LAFARGE CANADA INC.

AMBIENT AIR QUALITY MONTHLY REPORT

DECEMBER 2018

JANUARY 25, 2019

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DECEMBER 2018

LAFARGE CANADA INC.

PROJECT NO.: 171-00556-00
DATE: JANUARY 25, 2019

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January 25, 2019

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

Attention: Janet Brygger

Dear Ms. Brygger

Subject: Ambient Air Quality Monthly Report - December 2018

The operational uptime for the meteorological systems and all analyzers at the Lagoon station was over 98% in December. There were two exceedances of the 24-hour TSP Alberta Ambient Air Quality Objectives (AAAQOs) and zero exceedances of the $PM_{2.5}$ AAAQOs in December at the Lagoon monitoring location.

All analyzers at the Windridge station had over 98% operational uptime in December. There were 16 exceedances of the 24-hour TSP AAAQO and zero exceedances of the 24-hour $PM_{2.5}$ AAAQO and 1-hour $PM_{2.5}$ AAAQG. TSP exceedances occurred on days with high wind speeds.

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 the 3 monitors was as follows: 96.8% at the West monitor station due to 24 hours of dryer pump repair; 100% at both the Berm and Entrance monitor stations. The Entrance GRIMM monitor exceeded the 24-hour TSP AAAQO for 21 days, with 2 exceedances of the 24-hour $PM_{2.5}$ AAAQO, while the Berm GRIMM had 20 exceedances of the TSP Objective and 12 exceedances of the $PM_{2.5}$ Objective. The West GRIMM monitor recorded zero exceedances of the 24-hour $PM_{2.5}$ Objective and the 24-hour TSP Objective.

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

Sincerely,

Tyler Abel, M.Sc.
Group Manager, Air Quality
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Date

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January 25, 2019

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Date

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

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1 INTRODUCTION

This report summarizes the ambient air quality and meteorological data collected at the Lagoon, Windridge, and the GRIMM monitors in Exshaw, AB. The station is operated by WSP on behalf of Lafarge Canada Inc. (Lafarge) and is a requirement of Lafarge's Approval 1702-02-04. This report contains data collected between December 1, 2018 and December 31, 2018.

This monthly report was prepared by Rowena Seto, Junior Air Quality Specialist with WSP, on behalf of Lafarge and was reviewed by Tyler Abel, Manager of Air Quality and Air Quality Specialist at WSP.

1.1 FUGITIVE DUST CONTRIBUTIONS FROM LAC DES ARCS

In December 2018, Lafarge environmental staff noted the potential contributions of fugitive dust in the airshed from the exposed lake bed of Lac Des Arcs, immediately south and west of the Lafarge plant site. Low water levels have left more of the lake shore/bed exposed this winter (Figure 1-1). During high wind events, the sediments from the exposed lake bed can be re-suspended, dispersed in air and become a significant source of fugitive dust impacting the community. Figure 1-2 below shows the visible fugitive dust plume coming from the lake bed, up-wind of the Lafarge plant site. This additional source of fugitive dust in the airshed would have an impact on ambient concentration of particulate matter at the monitor and exacerbate any dust originating from the plant site itself. December 2018 saw the highest historical wind speeds recorded since WSP began monitoring in 2015. Given these high wind speeds and the observations from Lafarge environmental staff it is likely that fugitive dust from Lac Des Arcs was a contributor to ambient particulate matter concentrations and AAAQO exceedances in December 2018.

Figure 1-1 **Photo of Lac Des Arcs showing exposed lake shore/bed under low water levels (photo taken January 10, 2019)**

Figure 1-2 **Photo showing fugitive dust plume from exposed lake shore/bed of Lac Des Arcs moving east towards the Lafarge plant and the Exshaw community (photo taken December 28, 2018)**

2 DECEMBER 2018 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	25.6	0	12.8	-
SO_2 (ppb)	100.0	9.0	0	2.9	0
$PM_{2.5}$ (µg/m^3)	100.0	24.8	0	8.7	0
PM_{10} (µg/m^3)	99.3	481.5	-	108.0	-
TSP (µg/m^3)	98.5	452.4	-	118.2	2
Temperature (°C)	100.0	8.1	-	6.0	-
Wind Speed (km/hr) /Direction (Degrees)	100.0	65.7/W	-	43.9/WSW	-
Precipitation (mm)	100.0	0.3	-	1*	-

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

Data Quality Notes:

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

Calibration/Maintenance Notes:

- The NO_x, SO_2, and $PM_{2.5}$ analyzers had 100% uptime for the month of December.
- The PM_{10} analyzer had 99.3% uptime for the month of December due to 5 hours of instrument maintenance.
- The TSP analyzer had 98.5% uptime for the month of December due to 5 hours of instrument maintenance and 6 hours of machine malfunction.
- All of the meteorological analyzers had 100% uptime for the month of December.

2.2 WINDRIDGE STATION

Table 2-2 Windridge station data summary

Parameter	Data Completeness (%)	1-Hour Average		24-hour Average	
		Maximum Concentration	Exceedances of AAAQO or AAAQG	Maximum Concentration	Exceedances of AAAQO
$PM_{2.5}$ (µg/m³)	100.0	45.5	0*	18.8	0
PM_{10} (µg/m³)	100.0	504.8	-	274.4	-
TSP (µg/m³)	98.0	504.1	-	324.5	16

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

Data Quality Notes:

- There were no exceedances of the 24-hour $PM_{2.5}$ AAAQO.
- There were no exceedances of the 1-hour $PM_{2.5}$ AAAQG.
- There were 16 days exceeding the 24-hour TSP AAAQO.

Calibration/Maintenance Notes:

- The $PM_{2.5}$ and PM_{10} analyzers had 100% uptime for the month of December.
- The TSP analyzer had 98% uptime due to 15 hours of machine malfunction.

2.3 WEST GRIMM

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

Table 2-3 West station data summary

Parameter	Data Completeness (%)	1-Hour Average		24-hour Average	
		Maximum Concentration	Exceedances of Guidelines	Maximum Concentration	Exceedances of Guidelines
$PM_{2.5}$ (µg/m³)	96.8	13.3	0*	6.4	0
PM_{10} (µg/m³)	96.8	19.2	-	8.2	-
TSP (µg/m³)	96.8	22.3	-	7.8	0

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

Data Quality Notes:

- There were no exceedances of the 24-hour $PM_{2.5}$ 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:

- All PM analyzers had 96.8% uptime for the month of December due to 24 hours of the dryer pump being repaired.

2.4 BERM GRIMM

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

Table 2-4 Berm station data summary

Parameter	Data Completeness (%)	1-Hour Average		24-hour Average	
		Maximum Concentration	Exceedances of Guidelines	Maximum Concentration	Exceedances of Guidelines
$PM_{2.5}$ (µg/m³)	100.0	223.2	79*	92.9	12
PM_{10} (µg/m³)	100.0	1906.2	-	680.8	-
TSP (µg/m³)	100.0	4032.9	-	1637.3	20

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

Data Quality Notes:

- There were 12 days exceeding the 24-hour $PM_{2.5}$ AAAQG.
- There were 79 hours exceeding the 1-hour $PM_{2.5}$ AAAQG.
- There were 20 days exceeding the 24-hour TSP AAAQG.

Calibration/Maintenance Notes:

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

2.5 ENTRANCE GRIMM

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

Table 2-5 Entrance station data summary

Parameter	Data Completeness (%)	1-Hour Average		24-hour Average	
		Maximum Concentration	Exceedances of Guidelines	Maximum Concentration	Exceedances of Guidelines
$PM_{2.5}$ (µg/m^3)	100.0	104.3	2*	31.1	2
PM_{10} (µg/m^3)	100.0	974.2	-	269.9	-
TSP (µg/m^3)	100.0	3314.8	-	1037.7	21

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

Data Quality Notes:

- There were 2 days exceeding the 24-hour $PM_{2.5}$ AAAQG.
- There were 2 hours exceeding the 1-hour $PM_{2.5}$ AAAQG.
- There were 21 days exceeding the 24-hour TSP AAAQG.

Calibration/Maintenance Notes:

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

3 LAGOON STATION

The Lagoon trailer contains NO_x, SO_2, TSP, PM_{10}, and $PM_{2.5}$ analyzers as well as meteorological sensors, and is shown in Figure 3-1. An ambient air quality station has been at this location since 2002, providing a long-term data record for air quality in the Exshaw area.

This section provides a summary of the monitoring activities for the Lagoon ambient air quality station, including: a table of instrumentation (Table 3-1), a data summary table (Table 3-2), site visit notes, a wind rose (Figure 3-2) and tables and graphs illustrating the monitoring results for December 2018.

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	No operational issues observed. The $PM_{2.5}$ monitor was calibrated on December 12th. The monitor had 100% uptime in December.
PM_{10} Concentrations	MetOne BAM-1020 Continuous Particulate Monitor	Instrument maintenance on December 19th led to 5 hours of lost operational time from 08:00 to 13:00. There hours were flagged as Y for maintenance. The PM_{10} monitor was calibrated on December 12th. Operational time and valid data was well above 90% for the month of December, at 99.3%.
TSP Concentrations	MetOne BAM-1020 Continuous Particulate Monitor	Instrument maintenance on December 19th led to 5 hours of lost operational time from 08:00 to 13:00. There hours were flagged as Y for maintenance. In addition, 6 hours of machine malfunction, flagged as X, occurred in December. The TSP monitor was calibrated on December 12th. Operational time and valid data was well above 90% for the month of December, at 98.5%.
Oxides of Nitrogen	TEI 42C	No operational issues observed. The NO_x monitor was calibrated on December 12th. The monitor had 100% uptime in December.
Sulphur Dioxide	Teledyne API 102A	No operational issues observed. The SO_2 monitor was calibrated on December 12th. The monitor had 100% uptime in December.
Precipitation	MetOne 130 Rain/Snow Gauge	No operational issues observed.

		The monitor had 100% uptime in December.
Wind Speed	MetOne Wind Sensor	No operational issues observed. The monitors had 100% uptime in December.
Wind Direction		
Ambient Temperature	MetOne Ambient Temperature Sensor	No operational issues observed. The monitor had 100% uptime in December.

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 December 2018. Table 3-2 summarizes the hourly and daily concentrations recorded in December 2018.

Figure 3-3 graphically illustrates the time series for hourly concentrations as well as wind speed and direction, while Figure 3- shows daily average concentrations recorded during December 2018 for the pollutants listed in Table 3-2. Additionally, Figure 3-4 to Figure 3-8 show the histograms of the hourly concentrations of NO_2, SO_2, $PM_{2.5}$, PM_{10}, and TSP measured at the Lagoon station.

There were two exceedances of the 24-hour TSP (100 µg/m^3) AAAQO and zero exceedances of the 24-hour $PM_{2.5}$ (30 µg/m^3) AAAQO. Historically in December, the average number of 24-hour TSP AAQO exceedances and 24-hour $PM_{2.5}$ AAAQO exceedances are both zero. The maximum number of 24-hour TSP exceedances was 1 day in 2011 and 2015. The station has not recorded an exceedance of the $PM_{2.5}$ AAQO in December since monitoring began in 2010.

The wind rose (Figure 3-2) indicates that the winds predominantly came from the westerly directions. These directions follow the general orientation of the valley. The second wind rose (Figure 3-10) shows wind data from the

two days (December 11, 2018 and December 31, 2018) exceeding the 24-hour TSP objective. During these days, the winds were predominantly from the west and west-southwest directions and over 20 km/hr. December 2018 saw the highest historical wind speeds recorded since WSP began monitoring in 2015. Given these high wind speeds and the observations from Lafarge environmental staff, fugitive dust from Lac Des Arcs' exposed lake bed/shore was a potential contributor to AAAQO exceedances in December 2018 (see discussion in Section 1.1).

Table 3-2 Summary of December 2018 data at Lagoon

Parameter	Guideline / Objectives		Station	Exceedances		Monthly		1-hour					24-hour		Operational Time (Percent)
	1-hr	24-hr		1-hr	24-hr	Minimum	Average	Maximum Concentration/ Meteorological Variable	Day	Hour	Wind Speed (km/hr)	Wind Direction (degrees)	Maximum Concentration/ Meteorological Variable	Day	
NO_2 (ppb)	159	-	Lagoon	0	-	0.0	6.1	25.6	5	18	1.8	44.4	12.8	27	100.0
SO_2 (ppb)	172	48	Lagoon	0	0	0.0	0.6	9.0	7	16	26.9	275.4	2.9	7	100.0
$PM_{2.5}$ (µg/m^3)	80	30	Lagoon	0	0	0.0	4.3	24.8	5	19	5.0	224.4	8.7	7	100.0
PM_{10} (µg/m^3)	-	-	Lagoon	-	-	0.0	34.0	481.5	14	13	49.5	254.7	108.0	11	99.3
TSP (µg/m^3)	-	100	Lagoon	-	2	0.0	44.4	452.4	11	9	43.5	256.7	118.2	11	98.5
Temperature (°C)	-	-	Lagoon	-	-	-16.1	-3.0	8.1	17	8	23.0	247.5	6.0	17	100.0
Wind Speed (km/hr)/Direction (degrees)	-	-	Lagoon	-	-	1.3	23.8	65.7/W	11	13	65.7	248.4	43.9/WSW	11	100.0
Precipitation (mm)	-	-	Lagoon	-	-	0.0	0.0	0.3					1.0	-	100.0

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

Date	TSP (ug/m^3)	$PM_{2.5}$ (ug/m^3)	Average Wind Direction (degrees)	Average Wind Speed (km/hr)	Average RH (%)	Root Cause (Provided by Lafarge)
Lagoon						
12/11/2018	118	-	253.8	43.9	43.3	high wind event
12/31/2018	116	-	273.0	18.9	62.1	
Total # of Exceedances	**2**	**0**				
Maximum # of Exceedances (December)	**1 (2011, 2015)**	**0 (2010 ~ 2017)**				
Average # of Exceedances (December)	**0**	**0**				
Minimum # of Exceedances (December)	**0 (2010, 2012 ~ 2014, 2016, 2017)**	**0 (2010 ~ 2017)**				

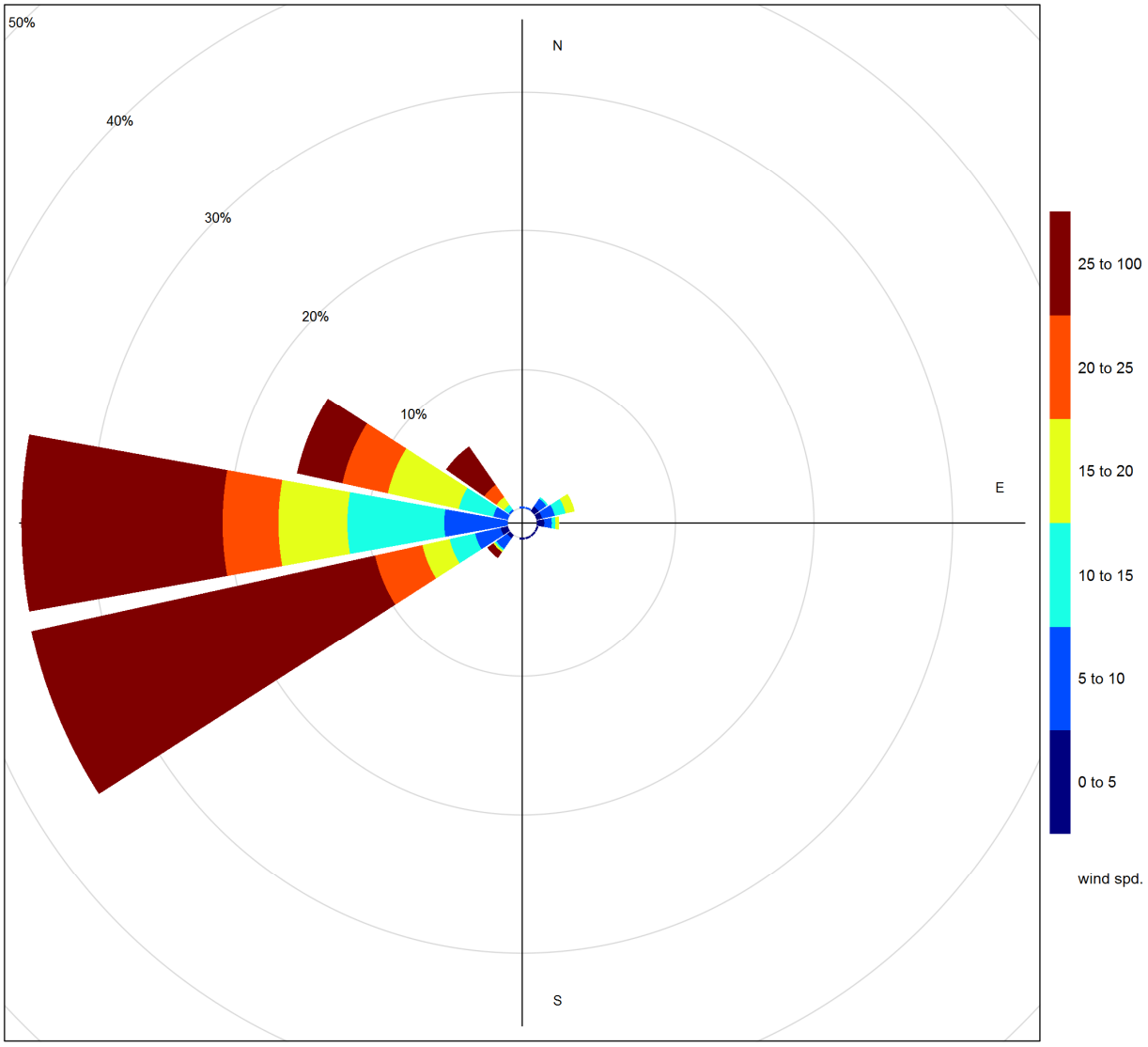

Figure 3-2 December 2018 wind rose from the Lagoon Station

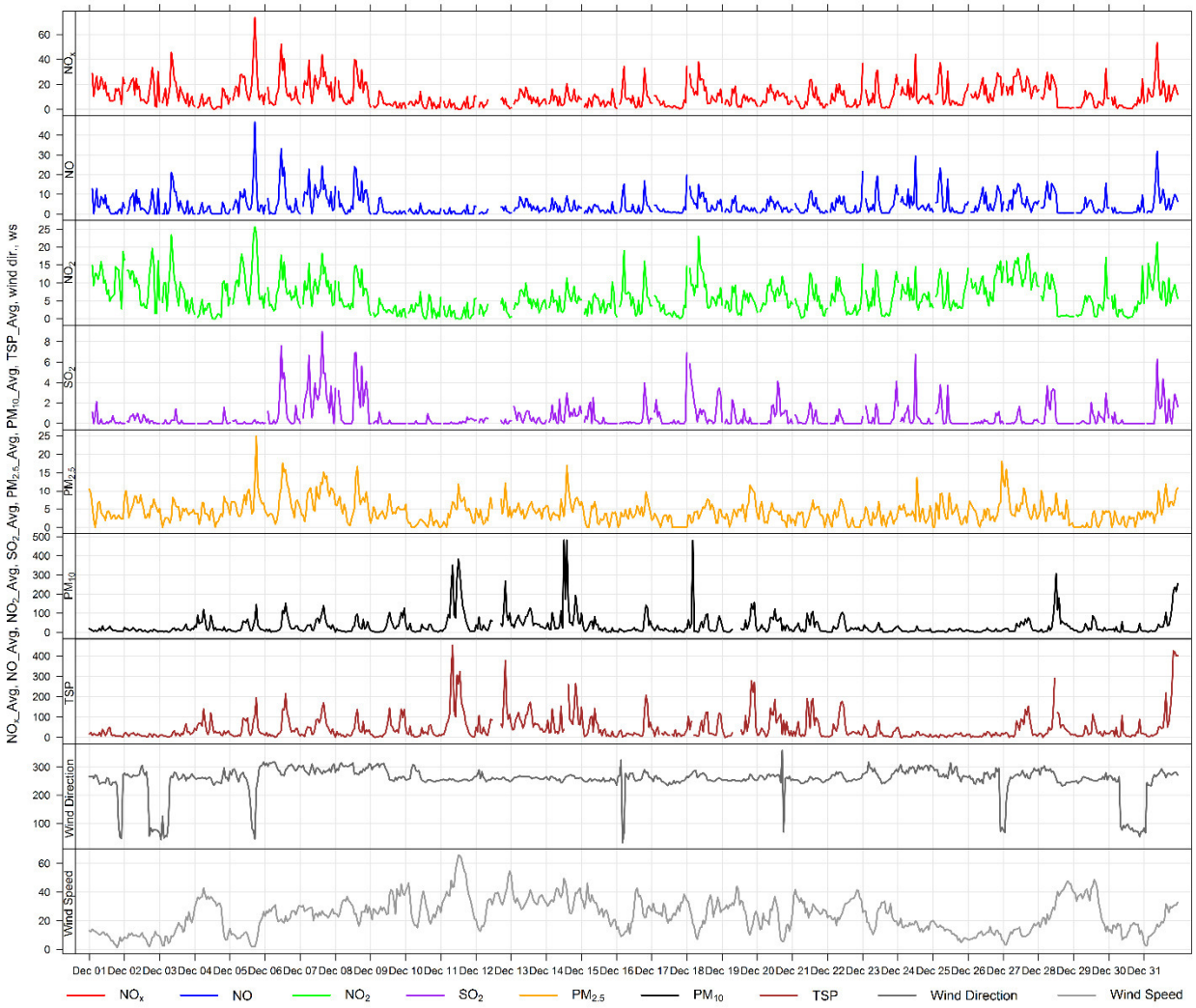

Figure 3-3 1-hour concentrations of NO_x, SO_2, particulate matter, wind direction and wind speed at the Lagoon station

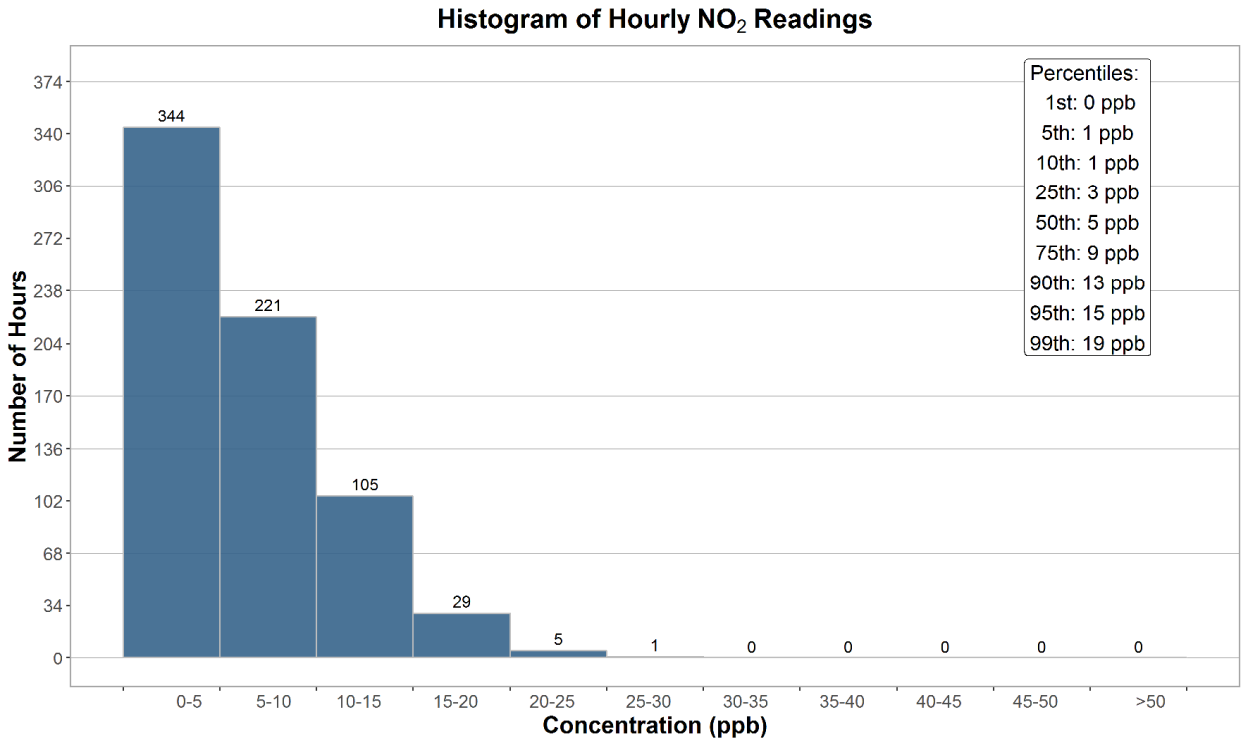

Figure 3-4 **Histogram of hourly NO_2 concentrations at the Lagoon station**

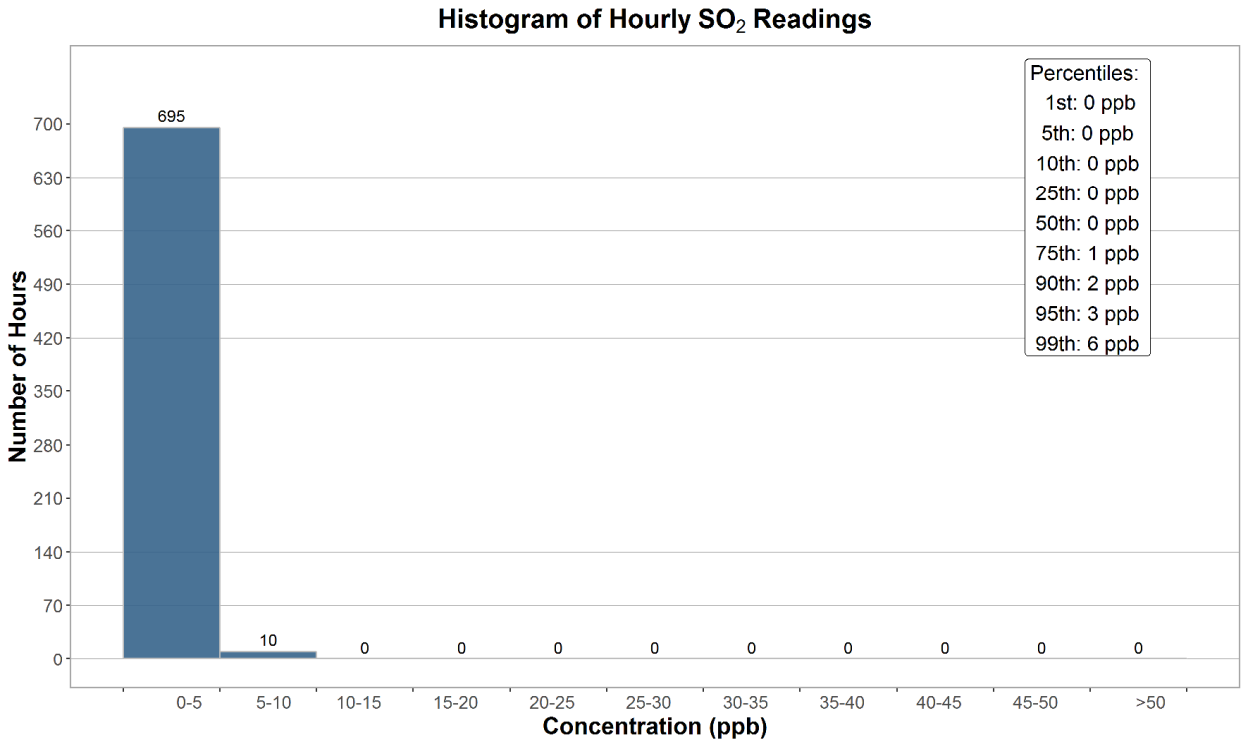

Figure 3-5 **Histogram of hourly SO_2 concentrations at the Lagoon station**

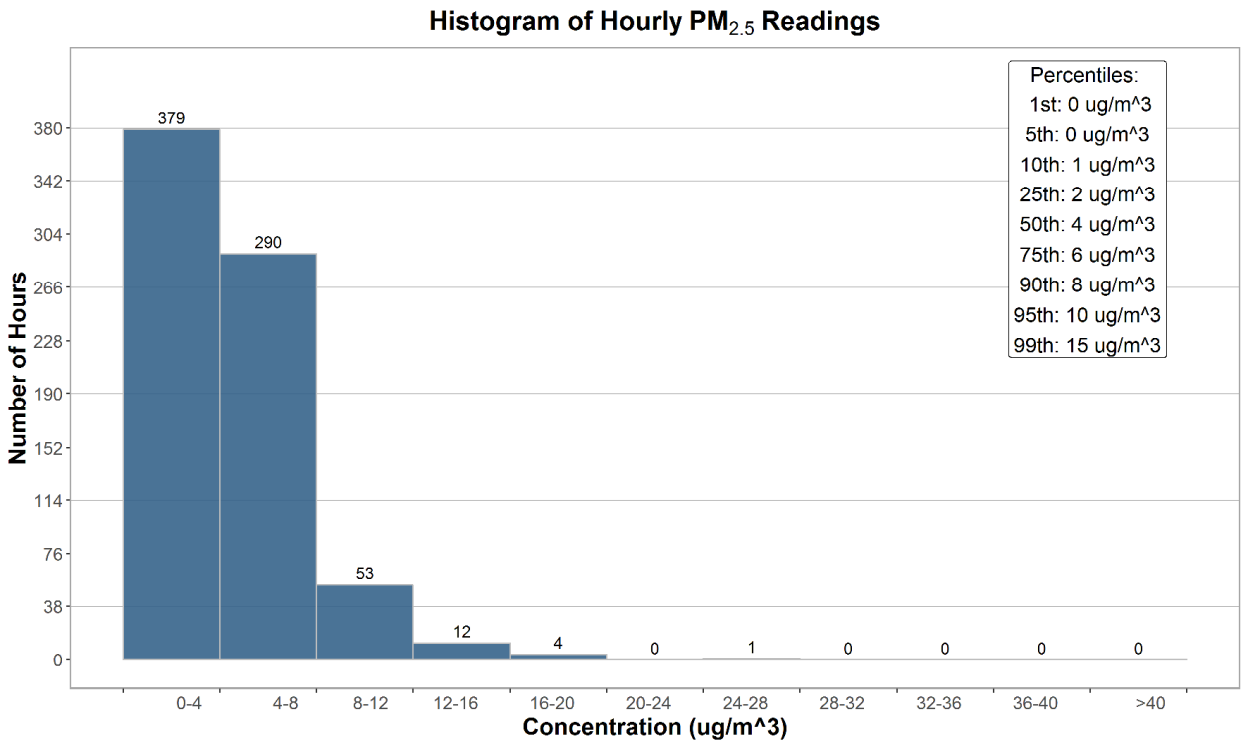

Figure 3-6 **Histogram of hourly $PM_{2.5}$ concentrations at the Lagoon station**

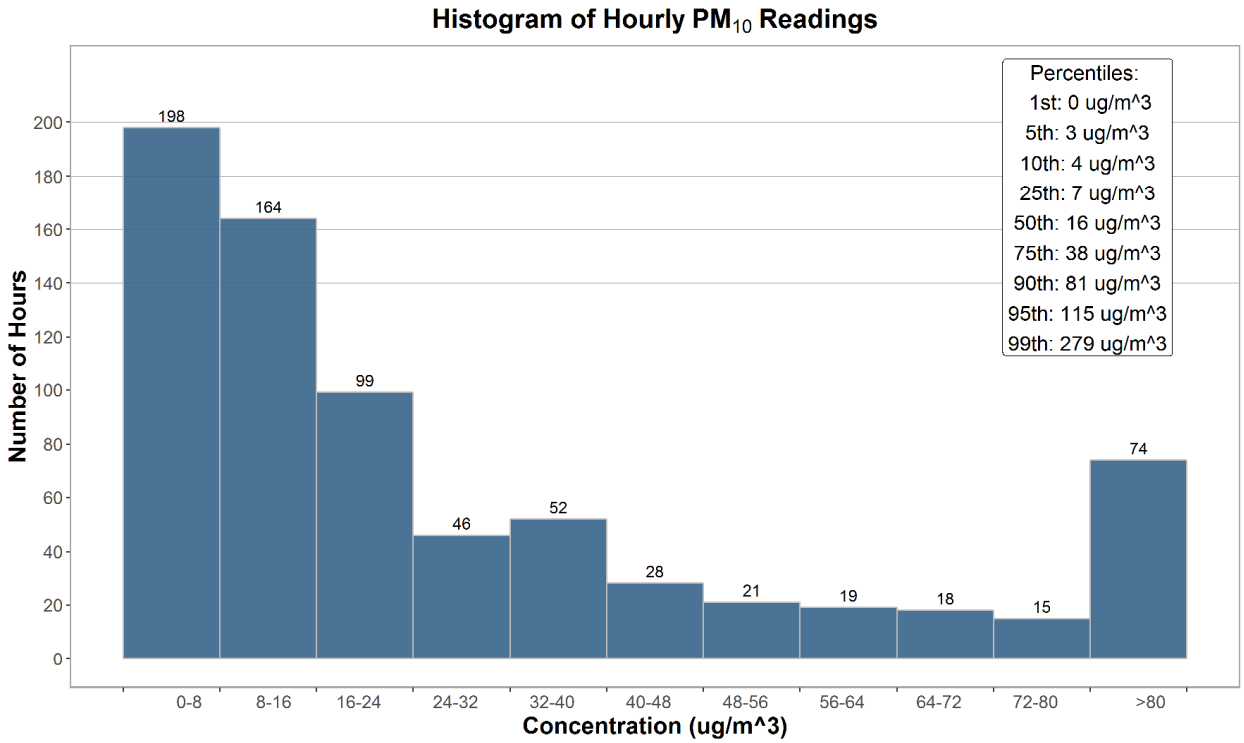

Figure 3-7 **Histogram of hourly PM_{10} concentrations at the Lagoon station**

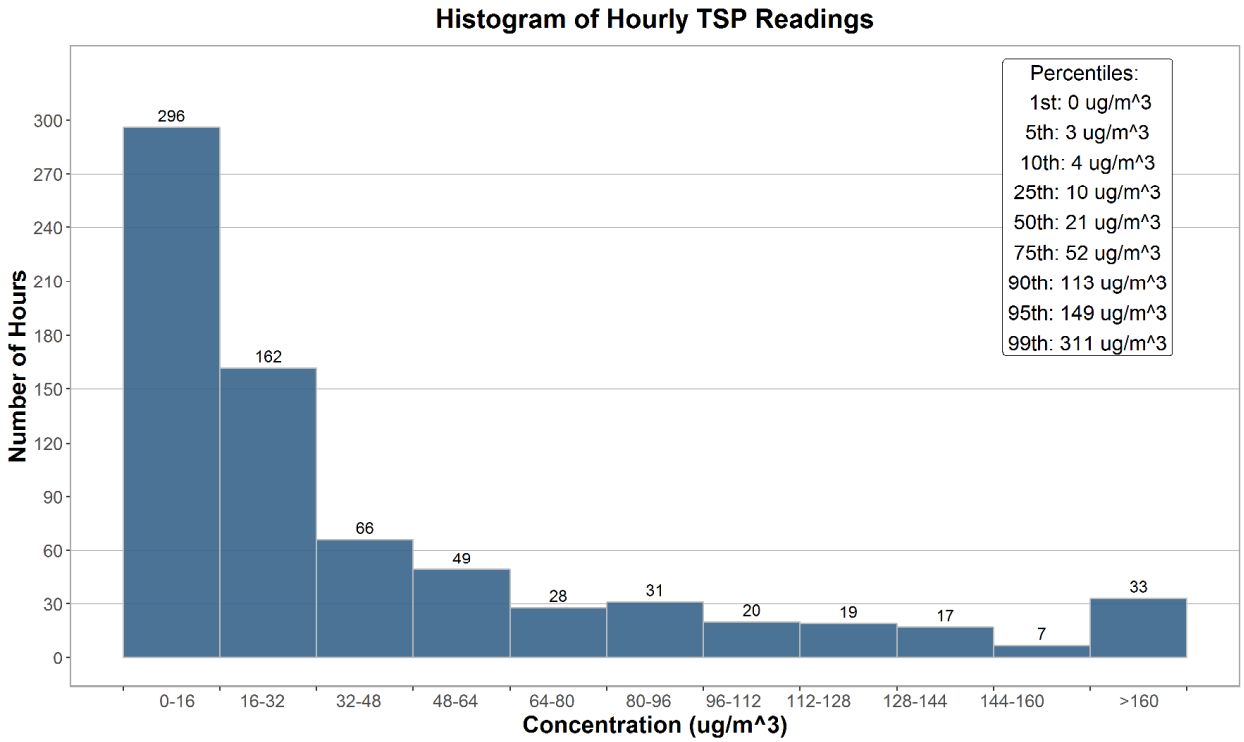

Figure 3-8 Histogram of hourly TSP concentrations at the Lagoon station

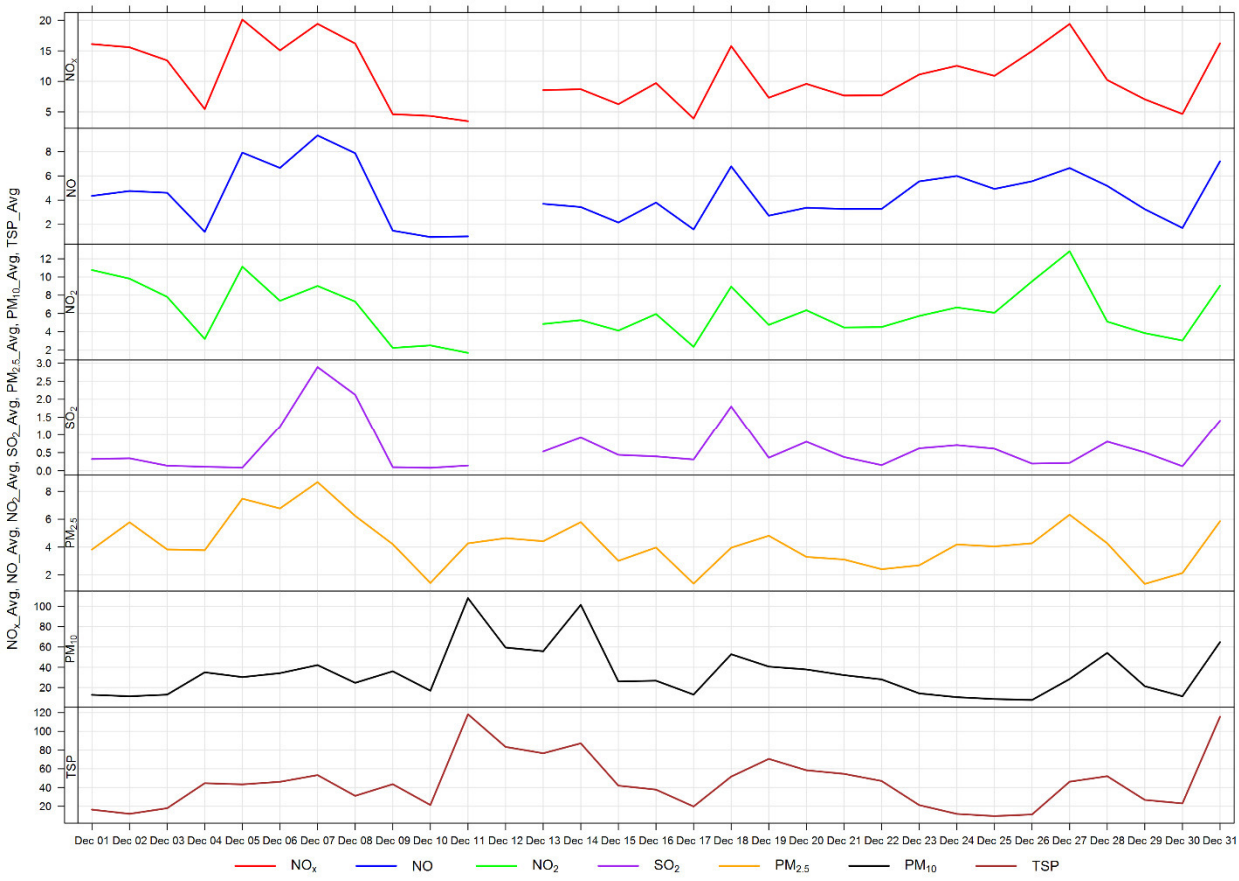

Figure 3-9 24-hour concentrations of NO_x, SO_2, and particulate matter at the Lagoon monitor

Figure 3- through Figure 3- show the variation in concentrations over various time averaging periods for PM, SO_2 and NO_x. The particulate matter plot in Figure 3- shows that PM_{10} 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 and December 2018 saw extremely high wind speeds.

