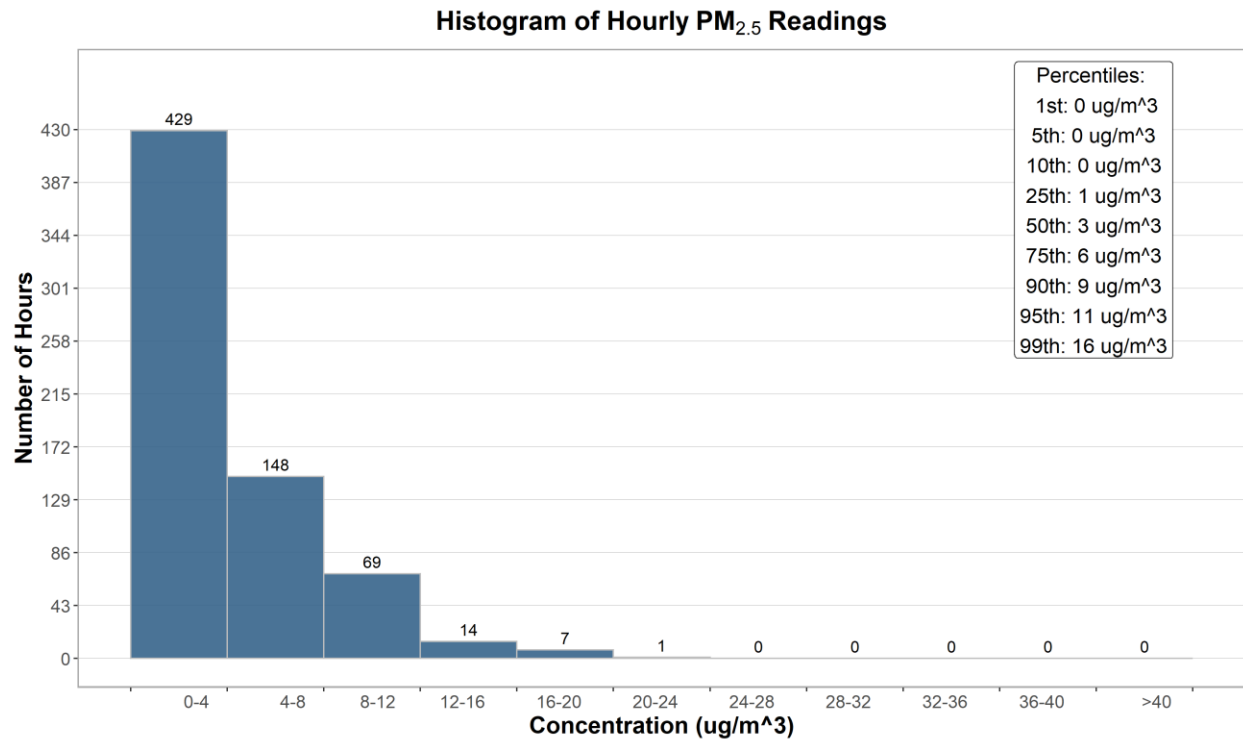
**Figure 3-2 1-hour concentrations of NO<sub>x</sub>, SO<sub>2</sub>, particulate matter, wind direction and wind speed at the Lagoon station**



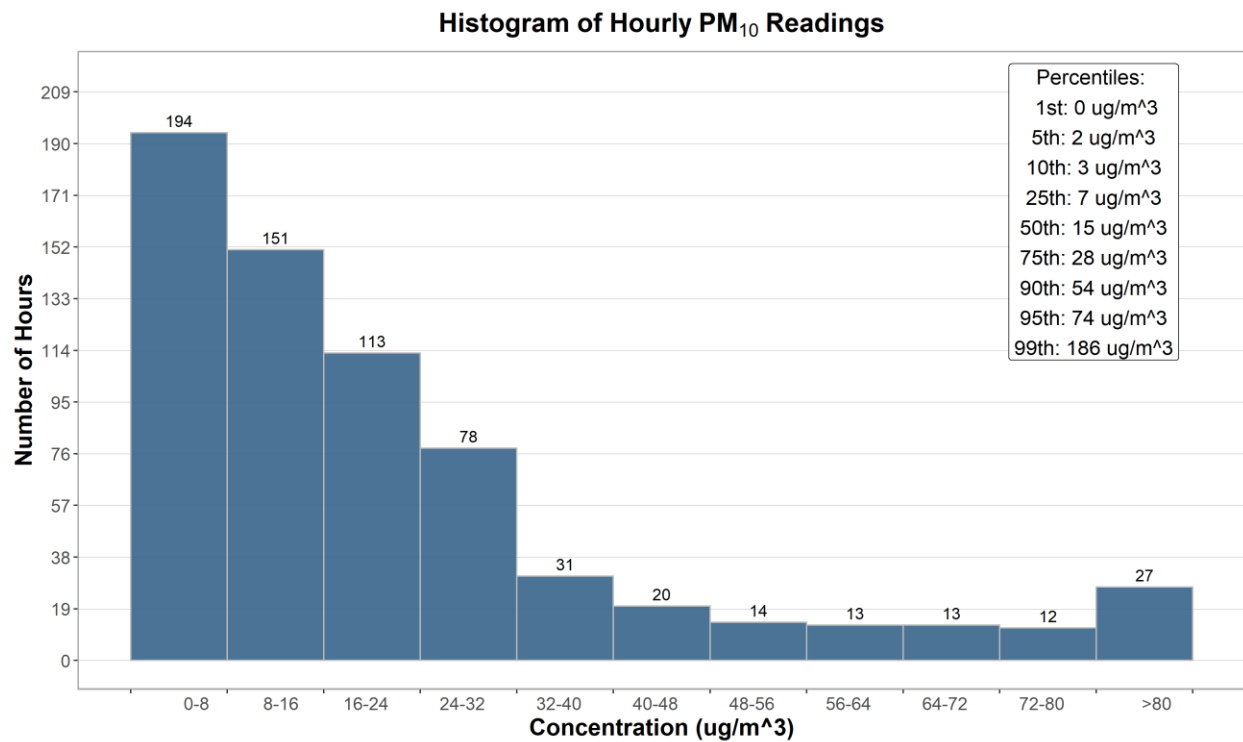
**Figure 3-3** Histogram of hourly NO<sub>2</sub> concentrations at the Lagoon station



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

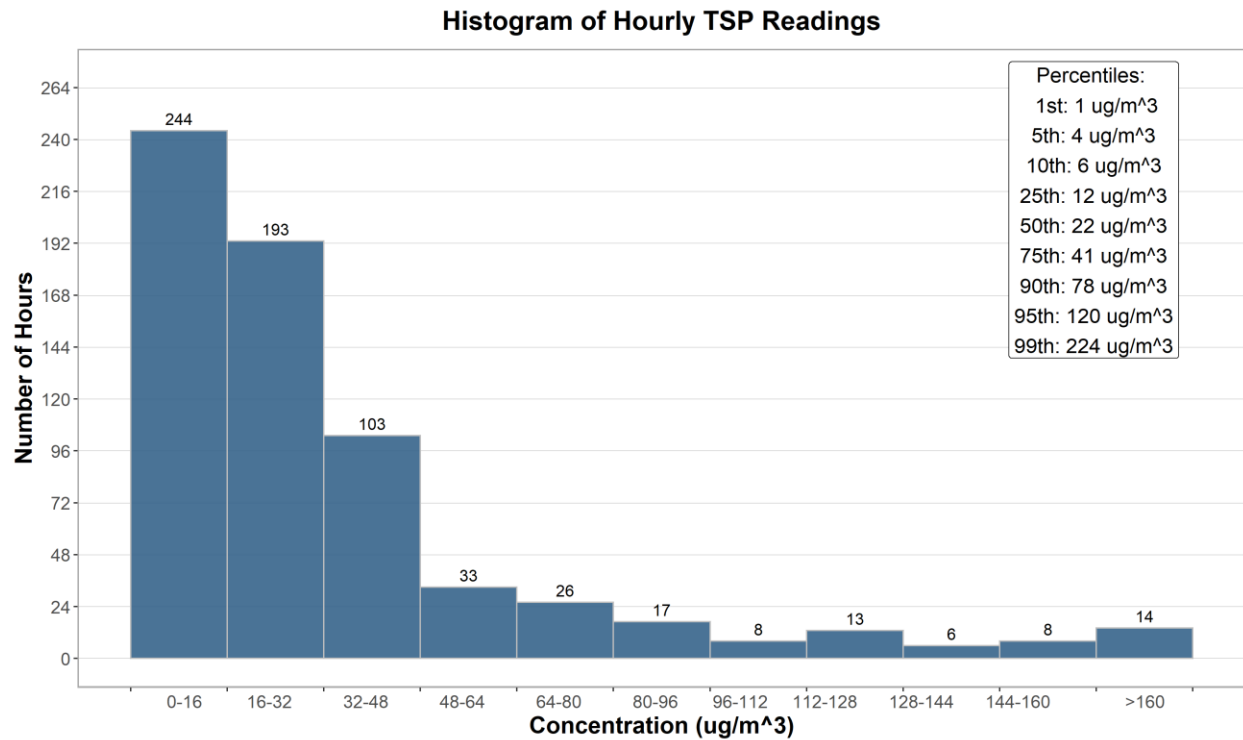


**Figure 3-5** Histogram of hourly PM<sub>2.5</sub> concentrations at the Lagoon station

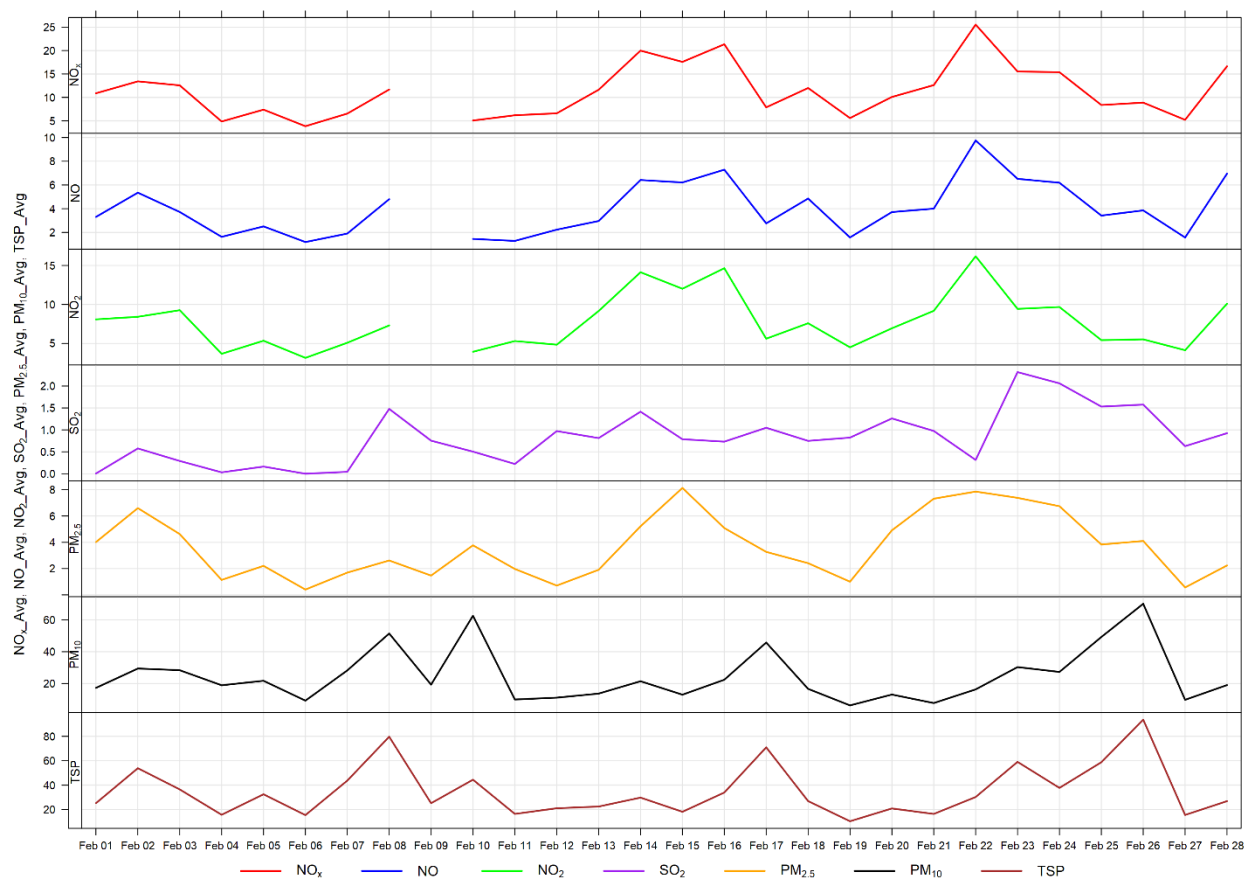


**Figure 3-6** Histogram of hourly PM<sub>10</sub> concentrations at the Lagoon station





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

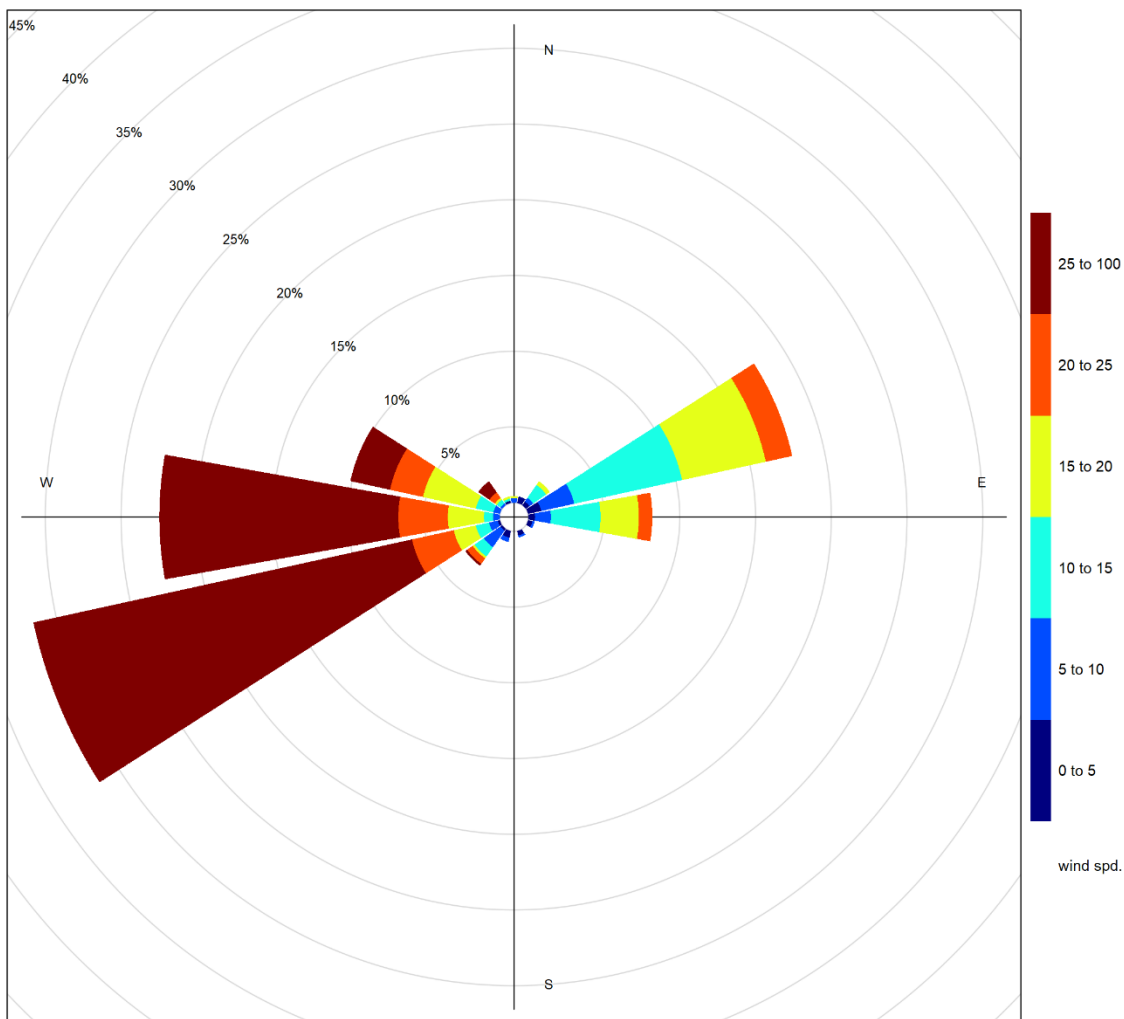


**Figure 3-8 24-hour concentrations of NO<sub>x</sub>, SO<sub>2</sub>, and particulate matter at the Lagoon monitor**

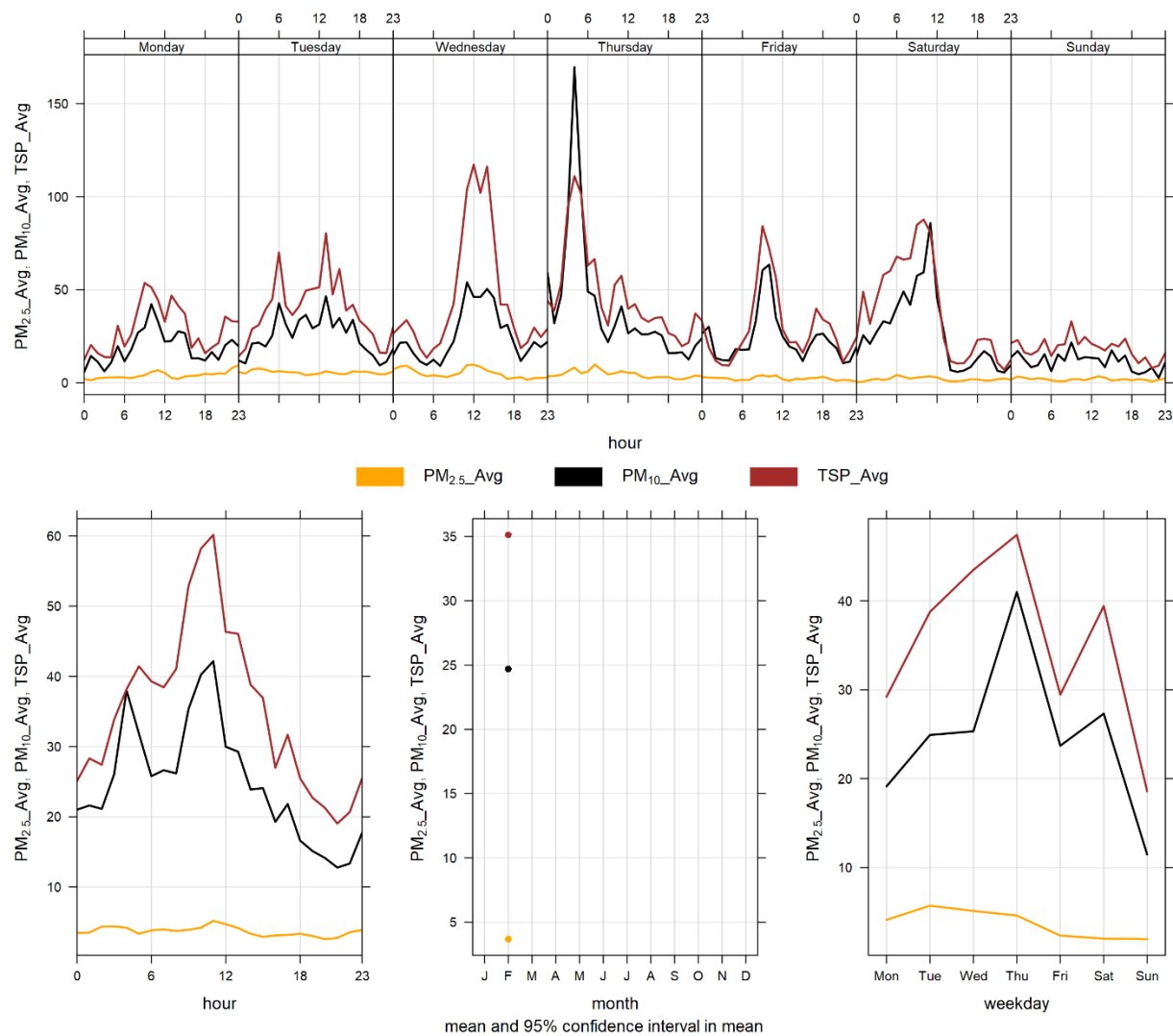
The following wind rose (Figure 3-9) shows the wind rose for the month of February. The wind rose shows that the winds predominately came from the west, west-southwest and east-northeast directions, and were predominately over 20 km/hr.

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.

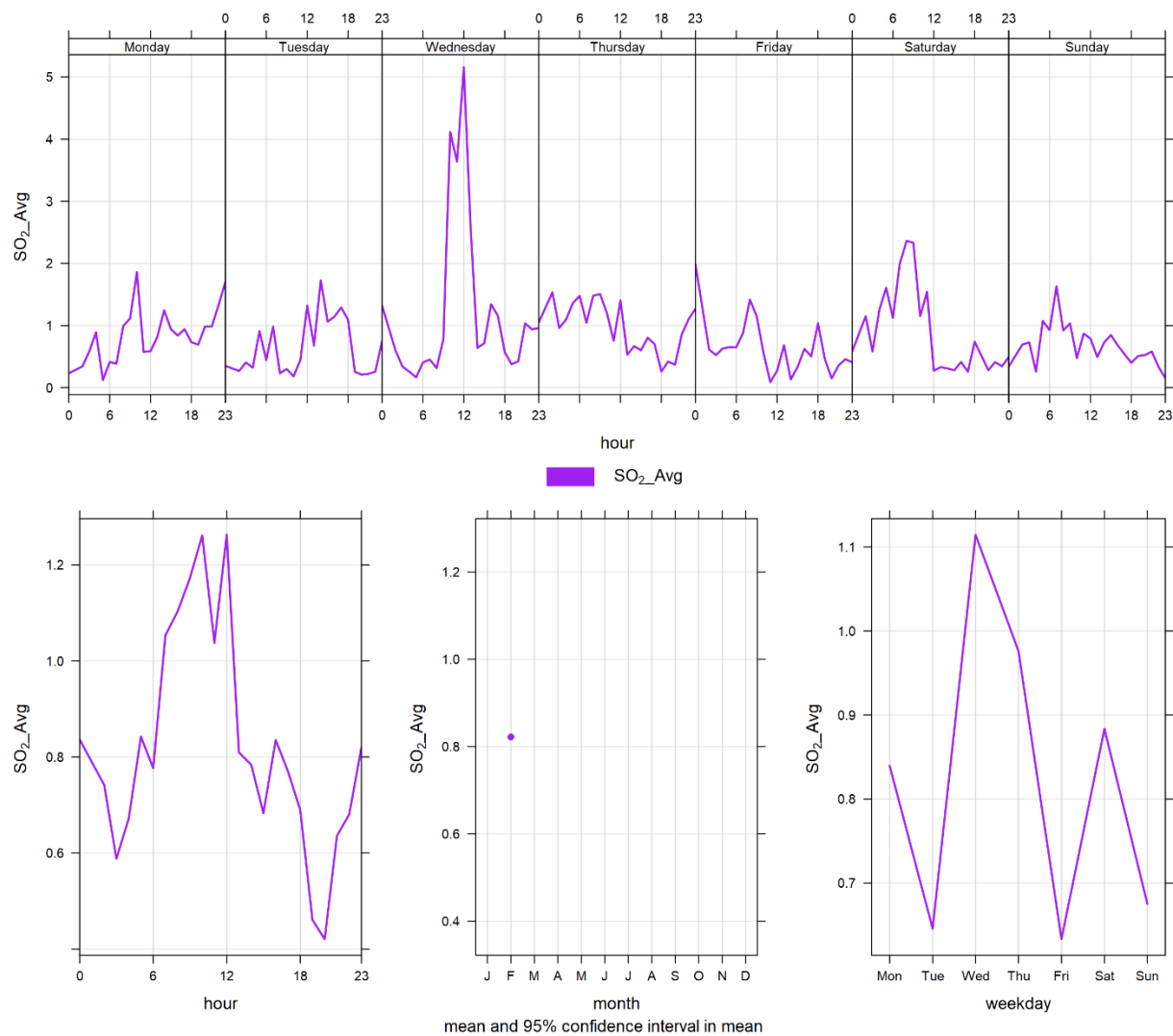
Figure 3-11 shows the variation of SO<sub>2</sub> over various time periods. SO<sub>2</sub> concentrations patterns are dependent on the timing of the highest SO<sub>2</sub> concentrations recorded in the month because in general SO<sub>2</sub> concentrations are very low. Figure 3-12 shows the variation 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.



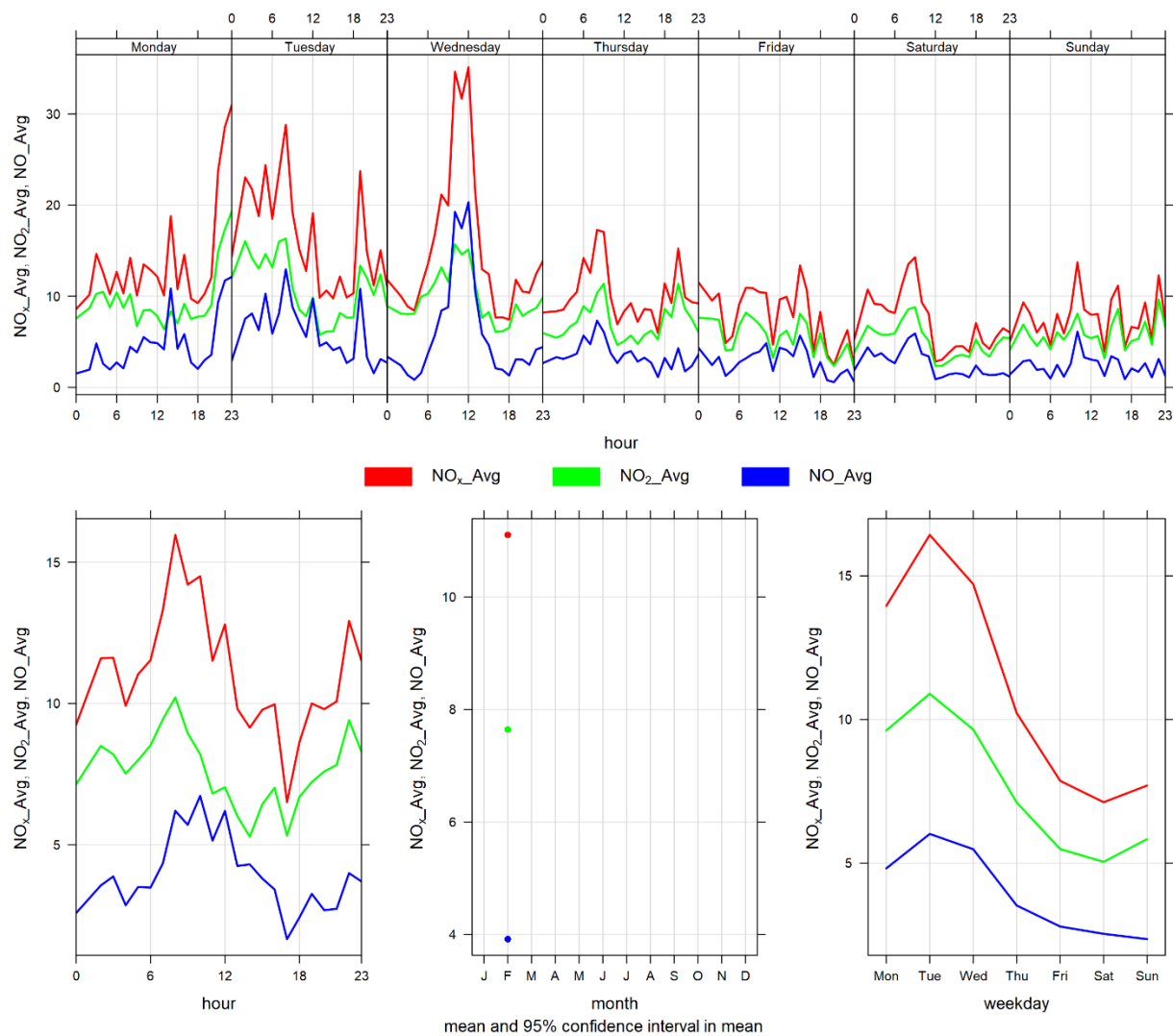
**Figure 3-9 Wind rose for February 2022 recorded at the Lagoon Station**



**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 February 2022.

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 February 9 <sup>th</sup> . The monitor recorded 100% uptime for the month of February.
<b>PM<sub>10</sub> Concentrations</b>	MetOne BAM-1020 Continuous Particulate Monitor	The PM <sub>10</sub> monitor was calibrated on February 9 <sup>th</sup> . The monitor recorded 100% uptime for the month of February.
<b>TSP Concentrations</b>	MetOne BAM-1020 Continuous Particulate Monitor	The TSP monitor was calibrated on February 9 <sup>th</sup> . The monitor recorded 100% uptime for the month of February.

### 4.2 MONITORING RESULTS AND TRENDS

Table 4-2 summarizes the hourly and daily concentrations recorded in February 2022, and Table 4-3 summarizes 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, Figure 4-7 displays the wind rose for the 24-hour PM<sub>2.5</sub>, and Figure 4-8 illustrates the time series for hourly PM over different time periods.

There was one exceedance of the 24-hour PM<sub>2.5</sub> AAAQO, six exceedances of the 1-hour PM<sub>2.5</sub> AAAQG, and 11 exceedances of the 24-hour TSP AAAQO. The TSP and PM<sub>2.5</sub> exceedances occurred predominantly on days with high speed westerly winds.

Historically in February, the average number of 24-hour TSP AAAQO exceedances and 24-hour PM<sub>2.5</sub> AAAQO exceedances is 7 and 0, respectively. Prior to this year, the maximum number of 24-hour TSP AAAQO exceedances recorded in February was 9 days in 2018.

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, 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 February 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.

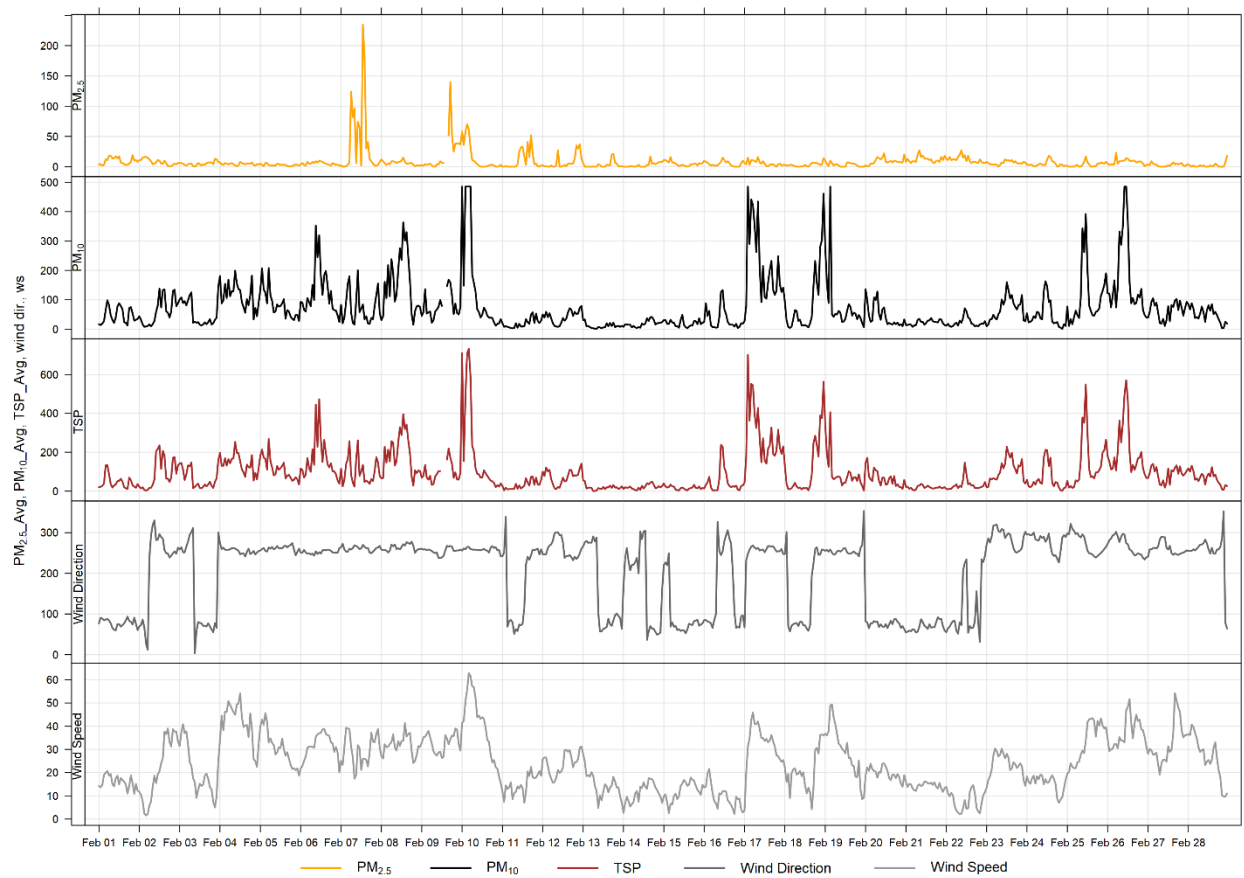


**Table 4-2      Summary of February 2022 data at the Windridge Station**

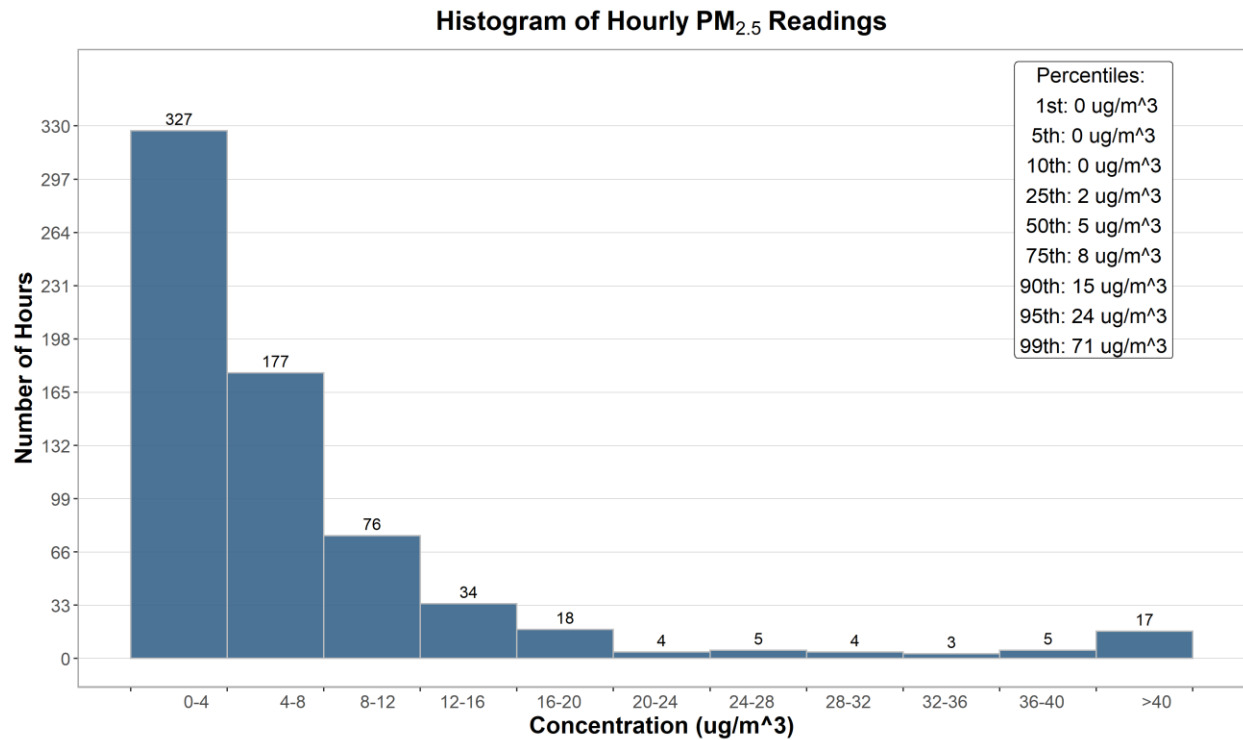
Parameter	Guideline		Station	Exceedances		Monthly		Maximum 1-hour					Maximum 24-hour		Operational Time (Percent)
	1-hr	24-hr		1-hr	24-hr	Minimum	Average	Maximum Concentration	Day	Hour	Wind Speed (km/hr)	Wind Direction (degrees)	Maximum Concentration	Day	
<b>PM<sub>2.5</sub></b> (µg/m <sup>3</sup> )	80	29	Windridge	6	1	0.0	8.1	235.0	7	13	25.9	269.9	41.6	7	100.0
<b>PM<sub>10</sub></b> (µg/m <sup>3</sup> )	-	-	Windridge	-	-	1.0	74.8	485.0	9	24	41.4	255.7	218.2	17	100.0
<b>TSP</b> (µg/m <sup>3</sup> )	-	100	Windridge	-	11	0.0	96.7	733.0	10	4	62.9	264.9	288.8	17	100.0

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

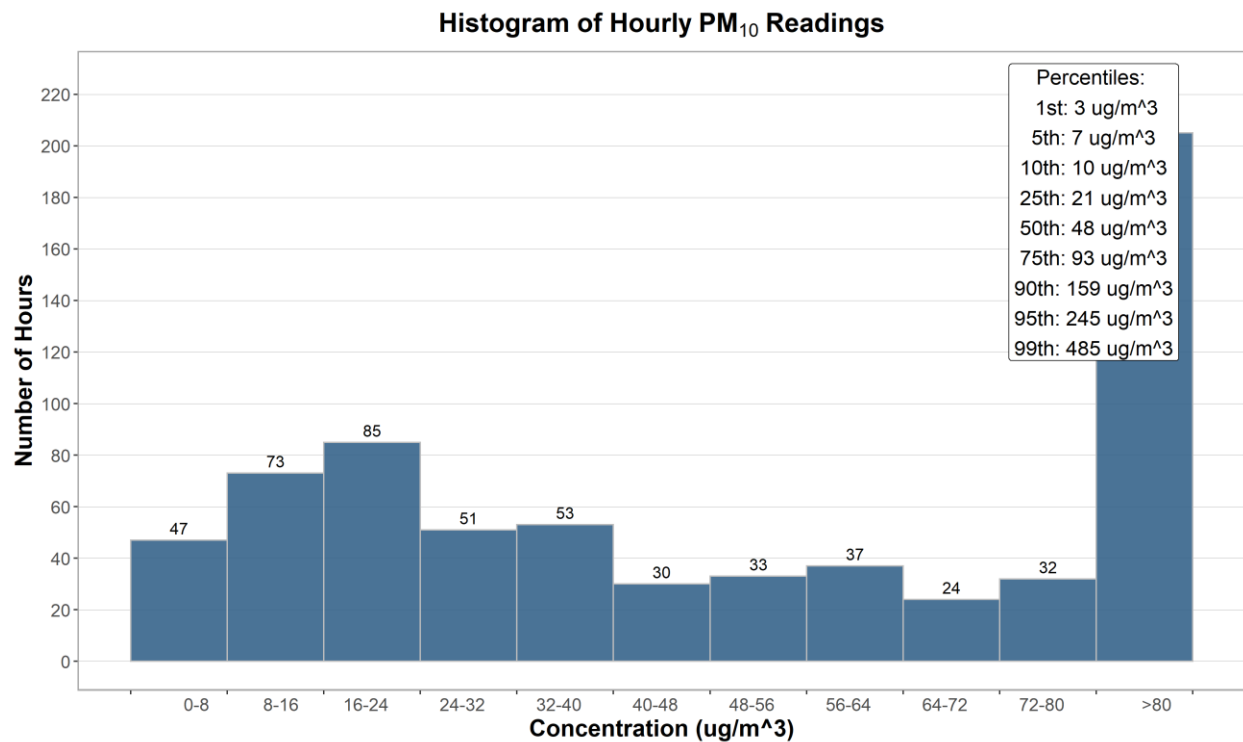
Date	TSP (ug/m <sup>3</sup> )	PM <sub>2.5</sub> (ug/m <sup>3</sup> )	Average Wind Direction (degrees)	Average Wind Speed (km/hr)	Average RH (%)	Root Cause (Provided by Lafarge)
<b>Windridge</b>						
2022-02-04	139.8	-	255.0	41.5	49.0	High wind event
2022-02-05	112.4	-	261.1	29.9	37.6	High wind event
2022-02-06	163.3	-	252.7	31.7	34.9	High wind event
2022-02-07	-	42	260.1	29.8	34.8	High wind event
2022-02-08	189.8	-	264.0	32.0	34.8	High wind event
2022-02-09	125.6	-	255.4	33.3	45.6	High wind event
2022-02-10	174.0	-	258.9	38.8	29.6	High wind event
2022-02-17	288.8	-	258.8	33.2	42.3	High wind event
2022-02-18	124.5	-	289.5	21.2	65.0	High wind event
2022-02-23	108.9	-	289.4	23.7	53.5	High wind event
2022-02-25	149.5	-	266.1	33.6	48.1	High wind event
2022-02-26	205.0	-	265.2	37.0	41.3	High wind event
<b>Total # of Exceedances</b>	<b>11</b>	<b>1</b>				
<b>Maximum # of Exceedances (February)</b>	<b>9 (2018)</b>	<b>0 (2018, 2019, 2021)</b>				
<b>Average # of Exceedances (February)</b>	<b>7</b>	<b>0</b>				
<b>Minimum # of Exceedances (February)</b>	<b>3 (2019)</b>	<b>0 (2018, 2019, 2021)</b>				



