LAFARGE CANADA INC.

AMBIENT AIR QUALITY MONTHLY REPORT

SEPTEMBER 2021

OCTOBER 22, 2021

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SEPTEMBER 2021

LAFARGE CANADA INC.

PROJECT NO.: 171-00556-05
DATE: OCTOBER 22, 2021

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October 22, 2021

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

Attention: Nikolaos Veriotes P. Eng.

Dear Mr. Veriotes,

Subject: Ambient Air Quality Monthly Report – September 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 September 2021.

Lagoon	Data Completeness (%)	1-Hour Average	24-hour Average
		Exceedances of AAAQO or AAAQG	Exceedances of AAAQO
TSP	98.9%	-	2
$PM_{2.5}$	98.9%	0	0
PM_{10}	98.9%	-	-
NO	100%	-	-
NO_2	100%	0	-
NO_x	100%	-	-
SO_2	100%	0	0
Met Parameters	100%	-	-

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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 September 2021.

Windridge	Data Completeness (%)	1-Hour Average	24-hour Average	
		Exceedances of AAAQG	Exceedances of $PM_{2.5}$ AAAQO	Exceedances of TSP AAAQO
TSP	99.9%	-	-	12
$PM_{2.5}$	99.9%	0	0	-
PM_{10}	97.6%	-	-	-

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 September 2021.

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	100%	0	0	0
Berm	100%	3	1	19
Entrance	0%	0	0	0

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

Sincerely,

Tyler Abel, M.Sc.
Team Leader, Environmental Management, Vancouver Office

SIGNATURES

PREPARED BY

October 22, 2021

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

Date

APPROVED[1] BY *(must be reviewed for technical accuracy prior to approval)*

October 22, 2021

Tyler Abel, M.Sc.
Team Leader, Environmental Management,
Vancouver Region, Environment

Date

[1] Approval of this document is an administrative function indicating readiness for release and does not impart legal liability on to the Approver for any technical content contained herein. Technical accuracy and fit-for-purpose of this content is obtained through the review process. The Approver shall ensure the applicable review process has occurred prior to signing the document.

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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 September 1, 2021 and September 30, 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 September 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)

2 SEPTEMBER 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)	100.0	41.0	0	12.0	-
SO_2 (ppb)	100.0	12.5	0	3.3	0
$PM_{2.5}$ (µg/m^3)	98.9	74.4	0[1]	19.1	0
PM_{10} (µg/m^3)	98.9	466.1	-	73.7	-
TSP (µg/m^3)	98.9	977.0	-	147.3	2
Temperature (°C)	100.0	26.1	-	19.8	-
Wind Speed (km/hr) /Direction (Degrees)	100.0	49.8/W	-	30.8/WSW	-
Precipitation (mm)	100.0	2.75[2]	-	19.75[3]	-

[1] Any exceedances reported for 1-hour $PM_{2.5}$ are over the guideline level (AAAQG) of 80 µg/m^3.
[2] Maximum Daily Total Accumulation of Precipitation (mm)
[3] Monthly Total Accumulation of Precipitation (mm)

Data Quality Notes:

- There were zero days exceeding the 24-hour $PM_{2.5}$ AAAQO.
- There were zero exceedances the 1-hour $PM_{2.5}$ AAAQG.
- There were 2 days exceeding the 24-hour TSP AAAQO.

Calibration/Maintenance Notes:

- At the Lagoon station, meteorological sensors, SO_2 and NO_2 had 100% uptime for the month of September.
- TSP, PM_{10}, and $PM_{2.5}$ monitors recorded 98.9% uptime respectively, due to seven hours of power failure on September 1st at 9:00 to 15:00. And further, one hour of power failure on September 23rd at 2:00.
- The meteorological station anemometer received annual calibration and maintenance on September 27th at 11:00 & 12:00.

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)	99.9	62.0	0*	20.9	0
PM_{10} (µg/m^3)	97.6	485.0	-	153.6	-
TSP (µg/m^3)	99.9	880.0	-	203.6	12

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

Data Quality Notes:

- There was zero days exceeding the 24-hour $PM_{2.5}$ AAAQO.
- There was zero exceedances of the 1-hour $PM_{2.5}$ AAAQG.
- There were 12 days exceeding the 24-hour TSP AAAQO.

Calibration/Maintenance Notes:

- TSP and $PM_{2.5}$ recorded 99.9% uptime for the month of September due to one hour of power failure occurring on September 6th at 12:00.
- The PM_{10} monitor recorded 97.6% uptime for the month of September due to one hour of power failure occurring on September 6th at 12:00. And further, 16 hours of equipment malfunction occurring on September 29th at 22:00 to September 30th at 13:00 due to a filter tape break.

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)	100.0	50.4	0*	18.1	0
PM_{10} (µg/m^3)	100.0	56.4	-	21.1	-
TSP (µg/m^3)	100.0	60.2	-	15.9	0

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

Data Quality Notes:

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

Calibration/Maintenance Notes:

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

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	124.6	3*	34.9	1
PM_{10} (µg/m^3)	100.0	795.1	-	185.3	-
TSP (µg/m^3)	100.0	2066.2	-	617.4	19

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

Data Quality Notes:

- There was 1 exceedance of the 24-hour $PM_{2.5}$ Guidelines.
- There was 3 exceedances of the 1-hour $PM_{2.5}$ Guidelines.

- There were 19 days exceeding the 24-hour TSP Guidelines.

Calibration/Maintenance Notes:

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

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
$PM_{2.5}$ ($\mu g/m^3$)	0.0	0.0	0*	0.0	0
PM_{10} ($\mu g/m^3$)	0.0	0.0	-	0.0	-
TSP ($\mu g/m^3$)	0.0	0.0	-	0.0	0

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

Data Quality Notes:

- There was zero exceedances of the 24-hour $PM_{2.5}$ Guidelines.
- There was zero exceedances of the 1-hour $PM_{2.5}$ Guidelines.
- There were zero days exceeding the 24-hour TSP Guidelines.

Calibration/Maintenance Notes:

- The analyzer had 0% uptime for the month of September due to equipment being removed for repair from September 1st at 1:00 to September 30th at 24:00. Repair has been delayed due to pump availability / shipping delays from the manufacturer.

3 LAGOON STATION

The Lagoon trailer contains NO_x, SO_2, TSP, PM_{10}, 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) and tables and graphs illustrating the monitoring results for September 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 September 22nd. The monitor had 98.9% uptime due to seven hours of power failure occurring on September 1st at 9:00 to September 1st at 15:00. And further, one hour of power failure occurring on September 23rd at 2:00.
PM_{10} Concentrations	MetOne BAM-1020 Continuous Particulate Monitor	The PM_{10} monitor was calibrated on September 22nd. The monitor had 98.9% uptime due to seven hours of power failure occurring on September 1st at 9:00 to September 1st at 15:00. And further, one hour of power failure occurring on September 23rd at 2:00.
TSP Concentrations	MetOne BAM-1020 Continuous Particulate Monitor	The TSP monitor was calibrated on September 22nd. The monitor had 98.9% uptime due to seven hours of power failure occurring on September 1st at 9:00 to September 1st at 15:00. And further, one hour of power failure occurring on September 23rd at 2:00.
Oxides of Nitrogen	TEI 42C	The NO_x monitor was calibrated on September 22nd. The monitor had 100% uptime for the month of September.
Sulphur Dioxide	Teledyne API 102A	The SO_2 monitor was calibrated on September 22nd. The monitor had 100% uptime for the month of September.

Precipitation	MetOne 130 Rain/Snow Gauge	The monitor had 100% uptime for the month of September.
Wind Speed	MetOne Wind Sensor	The monitor had 100% uptime for the month of September. The anemometer received annual calibration and maintenance on September 27th at 11:00 & 12:00.
Wind Direction		
Ambient Temperature	MetOne Ambient Temperature Sensor	The monitor had 100% uptime for the month of September.

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 September 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 September 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 NO_2, SO_2, $PM_{2.5}$, PM_{10}, and TSP measured at the Lagoon station.

There were 2 exceedances of the 24-hour TSP (100 µg/m^3) AAAQO. There were zero exceedances of the 24-hour $PM_{2.5}$ (29 µg/m^3) AAAQO. Further, there were zero exceedances of the 1-hour $PM_{2.5}$ AAAQG (80 µg/m^3).

Historically in September, the average number of 24-hour TSP AAAQO exceedances and 24-hour $PM_{2.5}$ AAAQO exceedances is zero and one, 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 September 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	-	0.7	7.2	41.0	6	6	6.2	81.2	12.0	6	100.0
SO_2 (ppb)	172	48	Lagoon	0	0	0.0	1.3	12.5	22	16	21.9	278.5	3.3	22	100.0
$PM_{2.5}$ (µg/m^3)	80	29	Lagoon	0	0	0.0	4.9	74.4	23	13	12.4	25.2	19.1	9	98.9
PM_{10} (µg/m^3)	-	-	Lagoon	-	-	0.0	26.3	466.1	23	13	12.4	25.2	73.7	9	98.9
TSP (µg/m^3)	-	100	Lagoon	-	2	0.0	42.1	977.0	23	13	12.4	25.2	147.3	23	98.9
Temperature (°C)	-	-	Lagoon	-	-	2.1	13.1	26.1	7	17	12.6	271.9	19.8	9	100.0
Wind Speed (km/hr)/Direction (degrees)	-	-	Lagoon	-	-	1.5	18.4	49.8/W	18	3	49.8	256.9	30.8/WSW	30	100.0
Precipitation (mm)	-	-	Lagoon	-	-	0.0	0.0	2.8	11	1	6.7	67.1	19.8		100.0

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						
2021-09-09	110.9	-	271.2	16.6	34.9	Winds predominantly from the west
2021-09-23	147.3	-	251.2	16.2	38.5	Winds predominantly from the west, but winds from the east when the highest hourly concentration was recorded.
Total # of Exceedances	**2**	**0**				
Maximum # of Exceedances (September)	**5 (2017)**	**5 (2017)**				
Average # of Exceedances (September)	**0**	**1**				
Minimum # of Exceedances (September)	**0 (2010, 2011, 2012, 2013, 2014, 2015, 2016, 2018, 2019, 2020)**	**0 (2010, 2011, 2012, 2013, 2014, 2015, 2016, 2019)**				

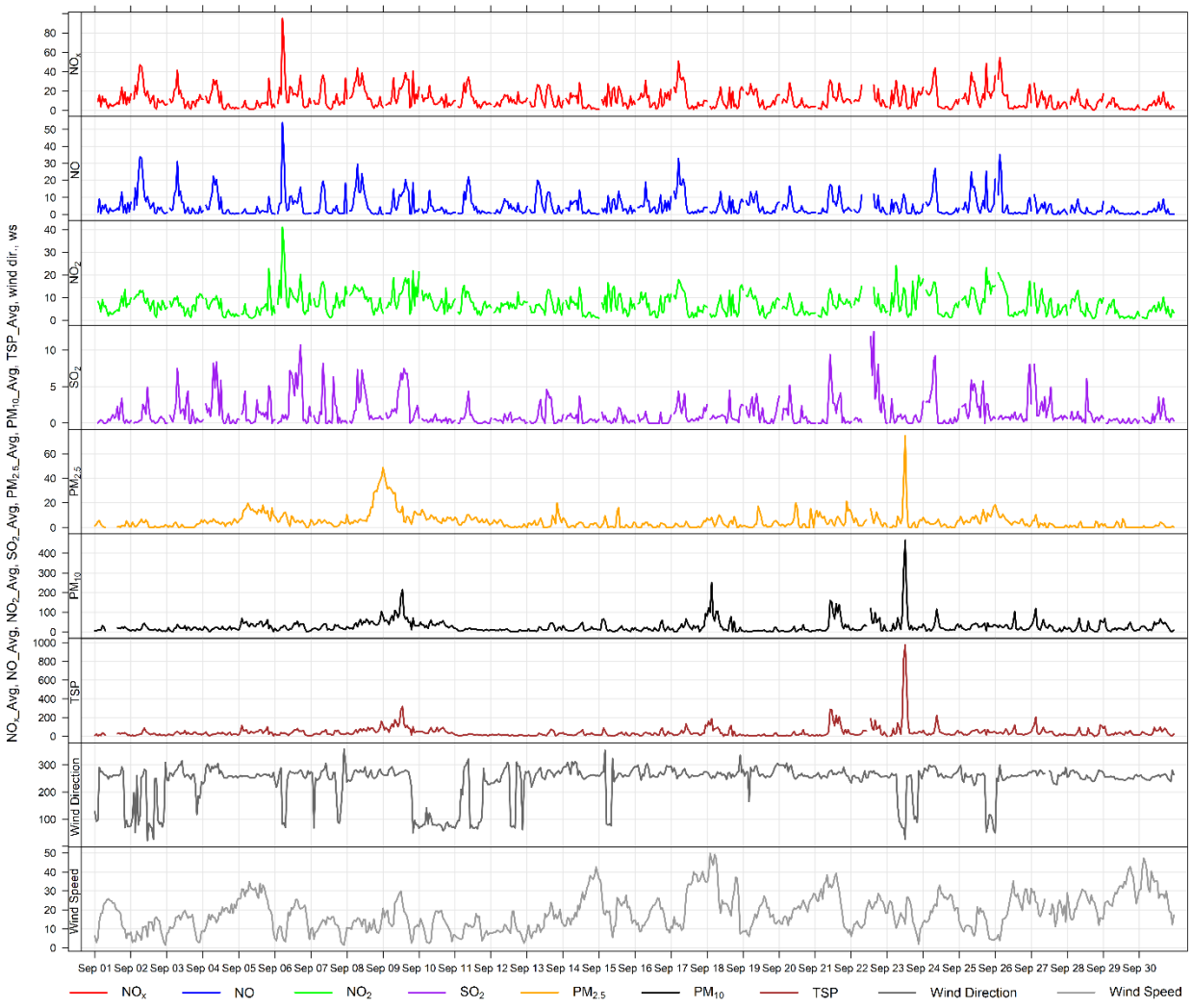


Figure 3-2 1-hour concentrations of NO_x, SO_2, particulate matter, wind direction and wind speed at the Lagoon station

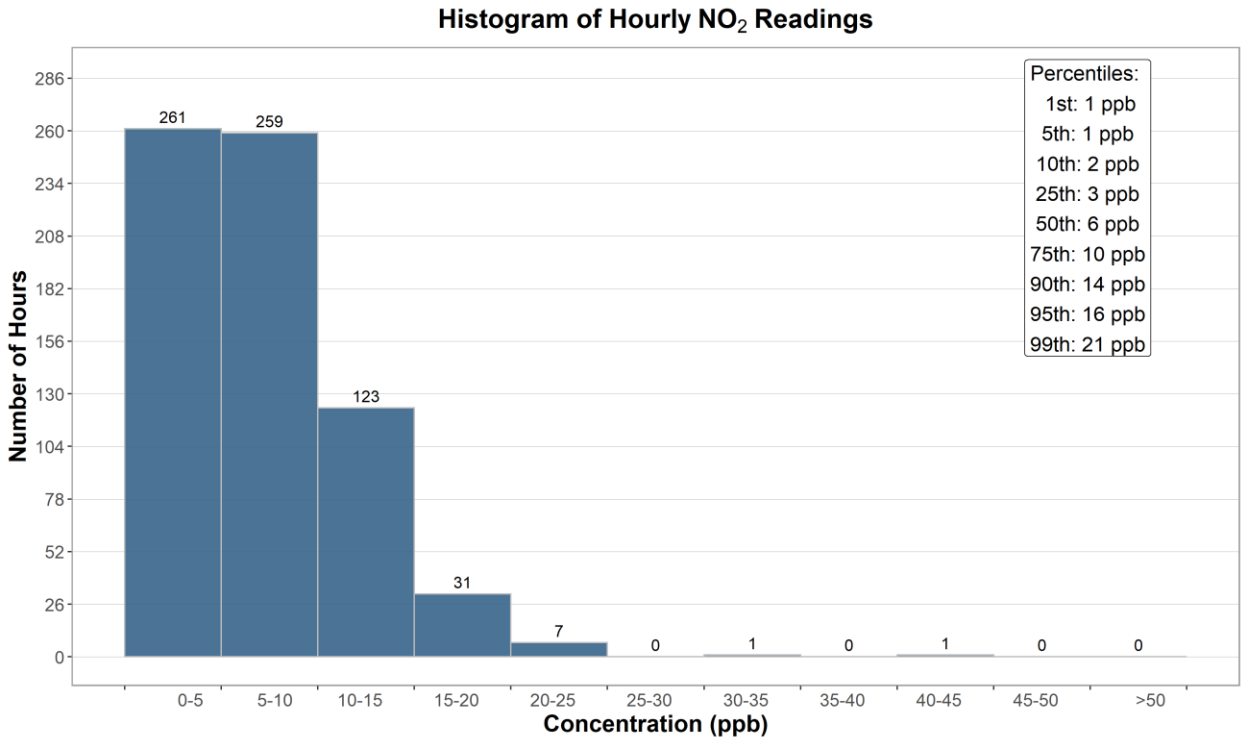


Figure 3-3 Histogram of hourly NO_2 concentrations at the Lagoon station

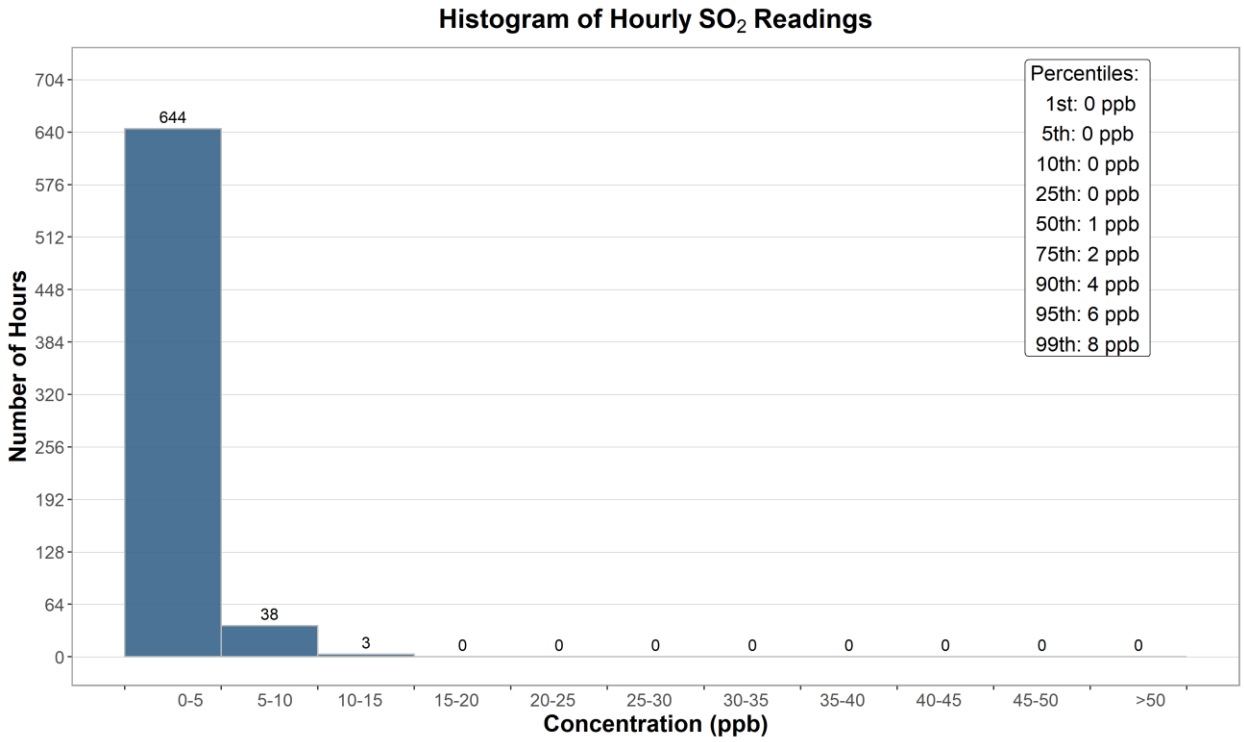


Figure 3-4 Histogram of hourly SO_2 concentrations at the Lagoon station

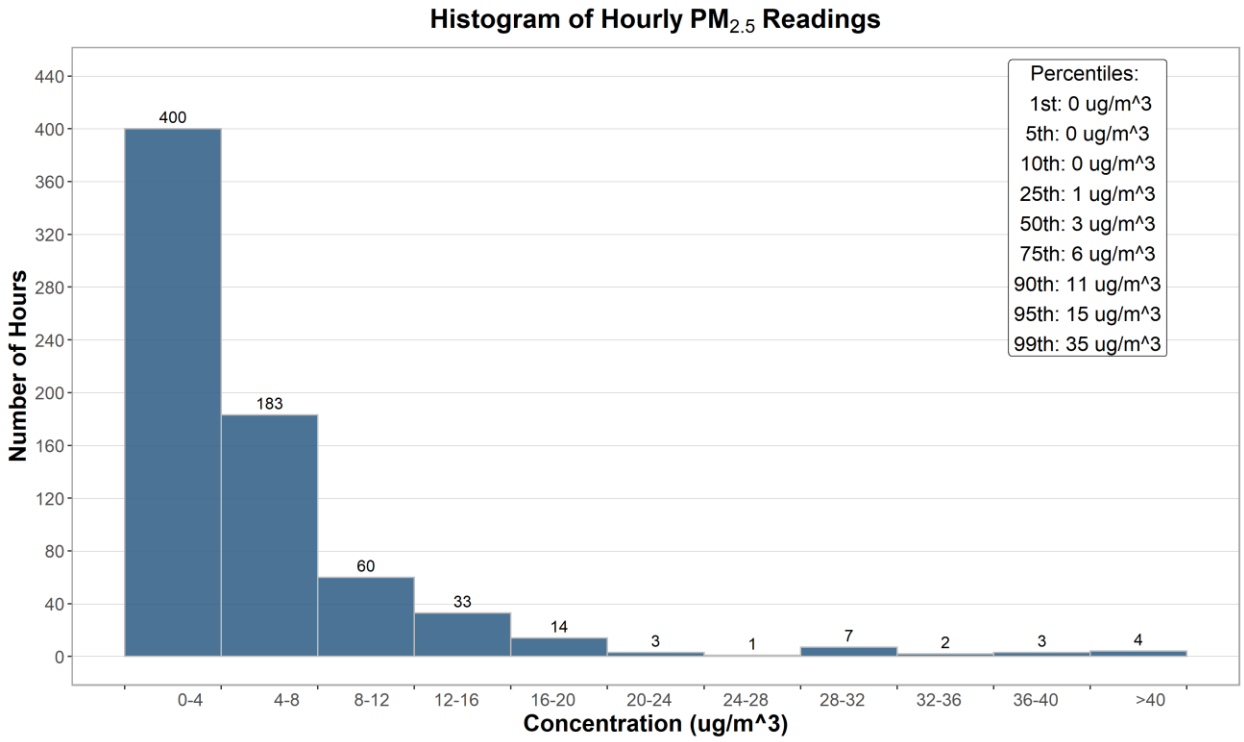


Figure 3-5 **Histogram of hourly $PM_{2.5}$ concentrations at the Lagoon station**

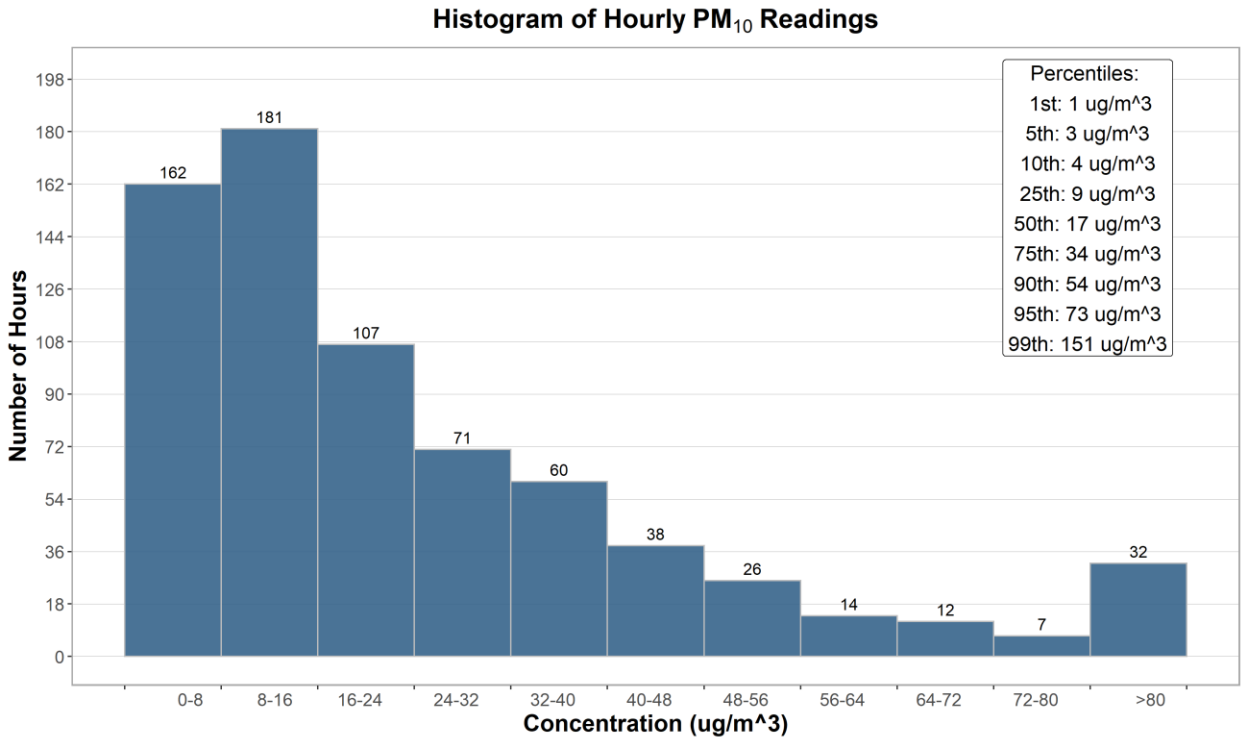


Figure 3-6 **Histogram of hourly PM_{10} concentrations at the Lagoon station**

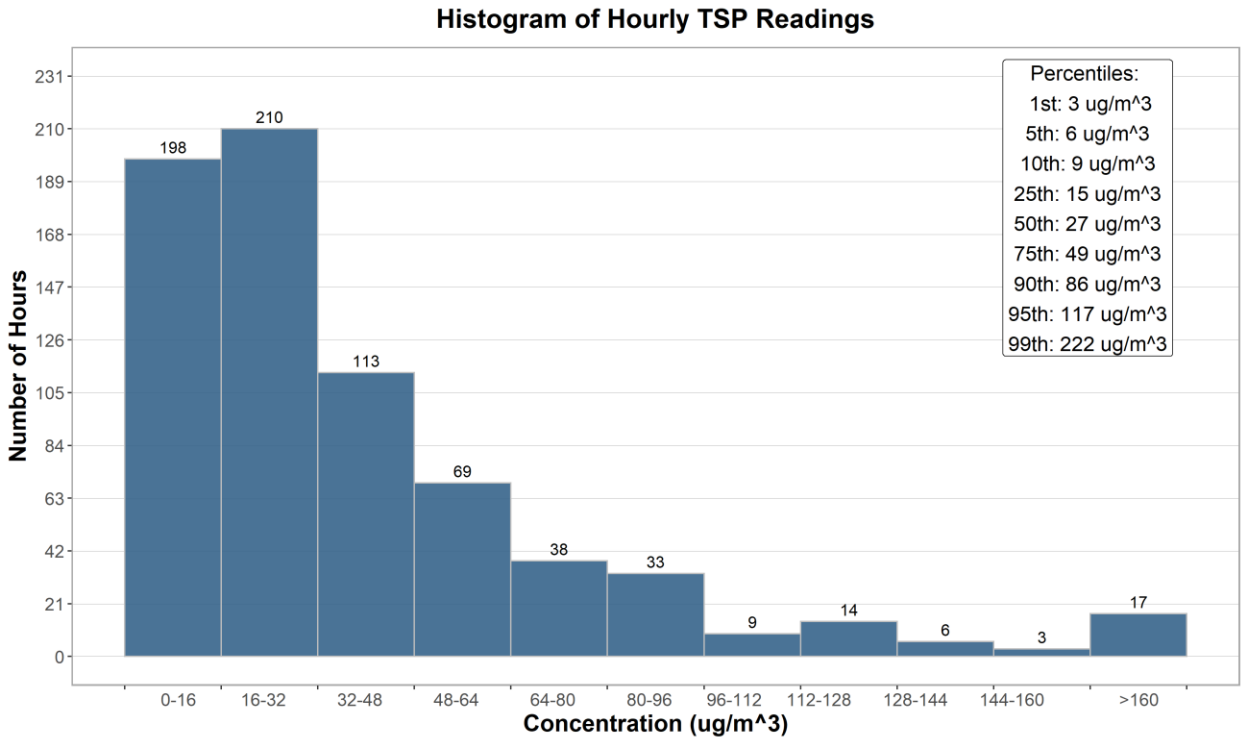


Figure 3-7 Histogram of hourly TSP concentrations at the Lagoon station

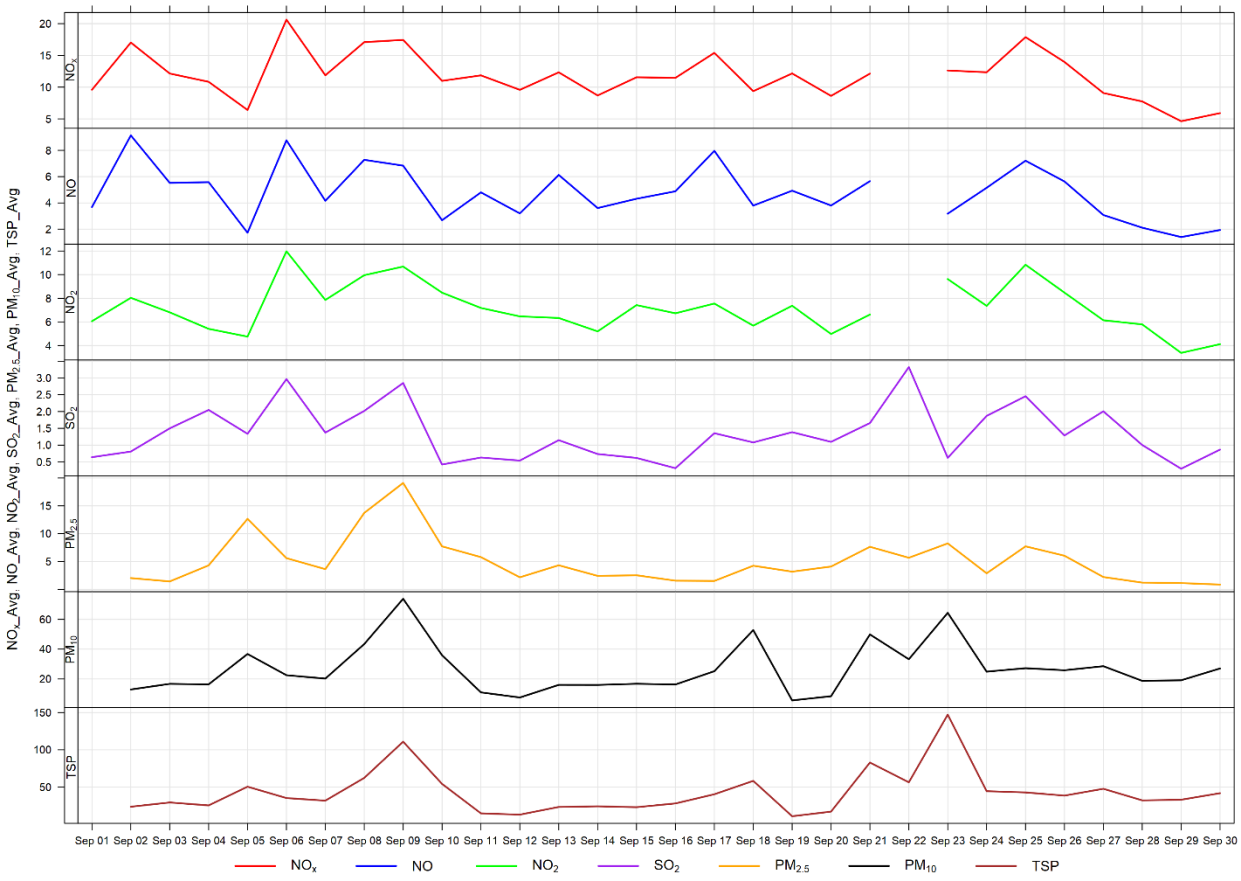


Figure 3-8 24-hour concentrations of NO_x, SO_2, and particulate matter at the Lagoon monitor

The following wind rose (Figure 3-9) shows the wind rose for the 2 days of TSP exceedances. The wind rose shows that the winds predominately came from the west, and west-southwest directions, and were predominately over 20 km/hr, although as noted in Table 3-3 the exceedance on September 23rd was a result of high TSP concentrations with winds from the east. This month the TSP exceedances were driven by windblown fugitive dust.

Figure 3-10 through Figure 3-12 show the variation in concentrations over various time averaging periods for PM, SO_2 and NO_x. The particulate matter plot in Figure 3-10 typically shows that PM_{10} 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.

Figure 3-11 shows the variation of SO_2 over various time periods. SO_2 concentrations patterns are dependent on the timing of the highest SO_2 concentrations recorded in the month because in general SO_2 concentrations are very low. Figure 3-12 shows the variation of NO_x, NO and NO_2, with the peak of all three pollutants occurring in the early morning. This may be indicative of a peak in traffic.

