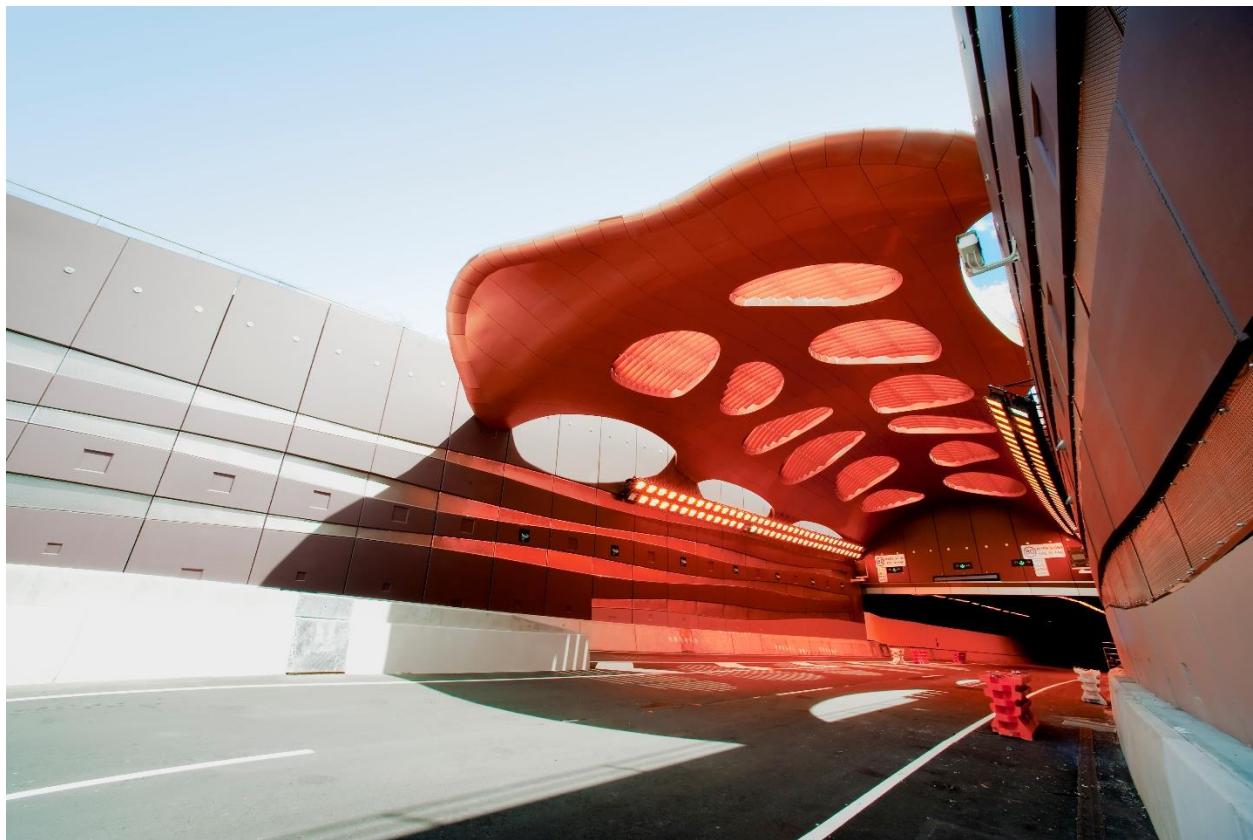


LAFARGE CANADA INC.

AMBIENT AIR QUALITY MONTHLY REPORT

MARCH 2020

APRIL 14, 2020



WSP



AMBIENT AIR QUALITY MONTHLY REPORT

MARCH 2020

LAFARGE CANADA INC.

PROJECT NO.: 171-00556-00
DATE: APRIL 14, 2020

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

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



April 14, 2020

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

Attention: Janet Brygger

Dear Ms. Brygger

Subject: Ambient Air Quality Monthly Report – March 2020

The operational uptime for the meteorological systems and all analyzers at the Lagoon station was 100% in March. There was no exceedance of the 24-hour TSP Alberta Ambient Air Quality Objective. Further, there was no exceedance of the 24-hour PM_{2.5} AAAQOs, nor the 1-hour PM_{2.5} AAAQG in March at the Lagoon monitoring location.

The Windridge station was taken out of operation beginning April 8, 2019 as a result of construction work for flood mitigation along Exshaw Creek. The monitor at this station is expected to be re-installed sometime in 2020, after the completion of the construction work.

Data collected at all of 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. The operational uptime at all 3 monitors was as follows: 11% at the West GRIMM due to the analyzer being removed for repair (638 hours) and equipment malfunction (24 hours), 99.2% at the Berm GRIMM due to 6 hours of equipment malfunction, and 100% at the Entrance GRIMM. The West GRIMM monitor recorded zero exceedances of the 24-hour TSP AAAQG and the 24-hour PM_{2.5} AAAQG. The Berm GRIMM had 12 exceedances of the TSP guideline and zero exceedances of the PM_{2.5} guideline. The Entrance GRIMM monitor recorded 10 and 0 exceedances for the 24-hour TSP AAAQG and 24-hour PM_{2.5} AAAQG, respectively. High particulate levels and exceedances at the Berm and Entrance monitors are likely influenced by flood mitigation work completed along Exshaw creek. The resulting exposed open soil is likely producing fugitive dust near the monitors. The MD of Bighorn is planning to hydroseed the area in mid 2020.

PM levels in the airshed are likely also influenced by Firesmart and Pine Beetle control work being conducted in the Exshaw / Bow Valley area. This work is planned to continue well into the spring of 2020.

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.

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

T: +1 604 685-9381
F: +1 604 683-8655
wsp.com

WSP Canada Inc.

Sincerely,

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

SIGNATURES

PREPARED BY



April 14, 2020

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

Date

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



April 14, 2020

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

Date

WSP Canada Inc. (WSP) prepared this report solely for the use of the intended recipient, LAFARGE CANADA INC., in accordance with the professional services agreement. The intended recipient is solely responsible for the disclosure of any information contained in this report. The content and opinions contained in the present report are based on the observations and/or information available to WSP at the time of preparation. If a third party makes use of, relies on, or makes decisions in accordance with this report, said third party is solely responsible for such use, reliance or decisions. WSP does not accept responsibility for damages, if any, suffered by any third party as a result of decisions made or actions taken by said third party based on this report. This limitations statement is considered an integral part of this report.

The original of this digital file will be conserved by WSP for a period of not less than 10 years. As the digital file transmitted to the intended recipient is no longer under the control of WSP, its integrity cannot be assured. As such, WSP does not guarantee any modifications made to this digital file subsequent to its transmission to the intended recipient.

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.

TABLE OF CONTENTS

1	INTRODUCTION	1
1.1	EXSHAW CREEK FLOOD MITIGATION	1
2	MARCH 2020 REPORT SUMMARY	2
2.1	Lagoon Station	2
2.2	West Grimm	3
2.3	Berm Grimm	3
2.4	Entrance Grimm.....	4
3	LAGOON STATION	6
3.1	Operational Summary	6
3.2	Monitoring Results and Trends	7
4	WEST INDUSTRIAL GRIMM	18
4.1	Operational summary	18
4.2	Monitoring Results and Trends	18
5	BERM INDUSTRIAL GRIMM	23
5.1	Operational summary	23
5.2	Monitoring Results and Trends	23
6	ENTRANCE INDUSTRIAL GRIMM.....	31
6.1	Operational summary	31
6.2	Monitoring Results and Trends	31
	BIBLIOGRAPHY	39

TABLES

TABLE 2-1	LAGOON STATION DATA SUMMARY	2
TABLE 2-2	WEST STATION DATA SUMMARY....	3
TABLE 2-3	BERM STATION DATA SUMMARY....	4
TABLE 2-4	ENTRANCE STATION DATA SUMMARY	4

TABLE 3-1	INSTRUMENTATION LIST AT THE LAGOON STATION	6
TABLE 3-2	SUMMARY OF MARCH 2020 DATA AT LAGOON	8
TABLE 4-1	INSTRUMENTATION LIST AT THE WEST MONITORING LOCATION	18
TABLE 4-2	SUMMARY OF MARCH 2020 DATA AT THE WEST GRIMM	19
TABLE 5-1	INSTRUMENTATION LIST AT THE BERM MONITORING LOCATION	23
TABLE 5-2	SUMMARY OF MARCH 2020 DATA AT THE BERM GRIMM	24
TABLE 5-3	DAYS EXCEEDING THE GUIDELINE FOR TSP OR PM _{2.5} AT THE BERM MONITOR	25
TABLE 6-1	INSTRUMENTATION LIST AT THE ENTRANCE MONITORING LOCATION	31
TABLE 6-2	SUMMARY OF MARCH 2020 DATA AT THE ENTRANCE GRIMM.....	32
TABLE 6-3	DAYS EXCEEDING THE GUIDELINE FOR TSP OR PM _{2.5} AT THE ENTRANCE MONITOR	33

FIGURES

FIGURE 1-1	PHOTO OF FLOOD MITIGATION CONSTRUCTION AT EXSHAW CREEK.....	1
FIGURE 3-1	INLETS ON THE TOP OF WSP'S LAGOON MONITOR	7
FIGURE 3-2	MARCH 2020 WIND ROSE FROM THE LAGOON STATION.....	9
FIGURE 3-3	1-HOUR CONCENTRATIONS OF NO _x , SO ₂ , PARTICULATE MATTER, WIND DIRECTION AND WIND SPEED AT THE LAGOON STATION	10
FIGURE 3-4	HISTOGRAM OF HOURLY NO ₂ CONCENTRATIONS AT THE LAGOON STATION	11
FIGURE 3-5	HISTOGRAM OF HOURLY SO ₂ CONCENTRATIONS AT THE LAGOON STATION	11

FIGURE 3-6	HISTOGRAM OF HOURLY PM _{2.5} CONCENTRATIONS AT THE LAGOON STATION	12
FIGURE 3-7	HISTOGRAM OF HOURLY PM ₁₀ CONCENTRATIONS AT THE LAGOON STATION	12
FIGURE 3-8	HISTOGRAM OF HOURLY TSP CONCENTRATIONS AT THE LAGOON STATION	12
FIGURE 3-9	24-HOUR CONCENTRATIONS OF NO _x , SO ₂ , AND PARTICULATE MATTER AT THE LAGOON MONITOR	13
FIGURE 3-10	LAGOON MONITOR PARTICULATE MATTER TIME VARIATION.....	14
FIGURE 3-11	LAGOON MONITOR SO ₂ TIME VARIATION	15
FIGURE 3-12	LAGOON MONITOR NO _x TIME VARIATION	16
FIGURE 4-1	1-HOUR PARTICULATE MATTER CONCENTRATIONS AT THE WEST MONITOR	17
FIGURE 4-2	24-HOUR PARTICULATE MATTER CONCENTRATIONS AT THE WEST MONITOR	20
FIGURE 4-3	WEST PARTICULATE MATTER TIME VARIATION	21
FIGURE 5-1	1-HOUR PARTICULATE MATTER CONCENTRATIONS RECORDED AT THE BERM MONITOR	22
FIGURE 5-2	24-HOUR PARTICULATE MATTER CONCENTRATIONS RECORDED AT THE BERM MONITOR	27
FIGURE 5-3	WIND ROSE FOR TSP EXCEEDANCE DAYS RECORDED AT THE BERM GRIMM	28
FIGURE 5-4	BERM PARTICULATE MATTER TIME VARIATION	29
FIGURE 6-1	1-HOUR PARTICULATE MATTER CONCENTRATIONS RECORDED AT THE ENTRANCE MONITOR.....	30
FIGURE 6-2	24-HOUR PARTICULATE MATTER CONCENTRATIONS AT THE ENTRANCE MONITOR	35
FIGURE 6-3	WIND ROSE FOR TSP EXCEEDANCE DAYS RECORDED AT THE ENTRANCE GRIMM	36



FIGURE 6-4 ENTRANCE PARTICULATE MATTER
TIME VARIATION.....38

APPENDICES

A DATA & CALIBRATION REPORTS

1 INTRODUCTION

This report summarizes the ambient air quality and meteorological data collected at the Lagoon, Windridge, and GRIMM monitors in Exshaw, AB. The stations are operated by WSP on behalf of Lafarge Canada Inc. (Lafarge) and are a requirement of Lafarge's Approval 1702-02-04. This report contains data collected between March 1, 2020 and March 31, 2020.

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 1-1), the Windridge monitor was taken out of operation and removed from the site on April 8, 2019. The monitoring station will be re-installed after the completion of construction in 2020.

Dust created from the flood mitigation work has the potential to impact particulate matter concentrations at the remaining stations.



Figure 1-1 Photo of Flood Mitigation Construction at Exshaw Creek

2 MARCH 2020 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	36.2	0	15.3	-
SO ₂ (ppb)	100.0	12.9	0	1.5	0
PM _{2.5} (µg/m ³)	100.0	36.4	0 ¹	18.1	0
PM ₁₀ (µg/m ³)	100.0	383.5	-	62.2	-
TSP (µg/m ³)	100.0	586.4	-	93.1	0
Temperature (°C)	100.0	8.4	-	6.0	-
Wind Speed (km/hr) /Direction (Degrees)	100.0	54.7/W	-	37.8/WSW	-
Precipitation (mm)	100.0	25 ²	-	82.5 ³	-

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

²Maximum Daily Total Accumulation of Precipitation (mm)

³Monthly Total Accumulation of Precipitation (mm)

Data Quality Notes:

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

Calibration/Maintenance Notes:

- All analyzers had 100% uptime for the month of March.
-

2.2 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 2-2 **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} ($\mu\text{g}/\text{m}^3$)	11.0	25.2	0*	13.0	0
PM ₁₀ ($\mu\text{g}/\text{m}^3$)	11.0	31.3	-	15.2	-
TSP ($\mu\text{g}/\text{m}^3$)	11.0	101.3	-	21.4	0

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

Data Quality Notes:

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

Calibration/Maintenance Notes:

- The West GRIMM monitor had 11% uptime for the month of March due to the instrument being decommissioned for repair from March 1st at 1:00 to March 27th at 14:00. Further, on March 31st from 1:00 to 23:00 the analyzer experienced an equipment malfunction.
-

2.3 BERM GRIMM

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

Table 2-3 Berm station data summary

Parameter	Data Completeness (%)	1-Hour Average		24-hour Average	
		Maximum Concentration	Exceedances of Guidelines	Maximum Concentration	Exceedances of Guidelines
PM _{2.5} ($\mu\text{g}/\text{m}^3$)	99.2	78.4	0*	21.4	0
PM ₁₀ ($\mu\text{g}/\text{m}^3$)	99.2	705.4	-	159.6	-
TSP ($\mu\text{g}/\text{m}^3$)	99.2	2981.3	-	560.7	12

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

Data Quality Notes:

- There were no exceedances of the 24-hour PM_{2.5} AAAQG.
- There were no exceedances the 1-hour PM_{2.5} AAAQG.
- There were 12 days exceeding the 24-hour TSP AAAQG.

Calibration/Maintenance Notes:

- The analyzer had 99.2% uptime for the month of March due to six hours of equipment malfunction on March 3rd between 11:00 to 16:00.

2.4 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 2-4 Entrance station data summary

Parameter	Data Completeness (%)	1-Hour Average		24-hour Average	
		Maximum Concentration	Exceedances of Guidelines	Maximum Concentration	Exceedances of Guidelines
PM _{2.5} ($\mu\text{g}/\text{m}^3$)	100.0	35.2	0*	18.1	0
PM ₁₀ ($\mu\text{g}/\text{m}^3$)	100.0	213.7	-	56.1	-
TSP ($\mu\text{g}/\text{m}^3$)	100.0	2378.0	-	392.4	10

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

Data Quality Notes:

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

- There were 10 days exceeding the 24-hour TSP AAAQG.

Calibration/Maintenance Notes:

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

3 LAGOON STATION

The Lagoon trailer contains NO_x, SO₂, TSP, PM₁₀, and PM_{2.5} analyzers as well as meteorological sensors, and is shown in Figure 3-1. An ambient air quality station has been at this location since 2002, providing a long-term data record for air quality in the Exshaw area.

This section provides a summary of the monitoring activities for the Lagoon ambient air quality station, including: a table of instrumentation (Table 3-1), a data summary table (Table 3-2), site visit notes, a wind rose (Figure 3-2) and tables and graphs illustrating the monitoring results for March 2020.

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 March 5 th The monitor had 100% uptime in March.
PM₁₀ Concentrations	MetOne BAM-1020 Continuous Particulate Monitor	The PM ₁₀ monitor was calibrated on March 5 th The monitor had 100% uptime in March.
TSP Concentrations	MetOne BAM-1020 Continuous Particulate Monitor	The TSP monitor was calibrated on March 5 th The monitor had 100% uptime in March.
Oxides of Nitrogen	TEI 42C	Both monitors were calibrated on March 5 th . The monitors had 100% uptime in March.
Sulphur Dioxide	Teledyne API 102A	
Precipitation	MetOne 130 Rain/Snow Gauge	The monitor had 100% uptime in March
Wind Speed	MetOne Wind Sensor	The monitors had 100% uptime in March
Wind Direction		
Ambient Temperature	MetOne Ambient Temperature Sensor	The monitor had 100% uptime in March



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

3.2 MONITORING RESULTS AND TRENDS

The following wind rose (Figure 3-2) illustrates the frequency of wind speed by wind direction for the month of March 2020. The wind rose indicates that the winds predominantly came from the west direction, with lighter prevailing wind from the east.

Table 3-2 summarizes the hourly, daily, and monthly concentrations recorded in March 2020.

Figure 3-3 graphically illustrates the time series for hourly concentrations as well as wind speed and direction, while Figure 3-9 shows daily average concentrations recorded during March 2020 for the pollutants listed in Table 3-2. Additionally, Figure 3-4 to Figure 3-8 show the histograms of the hourly concentrations of NO₂, SO₂, PM_{2.5}, PM₁₀, and TSP measured at the Lagoon station.

Dust created from the flood mitigation work (section 1.1) has the potential to impact the monitored particulate matter concentrations in the airshed, including at the Lagoon station. There was no exceedances of the 24-hour TSP (100 µg/m³) AAAQO. Further, there were no exceedances of the 24-hour PM_{2.5} (29 µg/m³) AAAQO, nor the 1-hour PM_{2.5} AAAQG. The highest PM_{2.5} concentrations recorded during the month were likely, based on wind direction and a corresponding rise in NOx emissions, not attributable to Lafarge operations and could be from woodsmoke from the community or industrial emissions to the east. PM levels at the Lagoon monitor are also likely influenced by the FireSmart and Pine Beetle control work occurring in the area.

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

Table 3-2 Summary of March 2020 data at Lagoon

Parameter	Guideline / Objectives		Station	Exceedances		Monthly		1-hour				24-hour		Operational Time (Percent)	
	1-hr	24-hr		1-hr	24-hr	Minimum	Average	Maximum Concentration/Meteorological Variable	Day	Hour	Wind Speed (km/hr)	Wind Direction (degrees)	Maximum Concentration/Meteorological Variable	Day	
NO₂ (ppb)	159	-	Lagoon	0	-	0.7	7.0	36.2	20	22	5.5	87.8	15.3	8	100.0
SO₂ (ppb)	172	48	Lagoon	0	0	0.0	0.3	12.9	25	11	6.3	257.1	1.5	25	100.0
PM_{2.5} (µg/m³)	80	29	Lagoon	0	0	0.0	6.4	36.4	19	1	6.9	92.4	18.1	19	100.0
PM₁₀ (µg/m³)	-	-	Lagoon	-	-	0.0	19.7	383.5	2	2	46.4	277.3	62.2	2	100.0
TSP (µg/m³)	-	100	Lagoon	-	0	0.0	28.0	586.4	2	2	46.4	277.3	93.1	2	100.0
Temperature (°C)	-	-	Lagoon	-	-	-24.3	-3.5	8.4	29	14	18.3	283.7	6.0	28	100.0
Wind Speed (km/hr)/Direction (degrees)	-	-	Lagoon	-	-	1.8	18.8	54.7/W	2	4	54.7	270.2	37.8/WSW	2	100.0
Precipitation (mm)	-	-	Lagoon	-	-	0.0	0.1	25.0	5	16	25.9	275.7	82.5	-	100.0

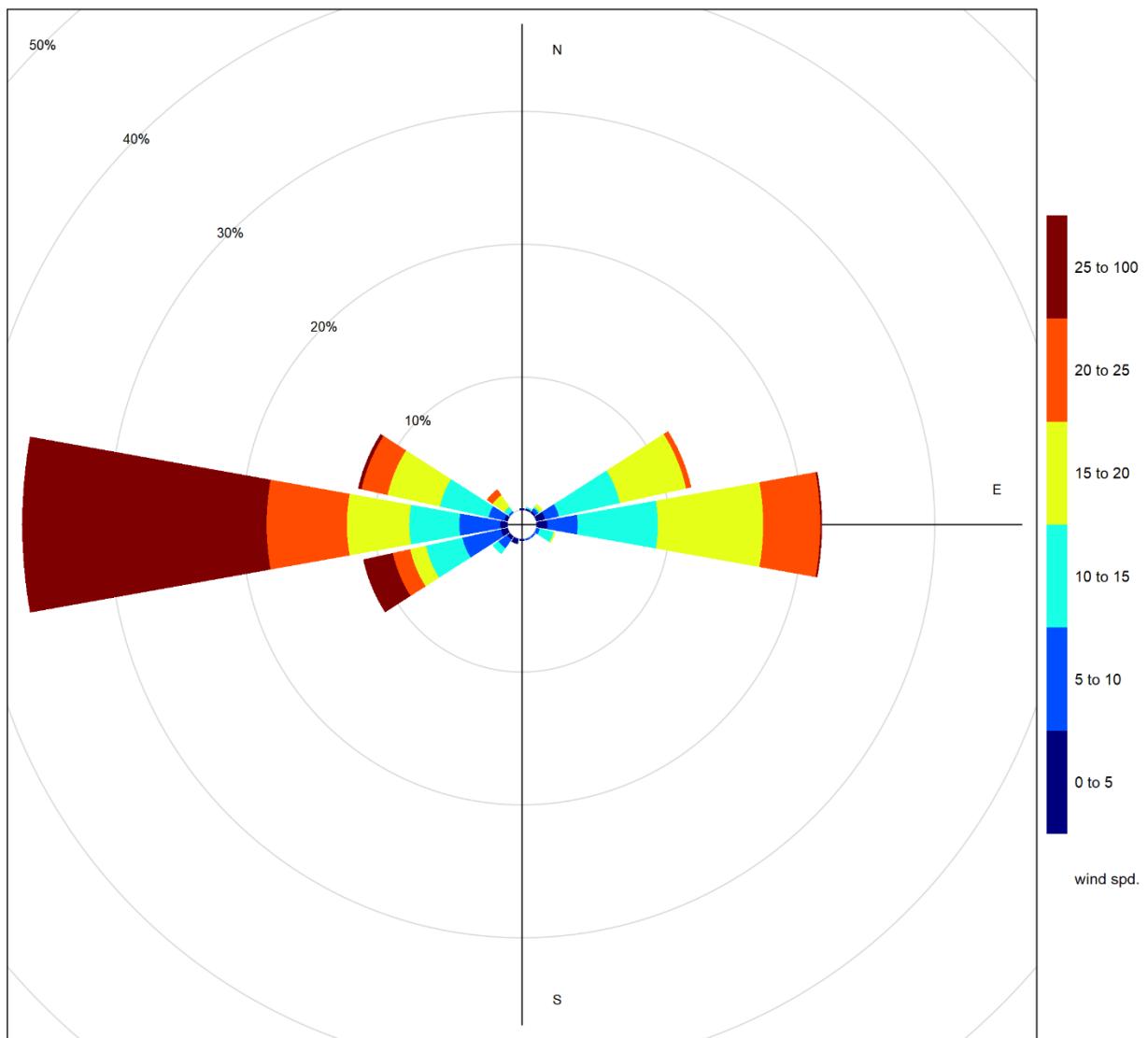


Figure 3-2 March 2020 wind rose from the Lagoon Station

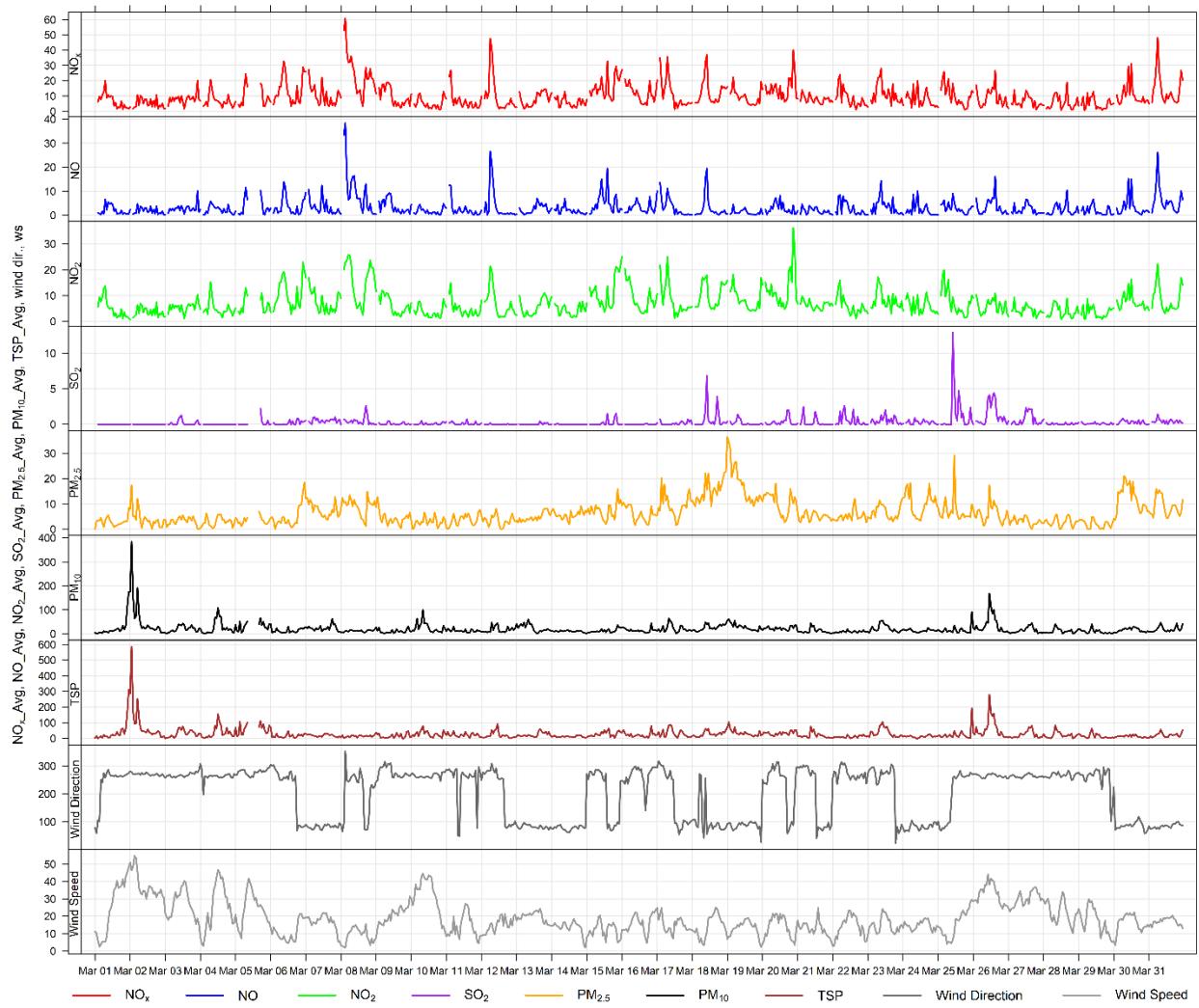


Figure 3-3 1-hour concentrations of NO_x, SO₂, particulate matter, wind direction and wind speed at the Lagoon station