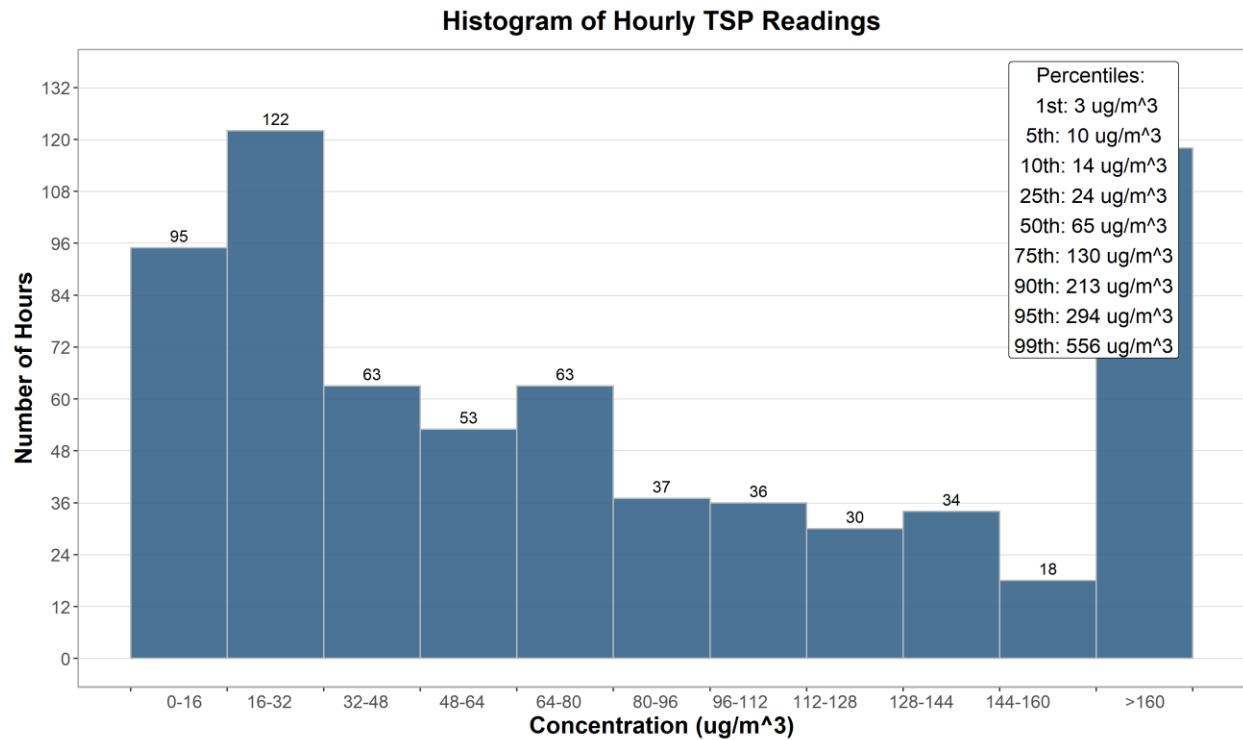
**Figure 4-1 1-hour particulate matter concentrations recorded at the Windridge monitor**



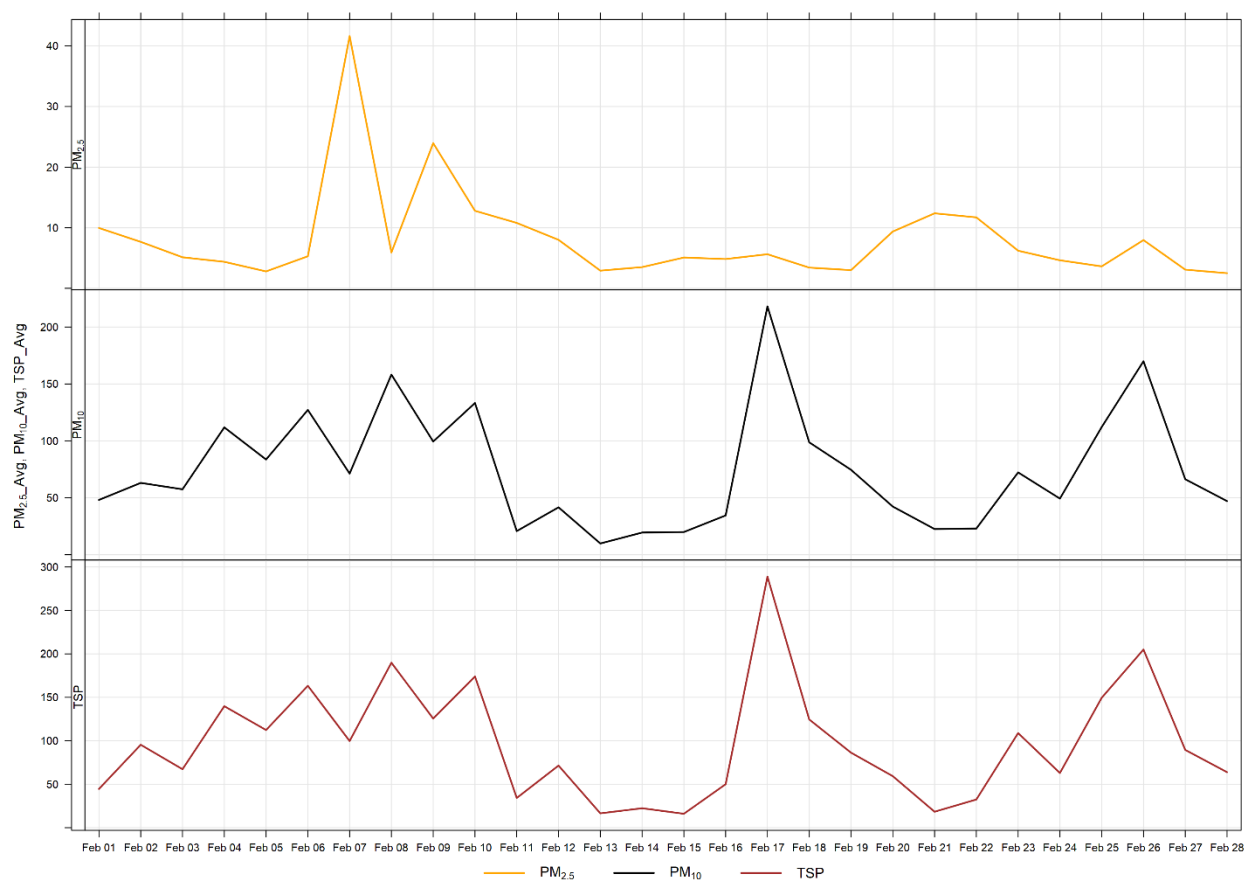
**Figure 4-2** Histogram of hourly PM<sub>2.5</sub> concentrations at the Windridge station



**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

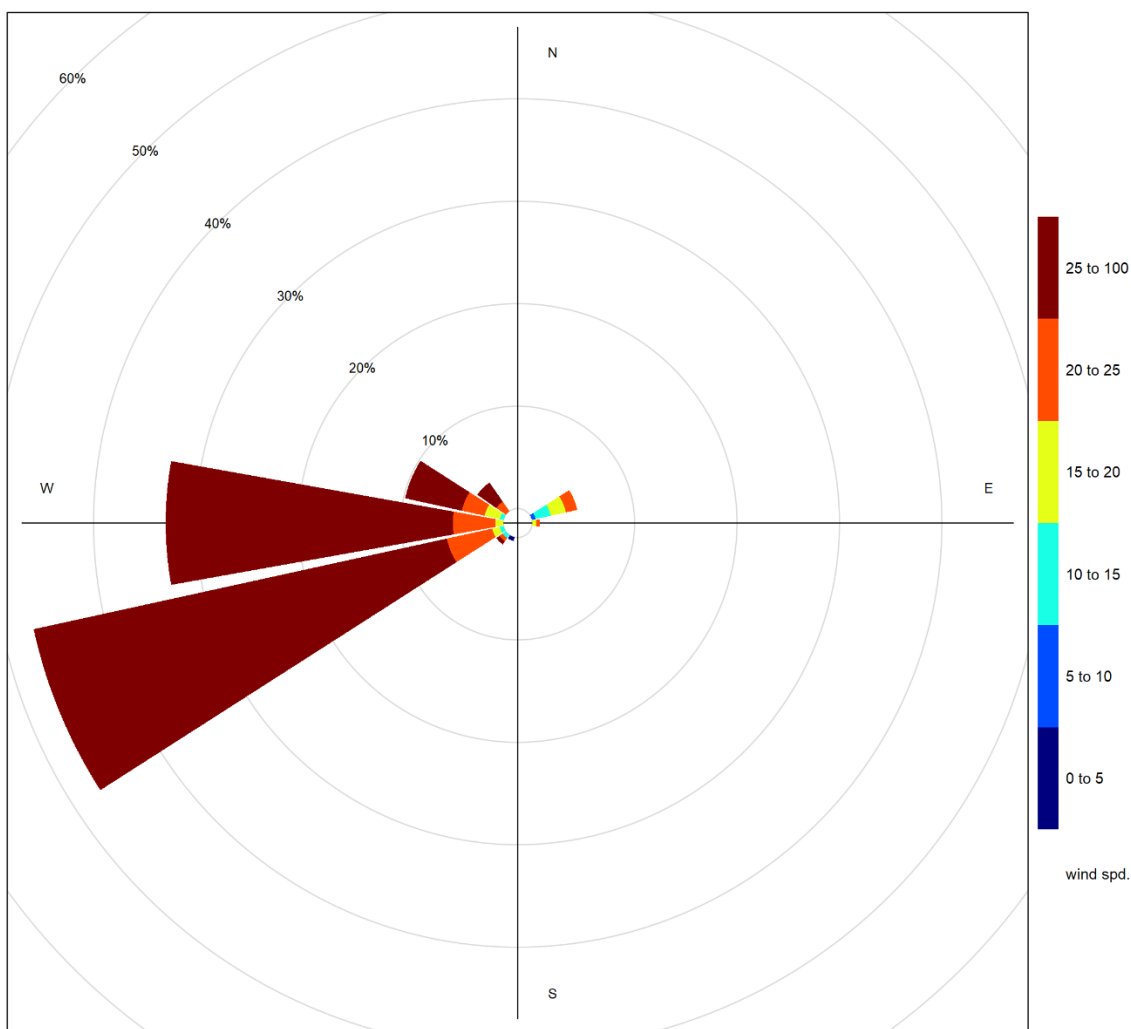


**Figure 4-5 24-hour particulate matter concentrations at the Windridge monitor**

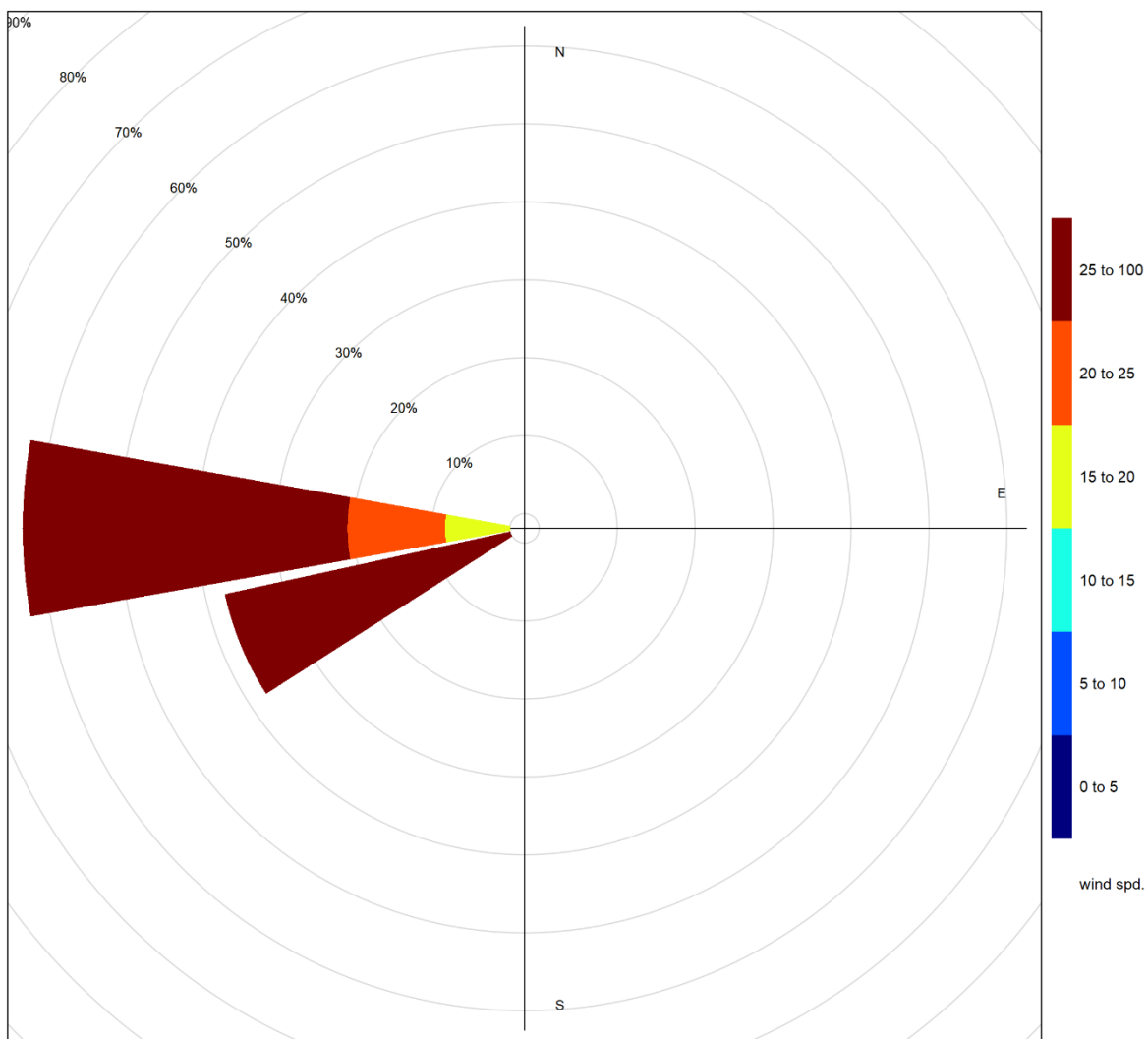
Figure 4-6 shows the wind rose for the 11 days of TSP exceedances. The wind rose shows that the winds predominantly came from the west-southwest and west directions, and were predominately over 25 km/hr. This month the TSP exceedances were largely driven by windblown fugitive dust.

Figure 4-7 shows the wind rose for the 1 day of PM<sub>2.5</sub> exceedances. The wind rose shows that the winds predominantly came from the west and west-southwest, and were predominately over 25 km/hr.

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 February 2022. Similar to the Lagoon station, typically PM concentrations shows a diurnal pattern associated with Lafarge operations, daytime emissions from traffic and other activities. The diurnal patterns also follow the diurnal pattern of higher wind speeds during the daytime hours. However, this month, there were some very high winds into the evening and overnight hours, which skewed the typical diurnal pattern of PM concentrations.

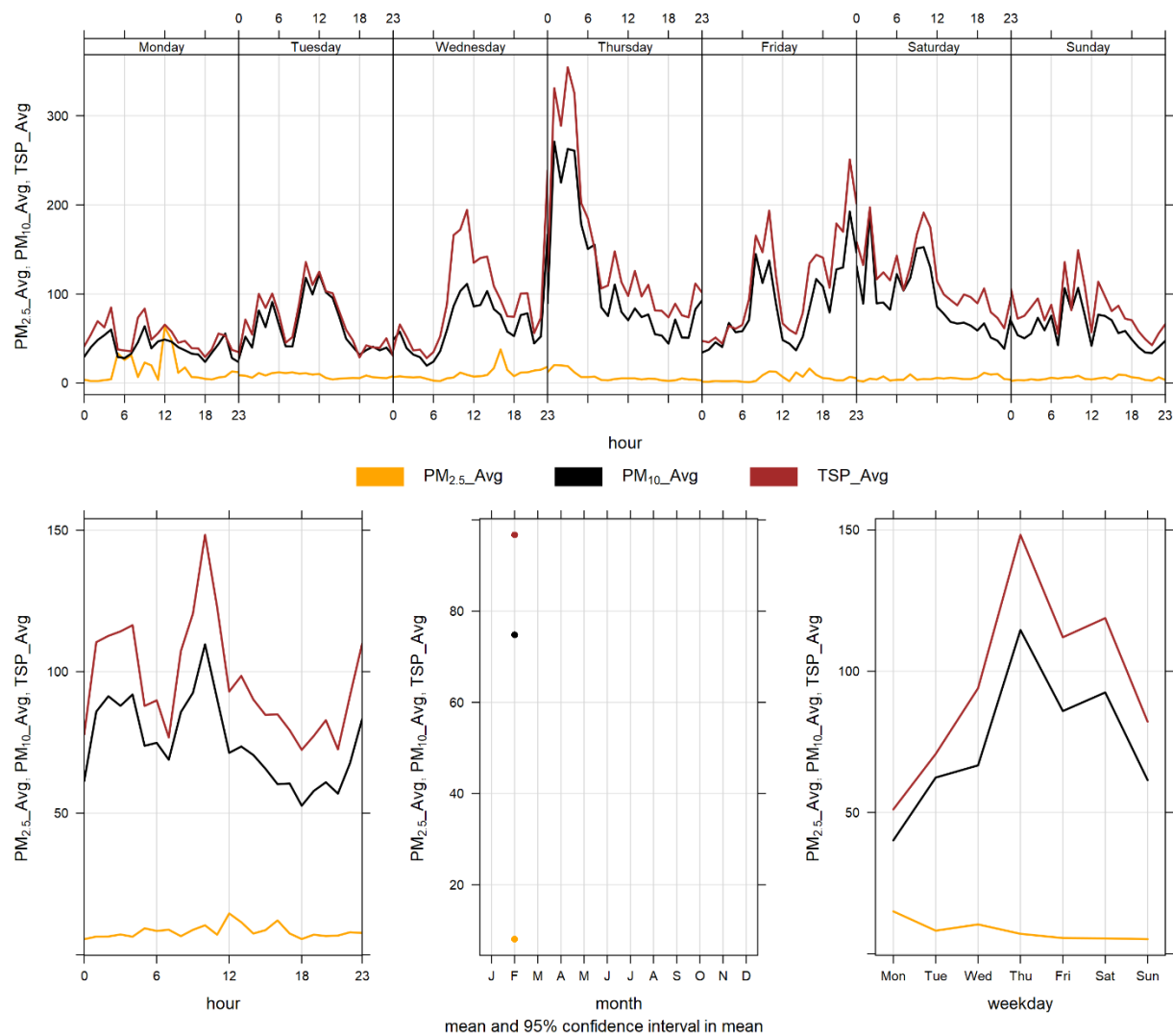


**Figure 4-6** Wind rose for TSP exceedance days recorded at the Windridge Station



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





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

# 5 WEST INDUSTRIAL GRIMM

## 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 94.8% uptime for the month of February due to 35 hours of collection error that occurred from February 9 <sup>th</sup> at 17:00 to February 11 <sup>th</sup> at 3:00.

## 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. Table 5-3 summarizes the recorded exceedances.

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 three 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.

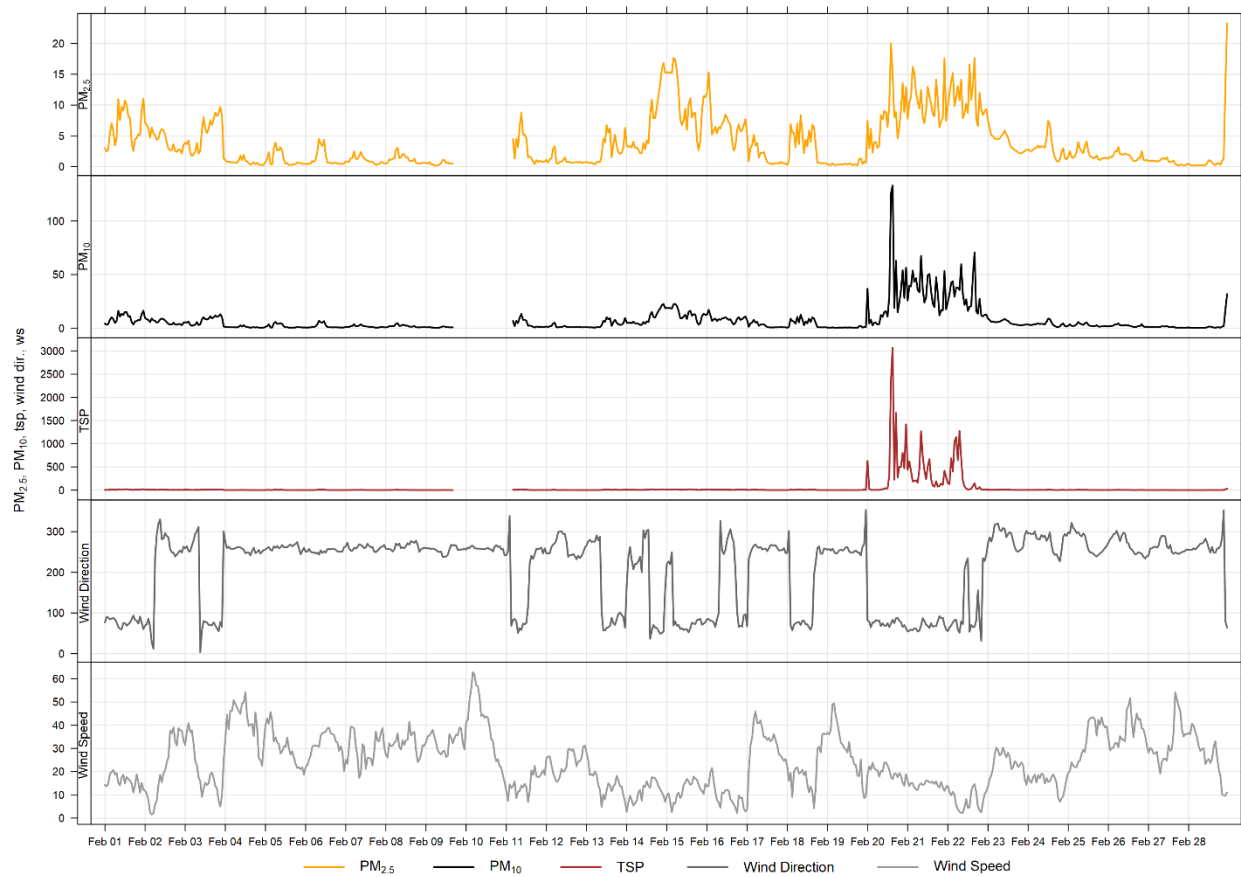
Historically during the month of February, the West monitor records an average of 2 and zero exceedances of the 24-hour TSP and PM<sub>2.5</sub> guidelines, respectively. The maximum number of TSP exceedances recorded during February occurred in 2010 where there were 11 days that exceeded the guideline.

**Table 5-2      Summary of February 2022 data at the West GRIMM**

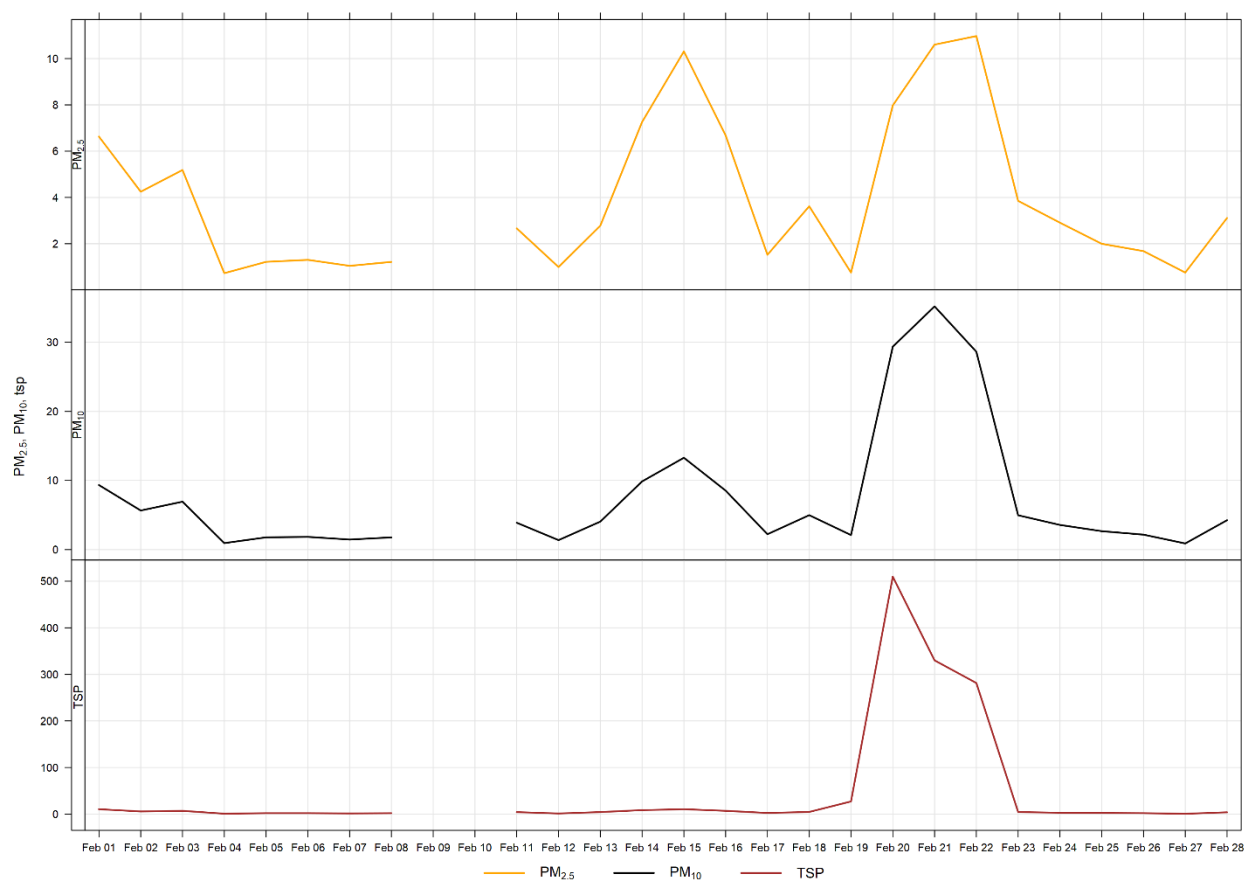
Parameter	Guideline		Station	Exceedances		Monthly		Maximum 1-hour					Maximum 24-hour		Operational Time (Percent)
	1-hr	24-hr		1-hr	24-hr	Minimum	Average	Maximum Concentration	Day	Hour	Wind Speed (km/hr)	Wind Direction (degrees)	Maximum Concentration	Day	
<b>PM<sub>2.5</sub></b> (µg/m <sup>3</sup> )	80	29	West	0	0	0.2	3.8	28.3	28	24	8.0	57.7	11.0	22	94.8
<b>PM<sub>10</sub></b> (µg/m <sup>3</sup> )	-	-	West	-	-	0.2	7.2	133.1	20	15	16.7	82.9	35.2	21	94.8
<b>TSP</b> (µg/m <sup>3</sup> )	-	100	West	-	3	0.1	46.6	3069.5	20	15	16.7	82.9	509.7	20	94.8

**Table 5-3 Days exceeding the Guideline for TSP or PM<sub>2.5</sub> at the West 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)
West						
2022-02-20	509.7	-	74.2	19.6	78.3	Winds predominately from the northeast
2022-02-21	330.0	-	68.9	14.3	68.5	Winds predominately from the northeast
2022-02-22	281.4	-	83.5	7.7	66.4	Winds predominately from the northeast
Total # of Exceedances	3	0				
Maximum # of Exceedances (February)	11 (2010)	2 (2015)				
Average # of Exceedances (February)	2	0				
Minimum # of Exceedances (February)	0 (2016, 2017, 2019, 2020, 2021)	0 (2010, 2011, 2013, 2014, 2016, 2017, 2018, 2020, 2021)				



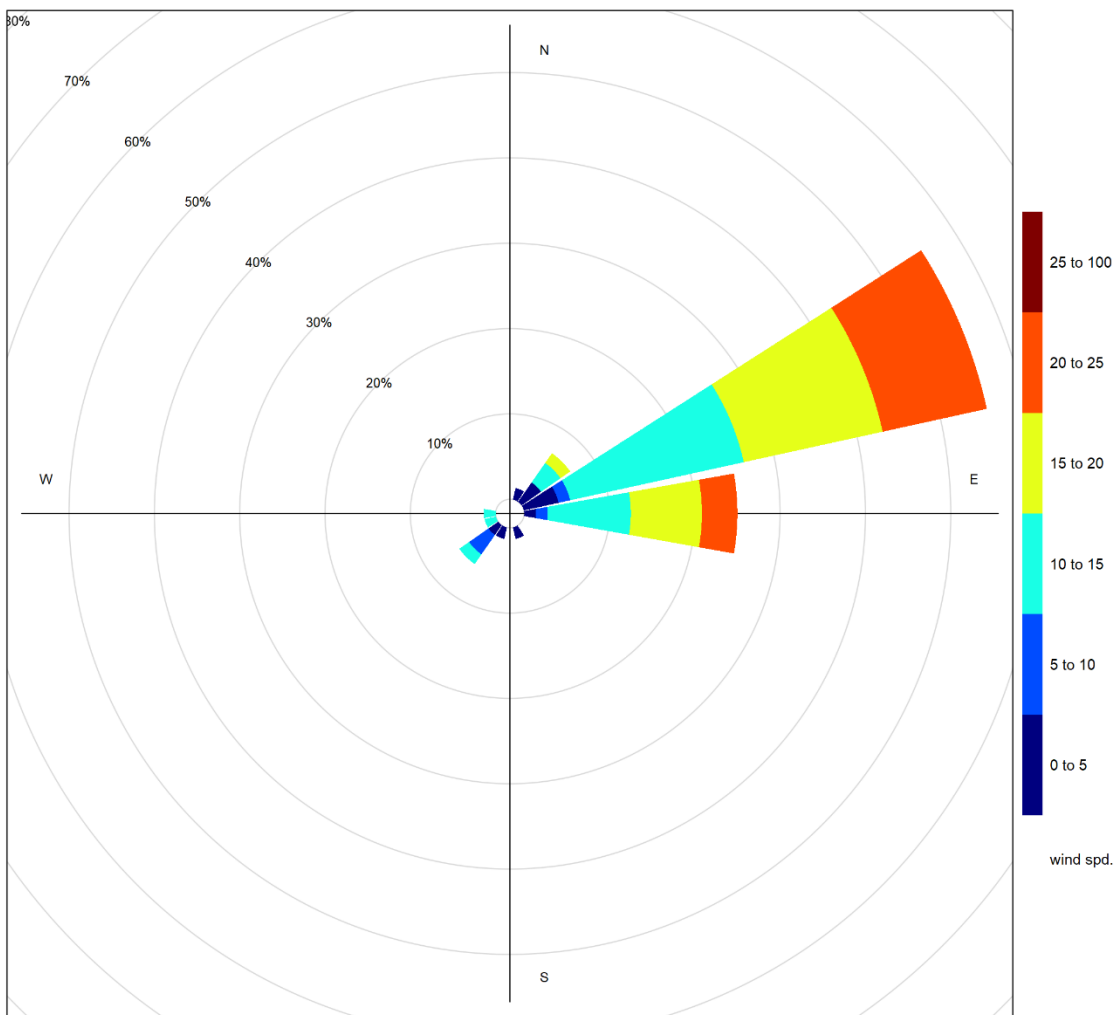
**Figure 5-1 1-hour particulate matter concentrations at the West monitor**



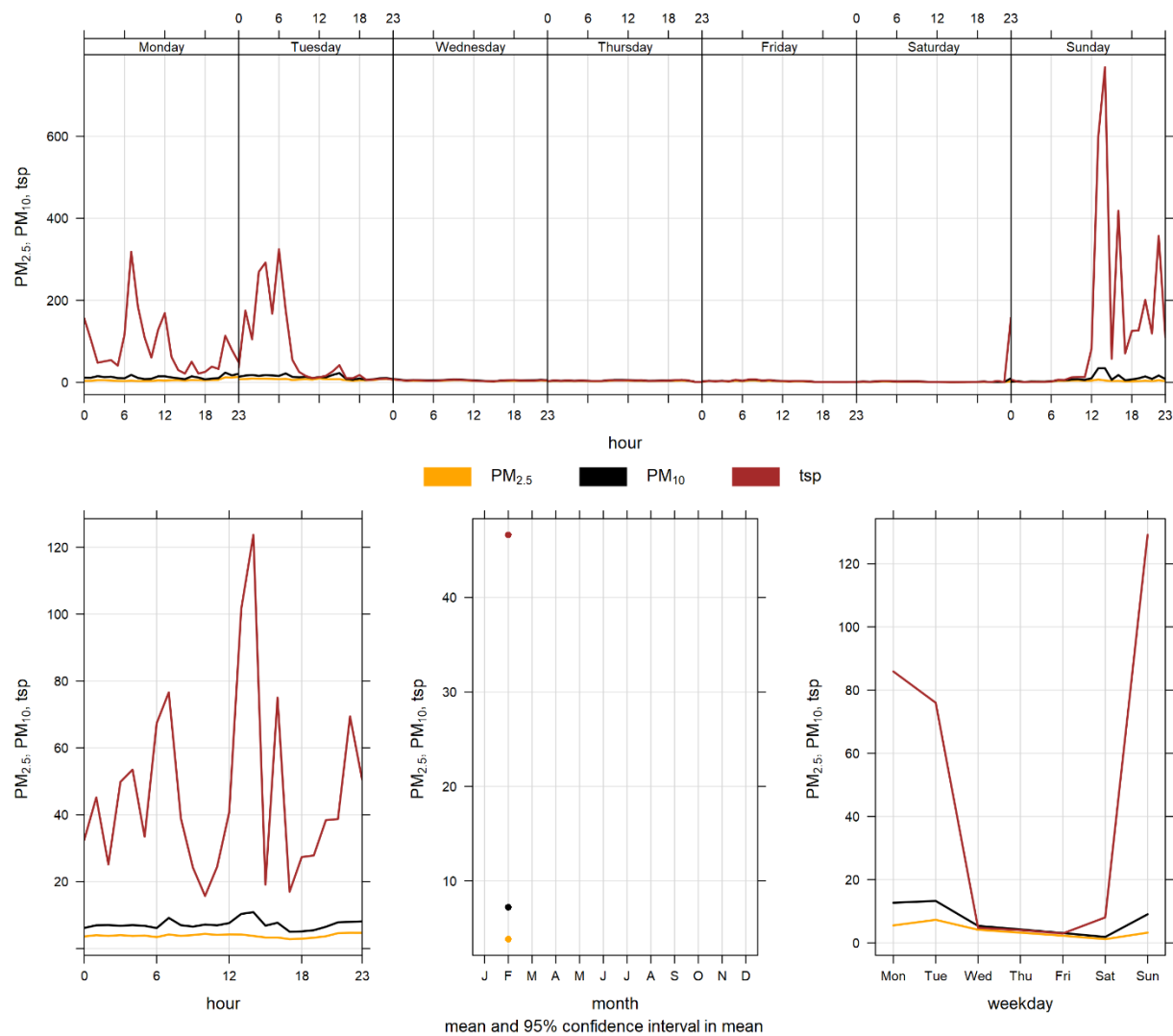
**Figure 5-2 24-hour particulate matter concentrations at the West monitor**

Figure 5-3 shows the wind rose for the 3 days of TSP exceedances. The wind rose show that the winds predominantly came from the northeast direction, which would be from the direction of Lafarge Exshaw as well as the highway and rail line.

Figure 5-4 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 5-4 is based on data collected during February 2022. 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. The West monitor was moved to its current location (Figure 1-1) on December 1, 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 Wind rose for TSP exceedance days recorded at the West GRIMM**



**Figure 5-4 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 94.8% uptime during the month of February due to 35 hours of collection error that occurred from February 9 <sup>th</sup> at 17:00 to February 11 <sup>th</sup> at 3:00.

## 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 in 2009. 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 17 and 1 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 was 1 hour exceeding the 1-hour PM<sub>2.5</sub> Guideline.

Historically during the month of February, the Berm monitor records an average of 16 and 1 exceedances of the 24-hour TSP and PM<sub>2.5</sub> guidelines, respectively. The maximum number of TSP exceedances recorded during February occurred in 2013 where there were 24 days that exceeded the guideline. On the other hand, the maximum number of PM<sub>2.5</sub> exceedances in February was 3 days in 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 February 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.