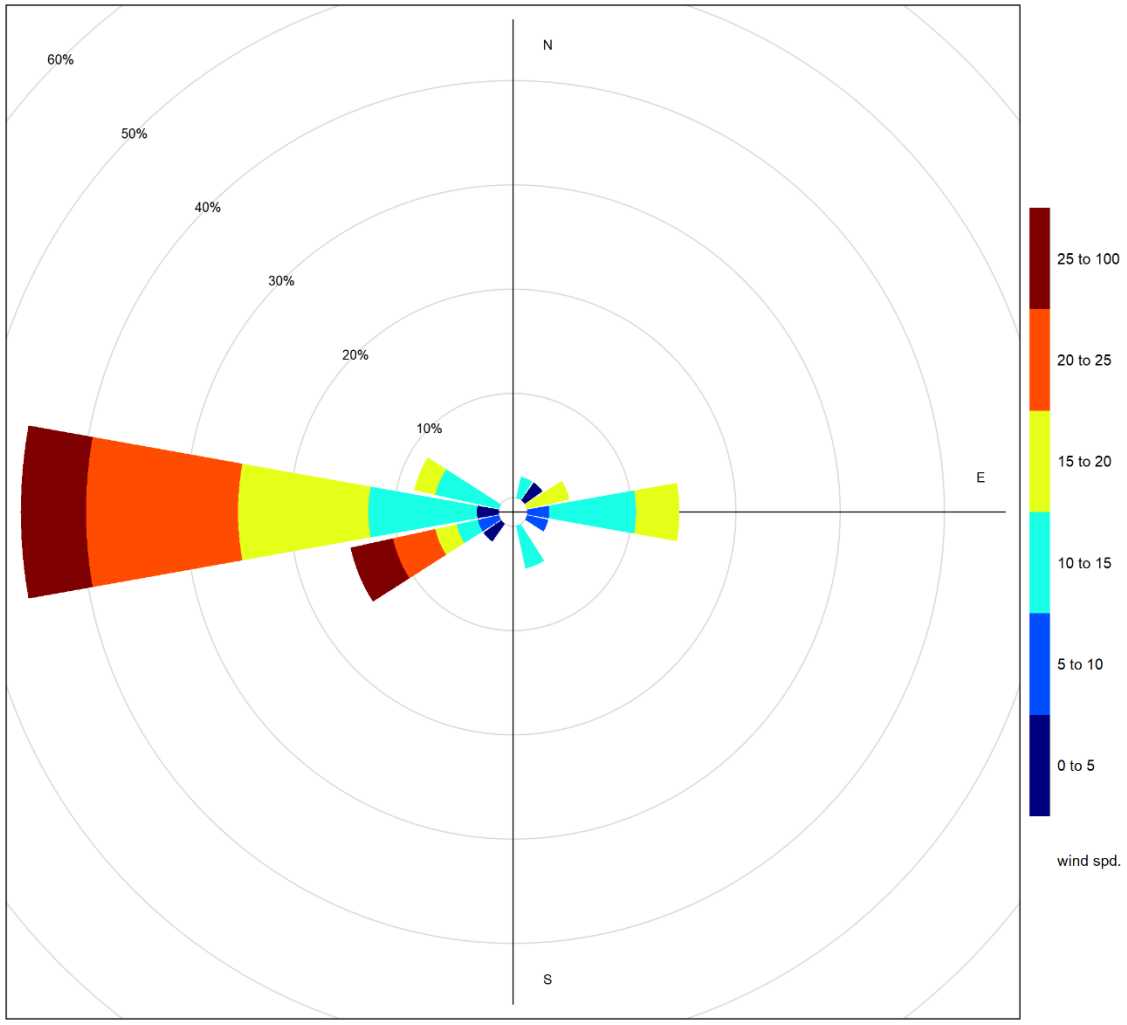


Figure 3-9 Wind rose for TSP exceedance days recorded at the Lagoon Station

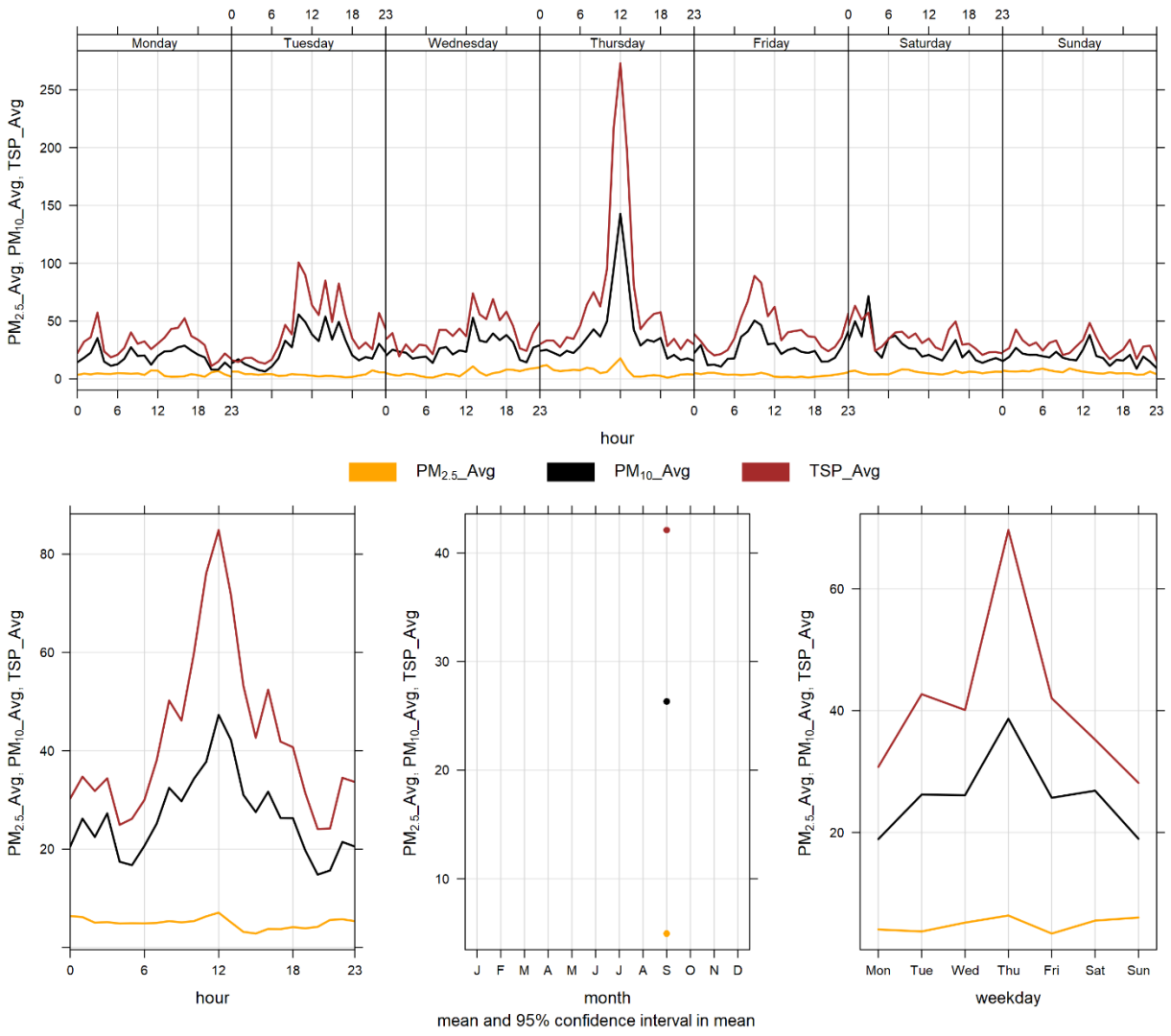


Figure 3-10 Lagoon monitor particulate matter time variation

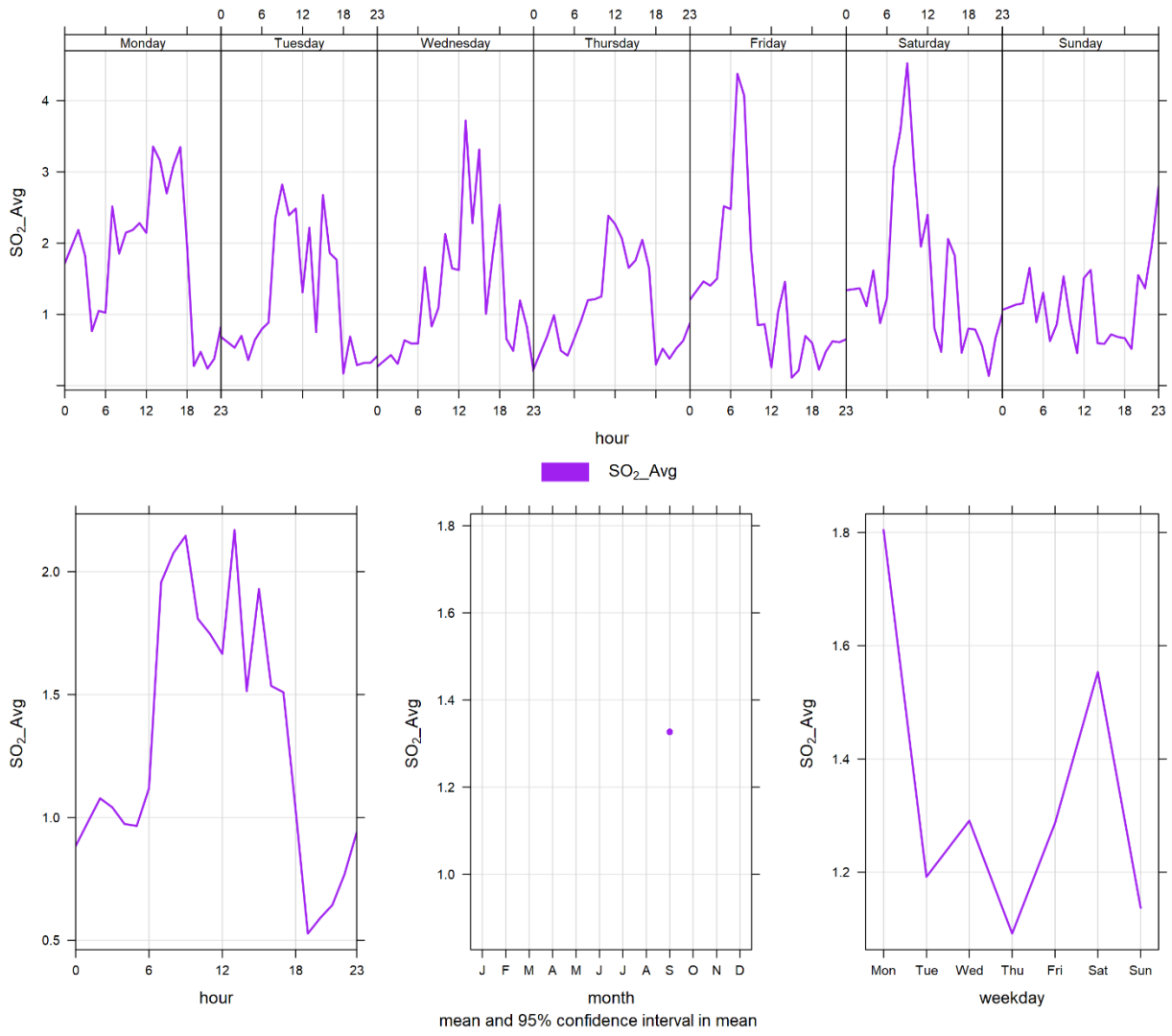


Figure 3-11 Lagoon monitor SO_2 time variation

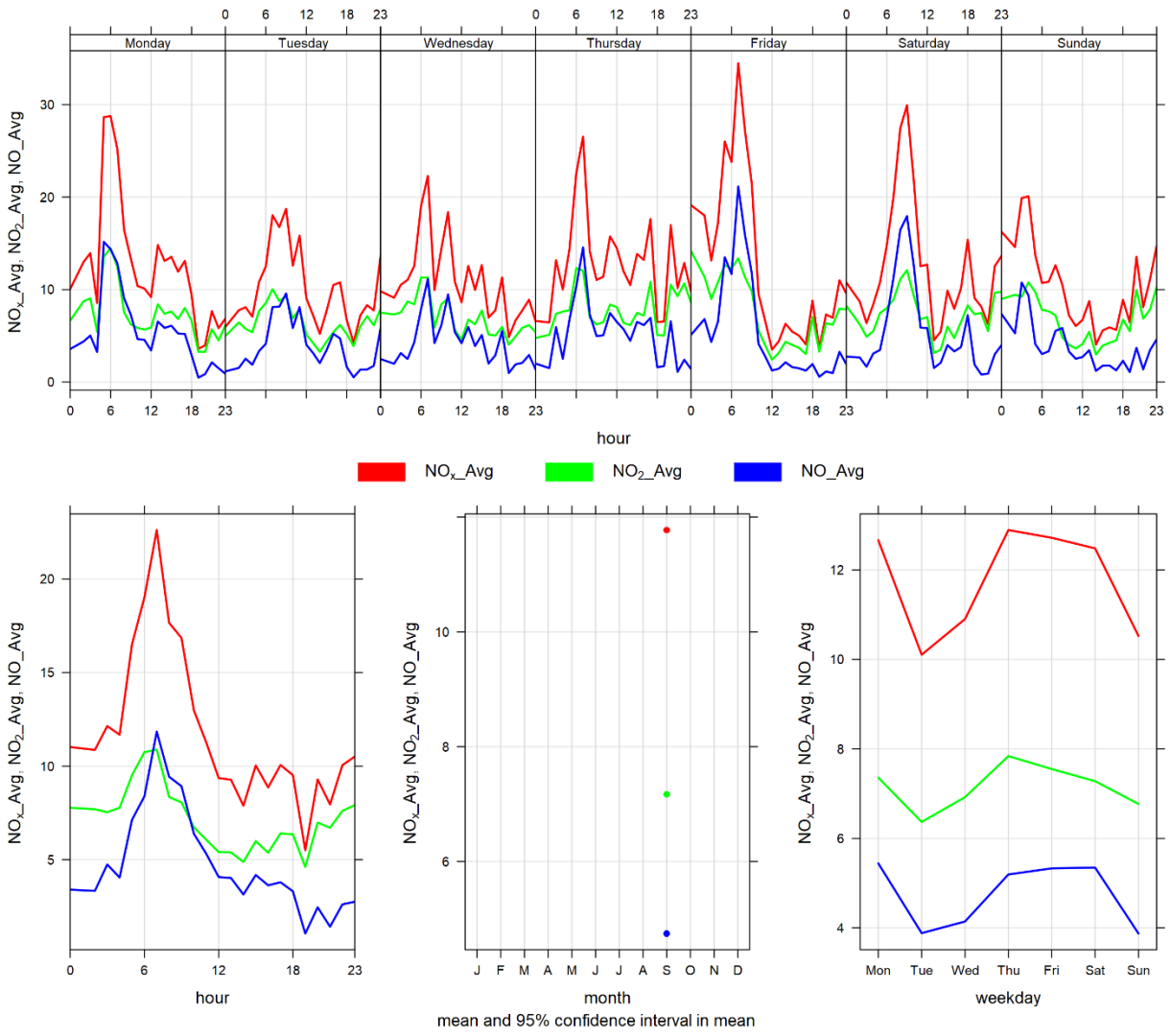


Figure 3-12 Lagoon monitor NO_x time variation

4 WINDRIDGE STATION

The Windridge station contains TSP, PM_{10}, 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 (The TSP exceedances occurred predominantly on days with high westerly wind speeds.

Historically in September, the average number of 24-hour TSP AAAQO exceedances and 24-hour $PM_{2.5}$ AAAQO exceedances is 4 and 2, respectively. Prior to this year, the maximum number of 24-hour TSP AAAQO exceedances recorded was 8 days.

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 September 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), a table of recorded exceedances (Table 4-3), site visit notes, and graphs illustrating the monitoring results for September 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 September 30th. The monitor recorded 99.9% uptime for the month of September due to one hour of power failure occurring on September 6th at 12:00.
PM_{10} Concentrations	MetOne BAM-1020 Continuous Particulate Monitor	The PM_{10} monitor was calibrated on September 30th. The monitor recorded 97.6% uptime for the month of September due to one hour of power failure occurring on September 6th at 12:00. And further, 16 hours of equipment malfunction occurring on September 29th at 22:00 to September 30th at 13:00.
TSP Concentrations	MetOne BAM-1020 Continuous Particulate Monitor	The TSP monitor was calibrated on September 30th. The monitor recorded 99.9% uptime for the month of September due to one hour of power failure occurring on September 6th at 12:00.

4.2 MONITORING RESULTS AND TRENDS

The TSP exceedances occurred predominantly on days with high westerly wind speeds.

Historically in September, the average number of 24-hour TSP AAAQO exceedances and 24-hour PM2.5 AAAQO exceedances is 4 and 2, respectively. Prior to this year, the maximum number of 24-hour TSP AAAQO exceedances recorded was 8 days.

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 September 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 summarizes the hourly and daily concentrations recorded in September 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 Figure 4-7 illustrates the time series for hourly PM over different time periods.

There were zero exceedances of the 24-hour $PM_{2.5}$ AAAQO, zero exceedance of the 1-hour $PM_{2.5}$ AAAQG, and 12 exceedances of the 24-hour TSP AAAQO. The TSP exceedances occurred predominantly on days with high westerly wind speeds.

Historically in September, the average number of 24-hour TSP AAAQO exceedances and 24-hour $PM_{2.5}$ AAAQO exceedances is 4 and 2, respectively. Prior to this year, the maximum number of 24-hour TSP AAAQO exceedances recorded was 8 days.

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 September 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 September 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	
$PM_{2.5}$ ($\mu g/m^3$)	80	29	Windridge	0	0	0.0	5.9	62.0	25	19	14.7	52.6	20.9	9	99.9
PM_{10} ($\mu g/m^3$)	-	-	Windridge	-	-	0.0	57.7	485.0	18	3	49.8	256.9	153.6	18	97.6
TSP ($\mu g/m^3$)	-	100	Windridge	-	12	0.0	92.1	880.0	18	3	49.8	256.9	203.6	30	99.9

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

Date	TSP (ug/m^3)	$PM_{2.5}$ (ug/m^3)	Average Wind Direction (degrees)	Average Wind Speed (km/hr)	Average RH (%)	Root Cause (Provided by Lafarge)
Windridge						
2021-09-05	163.5	-	259.0	27.5	29.4	High wind event
2021-09-09	193.8	-	271.2	16.6	34.9	Winds predominately from the west
2021-09-14	123.7	-	268.9	24.7	41.8	High wind event
2021-09-17	120.6	-	265.1	25.9	46.3	High wind event
2021-09-18	179.8	-	263.3	29.7	54.8	High wind event
2021-09-21	196.5	-	265.3	26.4	39.3	High wind event
2021-09-22	143.5	-	261.3	18.3	45.0	Winds predominately from the west
2021-09-23	108.0	-	251.2	16.2	38.5	Winds predominately from the west
2021-09-24	100.2	-	269.2	22.6	41.2	High wind event
2021-09-26	116.0	-	259.4	20.5	44.7	High wind event
2021-09-29	191.7	-	251.8	29.8	37.7	High wind event
2021-09-30	203.6	-	255.2	30.8	43.3	High wind event
Total # of Exceedances	**12**	**0**				
Maximum # of Exceedances (September)	**8 (2020)**	**2 (2020)**				
Average # of Exceedances (September)	**4**	**2**				

Minimum # of Exceedances (September)	**1 (2018)**	**1 (2018)**				

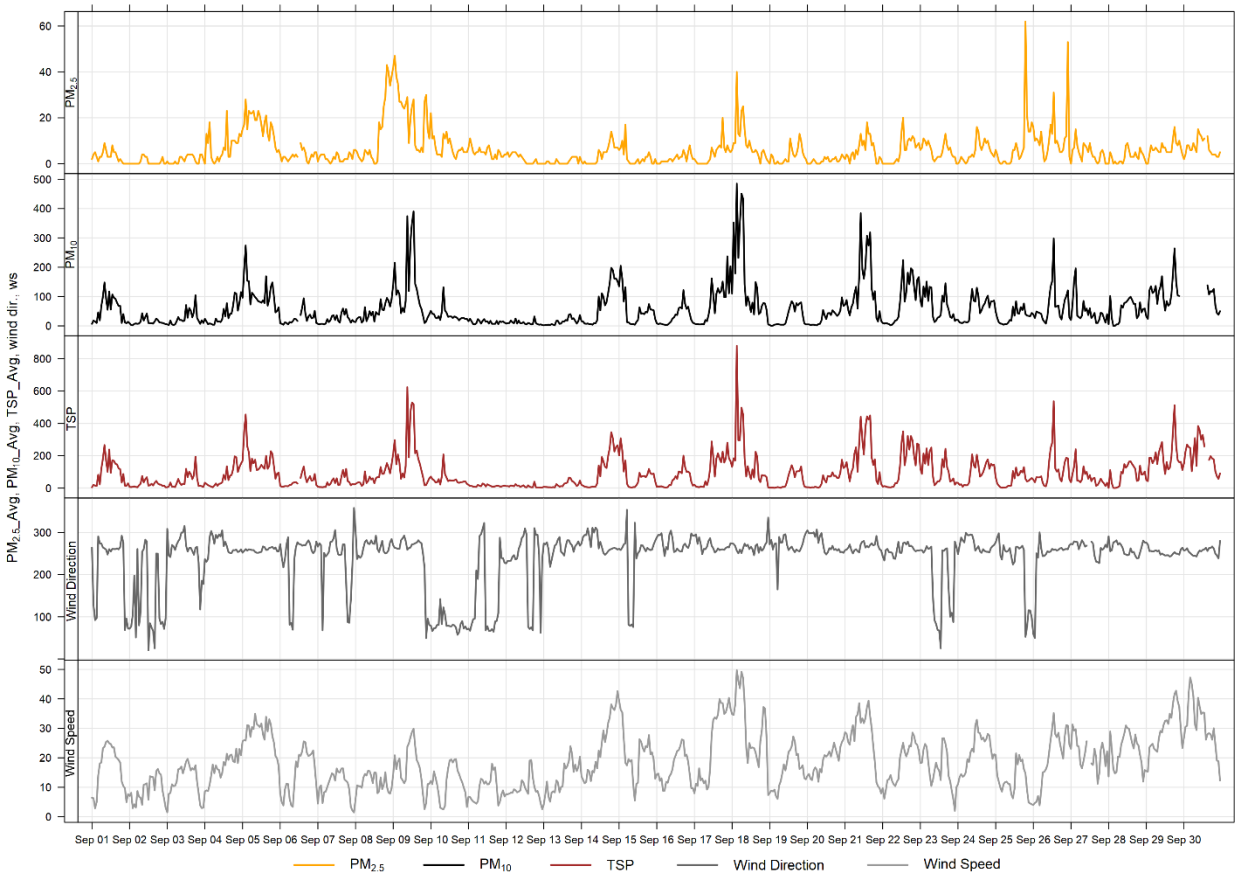


Figure 4-1 1-hour particulate matter concentrations recorded at the Windridge monitor

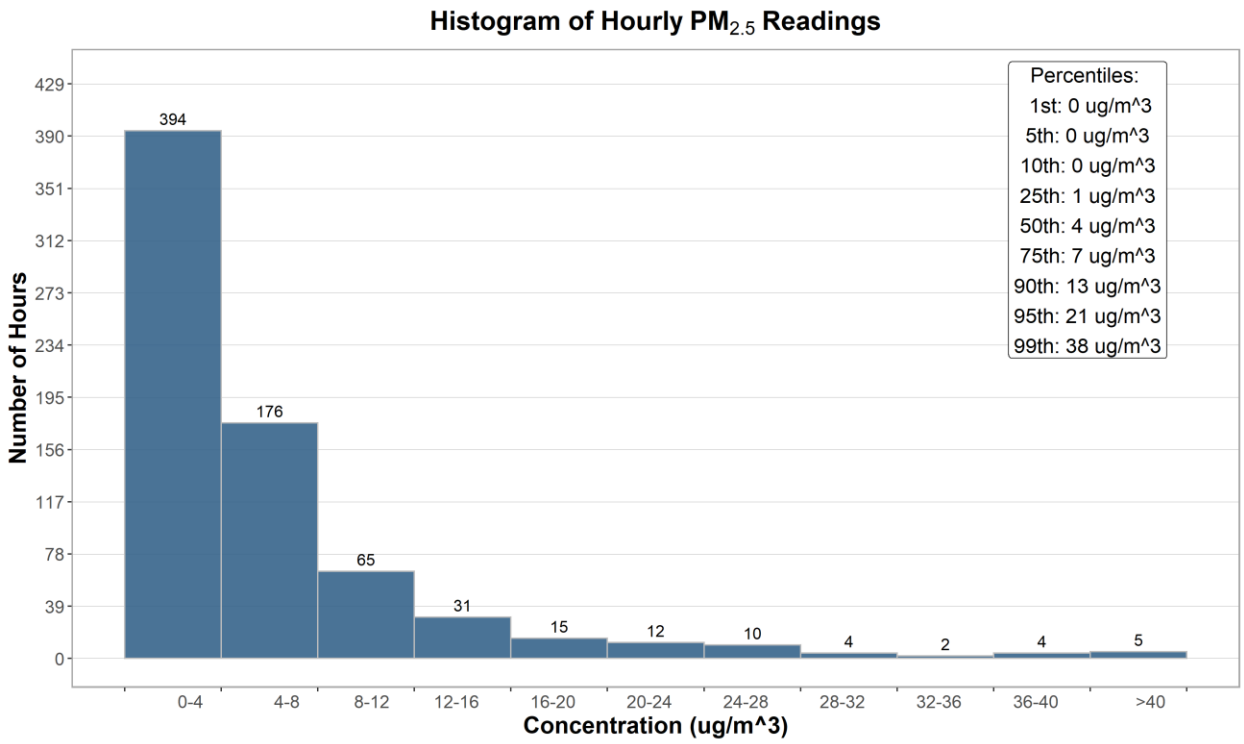


Figure 4-2 Histogram of hourly $PM_{2.5}$ concentrations at the Windridge station

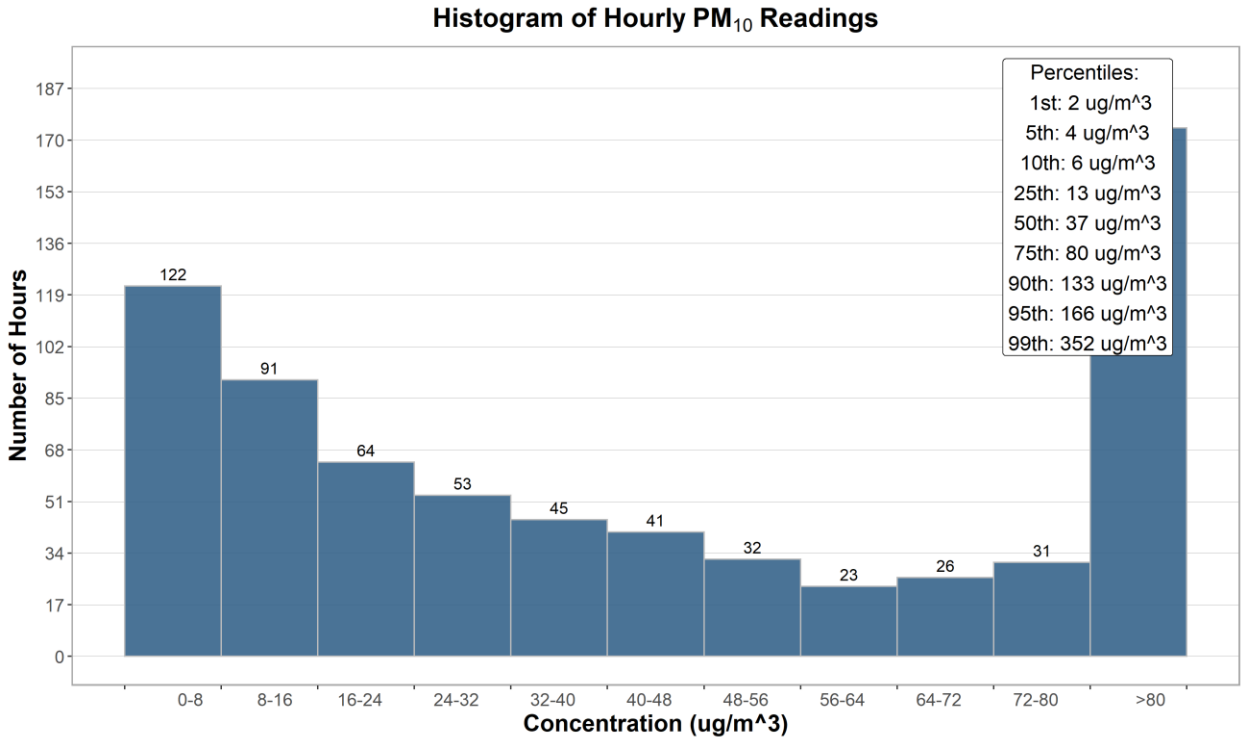


Figure 4-3 Histogram of hourly PM_{10} concentrations at the Windridge station

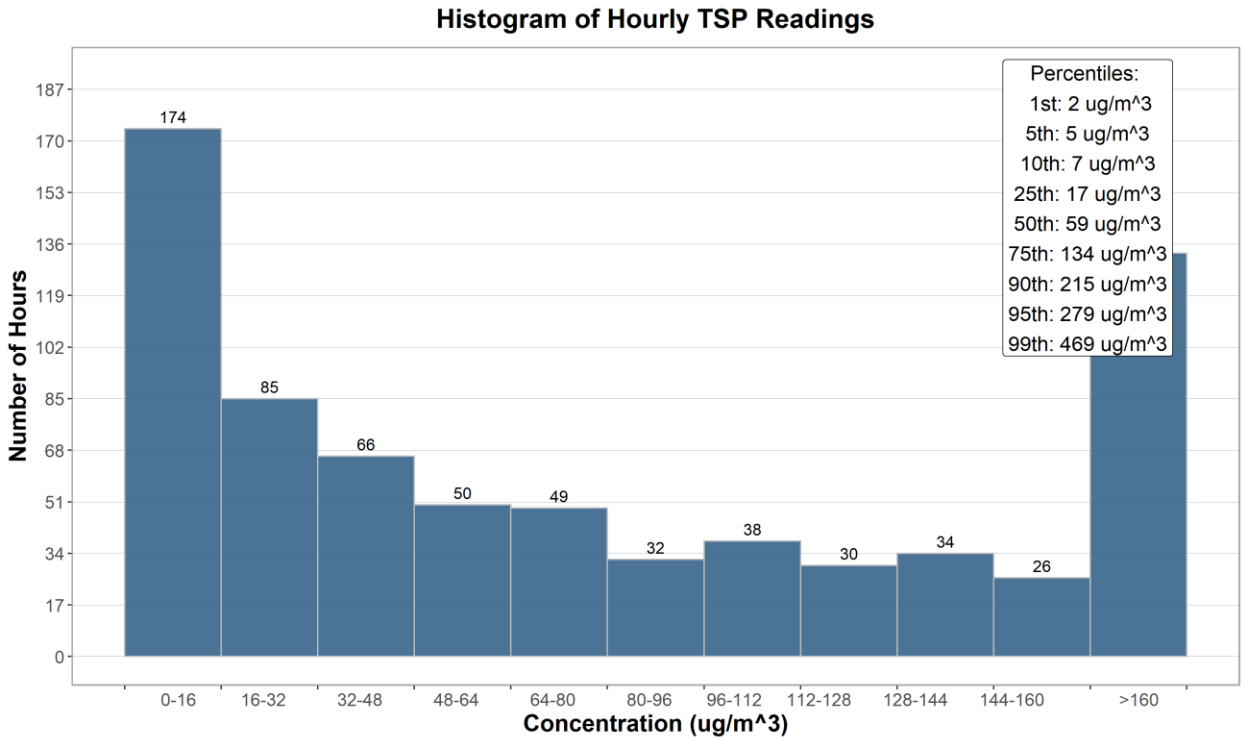


Figure 4-4 Histogram of hourly TSP concentrations at the Windridge station

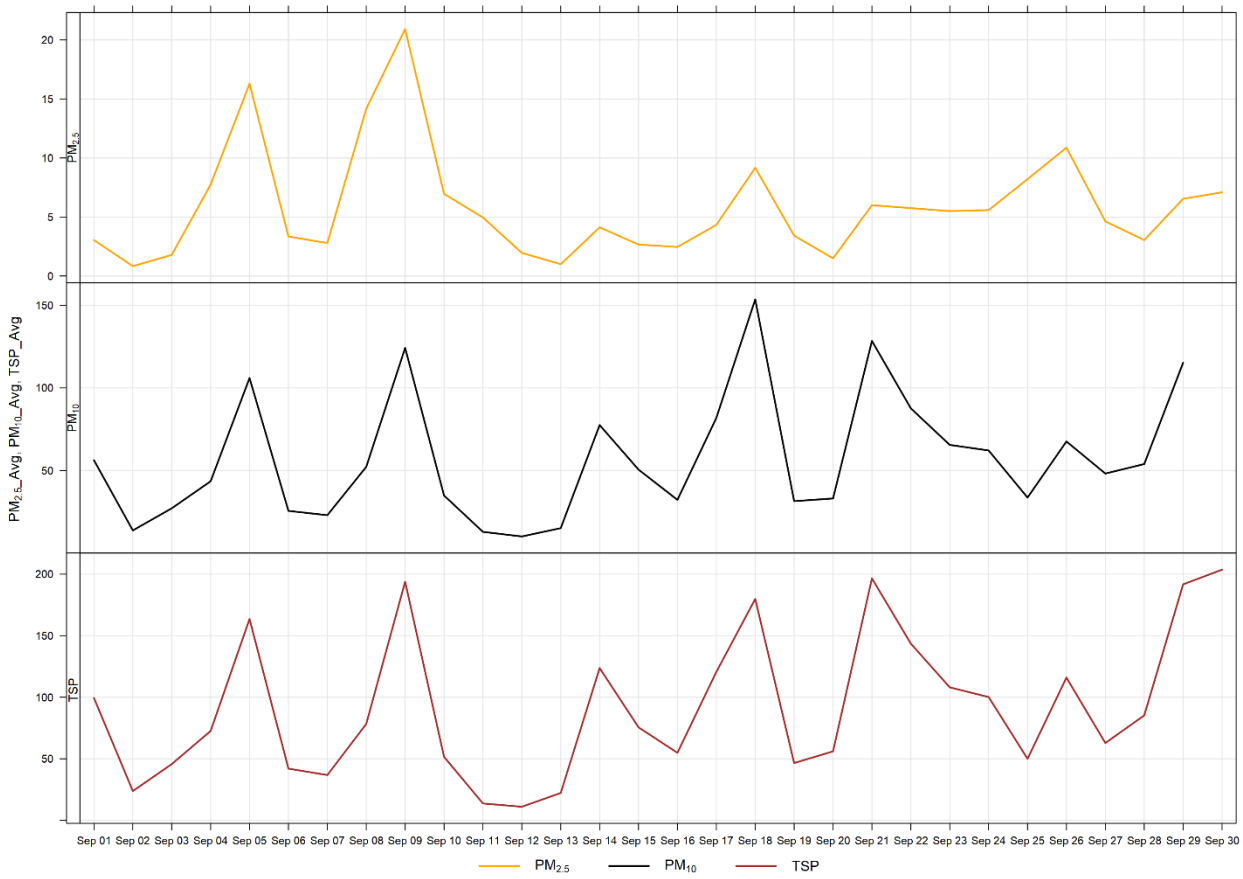


Figure 4-5 24-hour particulate matter concentrations at the Windridge monitor

Figure 4-6 shows the wind rose for the 12 days of TSP exceedances. The wind rose shows that the winds predominantly came from the west, and west-southwest directions, and were predominately over 25 km/hr. This month the TSP exceedances were largely driven by windblown fugitive dust.

Figure 4-7 illustrates the hourly PM concentrations recorded at the Windridge monitor, averaged over different time periods. The plot across the top shows the variation of PM over the course of a week, while the bottom three plots show the changes in PM over the course of a day, month and weekday, respectively. Figure 4-7 is based on data collected during September 2021 and similar to the Lagoon station shows a diurnal pattern associated with Lafarge operations, daytime emissions from traffic and other activities. The diurnal patterns also follow the diurnal pattern of higher wind speeds during the daytime hours.

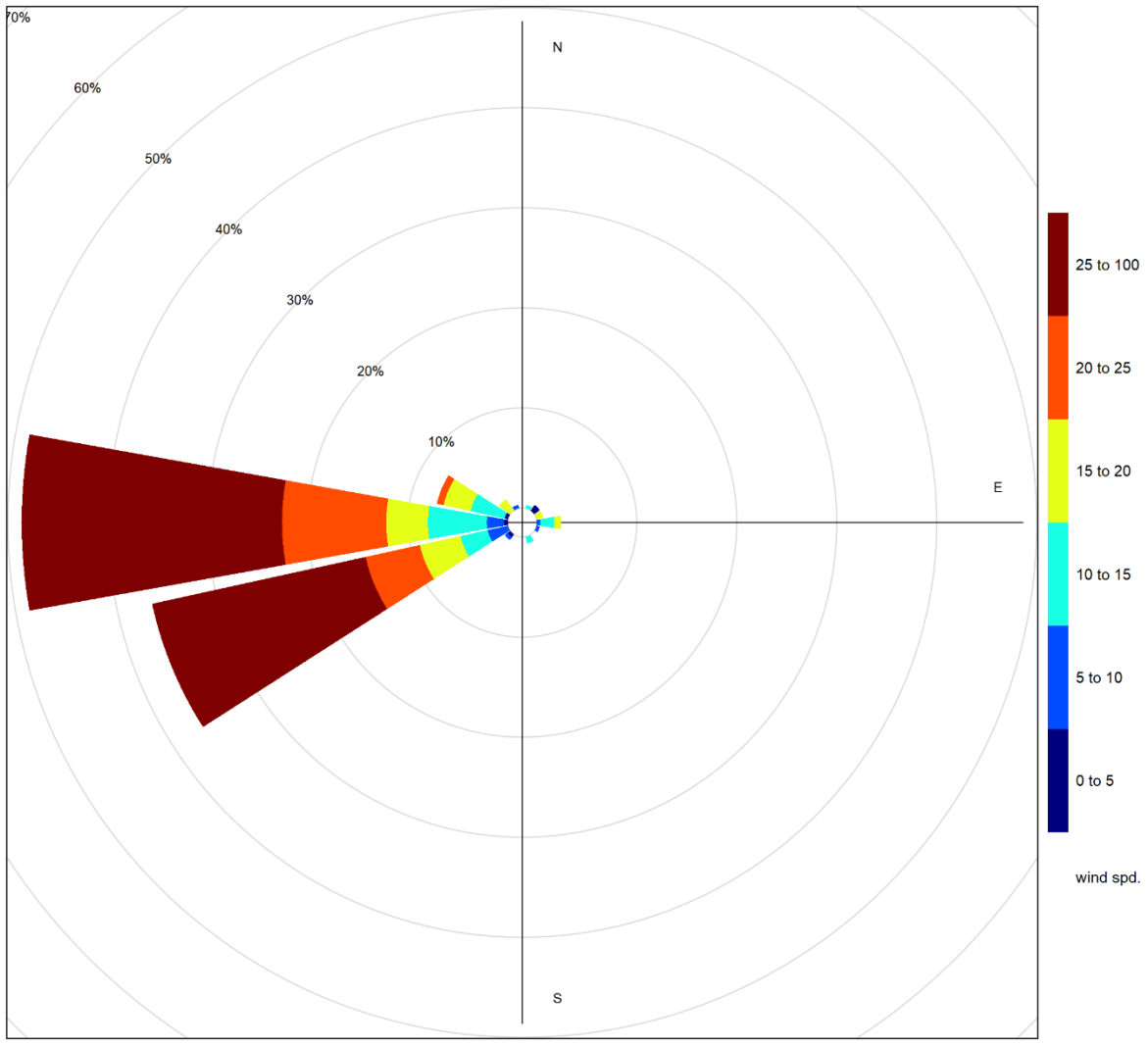


Figure 4-6 Wind rose for TSP exceedance days recorded at the Windridge Station

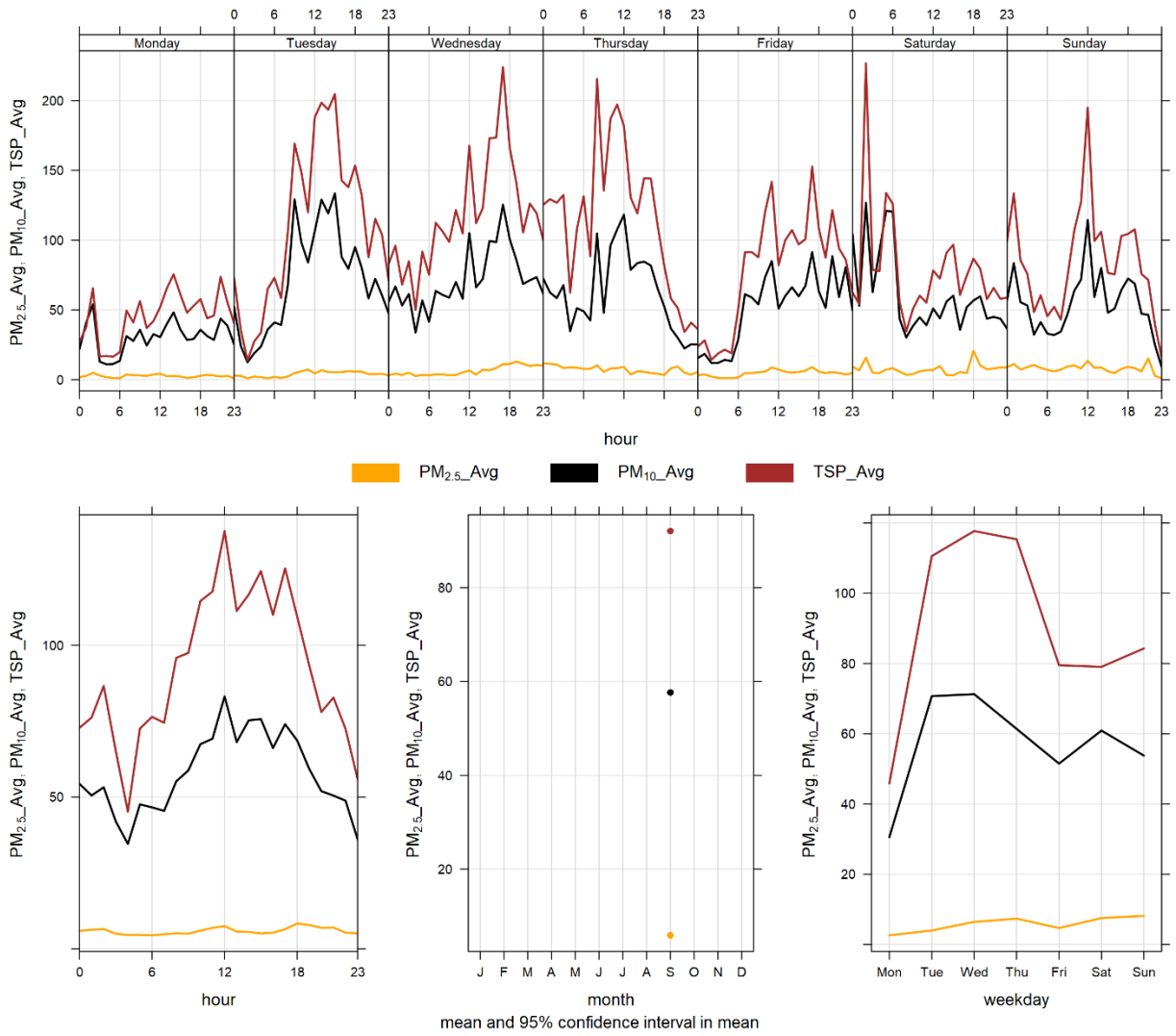


Figure 4-7 Windridge particulate matter time variation

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
$PM_{2.5}$, PM_{10}, TSP Concentrations	GRIMM 365 Continuous Particulate Monitor	The analyzer had 100% uptime for the month of September.

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. 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 $PM_{2.5}$, PM_{10} and TSP concentrations recorded over the month.

There were zero exceedance of the 24-hour TSP Guideline (100 µg/m^3) and zero exceedances of the 24-hour $PM_{2.5}$ (29µg/m^3) Guideline. Further, there were zero hours exceeding the 1-hour $PM_{2.5}$ Guideline.

