

LAFARGE CANADA INC.

AMBIENT AIR QUALITY MONTHLY REPORT

NOVEMBER 2024

DECEMBER 23, 2024



wsp



AMBIENT AIR QUALITY MONTHLY REPORT

NOVEMBER 2024

LAFARGE CANADA INC.

PROJECT NO.: 171-00556-05
DATE: DECEMBER 23, 2024

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December 23, 2024

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

Attention: Nikolaos Veriotes P. Eng.

Dear Mr. Veriotes,

Subject: Ambient Air Quality Monthly Report – November 2024

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

Lagoon	Data Completeness (%)	1-Hour Average	24-hour Average
		Exceedances of AAAQO or AAAQG	Exceedances of AAAQO
TSP	98.9%	-	0
PM _{2.5}	100%	0	0
PM ₁₀	99.4%	-	-
NO	100%	-	-
NO ₂	100%	0	-
NO _x	100%	-	-
SO ₂	100%	0	0
Temperature	100%	-	-
Wind Speed / Direction	100%	-	-
Pressure	100%	-	-
Relative Humidity	100%	-	-
Precipitation	100%	-	-

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

Windridge	Data Completeness (%)	1-Hour Average	24-hour Average	
		Exceedances of AAAQG	Exceedances of PM _{2.5} AAAQO	Exceedances of TSP AAAQO
TSP	99.9%	-	-	8
PM _{2.5}	100%	0	0	-
PM ₁₀	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 exceedances of the Guidelines at the GRIMM Monitors for November 2024.

GRIMM Stations	Data Completeness (%)	1-Hour Average	24-hour Average	
		Exceedances of PM _{2.5} Guidelines	Exceedances of PM _{2.5} Guidelines	Exceedances of TSP Guidelines
West	0%	0	0	0
Berm	100%	15	4	16
Entrance	0%	0	0	0

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

Sincerely,



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

SIGNATURES

PREPARED BY



Dec 19, 2024

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Date

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TABLE OF CONTENTS

1	INTRODUCTION.....	1
1.1	Exshaw Creek Flood Mitigation	1
2	NOVEMBER 2024 REPORT SUMMARY.....	3
2.1	Lagoon Station	3
2.2	Windridge Station.....	4
2.3	West Grimm	4
2.4	Berm Grimm.....	5
2.5	Entrance Grimm.....	5
3	LAGOON STATION	6
3.1	Operational Summary	6
3.2	Monitoring Results and Trends	7
4	WINDRIDGE STATION.....	17
4.1	Operational Summary	17
4.2	Monitoring Results and Trends	17
5	BERM INDUSTRIAL GRIMM	27
5.1	Operational Summary	27
5.2	Monitoring Results and Trends	27
	BIBLIOGRAPHY	36

TABLES

TABLE 2-1	LAGOON STATION DATA SUMMARY	3
TABLE 2-2	WINDRIDGE STATION DATA SUMMARY	4
TABLE 2-3	BERM STATION DATA SUMMARY.....	5
TABLE 3-1	INSTRUMENTATION LIST AT THE LAGOON STATION.....	6



TABLE 3-2	SUMMARY OF NOVEMBER 2024 DATA AT LAGOON8
TABLE 4-1	INSTRUMENTATION LIST AT THE WINDRIDGE MONITORING LOCATION17
TABLE 4-2	SUMMARY OF NOVEMBER 2024 DATA AT THE WINDRIDGE STATION19
TABLE 4-3	DAYS EXCEEDING THE TSP AAAQO OR PM _{2.5} AAAQO AT THE WINDRIDGE STATION20
TABLE 5-1	INSTRUMENTATION LIST AT THE BERM MONITORING LOCATION27
TABLE 5-2	SUMMARY OF NOVEMBER 2024 DATA AT THE BERM GRIMM28
TABLE 5-3	DAYS EXCEEDING THE GUIDELINE FOR TSP OR PM _{2.5} AT THE BERM MONITOR29

FIGURES

FIGURE 1-1	LOCATIONS OF AIR QUALITY MONITORS IN EXSHAW1
FIGURE 1-2	PHOTO OF COMPLETED FLOOD MITIGATION WORK AT EXSHAW CREEK.....2
FIGURE 3-1	INLETS ON THE TOP OF WSP'S LAGOON MONITOR7
FIGURE 3-2	1-HOUR CONCENTRATIONS OF NO _x , SO ₂ , PARTICULATE MATTER, WIND DIRECTION AND WIND SPEED AT THE LAGOON STATION9
FIGURE 3-3	HISTOGRAM OF HOURLY NO ₂ CONCENTRATIONS AT THE LAGOON STATION10
FIGURE 3-4	HISTOGRAM OF HOURLY SO ₂ CONCENTRATIONS AT THE LAGOON STATION10
FIGURE 3-5	HISTOGRAM OF HOURLY PM _{2.5} CONCENTRATIONS AT THE LAGOON STATION11
FIGURE 3-6	HISTOGRAM OF HOURLY PM ₁₀ CONCENTRATIONS AT THE LAGOON STATION11



FIGURE 3-7	HISTOGRAM OF HOURLY TSP CONCENTRATIONS AT THE LAGOON STATION.....	12
FIGURE 3-8	24-HOUR CONCENTRATIONS OF NO _x , SO ₂ , AND PARTICULATE MATTER AT THE LAGOON MONITOR	13
FIGURE 3-9	LAGOON MONITOR PARTICULATE MATTER TIME VARIATION	14
FIGURE 3-10	LAGOON MONITOR SO ₂ TIME VARIATION	15
FIGURE 3-11	LAGOON MONITOR NO _x TIME VARIATION	16
FIGURE 4-1	1-HOUR PARTICULATE MATTER CONCENTRATIONS RECORDED AT THE WINDRIDGE MONITOR	21
FIGURE 4-2	HISTOGRAM OF HOURLY PM _{2.5} CONCENTRATIONS AT THE WINDRIDGE STATION	22
FIGURE 4-3	HISTOGRAM OF HOURLY PM ₁₀ CONCENTRATIONS AT THE WINDRIDGE STATION	22
FIGURE 4-4	HISTOGRAM OF HOURLY TSP CONCENTRATIONS AT THE WINDRIDGE STATION	23
FIGURE 4-5	24-HOUR PARTICULATE MATTER CONCENTRATIONS AT THE WINDRIDGE MONITOR.....	24
FIGURE 4-6	WIND ROSE FOR TSP EXCEEDANCE DAYS RECORDED AT THE WINDRIDGE STATION.....	25
FIGURE 4-7	WINDRIDGE PARTICULATE MATTER TIME VARIATION.....	26
FIGURE 5-1	1-HOUR PARTICULATE MATTER CONCENTRATIONS AT THE BERM MONITOR.....	31
FIGURE 5-2	24-HOUR PARTICULATE MATTER CONCENTRATIONS AT THE BERM MONITOR.....	32
FIGURE 5-3	WINDROSE FOR TSP EXCEEDANCE DAYS RECORDED AT THE BERM GRIMM.....	33
FIGURE 5-4	WINDROSE FOR PM _{2.5} EXCEEDANCE DAYS RECORDED AT THE BERM GRIMM.....	34
FIGURE 5-5	BERM MONITOR PARTICULATE MATTER TIME VARIATION.....	35



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 November 1, 2024 and November 30, 2024.

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

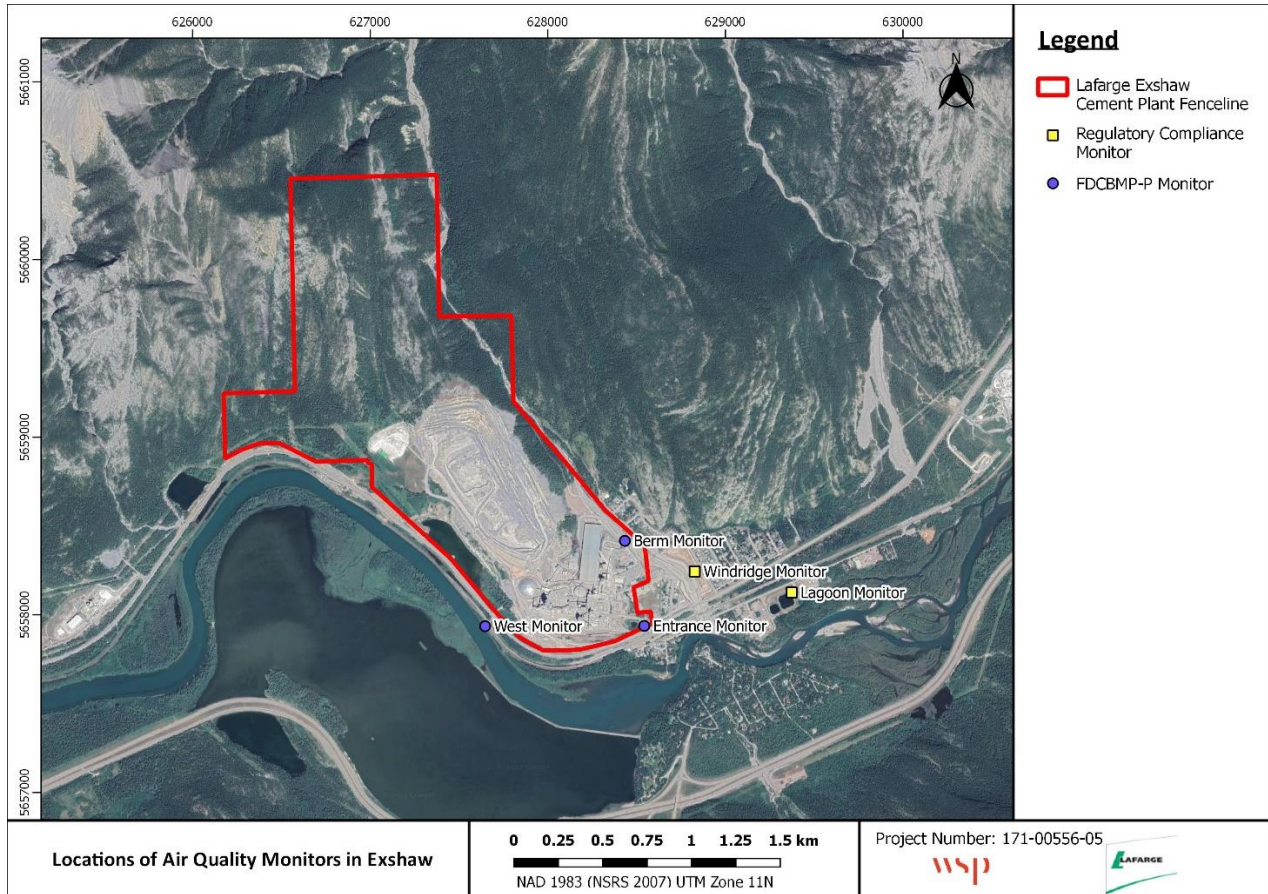


Figure 1-1 Locations of Air Quality Monitors in Exshaw

1.1 EXSHAW CREEK FLOOD MITIGATION

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



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

2 NOVEMBER 2024 REPORT SUMMARY

This summary section provides the pertinent details on data collected and maintenance/calibration activities at each of the monitoring locations. The monitoring results for each station are described in further detail in their corresponding sections. Maximum hourly concentrations are shown for all particulate matter size fractions, but there are no Alberta Ambient Air Quality Objectives (AAAQO) for 1-hour PM concentrations. The exceedances reported for 1-hour PM_{2.5} are those above the 1-hour PM_{2.5} 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
NO₂ (ppb)	100.0	36.3	0	19.2	-
SO₂ (ppb)	100.0	10.2	0	2.9	0
PM_{2.5} (µg/m³)	100.0	31.8	0 ¹	13.1	0
PM₁₀ (µg/m³)	99.4	286.8	-	44.0	-
TSP (µg/m³)	98.9	435.9	-	68.3	0
Temperature (°C)	100.0	14.5	-	10.5	-
Wind Speed (km/hr) /Direction (Degrees)	100.0	56.2/W	-	35.0/WSW	-
Precipitation (mm)	100.0	0.75 ²	-	2 ³	-

¹ Any exceedances reported for 1-hour PM_{2.5} are over the guideline level (AAAQG) of 80 µg/m³.

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

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

Data Quality Notes:

- There were no exceedances of the 24-hour PM_{2.5} AAAQO.
- There were no exceedances of the 1-hour PM_{2.5} AAAQG.
- There were no exceedances of the 24-hour TSP AAAQO.

Calibration/Maintenance Notes:

- At the Lagoon station, all meteorological analyzers recorded 100% uptime during the month of November.
- The NO₂ and SO₂ analyzers recorded 100% uptime during the month of November.
- The PM_{2.5} analyzers recorded 100% uptime during the month of November.
- The PM₁₀ analyzers recorded 99.4% uptime during the month of November due to 4 hours of equipment change occurring from 14:00 to 17:00 on November 21st.
- The TSP analyzer recorded 98.9% uptime during the month of November due to 5 hours of equipment change occurring from 13:00 to 17:00 on November 21st, and 3 hours of equipment malfunction occurring at 2:00 on November 7th, 14th and 17th.

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 _{2.5} (µg/m ³)	100.0	79.0	0*	12.6	0
PM ₁₀ (µg/m ³)	100.0	485.0	-	269.5	-
TSP (µg/m ³)	99.9	985.0	-	470.9	8

* Any exceedances reported for 1-hour PM_{2.5} are over the guideline level (AAAQG) of 80 µg/m³.

Data Quality Notes:

- There were no exceedances of the 24-hour PM_{2.5} AAAQO.
- There were no exceedances of the 1-hour PM_{2.5} AAAQG.
- There were eight days exceeding the 24-hour TSP AAAQO.

Calibration/Maintenance Notes:

- At the Windridge station, the PM_{2.5} and PM₁₀ analyzer recorded 100.0% uptime for the month of November.
- The TSP analyzer recorded 99.9% uptime for the month of November due to 1 hour of equipment malfunction at 3:00 on November 30th.

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.

Calibration/Maintenance Notes:

- The analyzer had 0% uptime for the month of November due to an instrument error currently being resolved.

2.4 BERM GRIMM

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

Table 2-3 Berm station data summary

Parameter	Data Completeness (%)	1-Hour Average		24-hour Average	
		Maximum Concentration	Exceedances of Guidelines	Maximum Concentration	Exceedances of Guidelines
PM _{2.5} (µg/m ³)	100.0	181.2	15*	59.0	4
PM ₁₀ (µg/m ³)	100.0	1223.5	-	382.4	-
TSP (µg/m ³)	100.0	3683.9	-	1397.6	16

* Any exceedances reported for 1-hour PM_{2.5} are over the guideline level (AAAQG) of 80 µg/m³.

Data Quality Notes:

- There were 4 days exceeding of the 24-hour PM_{2.5} Guidelines.
- There were 15 hours exceeding of the 1-hour PM_{2.5} Guidelines.
- There were 16 days exceeding of the 24-hour TSP Guidelines.

Calibration/Maintenance Notes:

- The analyzer had 100% uptime for the month of November.

2.5 ENTRANCE GRIMM

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

Calibration/Maintenance Notes:

- The analyzer had 0% uptime for the month of November due to an instrument error currently being resolved .

3 LAGOON STATION

The Lagoon trailer contains NO_x, SO₂, TSP, PM₁₀, and PM_{2.5} 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 (**Error! Reference source not found.**) and tables and graphs illustrating the monitoring results for November 2024.

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

3.1 OPERATIONAL SUMMARY

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

Table 3-1 Instrumentation List at the Lagoon Station

Parameter Measured	Equipment Description	Notes
PM_{2.5} Concentrations	MetOne BAM-1020 FRM Continuous Particulate Monitor	The PM _{2.5} monitor was calibrated on November 13 th . The PM _{2.5} monitor recorded 100% uptime during the month of November.
PM₁₀ Concentrations	MetOne BAM-1020 Continuous Particulate Monitor	The PM ₁₀ monitor was calibrated on November 13 th . The PM ₁₀ monitor recorded 99.4% uptime during the month of November due to 4 hours of equipment change occurring from 14:00 to 17:00 on November 21 st .
TSP Concentrations	MetOne BAM-1020 Continuous Particulate Monitor	The TSP monitor was calibrated on November 13 th . The TSP monitor recorded 98.9% uptime during the month of November due to 5 hours of equipment change occurring from 13:00 to 17:00 on November 21 st , and 3 hours of equipment malfunction occurring at 2:00 on November 7 th , 14 th and 17 th .
Oxides of Nitrogen	TEI 42C	The NO ₂ monitor was calibrated on November 5 th . The NO _x monitor recorded 100% uptime during the month of November.
Sulphur Dioxide	Teledyne API 102A	The SO ₂ monitor was calibrated on November 5 th . The SO ₂ monitor recorded 100% uptime during the month of November.
Precipitation	MetOne 130 Rain/Snow Gauge	The monitor had recorded 100% uptime during the month of November.

Wind Speed	MetOne Wind Sensor	The wind sensor was calibrated on November 5 th . The monitor had recorded 100% uptime during the month of November.
Wind Direction		
Ambient Temperature	MetOne Ambient Temperature Sensor	The ambient temperature sensor was calibrated on November 5 th . The monitor had recorded 100% uptime during the month of November.



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 November 2024. Figure 3-2 graphically illustrates the time series for hourly concentrations as well as wind speed and direction, while Figure 3-8 shows daily average concentrations recorded during November 2024 for the pollutants listed in Table 3-2. Additionally, Figure 3-3 to Figure 3-7 show the histograms of the hourly concentrations of NO₂, SO₂, PM_{2.5}, PM₁₀, and TSP measured at the Lagoon station.

There were no exceedances of the 24-hour PM_{2.5} AAAQO (29 µg/m³) or the 1-hour PM_{2.5} AAQG (80 µg/m³). There were no exceedances of the 24-hour TSP AAAQO (100 µg/m³).

Historically in November, the average number of 24-hour TSP AAAQO exceedances and 24-hour PM_{2.5} AAAQO exceedances are both zero. The maximum number of 24-hour TSP AAAQO exceedances recorded in November were 2 days in 2014.

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 November 2024 data at Lagoon

Parameter	Guideline / Objectives		Station	Exceedances		Monthly		1-hour				24-hour		Operational Time (Percent)	
	1-hr	24-hr		1-hr	24-hr	Minimum	Average	Maximum Concentration/ Meteorological Variable	Day	Hour	Wind Speed (km/hr)	Wind Direction (degrees)	Maximum Concentration/ Meteorological Variable		Day
NO₂ (ppb)	159	-	Lagoon	0	-	0.7	7.8	36.3	28	22	11.4	223.8	19.2	28	100.0
SO₂ (ppb)	172	48	Lagoon	0	0	0.0	0.6	10.2	11	16	29.6	269.5	2.9	11	100.0
PM_{2.5} (µg/m³)	80	29	Lagoon	0	0	0.0	4.1	31.8	29	11	8.1	71.8	13.1	23	100.0
PM₁₀ (µg/m³)	-	-	Lagoon	-	-	0.0	22.3	286.8	30	4	19.8	261.6	44.0	11	99.4
TSP (µg/m³)	-	100	Lagoon	-	0	0.0	34.1	435.9	30	4	19.8	261.6	68.3	11	98.9
Temperature (°C)	-	-	Lagoon	-	-	-18.1	-1.6	14.5	8	14	31.1	229.3	10.5	8	100.0
Wind Speed (km/hr)/Direction (degrees)	-	-	Lagoon	-	-	0.0	16.8	56.2/W	17	1	56.2	239.7	35.0/WSW	6	100.0
Precipitation (mm)	-	-	Lagoon	-	-	0.0	0.0	0.8 ¹	11	22	20.7	257.3	2.0 ²		100.0

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

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

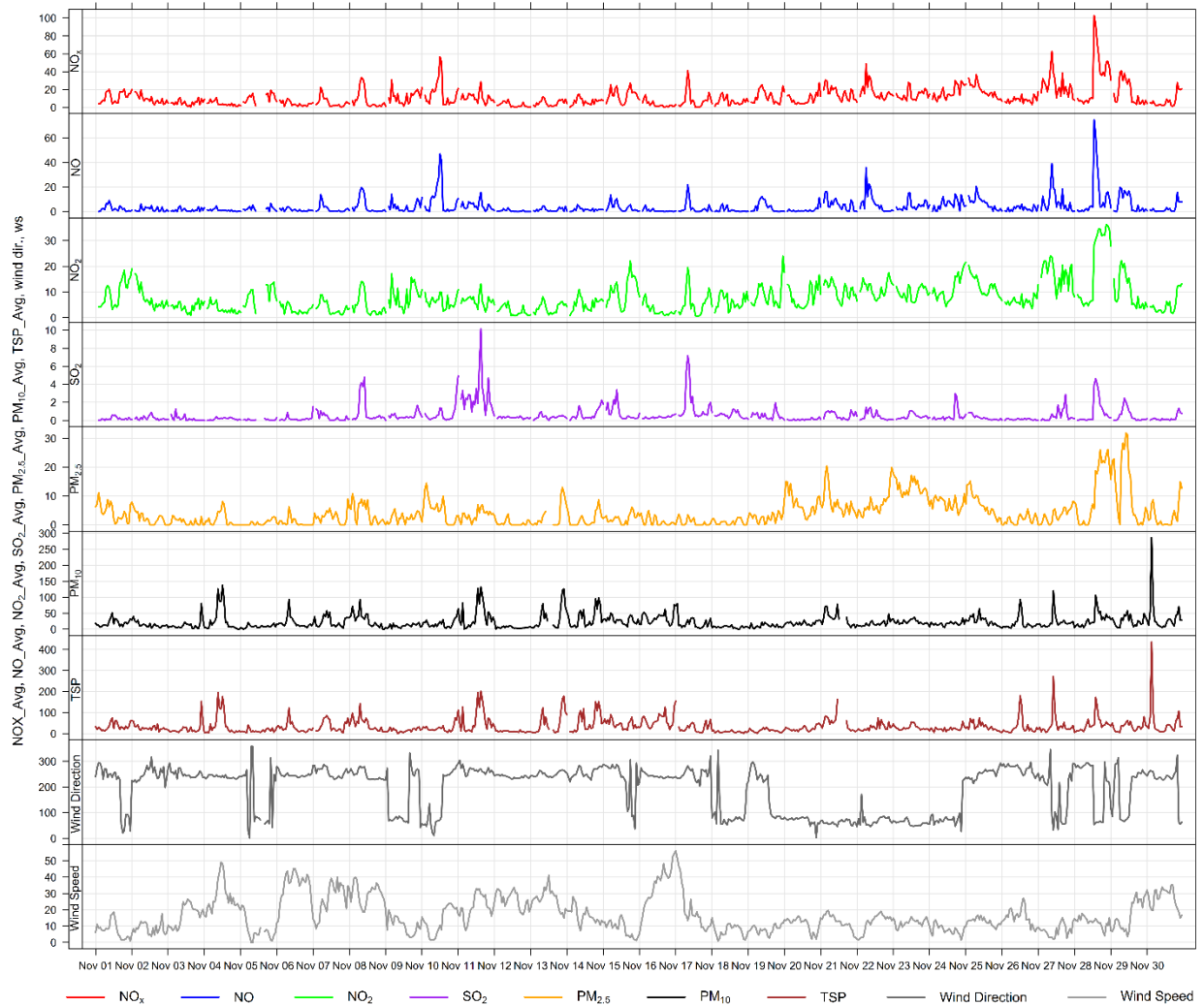


Figure 3-2 1-hour concentrations of NO_x, SO₂, particulate matter, wind direction and wind speed at the Lagoon station