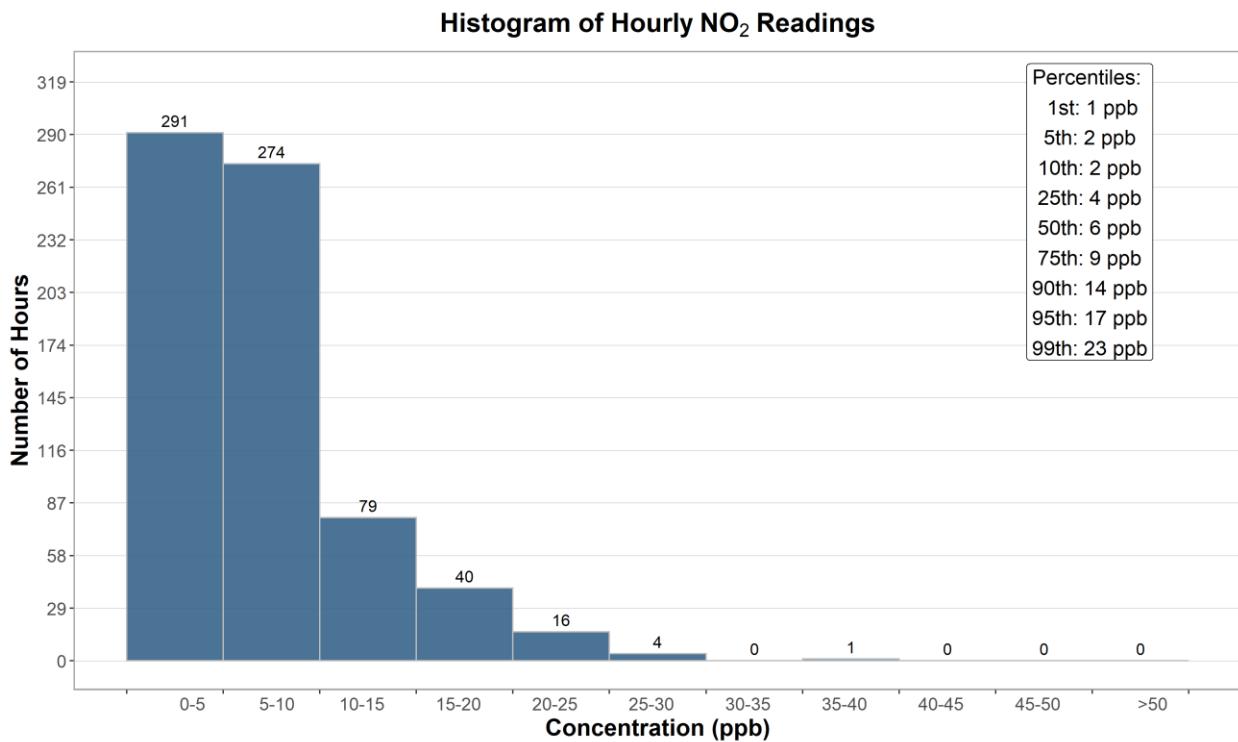


Figure 3-4 Histogram of hourly NO₂ concentrations at the Lagoon station

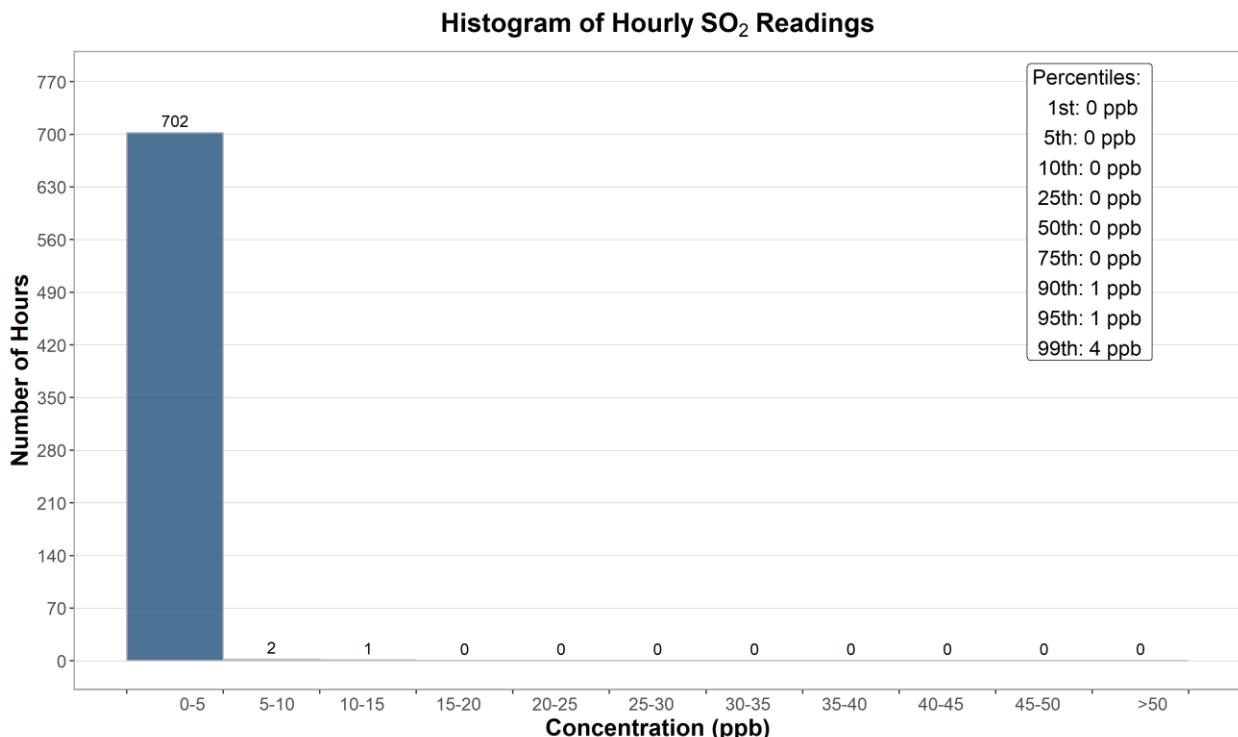


Figure 3-5 Histogram of hourly SO₂ concentrations at the Lagoon station

Histogram of Hourly PM_{2.5} Readings

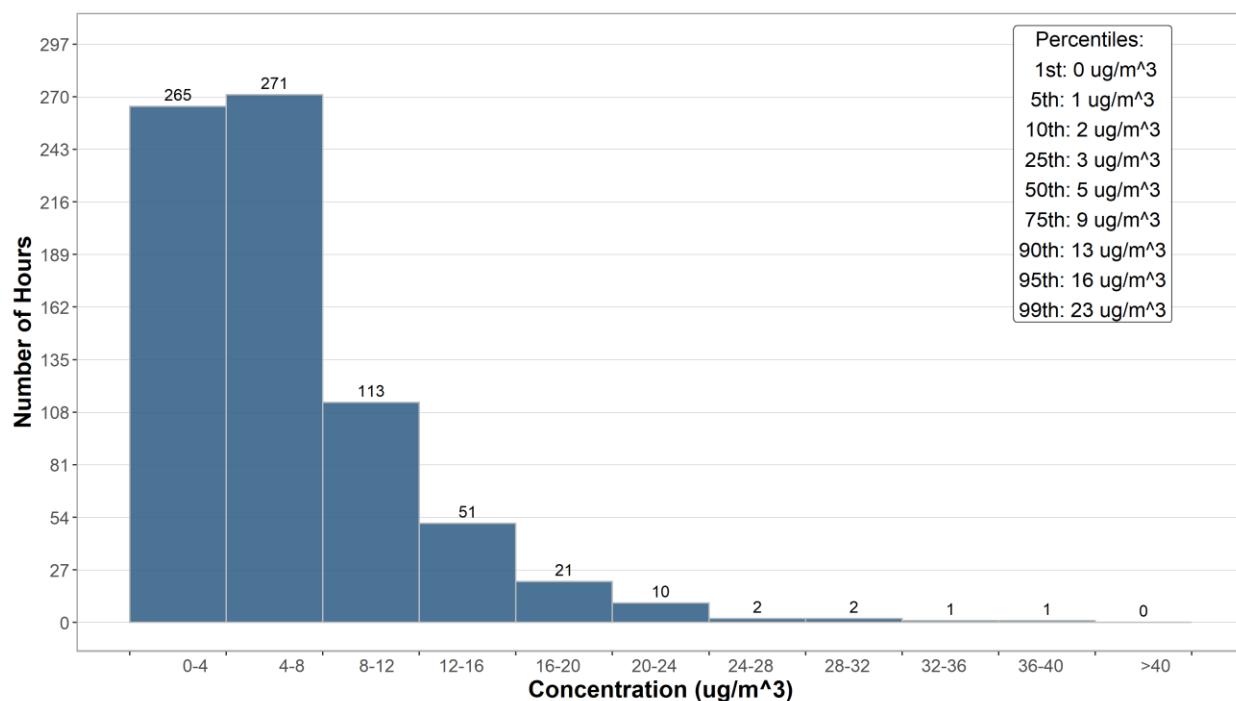


Figure 3-6 Histogram of hourly PM_{2.5} concentrations at the Lagoon station

Histogram of Hourly PM₁₀ Readings

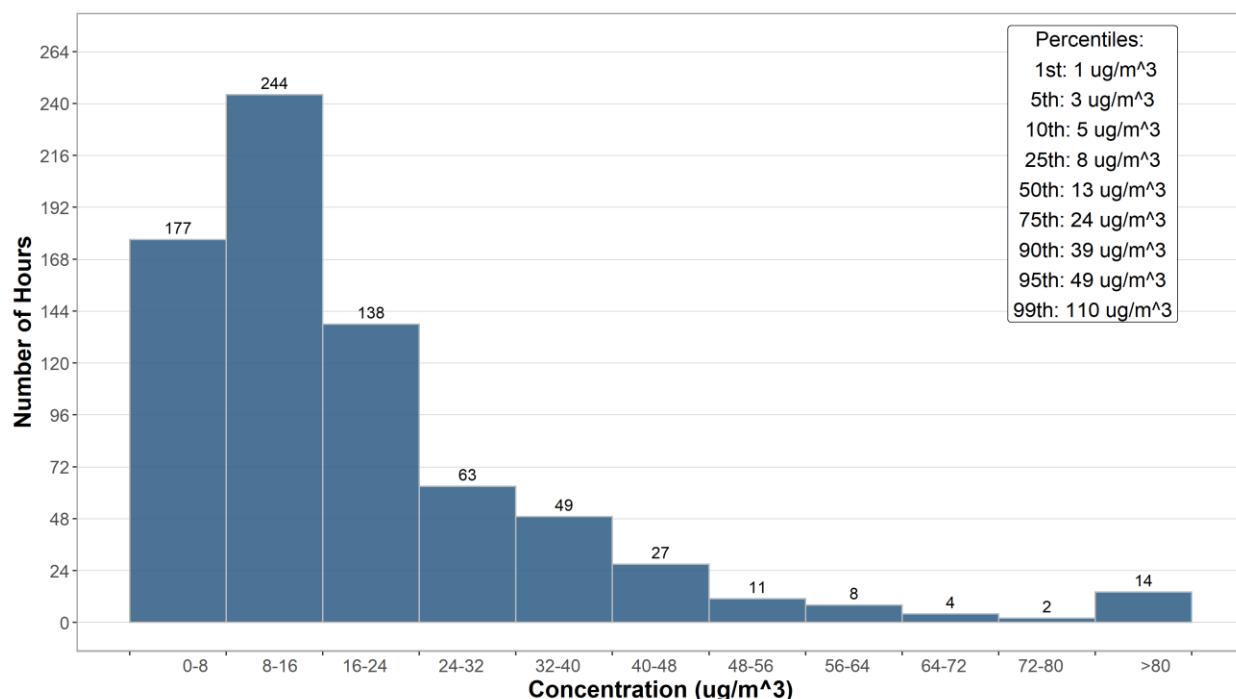


Figure 3-7 Histogram of hourly PM₁₀ concentrations at the Lagoon station

Histogram of Hourly TSP Readings

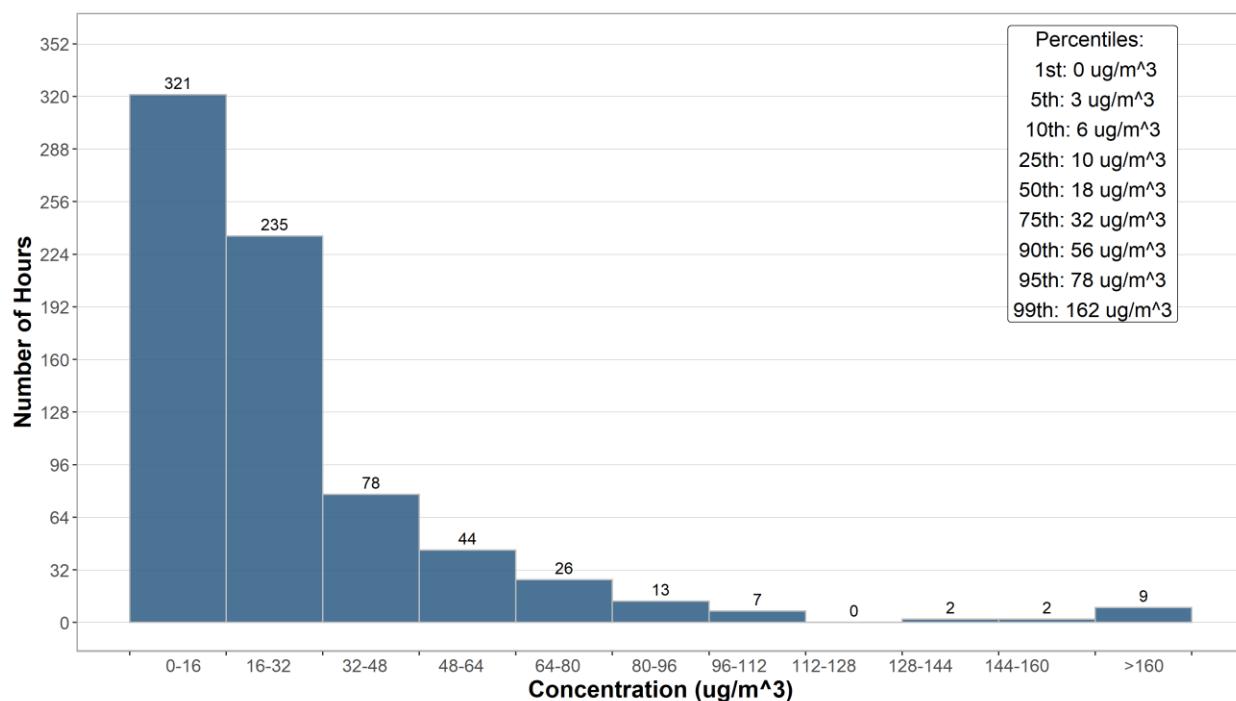


Figure 3-8 Histogram of hourly TSP concentrations at the Lagoon station

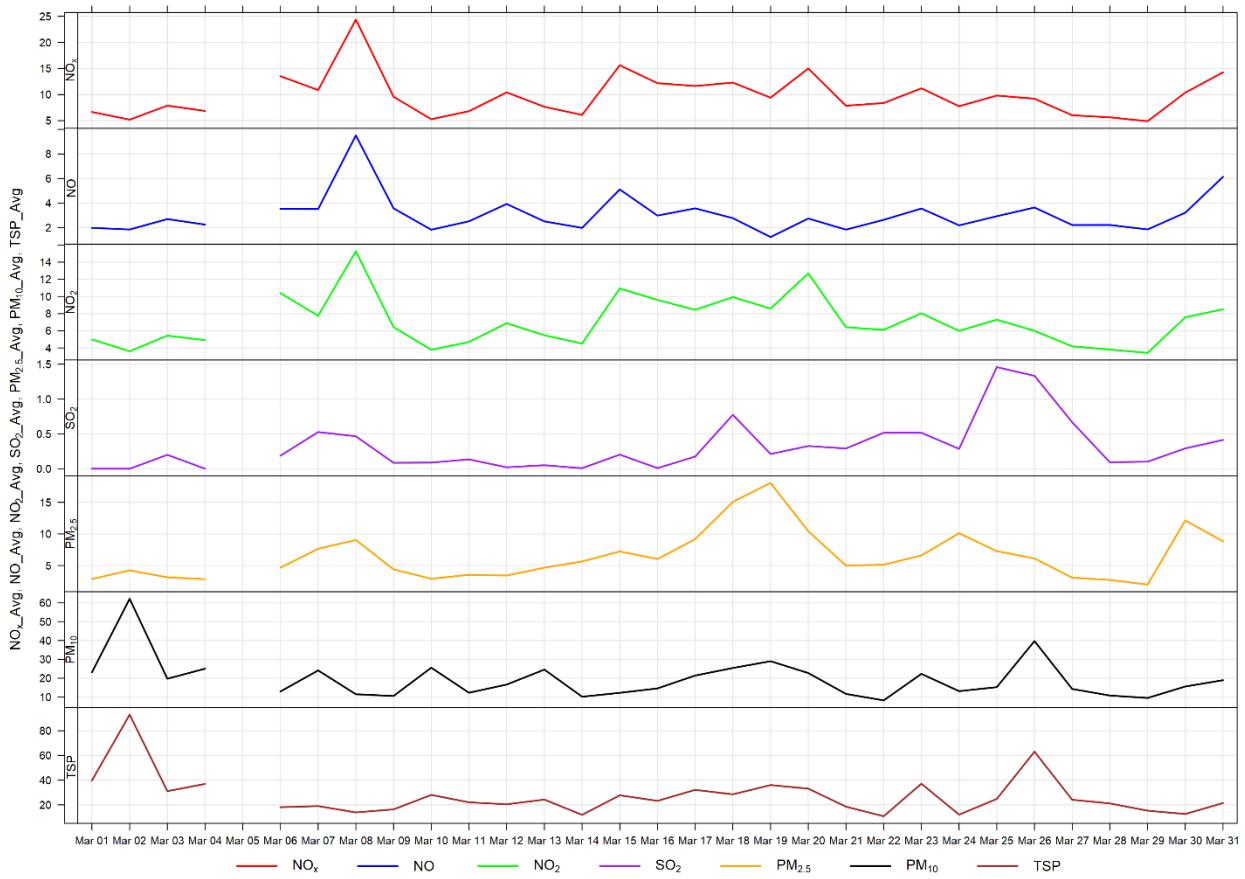


Figure 3-9 24-hour concentrations of NO_x, SO₂, and particulate matter at the Lagoon monitor

Figure 3-10 through Figure 3-12 show the variation in concentrations over various time averaging periods for PM, SO₂ and NO_x. The particulate matter plot in Figure 3-10 shows that PM₁₀ and TSP concentrations shows a diurnal pattern associated with Lafarge operations, daytime emissions from traffic and other activities. The diurnal patterns also follow the diurnal pattern of higher wind speeds during the daytime hours. This month also saw higher PM concentrations during the evening and nighttime hours that could be related to woodsmoke.

Figure 3-11 shows the variation of SO₂ over various time periods. SO₂ concentrations patterns are dependent on the timing of the highest SO₂ concentrations recorded in the month because in general SO₂ concentrations are very low. Figure 3-12 shows the variation of NO_x, NO and NO₂, with the peak of all three pollutants occurring in the early morning. This may be indicative of a peak in traffic.

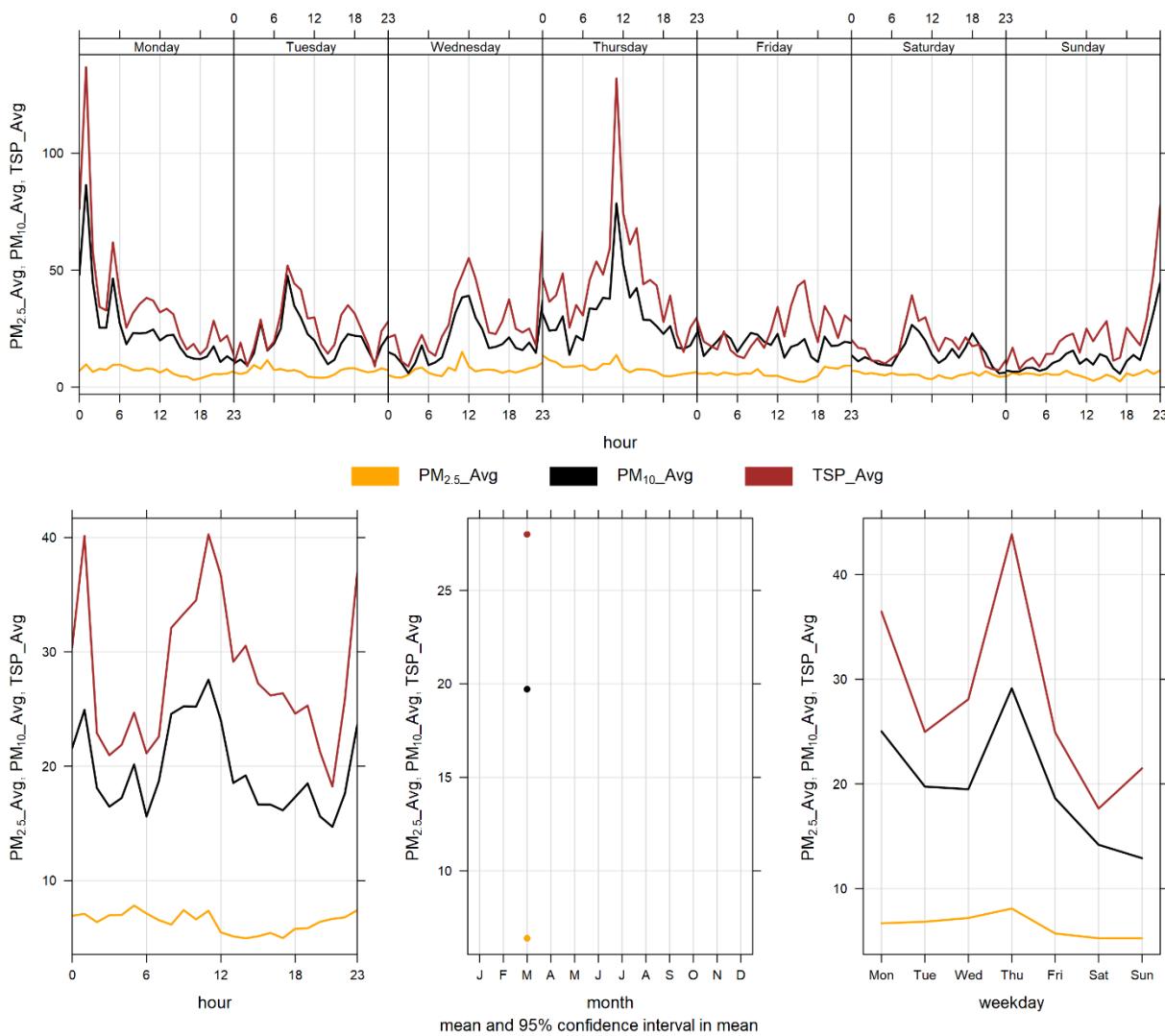


Figure 3-10 Lagoon monitor particulate matter time variation

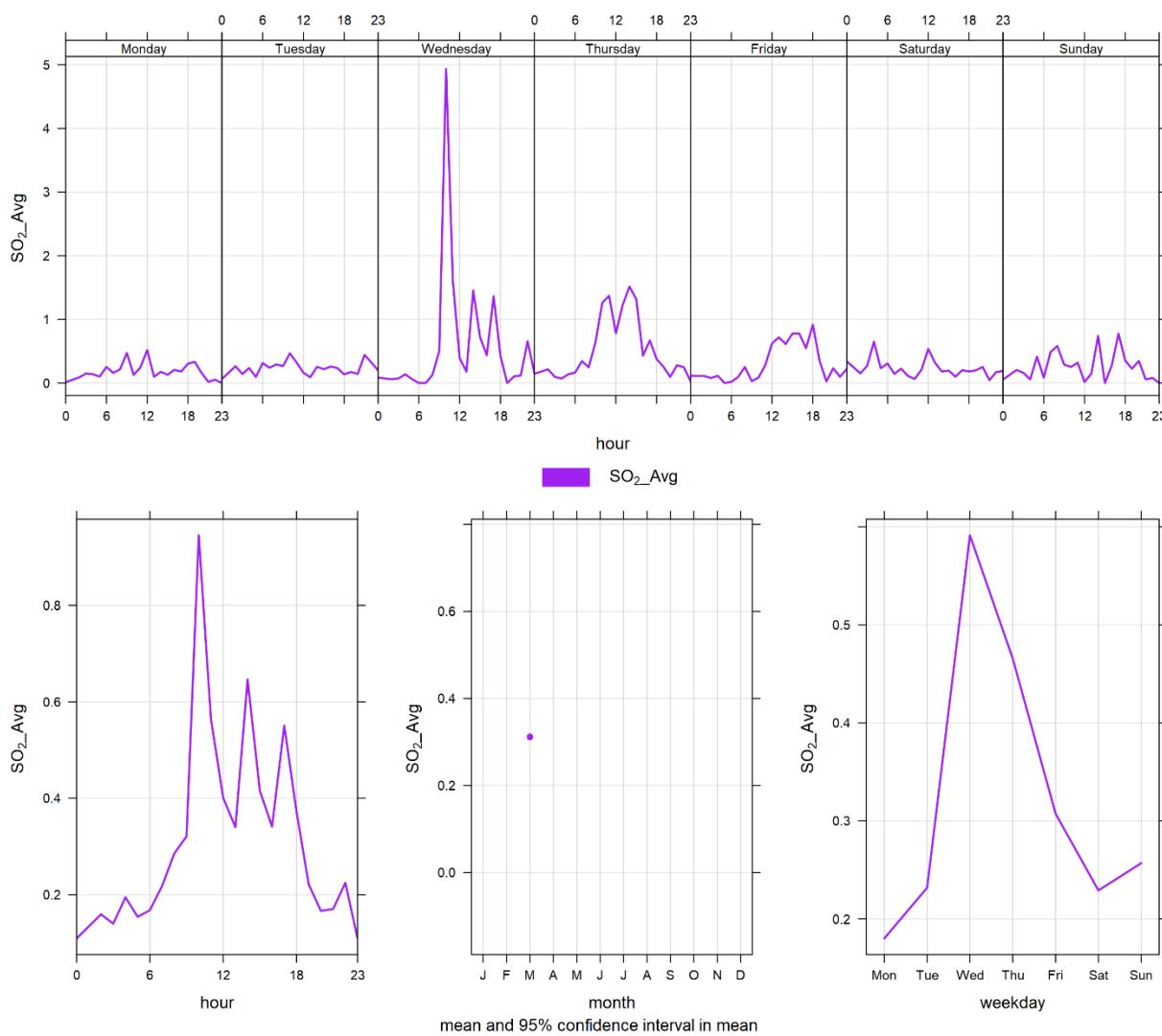


Figure 3-11 Lagoon monitor SO₂ time variation

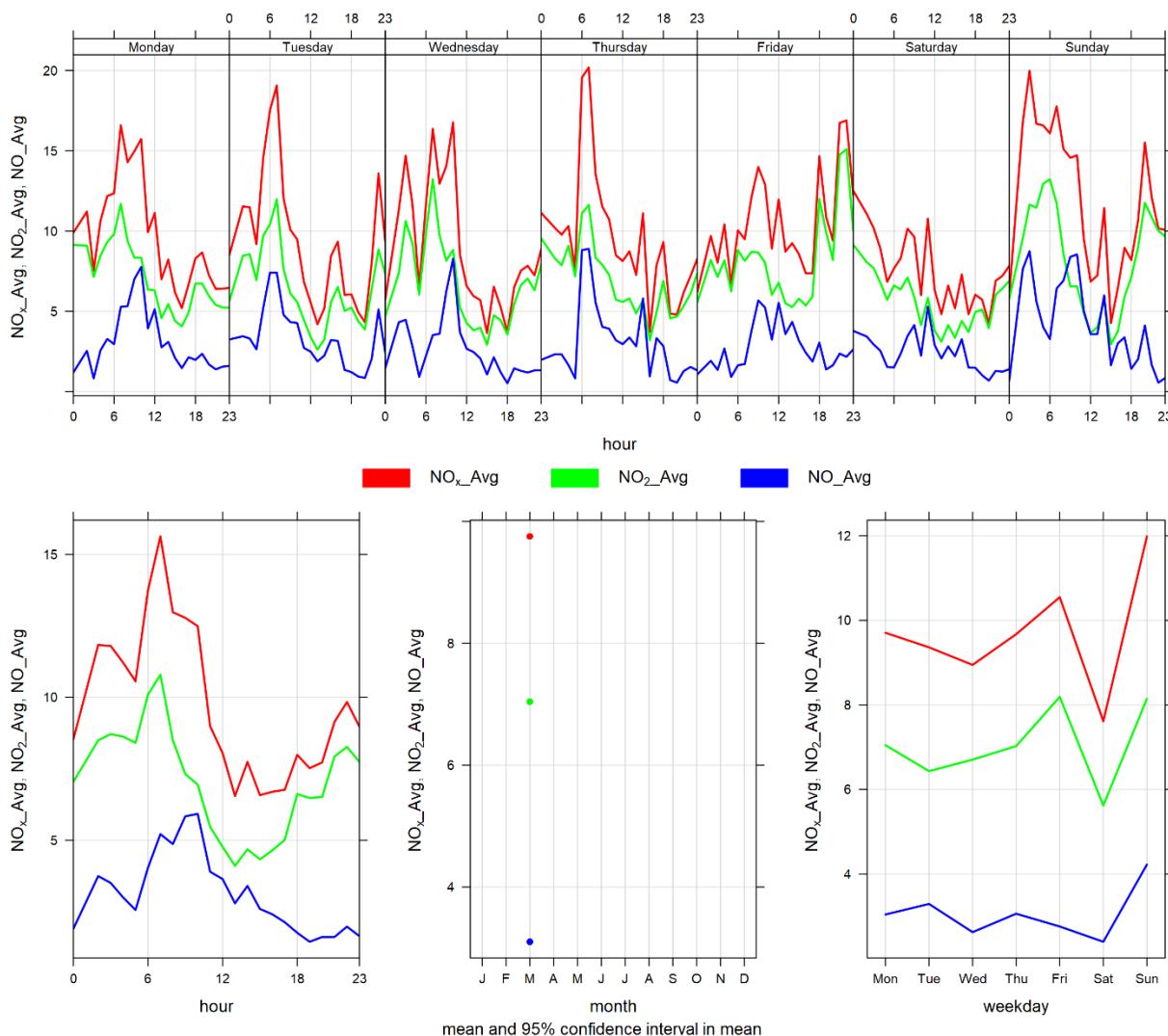


Figure 3-12 Lagoon monitor NO_x time variation

4 WEST INDUSTRIAL GRIMM

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 West monitoring location

Parameter Measured	Equipment Description	Notes
PM_{2.5}, PM₁₀, TSP Concentrations	GRIMM 365 Continuous Particulate Monitor	The West GRIMM monitor had 11% uptime for the month of March due to the instrument being decommissioned for repair from March 1 st at 1:00 to March 27 th at 14:00. Further, on March 31 st from 1:00 to 23:00 the analyzer experienced an equipment malfunction.

4.2 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 4-2 summarizes the monthly concentrations, and 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 4-1 and Figure 4-2 show the hourly and daily PM_{2.5}, PM₁₀ and TSP concentrations recorded over the month. PM levels in the airshed are likely influenced by Firesmart and Pine Beetle control work being conducted in the Exshaw / Bow Valley area. This work is planned to continue well into the spring of 2020.

Despite this, during the abbreviated operational time for the West Monitor in March, there were no exceedances of the 24-hour TSP guideline (100 µg/m³) nor the 24-hour PM_{2.5} guideline (29µg/m³).

Historically in March, the average number of 24-hour TSP AAAQG exceedances and 24-hour PM_{2.5} AAAQG exceedances are two and zero, respectively. The maximum number of 24-hour AAAQG exceedances was 10 days in 2014 for TSP, and 1 day in 2013 and 2018 for PM_{2.5}.

Table 4-2 Summary of March 2020 data at the West GRIMM

Parameter	Guideline		Station	Exceedances		Monthly		Maximum 1-hour				Maximum 24-hour		Operational Time (Percent)	
	1-hr	24-hr		1-hr	24-hr	Minimum	Average	Maximum Concentration	Day	Hour	Wind Speed (km/hr)	Wind Direction (degrees)	Maximum Concentration	Day	
PM_{2.5} (µg/m³)	80	29	West	0	0	0.2	4.4	25.2	30	7	17.7	84.4	13.0	30	11.0
PM₁₀ (µg/m³)	-	-	West	-	-	0.2	5.3	31.3	30	9	21.2	88.0	15.2	30	11.0
TSP (µg/m³)	-	100	West	-	0	0.1	7.0	101.3	30	16	18.2	101.1	21.4	30	11.0

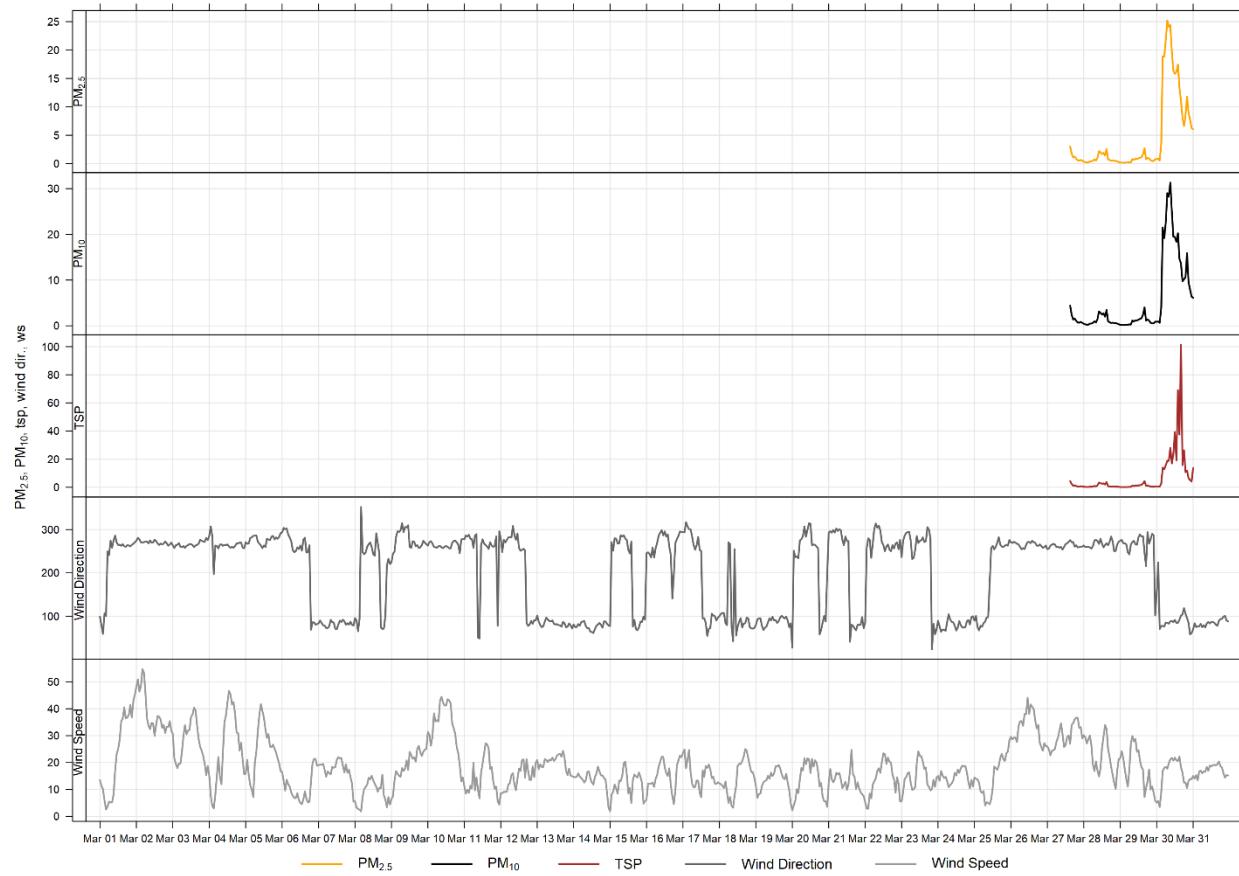


Figure 4-1 1-hour particulate matter concentrations at the West monitor

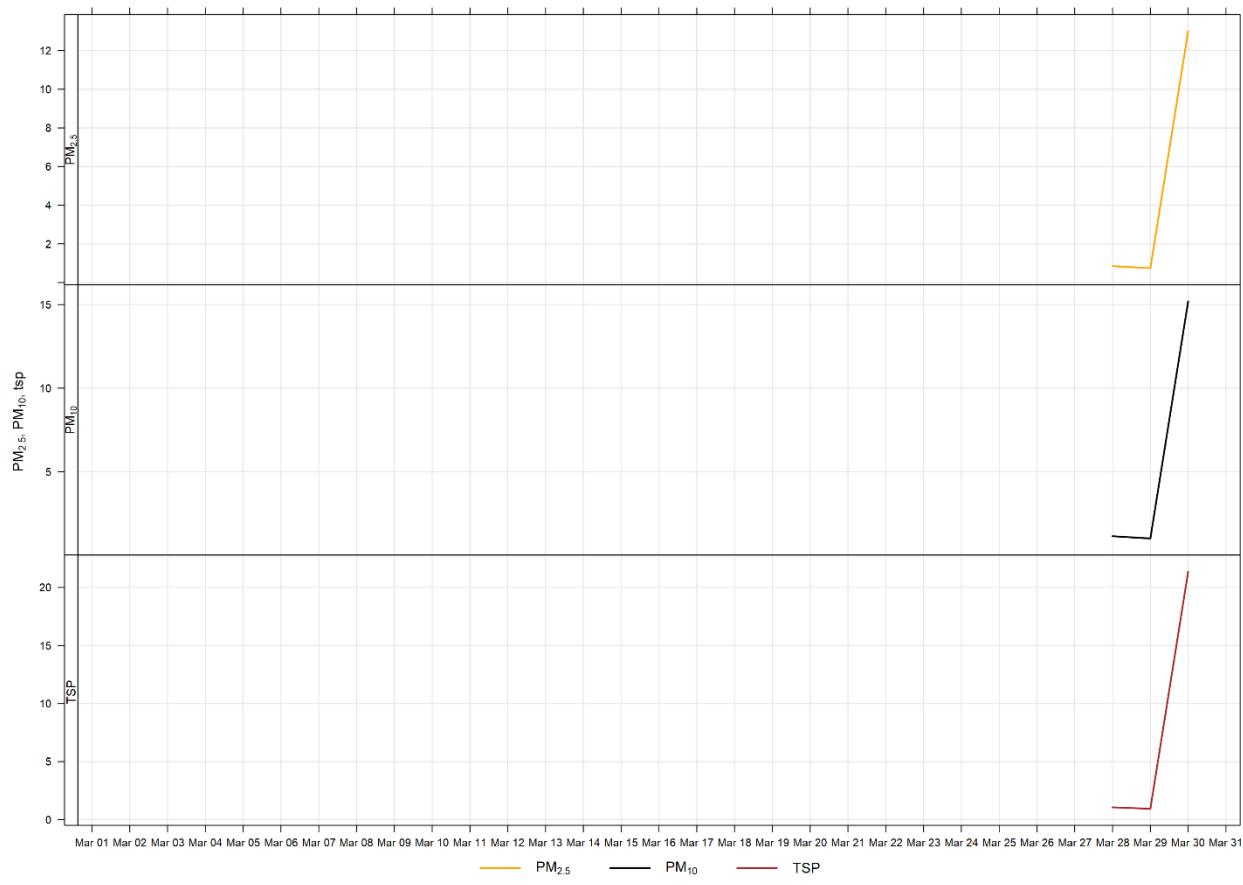


Figure 4-2 24-hour particulate matter concentrations at the West monitor

Figure 4-3 below 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 4-3 is based on data collected during March 2020 and indicates a diurnal relationship that could be due to the proximity of the West monitor to the highway. 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. The lack of data for March 2020 can be attributed to the instrument being removed for repair and equipment malfunction.

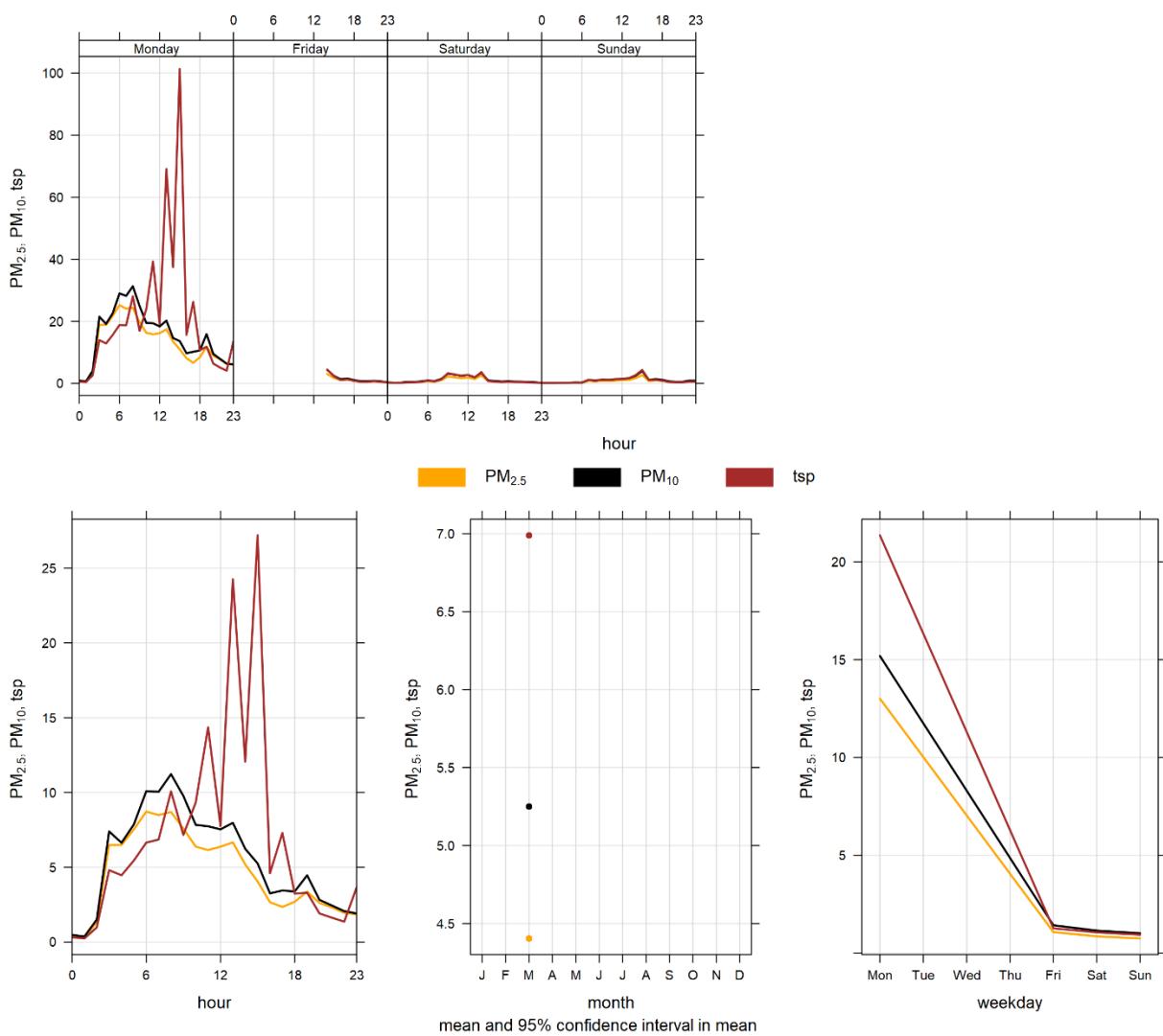


Figure 4-3 West particulate matter time variation

5 BERM INDUSTRIAL GRIMM

5.1 OPERATIONAL SUMMARY

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

Table 5-1 Instrumentation List at the Berm monitoring location

Parameter Measured	Equipment Description	Notes
PM_{2.5}, PM₁₀, TSP Concentrations	GRIMM 365 Continuous Particulate Monitor	The monitors had 99.2% data completeness due to six hours of equipment malfunction on March 3 rd from 11:00 – 16:00.

5.2 MONITORING RESULTS AND TRENDS

The Berm monitor was placed at its current location as a result of the dispersion modelling conducted for the facility in 2009. Figure 5-1 and Figure 5-2 show the hourly and daily PM_{2.5}, PM₁₀ and TSP concentrations recorded over the month. Table 5-2 summarizes the monthly concentrations, and the maximum 1-hour and 24-hour PM concentrations recorded during the month, and Table 5-3 summarizes the recorded exceedances. This is an industrial monitor that is not Alberta Air Monitoring Directive (AMD) compliant and is not required to show compliance with the AAAQO.

There were 12 and 0 exceedances of the 24-hour TSP (100 µg/m³) and PM_{2.5} (29 µg/m³) guidelines, respectively. There were 0 hours exceeding the 1-hour PM_{2.5} AAAQG.

Historically during the month of March, the Berm monitor records an average of 13 and 0 exceedances of the 24-hour TSP and PM_{2.5} guidelines, respectively. The maximum number of TSP exceedances recorded during March occurred in 2010 where there were 28 days that exceeded the guideline. On the other hand, the maximum number of PM_{2.5} exceedances in March occurred in 2012, where there was 1 day that exceeded the guideline.

It should also be noted that the GRIMM monitors become more conservative in the reported PM concentrations as the size fraction increases. The PM_{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.