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

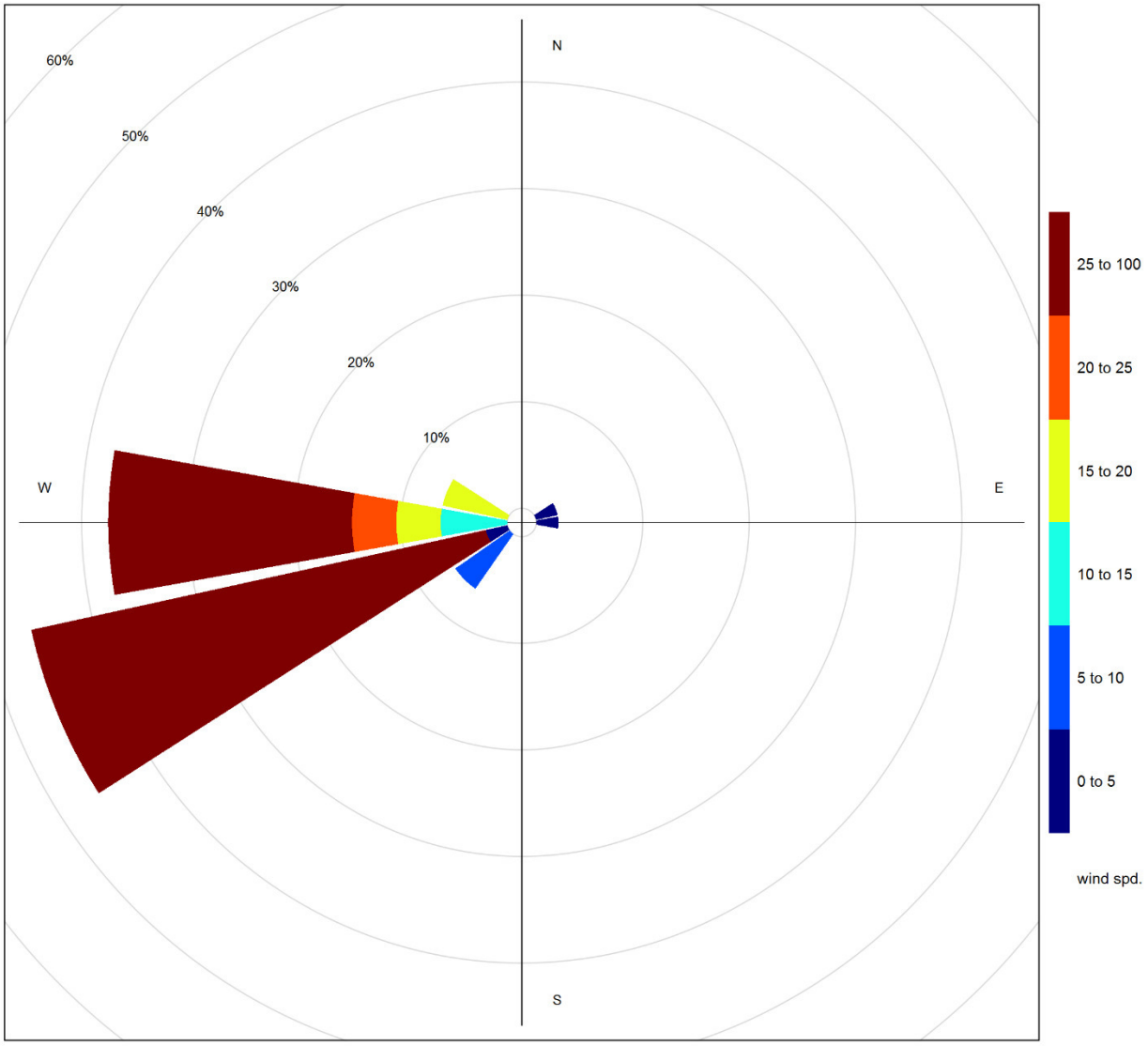

Figure 3-10 Wind rose for TSP exceedance days recorded at the Lagoon station

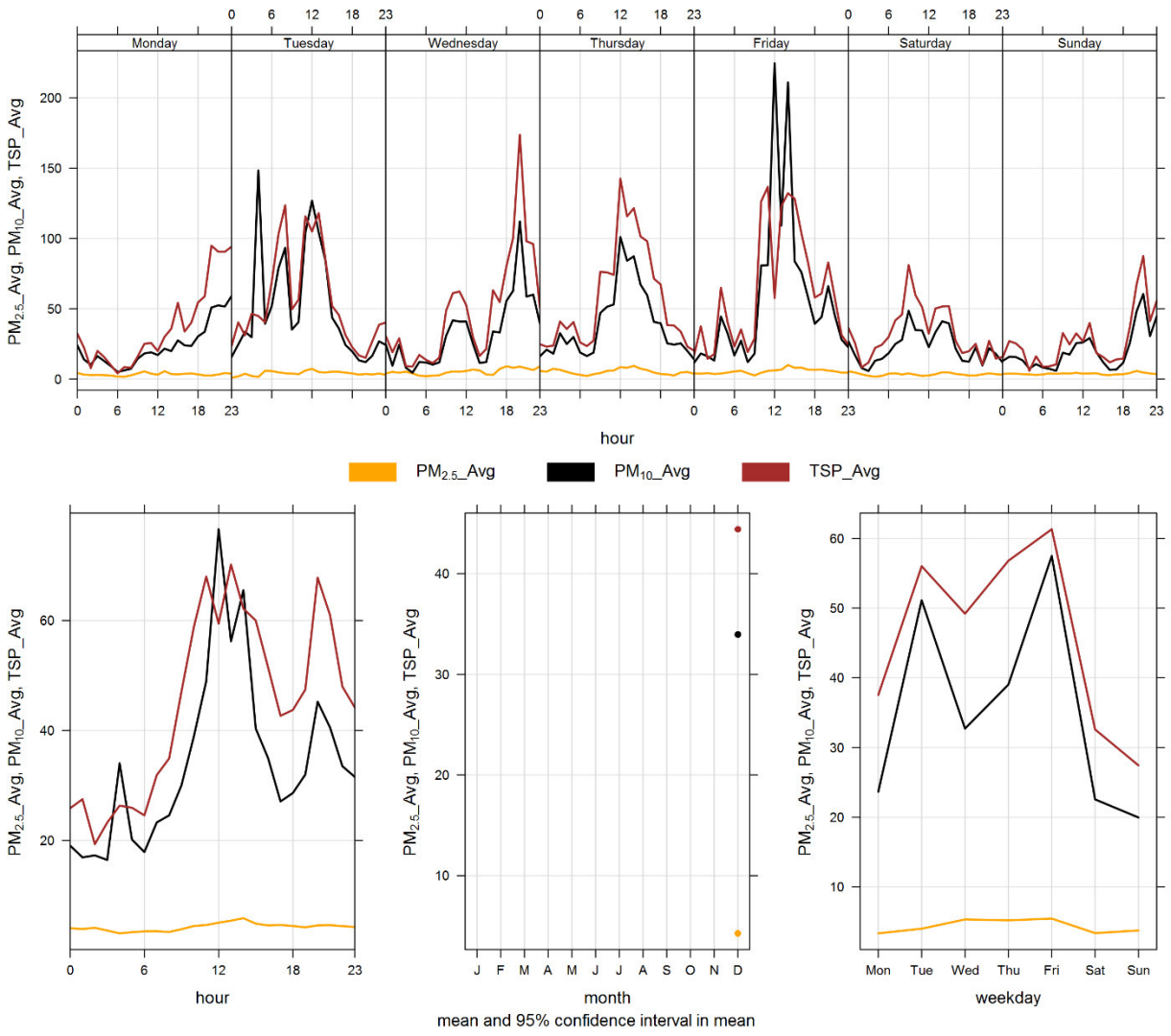

Figure 3-11 Lagoon monitor particulate matter time variation

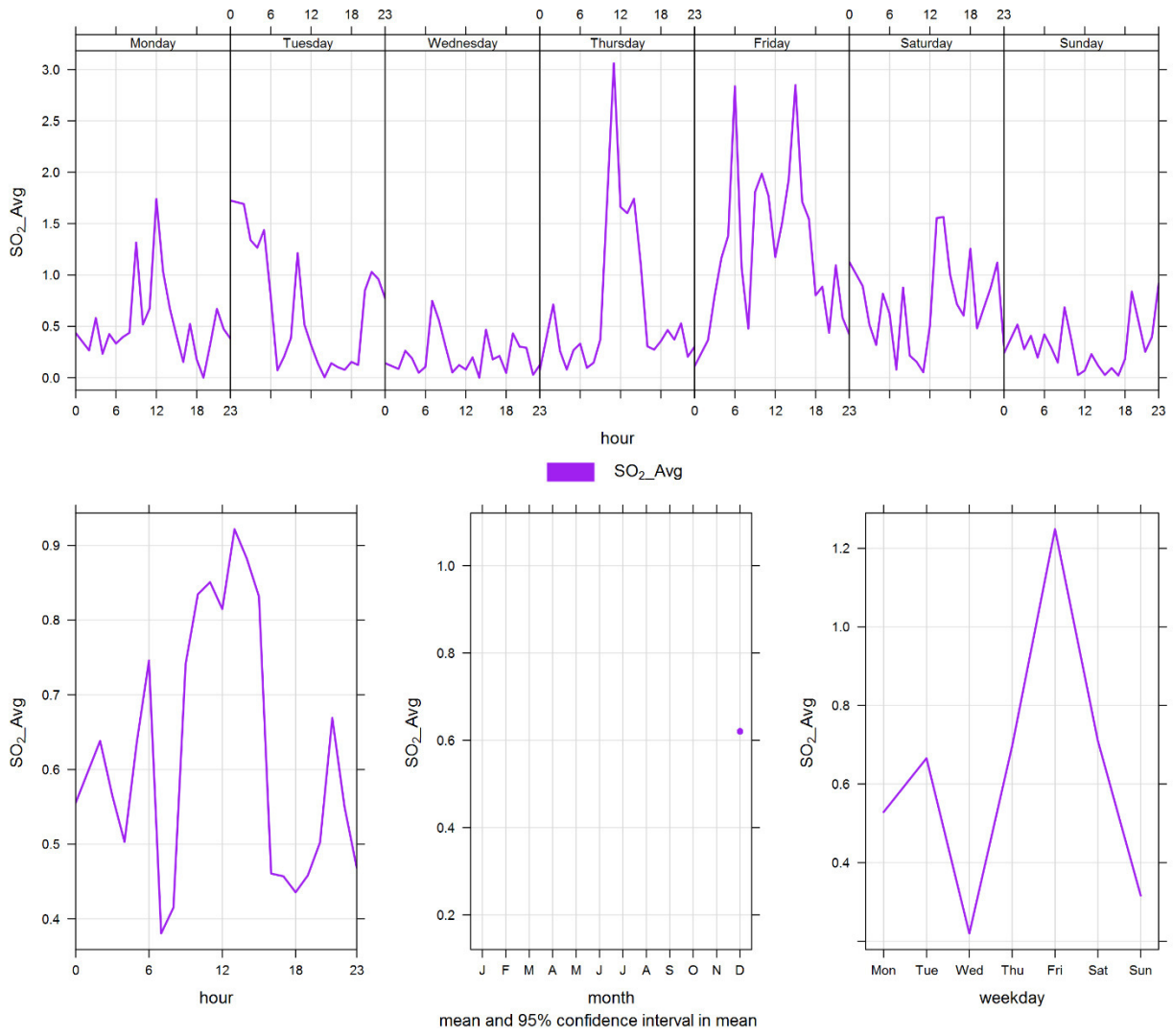

Figure 3-12 Lagoon monitor SO_2 time variation

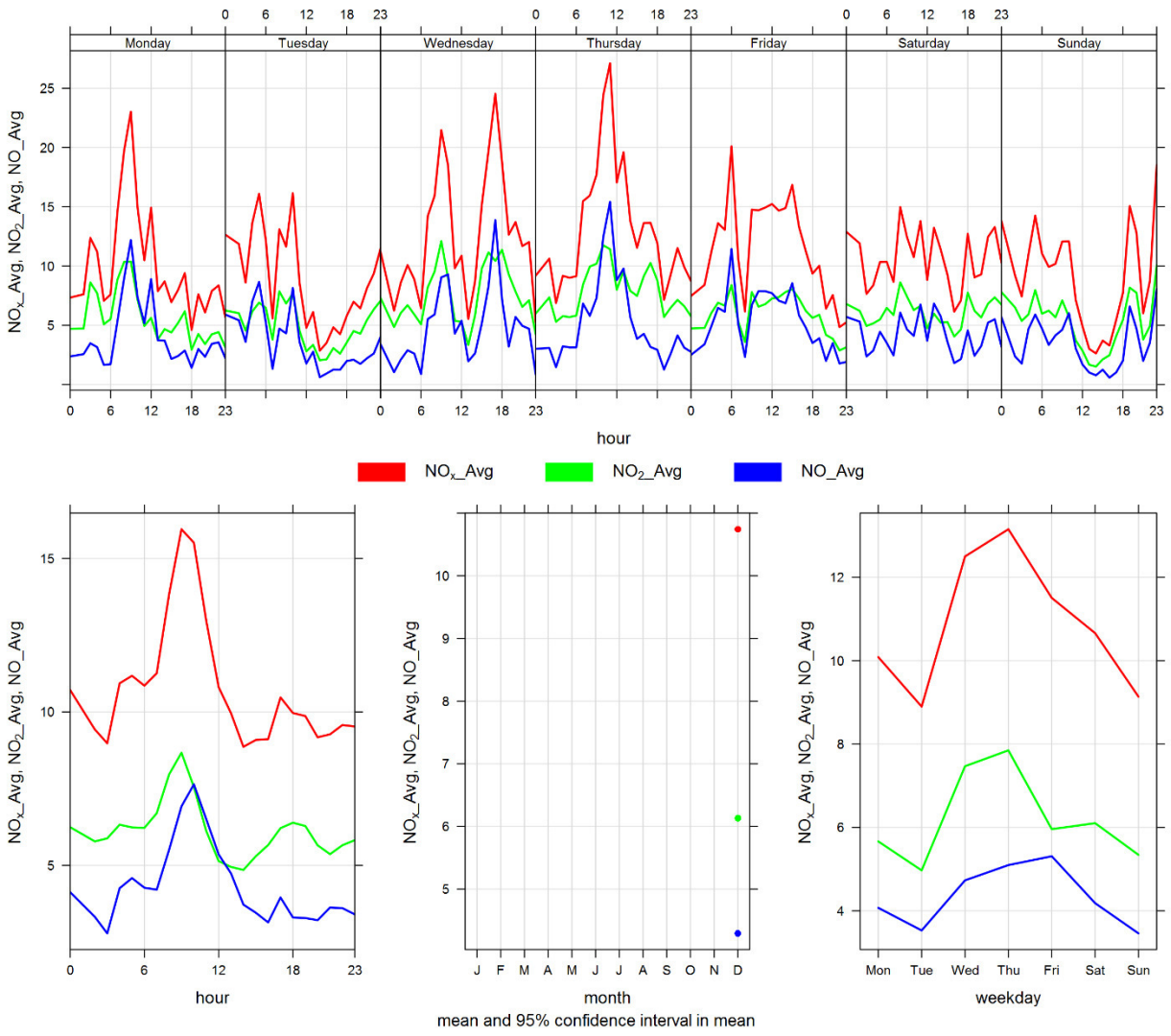

Figure 3-13 Lagoon monitor NO_x time variation

4 WINDRIDGE STATION

The Windridge station contains TSP, PM_{10}, and $PM_{2.5}$ analyzers only. This section provides a summary of the monitoring activities for the Windridge ambient air quality station, including: a table of instrumentation (**Error! Reference source not found.**), a data summary table (Table 4-2), a table of recorded exceedances (Table 4-3), site visit notes, and graphs illustrating the monitoring results for December 2018.

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

4.1 OPERATIONAL SUMMARY

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

Table 4-1 Instrumentation List at the Windridge monitoring location

Parameter Measured	Equipment Description	Notes
$PM_{2.5}$ Concentrations	MetOne BAM-1020 FRM Continuous Particulate Monitor	No operational issues observed. The $PM_{2.5}$ monitor was calibrated on December 7th. The monitor had 100% uptime in December.
PM_{10} Concentrations	MetOne BAM-1020 Continuous Particulate Monitor	No operational issues observed. The PM_{10} monitor was calibrated on December 7th. The monitor had 100% uptime in December.
TSP Concentrations	MetOne BAM-1020 Continuous Particulate Monitor	An equipment failure on December 6th to December 7th led to 15 hours of lost operational time from December 6th at 14:00 to December 7th at 05:00. These hours were flagged as X for machine malfunction. The TSP monitor was calibrated on December 7th. Operational time and valid data was well above 90% for the month of December, at 98%.

4.2 MONITORING RESULTS AND TRENDS

Table 4-2 summarizes the hourly and daily concentrations recorded in December 2018, and Table 4-2 summarizes the recorded exceedances. Figure 4-1 illustrates the time series for hourly PM, Figures 4-2 to 4-4 illustrate the histograms for hourly PM, Figure 4-5 illustrates the time series for daily PM, Figure 4-6 displays the wind rose for the 24-hour TSP exceedance days, and Figure 4-7 illustrates the time series for hourly PM over different time periods.

There were zero exceedances of the 24-hour $PM_{2.5}$ AAAQO, zero exceedances of the 1-hour $PM_{2.5}$ AAAQG, and 16 exceedances of the 24-hour TSP AAAQO. TSP exceedances occurred on days with high wind speeds. December 2018 saw the highest historical wind speeds recorded since WSP began monitoring in 2015. Given these high wind speeds and the observations from Lafarge environmental staff, fugitive dust from Lac Des Arcs' exposed lake bed/shore was a potential contributor to AAAQO exceedances in December 2018 (see discussion in Section 1.1).

Table 4-2 Summary of December 2018 data at the Windridge Station

Parameter	Guideline		Station	Exceedances		Monthly		Maximum 1-hour					Maximum 24-hour		Operational Time (Percent)
	1-hr	24-hr		1-hr	24-hr	Minimum	Average	Maximum Concentration	Day	Hour	Wind Speed (km/hr)	Wind Direction (degrees)	Maximum Concentration	Day	
$PM_{2.5}$ ($\mu g/m^3$)	80	30	Windridge	0	0	0.0	7.1	45.5	12	21	38.9	256.4	18.8	12	100.0
PM_{10} ($\mu g/m^3$)	-	-	Windridge	-	-	0.0	91.9	504.8	12	21	38.9	256.4	274.4	12	100.0
TSP ($\mu g/m^3$)	-	100	Windridge	-	16	0.0	123.8	504.1	12	20	34.3	264.0	324.5	12	98.0

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

Date	TSP (ug/m^3)	$PM_{2.5}$ (ug/m^3)	Average Wind Direction (degrees)	Average Wind Speed (km/hr)	Average RH (%)	Root Cause (Provided by Lafarge)
Windridge						
12/4/2018	157	-	255.3	29.6	50.8	high wind event
12/9/2018	134	-	277.8	31.8	58.5	high wind event
12/10/2018	105	-	259.6	27.9	49.9	high wind event
12/11/2018	304	-	253.8	43.9	43.3	high wind event
12/12/2018	325	-	258.0	31.3	42.3	high wind event
12/13/2018	268	-	261.5	35.1	46.1	high wind event
12/14/2018	254	-	260.3	36.6	41.0	high wind event
12/15/2018	189	-	253.1	28.8	41.3	high wind event
12/18/2018	160	-	262.6	24.3	58.3	high wind event
12/19/2018	286	-	253.5	27.7	41.2	high wind event
12/20/2018	161	-	266.2	19.4	54.9	
12/21/2018	226	-	252.5	29.7	40.3	high wind event
12/22/2018	136	-	260.0	29.1	45.8	high wind event
12/28/2018	119	-	258.6	32.1	59.4	high wind event
12/29/2018	184	-	254.9	34.4	54.3	high wind event

12/31/2018	132	-	273.0	18.9	62.1	
Total # of Exceedances	**16**	**0**				
Maximum # of Exceedances (December)	**7 (2017)**	**0 (2017)**				
Average # of Exceedances (December)	**7**	**0**				
Minimum # of Exceedances (December)	**7 (2017)**	**0 (2017)**				

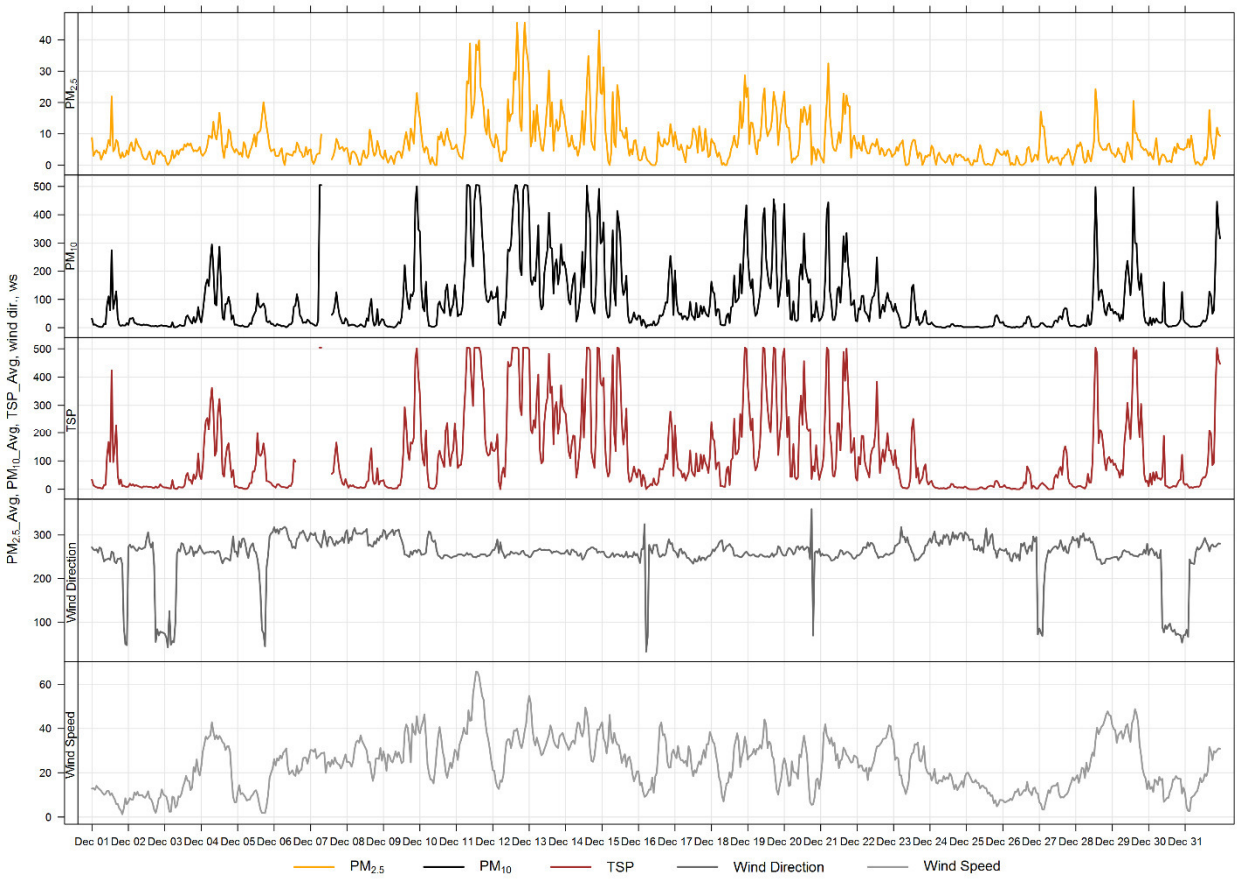

Figure 4-1 1-hour particulate matter concentrations recorded at the Windridge monitor

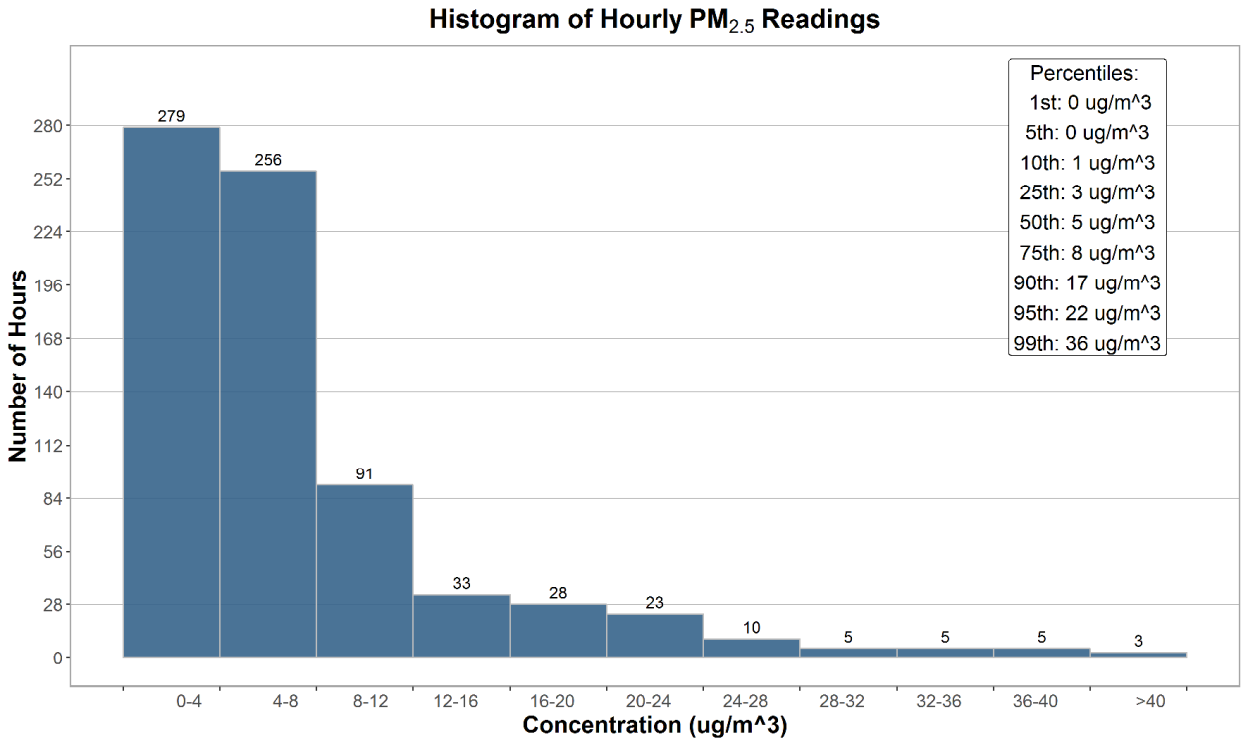

Figure 4-2 **Histogram of hourly $PM_{2.5}$ concentrations at the Windridge station**

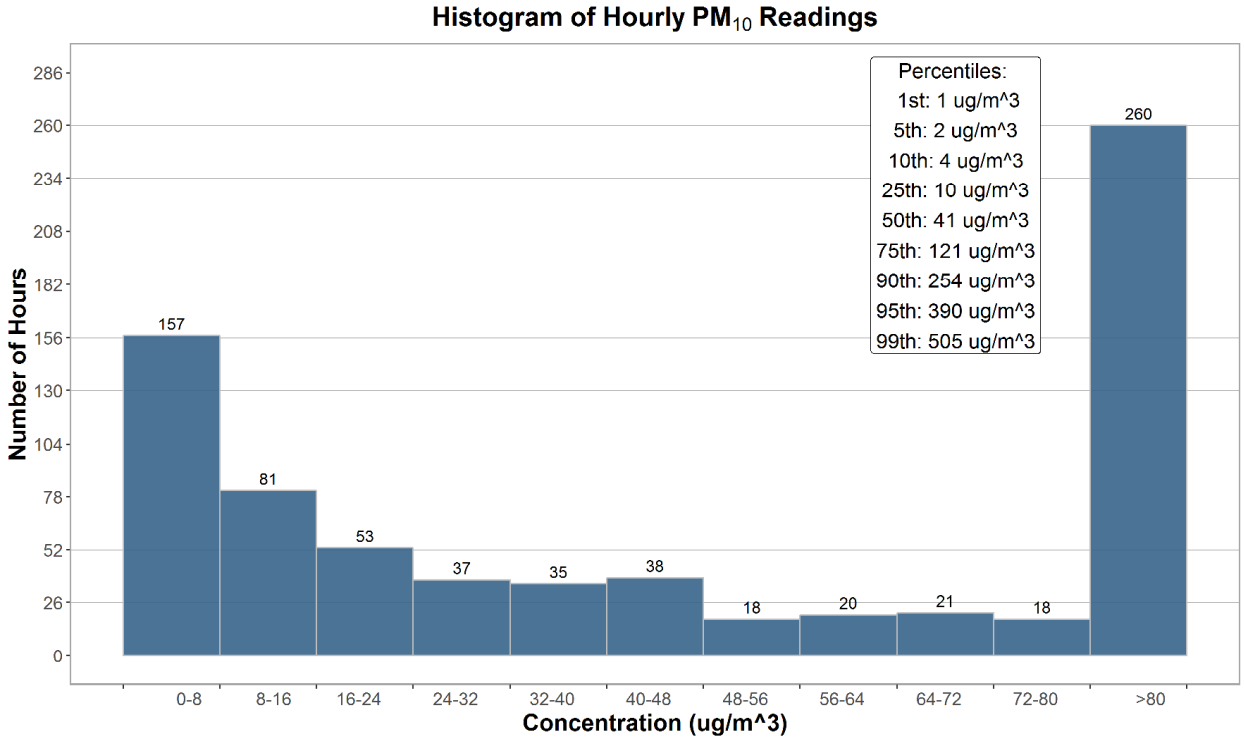

Figure 4-3 **Histogram of hourly PM_{10} concentrations at the Windridge station**

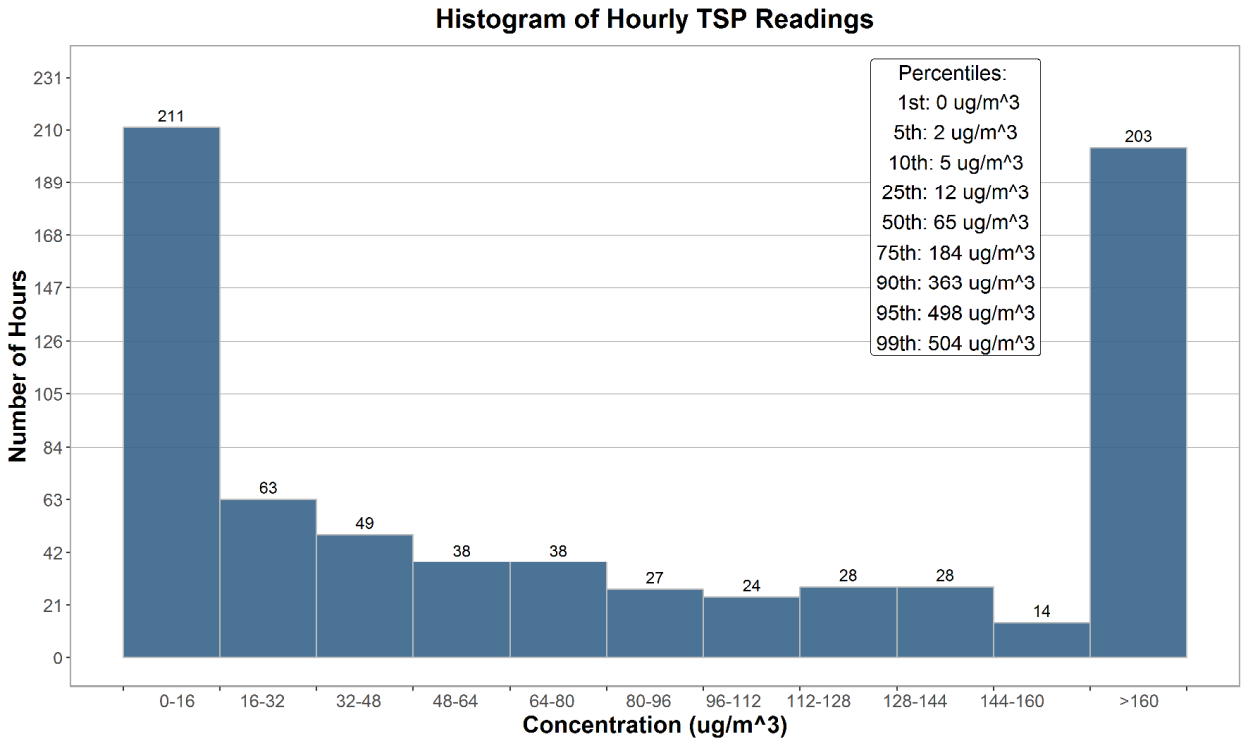

Figure 4-4 Histogram of hourly TSP concentrations at the Windridge station

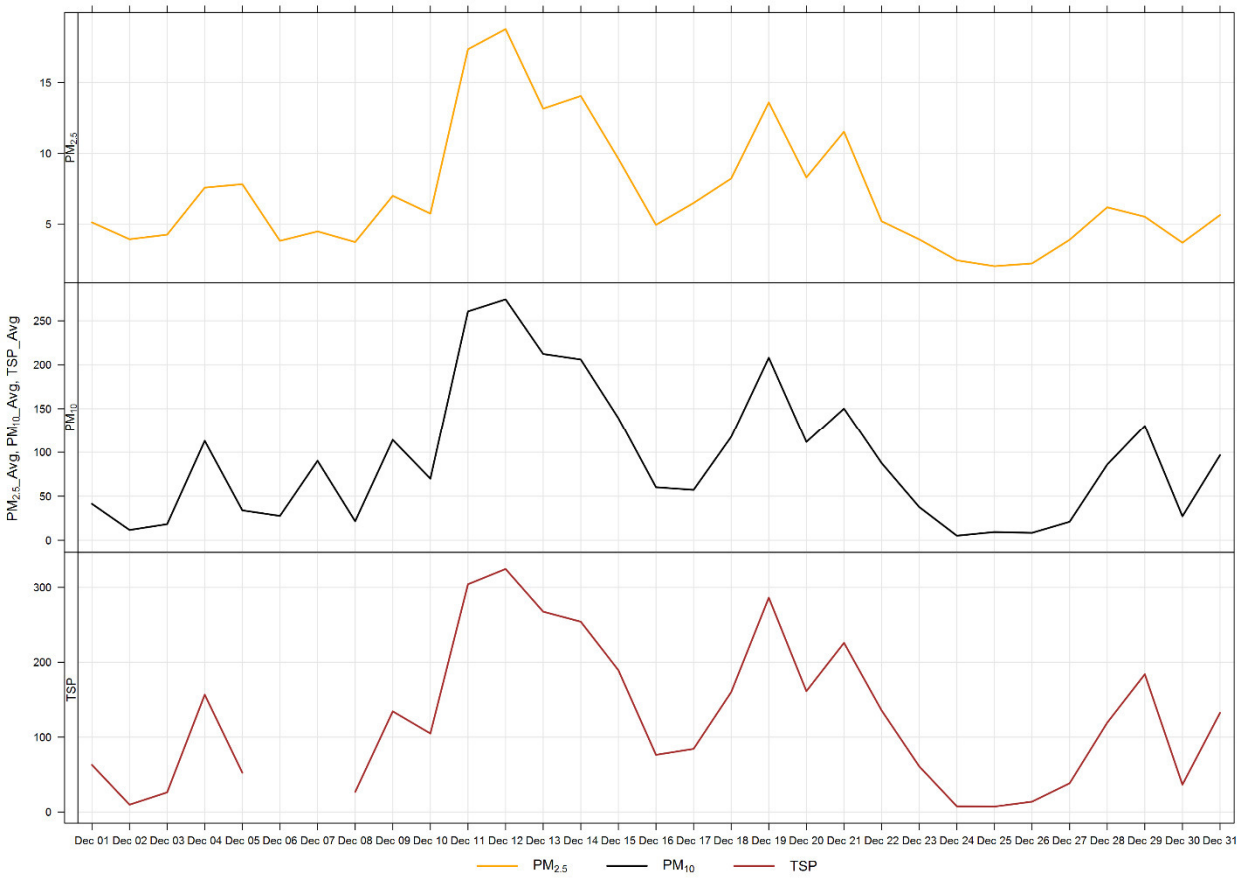

Figure 4-5 24-hour particulate matter concentrations at the Windridge monitor

Figure 4- shows the wind rose for the 14 days of TSP exceedances. The wind rose shows that the winds predominantly came from the west and west-southwest directions, and were over 20 km/kr.

Figure 4- illustrates the hourly PM concentrations recorded at the Windridge monitor, averaged over different time periods. The plot across the top shows the variation of PM over the course of a week, while the bottom three plots show the changes in PM over the course of a day, month and weekday, respectively. Figure 4- is based on data collected during December 2018 and similar to the Lagoon station a diurnal pattern associated with Lafarge operations, daytime emissions from traffic and other activities in Exshaw. The diurnal patterns also follow the diurnal pattern of higher wind speeds during the daytime hours and December 2018 saw extremely high wind speeds.

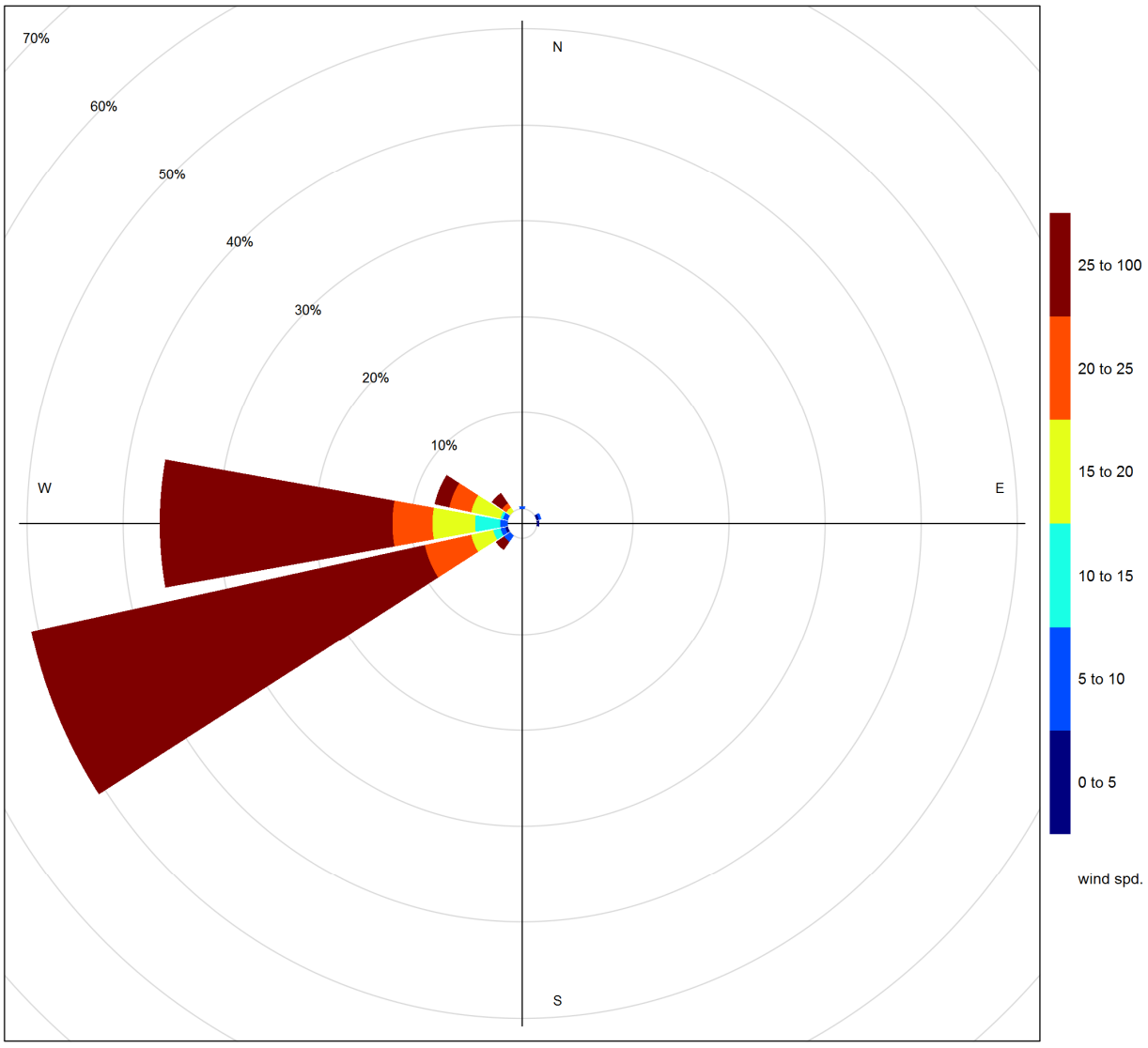

Figure 4-6 Wind rose for TSP exceedance day recorded at the Windridge Station

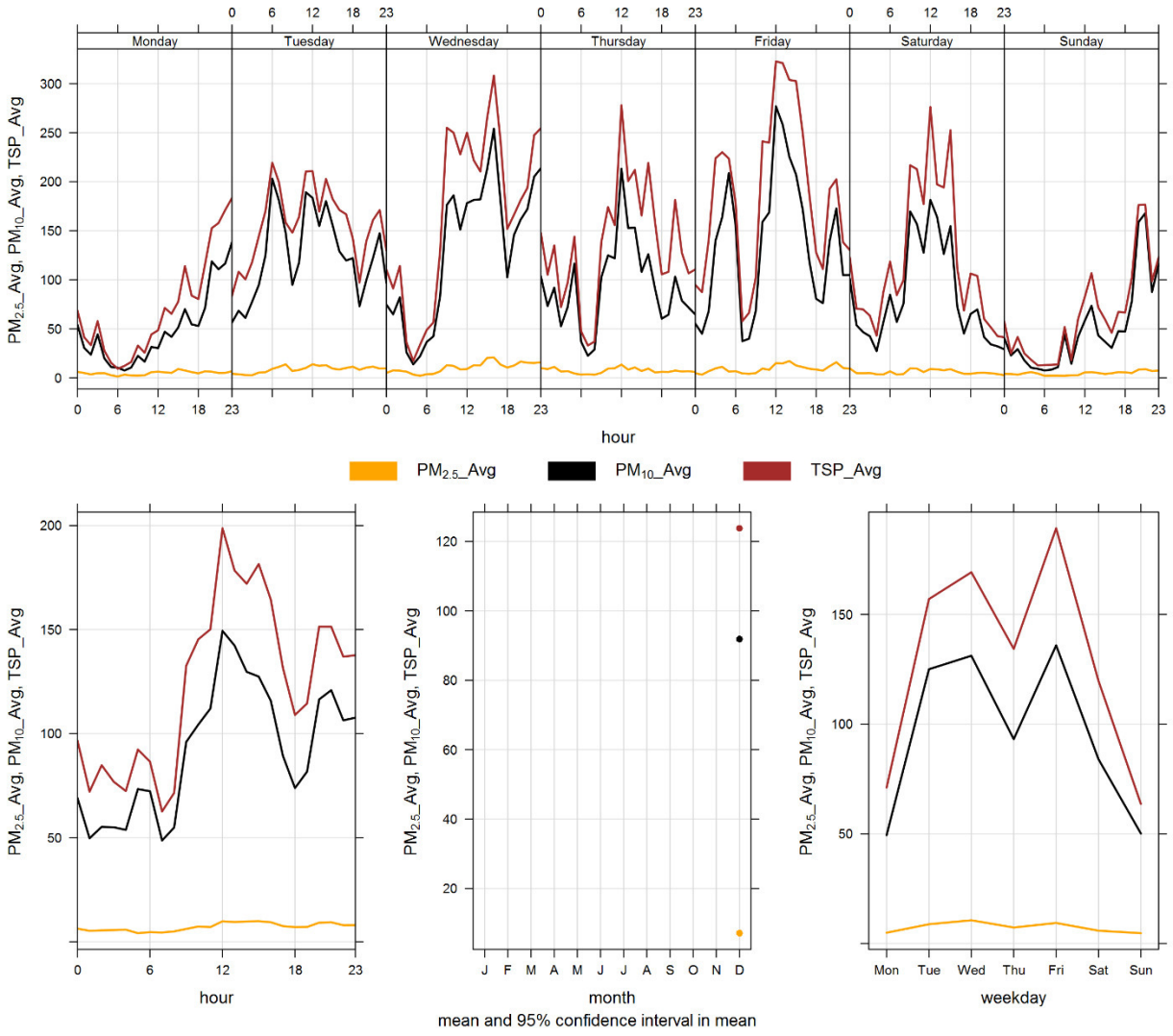

Figure 4-7 Windridge particulate matter time variation

5 WEST INDUSTRIAL GRIMM

5.1 OPERATIONAL SUMMARY

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

Table 5-1 Instrumentation List at the West monitoring location

Parameter Measured	Equipment Description	Notes
$PM_{2.5}$, PM_{10}, TSP Concentrations	GRIMM 365 Continuous Particulate Monitor	A dryer pump failure on December 12th led to 24 hours of lost operational time from December 12th at 15:00 to December 13th at 14:00. These hours were flagged as G for "instrument has been removed for repair." Operational time and valid data was well above 90% for the month of December, at 96.8%.

5.2 MONITORING RESULTS AND TRENDS

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

Figure 5-1 and Figure 5- show the hourly and daily $PM_{2.5}$, PM_{10} and TSP concentrations recorded over the month. There were no exceedances of the 24-hour TSP guideline (100 µg/m^3) nor the $PM_{2.5}$ (30 µg/m^3) guideline. Historically in December, the average number of 24-hour TSP AAQO exceedances and 24-hour $PM_{2.5}$ AAAQO exceedances are one and zero, respectively. The maximum number of 24-hour TSP AAQO exceedances was 4 days in 2012, while the maximum number of 24-hour $PM_{2.5}$ AAQO exceedances was 1 day in 2010.

Table 5-2 Summary of December 2018 data at the West GRIMM

Parameter	Guideline		Station	Exceedances		Monthly		Maximum 1-hour					Maximum 24-hour		Operational Time (Percent)
	1-hr	24-hr		1-hr	24-hr	Minimum	Average	Maximum Concentration	Day	Hour	Wind Speed (km/hr)	Wind Direction (degrees)	Maximum Concentration	Day	
$PM_{2.5}$ ($\mu g/m^3$)	80	30	West	0	0	0.2	2.6	13.3	27	15	9.0	274.4	6.4	5	96.8
PM_{10} ($\mu g/m^3$)	-	-	West	-	-	0.2	3.4	19.2	27	15	9.0	274.4	8.2	5	96.8
TSP ($\mu g/m^3$)	-	100	West	-	0	0.1	3.0	22.3	27	15	9.0	274.4	7.8	5	96.8

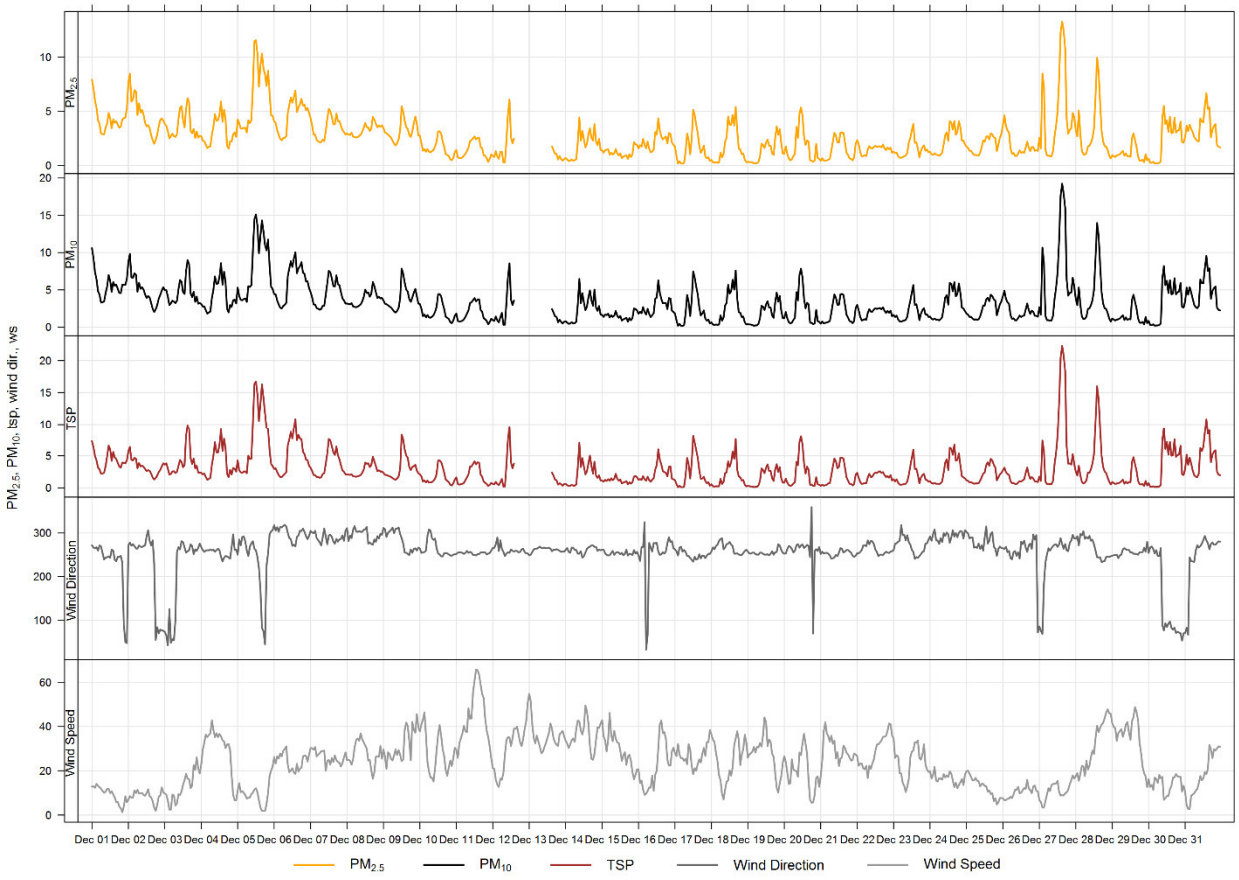

Figure 5-1 1-hour particulate matter concentrations at the West monitor

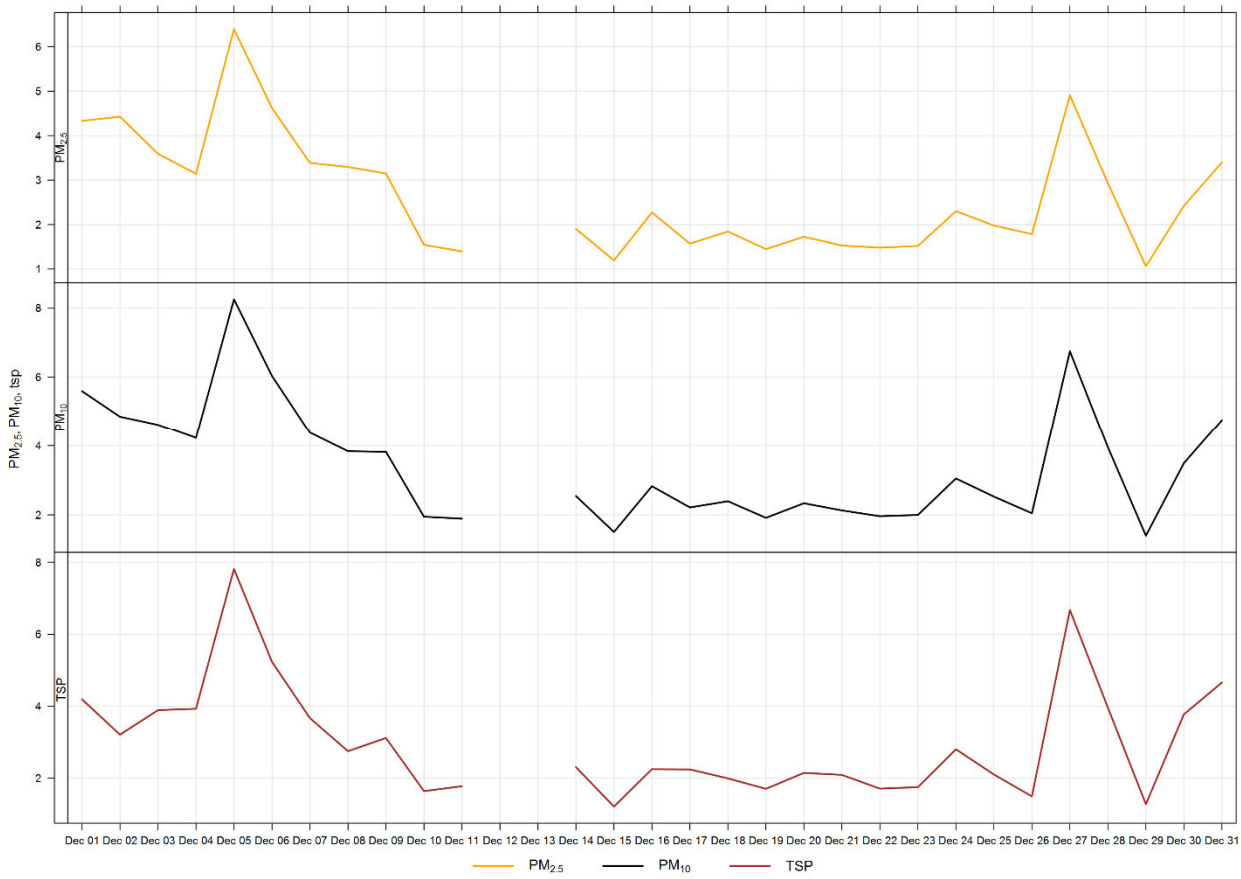

Figure 5-2 24-hour particulate matter concentrations at the West monitor

Figure 5- illustrates the hourly PM concentrations recorded at the West monitor, averaged over different time periods. The plot across the top shows the variation of PM over the course of a week, while the bottom three plots show the changes in PM over the course of a day, month and weekday, respectively. Figure 5- is based on data collected during December 2018 and indicates a strong relationship between TSP and hours which Lafarge is typically operational. Due to the proximity of the West monitor to the highway and generally 'up-wind' of the facility, the daily variations in PM are more likely a result of higher traffic volume during daylight hours.