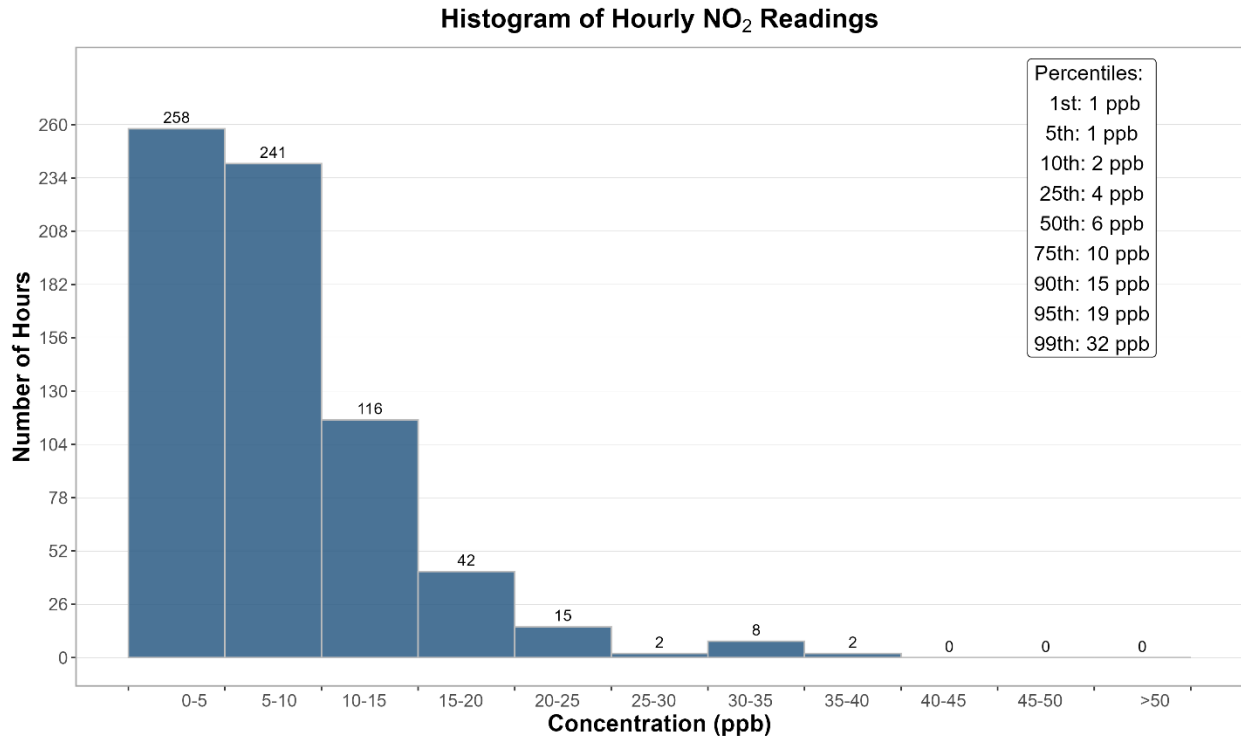


Figure 3-3 Histogram of hourly NO₂ concentrations at the Lagoon station

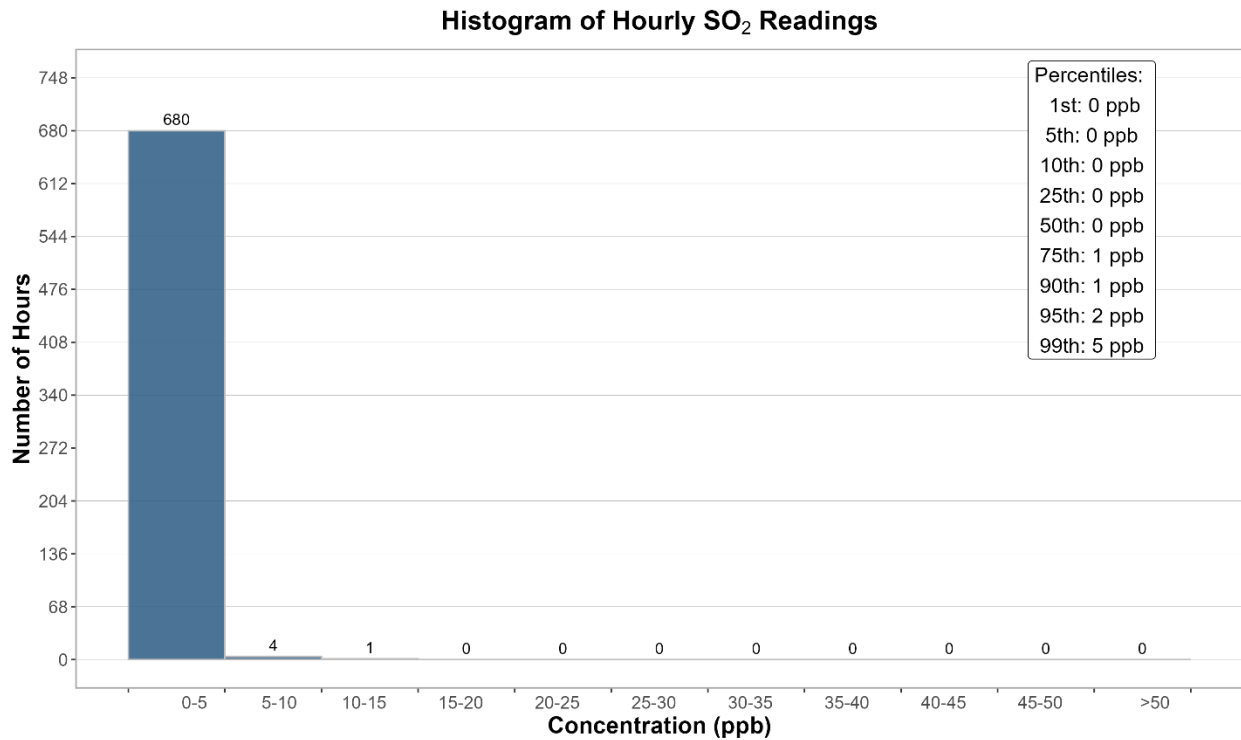


Figure 3-4 Histogram of hourly SO₂ concentrations at the Lagoon station

Histogram of Hourly PM_{2.5} Readings

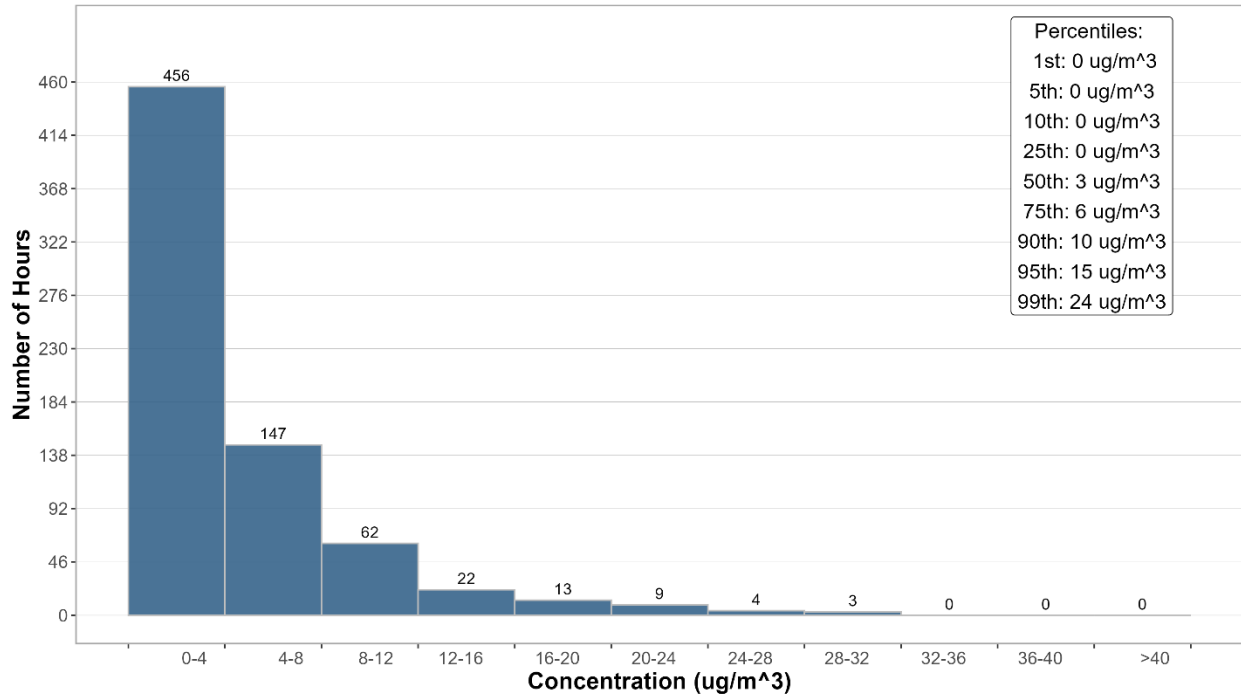


Figure 3-5 Histogram of hourly PM_{2.5} concentrations at the Lagoon station

Histogram of Hourly PM₁₀ Readings

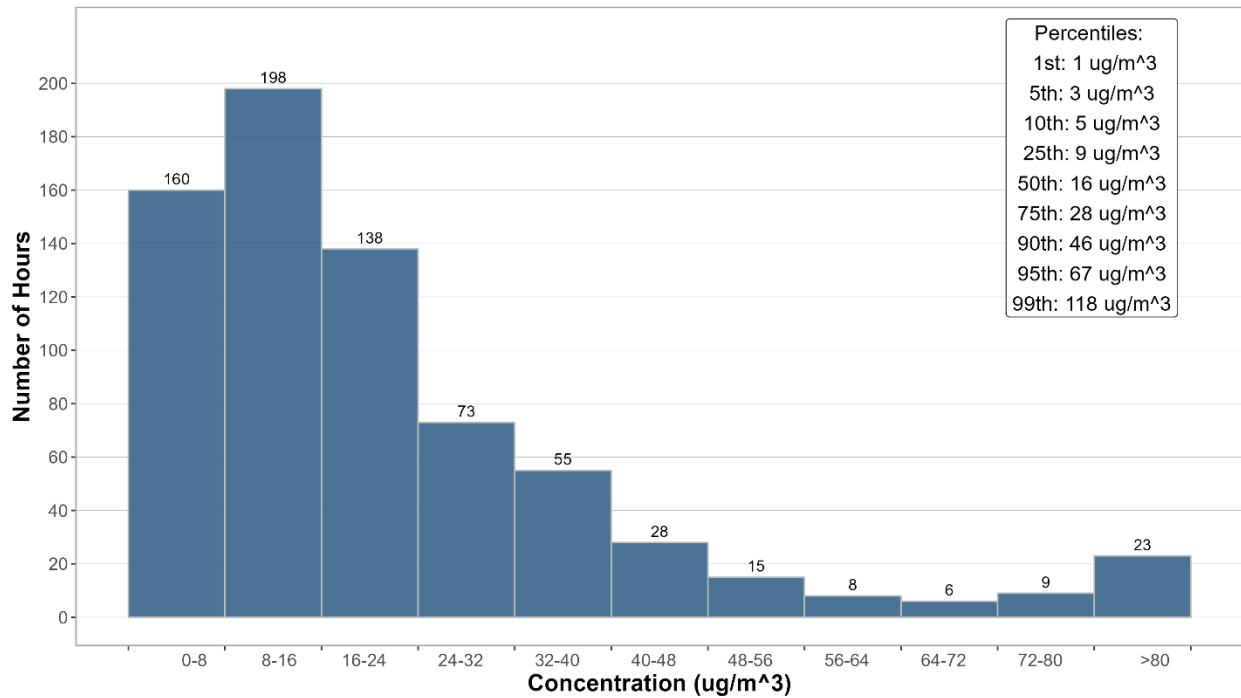


Figure 3-6 Histogram of hourly PM₁₀ concentrations at the Lagoon station

Histogram of Hourly TSP Readings

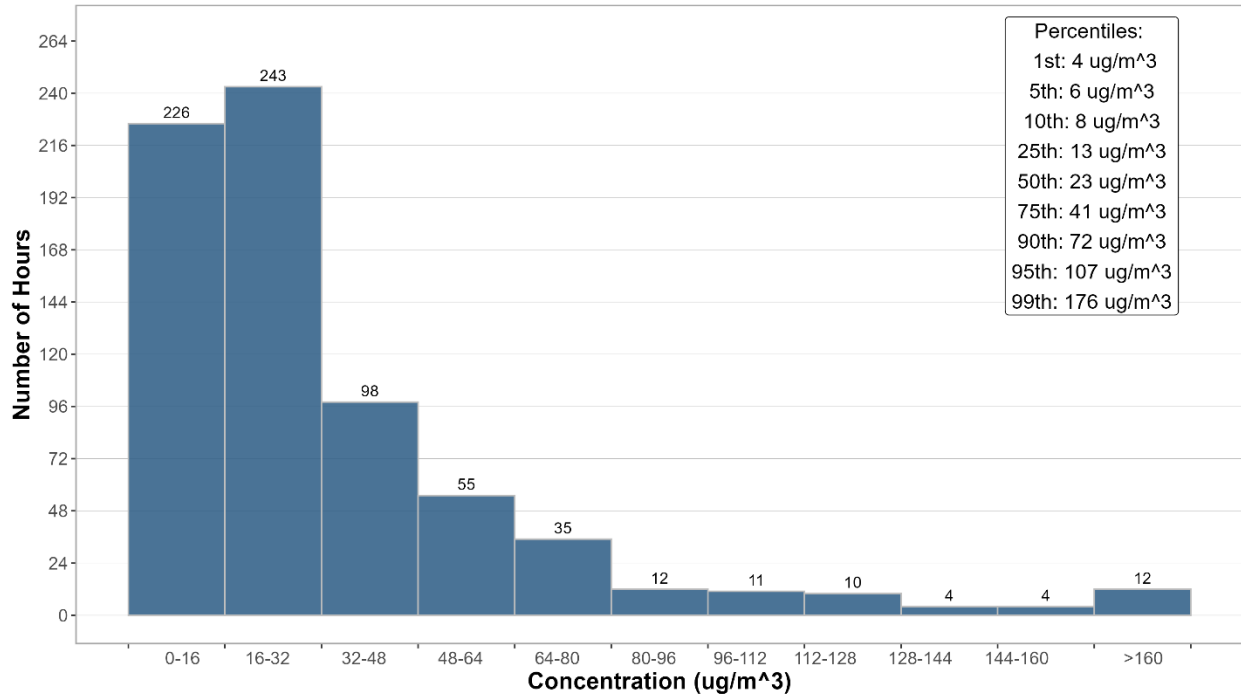


Figure 3-7 Histogram of hourly TSP concentrations at the Lagoon station

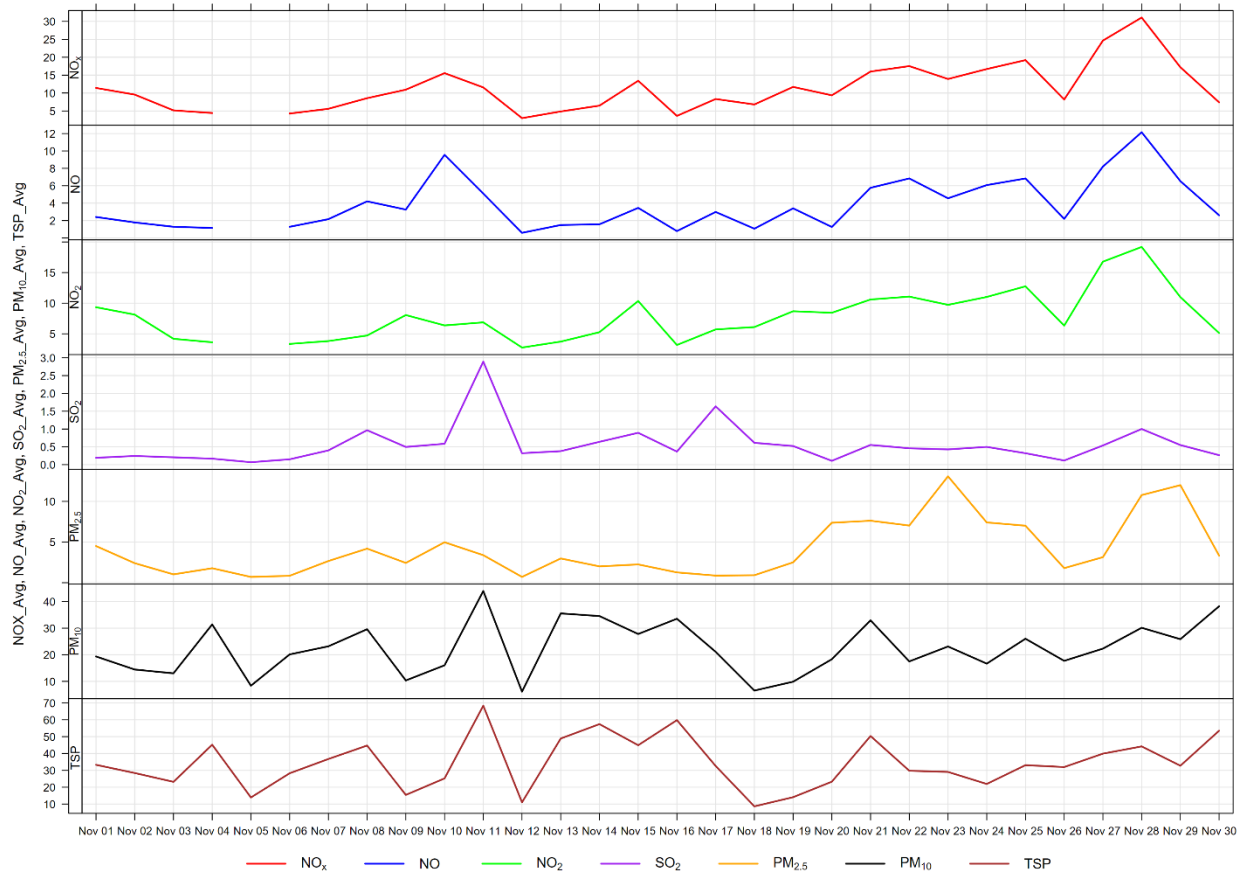


Figure 3-8 24-hour concentrations of NO_x, SO₂, and particulate matter at the Lagoon monitor

Figure 3-9 through Figure 3-11 show the variation in concentrations over various time averaging periods for PM, SO₂ and NO_x. The particulate matter plot in Figure 3-9 typically shows that PM₁₀ 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 3-10 shows the variation of SO₂ over various time periods. SO₂ concentrations patterns are dependent on the timing of the highest SO₂ concentrations recorded in the month because in general SO₂ concentrations are very low. Figure 3-11 shows the variation of NO_x, NO and NO₂, with the peak of all three pollutants occurring in the early morning. This may be indicative of a peak in traffic.

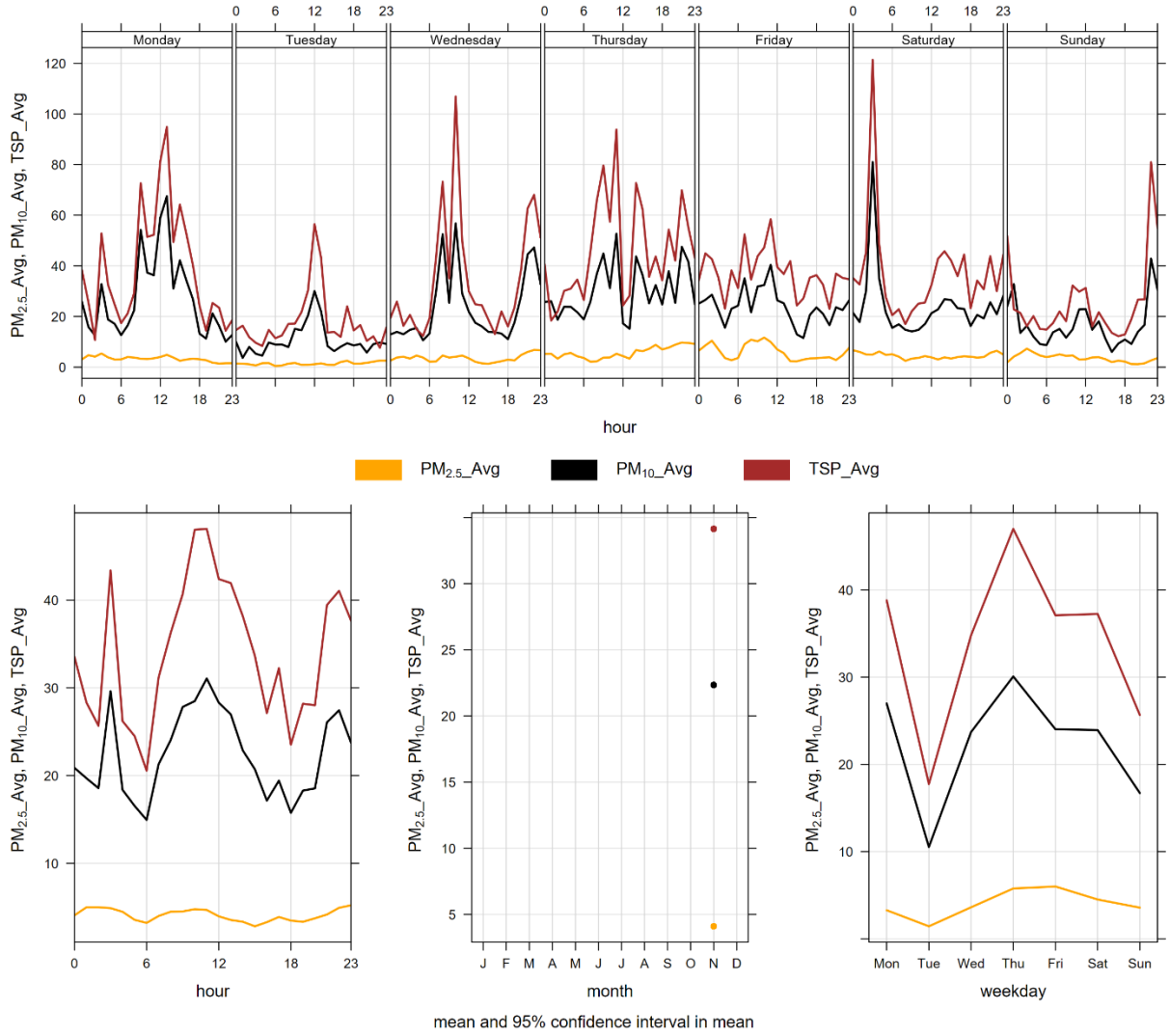


Figure 3-9 Lagoon monitor particulate matter time variation

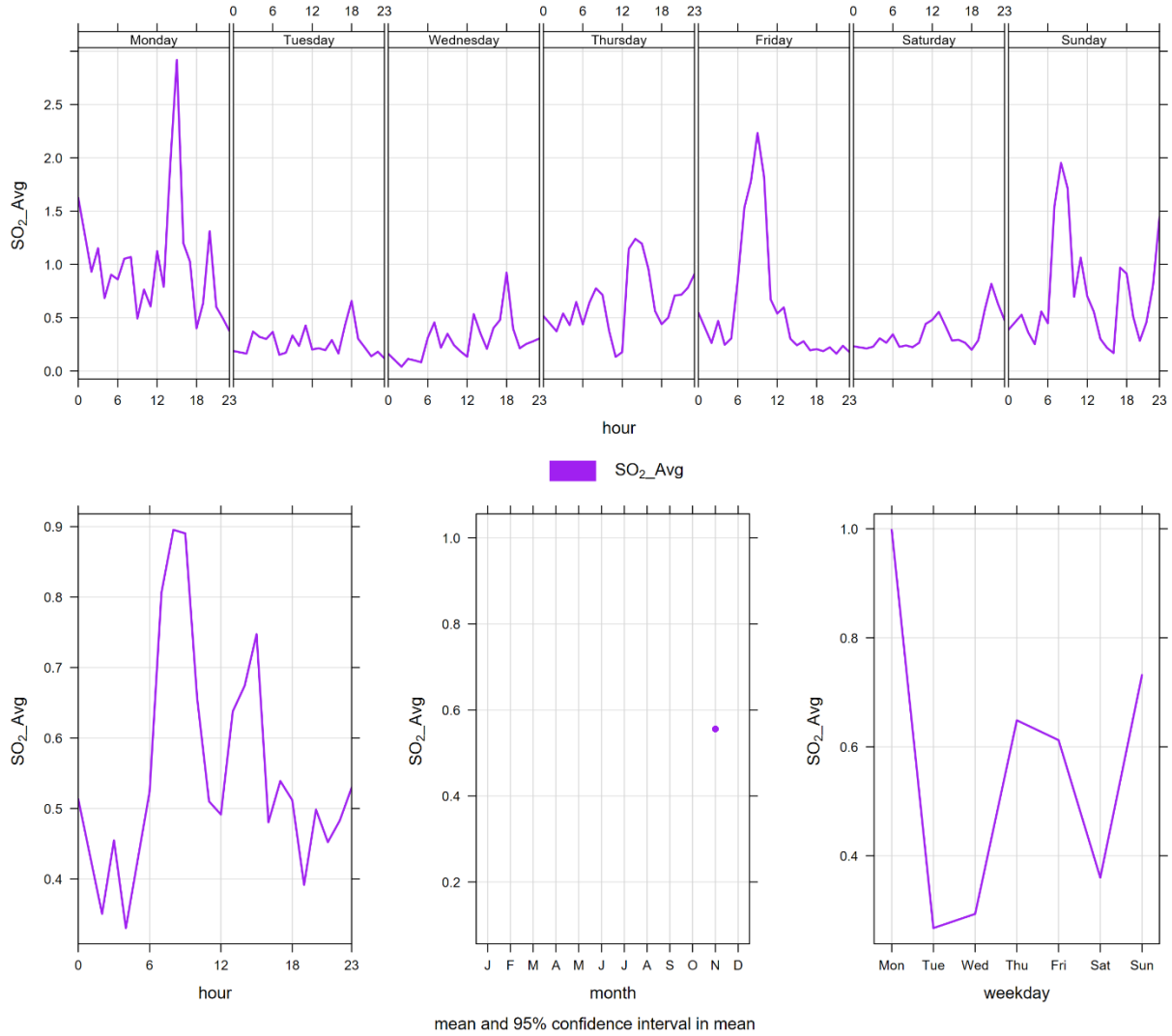


Figure 3-10 Lagoon monitor SO₂ time variation

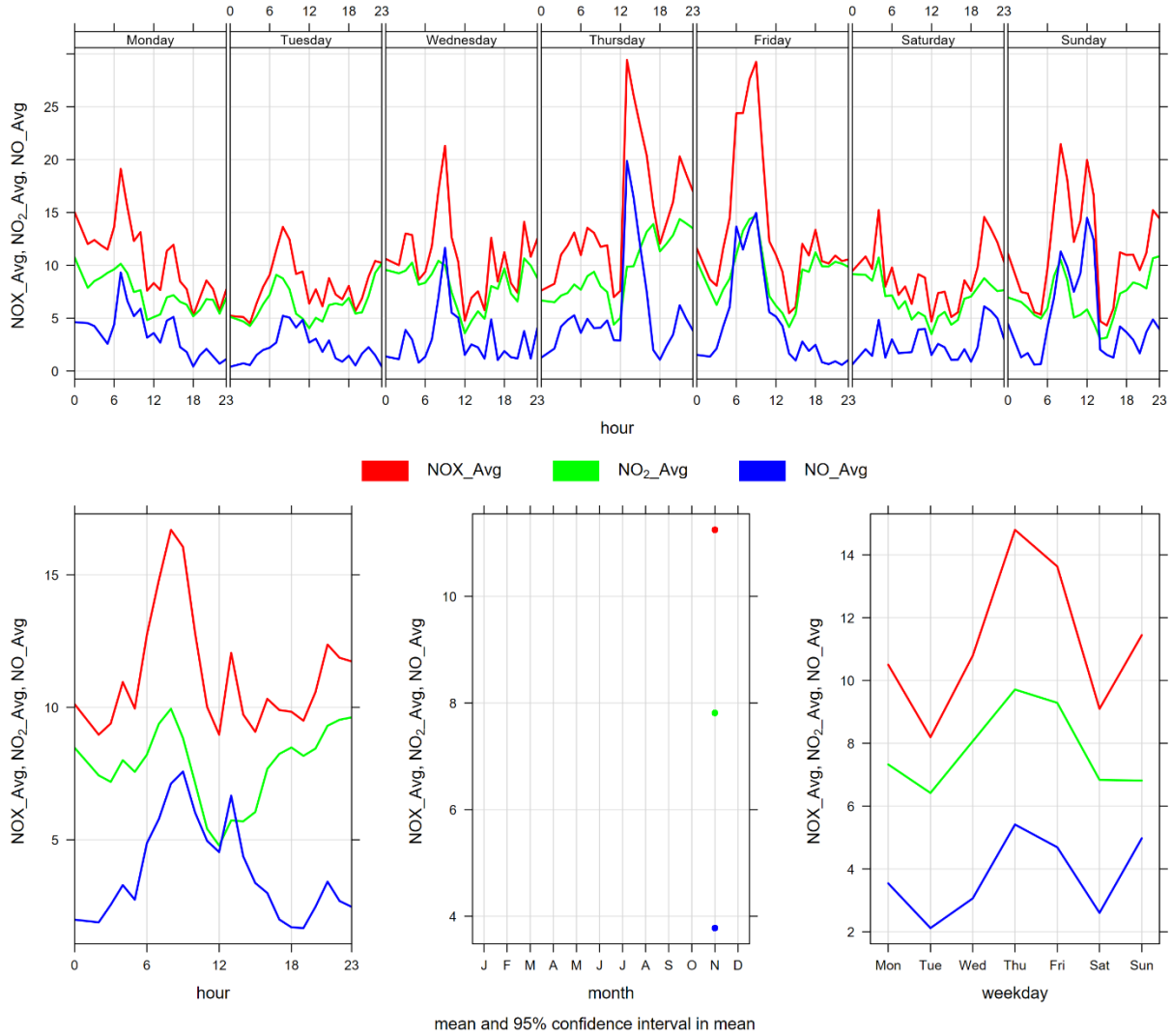


Figure 3-11 Lagoon monitor NO_x time variation

4 WINDRIDGE STATION

The Windridge station contains TSP, PM₁₀, and PM_{2.5} 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 November 2024.

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

4.1 OPERATIONAL SUMMARY

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

Table 4-1 Instrumentation List at the Windridge monitoring location

Parameter Measured	Equipment Description	Notes
PM_{2.5} Concentrations	MetOne BAM-1020 FRM Continuous Particulate Monitor	The PM _{2.5} monitor was calibrated on November 14 th . The PM _{2.5} monitor recorded 100.0% uptime for the month of November.
PM₁₀ Concentrations	MetOne BAM-1020 Continuous Particulate Monitor	The PM ₁₀ monitor was calibrated on November 14 th . The PM ₁₀ monitor recorded 100.0% uptime for the month of November.
TSP Concentrations	MetOne BAM-1020 Continuous Particulate Monitor	The TSP monitor was calibrated on November 14 th . The monitor recorded 99.9% uptime for the month of November due to 1 hour of equipment malfunction at 3:00 on November 30 th .

4.2 MONITORING RESULTS AND TRENDS

Table 4-2 summarizes the hourly and daily concentrations recorded in November 2024, 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 exceedance days, and Figure 4-7 illustrates the time series for hourly PM over different time periods.

There were no exceedances of the 24-hour PM_{2.5} AAAQO (29 µg/m³) and the 1-hour PM_{2.5} AAQ (80 µg/m³). There were eight exceedances of the 24-hour TSP AAAQO (100 µg/m³).

Historically in November, the average number of 24-hour TSP AAAQO exceedances and 24-hour PM_{2.5} AAAQO exceedances is 5 and 0, respectively. The maximum number of 24-hour TSP and PM_{2.5} AAAQO exceedances recorded in November were 8 days in 2022 and 2023, and 2 days in 2022, respectively.

Due to flood mitigation construction at Exshaw creek the Windridge monitoring station was taken out of operation and removed from the site on April 8th, 2019. The flood mitigation work was completed in August 2020. The Windridge station was reinstalled for September 1st, 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 August 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 November 2024 data at the Windridge Station

Parameter	Guideline		Station	Exceedances		Monthly		Maximum 1-hour				Maximum 24-hour		Operational Time (Percent)	
	1-hr	24-hr		1-hr	24-hr	Minimum	Average	Maximum Concentration	Day	Hour	Wind Speed (km/hr)	Wind Direction (degrees)	Maximum Concentration		Day
PM_{2.5} (µg/m ³)	80	29	Windridge	0	0	0.0	5.0	79.0	6	4	28.4	244.9	12.6	16	100.0
PM₁₀ (µg/m ³)	-	-	Windridge	-	-	0.0	55.0	485.0	4	24	21.4	240.4	269.5	16	100.0
TSP (µg/m ³)	-	100	Windridge	-	8	0.0	87.4	985.0	4	11	43.0	242.0	470.9	16	99.9

Table 4-3 Days exceeding the TSP AAAQO or PM_{2.5} AAAQO at the Windridge Station

Date	TSP (ug/m ³)	PM _{2.5} (ug/m ³)	Average Wind Direction (degrees)	Average Wind Speed (km/hr)	Average RH (%)	Root Cause (Provided by Lafarge)
Windridge						
2024-11-03	102.5	-	248.6	16.7	53.7	
2024-11-04	282.9	-	239.4	28.0	46.4	High wind event
2024-11-06	197.0	-	245.4	35.0	48.5	High wind event
2024-11-07	120.3	-	252.0	26.4	53.5	High wind event
2024-11-08	204.8	-	244.8	30.0	42.8	High wind event
2024-11-13	175.1	-	248.6	26.6	45.5	High wind event
2024-11-14	116.0	-	251.4	16.6	47.3	
2024-11-16	470.9	-	240.4	34.0	45.3	High wind event
Total # of Exceedances	8	0				
Maximum # of Exceedances (November)	8 (2022, 2023)	2 (2022)				
Average # of Exceedances (November)	5	0				
Minimum # of Exceedances (November)	0 (2018)	0 (2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2020, 2021)				

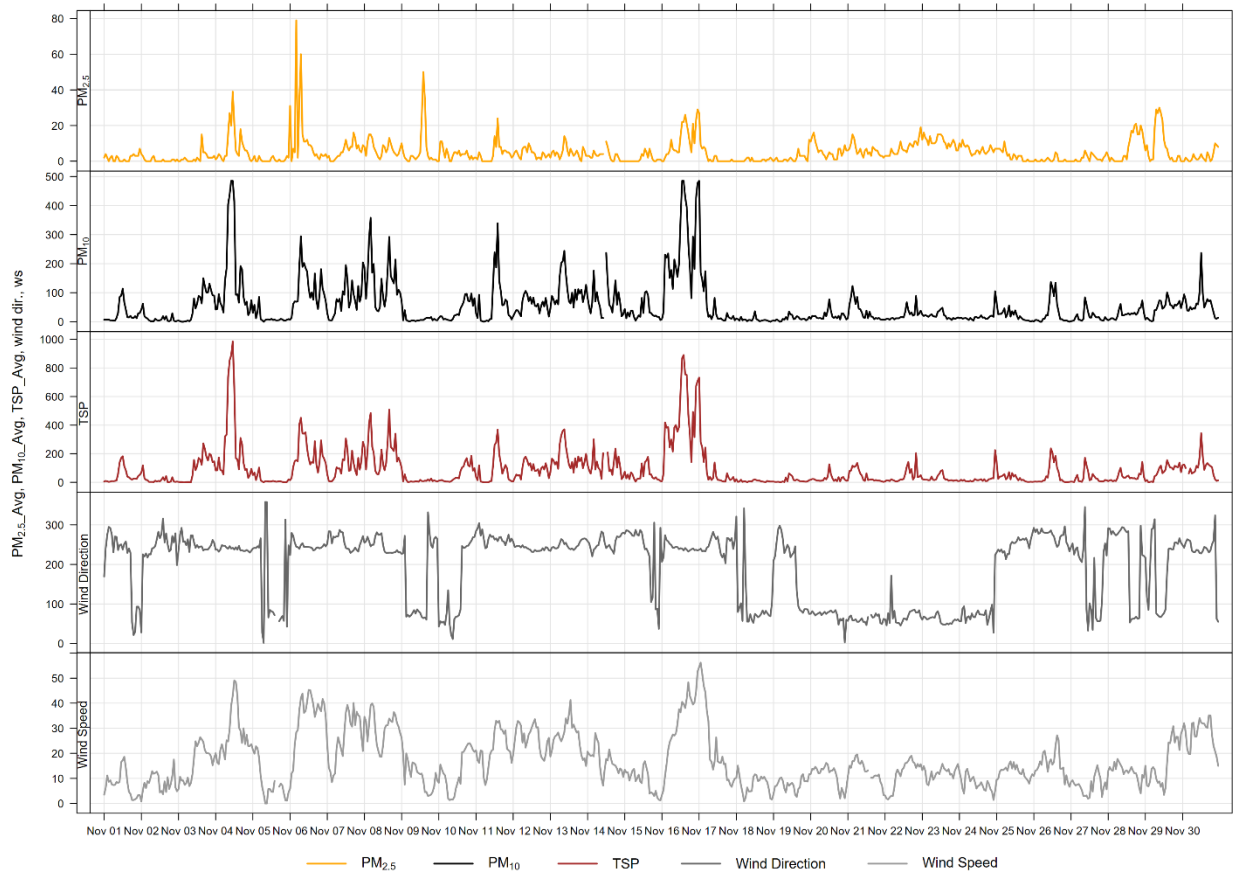


Figure 4-1 1-hour particulate matter concentrations recorded at the Windridge monitor

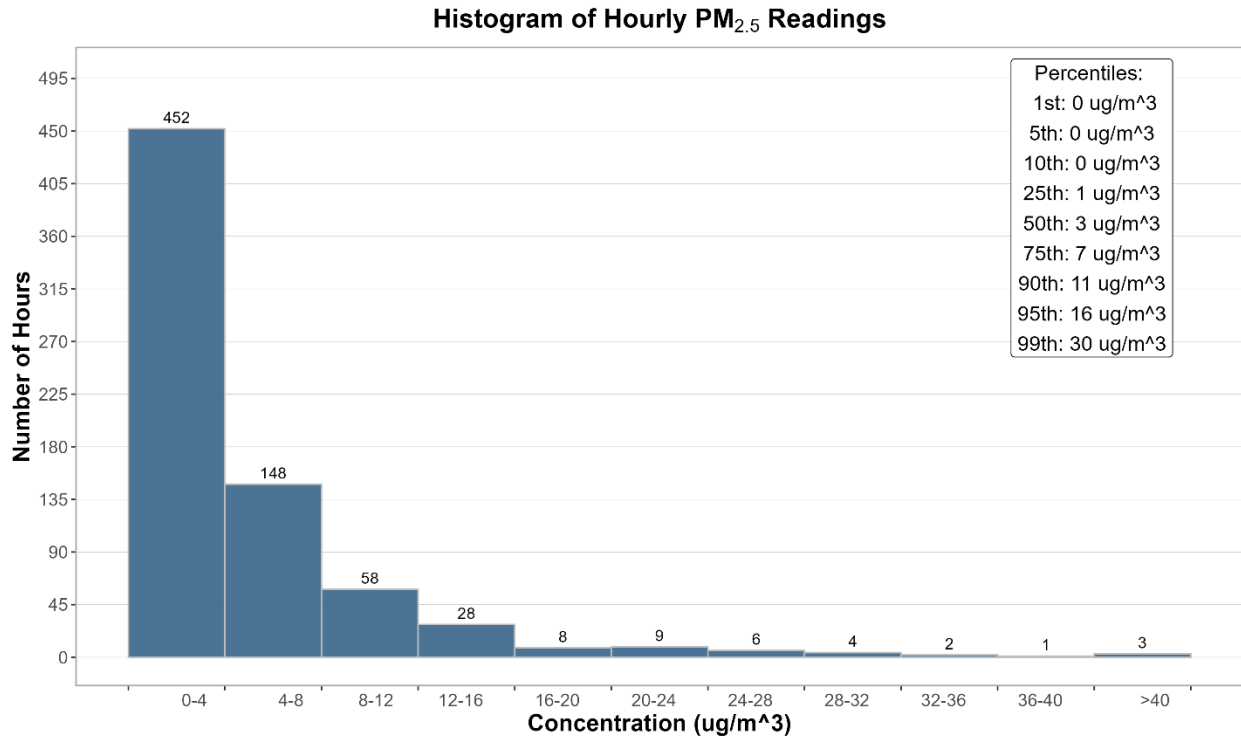


Figure 4-2 Histogram of hourly PM_{2.5} concentrations at the Windridge station

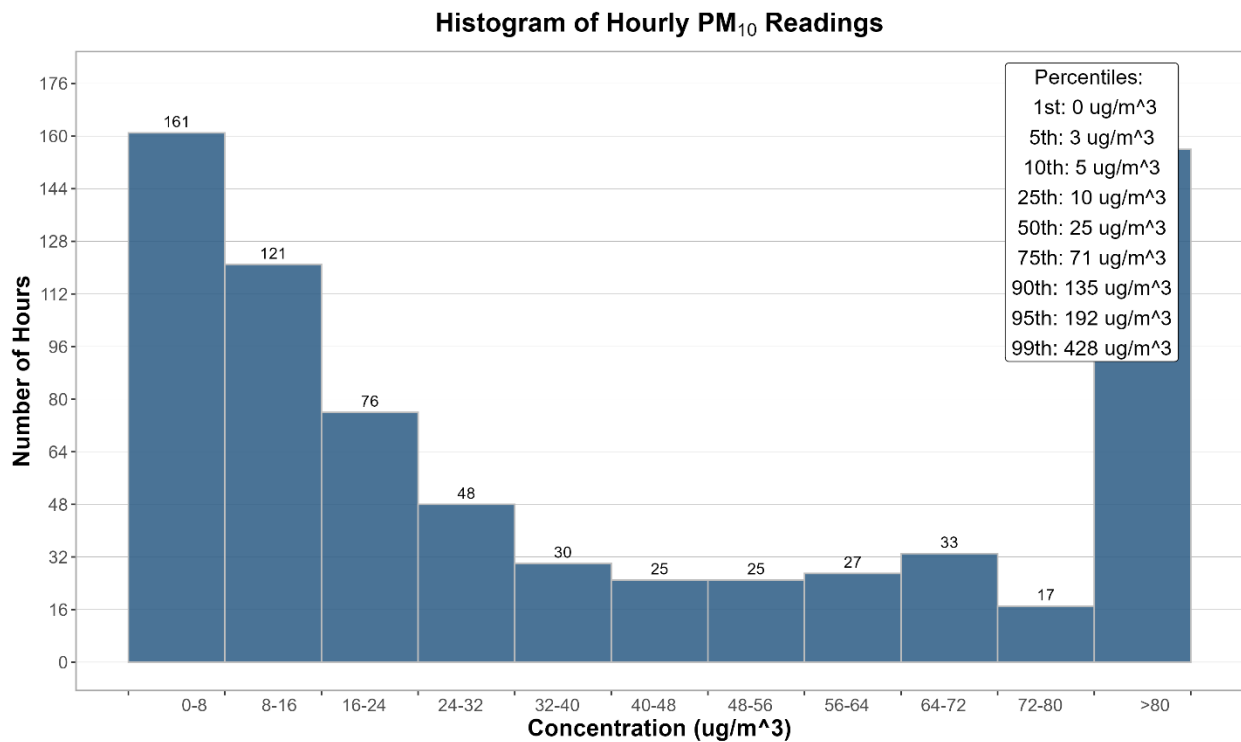


Figure 4-3 Histogram of hourly PM₁₀ concentrations at the Windridge station

Histogram of Hourly TSP Readings

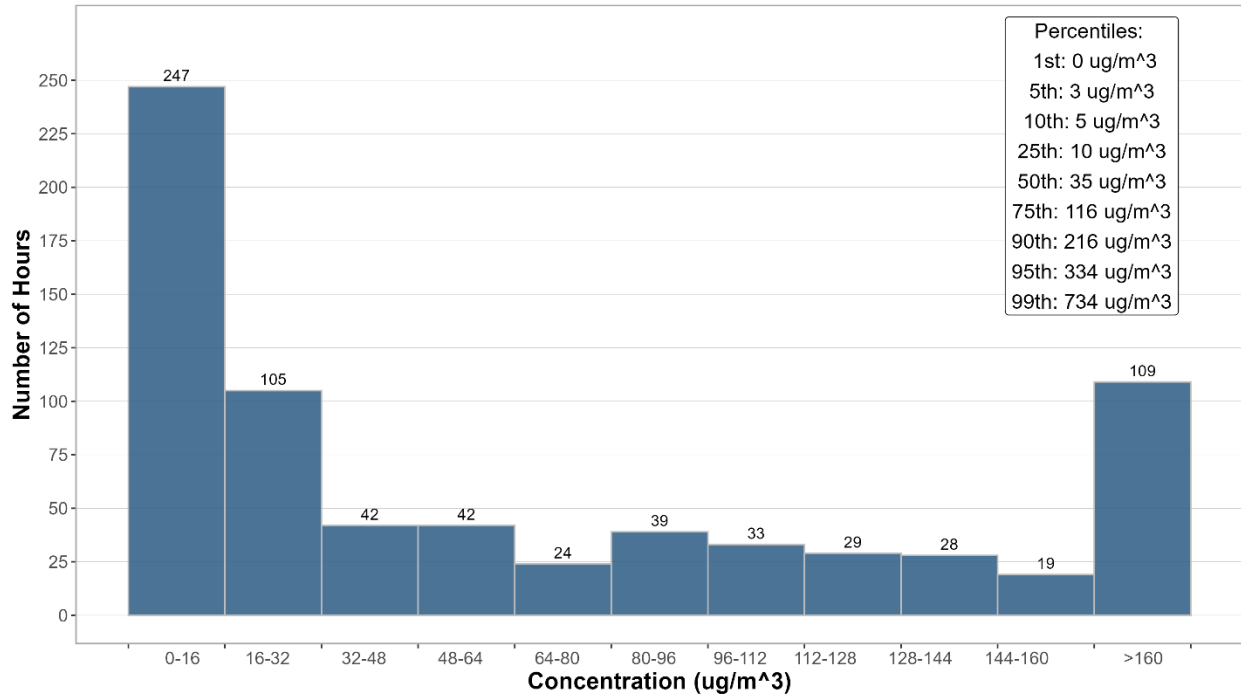


Figure 4-4 Histogram of hourly TSP concentrations at the Windridge station

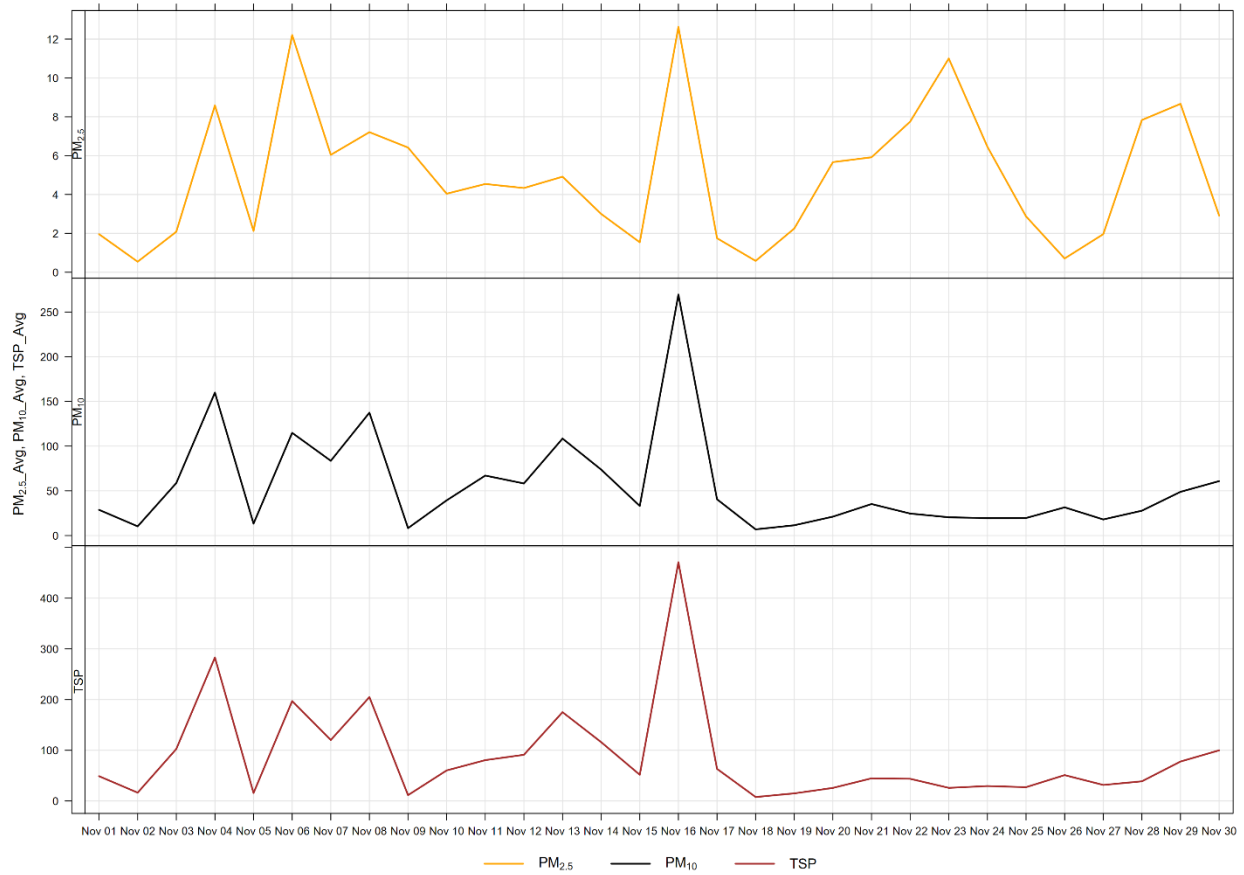


Figure 4-5 24-hour particulate matter concentrations at the Windridge monitor

Figure 4-6 shows the wind rose for the 8 days of TSP exceedance in November. The wind rose shows that the winds predominately came from the west-southwest, in high wind speed (>20 km/h), suggesting impacts of windblown dust from the direction of the Lafarge Facility.

