

LAFARGE CANADA INC.

AMBIENT AIR QUALITY MONTHLY REPORT

AUGUST 2021

SEPTEMBER 21, 2021



WSP



AMBIENT AIR QUALITY MONTHLY REPORT

AUGUST 2021

LAFARGE CANADA INC.

PROJECT NO.: 171-00556-05
DATE: SEPTEMBER 21, 2021

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September 21, 2021

LAFARGE CANADA INC.
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Attention: Nikolaos Veriotes P. Eng.

Dear Mr. Veriotes,

Subject: Ambient Air Quality Monthly Report – August 2021

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 August 2021. **The high number of exceedances recorded this month were primarily due to regional wildfire activity.**

Lagoon	Data Completeness (%)	1-Hour Average	24-hour Average
		Exceedances of AAAQO or AAAQG	Exceedances of AAAQO
TSP	96.4%	-	4
PM _{2.5}	98.8%	36	9
PM ₁₀	96.4%	-	-
NO	99.5%	-	-
NO ₂	99.5%	0	-
NO _x	99.5%	-	-
SO ₂	99.5%	0	0
Met Parameters	99.5%	-	-

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WSP Canada Inc.

The following table summarizes the data completeness and reported exceedances of Alberta Ambient Air Quality Objectives (AAAQOs) or Guidelines (AAAQG) at the Windridge Station for August 2021. **The high number of exceedances recorded this month were primarily due to regional wildfire activity.**

Windridge	Data Completeness (%)	1-Hour Average	24-hour Average	
		Exceedances of AAAQG	Exceedances of PM _{2.5} AAAQO	Exceedances of TSP AAAQO
TSP	99.5%	-	-	8
PM _{2.5}	97.4%	35	9	-
PM ₁₀	99.1%	-	-	-

The GRIMM monitors are considered Industrial Ambient Monitors and are meant for assessing the performance of Lafarge Exshaw's Fugitive Dust Control Best Management Practices – Program; the GRIMM monitors are not Air Monitoring Directive (AMD) compliant. This Program uses the AAAQOs as Guidelines. The following table summarizes the data completeness and reported exceedances of the Guidelines at the GRIMM Monitors for August 2021. **The high number of exceedances recorded this month were primarily due to regional wildfire activity.**

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	99.7%	34	9	1
Berm	100%	22	8	14
Entrance	34.9%	8	6	7

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.
Team Leader, Environmental
Management, Vancouver Office

SIGNATURES

PREPARED BY



September 21, 2021

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

Date

APPROVED¹ BY (*must be reviewed for technical accuracy prior to approval*)



September 21, 2021

Tyler Abel, M.Sc.
Team Leader, Environmental Management,
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Date

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TABLE OF CONTENTS

1	INTRODUCTION	1
1.1	Exshaw Creek Flood Mitigation.....	1
1.2	Fugitive Dust Contributions From Lac Des Arcs	2
1.3	Wildfire Impact on Bow Valley Airshed.....	3
2	AUGUST 2021 REPORT SUMMARY	4
2.1	Lagoon Station.....	4
2.2	Windridge Station.....	5
2.3	West Grimm	6
2.4	Berm Grimm.....	6
2.5	Entrance Grimm.....	7
3	LAGOON STATION	8
3.1	Operational Summary.....	8
3.2	Monitoring Results and Trends.....	10
4	WINDRIDGE STATION.....	23
4.1	Operational Summary.....	23
4.2	Monitoring Results and Trends.....	24
5	WEST INDUSTRIAL GRIMM.....	34
5.1	Operational Summary.....	34
5.2	Monitoring Results and Trends.....	34
6	BERM INDUSTRIAL GRIMM.....	42
6.1	Operational Summary.....	42
6.2	Monitoring Results and Trends.....	42
7	ENTRANCE INDUSTRIAL GRIMM	51
7.1	Operational Summary.....	51
7.2	Monitoring Results and Trends.....	51

BIBLIOGRAPHY 60

TABLES

TABLE 2-1	LAGOON STATION DATA SUMMARY	4
TABLE 2-2	WINDRIDGE STATION DATA SUMMARY	5
TABLE 2-3	WEST STATION DATA SUMMARY ...	6
TABLE 2-4	BERM STATION DATA SUMMARY...	6
TABLE 2-5	ENTRANCE STATION DATA SUMMARY	7
TABLE 3-1	INSTRUMENTATION LIST AT THE LAGOON STATION.....	8
TABLE 3-2	SUMMARY OF AUGUST 2021 DATA AT LAGOON	11
TABLE 3-3	DAYS EXCEEDING THE TSP AAAQO OR PM _{2.5} AAAQO AT THE LAGOON STATION.....	12
TABLE 4-1	INSTRUMENTATION LIST AT THE WINDRIDGE MONITORING LOCATION.....	23
TABLE 4-2	SUMMARY OF AUGUST 2021 DATA AT THE WINDRIDGE STATION.....	25
TABLE 4-3	DAYS EXCEEDING THE TSP AAAQO OR PM _{2.5} AAAQO AT THE WINDRIDGE STATION	26
TABLE 5-1	INSTRUMENTATION LIST AT THE WEST MONITORING LOCATION ...	34
TABLE 5-2	SUMMARY OF AUGUST 2021 DATA AT THE WEST GRIMM	35
TABLE 5-3	DAYS EXCEEDING THE GUIDELINE FOR TSP OR PM _{2.5} AT THE WEST MONITOR	35
TABLE 6-1	INSTRUMENTATION LIST AT THE BERM MONITORING LOCATION ...	42
TABLE 6-2	SUMMARY OF AUGUST 2021 DATA AT THE BERM GRIMM	43
TABLE 6-3	DAYS EXCEEDING THE GUIDELINE FOR TSP OR PM _{2.5} AT THE BERM MONITOR	44
TABLE 7-1	INSTRUMENTATION LIST AT THE ENTRANCE MONITORING LOCATION.....	51
TABLE 7-2	SUMMARY OF AUGUST 2021 DATA AT THE ENTRANCE GRIMM	53

TABLE 7-3	DAYS EXCEEDING THE GUIDELINE FOR TSP OR PM _{2.5} AT THE ENTRANCE MONITOR	54
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FIGURES

FIGURE 1	PHOTO OF COMPLETED FLOOD MITIGATION WORK AT EXSHAW CREEK.....	1
FIGURE 2	PHOTO OF LAC DES ARCS (SEPTEMBER 21, 2021)	2
FIGURE 3-1	INLETS ON THE TOP OF WSP'S LAGOON MONITOR	9
FIGURE 3-2	1-HOUR CONCENTRATIONS OF NO _x , SO ₂ , PARTICULATE MATTER, WIND DIRECTION AND WIND SPEED AT THE LAGOON STATION.....	13
FIGURE 3-3	HISTOGRAM OF HOURLY NO ₂ CONCENTRATIONS AT THE LAGOON STATION.....	14
FIGURE 3-4	HISTOGRAM OF HOURLY SO ₂ CONCENTRATIONS AT THE LAGOON STATION.....	14
FIGURE 3-5	HISTOGRAM OF HOURLY PM _{2.5} CONCENTRATIONS AT THE LAGOON STATION.....	15
FIGURE 3-6	HISTOGRAM OF HOURLY PM ₁₀ CONCENTRATIONS AT THE LAGOON STATION.....	15
FIGURE 3-7	HISTOGRAM OF HOURLY TSP CONCENTRATIONS AT THE LAGOON STATION.....	16
FIGURE 3-8	24-HOUR CONCENTRATIONS OF NO _x , SO ₂ , AND PARTICULATE MATTER AT THE LAGOON MONITOR	17
FIGURE 3-9	WIND ROSE FOR TSP EXCEEDANCE DAYS RECORDED AT THE LAGOON STATION.....	18
FIGURE 3-10	WIND ROSE FOR PM _{2.5} EXCEEDANCE DAYS RECORDED AT THE LAGOON STATION.....	19
FIGURE 3-11	LAGOON MONITOR PARTICULATE MATTER TIME VARIATION	20

FIGURE 3-12	LAGOON MONITOR SO ₂ TIME VARIATION.....	21
FIGURE 3-13	LAGOON MONITOR NO _x TIME VARIATION.....	22
FIGURE 4-1	1-HOUR PARTICULATE MATTER CONCENTRATIONS RECORDED AT THE WINDRIDGE MONITOR	27
FIGURE 4-2	HISTOGRAM OF HOURLY PM _{2.5} CONCENTRATIONS AT THE WINDRIDGE STATION	28
FIGURE 4-3	HISTOGRAM OF HOURLY PM ₁₀ CONCENTRATIONS AT THE WINDRIDGE STATION	28
FIGURE 4-4	HISTOGRAM OF HOURLY TSP CONCENTRATIONS AT THE WINDRIDGE STATION	29
FIGURE 4-5	24-HOUR PARTICULATE MATTER CONCENTRATIONS AT THE WINDRIDGE MONITOR.....	30
FIGURE 4-6	WIND ROSE FOR TSP EXCEEDANCE DAYS RECORDED AT THE WINDRIDGE STATION.....	31
FIGURE 4-7	WIND ROSE FOR PM _{2.5} EXCEEDANCE DAYS RECORDED AT THE WINDRIDGE STATION.....	32
FIGURE 4-8	WINDRIDGE PARTICULATE MATTER TIME VARIATION.....	33
FIGURE 5-1	1-HOUR PARTICULATE MATTER CONCENTRATIONS AT THE WEST MONITOR	37
FIGURE 5-2	24-HOUR PARTICULATE MATTER CONCENTRATIONS AT THE WEST MONITOR	38
FIGURE 5-3	WIND ROSE FOR THE TSP EXCEEDANCE DAY RECORDED AT THE WEST GRIMM.....	39
FIGURE 5-4	WIND ROSE FOR THE PM _{2.5} EXCEEDANCE DAYS RECORDED AT THE WEST GRIMM.....	40
FIGURE 5-5	WEST MONITOR PARTICULATE MATTER TIME VARIATION	41
FIGURE 6-1	1-HOUR PARTICULATE MATTER CONCENTRATIONS RECORDED AT THE BERM MONITOR	46
FIGURE 6-2	24-HOUR PARTICULATE MATTER CONCENTRATIONS RECORDED AT THE BERM MONITOR	47

FIGURE 6-3	WIND ROSE FOR TSP EXCEEDANCE DAYS RECORDED AT THE BERM GRIMM.....	48
FIGURE 6-4	WIND ROSE FOR PM _{2.5} EXCEEDANCE DAYS RECORDED AT THE BERM GRIMM.....	49
FIGURE 6-5	BERM PARTICULATE MATTER TIME VARIATION.....	50
FIGURE 7-1	1-HOUR PARTICULATE MATTER CONCENTRATIONS RECORDED AT THE ENTRANCE MONITOR	55
FIGURE 7-2	24-HOUR PARTICULATE MATTER CONCENTRATIONS AT THE ENTRANCE MONITOR	56
FIGURE 7-3	WIND ROSE FOR TSP EXCEEDANCE DAYS RECORDED AT THE ENTRANCE GRIMM.....	57
FIGURE 7-4	WIND ROSE FOR PM _{2.5} EXCEEDANCE DAYS RECORDED AT THE ENTRANCE GRIMM.....	58
FIGURE 7-5	ENTRANCE PARTICULATE MATTER TIME VARIATION.....	59

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. 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 August 1, 2021 and August 31, 2021.

This monthly report was prepared by Dylan Weyell, Junior Air Quality Specialist with WSP, on behalf of Lafarge and was reviewed by Tyler Abel, Team Leader of Environmental Management in the Vancouver Region at WSP.

1.1 EXSHAW CREEK FLOOD MITIGATION

Due to flood mitigation construction at Exshaw creek (Figure 1), the Windridge monitoring station was taken out of operation and removed from the site on April 8, 2019. The flood mitigation work was completed in Summer 2020. The Windridge station was reinstalled on September 1, 2020 and is included in this report.



Figure 1 Photo of Completed Flood Mitigation Work at Exshaw Creek

1.2 FUGITIVE DUST CONTRIBUTIONS FROM LAC DES ARCS

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

In August 2021, Lafarge environmental staff noted that water levels were high enough that the lake bed was not exposed (Figure 2), thus mitigating this as a potential source this month.



Figure 2 Photo of Lac Des Arcs (September 21, 2021)

1.3 WILDFIRE IMPACT ON BOW VALLEY AIRSHED

During the month of August regional wildfire activity, including smoke impacts from BC and Alberta, had a drastic impact on air quality in the Bow Valley airshed. Wildfires produce a large amount of suspend particulate matter which can affect air quality and result in AAAQO and AAAQG exceedances. The majority of TSP and PM_{2.5} exceedances during the month of August can be attributed to smoke from regional wildfires in BC and Alberta, and not specific industrial operations from Lafarge Exshaw.

2 AUGUST 2021 REPORT SUMMARY

This summary section provides the pertinent details on data collected and maintenance/calibration activities at each of the monitoring locations. The monitoring results for the stations are described in further detail in their corresponding sections. Maximum hourly concentrations are shown for all particulate matter size fractions, but there are no Alberta Ambient Air Quality Objectives (AAAQO) for 1-hour PM concentrations. The exceedances reported for 1-hour PM_{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
NO ₂ (ppb)	99.5	31.1	0	12.8	-
SO ₂ (ppb)	99.5	16.9	0	5.0	0
PM _{2.5} (µg/m ³)	98.8	249.9	36 ¹	136.1	9
PM ₁₀ (µg/m ³)	96.4	484.8	-	194.5	-
TSP (µg/m ³)	96.4	766.8	-	251.8	4
Temperature (°C)	99.5	32.8	-	24.1	-
Wind Speed (km/hr) /Direction (Degrees)	99.5	37.5/W	-	26.0/WSW	-
Precipitation (mm)	99.5	3.3 ²	-	44 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)

³ Monthly Total Accumulation of Precipitation (mm)

Data Quality Notes:

- There was 9 days exceeding the 24-hour PM_{2.5} AAAQO.
- There were 36 exceedances the 1-hour PM_{2.5} AAAQG.
- There was 4 days exceeding the 24-hour TSP AAAQO.

Calibration/Maintenance Notes:

- At the Lagoon station, meteorological sensors, SO₂ and NO₂ had 99.5% uptime for the month of August due to four hours of power failure occurring on August 18th at 10:00; August 26th at 24:00 – August 27th at 2:00.
- PM_{2.5} recorded 98.8% uptime due to 1 hour of equipment malfunction on August 7th at 2:00; 6 hours of power failure occurring on August 18th at 9:00 – 11:00; August 26th at 24:00 – August 27th at 2:00. And further, two hours of routine maintenance occurring on August 31st at 12:00 & 13:00.
- TSP and PM₁₀ recorded 96.4% uptime due to eighteen hours of equipment malfunction occurring from August 5th at 16:00 to August 6th at 9:00; and one additional hour on August 7th at 2:00. Further, 6 hours of power failure occurring on August 18th at 9:00 – 11:00; August 26th at 24:00 – August 27th at 2:00. And further, two hours of routine maintenance occurring on August 31st at 12:00 & 13:00.

2.2 WINDRIDGE STATION

Table 2-2 Windridge station data summary

Parameter	Data Completeness (%)	1-Hour Average		24-hour Average	
		Maximum Concentration	Exceedances of AAAQG	Maximum Concentration	Exceedances of AAAQO
PM _{2.5} (µg/m ³)	97.4	235.0	35*	119.3	9
PM ₁₀ (µg/m ³)	99.1	485.0	-	185.8	-
TSP (µg/m ³)	99.5	864.0	-	237.1	8

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

Data Quality Notes:

- There was 9 days exceeding the 24-hour PM_{2.5} AAAQO.
- There was 35 exceedances of the 1-hour PM_{2.5} AAAQG.
- There was 8 days exceeding the 24-hour TSP AAAQO.

Calibration/Maintenance Notes:

- TSP recorded 99.5% uptime for the month of August due to three hours of power failure occurring on August 18th at 8:00 – 10:00. And further, one hour of routine maintenance on August 31st at 11:00.
- The PM₁₀ monitor recorded 99.1% uptime for the month of August due to three hours of equipment malfunction occurring on August 17th at 6:00; 9:00; and 14:00. Further, three hours of power failure occurring on August 18th at 8:00 – 10:00. And further, one hour of routine maintenance on August 31st at 11:00.
- The PM_{2.5} monitor recorded 97.4% uptime during the month of August due to three hours of power failure occurring on August 18th at 8:00 – 10:00. And further, fifteen hour of equipment malfunction occurring on August 30th at 20:00 to August 31st at 10:00. And one additional hour of routine maintenance on August 31st at 11:00.

2.3 WEST GRIMM

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

Table 2-3 West station data summary

Parameter	Data Completeness (%)	1-Hour Average		24-hour Average	
		Maximum Concentration	Exceedances of Guidelines	Maximum Concentration	Exceedances of Guidelines
PM _{2.5} (µg/m ³)	99.7	230.6	34*	114.6	9
PM ₁₀ (µg/m ³)	99.7	277.4	-	134.8	-
TSP (µg/m ³)	99.7	269.8	-	112.6	1

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

Data Quality Notes:

- There was 9 exceedances of the 24-hour PM_{2.5} Guidelines.
- There was 34 exceedances of the 1-hour PM_{2.5} Guidelines.
- There was 1 exceedance of the 24-hour TSP Guidelines.

Calibration/Maintenance Notes:

- The analyzer had 99.7% uptime for the month of August due to two hours of power failure occurring on August 18th at 8:00 & 10:00.

2.4 BERM GRIMM

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

Table 2-4 Berm station data summary

Parameter	Data Completeness (%)	1-Hour Average		24-hour Average	
		Maximum Concentration	Exceedances of Guidelines	Maximum Concentration	Exceedances of Guidelines
PM _{2.5} (µg/m ³)	100.0	198.2	22*	85.4	8
PM ₁₀ (µg/m ³)	100.0	647.2	-	141.5	-
TSP (µg/m ³)	100.0	1858.8	-	439.8	14

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

Data Quality Notes:

- There were 8 exceedances of the 24-hour PM_{2.5} Guidelines.
- There were 22 exceedances of the 1-hour PM_{2.5} Guidelines.
- There were 14 days exceeding the 24-hour TSP Guidelines.

Calibration/Maintenance Notes:

- The analyzer had 100% uptime during the month of August.

2.5 ENTRANCE GRIMM

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

Table 2-5 Entrance station data summary

Parameter	Data Completeness (%)	1-Hour Average		24-hour Average	
		Maximum Concentration	Exceedances of Guidelines	Maximum Concentration	Exceedances of Guidelines
PM _{2.5} ($\mu\text{g}/\text{m}^3$)	34.9	95.1	8*	54.0	6
PM ₁₀ ($\mu\text{g}/\text{m}^3$)	34.9	365.9	-	151.3	-
TSP ($\mu\text{g}/\text{m}^3$)	34.9	1261.1	-	325.6	7

* Any exceedances reported for 1-hour PM_{2.5} are over the guideline level (AAAQG) of 80 $\mu\text{g}/\text{m}^3$.

Data Quality Notes:

- There were 6 exceedances of the 24-hour PM_{2.5} Guidelines.
- There were 8 exceedances of the 1-hour PM_{2.5} Guidelines.
- There were 7 days exceeding the 24-hour TSP Guidelines.

Calibration/Maintenance Notes:

- The analyzer had 34.9% uptime for the month of August due to equipment being removed for repair from August 11th at 21:00 to August 31st at 24:00.

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 (Figure 3-9) & (Figure 3-10) and tables and graphs illustrating the monitoring results for August 2021.

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 August 6 th . The monitor had 98.8% uptime due to 1 hour of equipment malfunction on August 7 th at 2:00; 6 hours of power failure occurring on August 18 th at 9:00 – 11:00; August 26 th at 24:00 – August 27 th at 2:00. And further, two hours of routine maintenance occurring on August 31 st at 12:00 & 13:00.
PM₁₀ Concentrations	MetOne BAM-1020 Continuous Particulate Monitor	The PM ₁₀ monitor was calibrated on August 6 th . The monitor had 96.4% uptime due to eighteen hours of equipment malfunction occurring from August 5 th at 16:00 to August 6 th at 9:00; and one additional hour on August 7 th at 2:00. Further, 6 hours of power failure occurring on August 18 th at 9:00 – 11:00; August 26 th at 24:00 – August 27 th at 2:00. And further, two hours of routine maintenance occurring on August 31 st at 12:00 & 13:00.
TSP Concentrations	MetOne BAM-1020 Continuous Particulate Monitor	The TSP monitor was calibrated on August 6 th . The monitor had 96.4% uptime due to eighteen hours of equipment malfunction occurring from August 5 th at 16:00 to August 6 th at 9:00; and one additional hour on August 7 th at 2:00. Further, 6 hours of power failure occurring on August 18 th at 9:00 – 11:00; August 26 th at 24:00 – August 27 th at 2:00. And further, two hours of routine

		maintenance occurring on August 31 st at 12:00 & 13:00.
Oxides of Nitrogen	TEI 42C	The NO _x monitor was calibrated on August 5 th . The monitor had 99.5% uptime for the month of August due to four hours of power failure occurring on August 18 th at 10:00; August 26 th at 24:00 – August 27 th at 2:00.
Sulphur Dioxide	Teledyne API 102A	The SO ₂ monitor was calibrated on August 23 rd . The monitor had 99.5% uptime for the month of August due to four hours of power failure occurring on August 18th at 10:00; August 26th at 24:00 – August 27th at 2:00.
Precipitation	MetOne 130 Rain/Snow Gauge	The monitor had 99.5% uptime for the month of August due to four hours of power failure occurring on August 18 th at 10:00; August 26 th at 24:00 – August 27 th at 2:00.
Wind Speed	MetOne Wind Sensor	The monitor had 99.5% uptime for the month of August due to four hours of power failure occurring on August 18 th at 10:00; August 26 th at 24:00 – August 27 th at 2:00.
Wind Direction		The monitor had 99.5% uptime for the month of August due to four hours of power failure occurring on August 18 th at 10:00; August 26 th at 24:00 – August 27 th at 2:00.
Ambient Temperature	MetOne Ambient Temperature Sensor	The monitor had 99.5% uptime for the month of August due to four hours of power failure occurring on August 18 th at 10:00; August 26 th at 24:00 – August 27 th at 2:00.

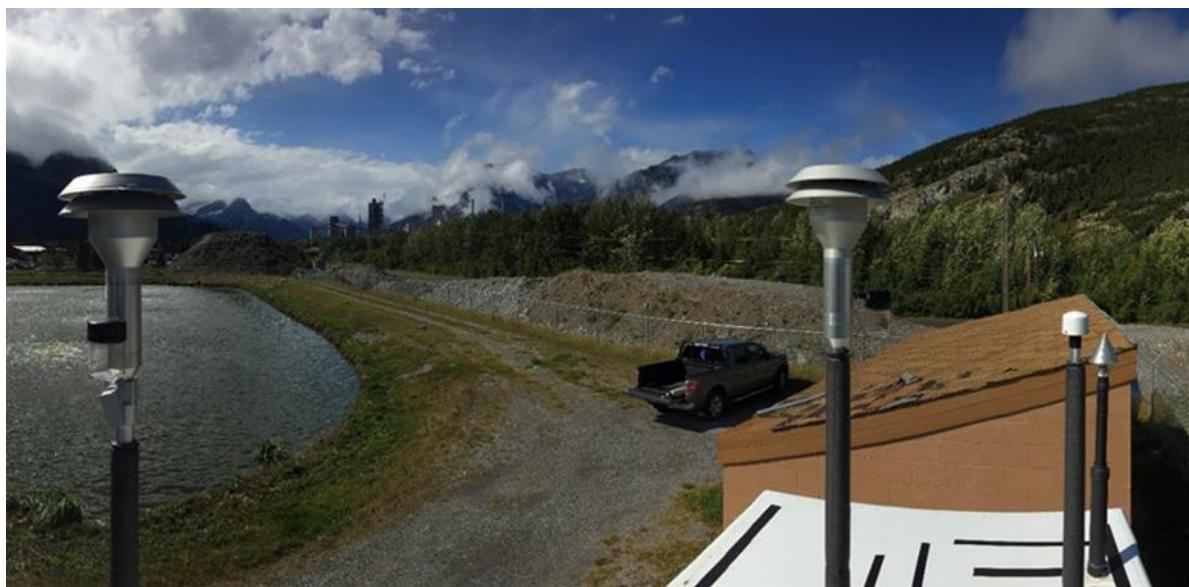


Figure 3-1 Inlets on the top of WSP's Lagoon monitor

3.2 MONITORING RESULTS AND TRENDS

Table 3-2 summarizes the hourly and daily concentrations recorded in August 2021. Table 3-3 summarizes the recorded exceedances at the Lagoon station. 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 August 2021 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 4 exceedances of the 24-hour TSP (100 µg/m³) AAAQO. There were 9 exceedances of the 24-hour PM_{2.5} (29 µg/m³) AAAQO. Further, there were 36 exceedances of the 1-hour PM_{2.5} AAAQG (80 µg/m³). As discussed in Section 1.3, the Bow Valley airshed was heavily impacted from regional wildfire activity in August. All of the exceedances were primarily attributable to wildfire activity and smoke in the airshed from fires in BC and Alberta.

Historically in August, the average number of 24-hour TSP AAAQO exceedances and 24-hour PM_{2.5} AAAQO exceedances is two and three, respectively.

Further, strong wind gusting that typically occurs in the area 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 3-2 Summary of August 2021 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	
NO ₂ (ppb)	159	-	Lagoon	0	-	0.8	7.8	31.1	31	5	14.1	61.7	12.8	15	99.5
SO ₂ (ppb)	172	48	Lagoon	0	0	0.0	1.7	16.9	13	11	14.9	290.9	5.0	10	99.5
PM _{2.5} (µg/m ³)	80	29	Lagoon	36	9	0.0	21.6	249.9	16	4	20.9	270.7	136.1	16	98.8
PM ₁₀ (µg/m ³)	-	-	Lagoon	-	-	0.0	40.4	484.8	16	3	17.4	265.6	194.5	16	96.4
TSP (µg/m ³)	-	100	Lagoon	-	4	0.6	59.1	766.8	16	3	17.4	265.6	251.8	16	96.4
Temperature (°C)	-	-	Lagoon	-	-	5.0	16.4	32.8	1	15	6.6	108.7	24.1	15	99.5
Wind Speed (km/hr)/Direction (degrees)	-	-	Lagoon	-	-	1.5	13.3	37.5/W	9	23	37.5	258.7	26.0/WSW	10	99.5
Precipitation (mm)	-	-	Lagoon	-	-	0.0	0.1	3.3	17	6	9.7	112.7	44.0	-	99.5

Table 3-3 Days exceeding the TSP AAAQO or PM_{2.5} AAAQO at the Lagoon 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)
Lagoon						
2021-08-01	-	37	345	11.0	45	Regional wildfire activity
2021-08-02	-	39	296	7.6	72	Regional wildfire activity
2021-08-03	-	47	276	16.4	52	Regional wildfire activity
2021-08-04	-	37	280	12.4	49	Regional wildfire activity
2021-08-05	-	34	289	14.6	49	Regional wildfire activity
2021-08-06	-	47	265	14.3	46	Regional wildfire activity
2021-08-10	114	-	280	26.0	43	Regional wildfire activity
2021-08-14	136	60	268	16.2	26	Regional wildfire activity
2021-08-15	170	100	262	15.9	31	Regional wildfire activity
2021-08-16	252	136	291	14.6	53	Regional wildfire activity
Total # of Exceedances	4	9				
Maximum # of Exceedances (August)	8 (2018)	17 (2018)				
Average # of Exceedances (August)	2	3				
Minimum # of Exceedances (August)	0 (2012, 2013, 2014, 2016, 2019, 2020)	0 (2011, 2012, 2013, 2014, 2016, 2019, 2020)				

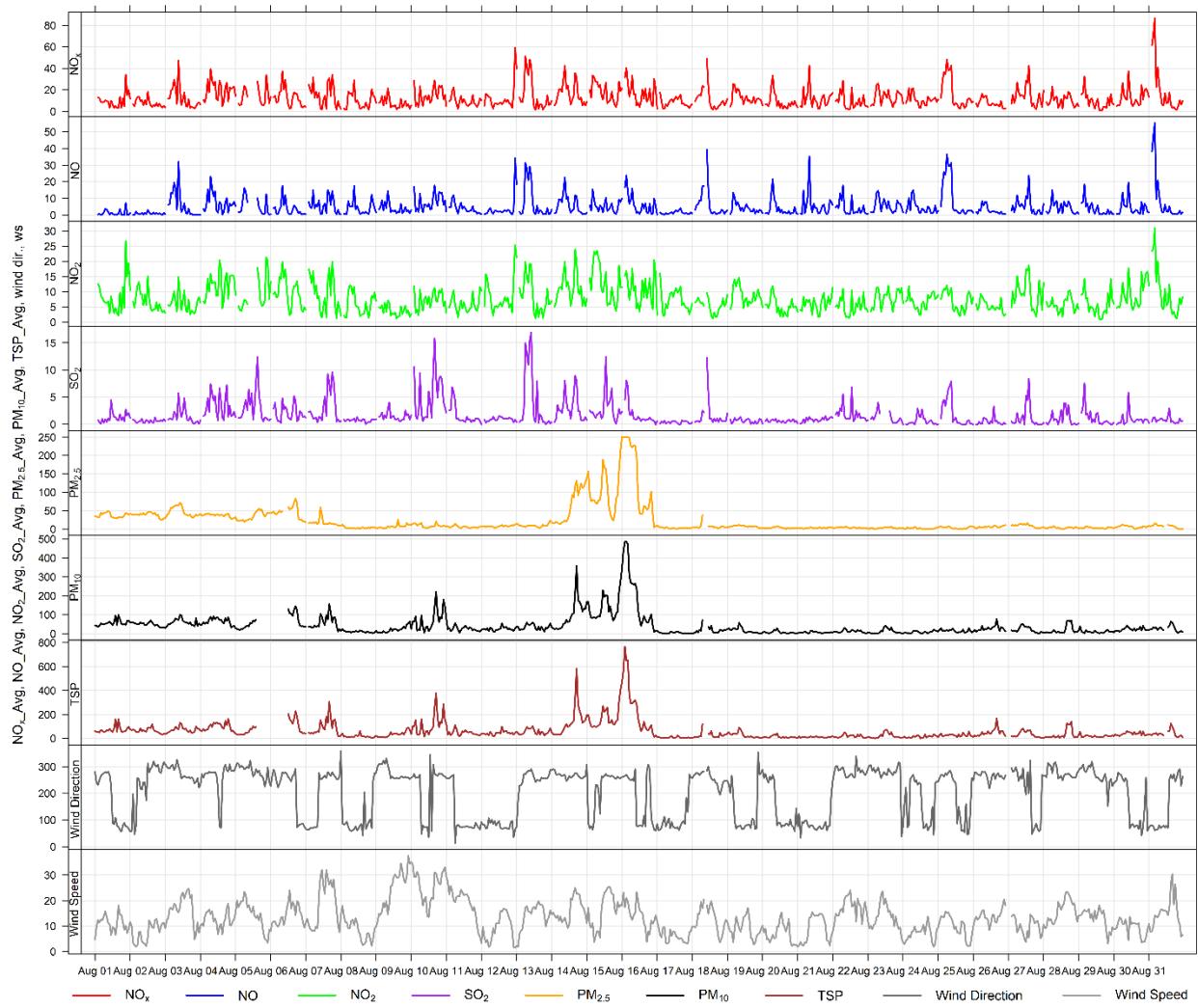


Figure 3-2 1-hour concentrations of NO_x, SO₂, particulate matter, wind direction and wind speed at the Lagoon station

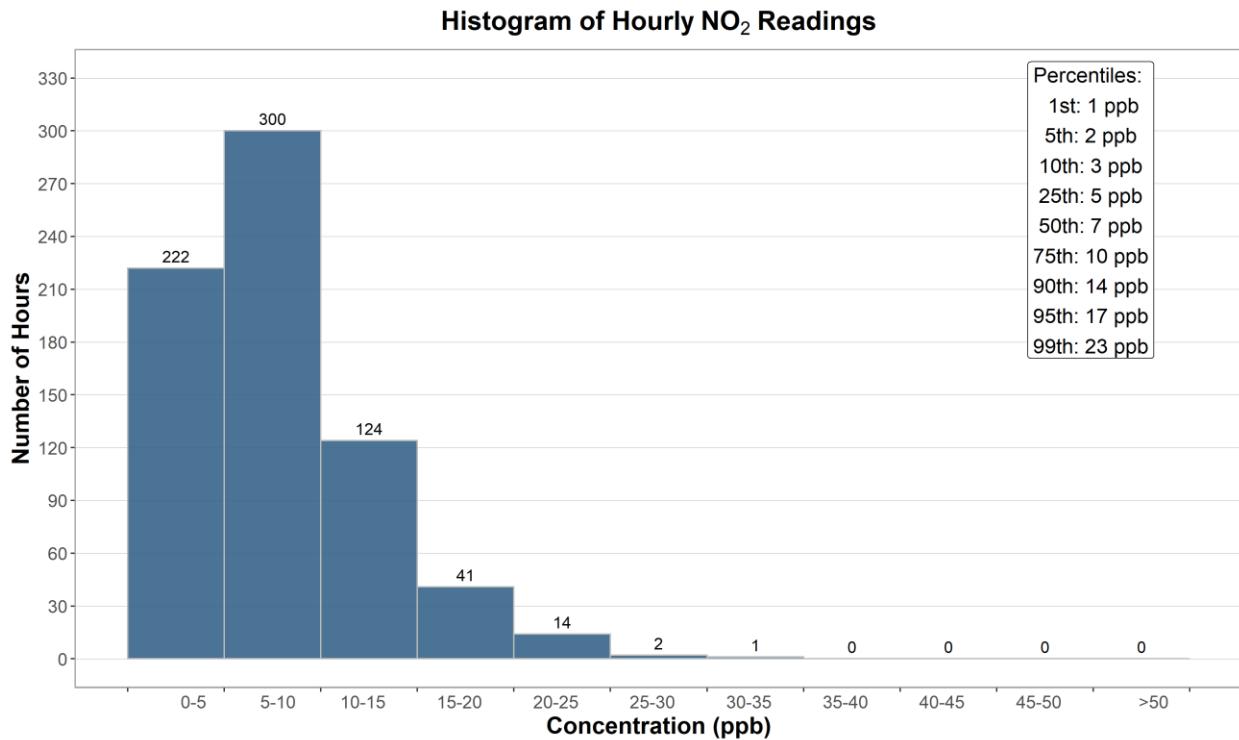


Figure 3-3 Histogram of hourly NO₂ concentrations at the Lagoon station

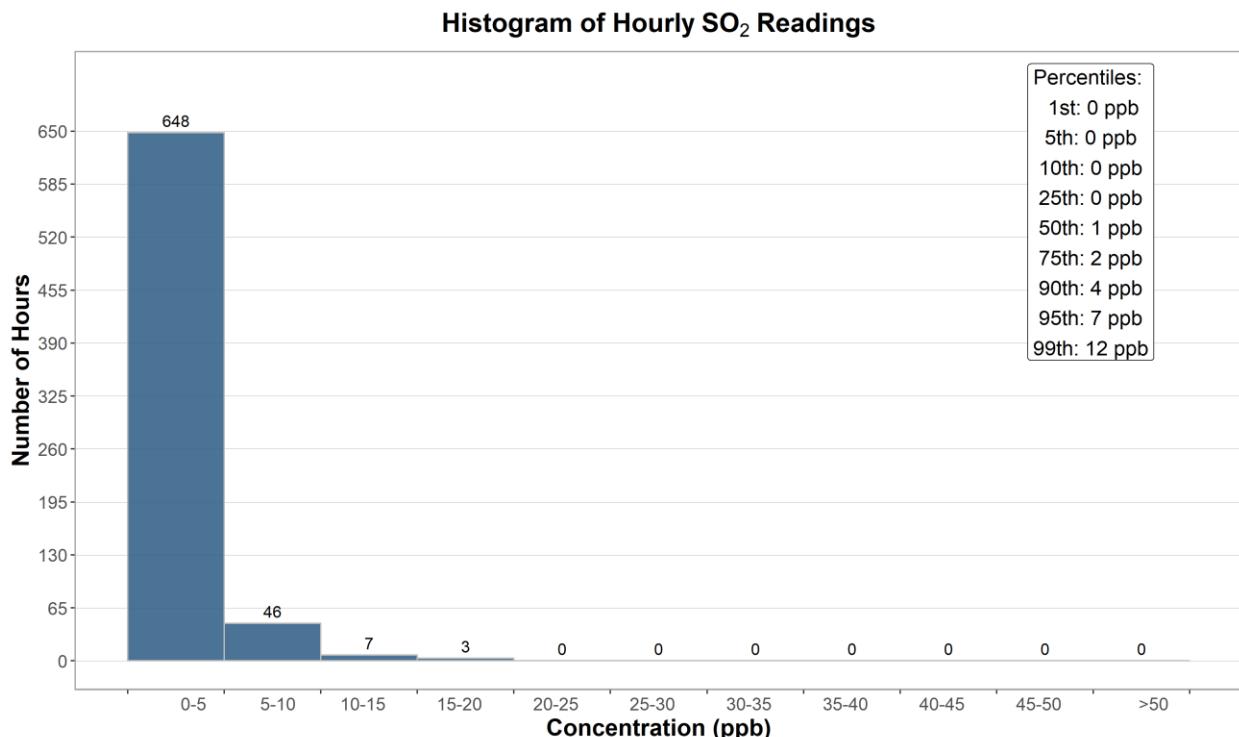


Figure 3-4 Histogram of hourly SO₂ concentrations at the Lagoon station

Histogram of Hourly PM_{2.5} Readings

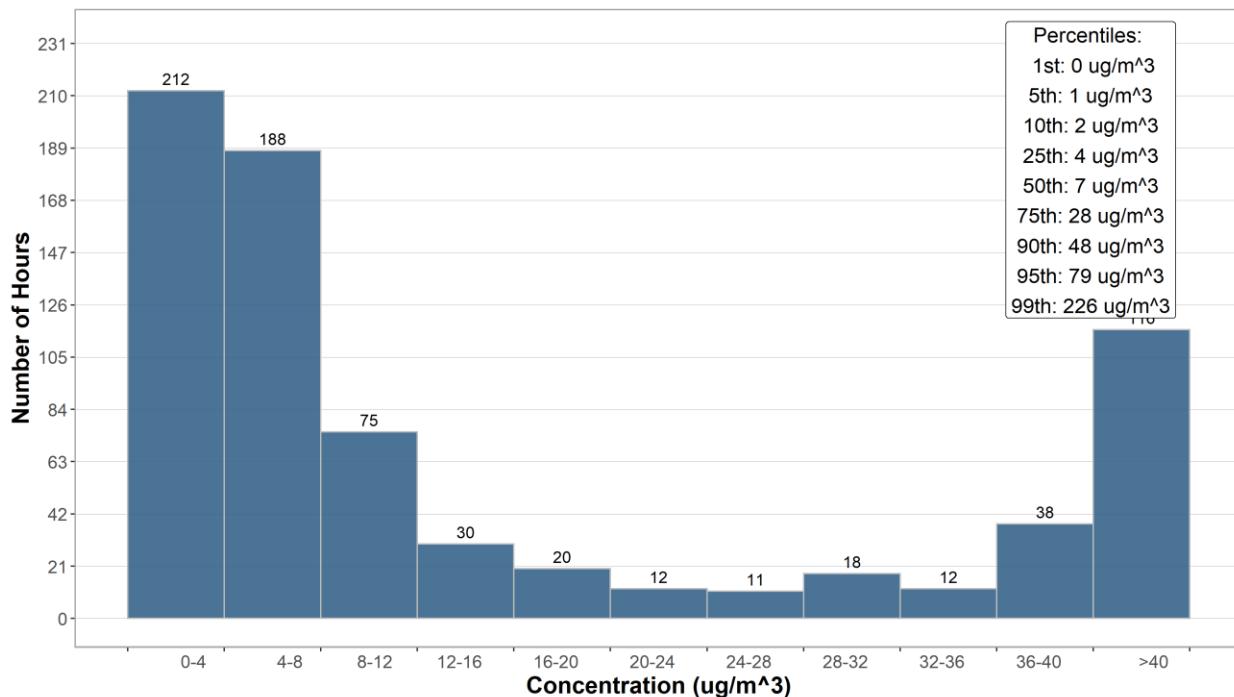


Figure 3-5 Histogram of hourly PM_{2.5} concentrations at the Lagoon station

Histogram of Hourly PM₁₀ Readings

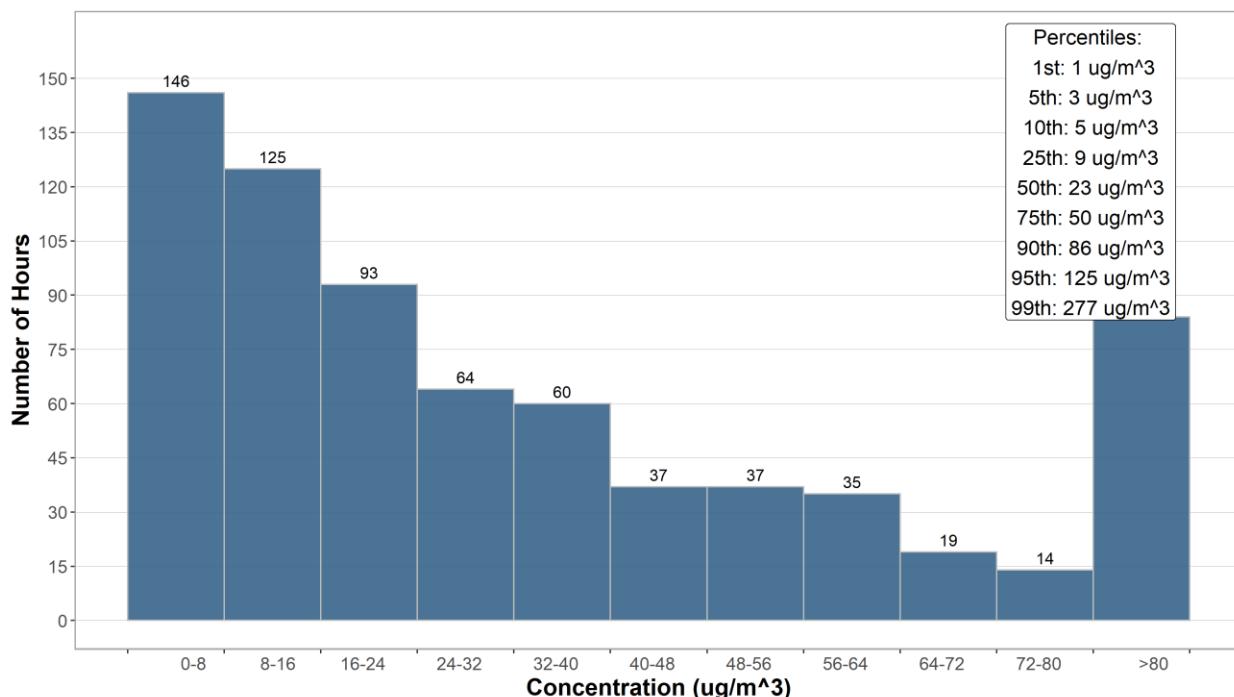


Figure 3-6 Histogram of hourly PM₁₀ concentrations at the Lagoon station

Histogram of Hourly TSP Readings

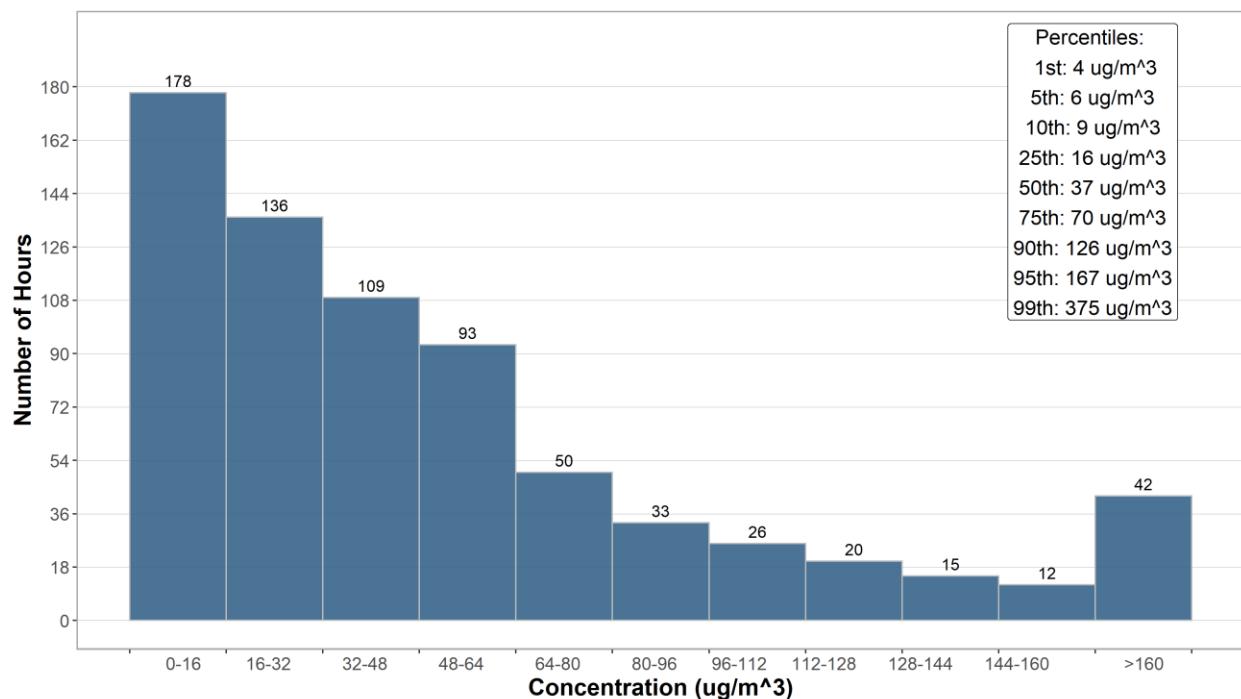


Figure 3-7 Histogram of hourly TSP concentrations at the Lagoon station

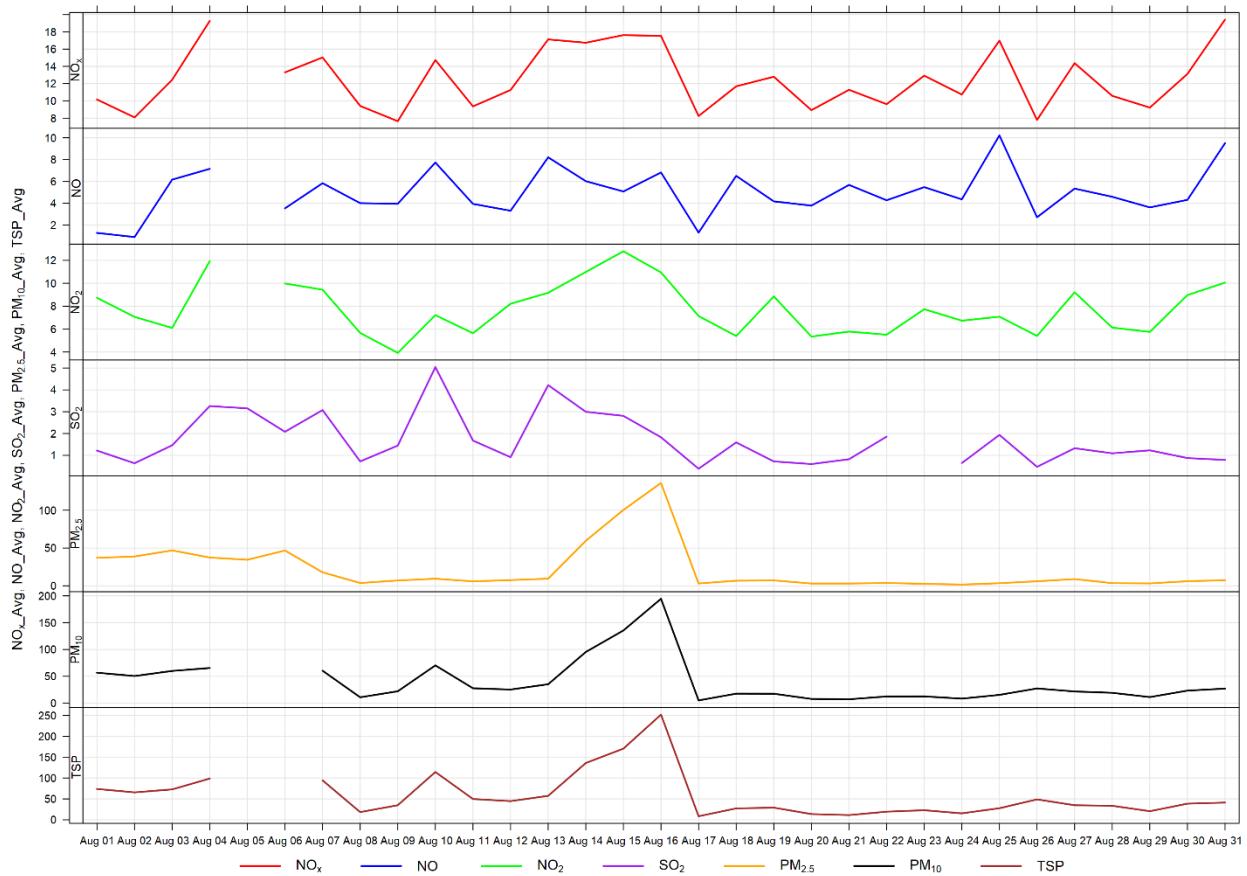


Figure 3-8 24-hour concentrations of NO_x, SO₂, and particulate matter at the Lagoon monitor

The following wind rose (Figure 3-9) shows the wind rose for the 4 days of TSP exceedances. Figure 3-10 shows the wind rose for the 9 days of PM_{2.5} exceedances. The variation in wind conditions producing exceedances shows that, this month, the TSP exceedances were largely driven by wildfire activity rather than windblown fugitive dust, as has been typical.

