Lakeland Industry & Community Association

FEBRUARY 2021

Monthly Ambient Air Quality Monitoring Report

LICA-202102

Operation and Maintenance:

Bureau Veritas Canada

Data Validation and Report:

Lakeland Industry & Community Association

March 18, 2021

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March 18, 2021

Alberta Environment and Parks (AEP)
11th Floor, Oxbridge Place
9820 106 Street
Edmonton, AB, T5K 2J6

RE: LICA – February 2021 Monthly Ambient Air Quality Monitoring Report

Enclosed is the February 2021 Monthly Ambient Air Quality Monitoring Report for the continuous ambient air quality monitoring stations of the Lakeland Industry & Community Association (LICA) regional air quality monitoring network.

The representative of the Person Responsible for this monitoring program is

LICA Airshed
Michael Bisaga, Monitoring Programs Manager
5107 50 Street
Bonnyville, AB, T9N 2J7
Phone #: 780-226-7068
E-mail: monitoring@lica.ca

This report has been reviewed by Michael Bisaga of the LICA Airshed.

TABLE OF CONTECTS

LIST OF ACRONYMS

AAAQOs	Alberta Ambient Air Quality Objectives
AEP	Alberta Environment and Parks
AMD	Air Monitoring Directive
AT	Ambient Temperature
BP	Barometric Pressure
CH4	Methane
EPEA	Environmental Protection and Enhancement Act
H2S	Hydrogen Sulphide
kph	kilometers per hour
LICA	Lakeland Industry & Community Association
mb	millibar
mm	millimeter
NMHC	Non-Methane Hydrocarbons
NO	Nitric Oxide
NO2	Nitrogen Dioxide
NOx	Oxide of Nitrogen
PAC	Polycyclic Aromatic Compounds
ppb	parts per billion
ppm	parts per million
RH	Relative Humidity
SO2	Sulphur Dioxide
ST	Station Temperature
STDWD	Standard Deviation Wind Direction
THC	Total Hydrocarbons
TRS	Total Reduced Sulphur
VWD	Vector Wind Direction
VWS	Vector Wind Speed
WD	Wind Direction
WS	Wind Speed
°C	Degrees Celsius

Listing of Continuous Monitoring Stations and Integrated Sampling Stations

Station Name		Cold Lake South	Maskwa	St. Lina
Station ID		1174	1248	1250
Coordinates		54.41402,	54.604935,	54.215961,
		-110.23316	-110.452637	-111.503304
Continuous Monitoring Parameter	SO2	√	√	√
	TRS	√		
	H2S		√	√
	THC	√	√	√
	CH4	√	√	√
	NMHC	√	√	√
	NOX	√	√	√
	NO	√	√	√
	NO2	√	√	√
	O3	√		√
	PM2.5	√		√
	TPX	√	√	√
	RH	√	√	√
	BP		√	√
	PRECIPTATION		√	√
	WS	√	√	√
	WD	√	√	√
	STDWD	√	√	√
Integrated Sampling	VOCs	√		
	PAHs	√		
	Partisol	√		
	Passive	√		
	NMHC Canister			
	PAC			√

List of Contractors performing air monitoring activities

Sampling Program	Monitoring Activities Conducted By	Sample Analysis Conducted By	Data/Report Prepared By	Electronic Submission Conducted By
Continuous Monitoring Station	Bureau Veritas Canada	Bureau Veritas Canada	LICA / Bureau Veritas Canada	LICA
Intermittent (VOCs/PAHs)	Bureau Veritas Canada	InnoTech Alberta Inc	InnoTech Alberta Inc	LICA
Partisol	Bureau Veritas Canada	InnoTech Alberta Inc	InnoTech Alberta Inc	LICA
Passive	Bureau Veritas Canada	Bureau Veritas Canada	Bureau Veritas Canada	LICA
PAC	Bureau Veritas Canada	ECCC	AEP	Not Applicable

Monitoring Notes during the Month of February 2021

Cold Lake South

- Measured parameters were below Alberta Ambient Air Quality Objectives (AAAQOs) where applicable.
- All data collected this month were compliant with the requirements outlined in the AMD 2016.
- All parameters met the 90% operational uptime requirement.
- The power to the station was shut-off on February 18 between hour 10 and hour 14 as maintenance work on the nearby infrastructure was being performed by for ACTO. Five hours of downtime for all parameters were recorded due to this event. A repeat zero-span check was completed on all gas analyzers after the power was restored. One hour of downtime was recorded due to the additional quality check.
- **TRS:** The sample pump failed on February 5. The pump was replaced, and a post-repair calibration was completed on February 5. Data were invalidated back to the last valid calibration, which was February 4 hour 14. Twenty-three hours of downtime were recorded.
- **O3:**
    - The analyzer exhibited slow response when completing the adjust-high-point check of the monthly calibration on February 4. Calibration validity was confirmed by a successful as-found points check on February 5 using an alternate calibration system. Two hours of downtime were recorded due to additional quality check.
    - The zero-span pump stalled after the power outage on February 18. This caused the analyzer to fail both the repeat zero-span check on February 18 and the scheduled zero-span check on February 19. The pump was restarted, and a successful repeat zero-span check was completed on February 19. As the issue was caused by the zero-span pump,

data quality was not affected. No data were discarded. However, two hours of downtime were recorded due to maintenance performed on the sample pump.

Maskwa

- Measured parameters were below Alberta Ambient Air Quality Objectives (AAAQOs) where applicable.
- All data collected this month were compliant with the requirements outlined in the AMD 2016.
- All parameters met the 90% operational uptime requirement, except THC/CH4/NMHC (73.7%). AEP reference #: 376108.
- **THC/CH4/NMHC:**
    - The analyzer failed on January 31. Maintenance was performed on February 1, and a successful post-repair calibration was completed on February 2. Thirty-four hours of downtime were recorded due to this event.
    - Frequent poor sample injections were recorded on February 4. The Thermo 55i, s/n: 1180930026, HC analyzer was removed from the site, and the Thermo 55i, s/n: 1433563261, HC analyzer was installed on February 5. The analyzer was left offline overnight for column conditioning. A successful installation calibration was completed on February 6. Data were invalidated back to the last valid calibration check, which was February 4 hour 20. Forty-one hours of downtime were recorded due to this event.
    - Bad injections were recorded on February 11. Remote troubleshooting was performed on February 11 between hour 7 and hour 9. A successful repeat multi-point calibration was completed on February 12. Seven hours of downtime were recorded due to maintenance and additional quality check performed on the analyzer.
    - The Thermo 55i, s/n: 1433563261, HC analyzer malfunctioned on February 14 hour 14. Troubleshooting attempted on February 16, but the issue could not be resolved in the field. The Thermo 55i, s/n: 1433563261, HC analyzer was removed, and The Thermo 55i, s/n: 1314057759, HC analyzer was installed on February 17. A successful installation calibration was completed on February 18. Ninety-three hours of downtime were recorded due to this event.
    - Hourly data that were collected on February 10 hour 22 and February 13 hour 13 were invalidated because the requirement to have valid data for 75% of each hour was not met.
- **H2S:**
    - The analyzer failed the daily span check on February 5. A repeat zero-span check was completed to investigate the issue on February 6. A successful as-found points check was completed on the same day. Five hours of downtime were recorded due to additional quality checks.
    - Another as-found points check was completed on February 12 to investigate negative span drift. The check results met calibration requirements. Three hours of downtime were recorded due to this event.
    - The daily span checks trended low during this month. Extremely dry air causes an adverse effect on equipment performance resulting in a slow and low response from the analyzer. This is a widespread and acknowledged problem when temperatures drop below -30 degree Celsius. Despite the failed daily (internal) span checks, (external) as-found checks were completed on the analyzer during these periods, which showed the analyzer to be performing within the AMD acceptance criteria. Other than waiting for the extreme cold weather event to pass, there are no short-term corrective actions for

this problem. Identifying and implementing a long-term solution may involve a collective effort of our airshed partners and contractors.

- Precipitation: A new heater for the rain gauge was installed on February 2.

St. Lina Station

- Measured parameters were below Alberta Ambient Air Quality Objectives (AAAQOs) where applicable.
- All data collected this month were compliant with the requirements outlined in the AMD 2016.
- All parameters met the 90% operational uptime requirement.
- **All parameters:** A power outage occurred on February 8 hour 13. One hour of downtime was recorded. Furthermore, hourly data for THC/CH4/NMHC collected on February 8 hour 14 was invalidated as the analyzer was recovering from the power outage.
- **O3:** The zero-span pump was rebuilt on February 25 to address span drift. Two hours of downtime were recorded due to this event.
- **H2S:** The analyzer spanned low between February 7 and February 14 due to extreme cold temperatures. Extremely dry air causes an adverse effect on equipment performance resulting in a slow and low response from the analyzer. This is a widespread and acknowledged problem when temperatures drop below -30 degree Celsius. Other than waiting for the extreme cold weather event to pass, there are no short-term corrective actions for this problem. Identifying and implementing a long-term solution may involve a collective effort of our airshed partners and contractors.
- **Nox/NO/NO2:** Non-typical data were recorded on February 10 between hour 10 and 15. As the analyzer passed the daily zero-span checks on February 9 and 10, the analyzer's functionality was confirmed. Data were considered valid. An investigation into potential sources that caused the spike is undergoing. The result will be included in the March monthly report.

Integrated Sampling

All the integrated sampling analytical results are included in the February 2021 Integrated Sampling Report.

- **VOCs Sampling System:**
  - The VOC sampler is programed to collect a 24-hour sample of air every sixth day as per the North American Pollution Surveillance schedule (NAPS).
  - The Xontech sampler at the Cold Lake South station was audited on February 16. The sampler passed the audit requirements.
  - Five samples were collected this month: on February 3, 9, 15, 21 and 27.
- **PAHs Sampling System:**
  - The PAH sampler is programed to collect a 24-hour sample of air every sixth day as per the North American Pollution Surveillance schedule (NAPS).
  - The Tisch PUF Plus sampler at the Cold Lake South station was audited on February 16. The sampler passed the audit requirements.
  - Five samples were collected this month: on February 3, 9, 15, 21 and 27.
- **Partisol Sampling System:**
  - The Partisol sampler is programed to collect a 24-hour sample of air every sixth day as per the North American Pollution Surveillance schedule (NAPS).
  - The Partisol sampler at the Cold Lake South station was audited on February 16. The sampler passed the audit requirements.

- Five samples were collected this month: on February 3, 9, 15, 21 and 27.

- **Passive Sampling System:**
  - The passive sample filters were installed at the stations between January 29 and January 31, and were removed between March 1 and March 3.
  - A total of 9 duplicate samples were collected: 2 for H2S, 3 for SO2, 2 for NO2 and 2 for O3.
  - No samples were collected at passive station #40. This station was co-located with the PAMS and was decommissioned when the PAMS was removed from the Bonnyville-East location in early January. Passive H2S monitoring may return to this location in 2021 to provide ongoing measurements in the vicinity of known sources including the nearby sewage lagoons and Jessie Lake.
- **PAC Sampling System**:
  - The PAC sampling program began in February 2019, and is designed to collect a 2-month integrated sample.
  - The PAC sampling program is temporary paused as the EC laboratory is currently closed.

Revisions to Alberta's Ambient Air Quality Data Warehouse

No revisions to historical data previously submitted to the Alberta's Ambient Air Quality Data Warehouse were made this month.

Deviations from Authorized Monitoring Methods

At the Maskwa station, nearby trees exceed the height allowed under section 2.3 of the wind speed and wind direction siting criteria in Chapter 3 of the AMD. This non-conformance was documented in the updated station site documents. Further actions are being considered including siting the wind sensor so that it meets AMD Chapter 3 siting requirements, or obtaining written authorization from "The Director" to deviate from AMD Siting requirements.

At the Cold Lake South station, the height of the existing wind sensor tower is shorter than the AMD requirements listed in section 2.3 of the wind speed and wind direction siting criteria in Chapter 3 of the AMD. This non-conformance was documented in the updated station site documents. Further actions are being considered including siting the wind sensor so that it meets AMD Chapter 3 siting requirements, or obtaining written authorization from "The Director" to deviate from AMD Siting requirements.

Disclaimer

Baseline correction were performed on the 1-minute data. 5-minute and hourly data were calculated based on the post-baseline correction 1-minute data set. Data verification/validation were then performed on the 5-minute and hourly data. Hourly data that are included in this report are the post-validation hourly data set.

Equipment calibration / maintenance records were provided by Bureau Veritas Canada.

Certification

This report was prepared and submitted by Lily Lin in accordance with Chapter 9 of the Air Monitoring Directive (AMD 2016).

Lily Lin, Data & Reporting Specialist, LICA Airshed

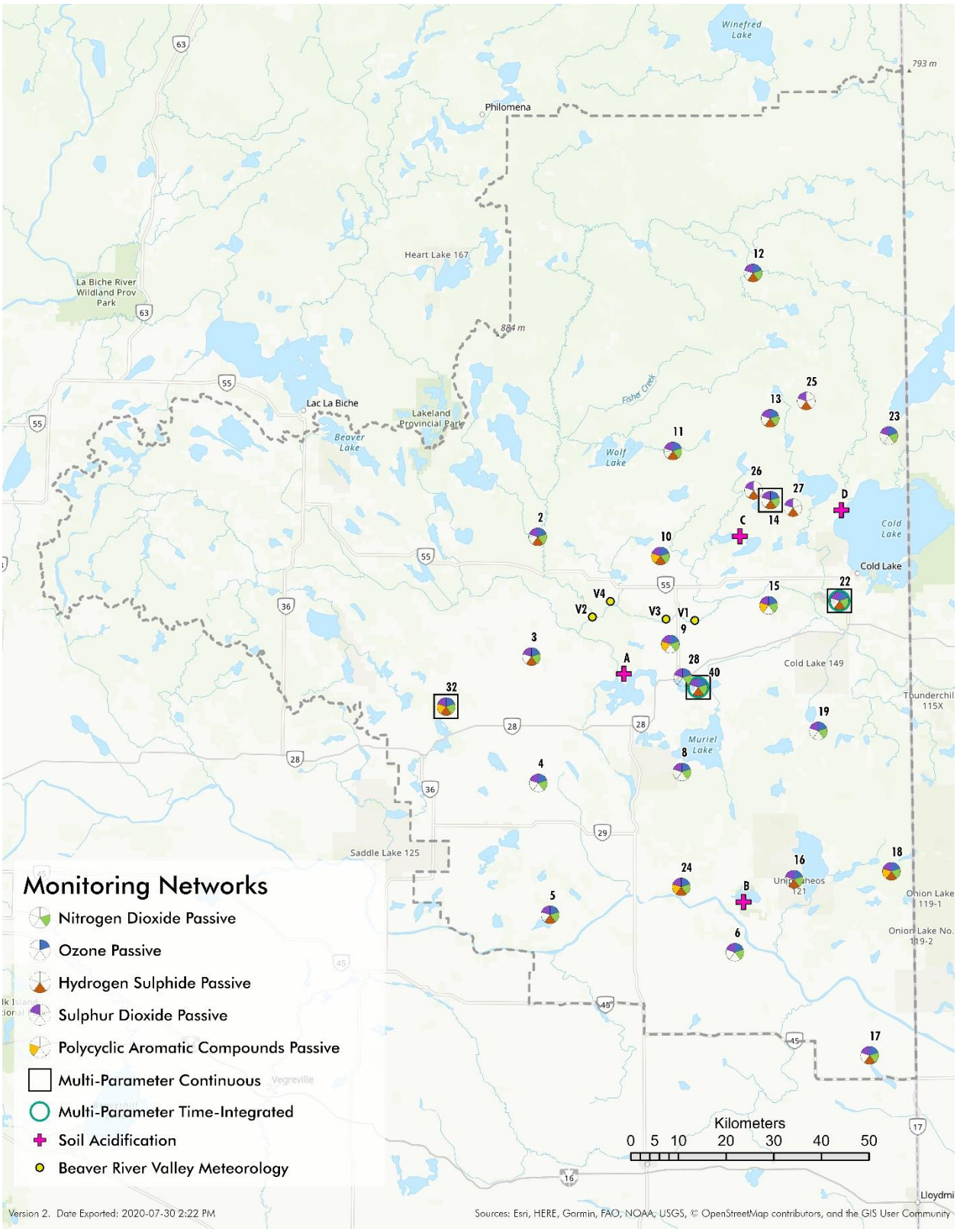
This report was reviewed by Mike Bisaga in accordance with Chapter 9 of the Air Monitoring Directive (AMD 2016).

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. I also certify that at the time of this report's submission, all air data have been electronically uploaded to Alberta's Ambient Air Quality Data Warehouse as required by the AMD, with the exception of electronic submission for the results of intermittent samples, Partisol samples and passive samples. Electronic submission for the intermittent sample, Partisol sample and passive sample results will be performed during the preparation of the February 2021 integrated sampling report. Uploading of VOC data from the canister sampling program was not required at the time of completing this report.

Michael Bisaga, Monitoring Programs Manager, LICA Airshed

March 18, 2021

Map of LICA Continuous Monitoring Network



CONTINUOUS NETWORK EQUIPMENT AND MONITORING RESULTS SUMMARY

Cold Lake South Station

Equipment Operation Summary

Parameter	Make / Model	Serial Number	Calibration Date
Sulphur Dioxide (SO2)	**Thermo / 43i-TLE**	**1180260018**	**February 4, 2021**
• No issues were identified this month.			
Total Reduced Sulphur (TRS)	**Thermo / 450i**	**812728560**	**February 5, 2021**
• A successfully monthly calibration was completed on February 4. • The sample pump failed on February 5. The pump was replaced, and a post-repair calibration was completed on February 5. Data were invalidated back to the last valid calibration, which was February 4 hour 14. Twenty-three hours of downtime were recorded.			
Oxide of Nitrogen / Nitric Oxide/ Nitrogen Dioxide (NOx/NO/NO2)	**Thermo / 42i**	**1505664393**	**February 4, 2021**
• A repeat zero-span check was run on February 19 hour 8 to investigate negative span drift. The check results passed the check requirements. No further actions were needed. One hour of downtime was recorded as a result.			
Ozone (O3)	**Thermo / 49i**	**700419951**	**February 4, 2021**
• The analyzer exhibited slow response when completing the adjust-high-point check of the monthly calibration on February 4. Calibration validity was confirmed by a successful as-found points check on February 5 using an alternate calibration system. Two hours of downtime were recorded due to additional quality check. • The zero-span pump stalled after the power outage on February 18. This caused the analyzer to fail both the repeat zero-span check on February 18 and the scheduled zero-span check on February 19. The pump was restarted, and a successful repeat zero-span check was completed on February 19. As the issue was caused by the zero-span pump, data quality was not affected. No data were discarded. However, two hours of downtime were recorded due to maintenance performed on the sample pump.			

Parameter	Make / Model	Serial Number	Calibration Date
Total Hydrocarbons / Methane/ Non-methane Hydrocarbons (THC/CH4/NMHC)	**Thermo / 55i**	**1180030034**	**February 4, 2021**
• No issues were identified this month.			
Particulate Matter 2.5 (PM2.5)	**Teledyne T640**	**575**	**February 19, 2021**
• No issues were identified this month.			

Parameter	Make / Model	Serial Number	System Check Date
Relative Humidity (RH)	**Rotronic HC2A-S3**	**20404750**	**February 4, 2021**
• No issues were identified this month.			
Barometric Pressure (BP)	**Met One / Part 092**	**Y23368**	**February 4, 2021**
• No issues were identified this month.			
Ambient Temperature (AT)	**Rotronic HC2A-S3**	**20404750**	**February 4, 2021**
• No issues were identified this month.			
Station Temperature (ST)	**BV-supplied**	**n/a**	**n/a**
• No issues were identified this month.			
Wind Speed (WS) / Wind Direction (WD)/ Stand Deviation Wind Direction (STDWD)	**RM Young 05305AQ**	**177354**	**February 8, 2021**
• Wind direction data contained in this report represents where the wind is coming from. • The last wind system calibration was completed on September 25, 2020. • No issues were identified this month.			

Monitored Data Summary for Cold Lake South Station

Parameter	Objectives/Guidelines			Exceedances			Monthly Avg.	Min. 1-hr	Max. 1-hr	Date/Time	VWS (km/hr)	VWD (sector)	Max. 24-hr	Date	Operational Uptime (%)	Valid Data (%)
	1-hr	24-hr	30-day	1-hr	24-hr	30-day										
SO2 (ppb)	172	48	11	0	0	0	0.4	0	6	February 3 at hour 10	9.9	NW	2.0	February 3	99.1	94.0
TRS (ppb)	-	-	-	-	-	-	0.1	0	1	February 1 at hour 21	0.4	SE	0.3	February 19	95.7	90.6
NOx (ppb)	-	-	-	-	-	-	6.6	0	106	February 18 at hour 9	0.4	ENE	16.2	February 6	99.1	93.7
NO (ppb)	-	-	-	-	-	-	1.2	0	66	February 18 at hour 9	0.4	ENE	4.0	February 6	99.1	93.7
NO2 (ppb)	159	-	-	0	-	-	5.4	0	40	February 18 at hour 9	0.4	ENE	12.2	February 6	99.1	93.7
O3 (ppb)	76	-	-	0	-	-	30.0	0.7	48.3	February 22 at hour 13	11.6	WSW	43.6	February 21	98.5	93.0
THC (ppm)	-	-	-	-	-	-	2.02	1.85	2.64	February 7 at hour 9	0.3	WNW	2.23	February 6	99.1	93.7
CH4 (ppm)	-	-	-	-	-	-	2.01	1.85	2.61	February 7 at hour 9	0.3	WNW	2.22	February 6	99.1	93.7
NMHC (ppm)	-	-	-	-	-	-	0.01	0.00	0.15	February 18 at hour 9	0.4	ENE	0.04	February 1	99.1	93.7
PM2.5 (µg/m3)	80	29	-	0	0	-	4.8	0	18	February 1 at hour 21	0.4	SE	14.7	February 1	99.3	99.1
RH (%)	-	-	-	-	-	-	67.3	27	98	February 23 at hour 6	4.9	SW	90.2	February 23	99.3	99.3
BP (millibar)	-	-	-	-	-	-	952	924	974	February 11 at hour 2	2.3	W	970	February 11	99.3	99.3
Ext. Temp. (°C)	-	-	-	-	-	-	-18.0	-39.6	5.8	February 21 at hour 14	12.8	SW	2.3	February 21	99.3	99.3
Stn. Temp. (°C)	-	-	-	-	-	-	23.5	20.2	24.6	February 4 at hour 16	6.3	W	24.0	February 15	99.3	99.3
WSV (km/hr)	-	-	-	-	-	-	2.2	0.0	15.4	February 21 at hour 13	15.4	SW	10.1	February 9	99.3	99.3
WDV (sector)	-	-	-	-	-	-	277 (W)	-	-	-	-	-	-	-	99.3	99.3

1- Date/ Time given is the first minimum and maximum value that was recorded

Alberta Ambient Air Quality Objectives (AAAQOs) Exceedances

The measured ambient air quality was within the AAAQOs for all monitored parameters.

Maskwa Station

Equipment Operation Summary

Parameter	Make / Model	Serial Number	Calibration Date
Sulphur Dioxide (SO2)	**Thermo / 43i-TLE**	**1180930031**	**February 2, 2021**
• No issues were identified this month.			
Hydrogen Sulphide (H2S)	**Thermo / 450i**	**CM17360005**	**February 2, 2021**
• The analyzer failed the daily span check on February 5. A repeat zero-span check was completed to investigate the issue on February 6. A successful as-found points check was completed on the same day. Five hours of downtime were recorded due to additional quality checks. • Another as-found points check was completed on February 12 to investigate negative span drift. The check results met calibration requirements. Three hours of downtime were recorded due to this event. • The daily span checks trended low during this month. Extremely dry air causes an adverse effect on equipment performance resulting in a slow and low response from the analyzer. This is a widespread and acknowledged problem when temperatures drop below -30 degree Celsius. Despite the failed daily (internal) span checks, (external) as-found checks were completed on the analyzer during these periods, which showed the analyzer to be performing within the AMD acceptance criteria.			
Oxide of Nitrogen / Nitric Oxide/ Nitrogen Dioxide (NOx/NO/NO2)	**Thermo / 42i**	**1180930028**	**February 2, 2021**
• No issues were identified this month.			
Ozone (O3)	**Thermo / 49iQ**	**1202068570**	**February 2, 2021**
• No issues were identified this month.			
Particulate Matter 2.5 (PM2.5)	**Thermo / Sharp 5030**	**CM 2209**	**February 17, 2021**
• No issues were identified this month.			

Parameter	Make / Model	Serial Number	Calibration Date
Total Hydrocarbons / Methane/ Non-methane Hydrocarbons (THC/CH4/NMHC)	**Thermo / 55i**	**180930026/1433563261/ 1314057759**	**February 18, 2021**

- The Thermo 55i, s/n: 1433563261, HC analyzer failed on January 31. Maintenance was performed on February 1, and a successful post-repair calibration was completed on February 2. Thirty-four hours of downtime were recorded due to this event.
- Frequent poor sample injections were recorded on February 4. The Thermo 55i, s/n: 1180930026, HC analyzer was removed from the site, and the Thermo 55i, s/n: 1433563261, HC analyzer was installed on February 5. The analyzer was left offline overnight for column conditioning. A successful installation calibration was completed on February 6. Data were invalidated back to the last valid calibration check, which was February 4 hour 20. Forty-one hours of downtime were recorded due to this event.
- Bad injections were recorded on February 11. Remote troubleshooting was performed on February 11 between hour 7 and hour 9. A successful repeat multi-point calibration was completed on February 12. Seven hours of downtime were recorded due to maintenance and additional quality check performed on the analyzer.
- The Thermo 55i, s/n: 1433563261, HC analyzer malfunctioned on February 14 hour 14. Troubleshooting attempted on February 16, but the issue could not be resolved in the field. The Thermo 55i, s/n: 1433563261, HC analyzer was removed, and The Thermo 55i, s/n: 1314057759, HC analyzer was installed on February 17. A successful installation calibration was completed on February 18. Ninety-three hours of downtime were recorded due to this event.
- Hourly data that were collected on February 10 hour 22 and February 13 hour 13 were invalidated because the requirement to have valid data for 75% of each hour was not met.

Parameter	Make / Model	Serial Number	System Check Date
Relative Humidity (RH)	**Campbell Scientific 070 / HC2A-S3**	**20257103**	**February 2, 2021**

- No issues were identified this month.

Parameter	Make / Model	Serial Number	System Check Date
Ambient Temperature (AT)	**Campbell Scientific 070 / HC2A-S3**	**20257103**	**February 2, 2021**

- No issues were identified this month.

Parameter	Make / Model	Serial Number	System Check Date
Barometric Pressure (BP)	**Met One / Part 090D**	**F4997**	**February 2, 2021**

- No issues were identified this month.

Parameter	Make / Model	Serial Number	System Check Date
Station Temperature (ST)	**BV-supplied**	**n/a**	**n/a**
• No issues were identified this month.			
Precipitation (PRECIP)	**Met One / Part 387**	**F4481**	**February 2, 2021**
• No issues were identified this month. • A new heater was installed on February 2.			
Wind Speed (WS) / Wind Direction (WD)/ Stand Deviation Wind Direction (STDWD)	**RM Young / 05305VK**	**161465**	**February 2, 2021**
• Wind direction data contained in this report represents where the wind is coming from. • The last wind system calibration was completed on September 10, 2020. • No issues were identified this month.			

Monitored Data Summary for Maskwa Site

Parameter	Objectives/Guidelines			Exceedances			Monthly Avg.	Min. 1-hr	Max. 1-hr	Date/Time	VWS (km/hr)	VWD (sector)	Max. 24-hr	Date	Operational Uptime (%)	Valid Data (%)
	1-hr	24-hr	30-day	1-hr	24-hr	30-day										
SO2 (ppb)	172	48	11	0	0	0	2.3	0	28	February 8 at hour 9	5.9	NW	12.3	February 8	100.0	94.9
H2S (ppb)	10	3	-	0	0	-	0.0	0	2	February 7 at hour 9	0.8	NW	0.2	February 7	98.8	93.9
NOx (ppb)	-	-	-	-	-	-	5.6	0	41	February 18 at hour 8	0.3	W	11.3	February 9	100.0	94.6
NO (ppb)	-	-	-	-	-	-	1.0	0	19	February 18 at hour 8	0.3	W	3.1	February 9	100.0	94.6
NO2 (ppb)	159	-	-	0	-	-	4.6	0	22	February 18 at hour 7	0.4	SSW	8.5	February 8	100.0	94.6
O3 (ppb)	76	-	-	0	-	-	28.8	4.9	43.9	February 24 at hour 16	8.4	SW	37.5	February 21	100.0	94.9
THC (ppm)	-	-	-	-	-	-	1.94	1.82	2.45	February 7 at hour 9	0.8	NW	2.11	February 19	73.7	69.9
CH4 (ppm)	-	-	-	-	-	-	1.94	1.82	2.38	February 7 at hour 9	0.8	NW	2.11	February 19	73.7	69.9
NMHC (ppm)	-	-	-	-	-	-	0.00	0.00	0.13	February 7 at hour 11	3	WNW	0.01	February 7	73.7	69.9
PM2.5 (µg/m3)	80	29	-	0	0	-	3.1	0	22	February 18 at hour 7	0.4	SSW	10.8	February 1	100.0	99.9
RH (%)	-	-	-	-	-	-	75.2	39	100	February 2 at hour 0	8	NNE	98.1	February 23	100.0	100.0
BP (millibar)	-	-	-	-	-	-	936	909	959	February 11 at hour 2	1.3	NW	954	February 11	100.0	100.0
Ext. Temp. (°C)	-	-	-	-	-	-	-17.7	-39.6	6.6	February 21 at hour 21	11.6	W	2.0	February 21	100.0	100.0
Stn. Temp. (°C)	-	-	-	-	-	-	22.6	20.3	24.7	February 21 at hour 21	11.6	W	24.1	February 22	100.0	100.0
Precipitation (mm)*	-	-	-	-	-	-	6.8	0.0	1.5	February 2 at hour 13	12	NNE	2.9	February 2	99.9	99.9
WSV (km/hr)	-	-	-	-	-	-	1.4	0.0	12.6	February 26 at hour 9	12.6	NNE	7.9	February 26	100.0	100.0
WDV (sector)	-	-	-	-	-	-	302 (WNW)	-	-	-	-	-	-	-	100.0	100.0

1- Date/ Time given is the first minimum and maximum value that was recorded

* Data represents the total (sum) for the indicated time frame

Alberta Ambient Air Quality Objectives (AAAQOs) Exceedances

The measured ambient air quality was within the AAAQOs for all monitored parameters.

St. Lina Station

Equipment Operation Summary

Parameter	Make / Model	Serial Number	Calibration Date
Sulphur Dioxide (SO2)	**Thermo / 43i-TLE**	**1180930030**	**February 3, 2021**
• No issues were identified this month.			
Hydrogen Sulphide (H2S)	**Thermo / 450i**	**CM18010058**	**February 3, 2021**
• The analyzer spanned low between February 7 and February 14 due to extreme cold temperatures. Extremely dry air causes an adverse effect on equipment performance resulting in a slow and low response from the analyzer. This is a widespread and acknowledged problem when temperatures drop below -30 degree Celsius. Other than waiting for the extreme cold weather event to pass, there are no short-term corrective actions for this problem. Identifying and implementing a long-term solution may involve a collective effort of our airshed partners and contractors.			
Oxide of Nitrogen / Nitric Oxide/ Nitrogen Dioxide (NOx/NO/NO2)	**Thermo / 42i**	**1180930029**	**February 3, 2021**
• No issues were identified this month. • Non-typical data were recorded on February 10 between hour 10 and 15. As the analyzer passed the daily zero-span checks on February 9 and 10, the analyzer's functionality was confirmed. Data were considered valid. An investigation into potential sources that caused the spike is undergoing. The result will be included in the March monthly report.			
Ozone (O3)	**Thermo / 49i**	**1002240371**	**February 3, 2021**
• The zero-span pump was rebuilt on February 25 to address span drift. Two hours of downtime were recorded due to this event.			
Total Hydrocarbons / Methane/ Non-methane Hydrocarbons (THC/CH4/NMHC)	**Thermo / 55i**	**1180930025**	**February 3, 2021**
• No issues were identified this month.			
Particulate Matter 2.5 (PM2.5)	**Thermo / Sharp 5030i**	**CM17091001**	**February 17, 2021**
• No issues were identified this month.			

Parameter	Make / Model	Serial Number	System Check Date
Relative Humidity (RH)	**Vaisala Oyj. Finland / HMP155**	**R2640785**	**December 23, 2020**
• No issues were identified this month.			
Ambient Temperature (AT)	**Vaisala Oyj. Finland / HMP155**	**R2640785**	**December 23, 2020**
• No issues were identified this month.			
Barometric Pressure (BP)	**Met One / Part 090D**	**F4998**	**December 23, 2020**
• No issues were identified this month.			
Station Temperature (ST)	**BV-supplied**	**n/a**	**n/a**
• No issues were identified this month.			
Precipitation (PRECIP)	**Met One / Part 387D**	**A23775**	**January 28, 2021**
• No issues were identified this month.			
Wind Speed (WS) / Wind Direction (WD)/ Stand Deviation Wind Direction (STDWD)	**RM Young / 05305VK**	**161466**	**December 23, 2020**
• Wind direction data contained in this report represents where the wind is coming from. • The last wind system calibration was completed on February 26, 2020. • No issues were identified this month.			

Monitored Data Summary for St. Lina Site

Parameter	Objectives/Guidelines			Exceedances			Monthly Avg.	Min. 1-hr	Max. 1-hr	Date/Time	VWS (km/hr)	VWD (sector)	Max. 24-hr	Date	Operational Uptime (%)	Valid Data (%)
	1-hr	24-hr	30-day	1-hr	24-hr	30-day										
SO2 (ppb)	172	48	11	0	0	0	0.5	0	6	February 20 at hour 4	16.5	WSW	1.3	February 21	99.9	94.9
H2S (ppb)	10	3	-	0	0	-	0.0	0	3	February 10 at hour 11	16.5	NNW	0.4	February 10	99.9	94.8
NOx (ppb)	-	-	-	-	-	-	4.3	0	359	February 10 at hour 11	16.5	NNW	51.2	February 10	99.9	94.6
NO (ppb)	-	-	-	-	-	-	1.9	0	342	February 10 at hour 11	16.5	NNW	47.0	February 10	99.9	94.6
NO2 (ppb)	159	-	-	0	-	-	2.4	0	26	February 10 at hour 10	16.6	NNW	5.2	February 18	99.9	94.6
O3 (ppb)	76	-	-	0	-	-	32.3	17.4	44.2	February 22 at hour 18	6.6	WNW	42.3	February 22	99.6	94.6
THC (ppm)	-	-	-	-	-	-	1.86	1.74	2.21	February 1 at hour 1	11.3	ESE	2.06	February 1	99.7	94.8
CH4 (ppm)	-	-	-	-	-	-	1.86	1.74	2.21	February 1 at hour 1	11.3	ESE	2.06	February 1	99.7	94.8
NMHC (ppm)	-	-	-	-	-	-	0.00	0.00	0.01	February 10 at hour 10	16.6	NNW	0.00	February 10	99.7	94.8
PM2.5 (µg/m3)	80	29	-	0	0	-	4.2	0	21	February 7 at hour 18	6.6	WSW	11.5	February 1	99.9	99.6
RH (%)	-	-	-	-	-	-	70.2	40	97	February 22 at hour 7	17.4	NNW	84.1	February 2	99.9	99.9
BP (millibar)	-	-	-	-	-	-	919	895	940	February 11 at hour 4	10.5	N	937	February 11	99.9	99.9
Ext. Temp. (°C)	-	-	-	-	-	-	-16.8	-34.0	6.6	February 21 at hour 21	26.2	W	2.7	February 21	99.9	99.9
Stn. Temp. (°C)	-	-	-	-	-	-	23.8	21.8	25.7	February 21 at hour 15	29	WSW	25.6	February 22	99.9	99.9
Precipitation (mm)*	-	-	-	-	-	-	5.0	0.0	0.7	February 2 at hour 14	14.3	N	2.4	February 2	99.9	99.9
WSV (km/hr)	-	-	-	-	-	-	4.8	0.7	32.7	February 21 at hour 13	32.7	WSW	21.5	February 21	99.9	99.9
WDV (sector)	-	-	-	-	-	-	287 (WNW)	-	-	-	-	-	-	-	99.9	99.9

1- Date/ Time given is the first minimum and maximum value that was recorded

* Data represents the total (sum) for the indicated time frame

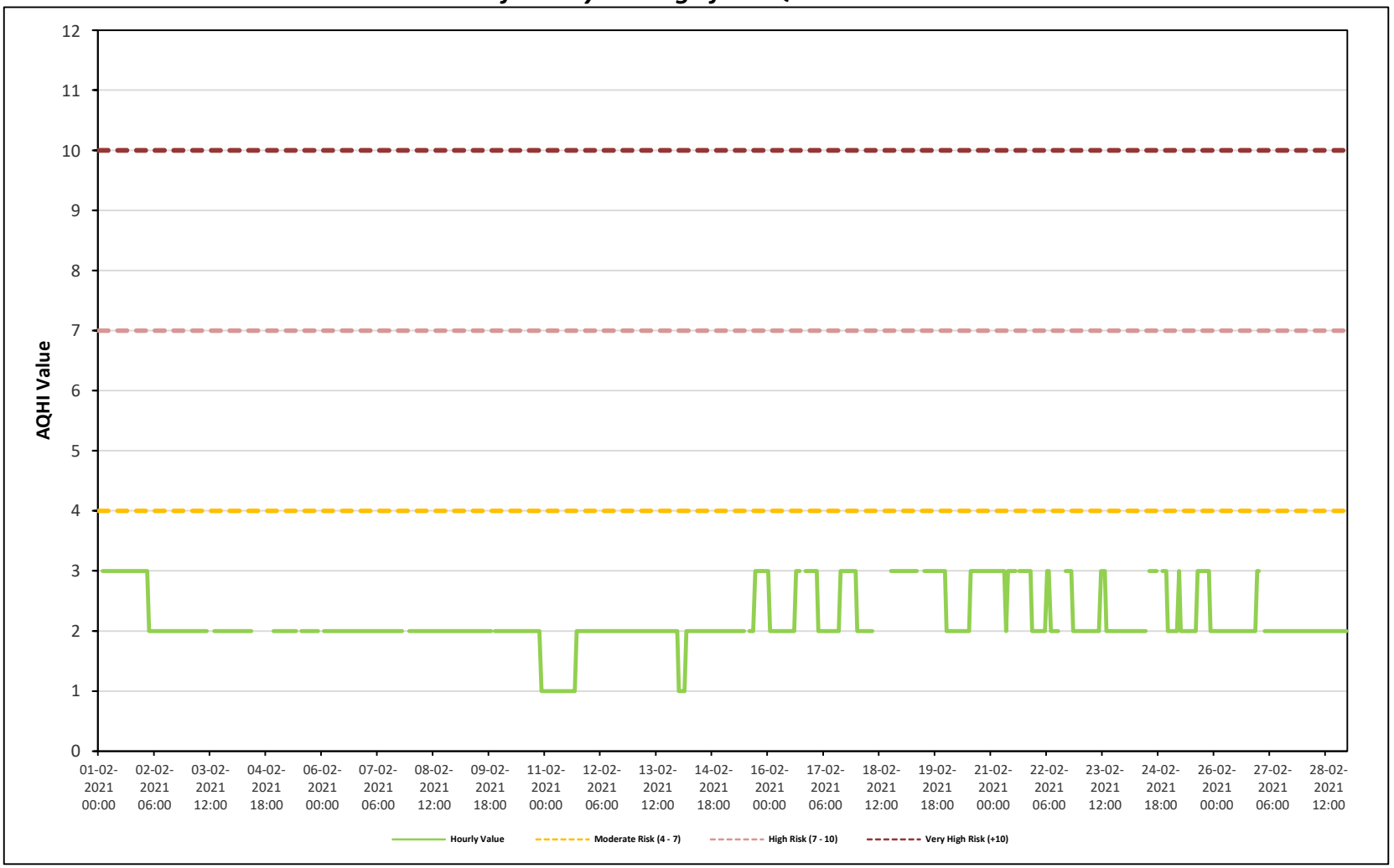
Alberta Ambient Air Quality Objectives (AAAQOs) Exceedances

The measured ambient air quality was within the AAAQOs for all monitored parameters.

TABLES AND CHARTS

COLD LAKE SOUTH STATION

Timeseries Chart of Hourly Average for AQHI - Cold Lake South Station



LAKELAND INDUSTRY & COMMUNITY ASSOCIATION

Cold Lake South Station - February 2021

Summary of Hourly Averages

SULPHUR DIOXIDE (SO_2) in ppb

Alberta Ambient Air Quality Objectives (AAAQO): 1-Hour 172 ppb, 24-Hour 48 ppb, 30-Day 11 ppb

Number of 1-Hour Exceedences: 0 Number of 24-Hour Exceedences: 0 30-Day Exceedence: 0

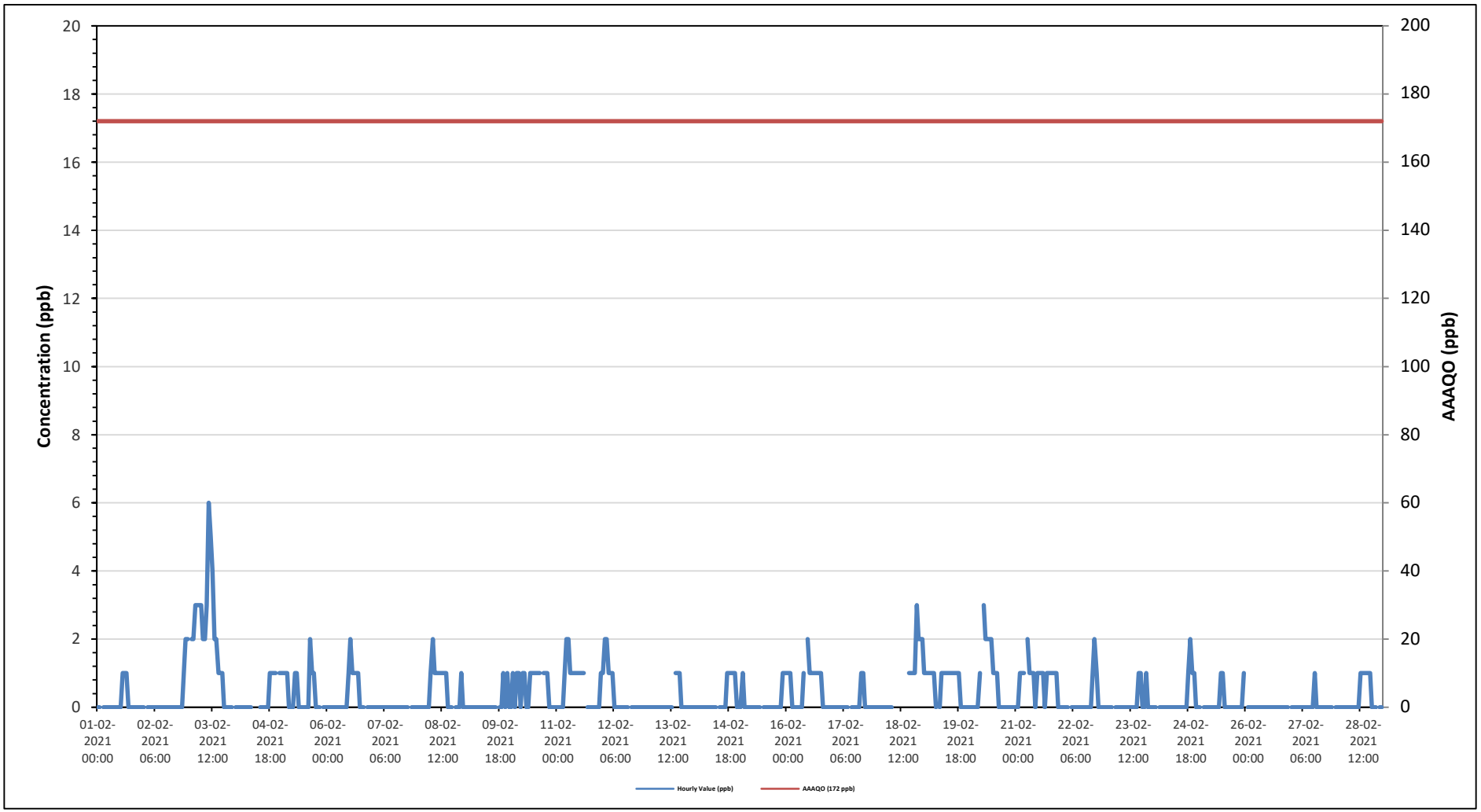
Maximum Hourly Value:	6	ppb	on February 3 at hour 10	Hours in Service:	672
Maximum Daily Value:	2.0	ppb	on February 3	Hours of Data:	632
Minimum Hourly Value:	0	ppb	on February 1 at hour 0	Hours of Missing Data:	6
Minimum Daily Value:	0.0	ppb	on February 7	Hours of Calibration:	34
Monthly Average:	0.4	ppb		Operational Uptime:	99.1

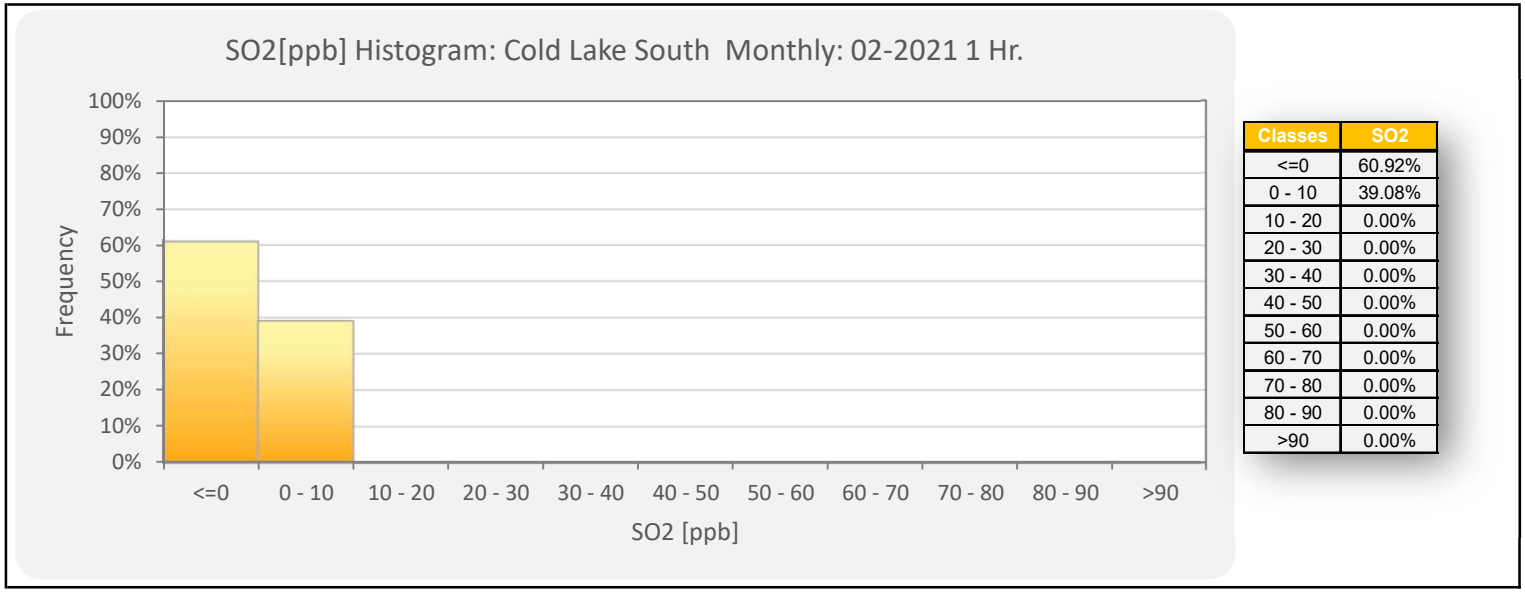
Day	Hourly Period Starting at (MST)																								Daily Minimum	Daily Maximum	Daily Average
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23			
Feb 1	0	0	S	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	1	0.1
Feb 2	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	2	0	2	0.2
Feb 3	S	2	2	3	3	3	3	2	2	3	6	5	4	2	2	1	1	1	0	0	0	0	0	S	0	6	2.0
Feb 4	0	0	0	0	0	0	0	0	0	C	C	C	C	0	0	0	0	0	1	1	1	1	S	1	0	1	0.3
Feb 5	1	1	1	1	0	0	0	1	1	0	0	0	0	0	0	2	1	1	0	0	0	S	0	0	0	2	0.4
Feb 6	0	0	0	0	0	0	0	0	0	0	0	1	2	1	1	1	1	0	0	0	S	0	0	0	0	2	0.3
Feb 7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0.0
Feb 8	0	0	0	0	0	0	1	2	1	1	1	1	1	1	1	0	0	0	S	0	0	0	1	0	0	2	0.5
Feb 9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	1	0	1	0	0	1	0.1
Feb 10	0	1	0	1	1	0	1	1	0	0	1	1	1	1	1	1	S	1	1	1	0	0	0	0	0	1	0.6
Feb 11	0	0	0	0	1	2	2	1	1	1	1	1	1	1	1	S	0	0	0	0	0	0	0	1	0	2	0.6
Feb 12	1	2	2	1	1	1	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	2	0.3
Feb 13	0	0	0	0	0	0	0	0	0	0	0	0	0	S	1	1	1	0	0	0	0	0	0	0	0	1	0.1
Feb 14	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	1	1	1	1	1	0	0	0	1	0.2
Feb 15	0	1	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	1	1	0	1	0.1
Feb 16	1	1	1	0	0	0	0	0	0	1	S	2	1	1	1	1	1	1	1	0	0	0	0	0	0	2	0.6
Feb 17	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1	0.1
Feb 18	0	0	0	0	0	0	0	0	S	1	P	P	P	P	P	NRM	1	1	1	1	3	2	2	2	0	3	-
Feb 19	1	1	1	1	1	1	0	S	0	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	1	0.7
Feb 20	0	0	0	0	0	1	S	3	2	2	2	2	1	1	1	0	0	0	0	0	0	0	0	0	0	3	0.7
Feb 21	0	0	1	1	1	S	2	1	1	1	0	1	1	1	1	0	1	1	1	1	1	1	0	0	0	2	0.8
Feb 22	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	1	2	1	0	0	0	0	0	0	2	0.2
Feb 23	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	1	0	0	0	0	1	0.1
Feb 24	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	1	1	0	0	0	2	0.2
Feb 25	0	S	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1	0	1	0.1
Feb 26	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0.0
Feb 27	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	S	0	0	1	0.0
Feb 28	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	0	0	0	S	0	0	0	1	0.3
Diurnal Maximum	1	2	2	3	3	3	3	3	2	3	6	5	4	2	2	2	1	2	1	2	3	2	2	2			
Daiurnal Average	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.3	0.4	0.5	0.6	0.6	0.5	0.5	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3			

C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance	
K	Collection Error	N	No Data (Machine Not in Service)	Y	Routine Maintenance	P Power Failure
X	InValid Data (Equipment Malfunction /Recovery)	NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)			

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.

Timeseries Chart of Hourly Average for SO2 - Cold Lake South Station

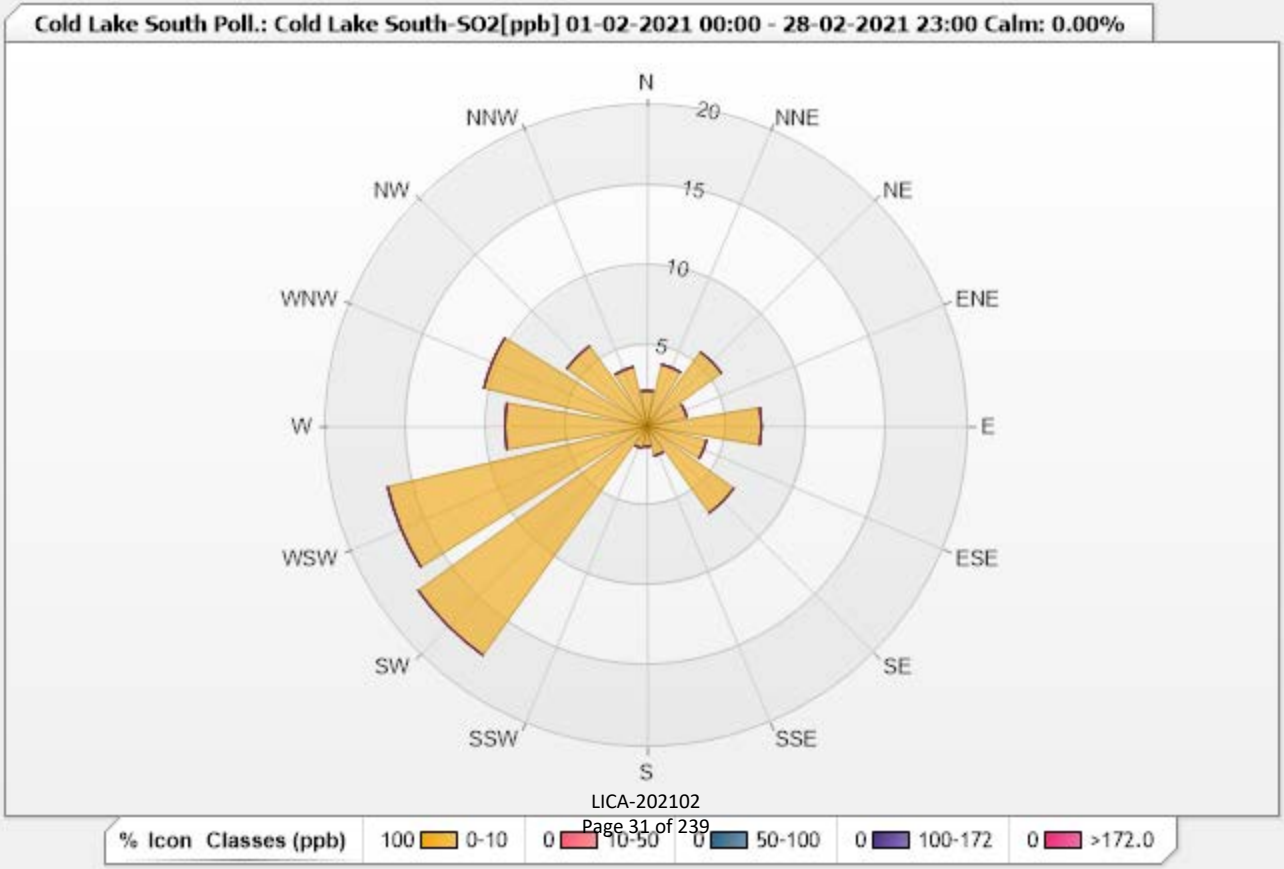




Classes	SO2
<=0	60.92%
0 - 10	39.08%
10 - 20	0.00%
20 - 30	0.00%
30 - 40	0.00%
40 - 50	0.00%
50 - 60	0.00%
60 - 70	0.00%
70 - 80	0.00%
80 - 90	0.00%
>90	0.00%

Wind: Cold Lake South Poll.: Cold Lake South-SO2[ppb] Monthly: 02-2021 Type: PollutionRose Direction: Blowing From (Wind Frequency) Based On 1 Hr.
Calm: 0.00% Valid Data: 94.05% Calm Avg: 0.00 [ppb]

Direction	0-10	10-50	50-100	100-172	>172.0	Total
N	2.22	0	0	0	0	2.22
NNE	3.96	0	0	0	0	3.96
NE	5.7	0	0	0	0	5.7
ENE	2.53	0	0	0	0	2.53
E	7.12	0	0	0	0	7.12
ESE	3.8	0	0	0	0	3.8
SE	6.65	0	0	0	0	6.65
SSE	1.9	0	0	0	0	1.9
S	1.27	0	0	0	0	1.27
SSW	1.42	0	0	0	0	1.42
SW	17.56	0	0	0	0	17.56
WSW	16.61	0	0	0	0	16.61
W	8.86	0	0	0	0	8.86
WNW	10.44	0	0	0	0	10.44
NW	6.17	0	0	0	0	6.17
NNW	3.8	0	0	0	0	3.8
Summary	100	0	0	0	0	100


Cold Lake South Poll.: Cold Lake South-SO2[ppb] 01-02-2021 00:00 - 28-02-2021 23:00 Calm: 0.00%
N
NNE
NE
ENE
E
ESE
SE
SSE
S
SSW
SW
WSW
W
WNW
NW
NNW
20
15
10
5
% Icon Classes (ppb)
100 0-10
0 10-50
0 50-100
0 100-172
0 >172.0

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION

Cold Lake South Station - February 2021

Summary of Hourly Averages

TOTAL REDUCED SULPHUR (TRS) in ppb

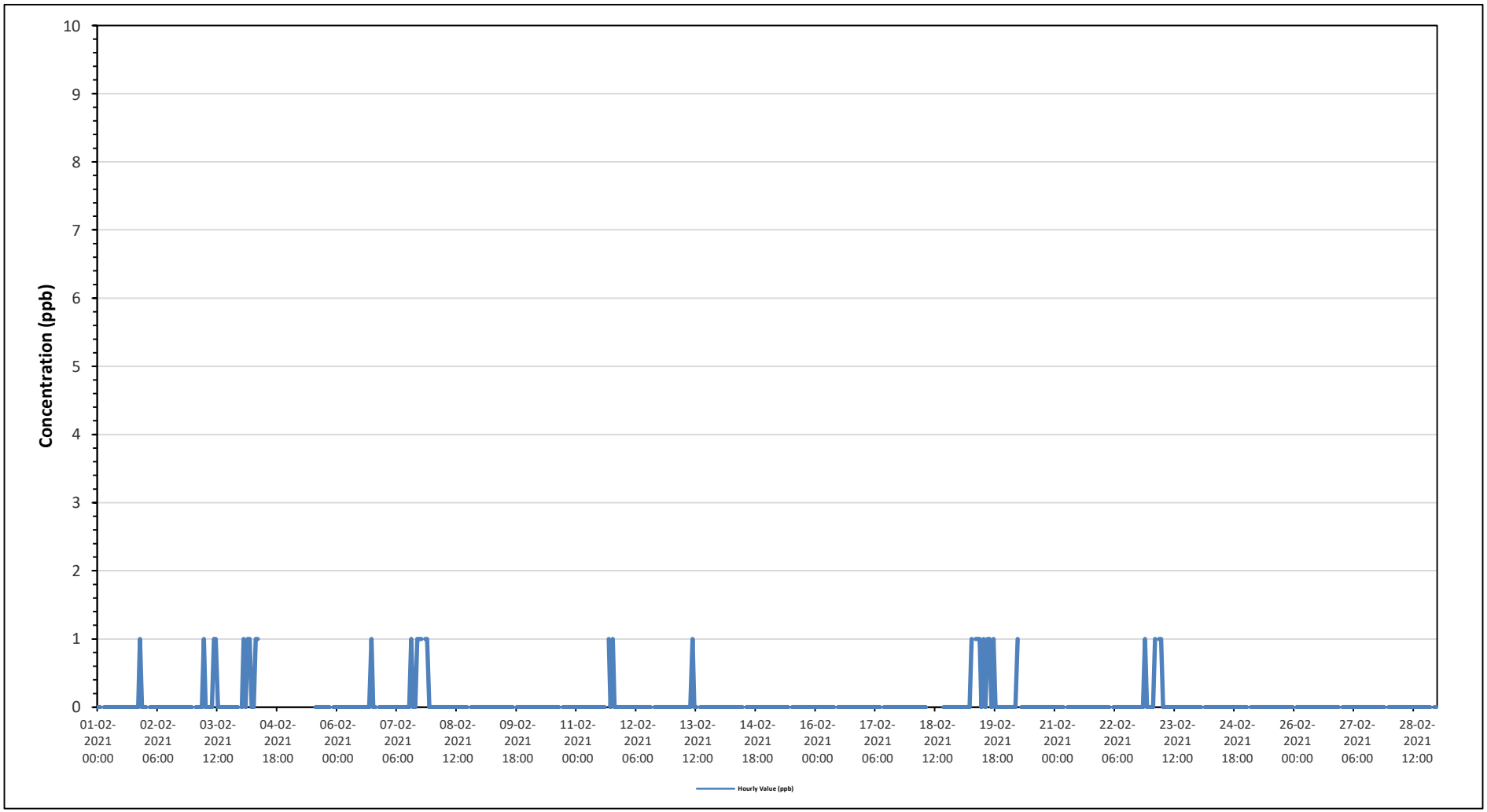
Maximum Hourly Value:	1	ppb	on February 1 at hour 21	Hours in Service:	672
Maximum Daily Value:	0.3	ppb	on February 19	Hours of Data:	609
Minimum Hourly Value:	0	ppb	on February 1 at hour 0	Hours of Missing Data:	29
Minimum Daily Value:	0.0	ppb	on February 2	Hours of Calibration:	34
Monthly Average:	0.1	ppb		Operational Uptime:	95.7

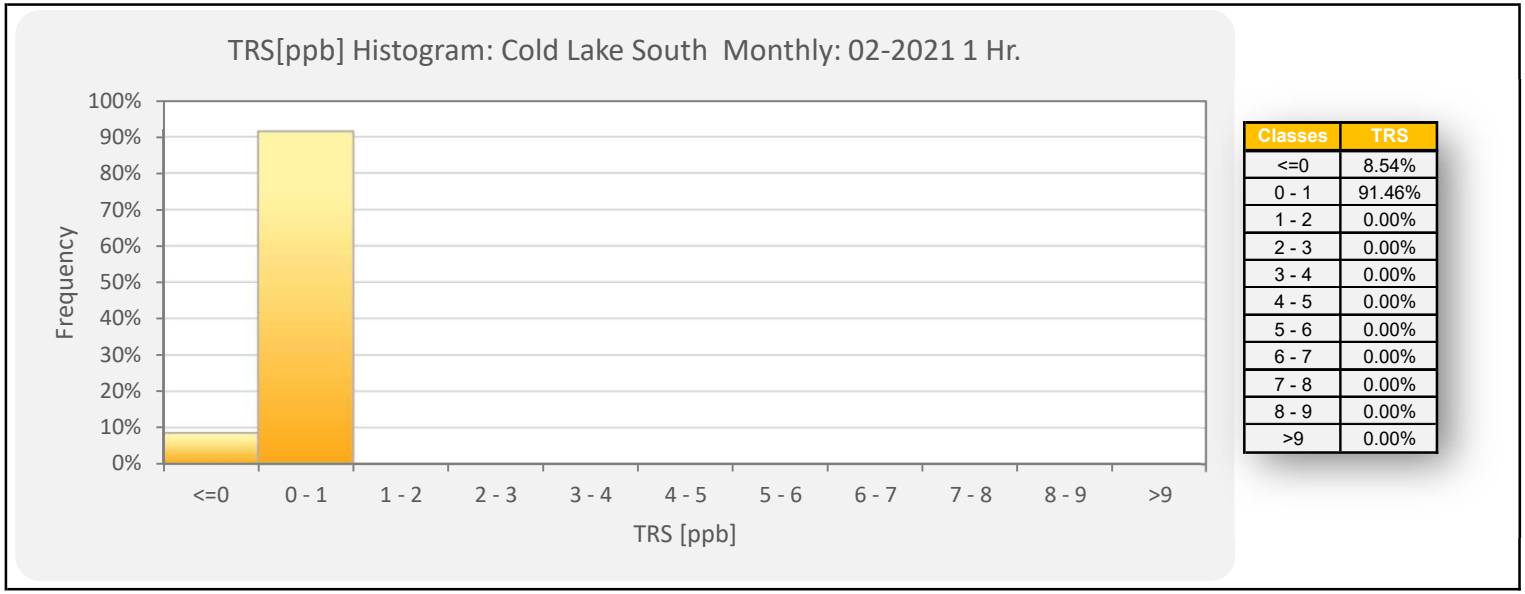
Day	Hourly Period Starting at (MST)																								Daily Minimum	Daily Maximum	Daily Average
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23			
Feb 1	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0.0
Feb 2	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Feb 3	S	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	S	0	1	0.1
Feb 4	0	1	0	1	1	0	0	1	1	C	C	C	C	C	X	X	X	X	X	X	X	X	X	X	0	1	-
Feb 5	X	X	X	X	X	X	X	X	X	X	NRM	NRM	NRM	0	0	0	0	0	0	0	0	S	0	0	0	0	-
Feb 6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	S	0	0	0	0	1	0.0
Feb 7	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	1	S	1	1	0	0	0	1	0.3
Feb 8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0.0
Feb 9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0.0
Feb 10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0.0
Feb 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	1	0	1	0	0	0	0	0	0	1	0.1
Feb 12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0.0
Feb 13	0	0	0	0	0	0	0	0	0	0	1	0	0	S	0	0	0	0	0	0	0	0	0	0	0	1	0.0
Feb 14	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Feb 15	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Feb 16	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Feb 17	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Feb 18	0	0	0	0	0	0	0	0	S	1	P	P	P	P	P	NRM	0	0	0	0	0	0	0	0	0	1	-
Feb 19	0	0	0	0	0	0	1	S	1	1	1	0	1	0	1	1	0	1	0	0	0	0	0	0	0	1	0.3
Feb 20	0	0	0	0	0	1	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.0
Feb 21	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Feb 22	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0.0
Feb 23	0	0	1	S	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1
Feb 24	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Feb 25	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Feb 26	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0.0
Feb 27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0.0
Feb 28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0.0
Diurnal Maximum	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00			
Daiurnal Average	0.00	0.04	0.04	0.04	0.08	0.12	0.04	0.04	0.08	0.08	0.13	0.04	0.04	0.04	0.04	0.04	0.08	0.12	0.08	0.00	0.04	0.12	0.00	0.00			

C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance	
K	Collection Error	N	No Data (Machine Not in Service)	Y	Routine Maintenance	P Power Failure
X	InValid Data (Equipment Malfunction /Recovery)	NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)			

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.

Timeseries Chart of Hourly Average for TRS - Cold Lake South Station

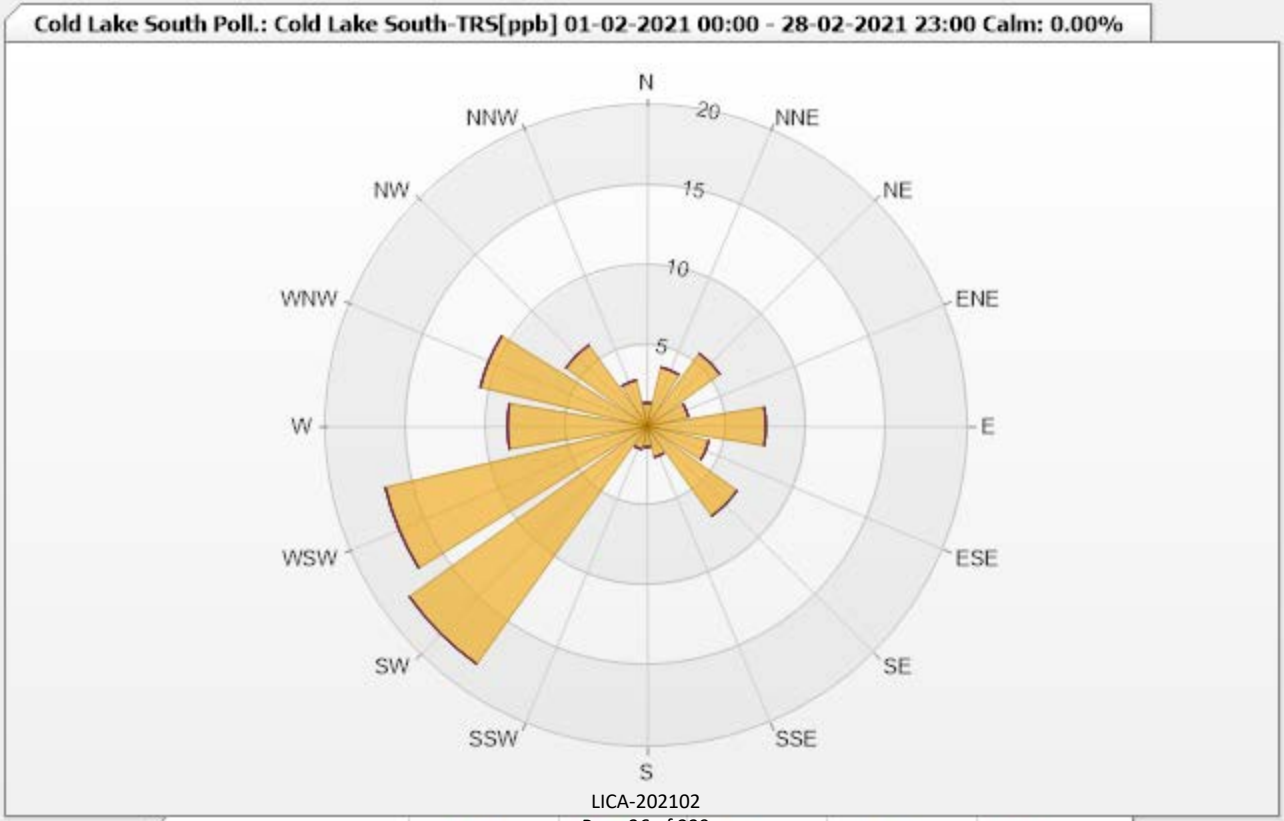




Classes	TRS
<=0	8.54%
0 - 1	91.46%
1 - 2	0.00%
2 - 3	0.00%
3 - 4	0.00%
4 - 5	0.00%
5 - 6	0.00%
6 - 7	0.00%
7 - 8	0.00%
8 - 9	0.00%
>9	0.00%

Wind: Cold Lake South Poll.: Cold Lake South-TRS[ppb] Monthly: 02-2021 Type: PollutionRose Direction: Blowing From (Wind Frequency) Based On 1 Hr.
Calm: 0.00% Valid Data: 90.63% Calm Avg: 0.00 [ppb]

Direction	0-2	2-5	5-10	10-50	>50.0	Total
N	1.48	0	0	0	0	1.48
NNE	3.78	0	0	0	0	3.78
NE	5.58	0	0	0	0	5.58
ENE	2.63	0	0	0	0	2.63
E	7.39	0	0	0	0	7.39
ESE	3.94	0	0	0	0	3.94
SE	6.9	0	0	0	0	6.9
SSE	1.97	0	0	0	0	1.97
S	1.31	0	0	0	0	1.31
SSW	1.48	0	0	0	0	1.48
SW	18.23	0	0	0	0	18.23
WSW	16.75	0	0	0	0	16.75
W	8.7	0	0	0	0	8.7
WNW	10.67	0	0	0	0	10.67
NW	6.24	0	0	0	0	6.24
NNW	2.96	0	0	0	0	2.96
Summary	100	0	0	0	0	100


Cold Lake South Poll.: Cold Lake South-TRS[ppb] 01-02-2021 00:00 - 28-02-2021 23:00 Calm: 0.00%
N
NNE
NE
ENE
E
ESE
SE
SSE
S
SSW
SW
WSW
W
WNW
NW
NNW
20
15
10
5
% Icon Classes (ppb)
100 0-2
0 2-5
0 5-10
0 10-50
0 >50.0

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION

Cold Lake South Station - February 2021

Summary of Hourly Averages

OXIDES OF NITROGEN (NOx) in ppb

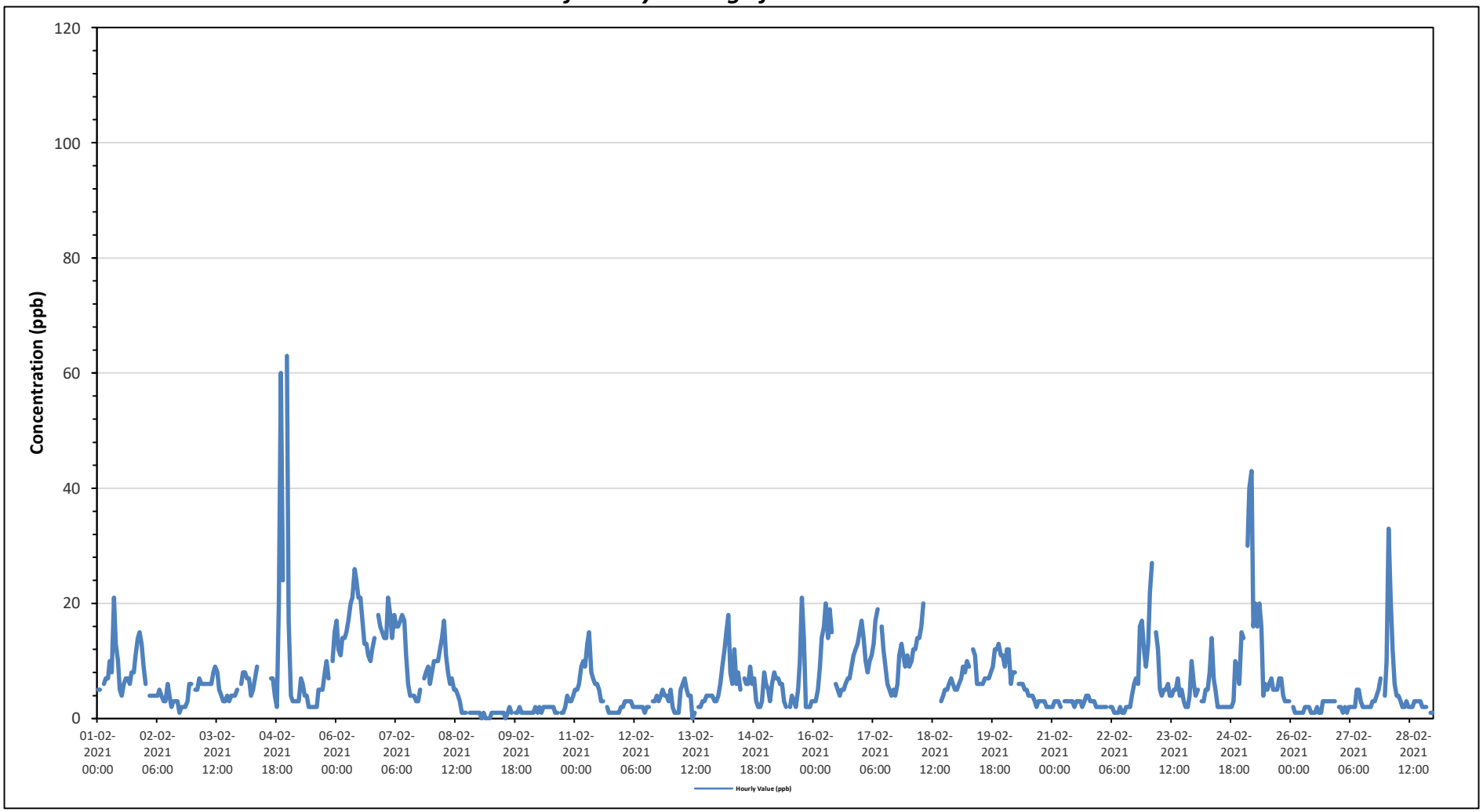
Maximum Hourly Value:	106	ppb	on February 18 at hour 9	Hours in Service:	672
Maximum Daily Value:	16.2	ppb	on February 6	Hours of Data:	630
Minimum Hourly Value:	0	ppb	on February 9 at hour 1	Hours of Missing Data:	6
Minimum Daily Value:	0.9	ppb	on February 9	Hours of Calibration:	36
Monthly Average:	6.6	ppb		Operational Uptime:	99.1

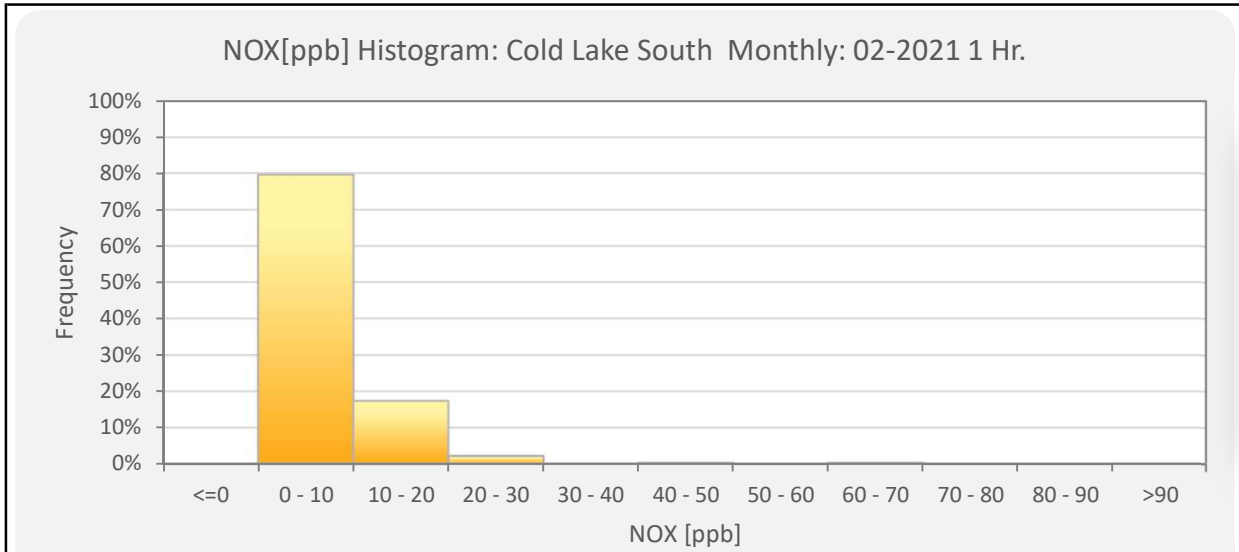
Day	Hourly Period Starting at (MST)																								Daily Minimum	Daily Maximum	Daily Average
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23			
Feb 1	5	5	S	6	7	7	10	8	21	13	10	5	4	6	7	7	6	8	8	11	14	15	13	9	4	21	8.9
Feb 2	6	S	4	4	4	4	4	5	4	3	3	6	4	2	3	3	3	1	2	2	2	3	6	6	1	6	3.7
Feb 3	S	5	5	7	6	6	6	6	6	6	8	9	8	5	4	3	3	4	3	4	4	4	5	S	3	9	5.3
Feb 4	6	8	8	7	7	4	5	7	9	C	C	C	C	C	C	7	7	4	2	20	60	24	S	63	2	63	-
Feb 5	17	4	3	3	3	3	7	6	4	4	2	2	2	2	2	5	5	5	8	10	7	S	10	15	2	17	5.6
Feb 6	17	12	11	14	14	15	17	20	21	26	24	21	21	17	13	13	11	10	12	14	S	18	16	15	10	26	**16.2**
Feb 7	14	14	21	18	14	18	16	16	17	18	17	11	6	4	4	4	3	3	5	S	7	8	9	6	3	21	11.0
Feb 8	8	10	10	10	12	14	17	11	8	6	7	5	5	4	3	1	1	1	S	1	1	1	1	1	1	17	6.0
Feb 9	1	0	1	0	0	0	1	1	1	1	1	1	1	0	1	2	1	S	1	1	2	1	1	1	0	2	0.9
Feb 10	1	1	1	1	2	1	2	1	2	2	2	2	2	2	1	1	S	1	1	2	4	3	3	4	1	4	1.8
Feb 11	5	5	6	9	10	9	13	15	8	7	6	6	5	3	3	S	2	1	1	1	1	1	1	2	1	15	5.2
Feb 12	2	3	3	3	3	2	2	2	2	2	2	1	2	2	S	3	3	4	3	4	5	4	4	3	1	5	2.8
Feb 13	5	2	1	1	1	5	6	7	5	4	4	0	1	S	2	2	3	3	4	4	4	4	3	3	0	7	3.2
Feb 14	4	6	9	12	15	18	8	6	12	6	8	5	S	7	6	6	9	6	7	3	2	2	3	8	2	18	7.3
Feb 15	6	5	3	6	8	7	7	6	6	3	2	S	2	4	3	2	5	10	21	14	2	2	2	3	2	21	5.6
Feb 16	3	3	5	9	14	16	20	14	19	15	S	6	5	4	5	5	6	7	7	9	11	12	13	15	3	20	9.7
Feb 17	17	14	10	8	10	11	13	17	19	S	16	12	9	6	5	4	5	4	6	11	13	11	9	11	4	19	10.5
Feb 18	9	10	12	12	14	14	16	20	S	106	P	P	P	P	P	NRM	3	4	5	5	6	7	6	5	3	**106**	-
Feb 19	5	6	7	9	8	10	9	S	12	11	6	6	6	6	7	7	7	8	9	12	12	13	11	11	5	13	8.6
Feb 20	9	12	12	6	8	8	S	6	6	6	5	5	4	4	4	3	2	3	3	3	3	2	2	2	2	12	5.1
Feb 21	2	3	3	3	2	S	3	3	3	3	3	2	3	3	3	2	3	4	4	3	3	3	2	2	2	4	2.8
Feb 22	2	2	2	2	S	2	2	1	1	1	2	1	1	2	2	2	4	6	7	6	16	17	12	9	1	17	4.4
Feb 23	13	22	27	S	15	12	5	4	5	5	6	4	4	5	5	7	4	5	3	2	2	4	10	6	2	27	7.6
Feb 24	4	5	S	3	3	5	5	8	14	7	5	2	2	2	2	2	2	2	2	3	10	9	6	15	2	15	5.1
Feb 25	14	S	30	40	43	16	20	16	20	16	4	6	5	6	7	5	5	5	7	7	4	3	3	3	3	43	12.4
Feb 26	S	2	1	1	1	1	1	2	2	2	1	1	1	2	1	1	3	3	3	3	3	3	3	S	1	3	1.9
Feb 27	2	2	1	2	1	2	2	2	2	5	5	3	2	2	2	2	2	3	3	4	5	7	S	4	1	7	2.8
Feb 28	10	33	21	12	6	4	4	3	2	2	3	2	2	2	3	3	3	3	2	2	2	S	1	1	1	33	5.5
Diurnal Maximum	17	33	30	40	43	18	20	20	21	106	24	21	21	17	13	13	11	10	21	20	60	24	16	63			
Daiurnal Average	7.2	7.5	8.3	7.7	8.6	7.9	8.2	7.9	8.6	10.8	6.1	5.0	4.3	4.1	3.9	3.9	4.1	4.4	5.1	6.0	7.6	7.0	6.0	8.6			

C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance		
K	Collection Error	N	No Data (Machine Not in Service)	Y	Routine Maintenance	P	Power Failure
X	InValid Data (Equipment Malfunction /Recovery)	NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)				

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.

Timeseries Chart of Hourly Average for NOx - Cold Lake South Station

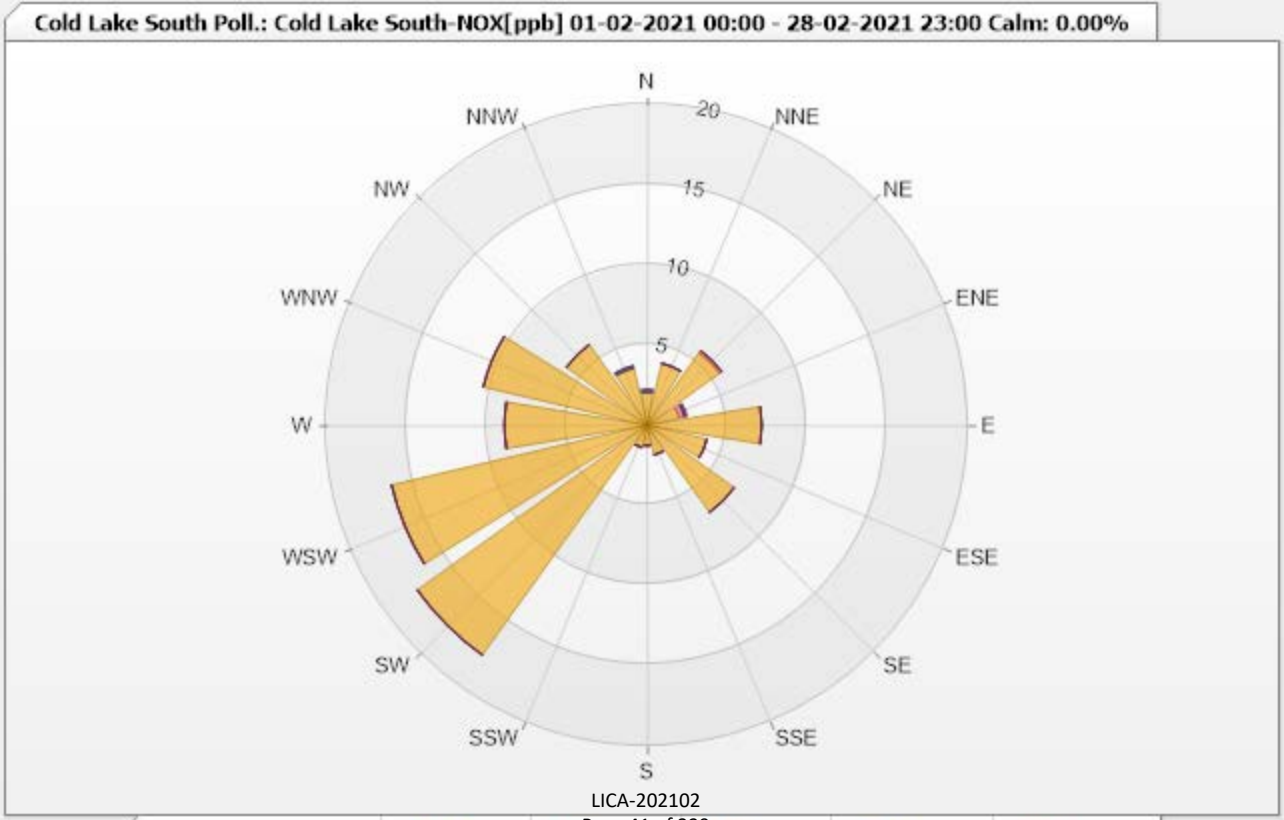




Classes	NOX
<=0	0.00%
0 - 10	79.52%
10 - 20	17.30%
20 - 30	2.22%
30 - 40	0.16%
40 - 50	0.32%
50 - 60	0.00%
60 - 70	0.32%
70 - 80	0.00%
80 - 90	0.00%
>90	0.16%

Wind: Cold Lake South Poll.: Cold Lake South-NOX[ppb] Monthly: 02-2021 Type: PollutionRose Direction: Blowing From (Wind Frequency) Based On 1 Hr.
Calm: 0.00% Valid Data: 93.75% Calm Avg: 0.00 [ppb]

Direction	0-30	30-50	50-76	76-159	>159.0	Total
N	2.06	0	0.16	0	0	2.22
NNE	3.97	0	0	0	0	3.97
NE	5.56	0.16	0	0	0	5.72
ENE	2.06	0.32	0	0.16	0	2.54
E	7.14	0	0	0	0	7.14
ESE	3.81	0	0	0	0	3.81
SE	6.67	0	0	0	0	6.67
SSE	1.9	0	0	0	0	1.9
S	1.27	0	0	0	0	1.27
SSW	1.43	0	0	0	0	1.43
SW	17.62	0	0	0	0	17.62
WSW	16.35	0	0	0	0	16.35
W	8.89	0	0	0	0	8.89
WNW	10.48	0	0	0	0	10.48
NW	6.19	0	0	0	0	6.19
NNW	3.65	0	0.16	0	0	3.81
Summary	99.05	0.48	0.32	0.16	0	100


Cold Lake South Poll.: Cold Lake South-NOX[ppb] 01-02-2021 00:00 - 28-02-2021 23:00 Calm: 0.00%
N
NNE
NE
ENE
E
ESE
SE
SSE
S
SSW
SW
WSW
W
WNW
NW
NNW
20
15
10
5
% Icon Classes (ppb)
99 0-30
0 30-50
0 50-76
0 76-159
0 >159.0

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION

Cold Lake South Station - February 2021

Summary of Hourly Averages

NITRIC OXIDE (NO) in ppb

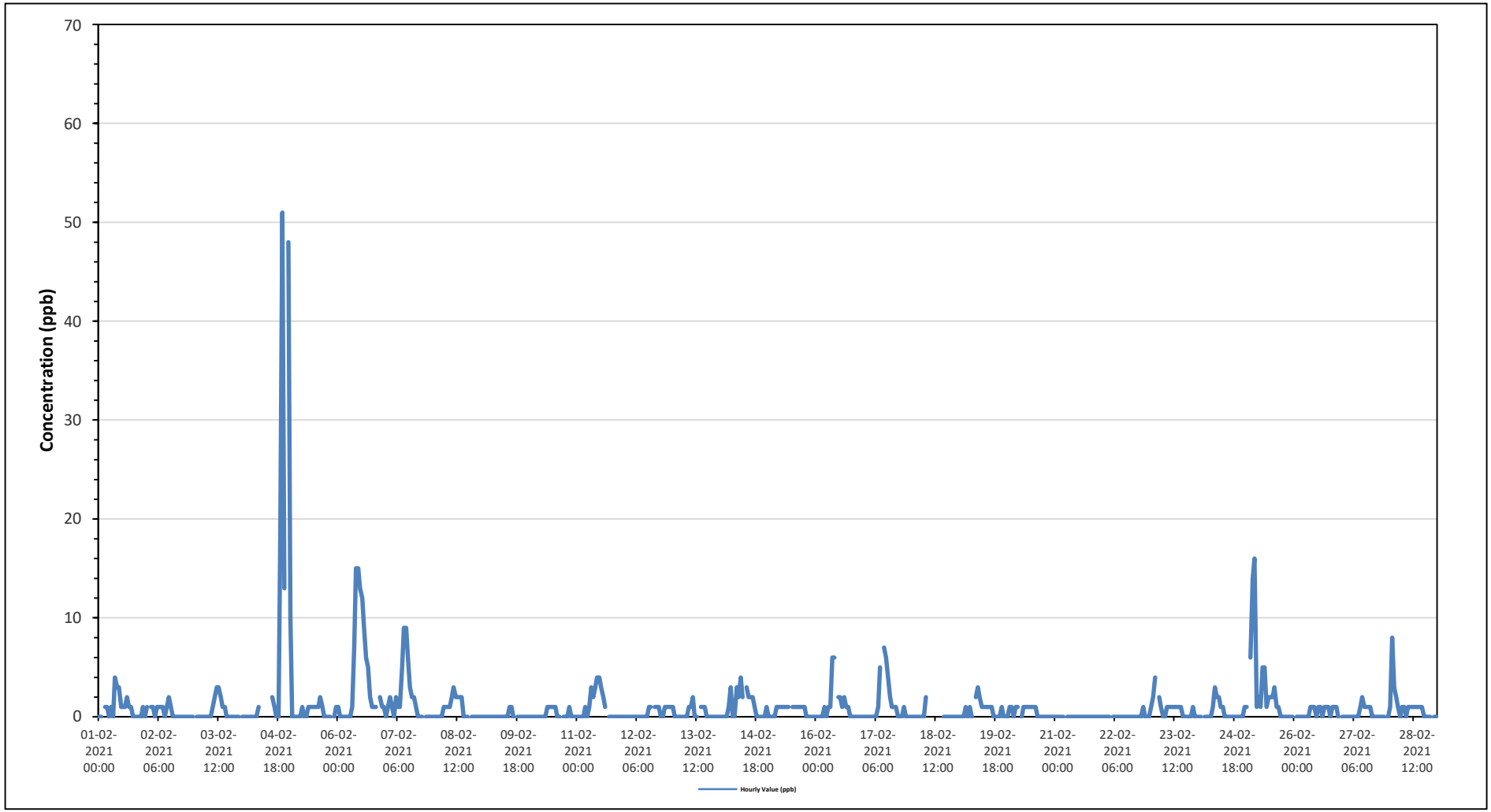
Maximum Hourly Value:	66	ppb	on February 18 at hour 9	Hours in Service:	672
Maximum Daily Value:	4.0	ppb	on February 6	Hours of Data:	630
Minimum Hourly Value:	0	ppb	on February 1 at hour 0	Hours of Missing Data:	6
Minimum Daily Value:	0.0	ppb	on February 21	Hours of Calibration:	36
Monthly Average:	1.2	ppb		Operational Uptime:	99.1

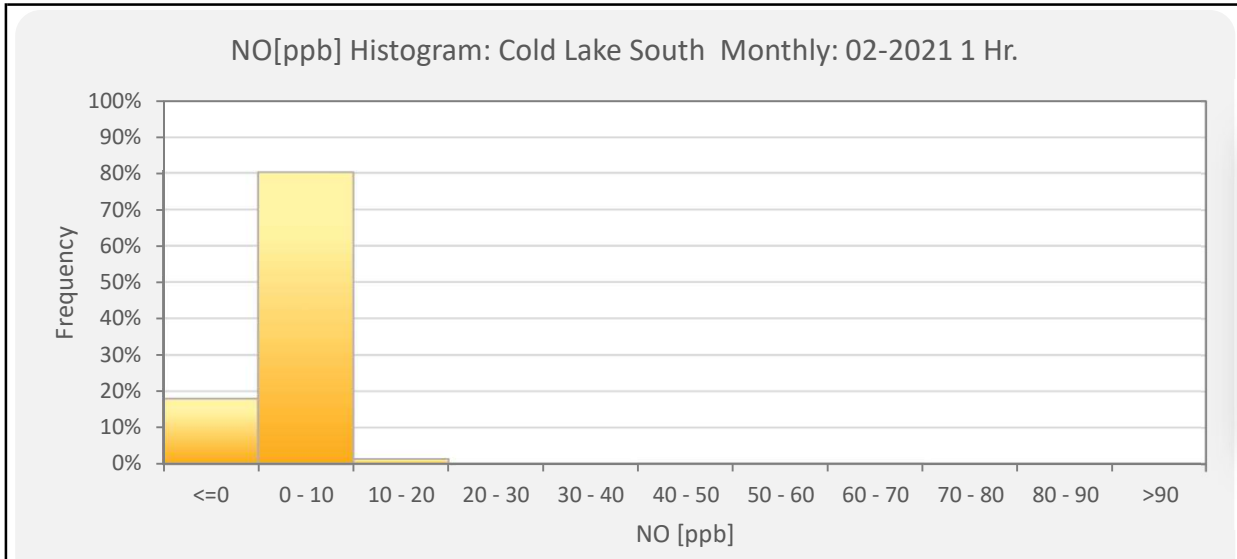
Day	Hourly Period Starting at (MST)																								Daily Minimum	Daily Maximum	Daily Average
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23			
Feb 1	0	0	S	1	1	0	1	0	4	3	3	1	1	1	2	1	1	0	0	0	0	0	1	0	0	4	0.9
Feb 2	1	S	1	1	0	1	1	1	1	0	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	2	0.5
Feb 3	S	0	0	0	0	0	0	0	0	1	2	3	3	2	1	1	0	0	0	0	0	0	0	S	0	3	0.6
Feb 4	0	0	0	0	0	0	0	0	1	C	C	C	C	C	C	2	1	0	0	19	51	13	S	48	0	51	-
Feb 5	10	0	0	0	0	0	1	0	0	1	1	1	1	1	1	2	1	0	0	0	0	S	0	1	0	10	0.9
Feb 6	1	0	0	0	0	0	0	1	7	15	15	13	12	9	6	5	2	1	1	1	S	2	1	1	0	15	**4.0**
Feb 7	0	1	2	1	0	2	1	1	5	9	9	6	3	2	2	1	0	0	0	S	0	0	0	0	0	9	2.0
Feb 8	0	0	0	0	0	1	1	1	1	2	3	2	2	2	2	0	0	0	S	0	0	0	0	0	0	3	0.7
Feb 9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	S	0	0	0	0	0	0	0	1	0.1
Feb 10	0	0	0	0	0	0	0	0	0	1	1	1	1	1	0	0	S	0	0	0	1	0	0	0	0	1	0.3
Feb 11	0	0	0	0	1	0	1	3	2	3	4	4	3	2	1	S	0	0	0	0	0	0	0	0	0	4	1.0
Feb 12	0	0	0	0	0	0	0	0	0	0	0	0	1	1	S	1	1	1	0	0	1	1	1	1	0	1	0.4
Feb 13	1	0	0	0	0	0	0	0	1	1	2	0	0	S	1	1	1	0	0	0	0	0	0	0	0	2	0.3
Feb 14	0	0	0	0	1	3	0	0	3	2	4	2	S	3	2	2	2	1	0	0	0	0	0	1	0	4	1.1
Feb 15	0	0	0	0	1	1	1	1	1	1	1	S	1	1	1	1	1	1	1	0	0	0	0	0	0	1	0.6
Feb 16	0	0	0	0	1	0	1	1	6	6	S	2	2	1	2	1	1	0	0	0	0	0	0	0	0	6	1.0
Feb 17	0	0	0	0	0	0	0	1	5	S	7	6	4	2	1	1	1	0	0	0	1	0	0	0	0	7	1.3
Feb 18	0	0	0	0	0	0	0	2	S	66	P	P	P	P	P	NRM	0	0	0	0	0	0	0	0	0	**66**	-
Feb 19	0	0	0	1	0	1	0	S	2	3	2	1	1	1	1	1	1	0	0	0	0	1	0	0	0	3	0.7
Feb 20	0	1	1	0	1	1	S	0	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	1	0.5
Feb 21	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Feb 22	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0.0
Feb 23	1	2	4	S	2	1	0	0	1	1	1	1	1	1	1	1	0	0	0	0	0	1	0	0	0	4	0.8
Feb 24	0	0	S	0	0	0	0	1	3	2	2	1	1	0	0	0	0	0	0	0	0	0	0	1	0	3	0.5
Feb 25	1	S	6	14	16	1	2	1	5	5	1	2	2	2	3	1	1	0	0	0	0	0	0	0	0	16	2.7
Feb 26	S	0	0	0	0	0	0	0	1	1	1	0	1	1	0	1	1	1	0	1	1	1	0	S	0	1	0.5
Feb 27	0	0	0	0	0	0	0	0	0	1	2	1	1	1	1	0	0	0	0	0	0	0	S	0	0	2	0.3
Feb 28	1	8	3	2	1	0	1	1	0	1	1	1	1	1	1	1	1	0	0	0	0	S	0	0	0	8	1.1
Diurnal Maximum	10	8	6	14	16	3	2	3	7	66	15	13	12	9	6	5	2	1	1	19	51	13	1	48			
Daiurnal Average	0.6	0.5	0.7	0.7	0.9	0.4	0.4	0.6	1.9	4.8	2.6	2.0	1.8	1.4	1.2	1.0	0.6	0.2	0.1	0.8	2.1	0.7	0.1	2.0			

C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance	
K	Collection Error	N	No Data (Machine Not in Service)	Y	Routine Maintenance	P Power Failure
X	InValid Data (Equipment Malfunction /Recovery)	NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)			

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.