Figure 4-7 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 4-7 is based on data collected during November 2024. Similar to the Lagoon station, the data shows a diurnal pattern associated with Lafarge operations, daytime emissions from traffic. The diurnal patterns also follow the diurnal pattern of higher wind speeds during the daytime hours.

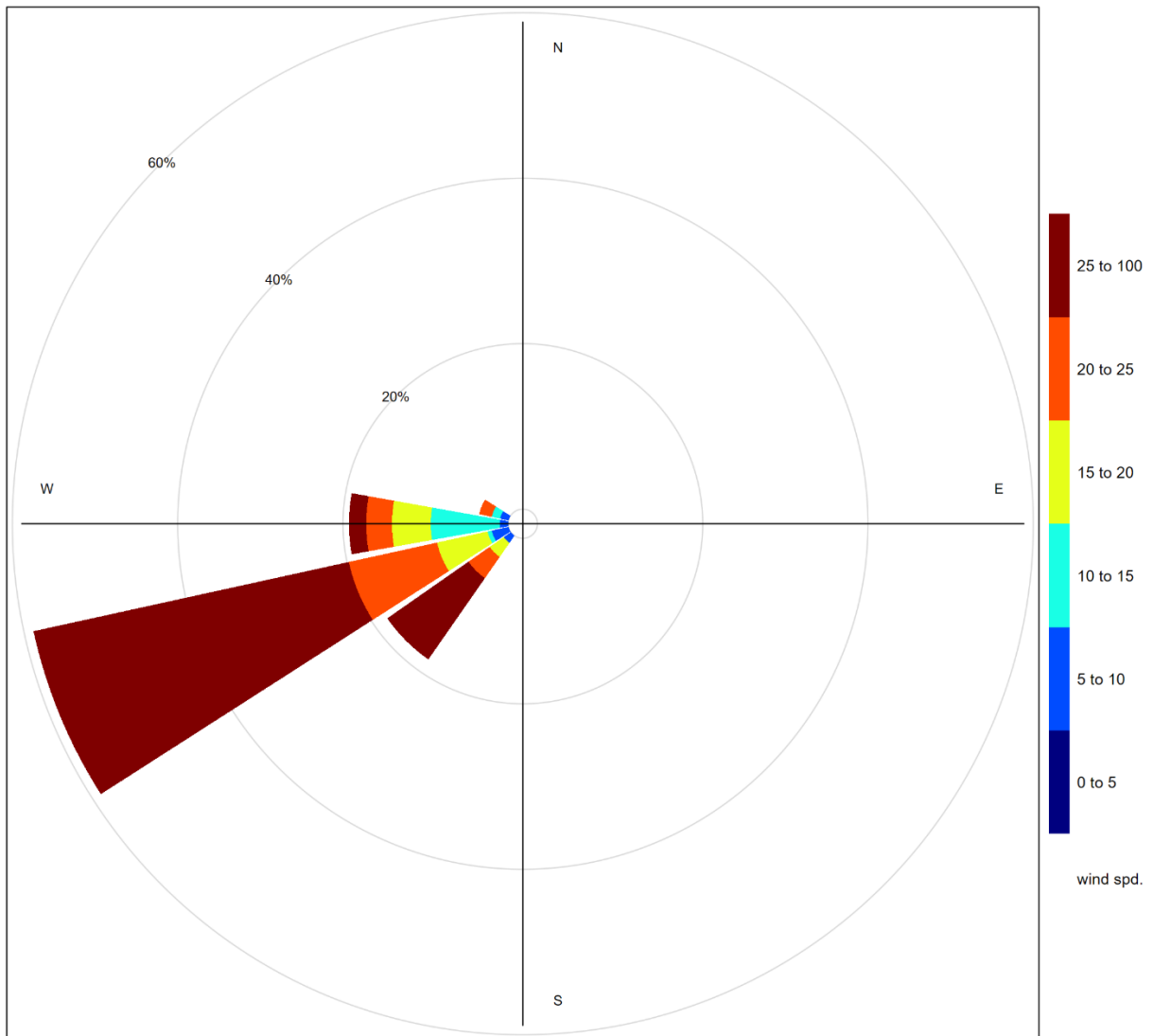


Figure 4-6 Wind rose for TSP exceedance days recorded at the Windridge Station

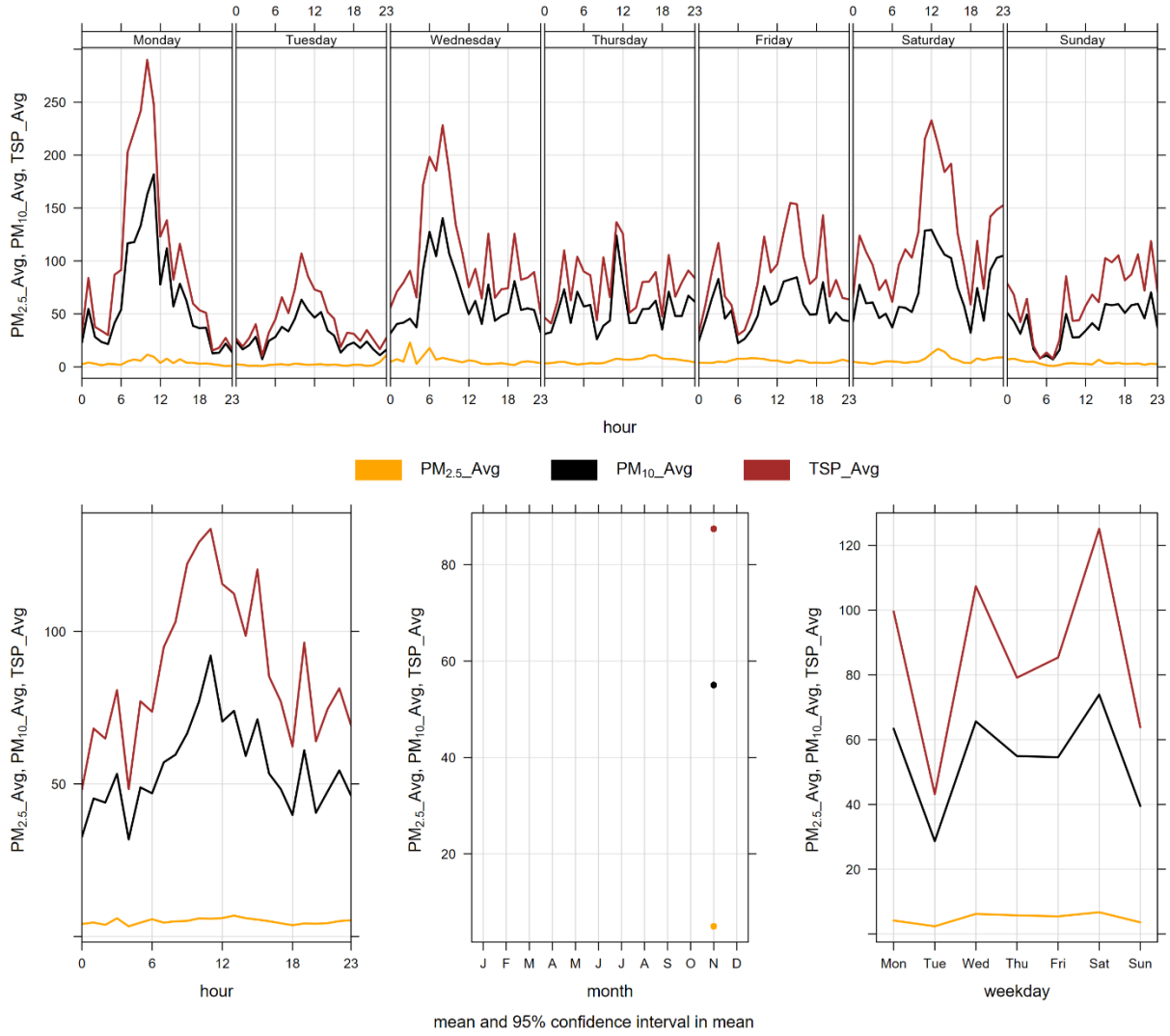


Figure 4-7 Windridge particulate matter time variation

5 BERM 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 Berm monitoring location

Parameter Measured	Equipment Description	Notes
PM _{2.5} , PM ₁₀ , TSP Concentrations	GRIMM 365 Continuous Particulate Monitor	The analyzer had 100% uptime during the month of November.

5.2 MONITORING RESULTS AND TRENDS

The Berm monitor was placed at its current location as a result of the dispersion modelling conducted for the facility. Figure 5-1 and Figure 5-2 show the hourly and daily PM_{2.5}, PM₁₀, and TSP concentrations recorded over the month. Table 5-2 summarizes the maximum 1-hour and 24-hour PM concentrations recorded during the month, and Table 5-3 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 16 exceedances of the 24-hour TSP Guideline (100 µg/m³). There were 4 exceedances of the 24-hour PM_{2.5} (29µg/m³) and 15 hours exceeding the 1-hour PM_{2.5} Guideline.

Historically during the month of November, the Berm monitor records an average of 11 and 0 exceedances of the 24-hour TSP and PM_{2.5} guidelines, respectively. The maximum number of TSP exceedances recorded during November occurred in 2010 where there were 22 days that exceeded the guideline. On the other hand, the maximum number of PM_{2.5} exceedances in November was 1 day in 2012, 2021, 2022 and 2023.

It should also be noted that the GRIMM monitors become more conservative in the reported PM concentrations as the size fraction increases. The PM_{2.5} size fraction has been shown to match other regulatory approved PM_{2.5} 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 July 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 5-2 Summary of November 2024 data at the Berm GRIMM

Parameter	Guideline		Station	Exceedances		Monthly		Maximum 1-hour				Maximum 24-hour		Operational Time (Percent)	
	1-hr	24-hr		1-hr	24-hr	Minimum	Average	Maximum Concentration	Day	Hour	Wind Speed (km/hr)	Wind Direction (degrees)	Maximum Concentration		Day
PM_{2.5} (µg/m ³)	80	29	Berm	15	4	0.2	15.4	181.2	4	12	49.1	237.8	59.0	16	100.0
PM₁₀ (µg/m ³)	-	-	Berm	-	-	0.2	71.8	1223.5	4	12	49.1	237.8	382.4	16	100.0
TSP (µg/m ³)	-	100	Berm	-	16	0.2	252.9	3683.9	16	24	54.4	237.3	1397.6	16	100.0

Table 5-3 Days exceeding the Guideline for TSP or PM_{2.5} at the Berm Monitor

Date	TSP (ug/m ³)	PM _{2.5} (ug/m ³)	Average Wind Direction (degrees)	Average Wind Speed (km/hr)	Average RH (%)	Root Cause (Provided by Lafarge)
Berm						
2024-11-03	278.1	-	248.6	16.7	53.7	
2024-11-04	732.1	31.4	239.4	28.0	46.4	High wind event
2024-11-06	879.9	-	245.4	35.0	48.5	High wind event
2024-11-07	452.7	-	252.0	26.4	53.5	High wind event
2024-11-08	893.9	36.9	244.8	30.0	42.8	High wind event
2024-11-10	155.7	-	267.2	13.4	72.5	
2024-11-11	244.8	-	266.4	21.8	56.6	High wind event
2024-11-12	226.8	-	239.6	26.2	41.3	High wind event
2024-11-13	597.4	-	248.6	26.6	45.5	High wind event
2024-11-14	328.7	-	251.4	16.6	47.3	
2024-11-15	108.4	-	265.7	8.6	62.0	
2024-11-16	1397.6	59.0	240.4	34.0	45.3	High wind event
2024-11-17	450.7	-	245.2	21.7	45.9	High wind event
2024-11-21	-	29.9	61.5	12.7	81.9	
2024-11-26	114.8	-	270.9	15.4	67.8	

Date	TSP (ug/m ³)	PM _{2.5} (ug/m ³)	Average Wind Direction (degrees)	Average Wind Speed (km/hr)	Average RH (%)	Root Cause (Provided by Lafarge)
Berm						
2024-11-29	125.1	-	247.6	16.5	69.3	
Total # of Exceedances	16	4				
Maximum # of Exceedances (November)	22 (2010)	1 (2012, 2021, 2022, 2023)				
Average # of Exceedances (November)	11	0				
Minimum # of Exceedances (November)	4 (2018)	0 (2010, 2011, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020)				

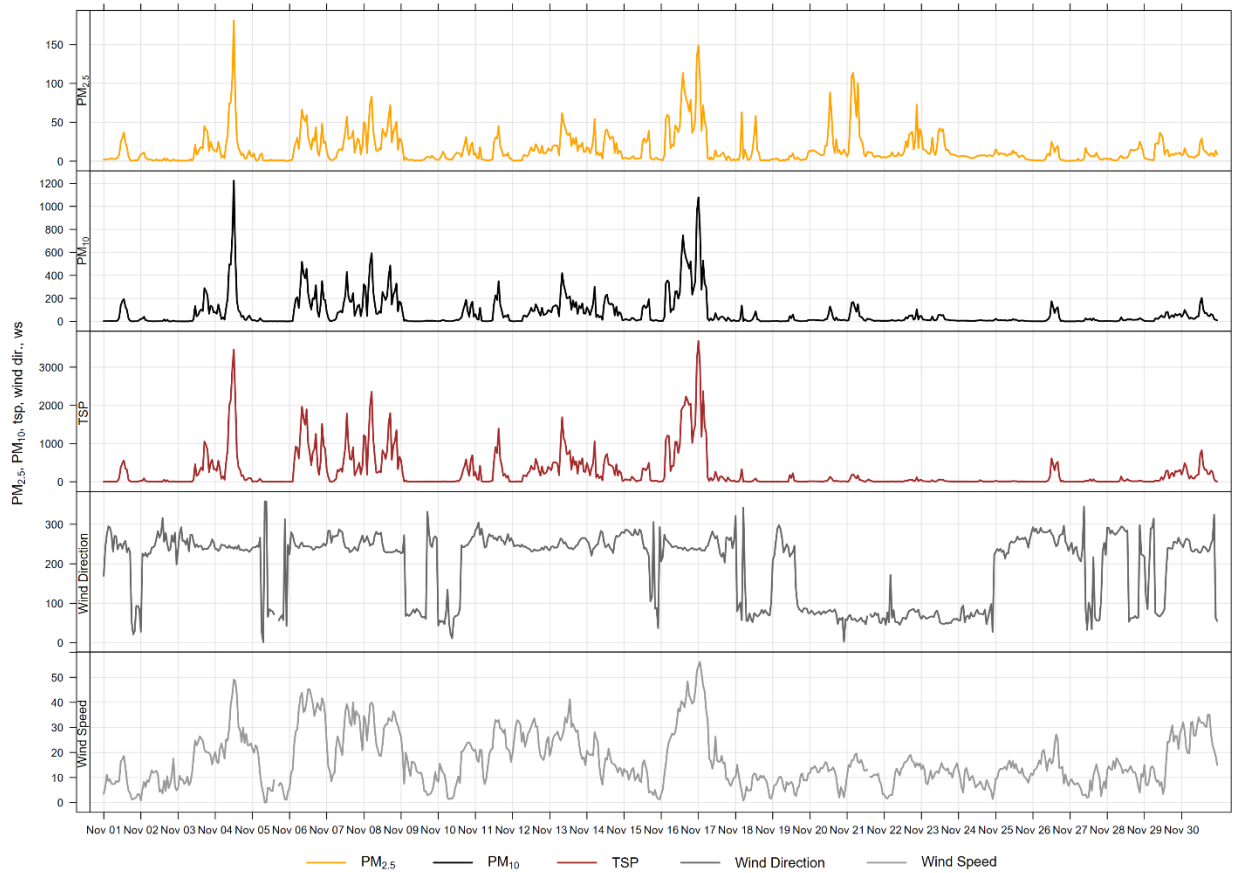


Figure 5-1 1-hour particulate matter concentrations at the Berm monitor

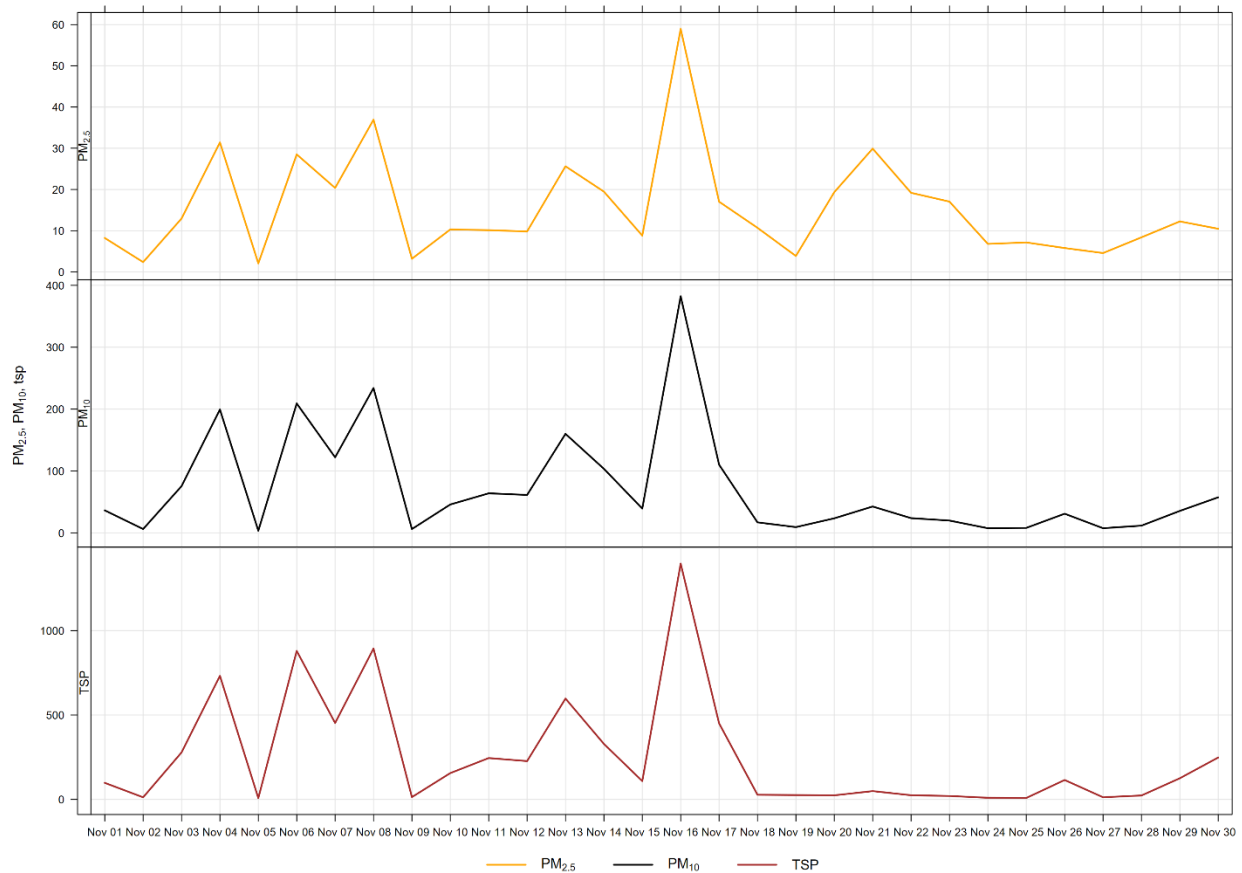


Figure 5-2 24-hour particulate matter concentrations at the Berm monitor

Figure 5-3 shows the wind rose for the 16 days of TSP exceedances. Figure 5-4 shows the wind rose for the 4 days of $PM_{2.5}$ exceedances. The wind rose shows that the wind predominately came from the west-southwest direction, in high wind speed (>20 km/h), suggesting impacts of windblown dust from the direction of the Lafarge Facility.