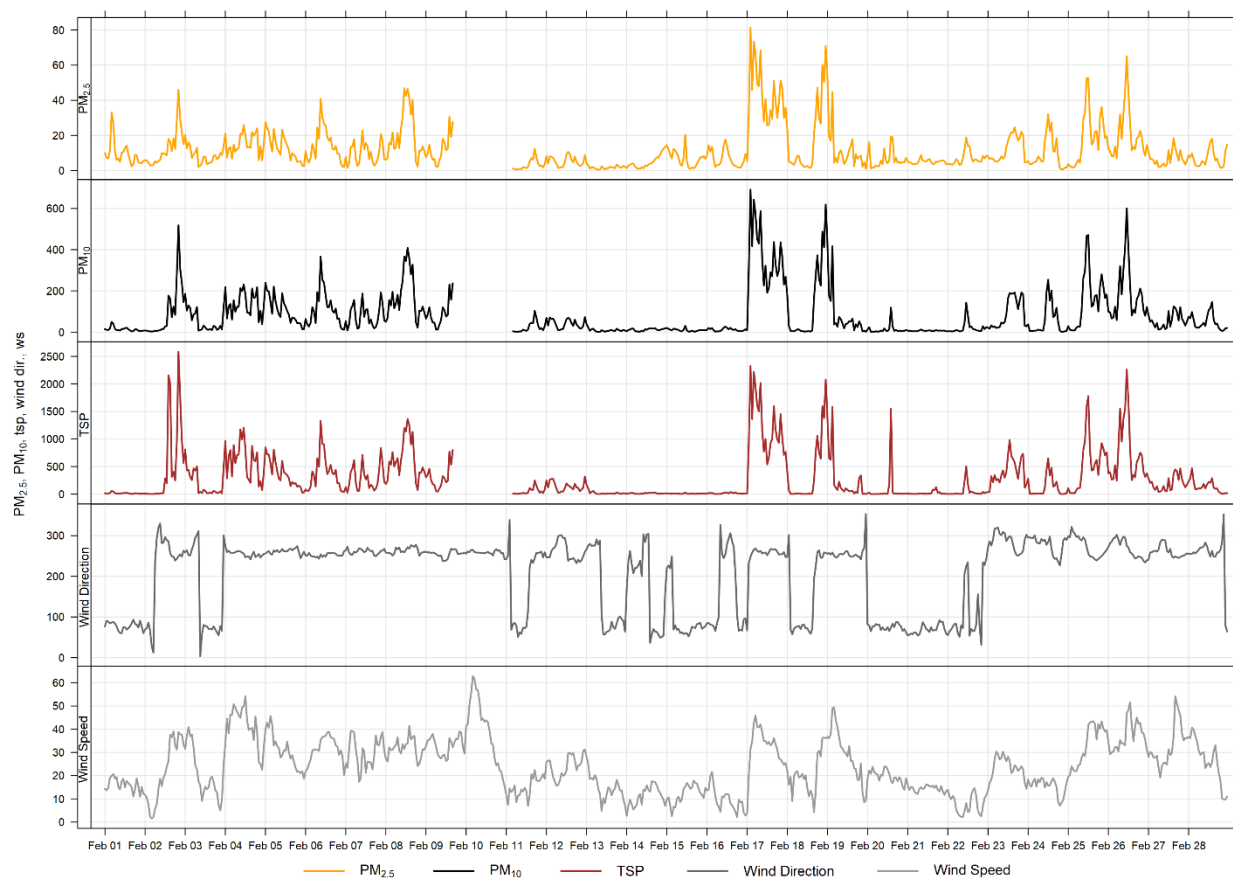
**Table 6-2      Summary of February 2022 data at the Berm GRIMM**

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	1	1	0.5	11.6	81.5	17	2	31.3	247.5	43.2	17	94.8
<b>PM<sub>10</sub></b> (µg/m <sup>3</sup> )	-	-	Berm	-	-	0.9	80.7	691.5	17	2	31.3	247.5	366.1	17	94.8
<b>TSP</b> (µg/m <sup>3</sup> )	-	100	Berm	-	17	0.9	265.8	2583.7	2	20	38.7	249.4	1209.5	17	94.8

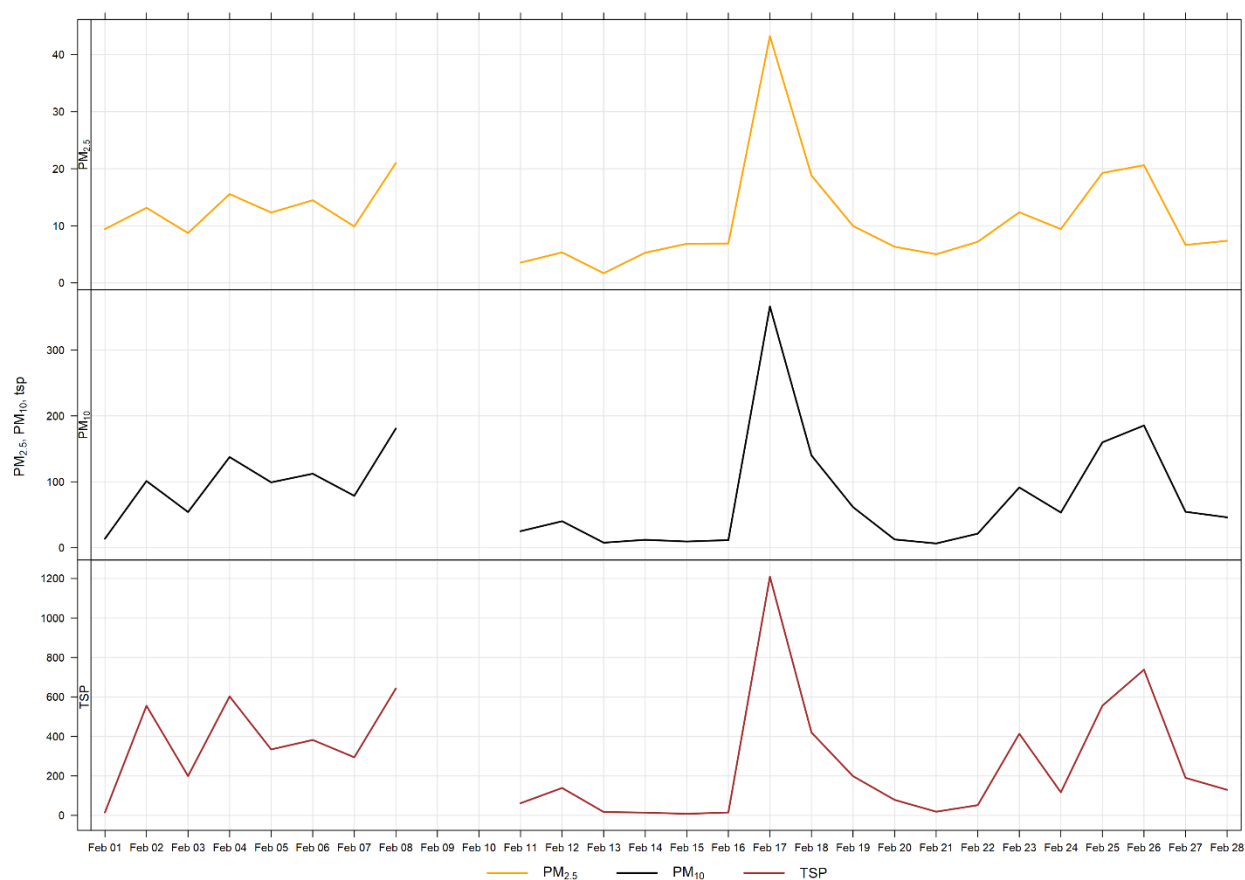
**Table 6-3 Days exceeding the Guideline for TSP or PM<sub>2.5</sub> at the Berm Monitor**

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>						
2022-02-02	555.3	-	263.7	22.2	60.2	High wind event
2022-02-03	199.2	-	305.9	20.6	63.4	High wind event
2022-02-04	602.5	-	255.0	41.5	49.0	High wind event
2022-02-05	334.1	-	261.1	29.9	37.6	High wind event
2022-02-06	382.1	-	252.7	31.7	34.9	High wind event
2022-02-07	294.2	-	260.1	29.8	34.8	High wind event
2022-02-08	643.0	-	264.0	32.0	34.8	High wind event
2022-02-12	138.9	-	257.7	24.1	26.7	High wind event
2022-02-17	1209.5	43	258.8	33.2	42.3	High wind event
2022-02-18	419.8	-	289.5	21.2	65.0	High wind event
2022-02-19	198.5	-	253.5	28.7	58.5	High wind event
2022-02-23	413.6	-	289.4	23.7	53.5	High wind event
2022-02-24	116.8	-	279.9	15.5	60.8	Winds predominately from the west
2022-02-25	555.8	-	266.1	33.6	48.1	High wind event
2022-02-26	738.1	-	265.2	37.0	41.3	High wind event

<b>2022-02-27</b>	190.1	-	257.8	33.1	45.2	High wind event
<b>2022-02-28</b>	129.3	-	263.3	25.4	48.8	High wind event
<b>Total # of Exceedances</b>	<b>17</b>	<b>1</b>				
<b>Maximum # of Exceedances (February)</b>	<b>24 (2013)</b>	<b>3 (2021)</b>				
<b>Average # of Exceedances (February)</b>	<b>16</b>	<b>1</b>				
<b>Minimum # of Exceedances (February)</b>	<b>7 (2019)</b>	<b>0 (2010, 2012, 2013, 2014, 2017)</b>				



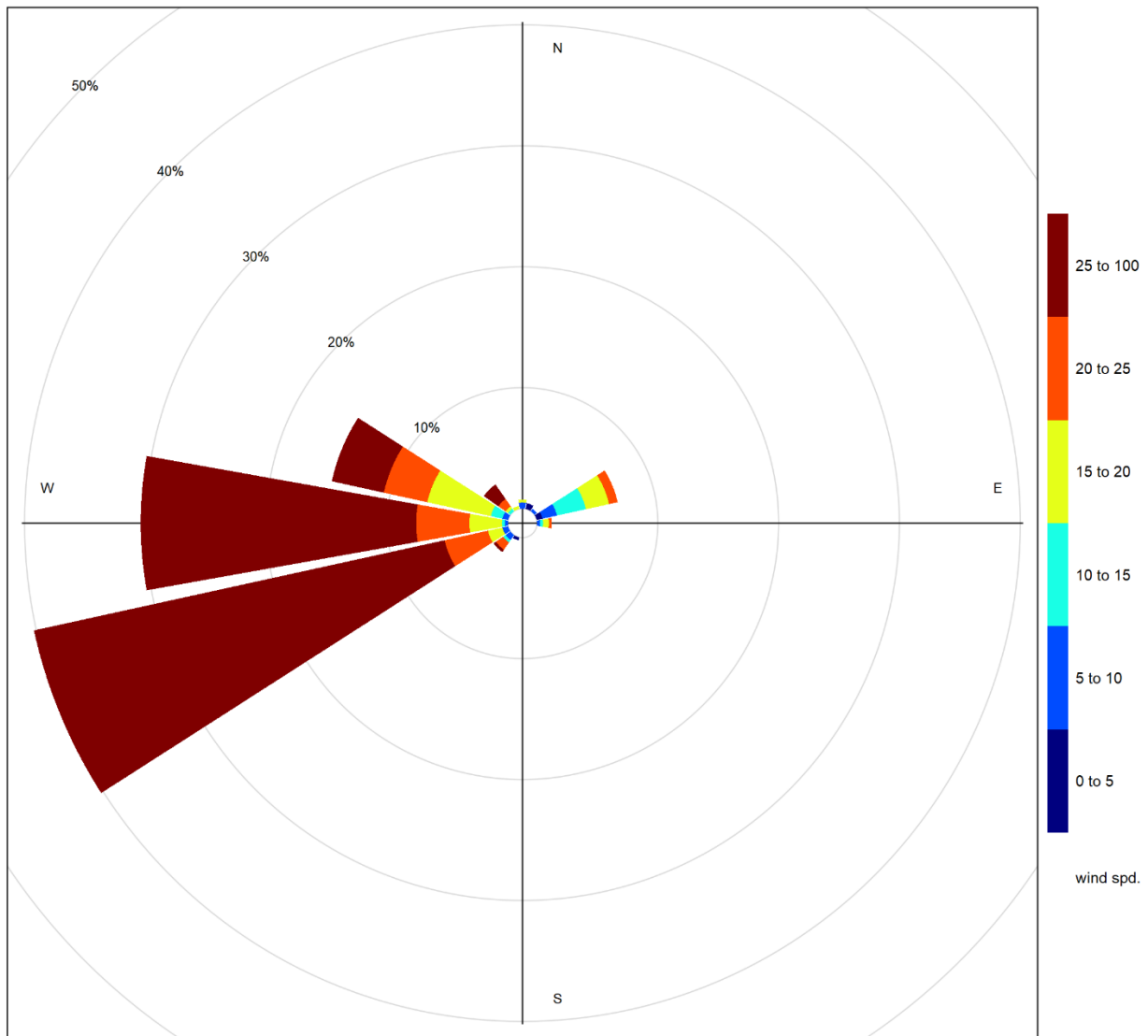
**Figure 6-1 1-hour particulate matter concentrations recorded at the Berm monitor**



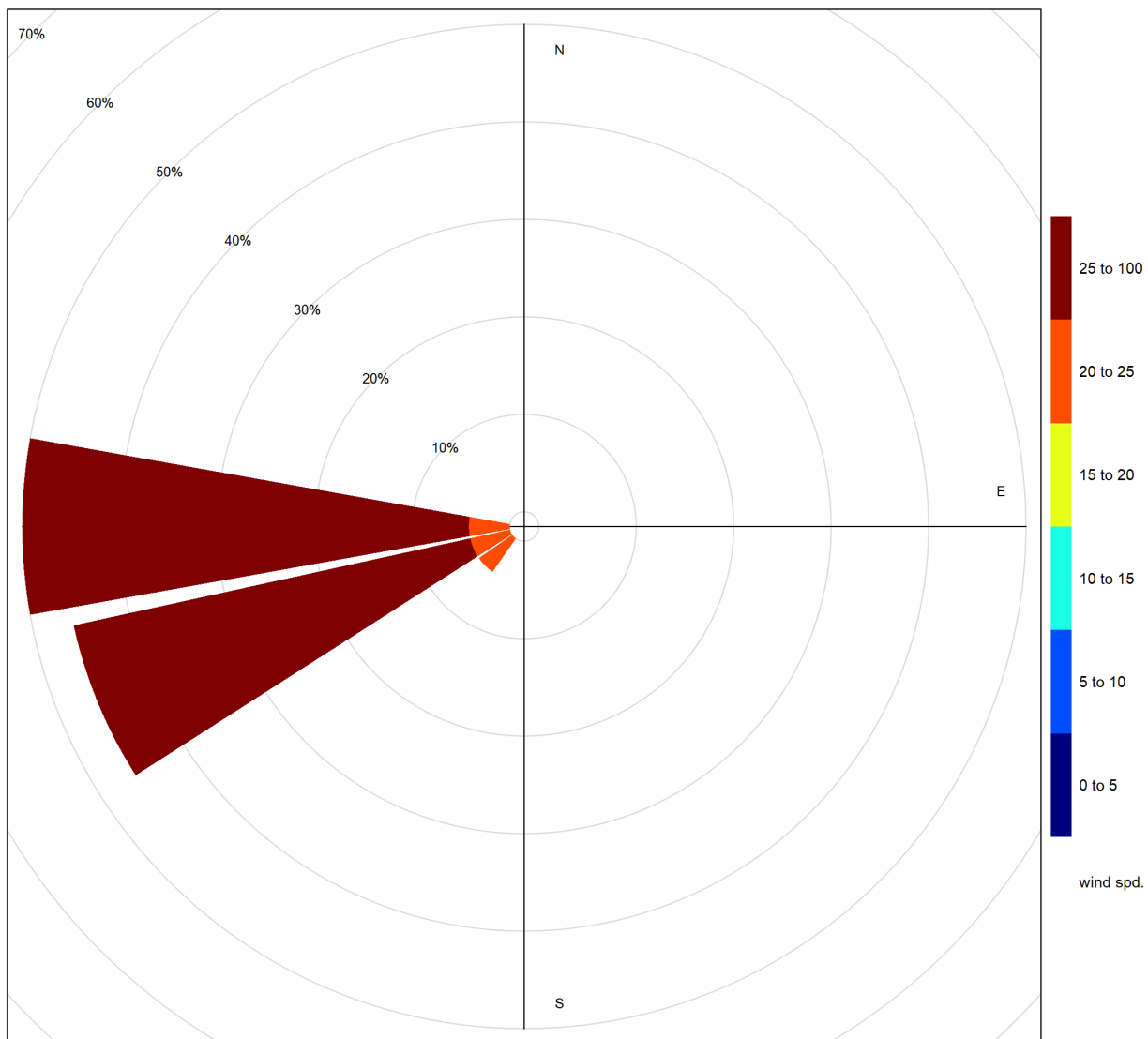
**Figure 6-2 24-hour particulate matter concentrations recorded at the Berm monitor**

Figure 6-3 shows the wind rose for the 17 days of TSP exceedances. Figure 6-4 shows the wind rose for the 1 day of  $PM_{2.5}$  exceedances. The wind roses show that the winds predominantly came from the westerly directions, and were predominately over 20 km/hr. This month the TSP exceedances were largely driven by windblown fugitive dust.

Figure 6-5 shows the variation of PM recorded at the Berm monitor over various time averaging periods. The Berm monitor diurnal pattern, similar to the Windridge and Lagoon stations, is associated with Lafarge operations, but also daytime emissions from other activities and sources in Exshaw.

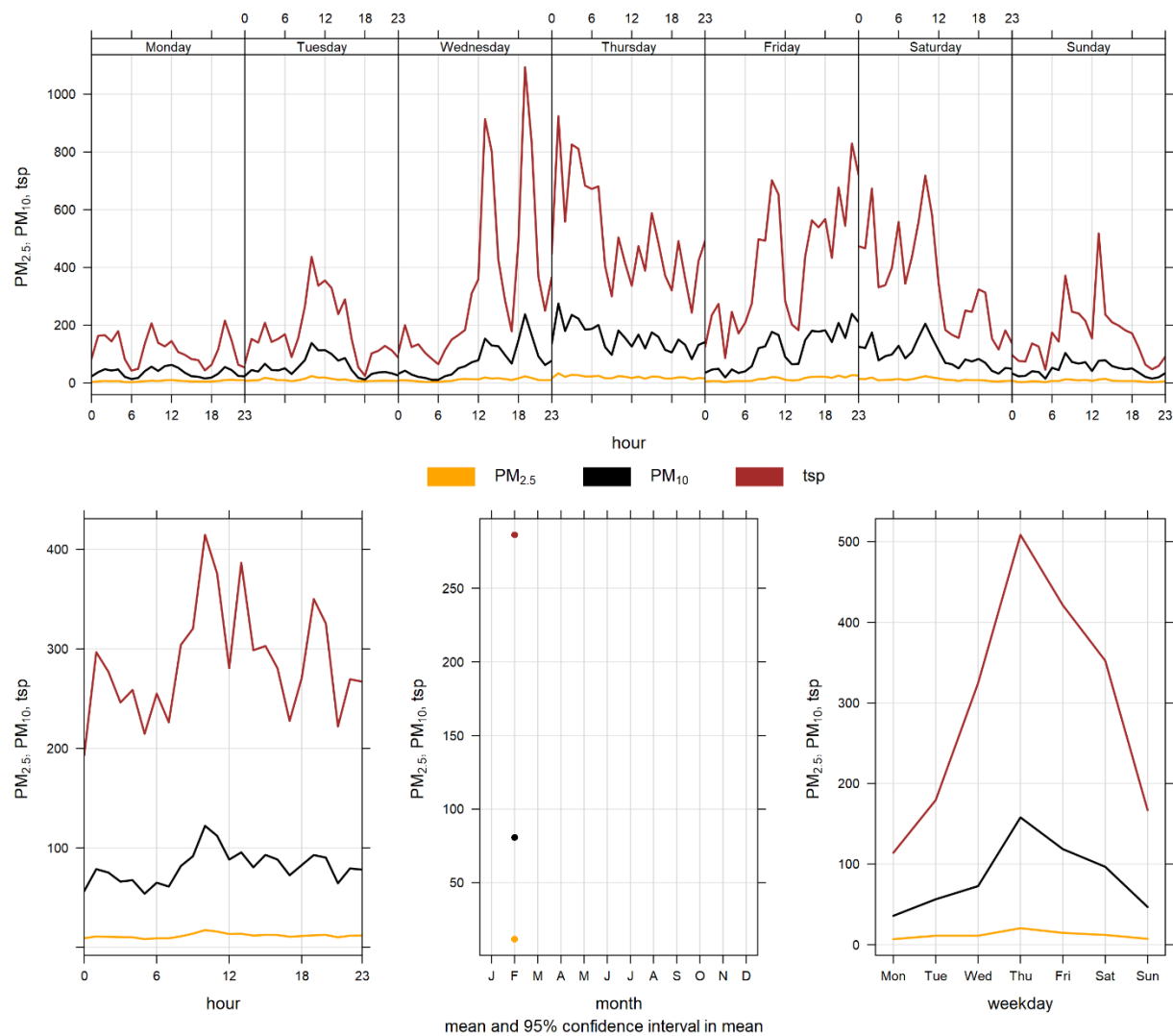


**Figure 6-3 Wind rose for TSP exceedance days recorded at the Berm GRIMM**



**Figure 6-4** Wind rose for PM<sub>2.5</sub> exceedance day recorded at the Berm GRIMM





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

# 7 ENTRANCE INDUSTRIAL GRIMM

## 7.1 OPERATIONAL SUMMARY

A summary of the station operation for the month is provided in Table 7-1.

**Table 7-1 Instrumentation List at the Entrance 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 94.8% uptime for the month of February due to 35 hours of collection error that occurred from February 9 <sup>th</sup> at 17:00 to February 11 <sup>th</sup> at 3:00.

## 7.2 MONITORING RESULTS AND TRENDS

The Entrance monitor was placed at its current location as a result of dispersion modelling conducted in 2009. This area was indicated as being the area where the maximum PM concentrations were expected. Figure 7-1 and Figure 7-2 show the hourly and daily PM<sub>2.5</sub>, PM<sub>10</sub> and TSP concentrations recorded over the month. Table 7-2 summarizes the maximum 1-hour and 24-hour PM concentrations recorded during the month. Table 7-3 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.

During the month of February, there were 11 and 0 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 was zero hours exceeding the 1-hour PM<sub>2.5</sub> Guideline.

Historically, the Entrance monitor records an average of 15 and 0 exceedances of the 24-hour TSP and PM<sub>2.5</sub> guidelines respectively, during the month of February. The maximum number of TSP exceedances recorded during February occurred in 2014, which had 25 days that exceeded the guideline. The minimum number of TSP exceedances recorded during February occurred in 2011, which had six days that exceeded the guideline. The maximum number of PM<sub>2.5</sub> exceedances recorded during February occurred in 2015, which had 2 days that exceeded the guideline.

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 Entrance monitor is impacted by fugitive dust from plant activities, and high wind events. Trucks also pass near to the Entrance monitor as they enter and exit the Lafarge facility for loading and deliveries. Additionally, the monitor is closely located to Highway 1A. Traffic, particularly large trucks, can create dust while crossing over the railway tracks. This can all lead to the monitor recording high TSP concentrations, which are typically associated with fugitive dust sources.

Figure 7-3 shows the wind rose for the 11 days that exceeded the TSP Guideline. The wind rose show that the winds predominantly came from the westerly directions, and were predominately over 20 km/hr.

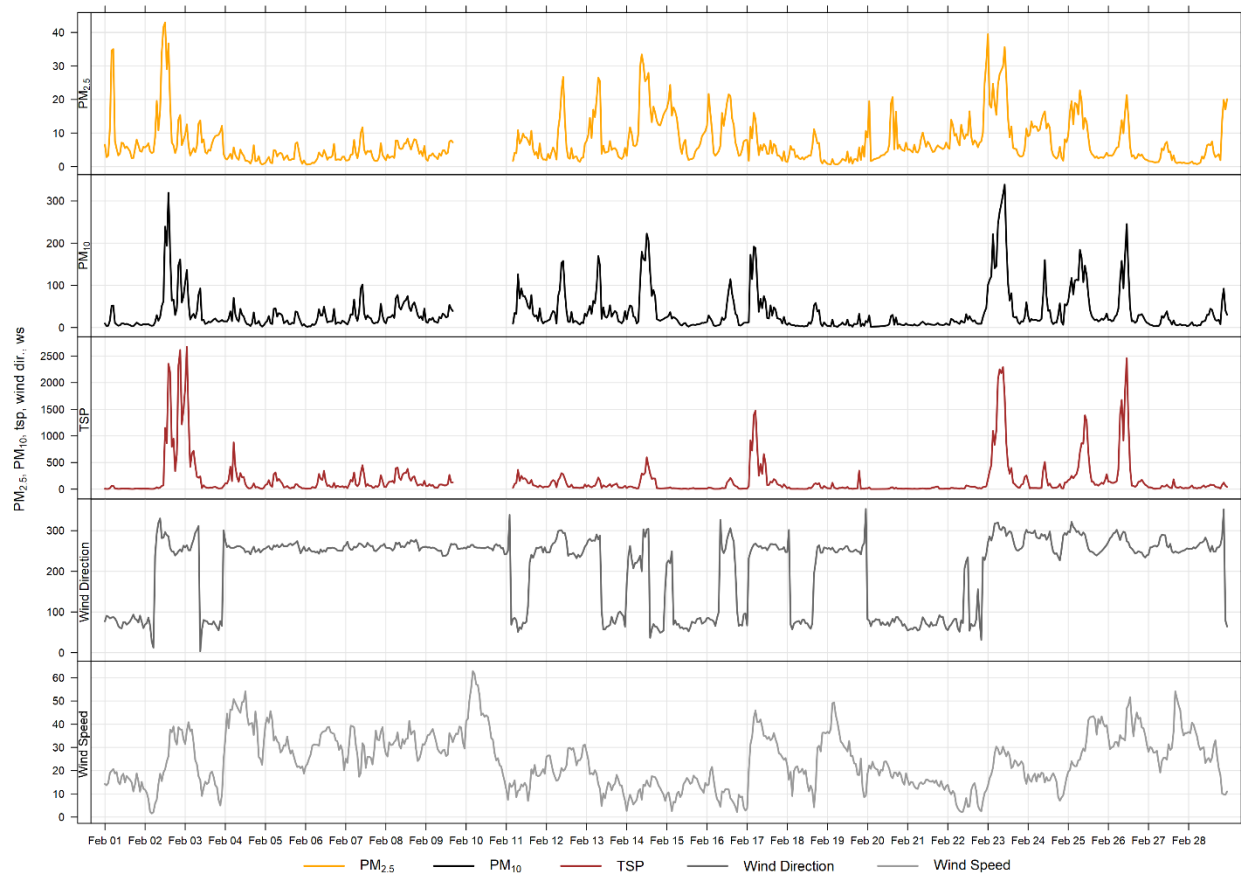
**Table 7-2      Summary of February 2022 data at the Entrance GRIMM**

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	Entrance	0	0	0.6	7.2	43.0	2	12	20.6	296.3	16.6	14	94.8
<b>PM<sub>10</sub></b> (µg/m <sup>3</sup> )	-	-	Entrance	-	-	1.5	35.5	338.8	23	10	28.1	306.6	120.8	23	94.8
<b>TSP</b> (µg/m <sup>3</sup> )	-	100	Entrance	-	11	1.1	171.2	2673.4	3	1	37.3	264.1	795.0	2	94.8

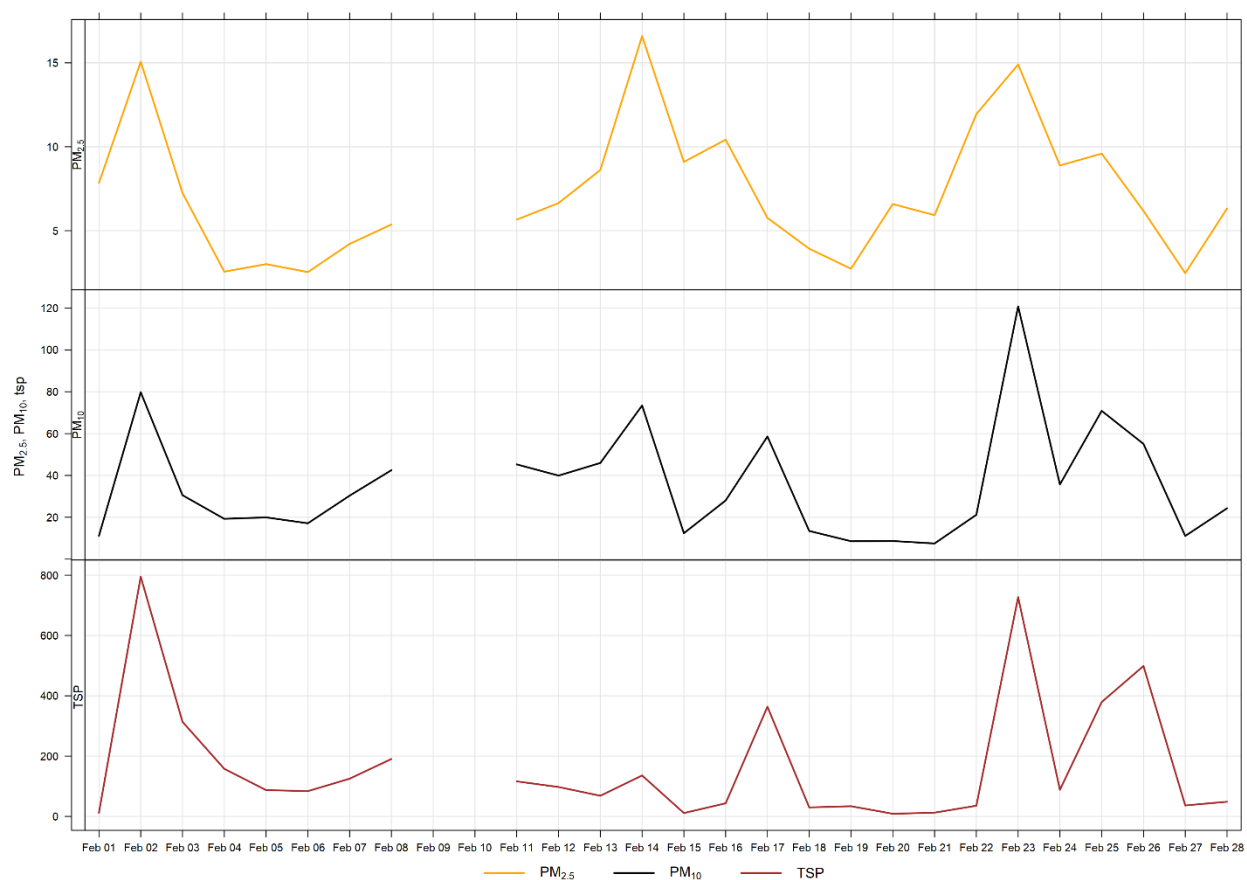
**Table 7-3 Days exceeding the Guideline for TSP or PM<sub>2.5</sub> at the Entrance Monitor**

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>Entrance</b>						
2022-02-02	795.0	-	263.7	22.2	60.2	High wind event
2022-02-03	313.6	-	305.9	20.6	63.4	High wind event
2022-02-04	157.8	-	255.0	41.5	49.0	High wind event
2022-02-07	125.1	-	260.1	29.8	34.8	High wind event
2022-02-08	190.5	-	264.0	32.0	34.8	High wind event
2022-02-11	116.1	-	250.7	15.4	36.1	Winds predominately from the southwest
2022-02-14	135.7	-	357.5	11.5	70.3	Winds from the west for the first half of the day and the east for the latter half
2022-02-17	363.8	-	258.8	33.2	42.3	High wind event
2022-02-23	727.1	-	289.4	23.7	53.5	High wind event
2022-02-25	379.2	-	266.1	33.6	48.1	High wind event
2022-02-26	498.7	-	265.2	37.0	41.3	High wind event
<b>Total # of Exceedances</b>	<b>11</b>	<b>0</b>				
<b>Maximum # of Exceedances (February)</b>	<b>25 (2014)</b>	<b>2 (2015)</b>				
<b>Average # of Exceedances (February)</b>	<b>15</b>	<b>0</b>				

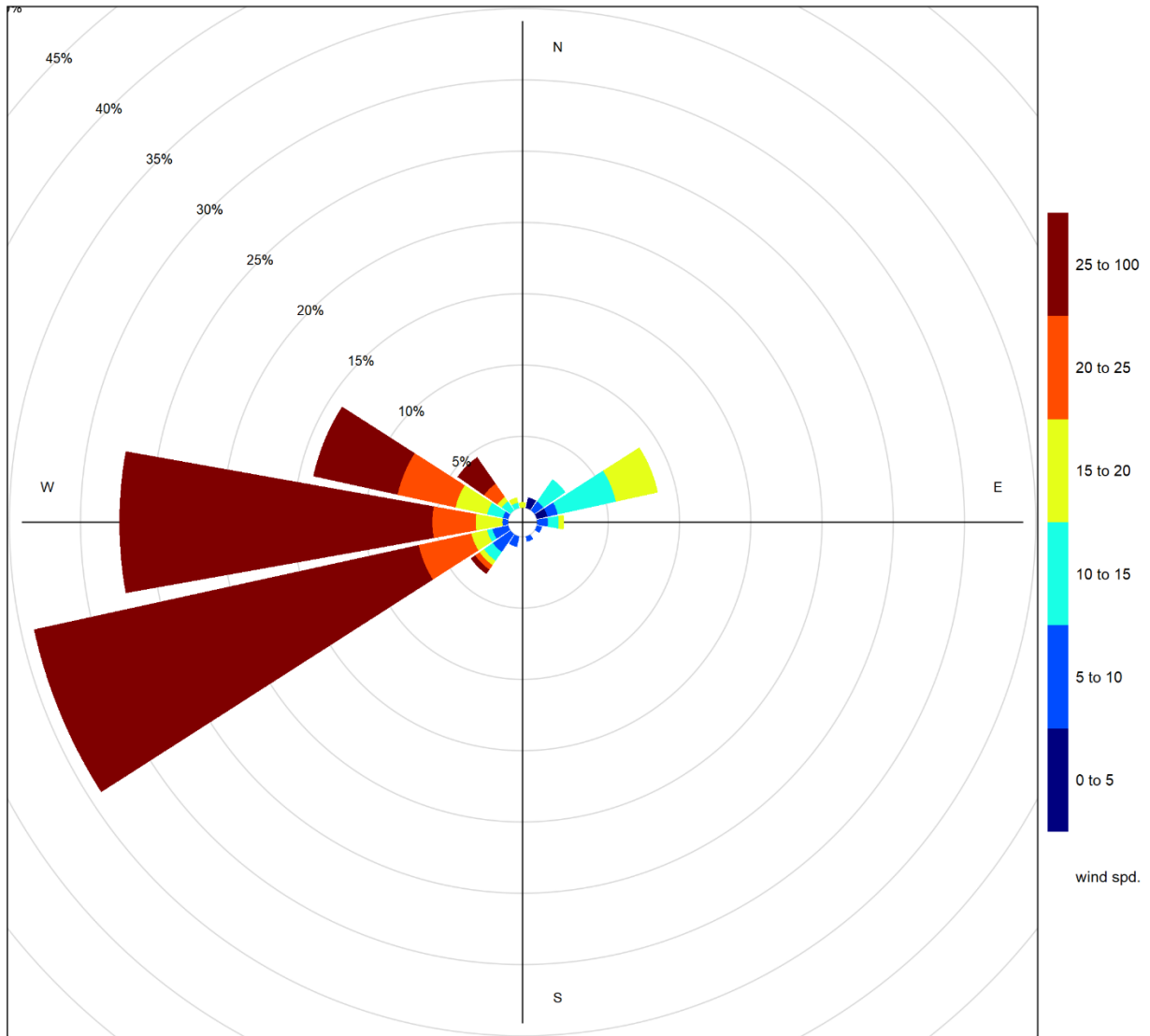
<b>Minimum # of Exceedances (February)</b>	<b>6 (2011)</b>	<b>0 (2010, 2011, 2013, 2016, 2017, 2018, 2020, 2021)</b>				
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**Figure 7-1 1-hour particulate matter concentrations recorded at the Entrance monitor**



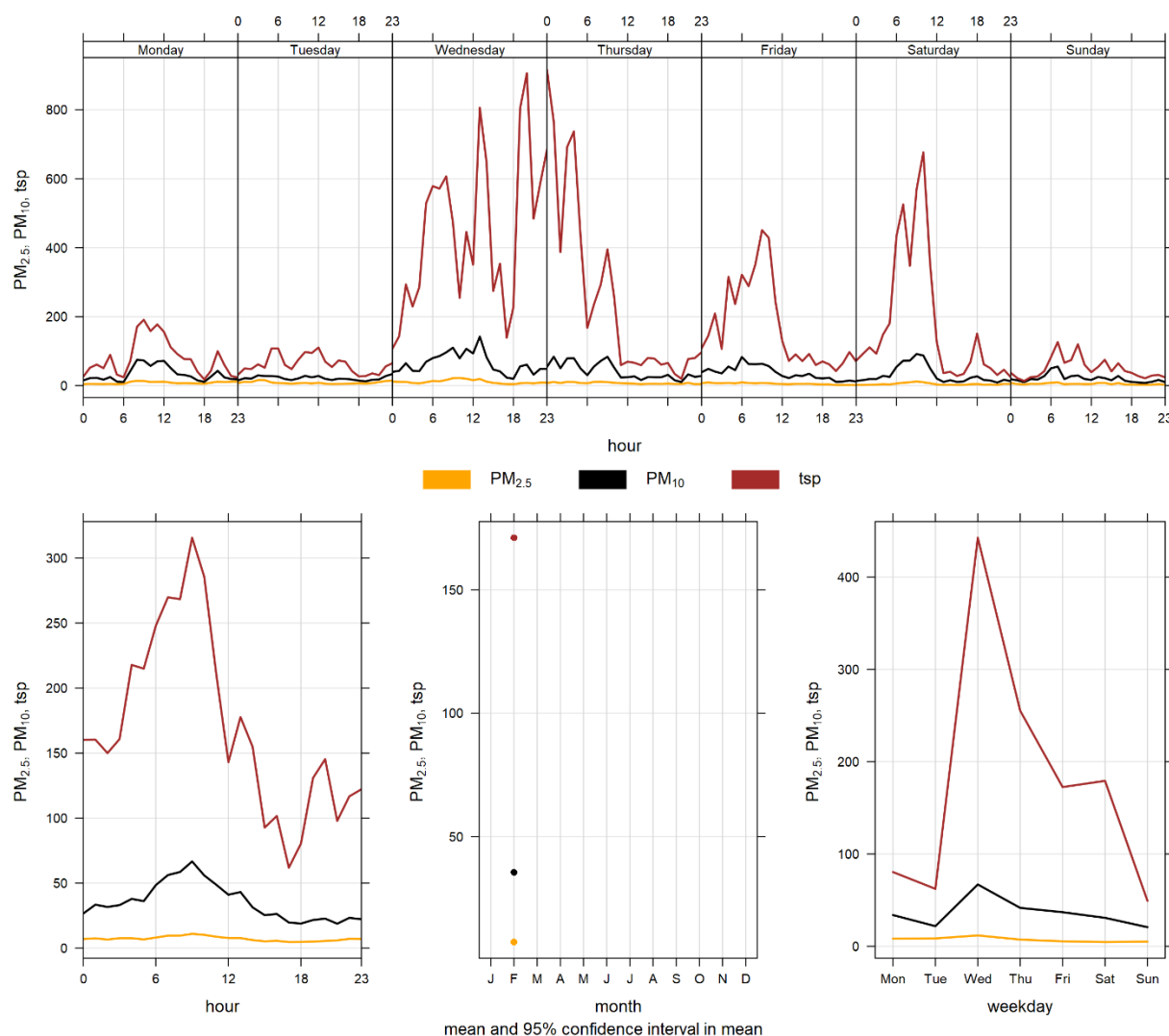
**Figure 7-2 24-hour particulate matter concentrations at the Entrance monitor**



**Figure 7-3 Wind rose for TSP exceedance days recorded at the Entrance GRIMM**



Figure 7-4 illustrates the hourly PM concentrations recorded at the Entrance 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 7-4 is based on data collected during February 2022. The diurnal pattern differs from the Windridge, Lagoon and Berm stations and are likely more influenced by daytime traffic emission (from vehicles serving Lafarge as well as regular highway traffic) given its location near the highway entrance to Lafarge.