Timeseries Chart of Hourly Average for NO - Cold Lake South Station

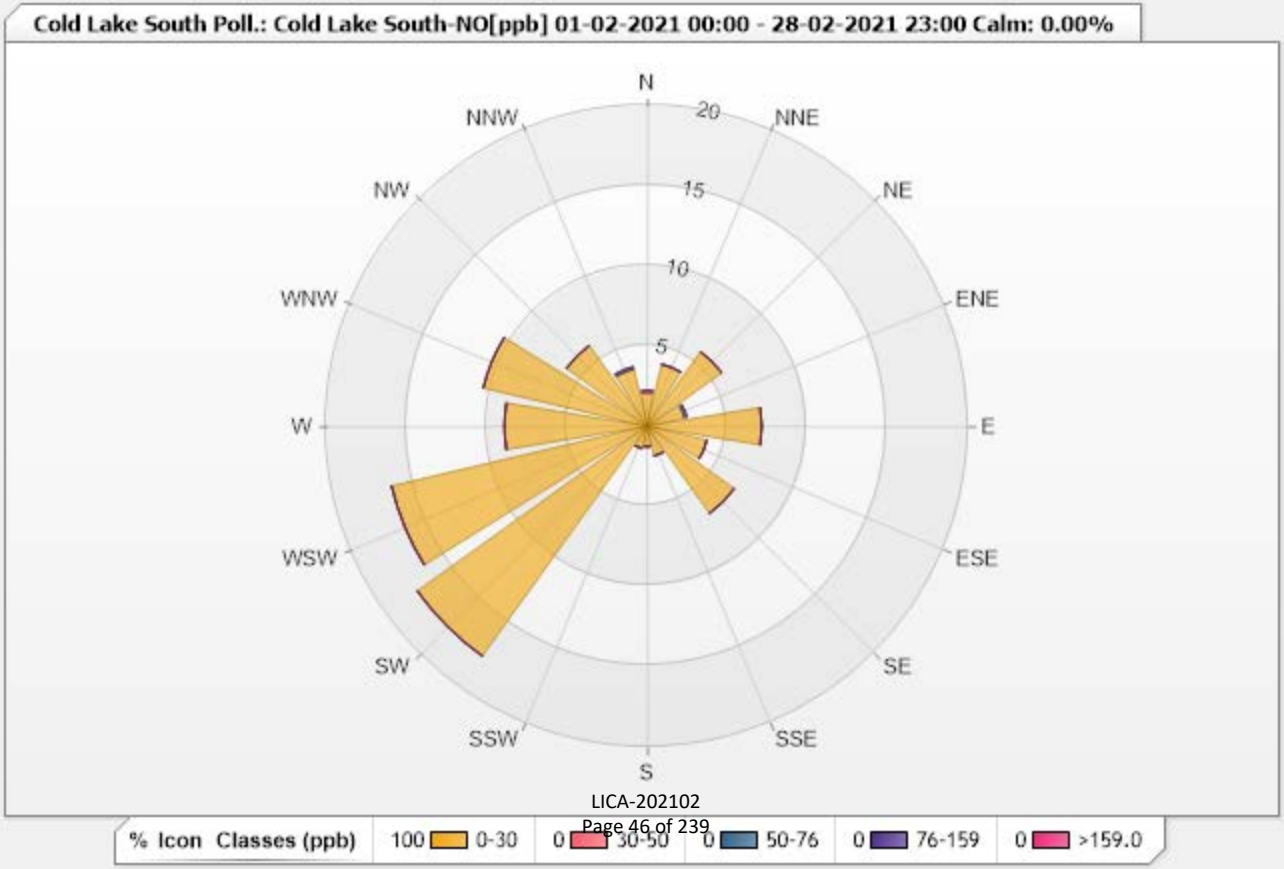




Classes	NO
<=0	17.94%
0 - 10	80.16%
10 - 20	1.43%
20 - 30	0.00%
30 - 40	0.00%
40 - 50	0.16%
50 - 60	0.16%
60 - 70	0.16%
70 - 80	0.00%
80 - 90	0.00%
>90	0.00%

Wind: Cold Lake South Poll.: Cold Lake South-NO[ppb] Monthly: 02-2021 Type: PollutionRose Direction: Blowing From (Wind Frequency) Based On 1 Hr.
Calm: 0.00% Valid Data: 93.75% Calm Avg: 0.00 [ppb]

Direction	0-30	30-50	50-76	76-159	>159.0	Total
N	2.06	0.16	0	0	0	2.22
NNE	3.97	0	0	0	0	3.97
NE	5.71	0	0	0	0	5.71
ENE	2.38	0	0.16	0	0	2.54
E	7.14	0	0	0	0	7.14
ESE	3.81	0	0	0	0	3.81
SE	6.67	0	0	0	0	6.67
SSE	1.9	0	0	0	0	1.9
S	1.27	0	0	0	0	1.27
SSW	1.43	0	0	0	0	1.43
SW	17.62	0	0	0	0	17.62
WSW	16.35	0	0	0	0	16.35
W	8.89	0	0	0	0	8.89
WNW	10.48	0	0	0	0	10.48
NW	6.19	0	0	0	0	6.19
NNW	3.65	0	0.16	0	0	3.81
Summary	100	0.16	0.32	0	0	100


Cold Lake South Poll.: Cold Lake South-NO[ppb] 01-02-2021 00:00 - 28-02-2021 23:00 Calm: 0.00%
N
NNE
NE
ENE
E
ESE
SE
SSE
S
SSW
SW
WSW
W
WNW
NW
NNW
20
15
10
5
% Icon Classes (ppb)
100 0-30
0 30-50
0 50-76
0 76-159
0 >159.0

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION

Cold Lake South Station - February 2021

Summary of Hourly Averages

NITROGEN DIOXIDE (NO_2) in ppb

Alberta Ambient Air Quality Objectives (AAAQO): 1-Hour 159 ppb

Number of 1-Hour Exceedences: 0

Maximum Hourly Value:	40	ppb	on February 18 at hour 9	Hours in Service:	672
Maximum Daily Value:	12.2	ppb	on February 6	Hours of Data:	630
Minimum Hourly Value:	0	ppb	on February 9 at hour 1	Hours of Missing Data:	6
Minimum Daily Value:	0.8	ppb	on February 9	Hours of Calibration:	36
Monthly Average:	5.4	ppb		Operational Uptime:	99.1

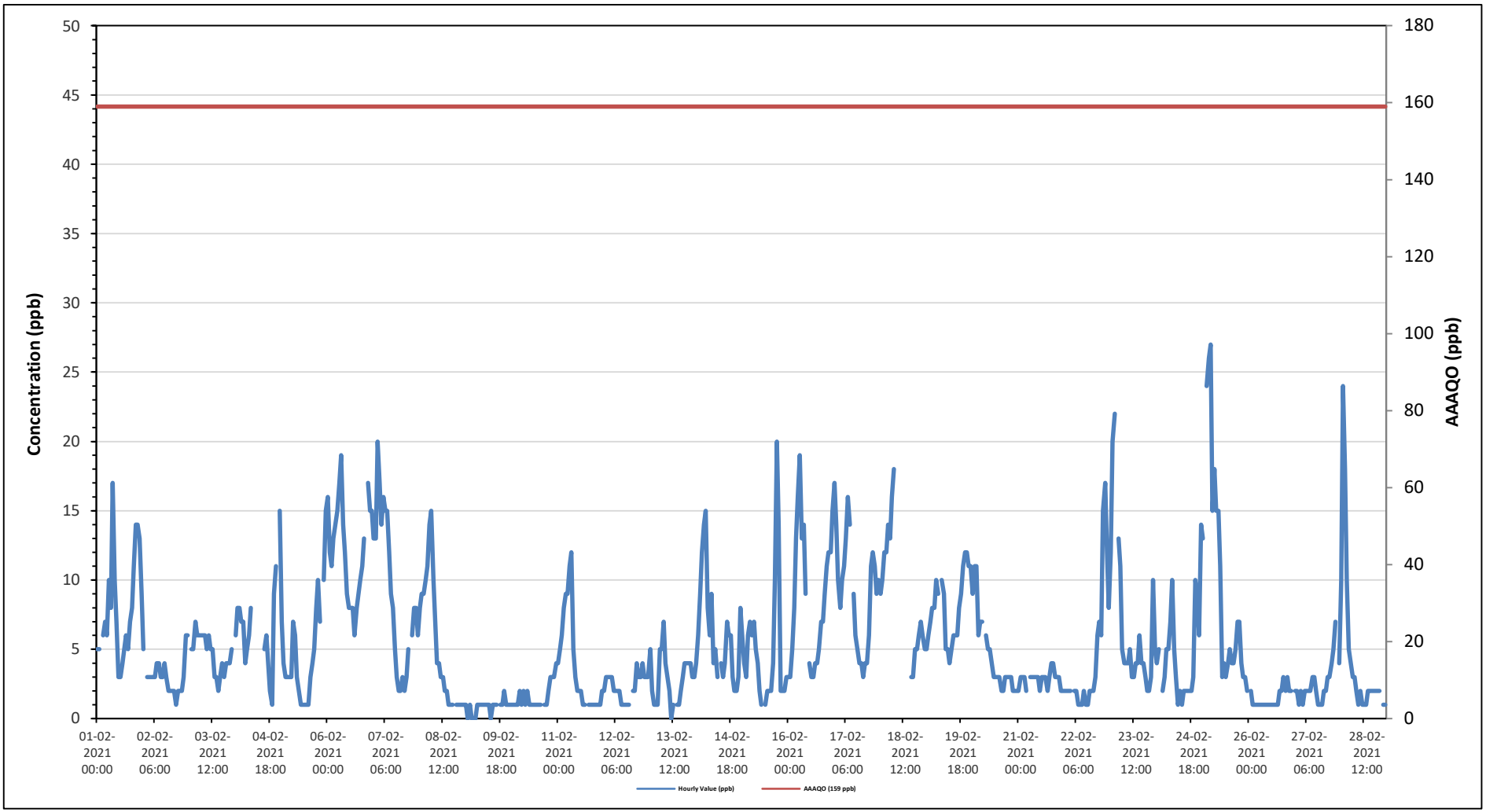
Day	Hourly Period Starting at (MST)																								Daily Minimum	Daily Maximum	Daily Average
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23			
Feb 1	5	5	S	6	7	6	10	8	17	10	7	3	3	4	5	6	5	7	8	11	14	14	13	9	3	17	8.0
Feb 2	5	S	3	3	3	3	3	4	4	3	3	4	3	2	2	2	2	1	2	2	2	3	6	6	1	6	3.1
Feb 3	S	5	5	7	6	6	6	6	6	5	6	5	5	3	3	2	3	4	3	4	4	4	5	S	2	7	4.7
Feb 4	6	8	8	7	7	4	5	6	8	C	C	C	C	C	C	5	6	4	2	1	9	11	S	15	1	15	-
Feb 5	7	4	3	3	3	3	7	6	3	2	1	1	1	1	1	3	4	5	8	10	7	S	10	15	1	15	4.7
Feb 6	16	12	11	13	14	15	17	19	14	12	9	8	8	8	6	8	9	10	11	13	S	17	15	15	6	19	**12.2**
Feb 7	13	13	20	17	14	16	15	15	12	9	8	5	3	2	2	3	2	3	5	S	6	8	8	6	2	20	8.9
Feb 8	8	9	9	10	11	14	15	10	7	4	4	3	3	2	2	1	1	1	S	1	1	1	1	1	1	15	5.2
Feb 9	1	0	1	0	0	0	1	1	1	1	1	1	1	0	1	1	1	S	1	1	2	1	1	1	0	2	0.8
Feb 10	1	1	1	1	2	1	2	1	2	1	1	1	1	1	1	1	S	1	1	2	3	3	3	4	1	4	1.6
Feb 11	4	5	6	8	9	9	11	12	5	3	2	2	2	1	1	S	1	1	1	1	1	1	1	2	1	12	3.9
Feb 12	2	3	3	3	3	2	2	2	2	1	1	1	1	1	S	2	2	4	3	3	4	3	3	3	1	4	2.3
Feb 13	5	2	1	1	1	5	5	7	4	3	2	0	1	S	1	1	2	3	4	4	4	4	3	3	0	7	2.9
Feb 14	4	6	9	12	14	15	8	6	9	4	5	3	S	4	3	4	7	6	6	3	2	2	3	8	2	15	6.2
Feb 15	6	4	3	6	7	6	7	5	4	2	1	S	1	2	2	2	4	10	20	14	2	2	2	3	1	20	5.0
Feb 16	3	3	5	8	13	16	19	13	14	9	S	4	3	3	4	4	5	7	7	9	11	12	12	15	3	19	8.7
Feb 17	17	14	10	8	10	11	13	16	14	S	9	6	5	4	4	3	4	4	6	11	12	11	9	10	3	17	9.2
Feb 18	9	10	12	12	14	13	16	18	S	**40**	P	P	P	P	P	NRM	3	3	5	5	6	7	6	5	3	**40**	-
Feb 19	5	6	7	8	8	10	9	S	10	9	5	5	4	5	6	6	6	8	9	11	12	12	11	11	4	12	8.0
Feb 20	9	11	11	6	7	7	S	6	5	5	4	3	3	3	3	2	2	3	3	3	3	2	2	2	2	11	4.6
Feb 21	2	3	3	3	2	S	3	3	3	3	3	2	3	3	3	2	3	4	4	3	3	3	2	2	2	4	2.8
Feb 22	2	2	2	2	S	2	2	1	1	1	2	1	1	2	2	2	3	6	7	6	15	17	12	8	1	17	4.3
Feb 23	12	20	22	S	13	11	5	4	4	4	5	3	3	4	4	6	4	4	3	2	2	3	10	5	2	22	6.7
Feb 24	4	5	S	2	3	5	5	7	10	5	3	1	2	1	2	2	2	2	2	3	10	9	6	14	1	14	4.6
Feb 25	13	S	24	26	27	15	18	15	15	11	3	4	3	4	5	4	4	5	7	7	4	3	3	2	2	27	9.7
Feb 26	S	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	3	2	3	2	2	S	1	3	1.5
Feb 27	2	2	1	2	1	2	2	2	2	3	3	2	1	1	1	2	2	3	3	4	5	7	S	4	1	7	2.5
Feb 28	10	24	18	10	5	4	3	3	2	1	2	1	1	1	2	2	2	2	2	2	2	S	1	1	1	24	4.4
Diurnal Maximum	17	24	24	26	27	16	19	19	17	40	9	8	8	8	6	8	9	10	20	14	15	17	15	15			
Daiurnal Average	6.6	6.9	7.7	6.9	7.6	7.5	7.8	7.3	6.6	5.8	3.6	2.8	2.5	2.5	2.7	3.0	3.4	4.2	5.0	5.1	5.5	6.2	5.8	6.5			

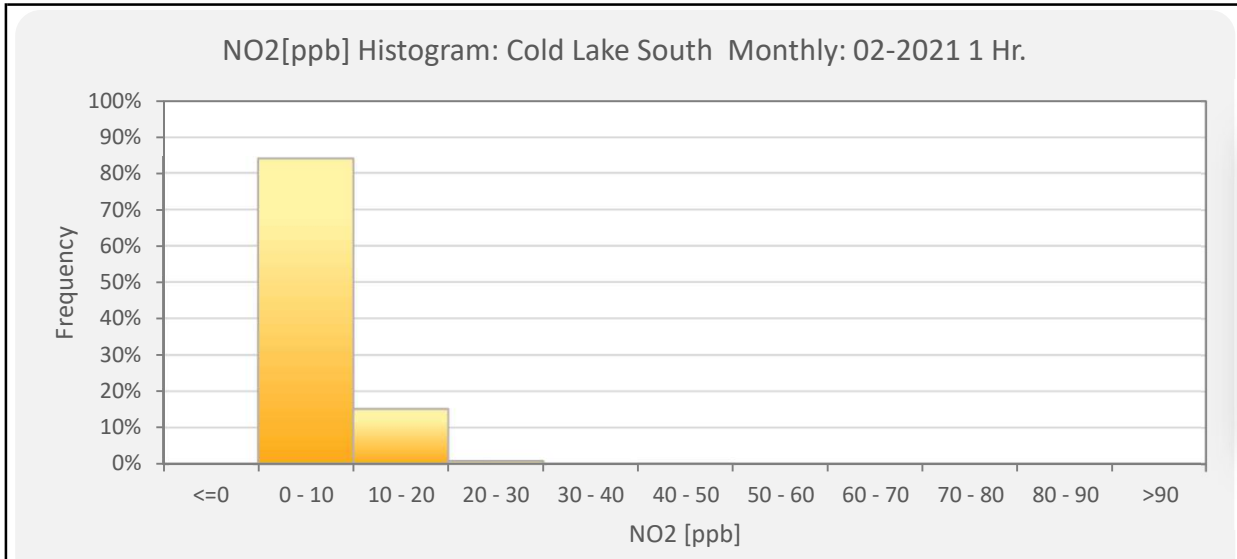
C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance	
K	Collection Error	N	No Data (Machine Not in Service)	Y	Routine Maintenance	P Power Failure
X	InValid Data (Equipment Malfunction /Recovery)	NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)			

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.

Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.

Timeseries Chart of Hourly Average for NO2 - Cold Lake South Station

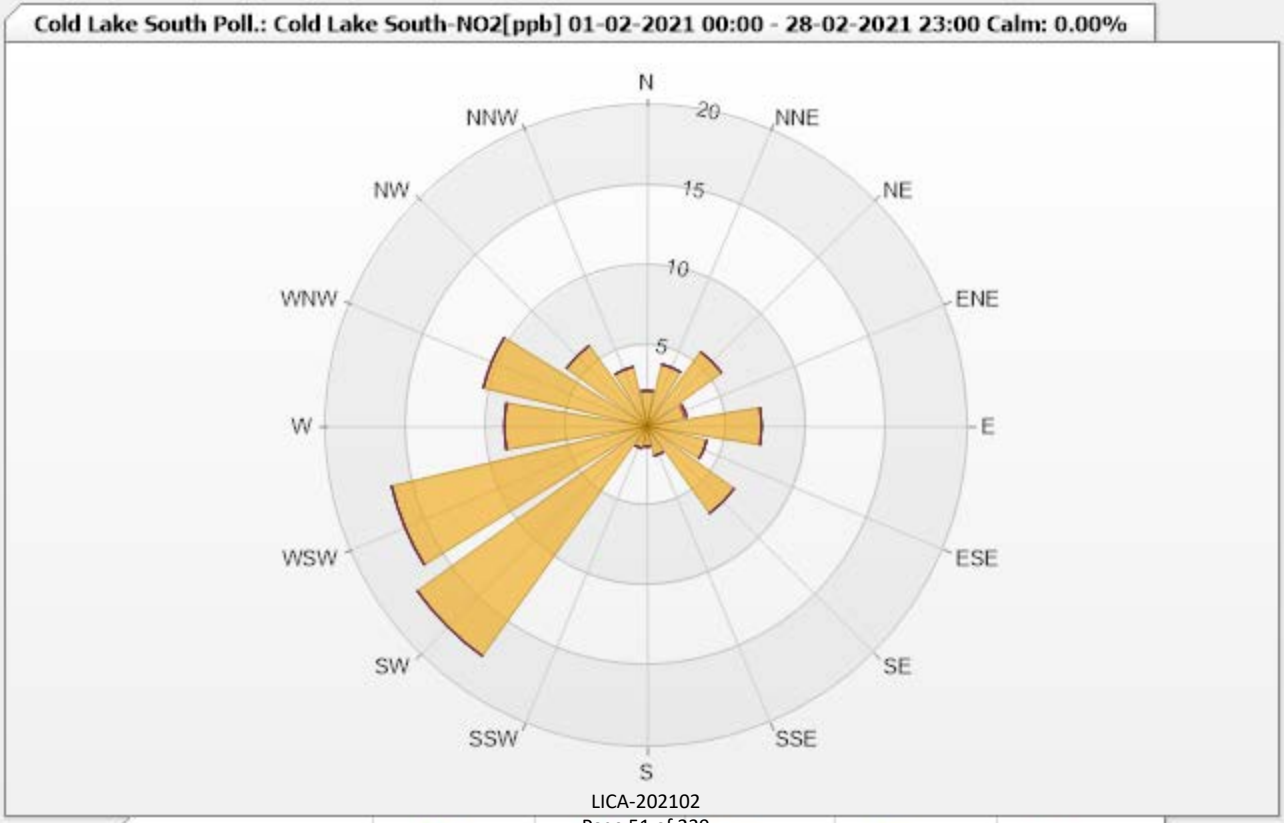




Classes	NO2
<=0	0.00%
0 - 10	83.97%
10 - 20	15.08%
20 - 30	0.79%
30 - 40	0.00%
40 - 50	0.16%
50 - 60	0.00%
60 - 70	0.00%
70 - 80	0.00%
80 - 90	0.00%
>90	0.00%

Wind: Cold Lake South Poll.: Cold Lake South-NO2[ppb] Monthly: 02-2021 Type: PollutionRose Direction: Blowing From (Wind Frequency) Based On 1 Hr.
Calm: 0.00% Valid Data: 93.75% Calm Avg: 0.00 [ppb]

Direction	0-30	30-50	50-76	76-159	>159.0	Total
N	2.22	0	0	0	0	2.22
NNE	3.97	0	0	0	0	3.97
NE	5.71	0	0	0	0	5.71
ENE	2.38	0.16	0	0	0	2.54
E	7.14	0	0	0	0	7.14
ESE	3.81	0	0	0	0	3.81
SE	6.67	0	0	0	0	6.67
SSE	1.9	0	0	0	0	1.9
S	1.27	0	0	0	0	1.27
SSW	1.43	0	0	0	0	1.43
SW	17.62	0	0	0	0	17.62
WSW	16.35	0	0	0	0	16.35
W	8.89	0	0	0	0	8.89
WNW	10.48	0	0	0	0	10.48
NW	6.19	0	0	0	0	6.19
NNW	3.81	0	0	0	0	3.81
Summary	100	0.16	0	0	0	100


Cold Lake South Poll.: Cold Lake South-NO2[ppb] 01-02-2021 00:00 - 28-02-2021 23:00 Calm: 0.00%
N
NNE
NE
ENE
E
ESE
SE
SSE
S
SSW
SW
WSW
W
WNW
NW
NNW
20
15
10
5
% Icon Classes (ppb)
100 0-30
0 30-50
0 50-76
0 76-159
0 >159.0

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION

Cold Lake South Station - February 2021

Summary of Hourly Averages

OZONE (O_3) in ppb

Alberta Ambient Air Quality Objectives (AAAQO): 1-Hour 76 ppb

Number of 1-Hour Exceedences: 0

Maximum Hourly Value:	48.3	ppb	on February 22 at hour 13	Hours in Service:	672
Maximum Daily Value:	43.6	ppb	on February 21	Hours of Data:	625
Minimum Hourly Value:	0.7	ppb	on February 25 at hour 3	Hours of Missing Data:	10
Minimum Daily Value:	15.8	ppb	on February 6	Hours of Calibration:	37
Monthly Average:	30.0	ppb		Operational Uptime:	98.5

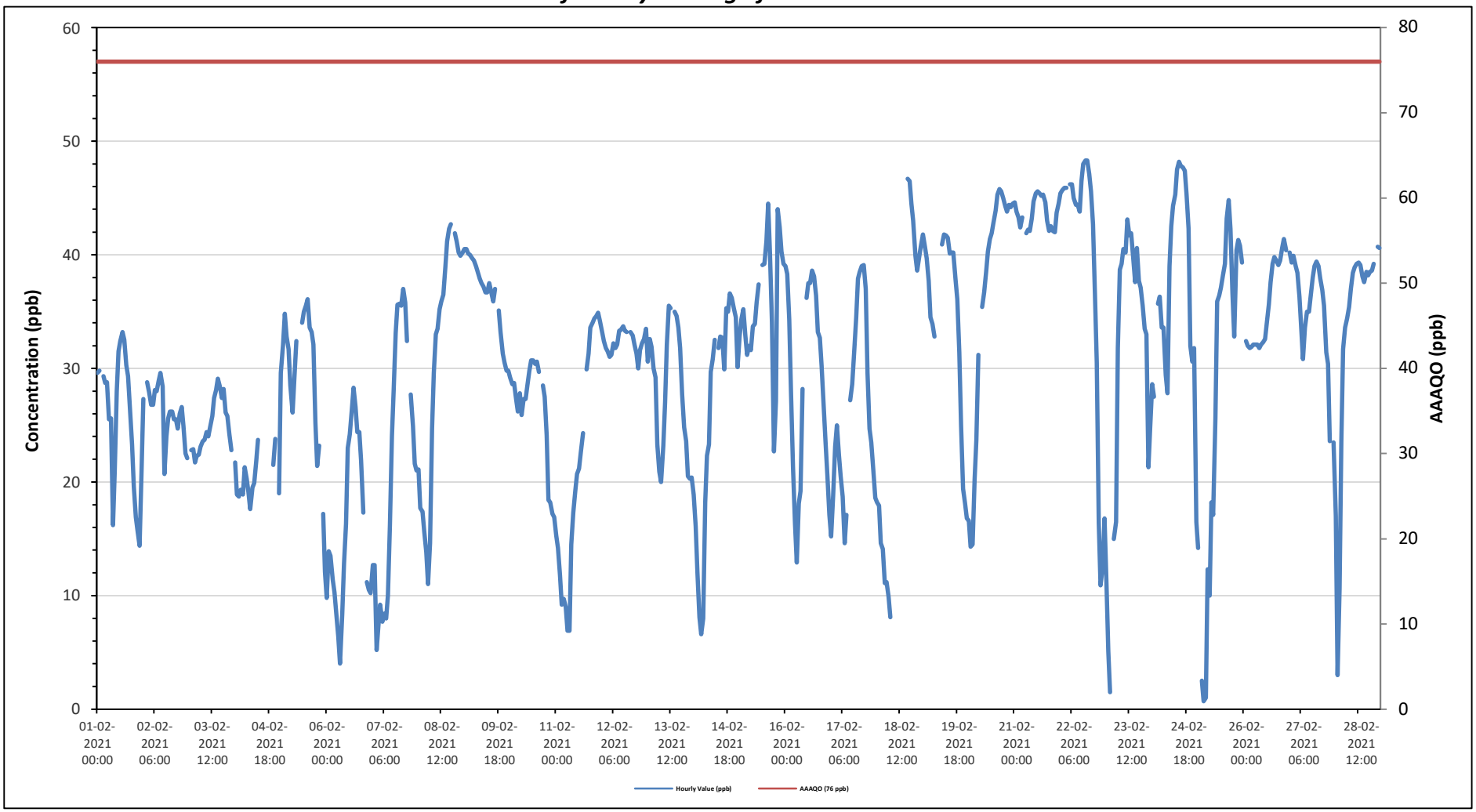
Day	Hourly Period Starting at (MST)																								Daily Minimum	Daily Maximum	Daily Average
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23			
Feb 1	29.6	29.8	S	29.3	28.7	28.8	25.5	25.6	16.2	21	28	31.5	32.4	33.2	32.5	30.3	29.3	26.3	23.3	19.6	16.9	15.7	14.4	21.1	14.4	33.2	25.6
Feb 2	27.3	S	28.8	27.9	26.8	26.8	28.1	28	28.9	29.6	28.4	20.7	24	25.6	26.2	26.2	25.5	25.5	24.7	26	26.6	24.9	22.5	22.1	20.7	29.6	26.1
Feb 3	S	22.8	22.9	21.7	22.3	22.4	23.1	23.6	23.7	24.4	24	24.8	25.8	27.4	28.1	29.1	28.4	27.4	28.2	26.1	25.8	24.2	22.8	S	21.7	29.1	25.0
Feb 4	21.7	18.9	18.7	19.3	18.9	21.3	20.3	19.1	17.6	19.5	19.9	21.8	23.7	C	C	C	C	C	C	C	21.5	23.8	S	19	17.6	23.8	-
Feb 5	29.6	32.1	34.8	32.8	31.7	28.5	26.1	29.1	32.4	NRM	NRM	34	35	35.5	36.1	33.6	33.2	32.1	25.2	21.4	23.2	S	17.2	12.1	12.1	36.1	29.3
Feb 6	9.8	13.9	13.5	11.4	10.3	8.2	6.4	4	8.4	12.8	16.3	23	24.2	26.3	28.3	26.6	24.4	24.4	21.9	17.3	S	11.2	10.5	10.2	4.0	28.3	15.8
Feb 7	12.7	12.7	5.2	7.3	9.2	7.7	8.4	8	10	16.2	24	28.1	33.1	35.6	35.7	35.5	37	35.8	32.4	S	27.7	24.9	21.6	21	5.2	37.0	21.3
Feb 8	21.1	17.7	17.4	15.6	13.8	11	14.6	24.7	29.6	33	33.5	35.2	35.9	36.5	38.9	41.2	42.3	42.7	S	41.9	41.2	40.2	39.9	40.2	11.0	42.7	30.8
Feb 9	40.5	40.5	40.1	40	39.7	39.5	39	38.5	37.9	37.5	37.2	36.7	36.7	37.5	36.8	35.9	37	S	35.1	33.2	31.3	30.5	29.8	29.8	29.8	40.5	36.6
Feb 10	29.2	28.6	28.7	27.3	26.2	27.8	25.9	27.3	27.3	28.5	29.8	30.7	30.7	30.4	30.6	29.7	S	28.5	27.5	24.1	18.4	18.2	17.2	16.9	16.9	30.7	26.5
Feb 11	15.3	14.2	11.8	9.2	9.7	9	6.9	6.9	14.5	17.3	19.2	20.7	21.2	22.6	24.3	S	29.9	31.3	33.6	34	34.4	34.6	34.9	34.2	6.9	34.9	21.3
Feb 12	33.3	32.4	31.8	31.5	31	31.2	32.2	31.8	32.1	33.3	33.4	33.7	33.3	33.2	S	33.2	32.9	32.1	31.3	30	31.6	32.2	32.6	33.5	30.0	33.7	32.3
Feb 13	30.6	32.6	31.9	30	29.2	23.3	20.9	20	23.2	27	32.1	35.5	35.3	S	35	34.6	33.6	31.8	27.7	24.8	23.6	20.5	20.3	20.4	20.0	35.5	28.0
Feb 14	18.9	16.1	12	8.1	6.6	8	18.2	22.3	23.3	29.7	30.8	32.5	S	31.8	32.8	32.7	29.9	35.3	35	36.6	36.2	35.3	34.5	30.1	6.6	36.6	25.9
Feb 15	32.8	34.3	35.2	32.9	31.2	32	31.6	33.7	33.9	35.8	37.4	S	39.1	39.2	41.2	44.5	40.2	34.1	22.7	27.1	44	42.4	40.3	39.2	22.7	44.5	35.9
Feb 16	39	38.3	34.3	27.9	21.3	16.3	12.9	18.1	19.2	28.2	S	36.2	37.5	37.5	38.6	38.1	36.4	33.2	32.7	30.2	26.8	23.4	20.6	17.1	12.9	39.0	28.9
Feb 17	15.2	18.8	23.1	25	22.4	20.5	18.7	14.6	17.1	S	27.2	28.6	31.5	34.5	37.9	38.5	39	39.1	37	29.6	24.7	23.5	21.1	18.6	14.6	39.1	26.4
Feb 18	18.2	17.9	14.6	14.1	11.1	11.2	9.9	8.1	S	12	P	P	P	P	P	NRM	46.7	46.5	44.5	43	39.9	38.6	39.8	40.8	8.1	46.7	-
Feb 19	41.8	40.7	39.7	37.7	34.5	33.9	32.8	S	NRM	NRM	40.9	41.8	41.7	41.5	40.1	40.2	40.2	37.8	36.1	31.4	25	19.4	18.1	16.8	16.8	41.8	34.9
Feb 20	16.6	14.3	14.5	20.2	23.7	31.2	S	35.4	36.7	38.5	40.3	41.4	41.9	42.8	43.9	45.3	45.8	45.6	45	44.3	43.8	44.4	44.2	44.5	14.3	45.8	36.7
Feb 21	44.6	43.8	43.3	42.4	43.3	S	41.9	42.2	42.1	43.2	44.7	45.4	45.6	45.4	45.2	45.3	44.6	43	42.1	42.5	42.1	42	43.7	44.5	41.9	45.6	**43.6**
Feb 22	45.4	45.7	45.9	45.9	S	46.2	46.2	45	44.4	44.4	43.8	46.5	48	**48.3**	**48.3**	47.1	45.6	42.7	36.3	30.5	16.4	10.9	12.4	16.8	10.9	**48.3**	39.2
Feb 23	10.8	5.1	1.5	S	15	16.5	31.8	38.7	39.2	40.5	40.2	43.1	41.7	41.9	39.8	37.6	40.6	37.7	37.1	35.5	33.5	33	21.3	24.8	1.5	43.1	30.7
Feb 24	28.6	27.5	S	35.7	36.3	33.6	33.6	29.4	27.8	39	42.5	44.3	45.3	47.5	48.2	47.8	47.7	47.4	45.3	42.3	32	30.6	31.8	16.5	16.5	48.2	37.4
Feb 25	14.2	S	2.5	0.7	1	12.3	10	18.2	17.1	25.6	35.9	36.4	37.1	38.2	39.2	43.2	44.8	42.3	36.6	32.8	40.4	41.3	40.8	39.3	**0.7**	44.8	28.3
Feb 26	S	32.4	32	31.8	31.9	32.1	32.1	32.1	31.8	32.1	32.3	32.6	34	35.6	37.6	39.2	39.8	39.5	39.1	39.5	40.6	41.4	40.4	S	31.8	41.4	35.5
Feb 27	40.2	39.3	39.9	39	38.4	36.3	33.6	30.8	33.6	35	35	36.4	38	39	39.4	39	37.9	36.9	35.5	31.4	30.4	23.6	S	23.5	23.5	40.2	35.3
Feb 28	17	3	10.6	23.5	31.7	33.6	34.4	35.4	37	38.4	38.9	39.2	39.3	39.1	38.1	37.6	38.5	38.2	38.5	38.6	39.2	S	40.7	40.6	3.0	40.7	33.5
Diurnal Maximum	45	46	46	46	43	46	46	45	44	44	45	47	48	48	48	48	48	47	45	44	44	44	44	45			
Daiurnal Average	26.3	25.9	24.4	25.5	23.9	24.0	24.6	25.6	27.1	29.7	32.6	33.9	35.1	36.2	36.9	37.3	37.4	36.0	33.6	32.1	31.0	28.9	28.2	26.7			

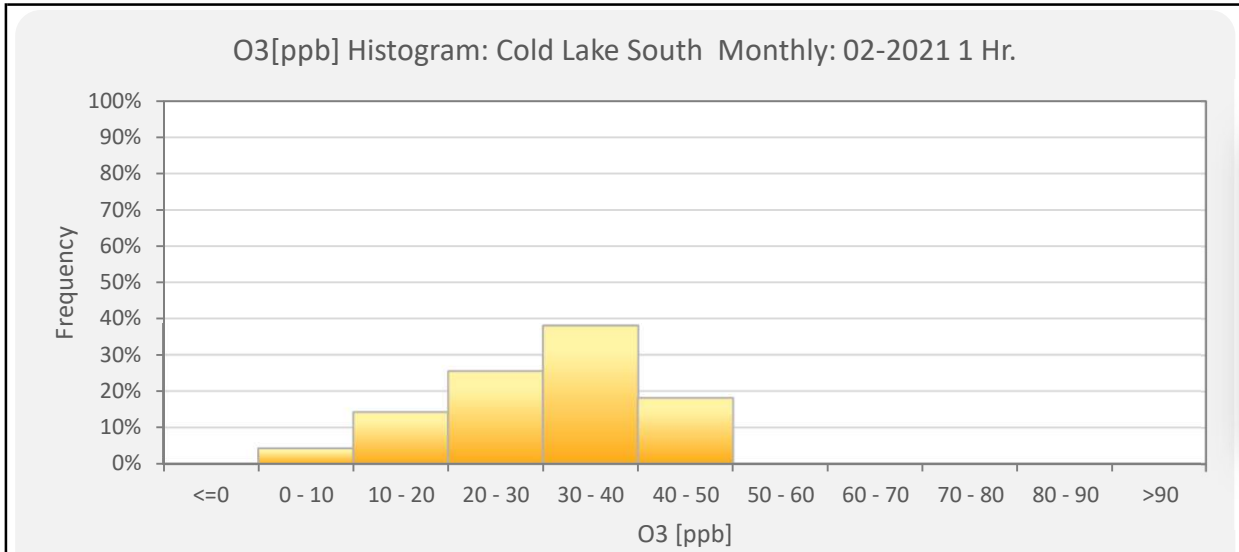
C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance	
K	Collection Error	N	No Data (Machine Not in Service)	Y	Routine Maintenance	P Power Failure
X	InValid Data (Equipment Malfunction /Recovery)	NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)			

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.

Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.

Timeseries Chart of Hourly Average for O3 - Cold Lake South Station

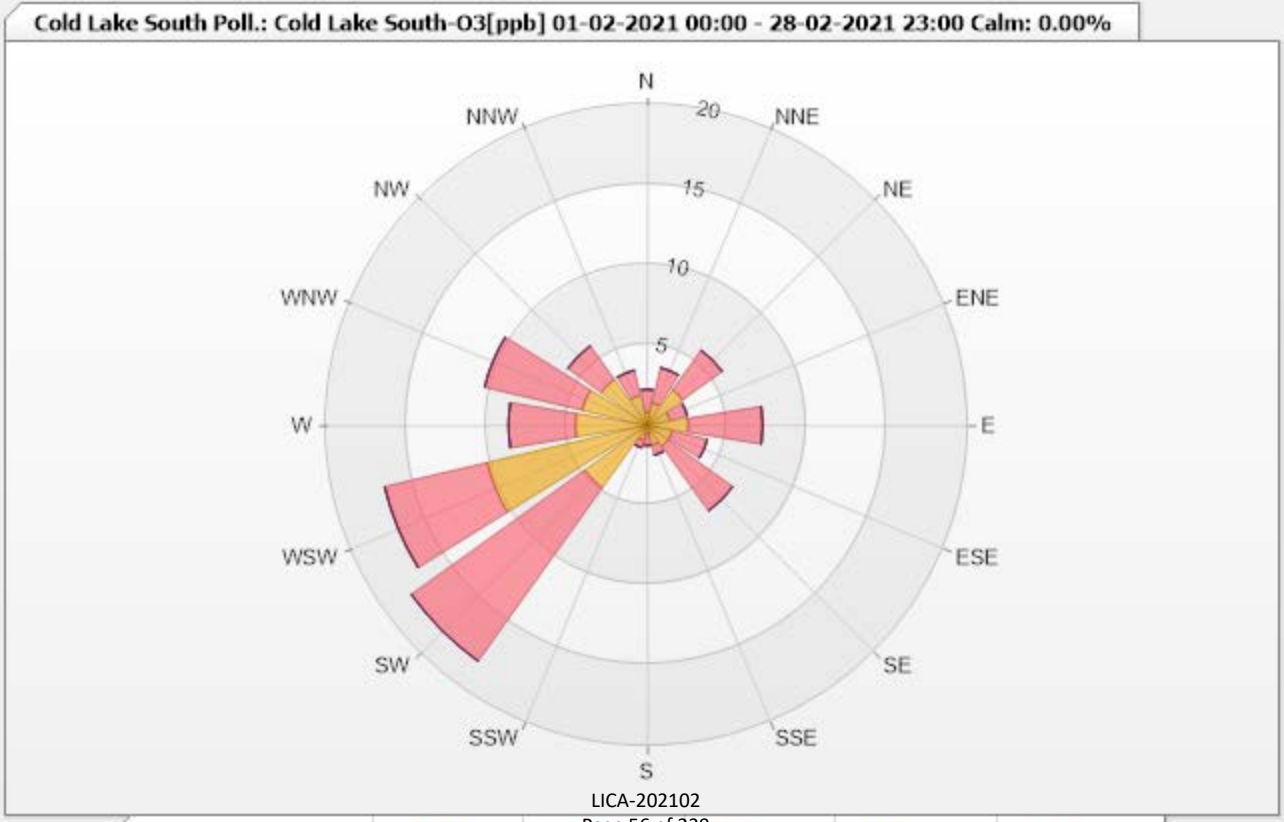




Classes	O3
<=0	0.00%
0 - 10	4.32%
10 - 20	14.24%
20 - 30	25.44%
30 - 40	37.92%
40 - 50	18.08%
50 - 60	0.00%
60 - 70	0.00%
70 - 80	0.00%
80 - 90	0.00%
>90	0.00%

Wind: Cold Lake South Poll.: Cold Lake South-O3[ppb] Monthly: 02-2021 Type: PollutionRose Direction: Blowing From (Wind Frequency) Based On 1 Hr.
Calm: 0.00% Valid Data: 93.01% Calm Avg: 0.00 [ppb]

Direction	0-30	30-50	50-76	76-159	>159.0	Total
N	0.8	1.44	0	0	0	2.24
NNE	1.44	2.24	0	0	0	3.68
NE	2.72	3.04	0	0	0	5.76
ENE	1.44	1.12	0	0	0	2.56
E	2.56	4.64	0	0	0	7.2
ESE	1.6	2.24	0	0	0	3.84
SE	1.6	4.96	0	0	0	6.56
SSE	1.28	0.64	0	0	0	1.92
S	0.48	0.8	0	0	0	1.28
SSW	0.96	0.48	0	0	0	1.44
SW	4.8	13.28	0	0	0	18.08
WSW	10.24	6.56	0	0	0	16.8
W	4.48	4.16	0	0	0	8.64
WNW	4.16	6.24	0	0	0	10.4
NW	3.52	2.56	0	0	0	6.08
NNW	1.92	1.6	0	0	0	3.52
Summary	44	56	0	0	0	100


Cold Lake South Poll.: Cold Lake South-O3[ppb] 01-02-2021 00:00 - 28-02-2021 23:00 Calm: 0.00%
N
NNE
NE
ENE
E
ESE
SE
SSE
S
SSW
SW
WSW
W
WNW
NW
NNW
20
15
10
5
% Icon Classes (ppb)
44 0-30
56 30-50
0 50-76
0 76-159
0 >159.0

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION

Cold Lake South Station - February 2021

Summary of Hourly Averages

TOTAL HYDROCARBONS (THC) in ppm

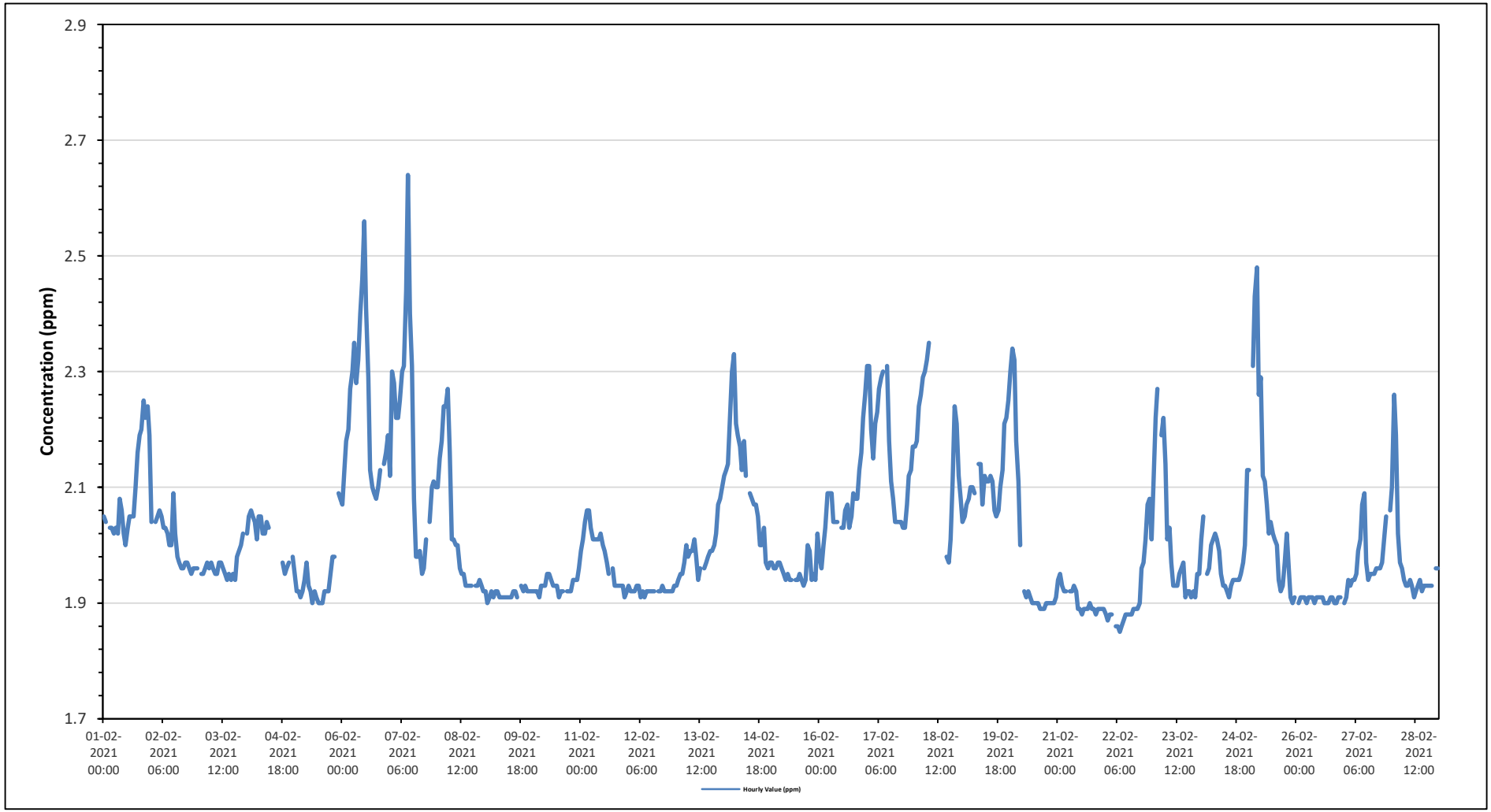
Maximum Hourly Value:	2.64	ppm	on February 7 at hour 9	Hours in Service:	672
Maximum Daily Value:	2.23	ppm	on February 6	Hours of Data:	630
Minimum Hourly Value:	1.85	ppm	on February 22 at hour 7	Hours of Missing Data:	6
Minimum Daily Value:	1.90	ppm	on February 21	Hours of Calibration:	36
Monthly Average:	2.02	ppm		Operational Uptime:	99.1

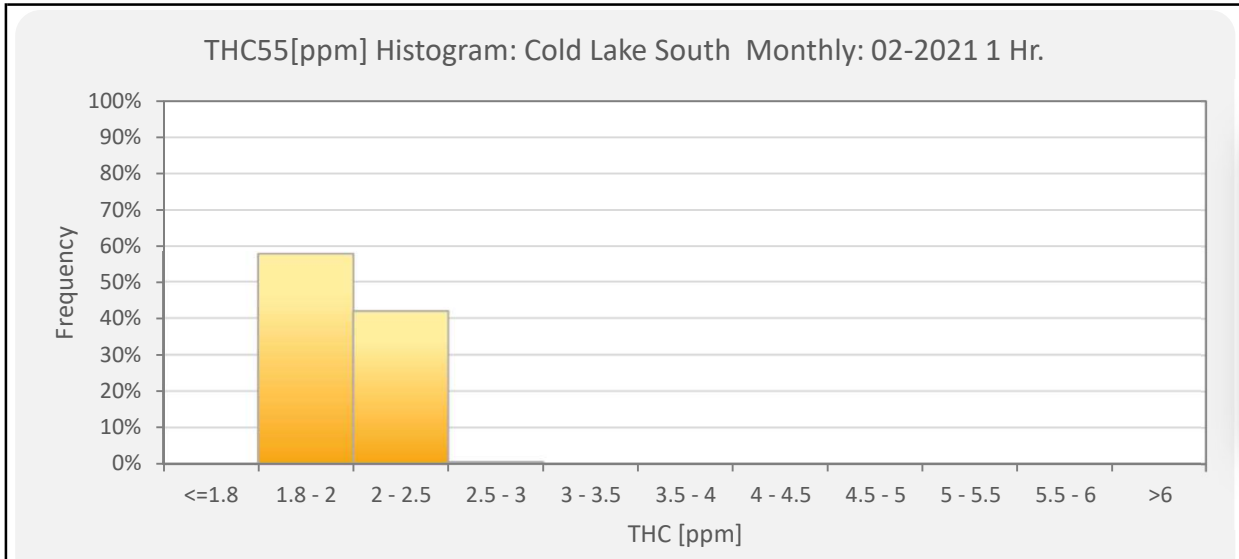
Day	Hourly Period Starting at (MST)																								Daily	Daily	Daily
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Minimum	Maximum	Average
Feb 1	2.05	2.04	S	2.03	2.03	2.02	2.03	2.02	2.08	2.06	2.02	2.00	2.03	2.05	2.05	2.05	2.10	2.16	2.19	2.20	2.25	2.22	2.24	2.19	2.00	2.25	2.09
Feb 2	2.04	S	2.04	2.05	2.06	2.05	2.03	2.03	2.02	2.00	2.00	2.09	2.02	1.98	1.97	1.96	1.96	1.97	1.97	1.96	1.95	1.96	1.96	1.96	1.95	2.09	2.00
Feb 3	S	1.95	1.95	1.96	1.97	1.96	1.97	1.96	1.95	1.95	1.97	1.97	1.96	1.95	1.94	1.95	1.94	1.95	1.94	1.98	1.99	2.00	2.02	S	1.94	2.02	1.96
Feb 4	2.02	2.05	2.06	2.05	2.04	2.01	2.05	2.05	2.02	2.02	2.04	2.03	C	C	C	C	C	C	1.97	1.95	1.96	1.97	S	1.98	1.95	2.06	-
Feb 5	1.95	1.92	1.92	1.91	1.92	1.94	1.97	1.93	1.92	1.90	1.92	1.91	1.90	1.90	1.90	1.92	1.92	1.92	1.95	1.98	1.98	S	2.09	2.08	1.90	2.09	1.94
Feb 6	2.07	2.13	2.18	2.20	2.27	2.30	2.35	2.28	2.32	2.40	2.46	2.56	2.41	2.29	2.13	2.10	2.09	2.08	2.10	2.13	S	2.14	2.16	2.19	2.07	2.56	**2.23**
Feb 7	2.12	2.30	2.28	2.22	2.22	2.25	2.30	2.31	2.44	**2.64**	2.40	2.31	2.08	1.98	1.98	1.99	1.95	1.96	2.01	S	2.04	2.10	2.11	2.10	1.95	**2.64**	2.18
Feb 8	2.10	2.15	2.18	2.24	2.24	2.27	2.16	2.01	2.01	2.00	2.00	1.96	1.95	1.95	1.93	1.93	1.93	1.93	S	1.93	1.93	1.94	1.93	1.92	1.92	2.27	2.03
Feb 9	1.92	1.90	1.91	1.92	1.91	1.92	1.92	1.91	1.91	1.91	1.91	1.91	1.91	1.91	1.92	1.92	1.91	S	1.93	1.92	1.93	1.92	1.92	1.92	1.90	1.93	1.92
Feb 10	1.92	1.92	1.92	1.91	1.93	1.93	1.93	1.95	1.95	1.94	1.93	1.93	1.93	1.91	1.92	1.92	S	1.92	1.92	1.92	1.94	1.94	1.94	1.96	1.91	1.96	1.93
Feb 11	1.99	2.01	2.04	2.06	2.06	2.03	2.01	2.01	2.01	2.01	2.02	2.00	1.99	1.97	1.95	S	1.96	1.93	1.93	1.93	1.93	1.93	1.91	1.92	1.91	2.06	1.98
Feb 12	1.93	1.92	1.92	1.92	1.93	1.93	1.91	1.92	1.91	1.92	1.92	1.92	1.92	1.92	S	1.92	1.92	1.93	1.92	1.92	1.92	1.92	1.92	1.93	1.91	1.93	1.92
Feb 13	1.93	1.94	1.95	1.95	1.97	2.00	1.98	1.99	1.99	2.01	1.98	1.94	1.96	S	1.96	1.97	1.98	1.99	1.99	2.00	2.02	2.07	2.08	2.10	1.93	2.10	1.99
Feb 14	2.12	2.13	2.14	2.23	2.30	2.33	2.21	2.19	2.17	2.13	2.18	2.12	S	2.09	2.08	2.07	2.07	2.05	2.00	2.00	2.03	1.97	1.96	1.97	1.96	2.33	2.11
Feb 15	1.97	1.96	1.96	1.97	1.97	1.96	1.95	1.94	1.95	1.94	1.94	S	1.94	1.94	1.95	1.94	1.93	1.94	2.00	1.99	1.94	1.95	1.94	2.02	1.93	2.02	1.96
Feb 16	1.98	1.96	2.00	2.03	2.09	2.09	2.09	2.04	2.04	2.04	S	2.03	2.03	2.06	2.07	2.03	2.05	2.09	2.08	2.08	2.13	2.16	2.22	2.26	1.96	2.26	2.07
Feb 17	2.31	2.31	2.20	2.15	2.21	2.23	2.27	2.29	2.30	S	2.31	2.18	2.11	2.08	2.04	2.04	2.04	2.04	2.03	2.03	2.07	2.12	2.13	2.17	2.03	2.31	2.16
Feb 18	2.17	2.18	2.24	2.26	2.29	2.30	2.32	2.35	S	2.55	P	P	P	P	P	NRM	1.98	1.97	2.01	2.11	2.24	2.21	2.12	2.08	1.97	2.55	-
Feb 19	2.04	2.05	2.07	2.08	2.10	2.10	2.09	S	2.14	2.14	2.07	2.12	2.11	2.11	2.12	2.11	2.06	2.05	2.06	2.10	2.13	2.21	2.22	2.25	2.04	2.25	2.11
Feb 20	2.30	2.34	2.32	2.18	2.11	2.00	S	1.92	1.91	1.92	1.91	1.90	1.90	1.90	1.90	1.89	1.89	1.89	1.90	1.90	1.90	1.90	1.90	1.91	1.89	2.34	1.98
Feb 21	1.94	1.95	1.93	1.92	1.92	S	1.92	1.92	1.93	1.92	1.89	1.89	1.88	1.89	1.89	1.89	1.90	1.89	1.89	1.88	1.89	1.89	1.89	1.89	1.88	1.95	1.90
Feb 22	1.88	1.87	1.88	1.88	S	1.86	1.86	1.85	1.86	1.87	1.88	1.88	1.88	1.88	1.89	1.89	1.89	1.90	1.96	1.97	2.01	2.07	2.08	2.01	1.85	2.08	1.91
Feb 23	2.10	2.22	2.27	S	2.19	2.22	2.14	2.01	2.03	1.97	1.93	1.93	1.93	1.95	1.96	1.97	1.91	1.92	1.92	1.91	1.92	1.91	1.95	1.95	1.91	2.27	2.01
Feb 24	2.01	2.05	S	1.95	1.96	2.00	2.01	2.02	2.01	1.99	1.95	1.93	1.93	1.92	1.91	1.93	1.94	1.94	1.94	1.94	1.95	1.97	2.00	2.13	1.91	2.13	1.97
Feb 25	2.13	S	2.31	2.43	2.48	2.26	2.29	2.12	2.11	2.07	2.02	2.04	2.02	2.01	2.00	1.94	1.92	1.93	1.97	2.02	1.96	1.91	1.90	1.91	1.90	2.48	2.08
Feb 26	S	1.90	1.91	1.91	1.91	1.90	1.91	1.91	1.91	1.90	1.91	1.91	1.91	1.91	1.90	1.90	1.90	1.91	1.91	1.90	1.90	1.91	1.91	S	1.90	1.91	1.91
Feb 27	1.90	1.91	1.94	1.93	1.94	1.94	1.95	1.99	2.01	2.07	2.09	1.97	1.94	1.95	1.95	1.95	1.96	1.96	1.96	1.97	2.01	2.05	S	2.06	1.90	2.09	1.97
Feb 28	2.10	2.26	2.19	2.02	1.97	1.96	1.94	1.93	1.93	1.94	1.93	1.91	1.92	1.93	1.94	1.92	1.93	1.93	1.93	1.93	1.93	S	1.96	1.96	1.91	2.26	1.97
Diurnal Maximum	2.31	2.34	2.32	2.43	2.48	2.33	2.35	2.35	2.44	2.64	2.46	2.56	2.41	2.29	2.13	2.11	2.10	2.16	2.19	2.20	2.25	2.22	2.24	2.26			
Daiurnal Average	2.04	2.05	2.07	2.05	2.07	2.07	2.06	2.03	2.03	2.04	2.02	2.01	1.98	1.98	1.97	1.96	1.96	1.97	1.98	1.98	1.99	2.01	2.02	2.03			

C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance	
K	Collection Error	N	No Data (Machine Not in Service)	Y	Routine Maintenance	P Power Failure
X	InValid Data (Equipment Malfunction /Recovery)	NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)			

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.

Timeseries Chart of Hourly Average for THC - Cold Lake South Station

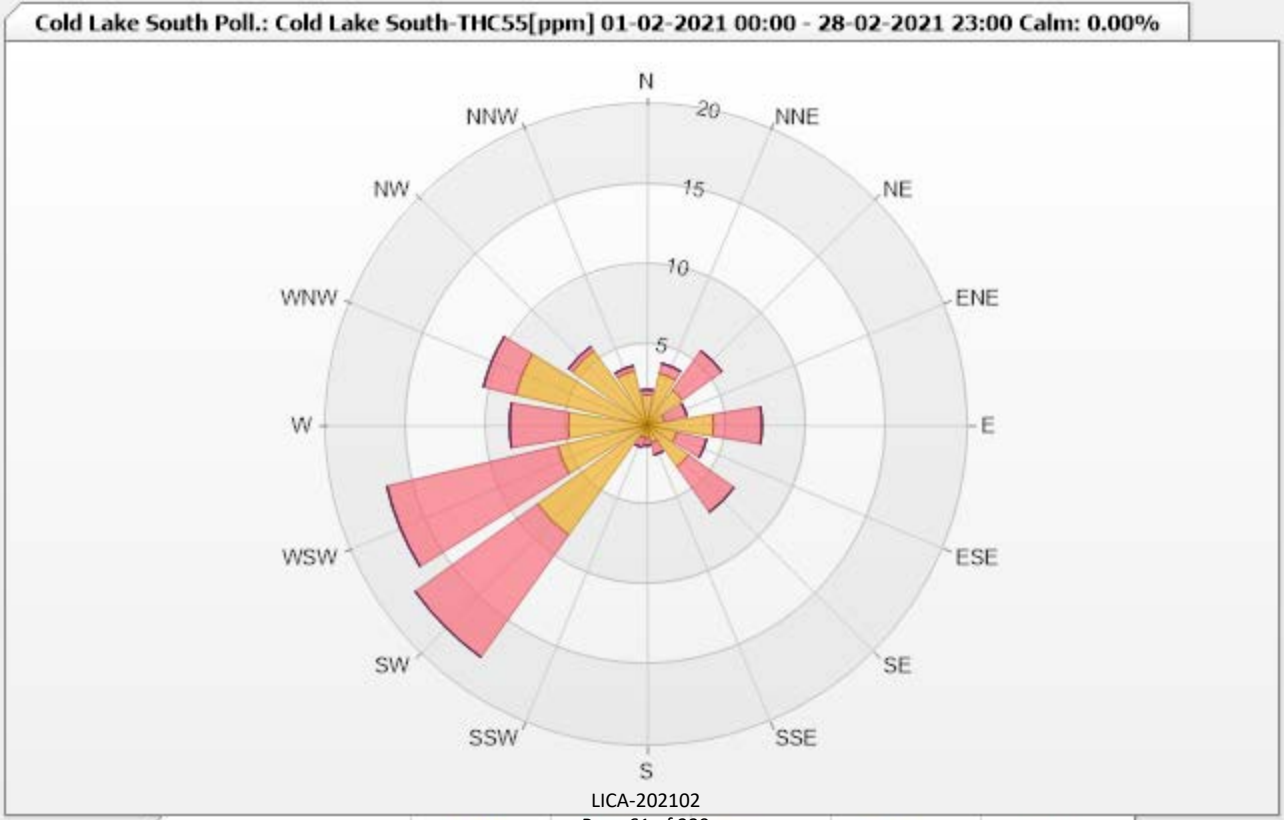




Classes	THC55
<=1.8	0.00%
1.8 - 2	57.62%
2 - 2.5	41.90%
2.5 - 3	0.48%
3 - 3.5	0.00%
3.5 - 4	0.00%
4 - 4.5	0.00%
4.5 - 5	0.00%
5 - 5.5	0.00%
5.5 - 6	0.00%
>6	0.00%

Wind: Cold Lake South Poll.: Cold Lake South-THC55[ppm] Monthly: 02-2021 Type: PollutionRose Direction: Blowing From (Wind Frequency) Based On 1 Hr.
Calm: 0.00% Valid Data: 93.75% Calm Avg: 0.00 [ppm]

Direction	0-2	2-5	5-10	10-40	>40.0	Total
N	1.9	0.32	0	0	0	2.22
NNE	3.33	0.63	0	0	0	3.96
NE	2.7	3.02	0	0	0	5.72
ENE	1.11	1.43	0	0	0	2.54
E	4.13	3.02	0	0	0	7.15
ESE	1.9	1.9	0	0	0	3.8
SE	3.17	3.49	0	0	0	6.66
SSE	1.11	0.79	0	0	0	1.9
S	0.79	0.48	0	0	0	1.27
SSW	0.79	0.63	0	0	0	1.42
SW	8.41	9.37	0	0	0	17.78
WSW	5.71	10.95	0	0	0	16.66
W	4.92	3.65	0	0	0	8.57
WNW	8.41	2.06	0	0	0	10.47
NW	5.71	0.32	0	0	0	6.03
NNW	3.49	0.32	0	0	0	3.81
Summary	57.58	42.38	0	0	0	100


Cold Lake South Poll.: Cold Lake South-THC55[ppm] 01-02-2021 00:00 - 28-02-2021 23:00 Calm: 0.00%
N
NNE
NE
ENE
E
ESE
SE
SSE
S
SSW
SW
WSW
W
WNW
NW
NNW
20
15
10
5
% Icon Classes (ppm)
58 0-2
42 2-5
0 5-10
0 10-40
0 >40.0

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION

Cold Lake South Station - February 2021

Summary of Hourly Averages

METHANE (CH4) in ppm

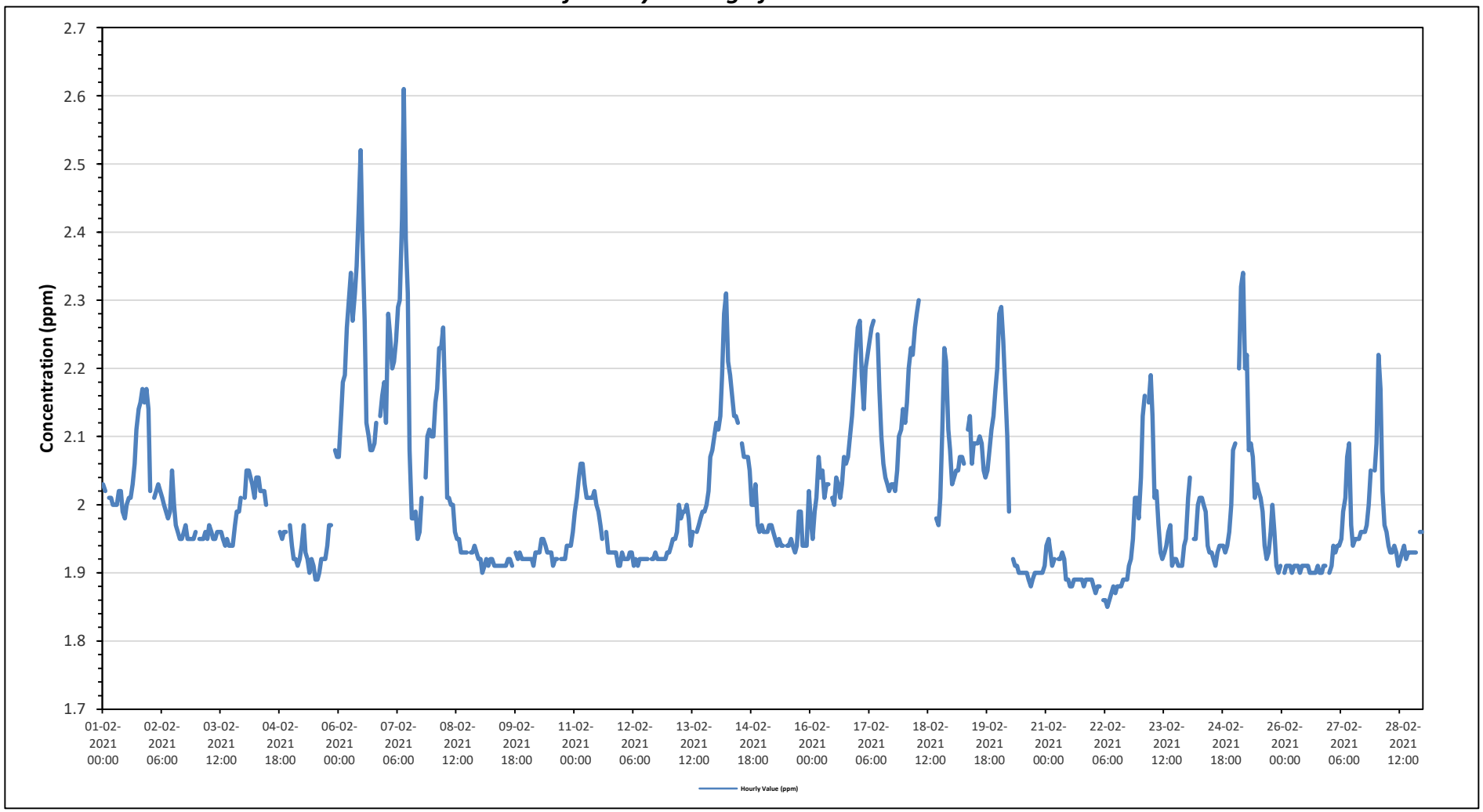
Maximum Hourly Value:	2.61	ppm	on February 7 at hour 9	Hours in Service:	672
Maximum Daily Value:	2.22	ppm	on February 6	Hours of Data:	630
Minimum Hourly Value:	1.85	ppm	on February 22 at hour 7	Hours of Missing Data:	6
Minimum Daily Value:	1.90	ppm	on February 22	Hours of Calibration:	36
Monthly Average:	2.01	ppm		Operational Uptime:	99.1

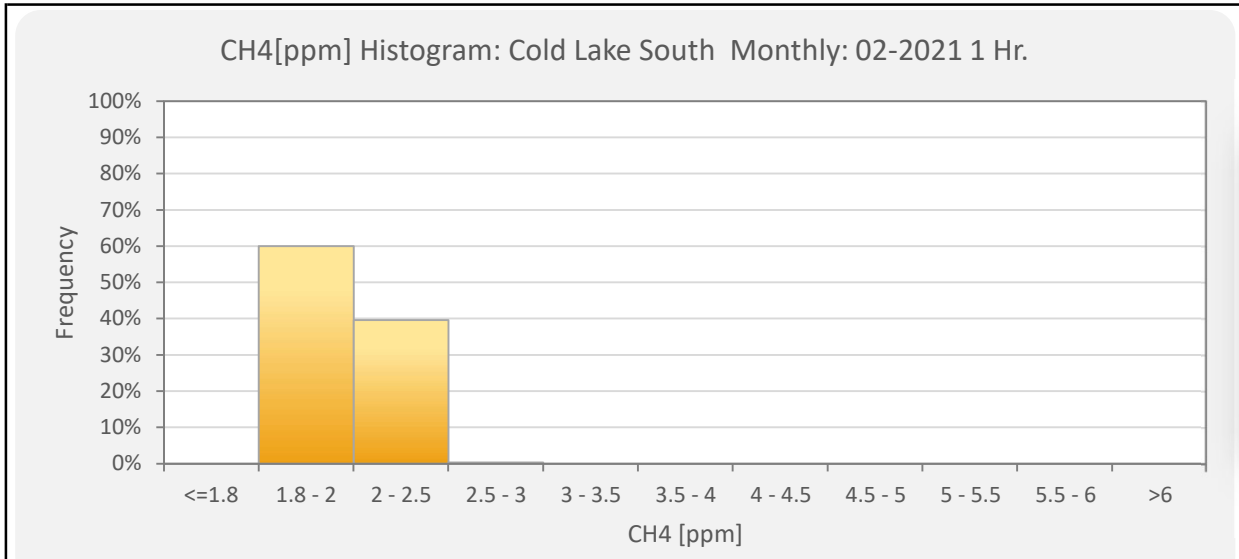
Day	Hourly Period Starting at (MST)																								Daily	Daily	Daily
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Minimum	Maximum	Average
Feb 1	2.03	2.02	S	2.01	2.01	2.00	2.00	2.00	2.02	2.02	1.99	1.98	2.00	2.01	2.01	2.03	2.06	2.11	2.14	2.15	2.17	2.15	2.17	2.14	1.98	2.17	2.05
Feb 2	2.02	S	2.01	2.02	2.03	2.02	2.01	2.00	1.99	1.98	1.99	2.05	2.00	1.97	1.96	1.95	1.95	1.96	1.97	1.95	1.95	1.95	1.95	1.96	1.95	2.05	1.98
Feb 3	S	1.95	1.95	1.95	1.96	1.95	1.97	1.96	1.95	1.95	1.96	1.96	1.96	1.95	1.94	1.95	1.94	1.94	1.94	1.97	1.99	1.99	2.01	S	1.94	2.01	1.96
Feb 4	2.01	2.05	2.05	2.04	2.03	2.01	2.04	2.04	2.02	2.02	2.02	2.00	C	C	C	C	C	C	1.96	1.95	1.96	1.96	S	1.97	1.95	2.05	-
Feb 5	1.94	1.92	1.92	1.91	1.92	1.94	1.97	1.93	1.92	1.90	1.92	1.91	1.89	1.89	1.90	1.92	1.92	1.92	1.94	1.97	1.97	S	2.08	2.07	1.89	2.08	1.94
Feb 6	2.07	2.13	2.18	2.19	2.26	2.30	2.34	2.27	2.31	2.35	2.43	2.52	2.39	2.27	2.12	2.10	2.08	2.08	2.09	2.12	S	2.13	2.16	2.18	2.07	2.52	**2.22**
Feb 7	2.12	2.28	2.25	2.20	2.21	2.24	2.29	2.30	2.42	**2.61**	2.39	2.31	2.08	1.98	1.98	1.99	1.95	1.96	2.01	S	2.04	2.10	2.11	2.10	1.95	**2.61**	2.17
Feb 8	2.10	2.15	2.17	2.23	2.23	2.26	2.15	2.01	2.01	2.00	2.00	1.96	1.95	1.95	1.93	1.93	1.93	1.93	S	1.93	1.93	1.94	1.93	1.92	1.92	2.26	2.02
Feb 9	1.92	1.90	1.91	1.92	1.91	1.92	1.92	1.91	1.91	1.91	1.91	1.91	1.91	1.91	1.92	1.92	1.91	S	1.93	1.92	1.93	1.92	1.92	1.92	1.90	1.93	1.92
Feb 10	1.92	1.92	1.92	1.91	1.93	1.93	1.93	1.95	1.95	1.94	1.93	1.93	1.93	1.91	1.92	1.92	S	1.92	1.92	1.92	1.94	1.94	1.94	1.96	1.91	1.96	1.93
Feb 11	1.99	2.01	2.04	2.06	2.06	2.03	2.01	2.01	2.01	2.01	2.02	2.00	1.99	1.97	1.95	S	1.96	1.93	1.93	1.93	1.93	1.93	1.91	1.91	1.91	2.06	1.98
Feb 12	1.93	1.92	1.92	1.92	1.93	1.93	1.91	1.92	1.91	1.92	1.92	1.92	1.92	1.92	S	1.92	1.92	1.93	1.92	1.92	1.92	1.92	1.92	1.93	1.91	1.93	1.92
Feb 13	1.93	1.94	1.95	1.95	1.96	2.00	1.98	1.99	1.99	2.00	1.98	1.94	1.96	S	1.96	1.97	1.98	1.99	1.99	2.00	2.02	2.07	2.08	2.10	1.93	2.10	1.99
Feb 14	2.12	2.11	2.13	2.19	2.28	2.31	2.21	2.19	2.16	2.13	2.13	2.12	S	2.09	2.07	2.07	2.07	2.05	2.00	2.00	2.03	1.97	1.96	1.97	1.96	2.31	2.10
Feb 15	1.96	1.96	1.96	1.97	1.97	1.96	1.95	1.94	1.95	1.94	1.94	S	1.94	1.94	1.95	1.94	1.93	1.94	1.99	1.99	1.94	1.94	1.94	2.02	1.93	2.02	1.95
Feb 16	1.98	1.95	1.99	2.01	2.07	2.04	2.05	2.01	2.03	2.03	S	2.01	2.00	2.04	2.03	2.01	2.03	2.07	2.06	2.07	2.10	2.13	2.17	2.22	1.95	2.22	2.05
Feb 17	2.26	2.27	2.19	2.14	2.20	2.22	2.24	2.26	2.27	S	2.25	2.17	2.10	2.06	2.04	2.03	2.02	2.03	2.03	2.02	2.05	2.10	2.11	2.14	2.02	2.27	2.14
Feb 18	2.12	2.15	2.20	2.23	2.22	2.26	2.28	2.30	S	2.39	P	P	P	P	P	NRM	1.98	1.97	2.01	2.11	2.23	2.21	2.11	2.08	1.97	2.39	-
Feb 19	2.03	2.04	2.05	2.05	2.07	2.07	2.06	S	2.11	2.13	2.06	2.09	2.09	2.09	2.10	2.09	2.05	2.04	2.05	2.08	2.11	2.13	2.17	2.20	2.03	2.20	2.09
Feb 20	2.28	2.29	2.24	2.17	2.10	1.99	S	1.92	1.91	1.91	1.90	1.90	1.90	1.90	1.90	1.89	1.88	1.89	1.90	1.90	1.90	1.90	1.90	1.91	1.88	2.29	1.97
Feb 21	1.94	1.95	1.93	1.91	1.92	S	1.92	1.92	1.93	1.92	1.89	1.89	1.88	1.88	1.89	1.89	1.89	1.89	1.89	1.88	1.89	1.89	1.89	1.89	1.88	1.95	1.90
Feb 22	1.88	1.87	1.88	1.88	S	1.86	1.86	1.85	1.86	1.87	1.88	1.87	1.88	1.88	1.88	1.89	1.89	1.89	1.91	1.92	1.95	2.01	2.01	1.98	1.85	2.01	1.90
Feb 23	2.04	2.13	2.16	S	2.15	2.19	2.13	2.01	2.02	1.97	1.93	1.92	1.93	1.94	1.96	1.97	1.91	1.92	1.92	1.91	1.91	1.91	1.94	1.95	1.91	2.19	1.99
Feb 24	2.01	2.04	S	1.95	1.95	2.00	2.01	2.01	2.00	1.99	1.94	1.93	1.93	1.92	1.91	1.93	1.94	1.94	1.94	1.93	1.94	1.96	2.00	2.08	1.91	2.08	1.97
Feb 25	2.09	S	2.20	2.32	2.34	2.20	2.22	2.08	2.09	2.07	2.01	2.03	2.02	2.01	1.99	1.94	1.92	1.93	1.96	2.00	1.96	1.91	1.90	1.91	1.90	2.34	2.05
Feb 26	S	1.90	1.91	1.91	1.91	1.90	1.91	1.91	1.91	1.90	1.91	1.91	1.91	1.91	1.90	1.90	1.90	1.90	1.91	1.90	1.90	1.91	1.91	S	1.90	1.91	1.91
Feb 27	1.90	1.91	1.94	1.93	1.94	1.94	1.95	1.99	2.01	2.07	2.09	1.97	1.94	1.95	1.95	1.95	1.96	1.96	1.96	1.97	2.00	2.05	S	2.05	1.90	2.09	1.97
Feb 28	2.09	2.22	2.17	2.02	1.97	1.96	1.94	1.93	1.93	1.94	1.93	1.91	1.92	1.93	1.94	1.92	1.93	1.93	1.93	1.93	1.93	S	1.96	1.96	1.91	2.22	1.97
Diurnal Maximum	2.28	2.29	2.25	2.32	2.34	2.31	2.34	2.30	2.42	2.61	2.43	2.52	2.39	2.27	2.12	2.10	2.08	2.11	2.14	2.15	2.23	2.21	2.17	2.22			
Daiurnal Average	2.03	2.04	2.05	2.04	2.06	2.05	2.05	2.02	2.02	2.03	2.01	2.00	1.98	1.97	1.96	1.96	1.96	1.96	1.97	1.98	1.98	2.00	2.01	2.02			

C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance	
K	Collection Error	N	No Data (Machine Not in Service)	Y	Routine Maintenance	P Power Failure
X	InValid Data (Equipment Malfunction /Recovery)	NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)			

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.

Timeseries Chart of Hourly Average for CH4 - Cold Lake South Station

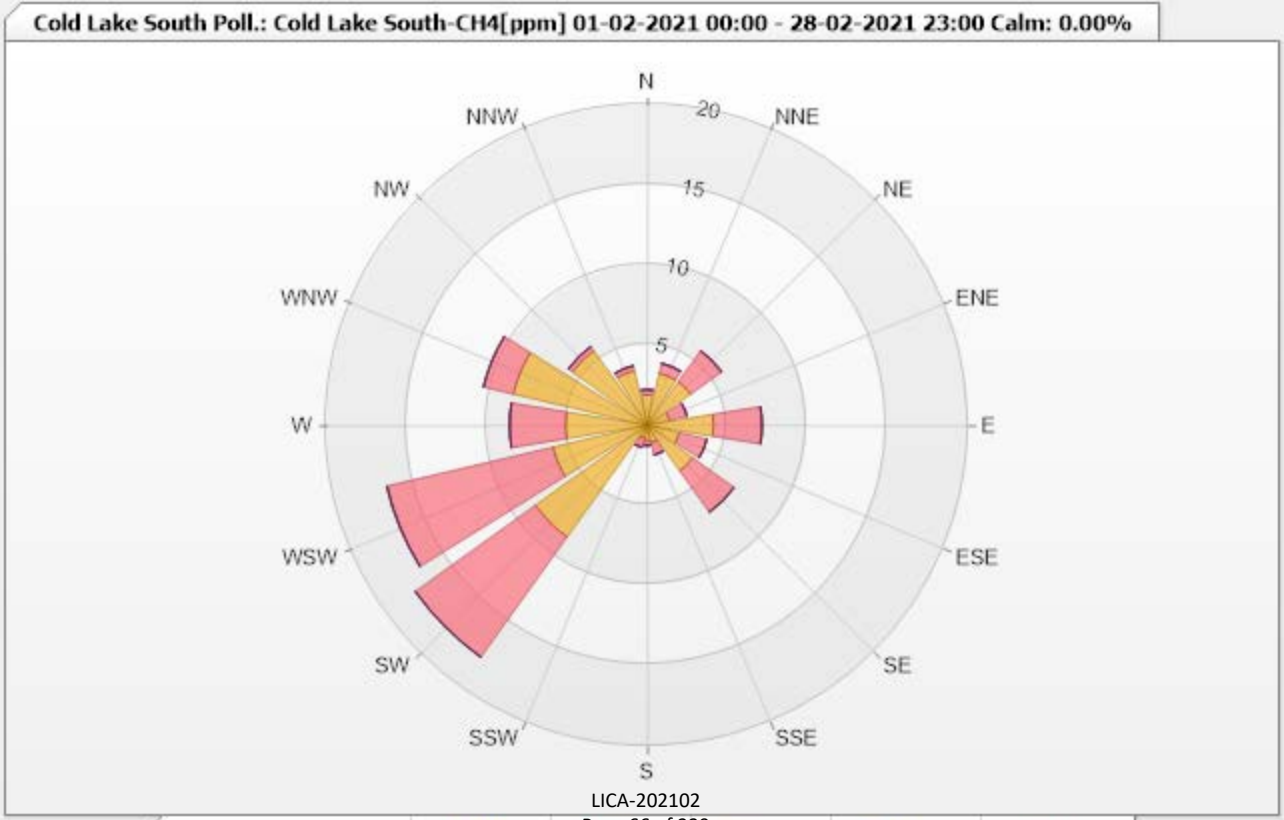




Classes	CH4
<=1.8	0.00%
1.8 - 2	60.00%
2 - 2.5	39.68%
2.5 - 3	0.32%
3 - 3.5	0.00%
3.5 - 4	0.00%
4 - 4.5	0.00%
4.5 - 5	0.00%
5 - 5.5	0.00%
5.5 - 6	0.00%
>6	0.00%

Wind: Cold Lake South Poll.: Cold Lake South-CH4[ppm] Monthly: 02-2021 Type: PollutionRose Direction: Blowing From (Wind Frequency) Based On 1 Hr.
Calm: 0.00% Valid Data: 93.75% Calm Avg: 0.00 [ppm]

Direction	0-2	2-5	5-10	10-20	>20.0	Total
N	1.9	0.32	0	0	0	2.22
NNE	3.33	0.63	0	0	0	3.96
NE	3.33	2.38	0	0	0	5.71
ENE	1.43	1.11	0	0	0	2.54
E	4.13	3.02	0	0	0	7.15
ESE	2.06	1.75	0	0	0	3.81
SE	3.49	3.17	0	0	0	6.66
SSE	1.11	0.79	0	0	0	1.9
S	0.95	0.32	0	0	0	1.27
SSW	0.79	0.63	0	0	0	1.42
SW	8.57	9.21	0	0	0	17.78
WSW	6.03	10.63	0	0	0	16.66
W	5.08	3.49	0	0	0	8.57
WNW	8.57	1.9	0	0	0	10.47
NW	5.71	0.32	0	0	0	6.03
NNW	3.49	0.32	0	0	0	3.81
Summary	59.97	39.99	0	0	0	100


Cold Lake South Poll.: Cold Lake South-CH4[ppm] 01-02-2021 00:00 - 28-02-2021 23:00 Calm: 0.00%
N
NNE
NE
ENE
E
ESE
SE
SSE
S
SSW
SW
WSW
W
WNW
NW
NNW
20
15
10
5
% Icon Classes (ppm)
60 0-2
40 2-5
0 5-10
0 10-20
0 >20.0

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION

Cold Lake South Station - February 2021

Summary of Hourly Averages

NON-METHANE HYDROCARBONS (NMHC) in ppm

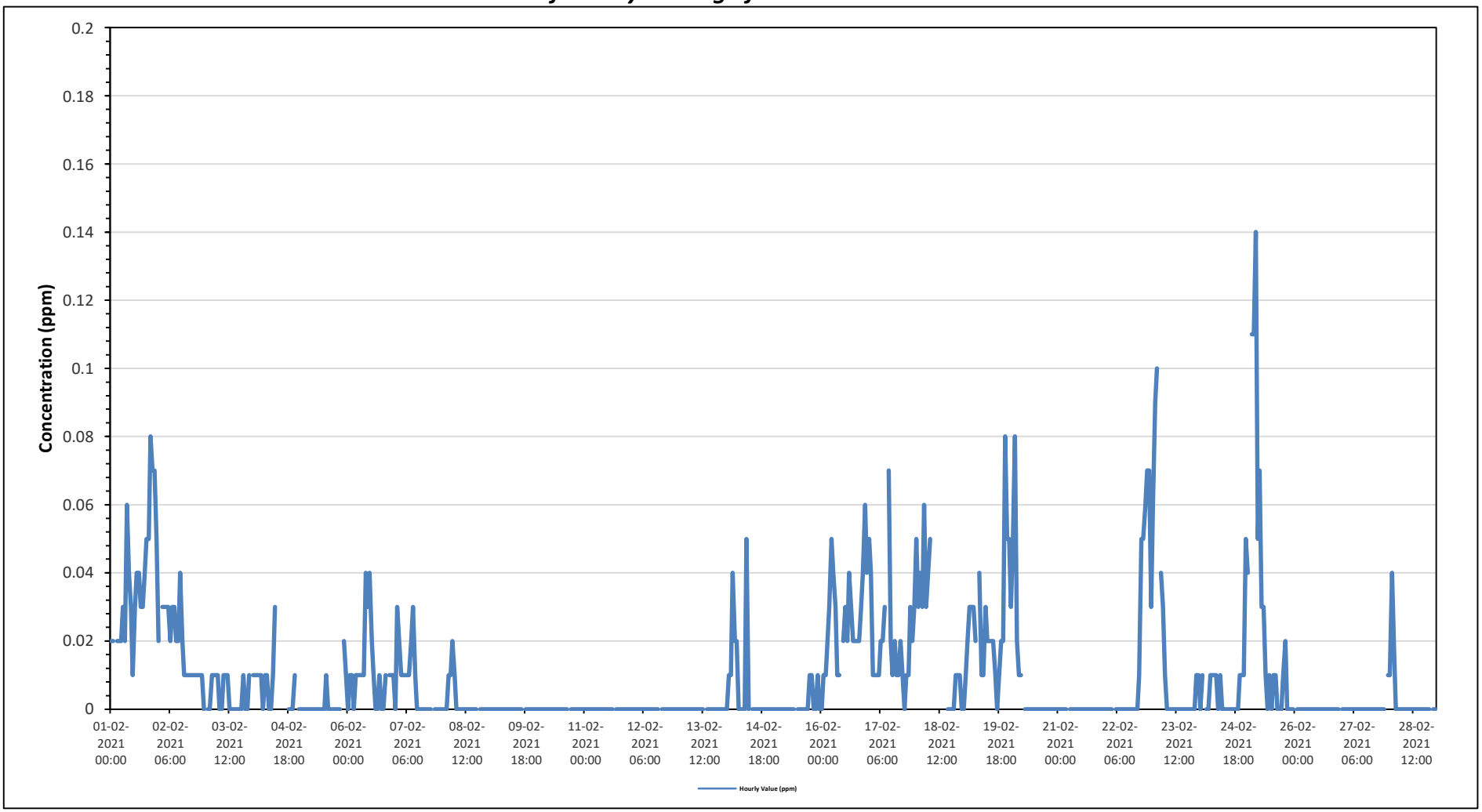
Maximum Hourly Value:	0.15	ppm	on February 18 at hour 9	Hours in Service:	672
Maximum Daily Value:	0.04	ppm	on February 1	Hours of Data:	630
Minimum Hourly Value:	0.00	ppm	on February 2 at hour 23	Hours of Missing Data:	6
Minimum Daily Value:	0.00	ppm	on February 9	Hours of Calibration:	36
Monthly Average:	0.01	ppm		Operational Uptime:	99.1

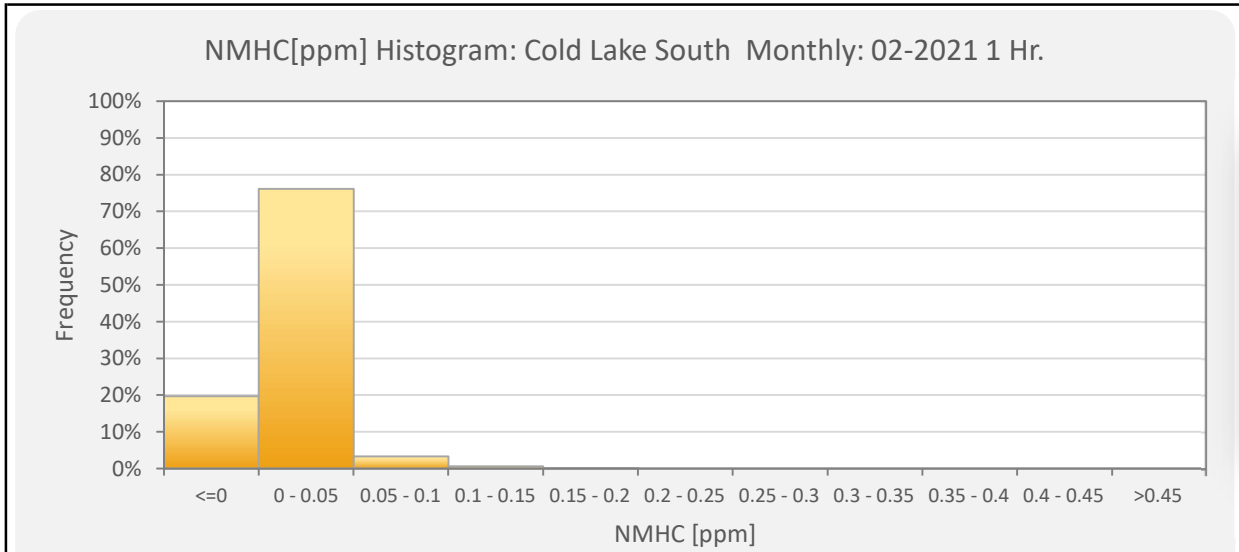
Day	Hourly Period Starting at (MST)																								Daily Minimum	Daily Maximum	Daily Average
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23			
Feb 1	0.02	0.02	S	0.02	0.02	0.02	0.03	0.02	0.06	0.04	0.03	0.01	0.03	0.04	0.04	0.03	0.03	0.04	0.05	0.05	0.08	0.07	0.07	0.05	0.01	0.08	**0.04**
Feb 2	0.02	S	0.03	0.03	0.03	0.03	0.02	0.03	0.03	0.02	0.02	0.04	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.04	0.02
Feb 3	S	0.00	0.00	0.01	0.01	0.01	0.01	0.00	0.00	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.01	S	0.00	0.01	0.00
Feb 4	0.01	0.01	0.01	0.01	0.01	0.00	0.01	0.01	0.00	0.00	0.01	0.03	C	C	C	C	C	C	0.00	0.00	0.00	0.01	S	0.00	0.00	0.03	-
Feb 5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.02	0.01	0.00	0.02	0.00
Feb 6	0.00	0.01	0.01	0.00	0.01	0.01	0.01	0.01	0.01	0.04	0.03	0.04	0.02	0.01	0.00	0.00	0.01	0.00	0.00	0.01	S	0.01	0.01	0.01	0.00	0.04	0.01
Feb 7	0.00	0.03	0.02	0.01	0.01	0.01	0.01	0.01	0.02	0.03	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.03	0.01
Feb 8	0.00	0.00	0.00	0.01	0.01	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00
Feb 9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Feb 10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Feb 11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Feb 12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Feb 13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Feb 14	0.00	0.01	0.01	0.04	0.02	0.02	0.00	0.00	0.00	0.00	0.05	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.01
Feb 15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.01	0.00	0.00	0.01	0.00
Feb 16	0.00	0.01	0.01	0.02	0.03	0.05	0.04	0.03	0.01	0.01	S	0.02	0.03	0.02	0.04	0.03	0.02	0.02	0.02	0.02	0.03	0.04	0.06	0.04	0.00	0.06	0.03
Feb 17	0.05	0.04	0.01	0.01	0.01	0.01	0.02	0.02	0.03	S	0.07	0.02	0.01	0.02	0.01	0.01	0.02	0.01	0.00	0.01	0.01	0.03	0.02	0.03	0.00	0.07	0.02
Feb 18	0.05	0.03	0.04	0.03	0.06	0.03	0.04	0.05	S	**0.15**	P	P	P	P	P	NRM	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.00	0.00	**0.15**	-
Feb 19	0.00	0.01	0.02	0.03	0.03	0.03	0.02	S	0.04	0.01	0.01	0.03	0.02	0.02	0.02	0.02	0.01	0.00	0.01	0.02	0.02	0.08	0.05	0.05	0.00	0.08	0.02
Feb 20	0.03	0.05	0.08	0.02	0.01	0.01	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.01
Feb 21	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Feb 22	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.05	0.05	0.06	0.07	0.07	0.03	0.00	0.07	0.01
Feb 23	0.06	0.09	0.10	S	0.04	0.03	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.10	0.02
Feb 24	0.00	0.01	S	0.00	0.00	0.01	0.01	0.01	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.05	0.00	0.05	0.01
Feb 25	0.04	S	0.11	0.11	0.14	0.05	0.07	0.03	0.03	0.01	0.00	0.01	0.00	0.01	0.01	0.00	0.00	0.00	0.01	0.02	0.00	0.00	0.00	0.00	0.00	0.14	0.03
Feb 26	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00
Feb 27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.01	0.00	0.01	0.00
Feb 28	0.01	0.04	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.04	0.00
Diurnal Maximum	0.06	0.09	0.11	0.11	0.14	0.05	0.07	0.05	0.06	0.15	0.07	0.04	0.03	0.04	0.04	0.03	0.03	0.04	0.05	0.05	0.08	0.08	0.07	0.05			
Daiurnal Average	0.01	0.01	0.02	0.01	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01			

C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance	
K	Collection Error	N	No Data (Machine Not in Service)	Y	Routine Maintenance	P Power Failure
X	InValid Data (Equipment Malfunction /Recovery)	NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)			

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.

Timeseries Chart of Hourly Average for NMHC - Cold Lake South Station

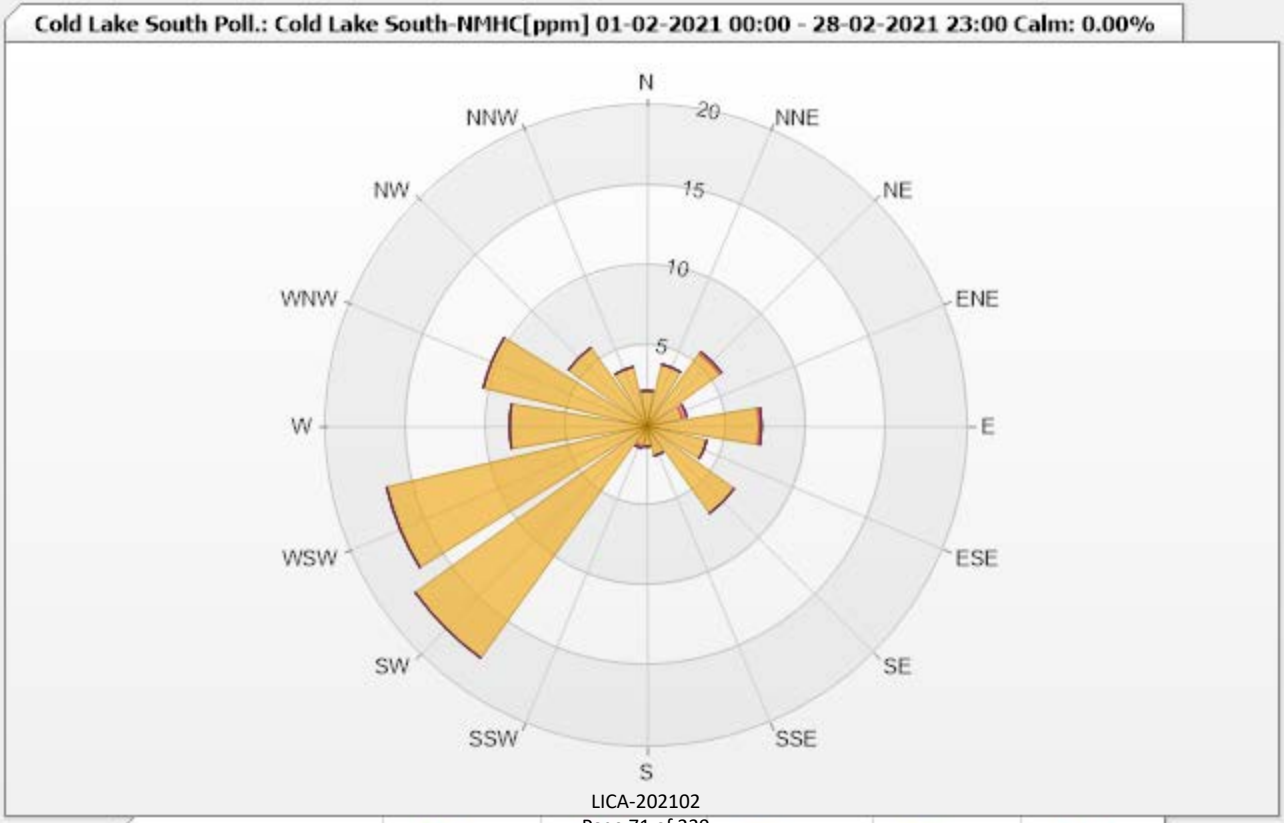




Classes	NMHC
<=0	19.68%
0 - 0.05	76.19%
0.05 - 0.1	3.33%
0.1 - 0.15	0.63%
0.15 - 0.2	0.16%
0.2 - 0.25	0.00%
0.25 - 0.3	0.00%
0.3 - 0.35	0.00%
0.35 - 0.4	0.00%
0.4 - 0.45	0.00%
>0.45	0.00%

Wind: Cold Lake South Poll.: Cold Lake South-NMHC[ppm] Monthly: 02-2021 Type: PollutionRose Direction: Blowing From (Wind Frequency) Based On 1 Hr.
Calm: 0.00% Valid Data: 93.75% Calm Avg: 0.00 [ppm]

Direction	0-0.1	0.1-0.3	0.3-0.9	0.9-2	>2.0	Total
N	2.22	0	0	0	0	2.22
NNE	3.97	0	0	0	0	3.97
NE	5.56	0.16	0	0	0	5.72
ENE	2.22	0.32	0	0	0	2.54
E	6.98	0.16	0	0	0	7.14
ESE	3.81	0	0	0	0	3.81
SE	6.67	0	0	0	0	6.67
SSE	1.9	0	0	0	0	1.9
S	1.27	0	0	0	0	1.27
SSW	1.27	0.16	0	0	0	1.43
SW	17.78	0	0	0	0	17.78
WSW	16.67	0	0	0	0	16.67
W	8.57	0	0	0	0	8.57
WNW	10.48	0	0	0	0	10.48
NW	6.03	0	0	0	0	6.03
NNW	3.81	0	0	0	0	3.81
Summary	99.21	0.8	0	0	0	100


Cold Lake South Poll.: Cold Lake South-NMHC[ppm] 01-02-2021 00:00 - 28-02-2021 23:00 Calm: 0.00%
N
NNE
NE
ENE
E
ESE
SE
SSE
S
SSW
SW
WSW
W
WNW
NW
NNW
20
15
10
5
% Icon Classes (ppm)
99 0-0.1
1 0.1-0.3
0 0.3-0.9
0 0.9-2
0 >2.0

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION

Cold Lake South Station - February 2021

Summary of Hourly Averages

PARTICULATE MATTER 2.5 ($PM_{2.5}$) in µg/m^3

Alberta Ambient Air Quality Objectives (AAAQO): 1-Hour 80 µg/m3, 24-Hour 29 µg/m3

Number of 1-Hour Exceedences: 0 Number of 24-Hour Exceedences: 0

Maximum Hourly Value:	18 µg/m^3 on February 1 at hour 21	Hours in Service:	672
Maximum Daily Value:	14.7 µg/m^3 on February 1	Hours of Data:	666
Minimum Hourly Value:	0 µg/m^3 on February 22 at hour 0	Hours of Missing Data:	5
Minimum Daily Value:	1 µg/m^3 on February 22	Hours of Calibration:	1
Monthly Average:	4.8 µg/m^3	Operational Uptime:	99.3

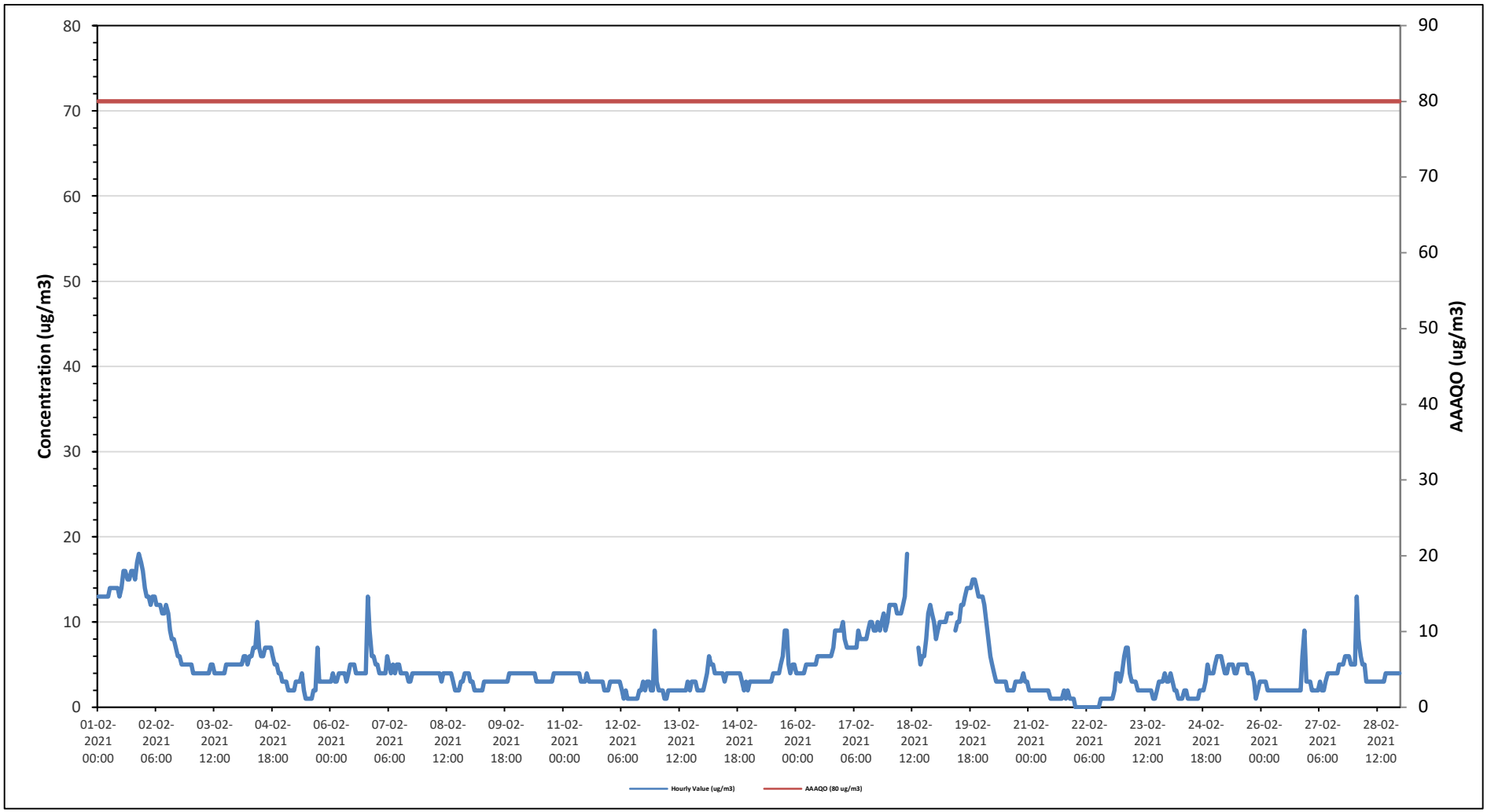
Day	Hourly Period Starting at (MST)																								Daily Minimum	Daily Maximum	Daily Average
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23			
Feb 1	13	13	13	13	13	13	14	14	14	14	14	13	14	16	16	15	15	16	16	15	17	**18**	17	16	13	**18**	**14.7**
Feb 2	14	13	13	12	13	13	12	12	12	11	11	12	11	9	8	8	7	6	6	5	5	5	5	5	5	14	9.5
Feb 3	5	4	4	4	4	4	4	4	4	4	5	5	4	4	4	4	4	4	5	5	5	5	5	5	4	5	4.4
Feb 4	5	5	5	6	6	5	6	6	7	7	10	7	6	6	7	7	7	7	6	5	5	4	4	3	3	10	5.9
Feb 5	3	3	2	2	2	2	3	3	3	4	2	1	1	1	1	2	2	7	3	3	3	3	3	3	1	7	2.6
Feb 6	3	4	3	3	4	4	4	4	3	4	5	5	5	4	4	4	4	4	4	13	9	6	6	5	3	13	4.8
Feb 7	5	4	4	4	4	6	5	4	5	4	5	5	4	4	4	4	3	3	4	4	4	4	4	4	3	6	4.2
Feb 8	4	4	4	4	4	4	4	4	4	3	4	4	4	4	4	3	2	2	2	3	3	4	4	4	2	4	3.6
Feb 9	3	3	2	2	2	2	2	3	3	3	3	3	3	3	3	3	3	3	3	3	4	4	4	4	2	4	3.0
Feb 10	4	4	4	4	4	4	4	4	4	4	3	3	3	3	3	3	3	3	3	3	4	4	4	4	3	4	3.6
Feb 11	4	4	4	4	4	4	4	4	4	3	3	3	4	3	3	3	3	3	3	3	3	2	2	2	2	4	3.3
Feb 12	3	3	3	3	3	3	2	1	2	1	1	1	1	1	1	2	2	3	2	3	3	2	2	9	1	9	2.4
Feb 13	3	2	2	2	1	1	2	2	2	2	2	2	2	2	2	2	3	2	3	3	3	2	2	2	1	3	2.1
Feb 14	2	3	4	6	5	5	4	4	4	4	4	3	4	4	4	4	4	4	4	4	3	2	3	2	2	6	3.8
Feb 15	3	3	3	3	3	3	3	3	3	3	3	3	4	4	4	4	5	6	9	9	5	4	5	5	3	9	4.2
Feb 16	4	4	4	4	4	5	5	5	5	5	5	6	6	6	6	6	6	6	6	7	9	9	9	9	4	9	5.9
Feb 17	10	8	7	7	7	7	7	7	9	8	8	8	8	9	10	10	9	9	10	9	10	11	9	10	7	11	8.6
Feb 18	12	12	12	12	11	11	11	12	13	**18**	**P**	**P**	**P**	**P**	**P**	7	5	6	6	8	11	12	11	10	5	**18**	10.5
Feb 19	8	9	10	10	10	10	11	11	11	**C**	9	10	10	12	12	13	14	14	14	15	15	14	13	13	8	15	11.7
Feb 20	13	12	10	8	6	5	4	3	3	3	3	3	3	2	2	2	2	3	3	3	3	4	3	3	2	13	4.4
Feb 21	2	2	2	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1	2	1	2	1	1	1	1	2	1.5
Feb 22	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	2	4	4	3	**0**	4	0.8
Feb 23	4	6	7	7	4	3	3	3	2	2	2	2	2	2	2	2	1	1	2	3	3	3	4	3	1	7	3.0
Feb 24	3	4	3	2	2	1	1	1	2	2	1	1	1	1	1	1	2	2	2	3	5	4	4	4	1	5	2.2
Feb 25	5	6	6	6	5	4	4	5	5	5	4	4	5	5	5	5	5	4	4	4	3	1	2	3	1	6	4.4
Feb 26	3	3	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	6	9	3	2	9	2.6
Feb 27	3	3	2	2	2	2	3	2	2	3	4	4	4	4	4	4	5	5	5	6	6	6	5	5	2	6	3.8
Feb 28	5	13	8	6	5	5	3	3	3	3	3	3	3	3	3	3	4	4	4	4	4	4	4	4	3	13	4.3
Diurnal Maximum	14	13	13	13	13	13	14	14	14	18	14	13	14	16	16	15	15	16	16	15	17	18	17	16			
Daiurnal Average	5.2	5.5	5.1	5.0	4.7	4.6	4.6	4.6	4.8	4.6	4.4	4.2	4.3	4.3	4.3	4.5	4.4	4.7	4.8	5.3	5.4	5.3	5.3	5.1			

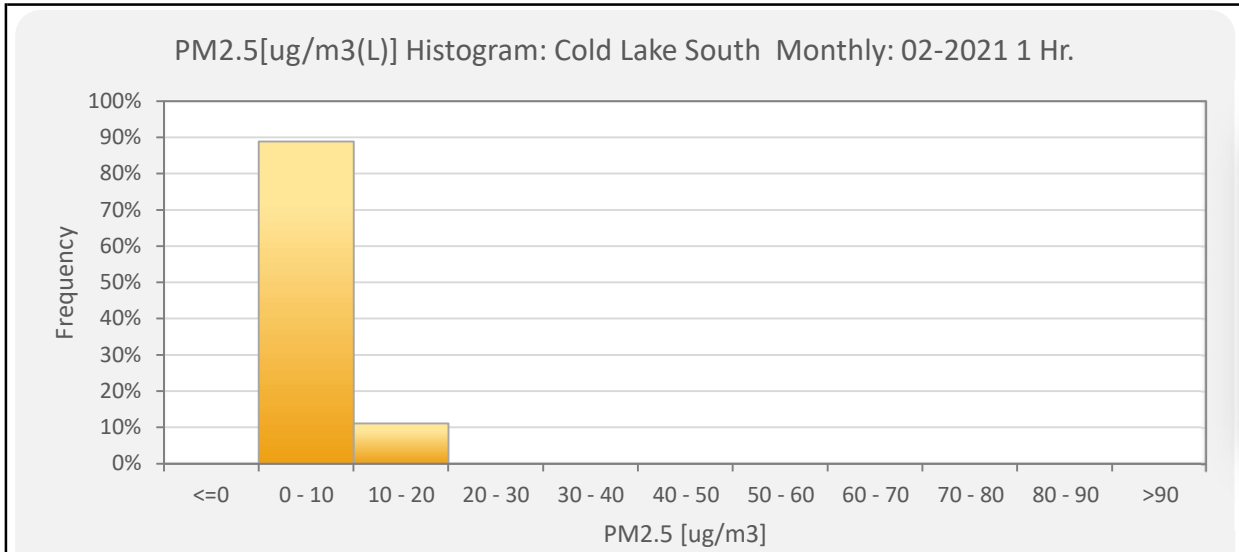
C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance	
K	Collection Error	N	No Data (Machine Not in Service)	Y	Routine Maintenance	P Power Failure
X	InValid Data (Equipment Malfunction /Recovery)	NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)			

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.

Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.

Timeseries Chart of Hourly Average for PM2.5 - Cold Lake South Station

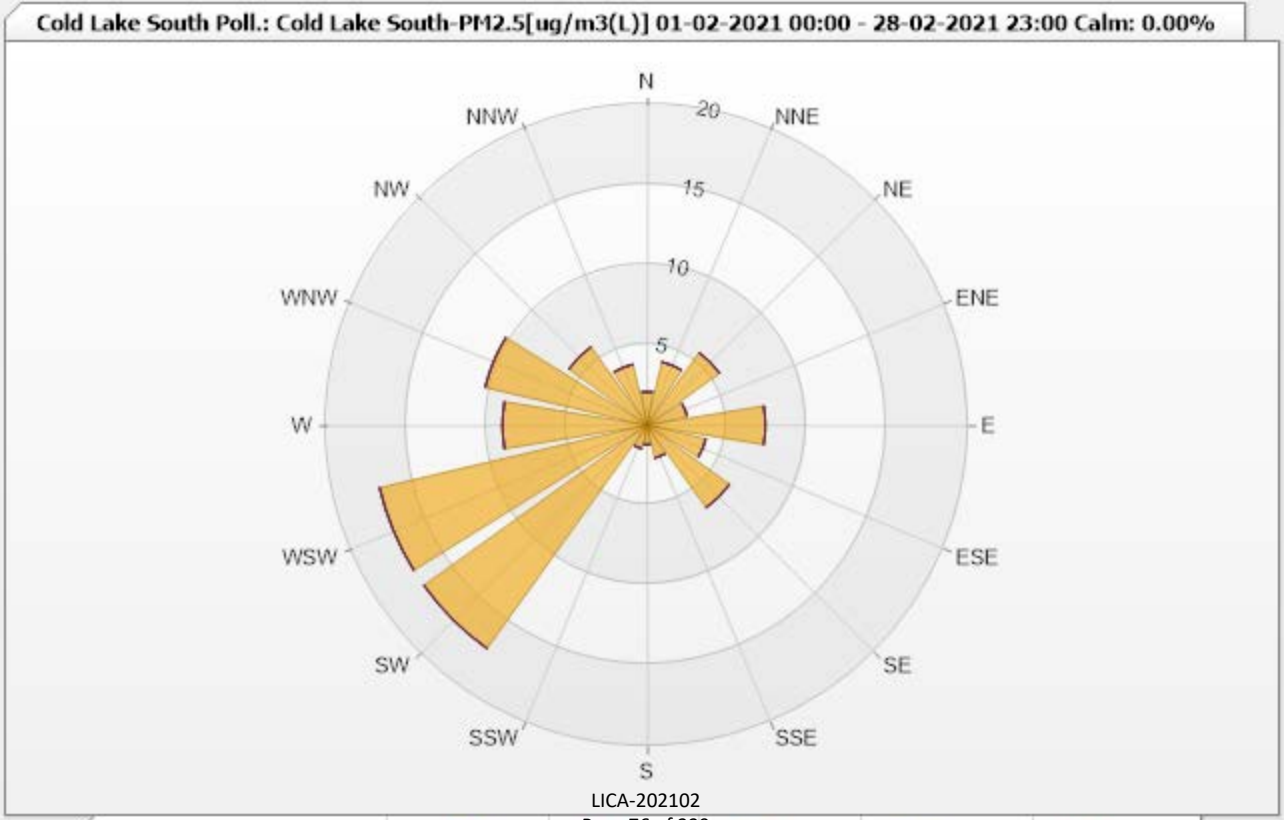




Classes	PM2.5
<=0	0.00%
0 - 10	88.89%
10 - 20	11.11%
20 - 30	0.00%
30 - 40	0.00%
40 - 50	0.00%
50 - 60	0.00%
60 - 70	0.00%
70 - 80	0.00%
80 - 90	0.00%
>90	0.00%

Wind: Cold Lake South Poll.: Cold Lake South-PM2.5[ug/m3(L)] Monthly: 02-2021 Type: PollutionRose Direction: Blowing From (Wind Frequency) Based On 1 Hr.
Calm: 0.00% Valid Data: 99.11% Calm Avg: 0.00 [ug/m3(L)]

Direction	0-50	50-80	80-120	120-240	>240.0	Total
N	2.1	0	0	0	0	2.1
NNE	4.05	0	0	0	0	4.05
NE	5.56	0	0	0	0	5.56
ENE	2.55	0	0	0	0	2.55
E	7.36	0	0	0	0	7.36
ESE	3.75	0	0	0	0	3.75
SE	6.31	0	0	0	0	6.31
SSE	2.1	0	0	0	0	2.1
S	1.2	0	0	0	0	1.2
SSW	1.5	0	0	0	0	1.5
SW	17.12	0	0	0	0	17.12
WSW	17.12	0	0	0	0	17.12
W	9.01	0	0	0	0	9.01
WNW	10.36	0	0	0	0	10.36
NW	6.01	0	0	0	0	6.01
NNW	3.9	0	0	0	0	3.9
Summary	100	0	0	0	0	100


Cold Lake South Poll.: Cold Lake South-PM2.5[ug/m3(L)] 01-02-2021 00:00 - 28-02-2021 23:00 Calm: 0.00%
N
NNE
NE
ENE
E
ESE
SE
SSE
S
SSW
SW
WSW
W
WNW
NW
NNW
20
15
10
5
% Icon Classes (ug/m3(L))
100 0-50
0 50-80
0 80-120
0 120-240
0 >240.0

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION

Cold Lake South Station - February 2021

Summary of Hourly Averages

RELATIVE HUMIDITY (RH) in %

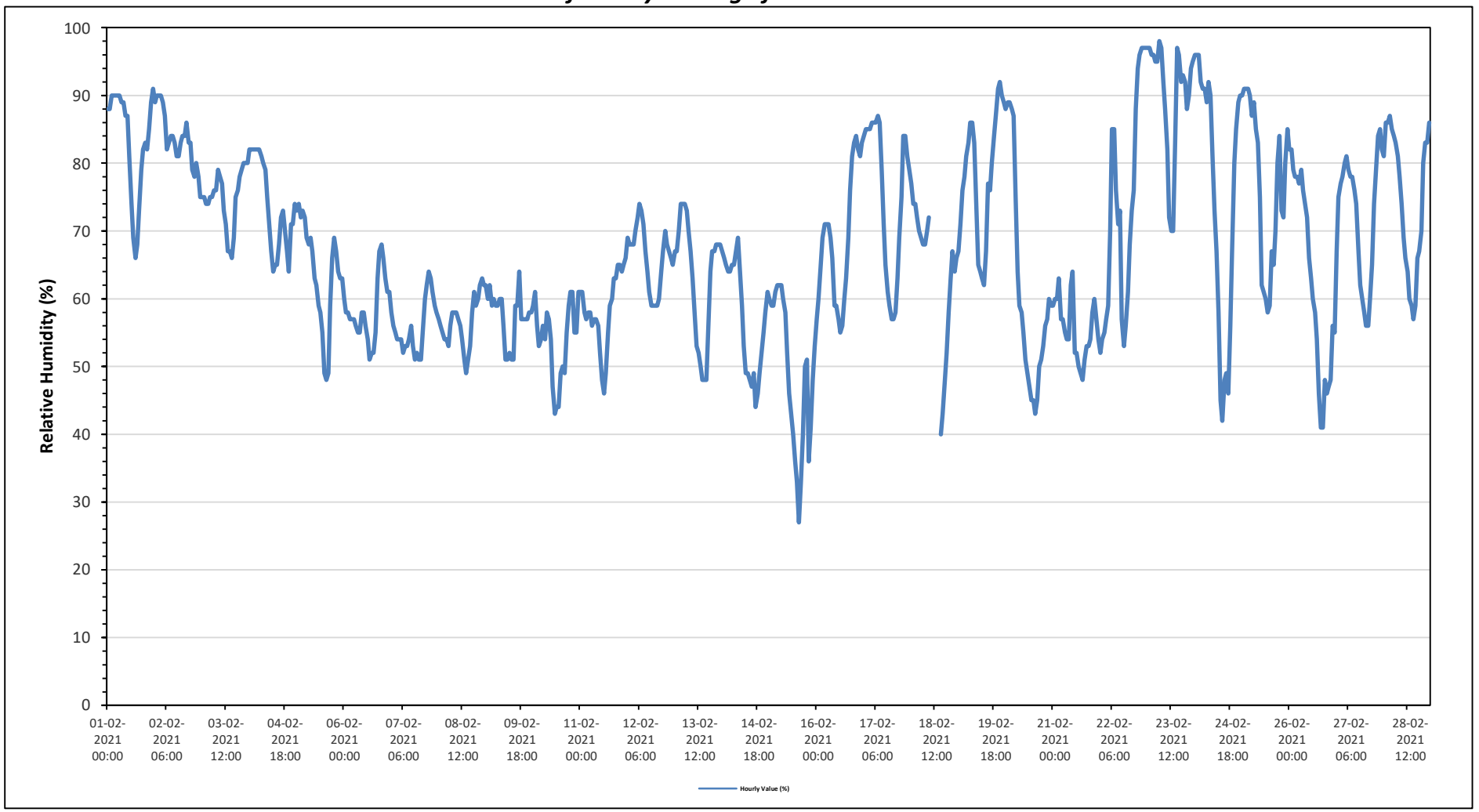
Maximum Hourly Value:	98	%	on February 23 at hour 6	Hours in Service:	672
Maximum Daily Value:	90.2	%	on February 23	Hours of Data:	667
Minimum Hourly Value:	27	%	on February 15 at hour 15	Hours of Missing Data:	5
Minimum Daily Value:	48.8	%	on February 15	Hours of Calibration:	0
Monthly Average:	67.3	%		Operational Uptime:	99.3

Day	Hourly Period Starting at (MST)																								Daily	Daily	Daily
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Minimum	Maximum	Average
Feb 1	88	88	90	90	90	90	90	89	89	87	87	81	74	69	66	68	73	79	82	83	82	85	89	91	66	91	83.3
Feb 2	89	90	90	90	89	87	82	83	84	84	83	81	81	83	84	84	86	83	83	79	78	80	78	75	75	90	83.6
Feb 3	75	75	74	74	75	75	76	76	79	78	77	73	71	67	67	66	69	75	76	78	79	80	80	80	66	80	74.8
Feb 4	82	82	82	82	82	82	81	80	79	75	71	67	64	65	65	68	72	73	70	67	64	71	71	74	64	82	73.7
Feb 5	73	74	72	73	72	69	68	69	67	63	62	59	58	55	49	48	49	59	66	69	67	64	63	63	48	74	63.8
Feb 6	60	58	58	57	57	57	56	55	55	58	58	56	54	51	52	52	55	63	67	68	66	63	61	61	51	68	58.3
Feb 7	58	56	55	54	54	54	52	53	53	54	56	53	51	52	51	51	55	60	62	64	63	61	59	58	51	64	55.8
Feb 8	57	56	55	54	54	53	56	58	58	58	57	56	54	51	49	51	53	58	61	59	60	62	63	62	49	63	56.5
Feb 9	62	60	62	59	60	59	59	60	60	56	51	51	52	51	51	59	59	64	57	57	57	57	58	58	51	64	57.5
Feb 10	59	61	56	53	54	56	54	58	57	54	47	43	44	44	49	50	49	55	59	61	61	55	55	61	43	61	54.0
Feb 11	61	61	58	57	58	58	56	57	57	56	52	48	46	49	55	59	60	63	63	65	65	64	65	66	46	66	58.3
Feb 12	69	68	68	68	70	72	74	73	71	67	64	61	59	59	59	59	60	64	67	70	68	67	66	65	59	74	66.2
Feb 13	67	67	70	74	74	74	73	70	67	63	58	53	52	50	48	48	48	56	64	67	67	68	68	68	48	74	63.1
Feb 14	67	66	65	64	64	65	65	67	69	64	59	53	49	49	48	47	49	44	46	49	52	55	58	61	44	69	57.3
Feb 15	60	59	59	61	62	62	62	60	58	52	46	43	40	36	33	**27**	33	40	50	51	36	41	48	53	**27**	62	48.8
Feb 16	57	60	65	69	71	71	71	69	66	59	59	57	55	56	60	63	69	76	81	83	84	82	81	83	55	84	68.6
Feb 17	84	85	85	85	86	86	86	87	86	79	71	65	61	59	57	57	58	63	69	75	84	84	81	79	57	87	75.5
Feb 18	77	74	74	72	70	69	68	68	70	72	**P**	**P**	**P**	**P**	**P**	40	43	48	52	58	63	67	64	66	40	77	63.9
Feb 19	67	71	76	78	81	83	86	86	83	74	65	64	63	62	67	77	76	80	84	87	91	92	90	89	62	92	78.0
Feb 20	88	89	89	88	87	75	64	59	58	55	51	49	47	45	45	43	45	50	51	53	56	57	60	59	43	89	61.0
Feb 21	59	60	60	63	57	57	55	54	54	62	64	52	52	50	49	48	51	53	53	54	58	60	57	54	48	64	55.7
Feb 22	52	54	55	57	59	70	85	85	76	71	73	57	53	56	61	68	73	76	88	94	96	97	97	97	52	97	72.9
Feb 23	97	97	96	96	95	95	**98**	97	92	88	82	72	70	70	83	97	96	92	93	92	88	90	94	95	70	**98**	**90.2**
Feb 24	96	96	96	92	91	91	89	92	90	81	73	67	58	45	42	48	49	46	56	67	80	85	89	90	42	96	75.4
Feb 25	90	91	91	91	90	87	89	85	83	75	62	61	60	58	59	67	65	70	80	84	73	72	80	85	58	91	77.0
Feb 26	82	82	79	78	78	77	79	76	74	72	66	63	60	58	54	46	41	41	48	46	47	48	56	55	41	82	62.8
Feb 27	67	75	77	78	80	81	79	78	78	76	74	67	62	60	58	56	56	60	65	74	79	84	85	82	56	85	72.1
Feb 28	81	86	86	87	85	84	83	81	78	74	69	66	64	60	59	57	59	66	67	70	80	83	83	86	57	87	74.8
Diurnal Maximum	97	97	96	96	95	95	98	97	92	88	87	81	81	83	84	97	96	92	93	94	96	97	97	97			
Daiurnal Average	72.3	72.9	73.0	73.0	73.0	72.8	72.7	72.3	71.1	68.1	64.3	59.9	57.6	55.9	56.3	57.3	59.0	62.8	66.4	68.7	69.4	70.5	71.4	72.0			

C	Monthly Calibration	**S**	Daily Zero-Span Check	**Q**	Quality Assurance	
K	Collection Error	**N**	No Data (Machine Not in Service)	**Y**	Routine Maintenance	**P** Power Failure
X	InValid Data (Equipment Malfunction /Recovery)	**NRM**	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)			

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.

Timeseries Chart of Hourly Average for RH - Cold Lake South Station



LAKELAND INDUSTRY & COMMUNITY ASSOCIATION

Cold Lake South Station - February 2021

Summary of Hourly Averages

BAROMETRIC PRESSURE (BP) in millibar

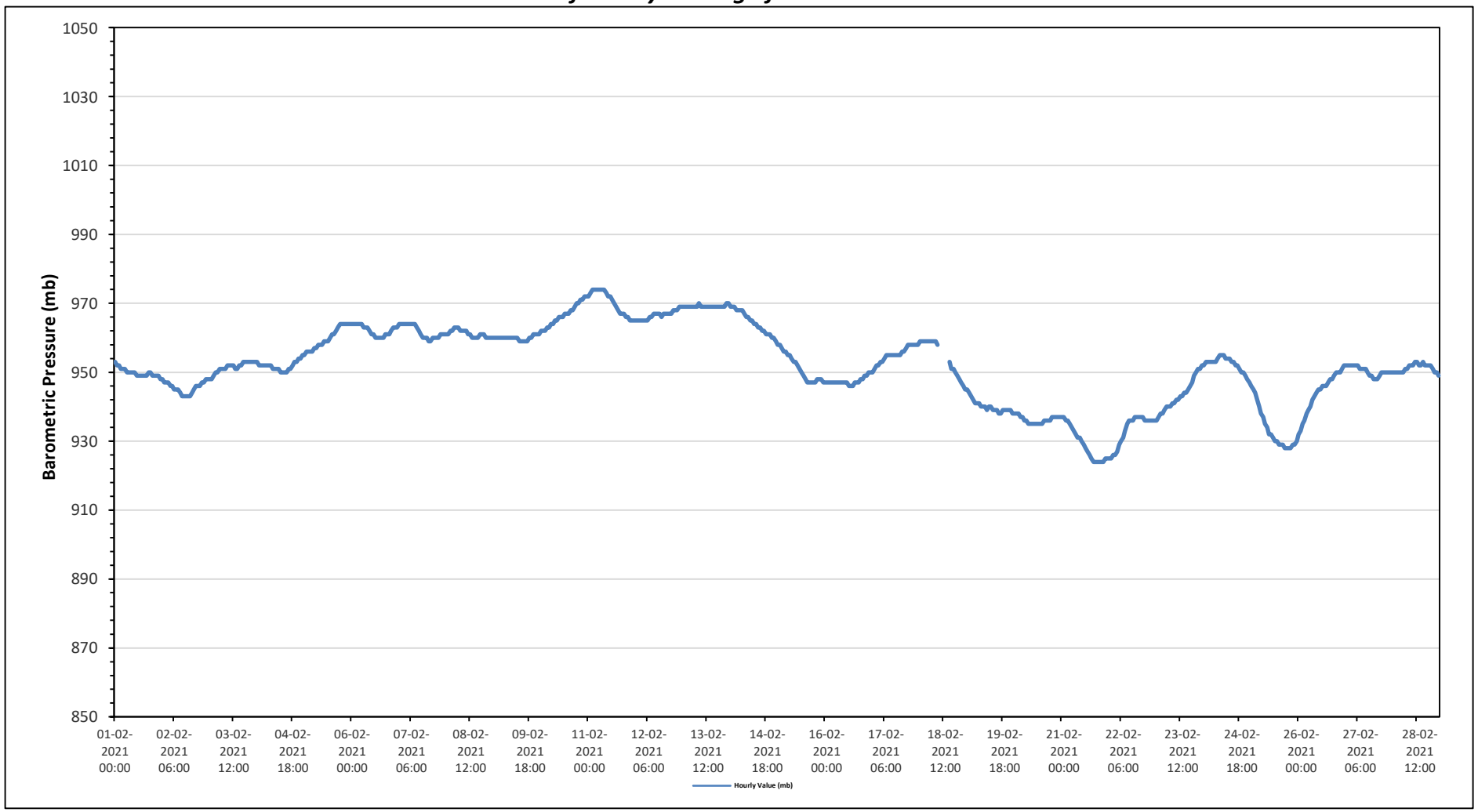
Maximum Hourly Value:	974	mb	on February 11 at hour 2	Hours in Service:	672
Maximum Daily Value:	970	mb	on February 11	Hours of Data:	667
Minimum Hourly Value:	924	mb	on February 21 at hour 16	Hours of Missing Data:	5
Minimum Daily Value:	929	mb	on February 21	Hours of Calibration:	0
Monthly Average:	952	mb		Operational Uptime:	99.3

Day	Hourly Period Starting at (MST)																							Daily	Daily	Daily
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Minimum	Maximum	Average
Feb 1	953	952	952	951	951	951	950	950	950	950	950	949	949	949	949	949	949	950	950	949	949	949	949	948	948	953	950
Feb 2	948	947	947	947	946	946	945	945	945	944	943	943	943	943	943	944	945	946	946	946	947	947	948	948	943	948	946
Feb 3	948	948	949	950	950	951	951	951	951	952	952	952	952	951	951	952	952	953	953	953	953	953	953	953	948	953	951
Feb 4	953	952	952	952	952	952	952	952	951	951	951	951	950	950	950	950	951	951	952	953	953	954	954	955	950	955	952
Feb 5	955	956	956	956	956	957	957	958	958	958	959	959	959	960	961	961	962	963	964	964	964	964	964	964	955	964	960
Feb 6	964	964	964	964	964	964	963	963	963	962	961	961	960	960	960	960	960	961	961	961	962	963	963	963	960	964	962
Feb 7	964	964	964	964	964	964	964	964	964	963	962	961	960	960	960	959	959	960	960	960	960	961	961	961	959	964	962
Feb 8	961	961	962	962	963	963	963	962	962	962	962	961	961	960	960	960	960	961	961	961	960	960	960	960	960	963	961
Feb 9	960	960	960	960	960	960	960	960	960	960	960	960	960	959	959	959	959	959	960	960	961	961	961	961	959	961	960
Feb 10	962	962	962	963	963	964	964	965	965	966	966	966	967	967	967	968	968	969	970	970	971	971	972	972	962	972	967
Feb 11	972	973	**974**	**974**	**974**	**974**	**974**	**974**	**974**	973	972	972	971	970	969	968	967	967	967	966	966	965	965	965	965	**974**	**970**
Feb 12	965	965	965	965	965	965	965	966	966	967	967	967	967	966	967	967	967	967	967	968	968	968	969	969	965	969	967
Feb 13	969	969	969	969	969	969	969	969	970	969	969	969	969	969	969	969	969	969	969	969	969	969	970	970	969	970	969
Feb 14	969	969	969	968	968	968	968	967	966	966	965	965	964	964	963	963	962	962	961	961	961	960	960	959	959	969	965
Feb 15	958	958	957	956	956	955	955	954	953	953	952	951	950	949	948	947	947	947	947	947	948	948	948	947	947	958	951
Feb 16	947	947	947	947	947	947	947	947	947	947	947	947	946	946	946	947	947	947	948	948	949	949	950	950	946	950	947
Feb 17	950	951	952	952	953	953	954	955	955	955	955	955	955	955	955	956	956	957	958	958	958	958	958	958	950	958	955
Feb 18	959	959	959	959	959	959	959	959	959	958	**P**	**P**	**P**	**P**	**P**	953	951	951	950	949	948	947	946	945	945	959	954
Feb 19	945	944	943	942	941	941	941	940	940	940	939	940	940	939	939	939	938	938	939	939	939	939	939	938	938	945	940
Feb 20	938	938	938	937	937	936	936	935	935	935	935	935	935	935	935	936	936	936	936	937	937	937	937	937	935	938	936
Feb 21	937	937	936	936	935	934	933	932	931	931	930	929	928	927	926	925	**924**	**924**	**924**	**924**	**924**	**924**	925	925	**924**	937	929
Feb 22	925	925	926	926	927	929	930	931	933	935	936	936	936	937	937	937	937	937	936	936	936	936	936	936	925	937	933
Feb 23	936	937	938	938	939	940	940	940	941	941	942	942	943	943	944	944	945	946	947	949	950	951	951	952	936	952	943
Feb 24	952	953	953	953	953	953	953	954	955	955	955	954	954	954	953	953	952	952	951	950	950	949	948	947	947	955	952
Feb 25	946	945	944	942	940	938	937	935	934	932	932	931	930	930	929	929	929	928	928	928	928	929	929	930	928	946	933
Feb 26	932	933	935	936	938	939	940	942	943	944	945	945	946	946	946	947	948	948	949	950	950	950	951	952	932	952	944
Feb 27	952	952	952	952	952	952	952	951	951	951	951	950	949	949	948	948	948	949	950	950	950	950	950	950	948	952	950
Feb 28	950	950	950	950	950	950	951	951	952	952	952	953	953	952	952	953	952	952	952	952	951	950	950	949	949	953	951
Diurnal Maximum	972	973	974	974	974	974	974	974	974	973	972	972	971	970	969	969	969	969	970	970	971	971	972	972			
Diurnal Average	953	953	953	953	953	953	953	953	953	953	952	952	952	951	951	952	951	952	952	952	952	952	952	952			

C	Monthly Calibration	**S**	Daily Zero-Span Check	**Q**	Quality Assurance	
K	Collection Error	**N**	No Data (Machine Not in Service)	**Y**	Routine Maintenance	**P** Power Failure
X	InValid Data (Equipment Malfunction /Recovery)	**NRM**	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)			

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.

Timeseries Chart of Hourly Average for BP - Cold Lake South Station



LAKELAND INDUSTRY & COMMUNITY ASSOCIATION

Cold Lake South Station - February 2021

Summary of Hourly Averages

AMBIENT TEMPERATURE (AT) in Degree Celsius

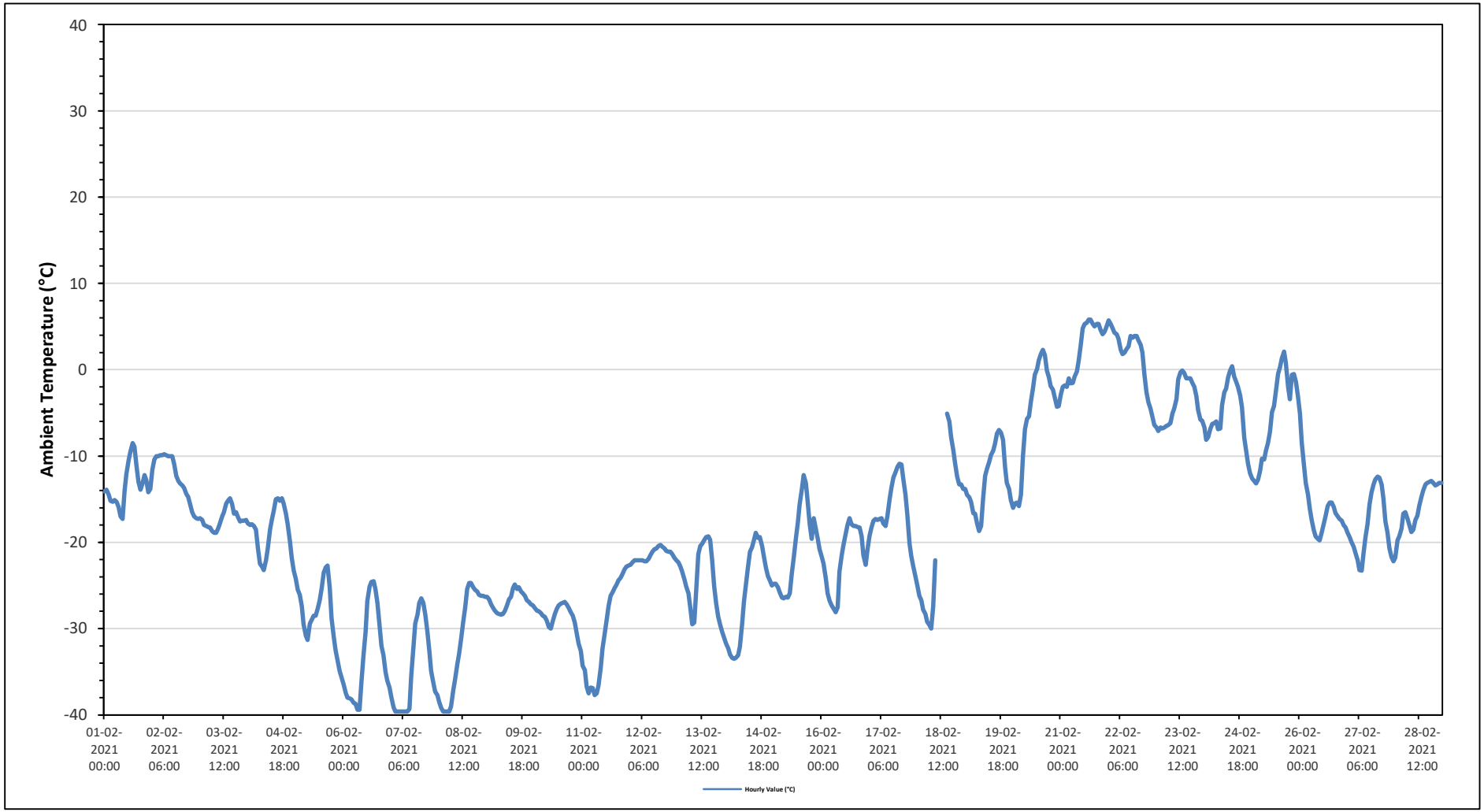
Maximum Hourly Value:	5.8	°C	on February 21 at hour 14	Hours in Service:	672
Maximum Daily Value:	2.3	°C	on February 21	Hours of Data:	667
Minimum Hourly Value:	-39.6	°C	on February 7 at hour 2	Hours of Missing Data:	5
Minimum Daily Value:	-34.9	°C	on February 7	Hours of Calibration:	0
Monthly Average:	-18.0	°C		Operational Uptime:	99.3

Day	Hourly Period Starting at (MST)																							Daily Minimum	Daily Maximum	Daily Average
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23			
Feb 1	-14.1	-13.9	-14.5	-15.2	-15.3	-15.1	-15.3	-15.9	-17	-17.3	-14	-12.1	-10.5	-9.5	-8.5	-8.9	-11.1	-13	-13.9	-13.2	-12.2	-12.8	-14.2	-13.8	-17.3	-8.5	-13.4
Feb 2	-11.6	-10.4	-10	-10	-9.9	-9.9	-9.8	-9.9	-10	-10	-10	-11	-12.3	-12.9	-13.2	-13.4	-13.7	-14.4	-14.7	-15.6	-16.5	-17	-17.2	-17.3	-17.3	-9.8	-12.5
Feb 3	-17.2	-17.4	-18	-18.1	-18.2	-18.3	-18.7	-18.9	-18.9	-18.4	-17.8	-17	-16.5	-15.5	-15.2	-14.9	-15.5	-16.7	-16.5	-17.1	-17.6	-17.5	-17.5	-17.4	-18.9	-14.9	-17.3
Feb 4	-17.8	-18	-17.9	-18.1	-18.5	-20.7	-22.5	-22.8	-23.2	-22.1	-20.7	-18.5	-17.4	-16.3	-15	-14.9	-15.2	-14.9	-15.5	-16.7	-17.9	-19.9	-21.8	-23.3	-23.3	-14.9	-18.7
Feb 5	-24.2	-25.5	-26.1	-27.4	-29.5	-30.8	-31.3	-29.4	-29	-28.5	-28.5	-27.7	-26.7	-25.3	-23.5	-22.9	-22.7	-25.3	-28.8	-31	-32.5	-33.7	-34.9	-35.7	-35.7	-22.7	-28.4
Feb 6	-36.5	-37.4	-38	-38.1	-38.2	-38.6	-38.7	-39.4	-39.4	-36	-33	-30.4	-26.8	-25.1	-24.6	-24.5	-25.4	-27	-29.5	-32	-33.1	-35	-36	-36.8	-39.4	-24.5	-33.3
Feb 7	-37.9	-39.1	**-39.6**	**-39.6**	**-39.6**	**-39.6**	**-39.6**	**-39.6**	**-39.6**	-39.3	-35.5	-32.1	-29.4	-28.4	-27	-26.5	-27	-28.4	-30.3	-32.6	-34.9	-36.3	-37.3	-37.7	**-39.6**	-26.5	-34.9
Feb 8	-38.5	-39.2	**-39.6**	**-39.6**	**-39.6**	**-39.6**	-39	-37.1	-35.9	-34.1	-32.9	-31.2	-29.3	-27.6	-25.4	-24.7	-24.7	-25.2	-25.5	-25.7	-26.1	-26.2	-26.2	-26.3	**-39.6**	-24.7	-31.6
Feb 9	-26.3	-26.6	-27.2	-27.6	-27.9	-28.2	-28.3	-28.4	-28.3	-27.9	-27.3	-26.6	-26.3	-25.3	-24.9	-25.4	-25.2	-25.7	-25.9	-26.2	-26.7	-26.9	-27.2	-27.3	-28.4	-24.9	-26.8
Feb 10	-27.6	-27.9	-28	-28.2	-28.5	-28.6	-29.1	-29.8	-30	-29.1	-28.3	-27.7	-27.3	-27.1	-27	-26.9	-27.2	-27.6	-28.1	-28.5	-29.3	-30.6	-31.7	-32.6	-32.6	-26.9	-28.6
Feb 11	-34.3	-34.8	-36.7	-37.5	-36.8	-36.9	-37.7	-37.5	-36.6	-34.5	-32.3	-30.5	-29.1	-27.4	-26.2	-25.8	-25.3	-24.9	-24.4	-24.1	-23.7	-23.1	-22.8	-22.7	-37.7	-22.7	-30.2
Feb 12	-22.6	-22.3	-22.1	-22.1	-22.1	-22.1	-22.1	-22.2	-22.2	-21.9	-21.5	-21.1	-20.8	-20.7	-20.4	-20.3	-20.5	-20.7	-21	-21.1	-21.1	-21.4	-21.8	-22.1	-22.6	-20.3	-21.5
Feb 13	-22.3	-22.8	-23.4	-24.3	-25.1	-25.9	-27.5	-29.5	-29.3	-25.4	-21.4	-20.4	-20.2	-19.7	-19.4	-19.3	-19.7	-22.1	-25.1	-27.1	-28.6	-29.6	-30.4	-31.1	-31.1	-19.3	-24.6
Feb 14	-31.7	-32.3	-33	-33.4	-33.5	-33.4	-33.1	-32.1	-29.4	-26.9	-24.9	-22.9	-21.1	-20.6	-19.7	-18.9	-19.5	-19.4	-20.4	-21.6	-22.9	-23.9	-24.4	-25	-33.5	-18.9	-26.0
Feb 15	-24.8	-24.8	-25.2	-25.8	-26.4	-26.5	-26.3	-26.4	-25.9	-23.6	-21.7	-19.6	-17.7	-15.6	-13.8	-12.2	-13.2	-15.3	-17.9	-19.6	-17.2	-18.4	-19.6	-20.8	-26.5	-12.2	-20.8
Feb 16	-21.7	-22.5	-24.2	-25.9	-26.8	-27.3	-27.7	-28.1	-27.5	-23.4	-21.5	-20.3	-19	-18	-17.2	-17.9	-18.1	-18.1	-18.2	-18.3	-19.3	-21.5	-22.6	-20.9	-28.1	-17.2	-21.9
Feb 17	-19.3	-18.3	-17.5	-17.3	-17.4	-17.3	-17.2	-17.8	-18.1	-17	-15	-13.7	-12.5	-11.9	-11.3	-10.9	-11	-12.6	-14.5	-16.7	-20.1	-21.6	-22.8	-23.9	-23.9	-10.9	-16.5
Feb 18	-25	-26.2	-26.7	-27.8	-28.3	-29.2	-29.6	-30	-27.4	-22.1	**P**	**P**	**P**	**P**	**P**	-5.1	-6	-7.8	-9.4	-10.9	-12.4	-13.3	-13.3	-13.8	-30.0	-5.1	-19.2
Feb 19	-13.8	-14.5	-14.8	-15.3	-16.6	-16.7	-17.8	-18.7	-18.1	-14.9	-12.3	-11.5	-10.7	-9.9	-9.4	-8.6	-7.4	-7	-7.3	-8.1	-11.3	-13.1	-13.8	-15.1	-18.7	-7.0	-12.8
Feb 20	-16	-15.5	-15.4	-15.8	-14.5	-10	-6.9	-5.7	-5.4	-3.8	-2.1	-0.6	0.1	1.1	1.8	2.3	1.7	-0.1	-0.9	-1.9	-2.3	-3.2	-4.3	-4.2	-16.0	2.3	-5.1
Feb 21	-2.9	-2	-1.8	-2	-1	-1.6	-1.5	-0.8	-0.2	1	2.8	4.8	5.3	5.4	**5.8**	**5.8**	5.3	5	5.3	5.3	4.6	4.1	4.4	5	-2.9	**5.8**	**2.3**
Feb 22	5.7	5.3	4.8	4.3	4.1	3.6	2.3	1.8	2	2.4	2.7	3.9	3.7	3.9	3.9	3.4	2.9	2	-0.6	-2.6	-3.8	-4.5	-5.5	-6.4	-6.4	5.7	1.6
Feb 23	-6.7	-7.1	-6.7	-6.8	-6.7	-6.5	-6.4	-6.2	-5.1	-4.5	-3.4	-1.1	-0.3	-0.1	-0.4	-1	-1	-1	-1.5	-2	-3.1	-4.7	-5.8	-5.9	-7.1	-0.1	-3.9
Feb 24	-6.7	-8.1	-7.8	-6.9	-6.3	-6.2	-6	-6.9	-6.8	-4.1	-2.6	-2.2	-0.9	-0.1	0.4	-0.8	-1.4	-2	-3	-4.4	-7.9	-9.3	-10.9	-12	-12.0	0.4	-5.1
Feb 25	-12.6	-12.9	-13.2	-12.7	-11.7	-10.3	-10.4	-9.4	-8.5	-7.2	-4.9	-4.2	-2.4	-0.5	0.3	1.3	2.1	0.8	-2	-3.4	-0.6	-0.5	-1.4	-3.1	-13.2	2.1	-5.3
Feb 26	-5.1	-8.4	-11.1	-13.1	-14.5	-16.1	-17.5	-18.6	-19.3	-19.6	-19.8	-18.9	-17.9	-16.9	-15.8	-15.4	-15.4	-15.9	-16.6	-17	-17.3	-17.5	-18	-18.3	-19.8	-5.1	-16.0
Feb 27	-18.9	-19.4	-20	-20.5	-21.2	-22.1	-23.2	-23.3	-21.3	-19.4	-17.9	-15.6	-14.2	-13.3	-12.7	-12.4	-12.5	-13.3	-14.9	-17.6	-18.8	-20.7	-21.7	-22.2	-23.3	-12.4	-18.2
Feb 28	-21.8	-19.8	-19.3	-18.4	-16.7	-16.5	-17.2	-18	-18.8	-18.5	-17.4	-16.9	-15.8	-14.7	-14	-13.3	-13.1	-13	-12.9	-13.1	-13.4	-13.3	-13.1	-13.1	-21.8	-12.9	-15.9
Diurnal Maximum	5.7	5.3	4.8	4.3	4.1	3.6	2.3	1.8	2.0	2.4	2.8	4.8	5.3	5.4	5.8	5.8	5.3	5.0	5.3	5.3	4.6	4.1	4.4	5.0			
Daiurnal Average	-19.7	-20.1	-20.5	-20.8	-21.0	-21.1	-21.4	-21.5	-21.0	-19.5	-17.8	-16.5	-15.4	-14.5	-13.8	-13.3	-13.6	-14.4	-15.5	-16.5	-17.4	-18.3	-19.0	-19.4			

C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance	
K	Collection Error	N	No Data (Machine Not in Service)	Y	Routine Maintenance	P Power Failure
X	InValid Data (Equipment Malfunction /Recovery)	NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)			

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.

Timeseries Chart of Hourly Average for AT - Cold Lake South Station



LAKELAND INDUSTRY & COMMUNITY ASSOCIATION

Cold Lake South Station - February 2021

Summary of Hourly Averages

STATION TEMPERATURE (ST) in Degree Celsius

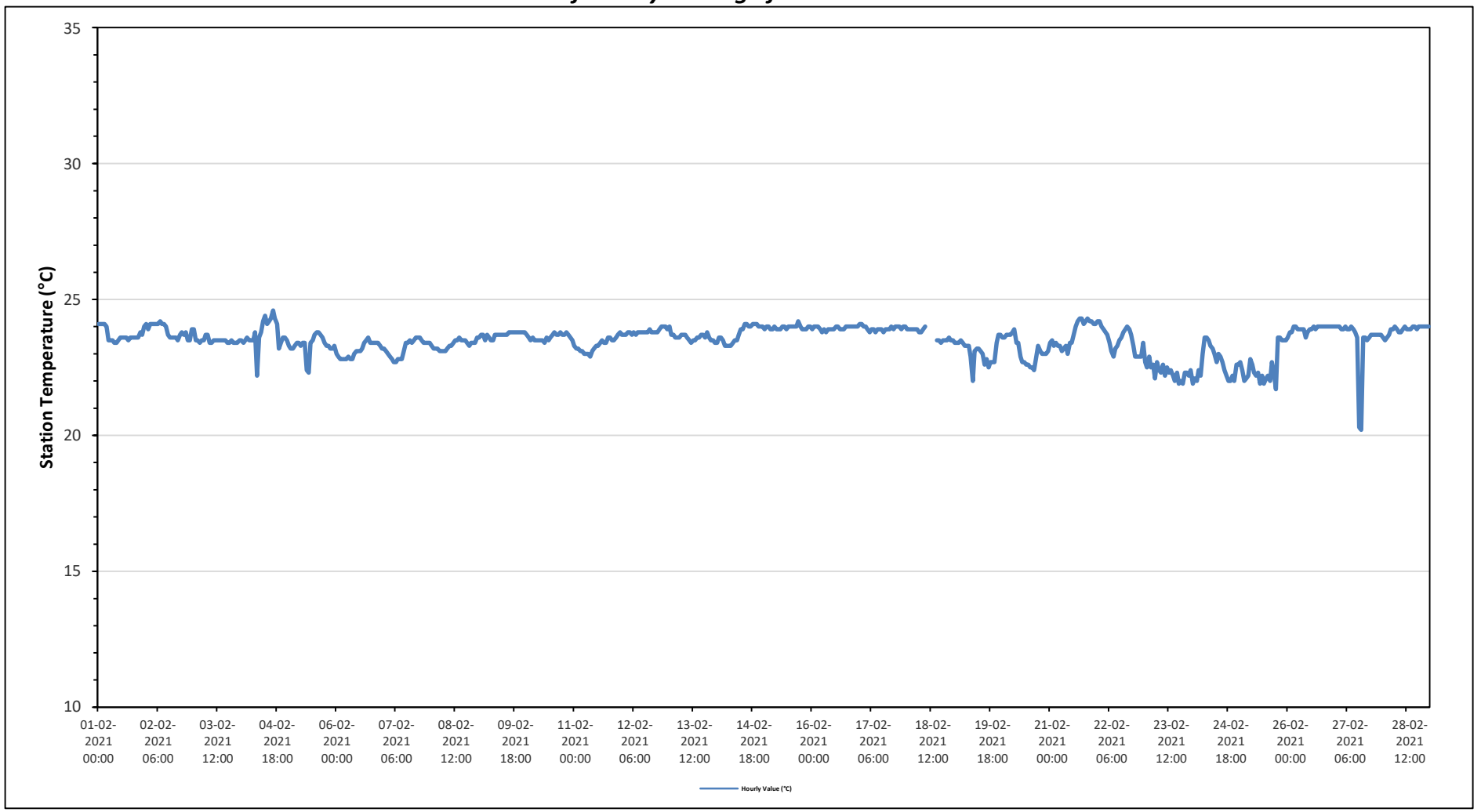
Maximum Hourly Value:	24.6	°C	on February 4 at hour 16	Hours in Service:	672
Maximum Daily Value:	24.0	°C	on February 15	Hours of Data:	667
Minimum Hourly Value:	20.2	°C	on February 27 at hour 13	Hours of Missing Data:	5
Minimum Daily Value:	22.3	°C	on February 23	Hours of Calibration:	0
Monthly Average:	23.5	°C		Operational Uptime:	99.3

Day	Hourly Period Starting at (MST)																								Daily	Daily	Daily
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Minimum	Maximum	Average
Feb 1	24.1	24.1	24.1	24.1	24.0	23.5	23.5	23.5	23.4	23.4	23.5	23.6	23.6	23.6	23.6	23.5	23.6	23.6	23.6	23.6	23.6	23.8	23.7	24.0	23.4	24.1	23.7
Feb 2	24.1	23.9	24.1	24.1	24.1	24.1	24.1	24.2	24.1	24.1	24.0	23.7	23.6	23.6	23.6	23.6	23.5	23.7	23.8	23.7	23.8	23.5	23.5	23.9	23.5	24.2	23.9
Feb 3	23.9	23.5	23.5	23.4	23.5	23.5	23.7	23.7	23.4	23.4	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.4	23.4	23.5	23.4	23.4	23.4	23.5	23.4	23.9	23.5
Feb 4	23.5	23.4	23.5	23.6	23.5	23.5	23.5	23.8	22.2	23.6	23.8	24.2	24.4	24.1	24.2	24.3	**24.6**	24.3	24.1	23.2	23.4	23.6	23.6	23.5	22.2	**24.6**	23.7
Feb 5	23.3	23.2	23.2	23.3	23.4	23.4	23.3	23.4	23.4	22.4	22.3	23.4	23.5	23.7	23.8	23.8	23.7	23.6	23.4	23.3	23.3	23.2	23.2	23.3	22.3	23.8	23.3
Feb 6	23.0	22.9	22.8	22.8	22.8	22.8	22.9	22.8	22.8	23.0	23.1	23.1	23.1	23.2	23.4	23.5	23.6	23.4	23.4	23.4	23.4	23.4	23.3	23.2	22.8	23.6	23.1
Feb 7	23.2	23.1	23.0	22.9	22.8	22.7	22.7	22.8	22.8	22.8	23.1	23.4	23.4	23.5	23.4	23.5	23.6	23.6	23.6	23.5	23.4	23.4	23.4	23.4	22.7	23.6	23.2
Feb 8	23.3	23.2	23.2	23.2	23.1	23.1	23.1	23.1	23.2	23.3	23.3	23.4	23.5	23.5	23.6	23.5	23.5	23.5	23.4	23.3	23.4	23.4	23.4	23.6	23.1	23.6	23.3
Feb 9	23.6	23.7	23.7	23.5	23.7	23.6	23.5	23.5	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.5	23.8	23.7
Feb 10	23.7	23.6	23.5	23.6	23.5	23.5	23.5	23.5	23.5	23.4	23.6	23.5	23.6	23.7	23.8	23.7	23.7	23.8	23.7	23.7	23.8	23.7	23.6	23.5	23.4	23.8	23.6
Feb 11	23.3	23.2	23.2	23.1	23.1	23.0	23.0	23.0	22.9	23.1	23.2	23.3	23.3	23.4	23.5	23.4	23.4	23.6	23.6	23.5	23.5	23.6	23.7	23.8	22.9	23.8	23.3
Feb 12	23.7	23.7	23.7	23.8	23.8	23.7	23.8	23.7	23.8	23.8	23.8	23.8	23.8	23.8	23.9	23.8	23.8	23.8	23.8	23.9	24.0	24.0	24.0	23.9	23.7	24.0	23.8
Feb 13	24.0	23.7	23.7	23.6	23.6	23.6	23.7	23.7	23.7	23.6	23.5	23.4	23.5	23.5	23.6	23.6	23.7	23.7	23.6	23.8	23.6	23.5	23.5	23.4	23.4	24.0	23.6
Feb 14	23.4	23.6	23.6	23.5	23.3	23.3	23.3	23.3	23.4	23.5	23.5	23.7	23.9	23.9	24.1	24.1	24.0	24.0	24.1	24.1	24.1	24.0	24.0	24.0	23.3	24.1	23.7
Feb 15	23.9	24.0	24.0	23.9	23.9	24.0	23.9	23.9	23.9	24.0	24.0	23.9	24.0	24.0	24.0	24.0	24.0	24.2	24.0	23.9	23.9	23.9	24.0	24.0	23.9	24.2	**24.0**
Feb 16	23.9	24.0	24.0	24.0	23.9	23.8	23.9	23.8	23.9	23.9	23.9	23.9	24.0	24.0	23.9	23.9	23.9	24.0	24.0	24.0	24.0	24.0	24.0	24.0	23.8	24.0	23.9
Feb 17	24.1	24.1	24.0	24.0	23.9	23.8	23.9	23.9	23.8	23.9	23.9	23.9	23.8	23.9	23.9	23.9	24.0	23.9	24.0	24.0	24.0	23.9	24.0	24.0	23.8	24.1	23.9
Feb 18	23.9	23.9	23.9	23.9	23.9	23.9	23.8	23.8	23.9	24.0	**P**	**P**	**P**	**P**	**P**	23.5	23.5	23.4	23.5	23.5	23.5	23.6	23.5	23.5	23.4	24.0	23.7
Feb 19	23.4	23.4	23.4	23.5	23.4	23.3	23.3	23.3	22.9	22.0	23.1	23.2	23.2	23.1	23.0	22.6	22.8	22.5	22.7	22.7	22.7	23.4	23.7	23.7	22.0	23.7	23.1
Feb 20	23.6	23.6	23.7	23.7	23.7	23.8	23.9	23.4	23.4	22.9	22.7	22.7	22.6	22.6	22.5	22.5	22.4	22.9	23.3	23.1	23.0	23.0	23.0	23.1	22.4	23.9	23.1
Feb 21	23.4	23.5	23.3	23.4	23.3	23.3	23.1	23.2	23.3	23.0	23.4	23.4	23.7	24.0	24.2	24.3	24.3	24.1	24.2	24.3	24.2	24.2	24.1	24.1	23.0	24.3	23.7
Feb 22	24.2	24.2	24.0	23.9	23.8	23.7	23.4	23.1	22.9	23.2	23.3	23.5	23.6	23.8	23.9	24.0	23.9	23.7	23.3	22.9	22.9	22.9	22.9	23.4	22.9	24.2	23.5
Feb 23	22.7	22.5	22.9	22.5	22.6	22.1	22.7	22.4	22.3	22.6	22.2	22.5	22.3	22.4	22.2	22.0	22.3	21.9	22.0	21.9	22.3	22.3	22.2	22.4	21.9	22.9	22.3
Feb 24	21.9	22.1	22.0	22.4	22.2	23.0	23.6	23.6	23.5	23.3	23.2	23.0	22.7	23.0	22.9	22.7	22.4	22.2	22.0	22.0	22.2	22.0	22.6	22.6	21.9	23.6	22.6
Feb 25	22.7	22.4	22.0	22.1	22.2	22.8	22.6	22.3	22.2	22.3	21.9	22.2	21.9	22.1	22.2	22.0	22.7	22.3	21.7	23.6	23.6	23.5	23.5	23.5	21.7	23.6	22.5
Feb 26	23.6	23.8	23.8	24.0	24.0	23.9	23.9	23.9	23.9	23.6	23.8	23.9	23.9	24.0	23.9	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	23.6	24.0	23.9
Feb 27	24.0	24.0	24.0	23.9	23.9	24.0	23.9	23.9	24.0	23.9	23.8	23.6	20.3	**20.2**	23.6	23.6	23.5	23.6	23.7	23.7	23.7	23.7	23.7	23.7	**20.2**	24.0	23.5
Feb 28	23.6	23.5	23.6	23.7	23.9	23.9	24.0	23.9	23.8	23.8	23.9	24.0	23.9	23.9	23.9	24.0	24.0	23.9	24.0	24.0	24.0	24.0	24.0	24.0	23.5	24.0	23.9
Diurnal Maximum	24.2	24.2	24.1	24.1	24.1	24.1	24.1	24.2	24.1	24.1	24.0	24.2	24.4	24.1	24.2	24.3	24.6	24.3	24.2	24.3	24.2	24.2	24.1	24.1			
Daiurnal Average	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.4	23.4	23.3	23.4	23.5	23.3	23.4	23.5	23.5	23.6	23.5	23.5	23.5	23.5	23.5	23.5	23.6			

C	Monthly Calibration	**S**	Daily Zero-Span Check	**Q**	Quality Assurance	
K	Collection Error	**N**	No Data (Machine Not in Service)	**Y**	Routine Maintenance	**P** Power Failure
X	InValid Data (Equipment Malfunction /Recovery)	**NRM**	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)			

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.

Timeseries Chart of Hourly Average for ST - Cold Lake South Station



LAKELAND INDUSTRY & COMMUNITY ASSOCIATION

Cold Lake South Station - February 2021

Summary of Hourly Averages

VECTOR WIND SPEED (VWS) in km/hr

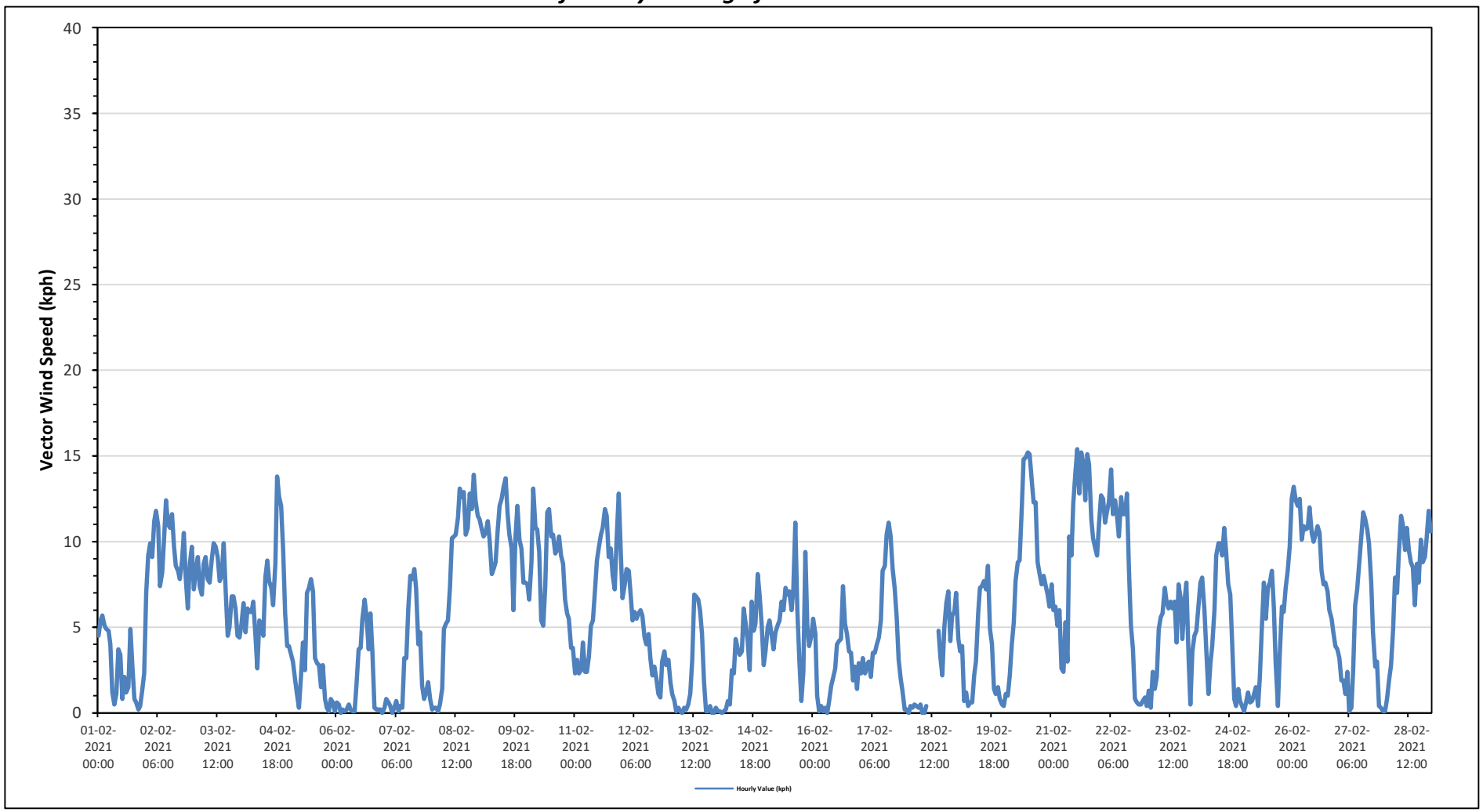
Maximum Hourly Value:	15.4	kph	on February 21 at hour 13	Hours in Service:	672
Maximum Daily Value:	10.1	kph	on February 9	Hours of Data:	667
Minimum Hourly Value:	0.0	kph	on February 6 at hour 2	Hours of Missing Data:	5
Minimum Daily Value:	1.3	kph	on February 1	Hours of Calibration:	0
Monthly Average:	2.2	kph		Operational Uptime:	99.3

Day	Hourly Period Starting at (MST)																								Daily	Daily	Daily
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Minimum	Maximum	Average
Feb 1	4.5	5.4	5.7	5.1	4.9	4.8	4.0	1.2	0.5	1.1	3.7	3.4	0.8	2.1	1.2	1.5	4.9	2.7	0.8	0.6	0.2	0.4	1.3	2.3	0.2	5.7	**1.3**
Feb 2	7.0	9.2	9.9	9.1	11.2	11.8	10.9	7.4	8.2	10.1	12.4	11.0	10.8	11.6	9.7	8.6	8.3	7.8	8.9	10.5	7.8	6.1	8.7	9.7	6.1	12.4	7.7
Feb 3	7.2	8.2	9.1	7.4	6.9	8.7	9.1	7.8	7.6	8.9	9.9	9.7	9.1	7.7	8.0	9.9	7.1	4.5	5.0	6.8	6.8	6.1	4.5	4.4	4.4	9.9	7.2
Feb 4	5.2	6.4	4.7	6.1	5.9	5.9	6.5	4.4	2.6	5.4	5.0	4.5	7.9	8.9	7.7	7.3	6.3	8.7	13.8	12.6	12.1	9.5	5.8	3.9	2.6	13.8	4.5
Feb 5	3.9	3.4	3.0	1.9	1.1	0.3	2.1	4.1	2.5	7.0	7.3	7.8	7.1	3.2	2.9	2.8	1.5	2.8	0.8	0.3	0.1	0.8	0.6	0.1	0.1	7.8	1.8
Feb 6	0.6	0.5	**0.0**	0.2	0.1	0.2	0.5	0.2	0.1	0.1	1.8	3.7	3.8	5.5	6.6	5.7	3.7	5.8	3.5	0.3	0.2	0.2	0.2	**0.0**	**0.0**	6.6	1.7
Feb 7	0.3	0.8	0.6	0.4	**0.0**	0.3	0.7	0.1	0.4	0.3	3.2	3.2	6.1	8.0	7.8	8.4	7.3	4.0	4.7	1.6	0.8	1.2	1.8	0.8	**0.0**	8.4	2.6
Feb 8	0.2	0.3	0.3	0.1	0.5	1.4	4.9	5.2	5.4	7.3	10.2	10.3	10.4	11.4	13.1	12.6	12.9	10.4	10.8	12.8	11.9	13.9	12.4	11.5	0.1	13.9	7.6
Feb 9	11.3	10.7	10.3	10.5	11.2	10.1	8.1	8.4	8.8	10.6	12.1	12.5	13.2	13.7	11.6	10.4	9.6	6.0	10.2	12.1	10.1	9.6	7.6	7.6	6.0	13.7	**10.1**
Feb 10	7.5	6.6	8.8	13.1	10.8	10.7	9.4	5.4	5.1	7.4	11.7	11.9	10.3	10.4	9.3	9.5	10.3	9.2	8.7	6.6	5.8	5.5	3.8	3.8	3.8	13.1	8.0
Feb 11	2.3	3.1	2.3	2.5	4.1	2.4	2.4	3.3	5.1	5.4	7.1	8.9	9.7	10.4	10.8	11.9	11.5	9.1	9.6	8.0	7.2	10.3	12.8	9.4	2.3	12.8	6.7
Feb 12	6.7	7.5	8.4	8.3	7.0	5.4	5.9	5.5	5.8	6.0	5.7	4.4	4.0	4.6	3.2	2.2	2.7	2.0	1.1	0.9	3.0	3.6	2.8	3.1	0.9	8.4	3.0
Feb 13	1.8	1.1	0.7	0.1	0.3	0.1	**0.0**	0.3	0.2	0.5	1.1	3.1	6.9	6.8	6.6	6.0	4.6	1.8	0.1	0.1	0.4	**0.0**	**0.0**	0.3	**0.0**	6.9	1.5
Feb 14	0.1	0.1	**0.0**	0.1	0.2	0.7	0.5	2.5	2.3	4.3	3.7	3.4	3.6	6.1	5.2	4.2	2.5	6.5	4.8	5.2	8.1	6.8	5.1	2.8	**0.0**	8.1	2.8
Feb 15	3.6	5.0	5.4	4.5	3.7	4.7	5.1	5.4	6.5	6.0	7.3	6.9	7.1	6.0	7.2	11.1	6.0	3.1	0.7	2.4	9.4	5.0	3.9	4.5	0.7	11.1	5.2
Feb 16	5.5	4.6	1.0	0.1	0.4	0.1	0.3	**0.0**	0.6	1.6	2.0	2.6	4.0	4.2	4.3	7.4	5.2	4.6	3.6	3.5	1.9	2.7	1.4	2.9	**0.0**	7.4	1.9
Feb 17	2.3	3.2	2.3	2.8	3.0	2.1	3.5	3.5	4.0	4.4	5.4	8.3	8.6	10.4	11.1	10.3	8.4	7.3	5.6	3.1	2.0	1.3	0.2	0.2	0.2	11.1	4.6
Feb 18	**0.0**	0.4	0.3	0.5	0.4	0.3	0.5	**0.0**	**0.0**	0.4	**P**	**P**	**P**	**P**	**P**	4.8	3.3	2.2	5.0	6.4	7.1	4.2	5.7	5.9	**0.0**	7.1	2.2
Feb 19	7.0	4.3	3.6	3.9	0.7	1.2	0.4	0.6	0.6	2.2	3.0	5.8	7.3	7.4	7.7	7.2	8.6	4.9	4.0	1.4	1.1	1.5	0.8	0.5	0.4	8.6	2.2
Feb 20	0.4	1.1	1.0	2.2	4.0	5.3	7.7	8.8	8.9	12.0	14.8	14.9	15.2	15.1	13.5	12.3	12.3	8.8	8.1	7.5	8.0	7.5	6.9	6.2	0.4	15.2	8.4
Feb 21	7.5	6.0	6.2	5.1	6.0	2.6	2.4	5.3	3.0	10.3	9.2	12.2	13.9	**15.4**	12.8	15.2	14.6	12.4	15.1	14.5	11.3	10.2	9.6	9.2	2.4	**15.4**	9.4
Feb 22	11.1	12.7	12.5	11.1	11.8	12.3	14.2	11.6	12.4	11.4	10.3	12.6	11.6	11.6	12.8	8.4	5.1	3.7	0.8	0.6	0.5	0.5	0.7	0.9	0.5	14.2	7.4
Feb 23	0.4	1.3	0.3	2.4	1.4	2.1	4.9	5.6	5.8	7.3	6.5	6.1	6.5	6.1	6.5	4.1	7.5	6.7	4.3	6.6	7.6	3.2	0.5	3.6	0.3	7.6	3.1
Feb 24	4.5	4.8	6.2	7.6	7.9	6.0	3.5	1.1	2.9	3.9	6.0	9.2	9.9	9.9	9.2	10.8	9.3	7.5	6.9	4.3	0.8	0.4	1.4	0.7	0.4	10.8	5.3
Feb 25	0.4	0.1	0.6	1.2	0.6	0.7	1.1	1.5	0.4	2.1	5.0	7.6	5.5	7.3	7.6	8.3	6.1	2.9	0.4	3.3	6.2	5.9	7.3	8.3	0.1	8.3	2.2
Feb 26	9.7	12.5	13.2	12.4	12.1	12.5	10.1	10.9	10.7	10.8	12.0	10.5	10.0	10.4	10.9	10.5	8.3	7.5	7.6	7.1	6.0	5.5	4.7	3.9	3.9	13.2	9.3
Feb 27	3.7	3.2	1.9	1.9	1.1	2.4	0.1	0.3	2.5	6.3	7.2	8.7	10.2	11.7	11.3	10.7	9.9	7.6	4.7	2.7	3.0	0.4	0.3	0.1	0.1	11.7	3.9
Feb 28	0.1	0.8	1.9	2.8	4.8	7.9	7.0	9.3	11.5	11.0	9.5	10.8	9.5	8.8	8.5	6.3	8.7	7.6	10.1	8.8	9.1	10.2	11.8	10.6	0.1	11.8	7.3
Diurnal Maximum	11	13	13	13	12	13	14	12	12	12	15	15	15	15	14	15	15	12	15	15	12	14	13	12			
Daiurnal Average	4.1	4.4	4.3	4.4	4.4	4.4	4.5	4.3	4.4	5.9	7.2	7.9	8.3	8.7	8.4	8.2	7.4	6.0	5.7	5.4	5.3	4.7	4.4	4.2			

C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance	
K	Collection Error	N	No Data (Machine Not in Service)	Y	Routine Maintenance	P Power Failure
X	InValid Data (Equipment Malfunction /Recovery)	NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)			

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.

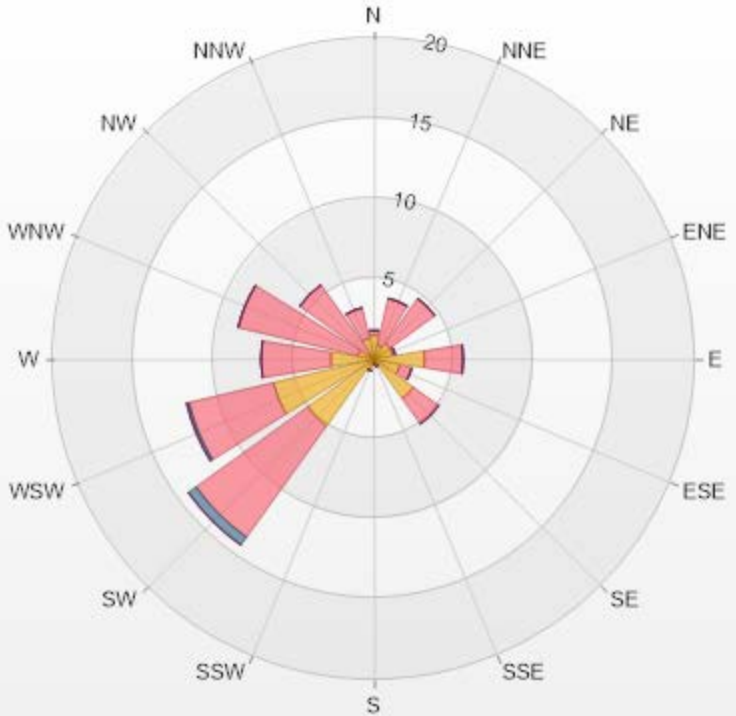
Timeseries Chart of Hourly Average for VWS - Cold Lake South Station



Wind: Cold Lake South Monitor: WDS [kph] Monthly: 02-2021 Type: WindRose Direction: Blowing From (Wind Frequency) Based On 1 Hr.
Calm: 22.94% Valid Data: 99.26%

Direction	1.8-6.0	6.0-15.0	15.0-29.0	29.0-39.0	>39.0	Total
N	1.5	0.3	0	0	0	1.8
NNE	0.9	3	0	0	0	3.9
NE	1.2	3.45	0	0	0	4.65
ENE	1.2	0.15	0	0	0	1.35
E	3.15	2.4	0	0	0	5.55
ESE	1.65	0.75	0	0	0	2.4
SE	3	1.95	0	0	0	4.95
SSE	0.45	0	0	0	0	0.45
S	0.3	0	0	0	0	0.3
SSW	0.75	0	0	0	0	0.75
SW	5.1	8.55	0.6	0	0	14.25
WSW	6.45	5.4	0.15	0	0	12
W	2.7	4.35	0	0	0	7.05
WNW	1.05	7.65	0	0	0	8.7
NW	0.3	5.4	0	0	0	5.7
NNW	1.35	1.95	0	0	0	3.3
Summary	31.05	45.3	0.75	0	0	77.1

Cold Lake South 01-02-2021 00:00 - 28-02-2021 23:00 Calm: 22.94% Calm Wind Avg Speed: 0.58(kph)



% Icon Classes (kph)	31 1.8-6.0	45 6.0-15.0	1 15.0-29.0	0 29.0-39.0	0 >39.0

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION

Cold Lake South Station - February 2021

Summary of Hourly Averages

WIND DIRECTION (VWD) in sector

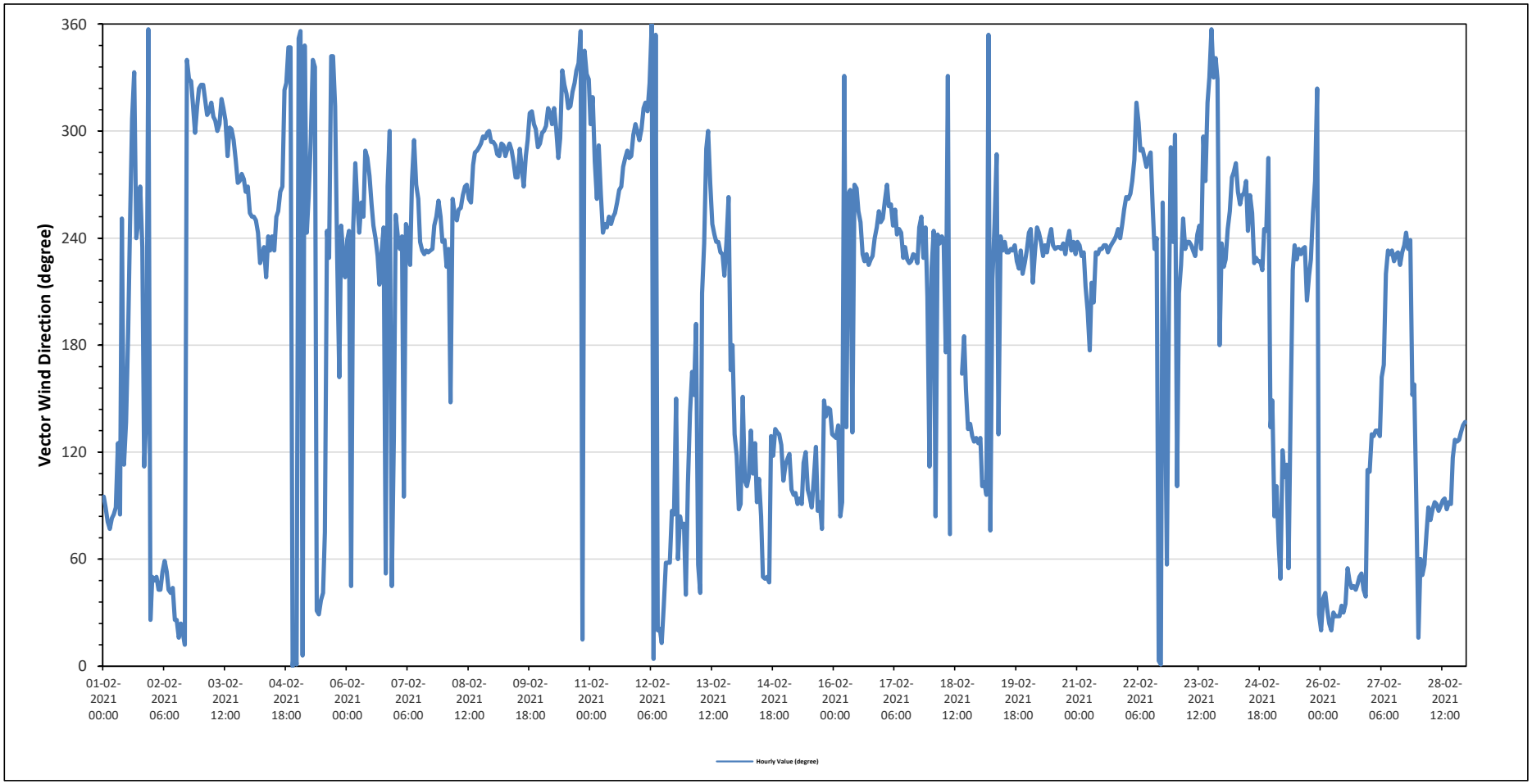
Monthly Average:	277 (W)	degree	
Hours in Service:	672		
Hours of Data:	667		
Hours of Missing Data:	5		
Hours of Calibration:	0		
Operational Uptime:	99.3		

Day	Hourly Period Starting at (MST)																							Daily Average	
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Degree	Quadrant
Feb 1	E	E	E	ENE	E	E	E	SE	E	WSW	ESE	SE	S	WSW	NW	NNW	WSW	WSW	W	SW	ESE	SE	N	NNE	95	E
Feb 2	NE	NE	NE	NE	NE	NE	ENE	NE	NE	NE	NE	NNE	NNE	NNE	NNE	NNE	NNE	NNW	NNW	NNW	NW	WNW	NW	NW	20	NNE
Feb 3	NW	NW	NW	NW	NW	NW	NW	NW	WNW	WNW	NW	NW	NW	WNW	WNW	WNW	WNW	WNW	W	W	W	W	W	W	301	WNW
Feb 4	WSW	WSW	WSW	WSW	WSW	SW	SW	SW	SW	WSW	SW	WSW	SW	WSW	WSW	W	W	NW	NW	NNW	NNW	N	NNE	N	281	W
Feb 5	N	N	N	NNW	WSW	W	WNW	NNW	NNW	NNE	NNE	NE	NE	ENE	WSW	SW	NNW	NNW	NW	SW	SSE	WSW	SW	SW	6	N
Feb 6	WSW	WSW	NE	WSW	W	W	WSW	WSW	WSW	WNW	WNW	W	WSW	WSW	WSW	SW	SSW	SW	WSW	NE	W	WNW	NE	SE	244	WSW
Feb 7	WSW	WSW	SW	WSW	E	WSW	WSW	SW	W	WNW	W	W	SW	SW	SW	SW	SW	SW	SW	WSW	WSW	W	WSW	SW	239	WSW
Feb 8	WSW	SW	SW	SE	W	WSW	WSW	WSW	WSW	W	W	W	W	WSW	W	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	282	W
Feb 9	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	W	W	W	WNW	W	W	WNW	WNW	NW	NW	WNW	WNW	WNW	WNW	290	WNW
Feb 10	WNW	WNW	WNW	NW	NW	WNW	NW	WNW	WNW	WNW	NNW	NW	NW	NW	NW	NW	NW	NNW	NNW	N	NNE	NNW	NNW	NNW	319	NW
Feb 11	WNW	NW	W	W	WNW	W	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	W	W	W	WNW	WNW	WNW	WNW	WNW	WNW	WNW	276	W
Feb 12	WNW	WNW	NW	NW	NW	NW	N	N	N	NNE	NNE	NNE	NE	ENE	ENE	ENE	E	E	SSE	ENE	E	ENE	E	NE	0	N
Feb 13	E	SE	SSE	SSE	S	ENE	NE	SSW	SW	WNW	WNW	W	WSW	WSW	SW	SW	SW	SW	SW	SW	W	SSE	S	SE	239	WSW
Feb 14	ESE	E	E	SSE	ESE	E	ESE	SE	ESE	SE	E	ESE	E	NE	NE	NE	NE	SE	ESE	SE	SE	SE	ESE	ESE	105	ESE
Feb 15	ESE	ESE	ESE	E	E	E	E	E	E	ESE	ESE	E	E	E	ESE	ESE	E	E	ENE	SSE	SE	SE	SE	SE	111	ESE
Feb 16	SE	SE	SE	E	E	NNW	SE	W	W	SE	W	W	WSW	WSW	SW	SW	SW	SW	SW	SW	WSW	WSW	WSW	WSW	224	SW
Feb 17	WSW	W	W	WSW	WSW	WSW	WSW	WSW	WSW	WSW	SW	SW	SW	SW	SW	SW	SW	SW	WSW	WSW	SW	WSW	SSW	ESE	237	SW
Feb 18	SW	WSW	E	WSW	SW	WSW	WSW	S	NNW	ENE	P	P	P	P	P	SSE	S	SSE	SE	SE	SE	SE	SE	SE	140	SE
Feb 19	SE	E	ESE	E	N	ENE	SW	WSW	WNW	SE	WSW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	215	SSW
Feb 20	WSW	WSW	SSW	SW	WSW	WSW	SW	SW	SW	SW	WSW	WSW	SW	SW	SW	SW	SW	SW	SW	WSW	WSW	SW	SW	SW	236	SW
Feb 21	SW	SW	SW	SW	SSW	SSW	S	SSW	SSW	SW	SW	SW	SW	SW	SW	SW	SW	SW	WSW	WSW	WSW	WSW	WSW	WSW	235	SW
Feb 22	W	W	W	W	WNW	NW	WNW	WNW	WNW	WNW	W	WNW	WNW	WSW	SW	WSW	N	N	WSW	S	ENE	SSW	WNW	SW	279	W
Feb 23	WNW	E	SSW	SW	WSW	SW	SW	SW	SW	SW	SW	WSW	WSW	SW	WNW	W	NW	NNW	N	NNW	NNW	NNW	S	SW	272	W
Feb 24	SW	SW	WSW	WSW	W	W	W	W	WSW	W	W	W	WSW	W	WSW	SW	SW	SW	SW	SW	WSW	WSW	WNW	SE	249	WSW
Feb 25	SSE	E	E	ENE	NE	ESE	ESE	ESE	NE	SE	SW	SW	SW	SW	SW	SW	SW	SSW	SW	SW	WSW	W	NW	NNE	241	WSW
Feb 26	NNE	NE	NE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NE	NNE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	ESE	37	NE
Feb 27	ESE	SE	SE	SE	SE	SE	SSE	SSE	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	WSW	SW	WSW	SSE	SSE	E	223	SW
Feb 28	NNE	ENE	NE	ENE	ENE	E	E	E	E	E	E	E	E	E	E	E	E	ESE	SE	SE	SE	SE	SE	SE	103	ESE

C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance	
K	Collection Error	N	No Data (Machine Not in Service)	Y	Routine Maintenance	P Power Failure
X	InValid Data (Machine Malfunction /Recovery)	NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)			

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.

Timeseries Chart of Hourly Average for VWD - Cold Lake South Station



LAKELAND INDUSTRY & COMMUNITY ASSOCIATION

Cold Lake South Station - February 2021

Summary of Hourly Averages

VECTOR WIND SPEED (VWS) in km/hr & WIND DIRECTION (VWD) in sector

WIND SPEED

Maximum Hourly Value:	15.4	kph	on February 21 at hour 13	Hours in Service:	672
Maximum Daily Value:	10.1	kph	on February 9	Hours of Data:	667
Minimum Hourly Value:	0.0	kph	on February 6 at hour 2	Hours of Missing Data:	5
Minimum Daily Value:	1.3	kph	on February 1	Hours of Calibration:	0
Monthly Average:	2.2	kph		Operational Uptime:	99.3

WIND DIRECTION

Monthly Average: 277 (W) degree

Day	Hourly Period Starting at (MST)																							Daily Minimum	Daily Maximum	Daily Average
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23			
Feb 1	4.5	5.4	5.7	5.1	4.9	4.8	4.0	1.2	0.5	1.1	3.7	3.4	0.8	2.1	1.2	1.5	4.9	2.7	0.8	0.6	0.2	0.4	1.3	2.3	0.2	5.7	**1.3**
	E	E	E	ENE	E	E	E	SE	E	WSW	ESE	SE	S	WSW	NW	NNW	WSW	WSW	W	SW	ESE	SE	N	NNE			
Feb 2	7.0	9.2	9.9	9.1	11.2	11.8	10.9	7.4	8.2	10.1	12.4	11.0	10.8	11.6	9.7	8.6	8.3	7.8	8.9	10.5	7.8	6.1	8.7	9.7	6.1	12.4	7.7
	NE	NE	NE	NE	NE	NE	ENE	NE	NE	NE	NE	NNE	NNE	NNE	NNE	NNE	NNE	NNW	NNW	NNW	NW	WNW	NW	NW			
Feb 3	7.2	8.2	9.1	7.4	6.9	8.7	9.1	7.8	7.6	8.9	9.9	9.7	9.1	7.7	8.0	9.9	7.1	4.5	5.0	6.8	6.8	6.1	4.5	4.4	4.4	9.9	7.2
	NW	NW	NW	NW	NW	NW	NW	NW	WNW	WNW	NW	NW	NW	WNW	WNW	WNW	WNW	WNW	W	W	W	W	W	W			
Feb 4	5.2	6.4	4.7	6.1	5.9	5.9	6.5	4.4	2.6	5.4	5.0	4.5	7.9	8.9	7.7	7.3	6.3	8.7	13.8	12.6	12.1	9.5	5.8	3.9	2.6	13.8	4.5
	WSW	WSW	WSW	WSW	WSW	SW	SW	SW	SW	WSW	SW	WSW	SW	WSW	WSW	W	W	NW	NW	NNW	NNW	N	NNE	N			
Feb 5	3.9	3.4	3.0	1.9	1.1	0.3	2.1	4.1	2.5	7.0	7.3	7.8	7.1	3.2	2.9	2.8	1.5	2.8	0.8	0.3	0.1	0.8	0.6	0.1	0.1	7.8	1.8
	N	N	N	NNW	WSW	W	WNW	NNW	NNW	NNE	NNE	NE	NE	ENE	WSW	SW	NNW	NNW	NW	SW	SSE	WSW	SW	SW			
Feb 6	0.6	0.5	**0.0**	0.2	0.1	0.2	0.5	0.2	0.1	0.1	1.8	3.7	3.8	5.5	6.6	5.7	3.7	5.8	3.5	0.3	0.2	0.2	0.2	**0.0**	**0.0**	6.6	1.7
	WSW	WSW	NE	WSW	W	W	WSW	WSW	WSW	WNW	WNW	W	WSW	WSW	WSW	SW	SSW	SW	WSW	NE	W	WNW	NE	SE			
Feb 7	0.3	0.8	0.6	0.4	**0.0**	0.3	0.7	0.1	0.4	0.3	3.2	3.2	6.1	8.0	7.8	8.4	7.3	4.0	4.7	1.6	0.8	1.2	1.8	0.8	**0.0**	8.4	2.6
	WSW	WSW	SW	WSW	E	WSW	WSW	SW	W	WNW	W	W	SW	SW	SW	SW	SW	SW	SW	WSW	WSW	W	WSW	SW			
Feb 8	0.2	0.3	0.3	0.1	0.5	1.4	4.9	5.2	5.4	7.3	10.2	10.3	10.4	11.4	13.1	12.6	12.9	10.4	10.8	12.8	11.9	13.9	12.4	11.5	0.1	13.9	7.6
	WSW	SW	SW	SE	W	WSW	WSW	WSW	WSW	W	W	W	W	WSW	W	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW			
Feb 9	11.3	10.7	10.3	10.5	11.2	10.1	8.1	8.4	8.8	10.6	12.1	12.5	13.2	13.7	11.6	10.4	9.6	6.0	10.2	12.1	10.1	9.6	7.6	7.6	6.0	13.7	**10.1**
	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	WNW	W	W	W	WNW	W	W	WNW	WNW	NW	NW	WNW	WNW	WNW	WNW			
Feb 10	7.5	6.6	8.8	13.1	10.8	10.7	9.4	5.4	5.1	7.4	11.7	11.9	10.3	10.4	9.3	9.5	10.3	9.2	8.7	6.6	5.8	5.5	3.8	3.8	3.8	13.1	8.0
	WNW	WNW	WNW	NW	NW	WNW	NW	WNW	WNW	WNW	NNW	NW	NW	NW	NW	NW	NW	NNW	NNW	N	NNE	NNW	NNW	NNW			
Feb 11	2.3	3.1	2.3	2.5	4.1	2.4	2.4	3.3	5.1	5.4	7.1	8.9	9.7	10.4	10.8	11.9	11.5	9.1	9.6	8.0	7.2	10.3	12.8	9.4	2.3	12.8	6.7
	WNW	NW	W	W	WNW	W	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	W	W	W	WNW	WNW	WNW	WNW	WNW	WNW	WNW			
Feb 12	6.7	7.5	8.4	8.3	7.0	5.4	5.9	5.5	5.8	6.0	5.7	4.4	4.0	4.6	3.2	2.2	2.7	2.0	1.1	0.9	3.0	3.6	2.8	3.1	0.9	8.4	3.0
	WNW	WNW	NW	NW	NW	NW	N	N	N	NNE	NNE	NNE	NE	ENE	ENE	ENE	E	E	SSE	ENE	E	ENE	E	NE			
Feb 13	1.8	1.1	0.7	0.1	0.3	0.1	**0.0**	0.3	0.2	0.5	1.1	3.1	6.9	6.8	6.6	6.0	4.6	1.8	0.1	0.1	0.4	**0.0**	**0.0**	0.3	**0.0**	6.9	1.5
	E	SE	SSE	SSE	S	ENE	NE	SSW	SW	WNW	WNW	W	WSW	WSW	SW	SW	SW	SW	SW	SW	W	SSE	S	SE			
Feb 14	0.1	0.1	**0.0**	0.1	0.2	0.7	0.5	2.5	2.3	4.3	3.7	3.4	3.6	6.1	5.2	4.2	2.5	6.5	4.8	5.2	8.1	6.8	5.1	2.8	**0.0**	8.1	2.8
	ESE	E	E	SSE	ESE	E	ESE	SE	ESE	SE	E	ESE	E	NE	NE	NE	NE	SE	ESE	SE	SE	SE	ESE	ESE			
Feb 15	3.6	5.0	5.4	4.5	3.7	4.7	5.1	5.4	6.5	6.0	7.3	6.9	7.1	6.0	7.2	11.1	6.0	3.1	0.7	2.4	9.4	5.0	3.9	4.5	0.7	11.1	5.2
	ESE	ESE	ESE	E	E	E	E	E	E	ESE	ESE	E	E	E	ESE	ESE	E	E	ENE	SSE	SE	SE	SE	SE			
Feb 16	5.5	4.6	1.0	0.1	0.4	0.1	0.3	**0.0**	0.6	1.6	2.0	2.6	4.0	4.2	4.3	7.4	5.2	4.6	3.6	3.5	1.9	2.7	1.4	2.9	**0.0**	7.4	1.9
	SE	SE	SE	E	E	NNW	SE	W	W	SE	W	W	WSW	WSW	SW	SW	SW	SW	SW	SW	WSW	WSW	WSW	WSW			
Feb 17	2.3	3.2	2.3	2.8	3.0	2.1	3.5	3.5	4.0	4.4	5.4	8.3	8.6	10.4	11.1	10.3	8.4	7.3	5.6	3.1	2.0	1.3	0.2	0.2	0.2	11.1	4.6
	WSW	W	W	WSW	WSW	WSW	WSW	WSW	WSW	WSW	SW	SW	SW	SW	SW	SW	SW	SW	WSW	WSW	SW	WSW	SSW	ESE			
Feb 18	**0.0**	0.4	0.3	0.5	0.4	0.3	0.5	**0.0**	**0.0**	0.4	**P**	**P**	**P**	**P**	**P**	4.8	3.3	2.2	5.0	6.4	7.1	4.2	5.7	5.9	**0.0**	7.1	2.2
	SW	WSW	E	WSW	SW	WSW	WSW	S	NNW	ENE	**P**	**P**	**P**	**P**	**P**	SSE	S	SSE	SE	SE	SE	SE	SE	SE			
Feb 19	7.0	4.3	3.6	3.9	0.7	1.2	0.4	0.6	0.6	2.2	3.0	5.8	7.3	7.4	7.7	7.2	8.6	4.9	4.0	1.4	1.1	1.5	0.8	0.5	0.4	8.6	2.2
	SE	E	ESE	E	N	ENE	SW	WSW	WNW	SE	WSW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW			
Feb 20	0.4	1.1	1.0	2.2	4.0	5.3	7.7	8.8	8.9	12.0	14.8	14.9	15.2	15.1	13.5	12.3	12.3	8.8	8.1	7.5	8.0	7.5	6.9	6.2	0.4	15.2	8.4
	WSW	WSW	SSW	SW	WSW	WSW	SW	SW	SW	SW	WSW	WSW	SW	SW	SW	SW	SW	SW	SW	WSW	WSW	SW	SW	SW			

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION

Cold Lake South Station - February 2021

Summary of Hourly Averages

VECTOR WIND SPEED (VWS) in km/hr & WIND DIRECTION (VWD) in sector

WIND SPEED

Maximum Hourly Value:	15.4	kph	on February 21 at hour 13	Hours in Service:	672
Maximum Daily Value:	10.1	kph	on February 9	Hours of Data:	667
Minimum Hourly Value:	0.0	kph	on February 6 at hour 2	Hours of Missing Data:	5
Minimum Daily Value:	1.3	kph	on February 1	Hours of Calibration:	0
Monthly Average:	2.2	kph		Operational Uptime:	99.3

WIND DIRECTION

Monthly Average: 277 (W) degree

Day	Hourly Period Starting at (MST)																							Daily Minimum	Daily Maximum	Daily Average
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23			
Feb 21	7.5	6.0	6.2	5.1	6.0	2.6	2.4	5.3	3.0	10.3	9.2	12.2	13.9	**15.4**	12.8	15.2	14.6	12.4	15.1	14.5	11.3	10.2	9.6	9.2	2.4	**15.4**	9.4
	SW	SW	SW	SW	SSW	SSW	S	SSW	SSW	SW	SW	SW	SW	SW	SW	SW	SW	SW	WSW	WSW	WSW	WSW	WSW	WSW			
Feb 22	11.1	12.7	12.5	11.1	11.8	12.3	14.2	11.6	12.4	11.4	10.3	12.6	11.6	11.6	12.8	8.4	5.1	3.7	0.8	0.6	0.5	0.5	0.7	0.9	0.5	14.2	7.4
	W	W	W	W	WNW	NW	WNW	WNW	WNW	WNW	W	WNW	WNW	WSW	SW	WSW	N	N	WSW	S	ENE	SSW	WNW	SW			
Feb 23	0.4	1.3	0.3	2.4	1.4	2.1	4.9	5.6	5.8	7.3	6.5	6.1	6.5	6.1	6.5	4.1	7.5	6.7	4.3	6.6	7.6	3.2	0.5	3.6	0.3	7.6	3.1
	WNW	E	SSW	SW	WSW	SW	SW	SW	SW	SW	SW	WSW	WSW	SW	WNW	W	NW	NNW	N	NNW	NNW	NNW	S	SW			
Feb 24	4.5	4.8	6.2	7.6	7.9	6.0	3.5	1.1	2.9	3.9	6.0	9.2	9.9	9.9	9.2	10.8	9.3	7.5	6.9	4.3	0.8	0.4	1.4	0.7	0.4	10.8	5.3
	SW	SW	WSW	WSW	W	W	W	W	WSW	W	W	W	WSW	W	WSW	SW	SW	SW	SW	SW	WSW	WSW	WNW	SE			
Feb 25	0.4	0.1	0.6	1.2	0.6	0.7	1.1	1.5	0.4	2.1	5.0	7.6	5.5	7.3	7.6	8.3	6.1	2.9	0.4	3.3	6.2	5.9	7.3	8.3	0.1	8.3	2.2
	SSE	E	E	ENE	NE	ESE	ESE	ESE	NE	SE	SW	SW	SW	SW	SW	SW	SW	SSW	SW	SW	WSW	W	NW	NNE			
Feb 26	9.7	12.5	13.2	12.4	12.1	12.5	10.1	10.9	10.7	10.8	12.0	10.5	10.0	10.4	10.9	10.5	8.3	7.5	7.6	7.1	6.0	5.5	4.7	3.9	3.9	13.2	9.3
	NNE	NE	NE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NE	NNE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	ESE			
Feb 27	3.7	3.2	1.9	1.9	1.1	2.4	0.1	0.3	2.5	6.3	7.2	8.7	10.2	11.7	11.3	10.7	9.9	7.6	4.7	2.7	3.0	0.4	0.3	0.1	0.1	11.7	3.9
	ESE	SE	SE	SE	SE	SE	SSE	SSE	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	WSW	SW	WSW	SSE	SSE	E			
Feb 28	0.1	0.8	1.9	2.8	4.8	7.9	7.0	9.3	11.5	11.0	9.5	10.8	9.5	8.8	8.5	6.3	8.7	7.6	10.1	8.8	9.1	10.2	11.8	10.6	0.1	11.8	7.3
	NNE	ENE	NE	ENE	ENE	E	E	E	E	E	E	E	E	E	E	E	E	ESE	SE	SE	SE	SE	SE	SE			

C	Monthly Calibration	**S**	Daily Zero-Span Check	**Q**	Quality Assurance	
K	Collection Error	**N**	No Data (Machine Not in Service)	**Y**	Routine Maintenance	**P** Power Failure
X	InValid Data (Equipment Malfunction /Recovery)	**NRM**	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)			

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION

Cold Lake South Station - February 2021

Summary of Hour Standard Deviations

STANDARD DEVIATION WIND DIRECTION (STDWD) in Degree

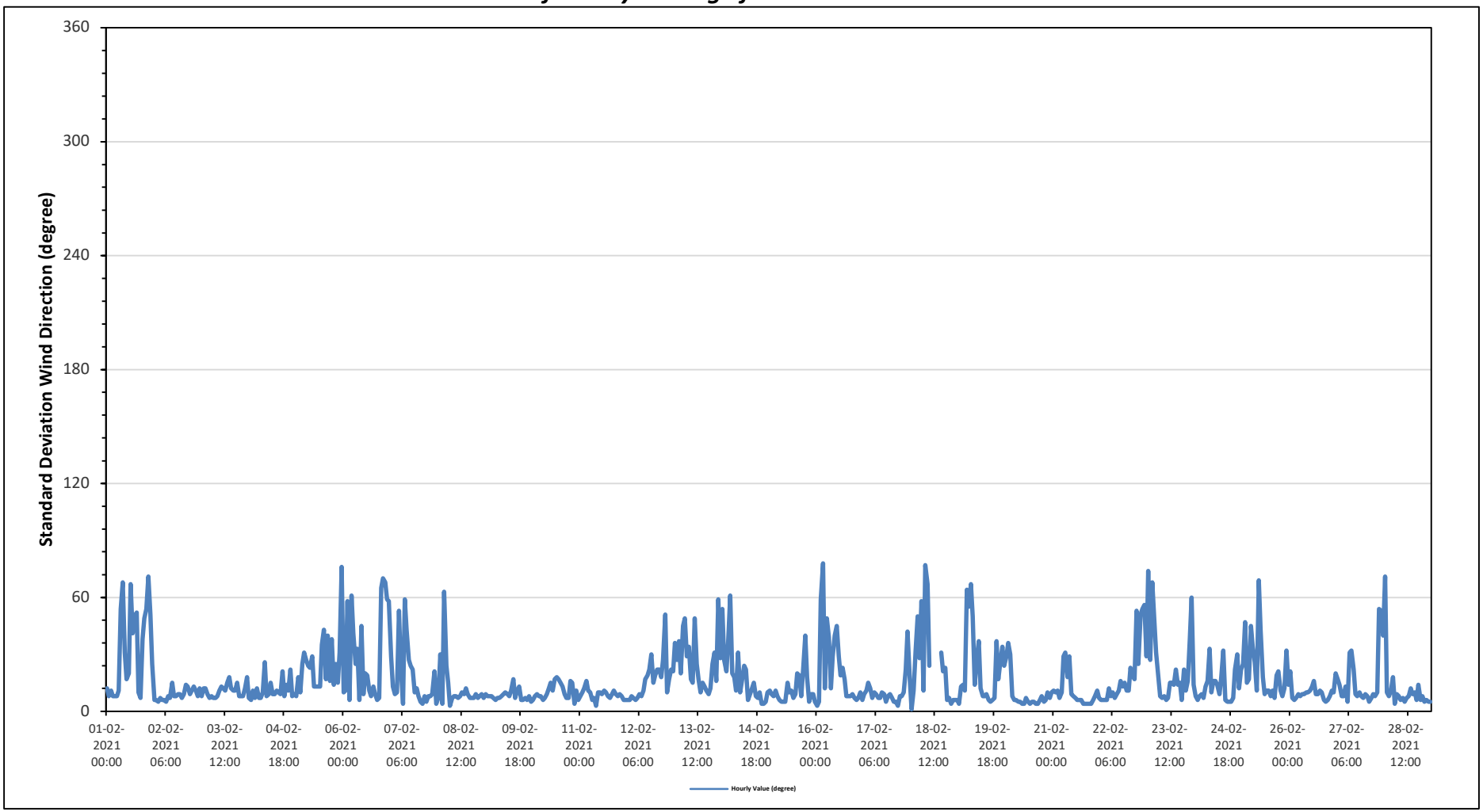
Maximum Hourly Value:	78	degree	on February 16 at hour 3	Hours in Service:	672
				Hours of Data:	667
Minimum Hourly Value:	1	degree	on February 18 at hour 0	Hours of Missing Data:	5
				Hours of Calibration:	0
				Operational Uptime:	99.3

Day	Hourly Period Starting at (MST)																								Daily Minimum	Daily Maximum
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23		
Feb 1	12	8	11	8	8	8	11	54	68	31	17	20	67	41	50	52	10	7	38	49	54	71	51	25	7	71
Feb 2	6	6	5	7	6	6	5	8	7	15	8	8	9	9	7	9	14	13	9	11	13	11	8	12	5	15
Feb 3	8	12	12	9	7	8	7	7	8	11	13	12	11	15	18	12	11	11	15	8	8	8	12	18	7	18
Feb 4	7	6	11	7	12	7	7	10	26	8	9	15	9	9	11	10	9	21	8	14	11	22	8	9	6	26
Feb 5	8	18	10	25	31	27	24	23	29	13	13	13	13	35	43	17	40	16	38	14	25	15	31	76	8	76
Feb 6	10	11	58	6	61	41	25	33	6	45	9	20	19	11	8	13	9	6	7	65	70	68	59	58	6	70
Feb 7	29	13	9	10	53	24	4	59	43	27	24	22	10	12	8	5	4	8	5	8	8	9	21	4	4	59
Feb 8	7	30	4	63	24	15	3	7	8	8	7	8	10	9	12	9	7	7	7	9	7	8	9	7	3	63
Feb 9	9	8	8	8	7	6	7	7	8	9	10	9	8	11	17	7	11	13	6	6	7	6	8	5	5	17
Feb 10	6	8	9	8	8	6	7	9	12	15	11	17	18	17	15	13	9	7	7	16	15	4	11	6	4	18
Feb 11	8	10	12	16	11	10	6	7	3	10	10	9	11	10	8	7	9	11	9	8	9	8	6	6	3	16
Feb 12	6	6	8	7	6	7	9	8	11	17	19	22	30	15	19	22	22	18	27	51	10	17	22	21	6	51
Feb 13	36	27	37	20	45	49	29	34	17	15	49	25	17	10	15	13	11	9	12	25	31	16	59	28	9	59
Feb 14	54	27	21	37	61	20	18	11	31	10	16	24	22	6	9	12	15	8	7	10	4	4	5	10	4	61
Feb 15	11	9	8	11	8	6	5	5	5	15	10	11	7	9	20	19	8	21	40	18	5	9	9	5	5	40
Feb 16	3	5	59	**78**	12	49	39	12	29	40	45	29	19	23	17	8	8	8	9	7	6	7	10	6	3	**78**
Feb 17	9	11	15	12	7	10	9	7	7	10	9	5	8	9	7	5	5	3	8	8	10	22	42	17	3	42
Feb 18	**1**	11	32	50	28	58	11	77	67	24	**P**	**P**	**P**	**P**	**P**	31	21	23	6	7	4	6	6	6	**1**	77
Feb 19	4	13	14	11	64	55	67	50	14	27	37	12	8	8	9	6	5	6	7	37	17	27	34	24	4	67
Feb 20	29	36	30	8	6	6	5	5	4	4	7	5	4	5	5	4	4	6	8	5	6	10	7	10	4	36
Feb 21	11	10	11	7	10	29	31	18	29	9	8	7	6	6	6	4	4	4	4	4	6	8	11	7	4	31
Feb 22	6	6	6	6	12	8	10	7	9	11	16	13	15	11	11	23	19	17	53	25	51	54	56	29	6	56
Feb 23	74	27	68	48	31	18	8	7	8	6	7	15	15	14	22	14	15	6	22	11	16	38	60	14	6	74
Feb 24	8	6	8	9	7	13	16	33	10	16	16	14	9	18	32	6	5	5	5	7	22	30	12	22	5	33
Feb 25	25	47	15	17	45	34	26	11	69	43	18	9	11	11	8	11	7	19	21	11	8	12	32	14	7	69
Feb 26	21	7	6	7	9	8	9	9	10	10	11	13	16	9	9	11	10	6	5	6	8	11	10	20	5	21
Feb 27	17	14	8	8	13	5	31	32	22	9	8	10	8	7	9	8	5	7	9	8	10	54	53	40	5	54
Feb 28	71	10	8	11	18	4	9	8	6	7	5	7	8	12	9	10	6	14	6	8	5	6	5	5	4	71
Diurnal Minimum	1	5	4	6	6	4	3	5	3	4	5	5	4	5	5	4	4	3	4	4	4	4	5	4		
Daiurnal Maximum	74	47	68	78	64	58	67	77	69	45	49	29	67	41	50	52	40	23	53	65	70	71	60	76		

C	Monthly Calibration	**S**	Daily Zero-Span Check	**Q**	Quality Assurance	
K	Collection Error	**N**	No Data (Machine Not in Service)	**Y**	Routine Maintenance	**P** Power Failure
X	InValid Data (Machine Malfunction /Recovery)	**NRM**	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)			

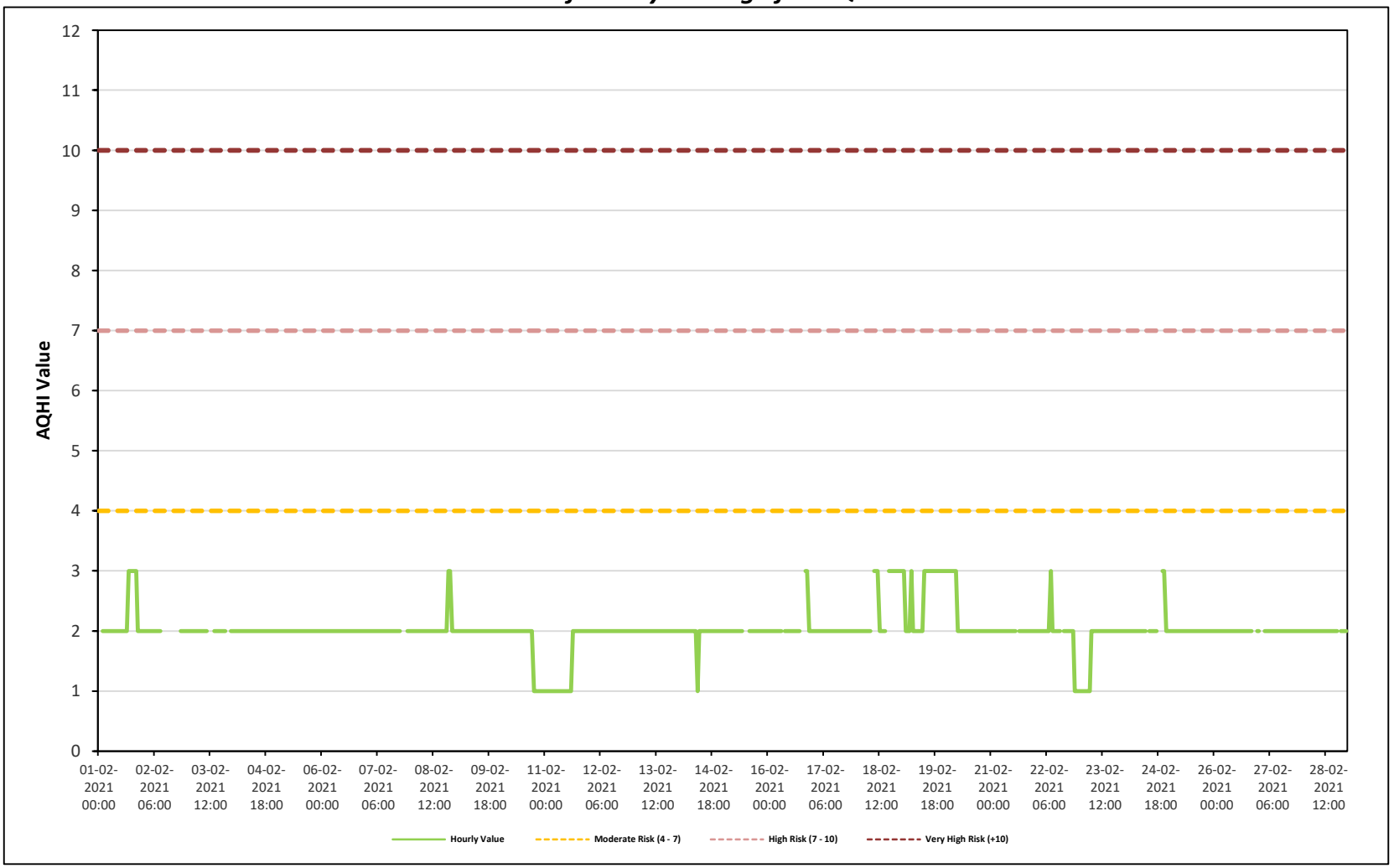
Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.