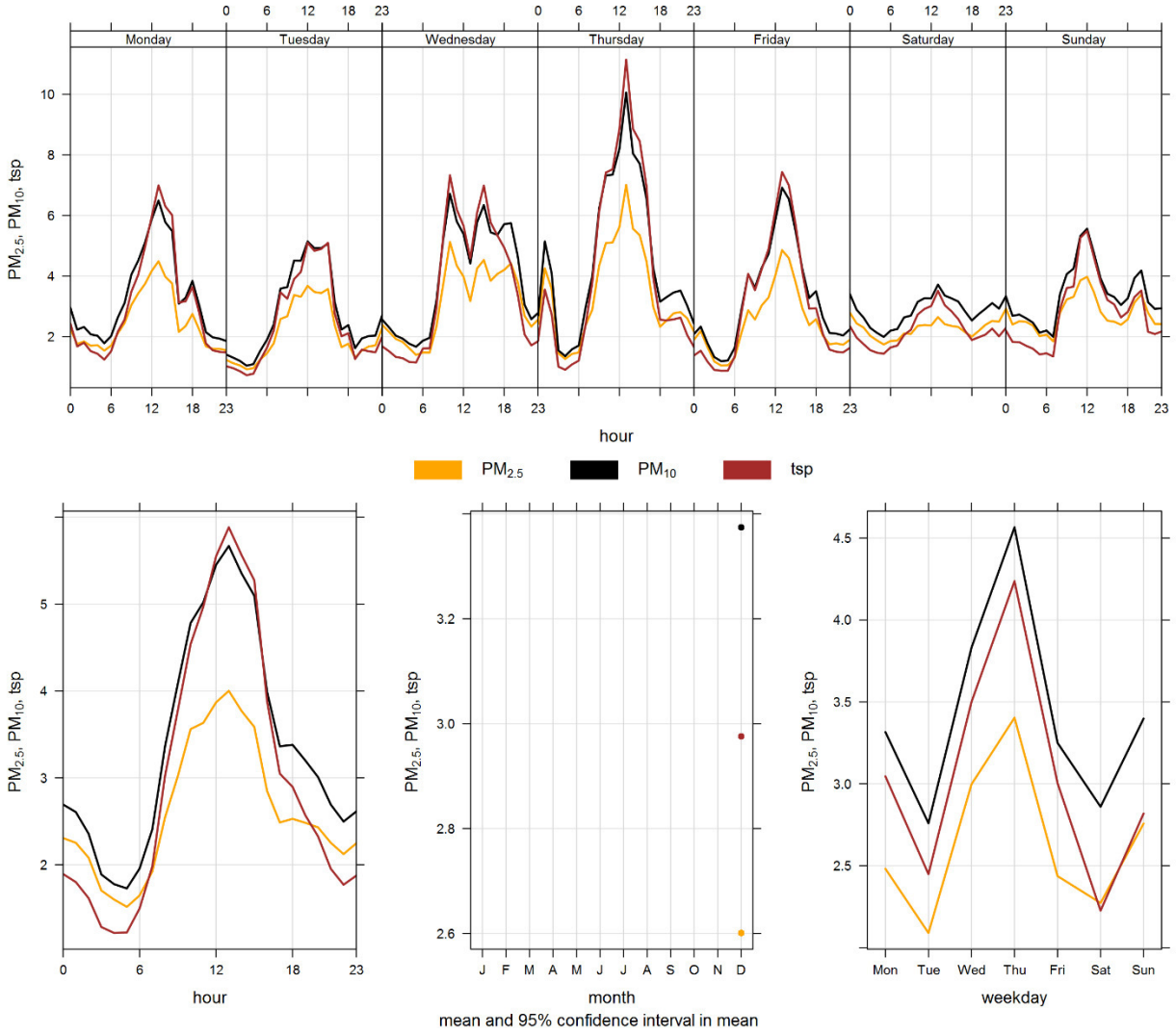

Figure 5-3 West particulate matter time variation

6 BERM INDUSTRIAL GRIMM

6.1 OPERATIONAL SUMMARY

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

Table 6-1 Instrumentation List at the Berm monitoring location

Parameter Measured	Equipment Description	Notes
$PM_{2.5}$, PM_{10}, TSP Concentrations	GRIMM 365 Continuous Particulate Monitor	No operational issues observed. The monitor had 100% uptime in the month of December.

6.2 MONITORING RESULTS AND TRENDS

The Berm monitor was placed at its current location as a result of the dispersion modelling conducted for the facility in 2009. Figure 6-1 and Figure 6- show the hourly and daily $PM_{2.5}$, PM_{10} and TSP concentrations recorded over the month. Table 6-2 summarizes the maximum 1-hour and 24-hour PM concentrations recorded during the month, and Table 6-3 summarizes the recorded exceedances. This is an industrial monitor that is not Alberta Air Monitoring Directive (AMD) compliant and is not required to show compliance with the AAAQO.

In December, there were 20 and 12 exceedances of the 24-hour TSP (100 µg/m^3) and $PM_{2.5}$ (30 µg/m^3) guidelines, respectively. There were 79 hours exceeding the 1-hour $PM_{2.5}$ guideline (80 µg/m^3). December 2018 saw the highest historical wind speeds recorded since WSP began monitoring in 2015. Given these high wind speeds and the observations from Lafarge environmental staff, fugitive dust from Lac Des Arcs' exposed lake bed/shore was a potential contributor to AAAQG exceedances in December 2018 (see discussion in Section 1.1).

Historically during the month of December, the Berm monitor records an average of 17 and zero exceedances of the 24-hour TSP and $PM_{2.5}$ guidelines, respectively. The maximum number of TSP exceedances recorded during December occurred in 2011 where there were 24 days that exceeded the guideline. The minimum number of TSP exceedances was recorded during December 2017, which had 11 days that exceeded the guideline. Previous to December 2018, the maximum number of $PM_{2.5}$ exceedances occurred in December 2010 where 2 days of exceedances were observed.

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.

Table 6-2 Summary of December 2018 data at the Berm GRIMM

Parameter	Guideline		Station	Exceedances		Monthly		Maximum 1-hour					Maximum 24-hour		Operational Time (Percent)
	1-hr	24-hr		1-hr	24-hr	Minimum	Average	Maximum Concentration	Day	Hour	Wind Speed (km/hr)	Wind Direction (degrees)	Maximum Concentration	Day	
$PM_{2.5}$ ($\mu g/m^3$)	80	30	Berm	79	12	0.6	29.2	223.2	11	14	65.5	251.5	92.9	12	100.0
PM_{10} ($\mu g/m^3$)	-	-	Berm	-	-	0.6	204.7	1906.2	11	14	65.5	251.5	680.8	11	100.0
TSP ($\mu g/m^3$)	-	100	Berm	-	20	0.4	511.9	4032.9	11	14	65.5	251.5	1637.3	11	100.0

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

Date	TSP (ug/m^3)	$PM_{2.5}$ (ug/m^3)	Average Wind Direction (degrees)	Average Wind Speed (km/hr)	Average RH (%)	Root Cause (Provided by Lafarge)
Berm						
12/4/2018	765.7	-	255.3	29.6	50.8	high wind event
12/7/2018	124.2	-	290.4	26.0	57.9	high wind event
12/9/2018	783.7	43	277.8	31.8	58.5	high wind event
12/10/2018	407.0	-	259.6	27.9	49.9	high wind event
12/11/2018	1637.3	87	253.8	43.9	43.3	high wind event
12/12/2018	1520.1	93	258.0	31.3	42.3	high wind event
12/13/2018	953.3	68	261.5	35.1	46.1	high wind event
12/14/2018	954.6	61	260.3	36.6	41.0	high wind event
12/15/2018	716.1	43	253.1	28.8	41.3	high wind event
12/16/2018	329.6	-	265.9	22.6	52.7	high wind event
12/17/2018	344.2	-	250.1	27.1	39.9	high wind event
12/18/2018	520.5	37	262.6	24.3	58.3	high wind event
12/19/2018	1146.0	79	253.5	27.7	41.2	high wind event
12/20/2018	549.1	35	266.2	19.4	54.9	
12/21/2018	1020.3	51	252.5	29.7	40.3	high wind event
12/22/2018	535.7	-	260.0	29.1	45.8	high wind event

12/23/2018	319.5	-	267.9	23.3	55.0	high wind event
12/28/2018	965.7	35	258.6	32.1	59.4	high wind event
12/29/2018	1035.8	37	254.9	34.4	54.3	high wind event
12/31/2018	583.9	-	273.0	18.9	62.1	
Total # of Exceedances	**20**	**12**				
Maximum # of Exceedances (December)	**24 (2011)**	**2 (2010)**				
Average # of Exceedances (December)	**17**	**0**				
Minimum # of Exceedances (December)	**11 (2017)**	**0 (2012, 2013, 2015 ~ 2017)**				

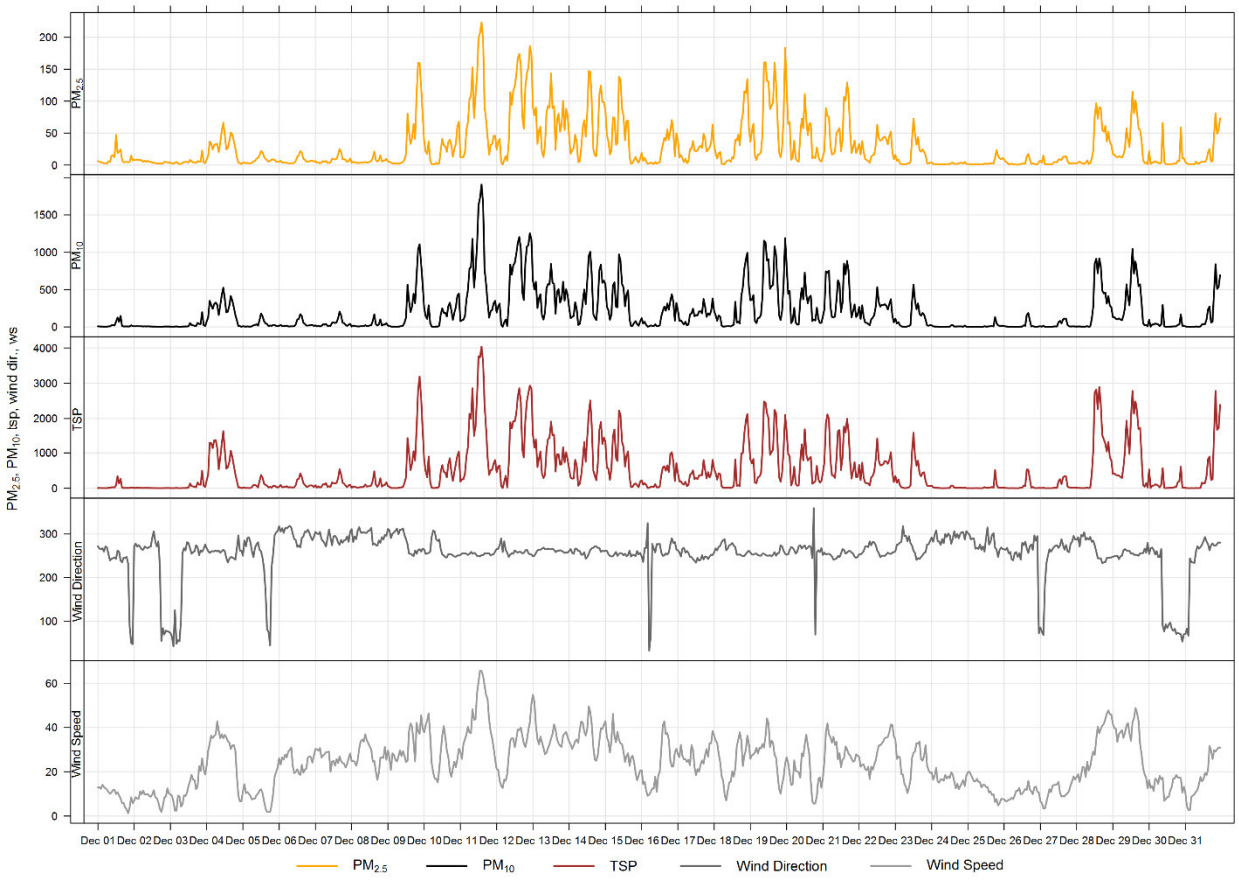

Figure 6-1 1-hour particulate matter concentrations recorded at the Berm monitor

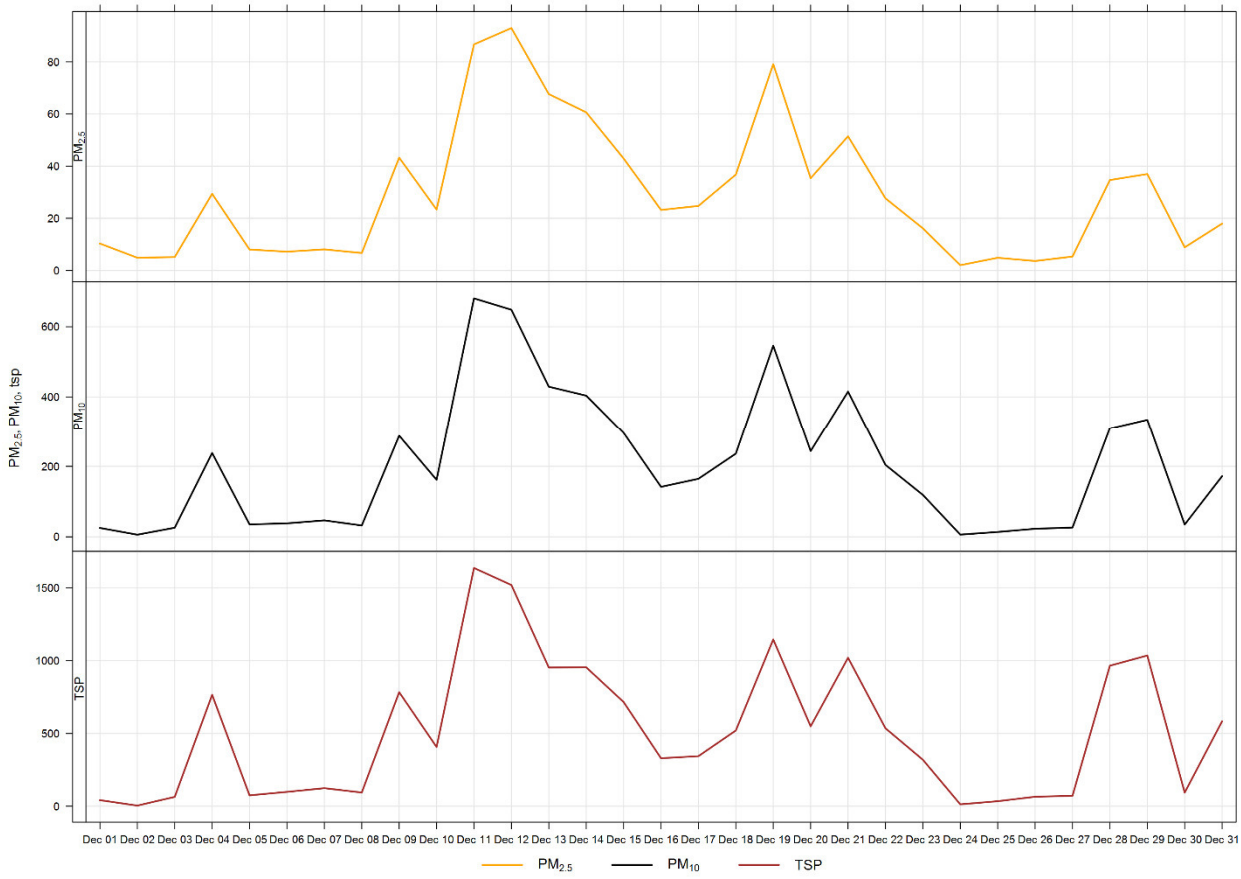

Figure 6-2 24-hour particulate matter concentrations recorded at the Berm monitor

Figure 6- shows the wind rose for the 20 days of TSP exceedances, while Figure 6-4 shows the wind rose for the 12 days of $PM_{2.5}$ exceedances. Both wind roses show that the winds predominantly came from westerly directions.

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

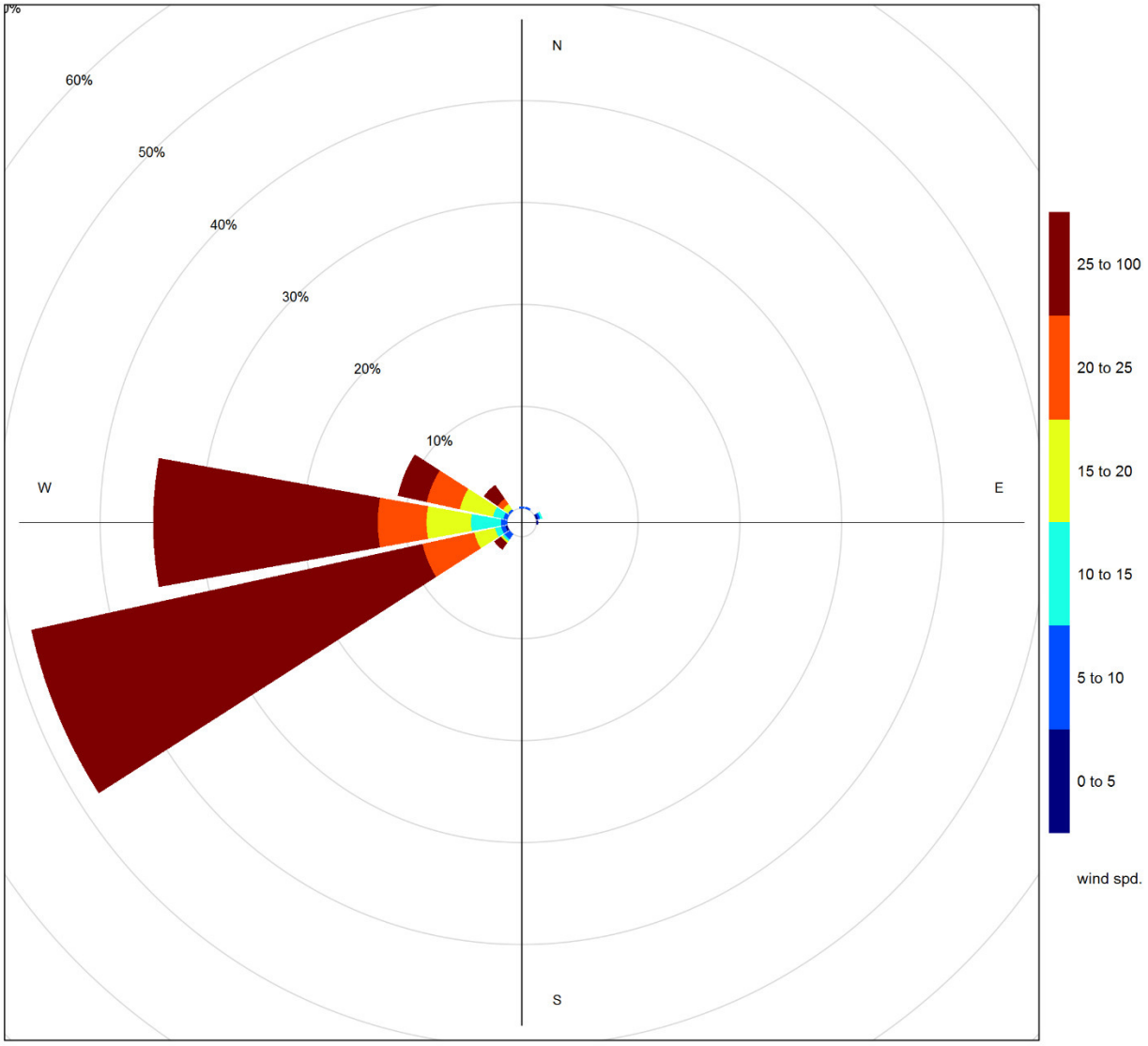

Figure 6-3 Wind rose for TSP exceedance days recorded at the Berm GRIMM

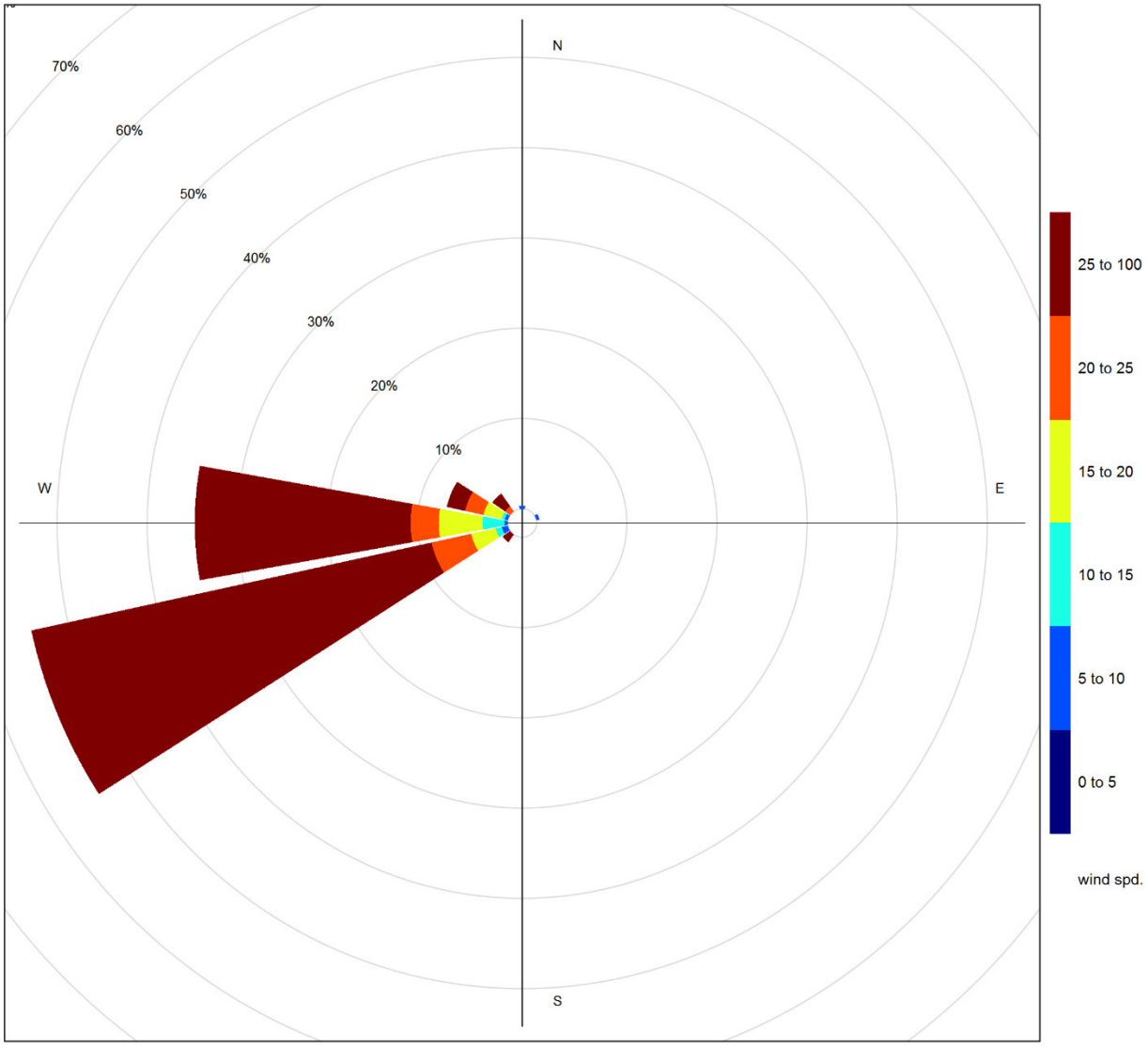

Figure 6-4 Wind rose for $PM_{2.5}$ exceedance days recorded at the Berm GRIMM

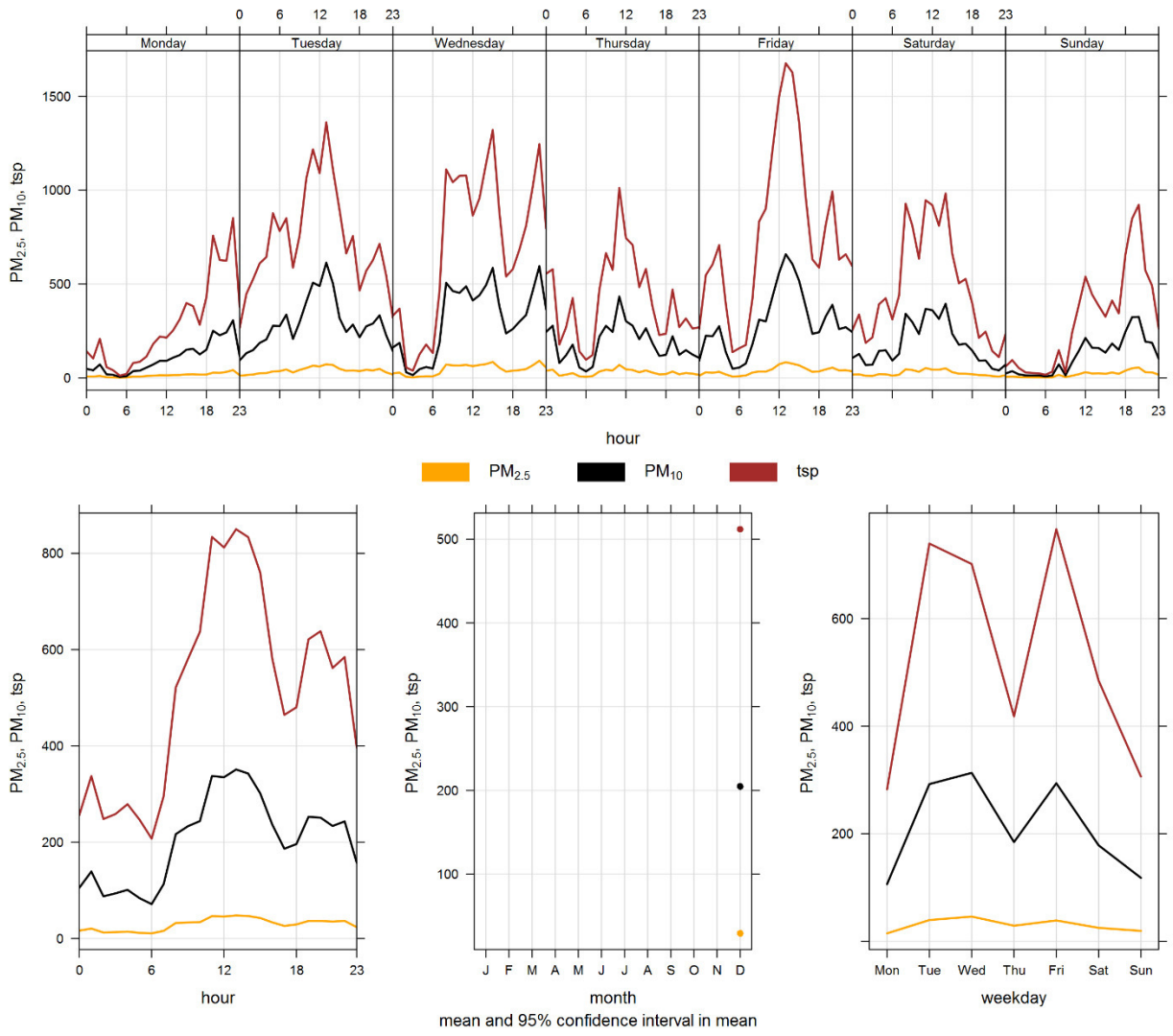

Figure 6-5 Berm particulate matter time variation

7 ENTRANCE INDUSTRIAL GRIMM

7.1 OPERATIONAL SUMMARY

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

Table 7-1 Instrumentation List at the Entrance monitoring location

Parameter Measured	Equipment Description	Notes
$PM_{2.5}$, PM_{10}, TSP Concentrations	GRIMM 365 Continuous Particulate Monitor	No operational issues observed. The monitor had 100% uptime in the month of December.

7.2 MONITORING RESULTS AND TRENDS

The Entrance monitor was placed at its current location as a result of dispersion modelling conducted in 2009. This area was indicated as being the area where the maximum PM concentrations were expected. Figure 7-1 and Figure 7- show the hourly and daily $PM_{2.5}$, PM_{10} and TSP concentrations recorded over the month. Table 7-2 summarizes the maximum 1-hour and 24-hour PM concentrations recorded during the month. Table 7-3 summarizes the recorded exceedances. This is an industrial monitor that is not Alberta Air Monitoring Directive (AMD) compliant and is not required to show compliance with the AAAQO.

During December, there were 21 and 2 exceedances of the 24-hour TSP (100 µg/m^3) and $PM_{2.5}$ (30 µg/m^3) guidelines, respectively. There were 2 hours exceeding the 1-hour PM2.5 guideline (80 µg/m^3). December 2018 saw the highest historical wind speeds recorded since WSP began monitoring in 2015. Given these high wind speeds and the observations from Lafarge environmental staff, fugitive dust from Lac Des Arcs' exposed lake bed/shore was a potential contributor to AAAQG exceedances in December 2018 (see discussion in Section 1.1).

Historically, the Entrance monitor records an average of 18 and zero exceedances of the 24-hour TSP and $PM_{2.5}$ guidelines respectively, during the month of December. The maximum number of TSP exceedances recorded during December occurred in 2013, which had 27 days that exceeded the guideline. The minimum number of TSP exceedances recorded during December occurred in 2016, which had 12 days that exceeded the guideline. On the other hand, the maximum number of $PM_{2.5}$ exceedances recorded during the month of December was 5 days of exceedances in 2014.

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

The Entrance monitor is impacted by fugitive dust from plant activities, and high wind events. Trucks also pass near to the Entrance monitor as they enter and exit the Lafarge facility for loading and deliveries. Additionally, the monitor is closely located to Highway 1A. Traffic, particularly large trucks, can create dust while crossing over the railway tracks. This can all lead to the monitor recording high TSP concentrations, which are typically associated with fugitive dust sources. The CPR rail crossing is in disrepair and may be contributing to PM concentrations at the Entrance monitor. Lafarge has been informed the crossing is scheduled to be repaired in the spring of 2019.

Figure 7- shows the wind rose for the 21 days that exceeded the TSP Guideline, while Figure 7-4 shows the wind rose for the 2 days that exceeded the $PM_{2.5}$ Guideline. Both wind roses indicate that the winds predominantly came from the westerly directions. High wind speeds were a primary factor in TSP exceedances in December at the Entrance station. On those days without high wind speeds other sources, such as industry, traffic and rail may have contributed to the exceedances.

Table 7-2 Summary of December 2018 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	
$PM_{2.5}$ ($\mu g/m^3$)	80	30	Entrance	2	2	0.6	11.1	104.3	11	11	55.4	249.7	31.1	7	100.0
PM_{10} ($\mu g/m^3$)	-	-	Entrance	-	-	1.1	74.5	974.2	11	12	60.6	249.7	269.9	11	100.0
TSP ($\mu g/m^3$)	-	100	Entrance	-	21	1.0	265.6	3314.8	11	12	60.6	249.7	1037.7	11	100.0

Table 7-3 Days exceeding the Guideline for TSP or $PM_{2.5}$ at the Entrance Monitor

Date	TSP (ug/m^3)	$PM_{2.5}$ (ug/m^3)	Average Wind Direction (degrees)	Average Wind Speed (km/hr)	Average RH (%)	Root Cause (Provided by Lafarge)
Entrance						
12/4/2018	474.2	-	255.3	29.6	50.8	high wind event
12/5/2018	167.6	-	281.7	10.3	69.2	
12/6/2018	802.8	-	300.4	24.5	62.3	high wind event
12/7/2018	870.5	31	290.4	26.0	57.9	high wind event
12/8/2018	610.8	-	297.0	27.8	57.8	high wind event
12/9/2018	482.9	-	277.8	31.8	58.5	high wind event
12/10/2018	172.4	-	259.6	27.9	49.9	high wind event
12/11/2018	1037.7	31	253.8	43.9	43.3	high wind event
12/12/2018	444.4	-	258.0	31.3	42.3	high wind event
12/13/2018	145.9	-	261.5	35.1	46.1	high wind event
12/14/2018	288.0	-	260.3	36.6	41.0	high wind event
12/15/2018	125.8	-	253.1	28.8	41.3	high wind event
12/17/2018	113.8	-	250.1	27.1	39.9	high wind event
12/19/2018	209.4	-	253.5	27.7	41.2	high wind event

12/21/2018	189.1	-	252.5	29.7	40.3	high wind event
12/22/2018	114.6	-	260.0	29.1	45.8	high wind event
12/24/2018	152.9	-	293.9	16.5	66.7	
12/27/2018	135.9	-	272.9	11.4	73.4	
12/28/2018	627.5	-	258.6	32.1	59.4	high wind event
12/29/2018	264.8	-	254.9	34.4	54.3	high wind event
12/31/2018	266.7	-	273.0	18.9	62.1	
Total # of Exceedances	21	2				
Maximum # of Exceedances (December)	27 (2013)	5 (2014)				
Average # of Exceedances (December)	18	0				
Minimum # of Exceedances (December)	12 (2016)	0 (2011 ~ 2013, 2015, 2016)				

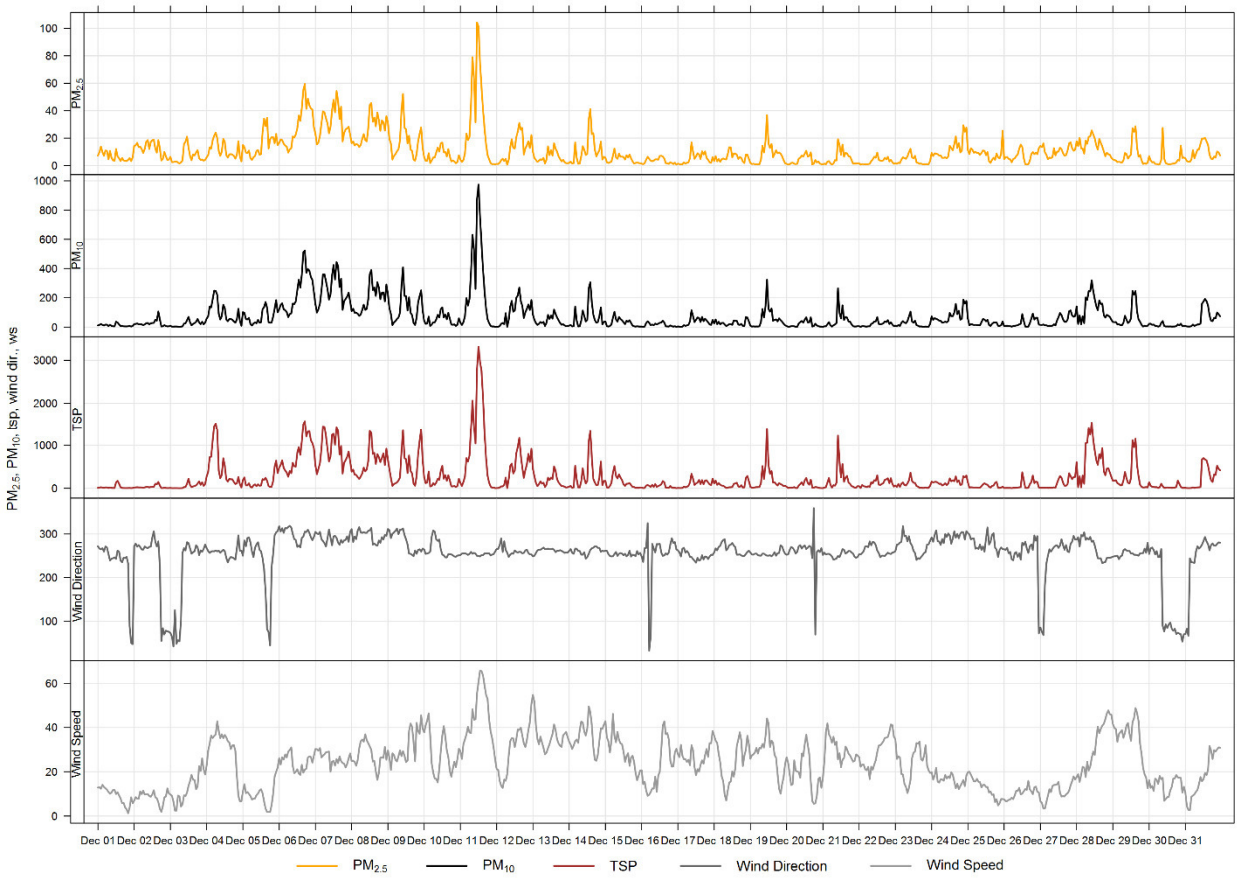

Figure 7-1 1-hour particulate matter concentrations recorded at the Entrance monitor

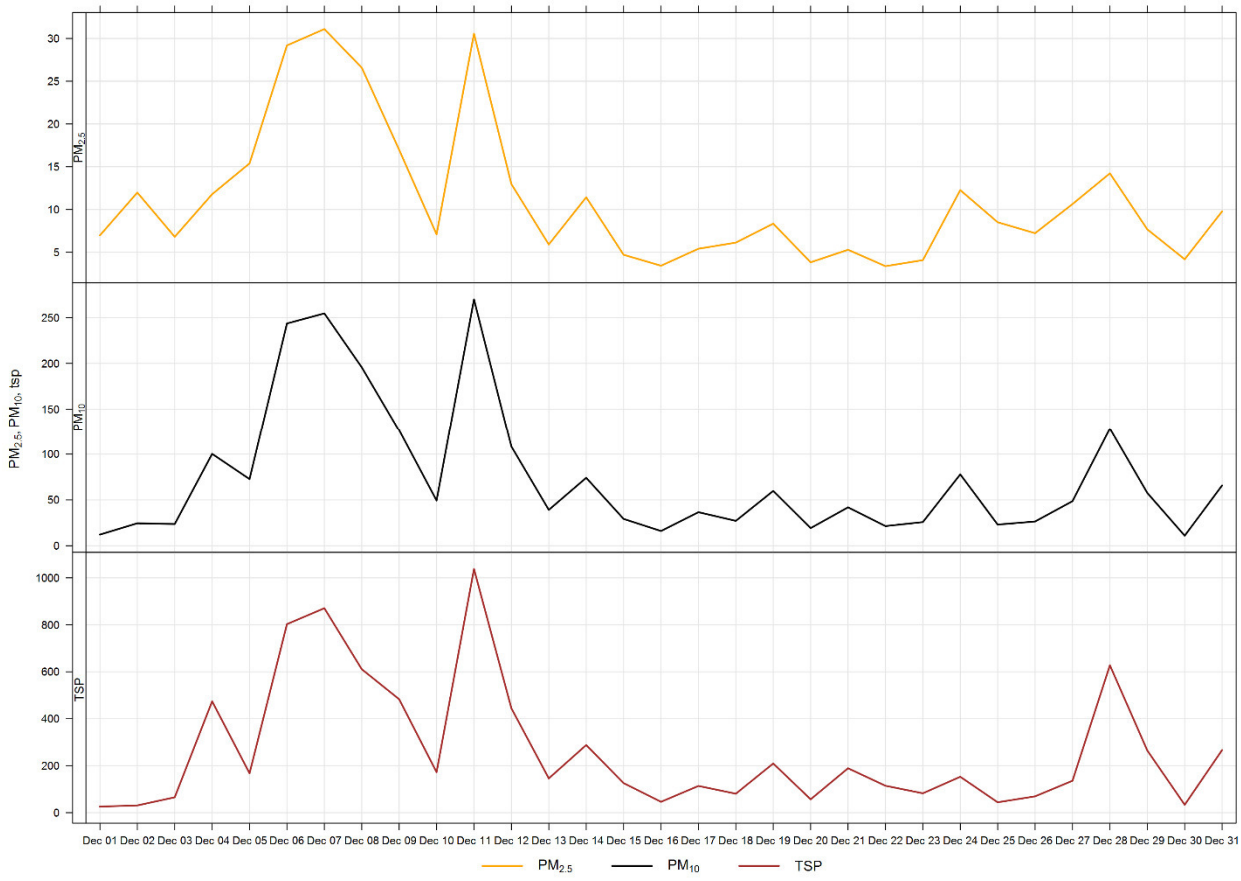

Figure 7-2 24-hour particulate matter concentrations at the Entrance monitor

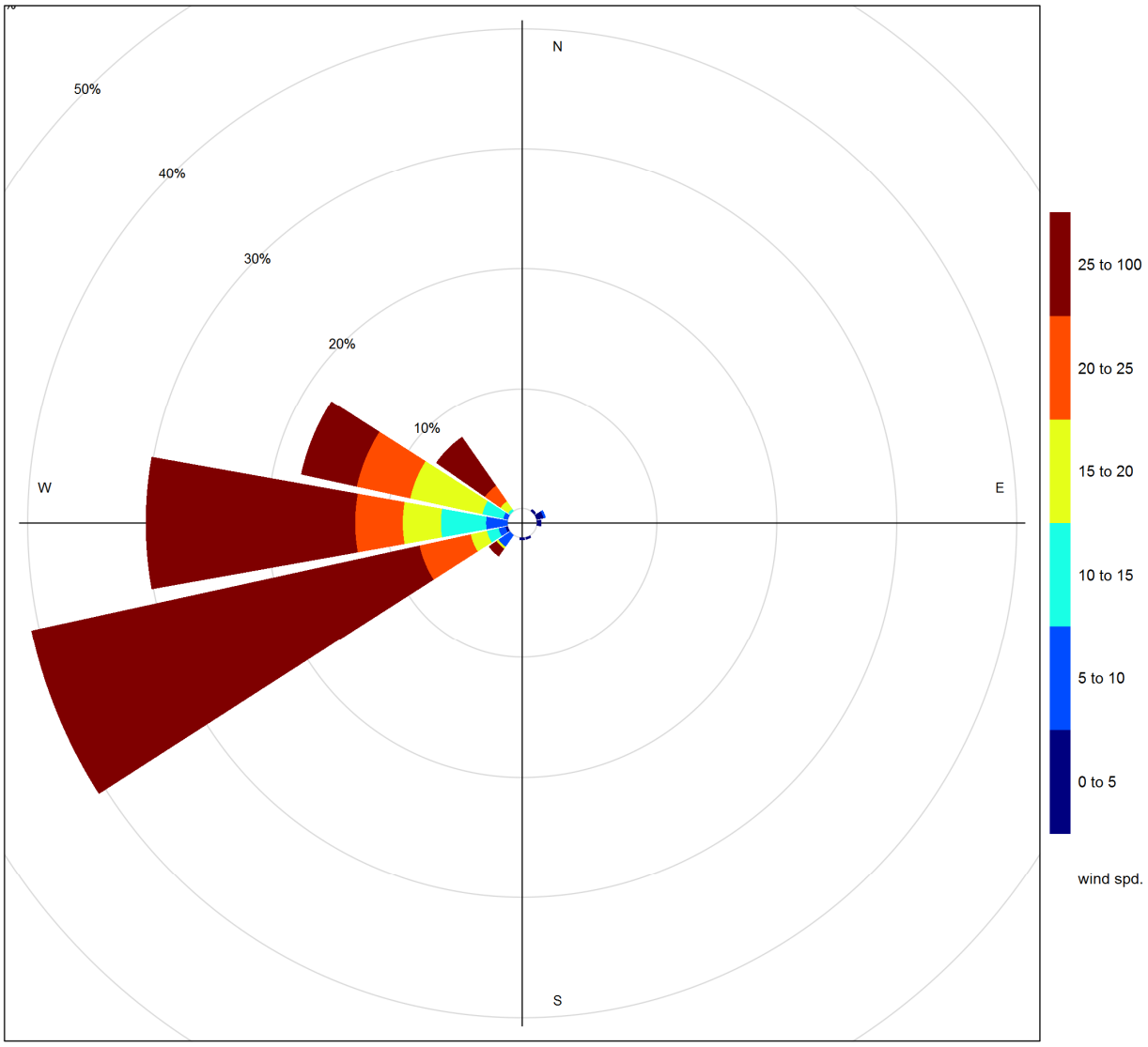

Figure 7-3 Wind rose for TSP exceedance days recorded at the Entrance GRIMM

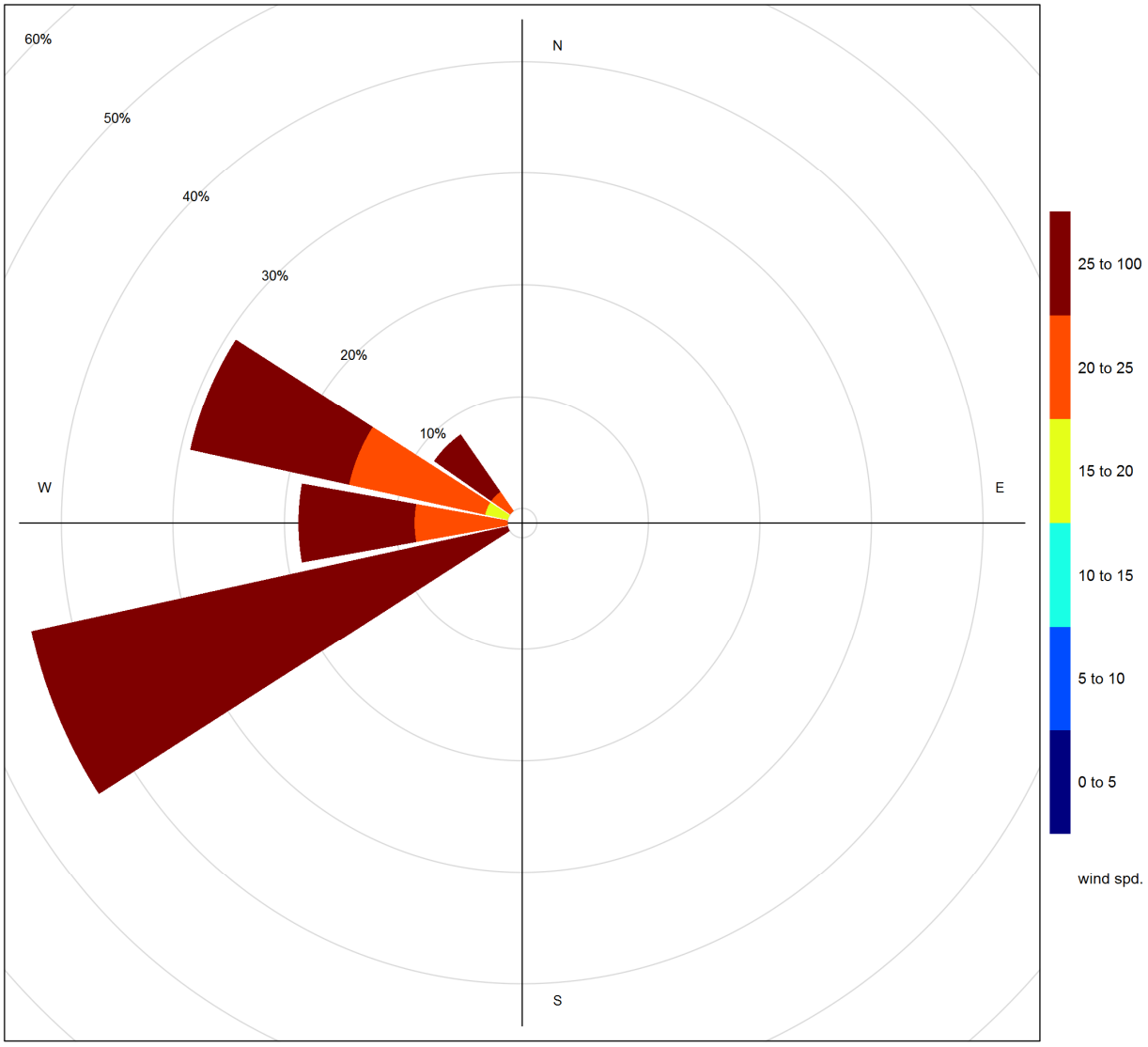

Figure 7-4 Wind rose for $PM_{2.5}$ exceedance days recorded at the Entrance GRIMM

Figure 7- illustrates the hourly PM concentrations recorded at the Entrance monitor, averaged over different time periods. The plot across the top shows the variation of PM over the course of a week, while the bottom three plots show the changes in PM over the course of a day, month and weekday, respectively. Figure 7- is based on data collected during December 2018 and shows a peak in the morning hours when traffic emissions likely influence the PM concentrations at the Entrance monitor which is located near Highway 1 and the entrance to Lafarge.