Figure 3-11 through Figure 3-13 show the variation in concentrations over various time averaging periods for PM, SO₂ and NO_x. The particulate matter plot in Figure 3-11 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 follow the diurnal pattern of higher wind speeds during the daytime hours. Due to the wildfire impacts during the month of August the diurnal trend this month is less pronounced.

Figure 3-12 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 3-13 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.

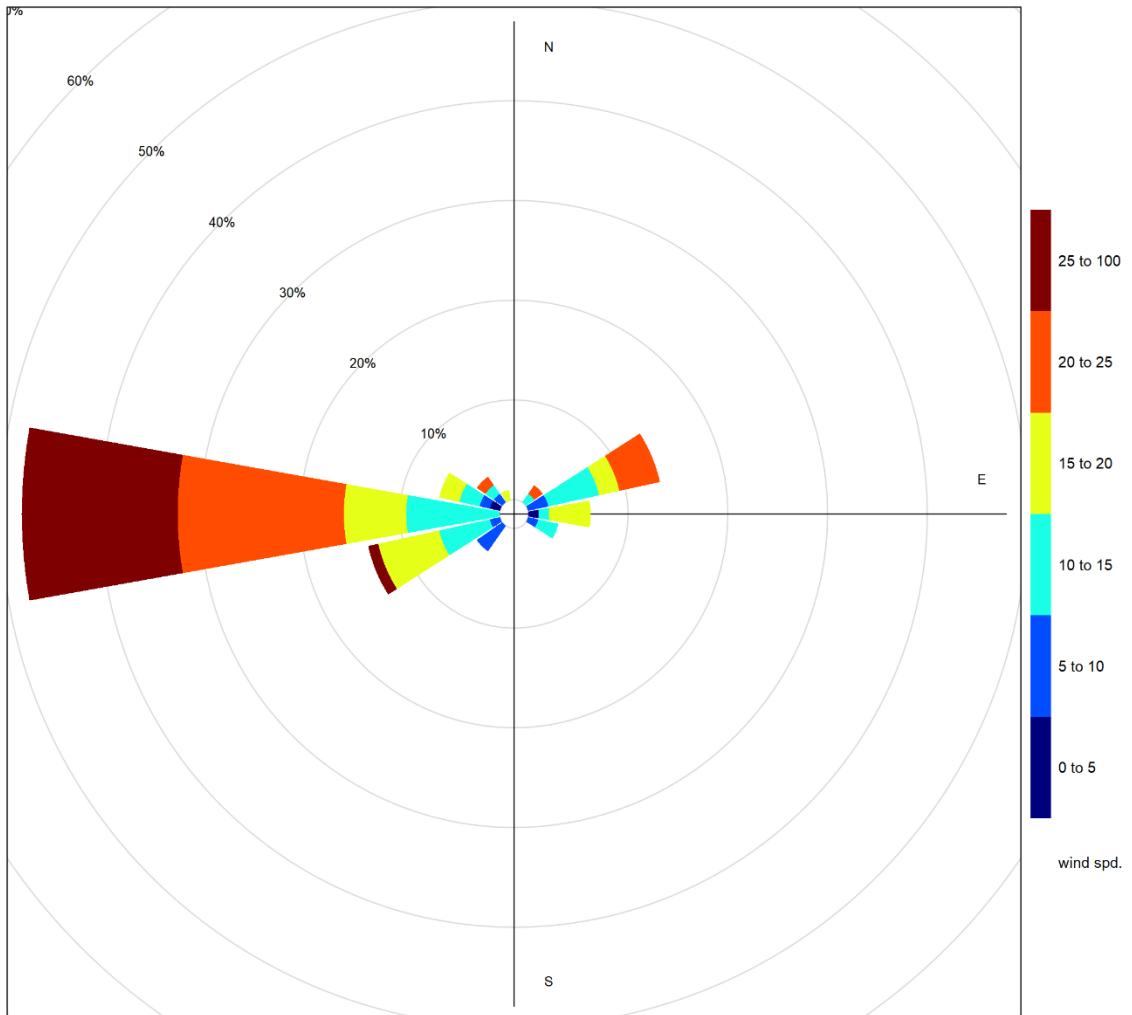


Figure 3-9 Wind rose for TSP exceedance days recorded at the Lagoon Station

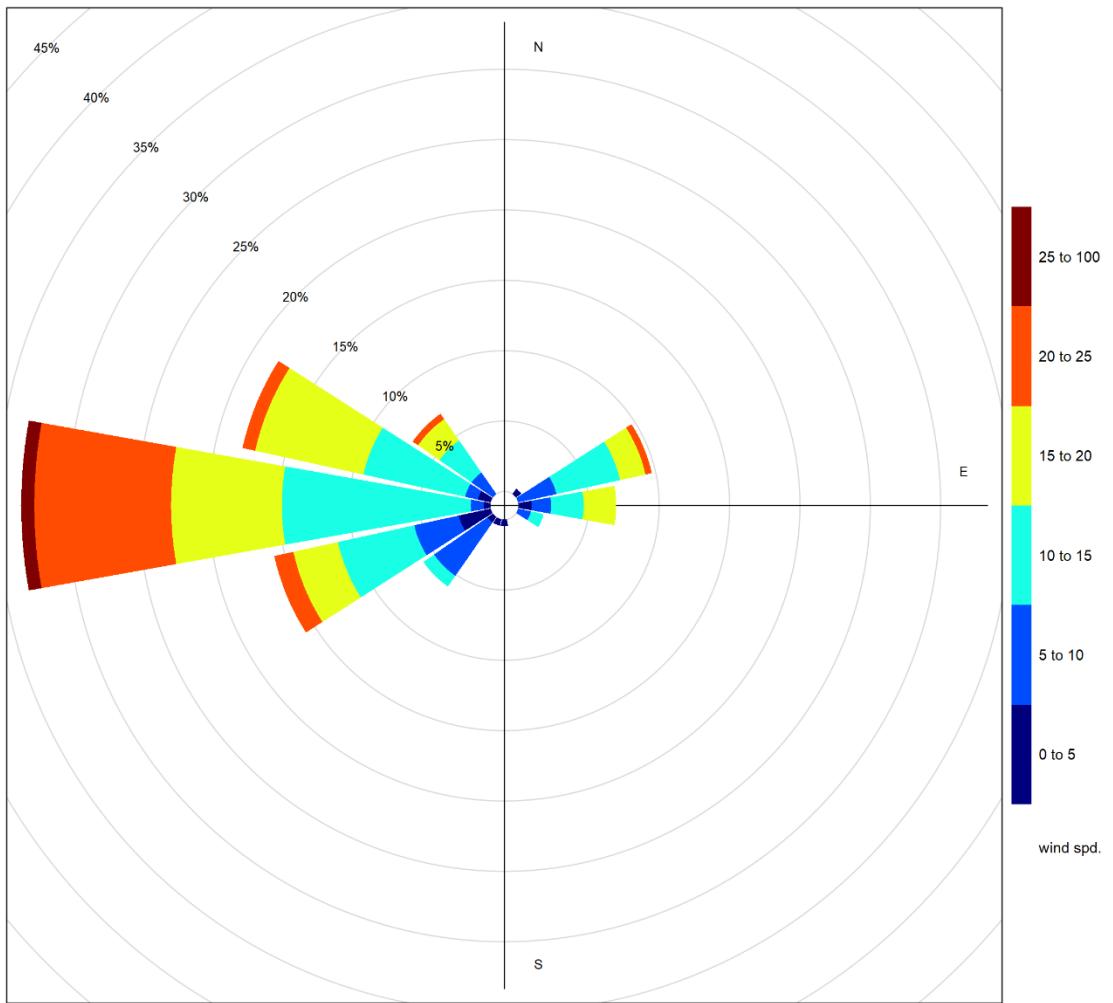


Figure 3-10 Wind rose for PM_{2.5} exceedance days recorded at the Lagoon Station

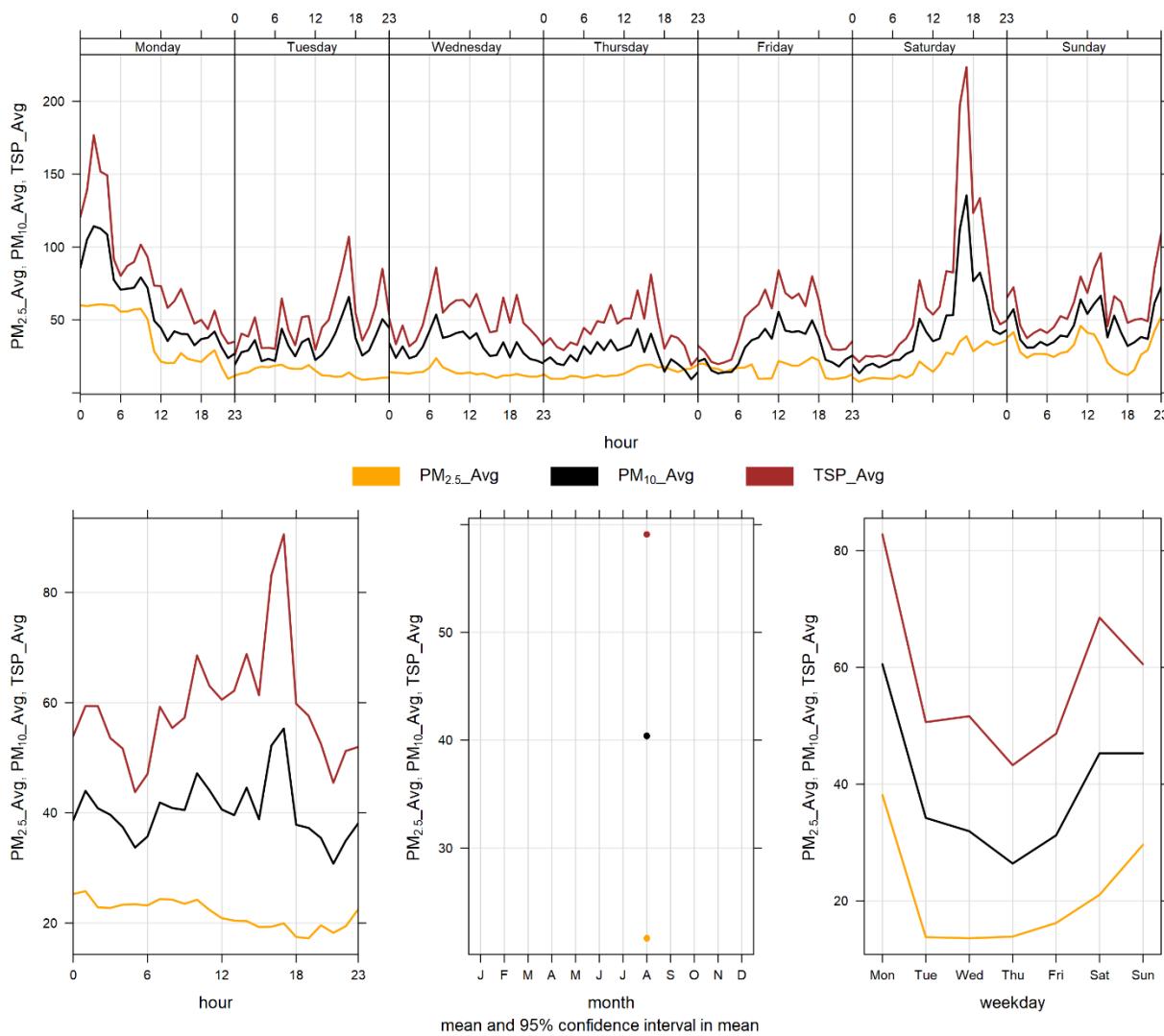


Figure 3-11 Lagoon monitor particulate matter time variation

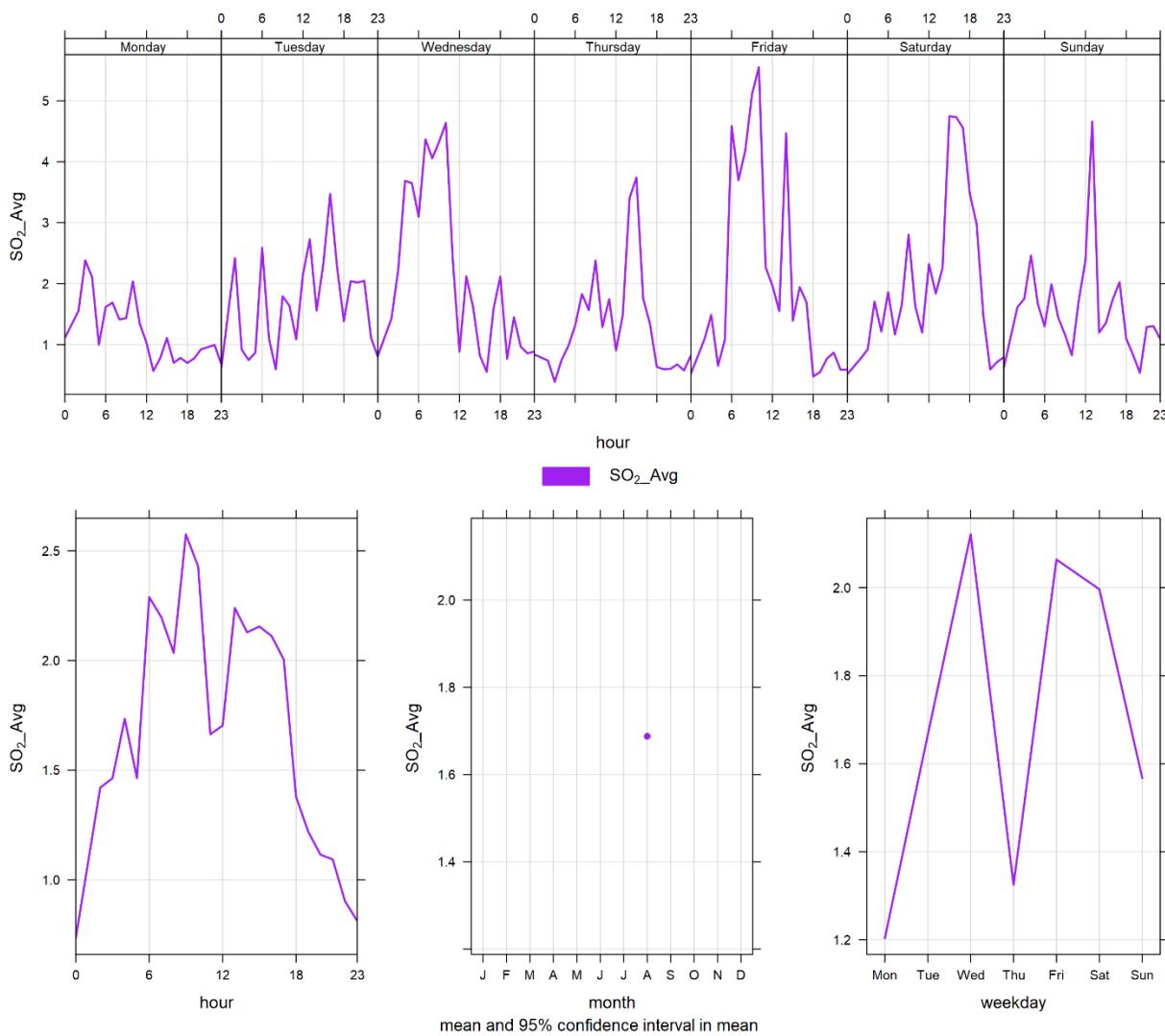


Figure 3-12 Lagoon monitor SO_2 time variation

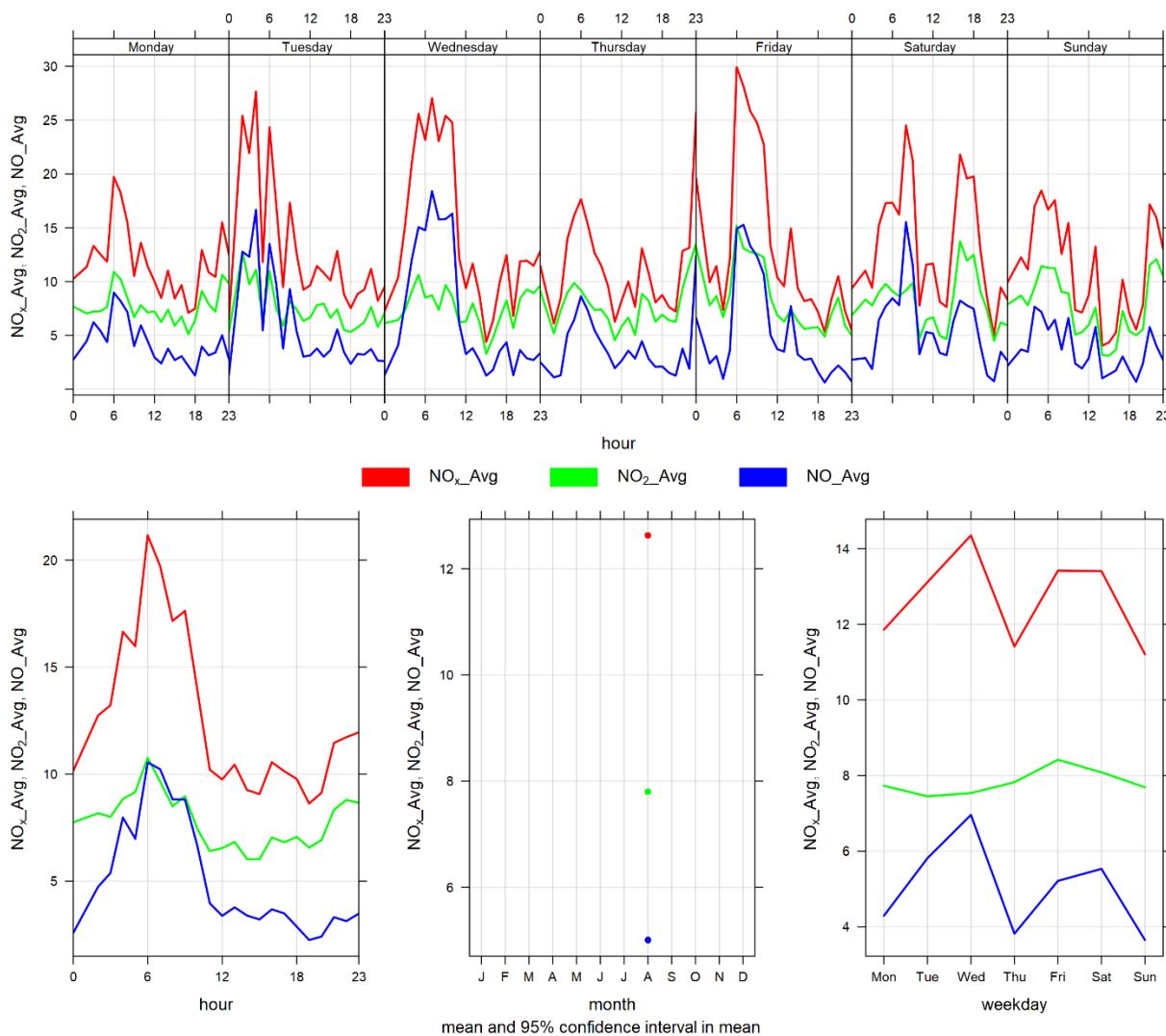


Figure 3-13 Lagoon monitor NO_x time variation

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 August 2021.

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 August 6 th . The monitor recorded 97.4% uptime for the month of August due to three hours of power failure occurring on August 18 th at 8:00 – 10:00. And further, one hour of routine maintenance on August 31 st at 11:00.
PM₁₀ Concentrations	MetOne BAM-1020 Continuous Particulate Monitor	The PM ₁₀ monitor was calibrated on August 6 th . The monitor recorded 99.1% uptime for the month of August due to three hours of equipment malfunction occurring on August 17 th at 6:00; 9:00; and 14:00. Further, three hours of power failure occurring on August 18 th at 8:00 – 10:00. And further, one hour of routine maintenance on August 31 st at 11:00.
TSP Concentrations	MetOne BAM-1020 Continuous Particulate Monitor	The TSP monitor was calibrated on August 6 th . The monitor recorded 99.5% uptime during the month of August due to three hours of power failure occurring on August 18 th at 8:00 – 10:00. And further, fifteen hour of equipment malfunction occurring on August 30 th at 20:00 to August 31 st at 10:00. And one additional hour of routine maintenance on August 31 st at 11:00.

4.2 MONITORING RESULTS AND TRENDS

Table 4-2 summarizes the hourly and daily concentrations recorded in August 2021, 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 illustrate the histograms for hourly PM, Figure 4-5 illustrates the time series for daily PM, Figure 4-6 displays the wind rose for the 24-hour TSP and while Figure 4-7 displays the PM_{2.5} exceedance days, and Figure 4-8 illustrates the time series for hourly PM over different time periods.

There were 9 exceedances of the 24-hour PM_{2.5} AAAQO, 35 exceedance of the 1-hour PM_{2.5} AAAQG, and 8 exceedances of the 24-hour TSP AAAQO. As discussed in Section 1.3, the Bow Valley airshed was heavily impacted from regional wildfire activity in August. All of the exceedances were primarily attributable to wildfire activity and smoke in the airshed from fires in BC and Alberta.

The Windridge station was not operational in August 2019, or 2020 due to flood mitigation work. Since the Windridge station was installed in late 2017, the monthly historical information presented in Table 4-3 is based solely on data collected in August 2018. Wildfire activity also impacted that month as there were 10 - 24-hour TSP AAAQO exceedances and 17 - 24-hour PM_{2.5} AAAQO exceedances.

Due to flood mitigation construction at Exshaw creek the Windridge monitoring station was taken out of operation and removed from the site on April 8, 2019. The flood mitigation work was completed in August 2020. The Windridge station was reinstalled for September 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 August 2021 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	35	9	0.0	21.1	235.0	15	24	18.3	257.0	119.3	16	97.4
PM ₁₀ (µg/m ³)	-	-	Windridge	-	-	0.0	54.2	485.0	10	17	31.0	273.9	185.8	16	99.1
TSP (µg/m ³)	-	100	Windridge	-	8	0.0	74.0	864.0	16	2	23.2	262.6	237.1	10	99.5

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						
2021-08-01	-	34.4	345.2	11.0	44.5	Regional wildfire activity
2021-08-02	-	35.6	295.9	7.6	71.9	Regional wildfire activity
2021-08-03	130.5	47.3	275.5	16.4	51.7	Regional wildfire activity
2021-08-04	-	37.5	279.9	12.4	49.2	Regional wildfire activity
2021-08-05	-	34.5	289.4	14.6	49.2	Regional wildfire activity
2021-08-06	123.5	45.3	265.1	14.3	46.2	Regional wildfire activity
2021-08-07	131.6	-	270.4	18.6	49.3	Regional wildfire activity
2021-08-09	106.3	-	271.2	24.1	51.2	Regional wildfire activity
2021-08-10	237.1	-	279.9	26.0	42.7	Regional wildfire activity
2021-08-14	174.0	61.3	267.8	16.2	25.9	Regional wildfire activity
2021-08-15	218.4	105.2	262.2	15.9	31.0	Regional wildfire activity
2021-08-16	230.8	119.3	291.0	14.6	53.0	Regional wildfire activity
Total # of Exceedances	8	9				
Maximum # of Exceedances (August)	10 (2018)	17 (2018)				
Average # of Exceedances (August)	10	17				
Minimum # of Exceedances (August)	10 (2018)	17 (2018)				

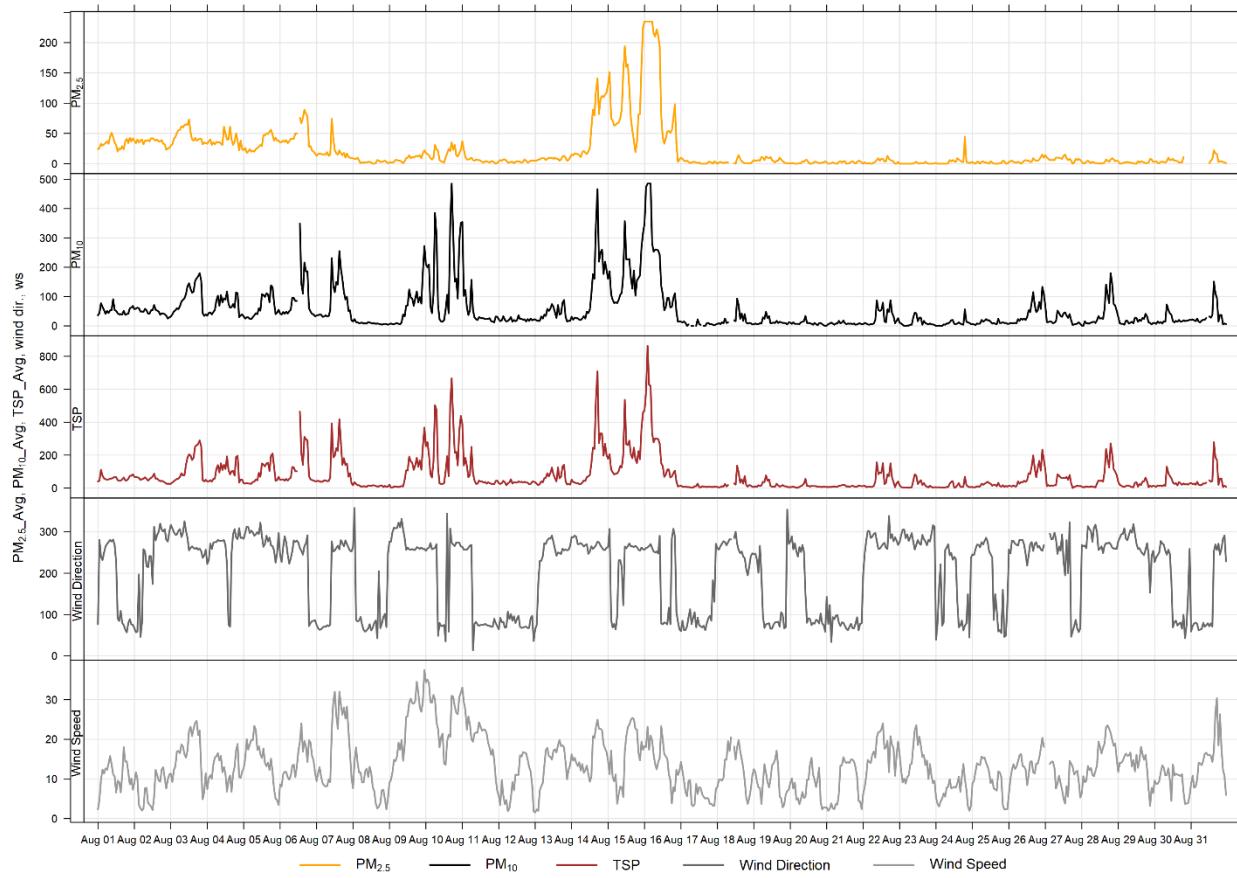


Figure 4-1 1-hour particulate matter concentrations recorded at the Windridge monitor

Histogram of Hourly PM_{2.5} Readings

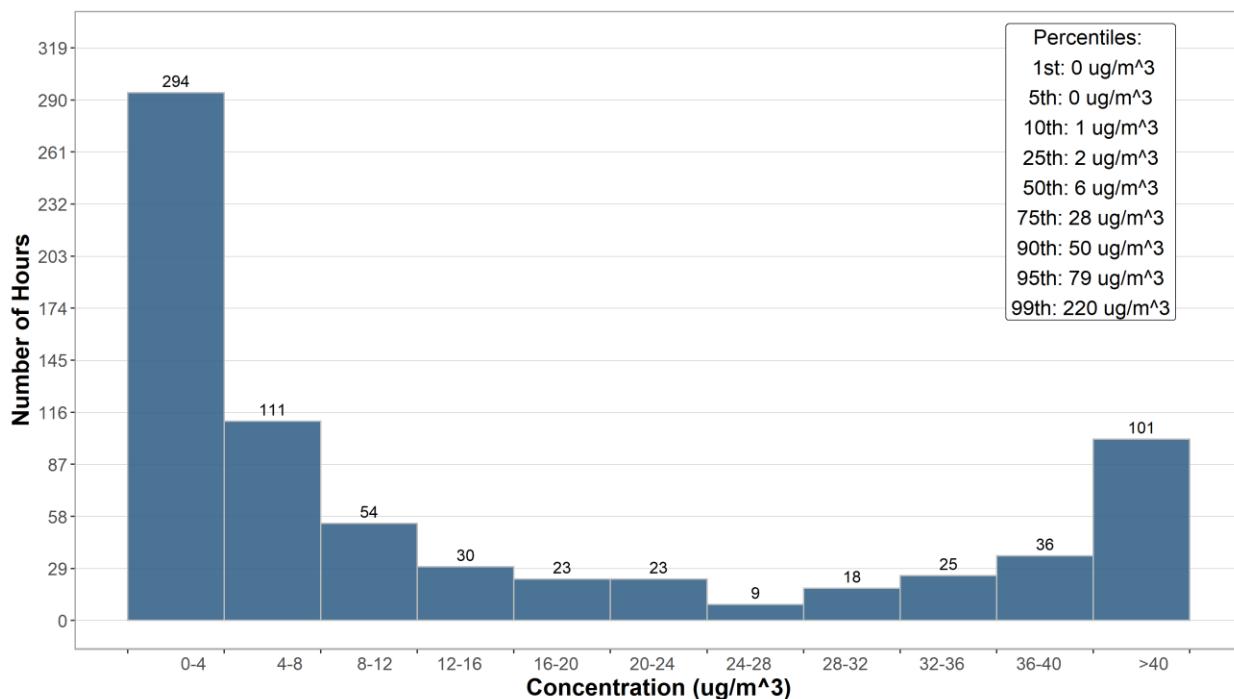


Figure 4-2 Histogram of hourly PM_{2.5} concentrations at the Windridge station

Histogram of Hourly PM₁₀ Readings

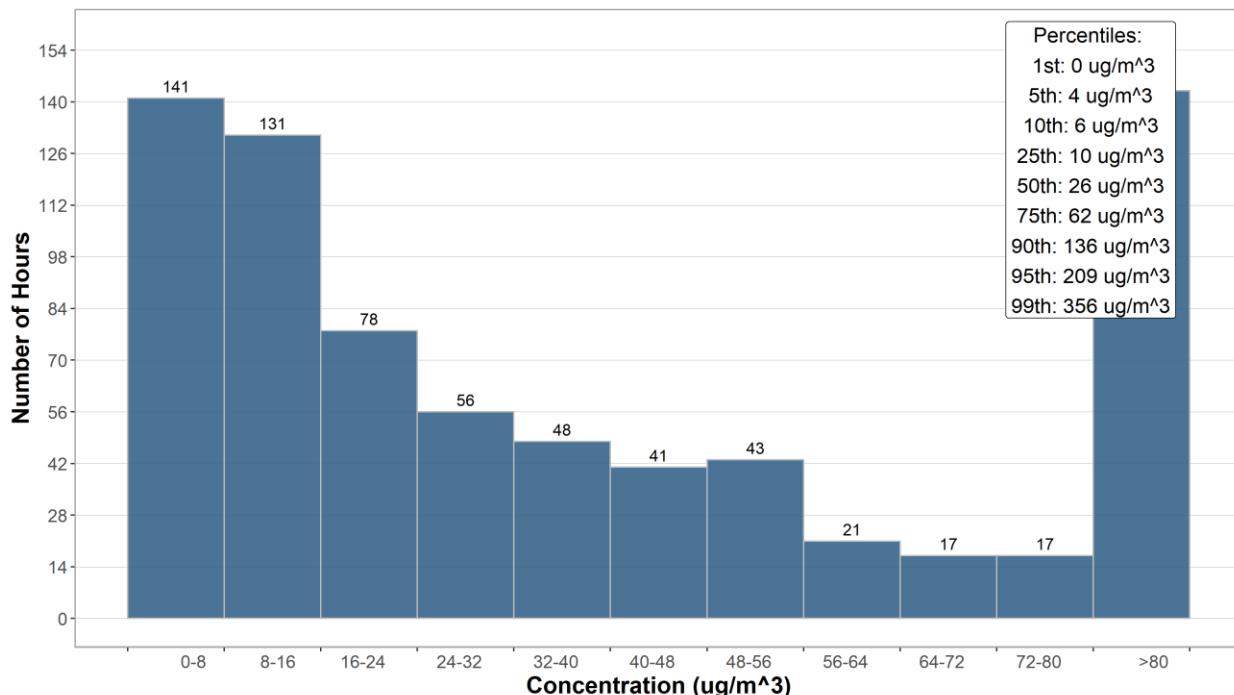


Figure 4-3 Histogram of hourly PM₁₀ concentrations at the Windridge station

Histogram of Hourly TSP Readings

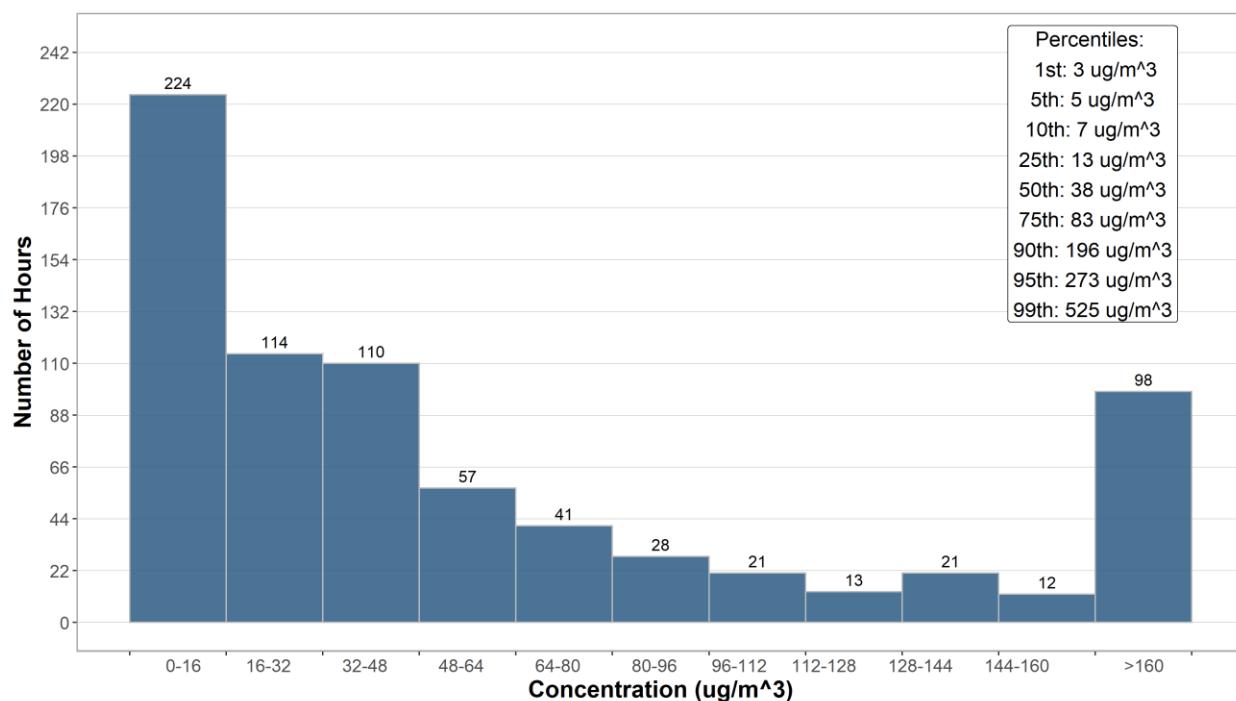


Figure 4-4 Histogram of hourly TSP concentrations at the Windridge station

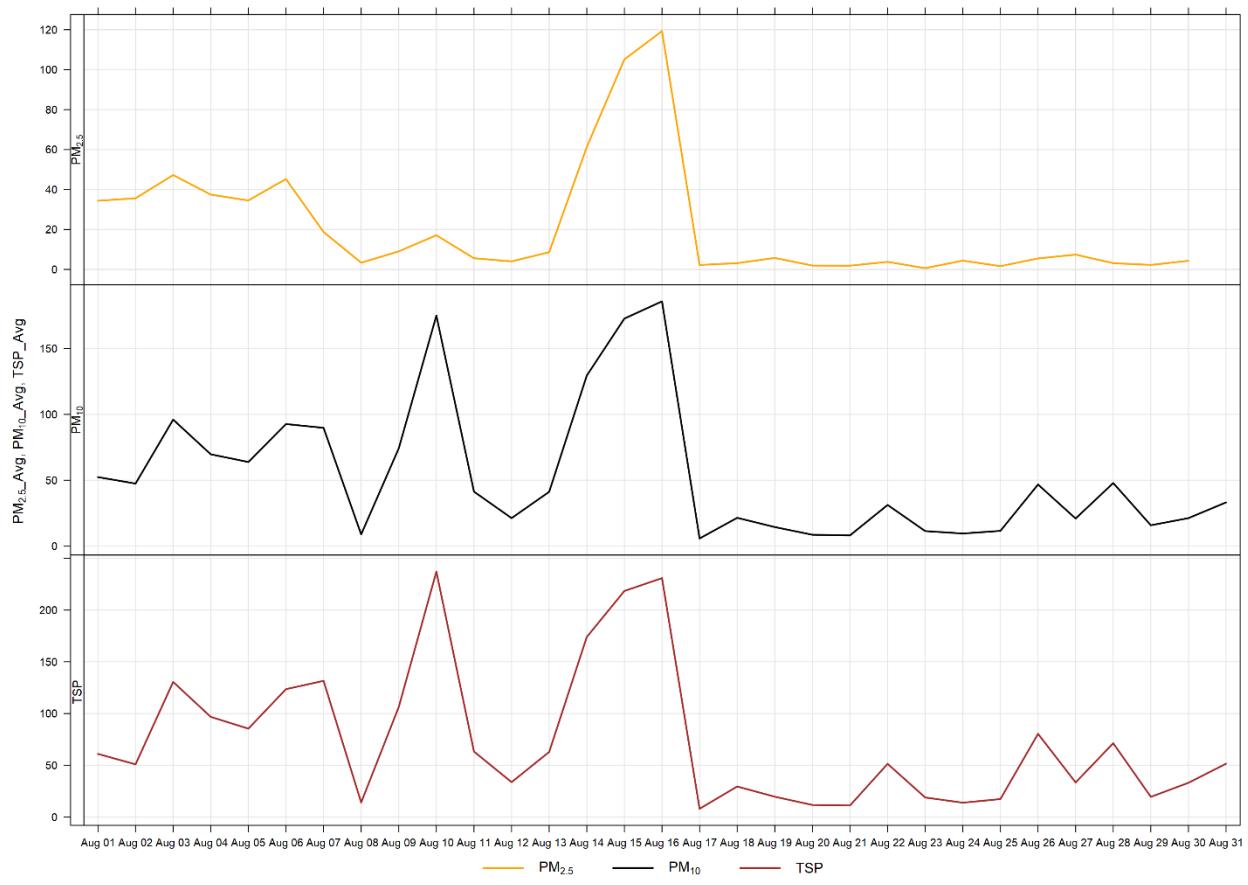


Figure 4-5 24-hour particulate matter concentrations at the Windridge monitor

Figure 4-6 shows the wind rose for the 8 days of TSP exceedances. Figure 4-7 shows the wind rose for the 9 days of PM_{2.5} exceedances. The variation in wind conditions producing exceedances shows that, this month, the TSP exceedances were largely driven by wildfire activity rather than windblown fugitive dust, as has been typical.

Figure 4-8 illustrates the hourly PM concentrations recorded at the Windridge monitor, averaged over different time periods. The plot across the top shows the variation of PM over the course of a week, while the bottom three plots show the changes in PM over the course of a day, month and weekday, respectively. Figure 4-8 is based on data collected during August 2021 and similar to the Lagoon station shows a more muted diurnal pattern associated with Lafarge operations, daytime emissions from traffic and wildfire smoke impacts in August. The diurnal patterns also follow the diurnal pattern of higher wind speeds during the daytime hours.

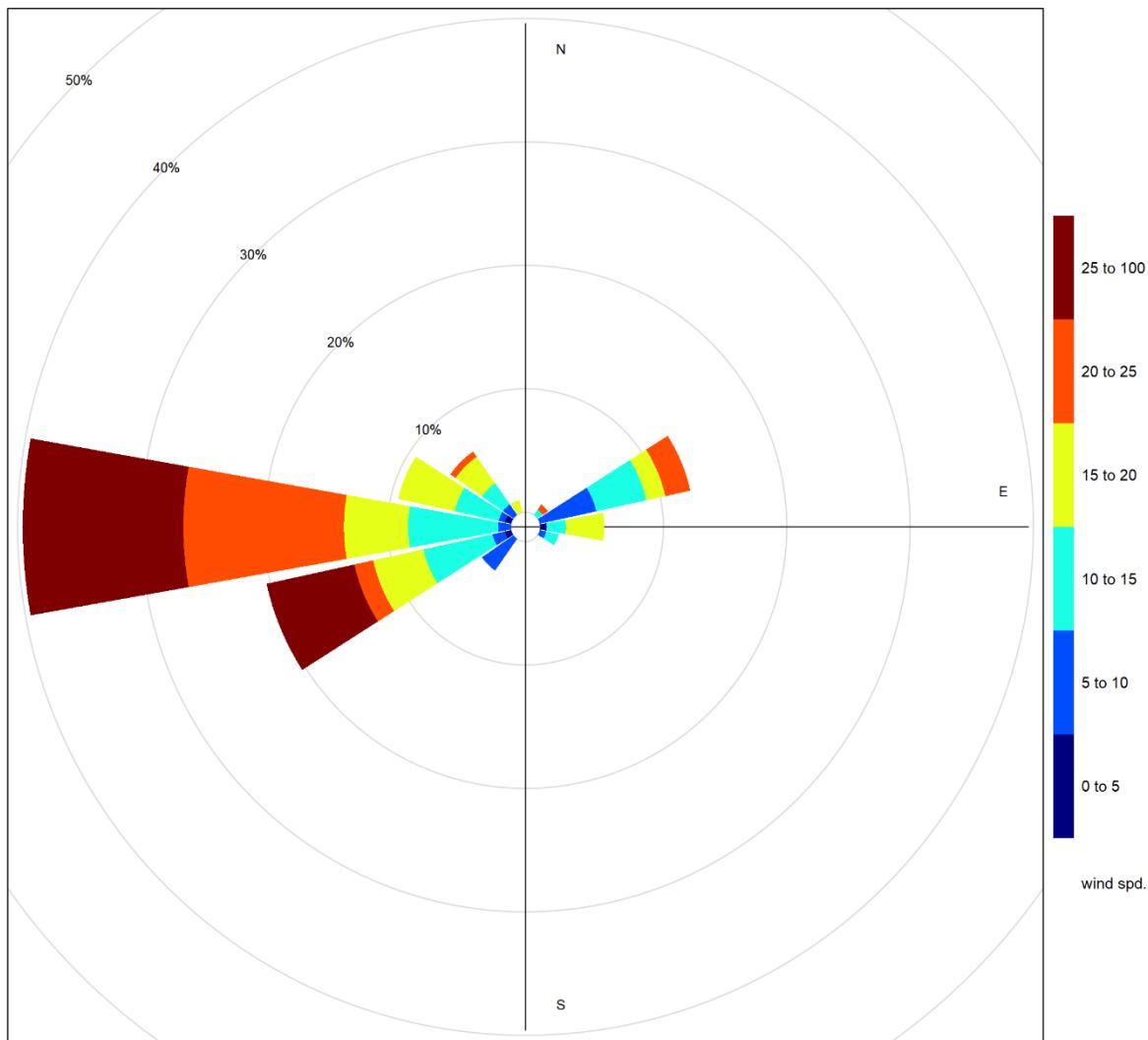


Figure 4-6 Wind rose for TSP exceedance days recorded at the Windridge Station

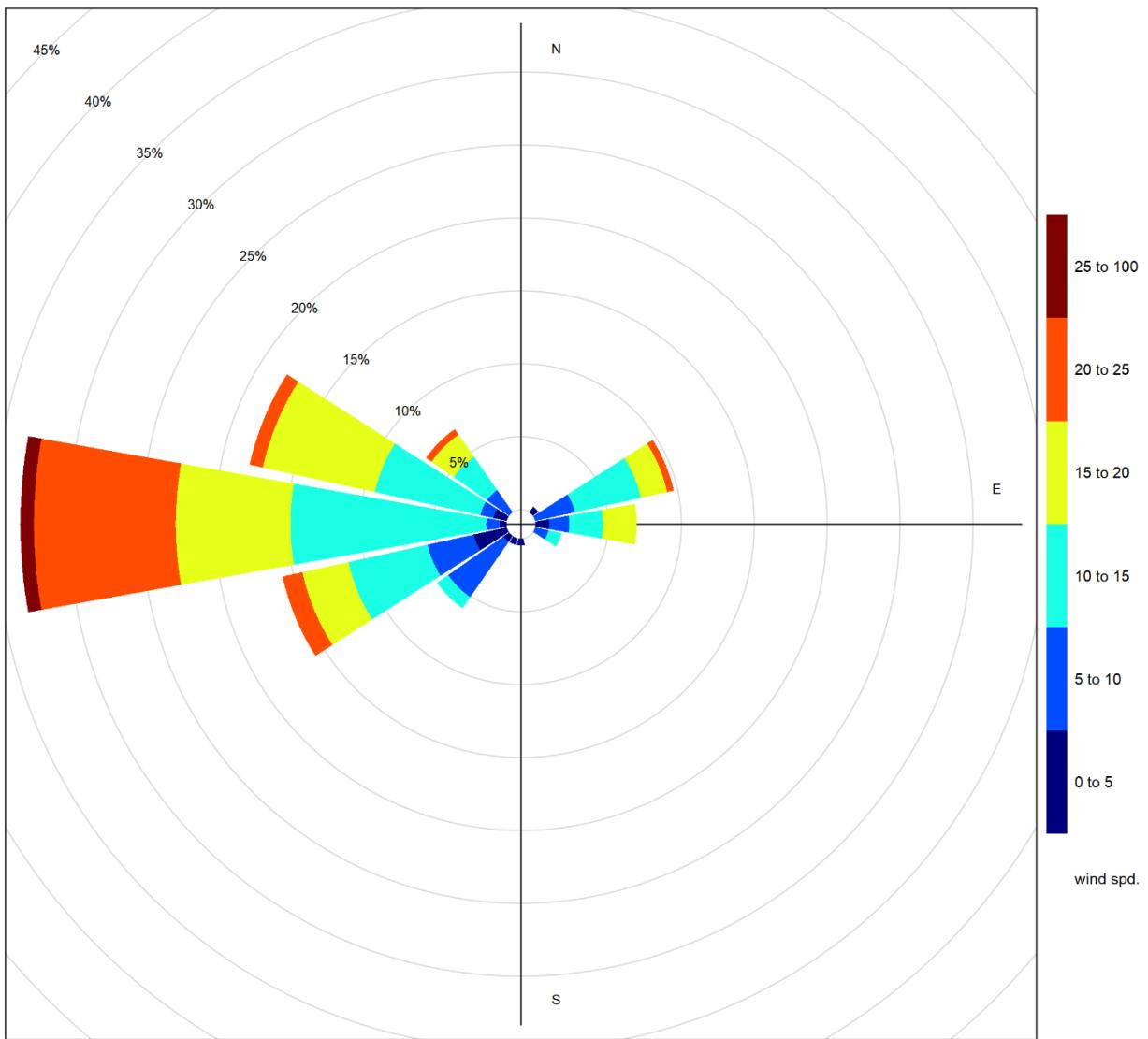


Figure 4-7 Wind rose for PM_{2.5} exceedance days recorded at the Windridge Station

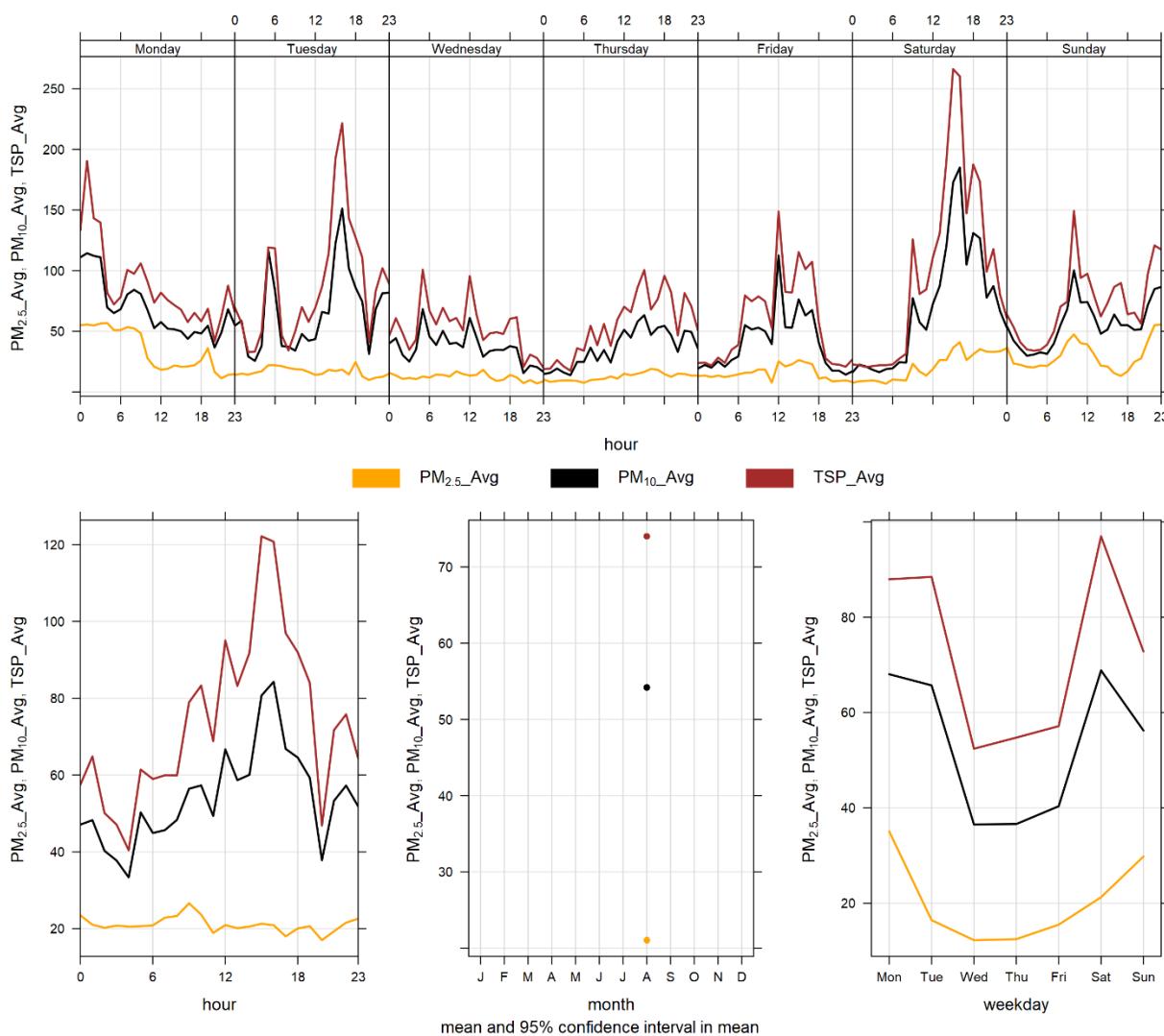


Figure 4-8 **Windridge particulate matter time variation**

5 WEST INDUSTRIAL GRIMM

5.1 OPERATIONAL SUMMARY

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

Table 5-1 Instrumentation List at the West monitoring location

Parameter Measured	Equipment Description	Notes
PM_{2.5}, PM₁₀, TSP Concentrations	GRIMM 365 Continuous Particulate Monitor	The analyzer had 99.7% uptime for the month of August due to two hours of power failure occurring on August 18 th at 8:00 & 10:00.