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

Table 5-2 Summary of September 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	
$PM_{2.5}$ ($\mu g/m^3$)	80	29	West	0	0	0.3	4.6	50.4	8	24	14.4	269.4	18.1	9	100.0
PM_{10} ($\mu g/m^3$)	-	-	West	-	-	0.4	6.0	56.4	8	24	14.4	269.4	21.1	9	100.0
TSP ($\mu g/m^3$)	-	100	West	-	0	0.3	5.5	60.2	13	13	18.1	245.4	15.9	9	100.0

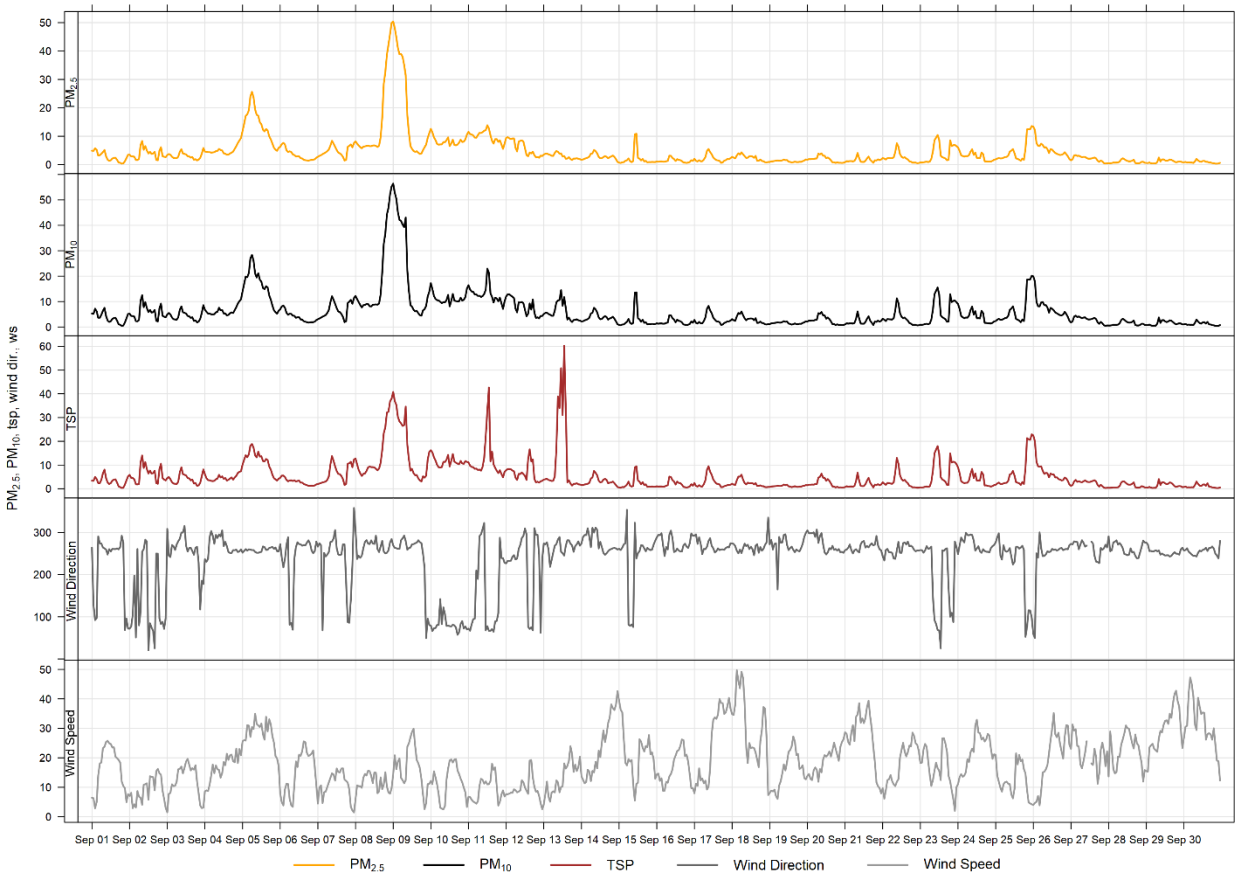


Figure 5-1 1-hour particulate matter concentrations at the West monitor

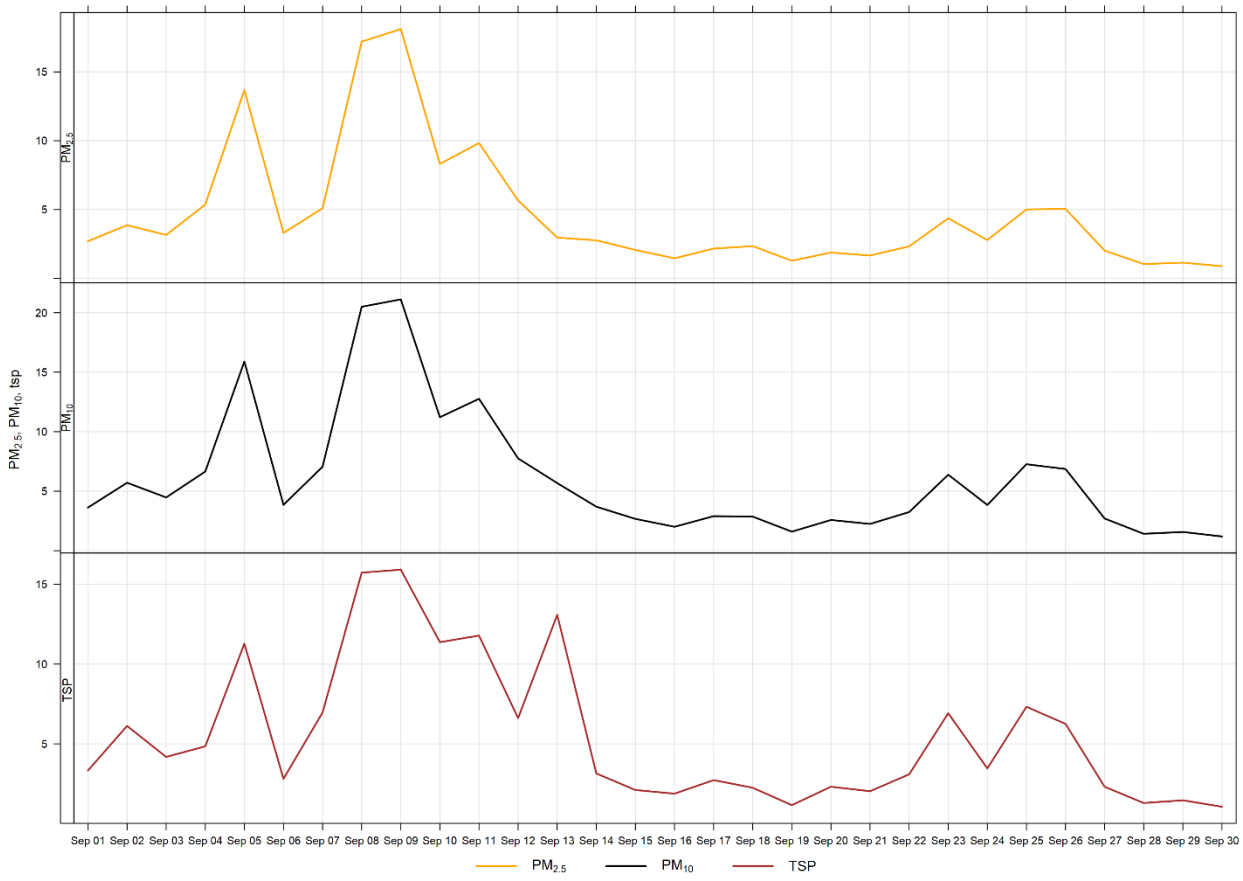


Figure 5-2 24-hour particulate matter concentrations at the West monitor

Figure 5-3 illustrates the hourly PM concentrations recorded at the West monitor, averaged over different time periods. The plot across the top shows the variation of PM over the course of a week, while the bottom three plots show the changes in PM over the course of a day, month and weekday, respectively. Figure 5-3 is based on data collected during September 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.

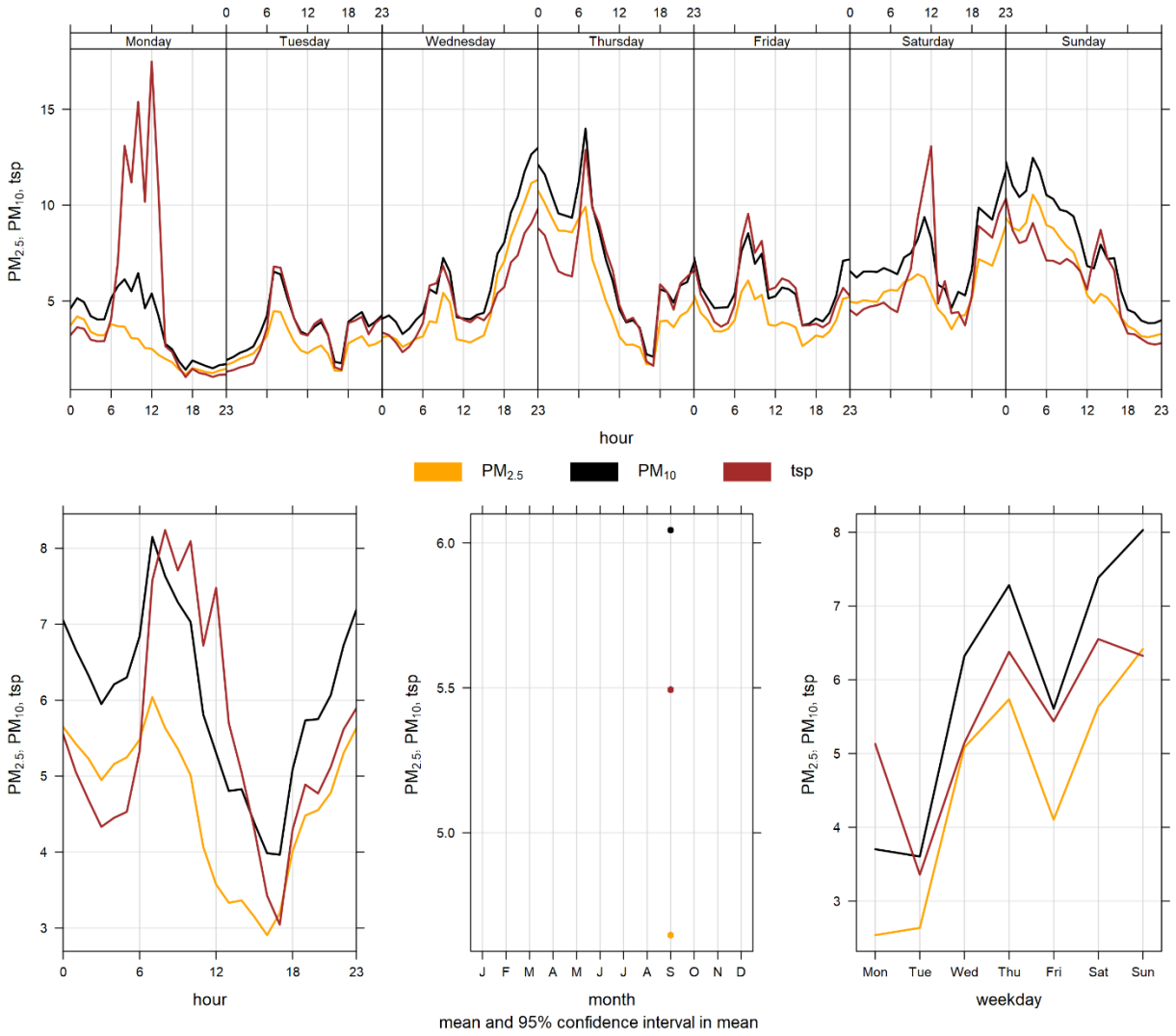


Figure 5-3 West monitor particulate matter time variation

6 BERM INDUSTRIAL GRIMM

6.1 OPERATIONAL SUMMARY

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

Table 6-1 Instrumentation List at the Berm monitoring location

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

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 $PM_{2.5}$, PM_{10} 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 19 and 1 exceedances of the 24-hour TSP (100 µg/m^3) and $PM_{2.5}$ (29 µg/m^3) Guidelines, respectively. There were 3 hours exceeding the 1-hour $PM_{2.5}$ Guideline.

Historically during the month of September, the Berm monitor records an average of 12 and 1 exceedances of the 24-hour TSP and $PM_{2.5}$ guidelines, respectively. The maximum number of TSP exceedances recorded during September occurred in 2011 where there were 19 days that exceeded the guideline. On the other hand, the maximum number of $PM_{2.5}$ exceedances in September was 7 days in 2017.

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 September 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 September 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	
$PM_{2.5}$ ($\mu g/m^3$)	80	29	Berm	3	1	0.3	12.2	124.6	9	9	23.8	259.2	34.9	9	100.0
PM_{10} ($\mu g/m^3$)	-	-	Berm	-	-	0.4	74.7	795.1	9	9	23.8	259.2	185.3	21	100.0
TSP ($\mu g/m^3$)	-	100	Berm	-	19	0.3	204.9	2066.2	9	9	23.8	259.2	617.4	21	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						
2021-09-01	219.3	-	263.9	16.2	53.8	Wind predominately from the west
2021-09-04	155.6	-	268.3	17.5	41.7	Wind predominately from the west
2021-09-05	262.9	-	259.0	27.5	29.4	High Wind Event
2021-09-08	120.4	-	266.5	11.9	48.5	Wind predominately from the west
2021-09-09	473.4	34.9	271.2	16.6	34.9	Wind predominately from the west
2021-09-14	291.1	-	268.9	24.7	41.8	High Wind Event
2021-09-16	159.1	-	271.1	16.2	41.2	Wind predominately from the west
2021-09-17	399.0	-	265.1	25.9	46.3	High Wind Event
2021-09-18	484.4	-	263.3	29.7	54.8	High Wind Event
2021-09-20	173.7	-	268.3	19.6	48.4	Wind predominately from the west
2021-09-21	617.4	-	265.3	26.4	39.3	High Wind Event
2021-09-22	426.2	-	261.3	18.3	45.0	Wind predominately from the west
2021-09-23	193.2	-	251.2	16.2	38.5	Wind predominately from the west

2021-09-24	224.1	-	269.2	22.6	41.2	High Wind Event
2021-09-26	176.5	-	259.4	20.5	44.7	High Wind Event
2021-09-27	131.9	-	266.2	21.2	48.0	High Wind Event
2021-09-28	198.3	-	258.3	22.7	51.8	High Wind Event
2021-09-29	456.3	-	251.8	29.8	37.7	High Wind Event
2021-09-30	403.1	-	255.2	30.8	43.3	High Wind Event
Total # of Exceedances	**19**	**1**				
Maximum # of Exceedances (September)	**19 (2011)**	**7 (2017)**				
Average # of Exceedances (September)	**12**	**1**				
Minimum # of Exceedances (September)	**7 (2013)**	**0 (2010, 2011, 2012, 2013, 2014, 2015, 2019)**				

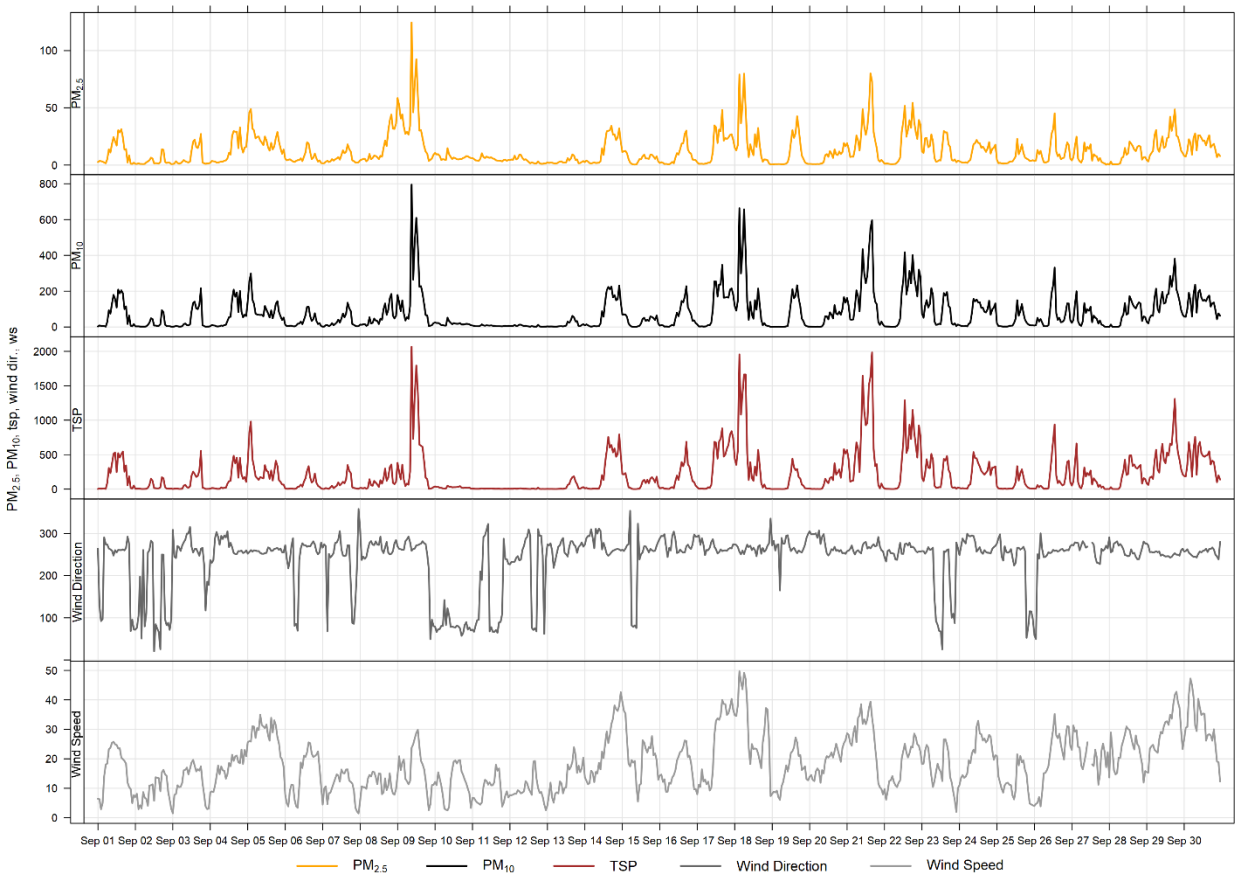


Figure 6-1 1-hour particulate matter concentrations recorded at the Berm monitor

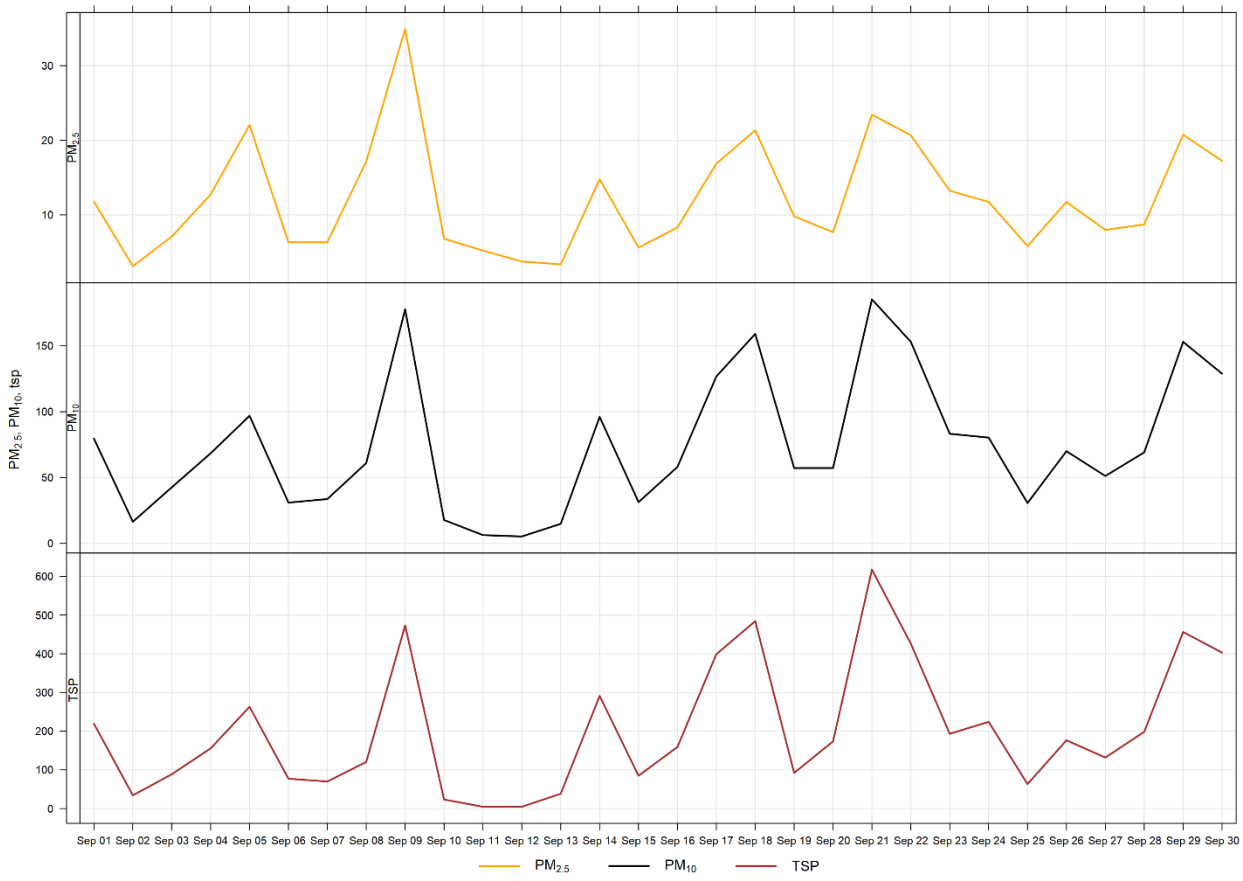


Figure 6-2 24-hour particulate matter concentrations recorded at the Berm monitor

Figure 6-3 shows the wind rose for the 12 days of TSP exceedances. The wind rose shows that the winds predominantly came from the west, and west-southwest directions, and were predominately over 25 km/hr. This month the TSP exceedances were largely driven by windblown fugitive dust. Figure 6-4 shows the wind rose for the 1 day of $PM_{2.5}$ exceedances.

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.

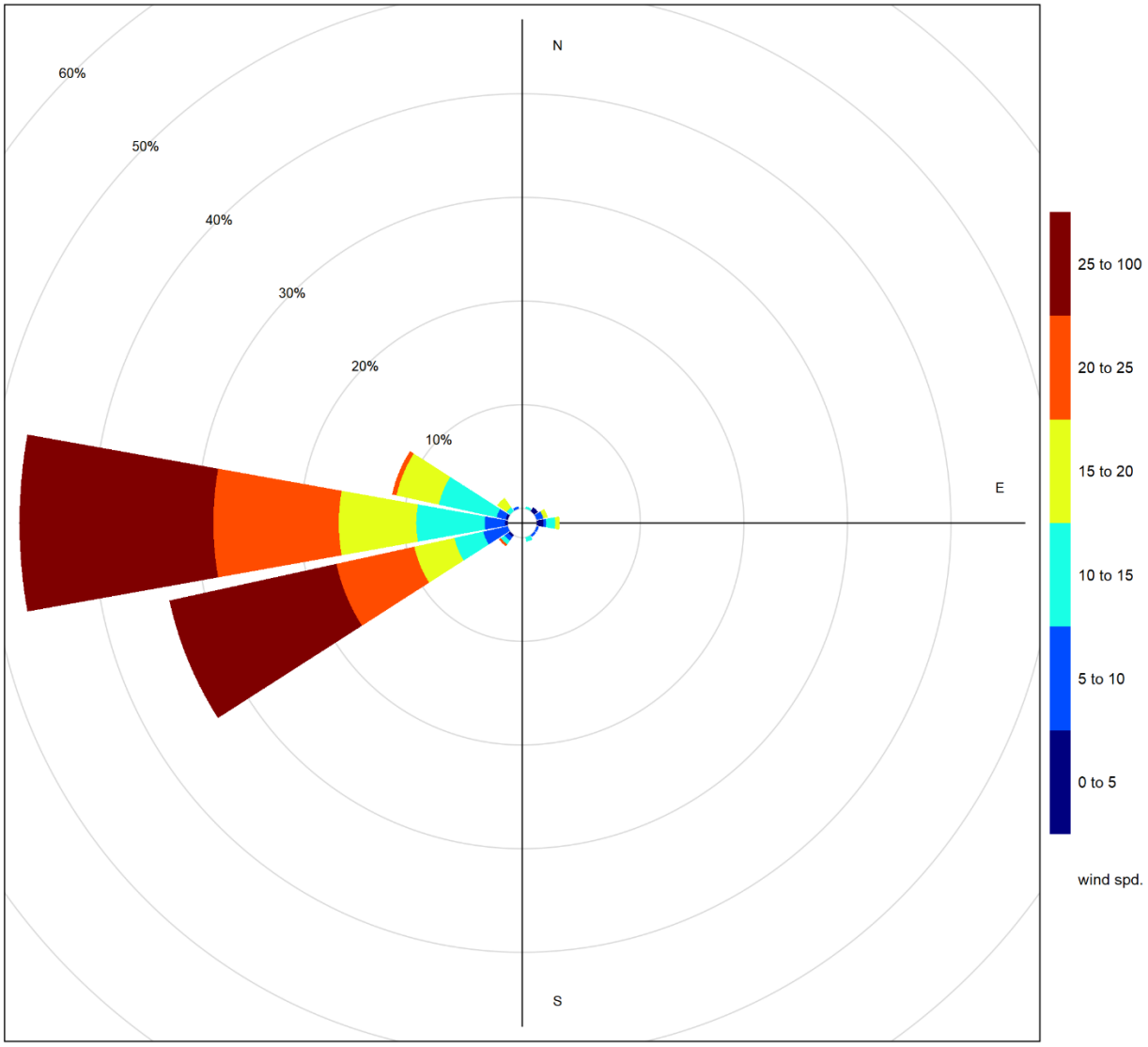


Figure 6-3 Wind rose for TSP exceedance days recorded at the Berm GRIMM

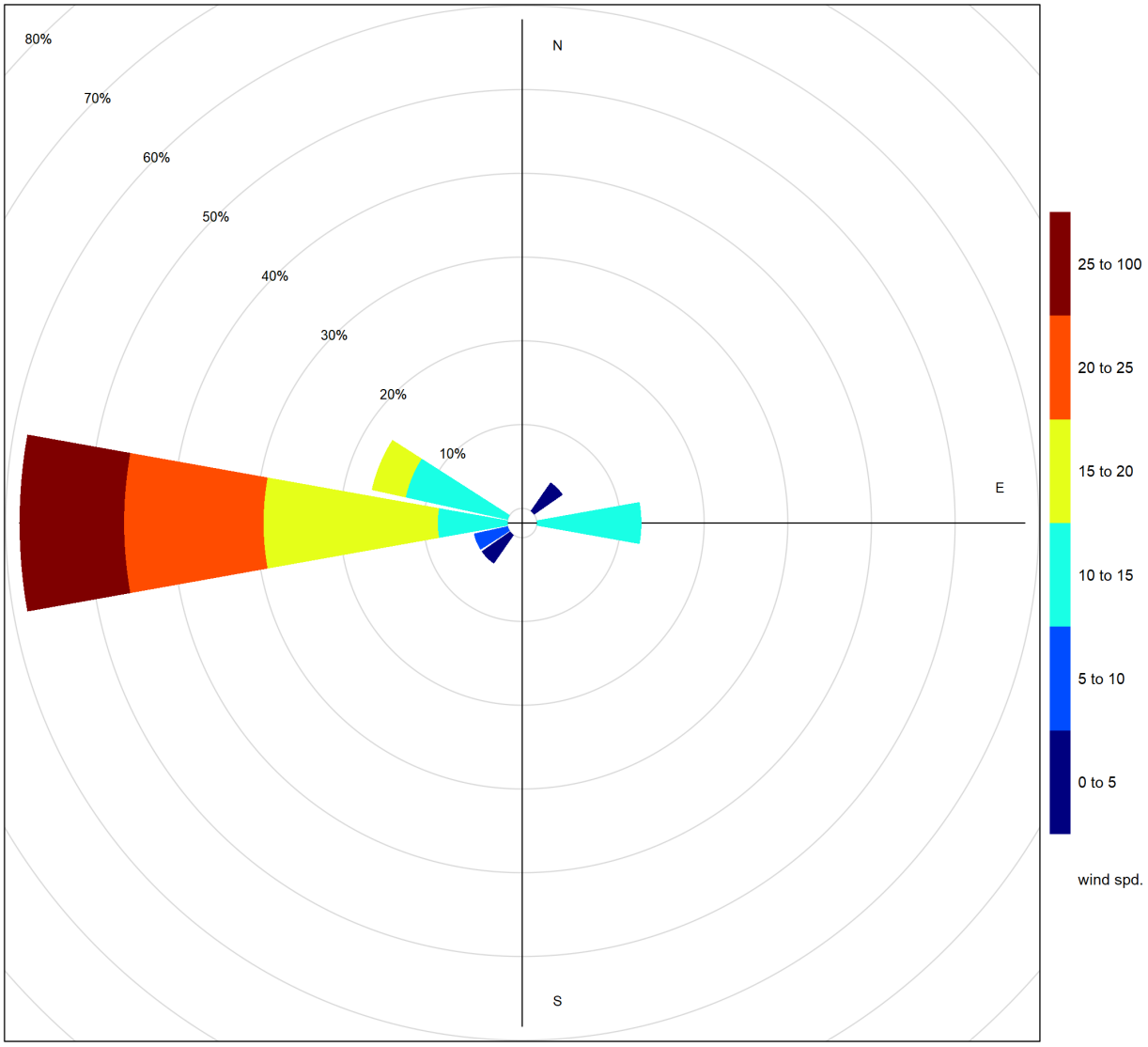


Figure 6-4 Wind rose for $PM_{2.5}$ exceedance day recorded at the Berm GRIMM

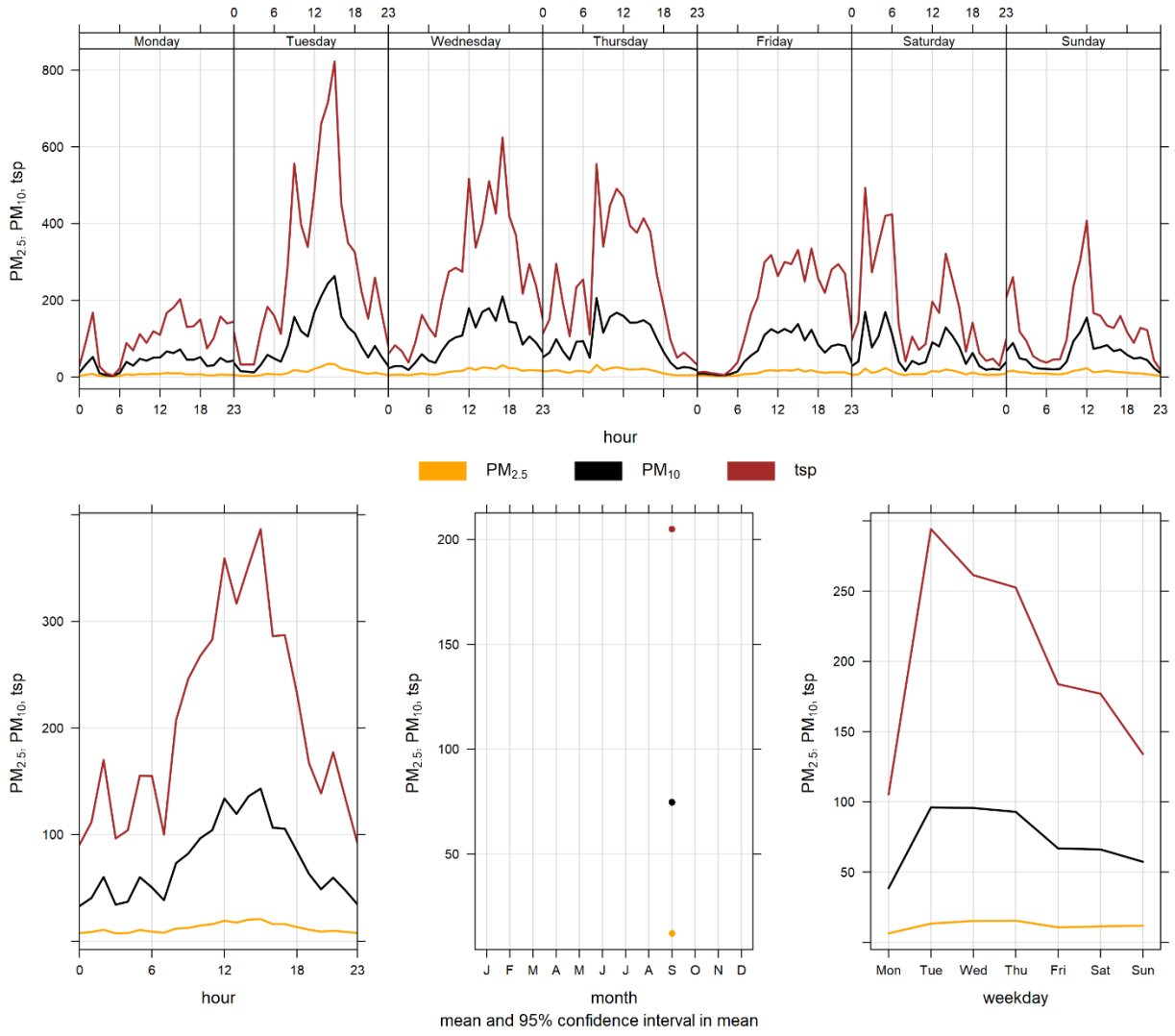


Figure 6-5 Berm particulate matter time variation

7 ENTRANCE INDUSTRIAL GRIMM

7.1 OPERATIONAL SUMMARY

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

Table 7-1 Instrumentation List at the Entrance monitoring location

Parameter Measured	Equipment Description	Notes
$PM_{2.5}$, PM_{10}, TSP Concentrations	GRIMM 365 Continuous Particulate Monitor	The analyzer had 0% uptime for the month of September due to equipment being removed for repair from September 1st at 1:00 to September 30th at 24:00. Repair has been delayed due to pump availability / shipping delays from the manufacturer.

7.2 MONITORING RESULTS AND TRENDS

The Entrance monitoring station was not operational during the month of September due to the monitoring equipment being out for repair from September 1st at 1:00 to September 30th at 24:00. Repair has been delayed due to pump availability and shipping delays from the manufacturer. The replacement pump is anticipated to arrive by late October.

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

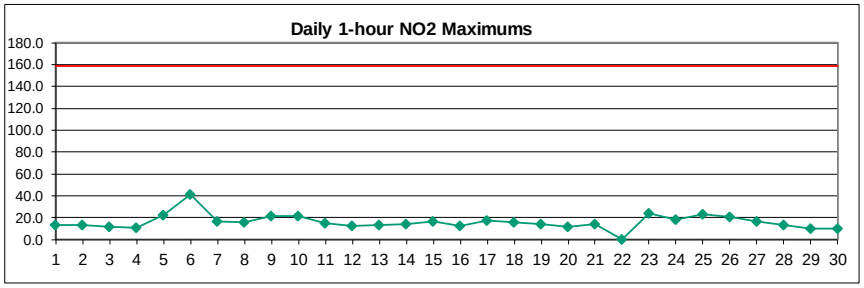
APPENDIX

A DATA & CALIBRATION REPORTS

APPENDIX

Lagoon NO_2 (ppb) – September 2021

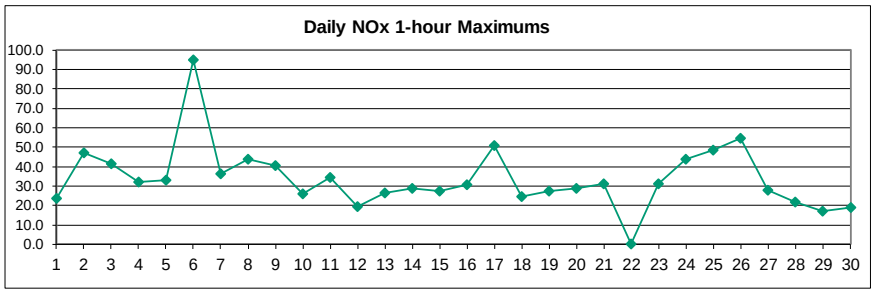
Day	HOUR 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN	MAX
1	9.4	S	8.4	6.9	3.7	9.2	5.9	6.4	4.0	1.9	3.7	2.7	2.7	3.6	4.0	4.7	4.1	7.5	10.7	6.3	13.6	5.7	7.3	7.1	6.1	13.6
2	9.8	S	9.3	10.2	11.2	11.0	13.2	12.3	13.0	8.7	7.5	9.7	6.6	4.1	7.2	8.6	2.3	1.3	7.7	5.8	4.5	8.7	7.1	4.9	8.0	13.2
3	5.6	S	8.3	6.0	7.7	9.9	9.1	10.6	6.3	7.5	5.5	5.9	1.8	3.6	5.4	2.1	1.3	6.1	6.8	4.0	10.4	9.9	11.6	11.2	6.8	11.6
4	9.7	S	9.6	5.7	5.0	7.2	8.4	9.5	8.9	10.7	8.6	5.1	9.4	2.2	1.2	1.1	3.4	4.5	2.9	2.0	2.9	1.5	2.9	1.9	5.4	10.7
5	1.8	S	2.7	2.9	7.2	2.7	2.4	1.1	1.0	1.0	1.3	1.9	5.9	4.1	2.2	5.3	5.2	6.0	7.2	4.3	22.7	11.7	2.4	6.3	4.8	22.7
6	3.1	S	7.2	17.5	9.9	41.0	32.2	17.3	6.3	5.5	14.3	12.8	10.6	9.6	9.2	8.0	12.1	20.2	11.9	4.0	2.5	4.2	4.0	12.1	12.0	41.0
7	6.7	S	9.5	6.2	6.0	6.2	10.4	16.0	17.0	14.6	5.0	2.8	1.7	1.1	1.7	6.4	5.7	11.9	8.4	5.4	8.1	8.8	6.3	14.9	7.9	17.0
8	11.6	S	11.0	11.8	12.9	15.6	14.0	14.1	12.7	13.3	14.7	12.8	9.4	10.4	8.2	9.8	9.8	4.4	2.3	5.2	4.1	6.0	9.9	5.2	10.0	15.6
9	3.2	S	5.4	5.8	7.8	6.7	10.6	18.7	8.1	5.1	7.0	11.7	11.6	12.9	16.6	18.5	16.2	18.4	2.7	5.2	21.8	6.4	14.7	10.4	10.7	21.8
10	21.3	S	13.1	8.6	11.3	11.5	9.5	11.8	9.2	8.1	5.1	4.5	4.1	5.8	6.8	9.4	7.3	2.6	14.1	3.9	7.1	5.1	6.1	8.4	8.5	21.3
11	9.3	S	3.6	2.8	4.1	13.6	15.3	10.0	12.8	12.3	9.4	7.9	7.9	4.7	5.5	2.5	4.0	2.2	3.7	7.1	8.3	5.5	6.0	6.7	7.2	15.3
12	5.5	S	3.4	4.0	5.6	5.1	3.4	7.6	6.2	7.2	7.1	8.1	5.1	7.7	5.6	7.1	5.1	5.2	12.5	7.2	6.9	6.9	8.4	7.8	6.5	12.5
13	8.0	S	6.2	3.4	3.4	3.5	6.8	6.6	7.1	6.1	5.0	4.5	2.2	10.5	13.6	13.2	9.7	7.4	3.5	3.2	4.5	9.9	4.9	2.4	6.3	13.6
14	7.7	S	8.7	5.9	4.9	10.5	7.9	8.2	6.8	7.5	4.8	14.5	10.4	1.7	2.1	1.4	2.2	3.4	3.4	1.3	2.2	1.8	1.1	1.2	5.2	14.5
15	0.9	S	7.6	4.8	10.9	3.4	16.5	11.8	4.0	13.9	14.9	6.1	4.5	11.4	11.8	8.5	3.2	5.2	4.3	1.6	2.8	9.9	5.4	7.2	7.4	16.5
16	4.8	S	7.3	7.8	12.4	9.0	10.3	11.9	5.8	7.5	2.2	2.5	3.9	4.0	1.2	1.3	5.0	10.8	3.5	3.5	10.3	10.2	11.5	8.1	6.7	12.4
17	11.5	S	10.8	9.5	13.6	17.8	16.8	14.4	13.3	12.4	8.7	2.8	1.3	1.5	3.5	1.1	3.0	1.6	6.0	3.8	4.2	3.3	6.6	6.1	7.6	17.8
18	5.8	S	2.8	1.4	2.2	1.6	2.4	6.1	8.3	11.1	5.6	4.4	3.6	1.5	4.7	13.3	2.1	11.4	3.3	4.3	1.5	3.4	14.5	15.6	5.7	15.6
19	13.3	S	10.7	10.5	12.6	14.1	10.8	9.3	10.8	9.0	5.7	2.3	3.9	6.4	1.7	1.0	2.8	3.3	3.3	5.9	8.1	5.3	8.9	9.8	7.4	14.1
20	9.0	S	5.2	6.2	5.4	4.9	8.4	12.0	9.1	6.5	2.7	2.4	2.1	3.7	3.9	8.0	4.0	2.4	4.0	3.4	2.2	3.0	3.0	3.1	5.0	12.0
21	3.3	S	2.1	1.6	1.4	5.7	4.4	2.9	2.2	11.2	14.0	11.5	6.7	6.4	5.0	6.0	11.6	8.7	8.1	7.0	7.4	9.3	7.6	8.2	6.6	14.0
22	5.7	S	6.8	9.7	9.0	8.4	11.7	14.9	C	C	C	C	C	C	C	14.5	7.2	6.2	11.5	5.6	3.5	6.9	5.8	3.4	-	-
23	4.0	S	2.2	12.0	5.8	11.3	24.0	12.8	3.9	4.4	9.0	14.3	13.1	3.0	1.4	2.9	2.2	17.3	8.4	4.7	13.6	19.8	15.4	16.2	9.6	24.0
24	18.2	S	13.3	11.8	10.7	11.4	13.7	16.7	16.6	11.3	3.0	2.6	2.5	1.7	1.7	3.3	3.3	1.7	1.1	1.4	3.7	6.4	7.4	5.7	7.4	18.2
25	8.2	S	9.0	9.8	10.6	7.4	5.8	9.9	14.4	14.3	13.7	9.7	7.1	4.1	2.6	7.1	9.4	8.0	23.2	15.9	17.3	11.7	15.2	14.8	10.8	23.2
26	15.2	S	20.9	19.5	17.7	17.1	14.6	12.5	10.8	2.2	2.0	2.3	1.5	3.6	2.4	2.4	3.9	3.5	4.0	4.6	2.1	3.5	11.5	17.2	8.5	20.9
27	6.4	S	16.4	9.1	3.1	4.7	10.5	14.0	7.6	6.8	1.5	3.1	8.7	9.7	2.9	1.3	1.5	2.1	7.2	2.5	3.8	5.7	6.0	6.9	6.1	16.4
28	2.2	S	5.4	9.2	9.3	8.3	11.5	13.1	9.0	3.9	3.7	2.6	1.7	7.6	4.2	3.7	2.1	0.7	0.8	1.8	6.3	8.7	9.6	7.6	5.8	13.1
29	9.9	S	2.7	4.4	7.0	5.6	8.4	9.2	3.0	4.5	2.9	1.0	1.7	1.6	0.9	1.3	1.4	1.9	1.0	1.5	0.7	0.8	2.4	4.0	3.4	9.9
30	2.0	S	1.4	1.1	0.8	0.9	3.5	4.5	3.9	5.4	6.6	3.7	5.3	8.0	4.3	6.0	10.2	6.5	3.0	6.0	2.5	1.3	4.6	3.3	4.1	10.2
NO.	30	-	30	30	30	30	30	30	29	29	29	29	29	29	29	30	30	30	30	30	30	30	30	30	683	100%
MEAN	7.8	-	7.7	7.5	7.8	9.5	10.7	10.9	8.3	8.1	6.7	6.1	5.4	5.4	4.9	6.0	5.4	6.4	6.4	4.6	7.0	6.7	7.6	7.9		
MAX	21.3	-	20.9	19.5	17.7	41.0	32.2	18.7	17.0	14.6	14.9	14.5	13.1	12.9	16.6	18.5	16.2	20.2	23.2	15.9	22.7	19.8	15.4	17.2		