Timeseries Chart of Hourly Average for STDWD - Cold Lake South Station



MASKWA STATION

Timeseries Chart of Hourly Average for AQHI - Maskwa Site



LAKELAND INDUSTRY & COMMUNITY ASSOCIATION

Maskwa Site - February 2021

Summary of Hourly Averages

SULPHUR DIOXIDE (SO_2) in ppb

Alberta Ambient Air Quality Objectives (AAAQO): 1-Hour 172 ppb, 24-Hour 48 ppb, 30-Day 11 ppb

Number of 1-Hour Exceedences: 0 Number of 24-Hour Exceedences: 0 30-Day Exceedence: 0

Maximum Hourly Value:	28	ppb	on February 8 at hour 9	Hours in Service:	672
Maximum Daily Value:	12.3	ppb	on February 8	Hours of Data:	638
Minimum Hourly Value:	0	ppb	on February 1 at hour 0	Hours of Missing Data:	0
Minimum Daily Value:	0.1	ppb	on February 13	Hours of Calibration:	34
Monthly Average:	2.3	ppb		Operational Uptime:	100.0

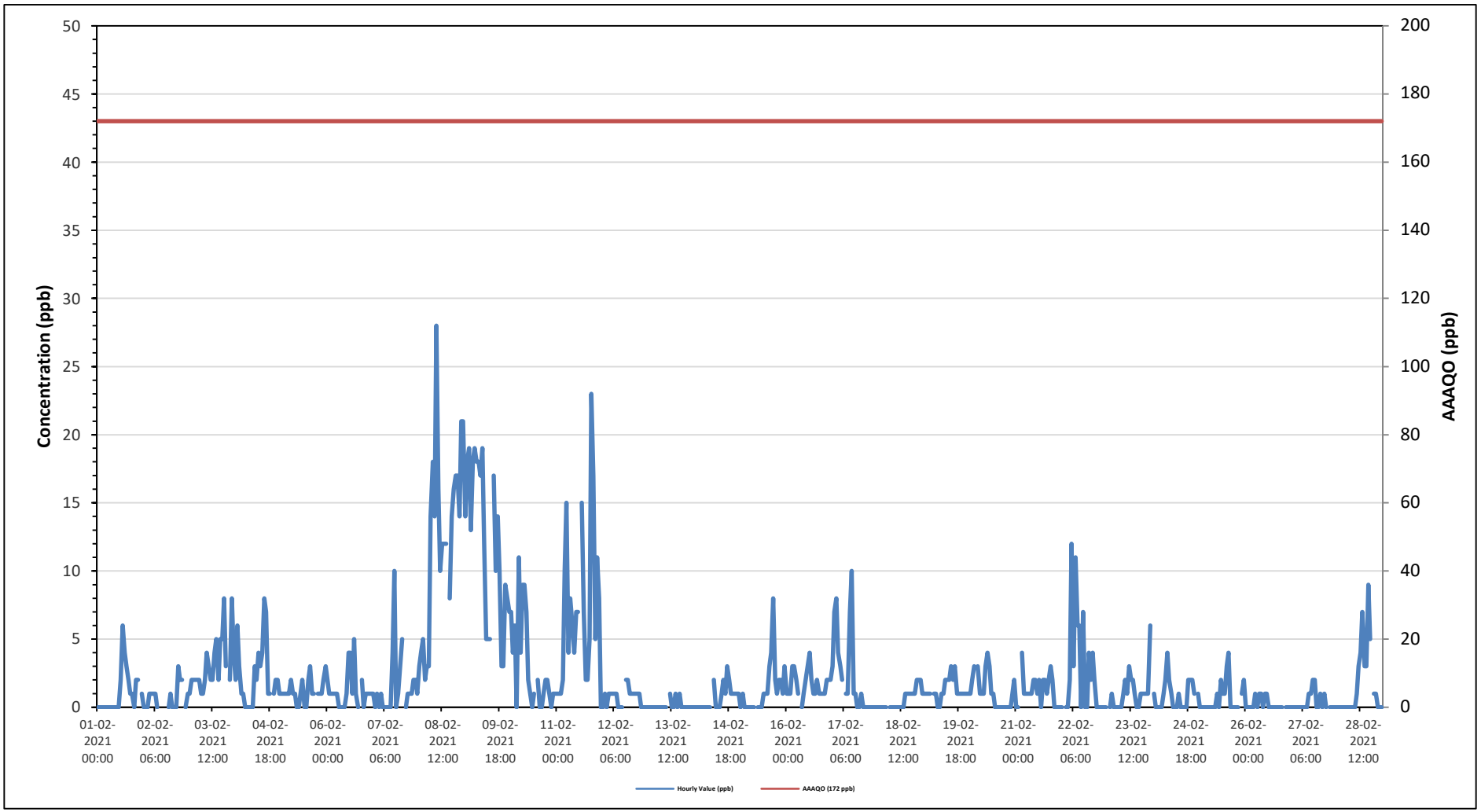
Day	Hourly Period Starting at (MST)																								Daily Minimum	Daily Maximum	Daily Average
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23			
Feb 1	0	0	0	0	0	0	0	0	0	0	0	0	2	6	4	3	2	1	1	0	2	2	S	1	0	6	1.0
Feb 2	0	0	0	1	1	1	1	0	C	C	C	C	C	0	1	0	0	0	3	2	2	S	0	1	0	3	0.7
Feb 3	1	2	2	2	2	2	1	1	2	4	3	2	2	4	5	2	5	5	8	3	S	2	8	4	1	8	3.1
Feb 4	2	6	3	1	1	0	0	0	0	0	3	2	4	3	4	8	7	1	1	S	1	2	2	1	0	8	2.3
Feb 5	1	1	1	1	1	2	1	1	0	0	1	2	0	0	2	3	1	1	S	1	1	1	2	3	0	3	1.2
Feb 6	2	1	1	1	1	1	0	0	0	0	1	4	4	1	5	1	0	S	2	0	1	1	1	1	0	5	1.3
Feb 7	1	0	1	0	1	0	0	0	0	0	4	10	0	1	3	5	S	0	1	1	1	2	2	1	0	10	1.5
Feb 8	3	4	5	2	3	3	14	18	14	**28**	16	10	12	12	12	S	8	14	16	17	17	14	21	21	2	**28**	**12.3**
Feb 9	14	18	19	13	18	19	18	18	17	19	12	5	5	5	S	17	10	14	10	3	3	9	8	7	3	19	12.2
Feb 10	7	4	6	0	11	4	9	9	7	2	1	0	1	S	2	0	0	1	2	2	1	0	1	1	0	11	3.1
Feb 11	1	1	1	2	10	15	4	8	6	4	7	7	S	15	7	2	2	5	23	17	5	11	8	0	0	23	7.0
Feb 12	0	1	0	1	1	1	1	1	0	0	0	S	2	2	1	1	1	1	1	1	0	0	0	0	0	2	0.7
Feb 13	0	0	0	0	0	0	0	0	0	0	S	1	0	0	1	0	1	0	0	0	0	0	0	0	0	1	0.1
Feb 14	0	0	0	0	0	0	0	0	0	S	2	0	0	0	1	2	1	3	2	1	1	1	1	1	0	3	0.7
Feb 15	0	1	0	0	0	0	0	0	S	0	0	0	1	1	1	3	4	8	2	1	2	2	1	3	0	8	1.3
Feb 16	1	1	1	3	3	2	1	S	0	1	2	3	4	2	1	1	2	1	1	1	1	2	2	2	0	4	1.7
Feb 17	3	7	8	4	3	2	S	1	1	7	10	1	1	0	0	1	0	0	0	0	0	0	0	0	0	10	2.1
Feb 18	0	0	0	0	0	S	0	0	0	0	0	0	0	0	1	1	1	1	1	1	2	2	2	1	0	2	0.6
Feb 19	1	1	1	1	S	1	1	0	0	1	1	2	2	2	3	2	3	1	1	1	1	1	1	1	0	3	1.3
Feb 20	1	2	3	S	3	1	1	1	3	4	3	1	1	0	0	0	0	0	0	0	0	0	1	2	0	4	1.2
Feb 21	0	0	S	4	1	1	1	1	1	2	2	1	2	0	2	2	1	2	3	2	0	0	0	0	0	4	1.2
Feb 22	0	S	0	0	2	12	3	11	6	6	0	7	0	0	4	2	4	2	0	0	0	0	0	0	0	12	2.6
Feb 23	S	0	1	0	0	0	0	0	1	2	1	3	2	2	1	0	0	1	1	1	1	1	6	S	0	6	1.1
Feb 24	1	0	0	0	0	1	2	4	2	1	0	0	0	1	0	0	0	0	2	2	2	1	S	1	0	4	0.9
Feb 25	0	0	0	0	0	0	0	0	0	1	0	2	1	1	3	4	0	0	0	0	0	S	1	2	0	4	0.7
Feb 26	0	0	0	0	0	1	0	1	1	0	1	1	0	0	0	0	0	0	0	0	S	0	0	0	0	1	0.2
Feb 27	0	0	0	0	0	0	0	0	0	1	1	2	2	0	0	1	0	1	0	S	0	0	0	0	0	2	0.3
Feb 28	0	0	0	0	0	0	0	0	0	0	1	3	4	7	3	3	9	5	S	1	1	0	0	0	0	9	1.6
Diurnal Maximum	14	18	19	13	18	19	18	18	17	28	16	10	12	15	12	17	10	14	23	17	17	14	21	21			
Daiurnal Average	1.4	1.9	2.0	1.3	2.3	2.6	2.1	2.8	2.3	3.2	2.8	2.7	2.0	2.4	2.5	2.4	2.3	2.5	3.1	2.2	1.7	2.1	2.6	2.0			

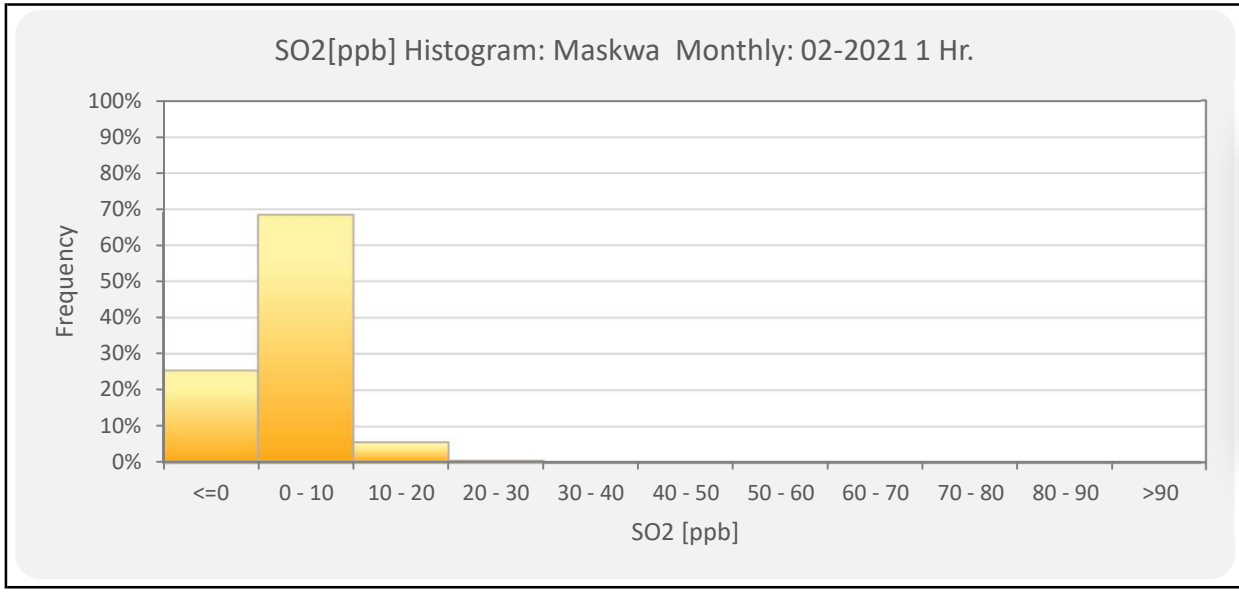
C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance			
K	Collection Error	N	No Data (Machine Not in Service)	Y	Routine Maintenance	P	Power Failure	
X	InValid Data (Equipment Malfunction /Recovery)	NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)					

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.

Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.

Timeseries Chart of Hourly Average for SO2 - Maskwa Site

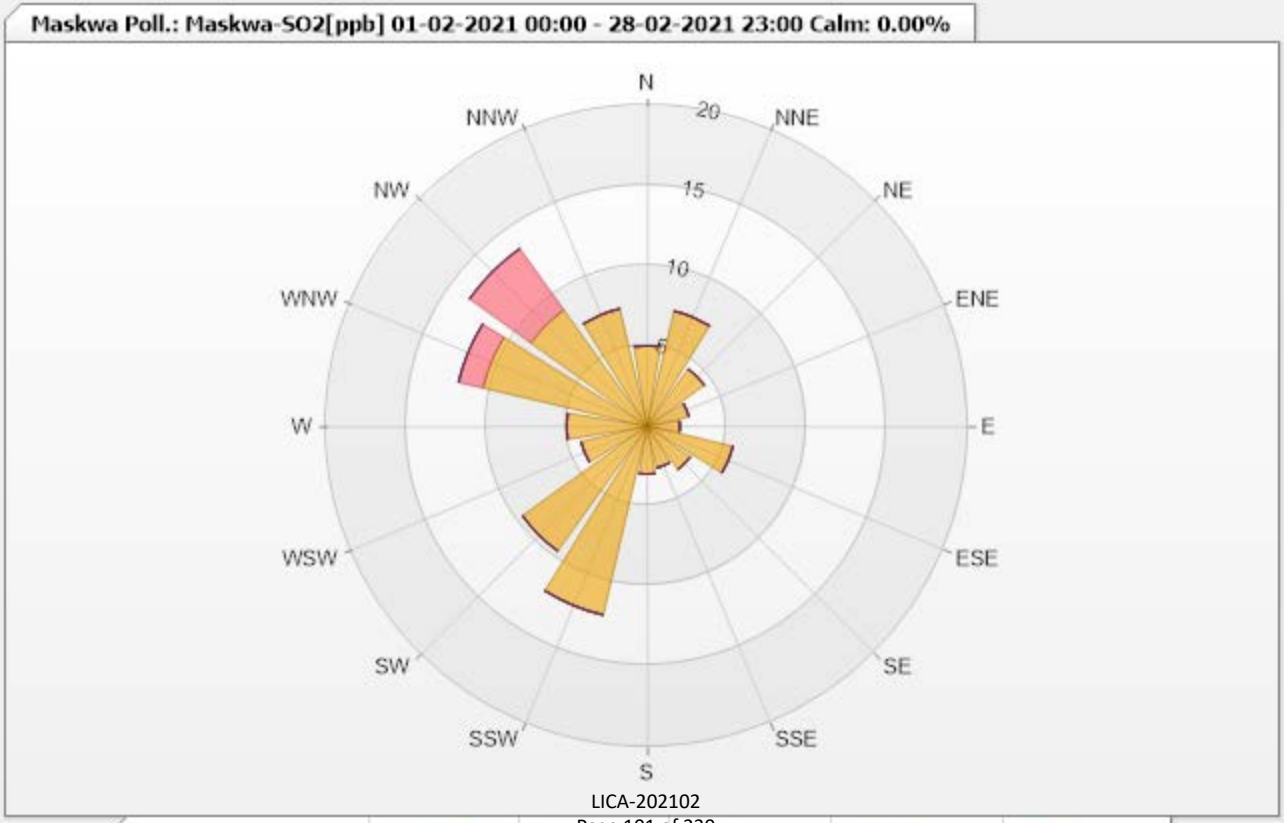




Classes	SO2
<=0	25.39%
0 - 10	68.34%
10 - 20	5.64%
20 - 30	0.63%
30 - 40	0.00%
40 - 50	0.00%
50 - 60	0.00%
60 - 70	0.00%
70 - 80	0.00%
80 - 90	0.00%
>90	0.00%

Wind: Maskwa Poll.: Maskwa-SO2[ppb] Monthly: 02-2021 Type: PollutionRose Direction: Blowing From (Wind Frequency) Based On 1 Hr.
Calm: 0.00% Valid Data: 94.94% Calm Avg: 0.00 [ppb]

Direction	0-10	10-50	50-100	100-172	>172.0	Total
N	5.02	0	0	0	0	5.02
NNE	7.37	0	0	0	0	7.37
NE	4.39	0	0	0	0	4.39
ENE	2.66	0	0	0	0	2.66
E	2.04	0	0	0	0	2.04
ESE	5.49	0	0	0	0	5.49
SE	3.29	0	0	0	0	3.29
SSE	2.66	0	0	0	0	2.66
S	2.98	0	0	0	0	2.98
SSW	12.07	0	0	0	0	12.07
SW	9.56	0	0	0	0	9.56
WSW	4.23	0	0	0	0	4.23
W	5.02	0	0	0	0	5.02
WNW	10.5	1.57	0	0	0	12.07
NW	8.93	4.7	0	0	0	13.63
NNW	7.52	0	0	0	0	7.52
Summary	93.73	6.27	0	0	0	100


Maskwa Poll.: Maskwa-SO2[ppb] 01-02-2021 00:00 - 28-02-2021 23:00 Calm: 0.00%
N
NNE
NE
ENE
E
ESE
SE
SSE
S
SSW
SW
WSW
W
WNW
NW
NNW
20
15
10
5
% Icon Classes (ppb)
94 0-10
6 10-50
0 50-100
0 100-172
0 >172.0

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION

Maskwa Site - February 2021

Summary of Hourly Averages

HYDROGEN SULPHIDE (H_2S) in ppb

Alberta Ambient Air Quality Objectives (AAAQO): 1-Hour 10 ppb, 24-Hour 3 ppb

Number of 1-Hour Exceedances: 0 Number of 24-Hour Exceedances: 0

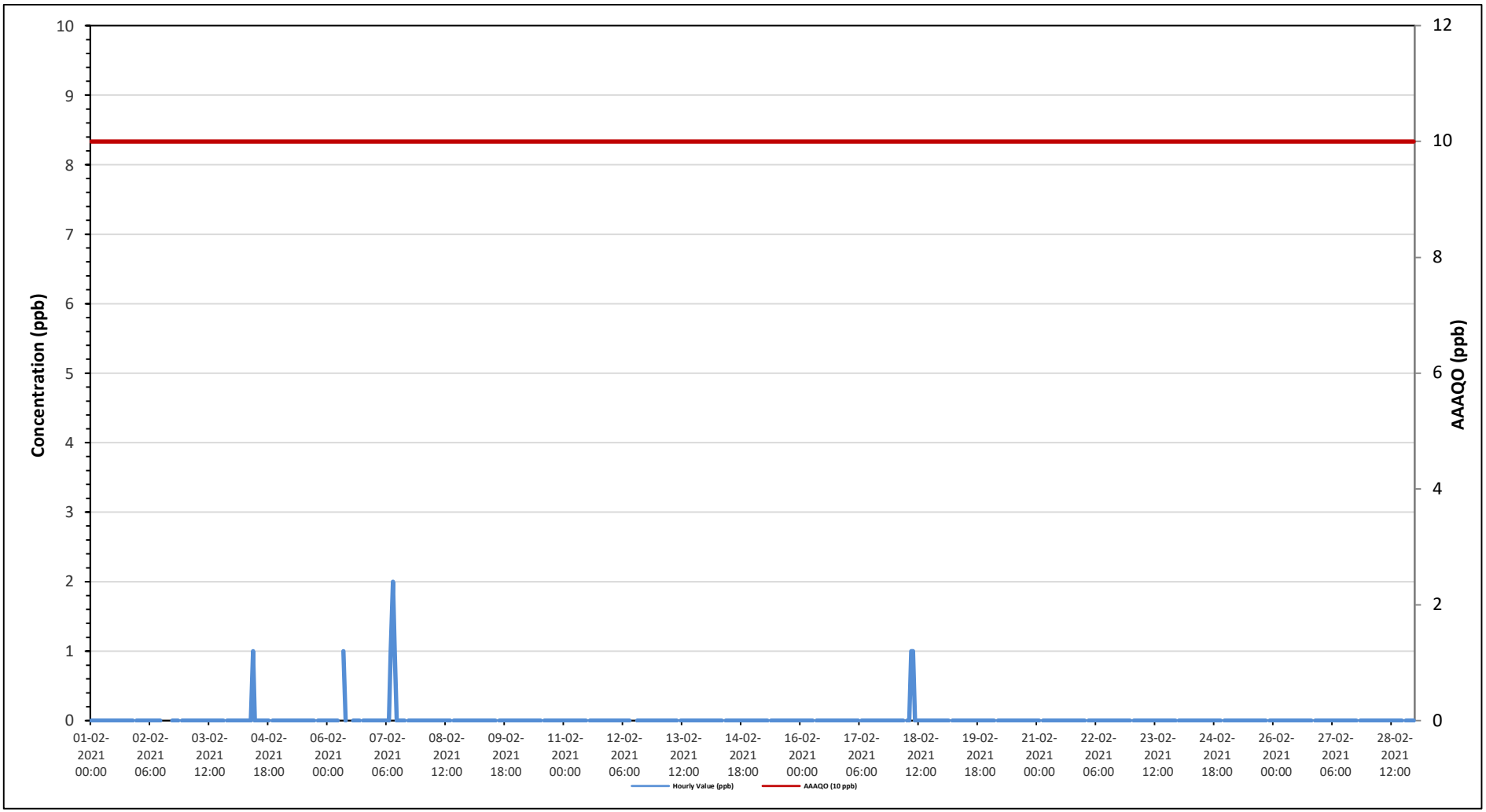
Maximum Hourly Value:	2	ppb	on February 7 at hour 9	Hours in Service:	672
Maximum Daily Value:	0.2	ppb	on February 7	Hours of Data:	631
Minimum Hourly Value:	0	ppb	on February 1 at hour 0	Hours of Missing Data:	8
Minimum Daily Value:	0.0	ppb	on February 1	Hours of Calibration:	33
Monthly Average:	0.0	ppb		Operational Uptime:	98.8

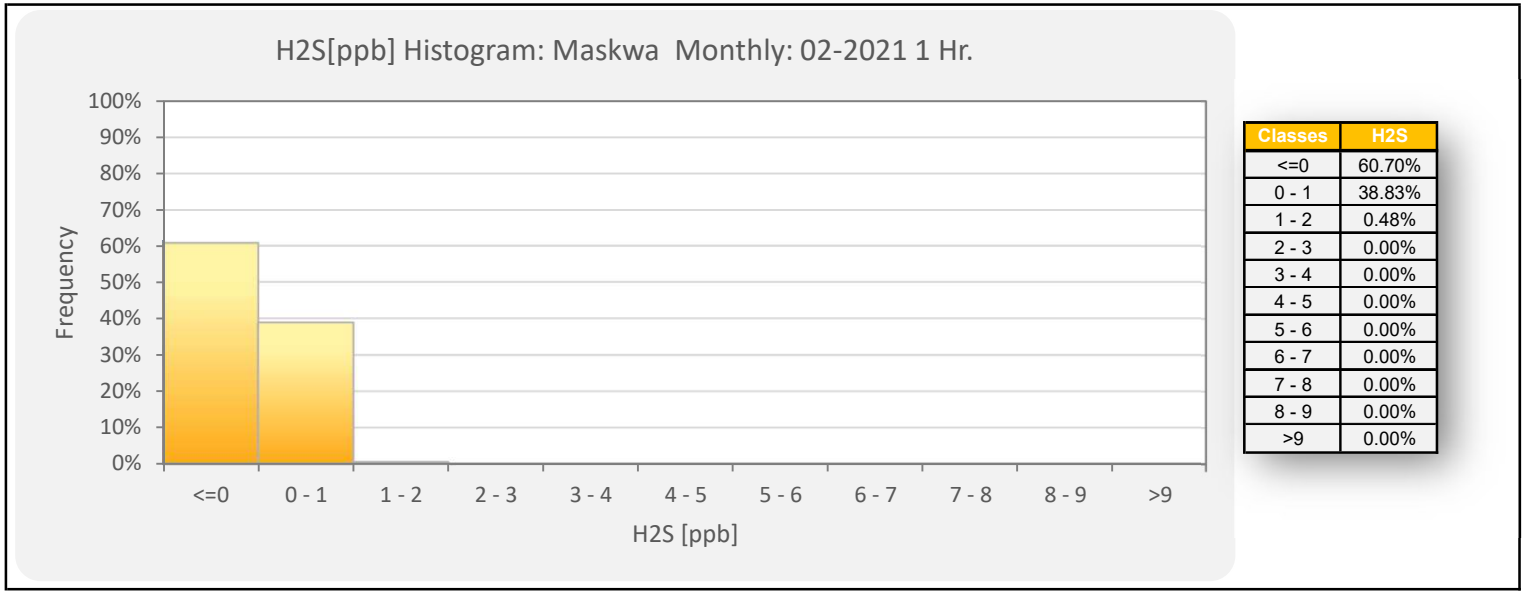
Day	Hourly Period Starting at (MST)																								Daily Minimum	Daily Maximum	Daily Average
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23			
Feb 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0.0
Feb 2	0	0	0	0	0	0	0	0	0	0	0	0	C	C	C	C	C	0	0	0	0	S	0	0	0	0	0.0
Feb 3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0.0
Feb 4	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	S	0	0	0	0	0	1	0.0
Feb 5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0.0
Feb 6	0	0	0	0	0	0	NRM	NRM	1	0	NRM	NRM	NRM	0	0	0	0	S	0	0	0	0	0	0	0	1	0.1
Feb 7	0	0	0	0	0	0	0	0	1	2	1	0	0	0	0	0	S	0	0	0	0	0	0	0	0	2	0.2
Feb 8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0.0
Feb 9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0.0
Feb 10	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Feb 11	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Feb 12	0	0	0	0	0	0	0	0	0	0	NRM	NRM	NRM	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Feb 13	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Feb 14	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Feb 15	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Feb 16	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Feb 17	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Feb 18	0	0	0	0	0	S	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1
Feb 19	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Feb 20	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Feb 21	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Feb 22	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Feb 23	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0.0
Feb 24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0.0
Feb 25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0.0
Feb 26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0.0
Feb 27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0.0
Feb 28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0.0
Diurnal Maximum	0	0	0	0	0	0	0	0	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0			
Diurnal Average	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			

C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance	
K	Collection Error	N	No Data (Machine Not in Service)	Y	Routine Maintenance	P Power Failure
X	InValid Data (Equipment Malfunction /Recovery)	NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)			

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.

Timeseries Chart of Hourly Average for H2S - Maskwa Site

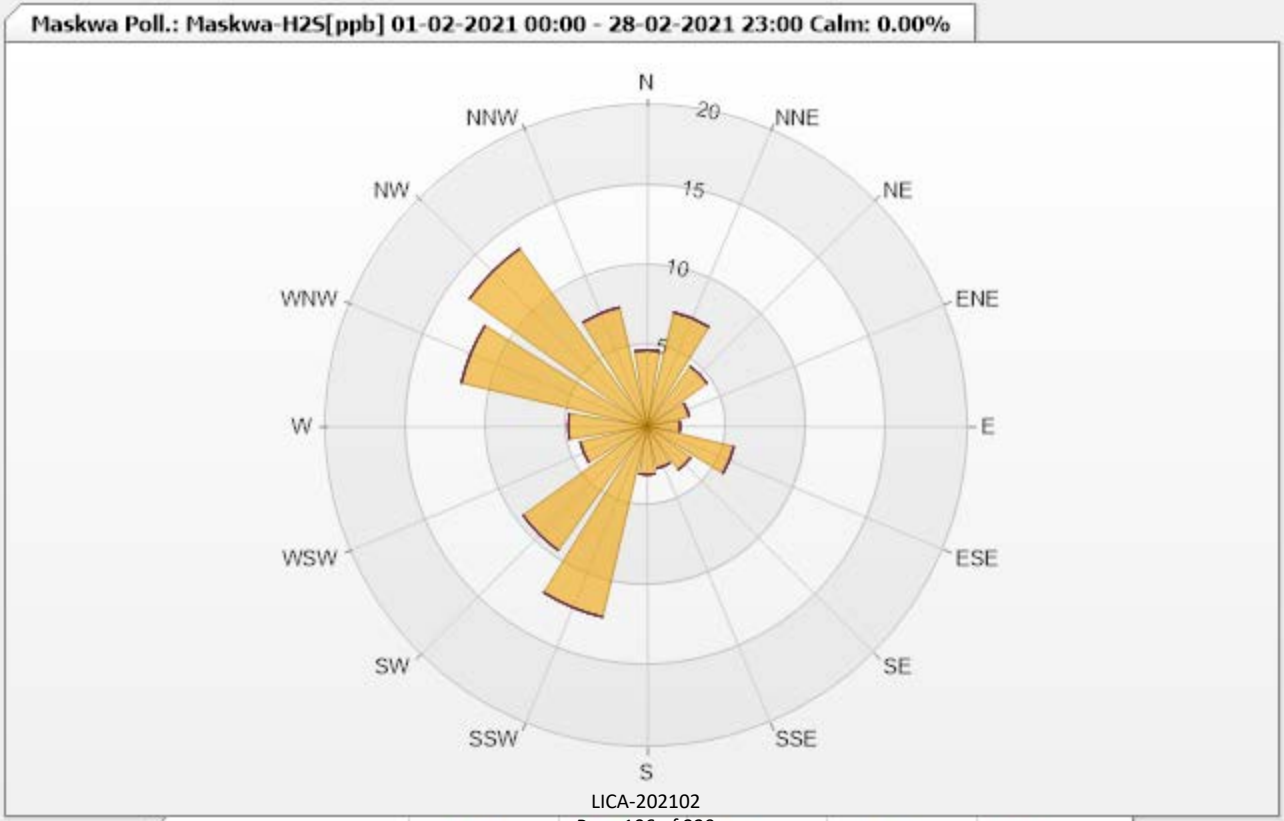




Classes	H2S
<=0	60.70%
0 - 1	38.83%
1 - 2	0.48%
2 - 3	0.00%
3 - 4	0.00%
4 - 5	0.00%
5 - 6	0.00%
6 - 7	0.00%
7 - 8	0.00%
8 - 9	0.00%
>9	0.00%

Wind: Maskwa Poll.: Maskwa-H2S[ppb] Monthly: 02-2021 Type: PollutionRose Direction: Blowing From (Wind Frequency) Based On 1 Hr.
Calm: 0.00% Valid Data: 93.90% Calm Avg: 0.00 [ppb]

Direction	0-2	2-5	5-10	10-50	>50.0	Total
N	4.75	0	0	0	0	4.75
NNE	7.29	0	0	0	0	7.29
NE	4.6	0	0	0	0	4.6
ENE	2.69	0	0	0	0	2.69
E	2.06	0	0	0	0	2.06
ESE	5.55	0	0	0	0	5.55
SE	3.33	0	0	0	0	3.33
SSE	2.69	0	0	0	0	2.69
S	3.01	0	0	0	0	3.01
SSW	12.2	0	0	0	0	12.2
SW	9.51	0	0	0	0	9.51
WSW	4.28	0	0	0	0	4.28
W	4.91	0	0	0	0	4.91
WNW	11.89	0	0	0	0	11.89
NW	13.63	0	0	0	0	13.63
NNW	7.61	0	0	0	0	7.61
Summary	100	0	0	0	0	100


Maskwa Poll.: Maskwa-H2S[ppb] 01-02-2021 00:00 - 28-02-2021 23:00 Calm: 0.00%
N
NNE
NE
ENE
E
ESE
SE
SSE
S
SSW
SW
WSW
W
WNW
NW
NNW
20
15
10
% Icon Classes (ppb)
100 0-2
0 2-5
0 5-10
0 10-50
0 >50.0

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION

Maskwa Site - February 2021

Summary of Hourly Averages

OXIDES OF NITROGEN (NOx) in ppb

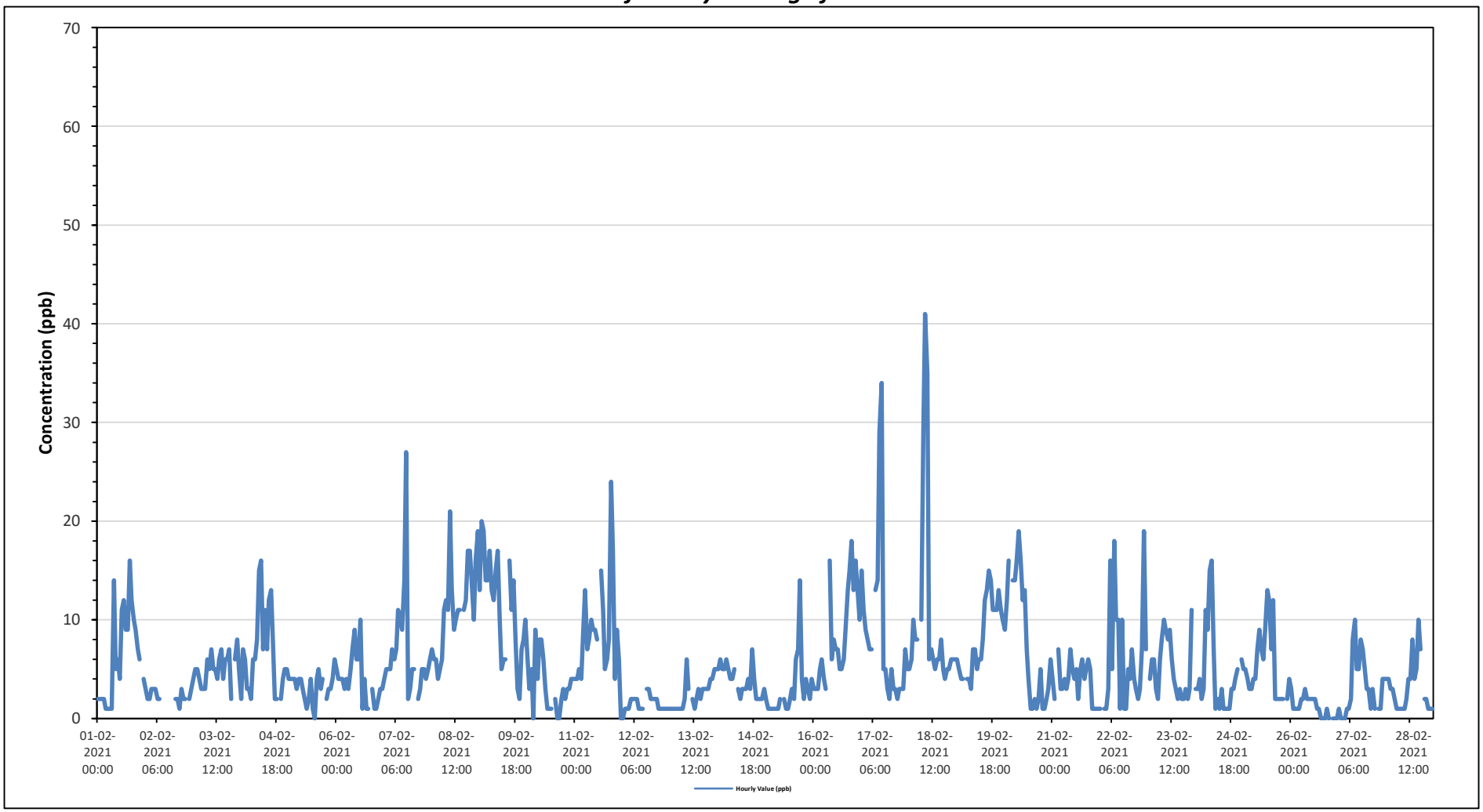
Maximum Hourly Value:	41	ppb	on February 18 at hour 8	Hours in Service:	672
Maximum Daily Value:	11.3	ppb	on February 9	Hours of Data:	636
Minimum Hourly Value:	0	ppb	on February 5 at hour 13	Hours of Missing Data:	0
Minimum Daily Value:	1.2	ppb	on February 26	Hours of Calibration:	36
Monthly Average:	5.6	ppb		Operational Uptime:	100.0

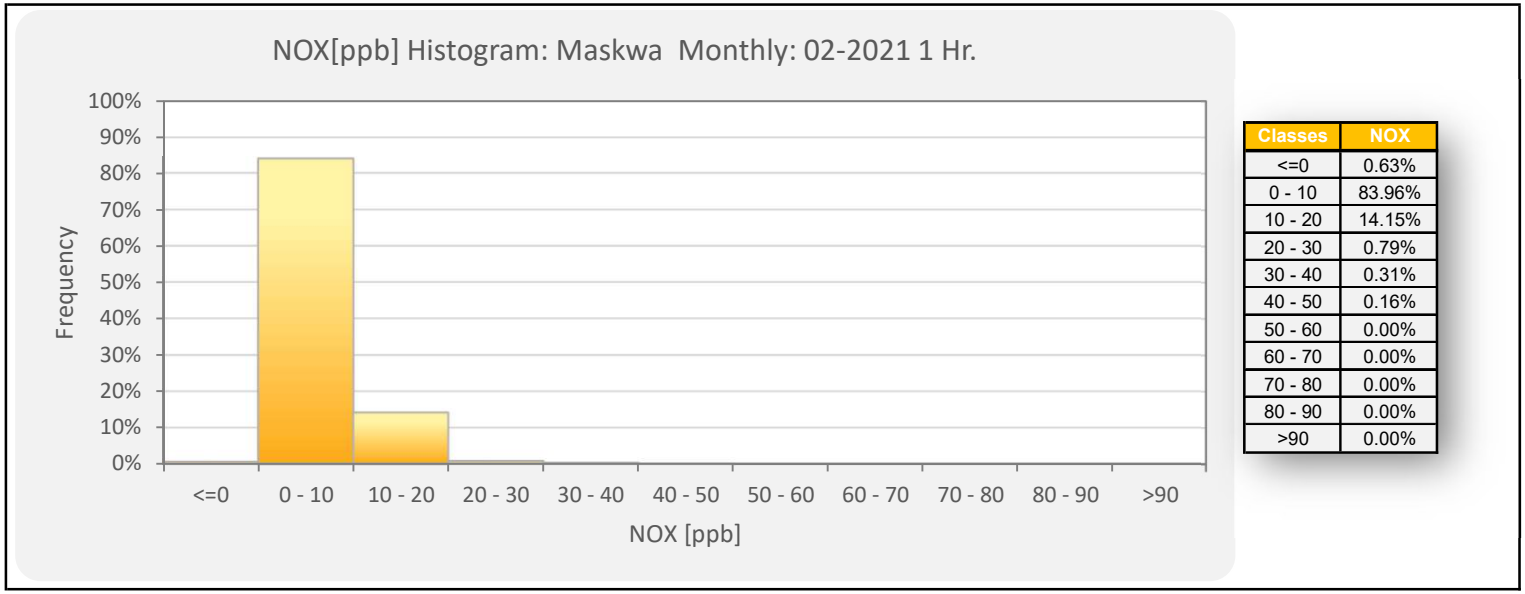
Day	Hourly Period Starting at (MST)																								Daily Minimum	Daily Maximum	Daily Average
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23			
Feb 1	2	2	2	2	1	1	1	1	14	5	6	4	11	12	9	9	16	12	10	9	7	6	S	4	1	16	6.3
Feb 2	3	2	2	3	3	3	2	2	C	C	C	C	C	C	C	2	2	1	3	2	2	S	2	3	1	3	-
Feb 3	4	5	5	4	3	3	3	6	5	7	5	5	4	6	7	4	6	6	7	2	S	6	8	5	2	8	5.0
Feb 4	2	7	6	3	3	2	6	6	8	15	16	7	11	7	12	13	8	2	2	S	2	4	5	5	2	16	6.6
Feb 5	4	4	4	4	3	4	4	3	2	1	2	4	1	0	4	5	3	4	S	2	3	3	4	6	0	6	3.2
Feb 6	5	4	4	4	3	4	3	5	7	9	6	6	10	1	4	1	1	S	3	1	1	2	3	3	1	10	3.9
Feb 7	4	5	5	5	7	6	7	11	10	9	14	27	2	3	5	5	S	2	3	5	5	4	5	6	2	27	6.7
Feb 8	7	6	6	4	5	6	11	12	11	21	13	9	10	11	11	S	11	12	17	17	14	10	16	19	4	21	11.3
Feb 9	13	20	19	14	14	17	13	12	15	17	10	5	6	6	S	16	11	14	8	3	2	7	8	10	2	20	**11.3**
Feb 10	6	3	5	0	9	4	8	8	6	3	1	1	1	S	2	0	0	2	3	2	3	3	4	4	0	9	3.4
Feb 11	4	4	5	4	9	13	7	8	10	9	9	8	S	15	11	5	6	8	24	17	4	9	6	0	0	24	8.5
Feb 12	0	1	1	1	2	2	2	2	1	1	1	S	3	3	2	2	2	2	1	1	1	1	1	1	0	3	1.5
Feb 13	1	1	1	1	1	1	1	2	6	3	S	2	1	2	3	2	3	3	3	3	4	4	5	5	1	6	2.5
Feb 14	5	6	5	5	6	5	4	4	5	S	3	2	3	3	3	4	3	7	4	2	2	2	2	3	2	7	3.8
Feb 15	2	1	1	1	1	1	1	2	S	2	1	1	2	3	2	6	7	14	4	2	4	3	2	4	1	14	2.9
Feb 16	3	3	3	5	6	4	3	S	16	6	8	7	7	5	5	6	9	13	15	18	13	16	13	10	3	18	8.4
Feb 17	15	11	9	8	7	7	S	13	14	29	34	5	5	3	2	5	3	3	2	3	3	3	7	5	2	34	8.5
Feb 18	5	6	10	8	8	S	10	29	**41**	35	6	7	6	5	6	6	8	5	4	5	5	6	6	6	4	**41**	10.1
Feb 19	6	5	4	4	S	4	4	3	7	7	5	6	6	8	12	13	15	14	11	11	11	13	11	10	3	15	8.3
Feb 20	9	12	16	S	14	14	16	19	16	12	13	7	4	1	1	2	1	2	5	1	1	2	3	6	1	19	7.7
Feb 21	4	2	S	7	3	3	4	3	4	7	5	4	5	2	5	6	4	5	6	5	1	1	1	1	1	7	3.8
Feb 22	1	S	1	1	3	16	5	18	10	10	1	10	1	1	5	4	7	4	3	2	3	7	19	7	1	19	6.0
Feb 23	S	4	6	6	3	2	6	8	10	9	8	9	6	4	3	2	3	2	2	3	2	3	11	S	2	11	5.1
Feb 24	3	3	4	2	3	11	9	15	16	7	1	2	1	3	1	1	1	1	3	3	4	5	S	6	1	16	4.6
Feb 25	5	5	4	3	3	4	4	7	9	7	6	9	13	12	7	12	2	2	2	2	2	S	2	4	2	13	5.5
Feb 26	3	1	1	1	1	2	2	3	2	2	2	2	2	1	1	0	0	0	1	0	S	0	0	0	0	3	1.2
Feb 27	1	0	0	0	1	1	2	8	10	5	5	8	7	5	3	3	1	3	1	S	1	1	4	4	0	10	3.2
Feb 28	4	4	3	3	2	1	1	1	1	1	2	4	4	8	4	5	10	7	S	2	2	1	1	1	1	10	3.1
Diurnal Maximum	15	20	19	14	14	17	16	29	41	35	34	27	13	15	12	16	16	14	24	18	14	16	19	19			
Daiurnal Average	4.5	4.7	4.9	3.8	4.6	5.2	5.1	7.8	9.8	9.2	7.0	6.2	5.1	5.0	5.0	5.1	5.3	5.6	5.7	4.7	3.9	4.7	5.7	5.1			

C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance	
K	Collection Error	N	No Data (Machine Not in Service)	Y	Routine Maintenance	P Power Failure
X	InValid Data (Equipment Malfunction /Recovery)	NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)			

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.

Timeseries Chart of Hourly Average for NOx - Maskwa Site

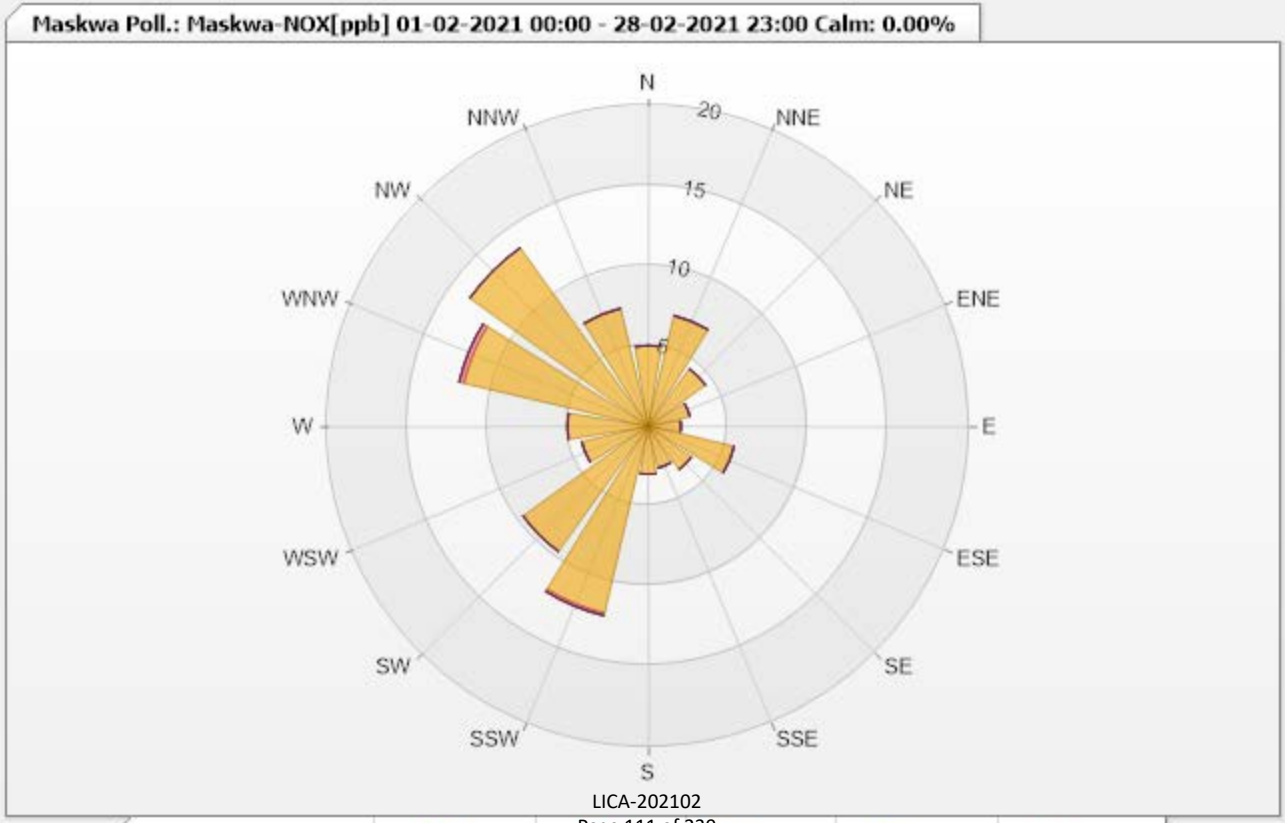




Classes	NOX
<=0	0.63%
0 - 10	83.96%
10 - 20	14.15%
20 - 30	0.79%
30 - 40	0.31%
40 - 50	0.16%
50 - 60	0.00%
60 - 70	0.00%
70 - 80	0.00%
80 - 90	0.00%
>90	0.00%

Wind: Maskwa Poll.: Maskwa-NOX[ppb] Monthly: 02-2021 Type: PollutionRose Direction: Blowing From (Wind Frequency) Based On 1 Hr.
Calm: 0.00% Valid Data: 94.64% Calm Avg: 0.00 [ppb]

Direction	0-30	30-50	50-76	76-159	>159.0	Total
N	5.03	0	0	0	0	5.03
NNE	7.08	0	0	0	0	7.08
NE	4.4	0	0	0	0	4.4
ENE	2.67	0	0	0	0	2.67
E	2.04	0	0	0	0	2.04
ESE	5.5	0	0	0	0	5.5
SE	3.3	0	0	0	0	3.3
SSE	2.67	0	0	0	0	2.67
S	2.99	0	0	0	0	2.99
SSW	11.95	0.16	0	0	0	12.11
SW	9.59	0	0	0	0	9.59
WSW	4.25	0	0	0	0	4.25
W	5.03	0	0	0	0	5.03
WNW	11.79	0.31	0	0	0	12.1
NW	13.68	0	0	0	0	13.68
NNW	7.55	0	0	0	0	7.55
Summary	100	0.47	0	0	0	100


Maskwa Poll.: Maskwa-NOX[ppb] 01-02-2021 00:00 - 28-02-2021 23:00 Calm: 0.00%
N
NNE
NE
ENE
E
ESE
SE
SSE
S
SSW
SW
WSW
W
WNW
NW
NNW
20
15
10
5
% Icon Classes (ppb)
100 0-30
0 30-50
0 50-76
0 76-159
0 >159.0

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION

Maskwa Site - February 2021

Summary of Hourly Averages

NITRIC OXIDE (NO) in ppb

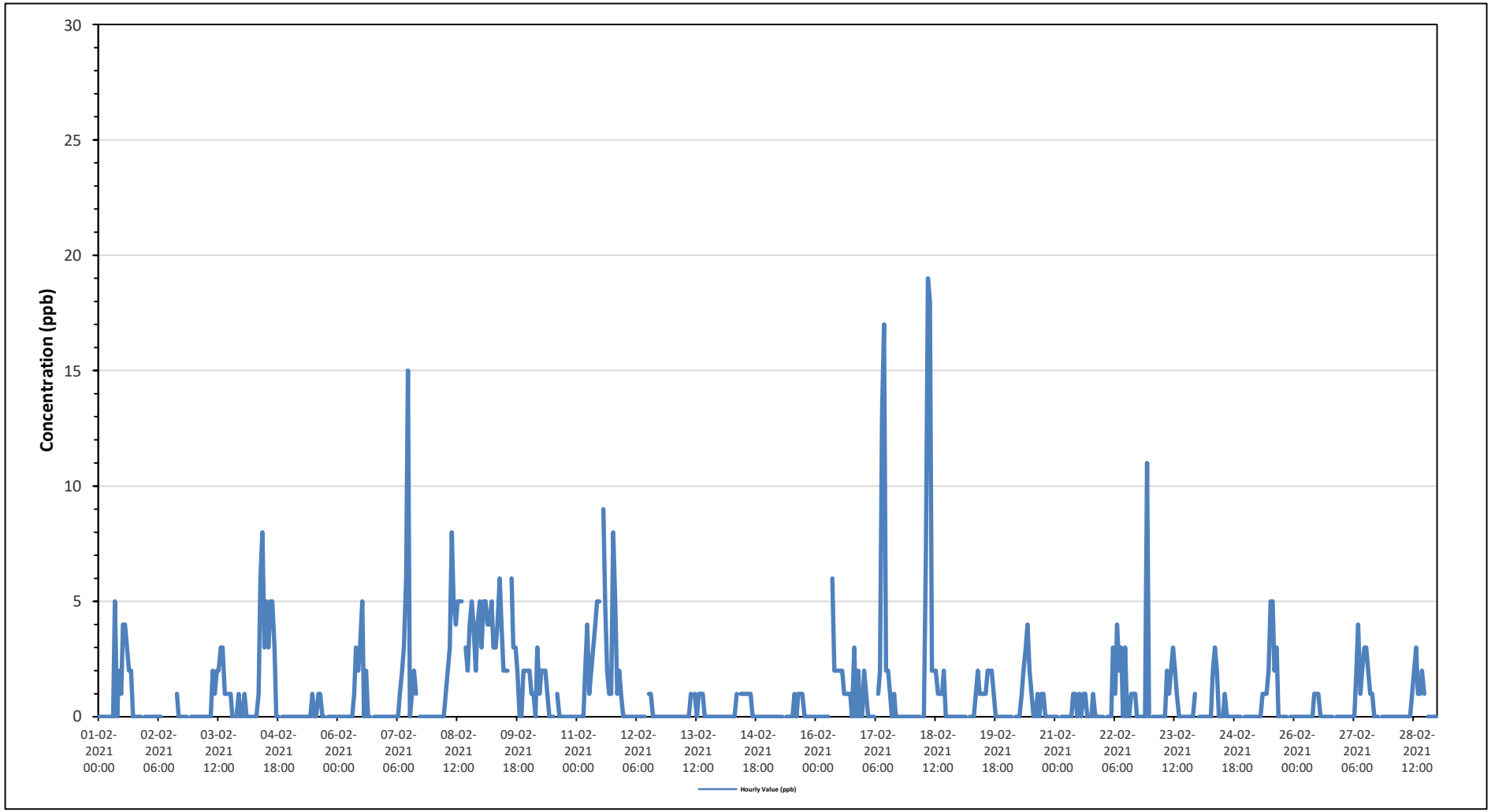
Maximum Hourly Value:	19	ppb	on February 18 at hour 8	Hours in Service:	672
Maximum Daily Value:	3.1	ppb	on February 9	Hours of Data:	636
Minimum Hourly Value:	0	ppb	on February 1 at hour 0	Hours of Missing Data:	0
Minimum Daily Value:	0.1	ppb	on February 12	Hours of Calibration:	36
Monthly Average:	1.0	ppb		Operational Uptime:	100.0

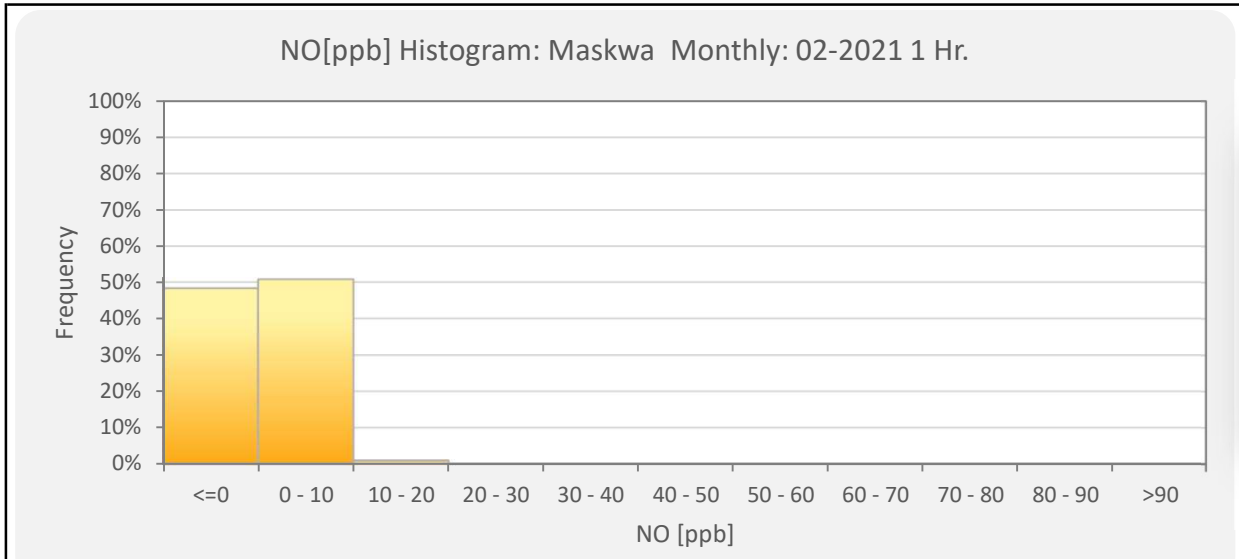
Day	Hourly Period Starting at (MST)																							Daily Minimum	Daily Maximum	Daily Average
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23			
Feb 1	0	0	0	0	0	0	0	0	5	0	2	1	4	4	3	2	2	0	0	0	0	0	S	0	0	5	1.0
Feb 2	0	0	0	0	0	0	0	0	C	C	C	C	C	C	C	1	0	0	0	0	0	S	0	0	0	1	-
Feb 3	0	0	0	0	0	0	0	0	0	2	1	2	2	3	3	1	1	1	1	0	S	0	1	0	0	3	0.8
Feb 4	0	1	0	0	0	0	0	0	1	6	8	3	5	3	5	5	3	0	0	S	0	0	0	0	0	8	1.7
Feb 5	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	0	0	S	0	0	0	0	0	0	1	0.1
Feb 6	0	0	0	0	0	0	0	0	1	3	2	3	5	0	2	0	0	S	0	0	0	0	0	0	0	5	0.7
Feb 7	0	0	0	0	0	0	0	1	2	3	6	15	0	1	2	1	S	0	0	0	0	0	0	0	0	15	1.3
Feb 8	0	0	0	0	0	0	1	2	3	8	5	4	5	5	5	S	3	2	4	5	4	2	4	5	0	8	2.9
Feb 9	3	5	5	4	4	5	3	3	4	6	4	2	2	2	S	6	3	3	2	0	0	2	2	2	0	6	**3.1**
Feb 10	2	1	1	0	3	1	2	2	2	1	0	0	0	S	1	0	0	0	0	0	0	0	0	0	0	3	0.7
Feb 11	0	0	0	0	2	4	1	2	3	4	5	5	S	9	5	2	1	1	8	5	1	2	1	0	0	9	2.7
Feb 12	0	0	0	0	0	0	0	0	0	0	0	S	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0.1
Feb 13	0	0	0	0	0	0	0	0	0	1	S	1	0	1	1	1	0	0	0	0	0	0	0	0	0	1	0.2
Feb 14	0	0	0	0	0	0	0	0	1	S	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	1	0.3
Feb 15	0	0	0	0	0	0	0	0	S	0	0	0	0	1	0	1	1	1	0	0	0	0	0	0	0	1	0.2
Feb 16	0	0	0	0	0	0	0	S	6	2	2	2	2	2	1	1	1	1	0	3	0	2	0	0	0	6	1.1
Feb 17	2	1	0	0	0	0	S	1	2	13	17	2	2	1	0	1	0	0	0	0	0	0	0	0	0	17	1.8
Feb 18	0	0	0	0	0	S	0	7	**19**	18	2	2	2	1	1	1	2	0	0	0	0	0	0	0	0	**19**	2.4
Feb 19	0	0	0	0	S	0	0	0	1	2	1	1	1	1	2	2	2	1	0	0	0	0	0	0	0	2	0.6
Feb 20	0	0	0	S	0	0	0	1	2	3	4	2	1	0	0	1	0	1	1	0	0	0	0	0	0	4	0.7
Feb 21	0	0	S	0	0	0	0	0	0	1	1	0	1	0	1	1	0	0	0	1	0	0	0	0	0	1	0.3
Feb 22	0	S	0	0	0	3	1	4	2	3	0	3	0	0	1	1	1	0	0	0	0	0	11	0	0	11	1.3
Feb 23	S	0	0	0	0	0	0	0	2	1	2	3	2	1	0	0	0	0	0	0	0	0	1	S	0	3	0.5
Feb 24	0	0	0	0	0	0	0	2	3	2	0	0	0	1	0	0	0	0	0	0	0	0	S	0	0	3	0.3
Feb 25	0	0	0	0	0	0	0	0	1	1	1	2	5	5	2	3	0	0	0	0	0	S	0	0	0	5	0.9
Feb 26	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	S	0	0	0	0	1	0.1
Feb 27	0	0	0	0	0	0	0	2	4	1	2	3	3	2	1	1	0	0	0	S	0	0	0	0	0	4	0.8
Feb 28	0	0	0	0	0	0	0	0	0	0	0	1	2	3	1	1	2	1	S	0	0	0	0	0	0	3	0.5
Diurnal Maximum	3	5	5	4	4	5	3	7	19	18	17	15	5	9	5	6	3	3	8	5	4	2	11	5			
Daiurnal Average	0.3	0.3	0.2	0.1	0.3	0.5	0.3	1.0	2.5	3.1	2.6	2.3	1.8	1.8	1.5	1.3	0.8	0.4	0.6	0.5	0.2	0.3	0.8	0.3			

C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance	
K	Collection Error	N	No Data (Machine Not in Service)	Y	Routine Maintenance	P Power Failure
X	InValid Data (Equipment Malfunction /Recovery)	NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)			

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.

Timeseries Chart of Hourly Average for NO - Maskwa Site

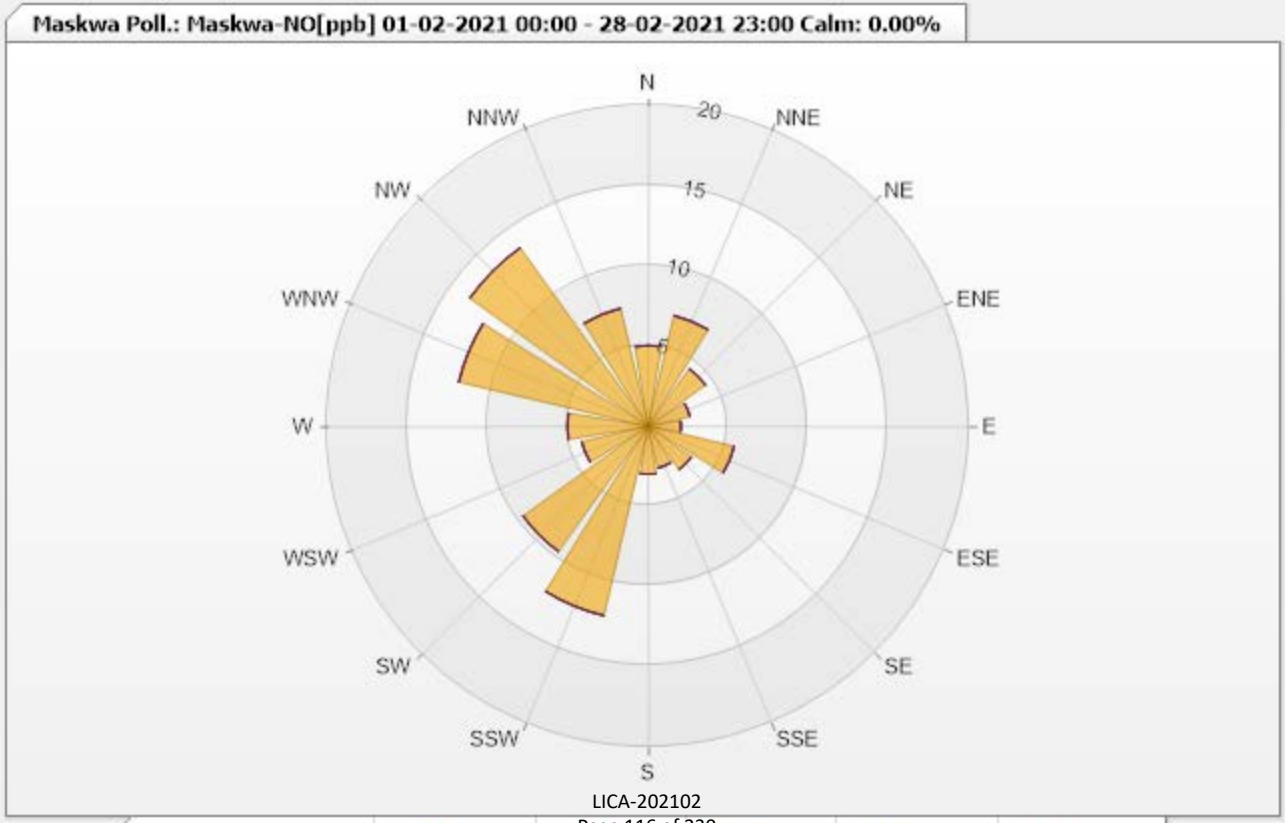




Classes	NO
<=0	48.27%
0 - 10	50.79%
10 - 20	0.94%
20 - 30	0.00%
30 - 40	0.00%
40 - 50	0.00%
50 - 60	0.00%
60 - 70	0.00%
70 - 80	0.00%
80 - 90	0.00%
>90	0.00%

Wind: Maskwa Poll.: Maskwa-NO[ppb] Monthly: 02-2021 Type: PollutionRose Direction: Blowing From (Wind Frequency) Based On 1 Hr.
Calm: 0.00% Valid Data: 94.64% Calm Avg: 0.00 [ppb]

Direction	0-30	30-50	50-76	76-159	>159.0	Total
N	5.03	0	0	0	0	5.03
NNE	7.08	0	0	0	0	7.08
NE	4.4	0	0	0	0	4.4
ENE	2.67	0	0	0	0	2.67
E	2.04	0	0	0	0	2.04
ESE	5.5	0	0	0	0	5.5
SE	3.3	0	0	0	0	3.3
SSE	2.67	0	0	0	0	2.67
S	2.99	0	0	0	0	2.99
SSW	12.11	0	0	0	0	12.11
SW	9.59	0	0	0	0	9.59
WSW	4.25	0	0	0	0	4.25
W	5.03	0	0	0	0	5.03
WNW	12.11	0	0	0	0	12.11
NW	13.68	0	0	0	0	13.68
NNW	7.55	0	0	0	0	7.55
Summary	100	0	0	0	0	100


Maskwa Poll.: Maskwa-NO[ppb] 01-02-2021 00:00 - 28-02-2021 23:00 Calm: 0.00%
N
NNE
NE
ENE
E
ESE
SE
SSE
S
SSW
SW
WSW
W
WNW
NW
NNW
20
15
10
5
% Icon Classes (ppb)
100 0-30
0 30-50
0 50-76
0 76-159
0 >159.0

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION

Maskwa Site - February 2021

Summary of Hourly Averages

NITROGEN DIOXIDE (NO_2) in ppb

Alberta Ambient Air Quality Objectives (AAAQO): 1-Hour 159 ppb

Number of 1-Hour Exceedences: 0

Maximum Hourly Value:	22	ppb	on February 18 at hour 7	Hours in Service:	672
Maximum Daily Value:	8.5	ppb	on February 8	Hours of Data:	636
Minimum Hourly Value:	0	ppb	on February 5 at hour 13	Hours of Missing Data:	0
Minimum Daily Value:	1.0	ppb	on February 26	Hours of Calibration:	36
Monthly Average:	4.6	ppb		Operational Uptime:	100.0

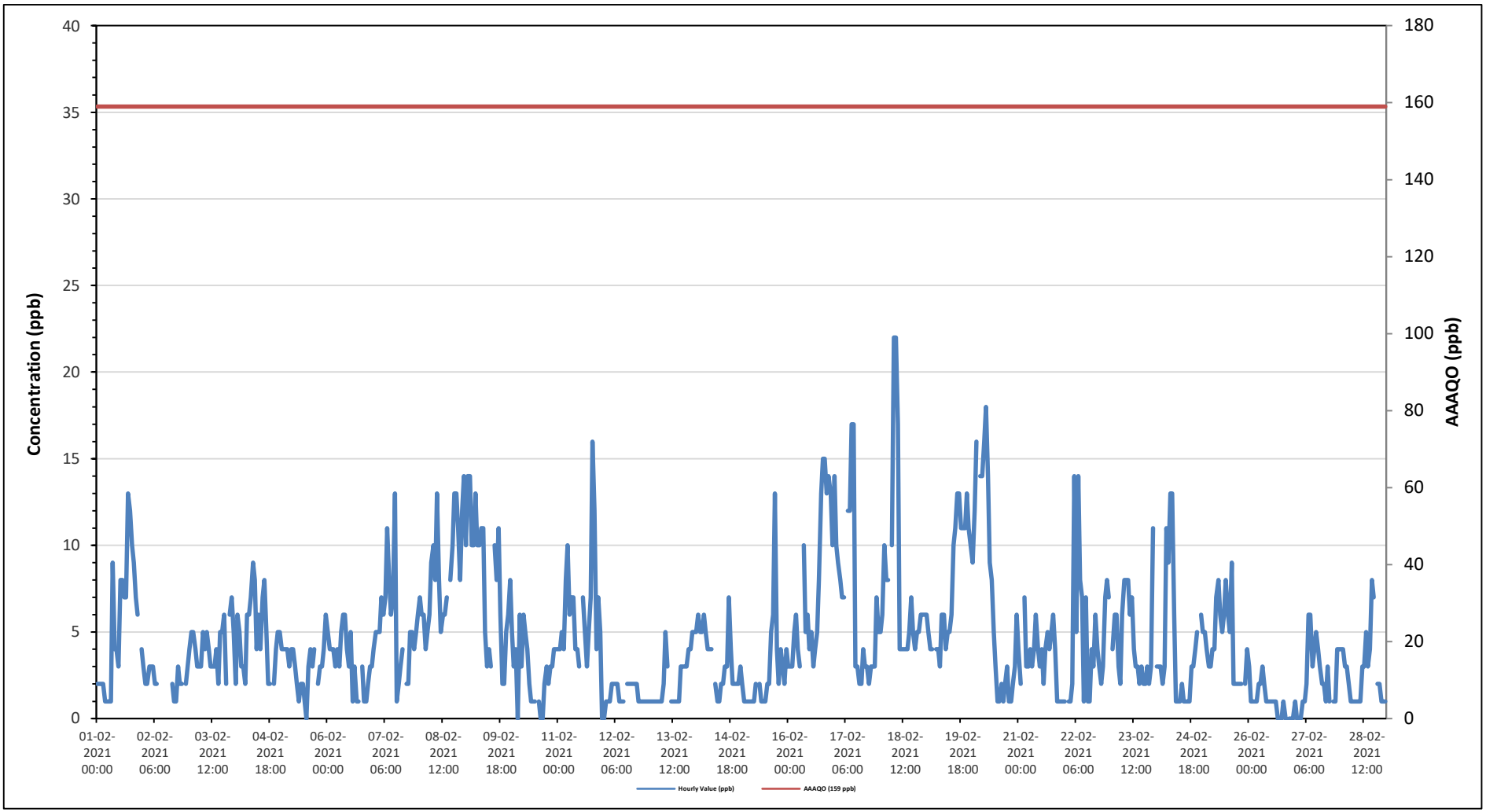
Day	Hourly Period Starting at (MST)																								Daily Minimum	Daily Maximum	Daily Average
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23			
Feb 1	2	2	2	2	1	1	1	1	9	4	4	3	8	8	7	7	13	12	10	9	7	6	S	4	1	13	5.3
Feb 2	3	2	2	3	3	3	2	2	C	C	C	C	C	C	C	2	1	1	3	2	2	S	2	3	1	3	-
Feb 3	4	5	5	4	3	3	3	5	4	5	4	3	3	3	4	2	5	5	6	2	S	6	7	5	2	7	4.2
Feb 4	2	6	5	3	3	2	6	6	7	9	8	4	6	4	7	8	5	2	2	S	2	4	5	5	2	9	4.8
Feb 5	4	4	4	4	3	4	4	3	2	1	2	2	1	0	3	4	3	4	S	2	3	3	4	6	0	6	3.0
Feb 6	5	4	4	4	3	4	3	5	6	6	4	3	5	1	3	1	1	S	3	1	1	2	3	3	1	6	3.3
Feb 7	4	5	5	5	7	6	7	11	8	6	7	13	1	2	3	4	S	2	2	5	5	4	5	6	1	13	5.3
Feb 8	7	6	6	4	5	6	9	10	8	13	8	5	6	6	7	S	8	10	13	13	11	8	12	14	4	14	**8.5**
Feb 9	10	14	14	10	10	13	10	10	11	11	5	3	4	3	S	10	8	11	6	2	2	5	6	8	2	14	8.1
Feb 10	5	3	4	0	6	3	6	5	4	2	1	1	1	S	1	0	0	2	3	2	3	3	4	4	0	6	2.7
Feb 11	4	4	5	4	8	10	6	7	7	4	4	3	S	7	5	3	5	7	16	12	4	7	5	0	0	16	6.0
Feb 12	0	1	1	1	2	2	2	2	1	1	1	S	2	2	2	2	2	2	1	1	1	1	1	1	0	2	1.4
Feb 13	1	1	1	1	1	1	1	2	5	3	S	1	1	1	1	1	3	3	3	3	4	4	5	5	1	5	2.3
Feb 14	5	6	5	5	6	5	4	4	4	S	2	1	1	2	2	3	3	7	4	2	2	2	2	3	1	7	3.5
Feb 15	2	1	1	1	1	1	1	2	S	2	1	1	1	2	2	5	6	13	4	2	4	3	2	4	1	13	2.7
Feb 16	3	3	3	5	6	4	3	S	10	5	6	4	5	3	4	5	8	13	15	15	13	14	13	10	3	15	7.4
Feb 17	14	10	9	8	7	7	S	12	12	17	17	3	3	2	2	4	3	3	2	3	3	3	7	5	2	17	6.8
Feb 18	5	6	10	8	8	S	10	22	22	17	4	4	4	4	4	5	7	5	4	5	5	6	6	6	4	22	7.7
Feb 19	6	5	4	4	S	4	4	3	6	6	4	5	5	6	10	11	13	13	11	11	11	13	11	10	3	13	7.7
Feb 20	9	12	16	S	14	14	16	18	14	9	8	5	3	1	1	2	1	2	3	1	1	2	3	6	1	18	7.0
Feb 21	4	2	S	7	3	3	4	3	4	6	4	3	4	2	4	5	4	5	6	4	1	1	1	1	1	7	3.5
Feb 22	1	S	1	1	2	14	5	14	8	7	1	7	1	1	4	3	6	4	3	2	3	7	8	7	1	14	4.8
Feb 23	S	4	6	6	3	2	6	8	8	8	6	7	4	3	3	2	3	2	2	3	2	3	11	S	2	11	4.6
Feb 24	3	3	3	2	3	11	9	13	13	6	1	1	1	2	1	1	1	1	3	3	4	5	S	6	1	13	4.2
Feb 25	5	5	4	3	3	4	4	7	8	6	5	6	8	6	5	9	2	2	2	2	2	S	2	4	2	9	4.5
Feb 26	3	1	1	1	1	2	2	3	2	1	1	1	1	1	1	0	0	0	1	0	S	0	0	0	0	3	1.0
Feb 27	1	0	0	0	1	1	2	6	6	3	4	5	4	3	2	2	1	3	1	S	1	1	4	4	0	6	2.4
Feb 28	4	4	3	3	2	1	1	1	1	1	1	3	3	5	3	4	8	7	S	2	2	1	1	1	1	8	2.7
Diurnal Maximum	14	14	16	10	14	14	16	22	22	17	17	13	8	8	10	11	13	13	16	15	13	14	13	14			
Daiurnal Average	4.3	4.4	4.6	3.7	4.3	4.9	4.9	6.9	7.3	6.1	4.3	3.7	3.3	3.1	3.5	3.9	4.4	5.2	5.0	4.2	3.8	4.4	5.0	4.9			

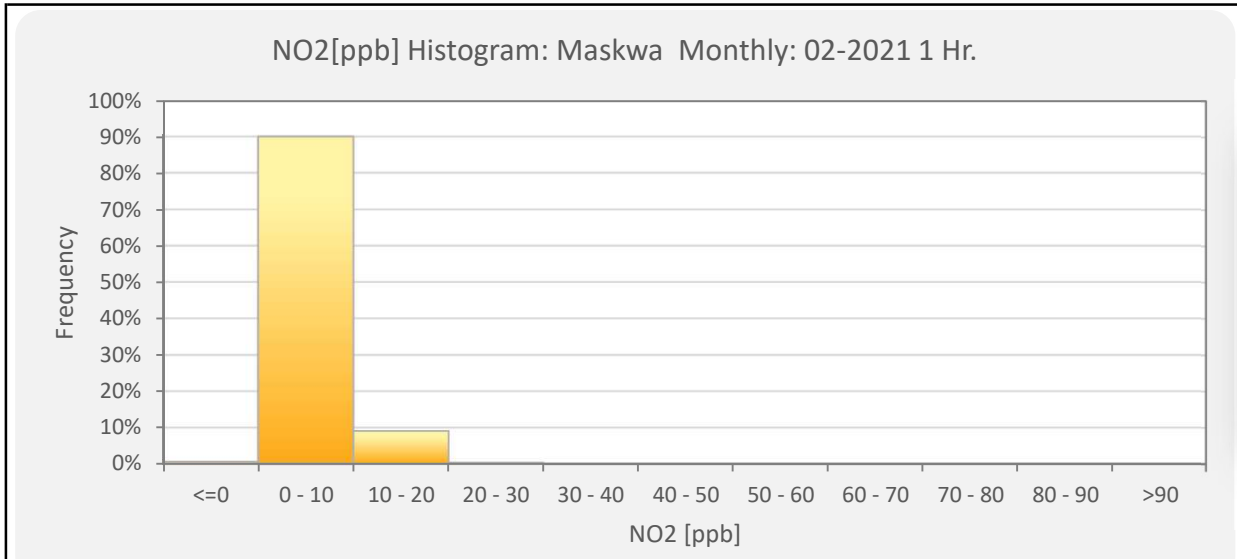
C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance	
K	Collection Error	N	No Data (Machine Not in Service)	Y	Routine Maintenance	P Power Failure
X	InValid Data (Equipment Malfunction /Recovery)	NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)			

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.

Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.

Timeseries Chart of Hourly Average for NO2 - Maskwa Site

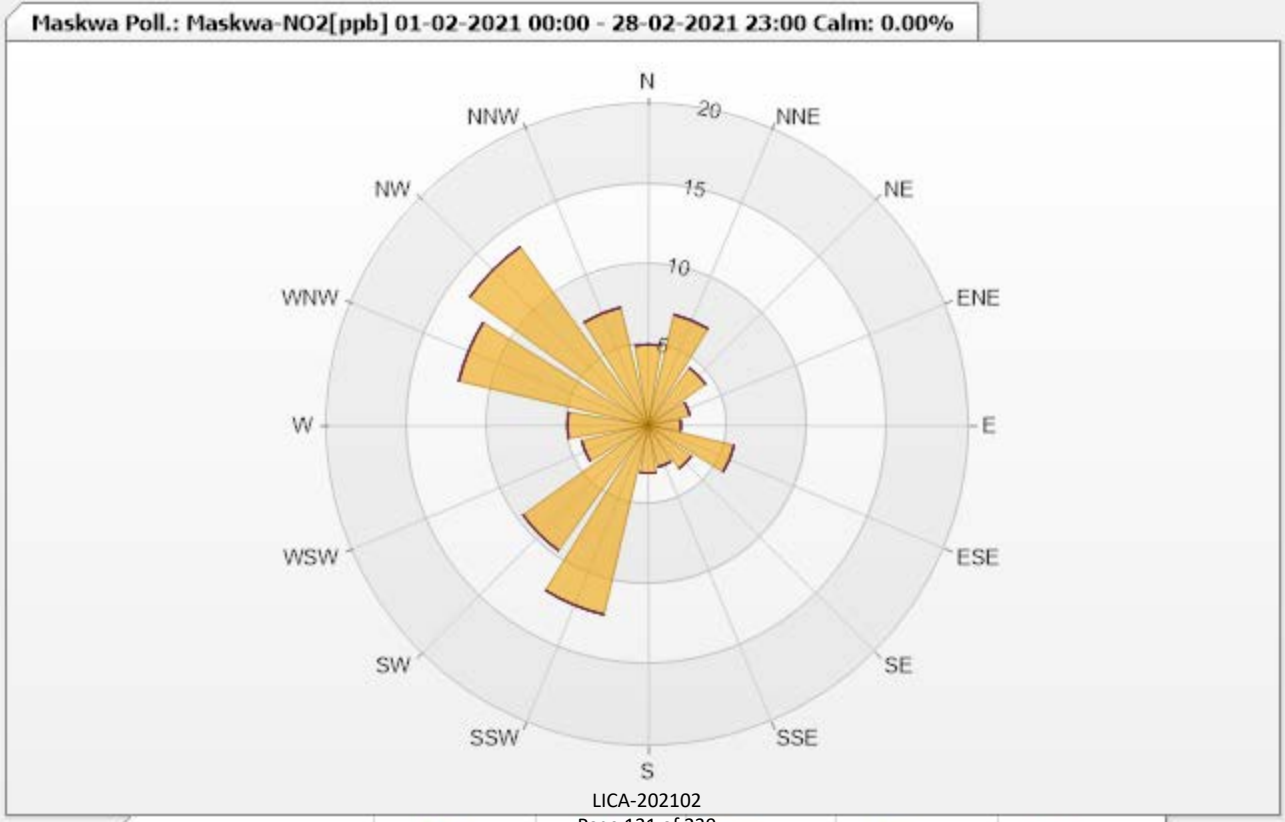




Classes	NO2
<=0	0.63%
0 - 10	89.94%
10 - 20	9.12%
20 - 30	0.31%
30 - 40	0.00%
40 - 50	0.00%
50 - 60	0.00%
60 - 70	0.00%
70 - 80	0.00%
80 - 90	0.00%
>90	0.00%

Wind: Maskwa Poll.: Maskwa-NO2[ppb] Monthly: 02-2021 Type: PollutionRose Direction: Blowing From (Wind Frequency) Based On 1 Hr.
Calm: 0.00% Valid Data: 94.64% Calm Avg: 0.00 [ppb]

Direction	0-30	30-50	50-76	76-159	>159.0	Total
N	5.03	0	0	0	0	5.03
NNE	7.08	0	0	0	0	7.08
NE	4.4	0	0	0	0	4.4
ENE	2.67	0	0	0	0	2.67
E	2.04	0	0	0	0	2.04
ESE	5.5	0	0	0	0	5.5
SE	3.3	0	0	0	0	3.3
SSE	2.67	0	0	0	0	2.67
S	2.99	0	0	0	0	2.99
SSW	12.11	0	0	0	0	12.11
SW	9.59	0	0	0	0	9.59
WSW	4.25	0	0	0	0	4.25
W	5.03	0	0	0	0	5.03
WNW	12.11	0	0	0	0	12.11
NW	13.68	0	0	0	0	13.68
NNW	7.55	0	0	0	0	7.55
Summary	100	0	0	0	0	100


Maskwa Poll.: Maskwa-NO2[ppb] 01-02-2021 00:00 - 28-02-2021 23:00 Calm: 0.00%
N
NNE
NE
ENE
E
ESE
SE
SSE
S
SSW
SW
WSW
W
WNW
NW
NNW
20
15
10
5
% Icon Classes (ppb)
100 0-30
0 30-50
0 50-76
0 76-159
0 >159.0

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION

Maskwa Site - February 2021

Summary of Hourly Averages

OZONE (O_3) in ppb

Alberta Ambient Air Quality Objectives (AAAQO): 1-Hour 76 ppb

Number of 1-Hour Exceedences: 0

Maximum Hourly Value:	43.9	ppb	on February 24 at hour 16	Hours in Service:	672
Maximum Daily Value:	37.5	ppb	on February 21	Hours of Data:	638
Minimum Hourly Value:	4.9	ppb	on February 18 at hour 7	Hours of Missing Data:	0
Minimum Daily Value:	18.8	ppb	on February 11	Hours of Calibration:	34
Monthly Average:	28.8	ppb		Operational Uptime:	100.0

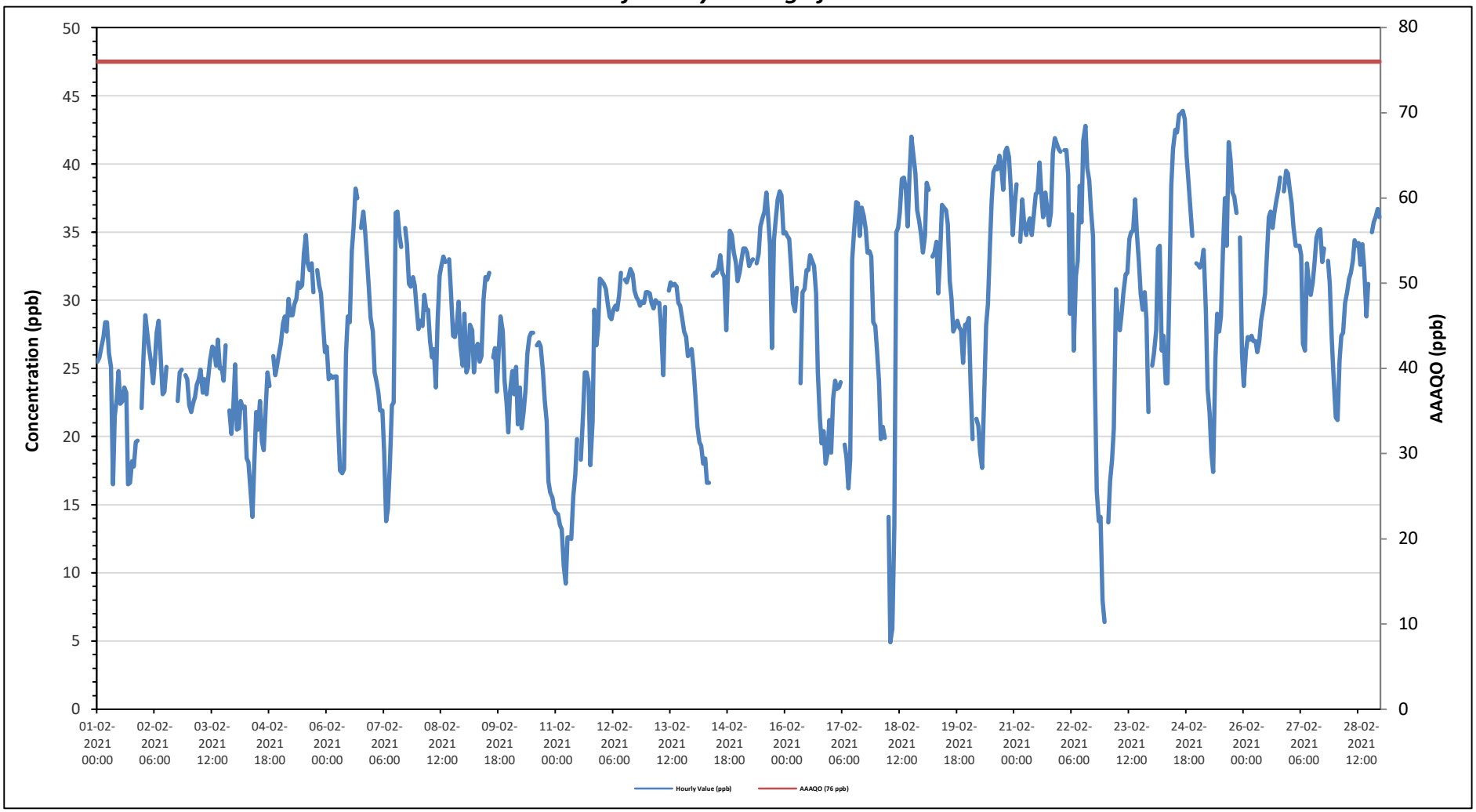
Day	Hourly Period Starting at (MST)																								Daily Minimum	Daily Maximum	Daily Average
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23			
Feb 1	25.5	25.8	26.6	27.3	28.4	28.4	26.1	25.1	16.5	21.5	22.8	24.8	22.4	22.6	23.6	23.2	16.5	16.6	18.2	17.8	19.6	19.7	S	22.1	16.5	28.4	22.7
Feb 2	25.6	28.9	27.7	26.4	25.4	23.9	25.5	27.6	28.5	26.2	23.1	23.3	25.1	C	C	C	C	C	22.6	24.7	24.9	S	24.5	24.2	22.6	28.9	25.5
Feb 3	22.3	21.8	22.5	22.9	23.8	24.2	24.9	23.2	24.2	23.1	24.4	25.6	26.6	26.4	25.2	27.1	25	25	24.1	26.7	S	21.9	20.2	22.3	20.2	27.1	24.1
Feb 4	25.3	20.5	20.6	22.6	22.1	22.2	18.4	18.1	16.4	14.1	17.9	21.8	20.5	22.6	19.6	19	22.2	24.7	23.7	S	25.9	24.5	25.2	26.1	14.1	26.1	21.5
Feb 5	26.8	28.3	28.8	27.7	30.1	28.9	28.9	29.7	30.1	31.3	30.9	31.1	33.4	34.8	32.7	32.2	32.7	30.6	S	32.2	31.1	30.5	28.1	26.2	26.2	34.8	30.3
Feb 6	26.6	24.2	24.5	24.3	24.4	24.4	20.7	17.5	17.3	17.6	26.1	28.8	28.4	33.6	35.3	38.2	37.5	S	35.3	36.5	35.1	33.2	30.9	28.7	17.3	38.2	28.2
Feb 7	27.7	24.7	24	23.2	21.9	21.9	18.9	13.8	14.7	18	22.3	22.5	36.4	36.5	34.8	33.9	S	35.3	34.1	31.2	31	31.7	31.1	29.5	13.8	36.5	26.9
Feb 8	27.9	28.5	28.1	30.4	29.3	29.3	27	25.8	26.4	23.6	28.4	31.8	32.5	33.2	32.8	S	33	30.7	27.4	27.3	28	29.9	26.7	25.2	23.6	33.2	28.8
Feb 9	29	24.7	25.1	28.2	27.8	24.7	26.4	26.8	25.5	25.9	30	31.7	31.5	32	S	25.8	26.5	23.3	26.4	28.8	27.7	24.1	22.5	20.3	20.3	32.0	26.7
Feb 10	23.3	24.8	23.1	25.1	20.9	23.6	20.6	21.8	23.5	26.1	27.3	27.6	27.6	S	26.7	26.9	26.6	24.8	22.7	21.1	16.7	15.9	15.5	14.7	14.7	27.6	22.9
Feb 11	14.4	14.3	13.5	13.2	10.5	9.2	12.6	12.6	12.5	15.6	17.2	19.8	S	18.3	21.6	24.7	24.7	24	17.9	21.1	29.3	26.7	27.9	31.6	9.2	31.6	18.8
Feb 12	31.4	31.2	30.8	29.8	28.8	28.6	29.3	29.6	29.3	30.4	32	S	31.5	31.3	31.8	32.3	31.9	30.7	30.2	30	29.6	29.9	29.8	30.6	28.6	32.3	30.5
Feb 13	30.6	30.5	29.8	29.4	30	29.8	29.8	28	24.5	29.5	S	30.7	31.3	31.1	31.2	31	29.8	29.6	28.7	27.7	27.3	25.9	26.2	26.4	24.5	31.3	29.1
Feb 14	24.9	22.7	20.7	19.6	19.3	18	18.4	16.6	16.6	S	31.8	32	32	32.4	33.3	32	31.7	27.8	32.1	35.1	34.8	33.5	32.8	31.4	16.6	35.1	27.4
Feb 15	32	32.9	33.8	33.8	33.5	32.5	32.8	33	S	32.7	33.4	35.4	36	36.5	37.9	36.1	34.1	26.5	34.4	36.1	37.4	38	37.7	34.9	26.5	38.0	34.4
Feb 16	35	34.7	34.5	32.5	29.8	29.2	30.9	S	23.9	30.6	30.8	32.2	32.2	33.3	32.9	32.5	30.5	24.7	21.4	19.5	20.4	18	18.7	21.2	18.0	35.0	28.2
Feb 17	18.8	22.8	24.1	23.5	23.6	24	S	19.4	18.5	16.2	18.3	33	35.2	37.2	37.1	34.7	36.8	36.2	35.2	33.5	33.6	33.2	28.4	28.1	16.2	37.2	28.3
Feb 18	26.3	24	19.8	20.7	19.9	S	14.1	4.9	5.9	13.4	35	35.3	36.5	38.9	39	38.1	35.4	39.4	42	40.8	39.3	36.6	35.8	34.9	**4.9**	42.0	29.4
Feb 19	33.5	34.7	38.6	38.1	S	33.2	33.5	34.3	30.5	33.1	37	36.8	36.6	35.6	31.4	30.1	27.7	28.1	28.5	28	27.8	25.4	28.2	28.2	25.4	38.6	32.1
Feb 20	28.7	23.8	19.8	S	21.3	20.8	18.8	17.7	22.9	28.2	29.7	33.9	37.3	39.4	39.8	39.6	40.6	39.9	38.1	40.9	41.2	40.5	38.3	34.8	17.7	41.2	32.0
Feb 21	37	38.5	S	34.3	37.4	35.5	34.8	35.6	36	34.8	36.1	37.8	37.9	40.1	37.8	36.1	37.9	36.8	35.5	36.4	40.8	41.9	41.5	41.1	34.3	41.9	**37.5**
Feb 22	40.9	S	41	41	39.2	29	36.3	26.3	31.8	32.9	38.4	35.7	41.7	42.8	39.7	38.8	36.6	34.7	23.5	16	13.8	14.1	8	6.4	6.4	42.8	30.8
Feb 23	S	13.7	16.7	18.3	20.6	30.8	28.4	27.8	29	30.5	31.9	32	34.5	35	35.1	37.4	34.9	32.8	30.5	29.3	30.6	28.6	21.8	S	13.7	37.4	28.6
Feb 24	25.2	26.1	27.8	33.8	34	26.3	27.4	23.9	23.9	31.2	38.4	41.1	42.5	42.3	43.6	43.7	**43.9**	43.3	40.6	38.6	36.8	34.7	S	32.7	23.9	**43.9**	34.9
Feb 25	32.6	32.4	32.8	33.7	29.2	23.5	21.7	18.8	17.4	25.7	29	27.7	28.8	33.6	37.5	34	41.6	40.4	37.9	37.6	36.4	S	34.6	26.1	17.4	41.6	31.0
Feb 26	23.7	26.3	27.3	27.1	27.4	27	27	26.2	27	28.5	29.4	30.5	33.2	36.1	36.5	35.3	36.4	37.3	38.1	39	S	38	39.5	39.3	23.7	39.5	32.0
Feb 27	38.2	37.1	35.4	34	34	34	33.3	26.8	26.3	32.7	31.2	30.4	31.3	32.7	34.6	35.1	35.2	32.8	33.8	S	32.9	31.2	27.1	24.4	24.4	38.2	32.4
Feb 28	21.4	21.2	25.6	27.4	27.6	29.8	30.6	31.6	32	32.9	34.4	34	34.2	32.6	34.1	32.4	28.8	31.2	S	35	35.7	36.2	36.7	36.1	21.2	36.7	31.4
Diurnal Maximum	41	39	41	41	39	36	36	36	36	35	38	41	43	43	44	44	44	43	42	41	41	42	42	41			
Daiurnal Average	27.9	26.6	26.8	27.7	26.7	26.4	25.8	23.8	23.4	26.2	29.2	30.6	32.5	33.5	33.3	32.7	32.3	31.0	30.1	30.4	30.3	29.4	28.4	27.7			

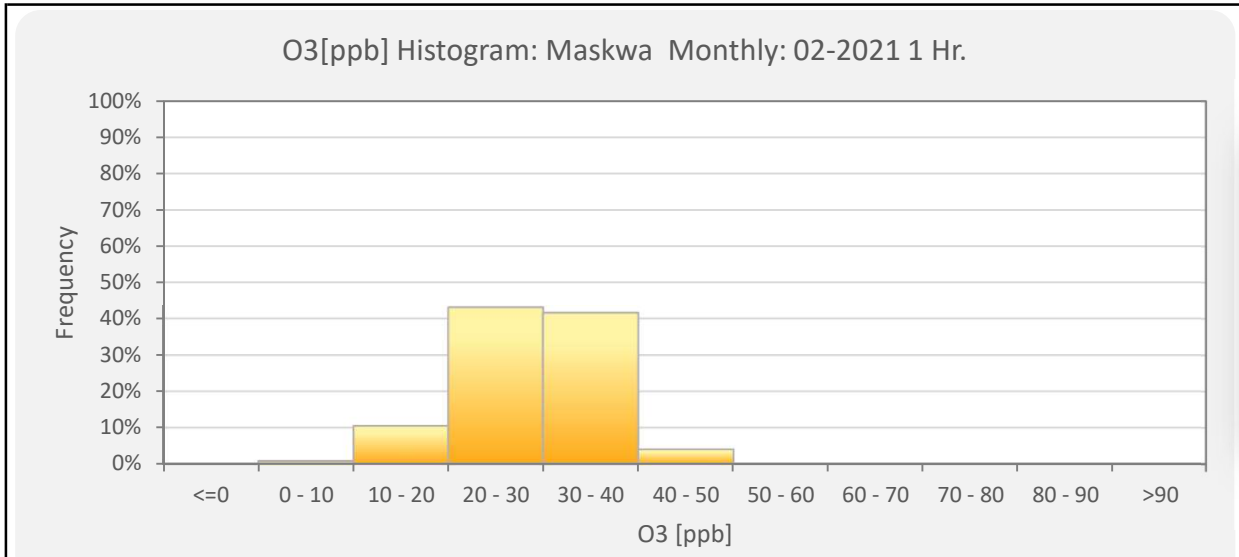
C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance	
K	Collection Error	N	No Data (Machine Not in Service)	Y	Routine Maintenance	P Power Failure
X	InValid Data (Equipment Malfunction /Recovery)	NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)			

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.

Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.

Timeseries Chart of Hourly Average for O3 - Maskwa Site

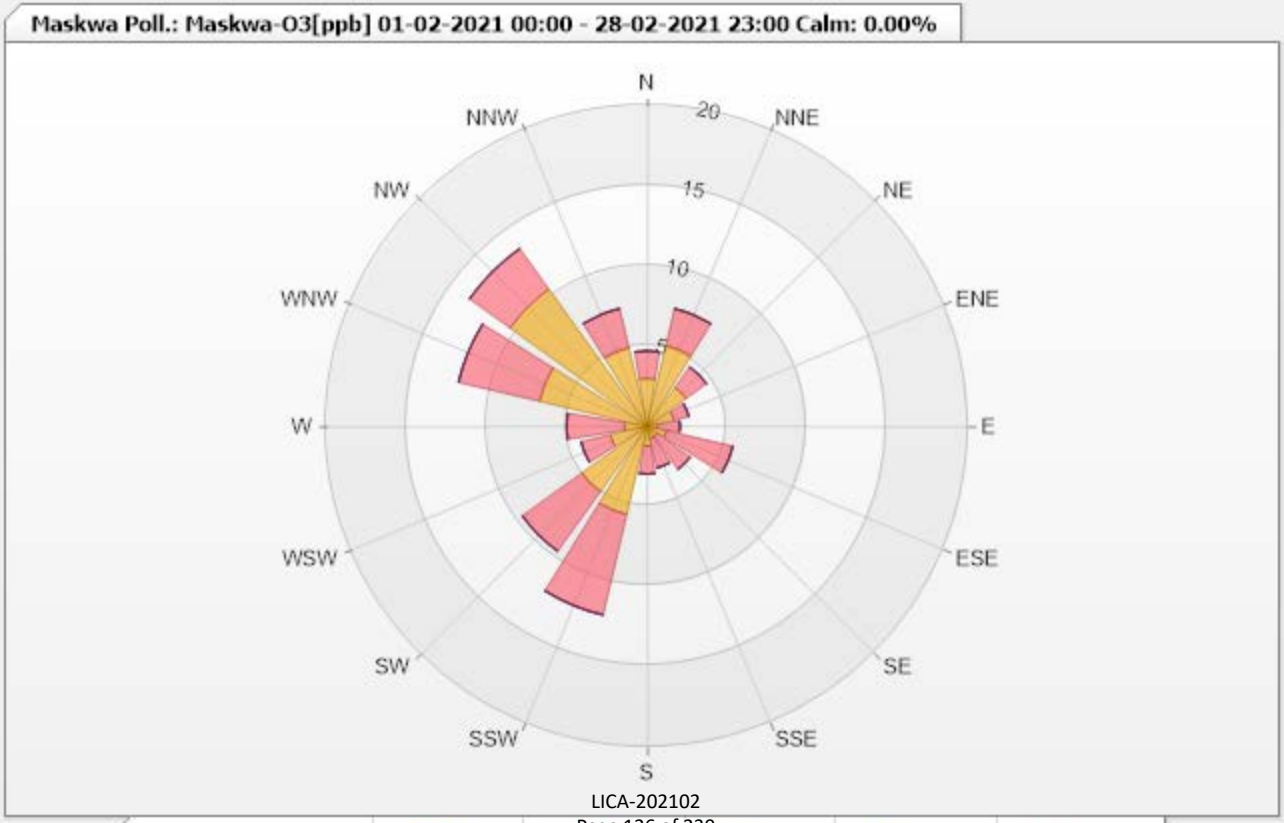




Classes	O3
<=0	0.00%
0 - 10	0.78%
10 - 20	10.50%
20 - 30	43.10%
30 - 40	41.54%
40 - 50	4.08%
50 - 60	0.00%
60 - 70	0.00%
70 - 80	0.00%
80 - 90	0.00%
>90	0.00%

Wind: Maskwa Poll.: Maskwa-O3[ppb] Monthly: 02-2021 Type: PollutionRose Direction: Blowing From (Wind Frequency) Based On 1 Hr.
Calm: 0.00% Valid Data: 94.94% Calm Avg: 0.00 [ppb]

Direction	0-30	30-50	50-76	76-159	>159.0	Total
N	2.98	1.72	0	0	0	4.7
NNE	5.17	2.35	0	0	0	7.52
NE	2.98	1.57	0	0	0	4.55
ENE	1.72	0.94	0	0	0	2.66
E	0.63	1.41	0	0	0	2.04
ESE	1.25	4.23	0	0	0	5.48
SE	0.78	2.51	0	0	0	3.29
SSE	0.78	1.88	0	0	0	2.66
S	1.25	1.72	0	0	0	2.97
SSW	5.64	6.43	0	0	0	12.07
SW	5.02	4.55	0	0	0	9.57
WSW	2.35	1.88	0	0	0	4.23
W	1.41	3.61	0	0	0	5.02
WNW	6.9	5.17	0	0	0	12.07
NW	10.5	3.13	0	0	0	13.63
NNW	5.02	2.51	0	0	0	7.53
Summary	54.38	45.61	0	0	0	100


Maskwa Poll.: Maskwa-O3[ppb] 01-02-2021 00:00 - 28-02-2021 23:00 Calm: 0.00%
N
NNE
NE
ENE
E
ESE
SE
SSE
S
SSW
SW
WSW
W
WNW
NW
NNW
20
15
10
% Icon Classes (ppb)
54 0-30
46 30-50
0 50-76
0 76-159
0 >159.0

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION

Maskwa Site - February 2021

Summary of Hourly Averages

TOTAL HYDROCARBONS (THC) in ppm

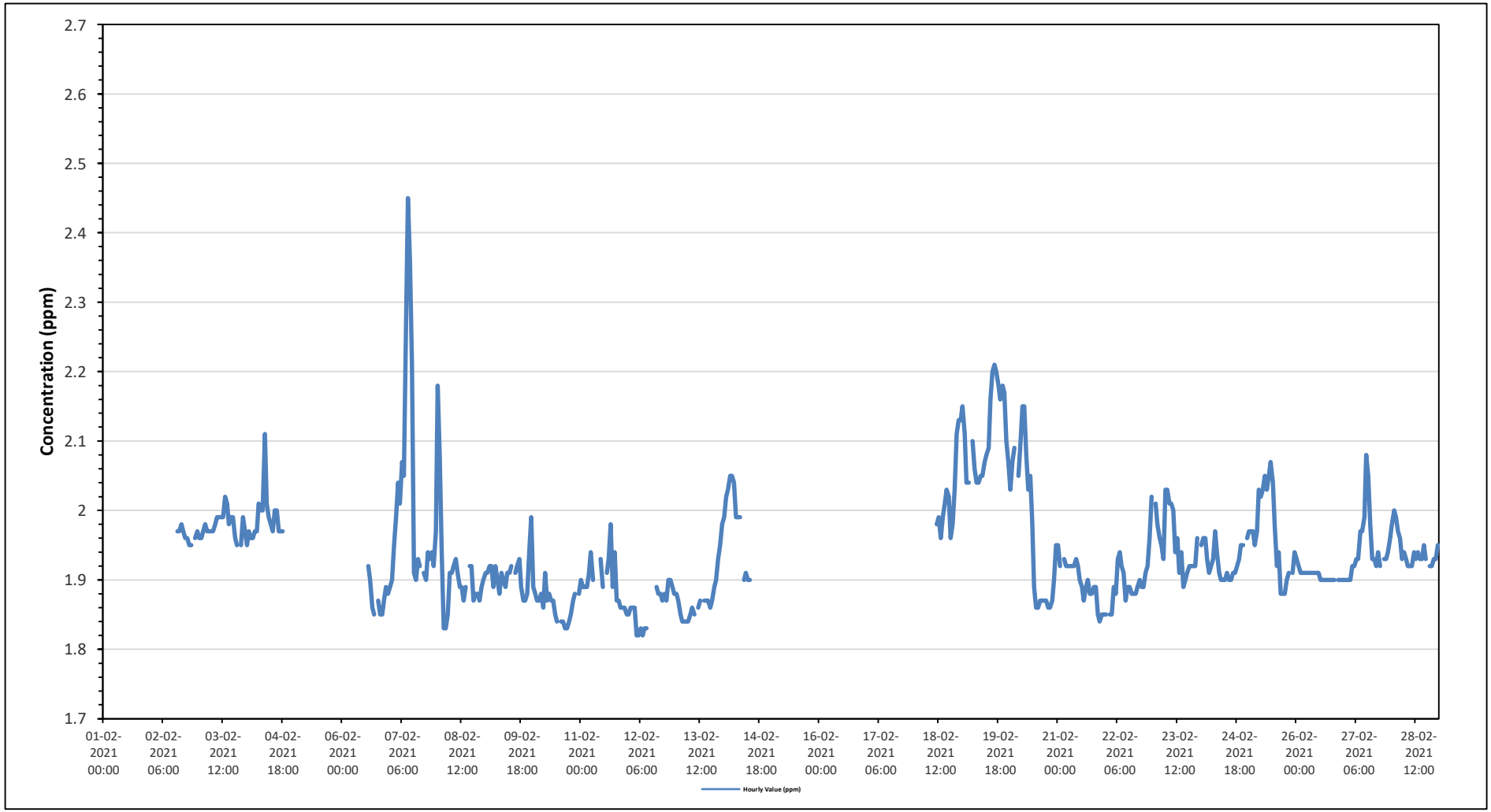
Maximum Hourly Value:	2.45	ppm	on February 7 at hour 9	Hours in Service:	672
Maximum Daily Value:	2.11	ppm	on February 19	Hours of Data:	470
Minimum Hourly Value:	1.82	ppm	on February 12 at hour 4	Hours of Missing Data:	177
Minimum Daily Value:	1.86	ppm	on February 12	Hours of Calibration:	25
Monthly Average:	1.94	ppm		Operational Uptime:	73.7

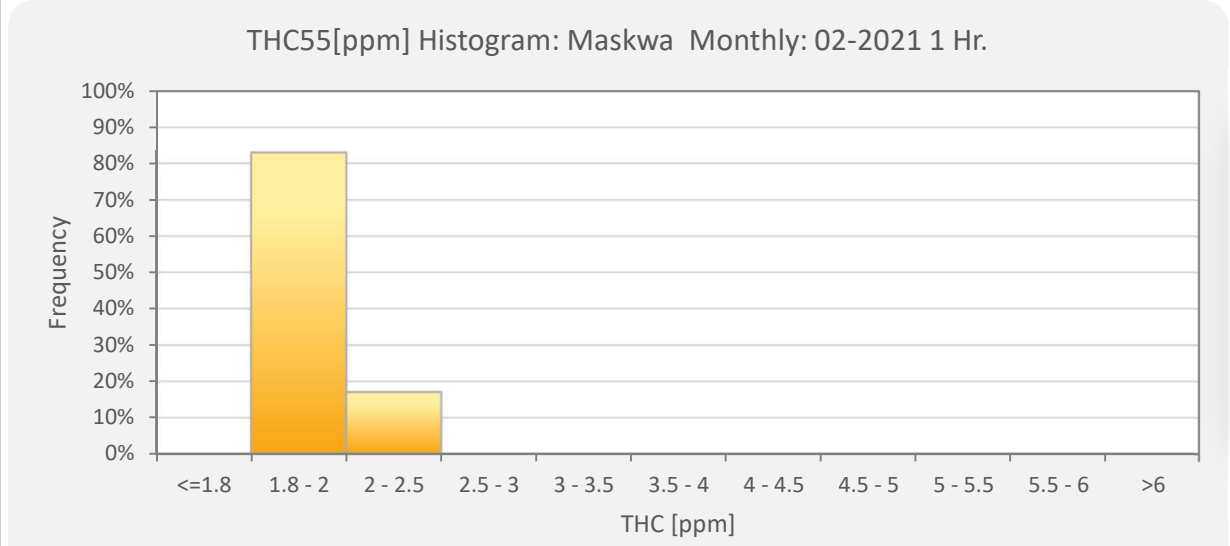
Day	Hourly Period Starting at (MST)																								Daily Minimum	Daily Maximum	Daily Average
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23			
Feb 1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
Feb 2	X	X	X	X	X	X	X	X	X	X	C	C	C	1.97	1.97	1.98	1.97	1.96	1.96	1.95	1.95	S	1.96	1.97	1.95	1.98	-
Feb 3	1.96	1.96	1.97	1.98	1.97	1.97	1.97	1.97	1.98	1.99	1.99	1.99	1.99	2.02	2.01	1.98	1.99	1.99	1.96	1.95	S	1.95	1.99	1.97	1.95	2.02	1.98
Feb 4	1.95	1.97	1.96	1.96	1.97	1.97	2.01	2.00	2.00	2.11	2.01	1.99	1.98	1.97	2.00	2.00	1.97	1.97	1.97	S	X	X	X	X	1.95	2.11	1.99
Feb 5	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
Feb 6	X	X	X	X	X	X	X	X	X	X	NRM	NRM	NRM	1.92	1.90	1.86	1.85	S	1.87	1.85	1.85	1.87	1.89	1.88	1.85	1.92	-
Feb 7	1.89	1.90	1.95	1.99	2.04	2.01	2.07	2.05	2.28	2.45	2.36	2.21	1.91	1.90	1.93	1.92	S	1.91	1.90	1.94	1.93	1.94	1.92	1.97	1.89	2.45	2.02
Feb 8	2.18	2.08	1.94	1.83	1.83	1.85	1.91	1.91	1.92	1.93	1.91	1.89	1.89	1.87	1.89	S	1.92	1.92	1.87	1.88	1.88	1.87	1.89	1.90	1.83	2.18	1.91
Feb 9	1.91	1.91	1.92	1.92	1.89	1.92	1.90	1.88	1.91	1.90	1.89	1.91	1.91	1.92	S	1.91	1.92	1.93	1.89	1.87	1.87	1.88	1.94	1.99	1.87	1.99	1.91
Feb 10	1.89	1.88	1.87	1.87	1.88	1.86	1.91	1.87	1.88	1.87	1.87	1.85	1.84	S	1.84	1.84	1.83	1.83	1.84	1.85	1.87	1.88	X	1.88	1.83	1.91	1.86
Feb 11	1.90	1.89	1.89	1.89	1.91	1.94	1.90	NRM	NRM	NRM	1.93	1.89	S	1.91	1.93	1.98	1.89	1.94	1.87	1.87	1.86	1.86	1.86	1.85	1.85	1.98	1.90
Feb 12	1.85	1.86	1.86	1.86	1.82	1.82	1.83	1.82	1.83	1.83	NRM	NRM	NRM	NRM	1.89	1.88	1.88	1.87	1.88	1.87	1.90	1.90	1.89	1.88	1.82	1.90	1.86
Feb 13	1.88	1.87	1.85	1.84	1.84	1.84	1.84	1.85	1.86	1.85	S	1.86	1.87	X	1.87	1.87	1.87	1.86	1.87	1.89	1.90	1.93	1.95	1.98	1.84	1.98	1.87
Feb 14	1.99	2.02	2.03	2.05	2.05	2.04	1.99	1.99	1.99	S	1.90	1.91	1.90	1.90	X	X	X	X	X	X	X	X	X	X	1.90	2.05	-
Feb 15	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
Feb 16	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
Feb 17	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
Feb 18	X	X	X	X	X	X	X	X	NRM	NRM	NRM	1.98	1.99	1.96	1.99	2.01	2.03	2.02	1.96	1.98	2.03	2.11	2.13	2.13	1.96	2.13	-
Feb 19	2.15	2.11	2.04	2.04	S	2.10	2.06	2.04	2.04	2.05	2.05	2.07	2.08	2.09	2.16	2.20	2.21	2.20	2.18	2.16	2.18	2.17	2.10	2.07	2.04	2.21	2.11
Feb 20	2.03	2.07	2.09	S	2.05	2.09	2.15	2.15	2.08	2.03	2.05	1.98	1.89	1.86	1.86	1.87	1.87	1.87	1.87	1.86	1.86	1.87	1.90	1.95	1.86	2.15	1.97
Feb 21	1.95	1.92	S	1.93	1.92	1.92	1.92	1.92	1.92	1.93	1.92	1.90	1.89	1.87	1.89	1.90	1.88	1.88	1.89	1.89	1.85	1.84	1.85	1.85	1.84	1.95	1.90
Feb 22	1.85	S	1.85	1.85	1.89	1.88	1.93	1.94	1.92	1.91	1.87	1.89	1.89	1.88	1.88	1.88	1.89	1.90	1.89	1.89	1.91	1.92	1.96	2.02	1.85	2.02	1.90
Feb 23	S	2.01	1.98	1.96	1.95	1.93	2.03	2.03	2.01	2.01	2.00	1.94	1.96	1.91	1.94	1.89	1.90	1.91	1.92	1.92	1.92	1.92	1.96	S	1.89	2.03	1.95
Feb 24	1.95	1.96	1.96	1.93	1.91	1.92	1.93	1.97	1.94	1.91	1.90	1.90	1.90	1.91	1.90	1.90	1.91	1.91	1.92	1.93	1.95	1.95	S	1.96	1.90	1.97	1.93
Feb 25	1.97	1.97	1.97	1.95	1.97	2.03	2.02	2.03	2.05	2.03	2.05	2.07	2.04	1.98	1.92	1.94	1.88	1.88	1.88	1.90	1.91	S	1.91	1.94	1.88	2.07	1.97
Feb 26	1.93	1.92	1.91	1.91	1.91	1.91	1.91	1.91	1.91	1.91	1.91	1.91	1.90	1.90	1.90	1.90	1.90	1.90	1.90	1.90	S	1.90	1.90	1.90	1.90	1.93	1.91
Feb 27	1.90	1.90	1.90	1.90	1.92	1.92	1.93	1.93	1.97	1.97	1.99	2.08	2.05	1.98	1.93	1.93	1.92	1.94	1.92	S	1.93	1.93	1.94	1.96	1.90	2.08	1.95
Feb 28	1.98	2.00	1.99	1.97	1.96	1.93	1.94	1.93	1.92	1.92	1.92	1.94	1.93	1.94	1.93	1.93	1.95	1.93	S	1.92	1.92	1.93	1.93	1.95	1.92	2.00	1.94
Diurnal Maximum	2.18	2.11	2.09	2.05	2.05	2.10	2.15	2.15	2.28	2.45	2.36	2.21	2.08	2.09	2.16	2.20	2.21	2.20	2.18	2.16	2.18	2.17	2.13	2.13			
Daiurnal Average	1.95	1.96	1.94	1.93	1.93	1.94	1.96	1.96	1.97	1.98	1.97	1.96	1.94	1.93	1.93	1.93	1.93	1.93	1.91	1.91	1.92	1.93	1.94	1.95			

C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance		
K	Collection Error	N	No Data (Machine Not in Service)	Y	Routine Maintenance	P	Power Failure
X	InValid Data (Equipment Malfunction /Recovery)	NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)				

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.

Timeseries Chart of Hourly Average for THC - Maskwa Site

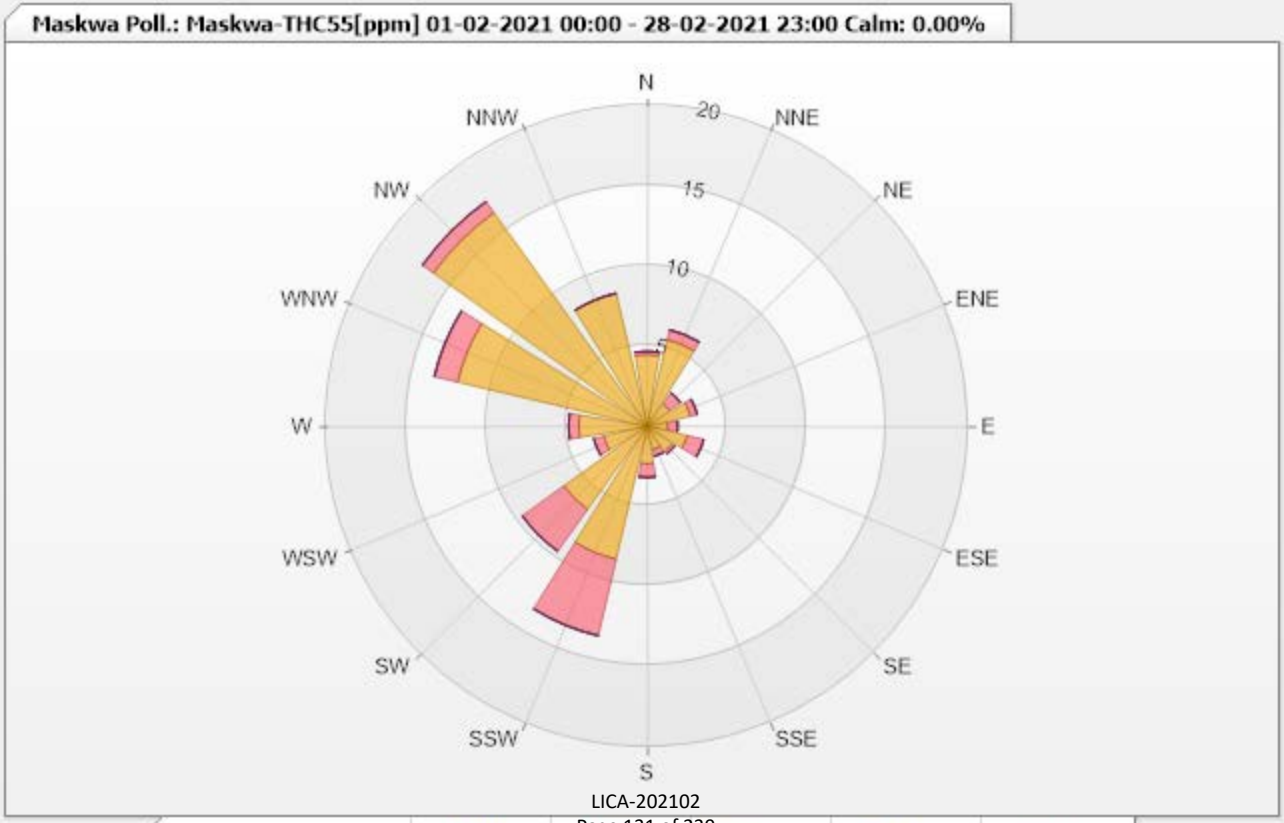




Classes	THC55
<=1.8	0.00%
1.8 - 2	82.98%
2 - 2.5	17.02%
2.5 - 3	0.00%
3 - 3.5	0.00%
3.5 - 4	0.00%
4 - 4.5	0.00%
4.5 - 5	0.00%
5 - 5.5	0.00%
5.5 - 6	0.00%
>6	0.00%

Wind: Maskwa Poll.: Maskwa-THC55[ppm] Monthly: 02-2021 Type: PollutionRose Direction: Blowing From (Wind Frequency) Based On 1 Hr.
Calm: 0.00% Valid Data: 69.94% Calm Avg: 0.00 [ppm]

Direction	0-2	2-5	5-10	10-40	>40.0	Total
N	4.47	0.21	0	0	0	4.68
NNE	5.53	0.64	0	0	0	6.17
NE	1.7	0.85	0	0	0	2.55
ENE	2.77	0.43	0	0	0	3.2
E	1.28	0.64	0	0	0	1.92
ESE	2.55	1.06	0	0	0	3.61
SE	1.91	0.21	0	0	0	2.12
SSE	1.49	0.43	0	0	0	1.92
S	2.34	0.85	0	0	0	3.19
SSW	8.51	4.89	0	0	0	13.4
SW	6.38	3.19	0	0	0	9.57
WSW	2.77	0.64	0	0	0	3.41
W	4.26	0.64	0	0	0	4.9
WNW	12.13	1.49	0	0	0	13.62
NW	16.38	0.85	0	0	0	17.23
NNW	8.51	0	0	0	0	8.51
Summary	82.98	17.02	0	0	0	100


Maskwa Poll.: Maskwa-THC55[ppm] 01-02-2021 00:00 - 28-02-2021 23:00 Calm: 0.00%
N
NNE
NE
ENE
E
ESE
SE
SSE
S
SSW
SW
WSW
W
WNW
NW
NNW
20
15
10
% Icon Classes (ppm)
83 0-2
17 2-5
0 5-10
0 10-40
0 >40.0

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION

Maskwa Site - February 2021

Summary of Hourly Averages

METHANE (CH4) in ppm

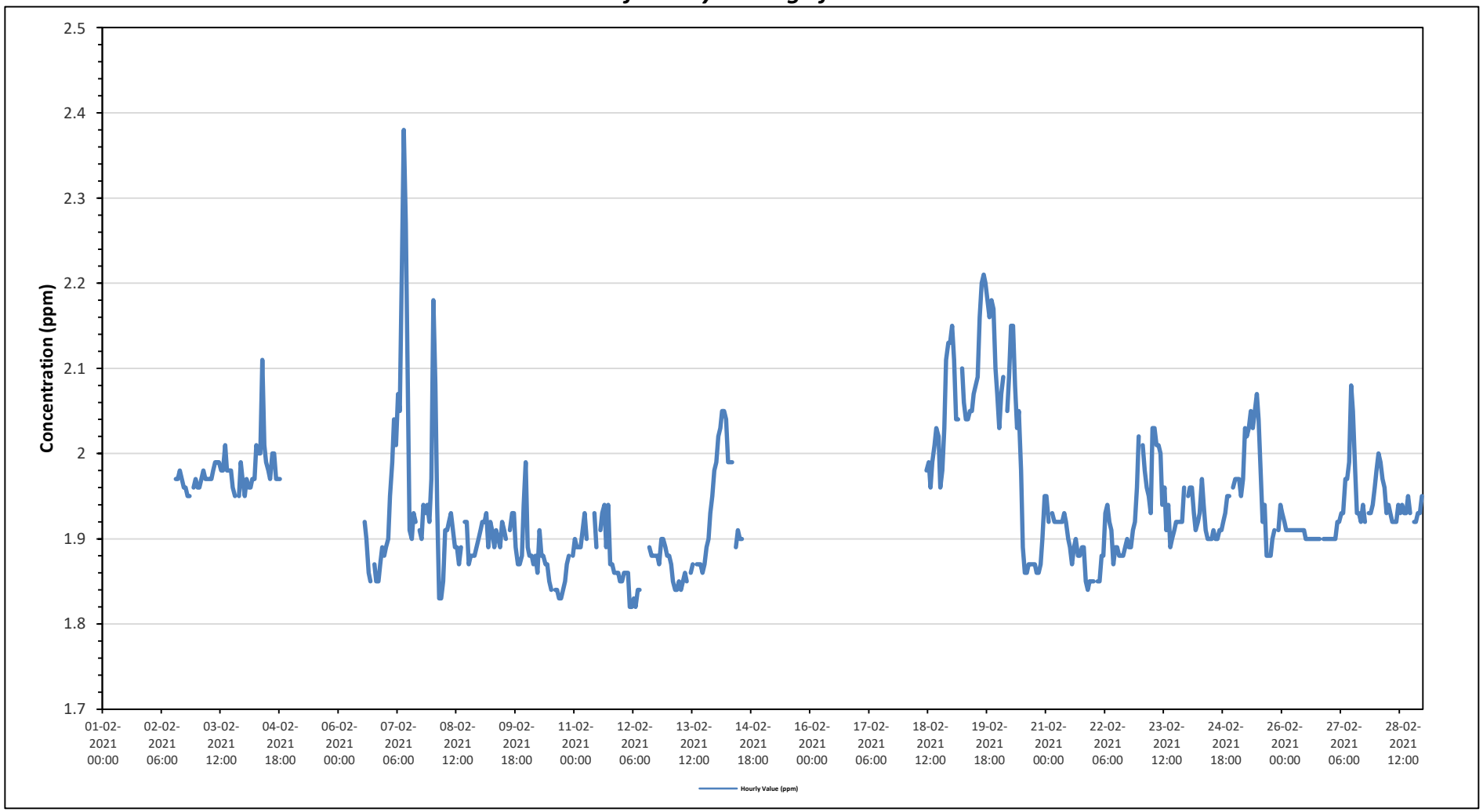
Maximum Hourly Value:	2.38	ppm	on February 7 at hour 9	Hours in Service:	672
Maximum Daily Value:	2.11	ppm	on February 19	Hours of Data:	470
Minimum Hourly Value:	1.82	ppm	on February 12 at hour 4	Hours of Missing Data:	177
Minimum Daily Value:	1.86	ppm	on February 12	Hours of Calibration:	25
Monthly Average:	1.94	ppm		Operational Uptime:	73.7

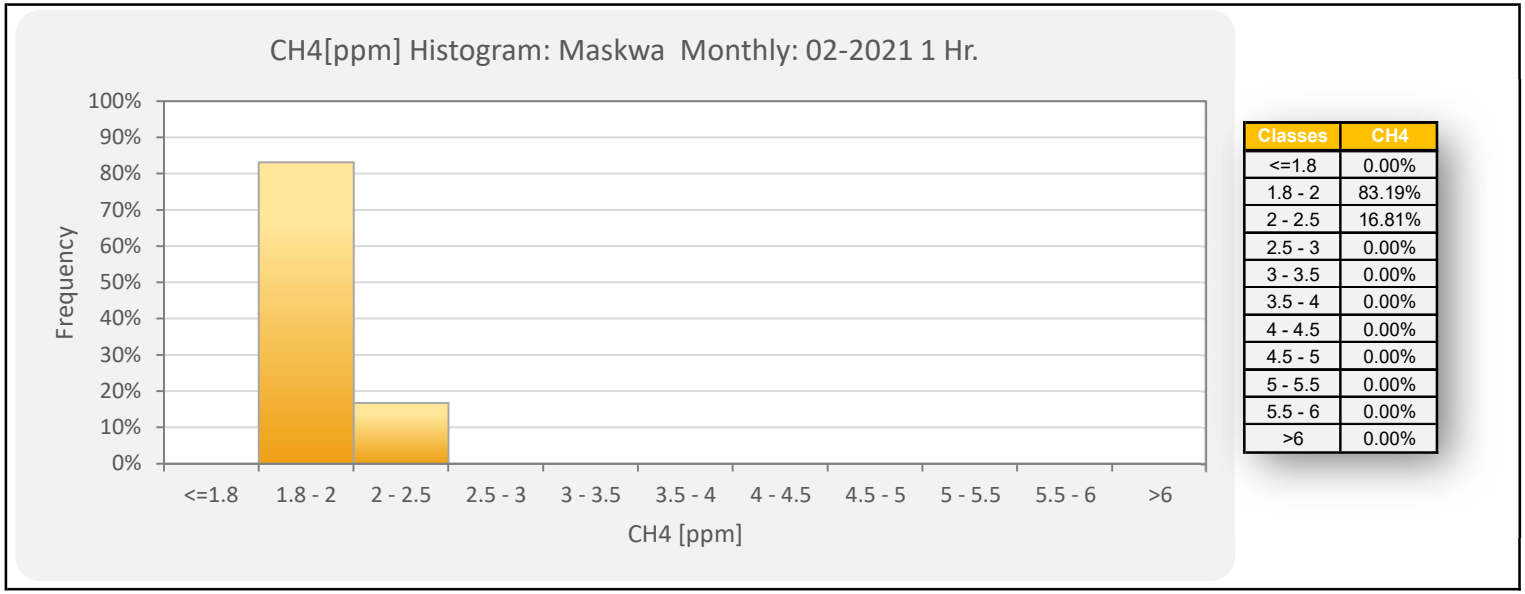
Day	Hourly Period Starting at (MST)																						Daily Minimum	Daily Maximum	Daily Average
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23			
Feb 1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
Feb 2	X	X	X	X	X	X	X	X	X	X	C	C	C	1.97	1.97	1.98	1.97	1.96	1.96	1.95	1.95	S	1.96	1.97	1.95	1.98	-
Feb 3	1.96	1.96	1.97	1.98	1.97	1.97	1.97	1.97	1.98	1.99	1.99	1.99	1.98	1.98	2.01	1.98	1.98	1.98	1.96	1.95	S	1.95	1.99	1.97	1.95	2.01	1.98
Feb 4	1.95	1.97	1.96	1.96	1.97	1.97	2.01	2.00	2.00	2.11	2.01	1.99	1.98	1.97	2.00	2.00	1.97	1.97	1.97	S	X	X	X	X	1.95	2.11	1.99
Feb 5	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
Feb 6	X	X	X	X	X	X	X	X	X	X	NRM	NRM	NRM	1.92	1.90	1.86	1.85	S	1.87	1.85	1.85	1.87	1.89	1.88	1.85	1.92	-
Feb 7	1.89	1.90	1.95	1.99	2.04	2.01	2.07	2.05	2.23	**2.38**	2.27	2.08	1.91	1.90	1.93	1.92	S	1.91	1.90	1.94	1.93	1.94	1.92	1.97	1.89	**2.38**	2.00
Feb 8	2.18	2.08	1.94	1.83	1.83	1.85	1.91	1.91	1.92	1.93	1.91	1.89	1.89	1.87	1.89	S	1.92	1.92	1.87	1.88	1.88	1.88	1.89	1.90	1.83	2.18	1.91
Feb 9	1.91	1.92	1.92	1.93	1.89	1.92	1.91	1.89	1.91	1.90	1.89	1.92	1.91	1.90	S	1.91	1.93	1.93	1.89	1.87	1.87	1.88	1.94	1.99	1.87	1.99	1.91
Feb 10	1.89	1.88	1.88	1.87	1.88	1.86	1.91	1.88	1.88	1.87	1.87	1.85	1.84	S	1.84	1.84	1.83	1.83	1.84	1.85	1.87	1.88	X	1.88	1.83	1.91	1.86
Feb 11	1.90	1.89	1.89	1.89	1.91	1.93	1.90	NRM	NRM	NRM	1.93	1.89	S	1.91	1.93	1.94	1.89	1.94	1.87	1.87	1.86	1.86	1.86	1.85	1.85	1.94	1.90
Feb 12	1.85	1.86	1.86	1.86	1.82	1.82	1.83	1.82	1.84	1.84	NRM	NRM	NRM	NRM	1.89	1.88	1.88	1.88	1.88	1.87	1.90	1.90	1.89	1.88	1.82	1.90	1.86
Feb 13	1.88	1.87	1.85	1.84	1.84	1.85	1.84	1.85	1.86	1.85	S	1.86	1.87	X	1.87	1.87	1.87	1.86	1.87	1.89	1.90	1.93	1.95	1.98	1.84	1.98	1.88
Feb 14	1.99	2.02	2.03	2.05	2.05	2.04	1.99	1.99	1.99	S	1.89	1.91	1.90	1.90	X	X	X	X	X	X	X	X	X	X	1.89	2.05	-
Feb 15	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
Feb 16	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
Feb 17	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
Feb 18	X	X	X	X	X	X	X	X	NRM	NRM	NRM	1.98	1.99	1.96	1.99	2.01	2.03	2.02	1.96	1.98	2.03	2.11	2.13	2.13	1.96	2.13	-
Feb 19	2.15	2.11	2.04	2.04	S	2.10	2.06	2.04	2.04	2.05	2.05	2.07	2.08	2.09	2.16	2.20	2.21	2.20	2.18	2.16	2.18	2.17	2.10	2.07	2.04	2.21	**2.11**
Feb 20	2.03	2.07	2.09	S	2.05	2.09	2.15	2.15	2.08	2.03	2.05	1.98	1.89	1.86	1.86	1.87	1.87	1.87	1.87	1.86	1.86	1.87	1.90	1.95	1.86	2.15	1.97
Feb 21	1.95	1.92	S	1.93	1.92	1.92	1.92	1.92	1.92	1.93	1.92	1.90	1.89	1.87	1.89	1.90	1.88	1.88	1.89	1.89	1.85	1.84	1.85	1.85	1.84	1.95	1.90
Feb 22	1.85	S	1.85	1.85	1.88	1.88	1.93	1.94	1.92	1.91	1.87	1.89	1.89	1.88	1.88	1.88	1.89	1.90	1.89	1.89	1.91	1.92	1.96	2.02	1.85	2.02	1.90
Feb 23	S	2.01	1.98	1.96	1.95	1.93	2.03	2.03	2.01	2.01	2.00	1.94	1.96	1.91	1.94	1.89	1.90	1.91	1.92	1.92	1.92	1.92	1.96	S	1.89	2.03	1.95
Feb 24	1.95	1.96	1.96	1.93	1.91	1.92	1.93	1.97	1.94	1.91	1.90	1.90	1.90	1.91	1.90	1.90	1.91	1.91	1.92	1.93	1.95	1.95	S	1.96	1.90	1.97	1.93
Feb 25	1.97	1.97	1.97	1.95	1.97	2.03	2.02	2.03	2.05	2.03	2.05	2.07	2.04	1.98	1.92	1.94	1.88	1.88	1.88	1.90	1.91	S	1.91	1.94	1.88	2.07	1.97
Feb 26	1.93	1.92	1.91	1.91	1.91	1.91	1.91	1.91	1.91	1.91	1.91	1.91	1.90	1.90	1.90	1.90	1.90	1.90	1.90	1.90	S	1.90	1.90	1.90	1.90	1.93	1.91
Feb 27	1.90	1.90	1.90	1.90	1.92	1.92	1.93	1.93	1.97	1.97	1.99	2.08	2.05	1.98	1.93	1.93	1.92	1.94	1.92	S	1.93	1.93	1.94	1.96	1.90	2.08	1.95
Feb 28	1.98	2.00	1.99	1.97	1.96	1.93	1.94	1.93	1.92	1.92	1.92	1.94	1.93	1.94	1.93	1.93	1.95	1.93	S	1.92	1.92	1.93	1.93	1.95	1.92	2.00	1.94
Diurnal Maximum	2.18	2.11	2.09	2.05	2.05	2.10	2.15	2.15	2.23	2.38	2.27	2.08	2.08	2.09	2.16	2.20	2.21	2.20	2.18	2.16	2.18	2.17	2.13	2.13			
Daiurnal Average	1.95	1.96	1.94	1.93	1.93	1.94	1.96	1.96	1.97	1.97	1.97	1.95	1.94	1.93	1.93	1.93	1.93	1.93	1.91	1.91	1.92	1.93	1.94	1.95			

C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance	
K	Collection Error	N	No Data (Machine Not in Service)	Y	Routine Maintenance	P Power Failure
X	InValid Data (Equipment Malfunction /Recovery)	NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)			

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.

Timeseries Chart of Hourly Average for CH4 - Maskwa Site

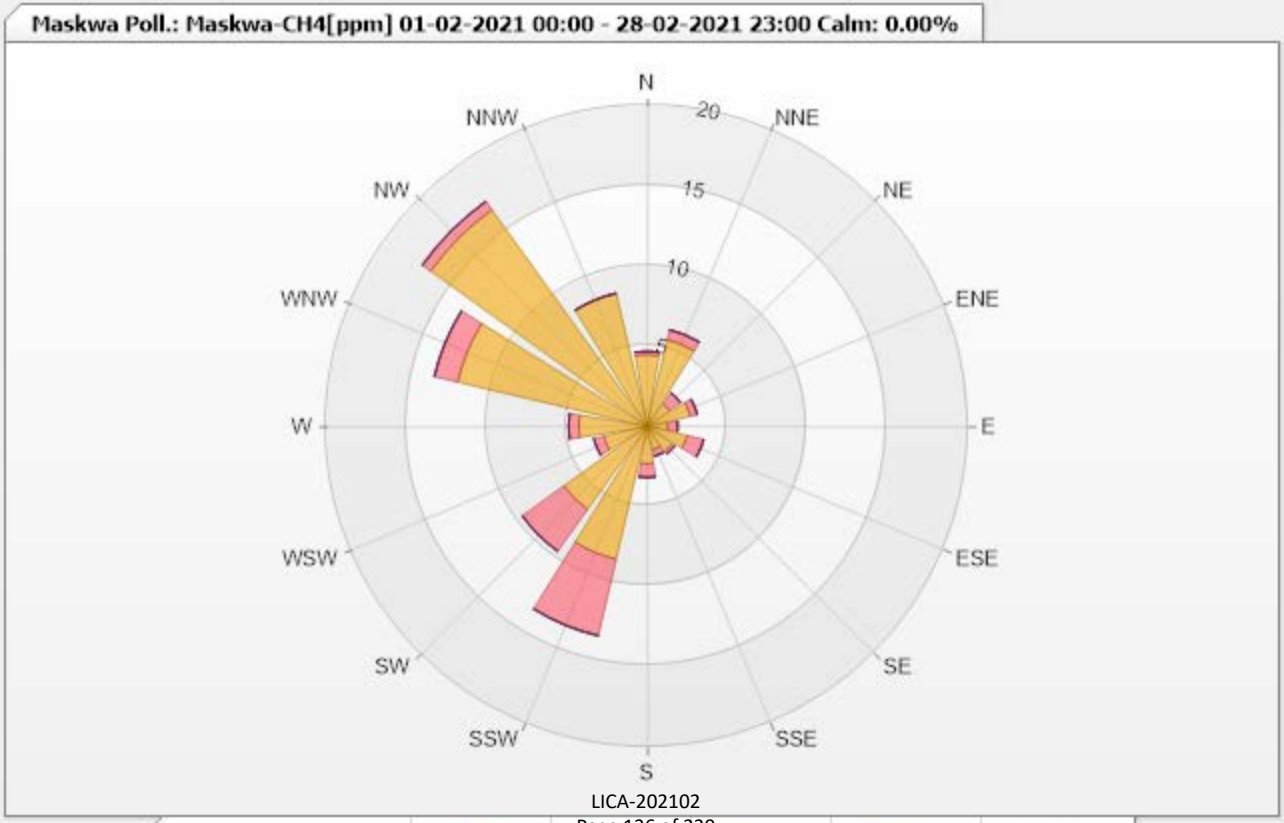




Classes	CH4
<=1.8	0.00%
1.8 - 2	83.19%
2 - 2.5	16.81%
2.5 - 3	0.00%
3 - 3.5	0.00%
3.5 - 4	0.00%
4 - 4.5	0.00%
4.5 - 5	0.00%
5 - 5.5	0.00%
5.5 - 6	0.00%
>6	0.00%

Wind: Maskwa Poll.: Maskwa-CH4[ppm] Monthly: 02-2021 Type: PollutionRose Direction: Blowing From (Wind Frequency) Based On 1 Hr.
Calm: 0.00% Valid Data: 69.94% Calm Avg: 0.00 [ppm]

Direction	0-2	2-5	5-10	10-20	>20.0	Total
N	4.47	0.21	0	0	0	4.68
NNE	5.53	0.64	0	0	0	6.17
NE	1.7	0.85	0	0	0	2.55
ENE	2.77	0.43	0	0	0	3.2
E	1.28	0.64	0	0	0	1.92
ESE	2.55	1.06	0	0	0	3.61
SE	1.91	0.21	0	0	0	2.12
SSE	1.49	0.43	0	0	0	1.92
S	2.34	0.85	0	0	0	3.19
SSW	8.51	4.89	0	0	0	13.4
SW	6.38	3.19	0	0	0	9.57
WSW	2.77	0.64	0	0	0	3.41
W	4.26	0.64	0	0	0	4.9
WNW	12.13	1.49	0	0	0	13.62
NW	16.6	0.64	0	0	0	17.24
NNW	8.51	0	0	0	0	8.51
Summary	83.2	16.81	0	0	0	100


Maskwa Poll.: Maskwa-CH4[ppm] 01-02-2021 00:00 - 28-02-2021 23:00 Calm: 0.00%
N
NNE
NE
ENE
E
ESE
SE
SSE
S
SSW
SW
WSW
W
WNW
NW
NNW
20
15
10
% Icon Classes (ppm)
83 0-2
17 2-5
0 5-10
0 10-20
0 >20.0

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION

Maskwa Site - February 2021

Summary of Hourly Averages

NON-METHANE HYDROCARBONS (NMHC) in ppm

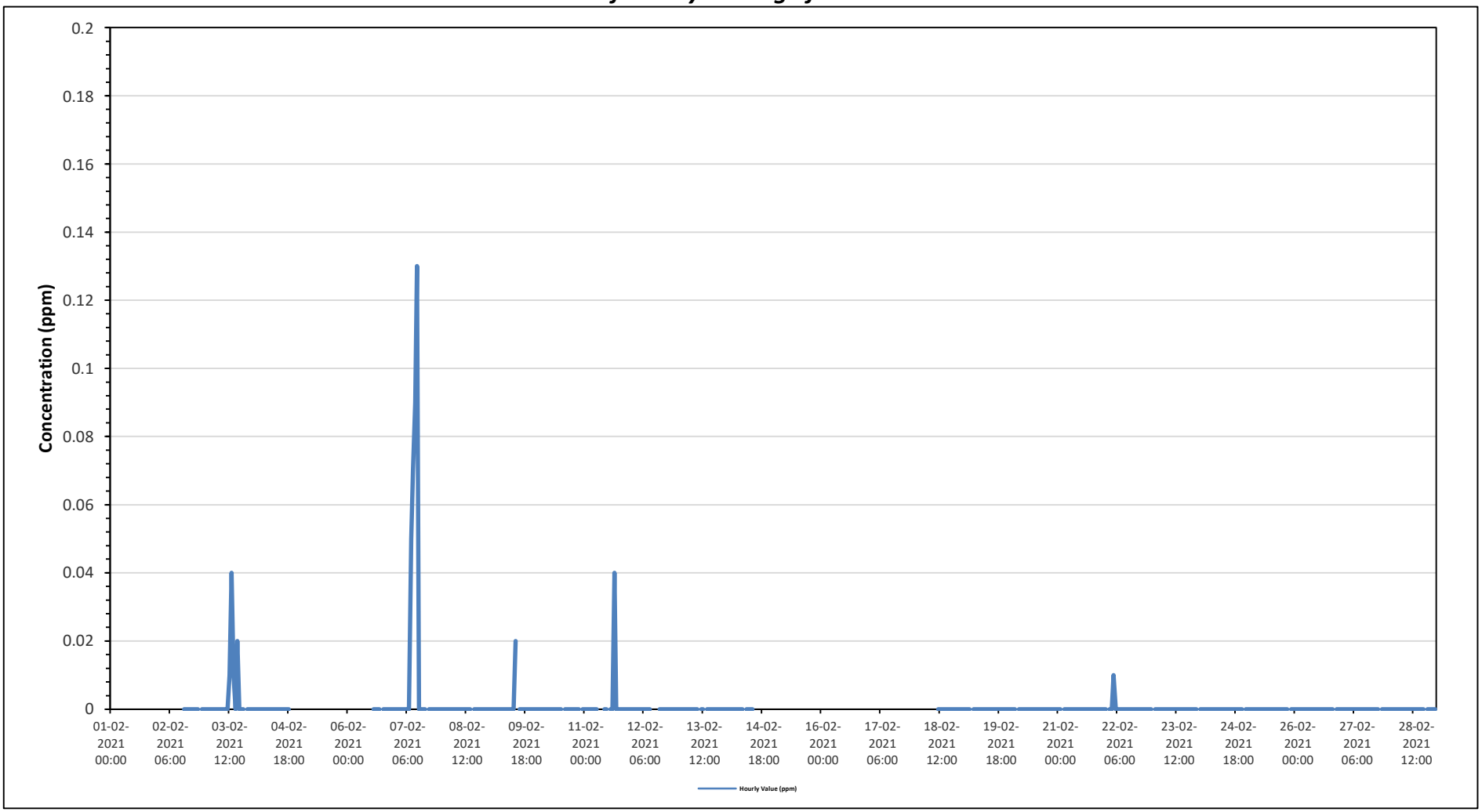
Maximum Hourly Value:	0.13	ppm	on February 7 at hour 11	Hours in Service:	672
Maximum Daily Value:	0.01	ppm	on February 7	Hours of Data:	470
Minimum Hourly Value:	0.00	ppm	on February 2 at hour 13	Hours of Missing Data:	177
Minimum Daily Value:	0.00	ppm	on February 4	Hours of Calibration:	25
Monthly Average:	0.00	ppm		Operational Uptime:	73.7

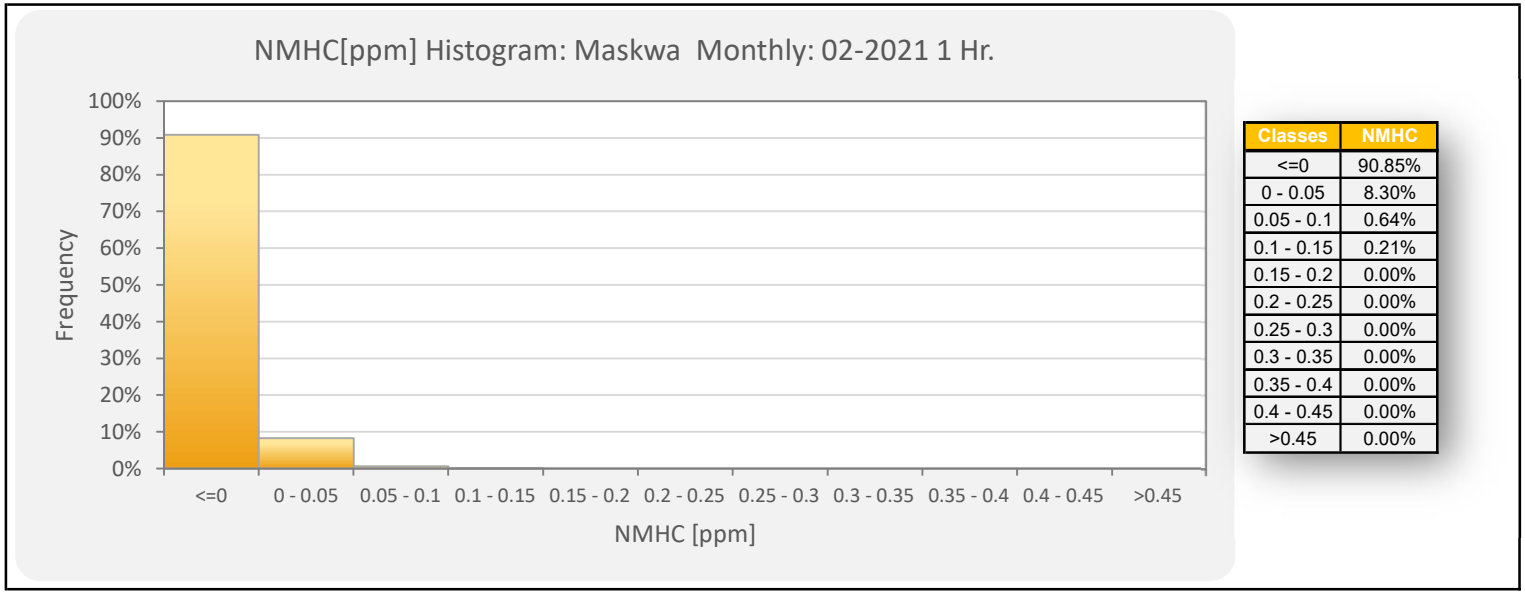
Day	Hourly Period Starting at (MST)																						Daily Minimum	Daily Maximum	Daily Average
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23			
Feb 1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
Feb 2	X	X	X	X	X	X	X	X	X	X	C	C	C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	-
Feb 3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.04	0.01	0.00	0.02	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.04	0.00
Feb 4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	X	X	X	X	0.00	0.00	0.00
Feb 5	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
Feb 6	X	X	X	X	X	X	X	X	X	X	NRM	NRM	NRM	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-
Feb 7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.07	0.09	**0.13**	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.13**	**0.01**
Feb 8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Feb 9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00
Feb 10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	X	0.00	0.00	0.00	0.00
Feb 11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NRM	NRM	NRM	0.00	0.00	S	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.00
Feb 12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NRM	NRM	NRM	NRM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Feb 13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	X	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Feb 14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	X	X	X	X	X	X	X	X	X	X	0.00	0.00	-
Feb 15	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
Feb 16	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
Feb 17	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
Feb 18	X	X	X	X	X	X	X	X	NRM	NRM	NRM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-
Feb 19	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Feb 20	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Feb 21	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Feb 22	0.00	S	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00
Feb 23	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00
Feb 24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00
Feb 25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00
Feb 26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00
Feb 27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Feb 28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Diurnal Maximum	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.05	0.07	0.09	0.13	0.01	0.04	0.01	0.04	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
Daiurnal Average	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			

C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance	
K	Collection Error	N	No Data (Machine Not in Service)	Y	Routine Maintenance	P Power Failure
X	InValid Data (Equipment Malfunction /Recovery)	NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)			

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.

Timeseries Chart of Hourly Average for NMHC - Maskwa Site

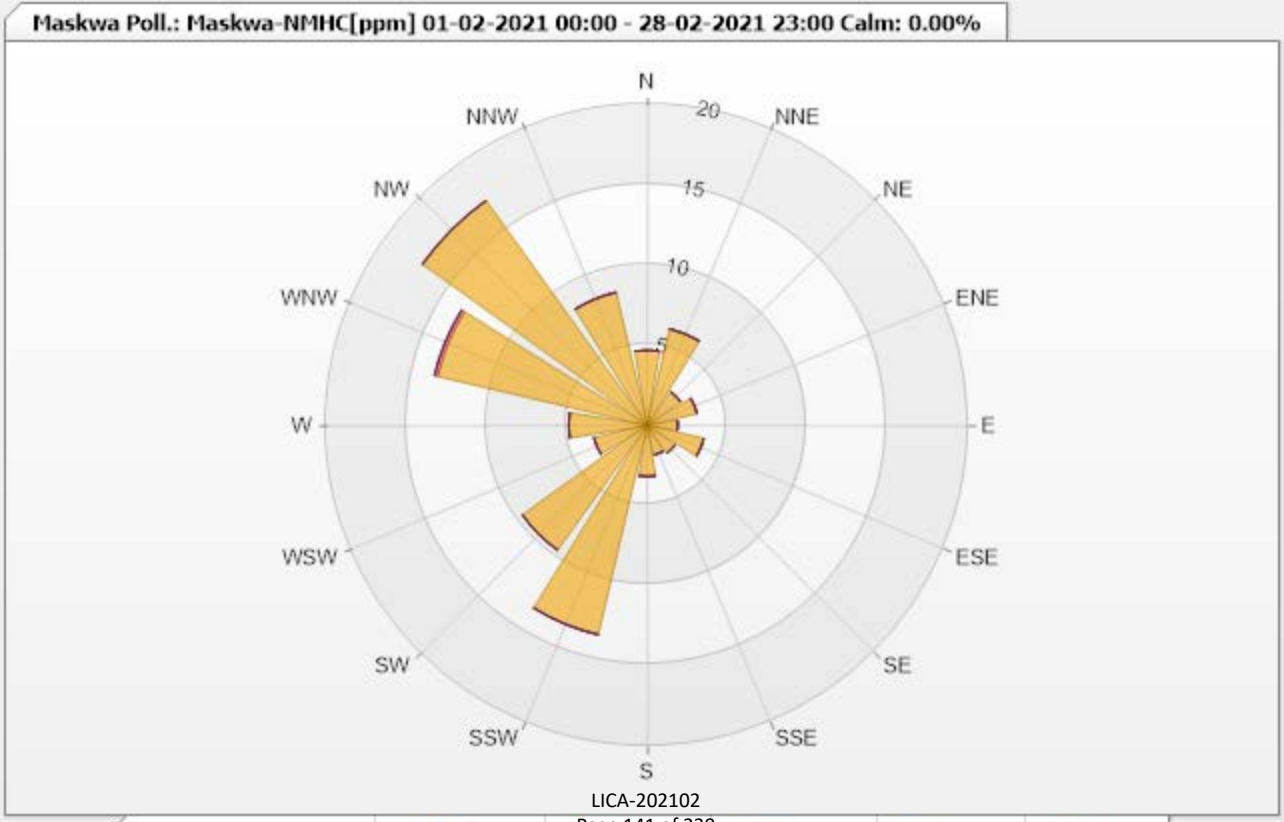




Classes	NMHC
<=0	90.85%
0 - 0.05	8.30%
0.05 - 0.1	0.64%
0.1 - 0.15	0.21%
0.15 - 0.2	0.00%
0.2 - 0.25	0.00%
0.25 - 0.3	0.00%
0.3 - 0.35	0.00%
0.35 - 0.4	0.00%
0.4 - 0.45	0.00%
>0.45	0.00%

Wind: Maskwa Poll.: Maskwa-NMHC[ppm] Monthly: 02-2021 Type: PollutionRose Direction: Blowing From (Wind Frequency) Based On 1 Hr.
Calm: 0.00% Valid Data: 69.94% Calm Avg: 0.00 [ppm]

Direction	0-0.1	0.1-0.3	0.3-0.9	0.9-2	>2.0	Total
N	4.68	0	0	0	0	4.68
NNE	6.17	0	0	0	0	6.17
NE	2.55	0	0	0	0	2.55
ENE	3.19	0	0	0	0	3.19
E	1.91	0	0	0	0	1.91
ESE	3.62	0	0	0	0	3.62
SE	2.13	0	0	0	0	2.13
SSE	1.91	0	0	0	0	1.91
S	3.19	0	0	0	0	3.19
SSW	13.4	0	0	0	0	13.4
SW	9.57	0	0	0	0	9.57
WSW	3.4	0	0	0	0	3.4
W	4.89	0	0	0	0	4.89
WNW	13.4	0.21	0	0	0	13.61
NW	17.23	0	0	0	0	17.23
NNW	8.51	0	0	0	0	8.51
Summary	100	0.21	0	0	0	100


Maskwa Poll.: Maskwa-NMHC[ppm] 01-02-2021 00:00 - 28-02-2021 23:00 Calm: 0.00%
N
NNE
NE
ENE
E
ESE
SE
SSE
S
SSW
SW
WSW
W
WNW
NW
NNW
20
15
10
% Icon Classes (ppm)
100 0-0.1
0 0.1-0.3
0 0.3-0.9
0 0.9-2
0 >2.0

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION

Maskwa Site - February 2021

Summary of Hourly Averages

PARTICULATE MATTER 2.5 ($PM_{2.5}$) in $\mu g/m^3$

Alberta Ambient Air Quality Objectives (AAAQO): 1-Hour 80 µg/m3, 24-Hour 29 µg/m3

Number of 1-Hour Exceedences: 0 Number of 24-Hour Exceedences: 0

Maximum Hourly Value:	22 $\mu g/m^3$ on February 18 at hour 7	Hours in Service:	672
Maximum Daily Value:	10.8 $\mu g/m^3$ on February 1	Hours of Data:	671
Minimum Hourly Value:	0 $\mu g/m^3$ on February 5 at hour 9	Hours of Missing Data:	0
Minimum Daily Value:	0 $\mu g/m^3$ on February 22	Hours of Calibration:	1
Monthly Average:	3.1 $\mu g/m^3$	Operational Uptime:	100.0

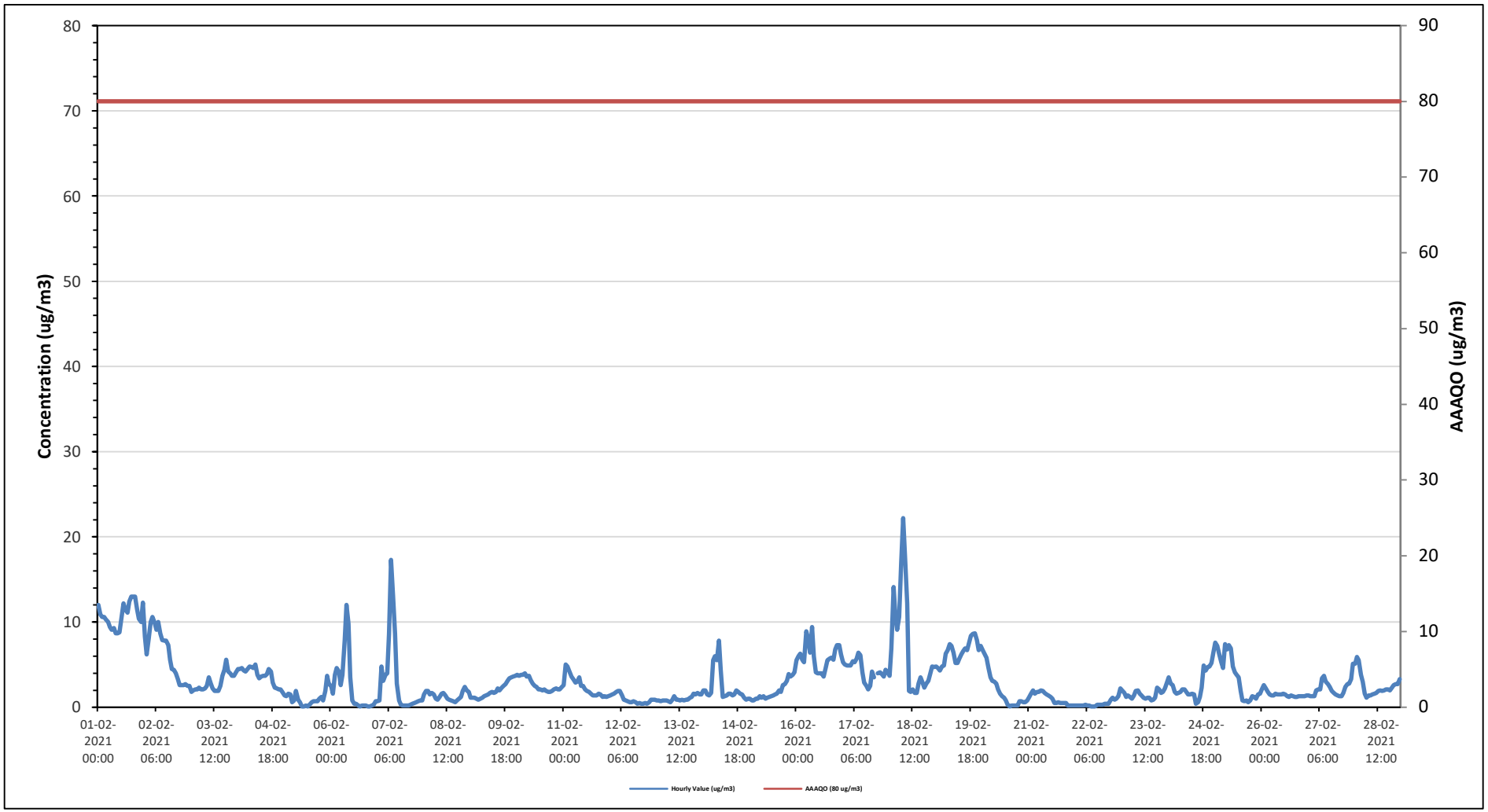
Day	Hourly Period Starting at (MST)																								Daily Minimum	Daily Maximum	Daily Average
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23			
Feb 1	12	11	11	11	10	10	9	9	9	9	9	9	11	12	12	11	12	13	13	13	12	10	10	12	9	13	**10.8**
Feb 2	8	6	8	10	11	10	9	10	9	8	8	8	7	6	5	4	4	3	3	3	3	3	3	3	3	11	6.2
Feb 3	2	2	2	2	2	2	2	2	3	4	3	2	2	2	2	3	4	4	6	4	4	4	4	4	2	6	2.9
Feb 4	5	5	5	4	4	5	5	5	5	5	4	3	4	4	4	4	5	4	3	2	2	2	2	2	2	5	3.7
Feb 5	1	1	2	2	1	1	2	1	1	0	0	0	0	0	1	1	1	1	1	1	1	2	4	3	**0**	4	1.1
Feb 6	3	2	4	5	4	3	4	8	12	10	4	1	0	0	0	0	0	0	0	0	0	0	0	1	**0**	12	2.5
Feb 7	1	1	5	3	4	4	9	17	13	9	3	1	0	0	0	0	0	0	0	1	1	1	1	1	0	17	3.1
Feb 8	2	2	2	2	2	2	1	1	1	2	2	1	1	1	1	1	1	1	1	1	2	2	2	2	1	2	1.4
Feb 9	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	3	3	3	3	4	4	4	1	4	2.0
Feb 10	4	4	4	4	4	4	4	3	3	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	4	2.7
Feb 11	3	5	5	4	4	3	3	3	4	3	3	2	2	2	2	1	1	1	2	2	1	1	1	1	1	5	2.4
Feb 12	1	2	2	2	2	2	1	1	1	1	1	1	1	1	0	1	0	0	1	0	1	1	1	1	0	2	0.9
Feb 13	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	1	2	1.0
Feb 14	2	2	2	1	2	6	6	6	8	4	1	1	1	2	2	1	2	2	2	2	2	1	1	1	1	8	2.4
Feb 15	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	3	3	3	4	4	4	4	1	4	1.9
Feb 16	6	6	6	6	5	9	8	6	9	6	4	4	4	4	4	5	6	6	6	6	7	7	7	6	4	9	5.9
Feb 17	5	5	5	5	5	5	5	6	6	6	4	3	3	2	3	4	4	C	4	4	4	4	4	4	2	6	4.3
Feb 18	4	7	14	11	9	11	17	**22**	18	12	2	2	2	2	2	3	4	3	2	3	3	4	5	5	2	**22**	6.9
Feb 19	5	5	4	5	5	6	7	7	7	6	5	5	6	6	7	7	7	8	8	9	9	8	7	7	4	9	6.5
Feb 20	7	6	6	5	4	3	3	3	2	2	1	1	1	0	0	0	0	0	0	1	1	1	1	1	**0**	7	2.0
Feb 21	1	2	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	2	1.0
Feb 22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	2	**0**	2	0.5
Feb 23	2	2	1	1	1	1	1	2	2	2	1	1	1	1	1	1	1	1	2	2	2	2	2	3	1	3	1.5
Feb 24	4	3	3	2	2	2	2	2	2	2	2	2	2	2	0	1	1	2	5	4	5	5	5	7	0	7	2.6
Feb 25	8	7	6	5	5	7	7	7	7	5	4	4	4	2	1	1	1	1	1	1	1	1	2	2	1	8	3.7
Feb 26	2	3	2	2	2	1	1	2	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	3	1.5
Feb 27	1	1	1	1	2	2	2	3	4	3	3	2	2	2	2	1	1	1	2	2	3	3	3	5	1	5	2.2
Feb 28	5	6	6	4	3	2	1	1	1	2	2	2	2	2	2	2	2	2	2	2	3	3	3	3	1	6	2.6
Diurnal Maximum	12	11	14	11	11	11	17	22	18	12	9	9	11	12	12	11	12	13	13	13	12	10	10	12			
Daiurnal Average	3.4	3.4	3.9	3.6	3.4	3.7	4.1	4.8	4.7	3.8	2.6	2.3	2.2	2.1	2.0	2.2	2.3	2.4	2.6	2.7	2.7	2.8	2.9	3.1			

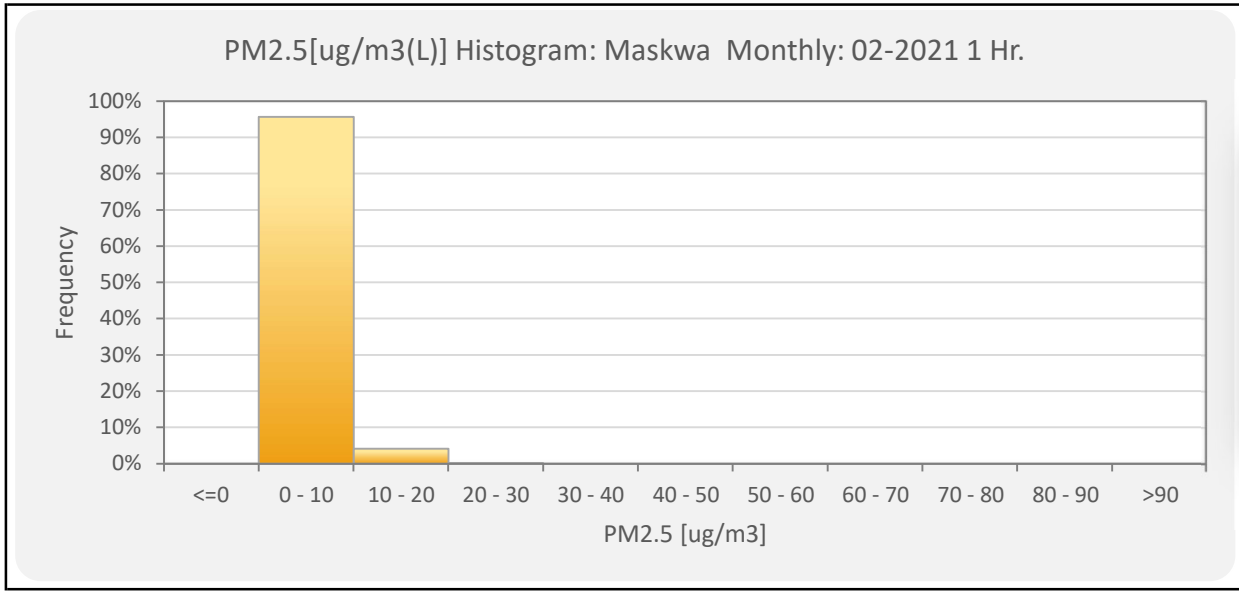
C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance	
K	Collection Error	N	No Data (Machine Not in Service)	Y	Routine Maintenance	P Power Failure
X	InValid Data (Equipment Malfunction /Recovery)	NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)			

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.

Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.

Timeseries Chart of Hourly Average for PM2.5 - Maskwa Site

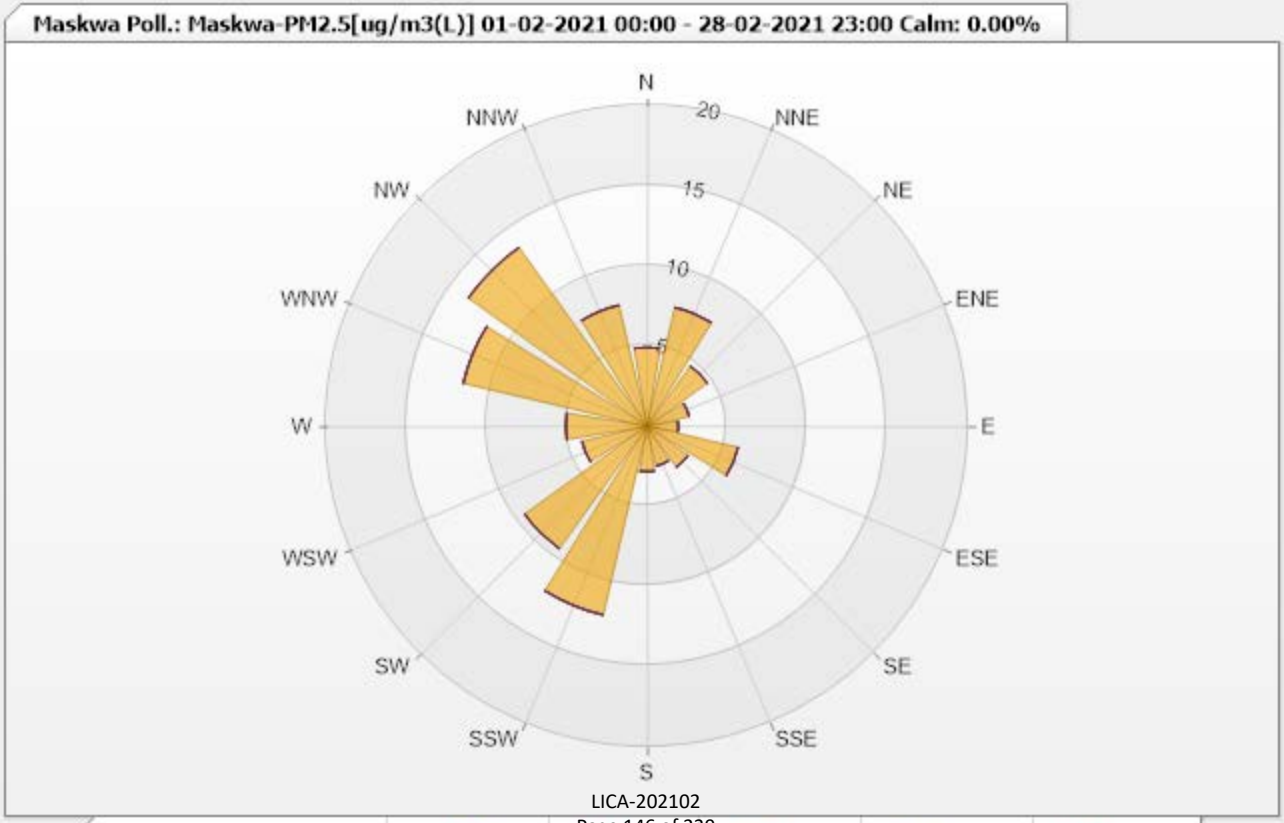




Classes	PM2.5
<=0	0.00%
0 - 10	95.68%
10 - 20	4.17%
20 - 30	0.15%
30 - 40	0.00%
40 - 50	0.00%
50 - 60	0.00%
60 - 70	0.00%
70 - 80	0.00%
80 - 90	0.00%
>90	0.00%

Wind: Maskwa Poll.: Maskwa-PM2.5[ug/m3(L)] Monthly: 02-2021 Type: PollutionRose Direction: Blowing From (Wind Frequency) Based On 1 Hr.
Calm: 0.00% Valid Data: 99.85% Calm Avg: 0.00 [ug/m3(L)]

Direction	0-50	50-80	80-120	120-240	>240.0	Total
N	4.92	0	0	0	0	4.92
NNE	7.6	0	0	0	0	7.6
NE	4.62	0	0	0	0	4.62
ENE	2.68	0	0	0	0	2.68
E	1.94	0	0	0	0	1.94
ESE	5.81	0	0	0	0	5.81
SE	3.13	0	0	0	0	3.13
SSE	2.53	0	0	0	0	2.53
S	2.83	0	0	0	0	2.83
SSW	12.07	0	0	0	0	12.07
SW	9.39	0	0	0	0	9.39
WSW	4.17	0	0	0	0	4.17
W	5.07	0	0	0	0	5.07
WNW	11.77	0	0	0	0	11.77
NW	13.71	0	0	0	0	13.71
NNW	7.75	0	0	0	0	7.75
Summary	100	0	0	0	0	100


Maskwa Poll.: Maskwa-PM2.5[ug/m3(L)] 01-02-2021 00:00 - 28-02-2021 23:00 Calm: 0.00%
N
NNE
NE
ENE
E
ESE
SE
SSE
S
SSW
SW
WSW
W
WNW
NW
NNW
20
15
10
5
% Icon Classes (ug/m3(L))
100 0-50
0 50-80
0 80-120
0 120-240
0 >240.0

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION

Maskwa Site - February 2021

Summary of Hourly Averages

RELATIVE HUMIDITY (RH) in %

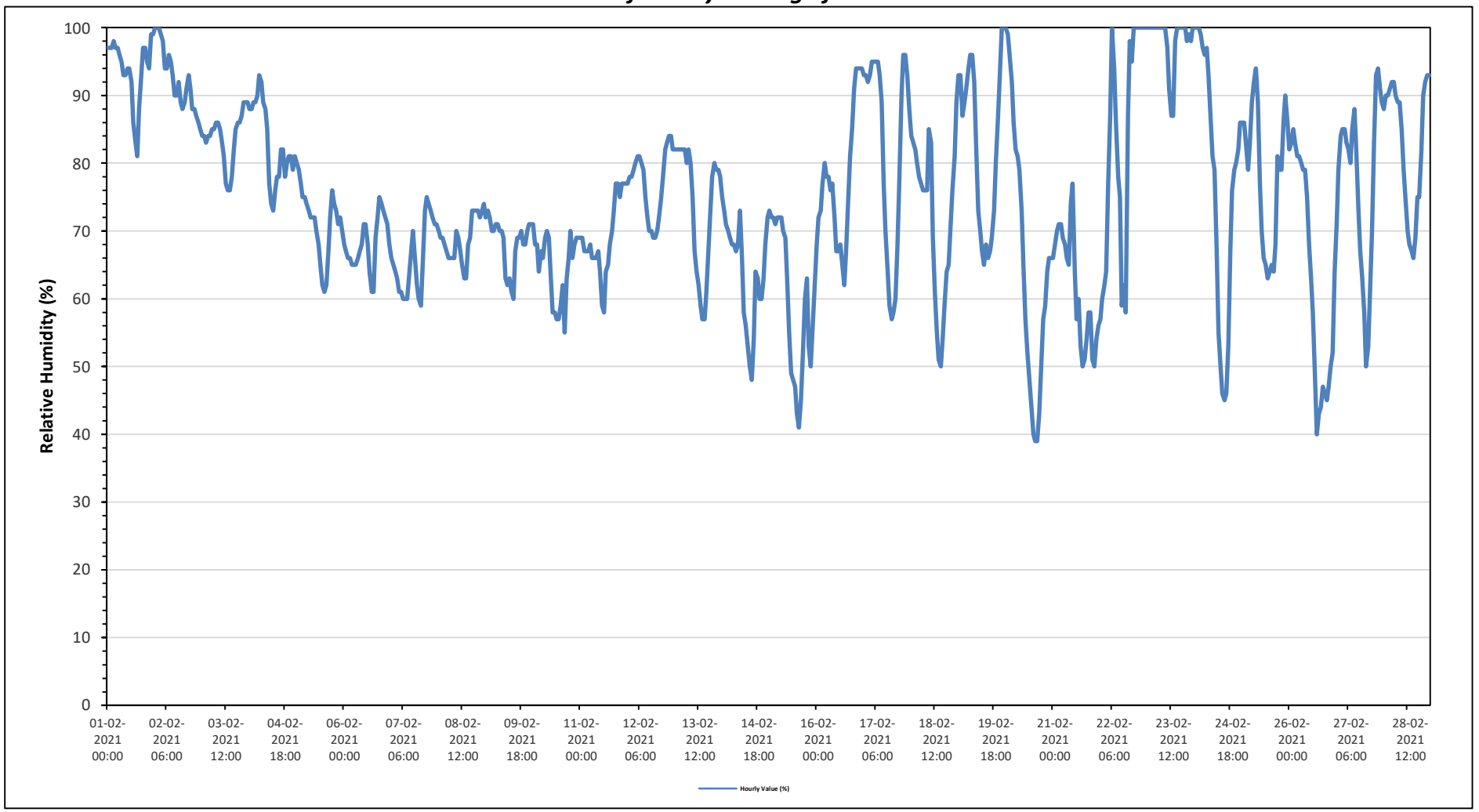
Maximum Hourly Value:	100	%	on February 2 at hour 0	Hours in Service:	672
Maximum Daily Value:	98.1	%	on February 23	Hours of Data:	672
Minimum Hourly Value:	39	%	on February 20 at hour 15	Hours of Missing Data:	0
Minimum Daily Value:	59.6	%	on February 15	Hours of Calibration:	0
Monthly Average:	75.2	%		Operational Uptime:	100.0

Day	Hourly Period Starting at (MST)																								Daily	Daily	Daily
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Minimum	Maximum	Average
Feb 1	97	97	97	98	97	97	96	95	93	93	94	94	92	86	83	81	88	93	97	97	95	94	99	99	81	99	93.8
Feb 2	**100**	**100**	**100**	99	98	94	94	96	95	93	90	90	92	89	88	89	91	93	91	88	88	87	86	85	85	**100**	92.3
Feb 3	84	84	83	84	84	85	85	86	86	85	83	81	77	76	76	78	82	85	86	86	87	89	89	89	76	89	83.8
Feb 4	88	88	89	89	90	93	92	89	88	85	77	74	73	76	78	78	82	82	78	80	81	81	79	81	73	93	83.0
Feb 5	80	79	77	75	75	74	73	72	72	72	70	68	65	62	61	62	67	72	76	74	73	71	72	70	61	80	71.3
Feb 6	68	67	66	66	65	65	65	66	67	68	71	71	68	64	61	61	69	72	75	74	73	72	71	68	61	75	68.0
Feb 7	66	65	64	63	61	61	60	60	60	63	67	70	66	62	60	59	65	73	75	74	73	72	71	71	59	75	65.9
Feb 8	70	69	69	68	67	66	66	66	66	70	69	67	65	63	63	68	69	73	73	73	73	72	73	74	63	74	68.8
Feb 9	72	73	72	70	70	71	71	70	70	69	63	62	63	61	60	67	69	69	70	68	68	70	71	71	60	73	68.3
Feb 10	71	68	68	64	67	66	69	70	69	63	58	58	57	57	59	62	55	63	66	70	66	68	69	69	55	71	64.7
Feb 11	69	69	67	67	67	68	66	66	66	67	64	59	58	64	65	68	70	73	77	77	75	77	77	77	58	77	68.9
Feb 12	77	78	78	79	80	81	81	80	79	75	72	70	70	69	69	70	72	75	78	82	83	84	84	82	69	84	77.0
Feb 13	82	82	82	82	82	82	80	82	80	75	67	64	62	59	57	57	61	67	73	78	80	79	79	78	57	82	73.8
Feb 14	75	73	71	70	69	68	68	67	68	73	66	58	56	53	50	48	54	64	63	60	60	63	68	72	48	75	64.0
Feb 15	73	72	72	71	72	72	72	70	69	63	55	49	48	47	43	41	45	52	60	63	53	50	56	62	41	73	59.6
Feb 16	68	72	73	77	80	78	78	76	77	72	67	67	68	65	62	67	75	81	85	91	94	94	94	94	62	94	77.3
Feb 17	93	93	92	93	95	95	95	95	93	89	77	70	64	59	57	58	60	68	77	90	96	96	93	88	57	96	82.8
Feb 18	84	83	82	80	78	77	76	76	76	85	83	69	61	55	51	50	54	60	64	65	71	76	81	89	50	89	71.9
Feb 19	93	93	87	89	91	94	96	96	92	82	73	70	67	65	68	66	67	69	73	80	87	93	**100**	**100**	65	**100**	83.0
Feb 20	**100**	99	96	92	86	82	81	79	73	65	57	52	48	44	40	**39**	**39**	43	50	57	59	64	66	66	**39**	**100**	65.7
Feb 21	66	68	70	71	71	69	68	66	65	74	77	64	57	60	53	50	51	54	58	58	51	50	54	56	50	77	61.7
Feb 22	57	60	62	64	77	87	**100**	94	86	78	75	59	62	58	87	98	95	**100**	**100**	**100**	**100**	**100**	**100**	**100**	57	**100**	83.3
Feb 23	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	97	91	87	87	98	**100**	**100**	**100**	**100**	**100**	98	99	98	**100**	87	**100**	**98.1**
Feb 24	**100**	**100**	**100**	99	97	96	97	93	87	81	79	68	55	50	46	45	46	53	67	76	79	80	82	86	45	**100**	77.6
Feb 25	86	86	83	79	83	89	92	94	89	77	70	66	65	63	64	65	64	68	81	79	79	86	90	86	63	94	78.5
Feb 26	82	83	85	83	81	81	80	79	79	75	68	63	58	48	40	43	44	47	46	45	47	50	52	64	40	85	63.5
Feb 27	71	79	84	85	85	83	82	80	85	88	82	73	67	63	58	50	53	61	70	83	93	94	91	89	50	94	77.0
Feb 28	88	90	90	91	92	92	90	89	89	85	79	75	70	68	67	66	69	75	75	82	90	92	93	93	66	93	82.9
Diurnal Maximum	100	100	100	100	100	100	100	100	100	100	97	94	92	89	98	100	100	100	100	100	100	100	100	100			
Daiurnal Average	80.7	81.1	80.7	80.3	80.7	80.9	81.2	80.4	79.3	77.3	73.2	68.6	65.8	63.3	63.0	63.8	66.3	70.9	74.4	76.8	77.6	78.7	79.9	80.7			

C	Monthly Calibration	**S**	Daily Zero-Span Check	**Q**	Quality Assurance	
K	Collection Error	**N**	No Data (Machine Not in Service)	**Y**	Routine Maintenance	**P** Power Failure
X	InValid Data (Equipment Malfunction /Recovery)	**NRM**	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)			

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.

Timeseries Chart of Hourly Average for RH - Maskwa Site



LAKELAND INDUSTRY & COMMUNITY ASSOCIATION

Maskwa Site - February 2021

Summary of Hourly Averages

BAROMETRIC PRESSURE (BP) in millibar

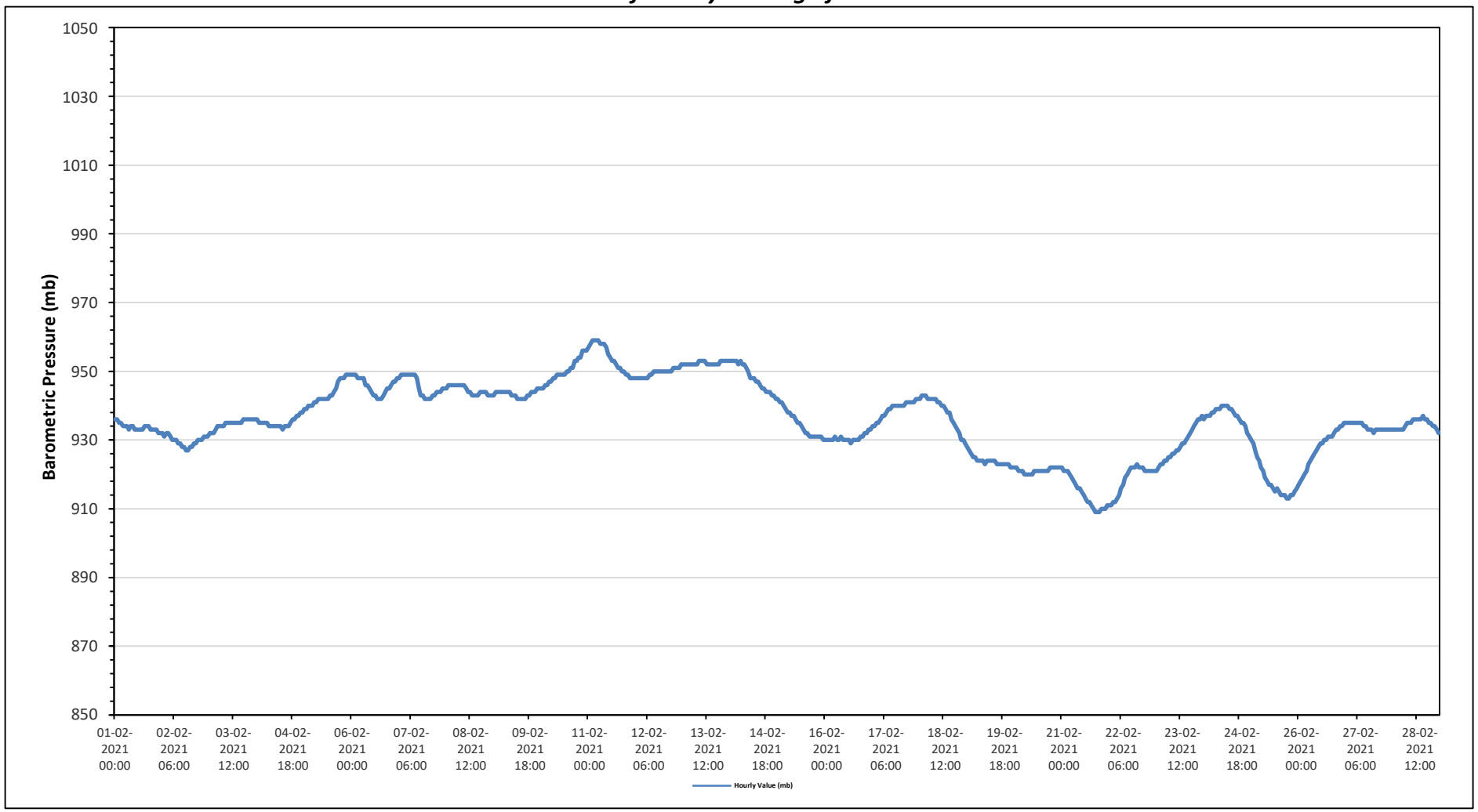
Maximum Hourly Value:	959	mb	on February 11 at hour 2	Hours in Service:	672
Maximum Daily Value:	954	mb	on February 11	Hours of Data:	672
Minimum Hourly Value:	909	mb	on February 21 at hour 17	Hours of Missing Data:	0
Minimum Daily Value:	914	mb	on February 21	Hours of Calibration:	0
Monthly Average:	936	mb		Operational Uptime:	100.0

Day	Hourly Period Starting at (MST)																								Daily	Daily	Daily
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Minimum	Maximum	Average
Feb 1	936	936	935	935	934	934	934	933	934	934	933	933	933	933	933	934	934	934	933	933	933	933	932	932	932	936	934
Feb 2	932	931	932	932	931	930	930	930	929	929	928	928	927	927	928	928	929	929	930	930	930	931	931	931	927	932	930
Feb 3	932	932	932	933	934	934	934	934	935	935	935	935	935	935	935	935	935	936	936	936	936	936	936	936	932	936	935
Feb 4	936	935	935	935	935	935	934	934	934	934	934	934	934	933	934	934	934	935	936	936	937	937	938	938	933	938	935
Feb 5	939	939	940	940	940	941	941	942	942	942	942	942	942	943	943	944	945	947	948	948	948	949	949	949	939	949	944
Feb 6	949	949	949	948	948	948	948	946	946	945	944	943	943	942	942	942	943	944	945	945	946	947	947	948	942	949	946
Feb 7	948	949	949	949	949	949	949	949	949	948	945	943	943	942	942	942	942	943	943	944	944	944	945	945	942	949	946
Feb 8	945	946	946	946	946	946	946	946	946	946	945	944	944	943	943	943	943	944	944	944	944	943	943	943	943	946	945
Feb 9	943	944	944	944	944	944	944	944	944	943	943	943	942	942	942	942	942	943	943	944	944	944	945	945	942	945	943
Feb 10	945	945	946	946	947	947	948	948	949	949	949	949	949	950	950	951	951	953	953	954	954	956	956	956	945	956	950
Feb 11	957	958	**959**	**959**	**959**	**959**	958	958	958	957	955	954	953	953	952	951	951	950	950	949	949	948	948	948	948	**959**	**954**
Feb 12	948	948	948	948	948	948	948	949	949	950	950	950	950	950	950	950	950	950	950	951	951	951	951	952	948	952	950
Feb 13	952	952	952	952	952	952	952	952	953	953	953	953	952	952	952	952	952	952	952	953	953	953	953	953	952	953	952
Feb 14	953	953	953	953	952	953	952	952	951	950	948	948	948	947	947	946	945	945	944	944	944	943	943	942	942	953	948
Feb 15	942	941	941	940	939	938	938	937	937	936	935	935	934	933	932	932	931	931	931	931	931	931	931	930	930	942	935
Feb 16	930	930	930	930	930	931	930	930	931	930	930	930	930	929	930	930	930	930	931	931	932	932	933	933	929	933	931
Feb 17	934	934	935	935	936	937	937	938	939	939	940	940	940	940	940	940	940	941	941	941	941	941	942	942	934	942	939
Feb 18	942	943	943	943	942	942	942	942	942	941	941	940	940	939	938	938	936	935	934	933	932	930	930	929	929	943	938
Feb 19	928	927	926	925	925	924	924	924	924	923	924	924	924	924	924	923	923	923	923	923	923	923	922	922	922	928	924
Feb 20	922	922	921	921	921	920	920	920	920	920	921	921	921	921	921	921	921	921	922	922	922	922	922	922	920	922	921
Feb 21	922	921	921	921	920	919	918	917	916	916	915	914	913	912	912	911	910	**909**	**909**	**909**	910	910	910	911	**909**	922	914
Feb 22	911	911	912	912	913	914	916	917	919	920	921	922	922	922	923	922	922	922	921	921	921	921	921	921	911	923	919
Feb 23	921	922	923	923	924	924	925	925	926	926	927	927	928	929	929	930	931	932	933	934	935	936	936	937	921	937	928
Feb 24	936	937	937	937	938	938	939	939	939	940	940	940	940	939	939	938	937	937	936	935	935	934	932	931	931	940	937
Feb 25	930	929	927	925	924	922	921	919	918	917	917	916	915	916	915	914	914	914	913	913	914	914	915	916	913	930	918
Feb 26	917	918	919	920	921	923	924	925	926	927	928	929	929	930	930	931	931	931	932	933	933	934	934	935	917	935	928
Feb 27	935	935	935	935	935	935	935	935	935	934	934	933	933	933	932	933	933	933	933	933	933	933	933	933	932	935	934
Feb 28	933	933	933	933	933	933	934	935	935	935	936	936	936	936	936	937	936	936	935	935	934	934	933	932	932	937	935
Diurnal Maximum	957	958	959	959	959	959	958	958	958	957	955	954	953	953	952	952	952	953	953	954	954	956	956	956			
Diurnal Average	936	936	937	936	936	936	936	936	937	936	936	936	936	936	936	936	935	936	936	936	936	936	936	936			

C	Monthly Calibration	**S**	Daily Zero-Span Check	**Q**	Quality Assurance	
K	Collection Error	**N**	No Data (Machine Not in Service)	**Y**	Routine Maintenance	**P** Power Failure
X	InValid Data (Equipment Malfunction /Recovery)	**NRM**	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)			

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.