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

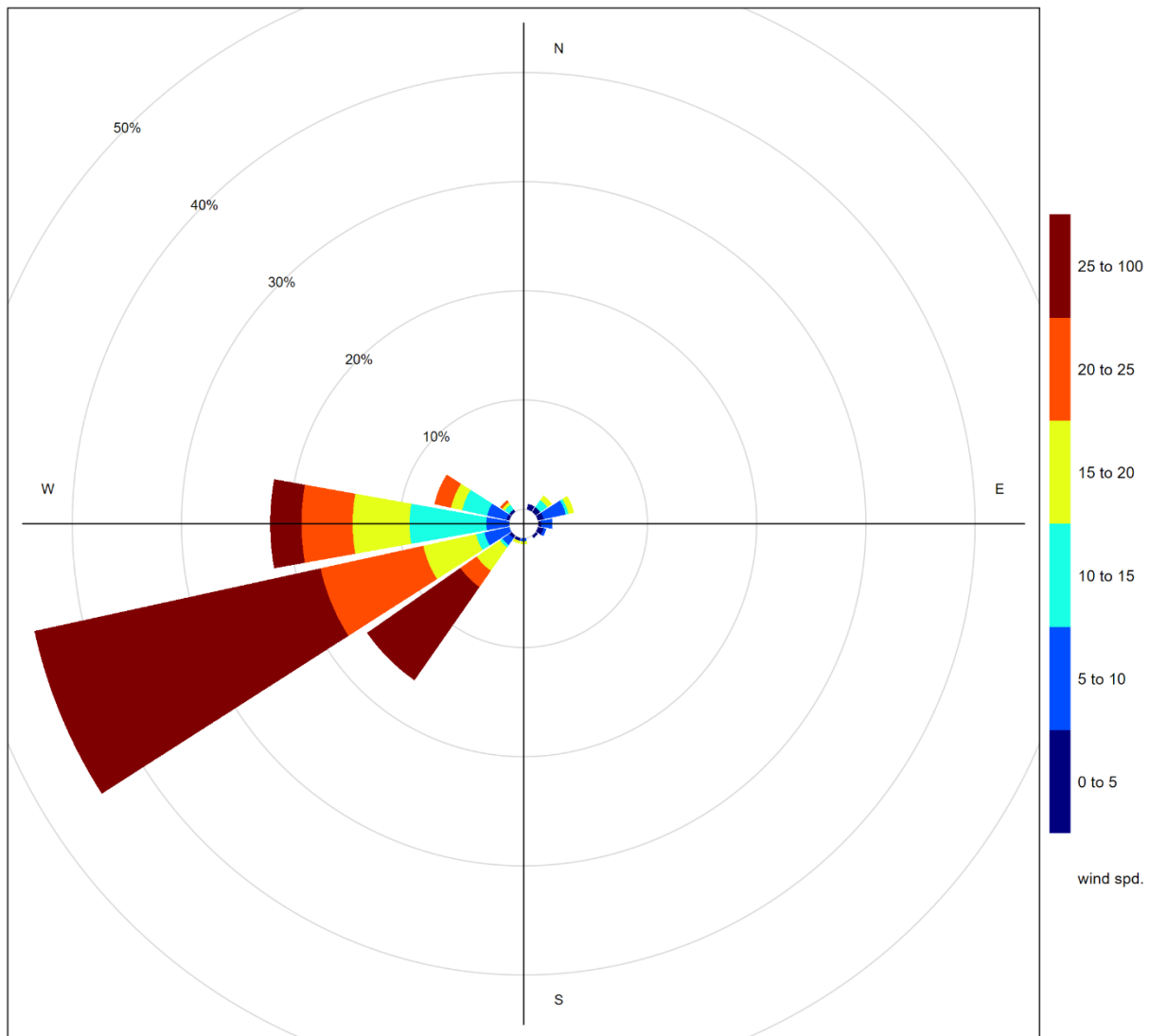


Figure 5-3 Windrose for TSP exceedance days recorded at the Berm GRIMM

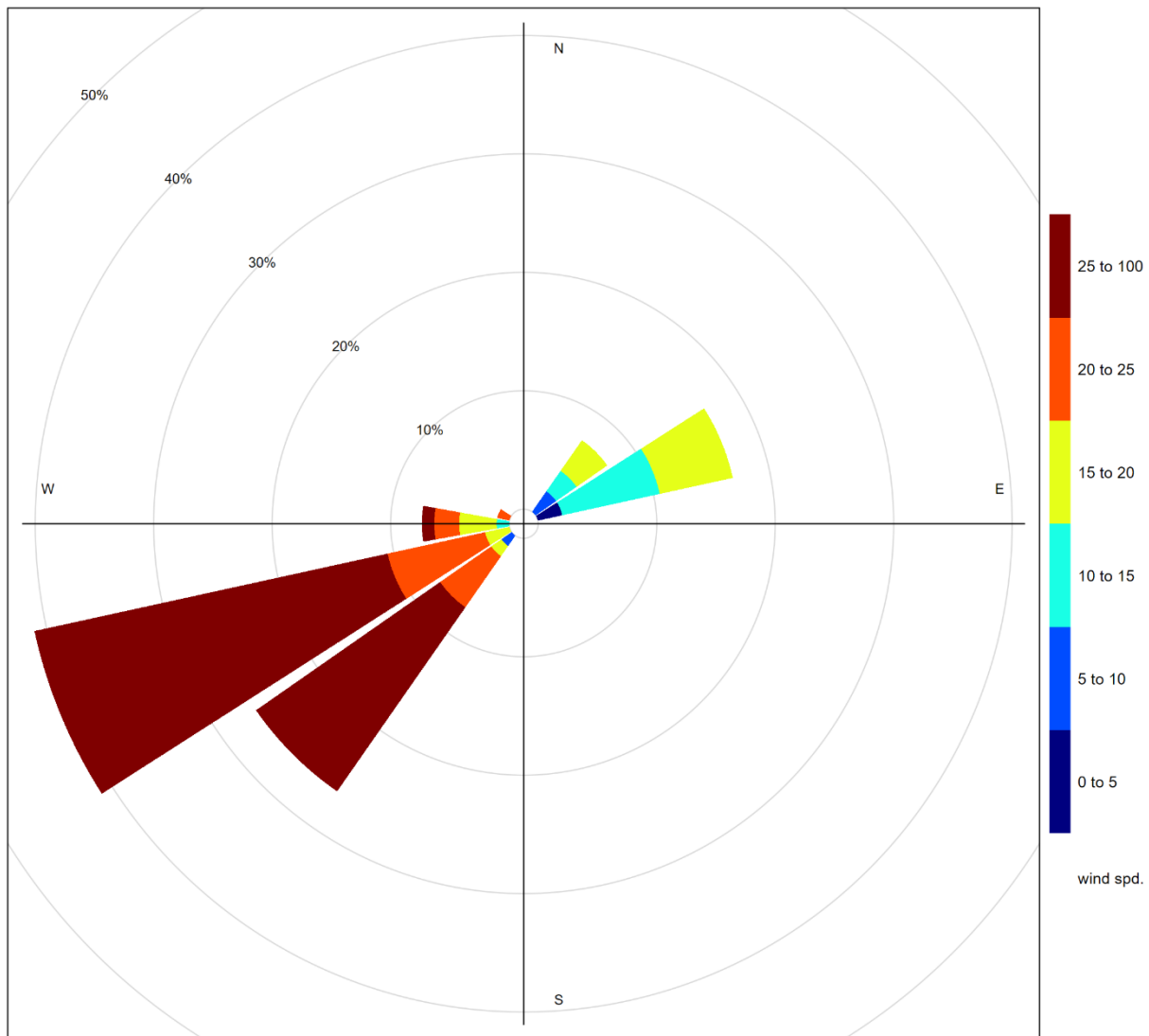


Figure 5-4 Windrose for PM_{2.5} exceedance days recorded at the Berm GRIMM

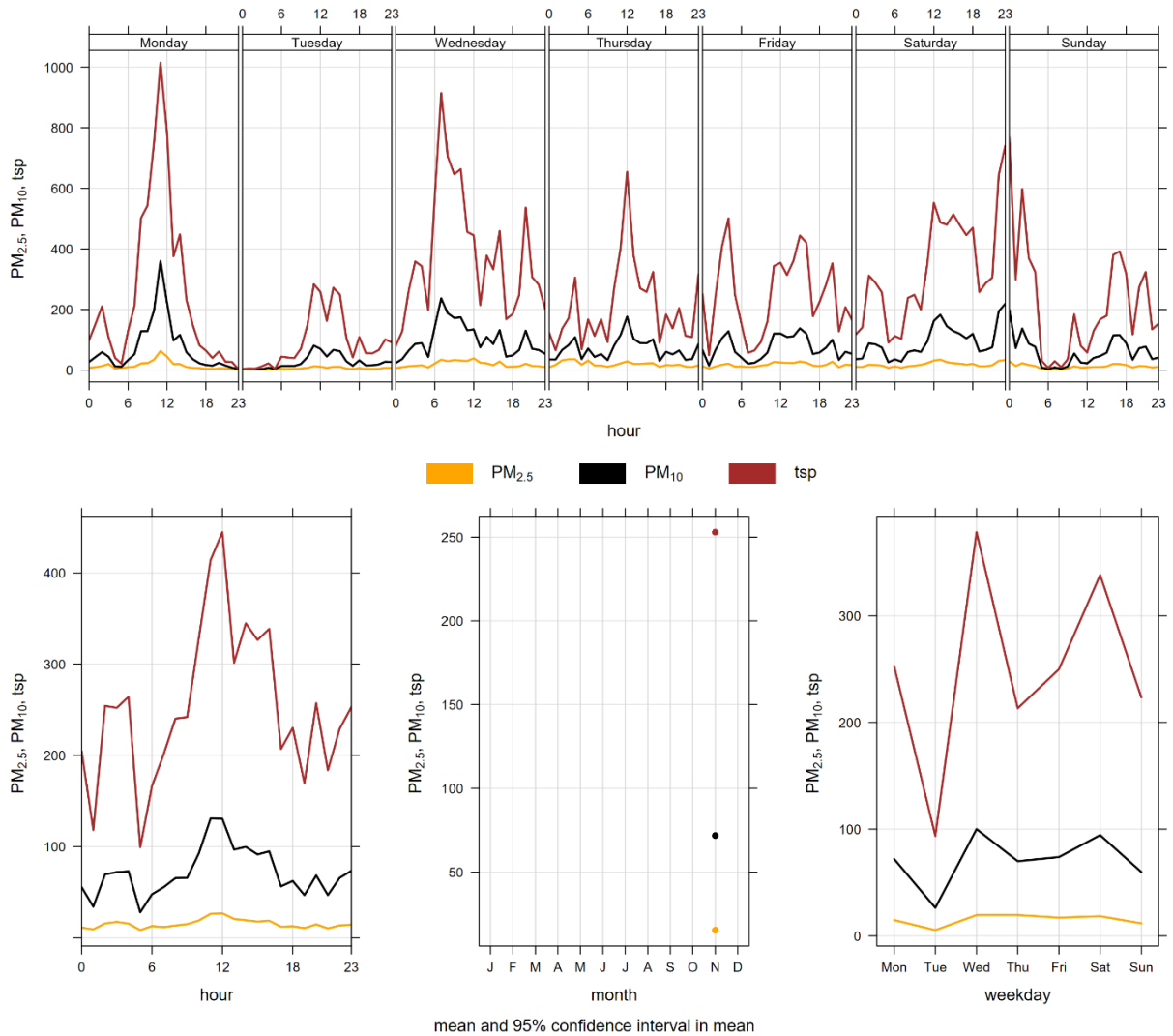


Figure 5-5 Berm monitor particulate matter time variation

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APPENDIX

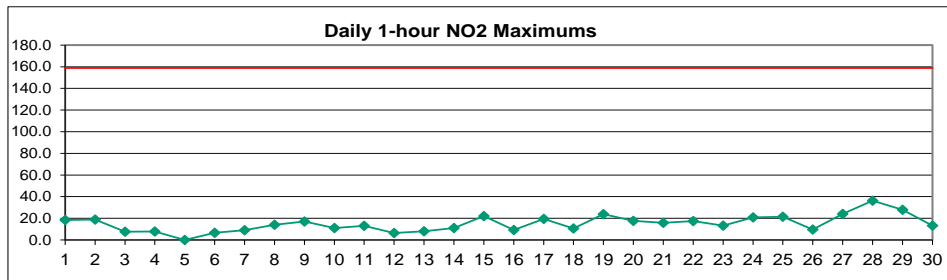
A DATA & CALIBRATION REPORTS

APPENDIX



Lagoon NO₂ (ppb) – November 2024

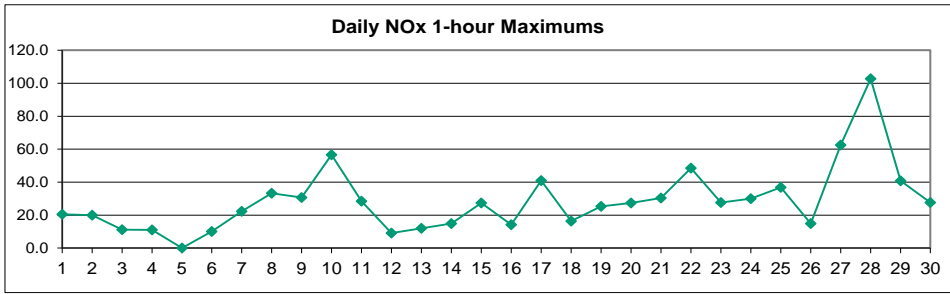
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	7.6	S	4.2	4.1	4.8	5.6	6.2	11.7	12.5	11.6	8.4	3.3	4.3	5.1	4.1	5.0	13.3	14.2	16.3	18.4	11.9	11.6	14.9	15.8	9.3	18.4
2	19.0	S	17.1	16.6	13.4	9.7	13.8	10.1	7.0	6.3	7.1	6.2	5.0	7.6	4.3	2.7	5.4	4.2	5.2	4.6	6.5	3.7	4.7	6.7	8.1	19.0
3	4.5	S	4.6	4.9	3.4	4.7	3.9	6.1	6.2	2.7	3.4	4.5	2.3	1.1	1.9	1.0	4.7	2.7	5.7	5.3	7.5	3.3	6.6	4.8	4.2	7.5
4	6.3	S	3.6	4.5	7.9	5.2	5.2	5.7	7.0	2.8	2.6	2.7	3.1	2.2	2.9	2.0	2.8	2.0	3.6	1.9	3.1	1.5	1.5	2.8	3.6	7.9
5	2.1	S	4.5	4.1	6.0	9.0	9.5	10.9	10.9	4.9	1.7	C	C	C	C	C	C	12.9	12.7	6.4	12.8	13.2	13.8	8.4	-	-
6	6.6	S	6.1	4.3	5.2	1.4	4.1	6.4	5.6	4.3	1.9	2.4	2.4	1.8	1.3	2.9	2.2	1.6	2.1	2.1	1.5	3.1	3.6	3.8	3.3	6.6
7	5.1	S	3.6	4.1	5.1	8.9	8.9	6.4	6.2	6.8	4.3	1.5	1.4	1.9	1.6	2.1	2.2	2.6	1.3	1.1	1.6	3.1	4.7	3.2	3.8	8.9
8	3.5	S	4.6	2.0	5.1	4.8	6.5	12.1	14.1	13.9	11.8	5.1	1.9	1.4	1.0	2.2	2.7	2.6	1.1	1.2	2.4	1.3	3.3	4.0	4.7	14.1
9	1.9	S	7.0	3.8	17.0	9.8	7.4	4.9	11.4	4.2	4.1	4.2	1.6	4.1	11.1	4.0	6.2	15.7	13.7	14.9	12.0	10.0	8.2	8.0	8.1	17.0
10	10.9	S	9.8	6.2	5.9	4.1	6.6	8.0	6.3	5.9	7.0	7.0	10.0	9.9	2.5	2.8	3.3	8.7	3.6	4.8	4.6	4.1	5.5	8.6	6.4	10.9
11	10.9	S	5.6	7.6	6.4	6.8	7.3	7.9	8.1	7.2	8.2	5.6	5.2	3.3	9.9	13.1	6.3	4.5	2.2	3.9	8.1	6.6	6.0	7.1	6.9	13.1
12	5.0	S	2.4	2.7	3.6	4.5	5.2	5.7	3.9	6.4	3.5	0.8	1.2	0.8	0.8	0.9	1.7	1.7	1.9	4.9	1.9	1.7	0.9	1.0	2.7	6.4
13	1.1	S	2.1	1.2	3.5	3.1	4.8	5.3	8.1	6.8	4.2	2.1	1.1	2.0	1.4	1.6	2.1	2.0	5.1	5.3	6.1	6.2	4.8	5.4	3.7	8.1
14	4.3	S	0.8	2.0	2.6	6.2	4.6	8.2	11.0	8.3	7.7	2.4	5.3	3.9	3.1	3.0	2.5	6.8	3.9	7.6	6.3	6.3	6.9	7.3	5.3	11.0
15	6.5	S	4.1	6.8	7.0	12.4	10.0	9.7	12.7	13.8	8.6	4.7	2.3	2.4	3.0	6.7	15.3	17.1	22.1	15.8	16.3	15.9	14.3	10.3	10.3	22.1
16	8.2	S	4.9	7.9	9.3	4.3	4.5	2.4	3.8	4.8	1.6	1.6	1.6	1.7	2.1	2.4	1.2	0.9	1.4	1.0	1.7	2.2	1.7	1.6	3.2	9.3
17	2.7	S	2.2	1.2	2.8	4.5	4.7	12.7	19.5	15.7	3.4	5.5	4.9	0.8	0.7	0.7	0.8	1.7	5.4	5.5	7.2	7.7	11.6	9.2	5.7	19.5
18	4.3	S	2.0	4.2	4.3	9.3	10.7	10.4	7.3	8.0	9.5	1.9	2.5	7.1	6.5	3.9	4.6	5.3	3.6	4.1	4.7	9.4	6.1	10.2	6.1	10.7
19	6.7	S	5.8	5.0	4.6	7.0	8.2	13.1	12.2	13.5	10.6	8.2	5.8	5.1	9.5	12.2	10.1	4.4	6.5	5.6	4.0	3.9	13.6	23.9	8.7	23.9
20	17.6	S	13.0	12.4	10.2	6.0	7.3	4.6	3.9	5.1	4.1	3.8	3.5	3.7	4.4	5.2	7.3	14.3	13.0	4.9	8.2	14.1	10.8	16.6	8.4	17.6
21	9.1	S	12.7	14.7	14.0	11.8	12.6	15.8	14.6	12.4	11.9	7.1	6.8	5.2	4.5	9.2	13.3	11.8	8.1	7.3	11.5	11.8	8.5	9.1	10.6	15.8
22	6.5	S	10.1	11.7	15.4	13.1	13.0	10.6	13.2	13.0	9.6	8.9	6.9	6.5	7.6	7.8	11.9	9.5	8.4	10.3	14.8	17.5	14.9	13.3	11.1	17.5
23	12.7	S	12.2	10.4	9.2	8.1	7.8	9.6	7.9	6.1	12.9	11.9	6.3	6.0	5.8	6.6	9.5	11.7	12.3	13.3	11.5	12.2	11.0	8.7	9.7	13.3
24	9.7	S	9.4	11.7	9.1	6.6	8.6	9.2	9.9	10.2	6.4	4.3	6.1	6.5	7.1	8.2	11.2	16.1	15.9	17.9	13.4	16.2	19.0	20.8	11.0	20.8
25	21.5	S	20.3	17.7	16.8	15.8	15.3	16.6	14.6	11.9	10.3	9.1	9.5	8.9	8.6	9.7	12.5	13.3	11.3	13.2	11.2	9.4	8.2	7.6	12.8	21.5
26	6.7	S	6.0	5.3	6.4	4.8	6.0	6.7	8.0	6.2	5.8	5.8	5.2	9.2	3.8	5.6	7.3	5.9	6.7	4.9	3.5	9.5	8.8	7.4	6.3	9.5
27	12.9	S	15.7	20.1	22.2	22.1	17.2	20.5	24.1	23.6	19.6	14.3	7.3	11.5	15.5	10.1	20.5	13.2	18.6	17.0	10.5	19.2	20.7	9.5	16.8	24.1
28	8.2	S	9.0	7.7	7.8	5.9	4.6	5.5	5.8	4.6	6.1	6.6	6.7	28.5	30.5	32.2	34.7	34.4	31.9	32.2	32.1	36.3	35.7	34.5	19.2	36.3
29	27.9	S	15.1	6.7	6.2	7.8	19.6	22.2	19.4	21.1	16.2	13.5	15.5	12.0	5.1	5.5	4.8	3.5	8.2	3.8	4.0	5.5	3.4	5.9	11.0	27.9
30	4.1	S	4.3	4.1	4.8	3.5	2.2	2.4	2.9	2.9	2.0	2.0	2.9	6.3	4.8	6.2	1.9	1.7	2.7	5.7	12.2	12.6	12.2	13.3	5.1	13.3
NO.	30	-	30	30	30	30	30	30	30	30	30	29	29	29	29	29	29	30	30	30	30	30	30	30	684	100%
MEAN	8.5	-	7.4	7.2	8.0	7.6	8.2	9.4	9.9	8.8	7.2	5.4	4.8	5.7	5.7	6.0	7.7	8.2	8.5	8.2	8.4	9.3	9.5	9.6		
MAX	27.9	-	20.3	20.1	22.2	22.1	19.6	22.2	24.1	23.6	19.6	14.3	15.5	28.5	30.5	32.2	34.7	34.4	31.9	32.2	32.1	36.3	35.7	34.5		



Number of 1HR Exceedences	0		
Number of Non-Zero Readings	684		
Maximum 1-HR Average	36.3 PPB		
Maximum 24-HR Average	19.2 PPB		
Monthly Calibration	6	Operational Time	720 HRS
Standard Deviation	5.9	Operational Uptime	100.0 %
		Monthly Average	7.8 PPB

Lagoon NOx (ppb) – November 2024

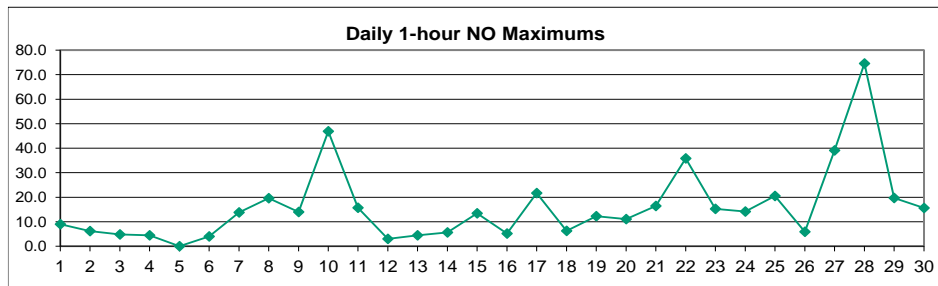
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	9.5	S	3.9	4.0	6.6	7.8	7.4	17.8	18.1	20.2	13.6	4.2	5.4	7.2	5.0	5.3	17.6	17.3	17.7	20.5	11.5	11.3	15.3	15.6	11.4	20.5
2	19.9	S	17.6	16.8	13.2	9.5	19.6	11.6	7.4	9.6	9.7	9.0	6.7	12.1	4.8	2.8	6.7	7.9	4.7	5.0	9.8	3.4	4.4	7.9	9.6	19.9
3	4.7	S	4.8	5.4	3.1	5.8	3.5	9.2	10.7	3.0	5.0	6.7	2.7	1.0	2.1	0.6	5.9	2.6	6.6	5.9	11.2	3.0	9.6	5.6	5.2	11.2
4	8.9	S	4.6	5.0	9.4	5.5	6.8	8.0	11.0	3.6	3.5	3.1	3.8	2.7	3.5	2.2	3.6	1.9	4.7	1.6	3.5	1.0	1.0	2.9	4.4	11.0
5	1.9	S	6.1	5.0	7.3	11.4	13.4	11.8	15.7	7.1	1.9	C	C	C	C	C	14.7	15.7	6.0	19.0	16.3	15.7	9.1	-	-	
6	6.6	S	8.1	5.1	7.8	1.2	5.7	10.0	8.8	6.4	2.2	3.4	3.7	2.2	1.3	4.1	2.4	1.3	2.5	2.1	1.1	4.2	4.3	4.3	4.3	10.0
7	5.4	S	3.4	4.8	7.0	22.3	18.5	9.8	10.0	10.3	5.9	1.4	1.2	1.9	1.8	2.3	2.1	3.2	0.9	0.5	1.4	3.5	6.3	5.1	5.6	22.3
8	4.2	S	7.5	2.0	8.5	8.3	13.6	28.2	33.3	31.8	25.5	7.2	2.4	1.6	1.0	2.7	2.9	2.7	0.8	0.9	2.6	1.0	3.6	5.0	8.6	33.3
9	1.5	S	10.8	4.9	30.7	12.5	13.1	6.6	15.3	4.6	4.6	4.9	1.5	5.4	15.6	4.1	6.0	15.7	13.4	15.9	18.0	20.2	16.0	10.9	11.0	30.7
10	22.0	S	13.6	6.9	6.6	3.8	16.6	20.1	17.1	18.7	28.5	33.9	56.6	50.3	3.3	3.2	3.2	10.4	3.5	5.8	5.1	4.8	7.2	16.8	15.6	56.6
11	21.0	S	9.1	15.1	9.0	8.9	9.8	15.3	14.9	13.1	14.7	8.8	9.1	4.5	19.3	28.5	10.4	7.0	1.9	4.9	13.8	10.8	7.7	8.6	11.6	28.5
12	5.6	S	2.3	2.8	4.0	4.9	7.2	6.6	4.7	9.0	4.4	0.5	1.4	0.5	0.6	0.6	1.4	1.5	1.7	5.6	1.6	1.2	0.5	0.6	3.0	9.0
13	0.7	S	2.5	0.8	4.9	3.1	6.2	6.7	12.0	10.8	5.5	2.6	0.8	2.5	1.3	1.4	2.1	2.0	6.3	8.6	7.9	9.2	4.7	9.2	4.9	12.0
14	4.5	S	0.3	1.6	2.9	8.1	5.3	13.4	14.8	10.2	9.8	2.5	7.0	5.1	4.3	3.7	2.9	9.1	3.7	9.2	6.7	7.7	8.0	8.7	6.5	14.8
15	7.5	S	4.3	9.3	13.5	25.5	13.4	12.8	21.2	23.9	12.4	6.9	2.9	2.5	3.2	7.0	18.1	21.2	27.3	16.7	17.0	17.0	15.1	10.2	13.4	27.3
16	8.4	S	5.1	10.6	14.2	4.6	6.0	2.3	4.5	7.0	1.8	1.4	1.5	1.6	2.0	2.6	0.7	0.5	1.2	0.7	2.0	2.4	1.3	1.1	3.6	14.2
17	3.0	S	2.3	0.9	3.3	5.3	5.9	22.2	40.9	28.6	4.4	8.2	6.5	0.4	0.3	0.3	0.4	1.9	6.7	7.4	8.3	7.3	16.8	10.9	8.3	40.9
18	4.3	S	1.5	4.6	3.9	9.0	14.6	16.3	7.5	10.4	14.6	1.8	2.4	8.1	7.4	4.3	4.4	5.2	3.2	3.8	4.5	9.4	5.8	9.8	6.8	16.3
19	6.6	S	5.7	5.4	4.9	11.2	8.7	20.8	22.5	25.3	20.3	17.8	10.7	7.9	13.3	16.6	11.1	4.0	6.7	5.4	3.7	3.4	13.5	23.9	11.7	25.3
20	17.4	S	13.0	14.0	10.6	5.9	8.0	4.3	3.6	5.5	4.3	4.2	3.8	3.9	5.1	5.3	7.4	15.3	12.8	4.9	9.2	16.6	12.8	27.4	9.4	27.4
21	12.4	S	19.6	30.3	30.0	15.5	15.7	24.0	19.7	21.4	22.2	13.5	12.1	8.0	6.0	14.8	18.7	12.4	7.8	7.2	20.4	19.0	8.6	9.0	16.0	30.3
22	6.0	S	12.2	18.7	23.6	15.3	48.5	22.4	35.3	32.5	20.0	16.9	12.4	11.0	12.5	9.4	16.5	10.1	8.1	10.1	15.0	17.4	14.9	14.3	17.5	48.5
23	13.0	S	15.3	11.5	11.0	9.6	8.4	13.4	9.8	7.3	27.7	26.8	10.0	8.4	9.1	7.9	12.5	17.3	16.0	18.1	15.5	21.2	19.4	11.0	13.9	27.7
24	14.8	S	9.2	16.1	9.3	6.4	12.7	10.8	17.1	22.1	11.0	8.2	14.1	14.9	13.1	13.2	14.1	30.0	27.2	25.0	13.6	29.6	27.2	24.5	16.7	30.0
25	26.0	S	32.8	24.9	25.3	22.6	23.3	36.8	28.6	22.1	19.7	16.8	18.0	15.3	15.3	12.8	15.6	16.9	11.2	17.4	12.5	9.7	8.5	9.5	19.2	36.8
26	6.9	S	6.4	4.9	9.4	4.4	7.2	6.7	11.6	8.4	10.1	9.9	7.0	14.8	4.5	9.2	9.2	6.9	8.2	5.6	3.2	14.9	12.0	7.5	8.2	14.9
27	17.7	S	16.4	32.2	28.2	24.4	17.6	26.3	43.8	62.6	38.7	31.2	10.7	19.1	22.5	12.2	38.5	15.3	23.4	17.8	11.4	26.4	21.5	9.1	24.7	62.6
28	8.3	S	9.7	7.3	7.6	6.6	4.3	7.0	7.8	5.1	9.8	10.6	10.1	102.8	92.2	71.9	57.9	37.7	35.9	39.1	35.5	51.0	51.5	45.3	31.1	102.8
29	30.8	S	15.4	6.5	5.8	15.7	39.1	40.8	30.1	38.0	31.0	26.2	31.8	24.5	5.6	6.0	5.0	3.3	13.0	3.7	4.8	7.9	3.2	7.7	17.2	40.8
30	4.5	S	5.4	4.4	7.0	3.8	1.8	2.2	3.1	3.2	2.0	2.2	3.7	9.4	6.0	8.3	1.9	1.6	2.6	9.5	27.6	20.1	19.8	20.8	7.4	27.6
NO.	30	-	30	30	30	30	30	30	30	30	30	29	29	29	29	29	29	30	30	30	30	30	30	30	684	100%
MEAN	10.1	-	9.0	9.4	11.0	10.0	12.7	14.8	16.7	16.1	12.8	10.0	9.0	12.1	9.7	9.1	10.3	9.9	9.8	9.5	10.6	12.4	11.9	11.7		
MAX	30.8	-	32.8	32.2	30.7	25.5	48.5	40.8	43.8	62.6	38.7	33.9	56.6	102.8	92.2	71.9	57.9	37.7	35.9	39.1	35.5	51.0	51.5	45.3		



Number of Non-Zero Readings	684
Maximum 1-HR Average	102.8 PPB
Maximum 24-HR Average	31.1 PPB
Monthly Calibration	6
Standard Deviation	10.9
Operational Time	720 HRS
Operational Uptime	100.0 %
Monthly Average	11.2 PPB

Lagoon NO (ppb) – November 2024

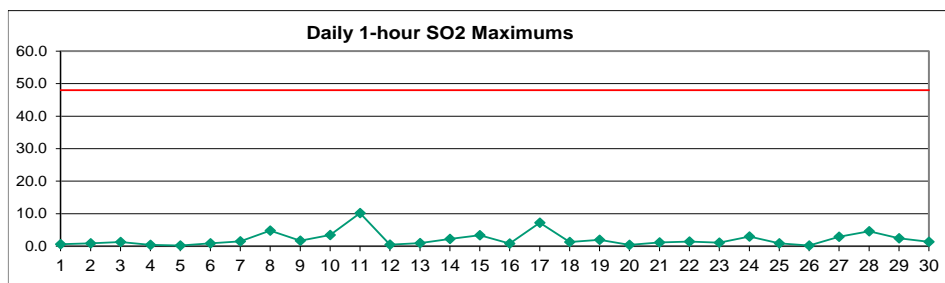
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	2.2	S	0.0	0.1	2.0	2.5	1.5	6.4	6.0	9.0	5.6	1.2	1.4	2.5	1.3	0.6	4.7	3.5	1.7	2.4	0.0	0.1	0.7	0.2	2.4	9.0
2	1.2	S	0.8	0.6	0.3	0.2	6.2	1.9	0.7	3.6	3.0	3.1	2.1	4.9	0.8	0.4	1.6	3.9	0.0	0.6	3.6	0.0	0.0	1.4	1.8	6.2
3	0.4	S	0.5	0.8	0.0	1.4	0.0	3.4	4.8	0.5	1.8	2.5	0.7	0.2	0.5	0.0	1.5	0.1	1.2	0.9	3.9	0.0	3.3	1.1	1.3	4.8
4	2.9	S	1.3	0.7	1.8	0.6	1.9	2.6	4.4	1.2	1.2	0.7	1.0	0.9	1.0	0.6	1.1	0.2	1.4	0.0	0.6	0.0	0.0	0.4	1.2	4.4
5	0.1	S	1.8	1.2	1.6	2.7	4.2	1.3	5.2	2.5	0.4	C	C	C	C	C	C	2.2	3.3	0.0	6.6	3.4	2.3	1.0	-	-
6	0.3	S	2.3	1.1	3.0	0.0	1.9	4.0	3.5	2.4	0.6	1.3	1.6	0.7	0.3	1.5	0.5	0.0	0.7	0.3	0.0	1.4	1.0	0.9	1.3	4.0
7	0.7	S	0.1	1.0	2.2	13.8	10.0	3.8	4.2	4.0	2.0	0.3	0.2	0.3	0.6	0.6	0.2	0.9	0.0	0.0	0.0	0.7	2.0	2.3	2.2	13.8
8	1.0	S	3.1	0.3	3.8	3.8	7.5	16.6	19.6	18.3	14.1	2.5	0.8	0.6	0.3	0.9	0.6	0.5	0.0	0.1	0.5	0.1	0.7	1.4	4.2	19.6
9	0.0	S	4.2	1.5	14.0	3.1	6.1	2.1	4.3	0.7	0.8	1.0	0.2	1.6	4.9	0.4	0.1	0.3	0.0	1.4	6.4	10.7	8.2	3.3	3.3	14.0
10	11.4	S	4.2	1.1	1.0	0.0	10.4	12.6	11.3	13.3	21.8	27.2	46.9	40.7	1.1	0.7	0.2	2.0	0.2	1.2	0.7	1.1	2.0	8.6	9.6	46.9
11	10.5	S	3.9	7.9	3.0	2.5	3.0	7.9	7.2	6.3	7.0	3.6	4.2	1.6	9.8	15.7	4.5	2.8	0.1	1.4	6.1	4.6	2.1	1.8	5.1	15.7
12	0.9	S	0.2	0.4	0.6	0.7	2.3	1.2	1.1	3.0	1.3	0.0	0.6	0.0	0.1	0.0	0.0	0.1	0.2	1.1	0.0	0.0	0.0	0.0	0.6	3.0
13	0.0	S	0.7	0.0	1.8	0.3	1.7	1.8	4.3	4.4	1.6	0.9	0.1	0.8	0.2	0.1	0.3	0.3	1.6	3.6	2.1	3.3	0.2	4.1	1.5	4.4
14	0.4	S	0.0	0.0	0.6	2.3	1.0	5.6	4.2	2.3	2.5	0.3	2.1	1.5	1.5	1.0	0.7	2.6	0.0	1.9	0.8	1.8	1.5	1.8	1.6	5.6
15	1.4	S	0.6	2.8	6.8	13.4	3.9	3.5	9.0	10.5	4.3	2.6	0.9	0.4	0.5	0.7	3.2	4.5	5.6	1.3	1.0	1.4	1.2	0.3	3.5	13.4
16	0.6	S	0.5	3.0	5.2	0.6	1.8	0.1	1.0	2.5	0.5	0.1	0.2	0.3	0.2	0.5	0.0	0.0	0.1	0.0	0.6	0.5	0.0	0.0	0.8	5.2
17	0.5	S	0.4	0.0	0.8	1.1	1.5	9.9	21.7	13.3	1.3	3.0	1.9	0.0	0.0	0.0	0.0	0.5	1.6	2.2	1.4	0.0	5.6	2.0	3.0	21.7
18	0.3	S	0.0	0.8	0.0	0.0	4.3	6.3	0.5	2.7	5.4	0.1	0.2	1.3	1.2	0.6	0.0	0.3	0.0	0.0	0.1	0.3	0.1	0.0	1.1	6.3
19	0.1	S	0.2	0.7	0.6	4.6	0.9	8.0	10.7	12.2	10.2	10.1	5.3	3.2	4.3	4.9	1.4	0.0	0.5	0.1	0.0	0.0	0.2	0.3	3.4	12.2
20	0.0	S	0.4	2.0	0.8	0.2	1.1	0.0	0.1	0.7	0.5	0.6	0.6	0.6	1.1	0.4	0.5	1.4	0.2	0.2	1.4	2.9	2.4	11.1	1.3	11.1
21	3.6	S	7.4	15.9	16.4	4.0	3.5	8.6	5.5	9.4	10.7	6.7	5.7	3.1	1.7	6.0	5.8	0.9	0.1	0.3	9.3	7.6	0.4	0.2	5.8	16.4
22	0.0	S	2.4	7.4	8.5	2.5	35.8	12.2	22.5	19.9	10.9	8.4	6.0	5.0	5.4	2.0	5.0	1.0	0.0	0.2	0.6	0.2	0.3	1.3	6.8	35.8
23	0.7	S	3.5	1.4	2.2	1.9	0.9	4.2	2.2	1.6	15.1	15.2	4.1	2.7	3.7	1.6	3.4	6.0	4.1	5.2	4.4	9.4	8.8	2.6	4.6	15.2
24	5.5	S	0.2	4.9	0.6	0.1	4.5	1.9	7.5	12.3	5.0	4.3	8.4	8.8	6.5	5.5	3.4	14.2	11.7	7.5	0.6	13.7	8.6	4.1	6.1	14.2
25	4.8	S	12.9	7.5	8.9	7.1	8.4	20.5	14.4	10.7	9.9	8.2	9.0	6.9	7.1	3.6	3.4	3.9	0.3	4.5	1.6	0.7	0.6	2.3	6.8	20.5
26	0.5	S	0.7	0.0	3.3	0.0	1.5	0.3	4.0	2.5	4.6	4.4	2.2	5.9	1.1	3.8	2.2	1.2	1.8	1.0	0.0	5.6	3.5	0.5	2.2	5.9
27	5.2	S	1.0	12.5	6.4	2.6	0.8	6.1	20.0	39.1	19.4	17.3	3.8	7.9	7.3	2.6	18.2	2.5	5.1	1.1	1.2	7.5	1.1	0.0	8.2	39.1
28	0.4	S	1.0	0.0	0.1	1.1	0.0	1.8	2.3	0.8	4.0	4.3	3.7	74.5	61.9	39.8	23.4	3.5	4.2	7.2	3.7	14.8	15.9	11.1	12.2	74.5
29	3.1	S	0.7	0.0	0.0	8.2	19.7	18.8	11.0	17.2	15.2	13.1	16.7	12.8	0.8	0.8	0.5	0.1	5.0	0.3	1.1	2.7	0.1	2.1	6.5	19.7
30	0.6	S	1.4	0.7	2.5	0.6	0.0	0.1	0.4	0.6	0.2	0.5	1.0	3.4	1.6	2.5	0.3	0.1	0.2	4.1	15.6	7.9	7.9	7.9	2.6	15.6
NO.	30	-	30	30	30	30	30	30	30	30	30	29	29	29	29	29	29	30	30	30	30	30	30	30	684	100%
MEAN	2.0	-	1.9	2.5	3.3	2.7	4.9	5.8	7.1	7.6	6.0	5.0	4.5	6.7	4.4	3.4	3.0	2.0	1.7	1.7	2.5	3.4	2.7	2.5		
MAX	11.4	-	12.9	15.9	16.4	13.8	35.8	20.5	22.5	39.1	21.8	27.2	46.9	74.5	61.9	39.8	23.4	14.2	11.7	7.5	15.6	14.8	15.9	11.1		



Number of Non-Zero Readings	627	Operational Time	720 HRS
Maximum 1-HR Average	74.5 PPB	Operational Uptime	100.0 %
Maximum 24-HR Average	12.2 PPB	Monthly Average	3.8 PPB
Monthly Calibration	6		
Standard Deviation	6.47		

Lagoon SO₂ (ppb) – November 2024

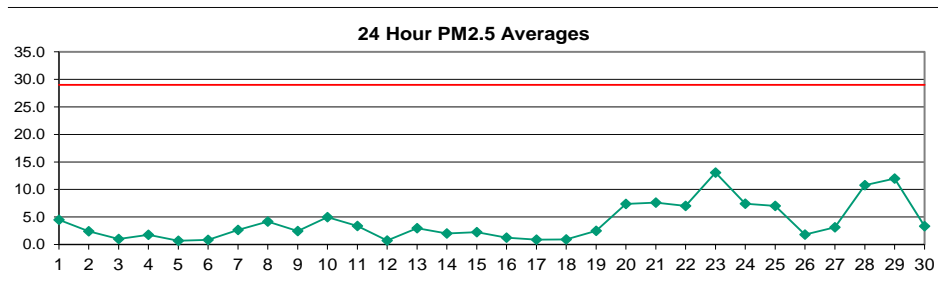
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	0.0	S	0.0	0.0	0.2	0.2	0.0	0.2	0.1	0.2	0.1	0.6	0.5	0.6	0.4	0.1	0.3	0.1	0.1	0.1	0.2	0.1	0.3	0.1	0.2	0.6
2	0.1	S	0.2	0.4	0.1	0.0	0.3	0.1	0.5	0.2	0.1	0.4	0.7	0.9	0.4	0.3	0.1	0.2	0.0	0.1	0.1	0.2	0.1	0.1	0.1	0.9
3	0.1	S	0.6	0.2	0.0	1.3	0.3	0.4	0.1	0.2	0.3	0.7	0.0	0.0	0.2	0.1	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3
4	0.0	S	0.0	0.0	0.1	0.0	0.0	0.2	0.4	0.2	0.2	0.3	0.2	0.3	0.3	0.2	0.2	0.4	0.3	0.2	0.2	0.1	0.0	0.1	0.1	0.4
5	0.1	S	0.1	0.1	0.0	0.2	0.1	0.0	0.0	0.0	0.1	C	C	C	C	C	0.2	0.1	0.2	0.0	0.1	0.0	0.0	0.1	0.2	
6	0.3	S	0.0	0.1	0.1	0.0	0.2	0.9	0.2	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.2	0.2	0.1	0.2	0.1	0.9	
7	1.5	S	1.3	1.1	0.2	1.0	0.6	0.8	0.5	0.6	0.3	0.0	0.0	0.0	0.0	0.1	0.3	0.1	0.0	0.0	0.0	0.0	0.5	0.1	1.5	
8	0.2	S	0.1	0.2	0.1	0.3	0.8	3.8	4.2	3.8	4.8	0.4	0.3	0.3	0.2	0.2	0.3	0.2	0.4	0.4	0.5	0.2	0.4	0.3	4.8	
9	0.0	S	0.5	0.3	0.7	0.5	0.8	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.4	0.3	0.4	0.4	0.3	0.4	1.0	1.7	1.1	0.7	1.7	
10	0.4	S	0.8	0.4	0.3	0.1	0.1	0.2	0.3	0.3	0.5	0.6	1.4	1.3	0.2	0.2	0.0	0.1	0.1	0.2	0.2	0.9	1.3	3.5	3.5	
11	4.9	S	2.4	3.3	1.2	2.4	2.3	2.9	2.7	1.0	2.1	1.7	3.5	1.9	6.0	10.2	3.6	2.6	0.6	1.8	4.7	2.0	1.7	0.9	10.2	
12	0.5	S	0.2	0.4	0.4	0.2	0.4	0.3	0.4	0.5	0.3	0.3	0.3	0.3	0.3	0.4	0.3	0.5	0.3	0.1	0.2	0.3	0.3	0.2	0.5	
13	0.3	S	0.0	0.2	0.3	0.3	0.8	0.9	0.4	0.4	0.5	0.2	0.0	0.3	0.3	0.4	0.3	0.3	0.4	0.5	0.5	0.6	0.5	0.4	0.9	
14	0.2	S	0.0	0.2	0.4	0.4	0.2	0.6	1.6	1.2	0.4	0.2	0.3	0.3	0.3	0.3	0.2	0.4	0.3	0.8	1.1	1.4	1.6	2.2	2.2	
15	1.8	S	1.2	2.0	0.7	0.6	1.3	2.3	1.8	3.4	1.6	0.5	0.3	0.2	0.2	0.2	0.4	0.5	0.3	0.3	0.3	0.2	0.2	0.3	3.4	
16	0.8	S	0.2	0.2	0.4	0.3	0.2	0.2	0.3	0.4	0.2	0.3	0.3	0.5	0.4	0.3	0.3	0.3	0.4	0.5	0.4	0.4	0.6	0.6	0.8	
17	0.7	S	0.6	0.5	0.6	0.7	1.2	5.4	7.2	6.0	2.0	2.7	1.1	0.5	0.6	0.4	0.5	0.6	0.9	0.7	0.7	0.6	1.7	2.0	7.2	
18	0.9	S	0.5	0.5	0.6	0.6	0.8	0.7	0.7	0.5	0.5	0.2	0.4	0.8	1.3	1.2	0.9	1.1	0.6	0.4	0.3	0.2	0.2	0.3	1.3	
19	0.1	S	0.4	0.8	0.6	0.7	0.9	0.3	0.2	0.8	0.4	0.8	0.3	0.2	0.2	0.3	0.0	1.0	1.9	1.0	0.6	0.2	0.4	0.2	1.9	
20	0.0	S	0.1	0.0	0.0	0.0	0.2	0.0	0.0	0.1	0.0	0.1	0.2	0.0	0.1	0.1	0.1	0.1	0.3	0.2	0.1	0.1	0.2	0.4	0.4	
21	0.1	S	0.2	0.8	1.0	1.1	0.9	1.0	0.9	1.0	0.7	0.2	0.3	0.3	0.1	0.3	0.2	0.1	0.0	0.2	1.2	0.8	0.5	1.0	1.2	
22	0.4	S	0.1	0.1	0.2	0.2	1.5	0.7	1.3	1.4	0.5	0.3	0.5	1.2	0.5	0.5	0.2	0.2	0.2	0.1	0.0	0.1	0.1	0.1	1.5	
23	0.1	S	0.1	0.2	0.2	0.2	0.3	0.4	0.2	0.2	0.5	1.1	1.1	1.0	0.8	0.5	0.5	0.4	0.3	0.3	0.4	0.5	0.5	0.2	1.1	
24	0.3	S	0.1	0.4	0.1	0.2	0.2	0.2	0.2	0.4	0.0	0.3	0.3	0.4	0.2	0.2	0.1	3.0	2.6	1.1	0.2	0.4	0.2	0.3	3.0	
25	0.7	S	0.8	0.9	0.8	0.5	0.3	0.5	0.4	0.3	0.2	0.2	0.3	0.2	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.9	
26	0.1	S	0.0	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.2	0.1	0.2	0.1	0.2	0.2	0.1	0.0	0.1	0.1	0.0	0.2	
27	0.0	S	0.0	0.2	0.1	0.0	0.1	0.0	0.3	0.7	0.4	0.4	0.2	1.7	1.0	0.3	1.2	1.4	2.9	0.8	0.1	0.2	0.3	0.2	2.9	
28	0.2	S	0.0	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	4.0	4.6	4.0	3.1	1.6	1.4	1.0	0.5	0.7	0.5	0.3	4.6	
29	0.3	S	0.0	0.0	0.1	0.2	0.7	0.7	1.5	2.4	2.1	1.6	1.0	0.8	0.3	0.2	0.2	0.0	0.1	0.0	0.0	0.1	0.1	0.1	2.4	
30	0.2	S	0.0	0.1	0.2	0.3	0.1	0.1	0.1	0.0	0.2	0.1	0.1	0.2	0.1	0.0	0.2	0.1	0.1	0.0	0.9	1.3	0.9	0.8	1.3	
NO.	30	-	30	30	30	30	30	30	30	30	30	29	29	29	29	29	30	30	30	30	30	30	30	30	685	100%
MEAN	0.5	-	0.4	0.5	0.3	0.4	0.5	0.8	0.9	0.9	0.7	0.5	0.5	0.6	0.7	0.7	0.5	0.5	0.5	0.4	0.5	0.5	0.5	0.5		
MAX	4.9	-	2.4	3.3	1.2	2.4	2.3	5.4	7.2	6.0	4.8	2.7	3.5	4.0	6.0	10.2	3.6	3.0	2.9	1.8	4.7	2.0	1.7	3.5		