High particulate levels and exceedances at the Berm monitor are likely influenced by flood mitigation work along Exshaw creek which is producing fugitive dust near the monitors. FireSmart and Pine Beetle control work is likely to have increased levels of PM_{2.5} as well.

Table 5-2 Summary of March 2020 data at the Berm GRIMM

Parameter	Guideline		Station	Exceedances		Monthly		Maximum 1-hour				Maximum 24-hour		Operational Time (Percent)	
	1-hr	24-hr		1-hr	24-hr	Minimum	Average	Maximum Concentration	Day	Hour	Wind Speed (km/hr)	Wind Direction (degrees)	Maximum Concentration	Day	
PM_{2.5} (µg/m³)	80	29	Berm	0	0	0.2	7.2	78.4	2	5	53.4	271.1	21.4	26	99.2
PM₁₀ (µg/m³)	-	-	Berm	-	-	0.2	37.9	705.4	2	5	53.4	271.1	159.6	26	99.2
TSP (µg/m³)	-	100	Berm	-	12	0.1	133.8	2981.3	4	10	35.1	264.6	560.7	2	99.2

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

Date	TSP (ug/m ³)	PM _{2.5} (ug/m ³)	Average Wind Direction (degrees)	Average Wind Speed (km/hr)	Average RH (%)	Root Cause (Provided by Lafarge)
Entrance						
2020-03-01	591.6	-	266.5	24.6	56.0	High wind event; Dust, possibly from flood mitigation work
2020-03-02	479.4	-	270.5	37.8	34.9	High wind event; Dust, possibly from flood mitigation work
2020-03-03	164.6	-	266.0	26.6	42.9	High wind event; Dust, possibly from flood mitigation work
2020-03-04	545.7	-	263.5	25.2	53.3	High wind event; Dust, possibly from flood mitigation work
2020-03-05	315.4	-	274.5	24.6	38.8	High wind event; Dust, possibly from flood mitigation work
2020-03-10	294.5	-	263.4	32.4	40.8	High wind event; Dust, possibly from flood mitigation work
2020-03-12	126.4	-	276.6	14.9	59.7	TSP - Dust, possibly from flood mitigation work
2020-03-13	147.9	-	82.6	19.7	74.9	TSP - Dust, possibly from flood mitigation work
2020-03-25	142.5	-	265.7	15.3	51.5	TSP - Dust, possibly from flood mitigation work
2020-03-26	499.2	-	265.0	33.0	36.7	High wind event; Dust, possibly from flood mitigation work
2020-03-27	264.6	-	263.3	29.9	39.7	High wind event; Dust, possibly from flood mitigation work
2020-03-28	114.5	-	266.0	22.2	38.7	High wind event; Dust, possibly from flood mitigation work

Total # of Exceedances	12	0				
Maximum # of Exceedances (March)	28 (2010)	1 (2012)				
Average # of Exceedances (March)	13	0				
Minimum # of Exceedances (March)	4 (2018)	0 (2010, 2011, 2013-2019)				

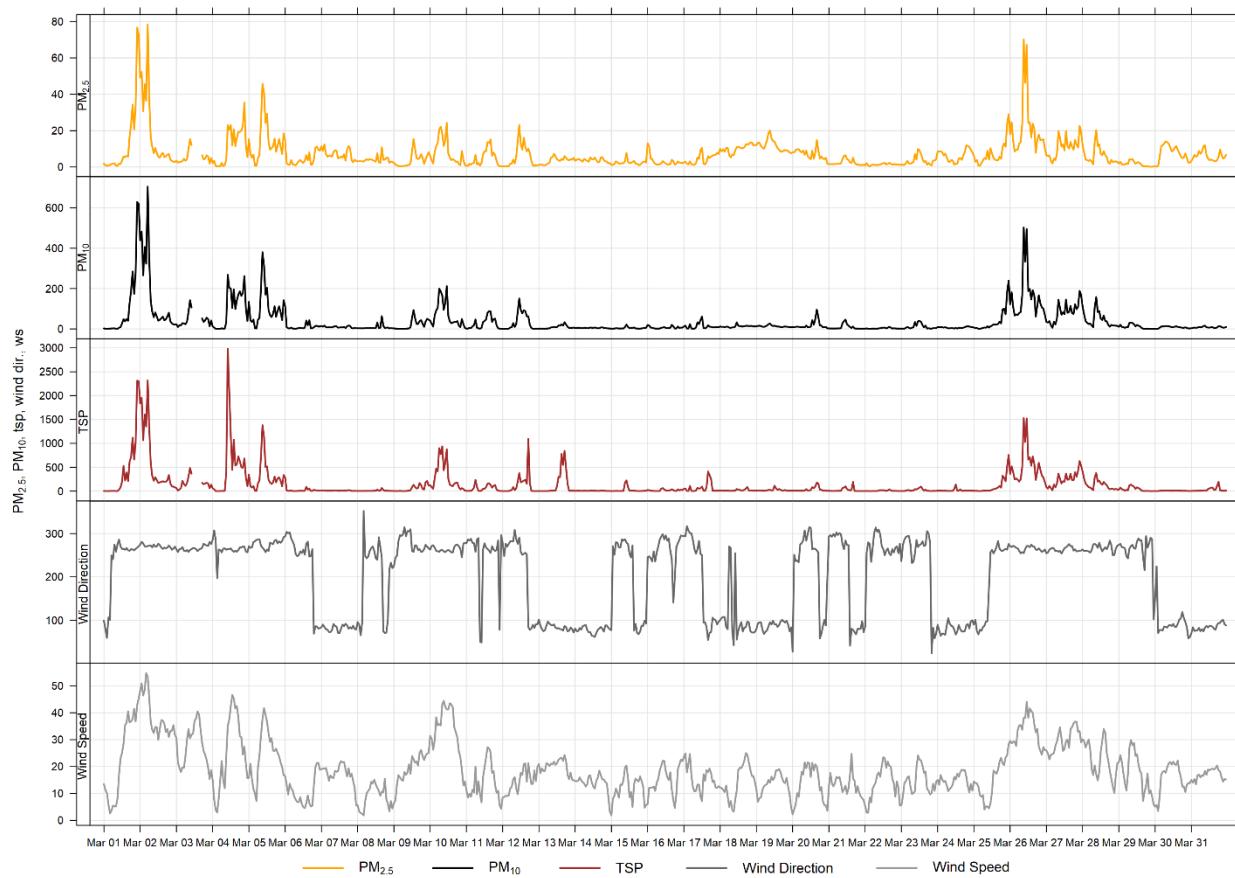


Figure 5-1 1-hour particulate matter concentrations recorded at the Berm monitor

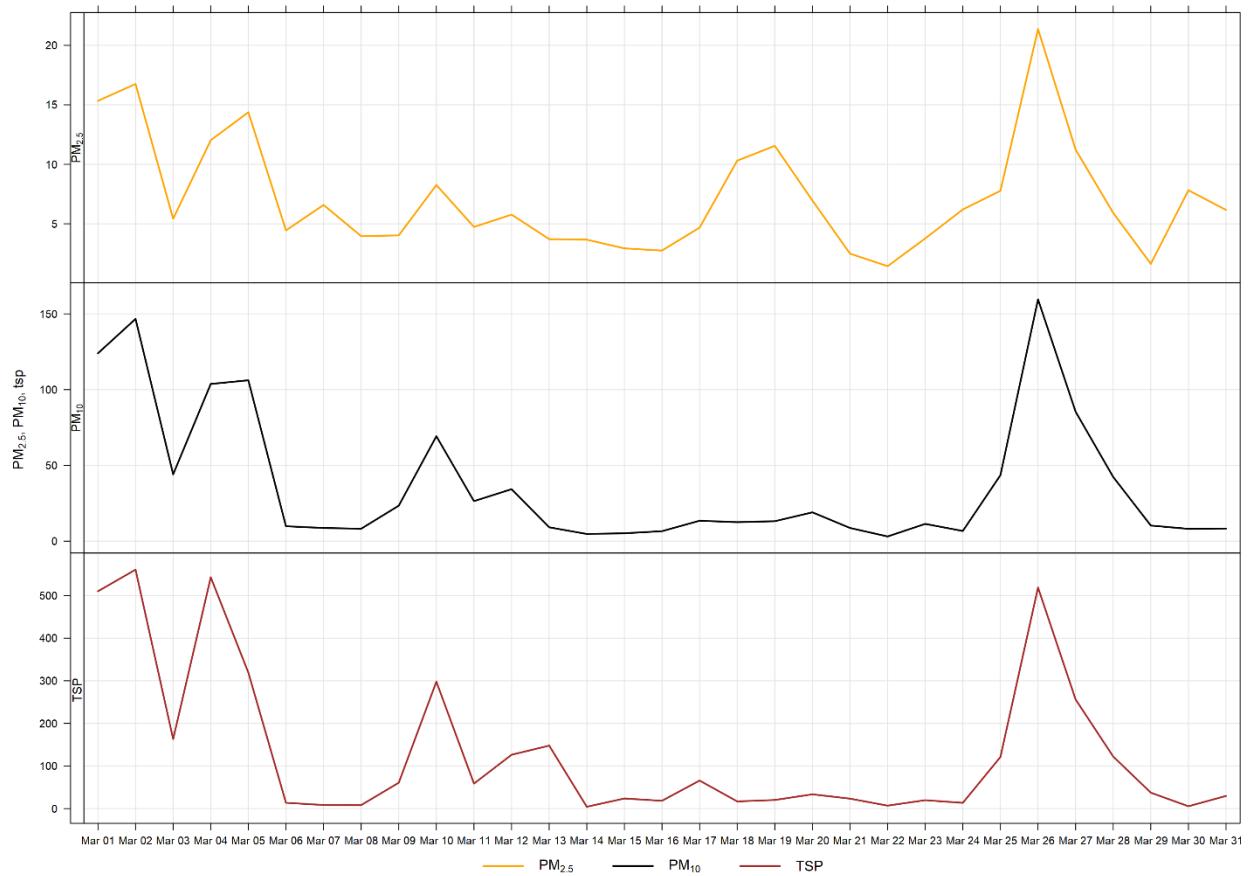


Figure 5-2 24-hour particulate matter concentrations recorded at the Berm monitor

Figure 5-3 shows the wind rose for the 12 days of TSP exceedances recorded this month. The wind rose shows that the winds predominantly came from the west direction.

Figure 5-4 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 traffic and other activities in Exshaw, such as the flood mitigation work that is currently underway.

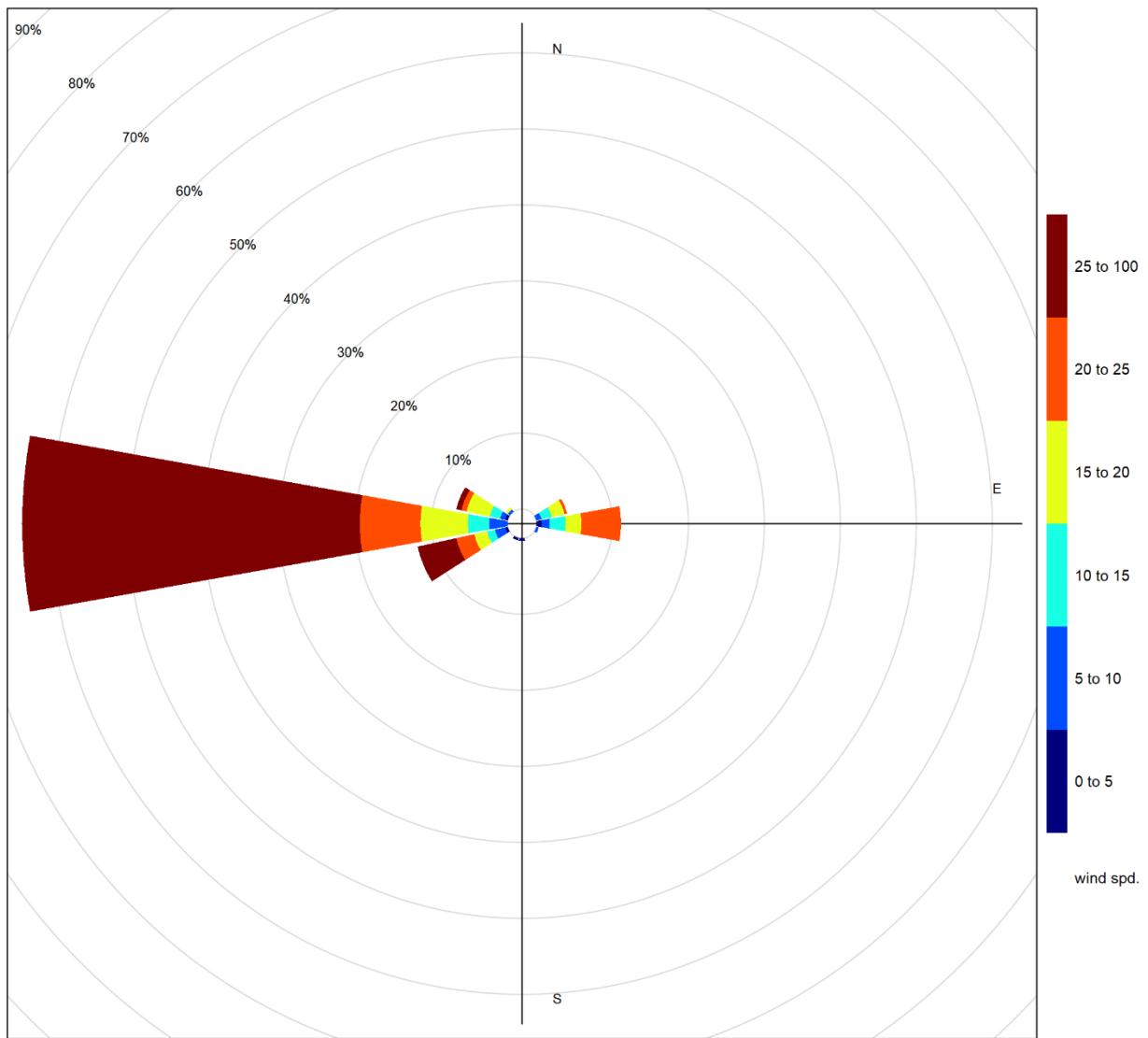


Figure 5-3 Wind rose for TSP exceedance days recorded at the Berm GRIMM

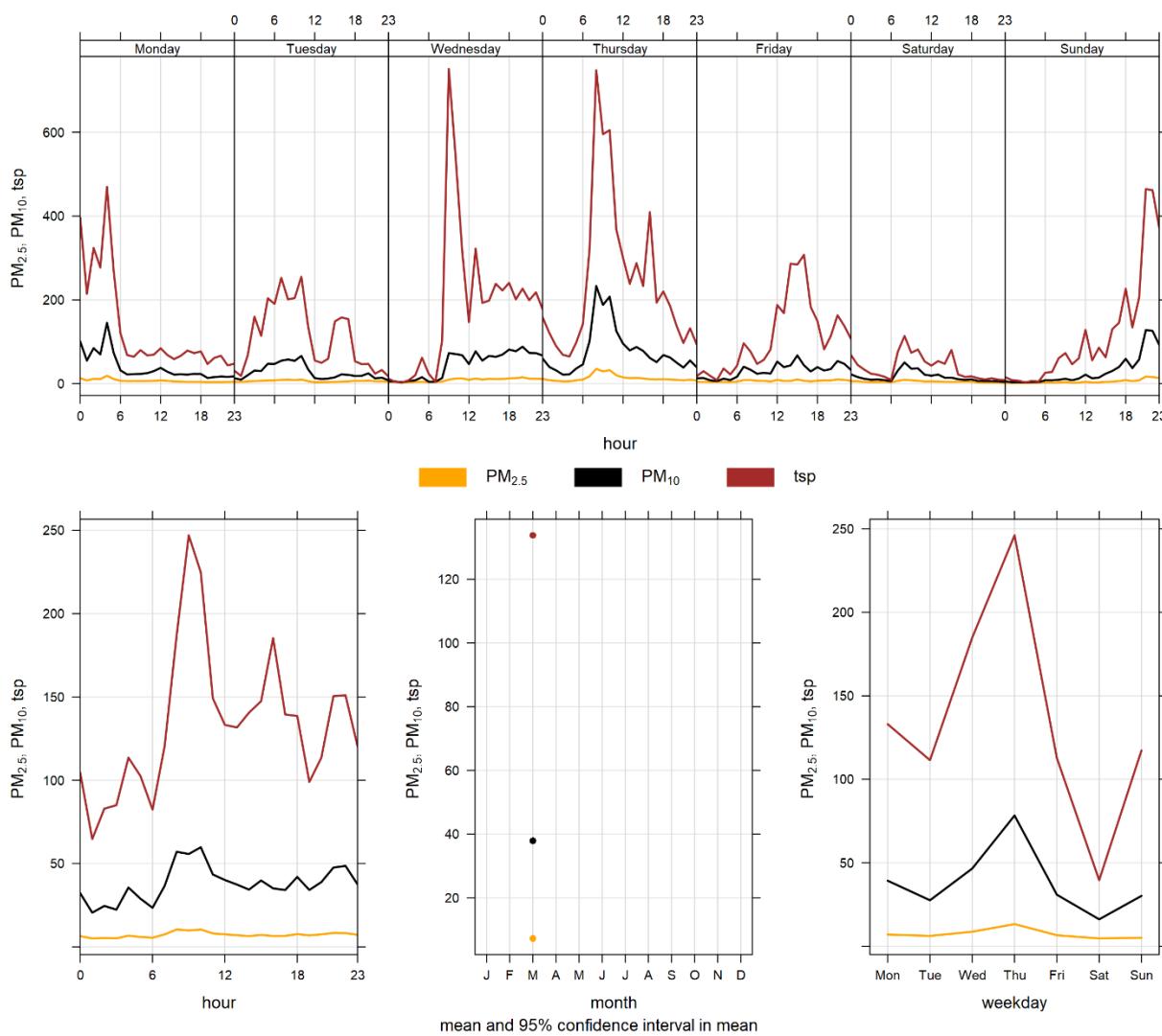


Figure 5-4 **Berm particulate matter time variation**

6 ENTRANCE 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 Entrance monitoring location

Parameter Measured	Equipment Description	Notes
PM_{2.5}, PM₁₀, TSP Concentrations	GRIMM 365 Continuous Particulate Monitor	The monitors had 100% uptime in March

6.2 MONITORING RESULTS AND TRENDS

The Entrance monitor was placed at its current location as a result of dispersion modelling conducted in 2009. This area was indicated as being the area where the maximum PM concentrations were expected. Figure 6-1 and Figure 6-2 show the hourly and daily PM_{2.5}, PM₁₀ and TSP concentrations recorded over the month. Table 6-2 summarizes the monthly concentrations, and the maximum 1-hour and 24-hour PM concentrations recorded during the month. 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.

During March, there were 10 and zero exceedances of the 24-hour TSP (100 µg/m³) and PM_{2.5} (29 µg/m³) guidelines, respectively. Dust created from the flood mitigation work (section 1.1) has the potential to impact particulate matter concentrations and may have contributed to particulate at the Entrance monitor.

Historically, the Entrance monitor records an average of 12 and 0 exceedances of the 24-hour TSP and PM_{2.5} guidelines respectively, during the month of March. The maximum number of TSP exceedances recorded during March occurred in 2014 (28 days), while the minimum occurred in 2011 with 0 exceedances. On the other hand, the maximum number of PM_{2.5} exceedances in March was 1 days, occurring in 2018.

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

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

Figure 6-3 shows the wind rose for the 10 days that exceeded the TSP guideline. The wind rose indicates that the winds predominantly came from the west direction. High wind speeds and flood mitigation work could be attributed as the causation for the 10 TSP exceedances recorded during the month of March.

High particulate levels and exceedances at the Entrance monitor are likely influenced by flood mitigation work along Exshaw creek which is producing fugitive dust near the monitors. FireSmart and Pine Beetle control work is likely to have increased levels of PM_{2.5} as well.

Table 6-2 Summary of March 2020 data at the Entrance GRIMM

Parameter	Guideline		Station	Exceedances		Monthly		Maximum 1-hour				Maximum 24-hour		Operational Time (Percent)	
	1-hr	24-hr		1-hr	24-hr	Minimum	Average	Maximum Concentration	Day	Hour	Wind Speed (km/hr)	Wind Direction (degrees)	Maximum Concentration	Day	
PM_{2.5} (µg/m³)	80	29	Entrance	0	0	0.4	7.5	35.2	20	4	8.7	233.8	18.1	19	100.0
PM₁₀ (µg/m³)	-	-	Entrance	-	-	1.0	25.3	213.7	12	9	11.8	287.0	56.1	12	100.0
TSP (µg/m³)	-	100	Entrance	-	10	0.9	91.6	2378.0	4	12	42.4	265.7	392.4	4	100.0

Table 6-3 Days exceeding the Guideline for TSP or PM_{2.5} at the Entrance Monitor

Date	TSP (ug/m ³)	PM _{2.5} (ug/m ³)	Average Wind Direction (degrees)	Average Wind Speed (km/hr)	Average RH (%)	Root Cause (Provided by Lafarge)
Entrance						
2020-03-01	299.6	-	266.5	24.6	56.0	High wind event; Dust, possibly from flood mitigation work
2020-03-02	164.9	-	270.5	37.8	34.9	High wind event; Dust, possibly from flood mitigation work
2020-03-03	123.4	-	266.0	26.6	42.9	High wind event; Dust, possibly from flood mitigation work
2020-03-04	392.4	-	263.5	25.2	53.3	High wind event; Dust, possibly from flood mitigation work
2020-03-05	130.3	-	274.5	24.6	38.8	High wind event; Dust, possibly from flood mitigation work
2020-03-10	189.3	-	263.4	32.4	40.8	High wind event; Dust, possibly from flood mitigation work
2020-03-12	151.3	-	276.6	14.9	59.7	TSP - Dust, possibly from flood mitigation work
2020-03-16	122.7	-	276.0	15.9	53.0	TSP - Dust, possibly from flood mitigation work

2020-03-17	133.9	-	14.1	15.2	60.0	TSP - Dust, possibly from flood mitigation work
2020-03-26	169.7	-	265.0	33.0	36.7	High wind event; Dust, possibly from flood mitigation work
Total # of Exceedances	10	0				
Maximum # of Exceedances (March)	28 (2014)	1 (2018)				
Average # of Exceedances (March)	12	0				

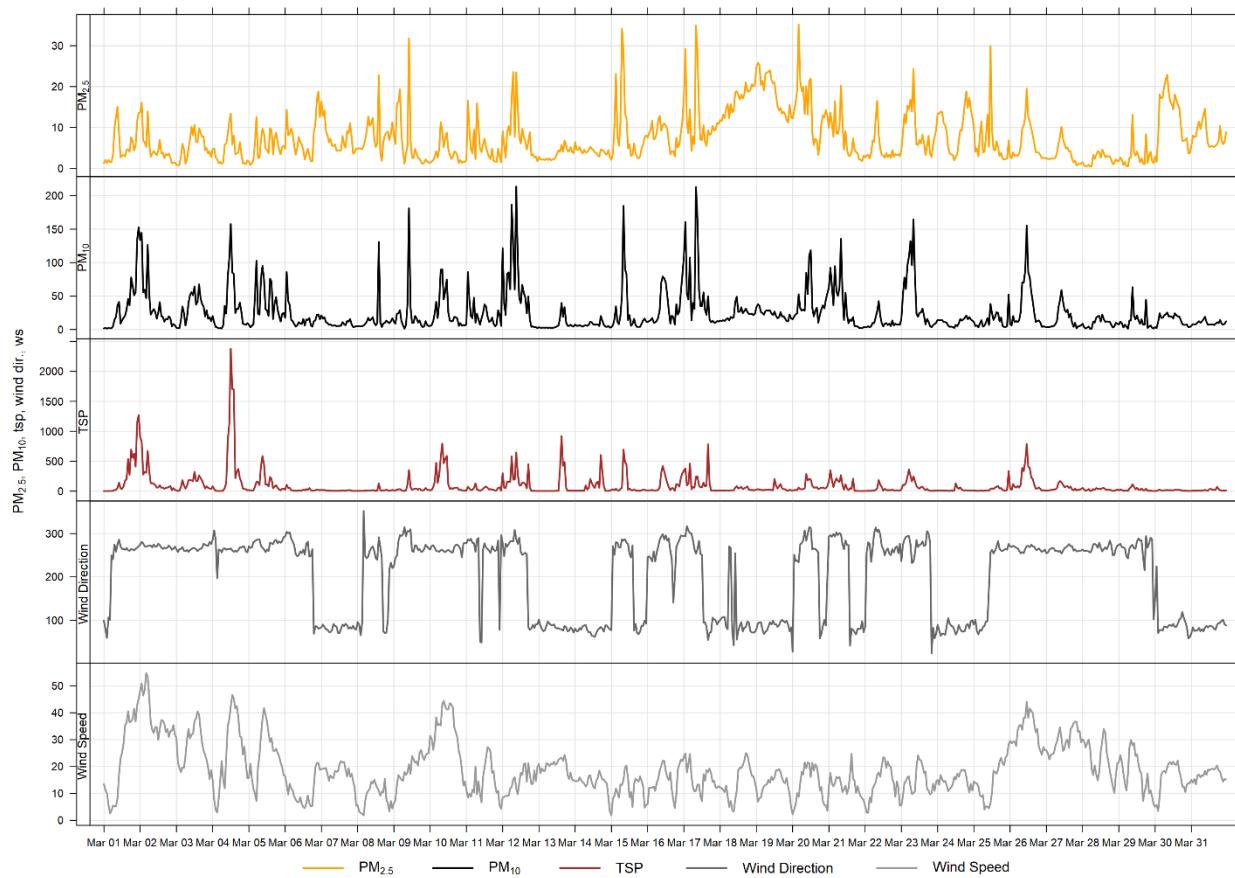


Figure 6-1 1-hour particulate matter concentrations recorded at the Entrance monitor

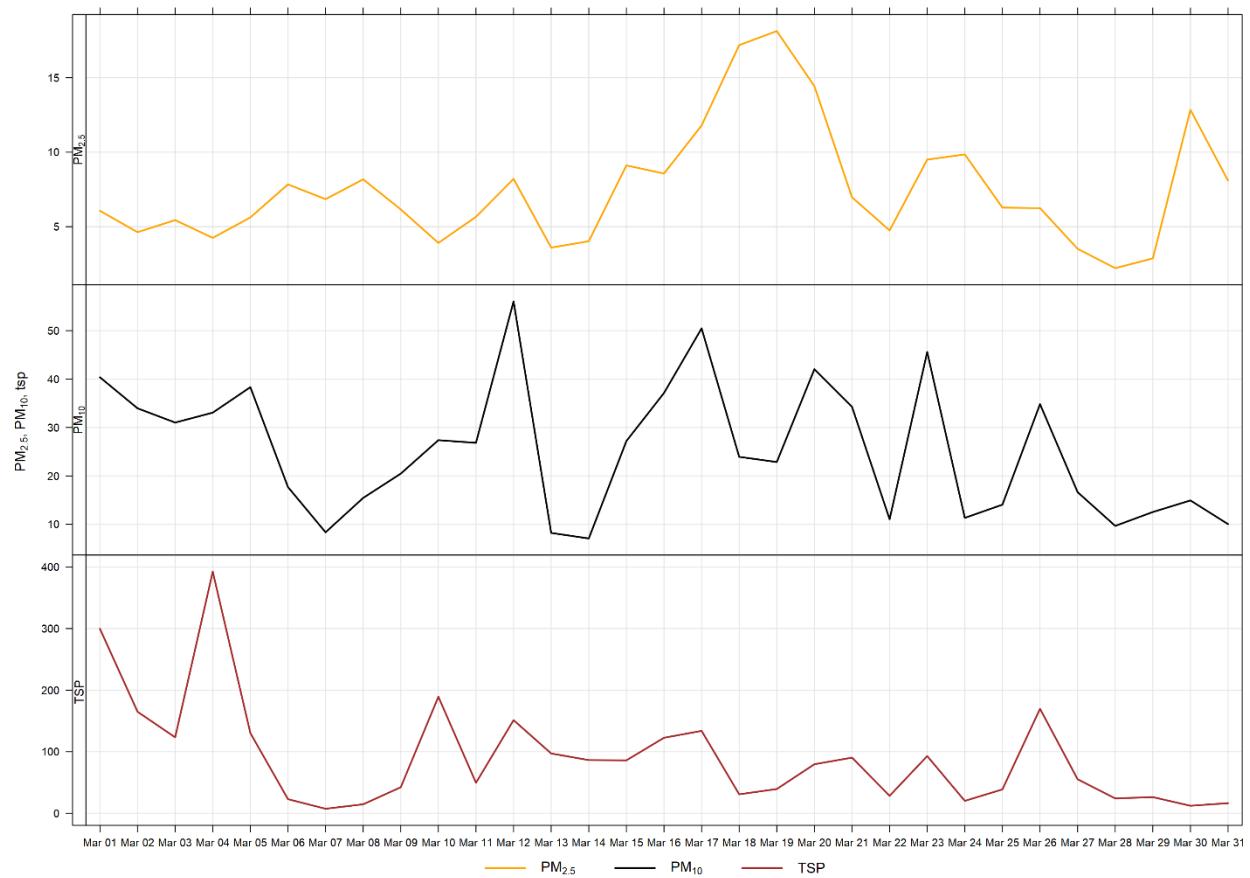


Figure 6-2 24-hour particulate matter concentrations at the Entrance monitor

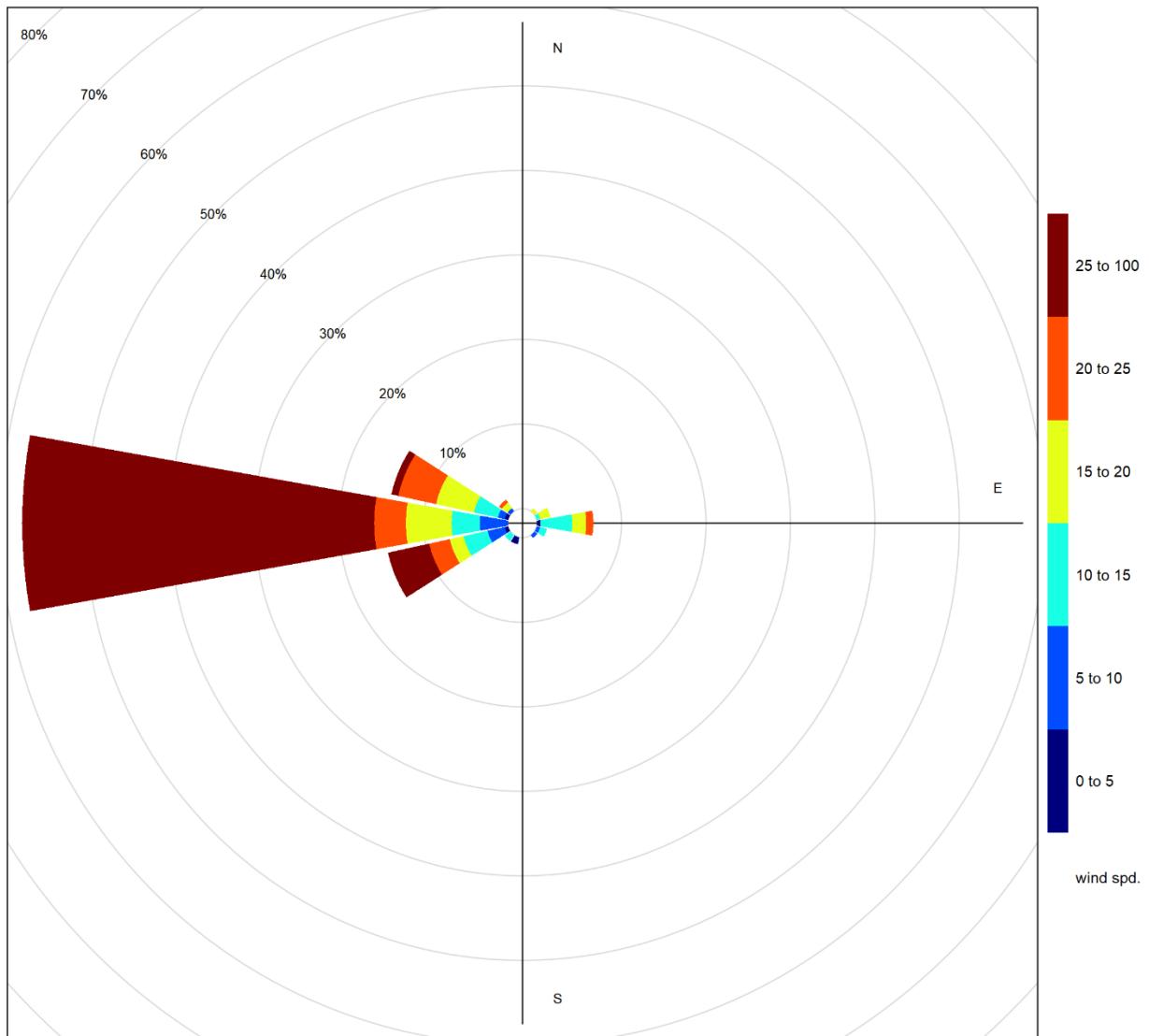


Figure 6-3 Wind rose for TSP exceedance days recorded at the Entrance GRIMM

Figure 6-4 illustrates the hourly PM concentrations recorded at the Entrance monitor, averaged over different time periods. The plot across the top shows the variation of PM over the course of a week, while the bottom three plots show the changes in PM over the course of a day, month and weekday, respectively. Figure 6-4 is based on data collected during March 2020. The diurnal pattern is likely more influenced by daytime traffic emission (from vehicles serving Lafarge as well as regular highway traffic) given its location near the highway entrance to Lafarge, but can also be influenced by the flood mitigation work currently underway, as well as industry and rail sources.

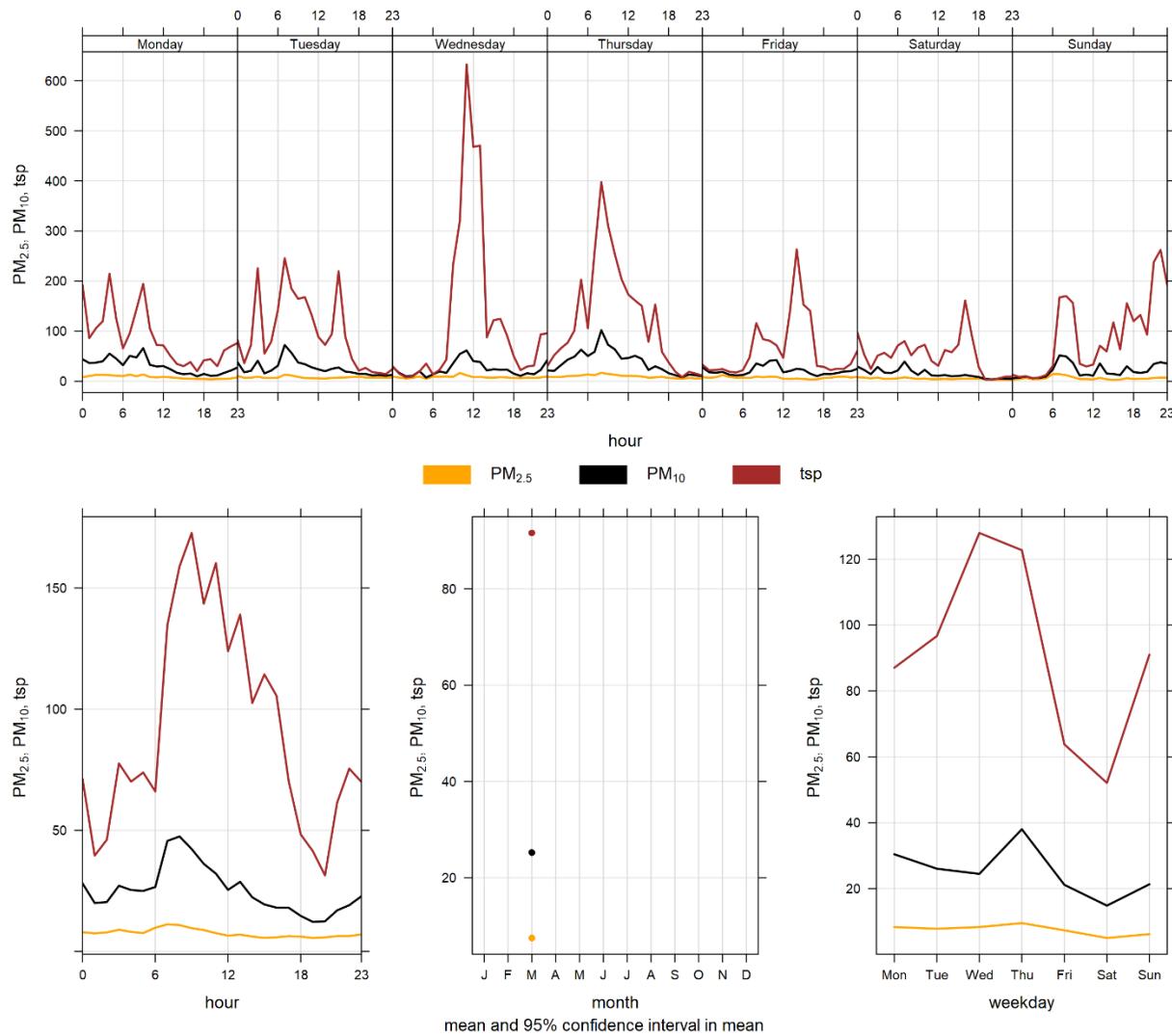


Figure 6-4 Entrance particulate matter time variation

BIBLIOGRAPHY

- Alberta Environment and Parks. (2019, January). Alberta Ambient Air Quality Objectives and Guidelines Summary. Alberta, Canada.
- Alberta Environment and Parks. (2016, February). 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, Canada.