Timeseries Chart of Hourly Average for BP - Maskwa Site



LAKELAND INDUSTRY & COMMUNITY ASSOCIATION

Maskwa Site - February 2021

Summary of Hourly Averages

AMBIENT TEMPERATURE (AT) in Degree Celsius

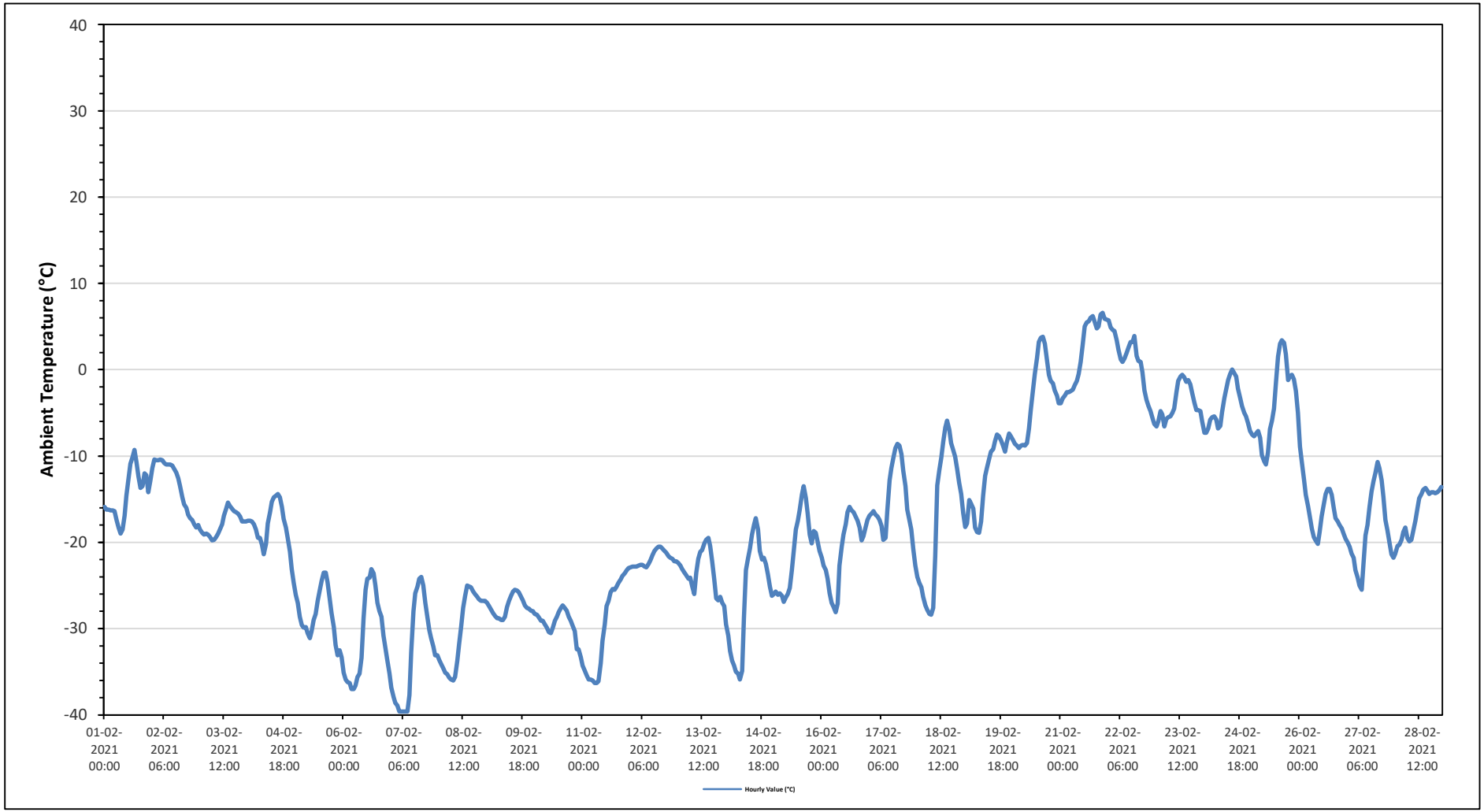
Maximum Hourly Value:	6.6	°C	on February 21 at hour 21	Hours in Service:	672
Maximum Daily Value:	2.0	°C	on February 21	Hours of Data:	672
Minimum Hourly Value:	-39.6	°C	on February 7 at hour 4	Hours of Missing Data:	0
Minimum Daily Value:	-32.8	°C	on February 7	Hours of Calibration:	0
Monthly Average:	-17.7	°C		Operational Uptime:	100.0

Day	Hourly Period Starting at (MST)																								Daily	Daily	Daily
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Minimum	Maximum	Average
Feb 1	-15.9	-16.2	-16.2	-16.3	-16.3	-16.4	-17.4	-18.3	-19	-18.5	-16.9	-14.6	-12.5	-10.9	-10.1	-9.3	-10.7	-12.4	-13.7	-13.5	-12	-12.2	-14.2	-12.9	-19.0	-9.3	-14.4
Feb 2	-11.4	-10.4	-10.5	-10.5	-10.4	-10.5	-10.8	-11	-11	-11	-11.1	-11.5	-11.9	-12.6	-13.5	-14.8	-15.6	-16	-16.8	-17.2	-17.4	-17.9	-18.3	-18	-18.3	-10.4	-13.3
Feb 3	-18.5	-18.9	-19.1	-19	-19.1	-19.4	-19.8	-19.7	-19.4	-19	-18.5	-17.9	-16.9	-16.1	-15.4	-15.8	-16.1	-16.4	-16.5	-16.7	-17	-17.6	-17.6	-17.6	-19.8	-15.4	-17.8
Feb 4	-17.5	-17.5	-17.6	-17.9	-18.5	-19.5	-19.5	-20.3	-21.4	-20.2	-17.8	-16.5	-15.3	-14.8	-14.6	-14.4	-14.8	-15.9	-17.3	-18.3	-19.5	-21.1	-23.1	-24.7	-24.7	-14.4	-18.3
Feb 5	-26.1	-27	-28.6	-29.6	-29.9	-29.8	-30.5	-31.1	-30.3	-29	-28.3	-26.8	-25.6	-24.4	-23.5	-23.5	-24.6	-26.6	-28.2	-29.8	-31.9	-33.1	-32.5	-33.3	-33.3	-23.5	-28.5
Feb 6	-35.1	-35.9	-36.2	-36.3	-37	-37	-36.6	-35.6	-35.2	-33.4	-28.8	-25.5	-24.2	-24.1	-23.1	-23.6	-25	-27	-28	-28.6	-30.8	-32.3	-33.6	-35.2	-37.0	-23.1	-31.2
Feb 7	-36.8	-37.9	-38.6	-38.9	**-39.6**	**-39.6**	**-39.6**	**-39.6**	**-39.6**	-37.7	-32.7	-28	-25.9	-25.1	-24.2	-24	-25	-27	-28.6	-30.2	-31.1	-32.1	-33.1	-33.1	**-39.6**	-24.0	-32.8
Feb 8	-33.6	-34.1	-34.6	-35.1	-35.3	-35.7	-35.9	-36	-35.6	-33.7	-31.8	-29.8	-27.6	-26.2	-25	-25.1	-25.2	-25.7	-26	-26.3	-26.6	-26.8	-26.8	-26.8	-36.0	-25.0	-30.2
Feb 9	-27	-27.4	-27.8	-28.2	-28.5	-28.8	-28.8	-29	-29	-28.6	-27.5	-26.8	-26.2	-25.7	-25.5	-25.6	-25.8	-26.3	-26.7	-27.3	-27.6	-27.7	-27.9	-28	-29.0	-25.5	-27.4
Feb 10	-28.3	-28.4	-28.7	-29.1	-29.1	-29.5	-29.9	-30.4	-30.5	-29.9	-29.1	-28.6	-28.1	-27.6	-27.3	-27.6	-27.9	-28.6	-29.1	-29.7	-30.3	-32.4	-32.4	-33.3	-33.3	-27.3	-29.4
Feb 11	-34.3	-34.9	-35.4	-35.9	-35.9	-36	-36.3	-36.3	-36.1	-34	-31.4	-29.5	-27.4	-26.8	-25.8	-25.4	-25.5	-25.1	-24.7	-24.3	-23.9	-23.6	-23.3	-23	-36.3	-23.0	-29.8
Feb 12	-22.9	-22.8	-22.8	-22.8	-22.7	-22.6	-22.6	-22.8	-22.9	-22.5	-22.1	-21.5	-21	-20.7	-20.5	-20.5	-20.7	-21	-21.2	-21.6	-21.8	-21.9	-22.2	-22.2	-22.9	-20.5	-21.9
Feb 13	-22.4	-22.7	-23.1	-23.5	-23.8	-24.2	-24.1	-25.1	-26	-23.5	-21.9	-21.1	-20.9	-20.1	-19.7	-19.5	-20.4	-22.2	-24.2	-26.5	-26.7	-26.3	-27	-27.4	-27.4	-19.5	-23.4
Feb 14	-29.5	-30.8	-32.6	-33.7	-34.3	-35	-35.2	-35.9	-34.9	-28.8	-23.2	-21.9	-20.7	-19.1	-18	-17.2	-18.5	-21	-22	-21.8	-22.5	-23.7	-25.1	-26.2	-35.9	-17.2	-26.3
Feb 15	-26	-25.7	-26.1	-25.9	-26.2	-26.9	-26.4	-26	-25.3	-23.3	-20.9	-18.5	-17.5	-16.3	-14.5	-13.5	-14.9	-16.7	-19.1	-20.1	-18.7	-18.9	-20	-21	-26.9	-13.5	-21.2
Feb 16	-21.8	-22.7	-23.2	-24.2	-25.9	-27	-27.5	-28.1	-27.1	-22.7	-20.5	-19.1	-17.9	-16.5	-15.9	-16.3	-16.5	-17	-17.5	-18.3	-19.8	-19.3	-18.2	-17.4	-28.1	-15.9	-20.9
Feb 17	-16.9	-16.7	-16.4	-16.8	-17	-17.4	-18.1	-19.7	-19.5	-16.3	-12.8	-11.4	-10.2	-9.1	-8.6	-8.8	-9.8	-11.7	-13.5	-16.2	-17.5	-18.5	-20.8	-22.7	-22.7	-8.6	-15.3
Feb 18	-24	-24.7	-25.2	-26.3	-27.3	-27.8	-28.3	-28.4	-27.6	-21.6	-13.4	-11.7	-10.2	-8.3	-6.7	-5.9	-7	-8.5	-9.4	-10.1	-11.5	-13.1	-14.4	-16.6	-28.4	-5.9	-17.0
Feb 19	-18.2	-17.8	-15.1	-15.5	-16.1	-18.3	-18.8	-18.9	-17.6	-14.6	-12.3	-11.4	-10.3	-9.5	-9.2	-8.3	-7.5	-7.7	-8.2	-8.8	-9.5	-8.4	-7.4	-7.7	-18.9	-7.4	-12.4
Feb 20	-8.2	-8.6	-8.8	-9.1	-8.8	-8.7	-8.8	-8.5	-6.8	-4.7	-2.3	-0.5	1.4	3.2	3.7	3.8	3	1.2	-0.6	-1.3	-1.6	-2.4	-3	-3.9	-9.1	3.8	-3.3
Feb 21	-3.9	-3.3	-3	-2.6	-2.6	-2.5	-2.3	-1.8	-1.3	-0.5	0.9	2.9	5	5.5	5.6	6	6.2	5.6	4.8	5	6.4	**6.6**	5.9	5.8	-3.9	**6.6**	**2.0**
Feb 22	5.7	4.9	4.6	4.5	3.4	2.3	1.2	0.9	1.3	1.9	2.6	3.2	3.2	3.9	1.6	1	0.9	-0.3	-2.4	-3.5	-4.2	-4.8	-5.6	-6.3	-6.3	5.7	0.8
Feb 23	-6.6	-6	-4.8	-5.2	-6.6	-5.7	-5.5	-5.4	-5	-4.5	-2.6	-1.3	-0.8	-0.6	-0.9	-1.4	-1.2	-1.7	-2.8	-3.8	-4.7	-4.7	-4.8	-6	-6.6	-0.6	-3.9
Feb 24	-7.3	-7.3	-6.8	-5.8	-5.5	-5.4	-5.8	-6.8	-6.5	-4.9	-3.3	-2.3	-1.2	-0.5	0	-0.4	-0.8	-2.2	-3.3	-4.2	-5	-5.4	-6.2	-7.1	-7.3	0.0	-4.3
Feb 25	-7.5	-7.7	-7.4	-7.1	-7.9	-9.9	-10.6	-11	-9.6	-6.9	-5.9	-4.5	-1.4	1.5	3	3.4	3.1	1.8	-1.2	-0.8	-0.6	-1.1	-2.5	-5	-11.0	3.4	-4.0
Feb 26	-8.9	-10.6	-12.7	-14.5	-15.8	-17	-18.4	-19.4	-19.8	-20.2	-18.8	-17	-15.7	-14.4	-13.8	-13.8	-14.5	-16	-17.2	-17.6	-18	-18.4	-19	-19.6	-20.2	-8.9	-16.3
Feb 27	-20	-20.5	-21.3	-21.8	-23.2	-24.1	-25	-25.5	-22.5	-19.2	-18	-15.9	-14.1	-12.9	-12	-10.7	-11.4	-12.8	-14.7	-17.4	-18.6	-20	-21.4	-21.8	-25.5	-10.7	-18.5
Feb 28	-21.3	-20.4	-20.3	-19.7	-18.8	-18.3	-19.5	-19.9	-19.7	-18.6	-17.5	-16.1	-14.9	-14.4	-13.9	-13.7	-14	-14.4	-14.2	-14.2	-14.3	-14.2	-14	-13.6	-21.3	-13.6	-16.7
Diurnal Maximum	5.7	4.9	4.6	4.5	3.4	2.3	1.2	0.9	1.3	1.9	2.6	3.2	5.0	5.5	5.6	6.0	6.2	5.6	4.8	5.0	6.4	6.6	5.9	5.8			
Daiurnal Average	-19.4	-19.7	-19.9	-20.2	-20.7	-21.1	-21.5	-21.8	-21.4	-19.5	-17.4	-15.8	-14.6	-13.7	-13.1	-13.0	-13.6	-14.7	-15.8	-16.5	-17.0	-17.5	-18.2	-18.7			

C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance	
K	Collection Error	N	No Data (Machine Not in Service)	Y	Routine Maintenance	P Power Failure
X	InValid Data (Equipment Malfunction /Recovery)	NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)			

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.

Timeseries Chart of Hourly Average for AT - Maskwa Site



LAKELAND INDUSTRY & COMMUNITY ASSOCIATION

Maskwa Site - February 2021

Summary of Hourly Averages

STATION TEMPERATURE (ST) in Degree Celsius

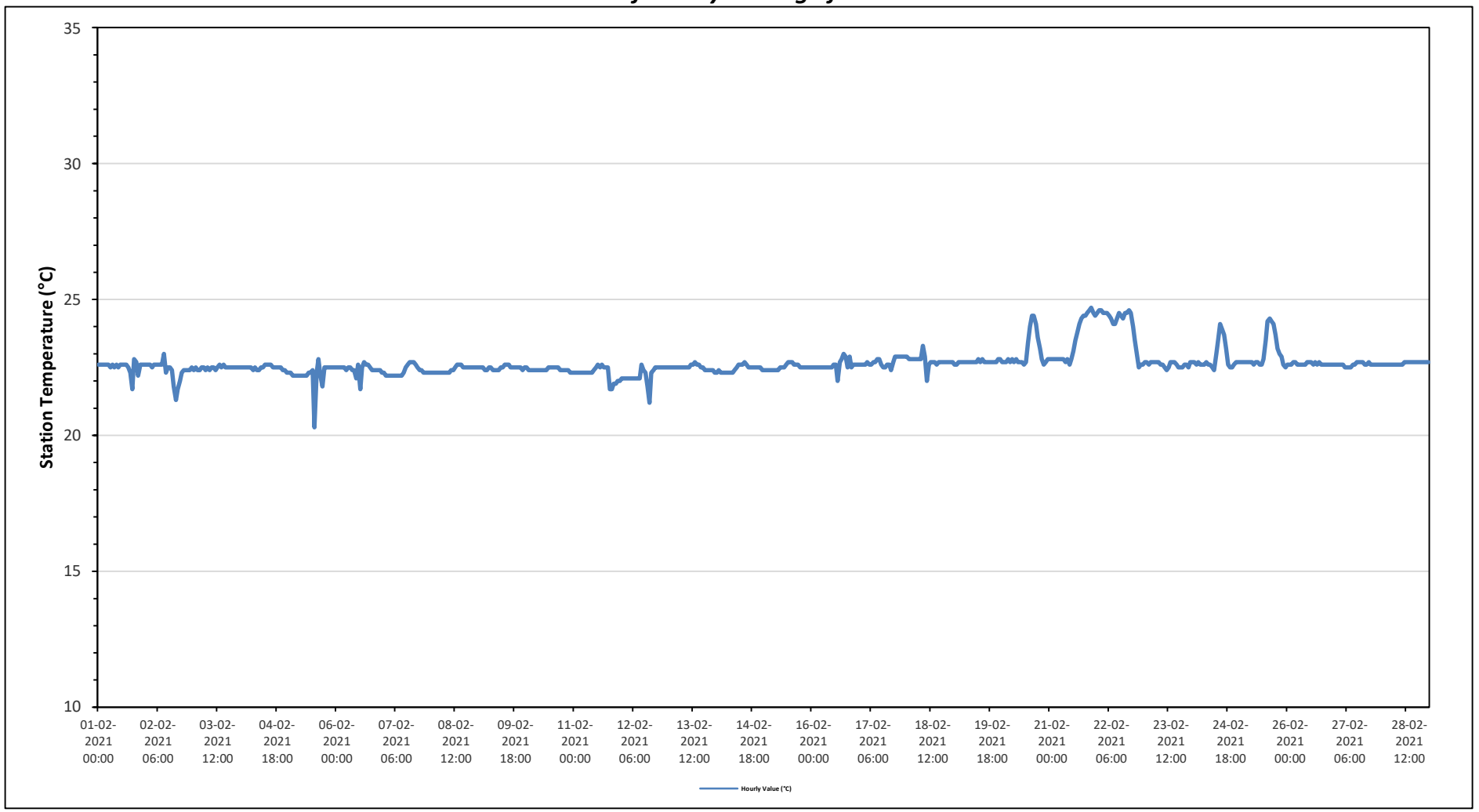
Maximum Hourly Value:	24.7	°C	on February 21 at hour 21	Hours in Service:	672
Maximum Daily Value:	24.1	°C	on February 22	Hours of Data:	672
Minimum Hourly Value:	20.3	°C	on February 5 at hour 13	Hours of Missing Data:	0
Minimum Daily Value:	22.2	°C	on February 12	Hours of Calibration:	0
Monthly Average:	22.6	°C		Operational Uptime:	100.0

Day	Hourly Period Starting at (MST)																							Daily	Daily	Daily
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Minimum	Maximum	Average
Feb 1	22.6	22.6	22.6	22.6	22.6	22.6	22.5	22.6	22.5	22.6	22.5	22.6	22.6	22.6	22.6	22.5	22.3	21.7	22.8	22.7	22.2	22.6	22.6	22.6	21.7	22.8	22.5
Feb 2	22.6	22.6	22.6	22.5	22.6	22.6	22.6	22.6	22.6	23.0	22.3	22.5	22.5	22.4	21.8	21.3	21.7	22.0	22.3	22.4	22.4	22.4	22.4	22.5	21.3	23.0	22.4
Feb 3	22.4	22.5	22.4	22.4	22.5	22.5	22.4	22.5	22.4	22.5	22.5	22.4	22.5	22.6	22.5	22.6	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.4	22.6	22.5
Feb 4	22.5	22.5	22.5	22.5	22.5	22.5	22.4	22.5	22.4	22.4	22.5	22.5	22.6	22.6	22.6	22.6	22.5	22.5	22.5	22.5	22.5	22.4	22.4	22.3	22.3	22.6	22.5
Feb 5	22.3	22.3	22.2	22.2	22.2	22.2	22.2	22.2	22.2	22.2	22.3	22.3	22.4	**20.3**	22.3	22.8	22.2	21.8	22.5	22.5	22.5	22.5	22.5	22.5	**20.3**	22.8	22.2
Feb 6	22.5	22.5	22.5	22.5	22.5	22.4	22.5	22.5	22.4	22.4	22.1	22.6	21.7	22.5	22.7	22.6	22.6	22.5	22.4	22.4	22.4	22.4	22.4	22.3	21.7	22.7	22.4
Feb 7	22.3	22.2	22.2	22.2	22.2	22.2	22.2	22.2	22.2	22.2	22.3	22.5	22.6	22.7	22.7	22.7	22.6	22.5	22.4	22.4	22.3	22.3	22.3	22.3	22.2	22.7	22.4
Feb 8	22.3	22.3	22.3	22.3	22.3	22.3	22.3	22.3	22.3	22.3	22.4	22.4	22.5	22.6	22.6	22.6	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.3	22.6	22.4
Feb 9	22.5	22.5	22.5	22.4	22.4	22.5	22.5	22.4	22.4	22.4	22.4	22.5	22.5	22.6	22.6	22.6	22.5	22.5	22.5	22.5	22.5	22.5	22.4	22.5	22.4	22.6	22.5
Feb 10	22.5	22.4	22.4	22.4	22.4	22.4	22.4	22.4	22.4	22.4	22.4	22.5	22.5	22.5	22.5	22.5	22.5	22.4	22.4	22.4	22.4	22.4	22.3	22.3	22.3	22.5	22.4
Feb 11	22.3	22.3	22.3	22.3	22.3	22.3	22.3	22.3	22.3	22.3	22.4	22.5	22.6	22.5	22.6	22.5	22.5	22.5	21.7	21.7	21.9	21.9	22.0	22.0	21.7	22.6	22.3
Feb 12	22.1	22.1	22.1	22.1	22.1	22.1	22.1	22.1	22.1	22.1	22.6	22.4	22.3	21.8	21.2	22.3	22.4	22.5	22.5	22.5	22.5	22.5	22.5	22.5	21.2	22.6	22.2
Feb 13	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.6	22.6	22.7	22.6	22.6	22.5	22.5	22.4	22.4	22.4	22.4	22.4	22.3	22.3	22.7	22.5
Feb 14	22.3	22.4	22.3	22.3	22.3	22.3	22.3	22.3	22.3	22.4	22.5	22.6	22.6	22.6	22.7	22.6	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.4	22.3	22.7	22.4
Feb 15	22.4	22.4	22.4	22.4	22.4	22.4	22.4	22.4	22.5	22.5	22.5	22.6	22.7	22.7	22.7	22.6	22.6	22.6	22.5	22.5	22.5	22.5	22.5	22.5	22.4	22.7	22.5
Feb 16	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.6	22.6	22.0	22.7	22.8	23.0	22.9	22.5	22.9	22.5	22.6	22.6	22.6	22.0	23.0	22.6
Feb 17	22.6	22.6	22.6	22.6	22.7	22.6	22.6	22.7	22.7	22.8	22.8	22.6	22.5	22.5	22.6	22.6	22.4	22.7	22.9	22.9	22.9	22.9	22.9	22.9	22.4	22.9	22.7
Feb 18	22.9	22.8	22.8	22.8	22.8	22.8	22.8	22.8	23.3	22.9	22.0	22.6	22.7	22.7	22.7	22.6	22.7	22.7	22.7	22.7	22.7	22.7	22.7	22.7	22.0	23.3	22.7
Feb 19	22.6	22.6	22.7	22.7	22.7	22.7	22.7	22.7	22.7	22.7	22.7	22.7	22.8	22.7	22.8	22.7	22.7	22.7	22.7	22.7	22.7	22.7	22.8	22.8	22.6	22.8	22.7
Feb 20	22.7	22.7	22.7	22.8	22.7	22.8	22.7	22.8	22.7	22.7	22.7	22.6	22.7	23.4	24.0	24.4	24.4	24.1	23.6	23.2	22.8	22.6	22.7	22.8	22.6	24.4	23.1
Feb 21	22.8	22.8	22.8	22.8	22.8	22.8	22.8	22.8	22.7	22.8	22.6	22.8	23.1	23.5	23.8	24.1	24.3	24.4	24.4	24.5	24.6	**24.7**	24.5	24.4	22.6	**24.7**	23.5
Feb 22	24.5	24.6	24.6	24.5	24.5	24.5	24.4	24.3	24.1	24.1	24.3	24.5	24.4	24.3	24.5	24.5	24.6	24.5	24.0	23.5	23.0	22.5	22.6	22.6	22.5	24.6	**24.1**
Feb 23	22.7	22.7	22.6	22.7	22.7	22.7	22.7	22.7	22.6	22.6	22.5	22.4	22.5	22.7	22.7	22.7	22.6	22.5	22.5	22.5	22.6	22.6	22.5	22.7	22.4	22.7	22.6
Feb 24	22.7	22.7	22.6	22.7	22.6	22.6	22.6	22.7	22.6	22.6	22.5	22.4	23.0	23.5	24.1	23.9	23.7	23.2	22.6	22.5	22.5	22.6	22.7	22.7	22.4	24.1	22.8
Feb 25	22.7	22.7	22.7	22.7	22.7	22.7	22.7	22.6	22.7	22.7	22.6	22.6	22.8	23.5	24.2	24.3	24.2	24.1	23.7	23.2	23.0	22.9	22.6	22.5	22.5	24.3	23.0
Feb 26	22.6	22.6	22.6	22.7	22.7	22.6	22.6	22.6	22.6	22.6	22.7	22.7	22.7	22.6	22.7	22.6	22.7	22.6	22.6	22.6	22.6	22.6	22.6	22.6	22.6	22.7	22.6
Feb 27	22.6	22.6	22.6	22.6	22.6	22.5	22.5	22.5	22.5	22.6	22.6	22.7	22.7	22.7	22.7	22.6	22.6	22.7	22.6	22.6	22.6	22.6	22.6	22.6	22.5	22.7	22.6
Feb 28	22.6	22.6	22.6	22.6	22.6	22.6	22.6	22.6	22.6	22.6	22.6	22.7	22.7	22.7	22.7	22.7	22.7	22.7	22.7	22.7	22.7	22.7	22.7	22.7	22.6	22.7	22.7
Diurnal Maximum	24.5	24.6	24.6	24.5	24.5	24.5	24.4	24.3	24.1	24.1	24.3	24.5	24.4	24.3	24.5	24.5	24.6	24.5	24.4	24.5	24.6	24.7	24.5	24.4			
Daiurnal Average	22.6	22.6	22.6	22.6	22.6	22.6	22.6	22.6	22.6	22.6	22.5	22.6	22.7	22.7	22.8	22.9	22.8	22.8	22.7	22.7	22.6	22.6	22.6	22.6			

C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance	
K	Collection Error	N	No Data (Machine Not in Service)	Y	Routine Maintenance	P Power Failure
X	InValid Data (Equipment Malfunction /Recovery)	NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)			

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.

Timeseries Chart of Hourly Average for ST - Maskwa Site



LAKELAND INDUSTRY & COMMUNITY ASSOCIATION

Maskwa Site - February 2021

Summary of Hourly Averages

PRECIPITATION in mm

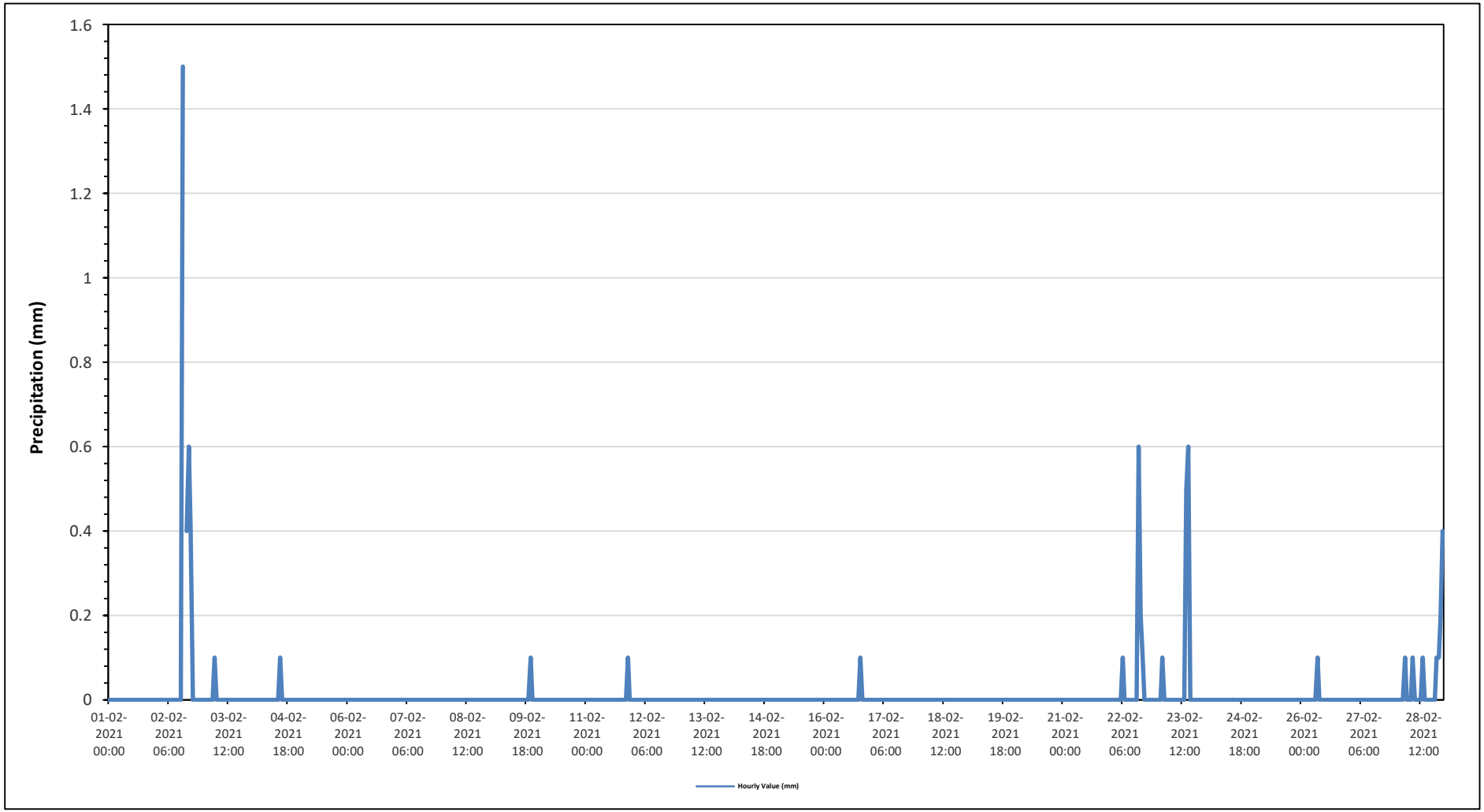
Maximum Hourly Value:	1.5	mm	on February 2 at hour 13	Hours in Service:	672
Maximum Daily Value:	2.9	mm	on February 2	Hours of Data:	671
Minimum Hourly Value:	0.0	mm	on February 1 at hour 0	Hours of Missing Data:	1
Minimum Daily Value:	0.0	mm	on February 1	Hours of Calibration:	0
Monthly Total:	6.8	mm		Operational Uptime:	99.9

Day	Hourly Period Starting at (MST)																							Daily	Daily	Daily
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Minimum	Maximum	Total
Feb 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
Feb 2	0	0	0	0	0	0	0	0	0	0	0	0	0	**1.5**	**Y**	0.4	0.6	0.4	0	0	0	0	0	0	0.0	**1.5**	**2.9**
Feb 3	0	0	0	0	0	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1	0.1
Feb 4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0	0	0	0	0	0	0	0	0	0.0	0.1	0.1
Feb 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
Feb 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
Feb 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
Feb 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
Feb 9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0	0	0	0.0	0.1	0.1
Feb 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
Feb 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0	0	0.0	0.1	0.1
Feb 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
Feb 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
Feb 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
Feb 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
Feb 16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0	0	0	0	0	0.0	0.1	0.1
Feb 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
Feb 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
Feb 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
Feb 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
Feb 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
Feb 22	0	0	0	0	0	0	0.1	0	0	0	0	0	0	0	0.6	0.2	0.1	0	0	0	0	0	0	0	0.0	0.6	1.0
Feb 23	0	0	0.1	0	0	0	0	0	0	0	0	0	0	0	0.5	0.6	0	0	0	0	0	0	0	0	0.0	0.6	1.2
Feb 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
Feb 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
Feb 26	0	0	0	0	0	0	0	0	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1	0.1
Feb 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
Feb 28	0	0	0	0	0.1	0	0	0	0.1	0	0	0	0	0.1	0	0	0	0	0	0	0.1	0.1	0.2	0.4	0.0	0.4	1.1
Diurnal Maximum	0.0	0.0	0.1	0.0	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	1.5	0.6	0.6	0.6	0.4	0.1	0.0	0.1	0.1	0.2	0.4			
Diurnal Average	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			

C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance	
K	Collection Error	N	No Data (Machine Not in Service)	Y	Routine Maintenance	P Power Failure
X	InValid Data (Equipment Malfunction /Recovery)	NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)			

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.

Timeseries Chart of Hourly Average for Precipitation - Maskwa Site



LAKELAND INDUSTRY & COMMUNITY ASSOCIATION

Maskwa Site - February 2021

Summary of Hourly Averages

VECTOR WIND SPEED (VWS) in km/hr

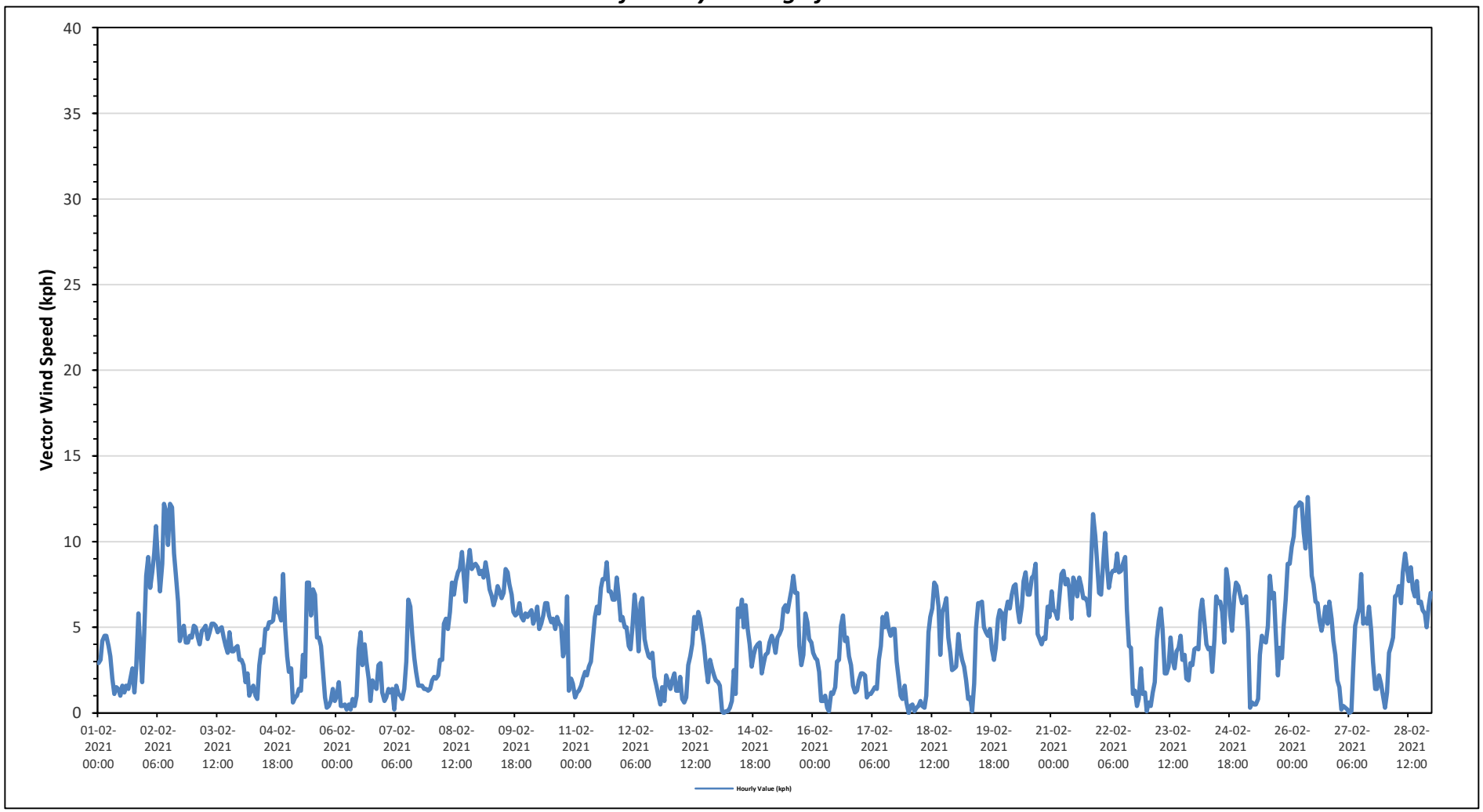
Maximum Hourly Value:	12.6	kph	on February 26 at hour 9	Hours in Service:	672
Maximum Daily Value:	7.9	kph	on February 26	Hours of Data:	672
Minimum Hourly Value:	0.0	kph	on February 14 at hour 3	Hours of Missing Data:	0
Minimum Daily Value:	1.2	kph	on February 6	Hours of Calibration:	0
Monthly Average:	1.4	kph		Operational Uptime:	100.0

Day	Hourly Period Starting at (MST)																								Daily	Daily	Daily
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Minimum	Maximum	Average
Feb 1	2.9	3.1	4.2	4.5	4.5	3.9	3.3	2.0	1.1	1.5	1.4	1.0	1.6	1.2	1.6	1.4	2.0	2.6	1.2	2.6	5.8	3.9	1.8	4.6	1.0	5.8	2.0
Feb 2	8.0	9.1	7.3	8.2	9.3	10.9	8.6	7.1	8.7	12.2	11.8	9.8	12.2	12.0	9.3	8.1	6.5	4.2	4.8	5.1	4.1	4.1	4.5	4.4	4.1	12.2	7.5
Feb 3	5.1	5.0	4.4	4.0	4.8	4.9	5.1	4.3	4.7	5.2	5.2	5.1	4.7	4.9	5.0	4.4	3.9	3.5	4.7	3.6	3.6	3.8	3.9	3.1	3.1	5.2	4.3
Feb 4	3.1	2.8	1.8	2.3	1.0	1.4	1.6	1.0	0.8	2.8	3.7	3.5	4.9	4.9	5.3	5.3	5.4	6.7	5.9	5.8	5.4	8.1	5.0	3.3	0.8	8.1	2.9
Feb 5	2.4	2.6	0.6	0.9	1.0	1.4	1.3	3.4	2.1	7.6	7.6	5.7	7.2	6.9	4.4	4.4	3.9	2.6	0.9	0.3	0.4	0.7	1.4	0.7	0.3	7.6	2.6
Feb 6	1.0	1.8	0.4	0.4	0.5	0.2	0.5	0.2	0.8	0.4	1.0	3.7	4.7	2.8	4.0	3.0	2.0	0.7	1.9	1.6	1.4	2.8	2.9	1.2	0.2	4.7	**1.2**
Feb 7	0.7	0.9	1.4	1.2	1.4	0.2	1.6	1.1	1.0	0.8	1.4	3.0	6.6	6.2	4.5	3.2	2.4	1.6	1.6	1.6	1.4	1.4	1.3	1.4	0.2	6.6	1.7
Feb 8	1.9	2.1	2.0	2.2	3.1	3.1	5.2	5.5	4.9	5.9	7.6	6.9	7.7	8.2	8.4	9.4	8.0	6.5	8.6	9.5	8.4	8.6	8.7	8.5	1.9	9.5	6.2
Feb 9	8.1	8.3	7.9	8.8	8.0	7.2	6.8	6.3	6.7	7.4	7.1	6.7	7.0	8.4	8.2	7.5	6.9	5.9	5.7	5.8	6.4	5.6	5.4	5.8	5.4	8.8	7.0
Feb 10	5.6	5.8	6.0	5.2	5.6	6.2	4.9	5.2	5.7	6.4	6.4	5.7	5.3	5.5	4.9	5.6	5.2	5.1	3.3	3.7	6.8	1.3	2.0	1.7	1.3	6.8	4.7
Feb 11	0.9	1.2	1.3	1.6	2.0	2.4	2.2	2.7	3.0	4.3	5.6	6.2	5.8	7.3	7.8	7.8	8.8	7.1	7.1	6.6	6.6	7.9	6.8	5.4	0.9	8.8	4.8
Feb 12	5.6	5.0	5.0	3.9	3.7	5.1	6.9	5.7	3.6	6.4	6.7	4.3	3.8	3.3	3.2	3.5	2.1	1.6	1.0	0.5	1.5	0.7	2.2	1.8	0.5	6.9	3.0
Feb 13	1.4	1.9	2.3	1.3	1.3	2.1	0.8	0.6	0.9	2.8	3.3	4.0	5.6	4.9	5.9	5.5	4.7	3.9	2.7	1.8	3.1	2.6	2.2	1.9	0.6	5.9	2.5
Feb 14	1.8	1.6	0.1	**0.0**	0.1	0.1	0.3	0.7	2.5	1.1	6.1	5.6	6.6	5.0	6.3	4.9	4.0	2.7	3.4	3.8	4.0	4.1	2.3	2.9	**0.0**	6.6	2.4
Feb 15	3.4	3.5	4.1	4.5	4.2	3.5	4.4	4.6	4.9	6.1	6.3	5.9	6.5	7.2	8.0	7.0	7.0	3.9	2.8	3.4	5.8	5.3	4.3	4.1	2.8	8.0	4.8
Feb 16	3.5	3.2	3.1	2.4	0.7	0.7	1.0	0.3	0.1	1.2	1.1	1.5	3.0	3.1	5.1	5.7	4.2	4.4	3.3	2.8	1.6	1.2	1.3	1.9	0.1	5.7	1.9
Feb 17	2.3	2.3	2.2	0.9	1.1	1.1	1.3	1.5	1.4	3.1	3.9	5.6	5.0	5.8	4.9	4.5	4.9	4.9	3.0	2.0	1.0	0.8	1.6	0.6	0.6	5.8	2.4
Feb 18	**0.0**	0.4	0.5	0.1	0.3	0.4	0.7	0.4	0.3	1.0	4.7	5.6	6.1	7.6	7.4	6.2	3.4	5.9	6.2	6.7	4.4	3.5	2.5	2.6	**0.0**	7.6	2.8
Feb 19	2.7	4.6	3.7	3.1	2.7	1.9	0.8	0.9	0.1	1.7	4.9	6.4	6.4	6.5	5.0	4.7	4.5	4.9	3.7	3.1	3.8	5.5	6.0	5.8	0.1	6.5	2.7
Feb 20	4.3	5.9	6.5	6.1	6.9	7.4	7.5	6.0	5.3	6.2	7.7	8.2	6.9	6.9	7.9	8.0	8.7	4.6	4.3	4.0	4.4	4.3	6.2	5.6	4.0	8.7	5.6
Feb 21	7.1	6.0	5.9	5.5	6.8	8.1	8.3	7.5	7.8	7.3	5.5	7.9	7.6	6.8	7.9	7.4	6.7	6.7	6.5	5.7	9.1	11.6	10.3	8.8	5.5	11.6	6.6
Feb 22	7.0	6.9	8.7	10.5	8.5	7.3	8.1	8.3	8.3	9.3	8.2	8.3	8.7	9.1	6.0	3.9	3.8	1.1	1.3	0.4	0.8	2.6	1.1	1.2	0.4	10.5	5.3
Feb 23	0.1	0.6	0.4	1.2	1.8	4.3	5.4	6.1	4.9	2.3	2.3	2.7	4.4	3.1	2.6	3.6	3.8	4.5	3.1	3.4	2.0	1.9	2.9	2.8	0.1	6.1	1.5
Feb 24	3.7	3.8	3.7	5.9	6.6	5.3	4.0	3.7	3.8	2.4	4.3	6.8	6.4	6.5	5.9	4.1	8.4	7.6	5.7	4.8	6.8	7.6	7.4	6.9	2.4	8.4	4.4
Feb 25	6.4	6.5	6.8	4.7	0.3	0.6	0.5	0.5	0.8	3.4	4.5	4.2	4.1	5.1	8.0	6.7	7.0	4.8	2.2	3.8	3.2	5.1	6.6	8.7	0.3	8.7	2.4
Feb 26	8.7	9.7	10.3	12.0	12.1	12.3	12.2	10.5	9.6	**12.6**	10.6	8.0	7.5	6.5	6.4	5.4	4.8	5.4	6.2	5.2	6.5	5.5	4.2	3.4	3.4	**12.6**	**7.9**
Feb 27	1.9	1.5	0.2	0.4	0.3	0.2	**0.0**	0.1	2.6	5.1	5.6	6.1	8.1	5.2	5.5	5.2	6.2	4.8	3.0	1.4	1.4	2.2	1.7	1.0	**0.0**	8.1	2.1
Feb 28	0.3	1.2	3.5	3.9	4.4	6.8	6.9	7.4	6.4	8.2	9.3	8.5	7.7	8.5	7.2	6.8	7.7	6.4	6.5	6.0	5.8	5.0	6.2	7.0	0.3	9.3	5.5
Diurnal Maximum	9	10	10	12	12	12	12	11	10	13	12	10	12	12	9	9	9	8	9	10	9	12	10	9			
Daiurnal Average	3.6	3.8	3.7	3.8	3.7	3.9	3.9	3.7	3.7	4.8	5.5	5.6	6.1	6.1	6.0	5.5	5.2	4.5	4.0	3.8	4.1	4.2	4.0	3.8			

C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance	
K	Collection Error	N	No Data (Machine Not in Service)	Y	Routine Maintenance	P Power Failure
X	InValid Data (Equipment Malfunction /Recovery)	NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)			

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.

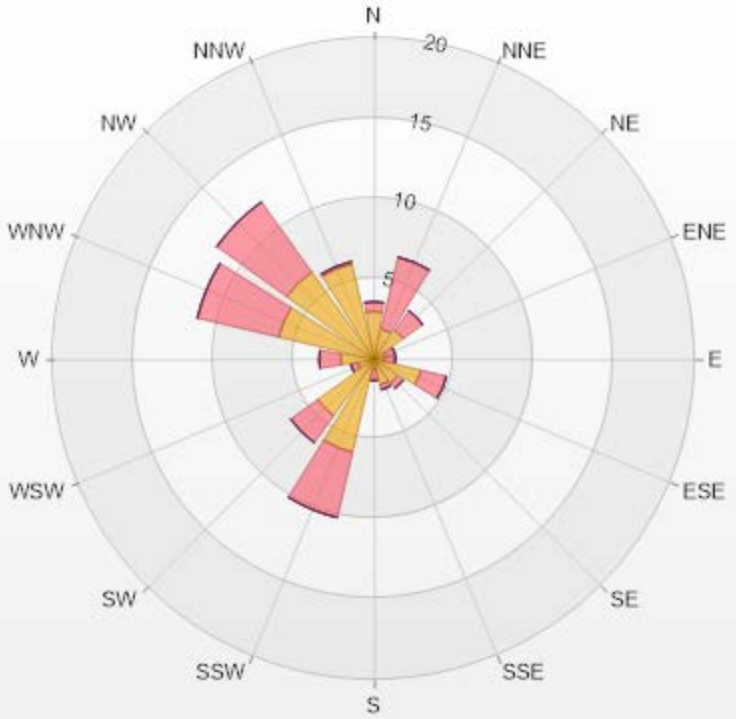
Timeseries Chart of Hourly Average for VWS - Maskwa Site



Wind: Maskwa Monitor: WDS [kph] Monthly: 02-2021 Type: WindRose Direction: Blowing From (Wind Frequency) Based On 1 Hr.
Calm: 22.32% Valid Data: 100.00%

Direction	1.8-6.0	6.0-15.0	15.0-29.0	29.0-39.0	>39.0	Total
N	2.98	0.6	0	0	0	3.58
NNE	1.93	4.61	0	0	0	6.54
NE	2.23	1.49	0	0	0	3.72
ENE	0.74	0.6	0	0	0	1.34
E	0.6	0.74	0	0	0	1.34
ESE	2.98	1.64	0	0	0	4.62
SE	1.79	0.45	0	0	0	2.24
SSE	1.64	0.3	0	0	0	1.94
S	0.6	0.74	0	0	0	1.34
SSW	5.95	4.17	0	0	0	10.12
SW	4.32	2.08	0	0	0	6.4
WSW	1.04	0.45	0	0	0	1.49
W	2.08	1.34	0	0	0	3.42
WNW	6.1	5.21	0	0	0	11.31
NW	6.7	5.36	0	0	0	12.06
NNW	6.1	0.15	0	0	0	6.25
Summary	47.78	29.93	0	0	0	77.71

Maskwa 01-02-2021 00:00 - 28-02-2021 23:00 Calm: 22.32% Calm Wind Avg Speed: 0.95(kph)



% Icon Classes (kph) | 48 1.8-6.0 | 30 6.0-15.0 | 0 15.0-29.0 | 0 29.0-39.0 | 0 >39.0

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION

Maskwa Site - February 2021

Summary of Hourly Averages

WIND DIRECTION (VWD) in sector

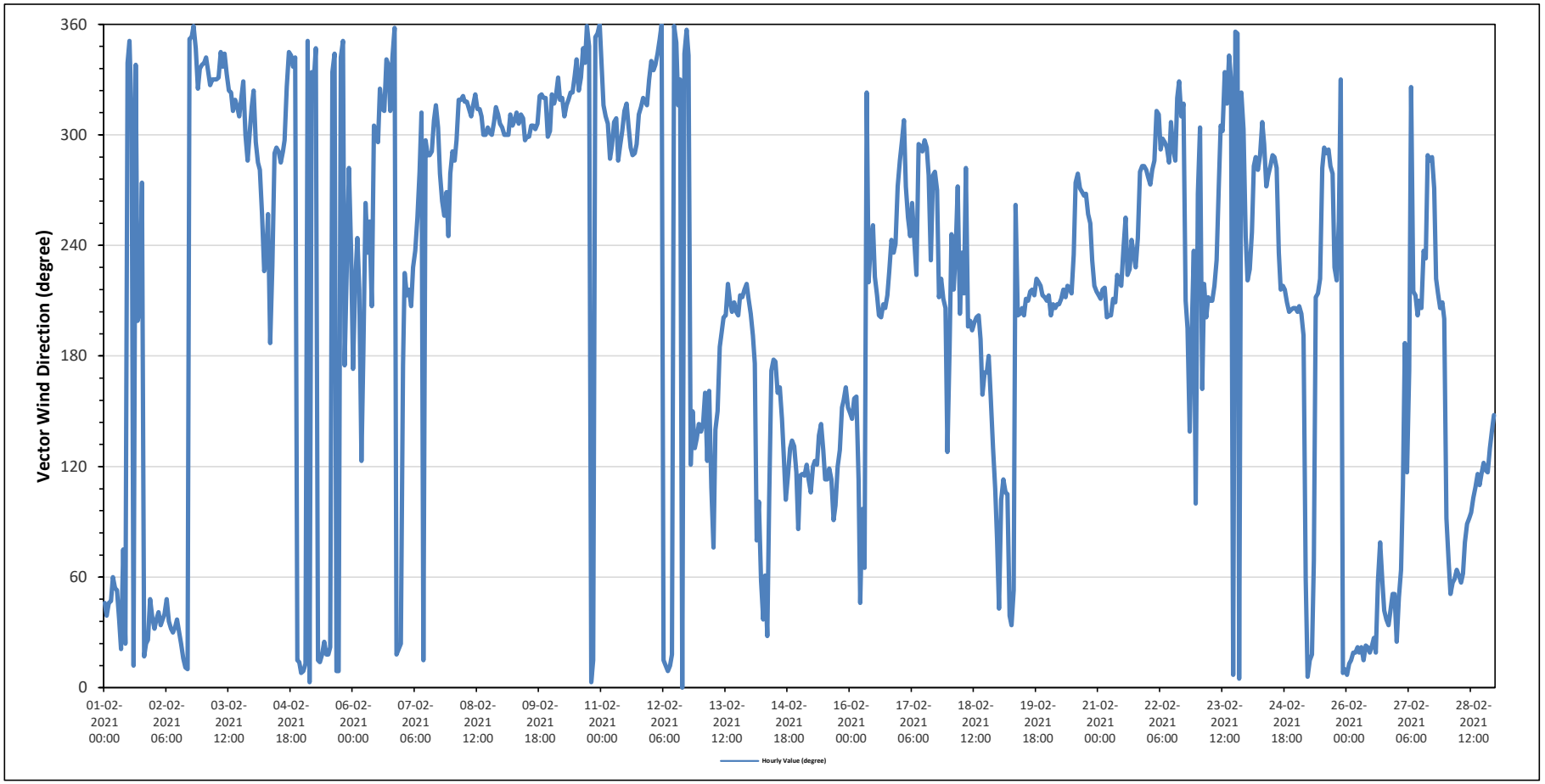
Monthly Average:	302 (WNW) degree	Hours in Service:	672
		Hours of Data:	672
		Hours of Missing Data:	0
		Hours of Calibration:	0
		Operational Uptime:	100.0

Day	Hourly Period Starting at (MST)																							Daily Average	
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Degree	Quadrant
Feb 1	NE	NE	NE	NE	ENE	NE	NE	NE	NNE	ENE	NNE	NNW	N	NW	NNE	NNW	SSW	SSW	W	NNE	NNE	NNE	NE	NE	35	NE
Feb 2	NNE	NE	NE	NE	NE	NE	NE	NE	NNE	NNE	NNE	NE	NNE	NNE	NNE	NNE	N	N	N	N	NNW	NW	NNW	NNW	24	NNE
Feb 3	NNW	NNW	NNW	NW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NW	NW	NW	NW	NW	NW	NW	NNW	WNW	WNW	WNW	NW	325	NW
Feb 4	NW	WNW	WNW	W	WSW	SW	SW	WSW	S	SW	WNW	WNW	WNW	WNW	WNW	WNW	NW	NNW	NNW	NNW	NNW	NNE	NNE	N	318	NW
Feb 5	N	NNE	N	N	NNW	NNW	NNW	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNW	NNW	N	N	NNW	N	S	SW	W	SW	7	N
Feb 6	S	SW	WSW	SW	ESE	S	W	SW	WSW	SSW	WNW	WNW	WNW	NW	NW	NW	NNW	NNW	NW	NNW	N	NNE	NNE	NNE	319	NW
Feb 7	S	SW	SSW	SW	SSW	SW	SW	WSW	W	NW	NNE	WNW	WNW	WNW	WNW	NW	NW	WNW	W	W	WSW	W	WSW	W	280	W
Feb 8	WNW	WNW	WNW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	WNW	WNW	WNW	WNW	WNW	NW	NW	NW	NW	309	NW
Feb 9	WNW	WNW	WNW	WNW	NW	WNW	NW	NW	NW	NW	NW	WNW	WNW	WNW	WNW	WNW	WNW	NW	NW	NW	NW	NW	WNW	WNW	306	NW
Feb 10	NW	NW	NW	NNW	NW	NW	NW	NW	NW	NW	NW	NNW	NNW	NW	NNW	NNW	NNW	N	NNW	N	NNE	N	N	N	332	NNW
Feb 11	NNW	NW	NW	NW	WNW	WNW	NW	NW	WNW	WNW	WNW	NW	NW	WNW	WNW	WNW	WNW	WNW	NW	NW	NW	NW	NW	NNW	306	NW
Feb 12	NNW	NNW	NNW	NNW	N	N	NNE	NNE	N	NNE	NNE	N	N	NW	NNW	N	NNW	N	NNW	ESE	SSE	SE	SE	SE	359	N
Feb 13	SE	SE	SSE	ESE	SSE	ESE	ENE	SE	SSE	S	S	SSW	SSW	SW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SW	SW	SSW	196	SSW
Feb 14	SSW	S	S	E	E	ENE	NE	ENE	NNE	ESE	S	S	S	SSE	SSE	SE	SE	E	ESE	SE	SE	SE	ESE	E	145	SE
Feb 15	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	SE	SE	SE	ESE	ESE	ESE	ESE	E	E	ESE	SE	SSE	SSE	SSE	SSE	124	ESE
Feb 16	SSE	SE	SSE	SSE	ESE	NE	E	ENE	NW	SW	WSW	WSW	SW	SSW	SSW	SSW	SSW	SSW	SSW	SW	WSW	SW	WSW	W	201	SSW
Feb 17	WNW	WNW	NW	W	WSW	WSW	W	WSW	SW	WNW	WNW	WNW	WNW	WNW	W	SW	W	W	W	SSW	SW	SSW	SSW	SE	274	W
Feb 18	S	WSW	SW	SW	W	SSW	SW	SSW	W	SSW	SSW	SSW	SSW	SSW	SSW	S	SSE	S	S	S	SSE	SE	ESE	E	181	S
Feb 19	NE	E	ESE	ESE	ESE	NE	NE	NE	W	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SW	SSW	SW	SW	SW	SSW	SSW	SSW	198	SSW
Feb 20	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SW	SSW	SW	SW	SSW	SW	W	W	W	W	W	W	WSW	WSW	SW	SW	SSW	231	SW
Feb 21	SSW	SSW	SW	SW	SSW	SSW	SSW	SSW	SSW	SW	SW	SW	SW	WSW	SW	SW	WSW	SW	SW	WSW	W	W	W	W	234	SW
Feb 22	W	W	W	WNW	NW	NW	WNW	WNW	WNW	WNW	WNW	NW	WNW	WNW	NW	NNW	NW	NW	SSW	SSW	SE	SSW	SW	E	293	WNW
Feb 23	W	WNW	SSE	SW	SSW	SSW	SSW	SSW	SW	SW	W	WNW	WNW	NNW	NW	NNW	NNW	N	N	N	N	NW	WNW	WSW	284	WNW
Feb 24	SW	SW	WSW	W	WNW	W	WNW	NW	WNW	W	W	W	WNW	WNW	W	SW	SW	SW	SW	SSW	SSW	SSW	SSW	SSW	248	WSW
Feb 25	SSW	SSW	SSW	S	ENE	N	NNE	NNE	ENE	SSW	SSW	SW	W	WNW	WNW	WNW	W	W	SW	SW	WSW	NNW	N	N	264	W
Feb 26	N	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	ENE	ENE	ENE	NE	NE	NE	NE	NE	NE	26	NNE
Feb 27	NNE	NE	ENE	ESE	S	ESE	S	NW	SSW	SSW	SSW	SSW	SSW	SW	SW	WNW	WNW	WNW	W	SW	SSW	SSW	SSW	SSW	234	SW
Feb 28	E	ENE	NE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	E	E	E	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	SE	SE	SE	96	E

C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance	
K	Collection Error	N	No Data (Machine Not in Service)	Y	Routine Maintenance	P Power Failure
X	InValid Data (Machine Malfunction /Recovery)	NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)			

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.

Timeseries Chart of Hourly Average for VWD - Maskwa Site



LAKELAND INDUSTRY & COMMUNITY ASSOCIATION

Maskwa Site - February 2021

Summary of Hourly Averages

VECTOR WIND SPEED (VWS) in km/hr & WIND DIRECTION (VWD) in sector

WIND SPEED

Maximum Hourly Value:	12.6	kph	on February 26 at hour 9	Hours in Service:	672
Maximum Daily Value:	7.9	kph	on February 26	Hours of Data:	672
Minimum Hourly Value:	0.0	kph	on February 14 at hour 3	Hours of Missing Data:	0
Minimum Daily Value:	1.2	kph	on February 6	Hours of Calibration:	0
Monthly Average:	1.4	kph		Operational Uptime:	100

WIND DIRECTION

Monthly Average: 302 (WNW degree

Day	Hourly Period Starting at (MST)																								Daily	Daily	Daily
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Minimum	Maximum	Average
Feb 1	2.9	3.1	4.2	4.5	4.5	3.9	3.3	2.0	1.1	1.5	1.4	1.0	1.6	1.2	1.6	1.4	2.0	2.6	1.2	2.6	5.8	3.9	1.8	4.6	1.0	5.8	2.0
	NE	NE	NE	NE	ENE	NE	NE	NE	NNE	ENE	NNE	NNW	N	NW	NNE	NNW	SSW	SSW	W	NNE	NNE	NNE	NE	NE			
Feb 2	8.0	9.1	7.3	8.2	9.3	10.9	8.6	7.1	8.7	12.2	11.8	9.8	12.2	12.0	9.3	8.1	6.5	4.2	4.8	5.1	4.1	4.1	4.5	4.4	4.1	12.2	7.5
	NNE	NE	NE	NE	NE	NE	NE	NE	NNE	NNE	NNE	NE	NNE	NNE	NNE	NNE	N	N	N	N	NNW	NW	NNW	NNW			
Feb 3	5.1	5.0	4.4	4.0	4.8	4.9	5.1	4.3	4.7	5.2	5.2	5.1	4.7	4.9	5.0	4.4	3.9	3.5	4.7	3.6	3.6	3.8	3.9	3.1	3.1	5.2	4.3
	NNW	NNW	NNW	NW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NW	NW	NW	NW	NW	NW	NW	NNW	WNW	WNW	WNW	NW			
Feb 4	3.1	2.8	1.8	2.3	1.0	1.4	1.6	1.0	0.8	2.8	3.7	3.5	4.9	4.9	5.3	5.3	5.4	6.7	5.9	5.8	5.4	8.1	5.0	3.3	0.8	8.1	2.9
	NW	WNW	WNW	W	WSW	SW	SW	WSW	S	SW	WNW	WNW	WNW	WNW	WNW	WNW	NW	NNW	NNW	NNW	NNW	NNE	NNE	N			
Feb 5	2.4	2.6	0.6	0.9	1.0	1.4	1.3	3.4	2.1	7.6	7.6	5.7	7.2	6.9	4.4	4.4	3.9	2.6	0.9	0.3	0.4	0.7	1.4	0.7	0.3	7.6	2.6
	N	NNE	N	N	NNW	NNW	NNW	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNW	NNW	N	N	NNW	N	S	SW	W	SW			
Feb 6	1.0	1.8	0.4	0.4	0.5	0.2	0.5	0.2	0.8	0.4	1.0	3.7	4.7	2.8	4.0	3.0	2.0	0.7	1.9	1.6	1.4	2.8	2.9	1.2	0.2	4.7	**1.2**
	S	SW	WSW	SW	ESE	S	W	SW	WSW	SSW	WNW	WNW	WNW	NW	NW	NW	NNW	NNW	NW	NNW	N	NNE	NNE	NNE			
Feb 7	0.7	0.9	1.4	1.2	1.4	0.2	1.6	1.1	1.0	0.8	1.4	3.0	6.6	6.2	4.5	3.2	2.4	1.6	1.6	1.6	1.4	1.4	1.3	1.4	0.2	6.6	1.7
	S	SW	SSW	SW	SSW	SW	SW	WSW	W	NW	NNE	WNW	WNW	WNW	WNW	NW	NW	WNW	W	W	WSW	W	WSW	W			
Feb 8	1.9	2.1	2.0	2.2	3.1	3.1	5.2	5.5	4.9	5.9	7.6	6.9	7.7	8.2	8.4	9.4	8.0	6.5	8.6	9.5	8.4	8.6	8.7	8.5	1.9	9.5	6.2
	WNW	WNW	WNW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	WNW	WNW	WNW	WNW	WNW	NW	NW	NW	NW			
Feb 9	8.1	8.3	7.9	8.8	8.0	7.2	6.8	6.3	6.7	7.4	7.1	6.7	7.0	8.4	8.2	7.5	6.9	5.9	5.7	5.8	6.4	5.6	5.4	5.8	5.4	8.8	7.0
	WNW	WNW	WNW	WNW	NW	WNW	NW	NW	NW	NW	NW	WNW	WNW	WNW	WNW	WNW	WNW	NW	NW	NW	NW	NW	WNW	WNW			
Feb 10	5.6	5.8	6.0	5.2	5.6	6.2	4.9	5.2	5.7	6.4	6.4	5.7	5.3	5.5	4.9	5.6	5.2	5.1	3.3	3.7	6.8	1.3	2.0	1.7	1.3	6.8	4.7
	NW	NW	NW	NNW	NW	NW	NW	NW	NW	NW	NW	NNW	NNW	NW	NNW	NNW	NNW	N	NNW	N	NNE	N	N	N			
Feb 11	0.9	1.2	1.3	1.6	2.0	2.4	2.2	2.7	3.0	4.3	5.6	6.2	5.8	7.3	7.8	7.8	8.8	7.1	7.1	6.6	6.6	7.9	6.8	5.4	0.9	8.8	4.8
	NNW	NW	NW	NW	WNW	WNW	NW	NW	WNW	WNW	WNW	NW	NW	WNW	WNW	WNW	WNW	WNW	NW	NW	NW	NW	NW	NNW			
Feb 12	5.6	5.0	5.0	3.9	3.7	5.1	6.9	5.7	3.6	6.4	6.7	4.3	3.8	3.3	3.2	3.5	2.1	1.6	1.0	0.5	1.5	0.7	2.2	1.8	0.5	6.9	3.0
	NNW	NNW	NNW	NNW	N	N	NNE	NNE	N	NNE	NNE	N	N	NW	NNW	N	NNW	N	NNW	ESE	SSE	SE	SE	SE			
Feb 13	1.4	1.9	2.3	1.3	1.3	2.1	0.8	0.6	0.9	2.8	3.3	4.0	5.6	4.9	5.9	5.5	4.7	3.9	2.7	1.8	3.1	2.6	2.2	1.9	0.6	5.9	2.5
	SE	SE	SSE	ESE	SSE	ESE	ENE	SE	SSE	S	S	SSW	SSW	SW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SW	SW	SSW			
Feb 14	1.8	1.6	0.1	**0.0**	0.1	0.1	0.3	0.7	2.5	1.1	6.1	5.6	6.6	5.0	6.3	4.9	4.0	2.7	3.4	3.8	4.0	4.1	2.3	2.9	**0.0**	6.6	2.4
	SSW	S	S	E	E	ENE	NE	ENE	NNE	ESE	S	S	S	SSE	SSE	SE	SE	E	ESE	SE	SE	SE	ESE	E			
Feb 15	3.4	3.5	4.1	4.5	4.2	3.5	4.4	4.6	4.9	6.1	6.3	5.9	6.5	7.2	8.0	7.0	7.0	3.9	2.8	3.4	5.8	5.3	4.3	4.1	2.8	8.0	4.8
	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	SE	SE	SE	ESE	ESE	ESE	ESE	E	E	ESE	SE	SSE	SSE	SSE	SSE			
Feb 16	3.5	3.2	3.1	2.4	0.7	0.7	1.0	0.3	0.1	1.2	1.1	1.5	3.0	3.1	5.1	5.7	4.2	4.4	3.3	2.8	1.6	1.2	1.3	1.9	0.1	5.7	1.9
	SSE	SE	SSE	SSE	ESE	NE	E	ENE	NW	SW	WSW	WSW	SW	SSW	SSW	SSW	SSW	SSW	SSW	SW	WSW	SW	WSW	W			
Feb 17	2.3	2.3	2.2	0.9	1.1	1.1	1.3	1.5	1.4	3.1	3.9	5.6	5.0	5.8	4.9	4.5	4.9	4.9	3.0	2.0	1.0	0.8	1.6	0.6	0.6	5.8	2.4
	WNW	WNW	NW	W	WSW	WSW	W	WSW	SW	WNW	WNW	WNW	WNW	WNW	W	SW	W	W	W	SSW	SW	SSW	SSW	SE			
Feb 18	**0.0**	0.4	0.5	0.1	0.3	0.4	0.7	0.4	0.3	1.0	4.7	5.6	6.1	7.6	7.4	6.2	3.4	5.9	6.2	6.7	4.4	3.5	2.5	2.6	**0.0**	7.6	2.8
	S	WSW	SW	SW	W	SSW	SW	SSW	W	SSW	SSW	SSW	SSW	SSW	SSW	S	SSE	S	S	S	SSE	SE	ESE	E			
Feb 19	2.7	4.6	3.7	3.1	2.7	1.9	0.8	0.9	0.1	1.7	4.9	6.4	6.4	6.5	5.0	4.7	4.5	4.9	3.7	3.1	3.8	5.5	6.0	5.8	0.1	6.5	2.7
	NE	E	ESE	ESE	ESE	NE	NE	NE	W	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SW	SSW	SW	SW	SW	SSW	SSW	SSW			
Feb 20	4.3	5.9	6.5	6.1	6.9	7.4	7.5	6.0	5.3	6.2	7.7	8.2	6.9	6.9	7.9	8.0	8.7	4.6	4.3	4.0	4.4	4.3	6.2	5.6	4.0	8.7	5.6
	SSW	SSW	SSW	SSW	SSW	SSW	SSW	SW	SSW	SW	SW	SSW	SW	W	W	W	W	W	W	WSW	WSW	SW	SW	SSW			

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION

Maskwa Site - February 2021

Summary of Hourly Averages

VECTOR WIND SPEED (VWS) in km/hr & WIND DIRECTION (VWD) in sector

WIND SPEED

Maximum Hourly Value:	12.6	kph	on February 26 at hour 9	Hours in Service:	672
Maximum Daily Value:	7.9	kph	on February 26	Hours of Data:	672
Minimum Hourly Value:	0.0	kph	on February 14 at hour 3	Hours of Missing Data:	0
Minimum Daily Value:	1.2	kph	on February 6	Hours of Calibration:	0
Monthly Average:	1.4	kph		Operational Uptime:	100

WIND DIRECTION

Monthly Average: 302 (WNW degree

Day	Hourly Period Starting at (MST)																							Daily	Daily	Daily
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Minimum	Maximum	Average
Feb 21	7.1	6.0	5.9	5.5	6.8	8.1	8.3	7.5	7.8	7.3	5.5	7.9	7.6	6.8	7.9	7.4	6.7	6.7	6.5	5.7	9.1	11.6	10.3	8.8	5.5	11.6	6.6
	SSW	SSW	SW	SW	SSW	SSW	SSW	SSW	SSW	SW	SW	SW	SW	WSW	SW	SW	WSW	SW	SW	WSW	W	W	W	W			
Feb 22	7.0	6.9	8.7	10.5	8.5	7.3	8.1	8.3	8.3	9.3	8.2	8.3	8.7	9.1	6.0	3.9	3.8	1.1	1.3	0.4	0.8	2.6	1.1	1.2	0.4	10.5	5.3
	W	W	W	WNW	NW	NW	WNW	WNW	WNW	WNW	WNW	NW	WNW	WNW	NW	NNW	NW	NW	SSW	SSW	SE	SSW	SW	E			
Feb 23	0.1	0.6	0.4	1.2	1.8	4.3	5.4	6.1	4.9	2.3	2.3	2.7	4.4	3.1	2.6	3.6	3.8	4.5	3.1	3.4	2.0	1.9	2.9	2.8	0.1	6.1	1.5
	W	WNW	SSE	SW	SSW	SSW	SSW	SSW	SW	SW	W	WNW	WNW	NNW	NW	NNW	NNW	N	N	N	N	NW	WNW	WSW			
Feb 24	3.7	3.8	3.7	5.9	6.6	5.3	4.0	3.7	3.8	2.4	4.3	6.8	6.4	6.5	5.9	4.1	8.4	7.6	5.7	4.8	6.8	7.6	7.4	6.9	2.4	8.4	4.4
	SW	SW	WSW	W	WNW	W	WNW	NW	WNW	W	W	W	WNW	WNW	W	SW	SW	SW	SW	SSW	SSW	SSW	SSW	SSW			
Feb 25	6.4	6.5	6.8	4.7	0.3	0.6	0.5	0.5	0.8	3.4	4.5	4.2	4.1	5.1	8.0	6.7	7.0	4.8	2.2	3.8	3.2	5.1	6.6	8.7	0.3	8.7	2.4
	SSW	SSW	SSW	S	ENE	N	NNE	NNE	ENE	SSW	SSW	SW	W	WNW	WNW	WNW	W	W	SW	SW	WSW	NNW	N	N			
Feb 26	8.7	9.7	10.3	12.0	12.1	12.3	12.2	10.5	9.6	**12.6**	10.6	8.0	7.5	6.5	6.4	5.4	4.8	5.4	6.2	5.2	6.5	5.5	4.2	3.4	3.4	**12.6**	**7.9**
	N	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	ENE	ENE	ENE	NE	NE	NE	NE	NE	NE			
Feb 27	1.9	1.5	0.2	0.4	0.3	0.2	**0.0**	0.1	2.6	5.1	5.6	6.1	8.1	5.2	5.5	5.2	6.2	4.8	3.0	1.4	1.4	2.2	1.7	1.0	**0.0**	8.1	2.1
	NNE	NE	ENE	ESE	S	ESE	S	NW	SSW	SSW	SSW	SSW	SSW	SW	SW	WNW	WNW	WNW	W	SW	SSW	SSW	SSW	SSW			
Feb 28	0.3	1.2	3.5	3.9	4.4	6.8	6.9	7.4	6.4	8.2	9.3	8.5	7.7	8.5	7.2	6.8	7.7	6.4	6.5	6.0	5.8	5.0	6.2	7.0	0.3	9.3	5.5
	E	ENE	NE	ENE	ENE	ENE	ENE	ENE	ENE	ENE	E	E	E	ESE	ESE	ESE	ESE	ESE	ESE	ESE	ESE	SE	SE	SE			

C	Monthly Calibration	**S**	Daily Zero-Span Check	**Q**	Quality Assurance	
K	Collection Error	**N**	No Data (Machine Not in Service)	**Y**	Routine Maintenance	**P** Power Failure
X	InValid Data (Equipment Malfunction /Recovery)	**NRM**	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)			

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION

Maskwa Site - February 2021

Summary of Hour Standard Deviations

STANDARD DEVIATION WIND DIRECTION (STDWD) in Degree

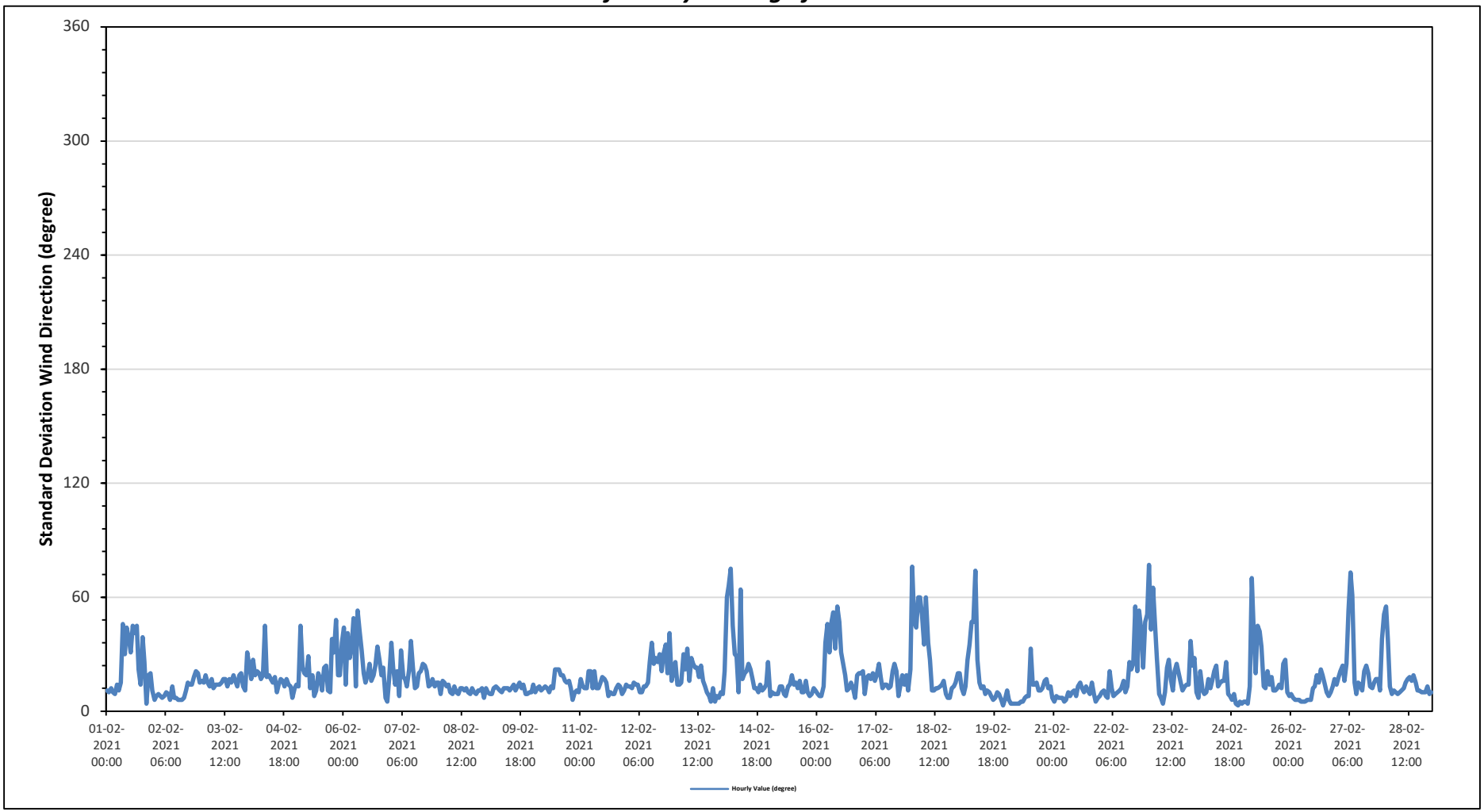
Maximum Hourly Value:	77	degree	on February 23 at hour 0	Hours in Service:	672
				Hours of Data:	672
Minimum Hourly Value:	3	degree	on February 19 at hour 22	Hours of Missing Data:	0
				Hours of Calibration:	0
				Operational Uptime:	100.0

Day	Hourly Period Starting at (MST)																								Daily	Daily
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Minimum	Maximum
Feb 1	11	10	12	10	9	14	11	15	46	30	44	38	31	45	41	45	22	14	39	26	4	19	20	11	4	46
Feb 2	6	8	9	8	7	8	10	9	6	13	7	7	6	6	6	7	11	15	14	14	18	21	20	15	6	21
Feb 3	16	15	19	15	13	17	12	14	14	14	15	17	17	13	17	15	19	16	13	19	20	13	11	31	11	31
Feb 4	25	17	27	19	21	20	17	19	45	18	19	17	15	18	10	14	17	16	13	17	14	13	7	12	7	45
Feb 5	14	13	45	23	20	19	29	12	19	8	11	20	17	11	23	24	11	10	38	31	48	19	19	36	8	48
Feb 6	44	14	41	28	35	49	13	53	42	32	20	15	19	25	16	19	24	34	27	19	23	7	5	17	5	53
Feb 7	36	23	14	21	8	32	18	17	13	22	37	23	12	13	20	21	25	24	21	13	14	17	13	15	8	37
Feb 8	15	9	16	15	13	14	10	9	13	10	9	12	12	11	12	10	9	12	10	9	11	11	12	7	7	16
Feb 9	12	10	9	9	12	13	12	11	10	12	12	12	11	12	14	11	13	15	12	14	9	9	10	10	9	15
Feb 10	14	10	12	13	11	12	13	12	10	13	12	22	22	22	19	19	16	15	16	12	6	10	11	10	6	22
Feb 11	17	13	12	12	21	21	12	21	12	12	15	18	17	15	8	10	9	9	12	14	13	9	11	14	8	21
Feb 12	13	13	12	15	14	14	10	10	13	13	15	26	36	25	28	26	30	21	30	35	20	41	16	21	10	41
Feb 13	26	14	14	15	30	22	33	16	28	25	23	23	18	24	16	13	10	8	5	12	5	8	7	10	5	33
Feb 14	9	21	60	66	75	45	30	29	10	64	17	20	21	25	22	17	12	12	10	14	11	12	14	26	9	75
Feb 15	8	10	9	9	9	13	13	9	8	13	14	19	14	15	12	16	10	10	16	10	8	9	12	11	8	19
Feb 16	9	8	8	13	36	46	31	47	52	33	55	47	31	25	19	11	12	15	12	7	19	20	20	21	7	55
Feb 17	9	18	19	17	20	16	19	25	18	12	14	14	12	13	21	25	21	8	14	19	14	19	11	22	8	25
Feb 18	76	47	44	60	60	50	35	60	36	27	11	11	12	12	13	14	16	9	7	7	12	13	15	20	7	76
Feb 19	20	12	9	13	27	35	47	47	74	27	15	12	13	9	11	10	8	6	7	10	9	6	**3**	6	**3**	74
Feb 20	11	6	4	4	4	4	4	5	5	7	8	8	33	14	14	15	11	11	12	16	17	12	13	7	4	33
Feb 21	5	8	7	7	7	5	6	10	8	10	11	8	13	15	12	10	13	11	9	15	9	5	7	8	5	15
Feb 22	10	11	8	7	21	12	8	9	10	11	12	16	10	13	26	22	25	55	21	53	42	23	47	51	7	55
Feb 23	**77**	43	65	45	28	9	7	4	10	23	27	17	11	21	25	20	15	11	13	14	14	37	24	28	4	**77**
Feb 24	10	7	21	11	9	10	17	12	16	21	24	13	15	16	16	26	9	8	6	9	4	**3**	5	4	**3**	26
Feb 25	5	5	4	13	70	44	20	45	42	34	13	12	21	14	18	11	11	12	14	12	25	27	10	8	4	70
Feb 26	9	7	6	6	6	5	5	5	6	6	6	12	13	19	15	22	19	14	10	8	10	13	17	14	5	22
Feb 27	18	21	24	16	25	53	73	61	15	9	15	14	11	21	24	20	13	12	15	17	17	11	38	51	9	73
Feb 28	55	38	13	9	11	10	9	10	11	12	15	17	18	16	19	15	11	11	10	10	10	13	9	10	9	55
Diurnal Minimum	5	5	4	4	4	4	4	4	5	6	6	7	6	6	6	7	8	6	5	7	4	3	3	4		
Daiurnal Maximum	77	47	65	66	75	53	73	61	74	64	55	47	36	45	41	45	30	55	39	53	48	41	47	51		

C	Monthly Calibration	**S**	Daily Zero-Span Check	**Q**	Quality Assurance	
K	Collection Error	**N**	No Data (Machine Not in Service)	**Y**	Routine Maintenance	**P** Power Failure
X	InValid Data (Machine Malfunction /Recovery)	**NRM**	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)			

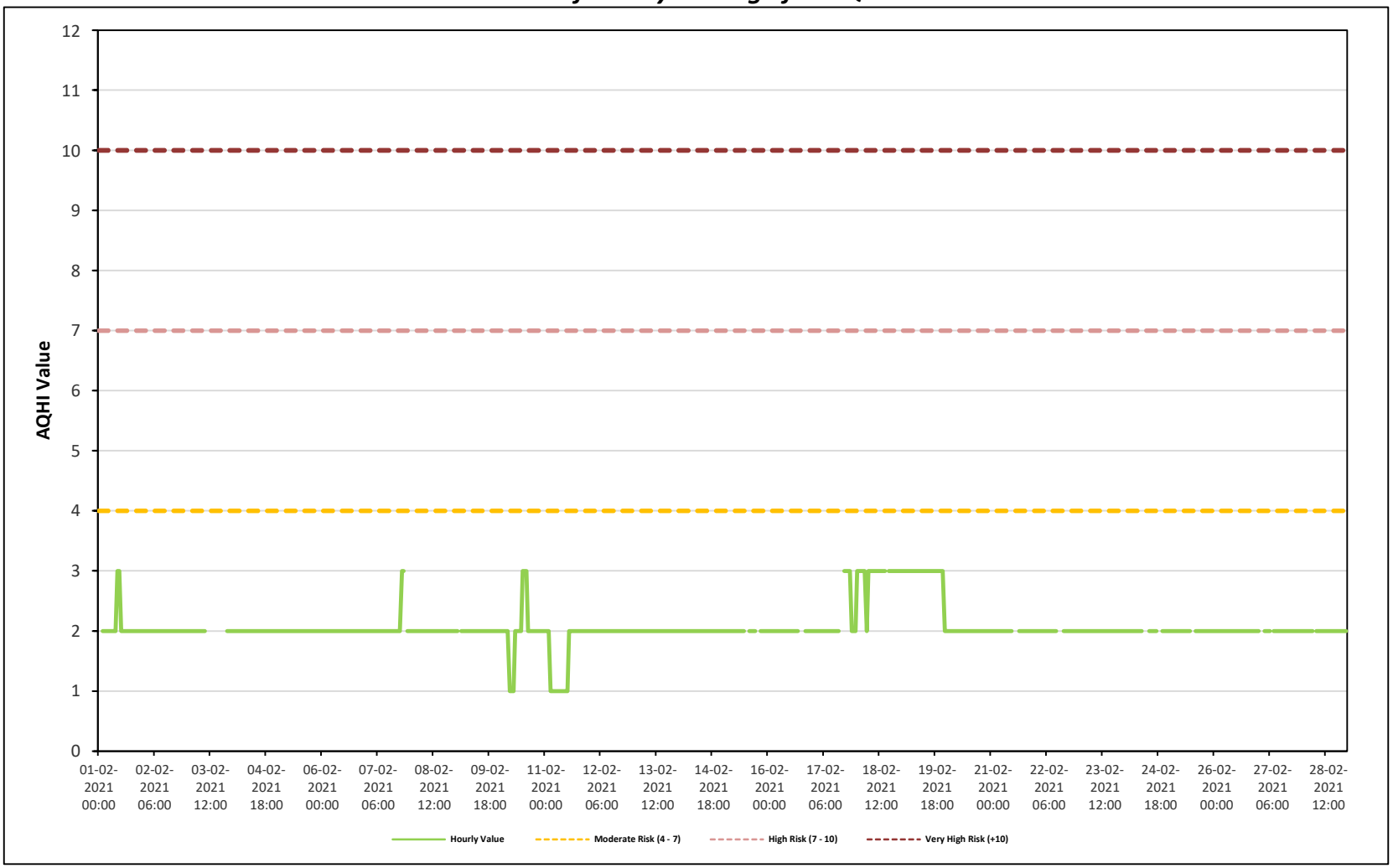
Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.

Timeseries Chart of Hourly Average for STDWD - Maskwa Site



ST. LINA STATION

Timeseries Chart of Hourly Average for AQHI - St. Lina Site



LAKELAND INDUSTRY & COMMUNITY ASSOCIATION

St. Lina Site - February 2021

Summary of Hourly Averages

SULPHUR DIOXIDE (SO_2) in ppb

Alberta Ambient Air Quality Objectives (AAAQO): 1-Hour 172 ppb, 24-Hour 48 ppb, 30-Day 11 ppb

Number of 1-Hour Exceedences: 0 Number of 24-Hour Exceedences: 0 30-Day Exceedence: 0

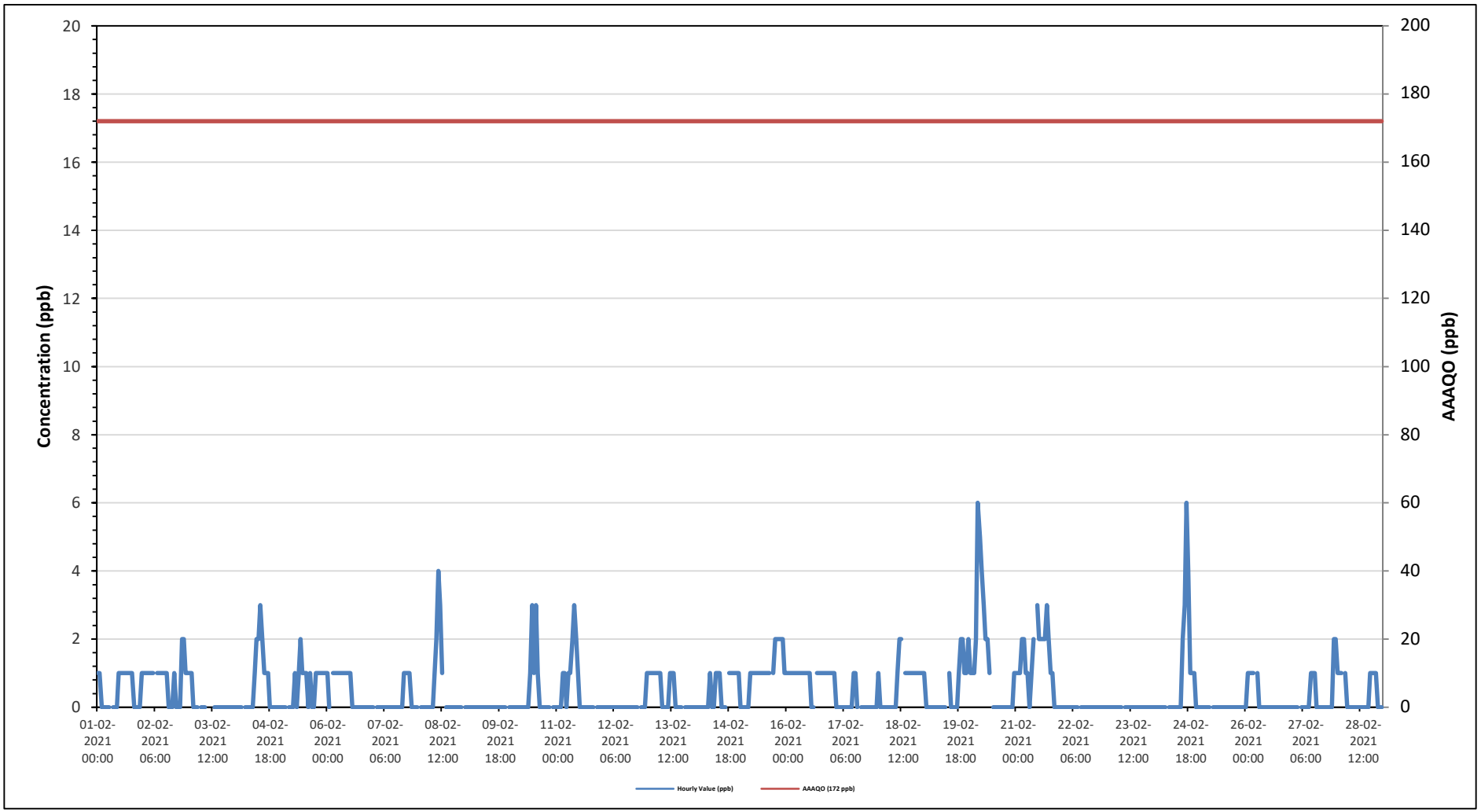
Maximum Hourly Value:	6	ppb	on February 20 at hour 4	Hours in Service:	672
Maximum Daily Value:	1.3	ppb	on February 21	Hours of Data:	638
Minimum Hourly Value:	0	ppb	on February 1 at hour 2	Hours of Missing Data:	1
Minimum Daily Value:	0.0	ppb	on February 9	Hours of Calibration:	33
Monthly Average:	0.5	ppb		Operational Uptime:	99.9

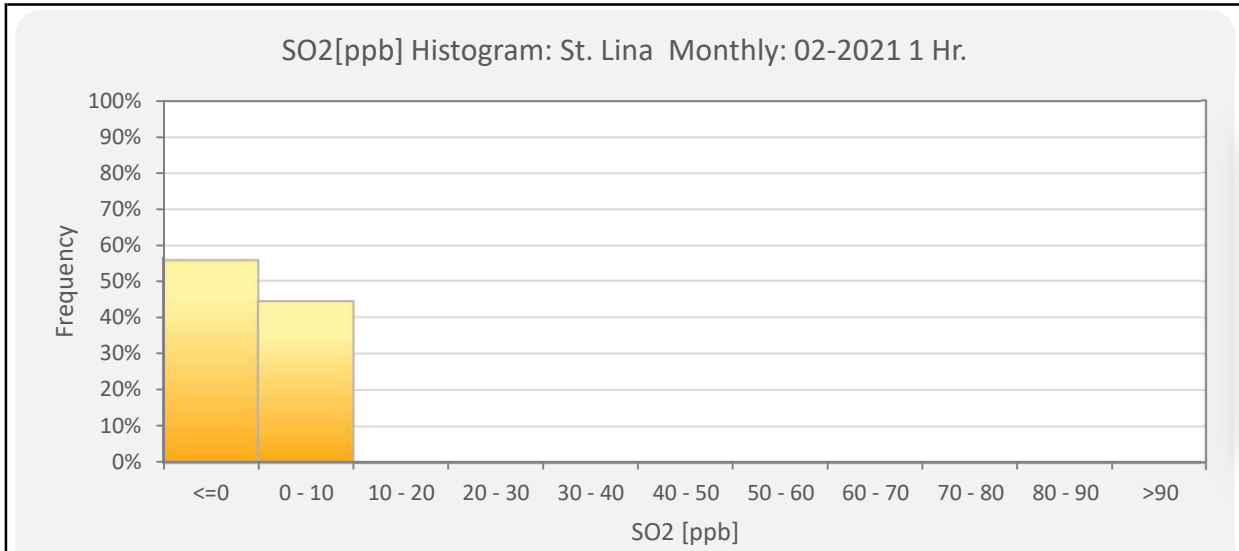
Day	Hourly Period Starting at (MST)																								Daily Minimum	Daily Maximum	Daily Average
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23			
Feb 1	1	1	0	0	0	0	0	S	0	0	0	1	1	1	1	1	1	1	1	0	0	0	0	1	0	1	0.5
Feb 2	1	1	1	1	1	1	S	1	1	1	1	1	1	0	0	0	1	0	0	0	2	2	1	1	0	2	0.8
Feb 3	1	1	0	0	0	S	0	0	0	C	C	C	C	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1
Feb 4	0	0	0	0	S	0	0	0	0	0	1	2	2	3	2	1	1	1	0	0	0	0	0	0	0	3	0.6
Feb 5	0	0	0	S	0	0	0	1	0	1	2	1	1	1	0	1	0	0	1	1	1	1	1	1	0	2	0.6
Feb 6	1	0	S	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0.5
Feb 7	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	1	0.2
Feb 8	S	0	0	0	0	0	0	0	1	2	4	3	1	P	0	0	0	0	0	0	0	0	0	S	0	4	0.5
Feb 9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0.0
Feb 10	0	0	0	0	0	0	0	0	0	0	1	3	1	3	1	0	0	0	0	0	0	S	0	0	0	3	0.4
Feb 11	0	0	0	1	1	0	1	1	2	3	2	1	0	0	0	0	0	0	0	0	S	0	0	0	0	3	0.5
Feb 12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	1	0	1	0.0
Feb 13	1	1	1	1	1	1	1	0	0	0	0	1	1	1	0	0	0	0	S	0	0	0	0	0	0	1	0.4
Feb 14	0	0	0	0	0	0	0	0	1	0	0	1	1	1	0	0	0	S	1	1	1	1	1	1	0	1	0.4
Feb 15	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	S	1	2	2	2	2	2	1	0	2	1.0
Feb 16	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	S	1	1	1	1	1	1	1	1	0	1	0.9
Feb 17	1	1	0	0	0	0	0	0	0	0	0	1	1	0	S	0	0	0	0	0	0	0	0	0	0	1	0.2
Feb 18	1	0	0	0	0	0	0	0	0	0	1	2	2	S	1	1	1	1	1	1	1	1	1	1	0	2	0.7
Feb 19	1	0	0	0	0	0	0	0	0	0	0	0	S	1	0	0	0	0	1	2	2	1	1	2	0	2	0.5
Feb 20	1	1	1	2	6	5	4	3	2	2	1	S	0	0	0	0	0	0	0	0	0	0	0	1	0	6	1.3
Feb 21	1	1	1	2	2	1	1	0	1	2	S	3	2	2	2	2	3	2	1	1	0	0	0	0	0	3	1.3
Feb 22	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Feb 23	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Feb 24	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	2	3	6	4	1	1	1	0	0	0	6	0.8
Feb 25	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Feb 26	0	1	1	1	1	S	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.2
Feb 27	0	0	0	0	S	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	2	2	0	2	0.3
Feb 28	1	1	1	S	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0	1	0.3
Diurnal Maximum	1	1	1	2	6	5	4	3	2	3	4	3	2	3	2	2	3	6	4	2	2	2	2	2			
Daiurnal Average	0.4	0.4	0.3	0.4	0.6	0.4	0.4	0.3	0.4	0.5	0.7	0.9	0.7	0.5	0.3	0.3	0.4	0.6	0.6	0.4	0.4	0.4	0.4	0.5			

C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance	
K	Collection Error	N	No Data (Machine Not in Service)	Y	Routine Maintenance	P Power Failure
X	InValid Data (Equipment Malfunction /Recovery)	NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)			

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.