**Figure 7-4** Entrance particulate matter time variation

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- Alberta Environment and Parks. (2016, April). Air Monitoring Directive. Alberta, Canada.
- Carslaw, D.C. and K. Ropkins, (2012). Openair — an R package for air quality data analysis. Environmental Modelling & Software. Volume 27–28, 52–61.
- Levelton Consultants Ltd. (2015, June 15). Comparison of GRIMM and E-BAM Data. Alberta, Can

# APPENDIX

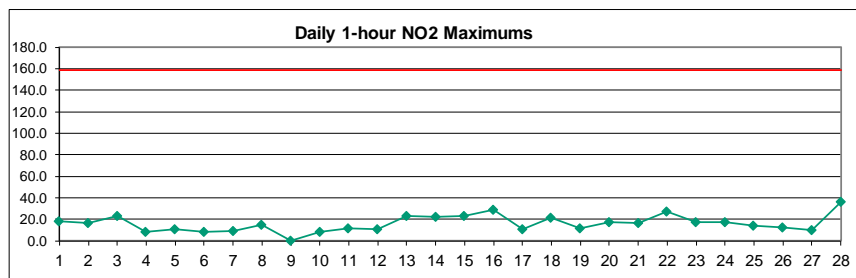
## A DATA & CALIBRATION REPORTS

# APPENDIX



# Lagoon NO<sub>2</sub> (ppb) – February 2022

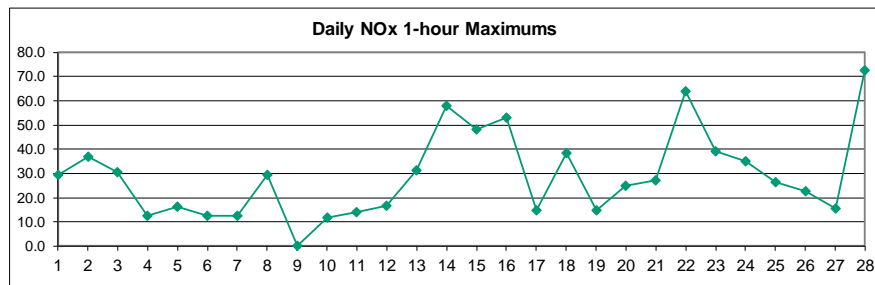
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	5.4	S	9.3	7.7	3.9	3.8	9.6	16.2	16.8	6.8	4.6	6.7	6.9	3.2	2.3	5.0	4.3	7.8	8.5	18.7	8.0	5.9	15.7	9.0	8.1	18.7
2	6.3	S	11.9	13.2	15.6	16.0	16.4	10.8	9.1	14.8	14.2	10.9	13.6	9.7	4.6	3.2	2.9	3.1	2.0	2.0	3.0	1.8	4.0	4.3	8.4	16.4
3	3.9	S	2.2	4.7	6.9	10.8	12.8	7.2	7.0	15.8	4.2	2.9	3.4	6.4	3.9	10.3	9.0	9.0	18.1	17.1	23.5	16.6	11.6	5.7	9.3	23.5
4	2.9	S	3.7	3.7	3.4	3.6	5.0	8.2	4.6	4.1	3.1	2.2	1.9	3.4	1.4	3.6	7.5	1.4	2.5	4.0	1.2	4.0	7.2	1.6	3.7	8.2
5	4.3	S	2.6	2.4	4.4	5.4	4.3	6.5	8.5	8.3	3.6	2.4	2.4	2.9	5.1	7.7	6.9	5.8	11.1	10.5	2.4	3.7	6.9	4.7	5.3	11.1
6	4.8	S	3.2	2.9	2.2	1.7	2.3	1.7	2.8	2.0	2.9	1.6	2.1	2.8	3.9	3.1	4.8	2.5	2.1	4.3	2.1	1.5	8.1	6.8	3.1	8.1
7	7.5	S	1.9	2.0	6.5	7.6	5.0	8.4	7.8	4.8	4.7	9.1	5.4	4.3	4.8	5.4	4.3	1.9	4.9	3.3	3.7	3.8	5.1	4.8	5.1	9.1
8	2.7	S	6.8	3.1	3.6	10.3	9.8	14.8	9.8	9.3	4.5	8.4	10.5	8.1	14.6	8.3	6.6	9.1	9.2	3.4	3.0	5.9	4.1	1.9	7.3	14.8
9	3.8	S	4.2	6.2	2.2	4.6	3.2	3.7	7.0	4.6	C	C	C	C	C	C	C	7.1	3.6	7.0	1.8	7.6	5.0	1.7	-	-
10	1.9	S	5.3	5.7	3.1	2.3	2.8	4.1	7.0	3.1	3.2	2.7	2.6	2.4	4.7	3.8	4.5	3.7	5.3	2.1	8.1	5.9	2.4	3.4	3.9	8.1
11	6.3	S	8.0	3.1	1.7	2.1	8.8	9.1	11.4	7.6	3.9	2.5	6.3	9.6	4.0	5.1	2.6	4.2	9.4	3.8	4.0	2.2	4.7	1.7	5.3	11.4
12	1.7	S	7.5	10.4	5.5	5.0	11.3	9.7	9.9	8.4	7.4	8.9	1.6	2.2	1.5	1.7	1.6	2.2	2.1	1.5	1.5	1.9	3.0	4.8	4.8	11.3
13	5.7	S	15.3	6.4	4.6	8.8	6.7	7.3	8.9	11.1	15.2	12.4	10.9	9.5	2.9	12.9	23.0	7.8	4.2	3.9	4.3	4.5	15.4	8.8	9.2	23.0
14	15.3	S	17.3	19.3	16.2	13.7	13.6	12.2	19.1	9.5	17.7	9.5	9.4	13.1	21.0	11.7	10.5	10.2	13.4	10.5	12.2	10.8	16.8	22.2	14.1	22.2
15	23.0	S	22.3	23.6	23.5	21.7	17.4	12.4	11.2	7.2	10.6	7.4	10.8	5.2	4.8	6.8	17.9	8.0	3.9	4.9	10.5	8.6	7.8	6.6	12.0	23.6
16	8.0	S	6.5	4.9	8.8	11.4	13.8	20.4	28.8	20.8	19.7	16.9	18.4	12.2	7.9	13.1	8.6	10.4	13.9	23.8	21.1	12.8	14.9	20.0	14.6	28.8
17	7.4	S	3.3	3.3	4.3	5.0	3.9	5.9	9.8	10.6	8.5	5.2	3.2	5.2	6.4	5.0	7.4	4.0	4.0	7.1	5.8	5.5	5.0	3.0	5.6	10.6
18	7.2	S	10.9	15.4	3.2	3.1	2.4	5.7	4.1	3.9	8.5	5.9	12.7	10.0	11.6	21.9	16.3	5.9	9.9	3.6	2.7	3.7	4.0	1.9	7.6	21.9
19	3.3	S	4.6	2.3	1.3	1.3	2.4	3.7	4.3	6.3	6.3	4.1	2.4	2.2	2.4	2.3	3.9	2.5	5.7	1.6	8.0	11.7	10.5	10.5	4.5	11.7
20	2.5	S	6.0	9.6	6.2	3.9	3.5	4.8	3.6	4.9	9.1	3.7	4.6	7.7	4.2	8.1	5.1	4.8	12.2	11.2	17.4	9.4	10.0	7.1	6.9	17.4
21	3.2	S	7.8	17.0	15.2	10.1	16.4	6.3	3.6	3.6	3.7	7.1	7.1	3.2	4.0	9.2	14.0	13.5	10.2	8.1	7.8	10.7	15.3	14.1	9.2	17.0
22	17.0	S	25.7	22.3	21.2	22.7	15.8	20.6	27.5	20.2	14.4	8.7	11.2	6.6	2.7	4.4	3.9	5.8	9.0	26.4	26.5	20.2	21.9	17.6	16.2	27.5
23	17.7	S	9.8	7.9	5.8	7.8	7.6	11.0	7.7	6.1	13.2	15.9	13.4	12.1	10.3	8.5	6.7	4.0	6.6	3.6	5.5	11.1	10.9	13.5	9.4	17.7
24	10.6	S	11.0	9.4	12.3	10.5	16.2	15.7	17.5	15.9	10.3	7.8	11.0	8.8	4.0	4.0	4.0	4.4	7.1	4.5	8.0	6.5	10.9	12.0	9.7	17.5
25	14.2	S	7.5	7.5	7.9	7.8	11.0	9.8	10.4	12.0	8.2	2.3	1.7	1.8	1.6	1.8	1.8	1.7	2.0	1.8	1.6	3.8	3.2	3.3	5.4	14.2
26	5.9	S	12.4	9.6	12.0	11.4	5.7	9.7	11.6	12.2	6.9	5.1	3.0	2.2	2.4	2.0	1.9	2.8	2.1	2.1	1.6	1.4	1.3	1.6	5.5	12.4
27	3.3	S	3.0	3.3	5.2	7.7	4.1	10.5	5.5	7.4	5.1	5.2	4.0	2.7	1.8	2.8	1.5	1.2	1.8	1.9	4.9	3.3	5.1	3.5	4.1	10.5
28	4.2	S	7.8	2.8	4.0	3.7	6.7	8.0	10.3	9.1	7.7	8.3	9.4	5.0	3.7	1.9	7.8	4.4	2.5	9.4	12.5	34.3	32.2	36.1	10.1	36.1
NO.	28	-	28	28	28	28	28	28	28	28	27	27	27	27	27	27	27	28	28	28	28	28	28	28	637	100.0%
MEAN	7.1	-	8.5	8.2	7.5	8.0	8.5	9.4	10.2	8.9	8.2	6.8	7.0	6.0	5.3	6.4	7.0	5.3	6.7	7.2	7.6	7.8	9.4	8.3		
MAX	23.0	-	25.7	23.6	23.5	22.7	17.4	20.6	28.8	20.8	19.7	16.9	18.4	13.1	21.0	21.9	23.0	13.5	18.1	26.4	26.5	34.3	32.2	36.1		



Number of 1HR Exceedences	0
Number of Non-Zero Readings	637
Maximum 1-HR Average	36.1 PPB
Maximum 24-HR Average	16.2 PPB
Monthly Calibration	7
Standard Deviation	5.6
Operational Time	672 HRS
Operational Uptime	100.0 %
Monthly Average	7.6 PPB

# Lagoon NOx (ppb) – February 2022

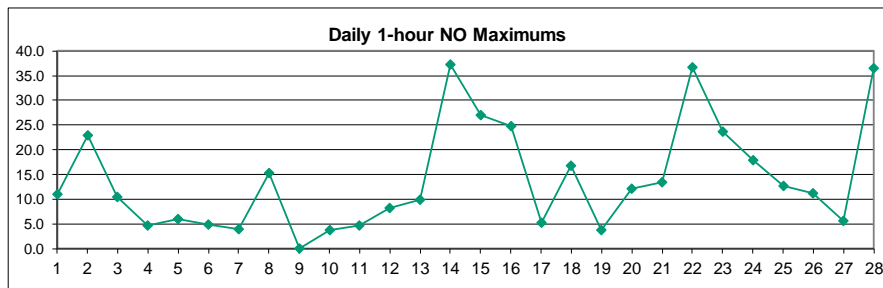
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	5.4	S	9.4	7.6	4.0	4.2	15.4	24.8	23.8	8.6	6.0	10.5	13.1	4.9	3.1	7.4	4.9	8.9	13.2	29.5	8.7	6.1	20.9	9.9	10.9	29.5
2	6.6	S	13.8	13.6	15.8	16.6	24.6	15.3	10.4	32.2	36.9	24.9	36.1	21.0	7.7	5.0	3.8	4.2	2.1	2.2	3.7	2.0	5.2	5.2	13.4	36.9
3	5.0	S	2.5	6.3	9.2	16.9	22.8	10.0	10.4	22.6	5.4	4.0	4.9	10.3	5.3	16.6	11.4	9.5	23.7	20.9	30.4	17.9	14.3	8.8	12.6	30.4
4	3.3	S	5.1	4.5	3.8	4.6	6.4	12.5	5.5	4.9	4.2	3.0	2.4	5.0	1.7	6.3	11.5	1.5	2.7	4.4	1.2	5.1	10.5	1.8	4.9	12.5
5	5.5	S	3.0	2.8	6.2	7.6	6.5	8.9	14.1	13.3	4.8	3.1	3.1	3.8	7.6	11.1	9.5	7.7	16.3	14.4	2.5	4.3	8.8	5.2	7.4	16.3
6	7.0	S	3.4	3.3	2.6	1.8	2.8	1.9	3.3	2.2	3.5	1.9	2.8	3.7	5.4	3.8	6.0	2.7	2.3	4.8	2.2	1.5	12.5	7.3	3.9	12.5
7	10.2	S	2.1	2.2	9.1	10.1	5.8	9.9	9.6	7.2	7.9	12.6	6.7	5.2	5.9	6.7	5.6	2.3	5.9	3.9	4.9	4.4	6.8	5.7	6.6	12.6
8	2.9	S	9.0	3.7	4.2	16.8	17.0	27.1	14.9	15.9	6.4	12.7	17.6	13.4	29.5	15.1	10.4	14.5	15.2	4.0	3.6	7.6	5.5	2.0	11.7	29.5
9	4.3	S	4.9	7.6	2.3	5.3	3.7	4.4	9.7	5.5	C	C	C	C	C	C	C	10.7	4.1	9.9	1.8	10.7	6.8	1.7	-	-
10	2.3	S	7.6	8.9	3.7	2.6	3.4	5.3	9.7	3.7	4.2	3.1	3.0	3.0	7.4	4.8	5.0	4.1	8.5	2.2	11.7	6.8	2.3	3.4	5.1	11.7
11	6.4	S	8.5	3.0	1.7	2.1	9.9	9.2	13.3	9.4	4.8	2.9	8.8	13.9	5.4	6.8	3.2	4.5	12.2	3.5	4.1	2.2	5.0	1.6	6.2	13.9
12	1.8	S	11.5	15.4	6.1	5.4	15.5	13.8	14.5	13.0	12.0	16.6	1.8	2.5	1.6	1.9	1.5	2.1	1.9	1.4	1.5	1.9	3.0	5.2	6.6	16.6
13	6.8	S	20.9	9.2	4.6	12.5	7.6	8.9	9.4	13.2	24.6	18.1	16.2	13.1	3.1	17.9	31.4	8.9	4.2	3.8	4.3	4.6	15.8	8.8	11.6	31.4
14	15.8	S	18.2	28.2	16.5	13.8	14.1	14.0	26.4	13.0	30.6	13.6	13.3	23.2	57.9	18.3	15.6	13.2	18.2	14.6	18.1	12.9	23.9	26.3	20.0	57.9
15	27.2	S	30.4	43.7	38.3	48.1	25.6	17.2	12.6	8.1	15.1	10.5	20.6	7.1	6.3	9.8	28.7	9.8	3.8	4.8	12.2	9.2	8.9	6.6	17.6	48.1
16	7.9	S	8.0	4.9	9.5	11.9	14.3	29.5	53.2	32.0	37.1	30.8	39.3	19.8	11.0	20.3	10.4	11.1	15.4	31.1	29.3	13.1	23.0	28.0	21.3	53.2
17	8.5	S	4.4	4.5	6.8	7.1	5.1	8.0	14.0	14.8	12.3	7.9	5.3	7.9	10.3	7.4	12.0	5.2	4.4	9.4	7.5	7.5	6.6	4.3	7.9	14.8
18	9.9	S	14.9	22.2	3.5	3.7	2.4	8.1	5.4	4.9	17.6	9.8	25.2	18.5	21.6	38.3	25.7	8.1	16.0	4.7	3.0	4.8	6.0	2.1	12.0	38.3
19	4.3	S	5.8	2.5	1.2	1.3	2.6	4.3	4.8	8.0	9.6	5.5	2.7	2.6	2.7	2.5	4.9	2.6	8.0	1.5	11.1	14.8	12.9	12.3	5.6	14.8
20	2.6	S	9.7	16.3	10.8	4.2	3.6	5.8	3.8	7.4	20.5	5.1	7.7	12.2	5.3	13.4	5.8	4.9	18.2	15.2	24.8	11.1	14.9	9.2	10.1	24.8
21	3.5	S	9.7	25.0	20.3	13.0	21.9	6.9	3.9	4.3	4.9	12.9	13.1	5.0	6.5	15.9	27.0	18.8	10.4	8.1	7.6	11.4	20.8	19.5	12.6	27.0
22	22.0	S	43.5	32.0	28.7	28.4	16.1	25.3	63.9	44.0	32.9	17.5	25.2	14.0	3.6	6.7	4.7	6.3	9.1	56.6	34.8	21.9	24.9	25.4	25.5	63.9
23	28.3	S	13.3	9.5	6.0	10.6	11.5	17.6	11.3	10.1	30.0	39.3	30.0	23.2	20.1	12.0	8.8	4.8	8.2	4.1	7.3	15.8	14.8	20.5	15.5	39.3
24	17.1	S	18.9	14.4	18.8	15.1	25.4	26.9	35.0	27.1	17.7	12.6	20.1	15.8	5.8	5.7	5.5	5.0	9.1	4.4	11.4	7.3	14.3	20.3	15.4	35.0
25	26.4	S	9.7	11.5	10.5	12.0	17.7	14.0	19.3	22.6	15.0	3.0	2.2	2.3	2.0	2.1	2.2	1.8	2.2	1.8	1.6	5.8	3.6	3.7	8.4	26.4
26	9.3	S	22.6	15.9	22.8	19.3	7.9	17.2	20.7	22.8	10.9	7.2	3.8	3.2	3.2	2.5	2.2	3.1	2.1	2.2	1.7	1.2	1.2	1.5	8.9	22.8
27	3.6	S	3.3	3.6	6.0	9.9	4.6	15.7	7.1	11.1	6.3	9.1	5.1	3.2	1.8	3.5	1.5	1.3	1.9	2.0	5.9	3.7	5.9	3.9	5.2	15.7
28	4.8	S	10.8	3.1	4.5	4.0	8.9	10.5	17.0	15.9	10.6	12.5	15.6	7.0	4.8	2.2	10.0	4.6	2.4	14.4	17.6	66.4	62.8	72.4	16.6	72.4
NO.	28	-	28	28	28	28	28	28	28	28	27	27	27	27	27	27	27	28	28	28	28	28	28	28	637	100.0%
MEAN	9.2	-	11.6	11.6	9.9	11.0	11.5	13.3	16.0	14.2	14.5	11.5	12.8	9.8	9.1	9.8	10.0	6.5	8.6	10.0	9.8	10.1	12.9	11.5		
MAX	28.3	-	43.5	43.7	38.3	48.1	25.6	29.5	63.9	44.0	37.1	39.3	39.3	23.2	57.9	38.3	31.4	18.8	23.7	56.6	34.8	66.4	62.8	72.4		



Number of Non-Zero Readings	637		
Maximum 1-HR Average	72.4 PPB		
Maximum 24-HR Average	25.5 PPB		
Monthly Calibration	7	Operational Time	672 HRS
Standard Deviation	10.02	Operational Uptime	100.0 %
		Monthly Average	11.1 PPB

# Lagoon NO (ppb) – February 2022

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	0.7	S	0.7	0.7	0.8	1.1	6.5	9.3	7.7	2.5	2.1	4.3	6.7	2.0	1.1	2.7	0.9	1.6	5.0	11.1	1.1	0.6	5.5	1.3	3.3	11.1
2	0.8	S	2.3	0.7	0.6	0.9	8.5	4.9	1.7	17.7	22.8	14.3	22.7	11.7	3.4	2.0	1.2	1.4	0.5	0.6	1.0	0.5	1.5	1.3	5.4	22.8
3	1.4	S	0.7	2.0	2.7	6.6	10.5	3.4	3.9	7.2	1.7	1.5	1.9	4.3	1.8	6.7	2.9	1.0	5.9	4.1	7.1	1.7	3.0	3.4	3.7	10.5
4	0.8	S	1.7	1.2	0.8	1.3	1.7	4.6	1.3	1.2	1.4	1.1	0.8	2.0	0.9	3.1	4.5	0.6	0.6	0.9	0.5	1.6	3.8	0.7	1.6	4.6
5	1.7	S	0.8	0.8	2.2	2.6	2.6	2.7	6.0	5.4	1.6	1.1	1.1	1.4	3.0	3.9	3.1	2.4	5.7	4.4	0.6	1.0	2.3	0.9	2.5	6.0
6	2.6	S	0.7	0.8	0.9	0.5	0.9	0.6	0.9	0.7	0.9	0.7	1.1	1.5	2.0	1.2	1.7	0.8	0.7	1.0	0.6	0.6	4.9	1.0	1.2	4.9
7	3.2	S	0.7	0.6	3.0	2.9	1.2	1.9	2.2	2.9	3.6	3.9	1.7	1.3	1.5	1.8	1.7	0.9	1.5	1.1	1.7	1.1	2.2	1.3	1.9	3.9
8	0.6	S	2.7	1.0	1.1	6.9	7.5	12.8	5.5	7.0	2.2	4.7	7.5	5.7	15.2	7.2	4.3	5.9	6.4	1.0	0.9	2.1	1.8	0.5	4.8	15.2
9	0.9	S	1.0	2.0	0.7	1.2	0.9	1.1	3.1	1.3	C	C	C	C	C	C	C	3.9	0.7	3.0	0.2	3.4	2.0	0.3	-	-
10	0.6	S	2.5	3.4	0.9	0.7	1.0	1.4	3.0	0.8	1.2	0.7	0.7	0.8	2.9	1.3	0.8	0.7	3.5	0.4	3.8	1.3	0.3	0.5	1.4	3.8
11	0.7	S	0.9	0.4	0.3	0.4	1.4	0.6	2.2	2.1	1.2	0.7	2.8	4.7	1.7	2.1	1.0	0.7	3.2	0.2	0.6	0.5	0.7	0.4	1.3	4.7
12	0.5	S	4.4	5.4	1.1	0.8	4.6	4.6	5.0	5.0	5.0	8.2	0.6	0.8	0.6	0.7	0.5	0.5	0.5	0.4	0.5	0.4	0.5	0.8	2.2	8.2
13	1.6	S	5.9	3.2	0.5	4.1	1.4	2.0	0.9	2.5	9.8	6.2	5.9	4.1	0.7	5.4	8.8	1.5	0.5	0.5	0.5	0.6	0.9	0.5	3.0	9.8
14	1.0	S	1.3	9.4	0.8	0.6	1.1	2.4	7.8	4.1	13.4	4.7	4.5	10.6	37.2	7.2	5.6	3.6	5.4	4.8	6.6	2.9	7.8	4.8	6.4	37.2
15	4.8	S	8.7	20.6	15.3	27.0	8.8	5.4	2.1	1.6	5.1	3.7	10.4	2.6	2.1	3.6	11.3	2.4	0.5	0.6	2.4	1.3	1.7	0.7	6.2	27.0
16	0.7	S	2.3	0.7	1.4	1.1	1.1	9.8	24.9	11.8	17.9	14.5	21.3	8.3	3.8	7.9	2.4	1.3	2.1	7.8	8.7	0.9	8.7	8.5	7.3	24.9
17	1.7	S	1.8	1.7	3.0	2.4	1.6	2.6	4.6	4.7	4.3	3.1	2.4	3.2	4.4	2.8	5.2	1.6	0.9	2.8	2.2	2.6	2.1	1.8	2.8	5.2
18	3.1	S	4.4	7.2	0.7	1.1	0.5	2.8	1.7	1.4	9.5	4.3	12.9	8.9	10.4	16.7	9.9	2.6	6.6	1.6	0.8	1.5	2.4	0.6	4.9	16.7
19	1.5	S	1.7	0.6	0.4	0.5	0.7	1.1	1.0	2.2	3.8	1.8	0.7	0.9	0.8	0.6	1.4	0.6	2.8	0.4	3.6	3.5	2.9	2.4	1.6	3.8
20	0.6	S	4.1	7.1	5.0	0.8	0.6	1.6	0.8	3.0	12.1	2.0	3.6	5.1	1.6	5.9	1.2	0.7	6.6	4.7	8.0	2.4	5.4	2.7	3.7	12.1
21	0.8	S	2.4	8.5	5.7	3.5	6.0	1.2	0.8	1.2	1.7	6.4	6.6	2.3	3.1	7.3	13.5	5.8	0.8	0.6	0.5	1.3	6.1	5.9	4.0	13.5
22	5.5	S	18.0	10.1	7.9	6.1	0.8	5.2	36.6	24.1	18.8	9.4	14.4	7.8	1.2	2.8	1.2	0.9	0.6	30.5	8.7	2.2	3.4	8.2	9.8	36.6
23	11.1	S	4.0	2.1	0.7	3.2	4.3	6.9	4.0	4.4	17.0	23.6	16.9	11.6	10.3	4.0	2.6	1.2	1.9	0.9	2.2	5.1	4.4	7.5	6.5	23.6
24	6.9	S	8.2	5.4	6.9	5.1	9.6	11.5	17.8	11.6	7.9	5.4	9.7	7.6	2.3	2.2	1.9	1.1	2.6	0.6	4.0	1.4	3.9	8.8	6.2	17.8
25	12.7	S	2.7	4.6	3.2	4.8	7.3	4.7	9.4	11.0	7.2	1.1	0.8	0.8	0.6	0.7	0.7	0.6	0.7	0.5	0.4	2.4	0.8	0.8	3.4	12.7
26	3.8	S	10.5	6.7	11.2	8.4	2.6	8.0	9.5	11.0	4.4	2.5	1.2	1.3	1.3	1.0	0.8	0.9	0.6	0.7	0.7	0.5	0.6	0.5	3.9	11.2
27	0.8	S	0.8	0.9	1.3	2.7	1.0	5.7	2.0	4.1	1.6	4.3	1.6	1.0	0.6	1.1	0.5	0.5	0.5	0.6	1.5	0.8	1.3	0.8	1.6	5.7
28	1.1	S	3.4	0.7	0.9	0.7	2.6	2.9	7.1	7.2	3.4	4.7	6.6	2.4	1.6	0.7	2.6	0.7	0.4	5.4	5.4	32.2	30.8	36.5	7.0	36.5
NO.	28	-	28	28	28	28	28	28	28	28	27	27	27	27	27	27	27	28	28	28	28	28	28	28	637	100.0%
MEAN	2.6	-	3.6	3.9	2.9	3.5	3.5	4.3	6.2	5.7	6.7	5.1	6.2	4.2	4.3	3.8	3.4	1.7	2.4	3.3	2.7	2.7	4.0	3.7		
MAX	12.7	-	18.0	20.6	15.3	27.0	10.5	12.8	36.6	24.1	22.8	23.6	22.7	11.7	37.2	16.7	13.5	5.9	6.6	30.5	8.7	32.2	30.8	36.5		



Number of Non-Zero Readings 637

Maximum 1-HR Average 37.2 PPB

Maximum 24-HR Average 9.8 PPB

Monthly Calibration 7

Standard Deviation 5.045

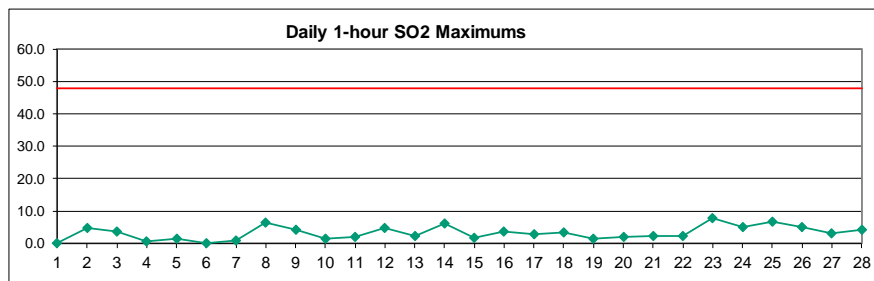
Operational Time 672 HRS

Operational Uptime 100.0 %

Monthly Average 3.9 PPB

# Lagoon SO<sub>2</sub> (ppb) – February 2022

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	S	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	
2	0.0	S	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	4.0	1.6	4.9	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	4.9
3	0.0	S	0.0	0.0	0.0	1.9	3.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.5	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.3	3.5	
4	0.0	S	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	
5	0.0	S	0.0	0.0	0.0	0.5	0.0	0.0	1.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.2	1.4	
6	0.0	S	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
7	0.0	S	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	
8	0.0	S	0.0	0.0	0.0	2.6	1.1	3.6	0.3	0.5	0.0	0.4	3.6	1.9	6.4	3.2	3.7	4.2	2.6	0.0	0.0	0.0	0.0	0.0	0.0	1.5	6.4	
9	0.0	S	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C	C	C	C	C	2.7	4.4	3.8	0.9	0.7	0.3	0.3	0.6	0.0	0.8	4.4		
10	0.9	S	1.4	0.7	0.5	1.0	0.1	0.2	0.3	0.9	0.8	1.2	0.5	0.2	0.2	0.3	0.1	0.1	0.2	0.6	0.6	0.8	0.0	0.0	0.5	1.4		
11	0.2	S	0.4	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	2.0	0.2	0.6	0.0	0.0	0.0	0.1	0.0	0.0	0.6	0.3	0.2	2.0		
12	0.0	S	0.0	0.0	0.9	0.4	2.1	3.2	4.9	2.7	2.4	3.6	0.0	0.0	0.4	0.2	0.3	0.0	0.5	0.0	0.4	0.1	0.0	0.5	1.0	4.9		
13	0.6	S	2.4	1.2	0.0	2.4	1.3	1.3	0.6	0.3	0.1	0.5	0.8	0.4	1.0	1.2	0.7	1.2	0.5	0.7	0.6	0.5	0.0	0.2	0.8	2.4		
14	0.2	S	0.6	1.0	1.1	0.4	0.7	0.8	2.8	2.3	6.3	1.3	1.2	1.5	2.8	2.2	0.5	1.1	1.0	0.8	1.3	0.2	1.2	0.9	1.4	6.3		
15	0.5	S	0.6	1.5	1.1	1.0	0.6	0.2	0.2	0.6	0.7	0.3	0.6	0.9	0.5	1.1	0.9	0.8	1.8	0.9	0.8	0.9	0.7	0.8	0.8	1.8		
16	0.3	S	0.7	0.4	0.5	0.3	0.1	0.5	0.5	0.5	0.9	1.4	3.7	1.8	0.7	0.0	0.6	0.6	0.8	0.4	0.7	0.7	0.2	0.8	0.7	3.7		
17	0.2	S	0.7	1.1	1.1	0.9	0.7	1.0	0.7	0.7	0.8	0.0	1.2	0.9	1.9	1.5	2.8	1.7	0.6	0.7	0.7	1.8	1.7	0.6	1.0	2.8		
18	1.0	S	0.7	0.5	0.6	0.4	0.1	0.2	1.0	0.2	0.1	0.0	0.5	0.3	0.1	0.7	1.1	1.6	3.5	1.3	0.4	1.4	1.0	0.5	0.7	3.5		
19	0.8	S	0.6	0.4	0.4	0.5	0.8	0.9	0.6	1.0	0.5	1.3	0.6	0.9	0.7	0.6	0.9	0.7	0.9	1.3	0.6	1.5	0.7	1.5	0.8	1.5		
20	0.8	S	0.3	1.6	1.0	1.5	1.7	2.1	1.6	1.9	1.6	1.8	1.5	0.9	1.2	1.5	1.8	0.5	0.6	1.0	1.3	1.3	1.3	0.3	1.3	2.1		
21	0.4	S	0.2	0.8	0.8	0.0	0.5	0.2	0.5	0.7	0.5	0.6	0.5	1.0	1.2	0.9	2.4	2.1	0.8	1.4	2.1	1.7	1.7	1.5	1.0	2.4		
22	0.9	S	0.4	0.1	0.2	0.0	0.0	0.1	0.4	0.2	0.0	1.0	1.1	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.3	2.2	0.3	2.2			
23	4.9	S	1.6	0.9	0.5	0.4	1.5	1.3	0.8	0.9	7.4	7.9	7.0	4.9	1.3	0.1	0.4	0.3	0.6	0.4	0.8	3.2	3.0	3.0	2.3	7.9		
24	3.0	S	4.1	2.1	2.8	1.5	1.6	2.9	5.0	4.5	3.1	1.8	3.9	1.0	0.6	0.2	0.3	0.5	0.0	0.4	0.2	0.8	2.7	4.5	2.1	5.0		
25	6.8	S	1.4	1.3	1.8	2.2	2.5	3.3	4.6	4.4	2.2	0.4	0.2	0.4	0.2	0.0	0.7	0.4	0.6	0.4	0.2	0.0	0.2	0.8	1.5	6.8		
26	1.5	S	4.0	1.9	3.7	5.0	1.6	3.9	2.9	4.9	1.7	1.3	0.5	0.4	0.2	0.4	0.5	0.3	0.2	0.7	0.1	0.0	0.6	0.0	1.6	5.0		
27	0.0	S	0.1	0.1	0.1	0.4	0.7	3.1	1.4	1.9	0.2	1.2	0.8	0.7	0.7	0.7	0.2	0.4	0.5	0.3	0.2	0.5	0.0	0.2	0.6	3.1		
28	0.3	S	0.5	0.4	0.6	0.1	0.5	0.5	0.7	1.5	0.6	0.5	0.7	0.8	1.0	0.6	0.4	0.5	1.1	0.5	0.6	2.0	2.4	4.4	0.9	4.4		
NO.	28	-	28	28	28	28	28	28	28	28	27	27	27	27	27	28	28	28	28	28	28	28	28	28	639	100.0%		
MEAN	0.8	-	0.7	0.6	0.7	0.8	0.8	1.1	1.1	1.2	1.3	1.0	1.3	0.8	0.8	0.7	0.8	0.8	0.7	0.5	0.4	0.6	0.7	0.8				
MAX	6.8	-	4.1	2.1	3.7	5.0	3.5	3.9	5.0	4.9	7.4	7.9	7.0	4.9	6.4	3.2	4.4	4.2	3.5	1.4	2.1	3.2	3.0	4.5				

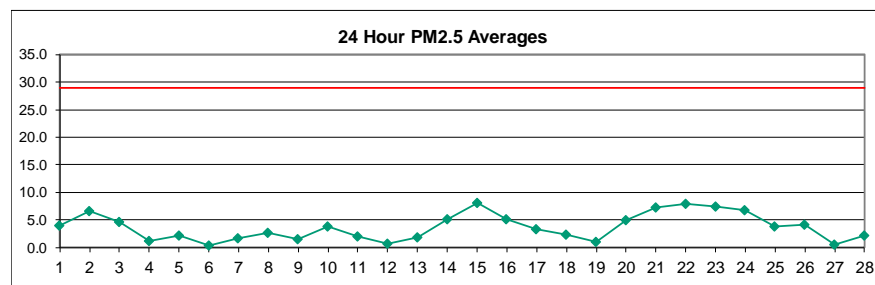


Number of 1HR Exceedences	0
Number of Non-Zero Readings	436
Maximum 1-HR Average	7.9 PPB
Maximum 24-HR Average	2.3 PPB
Monthly Calibration	5
Standard Deviation	1.191
Operational Time	672 HRS
Operational Uptime	100.0 %
Monthly Average	0.8 PPB



# Lagoon PM<sub>2.5</sub> (µg/m<sup>3</sup>) – February 2021

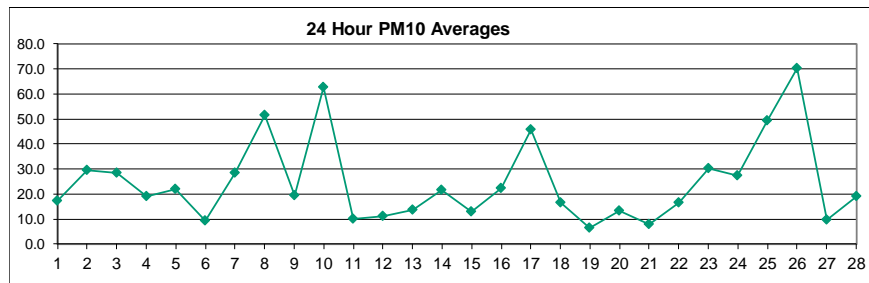
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	3.6	2.0	4.0	4.0	3.3	2.5	1.8	4.1	5.9	7.1	C	C	C	4.8	4.8	4.4	4.4	6.6	7.9	4.3	1.2	2.9	2.2	2.4	4.0	7.9
2	4.4	P	11.0	13.6	10.9	9.5	10.5	9.7	7.0	8.1	10.2	12.4	9.5	11.4	8.1	4.3	2.5	1.1	0.6	2.9	2.1	0.4	0.0	1.6	6.6	13.6
3	3.3	2.5	0.6	1.9	2.1	0.8	6.3	7.4	3.4	0.0	5.8	7.1	3.9	0.8	1.6	3.8	6.5	6.6	7.5	5.2	7.4	9.8	10.3	6.3	4.6	10.3
4	2.2	0.7	0.0	1.9	2.5	1.3	2.1	0.5	2.0	2.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.6	2.9	2.6	1.9	2.5	1.1	2.9
5	0.6	0.0	0.0	0.0	0.0	0.0	2.9	2.4	0.0	2.9	2.5	1.6	3.2	1.9	1.9	2.0	3.4	5.9	6.4	4.7	4.3	2.9	1.7	1.7	2.2	6.4
6	0.1	0.8	1.4	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.4	0.5	1.2	2.1	0.1	0.0	0.0	0.0	1.8	0.4	2.1
7	1.1	0.0	0.0	0.0	0.0	1.5	0.3	0.0	3.7	4.4	9.9	6.3	1.8	0.0	0.0	1.9	2.1	0.0	0.0	0.0	0.0	2.0	3.3	2.5	1.7	9.9
8	0.8	0.0	0.0	0.0	0.0	0.0	3.0	3.6	2.3	2.9	1.5	1.6	2.4	5.8	5.2	6.2	5.8	5.9	5.0	3.6	1.9	1.9	2.2	1.3	2.6	6.2
9	3.3	2.9	1.2	2.5	0.0	0.0	0.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.6	2.6	8.5	5.0	3.6	2.8	0.1	0.0	0.5	0.5	1.5	8.5
10	0.7	3.0	4.1	12.2	21.1	6.7	4.2	6.0	5.2	1.6	2.3	3.3	3.0	2.9	1.9	2.6	2.6	2.6	2.2	1.8	0.0	0.0	0.0	0.7	3.8	21.1
11	0.0	1.0	3.7	3.6	2.8	0.3	0.0	0.5	2.0	3.6	3.1	6.1	3.9	1.3	2.9	2.5	1.5	1.3	4.3	2.5	0.1	0.3	0.0	0.0	2.0	6.1
12	0.2	1.5	0.2	0.0	0.0	1.2	1.4	0.0	0.1	0.4	0.4	1.9	2.2	1.4	0.0	0.0	0.0	0.8	1.1	0.0	0.0	0.0	1.6	2.7	0.7	2.7
13	4.3	3.0	2.0	4.1	5.7	3.9	0.6	0.0	0.0	2.3	2.8	0.6	4.0	3.9	1.4	0.1	0.5	2.1	0.1	1.2	1.8	0.2	0.4	0.6	1.9	5.7
14	2.4	2.4	4.8	4.7	4.1	4.8	5.0	2.8	0.9	3.0	3.0	4.0	3.2	0.8	1.8	6.5	6.2	6.1	11.2	10.2	10.7	8.7	9.0	8.9	5.2	11.2
15	11.2	11.3	19.6	19.8	19.0	16.2	15.3	10.8	8.9	5.7	3.4	4.0	2.6	2.0	3.3	2.2	1.3	3.1	3.1	5.9	7.1	5.2	6.0	8.7	8.1	19.8
16	8.5	10.3	7.4	4.1	1.5	0.5	1.8	1.1	1.0	4.1	5.8	11.6	11.9	11.4	7.9	6.0	3.2	0.9	1.9	2.5	1.5	7.9	6.3	2.8	5.1	11.9
17	5.4	3.5	1.3	3.4	4.1	4.5	6.4	15.1	8.1	3.7	3.2	0.7	0.0	2.2	1.9	1.9	2.0	3.3	2.7	0.0	0.0	0.8	1.6	2.9	3.3	15.1
18	1.4	0.0	2.0	3.7	3.3	2.6	2.9	1.7	0.0	0.2	2.0	3.6	3.0	3.0	4.1	5.2	6.2	6.4	4.0	2.5	0.3	0.0	0.0	0.0	2.4	6.4
19	0.0	0.0	0.0	0.0	0.0	0.0	1.9	1.7	0.0	0.3	3.7	3.5	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.6	2.8	5.7	2.6	1.0	5.7
20	2.3	10.0	6.7	3.7	4.1	4.7	4.0	3.7	3.4	5.1	5.4	4.4	3.7	4.8	5.8	4.5	5.4	5.0	3.2	6.8	5.0	2.8	6.3	7.1	4.9	10.0
21	4.7	3.1	5.5	5.5	6.4	5.2	6.3	7.3	7.2	5.6	7.8	11.2	11.5	9.6	6.7	3.8	7.1	9.7	8.6	6.4	9.1	9.0	8.4	10.0	7.3	11.5
22	7.8	6.8	5.6	7.2	6.1	4.8	5.1	5.1	5.5	6.3	7.6	8.1	9.9	12.5	8.9	6.2	7.3	9.1	7.8	10.5	11.0	8.0	8.9	12.3	7.9	12.5
23	13.0	13.0	17.4	8.3	6.8	4.4	4.0	2.7	4.4	4.8	5.3	14.3	17.7	11.8	9.8	9.2	4.6	1.7	4.7	4.0	2.9	2.0	4.2	6.5	7.4	17.7
24	4.8	6.1	11.0	7.5	5.7	8.7	7.5	10.9	11.9	12.8	9.5	14.0	14.9	15.8	8.0	1.5	1.1	0.0	0.5	0.9	0.2	0.3	3.7	4.7	6.7	15.8
25	9.1	9.7	5.3	1.5	0.8	0.5	1.6	3.4	10.5	9.7	8.6	6.3	1.1	0.2	1.8	0.2	2.6	3.0	4.0	3.2	1.0	3.7	3.5	0.8	3.8	10.5
26	0.8	1.1	6.4	8.9	6.3	8.2	11.1	9.1	9.0	7.9	6.6	6.8	5.3	2.9	1.2	1.5	1.5	1.1	0.0	0.0	0.0	2.5	0.4	0.0	4.1	11.1
27	0.0	0.0	1.0	0.0	0.0	0.1	0.7	0.0	0.0	0.4	0.0	0.9	2.1	5.3	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	5.3
28	0.4	0.0	0.0	0.8	1.1	0.7	0.0	0.0	2.0	3.6	2.8	5.5	5.2	0.1	0.0	1.4	0.0	0.0	0.0	1.5	0.7	0.0	11.2	16.9	2.2	16.9
NO.	28	27	28	28	28	28	28	28	28	28	27	27	27	28	28	28	28	28	28	28	28	28	28	28	668	99.9%
MEAN	3.4	3.5	4.4	4.4	4.2	3.3	3.8	4.0	3.7	3.9	4.2	5.2	4.7	4.2	3.3	2.9	3.1	3.2	3.3	3.0	2.6	2.7	3.5	3.9		
MAX	13.0	13.0	19.6	19.8	21.1	16.2	15.3	15.1	11.9	12.8	10.2	14.3	17.7	15.8	9.8	9.2	8.5	9.7	11.2	10.5	11.0	9.8	11.2	16.9		



Number of 24HR Exceedences	0
Number of Non-Zero Readings	549
Maximum 1-HR Average	21.1 UG/M3
Maximum 24-HR Average	8.1 UG/M3
Monthly Calibration	3
Standard Deviation	3.799
Operational Time	671 HRS
Operational Uptime	99.9 %
Monthly Average	3.7 UG/M3