APPENDIX

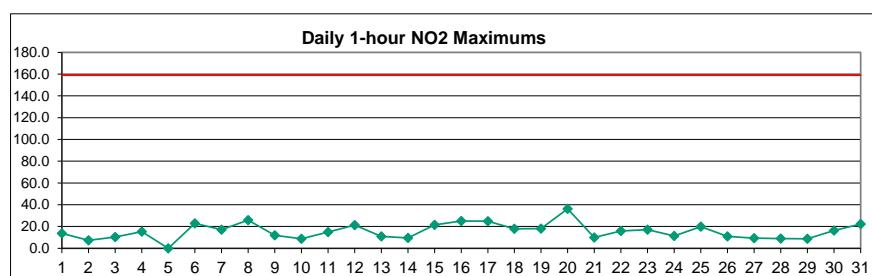
A DATA & CALIBRATION REPORTS

APPENDIX



Lagoon NO₂ (ppb) – March 2020

Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	3.5	S	5.6	9.3	7.7	9.3	12.7	13.8	6.8	5.4	4.9	5.3	5.1	2.0	3.3	1.4	2.1	1.9	4.8	1.3	3.5	1.9	1.9	1.3	5.0	13.8
2	0.7	S	1.4	2.0	2.6	6.3	3.2	7.0	6.1	3.4	5.2	5.3	2.6	2.7	4.6	2.3	4.8	2.5	7.4	1.5	3.1	2.6	3.8	1.8	3.6	7.4
3	1.9	S	2.8	6.5	4.5	6.6	5.1	6.2	5.5	6.1	3.7	6.4	4.0	1.2	3.6	5.8	6.8	6.1	6.5	6.8	4.5	7.4	10.3	6.6	5.4	10.3
4	4.7	S	3.5	4.3	5.0	2.7	9.1	15.2	9.9	5.5	4.5	4.3	3.6	3.4	2.8	1.5	3.9	3.8	4.1	6.6	4.7	3.9	2.1	3.8	4.9	15.2
5	5.0	S	3.9	2.7	5.1	3.5	9.1	13.1	9.9	C	C	C	C	C	C	C	C	8.3	11.0	3.4	3.3	4.1	7.3	6.7	-	-
6	3.5	S	3.7	6.8	7.8	9.3	15.0	15.1	18.3	19.2	16.4	11.2	7.5	7.3	2.8	6.5	4.6	5.1	13.5	6.5	5.2	10.9	22.9	19.7	10.4	22.9
7	16.8	S	17.0	12.5	10.6	11.1	13.2	6.7	5.8	3.1	3.6	10.0	5.8	2.7	7.0	3.2	2.7	6.1	3.8	4.8	3.3	6.0	11.4	10.9	7.7	17.0
8	9.0	S	20.0	22.9	23.4	25.8	25.5	22.5	14.2	10.3	7.4	5.1	6.0	7.3	4.2	2.6	9.3	15.9	18.1	19.7	23.6	20.8	20.8	16.6	15.3	25.8
9	11.7	S	9.9	6.8	11.9	11.6	9.7	11.0	10.7	9.3	8.0	3.6	2.3	3.8	2.3	3.2	2.3	1.8	3.8	3.4	4.9	6.0	6.4	3.3	6.4	11.9
10	7.2	S	4.3	2.7	4.2	7.5	7.8	4.9	3.5	2.4	2.0	3.2	1.4	1.7	1.4	3.0	3.2	1.8	3.2	1.4	1.3	3.7	8.6	6.6	3.8	8.6
11	5.5	S	10.6	14.9	6.4	3.7	7.0	4.4	5.6	6.2	3.5	1.9	3.5	4.2	2.9	1.7	3.9	5.0	2.1	2.8	4.5	2.2	2.2	3.3	4.7	14.9
12	8.2	S	7.5	8.0	8.7	11.3	21.3	20.0	13.6	9.8	5.4	2.6	1.4	2.0	1.8	1.9	3.8	4.6	4.6	7.8	5.1	4.2	2.7	6.9	21.3	
13	2.5	S	10.0	6.2	3.7	1.7	2.1	4.2	2.4	2.2	2.0	2.4	3.3	2.9	5.6	6.6	6.3	9.0	10.0	11.0	10.0	8.5	5.3	8.3	5.5	11.0
14	9.6	S	6.9	6.1	6.1	2.2	2.4	4.9	6.0	6.4	3.4	3.3	3.6	1.8	1.5	2.2	2.0	1.8	5.7	7.4	3.8	7.7	5.0	3.8	4.5	9.6
15	7.1	S	13.1	9.6	11.6	12.3	13.8	8.9	8.2	5.8	8.0	6.2	3.6	5.4	13.7	6.2	5.2	5.2	6.7	18.6	21.1	20.7	19.0	21.4	10.9	21.4
16	25.1	S	20.5	15.9	16.0	17.5	14.1	11.8	7.7	6.3	7.0	6.2	4.4	3.4	3.2	3.1	4.3	3.4	9.3	12.9	7.8	8.2	5.4	7.3	9.6	25.1
17	10.7	S	21.7	12.3	6.3	11.8	14.7	24.9	16.2	10.1	7.8	7.2	1.3	3.4	1.8	3.9	6.3	3.9	4.7	4.6	4.2	5.4	5.5	5.5	8.4	24.9
18	5.8	S	5.6	5.7	5.7	8.2	11.6	17.1	16.0	17.0	17.9	8.3	5.9	4.9	5.2	4.7	6.9	5.9	6.7	10.9	15.4	14.5	14.1	14.6	9.9	17.9
19	15.8	S	11.5	13.3	18.1	11.7	11.4	9.8	6.9	7.7	8.0	7.9	8.5	6.4	4.9	4.3	4.1	4.4	4.4	4.0	4.8	7.8	5.0	16.9	8.6	18.1
20	14.3	S	15.1	11.5	11.9	10.2	14.4	9.6	10.9	11.2	8.1	6.1	9.0	5.6	7.3	4.9	5.6	7.8	19.7	21.1	15.1	36.2	28.0	8.5	12.7	36.2
21	6.8	S	6.6	9.8	8.8	7.1	5.8	5.9	8.9	6.7	5.0	4.0	5.0	6.3	5.5	4.8	4.0	4.2	7.3	7.2	7.4	7.3	6.0	7.0	6.4	9.8
22	6.2	S	6.6	10.0	13.7	15.9	5.4	10.2	7.9	6.5	6.0	3.8	2.1	3.4	6.1	2.9	1.2	4.4	4.3	3.2	7.0	5.6	4.0	4.0	6.1	15.9
23	3.1	S	5.4	5.0	7.7	6.0	12.6	17.1	14.7	14.1	6.8	8.4	5.8	5.6	10.0	7.5	3.0	10.7	6.6	9.6	6.1	5.8	5.3	7.9	8.0	17.1
24	4.1	S	8.6	10.9	8.4	6.0	2.3	9.5	3.1	6.4	10.3	2.4	4.7	2.8	4.5	8.2	11.3	8.0	6.9	4.3	3.8	4.2	3.0	3.9	6.0	11.3
25	2.8	S	9.9	17.5	19.9	9.6	11.9	16.2	7.4	3.9	9.5	6.4	4.1	2.8	5.0	3.8	4.3	3.1	1.4	1.5	2.0	7.7	6.9	10.1	7.3	19.9
26	9.1	S	10.3	7.5	4.3	2.2	2.6	3.7	3.0	6.2	8.5	6.7	6.9	9.0	7.9	10.9	3.7	3.4	7.6	6.2	2.9	4.4	7.9	3.2	6.0	10.9
27	1.9	S	4.0	4.1	9.3	3.8	3.7	3.2	2.0	5.6	4.5	7.3	6.2	5.4	5.3	5.0	1.9	4.8	1.3	2.4	3.5	4.2	3.5	4.2	9.3	
28	3.3	S	1.7	2.4	1.6	2.4	5.0	8.0	7.8	7.3	4.6	6.0	0.8	1.6	2.6	3.2	8.9	2.8	3.0	1.0	1.2	3.2	3.3	5.9	3.8	8.9
29	3.1	S	2.4	6.5	0.8	1.4	8.7	3.2	5.8	4.8	6.6	4.0	1.4	2.0	1.5	1.7	0.9	2.1	1.7	2.1	3.6	5.3	4.3	4.9	3.4	8.7
30	5.1	S	8.2	6.1	4.3	5.2	9.4	11.6	7.7	8.6	14.6	8.4	16.3	7.4	7.2	5.9	5.9	6.1	6.6	6.3	7.9	4.4	5.3	5.7	7.6	16.3
31	4.3	S	5.0	10.4	11.3	16.6	22.2	14.4	9.7	5.6	4.2	3.0	5.4	4.0	5.0	7.0	5.0	5.3	4.8	4.9	5.5	11.2	16.9	14.1	8.5	22.2
NO.	31	-	31	31	31	31	31	31	30	30	30	30	30	30	30	30	30	31	31	31	31	31	31	31	705	100%
MEAN	7.0	-	8.5	8.7	8.6	8.4	10.1	10.8	8.5	7.3	6.9	5.5	4.8	4.1	4.7	4.3	4.6	5.0	6.6	6.5	7.9	8.3	7.7			
MAX	25.1	-	21.7	22.9	23.4	25.8	25.5	24.9	18.3	19.2	17.9	11.2	16.3	9.0	13.7	10.9	11.3	15.9	19.7	21.1	23.6	36.2	28.0	21.4		



Number of 1HR Exceedences 0

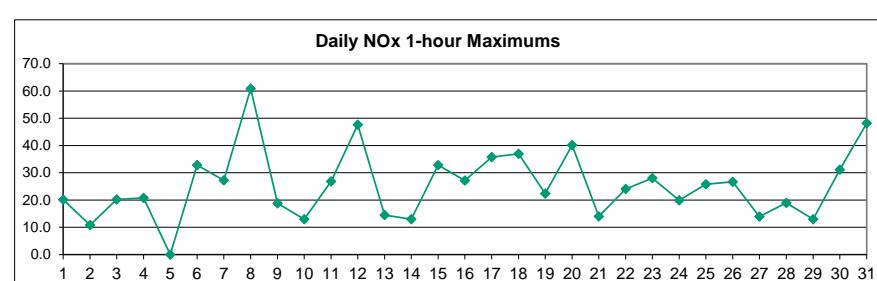
Number of Non-Zero Readings 705

Maximum 1-HR Average 36.2 PPB
Maximum 24-HR Average 15.3 PPB

Operational Time 744 HRS
Monthly Calibration Standard Deviation 5.0
Operational Uptime 100.0 %
Monthly Average 7.0 PPB

Lagoon NOx (ppb) – March 2020

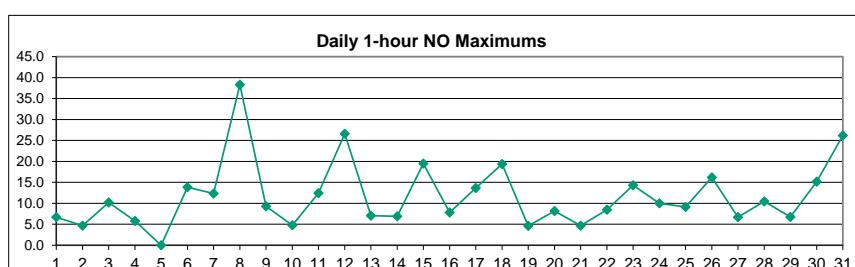
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	4.0	S	6.3	9.7	7.6	10.6	12.9	20.1	8.7	10.6	9.3	10.1	9.5	3.5	5.6	1.7	2.6	2.4	6.6	1.3	4.3	2.2	2.2	1.5	6.7	20.1
2	2.7	S	1.6	2.6	3.1	10.6	3.9	10.3	9.1	4.9	7.9	8.0	3.6	4.0	8.1	3.0	6.9	2.8	10.8	1.6	3.8	3.0	5.2	1.8	5.2	10.8
3	1.9	S	3.3	8.9	6.2	9.2	6.6	9.0	8.1	9.7	5.5	10.1	6.3	1.6	6.1	9.3	10.3	7.6	8.3	9.6	6.2	9.3	20.2	7.7	7.9	20.2
4	6.8	S	3.4	4.3	6.3	3.2	12.6	20.7	14.4	9.2	7.3	7.1	6.7	5.9	4.5	2.0	6.4	4.9	5.0	10.9	6.0	4.5	2.0	3.7	6.9	20.7
5	6.4	S	4.2	2.6	5.9	3.6	15.9	24.3	16.2	C	C	C	C	C	C	C	C	18.2	16.9	3.5	3.1	6.1	9.9	8.0	-	-
6	6.0	S	4.3	9.3	10.4	9.7	16.1	16.2	25.2	32.8	27.7	16.3	10.4	10.0	3.2	7.4	4.9	5.1	16.7	6.3	5.2	12.6	28.9	26.1	13.5	32.8
7	26.0	S	27.3	16.3	12.8	13.9	17.4	8.7	7.5	3.6	5.3	22.1	10.7	3.9	13.0	4.3	3.2	9.0	3.8	5.6	3.5	6.7	13.6	11.5	10.9	27.3
8	8.9	S	53.0	60.9	39.7	31.9	32.1	36.1	29.8	26.2	17.8	11.6	12.6	13.9	6.8	3.2	18.4	28.6	20.9	21.4	28.0	21.6	20.8	16.6	24.4	60.9
9	11.6	S	15.4	7.5	17.1	17.8	12.9	18.6	18.8	18.1	16.5	6.5	3.4	6.7	3.4	5.5	3.2	2.1	5.7	3.9	6.2	7.7	8.4	3.4	9.6	18.8
10	11.3	S	4.8	2.8	5.3	10.8	11.9	6.7	5.7	3.8	2.6	5.1	1.8	2.3	1.7	4.1	4.2	1.8	4.1	1.2	1.1	5.2	13.0	9.7	5.3	13.0
11	8.1	S	22.6	26.9	9.0	4.0	8.5	4.8	7.4	9.3	4.7	2.6	5.0	7.6	4.5	2.0	5.6	6.2	2.1	2.6	5.7	2.0	2.0	3.6	6.8	26.9
12	9.8	S	8.2	13.2	8.5	12.4	47.7	41.1	26.6	15.6	7.9	3.6	1.7	2.7	2.2	2.2	1.9	4.1	5.0	4.6	8.4	5.2	4.4	2.6	10.4	47.7
13	2.6	S	12.7	7.2	4.4	1.6	2.1	4.8	2.9	2.8	2.8	4.0	7.0	5.2	12.3	11.7	9.9	13.7	13.4	14.5	14.4	10.2	5.9	10.0	7.7	14.5
14	12.1	S	8.8	7.5	10.2	2.4	2.6	8.1	8.6	12.9	4.9	5.2	5.7	3.3	2.1	4.1	2.7	2.1	7.6	8.5	4.1	8.0	5.0	3.6	6.1	12.9
15	7.6	S	13.3	9.8	14.2	14.1	17.9	11.1	14.7	14.2	22.6	13.5	8.1	10.9	32.8	10.7	9.2	6.7	7.3	25.4	29.4	22.0	19.8	23.8	15.6	32.8
16	27.2	S	21.1	16.6	16.7	20.8	15.7	14.8	11.3	10.5	13.9	10.9	8.4	5.0	4.6	4.4	5.5	3.8	11.5	20.2	10.2	9.9	6.0	11.2	12.2	27.2
17	20.4	S	35.0	18.6	8.0	14.4	18.8	35.7	23.7	15.8	12.3	10.8	1.3	5.7	1.9	4.9	7.4	4.0	4.6	4.3	4.0	5.4	5.3	5.2	11.6	35.7
18	5.5	S	5.4	5.7	5.7	8.1	11.7	18.7	20.2	32.2	36.9	13.0	8.1	6.1	6.5	5.4	8.0	6.0	6.4	11.0	16.5	15.2	15.9	14.8	12.3	36.9
19	15.9	S	11.4	13.7	22.3	12.1	12.0	10.4	7.3	9.1	9.6	9.8	11.3	7.8	5.2	4.5	4.0	4.3	4.4	3.8	4.7	8.3	5.0	19.3	9.4	22.3
20	14.3	S	17.1	11.3	13.0	11.2	17.8	11.8	16.1	18.0	12.5	8.4	16.8	7.6	12.2	6.3	6.8	8.6	21.7	21.7	15.3	40.1	27.9	8.6	15.0	40.1
21	8.2	S	6.5	14.0	11.1	8.8	5.6	6.2	12.5	9.7	7.1	5.5	8.2	9.5	6.7	5.3	4.4	4.3	8.9	7.9	8.2	9.1	6.0	7.0	7.9	14.0
22	6.0	S	7.6	9.8	21.3	24.0	5.5	17.8	13.2	12.4	10.9	5.9	2.7	4.9	10.0	3.5	1.1	5.2	4.6	3.1	8.7	6.7	3.7	3.8	8.4	24.0
23	2.9	S	7.2	4.9	12.0	6.1	17.6	22.1	22.6	28.0	10.9	13.5	9.0	8.4	14.7	10.8	3.5	17.9	7.0	11.6	6.7	6.0	5.6	8.6	11.2	28.0
24	3.9	S	9.0	12.7	8.9	7.9	2.1	17.7	4.4	11.0	19.9	3.0	6.9	3.3	5.8	11.4	15.6	9.6	7.2	4.1	3.7	4.0	2.8	3.6	7.8	19.9
25	2.6	S	13.9	21.9	25.8	10.9	13.9	21.3	9.9	5.6	18.1	11.5	6.6	4.2	7.4	5.1	6.2	4.0	1.3	1.4	1.9	9.6	9.1	13.4	9.8	25.8
26	12.4	S	17.0	9.6	4.5	2.2	2.7	5.0	4.0	9.9	14.6	12.1	11.4	15.7	14.4	26.6	5.3	4.9	11.1	7.5	2.9	5.1	9.4	3.2	9.2	26.6
27	1.9	S	4.8	4.3	13.9	4.3	4.2	5.2	4.3	2.4	8.7	7.0	13.7	12.1	9.2	8.8	8.0	2.2	6.8	1.1	2.8	4.1	4.8	4.2	6.0	13.9
28	3.9	S	1.7	3.0	1.5	2.2	5.0	10.3	12.0	12.4	6.7	10.3	0.8	2.6	4.6	7.0	18.9	3.9	3.8	0.9	1.0	3.8	4.2	9.1	5.6	18.9
29	3.5	S	3.7	9.7	0.6	2.2	12.0	3.7	9.2	9.4	13.0	6.3	1.4	3.0	1.9	2.3	0.8	1.9	1.6	2.0	7.1	8.2	4.3	4.6	4.9	13.0
30	5.1	S	10.7	6.1	4.3	5.6	11.7	17.1	9.6	13.3	29.4	10.8	31.1	10.9	10.4	7.2	6.9	6.8	6.5	6.1	9.5	5.4	6.8	7.3	10.4	31.1
31	5.1	S	5.6	14.3	17.5	30.4	48.2	26.2	18.2	10.1	7.2	5.3	11.3	8.1	10.3	12.6	9.3	7.0	6.1	5.6	6.6	16.2	26.6	20.3	14.3	48.2
NO.	31	-	31	31	31	31	31	31	31	30	30	30	30	30	30	30	30	31	31	31	31	31	31	31	705	100%
MEAN	8.5	-	11.8	11.8	11.2	10.6	13.7	15.6	13.0	12.8	12.5	9.0	8.0	6.5	7.7	6.6	6.7	6.8	8.0	7.5	7.7	9.1	9.8	9.0		
MAX	27.2	-	53.0	60.9	39.7	31.9	48.2	41.1	29.8	32.8	36.9	22.1	31.1	15.7	32.8	26.6	18.9	28.6	21.7	25.4	29.4	40.1	28.9	26.1		



Number of Non-Zero Readings	705
Maximum 1-HR Average	60.9 PPB
Maximum 24-HR Average	24.4 PPB
Monthly Calibration Standard Deviation	7.778
Operational Time	744 HRS
Operational Uptime	100.0 %
Monthly Average	9.8 PPB

Lagoon NO (ppb) – March 2020

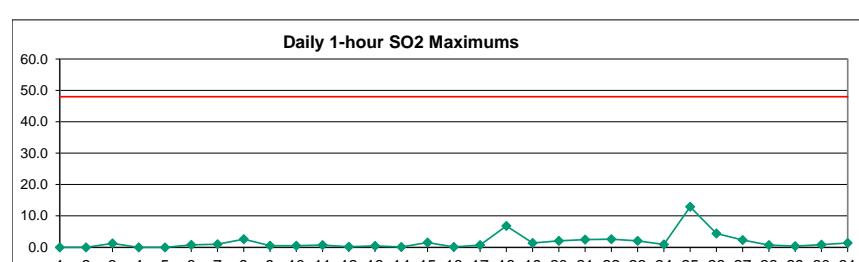
Day	Hour																									Mean	Max
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	0.8	S	1.1	0.7	0.3	1.7	0.6	6.7	2.2	5.4	4.8	5.0	4.6	1.8	2.6	0.6	0.8	0.7	2.1	0.4	1.1	0.6	0.6	0.6	0.6	2.0	6.7
2	2.4	S	0.5	0.9	0.8	4.7	1.0	3.6	3.2	1.7	3.0	2.9	1.1	1.6	3.7	1.0	2.3	0.6	3.7	0.3	0.9	0.7	1.7	0.2	1.9	4.7	
3	0.3	S	0.8	2.8	2.0	2.8	1.8	3.0	2.9	3.9	2.0	3.9	2.6	0.6	2.8	3.8	3.7	1.8	2.1	3.1	2.0	2.2	10.2	1.4	2.7	10.2	
4	2.5	S	0.2	0.3	1.6	0.9	3.8	5.8	4.8	3.9	3.1	3.0	3.3	2.8	2.0	0.8	2.7	1.4	1.1	4.6	1.7	0.9	0.2	0.3	2.3	5.8	
5	1.7	S	0.6	0.2	1.2	0.5	7.1	11.6	6.6	C	C	C	C	C	C	C	C	10.3	6.3	0.5	0.3	2.4	3.1	1.7	-	-	
6	2.9	S	1.0	3.0	3.1	0.9	1.5	1.5	7.3	13.8	11.6	5.5	3.3	3.1	0.7	1.4	0.7	0.5	3.7	0.4	0.4	2.1	6.3	6.8	3.5	13.8	
7	9.5	S	10.6	4.3	2.6	3.3	4.6	2.4	2.2	0.8	2.1	12.3	5.3	1.5	6.5	1.5	0.9	3.3	0.5	1.2	0.6	1.2	2.7	1.2	3.5	12.3	
8	0.4	S	33.3	38.3	16.6	6.5	7.0	13.9	16.0	16.4	10.9	7.0	7.0	7.0	2.9	0.9	9.4	13.0	3.1	2.0	4.7	1.3	0.5	0.4	9.5	38.3	
9	0.4	S	5.9	1.2	5.7	6.7	3.7	8.0	8.5	9.3	9.0	3.3	1.4	3.3	1.4	2.6	1.2	0.7	2.3	1.0	1.7	2.2	2.4	0.5	3.6	9.3	
10	4.5	S	0.9	0.5	1.5	3.6	4.4	2.1	2.5	1.7	1.0	2.2	0.7	1.0	0.6	1.4	1.4	0.4	1.2	0.2	0.2	1.9	4.7	3.6	1.8	4.7	
11	3.0	S	12.4	12.3	3.0	0.7	2.0	0.8	2.2	3.4	1.5	1.1	1.8	3.8	2.0	0.8	2.2	1.6	0.4	0.3	1.6	0.3	0.2	0.7	2.5	12.4	
12	2.0	S	1.1	5.6	0.3	1.5	26.6	21.3	13.4	6.2	3.0	1.4	0.7	1.1	0.7	0.7	0.4	0.7	0.8	0.4	1.1	0.5	0.7	0.3	3.9	26.6	
13	0.4	S	3.0	1.4	1.0	0.3	0.4	0.9	0.8	0.9	1.0	1.9	4.0	2.6	7.0	5.5	3.9	5.1	3.8	3.9	4.8	2.1	1.0	2.1	2.5	7.0	
14	2.9	S	2.3	1.9	4.5	0.6	0.6	3.5	3.1	6.9	1.9	2.2	2.5	1.8	0.9	2.2	1.1	0.7	2.3	1.5	0.7	0.8	0.5	0.3	2.0	6.9	
15	1.0	S	0.6	0.8	3.1	2.3	4.6	2.6	6.9	8.9	15.0	7.8	4.9	6.0	19.5	4.9	4.3	1.8	0.9	7.2	8.7	1.8	1.2	2.8	5.1	19.5	
16	2.4	S	1.1	1.1	1.1	3.7	2.1	3.5	4.2	4.7	7.3	5.1	4.4	1.9	1.7	1.6	1.5	0.8	2.6	7.8	2.8	2.1	1.0	4.2	3.0	7.8	
17	10.0	S	13.6	6.7	2.1	3.0	4.5	11.1	7.9	6.1	5.0	3.9	0.3	2.6	0.4	1.3	1.4	0.5	0.4	0.2	0.2	0.4	0.3	0.2	3.6	13.6	
18	0.2	S	0.3	0.4	0.4	0.4	0.6	2.0	4.5	15.5	19.4	5.2	2.6	1.6	1.6	1.0	1.5	0.6	0.2	0.6	1.5	1.1	2.1	0.6	2.8	19.4	
19	0.5	S	0.4	0.9	4.6	0.9	1.0	1.0	0.9	1.8	2.1	2.3	3.3	1.8	0.7	0.5	0.4	0.4	0.4	0.2	0.4	1.0	0.4	2.8	1.2	4.6	
20	0.5	S	2.5	0.3	1.6	1.5	3.8	2.6	5.7	7.2	4.9	2.7	8.2	2.4	5.3	1.8	1.6	1.2	2.4	1.1	0.6	4.2	0.4	0.7	2.8	8.2	
21	1.8	S	0.4	4.6	2.7	2.2	0.3	0.8	4.0	3.4	2.5	1.9	3.5	3.6	1.6	0.9	0.7	0.4	2.0	1.1	1.2	2.1	0.4	0.4	1.8	4.6	
22	0.3	S	1.4	0.3	8.0	8.5	0.5	8.0	5.7	6.3	5.3	2.5	0.9	1.8	4.2	0.9	0.3	1.1	0.7	0.2	2.1	1.4	0.2	0.2	2.6	8.5	
23	0.3	S	2.3	0.4	4.8	0.5	5.3	5.3	8.3	14.3	4.4	5.5	3.6	3.1	5.0	3.7	0.8	7.6	0.8	2.4	1.0	0.6	0.7	1.1	3.6	14.3	
24	0.2	S	0.8	2.3	0.9	2.4	0.2	8.6	1.7	5.1	10.0	1.0	2.6	0.8	1.7	3.6	4.7	1.9	0.7	0.2	0.3	0.3	0.2	2.2	10.0		
25	0.2	S	4.4	4.8	6.3	1.7	2.5	5.5	3.0	2.2	9.1	5.5	2.9	1.7	2.8	1.7	2.2	1.3	0.4	0.3	0.4	2.4	2.7	3.7	2.9	9.1	
26	3.7	S	7.1	2.5	0.6	0.4	0.6	1.6	1.4	4.1	6.7	5.9	5.0	7.3	7.0	16.2	2.0	2.0	3.8	1.8	0.5	1.2	2.0	0.5	3.6	16.2	
27	0.4	S	1.3	0.7	5.1	0.9	0.8	1.9	1.4	0.7	3.4	2.8	6.7	6.3	4.3	3.9	3.4	0.7	2.3	0.2	0.7	1.0	1.0	1.1	2.2	6.7	
28	0.9	S	0.4	1.0	0.3	0.2	0.5	2.8	4.6	5.4	2.5	4.7	0.4	1.3	2.4	4.3	10.4	1.5	1.2	0.2	0.2	1.1	1.4	3.7	2.2	10.4	
29	0.9	S	1.8	3.6	0.1	1.3	3.7	0.9	3.8	5.0	6.7	2.7	0.5	1.4	0.7	0.9	0.3	0.2	0.3	4.0	3.3	0.4	0.2	1.9	6.7		
30	0.5	S	2.9	0.5	0.5	0.8	2.7	5.9	2.4	5.1	15.2	2.8	15.1	4.0	3.6	1.6	1.4	1.1	0.5	0.3	2.0	1.4	2.0	2.0	3.2	15.2	
31	1.2	S	1.0	4.4	6.7	14.2	26.2	12.2	8.9	4.9	3.4	2.6	6.3	4.5	5.7	6.0	4.6	2.2	1.7	1.0	1.5	5.4	10.1	6.6	6.1	26.2	
NO.	31	-	31	31	31	31	31	31	31	30	30	30	30	30	30	30	30	30	31	31	31	31	31	31	705	100%	
MEAN	1.9	-	3.7	3.5	3.0	2.6	4.0	5.2	4.9	5.8	5.9	3.9	3.6	2.8	3.4	2.6	2.4	2.1	1.8	1.4	1.6	1.6	2.0	1.6	-	-	
MAX	10.0	-	33.3	38.3	16.6	14.2	26.6	21.3	16.0	16.4	19.4	12.3	15.1	7.3	19.5	16.2	10.4	13.0	6.3	7.8	8.7	5.4	10.2	6.8	-	-	



Number of Non-Zero Readings	705
Maximum 1-HR Average	38.3 PPB
Maximum 24-HR Average	9.5 PPB
Monthly Calibration Standard Deviation	3.843
Operational Time	744 HRS
Operational Uptime	100.0 %
Monthly Average	3.1 PPB

Lagoon SO₂ (ppb) – March 2020

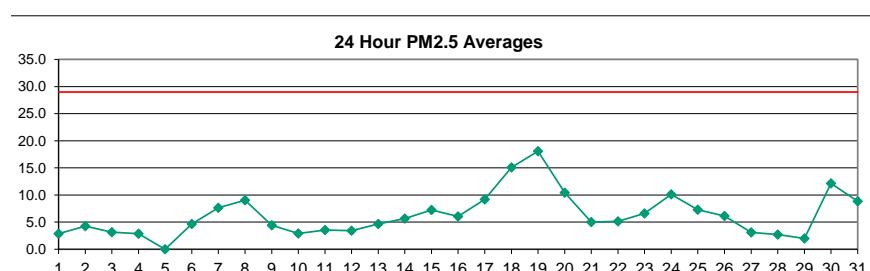
Day	HOUR																								MEAN	MAX		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24				
1	0.0	S	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
2	0.0	S	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
3	0.0	S	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.7	1.1	1.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.6	0.0	0.0	0.2	1.3	
4	0.0	S	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
5	0.0	S	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C	C	C	C	C	C	C	2.2	0.4	0.0	0.0	0.0	0.5	0.0	0.0	-	-		
6	0.0	S	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.7	0.0	0.4	0.0	0.0	0.8	0.8	0.0	0.5	0.3	0.4	0.0	0.2	0.8	0.2	
7	0.5	S	0.4	0.2	0.0	0.9	1.0	0.6	0.8	0.3	0.3	0.6	0.3	0.2	0.6	0.5	0.4	0.7	0.7	0.6	1.0	0.2	0.5	0.7	0.5	1.0	0.5	
8	0.0	S	0.7	0.6	0.3	0.2	0.3	0.5	0.2	0.7	0.5	0.5	0.1	0.3	0.1	0.0	1.2	2.6	1.5	0.0	0.2	0.0	0.1	0.0	0.5	0.5	2.6	0.0
9	0.0	S	0.2	0.0	0.0	0.0	0.0	0.0	0.4	0.5	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.2	0.4	0.0	0.0	0.1	0.0	0.1	0.5	0.0	0.1
10	0.0	S	0.0	0.0	0.0	0.0	0.1	0.5	0.0	0.0	0.2	0.0	0.0	0.0	0.1	0.0	0.1	0.2	0.0	0.0	0.0	0.3	0.3	0.2	0.1	0.5	0.0	
11	0.3	S	0.2	0.3	0.5	0.2	0.0	0.0	0.0	0.0	0.3	0.0	0.1	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.1	0.7	0.0
12	0.2	S	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	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
13	0.0	S	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.2	0.0	0.2	0.1	0.3	0.0	0.0	0.1	0.4	0.0	
14	0.0	S	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1
15	0.0	S	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.3	0.0	0.0	1.5	0.0	0.0	0.0	0.0	1.1	1.5	0.0	0.0	0.0	0.0	0.2	1.5	0.0
16	0.0	S	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
17	0.2	S	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.2	0.0	0.0	0.3	0.5	0.2	0.0	0.1	0.7	0.3	0.6	0.0	0.2	0.7	0.0	
18	0.0	S	0.0	0.0	0.0	0.0	0.0	0.0	0.5	2.0	6.8	0.4	0.3	0.1	0.4	0.0	0.8	3.9	1.7	0.0	0.0	0.3	0.3	0.2	0.8	0.8	6.8	0.0
19	0.4	S	0.4	0.0	0.0	0.3	0.4	1.4	1.0	0.8	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.2	0.1	1.4	0.0
20	0.0	S	0.2	0.0	0.0	0.0	0.1	0.4	0.4	0.1	0.0	0.2	0.0	0.4	0.2	0.6	0.5	2.0	2.0	0.3	0.0	0.0	0.0	0.0	0.3	2.0	0.0	0.0
21	0.1	S	0.0	0.8	2.5	0.0	0.0	0.0	0.0	0.0	0.2	1.8	1.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	2.5	0.0
22	0.0	S	0.0	0.1	0.0	1.8	0.0	1.9	2.6	0.6	0.5	0.4	0.0	0.4	2.1	0.0	0.0	1.1	0.1	0.0	0.0	0.2	0.0	0.0	0.0	0.5	2.6	0.0
23	0.0	S	0.2	0.8	0.4	0.0	0.4	0.2	0.3	1.3	0.5	1.1	2.0	0.0	0.7	0.3	0.9	0.1	1.3	1.0	0.2	0.0	0.2	0.0	0.0	0.5	2.0	0.0
24	0.1	S	0.2	0.3	0.7	0.0	0.0	0.0	0.9	0.4	0.5	0.1	0.0	0.2	0.8	0.4	0.4	0.3	0.0	0.3	0.5	0.3	0.1	0.0	0.0	0.3	0.9	0.0
25	0.0	S	0.0	0.1	0.0	0.0	0.0	0.0	0.0	12.9	5.7	1.3	0.5	4.7	2.9	0.9	1.5	0.0	0.0	0.0	0.2	2.3	0.5	0.0	1.5	12.9	0.0	
26	0.0	S	0.4	0.4	0.2	0.3	0.1	0.0	0.0	1.1	3.8	4.1	2.3	3.7	4.4	3.9	1.3	0.5	1.0	1.0	0.4	1.1	0.5	0.0	1.3	4.4	0.0	
27	0.5	S	0.0	0.3	0.5	0.0	0.0	0.6	0.0	0.3	0.9	2.3	1.8	2.2	2.1	2.2	0.0	0.9	0.1	0.0	0.2	0.1	0.4	0.0	0.7	2.3	0.0	
28	0.7	S	0.2	0.0	0.0	0.0	0.2	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.0	0.1	0.7	0.0	
29	0.3	S	0.3	0.1	0.0	0.0	0.1	0.0	0.1	0.2	0.1	0.4	0.0	0.1	0.0	0.0	0.2	0.2	0.1	0.0	0.0	0.0	0.3	0.0	0.1	0.4	0.0	
30	0.1	S	0.0	0.0	0.3	0.5	0.8	0.6	0.4	0.6	0.1	0.1	0.5	0.5	0.1	0.4	0.1	0.6	0.0	0.3	0.6	0.1	0.0	0.0	0.3	0.8	0.0	
31	0.0	S	0.4	0.4	0.3	0.5	1.4	0.7	0.6	0.2	0.6	0.1	0.5	0.0	0.5	0.7	0.4	0.1	0.4	0.6	0.2	0.6	0.2	0.2	0.4	1.4	0.0	
NO.	31	-	31	31	31	31	31	31	30	30	30	30	30	30	30	30	30	31	31	31	31	31	31	31	705	100%		
MEAN	0.1	-	0.2	0.1	0.2	0.2	0.2	0.3	0.3	0.9	0.6	0.4	0.3	0.6	0.4	0.2	0.4	0.2	0.2	0.2	0.2	0.2	0.1	0.0				
MAX	0.7	-	0.7	0.8	2.5	1.8	1.4	1.9	2.6	2.0	12.9	5.7	2.3	3.7	4.7	3.9	2.2	3.9	2.0	1.1	1.5	1.1	2.3	0.7				