Number of 1HR Exceedences	0		
Number of Non-Zero Readings	683		
Maximum 1-HR Average	41.0 PPB		
Maximum 24-HR Average	12.0 PPB		
		Opperational Time	720 HRS
Monthly Calibration	7	Opperational Uptime	100.0 %
Standard Deviation	4.8	Monthly Average	7.2 PPB

Lagoon NOx (ppb) – September 2021

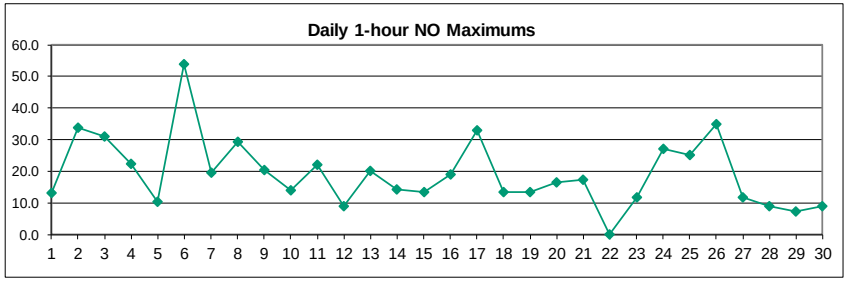
Day	HOUR 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN	MAX
1	11.1	S	9.5	15.8	4.1	14.3	9.0	12.0	6.0	2.5	7.1	4.9	4.4	5.9	6.4	8.1	6.4	14.5	23.8	7.3	19.0	6.1	13.9	8.4	9.6	23.8
2	16.8	S	11.7	25.6	16.5	33.4	47.0	45.7	35.7	19.4	14.8	20.1	13.3	7.5	12.2	15.2	3.0	1.7	11.8	8.3	8.5	10.5	7.6	5.4	17.0	47.0
3	6.5	S	11.7	8.1	10.5	21.6	22.9	41.5	16.9	20.8	12.5	12.6	2.5	5.3	9.3	2.8	1.6	9.5	9.0	4.2	11.2	10.1	16.3	12.1	12.1	41.5
4	11.5	S	14.7	8.3	7.7	15.4	20.1	31.9	26.2	31.0	20.8	7.9	19.3	3.0	1.5	1.3	5.6	7.1	3.4	2.3	3.3	1.7	3.2	2.3	10.8	31.9
5	2.2	S	3.3	4.3	10.4	3.3	2.7	1.4	1.4	1.3	1.7	2.4	10.3	6.2	2.9	7.1	7.3	7.5	8.6	5.5	33.1	15.1	2.7	6.6	6.4	33.1
6	3.3	S	7.6	23.7	16.3	94.9	66.8	25.6	8.4	8.1	24.6	23.4	16.3	17.5	16.7	14.4	23.4	36.3	18.9	4.6	2.8	4.4	4.2	12.6	20.6	94.9
7	7.2	S	10.1	6.4	7.2	6.6	14.5	30.8	36.5	30.0	7.1	3.7	2.3	1.4	2.3	9.6	7.7	17.0	9.6	5.6	8.3	9.0	6.6	33.3	11.9	36.5
8	12.1	S	12.9	13.8	18.0	28.2	30.7	43.6	25.6	26.1	38.4	28.5	20.1	17.6	11.6	12.5	10.9	4.8	2.4	5.5	4.3	6.1	14.1	5.4	17.1	43.6
9	3.3	S	5.8	6.5	8.2	6.8	15.1	33.6	12.1	7.5	13.2	23.2	22.2	25.4	30.3	39.0	32.0	32.1	2.9	5.4	40.6	7.1	16.8	12.0	17.4	40.6
10	24.3	S	16.0	9.3	12.7	12.3	12.9	25.8	14.0	12.6	6.8	6.2	6.5	8.3	9.2	13.4	10.0	2.9	16.7	4.2	7.6	5.2	6.5	9.5	11.0	25.8
11	10.3	S	4.0	3.0	4.4	14.5	28.5	18.3	29.6	34.4	25.2	14.4	13.6	7.1	10.1	3.2	6.1	2.4	5.6	8.5	9.0	6.1	6.9	7.5	11.9	34.4
12	6.2	S	4.2	4.6	8.3	6.1	4.1	10.5	11.5	16.1	14.7	15.7	8.5	13.7	8.4	11.1	7.3	6.9	19.2	8.9	8.5	7.4	9.2	9.3	9.6	19.2
13	12.5	S	8.8	4.2	4.1	4.5	18.9	26.5	25.5	20.2	10.6	7.4	3.2	20.4	26.6	25.8	16.8	10.7	4.2	3.5	5.3	15.1	6.2	2.8	12.3	26.6
14	10.2	S	12.3	9.4	6.9	18.3	13.6	15.2	14.5	15.3	7.1	28.7	18.2	2.3	3.2	1.9	3.1	6.0	4.6	1.6	2.8	2.2	1.3	1.4	8.7	28.7
15	1.2	S	10.9	6.0	14.3	4.0	27.3	16.8	4.6	22.1	23.8	9.0	7.7	24.8	20.9	15.0	4.9	7.9	7.1	1.8	5.0	14.9	5.9	9.8	11.6	27.3
16	6.4	S	11.2	12.0	17.6	13.5	15.2	30.9	13.4	15.4	3.4	4.3	7.3	8.2	1.8	1.9	9.3	21.9	4.1	5.8	18.1	12.2	19.2	10.6	11.5	30.9
17	21.7	S	24.2	18.5	29.3	50.8	34.5	31.7	34.1	29.7	14.5	3.9	1.8	2.1	4.8	1.5	4.4	2.3	8.5	4.8	6.0	4.7	10.5	10.0	15.4	50.8
18	9.6	S	4.0	1.7	3.8	2.3	3.6	10.6	14.7	24.3	11.4	6.9	5.3	1.9	7.2	23.7	2.7	19.7	4.2	6.3	1.8	4.2	21.0	24.4	9.4	24.4
19	20.8	S	18.6	16.2	18.0	27.4	20.5	16.1	21.6	22.4	10.3	3.4	6.4	10.6	2.2	1.3	4.1	4.2	3.6	6.3	10.0	6.1	13.4	16.2	12.2	27.4
20	16.1	S	7.6	11.7	10.4	8.2	15.5	28.6	20.8	11.2	4.2	3.7	3.0	5.6	5.6	12.6	6.1	3.4	5.5	3.9	2.8	3.7	4.1	4.0	8.6	28.6
21	4.2	S	2.5	2.0	1.6	9.2	5.8	4.2	3.2	24.1	31.3	27.9	13.8	13.7	9.9	14.5	28.2	19.4	11.8	7.9	9.6	11.9	11.5	10.9	12.1	31.3
22	7.6	S	9.4	11.2	9.9	9.6	15.1	26.2	C	C	C	C	C	C	C	26.2	11.1	9.3	22.3	7.6	4.4	11.0	7.5	3.5	-	-
23	3.9	S	2.2	20.6	7.1	17.8	30.9	16.6	4.3	5.6	15.7	26.0	21.7	3.9	1.6	3.5	2.6	23.1	10.3	4.4	14.9	19.9	16.1	17.6	12.6	30.9
24	23.9	S	20.2	16.8	16.4	19.4	24.8	38.9	43.6	22.7	4.3	3.7	3.3	2.0	1.9	4.1	4.1	1.7	1.0	1.5	4.4	7.8	10.8	6.7	12.3	43.6
25	11.8	S	12.1	12.5	17.7	10.9	6.7	19.4	39.2	30.0	29.8	21.0	12.6	6.1	3.1	11.2	17.3	11.2	48.5	19.2	18.5	12.9	19.0	20.4	17.9	48.5
26	35.8	S	32.3	54.6	43.6	18.3	15.6	15.4	16.1	2.5	2.2	2.7	1.7	4.6	2.7	2.9	4.9	4.0	4.1	5.0	2.6	3.8	19.0	26.9	14.0	54.6
27	8.3	S	27.9	16.2	3.4	7.0	13.8	20.1	11.1	13.9	2.1	5.9	14.3	15.7	3.6	1.2	1.4	2.1	9.0	2.4	4.9	7.5	8.8	8.1	9.1	27.9
28	2.2	S	6.2	14.5	12.6	9.3	16.1	22.0	12.9	5.5	4.8	3.1	1.9	11.5	5.5	4.8	2.9	0.7	0.6	1.9	8.1	10.1	11.6	9.1	7.7	22.0
29	17.2	S	2.9	5.8	8.8	6.7	13.1	12.9	3.7	6.8	4.2	1.1	2.3	2.1	0.9	1.5	1.6	2.2	0.9	2.0	0.6	0.7	3.1	5.6	4.6	17.2
30	2.5	S	1.3	1.1	0.6	0.7	4.8	6.0	5.1	7.3	9.9	5.1	7.9	14.9	6.6	9.6	19.1	9.4	3.3	8.8	2.7	1.2	4.7	3.3	5.9	19.1
NO.	30	-	30	30	30	30	30	30	29	29	29	29	29	29	29	30	30	30	30	30	30	30	30	30	683	100%
MEAN	11.0	-	10.9	12.1	11.7	16.5	19.0	22.6	17.7	16.9	13.0	11.3	9.4	9.3	7.9	10.0	8.9	10.1	9.5	5.5	9.3	8.0	10.1	10.5		
MAX	35.8	-	32.3	54.6	43.6	94.9	66.8	45.7	43.6	34.4	38.4	28.7	22.2	25.4	30.3	39.0	32.0	36.3	48.5	19.2	40.6	19.9	21.0	33.3		



Number of Non-Zero Readings	683		
Maximum 1-HR Average	94.9 PPB		
Maximum 24-HR Average	20.6 PPB		
		Opperational Time	720 HRS
Monthly Calibration	7	Opperational Uptime	100.0 %
Standard Deviation	10.14	Monthly Average	11.8 PPB

Lagoon NO (ppb) – September 2021

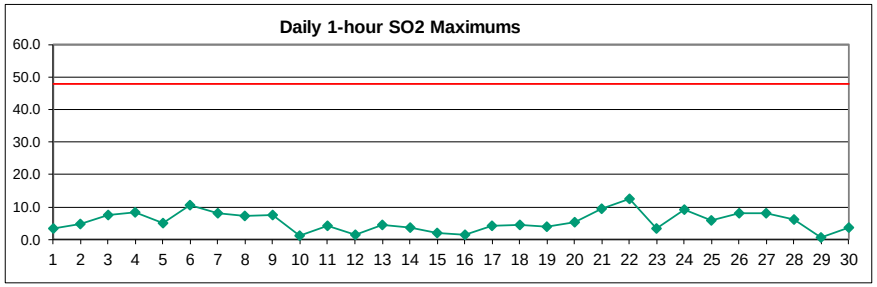
Day	HOUR 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN	MAX
1	1.9	S	1.3	9.0	0.6	5.3	3.2	5.8	2.1	0.7	3.5	2.3	1.8	2.3	2.5	3.6	2.5	7.1	13.2	1.2	5.6	0.6	6.8	1.5	3.7	13.2
2	7.2	S	2.6	15.6	5.5	22.4	33.7	33.3	22.7	10.8	7.5	10.5	6.8	3.5	5.1	6.8	0.9	0.5	4.2	2.7	4.2	1.9	0.8	0.7	9.1	33.7
3	1.0	S	3.6	2.3	3.0	11.9	14.1	31.0	10.8	13.5	7.2	6.8	0.8	1.9	4.0	0.8	0.5	3.5	2.3	0.4	1.1	0.5	4.8	1.1	5.5	31.0
4	2.1	S	5.3	2.8	2.9	8.3	11.9	22.5	17.4	20.4	12.3	2.9	10.1	0.9	0.4	0.4	2.3	2.7	0.5	0.4	0.5	0.3	0.5	0.4	5.6	22.5
5	0.5	S	0.7	1.5	3.3	0.8	0.5	0.4	0.4	0.4	0.5	0.6	4.5	2.1	0.8	1.9	2.1	1.6	1.5	1.3	10.3	3.5	0.4	0.5	1.7	10.3
6	0.3	S	0.6	6.3	6.7	53.8	34.5	8.4	2.2	2.7	10.4	10.8	5.9	8.0	7.6	6.5	11.3	16.0	7.1	0.7	0.3	0.4	0.4	0.7	8.8	53.8
7	0.7	S	0.9	0.5	1.4	0.6	4.3	14.9	19.6	15.5	2.3	1.0	0.6	0.5	0.6	3.3	2.2	5.2	1.3	0.4	0.4	0.5	0.5	18.4	4.2	19.6
8	0.7	S	2.2	2.2	5.3	12.7	16.9	29.5	13.0	13.0	23.8	15.8	10.9	7.4	3.5	2.9	1.2	0.5	0.3	0.5	0.3	0.4	4.4	0.4	7.3	29.5
9	0.2	S	0.6	0.8	0.5	0.3	4.6	14.9	4.1	2.5	6.2	11.6	10.6	12.6	13.7	20.4	15.8	13.8	0.4	0.4	18.7	0.9	2.2	1.7	6.8	20.4
10	3.0	S	3.0	0.8	1.5	1.0	3.7	14.1	5.0	4.7	1.9	1.8	2.5	2.7	2.6	4.2	2.8	0.4	2.7	0.4	0.7	0.2	0.6	1.3	2.7	14.1
11	1.2	S	0.5	0.4	0.4	1.0	13.3	8.4	17.0	22.1	15.9	6.6	5.8	2.5	4.8	0.7	2.2	0.4	2.0	1.5	0.9	0.8	1.0	0.9	4.8	22.1
12	0.8	S	0.8	0.7	2.8	1.1	0.7	3.1	5.4	9.0	7.6	7.7	3.5	6.1	2.9	4.0	2.3	1.7	6.8	1.8	1.6	0.7	1.0	1.7	3.2	9.0
13	4.7	S	2.7	0.9	0.9	1.1	12.2	20.1	18.5	14.2	5.7	3.0	1.1	10.0	13.1	12.8	7.2	3.4	0.8	0.4	1.0	5.3	1.4	0.5	6.1	20.1
14	2.6	S	3.7	3.6	2.2	7.9	5.8	7.2	7.8	8.0	2.4	14.2	7.8	0.7	1.1	0.6	1.0	2.7	1.3	0.4	0.6	0.6	0.3	0.3	3.6	14.2
15	0.4	S	3.4	1.3	3.6	0.8	10.9	5.2	0.8	8.3	9.1	3.1	3.3	13.5	9.3	6.7	2.0	2.9	3.1	0.4	2.5	5.2	0.7	2.7	4.3	13.5
16	1.7	S	4.1	4.3	5.2	4.6	5.0	19.0	7.7	8.1	1.3	1.9	3.5	4.4	0.8	0.8	4.6	11.3	0.8	2.5	8.1	2.2	7.8	2.8	4.9	19.0
17	10.4	S	13.6	9.1	15.7	32.9	17.7	17.2	20.7	17.3	5.9	1.2	0.7	0.8	1.5	0.6	1.6	0.8	2.7	1.2	2.0	1.5	4.1	4.1	8.0	32.9
18	4.0	S	1.4	0.6	1.7	0.8	1.4	4.6	6.5	13.4	5.9	2.6	1.8	0.5	2.5	10.5	0.6	8.4	1.0	2.2	0.4	1.0	6.6	8.8	3.8	13.4
19	7.5	S	8.0	5.8	5.5	13.3	9.8	6.8	10.8	13.4	4.7	1.2	2.6	4.4	0.7	0.5	1.5	1.0	0.6	0.6	2.2	1.0	4.7	6.6	4.9	13.4
20	7.2	S	2.6	5.6	5.0	3.3	7.2	16.7	11.9	5.0	1.7	1.5	1.0	2.0	1.9	5.0	2.4	1.2	1.8	0.7	0.8	0.8	1.2	1.1	3.8	16.7
21	1.1	S	0.5	0.5	0.4	3.7	1.6	1.4	1.0	13.0	17.4	16.5	7.3	7.4	5.0	8.6	16.7	10.8	3.8	1.1	2.4	2.7	4.0	2.9	5.7	17.4
22	2.1	S	2.7	1.7	1.1	1.5	3.5	11.4	C	C	C	C	C	C	C	11.9	4.0	3.4	11.0	2.1	1.1	4.2	1.8	0.3	-	-
23	0.2	S	0.2	8.8	1.4	6.7	6.9	4.1	0.6	1.3	6.8	11.8	8.7	1.1	0.4	0.8	0.6	5.9	2.1	0.0	1.5	0.5	1.0	1.6	3.2	11.8
24	5.9	S	7.0	5.1	5.9	8.1	11.3	22.3	27.0	11.6	1.5	1.2	1.0	0.4	0.4	0.9	1.0	0.2	0.0	0.3	0.9	1.6	3.5	1.2	5.2	27.0
25	3.7	S	3.3	2.8	7.2	3.7	1.0	9.6	24.8	15.9	16.3	11.4	5.6	2.2	0.7	4.3	8.1	3.6	25.3	3.5	1.4	1.5	4.0	5.7	7.2	25.3
26	20.7	S	11.6	35.1	25.9	1.4	1.2	3.0	5.5	0.5	0.4	0.6	0.3	1.2	0.5	0.6	1.3	0.7	0.3	0.6	0.6	0.4	7.6	9.7	5.6	35.1
27	2.0	S	11.7	7.2	0.5	2.4	3.5	6.2	3.6	7.2	0.7	3.0	5.8	6.2	0.8	0.1	0.1	0.2	2.0	0.1	1.4	2.0	3.0	1.3	3.1	11.7
28	0.1	S	1.0	5.5	3.5	1.2	4.8	9.0	4.2	1.8	1.2	0.7	0.3	4.0	1.4	1.2	0.9	0.0	0.0	0.1	2.0	1.6	2.2	1.7	2.1	9.0
29	7.4	S	0.2	1.4	1.9	1.2	4.9	3.9	0.9	2.4	1.4	0.3	0.7	0.6	0.2	0.3	0.4	0.5	0.1	0.7	0.0	0.0	0.9	1.7	1.4	7.4
30	0.6	S	0.0	0.1	0.0	0.0	1.5	1.6	1.3	2.1	3.5	1.5	2.8	7.0	2.3	3.7	9.0	3.1	0.4	3.0	0.3	0.0	0.2	0.2	1.9	9.0
NO.	30	-	30	30	30	30	30	30	29	29	29	29	29	29	29	30	30	30	30	30	30	30	30	30	683	100%
MEAN	3.4	-	3.3	4.7	4.0	7.1	8.4	11.8	9.4	8.9	6.4	5.3	4.1	4.0	3.1	4.2	3.6	3.8	3.3	1.1	2.5	1.4	2.6	2.8		
MAX	20.7	-	13.6	35.1	25.9	53.8	34.5	33.3	27.0	22.1	23.8	16.5	10.9	13.5	13.7	20.4	16.7	16.0	25.3	3.5	18.7	5.3	7.8	18.4		



Number of Non-Zero Readings	680		
Maximum 1-HR Average	53.8 PPB		
Maximum 24-HR Average	9.1 PPB		
		Opperational Time	720 HRS
Monthly Calibration	7	Opperational Uptime	100.0 %
Standard Deviation	6.128	Monthly Average	4.7 PPB

Lagoon SO_2 (ppb) – September 2021

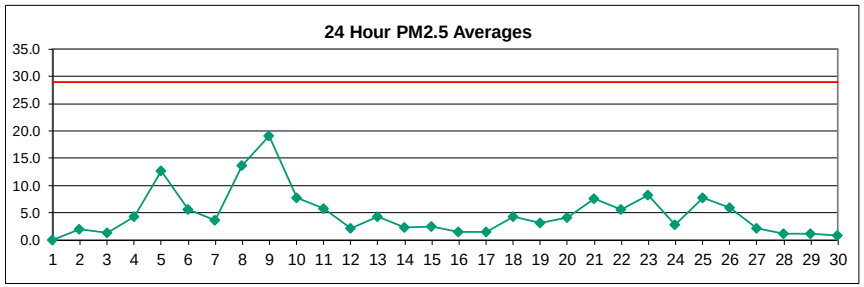
Day	HOUR 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN	MAX
1	0.0	S	0.0	0.3	0.4	0.3	0.0	0.0	0.1	0.6	0.3	0.7	1.2	0.7	0.9	2.3	0.5	2.1	3.4	0.4	0.0	0.5	0.1	0.0	0.6	3.4
2	0.3	S	0.0	0.2	0.1	0.2	0.4	0.4	2.6	2.1	1.3	4.9	2.1	0.6	0.2	0.3	0.0	0.0	0.2	0.6	0.9	0.7	0.5	0.0	0.8	4.9
3	0.0	S	1.1	0.6	0.2	1.3	2.6	7.5	4.1	1.3	1.7	1.9	0.5	3.3	4.4	0.0	0.0	1.8	0.7	0.0	0.7	0.4	0.1	0.2	1.5	7.5
4	0.5	S	2.6	1.4	2.1	0.9	3.0	8.2	4.8	8.4	4.7	1.1	5.8	0.7	0.0	0.0	0.6	1.3	0.0	0.0	0.4	0.0	0.0	0.6	2.0	8.4
5	0.5	S	1.3	1.9	4.4	0.3	0.5	0.3	0.0	0.0	0.2	0.2	3.2	1.4	1.5	1.2	1.4	0.9	1.5	0.5	5.1	4.1	0.0	0.4	1.3	5.1
6	0.5	S	0.0	0.2	0.2	1.1	0.6	1.1	0.5	1.1	7.2	6.8	5.9	3.7	6.9	4.7	7.4	10.7	6.3	0.3	0.5	0.0	0.2	2.3	3.0	10.7
7	0.9	S	1.0	0.2	0.0	0.0	1.6	1.2	8.2	5.2	0.0	0.0	0.3	0.1	0.0	6.3	2.6	2.2	0.0	0.8	0.0	0.3	0.2	0.3	1.4	8.2
8	0.0	S	0.3	0.0	0.5	1.7	1.8	7.3	2.8	3.1	7.2	5.7	4.5	3.4	1.8	0.6	1.1	0.6	0.6	0.7	0.7	0.7	1.0	0.6	2.0	7.3
9	0.5	S	1.4	0.7	0.8	1.0	1.9	1.6	2.0	1.4	4.3	5.2	6.8	6.0	7.5	6.8	6.8	4.8	0.0	0.2	0.4	1.2	1.8	2.4	2.8	7.5
10	0.7	S	0.6	0.4	0.3	0.5	0.1	0.2	0.6	0.1	0.8	1.2	0.3	0.4	0.5	0.1	0.5	0.3	0.7	0.0	0.6	0.5	0.0	0.2	0.4	1.2
11	0.4	S	0.0	0.0	0.7	0.6	0.7	1.3	2.7	4.3	1.1	1.2	0.7	0.2	0.2	0.0	0.0	0.0	0.0	0.1	0.3	0.1	0.0	0.0	0.6	4.3
12	0.7	S	0.5	0.5	0.4	0.3	0.4	0.3	0.0	1.3	0.7	0.4	1.1	1.5	0.1	0.4	0.5	0.5	0.6	0.8	0.5	0.3	0.5	0.0	0.5	1.5
13	0.1	S	0.3	0.0	0.0	0.1	0.2	0.8	2.3	3.2	0.8	0.4	0.0	4.6	4.1	3.4	3.6	1.4	0.0	0.0	0.1	0.5	0.3	0.2	1.1	4.6
14	1.1	S	0.5	1.0	1.0	1.3	0.8	0.7	0.6	1.2	0.0	3.7	2.2	0.0	0.0	0.1	0.1	0.3	0.5	0.5	0.3	0.5	0.1	0.3	0.7	3.7
15	0.5	S	1.5	0.5	1.0	0.4	0.2	0.3	0.0	0.1	0.6	0.1	0.7	2.1	2.0	1.2	0.0	1.1	0.7	0.2	0.0	0.4	0.2	0.4	0.6	2.1
16	0.0	S	1.2	0.2	0.5	0.5	0.8	1.6	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.0	0.0	0.0	0.0	0.0	0.4	0.3	1.6
17	1.1	S	1.3	1.7	2.7	4.4	2.3	1.3	2.4	4.0	0.9	0.3	0.2	0.4	0.6	0.3	0.4	0.7	0.4	0.9	0.6	0.8	2.1	1.6	1.4	4.4
18	2.6	S	0.5	0.7	1.1	0.7	0.6	0.9	0.9	1.0	1.2	1.0	0.9	0.0	0.9	4.5	0.9	0.5	0.5	0.4	0.4	0.1	2.1	2.6	1.1	4.5
19	2.4	S	2.3	1.3	0.8	2.5	3.6	1.0	2.7	4.0	2.3	0.1	1.1	2.1	0.1	0.3	0.0	0.0	0.0	0.5	0.0	0.7	1.5	2.8	1.4	4.0
20	3.7	S	0.4	2.0	1.9	2.0	1.1	5.2	3.0	0.7	0.0	0.0	0.0	0.2	0.1	2.4	0.7	0.7	0.9	0.0	0.3	0.0	0.0	0.0	1.1	5.2
21	0.0	S	0.0	0.0	0.0	0.5	0.1	0.0	0.0	4.0	9.4	5.7	2.7	2.7	1.3	2.8	3.5	4.2	0.0	0.8	0.0	0.1	0.3	0.0	1.7	9.4
22	0.2	S	0.4	0.7	0.7	0.2	0.6	0.1	C	C	C	C	C	11.9	6.6	12.5	3.3	4.8	8.0	2.0	1.4	3.9	2.4	0.0	3.3	12.5
23	0.0	S	0.1	3.3	0.9	0.0	0.2	1.0	0.9	1.2	0.6	0.8	1.1	0.2	0.0	0.0	0.0	0.0	0.9	1.1	0.5	0.1	0.2	1.2	0.6	3.3
24	3.0	S	2.9	3.0	2.8	3.9	4.9	8.5	9.2	2.2	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.6	0.0	0.0	0.8	0.2	0.5	1.9	9.2
25	2.0	S	2.3	2.4	2.6	1.3	0.6	1.8	5.9	4.4	5.4	4.6	2.2	2.3	0.7	3.8	5.8	0.0	2.7	2.6	1.2	0.4	0.6	0.9	2.5	5.9
26	0.7	S	0.5	0.9	1.1	0.5	0.7	0.9	0.8	0.8	0.4	1.1	0.7	1.5	0.6	0.5	0.9	1.3	0.6	0.2	0.6	0.4	5.9	8.1	1.3	8.1
27	2.6	S	8.0	5.1	1.0	1.0	2.2	2.9	1.6	3.6	0.8	1.9	2.7	4.9	1.5	0.3	0.7	0.6	0.7	0.8	1.1	0.5	1.0	0.8	2.0	8.0
28	0.6	S	0.6	1.6	0.4	0.7	0.7	1.6	0.6	0.9	0.2	0.5	0.0	6.1	1.7	1.6	1.2	0.4	0.1	0.7	0.8	0.3	0.7	1.0	1.0	6.1
29	0.6	S	0.0	0.0	0.5	0.3	0.4	0.5	0.5	0.6	0.4	0.0	0.1	0.6	0.1	0.0	0.2	0.7	0.0	0.0	0.3	0.6	0.5	0.0	0.3	0.7
30	0.3	S	0.8	0.6	0.2	0.4	0.1	0.0	0.0	1.3	0.1	1.1	1.3	3.6	0.5	1.7	3.4	1.9	0.4	0.6	0.1	0.6	0.6	0.3	0.9	3.6
NO.	30	-	30	30	30	30	30	30	29	29	29	29	29	30	30	30	30	30	30	30	30	30	30	30	685	100%
MEAN	0.9	-	1.1	1.0	1.0	1.0	1.1	2.0	2.1	2.1	1.8	1.7	1.7	2.2	1.5	1.9	1.5	1.5	1.0	0.5	0.6	0.6	0.8	0.9		
MAX	3.7	-	8.0	5.1	4.4	4.4	4.9	8.5	9.2	8.4	9.4	6.8	6.8	11.9	7.5	12.5	7.4	10.7	8.0	2.6	5.1	4.1	5.9	8.1		



Number of 1HR Exceedences	0		
Number of Non-Zero Readings	579		
Maximum 1-HR Average	12.5 PPB		
Maximum 24-HR Average	3.3 PPB		
		Opperational Time	720 HRS
Monthly Calibration	5	Opperational Uptime	100.0 %
Standard Deviation	1.873	Monthly Average	1.3 PPB

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

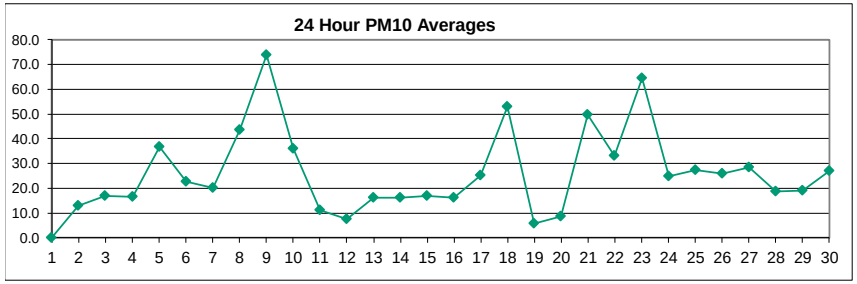
Day	HOUR 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN	MAX
1	1.2	2.4	4.8	5.6	2.5	1.1	0.4	0.1	P	P	P	P	P	P	P	0.5	0.7	0.2	1.5	1.5	1.1	5.3	3.5	0.8	-	-
2	0.7	4.2	2.1	0.5	1.5	3.0	4.5	6.7	4.3	3.8	6.1	4.4	0.4	0.1	0.1	0.0	1.1	0.3	0.0	0.0	0.8	0.8	0.9	2.2	2.0	6.7
3	1.4	0.2	1.4	0.5	1.0	3.7	4.2	1.7	0.0	0.6	2.5	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	2.9	2.9	3.5	6.0	1.4	6.0
4	4.2	6.1	5.0	3.1	4.5	5.4	4.6	7.0	5.7	4.2	4.6	3.3	2.7	4.3	3.5	1.0	3.3	3.7	4.2	2.4	4.6	7.2	5.3	3.8	4.3	7.2
5	5.6	6.9	7.4	14.0	14.7	16.5	19.7	17.1	14.2	15.0	13.3	12.9	11.1	14.4	13.9	12.0	18.2	12.5	11.4	13.7	8.4	5.2	15.8	10.1	12.7	19.7
6	8.9	7.1	4.4	5.0	8.0	9.2	12.0	12.1	8.0	3.5	1.0	9.3	8.1	5.0	4.1	5.7	5.0	3.8	5.7	4.3	2.4	0.0	0.0	1.8	5.6	12.1
7	6.4	4.9	1.9	2.9	3.5	6.2	6.0	3.7	4.8	6.1	5.0	3.4	4.0	3.6	2.5	1.1	0.5	0.8	1.2	2.4	4.7	4.3	3.6	3.5	3.6	6.4
8	10.5	4.9	2.7	4.3	3.5	5.8	5.0	4.1	5.9	6.8	5.8	5.8	5.7	5.0	9.4	9.6	16.5	16.4	28.5	29.8	29.5	35.0	37.9	40.8	13.7	40.8
9	48.6	42.7	36.3	31.4	32.7	31.9	29.7	27.5	28.4	16.0	13.0	12.6	12.7	17.2	4.7	4.4	9.0	8.5	5.3	2.6	8.0	13.3	11.8	10.5	19.1	48.6
10	10.8	10.1	14.6	12.5	9.5	6.2	6.9	7.3	10.1	9.2	7.0	8.5	6.1	4.8	4.3	3.3	7.5	5.1	5.7	8.6	7.3	8.2	5.8	6.0	7.7	14.6
11	8.3	7.0	3.5	1.9	2.0	4.4	4.1	6.1	10.2	10.4	8.5	6.2	6.6	7.7	8.5	6.0	4.1	4.9	6.7	4.0	4.5	6.7	4.2	2.3	5.8	10.4
12	3.0	3.5	6.1	4.6	3.1	4.8	6.5	5.2	2.8	0.5	1.9	1.8	0.8	0.2	0.0	0.0	0.8	0.0	0.5	1.1	0.1	0.9	2.8	1.0	2.2	6.5
13	0.0	3.6	3.2	2.0	3.5	5.6	1.9	2.1	4.9	7.6	4.3	0.0	0.0	0.0	0.4	0.5	1.4	9.6	6.9	3.1	20.0	12.0	7.4	3.9	4.3	20.0
14	7.9	6.4	4.2	0.7	0.0	0.8	1.5	1.4	0.1	2.6	3.0	4.4	4.0	3.5	1.0	0.0	0.0	0.2	2.5	2.9	2.3	3.7	3.5	1.4	2.4	7.9
15	0.0	0.0	2.0	3.7	9.5	4.7	0.0	0.5	0.7	0.7	0.0	0.6	12.9	16.1	0.0	0.8	0.0	0.0	2.4	1.4	0.0	0.0	0.7	4.0	2.5	16.1
16	3.8	0.7	0.0	0.0	0.0	3.2	2.4	4.4	4.2	1.5	2.5	1.3	0.0	0.0	0.0	1.4	0.3	3.3	3.3	2.9	2.0	0.0	0.1	0.0	1.6	4.4
17	0.0	0.1	1.0	3.3	2.9	1.4	0.5	1.1	0.9	1.8	5.0	2.8	0.7	0.0	0.0	0.0	0.0	0.0	0.8	0.2	0.6	3.1	5.4	4.9	1.5	5.4
18	7.5	6.2	6.0	8.1	4.2	0.9	2.9	7.1	10.0	8.5	4.9	2.5	1.8	1.0	0.0	4.5	5.6	2.7	8.8	5.5	0.1	0.2	2.2	0.8	4.2	10.0
19	1.2	1.5	0.8	0.5	0.0	0.0	0.1	0.6	2.5	2.6	17.4	13.1	9.0	2.8	1.2	2.1	0.4	0.5	0.8	1.1	3.8	5.1	5.4	4.0	3.2	17.4
20	2.2	1.5	2.5	1.8	0.5	1.9	2.8	2.3	2.7	4.2	8.1	20.0	16.4	2.3	0.0	0.0	3.0	2.9	0.0	0.0	0.0	15.4	7.8	0.0	4.1	20.0
21	10.1	13.7	8.6	12.7	9.0	7.7	9.0	4.9	2.6	3.2	6.2	6.0	2.8	1.4	6.7	9.0	7.4	4.6	2.9	1.6	3.8	21.4	13.5	14.6	7.6	21.4
22	12.1	7.4	3.9	7.8	5.2	1.2	1.8	1.2	2.4	4.9	6.2	C	C	15.1	8.7	3.3	7.2	12.6	7.6	6.2	2.6	0.8	3.7	2.9	5.7	15.1
23	0.4	P	0.0	0.0	1.8	0.7	0.7	9.2	6.3	3.1	7.6	39.7	74.4	21.5	0.9	0.0	0.0	2.7	4.4	0.0	0.0	4.2	6.4	5.6	8.3	74.4
24	8.2	6.0	3.7	4.7	3.6	2.6	2.9	3.0	3.4	4.4	6.7	3.8	0.5	1.6	2.6	2.3	0.0	0.0	0.7	0.0	0.0	0.0	3.1	5.5	2.9	8.2
25	5.7	8.9	5.9	2.7	4.8	5.7	4.0	3.9	7.0	8.6	6.7	9.7	7.7	3.9	2.9	8.4	14.4	9.1	4.9	11.8	10.0	8.6	12.9	17.1	7.7	17.1
26	18.5	14.2	11.0	8.0	8.2	10.7	8.9	6.5	5.8	4.7	3.2	2.0	4.1	4.7	4.3	3.6	3.5	5.9	7.0	3.5	1.6	3.2	1.1	0.9	6.0	18.5
27	2.5	5.8	5.5	10.5	5.1	0.0	3.3	2.9	1.7	3.8	0.0	0.0	3.6	2.9	2.5	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.2	1.8	2.2	10.5
28	0.7	0.0	1.8	0.5	1.2	1.7	0.0	0.0	3.4	4.8	0.3	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	4.9	4.3	0.0	2.3	3.2	1.2	4.9
29	1.1	2.8	0.5	0.0	0.0	0.0	0.0	0.0	2.1	5.0	3.5	0.1	0.0	7.1	4.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	1.1	7.1
30	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.9	1.8	1.5	1.4	4.3	3.6	2.9	1.4	0.0	0.0	0.0	0.1	1.1	0.3	0.9	4.3
NO.	30	29	30	30	30	30	30	30	29	29	29	28	28	29	29	30	30	30	30	30	30	30	30	30	710	99%
MEAN	6.4	6.2	5.0	5.2	4.9	4.9	4.9	5.0	5.3	5.1	5.4	6.3	7.1	5.1	3.2	2.8	3.8	3.7	4.1	3.9	4.2	5.6	5.7	5.3		
MAX	48.6	42.7	36.3	31.4	32.7	31.9	29.7	27.5	28.4	16.0	17.4	39.7	74.4	21.5	13.9	12.0	18.2	16.4	28.5	29.8	29.5	35.0	37.9	40.8		