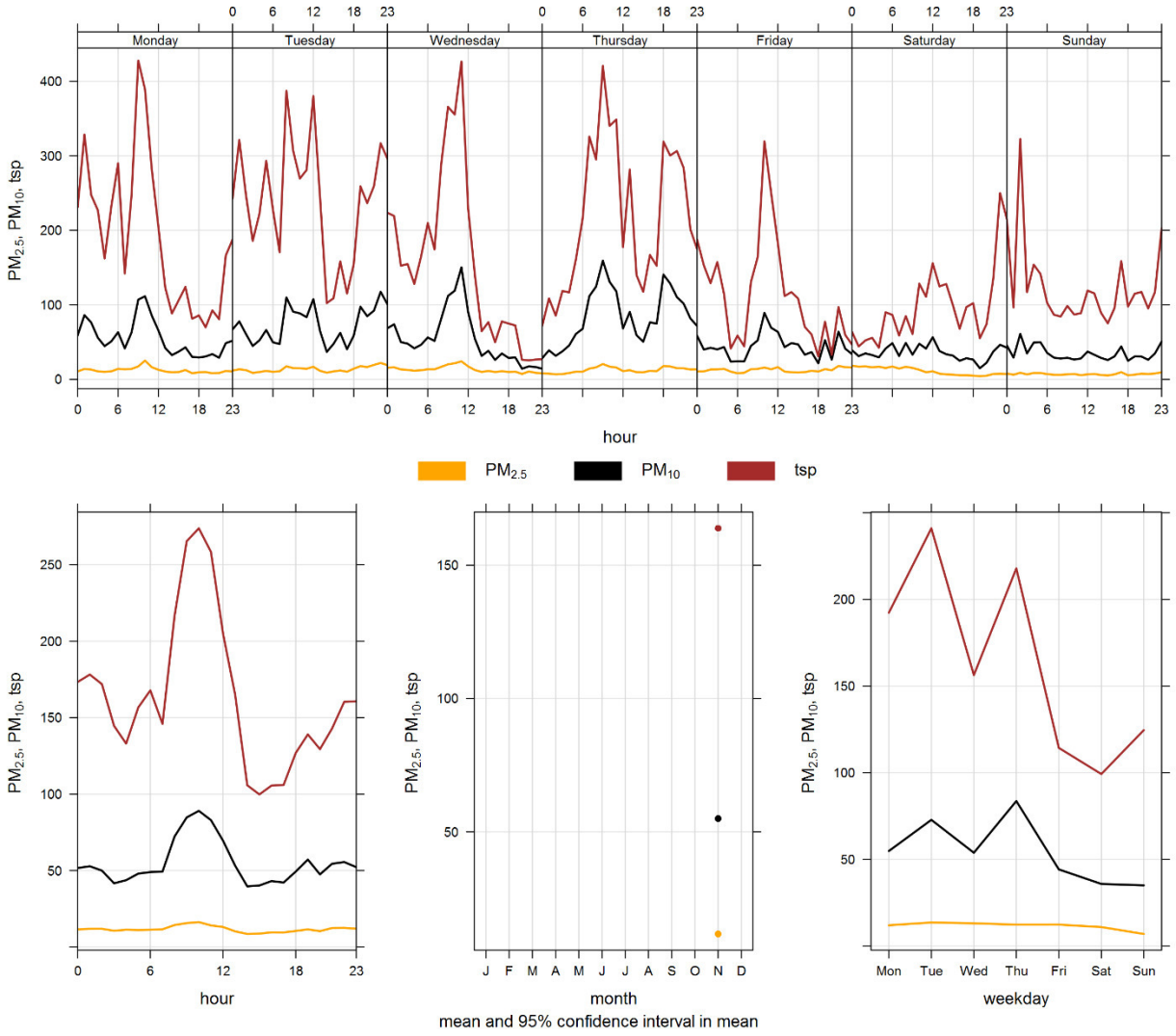

Figure 7-5 Entrance particulate matter time variation

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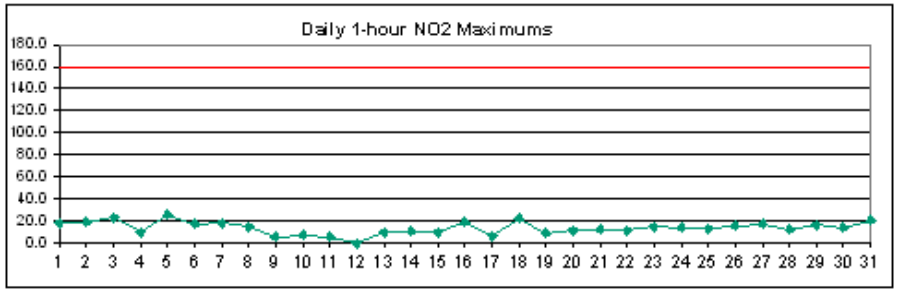
APPENDIX

A DATA & CALIBRATION REPORTS

APPENDIX

Lagoon NO_2 (ppb) – December 2018

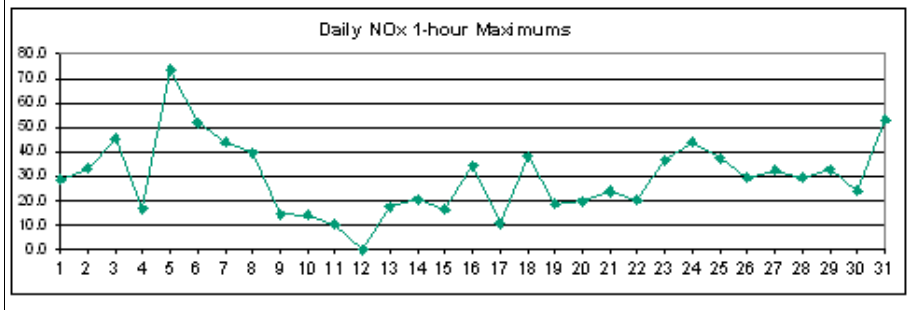
Day	HOUR 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN	MAX
1	14.7	$	14.8	9.2	12.7	12.5	11.0	12.7	16.0	13.6	9.9	10.7	6.9	8.0	4.9	5.9	6.3	6.8	14.5	13.9	13.6	7.6	2.8	18.7	10.8	18.7
2	16.4	$	13.5	13.4	11.1	13.3	13.1	9.1	11.4	9.8	9.3	3.8	3.6	4.3	3.2	2.9	5.8	12.3	15.6	19.6	15.2	1.5	1.4	16.2	9.8	19.6
3	5.2	$	4.6	10.0	10.1	2.1	8.7	13.8	23.4	17.0	11.0	9.5	6.0	3.6	10.2	9.0	8.3	6.8	2.2	5.2	1.4	3.5	5.8	2.3	7.8	23.4
4	1.3	$	0.4	1.1	3.4	5.3	1.3	2.9	2.5	4.1	4.3	1.7	0.0	0.0	0.0	0.7	1.3	1.1	0.5	9.9	10.5	7.9	9.8	3.6	3.2	10.5
5	5.7	$	4.1	6.8	10.2	10.8	9.0	14.7	18.0	15.9	12.8	8.3	5.7	3.9	8.6	14.0	22.9	25.6	23.7	15.1	5.5	5.4	6.3	3.0	11.1	25.6
6	7.0	$	8.6	3.7	4.0	3.1	2.2	2.7	7.1	8.2	12.2	17.7	10.8	15.8	9.3	6.8	7.1	7.8	5.2	6.4	5.9	9.1	5.5	3.7	7.4	17.7
7	3.0	$	4.2	10.5	8.0	8.5	15.4	7.3	3.5	8.4	11.0	9.1	6.9	10.1	12.5	18.2	12.5	14.4	9.0	10.7	7.0	9.6	3.7	3.9	9.0	18.2
8	10.5	$	10.2	5.0	5.7	4.3	3.3	3.5	3.3	4.1	2.6	4.3	3.1	14.5	14.9	13.4	10.5	8.7	13.8	6.4	8.5	8.3	6.7	2.3	7.3	14.9
9	1.0	$	1.6	0.6	1.1	1.4	5.7	4.2	3.9	2.6	2.4	1.7	2.5	2.4	1.8	1.6	3.1	3.7	0.7	0.8	2.4	0.5	2.6	2.7	2.2	5.7
10	0.3	$	1.6	2.2	4.0	1.9	1.9	4.3	3.6	3.7	7.6	2.5	0.7	0.0	0.0	2.7	6.7	5.7	0.3	2.9	1.9	0.1	1.9	0.6	2.5	7.6
11	5.9	$	3.4	0.8	0.5	1.9	3.7	0.6	2.0	2.2	0.0	0.1	0.0	0.0	0.0	1.4	3.1	0.3	4.5	0.4	0.0	0.8	1.2	5.5	1.7	5.9
12	5.7	$	1.3	4.0	3.1	0.8	1.9	2.2	4.0	C	C	C	C	C	C	C	C	4.2	5.7	2.5	4.5	1.8	1.3	0.3	-	-
13	0.6	$	2.7	4.4	3.8	4.4	7.7	8.0	7.3	6.2	9.9	7.0	4.3	5.6	2.8	5.3	4.5	3.3	5.5	1.6	2.5	3.8	4.9	5.2	4.8	9.9
14	2.8	$	3.1	4.9	8.1	4.6	5.1	5.0	1.9	6.2	2.1	1.8	2.4	6.5	11.3	7.9	6.0	4.9	6.4	9.0	5.0	4.3	6.3	5.3	5.3	11.3
15	5.3	$	1.3	2.8	0.7	4.9	4.1	1.4	6.2	7.0	5.8	5.8	4.6	1.8	3.4	5.3	1.5	2.4	4.1	4.1	3.0	10.2	7.7	1.4	4.1	10.2
16	0.6	$	3.3	4.3	8.6	19.0	7.1	6.8	7.4	7.0	3.6	6.1	3.7	0.8	1.3	5.0	1.3	1.6	6.9	16.0	10.9	6.0	5.7	3.5	5.9	19.0
17	3.6	$	6.4	6.0	4.7	4.8	2.1	2.7	3.9	1.3	1.0	1.4	1.6	1.1	0.6	2.0	1.4	0.5	0.8	0.0	0.3	0.6	3.8	3.1	2.3	6.4
18	14.7	$	14.0	9.2	9.5	6.5	9.3	8.7	23.0	15.1	13.5	12.8	8.9	9.6	3.2	3.0	3.5	6.1	5.8	4.9	3.6	6.4	5.8	8.6	8.9	23.0
19	3.8	$	3.0	5.0	4.6	2.0	2.4	9.0	7.4	9.3	2.2	1.1	1.6	0.9	5.4	7.8	5.2	6.9	4.5	7.1	6.4	5.4	4.7	3.4	4.7	9.3
20	1.8	$	2.0	3.0	4.4	3.9	4.1	9.4	9.3	11.0	7.8	7.4	4.8	8.0	8.6	6.5	7.6	11.8	10.0	6.7	7.0	3.0	3.2	4.8	6.3	11.8
21	4.1	$	5.5	3.8	3.4	1.7	0.2	0.3	0.6	4.1	2.3	7.4	12.7	12.1	6.8	5.4	9.6	4.9	6.3	2.8	3.8	0.9	0.9	2.7	4.5	12.7
22	2.8	$	3.7	7.0	5.6	4.7	11.6	7.7	11.3	7.8	6.7	6.2	3.8	1.1	2.0	1.2	1.3	1.5	2.4	3.8	1.0	2.1	2.6	5.5	4.5	11.6
23	15.3	$	7.8	5.8	2.2	4.6	3.5	8.5	3.7	13.5	12.3	6.3	3.9	0.7	0.8	0.7	1.5	1.1	0.8	2.4	5.5	7.0	10.5	13.1	5.7	15.3
24	10.2	$	5.4	9.5	8.0	7.1	7.0	11.4	5.1	8.4	5.3	5.4	14.5	3.8	2.5	4.7	4.7	6.5	7.0	6.3	5.3	7.5	3.3	4.1	6.7	14.5
25	3.1	$	6.2	7.1	11.3	13.9	11.6	3.0	4.0	5.8	12.9	3.6	2.3	3.8	5.0	3.4	4.3	2.9	3.5	3.0	3.0	6.8	8.6	10.5	6.1	13.9
26	14.1	$	11.1	8.5	8.9	10.0	7.0	7.0	8.7	11.1	11.9	6.8	8.6	5.2	3.5	7.5	5.4	4.9	11.6	12.3	14.9	13.7	16.1	10.1	9.5	16.1
27	14.6	$	16.1	10.1	10.9	11.4	9.4	13.6	16.1	15.4	17.1	13.5	12.1	9.0	10.9	11.3	17.5	18.1	14.6	8.1	10.5	12.7	12.9	9.3	12.8	18.1
28	9.0	$	6.3	5.0	8.1	11.9	12.9	8.6	8.3	12.4	10.8	8.8	7.0	0.8	0.6	0.7	0.8	0.8	0.8	1.0	0.9	0.7	0.6	0.7	5.1	12.9
29	0.6	$	1.0	0.7	1.1	1.0	2.4	4.1	6.4	4.7	6.4	6.3	5.3	4.4	0.9	0.5	0.7	3.9	3.8	3.0	2.3	5.9	17.0	5.9	3.8	17.0
30	5.6	$	6.3	2.7	6.6	1.6	0.5	2.6	2.0	2.6	1.0	0.7	0.5	0.2	0.4	0.5	0.5	1.8	3.4	2.0	4.8	4.0	4.5	14.7	3.0	14.7
31	4.2	$	5.7	15.4	11.7	9.6	8.0	11.9	15.7	21.3	10.8	5.9	5.3	10.4	10.1	3.7	4.9	11.3	4.4	6.9	8.1	9.5	7.4	5.6	9.0	21.3
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	6.2	-	5.8	5.9	6.3	6.2	6.2	6.7	8.0	8.7	7.6	6.1	5.1	5.0	4.9	5.3	5.7	6.2	6.4	6.3	5.7	5.4	5.7	5.8		
MAX	16.4	-	16.1	15.4	12.7	19.0	15.4	14.7	23.4	21.3	17.1	17.7	14.5	15.8	14.9	18.2	22.9	25.6	23.7	19.6	15.2	13.7	17.0	18.7		



Number of 1HR Exceedences	0		
Number of Non-Zero Readings	695		
Maximum 1-HR Average	25.6 PPB		
Maximum 24-HR Average	12.8 PPB		
		Opperational Time	744 HRS
Monthly Calibration	8	Opperational Uptime	100.0 %
Standard Deviation	4.6	Monthly Average	6.1 PPB

Lagoon NOx (ppb) – December 2018

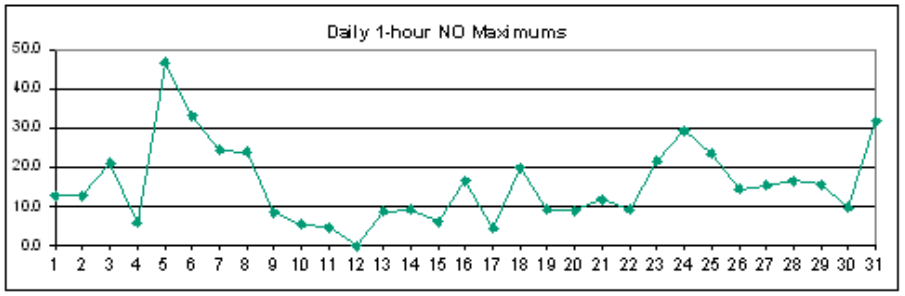
Day	HOUR 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN	MAX
1	26.0	$	28.7	10.4	19.4	26.4	15.7	17.1	25.9	22.2	16.1	21.4	11.1	13.1	6.9	7.0	6.9	7.2	16.5	14.9	16.6	11.2	4.1	25.4	16.1	28.7
2	20.7	$	14.6	16.7	20.0	23.5	24.8	11.7	24.7	16.1	18.2	7.0	7.7	7.8	6.0	4.6	6.4	14.9	22.3	33.4	22.5	2.6	2.1	30.1	15.6	33.4
3	6.3	$	5.5	10.6	16.8	3.0	10.1	18.4	45.6	36.8	23.6	22.0	13.6	6.5	18.0	13.9	11.2	7.7	4.7	12.9	2.3	5.8	10.3	3.4	13.4	45.6
4	2.3	$	1.1	2.2	7.6	12.1	2.7	5.3	4.9	9.0	9.5	3.4	1.0	0.0	0.4	1.7	2.4	2.0	0.7	16.8	15.7	9.5	11.1	4.2	5.5	16.8
5	9.0	$	7.4	12.2	18.5	17.5	10.3	27.1	28.0	25.3	26.5	15.8	10.5	7.1	12.1	21.0	44.6	73.6	43.7	18.1	7.9	10.9	11.6	4.0	20.1	73.6
6	12.6	$	17.4	4.5	5.7	4.3	3.4	4.0	12.2	14.6	33.4	52.0	31.1	40.5	19.5	11.6	10.4	13.0	7.1	8.3	8.6	18.0	8.7	5.5	15.1	52.0
7	4.2	$	9.3	22.7	19.8	19.5	39.2	14.8	4.7	14.6	27.0	22.0	16.3	21.7	26.5	43.8	26.2	30.1	18.1	19.1	11.8	21.9	6.5	7.1	19.4	43.8
8	25.5	$	22.8	9.6	11.9	8.6	5.7	4.3	3.8	7.2	4.7	9.3	6.6	39.6	39.2	29.2	18.8	16.6	31.6	13.5	21.3	21.7	16.4	4.7	16.2	39.6
9	1.8	$	2.7	1.3	2.2	3.9	14.7	13.7	9.5	4.4	4.5	3.3	4.3	4.4	3.3	2.7	5.1	6.1	1.2	1.3	5.1	0.8	4.7	5.1	4.6	14.7
10	0.9	$	4.1	6.0	6.0	3.3	2.9	7.2	4.6	5.3	14.1	5.3	2.0	0.8	0.6	4.6	9.8	8.1	0.7	5.4	2.9	0.5	3.3	1.2	4.3	14.1
11	9.7	$	6.3	1.7	1.3	3.4	7.9	1.5	4.0	4.8	0.2	1.2	0.0	0.1	0.4	3.7	6.2	1.1	10.2	1.0	0.7	2.0	1.8	10.6	3.5	10.6
12	10.4	$	1.7	5.4	5.2	1.3	3.4	3.7	7.4	C	C	C	C	C	C	C	C	7.9	9.3	4.3	8.5	3.2	2.5	0.8	-	-
13	1.2	$	4.3	7.5	6.7	7.9	16.4	15.3	12.1	9.5	17.7	14.7	8.0	10.7	4.6	9.5	7.0	5.4	9.6	2.4	4.5	5.8	7.8	8.4	8.6	17.7
14	4.0	$	4.4	7.5	16.3	6.9	11.1	9.7	3.0	10.4	3.3	3.0	4.0	11.8	20.6	13.0	7.8	6.3	8.7	16.0	7.5	5.9	10.6	8.5	8.7	20.6
15	8.3	$	1.8	4.5	1.2	8.7	6.4	2.1	9.8	12.0	9.5	10.0	7.0	2.8	5.4	7.1	1.9	3.1	6.2	4.9	3.5	16.5	9.3	1.8	6.3	16.5
16	0.9	$	4.1	6.2	19.6	34.3	9.5	8.0	8.7	8.3	4.9	11.0	5.2	1.2	2.0	9.3	1.9	2.2	9.8	32.8	18.6	10.2	9.5	5.4	9.7	34.3
17	4.8	$	10.9	10.6	7.4	6.8	3.5	3.9	6.5	2.3	1.9	2.6	2.5	1.8	1.3	2.9	2.3	1.1	1.7	0.3	0.7	1.3	7.2	5.3	3.9	10.9
18	34.5	$	28.1	17.6	17.0	11.7	14.5	11.5	38.1	23.3	24.3	23.8	15.0	17.5	4.4	4.6	5.0	10.6	8.4	6.8	6.0	13.0	11.0	16.2	15.8	38.1
19	5.3	$	4.0	7.6	6.8	2.8	3.8	16.3	13.0	18.6	3.7	1.8	2.6	1.6	8.9	11.9	7.1	10.1	5.9	8.3	9.1	6.6	7.7	4.7	7.3	18.6
20	2.4	$	2.4	4.0	7.0	5.5	5.2	16.8	13.2	19.9	14.1	13.6	7.1	13.3	14.9	10.6	10.9	12.5	13.0	9.1	10.3	3.9	4.0	6.8	9.6	19.9
21	6.1	$	10.6	6.6	6.0	2.6	0.6	0.8	1.3	6.2	3.6	13.2	23.5	23.9	11.4	9.4	18.0	7.5	9.5	3.5	5.0	1.3	1.4	4.3	7.7	23.9
22	3.6	$	4.7	12.7	7.7	6.5	19.6	13.1	20.5	12.7	11.5	15.1	7.4	1.9	3.2	1.9	1.9	2.4	3.6	8.0	1.5	3.1	4.0	10.5	7.7	20.5
23	36.8	$	15.3	9.6	3.1	7.5	5.4	13.1	5.1	28.4	31.3	13.3	6.5	1.1	1.1	1.0	2.2	1.5	1.1	4.8	8.7	11.3	19.9	27.7	11.1	36.8
24	19.8	$	11.5	17.9	12.9	12.0	11.2	23.8	8.0	17.4	9.7	11.1	43.9	7.3	4.8	7.5	8.4	10.9	9.4	8.1	8.9	12.5	4.9	6.6	12.5	43.9
25	4.1	$	11.9	13.0	28.7	37.3	23.6	4.0	5.4	9.4	30.6	5.9	3.2	6.9	6.2	4.2	5.7	3.3	3.9	3.4	3.4	8.1	13.6	15.0	10.9	37.3
26	20.1	$	11.9	9.1	9.8	13.9	8.2	9.8	15.2	20.5	25.3	11.8	19.5	7.9	5.1	12.6	7.5	6.6	16.1	19.9	29.3	26.0	26.3	11.4	15.0	29.3
27	20.6	$	18.3	11.5	17.2	18.4	11.6	25.9	26.3	26.9	32.5	28.2	22.0	13.9	16.2	14.5	26.2	23.7	18.1	8.9	13.8	18.3	19.0	14.2	19.4	32.5
28	15.6	$	9.4	7.9	12.4	23.3	29.5	17.1	15.6	27.8	25.0	21.4	17.1	1.4	1.1	1.3	1.3	1.1	1.0	1.5	1.2	1.0	0.9	1.1	10.2	29.5
29	1.1	$	1.6	1.1	1.7	1.5	4.4	6.6	14.9	8.2	11.9	13.2	12.1	8.8	2.2	1.0	1.2	6.2	5.7	3.8	3.5	9.7	32.7	9.0	7.0	32.7
30	8.9	$	9.3	3.3	9.9	2.1	0.9	3.2	3.0	3.1	1.4	1.2	1.0	0.6	0.8	0.9	0.9	2.7	4.3	3.0	9.3	5.1	7.8	24.3	4.6	24.3
31	4.9	$	6.1	16.7	13.0	10.3	10.3	19.3	34.0	53.3	25.2	11.4	12.7	22.9	18.8	5.8	8.3	19.2	6.6	11.3	15.6	19.5	16.1	12.0	16.2	53.3
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	10.7	-	9.4	9.0	10.9	11.2	10.9	11.3	13.8	16.0	15.5	13.0	10.8	10.0	8.9	9.1	9.1	10.5	10.0	9.9	9.2	9.3	9.6	9.5		
MAX	36.8	-	28.7	22.7	28.7	37.3	39.2	27.1	45.6	53.3	33.4	52.0	43.9	40.5	39.2	43.8	44.6	73.6	43.7	33.4	29.3	26.0	32.7	30.1		



Number of Non-Zero Readings	704		
Maximum 1-HR Average	73.6 PPB		
Maximum 24-HR Average	20.1 PPB		
		Opperational Time	744 HRS
Monthly Calibration	8	Opperational Uptime	100.0 %
Standard Deviation	9.302	Monthly Average	10.7 PPB

Lagoon NO (ppb) – December 2018

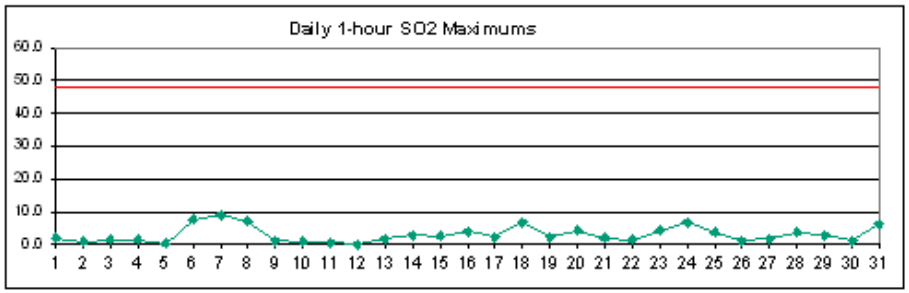
Day	HOUR 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN	MAX
1	10.2	$	12.7	0.2	5.7	12.9	3.8	3.4	8.9	7.5	5.2	9.7	3.2	4.0	1.1	0.2	0.0	0.0	1.0	0.0	2.0	2.6	0.3	5.7	4.4	12.9
2	3.2	$	0.1	2.3	7.9	9.1	10.6	1.6	12.3	5.3	7.9	2.1	3.0	2.4	1.7	0.7	0.0	1.7	5.6	12.7	6.3	0.1	0.0	12.8	4.8	12.8
3	0.1	$	0.0	0.0	5.6	0.0	0.4	3.5	21.0	18.5	11.5	11.4	6.5	1.8	6.7	3.9	2.0	0.0	1.4	6.7	0.0	1.3	3.5	0.0	4.6	21.0
4	0.1	$	0.0	0.1	3.2	5.7	0.4	1.4	1.4	3.8	4.2	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.9	4.1	0.6	0.3	0.0	1.4	5.9
5	2.2	$	2.3	4.4	7.2	5.6	0.4	11.3	8.9	8.3	12.6	6.6	3.8	2.1	2.5	5.9	20.5	46.6	18.9	2.0	1.4	4.6	4.3	0.0	7.9	46.6
6	4.5	$	7.8	0.0	0.8	0.2	0.3	0.3	4.1	5.4	20.1	33.1	19.2	23.5	9.2	3.8	2.3	4.2	0.9	1.0	1.7	7.9	2.3	0.8	6.7	33.1
7	0.2	$	4.1	11.1	10.8	9.9	22.7	6.5	0.2	5.1	14.9	11.9	8.4	10.5	12.8	24.3	12.5	14.6	8.1	7.4	3.8	11.3	1.8	2.2	9.3	24.3
8	13.9	$	11.5	3.6	5.2	3.3	1.3	0.0	0.0	2.1	1.0	4.0	2.5	24.0	23.2	14.7	7.3	6.8	16.7	6.1	11.8	12.3	8.7	1.5	7.9	24.0
9	0.0	$	0.2	0.0	0.1	1.6	8.0	8.5	4.6	0.8	1.1	0.5	0.8	1.0	0.4	0.2	1.0	1.3	0.0	0.0	1.7	0.0	1.1	1.4	1.5	8.5
10	0.0	$	1.5	2.9	1.0	0.4	0.0	1.9	0.0	0.6	5.5	1.9	0.2	0.0	0.0	0.9	2.0	1.3	0.0	1.5	0.0	0.0	0.4	0.0	1.0	5.5
11	2.7	$	1.9	0.0	0.0	0.4	3.1	0.0	1.0	1.6	0.0	0.2	0.0	0.0	0.0	1.3	2.1	0.0	4.7	0.0	0.0	0.2	0.0	4.0	1.0	4.7
12	3.7	$	0.0	0.5	1.1	0.0	0.5	0.5	2.3	C	C	C	C	C	C	C	C	3.6	3.6	1.7	4.0	1.4	1.1	0.4	-	-
13	0.7	$	1.6	3.0	2.9	3.5	8.7	7.2	4.8	3.3	7.8	7.6	3.7	5.1	1.7	4.1	2.5	2.0	4.1	0.7	1.9	2.0	3.0	3.1	3.7	8.7
14	1.2	$	1.2	2.6	8.2	2.2	6.0	4.7	1.0	4.2	1.1	1.2	1.5	5.2	9.3	5.2	1.8	1.5	2.3	7.0	2.4	1.6	4.2	3.2	3.4	9.3
15	3.0	$	0.5	1.7	0.6	3.7	2.3	0.7	3.6	5.0	3.8	4.2	2.4	1.0	1.9	1.8	0.5	0.7	2.1	0.9	0.6	6.3	1.6	0.5	2.2	6.3
16	0.4	$	0.9	1.9	11.0	15.2	2.5	1.2	1.3	1.4	1.3	4.9	1.4	0.6	0.7	4.3	0.6	0.7	3.0	16.7	7.7	4.3	3.8	1.8	3.8	16.7
17	1.2	$	4.5	4.6	2.7	2.1	1.4	1.3	2.6	0.9	0.9	1.3	0.8	0.8	0.7	1.0	0.9	0.7	0.9	0.4	0.6	0.8	3.5	2.1	1.6	4.6
18	19.8	$	14.0	8.3	7.4	5.1	5.2	2.8	14.9	8.1	10.7	11.0	6.2	7.9	1.2	1.6	1.4	4.5	2.7	1.9	2.3	6.5	5.1	7.5	6.8	19.8
19	1.5	$	1.0	2.6	2.2	0.8	1.3	7.3	5.7	9.2	1.7	1.1	1.3	0.9	3.8	4.4	2.2	3.4	1.7	1.5	3.0	1.5	3.2	1.5	2.7	9.2
20	0.7	$	0.6	1.2	2.8	1.8	1.2	7.5	4.1	8.9	6.5	6.3	2.4	5.5	6.4	4.2	3.5	0.9	3.0	2.5	3.4	1.1	0.9	2.1	3.4	8.9
21	2.0	$	5.2	2.9	2.6	1.0	0.5	0.6	0.7	2.1	1.3	5.9	10.8	11.9	4.7	4.0	8.4	2.7	3.2	0.7	1.3	0.5	0.6	1.7	3.3	11.9
22	0.8	$	1.1	5.7	2.2	1.9	8.1	5.6	9.3	5.2	5.0	9.0	3.6	0.8	1.2	0.7	0.6	0.9	1.2	4.2	0.6	1.1	1.4	5.1	3.3	9.3
23	21.6	$	7.7	3.9	1.1	3.1	2.1	4.7	1.6	15.0	19.2	7.2	2.7	0.6	0.6	0.5	0.8	0.5	0.5	2.5	3.3	4.4	9.6	14.6	5.6	21.6
24	9.7	$	6.2	8.6	5.1	5.0	4.4	12.5	3.0	9.0	4.5	5.9	29.4	3.6	2.3	2.9	3.8	4.5	2.6	1.9	3.7	5.1	1.7	2.6	6.0	29.4
25	1.1	$	5.8	6.0	17.4	23.4	12.2	1.2	1.5	3.8	17.7	2.4	0.9	3.1	1.3	0.8	1.5	0.5	0.6	0.5	0.5	1.5	5.1	4.6	4.9	23.4
26	6.1	$	1.0	0.9	1.0	4.0	1.3	3.0	6.7	9.6	13.6	5.2	11.1	2.9	1.6	5.2	2.2	1.8	4.6	7.7	14.5	12.4	10.2	1.4	5.6	14.5
27	6.2	$	2.3	1.6	6.4	7.1	2.4	12.4	10.3	11.5	15.4	14.7	10.0	5.0	5.4	3.3	8.7	5.6	3.6	0.9	3.4	5.7	6.2	5.0	6.7	15.4
28	6.6	$	3.1	2.9	4.3	11.4	16.6	8.5	7.4	15.4	14.2	12.6	10.1	0.7	0.7	0.6	0.6	0.4	0.4	0.6	0.5	0.5	0.5	0.6	5.2	16.6
29	0.6	$	0.7	0.5	0.7	0.6	2.0	2.5	8.5	3.5	5.6	6.9	6.8	4.4	1.3	0.6	0.6	2.3	1.9	0.8	1.2	3.9	15.6	3.2	3.3	15.6
30	3.2	$	3.1	0.7	3.3	0.6	0.5	0.8	1.0	0.6	0.5	0.6	0.6	0.5	0.5	0.6	0.5	0.9	1.0	1.0	4.5	1.1	3.3	9.7	1.7	9.7
31	0.8	$	0.6	1.4	1.4	0.8	2.4	7.4	18.2	31.8	14.4	5.5	7.4	12.5	8.8	2.1	3.4	7.9	2.1	4.4	7.5	10.0	8.7	6.4	7.2	31.8
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	4.1	-	3.3	2.8	4.3	4.6	4.3	4.2	5.5	6.9	7.6	6.5	5.4	4.7	3.7	3.5	3.1	4.0	3.3	3.3	3.2	3.6	3.6	3.4		
MAX	21.6	-	14.0	11.1	17.4	23.4	22.7	12.5	21.0	31.8	20.1	33.1	29.4	24.0	23.2	24.3	20.5	46.6	18.9	16.7	14.5	12.4	15.6	14.6		



Number of Non-Zero Readings	658		
Maximum 1-HR Average	46.6 PPB		
Maximum 24-HR Average	9.3 PPB		
		Opperational Time	744 HRS
Monthly Calibration	8	Opperational Uptime	100.0 %
Standard Deviation	5.163	Monthly Average	4.3 PPB

Lagoon SO_2 (ppb) – December 2018

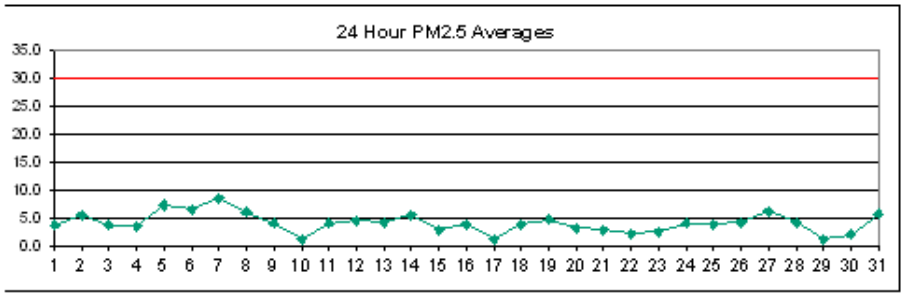
Day	HOUR 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN	MAX
1	1.2	$	1.1	0.0	0.8	2.1	0.0	0.0	0.4	0.0	0.0	0.0	0.1	0.0	0.2	0.2	0.7	0.3	0.0	0.1	0.0	0.1	0.0	0.0	0.3	2.1
2	0.0	$	0.2	0.1	0.7	0.7	0.9	0.3	0.7	1.0	0.5	0.0	0.2	0.9	0.6	0.1	0.4	0.0	0.2	0.3	0.0	0.1	0.0	0.0	0.3	1.0
3	0.0	$	0.0	0.0	0.3	0.0	0.0	0.0	0.3	0.3	0.3	1.4	0.3	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	1.4
4	0.0	$	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.5	0.0	0.0	0.1	1.5
5	0.1	$	0.3	0.2	0.4	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.2	0.4	0.0	0.1	0.0	0.0	0.1	0.0	0.1	0.4
6	0.0	$	1.2	0.0	0.0	0.0	0.3	0.0	0.2	0.6	3.0	7.6	4.4	4.9	2.5	0.6	0.3	0.1	0.0	0.0	0.1	1.8	0.4	0.4	1.2	7.6
7	0.0	$	0.5	2.1	2.8	3.4	6.6	2.4	0.6	1.7	3.9	2.8	2.3	2.9	4.8	9.0	4.9	4.9	2.5	2.1	1.0	3.7	1.5	0.0	2.9	9.0
8	3.4	$	3.2	1.9	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.4	6.8	6.9	4.2	2.8	1.6	5.6	1.7	3.0	4.1	2.7	0.0	2.1	6.9
9	0.0	$	0.0	0.2	0.2	0.0	1.1	0.4	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	0.1	1.1
10	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	0.9	0.4	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.9
11	0.0	$	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.2	0.1	0.1	0.6	0.4	0.4	0.5	0.4	0.3	0.1	0.6
12	0.3	$	0.1	0.4	0.4	0.1	0.4	0.5	0.5	C	C	C	C	C	C	C	C	0.3	0.0	0.0	0.4	0.0	0.0	0.3	-	-
13	0.3	$	1.7	1.0	0.3	1.1	1.0	0.4	0.0	0.5	1.0	1.2	1.2	0.4	0.2	0.6	0.1	0.0	0.4	0.6	0.2	0.0	0.0	0.0	0.5	1.7
14	0.3	$	0.1	0.5	1.8	0.4	1.0	0.1	0.0	2.4	0.3	0.2	0.1	1.4	2.9	1.7	0.6	1.1	0.7	1.4	0.7	0.7	0.9	1.7	0.9	2.9
15	1.0	$	0.2	0.7	0.4	1.7	2.1	0.0	2.5	0.4	0.3	0.3	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	2.5
16	0.0	$	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.2	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.7	3.9	2.4	0.7	0.0	0.5	0.4	3.9
17	0.4	$	1.1	2.3	0.7	1.1	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.3	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.2	0.3	2.3
18	6.9	$	5.8	4.2	3.2	2.0	1.3	0.2	0.8	1.4	0.9	1.3	1.2	0.4	0.0	0.4	0.3	0.2	0.0	0.1	1.4	3.1	3.4	2.8	1.8	6.9
19	0.2	$	0.0	0.4	0.0	0.0	0.0	2.3	1.8	0.7	0.0	0.0	0.0	0.4	0.0	1.4	0.3	0.2	0.0	0.6	0.0	0.0	0.0	0.0	0.4	2.3
20	0.0	$	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	1.7	1.8	0.7	1.0	4.1	3.3	0.7	0.9	1.0	1.3	1.2	0.0	0.1	0.4	0.8	4.1
21	0.0	$	0.8	0.6	0.0	0.1	0.1	0.0	0.0	0.0	0.3	0.9	2.0	1.7	0.0	0.7	1.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.4	2.0
22	0.0	$	0.0	0.0	0.0	0.0	0.8	0.2	1.4	0.7	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	0.2	1.4
23	0.6	$	1.7	1.0	0.0	0.1	0.0	0.6	0.0	1.9	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.5	2.0	4.1	0.6	4.1
24	1.7	$	0.2	0.6	0.2	1.0	1.1	1.7	0.2	0.0	0.1	0.5	6.7	0.7	0.6	0.4	0.1	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.7	6.7
25	0.0	$	0.9	1.1	1.9	3.8	1.8	0.0	0.0	0.1	3.7	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	3.8
26	0.0	$	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.2	0.0	0.4	0.2	0.2	0.0	0.0	0.0	0.0	0.1	1.0	0.8	1.2	0.0	0.2	0.2	1.2
27	0.0	$	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.4	1.1	1.6	0.4	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.3	0.4	0.2	1.6
28	0.1	$	0.0	0.0	0.0	1.6	3.7	1.8	1.3	3.1	3.4	3.2	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	3.7
29	0.0	$	0.0	0.0	0.0	0.1	0.2	0.2	0.1	0.0	0.0	0.0	2.0	1.0	0.6	0.0	0.0	1.1	0.7	0.6	0.4	0.1	2.9	1.5	0.5	2.9
30	0.5	$	0.7	0.0	1.1	0.1	0.0	0.0	0.1	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	1.1
31	0.0	$	0.0	0.0	0.0	0.0	0.0	0.0	1.7	6.3	2.2	1.5	1.7	4.3	2.8	0.1	0.2	2.4	0.6	0.0	1.6	2.8	2.4	1.7	1.4	6.3
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	0.6	-	0.6	0.6	0.5	0.6	0.7	0.4	0.4	0.7	0.8	0.9	0.8	0.9	0.9	0.8	0.5	0.5	0.4	0.5	0.5	0.7	0.6	0.5		
MAX	6.9	-	5.8	4.2	3.2	3.8	6.6	2.4	2.5	6.3	3.9	7.6	6.7	6.8	6.9	9.0	4.9	4.9	5.6	3.9	3.0	4.1	3.4	4.1		



Number of 1HR Exceedences	0		
Number of Non-Zero Readings	400		
Maximum 1-HR Average	9.0 PPB		
Maximum 24-HR Average	2.9 PPB		
		Opperational Time	744 HRS
Monthly Calibration	8	Opperational Uptime	100.0 %
Standard Deviation	1.196	Monthly Average	0.6 PPB

Lagoon $PM_{2.5}$ ($\mu g/m^3$) – December 2018

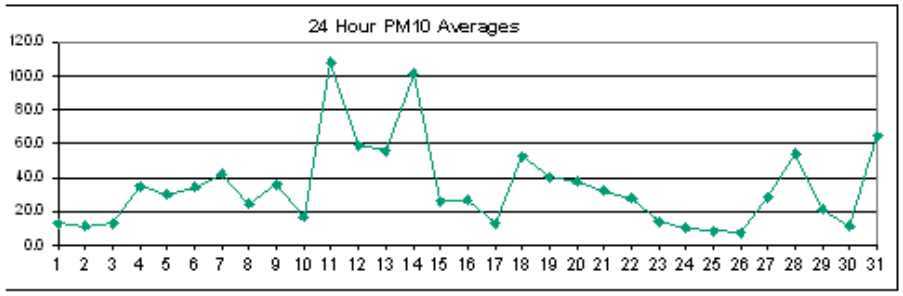
Day	HOUR 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN	MAX
1	10.5	9.4	5.8	2.0	0.0	2.6	6.5	6.9	4.0	3.3	2.9	1.9	4.0	4.4	3.7	2.2	3.0	3.3	2.2	2.6	3.3	2.6	2.2	2.3	3.8	10.5
2	8.0	10.1	6.9	2.6	4.0	5.1	6.2	8.4	8.3	6.5	6.6	8.7	6.6	5.1	2.6	2.6	3.7	2.6	5.8	5.5	7.6	6.2	5.1	4.0	5.8	10.1
3	5.1	2.2	0.0	1.5	2.6	2.6	2.2	1.2	2.6	8.0	7.3	5.8	5.5	5.5	1.9	3.3	5.1	4.4	5.1	4.0	3.3	4.0	4.0	4.7	3.8	8.0
4	3.7	3.7	3.7	0.8	2.2	6.5	6.5	3.7	3.7	3.3	1.9	4.4	5.1	2.2	0.0	1.5	1.5	2.8	3.7	2.9	8.3	6.9	6.5	5.1	3.8	8.3
5	3.3	6.9	6.9	6.9	6.2	4.0	3.0	3.0	4.0	6.5	8.7	6.2	9.8	10.5	7.6	3.7	4.4	12.7	24.8	11.6	8.7	7.3	6.3	6.5	7.5	24.8
6	4.4	3.7	3.0	3.5	3.7	3.3	2.2	0.8	1.9	4.0	9.1	10.9	17.6	15.2	15.7	11.9	10.8	8.3	5.5	4.4	2.6	6.8	7.3	6.2	6.8	17.6
7	5.1	3.3	3.3	1.5	4.1	9.4	10.1	10.8	8.0	4.7	4.4	11.2	8.3	7.6	12.3	11.9	15.2	13.4	14.1	10.1	8.3	10.8	10.5	9.4	8.7	15.2
8	6.2	5.8	7.3	8.3	5.1	3.7	6.2	4.7	1.5	0.8	0.4	2.2	3.6	5.1	14.1	16.6	9.8	6.2	7.3	8.0	6.9	9.8	6.9	3.3	6.2	16.6
9	1.2	2.6	5.5	4.7	2.6	2.2	3.3	3.6	4.4	3.3	2.2	3.3	6.2	9.1	5.8	3.7	4.0	3.7	5.1	5.5	4.7	4.7	4.7	4.8	4.2	9.1
10	6.2	2.2	1.2	1.2	0.0	0.0	0.0	0.4	0.8	1.5	2.2	1.9	1.5	1.2	0.4	0.0	1.5	4.7	2.2	0.4	1.5	1.9	1.2	0.0	1.4	6.2
11	0.1	0.4	1.5	0.8	0.0	3.7	2.6	4.8	6.8	6.5	5.1	4.8	11.9	8.0	6.9	7.3	8.0	4.7	4.4	5.1	4.1	2.6	1.2	1.2	4.3	11.9
12	5.1	3.7	2.6	4.7	2.3	0.8	1.2	2.6	1.9	5.5	8.0	5.1	C	C	C	C	C	7.6	3.6	6.3	12.2	6.9	2.9	5.4	4.6	12.2
13	2.6	4.0	4.7	4.0	5.1	6.5	4.7	3.3	4.7	2.2	3.0	4.0	5.5	6.2	6.9	4.7	4.4	3.7	4.0	5.1	4.0	2.3	5.1	5.1	4.4	6.9
14	5.8	5.8	2.9	1.9	3.3	4.0	3.3	3.3	3.3	1.9	7.6	5.1	2.9	7.4	16.9	11.5	7.9	5.4	4.1	6.2	7.6	8.0	6.9	5.8	5.8	16.9
15	6.9	5.4	2.6	0.8	0.0	0.0	3.0	5.8	5.1	6.9	5.1	1.2	0.8	2.2	1.9	2.2	3.7	3.6	1.5	0.0	1.9	4.0	3.7	4.1	3.0	6.9
16	2.6	0.0	0.8	4.0	3.0	3.0	4.8	2.9	2.3	5.1	3.7	2.6	3.0	3.7	5.8	4.7	3.3	5.4	3.0	4.4	9.7	7.7	5.8	4.0	4.0	9.7
17	1.9	2.3	3.7	2.9	2.1	1.1	0.0	1.5	3.0	3.3	3.3	1.5	3.3	2.9	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	1.4	3.7
18	0.0	3.3	3.3	1.2	1.5	4.0	4.0	4.4	2.3	3.3	4.4	5.5	5.1	6.2	7.6	7.2	4.8	6.2	5.3	3.5	1.2	1.2	4.7	4.7	4.0	7.6
19	3.0	2.8	2.3	3.7	2.6	0.1	1.2	2.8	4.7	4.0	2.8	4.8	4.8	4.4	6.2	4.0	1.6	5.5	6.3	11.6	10.9	10.2	9.7	5.8	4.8	11.6
20	3.3	2.2	5.5	6.9	4.0	1.2	1.5	1.2	4.0	4.4	6.5	4.8	4.4	4.4	4.0	3.3	4.4	1.9	1.9	1.5	0.0	3.3	3.3	1.2	3.3	6.9
21	2.2	1.9	0.5	3.0	4.0	3.3	4.0	4.0	0.0	0.0	1.5	2.3	4.0	5.1	7.2	4.7	5.1	5.5	5.5	3.3	3.3	2.6	0.0	1.5	3.1	7.2
22	3.6	2.6	0.8	0.1	3.3	4.7	2.6	3.0	5.5	7.6	6.9	5.5	4.0	1.5	0.0	0.0	1.2	2.6	0.4	0.0	0.1	0.0	0.0	1.9	2.4	7.6
23	1.9	2.6	5.5	4.7	2.6	0.8	0.5	4.0	2.2	2.6	4.1	6.9	3.5	0.5	3.3	1.5	0.1	2.4	3.0	4.4	2.6	0.9	1.9	2.2	2.7	6.9
24	4.1	5.8	4.7	4.8	6.2	4.4	3.0	3.6	3.3	3.3	4.4	3.3	1.6	13.6	6.5	1.5	4.0	5.1	2.2	1.2	1.9	2.6	5.8	3.6	4.2	13.6
25	0.1	0.0	6.5	5.8	2.2	9.1	9.4	6.2	3.7	2.2	2.3	9.4	6.8	3.5	4.0	4.8	6.2	4.4	2.6	0.8	0.8	2.3	2.9	1.2	4.0	9.4
26	4.4	7.0	6.2	5.5	4.8	4.4	2.8	0.8	0.1	1.9	1.9	4.7	2.6	5.1	4.7	1.9	2.6	2.9	1.5	2.6	3.3	6.2	6.6	18.0	4.3	18.0
27	12.6	11.3	15.9	11.6	7.6	4.0	3.3	3.3	3.0	6.2	4.4	4.4	6.5	6.2	10.8	9.4	5.8	4.4	2.8	2.2	3.3	6.2	4.4	2.3	6.3	15.9
28	3.0	4.1	10.1	7.7	4.0	1.5	4.0	5.3	5.1	3.3	4.4	4.4	9.4	6.2	3.3	3.7	4.0	2.2	2.3	7.3	4.7	0.4	0.8	1.2	4.3	10.1
29	0.1	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	1.2	0.0	0.0	0.1	3.7	4.4	2.6	0.4	0.0	1.2	1.9	4.4	3.7	4.4	4.1	1.4	4.4
30	4.4	3.7	0.0	1.2	4.4	2.9	1.5	0.8	0.8	2.6	2.9	0.4	0.0	1.5	3.0	2.2	2.6	2.6	0.0	1.5	4.0	3.7	2.2	2.3	2.1	4.4
31	4.4	2.6	4.4	4.0	3.0	4.0	3.7	1.2	3.3	3.7	10.1	6.5	3.3	4.8	8.7	11.9	7.6	5.5	6.8	6.9	5.8	7.3	10.1	10.9	5.9	11.9
NO.	31	31	31	31	31	31	31	31	31	31	31	31	30	30	30	30	30	31	31	31	31	31	31	31	739	100%
MEAN	4.0	3.9	4.1	3.6	3.1	3.3	3.5	3.5	3.4	3.9	4.5	4.6	5.1	5.4	5.9	4.9	4.6	4.6	4.5	4.2	4.6	4.6	4.4	4.3		
MAX	12.6	11.3	15.9	11.6	7.6	9.4	10.1	10.8	8.3	8.0	10.1	11.2	17.6	15.2	16.9	16.6	15.2	13.4	24.8	11.6	12.2	10.8	10.5	18.0		