Number of 1HR Exceedences	0
Number of Non-Zero Readings	653
Maximum 1-HR Average	10.2 PPB
Maximum 24-HR Average	2.9 PPB
Monthly Calibration	5
Standard Deviation	0.92
Operational Time	720 HRS
Operational Uptime	100.0 %
Monthly Average	0.6 PPB

Lagoon PM_{2.5} (µg/m³) – November 2024

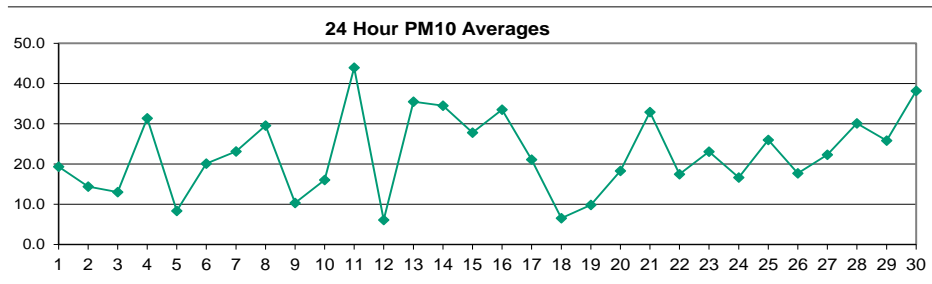
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	6.2	7.2	11.1	7.8	4.3	3.5	4.2	5.7	8.7	6.2	8.2	6.5	2.1	0.3	0.6	2.6	2.2	2.0	2.7	4.6	3.6	0.5	0.4	6.9	4.5	11.1
2	7.9	6.5	5.0	4.4	4.5	1.3	4.0	4.0	1.4	1.5	2.2	1.7	0.0	0.0	0.0	0.0	1.1	1.6	3.0	3.2	2.8	1.6	0.0	0.0	2.4	7.9
3	0.0	0.0	0.5	3.2	2.8	1.8	1.8	1.6	2.3	0.9	2.0	1.0	0.0	0.0	0.0	1.3	0.0	0.0	2.1	0.5	0.0	0.0	2.9	0.0	1.0	3.2
4	0.0	1.3	1.1	2.4	0.3	0.0	0.0	1.3	2.1	4.7	4.4	4.9	8.0	7.2	3.6	0.0	0.0	0.8	0.6	0.0	0.0	0.0	0.0	0.0	1.8	8.0
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.9	0.0	0.0	0.9	0.2	0.0	0.0	0.0	0.6	1.0	1.7	1.3	1.5	2.5	2.8	2.5	0.7	2.8
6	0.6	0.2	1.4	1.3	0.3	0.6	0.0	0.4	6.2	3.9	0.6	2.1	2.0	0.6	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	6.2
7	0.0	4.0	2.2	2.9	1.9	0.6	3.1	2.7	3.5	4.9	4.2	5.7	3.9	2.0	3.0	4.5	3.3	1.0	0.0	0.0	0.0	0.0	1.8	8.9	2.7	8.9
8	5.9	5.4	10.8	8.5	1.5	0.0	7.4	7.5	8.9	6.6	8.4	5.3	8.6	3.7	0.0	0.0	2.3	3.1	1.5	0.0	0.8	1.4	1.9	0.9	4.2	10.8
9	0.0	1.2	0.2	0.8	3.1	4.2	5.6	2.8	0.0	2.2	2.3	4.1	1.9	0.0	2.6	1.9	2.1	3.6	1.9	2.1	3.7	4.8	4.5	2.9	2.4	5.6
10	1.0	6.0	12.4	14.4	10.5	7.9	5.8	5.9	5.3	5.8	7.4	4.6	4.9	6.3	9.9	6.3	0.8	0.0	0.0	0.0	0.0	0.0	0.9	3.1	5.0	14.4
11	3.2	1.4	0.1	3.9	4.0	2.6	1.9	3.5	2.0	0.0	1.6	2.4	1.6	7.0	4.1	6.3	6.9	4.3	4.1	4.7	3.5	4.6	3.7	3.9	3.4	7.0
12	3.2	1.3	0.2	0.0	0.1	0.5	0.0	0.9	2.6	3.8	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0	1.8	1.4	0.7	3.8
13	0.4	0.0	0.0	0.6	0.0	1.4	1.3	0.6	3.0	3.9	4.7	C	C	C	C	0.0	0.0	0.0	0.0	0.6	10.4	13.0	11.2	8.4	3.0	13.0
14	6.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	2.4	3.2	1.6	0.5	0.0	0.0	0.0	0.5	0.8	0.6	5.0	5.6	8.6	5.2	2.8	2.0	8.6
15	2.2	2.6	3.1	1.1	1.2	1.7	1.1	1.9	2.8	2.5	2.7	1.5	0.0	0.0	0.0	1.5	0.0	3.1	4.2	6.1	5.1	2.5	2.7	4.2	2.2	6.1
16	3.0	4.0	1.8	0.0	0.0	3.0	5.0	2.6	0.0	0.0	3.4	2.8	0.0	0.0	0.0	1.0	1.3	0.5	0.0	0.0	0.0	0.6	0.9	0.4	1.3	5.0
17	0.0	2.0	3.6	2.4	0.0	0.0	0.0	0.6	3.5	2.4	0.9	1.7	2.4	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.5	0.9	3.6
18	1.8	2.2	1.2	0.2	0.2	0.0	1.0	1.1	1.2	1.1	0.0	0.0	0.0	0.6	1.3	0.0	1.4	2.6	2.4	2.5	1.2	0.0	0.0	0.0	0.9	2.6
19	2.4	4.1	3.3	2.3	3.5	3.2	0.8	0.1	1.9	2.8	2.9	0.1	0.5	3.1	1.9	1.5	4.4	3.6	0.5	2.6	4.9	3.9	1.9	3.8	2.5	4.9
20	9.2	15.0	14.8	10.1	14.3	10.4	6.0	8.0	9.1	6.4	6.1	6.2	6.0	4.1	1.9	1.7	3.0	3.2	5.9	6.4	3.7	5.7	9.6	10.0	7.4	15.0
21	7.1	6.0	8.6	17.4	20.4	16.5	10.0	6.0	4.4	7.7	6.4	8.8	5.9	5.8	5.2	2.8	4.2	7.5	5.8	3.5	8.2	5.9	5.0	3.9	7.6	20.4
22	2.4	5.2	4.4	2.8	2.5	5.8	5.3	6.4	5.2	9.5	7.2	5.0	5.6	6.7	4.5	3.9	7.0	6.9	9.0	8.1	9.3	9.6	16.4	19.8	7.0	19.8
23	17.7	16.8	16.0	12.2	14.7	11.3	9.5	11.4	10.3	11.9	10.3	13.3	17.1	14.9	16.8	14.0	15.4	12.7	10.8	11.0	12.2	12.8	11.9	9.0	13.1	17.7
24	6.5	8.6	5.5	9.2	10.2	8.7	8.3	9.7	9.2	8.7	8.2	4.8	5.0	9.0	5.8	5.1	7.1	10.2	6.6	3.3	4.6	6.0	6.8	10.7	7.4	10.7
25	7.2	14.0	14.1	15.1	11.1	9.4	9.3	10.2	9.8	7.5	6.8	6.6	6.4	4.7	6.1	3.7	3.7	5.6	5.3	3.7	2.3	1.0	2.4	2.2	7.0	15.1
26	0.0	0.0	0.9	0.4	2.6	2.7	0.9	0.6	0.0	0.0	0.0	2.7	3.8	2.7	1.8	1.9	3.2	5.4	3.3	0.9	0.4	2.2	4.0	2.6	1.8	5.4
27	0.0	0.0	0.2	1.5	3.8	2.7	1.4	0.0	0.0	0.9	5.0	5.4	2.5	1.6	2.6	3.5	4.1	6.1	5.9	3.6	5.0	5.3	6.2	8.2	3.1	8.2
28	7.7	7.0	2.6	0.0	0.0	0.1	1.3	0.0	0.0	0.0	1.6	5.1	7.2	5.6	18.7	17.8	21.0	26.0	21.5	22.2	21.6	24.3	26.1	21.1	10.8	26.1
29	15.8	22.3	22.8	14.7	8.4	2.6	0.1	23.8	28.3	26.2	31.8	31.3	18.6	16.9	6.5	3.5	3.4	2.1	0.0	0.7	0.0	2.2	6.0	2.2	12.0	31.8
30	4.7	1.6	1.9	7.5	8.6	4.5	1.4	0.0	0.6	1.2	0.0	0.0	0.2	0.2	0.0	0.0	0.0	3.0	4.8	2.5	1.2	8.3	14.9	12.6	3.3	14.9
NO.	30	30	30	30	30	30	30	30	30	30	30	29	29	29	29	30	30	30	30	30	30	30	30	30	716	100%
MEAN	4.1	5.0	5.0	4.9	4.5	3.6	3.2	4.0	4.5	4.5	4.8	4.7	4.0	3.5	3.3	2.8	3.3	3.9	3.5	3.3	3.7	4.2	4.9	5.2		
MAX	17.7	22.3	22.8	17.4	20.4	16.5	10.0	23.8	28.3	26.2	31.8	31.3	18.6	16.9	18.7	17.8	21.0	26.0	21.5	22.2	21.6	24.3	26.1	21.1		



Number of 24HR Exceedences	0
Number of Non-Zero Readings	568
Maximum 1-HR Average	31.8 UG/M3
Maximum 24-HR Average	13.1 UG/M3
Monthly Calibration	4
Standard Deviation	5.03
Operational Time	720 HRS
Operational Uptime	100.0 %
Monthly Average	4.1 UG/M3

Lagoon PM₁₀ (µg/m³) – November 2024

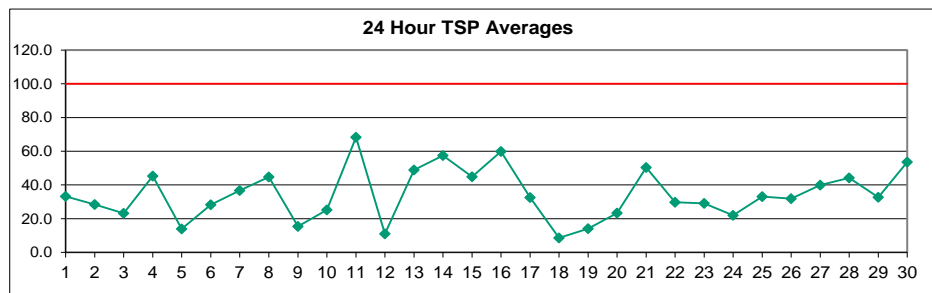
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	17.7	13.0	12.0	6.4	8.0	12.3	12.0	12.0	10.6	25.5	35.7	51.4	16.7	32.9	30.3	22.9	8.8	15.5	8.1	19.6	21.1	16.8	23.5	31.8	19.4	51.4
2	28.9	39.2	25.3	21.8	28.0	11.1	10.5	14.0	15.2	12.8	7.9	7.2	17.7	3.5	8.8	16.9	10.8	10.9	5.9	3.7	11.3	11.3	10.5	13.6	14.4	39.2
3	5.2	8.2	7.2	9.8	8.9	5.2	4.6	7.1	4.6	6.0	12.4	21.9	16.4	16.1	12.4	16.2	2.2	3.1	10.7	5.0	1.7	14.6	80.7	32.5	13.0	80.7
4	5.2	4.4	2.8	3.5	28.0	12.8	19.8	25.4	38.7	125.8	88.5	86.1	137.0	94.6	20.9	22.3	7.4	6.9	6.4	8.6	5.3	2.8	0.6	0.0	31.4	137.0
5	4.6	2.8	0.0	2.6	6.4	20.9	13.3	8.6	8.2	8.7	11.2	5.1	5.1	6.2	11.2	7.6	7.4	7.4	10.7	7.0	8.2	12.5	18.3	6.9	8.4	20.9
6	16.6	16.3	19.2	19.3	14.0	10.5	19.2	44.3	92.5	37.4	35.2	24.8	19.7	11.3	13.3	8.8	9.8	9.7	10.8	7.7	5.3	11.7	15.9	10.2	20.1	92.5
7	18.3	38.6	10.6	8.5	8.3	15.6	25.4	46.6	39.0	57.2	36.2	52.2	9.8	11.8	12.8	7.2	12.0	19.5	11.5	7.3	3.3	33.1	35.8	35.6	23.2	57.2
8	35.7	42.2	71.5	47.9	25.7	38.0	40.5	92.6	39.6	36.0	30.8	47.4	48.1	15.4	11.3	8.6	11.7	20.9	13.1	10.2	5.4	17.1	0.6	0.3	29.6	92.6
9	4.3	3.0	5.7	15.9	0.8	17.7	7.3	11.3	6.4	5.2	2.7	9.1	10.8	10.3	15.0	14.2	10.4	8.0	17.7	16.3	13.1	16.0	20.6	6.6	10.3	20.6
10	9.4	21.5	20.0	28.0	16.4	7.9	9.3	12.3	7.5	16.1	8.7	16.7	23.5	16.3	30.1	4.6	3.2	8.0	7.5	3.5	12.8	26.4	35.6	39.9	16.0	39.9
11	63.4	24.0	13.2	81.2	0.7	2.0	5.3	12.8	7.6	16.7	23.1	16.8	59.7	128.1	79.7	131.8	105.7	75.4	33.5	12.2	53.9	47.1	23.8	37.1	44.0	131.8
12	25.8	0.7	6.5	5.0	2.8	6.7	9.2	5.5	9.3	7.0	10.5	9.1	4.9	3.3	3.7	3.2	2.5	3.1	3.3	3.8	3.7	5.6	5.7	6.5	6.1	25.8
13	7.0	3.9	3.9	11.3	12.1	8.0	15.7	51.1	80.1	33.2	49.6	26.9	C	C	C	12.4	7.5	4.0	3.8	26.3	74.2	120.7	125.7	68.8	35.5	125.7
14	53.4	39.0	11.7	6.4	8.0	12.1	5.6	8.3	51.3	58.4	33.1	60.9	6.4	12.1	12.6	23.8	12.7	16.5	40.9	94.7	63.8	97.6	78.7	21.0	34.5	97.6
15	29.4	32.3	24.9	35.8	28.2	49.8	46.2	23.9	19.2	30.1	27.3	30.1	27.3	17.0	15.1	13.2	7.0	35.3	43.9	41.5	22.7	19.6	16.6	30.8	27.8	49.8
16	15.0	14.3	47.4	52.6	46.9	36.7	19.3	16.3	20.0	26.8	34.4	30.7	38.0	45.3	41.7	43.3	41.6	62.0	25.4	23.4	10.1	12.6	25.2	76.0	33.5	76.0
17	74.2	80.1	11.1	14.2	5.6	11.3	7.6	18.5	30.0	16.2	33.0	35.6	33.5	7.7	6.5	4.6	2.6	4.0	7.4	14.6	28.1	6.9	19.9	33.5	21.1	80.1
18	4.4	9.3	7.8	5.1	7.4	5.9	5.3	6.7	9.3	9.9	9.5	7.3	8.5	13.6	3.1	4.4	2.8	0.6	0.0	6.0	10.3	5.1	6.9	7.6	6.5	13.6
19	5.9	2.8	19.3	4.5	1.0	7.0	9.8	6.5	4.8	21.7	12.1	20.7	17.0	13.0	9.1	8.5	15.8	9.9	6.3	14.7	5.8	8.9	5.5	6.7	9.9	21.7
20	13.2	18.5	21.2	19.3	23.7	16.7	10.3	14.1	20.1	14.1	21.9	11.9	18.6	27.9	19.7	12.6	15.9	11.5	10.5	20.1	15.5	27.4	26.5	28.3	18.3	28.3
21	26.2	14.9	37.1	71.9	72.4	44.4	38.9	36.3	31.2	32.2	39.2	78.2	32.0	EC	EC	EC	EC	37.8	16.9	11.4	5.4	12.7	15.2	4.4	32.9	78.2
22	12.6	10.8	10.3	8.5	10.0	10.0	18.6	12.3	11.3	22.8	26.5	15.6	13.2	13.7	17.1	12.1	16.8	22.0	26.7	10.7	17.7	47.2	23.2	30.5	17.5	47.2
23	31.6	20.6	18.5	27.8	15.5	18.3	17.7	29.1	21.6	18.0	22.9	28.7	32.1	32.8	38.1	26.7	27.0	17.5	22.0	17.1	15.9	18.1	19.8	16.9	23.1	38.1
24	7.3	21.3	15.8	13.2	17.4	12.0	13.3	17.1	18.4	8.2	5.5	16.9	18.1	19.0	23.2	19.8	16.0	22.3	18.0	13.5	13.2	18.8	35.2	16.2	16.7	35.2
25	30.3	25.7	26.1	41.3	39.2	47.7	20.0	20.8	34.2	64.5	28.2	35.0	30.9	33.9	20.3	10.1	20.8	24.1	13.0	18.3	15.2	10.0	8.9	6.2	26.0	64.5
26	3.5	8.3	6.1	9.0	8.1	4.3	3.3	15.3	9.4	23.0	24.5	46.8	93.2	65.5	9.3	6.0	6.6	17.4	13.9	11.0	5.4	9.2	9.5	16.5	17.7	93.2
27	14.8	17.0	7.6	9.0	12.1	7.1	8.1	10.1	17.3	16.9	120.2	52.3	27.4	13.3	15.3	21.9	21.8	27.7	19.0	16.6	17.2	18.1	20.9	23.6	22.3	120.2
28	5.2	11.6	15.5	8.6	6.6	14.5	5.6	11.7	25.9	31.7	16.3	19.4	20.6	21.6	105.8	77.8	50.9	55.8	29.7	38.0	29.1	46.6	36.8	38.4	30.1	105.8
29	30.1	34.6	24.4	13.1	6.1	5.2	4.1	34.5	27.4	44.7	41.8	57.5	26.7	47.1	23.3	7.9	13.1	9.5	26.2	23.3	15.8	17.5	48.8	38.2	25.9	57.5
30	27.3	12.0	54.2	286.8	83.2	24.6	22.8	13.8	10.5	7.6	5.5	9.3	8.0	22.1	30.4	31.5	26.5	16.5	10.1	42.7	45.8	70.1	28.2	27.8	38.2	286.8
NO.	30	30	30	30	30	30	30	30	30	30	30	30	29	28	28	29	29	30	30	30	30	30	30	30	713	99%
MEAN	20.9	19.7	18.6	29.6	18.4	16.5	14.9	21.3	24.0	27.8	28.5	31.1	28.3	27.0	22.9	20.7	17.2	19.4	15.8	18.3	18.5	26.1	27.4	23.7		
MAX	74.2	80.1	71.5	286.8	83.2	49.8	46.2	92.6	92.5	125.8	120.2	86.1	137.0	128.1	105.8	131.8	105.7	75.4	43.9	94.7	74.2	120.7	125.7	76.0		



Number of Non-Zero Readings	710	Operational Time	716 HRS
Maximum 1-HR Average	286.8 UG/M3	Operational Uptime	99.4 %
Maximum 24-HR Average	44.0 UG/M3	Monthly Average	22.3 UG/M3
Monthly Calibration	3		
Standard Deviation	23.2		

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

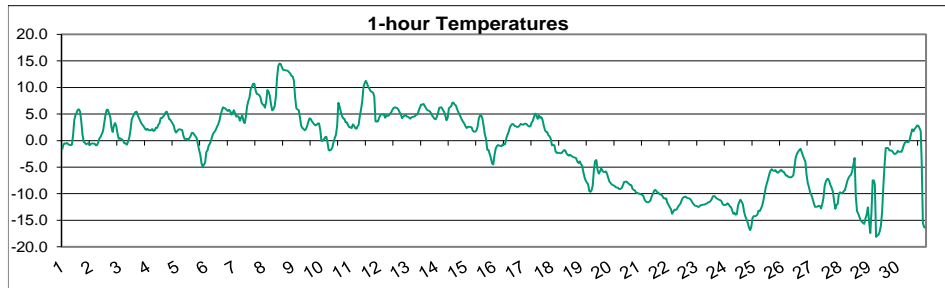
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	32.2	21.0	29.5	24.6	14.2	16.0	12.9	17.8	24.9	36.1	61.4	73.5	24.6	60.8	59.7	37.5	19.8	31.6	28.5	20.1	35.4	24.5	33.1	59.1	33.3	73.5
2	62.0	58.0	32.0	33.3	40.9	19.3	16.9	29.3	22.7	25.1	23.9	20.1	27.5	17.1	33.0	38.4	18.0	45.3	7.6	21.4	22.1	27.5	21.0	19.7	28.4	62.0
3	18.0	10.2	10.2	11.9	11.7	11.9	8.2	6.3	15.3	16.9	31.6	29.6	30.9	7.7	13.3	31.2	10.7	15.4	8.2	10.9	13.0	25.1	152.8	55.5	23.2	152.8
4	3.3	6.5	7.1	3.7	44.8	15.3	29.1	28.1	64.6	195.3	121.8	117.0	176.5	123.6	33.7	31.9	14.9	7.2	15.7	7.9	4.5	12.2	7.5	13.1	45.2	195.3
5	8.5	11.1	9.4	7.1	5.0	40.2	26.7	7.2	12.9	8.7	11.7	8.5	8.2	6.0	10.9	17.2	9.2	21.3	25.6	17.7	12.5	27.3	6.5	14.6	13.9	40.2
6	31.0	38.4	25.9	32.2	16.3	20.7	22.0	61.4	121.2	46.3	56.2	34.1	23.6	20.4	11.2	8.2	13.9	14.6	10.8	6.0	8.7	19.5	20.2	15.5	28.3	121.2
7	26.4	X	12.2	13.2	18.3	33.0	44.4	73.8	76.7	85.6	73.9	65.1	14.5	23.9	23.4	14.2	14.3	21.2	22.2	6.7	6.1	54.7	47.7	73.6	36.7	85.6
8	37.9	62.2	96.5	63.2	33.6	57.5	48.1	142.7	69.8	61.3	52.6	72.6	60.4	25.6	21.0	21.7	22.5	27.8	21.5	12.4	13.3	30.7	8.7	9.7	44.7	142.7
9	8.2	8.7	15.5	30.7	12.5	25.8	17.3	15.7	0.0	4.3	11.4	6.7	6.5	10.2	13.7	17.0	17.8	8.0	22.7	23.9	16.6	28.9	31.5	16.6	15.4	31.5
10	21.3	31.5	26.9	33.2	21.2	16.0	18.5	19.0	15.0	18.3	22.4	28.6	27.8	23.7	36.7	13.2	10.9	6.0	16.5	9.2	15.3	35.8	73.9	64.5	25.2	73.9
11	111.7	46.9	12.2	127.6	19.5	9.9	12.9	18.2	12.7	9.2	38.7	31.3	103.9	195.0	124.9	201.4	162.8	111.3	51.8	21.4	73.9	66.5	28.6	47.7	68.3	201.4
12	35.0	12.7	11.9	7.5	13.9	8.5	12.7	12.7	12.4	12.9	7.9	9.2	7.7	10.9	8.0	8.5	6.5	16.8	7.5	9.7	6.5	6.2	9.7	9.4	11.0	35.0
13	7.5	6.7	5.8	5.5	8.2	8.7	25.8	78.6	122.4	42.1	79.1	36.5	22.1	C	C	16.1	3.3	7.9	7.8	43.3	102.8	166.5	177.3	101.8	48.9	177.3
14	90.1	X	9.2	10.1	5.4	16.1	7.2	18.7	90.3	108.7	55.5	117.5	20.0	20.1	22.4	43.2	24.5	28.4	60.2	151.9	107.7	152.2	114.2	47.3	57.4	152.2
15	51.6	68.5	48.8	65.0	44.3	89.9	71.8	36.9	28.6	41.1	42.3	48.3	48.5	17.6	20.7	21.3	16.6	51.7	60.5	78.5	24.4	42.2	26.9	31.9	44.9	89.9
16	28.0	37.9	76.0	81.9	65.5	47.7	29.7	23.0	29.2	48.1	55.3	58.6	60.2	94.3	87.3	81.2	80.2	125.2	54.6	44.6	19.1	36.1	41.5	130.1	59.8	130.1
17	153.8	X	31.3	13.5	17.2	11.9	13.6	24.1	37.3	26.7	46.7	52.3	47.5	14.3	7.0	7.6	5.9	3.1	6.9	37.7	63.2	21.1	39.5	67.7	32.6	153.8
18	13.0	16.4	3.6	8.2	13.6	6.7	5.3	6.7	7.5	11.3	8.2	8.5	10.8	18.6	9.1	5.5	5.3	9.4	11.3	6.4	4.7	1.9	9.1	6.3	8.6	18.6
19	8.8	24.7	15.3	13.1	6.9	4.7	1.9	11.3	16.8	19.5	28.9	19.5	29.5	23.5	12.3	17.0	15.7	15.2	10.7	13.6	9.8	5.4	3.9	10.3	14.1	29.5
20	18.4	29.7	23.9	22.8	16.9	13.5	19.4	11.2	17.9	8.9	20.7	20.8	25.8	37.9	31.0	14.9	8.2	12.3	21.3	24.7	19.2	43.8	46.6	48.6	23.3	48.6
21	40.2	26.5	51.8	83.4	80.6	72.6	44.3	62.3	49.9	56.2	68.2	161.6	EC	EC	EC	EC	EC	60.8	24.6	20.1	13.8	16.6	14.4	9.1	50.4	161.6
22	15.1	23.1	15.5	14.5	13.1	20.0	17.2	26.2	14.4	39.6	28.2	35.4	24.4	21.4	74.1	24.2	65.8	48.5	38.2	20.2	19.6	55.6	27.9	32.2	29.8	74.1
23	45.3	33.4	26.6	25.2	16.4	18.3	19.2	28.8	22.1	24.9	25.5	32.7	55.1	54.3	51.6	33.2	31.7	26.2	17.9	21.3	23.6	19.4	23.4	21.6	29.1	55.1
24	13.9	26.7	17.1	6.2	30.4	20.5	19.1	20.3	20.3	10.7	28.3	8.7	18.8	18.7	29.7	17.7	26.6	24.4	20.0	18.0	15.1	25.0	57.7	32.4	21.9	57.7
25	25.3	32.5	19.9	71.6	52.1	67.3	22.3	31.6	32.3	74.8	37.0	52.2	33.9	42.3	30.0	18.0	27.3	32.5	18.1	22.0	18.2	13.3	12.4	7.0	33.1	74.8
26	6.5	16.9	10.7	10.7	7.6	5.4	4.3	18.9	26.2	27.7	38.3	84.1	180.6	132.8	23.3	13.0	16.3	42.8	14.2	25.4	12.7	9.7	10.5	28.4	32.0	180.6
27	20.4	28.7	9.7	22.1	18.6	6.3	10.1	22.6	31.4	43.0	271.7	107.3	48.5	16.1	31.2	35.9	26.7	53.1	24.4	20.3	23.1	20.6	28.0	38.5	39.9	271.7
28	5.9	10.3	14.4	13.8	19.7	16.5	10.2	26.2	46.6	68.1	32.3	31.2	38.6	40.6	172.3	129.4	68.3	64.3	30.0	38.6	40.7	55.9	44.5	42.6	44.2	172.3
29	34.8	49.9	23.0	9.5	10.4	7.5	6.1	38.5	35.1	41.0	51.5	62.5	39.9	58.4	33.8	17.0	11.1	17.3	33.0	31.9	22.3	31.6	79.6	40.6	32.8	79.6
30	32.2	25.3	77.9	435.9	107.1	27.4	19.5	17.4	10.9	8.0	9.2	9.5	13.2	38.2	43.3	40.7	32.0	17.5	13.5	59.7	72.3	107.2	32.5	34.1	53.5	435.9
NO.	30	27	30	30	30	30	30	30	30	30	30	30	29	28	28	29	29	30	30	30	30	30	30	30	710	99%
MEAN	33.5	28.3	25.7	43.4	26.2	24.5	20.5	31.2	36.2	40.7	48.0	48.1	42.4	41.9	38.2	33.7	27.1	32.2	23.5	28.2	28.0	39.4	41.0	37.7		
MAX	153.8	68.5	96.5	435.9	107.1	89.9	71.8	142.7	122.4	195.3	271.7	161.6	180.6	195.0	172.3	201.4	162.8	125.2	60.5	151.9	107.7	166.5	177.3	130.1		



Number of 24HR Exceedences	0
Number of Non-Zero Readings	709
Maximum 1-HR Average	435.9 UG/M3
Maximum 24-HR Average	68.3 UG/M3
Operational Time	712 HRS
Monthly Calibration	2
Operational Uptime	98.9 %
Standard Deviation	36.4
Monthly Average	34.1 UG/M3