5.2 MONITORING RESULTS AND TRENDS

The West GRIMM was installed in its current location in order to monitor “background” PM concentrations since the predominant wind pattern is from west to east in the valley. Table 5-2 summarizes the maximum 1-hour and 24-hour concentrations recorded over the course of the month. While Table 5-3 summarizes the recorded exceedances over the course of the month. This is an industrial monitor that is not Alberta Air Monitoring Directive (AMD) compliant and is not required to show compliance with the AAAQO.

Figure 5-1 and Figure 5-2 show the hourly and daily PM_{2.5}, PM₁₀ and TSP concentrations recorded over the month.

There was one exceedance of the 24-hour TSP Guideline (100 µg/m³) and 9 exceedances of the 24-hour PM_{2.5} (29 µg/m³) Guideline. Further, there were 34 hours exceeding the 1-hour PM_{2.5} Guideline.

As discussed in Section 1.3, the Bow Valley airshed was heavily impacted from regional wildfire activity in August. All of the exceedances were primarily attributable to wildfire activity and smoke in the airshed from fires in BC and Alberta.

Historically in August there have been zero exceedances of the 24-hour TSP Guideline, and two exceedances of the 24-hour PM_{2.5} Guideline.

Table 5-2 Summary of August 2021 data at the West GRIMM

Parameter	Guideline		Station	Exceedances		Monthly		Maximum 1-hour				Maximum 24-hour		Operational Time (Percent)	
	1-hr	24-hr		1-hr	24-hr	Minimum	Average	Maximum Concentration	Day	Hour	Wind Speed (km/hr)	Wind Direction (degrees)	Maximum Concentration	Day	
PM _{2.5} (µg/m ³)	80	29	West	34	9	0.9	20.4	230.6	16	2	23.2	262.6	114.6	16	99.7
PM ₁₀ (µg/m ³)	-	-	West	-	-	1.1	25.4	277.4	16	2	23.2	262.6	134.8	16	99.7
TSP (µg/m ³)	-	100	West	-	1	0.7	23.5	269.8	16	2	23.2	262.6	112.6	16	99.7

Table 5-3 Days exceeding the Guideline for TSP or PM_{2.5} at the West 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)
West						
2021-08-01	-	33.2	345.2	11.0	44.5	Regional wildfire activity
2021-08-02	-	43.5	295.9	7.6	71.9	Regional wildfire activity
2021-08-03	-	46.0	275.5	16.4	51.7	Regional wildfire activity
2021-08-04	-	39.6	279.9	12.4	49.2	Regional wildfire activity
2021-08-05	-	33.3	289.4	14.6	49.2	Regional wildfire activity
2021-08-06	-	48.9	265.1	14.3	46.2	Regional wildfire activity
2021-08-14	-	39.4	267.8	16.2	25.9	Regional wildfire activity
2021-08-15	-	81.2	262.2	15.9	31.0	Regional wildfire activity
2021-08-16	112.6	114.6	291.0	14.6	53.0	Regional wildfire activity
Total # of Exceedances	1	9				
Maximum # of Exceedances (August)	2 (2015)	6 (2015)				
Average # of Exceedances (August)	0	2				
Minimum # of Exceedances (August)	0 (2011, 2012, 2013, 2014, 2016, 2017, 2018, 2019, 2020)	0 (2011, 2012, 2013, 2016, 2019, 2020)				

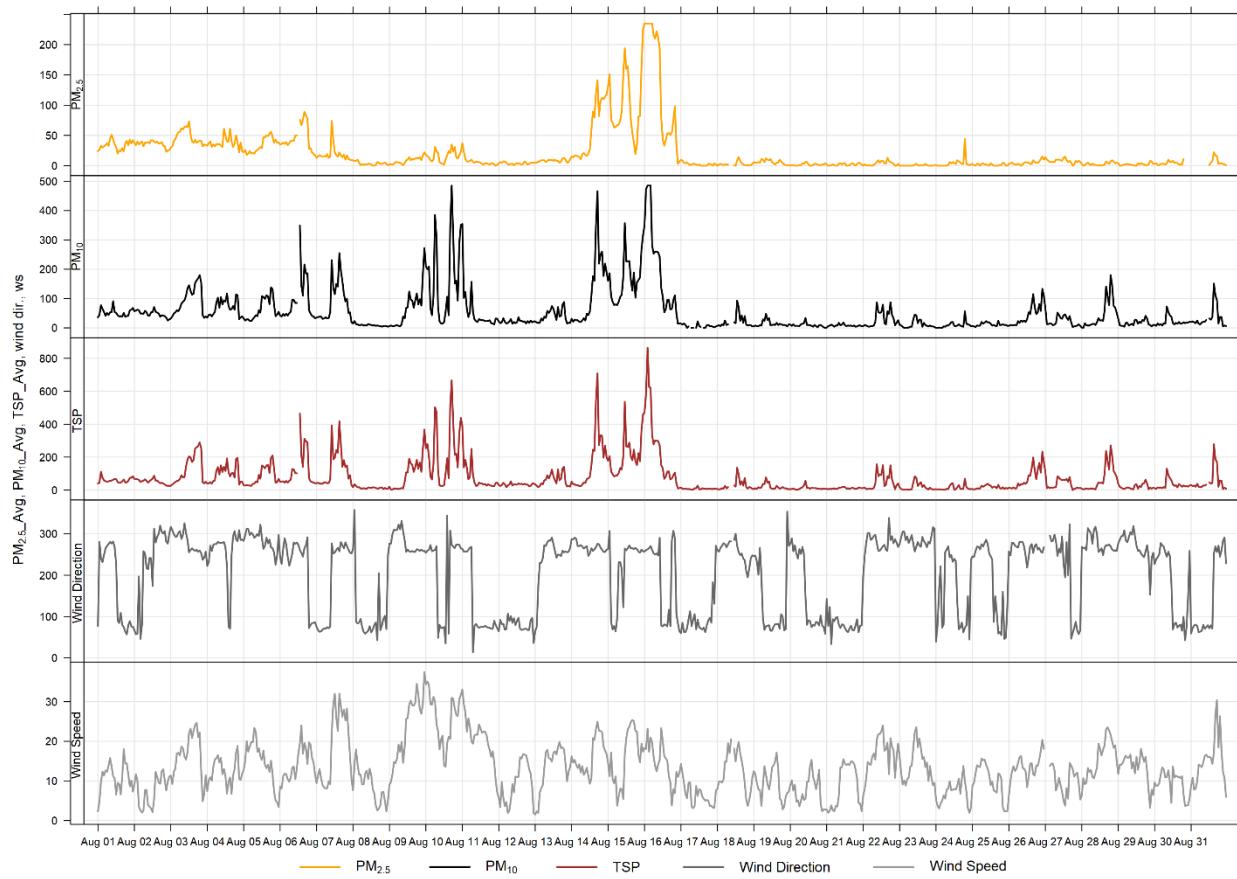


Figure 5-1 1-hour particulate matter concentrations at the West monitor

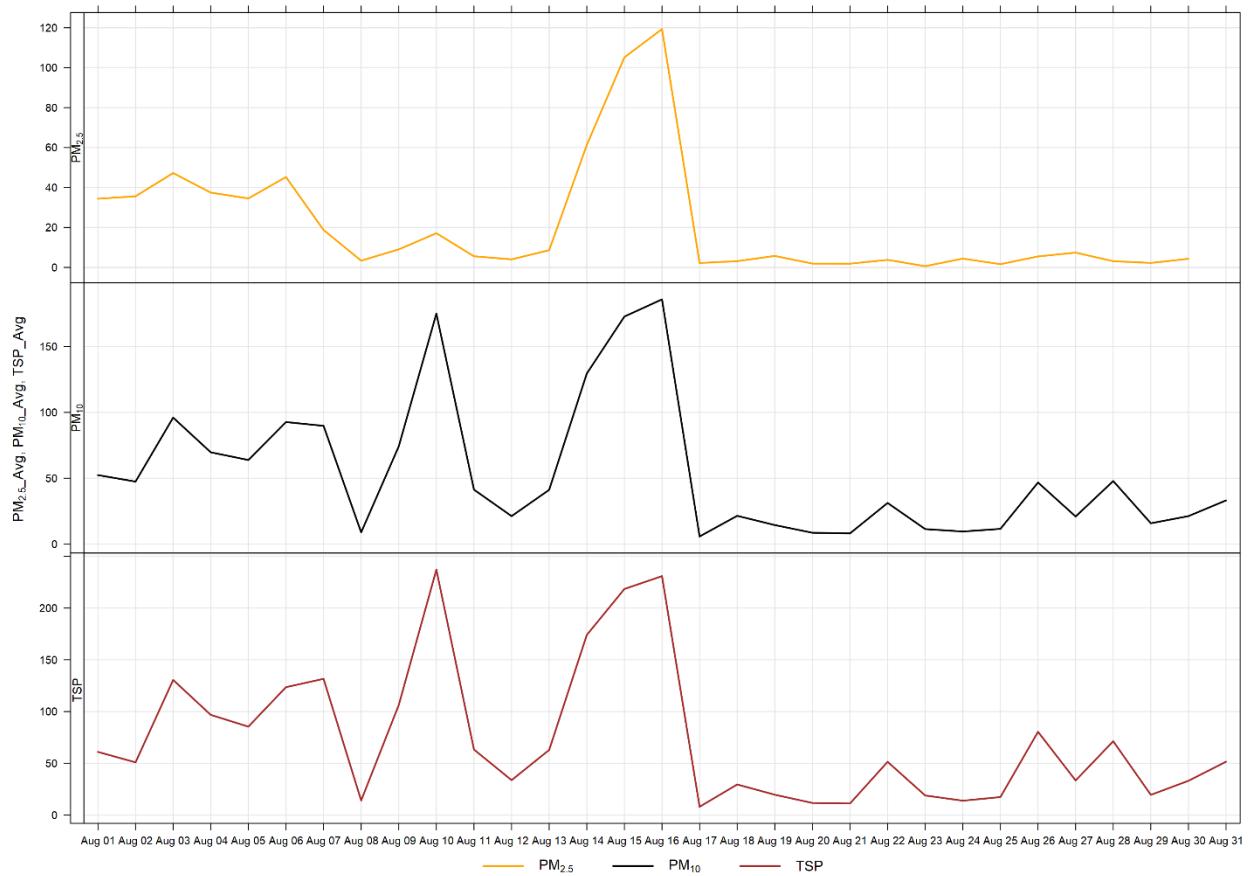


Figure 5-2 24-hour particulate matter concentrations at the West monitor

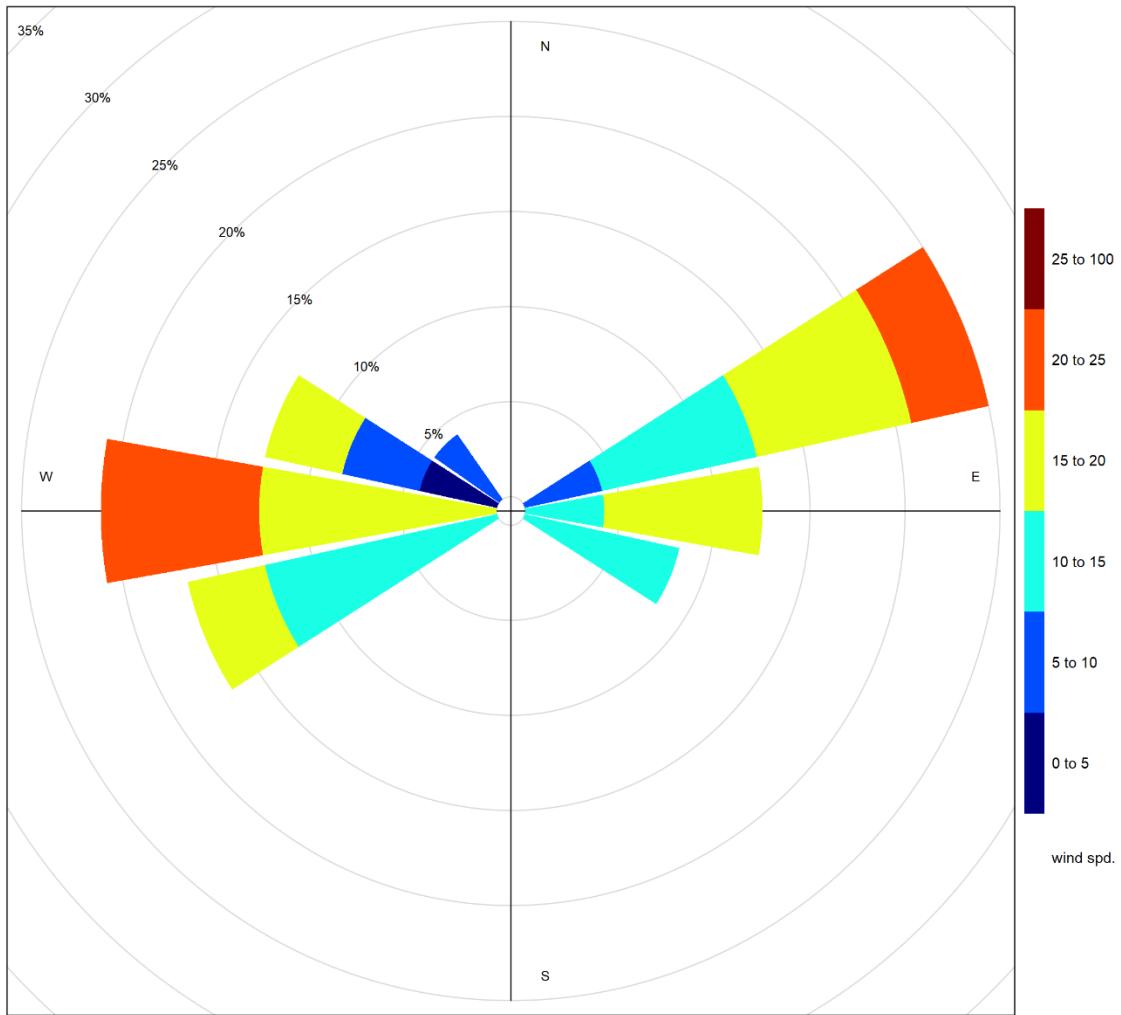


Figure 5-3 Wind rose for the TSP exceedance day recorded at the West GRIMM

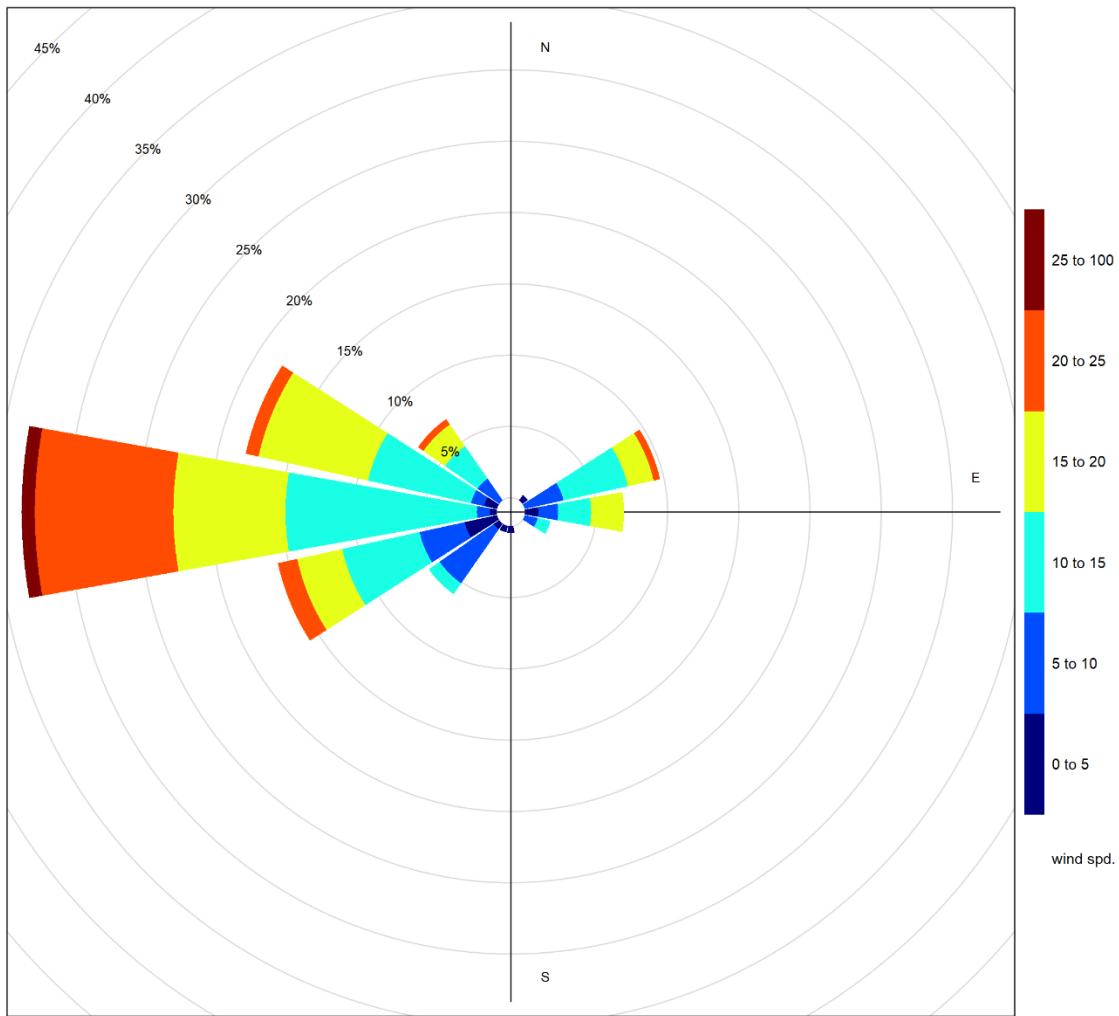


Figure 5-4 Wind rose for the PM_{2.5} exceedance days recorded at the West GRIMM

Figure 5-3 shows the wind rose for the 1 day of TSP exceedance. Figure 5-4 shows the wind rose for the 9 days of PM_{2.5} exceedances. The variation in wind conditions producing exceedances shows that wildfire activity rather than windblown fugitive dust was the primary air quality issue this month.

Figure 5-5 illustrates the hourly PM concentrations recorded at the West monitor, averaged over different time periods. The plot across the top shows the variation of PM over the course of a week, while the bottom three plots show the changes in PM over the course of a day, month and weekday, respectively. Figure 5-3 is based on data collected during August 2021. As the monitor is generally ‘up-wind’ of the facility, the daily variations in PM are more likely a result of higher traffic volume during daylight hours than specific Lafarge operations.

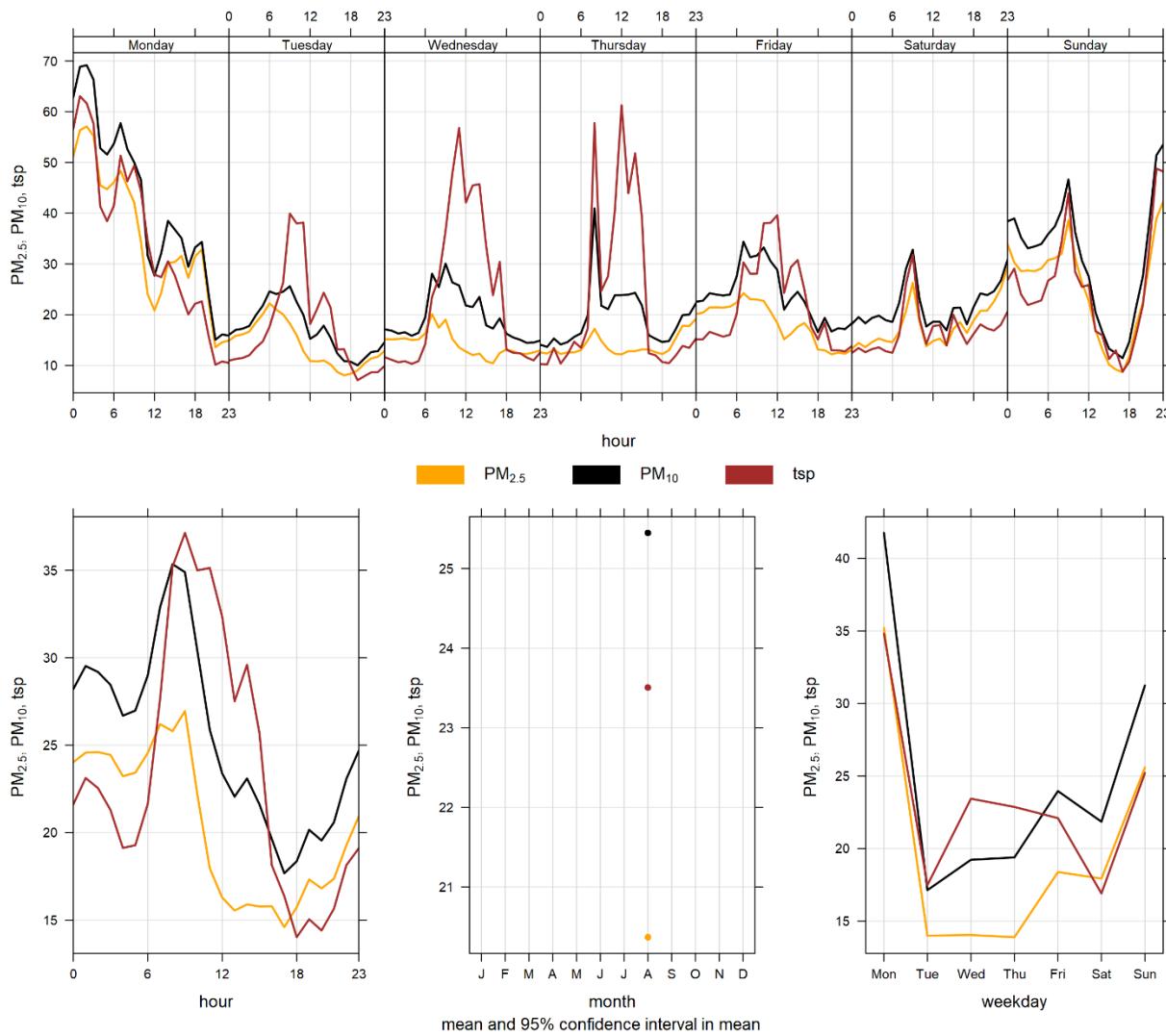


Figure 5-5 **West monitor particulate matter time variation**

6 BERM INDUSTRIAL GRIMM

6.1 OPERATIONAL SUMMARY

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

Table 6-1 Instrumentation List at the Berm monitoring location

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

6.2 MONITORING RESULTS AND TRENDS

The Berm monitor was placed at its current location as a result of the dispersion modelling conducted for the facility in 2009. Figure 6-1 and Figure 6-2 show the hourly and daily PM_{2.5}, PM₁₀ and TSP concentrations recorded over the month. Table 6-2 summarizes the maximum 1-hour and 24-hour PM concentrations recorded during the month, and Table 6-3 summarizes the recorded exceedances. This is an industrial monitor that is not Alberta Air Monitoring Directive (AMD) compliant and is not required to show compliance with the AAAQO.

There were 14 and 8 exceedances of the 24-hour TSP (100 µg/m³) and PM_{2.5} (29 µg/m³) Guidelines, respectively. There were 22 hours exceeding the 1-hour PM_{2.5} Guideline.

As discussed in Section 1.3, the Bow Valley airshed was heavily impacted from regional wildfire activity in August. All of the exceedances were primarily attributable to wildfire activity and smoke in the airshed from fires in BC and Alberta.

Historically during the month of August, the Berm monitor records an average of 13 and 3 exceedances of the 24-hour TSP and PM_{2.5} guidelines, respectively. The maximum number of TSP exceedances recorded during August occurred in 2017 where there were 18 days that exceeded the guideline. On the other hand, the maximum number of PM_{2.5} exceedances in August was 16 days in 2018 another month with significant wildfire activity.

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 August would have also contributed to increased particulate levels that may have arisen from multiple sources: Lafarge Plant, Exshaw Creek, dry sections of the Bow River, and open areas.

Table 6-2 Summary of August 2021 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/m³)	80	29	Berm	22	8	0.0	18.1	198.2	16	2	23.2	262.6	85.4	16	100.0
PM₁₀ (µg/m³)	-	-	Berm	-	-	0.0	50.1	647.2	10	17	31.0	273.9	141.5	10	100.0
TSP (µg/m³)	-	100	Berm	-	14	0.0	103.4	1858.8	10	17	31.0	273.9	439.8	10	100.0

Table 6-3 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						
2021-08-03	234.4	42.1	275.5	16.4	51.7	Regional wildfire activity
2021-08-04	138.9	32.1	279.9	12.4	49.2	Regional wildfire activity
2021-08-05	141.0	30.0	289.4	14.6	49.2	Regional wildfire activity
2021-08-06	198.8	42.5	265.1	14.3	46.2	Regional wildfire activity
2021-08-07	273.2	30.3	270.4	18.6	49.3	Regional wildfire activity
2021-08-09	246.2	-	271.2	24.1	51.2	Regional wildfire activity
2021-08-10	439.8	-	279.9	26.0	42.7	Regional wildfire activity
2021-08-11	107.0	-	64.9	19.9	43.8	Regional wildfire activity
2021-08-13	113.8	-	262.5	13.9	36.2	Regional wildfire activity
2021-08-14	220.6	41.8	267.8	16.2	25.9	Regional wildfire activity
2021-08-15	222.1	66.8	262.2	15.9	31.0	Regional wildfire activity
2021-08-16	172.8	85.4	291.0	14.6	53.0	Regional wildfire activity
2021-08-26	123.2	-	265.9	13.8	50.1	Winds predominantly from the west
2021-08-28	187.6	-	273.2	15.9	52.0	Winds predominantly from the west
Total # of Exceedances	14	8				
Maximum # of Exceedances (August)	18 (2017)	16 (2018)				

Average # of Exceedances (August)	13	3			
Minimum # of Exceedances (August)	6 (2016)	0 (2011, 2013, 2016, 2019, 2020)			

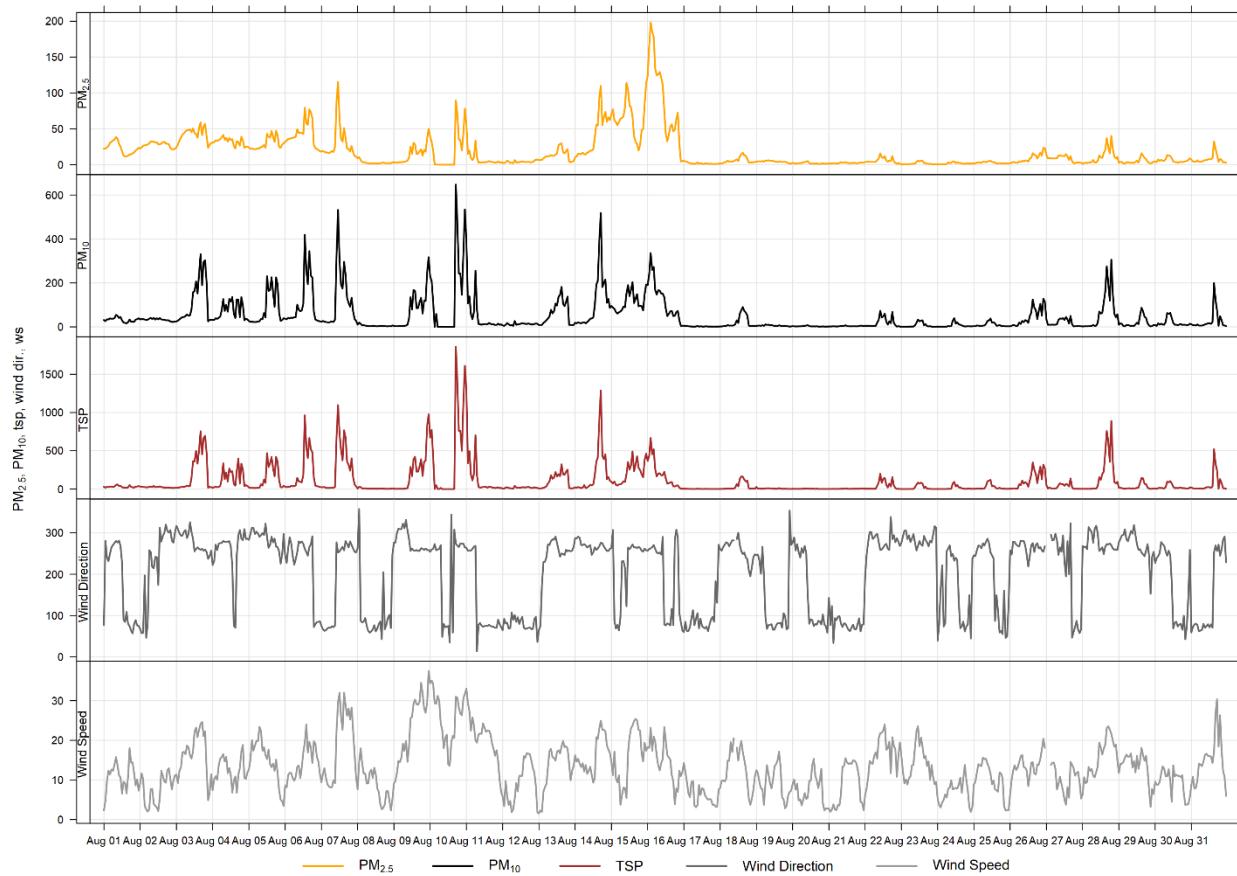


Figure 6-1 1-hour particulate matter concentrations recorded at the Berm monitor

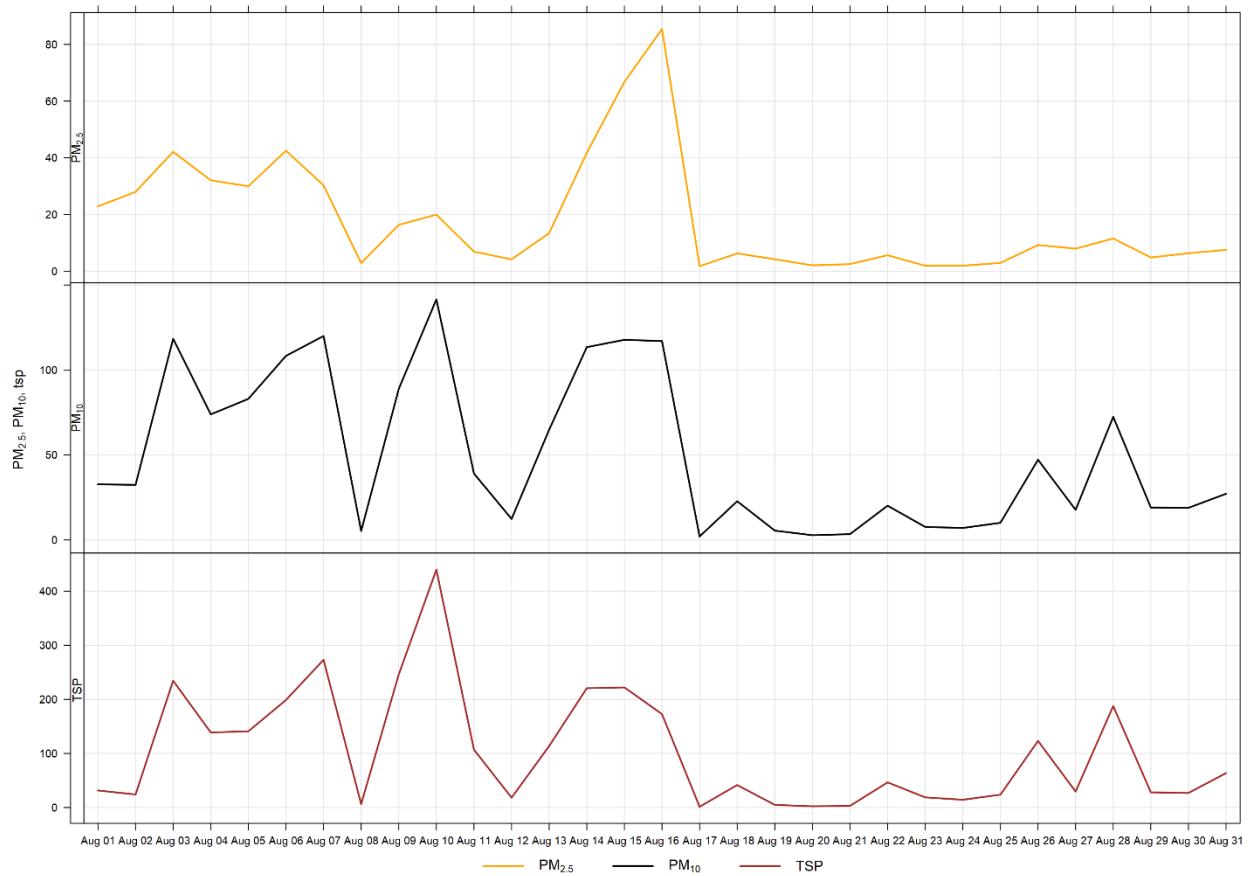


Figure 6-2 24-hour particulate matter concentrations recorded at the Berm monitor

Figure 6-3 shows the wind rose for the 14 days of TSP exceedances. Figure 6-4 shows the wind rose for the 8 days of PM_{2.5} exceedances. The variation in wind conditions producing exceedances shows that wildfire activity rather than windblown fugitive dust was the primary air quality issue this month.

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

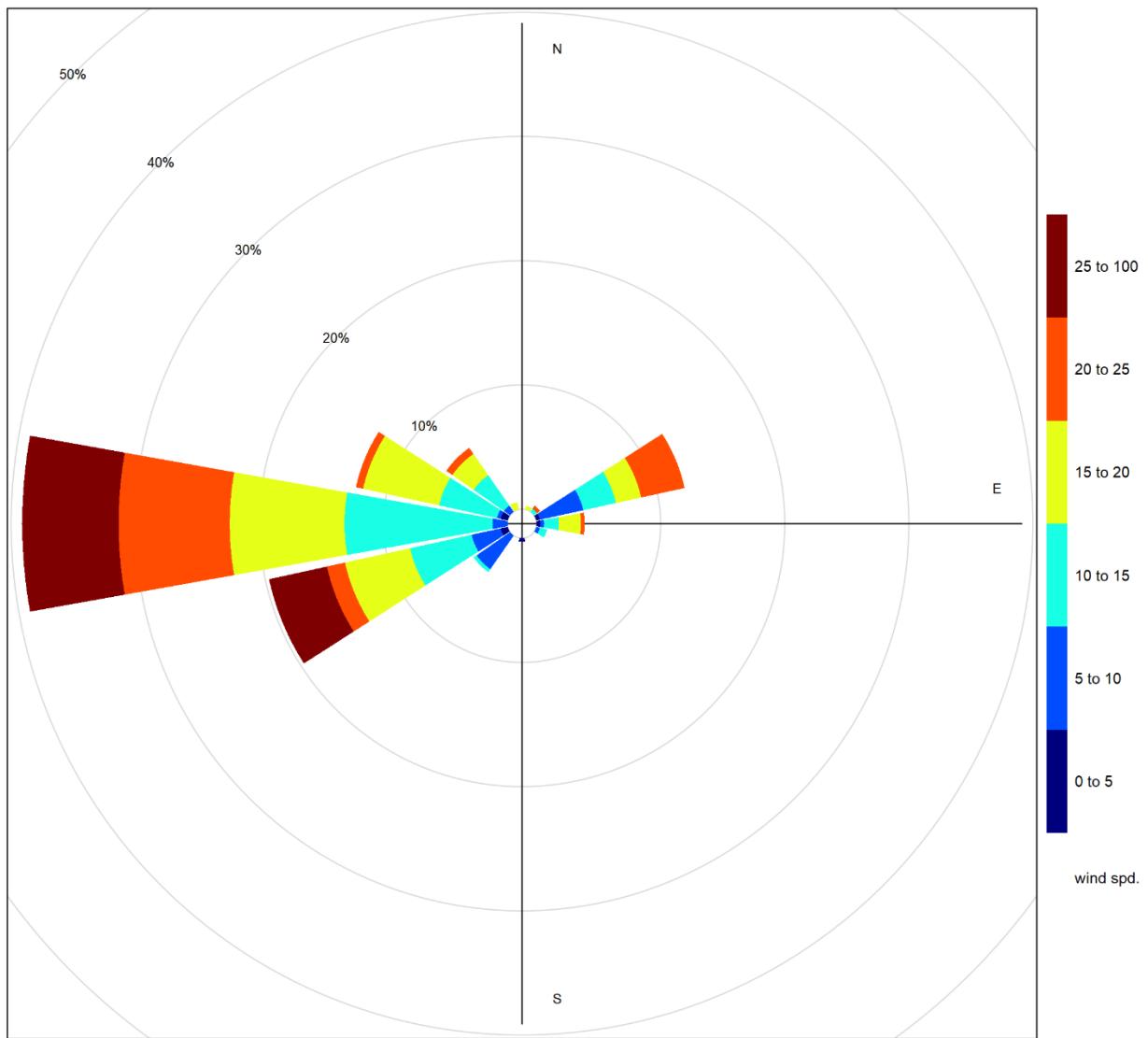


Figure 6-3 Wind rose for TSP exceedance days recorded at the Berm GRIMM

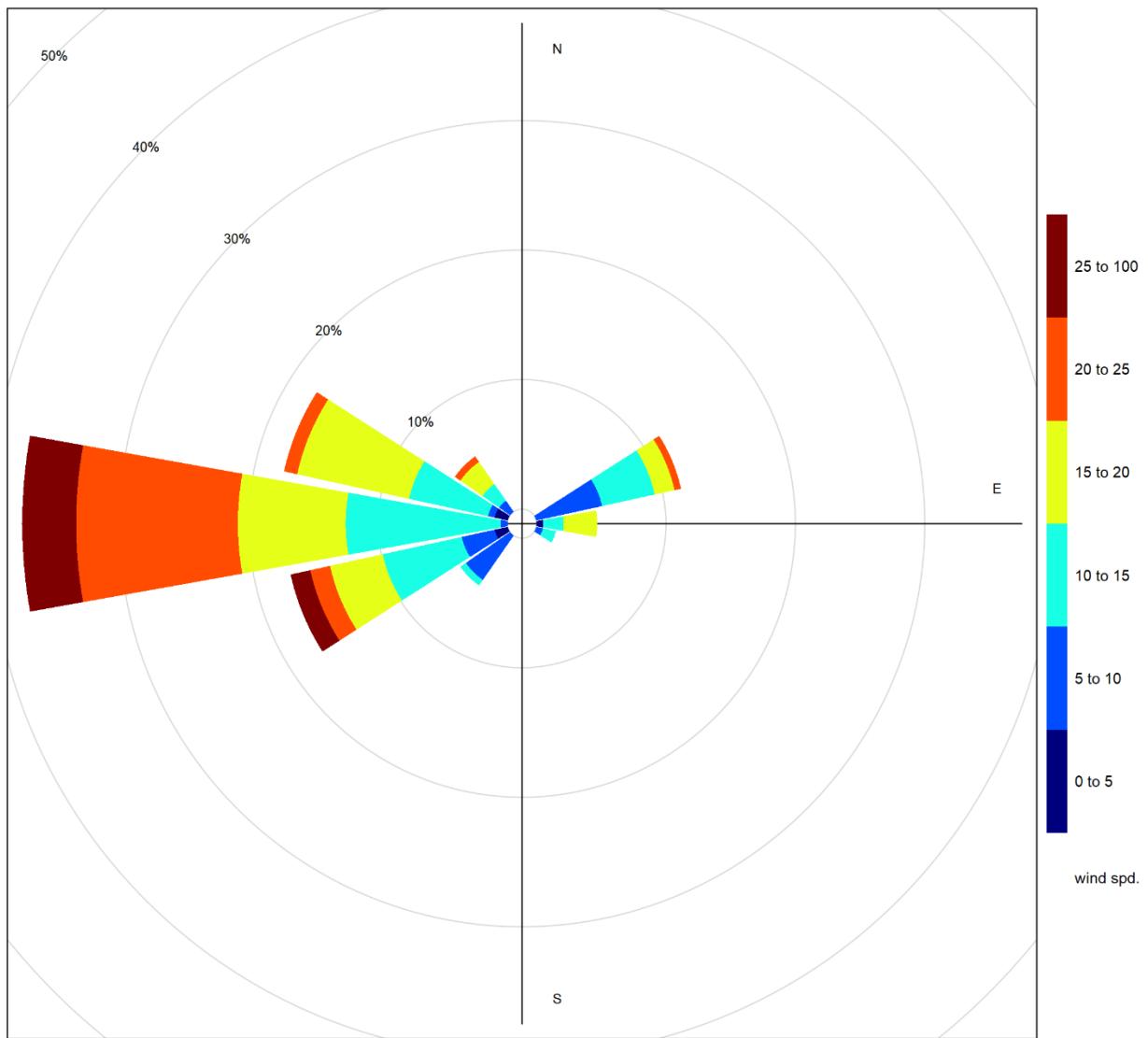


Figure 6-4 Wind rose for PM_{2.5} exceedance days recorded at the Berm GRIMM

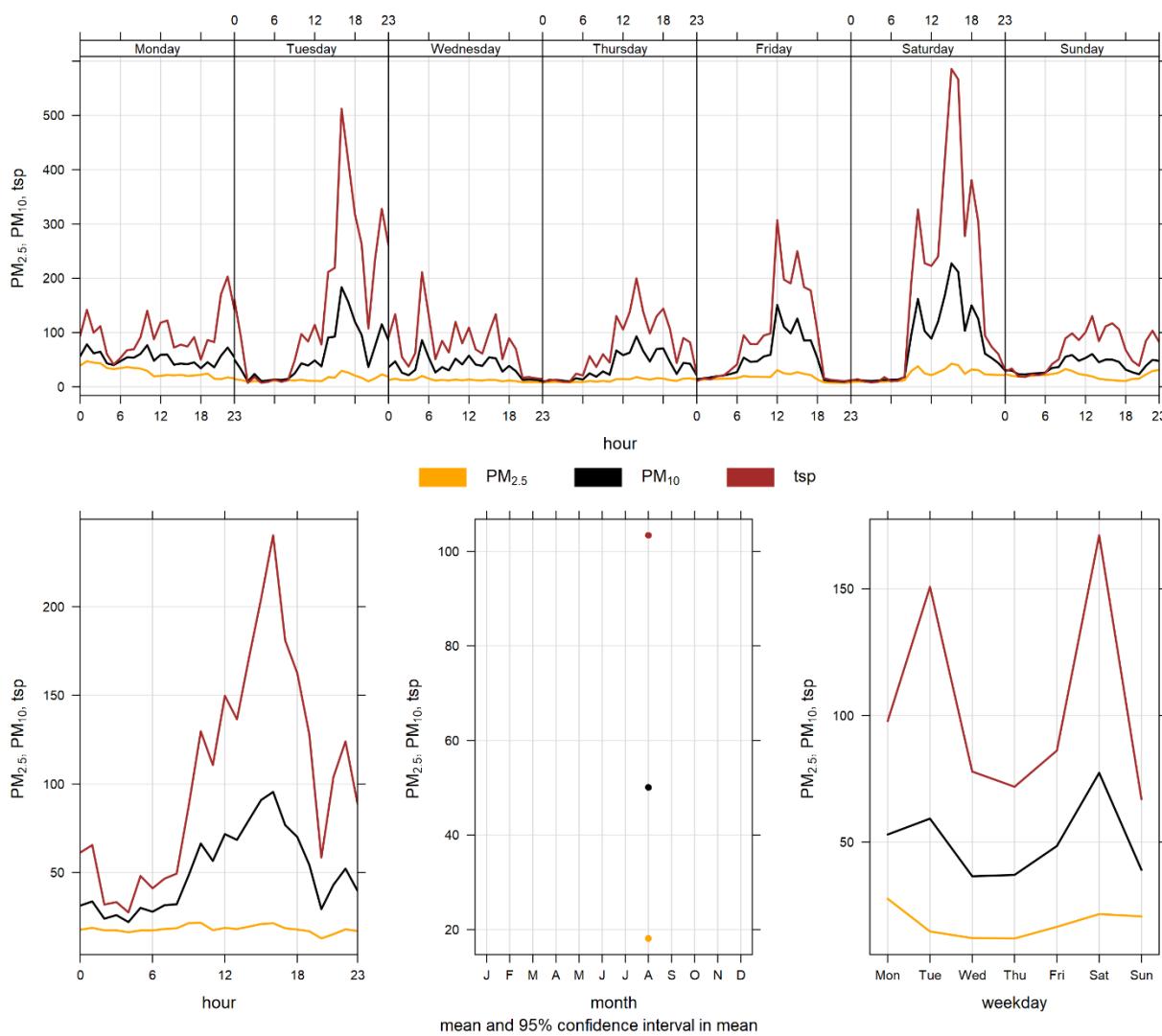


Figure 6-5 Berm particulate matter time variation

7 ENTRANCE INDUSTRIAL GRIMM

7.1 OPERATIONAL SUMMARY

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

Table 7-1 Instrumentation List at the Entrance monitoring location

Parameter Measured	Equipment Description	Notes
PM_{2.5}, PM₁₀, TSP Concentrations	GRIMM 365 Continuous Particulate Monitor	The analyzer had 34.9% uptime for the month of August due to equipment being removed for repair from August 11th at 21:00 to August 31st at 24:00.