Number of 24HR Exceedences	0		
Number of Non-Zero Readings	693		
Maximum 1-HR Average	24.8 UG/M3		
Maximum 24-HR Average	8.7 UG/M3		
		Opperational Time	744 HRS
Monthly Calibration	5	Opperational Uptime	100.0 %
Standard Deviation	3.144	Monthly Average	4.3 UG/M3

Lagoon PM_{10} ($\mu g/m^3$) – December 2018

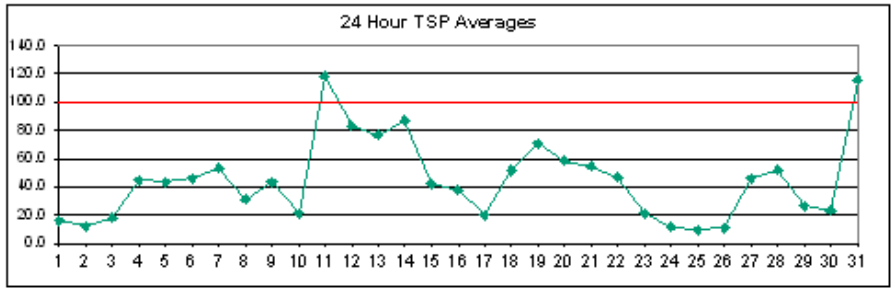
Day	HOUR 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN	MAX
1	18.4	14.8	9.4	6.7	9.4	6.7	9.4	20.2	8.0	33.1	14.1	10.1	16.8	22.3	31.7	17.5	11.4	10.7	9.4	6.7	6.0	6.7	4.6	4.0	12.8	33.1
2	26.3	16.8	17.5	10.7	11.4	14.8	24.3	16.8	7.4	8.0	15.5	15.5	5.8	6.7	10.1	4.7	0.0	6.7	10.7	5.3	16.1	11.4	7.4	3.3	11.4	26.3
3	5.3	6.0	5.8	3.3	5.3	6.0	0.6	4.6	10.1	19.5	22.2	8.8	16.8	17.5	8.7	11.4	13.4	26.3	43.2	15.5	14.8	10.1	20.9	16.2	13.0	43.2
4	32.4	25.7	89.2	45.4	52.1	53.4	119.0	70.4	16.3	10.1	24.9	87.9	52.1	11.5	24.9	11.4	16.8	15.5	12.8	10.1	27.0	8.1	7.4	15.6	35.0	119.0
5	16.8	8.0	8.0	4.7	3.3	8.0	10.1	10.1	24.3	57.8	55.2	50.7	69.6	35.2	8.8	8.8	33.7	65.5	145.4	36.7	26.3	14.2	14.1	11.7	30.3	145.4
6	6.0	16.1	6.7	15.5	2.7	4.6	4.0	4.6	7.3	10.1	15.5	29.7	114.1	98.8	150.9	97.0	64.4	32.5	18.5	20.2	20.2	32.4	34.4	14.2	34.2	150.9
7	11.7	9.4	7.4	8.7	22.9	37.4	37.2	39.9	12.9	10.2	35.7	68.9	74.4	50.1	75.7	107.5	139.6	75.3	45.3	29.1	31.7	18.9	39.1	21.6	42.1	139.6
8	2.2	18.1	9.4	10.1	7.4	6.7	5.3	2.6	4.0	5.9	5.3	5.9	27.6	33.1	85.7	94.8	34.1	22.3	17.5	66.8	17.0	28.3	56.0	25.1	24.6	94.8
9	9.5	7.4	4.7	2.6	0.0	0.0	1.9	4.6	3.3	7.3	18.8	37.1	76.3	104.1	63.1	43.2	22.4	18.2	32.4	31.8	68.2	103.4	77.4	126.4	36.0	126.4
10	43.5	14.9	17.5	47.2	9.0	6.7	3.3	3.3	5.3	4.6	5.3	41.1	23.0	20.9	14.2	12.8	40.4	41.9	21.0	8.1	8.0	6.0	2.0	6.0	16.9	47.2
11	10.7	6.1	16.1	22.2	53.3	92.5	75.2	233.5	350.2	94.0	75.2	284.1	382.2	307.9	207.7	135.1	105.1	61.8	39.3	18.3	5.4	5.3	6.7	4.7	108.0	382.2
12	37.7	19.0	79.5	17.4	12.1	37.7	24.4	12.8	10.1	31.0	62.1	60.2	C	C	C	C	C	44.5	32.2	125.7	267.3	91.0	62.7	101.4	59.4	267.3
13	37.2	39.7	24.7	55.6	71.3	88.4	61.4	51.2	35.3	53.1	81.2	85.6	110.5	127.0	101.4	35.9	46.6	45.9	41.3	43.1	27.7	30.3	24.9	18.6	55.7	127.0
14	27.3	49.0	16.8	14.5	103.1	66.4	17.6	22.2	20.4	32.7	111.3	22.7	481.5	173.5	481.3	155.9	52.0	49.2	36.4	93.8	192.2	121.7	48.0	44.6	101.4	481.5
15	100.6	37.5	8.6	6.8	15.7	33.3	53.9	58.4	17.6	82.7	39.9	43.6	12.2	21.4	4.8	18.3	23.3	1.3	2.0	4.6	2.8	22.7	4.7	6.7	26.0	100.6
16	4.6	2.3	18.8	13.4	8.6	3.3	4.7	8.1	10.1	11.4	11.7	16.3	25.5	9.5	16.1	8.0	8.0	6.7	8.1	83.8	141.4	127.0	36.7	57.9	26.7	141.4
17	30.3	20.1	8.2	23.7	35.6	16.8	12.1	15.4	8.8	21.0	14.8	10.7	5.4	8.7	8.0	0.8	23.4	2.7	6.7	10.7	6.6	2.6	2.8	17.5	13.1	35.6
18	18.7	65.9	24.4	44.0	480.4	4.7	6.0	3.3	3.6	34.7	56.5	24.6	60.5	89.4	96.0	16.1	7.4	9.4	8.0	7.4	9.1	47.7	85.1	64.0	52.8	480.4
19	33.5	4.7	5.3	3.3	0.0	2.7	8.1	15.5	Y	Y	Y	Y	Y	18.1	12.8	16.1	63.7	17.8	37.8	70.0	148.7	120.9	156.5	36.2	40.6	156.5
20	7.4	10.2	19.8	39.7	19.6	19.4	3.3	4.2	24.9	78.4	75.0	67.6	122.6	64.9	59.0	68.4	75.7	8.3	34.9	9.7	37.8	29.5	10.1	16.7	37.8	122.6
21	4.0	7.5	24.4	29.3	48.4	18.3	4.8	14.7	3.3	7.0	99.8	66.7	36.7	96.2	107.6	27.3	54.2	56.6	32.9	8.0	8.0	6.7	6.0	4.6	32.2	107.6
22	1.9	2.6	1.9	2.4	31.0	22.9	17.0	27.4	65.2	92.2	104.2	90.9	42.9	4.7	8.1	10.9	23.6	18.2	16.2	22.9	15.6	26.2	12.1	11.4	28.0	104.2
23	9.0	39.1	24.3	21.5	10.7	6.7	3.3	3.3	6.7	11.6	33.0	51.8	15.5	18.3	1.9	2.1	1.9	2.6	5.3	4.7	4.7	14.9	21.0	27.7	14.2	51.8
24	32.3	20.2	15.4	4.7	6.7	7.3	4.6	2.6	4.0	6.0	6.0	6.7	9.6	32.3	12.8	10.1	8.0	8.0	8.0	8.7	10.1	8.1	18.1	1.9	10.5	32.3
25	0.6	0.6	4.7	7.4	8.0	6.7	7.4	8.0	3.3	2.0	5.5	18.8	12.7	8.7	8.7	12.1	14.8	10.1	18.2	17.4	6.7	5.4	8.1	12.8	8.7	18.8
26	11.4	6.0	4.7	6.7	2.6	0.0	4.6	2.6	1.3	3.3	8.1	11.7	12.2	22.2	12.8	11.4	4.0	4.7	6.8	18.8	6.1	8.7	6.7	8.7	7.7	22.2
27	14.2	17.6	20.9	19.5	6.0	7.4	6.7	5.3	7.7	46.6	33.8	29.3	56.7	45.9	38.1	67.5	51.6	75.7	64.0	28.5	12.1	9.4	10.0	6.7	28.4	75.7
28	3.3	6.8	16.0	0.0	3.3	7.4	7.6	32.3	11.5	22.0	76.4	165.6	306.2	117.0	179.9	44.1	58.1	50.7	42.6	45.3	32.4	32.7	18.9	19.5	54.1	306.2
29	11.4	11.4	9.3	2.6	1.9	2.0	6.1	15.7	44.5	28.9	10.8	22.2	13.9	85.2	75.0	56.6	16.1	12.1	16.8	11.4	6.8	25.6	12.1	12.1	21.3	85.2
30	14.8	13.5	12.9	18.1	6.2	28.2	6.7	3.3	1.6	55.2	8.0	6.7	7.4	7.3	4.0	1.9	0.0	0.0	1.3	3.3	10.3	45.8	10.1	7.4	11.4	55.2
31	8.0	8.0	4.0	2.6	7.4	8.9	4.7	4.7	8.1	21.0	42.5	27.7	30.4	28.5	55.7	102.5	34.5	38.8	72.7	125.1	214.8	235.2	214.3	253.4	64.7	253.4
NO.	31	31	31	31	31	31	31	31	30	30	30	30	29	30	30	30	30	31	31	31	31	31	31	31	734	99%
MEAN	19.1	16.9	17.3	16.5	34.0	20.2	17.9	23.3	24.6	30.0	38.9	49.0	76.6	56.2	65.5	40.3	34.9	27.1	28.6	32.0	45.2	40.5	33.5	31.6		
MAX	100.6	65.9	89.2	55.6	480.4	92.5	119.0	233.5	350.2	94.0	111.3	284.1	481.5	307.9	481.3	155.9	139.6	75.7	145.4	125.7	267.3	235.2	214.3	253.4		



Number of Non-Zero Readings	726		
Maximum 1-HR Average	481.5 UG/M3		
Maximum 24-HR Average	108.0 UG/M3		
		Opperational Time	739 HRS
Monthly Calibration	5	Opperational Uptime	99.3 %
Standard Deviation	53.2	Monthly Average	34.0 UG/M3

Lagoon TSP (µg/m^3) – December 2018

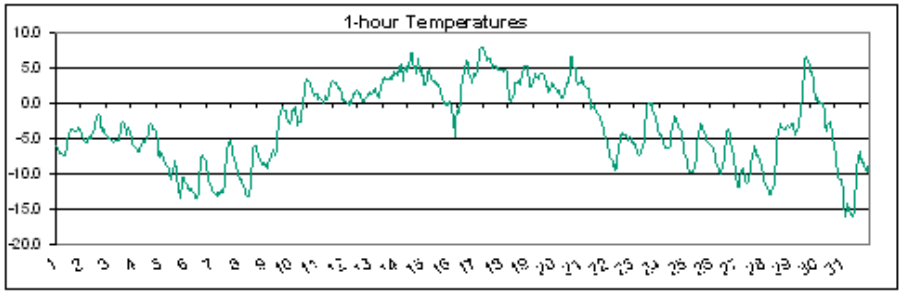
Day	HOUR 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN	MAX
1	16.9	23.6	10.0	18.1	15.4	10.3	10.0	25.0	6.1	38.8	27.3	8.6	21.2	42.6	49.6	12.6	8.5	12.6	5.8	8.5	5.3	7.1	4.3	3.3	16.3	49.6
2	19.6	23.6	13.9	4.5	16.8	18.2	22.2	14.0	9.9	18.1	14.0	9.8	5.8	8.5	7.1	3.0	3.1	18.3	13.9	1.7	16.7	12.6	7.1	1.7	11.8	23.6
3	8.5	13.0	12.6	5.7	5.7	4.3	1.6	4.4	7.3	23.8	33.1	8.6	19.5	16.7	7.3	20.9	13.3	40.6	66.8	25.1	27.7	15.4	19.6	26.6	17.8	66.8
4	44.3	35.0	61.1	70.2	67.8	56.3	139.2	81.2	30.4	14.2	37.0	119.8	64.7	22.4	30.5	22.3	22.4	26.3	11.2	8.7	30.5	16.9	25.1	31.8	44.6	139.2
5	16.1	13.0	8.5	4.4	5.7	5.8	12.6	7.3	28.5	94.1	87.2	81.8	94.9	26.3	10.0	25.7	80.5	108.8	193.7	51.2	27.8	20.9	18.2	16.7	43.3	193.7
6	10.0	23.5	5.8	15.3	7.8	9.8	5.7	0.3	5.9	18.4	21.0	34.4	138.2	135.0	213.5	118.9	97.9	53.9	27.9	33.3	27.7	43.0	42.8	15.3	46.1	213.5
7	7.2	15.4	11.2	4.6	33.5	51.3	47.2	48.3	15.4	17.0	42.1	87.3	88.5	70.9	94.7	145.5	169.6	106.2	59.5	49.8	33.2	19.7	41.5	18.0	53.2	169.6
8	0.5	29.1	12.7	18.1	7.7	11.2	4.3	1.7	15.4	11.2	7.1	11.5	33.4	42.2	104.2	137.3	44.3	27.8	25.5	77.1	18.3	37.4	29.3	37.3	31.0	137.3
9	14.0	13.9	4.3	0.0	1.6	1.6	5.7	5.7	3.2	15.4	18.4	46.1	83.6	143.2	58.2	51.2	30.6	27.9	37.3	24.2	83.5	138.1	98.6	137.6	43.5	143.2
10	44.2	18.1	15.7	55.1	8.5	13.9	1.6	1.6	4.4	5.8	10.2	47.0	18.4	26.4	22.2	14.4	56.9	62.1	31.9	15.4	11.2	5.7	5.3	14.0	21.3	62.1
11	8.5	15.4	15.6	35.0	66.6	80.7	116.4	313.7	452.4	135.3	101.5	305.3	261.9	323.7	174.1	146.5	119.5	66.4	49.8	25.0	12.6	5.7	3.0	3.3	118.2	452.4
12	48.4	28.5	107.4	25.0	17.0	49.8	29.1	12.6	11.5	48.6	88.7	84.7	C	C	C	C	C	65.0	49.7	199.1	377.2	139.4	88.9	113.1	83.4	377.2
13	60.8	37.5	40.2	86.0	101.3	121.6	88.4	77.4	45.9	62.7	109.4	113.8	157.9	171.4	121.3	50.1	70.6	63.8	66.5	55.4	37.6	42.9	26.5	27.9	76.5	171.4
14	42.0	84.1	22.3	25.9	139.4	77.2	22.4	29.1	18.3	39.7	154.1	26.5	38.5	X	X	258.9	88.6	76.5	64.3	139.2	263.6	179.1	66.5	61.6	87.2	263.6
15	147.5	57.9	4.4	7.2	15.6	47.5	97.0	104.2	27.2	142.1	76.2	67.6	23.0	36.0	8.7	33.4	40.1	7.2	14.0	5.7	4.5	30.1	5.7	4.3	42.0	147.5
16	3.2	12.8	30.6	34.5	3.0	8.5	5.8	19.6	20.9	14.0	15.4	8.6	22.3	18.2	15.4	14.0	8.5	5.4	10.6	132.0	207.3	169.5	50.1	74.6	37.7	207.3
17	41.6	35.6	4.5	34.9	51.0	15.4	X	19.5	12.7	27.6	16.8	11.3	9.9	X	14.0	7.3	37.3	4.4	20.7	16.7	5.3	11.3	10.0	25.2	19.7	51.0
18	37.9	103.5	37.7	77.8	X	10.6	9.9	7.1	7.3	48.4	81.4	26.8	87.5	121.8	124.0	19.6	20.9	18.2	15.4	11.3	10.3	79.2	119.1	111.7	51.6	124.0
19	45.7	19.4	0.0	1.6	8.5	8.5	8.6	22.3	Y	Y	Y	Y	Y	35.9	14.1	23.3	105.8	29.7	67.2	126.4	278.8	222.0	270.0	52.3	70.5	278.8
20	12.6	11.4	25.4	45.7	33.3	22.1	3.1	13.0	42.8	143.6	112.2	111.6	185.6	70.9	88.3	101.3	113.8	14.8	83.7	14.7	75.8	35.0	8.8	31.7	58.4	185.6
21	6.0	29.6	7.5	40.7	76.9	13.9	4.5	13.9	5.9	18.7	190.5	142.9	45.9	176.0	189.5	60.1	96.8	88.5	66.0	16.7	4.4	5.7	4.4	4.4	54.6	190.5
22	5.0	3.0	7.2	10.8	65.0	44.3	31.8	58.9	122.5	169.0	175.5	150.0	63.5	16.7	11.4	19.6	19.6	26.5	26.4	22.6	16.9	30.5	16.8	12.7	46.9	175.5
23	21.4	59.5	44.3	34.1	3.0	3.0	4.3	3.0	9.9	7.6	55.8	81.1	16.9	22.2	7.7	7.1	4.4	8.4	3.0	1.6	4.6	29.3	30.8	44.5	21.1	81.1
24	49.7	27.5	0.0	0.0	8.5	4.4	5.7	4.3	1.6	1.7	15.3	8.5	8.7	29.2	27.7	11.3	11.3	16.8	12.6	8.5	5.7	1.7	16.7	4.3	11.7	49.7
25	3.0	7.1	9.8	2.9	0.0	14.0	11.3	10.1	4.3	0.2	5.8	11.2	5.7	4.4	12.7	19.6	19.5	14.0	14.1	22.2	7.1	5.7	7.2	14.0	9.4	22.2
26	12.7	15.2	0.0	5.7	4.4	4.4	4.3	3.1	5.7	3.0	7.2	20.4	10.4	27.8	25.0	15.3	3.1	15.4	10.0	25.0	11.3	9.7	7.2	20.9	11.1	27.8
27	15.5	19.6	23.6	16.6	0.0	8.5	7.1	3.1	14.7	80.5	60.8	36.6	88.7	85.7	63.1	135.5	109.8	153.1	91.1	49.6	11.3	14.0	14.0	5.8	46.2	153.1
28	12.7	20.9	16.6	0.0	10.0	18.1	18.4	49.9	37.2	39.6	119.2	290.5	X	122.1	112.5	48.7	59.7	59.5	42.2	37.5	30.6	25.0	12.7	14.0	52.1	290.5
29	12.6	14.0	7.5	4.4	7.1	8.5	5.9	18.5	58.1	44.2	12.7	18.2	20.4	113.3	84.3	56.3	23.7	18.3	27.3	11.2	6.0	30.5	16.8	20.9	26.7	113.3
30	16.9	25.2	33.4	31.8	4.7	49.6	5.7	3.0	7.9	108.1	19.5	16.7	5.8	7.6	4.3	3.1	12.6	9.9	7.3	26.4	24.3	88.1	19.6	19.5	23.0	108.1
31	16.8	16.7	5.7	4.4	4.4	11.2	7.2	12.7	14.1	21.2	50.0	52.7	43.1	47.7	107.6	217.3	50.2	76.7	140.5	228.4	424.6	419.0	401.1	400.6	115.6	424.6
NO.	31	31	31	31	30	31	30	31	30	30	30	30	28	28	29	30	30	31	31	31	31	31	31	31	728	99%
MEAN	25.9	27.5	19.3	23.3	26.3	26.0	24.6	31.9	34.9	47.1	58.8	68.0	59.4	70.2	62.2	60.0	51.4	42.7	43.7	47.4	67.8	61.0	48.0	44.2		
MAX	147.5	103.5	107.4	86.0	139.4	121.6	139.2	313.7	452.4	169.0	190.5	305.3	261.9	323.7	213.5	258.9	169.6	153.1	193.7	228.4	424.6	419.0	401.1	400.6		



Number of 24HR Exceedences	2		
Number of Non-Zero Readings	720		
Maximum 1-HR Average	452.4 UG/M3		
Maximum 24-HR Average	118.2 UG/M3		
		Opperational Time	733 HRS
Monthly Calibration	5	Opperational Uptime	98.5 %
Standard Deviation	60.9	Monthly Average	44.4 UG/M3

Lagoon Temperature (°C) – December 2018

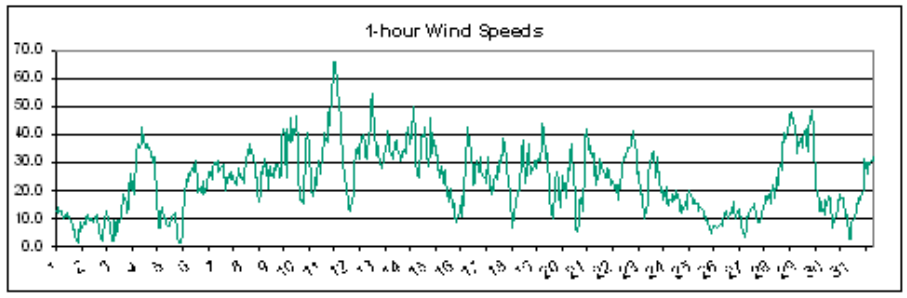
Day	HOUR 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN	MAX
1	-6.1	-6.2	-6.6	-6.7	-7.2	-7.0	-7.3	-7.4	-7.4	-7.1	-6.5	-5.4	-4.5	-4.0	-3.6	-3.5	-3.7	-3.8	-3.8	-3.8	-3.7	-3.4	-3.5	-4.2	-5.3	-3.4
2	-4.7	-5.0	-5.2	-5.3	-5.4	-5.0	-4.9	-4.8	-4.8	-4.6	-4.2	-3.6	-3.0	-2.2	-1.7	-1.4	-1.7	-3.1	-3.9	-3.3	-3.6	-4.1	-4.3	-4.7	-3.9	-1.4
3	-4.8	-5.0	-5.0	-5.2	-5.4	-5.4	-5.2	-5.3	-5.3	-5.1	-4.6	-4.0	-3.0	-2.5	-2.7	-2.9	-4.0	-4.4	-3.3	-3.6	-3.9	-4.9	-5.7	-6.1	-4.5	-2.5
4	-6.0	-6.3	-6.6	-6.9	-6.7	-6.4	-5.9	-5.4	-5.3	-5.4	-5.2	-4.9	-4.0	-3.4	-2.9	-2.9	-3.1	-3.5	-3.5	-4.0	-4.5	-5.2	-7.1	-7.6	-5.1	-2.9
5	-6.8	-7.0	-7.6	-7.9	-8.3	-8.7	-8.8	-9.3	-10.0	-10.7	-10.4	-9.3	-8.5	-8.1	-9.0	-10.1	-11.8	-13.4	-13.2	-11.3	-10.4	-10.5	-11.1	-11.3	-9.7	-6.8
6	-11.6	-12.0	-12.1	-12.2	-12.1	-12.5	-12.7	-12.9	-13.3	-13.4	-12.6	-10.5	-8.5	-7.7	-7.3	-7.4	-7.8	-8.2	-8.9	-9.8	-10.6	-11.3	-11.8	-12.1	-10.8	-7.3
7	-12.5	-12.5	-12.9	-13.1	-12.6	-12.7	-12.7	-12.5	-12.3	-12.5	-11.4	-9.1	-8.2	-6.7	-5.7	-5.3	-5.5	-6.3	-7.1	-7.9	-8.5	-8.9	-9.4	-9.9	-9.9	-5.3
8	-10.6	-10.9	-11.2	-11.4	-11.8	-12.1	-12.5	-13.1	-13.2	-12.8	-11.8	-10.1	-8.0	-6.5	-6.0	-6.1	-6.7	-7.2	-7.4	-8.1	-8.4	-8.6	-8.7	-8.3	-9.6	-6.0
9	-8.6	-9.2	-8.5	-8.0	-8.0	-7.3	-6.9	-6.6	-7.1	-7.2	-6.6	-5.1	-2.6	-1.1	-1.0	-0.7	-0.6	-1.0	-1.0	-2.0	-2.4	-2.7	-2.9	-2.3	-4.6	-0.6
10	-1.0	-0.8	-0.9	-0.4	-2.9	-3.1	-2.7	-2.6	-2.6	-1.9	0.0	1.5	2.7	3.3	3.4	3.3	3.0	2.4	2.2	1.9	1.5	1.2	1.4	1.4	0.4	3.4
11	0.5	0.8	0.9	0.5	0.2	0.2	0.7	1.0	0.7	1.1	1.9	2.3	3.0	3.1	3.1	3.1	2.7	2.9	2.6	2.2	2.2	1.8	0.9	0.2	1.6	3.1
12	0.6	0.3	0.1	0.1	0.3	-0.3	0.0	1.1	1.5	1.4	1.6	2.0	1.6	1.4	1.3	1.0	0.5	0.3	0.4	0.8	0.8	1.1	1.4	1.6	0.9	2.0
13	1.5	1.4	1.8	2.0	2.1	1.9	1.4	0.8	1.3	1.8	2.5	3.2	3.7	3.5	3.4	3.4	3.5	3.6	3.8	3.6	4.1	3.9	4.6	4.3	2.8	4.6
14	4.7	3.9	4.4	5.5	5.6	3.3	4.2	5.1	5.0	5.2	4.6	5.4	6.5	7.2	7.3	5.9	5.1	5.3	4.2	6.3	6.0	4.8	4.0	4.9	5.2	7.3
15	3.8	2.7	2.6	3.5	4.4	4.9	4.4	3.7	3.6	3.3	3.3	2.9	2.8	2.9	2.7	2.2	1.7	1.3	0.9	0.1	-0.2	0.0	-0.1	0.2	2.4	4.9
16	0.3	-0.4	-0.9	-1.5	-2.3	-4.6	-2.3	-1.3	-0.4	-1.3	0.5	1.8	3.7	4.6	5.1	5.8	6.2	5.8	4.4	4.0	3.4	3.0	4.3	3.9	1.7	6.2
17	4.1	4.9	5.6	6.3	7.4	7.9	8.1	8.1	7.5	7.0	6.6	6.2	6.3	6.5	6.2	5.4	5.2	5.3	5.4	5.2	5.1	4.9	4.9	4.8	6.0	8.1
18	4.9	4.8	4.6	4.9	4.5	2.9	1.5	0.9	0.3	0.6	0.8	1.7	2.9	3.0	2.9	3.1	2.8	2.9	4.0	4.3	4.8	5.3	5.3	5.2	3.3	5.3
19	4.4	3.5	2.6	2.5	2.9	3.1	4.0	4.3	3.9	3.6	3.8	4.2	4.4	4.2	4.0	3.9	2.9	2.5	2.4	1.7	2.0	2.7	2.9	2.8	3.3	4.4
20	2.6	2.2	2.0	1.6	1.9	1.6	1.2	0.9	0.8	1.4	2.0	2.3	3.0	3.0	4.7	6.8	6.7	5.7	5.1	5.0	3.4	3.0	2.6	3.0	3.0	6.8
21	3.1	3.7	3.3	3.0	2.5	2.4	2.2	2.1	1.7	0.0	-0.7	-0.4	-0.2	-0.5	-1.0	-1.2	-1.4	-1.8	-2.2	-2.6	-2.9	-3.3	-4.0	-4.6	-0.1	3.7
22	-5.3	-6.0	-6.6	-7.2	-7.9	-8.2	-8.9	-8.6	-9.5	-9.2	-8.3	-6.0	-5.1	-4.5	-4.4	-4.1	-4.3	-4.4	-4.4	-4.8	-5.2	-4.8	-5.0	-5.4	-6.2	-4.1
23	-5.7	-5.6	-5.7	-5.8	-7.1	-7.4	-7.4	-7.0	-6.5	-6.3	-5.2	-2.9	-1.7	-0.5	0.0	-0.1	0.0	0.0	-0.8	-1.3	-1.7	-2.5	-3.0	-3.7	-3.7	0.0
24	-4.3	-4.4	-4.9	-5.3	-5.5	-6.0	-6.2	-6.1	-6.2	-6.2	-6.0	-4.5	-3.0	-2.3	-1.8	-1.9	-2.5	-2.9	-3.3	-3.7	-4.0	-4.9	-5.7	-6.6	-4.5	-1.8
25	-7.4	-8.2	-9.0	-9.5	-9.6	-9.8	-9.7	-9.7	-9.2	-9.0	-7.8	-5.9	-4.5	-3.4	-2.9	-3.1	-3.5	-4.0	-4.7	-6.2	-5.4	-5.5	-5.7	-5.8	-6.6	-2.9
26	-6.0	-6.3	-6.8	-7.2	-7.9	-8.9	-9.1	-9.5	-10.0	-9.7	-9.3	-7.6	-6.2	-5.5	-4.1	-3.7	-4.5	-5.5	-6.3	-6.6	-7.0	-7.1	-10.3	-11.3	-7.3	-3.7
27	-11.8	-11.8	-11.1	-9.6	-9.0	-9.4	-10.2	-10.8	-11.4	-11.1	-10.6	-9.5	-8.5	-7.4	-6.6	-6.0	-6.4	-7.2	-7.7	-7.4	-8.0	-8.9	-9.3	-9.9	-9.2	-6.0
28	-10.6	-11.4	-11.8	-11.9	-12.3	-12.7	-12.8	-12.6	-12.0	-11.3	-10.2	-7.6	-6.3	-4.0	-3.1	-2.9	-3.3	-3.4	-3.6	-3.6	-3.6	-3.1	-3.2	-3.4	-7.5	-2.9
29	-3.0	-2.9	-2.8	-3.2	-4.0	-4.3	-4.0	-3.3	-2.4	-1.8	-0.9	1.5	5.3	6.2	6.6	6.6	6.2	5.4	4.9	4.4	4.5	3.3	2.1	0.9	1.0	6.6
30	0.4	0.7	0.2	0.4	0.1	-0.1	0.0	-0.9	-3.2	-4.0	-3.3	-2.9	-2.5	-2.9	-3.8	-4.6	-6.1	-7.2	-8.3	-9.4	-10.3	-10.9	-10.8	-11.4	-4.2	0.7
31	-12.0	-14.0	-15.9	-14.8	-14.3	-14.8	-14.9	-15.4	-15.7	-16.1	-15.5	-13.3	-11.3	-9.5	-7.9	-6.9	-7.3	-8.3	-7.9	-8.5	-8.8	-9.3	-9.7	-8.7	-11.7	-6.9
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	744	103%
MEAN	-3.5	-3.8	-4.0	-4.0	-4.1	-4.5	-4.4	-4.4	-4.6	-4.6	-4.0	-2.8	-1.7	-1.1	-0.8	-0.8	-1.2	-1.7	-2.0	-2.2	-2.4	-2.7	-3.1	-3.4		
MAX	4.9	4.9	5.6	6.3	7.4	7.9	8.1	8.1	7.5	7.0	6.6	6.2	6.5	7.2	7.3	6.8	6.7	5.8	5.4	6.3	6.0	5.3	5.3	5.2		



Number of Non-Zero Readings	744		
Maximum 1-HR Average	8.1 C		
Maximum 24-HR Average	6.0 C		
		Opperational Time	744 HRS
Monthly Calibration	0	Opperational Uptime	103.3 %
Standard Deviation	5.594	Monthly Average	-3.0 C

Lagoon Wind Speed (km/hr) – December 2018

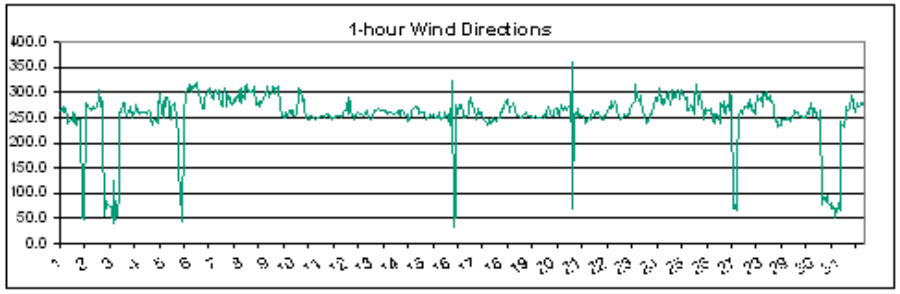
Day	HOUR 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN	MAX
1	13.0	12.3	14.1	13.1	12.5	11.9	10.9	10.1	10.6	11.8	11.8	9.9	10.8	9.3	8.0	5.8	6.0	3.9	3.0	1.3	3.9	8.5	5.7	6.9	9.0	14.1
2	8.5	7.9	7.9	11.1	9.9	11.4	9.7	9.9	10.0	9.0	8.7	9.8	11.6	8.5	8.0	6.2	3.3	1.9	4.6	8.4	8.9	12.5	10.2	9.7	8.7	12.5
3	9.2	6.5	2.5	2.5	9.2	8.8	4.3	5.3	9.4	9.1	10.6	13.7	15.8	18.6	16.4	16.3	12.1	13.3	22.5	20.4	26.0	21.2	18.7	22.9	13.1	26.0
4	29.6	32.7	36.4	35.3	36.2	36.9	42.8	38.5	35.2	36.9	35.2	36.6	35.6	33.8	33.2	30.3	31.9	32.1	29.4	18.1	9.1	6.7	6.7	11.2	29.6	42.8
5	14.4	10.3	10.9	10.0	9.0	7.5	7.8	8.0	9.5	10.2	11.5	12.1	10.3	6.7	3.4	1.8	1.8	1.8	5.0	10.0	17.8	20.0	21.9	26.2	10.3	26.2
6	23.3	26.6	25.5	27.8	26.5	29.1	29.8	31.0	22.6	19.4	20.0	21.1	19.2	18.6	23.2	19.6	20.9	21.4	26.4	26.9	26.7	24.2	27.2	30.3	24.5	31.0
7	30.2	29.5	30.7	26.5	27.3	27.9	28.8	29.0	29.1	20.0	24.6	24.9	22.8	25.8	23.9	26.9	24.8	24.0	23.6	21.9	23.5	26.0	28.3	24.8	26.0	30.7
8	25.0	24.4	22.7	25.3	30.6	33.8	34.5	33.6	36.9	34.2	32.9	31.5	29.9	24.6	24.9	20.2	16.4	19.4	26.4	26.5	26.2	31.2	25.5	29.6	27.8	36.9
9	26.4	20.8	28.3	27.5	25.4	24.7	27.0	29.7	27.1	29.3	27.2	24.3	25.1	38.4	41.8	40.3	33.4	24.7	42.1	38.5	37.2	45.6	39.5	37.8	31.8	45.6
10	40.9	43.1	46.4	36.2	23.8	19.6	16.9	16.8	15.2	21.1	29.2	36.3	40.6	36.0	29.7	26.6	20.3	17.8	21.4	24.5	22.2	25.7	30.4	29.4	27.9	46.4
11	25.8	32.5	34.6	36.9	40.3	37.8	37.5	48.2	43.5	43.8	55.4	60.6	65.7	65.5	63.4	58.9	54.7	52.9	43.6	38.2	35.2	30.9	25.5	21.2	43.9	65.7
12	20.8	16.0	13.7	12.7	16.5	15.9	19.0	27.4	33.9	35.2	35.0	31.2	34.6	39.1	38.9	39.9	36.3	32.8	31.2	34.3	38.9	42.3	50.6	54.7	31.3	54.7
13	51.5	41.0	34.8	32.4	35.9	33.3	30.9	27.9	28.6	30.7	32.5	34.9	37.1	41.4	38.9	34.7	32.8	31.7	31.3	36.5	37.2	38.0	35.6	33.6	35.1	51.5
14	32.3	30.3	31.9	33.8	34.6	33.1	38.9	42.7	42.2	38.2	36.4	39.5	49.5	47.0	41.2	31.1	25.5	25.0	27.7	34.0	39.6	39.4	41.3	42.9	36.6	49.5
15	35.5	33.7	28.7	34.1	46.1	36.2	33.3	38.1	34.5	32.8	32.5	29.1	24.5	27.0	28.4	22.7	26.4	27.2	24.5	19.4	16.2	18.2	20.6	20.6	28.8	46.1
16	14.4	15.5	11.5	9.1	9.7	10.8	12.5	12.4	17.8	10.9	18.3	20.0	30.0	41.0	42.7	37.0	37.4	34.6	25.0	22.3	22.4	28.8	30.4	27.9	22.6	42.7
17	26.6	32.1	27.2	25.6	25.7	24.5	25.4	23.0	32.0	29.8	22.2	18.4	21.2	20.0	23.1	25.1	23.7	27.5	30.3	26.7	32.9	32.9	38.4	36.3	27.1	38.4
18	34.1	33.1	28.1	24.3	18.0	15.8	9.5	7.0	11.4	15.1	15.6	20.2	17.8	21.5	31.6	34.6	37.8	34.0	22.6	27.2	29.9	36.3	32.6	25.9	24.3	37.8
19	27.4	27.9	28.8	30.8	28.3	30.8	30.6	32.5	31.0	36.0	44.1	41.8	31.1	34.1	33.1	27.6	26.3	19.1	12.3	10.1	14.4	17.6	23.7	26.6	27.7	44.1
20	24.0	19.1	14.0	14.4	25.2	20.6	20.1	19.9	17.3	28.2	27.0	32.5	36.7	32.2	27.7	15.6	6.8	5.6	5.7	9.1	16.7	17.4	12.8	17.4	19.4	36.7
21	24.7	37.9	41.8	36.9	35.6	33.1	35.8	32.2	33.5	25.6	28.4	22.1	25.5	26.2	31.4	30.2	28.2	27.4	26.0	24.6	24.9	27.8	27.4	26.6	29.7	41.8
22	22.3	23.2	23.2	21.1	20.7	22.2	16.7	22.3	20.9	23.3	25.2	29.0	31.8	32.0	32.8	33.7	35.3	35.4	35.8	38.0	41.4	41.0	35.9	34.7	29.1	41.4
23	25.8	27.0	26.5	18.9	18.8	14.5	13.1	10.4	12.8	16.3	26.2	28.6	29.2	33.0	32.6	33.6	25.7	25.0	27.2	31.9	22.8	20.6	19.5	19.8	23.3	33.6
24	16.5	18.2	21.7	15.5	15.1	16.6	16.5	16.0	18.5	17.0	17.9	17.2	19.7	18.7	15.6	12.6	14.6	12.1	13.6	14.8	16.3	13.5	18.3	19.8	16.5	21.7
25	20.0	18.7	17.2	15.7	15.6	16.8	15.5	15.3	12.9	14.1	14.1	13.2	13.1	10.7	11.1	9.6	9.8	6.3	7.6	4.8	5.8	7.7	7.7	7.6	12.1	20.0
26	6.8	6.8	7.3	7.5	8.3	7.7	9.3	11.4	11.3	12.8	9.8	10.1	11.2	12.2	11.9	15.9	12.0	11.2	9.9	12.9	13.3	10.9	10.7	6.7	10.3	15.9
27	6.0	3.4	3.4	6.3	9.2	12.1	10.8	13.6	14.0	14.1	14.3	15.4	10.5	8.8	9.0	8.9	9.8	10.3	11.4	13.9	15.7	17.9	16.5	17.7	11.4	17.9
28	18.9	15.5	18.6	22.2	21.9	17.6	24.5	20.6	22.3	26.3	29.1	27.6	34.8	40.3	37.4	39.4	40.9	41.6	43.7	46.3	47.7	46.0	45.7	41.6	32.1	47.7
29	39.8	39.3	33.6	37.0	37.9	38.8	35.3	37.6	41.0	42.0	37.3	34.0	42.4	44.3	48.8	46.6	42.9	32.7	27.9	21.8	18.9	17.4	12.6	16.2	34.4	48.8
30	12.8	13.6	11.4	16.9	16.3	14.5	18.1	16.7	17.2	6.9	7.7	8.6	8.7	11.6	13.2	16.9	17.1	18.5	17.5	17.3	17.2	10.6	13.2	10.6	13.9	18.5
31	4.4	2.8	2.7	8.7	9.2	9.8	11.0	11.8	14.4	17.6	15.8	16.6	19.4	18.5	20.9	31.6	29.7	25.8	29.7	29.2	30.1	31.0	30.9	32.9	18.9	32.9
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	744	100%
MEAN	22.9	22.6	22.1	21.8	22.6	21.7	21.8	22.5	23.1	23.1	24.4	24.9	26.3	27.3	27.3	25.8	24.0	22.5	22.9	22.9	23.8	24.8	24.7	24.8		
MAX	51.5	43.1	46.4	37.0	46.1	38.8	42.8	48.2	43.5	43.8	55.4	60.6	65.7	65.5	63.4	58.9	54.7	52.9	43.7	46.3	47.7	46.0	50.6	54.7		



Number of Non-Zero Readings	744		
Maximum 1-HR Average	65.7 KM/HR		
Maximum 24-HR Average	43.9 KM/HR		
		Opperational Time	744 HRS
Monthly Calibration	0	Opperational Uptime	100.0 %
Standard Deviation	11.68	Monthly Average	23.8 KM/HR