Number of 24HR Exceedences	0		
Number of Non-Zero Readings	603		
Maximum 1-HR Average	74.4 UG/M3		
Maximum 24-HR Average	19.1 UG/M3		
		Opperational Time	712 HRS
Monthly Calibration	2	Opperational Uptime	98.9 %
Standard Deviation	6.716	Monthly Average	4.9 UG/M3

Lagoon PM_{10} ($\mu g/m^3$) – September 2021

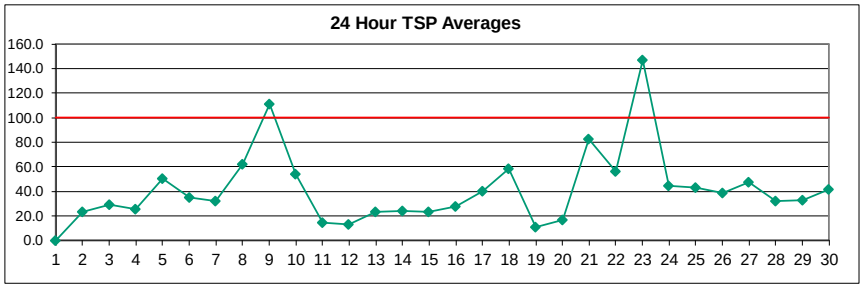
Day	HOUR 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN	MAX
1	5.3	6.8	8.8	10.5	8.9	30.6	23.3	5.5	P	P	P	P	P	P	P	20.7	18.0	16.8	25.1	18.1	25.8	18.4	11.9	9.0	-	-
2	3.9	11.2	8.4	5.3	14.6	11.2	8.4	15.1	36.3	43.0	29.9	22.8	12.1	11.3	8.7	8.4	14.4	7.9	7.1	13.0	6.5	3.4	4.6	3.3	12.9	43.0
3	5.2	21.3	7.7	3.1	1.6	16.9	18.9	37.8	27.1	18.8	17.4	17.2	30.8	9.2	25.3	19.5	8.4	14.2	24.2	23.1	15.2	11.2	17.7	9.4	16.7	37.8
4	11.2	26.7	21.8	15.0	3.2	2.6	12.7	15.2	21.1	24.1	20.5	13.6	15.1	27.4	15.3	12.6	10.5	18.4	29.1	11.5	19.6	19.8	14.0	11.9	16.4	29.1
5	10.7	32.4	68.6	43.5	47.1	52.3	35.2	27.4	42.5	40.5	29.6	28.5	39.8	39.3	51.0	53.6	28.2	35.6	43.4	62.3	16.7	33.2	18.9	1.7	36.7	68.6
6	16.9	8.4	5.0	10.7	23.4	21.7	33.4	26.8	13.2	8.6	16.7	15.7	30.0	44.2	39.7	54.2	28.4	39.1	38.1	40.3	17.1	2.0	2.7	4.0	22.5	54.2
7	5.4	15.9	16.9	17.4	15.4	9.6	14.2	25.0	36.1	40.1	41.7	11.1	15.8	10.9	10.1	12.6	37.9	29.4	34.3	22.1	20.1	17.9	13.3	12.4	20.2	41.7
8	26.0	21.9	16.4	19.1	14.9	36.0	46.5	25.8	48.5	63.6	36.9	51.7	47.2	64.4	56.3	40.7	52.2	53.3	42.2	37.0	35.4	40.4	61.3	104.0	43.4	104.0
9	81.2	54.5	60.5	53.5	37.6	66.2	81.9	57.8	109.8	98.2	72.2	94.7	184.0	215.1	85.2	66.2	73.4	49.7	51.0	11.6	69.8	33.5	30.5	31.7	73.7	215.1
10	32.3	49.6	34.4	36.7	21.7	31.3	17.3	43.8	59.8	35.7	34.3	32.5	42.8	37.3	49.1	46.1	56.5	41.1	28.9	27.2	20.7	28.1	33.0	21.4	35.9	59.8
11	18.1	15.6	7.1	4.0	4.1	5.5	9.2	16.5	12.4	17.0	19.1	12.6	14.0	12.7	15.7	8.7	8.8	9.8	9.2	6.2	9.6	12.5	7.9	7.7	11.0	19.1
12	12.0	10.7	11.1	7.4	8.6	7.2	14.3	7.7	12.0	10.9	13.5	13.1	7.0	1.9	2.0	3.2	1.3	1.9	2.6	11.2	7.8	5.2	4.6	4.6	7.6	14.3
13	5.4	15.4	4.8	6.6	5.4	7.7	3.3	4.7	25.5	22.9	12.6	10.7	9.4	9.6	14.3	36.5	45.9	43.9	31.3	5.5	8.3	22.3	22.0	10.9	16.0	45.9
14	31.6	19.6	9.9	7.7	4.7	5.4	6.5	5.1	12.3	15.6	17.6	29.0	39.9	47.3	8.1	7.4	8.3	12.7	12.4	25.6	14.9	16.1	14.7	11.5	16.0	47.3
15	12.4	10.8	61.2	65.5	52.2	14.8	5.0	9.3	7.6	1.8	0.0	5.4	6.6	15.1	20.3	30.4	13.2	9.7	14.4	8.4	4.4	2.5	20.2	11.3	16.8	65.5
16	20.8	10.0	8.4	4.5	3.1	10.8	21.4	19.1	22.2	11.6	14.3	7.2	6.4	21.0	12.4	6.6	7.8	45.1	59.0	21.6	3.4	16.2	26.0	12.0	16.3	59.0
17	11.9	17.1	1.3	1.3	2.9	16.5	22.3	40.8	21.5	31.8	65.5	43.7	30.3	18.9	11.6	32.2	20.0	26.7	30.3	0.6	12.2	23.0	28.9	93.6	25.2	93.6
18	80.2	122.1	98.7	251.2	79.9	54.8	103.9	105.8	59.3	27.6	25.1	7.8	13.8	8.3	6.3	52.1	77.1	3.0	53.2	1.0	0.0	5.8	23.8	5.9	52.8	251.2
19	3.9	2.7	4.5	2.4	0.0	1.4	3.4	4.7	5.3	4.9	7.9	5.9	4.2	7.0	9.0	4.2	0.0	3.4	4.3	0.0	2.7	23.6	22.0	7.6	5.6	23.6
20	2.7	4.1	5.2	4.5	1.4	1.4	3.3	3.6	7.7	13.3	29.2	2.7	3.7	10.4	15.0	10.6	36.6	12.6	9.5	10.9	3.6	0.0	5.9	4.6	8.4	36.6
21	3.8	11.2	7.7	12.5	8.5	5.3	5.4	7.2	13.1	29.8	158.9	151.9	94.6	67.0	142.2	97.6	138.5	82.5	32.1	16.4	38.1	23.1	34.4	14.3	49.8	158.9
22	8.1	18.4	11.4	10.5	7.5	9.3	8.5	15.7	29.4	34.9	30.2	C	C	119.6	46.0	46.0	98.0	49.0	59.5	72.3	6.7	4.7	34.2	10.7	33.2	119.6
23	4.6	P	6.5	7.2	42.4	11.2	21.2	72.2	38.5	12.4	81.1	317.0	466.1	185.0	38.6	12.3	32.9	10.8	21.2	15.0	9.8	25.6	24.8	22.8	64.3	466.1
24	39.9	28.7	4.2	8.0	16.3	4.5	12.7	22.9	55.7	115.4	68.8	25.8	19.0	20.5	14.4	8.7	8.6	7.7	13.1	9.0	12.6	10.7	30.5	39.9	24.9	115.4
25	22.5	34.6	18.7	15.8	10.7	10.4	14.5	11.9	29.5	37.2	39.4	43.1	40.1	24.4	26.2	25.8	37.7	43.2	5.5	45.9	26.3	26.3	26.4	37.0	27.2	45.9
26	34.3	30.4	23.0	34.0	27.3	22.4	25.6	34.5	33.9	16.8	16.1	16.9	50.1	103.7	17.1	11.0	15.5	24.9	13.3	9.2	7.9	15.3	14.0	22.9	25.8	103.7
27	32.5	45.1	75.8	119.1	29.4	14.5	10.9	34.3	63.0	34.3	22.7	20.0	36.1	30.9	27.0	7.8	3.9	2.7	4.9	17.8	2.8	7.3	25.7	17.2	28.6	119.1
28	12.7	21.3	16.6	3.2	2.1	5.3	16.5	33.8	70.6	23.7	4.6	4.6	3.3	5.5	55.0	18.5	12.6	9.0	2.8	0.0	2.5	13.2	59.1	52.9	18.7	70.6
29	47.6	68.4	20.1	7.8	4.5	2.6	12.7	12.7	19.6	9.9	17.5	16.8	16.6	12.6	10.2	21.0	15.0	38.6	48.3	22.8	9.8	5.4	7.6	10.7	19.1	68.4
30	11.0	24.6	29.1	29.4	23.5	12.4	7.1	13.1	7.5	17.8	51.0	35.8	45.6	42.3	67.2	50.6	40.4	47.5	38.4	26.3	14.1	2.6	3.0	8.6	27.0	67.2
NO.	30	29	30	30	30	30	30	30	29	29	29	28	28	29	29	30	30	30	30	30	30	30	30	30	710	99%
MEAN	20.5	26.2	22.5	27.3	17.4	16.7	20.6	25.2	32.5	29.7	34.3	37.8	47.3	42.2	31.0	27.5	31.7	26.3	26.3	19.7	14.8	15.7	21.4	20.5		
MAX	81.2	122.1	98.7	251.2	79.9	66.2	103.9	105.8	109.8	115.4	158.9	317.0	466.1	215.1	142.2	97.6	138.5	82.5	59.5	72.3	69.8	40.4	61.3	104.0		



Number of Non-Zero Readings	703		
Maximum 1-HR Average	466.1 UG/M3		
Maximum 24-HR Average	73.7 UG/M3		
		Opperational Time	712 HRS
Monthly Calibration	2	Opperational Uptime	98.9 %
Standard Deviation	33.62	Monthly Average	26.3 UG/M3

Lagoon TSP (µg/m^3) – September 2021

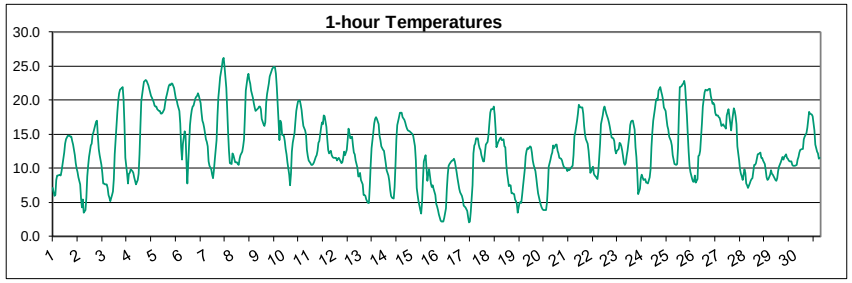
Day	HOUR 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN	MAX
1	9.7	24.4	3.8	14.9	9.1	37.0	28.1	12.6	P	P	P	P	P	P	P	28.2	32.8	25.7	34.3	28.6	38.1	25.3	9.0	15.7	-	-
2	2.4	13.4	4.3	4.0	18.2	18.3	20.8	21.7	59.1	86.4	54.6	40.7	27.2	18.4	22.8	29.2	28.3	14.9	9.7	25.5	11.2	10.2	14.9	8.6	23.5	86.4
3	10.6	21.0	19.2	13.7	9.6	26.2	43.6	50.5	37.6	20.6	35.8	34.0	59.5	20.9	39.5	28.8	22.2	22.5	44.6	46.1	29.9	20.1	27.4	17.0	29.2	59.5
4	22.8	31.8	46.6	18.8	8.5	9.2	19.5	19.8	23.7	27.3	38.4	31.6	27.4	39.8	31.2	19.4	17.6	31.6	43.6	13.2	21.0	22.6	25.7	15.5	25.3	46.6
5	18.6	46.8	116.5	60.8	59.1	69.6	34.4	30.7	50.8	42.4	34.2	46.0	48.8	54.0	71.7	64.3	33.3	53.3	66.5	100.0	21.2	44.2	39.1	4.5	50.4	116.5
6	25.8	16.5	12.6	14.4	38.5	33.6	37.1	31.4	22.7	9.5	24.4	36.8	48.6	69.0	66.4	82.5	54.2	55.4	54.8	62.2	20.3	11.0	7.2	8.5	35.1	82.5
7	8.5	9.6	24.8	27.9	28.7	20.7	19.5	39.9	53.8	51.5	70.0	21.4	25.0	23.0	12.8	18.6	62.9	52.2	63.5	39.2	23.6	22.1	19.6	22.1	31.7	70.0
8	37.6	33.8	20.8	19.7	23.9	48.6	67.0	36.6	63.7	81.1	54.4	78.1	65.6	55.5	93.8	70.3	84.8	90.0	67.7	44.4	45.3	60.1	92.1	159.3	62.3	159.3
9	118.4	70.8	91.8	75.2	43.7	94.0	129.1	99.7	176.3	143.5	100.6	147.7	284.0	317.7	133.7	94.5	116.7	85.9	81.0	16.1	101.0	40.7	47.5	52.4	110.9	317.7
10	48.9	53.8	49.6	43.8	34.8	35.7	31.4	64.3	91.8	57.3	45.0	55.6	93.9	52.7	72.7	82.6	93.9	69.3	49.4	40.8	29.7	36.4	39.5	27.7	54.2	93.9
11	18.0	14.9	8.3	5.9	8.6	10.1	14.0	15.3	14.5	24.0	27.6	24.7	19.3	15.6	18.3	19.0	11.4	12.5	10.0	11.4	14.0	13.4	5.0	14.2	14.6	27.6
12	15.8	20.4	13.0	17.9	14.6	23.1	16.3	10.2	15.3	13.9	13.1	18.7	7.0	6.4	16.2	8.4	7.0	5.7	6.5	18.0	15.1	11.0	7.2	8.4	12.9	23.1
13	7.5	12.4	8.3	5.8	7.2	8.5	8.6	11.4	32.5	24.4	18.8	12.5	11.0	8.5	29.7	50.3	74.2	64.6	50.8	4.4	12.4	27.1	35.7	30.0	23.2	74.2
14	40.3	21.1	23.2	15.3	13.9	12.5	11.2	10.0	11.7	17.9	35.2	42.2	51.4	68.6	18.8	9.7	26.4	24.6	19.4	36.4	20.7	18.1	16.5	12.5	24.1	68.6
15	11.3	11.4	18.9	87.9	56.2	25.2	7.4	10.9	6.8	2.9	2.2	11.3	13.7	29.2	30.4	45.6	23.1	15.7	39.8	12.4	8.5	10.1	33.6	34.9	22.9	87.9
16	17.3	24.8	20.0	5.9	7.3	11.4	33.8	39.8	36.8	27.0	33.2	11.3	15.5	36.9	26.8	11.1	12.2	66.9	88.9	31.6	6.7	23.2	53.7	28.2	27.9	88.9
17	32.7	22.8	10.0	12.6	11.9	21.7	35.5	64.3	33.3	56.7	130.7	78.9	56.3	28.0	23.1	34.7	34.5	30.9	33.1	10.2	16.7	35.5	32.6	119.3	40.3	130.7
18	107.7	160.0	118.9	187.4	59.7	80.4	82.7	95.6	74.6	32.1	31.1	0.3	20.4	12.5	16.1	88.1	112.6	3.9	53.7	8.2	5.1	15.9	22.4	8.8	58.3	187.4
19	13.5	8.5	8.9	13.3	2.0	6.8	3.2	7.2	8.4	7.6	13.8	10.9	6.3	14.6	22.4	4.3	3.0	4.6	8.2	4.4	7.4	32.4	36.9	8.4	10.7	36.9
20	7.3	9.5	4.3	4.3	4.8	11.1	8.3	5.9	9.9	30.6	49.0	15.3	14.1	15.0	28.6	23.1	71.2	19.5	19.8	22.3	1.9	7.6	15.0	8.2	17.0	71.2
21	5.2	16.0	5.3	18.6	4.7	9.9	10.2	16.0	25.5	48.6	287.8	282.7	168.5	113.0	220.7	136.9	207.7	125.6	57.2	25.6	70.7	33.4	70.6	29.0	82.9	287.8
22	26.1	20.8	19.3	15.5	16.8	18.2	19.7	29.9	59.9	62.2	56.7	C	C	189.3	84.2	66.6	171.4	77.6	90.0	113.4	22.3	12.6	47.2	19.5	56.3	189.3
23	0.2	P	3.1	9.7	83.1	23.4	30.2	141.8	86.5	24.0	192.2	825.4	977.0	542.2	121.1	30.5	29.0	27.5	42.3	31.9	31.7	48.6	48.1	38.0	147.3	977.0
24	63.1	32.6	20.2	11.2	29.6	16.3	29.1	32.3	105.4	221.6	120.9	48.0	39.7	31.6	26.0	19.5	18.6	24.6	17.8	13.1	19.4	18.5	44.3	61.9	44.4	221.6
25	35.5	46.2	31.0	17.0	20.3	11.9	21.4	29.7	50.5	58.3	60.0	67.1	72.7	41.1	34.0	43.8	56.7	70.6	14.0	71.5	42.9	40.2	39.6	49.7	42.7	72.7
26	44.8	30.7	32.6	41.6	39.3	26.1	44.0	76.5	58.2	18.8	28.3	37.0	72.8	118.6	32.5	19.9	24.9	22.2	20.4	13.4	25.0	24.1	31.1	39.3	38.4	118.6
27	48.5	90.1	118.8	204.8	44.5	21.4	29.6	58.2	95.7	56.9	37.5	38.2	48.6	49.9	48.1	20.4	9.8	8.5	9.8	28.0	10.1	13.8	30.1	21.6	47.6	204.8
28	11.3	11.9	19.0	11.1	11.1	9.6	26.1	45.4	95.7	35.7	10.0	12.5	10.0	16.4	87.6	32.1	32.6	19.5	0.0	3.4	10.7	28.7	121.1	108.4	32.1	121.1
29	86.3	107.2	34.5	11.2	10.4	18.4	21.9	17.0	39.1	23.1	35.2	41.0	31.4	21.7	14.9	47.5	32.7	44.2	59.0	29.8	17.8	12.9	16.9	16.5	32.9	107.2
30	12.0	23.9	46.9	42.1	27.7	25.7	15.6	18.0	16.2	32.2	93.3	61.0	61.2	66.3	99.4	49.7	66.7	85.6	66.0	36.6	22.5	5.6	5.4	21.6	41.7	99.4
NO.	30	29	30	30	30	30	30	30	29	29	29	28	28	29	29	30	30	30	30	30	30	30	30	30	710	99%
MEAN	30.3	34.7	31.8	34.4	24.9	26.2	30.0	38.1	50.2	46.1	59.8	76.1	84.9	71.6	53.2	42.6	52.4	41.9	40.7	31.4	24.1	24.2	34.5	33.7		
MAX	118.4	160.0	118.9	204.8	83.1	94.0	129.1	141.8	176.3	221.6	287.8	825.4	977.0	542.2	220.7	136.9	207.7	125.6	90.0	113.4	101.0	60.1	121.1	159.3		



Number of 24HR Exceedences	2		
Number of Non-Zero Readings	709		
Maximum 1-HR Average	977.0 UG/M3		
Maximum 24-HR Average	147.3 UG/M3		
		Opperational Time	712 HRS
Monthly Calibration	2	Opperational Uptime	98.9 %
Standard Deviation	63.3	Monthly Average	42.1 UG/M3

Lagoon Temperature (°C) – September 2021

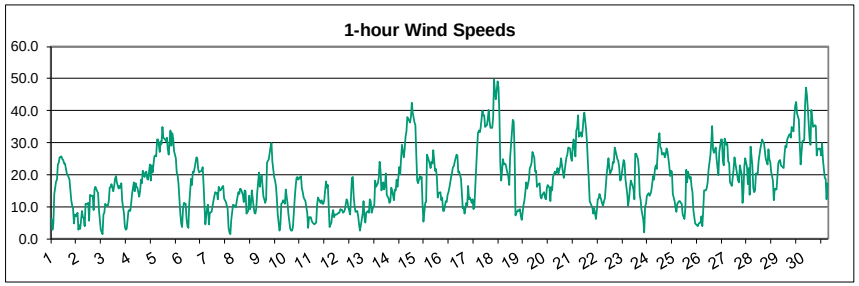
Day	HOUR 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN	MAX
1	7.1	6.0	6.0	8.2	9.0	8.9	9.1	8.9	9.6	10.5	12.3	13.6	14.2	14.5	14.7	14.7	14.6	14.6	14.0	13.4	11.9	10.7	9.9	9.4	11.1	14.7
2	8.7	7.7	5.5	4.2	5.4	3.4	3.8	5.6	8.7	10.4	11.6	13.3	13.6	14.9	15.3	15.8	16.9	17.0	14.7	12.8	11.9	10.5	9.3	7.8	10.4	17.0
3	7.8	7.6	7.6	7.2	6.1	5.6	5.1	6.1	6.6	8.4	12.0	16.1	18.3	19.9	21.0	21.5	21.8	21.8	20.1	16.4	11.5	9.2	7.7	9.2	12.3	21.8
4	9.3	9.9	9.6	9.3	8.7	8.1	7.7	8.3	9.2	12.0	16.0	19.8	21.7	22.6	22.9	22.9	22.8	22.2	21.6	21.1	20.6	20.3	19.7	19.1	16.1	22.9
5	19.0	19.0	18.7	18.4	18.4	18.0	18.0	18.1	18.6	19.5	20.4	20.9	22.0	22.2	22.2	22.4	22.4	21.7	21.0	20.2	20.0	19.3	18.4	16.5	19.8	22.4
6	13.1	11.3	13.6	15.5	14.7	10.9	7.7	10.8	16.3	17.6	18.5	19.1	19.2	20.2	20.5	20.7	20.9	20.6	19.6	18.1	17.0	16.5	16.0	14.2	16.4	20.9
7	13.9	13.2	11.0	10.3	9.9	9.0	8.6	9.7	11.2	14.1	17.6	20.4	21.8	23.3	24.9	26.0	26.1	24.9	21.7	18.7	15.3	12.6	10.8	10.7	16.1	26.1
8	12.2	11.9	11.4	10.8	10.9	10.6	10.5	11.4	12.0	12.4	13.2	14.3	17.7	21.3	23.4	23.9	23.0	22.4	21.3	20.3	19.6	18.9	18.5	18.6	16.3	23.9
9	18.8	19.0	19.1	18.7	17.2	16.5	16.2	16.7	19.5	20.8	22.4	23.4	23.9	24.3	24.6	24.8	24.8	23.8	21.9	16.9	14.1	17.0	16.6	14.9	19.8	24.8
10	14.8	14.0	12.8	12.1	10.9	9.0	7.5	9.1	12.4	13.8	15.2	16.9	18.4	19.2	19.9	20.0	19.3	18.6	17.3	16.2	15.6	14.9	12.6	11.7	14.7	20.0
11	11.2	10.7	10.5	10.5	10.6	10.9	11.7	12.0	12.6	13.7	14.0	15.9	16.7	16.5	17.7	17.6	16.0	14.3	12.7	12.1	12.6	11.9	11.7	11.5	13.2	17.7
12	11.5	11.5	11.1	11.4	11.5	11.2	10.7	10.8	11.5	12.5	12.0	12.7	14.1	15.8	15.2	14.4	14.6	13.4	12.3	12.0	11.1	10.1	8.9	8.9	12.0	15.8
13	9.4	8.3	7.7	6.0	6.0	6.0	5.5	4.9	5.0	7.4	10.5	13.0	15.3	16.5	17.2	17.5	17.3	16.4	14.8	14.1	13.3	12.7	12.6	11.7	11.2	17.5
14	10.7	9.7	8.9	8.2	6.9	5.9	5.7	5.5	7.2	10.5	14.2	16.4	17.5	18.2	18.2	18.1	17.5	17.1	16.8	16.2	15.8	15.5	15.4	15.3	13.0	18.2
15	15.2	15.0	14.7	13.3	11.1	7.1	6.1	5.2	3.8	3.3	5.1	8.3	10.9	11.9	10.1	8.1	9.2	9.8	7.8	7.3	7.5	6.9	6.1	4.8	8.7	15.2
16	4.4	3.8	3.2	2.4	2.1	2.2	2.1	2.7	4.1	7.0	9.0	10.3	10.6	11.0	11.2	11.2	11.4	11.1	9.5	8.6	7.8	7.0	6.4	6.0	6.9	11.4
17	5.5	4.5	4.3	4.2	3.7	2.9	2.1	2.2	3.7	7.5	12.1	13.4	13.7	14.3	14.3	13.5	13.0	12.7	12.0	10.9	11.0	12.3	13.4	13.8	9.2	14.3
18	14.9	16.5	18.2	18.6	18.6	19.0	17.8	15.8	13.1	13.9	14.2	14.3	14.6	14.2	14.2	13.3	13.0	10.8	9.3	7.4	7.5	7.5	6.4	6.3	13.3	19.0
19	6.2	5.5	5.2	4.7	3.5	5.0	5.0	4.9	6.1	7.4	9.9	11.8	12.6	12.9	12.8	13.2	13.1	12.3	11.2	10.5	9.6	8.6	7.4	6.4	8.6	13.2
20	5.2	4.7	4.2	4.1	3.8	3.8	3.8	5.0	7.1	10.3	11.3	11.9	12.3	13.3	12.9	13.5	13.4	12.6	12.2	11.5	11.4	11.1	10.7	10.2	9.2	13.5
21	10.1	10.0	9.6	9.8	9.7	9.8	10.2	10.4	11.9	14.6	15.3	16.9	18.0	19.3	19.0	19.0	18.9	18.1	16.2	14.9	14.2	13.6	12.6	11.1	13.9	19.3
22	9.4	9.5	10.2	9.2	8.9	8.8	8.5	9.4	11.5	13.6	16.4	17.7	18.7	19.0	18.6	18.0	17.2	16.7	16.1	15.2	14.5	14.4	14.0	12.7	13.7	19.0
23	12.2	12.6	12.8	13.7	13.6	13.2	12.5	10.7	10.5	10.7	11.8	12.6	14.7	16.3	16.8	17.0	17.0	15.6	13.1	11.6	9.3	6.2	7.0	8.5	12.5	17.0
24	9.1	8.7	8.2	8.4	8.0	7.9	7.7	8.6	9.8	13.1	15.3	17.0	18.8	19.9	20.2	20.0	21.4	21.9	21.2	20.8	20.1	18.9	18.3	17.2	15.0	21.9
25	16.2	15.7	14.6	14.0	13.3	11.9	11.2	10.6	10.5	10.6	13.0	18.1	21.9	22.1	22.3	22.4	22.8	22.0	17.7	15.0	12.4	10.3	9.5	8.5	15.3	22.8
26	8.0	8.0	9.0	7.9	8.5	11.8	11.9	12.5	16.6	19.0	20.1	21.1	21.6	21.4	21.5	21.6	21.6	20.6	19.4	19.6	19.3	18.1	17.8	17.8	16.4	21.6
27	17.5	17.3	16.8	16.2	16.4	16.3	16.0	15.9	17.8	18.7	C	C	15.6	16.9	18.8	18.3	17.6	16.4	13.2	11.1	9.9	9.2	8.8	8.3	15.1	18.8
28	9.9	9.4	7.8	7.5	7.1	7.7	8.1	8.4	8.5	10.5	10.5	10.8	11.4	12.1	12.1	12.3	11.5	11.6	11.1	10.6	9.8	8.6	8.2	8.4	9.7	12.3
29	9.1	9.6	9.2	9.1	8.7	8.3	8.2	8.5	9.6	10.3	10.8	11.2	11.6	11.3	11.7	12.0	11.5	11.4	11.1	11.0	11.0	10.5	10.3	10.4	10.3	12.0
30	10.4	10.5	11.2	11.6	12.4	12.7	12.9	12.8	14.2	14.7	15.1	16.0	17.1	18.3	18.0	17.9	17.6	16.6	15.6	13.5	12.4	12.2	11.4	11.5	14.0	18.3
NO.	30	30	30	30	30	30	30	30	30	30	29	29	30	30	30	30	30	30	30	30	30	30	30	30	718	100%
MEAN	11.0	10.7	10.4	10.2	9.9	9.4	9.1	9.4	10.6	12.3	13.8	15.4	16.6	17.5	17.7	17.7	17.6	17.0	15.5	14.3	13.3	12.5	11.9	11.4		
MAX	19.0	19.0	19.1	18.7	18.6	19.0	18.0	18.1	19.5	20.8	22.4	23.4	23.9	24.3	24.9	26.0	26.1	24.9	21.9	21.1	20.6	20.3	19.7	19.1		



Number of Non-Zero Readings	718		
Maximum 1-HR Average	26.1 C		
Maximum 24-HR Average	19.8 C		
		Opperational Time	720 HRS
Monthly Calibration	2	Opperational Uptime	100.0 %
Standard Deviation	5.047	Monthly Average	13.1 C

Lagoon Wind Speed (km/hr) – September 2021

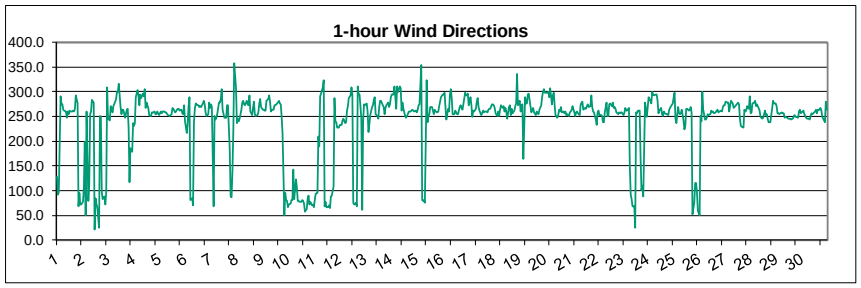
Day	HOUR 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN	MAX
1	6.3	2.9	4.9	14.1	18.0	18.4	23.2	23.8	25.4	25.8	24.9	24.7	23.5	23.5	20.4	19.9	19.3	18.4	11.9	10.4	9.7	5.0	7.7	7.0	16.2	25.8
2	8.1	2.9	4.2	3.1	8.7	6.8	6.4	4.1	10.9	11.0	11.3	5.8	13.7	13.6	13.4	9.0	15.5	16.2	14.8	14.2	8.9	6.1	3.0	1.5	8.9	16.2
3	7.8	8.1	11.0	10.4	10.5	11.9	16.1	16.3	17.0	14.7	16.6	18.7	19.6	17.6	15.7	16.5	16.0	17.5	11.9	8.0	3.8	2.9	3.1	8.6	12.5	19.6
4	9.0	8.7	10.9	14.0	17.7	14.8	17.4	16.1	15.9	13.3	14.8	18.6	17.5	21.4	19.3	20.8	21.1	18.8	18.5	23.1	18.2	23.0	20.8	25.6	17.5	25.6
5	26.0	25.8	31.0	30.9	27.1	30.5	29.7	35.0	31.5	31.0	30.4	31.6	27.9	26.2	33.9	29.0	33.0	31.4	27.4	25.2	20.6	19.8	17.2	7.8	27.5	35.0
6	4.9	3.8	9.3	11.2	11.1	6.2	3.9	3.4	10.8	18.7	16.9	21.0	20.7	22.2	25.6	25.3	21.7	20.6	20.9	21.4	22.5	17.1	10.7	4.5	14.8	25.6
7	9.9	10.6	4.6	8.3	8.6	10.1	11.7	13.2	14.7	14.3	12.3	16.4	15.2	15.1	16.4	16.4	12.6	12.1	11.6	9.3	3.4	2.1	1.5	5.8	10.7	16.4
8	10.7	10.4	10.3	9.8	13.3	14.5	14.0	15.6	15.5	13.9	11.4	15.0	14.9	8.0	8.6	13.3	9.4	10.9	15.1	10.2	8.2	7.8	9.7	14.4	11.9	15.6
9	20.9	16.1	18.7	19.8	13.2	12.4	11.4	12.4	23.8	24.9	27.0	28.8	29.9	24.0	19.3	18.1	16.5	12.7	7.6	2.6	4.6	11.1	11.2	12.1	16.6	29.9
10	11.1	15.4	13.3	10.9	7.6	3.1	2.7	2.5	3.7	12.6	16.3	19.1	19.4	18.4	19.4	19.6	15.7	14.5	12.9	11.7	9.9	8.3	3.3	6.8	11.6	19.6
11	6.7	5.8	5.2	4.8	4.4	5.2	10.5	12.9	12.5	11.3	12.0	11.0	11.1	12.1	18.0	16.0	16.7	10.3	3.8	5.1	7.5	9.0	6.9	7.7	9.4	18.0
12	7.6	7.8	8.1	8.1	9.3	9.0	8.3	8.5	9.0	12.4	11.7	9.9	8.8	7.7	19.1	19.3	13.3	10.1	8.5	8.8	7.1	4.5	2.6	4.2	9.3	19.3
13	7.8	11.9	6.9	5.1	8.2	8.6	8.3	12.3	11.7	8.3	10.1	10.3	18.1	16.3	17.2	19.0	23.9	21.3	15.2	17.7	15.5	16.8	20.3	13.7	13.5	23.9
14	12.6	11.4	11.8	15.9	15.3	12.1	15.5	15.1	18.6	16.4	22.5	20.3	25.2	29.3	25.4	28.0	31.8	33.6	38.1	36.9	36.2	38.0	42.6	39.4	24.7	42.6
15	36.3	35.4	26.4	18.3	17.4	19.6	18.7	19.3	10.9	5.5	11.1	11.6	26.3	25.5	23.4	22.1	24.0	23.6	27.7	21.2	21.8	19.5	12.9	14.4	20.5	36.3
16	14.6	12.2	13.0	8.8	8.8	11.9	11.5	13.7	14.5	16.1	19.4	20.8	22.3	22.6	24.0	26.2	26.0	20.6	21.1	18.7	14.4	9.7	9.7	8.0	16.2	26.2
17	11.2	10.5	16.4	12.3	13.0	11.3	12.2	9.3	10.2	16.4	28.0	32.9	33.7	33.2	34.6	40.0	38.6	38.6	34.9	35.4	37.5	40.3	36.7	34.8	25.9	40.3
18	34.6	38.1	49.8	46.1	43.6	49.2	47.1	38.6	23.6	18.2	25.0	23.3	23.5	23.3	21.8	19.3	16.8	25.6	29.4	37.2	36.7	26.7	7.3	8.1	29.7	49.8
19	8.9	8.6	9.2	7.0	6.1	10.6	12.1	14.7	17.8	15.7	18.5	22.0	22.6	23.9	27.3	25.5	20.9	21.3	16.2	16.7	17.5	13.1	12.7	13.9	16.0	27.3
20	14.5	12.8	12.4	15.8	16.7	15.9	11.9	16.2	15.1	19.4	20.9	20.4	21.0	22.2	20.4	22.6	25.1	23.1	21.0	19.0	23.7	25.3	26.3	28.7	19.6	28.7
21	28.1	25.4	24.5	28.6	31.1	25.7	33.9	34.7	38.5	31.9	33.4	31.7	33.5	37.3	39.4	34.0	29.9	23.8	18.6	11.7	10.3	9.7	7.9	9.7	26.4	39.4
22	6.1	9.0	12.4	12.7	14.1	12.1	11.0	10.4	11.9	12.7	20.0	22.7	25.1	22.1	20.5	21.9	24.1	23.9	28.5	27.4	24.9	24.4	22.3	18.2	18.3	28.5
23	18.4	22.8	24.7	23.8	18.8	14.1	10.4	12.5	15.6	18.4	16.5	15.5	12.4	26.6	26.6	24.8	21.9	13.9	12.0	8.9	5.9	2.0	10.0	11.1	16.2	26.6
24	13.5	14.4	13.6	14.0	15.1	19.5	18.6	21.9	23.1	22.0	30.9	32.9	28.6	28.3	26.2	26.9	25.6	26.3	28.1	27.5	23.0	19.7	21.2	21.0	22.6	32.9
25	14.0	11.9	9.9	8.5	11.0	11.7	11.9	11.2	11.0	7.6	6.2	9.5	21.5	17.8	21.0	18.9	19.4	16.2	14.7	9.1	4.8	4.5	4.2	4.0	11.7	21.5
26	4.7	5.1	7.0	3.9	8.7	15.0	15.3	16.1	17.6	21.6	26.1	29.9	35.2	28.0	27.0	28.5	24.8	22.2	19.8	27.1	31.1	30.9	24.4	23.0	20.5	35.2
27	31.3	29.2	29.7	24.1	23.8	17.8	16.5	18.9	21.8	25.6	C	C	18.1	17.6	23.1	20.3	11.2	14.7	22.7	25.2	22.4	17.2	22.2	13.7	21.2	31.3
28	28.9	23.0	16.1	14.7	15.2	20.4	20.4	24.4	26.3	28.3	31.0	30.1	29.8	27.3	24.9	23.2	27.9	25.0	24.2	21.0	18.3	11.9	15.8	15.5	22.7	31.0
29	15.3	23.5	24.2	24.7	23.1	22.6	22.0	26.6	29.1	28.6	31.1	32.5	32.7	31.5	35.0	33.6	38.5	41.7	42.8	39.2	37.3	29.7	23.3	26.9	29.8	42.8
30	30.5	30.9	41.9	47.2	45.0	40.8	31.3	29.4	40.4	37.4	34.9	35.4	35.2	26.2	28.0	28.4	28.0	26.1	30.0	24.6	19.1	18.8	12.3	17.3	30.8	47.2
NO.	30	30	30	30	30	30	30	30	30	30	29	29	30	30	30	30	30	30	30	30	30	30	30	30	718	100%
MEAN	15.3	15.1	16.1	15.9	16.2	16.1	16.1	17.0	18.3	18.5	20.4	21.5	22.9	22.3	23.2	22.9	22.3	21.2	20.3	19.1	17.5	15.8	14.3	14.2		
MAX	36.3	38.1	49.8	47.2	45.0	49.2	47.1	38.6	40.4	37.4	34.9	35.4	35.2	37.3	39.4	40.0	38.6	41.7	42.8	39.2	37.5	40.3	42.6	39.4		



Number of Non-Zero Readings	718		
Maximum 1-HR Average	49.8 KM/HR		
Maximum 24-HR Average	30.8 KM/HR		
		Opperational Time	720 HRS
Monthly Calibration	2	Opperational Uptime	100.0 %
Standard Deviation	9.42	Monthly Average	18.4 KM/HR