Number of 1HR Exceedences	0
Number of Non-Zero Readings	334
Maximum 1-HR Average	12.9 PPB
Maximum 24-HR Average	1.5 PPB
Monthly Calibration Standard Deviation	0.822
Operational Time	744 HRS
Operational Uptime	100.0 %
Monthly Average	0.3 PPB

Lagoon PM_{2.5} ($\mu\text{g}/\text{m}^3$) – March 2020

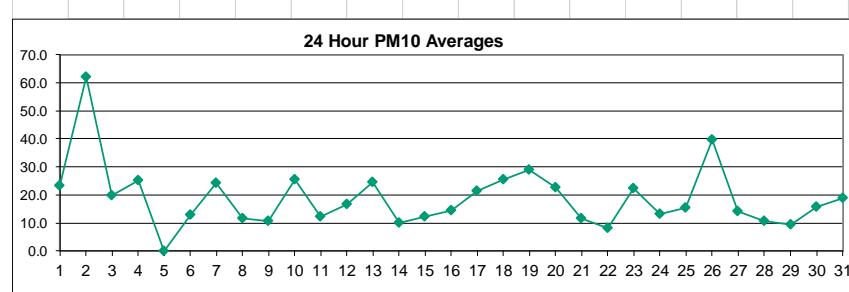
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	0.0	3.2	3.3	3.3	4.3	2.6	0.8	3.3	4.8	5.5	3.7	2.6	1.9	0.8	1.2	1.5	1.9	1.9	2.2	2.6	3.0	3.1	3.0	8.4	2.9	8.4
2	8.0	17.3	5.1	5.1	3.7	11.9	8.4	3.0	0.4	3.3	4.8	4.0	3.0	3.3	1.9	0.1	3.0	2.2	3.3	3.7	0.8	0.8	0.8	3.7	4.2	17.3
3	3.7	0.8	1.8	1.9	3.7	3.7	2.6	1.9	3.3	4.4	5.1	3.7	5.5	4.0	3.3	2.6	4.8	4.4	3.3	5.1	3.3	2.2	0.1	0.0	3.1	5.5
4	0.4	1.2	2.2	2.2	6.2	4.4	1.5	1.2	0.4	0.4	1.5	4.0	5.8	5.7	5.7	3.7	3.7	2.2	3.0	3.1	3.7	3.3	0.5	1.9	2.8	6.2
5	4.4	3.7	2.2	2.6	1.1	2.2	4.4	3.0	4.4	C	C	C	C	C	C	C	6.9	5.5	3.7	3.3	2.2	1.9	2.2	3.3	-	-
6	4.4	4.8	3.3	0.0	1.8	3.0	3.0	2.2	4.8	4.8	2.2	2.2	3.7	1.9	0.8	0.8	1.8	2.6	2.2	9.1	9.4	9.8	14.8	18.4	4.7	18.4
7	12.1	12.3	9.8	11.6	10.5	6.5	9.4	9.1	9.1	6.9	6.5	5.1	4.8	5.5	4.0	3.7	5.8	5.5	7.6	6.6	12.7	8.4	4.8	5.5	7.6	12.7
8	8.0	12.3	10.5	10.9	9.4	9.8	13.4	11.6	9.1	11.6	9.8	9.1	8.0	6.2	4.0	3.7	2.2	1.2	14.8	11.0	10.1	9.8	9.4	11.2	9.0	14.8
9	8.7	12.7	8.2	4.0	2.6	5.5	6.2	3.0	1.2	3.3	4.0	2.2	3.2	4.4	4.0	2.6	1.1	0.3	3.7	4.0	4.4	5.5	4.3	6.5	4.4	12.7
10	3.3	0.0	0.4	2.9	3.3	2.2	1.5	3.0	2.6	6.5	4.8	1.5	2.6	4.0	2.6	2.6	6.5	4.3	0.3	1.2	2.6	2.2	4.8	3.7	2.9	6.5
11	0.5	0.1	0.4	1.9	3.7	6.2	3.7	1.5	1.2	3.7	5.1	5.0	4.0	6.2	4.8	6.2	4.8	2.6	1.5	1.5	2.2	3.7	6.9	7.6	3.5	7.6
12	5.5	3.0	4.4	4.0	2.6	0.8	2.2	5.5	4.8	5.5	8.0	5.5	1.9	0.1	0.0	0.4	3.0	3.0	2.6	1.9	4.4	6.2	4.0	3.0	3.4	8.0
13	3.3	2.6	4.3	2.6	3.7	3.1	3.0	4.0	3.7	4.0	4.8	3.3	4.0	4.8	3.3	5.1	4.0	5.0	7.2	8.0	8.0	8.2	6.2	5.5	4.7	8.2
14	7.3	8.0	6.6	5.1	5.1	5.5	5.1	3.7	4.0	5.8	5.5	3.0	1.8	7.3	4.8	4.8	5.1	5.5	6.9	5.8	9.1	6.9	5.5	7.3	5.6	9.1
15	6.6	8.0	5.8	9.1	7.3	5.8	9.4	8.0	8.4	7.6	5.5	3.7	3.0	1.9	3.7	9.4	9.4	5.1	5.5	3.7	9.1	15.9	10.1	11.6	7.2	15.9
16	9.4	10.5	9.4	8.3	9.4	9.8	9.8	7.6	3.3	1.5	3.7	4.0	5.5	6.9	4.8	4.0	3.0	1.9	1.5	4.0	9.1	5.8	5.8	5.5	6.0	10.5
17	5.5	8.3	7.3	20.2	10.1	17.7	11.2	13.0	8.7	7.3	8.0	6.5	5.1	1.5	1.9	4.4	6.5	9.1	9.4	9.4	8.3	13.7	15.9	11.2	9.2	20.2
18	11.2	10.1	9.1	12.7	11.9	10.1	11.9	13.7	11.2	22.0	15.5	22.0	15.9	9.1	14.7	16.3	14.8	13.4	18.8	15.2	17.3	20.2	22.4	22.7	15.1	22.7
19	36.4	34.6	31.7	20.6	23.1	26.3	26.6	19.8	19.5	19.5	17.3	18.4	13.7	10.9	11.6	13.0	10.2	11.6	9.1	11.0	12.7	10.9	13.4	12.3	18.1	36.4
20	10.9	13.7	13.4	14.5	14.1	13.7	13.4	13.7	10.5	18.0	10.1	8.0	6.2	4.4	5.5	2.6	3.3	4.8	7.5	15.9	12.7	10.1	12.7	10.9	10.4	18.0
21	6.5	3.2	2.6	5.1	4.4	6.9	7.6	5.1	2.6	3.3	5.8	7.3	6.9	6.2	4.8	3.3	4.0	5.1	5.8	5.5	5.5	4.8	4.4	3.2	5.0	7.6
22	4.0	3.7	3.3	3.2	4.4	5.1	5.5	3.3	4.7	5.8	4.0	6.2	4.8	3.3	9.4	11.9	7.6	4.0	4.4	4.4	5.1	6.9	5.1	2.6	5.1	11.9
23	4.8	4.4	4.0	6.9	7.3	4.8	9.1	8.7	11.3	9.8	9.8	9.1	8.3	5.1	4.0	3.7	4.8	3.0	4.0	5.1	4.0	5.9	9.1	11.6	6.6	11.6
24	12.3	12.7	16.6	17.7	11.9	18.2	7.4	5.5	5.5	4.0	4.0	3.7	3.3	5.9	7.6	10.1	9.7	13.0	17.9	11.6	11.2	10.5	13.0	9.4	10.1	18.2
25	8.3	5.5	4.8	4.4	9.1	12.7	7.3	4.4	5.8	7.3	6.2	29.2	9.8	5.8	4.0	4.0	5.5	6.2	4.8	5.1	5.1	4.8	9.8	7.3	29.2	
26	8.0	5.1	4.4	7.3	7.7	6.2	4.0	1.2	1.9	4.8	4.4	17.3	8.7	8.0	11.3	9.4	9.1	6.0	3.7	2.2	1.2	3.7	4.4	7.3	6.1	17.3
27	4.8	1.5	3.3	3.3	5.5	3.3	1.9	3.7	4.0	4.0	2.6	5.5	5.5	4.3	2.6	0.8	0.0	1.9	1.9	2.6	3.7	3.1	2.2	3.1	5.5	
28	2.2	3.3	3.7	2.2	1.9	1.2	1.9	3.0	5.1	5.8	3.0	0.0	0.1	1.5	2.6	3.0	5.1	5.8	4.8	1.5	0.0	1.5	3.0	3.0	2.7	5.8
29	3.3	3.7	3.7	3.3	3.0	1.8	0.1	0.0	0.0	4.8	4.7	3.0	1.9	1.5	0.4	0.0	0.4	0.1	2.6	3.0	2.6	1.2	0.4	2.2	2.0	4.8
30	4.0	3.7	5.8	14.7	14.1	15.5	14.7	20.9	20.2	17.3	17.7	19.1	11.2	18.8	13.7	13.0	10.9	8.0	6.2	6.5	9.8	9.4	9.1	6.9	12.1	20.9
31	6.9	6.2	5.8	4.5	10.1	15.9	14.1	15.4	14.5	14.1	10.1	6.9	4.4	4.4	5.7	7.3	9.4	9.4	8.0	6.2	5.1	6.5	11.6	8.8	15.9	
NO.	31	31	31	31	31	31	31	31	30	30	30	30	30	30	30	30	31	31	31	31	31	31	31	31	737	100%
MEAN	6.9	7.1	6.4	7.0	7.0	7.8	7.1	6.5	6.2	7.4	6.6	7.4	5.5	5.1	5.0	5.1	5.4	5.0	5.8	5.8	6.4	6.7	6.8	7.4		
MAX	36.4	34.6	31.7	20.6	23.1	26.3	26.6	20.9	20.2	22.0	17.7	29.2	15.9	18.8	14.7	16.3	14.8	13.4	18.8	15.9	17.3	20.2	22.4	22.7		



Number of 24HR Exceedences	0
Number of Non-Zero Readings	726
Maximum 1-HR Average	36.4 UG/M3
Maximum 24-HR Average	18.1 UG/M3
Monthly Calibration Standard Deviation	7 5.017
Operational Time	744 HRS
Operational Uptime	100.0 %
Monthly Average	6.4 UG/M3

Lagoon PM₁₀ ($\mu\text{g}/\text{m}^3$) – March 2020

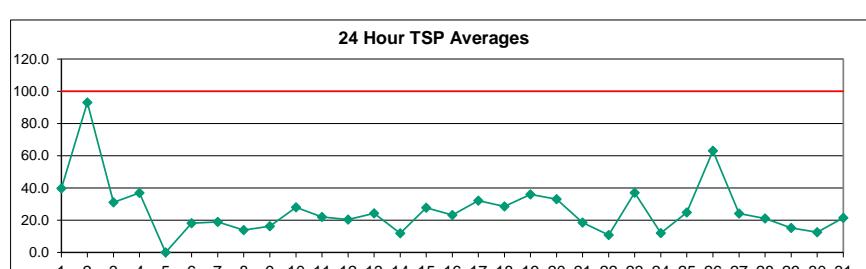
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	4.0	0.4	1.9	4.7	5.3	2.6	10.8	8.7	8.7	4.6	12.1	12.8	10.1	13.5	15.5	20.9	21.1	10.1	16.9	33.1	17.6	33.8	111.1	174.8	23.1	174.8
2	175.4	383.5	152.7	63.6	73.8	191.7	85.3	40.6	23.0	28.4	20.9	25.0	35.1	27.0	20.9	22.3	18.9	15.5	19.6	29.7	23.6	4.7	5.3	5.3	62.2	383.5
3	3.3	0.6	4.7	6.0	12.1	14.1	9.4	10.8	20.9	38.9	37.2	34.4	42.6	36.5	15.5	15.5	23.6	26.3	35.8	23.6	24.3	6.7	8.6	21.6	19.7	42.6
4	20.9	4.6	2.6	1.9	2.6	6.7	4.7	3.3	4.7	19.6	68.4	64.9	108.3	73.1	71.1	16.2	22.4	16.9	25.7	14.8	18.9	17.6	6.0	5.3	25.0	108.3
5	36.5	11.4	8.7	51.9	4.0	10.1	31.1	40.6	51.4	C	C	C	C	C	C	39.2	65.6	35.8	49.4	27.0	24.3	16.9	41.2	-	-	-
6	39.9	4.7	8.0	7.4	22.9	12.1	9.4	4.7	3.3	4.7	3.3	8.8	29.7	4.6	8.7	11.4	7.1	6.0	6.7	18.2	20.9	23.6	20.2	24.3	12.9	39.9
7	27.7	23.4	29.0	24.3	23.6	16.9	12.8	23.6	18.2	20.7	32.4	10.1	17.5	20.6	19.7	28.4	16.2	35.1	62.5	37.9	39.9	20.9	9.4	8.0	24.1	62.5
8	6.0	6.7	5.7	11.4	11.5	8.7	14.1	14.8	13.6	10.8	12.8	13.5	10.8	12.1	14.8	8.0	4.0	8.0	14.8	15.4	14.1	13.5	12.8	17.5	11.5	17.5
9	25.7	12.8	25.7	6.0	4.7	2.6	1.9	4.7	5.6	4.6	6.0	16.8	2.6	6.0	18.5	10.0	7.4	12.1	7.4	4.6	5.6	20.2	31.1	10.8	10.5	31.1
10	8.7	14.1	12.8	26.3	62.9	18.9	32.4	45.3	98.9	43.3	43.8	40.6	24.3	10.1	8.0	5.3	12.8	17.5	10.8	8.7	8.0	5.3	33.1	21.6	25.6	98.9
11	10.1	21.1	16.9	8.7	14.1	29.7	10.1	10.8	10.8	10.1	13.5	9.4	8.1	18.2	4.6	6.0	4.6	19.6	15.5	6.7	8.0	15.5	11.4	10.8	12.3	29.7
12	8.0	8.0	6.7	8.2	6.0	8.0	6.7	46.2	14.8	30.8	39.2	44.6	8.0	6.7	6.7	9.4	6.0	11.4	30.4	13.5	17.4	25.0	15.3	21.6	16.6	46.2
13	41.2	24.3	32.4	39.9	31.8	46.7	26.1	41.2	59.5	39.3	41.9	27.7	11.4	5.3	0.0	5.3	12.9	9.4	13.5	14.8	14.1	20.2	16.9	13.5	24.6	59.5
14	12.1	10.1	9.5	12.1	9.4	8.0	14.1	10.8	10.1	12.5	13.5	15.5	9.8	12.1	7.4	8.7	7.4	13.5	10.1	11.4	12.5	6.7	4.2	2.6	10.2	15.5
15	1.9	5.0	6.0	7.3	8.8	8.7	8.0	10.8	7.5	10.9	20.2	9.4	16.8	6.0	16.2	18.9	4.7	5.3	8.0	8.2	16.9	35.7	27.7	24.3	12.2	35.7
16	27.0	25.7	22.9	17.0	16.2	10.8	18.9	10.8	13.5	10.7	11.8	14.1	9.6	13.5	11.8	7.4	3.3	3.3	4.7	8.1	43.3	14.8	15.6	14.8	14.6	43.3
17	12.1	19.6	8.7	16.2	32.4	7.4	13.5	28.4	63.6	53.4	46.8	22.9	14.1	1.3	4.6	9.6	34.5	33.1	18.2	18.9	12.1	12.8	16.2	13.5	21.4	63.6
18	12.8	16.8	12.8	7.4	8.7	12.1	15.5	17.3	22.3	47.3	39.2	44.6	21.6	23.0	20.2	25.7	18.2	25.0	31.8	38.4	31.8	39.2	36.6	41.9	25.4	47.3
19	56.1	60.2	48.7	40.6	29.0	54.8	29.0	25.5	35.1	34.5	29.0	22.9	33.1	24.3	20.9	19.6	16.9	13.5	14.8	15.5	11.4	9.4	31.8	19.6	29.0	60.2
20	16.2	21.6	22.9	25.7	31.8	18.2	17.5	21.0	13.0	27.7	20.2	22.9	25.7	14.8	22.3	20.2	16.9	12.1	13.5	33.8	23.4	35.1	35.2	22.7	35.2	
21	9.4	7.4	8.7	6.7	3.3	8.2	6.7	4.0	6.0	43.5	30.4	33.8	12.8	8.0	16.9	18.4	17.5	7.4	9.4	6.7	6.0	4.7	2.6	1.3	11.6	43.5
22	3.3	2.9	6.7	6.0	4.0	9.4	6.0	12.8	8.7	6.0	18.9	10.1	7.4	4.6	8.5	12.1	6.7	4.0	12.1	9.4	8.0	14.8	7.4	7.1	8.2	18.9
23	7.4	4.6	18.2	29.7	18.2	14.1	12.8	15.5	50.0	53.4	55.5	41.7	35.8	35.8	32.4	18.9	14.1	9.4	19.6	12.2	7.4	4.6	9.4	14.1	22.3	55.5
24	17.6	16.9	13.5	16.2	18.9	22.3	14.8	8.4	8.7	6.0	3.3	4.0	9.4	9.9	11.4	12.8	9.4	24.3	19.6	14.1	14.1	12.1	12.1	13.1	24.3	
25	16.2	12.1	8.7	6.0	15.4	23.0	7.4	10.9	13.1	8.7	6.0	34.4	18.2	4.6	3.3	18.9	23.6	12.1	12.1	7.2	4.7	4.0	4.7	90.7	15.2	90.7
26	24.6	16.9	33.8	20.2	16.2	14.8	13.2	22.3	31.8	49.4	45.1	168.0	116.4	83.9	99.5	57.5	52.8	13.5	10.1	26.0	12.1	6.7	7.4	10.8	39.7	168.0
27	6.0	2.6	3.1	5.5	6.0	6.0	7.4	10.1	16.9	18.2	12.1	12.8	24.3	25.7	37.9	35.8	45.3	24.3	9.4	19.6	1.7	4.0	5.3	2.6	14.3	45.3
28	5.3	3.3	4.0	3.3	3.3	4.6	3.3	18.9	39.9	29.7	19.7	20.2	15.5	0.6	5.3	10.1	9.4	12.1	10.0	17.4	0.0	2.6	7.4	13.2	10.8	39.9
29	20.2	18.2	12.8	11.4	11.7	5.3	0.0	4.7	18.9	39.2	14.1	4.0	15.5	11.9	15.5	4.6	4.0	1.3	4.0	2.6	1.3	5.3	1.3	0.0	9.5	39.2
30	4.5	5.4	5.3	10.8	14.1	12.8	18.2	20.2	23.6	17.5	22.1	25.7	16.5	27.7	28.4	26.3	22.3	20.9	8.7	10.8	7.4	9.4	4.6	10.8	15.6	28.4
31	8.7	8.0	6.9	8.0	11.4	15.4	22.9	32.4	46.0	32.7	17.0	11.4	9.4	14.8	9.4	15.5	13.2	12.1	25.6	42.7	19.6	12.1	18.2	40.9	18.9	46.0
NO.	31	31	31	31	31	31	31	31	31	30	30	30	30	30	30	30	31	31	31	31	31	31	31	31	737	100%
MEAN	21.6	24.9	18.1	16.5	17.2	20.2	15.6	18.7	24.6	25.2	25.2	27.6	24.0	18.5	19.2	16.7	16.6	16.1	17.3	18.5	15.6	14.7	17.6	23.6		
MAX	175.4	383.5	152.7	63.6	73.8	191.7	85.3	46.2	98.9	53.4	68.4	168.0	116.4	83.9	99.5	57.5	52.8	65.6	62.5	49.4	43.3	39.2	111.1	174.8		



Number of Non-Zero Readings	733
Maximum 1-HR Average	383.5 UG/M3
Maximum 24-HR Average	62.2 UG/M3
Operational Time	744 HRS
Monthly Calibration	7
Standard Deviation	24.21
Operational Uptime	100.0 %
Monthly Average	19.7 UG/M3

Lagoon TSP ($\mu\text{g}/\text{m}^3$) – March 2020

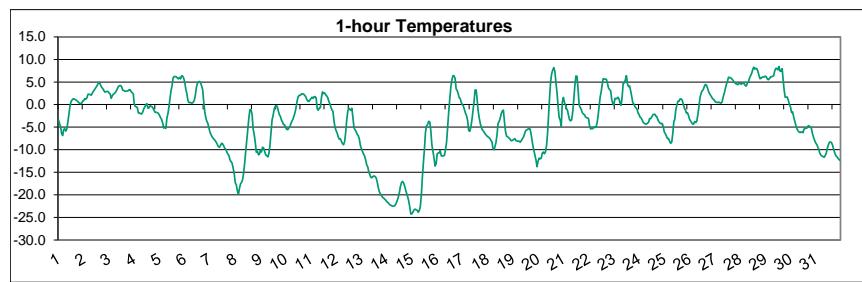
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	3.0	15.8	0.2	7.3	14.0	4.4	22.3	12.7	12.7	5.7	5.7	19.6	23.7	18.2	22.3	40.3	22.3	19.6	58.3	64.2	27.4	62.4	162.0	309.9	39.7	309.9
2	287.4	586.4	170.3	92.8	96.8	253.2	133.0	66.6	44.4	45.8	43.1	37.6	58.3	39.6	33.4	25.1	32.0	30.6	36.2	48.6	40.3	8.5	9.8	14.0	93.1	586.4
3	0.2	3.0	5.7	7.1	18.2	15.9	1.6	11.3	33.4	66.6	69.3	53.4	76.2	51.4	25.1	25.1	37.5	51.4	52.7	40.3	37.5	14.0	16.8	32.1	31.1	76.2
4	31.7	8.5	4.4	1.6	11.4	5.7	18.2	7.4	12.7	22.3	81.8	62.4	156.4	106.7	84.5	21.0	25.1	30.6	68.0	30.6	44.4	26.5	12.7	12.7	37.0	156.4
5	70.7	12.7	19.6	106.6	23.7	22.6	59.6	77.6	99.7	C	C	C	C	C	C	72.1	110.8	66.6	91.4	48.6	32.0	36.1	82.7	-	-	
6	70.7	7.0	12.7	7.1	30.6	11.3	9.9	10.3	5.1	4.4	9.9	25.1	47.2	11.3	14.0	23.7	3.0	11.3	27.9	18.2	23.8	15.4	32.0	18.1	70.7	
7	27.9	26.5	26.5	25.1	20.9	18.2	15.4	14.0	7.0	16.8	14.0	9.9	22.3	30.6	27.3	30.6	20.9	22.3	23.7	15.4	11.3	9.7	5.7	14.0	19.0	30.6
8	5.7	19.6	3.0	5.7	11.3	14.0	7.4	16.8	21.0	15.4	16.8	4.4	16.8	19.6	18.2	11.3	12.7	16.8	16.8	12.7	19.6	10.0	15.5	22.3	13.9	22.3
9	37.5	25.1	32.0	4.9	5.7	7.1	3.0	4.4	4.4	8.5	12.6	26.5	3.0	12.7	34.8	18.3	10.3	30.6	0.0	0.2	11.3	43.1	45.8	10.1	16.3	45.8
10	8.5	22.3	12.7	30.6	41.7	12.7	41.7	56.9	79.0	30.6	43.1	47.2	27.9	10.3	7.1	4.4	26.5	32.0	25.1	14.0	14.0	0.2	53.0	32.0	28.1	79.0
11	20.9	41.7	18.2	15.4	23.7	48.6	18.2	15.4	9.9	10.3	25.2	20.9	12.6	43.1	23.7	15.4	1.6	29.2	36.2	22.3	18.2	30.6	20.9	7.1	22.1	48.6
12	7.1	5.7	5.7	7.4	14.0	14.0	52.7	30.6	51.3	59.6	92.8	18.2	7.1	18.2	18.2	15.4	20.9	15.4	1.6	0.7	5.7	7.1	7.1	20.5	92.8	
13	12.6	22.3	16.8	15.4	15.9	18.2	18.0	12.8	22.3	19.6	14.0	12.6	9.9	7.1	12.7	47.7	59.7	47.2	36.2	33.4	43.1	25.1	41.7	18.2	24.3	59.7
14	9.9	14.0	17.7	9.9	7.2	7.1	9.9	12.3	12.2	9.9	15.4	12.7	11.3	11.3	9.9	8.5	8.5	20.9	16.8	19.8	19.6	9.6	6.9	4.4	11.9	20.9
15	7.1	15.4	12.7	19.6	14.0	14.0	32.0	25.1	21.0	21.0	41.7	31.4	52.7	34.8	48.6	64.1	7.4	20.9	21.0	3.0	23.7	45.8	50.0	38.9	27.7	64.1
16	37.5	54.1	32.0	19.6	25.1	14.0	29.2	10.1	11.3	16.8	19.6	25.1	19.6	14.0	20.9	7.1	5.7	14.0	3.0	22.3	79.0	26.5	30.6	20.3	23.2	79.0
17	23.7	40.3	9.9	25.1	56.4	10.2	11.3	51.4	84.5	87.2	77.6	34.5	23.7	9.9	4.4	27.9	54.1	47.2	29.2	18.2	16.8	7.3	11.3	9.5	32.1	87.2
18	15.4	19.6	12.7	8.5	9.9	9.8	18.2	15.4	38.9	61.0	50.0	60.9	26.5	23.7	22.3	27.9	15.4	26.5	27.9	37.2	25.1	41.7	36.1	54.1	28.5	61.0
19	72.0	103.9	59.6	45.8	34.8	71.9	33.4	29.2	25.1	34.8	30.6	23.7	43.1	32.0	27.9	25.1	22.3	16.8	11.3	20.9	16.8	15.4	48.6	19.6	36.0	103.9
20	25.1	38.9	36.1	36.1	40.3	23.7	19.6	18.2	12.7	32.0	20.9	30.6	39.8	22.3	40.3	33.4	37.5	26.5	20.9	50.0	51.4	32.1	54.1	52.7	33.1	54.1
21	15.4	14.0	14.0	7.1	15.4	14.0	14.0	1.6	5.7	76.2	42.1	56.5	25.1	9.9	30.6	26.5	18.2	18.2	12.7	7.1	4.4	7.1	3.0	5.7	18.5	76.2
22	1.6	8.5	8.5	7.1	11.3	5.7	8.5	9.9	4.4	4.4	23.7	14.1	0.0	3.1	7.9	18.2	11.3	4.4	20.9	20.6	15.7	23.7	14.0	11.3	10.8	23.7
23	15.4	9.9	44.4	40.3	19.6	22.3	22.3	34.8	79.0	88.7	104.3	72.1	69.3	74.8	50.0	30.6	19.6	8.5	22.4	7.7	8.5	8.5	18.2	19.6	37.1	104.3
24	11.3	15.7	11.3	12.6	12.6	18.2	14.0	5.7	7.1	0.2	0.0	4.4	14.0	12.7	11.3	8.5	15.4	22.3	27.9	19.6	8.5	12.7	11.3	12.9	12.1	27.9
25	16.8	19.6	8.5	9.9	19.6	25.1	7.1	15.4	25.1	12.6	7.1	47.2	25.1	12.6	9.9	29.2	48.6	26.5	18.2	9.9	5.7	1.6	1.6	192.3	24.8	192.3
26	36.2	23.7	72.1	34.5	29.2	32.0	15.4	23.7	59.6	58.3	87.3	279.4	161.9	144.0	157.8	88.7	73.5	25.1	18.2	42.6	23.7	7.1	9.9	10.1	63.1	279.4
27	5.7	9.9	5.0	5.7	8.5	9.9	5.7	8.5	29.2	27.9	22.3	27.9	40.3	45.8	72.1	67.9	81.8	38.9	8.5	27.5	5.7	3.0	11.3	9.9	24.1	81.8
28	27.9	12.6	7.1	3.0	1.6	0.7	9.9	29.9	83.1	54.1	41.7	40.3	26.5	9.8	16.8	14.0	23.7	16.8	30.6	0.2	4.4	14.0	22.3	21.2	83.1	
29	29.2	25.1	14.0	15.4	12.6	5.7	0.2	7.0	38.8	62.4	26.5	4.4	32.0	22.3	23.8	7.1	3.0	1.6	9.9	7.1	2.9	5.7	3.0	7.1	15.3	62.4
30	2.9	8.5	11.3	14.0	16.8	12.6	12.7	11.3	19.6	18.2	11.3	23.7	9.9	26.5	16.8	26.5	12.7	8.5	8.5	5.7	3.0	11.3	5.7	4.4	12.6	26.5
31	4.4	14.0	5.0	8.5	15.4	22.5	29.2	32.0	56.0	37.1	18.2	7.1	7.1	23.7	25.1	20.9	22.3	22.5	32.0	14.0	9.9	27.3	54.0	21.5	56.0	
NO.	31	31	31	31	31	31	31	31	31	30	30	30	30	30	30	30	31	31	31	31	31	31	31	31	737	100%
MEAN	30.4	40.1	22.9	21.0	21.9	24.7	21.1	22.6	32.1	33.3	34.5	40.3	36.7	29.1	30.5	27.2	26.2	26.4	24.6	25.3	21.3	18.2	25.8	36.9		
MAX	287.4	586.4	170.3	106.6	96.8	253.2	133.0	77.6	99.7	88.7	104.3	279.4	161.9	144.0	157.8	88.7	81.8	110.8	68.0	91.4	79.0	62.4	162.0	309.9		



Number of 24HR Exceedences	0
Number of Non-Zero Readings	734
Maximum 1-HR Average	586.4 UG/M3
Maximum 24-HR Average	93.1 UG/M3
Monthly Calibration Standard Deviation	37.3
Operational Time	744 HRS
Operational Uptime	100.0 %
Monthly Average	28.0 UG/M3

Lagoon Temperature (°C) – March 2020

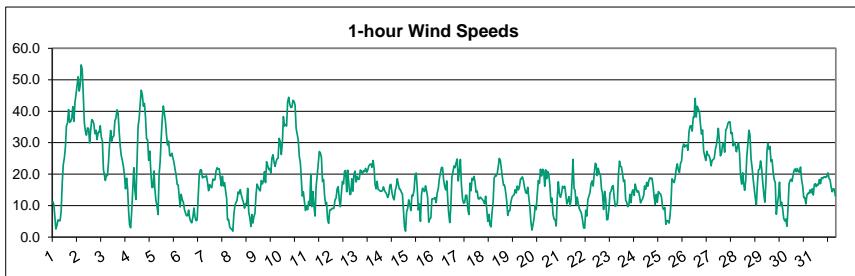
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	-3.4	-4.3	-5.1	-6.4	-6.9	-5.5	-5.4	-5.9	-5.3	-3.7	-1.9	-0.2	0.7	1.1	1.3	1.2	1.1	0.9	0.7	0.5	0.3	0.2	0.2	0.8	-1.9	1.3
2	0.9	1.3	1.2	1.5	2.3	2.3	2.3	2.1	2.5	3.0	3.3	3.6	4.0	4.4	4.8	4.9	4.3	3.8	3.6	3.2	2.8	2.8	2.9	2.9	2.9	4.9
3	2.6	2.4	1.4	1.9	2.3	2.4	2.7	3.0	3.5	4.0	4.2	4.2	4.0	3.2	3.2	2.9	2.9	3.0	3.0	3.3	3.3	2.8	2.6	2.4	3.0	4.2
4	0.2	-0.4	-0.5	-0.7	-1.9	-1.9	-2.0	-2.1	-1.7	-1.0	-0.6	0.0	0.2	-0.8	-0.7	-0.2	-0.4	-0.4	-0.8	-1.4	-1.7	-1.7	-1.8	-2.0	-1.0	0.2
5	-2.4	-2.9	-3.3	-4.1	-5.2	-4.9	-5.2	-3.0	-1.9	-0.3	1.2	3.0	4.2	5.9	6.2	6.2	6.2	5.9	5.7	6.0	5.7	6.4	6.3	5.8	1.7	6.4
6	4.9	3.4	2.3	1.1	0.5	0.5	0.4	0.3	0.5	0.9	1.8	3.7	4.7	5.0	5.1	4.8	4.1	3.3	0.6	-1.7	-3.0	-3.7	-4.1	-5.1	1.3	5.1
7	-6.1	-6.7	-7.1	-7.4	-7.7	-8.0	-8.4	-8.8	-9.3	-9.5	-9.0	-8.6	-8.7	-9.2	-9.6	-9.9	-10.5	-11.0	-11.2	-12.2	-12.6	-13.0	-14.0	-15.2	-9.7	-6.1
8	-17.3	-17.8	-19.1	-19.8	-18.5	-17.6	-17.2	-16.7	-15.3	-13.1	-10.5	-8.0	-5.5	-3.0	-1.1	-1.2	-2.1	-5.4	-6.6	-8.4	-10.6	-10.3	-11.1	-11.0	-11.1	-1.1
9	-10.1	-10.5	-9.5	-9.6	-10.3	-11.1	-11.3	-11.6	-10.9	-9.1	-6.2	-3.4	-2.4	-1.0	-0.4	-0.2	-0.5	-1.4	-2.2	-2.6	-3.4	-3.9	-4.4	-4.5	-5.9	-0.2
10	-5.1	-5.5	-5.5	-5.2	-4.9	-4.1	-3.6	-3.1	-2.4	-1.5	-0.6	0.9	1.8	2.1	2.1	2.3	2.4	2.3	2.1	1.8	1.2	0.8	0.7	1.0	-0.8	2.4
11	1.3	1.6	1.4	1.7	1.7	1.5	-0.8	-1.3	-0.8	-0.7	1.5	2.8	2.4	2.6	2.2	1.9	1.5	0.7	0.1	-0.6	-1.3	-1.5	-3.6	-5.1	0.4	2.8
12	-5.8	-6.4	-7.1	-7.7	-7.6	-8.2	-8.6	-8.9	-8.2	-6.2	-3.3	-1.5	-0.8	-1.1	-1.3	-0.8	-2.9	-5.1	-5.6	-6.0	-6.6	-6.9	-7.6	-9.1	-5.6	-0.8
13	-9.8	-10.4	-11.0	-11.4	-12.4	-13.4	-13.9	-14.8	-15.5	-16.1	-16.2	-15.9	-15.8	-16.0	-16.2	-17.1	-18.4	-19.3	-19.8	-20.1	-20.5	-20.7	-21.0	-21.2	-16.1	-9.8
14	-21.5	-21.7	-21.9	-22.2	-22.3	-22.5	-22.5	-22.5	-22.3	-21.9	-21.3	-20.6	-19.6	-18.2	-17.3	-17.0	-17.4	-17.9	-18.8	-19.6	-20.4	-21.3	-22.7	-24.3	-20.7	-17.0
15	-24.2	-23.8	-23.4	-23.2	-23.3	-23.5	-23.9	-23.4	-22.5	-19.7	-16.3	-13.0	-9.9	-6.1	-4.7	-4.4	-3.7	-3.8	-5.8	-9.0	-10.3	-11.9	-13.6	-13.1	-14.9	-3.7
16	-10.9	-10.7	-10.2	-11.4	-11.4	-11.4	-11.3	-10.0	-8.4	-5.0	-1.7	1.2	3.8	5.5	6.4	6.4	5.8	3.5	3.1	2.3	1.6	1.4	0.5	-3.0	6.4	
17	0.0	-0.3	-1.1	-1.9	-2.5	-3.6	-5.8	-5.9	-5.0	-3.4	-1.5	0.6	3.2	3.2	1.5	-1.2	-2.9	-4.1	-5.1	-5.5	-5.9	-6.2	-6.6	-6.9	-2.8	3.2
18	-7.1	-7.2	-7.5	-7.9	-8.3	-9.7	-10.0	-9.4	-8.4	-6.7	-4.2	-3.8	-3.0	-2.0	-1.4	-1.2	-3.8	-6.0	-7.0	-7.2	-7.3	-7.6	-8.0	-8.0	-6.4	-1.2
19	-7.9	-7.7	-7.6	-8.0	-8.1	-8.1	-8.3	-8.0	-7.6	-7.3	-6.5	-5.8	-5.6	-5.5	-5.3	-5.3	-6.0	-7.4	-9.0	-10.1	-11.2	-12.3	-13.8	-7.9	-5.3	
20	-12.5	-11.9	-12.0	-11.9	-10.7	-10.5	-10.9	-10.4	-9.1	-6.1	-2.6	1.6	5.1	6.9	7.7	8.2	7.3	4.8	2.6	-0.3	-2.9	-3.4	-4.8	0.6	-3.1	8.2
21	1.6	0.5	-0.2	-0.8	-1.2	-2.4	-3.4	-3.6	-3.3	-1.5	1.2	4.3	6.3	6.3	3.3	-0.1	-0.6	-1.1	-1.8	-2.1	-2.2	-2.6	-2.9	-3.0	-0.4	6.3
22	-3.1	-4.7	-5.4	-5.3	-5.4	-4.9	-5.1	-5.0	-4.1	-2.5	-0.3	1.7	3.0	4.7	5.7	5.6	5.7	5.6	4.8	3.7	3.3	3.0	1.2	0.3	0.1	5.7
23	-0.1	1.4	1.4	1.3	1.6	1.1	0.2	-0.2	1.7	4.8	4.8	5.4	6.4	4.6	4.0	4.1	3.1	1.8	0.4	0.1	-0.5	-0.7	-1.0	-1.9	1.8	6.4
24	-2.1	-2.8	-3.0	-3.4	-3.9	-4.2	-4.3	-4.3	-4.1	-3.9	-3.1	-3.1	-2.8	-2.3	-2.2	-2.2	-2.6	-2.7	-3.4	-3.8	-4.2	-4.2	-4.2	-4.9	-3.4	-2.1
25	-6.1	-6.4	-7.0	-7.5	-7.5	-8.2	-8.6	-8.3	-6.4	-3.8	-3.3	-1.2	-0.1	0.8	0.7	1.2	1.2	1.0	0.1	-0.7	-1.2	-1.9	-1.8	-2.4	-3.2	1.2
26	-3.3	-3.6	-4.1	-4.3	-4.3	-3.7	-4.0	-3.7	-2.1	-0.4	1.6	2.5	3.0	3.3	4.0	4.5	4.3	3.7	2.9	2.4	2.0	1.7	1.3	1.2	0.2	4.5
27	0.8	0.5	0.5	0.4	0.5	0.4	0.3	0.6	1.7	2.5	3.6	4.5	5.2	6.1	6.0	6.0	5.7	5.5	5.1	4.8	4.7	4.5	4.4	4.7	3.3	6.1
28	4.7	4.5	4.6	4.8	4.6	4.2	4.1	4.7	4.9	5.8	6.3	6.8	7.6	8.3	7.9	8.0	8.0	7.3	6.5	5.7	5.8	6.1	6.2	6.1	6.0	8.3
29	6.3	6.2	5.7	5.5	5.8	6.1	6.1	6.3	6.4	7.5	8.0	8.0	7.7	8.4	7.4	7.5	8.0	5.8	3.3	1.6	1.6	1.7	0.9	0.1	5.5	8.4
30	-0.5	-1.8	-1.6	-2.7	-3.7	-4.6	-5.3	-5.8	-6.1	-6.2	-6.1	-6.1	-5.4	-5.3	-5.2	-5.1	-4.7	-4.8	-5.0	-5.4	-6.6	-7.3	-8.0	-5.0	-0.5	
31	-8.5	-8.9	-9.5	-10.0	-10.8	-11.2	-11.4	-11.5	-11.7	-11.3	-10.8	-9.7	-9.0	-8.4	-8.3	-8.5	-9.1	-9.9	-10.7	-11.3	-11.6	-11.8	-12.1	-12.3	-10.3	-8.3
NO.	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	744	100%
MEAN	-4.7	-5.0	-5.3	-5.6	-5.8	-6.0	-6.3	-6.2	-5.6	-4.4	-3.0	-1.6	-0.6	0.1	0.1	0.0	-0.4	-1.2	-2.1	-2.9	-3.5	-4.4	-4.7			
MAX	6.3	6.2	5.7	5.5	5.8	6.1	6.1	6.3	6.4	7.5	8.0	8.0	7.7	8.4	7.9	8.2	8.0	7.3	6.5	6.0	5.8	6.4	6.3	6.1		