Timeseries Chart of Hourly Average for SO2 - St. Lina Site

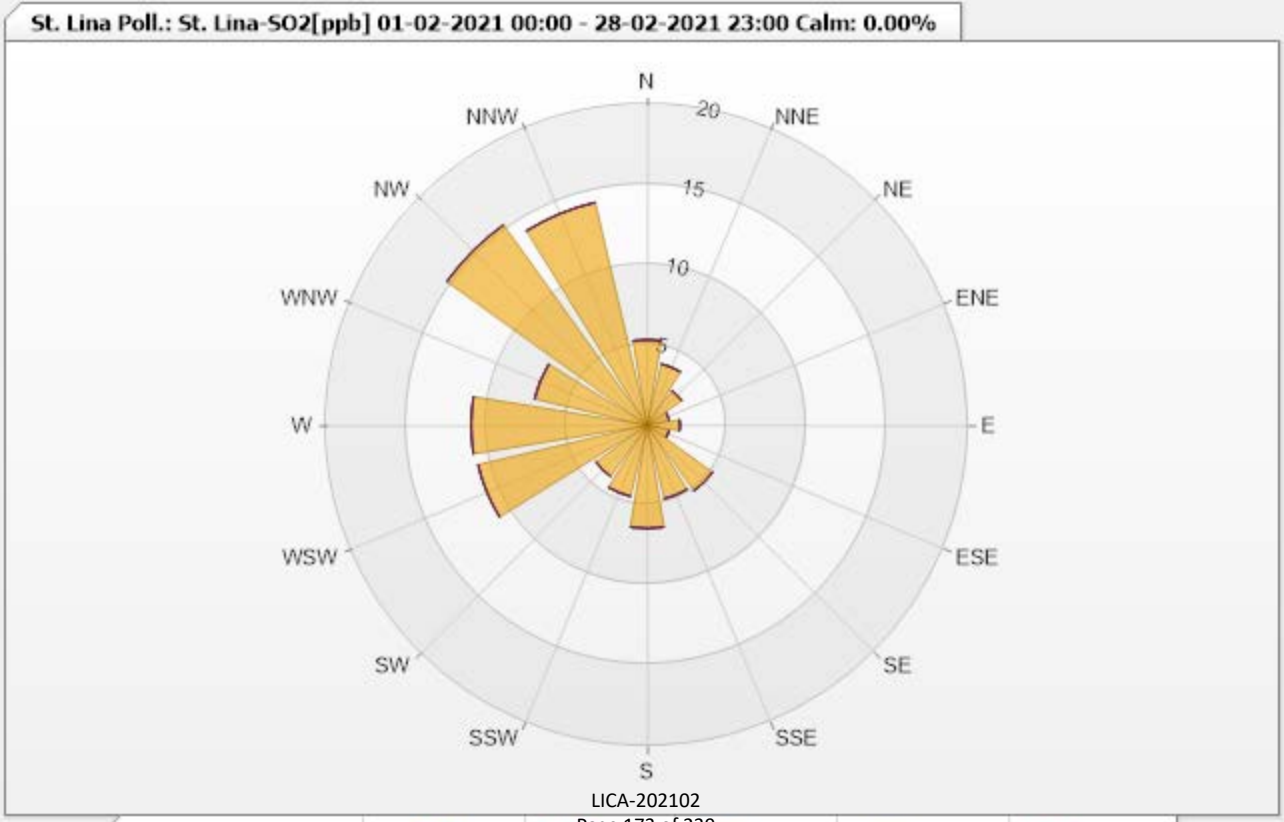




Classes	SO2
<=0	55.64%
0 - 10	44.36%
10 - 20	0.00%
20 - 30	0.00%
30 - 40	0.00%
40 - 50	0.00%
50 - 60	0.00%
60 - 70	0.00%
70 - 80	0.00%
80 - 90	0.00%
>90	0.00%

Wind: St. Lina Poll.: St. Lina-SO2[ppb] Monthly: 02-2021 Type: PollutionRose Direction: Blowing From (Wind Frequency) Based On 1 Hr.
Calm: 0.00% Valid Data: 94.94% Calm Avg: 0.00 [ppb]

Direction	0-10	10-50	50-100	100-172	>172.0	Total
N	5.33	0	0	0	0	5.33
NNE	3.92	0	0	0	0	3.92
NE	2.66	0	0	0	0	2.66
ENE	1.41	0	0	0	0	1.41
E	2.04	0	0	0	0	2.04
ESE	1.41	0	0	0	0	1.41
SE	5.02	0	0	0	0	5.02
SSE	4.7	0	0	0	0	4.7
S	6.43	0	0	0	0	6.43
SSW	4.55	0	0	0	0	4.55
SW	3.92	0	0	0	0	3.92
WSW	10.82	0	0	0	0	10.82
W	10.97	0	0	0	0	10.97
WNW	7.21	0	0	0	0	7.21
NW	15.36	0	0	0	0	15.36
NNW	14.26	0	0	0	0	14.26
Summary	100	0	0	0	0	100


St. Lina Poll.: St. Lina-SO2[ppb] 01-02-2021 00:00 - 28-02-2021 23:00 Calm: 0.00%
N
NNE
NE
ENE
E
ESE
SE
SSE
S
SSW
SW
WSW
W
WNW
NW
NNW
20
15
10
5
% Icon Classes (ppb)
100 0-10
0 10-50
0 50-100
0 100-172
0 >172.0

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION

St. Lina Site - February 2021

Summary of Hourly Averages

HYDROGEN SULPHIDE (H_2S) in ppb

Alberta Ambient Air Quality Objectives (AAAQO): 1-Hour 10 ppb, 24-Hour 3 ppb

Number of 1-Hour Exceedances: 0 Number of 24-Hour Exceedances: 0

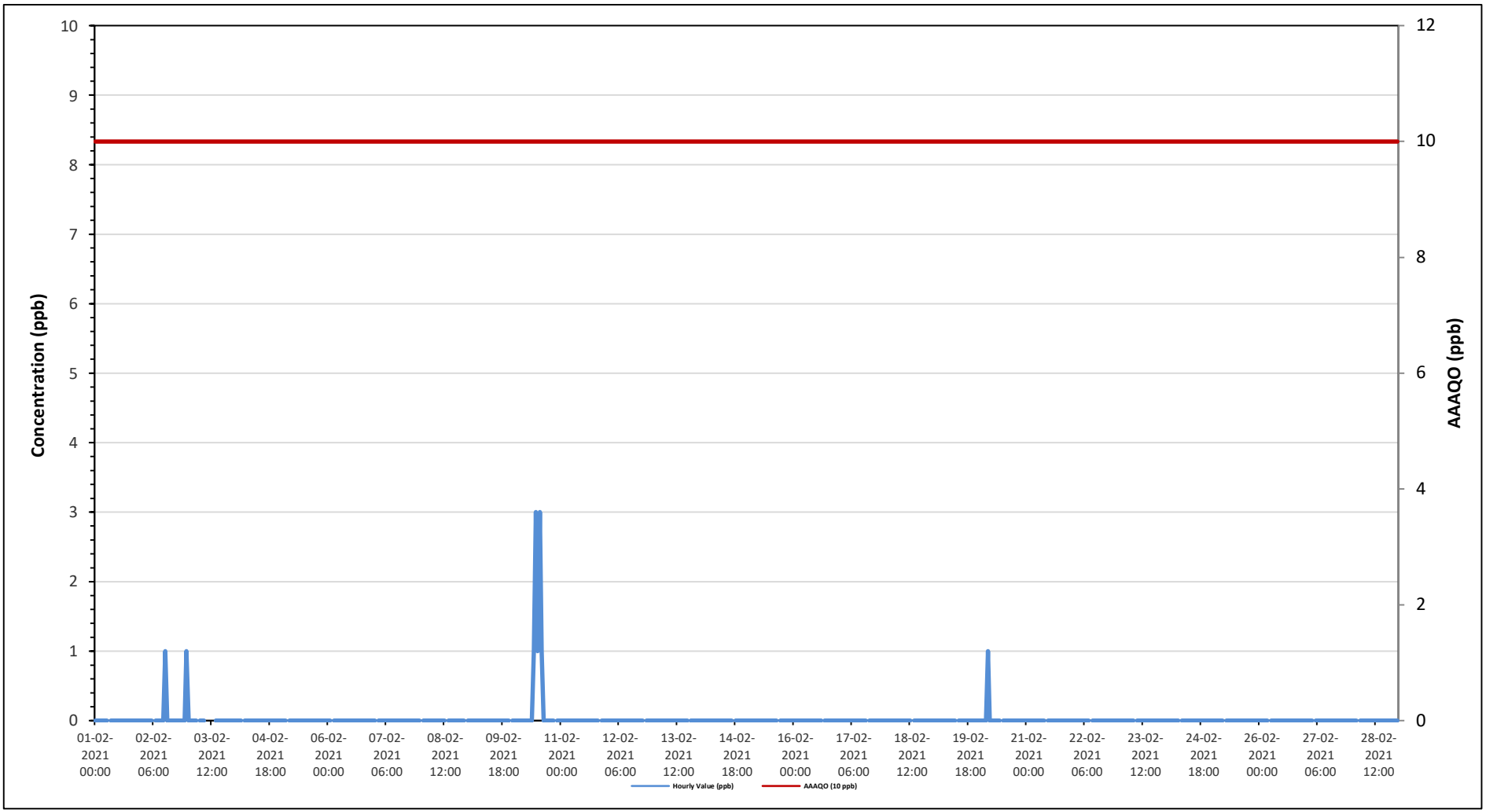
Maximum Hourly Value:	3	ppb	on February 10 at hour 11	Hours in Service:	672
Maximum Daily Value:	0.4	ppb	on February 10	Hours of Data:	637
Minimum Hourly Value:	0	ppb	on February 1 at hour 0	Hours of Missing Data:	1
Minimum Daily Value:	0.0	ppb	on February 1	Hours of Calibration:	34
Monthly Average:	0.0	ppb		Operational Uptime:	99.9

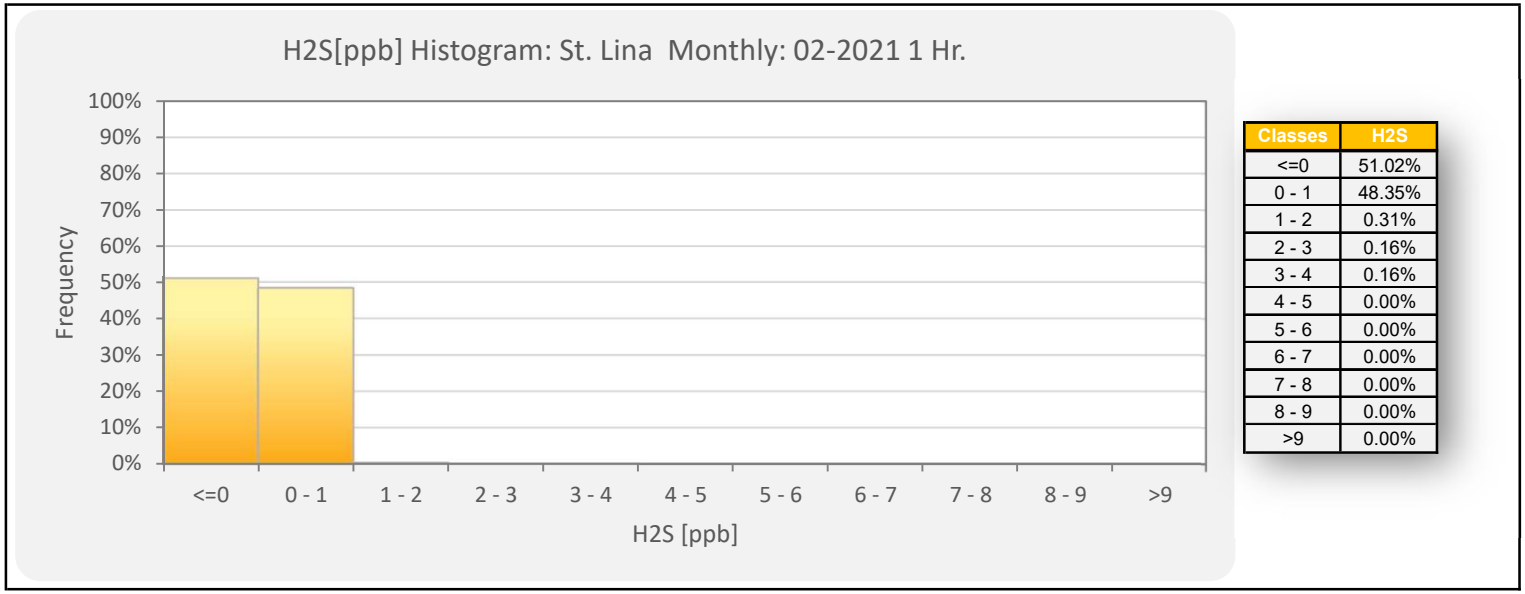
Day	Hourly Period Starting at (MST)																								Daily Minimum	Daily Maximum	Daily Average
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23			
Feb 1	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Feb 2	0	0	0	0	0	0	S	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	1	0.1
Feb 3	0	0	0	0	0	S	0	0	0	C	C	C	C	C	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Feb 4	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Feb 5	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Feb 6	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Feb 7	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Feb 8	S	0	0	0	0	0	0	0	0	0	0	0	0	P	0	0	0	0	0	0	0	0	0	S	0	0	0.0
Feb 9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0.0
Feb 10	0	0	0	0	0	0	0	0	0	0	1	3	1	3	1	0	0	0	0	0	0	S	0	0	0	3	0.4
Feb 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0.0
Feb 12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0.0
Feb 13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0.0
Feb 14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0.0
Feb 15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0.0
Feb 16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0.0
Feb 17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0.0
Feb 18	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Feb 19	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Feb 20	0	0	0	0	1	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.0
Feb 21	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Feb 22	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Feb 23	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Feb 24	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Feb 25	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Feb 26	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Feb 27	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Feb 28	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Diurnal Maximum	0	0	0	0	1	0	0	0	0	0	1	3	1	3	1	0	0	0	0	0	0	0	0	1			
Diurnal Average	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			

C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance	
K	Collection Error	N	No Data (Machine Not in Service)	Y	Routine Maintenance	P Power Failure
X	InValid Data (Equipment Malfunction /Recovery)	NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)			

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.

Timeseries Chart of Hourly Average for H2S - St. Lina Site

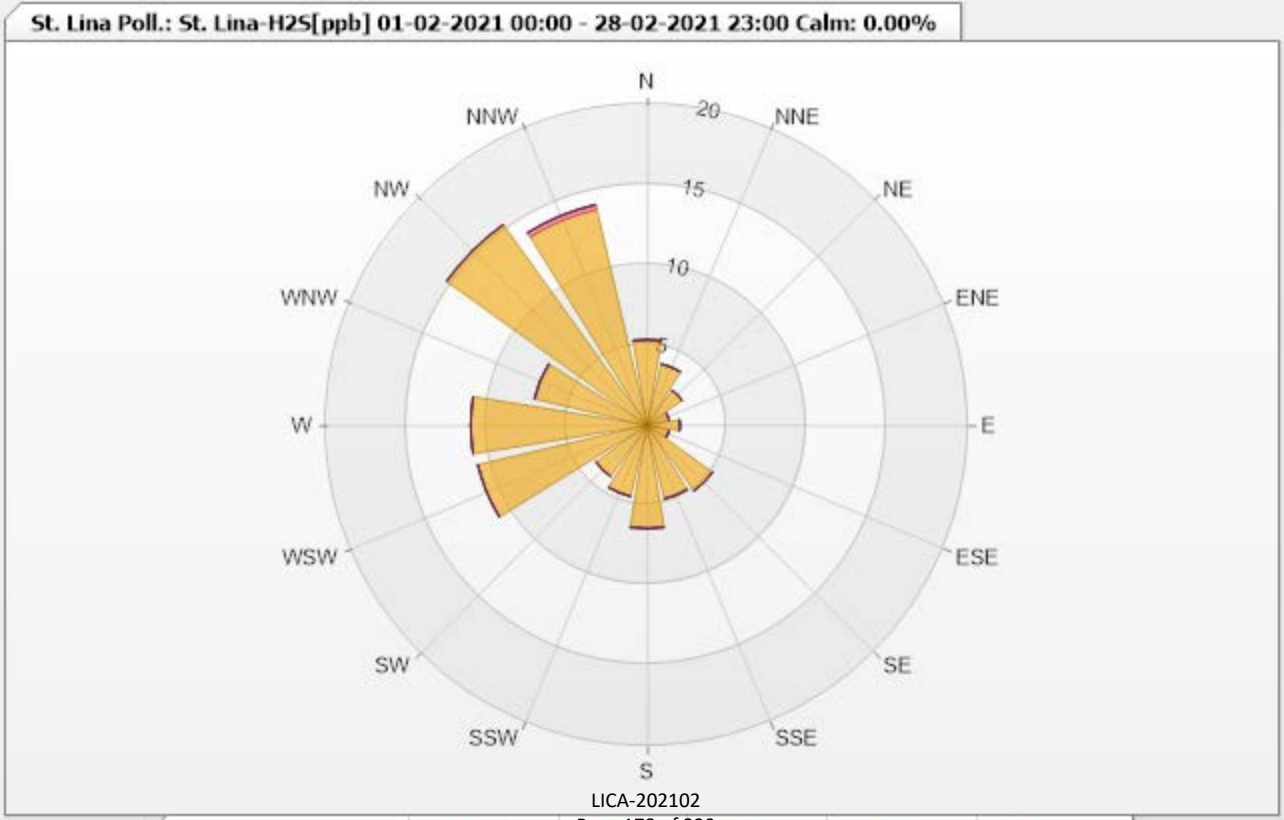




Classes	H2S
<=0	51.02%
0 - 1	48.35%
1 - 2	0.31%
2 - 3	0.16%
3 - 4	0.16%
4 - 5	0.00%
5 - 6	0.00%
6 - 7	0.00%
7 - 8	0.00%
8 - 9	0.00%
>9	0.00%

Wind: St. Lina Poll.: St. Lina-H2S[ppb] Monthly: 02-2021 Type: PollutionRose Direction: Blowing From (Wind Frequency) Based On 1 Hr.
Calm: 0.00% Valid Data: 94.79% Calm Avg: 0.00 [ppb]

Direction	0-2	2-5	5-10	10-50	>50.0	Total
N	5.34	0	0	0	0	5.34
NNE	3.92	0	0	0	0	3.92
NE	2.67	0	0	0	0	2.67
ENE	1.41	0	0	0	0	1.41
E	2.04	0	0	0	0	2.04
ESE	1.41	0	0	0	0	1.41
SE	5.02	0	0	0	0	5.02
SSE	4.71	0	0	0	0	4.71
S	6.44	0	0	0	0	6.44
SSW	4.55	0	0	0	0	4.55
SW	3.92	0	0	0	0	3.92
WSW	10.83	0	0	0	0	10.83
W	10.99	0	0	0	0	10.99
WNW	7.22	0	0	0	0	7.22
NW	15.38	0	0	0	0	15.38
NNW	13.81	0.31	0	0	0	14.12
Summary	100	0.31	0	0	0	100


St. Lina Poll.: St. Lina-H2S[ppb] 01-02-2021 00:00 - 28-02-2021 23:00 Calm: 0.00%
N
NNE
NE
ENE
E
ESE
SE
SSE
S
SSW
SW
WSW
W
WNW
NW
NNW
20
15
10
5
% Icon Classes (ppb)
100 0-2
0 2-5
0 5-10
0 10-50
0 >50.0

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION

St. Lina Site - February 2021

Summary of Hourly Averages

OXIDES OF NITROGEN (NOx) in ppb

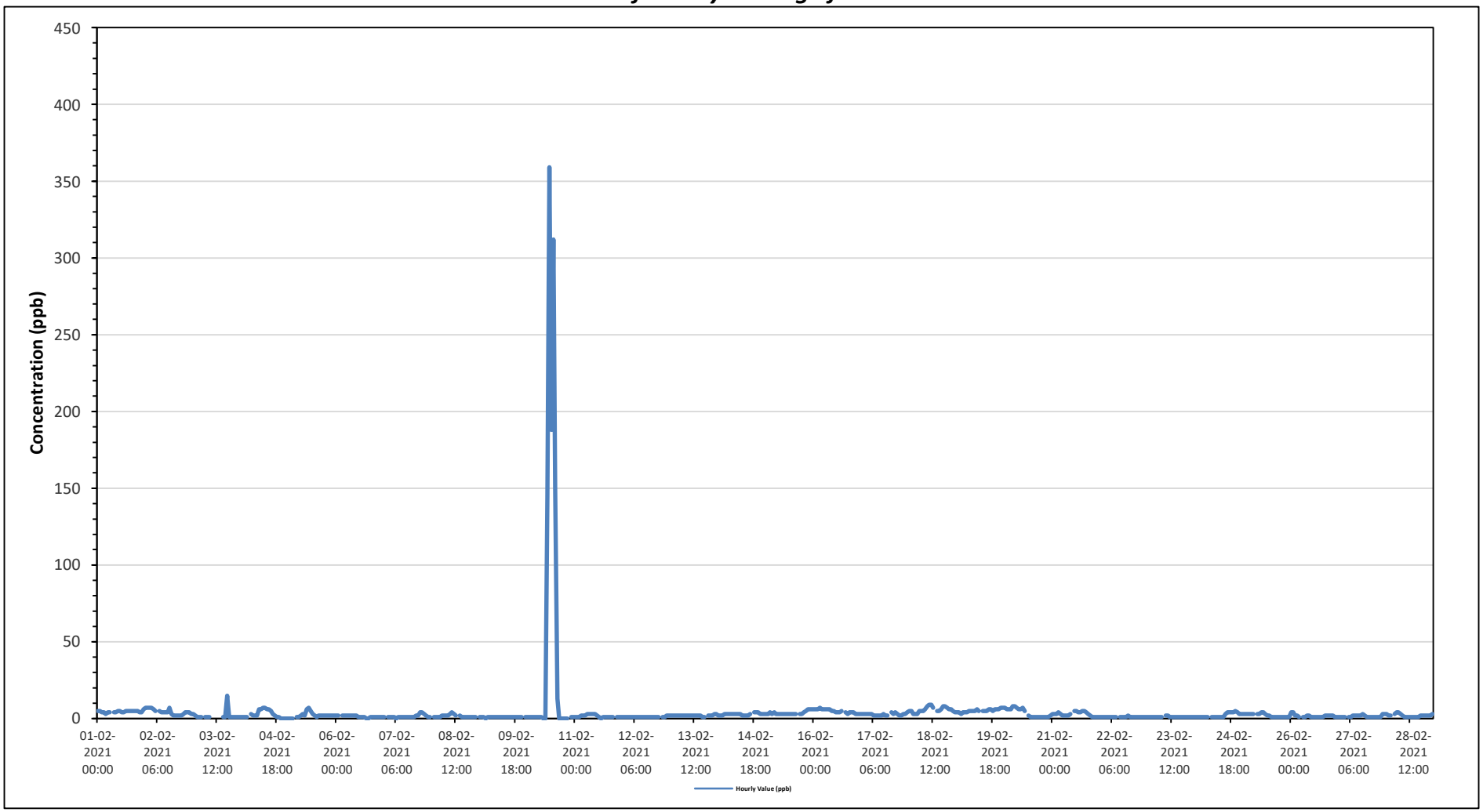
Maximum Hourly Value:	359	ppb	on February 10 at hour 11	Hours in Service:	672
Maximum Daily Value:	51.2	ppb	on February 10	Hours of Data:	636
Minimum Hourly Value:	0	ppb	on February 4 at hour 20	Hours of Missing Data:	1
Minimum Daily Value:	1.0	ppb	on February 9	Hours of Calibration:	35
Monthly Average:	4.3	ppb		Operational Uptime:	99.9

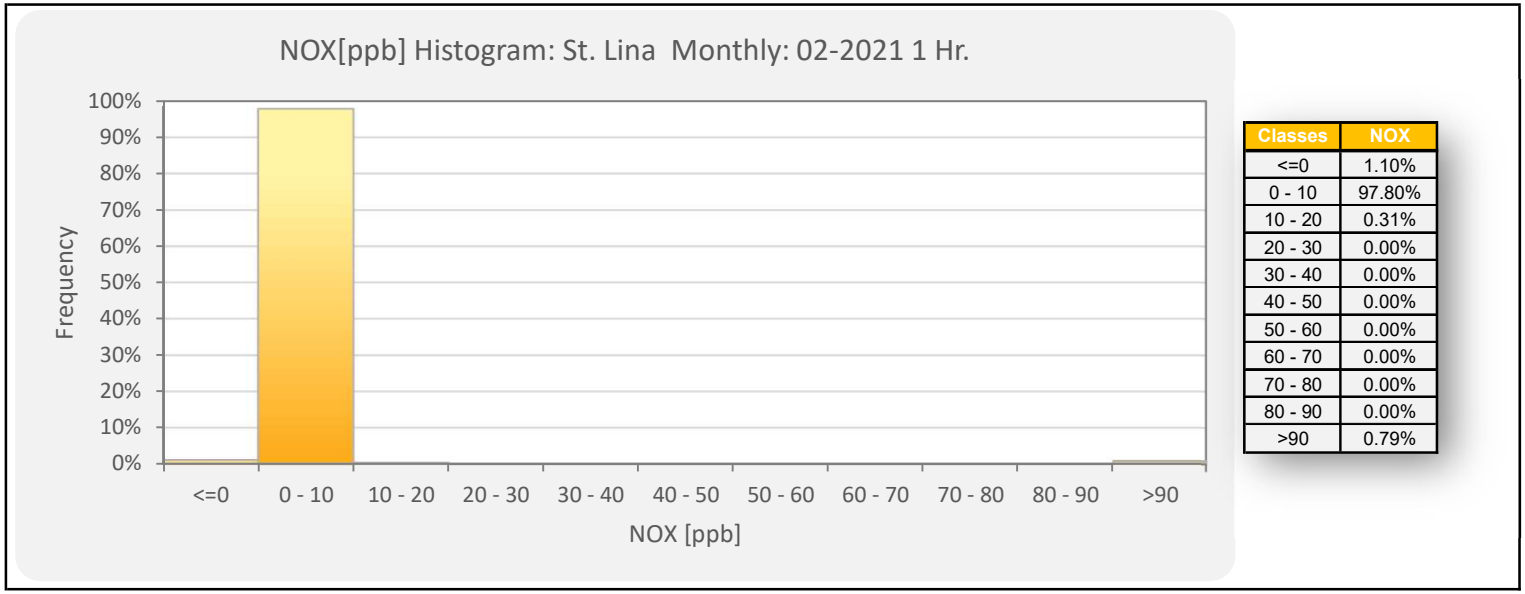
Day	Hourly Period Starting at (MST)																								Daily Minimum	Daily Maximum	Daily Average
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23			
Feb 1	5	5	4	4	3	4	4	S	4	4	5	5	4	4	5	5	5	5	5	5	5	4	4	6	3	6	4.5
Feb 2	7	7	7	7	6	5	S	5	4	4	4	4	7	3	2	2	2	2	2	3	4	4	4	3	2	7	4.3
Feb 3	3	2	1	1	1	S	1	1	1	C	C	C	C	C	C	1	1	15	1	1	1	1	1	1	1	15	-
Feb 4	1	1	1	1	S	3	2	2	2	6	6	7	7	6	6	5	3	2	1	1	0	0	0	0	0	7	2.7
Feb 5	0	0	0	S	1	1	2	3	2	6	7	5	3	2	1	2	2	2	2	2	2	2	2	2	0	7	2.2
Feb 6	2	2	S	2	2	2	2	2	2	2	2	1	1	1	1	0	0	1	1	1	1	1	1	1	0	2	1.3
Feb 7	1	S	1	1	1	1	0	1	1	1	1	1	1	1	1	1	2	2	4	4	3	2	1	1	0	4	1.4
Feb 8	S	1	1	1	1	2	2	2	2	3	4	3	2	P	2	1	1	1	1	1	1	1	1	S	1	4	1.6
Feb 9	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	S	1	0	1	1.0
Feb 10	1	1	1	1	1	1	1	1	0	0	145	359	188	312	150	13	0	0	0	0	0	S	1	1	0	359	51.2
Feb 11	1	1	1	2	2	2	3	3	3	3	3	2	1	0	1	1	1	1	1	1	S	1	1	1	0	3	1.6
Feb 12	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	S	1	1	2	2	1	2	1.1
Feb 13	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	1	S	2	2	2	3	3	1	3	2.0
Feb 14	2	2	2	3	3	3	3	3	3	3	3	3	2	2	2	2	3	S	4	4	4	3	3	3	2	4	2.8
Feb 15	3	3	4	3	4	3	3	3	3	3	3	3	3	3	3	3	S	3	3	4	5	6	6	6	3	6	3.6
Feb 16	6	6	6	7	6	6	6	6	6	5	5	4	4	4	5	S	4	3	4	4	4	3	3	3	3	7	4.8
Feb 17	3	3	3	3	3	3	2	2	2	2	2	3	2	2	S	4	3	4	3	2	2	3	3	4	2	4	2.7
Feb 18	5	5	3	3	3	5	5	5	6	8	9	9	7	S	5	5	6	8	8	7	6	6	5	4	3	9	5.8
Feb 19	4	4	3	4	4	4	5	5	5	5	6	5	S	5	5	5	6	6	5	6	6	6	7	7	3	7	5.1
Feb 20	7	6	6	6	8	8	7	6	6	7	5	S	2	1	1	1	1	1	1	1	1	1	1	2	1	8	3.7
Feb 21	3	3	3	4	3	2	2	2	2	3	S	5	5	4	4	5	5	4	3	2	1	1	1	1	1	5	3.0
Feb 22	1	1	1	1	1	1	1	1	1	S	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	2	1.0
Feb 23	1	1	1	1	1	1	1	1	S	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1.1
Feb 24	1	1	1	1	1	1	1	S	1	1	1	1	1	1	1	3	4	4	4	4	5	4	3	3	1	5	2.1
Feb 25	3	3	3	3	3	3	S	3	3	4	4	3	2	2	1	1	1	1	1	1	1	1	1	1	1	4	2.1
Feb 26	4	4	2	2	1	S	1	1	2	2	1	1	1	1	1	1	1	2	2	2	2	2	1	1	1	4	1.7
Feb 27	1	1	1	1	S	1	1	2	2	2	2	2	3	2	1	1	1	1	1	1	1	1	3	3	1	3	1.5
Feb 28	3	2	2	S	3	4	4	3	2	1	1	1	1	1	1	1	1	2	2	2	2	2	2	3	1	4	2.0
Diurnal Maximum	7	7	7	7	8	8	7	6	6	8	145	359	188	312	150	13	6	15	8	7	6	6	7	7			
Daiurnal Average	2.7	2.6	2.3	2.5	2.5	2.7	2.4	2.6	2.6	3.1	8.7	16.7	9.7	14.5	7.9	2.6	2.1	2.8	2.3	2.4	2.3	2.3	2.3	2.4			

C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance	
K	Collection Error	N	No Data (Machine Not in Service)	Y	Routine Maintenance	P Power Failure
X	InValid Data (Equipment Malfunction /Recovery)	NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)			

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.

Timeseries Chart of Hourly Average for NOx - St. Lina Site

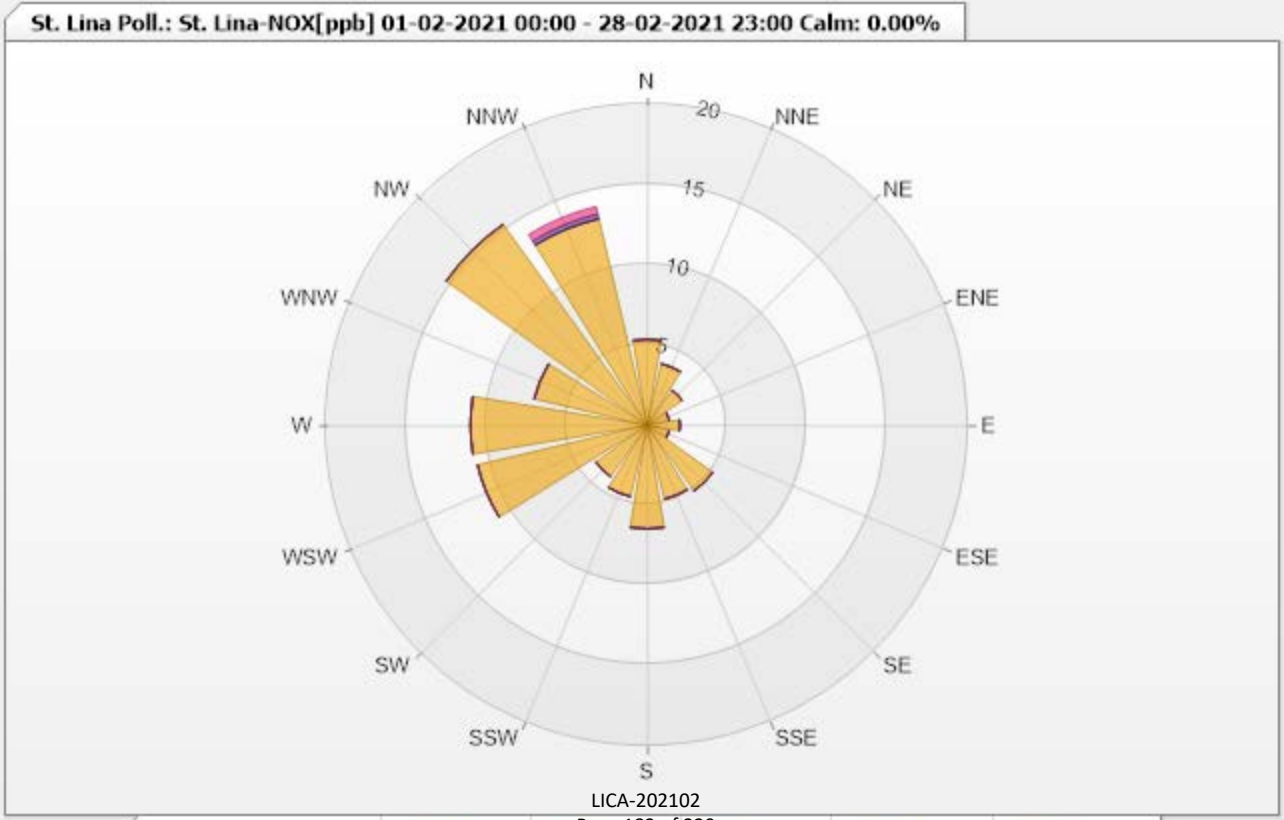




Classes	NOX
<=0	1.10%
0 - 10	97.80%
10 - 20	0.31%
20 - 30	0.00%
30 - 40	0.00%
40 - 50	0.00%
50 - 60	0.00%
60 - 70	0.00%
70 - 80	0.00%
80 - 90	0.00%
>90	0.79%

Wind: St. Lina Poll.: St. Lina-NOX[ppb] Monthly: 02-2021 Type: PollutionRose Direction: Blowing From (Wind Frequency) Based On 1 Hr.
Calm: 0.00% Valid Data: 94.64% Calm Avg: 0.00 [ppb]

Direction	0-30	30-50	50-76	76-159	>159.0	Total
N	5.35	0	0	0	0	5.35
NNE	3.93	0	0	0	0	3.93
NE	2.67	0	0	0	0	2.67
ENE	1.42	0	0	0	0	1.42
E	2.04	0	0	0	0	2.04
ESE	1.42	0	0	0	0	1.42
SE	5.03	0	0	0	0	5.03
SSE	4.72	0	0	0	0	4.72
S	6.45	0	0	0	0	6.45
SSW	4.56	0	0	0	0	4.56
SW	3.93	0	0	0	0	3.93
WSW	10.85	0	0	0	0	10.85
W	11.01	0	0	0	0	11.01
WNW	7.23	0	0	0	0	7.23
NW	15.41	0	0	0	0	15.41
NNW	13.21	0	0	0.31	0.47	13.99
Summary	99.23	0	0	0.31	0.47	100


St. Lina Poll.: St. Lina-NOX[ppb] 01-02-2021 00:00 - 28-02-2021 23:00 Calm: 0.00%
N
NNE
NE
ENE
E
ESE
SE
SSE
S
SSW
SW
WSW
W
WNW
NW
NNW
20
15
10
5
% Icon Classes (ppb)
99 0-30
0 30-50
0 50-76
0 76-159
0 >159.0

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION

St. Lina Site - February 2021

Summary of Hourly Averages

NITRIC OXIDE (NO) in ppb

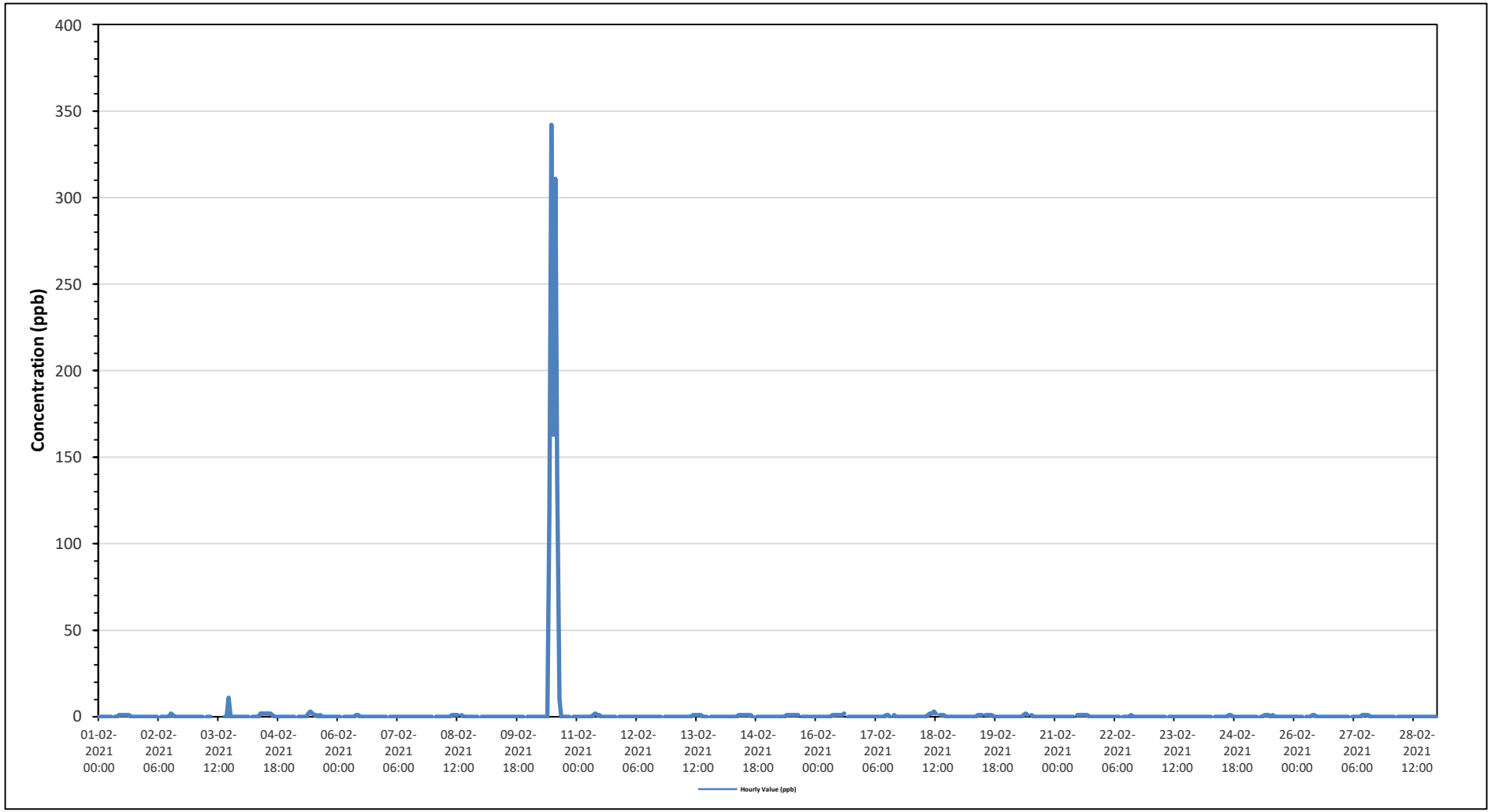
Maximum Hourly Value:	342	ppb	on February 10 at hour 11	Hours in Service:	672
Maximum Daily Value:	47.0	ppb	on February 10	Hours of Data:	636
Minimum Hourly Value:	0	ppb	on February 1 at hour 0	Hours of Missing Data:	1
Minimum Daily Value:	0.0	ppb	on February 7	Hours of Calibration:	35
Monthly Average:	1.9	ppb		Operational Uptime:	99.9

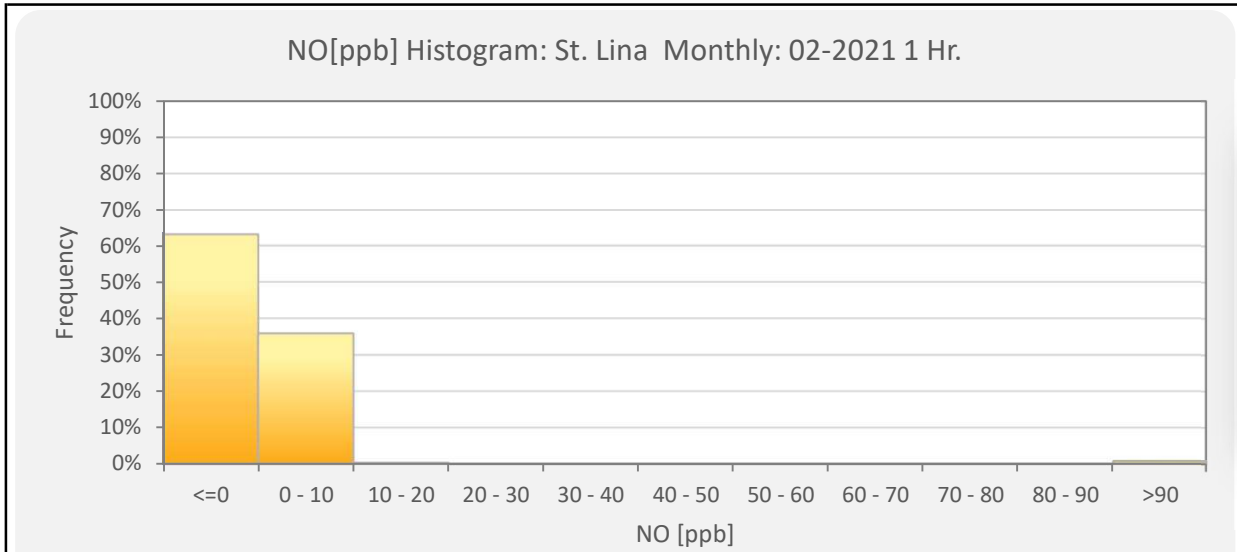
Day	Hourly Period Starting at (MST)																								Daily Minimum	Daily Maximum	Daily Average
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23			
Feb 1	0	0	0	0	0	0	0	S	0	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	1	0.3
Feb 2	0	0	0	0	0	0	S	0	0	0	0	0	2	1	0	0	0	0	0	0	0	0	0	0	0	2	0.1
Feb 3	0	0	0	0	0	S	0	0	0	C	C	C	C	C	C	0	0	11	0	0	0	0	0	0	0	11	-
Feb 4	0	0	0	0	S	0	0	0	0	2	2	2	2	2	2	1	0	0	0	0	0	0	0	0	0	2	0.6
Feb 5	0	0	0	S	0	0	0	0	0	2	3	2	1	1	0	1	0	0	0	0	0	0	0	0	0	3	0.4
Feb 6	0	0	S	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1
Feb 7	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Feb 8	S	0	0	0	0	0	0	0	0	1	1	1	1	P	1	0	0	0	0	0	0	0	0	S	0	1	0.2
Feb 9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0.0
Feb 10	0	0	0	0	0	0	0	0	0	0	119	**342**	163	311	136	10	0	0	0	0	0	S	0	0	0	**342**	**47.0**
Feb 11	0	0	0	0	0	0	0	0	1	2	1	1	0	0	0	0	0	0	0	0	S	0	0	0	0	2	0.2
Feb 12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0.0
Feb 13	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	0	0	0	S	0	0	0	0	0	0	1	0.2
Feb 14	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	0	S	0	0	0	0	0	0	0	1	0.3
Feb 15	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	S	0	0	0	0	0	0	0	0	1	0.3
Feb 16	0	0	0	0	0	0	0	0	1	1	1	1	1	1	2	S	0	0	0	0	0	0	0	0	0	2	0.3
Feb 17	0	0	0	0	0	0	0	0	0	0	0	1	1	0	S	1	0	0	0	0	0	0	0	0	0	1	0.1
Feb 18	0	0	0	0	0	0	0	0	1	2	2	3	2	S	1	1	1	0	0	0	0	0	0	0	0	3	0.6
Feb 19	0	0	0	0	0	0	0	0	0	1	1	1	S	1	1	1	1	0	0	0	0	0	0	0	0	1	0.3
Feb 20	0	0	0	0	0	0	0	0	1	2	1	S	1	0	0	0	0	0	0	0	0	0	0	0	0	2	0.2
Feb 21	0	0	0	0	0	0	0	0	0	0	S	1	1	1	1	1	1	0	0	0	0	0	0	0	0	1	0.3
Feb 22	0	0	0	0	0	0	0	0	0	S	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0.0
Feb 23	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Feb 24	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1	0.1
Feb 25	0	0	0	0	0	0	S	0	0	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0.2
Feb 26	0	0	0	0	0	S	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1
Feb 27	0	0	0	0	S	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0.2
Feb 28	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Diurnal Maximum	0	0	0	0	0	0	0	0	1	2	119	342	163	311	136	10	1	11	0	0	0	0	0	0			
Daiurnal Average	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.7	5.3	13.9	6.9	13.0	5.7	0.7	0.1	0.4	0.0	0.0	0.0	0.0	0.0	0.0			

C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance	
K	Collection Error	N	No Data (Machine Not in Service)	Y	Routine Maintenance	P Power Failure
X	InValid Data (Equipment Malfunction /Recovery)	NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)			

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.

Timeseries Chart of Hourly Average for NO - St. Lina Site

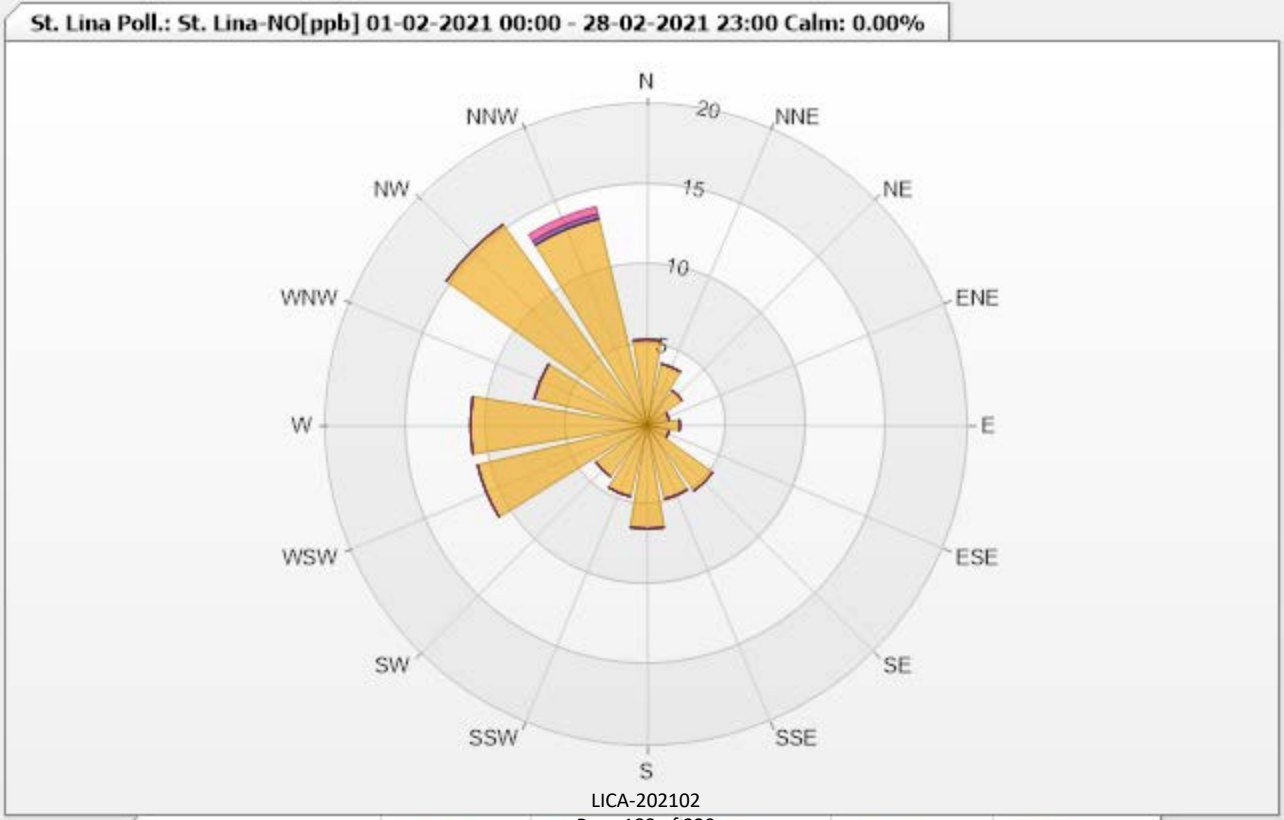




Classes	NO
<=0	63.05%
0 - 10	35.85%
10 - 20	0.31%
20 - 30	0.00%
30 - 40	0.00%
40 - 50	0.00%
50 - 60	0.00%
60 - 70	0.00%
70 - 80	0.00%
80 - 90	0.00%
>90	0.79%

Wind: St. Lina Poll.: St. Lina-NO[ppb] Monthly: 02-2021 Type: PollutionRose Direction: Blowing From (Wind Frequency) Based On 1 Hr.
Calm: 0.00% Valid Data: 94.64% Calm Avg: 0.00 [ppb]

Direction	0-30	30-50	50-76	76-159	>159.0	Total
N	5.35	0	0	0	0	5.35
NNE	3.93	0	0	0	0	3.93
NE	2.67	0	0	0	0	2.67
ENE	1.42	0	0	0	0	1.42
E	2.04	0	0	0	0	2.04
ESE	1.42	0	0	0	0	1.42
SE	5.03	0	0	0	0	5.03
SSE	4.72	0	0	0	0	4.72
S	6.45	0	0	0	0	6.45
SSW	4.56	0	0	0	0	4.56
SW	3.93	0	0	0	0	3.93
WSW	10.85	0	0	0	0	10.85
W	11.01	0	0	0	0	11.01
WNW	7.23	0	0	0	0	7.23
NW	15.41	0	0	0	0	15.41
NNW	13.21	0	0	0.31	0.47	13.99
Summary	99.23	0	0	0.31	0.47	100


St. Lina Poll.: St. Lina-NO[ppb] 01-02-2021 00:00 - 28-02-2021 23:00 Calm: 0.00%
N
NNE
NE
ENE
E
ESE
SE
SSE
S
SSW
SW
WSW
W
WNW
NW
NNW
20
15
10
5
% Icon Classes (ppb)
99 0-30
0 30-50
0 50-76
0 76-159
0 >159.0

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION

St. Lina Site - February 2021

Summary of Hourly Averages

NITROGEN DIOXIDE (NO_2) in ppb

Alberta Ambient Air Quality Objectives (AAAQO): 1-Hour 159 ppb

Number of 1-Hour Exceedences: 0

Maximum Hourly Value:	26	ppb	on February 10 at hour 10	Hours in Service:	672
Maximum Daily Value:	5.2	ppb	on February 18	Hours of Data:	636
Minimum Hourly Value:	0	ppb	on February 4 at hour 20	Hours of Missing Data:	1
Minimum Daily Value:	1.0	ppb	on February 9	Hours of Calibration:	35
Monthly Average:	2.4	ppb		Operational Uptime:	99.9

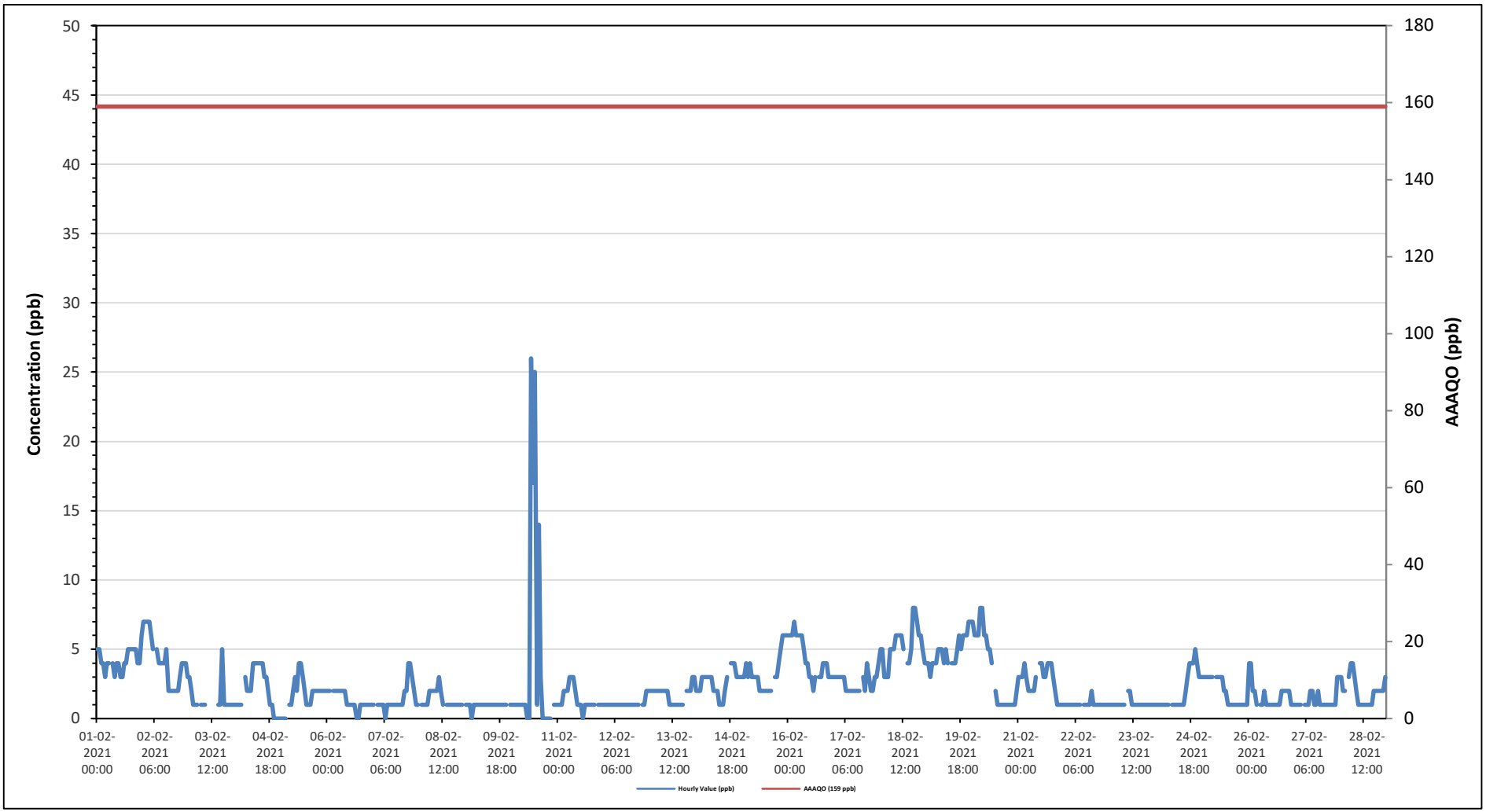
Day	Hourly Period Starting at (MST)																								Daily Minimum	Daily Maximum	Daily Average
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23			
Feb 1	5	5	4	4	3	4	4	S	4	3	4	4	3	3	4	4	5	5	5	5	5	4	4	6	3	6	4.2
Feb 2	7	7	7	7	6	5	S	5	4	4	4	4	5	2	2	2	2	2	2	3	4	4	4	3	2	7	4.1
Feb 3	3	2	1	1	1	S	1	1	1	C	C	C	C	C	C	1	1	5	1	1	1	1	1	1	1	5	-
Feb 4	1	1	1	1	S	3	2	2	2	4	4	4	4	4	4	3	3	2	1	1	0	0	0	0	0	4	2.0
Feb 5	0	0	0	S	1	1	2	3	2	4	4	3	2	1	1	1	2	2	2	2	2	2	2	2	0	4	1.8
Feb 6	2	2	S	2	2	2	2	2	2	2	1	1	1	1	1	0	0	1	1	1	1	1	1	1	0	2	1.3
Feb 7	1	S	1	1	1	1	0	1	1	1	1	1	1	1	1	1	2	2	4	4	3	2	1	1	0	4	1.4
Feb 8	S	1	1	1	1	2	2	2	2	2	3	2	1	P	1	1	1	1	1	1	1	1	1	S	1	3	1.4
Feb 9	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	S	1	0	1	1.0
Feb 10	1	1	1	1	1	1	1	1	0	0	**26**	17	25	1	14	3	0	0	0	0	0	S	1	1	0	**26**	4.2
Feb 11	1	1	1	2	2	2	3	3	3	2	1	1	1	0	1	1	1	1	1	1	S	1	1	1	0	3	1.4
Feb 12	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	S	1	1	2	2	1	2	1.1
Feb 13	2	2	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1	S	2	2	2	3	3	1	3	1.7
Feb 14	2	2	2	3	3	3	3	3	3	2	2	2	1	1	1	2	3	S	4	4	4	3	3	3	1	4	2.6
Feb 15	3	3	4	3	4	3	3	3	3	2	2	2	2	2	2	2	S	3	3	4	5	6	6	6	2	6	3.3
Feb 16	6	6	6	7	6	6	6	6	5	4	4	3	3	2	3	S	3	3	4	4	4	3	3	3	2	7	4.3
Feb 17	3	3	3	3	3	3	2	2	2	2	2	2	2	2	S	3	2	4	3	2	2	3	3	4	2	4	2.6
Feb 18	5	5	3	3	3	5	5	5	6	6	6	6	5	S	4	4	5	8	8	7	6	6	5	4	3	8	**5.2**
Feb 19	4	4	3	4	4	4	5	5	5	4	5	4	S	4	4	4	5	6	5	6	6	6	7	7	3	7	4.8
Feb 20	7	6	6	6	8	8	6	6	5	5	4	S	2	1	1	1	1	1	1	1	1	1	1	2	1	8	3.5
Feb 21	3	3	3	4	3	2	2	2	2	3	S	4	4	3	3	4	4	4	3	2	1	1	1	1	1	4	2.7
Feb 22	1	1	1	1	1	1	1	1	1	S	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	2	1.0
Feb 23	1	1	1	1	1	1	1	1	S	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1.1
Feb 24	1	1	1	1	1	1	1	S	1	1	1	1	1	1	1	2	3	4	4	4	5	4	3	3	1	5	2.0
Feb 25	3	3	3	3	3	3	S	3	3	3	3	2	2	1	1	1	1	1	1	1	1	1	1	1	1	3	2.0
Feb 26	4	4	2	2	1	S	1	1	2	1	1	1	1	1	1	1	1	2	2	2	2	2	1	1	1	4	1.6
Feb 27	1	1	1	1	S	1	1	1	2	2	1	1	2	1	1	1	1	1	1	1	1	1	3	3	1	3	1.3
Feb 28	3	2	2	S	3	4	4	3	2	1	1	1	1	1	1	1	1	2	2	2	2	2	2	3	1	4	2.0
Diurnal Maximum	7	7	7	7	8	8	6	6	6	6	26	17	25	4	14	4	5	8	8	7	6	6	7	7			
Daiurnal Average	2.7	2.6	2.3	2.5	2.5	2.7	2.4	2.5	2.5	2.5	3.3	2.7	2.8	1.5	2.2	1.8	1.9	2.4	2.3	2.4	2.3	2.3	2.3	2.4			

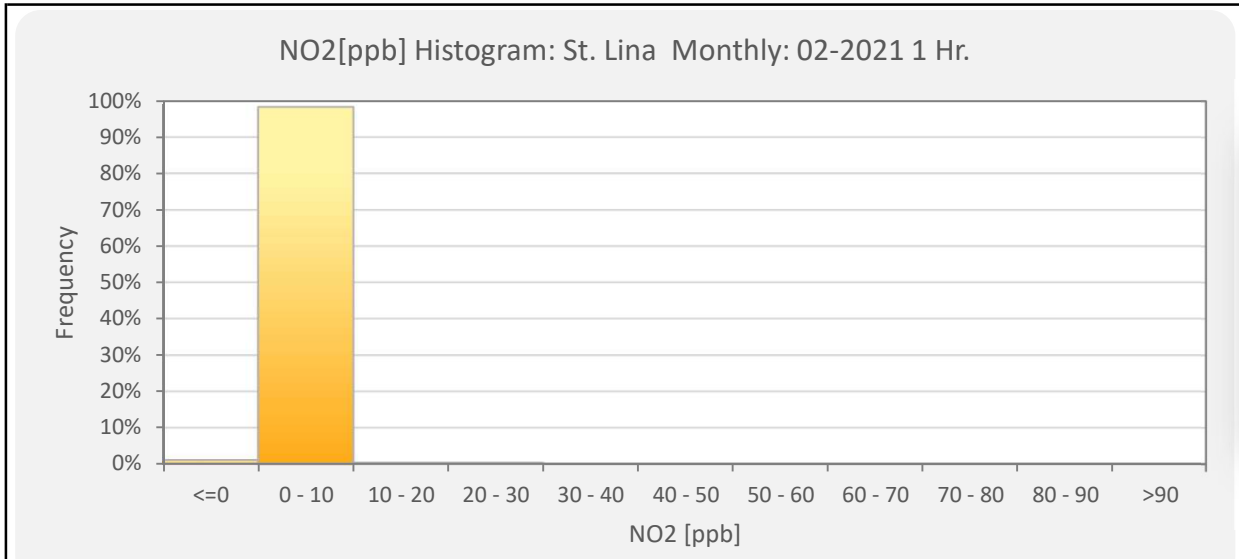
C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance	
K	Collection Error	N	No Data (Machine Not in Service)	Y	Routine Maintenance	P Power Failure
X	InValid Data (Equipment Malfunction /Recovery)	NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)			

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.

Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.

Timeseries Chart of Hourly Average for NO2 - St. Lina Site

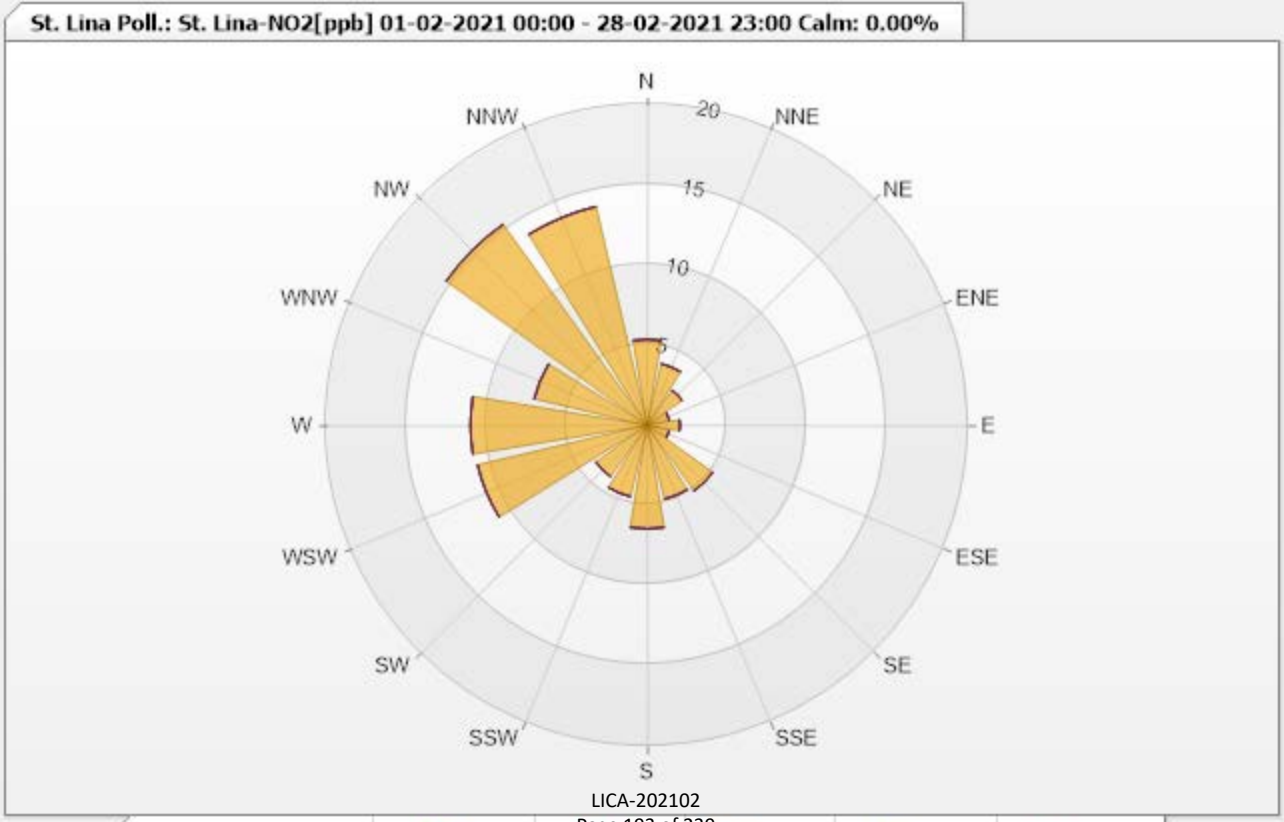




Classes	NO2
<=0	1.10%
0 - 10	98.27%
10 - 20	0.31%
20 - 30	0.31%
30 - 40	0.00%
40 - 50	0.00%
50 - 60	0.00%
60 - 70	0.00%
70 - 80	0.00%
80 - 90	0.00%
>90	0.00%

Wind: St. Lina Poll.: St. Lina-NO2[ppb] Monthly: 02-2021 Type: PollutionRose Direction: Blowing From (Wind Frequency) Based On 1 Hr.
Calm: 0.00% Valid Data: 94.64% Calm Avg: 0.00 [ppb]

Direction	0-30	30-50	50-76	76-159	>159.0	Total
N	5.35	0	0	0	0	5.35
NNE	3.93	0	0	0	0	3.93
NE	2.67	0	0	0	0	2.67
ENE	1.42	0	0	0	0	1.42
E	2.04	0	0	0	0	2.04
ESE	1.42	0	0	0	0	1.42
SE	5.03	0	0	0	0	5.03
SSE	4.72	0	0	0	0	4.72
S	6.45	0	0	0	0	6.45
SSW	4.56	0	0	0	0	4.56
SW	3.93	0	0	0	0	3.93
WSW	10.85	0	0	0	0	10.85
W	11.01	0	0	0	0	11.01
WNW	7.23	0	0	0	0	7.23
NW	15.41	0	0	0	0	15.41
NNW	13.99	0	0	0	0	13.99
Summary	100	0	0	0	0	100


St. Lina Poll.: St. Lina-NO2[ppb] 01-02-2021 00:00 - 28-02-2021 23:00 Calm: 0.00%
N
NNE
NE
ENE
E
ESE
SE
SSE
S
SSW
SW
WSW
W
WNW
NW
NNW
20
15
10
5
% Icon Classes (ppb)
100 0-30
0 30-50
0 50-76
0 76-159
0 >159.0

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION

St. Lina Site - February 2021

Summary of Hourly Averages

OZONE (O_3) in ppb

Alberta Ambient Air Quality Objectives (AAAQO): 1-Hour 76 ppb

Number of 1-Hour Exceedences: 0

Maximum Hourly Value:	44.2	ppb	on February 22 at hour 18	Hours in Service:	672
Maximum Daily Value:	42.3	ppb	on February 22	Hours of Data:	636
Minimum Hourly Value:	17.4	ppb	on February 11 at hour 7	Hours of Missing Data:	3
Minimum Daily Value:	23.7	ppb	on February 2	Hours of Calibration:	33
Monthly Average:	32.3	ppb		Operational Uptime:	99.6

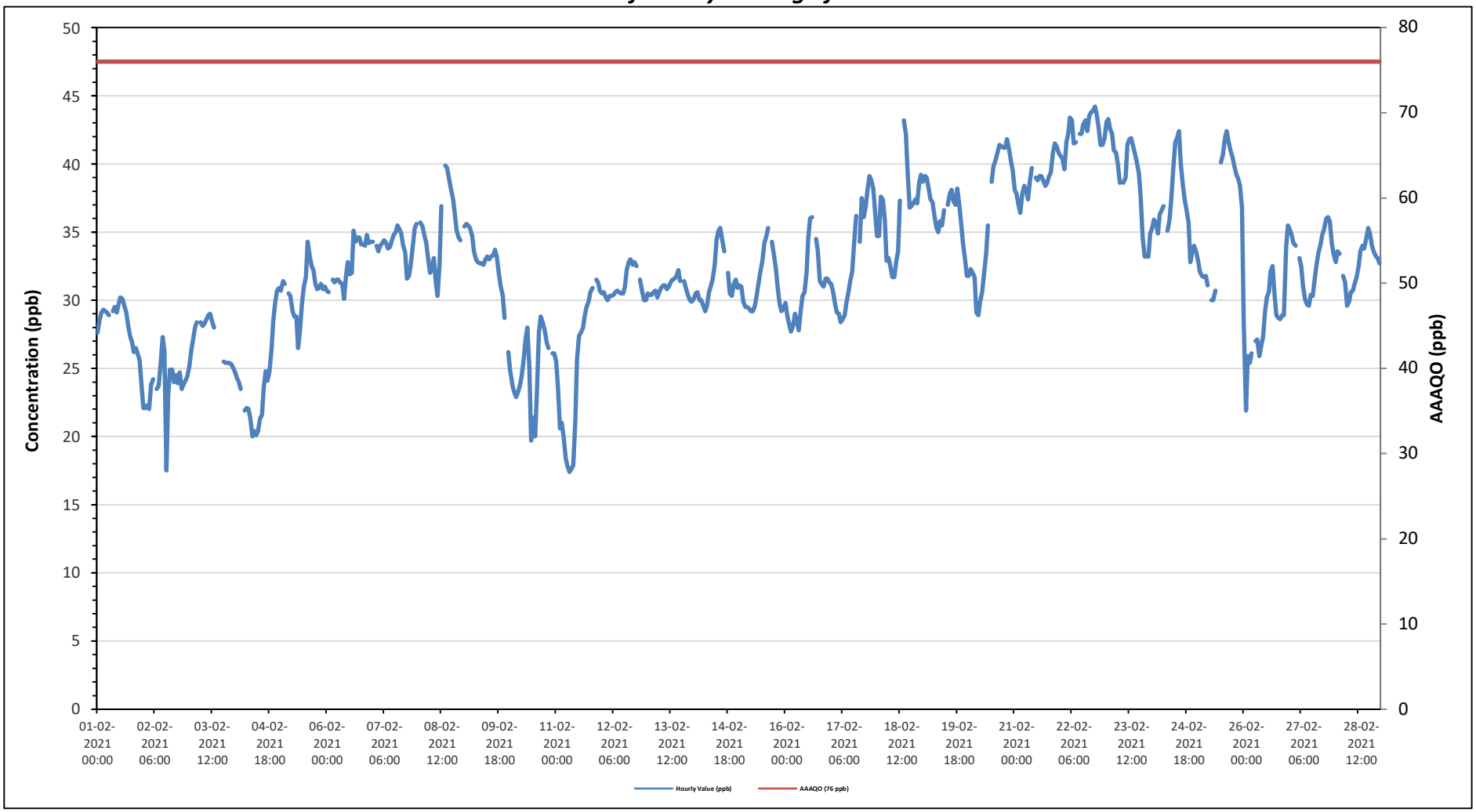
Day	Hourly Period Starting at (MST)																								Daily Minimum	Daily Maximum	Daily Average
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23			
Feb 1	27.6	28.5	29.1	29.3	29.2	29.1	28.9	S	29.2	29.5	29.1	29.7	30.2	30.1	29.6	29.1	28.2	27.4	26.9	26.2	26.5	26.1	25.6	23.7	23.7	30.2	28.2
Feb 2	22.1	22.1	22.3	22	23.8	24.2	S	23.5	23.7	25.1	27.3	26.3	17.5	23	24.9	24.9	24	24.5	23.9	24.7	23.5	23.8	24.1	24.4	17.5	27.3	23.7
Feb 3	25.1	26.3	27.2	28	28.4	S	28.4	28.1	28.3	28.6	28.9	29	28.4	28	C	C	C	C	25.5	25.4	25.4	25.4	25.3	25	25.0	29.0	27.1
Feb 4	24.7	24.3	24	23.5	S	21.9	22.1	22	21.4	20	20.4	20.1	20.4	21.3	21.6	23.6	24.8	24.1	24.8	26.4	28.5	29.9	30.7	30.9	20.0	30.9	24.0
Feb 5	30.7	31.4	31.2	S	30.5	30.3	29.2	28.8	28.8	26.5	27.7	29.9	31	31.7	34.3	33.3	32.5	32.2	31.2	30.8	30.9	31.2	30.8	31	26.5	34.3	30.7
Feb 6	30.7	30.6	S	31.5	31.3	31.5	31.5	31.3	31.2	30.1	31.8	32.8	31.9	32	35.1	34.3	34.6	34.6	34.1	34.1	34	34.8	34.2	34.3	30.1	35.1	32.7
Feb 7	34.3	S	34	33.6	34	34.2	34.4	34.2	33.8	33.9	34.4	34.8	35	35.5	35.2	34.9	34	33.5	31.6	31.8	32.6	34.1	35.3	35.6	31.6	35.6	34.1
Feb 8	S	35.7	35.4	34.8	34.2	33.1	32	32.4	33.1	31.3	30.3	32.7	36.9	P	39.9	39.7	38.9	38.2	37.4	36.3	35.1	34.6	34.4	S	30.3	39.9	35.1
Feb 9	35.4	35.6	35.5	35.3	34.7	33.6	33	32.8	32.7	32.7	32.6	33	33.2	33	33.2	33.3	33.7	33.2	32	31.1	30.3	28.7	S	26.2	26.2	35.6	32.8
Feb 10	24.9	23.8	23.3	22.9	23.2	23.7	24.4	25.6	27.2	28	25	19.7	21.4	20	23.3	27.6	28.8	28.3	27.8	26.9	26.5	S	26.1	26.1	19.7	28.8	25.0
Feb 11	25.5	23.6	20.6	21	19.9	18.4	17.8	17.4	17.6	17.9	21.1	25.7	27.4	27.6	28	28.9	29.5	29.9	30.6	30.9	S	31.5	31.3	30.7	**17.4**	31.5	24.9
Feb 12	30.5	30.6	30.2	30	30.3	30.3	30.4	30.6	30.7	30.6	30.5	30.5	31	32.2	32.8	33	32.6	32.8	32.5	S	31.5	30.7	30	30	30.0	33.0	31.1
Feb 13	30.5	30.4	30.4	30.6	30.7	30.2	30.6	30.9	31.1	31.1	30.8	31	31.3	31.5	31.6	31.8	32.2	31.4	S	31.4	30.8	30.4	30	29.9	29.9	32.2	30.9
Feb 14	30.1	30.5	30.6	30	30	29.6	29.2	29.6	30.6	31	31.6	32.6	34.4	35.1	35.3	34.4	33.6	S	32	30.5	30.3	31.2	31.5	30.9	29.2	35.3	31.5
Feb 15	31.1	31	29.9	29.5	29.5	29.4	29.2	29.2	29.6	30.3	31.3	32.1	32.9	34.2	34.7	35.3	S	34.3	33.3	32.3	30.9	29.7	29.2	29.4	29.2	35.3	31.2
Feb 16	29.8	28.9	28.2	27.7	28.1	29	28.5	27.8	29.1	30.3	30.6	32	34.6	36	36.1	S	34.5	33.6	31.4	31.2	31	31.6	31.6	31.3	27.7	36.1	31.0
Feb 17	31.2	30.6	29.7	29.1	29	28.4	28.6	28.9	29.8	30.6	31.4	32.1	34.3	36.2	S	34.3	37.5	36.1	36.9	38.1	39.1	38.8	38.2	36.3	28.4	39.1	33.3
Feb 18	34.7	34.7	37.6	37.4	35.9	32.9	33.1	32.5	31.7	31.7	32.9	33.6	37.3	S	43.2	42.2	39.4	36.8	36.9	37.1	37.4	37.1	38.6	39.2	31.7	43.2	36.3
Feb 19	38.7	39.1	39	38.2	37.4	37.2	36.2	35.3	35	35.8	35.5	36.6	S	37	37.8	38.1	37.3	37	38.2	37	35.7	34.1	33	31.8	31.8	39.1	36.6
Feb 20	31.8	32.3	32	31.7	29.1	28.9	29.9	30.6	32	33.4	35.5	S	38.7	39.8	40.3	40.8	41.4	41.3	41.2	41.2	41.8	41.1	40.3	39.5	28.9	41.8	36.3
Feb 21	38.1	37.8	37	36.4	37.8	38.4	38	37.4	38.7	39.7	S	39	38.8	39.1	39.1	38.8	38.4	38.6	39.1	39.4	40.8	41.5	41.3	40.8	36.4	41.5	38.9
Feb 22	40.6	40.4	39.6	41.6	42.2	43.4	43.2	41.5	41.6	S	42.2	42.2	42.9	43.2	42.4	43.5	43.8	43.9	**44.2**	43.6	42.6	41.4	41.4	41.9	39.6	**44.2**	**42.3**
Feb 23	43.1	43.3	42.6	42.2	41	40.8	40	38.6	S	38.6	39	41.4	41.8	41.9	41.3	40.7	40.1	39.3	37.6	34.6	33.2	33.2	33.2	34.9	33.2	43.3	39.2
Feb 24	35.3	35.9	35.6	34.9	36.3	36.6	36.9	S	35.1	35.9	37.4	39.4	41.6	41.9	42.4	40	38.5	37.3	36.6	35.7	32.8	33.6	34	33.5	32.8	42.4	36.8
Feb 25	32.9	32.1	31.8	31.7	31.8	31.1	S	30	30	30.7	NRM	NRM	40.1	40.7	41.9	42.4	41.6	41	40.5	39.9	39.2	38.9	38.4	36.8	30.0	42.4	36.4
Feb 26	28.3	21.9	25.9	25.4	26.1	S	27	27.1	25.9	26.6	27.3	29.2	30.2	30.6	32.1	32.5	30.6	28.9	28.7	28.6	28.9	28.9	33.9	35.5	21.9	35.5	28.7
Feb 27	35.2	34.8	34.2	34	S	33.1	32.5	31.1	30.1	29.7	29.6	30.4	30.3	31.4	32.6	33.5	34	34.8	35.2	36	36.1	35.8	34.2	33.4	29.6	36.1	33.1
Feb 28	32.8	33.6	33.4	S	31.8	31.3	29.6	29.9	30.6	30.7	31.2	31.7	32.5	33.6	34	33.8	34.6	35.3	34.9	34	33.6	33.2	33.1	32.7	29.6	35.3	32.7
Diurnal Maximum	43	43	43	42	42	43	43	42	42	40	42	42	43	43	43	44	44	44	44	44	43	42	41	42			
Daiurnal Average	31.7	31.5	31.5	31.2	31.4	31.2	30.9	30.3	30.3	30.4	31.0	31.8	32.8	33.3	34.7	34.8	34.6	34.2	33.5	33.2	32.9	33.0	33.0	32.4			

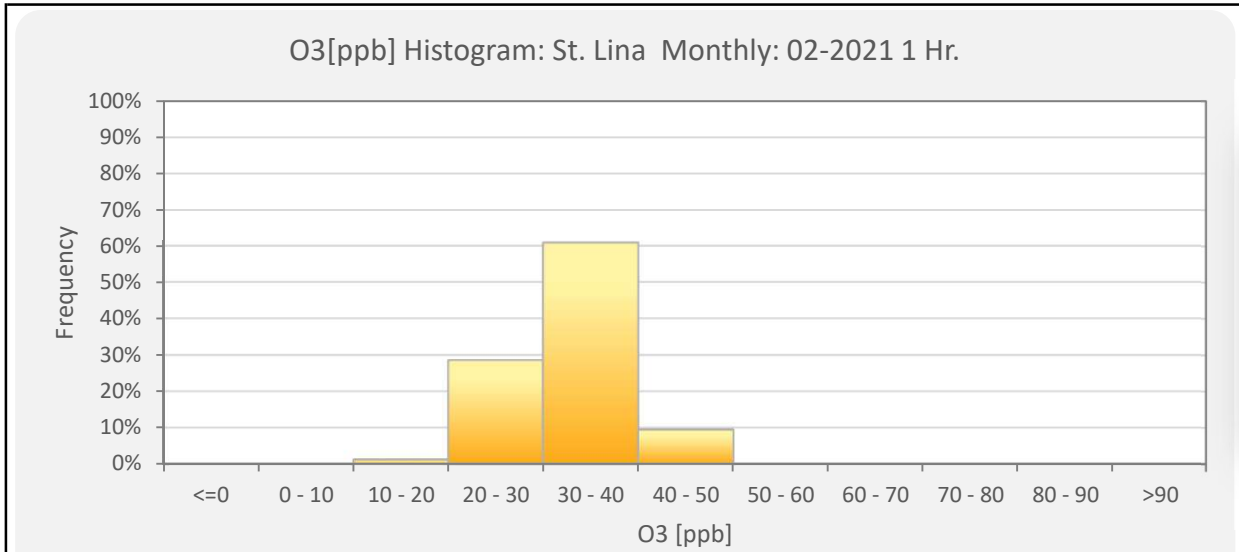
C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance	
K	Collection Error	N	No Data (Machine Not in Service)	Y	Routine Maintenance	P Power Failure
X	InValid Data (Equipment Malfunction /Recovery)	NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)			

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.

Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.

Timeseries Chart of Hourly Average for O3 - St. Lina Site

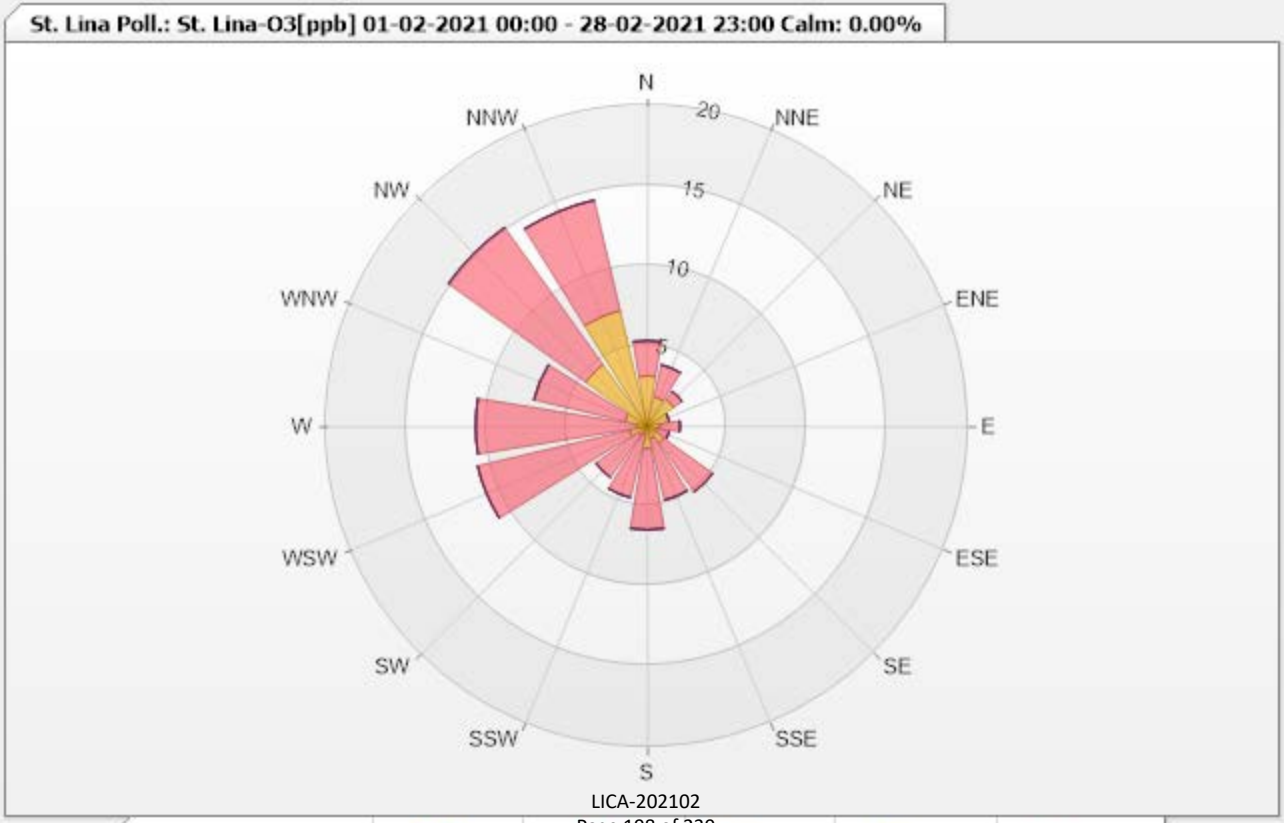




Classes	O3
<=0	0.00%
0 - 10	0.00%
10 - 20	1.26%
20 - 30	28.46%
30 - 40	60.85%
40 - 50	9.43%
50 - 60	0.00%
60 - 70	0.00%
70 - 80	0.00%
80 - 90	0.00%
>90	0.00%

Wind: St. Lina Poll.: St. Lina-O3[ppb] Monthly: 02-2021 Type: PollutionRose Direction: Blowing From (Wind Frequency) Based On 1 Hr.
Calm: 0.00% Valid Data: 94.64% Calm Avg: 0.00 [ppb]

Direction	0-30	30-50	50-76	76-159	>159.0	Total
N	3.14	2.2	0	0	0	5.34
NNE	1.89	2.04	0	0	0	3.93
NE	2.04	0.63	0	0	0	2.67
ENE	1.42	0	0	0	0	1.42
E	0.79	1.26	0	0	0	2.05
ESE	0.63	0.79	0	0	0	1.42
SE	1.26	3.77	0	0	0	5.03
SSE	0.79	3.93	0	0	0	4.72
S	1.42	5.03	0	0	0	6.45
SSW	0.47	4.09	0	0	0	4.56
SW	0.63	3.3	0	0	0	3.93
WSW	1.1	9.75	0	0	0	10.85
W	0.63	10.06	0	0	0	10.69
WNW	1.42	5.82	0	0	0	7.24
NW	4.72	10.53	0	0	0	15.25
NNW	7.39	7.08	0	0	0	14.47
Summary	29.74	70.28	0	0	0	100


St. Lina Poll.: St. Lina-O3[ppb] 01-02-2021 00:00 - 28-02-2021 23:00 Calm: 0.00%
N
NNE
NE
ENE
E
ESE
SE
SSE
S
SSW
SW
WSW
W
WNW
NW
NNW
20
15
10
5
% Icon Classes (ppb)
30 0-30
70 30-50
0 50-76
0 76-159
0 >159.0

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION

St. Lina Site - February 2021

Summary of Hourly Averages

TOTAL HYDROCARBONS (THC) in ppm

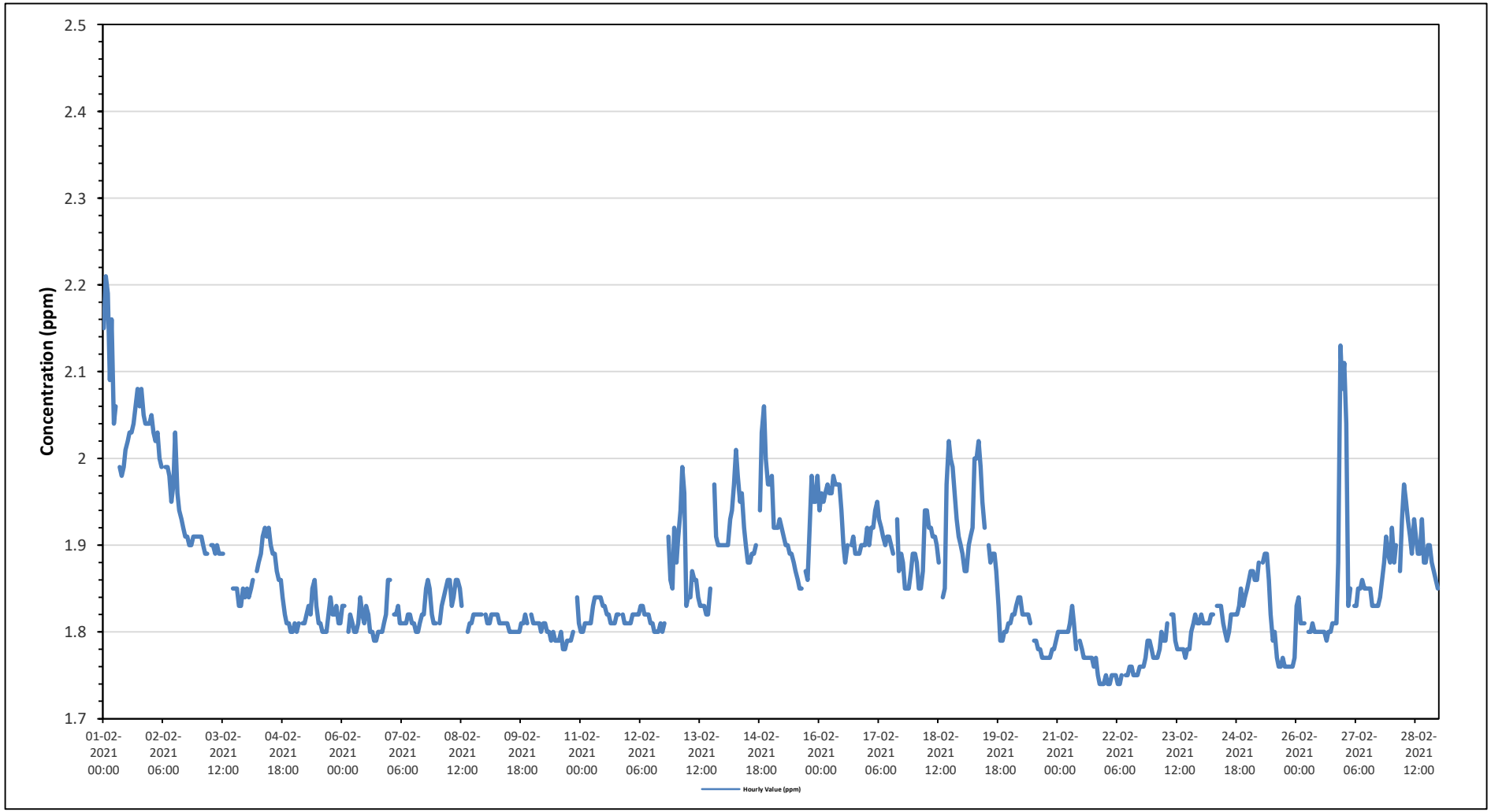
Maximum Hourly Value:	2.21	ppm	on February 1 at hour 1	Hours in Service:	672
Maximum Daily Value:	2.06	ppm	on February 1	Hours of Data:	637
Minimum Hourly Value:	1.74	ppm	on February 21 at hour 21	Hours of Missing Data:	2
Minimum Daily Value:	1.76	ppm	on February 22	Hours of Calibration:	33
Monthly Average:	1.86	ppm		Operational Uptime:	99.7

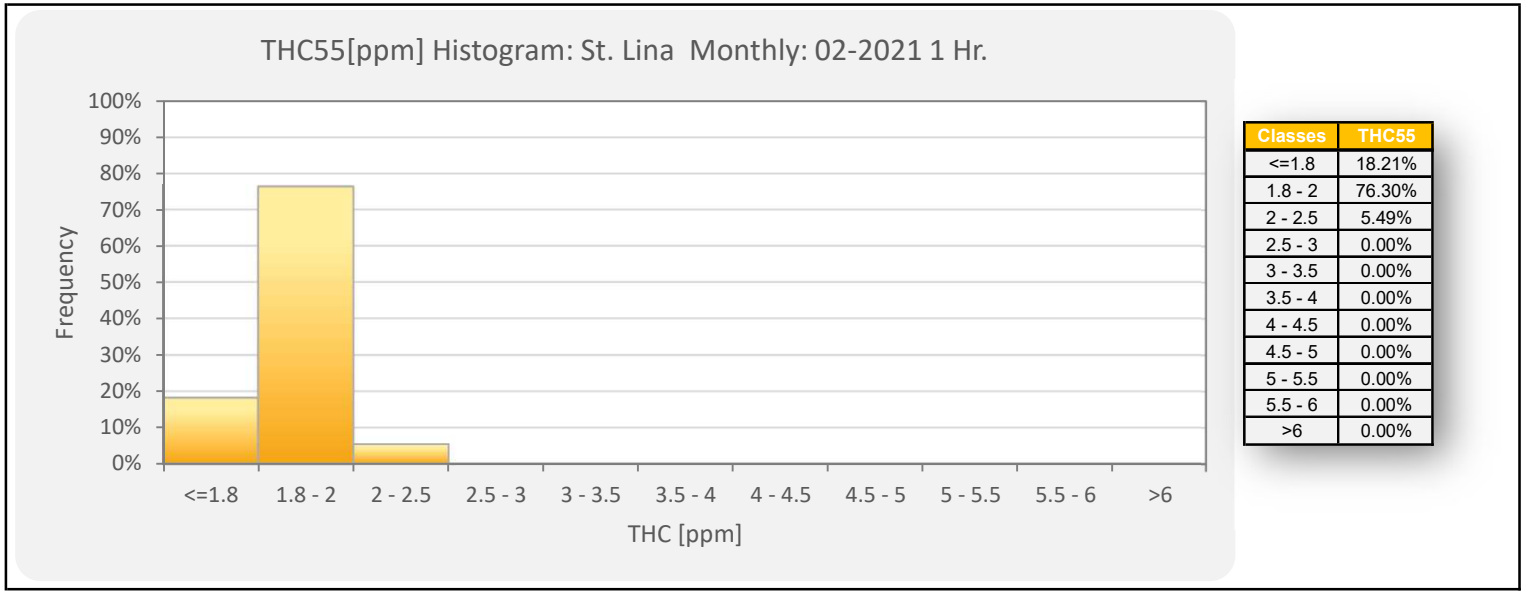
Day	Hourly Period Starting at (MST)																							Daily Minimum	Daily Maximum	Daily Average
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23			
Feb 1	2.15	2.21	2.19	2.09	2.16	2.04	2.06	S	1.99	1.98	1.99	2.01	2.02	2.03	2.03	2.04	2.06	2.08	2.06	2.08	2.05	2.04	2.04	2.04	1.98	2.21	2.06
Feb 2	2.05	2.03	2.02	2.03	2.00	1.99	S	1.99	1.99	1.98	1.95	1.97	2.03	1.96	1.94	1.93	1.92	1.91	1.91	1.90	1.90	1.91	1.91	1.91	1.90	2.05	1.96
Feb 3	1.91	1.91	1.90	1.89	1.89	S	1.90	1.90	1.89	1.90	1.89	1.89	1.89	C	C	C	C	1.85	1.85	1.85	1.83	1.83	1.85	1.84	1.83	1.91	1.88
Feb 4	1.85	1.84	1.85	1.86	S	1.87	1.88	1.89	1.91	1.92	1.91	1.92	1.90	1.89	1.89	1.87	1.86	1.86	1.84	1.82	1.81	1.81	1.80	1.80	1.80	1.92	1.86
Feb 5	1.81	1.80	1.81	S	1.81	1.81	1.82	1.83	1.82	1.85	1.86	1.83	1.81	1.81	1.80	1.80	1.80	1.82	1.84	1.82	1.82	1.83	1.81	1.81	1.80	1.86	1.82
Feb 6	1.83	1.83	S	1.80	1.82	1.81	1.80	1.80	1.81	1.84	1.82	1.81	1.83	1.82	1.80	1.80	1.79	1.79	1.80	1.80	1.80	1.81	1.82	1.86	1.79	1.86	1.81
Feb 7	1.86	S	1.82	1.82	1.83	1.81	1.81	1.81	1.81	1.82	1.82	1.81	1.81	1.80	1.80	1.81	1.82	1.82	1.85	1.86	1.85	1.82	1.81	1.81	1.80	1.86	1.82
Feb 8	S	1.81	1.83	1.84	1.85	1.86	1.86	1.83	1.84	1.86	1.86	1.85	1.83	P	X	1.80	1.81	1.81	1.82	1.82	1.82	1.82	1.82	S	1.80	1.86	1.83
Feb 9	1.82	1.81	1.81	1.82	1.82	1.82	1.82	1.81	1.81	1.81	1.81	1.81	1.80	1.80	1.80	1.80	1.80	1.80	1.81	1.81	1.82	1.81	S	1.82	1.80	1.82	1.81
Feb 10	1.81	1.81	1.81	1.81	1.80	1.81	1.81	1.80	1.80	1.79	1.80	1.79	1.79	1.79	1.80	1.78	1.78	1.79	1.79	1.79	1.80	S	1.84	1.81	1.78	1.84	1.80
Feb 11	1.80	1.80	1.81	1.81	1.81	1.81	1.83	1.84	1.84	1.84	1.84	1.83	1.83	1.82	1.82	1.81	1.81	1.81	1.82	1.82	S	1.82	1.81	1.81	1.80	1.84	1.82
Feb 12	1.81	1.81	1.82	1.82	1.82	1.82	1.83	1.83	1.82	1.82	1.82	1.81	1.81	1.80	1.80	1.80	1.81	1.80	1.81	S	1.91	1.86	1.85	1.92	1.80	1.92	1.83
Feb 13	1.88	1.91	1.94	1.99	1.96	1.83	1.84	1.84	1.87	1.86	1.86	1.84	1.83	1.83	1.83	1.82	1.82	1.85	S	1.97	1.91	1.90	1.90	1.90	1.82	1.99	1.88
Feb 14	1.90	1.90	1.90	1.93	1.94	1.97	2.01	1.98	1.95	1.96	1.92	1.90	1.88	1.88	1.89	1.89	1.90	S	1.94	2.03	2.06	2.00	1.97	1.97	1.88	2.06	1.94
Feb 15	1.98	1.92	1.92	1.92	1.93	1.92	1.91	1.90	1.90	1.89	1.89	1.88	1.87	1.86	1.85	1.85	S	1.87	1.86	1.92	1.98	1.95	1.95	1.98	1.85	1.98	1.91
Feb 16	1.94	1.96	1.95	1.96	1.97	1.96	1.96	1.98	1.97	1.97	1.97	1.94	1.90	1.88	1.90	S	1.90	1.91	1.89	1.89	1.89	1.90	1.90	1.90	1.88	1.98	1.93
Feb 17	1.92	1.90	1.92	1.92	1.94	1.95	1.93	1.92	1.91	1.90	1.91	1.91	1.90	1.89	S	1.93	1.87	1.89	1.88	1.85	1.85	1.85	1.87	1.89	1.85	1.95	1.90
Feb 18	1.89	1.88	1.85	1.85	1.87	1.94	1.94	1.92	1.92	1.91	1.91	1.90	1.88	S	1.84	1.85	1.97	2.02	2.00	1.99	1.96	1.93	1.91	1.90	1.84	2.02	1.91
Feb 19	1.89	1.87	1.87	1.90	1.91	1.92	2.00	2.00	2.02	1.99	1.95	1.92	S	1.90	1.88	1.89	1.89	1.87	1.83	1.79	1.79	1.80	1.80	1.81	1.79	2.02	1.89
Feb 20	1.81	1.82	1.82	1.83	1.84	1.84	1.82	1.82	1.82	1.82	1.81	S	1.79	1.79	1.78	1.78	1.77	1.77	1.77	1.77	1.77	1.78	1.78	1.79	1.77	1.84	1.80
Feb 21	1.80	1.80	1.80	1.80	1.80	1.80	1.81	1.83	1.81	1.78	S	1.79	1.78	1.77	1.77	1.77	1.77	1.77	1.76	1.77	1.75	1.74	1.74	1.74	1.74	1.83	1.78
Feb 22	1.75	1.74	1.74	1.75	1.75	1.75	1.74	1.74	1.75	S	1.75	1.75	1.76	1.76	1.75	1.75	1.75	1.76	1.76	1.76	1.77	1.79	1.79	1.78	1.74	1.79	1.76
Feb 23	1.77	1.77	1.77	1.78	1.80	1.79	1.79	1.81	S	1.82	1.82	1.79	1.78	1.78	1.78	1.78	1.77	1.78	1.78	1.80	1.81	1.82	1.81	1.81	1.77	1.82	1.79
Feb 24	1.82	1.81	1.81	1.81	1.81	1.82	1.82	S	1.83	1.83	1.83	1.81	1.80	1.79	1.80	1.82	1.82	1.82	1.82	1.83	1.85	1.83	1.84	1.85	1.79	1.85	1.82
Feb 25	1.86	1.87	1.87	1.86	1.86	1.88	S	1.88	1.89	1.89	1.86	1.82	1.79	1.80	1.77	1.76	1.76	1.77	1.76	1.76	1.76	1.76	1.76	1.77	1.76	1.89	1.82
Feb 26	1.83	1.84	1.81	1.81	1.81	S	1.80	1.80	1.81	1.80	1.80	1.80	1.80	1.80	1.80	1.79	1.80	1.80	1.81	1.81	1.81	1.88	2.13	2.08	1.79	2.13	1.84
Feb 27	2.11	2.04	1.83	1.85	S	1.83	1.83	1.85	1.85	1.86	1.85	1.85	1.85	1.85	1.83	1.83	1.83	1.83	1.84	1.86	1.88	1.91	1.89	1.88	1.83	2.11	1.87
Feb 28	1.92	1.88	1.90	S	1.87	1.93	1.97	1.95	1.93	1.91	1.89	1.93	1.91	1.89	1.89	1.93	1.88	1.88	1.90	1.90	1.88	1.87	1.86	1.85	1.85	1.97	1.90
Diurnal Maximum	2.15	2.21	2.19	2.09	2.16	2.04	2.06	2.00	2.02	1.99	1.99	2.01	2.03	2.03	2.03	2.04	2.06	2.08	2.06	2.08	2.06	2.04	2.13	2.08			
Daiurnal Average	1.88	1.87	1.87	1.87	1.87	1.87	1.87	1.87	1.87	1.87	1.87	1.86	1.85	1.84	1.83	1.83	1.84	1.84	1.84	1.85	1.86	1.85	1.86	1.86			

C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance	
K	Collection Error	N	No Data (Machine Not in Service)	Y	Routine Maintenance	P Power Failure
X	InValid Data (Equipment Malfunction /Recovery)	NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)			

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.