7.2 MONITORING RESULTS AND TRENDS

The Entrance monitor was placed at its current location as a result of dispersion modelling conducted in 2009. This area was indicated as being the area where the maximum PM concentrations were expected. Figure 7-1 and Figure 7-2 show the hourly and daily PM_{2.5}, PM₁₀ and TSP concentrations recorded over the month. Table 7-2 summarizes the maximum 1-hour and 24-hour PM concentrations recorded during the month. Table 7-3 summarizes the recorded exceedances. This is an industrial monitor that is not Alberta Air Monitoring Directive (AMD) compliant and is not required to show compliance with the AAAQO.

During the month of August, there were 7 and 6 exceedances of the 24-hour TSP (100 µg/m³) and PM_{2.5}(29 µg/m³) Guidelines, respectively. There was 8 hours exceeding the 1-hour PM_{2.5} Guideline.

As discussed in Section 1.3, the Bow Valley airshed was heavily impacted from regional wildfire activity in August. The monitoring uptime was limited to 34.9% of the month of August due to the monitoring equipment being removed for repair on August 11th.

Historically, the Entrance monitor records an average of 16 and 5 exceedances of the 24-hour TSP and PM_{2.5} guidelines respectively, during the month of August. The maximum number of TSP exceedances recorded during August occurred in 2013, which had 23 days that exceeded the guideline. The minimum number of TSP exceedances recorded during August occurred in 2016, which had 7 days that exceeded the guideline. The maximum number of PM_{2.5} exceedances recorded during August occurred in 2018, which had 21 days that exceeded the guideline during a full month of monitoring with significant wildfire activity.

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

The strong wind gusting that occurred in August 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.

Figure 7-3 shows the wind rose for the 7 days that exceeded the TSP Guideline. Figure 7-4 shows the wind rose for the 6 days that exceeded the PM_{2.5} Guideline. The variation in wind conditions producing exceedances shows that wildfire activity rather than windblown fugitive dust was the primary air quality issue this month.

Table 7-2 Summary of August 2021 data at the Entrance GRIMM

Parameter	Guideline		Station	Exceedances		Monthly		Maximum 1-hour				Maximum 24-hour		Operational Time (Percent)	
	1-hr	24-hr		1-hr	24-hr	Minimum	Average	Maximum Concentration	Day	Hour	Wind Speed (km/hr)	Wind Direction (degrees)	Maximum Concentration	Day	
PM_{2.5} (µg/m³)	80	29	Entrance	8	6	2.9	30.5	95.1	3	8	18.2	297.6	54.0	6	34.9
PM₁₀ (µg/m³)	-	-	Entrance	-	-	7.0	80.1	365.9	5	10	18.2	294.9	151.3	4	34.9
TSP (µg/m³)	-	100	Entrance	-	7	5.7	162.7	1261.1	7	16	28.8	280.1	325.6	4	34.9

Table 7-3 Days exceeding the Guideline for TSP or PM_{2.5} at the Entrance 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)
Entrance						
2021-08-01	-	33.5	345.2	11.0	44.5	Regional wildfire activity
2021-08-02	-	43.1	295.9	7.6	71.9	Regional wildfire activity
2021-08-03	161.5	49.1	275.5	16.4	51.7	Regional wildfire activity
2021-08-04	325.6	48.8	279.9	12.4	49.2	Regional wildfire activity
2021-08-05	230.1	44.2	289.4	14.6	49.2	Regional wildfire activity
2021-08-06	262.7	54.0	265.1	14.3	46.2	Regional wildfire activity
2021-08-07	201.7	-	270.4	18.6	49.3	Regional wildfire activity
2021-08-09	173.3	-	271.2	24.1	51.2	Regional wildfire activity
2021-08-10	173.7	-	279.9	26.0	42.7	Regional wildfire activity
Total # of Exceedances	7	6				
Maximum # of Exceedances (August)	23 (2013)	21 (2018)				
Average # of Exceedances (August)	16	5				
Minimum # of Exceedances (August)	7 (2016)	0 (2011, 2016, 2019, 2020)				

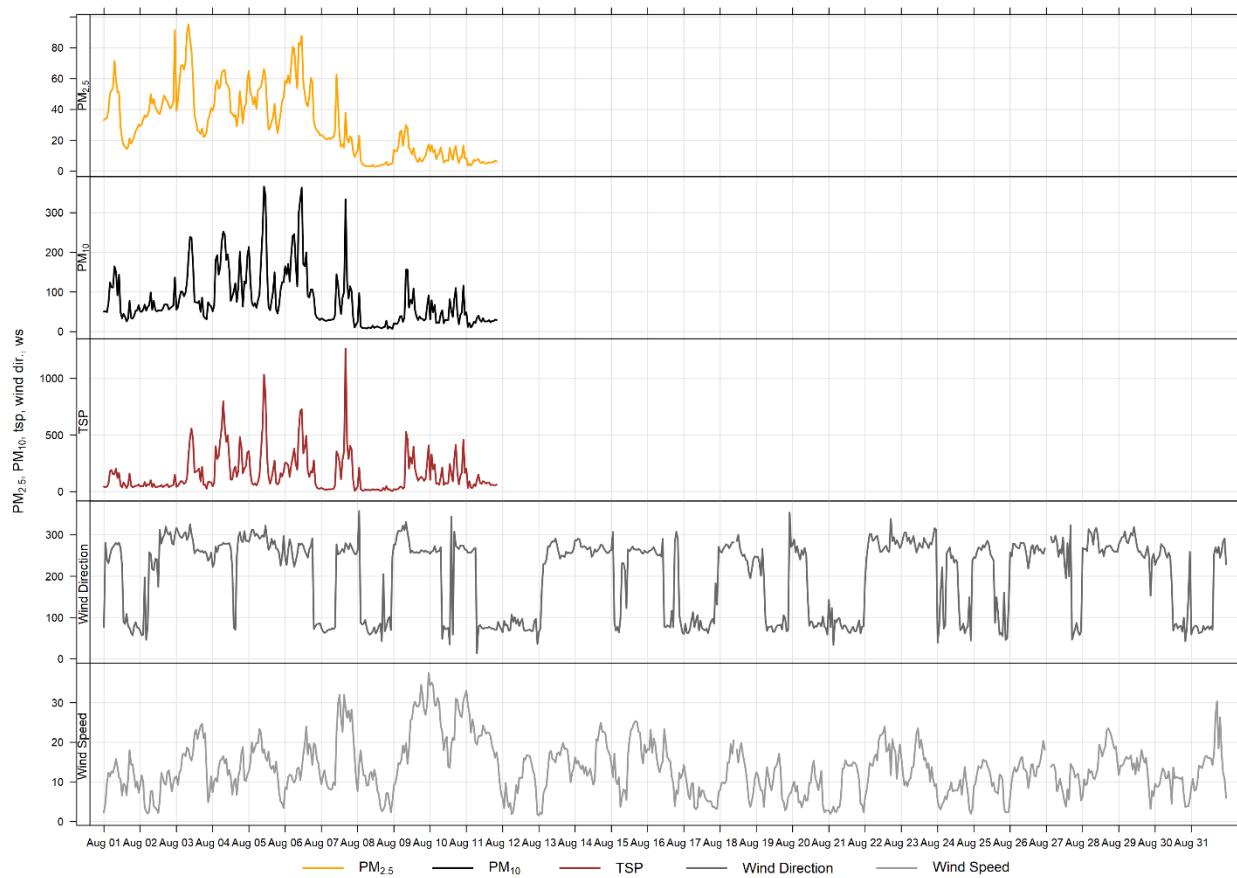


Figure 7-1 1-hour particulate matter concentrations recorded at the Entrance monitor

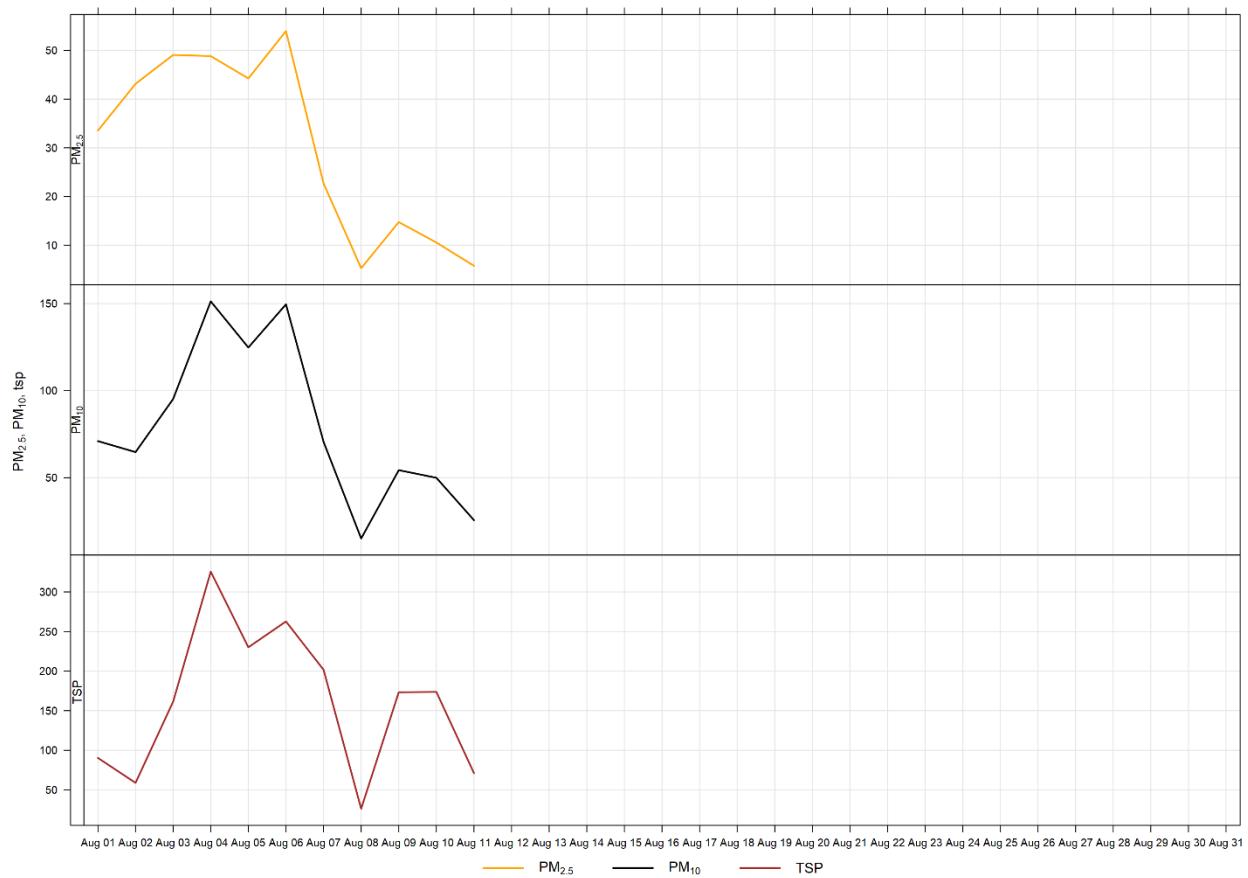


Figure 7-2 24-hour particulate matter concentrations at the Entrance monitor

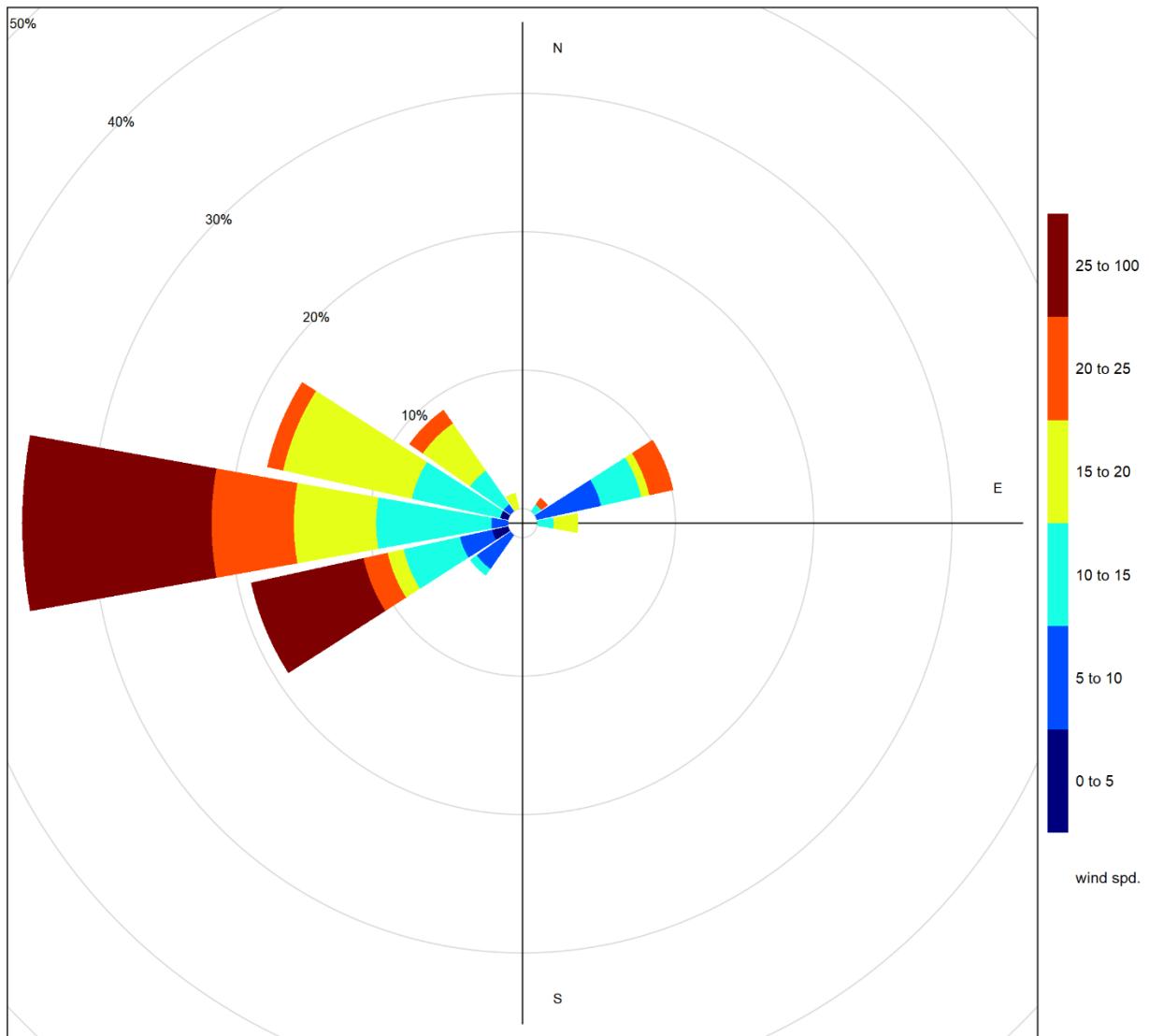


Figure 7-3 Wind rose for TSP exceedance days recorded at the Entrance GRIMM

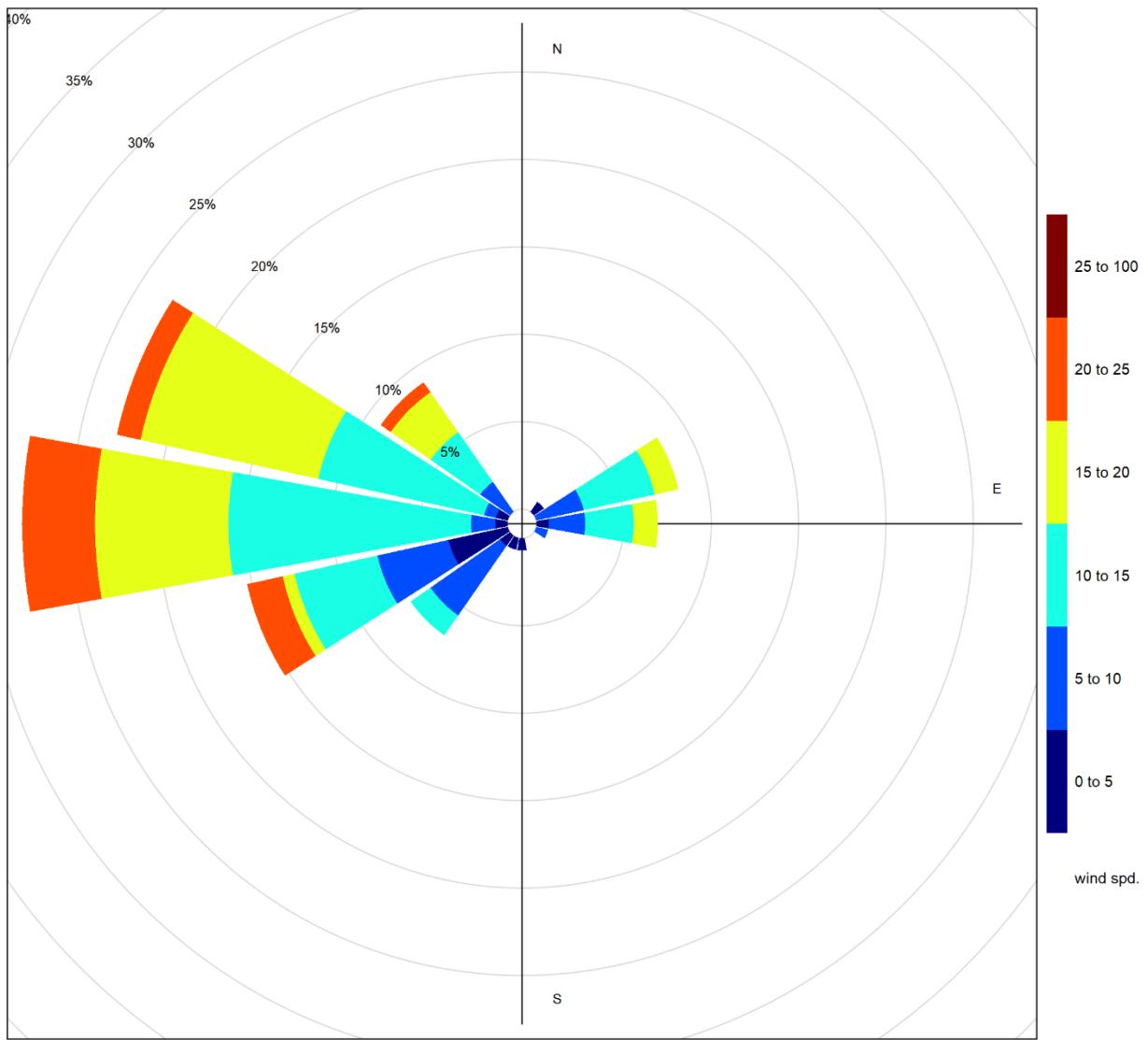


Figure 7-4 Wind rose for PM_{2.5} exceedance days recorded at the Entrance GRIMM

Figure 7-5 illustrates the hourly PM concentrations recorded at the Entrance monitor, averaged over different time periods. The plot across the top shows the variation of PM over the course of a week, while the bottom three plots show the changes in PM over the course of a day, month and weekday, respectively. Figure 7-5 is based on data collected during August 2021. The diurnal pattern differs from the Windridge, Lagoon and Berm stations and are likely more influenced by daytime traffic emission (from vehicles serving Lafarge as well as regular highway traffic) given its location near the highway entrance to Lafarge.

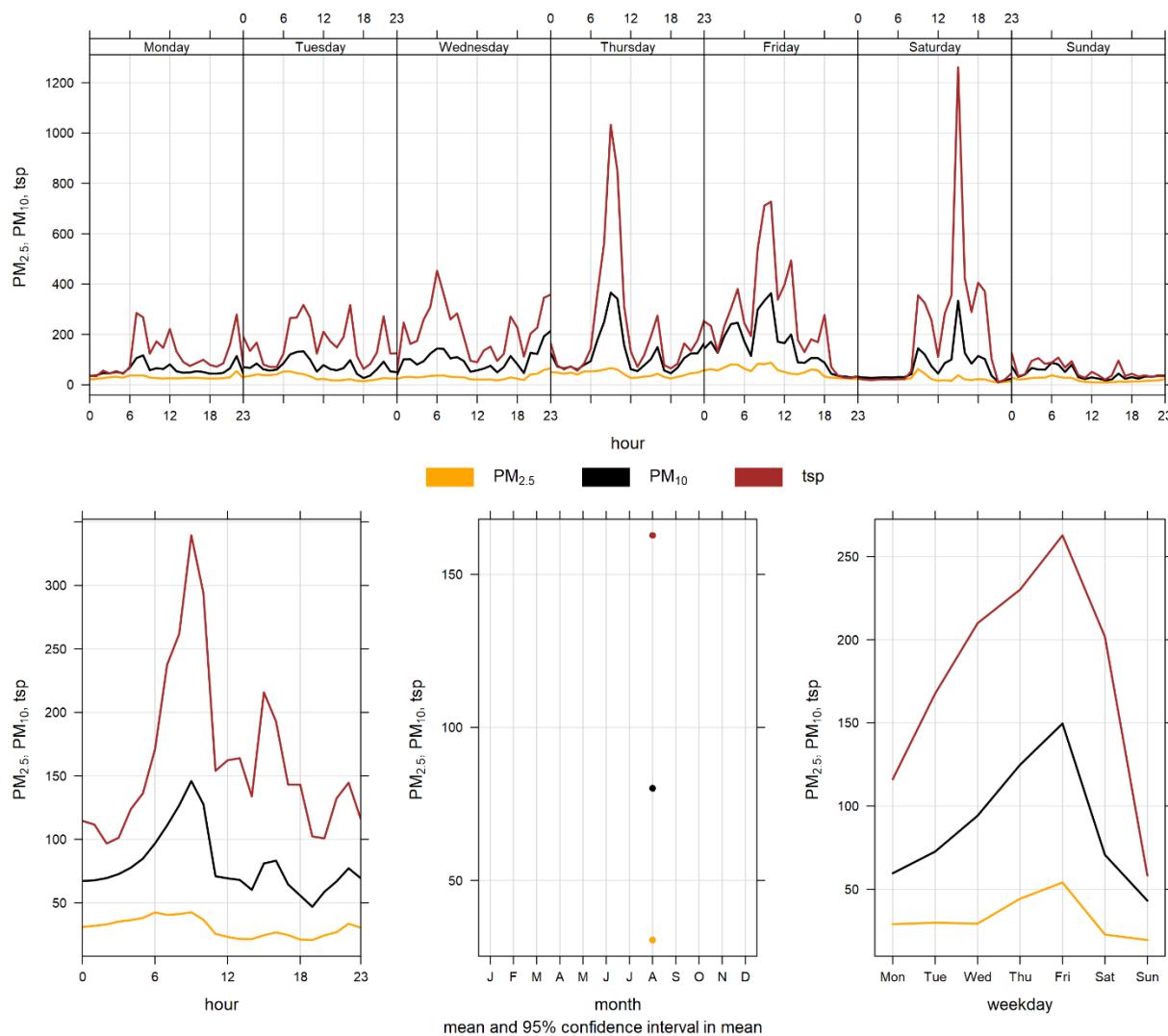


Figure 7-5 Entrance particulate matter time variation

BIBLIOGRAPHY

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

APPENDIX

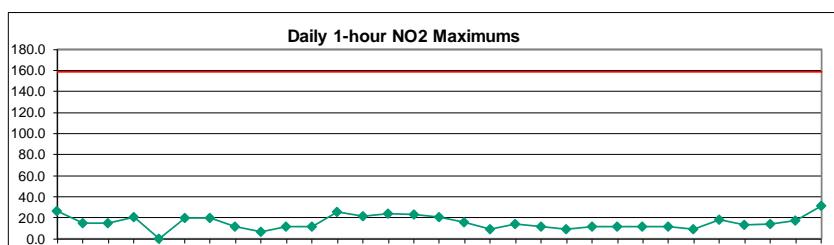
A DATA & CALIBRATION REPORTS

APPENDIX



Lagoon NO₂ (ppb) – August 2021

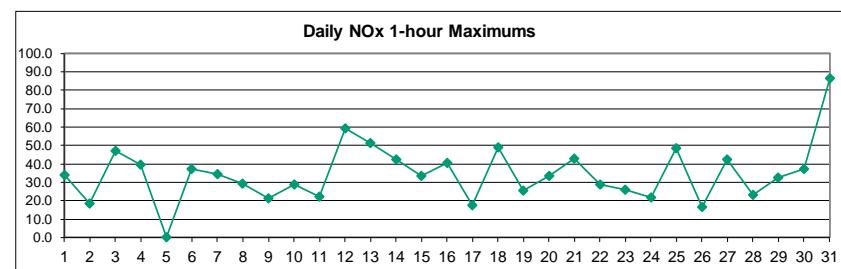
Day	Hour																									Mean	Max
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1		13.8	S	12.6	11.7	8.7	8.0	6.9	6.5	6.3	6.9	3.0	8.5	5.4	3.0	4.6	2.8	2.2	9.7	3.0	11.5	4.7	26.7	15.1	19.3	8.7	26.7
2		10.5	S	6.8	4.8	8.8	12.1	13.2	9.4	9.1	5.6	9.0	5.7	15.1	8.1	4.6	3.6	4.3	4.2	6.5	3.8	6.0	4.4	3.3	3.8	7.1	15.1
3		3.1	S	5.6	5.3	6.1	7.8	10.1	6.7	3.5	14.8	9.3	3.9	6.9	10.4	3.9	3.3	7.4	2.5	3.8	3.2	2.8	4.4	7.3	8.2	6.1	14.8
4		6.4	S	6.9	6.2	8.5	14.4	10.1	15.9	12.9	13.0	13.2	8.6	8.8	20.4	18.0	4.5	7.3	14.6	16.3	7.7	15.2	15.3	15.5	14.9	11.9	20.4
5		8.9	S	5.4	4.0	3.7	5.5	7.4	7.2	6.0	C	C	C	C	C	C	17.9	13.4	6.9	5.4	5.6	7.2	21.4	20.1	7.6	-	-
6		13.3	S	9.3	10.0	8.1	8.6	15.0	14.3	19.8	14.6	17.4	11.0	5.5	2.4	2.9	10.1	12.0	11.9	13.4	9.2	8.3	4.2	3.5	4.9	10.0	19.8
7		4.1	S	17.4	15.6	12.8	16.9	9.2	12.2	7.9	8.6	2.3	1.6	5.1	8.1	1.6	13.7	17.9	8.8	19.9	15.1	5.5	1.3	6.7	4.8	9.4	19.9
8		2.2	S	2.2	1.5	1.6	10.1	12.1	11.8	9.2	11.7	5.5	5.1	5.0	1.9	2.4	2.7	2.8	6.7	3.6	1.4	4.5	8.7	8.0	9.8	5.7	12.1
9		7.0	S	4.9	4.5	5.6	3.0	6.4	3.5	7.1	6.4	2.2	2.9	2.6	3.2	1.3	1.9	2.0	5.2	2.7	4.0	5.4	3.0	3.8	1.7	3.9	7.1
10		2.8	S	11.9	3.0	4.2	2.2	10.7	6.7	3.8	7.6	8.6	5.8	8.4	4.8	7.0	10.3	11.3	7.0	6.7	10.5	9.6	11.0	5.4	6.8	7.2	11.9
11		3.1	S	4.9	6.3	8.6	10.5	5.6	3.9	1.6	4.7	7.2	4.5	6.5	4.8	3.2	3.5	4.5	4.9	10.2	5.8	4.2	3.8	5.9	11.6	5.6	11.6
12		10.4	S	5.2	15.8	14.4	10.5	9.2	4.5	2.2	5.1	5.4	4.9	5.6	4.5	5.2	6.6	8.3	6.9	8.1	4.9	6.1	3.1	14.8	25.3	8.2	25.3
13		21.3	S	11.3	8.7	7.8	12.3	19.9	14.5	13.0	19.2	19.0	9.5	2.6	1.3	6.2	1.7	4.2	4.7	1.4	3.9	5.7	11.1	5.9	6.1	9.2	21.3
14		7.0	S	5.2	6.7	9.6	11.3	11.6	10.8	16.0	19.9	11.8	13.2	10.7	5.3	8.2	11.5	23.9	20.3	10.0	9.2	11.9	5.3	8.2	5.2	11.0	23.9
15		7.8	S	14.5	10.4	18.2	23.2	22.4	23.5	20.9	19.6	10.5	9.8	12.9	16.5	5.5	6.2	5.9	11.5	8.5	5.3	3.6	7.4	18.7	11.4	12.8	23.5
16		11.5	S	15.3	16.9	12.9	7.4	10.4	17.6	10.3	11.9	4.5	6.2	3.6	7.1	13.8	8.1	14.4	7.9	10.4	14.5	6.7	4.3	20.4	15.7	10.9	20.4
17		2.4	S	16.1	8.9	2.2	2.2	6.0	4.6	7.4	9.5	10.0	8.3	10.1	11.3	9.7	10.5	11.7	5.6	6.4	5.3	4.7	4.7	2.6	4.1	7.1	16.1
18		6.1	S	6.4	6.9	8.1	7.0	6.3	6.4	5.3	P	9.6	8.0	4.7	2.1	1.2	3.2	1.7	1.9	4.1	5.0	5.5	7.9	5.3	6.1	5.4	9.6
19		9.0	S	4.3	5.6	12.4	14.1	11.7	13.6	14.6	10.5	10.1	4.6	7.4	8.0	5.3	6.9	6.2	6.6	9.9	7.0	8.7	10.8	8.6	7.7	8.9	14.6
20		5.0	S	5.8	5.8	4.6	6.2	10.8	11.8	8.4	7.8	3.2	4.8	1.9	4.5	1.8	3.5	2.5	1.8	5.2	4.7	7.7	5.0	5.1	5.1	5.3	11.8
21		3.4	S	4.0	3.7	8.4	5.2	7.5	6.6	7.4	5.5	2.5	7.9	6.4	4.8	1.9	1.8	6.1	8.5	9.6	3.9	5.9	8.4	5.9	7.8	5.8	9.6
22		11.4	S	5.2	5.7	4.6	8.1	7.0	11.0	3.5	1.7	2.0	1.4	2.0	10.4	2.3	3.0	6.3	5.0	8.1	4.0	5.4	9.9	4.4	4.5	5.5	11.4
23		3.4	S	3.6	4.9	4.0	8.4	11.4	11.4	8.7	3.5	5.5	9.0	9.2	8.9	12.0	7.9	6.8	3.4	6.5	6.8	11.1	11.0	9.5	11.3	7.7	12.0
24		6.2	S	6.8	7.4	11.9	7.0	7.8	6.6	4.5	4.4	4.9	2.5	2.4	6.2	6.8	4.3	4.1	9.0	7.9	8.5	10.0	10.2	7.6	8.0	6.7	11.9
25		8.9	S	7.5	9.8	11.0	10.7	12.1	8.7	9.7	11.4	4.4	3.6	5.1	4.6	2.5	2.0	5.5	4.9	2.5	4.2	8.7	10.2	9.1	6.0	7.1	12.1
26		8.2	S	6.0	4.0	5.4	9.3	8.5	7.5	6.7	6.6	4.2	4.1	4.5	5.5	4.7	4.0	5.0	4.7	4.3	8.1	3.1	2.1	2.6	P	5.4	9.3
27		P	P	4.8	10.1	6.3	8.2	15.2	11.7	9.7	8.8	9.4	8.8	17.5	17.0	18.7	10.1	3.8	4.4	3.0	1.9	6.3	13.8	9.3	3.9	9.2	18.7
28		13.0	S	6.7	5.2	5.2	5.7	8.2	5.0	5.4	5.5	2.3	3.1	4.6	1.8	7.0	7.6	7.1	10.2	10.4	8.1	6.2	2.9	4.0	6.0	6.1	13.0
29		4.2	S	9.0	9.7	14.3	7.7	8.0	3.3	5.1	4.9	4.4	1.9	4.6	6.1	1.1	0.8	1.0	3.3	3.8	2.9	9.6	5.0	14.2	7.4	5.8	14.3
30		6.0	S	4.7	5.2	4.8	7.3	13.0	9.2	7.2	6.1	17.8	11.9	5.7	3.9	5.3	8.0	6.4	4.9	5.7	16.6	10.4	13.4	16.1	16.7	9.0	17.8
31		12.0	S	23.4	24.1	31.1	13.2	20.1	12.9	10.1	4.5	4.3	11.1	5.5	6.3	12.4	4.8	2.5	3.5	1.8	1.2	4.1	7.9	6.0	8.2	10.1	31.1
NO.		31	-	31	31	31	31	31	31	31	29	30	30	30	30	30	31	31	31	31	31	31	31	30	704	99.5%	
MEAN		7.7	-	8.2	8.0	8.8	9.2	10.8	9.7	8.5	9.0	7.4	6.4	6.5	6.8	6.0	6.0	7.0	6.8	7.1	6.6	6.9	8.3	8.8	8.7		
MAX		21.3	-	23.4	24.1	31.1	23.2	22.4	23.5	20.9	19.9	19.0	13.2	17.5	20.4	18.7	17.9	23.9	20.3	19.9	16.6	15.2	26.7	20.4	25.3		



Number of 1HR Exceedances	0
Number of Non-Zero Readings	704
Maximum 1-HR Average	31.1 PPB
Maximum 24-HR Average	12.8 PPB
Monthly Calibration Standard Deviation	6.4.7
Operational Time	740 HRS
Operational Uptime	99.5 %
Monthly Average	7.8 PPB

Lagoon NOx (ppb) – August 2021

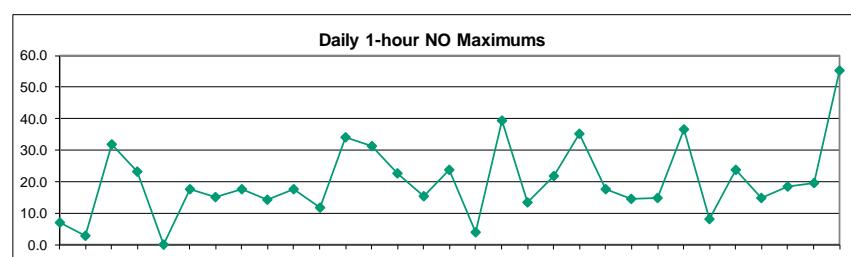
Day	HOUR																									MEAN	MAX
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	16.4	S	13.0	12.4	8.8	8.4	8.6	10.2	9.8	8.9	3.4	10.1	6.4	3.3	5.1	3.2	3.1	13.5	3.3	11.9	5.0	34.1	15.1	19.6	10.2	34.1	
2	11.7	S	6.8	4.9	11.0	13.1	13.8	9.8	10.4	6.0	10.2	6.3	18.2	9.8	5.3	4.3	5.9	5.0	7.8	4.6	7.1	5.0	3.6	5.2	8.1	18.2	
3	3.7	S	11.8	12.2	19.7	20.9	29.6	23.2	6.9	47.1	21.4	6.0	10.6	17.7	5.2	4.3	11.4	3.1	4.5	3.5	2.9	4.6	7.5	8.4	12.4	47.1	
4	6.5	S	10.6	8.4	13.8	29.9	17.8	39.3	28.7	24.5	27.6	11.5	10.3	28.6	24.7	4.9	9.1	22.5	26.6	9.2	22.3	21.0	22.0	23.1	19.3	39.3	
5	14.4	S	7.3	5.7	6.5	15.3	23.8	21.5	13.8	C	C	C	C	27.9	17.5	9.3	6.1	5.7	7.7	33.7	21.2	7.6	-	-	-	-	
6	13.4	S	13.2	14.4	8.3	8.8	17.9	19.1	37.3	20.4	29.3	15.0	6.3	2.6	3.3	13.0	17.6	16.6	16.2	10.1	10.0	4.3	3.7	5.1	13.3	37.3	
7	4.2	S	24.9	20.1	16.6	31.6	12.9	18.3	12.6	17.2	2.6	1.8	10.3	14.5	2.4	28.6	30.7	14.5	34.2	24.5	7.2	1.4	9.6	4.9	15.0	34.2	
8	2.3	S	2.7	1.7	1.7	18.3	16.9	16.5	29.0	8.6	10.3	7.9	2.2	3.1	4.1	3.6	8.4	4.4	1.7	9.6	20.6	15.3	13.5	9.4	29.0		
9	8.2	S	8.0	9.0	14.2	5.5	14.2	7.2	21.3	14.4	3.7	5.4	4.6	5.9	2.1	3.6	3.4	11.7	3.7	6.0	9.9	4.9	6.4	2.4	7.6	21.3	
10	5.5	S	28.6	5.0	7.9	3.8	23.5	11.6	5.2	13.6	14.3	10.6	14.9	7.9	10.5	21.2	28.9	16.0	12.0	24.1	22.4	24.1	11.5	15.4	14.7	28.9	
11	4.9	S	9.3	10.6	18.9	22.2	11.8	6.9	2.2	9.1	14.4	8.1	11.3	8.4	5.4	5.3	6.8	7.4	15.2	7.6	6.1	4.3	7.0	12.1	9.4	22.2	
12	10.5	S	5.3	16.3	15.3	13.4	13.0	6.0	2.8	7.3	7.6	6.6	7.3	8.2	6.6	8.4	11.1	8.8	10.8	7.5	6.7	3.2	17.0	59.4	11.3	59.4	
13	39.7	S	12.9	8.9	8.6	18.1	51.2	42.2	33.8	48.3	42.1	16.6	3.5	1.5	11.5	2.3	6.8	6.7	4.2	5.9	14.9	6.0	6.6	17.1	51.2		
14	10.0	S	5.8	7.8	14.3	20.4	20.7	18.3	30.4	42.3	21.3	24.0	14.7	6.3	10.6	14.7	35.6	31.5	12.7	11.0	13.1	5.4	8.8	5.4	16.7	42.3	
15	8.9	S	20.1	12.7	33.5	31.9	27.5	27.7	22.6	24.9	14.9	10.9	19.0	26.7	7.6	9.4	10.4	18.4	11.0	6.1	4.2	10.3	27.8	19.1	17.6	33.5	
16	21.2	S	31.8	40.5	26.7	13.8	19.2	33.5	16.1	16.2	5.4	7.9	4.0	9.3	20.3	11.7	21.2	9.0	11.4	21.1	7.0	4.7	30.2	20.9	17.5	40.5	
17	2.5	S	17.4	9.5	2.4	2.3	6.7	4.9	8.0	10.5	11.6	8.9	11.8	13.9	11.4	13.2	15.5	7.1	7.2	5.9	5.6	5.1	3.0	5.4	8.2	17.4	
18	6.7	S	9.2	12.7	14.4	15.6	14.7	23.7	22.5	P	49.0	23.3	8.2	3.2	1.8	4.8	2.1	2.3	5.1	5.8	8.3	10.1	5.7	7.8	11.7	49.0	
19	11.7	S	4.4	7.4	25.7	24.6	17.3	21.0	20.0	12.9	14.3	6.6	11.5	14.3	9.6	10.6	8.1	8.5	13.5	7.6	11.2	12.1	11.4	10.1	12.8	25.7	
20	5.7	S	6.6	7.0	4.9	9.1	23.7	33.4	17.7	15.1	5.0	9.5	3.3	7.5	2.6	5.3	3.5	2.5	7.5	4.9	8.8	6.1	9.7	5.9	8.9	33.4	
21	3.8	S	4.7	3.9	23.0	6.2	12.7	18.0	42.6	11.5	3.8	14.7	10.3	9.0	2.6	2.7	9.0	14.0	15.6	5.3	6.2	9.8	14.8	15.4	11.3	42.6	
22	17.2	S	9.5	11.3	8.4	21.1	15.4	28.7	5.8	2.3	2.9	1.8	2.7	22.4	3.0	4.1	8.0	6.2	12.1	4.9	7.6	15.5	5.3	5.1	9.6	28.7	
23	3.9	S	5.1	6.5	5.5	14.6	24.9	25.9	17.5	5.2	11.3	18.3	15.8	12.4	20.2	11.7	9.1	4.0	8.4	8.4	19.4	17.6	16.1	15.5	12.9	25.9	
24	7.4	S	7.7	11.4	21.8	9.3	20.9	21.2	11.8	9.4	9.9	3.6	3.3	9.7	9.4	5.8	5.3	13.8	11.8	9.3	10.6	11.8	12.8	8.8	10.7	21.8	
25	11.0	S	12.4	28.7	36.6	34.7	48.4	38.1	38.8	42.5	8.1	5.9	7.7	6.5	3.3	2.6	7.4	7.6	3.0	4.6	10.9	12.4	11.1	8.2	17.0	48.4	
26	9.1	S	7.4	4.4	8.4	11.3	16.4	12.8	14.2	14.2	6.9	5.6	5.9	7.4	6.7	5.5	6.5	5.7	4.6	9.7	3.2	2.4	2.9	P	7.8	16.4	
27	P	P	7.1	15.6	7.7	12.6	26.8	17.9	14.5	15.2	14.6	12.1	28.5	26.7	42.4	17.1	4.7	7.6	3.4	2.1	8.8	16.8	9.7	4.2	14.4	42.4	
28	19.5	S	8.6	5.9	6.9	11.0	23.0	10.3	12.4	13.9	3.4	5.8	11.4	2.7	14.9	13.0	11.9	18.2	16.7	11.0	7.1	3.4	4.6	7.6	10.6	23.0	
29	4.8	S	16.0	17.6	32.6	12.5	14.9	4.6	10.6	12.2	7.0	2.6	7.8	11.7	1.4	1.1	1.1	4.4	4.3	3.2	12.7	5.4	16.1	7.6	9.2	32.6	
30	6.3	S	5.1	5.8	5.4	12.2	26.5	14.9	12.0	10.8	37.4	19.2	7.5	5.0	7.1	10.9	8.8	5.9	6.2	24.4	10.9	20.0	21.1	18.4	13.1	37.4	
31	13.4	S	61.6	71.6	86.4	22.7	40.9	24.6	15.5	6.1	5.9	17.1	7.6	8.0	17.4	6.1	3.1	4.0	2.1	1.4	4.9	10.2	6.4	9.5	19.4	86.4	



Number of Non-Zero Readings	704
Maximum 1-HR Average	86.4 PPB
Maximum 24-HR Average	19.4 PPB
Monthly Calibration Standard Deviation	9.953
Operational Time	740 HRS
Operational Uptime	99.5 %
Monthly Average	12.6 PPB