Lagoon Temperature (°C) – November 2024

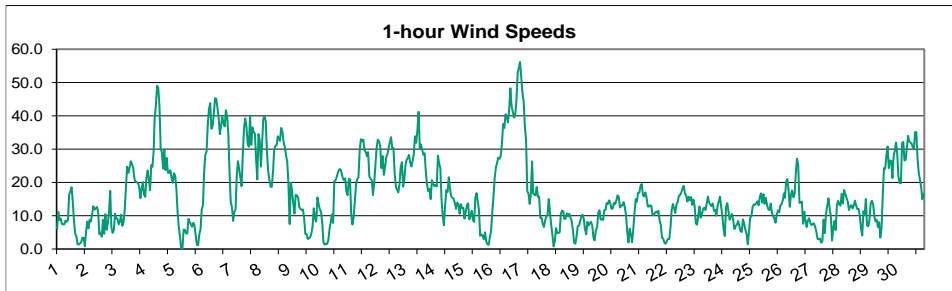
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	-1.6	-0.7	-0.5	-0.6	-0.4	-0.7	-0.8	-0.9	-0.8	1.1	3.9	4.8	5.2	5.8	5.9	5.4	3.6	1.1	-0.3	-0.4	-0.7	-0.6	-0.5	-0.9	1.1	5.9
2	-0.6	-0.5	-0.6	-0.6	-0.9	-0.8	-0.4	0.4	0.7	1.2	1.8	3.3	4.8	5.8	5.8	5.1	4.5	2.5	1.6	2.8	3.3	2.7	1.3	0.3	1.8	5.8
3	0.4	0.3	0.2	-0.1	-0.5	-0.5	-0.8	-0.2	0.6	2.1	4.0	4.5	5.1	5.3	5.5	4.8	4.2	3.8	3.2	2.9	2.6	2.2	2.0	2.2	2.2	5.5
4	2.0	1.9	2.0	2.2	1.8	1.9	2.4	2.4	2.9	3.3	4.2	4.3	4.5	4.8	5.3	5.5	4.9	4.0	4.0	3.6	3.2	2.8	1.9	1.5	3.2	5.5
5	1.9	2.1	2.1	2.1	2.0	0.9	0.3	0.3	0.4	0.0	0.5	0.9	1.5	1.5	C	C	0.5	-0.6	-1.8	-2.7	-4.3	-5.0	-4.5	-4.1	-0.3	2.1
6	-2.2	-1.8	-0.9	-0.6	0.1	0.9	1.4	1.7	2.1	2.6	3.0	3.7	4.7	5.6	6.3	6.1	6.1	5.7	5.6	5.8	5.6	4.9	5.2	5.7	3.2	6.3
7	5.1	4.5	4.6	4.5	3.7	4.3	4.7	3.7	3.3	4.5	6.5	7.4	8.1	9.7	10.2	10.7	10.7	9.5	8.8	8.7	8.5	8.2	7.1	6.8	6.8	10.7
8	6.7	6.2	7.3	9.5	9.2	8.4	6.8	5.7	5.9	6.5	8.2	11.8	14.0	14.5	14.4	13.8	13.3	13.3	13.2	13.2	13.1	12.9	12.6	12.2	10.5	14.5
9	12.0	11.3	8.1	6.1	5.8	5.7	4.3	2.8	2.4	2.2	1.9	2.2	2.8	3.6	4.2	4.1	3.7	3.3	3.1	2.9	3.0	3.2	3.2	2.1	4.3	12.0
10	-0.1	-0.1	0.2	0.6	0.8	-0.3	-1.8	-1.9	-1.7	-1.3	-0.3	0.5	1.1	2.8	7.1	6.4	5.5	4.7	4.2	4.1	3.5	3.4	2.9	2.5	1.8	7.1
11	2.5	2.3	3.1	2.8	2.3	2.2	2.6	3.0	4.6	5.9	7.3	10.0	10.8	11.2	10.7	10.1	9.7	9.3	9.2	9.0	8.2	3.6	3.6	3.6	6.2	11.2
12	4.3	4.8	4.9	4.9	5.0	4.3	4.7	4.7	4.7	5.0	5.3	5.8	6.2	6.3	6.2	6.1	5.8	5.3	4.9	4.2	4.5	4.7	4.8	4.5	5.1	6.3
13	4.5	4.3	4.1	4.4	4.4	4.5	4.6	5.0	4.9	5.6	6.2	6.8	6.8	6.9	6.5	6.1	5.7	5.6	5.5	5.2	4.7	4.5	4.1	4.0	5.2	6.9
14	4.5	5.2	6.1	6.3	6.2	5.7	5.4	4.7	3.8	4.3	6.1	6.3	6.5	7.1	7.2	6.8	6.6	5.9	5.4	4.9	4.4	3.9	3.5	3.2	5.4	7.2
15	2.7	2.3	2.6	2.6	2.6	2.5	1.9	1.7	1.7	1.9	2.6	4.2	4.8	4.7	4.1	2.7	1.2	0.3	-1.7	-1.7	-2.5	-3.3	-4.3	-4.5	1.2	4.8
16	-2.7	-1.5	-1.0	-0.8	-1.0	-1.0	-1.1	-0.7	-0.7	-0.7	0.4	1.1	1.7	2.5	2.9	3.1	3.0	2.7	2.7	2.5	2.6	2.8	3.2	3.0	1.0	3.2
17	3.0	3.1	3.2	3.1	2.8	2.6	2.7	3.4	3.7	4.5	5.1	4.7	4.1	4.7	4.3	4.4	3.9	2.9	2.0	1.7	1.6	1.0	0.8	0.4	3.1	5.1
18	-0.9	-0.8	-0.9	-2.0	-2.4	-2.2	-2.4	-2.4	-2.3	-2.1	-1.8	-1.9	-2.4	-2.7	-2.9	-2.7	-2.9	-3.0	-3.1	-3.2	-3.3	-3.9	-4.2	-3.9	-2.5	-0.8
19	-4.4	-4.7	-5.9	-6.9	-7.5	-7.9	-8.3	-9.5	-9.6	-9.3	-8.4	-5.4	-3.8	-3.7	-5.5	-6.2	-5.9	-5.2	-5.6	-5.9	-5.9	-5.8	-6.3	-7.2	-6.5	-3.7
20	-7.8	-8.0	-8.3	-8.4	-8.5	-8.7	-8.8	-8.9	-9.1	-9.1	-8.9	-8.4	-7.8	-7.8	-7.7	-8.0	-8.1	-8.4	-8.4	-9.1	-9.3	-9.4	-9.8	-9.8	-8.6	-7.7
21	-10.0	-10.0	-10.1	-10.2	-10.3	-11.0	-11.4	-11.6	-11.6	-11.5	-11.3	-10.5	-10.1	-9.5	-9.3	-9.5	-9.8	-9.9	-10.1	-10.1	-10.5	-10.8	-10.9	-10.9	-10.5	-9.3
22	-11.7	-12.1	-12.5	-12.9	-13.8	-13.4	-13.0	-13.1	-12.9	-12.4	-12.1	-11.8	-11.2	-10.8	-10.6	-10.6	-10.7	-10.8	-10.9	-10.9	-11.2	-11.7	-12.0	-12.2	-11.9	-10.6
23	-12.3	-12.4	-12.5	-12.3	-12.1	-12.1	-12.0	-12.0	-11.9	-11.8	-11.6	-11.6	-11.4	-11.0	-10.5	-10.4	-10.6	-10.9	-11.0	-11.1	-11.2	-11.4	-11.9	-12.1	-11.6	-10.4
24	-12.1	-12.0	-11.8	-12.0	-12.4	-12.5	-13.2	-13.8	-13.6	-14.0	-13.9	-12.2	-11.6	-11.1	-11.5	-12.0	-13.3	-14.2	-14.8	-15.4	-16.3	-16.9	-16.3	-14.6	-13.4	-11.1
25	-14.2	-14.2	-14.2	-14.0	-13.2	-13.3	-12.8	-12.3	-11.3	-10.0	-8.8	-7.9	-7.2	-6.3	-5.6	-5.4	-5.6	-5.7	-5.5	-5.9	-6.1	-5.9	-5.6	-5.5	-9.0	-5.4
26	-5.9	-5.8	-6.2	-6.6	-6.6	-6.9	-6.9	-6.8	-6.6	-4.9	-3.2	-2.5	-2.1	-1.8	-1.5	-2.2	-2.8	-3.5	-4.0	-6.4	-8.0	-8.8	-9.8	-5.3	-1.5	
27	-10.2	-10.9	-11.8	-12.5	-12.5	-12.4	-12.2	-12.3	-12.8	-12.0	-10.8	-8.5	-7.7	-7.2	-7.2	-7.6	-8.4	-8.9	-9.6	-11.3	-12.8	-12.1	-11.9	-10.0	-10.6	-7.2
28	-9.7	-9.9	-10.0	-9.5	-9.3	-8.5	-7.6	-7.0	-6.6	-6.5	-5.8	-4.5	-3.3	-10.4	-13.3	-13.7	-14.4	-15.0	-15.3	-15.5	-15.7	-14.7	-14.0	-12.6	-10.5	-3.3
29	-15.2	-17.4	-13.4	-7.4	-7.5	-8.3	-18.1	-17.9	-17.7	-17.1	-16.0	-13.4	-8.7	-4.8	-1.4	-1.4	-1.4	-1.8	-1.9	-1.9	-2.2	-2.5	-2.4	-8.4	-1.4	
30	-1.9	-2.1	-2.1	-2.1	-1.6	-0.8	-0.4	-0.2	-0.3	-0.3	0.3	1.3	2.1	1.8	2.2	2.5	2.8	2.8	2.3	1.8	-4.0	-15.5	-16.3	-16.4	-1.8	2.8
NO.	30	30	30	30	30	30	30	30	30	30	30	30	30	30	29	29	30	30	30	30	30	30	30	30	718	100%
MEAN	-2.5	-2.6	-2.5	-2.4	-2.5	-2.6	-3.0	-3.1	-2.9	-2.5	-1.6	-0.5	0.2	0.6	0.7	0.5	0.1	-0.5	-0.9	-1.2	-1.8	-2.6	-2.8	-2.8		
MAX	12.0	11.3	8.1	9.5	9.2	8.4	6.8	5.7	5.9	6.5	8.2	11.8	14.0	14.5	14.4	13.8	13.3	13.3	13.2	13.2	13.1	12.9	12.6	12.2		



Number of Non-Zero Readings	718
Maximum 1-HR Average	14.5 C
Maximum 24-HR Average	10.5 C
Monthly Calibration	2
Standard Deviation	7.22
Operational Time	720 HRS
Operational Uptime	100.0 %
Monthly Average	-1.6 C

Lagoon Wind Speed (km/hr) – November 2024

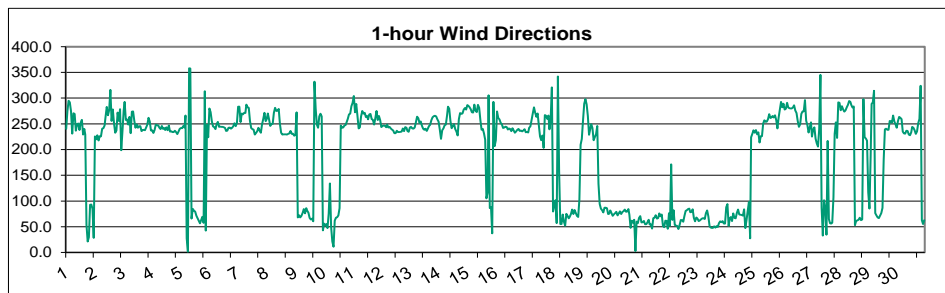
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	6.1	11.2	8.6	9.2	7.6	7.3	7.4	8.6	8.2	8.7	16.5	17.3	18.6	14.2	8.5	4.6	3.8	1.4	1.3	1.7	2.1	3.4	3.3	0.8	7.5	18.6
2	5.3	8.3	6.2	8.9	8.2	10.4	12.9	11.9	12.2	12.6	11.2	4.4	5.0	3.7	8.8	4.6	10.5	5.8	7.7	11.0	17.5	6.4	4.9	5.7	8.5	17.5
3	10.6	9.2	9.1	7.4	8.1	10.3	6.9	8.1	11.7	18.3	24.8	22.8	24.3	26.4	25.6	24.6	21.2	20.1	20.0	19.8	18.7	15.3	18.1	20.1	16.7	26.4
4	16.4	15.7	21.4	23.6	20.8	17.6	25.2	24.7	29.6	39.0	43.0	49.1	48.4	42.9	30.2	29.0	24.1	30.0	23.7	27.4	22.9	22.8	23.7	21.4	28.0	49.1
5	19.9	22.8	22.0	18.2	11.1	6.6	3.7	0.0	0.0	5.8	5.8	4.7	4.6	9.0	C	C	6.7	7.9	7.2	4.1	1.3	1.2	4.4	5.9	7.9	22.8
6	12.0	13.1	23.4	28.4	29.3	37.4	42.1	43.8	36.1	36.9	40.5	45.3	45.2	42.5	39.5	34.5	36.9	39.7	37.8	36.8	41.7	39.9	34.7	23.5	35.0	45.3
7	14.3	12.6	8.4	11.1	11.9	21.9	26.4	24.1	21.5	18.9	28.1	36.2	39.3	36.9	31.8	30.7	40.1	31.3	36.6	35.2	34.6	27.1	20.9	34.6	26.4	40.1
8	32.8	24.7	31.8	39.2	38.5	29.3	23.3	20.9	18.7	18.6	23.1	29.8	31.1	31.2	33.9	32.9	32.5	32.5	36.4	35.2	32.1	30.6	28.2	26.2	30.0	39.9
9	19.7	7.5	19.9	17.5	13.5	10.6	16.3	16.1	15.4	12.6	12.0	11.7	11.9	9.3	4.5	4.6	3.0	3.2	3.5	4.6	6.8	12.2	9.1	8.3	10.6	19.9
10	15.5	13.6	11.9	11.2	7.8	2.0	1.3	1.6	1.5	2.6	5.9	8.0	10.4	7.8	20.4	20.6	21.7	23.0	23.9	24.0	22.9	21.3	20.6	21.2	13.4	24.0
11	17.2	16.2	21.1	20.9	10.3	7.3	9.5	14.5	19.4	21.0	21.5	29.5	33.0	32.3	32.9	29.6	29.3	27.8	29.1	21.8	21.2	20.7	16.2	19.6	21.8	33.0
12	25.0	30.3	32.9	32.4	31.1	24.3	28.0	22.3	24.6	27.5	28.5	30.3	32.1	33.6	30.3	30.4	22.4	18.7	17.7	17.0	19.6	24.7	26.2	18.7	26.2	33.6
13	21.1	25.3	26.8	27.3	28.3	26.2	24.8	26.3	28.5	33.9	31.9	35.6	41.3	30.2	31.5	29.7	28.3	28.8	23.2	19.3	17.3	18.1	15.0	20.7	26.6	41.3
14	19.6	19.0	19.3	18.8	28.0	25.8	24.2	14.8	9.9	7.2	13.4	17.7	17.2	21.6	18.2	15.8	15.4	15.1	13.9	12.0	13.9	13.3	10.6	13.5	16.6	28.0
15	12.3	12.4	9.1	11.2	13.1	13.8	8.9	9.9	11.5	8.7	8.1	15.5	16.8	14.3	11.7	3.9	4.4	4.0	2.9	5.0	2.3	1.5	1.2	3.4	8.6	16.8
16	5.3	11.0	15.7	21.3	24.4	25.9	27.5	27.1	27.9	31.6	37.6	36.4	40.5	39.7	38.0	41.9	48.3	42.9	41.2	39.5	40.3	44.5	52.7	54.4	34.0	54.4
17	56.2	51.7	46.9	44.4	36.9	32.7	17.5	16.6	13.5	16.7	26.4	16.8	16.3	16.2	18.7	15.6	15.8	9.3	9.5	7.5	6.6	8.6	10.0	10.2	21.7	56.2
18	15.1	11.0	7.3	4.3	0.8	2.3	6.4	4.8	4.9	5.0	10.6	11.6	11.3	8.9	9.2	10.7	9.9	10.6	9.4	8.4	5.7	1.9	1.6	3.8	7.3	15.1
19	6.9	7.1	8.3	10.0	10.3	9.1	6.0	4.4	8.2	7.1	7.7	8.2	7.1	3.4	2.6	5.7	6.4	10.8	11.7	8.8	8.9	8.7	11.6	11.8	8.0	11.8
20	13.8	13.6	14.6	13.7	12.1	12.2	13.9	13.6	14.6	16.2	15.6	12.4	13.0	13.2	14.1	12.5	10.2	5.1	2.0	6.2	4.4	2.1	6.1	10.8	11.1	16.2
21	15.0	14.2	16.9	16.9	19.0	19.5	16.2	15.8	17.0	15.5	12.8	12.7	13.2	12.8	10.2	10.2	10.9	11.2	10.9	11.5	8.6	7.2	3.4	3.2	12.7	19.5
22	1.9	1.6	2.5	3.1	2.9	6.4	11.8	13.5	12.2	10.8	13.5	14.2	16.0	16.2	17.0	18.3	19.0	16.6	16.1	14.2	15.8	14.7	15.7	13.3	12.0	19.0
23	14.8	12.9	7.7	7.3	10.0	12.8	9.4	10.4	12.0	12.5	11.7	13.7	15.8	14.0	13.3	12.9	13.7	11.5	11.8	10.0	13.0	14.4	15.7	12.7	12.2	15.8
24	9.9	5.8	3.9	12.7	13.8	11.3	8.8	9.9	10.6	8.5	6.0	6.9	7.3	8.5	7.0	5.3	5.1	8.9	7.7	5.7	4.7	1.4	5.0	9.5	7.7	13.8
25	9.8	12.6	13.4	13.3	13.7	14.3	13.1	15.6	16.8	13.9	16.5	13.6	15.4	13.1	12.0	11.7	13.7	10.8	10.0	9.3	7.9	10.3	11.6	11.0	12.6	16.8
26	13.1	13.4	14.6	16.8	15.4	20.3	21.0	17.6	12.7	16.4	17.6	15.5	16.5	22.9	27.2	25.2	13.9	13.9	14.3	7.5	11.2	8.3	6.6	8.6	15.4	27.2
27	9.2	7.9	7.2	7.5	7.7	6.7	5.2	3.0	2.9	3.2	1.9	2.3	8.9	4.8	10.7	12.9	15.2	12.3	9.9	2.6	6.2	8.4	5.7	13.0	7.3	15.2
28	14.5	13.4	13.0	16.6	13.7	17.8	16.6	15.4	14.3	11.7	12.9	13.2	12.2	13.2	14.6	13.0	12.0	12.0	9.8	6.3	4.1	11.4	10.2	15.0	12.8	17.8
29	7.1	6.8	8.8	13.7	14.5	13.5	9.9	8.3	8.8	6.6	8.1	3.4	6.3	16.2	24.3	24.1	28.0	30.8	24.3	26.6	26.5	21.3	27.8	29.5	16.5	30.8
30	32.0	28.4	21.7	19.8	19.7	31.8	32.2	26.6	26.7	30.6	34.0	32.2	31.9	31.8	30.6	30.1	35.2	35.1	27.2	22.9	20.8	18.6	15.0	16.7	27.2	35.2
NO.	30	30	30	30	30	30	30	30	30	30	30	30	30	30	29	29	30	30	30	30	30	30	30	30	718	100%
MEAN	15.7	15.1	15.8	16.9	16.1	16.6	16.1	15.1	15.1	16.0	18.1	18.8	20.3	19.7	19.8	18.9	18.6	17.7	16.7	15.4	15.3	14.7	14.5	15.6		
MAX	56.2	51.7	46.9	44.4	39.9	38.5	42.1	43.8	36.1	39.0	43.0	49.1	48.4	42.9	39.5	41.9	48.3	42.9	41.2	39.5	41.7	44.5	52.7	54.4		



Number of Non-Zero Readings	717		
Maximum 1-HR Average	56.2 KM/HR		
Maximum 24-HR Average	35.0 KM/HR		
Monthly Calibration	2	Operational Time	720 HRS
Standard Deviation	10.8	Operational Uptime	100.0 %
		Monthly Average	16.8 KM/HR

Lagoon Wind Direction (°) – November 2024

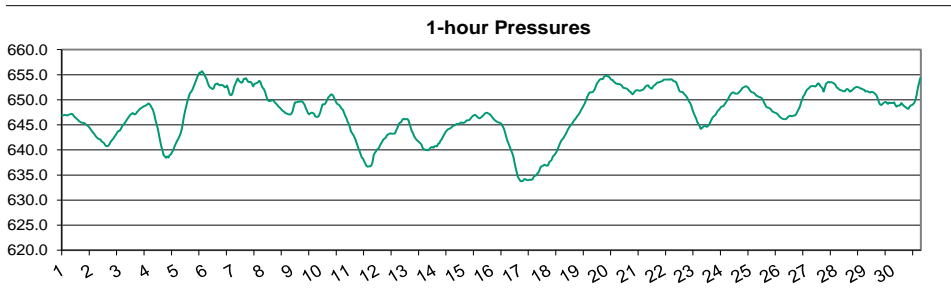
Day	HOUR																								MEAN	MAX	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1	240.4	274.4	294.9	291.7	274.6	230.9	270.6	269.5	236.5	249.0	250.6	237.9	252.1	258.0	229.3	240.1	229.3	54.1	21.5	29.6	93.0	93.3	84.7	28.2	255.6	294.9	
2	225.6	220.1	227.7	217.6	226.0	225.4	240.7	241.7	246.6	263.7	282.8	266.6	276.8	315.9	255.6	278.2	251.1	232.8	237.1	272.0	255.5	278.6	198.5	235.6	248.1	315.9	
3	275.3	292.5	257.3	258.7	248.7	263.5	231.6	273.5	274.0	255.9	242.3	248.9	242.6	245.4	245.6	235.7	237.9	238.2	237.7	243.0	248.7	261.9	254.6	237.0	248.6	292.5	
4	237.4	232.3	237.9	248.7	247.1	247.2	242.2	239.9	246.1	240.4	242.0	237.8	243.4	237.5	246.7	235.1	235.8	234.0	234.2	236.6	233.8	230.0	234.8	240.4	239.4	248.7	
5	241.9	241.6	246.0	242.8	266.1	27.6	1.6	357.9	357.6	65.9	84.8	81.5	79.4	71.6	C	C	56.8	63.3	69.3	57.4	313.2	42.5	248.2	223.9	250.6	357.9	
6	279.7	272.9	255.4	244.9	243.8	239.6	249.3	253.9	244.1	244.4	244.2	244.1	243.4	242.1	236.0	236.8	242.3	243.0	240.8	242.2	245.3	251.4	245.6	252.2	245.4	279.7	
7	283.6	283.3	253.3	270.3	268.5	271.3	271.2	287.4	281.9	281.1	255.5	241.9	239.7	239.0	229.2	232.4	235.9	242.5	236.6	232.8	249.0	259.5	271.6	255.0	252.0	287.4	
8	258.5	270.0	258.7	245.7	249.8	250.0	271.6	281.3	275.1	275.5	278.9	249.8	232.7	229.3	229.4	229.7	229.7	229.2	230.3	231.2	236.0	230.4	231.1	226.9	244.8	281.3	
9	228.3	272.5	67.9	72.5	67.9	71.2	77.1	84.3	75.9	86.2	81.3	77.4	67.2	64.1	66.0	60.5	331.8	280.0	248.5	242.3	264.6	269.7	264.6	43.1	70.4	331.8	
10	56.1	52.8	55.2	47.2	75.6	134.5	49.5	21.3	11.3	61.8	67.6	68.6	71.9	86.0	246.6	242.2	243.0	247.0	247.5	254.2	259.5	268.6	269.6	284.3	267.2	284.3	
11	291.1	304.2	272.6	288.7	265.9	241.1	243.3	264.4	275.0	269.7	271.4	263.1	265.8	258.8	268.3	269.5	259.3	257.8	248.7	260.9	275.1	257.3	265.3	257.3	266.4	304.2	
12	243.8	246.0	246.7	246.5	243.1	248.6	243.0	244.1	241.1	239.0	237.2	231.9	231.6	236.6	233.8	234.1	234.3	235.1	241.0	235.8	243.8	242.5	236.0	234.3	239.6	248.6	
13	242.8	244.2	241.0	240.6	242.9	253.0	264.1	260.8	251.5	254.7	246.2	240.7	238.4	240.5	236.4	240.1	245.4	248.0	256.8	262.7	264.8	265.8	264.4	258.8	248.6	265.8	
14	254.2	238.8	220.7	237.5	241.0	247.4	248.6	266.0	283.2	279.5	255.5	241.5	245.7	249.4	239.9	235.1	227.3	259.3	270.9	269.3	270.3	277.5	280.7	277.9	251.4	283.2	
15	286.4	285.3	282.4	278.7	272.5	272.1	287.4	275.6	272.9	287.0	281.3	257.4	238.3	240.0	231.5	219.1	105.0	116.2	305.6	86.2	88.3	37.1	292.6	206.6	265.7	305.6	
16	218.0	274.0	261.4	258.5	252.2	249.1	242.1	242.8	244.4	243.9	238.8	241.0	240.2	235.8	241.4	237.3	232.8	235.5	238.2	240.4	236.3	237.1	235.2	237.3	240.4	274.0	
17	239.7	233.4	234.5	233.1	242.6	245.2	257.5	270.3	282.2	271.6	263.7	270.3	247.6	225.5	217.9	227.5	203.0	267.1	265.8	259.8	266.4	239.4	259.6	321.0	245.2	321.0	
18	79.6	91.2	101.8	57.2	342.1	160.1	55.5	55.5	73.9	59.7	52.4	75.0	71.4	66.5	69.3	74.8	83.6	74.7	82.5	76.8	71.1	69.2	103.1	209.4	75.5	342.1	
19	220.9	256.3	289.2	297.8	287.8	265.2	228.7	238.1	249.6	242.0	218.3	224.5	229.9	245.8	133.9	94.6	85.1	82.1	77.6	86.9	87.0	86.2	74.9	75.3	189.6	297.8	
20	81.8	76.6	71.0	74.4	76.4	79.2	72.0	76.0	80.1	74.9	78.6	80.5	83.5	79.2	79.4	84.3	73.4	47.7	62.1	58.0	63.8	2.8	60.0	57.3	74.7	84.3	
21	67.4	70.7	58.5	58.7	61.3	54.9	55.0	58.8	63.7	54.6	54.9	46.7	66.9	67.5	72.4	65.7	66.9	75.9	70.2	73.7	51.6	49.2	62.1	61.3	61.8	75.9	
22	46.0	76.7	52.0	171.4	63.3	82.4	53.4	52.1	51.7	45.5	53.6	63.1	62.7	59.6	71.1	80.7	82.2	84.3	85.5	78.1	78.5	84.0	67.1	60.4	69.5	171.4	
23	68.3	65.8	61.0	62.2	64.6	66.2	66.8	65.0	76.5	81.8	70.2	51.5	48.7	47.9	47.9	50.7	48.4	51.4	49.8	57.1	60.6	59.0	61.1	56.4	59.5	81.8	
24	56.0	88.1	94.1	51.8	66.4	68.8	61.0	75.9	67.1	66.4	77.0	83.7	73.7	73.2	73.0	71.8	84.1	47.4	63.0	81.1	98.0	27.5	223.7	230.4	71.1	230.4	
25	237.5	232.5	237.8	229.7	233.5	213.5	226.2	226.2	250.7	257.0	254.0	254.4	259.2	268.9	261.3	262.3	265.2	262.4	266.5	257.2	240.9	262.3	277.7	292.5	250.4	292.5	
26	281.9	289.3	277.8	279.5	290.9	281.7	280.3	279.9	280.1	281.7	286.1	276.0	271.1	255.7	244.3	248.9	269.5	274.3	274.3	296.3	256.2	247.9	233.2	243.8	270.9	296.3	
27	252.9	225.0	238.9	243.1	221.0	211.8	205.9	239.9	345.2	87.0	32.6	101.6	86.1	34.6	216.8	65.2	56.8	56.1	57.8	107.2	230.4	253.0	222.7	291.7	223.6	345.2	
28	290.8	276.4	284.5	278.0	273.6	276.5	282.3	287.0	294.4	292.9	286.3	281.5	284.0	53.2	61.6	62.5	63.6	67.6	62.6	64.0	297.8	223.8	221.6	217.2	292.1	297.8	
29	117.0	85.3	187.2	288.9	291.6	314.2	76.3	71.9	67.9	66.9	71.8	76.7	86.5	180.0	239.3	240.7	238.3	238.3	255.7	255.3	251.9	266.1	254.6	248.8	247.6	314.2	
30	242.4	255.2	263.6	261.6	259.1	234.8	231.4	231.1	236.8	236.0	229.1	227.9	233.7	244.2	242.6	237.7	230.4	235.4	251.2	259.8	324.2	62.6	55.2	62.8	242.9	324.2	
NO.	30	30	30	30	30	30	30	30	30	30	30	30	30	30	29	29	30	30	30	30	30	30	30	30	30	718	100%
MEAN	204.8	210.9	204.4	209.3	215.3	200.9	186.2	203.1	207.9	190.5	186.3	184.8	183.8	178.4	188.5	182.5	181.6	176.0	183.0	180.3	205.2	181.2	201.8	197.6			
MAX	291.1	304.2	294.9	297.8	342.1	314.2	287.4	357.9	357.6	292.9	286.3	281.5	284.0	315.9	268.3	278.2	331.8	280.0	305.6	296.3	324.2	278.6	292.6	321.0			



Number of Non-Zero Readings	718
Maximum 1-HR Average	358 degrees
Maximum 24-HR Average	292 degrees
Operational Time	720 HRS
Operational Uptime	100.0 %
Monthly Calibration	2
Standard Deviation	89.2
Monthly Average	193.5 degrees

Lagoon Pressure (mmHg) – November 2024

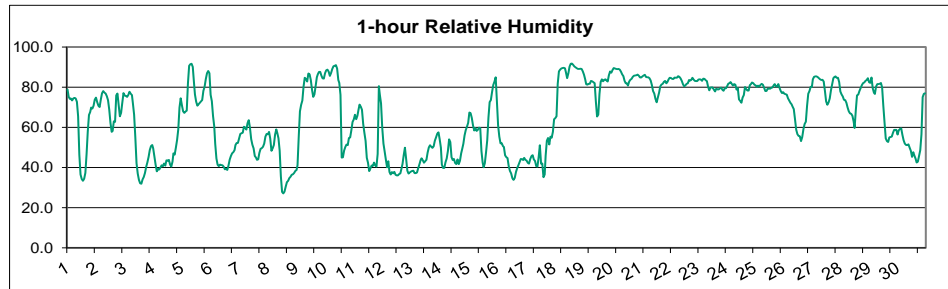
Day	HOUR																								MEAN	MAX	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1	646.9	646.9	647.0	647.0	646.9	647.0	647.1	647.2	647.2	647.0	646.7	646.4	646.2	646.0	645.8	645.6	645.5	645.4	645.4	645.3	645.1	644.9	644.7	644.4	646.1	647.2	
2	644.0	643.7	643.4	643.1	642.7	642.4	642.2	642.2	642.0	641.7	641.5	641.4	641.0	640.7	640.8	640.9	641.4	641.8	642.0	642.3	642.8	643.1	643.5	643.8	642.3	644.0	
3	643.8	644.2	644.7	645.0	645.2	645.6	646.0	646.3	646.7	647.0	647.2	647.4	647.1	647.1	647.3	647.7	647.9	648.2	648.3	648.5	648.7	648.8	648.9	649.0	646.9	649.0	
4	649.3	649.2	648.9	648.4	647.9	647.1	646.0	645.2	644.2	642.9	641.8	640.6	639.8	639.0	638.7	638.4	638.7	638.5	639.0	639.1	639.6	640.0	640.7	641.2	642.7	649.3	
5	641.8	642.2	642.7	643.3	644.1	645.4	646.6	647.8	648.8	649.8	650.6	651.3	651.6	652.0	C	C	653.8	654.5	655.0	655.5	655.4	655.7	655.4	655.0	649.9	655.7	
6	654.6	654.1	653.4	652.7	652.4	652.3	652.1	652.4	653.1	653.2	653.3	653.0	652.9	652.9	653.0	652.8	652.5	652.5	652.8	652.3	651.3	650.9	651.0	651.6	652.6	654.6	
7	652.6	653.2	653.7	654.3	653.8	653.6	653.4	653.6	654.2	654.2	654.3	653.9	653.5	653.6	653.6	653.2	652.7	653.2	653.3	653.3	653.5	653.8	653.5	652.8	653.5	654.3	
8	652.4	652.1	651.4	650.6	650.0	649.8	649.8	649.8	649.9	649.9	649.5	649.3	649.0	648.7	648.5	648.2	647.9	647.7	647.6	647.3	647.3	647.1	647.1	647.1	649.1	652.4	
9	647.2	647.7	648.7	649.5	649.5	649.5	649.7	649.6	649.7	649.7	649.3	649.0	648.3	647.8	647.3	647.1	647.3	647.4	647.4	647.2	646.7	646.6	646.6	646.6	648.2	649.7	
10	647.4	648.2	649.1	649.1	649.1	649.5	650.0	650.5	650.7	651.0	651.1	650.8	650.3	649.8	649.3	649.1	649.0	648.7	648.2	648.0	647.4	646.8	646.4	645.6	649.0	651.1	
11	645.2	644.6	643.7	643.3	643.0	642.5	641.9	641.2	640.4	639.8	639.1	638.5	638.3	637.7	637.2	636.7	636.6	636.8	636.7	636.9	637.5	639.0	639.4	639.8	639.8	645.2	
12	640.1	640.3	640.8	641.3	641.6	642.1	642.2	642.5	642.9	643.1	643.2	643.3	643.2	643.3	643.3	643.3	643.4	644.0	644.4	645.1	645.4	645.6	646.0	646.2	643.3	646.2	
13	646.1	646.2	645.9	645.2	644.4	643.7	643.3	642.7	642.3	642.0	641.8	641.6	641.3	641.1	640.4	640.2	640.0	640.0	639.9	640.0	640.3	640.5	640.6	640.4	642.1	646.2	
14	640.8	640.8	640.7	641.3	641.3	641.9	642.2	642.6	643.1	643.5	643.8	644.1	644.2	644.3	644.5	644.7	644.8	644.9	645.1	645.2	645.2	645.3	645.5	645.5	643.6	645.5	
15	645.4	645.5	645.7	645.9	645.9	646.0	646.3	646.5	646.8	646.9	647.0	646.8	646.5	646.3	646.3	646.5	646.7	647.0	647.2	647.4	647.4	647.3	647.1	646.9	646.6	647.4	
16	646.6	646.3	646.0	645.8	645.7	645.5	645.5	645.4	645.2	644.7	644.3	643.5	642.6	641.8	641.2	640.6	639.9	639.3	638.6	637.5	636.5	635.5	634.2	641.9	646.6		
17	633.8	633.8	633.8	634.2	634.2	634.0	634.0	634.0	634.1	634.0	634.0	634.2	634.7	634.9	634.9	635.2	635.5	636.0	636.7	636.7	636.9	637.1	636.9	636.8	636.9	635.1	637.1
18	637.6	637.8	638.0	638.7	638.9	639.2	639.5	640.0	640.6	641.3	641.8	642.1	642.4	642.8	643.2	643.7	644.2	644.6	645.0	645.2	645.6	646.0	646.2	646.5	642.1	646.5	
19	646.8	647.2	647.6	648.1	648.4	648.9	649.4	650.0	650.6	651.1	651.5	651.5	651.5	651.7	652.1	652.7	653.2	653.5	653.9	654.1	654.1	654.1	654.6	654.8	651.3	654.8	
20	654.8	654.7	654.7	654.3	654.0	653.6	653.4	653.2	653.2	653.2	653.1	653.2	653.0	652.8	652.4	652.3	652.3	652.2	652.0	651.7	651.6	651.3	651.1	651.4	652.9	654.8	
21	651.7	651.9	651.9	651.9	651.8	651.9	652.0	652.1	652.4	652.7	652.9	652.9	652.5	652.3	652.2	652.6	652.9	653.1	653.3	653.5	653.5	653.6	653.7	653.8	652.6	653.8	
22	654.0	654.1	654.0	654.1	654.1	654.0	654.1	654.0	653.8	653.7	653.6	653.1	652.5	651.9	651.6	651.6	651.5	651.2	651.0	650.7	650.3	649.7	649.4	648.9	652.4	654.1	
23	648.0	647.4	646.8	646.3	645.6	645.2	644.8	644.2	644.3	644.6	644.8	644.7	644.6	644.7	645.0	645.5	646.0	646.5	646.7	646.9	647.3	647.7	648.0	648.3	646.0	648.3	
24	648.6	648.7	648.7	649.1	649.4	649.8	650.2	650.7	651.1	651.3	651.5	651.4	651.2	651.2	651.3	651.5	651.8	652.0	652.3	652.5	652.6	652.7	652.6	652.3	651.0	652.7	
25	652.0	651.6	651.5	651.5	651.3	651.0	650.8	650.7	650.5	650.5	650.4	650.0	649.5	649.0	648.6	648.4	648.4	648.3	648.0	647.7	647.5	647.5	647.3	647.2	649.6	652.0	
26	647.0	646.6	646.5	646.3	646.2	646.1	646.2	646.2	646.5	646.7	646.8	646.8	646.8	646.9	646.9	647.2	647.7	648.2	648.6	649.5	650.1	650.7	651.0	651.5	647.6	651.5	
27	652.0	652.2	652.4	652.7	652.7	652.8	652.7	652.6	652.9	653.3	653.3	652.8	652.5	652.3	651.6	652.3	653.2	653.4	653.6	653.4	653.5	653.5	653.4	653.2	652.8	653.6	
28	652.9	652.4	652.3	652.0	651.9	651.9	651.8	651.7	651.7	652.1	652.2	651.9	651.6	651.7	651.9	652.2	652.4	652.5	652.6	652.5	652.4	652.2	652.2	652.0	652.1	652.9	
29	652.0	651.7	651.7	651.7	651.6	651.5	651.6	651.5	651.5	651.2	651.0	650.5	649.7	649.1	648.9	649.1	649.4	649.5	649.6	649.4	649.2	649.4	649.3	649.4	650.4	652.0	
30	649.4	649.5	649.0	648.7	648.8	648.9	648.9	649.4	649.1	648.8	648.7	648.5	648.3	648.2	648.6	648.8	649.0	649.2	649.4	650.0	651.1	652.4	653.4	654.3	649.6	654.3	
NO.	30	30	30	30	30	30	30	30	30	30	30	30	30	30	29	29	30	30	30	30	30	30	30	30	718	100%	
MEAN	647.5	647.5	647.5	647.5	647.4	647.4	647.5	647.5	647.7	647.7	647.7	647.5	647.2	647.1	646.8	646.9	647.2	647.4	647.5	647.5	647.5	647.6	647.7	647.7			
MAX	654.8	654.7	654.7	654.3	654.1	654.0	654.1	654.0	654.2	654.2	654.3	653.9	653.5	653.6	653.6	653.2	653.8	654.5	655.0	655.5	655.4	655.7	655.4	655.0			