Lagoon Wind Direction (°) – September 2021

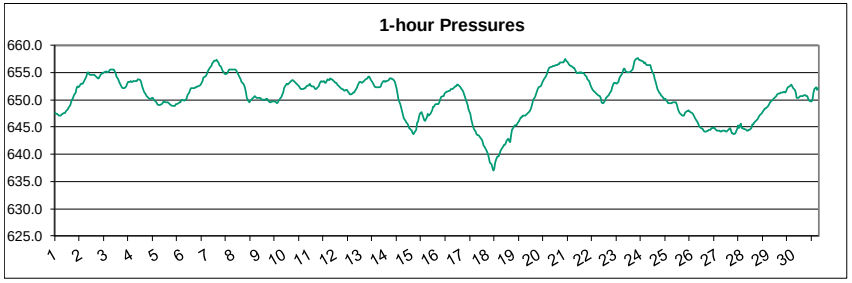
Day	HOUR 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN	MAX
1	127.9	92.3	97.0	290.9	274.5	273.9	264.5	262.4	259.6	247.8	260.5	255.2	261.2	260.8	260.7	262.2	260.1	265.7	292.4	275.5	68.6	95.7	72.2	71.9	263.9	292.4
2	76.6	104.3	197.8	51.0	260.8	79.8	110.9	254.5	260.5	282.9	278.5	20.7	84.6	74.5	66.3	25.4	250.2	249.8	96.6	82.5	87.9	71.4	96.9	308.7	70.7	308.7
3	245.1	241.8	270.5	267.3	258.7	271.5	279.3	285.3	299.8	300.1	315.6	268.7	255.0	263.3	263.7	255.8	247.4	263.7	266.2	227.8	117.5	185.7	177.9	236.8	266.9	315.6
4	230.7	237.3	288.8	303.5	292.6	273.4	294.3	287.1	295.4	290.9	305.0	267.9	277.8	267.4	253.7	251.5	251.4	258.4	258.1	259.3	253.8	255.3	260.1	252.2	268.3	305.0
5	256.2	260.6	257.1	260.2	259.4	258.3	258.4	254.0	252.0	251.8	253.2	254.3	266.9	265.4	258.7	259.2	263.4	264.6	265.7	261.3	264.5	255.7	255.3	272.4	259.0	272.4
6	240.7	217.4	237.1	270.8	288.8	81.2	85.5	69.4	237.5	265.3	277.0	272.5	272.2	268.7	270.3	269.4	276.0	281.4	273.9	257.4	250.8	255.5	278.8	266.6	267.2	288.8
7	274.5	269.7	67.9	251.7	243.4	247.7	253.9	277.6	278.7	286.1	305.9	262.8	248.0	246.6	248.0	272.4	271.9	182.6	87.6	85.9	139.7	221.7	358.3	307.7	262.0	358.3
8	237.2	244.8	240.1	245.0	263.2	277.7	282.0	273.7	272.6	281.3	274.1	273.0	292.5	260.9	253.7	267.0	280.1	255.0	250.4	252.0	257.9	276.7	284.5	269.4	266.5	292.5
9	263.8	262.8	261.4	261.2	281.7	286.2	292.6	279.6	259.2	263.2	264.4	272.0	272.5	274.6	276.1	281.6	277.2	274.7	250.1	215.6	49.5	95.6	80.4	79.2	271.2	292.6
10	66.2	72.8	73.4	80.8	80.5	142.1	82.6	122.3	106.0	78.5	78.9	77.9	77.1	81.3	79.7	74.7	57.3	63.5	83.0	89.7	72.2	77.1	70.0	71.9	77.0	142.1
11	67.1	81.9	94.3	95.5	210.0	189.8	291.6	295.9	308.6	322.6	67.8	77.9	66.9	66.8	71.0	64.6	89.1	90.2	108.8	287.6	239.4	239.2	227.9	227.0	61.4	322.6
12	232.9	232.6	233.1	242.3	246.2	236.0	238.3	261.3	270.8	287.2	292.0	309.7	295.1	76.3	71.2	75.2	67.8	310.4	294.7	294.7	247.6	61.8	238.5	274.1	281.2	310.4
13	271.9	276.8	259.7	218.6	235.2	252.7	268.8	272.4	283.5	289.2	254.4	250.7	245.4	268.6	281.7	281.6	273.5	269.6	254.3	267.8	272.1	279.0	268.8	274.0	267.9	289.2
14	289.2	294.1	294.0	310.1	289.8	265.3	311.1	300.0	311.6	306.4	262.3	277.7	265.4	251.6	247.3	250.7	255.5	259.3	260.9	262.7	263.4	262.3	259.7	261.5	268.9	311.6
15	258.5	264.1	272.0	274.6	353.9	81.6	78.6	81.9	75.7	323.3	238.6	250.8	255.5	269.8	269.3	262.5	255.5	263.5	260.3	258.2	259.4	271.3	280.5	288.4	268.5	353.9
16	294.4	293.8	298.3	270.0	244.2	265.6	260.0	294.8	304.5	287.0	253.9	255.3	261.9	257.5	254.8	255.1	269.5	273.5	266.6	263.5	274.1	297.8	292.5	292.7	271.1	304.5
17	295.5	273.1	288.6	273.2	248.8	261.0	260.6	266.3	280.1	286.3	268.4	262.6	252.8	255.7	262.3	258.3	259.8	260.1	259.1	263.4	265.6	264.7	274.4	274.2	265.1	295.5
18	272.9	267.9	256.9	250.7	259.5	251.3	262.9	273.5	267.8	271.1	260.7	266.4	260.4	246.2	268.8	272.5	252.1	265.6	256.7	261.1	271.0	276.7	335.4	272.0	263.3	335.4
19	282.5	259.8	272.9	274.4	165.0	289.5	276.2	276.5	294.5	295.8	271.1	258.3	263.3	266.4	258.8	253.4	259.8	256.7	255.4	263.2	273.3	289.6	299.0	305.2	270.0	305.2
20	298.2	298.4	298.5	300.3	289.6	307.1	275.3	292.1	298.5	272.3	252.8	248.0	253.0	262.8	260.3	268.4	259.0	260.9	257.3	260.7	253.3	254.1	251.9	258.2	268.3	307.1
21	259.4	263.6	271.5	258.5	250.3	257.9	260.4	255.9	252.9	272.5	278.3	279.8	264.4	268.0	264.9	270.5	274.5	269.5	271.3	291.8	269.7	260.3	257.7	243.6	265.3	291.8
22	233.7	258.5	261.1	253.4	253.0	251.9	238.6	237.5	257.6	277.8	251.9	251.7	274.8	276.4	271.7	278.5	267.4	268.7	265.6	259.0	255.5	257.4	257.3	258.4	261.3	278.5
23	258.2	252.2	257.4	267.6	261.7	262.5	266.4	147.3	92.3	83.3	68.9	67.5	25.2	257.9	256.3	261.0	262.5	168.0	100.4	109.6	87.6	278.8	265.5	248.8	251.2	278.8
24	269.0	288.1	281.6	276.6	299.5	294.1	293.5	295.3	294.2	281.1	257.1	262.3	267.4	255.5	251.9	260.5	256.2	254.4	254.2	252.9	263.4	267.7	270.5	276.5	269.2	299.5
25	288.9	298.1	245.7	235.8	269.7	256.5	254.5	256.5	263.0	242.5	224.2	230.3	266.2	266.2	262.0	264.4	268.5	258.7	52.6	76.1	115.6	115.0	97.4	58.9	262.5	298.1
26	49.8	250.7	240.5	300.2	262.9	243.9	244.4	248.2	255.5	253.6	254.9	261.2	258.8	260.0	257.3	259.0	262.4	263.4	258.2	260.2	261.0	260.4	270.0	273.2	259.4	300.2
27	271.9	279.1	277.9	277.5	260.3	271.5	281.7	275.5	266.6	268.9	C	C	278.4	274.1	245.0	231.0	229.9	227.5	263.5	259.2	262.6	271.1	264.6	290.8	266.2	290.8
28	255.7	257.8	276.4	278.4	281.4	271.3	275.0	270.3	262.7	249.1	248.0	246.2	247.5	262.4	252.7	254.0	244.8	238.9	239.2	252.3	265.5	280.9	276.6	276.3	258.3	281.4
29	271.8	256.0	256.4	255.0	255.8	258.0	255.6	257.3	247.6	250.1	247.7	245.5	246.0	246.1	243.0	244.8	249.7	253.2	249.9	249.7	247.6	260.0	264.0	257.3	251.8	271.8
30	258.6	262.6	254.5	251.2	247.6	244.7	245.1	243.2	251.8	257.2	255.4	258.9	260.2	263.7	256.2	263.3	263.2	266.8	262.2	250.0	245.2	238.8	280.1	263.6	255.2	280.1
NO.	30	30	30	30	30	30	30	30	30	30	29	29	30	30	30	30	30	30	30	30	30	30	30	30	718	100%
MEAN	233.3	240.4	239.4	248.2	256.3	240.1	244.8	248.9	255.4	264.2	245.6	234.0	237.2	237.2	234.6	235.0	241.9	244.6	227.2	231.7	215.2	225.9	238.9	243.7		
MAX	298.2	298.4	298.5	310.1	353.9	307.1	311.1	300.0	311.6	323.3	315.6	309.7	295.1	276.4	281.7	281.6	280.1	310.4	294.7	294.7	274.1	297.8	358.3	308.7		



Number of Non-Zero Readings	718		
Maximum 1-HR Average	358 degrees		
Maximum 24-HR Average	281 degrees		
		Opperational Time	720 HRS
Monthly Calibration	2	Opperational Uptime	100.0 %
Standard Deviation	65.66	Monthly Average	240.1 degrees

Lagoon Pressure (mmHg) – September 2021

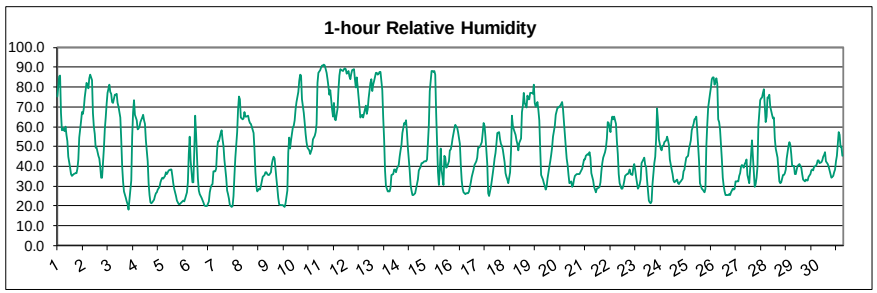
Day	HOUR 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN	MAX
1	647.6	647.4	647.4	647.1	647.1	647.1	647.2	647.5	647.5	647.6	647.9	648.1	648.2	648.6	649.1	649.7	650.1	650.3	650.8	651.3	652.1	652.4	652.4	652.5	649.0	652.5
2	652.9	653.0	653.0	653.3	653.6	654.2	654.9	655.0	654.8	654.6	654.7	654.6	654.6	654.5	654.4	654.1	653.9	653.9	654.2	654.5	654.8	655.0	655.0	655.1	654.3	655.1
3	655.2	655.1	655.1	655.4	655.5	655.5	655.5	655.5	655.2	654.8	654.3	653.8	653.3	652.9	652.6	652.3	652.1	652.2	652.3	652.5	653.0	653.3	653.3	653.4	653.9	655.5
4	653.3	653.3	653.4	653.5	653.5	653.4	653.7	653.7	653.5	653.1	652.5	651.9	651.4	651.1	650.7	650.5	650.3	650.2	650.2	650.3	650.3	650.1	649.8	649.5	651.8	653.7
5	649.2	649.1	649.0	649.1	649.2	649.4	649.7	649.7	649.5	649.5	649.5	649.3	649.2	649.0	649.0	648.9	648.9	648.9	649.2	649.2	649.4	649.5	649.5	649.8	649.3	649.8
6	650.0	649.8	649.8	650.0	650.2	650.9	651.3	651.7	652.2	652.1	652.2	652.2	652.2	652.3	652.4	652.5	652.6	652.8	653.2	653.5	654.0	654.2	654.4	654.7	652.1	654.7
7	655.2	655.5	656.0	656.2	656.7	656.9	657.2	657.2	657.3	657.1	656.8	656.4	656.0	655.6	655.3	655.0	654.8	654.7	654.9	655.2	655.6	655.6	655.6	655.6	655.9	657.3
8	655.6	655.6	655.6	655.3	654.7	654.4	654.1	653.8	653.2	652.9	652.7	652.1	651.3	650.4	649.6	649.6	649.8	650.1	650.2	650.5	650.7	650.6	650.4	650.3	652.2	655.6
9	650.3	650.3	650.1	650.1	650.0	650.0	650.0	650.2	650.2	649.8	649.5	649.5	649.7	649.8	649.6	649.6	649.6	649.4	649.5	649.9	650.3	650.6	651.0	651.4	650.0	651.4
10	652.1	652.5	652.9	652.9	653.0	653.2	653.3	653.7	653.7	653.4	653.3	653.1	652.8	652.6	652.4	652.1	652.0	651.9	652.0	652.1	652.2	652.4	652.6	652.7	652.7	653.7
11	652.9	652.6	652.5	652.5	652.2	651.9	651.9	652.1	652.5	653.0	653.3	653.4	653.3	653.4	653.2	653.1	653.5	653.8	653.6	653.9	653.7	653.7	653.6	653.3	653.0	653.9
12	653.2	653.1	652.8	652.6	652.5	652.2	652.0	652.0	651.8	651.7	651.8	651.8	651.5	651.3	651.0	651.0	651.1	651.3	651.3	651.6	652.1	652.6	652.9	653.2	652.0	653.2
13	653.3	653.1	653.2	653.5	653.6	653.7	653.9	654.2	654.2	653.9	653.6	653.2	652.7	652.5	652.3	652.3	652.3	652.3	652.2	652.5	652.9	653.4	653.4	653.3	653.1	654.2
14	653.4	653.5	653.6	653.9	654.0	653.9	653.8	653.8	653.3	652.6	652.0	651.0	650.1	649.2	648.5	647.9	647.2	646.7	646.1	645.8	645.6	645.2	644.8	644.5	650.0	654.0
15	644.3	643.9	643.8	644.1	644.6	645.8	646.0	646.7	647.4	647.7	647.2	646.8	646.3	646.2	646.8	647.5	647.2	647.3	647.3	648.0	648.7	648.7	649.0	649.2	646.7	649.2
16	649.2	649.2	649.5	650.0	650.5	650.6	650.7	651.1	651.3	651.5	651.5	651.6	651.7	651.9	652.0	652.1	652.3	652.4	652.5	652.8	652.8	652.5	652.2	652.1	651.4	652.8
17	651.8	651.5	650.6	650.0	649.6	649.0	648.2	647.4	646.5	645.7	645.1	644.7	644.2	643.7	643.6	643.6	643.3	642.8	642.7	642.2	641.6	641.3	640.8	640.4	645.4	651.8
18	639.9	639.3	638.4	638.1	637.5	637.0	637.3	638.5	639.4	639.6	639.7	640.1	640.5	640.9	641.4	641.7	641.7	642.1	642.6	642.9	642.4	642.2	643.5	644.4	640.5	644.4
19	645.0	645.3	645.3	645.3	645.6	646.1	646.4	646.8	646.8	647.2	647.1	647.1	647.2	647.5	647.6	647.8	648.3	648.8	649.4	650.0	650.5	651.0	651.5	652.0	647.7	652.0
20	652.2	652.5	652.6	653.1	653.4	653.8	654.2	654.6	655.1	655.6	655.9	656.0	656.1	656.2	656.2	656.3	656.3	656.3	656.5	656.6	656.8	656.8	656.9	656.9	655.3	656.9
21	657.1	657.4	657.2	656.8	656.5	656.3	656.2	656.1	655.9	655.9	655.6	655.3	655.0	654.9	655.0	654.9	655.0	655.0	654.8	654.6	654.4	654.2	653.7	653.5	655.5	657.4
22	653.0	652.5	652.1	651.8	651.5	651.4	651.2	651.1	650.9	650.7	650.3	649.6	649.3	649.3	649.9	650.3	650.6	650.6	650.8	651.2	651.6	652.2	652.8	653.1	651.2	653.1
23	653.0	652.9	653.1	653.3	653.9	654.3	654.7	655.3	655.6	655.7	655.3	655.0	655.1	655.0	655.1	655.2	655.5	656.2	656.9	657.3	657.5	657.6	657.4	657.4	655.3	657.6
24	657.2	657.2	657.1	656.8	656.8	656.5	656.4	656.3	656.4	656.4	655.8	655.2	654.5	653.7	653.3	652.7	651.9	651.4	651.1	650.8	650.6	650.5	650.3	650.2	654.1	657.2
25	649.9	649.7	649.4	649.4	649.4	649.4	649.5	649.5	649.6	649.6	649.1	648.4	647.9	647.5	647.3	647.1	647.1	647.1	647.5	647.8	647.9	648.0	648.0	647.8	648.5	649.9
26	647.5	647.4	647.0	646.8	646.5	645.9	645.6	645.2	645.0	644.9	644.7	644.3	644.1	644.2	644.1	644.3	644.5	644.6	644.5	644.8	644.9	645.0	644.7	644.5	645.2	647.5
27	644.3	644.4	644.3	644.2	644.2	644.3	644.3	644.3	644.2	644.1	C	C	644.8	644.3	643.8	643.9	643.7	643.9	644.3	644.6	645.3	644.8	645.6	644.9	644.4	645.6
28	644.8	644.7	644.6	644.5	644.3	644.4	644.5	644.4	644.9	645.5	645.5	645.8	646.0	646.3	646.5	646.8	647.1	647.3	647.6	648.0	648.1	648.4	648.5	648.7	646.1	648.7
29	648.9	649.2	649.5	649.8	649.9	650.2	650.3	650.4	650.6	651.0	651.1	651.2	651.3	651.3	651.3	651.4	651.4	651.5	651.9	652.3	652.4	652.7	652.8	652.4	651.0	652.8
30	652.1	651.8	651.3	650.4	650.3	650.4	650.6	650.7	650.6	650.7	650.8	650.8	650.7	650.7	650.2	649.8	649.7	649.7	650.1	651.4	652.0	652.3	651.7	652.2	650.9	652.3
NO.	30	30	30	30	30	30	30	30	30	30	29	29	30	30	30	30	30	30	30	30	30	30	30	30	718	100%
MEAN	650.8	650.8	650.7	650.6	650.7	650.7	650.8	650.9	651.0	650.9	651.0	650.8	650.4	650.2	650.1	650.1	650.1	650.2	650.3	650.6	650.8	650.9	650.9	651.0		
MAX	657.2	657.4	657.2	656.8	656.8	656.9	657.2	657.2	657.3	657.1	656.8	656.4	656.1	656.2	656.2	656.3	656.3	656.3	656.9	657.3	657.5	657.6	657.4	657.4		



Number of Non-Zero Readings	718		
Maximum 1-HR Average	658 MMHg		
Maximum 24-HR Average	656 MMHg		
		Opperational Time	720 HRS
Monthly Calibration	2	Opperational Uptime	100.0 %
Standard Deviation	4.008	Monthly Average	650.6 MMHg

Lagoon Relative Humidity (%) – September 2021

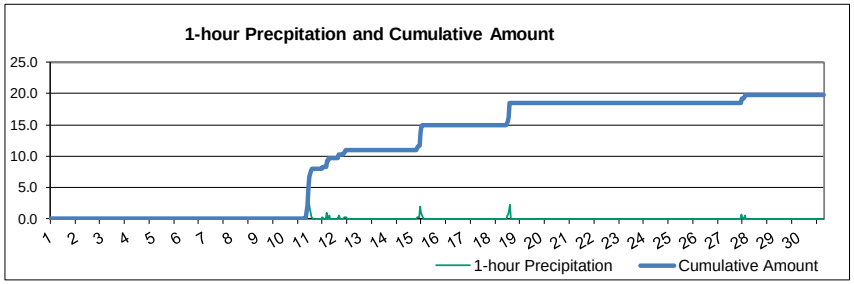
Day	HOUR 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN	MAX
1	75.1	85.2	85.6	67.0	58.4	59.0	57.7	59.8	55.8	52.6	45.0	39.3	36.2	35.3	35.4	36.2	36.7	36.5	39.0	43.2	54.5	62.9	67.4	66.3	53.8	85.6
2	69.1	74.8	81.9	81.0	79.3	84.6	86.3	83.4	67.0	59.9	56.1	49.3	49.2	45.4	43.7	40.0	34.1	34.1	49.0	58.7	64.4	71.5	77.0	81.2	63.4	86.3
3	77.5	76.5	72.5	71.9	76.3	76.2	76.5	72.1	70.1	64.8	53.7	40.3	32.5	27.3	24.2	22.4	21.1	18.0	23.1	32.9	54.8	67.3	73.5	66.1	53.8	77.5
4	63.1	58.4	58.9	59.9	62.1	64.7	65.9	63.4	61.3	53.3	42.6	31.4	25.3	21.7	21.1	21.7	23.1	25.1	26.6	26.9	28.4	29.8	31.8	33.3	41.7	65.9
5	34.0	33.7	35.1	36.8	35.9	37.1	38.1	38.4	38.3	35.1	31.6	28.9	25.2	22.9	21.7	20.9	20.6	22.0	22.3	22.9	22.3	23.5	26.7	31.8	29.4	38.4
6	46.1	54.7	43.1	31.8	32.1	47.2	65.4	56.4	33.7	27.9	25.8	24.9	24.3	21.8	20.4	20.1	20.0	20.0	22.1	26.8	29.4	30.5	31.2	37.2	33.0	65.4
7	37.3	38.7	48.2	52.5	52.8	56.6	58.1	53.7	50.2	43.3	34.1	27.7	25.9	23.4	20.4	19.3	19.8	25.0	35.0	44.2	57.3	68.6	75.2	73.9	43.4	75.2
8	64.5	63.7	64.3	67.3	65.2	65.2	65.5	63.2	61.8	61.4	60.2	57.0	47.9	36.9	29.9	27.3	28.8	28.2	30.2	32.5	34.5	35.6	36.8	37.0	48.5	67.3
9	36.1	35.8	35.6	37.0	41.3	43.6	44.8	43.7	33.9	29.3	24.0	20.8	20.5	20.4	20.3	19.8	19.7	21.3	27.7	47.1	54.4	49.1	53.1	59.4	34.9	59.4
10	60.3	63.2	68.7	72.5	77.3	83.2	86.4	85.7	73.7	66.8	62.0	56.4	52.1	49.5	47.9	46.3	47.4	49.0	53.5	55.3	57.1	61.2	82.2	87.3	64.4	87.3
11	88.7	90.0	90.8	91.0	91.3	91.0	87.3	83.9	80.2	76.2	78.5	68.6	65.1	72.2	63.8	63.1	69.3	78.8	85.6	89.2	88.5	88.3	88.9	89.5	81.7	91.3
12	89.0	86.5	88.2	85.3	83.9	86.5	88.7	88.9	84.0	80.0	84.9	80.4	69.7	64.7	65.6	65.8	64.6	68.6	70.8	66.5	69.0	74.1	82.2	83.7	78.0	89.0
13	77.9	81.2	83.2	87.2	87.1	86.4	86.8	87.7	87.9	78.6	64.4	53.8	37.8	30.0	27.2	27.3	27.4	29.3	35.5	36.0	38.2	38.4	36.9	38.7	56.9	87.9
14	40.5	44.7	48.0	50.7	57.0	61.6	61.5	63.0	57.4	49.2	38.1	30.4	28.0	25.3	25.5	26.4	28.9	31.2	33.3	37.8	39.9	41.6	41.7	42.2	41.8	63.0
15	42.4	42.4	43.5	51.8	60.9	78.1	88.2	88.3	87.7	88.1	86.1	67.0	36.9	30.6	38.4	48.8	38.0	30.6	45.2	44.6	39.5	39.6	42.6	47.9	54.5	88.3
16	48.6	50.9	53.9	59.2	60.8	59.8	59.4	57.1	51.4	40.9	32.9	28.7	26.9	26.1	26.3	26.2	26.3	27.5	32.1	34.6	36.7	38.5	40.6	42.5	41.2	60.8
17	44.5	49.6	49.3	49.8	52.3	56.8	61.8	60.7	54.7	41.0	26.3	25.1	27.2	29.6	32.7	39.8	44.1	46.6	51.2	56.7	57.1	53.7	51.1	50.5	46.3	61.8
18	48.4	42.2	36.3	34.8	33.1	31.4	37.1	47.6	65.6	60.5	58.7	55.9	53.0	51.4	48.1	51.9	53.8	67.1	70.7	77.1	72.1	69.7	75.5	73.9	54.8	77.1
19	73.9	77.2	76.8	76.7	81.4	72.0	70.0	72.5	68.1	63.1	48.6	35.6	33.4	31.5	30.0	28.4	29.7	33.7	39.7	42.6	45.5	49.6	55.0	60.5	54.0	81.4
20	66.2	67.7	69.5	69.7	70.7	71.3	72.3	68.7	62.2	49.7	43.7	40.6	35.5	31.5	32.6	29.8	30.5	33.2	35.1	36.2	36.3	36.3	35.9	36.8	48.4	72.3
21	38.8	41.1	43.5	43.6	45.4	46.1	45.9	46.9	44.5	36.5	33.0	29.4	28.4	26.7	28.8	29.3	29.4	31.8	37.4	41.6	44.4	47.0	49.6	54.2	39.3	54.2
22	62.3	61.9	57.0	62.7	65.0	63.6	65.2	61.4	52.7	46.4	35.9	31.3	28.7	28.7	30.3	32.4	35.1	36.2	36.1	36.8	38.3	35.9	35.7	39.5	45.0	65.2
23	40.9	38.2	34.8	28.8	29.6	31.2	33.4	41.4	43.4	44.2	40.7	39.7	33.1	22.8	21.7	21.5	22.2	30.8	41.4	45.0	54.1	69.3	62.7	53.7	38.5	69.3
24	48.9	47.9	50.1	50.2	52.3	53.2	54.8	53.2	50.8	43.6	38.6	36.0	32.9	31.9	32.2	33.5	31.7	31.2	31.8	32.4	33.7	37.3	38.3	41.5	41.2	54.8
25	44.2	45.5	48.9	51.0	53.3	58.3	61.2	63.5	64.3	65.1	58.0	42.4	31.3	29.9	28.6	28.1	26.9	28.6	50.5	61.0	69.5	76.8	79.9	83.7	52.1	83.7
26	84.7	84.9	81.3	84.2	81.4	63.5	62.4	58.7	43.5	34.2	29.9	27.1	25.3	25.6	25.6	25.7	25.3	26.7	28.9	28.2	28.8	32.3	32.4	32.4	44.7	84.9
27	35.3	36.5	39.6	40.4	39.4	41.2	42.0	43.4	35.4	31.6	C	C	52.9	45.0	29.8	31.0	34.4	39.6	60.5	73.5	74.3	74.6	77.2	78.8	48.0	78.8
28	62.2	65.1	74.7	74.9	76.0	70.0	66.0	64.2	64.7	54.1	49.0	44.2	37.8	32.3	31.6	32.0	35.8	35.4	36.4	38.5	44.0	50.3	52.4	50.7	51.8	76.0
29	46.3	40.2	40.4	36.1	36.0	38.4	40.3	41.2	40.4	39.3	36.1	33.1	32.5	33.3	32.7	32.7	34.9	36.0	38.0	38.3	37.9	39.7	40.2	41.3	37.7	46.3
30	42.8	43.1	41.6	42.0	42.8	44.7	45.8	47.1	42.5	41.1	39.8	38.0	36.3	34.1	35.1	37.2	38.6	42.5	45.4	57.4	56.0	49.7	49.8	45.3	43.3	57.4
NO.	30	30	30	30	30	30	30	30	30	30	29	29	30	30	30	30	30	30	30	30	30	30	30	30	718	100%
MEAN	56.3	57.4	58.2	58.3	59.3	60.7	62.5	62.0	57.6	51.9	46.8	40.8	36.4	33.6	32.4	32.8	33.3	35.5	41.1	45.5	48.7	51.4	54.1	55.4		
MAX	89.0	90.0	90.8	91.0	91.3	91.0	88.7	88.9	87.9	88.1	86.1	80.4	69.7	72.2	65.6	65.8	69.3	78.8	85.6	89.2	88.5	88.3	88.9	89.5		



Number of Non-Zero Readings	718		
Maximum 1-HR Average	91.3 %		
Maximum 24-HR Average	81.7 %		
		Opperational Time	720 HRS
Monthly Calibration	2	Opperational Uptime	100.0 %
Standard Deviation	18.8	Monthly Average	48.8 %

Lagoon Precipitation (mm) – September 2021

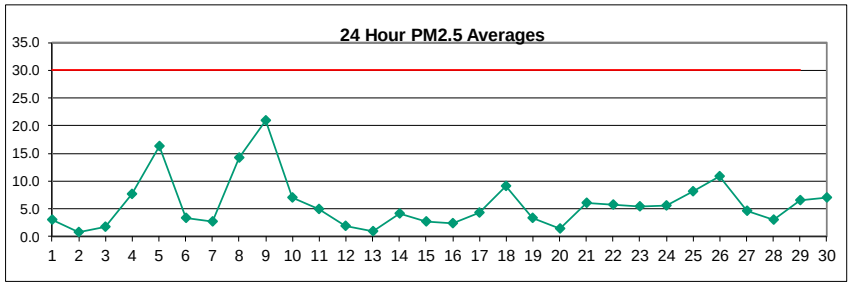
Day	HOUR 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN	MAX
1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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	0.3	1.0	1.0	0.1	1.0
11	2.8	1.8	1.0	0.3	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	1.0	0.0	0.5	0.0	0.0	0.0	0.0	0.3	2.8
12	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.3	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.5
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	0.3	0.3	0.3	2.0	1.0	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	0.2	2.0
16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.8	2.3	0.0	0.0	0.0	0.0	0.1	2.3
19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.5	0.0	0.1	0.8
28	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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
NO.	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	720	100%
MEAN	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.1	0.0		
MAX	2.8	1.8	1.0	0.3	0.5	0.3	0.3	0.3	2.0	1.0	0.3	0.3	0.0	0.3	0.0	0.0	0.0	1.0	0.8	2.3	0.0	0.3	1.0	1.0		



Number of Non-Zero Readings	25		
Maximum 1-HR Average	2.8 MM		
Maximum 24-HR Average	0.3 MM		
		Opperational Time	720 HRS
Monthly Calibration	0	Opperational Uptime	100.0 %
Standard Deviation	0.193	Monthly Average	0.03 MM

Windridge $PM_{2.5}$ (µg/m^3) – September 2021

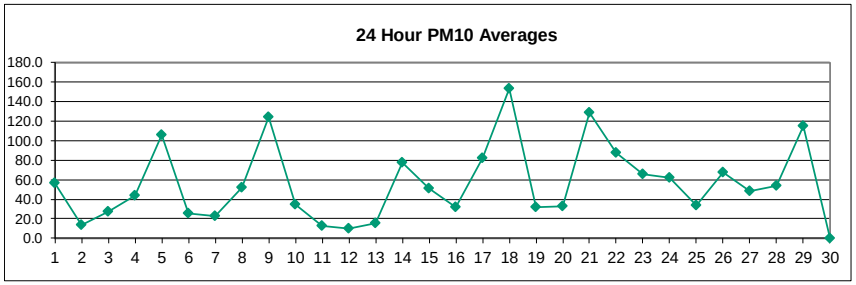
Day	HOUR 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN	MAX
1	4.0	5.0	3.0	1.0	3.0	3.0	5.0	9.0	6.0	3.0	3.0	3.0	8.0	5.0	5.0	3.0	1.0	2.0	1.0	0.0	0.0	0.0	0.0	0.0	3.0	9.0
2	0.0	0.0	0.0	0.0	0.0	0.0	1.0	4.0	4.0	3.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	3.0	0.0	0.0	1.0	0.8	4.0
3	0.0	0.0	0.0	0.0	1.0	0.0	0.0	3.0	3.0	2.0	1.0	3.0	4.0	4.0	4.0	4.0	3.0	1.0	0.0	0.0	4.0	4.0	2.0	0.0	1.8	4.0
4	13.0	9.0	18.0	3.0	1.0	0.0	1.0	3.0	1.0	3.0	4.0	7.0	6.0	23.0	3.0	3.0	10.0	10.0	10.0	9.0	9.0	13.0	12.0	15.0	7.8	23.0
5	17.0	28.0	15.0	23.0	22.0	22.0	23.0	19.0	19.0	23.0	21.0	17.0	12.0	18.0	21.0	13.0	10.0	18.0	16.0	12.0	7.0	5.0	6.0	4.0	16.3	28.0
6	1.0	3.0	3.0	2.0	1.0	2.0	3.0	4.0	3.0	4.0	3.0	P	9.0	6.0	7.0	5.0	1.0	0.0	2.0	4.0	3.0	5.0	5.0	1.0	3.3	9.0
7	3.0	4.0	4.0	4.0	2.0	2.0	1.0	0.0	1.0	3.0	2.0	5.0	4.0	1.0	1.0	1.0	2.0	2.0	2.0	5.0	4.0	2.0	6.0	6.0	2.8	6.0
8	5.0	3.0	2.0	1.0	2.0	6.0	5.0	4.0	6.0	3.0	2.0	0.0	0.0	1.0	18.0	15.0	16.0	25.0	29.0	43.0	40.0	34.0	38.0	42.0	14.2	43.0
9	47.0	38.0	35.0	27.0	27.0	25.0	24.0	26.0	29.0	9.0	20.0	25.0	28.0	8.0	6.0	6.0	5.0	7.0	5.0	27.0	30.0	15.0	11.0	22.0	20.9	47.0
10	11.0	12.0	7.0	4.0	4.0	4.0	3.0	13.0	11.0	14.0	9.0	11.0	8.0	5.0	3.0	2.0	5.0	6.0	6.0	7.0	5.0	5.0	5.0	7.0	7.0	14.0
11	11.0	8.0	5.0	4.0	5.0	5.0	7.0	5.0	5.0	5.0	4.0	7.0	8.0	5.0	2.0	2.0	4.0	2.0	6.0	5.0	3.0	3.0	4.0	4.0	5.0	11.0
12	5.0	3.0	4.0	5.0	5.0	5.0	4.0	3.0	4.0	3.0	2.0	1.0	0.0	0.0	0.0	0.0	0.0	1.0	2.0	0.0	0.0	0.0	0.0	0.0	2.0	5.0
13	0.0	1.0	1.0	0.0	0.0	0.0	0.0	2.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	2.0	3.0	3.0	3.0	3.0	0.0	3.0	1.0	1.0	3.0
14	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	6.0	5.0	2.0	5.0	5.0	5.0	7.0	10.0	14.0	11.0	7.0	7.0	7.0	6.0	4.1	14.0
15	7.0	10.0	4.0	17.0	2.0	1.0	0.0	0.0	0.0	0.0	1.0	2.0	0.0	1.0	2.0	1.0	3.0	3.0	5.0	3.0	0.0	0.0	2.0	0.0	2.7	17.0
16	0.0	0.0	1.0	1.0	1.0	1.0	1.0	2.0	2.0	1.0	2.0	3.0	4.0	2.0	3.0	3.0	6.0	4.0	1.0	5.0	8.0	4.0	2.0	2.0	2.5	8.0
17	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	2.0	7.0	5.0	3.0	6.0	7.0	8.0	7.0	20.0	7.0	5.0	8.0	6.0	5.0	6.0	4.3	20.0
18	9.0	9.0	40.0	13.0	12.0	23.0	25.0	15.0	8.0	7.0	10.0	7.0	5.0	5.0	6.0	5.0	3.0	0.0	5.0	6.0	4.0	2.0	1.0	0.0	9.2	40.0
19	4.0	3.0	0.0	0.0	1.0	0.0	0.0	0.0	1.0	2.0	1.0	1.0	11.0	7.0	4.0	3.0	4.0	7.0	13.0	10.0	5.0	3.0	2.0	0.0	3.4	13.0
20	0.0	0.0	1.0	2.0	1.0	0.0	0.0	0.0	1.0	1.0	3.0	2.0	3.0	1.0	1.0	2.0	2.0	3.0	1.0	1.0	2.0	4.0	3.0	2.0	1.5	4.0
21	4.0	3.0	0.0	4.0	5.0	2.0	6.0	4.0	8.0	13.0	8.0	10.0	6.0	18.0	13.0	13.0	8.0	9.0	5.0	0.0	0.0	3.0	2.0	0.0	6.0	18.0
22	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	2.0	1.0	4.0	14.0	20.0	6.0	6.0	10.0	11.0	10.0	12.0	11.0	7.0	8.0	9.0	6.0	5.8	20.0
23	7.0	11.0	10.0	8.0	10.0	8.0	6.0	2.0	1.0	2.0	3.0	3.0	3.0	5.0	9.0	13.0	8.0	6.0	7.0	4.0	3.0	3.0	0.0	0.0	5.5	13.0
24	1.0	3.0	2.0	1.0	0.0	1.0	3.0	3.0	4.0	3.0	6.0	16.0	14.0	8.0	6.0	8.0	11.0	9.0	10.0	7.0	5.0	4.0	3.0	6.0	5.6	16.0
25	4.0	1.0	0.0	0.0	1.0	1.0	0.0	0.0	0.0	1.0	6.0	6.0	9.0	6.0	2.0	3.0	5.0	7.0	62.0	21.0	14.0	14.0	18.0	16.0	8.2	62.0
26	10.0	11.0	10.0	8.0	14.0	7.0	1.0	2.0	5.0	10.0	17.0	13.0	31.0	9.0	10.0	8.0	5.0	5.0	6.0	11.0	12.0	53.0	3.0	0.0	10.9	53.0
27	6.0	7.0	15.0	8.0	5.0	3.0	1.0	9.0	8.0	7.0	5.0	9.0	5.0	3.0	3.0	1.0	0.0	1.0	5.0	6.0	4.0	0.0	0.0	0.0	4.6	15.0
28	5.0	3.0	0.0	1.0	0.0	0.0	1.0	1.0	0.0	2.0	8.0	9.0	6.0	3.0	3.0	3.0	5.0	3.0	2.0	7.0	5.0	4.0	2.0	0.0	3.0	9.0
29	0.0	4.0	8.0	6.0	6.0	7.0	6.0	5.0	5.0	9.0	7.0	7.0	5.0	5.0	5.0	5.0	11.0	16.0	9.0	8.0	10.0	7.0	4.0	2.0	6.5	16.0
30	4.0	8.0	8.0	6.0	6.0	9.0	7.0	5.0	15.0	13.0	12.0	10.0	11.0	C	12.0	6.0	5.0	4.0	4.0	4.0	3.0	3.0	5.0	3.0	7.1	15.0
NO.	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	718	99.9%
MEAN	6.0	6.3	6.5	5.0	4.6	4.6	4.5	4.8	5.1	5.0	6.0	6.9	7.5	5.7	5.6	5.1	5.3	6.5	8.3	7.9	6.9	7.0	5.3	5.1	7.5	
MAX	47.0	38.0	40.0	27.0	27.0	25.0	25.0	26.0	29.0	23.0	21.0	25.0	31.0	23.0	21.0	15.0	16.0	25.0	62.0	43.0	40.0	53.0	38.0	42.0	17.4	70.0



Number of 24HR Exceedences	0	Proposed Guideline	
Number of Non-Zero Readings	593		
Maximum 1-HR Average	62.0	UG/M3	
Maximum 24-HR Average	20.9	UG/M3	
		Opperational Time	719 HRS
Monthly Calibration	1	Opperational Uptime	99.9 %
Standard Deviation	7.4	Monthly Average	5.9 UG/M3