Lagoon NO (ppb) – August 2021

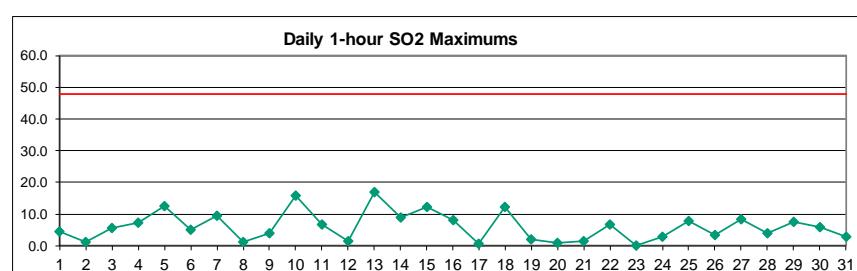
Day	Hour																									Mean	Max	
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1		2.4	S	0.3	0.6	0.1	0.4	1.6	3.6	3.3	1.8	0.2	1.4	0.8	0.2	0.4	0.3	0.7	3.6	0.2	0.3	0.1	7.1	0.0	0.2	1.3		
2		1.1	S	0.0	0.0	2.1	0.9	0.5	0.4	1.2	0.3	1.1	0.6	3.0	1.7	0.7	0.5	1.4	0.6	1.1	0.7	1.0	0.4	0.2	1.3	0.9	3.0	
3		0.5	S	6.0	6.7	13.4	13.0	19.3	16.3	3.2	32.0	11.9	1.9	3.5	7.1	1.1	0.8	3.8	0.4	0.6	0.1	0.0	0.1	0.1	0.1	6.2	32.0	
4		0.0	S	3.6	2.1	5.2	15.3	7.6	23.2	15.6	11.3	14.2	2.7	1.3	8.0	6.5	0.3	1.7	7.7	10.1	1.4	6.8	5.5	6.3	8.0	7.2	23.2	
5		5.4	S	1.8	1.6	2.7	9.6	16.2	14.1	7.7	C	C	C	C	C	10.1	4.3	2.8	1.0	0.5	0.9	12.5	1.4	0.3	-	-	3.5	17.6
6		0.4	S	4.1	4.7	0.5	0.6	3.2	5.1	17.6	5.9	12.0	4.3	1.0	0.4	0.5	3.1	5.8	4.8	2.9	1.1	1.9	0.4	0.4	0.5	3.5	17.6	
7		0.4	S	7.8	4.7	4.1	14.9	3.9	6.4	5.0	8.9	0.6	0.6	5.4	6.8	1.0	15.1	13.0	5.9	14.4	9.6	2.0	0.3	3.1	0.5	5.8	15.1	
8		0.4	S	0.8	0.5	0.4	8.5	5.2	5.0	5.1	17.5	3.4	5.5	3.1	0.6	0.9	1.6	1.0	2.0	1.0	0.5	5.4	12.2	7.6	4.1	4.0	17.5	
9		1.6	S	3.4	4.7	8.8	2.7	8.0	3.9	14.4	8.3	1.8	2.7	2.2	2.9	1.0	2.0	1.7	6.7	1.2	2.3	4.8	2.1	2.8	1.0	4.0	14.4	
10		2.9	S	16.8	2.2	4.0	1.8	13.0	5.2	1.6	6.2	6.0	5.0	6.8	3.3	3.8	11.2	17.7	9.3	5.6	13.9	13.1	13.4	6.3	8.8	7.7	17.7	
11		2.0	S	4.6	4.5	10.5	11.9	6.4	3.2	0.8	4.7	7.5	3.8	5.0	3.9	2.3	2.0	2.4	2.7	5.3	1.9	2.1	0.8	1.4	0.9	3.9	11.9	
12		0.5	S	0.4	0.8	1.2	3.1	4.2	1.7	0.8	2.5	2.5	1.9	1.9	2.0	1.6	2.1	3.0	2.2	3.0	2.9	0.9	0.4	2.5	34.1	3.3	34.1	
13		18.5	S	1.9	0.6	1.1	6.1	31.4	27.8	21.1	29.2	23.3	7.3	1.1	0.5	5.6	1.0	2.9	2.3	0.6	0.7	0.5	4.1	0.5	0.8	8.2	31.4	
14		3.3	S	1.0	1.5	5.0	9.5	9.4	7.8	14.6	22.6	9.7	11.0	4.3	1.3	2.7	3.4	11.8	11.3	2.9	2.0	1.5	0.4	0.9	0.6	6.0	22.6	
15		1.4	S	5.8	2.6	15.4	9.0	5.3	4.5	2.0	5.6	4.6	1.5	6.4	10.4	2.4	3.4	4.7	7.0	2.7	1.0	0.7	3.2	9.3	7.9	5.1	15.4	
16		9.9	S	16.7	23.8	14.0	6.7	9.1	16.1	6.2	4.5	1.1	1.9	0.7	2.4	6.8	3.9	7.0	1.4	1.2	6.9	0.6	0.8	10.0	5.3	6.8	23.8	
17		0.3	S	1.5	0.8	0.4	0.3	1.0	0.5	0.8	1.2	1.8	0.8	1.9	2.8	1.9	2.9	4.0	1.6	1.0	0.9	1.1	0.6	0.5	1.5	1.3	4.0	
18		0.8	S	3.0	6.0	6.5	8.8	8.6	17.5	17.3	P	39.4	15.5	3.7	1.2	0.8	1.8	0.7	0.7	1.2	1.2	3.1	2.6	0.7	2.0	6.5	39.4	
19		2.9	S	0.4	2.1	13.4	10.7	5.9	7.7	5.6	2.6	4.4	2.2	4.3	6.5	4.6	3.8	2.1	2.1	3.8	0.8	2.7	1.5	3.1	2.7	4.2	13.4	
20		1.0	S	1.0	1.4	0.5	3.1	13.1	21.7	9.5	7.6	2.0	4.8	1.5	3.2	1.0	1.9	1.2	1.0	2.5	0.4	1.3	4.8	1.1	3.8	21.7		
21		0.6	S	0.9	0.5	14.8	1.1	5.5	11.6	35.3	6.1	1.5	6.9	4.1	4.4	0.9	1.0	3.1	5.7	6.1	1.6	0.5	1.5	9.1	7.8	5.7	35.3	
22		6.0	S	4.4	5.8	4.0	13.1	8.6	17.7	2.4	0.8	1.0	0.5	0.8	12.1	1.0	1.2	2.0	1.4	4.2	1.1	2.4	5.7	1.1	0.8	4.3	17.7	
23		0.7	S	1.7	1.8	1.7	6.5	13.7	14.6	9.0	2.0	6.0	9.7	7.0	3.9	8.5	4.2	2.6	1.0	2.2	2.0	8.7	6.9	7.0	4.6	5.5	14.6	
24		1.5	S	1.2	4.4	10.2	2.7	13.4	15.0	7.6	5.4	5.3	1.4	1.3	3.8	3.1	1.8	1.5	5.2	4.2	1.2	1.0	2.0	5.6	1.2	4.4	15.0	
25		2.4	S	5.2	19.1	25.8	24.3	36.5	29.7	29.4	31.4	4.1	2.6	3.0	2.3	1.0	0.9	2.3	3.1	0.9	0.8	2.6	2.6	2.5	2.6	10.2	36.5	
26		1.3	S	1.8	0.7	3.3	2.4	8.3	5.7	7.8	8.0	3.0	1.8	1.7	2.2	2.4	1.8	1.9	1.3	0.7	2.0	0.6	0.6	0.6	P	2.7	8.3	
27		P	P	2.5	5.7	1.7	4.7	11.9	6.5	5.1	6.7	5.4	3.6	3.6	11.2	9.9	23.7	7.0	1.0	3.3	0.5	0.3	2.6	3.0	0.6	0.4	5.3	23.7
28		6.6	S	2.0	0.8	1.9	5.4	15.0	5.5	7.2	8.5	1.3	2.8	6.9	1.0	8.1	5.6	5.0	8.2	6.4	3.1	1.2	0.7	0.8	1.8	4.6	15.0	
29		0.7	S	7.1	8.0	18.4	5.0	7.0	1.4	5.6	7.4	2.7	0.8	3.3	5.7	0.4	0.4	0.4	1.3	0.7	0.5	3.3	0.6	2.1	0.5	3.6	18.4	
30		0.4	S	0.6	0.8	0.7	5.1	13.6	5.9	5.1	4.9	19.6	7.5	1.9	1.2	2.0	3.0	2.6	1.1	0.7	7.9	0.7	6.8	5.2	1.9	4.3	19.6	
31		1.5	S	38.3	47.5	55.4	9.5	20.8	11.8	5.6	1.7	1.8	6.2	2.3	1.9	5.2	1.4	0.7	0.5	0.4	1.0	2.5	0.6	1.5	9.5	55.4		
NO.	31	-	31	31	31	31	31	31	31	29	30	30	30	30	30	31	31	31	31	31	31	31	30	30	704	99.5%		
MEAN	2.6	-	4.7	5.4	8.0	7.0	10.5	10.2	8.8	8.8	6.6	4.0	3.4	3.8	3.4	3.2	3.7	3.5	2.9	2.3	2.4	3.3	3.1	3.5	-	-		
MAX	18.5	-	38.3	47.5	55.4	24.3	36.5	29.7	35.3	32.0	39.4	15.5	11.2	12.1	23.7	15.1	17.7	11.3	14.4	13.9	13.1	13.4	10.0	34.1	-	-		



Number of Non-Zero Readings	700
Maximum 1-HR Average	55.4 PPB
Maximum 24-HR Average	10.2 PPB
Monthly Calibration Standard Deviation	6.454
Operational Time	740 HRS
Operational Uptime	99.5 %
Monthly Average	5.0 PPB

Lagoon SO₂ (ppb) – August 2021

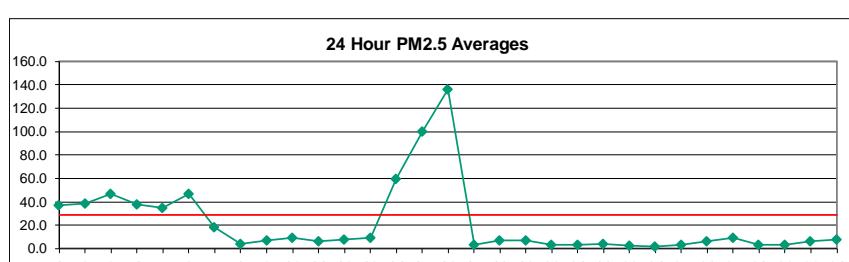
Day	HOUR																								MEAN	MAX	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1	0.3	S	0.8	0.4	0.1	1.0	0.3	0.9	0.5	1.1	0.7	4.4	2.2	1.4	1.3	0.8	0.8	1.8	0.8	1.3	0.6	2.7	1.7	2.1	1.2	4.4	
2	1.2	S	0.9	0.7	0.3	0.3	0.5	0.6	1.0	0.3	0.3	0.8	0.6	0.3	0.8	0.4	0.3	1.3	0.5	0.6	0.6	0.8	0.6	1.0	0.6	1.3	
3	0.6	S	0.8	1.1	1.0	0.9	2.3	1.9	0.8	5.7	2.6	1.4	2.3	4.8	2.3	0.8	0.7	1.4	0.7	0.2	0.1	0.4	0.6	0.1	1.5	5.7	
4	0.7	S	1.6	1.7	2.8	4.8	2.3	7.4	5.8	4.4	5.2	2.2	0.7	6.7	4.3	1.2	0.8	4.9	7.2	1.4	3.4	1.5	1.7	2.3	3.3	7.4	
5	1.3	S	1.2	1.1	1.4	2.0	3.5	4.5	2.6	6.4	3.6	5.7	0.8	3.4	8.0	12.4	5.3	3.7	1.1	0.5	1.3	1.2	0.9	0.7	3.2	12.4	
6	1.0	S	2.9	4.0	1.2	0.6	0.5	0.2	4.8	2.8	3.2	2.7	1.2	1.0	0.9	2.6	5.2	4.3	0.6	0.9	2.4	2.2	1.3	1.5	2.1	5.2	
7	1.2	S	2.3	2.4	1.8	1.1	1.1	1.3	0.4	1.3	1.3	0.7	3.2	5.1	1.5	9.2	7.6	5.4	9.6	8.0	4.3	0.5	0.9	0.5	3.1	9.6	
8	0.6	S	0.9	0.5	0.8	1.0	0.6	0.8	0.9	1.1	0.5	1.3	0.7	0.7	0.6	1.0	0.9	0.0	0.3	0.5	0.4	0.9	0.9	0.8	0.7	1.3	
9	0.9	S	1.4	1.5	2.2	0.9	1.7	1.1	2.8	4.0	1.1	1.5	1.5	0.9	0.9	1.1	0.5	0.6	0.9	0.9	2.6	1.7	1.8	0.8	1.4	4.0	
10	1.7	S	10.6	1.7	1.0	2.1	9.4	2.1	0.6	1.2	1.4	1.2	6.1	4.1	1.2	9.4	15.8	8.8	4.9	8.3	8.8	8.2	4.2	3.1	5.0	15.8	
11	2.1	S	2.6	2.6	6.8	6.0	4.4	1.0	1.1	0.7	0.7	0.8	0.6	0.5	1.4	0.8	0.9	0.4	0.8	0.5	1.0	1.1	1.0	0.6	1.7	6.8	
12	0.0	S	0.9	0.3	0.6	0.6	0.9	0.8	1.4	0.9	0.7	0.9	1.6	1.4	1.3	1.1	1.0	1.1	1.0	1.3	1.0	1.0	0.4	0.9	0.9	1.6	
13	0.5	S	0.4	0.7	0.8	2.9	14.9	13.1	11.0	15.5	16.9	5.6	0.9	0.4	8.0	0.3	1.8	1.4	0.5	0.5	0.0	0.4	0.6	0.2	4.2	16.9	
14	0.4	S	0.4	1.0	3.6	2.5	2.5	2.1	3.9	8.1	4.3	2.7	2.5	1.0	3.2	5.3	8.9	8.0	2.5	2.4	0.8	0.8	0.8	1.3	3.0	8.9	
15	0.8	S	2.6	2.2	2.2	1.6	1.2	1.9	1.9	2.3	1.1	1.5	5.9	12.4	3.4	3.9	4.5	6.6	1.9	0.6	0.1	1.4	2.8	1.9	2.8	12.4	
16	2.3	S	4.5	8.1	7.0	1.9	1.7	2.7	1.0	1.0	0.9	1.4	1.0	0.6	1.0	1.0	0.7	0.9	0.9	1.3	0.8	0.8	0.6	0.0	1.8	8.1	
17	0.6	S	0.2	0.5	0.3	0.7	0.2	0.4	0.5	0.1	0.5	0.6	0.6	0.5	0.2	0.0	0.0	0.7	0.6	0.6	0.5	0.5	0.1	0.1	0.4	0.7	
18	0.4	S	0.4	0.6	0.6	0.4	0.7	2.5	2.2	P	12.2	5.8	1.0	1.0	0.4	1.0	0.6	1.0	0.5	1.1	0.7	0.5	0.6	1.6	12.2		
19	2.0	S	0.9	0.1	0.5	1.2	0.8	0.8	1.1	1.3	0.5	0.3	0.6	0.9	1.0	1.0	0.0	0.4	0.1	0.6	0.1	0.3	1.0	0.9	0.7	2.0	
20	0.1	S	0.6	1.0	0.4	0.4	0.8	0.9	0.7	1.0	0.4	0.7	0.5	0.3	0.7	0.3	0.3	0.6	0.9	0.5	0.6	1.0	0.4	0.7	0.6	1.0	
21	0.2	S	0.1	0.2	0.9	0.3	1.3	0.7	1.4	1.0	0.9	0.5	0.9	0.9	0.5	0.6	0.8	1.3	0.8	1.5	0.8	0.9	1.2	1.4	0.8	1.5	
22	1.2	S	1.8	2.3	1.5	3.0	2.4	5.5	1.6	1.0	1.0	1.1	6.8	0.6	0.9	2.5	1.3	2.1	1.1	1.2	1.3	1.1	0.6	1.9	6.8		
23	0.8	S	1.0	1.4	0.8	1.5	2.3	4.0	2.0	C	C	C	C	C	2.4	1.0	0.3	0.3	0.2	0.4	0.7	1.1	0.7	-	-	-	-
24	0.0	S	0.0	0.0	0.2	0.3	0.4	0.3	0.0	0.9	2.9	1.6	1.3	2.8	1.1	1.0	0.1	0.3	0.6	0.8	0.4	0.0	0.2	0.0	0.6	2.9	
25	0.0	S	1.1	4.0	4.5	3.4	5.0	6.5	7.1	7.9	0.4	0.9	1.3	0.3	0.3	0.2	0.0	0.0	0.0	0.0	0.6	0.7	0.1	0.1	1.9	7.9	
26	0.0	S	0.0	0.0	0.5	0.1	0.1	1.2	1.1	0.9	0.3	0.1	0.6	0.2	3.3	0.5	0.7	0.2	0.3	0.0	0.0	0.3	0.1	P	0.5	3.3	
27	P	P	0.5	0.3	0.2	0.4	2.1	0.6	0.3	1.2	1.7	0.0	5.2	4.5	8.4	2.4	2.4	0.5	0.4	0.0	0.4	0.0	0.0	0.0	1.3	8.4	
28	0.3	S	0.3	0.0	0.5	1.0	2.5	0.7	1.0	0.8	0.0	0.9	2.7	0.3	3.9	3.9	1.7	3.6	1.0	0.0	0.0	0.2	0.0	0.0	1.1	3.9	
29	0.2	S	2.1	3.4	7.6	1.8	2.0	0.9	2.4	0.3	0.9	0.4	1.9	2.1	0.1	0.2	0.0	0.4	0.5	0.6	0.5	0.2	0.0	0.0	1.2	7.6	
30	0.4	S	0.0	0.2	0.3	0.3	1.8	0.0	0.2	0.5	5.8	1.7	0.9	0.5	0.4	0.7	1.0	0.8	0.9	0.9	0.3	0.9	0.9	0.8	0.9	5.8	
31	0.3	S	0.5	1.3	1.3	0.4	0.8	0.8	1.1	1.0	0.7	0.7	0.5	1.6	2.9	0.4	0.6	0.3	0.2	0.3	0.2	1.1	0.5	0.7	0.8	2.9	
NO.	31	-	31	31	31	31	31	31	31	29	30	30	30	30	30	31	31	31	31	31	31	31	30	704	99.5%		
MEAN	0.7	-	1.4	1.5	1.7	1.5	2.3	2.2	2.0	2.6	2.4	1.7	1.7	2.2	2.1	2.2	2.1	2.0	1.4	1.2	1.1	0.9	0.8	-	-	-	
MAX	2.3	-	10.6	8.1	7.6	6.0	14.9	13.1	11.0	15.5	16.9	5.8	6.1	12.4	8.4	12.4	15.8	8.8	9.6	8.3	8.8	8.2	4.2	3.1	-	-	



Number of 1HR Exceedences	0
Number of Non-Zero Readings	673
Maximum 1-HR Average	16.9 PPB
Maximum 24-HR Average	5.0 PPB
Monthly Calibration Standard Deviation	2.3
Operational Time	740 HRS
Operational Uptime	99.5 %
Monthly Average	1.7 PPB

Lagoon PM_{2.5} ($\mu\text{g}/\text{m}^3$) – August 2021

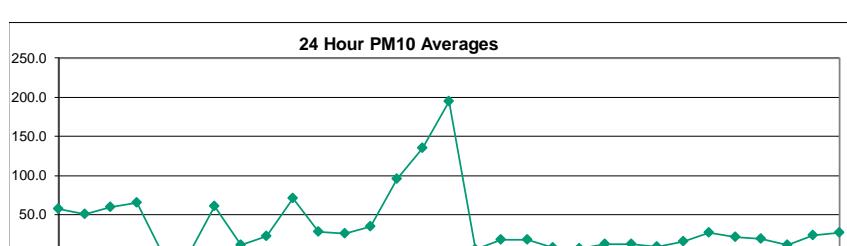
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	34.2	33.7	32.4	32.9	44.2	39.9	43.8	43.7	46.2	48.8	46.5	34.0	31.6	30.6	30.4	28.6	31.7	31.6	31.3	31.7	37.5	43.1	42.2	38.7	37.1	48.8
2	41.9	39.9	39.2	39.6	40.2	38.8	37.8	41.5	39.5	43.5	38.3	40.3	46.1	47.1	46.9	43.3	40.5	43.7	36.9	38.8	28.2	25.5	25.0	29.1	38.8	47.1
3	29.0	36.9	40.8	48.9	58.5	57.4	61.6	64.0	64.3	64.8	71.0	68.4	53.7	41.2	39.4	37.7	37.2	39.0	31.6	30.8	34.5	39.0	36.4	38.3	46.9	71.0
4	40.7	37.1	37.8	38.7	41.3	40.4	41.5	38.3	39.9	39.3	36.2	40.0	40.3	35.9	39.5	37.8	33.5	39.9	40.1	42.4	32.1	28.1	28.2	30.1	37.5	42.4
5	32.1	23.3	22.1	23.4	22.9	25.1	19.4	23.4	24.3	26.4	27.2	25.3	32.6	41.1	47.0	51.4	55.3	50.5	52.7	40.8	33.5	39.5	43.9	43.9	34.5	55.3
6	43.9	44.8	47.4	41.6	39.8	44.0	49.9	44.9	48.5	C	C	C	60.3	53.2	55.7	59.8	73.0	82.2	71.2	28.4	25.2	25.5	20.2	21.2	46.7	82.2
7	18.0	X	17.0	17.6	16.7	17.9	16.8	18.7	13.2	19.3	59.1	39.2	14.3	12.8	14.6	12.9	16.8	14.8	15.0	12.7	13.3	12.4	9.4	9.4	17.9	59.1
8	8.9	11.4	7.7	4.2	1.6	3.3	3.2	1.8	1.5	2.2	1.2	1.6	2.8	0.9	3.4	4.6	2.3	2.6	2.4	4.3	3.0	5.1	5.4	4.0	3.7	11.4
9	3.3	3.0	4.0	4.0	3.6	2.2	1.3	3.2	7.1	5.5	6.3	7.5	5.7	4.5	6.9	25.0	7.0	8.2	6.9	6.9	7.3	16.9	11.3	12.1	7.1	25.0
10	10.1	14.5	15.5	15.1	9.6	11.8	14.6	16.1	4.0	4.3	3.0	3.7	3.8	5.7	8.2	6.5	7.2	20.3	11.7	8.6	7.9	6.7	9.3	8.0	9.4	20.3
11	8.0	7.8	4.7	4.9	7.3	8.7	14.2	10.6	6.9	3.9	2.4	5.6	6.9	7.2	5.7	3.6	2.7	3.7	4.1	4.7	4.3	3.4	4.5	6.2	5.9	14.2
12	6.8	6.0	7.8	5.6	7.9	7.6	6.9	7.0	5.7	3.3	3.8	6.3	7.4	8.9	10.9	7.0	8.7	8.6	7.3	7.4	8.8	10.8	9.9	12.4	7.6	12.4
13	13.7	12.8	9.4	9.6	6.9	7.1	5.7	8.1	10.0	8.8	9.8	9.8	10.2	8.2	5.7	4.1	3.1	6.2	11.5	8.3	8.4	10.2	16.8	22.7	9.5	22.7
14	17.9	16.5	15.8	19.7	17.1	14.7	14.4	18.5	20.2	23.5	19.9	27.1	39.9	62.2	92.1	85.8	117.0	132.0	90.9	106.9	123.7	111.2	115.4	127.5	59.6	132.0
15	139.2	156.5	92.6	75.7	79.0	77.8	72.3	68.6	78.5	79.5	110.6	188.7	166.2	163.5	120.0	63.5	41.3	29.3	22.8	37.8	83.6	90.8	158.5	213.0	100.4	213.0
16	249.9	249.9	249.9	249.9	249.9	248.0	226.2	221.6	227.3	225.9	197.8	82.8	43.0	40.6	42.1	62.7	60.2	52.9	55.6	76.2	102.0	39.6	4.6	7.7	136.1	249.9
17	9.2	6.8	5.1	5.4	3.9	2.4	4.7	3.9	1.5	0.9	1.9	2.2	1.5	1.1	0.9	2.3	2.6	2.9	2.8	2.3	3.6	2.5	1.9	2.7	3.1	9.2
18	4.0	4.0	4.0	4.3	3.6	3.7	8.8	38.1	P	P	P	6.9	6.5	7.3	7.7	4.2	4.3	3.5	1.7	4.3	7.6	6.9	4.8	5.5	6.8	38.1
19	5.8	5.6	6.8	6.3	8.7	8.8	9.8	9.7	12.1	9.0	9.1	10.0	7.6	7.1	5.6	8.0	7.8	5.9	6.9	7.6	6.7	4.2	2.1	1.6	7.2	12.1
20	2.2	1.8	1.3	3.2	1.5	2.3	3.4	4.2	6.1	5.6	7.5	6.1	5.3	3.6	2.9	2.1	0.2	2.5	1.8	1.2	2.2	1.6	2.2	2.6	3.1	7.5
21	2.6	2.9	2.3	2.1	0.9	1.5	2.2	2.3	3.4	5.0	3.2	2.4	2.9	2.6	3.4	4.3	2.9	3.0	4.0	2.8	1.7	5.1	5.7	4.1	3.1	5.7
22	3.6	3.0	3.5	5.7	3.8	5.8	5.7	4.1	5.2	6.8	4.6	3.2	2.3	3.4	4.3	4.6	2.6	2.7	4.0	2.9	2.2	2.9	2.2	1.5	3.8	6.8
23	1.8	0.6	3.0	3.1	0.4	0.0	0.9	2.2	2.3	3.6	3.1	4.1	4.7	4.1	5.7	4.9	6.3	2.9	1.9	2.5	0.9	1.9	2.2	2.2	2.7	6.3
24	2.4	0.4	0.0	4.3	2.5	1.6	3.3	3.2	6.0	3.4	0.0	1.9	1.8	0.7	0.0	0.0	0.0	0.0	1.4	0.0	0.0	0.0	3.7	3.5	1.7	6.0
25	4.2	6.3	7.4	4.7	4.0	4.0	4.3	7.8	5.7	3.2	1.5	0.9	2.1	0.0	0.0	1.4	0.1	0.5	1.8	0.3	3.1	5.9	6.9	7.6	3.5	7.8
26	6.7	4.2	1.3	3.2	6.4	4.0	4.4	4.5	6.7	5.5	6.4	6.1	4.7	4.6	8.4	9.5	6.1	4.4	4.6	7.6	8.1	9.6	10.9	P	6.0	10.9
27	P	P	9.9	11.0	8.9	11.1	9.3	12.4	13.4	14.2	11.7	13.9	11.2	16.5	10.4	8.8	9.6	6.7	3.9	2.5	1.5	2.0	3.4	4.1	8.9	16.5
28	4.3	3.2	1.8	1.8	5.3	4.7	4.7	8.4	4.3	3.0	3.9	2.2	0.4	0.4	0.2	2.3	3.7	5.4	4.2	5.3	2.9	2.8	6.0	3.9	3.6	8.4
29	1.6	3.3	3.5	1.7	3.8	6.9	6.8	4.7	4.7	3.5	1.9	2.3	2.9	2.2	1.2	2.0	3.5	1.5	0.5	1.7	4.7	4.7	4.0	3.6	3.2	6.9
30	3.0	4.1	4.9	6.6	7.4	9.9	12.1	10.2	9.8	9.6	7.7	6.9	7.5	5.2	1.4	0.0	2.3	3.1	4.6	3.6	7.6	6.4	4.9	7.0	6.1	12.1
31	8.6	7.7	8.8	10.2	15.4	14.1	9.1	9.0	8.7	8.9	6.9	Y	Y	11.1	10.2	8.7	9.3	7.5	5.3	2.8	0.8	0.0	0.0	0.0	7.4	15.4
NO.	30	29	31	31	31	31	31	30	29	29	29	30	31	31	31	31	31	31	31	31	31	31	31	30	732	98.8%
MEAN	25.3	25.8	22.8	22.7	23.3	23.4	23.2	24.3	24.2	23.5	24.2	22.4	20.9	20.4	20.4	19.3	19.3	19.9	17.5	17.2	19.6	18.2	19.4	22.5		
MAX	249.9	249.9	249.9	249.9	249.9	248.0	226.2	221.6	227.3	225.9	197.8	188.7	166.2	163.5	120.0	85.8	117.0	132.0	90.9	106.9	123.7	111.2	158.5	213.0		



Number of 24HR Exceedences	9
Number of Non-Zero Readings	719
Maximum 1-HR Average	249.9 UG/M3
Maximum 24-HR Average	136.1 UG/M3
Monthly Calibration Standard Deviation	37.56
Operational Time	735 HRS
Operational Uptime	98.8 %
Monthly Average	21.6 UG/M3

Lagoon PM₁₀ ($\mu\text{g}/\text{m}^3$) – August 2021

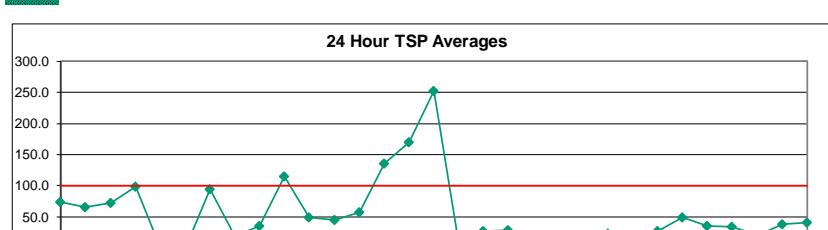
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	43.5	43.4	36.2	42.7	53.9	50.6	48.9	52.7	53.4	59.2	63.6	53.4	44.9	61.0	96.2	47.1	98.6	76.8	53.0	48.1	49.7	47.5	68.3	67.7	56.7	98.6
2	58.9	59.6	61.0	53.4	53.1	49.1	51.3	59.8	54.3	56.7	46.0	45.9	55.2	61.0	70.9	59.6	49.5	42.3	48.4	44.0	34.9	31.7	31.8	32.2	50.4	70.9
3	30.3	38.6	49.2	48.5	56.3	58.7	66.0	80.2	76.1	72.9	98.8	96.8	68.5	62.1	60.7	57.7	52.1	60.4	45.3	44.7	39.1	81.1	40.2	54.2	59.9	98.8
4	46.6	47.6	60.9	52.5	58.7	55.0	77.3	88.5	70.0	92.8	77.0	85.2	84.4	73.8	74.3	62.8	54.1	81.4	67.1	86.3	61.6	33.5	38.7	41.1	65.5	92.8
5	29.3	25.5	22.6	18.7	26.2	25.4	32.1	37.6	42.8	38.5	57.2	55.1	69.3	64.3	74.4	X	X	X	X	X	X	X	X	X	-	-
6	X	X	X	X	X	X	X	X	C	C	C	130.4	107.6	105.6	95.0	126.1	145.7	124.0	65.4	42.5	39.2	39.8	36.5	-	-	
7	36.5	X	36.7	38.7	32.5	33.9	44.0	36.2	40.7	38.6	104.7	89.9	61.1	45.4	98.0	75.0	156.2	111.8	59.9	86.8	86.1	39.8	11.7	24.3	60.4	156.2
8	15.5	25.0	15.3	13.1	8.3	12.6	10.4	6.3	10.5	8.5	14.0	12.5	9.3	17.4	15.7	9.7	8.5	5.8	12.5	8.1	6.6	4.5	3.4	5.4	10.8	25.0
9	14.8	5.5	8.0	7.2	5.3	14.3	7.2	5.5	8.3	14.0	30.0	15.5	25.0	25.4	21.7	14.0	21.0	22.6	27.9	39.0	27.9	49.6	54.4	64.6	22.0	64.6
10	25.8	64.6	63.3	91.9	16.0	22.3	20.0	97.2	35.6	5.9	33.5	38.0	13.5	24.7	41.7	63.4	144.8	221.7	109.4	61.5	87.7	81.8	180.4	142.5	70.3	221.7
11	78.0	24.1	30.4	13.1	18.6	34.6	55.2	40.6	21.7	4.9	19.0	29.8	32.5	41.9	31.9	24.9	33.5	28.6	17.3	23.3	19.2	14.7	13.3	12.0	27.6	78.0
12	21.1	24.4	25.9	20.9	29.2	14.0	31.6	28.6	12.2	10.2	20.9	20.5	24.3	27.1	54.6	33.8	34.2	35.6	23.9	27.3	21.6	21.7	14.4	28.3	25.3	54.6
13	37.2	36.0	19.8	22.2	21.7	24.8	42.4	58.4	48.4	45.8	53.1	58.4	50.4	26.3	17.7	37.1	18.9	36.9	23.3	11.6	32.1	27.8	39.0	54.1	35.1	58.4
14	33.9	28.7	23.9	27.5	25.0	25.8	28.6	33.1	52.1	54.1	72.3	61.5	62.5	87.1	103.3	108.2	221.2	357.6	177.4	167.7	152.5	118.2	133.6	131.2	95.3	357.6
15	168.2	168.5	109.8	83.9	83.5	87.5	82.2	87.1	93.1	91.9	135.5	229.7	194.8	202.7	200.2	115.9	142.9	100.5	69.7	81.6	106.5	116.8	221.0	277.6	135.5	277.6
16	341.8	438.0	484.8	484.8	473.0	305.5	269.2	264.4	260.4	264.1	238.4	123.6	77.2	41.3	63.1	93.4	74.0	59.5	60.5	81.6	102.2	43.5	9.8	15.0	194.5	484.8
17	16.3	9.1	5.2	3.9	2.5	0.4	0.0	0.0	0.6	9.9	9.2	6.4	5.0	10.0	11.8	7.7	4.6	3.2	2.7	3.3	3.1	0.6	0.8	3.1	5.0	16.3
18	0.8	3.4	6.0	15.2	6.4	21.1	15.9	71.4	P	P	P	35.4	22.5	42.3	9.1	5.3	5.4	6.0	7.7	21.3	17.9	14.0	21.5	20.4	17.6	71.4
19	23.9	27.9	20.8	20.1	27.8	28.7	23.3	22.2	57.9	44.0	33.7	13.0	7.4	7.4	8.8	9.5	10.8	7.8	6.1	6.8	6.4	3.7	0.5	0.3	17.4	57.9
20	5.7	10.6	7.8	4.6	3.3	3.5	6.3	11.5	21.8	17.1	28.6	14.8	4.5	2.4	7.9	5.9	3.8	1.2	0.4	7.3	5.9	4.6	3.3	3.2	7.7	28.6
21	3.5	4.6	4.7	6.0	7.1	12.4	7.0	2.6	3.5	16.1	15.0	8.3	11.9	9.2	6.7	6.4	3.4	3.3	4.1	5.4	6.0	6.0	6.8	8.6	7.0	16.1
22	6.9	10.6	8.8	9.2	6.6	5.6	10.0	19.0	30.7	25.4	11.8	8.3	11.9	18.8	17.8	12.5	10.1	20.5	14.4	17.7	9.1	5.2	3.8	1.6	12.3	30.7
23	6.7	6.4	2.6	1.6	1.6	1.3	1.8	6.1	17.0	11.8	36.2	42.0	33.4	27.1	19.8	32.0	15.8	10.5	7.1	3.5	6.0	5.1	2.0	12.5	42.0	
24	2.7	4.6	4.6	3.3	3.9	2.7	4.0	13.7	14.7	13.5	13.1	7.7	3.0	0.0	5.1	11.7	6.3	1.7	8.1	9.5	11.5	21.9	17.3	13.9	8.3	21.9
25	11.4	20.9	29.9	13.7	17.3	15.2	20.4	14.0	21.3	18.8	27.0	17.6	9.1	5.5	8.7	8.1	10.3	22.4	4.9	8.1	10.2	30.7	14.9	6.9	15.3	30.7
26	10.7	19.5	10.5	16.4	20.0	18.6	41.0	18.7	26.1	24.3	33.4	27.3	22.4	32.0	37.2	40.6	76.5	37.7	13.6	34.9	31.1	22.2	12.9	P	27.3	76.5
27	P	P	18.4	13.1	17.3	14.4	10.2	23.2	38.0	50.7	49.9	38.2	37.0	34.5	35.6	31.1	12.9	15.0	7.9	6.3	3.1	0.5	9.3	8.4	21.6	50.7
28	4.2	6.9	8.1	7.9	5.4	6.2	9.4	18.3	10.4	6.4	11.1	7.3	6.1	7.0	3.8	24.0	67.7	68.7	65.1	69.6	20.0	7.5	9.3	8.4	19.1	69.6
29	17.2	39.3	11.7	6.2	3.1	18.4	11.3	9.3	8.6	7.3	6.7	16.5	9.7	5.1	2.7	4.6	4.5	3.8	11.2	17.7	19.6	10.8	11.4	11.1	11.2	39.3
30	7.3	16.1	14.9	16.3	9.8	16.1	25.0	25.3	31.3	43.9	33.9	26.1	22.7	16.7	28.1	15.4	24.1	22.7	37.0	17.3	41.6	27.0	17.7	20.9	23.2	43.9
31	21.0	22.3	23.0	33.0	30.0	32.1	19.5	28.8	34.3	22.7	19.0	Y	Y	33.5	41.5	64.6	58.4	41.9	22.0	9.0	3.8	11.0	13.8	9.1	27.0	64.6
NO	29	28	30	30	30	30	30	30	29	29	29	29	30	30	30	30	30	30	30	30	30	30	29	714	96.4%	
MEAN	38.6	44.0	40.8	39.7	37.4	33.7	35.7	41.9	40.9	40.5	47.2	44.1	40.6	39.6	44.6	38.8	52.2	55.3	37.8	37.3	35.4	30.8	34.9	38.1		
MAX	341.8	438.0	484.8	484.8	473.0	305.5	269.2	264.4	260.4	264.1	238.4	229.7	194.8	202.7	200.2	115.9	221.2	357.6	177.4	167.7	152.5	118.2	221.0	277.6		



Number of Non-Zero Readings	711
Maximum 1-HR Average	484.8 UG/M3
Maximum 24-HR Average	194.5 UG/M3
Monthly Calibration Standard Deviation	56.23
Operational Time	717 HRS
Operational Uptime	96.4 %
Monthly Average	40.4 UG/M3

Lagoon TSP ($\mu\text{g}/\text{m}^3$) – August 2021

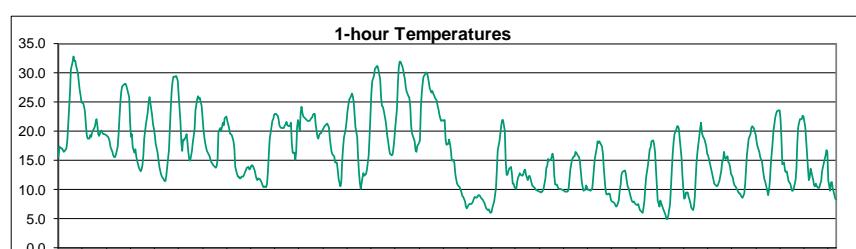
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	60.6	55.4	53.7	50.1	70.3	64.4	54.3	57.6	67.6	64.9	79.2	63.1	55.8	85.0	160.6	56.4	160.1	95.6	57.4	56.9	58.4	62.7	86.6	95.6	73.8	160.6
2	77.0	69.6	73.3	71.0	56.7	55.0	57.1	85.4	61.6	68.7	60.5	56.5	90.0	89.5	85.7	118.7	75.2	60.8	57.9	52.1	43.9	37.1	32.4	38.7	65.6	118.7
3	36.5	42.2	50.3	56.3	67.9	68.0	71.4	98.8	85.1	77.3	129.8	123.0	82.8	78.1	81.8	61.9	52.4	66.6	48.6	48.9	57.3	101.0	81.6	79.4	72.8	129.8
4	66.1	62.3	79.2	64.3	72.0	74.0	102.3	117.3	96.8	132.2	123.8	132.3	126.1	127.7	112.0	89.0	79.7	145.3	112.0	163.8	110.1	62.7	66.9	52.0	98.8	163.8
5	41.1	33.2	30.6	30.7	32.2	34.6	33.0	47.2	47.5	53.3	80.0	78.0	101.5	89.1	95.5	X	X	X	X	X	X	X	X	X	-	-
6	X	X	X	X	X	X	X	X	C	C	C	205.6	161.8	145.1	122.1	165.1	227.8	182.0	108.9	56.8	54.0	43.0	44.4	-	-	
7	41.7	X	48.7	42.0	46.1	39.7	51.2	50.6	58.9	56.4	152.4	115.4	83.3	74.7	183.3	129.6	305.4	182.2	85.1	152.9	157.4	73.9	22.0	18.5	94.4	305.4
8	25.1	42.5	15.6	17.8	12.4	9.9	10.2	15.4	15.2	13.7	27.5	22.1	22.6	62.0	18.1	16.8	16.5	12.9	16.7	15.0	9.6	6.0	6.1	12.1	18.4	62.0
9	23.0	13.9	12.5	11.3	11.3	12.4	8.6	10.3	17.2	25.7	52.4	30.0	41.5	39.3	43.5	30.8	33.6	37.2	50.0	33.3	53.6	84.9	89.0	71.9	34.9	89.0
10	36.7	101.9	99.9	151.9	31.9	30.5	38.4	159.9	70.6	15.7	58.7	62.7	31.7	66.0	74.4	98.6	266.2	376.7	169.9	93.3	138.4	132.1	285.3	155.6	114.5	376.7
11	119.5	32.2	52.3	28.4	38.0	65.7	110.1	78.5	32.2	16.3	31.4	60.2	51.4	70.1	53.8	50.1	52.7	53.6	38.7	36.2	37.0	30.5	28.9	26.0	49.7	119.5
12	38.3	40.5	39.6	31.5	43.1	27.2	55.6	37.4	17.1	22.8	49.1	46.2	50.4	41.9	99.3	55.7	58.7	63.8	44.6	46.5	38.3	48.0	31.5	45.3	44.7	99.3
13	57.4	44.8	30.9	34.8	36.6	45.1	71.0	94.6	81.7	81.9	85.8	101.7	69.9	38.4	35.1	75.7	32.2	54.0	50.8	24.8	40.5	44.0	59.0	86.1	34.9	101.7
14	50.2	34.8	36.0	33.5	36.0	34.5	31.8	49.9	71.0	97.3	120.3	98.5	101.1	121.2	132.9	147.0	344.9	584.2	284.1	232.8	195.8	130.7	140.4	153.7	135.9	584.2
15	194.1	196.4	137.1	100.7	97.3	102.8	98.4	100.3	108.6	119.8	175.8	269.6	223.5	238.6	257.9	131.2	129.4	156.5	120.2	119.4	143.9	154.4	308.1	406.3	170.4	406.3
16	468.8	565.1	766.8	649.9	653.8	360.2	292.9	291.3	306.5	318.8	283.8	169.1	113.7	60.9	83.3	140.8	95.3	72.9	66.8	91.7	110.3	43.6	13.5	24.3	251.8	766.8
17	13.9	12.4	8.3	5.7	5.6	4.3	4.3	4.4	6.4	15.7	18.4	3.0	3.3	9.6	24.6	17.1	3.2	6.0	5.8	6.9	4.7	9.6	5.6	4.5	8.5	24.6
18	7.2	8.7	11.5	15.1	11.8	19.4	18.0	121.0	P	P	P	38.5	35.3	63.2	16.4	11.5	15.2	12.4	11.3	48.2	23.6	21.8	30.7	32.5	27.3	121.0
19	41.1	51.7	36.9	30.0	41.6	40.0	36.4	43.7	90.7	78.6	52.1	22.9	11.4	14.2	16.5	13.1	19.0	11.0	7.2	8.7	11.3	10.9	5.5	3.2	29.1	90.7
20	7.4	11.4	13.6	8.6	8.4	7.9	19.9	26.9	32.9	27.7	43.5	11.4	9.5	5.1	14.8	6.1	11.1	5.8	6.5	11.6	12.4	8.7	11.0	6.9	13.7	43.5
21	5.0	18.6	6.1	11.2	11.2	11.1	8.5	8.6	10.4	17.8	12.6	12.8	15.6	17.6	9.8	8.8	11.2	11.0	7.2	8.4	7.6	13.6	8.9	15.6	11.2	18.6
22	17.8	12.6	11.3	8.3	6.3	14.1	16.3	30.7	50.9	42.3	13.1	19.9	26.4	25.4	29.2	9.9	11.4	32.0	16.8	35.2	20.2	4.4	5.7	6.4	19.4	50.9
23	15.1	10.9	5.5	1.8	3.7	0.6	5.9	6.7	20.5	32.1	17.0	60.4	72.1	71.9	47.7	30.9	52.2	24.2	12.8	15.4	15.1	11.0	7.2	8.4	22.9	72.1
24	7.8	16.0	5.7	6.0	9.7	7.1	7.9	19.0	14.2	18.7	26.3	22.1	0.7	7.1	7.9	32.9	7.7	17.2	23.2	16.6	15.5	35.4	24.9	20.5	15.4	35.4
25	11.1	30.1	41.5	19.6	21.3	26.3	30.3	27.1	35.9	32.3	35.3	23.7	22.7	10.4	34.8	15.7	21.6	50.0	30.0	20.7	21.0	58.8	27.2	17.8	27.7	58.8
26	13.5	24.6	18.6	24.8	21.4	29.6	53.2	32.6	41.3	37.8	59.8	42.8	40.2	59.0	69.8	83.7	165.8	82.7	39.1	62.6	63.4	37.5	19.3	P	48.8	165.8
27	P	P	19.3	15.6	18.0	15.5	17.9	34.7	55.2	72.0	82.9	60.3	51.2	68.9	64.2	67.9	29.5	32.2	15.3	13.7	10.0	11.1	6.9	4.0	34.8	82.9
28	6.0	9.9	10.1	12.4	8.8	12.7	14.7	24.0	8.6	10.9	23.7	6.7	14.7	22.5	7.9	44.8	127.9	116.2	117.1	140.2	29.1	9.0	16.3	11.0	33.5	140.2
29	28.6	55.2	12.4	10.5	18.7	26.4	26.1	21.0	20.7	12.7	14.7	24.3	14.1	15.2	12.7	14.0	14.0	15.0	28.8	23.6	22.0	18.2	18.7	25.5	20.6	55.2
30	19.4	35.4	25.1	24.7	20.2	29.7	36.5	41.7	43.1	63.0	52.6	51.2	48.5	29.7	54.1	35.1	40.3	41.9	62.6	26.2	58.9	28.2	26.8	32.1	38.6	63.0
31	33.2	30.4	28.6	38.8	38.0	44.6	28.7	41.5	38.7	35.5	26.3	Y	63.3	61.5	124.6	97.9	69.1	25.6	13.6	9.2	20.2	27.9	8.5	41.2	124.6	
NO.	29	28	30	30	30	30	30	30	29	29	29	29	30	31	31	31	31	30	30	30	30	30	30	29	714	96.4%
MEAN	53.9	59.4	59.4	53.6	51.7	43.8	47.0	59.3	55.4	57.3	68.6	63.1	60.5	62.2	68.8	61.4	83.2	90.6	59.8	57.6	52.5	45.5	51.2	52.0		
MAX	468.8	565.1	766.8	649.9	653.8	360.2	292.9	291.3	306.5	318.8	283.8	269.6	223.5	238.6	257.9	147.0	344.9	584.2	284.1	232.8	195.8	154.4	308.1	406.3		



Number of 24HR Exceedences	4
Number of Non-Zero Readings	714
Maximum 1-HR Average	766.8 UG/M3
Maximum 24-HR Average	251.8 UG/M3
Monthly Calibration Standard Deviation	77.6
Operational Time	717 HRS
Operational Uptime	96.4 %
Monthly Average	59.1 UG/M3

Lagoon Temperature (°C) – August 2021

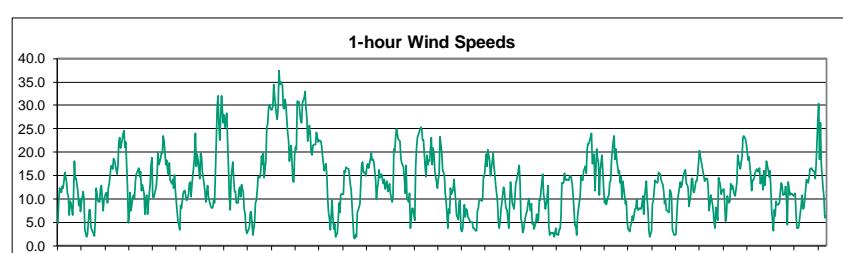
Day	HOUR																								MEAN	MAX	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1	15.6	17.4	17.1	17.1	16.8	16.5	16.7	17.0	18.4	21.1	23.9	26.5	30.5	31.9	32.8	32.0	32.1	31.2	29.9	28.5	27.0	26.2	24.9	24.8	24.0	32.8	
2	24.3	23.3	21.2	19.3	18.8	18.8	19.3	19.1	19.7	20.1	20.7	21.5	22.1	21.0	19.6	19.2	20.0	20.1	19.7	19.5	19.4	19.4	19.2	19.1	20.2	24.3	
3	18.8	18.1	17.2	16.5	15.9	15.5	15.6	16.0	17.3	19.5	22.3	24.9	26.8	27.6	28.0	28.2	28.1	27.7	27.1	25.8	21.6	19.1	19.5	17.3	21.4	28.2	
4	16.3	16.9	15.8	15.0	14.4	13.7	13.1	13.5	14.1	15.9	21.3	22.2	23.3	25.0	25.9	24.8	22.6	21.1	20.4	19.4	17.9	16.4	15.2	18.5	25.9		
5	14.1	13.3	12.7	12.3	11.8	11.6	11.5	12.3	13.9	16.8	20.4	24.0	26.8	28.4	29.3	29.4	29.5	29.3	28.5	26.2	21.6	18.1	16.6	18.6	19.9	29.5	
6	18.5	19.0	19.4	18.0	16.4	15.1	14.9	16.7	18.1	19.2	20.4	23.5	25.5	26.1	25.6	25.7	25.0	24.3	20.3	19.1	18.0	17.2	16.6	16.0	19.9	26.1	
7	15.7	15.1	14.7	14.5	14.2	13.9	13.8	14.1	15.1	20.0	20.6	20.2	20.6	21.4	21.0	22.2	22.6	21.7	21.2	20.5	19.6	19.3	18.9	18.3	18.3	22.6	
8	17.0	13.8	12.7	12.2	12.2	12.0	11.9	12.2	12.3	12.6	13.0	13.3	13.7	13.9	13.5	13.6	14.1	14.1	14.1	13.3	12.5	12.0	11.6	12.0	13.1	17.0	
9	11.7	11.4	11.1	10.7	10.5	10.5	10.4	11.1	13.2	16.0	18.8	20.8	21.7	22.1	22.8	23.0	23.0	22.7	22.1	21.1	20.7	20.5	20.6	20.6	17.4	23.0	
10	21.0	21.2	21.6	21.0	20.9	21.0	21.4	18.0	16.4	16.3	15.2	16.7	20.8	21.9	20.1	23.1	24.2	23.1	22.5	22.4	22.0	22.0	21.7	21.8	20.7	24.2	
11	21.7	22.2	22.4	22.8	23.0	22.9	21.2	19.0	18.8	19.3	19.7	19.6	20.2	20.5	20.9	21.1	21.2	21.2	20.7	19.0	17.5	16.4	16.0	15.8	20.1	23.0	
12	14.7	14.7	14.6	13.3	11.8	10.6	11.3	14.8	17.2	18.8	20.4	21.8	23.4	24.6	25.3	26.1	26.4	26.1	25.1	22.9	20.7	19.0	15.6	13.0	18.9	26.4	
13	11.2	10.1	12.1	12.9	12.5	12.6	12.7	13.4	15.9	19.1	22.8	26.4	28.6	29.4	30.7	30.8	31.1	31.2	30.5	28.9	25.8	24.4	24.2	23.6	21.7	31.2	
14	22.0	20.7	19.2	18.3	17.0	16.2	15.9	16.0	17.0	18.6	20.5	23.9	28.2	30.9	32.0	32.0	31.2	30.6	29.7	28.8	27.6	26.7	26.0	25.7	23.9	32.0	
15	24.4	21.1	19.7	18.8	18.2	16.8	16.4	17.5	17.8	18.4	23.9	26.5	28.1	29.4	29.7	30.1	29.9	29.3	28.4	27.4	26.7	27.0	26.5	26.1	24.1	30.1	
16	25.7	25.2	24.4	23.7	22.9	22.2	21.8	21.9	21.8	22.0	18.6	17.8	17.8	18.6	17.9	16.8	14.9	15.1	14.4	12.7	11.8	11.1	10.7	10.5	18.3	25.7	
17	10.0	9.4	9.0	8.7	8.0	7.2	6.8	7.0	7.4	7.6	7.5	7.7	7.9	8.4	8.7	8.7	8.7	9.0	9.0	8.9	8.7	8.3	8.1	7.8	8.3	10.0	
18	7.2	6.7	6.4	6.6	6.2	6.1	6.3	6.9	8.0	P	10.3	13.4	16.7	18.4	19.7	21.0	21.9	22.0	20.1	15.1	12.6	12.5	13.1	13.6	12.6	22.0	
19	13.9	12.9	11.0	11.0	10.4	10.1	11.3	12.0	12.3	12.9	12.5	12.3	12.7	13.3	13.5	12.5	11.6	12.3	12.4	12.0	11.3	10.8	10.3	11.9	13.9		
20	10.0	10.0	9.9	9.6	9.6	9.5	9.6	9.8	10.3	12.0	13.7	14.0	15.3	14.9	15.1	15.6	16.2	15.4	12.4	10.8	10.8	10.4	10.1	10.2	11.9	16.2	
21	10.1	10.0	9.9	9.8	9.7	9.6	9.6	10.0	11.5	13.3	14.2	15.1	15.8	15.7	16.4	16.1	15.6	14.7	13.2	11.4	10.6	9.8	10.0	12.4	16.4		
22	10.8	10.4	10.0	9.9	9.9	9.9	10.3	11.9	14.0	15.4	17.1	18.3	17.9	18.2	18.1	17.4	16.1	13.7	11.7	10.0	9.2	9.2	9.3	9.1	12.8	18.3	
23	8.3	8.0	7.8	7.7	7.4	7.2	7.2	8.2	9.8	10.7	12.5	13.0	13.2	13.3	12.7	11.5	10.6	10.3	9.1	8.5	8.0	7.9	8.0	7.8	9.5	13.3	
24	7.4	7.4	7.5	6.9	6.5	6.2	6.0	6.9	8.2	10.4	12.3	14.1	15.5	16.9	17.2	18.3	18.4	17.8	16.5	13.6	10.9	8.2	7.1	8.2	11.2	18.4	
25	7.7	7.3	6.8	6.1	5.6	5.0	5.0	5.6	7.5	10.5	13.4	16.2	18.1	19.5	20.3	20.8	20.8	20.4	18.6	15.5	12.4	10.1	8.4	8.5	12.1	20.8	
26	9.5	9.5	8.8	8.2	7.6	7.0	6.4	7.1	8.8	12.0	14.8	16.5	19.1	20.4	21.5	19.8	19.2	18.6	17.9	17.4	16.2	15.8	15.3	P	13.8	21.5	
27	P	P	11.8	11.0	10.7	10.5	10.7	11.1	11.6	13.3	14.8	15.0	16.4	15.5	15.3	15.7	14.7	14.5	13.7	12.7	12.0	11.1	10.8	10.5	12.9	16.4	
28	10.3	10.0	9.4	9.3	9.1	8.8	8.6	9.4	11.0	13.6	16.0	17.3	18.7	19.5	20.6	20.8	20.8	20.4	19.4	18.2	17.4	17.0	16.5	15.6	14.9	20.8	
29	14.8	13.6	12.4	11.6	11.2	9.8	9.0	9.9	11.7	14.4	18.1	20.2	21.2	22.4	23.0	23.6	23.6	22.1	18.9	14.3	14.7	13.3	12.9	16.3	23.6		
30	13.2	12.4	11.4	11.0	10.4	9.8	9.8	10.2	11.6	13.6	18.1	20.8	21.5	22.1	22.7	22.5	21.6	20.6	16.2	13.7	11.6	12.1	13.6	15.5	22.7		
31	13.0	11.6	10.8	10.5	11.0	10.6	10.2	10.4	11.0	11.4	13.1	13.9	15.3	15.8	16.7	16.4	11.7	9.8	11.2	11.3	10.2	9.7	8.5	8.3	11.8	16.7	
NO.	30	30	31	31	31	31	31	31	30	31	31	31	31	31	31	31	31	31	31	31	31	31	30	740	99.5%		
MEAN	14.6	14.1	13.5	13.0	12.6	12.2	12.1	12.6	13.6	15.5	17.0	18.6	20.1	20.8	21.1	21.3	21.0	20.5	19.5	18.0	16.5	15.6	15.0	14.8			
MAX	25.7	25.2	24.4	23.7	23.0	22.9	21.8	21.9	21.8	22.0	23.9	26.5	30.5	31.9	32.8	32.0	32.1	31.2	30.5	28.9	27.6	27.0	26.5	26.1			