Lagoon Wind Direction (°) – December 2018

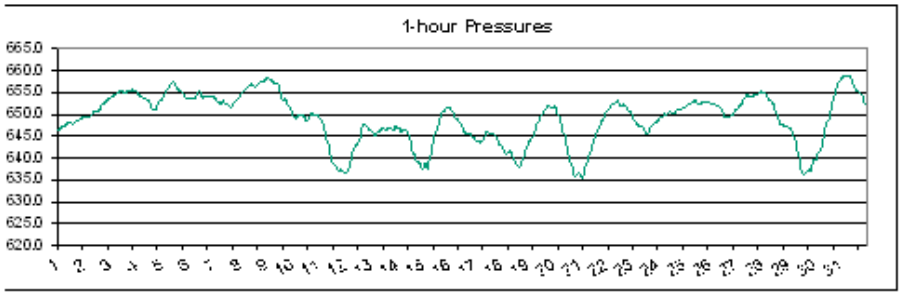
Day	HOUR 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN	MAX
1	266.5	264.9	267.2	259.8	271.3	268.8	253.8	239.4	243.3	244.4	246.1	242.9	261.8	259.4	239.0	235.2	245.4	244.8	247.4	232.2	88.3	50.0	47.2	272.0	257.1	272.0
2	278.0	271.0	274.6	269.9	264.6	264.2	271.3	268.6	267.7	270.3	271.2	292.1	306.1	282.1	271.5	282.9	228.6	54.5	83.6	69.6	78.2	76.4	75.5	72.9	285.6	306.1
3	64.5	42.1	125.5	48.1	56.0	53.8	101.4	256.3	267.6	262.3	281.2	278.9	266.8	254.7	258.2	260.3	274.0	269.8	251.7	262.4	259.1	265.8	275.6	267.6	268.4	281.2
4	260.8	256.6	259.8	260.6	260.2	262.3	260.2	261.7	257.0	260.4	263.8	260.3	245.2	234.5	243.1	247.2	246.2	244.2	241.0	267.0	296.7	261.2	262.1	250.1	255.3	296.7
5	285.0	271.9	290.7	292.2	280.5	259.6	247.1	268.4	276.4	280.9	263.9	260.4	244.7	219.7	168.2	81.6	74.6	44.4	224.4	253.4	297.0	303.7	306.5	317.8	281.7	317.8
6	305.8	313.2	302.8	313.9	312.7	316.1	318.6	314.9	300.0	288.2	286.0	270.5	273.4	269.3	291.1	294.0	305.3	304.6	309.9	302.7	292.5	286.0	293.2	304.7	300.4	318.6
7	301.2	299.6	304.8	288.2	283.6	278.9	271.3	290.1	310.1	291.8	274.2	294.5	295.6	291.2	280.3	275.4	286.4	280.1	285.3	286.5	294.6	282.1	305.2	310.9	290.4	310.9
8	281.5	294.1	288.2	307.7	315.5	304.0	302.5	304.2	302.7	302.7	307.3	308.5	313.7	275.5	278.0	274.7	273.0	285.0	279.8	292.7	287.5	298.0	295.8	311.4	297.0	315.5
9	308.6	290.8	300.3	303.6	307.3	312.3	299.6	309.5	310.1	312.6	297.4	288.0	276.0	254.8	254.5	252.1	249.2	262.3	254.4	263.2	264.7	259.8	266.4	264.3	277.8	312.6
10	254.3	255.2	256.3	259.7	293.8	308.1	305.4	287.6	284.3	287.2	264.9	252.9	250.8	246.5	246.4	253.6	253.8	253.1	251.0	248.4	247.8	250.4	250.9	251.7	259.6	308.1
11	255.0	255.2	255.7	254.3	252.1	254.2	258.8	254.5	256.7	254.9	249.7	249.7	248.4	251.5	251.5	255.2	255.7	255.4	255.5	250.8	252.7	253.8	259.7	265.6	253.8	265.6
12	265.9	274.2	289.7	258.6	283.0	263.4	256.9	247.2	252.8	255.5	254.5	262.3	258.9	257.5	259.1	258.6	255.6	256.6	262.3	264.0	256.4	253.1	253.2	248.7	258.0	289.7
13	250.1	256.3	262.4	263.8	264.1	266.1	268.8	265.2	265.4	266.2	265.4	265.1	266.1	263.9	258.3	261.5	261.3	262.8	261.3	259.0	256.7	257.7	257.2	261.3	261.5	268.8
14	265.5	256.8	254.5	266.4	266.0	261.2	260.9	252.7	252.6	258.1	243.5	247.0	254.7	263.4	267.1	268.5	271.5	271.4	268.2	268.2	259.0	261.6	260.3	261.7	260.3	271.5
15	261.3	253.7	249.5	248.4	249.0	254.0	258.6	249.7	254.4	256.3	255.0	251.1	254.6	248.8	252.0	261.5	248.2	252.2	251.5	249.3	260.8	252.9	256.7	248.2	253.1	261.5
16	235.8	267.5	268.0	324.8	32.1	66.3	277.2	266.8	257.7	276.8	276.5	277.2	257.5	249.7	251.0	255.7	252.7	257.7	276.4	290.3	279.1	281.4	264.7	262.4	265.9	324.8
17	258.0	248.3	266.2	268.5	257.1	261.0	256.4	247.5	247.2	242.5	238.5	234.2	245.3	239.0	240.5	251.0	241.7	248.4	247.6	242.4	248.3	252.2	252.1	257.4	250.1	268.5
18	266.9	262.6	270.3	273.0	281.5	286.2	287.8	262.5	266.8	274.1	275.6	279.3	273.5	269.8	252.6	252.5	253.2	250.7	249.2	249.6	254.1	258.7	261.7	257.5	262.6	287.8
19	252.9	252.6	254.7	254.9	251.3	250.4	250.2	254.9	254.7	252.0	250.3	250.2	251.2	248.8	252.5	258.2	250.1	255.8	256.4	274.0	271.3	261.3	254.5	252.5	253.5	274.0
20	253.0	263.0	270.2	268.1	263.2	255.3	259.1	271.7	274.4	266.4	271.4	273.6	265.6	268.6	272.7	270.3	244.6	359.3	69.4	258.7	262.8	258.5	267.5	252.0	266.2	359.3
21	257.0	252.9	254.3	254.4	252.3	248.4	241.2	242.2	243.7	249.8	246.8	255.1	265.3	263.7	255.0	257.5	261.0	260.9	257.6	254.9	247.7	245.4	247.5	253.6	252.5	265.3
22	252.9	256.5	260.6	271.2	271.7	269.9	282.9	274.2	282.1	280.6	274.5	261.9	256.3	246.5	250.2	250.2	249.4	253.6	256.9	254.9	254.1	257.2	258.2	260.5	260.0	282.9
23	275.3	276.4	280.1	282.2	318.0	295.0	295.7	283.0	294.9	278.9	273.5	261.3	256.3	240.4	244.6	242.8	247.2	251.3	256.4	258.4	275.9	276.3	284.7	292.0	267.9	318.0
24	282.2	297.7	308.3	283.4	282.5	274.9	288.6	279.0	299.8	293.1	301.2	296.7	277.7	289.5	306.4	291.5	299.8	290.3	300.7	304.5	303.5	287.2	306.6	302.2	293.9	308.3
25	299.0	287.6	289.6	289.5	266.3	268.0	265.8	275.7	263.6	271.3	259.6	289.7	315.0	275.8	281.9	298.3	301.8	268.6	264.1	247.4	263.4	268.9	265.3	264.9	278.9	315.0
26	263.6	268.4	255.9	258.8	242.1	239.8	256.3	258.4	247.7	255.5	241.2	280.0	274.3	282.5	266.8	256.6	271.5	275.9	263.5	296.6	284.7	295.0	71.7	85.4	267.3	296.6
27	75.4	68.2	182.9	232.4	250.3	264.9	259.5	265.1	270.1	273.1	274.2	268.1	273.5	288.1	274.4	263.8	274.6	260.1	258.4	277.5	282.2	295.5	287.4	287.1	272.9	295.5
28	292.4	271.5	297.5	294.7	303.8	286.5	290.7	287.2	293.2	282.3	284.5	273.7	259.9	244.5	244.0	244.2	233.3	234.6	235.7	245.1	245.6	245.5	246.3	248.0	258.6	303.8
29	248.8	249.3	250.2	242.2	248.6	250.3	262.5	265.2	262.4	260.9	261.0	255.4	255.7	252.4	252.2	251.4	250.2	255.7	256.0	256.0	266.2	257.0	279.6	254.1	254.9	279.6
30	267.0	268.9	263.5	253.0	260.6	246.8	247.0	265.5	89.0	76.4	92.5	84.3	92.3	96.7	82.6	77.9	82.6	70.5	73.4	71.4	69.8	53.1	69.8	70.5	76.3	268.9
31	82.3	66.3	244.1	235.3	234.6	233.7	259.6	271.7	266.4	269.8	275.5	283.7	293.0	283.2	276.4	262.6	274.5	278.2	273.3	272.9	277.3	280.8	280.1	271.6	273.0	293.0
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	250.5	248.8	264.5	263.9	257.3	255.6	265.0	269.1	265.0	264.4	262.0	262.9	262.2	255.2	252.3	249.9	248.9	245.6	242.7	252.4	250.9	247.9	244.0	251.0		
MAX	308.6	313.2	308.3	324.8	318.0	316.1	318.6	314.9	310.1	312.6	307.3	308.5	315.0	291.2	306.4	298.3	305.3	359.3	309.9	304.5	303.5	303.7	306.6	317.8		



Number of Non-Zero Readings	744		
Maximum 1-HR Average	359 degrees		
Maximum 24-HR Average	300 degrees		
		Opperational Time	744 HRS
Monthly Calibration	0	Opperational Uptime	100.0 %
Standard Deviation	50.48	Monthly Average	255.5 degrees

Lagoon Pressure (mmHg) – December 2018

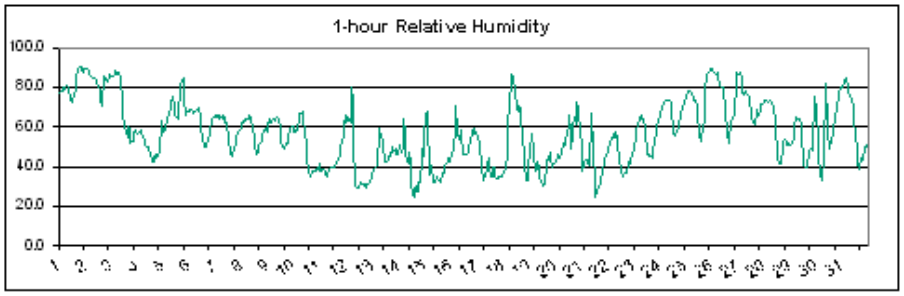
Day	HOUR 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN	MAX
1	646.5	646.6	646.8	647.0	647.1	647.2	647.4	647.7	647.8	648.1	648.2	648.1	648.0	647.8	647.8	648.1	648.2	648.5	648.6	648.8	648.8	648.9	649.0	649.2	647.9	649.2
2	649.4	649.4	649.5	649.5	649.5	649.5	649.8	650.0	650.3	650.6	650.8	650.8	650.8	650.8	650.9	651.3	651.7	652.2	652.5	652.6	652.9	653.1	653.4	653.6	651.0	653.6
3	653.9	653.9	654.0	654.2	654.4	654.6	654.8	655.0	655.0	655.2	655.4	655.3	655.1	654.9	654.8	654.9	655.2	655.3	655.4	655.3	655.4	655.6	655.5	655.4	654.9	655.6
4	655.2	654.9	654.6	654.5	654.2	653.9	653.6	653.6	653.7	653.5	653.4	653.4	652.8	652.4	651.5	651.2	650.9	650.9	651.2	651.9	652.2	652.6	653.1	653.4	653.0	655.2
5	653.5	654.1	654.5	655.1	655.6	655.8	656.1	656.5	656.9	657.2	657.4	657.0	656.7	656.1	655.7	655.6	655.5	655.4	655.1	654.8	654.4	654.1	653.9	653.7	655.4	657.4
6	653.5	653.6	653.9	653.9	653.7	653.8	653.7	653.9	654.5	655.1	655.3	654.9	654.3	653.9	653.8	654.0	654.0	654.0	654.0	654.0	653.9	653.9	653.9	653.9	654.1	655.3
7	653.6	653.4	653.2	652.9	652.7	652.5	652.5	652.7	653.0	653.0	652.6	652.6	652.3	652.0	651.8	651.7	652.0	652.6	652.9	653.0	653.2	653.4	653.9	654.3	652.8	654.3
8	654.4	654.8	655.0	655.3	655.6	655.9	656.1	656.2	656.5	656.8	657.1	656.7	656.5	656.2	656.1	656.4	656.9	657.1	657.4	657.6	657.6	657.5	657.7	657.9	656.5	657.9
9	658.3	658.4	658.3	658.0	657.7	657.6	657.4	657.2	657.1	657.1	657.0	656.5	655.6	654.4	653.7	653.3	653.2	653.8	653.2	652.5	652.1	651.6	651.0	650.6	655.2	658.4
10	649.9	649.4	649.1	649.3	649.4	649.7	649.8	649.9	649.9	649.9	649.5	649.2	648.7	648.5	648.7	649.1	649.7	650.2	650.3	650.0	649.9	649.8	649.8	649.7	649.6	650.3
11	649.6	649.0	648.6	648.0	647.7	646.8	645.5	644.8	643.9	642.6	641.3	640.3	639.4	638.9	638.3	638.4	638.1	637.7	637.1	637.0	637.3	637.2	637.1	636.8	641.7	649.6
12	636.5	636.4	636.9	637.2	637.7	639.1	639.7	640.7	641.6	642.7	643.0	643.2	643.3	643.7	644.9	646.4	647.4	647.8	647.5	647.4	647.1	646.7	646.2	646.4	642.9	647.8
13	646.4	646.0	645.5	645.3	645.1	645.3	645.8	646.2	646.2	646.4	646.7	646.8	646.5	646.3	646.6	646.8	646.9	647.0	646.6	646.4	646.3	646.6	647.2	647.2	646.3	647.2
14	646.8	647.0	646.6	646.0	645.8	646.4	646.6	646.6	646.5	645.8	645.8	645.0	643.1	641.8	641.1	641.1	640.8	640.1	639.4	639.0	638.7	638.7	638.0	637.6	643.1	647.0
15	638.1	638.6	638.8	638.2	637.7	638.6	639.8	640.7	642.4	643.7	644.9	645.7	646.5	647.2	647.7	648.6	649.4	650.1	650.5	650.8	651.2	651.5	651.4	651.4	645.1	651.5
16	651.4	651.0	650.8	650.5	650.2	649.6	649.2	648.8	648.6	648.2	648.0	647.5	646.7	645.9	645.7	645.8	645.6	645.5	645.5	645.5	645.3	644.8	644.7	644.6	647.5	651.4
17	643.9	644.0	643.9	643.8	643.4	643.6	643.9	644.1	644.4	645.1	645.8	646.1	645.7	645.4	645.5	645.7	645.6	645.3	645.0	644.7	644.4	643.8	643.1	642.8	644.5	646.1
18	642.4	642.3	641.6	641.1	640.8	640.8	641.4	641.5	641.4	641.2	640.9	640.2	639.2	638.8	638.4	638.2	638.0	638.2	639.2	639.6	640.1	640.6	641.4	642.5	640.4	642.5
19	643.1	643.6	644.0	644.1	644.5	645.1	645.6	646.3	647.3	648.0	648.7	649.1	649.8	649.8	650.1	650.5	651.0	651.5	651.8	651.9	651.7	651.7	651.7	651.7	648.5	651.9
20	651.7	651.7	651.5	650.8	649.7	649.4	648.5	647.4	646.6	645.7	645.1	643.4	642.2	641.5	640.5	639.6	638.7	637.5	636.4	635.7	635.7	636.1	636.6	636.6	643.3	651.7
21	636.1	635.6	635.5	636.5	637.3	638.2	638.7	639.3	639.9	641.1	641.9	642.6	643.6	644.5	644.6	645.2	646.2	646.9	647.4	647.9	648.3	648.8	649.3	650.0	642.7	650.0
22	650.5	650.6	651.0	651.7	651.9	652.2	652.2	652.2	652.5	652.8	653.1	652.8	652.4	652.1	651.9	652.0	652.2	652.1	651.8	651.7	651.1	650.6	650.5	650.1	651.8	653.1
23	649.7	648.8	648.3	648.1	647.8	647.5	647.1	647.1	647.3	647.4	646.7	646.4	645.9	645.6	645.7	646.2	646.7	647.2	647.4	647.5	647.8	647.9	648.1	648.4	647.4	649.7
24	648.6	648.9	649.2	649.2	649.5	649.8	650.1	650.0	650.2	650.4	650.6	650.5	650.2	650.1	650.1	650.4	650.7	651.0	651.0	651.0	651.0	651.2	651.4	651.7	650.3	651.7
25	651.7	651.7	652.0	652.3	652.3	652.4	652.6	652.7	652.8	653.1	653.1	652.8	652.4	652.2	652.2	652.6	652.7	652.7	652.9	653.0	652.9	652.8	652.8	652.7	652.6	653.1
26	652.6	652.5	652.5	652.4	652.2	652.0	652.0	651.8	651.6	651.5	651.3	650.8	650.1	649.5	649.2	649.2	649.3	649.4	649.6	649.9	650.0	650.1	650.6	651.0	650.9	652.6
27	651.2	651.7	651.8	652.1	652.2	652.5	653.0	653.5	653.9	654.3	654.5	654.2	654.0	653.9	654.0	654.3	654.4	654.4	654.5	654.6	654.8	655.1	655.2	655.0	653.7	655.2
28	655.1	655.1	655.0	654.6	654.3	653.6	653.1	653.0	652.9	652.4	652.2	651.7	650.6	649.5	648.8	648.4	647.9	647.8	647.6	647.4	647.2	647.2	647.2	647.2	650.8	655.1
29	646.9	646.9	646.6	646.0	645.5	644.5	643.4	642.3	641.5	640.7	639.9	638.3	636.6	636.2	636.2	636.5	636.8	636.8	637.1	637.3	637.0	637.9	638.7	639.4	640.4	646.9
30	639.6	639.6	640.3	641.1	641.3	641.8	642.5	643.6	645.2	646.5	647.4	648.1	648.5	649.2	650.1	651.1	652.4	653.6	654.6	655.6	656.4	657.0	657.7	658.1	648.4	658.1
31	658.3	658.4	658.8	658.9	658.9	658.5	658.6	658.9	658.8	658.6	658.0	657.4	656.5	655.8	655.5	655.4	655.2	654.7	654.5	654.5	653.9	653.4	652.5	652.1	656.5	658.9
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	744	100%
MEAN	649.0	649.0	649.0	649.0	648.9	649.0	649.1	649.2	649.4	649.5	649.5	649.3	648.8	648.5	648.4	648.6	648.8	648.9	649.0	649.0	649.0	649.0	649.1	649.2		
MAX	658.3	658.4	658.8	658.9	658.9	658.5	658.6	658.9	658.8	658.6	658.0	657.4	656.7	656.2	656.1	656.4	656.9	657.1	657.4	657.6	657.6	657.5	657.7	658.1		



Number of Non-Zero Readings	744		
Maximum 1-HR Average	659 MMHg		
Maximum 24-HR Average	657 MMHg		
		Opperational Time	744 HRS
Monthly Calibration	0	Opperational Uptime	100.0 %
Standard Deviation	5.578	Monthly Average	649.0 MMHg

Lagoon Relative Humidity (%) – December 2018

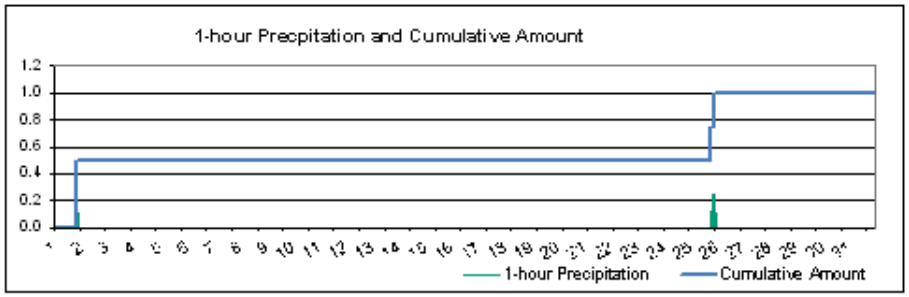
Day	HOUR 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN	MAX
1	77.2	77.4	77.7	78.4	79.6	78.6	79.3	80.7	79.8	78.5	75.9	73.9	72.6	73.8	75.2	79.9	85.8	88.5	89.6	89.9	90.5	88.9	87.5	89.6	81.2	90.5
2	89.6	89.1	89.4	88.6	87.2	85.7	85.3	85.0	84.8	84.3	84.1	81.9	80.9	77.9	73.3	70.4	74.7	82.1	85.9	84.6	82.9	83.9	85.0	86.2	83.4	89.6
3	86.0	85.9	85.5	86.8	88.2	87.4	86.2	87.4	85.4	82.0	75.6	67.8	59.6	58.1	57.3	55.0	60.7	58.9	51.6	52.6	52.9	56.1	58.2	58.6	70.2	88.2
4	56.9	57.9	57.9	58.3	57.0	55.4	52.9	50.7	49.6	49.8	49.9	49.2	45.7	43.0	42.1	42.7	44.2	45.9	44.5	45.6	47.9	50.3	60.6	62.7	50.8	62.7
5	57.8	58.6	60.9	62.2	63.3	67.0	69.2	71.7	74.9	75.4	71.7	66.5	64.5	63.8	69.6	74.8	80.4	82.4	84.1	75.4	66.0	65.6	67.8	67.9	69.2	84.1
6	68.5	68.8	68.6	68.1	67.1	68.1	68.6	69.0	69.6	69.6	66.3	60.0	54.0	51.5	50.1	50.1	51.2	53.4	56.1	59.6	62.1	64.1	65.1	64.8	62.3	69.6
7	65.5	64.5	65.6	66.0	64.0	65.0	65.7	64.5	62.4	64.5	61.5	54.5	52.2	48.8	46.7	45.5	45.8	49.0	51.7	54.6	56.2	57.4	58.2	59.7	57.9	66.0
8	62.3	62.5	63.5	63.5	63.8	63.9	64.2	65.6	65.3	63.7	60.5	55.0	50.0	47.4	46.2	46.9	49.7	52.0	53.1	55.5	57.0	58.4	59.0	57.8	57.8	65.6
9	60.1	63.8	62.5	61.9	63.5	63.7	63.6	63.2	64.9	65.4	63.8	59.3	53.5	49.5	49.8	49.4	49.4	51.4	52.3	56.2	57.8	59.2	60.7	59.8	58.5	65.4
10	57.5	57.6	58.6	58.5	64.8	66.5	66.5	67.1	67.8	65.3	57.7	51.4	44.2	38.6	37.5	35.5	35.4	38.1	37.8	37.7	38.0	38.2	39.4	37.8	49.9	67.8
11	41.2	38.2	38.4	38.6	38.2	36.8	35.1	35.6	37.9	39.0	39.4	39.6	39.2	39.9	40.9	41.5	43.7	43.7	46.4	49.9	52.7	55.3	61.3	65.6	43.3	65.6
12	62.3	63.5	65.1	63.7	61.8	79.7	73.3	50.6	34.3	30.0	29.0	28.9	30.2	30.8	32.0	31.3	30.2	30.8	31.1	29.1	31.0	31.8	31.9	33.6	42.3	79.7
13	36.2	37.5	37.4	39.2	40.8	45.6	53.1	59.5	55.8	53.2	49.1	44.6	42.6	42.8	43.8	45.2	45.5	46.7	46.9	50.0	47.9	49.2	46.0	47.5	46.1	59.5
14	46.4	51.2	50.1	47.5	48.7	63.7	57.0	46.0	43.0	41.6	47.3	42.1	32.2	25.5	24.6	28.8	30.2	27.9	32.3	27.8	35.3	41.3	48.9	45.5	41.0	63.7
15	55.7	66.2	67.5	56.6	44.3	36.2	37.4	40.7	32.6	32.2	32.0	34.9	34.5	33.0	32.2	33.5	36.1	36.6	36.5	40.4	41.5	42.0	44.3	43.3	41.3	67.5
16	42.9	45.8	48.7	51.0	56.2	70.5	59.5	56.1	54.0	58.1	52.4	49.6	46.1	46.1	46.7	46.5	46.9	48.2	53.3	55.2	57.4	59.3	56.0	57.5	52.7	70.5
17	57.6	54.8	52.3	49.5	43.7	37.9	34.6	32.9	35.4	38.8	41.6	44.0	40.1	34.6	35.4	39.8	40.0	36.4	34.2	34.3	34.6	35.2	35.1	36.2	39.9	57.6
18	35.0	36.8	39.0	40.7	45.3	58.4	73.5	81.0	86.8	85.7	84.0	78.7	68.8	69.8	70.6	67.8	69.6	66.5	52.8	47.6	40.3	34.4	33.0	33.5	58.3	86.8
19	39.5	47.6	56.3	56.0	49.8	46.0	38.2	38.4	42.3	40.5	35.2	32.3	30.9	30.6	31.3	32.5	40.2	43.1	43.7	47.5	44.6	40.8	40.0	41.2	41.2	56.3
20	42.1	43.6	44.1	46.4	44.6	46.1	48.6	49.6	51.3	50.7	52.6	56.3	60.2	66.0	58.2	49.2	54.7	59.5	64.7	60.8	72.3	70.6	66.9	58.8	54.9	72.3
21	51.0	38.2	40.5	41.4	43.2	43.3	41.8	40.3	42.1	61.2	66.5	50.3	29.9	24.5	26.5	27.5	28.9	31.1	33.8	36.8	39.3	40.2	43.3	44.8	40.3	66.5
22	47.2	49.1	50.5	51.7	54.2	54.6	56.7	54.3	57.5	55.8	51.5	43.0	39.6	36.9	36.3	35.1	36.6	36.7	37.5	40.6	42.7	41.3	43.9	46.7	45.8	57.5
23	48.9	50.8	52.7	58.8	61.1	63.8	65.4	65.5	64.1	64.0	60.5	53.8	50.4	47.0	45.4	46.2	45.2	44.8	48.6	51.2	53.1	57.0	59.1	63.3	55.0	65.5
24	66.1	66.5	68.5	70.6	71.1	72.9	73.4	73.3	73.3	73.2	72.8	66.8	61.3	57.7	55.2	55.6	57.4	59.2	62.0	64.5	65.9	69.7	71.8	73.2	66.7	73.4
25	74.3	75.7	77.8	78.2	78.0	77.5	75.9	75.1	73.8	72.9	70.1	64.4	60.2	56.0	53.0	55.1	57.3	66.3	77.7	85.3	86.8	87.5	88.4	89.7	73.2	89.7
26	89.5	88.8	87.8	86.7	86.4	87.0	85.0	82.4	82.3	80.0	79.7	75.8	71.5	67.4	57.4	51.9	55.1	60.9	63.4	63.6	65.6	65.6	83.5	87.3	75.2	89.5
27	86.8	86.8	87.3	85.4	78.2	75.8	76.9	77.4	78.3	76.1	75.3	71.9	69.2	65.2	63.0	61.4	62.4	66.6	68.4	66.2	68.6	71.2	71.1	71.6	73.4	87.3
28	72.7	73.8	73.5	72.3	72.2	73.1	73.0	72.2	70.1	68.2	64.8	57.8	50.1	44.1	41.3	41.6	44.5	47.2	52.2	53.5	53.0	50.8	50.8	51.8	59.4	73.8
29	50.9	51.2	51.6	54.4	59.8	64.4	65.0	64.1	63.5	64.3	62.6	54.7	44.3	41.4	39.2	39.3	41.2	46.4	47.8	49.1	48.0	57.9	67.3	75.2	54.3	75.2
30	69.6	51.3	47.3	35.8	34.8	35.7	33.2	45.4	82.2	81.4	63.4	55.7	50.8	48.7	53.1	56.6	60.6	62.0	64.8	69.1	76.8	78.5	78.7	79.9	59.0	82.2
31	80.1	82.4	82.6	84.4	83.0	81.7	77.3	76.3	74.5	73.9	71.0	64.2	56.2	48.9	42.8	38.9	40.0	44.6	43.6	46.2	47.5	49.5	51.3	48.9	62.1	84.4
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	744	100%
MEAN	60.6	60.8	61.6	61.3	61.1	63.0	62.4	62.0	62.6	62.6	60.3	55.8	51.2	48.7	47.6	47.6	49.8	51.8	53.2	54.2	55.4	56.5	58.5	59.4		
MAX	89.6	89.1	89.4	88.6	88.2	87.4	86.2	87.4	86.8	85.7	84.1	81.9	80.9	77.9	75.2	79.9	85.8	88.5	89.6	89.9	90.5	88.9	88.4	89.7		



Number of Non-Zero Readings	744		
Maximum 1-HR Average	90.5 %		
Maximum 24-HR Average	83.4 %		
		Opperational Time	744 HRS
Monthly Calibration	0	Opperational Uptime	100.0 %
Standard Deviation	15.9	Monthly Average	57.0 %

Lagoon Precipitation (mm) – December 2018

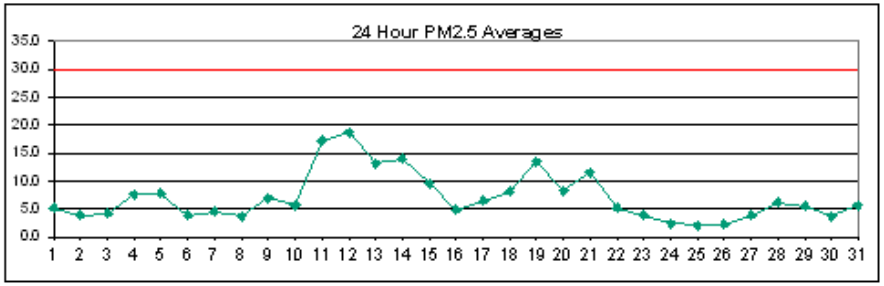
Day	HOUR 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN	MAX
1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.3	0.0	0.0	0.0	0.0	0.3
2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.3	0.0	0.0	0.3
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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
31	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
MAX	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.3	0.0	0.3	0.0		



Number of Non-Zero Readings	4		
Maximum 1-HR Average	0.3 MM		
Maximum 24-HR Average	0.0 MM		
		Opperational Time	744 HRS
Monthly Calibration	0	Opperational Uptime	100.0 %
Standard Deviation	0.018	Monthly Average	0.00 MM

Windridge $PM_{2.5}$ (µg/m^3) – December 2018

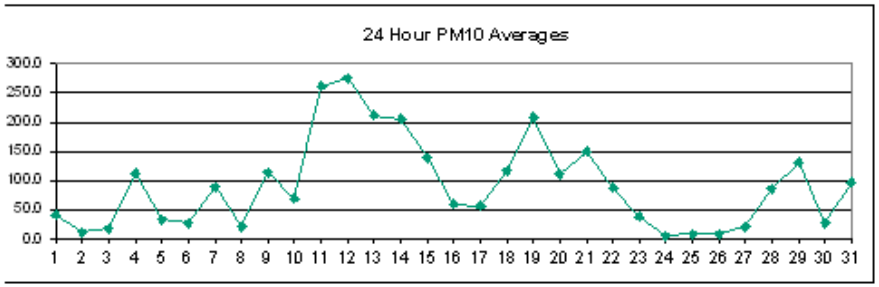
Day	HOUR 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN	MAX
1	3.0	4.1	4.8	4.0	4.0	1.7	3.0	4.7	3.7	5.6	8.0	6.3	21.9	4.4	5.2	8.1	7.2	3.6	2.3	4.0	2.6	2.9	4.7	3.4	5.1	21.9
2	6.3	7.3	4.8	4.5	8.4	6.9	5.9	5.3	3.3	2.2	1.8	1.9	3.3	4.4	2.3	0.3	0.5	3.3	4.7	3.3	4.5	3.7	2.9	2.9	3.9	8.4
3	1.1	0.0	0.8	1.9	4.7	2.2	3.0	4.7	3.3	4.8	5.1	4.8	6.6	5.9	7.0	6.3	6.9	5.5	4.4	4.8	4.4	4.8	5.8	3.7	4.3	7.0
4	3.0	3.7	4.5	6.3	9.4	9.2	8.6	13.8	9.9	8.2	11.5	16.7	11.6	5.1	2.3	6.2	5.7	11.3	10.4	6.2	5.1	4.1	5.1	4.4	7.6	16.7
5	3.4	4.0	2.7	7.3	6.2	2.9	2.3	4.4	5.6	7.4	9.8	6.0	10.3	10.5	11.1	15.5	20.1	16.5	12.4	9.4	5.8	4.4	4.8	5.1	7.8	20.1
6	2.9	2.9	3.0	4.4	5.4	1.6	0.0	3.7	3.7	3.3	3.3	3.0	4.4	4.1	7.2	6.2	4.4	4.0	2.6	2.9	5.8	3.4	4.8	5.0	3.8	7.2
7	1.4	0.4	1.5	3.3	3.7	3.7	9.8	C	C	C	C	C	C	1.9	3.0	4.9	8.4	7.3	5.2	5.5	5.8	4.5	5.3	5.4	4.5	9.8
8	3.2	0.4	4.0	4.4	4.0	3.3	1.8	0.0	0.1	3.0	4.7	2.6	2.2	3.5	11.3	8.7	4.7	3.0	3.8	7.7	5.8	3.3	2.6	1.9	3.7	11.3
9	4.7	2.2	0.8	1.9	2.9	1.8	0.4	3.0	4.1	4.4	4.0	2.3	4.9	8.1	10.5	7.3	4.7	11.7	9.8	6.9	16.3	23.0	17.9	14.9	7.0	23.0
10	9.8	5.8	4.1	5.9	5.2	2.2	0.4	2.5	1.0	0.0	0.0	9.1	8.1	10.6	7.9	6.3	9.6	11.6	8.4	7.3	5.1	5.1	5.5	6.5	5.8	11.6
11	4.4	2.9	2.6	2.0	6.3	10.4	26.7	26.1	38.8	15.1	17.3	20.7	38.4	36.7	39.8	24.8	22.9	18.1	11.7	9.8	17.7	9.1	7.7	6.2	17.3	39.8
12	5.6	9.9	8.3	4.7	1.5	1.2	4.4	3.7	4.9	21.0	14.0	16.1	16.5	29.6	27.3	45.4	33.8	13.5	10.9	32.6	45.5	37.3	34.3	28.3	18.8	45.5
13	5.9	8.4	17.3	7.7	19.2	13.1	9.4	5.3	4.5	8.2	14.1	20.1	30.2	12.4	20.0	4.6	11.0	14.5	11.0	12.4	20.8	17.5	15.9	12.0	13.2	30.2
14	9.1	5.9	6.3	9.5	6.6	5.2	5.8	3.0	4.9	8.7	17.2	6.5	13.6	26.3	34.8	23.0	7.6	5.8	4.8	16.8	27.3	42.9	23.1	22.6	14.1	42.9
15	31.2	11.6	7.2	1.4	0.0	4.0	23.3	7.2	5.8	25.5	22.0	11.0	10.9	9.1	8.5	11.9	6.1	3.0	5.1	3.4	7.7	8.0	5.0	1.8	9.6	31.2
16	1.5	1.8	4.1	5.8	2.5	1.5	1.1	0.4	0.0	0.0	0.0	1.4	10.5	7.3	6.2	6.0	8.4	7.0	6.5	7.5	13.1	10.1	6.0	10.5	5.0	13.1
17	8.0	5.1	4.8	6.5	4.7	2.8	0.9	6.2	5.4	5.5	6.8	11.7	10.9	9.0	4.0	12.4	9.0	4.5	5.0	11.6	7.1	2.6	3.1	8.4	6.5	12.4
18	7.3	6.9	4.5	2.6	4.0	2.5	0.0	0.7	0.0	0.0	1.9	2.7	5.2	6.6	9.4	6.6	5.6	9.5	20.2	11.8	14.4	28.7	21.7	24.7	8.2	28.7
19	6.7	13.6	13.5	10.5	5.8	3.5	8.1	7.8	13.1	21.4	24.5	12.4	9.2	10.7	11.5	15.0	23.3	20.4	17.6	6.4	11.5	16.6	19.9	23.5	13.6	24.5
20	13.5	12.1	11.9	6.4	0.8	2.2	1.9	2.6	3.1	6.6	17.8	13.7	18.6	17.1	12.9	14.8	19.1	0.2	5.8	4.7	1.6	5.1	4.3	2.6	8.3	19.1
21	1.8	0.8	12.0	19.9	32.5	15.9	10.5	5.8	4.8	4.5	7.1	10.5	7.1	12.0	22.8	16.3	22.2	19.1	18.8	2.4	8.0	9.5	7.3	5.2	11.5	32.5
22	7.3	5.5	4.6	9.4	6.5	4.7	3.7	3.8	5.9	7.0	6.6	6.0	8.4	5.8	3.4	5.5	4.7	3.0	3.4	4.8	5.1	4.3	2.6	3.4	5.2	9.4
23	3.8	5.8	4.5	6.5	7.0	7.9	3.2	0.0	0.0	0.5	4.5	7.0	8.1	8.0	5.0	2.3	4.0	3.5	0.1	1.2	2.9	2.6	3.3	3.0	3.9	8.1
24	6.2	5.4	2.2	0.1	3.0	4.0	2.6	1.8	1.5	0.8	1.1	2.6	3.2	1.1	0.0	2.6	3.6	2.6	3.3	3.3	2.6	2.5	1.5	1.5	2.5	6.2
25	2.2	1.0	0.0	0.0	1.6	1.1	1.2	4.1	6.4	4.7	1.6	0.3	0.0	0.4	0.3	0.0	0.0	1.2	3.0	5.1	4.4	3.7	3.3	3.4	2.0	6.4
26	4.4	3.0	4.7	2.8	0.0	0.7	0.0	0.1	2.9	1.8	0.4	0.0	0.0	0.4	0.9	5.2	5.8	3.6	1.1	1.5	3.3	3.2	1.6	6.3	2.2	6.3
27	17.1	12.5	12.3	7.1	2.2	0.8	1.9	2.9	1.5	2.2	2.2	2.5	0.7	0.0	2.2	2.3	3.3	3.4	5.1	3.9	1.4	0.0	2.3	4.1	3.9	17.1
28	6.4	5.9	7.3	5.7	2.2	0.8	1.3	4.7	2.5	1.2	4.2	7.6	24.3	18.7	7.9	6.2	5.5	4.8	5.1	4.8	6.5	6.9	4.7	3.7	6.2	24.3
29	3.6	2.6	3.4	5.4	3.7	3.6	1.5	0.9	4.1	7.3	5.8	3.6	1.9	20.5	10.3	10.2	8.1	8.0	5.9	5.5	4.8	5.1	4.3	3.0	5.5	20.5
30	4.0	2.9	1.8	5.3	8.6	3.9	0.1	2.3	3.4	3.3	2.5	1.1	1.1	1.4	0.9	3.8	5.8	3.8	6.9	5.5	5.1	5.1	4.8	5.5	3.7	8.6
31	5.6	8.3	5.7	9.4	6.4	2.1	0.3	1.1	0.7	0.0	0.0	0.8	2.5	1.8	6.4	17.6	8.5	5.2	2.0	6.5	12.0	9.9	9.3	13.5	5.7	17.6
NO.	31	31	31	31	31	31	31	30	30	30	30	30	30	31	31	31	31	31	31	31	31	31	31	31	738	100%
MEAN	6.3	5.2	5.5	5.6	5.8	4.1	4.6	4.4	5.0	6.1	7.3	7.0	9.8	9.5	9.8	9.9	9.4	7.5	7.0	7.1	9.2	9.4	7.9	7.9		
MAX	31.2	13.6	17.3	19.9	32.5	15.9	26.7	26.1	38.8	25.5	24.5	20.7	38.4	36.7	39.8	45.4	33.8	20.4	20.2	32.6	45.5	42.9	34.3	28.3		



Number of 24HR Exceedences	0	Proposed Guideline	
Number of Non-Zero Readings	714		
Maximum 1-HR Average	45.5	UG/M3	
Maximum 24-HR Average	18.8	UG/M3	
		Opperational Time	744 HRS
Monthly Calibration	6	Opperational Uptime	100.0 %
Standard Deviation	7.1	Monthly Average	7.1 UG/M3

Windridge PM_{10} (µg/m^3) – December 2018

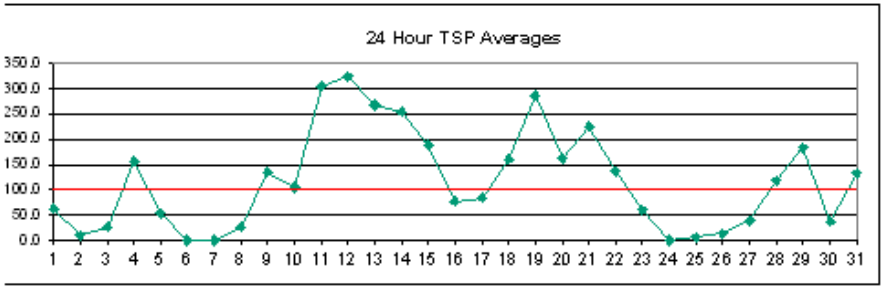
Day	HOUR 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN	MAX
1	10.4	11.0	7.5	4.7	3.3	1.9	2.9	13.9	12.8	84.4	110.6	61.7	273.9	66.1	95.6	128.6	33.8	11.0	6.2	8.6	7.6	7.8	16.6	10.2	41.3	273.9
2	32.3	32.3	34.6	17.4	15.2	11.1	11.7	9.6	8.3	11.1	9.7	10.3	8.6	7.5	4.8	5.4	4.8	6.8	4.1	5.5	7.6	8.2	6.2	6.8	11.7	34.6
3	6.1	4.3	2.6	3.1	19.1	1.9	1.3	2.7	6.2	9.6	6.8	6.2	7.6	37.4	43.2	32.0	22.2	14.3	37.4	18.4	30.6	72.9	34.6	18.4	18.3	72.9
4	55.3	104.8	153.4	170.5	147.4	237.0	294.5	207.2	84.9	79.1	203.1	286.7	156.0	36.2	28.1	83.7	85.1	109.2	82.3	29.1	42.7	10.4	11.1	8.2	112.8	294.5
5	6.8	4.8	8.2	4.7	2.6	2.7	4.8	15.3	13.2	37.5	48.7	60.0	120.6	77.2	71.3	79.0	85.5	70.5	23.0	19.0	23.5	13.2	13.8	7.5	33.9	120.6
6	6.3	13.1	9.0	8.5	4.8	6.1	4.7	1.3	4.9	11.8	11.3	20.4	74.0	78.5	118.3	90.2	44.0	34.6	16.8	19.5	17.1	28.6	23.6	15.3	27.6	118.3
7	14.5	11.0	7.1	7.7	25.2	504.8	504.8	C	C	C	C	C	C	45.2	53.5	81.5	125.5	78.6	44.5	29.7	14.6	14.5	33.5	26.1	90.1	504.8
8	6.9	8.6	10.4	10.4	8.9	4.7	4.1	7.0	11.7	8.1	3.3	4.2	32.9	23.7	72.0	101.4	27.4	7.0	12.7	65.2	8.8	19.9	30.1	27.5	21.5	101.4
9	10.3	6.1	3.4	4.7	2.6	1.9	0.6	3.5	10.7	20.1	14.6	38.5	109.0	221.1	140.1	90.0	65.5	117.4	112.2	130.3	443.5	500.4	348.1	340.0	113.9	500.4
10	134.0	70.6	58.0	162.7	42.8	6.1	5.4	2.8	2.7	4.8	9.7	81.9	92.3	71.5	62.2	51.6	132.4	153.0	85.9	42.0	67.9	83.7	150.7	101.7	69.8	162.7
11	40.3	47.0	46.3	71.7	165.7	248.8	504.8	504.8	497.6	258.5	217.0	452.0	504.8	504.8	503.1	443.7	331.4	254.4	140.5	97.1	90.4	100.1	128.8	102.3	260.7	504.8
12	107.7	108.2	144.6	15.1	9.0	34.4	56.2	34.7	119.6	276.8	271.2	294.2	395.8	476.7	504.8	503.0	436.4	209.7	185.9	486.3	504.8	504.8	502.0	403.0	274.4	504.8
13	169.2	151.6	178.7	164.7	254.5	362.2	111.1	64.2	76.1	193.7	237.8	276.2	407.0	283.4	280.3	120.7	219.2	241.7	153.3	193.5	295.7	221.6	231.8	207.9	212.3	407.0
14	162.4	98.6	82.1	132.3	175.4	193.1	22.2	40.6	83.3	140.2	268.6	142.4	244.4	502.4	426.9	388.0	90.8	67.6	50.7	151.2	387.0	491.5	298.3	305.4	206.1	502.4
15	372.1	128.7	55.6	35.2	42.2	180.9	344.7	127.6	78.4	413.1	376.9	319.8	165.3	115.6	131.4	183.7	46.8	17.1	17.9	32.3	54.0	33.5	27.8	42.8	139.3	413.1
16	40.3	7.6	28.4	18.9	0.0	8.9	7.7	11.7	8.1	22.6	7.7	10.6	19.0	43.5	41.3	44.9	66.2	89.7	88.4	189.6	253.8	187.4	44.7	202.2	60.1	253.8
17	96.5	56.6	46.5	49.9	29.8	41.4	39.5	27.6	38.3	91.4	45.4	38.2	27.2	87.0	36.5	39.2	77.1	48.6	74.1	54.5	44.1	39.2	79.5	162.9	57.1	162.9
18	128.0	120.1	42.9	66.1	63.6	11.7	9.0	8.2	8.7	41.1	50.1	16.5	71.5	76.3	184.8	89.6	95.2	105.6	225.3	121.3	231.2	360.0	433.2	257.2	117.4	433.2
19	176.2	139.9	171.6	80.3	41.7	50.3	83.4	118.9	196.4	389.1	423.2	246.9	191.7	154.3	138.2	231.8	454.8	410.7	196.5	73.9	116.4	167.9	301.6	437.4	208.0	454.8
20	222.2	111.3	167.8	31.3	27.5	93.4	28.5	23.1	28.4	181.2	224.8	171.3	333.6	209.8	183.7	159.1	171.5	21.8	46.1	36.5	94.4	57.8	23.3	29.8	111.6	333.6
21	40.9	68.4	180.1	411.8	443.6	131.0	90.0	27.3	27.3	50.1	136.3	144.4	88.6	172.5	323.6	232.8	334.8	223.7	170.0	79.6	82.9	97.4	25.3	22.6	150.2	443.6
22	68.0	63.6	112.1	112.8	58.5	50.3	42.0	22.3	79.8	106.5	112.7	137.3	249.1	118.0	33.3	61.9	81.4	57.0	98.1	123.0	94.9	92.1	69.2	57.2	87.5	249.1
23	84.3	58.7	47.9	30.5	1.2	1.2	0.0	0.0	5.5	7.3	24.6	141.5	151.4	90.5	26.4	37.7	9.3	16.9	21.2	47.6	60.3	17.2	11.4	12.7	37.7	151.4
24	18.6	11.1	6.5	3.3	2.7	2.0	2.5	0.5	0.0	0.0	4.1	5.3	3.0	11.9	13.0	7.0	4.8	7.5	4.8	6.1	4.6	1.6	1.9	1.9	5.2	18.6
25	1.9	1.9	1.9	1.9	2.0	2.7	4.0	2.6	1.2	0.5	1.2	1.9	1.9	2.0	4.8	4.7	4.2	9.4	40.1	44.5	33.1	18.1	16.9	20.5	9.3	44.5
26	8.2	6.1	4.0	3.3	1.9	0.6	1.9	0.6	4.0	1.9	1.3	4.0	4.5	17.3	14.1	37.3	39.6	28.1	4.7	3.9	1.3	2.7	3.2	7.2	8.4	39.6
27	16.1	16.9	12.3	6.0	3.1	4.7	3.3	1.4	6.7	22.5	25.6	19.6	38.7	39.6	30.0	62.2	69.6	66.6	25.2	8.2	5.5	6.9	8.2	5.4	21.0	69.6
28	3.3	2.0	3.5	7.0	10.9	6.1	5.5	44.3	9.1	13.9	72.2	219.2	497.8	313.5	97.6	127.1	134.7	102.4	57.1	44.0	73.7	87.7	62.0	65.5	85.8	497.8
29	50.2	56.6	47.2	48.8	23.3	45.6	30.0	114.4	195.5	236.1	180.5	115.0	186.1	496.9	299.6	298.1	174.4	134.1	191.0	119.7	42.5	17.4	17.0	8.0	130.3	496.9
30	35.9	9.5	32.3	17.4	32.6	22.9	17.9	16.7	21.9	160.3	15.1	8.8	3.4	4.7	4.1	6.2	6.9	6.9	10.7	17.7	29.3	126.3	27.6	18.0	27.2	160.3
31	14.5	10.2	4.7	2.6	4.7	4.0	2.7	4.1	5.5	6.5	16.4	26.1	21.2	27.2	54.1	127.1	113.5	49.4	62.3	235.8	446.2	356.3	316.4	405.8	96.5	446.2
NO:	31	31	31	31	31	31	31	30	30	30	30	30	30	31	31	31	31	31	31	31	31	31	31	31	738	100%
MEAN	69.0	49.7	55.2	55.0	53.7	73.4	72.3	48.6	54.9	96.0	104.4	112.0	149.4	142.3	129.7	127.4	115.8	89.4	73.8	81.7	116.5	120.9	106.4	107.7		
MAX	372.1	151.6	180.1	411.8	443.6	504.8	504.8	504.8	497.6	413.1	423.2	452.0	504.8	504.8	504.8	503.0	454.8	410.7	225.3	486.3	504.8	504.8	502.0	437.4		



Number of Non-Zero Readings	733		
Maximum 1-HR Average	504.8 UG/M3		
Maximum 24-HR Average	274.4 UG/M3		
		Opperational Time	744 HRS
Monthly Calibration	6	Opperational Uptime	100.0 %
Standard Deviation	120.3	Monthly Average	91.9 UG/M3