Windridge PM_{10} (µg/m^3) – September 2021

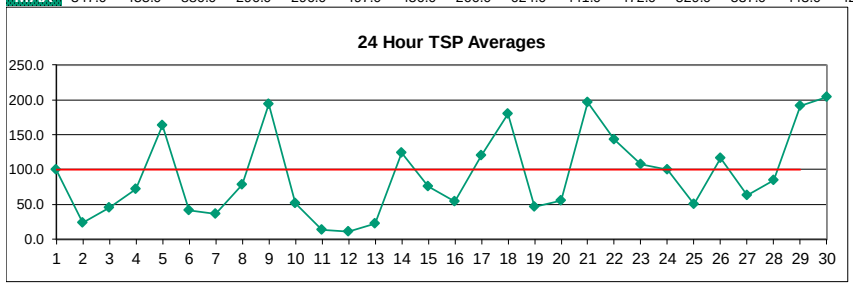
Day	HOUR 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN	MAX
1	18.0	15.0	10.0	46.0	19.0	68.0	100.0	148.0	94.0	55.0	117.0	56.0	107.0	96.0	92.0	79.0	68.0	68.0	10.0	40.0	12.0	9.0	14.0	9.0	56.3	148.0
2	3.0	2.0	7.0	8.0	7.0	8.0	14.0	43.0	18.0	30.0	42.0	10.0	9.0	9.0	8.0	15.0	25.0	20.0	12.0	11.0	10.0	8.0	6.0	5.0	13.8	43.0
3	3.0	18.0	5.0	3.0	5.0	16.0	30.0	20.0	20.0	16.0	18.0	71.0	28.0	61.0	52.0	29.0	48.0	104.0	27.0	17.0	7.0	19.0	10.0	24.0	27.1	104.0
4	15.0	6.0	8.0	7.0	4.0	4.0	25.0	14.0	15.0	13.0	22.0	58.0	33.0	77.0	26.0	41.0	42.0	70.0	113.0	110.0	52.0	78.0	115.0	96.0	43.5	115.0
5	192.0	274.0	154.0	152.0	73.0	113.0	106.0	98.0	92.0	84.0	82.0	79.0	87.0	78.0	169.0	69.0	90.0	133.0	148.0	101.0	46.0	51.0	63.0	9.0	106.0	274.0
6	7.0	4.0	12.0	10.0	5.0	13.0	11.0	16.0	24.0	23.0	17.0	P	37.0	63.0	94.0	43.0	17.0	32.0	38.0	26.0	28.0	51.0	10.0	7.0	25.6	94.0
7	5.0	7.0	7.0	5.0	8.0	23.0	13.0	19.0	34.0	36.0	20.0	36.0	17.0	11.0	45.0	59.0	38.0	57.0	30.0	23.0	11.0	20.0	14.0	13.0	23.0	59.0
8	25.0	29.0	30.0	11.0	18.0	64.0	16.0	29.0	50.0	36.0	48.0	15.0	47.0	41.0	38.0	91.0	56.0	53.0	77.0	95.0	86.0	66.0	91.0	141.0	52.2	141.0
9	215.0	106.0	121.0	107.0	43.0	61.0	47.0	86.0	374.0	119.0	286.0	352.0	390.0	143.0	126.0	97.0	71.0	58.0	35.0	10.0	15.0	29.0	39.0	51.0	124.2	390.0
10	41.0	40.0	28.0	26.0	33.0	20.0	48.0	132.0	53.0	45.0	31.0	32.0	32.0	27.0	32.0	30.0	26.0	19.0	25.0	27.0	27.0	23.0	24.0	16.0	34.9	132.0
11	24.0	15.0	6.0	5.0	9.0	23.0	17.0	8.0	17.0	23.0	14.0	16.0	8.0	17.0	7.0	7.0	7.0	17.0	6.0	16.0	13.0	15.0	11.0	8.0	12.9	24.0
12	9.0	10.0	18.0	12.0	9.0	25.0	8.0	18.0	9.0	9.0	13.0	7.0	5.0	10.0	8.0	5.0	6.0	32.0	9.0	6.0	4.0	5.0	3.0	2.0	10.1	32.0
13	3.0	3.0	4.0	3.0	6.0	4.0	2.0	17.0	17.0	7.0	8.0	15.0	15.0	20.0	18.0	38.0	40.0	23.0	26.0	17.0	8.0	16.0	37.0	16.0	15.1	40.0
14	15.0	8.0	7.0	8.0	6.0	6.0	4.0	9.0	9.0	19.0	100.0	53.0	111.0	99.0	70.0	81.0	112.0	145.0	198.0	190.0	161.0	162.0	152.0	135.0	77.5	198.0
15	205.0	160.0	83.0	132.0	13.0	12.0	7.0	6.0	6.0	4.0	13.0	20.0	63.0	42.0	43.0	40.0	48.0	46.0	74.0	56.0	55.0	53.0	23.0	9.0	50.5	205.0
16	6.0	8.0	7.0	5.0	4.0	3.0	4.0	9.0	14.0	25.0	29.0	39.0	37.0	60.0	64.0	59.0	122.0	76.0	58.0	65.0	41.0	20.0	11.0	8.0	32.3	122.0
17	6.0	6.0	5.0	5.0	6.0	5.0	20.0	16.0	37.0	69.0	162.0	107.0	43.0	109.0	128.0	112.0	119.0	151.0	98.0	99.0	237.0	111.0	203.0	110.0	81.8	237.0
18	352.0	179.0	485.0	232.0	352.0	451.0	434.0	142.0	69.0	100.0	78.0	47.0	79.0	39.0	149.0	129.0	40.0	45.0	68.0	78.0	76.0	54.0	5.0	3.0	153.6	485.0
19	0.0	1.0	4.0	5.0	6.0	5.0	4.0	4.0	4.0	8.0	27.0	49.0	68.0	84.0	76.0	49.0	77.0	70.0	77.0	80.0	38.0	9.0	5.0	5.0	31.5	84.0
20	5.0	3.0	4.0	4.0	3.0	2.0	6.0	7.0	19.0	54.0	36.0	23.0	43.0	44.0	37.0	53.0	47.0	41.0	34.0	40.0	52.0	97.0	68.0	72.0	33.1	97.0
21	88.0	55.0	36.0	63.0	76.0	110.0	133.0	59.0	166.0	384.0	194.0	161.0	203.0	307.0	274.0	319.0	127.0	90.0	118.0	27.0	15.0	50.0	17.0	10.0	128.4	384.0
22	8.0	9.0	8.0	6.0	2.0	4.0	10.0	18.0	20.0	30.0	79.0	147.0	224.0	83.0	114.0	181.0	142.0	196.0	190.0	134.0	88.0	157.0	166.0	87.0	87.6	224.0
23	66.0	134.0	99.0	151.0	85.0	133.0	131.0	32.0	13.0	18.0	28.0	30.0	37.0	103.0	82.0	145.0	73.0	56.0	31.0	27.0	40.0	17.0	21.0	20.0	65.5	151.0
24	12.0	10.0	10.0	14.0	13.0	12.0	17.0	77.0	126.0	86.0	83.0	130.0	101.0	43.0	53.0	68.0	76.0	92.0	103.0	63.0	83.0	84.0	86.0	49.0	62.1	130.0
25	27.0	12.0	8.0	7.0	4.0	6.0	6.0	11.0	20.0	18.0	65.0	35.0	84.0	43.0	42.0	64.0	54.0	76.0	40.0	35.0	34.0	33.0	44.0	39.0	33.6	84.0
26	27.0	49.0	46.0	44.0	41.0	22.0	14.0	8.0	33.0	87.0	133.0	152.0	298.0	65.0	67.0	69.0	31.0	22.0	56.0	88.0	101.0	121.0	28.0	20.0	67.6	298.0
27	73.0	154.0	196.0	35.0	30.0	26.0	35.0	85.0	51.0	59.0	37.0	60.0	27.0	33.0	44.0	10.0	10.0	21.0	45.0	42.0	26.0	11.0	40.0	6.0	48.2	196.0
28	102.0	27.0	0.0	0.0	5.0	5.0	14.0	70.0	62.0	78.0	80.0	86.0	94.0	99.0	88.0	75.0	75.0	26.0	34.0	80.0	46.0	57.0	59.0	32.0	53.9	102.0
29	24.0	121.0	135.0	112.0	117.0	136.0	75.0	117.0	134.0	169.0	93.0	52.0	84.0	69.0	74.0	106.0	179.0	264.0	153.0	104.0	102.0	X	X	X	115.2	264.0
30	X	X	X	X	X	X	X	X	X	X	X	X	X	C	138.0	107.0	118.0	117.0	126.0	70.0	44.0	38.0	50.0	42.0		
NO.	29	29	29	29	29	29	29	29	29	29	29	28	29	29	30	30	30	30	30	30	30	29	29	29	702	97.6%
MEAN	54.3	50.5	53.2	42.0	34.6	47.6	46.6	45.4	55.2	58.8	67.4	69.2	83.1	68.1	75.3	75.7	66.1	74.0	68.6	59.2	51.9	50.5	48.8	36.0	42.0	
MAX	352.0	274.0	485.0	232.0	352.0	451.0	434.0	148.0	374.0	384.0	286.0	352.0	390.0	307.0	274.0	319.0	179.0	264.0	198.0	190.0	237.0	162.0	203.0	141.0	91.1	433.3



Number of Non-Zero Readings	699		
Maximum 1-HR Average	485.0 UG/M3		
Maximum 24-HR Average	153.6 UG/M3		
		Opperational Time	703 HRS
Monthly Calibration	1	Opperational Uptime	97.6 %
Standard Deviation	65.81	Monthly Average	57.7 UG/M3

Windridge TSP (µg/m^3) – September 2021

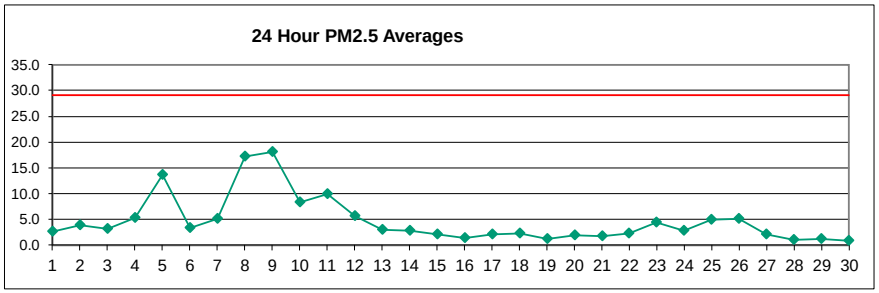
Day	HOUR 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN	MAX
1	20.0	15.0	13.0	82.0	23.0	120.0	182.0	266.0	172.0	100.0	238.0	95.0	172.0	168.0	150.0	146.0	122.0	116.0	34.0	87.0	15.0	14.0	29.0	7.0	99.4	266.0
2	6.0	8.0	10.0	7.0	5.0	17.0	27.0	74.0	35.0	55.0	67.0	15.0	17.0	26.0	16.0	33.0	44.0	28.0	22.0	21.0	13.0	15.0	5.0	5.0	23.8	74.0
3	10.0	34.0	9.0	9.0	6.0	29.0	56.0	32.0	19.0	26.0	24.0	119.0	68.0	101.0	86.0	55.0	80.0	194.0	62.0	12.0	15.0	11.0	7.0	33.0	45.7	194.0
4	25.0	18.0	13.0	9.0	5.0	15.0	28.0	14.0	26.0	28.0	35.0	82.0	53.0	134.0	49.0	76.0	81.0	118.0	196.0	190.0	99.0	129.0	151.0	169.0	72.6	196.0
5	347.0	455.0	259.0	221.0	105.0	182.0	153.0	175.0	112.0	114.0	126.0	143.0	129.0	119.0	199.0	119.0	137.0	228.0	211.0	135.0	58.0	89.0	95.0	14.0	163.5	455.0
6	8.0	9.0	12.0	12.0	11.0	19.0	20.0	32.0	35.0	37.0	28.0	P	63.0	102.0	133.0	70.0	36.0	57.0	73.0	45.0	49.0	87.0	19.0	9.0	42.0	133.0
7	6.0	6.0	5.0	7.0	7.0	35.0	17.0	25.0	47.0	60.0	31.0	60.0	19.0	21.0	70.0	112.0	67.0	118.0	43.0	37.0	17.0	25.0	23.0	25.0	36.8	118.0
8	32.0	36.0	33.0	13.0	23.0	103.0	31.0	43.0	71.0	53.0	60.0	30.0	61.0	68.0	66.0	130.0	88.0	88.0	119.0	154.0	127.0	91.0	147.0	213.0	78.3	213.0
9	297.0	147.0	208.0	156.0	57.0	90.0	65.0	138.0	624.0	190.0	472.0	529.0	518.0	215.0	232.0	180.0	150.0	109.0	69.0	17.0	19.0	39.0	60.0	71.0	193.8	624.0
10	55.0	49.0	35.0	36.0	55.0	22.0	72.0	208.0	87.0	65.0	43.0	49.0	46.0	46.0	48.0	54.0	36.0	32.0	36.0	37.0	40.0	41.0	26.0	20.0	51.6	208.0
11	13.0	13.0	9.0	8.0	7.0	20.0	14.0	11.0	28.0	24.0	10.0	23.0	18.0	14.0	9.0	9.0	11.0	14.0	14.0	10.0	10.0	13.0	15.0	12.0	13.7	28.0
12	12.0	10.0	16.0	14.0	11.0	24.0	15.0	16.0	7.0	12.0	17.0	7.0	4.0	17.0	8.0	5.0	5.0	39.0	4.0	4.0	4.0	3.0	3.0	8.0	11.0	39.0
13	7.0	6.0	5.0	5.0	4.0	6.0	4.0	24.0	16.0	9.0	12.0	11.0	27.0	30.0	34.0	64.0	62.0	43.0	38.0	28.0	12.0	21.0	46.0	20.0	22.3	64.0
14	15.0	9.0	7.0	5.0	4.0	6.0	9.0	8.0	9.0	28.0	140.0	73.0	192.0	165.0	132.0	124.0	198.0	247.0	345.0	308.0	226.0	252.0	265.0	202.0	123.7	345.0
15	308.0	232.0	102.0	170.0	27.0	8.0	5.0	3.0	6.0	6.0	17.0	34.0	94.0	69.0	74.0	75.0	67.0	83.0	118.0	91.0	86.0	89.0	41.0	8.0	75.5	308.0
16	10.0	10.0	11.0	7.0	4.0	3.0	6.0	19.0	18.0	48.0	55.0	73.0	57.0	102.0	100.0	92.0	200.0	132.0	100.0	102.0	93.0	39.0	15.0	21.0	54.9	200.0
17	10.0	7.0	5.0	10.0	8.0	7.0	42.0	18.0	52.0	118.0	288.0	193.0	71.0	182.0	215.0	181.0	160.0	225.0	158.0	182.0	281.0	184.0	166.0	131.0	120.6	288.0
18	184.0	171.0	880.0	296.0	296.0	497.0	456.0	185.0	72.0	135.0	91.0	56.0	115.0	65.0	224.0	195.0	54.0	37.0	80.0	77.0	77.0	67.0	4.0	2.0	179.8	880.0
19	2.0	2.0	1.0	3.0	6.0	4.0	1.0	7.0	7.0	11.0	39.0	80.0	110.0	141.0	115.0	67.0	103.0	104.0	105.0	133.0	54.0	11.0	6.0	5.0	46.5	141.0
20	5.0	2.0	5.0	4.0	8.0	5.0	2.0	8.0	26.0	79.0	50.0	35.0	75.0	71.0	72.0	97.0	75.0	76.0	62.0	63.0	94.0	175.0	124.0	132.0	56.0	175.0
21	160.0	98.0	42.0	98.0	122.0	213.0	252.0	101.0	277.0	441.0	299.0	208.0	378.0	443.0	424.0	449.0	188.0	143.0	178.0	45.0	25.0	98.0	26.0	9.0	196.5	449.0
22	12.0	10.0	6.0	5.0	4.0	7.0	9.0	30.0	30.0	51.0	134.0	278.0	351.0	141.0	199.0	322.0	238.0	321.0	295.0	200.0	140.0	275.0	268.0	119.0	143.5	351.0
23	88.0	213.0	151.0	245.0	142.0	229.0	250.0	74.0	17.0	27.0	42.0	41.0	59.0	179.0	129.0	243.0	130.0	102.0	40.0	46.0	59.0	21.0	34.0	32.0	108.0	250.0
24	20.0	23.0	8.0	20.0	17.0	18.0	32.0	107.0	208.0	142.0	126.0	206.0	143.0	71.0	80.0	98.0	127.0	160.0	177.0	119.0	150.0	140.0	145.0	67.0	100.2	52.0
25	28.0	15.0	5.0	2.0	3.0	3.0	6.0	14.0	13.0	16.0	105.0	60.0	127.0	77.0	82.0	107.0	97.0	129.0	57.0	41.0	45.0	54.0	62.0	52.0	50.0	129.0
26	36.0	67.0	66.0	66.0	72.0	32.0	13.0	11.0	46.0	159.0	246.0	279.0	537.0	121.0	102.0	115.0	57.0	41.0	98.0	159.0	187.0	183.0	54.0	36.0	116.0	537.0
27	88.0	134.0	240.0	46.0	45.0	36.0	53.0	134.0	87.0	100.0	58.0	80.0	43.0	59.0	63.0	14.0	19.0	36.0	58.0	40.0	29.0	12.0	33.0	1.0	62.8	240.0
28	111.0	30.0	1.0	0.0	2.0	6.0	14.0	100.0	91.0	148.0	126.0	139.0	163.0	165.0	148.0	134.0	118.0	44.0	48.0	138.0	83.0	86.0	102.0	49.0	85.3	165.0
29	43.0	187.0	187.0	154.0	173.0	221.0	149.0	220.0	253.0	284.0	159.0	87.0	160.0	115.0	126.0	192.0	353.0	512.0	267.0	173.0	160.0	162.0	112.0	152.0	191.7	512.0
30	226.0	269.0	254.0	247.0	104.0	200.0	309.0	137.0	384.0	358.0	299.0	328.0	258.0	C	C	174.0	197.0	183.0	177.0	104.0	73.0	57.0	90.0	52.0	203.6	384.0
NO.	30	30	30	30	30	30	30	30	30	30	30	29	30	29	29	30	30	30	30	30	30	30	30	30	717	99.9%
MEAN	72.8	76.2	86.6	65.2	45.2	72.6	76.4	74.5	95.8	97.5	114.6	117.7	137.6	111.3	116.7	124.4	110.0	125.3	109.5	93.3	78.0	82.8	72.4	55.9		
MAX	347.0	455.0	880.0	296.0	296.0	497.0	456.0	266.0	624.0	441.0	472.0	529.0	537.0	443.0	424.0	449.0	353.0	512.0	345.0	308.0	281.0	275.0	268.0	213.0		



Number of 24HR Exceedences	12 Proposed Guideline		
Number of Non-Zero Readings	716		
Maximum 1-HR Average	880.0 UG/M3		
Maximum 24-HR Average	203.6 UG/M3		
IZS Calibration Time		Opperational Time	719 HRS
Down Time	0	Opperational Uptime	99.9 %
Standard Deviation	101.5	Monthly Average	92.1 UG/M3

West $PM_{2.5}$ (µg/m^3) – September 2021

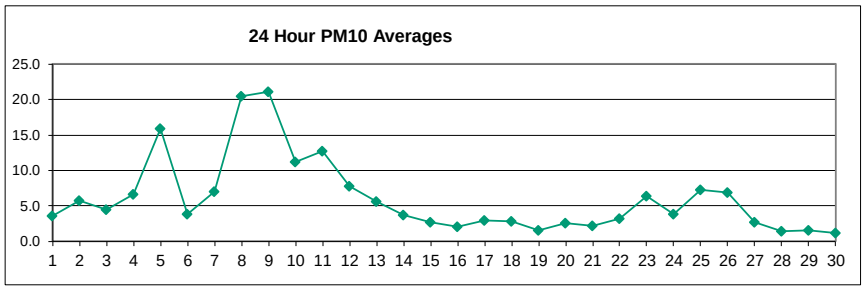
Day	HOUR 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN	MAX
1	4.8	5.8	5.2	3.2	3.3	3.8	4.4	5.2	2.9	1.8	1.4	1.5	2.2	2.4	2.4	1.7	0.8	0.7	0.3	0.5	1.2	2.3	3.5	3.5	2.7	5.8
2	2.9	2.9	2.8	1.7	1.6	2.0	6.9	8.3	5.2	6.5	5.0	4.0	4.5	3.8	3.9	4.5	1.7	1.5	4.9	6.1	3.0	2.8	2.6	3.4	3.9	8.3
3	3.8	3.5	2.8	2.4	2.3	2.3	2.8	4.6	5.4	3.9	3.8	3.6	3.0	2.9	2.5	2.7	1.7	1.9	1.5	1.8	2.4	3.8	5.9	4.6	3.2	5.9
4	4.5	4.4	4.4	4.3	4.3	4.4	4.8	4.8	5.5	5.2	5.0	4.0	3.8	3.5	3.5	3.9	4.2	4.6	5.6	6.5	7.6	8.5	9.4	11.9	5.4	11.9
5	14.4	17.2	17.7	19.2	24.1	25.6	23.7	19.4	17.5	17.2	15.0	14.2	12.3	11.7	12.6	12.0	10.0	8.9	7.5	6.0	5.3	4.9	5.9	6.3	13.7	25.6
6	7.2	7.7	7.1	5.0	4.5	4.7	4.5	3.6	3.4	2.9	2.9	2.9	2.3	2.2	1.7	1.6	1.5	1.4	1.6	1.7	1.7	1.9	2.4	2.8	3.3	7.7
7	3.1	3.3	3.7	4.0	4.3	4.8	5.4	6.7	8.4	7.4	6.3	5.2	4.3	4.0	3.5	2.7	1.5	1.7	6.3	6.6	7.1	6.1	7.6	8.2	5.1	8.4
8	7.4	6.8	6.2	5.8	6.3	6.5	6.6	6.7	6.5	6.5	6.7	6.8	6.6	6.2	6.7	9.6	16.5	28.5	32.6	38.7	42.3	46.0	49.9	50.4	17.2	50.4
9	48.1	44.8	41.1	38.9	39.0	38.0	35.1	31.4	17.5	11.3	6.6	5.5	4.8	4.5	4.7	4.2	3.8	3.9	5.1	6.1	7.1	9.4	11.1	12.6	18.1	48.1
10	11.4	9.6	8.6	7.3	7.0	7.1	7.1	8.0	7.9	8.6	9.6	6.6	7.5	8.8	6.9	6.8	7.1	7.7	8.8	8.0	8.1	8.9	10.6	11.6	8.3	11.6
11	10.8	10.6	10.3	9.5	9.5	10.4	11.2	11.1	11.5	11.9	12.2	13.9	12.8	10.3	8.4	7.4	9.0	9.0	8.0	8.6	7.1	5.5	7.4	9.4	9.8	13.9
12	9.7	9.3	9.0	9.2	9.2	5.9	4.7	8.1	8.4	8.6	8.1	5.8	3.4	3.0	4.3	4.0	4.6	3.3	2.6	2.7	2.4	3.2	3.0	3.6	5.7	9.7
13	3.8	3.9	3.6	3.4	3.1	3.1	4.1	4.8	4.6	3.9	4.0	2.9	3.0	2.1	2.2	2.6	2.0	1.7	2.1	2.1	2.3	2.1	1.9	1.7	3.0	4.8
14	1.8	2.1	2.3	2.5	2.8	3.9	4.0	5.2	4.8	4.0	2.7	2.3	2.3	2.7	3.0	2.8	2.2	2.6	2.9	3.2	2.7	1.9	1.0	0.7	2.8	5.2
15	0.6	0.8	0.9	1.4	1.6	2.2	1.2	0.9	1.3	10.7	10.9	2.4	2.1	1.5	2.0	1.2	1.3	0.8	0.9	0.9	1.0	0.9	0.9	1.1	2.1	10.9
16	1.0	1.1	1.1	1.0	1.0	1.2	1.3	3.1	3.1	2.4	2.0	1.3	1.9	1.7	1.6	1.3	0.8	0.7	0.6	0.7	0.9	1.6	1.3	2.1	1.5	3.1
17	1.3	1.2	1.6	1.2	1.2	1.8	2.7	4.8	5.5	4.4	3.7	2.5	2.0	1.6	1.5	1.3	0.6	0.8	1.4	1.6	2.0	1.9	2.3	2.8	2.2	5.5
18	2.5	2.2	3.2	4.0	3.6	4.3	3.6	3.0	2.4	2.5	2.9	3.0	2.9	2.4	3.1	1.4	1.4	1.8	1.3	1.2	0.9	0.8	0.9	0.9	2.3	4.3
19	1.2	1.2	1.3	1.4	1.5	1.4	1.4	1.5	1.8	1.6	1.6	1.1	0.9	0.8	0.9	1.1	0.9	0.9	1.0	1.0	1.2	1.5	1.8	1.7	1.3	1.8
20	2.0	2.0	2.0	2.0	2.2	2.2	3.9	3.6	4.0	3.2	3.1	2.3	2.5	2.1	1.5	0.8	0.8	0.6	0.8	0.7	0.7	0.6	0.7	0.9	1.9	4.0
21	1.2	1.2	1.3	1.3	1.2	1.3	2.3	4.1	2.3	1.0	1.0	0.9	1.4	2.2	2.8	1.7	1.2	0.7	1.6	1.5	1.9	1.6	1.8	2.3	1.7	4.1
22	2.1	1.8	2.3	2.3	2.3	2.3	2.6	4.4	7.5	6.3	3.8	2.8	2.4	2.6	2.2	1.8	1.2	1.0	0.7	0.7	0.7	0.5	0.6	0.8	2.3	7.5
23	0.7	0.8	1.0	1.0	0.9	1.1	2.1	4.6	8.6	9.5	10.5	8.7	3.1	2.6	2.4	2.2	1.6	1.7	8.6	6.5	6.9	7.0	6.5	6.1	4.4	10.5
24	4.9	3.3	3.0	2.9	3.0	3.0	3.4	4.6	5.4	3.4	4.2	2.4	2.4	2.3	4.3	3.7	1.2	1.2	1.1	1.1	1.1	1.4	1.7	1.9	2.8	5.4
25	2.1	2.3	2.2	2.2	2.4	2.7	2.7	3.2	4.6	4.9	5.5	4.0	2.2	2.0	1.8	1.4	2.2	1.7	5.6	12.4	12.5	12.5	13.6	13.4	5.0	13.6
26	12.2	7.6	6.7	6.6	7.4	6.9	6.1	6.1	5.4	4.1	5.5	5.3	4.6	4.1	3.8	3.6	3.4	3.5	3.8	4.4	3.7	2.9	2.0	1.5	5.0	12.2
27	1.9	3.2	3.4	3.1	3.2	2.9	2.6	2.7	2.7	2.3	2.1	2.1	2.2	2.3	2.5	2.2	1.4	1.0	1.5	1.2	0.5	0.4	0.5	0.5	2.0	3.4
28	0.5	0.6	0.7	0.7	0.7	0.8	1.1	1.9	2.2	1.9	1.6	1.3	1.2	1.2	1.4	1.8	0.6	0.5	0.4	0.6	1.0	1.0	0.7	0.6	1.0	2.2
29	0.6	0.7	0.5	0.4	0.4	0.4	0.9	2.5	1.1	1.8	1.9	1.5	1.3	1.5	1.8	1.7	1.4	1.1	0.8	1.0	1.1	1.1	0.9	0.9	1.1	2.5
30	0.9	0.8	0.8	0.7	0.7	0.6	1.2	2.0	1.5	1.1	1.0	1.3	1.3	1.0	1.0	0.7	0.7	0.6	0.5	0.4	0.4	0.4	0.7	0.9	0.9	2.0
NO.	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	720	100%
MEAN	5.6	5.4	5.2	4.9	5.2	5.2	5.5	6.0	5.6	5.4	5.0	4.1	3.6	3.3	3.4	3.1	2.9	3.2	4.0	4.5	4.6	4.8	5.3	5.6		
MAX	48.1	44.8	41.1	38.9	39.0	38.0	35.1	31.4	17.5	17.2	15.0	14.2	12.8	11.7	12.6	12.0	16.5	28.5	32.6	38.7	42.3	46.0	49.9	50.4		



Number of 24HR Exceedences	0 Proposed Guideline		
Number of Non-Zero Readings	720		
Maximum 1-HR Average	50.4 UG/M3		
Maximum 24-HR Average	18.1 UG/M3		
IZS Calibration Time		Opperational Time	720 HRS
Down Time	0	Opperational Uptime	100.0 %
Standard Deviation	6.371	Monthly Average	4.6 UG/M3

West PM_{10} ($\mu g/m^3$) – September 2021

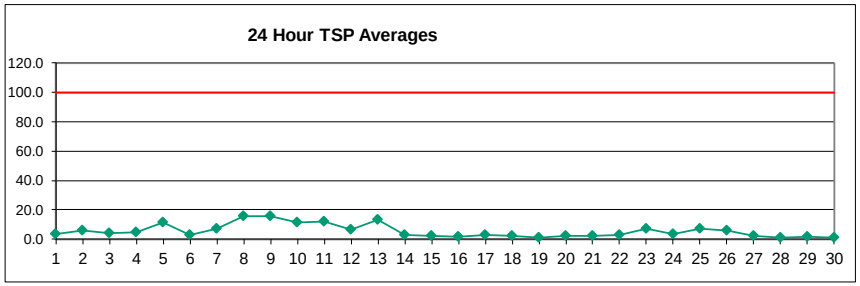
Day	HOUR 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN	MAX
1	5.1	7.2	6.2	3.6	3.6	4.8	6.4	7.5	4.3	2.5	2.0	2.3	3.2	3.5	3.6	2.5	1.1	0.9	0.4	0.6	1.8	3.4	5.1	5.2	3.6	7.5
2	4.4	4.3	4.1	2.3	2.2	2.7	10.4	12.5	7.8	9.8	7.4	5.9	6.7	5.7	5.9	6.7	2.4	2.2	7.3	9.2	4.4	4.1	3.8	4.9	5.7	12.5
3	5.5	5.0	3.8	3.1	3.0	2.8	3.8	6.8	8.1	5.8	5.6	5.3	4.4	4.2	3.6	3.8	2.4	2.6	1.8	2.1	3.2	5.5	8.6	6.8	4.5	8.6
4	6.0	5.3	5.3	5.0	5.0	5.1	5.8	6.0	7.6	6.6	6.7	5.3	5.3	4.6	4.8	5.4	5.8	5.5	6.6	7.8	9.2	10.2	10.9	14.0	6.6	14.0
5	16.9	19.8	19.6	21.2	27.0	28.3	26.1	21.0	19.5	21.2	18.6	17.8	15.3	14.9	16.0	15.5	12.4	10.8	8.5	6.6	5.8	5.2	6.4	7.0	15.9	28.3
6	8.1	8.4	7.6	5.5	4.8	5.2	5.2	4.4	4.4	3.6	3.8	3.9	3.0	2.9	2.3	2.1	1.9	1.7	1.8	1.9	1.9	2.1	2.7	3.0	3.8	8.4
7	3.4	3.7	4.1	4.4	4.7	5.5	6.7	9.8	12.1	10.7	9.1	7.4	6.1	5.8	5.1	4.0	1.9	2.3	9.4	10.0	10.7	9.1	11.4	12.2	7.1	12.2
8	11.0	9.8	8.7	7.7	8.6	8.7	9.1	9.1	8.2	8.1	8.7	8.8	8.9	8.8	9.2	12.8	21.4	32.7	36.8	44.3	46.9	52.2	55.3	56.4	20.5	56.4
9	52.8	50.4	45.2	42.1	41.7	40.3	39.3	43.1	22.3	14.4	8.6	8.0	6.8	6.2	6.3	5.4	4.7	4.5	6.5	7.0	8.3	12.0	13.9	17.2	21.1	52.8
10	14.9	12.2	11.0	10.5	10.5	9.9	9.4	9.8	9.7	10.6	12.6	8.1	10.3	13.0	10.4	10.2	10.1	10.1	11.5	10.4	10.7	11.8	15.1	16.4	11.2	16.4
11	14.7	14.0	13.8	12.8	12.8	12.2	12.3	11.8	12.1	13.0	14.7	22.9	21.3	13.3	11.8	9.6	11.5	11.2	10.1	11.5	9.3	7.1	10.1	12.0	12.8	22.9
12	12.9	12.8	12.4	11.9	11.4	7.2	5.7	9.7	9.6	9.9	9.4	6.7	4.3	5.2	9.2	6.9	10.8	5.6	3.5	3.8	3.4	4.4	4.3	5.1	7.8	12.9
13	5.5	5.6	5.1	4.8	4.4	4.4	6.5	9.7	10.4	10.6	14.5	8.4	11.8	7.5	2.9	3.7	2.6	2.0	2.7	2.8	3.0	2.7	2.5	2.2	5.7	14.5
14	2.3	2.6	2.8	3.1	3.6	5.3	5.6	7.5	6.9	5.8	3.8	3.0	3.1	3.8	4.3	3.9	2.9	3.4	3.6	4.0	3.2	2.2	1.1	0.8	3.7	7.5
15	0.7	1.0	1.0	1.6	2.0	3.2	1.6	1.2	1.6	13.5	13.6	3.5	3.0	2.0	2.8	1.6	1.9	1.0	1.2	1.1	1.2	1.2	1.2	1.4	2.7	13.6
16	1.3	1.4	1.4	1.3	1.3	1.6	1.8	4.7	4.6	3.5	2.9	1.8	2.9	2.4	2.3	1.8	1.0	0.9	0.7	0.9	1.2	2.2	1.7	2.8	2.0	4.7
17	1.6	1.4	2.0	1.4	1.4	2.3	3.8	7.2	8.3	6.5	5.4	3.7	2.9	2.2	2.2	1.9	0.8	1.0	1.6	1.8	2.2	2.2	2.5	3.1	2.9	8.3
18	2.7	2.4	4.1	5.5	5.1	6.1	4.6	3.4	2.7	3.2	3.3	3.4	3.3	2.7	3.5	1.6	1.7	2.1	1.6	1.5	1.1	1.0	1.1	1.1	2.9	6.1
19	1.4	1.5	1.6	1.7	1.8	1.7	1.7	1.9	2.3	2.0	2.1	1.4	1.2	0.9	1.1	1.4	1.1	1.1	1.3	1.2	1.6	1.8	2.3	2.2	1.6	2.3
20	2.5	2.5	2.6	2.5	2.8	2.8	5.5	5.2	5.9	4.6	4.5	3.3	3.7	3.1	2.2	1.1	1.1	0.8	1.0	0.8	0.8	0.7	0.8	1.0	2.6	5.9
21	1.4	1.3	1.4	1.4	1.3	1.6	3.2	6.1	3.3	1.3	1.3	1.3	2.0	3.2	4.2	2.5	1.7	0.8	2.1	2.0	2.5	2.1	2.4	3.3	2.2	6.1
22	2.9	2.3	3.1	3.0	3.0	2.9	3.4	6.5	11.3	9.5	5.5	4.0	3.5	3.7	3.1	2.5	1.6	1.3	0.8	0.9	0.8	0.6	0.7	0.9	3.2	11.3
23	0.8	1.0	1.2	1.3	1.1	1.4	2.9	6.8	12.9	14.2	15.5	12.7	4.5	3.8	3.5	3.1	2.0	2.2	12.9	9.8	10.3	10.4	9.8	9.0	6.4	15.5
24	7.1	4.4	3.8	3.5	3.7	3.7	4.5	6.7	8.0	4.9	6.2	3.4	3.5	3.4	6.3	5.5	1.6	1.6	1.5	1.4	1.4	1.7	2.2	2.4	3.8	8.0
25	2.9	3.2	2.9	2.9	3.2	3.5	3.6	4.4	6.7	7.2	8.1	5.9	3.1	2.9	2.5	1.9	2.9	2.3	8.2	18.6	18.6	18.7	20.2	19.9	7.3	20.2
26	17.9	9.9	8.2	8.1	9.6	9.8	8.6	8.6	7.6	5.6	7.5	7.1	6.6	5.7	5.4	5.0	4.6	4.6	4.9	6.0	5.1	4.0	2.4	1.8	6.9	17.9
27	2.3	4.1	4.5	3.9	4.2	3.8	3.5	3.7	3.8	3.2	3.0	3.0	3.1	3.3	3.6	3.1	1.8	1.3	2.0	1.5	0.7	0.5	0.6	0.6	2.7	4.5
28	0.6	0.7	0.9	0.8	0.9	0.9	1.4	2.7	3.2	2.8	2.3	1.9	1.7	1.8	2.0	2.5	0.8	0.6	0.6	0.8	1.3	1.3	0.8	0.8	1.4	3.2
29	0.7	1.0	0.6	0.5	0.5	0.5	1.3	3.7	1.6	2.7	2.7	2.2	1.9	2.2	2.6	2.4	1.9	1.4	1.0	1.3	1.4	1.4	1.0	1.0	1.6	3.7
30	1.2	0.9	0.9	0.9	0.9	0.7	1.6	2.9	2.1	1.5	1.3	1.8	1.9	1.4	2.0	1.0	1.0	0.7	0.7	0.5	0.4	0.5	0.8	1.0	1.2	2.9
NO.	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	720	100%
MEAN	7.1	6.7	6.3	5.9	6.2	6.3	6.8	8.1	7.6	7.3	7.0	5.8	5.3	4.8	4.8	4.4	4.0	4.0	5.1	5.7	5.8	6.1	6.7	7.2		
MAX	52.8	50.4	45.2	42.1	41.7	40.3	39.3	43.1	22.3	21.2	18.6	22.9	21.3	14.9	16.0	15.5	21.4	32.7	36.8	44.3	46.9	52.2	55.3	56.4		



Number of Non-Zero Readings	720		
Maximum 1-HR Average	56.4 UG/M3		
Maximum 24-HR Average	21.1 UG/M3		
IZS Calibration Time		OpperatioEl Time	720 HRS
Down Time	0	OpperatioEl Uptime	100.0 %
Standard Deviation	7.4	Monthly Average	6.0 UG/M3