Number of Non-Zero Readings	740
Maximum 1-HR Average	32.8 C
Maximum 24-HR Average	24.1 C
Monthly Calibration Standard Deviation	6.169
Operational Time	740 HRS
Operational Uptime	99.5 %
Monthly Average	16.4 C

Lagoon Wind Speed (km/hr) – August 2021

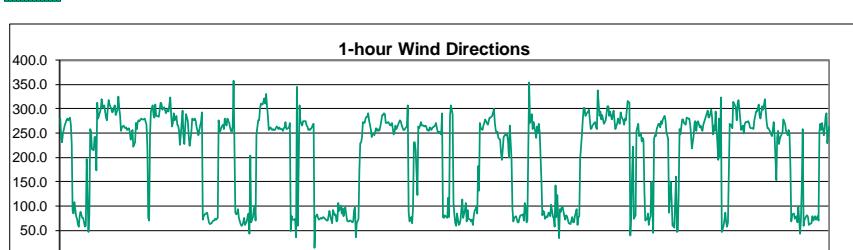
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	4.8	9.7	12.3	11.4	12.6	12.3	13.8	15.8	13.7	11.2	10.6	6.6	9.5	9.2	6.6	10.8	18.0	14.4	14.4	11.6	8.6	10.1	7.3	9.1	11.0	18.0
2	11.7	10.1	3.5	2.6	2.0	2.6	7.7	7.8	3.9	3.5	3.0	2.1	5.5	12.3	11.0	9.6	9.3	12.4	12.9	10.2	7.6	9.8	11.1	11.3	7.6	12.9
3	9.2	12.3	13.2	16.9	17.1	16.5	18.7	18.2	16.2	15.4	17.2	22.2	23.2	20.8	22.7	24.1	24.6	21.0	22.2	12.4	4.9	6.7	11.4	7.4	16.4	24.6
4	10.2	10.9	10.0	13.6	15.4	15.7	16.5	14.7	15.8	11.7	13.0	11.2	6.8	9.8	10.9	6.8	11.3	13.0	17.2	18.8	10.5	10.3	11.8	12.7	12.4	18.8
5	15.2	20.0	17.4	18.6	19.9	19.8	23.4	22.3	17.4	18.2	16.2	15.3	17.7	14.0	13.2	14.1	12.3	15.1	11.7	7.4	5.0	4.6	3.4	8.6	14.6	23.4
6	8.1	11.2	11.8	11.7	10.4	9.8	10.8	13.3	13.6	10.4	13.1	16.9	19.4	24.0	16.9	19.6	18.2	14.3	19.7	19.2	15.8	14.6	11.5	9.4	14.3	24.0
7	11.5	13.0	10.5	8.9	8.3	8.1	8.2	9.9	9.2	22.3	29.5	32.0	25.9	22.6	32.0	28.8	26.2	28.0	25.3	28.2	22.3	16.5	10.4	7.6	18.6	32.0
8	14.6	17.9	14.1	11.6	11.6	9.1	9.2	11.9	12.6	10.5	13.1	11.5	7.9	6.9	3.8	2.6	3.0	3.9	7.1	7.2	4.9	2.3	5.1	9.1	8.8	17.9
9	9.7	11.7	14.8	14.5	15.7	19.2	17.3	19.8	14.6	18.4	25.6	25.9	29.2	30.3	29.1	29.0	29.7	34.5	31.8	28.1	26.9	29.5	37.5	34.4	24.1	37.5
10	35.1	34.2	29.4	29.3	31.2	30.0	24.3	22.6	18.0	20.5	21.4	13.9	13.6	19.5	21.1	20.6	31.0	30.7	28.3	26.7	26.3	30.6	31.7	33.1	26.0	35.1
11	29.4	27.3	22.5	25.8	23.7	20.0	19.4	21.5	21.7	21.7	24.3	23.2	22.1	22.5	22.4	21.5	19.1	17.8	16.1	17.5	14.8	10.0	7.0	5.8	19.9	29.4
12	3.4	9.7	5.8	3.7	4.7	1.8	2.6	5.3	9.2	7.1	11.1	11.0	11.0	16.0	15.6	16.8	16.6	16.5	14.9	13.0	11.8	8.4	1.8	1.5	9.1	16.8
13	2.3	1.9	7.1	8.2	9.0	13.3	17.3	17.9	15.7	15.6	14.9	17.1	17.5	16.7	18.5	19.8	18.3	18.5	17.9	14.2	9.9	12.3	13.5	16.2	13.9	19.8
14	14.6	15.3	14.1	13.3	14.2	12.1	13.7	11.5	12.2	13.3	11.2	9.3	10.6	20.8	23.0	25.0	22.7	22.6	22.3	18.7	17.7	16.8	14.5	16.2	25.0	
15	11.2	17.1	10.4	9.4	11.1	3.7	6.1	8.0	7.9	5.5	16.9	20.8	23.1	23.7	24.9	25.4	25.0	22.6	22.5	16.7	14.7	19.4	17.4	18.3	15.9	25.4
16	18.1	23.2	17.4	20.9	19.7	16.1	13.7	12.4	14.2	15.3	23.3	19.9	16.3	15.7	15.1	11.2	9.6	3.8	7.8	6.9	12.3	11.0	12.0	14.3	14.6	23.3
17	12.0	9.5	6.6	5.6	9.5	9.7	3.5	3.1	3.6	8.7	6.2	7.9	7.7	6.1	5.5	5.0	5.2	5.1	3.7	3.7	3.3	3.3	7.5	8.0	6.3	12.0
18	9.8	9.9	9.6	10.3	14.9	14.8	19.5	17.0	20.5	P	18.2	14.9	18.1	19.8	17.0	15.1	12.8	9.5	5.2	3.7	5.2	7.5	10.9	12.5	12.9	20.5
19	11.7	9.4	7.9	7.7	3.7	9.1	13.7	11.6	9.2	7.9	10.0	13.5	13.9	14.9	17.1	13.3	5.6	5.1	2.8	3.5	6.1	7.0	7.3	8.9	9.2	17.1
20	10.1	7.6	9.0	4.8	5.1	3.6	4.9	6.7	5.2	5.5	9.8	9.8	13.7	15.3	11.1	9.8	7.9	9.9	12.8	4.2	2.3	2.8	2.7	7.4	15.3	
21	2.0	2.5	3.8	2.6	2.4	3.7	3.5	6.3	13.4	13.5	15.5	14.4	14.0	14.3	14.0	14.9	14.4	12.9	10.5	4.4	4.3	2.4	6.2	8.8	15.5	
22	7.9	10.6	14.8	14.3	14.0	16.1	16.9	15.4	20.5	21.8	21.9	22.6	24.0	17.6	18.0	19.6	11.7	20.8	18.6	17.8	10.8	16.0	19.4	16.1	17.0	24.0
23	12.2	9.1	10.1	8.8	10.4	10.9	13.6	13.8	18.3	22.3	23.6	18.5	20.7	18.4	15.5	16.0	13.5	14.7	10.0	13.7	10.7	8.9	9.5	5.3	13.7	23.6
24	3.7	3.1	4.3	5.0	6.3	5.5	7.8	8.1	9.9	7.7	7.8	8.0	7.8	8.9	10.6	6.8	10.4	13.8	10.0	7.3	3.1	2.0	3.2	8.9	7.1	13.8
25	9.5	11.8	14.0	13.6	13.5	15.7	15.2	15.4	14.0	13.2	11.6	8.9	9.8	7.6	7.4	7.0	11.9	11.6	10.5	3.3	2.3	2.3	2.4	6.4	10.0	15.7
26	10.0	12.4	13.7	12.5	13.1	14.5	16.0	16.3	13.3	13.1	12.4	8.4	10.9	14.4	14.4	11.7	11.4	13.9	13.9	15.4	17.7	20.4	18.1	P	13.8	20.4
27	P	P	13.8	14.4	14.4	12.7	7.6	8.8	10.8	9.0	7.2	5.0	3.8	8.2	5.5	14.6	13.8	13.0	11.1	11.7	12.1	9.4	5.3	6.3	9.9	14.6
28	10.7	9.2	9.5	13.3	12.2	12.8	11.0	10.7	12.0	13.4	19.4	18.1	16.4	17.9	19.0	23.1	23.5	22.7	21.6	19.9	18.4	18.9	15.0	11.7	15.9	23.5
29	14.1	14.1	14.6	15.6	16.4	15.9	15.9	16.7	13.2	14.7	11.9	16.1	12.8	14.9	18.1	16.2	14.8	16.1	12.5	7.5	3.2	7.7	6.4	9.6	13.3	18.1
30	8.8	8.8	9.4	11.6	13.4	12.9	10.9	10.9	12.7	9.9	4.5	13.7	10.9	11.3	11.1	11.0	10.7	11.2	6.7	3.7	3.8	3.9	5.7	8.8	9.4	13.7
31	10.8	7.8	8.0	9.9	14.1	13.9	13.5	14.6	16.4	16.6	16.0	16.1	15.8	14.3	17.1	26.8	30.4	18.5	26.3	17.6	12.3	10.7	6.0	6.5	15.0	30.4
NO.	30	30	31	31	31	31	31	31	31	30	31	31	31	31	31	31	31	31	31	31	31	31	30	740	99.5%	
MEAN	11.4	12.4	11.7	11.9	12.6	12.3	12.8	13.2	13.2	13.3	14.8	14.7	14.8	15.8	15.7	16.0	16.0	15.8	15.2	13.0	10.7	10.9	10.7	11.0		
MAX	35.1	34.2	29.4	29.3	31.2	30.0	24.3	22.6	21.7	22.3	29.5	32.0	30.3	32.0	29.0	31.0	34.5	31.8	28.2	26.9	30.6	37.5	34.4			



Number of Non-Zero Readings	740
Maximum 1-HR Average	37.5 KM/HR
Maximum 24-HR Average	26.0 KM/HR
Monthly Calibration Standard Deviation	6.727
Operational Time 0	740 HRS
Operational Uptime 100 %	99.5 %
Monthly Average	13.3 KM/HR

Lagoon Wind Direction (°) – August 2021

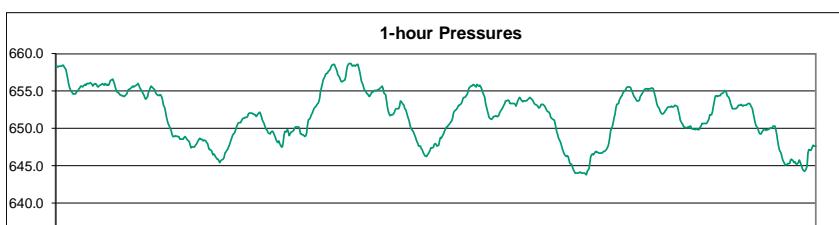
Day	HOUR																								MEAN	MAX		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24				
1	280.7	240.4	231.8	249.4	265.1	270.8	275.7	280.5	276.9	281.4	268.2	227.8	89.8	84.4	108.7	79.8	74.2	63.5	56.8	79.3	88.8	76.2	75.0	67.3	345.2	281.4		
2	57.1	58.5	197.0	46.1	79.4	258.1	253.3	217.4	214.5	241.8	241.2	174.0	312.3	279.3	292.6	300.0	320.0	305.3	300.8	306.8	281.0	276.6	300.2	317.2	295.9	320.0		
3	308.9	299.4	293.5	293.9	303.0	306.8	287.7	297.6	325.8	302.4	285.4	255.4	261.3	259.3	261.5	256.9	259.7	253.5	237.4	242.8	256.9	222.3	275.5	325.8				
4	231.8	271.5	258.5	273.6	275.5	275.3	280.8	278.5	278.4	279.0	280.0	267.6	220.9	75.4	70.5	248.0	294.3	286.8	282.6	309.2	285.5	286.2	283.2	279.9	309.2			
5	297.8	312.8	311.6	297.4	303.1	298.8	290.7	294.2	299.7	294.9	322.5	289.9	263.9	271.1	290.6	277.2	286.0	267.2	265.5	255.0	225.9	247.9	297.1	244.0	289.4	322.5		
6	227.4	263.4	289.3	274.4	244.6	223.1	236.4	253.4	279.3	276.0	279.1	273.8	261.2	254.0	245.1	265.8	272.5	291.8	72.1	79.2	84.0	84.8	86.3	75.0	265.1	291.8		
7	66.8	63.0	64.4	68.8	70.8	70.1	74.1	71.9	75.7	277.2	252.7	255.0	261.2	266.4	258.0	280.1	273.1	265.0	279.4	270.6	262.1	254.2	253.0	263.3	270.4	280.1		
8	358.0	87.3	83.2	85.5	94.1	74.8	62.7	58.5	61.7	66.1	76.5	61.5	68.3	79.6	85.4	42.5	204.7	67.0	78.0	93.9	101.5	69.6	248.1	276.4	70.8	358.0		
9	276.7	299.9	310.3	308.9	309.4	322.4	311.3	331.3	305.9	285.4	256.7	262.2	257.8	256.9	258.5	256.5	256.6	262.9	261.9	258.7	262.2	258.6	258.7	254.3	271.2	331.3		
10	259.8	261.7	273.0	258.1	260.0	261.1	270.6	48.4	79.6	72.1	72.5	74.7	35.2	344.6	58.7	307.9	273.9	269.3	265.9	274.2	273.7	273.9	264.9	264.0	279.9	344.6	64.9	268.7
11	256.9	257.8	257.1	261.5	266.7	268.7	13.6	77.7	82.0	75.7	72.8	74.6	75.0	74.7	77.5	74.8	73.1	72.7	70.2	70.2	89.8	79.3	71.9	64.3	78.0	107.0		
12	91.8	81.7	82.3	68.2	69.6	107.0	89.2	101.0	84.9	95.7	79.5	89.5	96.6	70.4	67.6	68.5	70.0	70.7	67.4	67.7	91.4	96.7	35.9	64.9	262.5	290.9		
13	74.5	173.0	229.4	230.3	241.2	272.5	270.9	280.4	284.1	283.8	290.9	275.5	258.6	242.6	250.1	249.0	246.4	259.3	255.5	257.5	255.5	257.0	266.2	287.6	267.8	290.9	271.2	
14	286.7	290.9	288.3	270.5	270.6	272.9	269.6	264.8	267.9	270.5	246.9	253.1	265.0	258.9	262.4	267.9	276.0	275.0	267.2	261.7	256.6	256.2	261.8	263.3	291.0	307.5		
15	307.1	87.4	68.4	77.2	64.0	97.1	231.3	231.7	214.8	122.6	264.5	260.3	265.9	272.1	265.0	265.3	263.3	266.2	263.4	257.1	254.7	262.2	257.0	262.2	307.1	79.0	353.9	
16	261.1	262.6	265.6	270.7	261.2	252.8	250.3	252.6	247.5	290.4	78.3	76.2	80.9	79.3	76.1	76.6	284.4	307.5	289.1	106.2	83.1	64.0	59.7	82.9	271.2	263.7	300.2	
17	84.9	61.9	62.7	71.6	93.8	112.7	76.5	92.0	105.8	69.2	92.4	74.4	71.2	68.9	72.8	62.0	78.5	90.7	96.7	85.2	182.9	131.0	271.2	260.7	79.0	289.1	267.6	
18	257.1	265.8	271.3	277.4	275.2	267.9	274.8	282.1	281.7	P	285.3	300.2	271.2	255.9	248.8	252.5	240.4	236.8	209.4	195.1	216.6	241.4	248.1	246.4	267.8	290.9	87.2	
19	247.5	233.0	201.3	266.3	195.5	95.3	67.8	76.4	77.9	78.8	65.7	65.9	75.6	81.2	81.3	82.5	70.6	105.6	99.3	66.8	69.3	353.9	271.1	276.6	76.3	196.1		
20	289.1	257.8	272.5	253.2	240.4	263.0	251.7	268.6	251.0	149.1	80.2	90.9	89.1	79.4	77.9	87.1	85.4	78.4	102.5	78.5	74.1	58.4	142.7	283.0	316.2	154.6	269.8	
21	77.1	122.9	33.5	93.5	88.8	97.2	98.6	80.1	72.4	80.9	80.1	72.2	65.3	62.1	70.9	77.7	67.0	66.6	78.8	93.2	61.7	77.9	78.8	196.1	278.5	338.7		
22	247.3	278.1	302.1	302.4	285.7	288.6	295.0	297.6	277.9	258.7	259.7	264.7	270.4	273.5	261.6	258.8	338.7	285.0	294.4	277.5	287.1	279.0	268.5	275.5	283.0	289.1	76.3	
23	291.4	305.2	305.8	285.2	294.0	278.1	286.5	297.0	276.5	257.5	268.8	280.3	272.1	268.8	292.6	282.7	277.1	267.9	280.7	277.0	295.4	316.2	312.6	39.3	267.0	285.9	265.9	
24	78.8	164.2	221.6	73.3	81.1	255.5	262.5	269.8	243.5	249.5	232.7	239.7	234.4	133.1	69.3	73.7	85.2	61.5	73.2	78.6	149.1	44.5	237.8	245.7	154.6	269.8	273.2	
25	244.1	258.3	269.3	268.7	262.7	275.1	269.7	278.4	285.9	275.8	252.6	245.8	238.4	87.0	148.9	109.9	59.1	62.6	55.0	160.1	45.9	49.4	128.2	257.8	267.0	285.9	281.0	
26	247.8	278.7	277.9	271.8	269.0	267.0	281.0	280.1	280.6	269.5	246.7	218.5	243.6	270.2	275.3	253.9	270.9	275.1	262.2	265.7	257.6	267.8	P	265.9	311.4	323.3		
27	P	P	295.8	281.7	283.6	298.1	282.1	247.0	264.8	254.8	293.8	229.7	195.0	280.1	200.2	323.3	46.5	59.7	72.3	87.0	66.2	57.4	66.8	268.5	277.1	273.2	317.5	
28	265.7	266.6	260.4	313.9	307.3	302.1	276.3	309.8	317.5	299.2	256.4	259.7	265.1	248.8	267.1	272.9	272.2	274.3	270.1	262.3	259.6	260.2	258.7	277.1	283.0	316.2		
29	285.5	294.2	295.1	308.7	284.7	279.8	292.1	304.6	298.2	318.9	294.7	271.9	259.2	260.6	252.6	247.9	243.7	257.2	272.7	245.4	152.8	241.9	254.2	226.9	275.4	318.9		
30	238.8	243.8	250.6	277.8	272.4	269.0	254.7	244.9	256.7	247.0	182.2	68.8	82.1	85.0	73.5	78.0	80.1	65.8	99.5	42.5	74.4	146.3	258.9	59.1	238.7	277.8	210.0	
31	72.1	78.4	80.3	77.0	61.7	63.6	65.3	79.9	70.4	74.5	78.8	71.5	78.6	70.6	253.0	269.5	256.3	271.3	245.0	260.1	283.3	291.2	228.8	264.2	22.6	291.2	99.5%	



Number of Non-Zero Readings	740
Maximum 1-HR Average	358 degrees
Maximum 24-HR Average	345 degrees
Monthly Calibration Standard Deviation	93.1
Operational Time	740 HRS
Operational Uptime	99.5 %
Monthly Average	203.5 degrees

Lagoon Pressure (mmHg) – August 2021

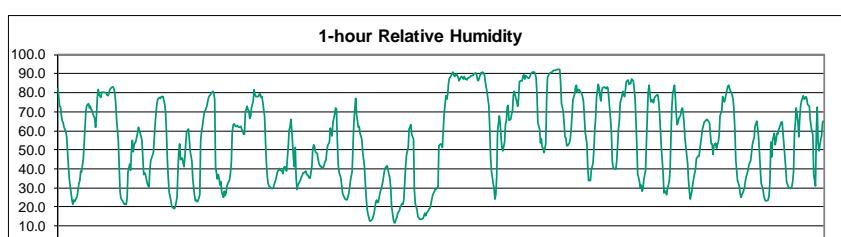
Day	Hour																								Mean	Max						
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24								
1	658.4	658.3	658.3	658.3	658.3	658.3	658.5	658.3	657.8	657.3	656.7	656.0	655.6	655.2	654.8	654.6	654.6	654.6	654.6	654.6	654.9	655.1	655.3	655.5	656.6	658.5						
2	655.7	655.7	655.6	655.8	655.9	655.8	656.0	656.0	656.0	656.1	656.0	655.9	655.9	655.7	655.9	655.9	655.7	655.6	655.6	655.8	655.9	656.0	655.9	655.8	655.8	656.1						
3	656.0	655.8	655.9	655.8	656.0	656.4	656.4	656.6	656.2	655.9	655.4	655.1	654.9	654.7	654.5	654.3	654.3	654.2	654.3	654.5	654.5	654.7	654.9	655.3	655.3	655.6						
4	655.4	655.4	655.6	655.7	655.6	655.7	655.9	656.0	655.8	655.4	655.0	654.8	654.6	654.4	654.1	654.0	654.2	654.8	655.1	655.4	655.6	655.5	655.3	655.3	655.2	656.0						
5	655.1	654.9	654.7	654.5	654.4	654.4	654.2	653.9	653.3	652.6	651.9	651.4	650.9	650.6	650.3	649.7	649.3	648.9	648.9	649.0	649.0	648.9	648.9	648.8	648.4	651.8						
6	648.9	648.6	648.6	648.5	648.6	648.8	648.9	648.8	648.6	648.3	648.2	647.8	647.4	647.5	647.5	647.5	647.8	647.9	648.1	648.3	648.7	648.6	648.6	648.4	648.3	648.9						
7	648.3	648.5	648.4	648.1	647.9	647.6	647.1	646.9	646.5	646.6	646.4	646.2	645.9	645.9	645.7	645.5	645.7	645.8	645.9	646.1	646.7	646.9	647.1	646.8	648.5	646.8	648.5					
8	647.2	647.8	648.1	648.4	648.8	649.1	649.4	649.7	650.1	650.4	650.6	650.8	650.8	651.0	651.3	651.4	651.4	651.4	651.5	651.5	652.0	652.0	652.0	652.0	652.1	652.1	650.4	652.1				
9	652.0	651.9	651.9	651.9	651.6	651.9	652.1	652.2	652.0	651.6	651.1	650.7	650.3	650.0	649.8	649.6	649.4	649.3	649.5	649.7	649.7	649.4	648.8	648.4	650.6	652.2	652.2					
10	648.2	648.1	648.3	648.0	647.6	647.6	648.1	649.1	649.6	649.5	649.8	649.5	649.1	649.3	649.5	649.6	649.7	649.9	650.2	650.2	650.2	650.1	649.8	649.3	649.3	650.2						
11	649.3	649.2	649.1	649.0	649.4	650.4	651.1	651.4	651.7	651.9	652.2	652.5	652.7	653.0	653.2	653.3	653.6	654.1	654.9	655.9	656.5	656.8	657.0	652.4	657.0	657.0	657.0					
12	657.3	657.4	657.7	657.8	657.9	658.2	658.4	658.5	658.5	658.2	658.0	657.6	657.1	656.8	656.4	656.3	656.2	656.4	656.5	656.9	657.8	658.4	658.6	658.6	657.6	658.6	658.6	658.6				
13	658.7	658.5	658.4	658.5	658.4	658.4	658.6	658.5	658.1	657.6	657.0	656.3	655.8	655.8	655.1	654.9	654.7	654.5	654.3	654.6	654.8	654.9	655.0	655.5	656.5	658.7	658.7	658.7				
14	655.1	655.1	655.1	655.2	655.2	655.4	655.6	655.7	655.3	654.7	654.5	653.7	652.9	652.3	651.9	651.7	651.8	651.8	651.9	652.0	652.7	652.7	652.7	653.6	655.7	655.7	655.7	655.7				
15	653.0	653.6	653.5	653.3	653.1	652.7	652.5	652.2	651.7	651.0	650.5	650.1	649.8	649.7	649.4	648.9	648.6	648.0	647.7	647.6	647.4	647.1	646.8	646.8	648.0	650.2	650.2	650.2				
16	646.6	646.3	646.3	646.5	646.6	646.8	647.0	647.4	647.5	647.9	648.0	647.9	647.7	647.8	648.3	648.8	648.7	648.9	649.3	649.7	649.9	650.2	650.2	650.2	648.0	650.2	650.2	650.2				
17	650.4	650.7	650.8	651.1	651.4	652.0	652.3	652.5	652.6	652.9	653.1	653.1	653.5	653.5	654.0	654.1	654.1	654.2	654.6	655.1	655.4	655.6	655.7	655.7	655.7	653.3	655.7	655.7	655.7			
18	655.9	655.8	655.6	655.6	655.8	655.8	655.7	655.7	655.7	655.5	P	654.7	654.1	653.3	652.8	652.4	652.4	651.9	651.5	651.2	651.4	651.6	651.6	651.7	651.6	651.6	653.6	655.9				
19	651.6	651.7	652.0	652.3	652.7	652.8	653.1	653.4	653.6	653.7	653.8	653.6	653.4	653.3	653.3	653.3	653.3	653.2	653.0	653.4	653.7	654.1	654.1	653.8	653.2	654.1	654.1	654.1	654.1			
20	653.6	653.6	653.7	653.7	653.7	653.8	653.9	654.0	654.1	654.0	653.8	653.5	653.3	653.2	653.1	652.9	652.8	652.8	653.0	653.2	653.3	653.1	653.0	652.7	653.4	654.1	654.1	654.1	654.1			
21	652.5	652.3	652.2	651.9	651.5	651.4	651.3	651.1	650.6	650.1	649.5	648.7	648.2	647.9	647.5	647.1	646.8	646.4	646.3	646.4	646.2	645.8	645.3	645.3	649.0	652.5	652.5	652.5	652.5			
22	645.2	644.9	644.6	644.3	644.1	644.0	644.1	644.2	644.1	644.0	644.0	644.0	644.0	644.0	644.0	643.8	644.2	644.7	645.4	646.2	646.5	646.6	646.5	646.8	644.8	646.8	646.8	646.8	646.8	646.8		
23	647.0	646.8	646.8	646.7	646.7	646.7	646.9	646.9	646.9	646.9	647.2	647.4	647.7	647.7	647.7	648.1	648.9	649.7	650.3	650.9	651.4	652.0	652.7	653.2	653.3	653.8	648.9	653.8	653.8	653.8		
24	654.1	654.2	654.4	654.8	655.0	655.1	655.4	655.6	655.5	655.4	655.4	655.1	654.8	654.5	654.3	654.0	653.7	653.6	653.6	654.3	654.7	654.7	654.9	655.0	654.6	655.6	654.6	655.6	655.6	655.6		
25	655.2	655.4	655.4	655.3	655.3	655.3	655.4	655.4	655.3	654.8	654.4	654.4	653.9	653.4	653.0	652.7	652.3	652.0	651.9	651.9	652.1	652.5	652.5	652.9	653.8	655.4	655.4	655.4	655.4	655.4	655.4	
26	652.9	652.8	652.9	652.9	653.0	653.1	653.0	652.8	652.3	651.8	651.1	650.7	650.5	650.2	650.2	650.1	650.1	650.2	650.2	650.1	650.1	650.3	650.3	650.0	P	651.5	653.1	653.1	653.1	653.1	653.1	
27	P	P	649.8	649.9	649.9	650.2	650.3	650.6	650.6	650.7	650.5	650.6	650.8	651.0	651.3	651.8	651.8	652.2	652.8	653.5	654.2	654.4	654.2	654.4	654.4	654.4	654.4	654.4	654.4	654.4	654.4	
28	654.4	654.4	654.4	654.6	654.6	654.7	654.9	655.1	655.0	654.8	654.4	654.1	653.8	653.3	653.0	652.7	652.6	652.6	652.6	652.6	652.8	652.9	653.1	653.2	653.7	655.1	655.1	655.1	655.1	655.1	655.1	
29	653.0	653.1	653.1	653.3	653.3	653.3	653.3	653.1	652.7	652.0	651.5	651.0	650.5	650.5	650.1	649.7	649.4	649.3	649.3	649.5	649.8	649.8	649.8	649.8	649.8	649.8	649.8	649.8	649.8	649.8	649.8	649.8
30	649.8	649.9	649.9	650.1	650.1	650.1	650.3	650.3	650.3	649.8	649.2	648.5	647.7	647.2	646.7	646.2	646.2	645.8	645.5	645.3	645.1	645.2	645.3	645.3	645.3	645.3	645.3	645.3	645.3	645.3	645.3	
31	645.9	645.7	645.5	645.6	645.4	645.3	645.5	645.8	645.5	645.2	644.8	644.4	644.6	644.2	644.4	644.6	645.0	646.7	647.2	647.5	647.7	647.6	647.7	647.6	647.7	647.7	647.7	647.7	647.7	647.7	647.7	647.7



Number of Non-Zero Readings	740
Maximum 1-HR Average	659 MMHg
Maximum 24-HR Average	658 MMHg
Monthly Calibration Standard Deviation	3.587
Operational Time	740 HRS
Operational Uptime	99.5 %
Monthly Average	651.8 MMHg

Lagoon Relative Humidity (%) – August 2021

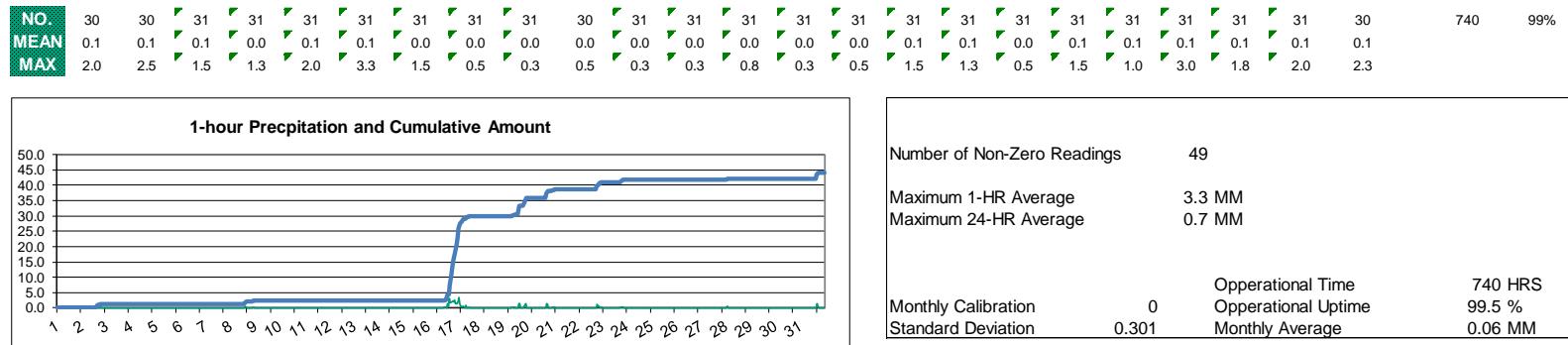
Day	Hour																								Mean	Max	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1	82.0	72.7	72.5	67.7	65.0	64.1	62.0	59.7	56.6	49.1	41.7	34.7	27.2	23.4	21.4	23.6	22.8	23.8	25.4	29.0	32.3	33.9	38.7	38.5	44.5	82.0	
2	45.2	53.5	62.3	70.6	73.3	74.2	71.9	73.0	71.2	70.5	68.6	66.3	61.7	67.8	77.7	81.8	78.7	77.7	80.2	80.4	80.5	80.1	79.8	78.8	71.9	81.8	
3	78.2	79.3	81.4	82.3	82.9	83.1	82.1	79.9	74.1	66.0	54.5	40.5	27.9	24.6	23.5	22.5	21.4	21.2	21.2	24.5	38.2	42.7	39.1	49.8	51.7	83.1	
4	54.7	48.8	52.8	54.7	56.6	59.0	61.8	60.0	58.6	54.8	45.1	37.0	38.1	37.0	32.4	31.2	30.5	40.0	44.2	45.5	48.3	56.1	63.7	69.2	49.2	69.2	
5	74.2	76.7	77.6	76.9	77.9	77.8	78.0	74.0	69.1	58.4	44.3	35.2	27.9	23.3	20.5	19.4	19.3	19.1	20.1	25.0	38.4	48.9	53.1	44.6	49.2	78.0	
6	45.7	42.8	41.1	46.6	53.5	59.5	61.2	55.5	49.4	46.7	43.7	34.7	26.1	23.3	23.5	22.9	23.3	26.5	54.9	59.5	62.3	66.2	69.0	71.6	46.2	71.6	
7	72.7	75.4	77.6	78.2	79.0	80.1	80.7	80.0	76.4	41.1	34.7	37.0	35.1	31.7	33.2	27.9	24.9	28.1	25.9	27.2	31.1	32.5	34.3	37.9	49.3	80.7	
8	43.0	58.8	62.6	63.6	62.3	62.1	62.8	61.8	62.1	62.2	60.4	59.8	58.0	58.0	69.5	72.9	71.3	70.5	66.5	67.3	71.9	75.9	81.8	79.0	65.2	81.8	
9	78.1	77.9	78.2	79.2	79.3	77.4	78.0	74.7	67.4	54.9	43.4	36.1	32.5	31.2	30.2	29.6	29.5	30.2	32.0	34.7	36.8	38.9	39.3	40.2	51.2	79.3	
10	39.1	38.8	37.5	40.9	41.1	40.6	38.9	51.9	60.3	62.0	66.1	60.4	45.3	41.2	51.2	35.0	29.1	31.3	33.2	34.1	35.6	36.5	37.8	37.7	42.7	66.1	
11	38.7	37.2	37.1	36.2	35.0	35.1	41.4	50.4	52.7	51.8	49.0	48.2	45.1	43.0	41.8	41.6	40.9	40.7	42.0	43.9	44.1	48.9	52.1	53.8	43.8	53.8	
12	61.4	59.1	57.3	64.0	68.9	71.8	71.7	55.3	42.6	38.5	35.0	31.4	27.2	26.0	25.1	24.0	23.7	25.0	26.7	29.8	33.8	38.8	53.0	64.8	44.0	71.8	
13	71.6	76.9	68.7	61.7	62.1	58.8	57.4	55.2	48.8	41.3	32.5	25.1	19.0	16.0	12.5	12.6	13.0	13.6	14.8	16.8	22.9	23.8	22.1	22.5	36.2	76.9	
14	25.6	27.9	31.0	33.4	36.7	39.4	40.4	41.4	39.3	37.0	35.1	30.1	20.5	13.5	11.6	11.6	11.6	13.7	14.2	16.6	18.2	20.0	20.8	21.7	21.2	25.9	41.4
15	24.3	40.9	47.1	49.3	51.3	60.7	63.4	58.1	56.6	55.7	29.3	21.8	18.5	15.0	14.5	13.6	13.3	13.6	14.1	15.3	16.7	15.5	16.7	18.0	31.0	63.4	
16	19.0	19.6	21.9	23.9	26.3	28.0	29.5	29.4	30.1	30.0	52.1	53.2	52.5	51.4	60.4	68.9	78.3	76.4	79.0	85.1	87.4	87.9	90.2	91.0	53.0	91.0	
17	89.4	88.4	89.0	89.9	88.0	86.2	87.3	88.1	88.6	87.3	88.5	87.3	86.9	86.6	87.7	88.2	88.6	88.8	89.0	89.2	89.8	90.5	89.5	87.2	88.3	90.5	
18	86.3	87.7	90.2	90.1	91.1	90.4	89.5	85.6	80.2	P	73.5	62.5	46.6	39.0	32.6	29.5	24.1	26.6	36.2	59.5	67.8	64.2	56.5	51.2	63.5	91.1	
19	49.3	54.0	63.3	65.1	65.6	72.6	73.6	65.4	66.0	69.0	70.2	78.4	80.7	79.0	75.1	72.8	77.1	85.8	86.2	86.4	88.4	89.3	87.1	89.2	88.7	75.5	89.3
20	87.8	87.5	88.6	89.7	90.4	90.7	90.8	89.7	87.8	79.4	64.3	60.9	53.7	55.9	51.4	50.7	48.4	53.1	75.8	88.0	89.1	89.9	90.4	91.0	76.9	91.0	
21	91.3	91.6	91.9	91.9	92.1	92.2	92.4	92.1	85.3	74.2	70.3	63.6	56.6	56.1	52.4	51.9	53.6	55.8	60.6	67.6	76.1	79.3	82.9	83.8	75.2	92.4	
22	80.4	81.7	81.7	80.4	79.7	78.0	75.8	68.7	59.6	53.2	40.6	33.9	34.3	33.7	39.5	43.0	50.2	60.6	66.9	77.4	84.4	82.2	77.9	75.5	64.1	84.4	
23	81.0	82.4	82.8	82.5	82.2	83.2	82.5	77.7	66.0	59.2	43.8	40.7	40.1	39.6	43.8	51.9	60.3	65.0	74.8	78.0	80.5	79.5	78.1	81.8	68.2	83.2	
24	85.9	86.5	84.4	84.8	85.0	87.1	86.3	82.1	77.0	65.5	52.6	37.6	33.4	30.2	31.3	28.2	29.7	34.1	39.2	54.2	67.7	80.3	83.9	75.3	62.6	87.1	
25	76.3	76.0	74.9	76.9	77.9	79.0	78.7	75.4	69.3	60.6	51.4	38.0	27.3	28.1	28.2	26.3	29.4	33.2	39.5	56.6	71.9	79.8	83.8	77.5	59.0	83.8	
26	69.4	63.4	64.2	66.2	68.4	71.0	72.0	69.3	63.7	55.7	47.1	43.1	34.2	28.1	24.1	28.9	32.5	35.1	37.2	39.5	45.3	46.5	46.8	P	50.1	72.0	
27	P	P	61.1	64.6	65.1	65.4	65.9	65.7	64.0	58.1	53.3	53.1	47.6	52.1	53.7	50.9	52.8	54.0	57.6	67.8	70.6	77.8	76.7	75.2	61.5	77.8	
28	76.9	81.8	83.4	83.8	82.3	80.6	80.3	76.5	70.2	60.4	44.9	39.1	33.8	30.9	26.7	25.1	26.4	27.4	29.9	33.6	36.2	37.5	39.4	41.9	52.0	83.8	
29	44.4	48.5	52.7	55.1	56.5	62.3	65.2	61.6	56.9	49.1	40.0	32.5	29.4	26.0	24.2	23.3	23.1	25.7	33.5	54.1	46.2	54.9	58.5	43.6	65.2		
30	52.5	55.1	58.5	58.1	60.7	63.3	64.6	64.8	58.2	52.8	40.6	33.2	32.1	30.5	30.2	29.7	30.7	33.4	38.9	58.4	64.2	71.9	64.8	57.0	50.2	71.9	
31	66.3	72.7	75.5	78.4	76.6	77.0	77.8	77.1	73.8	72.9	66.0	62.3	59.6	58.3	37.1	31.1	60.1	72.2	53.4	49.3	55.6	57.0	64.0	65.1	64.1	78.4	
NO.	30	30	31	31	31	31	31	31	31	30	31	31	31	31	31	31	31	31	31	31	31	31	31	30	740	99.5%	
MEAN	63.0	64.8	66.1	67.3	68.4	69.4	69.5	67.8	64.0	57.3	51.3	45.8	40.5	38.6	38.2	37.9	39.7	42.0	45.4	50.9	56.2	58.6	60.4	60.9			
MAX	91.3	91.6	91.9	91.9	92.1	92.2	92.4	92.1	88.6	87.3	88.5	87.3	86.9	86.6	87.7	88.2	88.6	88.8	89.0	89.2	89.8	90.5	90.4	91.0			



Number of Non-Zero Readings	740
Maximum 1-HR Average	92.4 %
Maximum 24-HR Average	88.3 %
Monthly Calibration Standard Deviation	22.07
Operational Time	0 HRS
Operational Uptime	99.5 %
Monthly Average	55.1 %

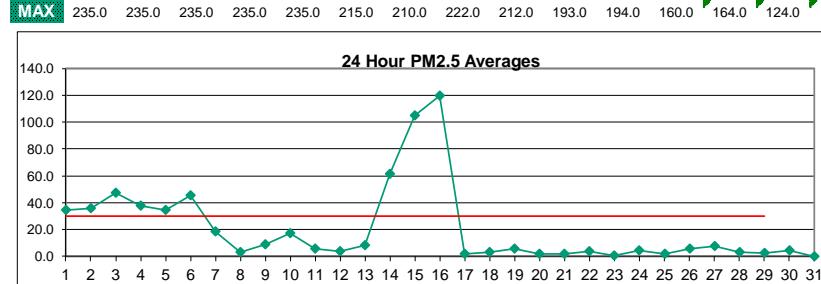
Lagoon Precipitation (mm) – August 2021

Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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
15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.3	0.0	1.3	0.5	3.0	1.8	2.0	2.3	0.5	3.0
17	2.0	2.5	1.5	1.3	2.0	3.3	1.5	0.5	0.3	0.5	0.3	0.0	0.8	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
18	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	P	0.0	0.0	0.0	0.0	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	0.3	0.0	0.3	0.0	0.0	0.0	0.0	0.0	1.5	1.3	0.0	0.0	0.0	0.5	0.8	1.3	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	1.5	1.0	0.0	0.0	0.0	0.0	0.0
21	0.3	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
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	1.0	0.5	0.5	0.0	0.3	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	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0
24	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27	P	P	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
29	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
31	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0