Number of Non-Zero Readings	718	Operational Time	720 HRS
Maximum 1-HR Average	656 MMHg	Operational Uptime	100.0 %
Maximum 24-HR Average	654 MMHg	Monthly Average	647.4 MMHg
Monthly Calibration	2		
Standard Deviation	5.01		

Lagoon Relative Humidity (%) – November 2024

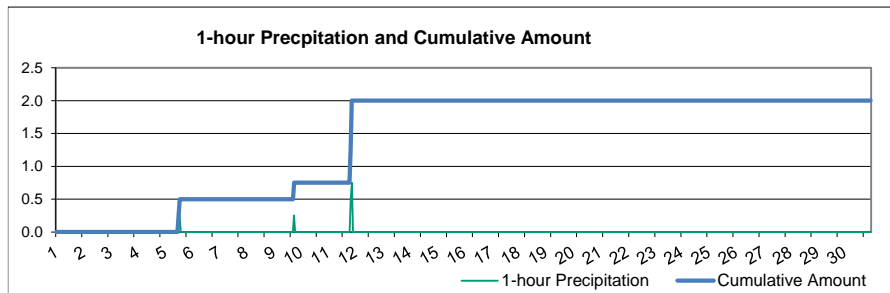
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	78.9	75.1	74.2	74.3	73.4	74.4	74.8	74.4	72.6	65.5	46.4	36.5	34.3	33.4	34.3	37.3	46.6	58.0	66.2	67.6	69.8	69.4	70.8	73.8	61.8	78.9
2	74.8	72.6	70.8	70.1	73.8	76.9	78.1	77.3	76.9	75.5	73.5	68.8	62.2	57.7	58.2	63.1	62.8	75.9	76.8	71.1	65.5	67.2	72.3	77.1	70.8	78.1
3	75.9	75.6	75.2	76.2	77.8	76.7	76.1	72.0	66.3	55.1	42.1	37.0	33.9	32.1	31.9	34.0	35.3	37.3	40.3	42.6	45.3	48.7	50.7	51.2	53.7	77.8
4	49.6	45.5	41.5	38.1	39.2	39.0	40.0	41.1	40.5	42.0	40.9	43.6	43.4	43.8	41.4	40.5	42.9	47.1	46.4	49.9	53.7	59.2	69.9	74.5	46.4	74.5
5	71.0	68.0	67.2	67.9	68.3	81.9	90.7	91.5	91.7	90.2	82.3	76.5	72.8	70.8	C	C	72.9	73.6	78.2	80.2	84.0	86.9	88.1	87.0	79.2	91.7
6	76.2	73.1	65.6	60.5	51.8	44.5	41.4	40.7	41.5	41.3	41.1	40.4	39.2	39.3	38.7	41.0	43.9	45.8	47.1	47.6	48.7	51.2	52.2	52.3	48.5	76.2
7	54.5	56.8	57.1	57.3	60.3	59.9	58.9	62.1	63.6	59.8	54.2	51.4	49.6	45.8	44.9	43.8	44.0	47.3	49.3	49.6	50.3	51.9	55.5	56.8	53.5	63.6
8	56.5	57.7	54.4	48.3	49.5	51.3	56.4	59.0	57.3	54.6	48.5	35.7	27.8	27.1	28.0	30.5	32.7	33.3	34.8	35.4	36.4	36.7	37.3	38.4	42.8	59.0
9	38.8	41.2	55.3	68.0	71.2	73.3	80.4	84.7	84.1	82.8	86.8	86.4	83.5	78.7	75.1	76.4	80.5	84.9	86.4	87.6	87.7	85.7	84.4	84.3	77.0	87.7
10	87.0	88.4	88.8	87.7	85.6	87.0	89.1	90.4	90.6	91.0	89.3	83.6	82.1	76.1	44.9	45.1	48.4	50.2	51.5	51.1	54.7	55.0	58.6	62.6	72.5	91.0
11	63.9	66.2	64.0	65.7	69.0	71.3	70.3	68.8	61.8	57.3	53.3	44.9	42.3	38.2	39.5	41.0	40.8	42.4	41.0	40.4	46.7	80.5	76.3	71.9	56.6	80.5
12	59.8	51.9	48.0	43.9	40.2	43.1	37.7	36.5	37.8	37.1	37.9	36.4	36.1	36.1	36.8	37.1	39.1	41.8	46.2	49.9	44.3	38.5	37.0	37.6	41.3	59.8
13	37.9	38.3	38.4	37.2	37.2	37.5	39.7	41.5	43.8	44.6	43.6	42.4	43.2	43.8	47.4	50.0	51.1	50.4	49.7	50.6	53.4	55.1	56.8	57.5	45.5	57.5
14	54.1	49.8	41.4	39.7	39.8	42.6	44.5	48.2	54.0	52.7	45.2	43.7	44.3	42.2	41.6	44.0	41.7	43.4	47.1	49.1	51.8	55.9	58.6	60.4	47.3	60.4
15	62.2	67.4	67.0	64.8	61.0	58.4	59.7	58.2	58.8	59.9	59.7	48.2	42.5	40.1	42.2	47.5	53.6	64.8	72.6	73.6	77.7	81.1	82.8	84.9	62.0	84.9
16	73.0	61.0	55.4	52.0	52.2	50.7	50.3	46.0	45.2	44.8	40.7	38.3	37.1	34.7	33.8	34.8	37.7	39.7	41.1	42.7	44.2	44.2	43.8	44.9	45.3	73.0
17	43.8	43.5	42.3	41.9	44.2	45.7	46.2	44.1	43.2	40.7	40.5	45.1	51.1	42.0	42.0	35.2	36.5	46.0	53.4	54.8	51.4	55.4	54.8	57.8	45.9	57.8
18	64.1	64.6	65.5	81.7	87.9	88.8	89.3	89.5	89.6	89.4	87.4	84.5	86.9	90.2	91.7	91.7	91.2	90.3	89.9	89.5	89.0	89.1	89.2	89.1	85.8	91.7
19	87.8	86.2	83.8	81.4	81.2	81.7	81.6	83.2	82.9	82.5	82.0	73.0	65.3	66.3	76.6	82.7	84.0	82.9	83.7	84.0	83.4	82.8	86.0	87.9	81.4	87.9
20	87.2	88.5	89.6	89.4	89.1	89.0	89.1	88.7	87.7	86.4	85.5	83.2	81.9	81.9	80.8	82.8	83.7	84.1	85.1	85.7	85.8	85.9	86.3	85.8	86.0	89.6
21	84.8	84.9	85.4	85.9	86.1	85.1	84.9	84.9	84.5	83.4	81.1	78.0	76.8	74.1	72.5	74.9	77.3	80.5	81.3	81.7	82.7	83.2	81.9	82.7	81.6	86.1
22	83.8	84.7	84.6	84.1	84.0	84.8	84.7	84.7	85.5	85.2	84.4	83.2	81.4	80.4	80.9	81.7	81.9	83.6	83.3	83.6	84.7	83.8	83.1	83.0	83.6	85.5
23	83.0	83.8	83.9	83.8	83.2	84.3	84.1	83.5	83.1	80.2	78.4	79.7	79.9	78.8	77.9	79.3	78.9	78.8	79.5	79.8	78.8	79.6	78.2	79.6	80.8	84.3
24	79.4	80.6	81.8	82.1	82.6	81.7	80.7	81.5	81.3	78.7	79.5	74.0	73.1	72.3	74.8	76.1	80.1	79.0	78.3	78.3	81.0	81.5	82.3	82.0	79.3	82.6
25	81.2	80.9	80.1	80.8	80.4	81.1	81.7	81.3	79.8	78.1	78.1	79.3	79.3	79.2	79.7	79.8	80.7	81.6	80.4	80.4	81.5	79.7	78.1	77.1	80.0	81.7
26	77.6	76.7	76.5	76.3	74.5	73.4	72.3	71.4	70.3	69.1	64.2	58.8	56.6	55.7	55.2	53.2	55.1	59.1	61.7	62.8	70.7	76.7	78.1	80.2	67.8	80.2
27	80.1	83.9	85.1	85.4	85.4	85.1	84.5	84.0	83.6	83.7	82.8	78.3	72.9	71.2	72.3	74.4	78.4	81.4	84.5	85.1	85.4	84.6	84.7	82.5	81.6	85.4
28	77.8	76.4	75.4	73.7	73.6	72.2	69.9	68.0	67.0	66.8	65.7	63.0	59.6	68.6	76.0	76.3	78.1	79.6	81.0	82.0	82.3	83.1	83.6	84.4	74.3	84.4
29	82.5	82.1	84.9	79.5	77.3	76.7	80.3	81.5	81.6	81.7	82.1	79.9	70.6	62.5	54.5	53.1	52.7	55.1	55.1	55.4	57.3	58.8	58.8	58.7	69.3	84.9
30	56.4	58.5	59.3	59.5	56.3	53.6	51.9	51.2	51.1	51.6	49.9	48.3	45.2	47.6	45.9	44.3	42.5	43.0	45.8	48.7	56.5	75.1	76.8	77.0	54.0	77.0
NO. READINGS	30	30	30	30	30	30	30	30	30	30	30	30	30	30	29	29	30	30	30	30	30	30	30	30	718	100%
MEAN	69.5	68.8	68.1	67.9	67.9	68.4	69.0	69.0	68.6	67.1	64.2	60.7	58.5	57.1	55.9	56.9	59.2	62.0	63.9	64.7	66.2	68.9	69.9	70.8		
MAX	87.8	88.5	89.6	89.4	89.1	89.0	90.7	91.5	91.7	91.0	89.3	86.4	86.9	90.2	91.7	91.7	91.2	90.3	89.9	89.5	89.0	89.1	89.2	89.1		



Number of Non-Zero Readings	718
Maximum 1-HR Average	91.7 %
Maximum 24-HR Average	86.0 %
Monthly Calibration	2
Standard Deviation	17.8
Operational Time	720 HRS
Operational Uptime	100.0 %
Monthly Average	65.1 %

Lagoon Precipitation (mm) – November 2024

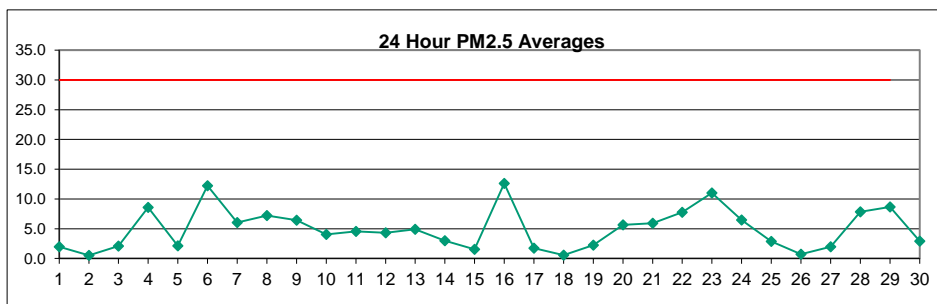
Day	HOUR																								24-HOUR TOTAL	DAILY MAX												
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24														
1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.3		
6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.3	
10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
17	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
18	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
22	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
23	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
24	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
26	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
27	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
28	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
29	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
NO.	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	720	100%
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	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	0.3	0.3	0.0	0.0	0.0	0.0	0.3	0.0	0.5	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	



Number of Non-Zero Readings	5
Maximum 1-HR Total	1.3 MM
Maximum 24-HR Total	0.8 MM
Monthly Calibration	0
Standard Deviation	0.04
Operational Time	720 HRS
Operational Uptime	100.0 %
Monthly Average	0.00 MM

Windridge PM_{2.5} (µg/m³) – November 2024

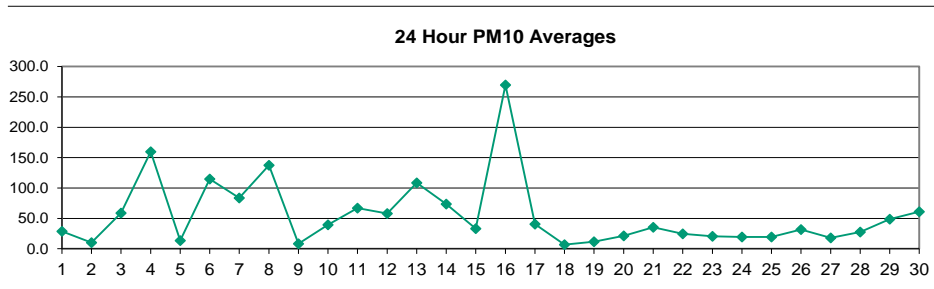
Day	HOUR																								MEAN	MAX	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1	4.0	2.0	0.0	2.0	3.0	0.0	0.0	3.0	2.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	3.0	3.0	4.0	3.0	3.0	3.0	7.0	4.0	2.0	7.0	
2	3.0	1.0	0.0	0.0	0.0	0.0	2.0	3.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0	0.0	1.0	0.0	0.0	0.5	3.0
3	0.0	1.0	1.0	2.0	1.0	0.0	0.0	0.0	0.0	1.0	0.0	2.0	1.0	0.0	15.0	5.0	5.0	4.0	2.0	2.0	2.0	2.0	3.0	1.0	2.1	15.0	
4	2.0	4.0	3.0	1.0	0.0	3.0	3.0	15.0	27.0	20.0	39.0	21.0	6.0	4.0	3.0	18.0	11.0	8.0	6.0	6.0	4.0	1.0	0.0	1.0	8.6	39.0	
5	3.0	0.0	0.0	3.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	3.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	3.0	2.0	31.0	2.1	31.0		
6	0.0	7.0	5.0	79.0	2.0	34.0	60.0	15.0	11.0	11.0	12.0	9.0	9.0	8.0	5.0	3.0	4.0	2.0	1.0	4.0	3.0	3.0	4.0	2.0	12.2	79.0	
7	3.0	0.0	0.0	0.0	1.0	2.0	3.0	3.0	5.0	5.0	8.0	12.0	8.0	6.0	8.0	8.0	16.0	13.0	7.0	9.0	6.0	5.0	9.0	8.0	6.0	16.0	
8	3.0	11.0	15.0	15.0	13.0	8.0	6.0	4.0	2.0	1.0	3.0	9.0	8.0	5.0	7.0	13.0	10.0	7.0	5.0	4.0	3.0	4.0	7.0	10.0	7.2	15.0	
9	5.0	2.0	1.0	0.0	0.0	3.0	3.0	2.0	1.0	2.0	3.0	5.0	25.0	50.0	35.0	8.0	3.0	1.0	2.0	1.0	1.0	1.0	0.0	0.0	6.4	50.0	
10	11.0	11.0	6.0	2.0	7.0	4.0	0.0	0.0	3.0	5.0	5.0	4.0	6.0	3.0	4.0	4.0	4.0	6.0	3.0	1.0	3.0	1.0	2.0	2.0	4.0	11.0	
11	1.0	5.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	14.0	8.0	24.0	8.0	8.0	4.0	6.0	6.0	5.0	5.0	4.0	2.0	3.0	4.5	24.0	
12	5.0	6.0	4.0	2.0	1.0	7.0	8.0	8.0	5.0	10.0	8.0	5.0	5.0	4.0	1.0	2.0	2.0	1.0	5.0	4.0	2.0	3.0	4.0	2.0	4.3	10.0	
13	5.0	6.0	3.0	5.0	4.0	1.0	3.0	6.0	14.0	12.0	6.0	3.0	7.0	5.0	3.0	4.0	6.0	4.0	1.0	0.0	8.0	6.0	3.0	3.0	4.9	14.0	
14	3.0	2.0	2.0	6.0	4.0	3.0	3.0	4.0	4.0	4.0	C	11.0	8.0	4.0	1.0	0.0	0.0	4.0	4.0	2.0	0.0	0.0	0.0	0.0	3.0	11.0	
15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	4.0	3.0	7.0	5.0	2.0	7.0	4.0	1.0	0.0	0.0	1.0	1.0	1.0	0.0	1.5	7.0	
16	0.0	2.0	4.0	4.0	6.0	12.0	7.0	6.0	6.0	5.0	5.0	14.0	22.0	22.0	26.0	21.0	16.0	10.0	5.0	21.0	10.0	23.0	29.0	27.0	12.6	29.0	
17	9.0	7.0	8.0	7.0	3.0	0.0	1.0	0.0	0.0	3.0	3.0	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	1.8	9.0	
18	0.0	0.0	0.0	0.0	0.0	1.0	2.0	2.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0	0.0	1.0	1.0	2.0	1.0	0.0	0.6	2.0	
19	1.0	2.0	0.0	0.0	0.0	0.0	1.0	1.0	0.0	1.0	2.0	1.0	0.0	0.0	2.0	7.0	3.0	3.0	3.0	3.0	1.0	0.0	12.0	11.0	2.3	12.0	
20	14.0	16.0	11.0	8.0	5.0	6.0	6.0	4.0	3.0	1.0	3.0	5.0	4.0	4.0	1.0	1.0	1.0	7.0	7.0	3.0	5.0	9.0	6.0	6.0	5.7	16.0	
21	7.0	10.0	15.0	13.0	8.0	4.0	5.0	7.0	4.0	2.0	6.0	7.0	4.0	5.0	3.0	8.0	7.0	6.0	6.0	4.0	3.0	3.0	2.0	3.0	5.9	15.0	
22	3.0	3.0	3.0	7.0	5.0	4.0	4.0	4.0	7.0	11.0	7.0	6.0	6.0	5.0	8.0	10.0	9.0	8.0	11.0	11.0	9.0	14.0	19.0	12.0	7.8	19.0	
23	16.0	13.0	12.0	9.0	14.0	10.0	10.0	10.0	11.0	15.0	15.0	15.0	14.0	11.0	10.0	7.0	10.0	8.0	10.0	12.0	10.0	6.0	6.0	10.0	11.0	16.0	
24	8.0	12.0	9.0	8.0	9.0	8.0	5.0	3.0	4.0	4.0	6.0	6.0	4.0	6.0	8.0	5.0	4.0	5.0	6.0	9.0	7.0	5.0	7.0	7.0	6.5	12.0	
25	7.0	7.0	6.0	5.0	11.0	6.0	3.0	4.0	1.0	1.0	4.0	3.0	1.0	3.0	3.0	3.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	2.9	11.0	
26	1.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	2.0	1.0	0.0	0.0	1.0	5.0	4.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.7	5.0	
27	0.0	0.0	1.0	0.0	0.0	0.0	2.0	2.0	6.0	4.0	2.0	0.0	5.0	4.0	3.0	2.0	1.0	1.0	1.0	0.0	2.0	3.0	5.0	3.0	2.0	6.0	
28	0.0	2.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	3.0	1.0	8.0	12.0	17.0	16.0	20.0	21.0	15.0	15.0	20.0	17.0	11.0	6.0	7.8	21.0	
29	9.0	3.0	0.0	1.0	1.0	19.0	29.0	27.0	30.0	27.0	23.0	12.0	8.0	7.0	3.0	1.0	2.0	0.0	0.0	0.0	3.0	3.0	0.0	0.0	8.7	30.0	
30	0.0	2.0	1.0	0.0	0.0	1.0	4.0	2.0	1.0	1.0	2.0	4.0	2.0	1.0	0.0	5.0	3.0	0.0	1.0	5.0	10.0	9.0	8.0	8.0	2.9	10.0	
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	30.0	719	100.0%
MEAN	4.1	4.6	3.8	6.0	3.3	4.5	5.7	4.5	5.0	5.1	5.9	5.8	6.0	6.8	6.0	5.5	5.0	4.3	3.7	4.3	4.2	4.4	5.0	5.3	7.5	7.5	
MAX	16.0	16.0	15.0	79.0	14.0	34.0	60.0	27.0	30.0	27.0	39.0	21.0	25.0	50.0	35.0	21.0	20.0	21.0	15.0	21.0	20.0	23.0	29.0	31.0	17.4	70.0	



Number of 24HR Exceedences	0	Proposed Guideline	
Number of Non-Zero Readings	551		
Maximum 1-HR Average	79.0 UG/M3		
Maximum 24-HR Average	12.6 UG/M3		
Monthly Calibration	1	Operational Time	720 HRS
Standard Deviation	6.9	Operational Uptime	100.0 %
		Monthly Average	5.0 UG/M3

Windridge PM₁₀ (µg/m³) – November 2024

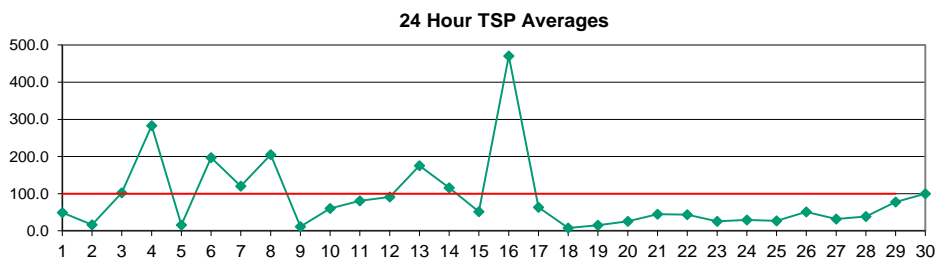
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	7.0	7.0	7.0	5.0	5.0	4.0	4.0	13.0	31.0	85.0	90.0	114.0	67.0	42.0	16.0	15.0	20.0	13.0	13.0	19.0	12.0	29.0	30.0	42.0	28.8	114.0
2	62.0	19.0	14.0	11.0	5.0	2.0	2.0	2.0	10.0	6.0	4.0	5.0	8.0	19.0	8.0	19.0	3.0	2.0	5.0	29.0	4.0	1.0	3.0	4.0	10.3	62.0
3	2.0	0.0	0.0	1.0	2.0	4.0	2.0	7.0	28.0	80.0	46.0	62.0	89.0	85.0	63.0	150.0	123.0	101.0	101.0	131.0	109.0	91.0	90.0	42.0	58.7	150.0
4	44.0	95.0	65.0	53.0	32.0	142.0	183.0	403.0	438.0	485.0	485.0	413.0	93.0	94.0	66.0	192.0	180.0	85.0	59.0	69.0	23.0	33.0	74.0	31.0	159.9	485.0
5	58.0	12.0	34.0	85.0	9.0	5.0	0.0	6.0	8.0	8.0	7.0	10.0	6.0	7.0	5.0	5.0	6.0	10.0	8.0	4.0	4.0	7.0	9.0	7.0	13.3	85.0
6	14.0	61.0	70.0	69.0	70.0	192.0	294.0	189.0	202.0	185.0	173.0	114.0	83.0	101.0	76.0	166.0	72.0	44.0	90.0	181.0	115.0	95.0	71.0	30.0	114.9	294.0
7	6.0	5.0	5.0	17.0	29.0	78.0	69.0	79.0	37.0	105.0	93.0	195.0	147.0	49.0	68.0	142.0	95.0	71.0	41.0	123.0	69.0	93.0	204.0	187.0	83.6	204.0
8	79.0	160.0	287.0	358.0	169.0	199.0	51.0	39.0	36.0	50.0	148.0	86.0	52.0	88.0	182.0	292.0	157.0	144.0	132.0	214.0	93.0	110.0	100.0	72.0	137.4	358.0
9	5.0	40.0	6.0	3.0	1.0	3.0	5.0	4.0	2.0	4.0	4.0	6.0	6.0	6.0	10.0	13.0	14.0	12.0	16.0	5.0	10.0	6.0	5.0	13.0	8.3	40.0
10	19.0	18.0	8.0	10.0	8.0	6.0	5.0	4.0	9.0	21.0	23.0	26.0	23.0	46.0	56.0	68.0	95.0	96.0	72.0	70.0	97.0	55.0	81.0	29.0	39.4	97.0
11	13.0	93.0	4.0	2.0	0.0	2.0	4.0	2.0	9.0	10.0	129.0	239.0	187.0	339.0	141.0	106.0	57.0	58.0	76.0	70.0	23.0	19.0	8.0	19.0	67.1	339.0
12	30.0	40.0	39.0	29.0	19.0	73.0	95.0	106.0	96.0	71.0	85.0	62.0	83.0	55.0	53.0	62.0	29.0	54.0	69.0	53.0	82.0	49.0	18.0	46.0	58.3	106.0
13	89.0	77.0	60.0	74.0	60.0	156.0	202.0	209.0	244.0	164.0	110.0	70.0	63.0	100.0	49.0	111.0	75.0	112.0	98.0	110.0	68.0	91.0	127.0	84.0	108.5	244.0
14	52.0	29.0	67.0	176.0	70.0	102.0	70.0	51.0	13.0	13.0	C	237.0	133.0	58.0	51.0	32.0	85.0	142.0	59.0	102.0	66.0	19.0	26.0	44.0	73.8	237.0
15	12.0	32.0	18.0	38.0	38.0	16.0	4.0	13.0	22.0	17.0	82.0	30.0	101.0	105.0	92.0	32.0	30.0	23.0	20.0	21.0	17.0	17.0	6.0	9.0	33.1	105.0
16	33.0	231.0	221.0	235.0	151.0	178.0	113.0	214.0	187.0	155.0	198.0	351.0	485.0	485.0	429.0	395.0	275.0	188.0	81.0	293.0	182.0	426.0	478.0	485.0	269.5	485.0
17	169.0	144.0	105.0	174.0	47.0	17.0	23.0	9.0	23.0	82.0	26.0	11.0	10.0	12.0	7.0	4.0	5.0	30.0	16.0	12.0	11.0	20.0	5.0	11.0	40.5	174.0
18	9.0	4.0	17.0	5.0	8.0	7.0	2.0	6.0	6.0	3.0	13.0	36.0	9.0	6.0	2.0	3.0	5.0	6.0	6.0	4.0	2.0	0.0	3.0	4.0	6.9	36.0
19	3.0	8.0	5.0	0.0	1.0	10.0	7.0	16.0	8.0	35.0	25.0	24.0	9.0	11.0	19.0	17.0	10.0	8.0	10.0	10.0	5.0	8.0	17.0	10.0	11.5	35.0
20	20.0	19.0	20.0	13.0	12.0	13.0	11.0	10.0	32.0	19.0	39.0	77.0	39.0	17.0	13.0	18.0	12.0	20.0	8.0	28.0	28.0	19.0	8.0	12.0	21.1	77.0
21	58.0	85.0	123.0	92.0	61.0	85.0	45.0	43.0	32.0	15.0	13.0	38.0	12.0	34.0	18.0	17.0	9.0	13.0	11.0	13.0	8.0	7.0	7.0	7.0	35.3	123.0
22	10.0	10.0	7.0	12.0	13.0	8.0	12.0	12.0	16.0	16.0	15.0	34.0	67.0	40.0	26.0	32.0	21.0	24.0	89.0	23.0	28.0	38.0	25.0	24.6	89.0	
23	20.0	23.0	20.0	17.0	22.0	26.0	19.0	18.0	17.0	34.0	38.0	44.0	48.0	23.0	20.0	9.0	13.0	11.0	6.0	13.0	10.0	12.0	15.0	12.0	20.4	48.0
24	14.0	11.0	12.0	13.0	10.0	6.0	13.0	8.0	4.0	17.0	16.0	13.0	15.0	22.0	14.0	15.0	10.0	10.0	15.0	20.0	21.0	17.0	105.0	66.0	19.5	105.0
25	26.0	27.0	27.0	34.0	46.0	15.0	27.0	56.0	18.0	36.0	24.0	39.0	22.0	9.0	19.0	13.0	8.0	6.0	5.0	5.0	3.0	1.0	3.0	1.0	19.6	56.0
26	6.0	6.0	4.0	0.0	0.0	10.0	11.0	23.0	22.0	68.0	137.0	118.0	88.0	134.0	60.0	34.0	9.0	9.0	5.0	4.0	5.0	2.0	0.0	2.0	31.5	137.0
27	3.0	5.0	17.0	26.0	7.0	6.0	3.0	10.0	84.0	60.0	34.0	15.0	14.0	31.0	24.0	16.0	15.0	16.0	7.0	5.0	4.0	16.0	9.0	5.0	18.0	84.0
28	8.0	12.0	12.0	8.0	6.0	19.0	44.0	61.0	22.0	22.0	25.0	26.0	29.0	24.0	29.0	27.0	31.0	24.0	30.0	46.0	49.0	73.0	32.0	8.0	27.8	73.0
29	14.0	9.0	4.0	2.0	3.0	40.0	41.0	55.0	73.0	72.0	45.0	49.0	59.0	101.0	83.0	58.0	56.0	46.0	59.0	56.0	62.0	72.0	47.0	68.0	48.9	101.0
30	94.0	75.0	39.0	38.0	51.0	42.0	47.0	45.0	63.0	60.0	103.0	237.0	100.0	49.0	63.0	78.0	70.0	74.0	53.0	32.0	12.0	11.0	14.0	11.0	60.9	237.0
NO.	30	30	30	30	30	30	30	30	30	30	29	30	30	30	30	30	30	30	30	30	30	30	30	30	719	100.0%
MEAN	32.6	45.2	43.9	53.3	31.8	48.9	46.9	57.1	59.6	66.6	76.9	92.1	70.5	74.0	59.2	71.2	53.4	48.3	39.8	61.0	40.6	47.6	54.4	46.2	42.0	
MAX	169.0	231.0	287.0	358.0	169.0	199.0	294.0	403.0	438.0	485.0	485.0	413.0	485.0	485.0	429.0	395.0	275.0	188.0	132.0	293.0	182.0	426.0	478.0	485.0	91.1	433.3



Number of Non-Zero Readings	710	Operational Time	720 HRS
Maximum 1-HR Average	485.0 UG/M3	Operational Uptime	100.0 %
Maximum 24-HR Average	269.5 UG/M3	Monthly Average	55.0 UG/M3
Monthly Calibration	1		
Standard Deviation	77.18		