West TSP (µg/m^3) – September 2021

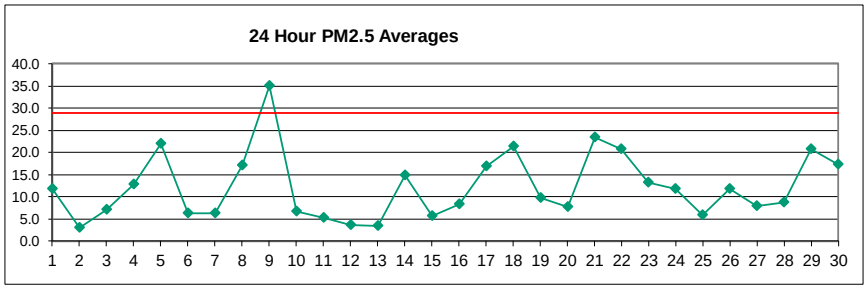
Day	HOUR 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN	MAX
1	3.3	5.0	4.1	2.4	2.4	3.8	6.5	8.1	4.5	2.7	2.0	2.4	3.4	3.9	4.0	2.6	1.0	0.7	0.3	0.4	1.8	3.5	5.2	5.9	3.3	8.1
2	4.6	4.6	4.0	1.9	1.9	2.0	11.2	14.0	8.8	11.2	8.3	6.4	7.7	6.4	6.6	7.6	2.4	2.1	8.2	10.6	4.6	3.9	3.5	4.5	6.1	14.0
3	5.0	4.0	2.8	2.2	2.1	2.0	2.9	6.9	9.0	6.2	5.9	5.6	4.6	4.3	3.5	3.9	2.2	2.4	1.3	1.4	2.5	5.3	8.1	6.1	4.2	9.0
4	4.4	3.6	3.6	3.3	3.2	3.3	4.0	4.3	5.9	4.8	5.2	4.2	4.5	3.5	3.8	4.3	4.8	3.9	4.8	5.4	6.7	7.1	7.4	10.2	4.8	10.2
5	12.2	14.1	13.3	14.5	18.2	18.9	17.4	14.0	13.2	15.6	13.6	13.7	11.7	11.6	12.5	12.1	9.4	8.1	5.9	4.5	4.0	3.5	4.2	4.6	11.3	18.9
6	5.5	5.5	5.0	3.7	3.2	3.5	3.6	3.3	3.6	3.1	3.3	3.5	2.6	2.6	2.0	1.8	1.5	1.3	1.3	1.3	1.3	1.4	1.8	2.0	2.8	5.5
7	2.2	2.4	2.7	2.9	3.1	3.7	5.2	10.3	13.7	11.8	9.4	7.5	6.3	6.2	5.4	4.1	1.6	2.0	10.5	10.7	11.4	9.1	12.3	12.8	7.0	13.7
8	10.3	7.9	6.5	5.4	6.3	6.4	7.5	9.0	9.4	9.1	9.1	9.0	8.4	7.8	8.5	10.9	16.3	23.4	25.9	32.1	32.5	36.8	38.0	40.8	15.7	40.8
9	36.9	35.3	30.3	28.4	27.6	26.5	26.8	34.6	18.6	12.5	7.7	8.3	6.5	5.7	5.8	4.4	3.6	3.1	5.2	4.7	5.5	12.2	15.5	16.2	15.9	36.9
10	15.3	13.2	11.9	10.1	9.1	8.9	9.1	11.3	11.3	12.2	14.3	9.4	11.7	14.7	11.5	11.0	10.6	10.3	11.7	10.7	10.5	11.7	11.3	11.1	11.4	15.3
11	9.7	9.2	9.1	8.4	8.5	7.9	8.1	7.6	9.3	13.1	22.2	32.7	42.6	11.6	15.7	10.3	8.8	7.6	6.6	7.8	6.2	4.8	7.1	7.8	11.8	42.6
12	8.3	8.3	8.2	7.7	7.3	4.6	3.7	6.3	6.2	6.9	6.2	5.4	3.7	12.4	16.6	11.6	12.4	4.2	2.7	3.0	2.6	3.2	3.3	3.9	6.6	16.6
13	4.0	4.2	3.7	3.5	3.3	3.4	5.2	16.6	38.9	34.0	50.8	31.0	60.2	33.6	2.7	3.6	2.2	1.4	2.1	2.1	2.3	1.9	1.8	1.6	13.1	60.2
14	1.6	1.8	1.9	2.1	2.5	4.3	4.8	7.5	6.7	5.7	3.4	2.7	2.9	3.9	4.2	3.8	2.3	2.6	2.6	3.0	2.4	1.5	0.7	0.5	3.1	7.5
15	0.5	0.7	0.7	1.1	1.8	3.0	1.3	1.0	1.2	9.0	9.5	3.5	3.0	1.9	2.8	1.6	1.9	0.8	0.9	0.9	1.0	0.8	0.9	1.1	2.1	9.5
16	0.9	1.0	1.0	0.9	1.0	1.3	1.5	5.1	5.0	3.6	3.1	1.8	3.0	2.5	2.4	1.8	0.8	0.7	0.5	0.7	1.0	1.9	1.3	2.4	1.9	5.1
17	1.2	0.9	1.5	1.0	1.0	2.0	3.6	8.0	9.5	7.2	5.9	3.9	3.0	2.2	2.0	1.8	0.7	0.7	1.1	1.3	1.5	1.6	1.7	2.1	2.7	9.5
18	1.8	1.6	3.6	5.1	5.1	5.9	3.8	2.4	1.9	2.6	2.3	2.3	2.3	1.9	2.4	1.2	1.2	1.4	1.1	1.1	0.7	0.7	0.8	0.8	2.3	5.9
19	1.0	1.0	1.1	1.1	1.2	1.2	1.2	1.4	1.8	1.5	1.7	1.1	0.9	0.7	0.9	1.1	0.8	0.8	0.9	0.9	1.2	1.3	1.5	1.5	1.2	1.8
20	1.7	1.7	1.8	1.7	2.0	1.9	4.7	5.0	6.4	4.7	4.6	3.3	4.1	3.4	2.2	1.0	0.9	0.6	0.8	0.6	0.6	0.6	0.6	0.7	2.3	6.4
21	1.1	0.9	1.0	1.0	0.9	1.2	3.2	6.8	3.4	1.2	1.1	1.1	1.9	3.4	4.6	2.6	1.6	0.6	1.8	1.6	1.9	1.5	1.8	2.7	2.0	6.8
22	2.2	1.7	2.5	2.4	2.2	2.1	2.7	7.0	13.0	10.6	5.8	4.1	3.4	3.8	2.9	2.4	1.2	1.1	0.6	0.6	0.6	0.4	0.5	0.6	3.1	13.0
23	0.6	0.6	0.9	1.0	0.8	1.1	2.9	7.6	14.9	16.5	18.0	14.7	4.9	3.9	3.5	3.0	1.6	1.7	14.8	11.1	11.4	11.2	10.4	9.0	6.9	18.0
24	6.6	3.2	2.7	2.4	2.5	2.5	3.5	6.3	8.4	4.5	6.4	3.4	3.5	3.5	7.1	6.0	1.4	1.4	1.2	1.1	1.0	1.1	1.6	1.7	3.5	8.4
25	2.2	2.6	2.0	2.0	2.3	2.5	2.5	3.3	6.0	6.3	7.5	5.6	2.8	2.5	2.3	1.6	2.9	2.0	8.7	21.3	20.8	20.6	22.9	22.5	7.3	22.9
26	20.0	11.3	9.5	9.3	9.4	7.6	6.3	6.7	6.5	4.8	6.4	6.1	6.0	4.8	4.8	4.1	3.9	3.5	3.7	4.7	4.4	3.3	1.8	1.2	6.2	20.0
27	1.6	3.1	3.7	2.9	3.2	2.9	2.7	3.1	3.5	3.0	2.8	2.8	3.1	3.3	3.6	3.1	1.6	0.9	1.7	1.1	0.5	0.3	0.4	0.4	2.3	3.7
28	0.4	0.5	0.6	0.6	0.6	0.6	1.1	2.6	3.1	3.1	2.4	1.9	1.7	1.8	2.1	2.7	0.7	0.5	0.5	0.6	1.1	0.9	0.6	0.5	1.3	3.1
29	0.5	0.8	0.5	0.3	0.4	0.4	1.3	4.1	1.6	2.7	2.8	2.3	1.9	2.1	2.7	2.5	1.8	1.1	0.8	1.0	1.2	1.1	0.7	0.7	1.5	4.1
30	0.9	0.6	0.6	0.6	0.7	0.6	1.5	3.0	2.1	1.4	1.1	1.8	1.8	1.3	2.3	0.9	0.8	0.6	0.5	0.4	0.3	0.3	0.5	0.7	1.1	3.0
NO.	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	720	100%
MEAN	5.6	5.1	4.7	4.3	4.5	4.5	5.3	7.6	8.2	7.7	8.1	6.7	7.5	5.7	5.0	4.3	3.4	3.0	4.3	4.9	4.8	5.1	5.6	5.9		
MAX	36.9	35.3	30.3	28.4	27.6	26.5	26.8	34.6	38.9	34.0	50.8	32.7	60.2	33.6	16.6	12.1	16.3	23.4	25.9	32.1	32.5	36.8	38.0	40.8		



Number of 24HR Exceedences	0 Proposed Guideline		
Number of Non-Zero Readings	720		
Maximum 1-HR Average	60.2 UG/M3		
Maximum 24-HR Average	15.9 UG/M3		
IZS Calibration Time		Opperational Time	720 HRS
Down Time	0	Opperational Uptime	100.0 %
Standard Deviation	6.907	Monthly Average	5.5 UG/M3

Berm $PM_{2.5}$ (µg/m^3) – September 2021

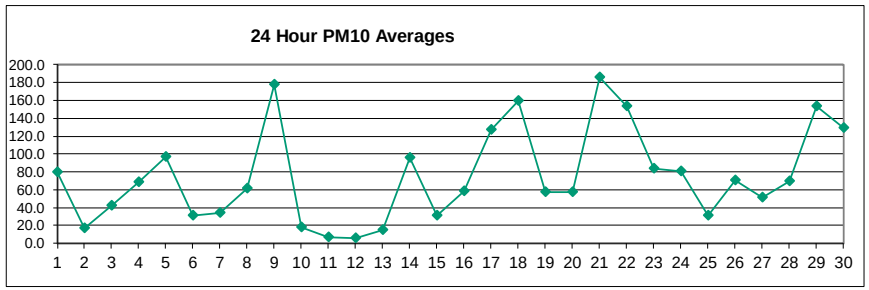
DAY \ HOUR	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN	MAX
1	3.6	3.5	3.0	2.3	1.6	5.2	13.8	11.0	18.5	24.4	20.7	17.1	30.4	28.6	31.3	24.1	13.5	14.0	2.4	8.4	1.2	1.0	2.1	1.1	11.8	31.3
2	1.1	1.4	1.0	1.0	0.9	1.1	2.3	3.2	4.2	6.5	5.7	1.5	1.7	1.6	1.3	2.6	13.8	13.3	2.7	1.9	2.2	2.0	0.9	0.9	3.1	13.8
3	1.4	3.4	1.8	1.2	1.6	2.9	4.4	3.3	2.7	2.4	3.0	12.6	20.4	22.1	15.8	14.9	19.1	27.2	2.4	1.5	1.1	1.4	1.5	2.0	7.1	27.2
4	3.6	3.3	3.1	2.2	2.3	2.6	3.1	3.0	3.9	4.1	5.9	10.8	9.2	25.6	29.7	29.1	29.1	14.8	33.0	15.9	10.9	15.3	16.0	29.4	12.7	33.0
5	46.0	48.9	31.9	30.3	23.4	24.6	24.9	21.4	19.6	17.4	25.0	21.5	15.5	12.6	19.4	13.7	16.3	23.8	28.9	20.5	14.7	9.9	13.5	5.6	22.1	48.9
6	4.2	4.6	5.0	4.2	3.1	2.7	3.7	4.3	4.4	5.9	3.4	7.4	11.1	19.9	18.8	11.3	5.2	6.5	10.0	5.8	3.1	4.1	1.8	1.5	6.3	19.9
7	1.7	2.9	3.8	2.6	3.3	5.2	3.9	5.0	5.8	6.9	4.8	8.7	12.9	10.3	11.6	18.1	13.9	11.8	4.1	3.5	2.3	2.1	2.5	4.2	6.3	18.1
8	4.8	5.4	5.5	3.3	4.5	9.7	5.1	6.2	8.3	8.0	6.8	5.2	8.1	7.3	14.9	21.4	16.7	29.5	39.0	44.1	31.9	31.6	36.2	58.5	17.2	58.5
9	52.4	40.7	44.2	33.6	27.3	29.0	26.7	34.1	124.6	46.1	70.1	92.4	60.6	30.1	30.5	23.5	16.5	11.8	10.0	3.7	4.6	5.8	9.0	10.6	34.9	124.6
10	9.3	9.5	8.0	4.5	5.2	4.8	4.5	14.7	9.5	7.2	5.3	6.5	6.0	5.1	4.9	5.4	5.3	6.2	6.6	7.9	7.6	6.7	6.1	6.2	6.8	14.7
11	5.2	4.1	4.0	3.7	5.5	10.3	7.1	6.2	7.4	6.7	6.3	6.7	5.7	5.4	4.3	3.9	3.9	3.8	3.2	4.5	4.6	3.8	4.5	4.4	5.2	10.3
12	4.9	4.6	8.2	5.0	5.8	9.0	8.9	6.2	4.7	5.1	4.0	2.7	1.5	2.4	1.8	1.4	1.5	3.3	1.6	1.1	1.1	1.4	1.5	2.3	3.7	9.0
13	1.9	2.1	2.1	1.6	1.4	1.5	2.4	3.0	3.3	2.1	2.2	2.4	6.0	4.0	5.7	9.3	8.4	4.5	4.9	1.5	1.8	2.7	3.5	2.6	3.4	9.3
14	4.0	3.1	1.8	1.4	1.9	2.3	1.8	1.9	2.1	3.2	14.7	8.9	20.7	29.5	30.0	30.3	34.2	26.6	26.8	21.8	24.2	32.1	20.2	11.4	14.8	34.2
15	12.1	12.3	10.3	5.1	2.1	1.1	0.5	0.4	0.5	2.7	5.2	5.0	7.7	9.1	5.8	5.8	5.4	9.1	9.0	7.4	5.4	7.6	3.2	1.8	5.6	12.3
16	2.5	2.0	0.9	1.1	0.8	0.6	1.5	2.8	1.6	6.4	10.4	9.2	13.7	18.7	19.0	27.3	30.1	13.6	11.0	10.0	4.9	4.6	4.3	2.4	8.3	30.1
17	1.1	1.1	1.2	1.0	1.2	1.4	2.1	2.1	3.9	11.9	34.6	33.1	19.3	31.0	29.5	48.1	21.4	23.6	22.8	24.1	26.3	26.9	22.2	15.3	16.9	48.1
18	12.9	17.5	79.1	36.5	51.3	79.9	49.2	19.5	7.0	18.1	12.4	8.6	26.9	15.9	32.4	17.7	7.6	2.9	5.0	4.8	4.3	1.4	0.6	0.5	21.3	79.9
19	0.7	0.9	0.9	1.0	0.9	0.7	0.7	1.0	1.3	2.7	8.1	19.9	30.5	23.8	28.0	42.6	32.5	19.3	8.3	5.5	2.5	1.4	1.0	1.0	9.8	42.6
20	1.0	0.9	0.9	0.9	1.0	0.9	1.2	1.4	2.7	8.7	9.5	7.2	12.2	10.0	6.2	13.7	9.4	8.8	11.9	9.6	11.4	19.3	16.5	19.1	7.7	19.3
21	14.4	7.1	7.4	7.3	14.0	25.8	21.6	12.7	26.3	48.7	33.6	26.5	33.2	49.6	80.0	72.9	29.1	21.3	14.8	4.5	3.1	4.5	3.0	1.2	23.4	80.0
22	1.3	1.3	1.1	0.9	0.8	1.0	1.1	2.1	3.8	6.7	28.7	37.9	51.8	24.8	30.8	39.2	32.7	54.3	37.9	28.9	22.8	39.3	35.4	11.9	20.7	54.3
23	10.6	23.4	23.6	15.6	16.7	26.8	20.6	6.2	3.1	3.3	4.3	4.1	15.6	29.7	28.5	28.5	18.1	15.9	4.6	3.8	4.9	2.5	3.8	3.4	13.2	29.7
24	2.6	2.2	2.1	2.5	1.9	3.5	4.6	11.4	18.1	19.1	22.0	19.4	19.1	15.1	16.2	14.0	11.5	14.5	20.1	10.1	14.1	15.3	17.8	4.7	11.7	22.0
25	1.7	1.9	1.5	1.3	1.5	1.5	1.8	2.8	3.2	3.3	5.2	7.6	22.9	9.5	12.9	18.0	10.6	6.6	5.7	4.9	3.7	3.8	4.2	3.7	5.8	22.9
26	4.0	13.2	9.5	12.4	7.0	2.6	2.3	2.6	3.4	14.1	27.2	31.2	45.2	11.9	7.8	9.4	5.1	6.0	6.5	13.1	19.8	17.6	5.6	4.1	11.7	45.2
27	6.7	16.9	24.8	5.6	3.3	2.2	5.2	19.7	12.0	15.8	14.2	18.1	3.8	9.4	8.2	7.6	3.8	6.2	2.8	2.0	1.5	0.3	1.1	0.4	8.0	24.8
28	3.0	0.6	0.7	0.6	0.6	0.9	1.5	6.2	7.2	15.0	9.0	10.2	20.6	18.8	16.6	13.5	12.2	16.0	16.9	16.0	4.8	6.9	7.0	4.4	8.7	20.6
29	3.2	8.3	10.5	12.4	26.2	30.6	14.1	11.6	18.2	24.9	15.0	16.1	23.5	24.3	42.2	29.9	37.3	48.6	25.9	24.5	19.3	12.6	10.6	8.0	20.7	48.6
30	7.5	12.4	22.6	19.6	9.1	23.9	27.6	12.9	26.0	26.1	23.7	21.1	21.2	17.2	22.4	26.1	15.5	17.3	18.6	13.3	6.9	9.6	7.9	5.5	17.2	27.6
NO.	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	720	100%
MEAN	7.6	8.7	10.7	7.4	7.5	10.5	8.9	8.0	11.9	12.4	14.7	16.0	19.2	17.4	20.2	20.8	16.0	16.0	13.2	10.8	8.9	9.8	8.8	7.6		
MAX	52.4	48.9	79.1	36.5	51.3	79.9	49.2	34.1	124.6	48.7	70.1	92.4	60.6	49.6	80.0	72.9	37.3	54.3	39.0	44.1	31.9	39.3	36.2	58.5		



Number of 24HR Exceedences	1 Proposed Guideline		
Number of Non-Zero Readings	720		
Maximum 1-HR Average	124.6 UG/M3		
Maximum 24-HR Average	34.9 UG/M3		
		Operational Time	720 HRS
Monthly Calibration	0	Operational Uptime	100.0 %
Standard Deviation	13.5	Monthly Average	12.2 UG/M3

Berm PM_{10} ($\mu g/m^3$) – September 2021

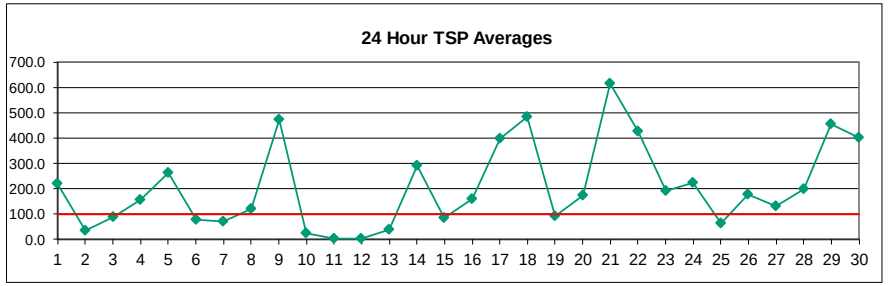
DAY \ HOUR	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN	MAX
1	8.6	5.7	5.3	5.1	2.1	28.4	92.9	74.3	129.5	179.2	156.0	108.7	208.6	188.1	204.3	187.6	100.0	114.6	16.8	63.5	6.8	3.7	16.1	3.3	79.5	208.6
2	3.4	3.5	2.3	1.8	1.9	1.8	3.4	11.4	23.9	48.2	44.1	7.9	7.7	5.5	6.2	15.2	93.5	82.4	13.0	5.2	4.6	4.3	1.7	1.3	16.4	93.5
3	2.7	5.9	4.4	1.9	2.1	4.1	16.0	19.0	10.5	8.5	14.6	87.2	134.1	140.8	103.4	99.8	124.4	216.9	10.3	5.2	1.3	1.9	2.1	4.1	42.5	216.9
4	11.3	8.5	7.6	3.2	2.9	4.2	8.0	6.0	10.0	12.3	33.7	54.7	56.7	154.9	208.3	168.8	192.4	83.8	201.8	85.7	53.2	68.4	61.3	143.9	68.4	208.3
5	253.5	298.2	152.7	129.0	74.3	69.2	67.9	66.8	67.8	59.6	117.1	95.8	76.6	52.8	92.3	48.6	81.8	130.1	143.9	83.3	59.5	39.2	52.2	12.8	96.9	298.2
6	4.9	5.2	6.8	6.7	4.0	3.3	7.5	17.5	19.0	29.6	15.5	39.4	65.8	112.1	113.0	60.3	33.4	43.9	76.3	33.8	16.7	20.9	5.0	1.9	30.9	113.0
7	2.4	9.8	10.5	4.3	9.8	21.2	9.6	16.8	24.8	40.8	24.4	46.5	75.1	53.7	73.9	135.6	104.6	88.8	15.8	12.0	6.0	3.9	4.6	13.0	33.7	135.6
8	12.2	14.5	15.7	5.9	11.7	53.9	20.0	22.8	46.6	36.4	33.3	16.4	46.0	40.2	98.9	131.1	67.3	94.9	159.6	184.4	63.5	47.6	62.2	178.2	61.0	184.4
9	137.1	88.4	147.8	76.0	36.3	54.3	45.5	116.5	795.1	264.5	478.9	609.3	450.4	225.3	227.9	186.6	128.2	66.3	64.4	5.8	6.9	9.8	21.1	24.8	177.8	795.1
10	22.0	22.5	17.5	10.4	10.0	7.7	7.5	51.8	32.5	22.8	15.4	21.3	18.8	17.7	17.9	21.3	14.0	13.5	14.8	17.6	16.6	14.7	9.4	7.9	17.7	51.8
11	6.1	4.4	4.5	4.1	7.1	14.0	8.6	6.9	9.3	8.1	7.6	8.9	6.6	5.9	4.7	4.5	4.6	4.2	3.5	5.4	5.9	4.8	6.0	5.1	6.3	14.0
12	5.6	5.3	11.4	5.7	6.8	12.6	12.5	8.0	5.4	6.2	4.5	3.0	1.8	5.2	2.7	1.7	1.8	12.4	3.3	1.4	1.4	1.8	1.9	3.1	5.2	12.6
13	2.4	2.7	2.6	1.9	1.7	1.9	3.3	4.3	4.7	2.9	5.4	7.5	29.7	23.3	37.7	61.7	54.3	31.3	32.6	4.2	4.4	11.4	15.1	9.1	14.8	61.7
14	14.3	9.3	4.0	2.0	3.3	5.6	3.7	4.1	4.6	19.0	88.1	57.5	140.9	204.2	223.3	210.8	225.1	165.1	177.4	149.1	154.8	231.4	138.0	69.5	96.0	231.4
15	70.3	68.7	56.1	19.1	7.9	1.8	0.6	0.5	0.6	3.9	6.9	19.6	45.3	51.0	34.0	39.9	33.4	58.4	55.7	49.3	38.4	63.7	19.6	7.3	31.3	70.3
16	9.8	8.8	2.2	2.7	1.8	1.1	7.0	12.3	7.7	46.6	79.7	60.0	94.0	145.3	137.3	168.8	227.5	109.8	91.6	72.0	34.5	36.3	21.5	14.4	58.0	227.5
17	3.1	2.8	3.6	2.2	2.6	4.3	11.8	10.0	24.4	99.7	254.4	253.6	169.9	236.7	237.1	346.5	163.6	164.4	165.9	163.8	208.4	215.2	181.4	117.6	126.8	346.5
18	91.6	146.6	663.3	299.1	416.1	657.3	428.5	140.3	39.6	140.3	69.1	46.1	149.7	96.9	214.4	127.5	41.6	9.3	21.3	8.5	6.4	4.2	0.7	0.6	159.1	663.3
19	1.1	1.2	1.1	1.2	1.2	1.1	1.0	1.4	3.3	6.1	64.8	136.0	210.7	160.2	175.2	232.7	160.4	115.7	46.7	32.5	10.2	4.9	2.4	1.6	57.2	232.7
20	1.5	1.3	1.3	1.0	1.6	1.1	1.5	3.5	16.7	60.0	59.2	42.6	81.5	69.3	47.6	121.8	74.7	70.1	85.9	67.5	99.2	166.6	136.5	161.5	57.2	166.6
21	118.3	41.7	40.5	42.4	112.7	204.0	171.1	86.8	232.2	434.2	297.6	244.4	289.7	433.4	551.8	595.9	196.6	141.5	126.3	27.6	11.6	30.0	14.1	3.4	185.3	595.9
22	2.6	2.4	2.0	1.1	1.0	1.3	1.6	6.2	17.8	47.3	191.0	260.4	417.1	181.9	227.7	313.6	243.3	401.2	280.1	228.3	171.0	319.9	280.5	74.7	153.1	417.1
23	51.5	117.7	150.0	108.9	127.3	217.2	176.7	30.9	11.6	13.4	17.9	15.8	92.4	189.1	174.9	195.0	118.6	106.3	20.2	13.0	19.9	5.4	13.4	9.9	83.2	217.2
24	6.2	5.1	4.6	6.1	3.5	18.1	24.1	79.9	157.1	143.3	153.4	137.2	138.6	106.5	107.1	85.1	81.1	98.8	146.5	68.2	97.1	108.4	131.3	20.6	80.3	157.1
25	5.2	4.8	3.4	1.9	2.3	2.1	2.6	6.2	7.0	7.6	22.6	47.0	149.4	62.7	89.6	127.9	76.4	40.5	24.6	15.3	10.3	8.7	8.9	7.8	30.6	149.4
26	10.0	50.8	30.2	43.9	24.1	5.0	4.2	4.7	8.8	88.6	187.1	232.3	331.3	76.9	39.8	50.7	26.3	28.6	37.6	76.3	131.4	130.8	37.9	22.8	70.0	331.3
27	39.3	126.2	199.4	31.4	12.1	6.1	31.3	133.3	78.7	98.4	90.9	112.7	26.3	63.0	52.5	44.8	18.7	35.6	13.3	9.5	2.1	0.5	1.5	0.4	51.2	199.4
28	13.3	1.1	0.9	0.9	0.8	1.3	9.0	52.7	68.6	133.0	69.1	74.5	172.4	150.8	127.0	111.3	103.7	124.4	137.2	130.7	33.4	58.7	55.3	28.4	69.1	172.4
29	20.4	52.8	65.1	62.3	164.5	213.7	99.8	81.0	149.7	196.1	130.2	135.5	179.2	185.3	284.8	224.7	288.7	381.4	210.6	181.4	143.7	95.4	69.0	57.6	153.0	381.4
30	56.7	101.0	191.1	147.3	58.5	184.7	236.0	80.2	191.5	207.2	163.9	146.3	151.3	144.2	164.8	175.3	114.2	132.1	136.3	93.6	43.0	75.5	62.5	35.3	128.9	236.0
NO.	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	720	100%
MEAN	32.9	40.6	60.3	34.3	37.1	60.1	50.4	38.5	73.3	82.1	96.5	104.3	133.9	119.4	136.0	143.2	106.5	105.5	84.4	63.1	48.8	59.6	47.8	34.7		
MAX	253.5	298.2	663.3	299.1	416.1	657.3	428.5	140.3	795.1	434.2	478.9	609.3	450.4	433.4	551.8	595.9	288.7	401.2	280.1	228.3	208.4	319.9	280.5	178.2		



Number of Non-Zero Readings	720		
Maximum 1-HR Average	795.1 UG/M3		
Maximum 24-HR Average	185.3 UG/M3		
		Operational Time	720 HRS
Monthly Calibration	0	Operational Uptime	100.0 %
Standard Deviation	98.72	Monthly Average	74.7 UG/M3

Berm TSP (µg/m^3) – September 2021

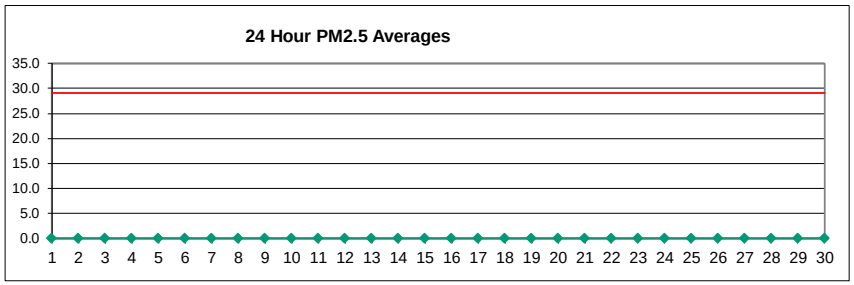
DAY	HOUR 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN	MAX
1	8.1	4.6	7.2	9.5	2.3	92.1	305.8	231.1	366.6	511.9	531.7	246.9	521.6	459.4	508.2	544.7	252.1	342.4	54.7	184.2	15.4	7.8	51.0	4.5	219.3	544.7
2	4.1	5.2	3.9	1.5	1.4	1.9	3.4	17.5	59.0	149.8	120.8	15.5	12.4	10.0	10.7	24.9	171.1	155.6	27.4	7.0	5.9	4.5	6.4	1.0	34.2	171.1
3	4.6	5.8	6.1	1.5	1.8	3.9	49.8	60.5	28.6	20.7	39.0	194.7	254.0	217.9	177.0	191.9	265.3	554.9	23.4	14.5	1.3	2.1	2.3	4.7	88.6	554.9
4	15.3	13.6	10.0	4.4	1.9	4.2	23.4	12.6	19.3	18.5	78.6	114.2	119.8	344.5	483.5	373.6	455.7	165.6	454.8	214.3	147.3	172.3	104.6	381.8	155.6	483.5
5	816.6	980.5	436.5	323.1	185.0	159.3	134.6	171.6	164.7	154.6	347.0	267.3	251.3	149.6	270.2	125.1	256.1	410.6	334.4	128.5	104.4	66.2	64.5	9.0	262.9	980.5
6	3.3	3.4	5.3	6.7	3.7	2.2	7.8	31.2	36.7	64.3	35.9	108.6	155.7	265.2	331.9	167.6	95.6	118.8	224.5	92.2	47.9	31.4	10.4	1.9	77.2	331.9
7	1.9	14.7	7.3	2.9	26.1	48.4	13.2	32.1	47.7	96.8	54.2	76.8	105.0	84.4	139.7	348.9	264.9	233.3	25.4	16.6	11.9	5.5	3.6	16.5	69.9	348.9
8	14.9	10.2	18.8	4.3	18.2	142.3	56.5	48.1	118.5	94.5	65.5	31.5	128.9	78.2	153.6	296.3	120.0	167.4	317.6	356.0	90.5	71.8	105.8	380.9	120.4	380.9
9	247.0	141.4	352.9	138.0	43.7	80.3	64.1	250.9	2066.2	726.8	1369.8	1793.6	1396.2	644.7	630.1	612.9	400.6	165.8	143.6	5.8	5.7	13.0	28.2	39.1	473.4	2066.2
10	29.0	32.0	19.9	18.1	10.2	8.5	7.8	48.8	35.4	35.3	25.6	27.5	27.7	29.4	33.8	42.6	20.6	16.3	20.7	20.0	18.4	21.6	6.7	5.3	23.4	48.8
11	3.9	2.9	2.9	2.7	5.0	10.7	5.8	4.5	7.2	6.0	6.7	9.5	5.4	3.9	3.6	3.9	4.4	2.7	2.3	3.7	4.0	3.3	4.2	3.4	4.7	10.7
12	3.8	3.5	9.4	3.8	4.8	10.0	11.0	5.9	3.8	4.4	2.9	2.0	1.2	5.1	6.4	1.8	1.6	20.2	2.4	0.9	1.9	1.2	1.3	2.5	4.7	20.2
13	1.6	1.9	1.9	1.3	1.1	1.2	2.5	3.5	4.0	2.5	6.9	14.0	59.4	72.8	136.6	173.1	185.2	110.7	69.7	5.4	5.9	20.0	28.6	10.5	38.3	185.2
14	16.6	7.0	3.2	1.9	4.4	6.4	5.3	4.3	6.8	61.2	204.3	133.4	385.7	554.1	756.3	601.0	638.4	532.7	588.4	470.2	505.9	791.6	490.4	218.0	291.1	791.6
15	213.9	231.5	129.0	26.4	19.4	3.8	0.4	0.3	0.4	3.2	5.0	43.1	114.7	134.7	87.4	133.8	86.0	152.9	173.0	143.0	97.4	179.0	47.0	11.7	84.9	231.5
16	15.6	20.3	5.3	4.1	2.4	1.4	19.2	28.9	11.6	116.2	196.2	134.2	263.8	391.2	332.8	404.3	686.7	360.1	322.3	211.0	114.8	100.7	48.9	26.6	159.1	686.7
17	5.0	5.0	6.9	3.5	3.2	6.0	26.1	18.4	59.9	320.8	685.7	673.6	442.2	689.9	731.5	880.8	472.0	502.3	586.5	642.6	792.1	840.3	738.6	443.5	399.0	880.8
18	353.0	557.8	1955.6	1082.7	1377.9	1663.4	1663.5	520.4	131.6	388.7	159.5	119.9	328.2	197.6	568.8	350.8	89.0	22.0	66.0	12.1	7.1	8.7	1.5	0.4	484.4	1955.6
19	0.9	1.0	0.8	1.0	0.9	0.7	0.7	1.5	6.1	13.5	140.0	241.2	440.4	313.5	276.3	291.3	173.9	152.8	65.2	50.3	13.2	10.1	7.8	8.6	92.2	440.4
20	1.7	1.4	2.2	0.7	1.7	0.7	1.1	6.2	53.7	148.6	111.9	86.4	158.6	175.5	129.7	373.2	210.2	240.7	284.7	164.2	350.7	579.5	518.4	565.9	173.7	579.5
21	424.1	106.9	119.2	125.1	437.6	676.3	587.0	247.0	835.6	1644.4	1127.7	927.7	961.0	1513.5	1632.6	1983.8	589.1	333.8	361.0	56.6	11.4	80.1	29.1	7.6	617.4	1983.8
22	2.4	2.6	1.9	1.0	0.7	1.0	3.6	7.7	28.1	106.4	401.6	676.2	1289.3	523.4	591.7	934.8	726.4	1148.2	829.0	635.8	457.8	923.4	770.2	165.4	426.2	1289.3
23	114.7	229.3	432.4	313.1	304.5	510.2	426.6	49.2	20.6	21.3	27.5	26.7	202.4	437.2	413.9	479.0	280.5	228.8	30.6	18.5	25.6	5.3	22.6	16.4	193.2	510.2
24	9.4	13.0	9.6	9.8	5.6	56.3	71.1	264.0	537.0	449.2	446.4	376.9	327.5	262.5	235.4	210.5	238.0	267.0	397.5	201.8	309.2	313.4	329.6	38.3	224.1	537.0
25	9.7	5.3	4.5	2.3	8.4	2.2	3.2	6.3	6.9	6.2	40.0	101.5	332.4	124.1	229.4	285.8	178.9	76.0	43.1	20.7	10.5	7.3	7.1	6.7	63.3	332.4
26	8.1	56.3	26.2	49.1	27.8	3.6	4.3	4.0	10.7	216.6	452.4	701.2	936.8	198.1	87.5	118.7	80.1	53.6	67.0	176.8	393.8	410.7	100.2	51.4	176.5	936.8
27	110.2	371.7	661.7	100.4	33.5	10.6	78.5	313.7	183.7	232.4	202.1	268.2	66.4	155.7	125.6	97.8	31.3	60.0	21.8	37.5	1.6	0.3	1.3	0.3	131.9	661.7
28	27.2	1.4	0.8	0.7	0.6	1.1	35.3	165.1	259.6	424.2	204.8	217.9	487.9	488.9	334.6	356.3	309.4	297.8	327.8	350.0	80.3	159.6	145.2	83.0	198.3	488.9
29	61.5	165.7	180.7	148.7	407.6	570.3	282.3	239.9	491.8	655.0	420.1	375.2	529.2	490.6	660.8	642.2	945.8	1310.1	723.8	529.1	424.8	291.0	214.6	190.3	456.3	1310.1
30	184.7	357.2	681.4	504.8	179.6	579.0	757.9	208.5	617.2	684.6	521.0	483.6	470.2	486.7	494.4	547.4	356.5	411.1	393.4	243.4	100.1	197.3	138.9	74.9	403.1	757.9
NO.	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	720	100%
MEAN	90.4	111.8	170.1	96.4	104.0	155.3	155.1	100.1	207.3	246.0	267.7	283.0	359.2	316.7	352.5	386.6	286.2	287.1	232.7	167.1	138.6	177.3	134.3	92.3		
MAX	816.6	980.5	1955.6	1082.7	1377.9	1663.4	1663.5	520.4	2066.2	1644.4	1369.8	1793.6	1396.2	1513.5	1632.6	1983.8	945.8	1310.1	829.0	642.6	792.1	923.4	770.2	565.9		



Number of 24HR Exceedences	19	Proposed Guideline	
Number of Non-Zero Readings	720		
Maximum 1-HR Average	2066.2 UG/M3		
Maximum 24-HR Average	617.4 UG/M3		
IZS Calibration Time		Operational Time	720 HRS
Monthly Calibration	0	Operational Uptime	100.0 %
Standard Deviation	301.1	Monthly Average	204.9 UG/M3

Entrance $PM_{2.5}$ (µg/m^3) – September 2021

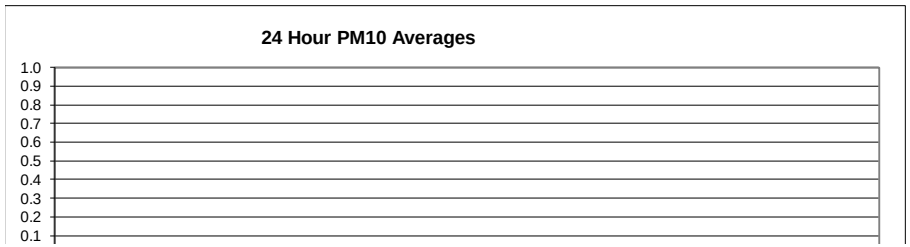
Day	HOUR 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN	MAX
1	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
2	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
3	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
4	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
5	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
6	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
7	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
8	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
9	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
10	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
11	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
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	-	-
NO.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0%
MEAN	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#####	#DIV/0!	#DIV/0!	#DIV/0!		
MAX	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		



Number of 24HR Exceedences	0	Proposed Guideline	
Number of Non-Zero Readings	0		
Maximum 1-HR Average	0.0	UG/M3	
Maximum 24-HR Average	0.0	UG/M3	
		Opperational Time	0 HRS
Monthly Calibration	0	Opperational Uptime	0.0 %
Standard Deviation	#####	Monthly Average	#DIV/0! UG/M3

Entrance PM_{10} ($\mu g/m^3$) – September 2021

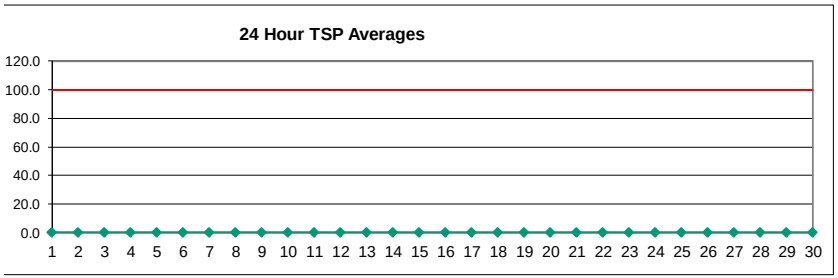
Day	HOUR 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN	MAX
1	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
2	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
3	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
4	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
5	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
6	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
7	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
8	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
9	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
10	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
11	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
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	-	-
NO.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0%
MEAN	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!		
MAX	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		



Number of Non-Zero Readings	0		
Maximum 1-HR Average	0.0 UG/M3		
Maximum 24-HR Average	0.0 UG/M3		
		Opperational Time	0 HRS
Monthly Calibration	0	Opperational Uptime	0.0 %
Standard Deviation	#####	Monthly Average	#DIV/0! UG/M3

Entrance TSP (µg/m³) – September 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	MEAN	MAX
1	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
2	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
3	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
4	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
5	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
6	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
7	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
8	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
9	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
10	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
11	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
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	-	-
NO.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0%
MEAN	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!		
MAX	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		



Number of 24HR Exceedences	0	Proposed Guideline	
Number of Non-Zero Readings	0		
Maximum 1-HR Average	0.0 UG/M3		
Maximum 24-HR Average	0.0 UG/M3		
		Opperational Time	0 HRS
Monthly Calibration	0	Opperational Uptime	0.0 %
Standard Deviation	#DIV/0!	Monthly Average	#DIV/0! UG/M3