Number of Non-Zero Readings	744
Maximum 1-HR Average	8.4 C
Maximum 24-HR Average	6.0 C
Monthly Calibration Standard Deviation	7.19
Opperational Time	744 HRS
Opperational Uptime	100.0 %
Monthly Average	-3.5 C

Lagoon Wind Speed (km/hr) –March 2020

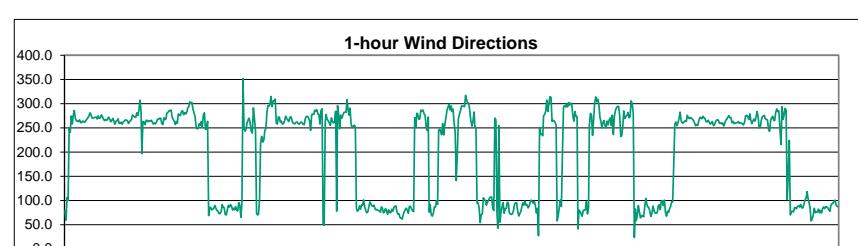
Hour		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean	Max	
Day																												
1		11.3	10.1	5.9	2.6	3.6	5.5	5.2	5.2	8.2	17.1	23.1	25.1	28.5	35.4	36.3	40.5	36.4	36.8	37.7	41.5	36.8	42.8	45.3	48.2	24.6	48.2	
2		50.9	46.4	48.4	54.7	53.4	45.6	36.4	33.6	32.4	34.7	34.6	29.9	34.0	37.3	37.0	35.9	32.9	33.9	31.0	33.3	33.3	35.4	31.8	30.7	37.8	54.7	
3		21.5	19.5	18.0	19.7	19.6	23.9	29.9	33.9	30.5	31.9	32.2	37.0	37.9	40.4	39.4	33.6	28.8	25.8	24.4	22.5	19.6	15.3	18.7	15.1	26.6	40.4	
4		7.7	3.9	2.9	8.1	15.1	22.0	14.9	11.9	23.8	35.1	37.5	42.4	46.6	45.2	41.6	42.5	38.2	31.2	30.9	24.4	27.3	20.9	15.7	15.8	25.2	46.6	
5		21.0	15.4	11.6	9.9	7.2	19.8	24.1	31.6	37.8	41.7	39.2	36.7	32.3	29.2	30.5	25.9	25.8	26.6	25.1	23.8	21.5	19.8	16.8	16.5	24.6	41.7	
6		13.3	9.6	13.6	11.9	11.1	8.9	7.7	6.8	6.8	8.6	6.1	4.9	4.5	6.4	9.3	6.4	5.2	5.5	12.9	19.8	21.4	21.4	18.8	19.0	10.8	21.4	
7		19.3	19.1	19.5	17.3	14.8	16.7	16.0	15.7	18.4	18.1	18.3	21.0	22.0	21.6	21.7	18.9	16.3	19.3	16.2	17.3	14.7	12.2	5.5	5.6	16.9	22.0	
8		3.3	2.7	2.5	1.8	7.3	10.1	11.0	11.8	14.3	13.8	15.1	13.4	12.1	11.0	9.2	10.7	10.5	15.5	7.8	6.2	3.4	7.1	4.4	6.4	8.8	15.5	
9		7.5	13.3	16.8	16.0	15.1	14.7	18.0	16.9	17.8	20.8	17.3	23.9	22.8	21.4	21.8	20.4	20.4	25.1	26.2	23.9	22.4	24.0	24.8	25.1	31.4	20.3	31.4
10		30.3	26.3	29.7	38.3	35.3	35.8	35.3	43.0	44.4	42.2	41.2	41.2	43.5	43.1	42.0	34.6	32.7	30.7	25.7	23.5	18.8	13.0	14.4	11.3	32.4	44.4	
11		8.4	9.9	8.7	11.4	10.4	19.9	9.7	14.4	9.8	6.7	16.0	19.6	23.3	27.2	26.8	25.3	17.6	18.3	13.1	10.3	11.0	5.6	4.4	8.6	14.0	27.2	
12		8.7	9.1	9.0	9.2	11.9	12.3	15.3	16.0	11.8	9.7	14.0	17.7	16.9	20.9	21.1	14.4	21.3	17.0	13.5	13.6	18.6	14.6	19.8	20.9	14.9	21.3	
13		17.5	19.3	18.4	18.4	21.3	20.9	20.1	21.1	20.8	21.8	20.6	21.3	22.6	23.0	23.3	22.2	24.3	21.9	16.9	15.3	17.7	15.2	14.9	14.6	19.7	24.3	
14		14.6	14.7	16.0	14.8	14.2	13.7	12.6	13.4	16.5	16.7	14.1	12.6	11.8	14.6	15.9	18.5	16.8	15.2	15.2	14.2	13.7	8.6	3.2	1.9	13.5	18.5	
15		8.1	9.1	11.8	10.3	8.4	13.3	13.1	14.9	19.7	20.4	15.6	8.6	10.5	5.0	13.5	15.5	14.9	14.4	16.3	14.7	12.6	4.7	5.7	6.1	12.0	20.4	
16		12.1	12.2	12.2	12.6	10.9	14.0	15.4	18.5	20.3	22.1	22.1	18.2	16.1	15.0	17.8	11.4	7.5	4.6	9.7	19.0	20.7	22.6	22.0	23.6	15.9	23.6	
17		24.8	17.8	21.0	24.7	16.6	12.2	10.7	10.9	13.3	13.2	8.8	7.1	17.1	14.7	18.7	18.0	19.2	17.5	14.3	14.7	12.2	12.1	12.7	12.2	15.2	24.8	
18		12.0	11.3	10.6	12.9	8.9	5.0	7.2	4.0	3.2	7.8	11.1	18.7	19.5	19.4	20.5	22.2	25.0	25.0	24.4	21.6	18.8	16.5	16.5	14.3	11.5	14.3	25.0
19		6.9	8.3	8.5	11.3	12.7	13.2	13.4	15.1	14.0	16.2	15.0	15.9	18.5	18.6	19.1	17.9	15.8	15.8	14.3	13.8	15.8	12.5	9.7	4.8	2.2	13.1	19.1
20		4.0	5.9	10.1	8.7	13.8	18.0	17.1	21.6	19.4	21.5	21.2	16.1	21.4	18.5	20.8	20.0	20.6	11.1	12.4	7.2	5.6	5.5	3.5	12.5	13.9	21.6	
21		17.6	13.8	12.6	13.8	16.2	15.6	16.1	13.6	10.5	11.5	12.9	9.8	11.9	17.0	24.7	15.6	14.7	10.2	12.7	10.5	8.9	8.3	7.5	5.4	13.0	24.7	
22		2.9	2.8	8.5	6.7	11.9	13.0	14.2	16.9	17.8	16.2	20.2	23.4	23.1	19.5	21.8	20.3	20.0	15.4	13.8	8.8	14.5	12.1	5.5	5.6	14.0	23.4	
23		8.9	13.9	14.6	16.0	16.3	12.5	9.8	10.1	10.9	19.8	24.1	22.5	22.3	20.3	17.6	18.1	11.7	11.0	9.6	10.2	13.6	11.0	14.4	15.0	14.8	24.1	
24		13.2	16.8	15.2	14.3	14.7	13.1	10.9	11.6	12.2	13.3	16.2	15.2	17.4	16.2	17.9	18.8	18.5	18.7	16.3	12.7	10.4	13.6	11.1	14.4	14.7	18.8	
25		13.9	13.7	12.5	9.3	8.7	9.4	4.0	5.2	5.0	4.5	6.3	10.4	18.5	18.0	17.3	18.8	21.8	23.2	21.2	20.6	23.4	24.1	28.3	29.5	15.3	29.5	
26		28.6	29.2	29.2	27.6	33.5	35.3	35.4	33.7	38.1	38.0	44.1	38.1	41.6	40.7	39.9	35.7	32.7	34.0	27.4	25.8	24.4	27.2	26.1	33.0	44.1		
27		24.9	22.7	24.4	24.6	25.1	27.8	29.3	31.9	34.6	30.5	25.8	26.5	29.4	30.1	27.0	34.0	34.6	36.1	36.7	36.6	32.9	33.2	29.0	30.2	29.9	36.7	
28		29.4	27.1	28.7	30.0	26.4	19.2	16.8	20.4	17.1	14.8	17.9	25.5	29.6	33.9	32.5	25.0	22.1	18.4	15.4	12.5	10.2	16.9	21.3	22.2	33.9		
29		24.2	21.7	17.5	13.8	11.1	17.2	27.0	29.9	27.9	28.8	24.0	24.6	20.7	18.3	17.3	7.2	10.5	12.9	17.4	10.0	11.1	8.8	5.9	5.1	17.2	29.9	
30		5.7	3.4	9.1	17.0	18.0	18.4	17.7	19.7	21.2	21.7	20.7	21.8	20.8	20.6	22.2	18.2	16.3	12.6	12.6	10.6	13.2	13.9	13.8	15.0	16.0	22.2	
31		14.1	15.3	13.4	16.7	17.0	16.0	16.7	16.5	18.3	16.9	18.9	18.6	19.0	19.2	18.9	19.4	20.4	18.7	18.2	16.0	14.4	15.3	15.2	13.1	16.9	20.4	
NO.		31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	744	100%
MEAN		15.7	15.0	15.5	16.3	16.5	17.5	17.1	18.4	19.3	20.5	21.1	21.5	23.1	23.3	24.0	22.1	21.1	20.1	18.8	17.8	17.4	16.5	15.5	16.0			
MAX		50.9	46.4	48.4	54.7	53.4	45.6	36.4	43.0	44.4	42.2	44.1	42.4	46.6	45.2	42.0	42.5	38.2	36.8	37.7	41.5	36.8	42.8	45.3	48.2			



Number of Non-Zero Readings	744
Maximum 1-HR Average	54.7 KM/HR
Maximum 24-HR Average	37.8 KM/HR
Monthly Calibration	0
Standard Deviation	9.712
Operational Time	744 HRS
Operational Uptime	100.0 %
Monthly Average	18.8 KM/HR

Lagoon Wind Direction (°) – March 2020

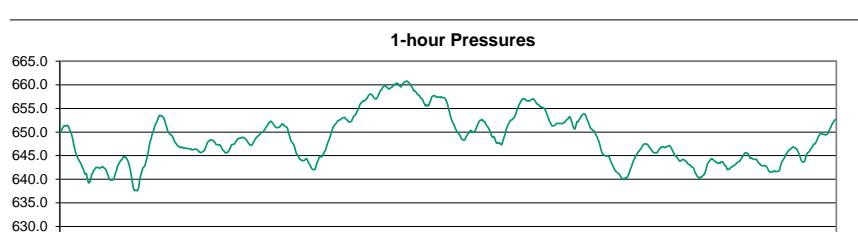
Day	HOUR																								MEAN	MAX	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1	78.8	59.0	106.0	100.2	249.4	241.0	274.5	258.3	275.1	286.1	270.6	264.6	265.0	262.7	266.5	261.5	260.4	264.1	263.3	261.4	264.8	267.4	271.0	274.3	266.5	286.1	
2	281.2	277.3	270.8	270.2	271.1	272.1	272.3	268.3	275.1	269.8	270.6	276.7	273.3	267.7	264.8	267.7	272.4	268.4	262.9	265.7	269.8	263.7	270.5	281.2	270.5	285.7	
3	257.4	264.0	264.9	268.9	260.3	259.3	262.0	257.7	262.4	264.0	266.9	266.4	264.3	259.4	263.3	264.8	267.3	276.6	274.1	272.7	271.4	281.1	275.8	285.7	266.0	285.7	
4	307.4	285.1	196.9	263.0	262.4	256.7	265.3	265.8	262.7	264.6	264.2	265.7	261.1	257.9	260.2	258.1	262.2	267.9	270.4	269.6	258.5	257.0	270.9	263.5	307.4	263.5	293.5
5	267.1	268.1	280.7	282.0	285.7	285.7	286.7	271.8	267.5	263.5	257.1	263.2	259.7	279.0	277.2	275.7	283.7	285.5	277.4	281.8	278.9	283.0	291.9	293.5	274.5	293.5	
6	303.9	300.8	302.8	288.7	281.8	273.0	252.4	247.9	250.1	258.7	255.1	263.0	251.3	276.7	281.4	246.9	248.4	263.8	68.8	85.7	85.5	80.6	81.6	83.6	317.6	303.9	
7	89.9	84.0	79.1	77.9	72.6	72.5	76.7	91.5	86.3	85.3	70.8	69.8	80.5	89.7	86.2	91.7	88.1	80.2	83.7	80.5	87.2	79.9	78.5	95.5	82.2	95.5	
8	89.7	65.1	94.5	352.3	248.1	243.0	247.0	260.3	266.4	270.1	259.7	243.2	239.4	291.4	269.2	244.5	74.2	70.2	71.2	100.6	217.5	232.5	220.5	224.5	252.0	352.3	
9	244.3	248.8	282.4	296.1	294.7	298.3	314.8	294.1	305.9	305.2	309.9	259.8	258.0	273.0	272.0	261.7	264.1	257.8	264.1	274.2	269.9	266.3	263.1	275.0	314.8		
10	271.1	273.3	267.8	260.1	259.1	258.3	261.5	262.3	258.8	257.3	260.7	262.3	260.0	256.9	256.7	269.5	273.8	274.2	270.8	264.9	245.3	277.1	278.4	263.4	278.4		
11	286.4	284.1	287.9	278.9	278.2	257.9	286.2	289.5	50.5	48.5	263.3	277.5	268.0	264.5	260.9	255.4	270.8	263.3	260.0	262.3	284.2	78.0	296.3	279.2	272.6	296.3	
12	248.2	276.5	270.2	276.2	282.0	282.7	282.0	308.4	287.0	276.5	290.7	257.7	251.2	253.1	255.6	252.0	84.2	77.4	80.6	89.1	82.1	90.9	90.2	101.2	276.6	308.4	
13	87.3	79.3	74.5	76.8	87.5	96.6	92.0	88.9	88.0	90.1	82.5	80.7	81.6	79.3	78.8	75.7	86.7	83.6	74.4	75.7	83.0	79.1	71.4	80.7	82.6	96.6	
14	74.8	75.0	81.7	78.1	86.0	87.5	88.8	77.2	72.0	72.2	64.2	63.3	61.1	70.3	80.8	84.1	80.0	87.9	87.6	82.2	77.0	77.6	88.8	77.6	88.8		
15	271.0	251.4	280.1	279.0	267.8	268.4	287.1	284.0	286.9	279.3	276.0	253.3	245.0	272.5	75.7	91.5	70.6	67.5	73.7	87.3	86.6	99.0	92.1	245.5	294.3	287.1	
16	247.5	243.6	235.8	258.6	235.6	256.9	269.7	286.1	293.2	298.5	286.7	295.7	283.8	288.7	260.3	240.9	141.0	196.6	268.7	278.0	285.3	295.6	294.6	276.0	298.5		
17	293.7	317.2	307.5	301.1	300.8	284.5	284.3	253.6	263.9	283.0	252.9	250.4	94.4	95.1	84.2	54.4	70.6	72.5	105.7	101.6	99.9	90.1	96.5	100.1	14.1	317.2	
18	105.2	107.5	106.8	83.9	79.2	270.4	266.5	76.4	42.2	254.9	55.1	75.5	86.7	95.4	73.7	82.8	83.6	96.6	94.8	74.8	71.6	71.0	72.7	79.2	83.5	270.4	
19	92.4	94.9	95.1	78.0	68.0	73.2	76.1	85.8	95.0	90.2	98.5	90.4	91.0	84.4	88.3	96.8	100.8	97.3	94.8	98.6	89.6	74.5	83.5	27.2	88.7	100.8	
20	251.1	236.5	238.0	233.8	274.9	277.8	284.9	307.4	283.6	299.5	314.5	313.4	263.6	265.6	264.7	261.0	256.4	57.8	68.2	85.4	100.6	87.8	198.8	293.5	281.7	314.5	
21	296.3	292.9	299.1	293.3	302.5	297.0	301.3	298.3	275.8	263.9	283.9	273.6	273.4	40.9	80.1	77.7	72.2	67.3	79.7	80.1	97.7	72.2	84.8	339.7	302.5		
22	256.3	279.8	276.1	234.7	267.5	301.8	314.1	304.1	309.2	297.7	270.9	264.3	250.2	261.0	265.5	254.2	250.2	264.1	256.5	267.5	270.5	254.7	276.5	236.3	270.7	314.1	
23	273.9	286.0	292.2	294.2	294.5	275.1	232.1	234.7	254.8	285.2	269.2	273.7	275.6	281.9	271.2	273.4	305.7	300.2	279.8	23.6	82.3	58.1	68.9	89.4	285.2	305.7	
24	76.7	64.0	68.8	68.7	66.1	86.4	104.3	92.3	86.9	85.6	78.1	66.8	73.7	88.6	79.0	73.9	73.7	74.8	88.4	91.0	80.9	97.7	99.7	80.4	104.3		
25	100.7	74.7	67.2	77.8	75.4	84.1	86.9	97.2	97.4	175.3	257.1	262.4	254.4	260.6	269.6	282.5	265.0	260.9	259.7	262.8	264.7	263.0	275.9	270.8	265.7	282.5	
26	269.2	271.7	270.0	267.2	265.9	260.1	254.6	257.2	254.9	264.6	271.4	271.4	268.9	274.2	270.8	269.6	263.1	262.3	265.8	262.2	257.8	259.7	263.2	254.6	265.0	274.2	
27	256.2	263.0	265.2	267.3	265.5	259.4	260.4	258.4	260.0	253.9	260.1	266.3	268.4	271.9	275.6	271.1	271.2	260.7	263.6	258.9	259.5	260.6	260.9	263.3	275.6		
28	259.5	260.6	259.9	259.0	256.1	261.7	275.0	276.1	273.8	267.0	278.7	267.5	259.0	264.2	268.3	264.0	271.5	283.8	273.3	250.0	250.9	265.6	272.2	274.1	266.0	283.8	
29	276.1	268.5	268.2	266.1	247.4	242.8	265.4	271.3	274.0	266.3	265.1	282.1	288.9	283.7	284.8	246.7	215.7	294.1	267.4	277.7	290.3	286.9	101.8	150.3	270.1	294.1	
30	224.1	70.1	77.5	77.4	76.1	85.4	84.4	82.8	88.0	88.8	86.2	91.4	84.5	84.6	91.8	101.1	104.2	118.4	105.3	95.8	84.4	57.8	61.1	69.5	86.7	224.1	
31	83.5	75.0	76.1	76.6	82.1	74.5	79.2	74.1	83.0	86.6	83.1	87.0	86.6	84.7	80.4	77.6	89.4	93.3	93.6	99.1	100.6	90.4	87.7	87.4	84.7	100.6	
NO.	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	744	100%
MEAN	210.4	203.1	204.6	212.5	214.3	220.8	224.8	218.8	210.7	221.0	221.7	219.3	210.4	209.0	201.8	197.6	184.5	183.2	178.6	172.9	179.0	172.1	177.6	186.5			
MAX	307.4	317.2	307.5	352.3	302.5	301.8	314.8	308.4	309.2	305.2	314.5	313.4	288.9	291.4	284.8	282.5	305.7	300.2	279.8	281.8	290.3	295.6	296.3	294.6			



Number of Non-Zero Readings	744
Maximum 1-HR Average	352 degrees
Maximum 24-HR Average	340 degrees
Operational Time	744 HRS
Monthly Calibration	0
Standard Deviation	91.22
Operational Uptime	100.0 %
Monthly Average	201.5 degrees

Lagoon Pressure (mmHg) – March 2020

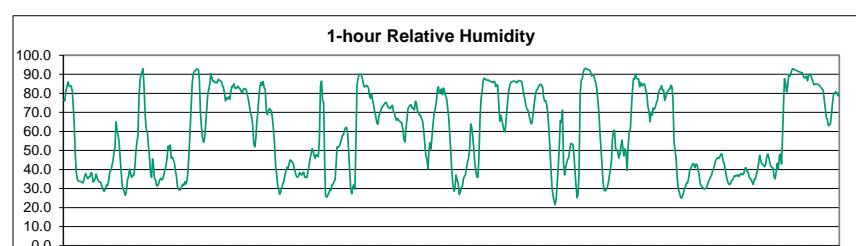
Day	HOUR																								MEAN	MAX				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24						
1	650.0	650.3	650.8	651.2	651.4	651.3	651.4	651.4	651.2	650.5	650.0	649.4	648.5	647.2	646.3	645.3	644.8	644.3	643.9	643.6	643.2	642.6	642.2	641.6	647.6	651.4				
2	641.0	641.2	640.0	639.2	639.3	639.9	640.5	641.3	641.9	642.9	643.3	643.6	644.0	644.2	644.7	644.8	644.6	644.6	644.2	642.8	643.0	642.1	641.9	641.3	640.6	640.0				
3	639.8	639.8	639.9	639.9	639.9	640.5	641.3	641.9	642.9	643.3	643.6	644.0	644.2	644.7	644.8	644.6	644.6	644.2	643.8	643.0	642.1	640.8	639.4	638.1	637.6	641.5	642.6			
4	637.7	637.6	637.6	638.1	639.6	640.8	641.5	642.3	642.6	642.8	643.7	644.6	645.5	646.7	647.9	648.5	649.5	650.1	650.8	651.6	651.9	652.5	653.1	653.5	642.0	644.8				
5	653.4	653.5	653.2	653.1	652.5	651.7	651.0	650.1	649.8	649.5	649.4	649.2	648.9	648.3	647.8	647.5	647.2	647.0	646.8	646.7	646.8	646.7	646.6	646.6	649.3	653.5	646.6			
6	646.6	646.5	646.5	646.5	646.4	646.4	646.2	646.2	646.3	646.4	646.4	646.3	646.1	645.9	645.6	645.6	645.8	646.0	646.1	646.7	647.3	647.8	648.0	648.2	646.5	648.2	646.5			
7	648.3	648.3	648.2	648.1	647.8	647.4	647.3	647.3	647.3	647.3	646.9	646.4	646.1	645.9	645.6	645.6	645.7	645.8	646.3	646.6	647.3	647.4	647.4	647.5	647.0	648.3	649.5			
8	647.9	647.9	648.6	648.6	648.7	648.7	648.8	648.9	648.8	648.6	648.4	648.1	647.7	647.5	647.2	647.4	647.8	648.2	648.6	648.9	649.1	649.2	649.2	649.5	648.4	649.5	648.4			
9	649.7	649.9	650.1	650.3	650.5	651.0	651.3	651.6	652.0	652.3	652.0	651.7	651.3	651.1	651.0	650.9	651.0	651.0	651.3	651.6	651.7	651.7	651.5	651.2	651.2	652.3	651.2			
10	651.2	651.0	650.6	649.6	648.9	648.1	647.8	647.5	647.2	646.3	645.5	645.2	644.8	644.5	644.2	644.1	643.9	643.9	644.0	644.3	644.4	643.8	643.3	643.1	646.1	651.2				
11	642.7	642.2	642.1	642.0	642.1	642.8	643.6	644.0	644.7	644.9	644.7	644.9	645.3	645.8	646.1	646.8	647.6	648.1	648.7	649.5	650.1	650.8	651.2	651.5	645.9	651.5	651.5			
12	651.7	652.2	652.4	652.5	652.6	652.8	652.9	653.1	653.1	653.0	652.6	652.5	652.2	652.3	652.3	652.9	653.3	653.5	653.7	654.2	654.6	655.1	655.8	653.1	655.8	657.7	659.9			
13	656.1	656.4	656.6	656.6	656.7	657.0	657.2	657.6	657.6	657.9	658.1	658.0	657.7	657.5	657.2	657.0	657.1	657.5	658.0	658.4	658.8	659.1	659.7	659.9	660.0	660.8	660.8			
14	659.7	659.5	659.2	659.1	659.3	659.4	659.5	659.8	659.6	660.2	660.4	660.3	660.0	659.8	659.5	659.8	660.1	660.5	660.6	660.7	660.8	660.6	660.5	660.2	660.5	660.2	660.0	660.8		
15	659.8	659.5	659.0	658.7	658.7	658.4	658.1	657.9	657.7	657.3	657.1	656.9	656.3	655.9	655.5	655.8	655.6	656.2	656.2	656.9	657.5	657.6	657.7	657.7	657.4	659.8	657.4			
16	657.5	657.3	657.4	657.4	657.3	657.5	657.3	657.3	657.2	657.0	656.5	655.8	654.9	654.2	653.2	652.5	652.0	651.6	651.0	650.5	650.1	649.8	649.6	649.3	654.3	657.5	652.7			
17	648.7	648.4	648.3	648.5	649.1	649.4	649.8	650.1	650.4	650.2	649.9	650.0	650.1	650.5	651.1	651.7	652.2	652.5	652.5	652.7	652.3	652.0	650.5	652.7	649.5	652.4				
18	651.6	651.2	651.0	650.4	650.1	649.2	648.9	649.0	648.8	648.2	647.6	647.6	647.8	647.7	647.3	647.3	648.2	648.9	649.5	650.4	651.0	651.6	652.4	649.5	652.4	649.5	652.4			
19	652.5	652.6	652.9	653.2	653.6	654.4	655.0	655.4	656.0	656.4	656.8	657.1	657.0	657.0	656.7	656.6	656.6	656.8	656.9	657.1	656.8	656.6	655.7	655.7	657.1	656.8	656.6			
20	656.1	655.9	655.8	655.5	655.3	655.3	655.2	655.1	655.0	654.4	653.9	653.3	652.7	652.1	651.7	651.4	651.3	651.5	651.5	651.8	651.8	651.8	651.8	653.4	656.1	653.4	656.1	653.4		
21	651.8	651.8	652.0	652.0	652.3	652.6	652.7	653.1	653.3	652.8	652.1	651.3	650.8	650.6	651.3	652.2	652.5	652.9	653.4	653.7	653.8	653.6	652.4	653.8	652.4	653.8	652.4			
22	653.2	652.5	652.0	651.4	650.8	650.6	650.4	650.3	650.0	649.4	649.0	648.5	648.0	647.3	646.3	645.6	645.3	645.1	645.0	644.9	644.9	644.7	644.1	648.1	653.2	649.5	653.2			
23	643.5	643.0	642.6	642.1	641.7	641.6	641.4	641.2	640.9	640.5	640.2	640.0	639.9	640.2	640.3	640.4	640.8	641.4	642.1	642.6	643.3	643.9	644.3	644.8	641.8	644.8	644.8			
24	645.2	645.6	645.9	646.1	646.4	646.8	647.2	647.4	647.5	647.4	647.2	646.7	646.6	646.3	646.0	645.7	645.6	645.6	645.6	645.6	645.6	645.6	646.4	647.5	646.4	647.5	646.4	647.5		
25	646.9	646.9	646.8	646.7	646.8	646.9	647.0	647.1	647.0	646.7	646.3	645.8	645.4	645.0	644.7	644.5	644.2	643.9	643.9	644.0	644.2	644.2	644.0	645.5	647.1	645.5	647.1	645.5		
26	643.7	643.3	643.1	643.1	642.8	642.6	642.5	642.3	641.4	641.1	640.7	640.5	640.4	640.4	640.6	640.9	641.0	641.6	642.4	643.3	643.6	643.9	644.2	642.1	644.2	642.1	644.2			
27	644.3	644.2	644.0	643.8	643.7	643.5	643.4	643.4	643.3	643.7	643.7	643.6	643.0	642.9	642.7	642.7	642.0	642.1	642.1	642.4	642.6	642.7	642.9	643.0	643.2	644.3	643.2			
28	643.4	643.6	643.8	643.8	644.2	644.4	644.9	645.3	645.6	645.6	645.4	645.4	644.8	644.8	644.4	644.5	644.4	644.2	644.2	644.2	644.2	643.8	643.4	643.3	643.0	644.3	645.6			
29	642.9	642.8	642.9	642.9	642.8	642.5	642.0	641.7	641.5	641.5	641.6	641.6	641.8	641.8	641.6	641.7	641.6	641.7	641.7	641.9	643.0	643.6	644.6	644.6	645.1	642.6	645.1	642.6		
30	645.5	645.9	646.2	646.3	646.4	646.7	646.9	646.8	646.6	646.5	646.2	645.7	645.2	643.9	643.6	643.6	643.8	644.5	645.3	645.6	645.8	646.1	646.4	645.6	646.9	646.4	646.9	646.4		
31	646.7	647.2	647.4	647.5	647.9	648.3	648.9	649.3	649.6	649.7	649.6	649.5	649.4	649.5	649.6	650.1	650.5	651.5	651.9	652.3	652.6	652.7	649.7	652.7	649.7	652.7	649.7	652.7		
NO.	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31		
MEAN	648.7	648.7	648.6	648.5	648.6	648.7	648.8	648.9	649.0	648.8	648.5	648.2	648.0	647.9	647.8	647.9	648.1	648.3	648.6	648.7	648.8	648.8	648.8	744	100%					
MAX	659.8	659.5	659.2	659.1	659.3	659.4	659.5	659.8	659.9	660.2	660.4	660.3	660.0	659.8	659.5	659.8	660.1	660.5	660.6	660.7	660.8	660.6	660.5	660.2	660.2	659.8	659.9	659.8	659.9	659.8



Number of Non-Zero Readings	744
Maximum 1-HR Average	661 MMHg
Maximum 24-HR Average	660 MMHg
Monthly Calibration Standard Deviation	5.332
Operational Time	744 HRS
Operational Uptime	100.0 %
Monthly Average	648.5 MMHg