Windridge TSP (µg/m^3) – December 2018

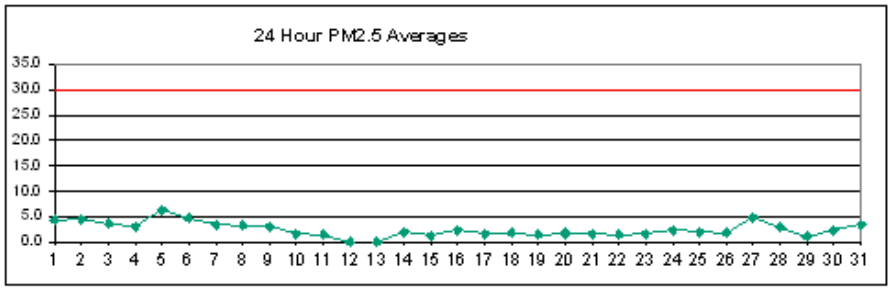
Day	HOUR 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN	MAX
1	13.8	9.6	6.8	5.5	5.4	3.3	2.3	14.6	15.6	123.6	166.7	97.5	423.4	95.9	148.4	229.2	48.5	17.1	33.8	10.4	12.4	9.0	8.3	9.2	62.9	423.4
2	19.4	13.3	17.3	11.2	14.6	11.8	9.6	7.5	5.5	9.7	9.0	9.6	8.3	8.3	7.5	5.4	4.2	9.6	5.5	7.1	17.3	11.0	6.8	6.2	9.8	19.4
3	6.1	4.0	3.3	2.6	32.0	4.7	1.2	0.7	7.6	6.8	6.2	6.3	13.3	47.3	57.1	31.6	31.9	18.5	52.3	36.1	50.3	125.7	48.8	35.3	26.2	125.7
4	78.7	178.3	244.8	254.8	213.7	306.5	362.0	282.3	118.0	135.6	275.9	322.3	235.4	55.9	44.3	108.6	148.4	162.0	96.0	42.0	67.5	7.7	11.0	7.5	156.6	362.0
5	4.8	5.4	4.0	1.2	0.5	1.3	6.5	21.7	21.9	62.5	62.5	90.6	198.3	123.1	117.7	129.0	161.8	120.3	28.7	27.9	25.1	21.5	13.1	9.6	52.5	198.3
6	5.7	16.8	17.3	11.7	7.6	7.6	6.8	5.5	5.6	12.5	11.4	25.0	104.7	97.8	X	X	X	X	X	X	X	X	X	X		
7	X	X	X	X	X	504.1	504.1	C	C	C	C	C	C	54.2	59.7	117.4	164.9	110.1	63.4	39.5	20.1	15.1	35.7	17.8		
8	5.7	13.9	10.5	13.8	7.4	6.8	4.7	4.8	7.5	4.6	5.5	6.6	25.3	29.7	96.9	143.8	33.3	18.2	22.3	73.8	16.3	28.7	28.8	31.8	26.7	143.8
9	12.4	8.9	5.4	4.1	4.7	1.9	2.0	3.3	2.9	14.6	14.7	46.0	122.6	293.2	233.0	137.1	103.0	165.4	161.0	182.5	464.9	501.6	401.1	339.6	134.4	501.6
10	163.3	104.3	83.5	211.0	55.7	6.8	3.3	2.0	1.3	5.1	19.8	115.1	135.9	112.2	96.6	78.2	210.7	236.9	129.1	81.9	122.9	139.1	235.8	166.0	104.9	236.9
11	74.8	84.4	86.0	124.7	268.7	363.1	504.0	504.0	501.0	380.5	297.8	504.0	504.0	504.0	503.6	484.9	400.3	354.8	175.0	132.7	118.4	124.3	165.5	137.2	304.1	504.0
12	135.3	144.4	194.4	28.0	0.0	54.0	75.7	43.8	193.5	453.5	437.1	442.2	504.0	504.0	504.0	504.0	498.6	293.0	265.6	504.1	504.1	504.0	504.0	496.6	324.5	504.1
13	211.0	197.9	247.2	220.6	332.0	408.8	139.6	91.6	98.0	240.5	300.1	326.3	482.0	343.9	365.8	158.4	291.0	311.9	196.2	241.0	370.9	296.2	278.9	270.1	267.5	482.0
14	198.4	133.8	109.7	160.0	189.5	187.0	40.8	72.5	130.7	203.9	392.5	182.6	326.9	504.0	504.0	494.3	131.5	98.5	75.2	208.8	504.0	500.7	379.6	369.5	254.1	504.0
15	396.7	152.1	71.7	44.4	62.2	285.2	477.4	196.1	134.6	504.0	501.5	402.4	242.2	157.8	202.6	288.6	69.8	25.3	29.3	52.8	80.3	56.5	41.5	69.5	189.4	504.0
16	64.6	10.8	51.0	37.5	0.0	7.7	10.6	18.7	13.2	38.0	18.1	14.8	24.4	73.1	70.4	70.2	93.0	122.1	106.5	215.9	277.6	219.8	46.5	228.3	76.4	277.6
17	124.6	74.6	68.1	63.4	41.8	56.2	30.6	46.0	59.8	136.7	66.2	52.4	45.8	126.4	63.2	63.5	122.5	73.1	119.7	94.0	81.6	57.6	115.5	240.7	84.3	240.7
18	178.7	170.2	70.9	92.3	94.9	11.1	11.7	8.9	8.6	69.3	80.4	14.9	101.5	110.4	252.8	123.3	125.7	143.1	269.5	184.8	349.1	504.0	500.3	366.4	160.1	504.0
19	287.3	207.8	253.1	109.2	66.9	79.0	111.1	159.6	301.8	504.0	500.5	374.1	291.6	235.7	201.3	344.9	504.0	498.8	310.2	120.9	188.9	247.4	470.5	500.0	286.2	504.0
20	355.9	183.7	258.8	44.1	44.1	159.5	43.3	34.4	42.7	259.5	334.2	231.4	456.0	282.2	219.4	206.8	215.1	36.4	81.0	63.2	155.5	76.1	33.3	56.1	161.4	456.0
21	76.3	117.8	301.2	504.0	495.5	201.0	156.7	47.0	45.1	78.5	236.2	235.9	137.4	242.7	489.0	386.9	500.4	373.4	273.4	129.2	140.1	180.5	42.4	30.5	225.9	504.0
22	113.9	87.4	188.8	187.6	99.3	74.4	59.2	41.6	120.4	143.1	149.3	202.2	383.1	200.0	57.0	107.3	139.6	98.5	141.2	198.3	136.6	136.8	104.2	85.4	135.6	383.1
23	137.6	74.6	75.0	40.6	12.3	4.8	4.7	3.3	2.8	8.2	36.3	218.8	251.6	153.7	41.1	75.0	19.2	30.4	40.4	75.7	87.6	29.0	16.3	25.3	61.0	251.6
24	29.2	13.0	6.8	4.7	4.0	2.0	3.3	2.7	4.0	1.9	2.1	6.2	6.5	18.8	17.9	8.2	7.5	5.5	6.8	6.2	6.1	4.9	9.6	6.0	N/A	9.1
25	1.8	0.0	0.0	0.0	0.0	0.0	0.0	2.0	6.2	6.8	3.3	0.6	2.1	8.3	10.5	12.4	10.3	7.5	28.1	29.2	21.2	7.6	7.6	9.1	7.3	29.2
26	14.4	6.8	4.8	5.3	1.9	0.0	1.9	1.2	0.0	0.0	0.0	4.8	6.1	24.9	18.7	80.6	68.5	53.2	2.9	12.4	7.4	1.9	2.2	12.0	13.8	80.6
27	18.3	22.2	16.6	12.3	5.9	0.0	0.0	0.5	1.9	40.4	50.9	40.2	69.3	78.6	50.9	131.6	151.5	128.9	39.4	20.2	17.9	10.3	7.5	5.6	38.4	151.5
28	9.7	10.5	11.7	7.5	5.3	2.2	13.1	53.8	23.1	23.9	94.8	301.1	503.8	483.3	162.9	211.8	201.0	160.0	98.2	66.5	106.5	113.5	95.3	103.6	119.3	503.8
29	85.4	90.2	70.9	65.3	40.9	67.5	49.3	164.6	220.6	308.7	240.9	177.3	307.3	502.8	465.7	493.9	268.3	184.3	304.9	184.1	54.6	26.7	30.2	10.4	183.9	502.8
30	54.2	16.1	59.5	31.1	60.4	37.4	38.4	33.1	43.5	188.7	12.5	10.9	6.1	5.5	7.0	10.4	10.3	8.6	19.9	30.8	33.8	121.4	22.2	15.4	36.6	188.7
31	18.6	10.9	4.8	7.5	4.9	7.4	7.6	9.6	8.4	13.9	33.9	41.2	41.0	51.7	91.8	207.0	197.0	85.2	93.9	362.1	502.8	462.0	446.6	468.6	132.4	502.8
NO.	30	30	30	30	30	31	31	30	30	30	30	30	30	31	30	30	30	30	30	30	30	30	30	30	723	98%
MEAN	96.6	72.1	84.8	76.9	72.4	92.4	86.5	62.6	71.5	132.6	145.3	150.1	198.7	178.4	172.0	181.5	164.4	131.7	109.0	114.5	151.4	151.4	137.0	137.6		
MAX	396.7	207.8	301.2	504.0	495.5	504.1	504.1	504.0	501.0	504.0	501.5	504.0	504.0	504.0	504.0	504.0	504.0	498.8	310.2	504.1	504.1	504.0	504.0	500.0		



Number of 24HR Exceedences	16 Proposed Guideline		
Number of Non-Zero Readings	709		
Maximum 1-HR Average	504.1 UG/M3		
Maximum 24-HR Average	324.5 UG/M3		
IZS Calibration Time		Opperational Time	729 HRS
Down Time	0	Opperational Uptime	98.0 %
Standard Deviation	145.0	Monthly Average	123.8 UG/M3

West $PM_{2.5}$ ($\mu g/m^3$) – December 2018

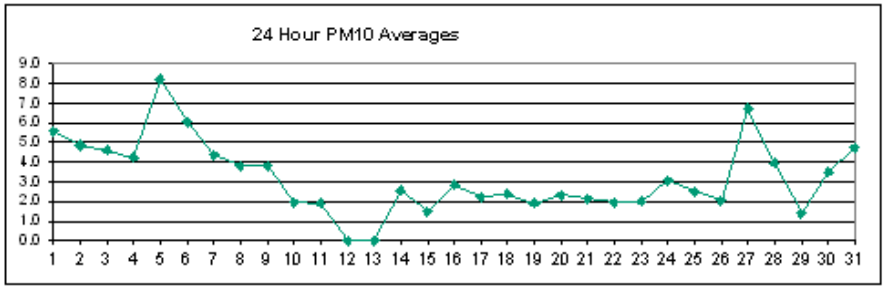
Day	HOUR 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN	MAX
1	7.1	6.0	5.3	4.2	3.8	2.9	2.9	2.9	3.5	3.9	4.8	4.3	3.4	4.2	3.9	4.1	3.8	3.5	3.6	4.2	4.4	4.4	5.3	7.7	4.3	7.7
2	8.5	5.9	6.1	6.9	6.8	4.6	5.7	4.9	5.1	4.7	3.9	3.6	3.7	3.4	2.8	2.3	2.0	2.3	2.8	3.6	4.2	4.3	4.1	3.8	4.4	8.5
3	3.7	3.2	2.5	2.7	2.9	2.7	2.6	2.9	4.3	5.3	5.5	4.2	3.5	5.2	6.2	5.8	3.2	3.0	3.4	2.5	3.1	2.6	2.7	2.7	3.6	6.2
4	2.3	2.2	1.9	1.6	1.7	1.8	2.8	3.5	4.7	4.1	4.2	4.7	5.9	4.0	5.1	4.3	1.8	1.5	2.2	2.2	2.9	3.0	2.6	4.2	3.1	5.9
5	3.9	3.4	3.4	3.5	3.4	3.0	4.1	3.9	4.2	7.2	11.4	11.5	10.3	7.3	9.3	10.3	8.9	8.4	7.3	8.7	6.7	4.6	4.6	4.1	6.4	11.5
6	3.9	3.2	2.8	2.4	2.3	2.5	2.5	2.7	4.8	5.6	6.3	5.8	6.3	6.9	4.9	5.4	5.6	6.1	5.5	5.6	5.1	5.3	4.8	4.4	4.6	6.9
7	3.7	2.9	2.8	2.4	2.2	2.1	2.1	2.4	2.2	3.1	4.3	5.2	5.0	4.5	3.8	3.8	4.8	4.1	4.1	3.6	3.3	3.1	2.8	2.9	3.4	5.2
8	2.8	2.8	3.0	2.7	2.6	2.6	2.6	2.7	2.8	3.1	3.5	3.9	3.5	3.5	3.2	3.4	4.5	4.2	3.8	3.5	3.7	3.6	3.7	3.4	3.3	4.5
9	3.0	3.0	2.9	2.7	2.6	2.3	2.0	1.8	2.0	2.4	3.2	5.4	4.9	4.1	3.5	3.4	2.8	2.6	3.1	3.9	4.5	3.8	2.7	2.7	3.1	5.4
10	2.0	1.4	1.5	1.3	1.5	1.3	1.2	1.3	1.4	1.8	2.2	3.1	3.1	2.9	2.2	1.7	1.0	1.0	0.9	0.6	0.5	0.7	1.2	1.4	1.5	3.1
11	0.7	0.7	0.7	0.7	0.9	1.1	1.3	1.6	2.2	2.3	2.5	2.7	2.4	2.5	2.5	1.7	1.6	0.9	0.9	0.7	0.3	0.6	1.0	0.9	1.4	2.7
12	0.8	1.3	0.8	0.6	1.2	1.3	0.3	0.3	2.3	4.7	6.1	2.6	2.0	2.5	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	1.8	1.4	1.1	1.0	0.5	0.9	0.6	0.4	0.6	0.7		
14	0.5	0.4	0.4	0.5	0.4	0.5	0.6	2.1	4.4	2.3	3.2	2.4	1.7	2.0	2.9	3.4	2.5	2.3	3.8	2.2	1.9	2.4	1.4	1.4	1.9	4.4
15	1.2	1.4	1.4	1.5	1.0	1.2	1.0	1.1	1.5	1.1	0.9	1.1	0.7	0.8	0.9	0.9	0.6	1.0	0.8	1.0	2.1	2.0	1.9	1.6	1.2	2.1
16	1.9	1.7	2.4	1.9	1.6	2.2	1.6	1.2	1.3	1.5	3.1	2.9	4.3	3.3	2.7	2.4	2.5	2.7	2.0	3.0	2.9	2.1	1.9	1.7	2.3	4.3
17	0.9	0.2	0.4	0.2	0.2	0.2	1.3	2.9	2.3	1.0	2.4	5.1	4.6	3.7	3.0	1.8	1.2	1.4	1.8	0.8	0.6	0.7	0.4	0.5	1.6	5.1
18	0.3	0.2	0.3	0.2	0.3	1.2	0.7	1.1	2.2	2.6	4.5	3.8	3.8	4.7	3.7	5.4	3.3	1.5	1.5	1.0	1.1	0.5	0.3	0.3	1.8	5.4
19	0.3	0.3	0.3	0.2	0.2	0.2	0.3	0.8	2.0	1.9	1.6	2.1	2.4	1.8	1.8	1.1	1.0	2.5	3.6	2.8	3.3	2.1	1.1	1.1	1.4	3.6
20	1.7	1.1	0.6	0.5	0.6	0.9	1.0	3.5	2.5	4.8	5.3	4.6	2.6	1.9	2.3	2.2	0.5	0.4	0.3	0.4	2.0	0.7	0.6	0.4	1.7	5.3
21	0.7	0.4	0.5	0.5	0.5	0.6	1.3	2.2	3.0	2.7	2.1	2.1	3.0	3.0	3.0	2.1	1.2	0.9	0.6	0.6	0.5	0.7	2.0	2.3	1.5	3.0
22	2.0	1.2	0.8	0.9	0.9	0.9	1.5	1.8	1.6	1.5	1.7	1.8	1.7	1.7	1.8	1.7	1.9	1.6	1.4	1.6	1.5	1.6	1.2	1.3	1.5	2.0
23	1.1	1.2	0.8	0.7	0.7	0.8	0.8	0.9	1.2	2.1	2.5	3.2	3.8	2.1	2.1	1.5	0.7	1.3	1.7	1.8	1.4	1.5	1.2	1.2	1.5	3.8
24	1.0	1.0	1.1	1.0	1.0	0.9	1.0	1.2	2.0	2.8	3.0	2.2	4.1	3.9	3.3	4.1	2.8	3.1	4.1	3.5	2.3	2.3	1.9	1.7	2.3	4.1
25	1.6	1.3	1.3	1.1	1.0	1.0	0.9	0.9	1.2	1.7	2.3	2.2	2.6	2.7	2.4	2.9	2.8	2.6	2.5	1.3	1.9	2.5	2.9	3.7	2.0	3.7
26	4.6	3.6	3.2	3.1	1.6	1.1	1.1	0.9	0.9	1.1	1.4	1.2	1.2	1.2	1.7	2.2	1.6	1.3	1.7	1.7	1.3	1.4	1.3	2.5	1.8	4.6
27	1.6	8.5	7.3	1.4	0.9	0.9	0.8	0.9	1.3	2.7	3.6	5.0	7.9	12.2	13.3	12.4	10.8	4.3	2.9	3.3	3.4	4.8	4.4	3.2	4.9	13.3
28	2.7	5.1	2.9	1.3	1.0	1.0	1.1	1.8	1.8	2.1	2.5	3.4	6.4	9.9	8.7	5.9	3.2	2.2	1.8	1.7	1.4	0.9	0.6	0.9	2.9	9.9
29	0.8	0.8	0.9	1.0	1.0	1.2	1.3	0.9	1.1	0.8	0.9	0.8	2.5	2.9	2.3	1.7	0.8	0.4	0.4	0.5	0.3	1.0	0.5	0.6	1.1	2.9
30	0.3	0.2	0.3	0.2	0.2	0.2	0.2	0.4	4.3	5.5	3.8	4.2	3.1	4.5	3.0	3.0	4.4	3.0	3.2	3.3	4.0	2.2	2.1	2.6	2.4	5.5
31	3.7	3.2	3.7	3.4	3.1	2.6	2.4	2.2	2.2	4.3	4.0	4.0	5.5	6.7	5.2	5.3	2.6	3.3	3.6	3.8	1.9	1.7	1.7	1.4	3.4	6.7
NO.	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	720	97%
MEAN	2.3	2.3	2.1	1.7	1.6	1.5	1.6	1.9	2.5	3.0	3.6	3.6	3.9	4.0	3.8	3.6	2.8	2.5	2.5	2.5	2.4	2.3	2.1	2.2		
MAX	8.5	8.5	7.3	6.9	6.8	4.6	5.7	4.9	5.1	7.2	11.4	11.5	10.3	12.2	13.3	12.4	10.8	8.4	7.3	8.7	6.7	5.3	5.3	7.7		



Number of 24HR Exceedences	0 Proposed Guideline		
Number of Non-Zero Readings	720		
Maximum 1-HR Average	13.3 UG/M3		
Maximum 24-HR Average	6.4 UG/M3		
IZS Calibration Time		Opperational Time	720 HRS
Down Time	0	Opperational Uptime	96.8 %
Standard Deviation	1.939	Monthly Average	2.6 UG/M3

West PM_{10} ($\mu g/m^3$) – December 2018

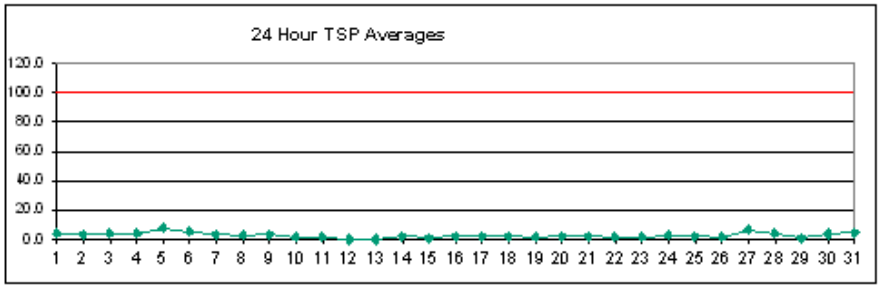
Day	HOUR 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN	MAX
1	9.3	7.4	6.4	4.8	4.4	3.3	3.3	3.4	4.6	5.4	7.0	6.2	4.8	6.1	5.6	5.7	5.2	4.6	4.6	5.7	5.7	5.7	6.5	8.8	5.6	9.3
2	9.8	6.7	6.6	7.2	7.0	4.8	6.0	5.2	5.4	5.0	4.4	3.9	4.2	4.0	3.2	2.5	2.0	2.4	3.0	3.8	4.3	4.9	5.4	4.9	4.9	9.8
3	5.0	4.1	2.9	3.2	3.6	3.4	3.2	3.5	5.1	6.3	6.1	4.7	4.5	7.6	9.0	8.4	4.5	4.0	4.7	3.4	4.1	3.2	3.2	3.1	4.6	9.0
4	2.8	2.8	2.3	1.8	2.0	2.1	3.9	5.0	6.8	5.8	5.8	6.7	8.6	5.7	7.4	6.0	2.5	2.0	3.0	2.7	3.6	3.7	3.2	5.3	4.2	8.6
5	4.2	3.7	3.6	3.8	3.9	3.4	5.5	5.4	5.6	10.1	14.5	15.1	13.6	9.9	12.3	14.3	12.8	11.0	10.3	11.7	8.3	5.4	5.1	4.4	8.2	15.1
6	4.4	3.6	3.0	2.6	2.5	2.8	3.0	3.3	6.9	7.9	8.8	8.1	9.2	10.0	7.2	7.9	8.2	8.7	7.3	7.2	6.1	6.1	5.2	4.7	6.0	10.0
7	4.0	3.0	3.0	2.6	2.5	2.3	2.4	2.9	2.9	4.3	5.9	7.5	7.4	6.5	5.5	5.5	6.9	5.8	5.6	4.7	3.9	3.6	3.2	3.2	4.4	7.5
8	3.1	3.1	3.2	2.8	2.7	2.7	2.8	2.9	3.0	3.4	4.0	5.0	4.6	4.6	4.1	4.5	6.1	5.5	4.7	3.9	4.1	3.9	3.9	3.6	3.8	6.1
9	3.2	3.1	2.9	2.8	2.6	2.4	2.1	2.0	2.2	2.6	3.9	7.8	7.1	6.0	5.1	4.8	3.8	3.4	4.0	4.6	5.1	4.1	3.2	3.1	3.8	7.8
10	2.5	1.5	1.7	1.3	1.6	1.3	1.3	1.4	1.6	2.1	2.7	4.4	4.4	4.1	3.2	2.4	1.4	1.3	1.1	0.7	0.5	0.9	1.6	1.8	1.9	4.4
11	0.8	0.8	0.8	0.9	1.1	1.4	1.8	2.3	3.2	3.3	3.6	3.9	3.5	3.7	3.7	2.3	2.1	1.2	1.1	0.8	0.4	0.7	1.1	0.9	1.9	3.9
12	0.8	1.4	0.9	0.7	1.3	1.9	0.3	0.3	3.3	6.7	8.6	3.7	3.0	3.6	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	2.4	2.0	1.5	1.4	0.7	1.0	0.7	0.5	0.7	0.8		
14	0.6	0.4	0.5	0.7	0.5	0.5	0.7	3.1	6.5	3.2	4.6	3.3	2.3	2.7	4.0	4.9	3.6	2.9	5.0	2.6	2.2	2.8	1.7	1.6	2.5	6.5
15	1.4	1.7	1.6	1.8	1.3	1.6	1.4	1.5	2.2	1.5	1.2	1.5	0.9	1.0	1.1	1.3	0.7	1.2	0.9	1.2	2.5	2.4	2.2	1.8	1.5	2.5
16	2.1	1.9	2.7	2.0	1.7	2.5	1.8	1.4	1.6	1.9	3.8	4.0	6.3	4.6	3.8	3.2	3.2	3.2	2.4	3.9	3.8	2.2	2.0	1.8	2.8	6.3
17	0.9	0.2	0.4	0.2	0.2	0.3	1.8	4.3	3.4	1.5	3.5	7.5	6.6	5.4	4.4	2.7	1.6	1.8	2.2	1.1	0.9	1.0	0.5	0.7	2.2	7.5
18	0.3	0.3	0.4	0.3	0.3	1.6	0.9	1.3	2.9	3.3	5.7	4.5	4.8	6.3	5.0	7.6	3.9	2.0	1.9	1.4	1.4	0.6	0.4	0.4	2.4	7.6
19	0.4	0.3	0.3	0.2	0.2	0.2	0.5	1.2	2.9	2.7	2.3	3.1	3.5	2.6	2.6	1.5	1.3	3.3	4.6	3.4	4.2	2.2	1.2	1.2	1.9	4.6
20	2.0	1.2	0.7	0.5	0.6	1.0	1.2	4.7	3.6	7.0	7.8	6.6	3.8	2.5	3.3	3.1	0.6	0.6	0.4	0.5	2.3	0.8	0.7	0.5	2.3	7.8
21	0.8	0.5	0.6	0.6	0.7	0.8	1.9	3.2	4.4	4.0	3.0	3.0	4.4	4.5	4.3	3.0	1.7	1.3	0.8	0.7	0.5	0.8	2.6	3.0	2.1	4.5
22	2.3	1.4	0.9	1.0	1.1	1.0	1.9	2.4	2.1	2.1	2.4	2.5	2.4	2.5	2.6	2.4	2.7	2.2	1.9	2.2	1.9	2.2	1.5	1.6	2.0	2.7
23	1.4	1.5	1.0	0.8	0.7	0.8	0.9	1.0	1.4	2.6	3.5	4.7	5.7	3.0	3.1	2.2	0.9	1.8	2.3	2.5	1.7	1.7	1.4	1.4	2.0	5.7
24	1.1	1.0	1.2	1.0	1.0	0.9	1.1	1.4	2.6	4.0	4.3	3.0	5.9	5.8	4.8	6.0	4.1	4.5	5.9	4.5	2.6	2.5	2.1	1.8	3.0	6.0
25	1.7	1.4	1.4	1.2	1.0	1.1	1.0	1.0	1.4	2.1	2.9	2.9	3.7	3.9	3.5	4.3	4.2	3.7	3.6	1.6	2.3	3.1	3.5	4.2	2.5	4.3
26	4.9	3.8	3.3	3.1	1.6	1.1	1.2	0.9	0.9	1.2	1.6	1.4	1.5	1.6	2.4	3.2	2.3	1.8	2.2	2.1	1.5	1.5	1.4	2.7	2.0	4.9
27	1.7	10.7	8.6	1.5	0.9	0.9	0.9	0.9	1.5	3.8	5.3	7.3	11.6	17.6	19.2	17.9	16.0	6.4	4.2	4.6	4.6	6.6	5.4	3.7	6.7	19.2
28	2.9	5.3	3.0	1.4	1.1	1.1	1.4	2.4	2.5	3.0	3.6	5.0	9.3	14.0	12.3	8.5	4.7	3.2	2.5	2.4	1.9	1.2	0.8	1.2	4.0	14.0
29	1.0	0.9	1.0	1.1	1.2	1.4	1.6	1.0	1.3	1.0	1.1	1.0	3.7	4.3	3.4	2.5	1.2	0.6	0.6	0.7	0.4	1.4	0.5	0.8	1.4	4.3
30	0.3	0.3	0.4	0.2	0.2	0.2	0.3	0.5	6.5	8.2	5.6	6.2	4.6	6.3	4.4	4.5	6.6	4.4	4.7	4.8	5.9	2.7	2.6	3.4	3.5	8.2
31	5.3	4.4	5.4	4.7	3.8	3.0	2.7	2.5	2.8	6.4	5.9	5.9	7.9	9.6	7.5	7.9	3.8	4.9	5.2	5.4	2.6	2.3	2.2	1.9	4.7	9.6
NO.	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	720	97%
MEAN	2.7	2.6	2.4	1.9	1.8	1.7	2.0	2.4	3.4	4.1	4.8	5.0	5.5	5.7	5.4	5.1	4.0	3.4	3.4	3.2	3.0	2.7	2.5	2.6		
MAX	9.8	10.7	8.6	7.2	7.0	4.8	6.0	5.4	6.9	10.1	14.5	15.1	13.6	17.6	19.2	17.9	16.0	11.0	10.3	11.7	8.3	6.6	6.5	8.8		



Number of Non-Zero Readings	720		
Maximum 1-HR Average	19.2 UG/M3		
Maximum 24-HR Average	8.2 UG/M3		
IZS Calibration Time		OpperatioEl Time	720 HRS
Down Time	0	OpperatioEl Uptime	96.8 %
Standard Deviation	2.7	Monthly Average	3.4 UG/M3

West TSP (µg/m^3) – December 2018

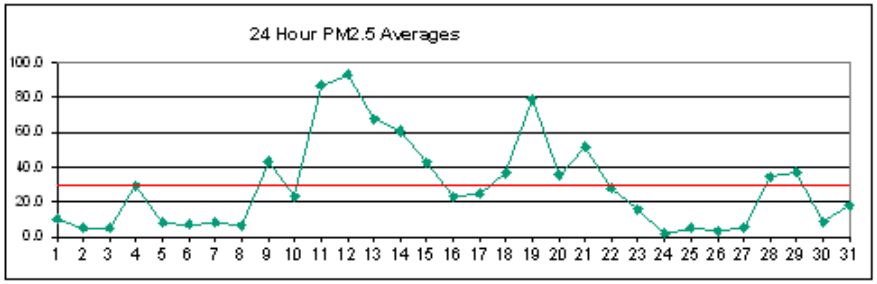
Day	HOUR 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN	MAX
1	6.4	5.0	4.3	3.2	2.9	2.2	2.3	2.4	3.4	4.9	6.6	6.0	4.2	5.6	4.7	4.5	3.9	3.3	3.2	3.9	3.9	3.8	4.3	5.7	4.2	6.6
2	6.4	4.4	4.3	4.7	4.5	3.1	3.9	3.4	3.5	3.3	3.0	2.6	2.8	2.7	2.2	1.6	1.3	1.5	1.9	2.5	2.8	3.3	3.8	3.6	3.2	6.4
3	3.8	3.0	2.1	2.2	2.6	2.6	2.3	2.5	3.4	4.4	4.0	3.2	3.6	8.1	9.9	9.2	4.6	3.7	4.5	3.0	3.4	2.4	2.4	2.4	3.9	9.9
4	2.1	2.2	1.7	1.3	1.4	1.6	3.6	5.0	7.1	5.6	5.5	6.7	9.2	5.7	7.7	6.2	2.2	1.7	2.8	2.1	3.1	3.0	2.5	4.3	3.9	9.2
5	2.7	2.4	2.3	2.6	2.6	2.3	5.0	4.5	4.5	10.1	16.3	16.7	14.7	10.6	13.3	16.3	14.1	11.8	9.4	9.2	5.9	3.7	3.4	3.0	7.8	16.7
6	3.1	2.5	2.0	1.7	1.7	1.9	2.2	2.5	6.7	7.6	8.7	7.7	9.4	10.8	7.4	8.3	7.7	7.6	5.6	5.3	4.4	4.3	3.4	3.1	5.2	10.8
7	2.6	2.0	2.0	1.7	1.7	1.6	1.7	2.2	2.3	3.8	5.4	7.6	7.4	6.5	5.5	5.1	6.4	5.1	4.5	3.5	2.7	2.5	2.1	2.1	3.7	7.6
8	2.1	2.0	2.1	1.8	1.8	1.7	1.8	1.9	2.0	2.3	2.8	3.9	3.8	3.8	3.2	3.6	4.9	4.2	3.4	2.6	2.7	2.6	2.6	2.3	2.7	4.9
9	2.0	2.0	1.9	1.8	1.7	1.5	1.4	1.3	1.5	1.8	3.0	8.3	7.5	6.0	5.0	4.7	3.3	2.8	3.3	3.4	3.6	2.7	2.3	2.1	3.1	8.3
10	1.8	1.0	1.1	0.9	1.1	0.8	0.9	0.9	1.1	1.4	2.2	4.3	4.3	4.0	3.3	2.4	1.3	1.1	0.9	0.5	0.4	0.7	1.3	1.6	1.6	4.3
11	0.6	0.5	0.6	0.6	0.8	1.2	1.6	2.1	3.3	3.3	3.7	4.1	3.7	4.0	3.9	2.1	1.7	1.0	0.8	0.6	0.3	0.5	0.8	0.6	1.8	4.1
12	0.6	0.9	0.6	0.4	0.9	1.4	0.2	0.2	3.6	7.5	9.6	4.0	3.1	3.8	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	2.4	1.9	1.3	1.2	0.5	0.7	0.6	0.4	0.6	0.6		
14	0.4	0.3	0.3	0.5	0.4	0.4	0.5	3.2	7.0	3.3	4.6	3.3	2.1	2.6	3.8	5.0	3.4	2.2	4.1	1.9	1.6	1.9	1.2	1.1	2.3	7.0
15	1.0	1.3	1.1	1.4	1.1	1.5	1.2	1.4	2.2	1.4	1.1	1.3	0.7	0.8	0.9	1.1	0.6	0.9	0.7	0.9	1.8	1.9	1.6	1.2	1.2	2.2
16	1.4	1.2	1.8	1.3	1.1	1.7	1.2	1.0	1.3	1.5	2.9	3.6	6.0	4.4	3.7	2.6	2.5	2.4	1.8	3.3	3.3	1.4	1.3	1.2	2.2	6.0
17	0.6	0.1	0.3	0.1	0.1	0.2	1.9	4.7	3.7	1.5	3.8	8.1	7.1	5.9	4.7	2.8	1.4	1.5	1.7	1.1	0.7	0.9	0.4	0.6	2.2	8.1
18	0.3	0.2	0.3	0.2	0.3	1.4	0.6	0.9	2.3	2.4	4.1	3.3	4.0	5.6	4.5	7.6	2.8	1.8	1.6	1.2	1.2	0.5	0.3	0.3	2.0	7.6
19	0.3	0.2	0.2	0.1	0.2	0.2	0.4	1.1	3.0	2.8	2.3	3.1	3.7	2.6	2.6	1.5	1.1	2.9	3.7	2.5	3.2	1.5	0.8	0.8	1.7	3.7
20	1.4	0.8	0.4	0.3	0.4	0.7	0.9	4.1	3.5	7.1	8.0	6.7	3.9	2.2	3.3	2.8	0.5	0.5	0.3	0.3	1.7	0.6	0.5	0.3	2.1	8.0
21	0.5	0.4	0.4	0.5	0.7	0.7	2.0	3.3	4.6	4.2	3.1	3.3	4.7	4.7	4.5	3.1	1.6	1.1	0.6	0.6	0.4	0.6	2.1	2.3	2.1	4.7
22	1.6	0.9	0.6	0.7	0.7	0.7	1.6	2.2	1.7	1.8	2.2	2.4	2.3	2.5	2.6	2.3	2.5	2.0	1.7	1.8	1.6	2.0	1.2	1.4	1.7	2.6
23	1.0	1.3	0.8	0.5	0.5	0.5	0.6	0.6	1.0	2.0	3.4	4.7	6.0	3.0	3.0	2.0	0.7	1.6	2.0	2.2	1.3	1.2	1.0	1.0	1.7	6.0
24	0.8	0.7	0.8	0.6	0.6	0.6	0.7	1.0	2.4	3.9	4.5	2.8	6.3	6.1	5.2	6.7	4.2	4.4	5.4	3.5	1.8	1.7	1.5	1.2	2.8	6.7
25	1.1	0.9	0.9	0.8	0.7	0.7	0.7	0.7	1.1	1.7	2.2	2.4	3.6	4.0	3.5	4.5	4.3	3.6	3.2	1.2	1.6	2.1	2.3	2.7	2.1	4.5
26	3.2	2.5	2.2	2.0	1.1	0.7	0.8	0.6	0.6	0.8	1.1	1.0	1.2	1.4	2.3	3.2	2.1	1.4	1.7	1.5	1.0	1.0	0.9	1.8	1.5	3.2
27	1.1	7.4	5.7	1.0	0.6	0.6	0.6	0.6	1.1	3.7	5.5	8.1	13.3	20.4	22.3	20.8	18.3	6.4	3.8	3.8	3.6	5.3	3.7	2.5	6.7	22.3
28	1.9	3.4	2.0	0.9	0.7	0.8	1.2	2.4	2.4	2.9	3.8	5.3	10.4	16.0	14.1	9.5	5.0	3.3	2.6	2.3	1.6	1.0	0.5	0.9	4.0	16.0
29	0.7	0.6	0.7	0.7	0.8	1.0	1.3	0.7	1.0	0.7	0.9	0.9	4.0	4.8	3.7	2.7	1.1	0.6	0.5	0.6	0.3	1.1	0.4	0.7	1.3	4.8
30	0.2	0.2	0.3	0.1	0.2	0.2	0.2	0.5	7.4	9.4	6.1	7.1	5.2	7.2	5.0	5.1	7.6	4.8	5.1	5.2	6.6	2.1	2.0	2.9	3.8	9.4
31	5.2	3.6	4.7	3.8	2.7	2.0	1.7	1.7	2.2	6.2	5.7	6.4	8.7	10.8	8.5	9.0	4.0	5.2	5.6	5.9	2.5	2.1	2.0	1.6	4.7	10.8
NO.	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	720	97%
MEAN	1.9	1.8	1.6	1.3	1.2	1.2	1.5	2.0	3.0	3.8	4.5	5.0	5.6	5.9	5.6	5.3	3.9	3.0	2.9	2.6	2.3	2.0	1.8	1.9		
MAX	6.4	7.4	5.7	4.7	4.5	3.1	5.0	5.0	7.4	10.1	16.3	16.7	14.7	20.4	22.3	20.8	18.3	11.8	9.4	9.2	6.6	5.3	4.3	5.7		



Number of 24HR Exceedences	0	Proposed Guideline	
Number of Non-Zero Readings	720		
Maximum 1-HR Average	22.3	UG/M3	
Maximum 24-HR Average	7.8	UG/M3	
IZS Calibration Time		Opperational Time	720 HRS
Down Time	0	Opperational Uptime	96.8 %
Standard Deviation	2.878	Monthly Average	3.0 UG/M3

Berm $PM_{2.5}$ ($\mu g/m^3$) – December 2018

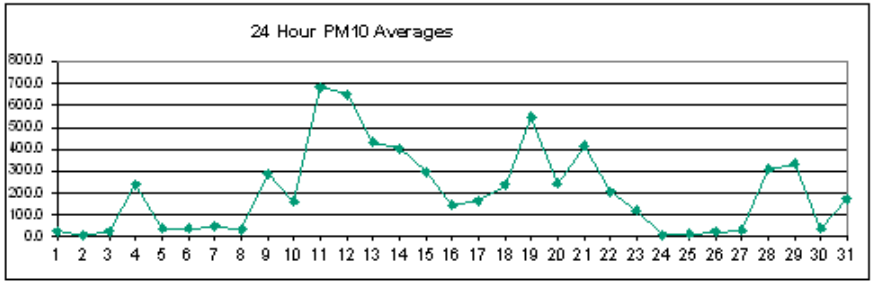
DAY	HOUR 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN	MAX
1	5.3	4.4	3.6	2.8	3.1	2.2	6.0	5.1	14.5	15.6	12.3	47.2	19.0	20.8	24.3	7.7	4.6	4.6	5.1	4.4	5.0	14.6	7.2	8.4	10.3	47.2
2	7.7	8.8	7.6	8.0	7.3	5.1	6.8	5.0	6.5	4.9	5.1	3.3	4.0	3.0	2.6	2.4	2.5	2.0	2.6	5.2	4.8	4.4	4.3	3.0	4.9	8.8
3	2.9	2.2	3.6	4.9	2.7	1.4	2.0	3.5	4.5	5.2	4.9	3.9	8.1	5.6	4.3	4.6	3.5	6.3	5.3	5.1	22.6	4.3	3.2	8.7	5.1	22.6
4	14.6	36.8	33.7	24.5	31.4	32.8	33.2	20.5	35.2	53.4	66.2	47.9	24.6	26.7	36.9	50.9	47.7	37.2	26.2	12.5	3.5	3.3	1.5	3.8	29.4	66.2
5	3.6	2.9	3.4	2.9	2.5	3.7	6.0	6.1	9.9	11.3	15.1	21.9	20.0	13.0	9.6	7.5	5.3	7.0	8.3	8.9	8.1	5.4	5.1	5.2	8.0	21.9
6	6.6	3.8	3.9	3.6	3.7	2.9	2.7	3.0	2.8	3.6	6.5	13.2	15.1	21.7	19.3	9.9	8.3	5.5	5.4	6.0	6.5	7.1	5.2	6.3	7.2	21.7
7	3.7	3.8	2.9	3.9	6.1	5.3	6.3	3.3	3.6	3.7	10.0	9.4	8.7	9.9	16.3	25.1	20.5	9.0	9.2	8.1	4.8	6.6	10.4	3.6	8.1	25.1
8	5.2	4.2	3.9	3.3	3.4	3.7	4.1	4.3	4.8	3.8	4.1	5.6	6.1	11.6	21.0	8.0	5.4	7.7	15.2	5.6	6.7	7.3	9.7	5.5	6.7	21.0
9	5.3	3.8	2.5	2.4	2.4	2.0	2.2	2.7	3.6	4.8	8.6	17.5	80.2	50.9	33.0	43.0	64.1	40.8	111.1	159.7	159.5	121.6	79.9	36.5	43.3	159.7
10	21.3	17.4	37.2	7.5	1.7	1.3	1.2	3.5	1.5	3.1	24.0	40.7	31.2	29.2	20.7	36.1	39.6	30.7	13.1	25.5	33.1	61.0	67.7	12.4	23.4	67.7
11	12.2	12.8	19.4	55.2	67.5	103.3	108.8	152.7	73.8	108.8	137.5	198.7	207.1	223.2	196.9	91.9	70.9	43.8	16.3	31.6	32.8	45.6	45.9	24.0	86.7	223.2
12	36.0	40.9	4.3	0.8	7.9	13.7	6.9	34.9	113.9	93.9	116.6	123.4	140.5	167.4	173.9	156.3	75.9	56.7	122.1	143.1	152.3	186.2	172.7	90.5	92.9	186.2
13	78.2	89.9	33.1	53.5	59.8	20.5	12.8	30.3	82.0	92.4	90.1	143.2	89.1	92.1	24.1	71.5	80.4	52.3	63.5	100.4	54.9	87.9	77.4	43.7	67.6	143.2
14	17.6	23.5	26.6	47.4	35.9	4.6	6.0	26.5	58.0	70.3	44.6	81.6	147.1	145.8	97.1	24.7	15.3	14.0	51.0	110.1	124.2	99.1	98.2	86.1	60.6	147.1
15	46.9	36.9	16.7	23.2	74.6	73.6	31.8	34.9	138.0	133.8	88.0	77.0	38.9	68.8	69.4	12.6	2.1	3.3	8.1	12.7	6.5	3.8	10.1	18.9	42.9	138.0
16	6.6	11.4	5.1	1.9	2.5	4.2	2.7	1.9	4.8	2.2	3.5	4.5	20.2	31.7	42.5	38.7	55.5	39.8	53.5	70.3	51.7	13.8	49.7	38.5	23.2	70.3
17	12.0	15.6	10.3	4.6	9.9	3.0	5.5	25.0	25.3	37.6	22.4	22.1	22.7	28.4	30.1	27.1	48.8	42.0	21.3	24.0	27.5	35.3	63.2	30.0	24.7	63.2
18	18.4	10.3	18.5	20.1	2.3	1.1	1.6	5.8	7.1	7.6	5.1	12.4	10.8	39.4	38.6	47.6	31.1	67.2	79.3	115.2	112.7	134.6	58.8	36.8	36.8	134.6
19	53.5	64.7	14.6	7.8	16.2	16.7	20.3	47.5	159.8	161.1	131.6	130.3	87.6	92.8	98.1	160.0	127.2	69.8	19.9	12.3	27.4	76.0	183.6	120.2	79.1	183.6
20	64.6	67.4	8.3	12.0	38.0	10.1	6.8	5.3	46.9	72.6	57.7	111.2	70.6	46.7	64.6	65.1	10.9	12.8	10.8	27.5	13.7	7.3	5.4	12.8	35.4	111.2
21	22.4	89.0	77.1	75.4	30.5	16.7	17.3	20.9	50.3	53.6	57.7	21.9	39.3	106.7	100.4	129.3	110.6	54.1	18.6	27.1	38.3	18.7	25.3	33.3	51.4	129.3
22	16.6	37.5	20.5	9.3	8.0	6.0	3.6	13.0	15.6	16.5	31.4	62.8	42.0	38.3	39.4	43.2	44.4	40.1	32.4	45.6	52.4	20.2	9.3	15.8	27.7	62.8
23	6.7	8.5	2.9	1.4	1.1	1.0	1.0	2.6	2.8	4.7	40.1	72.7	47.8	31.9	44.0	23.3	20.9	24.5	20.6	15.8	2.9	2.7	3.8	4.0	16.2	72.7
24	1.9	1.2	1.7	1.2	1.1	1.0	0.8	1.1	1.4	1.6	1.8	1.4	3.1	3.6	1.9	1.8	1.9	2.5	3.5	3.4	2.3	5.0	1.7	1.7	2.0	5.0
25	1.5	1.1	1.0	0.9	1.7	1.7	1.2	0.8	0.8	1.1	2.2	1.8	2.0	2.2	2.1	3.1	2.3	11.8	23.3	14.2	10.6	9.2	11.3	8.8	4.9	23.3
26	5.3	3.8	1.4	1.4	2.2	1.4	0.9	0.7	0.6	0.9	1.8	1.9	2.5	2.2	13.7	17.3	8.5	1.8	2.8	1.7	1.2	1.2	4.6	7.0	3.6	17.3
27	3.6	14.7	1.4	1.3	1.4	1.1	1.1	1.8	4.7	4.8	4.4	8.7	9.0	7.9	12.7	13.4	13.5	6.4	2.6	2.6	2.5	3.3	2.7	2.5	5.3	14.7
28	4.1	5.3	3.2	3.0	1.7	3.6	7.3	1.6	2.8	9.8	22.5	76.5	96.6	72.7	90.2	89.4	54.6	52.4	61.0	37.0	52.0	36.2	31.3	17.1	34.7	96.6
29	16.4	13.1	12.2	14.0	12.7	11.9	16.2	25.9	57.6	41.1	28.1	70.7	114.6	81.1	101.1	82.5	57.1	54.7	38.7	7.9	3.2	3.5	1.3	21.8	37.0	114.6
30	1.8	3.9	4.4	6.0	4.4	4.1	2.3	3.4	66.0	5.3	1.5	1.3	0.9	1.1	1.7	2.0	2.1	2.6	6.9	6.0	58.9	10.6	10.4	5.0	8.9	66.0
31	2.7	1.6	1.0	1.7	1.8	0.9	5.3	2.0	2.3	4.5	5.2	5.0	4.9	8.7	19.8	25.1	5.0	6.8	48.3	81.2	48.7	54.7	73.1	20.8	18.0	81.2
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	16.3	20.7	12.5	13.1	14.4	11.6	10.7	16.0	32.3	33.3	33.9	46.4	45.6	47.9	46.8	42.6	33.6	26.1	29.2	36.5	36.5	35.2	36.6	23.6		
MAX	78.2	89.9	77.1	75.4	74.6	103.3	108.8	152.7	159.8	161.1	137.5	198.7	207.1	223.2	196.9	160.0	127.2	69.8	122.1	159.7	159.5	186.2	183.6	120.2		



Number of 24HR Exceedences	12 Proposed Guideline		
Number of Non-Zero Readings	744		
Maximum 1-HR Average	223.2 UG/M3		
Maximum 24-HR Average	92.9 UG/M3		
		Operational Time	744 HRS
Monthly Calibration	0	Operational Uptime	100.0 %
Standard Deviation	38.8	Monthly Average	29.2 UG/M3