# Lagoon PM<sub>10</sub> (µg/m<sup>3</sup>) – February 2022

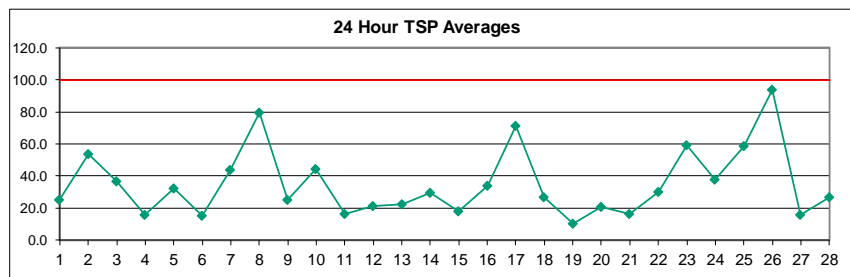
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	14.3	0.0	15.9	X	23.2	36.1	23.8	X	13.5	50.6	C	C	C	16.2	15.3	3.3	3.4	10.2	18.4	27.1	26.0	6.1	5.6	19.5	17.3	50.6
2	14.8	P	13.5	13.4	11.1	5.3	14.0	10.4	16.1	17.6	52.1	63.0	52.4	57.3	74.2	46.9	30.5	31.4	13.0	14.8	36.4	33.8	23.5	31.1	29.4	74.2
3	32.4	63.8	43.4	23.8	37.3	39.4	43.6	67.1	12.5	19.1	21.0	11.1	6.4	13.1	15.3	11.7	25.4	20.5	14.3	27.5	24.2	22.8	31.7	53.6	28.4	67.1
4	67.2	69.4	28.6	30.5	20.8	40.0	30.7	23.1	13.9	20.1	17.2	12.4	26.9	2.6	3.9	3.3	4.7	17.2	0.7	2.5	11.2	5.2	1.3	0.8	18.9	69.4
5	2.8	7.6	22.7	7.1	3.7	33.1	43.0	37.7	25.1	26.4	26.1	21.2	14.9	27.9	19.7	21.2	25.7	27.0	37.5	40.8	31.8	3.1	1.4	14.2	21.7	43.0
6	2.0	1.8	0.1	2.6	2.7	3.9	2.6	2.1	17.4	26.2	12.2	18.3	8.1	9.1	5.1	23.1	25.3	20.0	14.3	4.7	4.7	3.9	3.6	8.9	9.3	26.2
7	12.6	30.9	14.1	2.0	15.6	49.0	19.9	25.3	43.0	58.7	107.6	26.0	22.6	48.8	27.9	20.2	18.1	4.2	7.2	5.1	16.8	48.4	30.7	23.3	28.2	107.6
8	5.1	13.2	16.4	19.4	17.8	26.9	101.4	73.9	70.3	58.1	78.3	52.2	58.7	131.2	83.1	122.3	85.3	94.1	47.5	27.3	9.7	14.9	14.7	12.2	51.4	131.2
9	13.4	12.2	23.5	9.6	12.1	10.4	4.6	2.5	3.5	6.0	5.3	5.1	2.2	7.9	30.6	66.5	69.6	67.2	47.6	17.0	7.4	7.5	9.5	22.7	19.3	69.6
10	158.5	37.2	80.6	252.5	468.1	198.7	45.5	37.2	25.8	16.4	8.6	15.2	20.0	15.4	14.1	13.0	5.6	20.7	17.1	15.3	11.3	7.6	11.1	6.3	62.6	468.1
11	3.1	9.3	6.4	3.4	5.4	7.1	2.8	5.5	11.0	25.5	22.4	2.0	2.7	5.5	19.5	6.7	5.7	6.6	26.3	12.9	24.8	8.5	4.5	12.4	10.0	26.3
12	5.7	0.8	2.9	9.1	38.6	39.3	28.4	16.5	10.7	15.5	15.0	17.9	22.8	9.2	5.8	1.9	0.1	0.0	1.3	2.7	4.0	3.2	1.9	14.3	11.1	39.3
13	29.5	46.4	30.2	26.2	24.9	32.3	5.7	0.0	0.0	15.8	8.6	6.0	5.4	6.6	5.3	5.5	9.9	22.0	5.5	7.8	8.8	9.9	6.3	10.5	13.7	46.4
14	6.1	7.3	18.7	14.1	13.2	19.1	13.2	8.7	8.7	26.9	12.0	31.5	26.5	27.8	42.5	72.3	24.0	18.9	19.7	31.7	18.6	15.0	17.8	20.9	21.5	72.3
15	19.2	23.5	31.6	28.3	26.6	20.2	28.0	10.7	9.2	6.9	12.8	12.7	10.1	5.9	3.9	1.6	6.2	20.0	4.7	5.4	6.0	6.0	4.9	8.2	13.0	31.6
16	10.3	24.7	13.9	20.0	3.9	3.7	10.6	6.8	8.7	31.8	44.1	78.3	52.4	46.9	28.5	18.3	8.5	15.6	17.7	9.4	11.0	37.5	19.4	15.5	22.4	78.3
17	14.7	14.0	46.0	63.2	159.1	152.8	76.8	37.8	56.5	26.7	20.2	28.7	12.3	28.9	49.7	63.2	66.4	54.8	30.2	14.5	20.5	14.4	29.7	16.6	45.7	159.1
18	8.5	16.2	4.6	3.7	8.7	7.8	13.9	5.6	10.5	6.1	7.4	7.1	3.3	13.1	15.2	10.8	35.1	56.3	47.2	53.4	7.3	7.8	26.3	24.2	16.7	56.3
19	11.3	18.5	1.3	21.0	0.0	0.0	0.0	6.7	5.4	3.9	4.0	15.6	26.1	0.0	0.0	0.0	0.0	2.0	1.7	7.9	5.5	8.6	7.1	4.2	6.3	26.1
20	20.2	19.3	14.7	1.6	8.8	20.9	10.3	34.0	15.2	10.2	11.7	16.1	12.5	7.6	22.4	23.8	5.1	12.8	1.4	5.2	3.5	16.5	0.0	20.3	13.1	34.0
21	0.0	13.2	7.2	5.0	13.9	9.1	5.4	20.1	16.0	2.0	14.2	3.6	8.7	7.8	3.1	10.6	8.7	7.4	7.7	12.4	5.0	0.0	2.0	3.1	7.8	20.1
22	9.8	4.9	20.7	17.1	10.6	18.3	17.8	10.3	3.6	19.5	18.5	23.1	25.5	32.9	16.6	12.2	12.8	11.0	14.6	11.2	17.1	10.7	20.4	33.1	16.3	33.1
23	21.3	27.6	36.3	20.9	18.9	19.1	20.7	16.7	35.7	33.6	41.6	69.5	77.6	72.3	68.4	51.0	9.6	10.6	6.6	5.8	11.5	9.1	24.6	19.0	30.3	77.6
24	30.1	13.0	16.9	17.9	13.8	19.5	30.0	45.3	21.7	25.6	72.7	109.4	67.8	59.6	25.2	16.8	12.4	5.8	2.7	7.0	9.8	5.4	7.3	19.4	27.3	109.4
25	27.7	25.7	14.0	11.5	13.0	17.9	23.5	37.7	97.5	190.3	207.1	118.3	67.2	56.9	33.3	26.1	33.8	22.8	31.6	19.0	31.8	21.1	13.7	39.8	49.2	207.1
26	39.5	75.4	57.0	72.3	90.0	55.4	91.6	135.4	126.7	184.4	192.6	288.8	117.5	73.7	1.9	0.6	0.8	5.1	11.8	16.8	15.9	10.9	11.9	5.9	70.1	288.8
27	3.2	0.9	5.2	3.2	1.5	4.6	6.5	25.0	14.7	34.8	18.0	14.9	27.9	29.3	0.9	17.5	5.3	3.9	3.1	0.9	5.9	2.5	0.9	4.7	9.8	34.8
28	4.8	6.6	5.3	3.8	0.7	1.6	7.8	17.0	40.1	31.2	35.3	70.2	30.9	6.0	37.3	3.8	1.8	22.4	13.7	17.0	9.1	17.6	41.9	31.5	19.1	70.2
NO.	28	27	28	27	28	28	28	27	28	28	27	27	27	28	28	28	28	28	28	28	28	28	28	28	666	89.9%
MEAN	21.0	21.6	21.1	26.0	38.0	31.8	25.8	26.6	26.2	35.3	40.2	42.2	30.0	29.3	23.9	24.1	19.3	21.8	16.6	15.1	14.1	12.8	13.3	17.7		
MAX	158.5	75.4	80.6	252.5	468.1	198.7	101.4	135.4	126.7	190.3	207.1	288.8	117.5	131.2	83.1	122.3	85.3	94.1	47.6	53.4	36.4	48.4	41.9	53.6		



Number of Non-Zero Readings	652		
Maximum 1-HR Average	468.1 UG/M3		
Maximum 24-HR Average	70.1 UG/M3		
Monthly Calibration	3	Operational Time	669 HRS
Standard Deviation	35.34	Operational Uptime	89.9 %
		Monthly Average	24.7 UG/M3

# Lagoon TSP (µg/m³) – February 2022

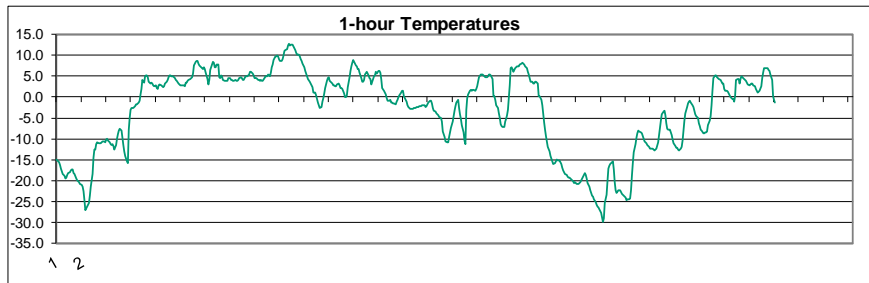
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	8.7	12.2	5.0	17.0	45.4	59.3	30.2	23.4	20.1	49.9	X	X	X	37.5	18.3	14.1	8.5	4.5	27.7	48.4	47.2	7.5	4.4	40.0	25.2	59.3
2	37.6	P	22.2	21.7	11.2	9.2	9.0	17.3	25.5	37.0	121.4	135.2	124.2	97.2	145.5	120.1	44.5	41.8	21.3	27.6	47.8	55.5	32.2	34.8	53.9	145.5
3	36.4	63.4	54.8	20.4	34.2	47.8	60.8	120.0	19.6	15.1	32.6	19.1	11.0	7.6	15.1	11.2	31.5	21.9	15.1	33.2	31.2	41.4	60.4	72.0	36.5	120.0
4	69.0	18.3	19.9	15.0	5.2	13.4	24.8	19.2	14.7	24.4	12.7	15.0	30.7	9.5	7.0	4.4	5.8	28.9	0.8	5.5	22.5	1.8	5.6	2.9	15.7	69.0
5	2.1	12.5	32.0	8.3	9.2	67.1	74.9	52.4	46.7	39.2	43.1	21.0	22.9	33.1	27.2	26.8	32.4	40.2	62.4	61.4	42.0	0.6	2.7	19.9	32.5	74.9
6	2.9	2.9	1.7	3.0	3.1	5.9	7.5	8.8	32.2	33.5	14.0	35.1	18.2	16.9	19.0	33.5	35.6	26.5	25.6	10.6	15.9	1.7	3.5	12.8	15.4	35.6
7	17.1	44.1	15.3	14.2	20.4	78.0	38.8	39.4	73.1	114.6	127.4	35.8	34.1	89.9	41.3	34.4	26.8	8.3	5.7	5.6	29.8	81.6	33.9	39.8	43.7	127.4
8	7.8	16.6	35.5	25.8	37.2	45.9	181.2	110.5	103.4	73.9	103.1	89.6	89.7	216.0	130.5	201.5	124.4	117.9	72.9	39.3	22.3	22.3	22.4	23.5	79.7	216.0
9	19.4	17.5	28.2	10.5	16.2	7.3	9.4	4.7	9.8	10.4	13.8	9.7	C	C	C	81.5	78.0	82.6	63.9	19.3	14.5	0.0	11.6	20.8	25.2	82.6
10	84.9	46.7	70.4	222.9	157.9	109.8	25.5	31.4	22.5	26.1	20.6	15.9	24.0	28.9	23.5	18.9	10.0	34.4	27.4	17.9	12.4	9.3	21.3	4.4	44.5	222.9
11	4.6	8.4	7.0	4.4	4.6	8.3	4.8	13.4	26.5	48.2	17.7	10.0	12.8	17.0	34.8	12.5	9.8	10.2	37.8	20.4	33.3	16.2	6.8	24.2	16.4	48.2
12	8.8	13.6	8.1	27.4	67.2	75.8	44.8	27.6	23.6	22.5	26.0	41.4	34.7	9.7	7.2	7.8	7.0	4.6	8.3	4.2	1.7	4.4	6.6	22.2	21.1	75.8
13	44.1	60.0	42.5	33.6	38.1	45.5	11.0	6.8	2.8	22.2	17.8	11.5	15.6	11.1	8.5	8.5	22.2	41.3	22.1	17.9	9.8	8.1	14.6	23.2	22.5	60.0
14	15.4	16.4	31.6	24.8	19.9	25.9	16.3	7.4	14.8	49.2	14.7	48.0	37.8	42.5	58.9	88.9	24.2	32.6	20.6	36.4	18.3	22.5	23.7	24.0	29.8	88.9
15	29.5	33.4	33.6	37.1	30.6	30.9	33.5	9.8	8.5	9.0	17.0	19.5	10.3	15.0	8.3	5.7	6.9	25.8	14.0	12.7	12.6	13.6	6.1	12.5	18.2	37.1
16	10.7	23.5	19.9	25.3	5.7	4.5	7.4	11.3	13.2	47.1	72.4	120.6	76.2	74.3	62.7	21.2	25.3	29.1	27.4	19.3	17.5	51.0	21.3	27.8	33.9	120.6
17	25.9	18.5	68.9	114.7	227.2	49.6	132.1	49.6	87.4	41.5	40.8	46.7	17.1	47.5	77.5	99.2	89.5	78.7	48.7	28.0	29.6	30.7	48.8	28.3	71.0	227.2
18	13.4	25.5	9.6	6.1	12.6	13.2	22.1	17.9	12.7	12.3	7.1	7.0	6.2	14.1	15.5	19.0	58.7	89.5	80.8	87.7	24.2	10.4	42.8	37.8	26.9	89.5
19	20.1	27.5	0.5	28.1	8.3	4.2	2.0	8.4	7.0	5.0	5.3	21.6	31.4	0.0	0.0	0.0	0.0	8.5	9.0	16.9	18.2	17.5	5.6	4.5	10.4	31.4
20	30.2	21.8	14.1	15.9	23.2	35.5	23.8	24.8	19.9	25.2	27.1	30.8	10.0	13.8	32.9	24.3	11.9	21.5	9.9	10.6	22.0	16.6	13.2	21.9	20.9	35.5
21	14.2	16.6	12.7	14.0	12.7	13.8	11.2	32.8	23.2	14.0	12.4	8.7	14.0	34.8	12.6	15.7	18.6	24.6	15.4	15.4	15.3	13.7	9.0	17.8	16.4	34.8
22	11.1	10.4	41.8	44.5	44.5	43.6	35.4	21.6	13.7	31.8	28.6	42.4	54.1	53.0	32.9	23.2	15.7	19.6	19.6	19.9	22.3	21.5	31.4	44.1	30.3	54.1
23	38.2	49.5	64.6	53.4	40.8	32.9	47.5	51.5	77.5	74.9	77.8	150.3	151.3	134.8	140.3	96.6	20.6	14.9	5.9	8.4	7.4	12.5	33.4	33.2	59.1	151.3
24	29.2	27.3	18.2	18.6	24.9	21.6	33.9	64.7	33.5	40.5	117.0	148.5	106.9	85.2	23.8	2.0	8.3	6.3	15.8	21.3	5.7	5.1	18.7	28.9	37.7	148.5
25	44.7	24.3	11.4	12.7	14.8	28.2	35.1	60.5	151.3	251.9	250.4	194.5	65.1	46.3	30.5	28.9	22.8	31.2	16.6	14.0	12.9	16.6	13.7	32.6	58.8	251.9
26	64.4	142.1	86.4	117.0	147.5	93.3	149.6	176.3	190.3	272.9	276.4	239.8	120.7	51.8	12.4	7.0	3.1	6.1	12.5	12.3	30.1	20.6	13.4	3.3	93.7	276.4
27	8.4	7.3	7.2	8.3	4.5	7.5	15.6	40.8	27.9	51.1	23.5	21.3	40.1	35.9	9.0	17.7	8.3	5.7	4.3	3.2	7.0	5.7	5.8	6.9	15.5	51.1
28	3.1	4.4	4.3	2.9	1.7	4.7	11.9	23.8	47.9	36.8	50.7	85.1	45.6	20.2	52.9	9.6	5.8	30.1	22.1	18.5	22.3	24.8	66.0	49.9	26.9	85.1
NO.	28	27	28	28	28	28	28	28	28	27	27	26	27	27	28	28	28	28	28	28	28	28	28	28	665	89.8%
MEAN	25.1	28.3	27.4	33.8	38.2	41.4	39.3	38.4	41.0	52.9	58.2	60.1	46.3	46.1	38.8	36.9	27.0	31.7	25.5	22.7	21.3	19.0	20.7	25.5		
MAX	84.9	142.1	86.4	222.9	227.2	227.1	181.2	176.3	190.3	272.9	276.4	239.8	151.3	216.0	145.5	201.5	124.4	117.9	80.8	87.7	47.8	81.6	66.0	72.0		



Number of 24HR Exceedences	0
Number of Non-Zero Readings	660
Maximum 1-HR Average	276.4 UG/M3
Maximum 24-HR Average	93.7 UG/M3
Monthly Calibration	3
Standard Deviation	40.9
Operational Time	668 HRS
Operational Uptime	89.8 %
Monthly Average	35.1 UG/M3

# Lagoon Temperature (°C) – February 2022

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	-14.9	-15.1	-15.5	-16.3	-17.2	-17.8	-18.4	-18.9	-19.5	-19.1	-18.7	-18.1	-17.9	-17.6	-17.4	-17.3	-18.1	-18.4	-19.4	-20.0	-20.2	-20.4	-20.7	-20.9	-18.2	-14.9
2	-21.5	-22.5	-24.7	-27.0	-28.1	-27.5	-26.1	-26.2	-25.7	-25.3	-23.5	-21.4	-18.4	-14.4	-12.6	-12.5	-11.2	-10.8	-11.0	-11.1	-11.1	-10.8	-10.6	-10.5	-18.5	-10.5
3	-10.9	-10.3	-9.9	-10.3	-10.9	-11.2	-11.4	-11.3	-11.6	-12.5	-11.4	-10.1	-9.0	-8.0	-7.6	-8.0	-9.8	-11.4	-13.0	-14.2	-15.4	-15.7	-7.9	-4.9	-10.7	-4.9
4	-2.9	-2.6	-2.7	-2.4	-2.1	-1.6	-1.7	-1.3	-0.8	0.6	1.9	4.1	3.5	5.0	5.3	5.2	4.8	3.7	3.3	3.4	3.2	2.9	2.6	2.8	1.4	5.3
5	2.2	2.0	2.9	3.0	2.7	2.5	2.4	2.7	3.2	3.7	4.2	4.7	5.2	5.1	5.0	5.1	4.7	4.4	4.1	3.8	3.1	3.1	2.7	2.8	3.6	5.2
6	2.8	2.7	2.6	3.4	3.5	3.9	4.1	4.3	4.4	4.8	5.7	7.7	8.4	8.7	8.6	7.9	7.5	7.1	6.9	6.8	7.0	6.6	5.9	4.2	5.7	8.7
7	3.1	4.0	6.5	7.1	8.4	8.3	7.1	7.2	7.8	7.7	4.8	4.5	5.2	4.9	4.2	3.9	4.0	3.9	3.9	4.4	4.5	4.2	4.2	3.9	5.3	8.4
8	3.9	4.1	3.9	3.9	4.0	4.5	4.7	4.6	4.1	4.2	4.5	4.9	5.0	5.3	5.5	6.0	6.0	5.6	5.1	4.4	4.6	4.6	4.2	4.2	4.7	6.0
9	3.9	4.1	4.0	4.0	4.6	4.9	4.9	5.0	5.3	5.0	5.9	7.2	7.8	8.9	9.8	9.8	9.9	9.8	9.1	8.7	8.6	9.0	9.9	11.0	7.1	11.0
10	11.2	11.4	12.3	12.7	12.4	12.6	12.5	12.1	11.6	11.2	10.6	10.2	10.2	9.7	9.1	8.6	7.9	7.1	6.4	5.6	4.9	4.4	3.7	3.3	9.2	12.7
11	2.7	2.3	1.1	1.0	0.3	-0.5	-1.4	-1.9	-2.6	-2.4	-1.2	-0.3	0.8	2.2	3.9	4.6	4.7	3.9	3.6	3.2	2.8	2.9	2.6	2.6	1.5	4.7
12	2.9	3.2	2.7	2.2	2.1	1.9	0.9	0.1	0.0	0.4	2.3	4.8	6.3	7.3	8.3	8.9	8.4	7.6	7.2	6.7	6.6	5.8	4.6	3.8	4.4	8.9
13	3.8	4.2	5.4	6.0	5.7	5.1	4.5	4.2	3.1	4.4	4.9	5.3	5.9	5.7	6.2	6.3	5.9	4.3	2.2	1.6	1.0	0.6	-0.1	-0.9	4.0	6.3
14	-1.0	-0.7	-1.4	-1.4	-1.6	-1.6	-1.8	-1.1	-0.6	-0.1	0.3	1.0	1.5	1.4	0.2	-0.3	-1.0	-1.9	-2.4	-2.6	-2.7	-2.8	-2.9	-2.6	-1.1	1.5
15	-2.6	-2.6	-2.4	-2.3	-2.1	-2.2	-2.1	-2.1	-1.9	-2.0	-2.4	-2.2	-1.8	-1.3	-0.9	-0.9	-1.5	-2.6	-3.3	-3.5	-3.8	-4.1	-4.4	-4.7	-2.5	-0.9
16	-5.0	-5.9	-8.1	-8.8	-9.6	-10.6	-10.8	-10.7	-9.6	-8.5	-7.3	-5.8	-4.6	-3.2	-2.1	-1.4	-0.7	-2.7	-4.1	-5.2	-6.8	-8.5	-10.5	-11.3	-6.7	-0.7
17	-2.9	-0.3	0.6	1.6	1.8	1.5	1.7	1.8	1.5	1.9	2.6	3.6	4.7	5.3	5.4	5.3	5.0	4.7	4.8	5.0	5.4	5.3	5.2	5.2	3.2	5.4
18	4.4	0.2	0.3	-0.7	-2.0	-2.6	-4.0	-4.9	-6.6	-6.8	-7.2	-7.1	-5.9	-5.1	-4.4	-3.1	2.8	6.9	7.1	6.6	6.1	7.0	7.1	7.4	-0.2	7.4
19	7.4	7.3	7.7	8.0	8.2	8.1	7.8	7.4	6.9	6.1	5.5	4.5	3.6	3.7	3.2	3.3	3.8	3.8	3.2	0.2	0.1	-0.1	-0.6	-1.9	4.5	8.2
20	-6.0	-7.8	-9.4	-10.6	-12.0	-12.9	-14.0	-14.8	-15.5	-16.0	-15.8	-15.3	-14.9	-15.1	-15.0	-15.1	-16.0	-16.8	-17.4	-17.9	-18.3	-18.7	-19.0	-19.2	-14.7	-6.0
21	-19.2	-19.5	-19.8	-20.2	-20.5	-20.4	-20.5	-20.7	-20.8	-20.6	-20.3	-19.9	-19.4	-18.6	-18.2	-18.7	-19.4	-20.5	-21.4	-22.3	-23.0	-23.6	-23.9	-24.4	-20.7	-18.2
22	-25.1	-25.8	-26.2	-26.3	-26.7	-27.6	-28.8	-29.8	-29.1	-25.2	-23.3	-20.1	-17.0	-16.5	-15.9	-15.6	-15.4	-17.3	-20.3	-22.3	-23.0	-22.3	-22.2	-22.2	-22.7	-15.4
23	-22.7	-23.0	-23.5	-23.9	-23.9	-24.6	-24.5	-24.4	-24.2	-22.2	-18.8	-15.9	-13.2	-11.2	-9.7	-8.6	-7.9	-8.2	-8.5	-8.7	-9.2	-9.9	-10.6	-11.0	-16.2	-7.9
24	-11.5	-11.8	-11.9	-12.3	-12.4	-12.4	-12.6	-12.7	-12.7	-12.4	-10.9	-9.0	-7.4	-5.6	-4.2	-3.5	-3.4	-4.4	-6.3	-7.7	-7.9	-7.8	-8.4	-9.2	-9.1	-3.4
25	-10.3	-11.0	-11.6	-12.0	-12.1	-12.5	-12.7	-12.4	-11.9	-10.3	-7.9	-5.6	-3.9	-2.4	-1.5	-1.1	-0.9	-1.4	-1.9	-2.5	-3.3	-4.0	-4.6	-5.1	-6.8	-0.9
26	-6.2	-7.0	-7.7	-8.0	-8.7	-8.6	-8.5	-8.5	-8.3	-6.7	-5.6	-4.6	-2.1	1.6	4.6	5.3	5.1	4.8	4.5	4.2	4.1	3.7	3.3	3.1	-1.9	5.3
27	2.0	1.4	1.6	1.3	0.9	0.4	0.1	-0.5	-0.5	-1.1	0.3	4.0	4.3	4.2	3.1	4.3	5.0	4.7	4.3	4.0	3.8	3.5	2.9	2.7	2.4	5.0
28	2.9	3.3	3.2	2.9	2.6	2.0	1.5	1.2	1.3	1.6	2.7	4.4	5.8	6.8	7.0	6.9	6.9	6.5	6.2	5.4	4.0	0.3	-0.7	-1.4	3.5	7.0
NO.	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	672	100.0%
MEAN	-3.9	-4.1	-4.3	-4.5	-4.7	-5.0	-5.3	-5.4	-5.4	-5.0	-4.2	-3.0	-2.0	-1.2	-0.7	-0.5	-0.5	-1.0	-1.7	-2.3	-2.7	-3.0	-3.1	-3.3		
MAX	11.2	11.4	12.3	12.7	12.4	12.6	12.5	12.1	11.6	11.2	10.6	10.2	10.2	9.7	9.8	9.8	9.9	9.8	9.1	8.7	8.6	9.0	9.9	11.0		



Number of Non-Zero Readings 672

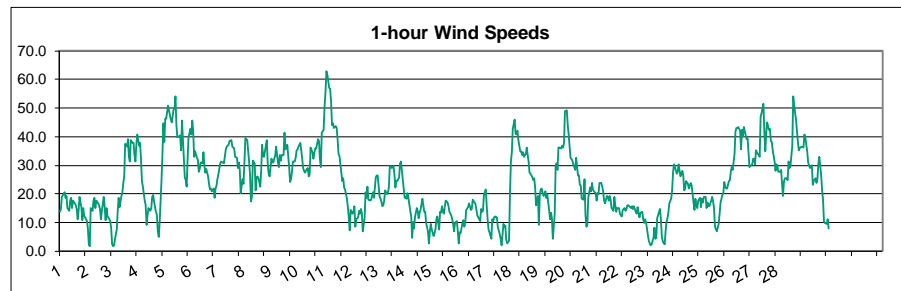
Maximum 1-HR Average 12.7 C

Maximum 24-HR Average 9.2 C

Monthly Calibration 0 Operational Time 672 HRS  
 Operational Uptime 100.0 %  
 Standard Deviation 9.89 Monthly Average -3.2 C

# Lagoon Wind Speed (km/hr) – February 2022

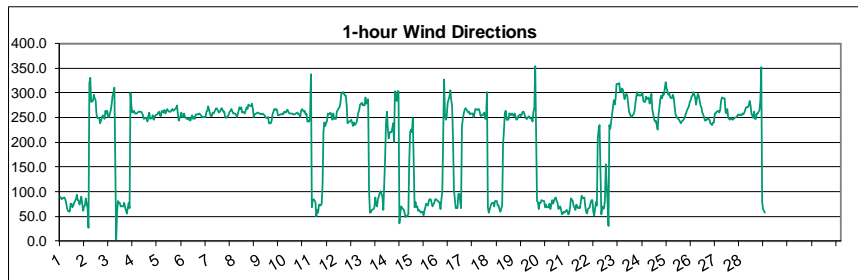
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	13.7	14.7	19.0	19.9	20.7	18.8	19.4	15.2	14.1	17.5	18.6	14.9	17.7	16.8	16.0	14.9	11.0	14.1	18.8	15.4	10.9	15.1	12.2	11.8	15.9	20.7
2	10.5	7.8	2.3	1.6	2.1	5.8	7.5	14.2	18.6	15.5	19.2	20.6	24.0	26.2	37.6	36.6	39.0	33.1	31.3	38.7	37.7	37.7	33.5	31.4	22.2	39.0
3	37.3	40.8	37.0	37.8	32.0	24.6	22.7	17.6	15.9	9.1	12.6	15.2	14.2	14.9	18.8	19.6	17.3	13.7	12.8	7.3	5.0	9.9	25.0	34.0	20.6	40.8
4	44.5	38.2	46.4	46.2	50.8	49.2	47.6	46.1	44.9	49.4	49.7	54.1	43.9	39.6	40.3	40.5	35.4	45.5	38.7	25.9	25.0	22.5	32.4	39.9	41.5	54.1
5	42.8	40.7	45.6	42.0	32.9	34.8	32.7	31.9	27.8	28.7	30.9	30.7	34.6	30.1	27.3	28.8	26.0	23.4	21.5	21.9	21.1	21.8	18.8	21.8	29.9	45.6
6	22.8	25.1	26.9	30.7	31.3	31.1	31.1	30.7	35.4	36.6	36.9	37.1	38.6	38.9	36.6	36.1	35.8	33.0	32.6	28.9	31.0	28.6	20.1	25.1	31.7	38.9
7	23.4	31.1	39.3	39.2	38.7	31.3	26.6	17.4	19.1	31.8	30.5	21.2	25.9	26.0	25.5	22.7	28.5	37.2	33.4	33.1	36.8	38.7	30.7	27.2	29.8	39.3
8	26.1	32.2	31.0	31.1	32.3	33.2	36.4	30.9	29.5	33.6	31.5	33.6	33.8	41.4	35.6	36.6	37.1	29.4	24.2	25.0	27.6	31.4	31.2	32.8	32.0	41.4
9	35.2	35.5	36.7	37.9	35.2	32.5	29.2	28.0	27.4	28.7	29.0	26.3	26.9	36.2	34.6	32.2	34.4	35.9	35.7	39.0	38.5	32.3	29.5	41.4	33.3	41.4
10	42.4	50.7	55.7	62.9	61.6	57.2	56.8	52.3	43.9	44.6	43.2	43.8	46.1	39.3	34.1	33.3	27.6	24.4	25.4	22.3	21.7	18.3	15.4	11.9	38.8	62.9
11	7.4	14.5	13.0	13.7	15.8	8.6	11.2	11.7	14.1	13.2	14.7	13.3	7.0	11.7	20.5	18.6	22.4	18.0	17.6	17.9	19.1	20.6	18.6	25.9	15.4	25.9
12	26.5	26.5	22.9	19.5	17.4	15.6	16.0	17.8	21.1	19.9	20.5	22.3	29.7	29.8	29.0	29.7	26.6	22.3	24.5	24.5	25.8	30.8	31.2	28.1	24.1	31.2
13	24.8	18.5	18.9	18.2	20.2	18.6	14.2	12.2	4.8	10.2	8.0	11.9	15.0	14.1	11.5	13.6	14.4	18.2	16.1	13.7	13.6	9.9	7.0	2.7	13.8	24.8
14	6.9	9.6	7.6	5.4	6.4	7.4	11.1	12.0	7.5	13.9	13.4	15.8	13.9	13.0	17.6	17.4	17.1	15.9	13.6	12.5	11.0	9.7	6.9	9.7	11.5	17.6
15	10.6	7.0	2.6	6.5	6.3	9.9	11.0	8.6	9.9	14.3	15.3	16.8	15.8	14.3	14.8	17.8	17.0	16.5	14.3	12.6	11.7	10.4	14.7	13.6	12.2	17.8
16	14.0	19.7	21.6	16.1	11.2	7.7	6.7	4.5	11.1	10.6	12.0	12.1	11.8	8.1	7.2	6.0	4.4	2.2	9.6	8.5	8.8	4.0	2.8	3.7	9.4	21.6
17	20.2	31.3	34.7	42.7	45.9	41.0	40.9	42.0	38.8	34.9	34.9	33.6	34.5	33.1	33.8	36.2	33.5	31.3	27.5	27.0	25.8	24.7	25.4	22.2	33.2	45.9
18	16.0	19.4	9.1	19.8	21.4	21.9	19.2	19.5	20.8	18.5	20.1	14.5	11.1	13.5	11.5	4.2	13.1	29.8	30.7	28.3	36.3	36.4	36.0	36.7	21.2	36.7
19	36.1	37.9	49.0	49.4	43.9	40.8	36.7	32.5	31.7	30.3	29.5	28.3	32.7	26.3	23.2	22.9	18.2	18.1	25.2	12.7	8.6	9.3	18.7	28.7	28.7	49.4
20	22.2	20.8	23.8	21.5	20.8	20.4	17.8	20.4	20.0	23.8	24.0	22.6	20.8	17.7	16.7	19.2	19.1	17.6	19.4	18.1	15.2	14.0	18.9	16.0	19.6	24.0
21	13.9	15.1	14.9	13.2	12.4	12.1	14.4	15.0	14.2	14.6	16.1	16.0	15.4	15.2	15.7	14.7	15.8	13.9	13.2	15.5	13.2	11.7	13.3	13.9	14.3	16.1
22	11.1	9.8	11.2	10.1	5.5	3.7	2.7	2.2	2.3	4.7	8.2	4.4	4.6	11.6	13.7	14.6	11.2	4.8	3.2	2.5	6.9	10.4	11.5	13.6	7.7	14.6
23	16.8	18.4	21.3	27.4	30.3	29.3	27.0	27.7	30.3	28.1	26.2	28.1	26.4	21.1	21.8	24.5	23.7	22.0	22.8	24.0	22.8	16.9	14.3	18.3	23.7	30.3
24	16.0	15.2	17.5	18.7	15.3	18.5	17.2	19.1	18.8	14.9	17.2	15.6	15.8	17.6	18.9	17.3	15.1	8.6	7.0	8.4	9.4	13.2	16.9	19.5	15.5	19.5
25	20.2	24.0	22.5	21.9	22.0	24.4	24.8	27.6	29.5	28.4	33.8	41.7	43.0	43.2	43.5	42.2	35.5	42.2	40.2	43.3	40.4	39.0	39.5	34.5	33.6	43.5
26	29.3	30.0	30.4	32.3	32.3	30.5	35.3	33.9	33.8	33.0	46.8	48.3	51.6	41.6	34.8	41.2	45.0	42.3	42.8	38.6	38.2	35.4	31.3	28.1	37.0	51.6
27	30.2	29.6	27.8	27.9	28.6	23.6	19.2	24.1	25.5	25.5	24.7	31.3	28.9	29.8	37.0	54.2	51.0	48.2	46.0	38.2	35.1	36.2	36.2	36.7	33.1	54.2
28	36.2	40.7	39.7	37.1	34.8	30.9	28.9	29.8	30.0	23.3	24.6	25.4	23.8	25.6	30.8	33.0	26.3	21.1	18.0	10.2	9.8	9.6	11.0	8.0	25.4	40.7
NO.	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	672	100.0%
MEAN	23.5	25.2	26.0	26.8	26.0	24.4	23.7	23.0	22.9	23.5	24.7	25.0	25.2	24.9	25.4	26.0	25.2	24.4	23.5	22.4	21.8	21.3	21.2	22.4		
MAX	44.5	50.7	55.7	62.9	61.6	57.2	56.8	52.3	44.9	49.4	49.7	54.1	51.6	43.2	43.5	54.2	51.0	48.2	46.0	43.3	40.4	39.0	39.5	41.4		



Number of Non-Zero Readings	672
Maximum 1-HR Average	62.9 KM/HR
Maximum 24-HR Average	41.5 KM/HR
Monthly Calibration	0
Standard Deviation	11.85
Operational Time	672 HRS
Operational Uptime	100.0 %
Monthly Average	24.1 KM/HR

# Lagoon Wind Direction (°) – February 2022

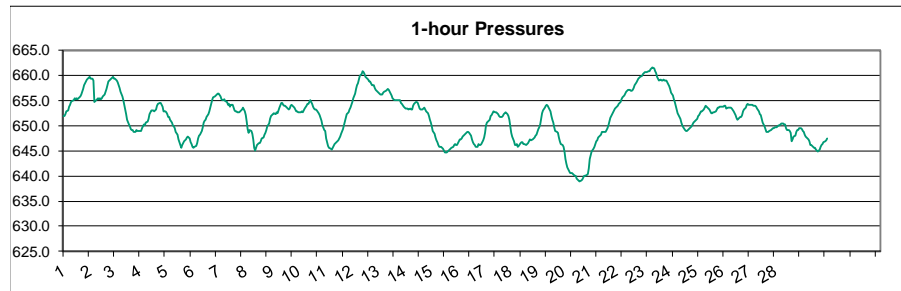
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	90.6	88.4	84.4	86.2	87.6	83.9	76.9	65.8	60.9	59.9	75.1	75.1	68.8	72.3	76.9	84.4	93.4	83.1	80.7	73.9	90.9	76.0	60.3	69.3	77.7	93.4
2	72.2	86.1	67.0	27.6	12.0	237.1	293.4	319.5	330.0	281.6	282.8	296.3	289.0	285.6	257.0	249.2	248.6	238.9	243.2	249.4	253.8	248.3	263.0	258.6	263.7	330.0
3	264.1	251.9	251.6	265.9	278.0	294.6	301.8	311.4	3.4	57.0	80.2	78.1	76.9	70.7	70.8	69.3	77.0	69.2	62.0	54.9	77.5	65.8	300.5	274.1	305.9	311.4
4	259.8	263.0	258.1	257.5	257.7	259.2	261.7	261.6	261.1	258.2	255.5	247.0	249.0	248.8	241.6	252.5	260.4	247.3	250.0	254.8	246.3	250.9	254.7	256.2	255.0	263.0
5	259.6	262.1	254.8	253.6	263.6	260.5	264.7	259.1	261.4	267.1	261.7	261.6	261.7	266.1	267.9	264.0	267.1	270.0	274.2	258.9	244.3	252.4	260.5	250.8	261.1	274.2
6	250.8	257.6	251.1	248.2	249.4	246.4	248.4	243.4	253.9	247.5	251.7	248.3	256.7	256.9	256.8	258.0	257.3	255.5	251.3	250.8	250.6	250.8	262.0	263.7	252.7	263.7
7	272.7	258.5	253.4	253.1	260.5	258.4	262.0	268.8	267.2	264.0	259.4	261.2	269.9	265.1	261.9	262.5	250.9	249.4	253.3	257.3	262.7	262.9	267.4	258.2	260.1	272.7
8	257.4	257.5	255.9	251.0	255.8	270.5	266.7	270.8	259.5	261.6	258.9	264.9	271.5	268.1	276.5	274.4	272.4	277.8	267.8	250.3	256.7	259.1	260.0	260.3	264.0	277.8
9	258.4	259.1	257.1	258.3	257.3	254.8	251.4	249.8	250.8	237.6	238.1	238.8	242.9	256.2	267.5	266.0	267.1	265.6	255.2	255.0	256.4	256.1	258.3	255.7	255.4	267.5
10	261.0	259.3	264.8	264.9	259.6	258.6	257.8	258.1	257.3	257.3	256.7	258.1	260.1	256.6	256.1	251.0	263.1	266.8	262.4	264.1	256.5	257.4	241.7	242.2	258.9	266.8
11	250.6	338.7	68.6	82.6	85.3	79.1	51.0	62.6	58.2	73.9	72.1	75.8	114.6	222.1	240.6	233.0	244.5	258.0	256.7	258.7	260.5	246.3	258.8	246.6	250.7	338.7
12	247.0	247.1	262.1	268.5	271.0	280.3	298.5	300.6	301.0	294.2	294.3	275.4	237.8	242.8	242.3	245.1	239.6	232.2	240.8	235.0	240.0	249.1	260.7	266.2	257.7	301.0
13	276.1	279.7	274.7	275.8	275.2	290.7	278.6	287.7	103.7	57.1	57.0	63.2	65.0	67.9	88.3	74.5	70.7	83.9	97.4	101.0	95.0	89.7	63.5	168.0	28.9	290.7
14	237.7	262.2	229.8	207.4	220.4	221.1	227.9	238.0	200.0	303.0	284.2	303.2	304.3	36.4	57.2	70.1	64.1	63.1	56.0	49.0	50.9	54.3	161.1	220.5	357.5	304.3
15	226.6	219.7	249.4	68.9	79.1	68.5	70.4	60.3	62.6	58.2	59.9	59.5	52.2	61.9	76.0	73.9	72.9	82.3	83.8	85.4	71.1	73.8	76.8	84.8	72.4	249.4
16	85.1	81.2	80.1	76.9	65.6	85.1	99.5	326.7	254.7	244.7	254.2	279.1	293.5	305.9	286.0	273.1	205.8	103.8	65.8	69.0	66.4	94.7	96.1	66.7	61.3	326.7
17	232.4	247.5	258.2	265.6	268.3	262.9	260.1	262.4	256.0	257.8	258.3	251.9	259.1	266.9	266.9	265.7	266.6	260.5	253.7	254.1	254.4	259.6	247.4	247.5	258.8	268.3
18	301.6	69.2	57.2	71.1	74.9	76.6	77.7	70.3	80.6	80.9	71.9	71.9	64.0	58.6	71.9	194.1	223.7	259.5	264.0	245.6	245.9	258.5	257.6	255.4	289.5	301.6
19	257.4	253.5	258.3	250.8	246.1	247.3	253.7	255.6	253.5	256.3	261.6	261.3	251.4	248.3	247.8	250.9	253.5	249.2	248.2	241.5	262.6	269.1	353.3	81.9	253.5	353.3
20	78.9	64.9	76.7	77.1	82.5	80.2	81.2	67.5	74.5	68.9	68.3	75.0	65.2	74.2	82.9	75.0	87.1	87.6	80.6	77.0	65.6	70.0	62.5	54.3	74.2	87.6
21	56.6	58.9	57.7	62.5	61.2	54.2	56.6	69.1	86.9	80.4	71.0	68.0	63.1	74.6	66.5	67.5	67.2	80.0	91.8	87.2	88.1	70.0	59.3	55.2	68.9	91.8
22	64.4	69.0	76.7	82.5	82.7	59.3	51.5	79.4	72.7	207.0	225.1	234.6	53.8	70.4	65.0	66.4	81.7	155.9	78.3	31.0	234.7	227.8	242.8	271.2	83.5	271.2
23	285.8	275.5	289.9	317.1	318.4	319.8	304.0	301.4	309.0	306.6	286.6	293.7	298.9	295.1	278.2	261.8	252.5	250.8	254.1	256.4	262.2	290.7	302.0	295.1	289.4	319.8
24	295.9	293.9	294.4	300.3	283.9	281.6	280.9	291.8	287.0	290.7	277.5	284.2	297.8	267.7	248.0	242.8	244.3	235.5	226.5	253.9	287.6	294.1	289.3	298.1	279.9	300.3
25	296.3	321.5	309.5	304.3	296.6	299.0	291.3	288.3	295.6	290.2	272.9	255.6	249.2	248.3	245.9	241.4	238.9	242.5	246.4	250.1	254.6	259.7	265.0	272.4	266.1	321.5
26	281.2	285.4	293.2	295.1	302.0	290.3	276.9	289.9	297.3	295.2	274.4	271.2	259.2	256.1	250.5	243.9	245.5	249.5	247.2	245.8	238.0	234.0	239.3	240.9	265.2	302.0
27	258.5	259.0	261.8	263.0	260.7	265.7	283.3	290.0	289.1	288.5	262.7	258.6	267.5	249.3	245.5	248.8	246.8	245.2	247.5	249.7	250.9	253.0	256.5	254.8	257.8	290.0
28	255.9	255.4	259.0	256.2	260.4	265.4	270.4	270.9	274.0	282.8	273.9	258.9	248.5	262.7	248.0	248.2	258.3	258.8	264.8	285.1	352.3	78.7	64.2	57.7	263.3	352.3
NO.	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	672	100.0%
MEAN	222.7	218.8	209.1	203.3	204.1	212.5	214.2	225.7	205.8	211.7	208.8	209.7	203.3	198.4	197.9	200.3	200.8	200.8	196.6	194.5	206.3	198.3	213.7	208.1		
MAX	301.6	338.7	309.5	317.1	318.4	319.8	304.0	326.7	330.0	306.6	294.3	303.2	304.3	305.9	286.0	274.4	272.4	277.8	274.2	285.1	352.3	294.1	353.3	298.1		