Lagoon Relative Humidity (%) – March 2020

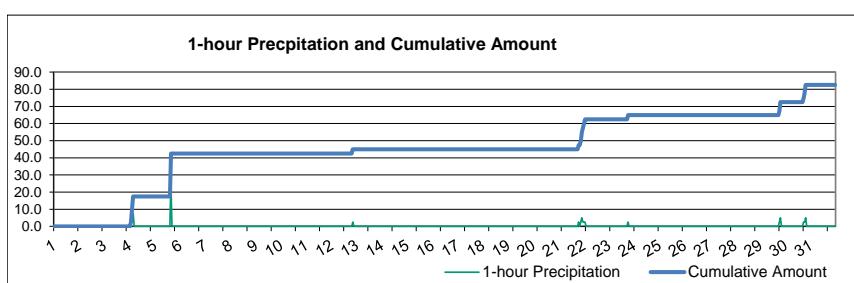
Day	HOUR																								MEAN	MAX	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1	76.5	76.1	81.2	83.8	86.0	84.0	83.7	83.9	81.1	74.0	64.5	48.2	38.3	34.7	34.0	33.7	33.7	33.3	32.9	34.1	36.3	37.9	36.4	35.2	56.0	86.0	
2	36.0	36.2	38.3	37.6	33.4	34.0	35.2	37.6	35.7	34.3	33.5	33.5	31.9	30.7	28.8	28.6	30.5	31.9	31.6	33.8	38.7	39.2	41.7	44.3	34.9	44.3	
3	48.5	51.8	65.0	60.3	57.8	54.8	46.7	38.8	31.5	29.5	28.0	26.4	29.1	34.6	36.4	40.3	38.1	35.9	37.0	36.9	40.6	48.9	54.3	57.8	42.9	65.0	
4	78.1	87.2	89.9	91.2	93.0	82.7	68.5	61.3	59.8	53.0	46.9	38.6	35.9	45.5	42.7	35.2	34.5	31.3	31.6	32.8	34.7	35.3	34.5	35.5	53.3	93.0	
5	37.7	39.9	41.9	46.1	52.3	50.9	52.9	46.0	46.5	45.0	43.4	38.9	36.6	31.0	29.4	29.4	29.4	31.1	32.3	31.7	33.6	32.3	34.1	38.5	38.8	52.9	
6	47.8	59.3	72.0	84.4	90.1	91.3	92.0	92.6	92.8	87.7	70.2	62.2	56.5	54.2	56.6	64.0	72.2	80.1	82.4	85.7	90.4	88.3	86.4	77.1	92.8		
7	86.3	85.6	85.9	85.5	87.4	87.1	86.6	86.1	84.4	83.4	80.2	76.0	77.8	77.1	78.2	76.8	80.7	83.5	83.6	85.0	82.9	82.5	83.0	83.8	82.9	87.4	
8	82.8	82.2	81.1	80.3	82.2	82.4	82.5	81.7	79.2	76.5	73.1	69.5	67.8	63.5	53.8	52.0	56.3	64.1	69.9	77.7	83.6	85.7	84.1	86.2	74.9	86.2	
9	83.0	82.2	71.2	68.9	70.5	72.0	71.4	70.8	66.8	61.0	53.2	41.9	37.3	31.4	28.9	27.0	28.3	30.5	32.5	33.8	37.4	39.2	41.2	40.7	50.9	83.0	
10	43.5	45.2	44.5	43.9	43.1	40.2	38.4	36.3	36.0	36.6	38.4	37.5	37.0	37.9	38.6	35.9	35.9	35.9	38.7	41.7	45.6	48.1	51.0	49.7	40.8	51.0	
11	47.5	45.9	47.8	47.3	46.7	55.9	83.8	86.5	76.4	75.1	42.8	26.3	25.5	26.3	27.6	29.2	29.0	31.8	32.2	33.6	34.6	43.4	51.8	51.5	45.8	86.5	
12	52.1	53.6	55.5	57.8	58.2	60.6	61.9	62.1	59.0	51.0	40.3	30.8	27.3	30.6	31.9	29.7	54.7	84.6	87.8	89.9	90.1	89.8	88.6	85.5	59.7	90.1	
13	83.5	83.6	84.1	83.8	82.7	78.6	77.4	79.8	76.8	74.0	70.6	68.1	64.7	63.8	67.9	69.8	71.3	72.9	73.3	74.1	74.9	75.3	74.0	72.6	74.9	84.1	
14	72.3	72.0	73.3	73.7	70.1	69.6	67.4	65.8	66.9	66.0	65.3	64.8	64.4	61.0	55.7	54.4	61.1	66.1	72.0	73.1	73.8	73.9	72.2	72.5	67.8	73.9	
15	71.3	75.9	74.6	70.9	69.7	68.5	68.5	66.6	65.4	60.4	53.6	47.1	45.4	40.3	48.9	54.1	50.8	57.4	63.8	69.5	71.7	75.0	81.8	83.5	63.9	83.5	
16	80.0	80.8	82.3	79.3	82.8	80.9	78.7	77.1	71.9	66.9	57.6	48.2	39.8	32.5	28.6	29.8	37.0	34.7	32.8	26.9	27.9	30.5	31.3	34.7	53.0	82.8	
17	36.4	37.1	40.5	44.1	45.9	50.9	63.9	62.1	56.9	50.6	44.0	39.2	36.0	36.0	47.4	66.9	77.5	80.8	87.0	87.9	87.4	87.0	87.0	87.0	60.0	87.9	
18	86.6	86.3	86.1	85.7	86.3	86.2	83.5	84.5	84.3	74.6	65.3	68.5	66.0	63.1	60.5	59.8	66.4	73.2	79.8	82.6	84.9	86.0	86.1	86.5	78.0	86.6	
19	86.4	86.1	85.6	86.1	86.7	86.7	86.4	86.1	83.0	79.1	77.1	73.4	71.6	68.4	65.8	64.0	64.6	69.3	74.5	78.6	81.6	82.2	83.3	78.2	86.7		
20	84.5	84.8	84.2	82.8	78.3	75.9	76.3	74.0	69.6	61.2	50.9	39.8	30.2	26.0	23.3	21.6	23.8	32.6	41.1	52.1	65.8	64.6	71.1	43.2	56.6	84.8	
21	37.1	41.2	43.1	45.3	46.2	50.4	53.6	53.5	53.2	47.8	39.1	31.1	25.2	26.9	38.1	78.9	86.7	87.6	91.0	92.9	93.2	92.9	92.5	92.4	60.0	93.2	
22	92.3	91.4	89.2	89.5	89.8	87.3	85.5	81.8	75.9	68.9	58.4	51.2	42.6	33.5	29.2	28.8	29.2	30.7	33.1	36.9	40.3	45.5	55.6	60.3	59.4	92.3	
23	60.6	51.1	50.4	49.4	46.0	47.9	52.2	55.4	50.6	47.1	50.8	48.8	39.6	51.7	60.4	60.2	70.9	81.2	87.4	87.5	90.0	88.1	87.6	87.6	62.6	90.0	
24	83.5	85.6	84.2	84.1	85.1	84.4	80.9	79.7	73.0	70.6	65.1	70.0	68.6	72.3	71.6	72.8	74.8	76.5	79.8	81.7	82.3	84.0	81.6	81.6	78.1	85.6	
25	76.3	77.9	80.6	81.1	82.1	82.2	84.2	83.7	76.7	54.7	50.1	45.4	35.6	29.7	28.1	25.8	24.9	25.6	27.5	30.1	31.0	33.1	33.0	35.7	51.5	84.2	
26	39.8	40.7	42.0	43.1	42.9	40.9	42.8	42.6	40.3	37.2	32.7	31.4	30.9	30.2	29.7	30.0	30.3	31.9	33.6	34.8	36.2	37.2	39.5	40.8	36.7	43.1	
27	42.9	44.8	45.7	46.2	45.9	46.9	48.0	48.1	44.2	43.6	39.9	36.7	34.6	32.7	32.2	32.4	33.9	34.5	35.6	36.7	36.5	36.7	37.4	36.3	39.7	48.1	
28	36.7	37.9	37.5	37.3	38.3	40.6	41.0	38.9	38.5	35.9	35.4	34.8	33.2	32.1	35.0	35.0	37.3	39.7	43.0	47.5	45.2	43.4	42.6	38.7	47.5		
29	41.5	43.1	47.2	48.2	46.0	43.0	41.6	41.1	40.7	36.2	35.0	38.9	43.2	40.3	47.2	48.2	42.9	58.7	75.9	87.7	85.3	80.8	84.0	89.9	53.6	89.9	
30	89.1	90.4	92.4	92.9	92.7	92.3	92.2	91.8	91.5	91.4	91.2	90.8	88.9	88.6	89.0	90.8	88.6	89.1	90.1	90.1	87.9	86.5	84.5	90.0	92.9		
31	84.7	84.9	84.8	84.8	84.3	83.8	83.0	82.5	81.4	76.7	72.0	67.4	66.0	63.0	63.5	63.9	69.0	75.1	79.4	80.2	80.7	80.4	78.8	80.2	77.1	84.9	
NO.	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	744	100%
MEAN	64.7	65.8	67.2	67.6	67.8	67.5	68.1	67.1	64.2	59.8	54.4	49.5	46.3	45.0	45.4	47.1	50.2	54.1	57.6	60.0	61.9	63.1	64.3	64.2			
MAX	92.3	91.4	92.4	92.9	93.0	92.3	92.2	92.6	92.8	92.3	91.2	90.8	90.8	88.9	88.1	88.6	89.0	87.6	91.0	92.9	93.2	92.9	92.5	92.4			



Number of Non-Zero Readings	744
Maximum 1-HR Average	93.2 %
Maximum 24-HR Average	90.0 %
Monthly Calibration Standard Deviation	21.28
Operational Time	744 HRS
Operational Uptime	100.0 %
Monthly Average	59.3 %

Lagoon Precipitation (mm) – March 2020

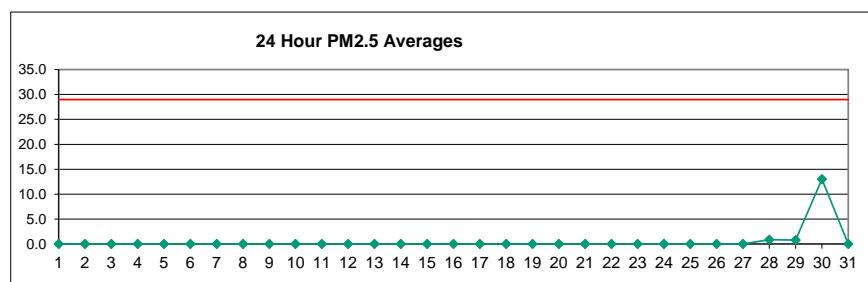
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	0.0	2.5	7.5	7.5	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
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	25.0	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	0.0	0.0	0.0	0.0	0.0
11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0
13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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	2.5	0.0	2.5	0.0	5.0	0.5	5.0
22	2.5	2.5	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	0.2	2.5
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	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.1	2.5
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	0.0	0.0	0.0	0.0	0.0	0.0	0.0
28	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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	2.5	5.0	0.0	0.0	0.0	0.0	0.3	5.0
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	2.5	5.0	0.0	0.0	0.0	0.0	0.4	5.0
31	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



Number of Non-Zero Readings	17
Maximum 1-HR Average	25.0 MM
Maximum 24-HR Average	1.0 MM
Monthly Calibration Standard Deviation	1.083
Operational Time	0
Operational Uptime	100.0 %
Monthly Average	0.11 MM

West PM_{2.5} ($\mu\text{g}/\text{m}^3$) – March 2020

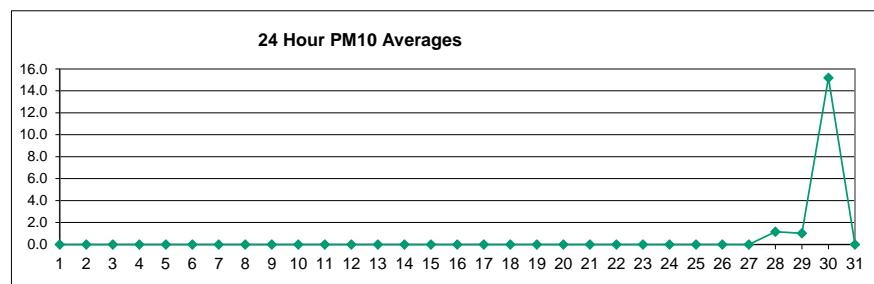
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
2	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
3	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-
4	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	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	0.3	0.2	0.2	0.4	0.4	0.5	0.7	0.6	1.0	2.2	2.0	1.7	1.9	1.4	2.6	0.8	0.6	0.5	0.6	0.5	0.5	0.4	0.3	0.2	0.9	2.6
29	0.2	0.2	0.2	0.3	0.2	0.8	0.7	0.9	0.8	0.9	1.0	1.1	1.7	2.7	0.8	1.0	0.9	0.6	0.5	0.5	0.5	0.8	0.8	0.7	2.7	-
30	0.9	0.6	3.6	18.9	18.8	21.8	25.2	24.1	24.4	19.7	16.3	15.8	16.2	17.4	13.5	11.0	8.1	6.6	8.4	11.8	8.9	7.7	6.2	6.0	13.0	25.2
31	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	-



Number of 24HR Exceedences	0	Proposed Guideline
Number of Non-Zero Readings	82	
Maximum 1-HR Average	25.2 UG/M3	
Maximum 24-HR Average	13.0 UG/M3	
I2S Calibration Time		
Down Time	0	
Standard Deviation	6.848	
Opperational Time		
Opperational Uptime		
Monthly Average		
82 HRS		
11.0 %		
4.4 UG/M3		

West PM₁₀ ($\mu\text{g}/\text{m}^3$) – March 2020

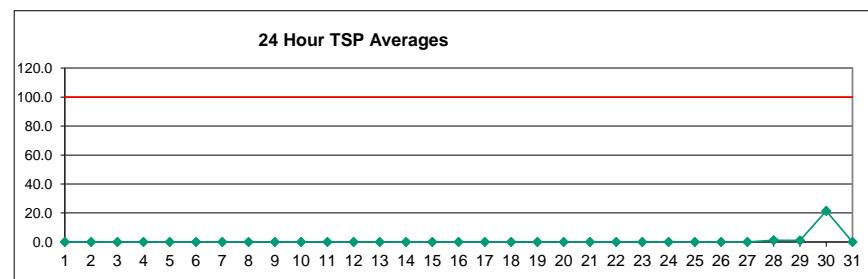
Day	HOUR																								MEAN	MAX	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-		
2	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-		
3	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-		
4	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-		
5	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	-	-		
7	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	-	-		
9	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	-	-		
11	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	-	-		
13	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-		
14	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-		
15	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-		
16	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-		
17	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-		
18	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-		
19	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-		
20	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-		
21	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-		
22	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-		
23	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-		
24	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-		
25	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-		
26	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-		
27	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	4.4	2.4	1.4	1.6	1.1	0.7	0.7	0.9	0.6	0.4	-	-
28	0.3	0.2	0.3	0.5	0.5	0.6	1.0	0.8	1.4	3.1	2.8	2.5	2.7	2.0	3.5	1.0	0.8	0.6	0.7	0.6	0.6	0.5	0.4	0.2	1.1	3.5	
29	0.2	0.2	0.2	0.2	0.2	0.3	0.3	1.2	0.9	1.2	1.2	1.3	1.5	1.7	2.4	4.0	1.1	1.4	1.1	0.7	0.5	0.5	0.9	0.9	1.0	4.0	
30	0.9	0.7	4.1	21.5	19.2	22.6	29.0	28.2	31.3	24.9	19.5	19.4	18.4	20.2	14.6	13.6	9.7	10.2	10.6	15.9	9.5	7.9	6.4	6.1	15.2	31.3	
31	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	-		
NO.	3	3	3	3	3	3	3	3	3	3	3	3	3	3	4	4	4	4	4	4	4	4	4	4	82	11%	
MEAN	0.5	0.4	1.5	7.4	6.6	7.9	10.1	10.0	11.2	9.8	7.8	7.7	7.5	8.0	6.2	5.3	3.3	3.4	3.4	4.5	2.8	2.4	2.1	1.9			
MAX	0.9	0.7	4.1	21.5	19.2	22.6	29.0	28.2	31.3	24.9	19.5	19.4	18.4	20.2	14.6	13.6	9.7	10.2	10.6	15.9	9.5	7.9	6.4	6.1			



Number of Non-Zero Readings	82
Maximum 1-HR Average	31.3 UG/M3
Maximum 24-HR Average	15.2 UG/M3
Izs Calibration Time	
Down Time	0
OpperatioEl Time	
Standard Deviation	8.0
OpperatioEl Uptime	
Monthly Average	5.3 UG/M3
82 HRS	
11.0 %	

West TSP ($\mu\text{g}/\text{m}^3$) – March 2020

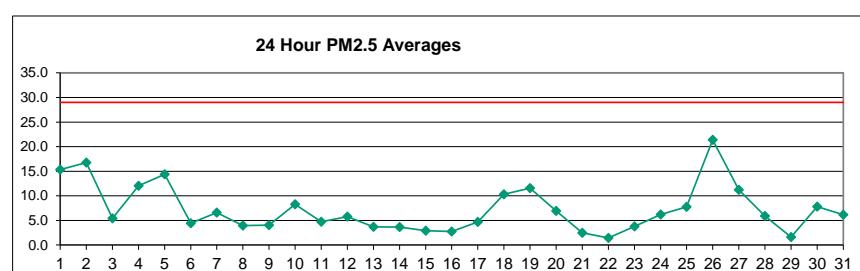
Day	HOUR																								MEAN	MAX	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-	
2	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-	
3	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	-	-	
4	G	G	G	G	G	G	G	G	G	G	G	G	G	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	4.5	2.3	1.1	1.3	0.8	0.5	0.5	0.7	0.5	0.3	-	-
28	0.2	0.2	0.2	0.3	0.4	0.5	0.9	0.6	1.3	3.3	2.9	2.4	2.7	1.9	3.7	0.7	0.6	0.4	0.5	0.4	0.4	0.3	0.3	0.1	1.1	3.7	
29	0.1	0.1	0.1	0.1	0.2	0.2	0.2	1.2	0.8	1.3	1.2	1.3	1.4	1.7	2.7	4.4	1.1	1.2	0.9	0.4	0.3	0.3	0.6	0.6	0.9	4.4	
30	0.6	0.4	2.6	14.0	12.9	15.7	18.8	18.8	28.1	16.9	23.9	39.3	19.1	69.1	37.5	101.3	15.7	26.3	10.7	11.8	6.4	5.1	4.1	13.6	21.4	101.3	
31	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	-	
NO.	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	4	4	4	4	4	4	4	4	4	82	11%	
MEAN	0.3	0.2	1.0	4.8	4.5	5.5	6.6	6.9	10.1	7.2	9.3	14.4	7.8	24.3	12.1	27.2	4.6	7.3	3.2	3.3	1.9	1.6	1.4	3.7	-	-	
MAX	0.6	0.4	2.6	14.0	12.9	15.7	18.8	18.8	28.1	16.9	23.9	39.3	19.1	69.1	37.5	101.3	15.7	26.3	10.7	11.8	6.4	5.1	4.1	13.6	-	-	



Number of 24HR Exceedences	0	Proposed Guideline
Number of Non-Zero Readings	82	
Maximum 1-HR Average	101.3 UG/M3	
Maximum 24-HR Average	21.4 UG/M3	
Izs Calibration Time		
Down Time	0	
Standard Deviation	15.28	
Opperational Time		
Opperrational Uptime		
Monthly Average	7.0 UG/M3	
		82 HRS
		11.0 %

Berm PM_{2.5} ($\mu\text{g}/\text{m}^3$) – March 2020

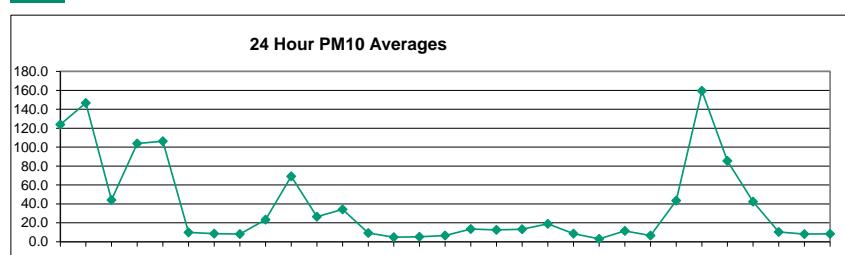
DAY	HOUR																								MEAN	MAX		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24				
1	1.0	0.6	1.1	1.0	1.7	1.8	2.1	0.8	0.7	1.8	1.7	3.6	5.7	5.5	6.1	5.8	16.5	23.8	34.3	20.8	33.4	76.7	72.8	49.2	15.3	76.7		
2	52.2	30.7	45.5	36.4	78.4	38.0	16.2	11.2	7.6	10.4	7.8	5.7	5.1	6.9	7.8	5.4	5.9	6.8	7.1	4.0	3.4	2.9	2.9	3.5	16.8	78.4		
3	2.4	2.7	2.9	3.3	4.5	3.5	4.3	10.0	15.3	12.1	X	X	X	X	X	6.5	4.2	4.7	6.4	5.8	1.9	5.0	2.1	5.4	15.3			
4	3.4	0.6	0.5	0.3	0.5	2.2	0.5	1.1	3.9	23.0	20.5	23.1	11.9	20.8	11.5	15.8	19.3	19.3	20.0	22.8	35.3	11.4	5.5	15.3	12.0	35.3		
5	7.2	5.0	6.8	0.7	0.7	4.9	6.5	25.6	45.8	40.8	24.4	29.2	13.6	9.6	10.3	11.4	15.6	8.4	11.6	15.4	11.4	7.1	18.5	14.3	14.4	45.8		
6	2.1	1.3	1.2	3.9	1.5	1.2	0.9	2.2	3.2	3.8	2.9	2.2	3.5	6.5	3.6	8.0	1.2	1.5	4.0	10.7	11.2	9.5	9.0	11.4	4.4	11.4		
7	8.9	12.4	7.1	5.7	6.3	6.3	5.7	8.2	9.2	9.0	4.9	5.1	5.8	5.1	7.0	3.5	9.4	11.6	10.1	3.7	2.6	4.0	3.2	3.1	6.6	12.4		
8	3.2	3.2	3.1	3.8	4.3	3.8	4.4	4.1	3.9	3.3	3.0	7.5	2.7	2.3	10.9	4.0	4.1	5.0	5.2	2.3	3.0	2.7	2.5	4.0	10.9			
9	1.2	1.0	0.5	0.5	0.5	0.7	0.7	1.1	1.1	2.0	8.6	15.4	10.0	5.0	4.4	5.0	7.0	5.0	1.7	4.2	6.3	8.1	6.2	4.0	15.4			
10	3.7	1.9	8.2	11.5	13.3	20.7	22.2	18.3	11.6	15.0	24.3	7.5	5.2	3.8	4.3	3.8	2.9	3.0	1.6	1.1	8.8	3.8	1.1	0.6	8.3	24.3		
11	0.7	1.7	1.3	2.0	2.2	6.6	1.5	2.2	0.8	2.3	7.0	8.5	8.7	13.6	13.2	15.1	6.1	7.9	6.6	3.3	1.0	0.5	0.4	0.3	4.7	15.1		
12	0.3	0.3	0.4	0.4	1.7	1.9	4.0	2.0	5.8	14.4	23.1	12.5	9.6	16.1	11.2	8.6	10.1	7.8	3.4	1.0	0.6	1.2	0.8	1.2	5.8	23.1		
13	1.3	1.2	1.1	1.0	1.4	1.8	2.4	5.3	5.4	7.3	5.9	4.3	3.7	3.4	4.4	3.9	6.0	4.9	4.0	3.7	4.3	4.0	5.1	3.4	3.7	7.3		
14	4.0	4.5	4.1	3.6	3.0	4.5	3.8	3.4	3.0	5.3	4.3	4.2	5.2	3.8	2.6	2.7	5.2	5.4	3.8	3.2	2.9	2.1	2.2	1.2	3.7	5.4		
15	1.2	1.7	3.1	2.5	1.8	1.9	2.2	2.0	3.2	7.7	2.9	2.1	2.3	2.8	3.4	1.8	1.1	1.2	2.1	2.8	3.0	2.5	13.1	2.9	13.1			
16	11.3	4.5	4.5	2.6	1.8	1.4	1.4	1.5	2.1	3.2	2.5	1.9	1.4	1.5	1.6	4.0	3.3	1.3	1.8	3.1	2.4	2.4	2.1	2.4	2.8	11.3		
17	3.0	1.6	1.6	3.1	1.5	1.3	1.2	2.1	5.3	4.4	9.3	10.6	1.8	1.5	2.7	6.0	4.9	5.8	6.3	6.7	6.7	7.8	7.2	10.0	4.7	10.6		
18	8.7	9.7	8.4	10.5	10.5	6.4	5.3	6.9	6.5	9.2	10.9	11.3	10.7	10.4	10.3	10.8	12.4	12.6	12.6	13.5	13.5	11.9	12.2	12.1	10.3	13.5		
19	13.3	13.3	11.6	10.7	10.0	12.1	14.6	18.7	20.0	15.8	14.3	14.0	12.1	10.5	9.5	8.6	8.4	9.0	9.4	9.1	8.9	8.0	7.7	8.0	11.6	20.0		
20	8.0	9.4	9.7	9.8	8.7	8.0	9.0	6.8	9.0	6.0	5.0	4.2	8.9	4.5	7.8	14.8	9.2	4.8	5.9	4.6	4.4	5.1	1.8	1.6	7.0	14.8		
21	1.6	1.6	1.6	1.7	1.7	1.8	2.0	2.0	4.3	6.2	6.4	4.4	3.8	2.6	2.2	5.1	2.5	1.5	1.5	1.1	1.2	1.0	1.4	0.9	2.5	6.4		
22	2.1	0.8	0.4	0.9	1.3	1.1	1.2	1.0	1.2	1.3	1.8	2.1	2.3	1.5	1.7	2.3	1.8	1.3	1.6	1.5	1.4	1.4	1.2	1.3	1.4	2.3		
23	1.2	1.2	2.2	3.3	2.0	1.7	2.3	2.8	7.1	4.2	9.9	9.2	7.3	4.4	2.7	3.3	1.3	2.2	1.4	0.9	3.6	3.5	4.3	8.5	3.8	9.9		
24	8.5	8.6	8.1	6.4	7.4	5.4	3.0	2.8	3.8	3.6	1.3	1.8	1.7	4.8	4.8	4.0	6.3	8.3	11.8	11.6	11.0	9.5	8.1	6.2	6.2	11.8		
25	2.9	3.9	0.8	0.7	2.1	3.6	4.9	4.4	9.0	4.1	10.3	7.4	5.0	4.1	3.7	3.7	5.6	4.5	11.0	12.9	11.2	23.7	29.0	18.0	7.8	29.0		
26	24.6	14.4	8.6	9.4	9.5	12.8	13.8	23.7	70.1	46.4	67.1	24.3	24.4	16.3	23.8	21.1	7.8	15.2	17.8	14.8	15.0	15.2	10.3	6.4	21.4	70.1		
27	6.3	6.2	3.4	2.0	4.6	3.8	7.4	19.7	16.1	11.3	12.4	9.1	19.8	11.5	10.2	13.8	11.0	9.5	14.9	12.3	10.7	22.6	19.4	11.7	11.2	22.6		
28	7.9	4.1	3.8	3.4	4.0	3.0	1.5	13.6	20.3	11.6	12.5	7.2	6.5	8.7	6.5	5.4	2.4	1.9	4.0	2.7	3.0	3.1	2.8	1.9	5.9	20.3		
29	2.7	1.5	1.5	1.3	1.9	1.6	4.2	4.1	4.3	3.0	1.8	2.5	2.6	2.0	1.2	0.5	0.3	0.4	0.5	0.2	0.2	0.2	0.4	1.6	4.3			
30	0.2	0.6	5.4	11.4	12.1	12.9	14.1	13.7	12.9	10.9	8.6	9.1	10.7	11.4	9.5	7.6	5.9	4.9	5.3	7.4	5.0	2.4	2.4	3.3	7.8	14.1		
31	4.9	6.7	5.7	6.1	8.9	7.3	8.3	11.5	11.9	6.6	4.7	3.8	4.1	3.8	3.4	3.1	3.8	5.5	9.6	6.7	4.6	5.2	6.8	5.2	6.2	11.9		
NO.	31	31	31	31	31	31	31	31	31	31	30	30	30	30	30	30	30	31	31	31	31	31	31	31	738	99%		
MEAN	6.5	5.1	5.3	5.1	6.7	6.0	5.5	7.5	10.5	9.9	10.5	8.1	7.5	7.0	6.5	7.2	6.5	6.6	7.7	6.9	7.5	8.4	8.3	7.3				
MAX	52.2	30.7	45.5	36.4	78.4	38.0	22.2	25.6	70.1	46.4	67.1	29.2	24.4	20.8	23.8	21.1	19.3	23.8	34.3	22.8	35.3	76.7	72.8	49.2				



Number of 24HR Exceedences	0	Proposed Guideline
Number of Non-Zero Readings	738	
Maximum 1-HR Average	78.4 UG/M3	
Maximum 24-HR Average	21.4 UG/M3	
Monthly Calibration Standard Deviation	8.8	Operational Time 0 Operational Uptime 99.2 % Monthly Average 7.2 UG/M3

Berm PM₁₀ ($\mu\text{g}/\text{m}^3$) – March 2020

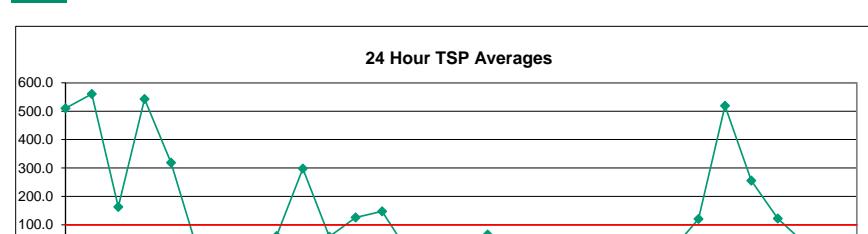
DAY	HOUR																								MEAN	MAX	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1	1.1	0.6	1.3	1.3	2.4	2.5	2.9	1.0	0.8	5.7	9.0	27.3	48.2	37.7	48.7	40.5	128.1	190.8	284.5	174.0	279.6	629.2	619.1	439.2	124.0	629.2	
2	483.1	265.9	406.1	323.7	705.4	347.9	137.4	84.9	58.2	81.3	61.7	40.9	45.3	53.0	60.5	42.6	47.9	61.7	80.3	37.4	27.4	22.8	22.4	22.4	146.7	705.4	
3	9.4	18.2	18.3	28.4	27.1	23.2	35.5	84.1	142.2	106.2	X	X	X	X	X	52.1	34.8	42.1	55.5	48.6	13.3	41.6	12.6	44.1	142.2	44.1	142.2
4	6.6	0.7	0.6	0.4	0.6	3.3	0.9	2.0	32.3	268.1	203.1	200.5	103.2	196.0	98.8	140.6	170.0	186.0	163.9	177.8	262.2	98.5	39.5	134.2	103.7	268.1	
5	43.0	33.7	46.1	3.2	2.3	45.3	54.6	205.2	380.2	313.6	170.4	203.4	93.4	67.8	58.5	74.7	112.2	59.6	89.5	111.5	82.4	44.1	141.9	111.0	106.2	380.2	
6	8.5	3.1	2.4	6.7	1.8	1.4	1.0	2.4	4.4	5.3	4.1	3.1	6.2	41.4	18.6	42.8	3.0	3.3	8.1	14.8	15.1	12.1	11.7	14.8	9.8	42.8	
7	11.2	16.5	8.9	7.1	8.1	7.8	7.2	11.0	12.7	12.6	6.3	6.8	8.1	7.0	10.0	4.6	13.4	16.7	14.4	3.8	2.8	4.9	3.5	3.4	8.7	16.7	
8	3.3	3.3	3.2	3.2	3.9	4.3	4.0	4.5	4.3	4.2	4.0	3.8	31.2	5.1	5.8	63.4	15.1	4.3	6.3	6.9	2.8	4.0	3.1	2.9	8.2	63.4	
9	1.5	1.3	0.6	0.8	0.6	0.6	0.8	0.9	2.0	2.4	8.3	55.2	93.3	54.1	24.7	24.3	38.5	43.4	25.7	10.3	36.5	50.2	45.7	40.5	23.4	93.3	
10	25.7	11.6	67.1	91.2	103.9	199.2	186.5	166.0	94.6	129.9	212.1	64.8	37.4	28.4	31.5	34.2	34.4	38.5	16.6	9.2	48.9	23.5	4.6	1.8	69.2	212.1	
11	1.6	5.3	3.5	12.4	18.1	46.8	5.7	3.1	1.0	5.2	34.0	39.2	46.9	79.7	88.0	86.9	34.2	48.6	51.0	17.1	3.2	1.3	0.7	0.3	26.4	88.0	
12	0.5	0.5	0.5	0.9	7.0	7.8	28.6	10.0	23.8	86.5	150.6	94.5	76.9	92.6	88.2	62.5	62.7	19.6	4.8	1.0	0.6	1.2	0.9	1.2	34.3	150.6	
13	1.3	1.2	1.1	1.0	1.5	2.2	3.1	7.5	7.7	10.5	8.4	9.3	16.9	16.4	22.3	17.0	33.1	21.7	10.4	4.8	5.8	5.4	6.9	4.3	9.2	33.1	
14	5.1	5.9	5.4	4.5	3.6	6.0	4.9	4.3	3.6	7.2	5.7	5.5	7.0	5.1	3.2	3.5	7.3	7.6	5.2	4.0	3.5	2.2	2.2	1.2	4.7	7.6	
15	1.2	1.9	3.7	3.0	1.9	2.1	2.5	2.3	9.5	21.5	9.6	3.5	5.8	4.9	7.3	2.5	2.1	1.1	1.4	2.4	3.8	5.4	5.9	19.5	5.2	21.5	
16	16.8	6.4	6.1	3.2	1.9	1.5	1.6	1.9	5.4	6.8	8.9	5.0	4.0	4.5	5.6	20.3	12.4	2.1	2.3	11.6	4.9	6.5	6.4	11.8	6.6	20.3	
17	16.0	2.1	24.1	1.8	1.4	1.2	6.6	32.4	24.1	44.0	60.9	4.9	2.9	6.7	17.7	11.4	10.3	7.7	7.8	8.0	9.1	8.0	12.0	13.5	60.9		
18	10.1	10.6	8.8	11.1	11.0	6.6	5.4	7.4	7.2	11.7	32.4	15.9	14.3	12.3	11.7	13.5	15.2	15.5	14.1	14.7	14.6	12.2	12.5	12.4	12.5	32.4	
19	14.8	15.9	14.2	10.9	10.2	12.5	16.4	24.0	25.9	17.7	14.5	15.9	13.2	11.3	11.6	9.0	8.6	10.9	11.7	10.8	10.4	8.3	8.2	9.1	13.2	25.9	
20	8.9	10.4	11.1	10.6	9.0	8.5	9.9	7.7	16.5	8.6	9.3	10.9	42.8	20.4	49.6	95.9	59.8	17.5	16.7	8.2	8.8	10.1	2.8	2.6	19.0	95.9	
21	2.1	2.2	2.1	2.2	2.1	2.6	2.7	3.3	28.1	39.2	46.1	22.7	16.4	9.3	4.7	11.7	2.6	1.6	1.6	1.1	1.2	1.0	1.4	1.0	8.7	46.1	
22	2.7	1.0	0.4	1.1	1.6	1.3	1.3	1.1	2.4	3.8	5.5	6.1	6.6	2.8	5.9	10.8	6.0	2.0	3.1	2.5	1.8	1.8	1.3	1.4	3.1	10.8	
23	1.3	1.3	5.6	9.8	5.5	2.3	5.7	8.3	34.1	15.2	37.8	40.0	35.1	18.6	7.3	16.1	2.0	3.4	1.8	1.1	3.9	3.6	4.6	8.9	11.4	40.0	
24	8.9	8.7	8.2	6.5	8.4	5.9	3.2	3.0	4.2	3.8	2.1	5.1	2.0	5.4	5.6	4.0	6.4	8.4	12.3	11.8	9.8	8.3	7.0	6.7	12.3	8.7	
25	4.0	4.8	0.8	0.7	2.5	5.2	6.9	6.1	12.8	6.5	13.4	16.0	22.9	20.7	22.0	24.3	36.3	27.3	96.5	99.9	72.6	182.1	238.9	121.8	43.5	238.9	
26	181.7	109.1	66.3	71.7	69.1	78.6	84.1	166.3	502.5	334.1	494.8	187.5	198.1	145.5	191.6	166.2	61.6	115.7	166.9	126.7	107.0	99.9	69.8	34.5	159.6	502.5	
27	32.0	38.4	17.7	5.7	35.2	22.2	51.8	144.5	104.7	70.4	81.8	72.8	145.2	79.6	84.3	113.7	78.4	74.2	122.4	97.7	110.2	188.5	168.3	109.9	85.4	188.5	
28	70.8	38.5	29.9	24.1	26.7	17.6	8.4	106.7	158.1	84.0	88.1	51.0	44.5	65.6	39.0	37.6	19.2	11.3	19.7	16.9	16.4	15.8	15.2	10.7	42.3	158.1	
29	20.5	9.9	8.9	5.5	9.0	8.4	30.0	30.9	29.3	23.0	12.7	20.0	15.7	13.0	4.9	1.4	0.7	0.8	1.3	0.2	0.2	0.2	0.3	0.5	10.3	30.9	
30	0.2	0.6	5.9	11.5	12.1	13.0	14.1	13.9	13.0	11.1	8.7	9.3	10.9	12.5	10.2	8.5	7.1	5.9	5.5	7.8	5.1	2.4	2.4	3.3	8.1	14.1	
31	4.9	6.8	5.8	6.3	10.1	8.1	9.3	14.3	15.8	8.2	6.7	6.4	8.0	8.2	4.8	4.6	7.1	13.2	13.5	9.0	5.9	6.7	9.3	6.8	8.3	15.8	
NO.	31	31	31	31	31	31	31	31	31	31	30	30	30	30	30	30	30	31	31	31	31	31	31	31	738	99%	
MEAN	32.2	20.5	24.6	22.4	35.6	28.9	23.5	36.6	57.1	55.8	59.8	43.4	40.1	37.4	34.4	39.8	35.1	34.1	42.0	34.2	38.9	47.6	48.6	37.5			
MAX	483.1	265.9	406.1	323.7	705.4	347.9	186.5	205.2	502.5	334.1	494.8	198.1	196.0	191.6	166.2	170.0	190.8	284.5	177.8	279.6	629.2	619.1	439.2				



Number of Non-Zero Readings		738
Maximum 1-HR Average	705.4	UG/M3
Maximum 24-HR Average	159.6	UG/M3
Monthly Calibration Standard Deviation	75.67	
Operational Time	0	
Operational Uptime	99.2 %	
Monthly Average	37.9	UG/M3