Windridge PM_{2.5} ($\mu\text{g}/\text{m}^3$) – August 2021

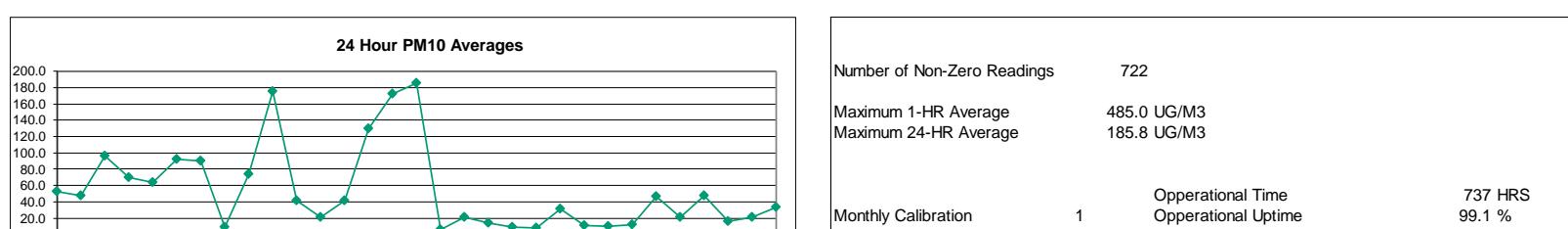
Day	HOUR																								MEAN	MAX	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1	26.0	33.0	30.0	32.0	34.0	37.0	33.0	45.0	51.0	44.0	35.0	31.0	20.0	25.0	24.0	29.0	24.0	37.0	41.0	34.0	43.0	37.0	42.0	38.0	34.4	51.0	
2	34.0	40.0	35.0	38.0	40.0	32.0	38.0	38.0	39.0	37.0	42.0	42.0	40.0	38.0	40.0	37.0	37.0	39.0	33.0	32.0	23.0	25.0	26.0	30.0	35.6	42.0	
3	32.0	41.0	44.0	51.0	55.0	56.0	62.0	60.0	64.0	65.0	64.0	73.0	52.0	40.0	38.0	43.0	38.0	40.0	41.0	41.0	32.0	35.0	34.0	33.0	47.3	73.0	
4	37.0	40.0	31.0	35.0	32.0	36.0	35.0	36.0	33.0	31.0	61.0	50.0	40.0	40.0	61.0	40.0	31.0	36.0	50.0	38.0	22.0	38.0	24.0	22.0	37.5	61.0	
5	26.0	18.0	20.0	24.0	20.0	21.0	20.0	24.0	26.0	28.0	31.0	29.0	47.0	47.0	50.0	49.0	53.0	56.0	48.0	38.0	43.0	38.0	38.0	35.0	34.5	56.0	
6	36.0	38.0	36.0	39.0	34.0	37.0	41.0	41.0	50.0	50.0	C	76.0	67.0	76.0	89.0	83.0	78.0	28.0	29.0	22.0	20.0	17.0	13.0	45.3	89.0		
7	16.0	17.0	16.0	15.0	16.0	15.0	19.0	13.0	15.0	74.0	43.0	22.0	17.0	15.0	22.0	17.0	14.0	18.0	10.0	17.0	11.0	10.0	9.0	9.0	18.8	74.0	
8	8.0	8.0	10.0	5.0	1.0	2.0	2.0	2.0	3.0	3.0	2.0	0.0	0.0	1.0	6.0	5.0	3.0	3.0	4.0	5.0	3.0	1.0	2.0	2.0	3.4	10.0	
9	2.0	2.0	3.0	6.0	6.0	5.0	5.0	3.0	1.0	4.0	9.0	10.0	14.0	9.0	11.0	10.0	12.0	13.0	12.0	14.0	9.0	17.0	22.0	18.0	9.0	22.0	
10	16.0	14.0	9.0	7.0	10.0	31.0	24.0	21.0	6.0	4.0	3.0	2.0	10.0	17.0	24.0	21.0	35.0	23.0	31.0	14.0	12.0	17.0	23.0	37.0	17.1	37.0	
11	23.0	11.0	7.0	7.0	8.0	10.0	6.0	5.0	7.0	6.0	6.0	5.0	3.0	2.0	4.0	4.0	3.0	2.0	4.0	4.0	2.0	0.0	1.0	4.0	5.6	23.0	
12	6.0	5.0	7.0	7.0	5.0	2.0	2.0	3.0	3.0	1.0	3.0	4.0	4.0	3.0	2.0	3.0	7.0	5.0	2.0	3.0	5.0	5.0	5.0	5.0	4.0	7.0	
13	5.0	7.0	7.0	9.0	9.0	9.0	6.0	8.0	8.0	10.0	9.0	10.0	8.0	10.0	8.0	8.0	5.0	7.0	12.0	13.0	10.0	5.0	6.0	11.0	15.0	8.6	15.0
14	14.0	17.0	16.0	16.0	14.0	11.0	19.0	21.0	18.0	16.0	20.0	27.0	59.0	89.0	80.0	119.0	141.0	82.0	107.0	112.0	110.0	114.0	118.0	131.0	61.3	141.0	
15	151.0	75.0	71.0	63.0	64.0	67.0	68.0	75.0	90.0	150.0	194.0	160.0	164.0	124.0	75.0	54.0	38.0	19.0	35.0	81.0	82.0	163.0	226.0	235.0	105.2	235.0	
16	235.0	235.0	235.0	235.0	215.0	210.0	222.0	212.0	193.0	79.0	43.0	33.0	42.0	53.0	54.0	51.0	55.0	75.0	98.0	34.0	3.0	7.0	10.0	119.3	235.0		
17	8.0	5.0	4.0	5.0	3.0	1.0	2.0	3.0	3.0	2.0	1.0	2.0	0.0	0.0	0.0	0.0	0.0	3.0	3.0	2.0	0.0	4.0	2.0	0.0	2.2	8.0	
18	2.0	3.0	2.0	1.0	2.0	2.0	P	P	P	1.0	0.0	9.0	14.0	8.0	4.0	2.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.0	3.1	14.0	
19	5.0	5.0	6.0	5.0	11.0	10.0	6.0	12.0	10.0	9.0	11.0	6.0	4.0	2.0	5.0	5.0	10.0	7.0	4.0	2.0	1.0	1.0	1.0	0.0	5.8	12.0	
20	1.0	1.0	0.0	0.0	0.0	0.0	1.0	1.0	4.0	3.0	6.0	6.0	2.0	0.0	1.0	3.0	2.0	2.0	1.0	1.0	2.0	2.0	2.0	2.0	1.9	6.0	
21	0.0	0.0	1.0	2.0	1.0	0.0	0.0	3.0	4.0	2.0	4.0	4.0	0.0	0.0	1.0	3.0	4.0	2.0	0.0	3.0	5.0	4.0	2.0	0.0	1.9	5.0	
22	2.0	1.0	0.0	1.0	0.0	0.0	2.0	3.0	6.0	9.0	5.0	8.0	8.0	4.0	4.0	13.0	8.0	6.0	5.0	3.0	0.0	0.0	3.0	0.0	3.8	13.0	
23	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	3.0	1.0	0.0	1.0	1.0	1.0	3.0	1.0	0.0	0.0	0.0	1.0	1.0	0.0	0.6	3.0	
24	0.0	0.0	0.0	0.0	0.0	0.0	1.0	6.0	4.0	6.0	4.0	3.0	9.0	7.0	5.0	3.0	3.0	44.0	3.0	2.0	1.0	2.0	3.0	4.4	44.0		
25	1.0	0.0	3.0	3.0	0.0	3.0	4.0	2.0	2.0	1.0	0.0	4.0	2.0	0.0	0.0	0.0	1.0	1.0	5.0	4.0	0.0	0.0	3.0	1.6	5.0		
26	4.0	5.0	3.0	2.0	2.0	3.0	2.0	0.0	2.0	5.0	6.0	5.0	5.0	3.0	3.0	9.0	6.0	5.0	5.0	7.0	11.0	15.0	10.0	5.5	15.0		
27	10.0	8.0	6.0	6.0	6.0	10.0	10.0	10.0	9.0	8.0	13.0	15.0	9.0	6.0	8.0	5.0	0.0	2.0	8.0	6.0	8.0	6.0	3.0	7.4	15.0		
28	0.0	1.0	3.0	5.0	3.0	1.0	3.0	2.0	2.0	1.0	1.0	0.0	1.0	0.0	1.0	2.0	7.0	5.0	3.0	7.0	9.0	7.0	4.0	5.0	4.0	3.1	9.0
29	0.0	0.0	1.0	2.0	2.0	3.0	2.0	2.0	1.0	1.0	0.0	0.0	4.0	2.0	4.0	3.0	2.0	1.0	1.0	2.0	8.0	7.0	3.0	3.0	2.3	8.0	
30	4.0	1.0	1.0	3.0	3.0	3.0	2.0	4.0	10.0	6.0	6.0	8.0	5.0	5.0	4.0	2.0	2.0	2.0	11.0	X	X	X	X	4.3	11.0		
31	X	X	X	X	X	X	X	X	X	Y	1.0	5.0	8.0	22.0	17.0	16.0	3.0	4.0	4.0	3.0	2.0	1.0	2.0				



Number of 24HR Exceedences	9	Proposed Guideline
Number of Non-Zero Readings	654	
Maximum 1-HR Average	235.0 UG/M3	
Maximum 24-HR Average	119.3 UG/M3	
Monthly Calibration Standard Deviation	1	Operational Time Operational Uptime Monthly Average
	37.0	725 HRS 97.4 % 21.1 UG/M3

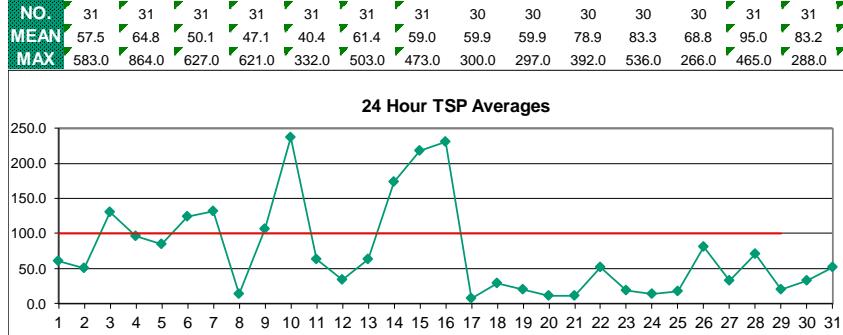
Windridge PM₁₀ ($\mu\text{g}/\text{m}^3$) – August 2021

Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	44.0	77.0	65.0	54.0	41.0	51.0	44.0	53.0	54.0	91.0	54.0	51.0	43.0	39.0	40.0	39.0	51.0	38.0	40.0	42.0	60.0	62.0	68.0	57.0	52.4	91.0
2	59.0	62.0	60.0	49.0	49.0	48.0	58.0	53.0	42.0	42.0	53.0	54.0	71.0	55.0	52.0	49.0	38.0	43.0	42.0	40.0	35.0	25.0	29.0	32.0	47.5	71.0
3	39.0	49.0	53.0	60.0	57.0	67.0	83.0	89.0	94.0	109.0	135.0	145.0	126.0	113.0	117.0	153.0	162.0	169.0	180.0	154.0	43.0	34.0	39.0	35.0	96.0	180.0
4	44.0	46.0	39.0	47.0	54.0	86.0	103.0	69.0	105.0	80.0	94.0	90.0	117.0	75.0	62.0	64.0	74.0	62.0	114.0	111.0	30.0	36.0	39.0	32.0	69.7	117.0
5	25.0	29.0	29.0	24.0	23.0	30.0	36.0	43.0	40.0	60.0	52.0	108.0	105.0	99.0	111.0	107.0	81.0	138.0	132.0	79.0	40.0	45.0	55.0	42.0	63.9	138.0
6	39.0	47.0	41.0	48.0	42.0	50.0	55.0	96.0	95.0	85.0	85.0	C	349.0	144.0	110.0	216.0	186.0	186.0	60.0	49.0	41.0	39.0	33.0	35.0	92.7	349.0
7	37.0	38.0	38.0	31.0	32.0	36.0	32.0	34.0	53.0	231.0	135.0	115.0	150.0	141.0	255.0	195.0	160.0	115.0	90.0	99.0	51.0	53.0	19.0	15.0	89.8	255.0
8	23.0	13.0	12.0	9.0	10.0	11.0	8.0	9.0	8.0	13.0	11.0	10.0	8.0	9.0	7.0	8.0	7.0	6.0	4.0	6.0	7.0	6.0	4.0	6.0	9.0	23.0
9	8.0	6.0	6.0	8.0	9.0	7.0	5.0	12.0	39.0	32.0	68.0	70.0	124.0	97.0	93.0	69.0	94.0	117.0	80.0	98.0	76.0	182.0	272.0	210.0	74.3	272.0
10	200.0	209.0	67.0	43.0	108.0	385.0	308.0	71.0	22.0	15.0	14.0	20.0	55.0	106.0	43.0	339.0	485.0	311.0	151.0	161.0	93.0	288.0	351.0	354.0	175.0	485.0
11	102.0	122.0	63.0	37.0	53.0	157.0	54.0	29.0	23.0	20.0	30.0	27.0	26.0	26.0	23.0	23.0	24.0	26.0	16.0	15.0	12.0	32.0	31.0	22.0	41.4	157.0
12	16.0	19.0	33.0	21.0	15.0	17.0	22.0	30.0	14.0	20.0	16.0	19.0	36.0	23.0	24.0	21.0	22.0	15.0	23.0	17.0	25.0	19.0	22.0	22.0	21.3	36.0
13	18.0	17.0	17.0	32.0	25.0	38.0	34.0	58.0	51.0	59.0	74.0	65.0	46.0	27.0	71.0	39.0	41.0	79.0	88.0	31.0	15.0	17.0	17.0	31.0	41.3	88.0
14	21.0	28.0	26.0	26.0	21.0	20.0	25.0	33.0	25.0	48.0	44.0	56.0	109.0	176.0	161.0	347.0	466.0	219.0	250.0	260.0	177.0	219.0	190.0	160.0	129.5	466.0
15	186.0	107.0	89.0	78.0	80.0	78.0	89.0	106.0	113.0	174.0	357.0	227.0	227.0	228.0	164.0	127.0	189.0	103.0	155.0	163.0	172.0	268.0	316.0	349.0	172.7	357.0
16	473.0	485.0	485.0	485.0	281.0	253.0	260.0	260.0	257.0	242.0	136.0	107.0	53.0	64.0	95.0	95.0	63.0	65.0	95.0	111.0	49.0	14.0	16.0	14.0	185.8	485.0
17	12.0	15.0	10.0	0.0	5.0	X	0.0	0.0	X	0.0	22.0	7.0	3.0	X	0.0	0.0	9.0	10.0	6.0	6.0	4.0	2.0	5.0	7.0	5.9	22.0
18	9.0	6.0	12.0	9.0	25.0	10.0	12.0	P	P	P	19.0	16.0	93.0	70.0	24.0	42.0	17.0	40.0	11.0	8.0	10.0	9.0	5.0	5.0	21.5	93.0
19	8.0	6.0	6.0	9.0	8.0	29.0	24.0	48.0	27.0	33.0	9.0	10.0	11.0	10.0	17.0	10.0	14.0	12.0	10.0	10.0	9.0	5.0	12.0	11.0	14.5	48.0
20	7.0	12.0	7.0	7.0	6.0	12.0	14.0	16.0	34.0	10.0	10.0	9.0	7.0	4.0	10.0	6.0	2.0	9.0	10.0	6.0	2.0	0.0	1.0	8.7	34.0	
21	6.0	8.0	11.0	8.0	4.0	8.0	8.0	17.0	9.0	11.0	18.0	9.0	6.0	8.0	7.0	8.0	6.0	8.0	4.0	5.0	8.0	8.0	6.0	6.0	8.2	18.0
22	10.0	8.0	5.0	4.0	6.0	6.0	8.0	20.0	87.0	54.0	51.0	54.0	79.0	16.0	12.0	56.0	48.0	87.0	44.0	33.0	9.0	17.0	26.0	11.0	31.3	87.0
23	8.0	4.0	0.0	0.0	1.0	1.0	4.0	4.0	29.0	45.0	43.0	16.0	28.0	28.0	4.0	17.0	10.0	7.0	5.0	8.0	5.0	5.0	3.0	11.5	45.0	
24	0.0	1.0	0.0	0.0	5.0	4.0	8.0	8.0	12.0	19.0	20.0	7.0	6.0	8.0	12.0	8.0	5.0	4.0	56.0	14.0	12.0	10.0	6.0	6.0	9.6	56.0
25	5.0	3.0	8.0	7.0	8.0	20.0	14.0	18.0	23.0	19.0	19.0	14.0	8.0	10.0	7.0	6.0	24.0	10.0	10.0	12.0	10.0	10.0	7.0	11.6	24.0	
26	10.0	9.0	9.0	10.0	9.0	23.0	17.0	25.0	21.0	25.0	20.0	30.0	53.0	47.0	80.0	115.0	71.0	47.0	53.0	81.0	58.0	133.0	109.0	68.0	46.8	133.0
27	13.0	13.0	15.0	14.0	9.0	11.0	16.0	52.0	44.0	34.0	31.0	43.0	46.0	35.0	27.0	40.0	19.0	3.0	5.0	6.0	8.0	12.0	7.0	1.0	21.0	52.0
28	0.0	16.0	9.0	8.0	8.0	11.0	13.0	14.0	10.0	19.0	33.0	25.0	26.0	24.0	21.0	17.0	27.0	24.0	41.0	32.0	12.0	10.0	10.0	10.0	47.9	180.0
29	9.0	7.0	7.0	4.0	17.0	17.0	8.0	11.0	14.0	9.0	28.0	27.0	14.0	21.0	17.0	14.0	20.0	14.0	15.0	19.0	16.0	18.0	18.0	21.0	15.9	41.0
30	7.0	15.0	10.0	13.0	8.0	16.0	14.0	73.0	54.0	43.0	38.0	16.0	12.0	17.0	14.0	20.0	14.0	15.0	19.0	16.0	18.0	18.0	21.0	21.3	20.0	
31	22.0	19.0	16.0	25.0	14.0	12.0	18.0	21.0	21.0	27.0	Y	32.0	28.0	37.0	151.0	111.0	95.0	15.0	37.0	37.0	5.0	8.0	6.0	7.0	33.2	151.0
NO.	31	31	31	31	31	30	31	30	29	30	30	30	30	31	30	31	31	31	31	31	31	31	31	31	736	99.1%
MEAN	47.1	48.3	40.3	37.7	33.4	50.3	44.9	45.7	48.3	56.4	57.3	49.3	66.7	58.7	60.1	80.7	84.3	66.8	64.5	59.3	37.8	53.3	57.3	51.8	42.0	433.3
MAX	473.0	485.0	485.0	485.0	281.0	385.0	308.0	260.0	257.0	242.0	357.0	227.0	349.0	228.0	255.0	347.0	485.0	311.0	250.0	260.0	177.0	288.0	351.0	354.0	91.1	433.3



Windridge TSP ($\mu\text{g}/\text{m}^3$) – August 2021

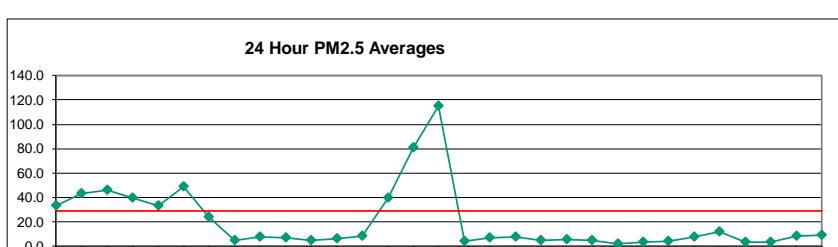
Day	HOUR																							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	45.0	111.0	76.0	59.0	54.0	51.0	53.0	56.0	58.0	62.0	68.0	66.0	48.0	44.0	45.0	53.0	64.0	47.0	47.0	56.0	74.0	75.0	83.0	68.0
2	67.0	65.0	62.0	49.0	54.0	57.0	65.0	56.0	45.0	55.0	62.0	69.0	87.0	57.0	58.0	48.0	42.0	44.0	40.0	34.0	27.0	26.0	26.0	26.0
3	34.0	41.0	49.0	55.0	57.0	68.0	90.0	76.0	79.0	142.0	186.0	204.0	198.0	170.0	184.0	252.0	260.0	267.0	289.0	253.0	47.0	41.0	50.0	40.0
4	40.0	48.0	39.0	55.0	58.0	117.0	139.0	95.0	150.0	110.0	141.0	116.0	192.0	109.0	83.0	102.0	103.0	76.0	189.0	196.0	33.0	52.0	50.0	29.0
5	27.0	30.0	28.0	27.0	26.0	37.0	39.0	51.0	47.0	92.0	69.0	149.0	143.0	132.0	149.0	154.0	104.0	196.0	209.0	130.0	44.0	48.0	68.0	50.0
6	52.0	53.0	45.0	55.0	45.0	56.0	63.0	128.0	125.0	102.0	102.0	C	465.0	210.0	141.0	311.0	296.0	289.0	73.0	53.0	49.0	45.0	42.0	41.0
7	45.0	39.0	38.0	39.0	47.0	46.0	42.0	43.0	64.0	392.0	186.0	197.0	242.0	227.0	418.0	277.0	141.0	181.0	139.0	149.0	69.0	90.0	30.0	17.0
8	35.0	25.0	17.0	17.0	10.0	10.0	11.0	10.0	7.0	16.0	15.0	12.0	17.0	16.0	12.0	10.0	10.0	15.0	16.0	6.0	13.0	8.0	20.0	
9	3.0	3.0	10.0	8.0	9.0	6.0	9.0	12.0	10.0	49.0	107.0	107.0	191.0	163.0	153.0	111.0	139.0	183.0	129.0	167.0	111.0	250.0	367.0	254.0
10	279.0	205.0	83.0	64.0	161.0	503.0	473.0	121.0	28.0	25.0	30.0	101.0	193.0	72.0	506.0	666.0	410.0	214.0	220.0	137.0	347.0	438.0	389.0	
11	137.0	183.0	134.0	65.0	80.0	250.0	91.0	46.0	26.0	27.0	45.0	40.0	40.0	33.0	37.0	27.0	35.0	30.0	26.0	24.0	24.0	43.0	45.0	30.0
12	25.0	30.0	44.0	35.0	17.0	29.0	34.0	53.0	27.0	36.0	33.0	33.0	40.0	36.0	38.0	34.0	38.0	33.0	33.0	23.0	25.0	38.0	39.0	35.0
13	26.0	17.0	25.0	40.0	35.0	59.0	63.0	90.0	71.0	92.0	124.0	83.0	60.0	40.0	125.0	59.0	69.0	131.0	140.0	41.0	22.0	25.0	21.0	51.0
14	36.0	35.0	28.0	30.0	24.0	24.0	33.0	46.0	43.0	67.0	71.0	80.0	149.0	245.0	238.0	540.0	708.0	273.0	332.0	330.0	197.0	269.0	200.0	177.0
15	205.0	112.0	96.0	83.0	87.0	89.0	104.0	134.0	125.0	205.0	536.0	266.0	262.0	288.0	204.0	181.0	245.0	174.0	152.0	224.0	175.0	365.0	459.0	471.0
16	583.0	864.0	627.0	621.0	332.0	278.0	301.0	300.0	297.0	270.0	151.0	133.0	68.0	82.0	112.0	113.0	64.0	71.0	90.0	106.0	40.0	10.0	12.0	15.0
17	8.0	7.0	8.0	6.0	6.0	5.0	3.0	3.0	11.0	11.0	27.0	6.0	4.0	11.0	9.0	8.0	6.0	9.0	7.0	7.0	6.0	9.0	8.0	6.0
18	4.0	6.0	11.0	9.0	25.0	10.0	18.0	P	P	P	28.0	21.0	136.0	93.0	32.0	53.0	27.0	73.0	17.0	9.0	18.0	15.0	8.0	6.0
19	11.0	7.0	17.0	12.0	16.0	38.0	36.0	77.0	45.0	52.0	12.0	9.0	8.0	9.0	26.0	16.0	9.0	12.0	18.0	11.0	11.0	7.0	5.0	6.0
20	6.0	9.0	5.0	2.0	2.0	7.0	12.0	17.0	27.0	56.0	13.0	13.0	9.0	13.0	12.0	12.0	11.0	9.0	8.0	7.0	6.0	9.0	7.0	7.0
21	5.0	8.0	6.0	9.0	10.0	8.0	7.0	14.0	15.0	17.0	20.0	18.0	9.0	11.0	7.0	11.0	14.0	10.0	8.0	8.0	16.0	13.0	11.0	12.0
22	15.0	6.0	7.0	9.0	7.0	7.0	13.0	38.0	156.0	84.0	95.0	91.0	151.0	24.0	32.0	83.0	73.0	150.0	65.0	36.0	5.0	29.0	40.0	17.0
23	6.0	4.0	3.0	4.0	3.0	2.0	3.0	5.0	44.0	83.0	75.0	25.0	37.0	48.0	19.0	30.0	15.0	8.0	4.0	14.0	7.0	3.0	5.0	5.0
24	4.0	5.0	4.0	3.0	3.0	3.0	7.0	6.0	26.0	38.0	42.0	2.0	5.0	17.0	30.0	8.0	6.0	9.0	18.0	9.0	6.0	6.0	6.0	6.0
25	4.0	6.0	10.0	10.0	10.0	26.0	20.0	26.0	32.0	38.0	30.0	26.0	14.0	21.0	19.0	11.0	32.0	12.0	9.0	17.0	7.0	13.0	9.0	14.0
26	12.0	10.0	16.0	10.0	11.0	40.0	27.0	37.0	35.0	44.0	38.0	48.0	90.0	86.0	132.0	198.0	121.0	65.0	123.0	165.0	106.0	233.0	171.0	111.0
27	11.0	18.0	12.0	16.0	14.0	17.0	17.0	83.0	76.0	65.0	60.0	62.0	61.0	67.0	50.0	79.0	29.0	0.0	7.0	10.0	15.0	11.0	13.0	8.0
28	5.0	6.0	10.0	7.0	7.0	10.0	9.0	7.0	4.0	27.0	46.0	43.0	45.0	39.0	98.0	237.0	178.0	125.0	271.0	206.0	115.0	99.0	79.0	38.0
29	20.0	14.0	9.0	7.0	12.0	16.0	14.0	10.0	6.0	5.0	32.0	35.0	9.0	24.0	18.0	39.0	41.0	63.0	40.0	5.0	14.0	9.0	14.0	11.0
30	8.0	16.0	14.0	16.0	11.0	18.0	13.0	130.0	91.0	73.0	60.0	34.0	26.0	29.0	16.0	37.0	28.0	20.0	28.0	22.0	24.0	21.0	28.0	30.0
31	24.0	27.0	20.0	38.0	20.0	17.0	19.0	28.0	27.0	33.0	Y	47.0	39.0	43.0	278.0	187.0	170.0	20.0	58.0	56.0	6.0	14.0	8.0	5.0



Number of 24HR Exceedences		8 Proposed Guideline
Number of Non-Zero Readings		738
Maximum 1-HR Average		864.0 $\mu\text{g}/\text{m}^3$
Maximum 24-HR Average		237.1 $\mu\text{g}/\text{m}^3$
IZS Calibration Time		
Down Time		0
Standard Deviation		104.4
Operational Time		
Opperation Uptime		
Monthly Average		74.0 $\mu\text{g}/\text{m}^3$
740 HRS		
99.5 %		
74.0 $\mu\text{g}/\text{m}^3$		

West PM_{2.5} ($\mu\text{g}/\text{m}^3$) – August 2021

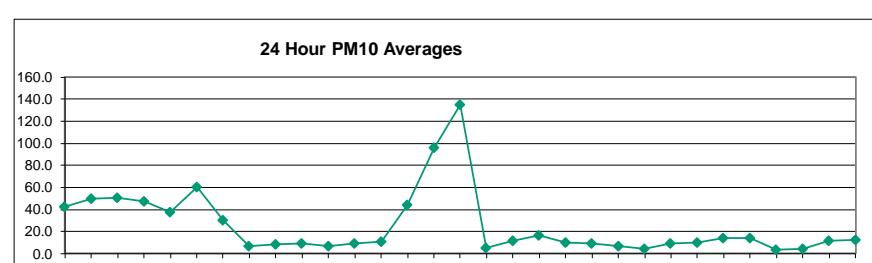
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	37.8	38.8	39.8	44.5	47.8	49.7	53.2	55.3	51.0	40.9	32.5	26.3	20.3	16.3	16.1	17.1	18.2	19.7	22.3	23.7	27.3	30.5	34.7	34.0	33.2	55.3
2	33.8	35.9	39.1	42.1	44.0	45.9	49.4	50.3	50.4	47.7	48.4	43.5	41.6	46.4	48.8	50.5	46.7	46.5	46.6	39.0	36.3	35.8	36.1	38.9	43.5	50.5
3	44.1	52.5	57.9	62.5	66.5	69.3	70.6	71.9	73.0	66.1	55.5	37.3	28.9	25.9	25.1	25.7	25.9	24.4	26.8	29.6	36.1	41.0	43.0	44.5	46.0	73.0
4	45.9	46.4	46.5	46.6	46.5	46.5	47.9	48.8	48.6	45.4	41.3	35.1	35.1	32.8	31.9	29.0	29.8	37.7	40.3	36.7	32.6	32.5	33.3	34.2	39.6	48.8
5	33.7	32.5	32.3	32.0	32.2	32.4	33.7	34.6	35.7	35.5	30.4	26.9	27.0	28.8	29.3	30.2	32.4	29.5	28.1	31.2	36.7	42.7	42.6	48.1	33.3	48.1
6	50.8	52.0	52.6	52.2	52.9	53.9	55.5	59.1	58.7	59.4	51.8	41.2	37.5	47.9	52.5	60.9	55.2	42.4	37.0	35.9	35.8	34.9	33.6	48.9	60.9	
7	31.5	31.8	30.1	29.6	28.8	28.0	28.5	31.7	48.4	69.5	42.5	22.6	14.5	10.4	8.7	9.6	11.5	13.3	12.9	14.3	11.5	12.2	13.3	14.4	23.7	69.5
8	17.3	9.6	6.3	5.1	4.8	3.6	3.2	2.8	2.9	3.1	2.5	2.5	3.1	3.1	4.3	5.8	6.2	5.0	4.1	4.1	5.5	5.2	5.1	5.7	5.0	17.3
9	6.2	6.5	6.8	6.6	6.4	6.7	8.0	7.8	8.8	9.3	7.5	5.8	5.9	6.3	5.8	5.4	4.9	5.0	6.0	7.4	8.2	9.6	11.9	13.3	7.3	13.3
10	11.6	10.1	8.7	8.1	10.8	12.8	12.7	10.7	9.3	10.5	9.2	8.8	7.2	7.0	6.5	5.3	4.4	3.7	3.0	2.7	2.3	2.4	2.4	2.2	7.2	12.8
11	2.2	2.6	2.8	3.3	3.6	3.8	5.3	5.4	5.6	6.2	5.3	5.3	6.6	6.5	8.8	7.0	4.9	4.6	5.0	5.1	5.2	4.9	4.6	4.4	5.0	8.8
12	4.0	4.1	7.8	4.1	3.3	3.2	3.3	8.6	7.4	5.7	6.2	7.1	6.5	6.4	5.9	5.9	6.2	6.9	5.9	6.1	7.3	10.0	11.0	11.7	6.4	11.7
13	11.9	12.0	13.9	13.3	12.7	12.4	11.8	11.3	10.4	9.0	6.9	7.2	7.8	6.2	4.2	3.8	2.4	4.0	2.8	3.3	3.9	5.3	8.8	11.1	8.2	13.9
14	12.1	15.4	15.1	17.9	22.0	20.9	18.9	20.8	22.2	23.9	23.1	25.2	37.7	44.1	40.9	52.5	55.9	46.3	56.5	62.4	65.1	71.6	80.2	95.0	39.4	95.0
15	105.5	94.1	87.7	84.7	80.7	82.7	87.2	86.5	95.4	137.2	110.7	94.0	82.0	58.5	36.9	19.8	13.7	11.8	27.4	55.7	73.9	109.7	147.7	164.2	81.2	164.2
16	207.6	230.6	230.1	217.6	167.1	160.3	160.9	169.5	153.8	141.9	105.2	60.1	46.0	58.4	86.0	86.8	99.5	77.4	97.3	109.4	58.8	8.7	8.7	8.3	114.6	230.6
17	9.2	7.7	5.0	3.6	3.2	3.0	3.8	6.2	4.9	2.0	1.4	2.3	2.3	3.3	4.4	3.0	2.9	2.6	2.4	2.9	3.0	3.1	3.5	8.2	3.9	9.2
18	8.1	7.5	7.8	7.9	6.9	6.8	7.8	P	9.7	P	9.8	9.9	7.0	6.0	5.0	4.6	3.4	3.5	4.3	5.3	6.0	6.2	6.2	6.8	6.7	9.9
19	6.8	7.1	7.5	8.1	10.1	9.8	9.6	9.8	18.1	9.9	9.4	8.1	8.0	9.8	9.7	9.2	6.9	6.6	6.9	4.4	5.4	3.1	3.0	2.5	7.9	18.1
20	2.9	2.7	4.0	4.8	4.7	4.4	5.9	9.1	5.9	6.7	7.4	5.9	7.2	3.8	4.2	4.1	3.2	2.7	2.5	6.3	3.4	3.6	3.5	4.7	4.7	9.1
21	5.7	5.1	4.8	5.2	4.5	4.9	5.5	8.3	7.0	6.1	6.2	5.5	5.5	5.2	4.7	5.3	5.2	4.8	4.7	4.7	5.0	5.1	5.4	6.0	5.4	8.3
22	6.6	6.6	6.5	6.5	6.3	6.2	6.4	7.1	6.7	7.8	6.3	5.9	6.1	5.2	5.9	5.7	5.4	4.7	2.5	2.6	1.9	2.5	2.1	1.4	5.2	7.8
23	1.5	1.5	1.6	1.6	1.6	1.7	2.2	3.7	3.4	2.9	3.4	3.3	3.4	3.1	2.8	2.2	1.1	0.9	1.0	1.0	1.0	1.1	1.0	1.1	2.0	3.7
24	1.3	1.1	1.1	1.2	1.4	6.4	13.4	5.5	3.3	2.4	1.9	2.7	2.0	2.7	4.4	3.7	3.8	3.2	4.2	4.2	4.8	4.4	4.0	4.5	3.7	13.4
25	4.6	4.0	3.8	3.5	3.1	3.3	4.5	6.2	5.9	5.5	4.6	3.9	2.3	2.9	3.6	2.8	3.5	3.9	3.0	4.0	5.5	5.5	6.2	6.4	4.3	6.4
26	5.7	5.1	4.8	4.6	4.8	5.4	6.9	7.7	8.3	6.7	7.2	7.3	6.4	6.4	7.3	7.1	7.4	8.0	10.3	12.1	15.5	14.5	14.5	7.9	15.5	
27	14.9	14.9	15.2	15.4	15.3	15.7	16.4	17.6	17.2	16.9	17.1	17.5	17.2	13.2	8.5	10.0	7.0	4.7	4.8	5.3	5.6	5.4	2.0	2.9	11.7	17.6
28	3.9	5.5	4.4	5.8	5.9	5.4	5.4	5.7	5.2	5.6	2.8	1.9	1.6	1.5	1.2	1.3	1.5	1.3	1.4	1.6	1.6	1.5	1.9	3.2	5.9	
29	2.6	2.3	2.5	2.8	3.2	3.4	3.8	3.9	4.1	4.2	4.1	2.7	2.3	2.0	2.7	2.4	2.2	2.2	2.6	3.3	3.8	4.7	5.4	6.1	3.3	6.1
30	6.8	7.4	7.8	8.3	8.5	9.1	9.9	10.5	9.5	8.8	7.8	7.4	7.2	7.5	7.7	7.0	5.8	6.5	6.5	7.7	9.7	12.7	15.2	12.9	8.7	15.2
31	8.3	7.9	8.0	8.0	10.5	9.1	10.8	10.7	9.8	10.2	11.9	12.9	14.1	14.9	14.5	13.5	6.6	6.3	5.5	5.7	5.7	5.9	5.6	5.1	9.2	14.9
NO.	31	31	31	31	31	31	31	30	31	30	31	31	31	31	31	31	31	31	31	31	31	31	31	31	742	100%
MEAN	24.0	24.6	24.6	24.4	23.2	23.4	24.6	26.2	25.8	27.0	22.2	18.0	16.3	15.5	15.9	15.8	15.8	14.6	15.7	17.3	16.8	17.4	19.3	20.9		
MAX	207.6	230.6	230.1	217.6	167.1	160.3	160.9	169.5	153.8	141.9	110.7	94.0	82.0	58.5	86.0	86.8	99.5	77.4	97.3	109.4	73.9	109.7	147.7	164.2		



Number of 24HR Exceedences	9	Proposed Guideline
Number of Non-Zero Readings	742	
Maximum 1-HR Average	230.6 UG/M3	
Maximum 24-HR Average	114.6 UG/M3	
Izs Calibration Time		
Down Time	0	
Standard Deviation	29.93	
Operational Time		
Operational Uptime		
Monthly Average		
	742 HRS	
	99.7 %	
	20.4 UG/M3	

West PM₁₀ ($\mu\text{g}/\text{m}^3$) – August 2021

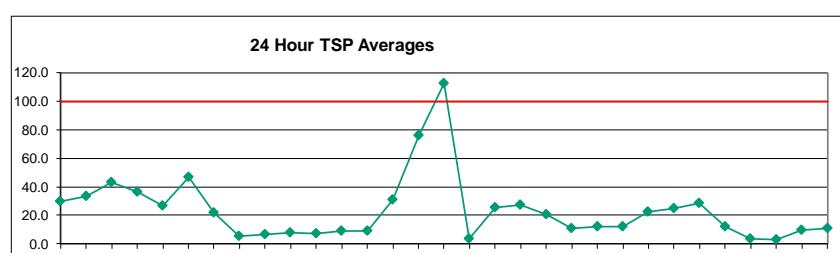
Day	HOUR																								MEAN	MAX	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1	52.2	51.6	50.2	52.1	54.4	55.3	59.2	63.1	63.0	53.2	43.2	35.5	29.1	22.5	21.5	23.4	25.8	27.5	30.5	31.2	37.7	43.2	51.2	48.9	42.7	63.1	
2	48.6	49.6	53.2	56.7	59.9	63.2	63.0	55.8	55.0	51.3	56.5	49.6	47.3	52.6	51.4	52.6	48.5	47.7	47.5	39.7	36.8	36.4	36.6	39.6	50.0	63.2	
3	44.8	53.1	58.8	63.5	67.6	70.2	72.1	73.5	77.8	84.6	72.2	53.0	36.1	32.3	32.4	30.3	30.7	26.9	29.2	31.0	37.1	43.5	45.2	46.7	50.5	84.6	
4	47.9	49.1	48.1	49.3	48.0	49.1	55.9	67.0	70.5	64.8	58.4	50.9	49.2	43.9	44.0	37.3	35.3	45.2	45.4	40.0	33.8	33.3	34.3	34.8	47.3	70.5	
5	34.4	32.9	32.7	32.4	32.8	33.1	37.2	41.7	46.7	44.4	39.8	37.3	37.6	36.7	36.8	36.2	36.4	32.2	30.7	32.4	38.0	44.8	45.0	53.5	37.7	53.5	
6	53.9	54.5	55.4	54.1	55.3	56.7	65.4	84.5	82.2	82.1	85.4	68.1	51.9	46.9	58.2	62.1	66.7	58.8	53.6	53.9	51.9	52.5	51.4	49.6	60.6	85.4	
7	45.3	45.9	43.0	42.3	41.3	39.3	38.8	45.9	70.3	81.7	48.0	27.3	16.3	11.4	11.0	11.3	13.0	14.6	14.2	15.9	12.5	12.8	14.4	14.7	30.5	81.7	
8	18.2	12.8	9.0	6.9	6.7	5.0	4.5	3.6	3.8	4.4	3.4	3.4	4.3	4.3	6.2	8.4	9.0	7.0	5.5	5.3	7.7	6.9	6.6	6.9	6.6	18.2	
9	7.1	7.2	7.4	7.1	6.8	7.1	9.2	9.2	11.3	12.0	9.6	7.3	8.0	8.7	8.0	7.3	6.1	6.4	7.3	8.3	8.8	10.5	13.4	14.6	8.7	14.6	
10	12.5	10.9	9.3	8.7	11.7	13.7	14.5	13.1	14.0	15.6	13.8	12.7	9.3	9.1	8.8	7.3	5.7	4.5	3.6	3.3	2.8	2.9	2.7	2.5	8.9	15.6	
11	2.6	3.0	3.0	3.6	3.9	4.1	7.0	8.0	8.4	9.3	7.9	7.9	9.8	9.7	13.1	10.5	7.3	6.9	7.4	7.4	7.7	7.2	6.8	6.5	7.0	13.1	
12	5.8	5.8	11.6	6.0	4.6	4.5	4.6	12.7	11.1	8.4	9.3	10.6	9.8	9.5	8.9	8.8	9.2	10.4	8.8	9.0	10.2	13.8	15.0	16.5	9.4	16.5	
13	16.9	17.0	20.2	19.1	17.5	16.7	16.2	14.7	13.5	12.1	8.8	10.3	10.5	8.6	5.8	5.3	3.0	5.0	3.4	3.8	4.5	6.2	10.3	13.2	10.9	20.2	
14	14.1	18.6	18.6	21.2	25.3	23.6	21.4	24.1	25.2	30.4	29.1	32.0	45.4	51.3	48.0	60.1	63.5	49.9	60.5	66.5	68.6	75.8	83.1	98.6	44.0	98.6	
15	110.9	120.3	106.7	95.9	95.4	98.3	103.4	105.6	122.6	156.2	122.2	103.0	91.9	64.9	42.3	22.9	16.7	14.1	30.9	63.5	85.8	135.3	190.2	202.8	95.9	202.8	
16	248.7	277.4	273.8	255.7	185.4	179.0	198.5	174.6	167.3	147.7	83.7	63.8	83.7	118.3	110.9	110.9	110.9	82.4	100.7	111.6	59.9	9.5	9.6	9.1	134.8	277.4	
17	9.8	8.5	5.5	4.1	3.7	3.7	5.3	9.1	8.0	2.7	1.7	3.9	3.9	6.0	7.4	4.6	3.7	3.1	2.9	3.3	3.5	3.8	4.3	11.7	5.2	11.7	
18	11.4	10.0	9.1	8.7	7.6	8.1	8.7	P	14.0	P	18.2	25.9	19.2	19.8	18.5	13.7	6.7	5.6	6.3	8.9	10.6	9.1	7.7	8.8	11.7	25.9	
19	8.0	8.0	10.1	12.1	15.2	18.8	16.1	15.2	94.7	21.8	15.6	13.5	16.0	25.3	26.1	22.2	8.8	9.1	9.7	5.8	7.0	4.0	4.6	3.2	16.3	94.7	
20	3.7	3.5	5.2	6.1	6.0	5.5	8.7	15.0	7.3	9.4	15.6	20.1	29.2	11.3	18.1	18.0	12.0	8.3	3.5	13.1	4.1	5.0	4.6	7.0	10.0	29.2	
21	8.6	7.3	6.7	7.4	6.1	6.8	7.9	12.6	13.3	11.1	11.8	8.4	9.9	9.4	7.2	12.1	7.2	6.4	9.8	12.4	8.0	7.4	7.4	9.1	9.1	13.3	
22	7.5	7.5	7.2	7.1	7.0	7.0	7.8	10.3	8.8	14.5	7.1	8.0	9.5	8.1	9.6	8.4	7.4	5.8	3.1	3.3	2.2	3.1	2.5	1.7	6.9	14.5	
23	1.7	1.7	2.0	2.0	2.0	3.0	4.4	11.5	9.8	8.2	9.1	8.3	10.3	4.6	3.6	2.8	1.4	1.1	1.3	1.4	1.2	1.4	1.3	1.4	4.0	11.5	
24	1.7	1.4	1.5	1.5	2.0	8.8	17.6	11.5	10.1	11.5	9.3	13.1	7.6	12.8	20.4	16.3	13.1	13.0	11.9	6.3	7.1	6.5	5.9	6.7	9.1	9.1	20.4
25	6.6	5.4	4.9	4.6	3.9	4.3	6.3	9.2	8.8	16.1	20.9	18.4	9.0	12.7	18.4	10.2	19.8	19.5	5.9	5.8	8.2	9.4	9.6	10.3	10.3	20.9	
26	8.2	7.9	6.8	6.1	5.7	6.2	7.5	10.1	11.3	12.4	19.8	33.9	32.1	24.4	25.5	20.0	9.5	9.3	9.3	12.1	13.4	17.1	15.6	16.1	14.2	33.9	
27	15.9	15.9	16.2	16.7	16.4	17.0	19.9	23.3	22.3	23.0	23.2	23.6	23.7	17.3	10.1	12.8	8.5	6.3	5.8	6.7	6.2	5.8	2.3	3.5	14.3	23.7	
28	4.7	6.4	5.0	6.6	6.6	6.1	6.7	7.3	8.0	3.7	2.9	2.8	2.4	1.6	1.7	1.9	1.6	2.0	2.0	1.9	1.7	2.3	3.9	8.0	3.9	8.0	
29	3.2	2.7	3.0	3.3	3.8	4.1	4.5	4.6	4.9	5.0	5.3	3.4	2.9	2.5	3.5	3.3	2.8	3.4	4.2	4.6	5.8	6.5	7.4	4.1	7.4	4.1	
30	8.0	8.5	9.3	10.1	10.0	10.9	12.8	13.7	12.4	11.4	10.1	9.1	9.2	10.9	11.2	10.4	8.5	9.6	9.5	10.7	13.4	17.5	19.7	14.8	11.3	19.7	
31	11.4	11.2	11.2	11.1	14.8	12.6	13.4	13.2	12.8	13.6	15.7	17.2	19.3	20.4	20.2	19.0	8.7	7.0	6.0	6.2	6.3	6.4	6.0	5.5	12.0	20.4	
NO.	31	31	31	31	31	31	31	30	31	30	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	742	100%
MEAN	28.2	29.5	29.2	28.5	26.7	27.0	29.0	32.9	35.4	34.9	30.4	25.9	23.4	22.1	23.1	21.6	19.6	17.7	18.4	20.2	19.5	20.6	23.1	24.7			
MAX	248.7	277.4	273.8	255.7	185.4	173.5	179.0	198.5	174.6	167.3	147.7	103.0	91.9	83.7	118.3	110.9	110.9	82.4	100.7	111.6	85.8	135.3	190.2	202.8			



Number of Non-Zero Readings	742
Maximum 1-HR Average	277.4 UG/M3
Maximum 24-HR Average	134.8 UG/M3
Izs Calibration Time	
Down Time	0
OperratioEl Time	
Standard Deviation	34.8
OperratioEl Uptime	
Monthly Average	
	742 HRS
	99.7 %
	25.4 UG/M3