Number of Non-Zero Readings	672
Maximum 1-HR Average	353 degrees
Maximum 24-HR Average	358 degrees
Monthly Calibration	0
Standard Deviation	88.96
Operational Time	672 HRS
Operational Uptime	100.0 %
Monthly Average	206.9 degrees

# Lagoon Pressure (mmHg) – February 2022

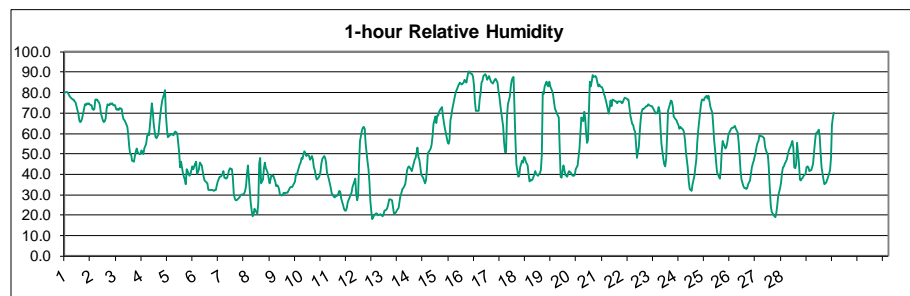
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	652.0	651.9	652.3	652.8	653.1	653.7	654.2	654.7	654.9	655.2	655.5	655.3	655.4	655.3	655.5	655.8	656.3	656.8	657.4	658.0	658.8	659.1	659.4	659.6	655.5	659.6
2	659.8	659.4	659.3	659.0	658.5	658.1	657.5	656.7	655.8	655.0	654.1	653.3	652.3	651.2	650.2	649.9	649.4	649.2	648.8	648.8	649.0	648.9	649.0	649.0	653.4	659.8
3	648.9	649.0	649.5	649.8	650.2	650.1	650.6	650.8	651.3	652.3	652.7	653.1	653.0	652.8	653.0	653.3	654.0	654.4	654.6	654.5	654.2	653.8	652.9	652.8	652.1	654.6
4	652.6	652.3	651.7	651.7	651.2	650.7	650.1	649.8	649.5	648.9	648.1	647.2	646.6	646.2	645.7	646.1	646.8	647.1	647.3	647.6	647.8	647.5	646.8	646.3	648.6	652.6
5	645.7	645.6	645.7	646.0	646.6	647.5	647.9	648.2	649.0	649.7	650.6	651.1	651.2	651.8	652.3	652.8	653.6	654.4	655.1	655.6	655.8	656.0	656.3	656.3	651.0	656.3
6	656.3	655.9	655.3	655.1	655.0	655.3	654.8	654.7	654.2	654.4	653.8	654.2	654.1	653.6	653.0	652.9	652.8	652.7	652.7	652.8	653.0	653.3	653.5	652.9	654.0	656.3
7	652.2	650.8	649.4	648.6	649.1	649.0	648.4	647.3	645.6	645.1	646.2	646.4	646.5	646.5	646.9	647.5	647.7	648.1	648.6	649.2	650.0	650.5	651.4	652.0	648.4	652.2
8	652.1	652.2	652.5	652.4	652.6	652.5	653.0	653.6	654.5	654.5	654.1	654.0	653.9	653.7	653.5	653.2	653.4	653.9	654.2	654.0	653.6	653.1	652.9	652.8	653.3	654.5
9	652.7	652.6	652.6	652.8	652.7	653.0	653.4	654.0	654.3	654.4	654.8	655.1	654.4	653.7	653.4	653.3	653.2	653.1	652.5	652.1	651.6	650.9	650.1	649.2	652.9	655.1
10	649.0	647.5	646.8	645.9	645.5	645.4	645.2	645.7	646.1	646.3	646.7	646.9	647.1	647.4	647.9	648.4	649.4	650.1	650.8	651.5	652.3	652.7	653.2	653.5	648.4	653.5
11	654.1	654.7	655.4	656.3	657.2	658.0	658.5	659.1	659.9	660.3	660.8	660.7	660.4	659.8	659.4	659.2	658.8	658.7	658.4	658.1	658.0	657.6	657.2	657.0	658.2	660.8
12	656.7	656.4	656.2	656.2	656.3	656.5	656.7	656.9	657.1	657.3	657.1	656.8	656.0	655.5	655.3	655.1	655.1	655.0	655.0	655.1	655.0	654.6	654.3	653.8	655.8	657.3
13	653.7	653.4	653.4	653.4	653.3	653.4	653.2	653.2	653.9	654.4	654.7	654.8	654.4	653.9	653.5	653.3	653.3	653.4	653.6	653.3	652.8	652.5	652.0	651.2	653.4	654.8
14	650.6	649.8	649.0	648.3	647.6	647.2	646.8	646.2	645.9	645.9	645.6	645.3	645.0	644.7	644.6	644.8	645.1	645.1	645.4	645.7	645.9	646.1	646.3	646.2	646.4	650.6
15	646.2	646.9	647.2	647.2	647.5	647.9	648.1	648.3	648.6	648.8	648.8	648.6	647.9	647.2	646.6	646.4	646.1	645.8	645.8	646.3	646.1	646.1	646.4	647.1	647.2	648.8
16	647.6	648.6	650.0	650.6	650.8	651.1	651.8	652.2	652.5	652.8	652.7	652.7	652.5	652.3	651.9	651.7	651.7	651.9	652.3	652.5	652.6	652.4	652.0	651.1	651.6	652.8
17	649.9	648.6	647.8	646.9	646.2	646.2	646.4	645.7	646.0	646.5	646.7	646.7	646.4	646.3	646.2	646.4	646.6	646.9	647.2	647.0	647.3	647.5	647.6	647.9	647.0	649.9
18	648.2	649.3	649.7	650.3	651.4	652.5	653.0	653.6	654.0	654.1	654.0	653.5	652.9	652.0	651.3	650.6	649.7	649.0	648.8	648.6	647.6	646.9	646.4	646.1	650.6	654.1
19	645.7	644.8	643.4	642.5	641.7	640.9	640.5	640.7	640.5	640.4	640.1	640.0	639.5	639.3	639.0	638.9	639.2	639.3	639.6	640.0	640.0	640.3	640.4	641.5	640.8	645.7
20	643.4	644.1	644.8	645.5	645.8	646.4	646.9	647.1	647.7	648.0	648.3	648.7	648.7	648.8	648.7	649.0	649.6	650.1	650.9	651.6	652.2	652.6	653.1	653.4	648.6	653.4
21	653.6	653.9	654.3	654.5	654.8	655.2	655.6	656.0	656.5	656.8	657.0	657.1	657.2	657.0	656.9	657.1	657.6	658.0	658.5	659.0	659.4	659.6	659.8	659.9	656.9	659.9
22	660.3	660.4	660.7	660.7	660.7	660.8	660.9	661.1	661.5	661.6	661.3	660.9	660.5	659.8	659.4	659.0	659.1	659.0	659.0	659.1	659.0	658.9	658.6	658.3	660.0	661.6
23	657.8	657.2	656.5	656.1	655.2	654.7	653.9	653.2	652.6	651.8	651.3	650.6	650.1	649.8	649.2	648.9	649.0	649.2	649.2	649.4	649.8	650.2	650.5	650.8	652.0	657.8
24	651.0	651.4	651.9	652.2	652.5	652.8	652.9	653.2	653.5	653.9	653.8	653.6	653.3	652.8	652.6	652.5	652.6	652.6	652.9	653.2	653.6	653.7	653.7	653.8	652.9	653.9
25	653.8	653.8	654.0	653.9	653.4	653.5	653.6	653.5	653.6	653.4	652.9	652.6	652.1	651.6	651.3	651.3	651.7	651.8	652.1	652.8	653.3	653.7	654.1	654.2	653.0	654.2
26	654.2	654.2	654.2	654.2	654.0	654.0	653.9	653.7	653.5	652.9	652.3	652.1	651.4	650.6	649.9	649.3	648.7	648.8	648.8	648.9	649.2	649.3	649.6	649.6	651.6	654.2
27	649.6	649.7	649.9	650.1	650.1	650.3	650.5	650.5	650.3	650.2	649.5	649.1	649.1	649.0	648.5	647.0	647.3	647.9	648.0	648.7	649.1	649.2	649.5	649.5	649.3	650.5
28	649.3	649.0	648.7	648.3	647.8	647.5	647.2	646.9	646.2	646.1	645.7	645.6	645.6	645.3	645.1	644.9	645.3	645.7	646.2	646.4	646.7	646.9	647.1	647.4	646.7	649.3
NO.	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	672	100.0%
MEAN	651.7	651.6	651.5	651.5	651.5	651.6	651.6	651.7	651.7	651.8	651.8	651.6	651.3	651.0	650.7	650.7	650.8	651.0	651.2	651.4	651.5	651.6	651.6	651.5		
MAX	660.3	660.4	660.7	660.7	660.7	660.8	660.9	661.1	661.5	661.6	661.3	660.9	660.5	659.8	659.4	659.2	659.1	659.0	659.0	659.1	659.4	659.6	659.8	659.9		



Number of Non-Zero Readings	672		
Maximum 1-HR Average	662 MMHg		
Maximum 24-HR Average	660 MMHg		
Monthly Calibration	0	Operational Time	672 HRS
Standard Deviation	4.471	Operational Uptime	100.0 %
		Monthly Average	651.4 MMHg

# Lagoon Relative Humidity (%) – February 2021

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	80.0	80.1	80.4	79.8	79.0	78.0	77.2	76.8	76.6	75.8	75.2	73.4	69.9	66.3	65.6	66.0	67.5	71.9	74.4	73.8	74.5	74.2	74.7	73.9	74.4	80.4
2	73.7	72.1	71.5	71.8	71.7	72.6	71.8	68.8	66.8	66.6	65.5	63.0	59.2	53.4	49.8	49.7	46.6	46.4	49.0	51.3	52.5	50.8	49.7	50.0	60.2	73.7
3	51.7	51.0	49.9	52.5	55.2	58.5	60.0	59.0	64.4	74.5	70.6	64.4	60.7	58.1	57.6	59.5	64.7	69.2	72.9	76.2	79.2	81.2	68.7	62.4	63.4	81.2
4	58.1	58.8	59.8	59.6	59.5	59.2	60.7	60.9	59.8	55.5	50.6	43.5	46.1	40.6	38.8	37.3	35.0	42.6	41.6	39.3	40.1	42.2	43.8	42.4	49.0	60.9
5	45.5	46.0	40.2	40.9	42.5	45.6	44.5	41.8	38.7	36.8	36.5	35.6	32.4	32.3	32.5	32.3	32.3	32.1	32.4	32.4	34.8	36.4	38.8	38.8	37.6	46.0
6	39.5	40.3	41.5	38.2	37.7	38.3	40.0	41.9	43.2	42.6	38.5	30.6	28.1	27.1	27.5	28.1	28.5	29.5	29.9	30.2	30.3	31.9	34.4	40.1	34.9	43.2
7	44.5	38.3	25.8	22.4	19.3	20.6	23.3	22.1	21.0	25.8	45.3	47.9	35.7	37.6	42.9	45.9	42.8	42.2	40.4	35.7	37.6	39.9	39.3	39.3	34.8	47.9
8	36.4	34.1	34.5	34.1	32.9	30.0	29.4	30.2	31.1	30.8	30.8	30.9	32.0	32.7	33.7	33.9	34.0	35.6	36.7	40.2	39.8	41.6	44.8	45.9	34.8	45.9
9	48.0	47.8	49.7	51.0	49.1	49.5	49.5	48.9	47.2	49.1	47.1	43.2	42.0	39.3	37.4	38.4	39.3	41.2	45.1	47.6	49.0	48.2	45.5	40.7	45.6	51.0
10	39.1	37.6	33.2	30.7	30.0	28.9	28.6	29.2	29.6	30.5	31.9	31.6	28.4	25.2	23.2	22.5	22.2	23.6	26.6	28.5	30.2	31.1	33.7	35.3	29.6	39.1
11	37.7	29.9	27.4	29.4	45.2	56.1	61.2	62.8	63.2	62.5	55.1	46.3	42.4	36.2	27.0	21.8	18.3	19.7	20.5	21.0	20.9	19.7	20.2	20.4	36.1	63.2
12	19.9	19.7	20.5	22.3	22.9	23.7	25.6	27.8	27.6	27.1	24.0	21.0	20.7	21.5	22.1	23.9	27.0	29.8	31.2	32.9	33.3	35.2	38.4	41.9	26.7	41.9
13	43.2	43.8	42.4	41.8	43.6	45.2	47.3	48.0	53.3	48.6	46.9	43.8	39.6	38.5	37.0	35.8	36.8	42.2	50.6	51.8	52.8	54.5	58.8	64.5	46.3	64.5
14	68.1	64.9	68.6	68.5	70.4	71.5	73.0	69.0	65.7	62.8	60.3	55.9	54.9	56.7	66.5	68.7	72.2	76.5	78.9	80.7	81.9	83.2	85.0	84.4	70.3	85.0
15	84.0	84.5	84.7	86.0	85.0	87.6	89.8	90.5	89.4	89.1	87.6	83.5	75.6	71.0	71.0	71.3	76.6	79.8	85.1	85.9	88.2	89.2	87.9	86.4	83.7	90.5
16	87.1	88.1	85.5	84.8	84.6	85.5	86.5	86.7	84.7	80.9	77.8	73.8	70.2	63.4	55.5	51.0	50.7	67.8	74.3	78.1	82.8	85.8	87.4	87.6	77.5	88.1
17	56.7	44.9	41.9	38.7	39.5	43.6	46.7	45.9	48.3	48.0	46.2	44.1	39.7	36.7	37.4	36.9	37.6	39.6	41.4	40.2	39.9	39.3	40.5	42.0	42.3	56.7
18	49.5	80.2	79.5	83.0	85.5	83.3	82.9	85.4	83.0	80.6	78.7	75.3	72.1	71.0	69.8	67.6	52.5	38.9	38.4	41.4	44.3	39.9	39.4	38.8	65.0	85.5
19	40.5	41.7	40.9	39.9	39.2	39.3	39.9	42.4	44.5	48.5	52.5	60.4	67.9	66.1	70.5	67.9	60.3	55.5	56.6	85.1	82.9	85.4	88.7	87.5	58.5	88.7
20	88.0	87.3	85.1	83.1	84.1	83.3	82.5	81.1	79.6	78.0	76.2	71.9	69.7	72.4	76.3	73.6	76.5	76.3	75.8	75.8	74.8	75.8	75.6	75.6	78.3	88.0
21	74.6	75.2	76.6	77.3	77.2	76.7	76.5	72.9	68.7	64.6	64.0	61.7	60.7	54.9	47.9	53.3	60.7	66.8	70.8	71.8	71.9	73.1	73.4	73.3	68.5	77.3
22	74.2	73.9	73.4	73.2	72.7	71.6	70.4	69.7	70.6	73.1	71.2	62.6	54.8	47.7	44.6	44.1	47.4	58.8	70.9	74.2	76.0	75.7	73.4	68.5	66.4	76.0
23	66.8	66.4	65.0	64.2	62.3	63.3	62.4	61.8	60.7	57.0	50.6	43.2	36.4	33.0	32.5	31.9	35.2	39.1	43.6	47.1	55.2	61.3	70.0	74.4	53.5	74.4
24	76.5	76.5	76.0	77.4	78.4	77.0	78.3	75.7	72.9	70.0	63.5	56.4	51.5	46.1	41.0	38.6	37.8	42.0	51.3	56.3	54.8	52.6	53.7	55.7	60.8	78.4
25	59.2	60.6	62.3	63.0	62.7	63.0	63.7	62.3	60.6	55.5	48.9	41.7	37.5	34.4	33.4	33.4	32.9	33.4	35.0	36.8	40.2	43.3	45.1	46.7	48.1	63.7
26	50.7	53.4	55.6	56.4	58.9	58.7	58.5	58.1	57.6	53.6	51.7	49.3	43.1	33.5	25.2	21.9	21.0	19.3	19.0	21.5	24.9	29.7	33.2	36.2	41.3	58.9
27	40.8	43.4	43.9	45.2	46.9	49.5	51.5	52.6	53.4	56.3	53.2	43.3	42.9	44.7	55.5	45.4	37.6	36.8	37.7	38.4	39.2	40.3	43.4	43.9	45.2	56.3
28	43.3	41.4	42.0	43.3	45.5	50.8	55.6	59.8	60.8	62.1	58.7	50.4	43.6	37.4	35.0	35.8	35.9	37.6	38.9	42.3	48.2	64.3	67.9	69.9	48.8	69.9
NO.	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	672	100.0%
MEAN	56.3	56.5	55.6	55.7	56.5	57.5	58.5	58.3	58.0	57.4	55.7	51.7	48.5	45.6	44.9	44.2	43.9	46.2	48.9	51.3	52.9	54.5	55.6	56.0		
MAX	88.0	88.1	85.5	86.0	85.5	87.6	89.8	90.5	89.4	89.1	87.6	83.5	75.6	72.4	76.3	73.6	76.6	79.8	85.1	85.9	88.2	89.2	88.7	87.6		

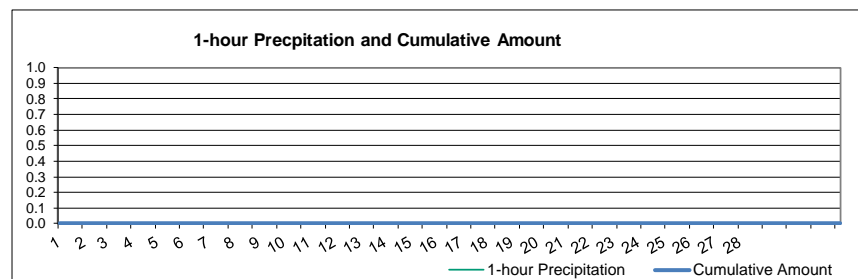


Number of Non-Zero Readings	672
Maximum 1-HR Average	90.5 %
Maximum 24-HR Average	83.7 %
Monthly Calibration	0
Standard Deviation	18.71
Operational Time	672 HRS
Operational Uptime	100.0 %
Monthly Average	52.9 %



# Lagoon Precipitation (mm) – February 2022

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	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	-
2	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	-
3	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	-
4	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	-
5	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	-
6	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	-
7	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	-
8	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	-
9	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	-
10	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	-
11	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	-
12	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	-
13	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	-
14	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	-
15	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	-
16	X	X	X	X	X	X	X	X	X	X	X	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	X	X	X	X	X	X	X	X	X	-	-
19	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	-
20	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	-
21	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	-
22	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	-
23	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	-
24	X	X	X	X	X	X	X	X	X	X	EC	EC	EC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	-
25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
28	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NO.	4	4	4	4	4	4	4	4	4	4	4	4	4	5	5	5	5	5	5	5	5	5	5	5	107	16%
MEAN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MAX	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

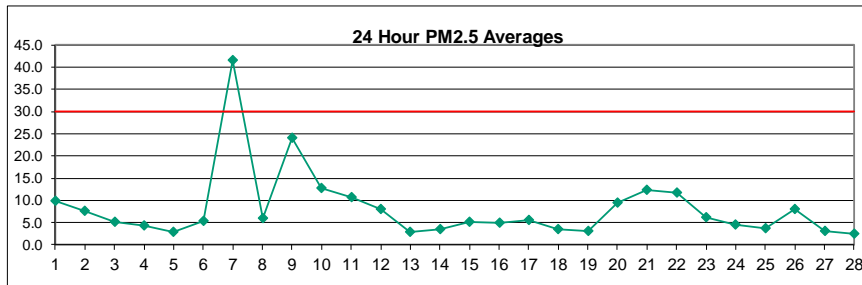


Number of Non-Zero Readings	0	
Maximum 1-HR Average	0.0 MM	
Maximum 24-HR Average	0.0 MM	
Monthly Calibration	0	Operational Time
Standard Deviation	0	Operational Uptime
		Monthly Average
		107 HRS
		15.9 %
		0.00 MM

# Windridge PM<sub>2.5</sub> (µg/m<sup>3</sup>) – February 2022

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	2.0	3.0	12.0	11.0	18.0	18.0	14.0	14.0	17.0	14.0	17.0	7.0	6.0	4.0	3.0	3.0	5.0	8.0	19.0	10.0	11.0	8.0	11.0	10.0	19.0
2	11.0	15.0	16.0	16.0	15.0	12.0	9.0	4.0	5.0	7.0	11.0	10.0	5.0	5.0	10.0	6.0	1.0	1.0	1.0	3.0	5.0	4.0	6.0	6.0	7.7	16.0
3	6.0	5.0	3.0	2.0	4.0	5.0	5.0	1.0	0.0	2.0	6.0	4.0	2.0	4.0	3.0	6.0	7.0	7.0	7.0	4.0	13.0	12.0	8.0	7.0	5.1	13.0
4	4.0	3.0	6.0	5.0	4.0	5.0	6.0	4.0	2.0	1.0	2.0	8.0	6.0	5.0	4.0	5.0	5.0	5.0	7.0	3.0	2.0	4.0	4.0	5.0	4.4	8.0
5	3.0	1.0	6.0	6.0	3.0	2.0	2.0	2.0	2.0	5.0	4.0	3.0	3.0	3.0	3.0	1.0	1.0	1.0	1.0	3.0	3.0	3.0	2.0	4.0	2.8	6.0
6	6.0	3.0	2.0	8.0	5.0	5.0	8.0	6.0	9.0	7.0	10.0	9.0	8.0	6.0	5.0	4.0	3.0	2.0	6.0	4.0	4.0	3.0	2.0	2.0	5.3	10.0
7	0.0	0.0	1.0	3.0	7.0	124.0	82.0	96.0	6.0	74.0	65.0	2.0	235.0	179.0	30.0	41.0	13.0	9.0	5.0	2.0	2.0	3.0	8.0	12.0	41.6	235.0
8	9.0	6.0	3.0	5.0	4.0	9.0	9.0	8.0	6.0	8.0	8.0	10.0	15.0	8.0	5.0	5.0	6.0	6.0	3.0	1.0	2.0	2.0	2.0	2.0	5.9	15.0
9	2.0	4.0	3.0	4.0	5.0	2.0	0.0	0.0	4.0	4.0	9.0	6.0	6.0	C	C	52.0	140.0	52.0	25.0	38.0	38.0	38.0	37.0	58.0	24.0	140.0
10	36.0	58.0	70.0	62.0	32.0	11.0	10.0	7.0	4.0	2.0	0.0	0.0	0.0	0.0	1.0	2.0	3.0	3.0	2.0	0.0	0.0	1.0	3.0	0.0	12.8	70.0
11	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	25.0	32.0	33.0	17.0	3.0	41.0	16.0	52.0	21.0	4.0	5.0	1.0	0.0	2.0	2.0	10.8	52.0
12	1.0	1.0	0.0	0.0	2.0	0.0	0.0	2.0	27.0	0.0	0.0	1.0	3.0	1.0	5.0	5.0	5.0	5.0	13.0	35.0	30.0	37.0	13.0	6.0	8.0	37.0
13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	3.0	0.0	0.0	0.0	3.0	3.0	2.0	20.0	21.0	7.0	5.0	1.0	0.0	1.0	0.0	2.9	21.0
14	0.0	0.0	0.0	1.0	1.0	0.0	0.0	1.0	3.0	0.0	0.0	0.0	0.0	3.0	3.0	17.0	5.0	6.0	4.0	6.0	7.0	8.0	8.0	11.0	3.5	17.0
15	11.0	9.0	7.0	16.0	7.0	7.0	5.0	3.0	1.0	2.0	3.0	2.0	1.0	0.0	1.0	4.0	4.0	5.0	5.0	2.0	6.0	5.0	6.0	10.0	5.1	16.0
16	8.0	7.0	4.0	2.0	3.0	2.0	2.0	2.0	5.0	8.0	15.0	11.0	7.0	9.0	6.0	2.0	1.0	0.0	0.0	0.0	0.0	6.0	10.0	6.0	4.8	15.0
17	4.0	15.0	3.0	11.0	11.0	9.0	8.0	16.0	7.0	5.0	9.0	5.0	1.0	1.0	3.0	4.0	4.0	2.0	0.0	4.0	5.0	2.0	3.0	3.0	5.6	16.0
18	2.0	2.0	3.0	3.0	2.0	1.0	0.0	0.0	0.0	1.0	1.0	3.0	1.0	0.0	3.0	6.0	7.0	6.0	6.0	5.0	3.0	3.0	14.0	10.0	3.4	14.0
19	5.0	1.0	10.0	6.0	2.0	4.0	4.0	2.0	0.0	0.0	0.0	0.0	7.0	7.0	6.0	5.0	5.0	4.0	2.0	0.0	0.0	0.0	0.0	2.0	3.0	10.0
20	1.0	1.0	5.0	5.0	6.0	11.0	16.0	14.0	12.0	15.0	22.0	8.0	7.0	8.0	10.0	7.0	10.0	9.0	8.0	8.0	7.0	7.0	20.0	8.0	9.4	22.0
21	13.0	9.0	6.0	9.0	9.0	8.0	20.0	27.0	16.0	18.0	14.0	13.0	13.0	11.0	12.0	7.0	6.0	10.0	10.0	8.0	16.0	11.0	18.0	13.0	12.4	27.0
22	11.0	16.0	11.0	12.0	12.0	11.0	16.0	20.0	27.0	15.0	19.0	9.0	18.0	9.0	6.0	8.0	8.0	7.0	6.0	12.0	8.0	6.0	6.0	8.0	11.7	27.0
23	6.0	4.0	4.0	3.0	4.0	3.0	0.0	3.0	7.0	6.0	12.0	10.0	11.0	9.0	11.0	7.0	9.0	6.0	5.0	6.0	5.0	8.0	7.0	3.0	6.2	12.0
24	3.0	3.0	3.0	1.0	1.0	2.0	4.0	5.0	3.0	3.0	3.0	12.0	18.0	16.0	9.0	8.0	5.0	0.0	1.0	4.0	3.0	1.0	2.0	1.0	4.6	18.0
25	0.0	0.0	0.0	0.0	2.0	3.0	0.0	0.0	3.0	8.0	17.0	7.0	4.0	0.0	0.0	1.0	1.0	5.0	5.0	7.0	6.0	5.0	8.0	5.0	3.6	17.0
26	3.0	4.0	4.0	4.0	23.0	5.0	9.0	9.0	10.0	10.0	14.0	13.0	10.0	9.0	10.0	10.0	7.0	8.0	9.0	8.0	5.0	1.0	3.0	3.0	8.0	23.0
27	3.0	9.0	5.0	4.0	3.0	1.0	0.0	0.0	0.0	0.0	1.0	2.0	1.0	4.0	7.0	4.0	5.0	4.0	5.0	6.0	2.0	1.0	3.0	4.0	3.1	9.0
28	2.0	0.0	2.0	0.0	0.0	1.0	2.0	1.0	2.0	0.0	0.0	0.0	2.0	1.0	1.0	5.0	3.0	0.0	0.0	0.0	0.0	7.0	18.0	13.0	2.5	18.0

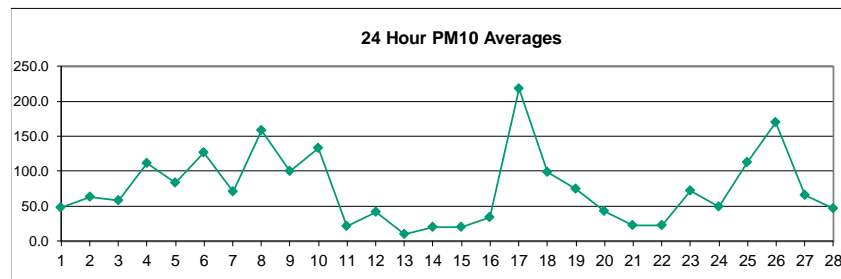
NO.	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	670	100.0%
MEAN	5.5	6.4	6.4	7.1	6.4	9.3	8.4	8.8	6.5	8.8	10.4	7.1	14.6	11.5	7.5	8.7	12.1	7.5	5.5	7.1	6.6	6.8	7.9	7.7	7.5	
MAX	36.0	58.0	70.0	62.0	32.0	124.0	82.0	96.0	27.0	74.0	65.0	33.0	235.0	179.0	41.0	52.0	140.0	52.0	25.0	38.0	38.0	38.0	37.0	58.0	17.4	70.0



Number of 24HR Exceedences	1	Proposed Guideline
Number of Non-Zero Readings	580	
Maximum 1-HR Average	235.0 UG/M3	
Maximum 24-HR Average	41.6 UG/M3	
Monthly Calibration	2	Operational Time
Standard Deviation	16.5	Operational Uptime
		Monthly Average
		672 HRS
		100.0 %
		8.1 UG/M3

# Windridge PM<sub>10</sub> (µg/m<sup>3</sup>) – February 2022

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	14.0	19.0	27.0	65.0	98.0	82.0	47.0	32.0	21.0	40.0	77.0	88.0	79.0	68.0	24.0	21.0	13.0	72.0	75.0	54.0	29.0	32.0	35.0	44.0	48.2	98.0
2	32.0	16.0	8.0	9.0	11.0	16.0	10.0	17.0	28.0	59.0	81.0	138.0	74.0	133.0	135.0	61.0	56.0	40.0	60.0	130.0	134.0	78.0	88.0	101.0	63.1	138.0
3	108.0	89.0	95.0	81.0	98.0	116.0	125.0	22.0	25.0	22.0	24.0	15.0	13.0	16.0	23.0	17.0	24.0	34.0	16.0	20.0	32.0	39.0	145.0	181.0	57.5	181.0
4	88.0	98.0	154.0	106.0	168.0	112.0	129.0	129.0	199.0	156.0	136.0	133.0	92.0	75.0	56.0	102.0	82.0	116.0	182.0	33.0	72.0	44.0	90.0	133.0	111.9	199.0
5	207.0	135.0	124.0	88.0	208.0	115.0	96.0	57.0	60.0	84.0	77.0	79.0	88.0	102.0	36.0	65.0	60.0	43.0	35.0	31.0	48.0	49.0	28.0	93.0	83.7	208.0
6	90.0	66.0	60.0	106.0	91.0	78.0	151.0	99.0	352.0	245.0	319.0	182.0	117.0	184.0	198.0	148.0	87.0	130.0	69.0	65.0	63.0	46.0	24.0	83.0	127.2	352.0
7	20.0	40.0	93.0	154.0	180.0	56.0	21.0	16.0	94.0	200.0	58.0	70.0	84.0	34.0	44.0	20.0	18.0	38.0	34.0	79.0	117.0	155.0	55.0	31.0	71.3	200.0
8	43.0	161.0	106.0	218.0	112.0	238.0	193.0	94.0	116.0	199.0	275.0	235.0	363.0	301.0	330.0	245.0	164.0	51.0	15.0	61.0	78.0	80.0	75.0	45.0	158.3	363.0
9	58.0	136.0	53.0	57.0	60.0	22.0	30.0	60.0	67.0	76.0	99.0	79.0	C	C	146.0	168.0	159.0	115.0	51.0	87.0	55.0	50.0	75.0	485.0	99.5	485.0
10	148.0	485.0	485.0	485.0	485.0	185.0	158.0	128.0	68.0	58.0	40.0	49.0	73.0	63.0	46.0	39.0	39.0	38.0	23.0	12.0	18.0	20.0	34.0	20.0	133.3	485.0
11	8.0	10.0	8.0	6.0	4.0	3.0	4.0	20.0	5.0	18.0	9.0	9.0	10.0	34.0	24.0	18.0	50.0	57.0	21.0	53.0	28.0	21.0	29.0	50.0	20.8	57.0
12	40.0	59.0	41.0	54.0	37.0	20.0	11.0	9.0	8.0	10.0	22.0	38.0	29.0	36.0	57.0	71.0	66.0	45.0	59.0	52.0	53.0	73.0	79.0	31.0	41.7	79.0
13	33.0	10.0	11.0	7.0	4.0	3.0	2.0	1.0	7.0	6.0	3.0	6.0	6.0	20.0	10.0	21.0	11.0	22.0	7.0	10.0	11.0	8.0	11.0	8.0	9.9	33.0
14	17.0	16.0	15.0	15.0	6.0	11.0	6.0	4.0	7.0	5.0	19.0	15.0	19.0	37.0	28.0	41.0	41.0	32.0	16.0	20.0	21.0	22.0	24.0	31.0	19.5	41.0
15	31.0	18.0	18.0	32.0	23.0	22.0	10.0	10.0	5.0	31.0	49.0	14.0	7.0	3.0	9.0	13.0	12.0	28.0	27.0	17.0	37.0	17.0	22.0	24.0	20.0	49.0
16	88.0	45.0	62.0	13.0	7.0	7.0	5.0	6.0	41.0	127.0	133.0	68.0	51.0	25.0	16.0	15.0	15.0	9.0	18.0	4.0	8.0	20.0	19.0	27.0	34.5	133.0
17	79.0	485.0	290.0	441.0	422.0	354.0	263.0	434.0	214.0	92.0	215.0	109.0	104.0	158.0	201.0	232.0	134.0	117.0	130.0	248.0	153.0	127.0	141.0	93.0	218.2	485.0
18	30.0	8.0	4.0	9.0	35.0	65.0	62.0	28.0	32.0	13.0	13.0	14.0	11.0	6.0	20.0	42.0	145.0	232.0	159.0	117.0	280.0	303.0	461.0	281.0	98.8	461.0
19	158.0	89.0	485.0	50.0	42.0	52.0	50.0	62.0	56.0	25.0	26.0	35.0	62.0	85.0	76.0	46.0	56.0	53.0	34.0	48.0	38.0	20.0	7.0	136.0	74.6	485.0
20	98.0	46.0	25.0	29.0	108.0	99.0	128.0	51.0	32.0	67.0	74.0	38.0	17.0	21.0	18.0	16.0	23.0	17.0	22.0	13.0	17.0	10.0	33.0	14.0	42.3	128.0
21	14.0	17.0	15.0	8.0	13.0	14.0	32.0	35.0	24.0	25.0	15.0	21.0	29.0	30.0	38.0	27.0	25.0	24.0	23.0	34.0	33.0	20.0	14.0	12.0	22.6	38.0
22	18.0	10.0	8.0	11.0	18.0	22.0	12.0	29.0	22.0	38.0	71.0	61.0	40.0	35.0	19.0	17.0	10.0	12.0	10.0	16.0	19.0	18.0	27.0	10.0	23.0	71.0
23	16.0	33.0	34.0	49.0	38.0	33.0	51.0	60.0	101.0	83.0	100.0	160.0	133.0	105.0	116.0	88.0	76.0	67.0	82.0	84.0	116.0	30.0	27.0	54.0	72.3	160.0
24	23.0	25.0	30.0	44.0	38.0	59.0	56.0	37.0	33.0	129.0	163.0	146.0	92.0	98.0	26.0	20.0	22.0	24.0	8.0	5.0	1.0	17.0	11.0	77.0	49.3	163.0
25	11.0	34.0	17.0	41.0	63.0	48.0	38.0	106.0	343.0	262.0	392.0	203.0	80.0	62.0	47.0	46.0	59.0	62.0	71.0	114.0	130.0	151.0	190.0	122.0	112.2	392.0
26	121.0	74.0	114.0	166.0	74.0	142.0	332.0	287.0	347.0	485.0	485.0	367.0	163.0	88.0	106.0	85.0	89.0	117.0	108.0	137.0	65.0	48.0	40.0	39.0	170.0	485.0
27	58.0	93.0	105.0	80.0	90.0	57.0	21.0	19.0	35.0	11.0	31.0	78.0	27.0	82.0	75.0	97.0	103.0	65.0	97.0	73.0	46.0	71.0	93.0	85.0	66.3	105.0
28	67.0	88.0	70.0	38.0	41.0	36.0	53.0	77.0	58.0	25.0	64.0	81.0	63.0	85.0	51.0	59.0	48.0	34.0	22.0	3.0	4.0	25.0	19.0	20.0	47.1	88.0
NO.	28	28	28	28	28	28	28	28	28	28	28	28	27	27	28	28	28	28	28	28	28	28	28	28	670	100.0%
MEAN	61.4	85.9	91.3	87.9	91.9	73.8	74.9	68.9	85.7	92.5	109.6	90.4	71.3	73.6	70.5	65.7	60.3	60.5	52.6	57.9	60.9	56.9	67.7	83.2	42.0	
MAX	207.0	485.0	485.0	485.0	485.0	354.0	332.0	434.0	352.0	485.0	485.0	367.0	363.0	301.0	330.0	245.0	164.0	232.0	182.0	248.0	280.0	303.0	461.0	485.0	91.1	433.3



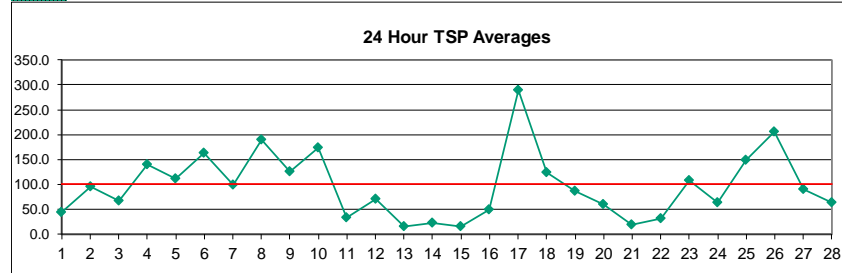
Number of Non-Zero Readings	670
Maximum 1-HR Average	485.0 UG/M3
Maximum 24-HR Average	218.2 UG/M3
Monthly Calibration	2
Standard Deviation	86.51
Operational Time	672 HRS
Operational Uptime	100.0 %
Monthly Average	74.8 UG/M3

# Windridge TSP (µg/m³) – February 2022

Day	HOUR																							
	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	22.0	27.0	38.0	132.0	133.0	88.0	36.0	18.0	29.0	34.0	51.0	53.0	63.0	48.0	20.0	14.0	11.0	69.0	56.0	30.0	23.0	17.0	36.0	22.0
2	14.0	19.0	6.0	3.0	6.0	17.0	17.0	33.0	60.0	206.0	217.0	235.0	114.0	207.0	183.0	64.0	64.0	47.0	69.0	171.0	175.0	89.0	132.0	142.0
3	145.0	111.0	57.0	86.0	132.0	128.0	147.0	15.0	21.0	31.0	38.0	16.0	14.0	22.0	34.0	24.0	34.0	48.0	27.0	16.0	48.0	65.0	159.0	197.0
4	130.0	130.0	169.0	131.0	164.0	143.0	166.0	168.0	253.0	197.0	196.0	153.0	112.0	97.0	73.0	136.0	123.0	121.0	185.0	54.0	93.0	60.0	118.0	183.0
5	214.0	172.0	166.0	111.0	269.0	154.0	122.0	81.0	86.0	129.0	110.0	118.0	130.0	146.0	66.0	78.0	84.0	68.0	53.0	58.0	71.0	61.0	34.0	116.0
6	109.0	70.0	85.0	170.0	119.0	99.0	215.0	135.0	445.0	228.0	473.0	264.0	150.0	263.0	194.0	138.0	122.0	143.0	102.0	101.0	86.0	54.0	38.0	115.0
7	24.0	59.0	140.0	163.0	257.0	82.0	43.0	23.0	161.0	261.0	78.0	101.0	135.0	47.0	54.0	47.0	37.0	61.0	52.0	103.0	175.0	147.0	77.0	66.0
8	67.0	228.0	147.0	213.0	153.0	257.0	249.0	132.0	153.0	249.0	328.0	288.0	396.0	319.0	342.0	260.0	194.0	76.0	28.0	107.0	93.0	105.0	103.0	68.0
9	80.0	134.0	69.0	59.0	78.0	32.0	36.0	75.0	87.0	103.0	103.0	C	C	C	162.0	219.0	172.0	140.0	68.0	96.0	60.0	59.0	94.0	711.0
10	155.0	491.0	708.0	733.0	591.0	233.0	205.0	118.0	89.0	86.0	69.0	70.0	107.0	91.0	79.0	65.0	54.0	50.0	42.0	20.0	30.0	23.0	39.0	27.0
11	4.0	17.0	9.0	10.0	11.0	10.0	12.0	37.0	12.0	29.0	13.0	20.0	27.0	66.0	44.0	28.0	73.0	74.0	32.0	69.0	35.0	32.0	58.0	100.0
12	78.0	121.0	102.0	109.0	61.0	36.0	14.0	10.0	21.0	17.0	42.0	69.0	50.0	52.0	80.0	109.0	108.0	77.0	81.0	80.0	84.0	118.0	141.0	55.0
13	51.0	13.0	17.0	18.0	16.0	0.0	0.0	3.0	15.0	12.0	10.0	21.0	10.0	19.0	19.0	28.0	16.0	31.0	18.0	19.0	11.0	15.0	24.0	11.0
14	19.0	17.0	18.0	23.0	13.0	10.0	5.0	3.0	17.0	7.0	27.0	13.0	24.0	40.0	35.0	44.0	48.0	33.0	15.0	17.0	25.0	19.0	26.0	39.0
15	24.0	18.0	21.0	33.0	24.0	23.0	8.0	5.0	3.0	15.0	18.0	13.0	6.0	4.0	13.0	15.0	18.0	32.0	16.0	14.0	23.0	10.0	16.0	13.0
16	32.0	45.0	73.0	19.0	4.0	4.0	4.0	5.0	62.0	238.0	228.0	120.0	96.0	41.0	26.0	20.0	25.0	22.0	28.0	7.0	4.0	26.0	29.0	43.0
17	176.0	702.0	363.0	552.0	544.0	394.0	325.0	428.0	276.0	149.0	272.0	157.0	141.0	218.0	234.0	327.0	192.0	182.0	207.0	316.0	224.0	192.0	230.0	130.0
18	37.0	10.0	10.0	15.0	27.0	42.0	24.0	15.0	18.0	9.0	16.0	14.0	16.0	4.0	28.0	85.0	245.0	285.0	238.0	178.0	389.0	376.0	563.0	344.0
19	190.0	125.0	406.0	73.0	61.0	67.0	73.0	75.0	69.0	29.0	42.0	43.0	71.0	102.0	93.0	53.0	71.0	72.0	52.0	86.0	45.0	26.0	3.0	145.0
20	171.0	74.0	60.0	51.0	121.0	107.0	103.0	52.0	28.0	69.0	69.0	33.0	36.0	66.0	76.0	37.0	77.0	26.0	35.0	22.0	20.0	11.0	57.0	22.0
21	22.0	12.0	17.0	6.0	4.0	8.0	27.0	28.0	37.0	32.0	16.0	20.0	28.0	21.0	16.0	13.0	14.0	18.0	17.0	23.0	15.0	16.0	20.0	11.0
22	9.0	12.0	12.0	22.0	27.0	34.0	15.0	26.0	21.0	58.0	146.0	86.0	35.0	41.0	28.0	31.0	16.0	15.0	15.0	18.0	21.0	26.0	46.0	19.0
23	22.0	65.0	60.0	66.0	62.0	59.0	82.0	96.0	143.0	117.0	141.0	228.0	195.0	173.0	197.0	132.0	113.0	91.0	132.0	128.0	164.0	50.0	39.0	58.0
24	24.0	20.0	27.0	47.0	33.0	54.0	62.0	41.0	39.0	172.0	212.0	210.0	129.0	172.0	42.0	25.0	46.0	44.0	19.0	4.0	2.0	15.0	19.0	52.0
25	18.0	26.0	16.0	21.0	55.0	49.0	59.0	157.0	379.0	352.0	549.0	298.0	113.0	72.0	76.0	66.0	96.0	96.0	108.0	127.0	199.0	211.0	265.0	179.0
26	152.0	112.0	115.0	173.0	106.0	204.0	363.0	251.0	346.0	494.0	571.0	468.0	206.0	98.0	134.0	109.0	135.0	169.0	172.0	201.0	118.0	87.0	68.0	67.0
27	91.0	132.0	140.0	101.0	124.0	76.0	33.0	30.0	55.0	18.0	44.0	116.0	32.0	107.0	100.0	120.0	132.0	89.0	127.0	90.0	80.0	90.0	104.0	117.0
28	100.0	130.0	103.0	58.0	65.0	51.0	71.0	89.0	79.0	34.0	74.0	90.0	75.0	123.0	76.0	85.0	58.0	43.0	33.0	9.0	7.0	31.0	26.0	23.0