Berm TSP ($\mu\text{g}/\text{m}^3$) – March 2020

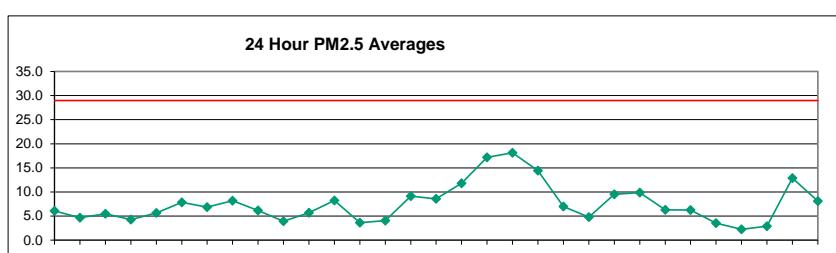
	HOUR																								MEAN	MAX	
DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1	0.8	0.4	1.1	1.0	2.2	2.3	2.4	0.7	0.6	27.9	78.5	196.6	525.2	220.1	388.2	210.3	613.1	717.2	1119.1	662.0	1020.1	2312.7	2301.3	1835.9	510.0	2312.7	
2	1959.8	1064.5	1602.6	1352.4	2319.4	1329.4	581.3	316.7	217.2	289.3	229.3	172.2	181.3	193.4	204.5	194.9	195.6	227.4	335.6	160.4	98.9	90.8	78.5	60.2	560.7	2319.4	
3	10.1	32.4	61.2	213.6	142.3	109.4	166.2	301.3	481.9	364.7	X	X	X	X	X	X	X	171.5	144.1	158.3	173.4	156.5	57.1	133.2	60.9	163.2	481.9
4	34.9	0.5	0.4	0.3	0.4	3.1	0.6	4.4	391.2	2981.3	2079.3	1163.0	442.9	1076.4	536.6	562.7	724.3	624.7	502.1	485.1	681.6	280.8	105.4	344.6	542.8	2981.3	
5	104.4	72.8	103.7	5.6	2.2	160.8	226.7	735.6	1381.3	1137.3	505.7	515.1	236.2	178.1	148.6	180.6	302.0	183.8	262.4	286.0	215.0	98.7	335.1	281.3	319.1	1381.3	
6	14.6	3.1	3.8	8.8	1.3	1.0	0.6	1.6	4.0	5.1	3.9	2.9	7.0	87.5	31.3	50.2	2.8	2.6	27.6	15.3	15.6	11.3	11.4	14.6	13.7	87.5	
7	10.5	16.1	7.7	6.1	7.4	6.8	6.7	10.4	12.5	14.0	5.7	5.6	8.3	7.1	11.0	4.4	14.9	18.7	15.6	2.5	2.0	4.1	2.3	2.2	8.4	18.7	
8	2.1	2.2	2.1	2.0	2.5	2.8	2.6	2.9	2.8	11.2	3.5	31.6	5.6	8.9	65.3	19.5	4.9	6.7	5.3	2.1	3.4	2.1	2.0	2.0	8.2	65.3	
9	1.1	1.0	0.4	4.4	0.4	0.4	0.5	0.6	4.6	7.2	17.6	81.8	131.1	84.2	53.0	65.4	167.8	125.3	42.5	34.6	186.1	211.2	113.7	123.8	60.8	211.2	
10	81.7	48.6	266.9	469.7	413.2	898.9	775.1	936.5	435.6	596.2	877.3	261.5	135.8	114.3	102.7	153.7	172.4	176.3	80.3	35.8	60.0	42.0	10.0	3.2	297.8	936.5	
11	1.6	4.6	3.0	24.2	71.1	234.6	83.7	2.7	0.8	46.2	48.9	81.5	154.8	162.5	130.6	70.7	108.3	128.8	29.4	10.4	1.2	1.5	0.2	58.7	234.6		
12	0.3	0.3	0.3	0.6	12.8	22.2	82.2	21.0	56.4	200.0	377.2	183.6	200.5	218.6	234.0	152.0	1092.3	170.9	4.9	0.7	0.4	0.8	0.6	0.8	126.4	1092.3	
13	0.8	0.8	0.7	0.7	1.0	1.7	2.6	7.9	7.4	11.3	8.4	103.2	297.2	290.9	775.8	548.9	842.0	471.4	148.1	4.5	5.8	5.3	6.1	3.5	147.8	842.0	
14	4.5	5.7	5.0	4.0	2.8	6.0	4.1	3.6	2.9	7.4	5.5	5.1	5.9	4.9	2.8	3.1	7.8	8.1	5.3	3.4	2.6	1.5	1.4	0.8	4.3	8.1	
15	0.8	1.2	2.9	2.3	1.3	1.5	1.8	1.7	176.0	223.5	82.0	6.9	11.6	5.7	7.7	3.3	1.4	1.2	0.9	1.6	4.7	5.1	21.8	23.8	223.5		
16	17.3	5.5	4.9	2.3	1.3	1.0	1.1	2.0	51.4	60.9	33.5	13.2	10.2	11.8	18.8	36.4	20.2	2.7	1.6	34.4	15.9	27.4	21.3	45.6	18.4	60.9	
17	53.1	1.8	1.8	107.3	1.2	0.9	0.8	11.2	69.6	50.7	59.2	93.4	8.7	5.2	75.4	409.3	334.8	252.6	6.7	6.4	6.4	7.2	6.0	9.9	65.8	409.3	
18	7.9	7.5	5.8	7.5	7.2	4.3	3.5	4.9	5.0	9.4	42.6	30.1	23.1	14.8	13.3	25.0	50.7	85.6	11.8	11.1	10.8	8.2	8.1	8.0	16.9	85.6	
19	9.8	10.7	9.9	7.1	6.8	8.4	13.1	23.2	25.1	13.5	17.6	113.5	55.8	26.3	42.3	26.5	9.8	13.0	21.4	8.0	7.6	5.5	5.4	6.2	20.3	113.5	
20	6.1	7.0	7.6	7.1	6.1	5.7	6.8	10.5	40.0	11.8	12.1	22.4	80.4	57.4	96.7	176.9	155.5	32.8	27.7	8.3	8.7	8.3	2.9	4.8	33.5	176.9	
21	2.9	2.0	1.6	3.1	2.0	4.6	4.5	5.6	61.8	73.9	97.4	39.5	25.2	13.8	25.0	190.9	1.7	1.1	0.7	0.8	0.6	0.9	0.6	23.4	190.9		
22	2.1	0.7	0.3	0.7	1.1	0.9	0.9	0.8	14.0	18.6	15.6	19.2	10.7	3.4	13.5	35.1	14.8	1.7	4.4	2.3	2.3	1.4	0.9	1.5	6.9	35.1	
23	0.9	1.0	7.9	19.2	19.0	2.8	9.8	12.8	39.5	35.8	50.8	73.8	92.9	43.8	9.5	28.7	5.7	4.0	1.6	0.8	2.7	2.4	3.1	6.1	19.8	92.9	
24	6.2	5.6	5.3	4.2	6.0	4.2	2.1	2.1	2.9	2.6	42.5	136.9	6.3	6.9	34.8	3.2	5.2	5.4	8.1	8.3	7.9	6.4	5.4	5.4	13.5	136.9	
25	3.2	3.9	0.6	0.5	2.0	5.5	6.5	5.7	12.8	6.2	12.7	25.9	40.4	43.2	59.3	74.2	107.5	71.3	319.7	279.1	204.4	506.4	757.0	121.1	757.0		
26	517.9	400.7	245.5	262.6	237.7	199.0	247.0	502.0	1529.5	1030.7	1519.7	657.3	707.5	530.5	725.0	572.9	233.5	406.2	591.8	449.5	325.7	283.8	188.0	84.3	518.7	1529.5	
27	50.8	108.3	62.1	17.3	136.5	79.6	160.4	365.4	256.0	160.6	203.1	198.0	366.0	237.1	242.1	360.5	230.1	225.4	393.9	300.3	425.7	628.3	531.8	405.8	256.0	628.3	
28	256.0	155.2	119.4	81.8	72.9	48.8	20.5	285.8	377.9	199.7	217.2	162.5	132.6	190.0	150.8	123.5	62.6	37.5	47.6	44.8	34.6	45.3	33.2	30.2	122.1	377.9	
29	72.9	38.2	29.2	8.3	25.9	16.9	122.8	133.0	110.4	92.0	44.6	77.0	62.9	43.6	10.9	1.1	1.6	1.7	2.7	0.1	0.1	0.2	0.4	37.4	133.0		
30	0.2	0.4	4.4	7.4	7.8	8.4	9.1	9.0	8.4	7.3	5.7	6.0	7.3	9.2	7.2	6.3	5.8	5.1	3.7	5.2	3.3	1.6	2.2	5.5	9.2		
31	3.2	4.4	3.8	4.2	7.3	5.9	7.2	12.8	15.8	7.1	41.4	55.9	70.7	72.5	25.7	27.7	106.8	192.1	14.3	8.9	5.2	6.3	8.9	6.2	29.8	192.1	
NO.	31	31	31	31	31	31	31	31	31	31	30	30	30	30	30	30	30	31	31	31	31	31	31	31	738	99%	
MEAN	104.5	64.7	83.0	85.0	113.6	102.5	82.4	120.5	187.0	247.0	224.8	149.2	133.2	131.7	140.6	147.5	185.3	139.5	138.6	99.0	113.6	150.5	151.0	120.3			
MAX	1959.8	1064.5	1602.6	1352.4	2319.4	1329.4	775.1	936.5	1529.5	2981.3	2079.3	1163.0	707.5	1076.4	775.8	572.9	1092.3	717.2	1119.1	662.0	1020.1	2312.7	2301.3	1835.9			



Number of 24HR Exceedences	12	Proposed Guideline
Number of Non-Zero Readings	738	
Maximum 1-HR Average	2981.3 UG/M3	
Maximum 24-HR Average	560.7 UG/M3	
I2S Calibration Time		
Monthly Calibration	0	
Standard Deviation	308.0	
Operational Time		
Operational Uptime		
Monthly Average	133.8 UG/M3	
738 HRS		
99.2 %		

Entrance PM_{2.5} ($\mu\text{g}/\text{m}^3$) – March 2020

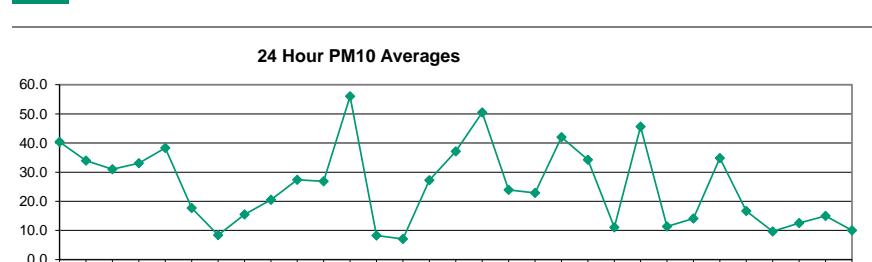
Day	HOUR																								MEAN	MAX	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1	2.0	1.3	2.1	1.6	1.5	3.3	9.8	12.6	15.0	8.5	2.7	3.1	3.2	2.9	4.5	4.6	4.0	7.6	6.6	4.4	5.5	11.6	13.5	13.7	6.1	15.0	
2	16.1	6.7	6.4	5.3	13.9	6.1	2.8	3.6	4.2	3.8	3.2	4.4	6.9	3.6	3.8	2.5	3.5	3.2	3.6	2.6	1.2	1.4	1.4	0.9	4.6	16.1	
3	0.8	0.8	2.9	6.0	4.5	1.1	2.2	4.9	7.0	10.2	8.1	10.6	6.4	6.5	9.8	8.7	7.7	7.7	4.4	4.9	3.6	4.1	2.7	4.7	5.4	10.6	
4	4.8	2.7	2.1	1.3	1.6	1.0	1.5	5.8	6.0	8.4	11.6	13.4	5.8	8.0	3.5	3.6	3.9	6.4	3.5	1.2	1.3	1.0	1.9	1.6	4.2	13.4	
5	0.8	1.2	2.1	6.4	12.6	2.5	2.6	7.1	9.7	8.5	4.9	4.5	3.7	9.8	9.4	3.4	7.4	8.7	6.3	4.7	3.4	5.2	5.5	4.8	5.6	12.6	
6	14.3	8.1	8.4	9.7	8.3	5.5	3.3	5.0	7.7	6.4	5.8	4.4	2.2	3.5	4.8	3.1	1.8	1.7	8.8	10.9	16.8	18.8	12.5	16.3	7.8	18.8	
7	12.8	14.2	9.1	8.1	6.4	7.2	5.5	5.5	5.9	4.3	4.4	4.3	4.4	7.9	5.8	5.1	9.1	8.5	11.1	7.6	3.6	3.8	4.9	4.8	6.8	14.2	
8	4.9	4.8	4.6	5.5	7.1	9.2	12.7	10.4	10.9	12.4	7.1	5.2	6.2	22.8	3.8	1.8	6.4	8.1	8.7	9.0	6.9	8.5	11.2	8.1	8.2	22.8	
9	5.9	15.8	16.2	19.3	8.1	4.4	1.1	3.6	5.5	31.8	7.0	2.6	2.5	4.7	3.6	2.5	2.3	1.5	1.0	1.4	2.2	1.7	1.4	1.3	6.2	31.8	
10	1.7	1.9	2.8	4.2	2.6	4.7	11.3	9.2	5.1	7.4	8.8	4.8	3.3	2.3	2.9	4.1	3.9	3.0	1.3	2.0	1.3	1.6	1.6	2.1	3.9	11.3	
11	16.5	9.3	4.7	3.7	9.4	2.2	15.9	10.2	4.8	4.0	5.8	7.2	5.3	3.8	2.8	2.3	4.8	1.8	1.7	1.5	4.8	2.9	1.5	9.1	5.7	16.5	
12	5.7	2.6	8.8	10.3	8.2	17.5	23.5	7.7	23.5	15.0	7.5	6.0	9.6	7.6	6.7	4.6	6.6	8.8	3.2	3.5	2.7	2.9	1.7	2.8	8.2	23.5	
13	2.2	2.1	2.2	2.0	2.3	2.0	2.4	2.0	2.2	2.2	2.7	3.5	4.4	4.1	5.7	4.1	6.8	5.7	4.2	4.2	5.2	4.0	3.7	6.4	3.6	6.8	
14	4.5	4.5	5.2	4.2	3.7	4.5	3.9	4.0	4.5	5.2	4.8	4.5	4.0	3.7	3.2	2.9	4.7	4.4	4.2	3.5	3.4	4.5	2.7	2.1	4.0	5.2	
15	3.5	10.3	23.1	7.8	5.5	11.2	34.2	28.6	13.5	12.3	4.9	5.9	3.0	3.4	6.1	3.6	2.6	2.4	2.9	4.9	5.8	7.6	8.1	7.6	9.1	34.2	
16	8.6	9.4	11.6	7.1	7.3	8.6	11.9	12.8	9.2	10.5	11.0	10.5	9.5	6.4	3.4	4.2	4.2	2.9	7.5	5.1	5.8	8.7	11.6	17.6	8.6	17.6	
17	29.2	10.9	8.6	14.5	4.2	7.8	5.9	34.9	28.3	13.8	7.0	6.9	10.5	6.4	5.5	9.3	8.2	8.4	10.4	9.3	9.5	11.1	10.9	11.8	11.8	34.9	
18	11.6	13.2	12.3	14.7	15.7	12.3	15.7	13.7	14.2	18.6	18.8	17.9	16.9	18.0	17.1	18.1	21.1	19.0	18.7	19.3	20.6	20.0	20.5	24.7	17.2	24.7	
19	25.8	25.3	20.4	21.4	19.0	23.1	23.5	23.6	24.0	21.7	20.8	20.9	17.8	15.2	14.2	14.7	14.7	13.4	13.8	13.2	11.8	11.2	15.5	12.5	12.2	18.1	25.8
20	14.0	16.1	19.3	35.2	21.4	18.9	19.9	13.3	20.1	13.2	21.5	22.0	8.8	5.7	7.2	6.9	3.3	6.4	10.8	13.0	12.5	14.2	12.9	9.9	14.4	35.2	
21	13.6	11.0	7.7	16.4	8.6	8.4	10.3	20.2	11.4	4.6	9.1	4.6	3.1	3.1	3.9	7.3	4.6	4.0	3.8	2.2	2.1	1.7	3.1	2.6	7.0	20.2	
22	3.1	3.3	2.4	3.8	6.8	6.5	12.4	16.5	8.1	4.8	3.3	3.1	2.6	3.7	2.8	3.3	2.5	4.5	2.8	3.4	3.2	3.4	3.0	4.4	4.7	16.5	
23	8.6	13.2	11.0	15.3	14.5	16.8	13.9	24.3	12.2	5.8	5.7	6.9	6.1	8.2	6.2	3.2	5.5	7.9	3.4	2.7	5.9	7.8	9.3	13.4	9.5	24.3	
24	13.4	13.9	13.8	11.0	10.6	8.9	5.1	3.6	3.4	3.3	1.9	2.9	3.4	6.7	9.3	9.3	12.5	15.9	18.8	14.8	17.2	14.4	12.4	10.1	9.9	18.8	
25	4.0	4.8	2.9	8.1	11.5	3.9	4.1	7.6	13.1	5.3	29.9	9.2	4.6	4.4	6.6	5.1	3.0	3.7	2.3	2.2	2.5	6.8	2.7	6.3	29.9		
26	2.5	3.9	3.1	3.2	3.1	3.6	5.4	9.7	10.4	12.7	19.5	12.6	11.5	9.8	8.1	6.0	4.0	4.0	3.8	3.2	2.5	2.5	2.6	2.4	6.2	19.5	
27	2.3	2.3	2.4	2.3	2.4	2.6	3.7	6.1	7.7	10.2	7.3	5.9	4.8	5.1	4.2	4.1	2.3	1.4	1.9	0.7	1.0	1.2	1.1	1.5	3.5	10.2	
28	0.7	0.5	0.6	0.8	0.4	0.5	3.3	2.3	3.3	4.1	4.0	2.6	4.6	3.8	2.7	3.0	2.9	2.9	2.0	1.0	1.3	2.2	1.8	1.8	2.2	4.6	
29	2.6	2.0	0.8	1.5	0.5	0.5	2.6	2.5	13.1	3.7	3.1	4.1	3.0	1.5	2.4	1.2	1.0	8.3	1.3	3.1	4.1	1.8	1.3	2.9	2.9	13.1	
30	1.6	7.6	18.1	17.2	17.3	20.0	21.8	22.9	18.6	16.3	15.7	14.4	18.1	16.8	15.6	14.8	10.9	6.7	6.7	6.9	7.4	3.7	3.8	5.5	12.8	22.9	
31	8.0	7.7	7.8	10.1	11.4	9.6	11.3	13.1	14.5	9.0	6.0	5.1	5.5	5.4	5.2	5.5	5.8	6.7	10.3	6.9	5.9	6.5	8.8	7.9	8.1	14.5	
NO.	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	744	100%	
MEAN	7.9	7.5	7.9	9.0	8.1	7.6	9.8	11.2	10.9	9.6	8.8	7.6	6.5	6.9	6.1	5.6	5.8	6.3	6.1	5.5	5.8	6.3	6.3	7.0			
MAX	29.2	25.3	23.1	35.2	21.4	23.1	34.2	34.9	28.3	31.8	29.9	22.0	18.1	22.8	17.1	18.1	21.1	19.0	18.8	19.3	20.6	20.0	20.5	24.7			



Number of 24HR Exceedences	0	Proposed Guideline
Number of Non-Zero Readings	744	
Maximum 1-HR Average	35.2 UG/M3	
Maximum 24-HR Average	18.1 UG/M3	
Monthly Calibration Standard Deviation	0	Operational Time
	5.96	Operational Uptime
		744 HRS
		100.0 %
		7.5 UG/M3

Entrance PM₁₀ ($\mu\text{g}/\text{m}^3$) – March 2020

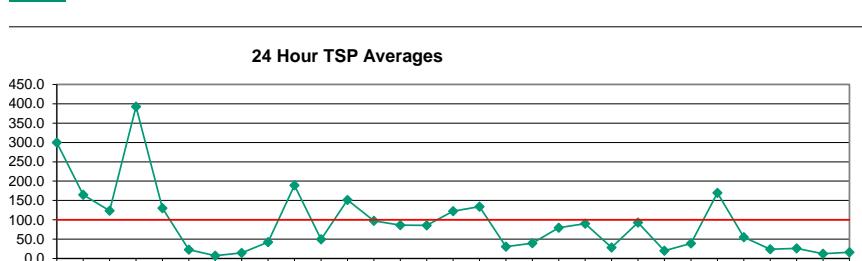
Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	2.4	1.4	2.3	1.9	1.9	4.8	14.6	18.9	36.1	41.2	8.8	13.4	17.5	20.7	29.5	45.8	36.4	77.8	65.6	51.2	56.2	133.9	152.7	133.7	40.4	152.7
2	144.5	55.8	59.5	47.0	126.6	52.8	22.5	26.8	30.6	26.2	16.2	25.6	40.9	20.0	18.7	11.8	15.9	15.1	19.7	16.8	4.7	8.2	6.4	2.7	34.0	144.5
3	1.9	2.2	14.1	34.4	24.4	6.1	17.7	39.8	51.5	55.8	51.3	64.3	37.3	41.5	67.3	46.8	38.2	34.3	19.7	28.7	16.2	18.4	12.5	20.1	31.0	67.3
4	10.5	3.9	3.1	1.8	2.2	1.5	6.5	35.3	23.8	79.0	106.0	157.7	85.1	83.1	24.7	31.0	31.1	40.3	26.7	8.9	7.9	7.0	9.5	7.2	33.1	157.7
5	3.4	5.8	7.8	50.0	102.8	23.6	22.4	76.9	95.3	74.3	30.7	28.5	20.2	75.9	71.1	15.7	39.4	48.5	29.9	20.2	12.0	23.0	25.0	17.6	38.3	102.8
6	85.9	42.7	36.7	14.5	12.4	8.1	4.5	6.2	10.9	8.9	8.3	15.8	6.1	15.0	14.2	17.2	6.4	4.4	12.2	13.8	22.0	22.5	15.1	21.1	17.7	85.9
7	16.2	18.3	11.0	9.8	7.0	7.6	5.8	5.7	6.3	5.0	5.3	5.4	5.7	11.0	8.0	6.5	12.7	11.9	15.6	7.8	3.8	4.0	5.1	4.9	8.4	18.3
8	5.1	5.1	4.9	6.2	8.3	11.5	17.5	13.4	15.2	18.4	9.5	6.3	9.8	131.0	10.7	3.8	9.1	10.0	13.3	11.2	9.5	12.3	16.8	11.8	15.5	131.0
9	8.8	23.5	24.3	28.9	12.2	6.5	1.4	6.6	38.0	181.2	33.4	10.0	9.9	20.3	17.0	10.5	13.5	6.8	3.7	4.9	12.4	6.6	5.4	5.4	20.5	181.2
10	6.5	12.3	23.6	41.3	17.1	40.9	89.3	89.9	45.0	57.3	74.8	25.7	13.5	12.4	12.6	18.9	18.4	16.2	5.5	9.4	5.8	6.8	6.0	7.9	27.4	89.9
11	85.9	43.1	20.2	16.8	47.5	10.4	23.7	15.2	7.1	16.5	24.6	37.4	34.4	19.7	11.6	12.7	17.9	8.8	4.9	7.5	28.9	21.8	5.5	121.8	26.8	121.8
12	39.4	21.8	83.3	85.3	60.2	186.5	124.2	59.9	213.7	105.3	47.2	39.4	66.8	54.5	48.1	24.1	49.3	15.2	4.2	4.6	3.5	3.5	2.1	3.4	56.1	213.7
13	2.7	2.7	2.8	2.6	3.0	2.4	2.9	2.4	2.7	2.8	3.6	4.8	6.2	17.6	39.6	19.1	33.4	10.8	5.6	5.4	7.2	5.2	4.5	7.4	8.2	39.6
14	5.5	5.6	6.6	5.2	4.5	5.8	6.4	5.6	6.8	11.8	10.7	7.6	7.0	7.9	7.5	5.2	20.2	13.1	7.0	4.4	3.9	5.3	2.8	3.4	7.1	20.2
15	6.4	15.3	34.6	11.6	7.9	21.0	51.2	184.9	90.3	82.9	14.2	21.5	5.7	8.5	16.0	6.7	4.0	3.9	4.1	8.7	13.7	16.3	12.0	11.2	27.2	184.9
16	12.7	14.0	17.4	10.5	10.7	12.9	17.9	29.8	70.3	79.2	76.4	70.2	50.8	28.6	8.9	20.8	18.7	7.3	37.7	22.5	27.0	56.5	81.3	109.3	37.1	109.3
17	160.5	53.0	44.8	107.6	13.7	39.7	30.9	213.0	164.3	59.3	35.0	35.3	55.5	29.3	22.0	49.9	14.7	10.9	13.2	10.6	10.5	12.4	12.0	13.2	50.5	213.0
18	12.8	13.9	12.8	15.4	16.9	13.6	18.8	17.0	18.5	41.1	49.0	26.5	26.8	33.2	24.5	27.4	31.1	26.5	23.5	22.9	23.8	21.6	23.7	33.1	23.9	49.0
19	37.9	35.5	26.3	24.7	22.2	27.6	28.7	28.2	28.4	23.8	21.7	26.8	20.3	16.9	18.3	26.0	19.6	20.0	16.6	12.8	12.4	22.4	16.5	15.4	22.9	37.9
20	19.3	22.7	24.4	52.6	31.9	28.3	29.7	28.1	84.9	52.9	110.9	118.6	32.9	19.7	27.8	32.7	10.3	21.8	30.0	36.1	31.6	44.7	54.4	62.7	42.0	118.6
21	92.3	65.2	36.1	94.6	57.2	50.3	62.1	135.4	54.3	14.2	55.0	21.9	9.5	14.9	12.8	18.5	5.4	4.9	4.5	2.4	2.3	2.0	3.5	3.2	34.3	135.4
22	3.7	4.8	3.2	5.1	9.9	9.5	18.5	27.8	42.4	20.6	9.4	4.8	8.7	9.5	6.7	8.7	5.2	13.5	6.1	8.6	7.6	7.8	7.0	16.1	11.0	42.4
23	51.3	77.5	60.7	96.0	108.7	132.2	96.3	164.7	79.2	23.6	19.0	24.9	25.7	31.1	20.3	7.7	15.8	11.8	4.9	3.6	6.5	8.3	10.1	14.4	45.6	164.7
24	13.9	14.1	14.0	11.1	11.1	10.1	5.6	4.1	4.3	3.7	2.3	6.9	5.2	9.3	15.8	13.4	15.1	17.4	21.0	15.5	18.5	15.0	13.4	11.3	21.0	
25	5.3	6.0	3.2	9.1	13.8	4.4	5.7	10.7	17.2	6.8	38.2	24.3	14.5	19.0	25.7	24.8	12.4	17.9	5.4	3.9	3.7	5.1	52.1	8.0	14.1	52.1
26	6.3	20.2	11.0	12.6	11.1	14.1	26.4	70.3	70.1	88.0	155.3	85.3	78.0	56.2	41.9	24.5	11.4	12.7	13.5	10.5	4.0	4.8	4.1	3.6	34.8	155.3
27	3.8	3.6	4.5	4.6	5.4	8.0	12.7	33.0	43.9	59.0	41.9	29.7	26.1	29.9	18.1	23.9	10.5	4.1	10.0	1.7	4.8	5.3	6.2	8.6	16.6	59.0
28	3.4	1.6	3.0	4.4	1.0	1.5	12.0	10.4	17.6	19.9	20.3	11.9	22.3	15.5	11.4	12.1	11.8	11.5	6.9	3.0	4.7	9.9	8.6	7.6	9.7	22.3
29	11.9	9.1	3.1	7.2	4.2	1.3	13.4	13.6	63.2	20.4	15.0	21.2	13.9	8.5	15.3	7.2	7.2	44.3	2.5	4.5	6.0	2.6	1.5	3.6	12.5	63.2
30	2.2	11.2	24.3	17.4	17.6	21.0	22.7	25.3	19.6	20.1	19.0	16.6	24.2	21.4	19.8	19.3	14.2	8.1	7.0	7.0	7.4	3.8	3.8	5.6	14.9	25.3
31	8.1	7.8	7.9	10.3	12.3	10.1	12.3	15.1	19.0	11.4	7.0	7.2	7.4	8.0	6.6	8.6	10.6	9.5	14.3	8.8	7.2	8.5	12.2	10.5	10.0	19.0
NO.	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	744	100%
MEAN	28.1	20.0	20.4	27.1	25.3	25.0	26.6	45.6	47.4	42.3	36.1	32.1	25.4	28.7	22.3	19.4	18.1	18.0	14.7	12.2	12.4	17.0	19.1	22.8		
MAX	160.5	77.5	83.3	107.6	126.6	186.5	124.2	213.0	213.7	181.2	155.3	157.7	85.1	131.0	71.1	49.9	49.3	77.8	65.6	51.2	56.2	133.9	152.7	133.7		



Number of Non-Zero Readings	744
Maximum 1-HR Average	213.7 UG/M3
Maximum 24-HR Average	56.1 UG/M3
Monthly Calibration Standard Deviation	30.92
Operational Time	0
Operational Uptime	744 HRS
Monthly Average	100.0 %
	25.3 UG/M3

Entrance TSP ($\mu\text{g}/\text{m}^3$) – March 2020

Day	HOUR																								MEAN	MAX
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	1.7	0.9	1.6	1.4	1.6	4.8	16.3	21.7	53.8	140.9	45.5	38.2	78.7	172.9	199.6	534.3	273.1	694.8	558.1	624.5	410.0	1143.9	1268.3	903.9	299.6	1268.3
2	829.9	276.8	322.9	307.8	673.4	331.1	130.4	135.8	119.7	100.1	58.4	61.3	96.6	57.5	57.8	39.4	52.1	58.3	70.2	84.5	14.3	49.3	22.2	9.0	164.9	829.9
3	2.0	6.2	70.1	181.7	93.3	42.6	83.6	180.5	188.3	178.7	170.6	322.3	171.9	171.7	261.3	218.0	175.0	106.8	43.3	80.3	52.8	44.4	34.1	81.4	123.4	322.3
4	34.8	3.8	3.0	1.6	1.9	1.3	10.5	52.5	137.4	846.8	1124.8	2378.0	1706.2	1697.6	218.7	323.7	370.1	217.3	149.5	44.3	33.8	31.1	14.3	15.6	392.4	2378.0
5	13.9	10.6	13.0	74.7	152.4	153.1	102.0	427.1	585.8	444.5	112.4	110.1	78.4	235.2	201.7	45.9	77.0	97.5	53.2	25.3	14.4	37.5	38.4	23.4	130.3	585.8
6	105.1	53.0	53.9	14.3	12.4	7.8	3.9	4.6	10.2	7.7	8.1	23.3	15.6	32.3	22.0	50.1	15.6	7.3	10.6	13.3	24.2	20.9	13.9	20.9	23.0	105.1
7	16.3	18.4	9.4	7.8	5.0	4.9	3.8	3.7	4.1	3.4	3.7	4.2	5.2	11.8	8.6	6.2	14.0	13.2	16.6	5.0	2.4	2.6	3.3	3.2	7.4	18.4
8	3.3	3.3	3.2	4.0	5.4	7.6	11.9	8.8	11.1	17.2	7.9	4.5	8.3	127.0	14.4	6.1	13.4	12.1	23.9	7.9	8.4	11.0	18.7	11.6	14.6	127.0
9	9.5	26.4	28.2	33.5	13.9	7.2	1.0	10.9	112.1	350.4	67.9	21.7	41.2	39.5	23.5	42.0	14.8	12.7	18.6	51.6	25.0	16.2	15.8	42.4	350.4	
10	19.2	64.1	151.7	472.1	135.8	268.3	560.5	792.6	464.9	536.3	587.9	111.9	35.9	50.0	35.2	54.0	56.9	58.0	20.3	25.4	12.5	11.9	6.9	10.4	189.3	792.6
11	73.2	41.7	17.8	20.7	53.8	127.8	26.8	17.2	7.9	17.3	36.7	62.1	76.7	54.9	27.5	34.1	25.6	19.5	10.7	14.4	55.4	61.3	7.9	298.4	49.6	298.4
12	56.2	52.3	160.0	155.1	152.0	578.9	192.8	192.9	644.3	284.6	100.8	93.7	140.0	138.1	119.7	46.1	447.5	59.2	3.8	4.1	2.8	2.4	1.5	2.3	151.3	644.3
13	1.9	2.0	2.3	2.1	2.2	1.7	2.1	1.7	2.1	2.1	3.1	4.4	6.0	385.3	919.3	422.9	484.4	54.6	5.2	4.7	7.2	4.7	3.5	5.9	97.1	919.3
14	4.7	5.0	6.0	4.3	6.6	5.3	94.4	26.0	49.4	204.6	136.0	83.9	139.7	154.5	55.8	602.9	322.1	82.7	3.8	2.9	3.9	5.4	20.6	86.4	602.9	
15	30.1	17.0	40.2	13.0	8.2	36.6	59.5	692.9	488.6	442.1	23.8	44.0	17.3	12.9	27.2	12.7	5.6	5.3	3.6	12.4	25.6	20.7	13.2	12.0	86.0	692.9
16	12.8	14.5	19.1	11.2	11.0	14.2	20.4	67.8	306.9	419.8	328.6	225.8	136.6	65.4	17.2	49.6	46.5	7.8	116.0	110.3	74.9	224.7	299.6	343.2	122.7	419.8
17	378.8	95.8	126.7	460.6	30.1	69.2	57.4	240.6	240.9	94.3	63.7	65.1	140.9	79.2	92.5	781.3	128.4	10.1	12.6	8.4	7.7	9.3	8.8	10.3	133.9	781.3
18	9.7	10.0	8.7	10.6	11.6	9.1	13.0	12.9	14.5	58.4	82.4	43.4	52.7	70.5	32.2	45.9	59.7	78.3	23.0	18.7	18.9	15.0	16.5	25.0	30.9	82.4
19	32.3	28.0	19.3	17.1	16.1	20.5	23.9	24.8	24.5	17.6	15.0	201.9	91.0	43.2	80.2	117.3	46.2	33.4	31.5	9.4	8.4	20.3	13.3	11.5	39.4	201.9
20	15.7	18.7	16.8	59.0	32.8	30.1	32.8	46.5	284.6	177.2	202.2	192.3	90.1	57.6	59.5	63.0	32.8	45.7	56.8	59.4	43.8	49.2	83.3	163.0	79.7	284.6
21	346.0	185.3	67.7	157.7	212.1	168.6	153.9	267.3	103.4	24.6	111.4	43.4	16.8	47.3	37.4	207.1	3.6	3.7	3.4	1.6	1.5	1.3	2.4	2.1	90.4	346.0
22	2.6	4.6	2.6	4.0	10.2	10.1	20.9	49.6	183.7	107.6	66.2	6.4	36.6	23.4	12.2	18.5	11.7	26.6	9.8	12.1	14.9	10.8	9.5	27.0	28.4	183.7
23	104.3	100.8	135.7	235.7	362.7	257.4	162.1	245.6	165.8	84.9	54.4	41.9	69.8	70.8	38.2	17.6	36.1	11.6	4.8	3.2	4.6	5.4	7.0	10.3	93.0	362.7
24	9.2	9.2	9.0	7.2	7.5	7.9	3.8	2.8	11.1	2.6	9.6	128.7	59.1	40.3	60.7	23.9	13.8	12.0	14.6	10.5	12.5	9.8	9.2	8.9	20.2	128.7
25	4.2	5.0	2.2	6.2	10.9	3.0	5.3	9.5	13.3	8.5	37.4	46.3	35.8	58.7	72.1	83.4	43.1	50.2	16.5	11.8	9.7	18.2	335.6	44.3	38.8	335.6
26	20.6	117.1	71.2	60.8	84.7	58.0	104.7	388.2	334.8	496.0	787.0	409.5	383.4	228.2	200.2	106.2	41.5	44.1	61.2	36.7	7.8	15.7	8.0	8.3	169.7	787.0
27	10.3	13.6	17.9	21.8	28.8	30.7	49.1	136.9	167.2	149.0	109.7	67.0	75.6	83.4	52.8	76.1	29.2	14.1	43.3	11.8	25.4	24.0	36.4	52.8	55.3	167.2
28	23.2	6.3	16.0	34.3	3.2	8.2	33.0	23.2	50.4	36.3	40.5	31.6	48.1	50.6	31.0	23.7	23.7	22.7	12.4	2.4	6.3	15.5	25.8	11.7	24.2	50.6
29	27.7	18.0	3.4	6.9	13.0	2.2	43.6	64.1	112.8	73.4	30.9	54.7	26.1	18.5	44.4	15.8	13.8	39.3	4.9	4.6	6.6	2.7	1.2	2.7	26.3	112.8
30	2.0	12.6	23.8	11.3	11.4	14.1	15.0	17.7	13.4	16.2	14.6	12.5	21.2	21.8	20.7	20.3	15.1	7.2	4.8	4.5	4.8	2.4	2.5	3.6	12.2	23.8
31	5.3	5.0	5.1	6.8	8.7	6.7	8.6	12.0	19.1	10.7	7.9	33.7	35.0	22.6	21.1	21.7	70.5	34.2	15.7	8.7	6.0	7.9	12.5	9.9	16.5	70.5
NO.	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	744	100%
MEAN	71.2	39.6	46.1	77.6	70.1	73.8	66.0	134.8	158.9	172.7	143.5	160.2	123.9	139.0	102.6	114.3	105.5	70.4	48.3	41.4	31.4	61.4	75.5	70.0		
MAX	829.9	276.8	322.9	472.1	673.4	578.9	560.5	792.6	644.3	846.8	1124.8	2378.0	1706.2	1697.6	919.3	781.3	602.9	694.8	558.1	624.5	410.0	1143.9	1268.3	903.9		



Number of 24HR Exceedences	10	Proposed Guideline
Number of Non-Zero Readings	744	
Maximum 1-HR Average	2378.0 UG/M3	
Maximum 24-HR Average	392.4 UG/M3	
Monthly Calibration Standard Deviation	194.6	Operational Time Operational Uptime Monthly Average
		744 HRS 100.0 % 91.6 UG/M3