West TSP ($\mu\text{g}/\text{m}^3$) – August 2021

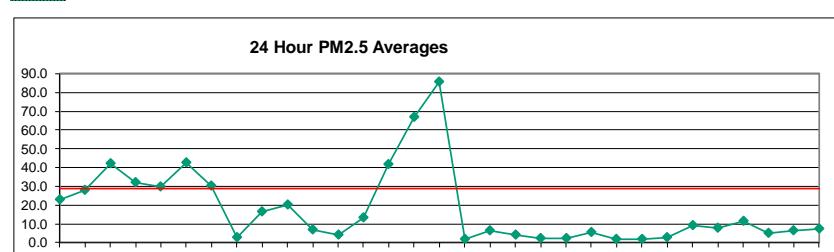
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	35.1	34.4	33.0	34.1	35.4	36.2	38.7	42.5	43.7	37.9	30.5	25.5	23.1	16.7	15.6	17.8	20.9	21.0	22.0	21.7	27.4	31.3	38.8	35.2	29.9	43.7
2	35.1	34.3	35.6	37.6	40.9	43.4	42.1	36.3	36.5	33.7	39.7	33.8	33.2	35.8	33.8	34.0	31.6	31.2	30.8	25.7	23.8	23.6	23.7	25.5	33.4	43.4
3	29.1	34.3	38.0	41.0	43.9	45.3	47.1	48.1	63.2	117.7	127.5	94.5	35.9	25.1	25.9	21.6	22.1	17.9	19.4	20.4	24.0	28.6	29.5	30.4	42.9	127.5
4	31.1	32.2	31.3	32.1	31.1	32.4	39.5	51.7	60.8	56.0	50.9	47.1	50.5	46.8	42.0	28.5	24.5	32.1	31.4	26.6	22.2	21.6	22.2	22.6	36.1	60.8
5	22.3	21.3	21.2	20.9	21.3	21.3	25.7	30.1	36.5	34.2	31.2	32.8	32.4	28.6	28.2	26.2	25.4	21.7	20.6	21.2	24.8	29.3	29.6	35.4	26.8	36.5
6	35.2	35.6	37.1	35.4	36.1	37.7	47.6	73.4	69.5	69.0	76.5	55.4	42.1	37.0	44.0	45.9	47.5	40.2	50.8	48.5	42.2	40.7	39.7	39.4	46.9	76.5
7	31.4	32.3	30.1	29.7	29.3	27.4	26.6	34.0	56.0	63.8	34.2	20.8	11.4	7.8	8.7	8.4	9.2	10.0	10.0	11.2	8.5	8.5	9.5	9.5	22.0	63.8
8	12.6	12.5	8.0	5.3	5.6	4.3	3.9	2.7	2.9	3.7	2.9	2.8	3.5	3.6	5.4	6.8	7.2	5.5	4.0	3.8	5.7	4.9	4.5	4.6	5.3	12.6
9	4.7	4.7	4.9	4.6	4.4	4.6	6.3	6.4	8.8	9.6	7.8	6.0	6.9	8.1	7.1	6.1	4.6	5.0	5.4	5.8	5.9	7.4	9.6	10.2	6.4	10.2
10	8.5	7.3	6.1	5.8	7.9	9.1	10.3	11.5	16.1	18.2	15.8	13.1	10.1	8.6	8.4	6.6	4.7	3.3	2.6	2.5	2.0	2.1	1.9	1.7	7.7	18.2
11	1.8	2.1	2.0	2.4	2.6	2.8	6.6	9.1	9.7	10.5	8.9	8.9	11.1	10.9	15.1	11.7	7.5	7.0	7.1	6.8	7.9	7.3	6.8	6.3	7.2	15.1
12	5.1	5.4	13.1	5.6	3.9	3.7	3.7	14.3	12.4	8.8	9.9	11.7	10.8	10.7	9.9	9.7	10.3	11.7	9.2	8.6	9.4	11.4	10.9	12.2	9.3	14.3
13	12.6	12.2	15.6	14.2	12.2	11.7	12.5	15.2	14.1	11.5	9.8	10.3	9.3	7.8	5.5	4.9	2.3	3.8	2.5	2.6	3.1	4.2	6.9	9.0	8.9	15.6
14	9.6	12.6	12.6	14.1	16.8	15.5	14.3	17.0	17.0	22.3	20.9	23.4	32.9	37.3	34.7	45.2	48.3	34.9	43.0	46.9	47.2	51.6	55.7	66.2	30.8	66.2
15	76.9	91.9	72.3	63.2	63.7	65.4	70.2	73.3	92.1	122.7	95.1	77.1	72.1	48.7	31.7	16.7	12.8	10.5	23.2	49.4	71.9	127.9	194.5	195.2	75.8	195.2
16	236.7	269.8	260.1	238.0	153.2	132.7	140.0	159.8	140.0	137.8	136.4	70.0	51.8	72.7	96.8	85.0	73.3	53.8	65.6	72.3	38.7	6.2	6.2	5.9	112.6	269.8
17	6.4	5.5	3.6	2.7	2.4	2.5	4.1	7.3	6.0	1.8	1.1	2.6	2.5	5.5	4.8	2.9	2.4	2.0	1.9	2.2	2.3	2.5	2.7	7.5	3.6	7.5
18	8.4	6.4	5.9	5.6	4.9	5.3	5.6	P	28.8	P	74.7	84.8	66.1	84.6	66.9	42.7	14.7	4.8	4.5	11.4	11.3	9.5	5.5	12.4	25.7	84.8
19	7.2	8.2	14.6	10.8	19.7	29.5	18.7	14.5	169.5	42.0	14.1	27.0	50.9	59.1	74.9	55.6	6.0	7.8	6.6	3.9	4.7	2.8	3.0	2.7	27.2	169.5
20	2.4	2.3	3.4	3.9	3.9	3.6	5.7	10.7	4.7	9.1	42.5	62.6	83.9	37.9	60.3	62.2	43.1	21.2	3.2	17.4	2.6	3.3	3.0	4.6	20.7	83.9
21	5.6	4.7	4.4	4.8	3.9	4.4	5.1	8.3	21.2	26.8	17.1	8.6	19.1	21.6	11.2	25.0	8.3	10.9	10.9	12.8	12.0	6.1	5.6	4.9	11.0	26.8
22	7.2	4.8	4.7	4.6	4.5	5.5	17.7	16.7	30.0	51.9	9.4	19.6	28.5	12.8	23.9	12.3	21.3	4.9	2.4	2.4	1.5	2.1	1.7	1.1	12.1	51.9
23	1.2	1.1	1.3	1.3	1.3	4.1	8.9	40.0	33.4	54.0	28.0	52.0	37.9	8.6	3.1	2.3	1.0	0.7	0.9	0.9	0.8	1.0	1.0	1.0	11.9	54.0
24	1.3	1.1	1.1	1.2	1.6	6.3	11.6	28.3	33.1	48.4	29.4	63.1	24.1	46.1	64.0	60.0	29.4	38.3	21.6	6.3	7.0	5.8	5.5	6.4	22.5	64.0
25	5.3	3.8	3.4	3.2	2.6	3.0	5.2	9.7	9.7	43.1	56.7	86.4	40.6	39.6	59.0	51.2	48.7	77.8	9.3	5.2	8.2	7.9	9.4	9.1	24.9	86.4
26	6.5	6.0	4.7	4.2	3.8	4.2	5.8	10.3	12.8	13.7	55.1	90.6	150.9	77.5	94.3	65.2	7.9	6.9	6.3	8.1	8.9	12.0	10.3	10.9	28.2	150.9
27	10.3	10.5	10.5	11.0	10.6	11.2	14.8	21.9	24.0	22.9	23.5	24.2	23.1	14.5	7.8	10.0	6.9	5.3	4.0	5.0	4.1	3.8	1.5	2.3	11.8	24.2
28	3.2	4.2	3.3	4.3	4.2	4.0	4.0	4.5	9.7	14.3	4.8	4.2	7.5	5.1	1.2	1.3	1.5	1.1	1.1	1.4	1.3	1.2	1.6	3.8	3.8	14.3
29	2.2	1.8	2.0	2.2	2.5	2.7	3.0	3.1	3.4	3.5	4.2	2.5	2.2	1.9	3.1	2.8	2.6	2.1	2.4	2.9	3.1	4.0	4.4	5.0	2.9	5.0
30	5.2	5.5	6.3	6.9	6.6	7.4	9.8	14.0	12.8	11.6	10.2	10.6	9.8	11.8	11.7	11.5	8.6	9.6	8.2	8.4	9.7	12.6	13.4	9.8	9.7	14.0
31	9.6	8.2	8.5	9.3	12.0	10.4	15.1	15.2	13.1	13.6	16.2	17.5	18.3	20.0	18.6	16.2	7.1	4.5	3.9	4.1	4.1	4.2	3.9	3.5	10.7	20.0
NO.	31	31	31	31	31	31	31	30	31	30	31	31	31	31	31	31	31	31	31	31	31	31	31	31	742	100%
MEAN	21.6	23.1	22.5	21.3	19.1	19.3	21.6	27.7	35.2	37.1	35.0	35.1	32.3	27.5	29.6	25.7	18.1	16.4	14.0	15.0	14.4	15.7	18.1	19.1		
MAX	236.7	269.8	260.1	238.0	153.2	132.7	140.0	159.8	169.5	137.8	136.4	94.5	150.9	84.6	96.8	85.0	73.3	77.8	65.6	72.3	71.9	127.9	194.5	195.2		



Number of 24HR Exceedences	1	Proposed Guideline
Number of Non-Zero Readings	742	
Maximum 1-HR Average	269.8 UG/M3	
Maximum 24-HR Average	112.6 UG/M3	
Izs Calibration Time		
Down Time	0	
Standard Deviation	31.89	
Operational Time		
Operational Uptime		
Monthly Average		
	742 HRS	
	99.7 %	
	23.5 UG/M3	

Berm PM_{2.5} ($\mu\text{g}/\text{m}^3$) – August 2021

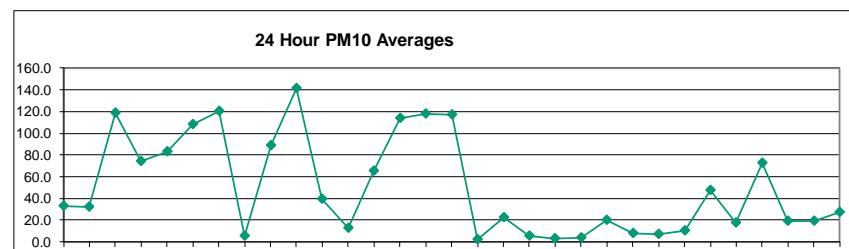
DAY	HOUR																								MEAN	MAX		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24				
1	22.5	24.2	26.0	30.6	31.8	33.9	34.9	38.6	36.3	29.1	25.1	18.6	12.5	11.7	11.6	12.8	14.4	14.4	15.9	17.0	19.8	21.3	23.5	22.6	22.9	38.6		
2	24.2	26.5	27.0	27.4	28.3	29.6	32.5	32.4	32.2	30.8	31.2	28.4	28.5	29.4	31.2	31.9	29.5	29.2	28.5	23.3	21.7	21.4	22.2	24.1	28.0	32.5		
3	28.2	33.6	38.0	41.9	43.7	46.2	48.2	47.9	49.3	45.4	50.5	44.3	42.7	37.7	51.7	58.8	41.2	53.2	56.7	39.3	23.5	27.7	30.4	30.6	42.1	58.8		
4	31.3	34.0	33.1	34.4	35.4	38.1	41.5	34.9	37.2	32.3	37.2	34.5	35.5	26.2	22.7	32.8	31.5	26.6	39.0	33.8	23.2	25.3	25.2	24.0	32.1	41.5		
5	22.1	22.2	21.8	21.6	21.9	22.8	23.0	24.5	24.9	27.7	23.3	43.0	39.1	37.6	47.0	39.1	31.7	47.2	40.7	24.7	23.4	28.0	30.0	31.9	30.0	47.2		
6	33.6	36.1	36.1	36.9	37.2	38.3	38.9	49.4	44.5	44.5	44.1	42.7	79.4	57.6	55.6	77.0	73.4	64.8	27.7	23.2	22.0	20.5	18.9	18.2	42.5	79.4		
7	19.1	17.9	17.3	16.8	16.3	17.4	18.9	17.7	24.8	87.3	115.3	64.1	36.0	32.2	51.0	36.9	22.5	21.9	18.3	25.9	16.9	12.0	11.4	9.0	30.3	115.3		
8	10.6	6.4	3.5	3.6	2.9	2.2	2.0	1.9	1.7	2.2	1.8	1.6	1.4	1.8	2.2	2.6	2.8	2.3	2.1	2.2	2.4	2.0	3.2	3.5	2.9	10.6		
9	2.9	3.0	3.4	3.6	3.5	3.6	4.4	4.7	5.7	9.7	25.2	15.1	30.3	28.4	14.8	15.6	18.8	21.4	12.6	20.9	18.3	36.7	49.9	39.5	16.3	49.9		
10	31.6	19.6	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	89.6	70.8	35.1	33.9	19.9	43.7	78.1	56.3	20.0	89.6
11	15.0	19.5	9.2	6.5	10.3	33.4	10.6	3.2	3.5	2.9	3.6	3.5	3.5	4.0	5.1	4.3	3.8	3.4	3.0	3.1	4.6	3.2	3.4	2.6	6.9	33.4		
12	2.3	3.4	5.8	4.4	2.6	2.7	2.1	6.4	3.1	3.5	3.4	4.0	4.7	3.9	3.7	3.7	3.9	3.5	3.4	3.9	5.6	7.1	7.1	6.3	4.2	7.1		
13	6.6	6.7	9.1	10.4	11.6	11.3	12.2	13.4	12.2	12.5	14.2	15.6	27.2	29.0	29.5	17.4	15.8	18.8	21.7	4.3	3.3	4.5	4.9	10.3	13.4	29.5		
14	11.4	15.4	15.0	14.7	16.8	14.6	14.4	16.9	17.4	19.8	19.4	21.7	37.7	55.8	54.6	93.7	109.9	55.1	66.4	73.5	59.8	65.9	62.2	70.1	41.8	109.9		
15	77.1	61.6	59.3	54.8	59.6	64.2	65.2	67.4	80.3	114.0	104.7	82.5	79.7	66.6	39.4	31.9	28.7	19.7	27.0	47.7	50.0	84.1	113.5	123.7	66.8	123.7		
16	164.3	198.2	185.4	178.5	133.8	124.6	126.0	129.2	121.1	111.1	75.8	43.2	32.6	41.2	53.1	56.3	46.4	49.1	63.8	72.5	29.2	4.4	5.3	5.0	85.4	198.2		
17	4.7	4.1	2.9	2.1	1.6	1.3	1.1	1.5	3.2	1.1	2.2	1.5	0.8	1.6	2.1	1.0	1.3	1.2	1.1	1.0	1.1	1.3	1.5	1.8	4.7			
18	1.8	2.5	3.5	3.7	5.6	4.2	4.7	4.3	4.9	6.2	7.3	5.1	11.5	14.3	16.8	12.8	12.4	8.1	2.8	3.1	3.4	3.4	3.7	4.3	6.3	16.8		
19	4.6	4.8	4.5	5.1	4.3	5.9	5.6	6.2	5.5	5.6	5.2	4.5	4.3	3.5	4.5	4.2	3.6	3.8	4.1	3.2	2.4	1.4	1.7	2.4	4.2	6.2		
20	2.0	1.7	2.0	2.1	2.3	2.2	3.6	3.5	4.3	5.0	2.4	1.5	1.3	1.4	1.3	1.5	1.2	1.1	1.4	1.9	1.3	1.3	1.5	2.1	5.0			
21	1.6	1.7	2.3	1.9	1.6	1.8	2.4	3.5	2.9	2.8	3.6	2.5	2.3	2.2	2.2	2.5	2.5	2.2	2.2	2.4	3.1	3.0	2.8	3.7	2.5	3.7		
22	3.9	4.4	3.8	3.9	3.8	3.9	3.8	3.6	8.5	15.7	10.3	9.3	11.8	5.8	4.2	5.9	5.0	12.2	4.4	2.7	1.2	2.5	1.2	0.7	5.6	15.7		
23	0.8	0.8	0.8	0.9	1.0	1.2	1.3	1.8	3.7	5.6	4.5	5.6	5.3	2.2	2.5	1.3	1.0	1.4	0.8	0.5	0.6	0.6	0.9	1.9	5.6			
24	0.8	0.7	0.7	0.7	0.7	0.9	3.3	2.3	2.5	4.7	4.6	2.2	3.4	2.4	2.2	2.2	1.4	1.1	1.9	1.4	1.6	1.5	1.6	1.8	1.9	4.7		
25	2.0	3.0	3.1	3.4	2.6	4.1	3.9	3.5	4.6	4.9	5.6	3.7	3.6	3.1	1.7	1.8	2.2	1.8	1.9	1.9	2.0	1.9	2.0	2.9	5.6			
26	2.9	3.9	3.4	2.6	2.7	4.6	3.7	5.5	4.6	4.6	5.8	4.3	8.6	9.8	16.0	13.8	13.1	8.5	12.5	16.9	12.5	23.5	22.9	13.9	9.2	23.5		
27	8.8	8.9	8.9	8.7	8.6	8.8	9.0	12.7	12.8	12.2	12.2	11.9	14.7	11.4	6.8	12.0	4.9	2.1	2.3	2.9	3.3	3.2	2.5	1.3	7.9	14.7		
28	2.2	2.7	2.4	3.1	3.3	3.6	6.5	3.0	3.3	5.3	12.9	10.3	9.6	16.2	20.8	36.9	24.3	15.8	40.2	21.7	11.2	8.8	10.7	2.5	11.5	40.2		
29	3.9	3.8	1.8	1.7	3.4	3.4	3.0	2.3	2.8	2.4	4.0	5.7	3.0	9.4	15.9	12.7	9.7	7.8	4.2	2.6	1.9	2.5	4.2	4.4	4.8	15.9		
30	3.6	7.2	5.3	6.7	5.6	5.4	7.8	13.5	12.5	12.3	9.1	4.9	3.6	3.6	3.2	3.4	4.0	3.5	4.0	4.8	5.2	6.8	8.9	7.0	6.3	13.5		
31	4.5	4.5	4.3	6.1	4.0	4.0	4.5	5.7	6.3	6.5	7.4	7.8	7.4	9.2	32.3	22.4	13.4	4.0	8.0	6.7	3.5	3.4	2.8	2.5	7.5	32.3		
NO.	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	744	100%		
MEAN	17.8	18.8	17.4	17.4	16.3	17.4	17.4	18.2	18.5	21.5	21.7	17.5	18.8	18.1	19.5	21.0	21.4	18.6	17.9	16.9	12.8	15.2	18.0	17.0				
MAX	164.3	198.2	185.4	178.5	133.8	124.6	126.0	129.2	121.1	114.0	115.3	82.5	79.7	66.6	55.6	93.7	109.9	70.8	66.4	73.5	59.8	84.1	113.5	123.7				



Number of 24HR Exceedances	8	Proposed Guideline
Number of Non-Zero Readings	731	
Maximum 1-HR Average	198.2 UG/M3	
Maximum 24-HR Average	85.4 UG/M3	
Monthly Calibration Standard Deviation	0	Operational Time
	25.4	Operational Uptime
		744 HRS
		100.0 %
		18.1 UG/M3

Berm PM₁₀ ($\mu\text{g}/\text{m}^3$) – August 2021

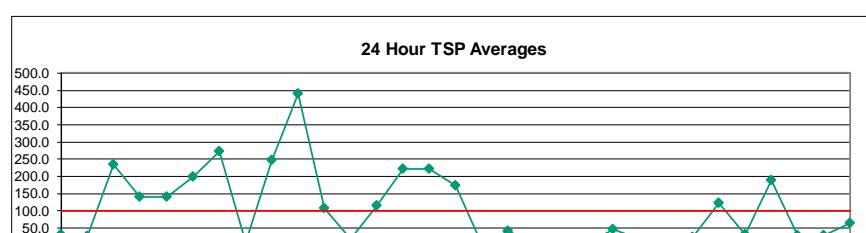
DAY	HOUR																								MEAN	MAX	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1	26.1	34.3	33.6	38.4	36.8	37.0	40.0	54.4	50.4	40.5	44.9	29.4	19.6	18.0	16.3	21.2	33.5	23.4	23.6	22.9	33.2	35.1	39.0	33.9	32.7	54.4	
2	35.4	34.9	33.8	31.7	32.9	37.2	40.8	35.8	40.8	33.2	39.1	34.2	40.2	34.1	33.0	32.7	29.9	30.3	29.4	24.6	22.7	22.2	24.1	24.9	32.4	40.8	
3	28.7	34.0	39.7	44.7	44.9	49.3	56.3	50.9	52.7	80.0	157.2	162.7	206.5	152.0	241.6	331.2	189.8	295.0	302.8	200.8	25.4	30.9	32.8	30.9	118.4	331.2	
4	31.8	38.8	36.6	41.1	46.8	76.2	126.4	72.8	99.7	69.1	126.8	115.2	135.9	60.1	40.6	124.8	124.6	44.2	135.1	99.2	29.8	36.7	34.0	26.7	73.9	135.9	
5	22.9	23.2	22.3	21.9	22.4	24.6	25.7	35.9	35.2	62.7	43.3	229.9	163.2	168.3	225.7	157.2	91.2	225.0	193.1	63.6	27.3	31.1	38.8	37.3	83.0	229.9	
6	34.8	41.2	38.4	42.1	40.6	43.8	44.6	101.0	78.6	71.2	74.8	104.3	419.1	260.7	194.0	344.4	233.4	223.8	69.0	33.6	30.0	27.1	25.1	23.6	108.3	419.1	
7	26.7	23.9	21.9	21.2	20.4	22.6	24.3	22.5	33.0	322.6	532.1	303.9	191.3	174.0	295.9	236.4	131.4	108.8	92.1	132.1	69.3	36.0	26.9	10.4	120.0	532.1	
8	19.3	13.9	6.6	7.5	5.9	4.8	3.8	3.4	3.2	4.9	3.9	3.4	2.7	3.7	4.2	3.8	4.5	3.6	2.9	2.6	3.5	2.7	6.5	4.5	5.2	19.3	
9	3.2	3.2	3.6	3.9	3.8	3.8	4.8	5.8	10.2	37.3	134.7	78.9	167.5	163.6	84.9	85.7	112.7	132.3	60.7	118.9	118.2	248.8	316.9	228.8	88.8	316.9	
10	208.4	112.9	0.0	58.7	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	647.2	477.5	242.5	242.1	145.6	335.7	534.5	391.0	141.5	647.2		
11	106.9	138.6	57.5	34.9	67.5	255.3	76.7	13.5	11.7	9.7	12.5	12.3	12.8	12.1	17.9	13.7	12.0	11.4	8.9	9.1	14.6	9.5	10.9	6.7	39.0	255.3	
12	4.9	9.6	17.2	12.0	6.5	7.6	4.8	26.4	9.7	11.2	11.8	14.6	16.9	14.7	14.0	13.3	15.2	13.4	10.9	11.0	13.2	15.1	13.9	8.7	12.4	26.4	
13	8.9	8.9	18.2	23.2	30.0	38.1	47.1	77.6	61.4	71.0	105.7	97.3	136.6	145.6	181.7	105.5	94.0	114.7	137.8	9.1	9.0	8.6	8.7	18.8	64.9	181.7	
14	16.5	20.8	17.8	16.7	19.7	21.4	16.4	21.7	28.6	37.3	38.3	42.7	97.3	191.1	210.0	394.3	518.0	181.1	199.7	215.2	109.8	126.6	86.5	94.9	113.4	518.0	
15	88.0	82.0	67.6	60.6	66.2	70.1	77.5	92.0	89.7	153.0	189.7	140.1	169.9	203.6	108.6	129.2	148.9	93.5	96.8	94.2	75.0	147.2	192.6	190.1	117.8	203.6	
16	238.0	335.7	259.4	272.2	167.3	147.4	166.3	164.7	151.6	150.7	135.6	83.3	49.3	58.9	70.5	72.6	49.2	51.0	66.9	72.7	29.5	4.6	5.4	5.1	117.0	335.7	
17	4.7	4.2	3.0	2.3	1.7	1.4	1.1	1.8	4.4	1.3	2.9	1.8	0.9	2.1	2.8	1.3	1.6	1.4	1.2	1.1	1.4	1.2	1.6	1.8	2.0	4.7	
18	2.1	3.0	4.2	4.5	7.8	5.7	6.1	5.6	6.6	12.3	29.8	17.7	59.4	75.6	89.9	72.3	65.1	51.5	5.6	3.9	4.4	4.7	4.1	4.8	22.8	89.9	
19	5.6	6.2	4.8	7.5	4.7	11.0	9.0	10.2	7.1	8.5	5.9	4.8	4.7	3.8	7.2	5.0	3.8	4.1	4.5	3.7	2.6	1.6	2.2	3.3	5.5	11.0	
20	2.7	2.1	2.3	2.5	2.9	2.7	5.0	4.6	6.0	7.4	3.7	2.4	2.2	2.5	2.1	2.9	1.5	1.3	1.6	2.2	1.4	1.4	1.5	1.8	2.8	7.4	
21	2.0	2.1	3.0	2.3	1.8	2.1	2.9	4.3	3.6	4.6	7.2	3.6	2.9	2.8	2.7	3.0	2.9	2.8	2.6	3.7	5.8	5.1	3.9	4.6	3.4	7.2	
22	4.6	5.4	4.1	4.2	4.2	4.5	4.4	19.7	32.0	73.5	42.6	47.6	59.9	23.3	10.5	25.2	17.0	67.9	18.0	7.8	1.4	3.5	1.5	0.8	20.1	73.5	
23	0.9	0.8	0.9	0.9	1.0	1.3	1.5	1.7	6.8	18.6	33.1	25.6	28.1	29.7	7.1	12.5	3.3	2.3	3.4	1.0	0.6	0.8	0.8	1.2	7.7	33.1	
24	1.0	0.9	0.9	0.9	1.1	3.9	2.7	3.6	28.2	39.2	15.0	21.0	11.5	9.7	6.5	3.9	1.8	2.6	2.8	3.0	2.2	2.8	3.2	7.1	39.2		
25	3.0	6.4	5.7	4.7	3.4	5.9	6.3	13.6	26.6	29.6	38.0	19.1	21.2	16.2	5.3	5.7	8.4	4.5	4.1	3.4	2.7	2.8	2.8	2.7	10.1	38.0	
26	5.0	8.4	6.8	4.3	5.4	19.5	13.5	26.7	21.8	30.7	27.7	18.2	48.2	64.8	124.7	88.3	76.0	35.8	73.6	104.7	51.3	127.6	114.4	35.0	47.2	127.6	
27	9.6	9.6	9.8	10.0	9.7	9.8	11.9	31.5	37.9	37.1	39.3	31.8	44.8	33.2	15.8	49.9	12.1	2.5	2.8	3.7	3.6	3.4	2.8	2.0	17.7	49.9	
28	2.7	3.0	2.8	3.2	3.6	4.2	8.7	4.5	5.5	18.0	69.7	60.5	63.5	111.4	162.3	275.4	194.8	119.9	305.3	148.4	59.3	44.3	57.3	9.6	72.4	305.3	
29	15.6	13.5	3.5	2.6	8.6	8.3	6.1	3.9	5.7	4.0	11.2	18.9	12.7	52.9	86.7	71.0	46.3	40.4	16.6	6.1	2.3	3.6	8.5	8.5	19.1	86.7	
30	4.1	16.2	10.7	14.3	10.5	9.8	22.4	62.7	58.6	63.7	40.6	18.0	9.7	9.9	7.6	10.5	13.1	8.8	10.0	9.5	8.0	9.0	14.0	11.7	18.9	63.7	
31	8.1	7.1	6.4	10.9	6.0	5.9	5.9	7.9	11.4	13.3	16.2	16.2	13.9	21.8	199.3	122.7	74.7	5.2	48.9	30.5	6.7	6.4	3.4	2.9	27.2	199.3	
NO.	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	744	100%
MEAN	31.4	33.7	24.0	26.0	22.1	30.1	27.9	31.6	32.1	48.6	66.4	56.6	71.7	68.5	79.8	90.9	95.5	76.7	70.1	54.3	29.4	43.1	52.2	39.7			
MAX	238.0	335.7	259.4	272.2	167.3	255.3	166.3	164.7	151.6	322.6	532.1	303.9	419.1	260.7	295.9	394.3	647.2	477.5	305.3	242.1	145.6	335.7	534.5	391.0			



Number of Non-Zero Readings	734
Maximum 1-HR Average	647.2 UG/M3
Maximum 24-HR Average	141.5 UG/M3
Monthly Calibration Standard Deviation	80.04
Operational Time	744 HRS
Operational Uptime	100.0 %
Monthly Average	50.1 UG/M3

Berm TSP ($\mu\text{g}/\text{m}^3$) – August 2021

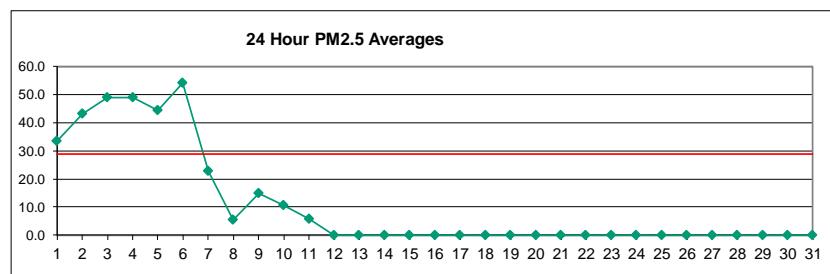
DAY	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	18.5	28.9	25.2	31.9	33.2	27.4	33.6	54.1	59.7	40.4	42.3	23.9	20.9	19.0	17.5	22.3	52.1	27.8	23.0	19.6	32.6	33.0	38.9	31.8	31.6	59.7
2	33.0	26.6	25.4	22.9	23.3	29.3	33.2	25.2	41.8	23.7	27.7	28.1	34.7	26.3	22.7	21.1	19.3	19.7	19.4	16.2	14.7	14.4	15.6	16.1	24.2	41.8
3	18.6	22.0	25.8	30.1	29.4	34.2	45.2	35.6	40.3	147.1	364.8	357.9	498.1	332.0	512.4	754.9	453.5	667.9	695.1	470.7	18.1	29.5	22.8	20.5	234.4	754.9
4	23.2	30.6	24.0	28.2	39.9	131.5	335.8	129.9	213.2	99.8	267.6	222.5	231.3	67.5	44.4	239.0	397.7	71.2	331.1	254.0	37.9	50.1	41.4	20.7	138.9	397.7
5	16.3	15.6	14.7	14.3	14.7	16.8	18.8	61.5	46.0	123.7	80.9	468.3	286.7	338.1	417.3	272.5	165.6	418.8	355.5	117.0	24.4	23.4	41.5	30.3	141.0	468.3
6	23.4	30.9	27.1	43.2	35.3	40.0	46.1	146.6	101.1	94.7	89.0	183.8	962.8	560.3	403.4	665.9	521.7	479.2	150.0	44.4	37.5	33.8	26.5	24.1	198.8	962.8
7	23.7	26.6	15.2	14.7	14.3	15.4	16.6	15.6	28.6	669.7	1096.4	726.2	512.5	374.3	767.8	671.1	357.5	316.6	240.4	401.0	151.6	58.5	34.5	6.8	273.2	1096.4
8	28.5	25.6	8.0	7.0	10.3	4.9	3.8	4.9	2.8	4.6	4.3	3.6	2.4	5.3	4.8	4.1	4.2	2.8	2.0	1.7	3.4	2.3	7.8	3.3	6.4	28.5
9	2.2	2.1	2.4	2.6	2.5	2.4	3.4	8.8	12.0	88.9	289.5	168.9	389.8	420.8	227.7	228.0	293.8	389.5	171.1	357.0	371.0	826.4	974.5	246.2	974.5	
10	772.9	414.9	0.0	49.0	0.0	0.5	14.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1858.8	1400.7	759.8	759.7	501.1	1134.1	1610.1	1280.0	439.8	1858.8	
11	337.1	495.6	186.9	112.7	199.7	702.6	179.3	29.3	18.3	22.6	26.5	27.1	29.6	17.8	29.9	28.5	20.0	17.8	12.9	16.8	22.2	12.4	14.6	7.2	107.0	702.6
12	6.1	20.6	22.9	14.1	10.6	8.8	4.2	42.2	20.5	16.4	18.5	19.0	24.4	23.2	21.9	23.7	29.5	20.1	15.4	13.7	22.8	17.2	14.5	7.6	18.2	42.2
13	8.9	10.9	15.8	23.9	36.2	73.2	98.7	180.3	135.3	148.2	221.1	164.7	194.6	168.7	323.1	191.7	187.8	227.2	253.6	13.8	10.1	8.7	12.8	21.4	113.8	323.1
14	19.7	26.1	19.5	13.2	17.5	50.8	12.9	20.8	34.7	56.6	48.6	60.2	181.4	355.3	415.9	909.6	1286.6	434.3	390.8	454.9	128.2	155.2	107.3	95.3	220.6	1286.6
15	72.9	97.5	55.1	46.2	60.5	61.8	74.2	100.6	93.0	195.1	353.3	254.2	310.4	490.9	232.6	319.6	427.2	277.0	248.0	195.3	154.1	379.7	462.5	368.4	222.1	490.9
16	431.6	666.8	453.9	518.9	259.7	165.3	202.8	205.6	179.9	182.0	224.9	139.2	71.2	76.4	86.1	91.8	35.3	34.0	45.1	46.9	19.2	3.0	3.5	3.3	172.8	666.8
17	3.1	2.7	1.9	1.5	1.1	0.9	0.7	1.2	3.7	0.8	2.3	1.3	0.6	1.8	2.3	0.9	1.1	0.9	0.8	0.7	1.0	0.8	1.1	1.2	1.4	3.7
18	1.3	2.2	2.9	3.8	6.2	4.6	4.9	4.5	5.6	19.8	64.9	35.5	131.1	164.0	160.5	123.1	100.5	108.4	8.2	3.9	5.6	6.0	3.7	27.1	41.6	164.0
19	4.8	8.2	3.1	5.1	3.3	9.1	9.5	10.5	8.3	9.1	4.0	3.2	3.1	2.6	12.6	4.3	2.5	2.7	3.0	2.5	1.7	1.0	1.5	2.7	4.9	12.6
20	2.2	1.5	1.5	1.7	2.1	1.8	3.9	3.4	4.6	6.8	3.1	2.0	5.2	2.6	1.6	4.0	1.1	0.9	1.1	1.4	0.9	0.9	1.0	1.2	2.4	6.8
21	1.4	1.4	2.1	1.6	1.2	1.4	2.0	2.9	2.6	3.7	9.1	4.0	2.0	2.0	1.9	3.6	2.0	4.5	1.9	3.2	6.8	5.5	4.8	3.3	3.1	9.1
22	3.3	3.8	2.7	2.8	2.8	3.0	3.5	43.0	86.7	199.0	81.3	134.0	147.6	55.3	20.9	70.7	33.2	156.5	45.2	15.2	1.0	2.8	1.0	0.6	46.5	199.0
23	0.6	0.6	0.6	0.6	0.7	0.9	1.1	1.4	22.4	58.1	83.8	72.1	82.9	70.4	13.6	30.5	3.2	2.2	2.6	0.7	0.4	0.5	0.6	0.9	18.8	83.8
24	0.8	0.6	0.6	0.6	0.6	0.7	2.6	1.9	3.5	71.8	93.0	34.4	53.3	22.1	22.7	8.4	6.9	2.0	1.9	4.8	5.1	2.6	2.5	14.4	93.0	
25	2.4	6.1	6.0	4.3	3.0	5.8	7.7	39.7	101.3	110.2	119.0	35.0	43.7	27.6	9.2	8.2	16.5	6.9	5.2	4.6	1.8	2.1	2.5	2.4	23.8	119.0
26	5.0	8.6	7.6	4.2	7.0	62.1	50.4	111.6	71.2	90.4	75.0	30.6	108.3	188.6	346.9	253.9	195.1	77.9	201.6	292.1	126.8	317.7	269.5	53.5	123.2	346.9
27	6.7	20.2	9.6	8.0	8.5	7.2	15.6	48.4	74.1	64.8	64.6	42.6	65.9	58.3	33.7	138.4	24.5	2.4	2.6	3.1	2.5	2.7	1.9	2.1	29.5	138.4
28	2.1	2.1	2.1	2.5	3.1	8.2	6.1	6.8	38.3	153.2	120.2	195.1	228.2	477.9	758.7	620.3	355.3	889.7	355.6	90.0	75.1	94.1	16.5	187.6	889.7	
29	16.1	12.2	4.9	2.8	9.1	8.9	11.2	5.7	10.4	6.3	10.7	14.4	20.5	80.9	144.9	139.2	68.3	64.7	19.9	6.3	1.5	3.5	6.3	7.0	28.2	144.9
30	2.8	12.1	15.6	13.2	12.2	7.2	25.4	96.6	88.6	104.1	74.2	29.6	11.7	16.4	11.0	17.1	19.4	11.6	12.3	9.7	6.3	7.0	21.2	20.1	26.9	104.1
31	10.2	7.4	6.9	8.4	6.0	7.8	5.5	6.5	13.5	22.7	25.9	23.6	18.3	33.0	519.8	332.0	242.0	5.3	129.5	77.6	11.5	9.8	2.3	1.9	63.7	519.8
NO.	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	744	100%
MEAN	61.3	65.5	31.9	33.3	27.5	48.1	41.1	46.6	49.4	87.7	129.7	110.6	149.7	136.4	171.2	204.4	240.2	180.9	162.5	127.9	58.4	103.9	124.0	88.8		
MAX	772.9	666.8	453.9	518.9	259.7	702.6	335.8	205.6	213.2	669.7	1096.4	726.2	962.8	560.3	767.8	909.6	1858.8	889.7	759.7	501.1	1134.1	1610.1	1280.0			



Number of 24HR Exceedences	14	Proposed Guideline
Number of Non-Zero Readings	734	
Maximum 1-HR Average	1858.8	UG/M3
Maximum 24-HR Average	439.8	UG/M3
I2S Calibration Time	0	
Monthly Calibration	206.4	
Standard Deviation		
Operational Time	744 HRS	
Operational Uptime	100.0 %	
Monthly Average	103.4	UG/M3

Entrance PM_{2.5} ($\mu\text{g}/\text{m}^3$) – August 2021

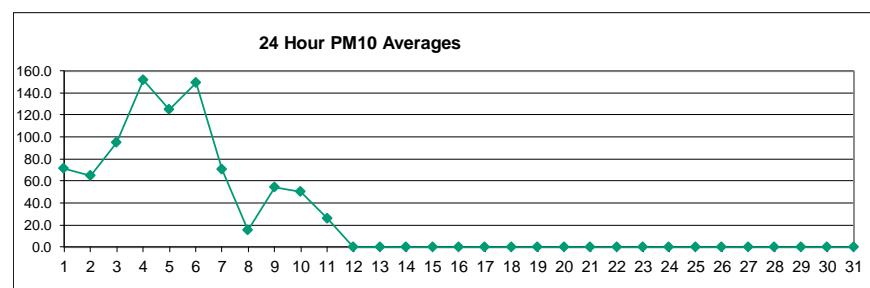
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	34.1	34.3	40.0	50.3	52.3	53.9	71.5	59.0	51.3	51.2	28.9	20.8	17.0	16.0	14.3	15.6	21.3	17.8	20.0	22.1	26.1	27.6	30.3	29.4	33.5	71.5
2	30.0	33.6	36.1	35.0	36.6	40.1	49.9	43.7	46.7	41.3	39.9	37.8	37.0	40.7	45.7	49.1	46.5	45.4	42.3	40.6	42.2	44.7	91.3	39.2	43.1	91.3
3	45.6	57.7	68.2	68.9	65.9	70.4	89.9	95.1	85.6	78.1	59.4	36.4	32.0	26.4	25.8	24.1	27.6	22.2	22.8	25.6	33.4	36.4	41.0	39.2	49.1	95.1
4	42.7	55.6	59.0	53.4	54.8	63.6	65.3	65.5	56.9	55.8	53.0	38.0	37.2	35.3	36.6	29.1	37.1	51.9	41.7	31.1	41.4	43.4	59.0	64.9	48.8	65.5
5	50.5	48.4	43.3	47.9	40.5	52.6	53.4	54.8	60.0	66.1	60.7	41.8	26.8	28.4	32.1	34.7	43.7	30.9	24.8	31.1	37.4	45.6	47.8	58.6	44.2	66.1
6	57.0	62.1	56.9	68.7	80.6	79.6	64.0	53.8	83.0	81.8	87.8	57.9	50.3	43.8	42.0	48.8	60.5	57.6	32.2	28.2	26.4	25.7	23.3	23.4	54.0	87.8
7	22.9	21.7	20.8	20.9	21.5	20.8	21.8	21.9	26.1	62.7	43.9	22.5	15.9	17.4	15.2	37.9	21.3	18.6	22.5	21.1	13.1	9.2	11.6	13.4	22.7	62.7
8	23.0	7.2	4.6	4.1	3.6	3.0	3.4	3.3	3.2	4.1	2.9	3.0	3.3	3.3	3.7	4.2	4.3	4.7	6.1	3.7	4.7	4.5	5.1	14.0	5.3	23.0
9	13.1	13.0	16.4	25.3	26.3	16.4	24.2	29.7	28.0	15.0	13.4	10.9	15.0	9.6	7.1	6.0	8.6	6.4	6.6	8.6	10.0	14.2	17.3	12.8	14.8	29.7
10	16.9	12.3	13.9	7.9	10.2	11.4	15.3	11.0	5.6	6.7	7.0	6.7	15.1	10.5	7.3	13.6	16.3	8.9	5.3	9.1	8.8	16.6	8.4	8.5	10.6	16.9
11	3.6	4.9	3.6	5.1	7.5	6.6	7.4	7.9	5.7	5.3	6.2	5.1	5.0	5.1	5.8	5.5	5.8	6.1	6.9	6.3	G	G	G	G	5.8	7.9
12	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
13	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
14	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
15	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
16	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
17	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
18	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
19	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
20	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
21	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
22	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
23	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
24	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
25	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
26	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
27	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
28	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
29	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
30	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
31	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
NO.	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	10	10	10	10	260	35%
MEAN	30.9	31.9	33.0	35.2	36.3	38.0	42.4	40.5	41.1	42.6	36.7	25.5	23.1	21.5	21.4	24.4	26.6	24.6	21.0	20.7	24.4	26.8	33.5	30.3		
MAX	57.0	62.1	68.2	68.9	80.6	79.6	89.9	95.1	85.6	81.8	87.8	57.9	50.3	43.8	45.7	49.1	60.5	57.6	42.3	40.6	42.2	45.6	91.3	64.9		



Number of 24HR Exceedences	6	Proposed Guideline
Number of Non-Zero Readings	260	
Maximum 1-HR Average	95.1 UG/M3	
Maximum 24-HR Average	54.0 UG/M3	
Monthly Calibration Standard Deviation	21.97	Opperational Time Opperational Uptime Monthly Average
		260 HRS 34.9 % 30.5 UG/M3

Entrance PM₁₀ ($\mu\text{g}/\text{m}^3$) – August 2021

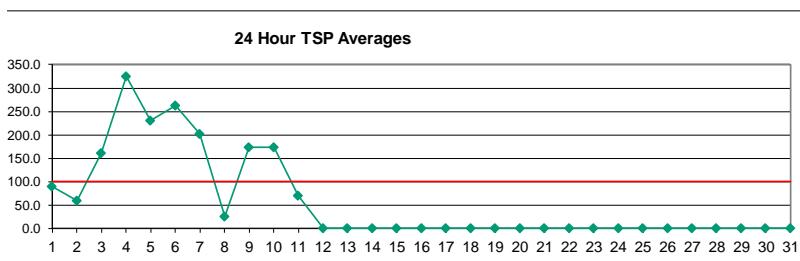
Day	HOUR																								MEAN	MAX			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24					
1	51.4	49.1	71.1	124.1	112.2	111.3	164.4	151.4	91.8	143.8	49.6	33.7	44.9	37.6	25.7	32.8	77.6	34.8	33.1	40.2	52.6	53.8	66.6	50.9	71.0	164.4			
2	50.1	55.5	68.2	53.0	62.3	66.7	98.8	55.2	77.8	54.9	51.2	53.7	53.2	52.8	57.7	68.1	69.1	67.9	56.1	59.5	62.9	66.4	136.5	55.7	64.7	136.5			
3	61.6	83.9	101.3	100.4	89.1	97.6	125.0	187.1	239.0	236.5	169.9	74.4	74.5	72.4	77.0	49.9	85.5	39.0	33.9	31.3	74.0	67.2	63.4	51.4	95.2	239.0			
4	65.7	181.0	192.8	144.0	162.8	225.5	252.6	243.9	180.8	194.6	154.6	77.6	88.4	102.1	121.9	75.2	113.9	202.0	133.5	63.3	126.8	122.3	192.0	213.3	151.3	252.6	124.8	365.9	
5	126.4	72.6	64.9	71.9	60.2	78.9	93.7	178.0	248.6	365.9	341.7	157.6	62.0	54.0	77.0	101.3	149.6	56.8	45.5	67.7	105.8	124.6	125.1	164.8	149.6	363.4	70.6	333.7	
6	144.4	170.7	126.5	192.9	240.9	246.1	171.6	114.2	298.9	333.9	363.4	170.8	165.2	199.8	89.2	86.6	106.2	106.1	87.8	43.9	35.4	32.9	29.2	33.1	-	-	-	-	
7	31.5	28.5	27.1	28.1	30.0	29.0	30.7	30.5	41.6	144.6	120.1	73.8	44.5	85.9	100.1	333.7	126.4	83.5	114.3	102.0	36.1	10.5	17.8	24.2	-	-	-	-	
8	97.2	13.4	9.4	8.7	9.0	7.9	10.5	9.9	9.6	15.0	9.6	11.8	13.0	11.3	9.8	8.3	11.4	11.9	27.6	7.7	12.5	9.8	7.0	20.9	-	-	-	-	
9	19.5	19.3	24.6	38.0	39.4	24.6	36.3	156.1	156.0	60.6	80.3	70.9	108.5	53.9	37.4	29.5	38.2	33.1	31.8	28.0	31.6	64.2	91.6	31.0	-	-	-	-	
10	78.7	48.9	67.5	21.7	23.3	22.8	45.3	53.9	21.3	29.8	29.0	29.7	81.7	52.3	37.3	82.3	110.1	47.3	18.9	41.9	48.8	116.2	42.3	48.3	-	-	-	-	
11	12.0	21.5	10.6	16.1	24.7	22.2	35.0	39.9	29.0	25.0	33.8	25.7	25.7	26.0	29.0	23.5	26.8	26.7	30.3	29.4	G	G	G	G	25.6	39.9	-	-	-
12	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-	-	-		
13	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-	-	-		
14	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-	-	-		
15	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-	-	-		
16	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-	-	-		
17	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-	-	-		
18	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-	-	-		
19	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-	-	-		
20	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-	-	-		
21	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-	-	-		
22	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-	-	-		
23	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-	-	-		
24	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-	-	-		
25	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-	-	-		
26	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-	-	-		
27	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-	-	-		
28	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-	-	-		
29	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-	-	-		
30	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-	-	-		
31	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-	-	-		
NO.	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	10	10	10	10	260	35%			
MEAN	67.1	67.7	69.4	72.6	77.6	84.8	96.7	110.9	126.8	145.9	127.6	70.9	69.2	68.0	60.2	81.0	83.2	64.5	55.7	46.8	58.7	66.8	77.2	69.4					
MAX	144.4	181.0	192.8	192.9	240.9	246.1	252.6	243.9	298.9	365.9	363.4	170.8	165.2	199.8	121.9	333.7	149.6	202.0	133.5	102.0	126.8	124.6	192.0	213.3					



Number of Non-Zero Readings		260
Maximum 1-HR Average	365.9 $\mu\text{g}/\text{m}^3$	
Maximum 24-HR Average	151.3 $\mu\text{g}/\text{m}^3$	
Monthly Calibration Standard Deviation	69.32	Operational Time 0 Operational Uptime Monthly Average
		260 HRS 34.9 % 80.1 $\mu\text{g}/\text{m}^3$

Entrance TSP ($\mu\text{g}/\text{m}^3$) – August 2021

Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	41.0	44.7	70.8	179.1	191.4	153.0	156.6	203.2	121.3	165.4	58.0	37.0	82.2	58.0	32.1	61.0	159.8	53.9	38.3	45.8	52.0	53.1	63.4	45.9	90.3	203.2
2	52.3	47.3	85.1	46.4	64.7	59.8	100.9	40.9	69.7	42.3	39.8	47.3	45.4	59.8	39.7	51.8	55.5	66.8	39.4	48.1	53.1	61.8	149.9	43.5	58.8	149.9
3	51.8	70.8	93.6	89.2	68.2	79.7	118.5	316.4	474.4	556.5	461.9	169.7	176.2	185.4	204.8	90.5	219.2	60.8	61.6	26.2	86.2	84.2	82.3	47.2	161.5	556.5
4	76.1	401.3	289.3	314.6	452.3	569.7	798.9	567.8	440.8	497.2	286.9	105.9	108.1	191.8	221.3	130.6	184.5	483.5	397.8	162.7	203.2	226.8	345.5	358.0	325.6	798.9
5	165.8	76.6	60.9	73.5	55.7	84.1	142.6	362.4	560.5	1032.4	847.8	312.7	132.6	71.0	117.6	191.2	274.7	77.9	64.9	83.8	164.4	134.6	176.7	257.7	230.1	1032.4
6	251.3	233.4	130.6	233.0	303.0	380.3	244.6	193.0	539.4	711.5	727.3	338.2	396.8	493.4	178.1	129.5	180.6	168.8	276.7	70.8	36.4	28.0	26.7	33.7	262.7	727.3
7	25.3	20.0	18.7	20.0	21.7	21.1	22.7	23.1	54.9	355.2	324.9	257.6	110.6	282.8	354.3	1261.1	422.7	288.6	405.3	371.3	103.6	8.9	20.8	45.8	201.7	1261.1
8	212.6	23.1	11.9	9.7	20.5	13.0	19.3	12.4	15.2	21.7	17.5	18.0	20.3	17.2	8.8	12.1	32.0	14.6	49.2	19.5	21.9	9.2	5.7	21.3	26.1	212.6
9	20.7	20.3	26.7	43.1	44.5	26.4	41.4	529.0	465.8	204.1	304.9	245.6	396.7	203.4	141.5	97.1	117.9	131.6	118.3	95.4	116.8	255.9	408.3	104.5	173.3	529.0
10	329.5	197.5	240.8	71.3	73.1	61.8	128.2	212.9	59.7	77.5	70.3	76.7	244.9	159.9	91.3	289.2	413.7	168.8	64.1	139.2	170.1	459.5	165.8	203.0	173.7	459.5
11	33.5	92.1	35.0	33.6	66.4	49.2	106.7	150.8	78.0	69.2	92.8	84.8	70.9	80.0	82.0	58.8	60.9	58.2	57.3	61.7	G	G	G	G	71.1	150.8
12	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-	
13	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-	
14	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-	
15	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-	
16	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-	
17	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-	
18	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-	
19	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-	
20	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-	
21	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-	
22	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-	
23	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-	
24	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-	
25	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-	
26	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-	
27	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-	
28	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-	
29	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-	
30	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-	
31	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-	
NO.	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	10	10	10	10	260	35%
MEAN	114.5	111.6	96.7	101.2	123.8	136.2	171.0	237.5	261.8	339.4	293.8	154.0	162.2	163.9	133.8	215.7	192.9	143.0	143.0	102.2	100.8	132.2	144.5	116.1		
MAX	329.5	401.3	289.3	314.6	452.3	569.7	798.9	567.8	560.5	1032.4	847.8	338.2	396.8	493.4	354.3	1261.1	422.7	483.5	405.3	371.3	203.2	459.5	408.3	358.0		



Number of 24HR Exceedences	7	Proposed Guideline
Number of Non-Zero Readings	260	
Maximum 1-HR Average	1261.1 $\mu\text{g}/\text{m}^3$	
Maximum 24-HR Average	325.6 $\mu\text{g}/\text{m}^3$	
Monthly Calibration Standard Deviation	178.6	Opperational Time 0 Opperational Uptime 34.9 % Monthly Average 162.7 $\mu\text{g}/\text{m}^3$