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

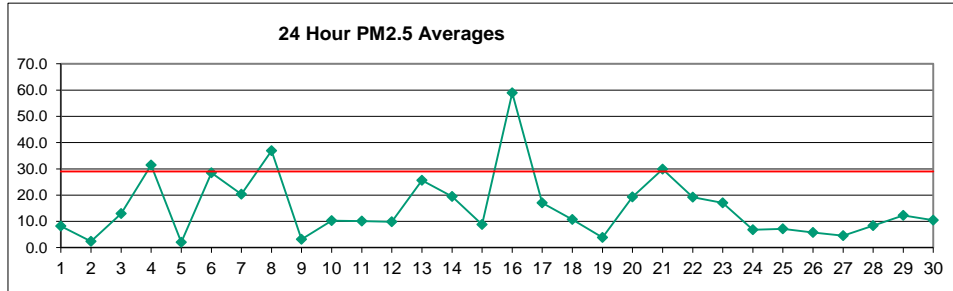
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	10.0	7.0	3.0	5.0	9.0	8.0	10.0	13.0	60.0	139.0	170.0	182.0	112.0	84.0	40.0	35.0	25.0	19.0	26.0	27.0	24.0	44.0	53.0	67.0	48.8	182.0
2	118.0	28.0	17.0	15.0	3.0	3.0	3.0	2.0	11.0	6.0	10.0	7.0	18.0	35.0	14.0	43.0	1.0	2.0	5.0	35.0	5.0	3.0	5.0	3.0	16.3	118.0
3	2.0	2.0	0.0	0.0	1.0	2.0	2.0	1.0	47.0	156.0	85.0	113.0	170.0	159.0	122.0	272.0	234.0	179.0	153.0	200.0	189.0	141.0	146.0	83.0	102.5	272.0
4	84.0	173.0	87.0	82.0	56.0	321.0	333.0	734.0	853.0	888.0	985.0	658.0	169.0	160.0	91.0	310.0	267.0	135.0	86.0	93.0	31.0	49.0	94.0	51.0	282.9	985.0
5	68.0	16.0	53.0	103.0	15.0	6.0	0.0	8.0	8.0	6.0	5.0	6.0	10.0	7.0	4.0	5.0	8.0	6.0	3.0	1.0	0.0	3.0	20.0	15.0	15.7	103.0
6	31.0	106.0	148.0	155.0	147.0	406.0	451.0	341.0	340.0	349.0	236.0	168.0	125.0	141.0	137.0	287.0	123.0	68.0	135.0	293.0	186.0	164.0	134.0	57.0	197.0	451.0
7	9.0	6.0	7.0	20.0	39.0	105.0	96.0	97.0	60.0	161.0	155.0	306.0	231.0	81.0	84.0	221.0	135.0	85.0	51.0	170.0	89.0	148.0	283.0	247.0	120.3	306.0
8	90.0	217.0	414.0	485.0	249.0	205.0	81.0	59.0	56.0	90.0	229.0	127.0	84.0	135.0	287.0	508.0	247.0	234.0	218.0	340.0	145.0	172.0	142.0	102.0	204.8	508.0
9	7.0	56.0	17.0	2.0	3.0	6.0	4.0	4.0	7.0	6.0	4.0	17.0	9.0	8.0	11.0	10.0	20.0	10.0	26.0	8.0	14.0	9.0	6.0	11.0	11.5	56.0
10	14.0	16.0	10.0	6.0	5.0	5.0	3.0	8.0	17.0	25.0	32.0	31.0	28.0	79.0	104.0	112.0	148.0	169.0	118.0	111.0	185.0	82.0	99.0	38.0	60.2	185.0
11	15.0	118.0	5.0	3.0	0.0	0.0	0.0	0.0	7.0	9.0	118.0	262.0	278.0	368.0	196.0	134.0	60.0	91.0	121.0	98.0	22.0	14.0	7.0	6.0	80.5	368.0
12	31.0	54.0	47.0	51.0	20.0	105.0	164.0	179.0	155.0	119.0	133.0	83.0	127.0	79.0	82.0	91.0	45.0	97.0	109.0	90.0	133.0	91.0	29.0	72.0	91.1	179.0
13	165.0	153.0	125.0	144.0	95.0	264.0	328.0	360.0	370.0	250.0	184.0	123.0	98.0	142.0	68.0	168.0	105.0	180.0	148.0	172.0	99.0	139.0	199.0	123.0	175.1	370.0
14	84.0	60.0	119.0	301.0	90.0	145.0	101.0	87.0	25.0	204.0	C	C	208.0	78.0	89.0	52.0	146.0	235.0	103.0	180.0	111.0	22.0	38.0	74.0	116.0	301.0
15	28.0	54.0	22.0	69.0	56.0	25.0	5.0	23.0	26.0	27.0	132.0	41.0	141.0	153.0	178.0	57.0	55.0	31.0	26.0	35.0	21.0	18.0	9.0	7.0	51.6	178.0
16	60.0	418.0	382.0	387.0	245.0	299.0	215.0	383.0	401.0	354.0	386.0	629.0	867.0	890.0	755.0	751.0	478.0	339.0	142.0	492.0	316.0	672.0	708.0	732.0	470.9	890.0
17	281.0	244.0	142.0	243.0	66.0	18.0	38.0	16.0	29.0	138.0	41.0	17.0	16.0	13.0	8.0	5.0	5.0	63.0	34.0	16.0	22.0	37.0	5.0	22.0	63.3	281.0
18	3.0	5.0	18.0	3.0	7.0	6.0	1.0	7.0	8.0	5.0	17.0	20.0	15.0	12.0	12.0	6.0	5.0	3.0	2.0	10.0	6.0	5.0	5.0	5.0	7.8	20.0
19	3.0	3.0	4.0	2.0	2.0	6.0	2.0	34.0	7.0	62.0	53.0	45.0	16.0	13.0	19.0	15.0	8.0	8.0	7.0	5.0	4.0	7.0	15.0	18.0	14.9	62.0
20	23.0	23.0	17.0	12.0	12.0	10.0	11.0	13.0	31.0	21.0	39.0	126.0	59.0	29.0	10.0	20.0	8.0	36.0	7.0	32.0	37.0	18.0	11.0	12.0	25.7	126.0
21	79.0	82.0	116.0	107.0	113.0	135.0	91.0	61.0	47.0	16.0	10.0	62.0	16.0	18.0	20.0	20.0	12.0	16.0	12.0	12.0	10.0	6.0	3.0	6.0	44.6	135.0
22	14.0	13.0	9.0	21.0	16.0	11.0	6.0	7.0	13.0	20.0	20.0	23.0	58.0	109.0	142.0	65.0	92.0	19.0	36.0	205.0	37.0	39.0	50.0	23.0	43.7	205.0
23	20.0	18.0	18.0	15.0	16.0	40.0	17.0	16.0	21.0	47.0	59.0	80.0	85.0	30.0	20.0	21.0	11.0	14.0	15.0	10.0	13.0	15.0	9.0	9.0	25.8	85.0
24	18.0	11.0	17.0	8.0	8.0	6.0	11.0	6.0	9.0	23.0	16.0	15.0	17.0	22.0	10.0	22.0	8.0	10.0	22.0	23.0	29.0	28.0	225.0	141.0	29.4	4.0
25	24.0	40.0	41.0	48.0	57.0	21.0	32.0	71.0	21.0	65.0	40.0	52.0	30.0	14.0	30.0	15.0	18.0	10.0	5.0	3.0	3.0	4.0	3.0	4.0	27.1	71.0
26	5.0	4.0	5.0	5.0	4.0	12.0	13.0	42.0	33.0	107.0	237.0	208.0	139.0	184.0	102.0	71.0	14.0	18.0	6.0	2.0	2.0	2.0	3.0	5.0	51.0	237.0
27	4.0	2.0	28.0	52.0	8.0	7.0	3.0	27.0	172.0	120.0	79.0	15.0	19.0	58.0	43.0	28.0	25.0	9.0	7.0	6.0	7.0	16.0	14.0	8.0	31.5	172.0
28	14.0	16.0	7.0	12.0	9.0	31.0	72.0	101.0	44.0	33.0	32.0	42.0	47.0	28.0	31.0	28.0	29.0	22.0	24.0	61.0	55.0	143.0	40.0	8.0	38.7	143.0
29	16.0	0.0	3.0	5.0	2.0	43.0	49.0	71.0	101.0	117.0	64.0	73.0	89.0	155.0	127.0	103.0	102.0	89.0	115.0	109.0	105.0	137.0	71.0	120.0	77.8	155.0
30	125.0	100.0	X	62.0	96.0	62.0	68.0	76.0	115.0	102.0	177.0	344.0	185.0	87.0	120.0	134.0	122.0	113.0	106.0	50.0	20.0	10.0	14.0	8.0	99.8	344.0
NO.	30	30	29	30	30	30	30	30	30	30	29	29	30	30	30	30	30	30	30	30	30	30	30	30	717	99.9%
MEAN	48.2	68.2	64.9	80.8	48.3	77.1	73.7	94.9	103.1	122.2	129.2	133.6	115.5	112.4	98.5	120.3	85.2	77.0	62.3	96.3	64.0	74.6	81.3	69.2		
MAX	281.0	418.0	414.0	485.0	249.0	406.0	451.0	734.0	853.0	888.0	985.0	658.0	867.0	890.0	755.0	751.0	478.0	339.0	218.0	492.0	316.0	672.0	708.0	732.0		



Number of 24HR Exceedences	8	Proposed Guideline
Number of Non-Zero Readings	708	
Maximum 1-HR Average	985.0 UG/M3	
Maximum 24-HR Average	470.9 UG/M3	
IZS Calibration Time		Operational Time
Down Time	0	Operational Uptime
Standard Deviation	131.9	Monthly Average
		719 HRS
		99.9 %
		87.4 UG/M3

Berm PM_{2.5} (µg/m³) – November 2024

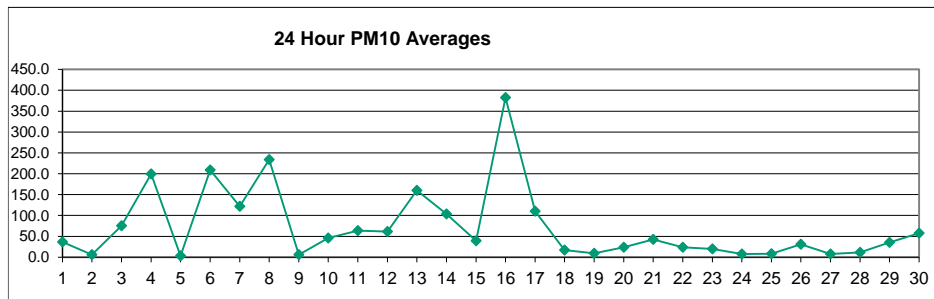
DAY	HOUR																								MEAN	MAX	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1	2.6	2.7	2.6	2.7	3.8	2.8	2.7	3.3	4.6	8.5	24.7	30.2	36.9	24.4	17.7	6.0	1.7	0.4	0.8	1.3	1.5	1.3	5.6	8.6	8.2	36.9	
2	9.6	11.1	4.3	3.3	1.6	2.1	1.7	1.0	0.9	2.3	1.2	1.5	1.0	1.2	3.6	0.9	3.1	0.8	0.2	0.9	2.2	1.1	0.7	0.6	2.4	11.1	
3	0.5	0.8	0.4	0.5	0.5	0.8	0.5	2.6	0.7	4.1	21.0	8.5	11.9	16.3	18.3	16.4	45.2	40.3	38.2	12.8	24.8	18.2	13.9	13.6	12.9	45.2	
4	12.4	24.9	15.1	4.7	7.3	3.9	21.4	33.9	73.9	75.4	105.6	181.2	77.0	28.3	17.1	12.6	7.4	9.8	3.8	3.4	8.1	13.6	7.4	5.4	31.4	181.2	
5	9.9	2.2	0.3	2.5	7.9	9.9	1.0	0.8	0.4	1.4	0.6	2.1	0.6	1.3	1.2	0.7	0.8	1.3	0.9	1.4	0.7	0.2	0.4	1.1	2.1	9.9	
6	1.0	3.4	17.1	23.5	30.2	15.6	41.1	66.4	55.7	51.6	59.2	31.2	23.5	15.1	29.4	25.8	43.6	14.0	7.1	19.7	48.2	23.6	25.0	13.1	28.5	66.4	
7	5.5	2.4	1.5	1.6	3.2	4.5	11.6	15.1	15.4	13.7	25.6	39.0	57.4	28.5	29.5	30.8	39.0	10.9	20.4	29.1	26.0	8.9	19.2	50.1	20.4	57.4	
8	46.4	10.4	44.6	74.2	83.0	39.6	25.4	13.0	13.1	16.8	15.1	41.5	36.3	31.4	38.4	57.6	72.3	24.3	37.9	42.7	50.7	14.5	29.3	27.8	36.9	83.0	
9	16.9	1.3	4.5	2.2	1.5	1.7	2.0	1.0	0.7	1.0	0.9	0.8	1.0	1.6	1.9	4.5	5.5	5.4	4.3	7.0	4.4	3.3	1.8	1.5	3.2	16.9	
10	3.0	6.8	12.2	8.7	3.6	3.0	1.9	2.3	2.3	5.9	8.9	10.8	10.1	9.8	5.4	13.9	21.9	31.1	14.9	7.9	20.4	24.1	8.2	10.4	10.3	31.1	
11	4.6	3.3	18.1	2.6	1.7	1.8	1.1	1.3	1.1	1.6	2.7	24.5	30.5	29.2	45.2	19.1	14.1	6.5	8.0	7.2	10.7	3.8	3.1	1.0	10.1	45.2	
12	0.3	0.9	0.6	0.9	1.3	0.7	7.4	8.0	6.1	7.5	12.8	17.7	13.4	13.5	21.9	18.0	11.5	10.6	19.9	9.7	9.8	11.7	16.6	14.5	9.8	21.9	
13	13.5	19.4	20.3	20.4	20.1	7.5	35.6	61.9	48.7	43.3	35.2	33.4	36.3	19.4	29.5	22.0	30.3	12.8	20.6	18.7	23.8	11.9	11.9	18.2	25.6	61.9	
14	16.7	10.1	16.0	26.2	54.3	8.1	11.6	7.6	10.1	3.3	23.8	39.1	40.8	33.5	28.4	31.1	30.8	10.7	23.3	9.7	13.2	12.0	3.3	4.0	19.5	54.3	
15	4.4	3.6	2.8	3.1	5.6	6.4	3.1	3.0	3.3	3.8	4.1	25.6	29.4	24.0	27.0	38.9	4.0	3.1	2.0	3.6	4.4	2.3	2.0	1.7	8.8	38.9	
16	1.3	7.5	54.7	60.0	57.0	16.8	21.0	19.4	45.9	43.4	37.4	45.2	86.8	113.6	91.3	81.1	74.3	64.0	79.0	36.3	41.4	54.2	134.8	148.8	59.0	148.8	
17	107.2	38.8	71.8	51.2	43.2	4.1	2.0	5.1	2.4	3.8	14.1	6.4	6.3	9.4	11.0	6.6	1.3	6.3	5.0	1.4	1.4	2.7	1.0	1.0	17.0	107.2	
18	2.2	1.4	9.6	62.8	3.0	14.3	7.7	1.5	2.5	5.6	15.1	34.2	58.0	14.2	11.0	1.1	1.1	1.4	1.5	1.3	1.3	1.1	2.6	2.3	10.7	62.8	
19	2.9	2.8	3.6	1.0	0.5	0.9	1.9	0.6	2.6	1.7	6.9	5.9	10.3	3.2	2.7	4.9	2.7	1.3	1.8	2.6	2.0	4.2	12.0	13.6	3.9	13.6	
20	12.5	14.2	13.1	12.0	10.1	9.6	8.1	7.4	8.6	20.0	20.0	45.7	88.3	57.9	21.9	10.4	28.0	11.4	14.2	9.1	10.4	15.1	10.0	5.9	19.3	88.3	
21	11.7	53.2	109.3	113.5	83.6	56.9	100.5	32.2	27.8	22.7	8.8	5.8	11.6	11.8	10.9	10.9	6.2	5.4	6.8	6.4	6.8	4.7	4.8	5.4	29.9	113.5	
22	4.5	5.3	6.3	6.8	11.5	6.9	6.5	6.5	10.9	7.9	6.9	8.6	13.4	25.8	17.6	33.7	35.5	37.9	15.0	26.4	72.5	17.0	41.2	35.9	19.2	72.5	
23	15.6	15.0	13.3	10.7	9.2	11.0	30.4	11.7	8.0	17.0	38.8	42.2	38.3	41.1	21.1	13.9	14.7	11.4	8.7	8.6	8.4	7.6	6.4	5.8	17.1	42.2	
24	6.3	6.9	6.6	6.4	6.2	5.8	4.4	4.1	3.6	4.5	5.5	7.0	6.7	7.5	7.4	7.2	7.9	6.2	6.8	7.9	6.9	6.3	9.5	15.4	6.8	15.4	
25	11.4	8.2	10.5	9.8	8.8	9.6	6.9	7.8	9.9	8.5	13.8	10.4	11.4	7.2	4.9	6.7	7.4	6.4	3.0	2.5	2.1	1.6	1.5	1.3	7.2	13.8	
26	1.2	1.0	1.1	1.0	0.8	0.7	1.7	1.8	7.9	9.8	7.0	24.7	20.3	11.6	17.1	19.9	5.4	1.5	1.8	1.1	0.4	0.4	0.4	0.4	5.8	24.7	
27	0.6	0.6	0.4	0.8	3.0	1.6	0.8	1.3	3.6	17.1	10.9	9.5	6.7	5.7	7.5	5.9	10.9	5.9	3.1	2.0	1.8	3.4	3.4	3.3	4.6	17.1	
28	2.1	3.5	1.9	1.4	1.2	1.0	2.0	5.1	7.2	4.1	3.9	4.7	4.5	8.7	14.5	14.6	13.7	14.4	15.1	16.2	24.9	20.2	12.4	4.0	8.4	24.9	
29	3.2	2.5	2.0	1.7	1.5	1.4	22.2	23.1	22.7	36.7	33.7	28.0	8.4	13.5	14.3	5.9	8.1	9.0	7.8	10.4	9.3	9.9	11.1	7.4	12.3	36.7	
30	8.5	16.6	10.5	7.7	5.1	5.5	5.3	4.5	5.8	8.0	7.8	24.8	29.1	15.6	12.6	11.7	8.8	7.2	10.4	9.5	6.1	13.5	8.6	7.9	10.5	29.1	
NO.	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	720	100%
MEAN	11.3	9.4	15.8	17.5	15.7	8.5	13.0	11.8	13.6	15.0	19.1	26.3	26.9	20.7	19.3	17.9	18.8	12.2	12.8	10.7	14.8	10.4	13.7	14.3			
MAX	107.2	53.2	109.3	113.5	83.6	56.9	100.5	66.4	73.9	75.4	105.6	181.2	88.3	113.6	91.3	81.1	74.3	64.0	79.0	42.7	72.5	54.2	134.8	148.8			



Number of 24HR Exceedences	4	Proposed Guideline	
Number of Non-Zero Readings	720		
Maximum 1-HR Average	181.2 UG/M3		
Maximum 24-HR Average	59.0 UG/M3		
Monthly Calibration	0	Operational Time	720 HRS
Standard Deviation	20.6	Operational Uptime	100.0 %
		Monthly Average	15.4 UG/M3

Berm PM₁₀ (µg/m³) – November 2024

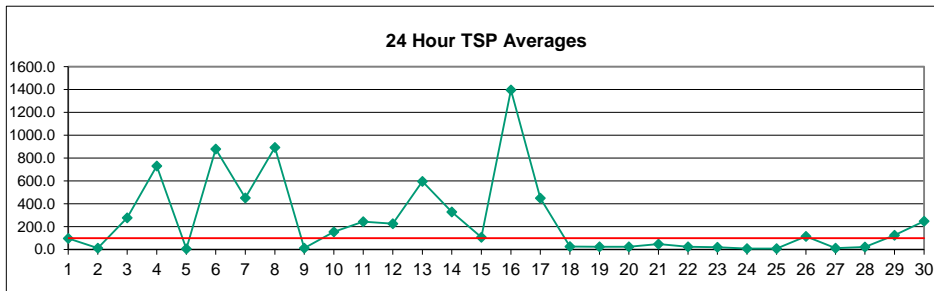
DAY	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	2.6	2.7	2.6	2.7	3.8	2.8	2.7	3.3	8.2	33.7	139.7	175.6	193.8	128.0	98.6	25.4	6.6	0.5	0.8	1.6	2.1	1.9	13.4	21.1	36.4	193.8
2	25.1	40.1	10.8	8.0	1.7	2.6	1.7	1.0	0.9	2.8	1.2	2.6	1.5	3.5	16.5	2.7	15.1	0.8	0.2	1.2	6.0	1.5	1.2	0.7	6.2	40.1
3	0.5	0.8	0.4	0.5	0.5	0.8	0.5	3.8	0.7	19.2	133.7	44.4	56.2	90.9	103.7	90.9	288.9	262.9	224.8	67.1	136.8	126.2	79.4	78.4	75.5	288.9
4	66.9	146.9	84.9	21.0	36.2	16.2	115.1	198.8	495.0	493.3	737.3	1223.5	565.0	178.9	95.7	79.3	38.6	47.5	15.8	12.6	34.1	50.0	23.8	7.7	199.3	1223.5
5	11.3	7.4	0.8	7.0	27.6	11.5	1.0	0.8	0.4	1.4	0.7	2.1	0.6	1.4	1.3	0.7	1.2	1.4	0.9	1.4	0.7	0.2	0.4	1.1	3.5	27.6
6	1.0	5.0	110.6	192.1	210.9	117.1	311.6	518.3	416.6	376.0	456.7	242.7	165.5	103.7	201.1	195.0	313.3	94.6	38.7	140.2	350.8	192.5	183.8	81.2	209.1	518.3
7	30.6	4.8	1.6	8.2	10.5	23.4	74.9	81.2	91.1	76.3	162.6	224.8	431.4	217.4	172.3	171.0	245.0	48.3	90.9	134.4	144.0	45.9	118.4	321.8	122.1	431.4
8	301.2	47.2	308.0	502.0	592.3	261.6	155.8	66.9	65.9	90.0	74.7	255.5	219.1	186.2	222.5	393.8	486.0	146.8	231.5	263.6	329.0	87.2	172.4	157.3	234.0	592.3
9	75.6	3.5	13.2	3.2	1.5	1.7	2.0	1.0	0.7	1.0	0.9	0.8	1.0	1.6	1.9	5.7	6.1	5.4	4.3	7.0	4.4	3.3	1.8	1.5	6.2	75.6
10	3.0	6.8	12.2	8.7	3.6	3.0	1.9	2.3	2.3	5.9	8.9	15.3	10.6	22.5	32.3	93.8	138.8	188.1	89.4	40.3	137.4	171.1	41.7	62.3	45.9	188.1
11	22.0	15.0	117.7	7.7	1.7	1.8	1.1	1.3	2.4	4.6	9.5	152.2	226.1	186.5	349.0	147.4	94.6	34.0	46.6	41.8	57.9	7.4	4.6	1.2	63.9	349.0
12	0.6	2.1	2.9	2.0	2.9	1.2	48.2	51.6	39.0	55.7	79.2	117.1	89.9	90.3	148.1	118.5	78.6	50.2	118.5	55.5	60.5	70.5	97.8	90.7	61.3	148.1
13	79.4	125.3	133.9	140.8	129.3	44.5	247.7	420.1	319.1	265.5	202.8	203.8	216.6	102.3	182.6	124.6	168.5	65.3	136.6	114.0	156.7	69.4	67.5	123.2	160.0	420.1
14	96.0	54.1	99.9	152.8	299.9	37.2	56.8	35.4	45.2	14.0	144.3	219.6	232.7	157.6	148.6	154.2	139.9	51.9	128.0	50.0	79.7	64.3	9.6	13.7	103.6	299.9
15	18.7	15.4	12.9	11.9	30.2	27.6	14.9	5.9	11.8	14.3	15.2	124.3	138.9	116.0	129.4	192.6	13.5	10.5	4.9	10.1	11.0	4.6	4.0	4.7	39.3	192.6
16	4.0	33.8	331.0	356.3	335.6	80.5	105.6	104.5	258.7	262.2	197.8	248.5	553.7	748.9	611.5	549.5	510.0	459.7	521.1	232.7	290.5	349.5	953.0	1078.1	382.4	1078.1
17	791.2	274.6	528.6	333.4	296.3	24.3	6.4	26.1	10.0	18.6	71.0	32.6	13.6	35.4	40.2	37.8	21.3	4.2	33.1	21.9	5.5	5.5	12.6	1.9	110.2	791.2
18	4.5	2.6	23.3	136.9	3.1	16.8	8.0	1.5	2.5	7.6	19.0	50.3	86.6	17.7	14.7	1.1	1.1	1.4	1.5	1.3	1.3	1.1	2.6	2.3	17.0	136.9
19	2.9	2.8	4.2	1.0	0.5	0.9	2.4	0.6	3.7	1.9	45.5	28.6	60.2	13.4	7.7	7.4	2.7	1.3	1.8	2.6	2.0	4.2	12.0	13.6	9.3	60.2
20	12.5	14.2	13.1	12.0	10.1	9.6	8.1	7.4	8.6	20.4	20.1	62.8	129.9	85.2	28.8	10.4	33.8	11.5	15.4	9.1	11.2	15.1	10.0	5.9	23.6	129.9
21	11.7	77.1	161.7	167.7	122.2	83.4	149.4	46.5	39.5	28.2	8.8	5.8	23.2	20.7	17.4	12.9	6.2	5.4	6.8	6.4	6.8	4.7	4.8	5.4	42.6	167.7
22	4.5	5.3	6.3	6.8	12.6	6.9	6.5	6.5	10.9	7.9	6.9	8.6	13.4	36.3	24.5	48.1	49.7	53.4	15.0	28.5	105.4	17.0	45.6	45.5	23.8	105.4
23	15.6	15.0	13.3	10.7	9.2	11.0	41.9	11.7	8.0	17.0	54.2	57.2	51.2	54.9	21.1	13.9	14.7	11.4	8.7	8.6	8.4	7.6	6.4	5.8	19.9	57.2
24	6.3	6.9	6.6	6.4	6.2	5.8	4.4	4.1	3.6	4.5	5.5	8.2	7.9	11.5	9.2	7.2	7.9	6.2	6.8	7.9	6.9	6.3	11.6	22.5	7.5	22.5
25	14.1	8.2	10.5	9.8	8.8	10.7	6.9	7.8	12.1	9.0	19.6	13.6	15.5	8.2	4.9	6.9	7.9	6.8	3.0	2.5	2.1	1.6	1.5	1.3	8.1	19.6
26	1.2	1.0	1.1	1.0	0.8	0.7	1.8	1.8	11.6	21.3	45.4	174.7	128.9	73.8	109.0	122.6	33.4	3.6	7.1	1.1	0.4	0.4	0.4	0.4	31.0	174.7
27	0.6	0.6	0.4	0.8	4.1	1.6	0.8	1.3	5.2	25.6	16.3	16.4	24.4	8.9	26.5	12.8	12.0	5.9	3.1	2.0	1.8	3.4	3.4	3.3	7.5	26.5
28	2.1	3.5	1.9	1.4	1.2	1.0	2.2	10.4	35.7	12.9	7.6	12.3	17.2	15.8	16.9	14.6	13.7	14.4	15.1	16.2	27.7	20.6	12.4	4.0	11.7	35.7
29	3.2	2.5	2.0	1.7	1.5	1.4	25.1	23.1	22.7	38.8	51.5	37.0	36.9	79.8	81.9	28.4	43.6	53.9	36.5	64.8	51.7	58.2	66.4	39.7	35.5	81.9
30	59.3	99.1	71.9	46.5	23.5	32.5	26.1	20.8	30.2	42.1	44.8	162.4	203.6	103.5	72.8	72.7	51.5	44.8	63.3	57.3	21.3	14.0	8.6	7.9	57.5	203.6
NO.	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	720	100%
MEAN	55.6	34.1	69.6	72.0	72.9	28.0	47.7	55.5	65.4	65.7	92.7	130.8	130.5	96.7	99.7	91.4	94.8	56.4	62.3	46.8	68.5	46.8	65.7	73.5		
MAX	791.2	274.6	528.6	502.0	592.3	261.6	311.6	518.3	495.0	493.3	737.3	1223.5	565.0	748.9	611.5	549.5	510.0	459.7	521.1	263.6	350.8	349.5	953.0	1078.1		



Number of Non-Zero Readings	720
Maximum 1-HR Average	1223.5 UG/M3
Maximum 24-HR Average	382.4 UG/M3
Monthly Calibration	0
Standard Deviation	131.4
Operational Time	720 HRS
Operational Uptime	100.0 %
Monthly Average	71.8 UG/M3

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

DAY	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	2.6	2.7	2.6	2.7	3.8	2.8	2.7	3.3	17.0	109.2	378.9	486.2	555.0	348.8	314.5	48.1	17.3	0.8	0.8	1.6	3.8	1.9	17.7	24.2	97.9	555.0
2	27.5	90.1	14.5	15.1	1.7	2.6	1.7	1.0	0.9	2.8	1.2	3.7	1.5	6.1	51.8	6.2	40.7	0.8	0.2	1.2	14.0	1.5	2.2	0.7	12.1	90.1
3	0.5	0.8	0.4	0.5	0.5	0.8	0.5	3.9	0.7	55.1	457.6	154.3	187.4	294.5	376.3	301.9	1054.5	968.4	830.4	250.9	493.9	577.1	330.6	333.0	278.1	1054.5
4	288.2	552.4	338.3	79.3	146.8	56.1	499.0	839.3	1985.9	2139.7	2936.0	3455.3	2135.7	729.2	382.2	316.7	149.5	162.2	48.3	44.3	81.5	99.1	97.1	7.7	732.1	3455.3
5	11.3	14.1	4.9	38.2	79.0	11.5	1.0	0.8	0.4	1.4	0.7	2.1	0.6	1.4	1.3	0.7	1.4	1.4	0.9	1.4	0.7	0.2	0.4	1.1	7.4	79.0
6	1.0	5.1	526.6	918.0	888.6	608.4	1307.6	1962.6	1672.5	1494.1	1893.4	999.6	766.2	438.1	769.3	856.1	1252.5	442.3	180.7	517.6	1517.8	941.4	855.4	303.0	879.9	1962.6
7	129.2	9.7	1.6	11.4	30.9	73.1	310.0	282.4	346.6	259.3	586.8	899.6	1784.5	958.4	598.9	579.2	905.5	166.9	256.5	363.7	496.9	197.5	398.1	1217.8	452.7	1784.5
8	1174.9	184.4	1150.9	1993.6	2355.6	1137.0	667.6	241.6	240.6	277.1	248.0	822.9	733.8	598.3	811.6	1541.6	1798.7	576.7	946.5	1059.4	1351.1	330.2	655.2	556.1	893.9	2355.6
9	219.7	8.0	35.9	3.6	1.5	1.7	2.0	1.0	0.7	1.0	0.9	0.8	1.0	1.6	1.9	5.7	6.1	5.4	4.3	7.0	4.4	3.3	1.8	1.5	13.4	219.7
10	3.0	6.8	12.2	8.7	3.6	3.0	1.9	2.3	2.3	5.9	8.9	21.7	10.6	49.1	135.7	307.5	413.7	584.8	321.0	152.8	571.7	696.8	160.3	252.7	155.7	696.8
11	79.5	45.6	420.1	19.5	1.7	1.8	1.1	1.3	6.4	16.1	24.3	540.2	907.8	748.5	1390.0	601.7	427.1	155.1	202.2	110.7	159.2	9.8	4.6	1.2	244.8	1390.0
12	1.4	3.8	9.5	9.3	8.3	1.6	171.8	162.2	142.2	235.7	272.7	418.8	341.0	321.0	597.9	467.8	284.6	155.4	402.9	217.7	216.8	259.6	391.0	349.4	226.8	597.9
13	303.0	493.2	511.6	503.0	468.1	171.2	966.2	1687.6	1132.8	1040.9	721.4	733.4	816.3	313.3	647.6	443.5	537.6	211.9	541.7	462.4	614.5	266.6	258.6	491.7	597.4	1687.6
14	351.5	165.5	362.1	480.1	1055.5	110.6	188.5	94.5	143.2	36.7	462.7	671.5	725.6	452.7	435.1	419.5	370.3	172.9	455.2	164.5	285.1	228.8	20.6	37.2	328.7	1055.5
15	67.5	48.8	55.6	33.3	131.7	92.8	44.9	8.6	32.4	33.3	46.7	345.2	340.3	299.5	359.7	495.3	41.1	23.0	14.4	32.5	29.2	5.9	4.8	14.0	108.4	495.3
16	11.4	102.4	1098.1	1211.1	1188.1	282.0	418.8	419.3	1044.0	1046.2	752.1	971.9	1884.2	1955.7	2009.7	2232.5	2128.2	2007.5	2041.8	1018.5	1335.7	1497.3	3202.0	3683.9	1397.6	3683.9
17	3068.5	1179.3	2371.7	1464.4	1284.1	112.3	21.1	106.6	32.5	77.6	263.7	133.1	24.3	133.8	140.3	101.4	44.4	9.2	114.4	59.1	21.9	14.4	36.0	2.9	450.7	3068.5
18	10.5	5.0	71.8	324.9	3.1	16.8	8.0	1.5	2.5	7.6	19.0	50.3	86.6	17.7	14.7	1.1	1.1	1.4	1.5	1.3	1.3	1.1	2.6	2.3	27.2	324.9
19	2.9	2.8	4.2	1.0	0.5	0.9	2.4	0.6	3.7	1.9	176.3	100.5	222.1	24.5	18.1	8.5	2.7	1.3	1.8	2.6	2.0	4.2	12.0	13.6	25.5	222.1
20	12.5	14.2	13.1	12.0	10.1	9.6	8.1	7.4	8.6	20.4	20.1	62.8	129.9	91.3	28.8	10.4	33.8	11.5	15.4	9.1	11.2	15.1	10.0	5.9	23.8	129.9
21	11.7	82.1	179.9	191.6	132.9	88.6	167.0	48.9	40.9	28.2	8.8	5.8	38.7	61.4	24.4	17.6	6.2	5.4	6.8	6.4	6.8	4.7	4.8	5.4	49.0	191.6
22	4.5	5.3	6.3	6.8	12.6	6.9	6.5	6.5	10.9	7.9	6.9	8.6	13.4	36.3	24.5	49.3	49.8	55.6	15.0	28.5	114.8	17.0	45.6	45.5	24.4	114.8
23	15.6	15.0	13.3	10.7	9.2	11.0	42.1	11.7	8.0	17.0	54.4	57.2	51.2	54.9	21.1	13.9	14.7	11.4	8.7	8.6	8.4	7.6	6.4	5.8	19.9	57.2
24	6.3	6.9	6.6	6.4	6.2	5.8	4.4	4.1	3.6	4.5	5.5	11.3	9.4	41.8	17.9	7.2	7.9	6.2	6.8	7.9	6.9	6.3	11.6	24.2	9.4	41.8
25	14.1	8.2	10.5	9.8	8.8	10.7	6.9	7.8	12.1	9.0	19.6	13.6	15.5	8.2	4.9	6.9	7.9	6.8	3.0	2.5	2.1	1.6	1.5	1.3	8.1	19.6
26	1.2	1.0	1.1	1.0	0.8	0.7	1.8	1.8	12.4	42.4	140.0	611.3	467.5	302.4	469.8	520.6	138.6	9.5	28.4	1.1	0.4	0.4	0.4	0.4	114.8	611.3
27	0.6	0.6	0.4	0.8	4.1	1.6	0.8	1.3	5.4	28.8	18.5	28.5	66.3	16.5	64.8	21.1	12.0	5.9	3.1	2.0	1.8	3.4	3.4	3.3	12.3	66.3
28	2.1	3.5	1.9	1.4	1.2	1.0	2.2	24.0	140.3	45.3	21.3	35.1	68.8	36.9	22.0	14.6	13.7	14.4	15.1	16.2	27.7	20.6	12.4	4.0	22.7	140.3
29	3.2	2.5	2.0	1.7	1.5	1.4	34.7	23.1	22.7	38.8	123.0	53.9	128.3	285.7	292.3	85.5	195.0	233.0	143.5	282.3	262.0	283.0	313.8	188.7	125.1	313.8
30	312.6	488.7	396.8	201.6	81.7	154.7	96.4	80.6	136.6	174.5	191.4	720.8	822.8	418.7	314.0	312.4	201.3	201.9	292.0	252.0	72.0	15.8	8.6	7.9	248.2	822.8
NO.	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	720	100%
MEAN	204.6	118.3	254.2	252.0	264.1	99.3	166.2	201.3	240.3	241.9	328.7	414.0	444.5	301.5	344.7	326.5	338.6	207.0	230.1	169.5	257.2	183.7	229.0	252.9		
MAX	3068.5	1179.3	2371.7	1993.6	2355.6	1137.0	1307.6	1962.6	1985.9	2139.7	2936.0	3455.3	2135.7	1955.7	2009.7	2232.5	2128.2	2007.5	2041.8	1059.4	1517.8	1497.3	3202.0	3683.9		



Number of 24HR Exceedences	16	Proposed Guideline
Number of Non-Zero Readings	720	
Maximum 1-HR Average	3683.9 UG/M3	
Maximum 24-HR Average	1397.6 UG/M3	
IZS Calibration Time		Operational Time 720 HRS
Monthly Calibration	0	Operational Uptime 100.0 %
Standard Deviation	490.1	Monthly Average 252.9 UG/M3