MEAN	MAX
44.6	133.0
95.4	235.0
67.3	197.0
139.8	253.0
112.4	269.0
163.3	473.0
99.7	261.0
189.8	396.0
125.6	711.0
174.0	733.0
34.3	100.0
71.5	141.0
16.5	51.0
22.4	48.0
16.0	33.0
50.0	238.0
288.8	702.0
124.5	563.0
86.3	406.0
59.3	171.0
18.4	37.0
32.5	146.0
108.9	228.0
62.9	179.0
149.5	549.0
205.0	571.0
89.5	140.0
63.9	130.0

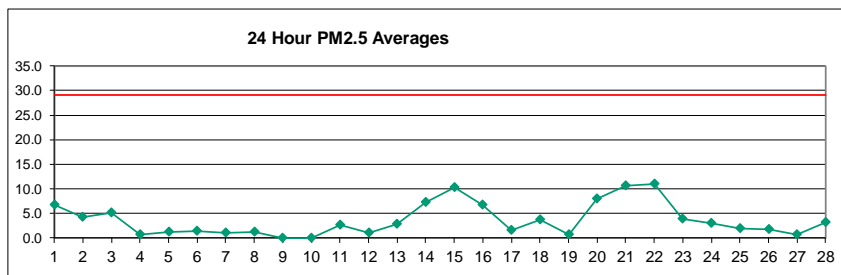
NO.	28	28	28	28	28	28	28	28	28	28	28	28	27	27	27	28	28	28	28	28	28	28	28	28
MEAN	77.9	110.4	112.6	114.2	116.4	87.9	89.9	76.8	107.3	120.5	148.3	122.9	93.0	98.5	90.1	84.7	84.9	79.4	72.4	77.3	82.9	72.5	91.6	109.8
MAX	214.0	702.0	708.0	733.0	591.0	394.0	363.0	428.0	445.0	494.0	571.0	468.0	396.0	319.0	342.0	327.0	245.0	285.0	238.0	316.0	389.0	376.0	563.0	711.0



Number of 24HR Exceedences	11	Proposed Guideline
Number of Non-Zero Readings	667	
Maximum 1-HR Average	733.0 UG/M3	
Maximum 24-HR Average	288.8 UG/M3	
IZS Calibration Time		Operational Time
Down Time	0	Operational Uptime
Standard Deviation	108.2	Monthly Average
		672 HRS
		100.0 %
		96.7 UG/M3

# West PM<sub>2.5</sub> (µg/m<sup>3</sup>) – February 2022

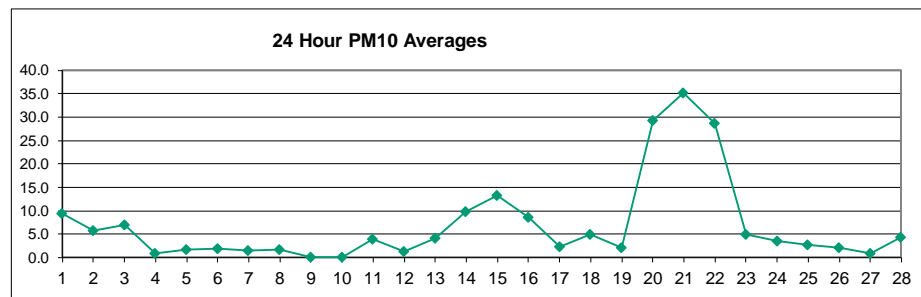
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	2.4	2.8	5.5	7.0	5.8	3.4	4.7	11.0	7.5	9.7	9.1	10.7	10.0	8.2	7.9	3.9	2.6	4.5	4.6	5.3	5.1	9.2	11.0	7.1	6.6	11.0
2	6.8	6.1	4.7	6.3	5.4	5.1	4.4	4.5	5.7	6.1	5.9	5.1	3.9	2.9	2.7	2.7	3.6	2.5	2.4	2.8	2.7	2.1	3.5	3.9	4.2	6.8
3	3.7	4.2	2.3	1.7	2.0	2.4	3.8	2.1	2.6	6.0	8.0	6.2	5.4	6.1	7.5	6.7	7.7	8.7	8.2	8.6	9.7	8.2	1.3	1.1	5.2	9.7
4	0.8	0.8	0.7	0.7	0.7	0.6	0.6	1.0	1.7	1.0	1.9	1.0	0.9	0.5	0.3	0.4	0.7	0.4	0.6	0.3	0.3	0.2	0.4	0.8	0.7	1.9
5	1.2	2.3	0.4	0.4	3.0	3.9	2.6	2.7	3.1	2.5	1.0	0.5	0.6	0.3	0.3	0.3	0.4	0.4	0.7	0.6	0.6	0.4	0.5	0.4	1.2	3.9
6	0.4	0.5	0.5	0.9	0.7	1.2	2.4	4.5	3.7	3.4	4.4	1.9	0.7	0.6	0.6	0.5	0.6	0.6	0.5	0.5	0.4	0.4	0.5	0.9	1.3	4.5
7	0.8	0.8	1.4	1.4	2.5	1.3	1.3	1.7	2.4	1.7	1.4	1.1	1.0	0.9	0.8	0.8	0.5	0.3	0.3	0.4	0.7	0.7	0.5	0.5	1.0	2.5
8	0.6	1.2	1.1	1.3	1.3	2.7	3.1	1.4	1.5	2.1	1.9	1.5	1.5	0.9	0.9	0.9	1.3	0.6	0.5	0.5	0.6	0.6	0.6	0.6	1.2	3.1
9	0.5	0.7	0.4	0.4	0.2	0.2	0.2	0.3	0.6	1.1	1.1	0.6	0.7	0.5	0.5	0.5	K	K	K	K	K	K	K	K	-	-
10	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	-	-
11	K	K	K	K	4.5	1.3	4.5	3.1	6.5	8.8	5.2	5.2	4.6	1.5	1.6	1.4	0.8	0.4	1.0	0.8	0.9	0.8	0.8	1.1	2.7	8.8
12	0.7	1.2	1.4	2.9	3.3	0.6	0.5	0.8	0.8	1.0	1.5	0.8	0.8	0.7	0.6	0.7	0.7	0.8	0.7	0.8	0.6	0.7	0.7	0.7	1.0	3.3
13	0.6	0.6	0.7	0.5	0.4	0.7	0.8	0.7	1.8	4.5	3.9	6.7	5.5	6.2	1.5	3.7	5.2	3.4	2.4	2.1	2.2	3.1	6.3	3.4	2.8	6.7
14	3.2	3.4	3.1	4.0	3.1	3.1	2.7	2.2	2.2	3.8	2.8	4.3	3.8	8.3	10.9	7.8	7.9	9.6	11.6	13.4	15.8	16.8	15.3	15.3	7.3	16.8
15	15.3	15.3	15.2	17.6	17.4	15.5	12.4	7.6	6.8	7.5	9.4	6.0	10.1	11.1	8.0	8.7	8.7	4.2	2.7	4.2	9.1	11.5	11.3	12.0	10.3	17.6
16	15.3	10.6	5.2	5.8	6.5	5.4	6.4	6.2	7.0	7.4	8.4	7.9	7.2	6.9	4.2	2.6	3.4	5.9	6.9	5.7	5.9	6.8	7.7	5.3	6.7	15.3
17	0.9	3.0	3.5	5.2	3.4	3.9	1.5	2.2	2.2	2.4	1.5	0.7	0.6	0.4	0.5	0.4	0.6	0.6	0.5	0.8	0.5	0.6	0.5	0.3	1.5	5.2
18	0.9	6.9	5.6	5.4	3.1	7.0	3.7	8.3	5.6	2.2	4.4	3.3	5.8	4.0	6.8	6.4	3.6	0.6	0.6	0.6	0.5	0.6	0.6	0.4	3.6	8.3
19	0.3	0.3	0.5	0.3	0.3	0.3	0.4	0.3	0.4	0.4	0.5	0.3	0.5	0.5	0.2	0.3	0.3	0.2	1.2	1.4	0.4	0.8	0.6	0.4	0.8	7.4
20	3.0	6.2	2.3	4.0	4.0	3.0	3.4	8.4	7.7	9.0	8.8	6.5	10.0	20.0	15.0	8.1	8.8	4.6	6.4	9.2	13.5	8.8	12.9	7.8	8.0	20.0
21	10.4	11.3	16.2	15.2	12.0	10.5	9.4	12.5	8.0	7.0	9.2	13.0	11.4	10.2	8.5	8.2	14.1	11.0	6.4	7.3	7.9	17.6	7.5	9.7	10.6	17.6
22	11.9	13.8	15.2	9.9	11.3	13.1	10.8	14.1	7.9	8.6	10.2	8.7	16.6	10.9	13.1	17.6	7.7	6.6	12.0	9.3	8.4	9.0	9.4	7.5	11.0	17.6
23	6.3	5.1	4.9	4.6	4.5	4.5	4.5	5.0	5.3	5.8	5.2	4.7	3.7	3.1	3.0	2.7	2.6	2.3	2.2	2.2	2.3	2.5	2.7	2.8	3.9	6.3
24	2.5	2.5	2.8	3.0	3.1	3.4	3.1	3.3	3.2	3.1	4.5	7.4	6.9	4.4	2.5	1.5	0.9	0.8	1.2	2.4	3.0	1.4	1.2	1.6	2.9	7.4
25	2.5	1.6	1.4	1.7	2.4	4.0	2.9	2.5	2.2	3.4	4.1	2.5	1.6	1.5	1.3	1.5	1.8	1.2	1.1	1.3	1.3	1.4	1.4	1.3	2.0	4.1
26	1.6	1.5	1.8	2.5	2.4	3.2	2.0	2.0	1.9	2.1	2.0	1.9	1.7	1.3	1.0	0.9	1.0	1.4	1.4	2.5	1.1	1.0	1.1	0.9	1.7	3.2
27	0.9	1.0	0.9	0.9	0.8	0.9	1.0	1.3	1.3	1.2	1.5	0.9	0.7	0.8	1.0	0.4	0.3	0.2	0.3	0.3	0.3	0.3	0.4	0.5	0.8	1.5
28	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.3	0.5	1.0	1.0	0.6	0.4	0.2	0.5	0.5	0.3	0.9	1.4	13.6	23.2	28.3	3.1	28.3
NO.	26	26	26	27	27	27	27	27	27	27	27	27	27	27	27	27	26	26	26	26	26	26	26	26	637	95%
MEAN	3.6	4.0	3.8	4.0	3.7	3.9	3.4	4.2	3.8	4.0	4.4	4.1	4.2	4.2	3.8	3.3	3.3	2.8	2.9	3.2	3.7	4.6	4.7	4.7		
MAX	15.3	15.3	16.2	17.6	17.4	15.5	12.4	14.1	8.8	9.7	10.2	13.0	16.6	20.0	15.0	17.6	14.1	11.0	12.0	13.4	15.8	17.6	23.2	28.3		



Number of 24HR Exceedences	0	Proposed Guideline
Number of Non-Zero Readings	637	
Maximum 1-HR Average	28.3 UG/M3	
Maximum 24-HR Average	11.0 UG/M3	
IZS Calibration Time		Operational Time
Down Time	0	Operational Uptime
Standard Deviation	4.148	Monthly Average
		637 HRS
		94.8 %
		3.8 UG/M3

# West PM<sub>10</sub> (µg/m<sup>3</sup>) – February 2022

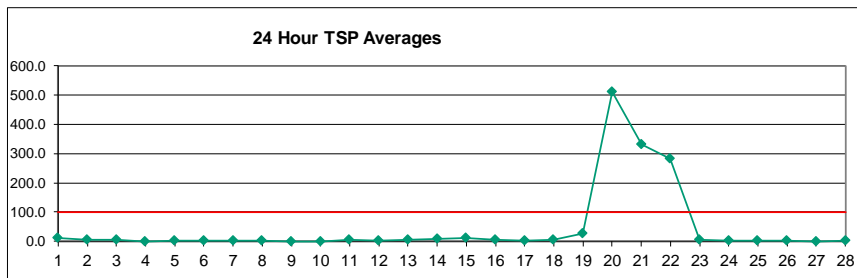
HOUR																											
Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		MEAN	MAX
1	3.2	3.7	7.8	10.0	8.4	4.8	6.7	16.1	10.7	13.3	12.1	15.2	14.8	10.8	11.1	5.5	3.3	6.2	6.5	7.7	7.3	13.2	16.2	9.4		9.3	16.2
2	8.4	7.5	5.6	9.0	7.3	6.6	5.1	5.8	8.0	8.9	8.3	7.1	5.4	3.8	3.4	3.4	5.1	3.3	3.2	3.8	3.7	2.7	4.9	5.5		5.7	9.0
3	5.2	6.1	3.0	2.1	2.5	3.2	5.5	2.8	3.5	8.0	10.2	8.4	8.0	8.7	11.0	9.1	10.0	11.7	10.5	11.1	12.9	10.3	1.4	1.1		6.9	12.9
4	0.8	0.9	0.8	0.8	0.8	0.7	0.7	1.2	2.5	1.4	2.7	1.3	1.1	0.6	0.4	0.6	1.0	0.5	0.9	0.4	0.4	0.3	0.5	1.1		0.9	2.7
5	1.8	3.5	0.6	0.6	4.4	5.8	3.9	4.0	4.6	3.8	1.5	0.7	0.9	0.4	0.4	0.4	0.5	0.6	1.0	0.8	0.8	0.5	0.6	0.5		1.8	5.8
6	0.4	0.6	0.6	1.2	1.0	1.6	3.5	6.7	5.5	5.0	6.5	2.8	0.9	0.8	0.8	0.7	0.7	0.8	0.6	0.6	0.5	0.5	0.6	1.1		1.8	6.7
7	1.0	1.0	1.9	2.0	3.6	1.8	1.7	2.4	3.5	2.3	1.8	1.5	1.4	1.2	1.0	1.1	0.7	0.4	0.4	0.6	1.1	1.0	0.7	0.7		1.4	3.6
8	0.8	1.7	1.6	1.9	2.0	4.0	4.6	2.1	2.1	3.0	2.9	2.2	2.2	1.3	1.3	1.3	1.9	0.8	0.7	0.6	0.8	0.8	0.9	0.8		1.8	4.6
9	0.7	1.1	0.5	0.6	0.2	0.2	0.2	0.4	0.8	1.5	1.5	0.8	1.0	0.6	0.7	0.7	K	K	K	K	K	K	K	K		-	-
10	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K		-	-
11	K	K	K	K	6.7	1.9	6.7	4.6	9.8	13.2	7.7	7.8	6.8	2.2	2.3	2.0	1.1	0.5	1.5	1.0	1.3	1.0	1.1	1.5		3.9	13.2
12	0.9	1.7	2.0	4.3	4.9	0.8	0.6	1.0	1.1	1.4	2.2	1.1	1.0	1.0	0.8	0.9	0.9	1.0	0.8	1.1	0.7	0.8	0.9	0.9		1.4	4.9
13	0.7	0.7	0.8	0.5	0.4	0.8	1.0	0.9	2.5	6.6	5.8	10.1	8.2	9.2	2.1	5.4	7.7	5.0	3.5	3.0	3.1	4.5	9.4	5.0		4.0	10.1
14	4.7	5.0	4.6	5.9	4.5	4.5	3.9	3.0	3.1	5.6	4.0	6.2	5.6	12.0	15.2	10.4	9.8	13.1	16.2	18.3	21.4	22.5	18.6	18.8		9.9	22.5
15	18.7	18.7	18.2	22.3	22.5	20.8	16.2	9.4	9.1	10.7	12.4	8.5	15.1	16.2	11.6	12.9	12.7	5.8	3.1	4.6	11.2	13.4	12.5	12.3		13.3	22.5
16	17.0	12.3	6.8	8.0	8.8	6.7	8.2	7.7	8.9	9.3	10.1	8.9	7.7	8.2	5.2	3.3	4.9	8.7	10.2	7.6	8.4	9.8	10.8	7.3		8.5	17.0
17	1.2	4.5	5.2	7.7	5.1	5.8	2.1	3.2	3.3	3.5	2.1	1.0	0.8	0.5	0.7	0.6	0.8	0.8	0.7	1.1	0.7	0.8	0.7	0.4		2.2	7.7
18	1.1	8.7	6.7	6.0	4.1	10.4	5.4	12.5	8.2	2.7	6.1	4.5	8.7	5.7	9.9	8.9	4.8	0.8	0.8	0.7	0.7	0.8	0.8	0.5		5.0	12.5
19	0.4	0.3	0.7	0.3	0.3	0.3	0.5	0.4	0.4	0.5	0.6	0.4	0.6	0.6	0.3	0.4	0.4	0.3	1.7	2.0	0.5	1.1	0.7	36.7		2.1	36.7
20	4.4	7.9	2.5	5.0	4.9	3.3	3.8	12.2	10.4	15.0	15.7	10.8	29.7	126.0	133.1	18.8	62.8	14.8	23.9	35.5	53.9	28.2	56.4	25.7		29.4	133.1
21	39.7	38.9	53.7	43.3	46.6	35.4	33.5	67.4	36.6	23.8	28.5	49.3	50.5	34.2	22.9	19.5	47.5	33.0	11.9	16.8	16.6	53.4	17.6	24.3		35.2	67.4
22	31.7	42.3	43.8	29.3	37.7	37.8	35.6	59.7	31.8	21.7	26.9	16.0	19.9	20.6	48.5	70.7	15.6	13.5	27.3	11.8	11.0	12.3	12.7	8.9		28.6	70.7
23	7.5	5.7	6.1	5.6	5.4	5.8	6.0	6.8	7.6	8.5	7.5	6.7	5.1	4.0	3.7	3.3	3.2	2.8	2.6	2.6	2.9	3.1	3.2	3.4		5.0	8.5
24	2.9	2.9	3.2	3.7	3.8	4.3	3.8	4.0	3.8	3.5	5.8	8.8	8.5	5.3	3.0	1.9	1.1	0.9	1.5	3.4	4.3	1.8	1.4	2.2		3.6	8.8
25	3.6	2.1	1.9	2.4	3.5	5.6	4.2	3.5	3.0	4.5	5.3	3.1	2.1	2.0	1.8	2.0	2.5	1.5	1.3	1.6	1.6	1.7	1.6	1.5		2.7	5.6
26	2.0	1.9	2.4	3.5	3.4	4.5	2.5	2.6	2.4	2.8	2.5	2.4	2.1	1.5	1.1	1.0	1.2	1.9	2.0	3.6	1.4	1.1	1.3	1.0		2.2	4.5
27	1.0	1.0	1.0	0.9	0.9	0.9	1.2	1.6	1.6	1.4	2.0	1.1	0.9	1.0	1.2	0.5	0.3	0.3	0.4	0.3	0.3	0.3	0.4	0.6		0.9	2.0
28	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.3	0.7	1.4	1.4	0.9	0.5	0.3	0.8	0.7	0.4	1.3	1.9	17.7	31.7	39.9		4.2	39.9
NO.	26	26	26	27	27	27	27	27	27	27	27	27	27	27	27	27	26	26	26	26	26	26	26	26		637	95%
MEAN	6.2	6.9	7.0	6.8	7.0	6.8	6.1	9.2	7.0	6.6	7.2	6.9	7.6	10.4	10.9	6.8	7.7	5.0	5.1	5.5	6.5	7.8	8.0	8.1			
MAX	39.7	42.3	53.7	43.3	46.6	37.8	35.6	67.4	36.6	23.8	28.5	49.3	50.5	126.0	133.1	70.7	62.8	33.0	27.3	35.5	53.9	53.4	56.4	39.9			



Number of Non-Zero Readings	637
Maximum 1-HR Average	133.1 UG/M3
Maximum 24-HR Average	35.2 UG/M3
IZS Calibration Time	
Down Time	0
Standard Deviation	12.5
OperatioEI Time	637 HRS
OperatioEI Uptime	94.8 %
Monthly Average	7.2 UG/M3

# West TSP (µg/m³) – February 2022

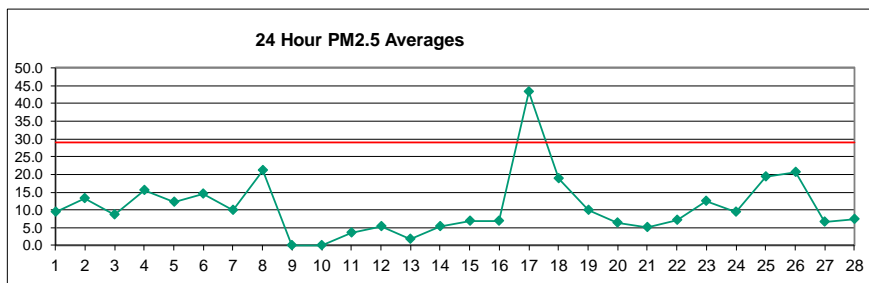
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	2.5	3.2	8.4	11.5	9.4	5.1	7.2	18.5	12.1	15.3	14.0	17.6	17.1	12.4	12.1	5.2	2.6	6.6	7.1	8.4	7.9	15.0	18.8	10.9	10.4	18.8
2	9.7	7.0	4.7	9.3	6.3	5.8	3.6	4.9	8.2	10.0	9.2	7.7	5.7	3.6	3.0	3.1	5.5	3.2	3.0	4.0	3.8	2.4	5.2	5.9	5.6	10.0
3	5.6	6.7	2.8	1.8	2.3	3.2	6.0	2.6	3.3	8.3	8.0	7.4	8.2	8.9	12.0	9.1	9.9	10.9	11.0	11.6	12.4	11.2	1.0	0.8	6.9	12.4
4	0.5	0.7	0.6	0.5	0.6	0.5	0.4	1.1	2.6	1.4	2.9	1.3	1.0	0.5	0.3	0.5	0.9	0.4	0.8	0.3	0.3	0.2	0.4	1.2	0.8	2.9
5	1.9	3.9	0.5	0.6	5.0	6.6	4.5	4.5	5.3	4.3	1.6	0.7	0.8	0.3	0.3	0.3	0.4	0.5	1.0	0.8	0.7	0.4	0.4	0.4	1.9	6.6
6	0.3	0.5	0.5	1.2	0.9	1.6	3.8	7.7	6.3	5.7	7.4	3.1	0.8	0.7	0.7	0.5	0.5	0.7	0.5	0.5	0.3	0.3	0.4	0.8	1.9	7.7
7	0.7	0.9	2.0	2.0	3.9	1.7	1.6	2.4	3.8	2.4	1.6	1.4	1.3	1.1	0.9	1.0	0.5	0.3	0.4	0.5	1.0	0.9	0.6	0.6	1.4	3.9
8	0.8	1.8	1.7	2.1	2.1	4.5	5.2	2.1	2.3	3.3	3.2	2.3	2.4	1.3	1.2	1.3	1.9	0.8	0.6	0.6	0.7	0.8	0.8	0.8	1.9	5.2
9	0.6	1.0	0.4	0.5	0.2	0.2	0.2	0.4	0.8	1.5	1.5	0.7	0.9	0.6	0.6	0.6	K	K	K	K	K	K	K	K	-	-
10	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	-	-
11	K	K	K	7.4	1.8	7.3	4.8	11.1	15.1	8.8	8.6	7.6	2.1	2.4	1.7	1.0	0.4	1.4	0.8	1.1	0.8	0.8	0.9	1.5	4.2	15.1
12	0.8	1.7	2.1	4.9	5.6	0.6	0.5	0.9	0.9	1.3	2.1	0.9	0.8	0.8	0.6	0.7	0.8	0.9	0.6	0.8	0.5	0.6	0.6	0.6	1.3	5.6
13	0.5	0.4	0.5	0.4	0.3	0.6	0.8	0.6	2.4	7.2	6.2	11.4	9.0	10.4	1.9	5.8	8.6	5.5	3.5	3.0	2.9	4.6	10.5	5.3	4.3	11.4
14	4.4	4.7	4.2	5.5	3.8	3.8	3.1	2.4	2.8	5.7	3.7	6.3	5.9	13.7	17.5	11.6	11.1	11.4	12.1	13.2	15.1	15.4	12.3	12.3	8.4	17.5
15	12.2	12.1	11.8	14.7	15.0	15.1	11.0	6.2	6.3	10.3	13.7	8.1	15.2	17.4	11.7	12.9	12.0	4.7	2.1	3.1	8.0	8.9	8.5	8.1	10.4	17.4
16	15.1	10.3	6.1	6.6	8.3	5.0	5.9	5.8	6.0	6.1	6.7	5.8	5.0	5.7	3.8	2.5	4.8	9.5	10.7	7.5	6.9	8.0	8.0	5.6	6.9	15.1
17	1.0	5.0	5.9	8.9	5.8	6.6	2.3	3.7	3.7	4.0	2.2	0.8	0.6	0.4	0.5	0.5	0.8	0.7	0.6	1.1	0.6	0.8	0.7	0.3	2.4	8.9
18	1.0	7.5	4.5	4.0	3.2	11.2	5.4	12.3	7.7	2.0	5.3	3.7	8.4	5.1	9.6	8.7	5.4	0.6	0.6	0.6	0.5	0.7	0.6	0.4	4.5	12.3
19	0.3	0.2	0.6	0.2	0.2	0.2	0.3	0.3	0.3	0.4	0.5	0.3	0.4	0.4	0.2	0.3	0.2	0.2	1.5	1.9	0.3	11.6	0.5	628.2	27.1	628.2
20	25.3	5.1	1.6	3.2	3.7	2.7	2.5	15.9	13.6	34.1	37.8	37.1	317.2	2380.2	3069.5	223.3	1663.4	275.3	497.1	502.4	800.3	471.0	1417.0	434.3	509.7	3069.5
21	618.5	409.6	184.7	196.8	208.7	157.2	460.1	1268.5	731.3	428.4	235.5	502.7	666.4	231.8	100.6	72.6	188.9	73.7	89.1	138.2	113.1	418.9	274.3	150.3	330.0	1268.5
22	128.9	682.2	398.2	1049.6	1142.0	643.4	1273.9	679.0	198.8	72.7	31.3	13.5	14.6	33.4	82.3	147.4	24.5	28.4	61.6	12.3	10.8	9.4	9.0	6.1	281.4	1273.9
23	5.1	3.9	5.1	4.3	4.5	5.6	5.8	7.0	8.2	9.2	7.9	6.9	5.1	3.4	2.9	2.5	2.5	2.0	1.8	1.9	2.2	2.4	2.4	3.0	4.4	9.2
24	2.1	2.2	2.3	3.1	3.1	3.7	3.1	3.1	2.9	2.4	4.2	5.9	6.1	3.8	2.1	1.3	0.8	0.7	1.2	3.3	4.4	1.5	1.0	2.0	2.8	6.1
25	3.7	1.8	1.6	2.2	3.6	5.9	4.4	3.8	3.1	4.4	5.2	2.5	1.7	1.7	1.5	1.8	2.4	1.2	0.9	1.3	1.2	1.4	1.3	1.1	2.5	5.9
26	1.7	1.5	2.1	3.5	3.3	4.6	2.2	2.3	2.0	2.6	2.1	2.0	1.5	1.1	0.8	0.7	0.9	1.7	1.8	3.9	1.2	0.9	0.9	0.7	1.9	4.6
27	0.6	0.7	0.6	0.6	0.6	0.6	0.8	1.1	1.3	1.0	1.5	0.9	0.6	0.8	1.1	0.3	0.2	0.2	0.3	0.2	0.2	0.2	0.3	0.4	0.6	1.5
28	0.2	0.1	0.1	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.5	1.2	1.3	0.8	0.5	0.2	0.6	0.6	0.3	1.2	1.8	18.7	28.7	33.3	3.8	33.3
NO.	26	26	26	27	27	27	27	27	27	27	27	27	27	27	27	27	26	26	26	26	26	26	26	26	637	95%
MEAN	32.5	45.2	25.1	49.8	53.5	33.5	67.4	76.6	38.9	24.2	15.7	24.4	40.7	101.6	123.7	19.1	75.0	17.0	27.4	27.8	38.4	38.7	69.4	50.6		
MAX	618.5	682.2	398.2	1049.6	1142.0	643.4	1273.9	1268.5	731.3	428.4	235.5	502.7	666.4	2380.2	3069.5	223.3	1663.4	275.3	497.1	502.4	800.3	471.0	1417.0	628.2		



Number of 24HR Exceedences	3	Proposed Guideline
Number of Non-Zero Readings	637	
Maximum 1-HR Average	####	UG/M3
Maximum 24-HR Average	509.7	UG/M3
IZS Calibration Time		Operational Time
Down Time	0	Operational Uptime
Standard Deviation	219.7	Monthly Average
		637 HRS
		94.8 %
		46.6 UG/M3

# Berm PM<sub>2.5</sub> (µg/m<sup>3</sup>) – February 2022

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	7.5	6.9	11.5	33.2	27.2	11.1	6.1	6.8	5.0	10.2	10.5	12.8	14.3	9.2	5.8	2.4	3.5	9.0	8.7	4.8	4.3	4.3	5.5	6.0	9.4	33.2
2	5.8	4.5	3.1	3.0	3.2	5.4	4.4	5.5	6.0	9.8	9.8	9.3	8.8	18.1	16.5	11.2	18.2	12.4	28.7	46.1	29.3	21.8	15.1	20.3	13.2	46.1
3	12.7	16.1	14.1	7.1	9.3	10.2	13.0	2.1	2.7	4.2	8.0	7.8	3.6	4.2	4.5	4.9	8.4	8.9	6.4	7.2	10.0	8.8	13.9	21.2	8.7	21.2
4	7.5	12.6	13.3	6.8	14.7	10.7	12.2	12.9	20.9	20.6	25.9	20.1	13.2	13.5	12.9	21.9	19.8	21.4	24.0	6.0	13.9	5.8	15.3	27.6	15.6	27.6
5	24.2	22.2	15.8	10.8	23.8	17.2	12.3	11.1	9.0	23.2	19.4	16.7	14.3	11.8	5.7	9.9	9.0	7.8	5.0	5.1	5.3	2.9	2.4	11.0	12.3	24.2
6	6.4	4.5	7.3	15.2	11.9	6.8	24.5	18.2	40.9	30.4	26.5	25.7	18.9	16.9	18.8	12.6	11.9	14.0	9.7	9.7	4.4	2.4	2.0	7.8	14.5	40.9
7	1.5	4.1	13.7	13.7	17.8	6.7	2.6	4.1	12.0	22.7	12.1	15.7	14.0	6.6	10.6	5.2	2.8	4.0	6.2	10.9	20.8	16.8	6.5	6.1	9.9	22.7
8	7.3	15.9	14.8	21.7	12.4	13.0	21.4	12.8	23.7	30.2	46.9	42.6	46.5	41.3	31.9	40.2	19.5	4.9	2.3	11.3	11.4	13.7	10.9	7.6	21.0	46.9
9	9.8	14.6	8.9	6.1	6.7	2.2	2.0	5.9	8.2	18.0	16.2	11.6	12.6	30.6	19.1	27.8	K	K	K	K	K	K	K	K	-	-
10	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	-	-
11	K	K	K	1.2	0.8	0.7	0.8	0.9	0.9	2.0	1.7	1.4	2.3	5.2	7.1	6.2	12.4	7.7	4.0	2.6	2.9	1.8	3.7	8.3	3.6	12.4
12	4.0	8.1	7.9	7.2	5.6	3.8	1.4	1.8	1.9	2.1	5.0	9.2	10.6	9.4	6.1	4.7	8.0	4.9	3.5	2.7	3.0	4.4	8.7	4.3	5.3	10.6
13	3.0	1.1	1.8	2.0	1.3	0.7	0.5	0.6	2.3	1.6	0.6	1.4	1.4	2.1	1.9	1.7	1.3	3.4	2.7	1.8	1.7	2.6	2.3	1.4	1.7	3.4
14	2.7	3.3	3.9	4.0	2.2	1.4	1.0	1.0	1.9	1.2	2.9	2.6	3.5	3.9	4.3	5.2	6.4	7.6	7.3	9.2	11.2	12.4	13.5	14.5	5.3	14.5
15	12.1	9.0	6.9	12.3	11.6	9.6	7.7	3.6	2.8	7.3	20.3	5.2	1.5	1.1	1.8	1.3	2.1	4.0	5.7	7.6	7.4	8.3	6.8	8.7	6.9	20.3
16	14.4	10.8	13.5	6.5	2.0	3.2	3.3	4.1	7.6	14.5	17.6	13.9	9.1	6.7	4.3	3.1	2.6	2.1	1.8	1.7	3.0	5.3	9.4	5.3	6.9	17.6
17	31.8	81.5	45.9	73.5	66.7	49.3	48.1	68.3	41.7	27.9	40.6	25.8	26.1	34.4	29.4	51.1	39.2	30.1	38.8	51.2	47.1	29.9	35.8	23.3	43.2	81.5
18	5.1	4.7	4.0	3.3	5.4	8.4	8.2	4.2	3.4	2.0	2.2	2.6	1.9	1.5	3.5	21.0	31.0	47.2	29.6	26.8	60.0	50.3	71.0	53.7	18.8	71.0
19	19.3	17.0	44.7	4.5	7.2	4.6	10.0	11.6	8.6	3.7	5.3	7.8	11.7	14.2	17.9	2.4	9.4	6.8	7.8	8.4	2.2	4.7	0.9	8.8	10.0	44.7
20	16.1	1.3	1.6	1.8	2.8	2.4	2.5	5.7	3.7	12.6	5.7	4.1	6.1	19.4	18.7	4.7	7.3	4.5	5.0	4.2	4.9	4.6	7.2	5.1	6.3	19.4
21	4.6	4.5	3.5	3.7	3.9	4.1	6.2	8.9	5.7	5.5	5.0	6.1	6.6	4.9	3.6	4.0	5.1	4.9	5.4	5.7	5.8	5.3	3.8	3.9	5.0	8.9
22	3.9	3.4	3.4	4.5	6.5	5.5	3.2	3.7	6.8	12.0	18.8	14.1	14.0	7.7	5.2	6.2	6.3	5.4	5.1	5.0	8.4	7.0	8.4	8.1	7.2	18.8
23	6.7	7.0	6.7	5.5	5.1	5.4	6.2	8.1	6.8	7.8	13.2	17.1	19.9	21.8	21.7	24.6	20.4	17.1	18.7	22.1	20.2	4.6	4.9	5.4	12.4	24.6
24	3.8	3.7	4.3	4.8	5.3	8.0	6.9	5.3	5.1	16.6	23.0	32.0	22.4	27.4	10.9	10.9	18.5	7.6	1.5	0.7	0.7	1.7	1.6	3.7	9.4	32.0
25	2.7	1.9	1.8	2.2	4.2	6.2	4.5	12.3	29.0	33.2	52.6	52.7	28.3	14.8	16.0	22.3	22.5	11.7	30.3	36.1	26.7	18.5	19.6	12.5	19.3	52.7
26	10.9	8.1	8.0	13.7	7.1	20.6	32.0	18.1	32.2	45.4	65.0	44.5	27.3	11.5	13.5	12.3	18.5	19.2	22.6	19.2	11.5	8.4	14.5	10.6	20.6	65.0
27	6.5	6.6	5.6	3.6	5.7	2.1	2.1	2.9	4.1	2.5	3.4	11.7	4.4	10.2	18.5	12.9	9.6	5.6	11.7	7.0	5.2	3.4	5.8	8.7	6.7	18.5
28	7.6	9.8	6.5	3.0	2.7	2.3	3.2	5.4	4.9	3.3	8.1	12.6	16.6	18.1	9.4	5.7	6.8	3.7	1.7	1.6	2.5	11.3	14.8	15.5	7.4	18.1
NO.	26	26	26	27	27	27	27	27	27	27	27	27	27	27	27	27	26	26	26	26	26	26	26	26	637	95%
MEAN	9.1	10.9	10.5	10.2	10.1	8.2	9.1	9.1	11.0	13.7	17.3	15.8	13.3	13.6	11.8	12.5	12.3	10.6	11.3	12.1	12.5	10.0	11.7	11.9		
MAX	31.8	81.5	45.9	73.5	66.7	49.3	48.1	68.3	41.7	45.4	65.0	52.7	46.5	41.3	31.9	51.1	39.2	47.2	38.8	51.2	60.0	50.3	71.0	53.7		

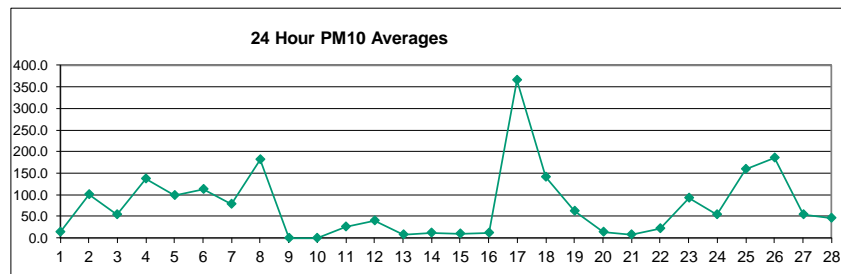


Number of 24HR Exceedences	1	Proposed Guideline
Number of Non-Zero Readings	637	
Maximum 1-HR Average	81.5 UG/M3	
Maximum 24-HR Average	43.2 UG/M3	
Monthly Calibration	0	Operational Time
Standard Deviation	12.0	Operational Uptime
		Monthly Average
		637 HRS
		94.8 %
		11.6 UG/M3