Berm PM_{10} (µg/m^3) – December 2018

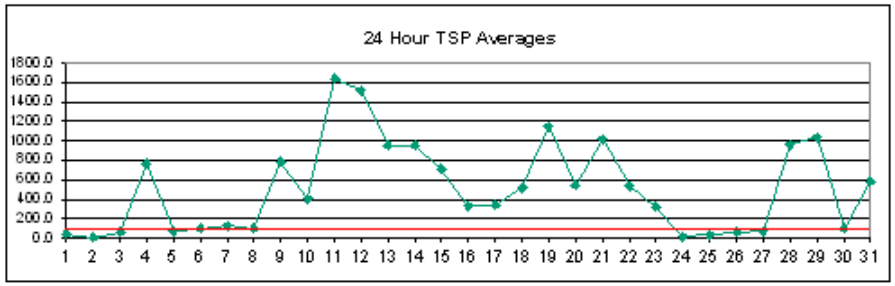
DAY	HOUR 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN	MAX
1	6.5	5.3	4.2	3.2	3.6	2.6	8.6	7.2	21.8	23.4	18.4	70.7	125.1	68.4	147.4	11.5	6.5	6.7	7.4	6.2	6.9	21.5	10.4	10.2	25.2	147.4
2	9.0	11.6	9.5	9.5	8.7	6.2	9.0	6.3	8.6	6.4	6.6	3.9	4.9	3.4	3.1	2.5	3.0	2.1	2.7	5.9	5.4	5.6	5.4	3.7	6.0	11.6
3	3.6	2.4	4.9	7.0	3.4	1.5	2.3	4.5	5.5	6.1	6.2	9.2	51.6	24.4	21.1	14.9	12.0	54.3	40.7	38.2	197.3	24.2	12.0	72.8	25.8	197.3
4	128.3	349.1	293.6	242.2	305.8	325.5	297.1	160.1	291.1	426.8	524.8	375.5	195.3	204.1	284.4	414.0	352.2	260.1	161.5	88.2	11.1	11.7	2.0	10.1	238.1	524.8
5	6.2	4.0	7.0	5.0	3.8	8.8	22.5	25.9	35.1	17.0	91.4	179.8	142.8	75.9	48.0	38.5	9.6	19.3	14.1	27.2	25.4	13.6	10.5	14.5	35.2	179.8
6	27.2	10.5	13.2	12.0	17.2	7.1	6.6	8.9	8.0	9.9	34.8	98.9	107.0	171.0	144.8	56.7	41.0	18.4	18.0	20.8	25.1	27.4	12.8	20.9	38.3	171.0
7	8.0	14.8	7.0	13.9	33.9	31.0	39.5	14.7	16.2	14.5	55.8	59.7	51.8	60.6	114.8	204.9	156.2	55.4	50.8	28.0	12.0	29.6	40.1	5.8	46.6	204.9
8	18.0	13.5	9.7	6.6	7.1	10.3	11.3	10.7	22.4	11.7	13.0	19.3	24.5	82.0	168.0	38.7	17.6	34.9	100.8	18.9	30.6	32.1	50.3	17.7	32.1	168.0
9	12.1	5.7	2.8	3.4	3.1	2.5	4.1	7.3	12.6	16.4	58.4	125.0	564.1	343.8	200.8	275.4	442.6	316.8	682.2	1042.5	1105.7	846.9	572.4	255.7	287.6	1105.7
10	145.1	107.7	289.4	52.0	5.0	1.8	1.6	5.8	3.5	16.8	169.6	249.6	188.2	187.6	139.9	276.8	324.4	222.7	95.5	189.5	266.7	421.3	446.3	77.5	161.8	446.3
11	89.1	96.1	146.1	366.1	494.8	782.1	799.6	1178.8	527.9	752.3	1082.0	1630.3	1728.0	1906.2	1660.7	773.3	574.3	331.5	123.7	210.5	227.0	315.7	348.9	193.3	680.8	1906.2
12	273.9	312.1	31.5	2.4	60.6	99.1	13.2	298.4	834.8	700.0	824.7	859.3	977.0	1125.1	1203.7	1041.7	463.7	359.6	857.2	1074.5	1096.0	1254.8	1173.7	623.0	648.3	1254.8
13	501.4	604.1	252.7	383.5	437.6	155.3	99.2	189.9	517.9	573.8	569.0	844.1	591.1	576.9	177.8	471.9	506.4	326.1	379.4	604.4	351.6	504.0	425.1	260.0	429.3	844.1
14	117.1	134.5	146.7	331.3	237.9	26.8	39.9	152.4	333.2	500.3	306.4	620.9	950.4	1006.1	688.0	171.6	123.9	91.4	335.3	759.0	833.3	591.2	619.7	572.5	403.7	1006.1
15	269.2	222.5	95.8	169.7	556.5	595.6	269.7	263.1	970.7	885.3	576.7	524.2	276.0	434.7	488.5	102.3	11.2	16.1	54.4	77.2	37.8	15.8	71.6	117.1	295.9	970.7
16	44.7	67.9	27.3	3.3	8.7	20.2	14.5	10.0	34.6	10.9	11.6	20.9	141.0	213.6	270.8	217.4	313.6	230.6	349.9	437.8	330.0	84.2	321.2	221.9	142.0	437.8
17	81.4	87.2	58.6	33.9	68.1	20.3	35.0	166.9	180.1	243.5	143.5	157.9	154.9	207.6	208.6	182.5	373.6	271.7	134.9	182.3	159.9	211.6	380.8	211.3	164.8	380.8
18	155.2	82.0	152.5	136.9	16.6	3.3	6.7	8.6	10.5	11.2	6.9	18.5	30.0	336.0	58.0	71.3	46.6	413.7	532.7	780.2	906.2	992.2	540.6	356.7	236.4	992.2
19	362.7	426.5	80.5	51.0	119.6	123.7	163.0	412.3	1155.2	1133.0	890.4	907.3	509.9	546.7	564.6	1077.4	962.4	562.8	157.9	91.8	216.9	582.5	1189.8	818.1	546.1	1189.8
20	445.5	481.6	51.3	83.8	254.8	60.0	32.1	32.7	346.3	519.5	369.7	727.6	430.0	317.9	401.3	417.6	78.4	100.4	86.0	256.4	108.5	52.7	54.5	140.5	243.7	727.6
21	238.1	744.0	729.1	753.3	275.9	133.5	129.6	138.1	364.7	624.9	569.8	199.5	327.7	848.8	705.4	883.7	753.0	344.2	129.3	212.5	300.6	133.2	159.9	267.0	415.2	883.7
22	107.2	289.2	130.9	58.8	53.7	40.6	22.3	101.0	123.7	158.1	273.0	532.0	332.5	272.7	296.2	291.6	304.0	283.9	233.5	308.0	371.1	147.2	62.0	111.3	204.3	532.0
23	48.3	64.3	22.5	7.2	3.3	1.9	1.3	8.0	11.3	27.1	337.2	566.8	352.1	238.8	314.7	172.8	150.7	186.9	164.1	96.9	19.6	16.1	23.2	21.4	119.0	566.8
24	9.1	4.5	4.7	2.8	2.2	1.3	0.9	1.3	1.6	2.2	3.7	3.1	22.7	22.9	5.5	6.0	6.7	7.2	7.8	6.3	3.4	18.7	3.1	2.1	6.2	22.9
25	1.8	1.3	1.0	1.0	2.3	2.4	1.5	0.8	0.9	1.6	9.9	4.4	5.0	8.0	9.8	12.3	6.9	132.1	48.2	20.9	14.7	13.2	16.4	12.3	13.7	132.1
26	6.7	4.6	1.6	1.5	3.0	1.9	1.0	0.9	0.6	1.1	4.7	4.9	21.2	14.4	163.0	186.2	88.6	6.6	12.3	3.5	2.2	2.0	7.9	8.4	22.9	186.2
27	4.4	16.5	1.6	1.6	1.8	1.5	1.5	2.5	7.1	7.2	6.6	63.9	81.0	47.0	101.0	111.4	108.8	26.3	8.1	6.1	6.5	8.3	5.3	5.5	26.3	111.4
28	5.6	6.9	4.0	4.1	2.3	5.3	10.9	2.3	6.9	102.0	272.0	851.0	912.6	719.6	916.9	811.2	485.7	448.5	458.7	312.3	412.4	286.8	261.0	131.8	309.6	916.9
29	130.7	108.1	102.1	113.2	99.4	89.2	151.7	256.3	569.6	408.5	288.0	692.2	1046.2	714.2	875.5	730.0	545.3	569.8	332.0	51.2	21.6	27.6	7.1	95.9	334.4	1046.2
30	3.6	31.1	32.4	44.7	41.2	32.7	12.1	31.7	294.1	7.8	2.0	2.9	2.7	4.5	4.6	7.2	7.0	8.7	28.3	33.1	167.3	15.5	15.2	7.1	34.9	294.1
31	3.5	1.9	1.2	2.4	2.3	1.1	6.4	2.5	3.1	6.7	34.3	35.6	37.9	97.7	234.1	273.0	58.3	71.1	474.3	838.8	509.1	536.6	692.6	209.8	172.3	838.8
NO.	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	744	100%
MEAN	105.3	139.1	87.6	93.8	101.1	83.7	71.4	113.2	216.8	233.1	243.9	337.4	335.0	351.0	342.6	301.5	236.6	186.4	196.2	252.5	251.0	233.7	243.3	157.3		
MAX	501.4	744.0	729.1	753.3	556.5	782.1	799.6	1178.8	1155.2	1133.0	1082.0	1630.3	1728.0	1906.2	1660.7	1077.4	962.4	569.8	857.2	1074.5	1105.7	1254.8	1189.8	818.1		



Number of Non-Zero Readings	744		
Maximum 1-HR Average	1906.2 UG/M3		
Maximum 24-HR Average	680.8 UG/M3		
		Operational Time	744 HRS
Monthly Calibration	0	Operational Uptime	100.0 %
Standard Deviation	291.1	Monthly Average	204.7 UG/M3

Berm TSP (µg/m^3) – December 2018

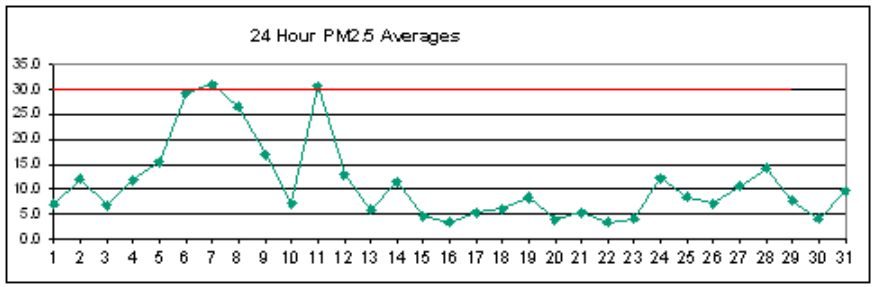
DAY	HOUR 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN	MAX
1	4.7	3.7	3.0	2.2	2.5	1.9	8.5	7.3	25.2	27.2	20.5	82.2	341.7	132.9	259.6	12.8	5.5	5.7	6.6	5.2	5.1	18.5	9.9	7.4	41.7	341.7
2	6.4	8.8	7.1	6.8	6.3	4.4	7.5	5.0	7.1	5.1	5.2	3.0	3.8	2.4	2.0	1.6	2.2	1.3	1.8	4.2	3.7	4.4	3.9	2.7	4.4	8.8
3	2.7	1.6	3.8	6.5	2.6	1.0	1.7	3.5	3.9	4.4	6.4	18.9	132.7	57.4	51.6	39.9	27.4	158.9	102.2	98.5	493.3	66.6	36.0	220.0	64.2	493.3
4	393.3	1290.4	1273.5	1134.6	1354.8	1363.6	1124.0	536.0	854.7	1257.5	1614.0	1069.7	555.5	587.8	743.9	1058.3	877.9	634.8	391.3	205.8	19.0	24.1	1.7	9.9	765.7	1614.0
5	14.0	3.6	5.7	3.5	3.8	32.9	90.2	89.1	70.1	19.2	201.9	372.9	297.5	128.5	93.5	67.9	17.4	38.7	14.0	64.6	69.3	37.9	20.9	35.9	74.7	372.9
6	91.9	26.8	34.7	33.6	56.5	24.2	27.1	24.9	20.2	24.7	89.1	249.3	264.6	417.6	315.0	142.7	92.9	43.6	42.5	75.8	78.9	74.0	32.3	82.5	98.6	417.6
7	16.5	54.0	19.4	38.2	113.8	101.3	143.2	39.0	55.3	38.6	160.8	144.6	133.5	149.8	273.6	534.4	392.0	157.3	127.3	74.8	29.3	81.7	93.3	8.1	124.2	534.4
8	48.8	35.7	27.9	12.7	23.6	33.9	26.8	42.5	103.1	47.2	54.1	54.9	82.1	218.0	476.7	102.6	42.4	100.1	279.7	47.5	77.3	95.4	167.0	59.7	94.2	476.7
9	40.1	7.4	2.5	4.7	2.8	2.3	9.3	13.0	28.2	32.0	153.3	310.9	1414.6	985.9	512.4	700.4	1045.2	783.0	1693.9	2820.9	3186.5	2579.4	1675.7	804.2	783.7	3186.5
10	480.4	308.8	895.1	170.9	13.6	2.2	4.4	9.9	8.6	55.9	476.8	650.9	463.7	440.5	305.5	681.6	844.7	465.2	206.1	447.4	692.1	919.8	1034.5	189.2	407.0	1034.5
11	251.2	254.3	406.0	910.5	1164.1	2133.1	1991.5	2857.0	1481.4	1762.1	2597.7	3766.7	3737.5	4032.9	3611.0	2394.8	1708.8	884.5	374.8	510.2	524.2	694.8	796.8	450.1	1637.3	4032.9
12	610.9	644.0	60.6	4.2	183.1	350.3	21.8	657.9	1891.1	1702.6	1930.0	1920.5	2142.9	2618.7	2859.0	2453.7	1094.8	868.9	1955.2	2480.3	2723.5	2933.0	2852.8	1521.7	1520.1	2933.0
13	1152.4	1375.7	598.6	838.2	1037.5	411.7	289.2	380.6	1079.7	1388.4	1419.6	1913.1	1498.2	1513.9	471.8	955.4	961.5	666.2	678.3	1155.1	730.9	1015.6	807.6	540.6	953.3	1913.1
14	297.0	272.4	277.7	801.1	649.4	71.7	123.8	367.0	795.9	1300.2	748.9	1449.2	2162.0	2508.9	1761.2	495.8	351.1	224.2	687.1	1664.0	1901.2	1250.7	1436.9	1312.8	954.6	2508.9
15	576.0	549.7	234.7	553.3	1470.5	1665.4	855.1	767.6	2226.0	2098.6	1313.3	1161.6	613.3	918.1	1042.3	307.0	30.6	40.0	110.4	133.9	86.5	27.4	181.5	222.2	716.1	2226.0
16	101.0	141.5	95.6	3.6	9.8	40.0	43.8	35.9	115.8	25.6	22.0	52.6	364.0	584.9	618.9	495.7	646.2	457.7	965.1	1016.6	738.5	202.4	704.7	427.9	329.6	1016.6
17	196.1	194.7	129.6	103.1	178.4	56.4	96.5	380.8	414.6	500.4	259.4	289.3	257.3	355.7	373.3	369.7	795.7	527.9	277.8	453.1	304.2	405.1	800.3	541.2	344.2	800.3
18	424.0	242.6	420.8	395.0	54.4	9.6	13.2	7.9	11.7	12.5	6.0	21.1	62.2	812.2	67.3	82.4	54.0	988.8	991.8	1547.7	1953.2	2126.8	1372.5	813.9	520.5	2126.8
19	696.9	824.9	156.2	144.8	312.4	328.4	417.1	1089.7	2482.0	2447.2	2152.6	2004.6	943.1	1023.4	1085.9	2240.5	2151.2	1239.5	312.3	183.2	444.4	1096.7	2101.4	1624.8	1146.0	2482.0
20	970.6	902.3	77.0	202.9	606.9	129.2	70.6	82.1	762.4	1238.4	787.0	1692.0	961.9	786.6	839.9	887.6	126.6	158.7	197.8	630.5	263.3	158.6	201.3	444.0	549.1	1692.0
21	724.7	1859.9	2116.5	1985.9	806.3	371.5	352.4	294.1	826.8	1614.5	1643.0	514.3	878.0	1775.9	1580.5	1993.0	1601.8	766.5	272.4	485.4	733.6	312.4	321.1	656.6	1020.3	2116.5
22	227.6	723.5	304.3	152.7	143.5	134.0	77.1	306.1	348.1	469.1	818.9	1402.9	783.3	645.7	652.6	680.6	768.9	755.5	691.6	794.5	1017.1	438.4	175.4	345.6	535.7	1402.9
23	152.8	248.0	84.9	26.7	14.2	2.4	1.5	15.4	22.1	79.8	1024.3	1568.1	908.0	637.5	778.1	413.3	337.7	434.8	449.1	202.9	73.8	60.8	58.6	74.1	319.5	1568.1
24	28.0	12.8	11.9	6.0	6.5	0.9	0.6	1.0	1.1	2.0	4.8	5.1	72.7	72.6	13.6	9.2	12.1	10.2	12.9	9.8	4.2	14.1	2.1	1.5	13.1	72.7
25	1.3	0.9	0.7	0.7	2.2	2.2	1.3	0.6	0.6	3.1	29.2	13.1	7.2	12.8	19.7	35.6	12.3	514.1	105.3	18.1	11.6	10.2	13.2	9.5	34.4	514.1
26	4.8	3.4	1.1	1.0	2.6	1.4	0.7	0.7	0.4	0.9	19.9	14.4	76.5	54.9	528.9	521.9	261.2	14.1	33.7	5.3	3.1	3.2	6.2	6.0	65.3	528.9
27	3.2	11.4	1.1	1.3	1.6	1.3	1.3	2.5	8.0	8.1	7.1	195.0	254.7	114.9	307.3	336.6	329.5	47.6	22.1	19.7	9.6	18.6	11.0	12.1	71.9	336.6
28	5.4	5.7	2.9	3.9	2.0	5.6	12.4	2.3	12.9	382.6	1053.3	2741.7	2821.8	2269.2	2890.3	2422.1	1496.9	1378.2	1263.1	1039.5	1305.5	876.1	782.4	400.9	965.7	2890.3
29	416.3	375.5	365.3	357.0	321.8	287.8	590.1	1065.7	1937.7	1414.1	968.1	2029.4	2781.7	2137.6	2480.4	2205.3	1674.2	1735.4	895.8	86.1	45.8	139.2	20.1	529.3	1035.8	2781.7
30	3.4	69.2	73.6	105.4	97.6	73.7	23.1	95.8	566.5	8.2	1.8	4.7	6.0	10.7	6.1	20.8	28.1	42.6	172.3	195.3	609.0	15.6	14.1	6.8	93.8	609.0
31	2.7	1.3	0.8	2.4	1.7	0.9	4.8	1.9	2.7	6.7	155.9	136.8	146.9	340.4	818.3	894.0	231.6	254.2	1549.3	2782.0	1646.5	1714.6	2386.0	931.2	583.9	2782.0
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	256.3	337.2	248.2	258.5	278.9	246.6	207.4	296.2	521.4	579.9	636.9	834.0	811.9	849.9	833.6	759.9	581.4	464.5	480.1	621.2	638.2	561.8	584.6	396.5		
MAX	1152.4	1859.9	2116.5	1985.9	1470.5	2133.1	1991.5	2857.0	2482.0	2447.2	2597.7	3766.7	3737.5	4032.9	3611.0	2453.7	2151.2	1735.4	1955.2	2820.9	3186.5	2933.0	2852.8	1624.8		



Number of 24HR Exceedences	20	Proposed Guideline	
Number of Non-Zero Readings	744		
Maximum 1-HR Average	4032.9	UG/M3	
Maximum 24-HR Average	1637.3	UG/M3	
IZS Calibration Time		Operational Time	744 HRS
Monthly Calibration	0	Operational Uptime	100.0 %
Standard Deviation	715.5	Monthly Average	511.9 UG/M3

Entrance $PM_{2.5}$ (µg/m^3) – December 2018

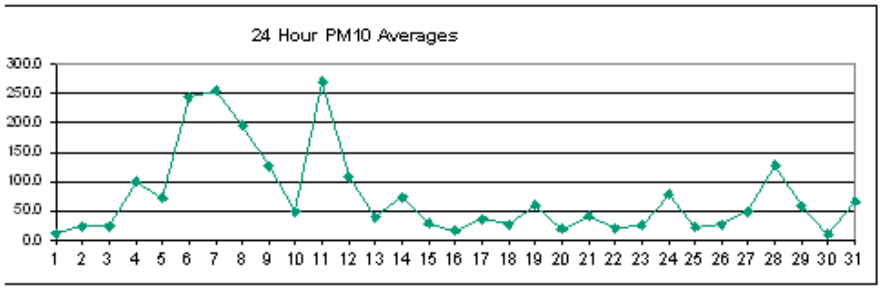
Day	HOUR 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN	MAX
1	9.7	13.9	9.8	7.1	11.0	10.7	4.5	10.7	5.6	3.8	3.5	12.1	6.8	5.3	3.3	5.5	3.7	3.5	3.3	4.2	5.5	3.2	6.0	14.4	7.0	14.4
2	14.7	16.6	13.4	13.7	12.0	9.2	12.2	17.4	18.5	12.1	17.2	18.5	18.8	12.3	9.5	18.5	12.7	3.7	4.8	9.9	6.7	4.1	4.4	6.4	12.0	18.8
3	2.5	2.6	2.9	3.1	2.1	1.5	2.4	3.7	15.7	17.4	21.1	13.0	7.0	3.9	8.2	7.4	9.5	11.3	5.5	4.1	4.4	3.6	4.2	6.0	6.8	21.1
4	7.6	13.3	12.4	18.5	21.9	23.9	20.0	10.7	7.1	10.1	19.4	17.2	7.7	5.8	8.1	8.3	8.0	7.1	5.0	7.9	17.8	6.5	3.1	15.0	11.8	23.9
5	13.4	9.5	9.1	10.9	5.3	4.1	6.0	6.9	10.7	11.3	8.0	8.4	24.1	34.2	28.8	34.8	12.4	19.2	20.6	20.7	16.3	23.1	15.0	16.4	15.4	34.8
6	19.0	18.6	15.9	14.7	13.8	9.4	11.9	12.6	21.2	20.4	22.6	27.1	36.4	32.6	41.8	55.0	59.4	41.3	48.9	44.0	41.6	40.8	28.0	23.3	29.2	59.4
7	15.4	16.9	21.8	30.6	39.5	38.7	34.4	30.7	23.5	28.1	40.0	47.9	38.9	54.3	47.2	33.9	42.8	17.6	23.7	26.4	27.0	28.2	22.6	16.3	31.1	54.3
8	17.6	14.7	15.8	15.3	13.5	15.0	19.4	22.9	18.6	17.6	27.6	44.3	45.6	32.0	34.9	28.6	38.7	33.2	25.4	32.9	31.7	25.5	36.0	31.3	26.6	45.6
9	19.4	16.0	4.4	7.0	8.3	10.4	11.9	18.3	40.8	52.2	27.6	26.4	16.2	21.7	11.8	10.7	4.4	3.5	8.4	17.7	23.2	27.8	13.0	6.1	17.0	52.2
10	3.5	3.5	9.0	1.9	3.7	5.8	5.9	9.5	13.1	10.2	16.3	16.7	9.7	9.9	6.7	12.0	6.6	3.0	3.7	3.0	1.7	2.6	7.5	4.3	7.1	16.7
11	2.6	4.1	8.8	23.2	18.6	20.7	43.6	79.0	63.3	31.6	104.3	101.2	74.5	57.0	40.3	26.8	15.4	7.7	4.6	1.8	1.1	1.1	0.9	1.2	30.6	104.3
12	1.1	2.0	3.9	5.0	3.3	4.8	0.6	4.2	13.5	19.2	12.8	12.6	20.6	24.9	31.0	26.1	27.4	8.1	12.4	14.8	17.8	12.8	22.2	10.0	13.0	31.0
13	5.5	4.1	2.6	3.6	4.5	4.1	5.6	1.5	4.4	14.0	7.6	11.2	7.3	16.3	12.3	10.2	6.7	4.8	3.1	4.2	2.5	1.8	1.7	2.0	5.9	16.3
14	2.9	1.5	1.8	16.8	5.6	1.3	1.5	6.9	14.1	11.6	7.7	8.6	33.7	41.1	22.9	23.6	11.6	6.7	9.0	11.2	17.5	4.4	6.3	5.8	11.4	41.1
15	2.4	1.9	2.4	2.8	7.2	12.3	6.1	5.0	8.7	6.5	6.5	6.2	4.4	7.5	5.9	8.0	5.2	3.1	1.5	1.9	2.2	1.9	1.7	1.4	4.7	12.3
16	1.0	1.8	4.3	6.4	4.9	3.6	3.1	3.6	4.5	4.5	4.3	7.0	7.1	6.6	5.1	1.8	1.7	1.2	2.4	1.8	1.1	2.1	0.7	1.4	3.4	7.1
17	1.1	0.7	1.0	2.3	1.4	2.1	2.4	5.4	16.9	10.2	4.9	6.7	9.0	8.1	4.8	10.4	8.1	10.3	5.6	4.2	2.5	2.0	6.2	3.2	5.4	16.9
18	6.9	3.1	4.8	2.7	4.6	5.2	4.6	4.5	8.3	13.4	13.2	6.0	8.7	8.8	7.9	4.9	6.3	5.5	3.0	1.9	8.0	7.9	4.9	1.9	6.1	13.4
19	1.1	1.3	1.0	0.9	0.9	0.9	4.4	14.5	9.5	17.7	36.7	16.0	12.8	15.8	6.1	8.4	11.1	9.0	9.6	8.7	6.8	4.0	1.6	1.3	8.3	36.7
20	0.7	1.0	1.8	2.1	1.3	1.1	1.3	5.0	5.8	7.2	6.6	8.7	10.8	6.6	7.0	9.6	0.8	1.5	4.0	2.4	3.0	1.4	1.1	0.8	3.8	10.8
21	1.4	1.0	2.9	3.2	1.6	0.7	1.5	3.9	3.7	19.2	15.0	7.9	15.3	6.5	9.3	8.8	6.9	6.6	4.0	1.4	1.4	1.5	1.5	1.6	5.3	19.2
22	0.7	1.1	1.1	1.0	0.8	1.1	1.3	3.2	4.5	6.4	5.7	9.5	4.2	3.6	3.5	3.8	5.7	4.5	6.4	3.0	4.2	2.5	1.3	1.7	3.4	9.5
23	1.3	2.0	1.8	4.4	6.0	5.5	4.9	6.7	9.9	12.1	6.1	5.2	7.1	2.4	1.9	1.3	1.4	1.0	0.9	1.1	0.9	1.0	3.3	9.2	4.1	12.1
24	7.0	8.9	8.6	8.3	7.3	7.4	5.6	5.6	6.0	5.3	6.7	14.4	12.7	11.2	15.6	21.2	12.7	16.3	9.6	10.9	29.4	24.7	27.6	11.2	12.3	29.4
25	8.4	12.6	11.5	9.3	10.1	9.2	9.2	7.8	9.2	11.0	10.7	7.6	9.8	3.1	2.0	4.2	5.7	4.2	8.8	6.0	5.2	8.4	25.4	4.7	8.5	25.4
26	6.0	6.2	4.9	4.6	2.4	4.7	5.3	6.9	8.1	12.4	15.3	13.6	5.4	1.0	0.8	0.9	3.4	8.4	9.8	8.4	9.4	8.3	12.8	14.2	7.2	15.3
27	13.5	16.1	9.7	7.8	4.6	5.8	5.4	6.2	12.7	7.4	10.1	10.2	13.0	11.9	9.0	7.2	7.6	10.9	16.1	17.0	12.7	10.8	11.6	17.7	10.6	17.7
28	14.2	20.2	12.6	12.3	8.7	18.1	15.9	20.9	21.3	25.6	22.7	19.8	14.7	11.7	19.4	16.5	13.8	10.3	6.8	9.4	8.2	7.9	5.7	4.5	14.2	25.6
29	4.0	3.7	2.6	2.7	2.5	2.2	3.7	9.2	8.4	5.1	6.7	8.1	27.2	24.6	28.6	13.5	6.5	7.7	3.9	1.2	1.7	1.2	2.1	6.9	7.7	28.6
30	3.8	2.4	2.6	1.2	1.2	0.7	0.9	4.1	27.4	5.0	1.7	1.3	0.9	1.0	1.2	1.4	1.5	2.4	4.1	3.7	14.5	5.6	5.8	5.3	4.2	27.4
31	3.3	2.8	2.7	4.4	11.2	5.3	8.5	11.5	11.8	15.8	19.7	19.6	20.2	17.7	15.1	8.0	5.1	4.6	6.5	5.8	10.2	9.6	7.4	7.8	9.8	20.2
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	6.8	7.2	6.7	8.0	7.7	7.9	8.5	11.6	14.4	14.3	17.1	17.2	17.1	16.1	14.5	13.9	11.7	9.0	9.1	9.4	10.8	9.2	9.4	8.2		
MAX	19.4	20.2	21.8	30.6	39.5	38.7	43.6	79.0	63.3	52.2	104.3	101.2	74.5	57.0	47.2	55.0	59.4	41.3	48.9	44.0	41.6	40.8	36.0	31.3		



Number of 24HR Exceedences	2 Proposed Guideline		
Number of Non-Zero Readings	744		
Maximum 1-HR Average	104.3 UG/M3		
Maximum 24-HR Average	31.1 UG/M3		
		Opperational Time	744 HRS
Monthly Calibration	0	Opperational Uptime	100.0 %
Standard Deviation	11.78	Monthly Average	11.1 UG/M3

Entrance PM_{10} ($\mu g/m^3$) – December 2018

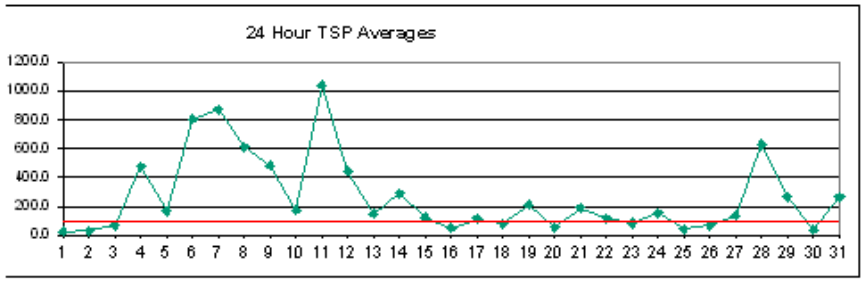
Day	HOUR 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN	MAX
1	14.4	20.7	14.6	10.3	16.4	15.9	6.5	15.9	8.0	5.2	4.8	36.2	31.0	17.9	7.4	7.8	5.1	4.7	4.4	5.7	7.7	3.8	7.5	19.8	12.2	36.2
2	21.4	24.4	19.2	19.5	17.8	13.4	18.1	26.1	27.8	18.0	25.8	27.7	28.2	49.5	44.1	106.6	53.0	4.1	5.3	12.7	7.4	4.5	5.4	8.5	24.5	106.6
3	2.9	2.9	3.6	3.7	2.4	1.6	2.6	4.7	23.3	26.1	46.6	69.9	32.7	11.8	21.2	26.7	36.2	55.2	32.0	20.1	35.6	18.4	30.5	57.8	23.7	69.9
4	73.7	140.3	134.7	191.3	248.8	246.4	220.3	91.9	51.5	74.1	152.6	129.3	51.7	40.0	54.8	55.6	49.9	38.2	29.4	52.4	124.9	41.7	8.8	102.3	100.2	248.8
5	96.1	54.1	52.1	62.7	20.4	10.3	24.5	30.8	26.3	48.8	29.6	32.9	121.7	136.0	171.5	132.0	32.7	28.8	31.0	70.6	125.5	184.1	100.8	121.2	72.7	184.1
6	150.5	162.3	121.4	115.2	102.7	68.0	88.7	93.4	160.1	157.4	175.1	250.2	323.4	270.0	357.3	511.5	523.5	371.2	396.7	385.6	342.6	321.3	240.1	158.2	243.6	523.5
7	99.2	122.4	159.7	247.8	359.3	361.5	312.4	259.6	187.7	221.7	349.4	424.2	325.3	444.2	417.2	273.6	330.8	118.0	176.5	192.4	207.9	235.2	175.8	109.2	254.6	444.2
8	125.4	97.8	98.4	91.1	76.8	86.1	116.6	153.0	117.7	124.2	192.2	361.3	389.7	253.3	270.2	213.1	305.7	271.3	190.9	234.8	236.2	176.1	290.8	223.8	195.7	389.7
9	128.8	88.5	13.5	31.1	40.3	55.5	64.7	98.2	281.8	408.2	213.2	211.8	113.9	203.2	98.0	81.3	27.6	14.1	64.6	169.3	211.8	250.6	114.9	42.5	126.1	408.2
10	22.0	23.9	71.2	7.4	17.1	33.4	32.0	51.9	83.4	65.0	122.7	134.4	65.1	84.9	53.2	96.9	56.7	17.4	15.5	17.6	7.9	15.6	59.0	29.7	49.3	134.4
11	14.3	33.6	74.0	198.1	146.6	191.5	370.1	631.6	529.3	260.8	874.6	974.2	751.2	568.8	389.5	243.9	125.9	53.4	27.1	8.7	3.7	4.3	1.3	2.2	269.9	974.2
12	1.9	7.1	22.1	28.0	19.9	94.9	1.5	48.6	140.1	178.8	105.0	113.1	199.6	216.6	270.0	177.9	144.1	62.5	100.5	124.6	154.1	117.2	184.8	85.0	108.2	270.0
13	49.2	27.2	14.7	22.3	34.7	27.5	34.9	7.5	29.0	83.1	55.8	78.5	57.8	119.2	89.6	65.7	46.2	27.6	15.7	18.9	11.1	5.9	7.2	9.4	39.1	119.2
14	14.2	4.3	6.9	140.0	44.5	4.3	5.6	43.2	112.8	75.8	38.3	48.8	266.1	305.7	171.8	84.8	47.7	29.1	34.0	74.4	134.1	18.9	34.8	38.2	74.1	305.7
15	5.9	3.7	6.8	17.5	64.8	103.6	52.3	37.4	68.7	54.9	46.0	33.2	20.1	43.3	36.0	46.4	27.9	9.7	5.2	3.4	5.5	3.9	3.1	3.3	29.3	103.6
16	1.4	3.5	27.8	39.1	28.8	13.3	16.9	12.8	23.4	18.3	23.0	28.8	30.9	43.2	30.5	5.0	4.3	3.6	11.0	6.0	2.8	5.8	1.1	4.2	16.1	43.2
17	2.7	1.2	3.0	12.7	8.2	11.3	15.3	38.9	114.4	75.6	33.9	49.5	65.6	61.7	34.5	69.5	40.2	56.7	45.5	32.4	18.1	14.7	48.3	24.2	36.6	114.4
18	51.8	20.0	35.5	18.6	28.0	28.7	17.4	6.6	12.3	20.0	19.8	15.1	44.4	42.3	42.4	17.3	14.4	21.5	7.1	7.6	68.5	64.8	38.3	8.9	27.1	68.5
19	3.4	4.9	3.4	4.1	3.7	5.3	35.4	123.4	65.1	140.5	323.5	123.7	105.3	126.6	43.2	48.8	52.4	38.9	59.1	47.3	36.7	21.9	11.6	7.2	59.8	323.5
20	2.0	2.7	6.1	6.6	5.5	1.7	1.9	24.0	33.9	41.2	30.3	51.1	66.3	32.0	32.8	66.3	3.7	7.1	22.3	10.6	6.3	3.2	2.9	1.3	19.2	66.3
21	5.3	5.1	19.2	33.9	11.7	3.3	12.0	17.6	27.0	265.5	97.9	58.8	148.5	47.4	69.4	64.3	38.4	36.2	18.3	5.8	3.7	3.9	6.5	5.8	41.9	265.5
22	1.3	6.6	6.4	4.0	3.0	5.2	5.2	21.1	26.0	37.3	38.7	67.5	21.4	18.5	21.0	24.8	38.2	33.9	47.1	21.2	33.2	17.0	6.3	9.5	21.4	67.5
23	5.0	13.5	7.4	29.4	40.4	30.3	26.7	40.4	73.2	105.2	38.4	29.4	43.3	13.0	9.0	3.6	4.4	2.4	1.9	3.2	2.2	2.2	22.2	73.0	25.8	105.2
24	49.5	60.8	55.7	51.8	43.8	42.1	29.2	32.5	36.2	32.5	41.7	96.5	74.6	74.3	98.7	157.8	87.9	111.6	50.0	57.0	187.1	160.5	178.2	58.0	77.8	187.1
25	12.5	18.9	17.3	14.0	15.1	13.7	13.9	11.6	33.3	55.1	51.3	39.5	48.9	14.7	7.5	22.2	30.2	31.3	31.3	8.9	7.6	12.3	37.6	5.9	23.1	55.1
26	7.6	8.7	6.8	6.5	2.8	6.9	7.9	10.3	12.2	18.5	22.9	88.7	41.9	3.6	2.2	3.1	25.5	57.6	91.8	51.3	63.0	63.0	17.4	14.7	26.5	91.8
27	14.2	17.2	11.7	11.7	6.8	8.7	8.1	9.2	18.4	11.1	44.4	67.7	95.8	81.9	52.1	36.2	35.6	50.0	107.6	113.5	79.6	70.0	75.0	140.6	48.6	140.6
28	21.3	79.0	18.9	73.0	26.8	202.1	185.1	245.5	244.0	319.0	246.2	191.0	143.5	115.2	181.6	158.3	159.5	80.9	64.6	83.5	76.9	69.7	49.6	34.6	127.9	319.0
29	33.3	34.3	18.2	19.2	13.3	12.1	29.0	76.8	50.1	27.4	36.3	59.7	247.0	221.1	245.8	107.1	51.9	36.0	15.1	3.7	8.7	5.7	8.9	22.0	57.6	247.0
30	22.5	15.1	16.7	8.0	7.2	3.2	6.4	28.2	40.9	7.3	3.8	4.2	3.6	4.3	3.0	3.6	3.8	6.7	17.4	12.4	22.7	7.3	7.8	7.5	11.0	40.9
31	4.3	3.5	3.5	6.3	16.8	7.7	12.6	17.3	17.6	23.8	159.5	174.9	192.0	177.5	147.2	80.6	42.5	40.7	62.4	59.6	99.3	87.7	73.7	67.3	65.8	192.0
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	34.1	35.7	34.5	49.2	47.6	55.1	57.2	74.5	86.3	96.8	117.5	131.3	133.9	123.9	112.0	96.5	78.9	55.5	57.5	61.8	75.2	64.9	59.7	48.3		
MAX	150.5	162.3	159.7	247.8	359.3	361.5	370.1	631.6	529.3	408.2	874.6	974.2	751.2	568.8	417.2	511.5	523.5	371.2	396.7	385.6	342.6	321.3	290.8	223.8		



Number of Non-Zero Readings	744		
Maximum 1-HR Average	974.2 UG/M3		
Maximum 24-HR Average	269.9 UG/M3		
		Opperational Time	744 HRS
Monthly Calibration	0	Opperational Uptime	100.0 %
Standard Deviation	105.7	Monthly Average	74.5 UG/M3

Entrance TSP (µg/m^3) – December 2018

Day	HOUR 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	MEAN	MAX
1	14.2	22.5	15.2	10.3	18.5	17.9	6.0	17.5	7.8	4.8	3.9	134.6	171.5	104.7	21.8	6.2	4.1	3.6	3.3	4.3	5.5	2.6	5.2	16.2	25.9	171.5
2	19.3	23.4	18.9	18.3	18.3	12.0	19.8	29.8	31.6	19.3	29.7	32.2	32.7	102.9	90.9	145.3	62.0	2.8	3.5	9.9	5.0	3.1	3.6	6.0	30.8	145.3
3	2.0	2.1	2.8	2.6	1.7	1.0	1.7	3.6	25.6	29.4	106.3	220.7	74.5	27.5	41.2	50.9	67.5	107.6	158.7	78.6	137.8	55.7	98.4	274.9	65.5	274.9
4	380.5	722.6	733.0	1117.3	1461.1	1522.0	1353.3	415.4	232.0	309.6	696.4	525.7	204.7	155.3	218.7	206.6	207.3	145.7	98.5	114.7	260.8	89.5	18.2	190.8	474.2	1522.0
5	250.2	65.7	68.0	113.5	31.0	16.4	68.4	87.1	46.2	89.9	57.6	63.3	209.8	193.5	241.1	172.6	48.7	33.4	34.9	164.5	497.4	641.0	352.6	476.2	167.6	641.0
6	541.7	647.4	470.8	410.9	362.9	267.2	399.6	349.9	591.2	513.5	504.4	823.1	955.0	775.2	1088.6	1503.6	1576.4	1206.1	1323.5	1326.9	1114.6	1048.0	931.6	535.1	802.8	1576.4
7	324.9	451.3	583.3	915.2	1452.4	1446.9	1212.5	910.9	623.1	735.1	1242.3	1266.1	1011.6	1437.7	1333.6	786.6	982.0	341.2	588.2	651.6	727.8	852.9	629.9	385.7	870.5	1452.4
8	431.9	316.1	309.1	256.2	217.1	271.5	344.2	477.5	392.3	437.4	638.6	1334.8	1288.7	796.5	819.8	566.8	795.1	723.0	608.1	701.4	809.7	540.5	920.1	662.9	610.8	1334.8
9	441.3	235.0	54.0	95.7	114.7	134.3	179.9	248.1	855.3	1346.4	702.5	675.8	354.0	762.0	404.7	342.9	108.4	57.9	281.4	798.8	1101.0	1378.8	661.6	255.3	482.9	1378.8
10	117.8	133.4	388.2	42.5	48.8	119.2	77.8	131.9	217.1	196.7	408.5	518.2	221.9	302.0	174.1	300.3	181.7	44.0	43.1	51.7	28.3	50.9	217.2	123.0	172.4	518.2
11	53.5	146.2	270.8	700.6	620.6	756.9	1383.1	2059.3	1445.4	1041.7	2801.3	3314.8	2963.5	2750.1	2116.4	1289.3	695.0	293.3	128.3	41.1	11.1	16.7	1.3	3.6	1037.7	3314.8
12	4.5	15.1	42.8	43.5	77.5	246.3	2.5	212.1	518.1	571.2	343.5	408.5	811.7	962.8	1170.4	764.3	473.4	242.4	421.1	552.7	799.1	611.6	918.7	452.0	444.4	1170.4
13	275.3	124.1	47.9	93.6	158.6	106.9	127.0	29.6	83.6	244.9	190.6	246.4	213.8	505.4	410.6	210.4	135.2	91.1	47.9	49.9	34.0	16.5	23.7	35.2	145.9	505.4
14	55.0	8.7	20.8	522.0	207.6	20.6	18.5	161.0	462.4	233.1	110.6	164.8	1091.4	1331.3	729.9	218.1	132.2	72.3	77.9	245.6	618.1	72.3	167.6	170.8	288.0	1331.3
15	18.6	12.3	53.4	123.2	364.4	514.6	287.6	227.7	321.2	248.6	189.1	90.8	54.9	102.4	105.1	119.8	71.9	30.2	27.9	8.2	9.4	6.9	17.2	14.6	125.8	514.6
16	2.5	6.2	62.4	72.0	57.3	30.3	80.2	32.6	97.6	32.7	51.1	66.8	90.5	166.1	136.0	12.7	14.3	9.9	51.7	13.2	7.2	8.6	1.3	6.3	46.2	166.1
17	4.1	3.8	6.5	37.0	22.3	33.9	56.7	132.8	334.5	223.2	75.9	109.3	131.0	191.9	97.2	188.5	93.0	178.1	184.5	132.7	89.6	73.0	222.1	108.9	113.8	334.5
18	175.4	79.2	120.2	82.4	61.6	57.5	33.6	6.2	11.0	22.8	22.4	27.8	98.3	112.4	126.8	42.4	32.1	68.3	14.3	20.5	238.8	284.8	164.4	33.3	80.7	284.8
19	10.8	11.8	20.2	25.8	26.9	29.2	119.8	515.0	216.4	518.7	1396.8	536.8	332.8	401.2	135.5	139.9	93.8	63.1	117.7	95.5	78.7	49.3	56.9	33.5	209.4	1396.8
20	4.9	11.6	10.4	12.9	25.7	4.2	2.9	62.6	95.2	137.3	72.4	183.9	238.2	119.8	82.6	200.8	14.2	11.5	28.8	23.7	11.5	4.4	2.6	1.9	56.8	238.2
21	15.0	24.6	131.8	237.3	79.2	15.2	69.9	59.4	126.6	1224.2	623.2	251.3	561.1	150.0	246.6	286.6	130.3	100.7	47.7	37.6	13.4	11.7	48.9	46.2	189.1	1224.2
22	4.6	75.0	46.9	40.5	27.0	46.8	32.3	139.9	112.3	187.2	175.0	298.6	84.7	73.8	99.2	118.7	194.4	207.8	229.9	118.4	232.0	101.9	39.5	63.3	114.6	298.6
23	31.0	97.7	31.7	106.2	132.9	74.8	63.2	111.1	183.8	359.5	172.6	126.6	123.0	51.9	37.7	7.8	10.1	6.0	6.4	18.6	5.3	9.6	57.7	153.4	82.4	359.5
24	134.3	146.4	147.5	130.4	100.9	105.9	63.7	80.7	115.2	73.2	108.8	226.8	162.9	184.2	163.2	273.2	142.0	182.1	75.5	86.7	281.7	253.3	295.1	135.2	152.9	295.1
25	14.3	21.8	19.8	15.6	17.2	15.6	15.6	13.2	45.1	90.6	113.8	90.6	80.3	34.3	15.4	55.1	61.7	122.6	147.0	9.5	6.8	12.4	37.5	4.8	44.2	147.0
26	5.8	6.5	5.7	6.3	1.9	7.4	8.7	11.7	13.9	21.5	26.5	369.8	193.1	7.4	5.3	9.0	91.9	143.3	293.7	119.6	151.6	142.1	15.8	9.7	69.5	369.8
27	9.3	11.1	8.6	13.1	7.5	9.5	9.0	10.2	20.3	12.4	114.6	208.2	282.9	243.5	128.2	58.8	58.1	93.1	347.9	281.3	211.7	257.7	262.2	602.4	135.9	602.4
28	24.4	274.1	21.9	294.0	103.8	1048.5	1059.5	1420.4	1247.4	1543.2	1123.6	876.5	652.8	544.6	790.0	692.6	929.5	391.0	303.5	454.1	462.8	364.9	264.0	172.6	627.5	1543.2
29	180.1	185.2	116.5	98.4	68.0	70.1	178.8	376.5	232.9	126.2	111.8	234.1	1116.2	956.3	1150.9	542.2	274.9	79.9	34.0	16.3	20.6	25.9	18.8	141.1	264.8	1150.9
30	57.7	34.6	29.7	23.3	25.4	6.5	21.9	103.1	47.2	6.6	10.1	18.1	12.1	13.9	6.7	12.0	12.0	32.1	176.8	102.6	32.3	6.6	6.9	7.3	33.6	176.8
31	3.3	2.6	2.8	5.5	19.2	7.7	14.4	19.6	20.4	27.6	667.3	700.4	668.8	648.4	529.3	340.2	186.4	146.1	318.1	307.8	524.1	451.6	415.2	375.1	266.7	700.4
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	744	100%
MEAN	116.4	126.4	124.6	182.8	191.4	226.4	235.9	272.8	283.0	342.9	415.8	456.3	467.4	458.4	410.2	311.7	254.2	168.7	200.8	214.1	275.1	240.1	221.8	177.3		
MAX	541.7	722.6	733.0	1117.3	1461.1	1522.0	1383.1	2059.3	1445.4	1543.2	2801.3	3314.8	2963.5	2750.1	2116.4	1503.6	1576.4	1206.1	1323.5	1326.9	1114.6	1378.8	931.6	662.9		



Number of 24HR Exceedences	21 Proposed Guideline		
Number of Non-Zero Readings	744		
Maximum 1-HR Average	3314.8 UG/M3		
Maximum 24-HR Average	1037.7 UG/M3		
		Opperational Time	744 HRS
Monthly Calibration	0	Opperational Uptime	100.0 %
Standard Deviation	399.7	Monthly Average	265.6 UG/M3