# Berm PM<sub>10</sub> (µg/m<sup>3</sup>) – February 2022

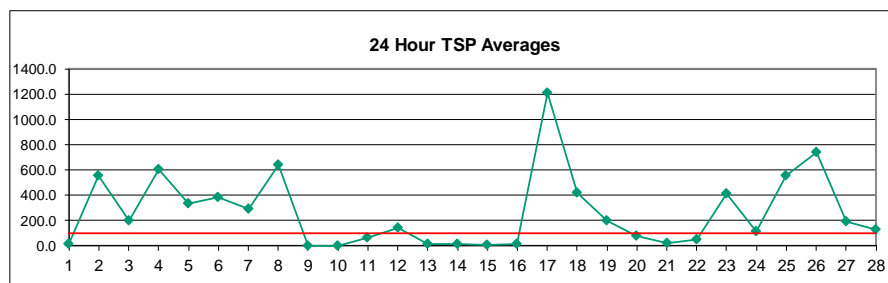
DAY	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	10.9	10.0	16.8	49.5	40.6	16.2	8.8	9.8	7.1	14.6	15.4	18.8	21.1	13.6	8.2	3.1	4.9	13.2	12.8	6.7	5.8	5.8	7.3	7.4	13.7	49.5
2	7.0	4.7	3.2	3.0	3.3	6.8	5.5	7.7	8.5	14.6	14.7	27.4	29.6	177.0	161.3	72.4	123.0	83.8	282.6	517.8	305.7	238.8	145.5	185.7	101.2	517.8
3	104.4	128.7	117.0	57.3	84.9	90.7	121.7	6.9	9.4	13.4	31.3	23.2	12.4	11.1	14.7	9.7	29.9	26.4	11.0	14.8	30.4	12.9	120.9	217.7	54.2	217.7
4	66.2	124.8	136.0	60.5	154.5	98.7	122.1	123.5	212.8	198.3	230.8	183.7	95.4	93.9	81.9	211.5	166.2	169.3	217.3	47.5	102.5	38.2	127.3	239.1	137.6	239.1
5	200.2	197.4	147.0	88.3	220.4	152.9	112.9	86.0	73.4	188.6	140.9	124.0	101.9	84.2	44.9	70.2	68.6	59.9	43.1	43.8	41.0	14.6	13.7	63.4	99.2	220.4
6	38.0	27.0	45.0	121.1	100.5	43.8	193.5	150.1	366.4	253.9	240.2	176.7	120.9	121.3	153.6	103.9	94.2	113.8	64.1	66.7	23.2	12.6	11.8	53.1	112.3	366.4
7	7.6	35.6	111.0	127.7	155.8	57.2	16.8	21.4	104.9	186.9	74.0	108.7	110.1	41.6	61.5	32.9	17.8	24.4	49.6	105.9	192.4	139.6	56.7	49.8	78.8	192.4
8	68.3	155.0	129.0	195.1	115.4	138.5	180.8	106.9	199.9	247.1	366.8	345.5	408.8	357.1	279.5	326.7	164.4	46.4	20.8	103.6	102.2	123.0	95.1	65.1	180.9	408.8
9	85.2	120.1	70.0	46.1	45.8	13.0	11.8	35.8	57.7	119.6	106.2	75.3	83.6	230.9	157.4	236.4	K	K	K	K	K	K	K	K	-	-
10	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	-	-
11	K	K	K	3.9	2.4	1.8	1.8	3.1	3.2	11.8	8.3	6.0	12.8	40.3	44.9	42.5	103.0	70.2	32.4	14.4	18.9	9.0	28.9	68.8	25.2	103.0
12	32.1	70.4	64.2	65.5	49.6	28.9	8.8	9.8	13.9	15.2	39.6	62.4	69.4	62.8	42.8	30.2	60.0	36.5	27.8	17.2	18.7	29.1	72.5	38.2	40.2	72.5
13	22.2	6.4	13.9	16.1	6.7	2.0	0.9	1.1	8.9	5.4	1.4	5.2	4.9	8.5	8.8	6.5	5.0	16.1	11.1	6.4	5.6	10.7	7.5	3.7	7.7	22.2
14	10.1	12.3	16.6	16.3	5.4	3.0	2.4	2.1	6.9	3.3	13.5	11.4	15.9	17.9	17.3	16.9	18.4	11.5	9.0	10.8	13.6	15.7	18.2	20.0	12.0	20.0
15	15.8	11.1	9.2	15.8	15.2	12.1	10.7	4.7	3.7	10.4	30.1	7.4	2.4	2.8	7.4	2.9	2.4	5.7	8.1	10.5	9.6	10.2	8.1	10.8	9.5	30.1
16	19.5	14.5	19.6	8.9	2.2	3.5	3.5	5.2	10.9	21.5	26.3	20.7	13.4	20.6	12.9	10.1	14.0	7.0	5.4	4.4	5.2	7.7	13.4	7.9	11.6	26.3
17	299.0	691.5	417.4	643.0	576.5	452.1	430.0	587.9	357.2	225.9	322.0	191.0	213.5	290.2	271.7	436.7	331.0	272.1	299.9	435.8	365.0	230.5	169.0	178.6	366.1	691.5
18	28.5	5.7	4.8	3.6	7.9	12.5	12.1	6.1	4.7	2.7	3.0	3.7	4.7	2.3	7.8	165.5	273.8	372.3	258.1	225.9	487.8	411.7	619.1	436.1	140.0	619.1
19	175.0	151.3	416.5	37.5	43.5	26.4	73.2	63.4	41.9	18.2	39.8	41.6	52.1	51.5	65.0	8.6	37.6	24.5	52.2	35.3	3.2	6.9	1.2	12.7	61.6	416.5
20	23.6	1.4	1.8	2.0	3.4	2.6	2.7	7.3	4.1	17.5	7.2	4.6	14.2	118.8	27.3	6.0	10.3	5.6	6.7	5.3	6.4	5.9	10.2	6.9	12.6	118.8
21	5.9	5.5	4.0	4.2	4.5	5.0	8.3	12.4	7.3	6.6	5.8	7.3	8.3	6.4	6.1	6.2	9.3	6.8	7.6	6.7	7.3	6.9	3.8	4.0	6.5	12.4
22	4.0	3.6	3.5	5.8	9.5	7.8	3.5	4.1	8.4	45.2	142.2	81.3	23.8	27.5	15.4	13.3	8.8	7.0	5.7	5.3	28.2	14.6	24.1	21.2	21.4	142.2
23	16.3	32.2	24.0	26.9	19.8	22.0	24.1	46.2	41.7	48.3	84.9	163.8	189.5	185.4	187.5	191.3	153.7	111.2	154.1	191.5	184.1	30.6	28.3	37.6	91.5	191.5
24	5.3	5.1	6.0	6.8	7.5	11.8	10.0	7.4	7.1	53.5	191.9	253.9	152.6	201.7	72.0	79.2	118.0	46.1	6.7	1.0	1.2	4.1	5.5	28.6	53.5	253.9
25	11.7	8.5	7.4	8.9	23.3	26.4	26.1	101.3	261.8	294.8	466.4	471.0	248.4	123.7	131.8	175.7	180.0	100.4	221.2	280.2	222.6	165.9	182.0	99.2	159.9	471.0
26	95.9	66.1	70.9	122.6	58.1	187.4	320.1	183.0	302.7	411.5	600.9	402.2	228.4	80.7	107.1	93.5	159.6	177.7	210.9	183.3	105.8	79.1	121.4	82.2	185.5	600.9
27	49.9	57.4	39.3	22.7	43.4	11.7	13.7	21.1	36.9	14.4	19.9	102.2	26.8	59.4	124.5	118.4	98.8	56.0	120.5	65.7	49.7	31.9	50.6	74.5	54.6	124.5
28	67.5	96.9	60.0	24.0	22.6	20.6	27.9	34.7	45.3	29.5	73.5	106.6	117.0	145.7	57.8	37.8	41.2	20.1	9.9	5.7	8.0	18.1	19.9	17.6	46.2	145.7
NO.	26	26	26	27	27	27	27	27	27	27	27	27	27	27	27	27	26	26	26	26	26	26	26	26	637	95%
MEAN	56.5	78.6	75.2	66.0	67.5	53.9	65.0	61.1	81.7	91.6	122.1	112.1	88.2	95.4	80.4	92.9	88.2	72.4	82.6	92.8	90.2	64.4	79.3	78.1		
MAX	299.0	691.5	417.4	643.0	576.5	452.1	430.0	587.9	366.4	411.5	600.9	471.0	408.8	357.1	279.5	436.7	331.0	372.3	299.9	517.8	487.8	411.7	619.1	436.1		



Number of Non-Zero Readings	637
Maximum 1-HR Average	691.5 UG/M3
Maximum 24-HR Average	366.1 UG/M3
Monthly Calibration	0
Standard Deviation	111.3
Operational Time	637 HRS
Operational Uptime	94.8 %
Monthly Average	80.7 UG/M3

# Berm TSP (µg/m³) – February 2022

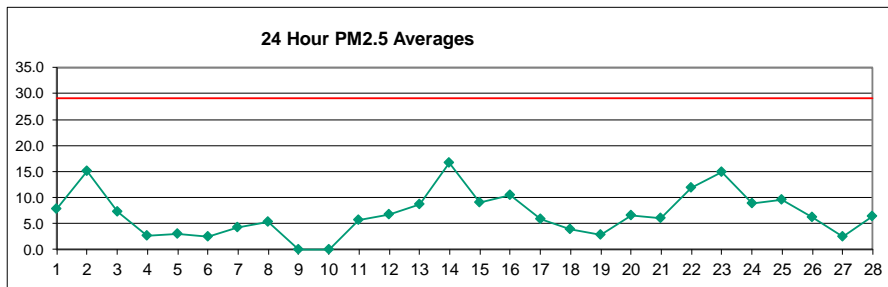
HOUR																											
DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN	MAX	
1	10.6	10.8	18.7	57.5	47.1	18.8	9.8	9.8	7.1	15.9	17.5	20.6	23.6	15.3	7.6	2.5	4.9	15.0	14.5	7.0	5.5	5.2	6.8	6.3	14.9	57.5	
2	5.9	3.1	2.1	1.9	2.1	5.6	4.7	8.0	9.1	16.9	16.9	286.1	199.0	2155.9	2008.5	311.9	405.1	249.5	942.3	2583.7	1754.0	979.8	564.9	811.4	555.3	2583.7	
3	432.2	438.8	307.3	254.0	465.2	427.1	501.9	18.1	42.5	18.9	80.4	55.8	18.4	17.4	27.4	15.9	58.6	45.6	19.8	22.3	50.6	12.9	486.5	963.2	199.2	963.2	
4	286.3	686.5	798.3	319.5	888.0	559.7	706.8	717.2	1175.4	991.6	1204.9	815.6	307.2	264.1	205.5	877.0	618.8	597.0	757.8	136.3	232.9	70.2	396.1	848.0	602.5	1204.9	
5	722.6	717.4	559.4	356.0	804.7	586.2	422.6	281.2	249.2	603.6	399.7	370.3	342.8	290.7	145.3	218.3	188.2	198.1	134.9	153.3	126.7	30.0	32.3	85.0	334.1	804.7	
6	54.9	65.5	138.3	412.3	338.4	137.0	649.1	497.6	1329.3	912.4	901.8	562.3	363.2	423.3	528.9	381.3	360.0	439.6	198.6	203.1	61.7	43.2	40.8	128.0	382.1	1329.3	
7	27.8	165.2	404.5	470.7	618.7	215.6	59.6	58.8	343.7	709.9	352.0	267.4	345.5	109.7	170.5	139.1	63.0	101.1	189.4	448.6	838.5	555.8	221.5	184.7	294.2	838.5	
8	243.4	589.9	531.7	760.8	501.1	576.9	654.2	343.5	608.2	803.9	1197.5	1138.9	1366.2	1248.8	902.2	1128.7	593.4	190.8	73.8	391.9	393.1	483.5	405.1	303.3	643.0	1366.2	
9	350.1	459.0	259.6	182.8	165.5	55.0	44.0	103.4	153.7	324.7	290.6	214.8	241.3	771.7	534.4	802.6	K	K	K	K	K	K	K	K	-	-	
10	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	-	-	
11	K	K	K	K	7.8	7.6	3.5	4.2	7.7	12.4	21.2	16.1	12.0	28.1	111.3	77.4	78.6	247.0	151.8	76.4	28.7	49.6	18.5	85.4	247.9	61.6	247.9
12	122.1	260.9	275.5	275.5	192.0	98.8	28.5	28.6	49.7	45.6	108.3	193.9	159.2	138.6	113.7	85.0	186.9	122.3	111.5	52.8	82.0	115.3	319.1	167.1	138.9	319.1	
13	102.4	15.7	40.4	56.4	22.5	3.7	1.4	1.5	8.2	5.4	3.8	7.1	9.3	10.4	12.0	7.7	6.3	29.9	18.5	8.3	5.2	17.3	12.2	3.2	17.0	102.4	
14	14.4	15.8	23.8	17.3	3.8	4.2	3.1	2.4	10.5	6.0	24.6	15.4	21.7	21.5	25.6	21.8	28.3	10.5	6.3	7.3	9.4	11.5	13.0	14.6	13.9	28.3	
15	11.4	7.4	6.6	11.0	10.5	8.6	8.6	3.7	2.5	8.8	29.4	6.7	4.6	3.1	11.7	4.7	3.9	5.5	7.1	8.2	8.0	6.3	8.9	8.9	8.1	29.4	
16	20.6	15.4	21.8	6.9	1.5	2.3	2.2	3.9	9.1	23.6	29.5	23.2	14.5	37.2	24.5	15.9	30.9	11.9	11.0	8.6	5.4	7.3	13.0	8.1	14.5	37.2	
17	905.7	2327.4	1362.6	2216.2	1959.1	1610.5	1502.6	2017.7	1166.5	772.5	999.6	539.7	656.5	926.1	1002.1	1594.8	1170.1	992.1	932.1	1450.5	1034.7	712.4	767.2	408.7	1209.5	2327.4	
18	65.7	4.3	3.5	2.4	7.5	12.6	12.2	4.8	4.1	2.3	2.5	3.4	7.1	3.6	10.0	240.2	766.5	1058.7	752.3	644.4	1596.4	1381.4	2079.6	1410.4	419.8	2079.6	
19	650.7	623.1	1582.2	170.6	115.0	76.1	225.5	112.4	80.0	46.5	104.8	76.7	52.1	53.0	60.4	12.4	40.8	22.4	298.2	338.1	2.8	6.0	0.9	13.8	198.5	1582.2	
20	27.1	0.9	1.2	1.4	2.3	1.7	1.8	5.2	2.7	13.4	4.9	3.2	176.7	1548.9	31.4	4.9	11.0	4.7	6.2	4.4	5.7	5.1	10.8	6.5	78.4	1548.9	
21	5.3	4.1	2.9	3.1	3.5	3.7	8.5	13.4	6.8	5.7	4.4	5.7	7.8	10.1	79.7	73.6	124.8	21.2	37.4	5.4	6.6	6.7	2.5	2.6	18.6	124.8	
22	2.7	2.3	2.3	4.8	10.1	7.6	2.4	2.9	6.0	234.3	503.8	182.8	25.4	48.3	31.8	22.2	9.2	7.3	4.5	3.5	39.1	17.5	35.4	33.6	51.7	503.8	
23	41.7	323.0	215.2	344.9	250.7	273.5	209.5	341.3	429.6	299.0	397.8	718.4	982.2	687.9	639.9	574.1	423.5	276.2	512.3	687.8	731.1	115.3	172.8	278.0	413.6	982.2	
24	4.9	4.6	5.4	7.0	7.7	12.7	11.0	7.3	6.9	108.3	432.3	649.0	335.5	478.9	137.6	154.7	224.4	78.6	9.7	1.2	1.0	5.4	12.4	105.7	116.8	649.0	
25	25.6	15.1	19.1	17.2	82.3	111.6	110.9	372.6	798.7	956.5	1584.7	1778.6	791.3	431.3	439.0	558.2	620.2	347.9	683.9	923.9	828.5	706.8	756.3	378.3	555.8	1778.6	
26	398.4	264.8	275.5	523.2	243.9	836.7	1553.3	953.7	1367.9	1541.8	2259.9	1692.7	824.5	253.3	348.4	308.5	586.4	643.3	752.5	708.5	403.8	312.9	376.2	285.4	738.1	2259.9	
27	203.6	224.1	116.5	77.9	141.9	42.1	46.1	68.7	146.5	55.8	52.3	288.8	68.5	87.3	374.8	448.0	417.7	255.1	464.6	272.4	181.7	124.8	173.2	229.4	190.1	464.6	
28	286.9	467.5	231.1	85.9	92.4	105.0	100.6	122.5	184.3	104.8	175.0	218.2	205.9	288.2	114.6	96.3	101.8	42.6	20.0	5.1	8.0	18.5	16.1	12.4	129.3	467.5	
NO.	26	26	26	27	27	27	27	27	27	27	27	27	27	27	27	27	26	26	26	26	26	26	26	26	637	95%	
MEAN	193.2	296.6	277.1	246.1	258.7	214.7	255.0	226.2	304.1	320.3	414.6	375.8	280.7	386.5	298.7	302.9	280.5	227.6	270.6	350.2	325.5	222.0	269.5	267.1			
MAX	905.7	2327.4	1582.2	2216.2	1959.1	1610.5	1553.3	2017.7	1367.9	1541.8	2259.9	1778.6	1366.2	2155.9	2008.5	1594.8	1170.1	1058.7	942.3	2583.7	1754.0	1381.4	2079.6	1410.4			



Number of 24HR Exceedences	17	Proposed Guideline
Number of Non-Zero Readings	637	
Maximum 1-HR Average	2583.7 UG/M3	
Maximum 24-HR Average	1209.5 UG/M3	
IZS Calibration Time		Operational Time
Monthly Calibration	0	Operational Uptime
Standard Deviation	424.2	Monthly Average
		637 HRS
		94.8 %
		286.3 UG/M3

## Entrance PM<sub>2.5</sub> (µg/m<sup>3</sup>) – February 2022

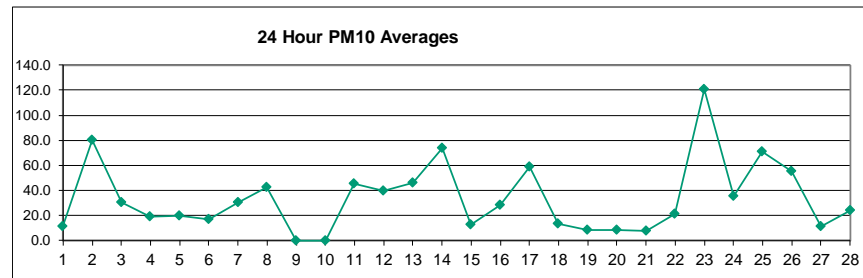
HOURL																											
Day	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		MEAN	MAX
1	2.8	3.3	11.5	34.6	35.0	7.6	5.3	3.3	3.9	7.1	6.9	5.5	6.0	5.3	4.5	2.5	2.6	5.3	8.0	6.4	4.7	4.4	5.9	5.7		7.8	35.0
2	6.1	6.9	4.6	4.0	4.4	8.8	19.6	10.8	16.7	34.0	41.6	43.0	29.1	36.7	19.0	7.2	6.3	4.0	5.6	14.1	15.4	6.4	7.9	9.6		15.1	43.0
3	12.6	6.3	3.3	4.4	5.5	4.3	6.1	12.8	13.8	7.2	8.1	4.4	3.9	5.0	4.7	6.8	8.3	9.1	9.3	9.5	10.5	12.2	3.7	2.4		7.2	13.8
4	2.1	2.8	3.8	2.3	5.7	3.5	2.5	2.0	5.0	3.9	3.2	1.8	1.7	1.5	0.9	2.2	6.4	1.6	1.7	3.1	1.1	0.6	0.9	1.1		2.6	6.4
5	2.0	2.9	1.3	1.0	4.9	4.8	3.1	3.8	4.1	3.7	2.0	2.8	3.3	2.0	1.9	2.3	2.2	6.9	7.2	4.6	2.0	0.8	1.8	0.9		3.0	7.2
6	0.6	0.7	0.7	1.2	1.0	1.6	2.4	4.2	3.4	3.0	4.9	3.7	2.1	2.8	2.7	3.2	6.8	2.0	2.1	2.1	1.9	2.9	3.0	1.8		2.5	6.8
7	1.8	2.0	3.5	3.6	8.0	4.2	2.5	5.2	10.0	11.7	5.1	3.7	4.7	4.4	4.8	2.9	1.9	1.7	1.8	2.9	6.9	3.5	2.7	1.9		4.2	11.7
8	3.6	2.6	2.9	3.1	2.6	7.8	7.7	5.5	5.2	5.4	6.8	7.0	8.4	6.6	5.1	6.8	8.1	7.9	6.0	3.8	4.6	3.1	6.1	2.2		5.4	8.4
9	1.7	3.3	3.3	4.0	3.1	2.8	2.2	3.9	3.2	4.8	4.9	3.8	4.1	7.5	7.8	7.2	K	K	K	K	K	K	K	K		-	-
10	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K		-	-
11	K	K	K	1.7	4.1	3.9	10.8	6.9	7.7	9.8	8.8	8.6	7.7	6.4	10.7	5.2	3.5	4.3	2.5	6.9	3.1	2.1	2.1	1.9		5.7	10.8
12	3.8	2.4	4.2	5.7	4.4	2.1	11.1	14.7	22.5	26.7	14.3	5.7	2.6	2.3	5.5	2.4	2.9	3.0	1.8	1.4	2.6	2.7	6.8	7.7		6.6	26.7
13	9.4	14.5	8.5	17.0	14.8	20.0	26.5	25.5	3.9	6.2	4.1	4.3	4.5	7.6	4.9	5.4	5.5	4.8	3.0	2.6	2.3	3.0	5.6	3.2		8.6	26.5
14	8.2	11.7	9.8	6.3	6.1	6.6	10.0	29.8	33.4	30.4	25.4	26.1	27.9	17.9	13.3	17.9	16.1	13.6	12.5	12.3	13.7	15.5	16.5	17.3		16.6	33.4
15	19.5	24.3	15.2	17.6	16.4	14.4	10.1	5.8	3.8	6.9	8.0	3.5	1.9	2.2	2.3	2.6	4.5	5.3	5.7	6.8	9.0	9.8	10.6	12.2		9.1	24.3
16	21.6	16.0	10.8	4.0	3.2	3.8	4.6	6.2	16.0	12.1	15.5	19.2	21.5	21.1	14.4	12.4	7.2	5.4	3.2	3.5	5.0	7.6	7.9	7.9		10.4	21.6
17	1.7	11.8	8.4	16.0	14.2	8.0	3.4	6.4	4.9	6.7	5.9	3.8	3.9	7.7	3.9	6.7	6.2	3.4	3.3	2.7	1.7	4.5	1.6	1.3		5.8	16.0
18	3.2	6.1	5.0	5.1	2.8	3.3	2.5	2.2	2.8	2.1	2.8	2.9	3.4	3.2	5.9	11.1	9.3	6.9	7.0	1.8	0.9	1.9	1.3	0.8		3.9	11.1
19	0.8	0.6	2.2	0.8	0.7	0.6	1.0	1.5	2.3	2.0	1.7	4.5	1.2	2.7	0.9	2.2	2.2	1.7	5.7	2.0	6.1	2.9	10.6	8.7		2.7	10.6
20	19.5	1.6	1.9	2.3	2.3	2.5	2.7	3.2	3.4	3.5	4.2	4.5	6.6	18.9	20.7	5.2	16.4	5.4	6.5	5.3	4.8	4.7	7.1	5.1		6.6	20.7
21	5.2	4.7	4.2	6.5	4.4	4.2	5.3	8.2	10.1	8.0	5.9	7.4	6.7	5.4	4.4	4.5	5.6	6.3	5.9	5.6	5.2	5.6	7.1	5.8		5.9	10.1
22	5.3	14.0	12.4	9.2	9.7	7.5	6.3	12.5	9.7	8.2	9.6	9.4	16.5	9.1	6.5	7.8	7.2	5.7	7.1	7.5	10.1	24.8	31.0	39.5		11.9	39.5
23	18.5	17.6	24.7	18.9	15.4	24.5	27.5	28.7	29.9	35.6	26.2	14.5	8.7	12.0	5.6	5.4	5.2	3.6	3.1	3.0	3.3	5.4	11.3	9.0		14.9	35.6
24	9.5	13.4	11.6	12.1	11.9	10.6	11.1	13.6	15.4	16.4	11.4	12.8	11.5	5.2	3.4	2.8	2.4	3.1	5.9	2.6	1.7	8.1	7.3	9.3		8.9	16.4
25	16.1	19.5	12.6	18.9	18.6	15.6	22.7	19.4	11.2	14.5	13.3	9.0	5.0	3.9	3.3	2.6	3.0	2.4	2.7	2.8	2.6	3.2	4.1	3.2		9.6	22.7
26	3.4	3.2	3.6	4.7	5.6	5.8	9.6	13.8	9.9	16.5	21.3	14.5	5.9	3.0	3.4	2.3	2.7	3.8	3.2	3.6	2.7	2.1	2.0	1.6		6.2	21.3
27	1.6	1.6	1.3	1.3	1.3	1.3	2.4	5.4	4.9	6.8	7.4	4.3	4.5	1.9	3.3	1.4	1.0	1.2	1.3	1.0	1.2	1.0	1.0	1.0		2.5	7.4
28	1.2	1.5	0.9	0.9	0.7	0.9	1.2	3.0	2.4	3.8	6.3	6.6	6.3	7.5	4.1	2.8	3.3	3.7	1.9	13.6	19.9	17.1	20.1	22.2		6.3	22.2
NO. MEAN MAX	26	26	26	27	27	27	27	27	27	27	27	27	27	27	27	27	26	26	26	26	26	26	26	26		637	95%
	7.0	7.5	6.6	7.7	7.7	6.7	8.2	9.6	9.6	11.0	10.2	8.8	7.8	7.8	6.2	5.3	5.6	4.7	4.8	5.1	5.5	6.0	7.2	7.1			
	21.6	24.3	24.7	34.6	35.0	24.5	27.5	29.8	33.4	35.6	41.6	43.0	29.1	36.7	20.7	17.9	16.4	13.6	12.5	14.1	19.9	24.8	31.0	39.5			



Number of 24HR Exceedences	0	Proposed Guideline	
Number of Non-Zero Readings	637		
Maximum 1-HR Average	43.0	UG/M3	
Maximum 24-HR Average	16.6	UG/M3	
Monthly Calibration	0	Operational Time	637 HRS
Standard Deviation	6.882	Operational Uptime	94.8 %
		Monthly Average	7.2 UG/M3

# Entrance PM<sub>10</sub> (µg/m<sup>3</sup>) – February 2022

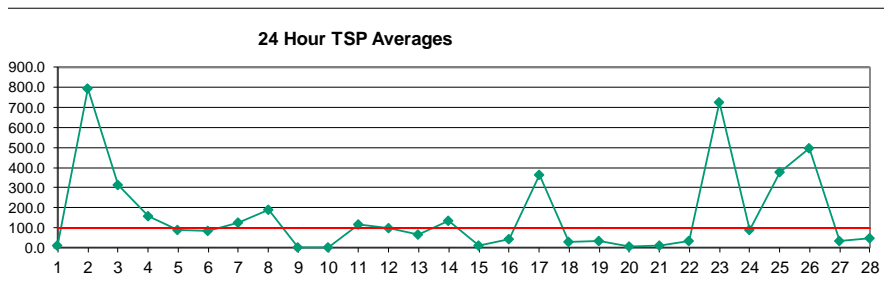
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	3.7	4.4	16.7	51.4	52.2	11.0	7.4	4.4	5.3	9.6	9.6	7.8	8.7	7.3	5.8	3.2	3.2	7.4	11.6	9.2	6.4	5.9	8.1	7.4	11.1	52.2
2	7.4	8.3	5.2	4.2	4.8	12.7	29.3	16.2	25.1	51.0	62.3	239.3	194.0	319.4	179.3	64.2	66.1	29.7	45.0	148.2	161.5	59.5	75.0	107.1	79.8	319.4
3	136.5	59.3	19.0	27.0	32.3	22.6	37.5	78.4	92.6	17.0	18.2	8.6	10.3	13.8	12.3	14.9	19.1	21.3	16.2	13.7	15.3	17.8	14.8	14.8	30.5	136.5
4	14.4	21.3	38.3	15.3	70.2	31.0	18.8	14.4	44.2	30.5	26.1	13.6	8.0	7.0	3.6	10.2	35.6	8.9	10.1	15.6	5.8	2.3	5.4	11.4	19.3	70.2
5	15.4	27.3	10.5	8.3	44.4	45.6	26.0	34.0	32.4	28.7	10.4	13.4	17.0	8.4	8.1	11.5	10.2	38.1	36.6	23.4	13.2	4.4	8.0	3.8	19.9	45.6
6	1.5	3.1	2.6	7.8	5.9	9.4	20.4	43.3	28.5	28.7	49.2	28.3	12.2	14.3	14.9	15.0	44.2	8.4	11.7	11.6	9.6	16.3	13.7	10.6	17.1	49.2
7	7.3	16.7	31.4	30.0	66.6	27.1	15.5	37.9	92.6	101.9	33.9	19.8	28.8	23.7	21.9	12.4	9.6	11.5	11.2	19.6	56.2	28.0	14.2	10.2	30.3	101.9
8	23.3	24.5	25.2	29.8	22.9	69.6	77.0	48.7	42.5	53.1	61.9	65.4	74.6	47.7	39.1	53.9	59.6	46.6	29.9	22.7	26.3	17.9	44.8	13.6	42.5	77.0
9	11.1	20.6	18.0	23.3	14.3	13.3	11.1	25.3	21.7	32.9	30.0	23.7	26.2	53.7	44.4	39.1	K	K	K	K	K	K	K	K	-	-
10	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	-	-
11	K	K	K	9.2	34.4	32.4	126.1	69.0	92.4	74.7	74.2	64.8	49.6	44.2	76.8	31.9	26.1	28.9	15.4	45.3	17.8	9.9	13.4	14.5	45.3	126.1
12	16.8	18.8	31.1	39.4	35.4	9.8	74.5	90.0	153.2	157.7	86.9	38.8	13.6	13.4	37.1	11.8	15.6	14.4	10.1	7.2	12.2	10.5	33.0	26.8	39.9	157.7
13	38.7	51.4	32.1	63.0	57.7	95.7	169.3	147.7	20.7	47.7	26.3	23.4	30.4	52.7	25.5	33.4	39.5	34.9	14.9	13.2	10.2	16.1	39.3	19.4	46.0	169.3
14	39.2	52.3	50.0	26.4	24.3	9.8	14.9	107.3	179.5	162.8	158.4	222.4	206.6	131.8	74.9	88.7	73.1	20.1	17.8	16.0	18.2	20.1	23.0	24.4	73.4	222.4
15	27.9	36.4	21.2	24.6	22.3	19.1	12.4	6.9	4.7	9.1	10.8	4.7	2.3	4.6	6.4	6.7	5.9	7.4	7.7	8.8	11.1	10.8	12.2	13.1	12.4	36.4
16	28.5	22.1	15.3	4.9	3.7	4.7	5.3	8.1	23.7	17.7	22.8	59.3	89.4	114.6	80.5	60.1	33.0	27.9	5.9	4.5	7.1	11.1	11.4	11.3	28.0	114.6
17	12.8	172.5	114.9	191.7	188.0	110.2	37.4	68.0	45.9	74.6	62.3	22.7	21.5	52.5	28.1	47.9	42.4	22.3	20.8	19.4	9.6	25.3	9.7	6.4	58.6	191.7
18	10.8	7.0	5.7	5.7	3.8	4.8	3.5	3.1	3.7	2.5	3.6	3.8	12.4	8.7	18.7	52.6	58.2	37.9	41.3	9.4	2.9	12.2	7.4	3.7	13.5	58.2
19	3.9	2.7	18.7	3.3	3.0	1.6	5.3	7.3	12.0	6.9	6.7	18.8	4.5	5.7	2.1	8.8	8.0	9.1	32.5	2.9	9.1	4.1	15.6	12.4	8.6	32.5
20	28.3	1.7	1.9	2.3	2.4	2.6	2.7	3.3	3.5	3.7	4.5	5.1	8.4	26.9	29.9	6.7	23.7	7.1	8.8	6.8	6.0	5.8	9.5	6.4	8.7	29.9
21	6.3	5.5	4.7	7.5	4.9	4.6	6.5	11.0	13.8	10.4	6.7	9.1	8.3	7.0	6.5	6.2	7.4	10.7	6.8	6.4	5.9	6.7	9.7	7.0	7.5	13.8
22	6.2	20.6	18.4	13.4	14.4	11.0	8.7	16.3	12.8	12.0	31.6	18.7	27.0	18.9	14.6	17.1	10.8	8.9	9.0	9.0	24.7	37.2	46.4	100.9	21.2	100.9
23	112.9	121.2	221.0	140.6	145.3	245.6	274.1	293.5	315.3	338.8	201.7	105.2	64.1	81.3	26.6	23.7	25.4	12.5	8.6	14.9	13.9	25.2	60.0	28.2	120.8	338.8
24	14.2	20.1	17.4	18.0	17.8	15.7	16.4	20.4	76.9	159.9	75.8	39.7	41.5	14.8	8.4	11.6	11.3	29.3	57.2	13.6	6.6	55.1	52.3	62.4	35.7	159.9
25	91.6	117.4	78.6	111.9	113.1	112.0	184.3	164.7	107.6	146.5	123.0	77.8	42.3	28.0	21.5	17.3	19.2	14.5	16.7	21.2	18.1	22.8	33.3	17.7	70.9	184.3
26	19.0	14.9	16.4	25.4	30.3	45.2	111.4	158.0	93.1	174.0	245.2	131.2	47.9	15.1	15.7	11.0	15.1	29.6	29.5	31.8	24.7	16.6	11.5	9.4	55.1	245.2
27	6.5	5.6	3.5	3.2	4.2	3.4	8.4	27.3	23.1	30.6	38.4	19.8	15.8	7.2	16.7	7.2	5.2	6.3	7.8	5.1	6.4	6.1	3.7	4.4	11.1	38.4
28	8.0	12.8	4.8	5.5	4.1	5.7	5.4	13.6	14.7	16.8	30.0	29.9	44.5	41.6	27.7	17.6	16.5	18.6	7.9	63.4	92.1	40.7	30.3	30.9	24.3	92.1
NO.	26	26	26	27	27	27	27	27	27	27	27	27	27	27	27	27	26	26	26	26	26	26	26	26	637	95%
MEAN	26.6	33.4	31.6	33.1	37.9	36.2	48.5	56.2	58.6	66.7	55.9	48.7	41.1	43.1	31.4	25.4	26.3	19.7	18.9	21.6	22.7	18.8	23.3	22.2		
MAX	136.5	172.5	221.0	191.7	188.0	245.6	274.1	293.5	315.3	338.8	245.2	239.3	206.6	319.4	179.3	88.7	73.1	46.6	57.2	148.2	161.5	59.5	75.0	107.1		



Number of Non-Zero Readings	637
Maximum 1-HR Average	338.8 UG/M3
Maximum 24-HR Average	120.8 UG/M3
Operational Time	637 HRS
Operational Uptime	94.8 %
Monthly Calibration	0
Standard Deviation	48.12
Monthly Average	35.5 UG/M3

# Entrance TSP ( $\mu\text{g}/\text{m}^3$ ) – February 2022

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	2.8	3.3	18.7	59.7	60.6	12.6	7.8	3.8	4.5	9.3	10.2	8.4	9.4	7.1	4.8	2.5	2.6	7.7	13.1	9.9	6.5	5.7	8.1	6.7	11.9	60.6
2	6.0	6.2	3.8	2.8	3.5	13.8	33.8	18.4	29.1	59.2	72.5	1148.4	862.6	2353.4	2190.7	796.1	947.8	338.6	643.4	2327.1	2613.3	1216.1	1495.3	1898.1	795.0	2613.3
3	2673.4	1357.1	417.2	665.7	719.5	456.5	233.8	214.1	237.9	19.4	70.6	37.0	27.3	21.7	30.4	27.2	37.6	42.4	25.9	12.2	15.1	18.8	58.9	106.9	313.6	2673.4
4	103.7	179.9	419.9	149.8	876.9	417.2	226.8	136.6	300.5	222.3	228.2	93.4	38.0	15.4	15.4	39.6	106.3	31.8	39.7	27.5	10.4	4.2	26.9	77.8	157.8	876.9
5	92.4	167.6	72.3	43.0	278.3	313.2	152.3	191.8	146.0	107.0	32.5	37.3	57.5	25.6	13.8	32.5	26.3	90.9	87.9	48.1	34.9	14.8	17.1	9.1	87.2	313.2
6	7.9	11.3	10.3	38.3	32.0	27.0	98.7	283.1	192.7	171.5	343.5	148.7	57.8	73.8	39.2	36.1	116.2	28.9	63.5	48.5	42.9	54.9	32.1	51.4	83.8	343.5
7	18.8	85.1	174.1	142.9	312.4	88.4	53.9	97.2	308.6	447.5	266.8	49.5	97.3	62.2	64.9	30.8	30.1	58.4	39.2	78.4	260.1	153.9	44.4	36.8	125.1	447.5
8	95.5	138.6	138.0	154.5	115.0	391.3	404.5	215.4	171.7	271.9	302.4	304.0	380.9	213.6	155.2	221.9	239.3	137.4	66.8	83.1	88.8	66.8	154.6	59.7	190.5	404.5
9	56.5	92.2	60.9	78.2	32.4	32.0	27.7	82.9	86.6	81.0	68.4	71.1	92.7	266.4	126.4	125.5	K	K	K	K	K	K	K	K	-	-
10	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	K	-	-
11	K	K	K	24.8	96.9	117.3	362.3	152.9	248.9	194.8	203.5	173.3	112.5	111.4	170.8	72.7	66.3	53.6	34.7	68.0	47.8	30.4	47.2	47.9	116.1	362.3
12	42.2	69.9	137.3	168.7	148.7	34.5	164.7	212.8	297.9	276.7	196.8	103.2	42.0	41.1	83.7	28.1	28.9	30.2	25.3	20.9	32.3	23.4	87.1	44.3	97.5	297.9
13	74.6	47.7	33.5	54.9	62.3	126.3	217.4	158.6	21.2	70.9	50.7	43.5	66.5	93.4	43.6	76.8	88.0	104.7	34.3	31.9	23.6	34.6	62.8	20.1	68.4	217.4
14	40.8	51.1	47.0	29.8	27.3	10.7	16.7	136.4	293.1	271.4	307.6	595.9	436.1	290.3	193.3	201.3	197.2	20.0	16.1	11.9	13.5	14.5	17.0	19.1	135.7	595.9
15	21.3	33.8	15.1	17.5	15.3	14.3	9.2	5.1	3.3	8.0	9.9	4.3	1.9	11.7	15.5	20.4	5.3	7.2	6.8	7.3	9.2	7.7	9.1	9.2	11.2	33.8
16	30.4	24.7	17.3	4.0	2.6	3.5	3.6	7.0	21.4	16.3	20.5	125.9	159.8	209.8	159.4	83.0	57.1	46.3	10.6	3.6	6.8	10.4	10.1	9.1	43.5	209.8
17	56.6	918.0	724.8	1390.1	1472.3	816.9	250.6	471.7	286.2	657.8	482.4	75.2	77.6	139.0	126.4	186.3	166.8	96.9	75.2	69.2	33.4	89.8	53.3	15.0	363.8	1472.3
18	35.2	5.0	3.9	3.9	3.6	5.4	3.5	2.9	3.4	2.0	3.0	3.4	25.7	16.0	41.0	91.5	109.0	89.1	113.8	31.5	14.6	57.9	36.2	17.0	29.9	113.8
19	16.3	12.3	118.4	29.8	16.1	4.3	21.9	22.2	32.9	20.6	19.5	40.9	9.1	13.5	3.1	9.1	11.5	15.1	345.8	3.2	10.3	3.9	17.1	13.6	33.8	345.8
20	32.4	1.1	1.2	1.5	1.5	1.7	1.8	2.1	2.3	2.4	3.0	3.9	7.6	30.5	34.6	6.4	27.3	7.3	9.4	6.6	5.5	5.1	10.0	5.9	8.8	34.6
21	5.5	4.5	3.4	6.0	3.5	3.4	5.7	11.3	14.4	10.3	5.2	7.7	7.1	17.3	30.2	33.2	44.1	49.6	5.7	5.3	4.7	5.8	10.0	6.2	12.5	49.6
22	5.3	23.6	21.4	15.5	16.7	12.5	8.8	15.9	12.3	11.9	68.2	62.5	49.6	46.2	40.4	47.8	30.3	15.4	20.3	10.5	38.2	42.0	51.6	184.7	35.5	184.7
23	335.4	450.9	1092.7	833.7	1104.0	2064.9	2249.0	2177.3	2291.3	1735.3	857.2	438.3	289.2	395.9	118.9	93.3	56.1	31.8	28.1	81.8	98.4	226.4	255.9	145.0	727.1	2291.3
24	15.7	22.7	19.8	20.9	20.3	17.6	18.3	23.0	356.2	508.6	215.6	66.5	103.8	38.1	21.5	27.7	30.3	43.3	96.4	20.3	11.1	123.1	127.8	169.2	88.2	508.6
25	184.6	249.3	203.2	248.0	284.9	406.8	693.4	861.6	853.1	1385.3	1280.2	702.1	343.9	144.6	135.7	81.2	86.0	65.4	92.5	120.0	97.4	165.0	279.3	138.4	379.2	1385.3
26	138.4	118.6	115.8	129.4	149.3	372.1	1395.0	1674.6	913.3	1872.6	2458.2	1240.8	397.1	65.6	61.0	42.5	69.9	135.3	144.3	174.9	123.8	81.8	63.4	32.2	498.7	2458.2
27	34.7	26.6	9.7	4.9	11.0	13.5	14.1	61.6	49.3	51.8	82.4	45.0	24.6	19.2	182.8	45.8	27.9	28.6	41.2	23.2	13.8	22.3	19.2	19.3	36.4	182.8
28	39.1	67.5	20.3	23.5	13.6	25.3	21.2	43.3	68.8	34.7	53.1	57.0	83.6	76.2	77.7	43.8	34.8	32.3	11.2	77.6	121.5	65.0	39.9	34.4	48.6	121.5
NO.	26	26	26	27	27	27	27	27	27	27	27	27	27	27	27	27	26	26	26	26	26	26	26	26	637	95%
MEAN	160.2	160.3	150.0	160.8	217.8	214.9	248.0	269.8	268.4	315.6	285.6	210.6	143.0	177.7	154.8	92.7	101.6	61.9	80.4	130.9	145.3	97.9	116.7	122.2		
MAX	2673.4	1357.1	1092.7	1390.1	1472.3	2064.9	2249.0	2177.3	2291.3	1872.6	2458.2	1240.8	862.6	2353.4	2190.7	796.1	947.8	338.6	643.4	2327.1	2613.3	1216.1	1495.3	1898.1		



Number of 24HR Exceedences	11	Proposed Guideline
Number of Non-Zero Readings	637	
Maximum 1-HR Average	2673.4 UG/M3	
Maximum 24-HR Average	795.0 UG/M3	
Monthly Calibration	0	Operational Time
Standard Deviation	379.2	Operational Uptime
		Monthly Average
		637 HRS
		94.8 %
		171.2 UG/M3