Timeseries Chart of Hourly Average for THC - St. Lina Site

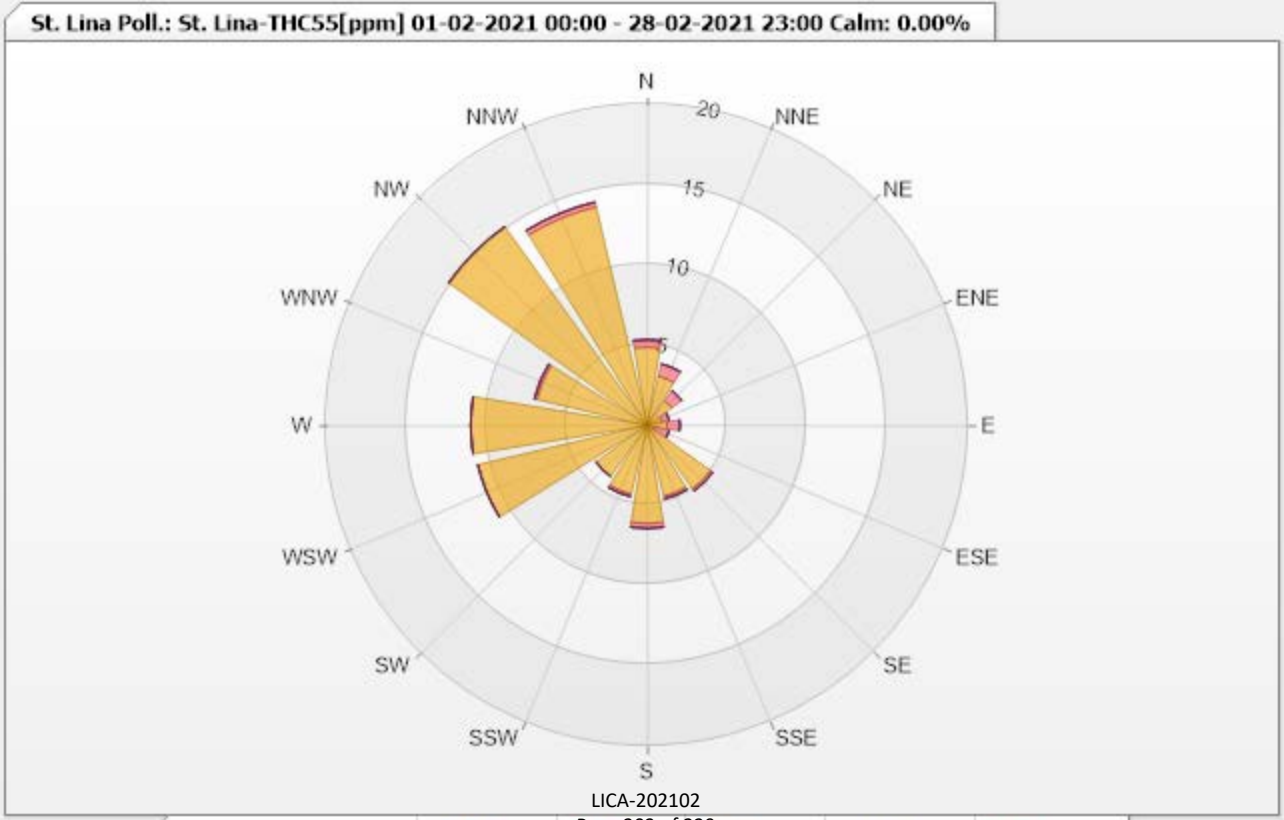




Classes	THC55
<=1.8	18.21%
1.8 - 2	76.30%
2 - 2.5	5.49%
2.5 - 3	0.00%
3 - 3.5	0.00%
3.5 - 4	0.00%
4 - 4.5	0.00%
4.5 - 5	0.00%
5 - 5.5	0.00%
5.5 - 6	0.00%
>6	0.00%

Wind: St. Lina Poll.: St. Lina-THC55[ppm] Monthly: 02-2021 Type: PollutionRose Direction: Blowing From (Wind Frequency) Based On 1 Hr.
Calm: 0.00% Valid Data: 94.79% Calm Avg: 0.00 [ppm]

Direction	0-2	2-5	5-10	10-40	>40.0	Total
N	4.87	0.47	0	0	0	5.34
NNE	3.14	0.78	0	0	0	3.92
NE	1.88	0.78	0	0	0	2.66
ENE	0.94	0.47	0	0	0	1.41
E	1.26	0.78	0	0	0	2.04
ESE	0.47	0.94	0	0	0	1.41
SE	4.87	0.16	0	0	0	5.03
SSE	4.55	0.16	0	0	0	4.71
S	6.12	0.31	0	0	0	6.43
SSW	4.4	0.16	0	0	0	4.56
SW	3.92	0	0	0	0	3.92
WSW	10.83	0	0	0	0	10.83
W	10.99	0	0	0	0	10.99
WNW	7.06	0.16	0	0	0	7.22
NW	15.23	0	0	0	0	15.23
NNW	13.97	0.31	0	0	0	14.28
Summary	94.5	5.48	0	0	0	100


St. Lina Poll.: St. Lina-THC55[ppm] 01-02-2021 00:00 - 28-02-2021 23:00 Calm: 0.00%
N
NNE
NE
ENE
E
ESE
SE
SSE
S
SSW
SW
WSW
W
WNW
NW
NNW
20
15
10
5
% Icon Classes (ppm)
95 0-2
5 2-5
0 5-10
0 10-40
0 >40.0

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION

St. Lina Site - February 2021

Summary of Hourly Averages

METHANE (CH4) in ppm

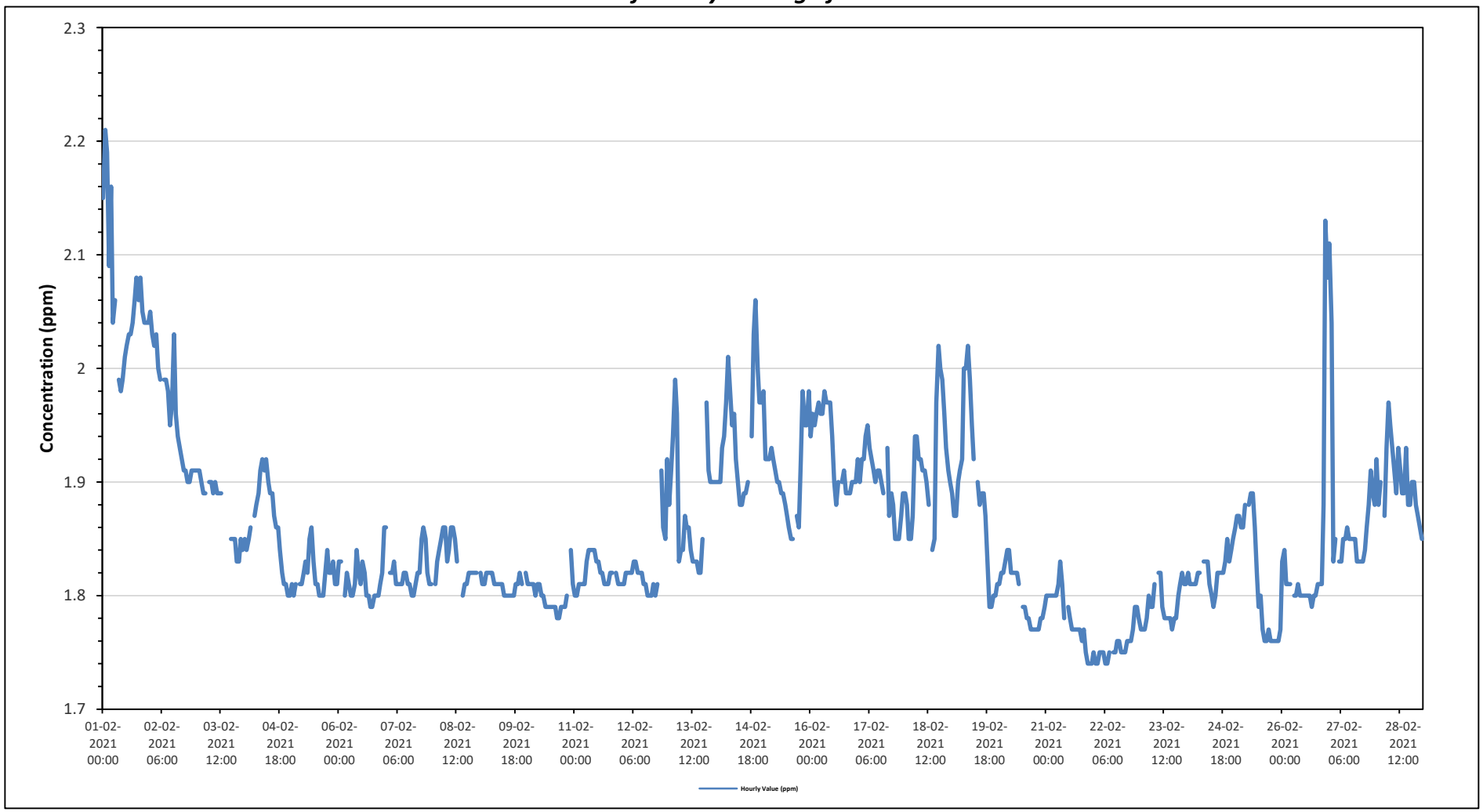
Maximum Hourly Value:	2.21	ppm	on February 1 at hour 1	Hours in Service:	672
Maximum Daily Value:	2.06	ppm	on February 1	Hours of Data:	637
Minimum Hourly Value:	1.74	ppm	on February 21 at hour 21	Hours of Missing Data:	2
Minimum Daily Value:	1.76	ppm	on February 22	Hours of Calibration:	33
Monthly Average:	1.86	ppm		Operational Uptime:	99.7

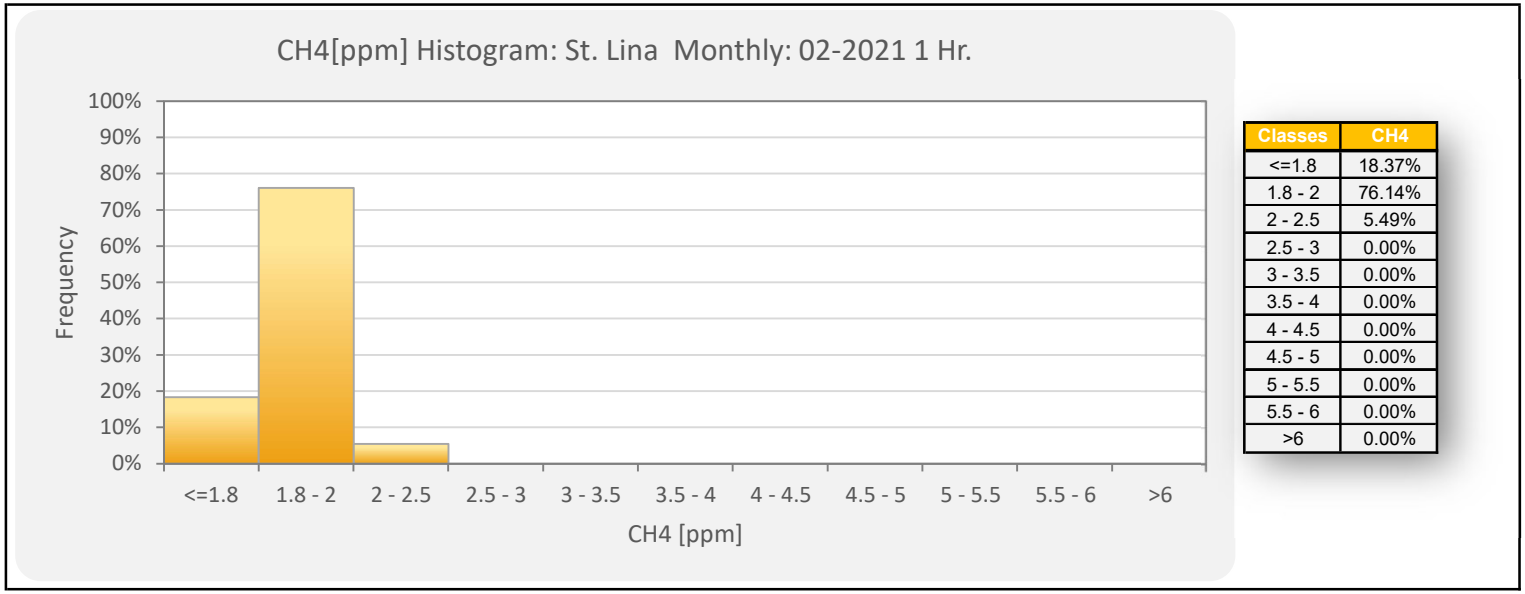
Day	Hourly Period Starting at (MST)																							Daily	Daily	Daily
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Minimum	Maximum	Average
Feb 1	2.15	2.21	2.19	2.09	2.16	2.04	2.06	S	1.99	1.98	1.99	2.01	2.02	2.03	2.03	2.04	2.06	2.08	2.06	2.08	2.05	2.04	2.04	2.04	1.98	2.21	2.06
Feb 2	2.05	2.03	2.02	2.03	2.00	1.99	S	1.99	1.99	1.98	1.95	1.97	2.03	1.96	1.94	1.93	1.92	1.91	1.91	1.90	1.90	1.91	1.91	1.91	1.90	2.05	1.96
Feb 3	1.91	1.91	1.90	1.89	1.89	S	1.90	1.90	1.89	1.90	1.89	1.89	1.89	C	C	C	C	1.85	1.85	1.85	1.83	1.83	1.85	1.84	1.83	1.91	1.88
Feb 4	1.85	1.84	1.85	1.86	S	1.87	1.88	1.89	1.91	1.92	1.91	1.92	1.90	1.89	1.89	1.87	1.86	1.86	1.84	1.82	1.81	1.81	1.80	1.80	1.80	1.92	1.86
Feb 5	1.81	1.80	1.81	S	1.81	1.81	1.82	1.83	1.82	1.85	1.86	1.83	1.81	1.81	1.80	1.80	1.80	1.82	1.84	1.82	1.82	1.83	1.81	1.81	1.80	1.86	1.82
Feb 6	1.83	1.83	S	1.80	1.82	1.81	1.80	1.80	1.81	1.84	1.82	1.81	1.83	1.82	1.80	1.80	1.79	1.79	1.80	1.80	1.80	1.81	1.82	1.86	1.79	1.86	1.81
Feb 7	1.86	S	1.82	1.82	1.83	1.81	1.81	1.81	1.81	1.82	1.82	1.81	1.81	1.80	1.80	1.81	1.82	1.82	1.85	1.86	1.85	1.82	1.81	1.81	1.80	1.86	1.82
Feb 8	S	1.81	1.83	1.84	1.85	1.86	1.86	1.83	1.84	1.86	1.86	1.85	1.83	P	X	1.80	1.81	1.81	1.82	1.82	1.82	1.82	1.82	S	1.80	1.86	1.83
Feb 9	1.82	1.81	1.81	1.82	1.82	1.82	1.82	1.81	1.81	1.81	1.81	1.81	1.80	1.80	1.80	1.80	1.80	1.80	1.81	1.81	1.82	1.81	S	1.82	1.80	1.82	1.81
Feb 10	1.81	1.81	1.81	1.81	1.80	1.81	1.81	1.80	1.80	1.79	1.79	1.79	1.79	1.79	1.79	1.78	1.78	1.79	1.79	1.79	1.80	S	1.84	1.81	1.78	1.84	1.80
Feb 11	1.80	1.80	1.81	1.81	1.81	1.81	1.83	1.84	1.84	1.84	1.84	1.83	1.83	1.82	1.82	1.81	1.81	1.81	1.82	1.82	S	1.82	1.81	1.81	1.80	1.84	1.82
Feb 12	1.81	1.81	1.82	1.82	1.82	1.82	1.83	1.83	1.82	1.82	1.82	1.81	1.81	1.80	1.80	1.80	1.81	1.80	1.81	S	1.91	1.86	1.85	1.92	1.80	1.92	1.83
Feb 13	1.88	1.91	1.94	1.99	1.96	1.83	1.84	1.84	1.87	1.86	1.86	1.84	1.83	1.83	1.83	1.82	1.82	1.85	S	1.97	1.91	1.90	1.90	1.90	1.82	1.99	1.88
Feb 14	1.90	1.90	1.90	1.93	1.94	1.97	2.01	1.98	1.95	1.96	1.92	1.90	1.88	1.88	1.89	1.89	1.90	S	1.94	2.03	2.06	2.00	1.97	1.97	1.88	2.06	1.94
Feb 15	1.98	1.92	1.92	1.92	1.93	1.92	1.91	1.90	1.90	1.89	1.89	1.88	1.87	1.86	1.85	1.85	S	1.87	1.86	1.92	1.98	1.95	1.95	1.98	1.85	1.98	1.91
Feb 16	1.94	1.96	1.95	1.96	1.97	1.96	1.96	1.98	1.97	1.97	1.97	1.94	1.90	1.88	1.90	S	1.90	1.91	1.89	1.89	1.89	1.90	1.90	1.90	1.88	1.98	1.93
Feb 17	1.92	1.90	1.92	1.92	1.94	1.95	1.93	1.92	1.91	1.90	1.91	1.91	1.90	1.89	S	1.93	1.87	1.89	1.88	1.85	1.85	1.85	1.87	1.89	1.85	1.95	1.90
Feb 18	1.89	1.88	1.85	1.85	1.87	1.94	1.94	1.92	1.92	1.91	1.91	1.90	1.88	S	1.84	1.85	1.97	2.02	2.00	1.99	1.96	1.93	1.91	1.90	1.84	2.02	1.91
Feb 19	1.89	1.87	1.87	1.90	1.91	1.92	2.00	2.00	2.02	1.99	1.95	1.92	S	1.90	1.88	1.89	1.89	1.87	1.83	1.79	1.79	1.80	1.80	1.81	1.79	2.02	1.89
Feb 20	1.81	1.82	1.82	1.83	1.84	1.84	1.82	1.82	1.82	1.82	1.81	S	1.79	1.79	1.78	1.78	1.77	1.77	1.77	1.77	1.77	1.78	1.78	1.79	1.77	1.84	1.80
Feb 21	1.80	1.80	1.80	1.80	1.80	1.80	1.81	1.83	1.81	1.78	S	1.79	1.78	1.77	1.77	1.77	1.77	1.77	1.76	1.77	1.75	1.74	1.74	1.74	1.74	1.83	1.78
Feb 22	1.75	1.74	1.74	1.75	1.75	1.75	1.74	1.74	1.75	S	1.75	1.75	1.76	1.76	1.75	1.75	1.75	1.76	1.76	1.76	1.77	1.79	1.79	1.78	1.74	1.79	1.76
Feb 23	1.77	1.77	1.77	1.78	1.80	1.79	1.79	1.81	S	1.82	1.82	1.79	1.78	1.78	1.78	1.78	1.77	1.78	1.78	1.80	1.81	1.82	1.81	1.81	1.77	1.82	1.79
Feb 24	1.82	1.81	1.81	1.81	1.81	1.82	1.82	S	1.83	1.83	1.83	1.81	1.80	1.79	1.80	1.82	1.82	1.82	1.82	1.83	1.85	1.83	1.84	1.85	1.79	1.85	1.82
Feb 25	1.86	1.87	1.87	1.86	1.86	1.88	S	1.88	1.89	1.89	1.86	1.82	1.79	1.80	1.77	1.76	1.76	1.77	1.76	1.76	1.76	1.76	1.76	1.77	1.76	1.89	1.82
Feb 26	1.83	1.84	1.81	1.81	1.81	S	1.80	1.80	1.81	1.80	1.80	1.80	1.80	1.80	1.80	1.79	1.80	1.80	1.81	1.81	1.81	1.88	2.13	2.08	1.79	2.13	1.84
Feb 27	2.11	2.04	1.83	1.85	S	1.83	1.83	1.85	1.85	1.86	1.85	1.85	1.85	1.85	1.83	1.83	1.83	1.83	1.84	1.86	1.88	1.91	1.89	1.88	1.83	2.11	1.87
Feb 28	1.92	1.88	1.90	S	1.87	1.93	1.97	1.95	1.93	1.91	1.89	1.93	1.91	1.89	1.89	1.93	1.88	1.88	1.90	1.90	1.88	1.87	1.86	1.85	1.85	1.97	1.90
Diurnal Maximum	2.15	2.21	2.19	2.09	2.16	2.04	2.06	2.00	2.02	1.99	1.99	2.01	2.03	2.03	2.03	2.04	2.06	2.08	2.06	2.08	2.06	2.04	2.13	2.08			
Daiurnal Average	1.88	1.87	1.87	1.87	1.87	1.87	1.87	1.87	1.87	1.87	1.87	1.86	1.85	1.84	1.83	1.83	1.84	1.84	1.84	1.85	1.86	1.85	1.86	1.86			

C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance	
K	Collection Error	N	No Data (Machine Not in Service)	Y	Routine Maintenance	P Power Failure
X	InValid Data (Equipment Malfunction /Recovery)	NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)			

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.

Timeseries Chart of Hourly Average for CH4 - St. Lina Site

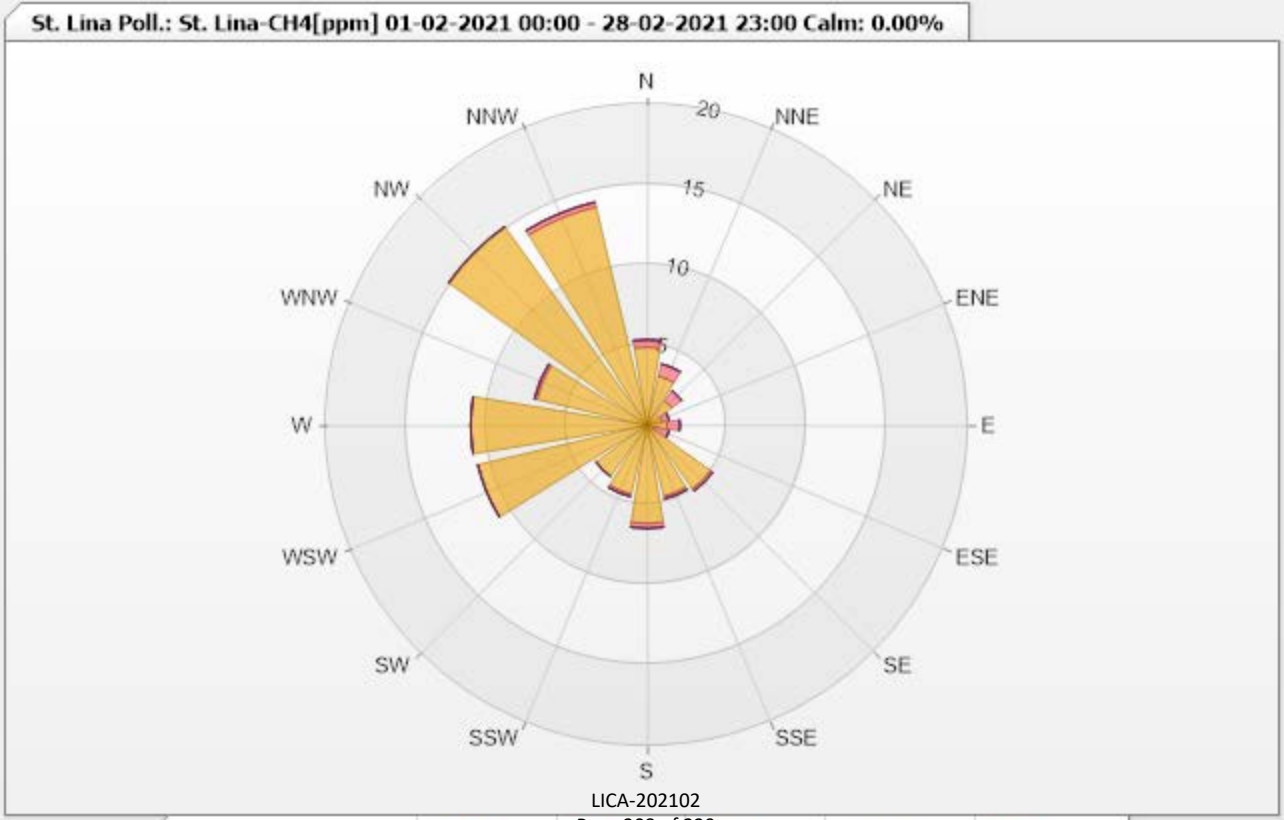




Classes	CH4
<=1.8	18.37%
1.8 - 2	76.14%
2 - 2.5	5.49%
2.5 - 3	0.00%
3 - 3.5	0.00%
3.5 - 4	0.00%
4 - 4.5	0.00%
4.5 - 5	0.00%
5 - 5.5	0.00%
5.5 - 6	0.00%
>6	0.00%

Wind: St. Lina Poll.: St. Lina-CH4[ppm] Monthly: 02-2021 Type: PollutionRose Direction: Blowing From (Wind Frequency) Based On 1 Hr.
Calm: 0.00% Valid Data: 94.79% Calm Avg: 0.00 [ppm]

Direction	0-2	2-5	5-10	10-20	>20.0	Total
N	4.87	0.47	0	0	0	5.34
NNE	3.14	0.78	0	0	0	3.92
NE	1.88	0.78	0	0	0	2.66
ENE	0.94	0.47	0	0	0	1.41
E	1.26	0.78	0	0	0	2.04
ESE	0.47	0.94	0	0	0	1.41
SE	4.87	0.16	0	0	0	5.03
SSE	4.55	0.16	0	0	0	4.71
S	6.12	0.31	0	0	0	6.43
SSW	4.4	0.16	0	0	0	4.56
SW	3.92	0	0	0	0	3.92
WSW	10.83	0	0	0	0	10.83
W	10.99	0	0	0	0	10.99
WNW	7.06	0.16	0	0	0	7.22
NW	15.23	0	0	0	0	15.23
NNW	13.97	0.31	0	0	0	14.28
Summary	94.5	5.48	0	0	0	100


St. Lina Poll.: St. Lina-CH4[ppm] 01-02-2021 00:00 - 28-02-2021 23:00 Calm: 0.00%
N
NNE
NE
ENE
E
ESE
SE
SSE
S
SSW
SW
WSW
W
WNW
NW
NNW
20
15
10
5
% Icon Classes (ppm)
95 0-2
5 2-5
0 5-10
0 10-20
0 >20.0

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION

St. Lina Site - February 2021

Summary of Hourly Averages

NON-METHANE HYDROCARBONS (NMHC) in ppm

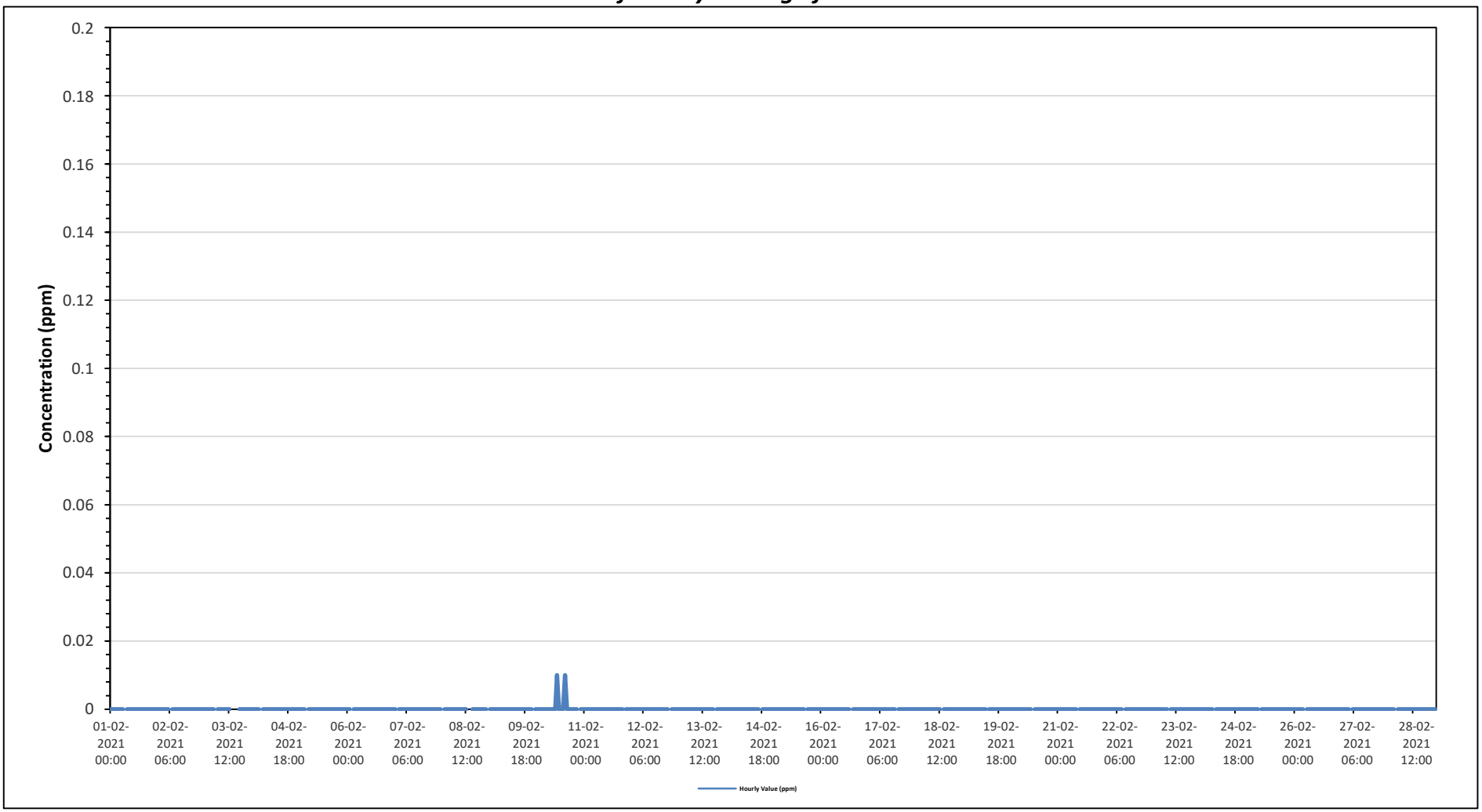
Maximum Hourly Value:	0.01	ppm	on February 10 at hour 10	Hours in Service:	672
Maximum Daily Value:	0.00	ppm	on February 10	Hours of Data:	637
Minimum Hourly Value:	0.00	ppm	on February 1 at hour 0	Hours of Missing Data:	2
Minimum Daily Value:	0.00	ppm	on February 1	Hours of Calibration:	33
Monthly Average:	0.00	ppm		Operational Uptime:	99.7

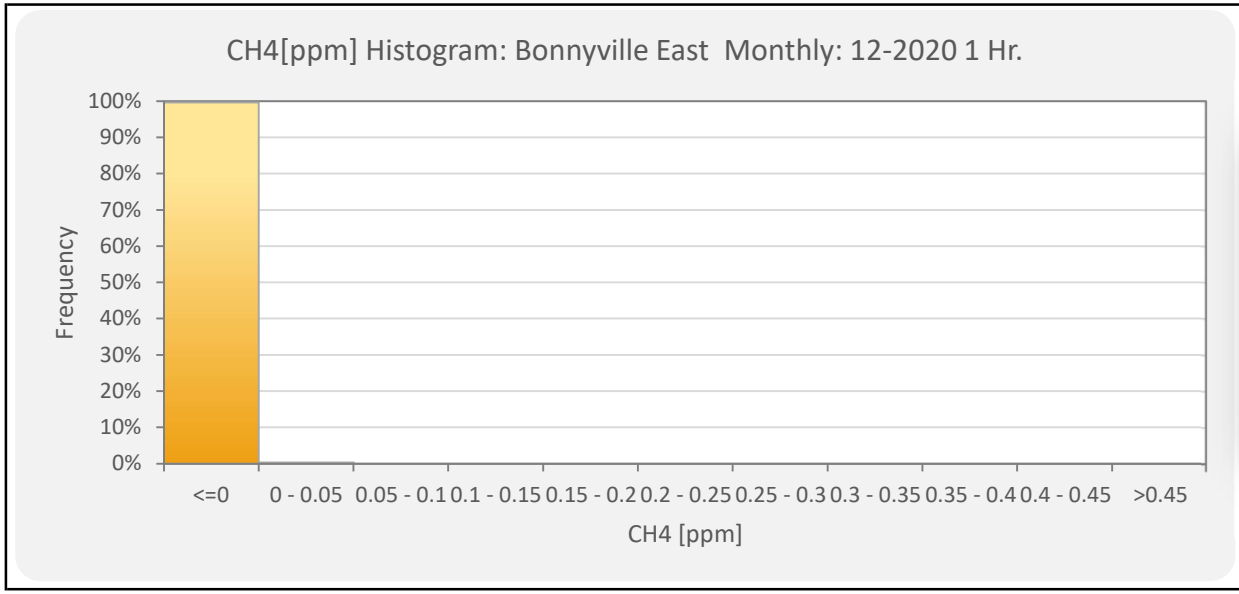
Day	Hourly Period Starting at (MST)																							Daily Minimum	Daily Maximum	Daily Average
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23			
Feb 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Feb 2	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Feb 3	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	C	C	C	C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Feb 4	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Feb 5	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Feb 6	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Feb 7	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Feb 8	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	P	X	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00
Feb 9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00
Feb 10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.01**	0.00	0.00	0.00	**0.01**	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	**0.01**	**0.00**
Feb 11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00
Feb 12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Feb 13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Feb 14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Feb 15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Feb 16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Feb 17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Feb 18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Feb 19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Feb 20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Feb 21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Feb 22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Feb 23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Feb 24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Feb 25	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Feb 26	0.00	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Feb 27	0.00	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Feb 28	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Diurnal Maximum	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
Daiurnal Average	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			

C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance	
K	Collection Error	N	No Data (Machine Not in Service)	Y	Routine Maintenance	P Power Failure
X	InValid Data (Equipment Malfunction /Recovery)	NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)			

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.

Timeseries Chart of Hourly Average for NMHC - St. Lina Site

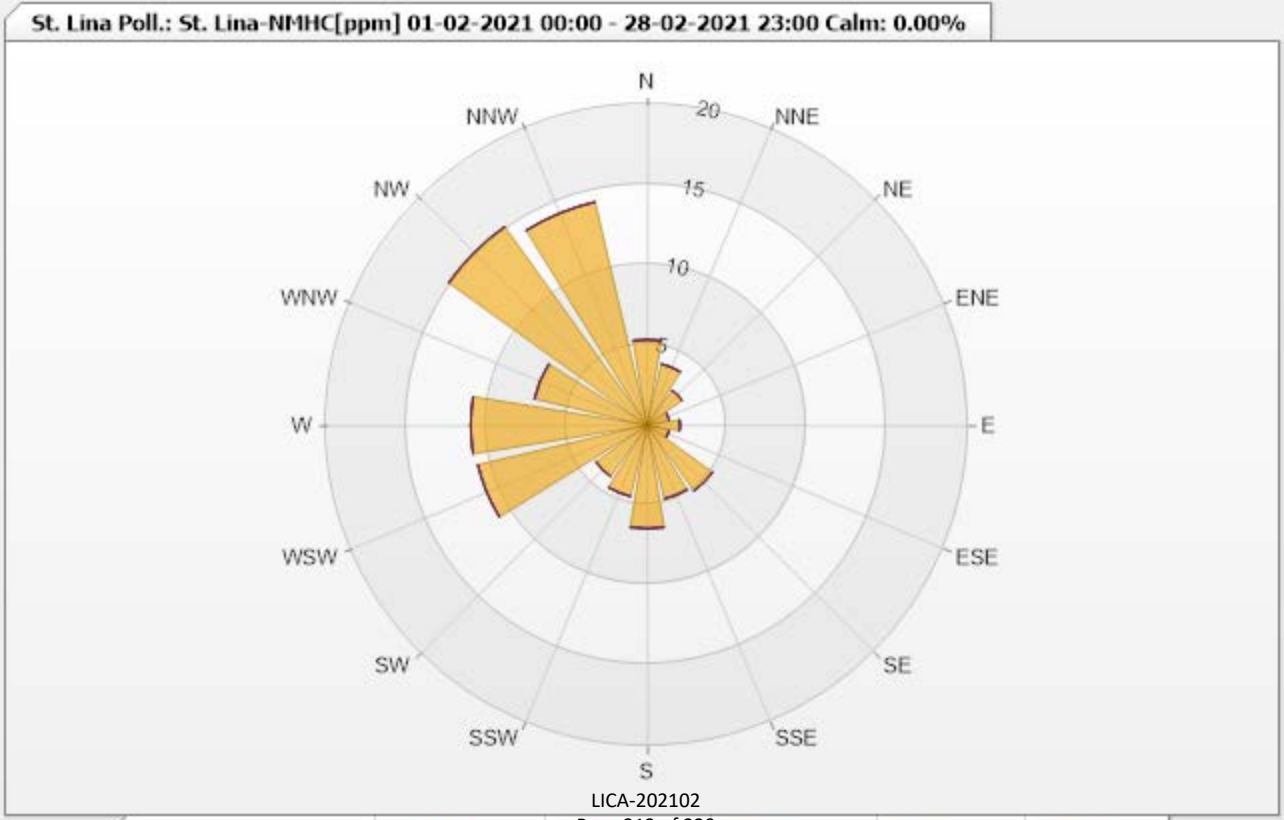




Classes	NMHC
<=0	99.69%
0 - 0.05	0.31%
0.05 - 0.1	0.00%
0.1 - 0.15	0.00%
0.15 - 0.2	0.00%
0.2 - 0.25	0.00%
0.25 - 0.3	0.00%
0.3 - 0.35	0.00%
0.35 - 0.4	0.00%
0.4 - 0.45	0.00%
>0.45	0.00%

Wind: St. Lina Poll.: St. Lina-NMHC[ppm] Monthly: 02-2021 Type: PollutionRose Direction: Blowing From (Wind Frequency) Based On 1 Hr.
Calm: 0.00% Valid Data: 94.79% Calm Avg: 0.00 [ppm]

Direction	0-0.1	0.1-0.3	0.3-0.9	0.9-2	>2.0	Total
N	5.34	0	0	0	0	5.34
NNE	3.92	0	0	0	0	3.92
NE	2.67	0	0	0	0	2.67
ENE	1.41	0	0	0	0	1.41
E	2.04	0	0	0	0	2.04
ESE	1.41	0	0	0	0	1.41
SE	5.02	0	0	0	0	5.02
SSE	4.71	0	0	0	0	4.71
S	6.44	0	0	0	0	6.44
SSW	4.55	0	0	0	0	4.55
SW	3.92	0	0	0	0	3.92
WSW	10.83	0	0	0	0	10.83
W	10.99	0	0	0	0	10.99
WNW	7.22	0	0	0	0	7.22
NW	15.23	0	0	0	0	15.23
NNW	14.29	0	0	0	0	14.29
Summary	100	0	0	0	0	100


St. Lina Poll.: St. Lina-NMHC[ppm] 01-02-2021 00:00 - 28-02-2021 23:00 Calm: 0.00%
N
NNE
NE
ENE
E
ESE
SE
SSE
S
SSW
SW
WSW
W
WNW
NW
NNW
20
15
10
5
% Icon Classes (ppm)
100 0-0.1
0 0.1-0.3
0 0.3-0.9
0 0.9-2
0 >2.0

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION

St. Lina Site - February 2021

Summary of Hourly Averages

PARTICULATE MATTER 2.5 ($PM_{2.5}$) in µg/m^3

Alberta Ambient Air Quality Objectives (AAAQO): 1-Hour 80 µg/m3, 24-Hour 29 µg/m3

Number of 1-Hour Exceedences: 0 Number of 24-Hour Exceedences: 0

Maximum Hourly Value:	21 µg/m^3 on February 7 at hour 18	Hours in Service:	672
Maximum Daily Value:	11.5 µg/m^3 on February 1	Hours of Data:	669
Minimum Hourly Value:	0 µg/m^3 on February 21 at hour 21	Hours of Missing Data:	1
Minimum Daily Value:	1 µg/m^3 on February 22	Hours of Calibration:	2
Monthly Average:	4.2 µg/m^3	Operational Uptime:	99.9

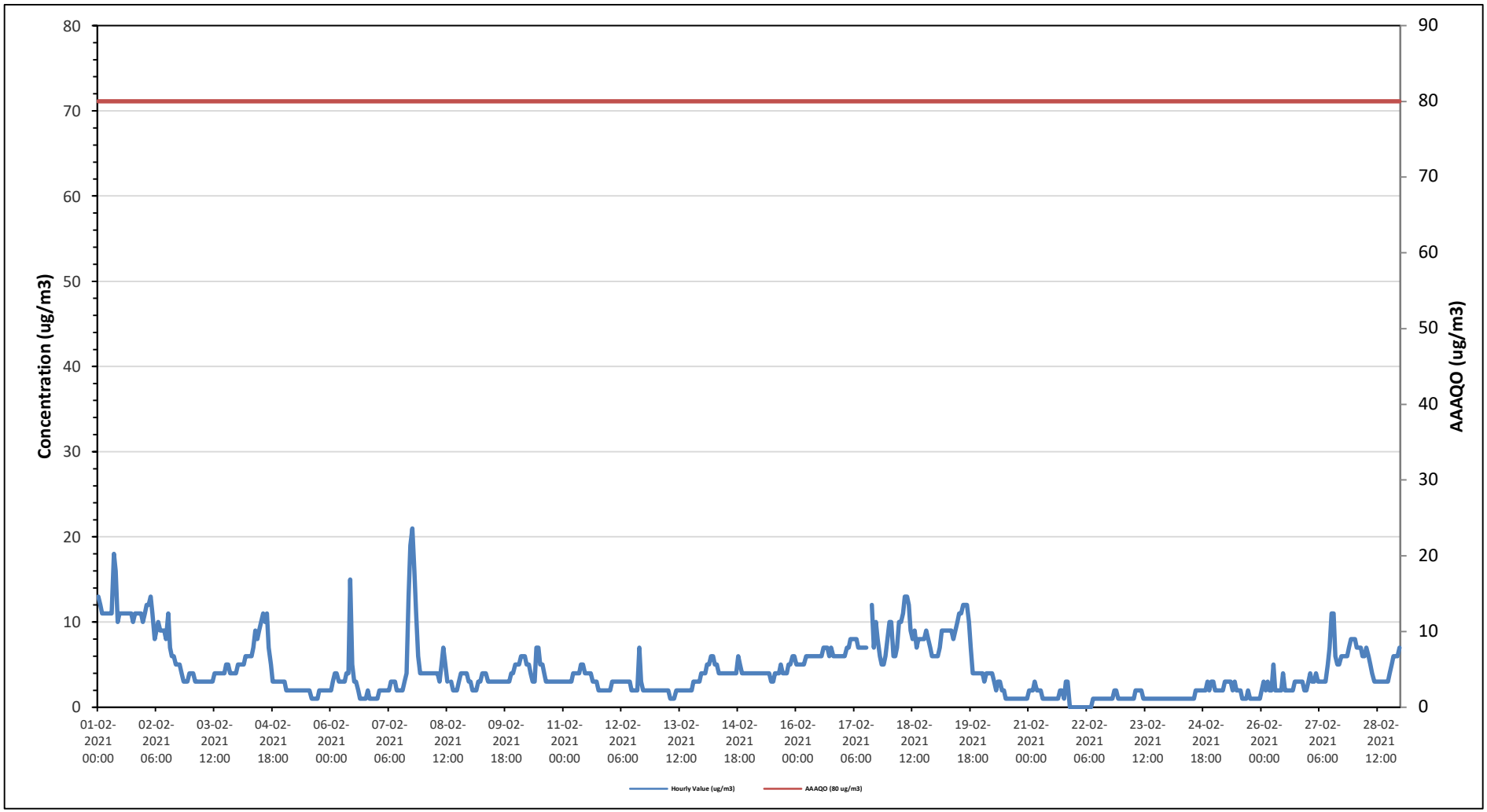
Day	Hourly Period Starting at (MST)																								Daily Minimum	Daily Maximum	Daily Average
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23			
Feb 1	13	12	11	11	11	11	11	11	18	16	10	11	11	11	11	11	11	11	10	11	11	11	11	10	10	18	**11.5**
Feb 2	11	12	12	13	11	8	9	10	9	9	9	8	11	7	6	6	5	5	5	4	3	3	3	4	3	13	7.6
Feb 3	4	4	3	3	3	3	3	3	3	3	3	3	4	4	4	4	4	4	5	5	4	4	4	4	3	5	3.7
Feb 4	5	5	5	5	6	6	6	6	7	9	8	9	10	11	10	11	7	5	3	3	3	3	3	3	3	11	6.2
Feb 5	3	2	2	2	2	2	2	2	2	2	2	2	2	2	1	1	1	1	2	2	2	2	2	2	1	3	1.9
Feb 6	2	3	4	4	3	3	3	3	4	4	15	5	3	3	2	1	1	1	1	2	1	1	1	1	1	15	3.0
Feb 7	1	2	2	2	2	2	2	3	3	3	2	2	2	2	3	4	13	19	**21**	16	11	6	4	4	1	**21**	5.5
Feb 8	4	4	4	4	4	4	4	4	3	5	7	5	3	**P**	3	2	2	2	3	4	4	4	4	3	2	7	3.7
Feb 9	3	2	2	2	3	3	4	4	4	3	3	3	3	3	3	3	3	3	3	3	3	4	4	5	2	5	3.2
Feb 10	5	5	6	6	6	5	5	4	3	3	7	7	5	5	4	3	3	3	3	3	3	3	3	3	3	7	4.3
Feb 11	3	3	3	3	3	4	4	4	4	5	5	4	4	4	4	3	3	3	2	2	2	2	2	2	2	5	3.3
Feb 12	2	3	3	3	3	3	3	3	3	3	3	2	2	2	2	7	3	2	2	2	2	2	2	2	2	7	2.7
Feb 13	2	2	2	2	2	2	2	1	1	1	2	2	2	2	2	2	2	2	2	3	3	3	3	4	1	4	2.1
Feb 14	4	4	5	5	6	6	5	5	4	4	4	4	4	4	4	4	4	4	6	5	4	4	4	4	4	6	4.5
Feb 15	4	4	4	4	4	4	4	4	4	4	4	3	3	4	4	4	5	4	4	4	5	5	6	6	3	6	4.2
Feb 16	5	5	5	5	5	6	6	6	6	6	6	6	6	6	7	7	7	6	7	6	6	6	6	6	5	7	6.0
Feb 17	6	6	7	7	8	8	8	8	7	7	7	7	7	**C**	**C**	12	7	10	8	6	5	5	6	8	5	12	7.3
Feb 18	10	10	6	6	7	10	10	11	13	13	12	9	8	9	7	8	8	8	8	9	8	7	6	6	6	13	8.7
Feb 19	6	6	7	9	9	9	9	9	9	8	9	10	11	11	12	12	12	10	7	4	4	4	4	4	4	12	8.1
Feb 20	4	3	4	4	4	4	3	2	3	3	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	4	2.1
Feb 21	2	2	2	3	2	2	2	1	1	1	1	1	1	1	1	1	2	2	1	3	3	0	0	0	**0**	3	1.5
Feb 22	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	2	2	1	1	**0**	2	0.7
Feb 23	1	1	1	1	1	1	1	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1.2
Feb 24	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	3	2	3	3	1	3	1.5
Feb 25	2	2	2	2	2	3	3	3	3	2	3	2	2	2	1	1	1	2	1	1	1	1	1	1	1	3	1.8
Feb 26	2	3	2	3	2	2	5	2	2	2	2	4	2	2	2	2	2	3	3	3	3	3	2	2	2	5	2.5
Feb 27	3	4	3	3	4	3	3	3	3	3	5	7	11	11	6	5	5	6	6	6	6	7	8	8	3	11	5.4
Feb 28	8	7	7	7	6	6	7	6	5	4	3	3	3	3	3	3	3	3	4	5	6	6	6	7	3	8	5.0
Diurnal Maximum	13	12	12	13	11	11	11	11	18	16	15	11	11	11	12	12	13	19	21	16	11	11	11	10			
Daiurnal Average	4.1	4.2	4.1	4.3	4.3	4.3	4.5	4.3	4.5	4.5	4.9	4.4	4.4	4.3	4.0	4.4	4.3	4.4	4.4	4.2	3.9	3.6	3.6	3.8			

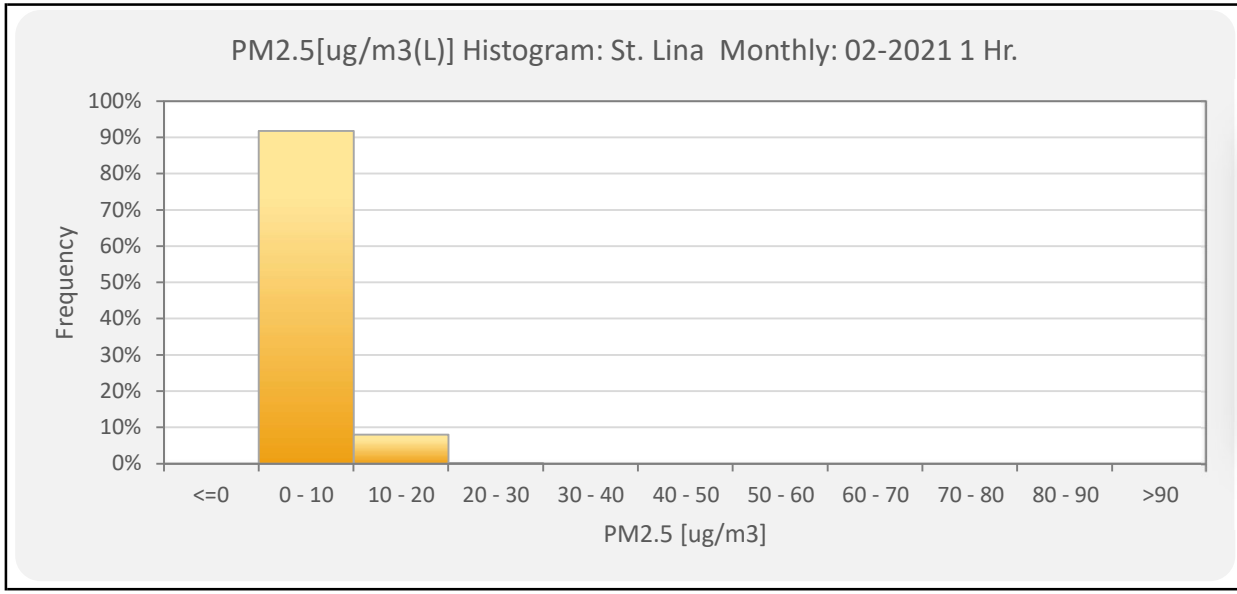
C	Monthly Calibration	**S**	Daily Zero-Span Check	**Q**	Quality Assurance	
K	Collection Error	**N**	No Data (Machine Not in Service)	**Y**	Routine Maintenance	**P** Power Failure
X	InValid Data (Equipment Malfunction /Recovery)	**NRM**	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)			

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.

Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.

Timeseries Chart of Hourly Average for PM2.5 - St. Lina Site

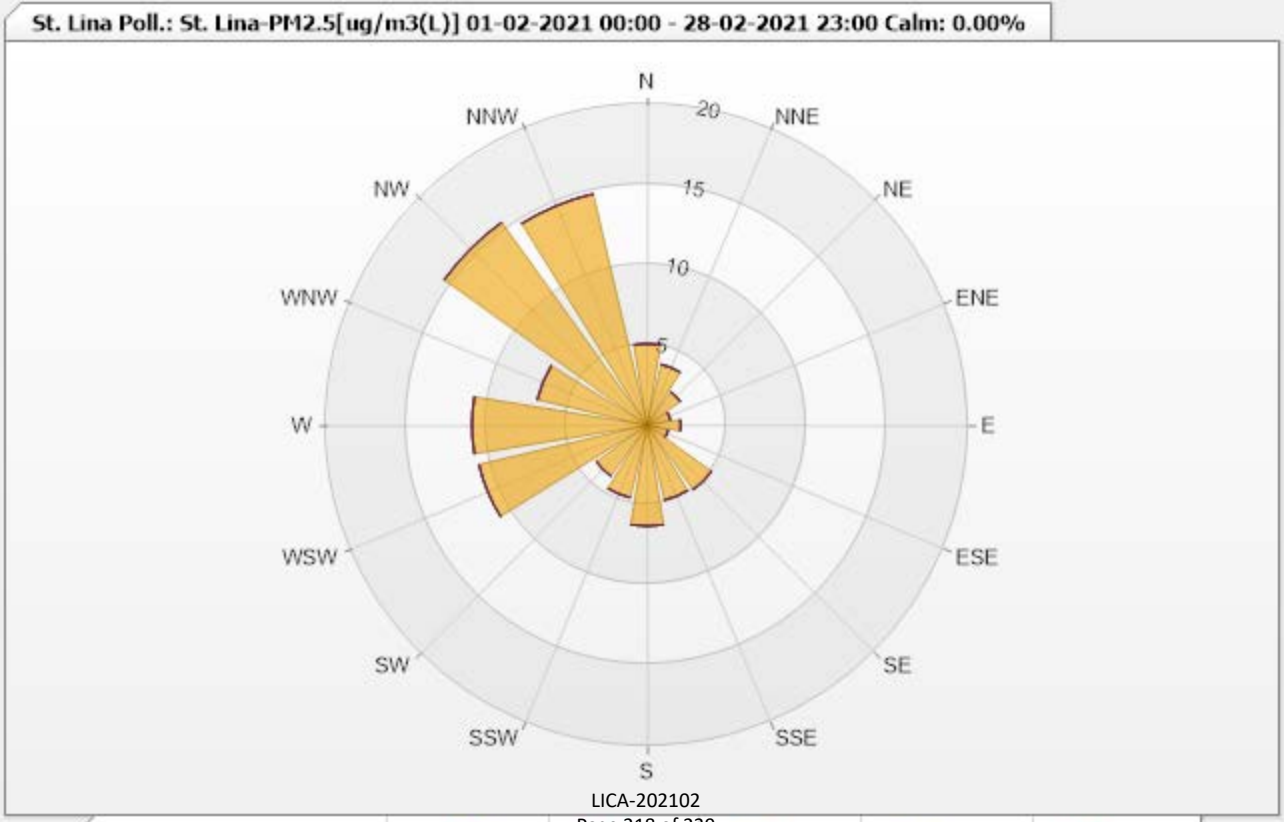




Classes	PM2.5
<=0	0.00%
0 - 10	91.78%
10 - 20	8.07%
20 - 30	0.15%
30 - 40	0.00%
40 - 50	0.00%
50 - 60	0.00%
60 - 70	0.00%
70 - 80	0.00%
80 - 90	0.00%
>90	0.00%

Wind: St. Lina Poll.: St. Lina-PM2.5[ug/m3(L)] Monthly: 02-2021 Type: PollutionRose Direction: Blowing From (Wind Frequency) Based On 1 Hr.
Calm: 0.00% Valid Data: 99.55% Calm Avg: 0.00 [ug/m3(L)]

Direction	0-50	50-80	80-120	120-240	>240.0	Total
N	5.08	0	0	0	0	5.08
NNE	3.89	0	0	0	0	3.89
NE	2.54	0	0	0	0	2.54
ENE	1.49	0	0	0	0	1.49
E	2.09	0	0	0	0	2.09
ESE	1.35	0	0	0	0	1.35
SE	4.93	0	0	0	0	4.93
SSE	4.78	0	0	0	0	4.78
S	6.28	0	0	0	0	6.28
SSW	4.63	0	0	0	0	4.63
SW	3.89	0	0	0	0	3.89
WSW	10.76	0	0	0	0	10.76
W	10.91	0	0	0	0	10.91
WNW	7.03	0	0	0	0	7.03
NW	15.55	0	0	0	0	15.55
NNW	14.8	0	0	0	0	14.8
Summary	100	0	0	0	0	100


St. Lina Poll.: St. Lina-PM2.5[ug/m3(L)] 01-02-2021 00:00 - 28-02-2021 23:00 Calm: 0.00%
N
NNE
NE
ENE
E
ESE
SE
SSE
S
SSW
SW
WSW
W
WNW
NW
NNW
20
15
10
5
% Icon Classes (ug/m3(L))
100 0-50
0 50-80
0 80-120
0 120-240
0 >240.0

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION

St. Lina Site - February 2021

Summary of Hourly Averages

RELATIVE HUMIDITY (RH) in %

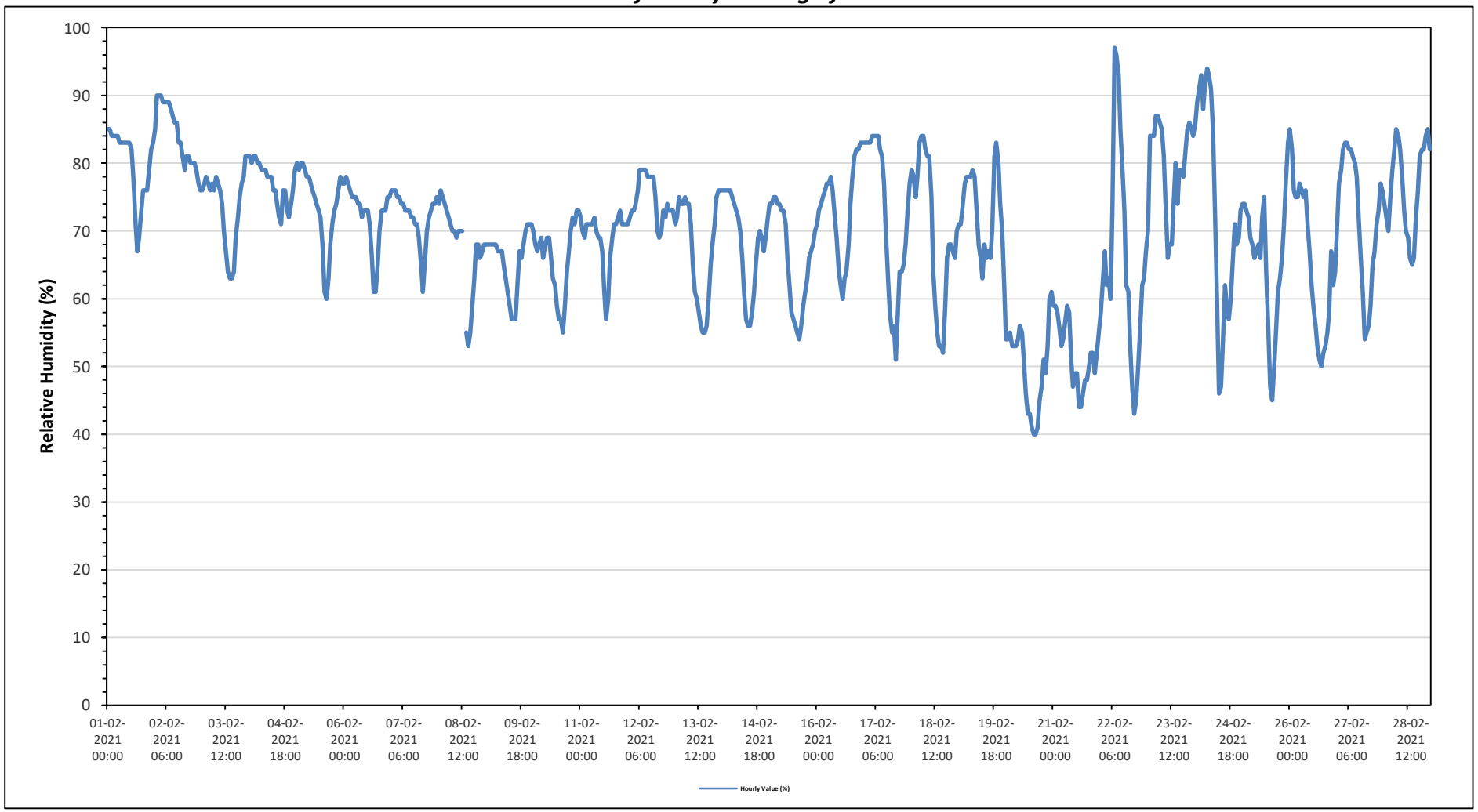
Maximum Hourly Value:	97	%	on February 22 at hour 7	Hours in Service:	672
Maximum Daily Value:	84.1	%	on February 2	Hours of Data:	671
Minimum Hourly Value:	40	%	on February 20 at hour 14	Hours of Missing Data:	1
Minimum Daily Value:	49.9	%	on February 20	Hours of Calibration:	0
Monthly Average:	70.2	%		Operational Uptime:	99.9

Day	Hourly Period Starting at (MST)																								Daily	Daily	Daily
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Minimum	Maximum	Average
Feb 1	85	85	84	84	84	84	83	83	83	83	83	83	82	78	71	67	69	73	76	76	76	79	82	83	67	85	79.8
Feb 2	85	90	90	90	89	89	89	89	88	87	86	86	83	83	81	79	81	81	80	80	80	79	77	76	76	90	**84.1**
Feb 3	76	77	78	77	76	77	76	78	77	76	74	70	67	64	63	63	64	69	72	75	77	78	81	81	63	81	73.6
Feb 4	81	80	81	81	80	80	79	79	79	78	78	78	76	76	74	72	71	76	76	73	72	74	76	79	71	81	77.0
Feb 5	80	79	80	80	79	78	78	77	76	75	74	73	72	68	61	60	63	68	71	73	74	76	78	77	60	80	73.8
Feb 6	77	78	77	76	75	75	75	74	74	72	73	73	73	71	66	61	61	65	70	73	73	73	75	75	61	78	72.3
Feb 7	76	76	76	75	75	74	74	73	73	73	72	72	71	71	69	65	61	66	70	72	73	74	74	75	61	76	72.1
Feb 8	74	76	75	74	73	72	71	70	70	69	70	70	70	**P**	55	53	55	59	63	68	68	66	67	68	53	76	67.7
Feb 9	68	68	68	68	68	68	67	67	67	65	63	61	59	57	57	57	62	67	66	68	70	71	71	71	57	71	65.6
Feb 10	70	68	67	68	69	66	68	69	69	66	63	62	59	57	57	55	59	64	67	70	72	71	73	73	55	73	65.9
Feb 11	72	70	69	71	71	71	71	72	70	69	69	67	61	57	60	66	69	71	71	72	73	71	71	71	57	73	69.0
Feb 12	71	72	73	73	74	76	79	79	79	79	78	78	78	78	75	70	69	70	73	72	74	73	73	73	69	79	74.5
Feb 13	71	72	75	74	74	75	74	74	71	65	61	60	58	56	55	55	56	60	65	68	71	75	76	76	55	76	67.4
Feb 14	76	76	76	76	76	75	74	73	72	70	66	61	57	56	56	58	61	65	69	70	69	67	69	72	56	76	68.3
Feb 15	74	74	75	75	74	74	73	73	71	66	62	58	57	56	55	54	56	59	61	63	66	67	68	70	54	75	65.9
Feb 16	71	73	74	75	76	77	77	78	76	72	69	64	62	60	63	64	68	74	78	81	82	82	83	83	60	83	73.4
Feb 17	83	83	83	83	84	84	84	84	82	81	77	70	63	58	55	56	51	58	64	64	65	68	73	77	51	84	72.1
Feb 18	79	78	75	78	83	84	84	82	81	81	75	64	59	55	53	53	52	59	66	68	68	67	66	70	52	84	70.0
Feb 19	71	71	74	77	78	78	78	79	78	73	68	66	63	68	66	67	66	70	81	83	80	74	70	62	62	83	72.5
Feb 20	54	54	55	53	53	53	54	56	55	51	46	43	43	41	**40**	**40**	41	45	47	51	49	53	60	61	**40**	61	49.9
Feb 21	59	59	58	56	53	54	57	59	58	51	47	49	49	44	44	46	48	48	50	52	52	49	52	55	44	59	52.0
Feb 22	58	62	67	62	63	60	73	**97**	96	93	85	80	73	62	61	53	47	43	45	50	55	62	63	67	43	**97**	65.7
Feb 23	70	84	84	84	87	87	86	85	81	74	66	68	68	74	80	74	79	79	78	82	85	86	85	84	66	87	79.6
Feb 24	86	89	91	93	88	92	94	93	91	85	73	60	46	47	53	62	59	57	60	65	71	68	69	73	46	94	73.5
Feb 25	74	74	73	72	69	68	66	67	68	66	72	75	64	56	47	45	50	55	61	63	66	71	77	83	45	83	65.9
Feb 26	85	82	76	75	75	77	76	75	76	71	67	62	59	56	53	51	50	52	53	55	58	67	62	64	50	85	65.7
Feb 27	71	77	79	82	83	83	82	82	81	80	78	71	66	61	54	55	56	59	65	67	71	73	77	76	54	83	72.0
Feb 28	74	72	70	75	79	82	85	84	82	78	73	70	69	66	65	66	72	76	81	82	82	84	85	82	65	85	76.4
Diurnal Maximum	86	90	91	93	89	92	94	97	96	93	86	86	83	83	81	79	81	81	81	83	85	86	85	84			
Daiurnal Average	74.0	75.0	75.1	75.3	75.3	75.5	76.0	76.8	75.9	73.2	70.3	67.6	64.5	62.1	60.3	59.5	60.6	63.9	67.1	69.1	70.4	71.4	72.6	73.5			

C	Monthly Calibration	**S**	Daily Zero-Span Check	**Q**	Quality Assurance	
K	Collection Error	**N**	No Data (Machine Not in Service)	**Y**	Routine Maintenance	**P** Power Failure
X	InValid Data (Equipment Malfunction /Recovery)	**NRM**	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)			

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.

Timeseries Chart of Hourly Average for RH - St. Lina Site



LAKELAND INDUSTRY & COMMUNITY ASSOCIATION

St. Lina Site - February 2021

Summary of Hourly Averages

BAROMETRIC PRESSURE (BP) in millibar

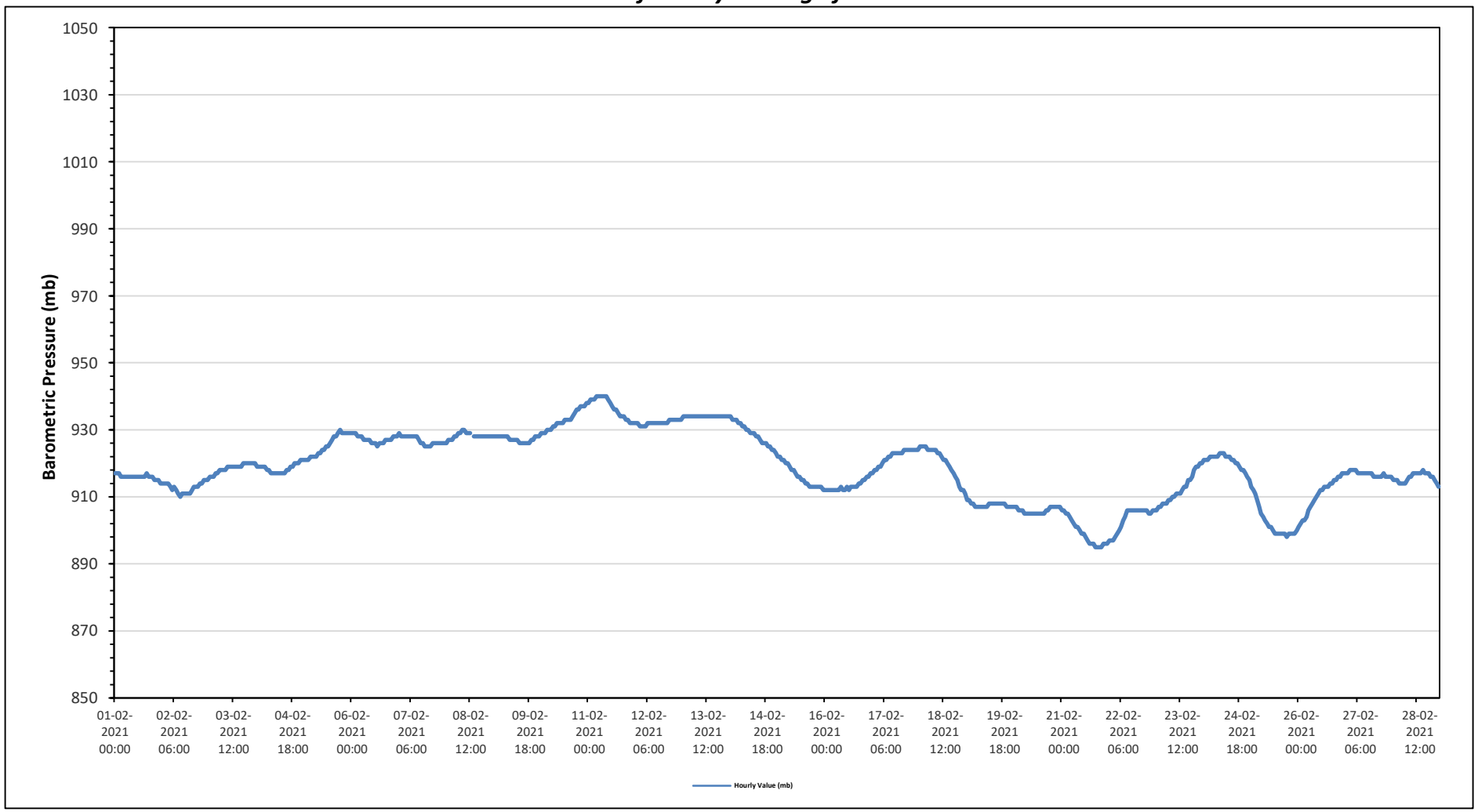
Maximum Hourly Value:	940	mb	on February 11 at hour 4	Hours in Service:	672
Maximum Daily Value:	937	mb	on February 11	Hours of Data:	671
Minimum Hourly Value:	895	mb	on February 21 at hour 17	Hours of Missing Data:	1
Minimum Daily Value:	899	mb	on February 21	Hours of Calibration:	0
Monthly Average:	919	mb		Operational Uptime:	99.9

Day	Hourly Period Starting at (MST)																								Daily	Daily	Daily
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Minimum	Maximum	Average
Feb 1	917	917	917	916	916	916	916	916	916	916	916	916	916	916	916	916	917	916	916	916	915	915	915	914	914	917	916
Feb 2	914	914	914	914	913	912	913	912	911	910	911	911	911	911	911	912	913	913	913	914	914	915	915	915	910	915	913
Feb 3	916	916	916	917	917	918	918	918	918	919	919	919	919	919	919	919	919	920	920	920	920	920	920	920	916	920	919
Feb 4	919	919	919	919	919	918	918	917	917	917	917	917	917	917	917	918	918	919	919	920	920	920	921	921	917	921	918
Feb 5	921	921	921	922	922	922	922	923	923	924	924	925	925	926	927	928	928	929	930	929	929	929	929	929	921	930	925
Feb 6	929	929	929	928	928	928	927	927	927	927	926	926	926	925	926	926	926	927	927	927	927	928	928	928	925	929	927
Feb 7	929	928	928	928	928	928	928	928	928	928	927	926	926	925	925	925	925	926	926	926	926	926	926	926	925	929	927
Feb 8	926	927	927	927	928	928	929	929	930	930	929	929	929	P	928	928	928	928	928	928	928	928	928	928	926	930	928
Feb 9	928	928	928	928	928	928	928	928	927	927	927	927	927	926	926	926	926	926	926	927	927	928	928	928	926	928	927
Feb 10	929	929	929	930	930	930	931	931	932	932	932	932	933	933	933	933	934	935	936	936	937	937	937	938	929	938	933
Feb 11	938	939	939	939	**940**	**940**	**940**	**940**	**940**	**940**	939	938	937	936	936	935	934	934	934	933	933	932	932	932	932	**940**	**937**
Feb 12	932	932	931	931	931	931	932	932	932	932	932	932	932	932	932	932	932	933	933	933	933	933	933	933	931	933	932
Feb 13	934	934	934	934	934	934	934	934	934	934	934	934	934	934	934	934	934	934	934	934	934	934	934	934	934	934	934
Feb 14	934	933	933	933	932	932	931	931	930	930	929	929	929	928	928	927	926	926	926	925	925	924	924	923	923	934	929
Feb 15	922	922	921	921	920	920	919	918	918	917	916	916	915	915	914	914	913	913	913	913	913	913	913	912	912	922	916
Feb 16	912	912	912	912	912	912	912	912	913	912	912	913	912	913	913	913	913	914	914	915	915	916	916	917	912	917	913
Feb 17	917	918	918	919	919	920	921	921	922	922	923	923	923	923	923	923	924	924	924	924	924	924	924	924	917	924	922
Feb 18	925	925	925	925	924	924	924	924	924	923	923	922	921	921	920	919	918	917	916	915	913	912	912	911	911	925	920
Feb 19	909	909	908	908	907	907	907	907	907	907	907	908	908	908	908	908	908	908	908	908	907	907	907	907	907	909	908
Feb 20	907	907	906	906	906	905	905	905	905	905	905	905	905	905	905	905	906	906	907	907	907	907	907	907	905	907	906
Feb 21	906	906	905	905	904	903	902	901	901	900	899	899	898	897	896	896	896	**895**	**895**	**895**	**895**	896	896	896	**895**	906	899
Feb 22	897	897	897	898	899	900	901	903	904	906	906	906	906	906	906	906	906	906	906	906	905	905	906	906	897	906	904
Feb 23	906	907	907	908	908	908	909	909	910	910	911	911	911	912	913	913	915	915	916	918	919	919	920	920	906	920	912
Feb 24	921	921	921	922	922	922	922	922	923	923	923	922	922	922	921	921	920	920	919	918	918	917	916	915	915	923	921
Feb 25	913	912	911	909	907	905	904	903	902	901	901	900	899	899	899	899	899	899	898	899	899	899	899	900	898	913	902
Feb 26	901	902	903	903	904	906	907	908	909	910	911	912	912	913	913	913	914	914	915	915	916	916	917	917	901	917	910
Feb 27	917	917	918	918	918	918	917	917	917	917	917	917	917	917	916	916	916	916	916	917	916	916	916	916	916	918	917
Feb 28	915	915	915	914	914	914	914	915	916	916	917	917	917	917	917	918	917	917	917	916	916	915	914	913	913	918	916
Diurnal Maximum	938	939	939	939	940	940	940	940	940	940	939	938	937	936	936	935	934	935	936	936	937	937	937	938			
Diurnal Average	919	919	919	919	919	919	919	919	919	919	919	919	919	918	919	919	919	919	919	919	919	919	919	919			

C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance		
K	Collection Error	N	No Data (Machine Not in Service)	Y	Routine Maintenance	P	Power Failure
X	InValid Data (Equipment Malfunction /Recovery)	NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)				

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.

Timeseries Chart of Hourly Average for BP - St. Lina Site



LAKELAND INDUSTRY & COMMUNITY ASSOCIATION

St. Lina Site - February 2021

Summary of Hourly Averages

AMBIENT TEMPERATURE (AT) in Degree Celsius

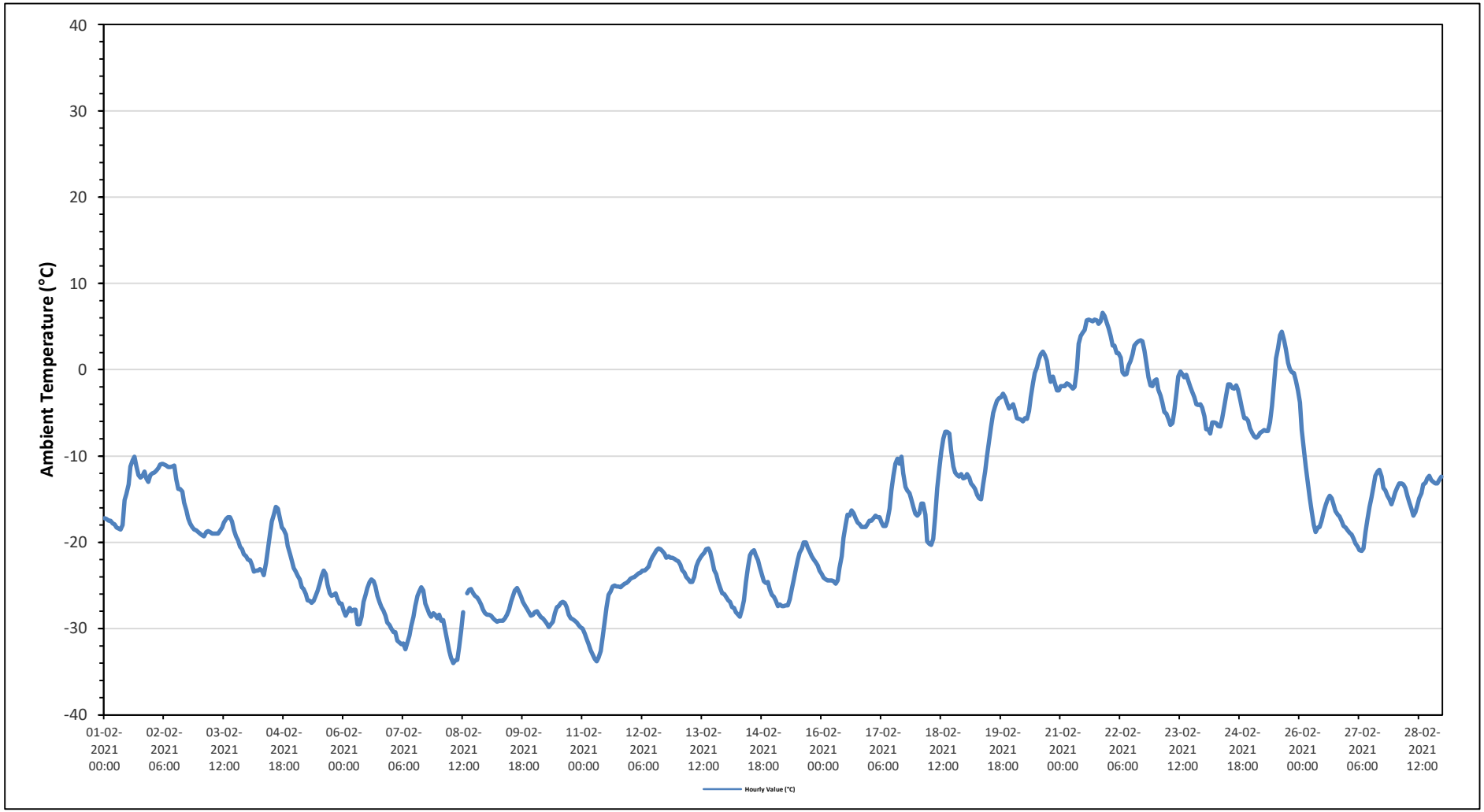
Maximum Hourly Value:	6.6	°C	on February 21 at hour 21	Hours in Service:	672
Maximum Daily Value:	2.7	°C	on February 21	Hours of Data:	671
Minimum Hourly Value:	-34.0	°C	on February 8 at hour 7	Hours of Missing Data:	1
Minimum Daily Value:	-29.2	°C	on February 8	Hours of Calibration:	0
Monthly Average:	-16.8	°C		Operational Uptime:	99.9

Day	Hourly Period Starting at (MST)																						Daily Minimum	Daily Maximum	Daily Average
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23			
Feb 1	-17.2	-17.3	-17.5	-17.5	-17.8	-17.9	-18.3	-18.4	-18.5	-18	-15.1	-14.4	-13.3	-11.2	-10.5	-10.1	-11.2	-12.2	-12.5	-12.3	-11.8	-12.6	-13	-12.2	-18.5	-10.1	-14.6
Feb 2	-12	-11.9	-11.7	-11.4	-11	-10.9	-11	-11.1	-11.3	-11.3	-11.2	-11.1	-12.7	-13.8	-13.8	-14.1	-15.4	-16.3	-17.2	-17.8	-18.2	-18.5	-18.6	-18.8	-18.8	-10.9	-13.8
Feb 3	-19	-19.2	-19.3	-18.8	-18.7	-18.8	-19	-19	-19	-19	-18.7	-18.3	-17.7	-17.3	-17.1	-17.1	-17.6	-18.6	-19.3	-19.8	-20.5	-20.8	-21.4	-21.6	-21.6	-17.1	-19.0
Feb 4	-22	-22.1	-22.6	-23.4	-23.3	-23.3	-23.1	-23.3	-23.8	-22.4	-20.9	-19	-17.6	-16.8	-15.9	-16.1	-17.2	-18.3	-18.5	-19.1	-20.4	-21.3	-22.1	-23	-23.8	-15.9	-20.6
Feb 5	-23.4	-23.9	-24.3	-25.2	-25.4	-26	-26.7	-26.8	-27	-26.8	-26.2	-25.6	-24.8	-23.9	-23.3	-23.7	-24.9	-25.9	-26.2	-26.1	-25.9	-26.6	-27.1	-27.1	-27.1	-23.3	-25.5
Feb 6	-27.9	-28.5	-28.1	-27.6	-28	-27.8	-27.8	-29.5	-29.5	-28.6	-26.9	-26.1	-25.3	-24.6	-24.3	-24.5	-25.1	-26.2	-26.9	-27.5	-27.9	-28.5	-29.3	-29.6	-29.6	-24.3	-27.3
Feb 7	-30	-30.4	-30.4	-31.4	-31.6	-31.8	-31.7	-32.4	-31.6	-30.8	-29.7	-28.6	-27.4	-26.2	-25.7	-25.2	-25.6	-27.1	-27.7	-28.3	-28.6	-28.2	-28.4	-28.8	-32.4	-25.2	-29.1
Feb 8	-28.4	-29.1	-29	-30.2	-31.4	-32.6	-33.4	**-34**	-33.7	-33.6	-32.2	-30.3	-28.1	**P**	-25.9	-25.5	-25.4	-25.9	-26.2	-26.4	-26.7	-27.2	-27.8	-28.2	**-34.0**	-25.4	-29.2
Feb 9	-28.4	-28.4	-28.5	-28.8	-29	-29.2	-29.1	-29.1	-29.1	-28.8	-28.4	-27.8	-26.9	-26.2	-25.6	-25.3	-25.7	-26.3	-26.9	-27.3	-27.7	-28.1	-28.5	-28.4	-29.2	-25.3	-27.8
Feb 10	-28.1	-28	-28.3	-28.7	-28.8	-29.1	-29.4	-29.8	-29.5	-29.2	-28.2	-27.5	-27.4	-27	-26.9	-27	-27.5	-28.4	-28.8	-28.9	-29.1	-29.3	-29.6	-29.9	-29.9	-26.9	-28.5
Feb 11	-30	-30.6	-31.2	-31.8	-32.5	-33	-33.5	-33.8	-33.4	-32.6	-31.1	-29.1	-27.5	-26.1	-25.7	-25.1	-25	-25.1	-25.1	-25.2	-25	-24.8	-24.7	-24.5	-33.8	-24.5	-28.6
Feb 12	-24.2	-24.1	-24	-23.8	-23.6	-23.5	-23.3	-23.3	-23.1	-22.8	-22.2	-21.7	-21.3	-20.9	-20.7	-20.8	-21	-21.3	-21.8	-21.6	-21.8	-21.8	-21.9	-22.1	-24.2	-20.7	-22.4
Feb 13	-22.2	-22.6	-23.2	-23.5	-24	-24.3	-24.6	-24.6	-24	-22.8	-22.2	-21.8	-21.5	-21.2	-20.8	-20.7	-21.1	-22.1	-23.2	-23.7	-24.6	-25.3	-25.9	-26	-26.0	-20.7	-23.2
Feb 14	-26.3	-26.7	-26.9	-27.5	-27.6	-28.1	-28.4	-28.6	-27.7	-26.7	-24.6	-22.9	-21.5	-21.1	-20.9	-21.5	-22.1	-22.9	-23.8	-24.5	-24.7	-24.6	-25.5	-26.1	-28.6	-20.9	-25.1
Feb 15	-26.3	-26.7	-27.4	-27.2	-27.4	-27.4	-27.3	-27.3	-26.6	-25.4	-24.3	-23.1	-22	-21.2	-20.7	-20	-20	-20.6	-21.1	-21.6	-22	-22.3	-22.7	-23.3	-27.4	-20.0	-23.9
Feb 16	-23.7	-24.1	-24.3	-24.4	-24.4	-24.4	-24.5	-24.8	-24.4	-23	-21.6	-19.5	-17.9	-16.8	-16.9	-16.3	-16.6	-17.2	-17.7	-17.9	-18.2	-18.2	-18.2	-17.9	-24.8	-16.3	-20.5
Feb 17	-17.5	-17.5	-17.2	-16.9	-17.1	-17.1	-17.7	-18.1	-18.1	-17.5	-16.1	-14	-12.3	-10.9	-10.3	-10.9	-10.1	-12	-13.6	-14	-14.3	-15	-15.9	-16.7	-18.1	-10.1	-15.0
Feb 18	-16.9	-16.6	-15.5	-15.5	-16.8	-19.9	-20.2	-20.3	-19.6	-16.9	-13.7	-11.5	-9.5	-8	-7.2	-7.2	-7.4	-9.4	-11.2	-11.9	-12.2	-12.4	-12.1	-12.6	-20.3	-7.2	-13.5
Feb 19	-12.5	-12.1	-12.5	-13.2	-13.5	-13.8	-14.5	-14.9	-15	-13.3	-11.8	-10.1	-8.2	-6.7	-5	-4.3	-3.6	-3.3	-3.2	-2.8	-3.2	-3.8	-4.5	-4.3	-15.0	-2.8	-8.8
Feb 20	-4	-4.7	-5.6	-5.7	-5.8	-6	-5.6	-5.7	-4.8	-3.2	-1.5	-0.4	0.3	1.2	1.8	2.1	1.7	1	-0.5	-1.4	-0.8	-1.5	-2.4	-2.4	-6.0	2.1	-2.2
Feb 21	-1.9	-1.9	-1.9	-1.6	-1.7	-1.9	-2.2	-2	0.1	3	3.9	4.3	4.6	5.7	5.8	5.7	5.6	5.8	5.7	5.3	5.6	**6.6**	6.2	5.5	-2.2	**6.6**	**2.7**
Feb 22	4.8	3.9	2.8	2.8	1.9	1.9	1.4	-0.3	-0.6	-0.5	0.5	1	1.8	2.8	3.1	3.3	3.4	3.3	2.2	0.7	-0.9	-1.8	-1.9	-1.3	-1.9	4.8	1.4
Feb 23	-1.1	-2.3	-3	-3.8	-4.9	-5.1	-5.7	-6.4	-6.2	-4.9	-2.7	-0.8	-0.2	-0.5	-0.9	-0.6	-1.3	-2	-2.6	-3.2	-4	-4.1	-4	-4.4	-6.4	-0.2	-3.1
Feb 24	-5.4	-6.9	-6.9	-7.4	-6.1	-6.1	-6.2	-6.5	-6.6	-5.7	-4.2	-3	-1.7	-1.7	-2.1	-2.2	-1.8	-2.3	-3.5	-4.5	-5.6	-5.6	-5.9	-6.8	-7.4	-1.7	-4.8
Feb 25	-7.3	-7.7	-7.9	-7.7	-7.3	-7.2	-7	-7.1	-7.1	-6.1	-4.2	-1.6	1.3	2.5	4	4.4	3.4	2.4	0.8	0.1	-0.3	-0.4	-1.3	-2.4	-7.9	4.4	-2.7
Feb 26	-3.8	-7	-9.4	-11.2	-13.3	-14.9	-16.5	-18	-18.8	-18.3	-18.2	-17.5	-16.5	-15.7	-15	-14.6	-14.9	-15.7	-16.4	-16.8	-17	-17.6	-18.1	-18.3	-18.8	-3.8	-15.1
Feb 27	-18.6	-18.9	-19.1	-19.6	-20.1	-20.5	-20.9	-21	-20.7	-18.8	-17.3	-15.9	-14.8	-13.5	-12.3	-11.8	-11.6	-12.4	-13.7	-14	-14.6	-15	-15.6	-14.9	-21.0	-11.6	-16.5
Feb 28	-14.2	-13.6	-13.2	-13.2	-13.3	-13.7	-14.6	-15.4	-16.1	-16.9	-16.5	-15.7	-14.9	-14.3	-13.3	-13.1	-12.6	-12.3	-12.8	-13	-13.2	-13.2	-12.8	-12.4	-16.9	-12.3	-13.9
Diurnal Maximum	4.8	3.9	2.8	2.8	1.9	1.9	1.4	-0.3	0.1	3.0	3.9	4.3	4.6	5.7	5.8	5.7	5.6	5.8	5.7	5.3	5.6	6.6	6.2	5.5			
Daiurnal Average	-17.4	-17.8	-18.1	-18.4	-18.7	-19.0	-19.3	-19.7	-19.5	-18.6	-17.3	-16.1	-15.1	-13.8	-13.8	-13.7	-14.0	-14.7	-15.4	-15.8	-16.2	-16.5	-16.9	-17.1			

C	Monthly Calibration	**S**	Daily Zero-Span Check	**Q**	Quality Assurance	
K	Collection Error	**N**	No Data (Machine Not in Service)	**Y**	Routine Maintenance	**P** Power Failure
X	InValid Data (Equipment Malfunction /Recovery)	**NRM**	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)			

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.

Timeseries Chart of Hourly Average for AT - St. Lina Site



LAKELAND INDUSTRY & COMMUNITY ASSOCIATION

St. Lina Site - February 2021

Summary of Hourly Averages

STATION TEMPERATURE (ST) in Degree Celsius

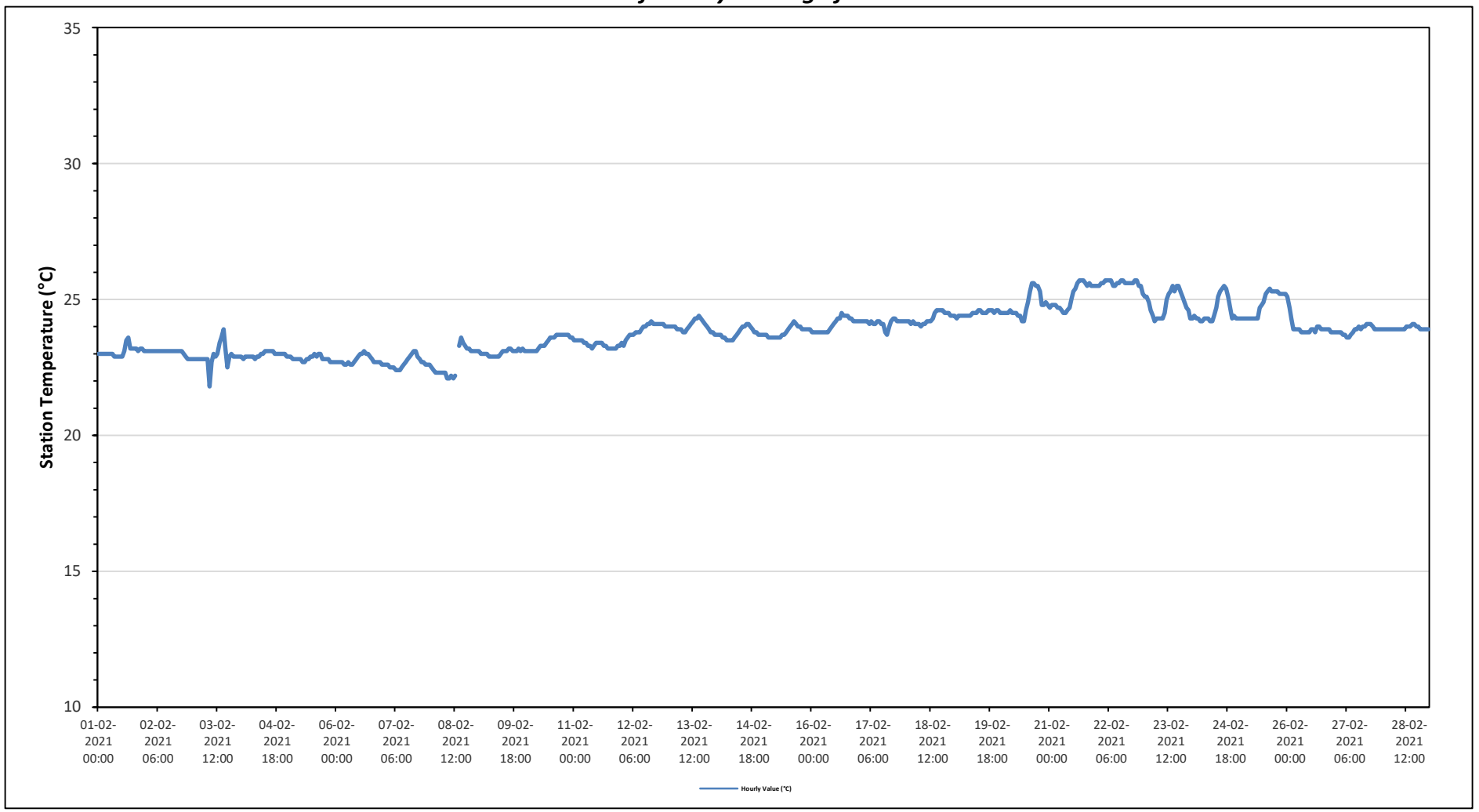
Maximum Hourly Value:	25.7	°C	on February 21 at hour 15	Hours in Service:	672
Maximum Daily Value:	25.6	°C	on February 22	Hours of Data:	671
Minimum Hourly Value:	21.8	°C	on February 3 at hour 8	Hours of Missing Data:	1
Minimum Daily Value:	22.7	°C	on February 7	Hours of Calibration:	0
Monthly Average:	23.8	°C		Operational Uptime:	99.9

Day	Hourly Period Starting at (MST)																							Daily	Daily	Daily
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Minimum	Maximum	Average
Feb 1	23.0	23.0	23.0	23.0	23.0	23.0	23.0	23.0	22.9	22.9	22.9	22.9	22.9	23.1	23.5	23.6	23.2	23.2	23.2	23.2	23.1	23.2	23.2	23.1	22.9	23.6	23.1
Feb 2	23.1	23.1	23.1	23.1	23.1	23.1	23.1	23.1	23.1	23.1	23.1	23.1	23.1	23.1	23.1	23.1	23.1	23.1	23.1	23.0	22.9	22.8	22.8	22.8	22.8	23.1	23.1
Feb 3	22.8	22.8	22.8	22.8	22.8	22.8	22.8	22.8	**21.8**	22.7	23.0	22.9	23.0	23.4	23.6	23.9	23.2	22.5	22.9	23.0	22.9	22.9	22.9	22.9	**21.8**	23.9	22.9
Feb 4	22.9	22.8	22.9	22.9	22.9	22.9	22.9	22.8	22.9	22.9	23.0	23.0	23.1	23.1	23.1	23.1	23.1	23.0	23.0	23.0	23.0	23.0	23.0	22.9	22.8	23.1	23.0
Feb 5	22.9	22.9	22.8	22.8	22.8	22.8	22.8	22.7	22.7	22.8	22.8	22.9	22.9	23.0	22.9	23.0	23.0	22.8	22.8	22.8	22.8	22.7	22.7	22.7	22.7	23.0	22.8
Feb 6	22.7	22.7	22.7	22.7	22.6	22.6	22.7	22.6	22.6	22.7	22.8	22.9	23.0	23.0	23.1	23.0	23.0	22.9	22.8	22.7	22.7	22.7	22.7	22.6	22.6	23.1	22.8
Feb 7	22.6	22.6	22.6	22.5	22.5	22.5	22.4	22.4	22.4	22.5	22.6	22.7	22.8	22.9	23.0	23.1	23.1	22.9	22.8	22.7	22.7	22.6	22.6	22.6	22.4	23.1	22.7
Feb 8	22.5	22.4	22.3	22.3	22.3	22.3	22.3	22.3	22.1	22.1	22.2	22.1	22.2	**P**	23.3	23.6	23.4	23.3	23.2	23.2	23.1	23.1	23.1	23.1	22.1	23.6	22.7
Feb 9	23.1	23.0	23.0	23.0	23.0	22.9	22.9	22.9	22.9	22.9	22.9	23.0	23.1	23.1	23.1	23.2	23.2	23.1	23.1	23.1	23.2	23.1	23.2	23.1	22.9	23.2	23.0
Feb 10	23.1	23.1	23.1	23.1	23.1	23.1	23.2	23.3	23.3	23.3	23.4	23.5	23.6	23.6	23.6	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.6	23.6	23.1	23.7	23.4
Feb 11	23.5	23.5	23.5	23.5	23.5	23.4	23.4	23.3	23.3	23.2	23.3	23.4	23.4	23.4	23.4	23.3	23.3	23.2	23.2	23.2	23.2	23.2	23.3	23.3	23.2	23.5	23.3
Feb 12	23.4	23.3	23.5	23.6	23.7	23.7	23.7	23.8	23.8	23.8	23.9	24.0	24.0	24.1	24.1	24.2	24.1	24.1	24.1	24.1	24.1	24.1	24.0	24.0	23.3	24.2	23.9
Feb 13	24.0	24.0	24.0	24.0	23.9	23.9	23.9	23.8	23.8	23.9	24.0	24.1	24.2	24.3	24.3	24.4	24.3	24.2	24.1	24.0	23.9	23.8	23.8	23.7	23.7	24.4	24.0
Feb 14	23.7	23.7	23.7	23.6	23.6	23.5	23.5	23.5	23.5	23.6	23.7	23.8	23.9	24.0	24.0	24.1	24.1	24.0	23.9	23.8	23.8	23.7	23.7	23.7	23.5	24.1	23.8
Feb 15	23.7	23.7	23.6	23.6	23.6	23.6	23.6	23.6	23.6	23.7	23.7	23.8	23.9	24.0	24.1	24.2	24.1	24.0	24.0	23.9	23.9	23.9	23.9	23.9	23.6	24.2	23.8
Feb 16	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.9	24.0	24.1	24.2	24.3	24.3	24.5	24.4	24.4	24.4	24.3	24.3	24.2	24.2	24.2	23.8	24.5	24.1
Feb 17	24.2	24.2	24.2	24.2	24.2	24.1	24.2	24.1	24.1	24.2	24.2	24.1	24.1	23.8	23.7	24.0	24.2	24.3	24.3	24.2	24.2	24.2	24.2	24.2	23.7	24.3	24.1
Feb 18	24.2	24.2	24.1	24.2	24.1	24.1	24.1	24.0	24.1	24.1	24.2	24.2	24.2	24.3	24.5	24.6	24.6	24.6	24.6	24.5	24.5	24.5	24.4	24.4	24.0	24.6	24.3
Feb 19	24.4	24.3	24.4	24.4	24.4	24.4	24.4	24.4	24.4	24.5	24.5	24.5	24.6	24.6	24.5	24.5	24.5	24.6	24.6	24.6	24.5	24.6	24.6	24.5	24.3	24.6	24.5
Feb 20	24.5	24.5	24.5	24.5	24.6	24.5	24.5	24.5	24.4	24.4	24.2	24.2	24.6	24.9	25.3	25.6	25.6	25.5	25.5	25.3	24.8	24.8	24.9	24.8	24.2	25.6	24.8
Feb 21	24.7	24.8	24.8	24.8	24.7	24.7	24.6	24.5	24.5	24.6	24.7	25.0	25.3	25.4	25.6	**25.7**	**25.7**	**25.7**	25.6	25.5	25.6	25.5	25.5	25.5	24.5	**25.7**	25.1
Feb 22	25.5	25.5	25.6	25.6	**25.7**	**25.7**	**25.7**	**25.7**	25.5	25.5	25.6	25.6	**25.7**	**25.7**	25.6	25.6	25.6	25.6	25.6	**25.7**	**25.7**	25.5	25.5	25.2	25.2	**25.7**	**25.6**
Feb 23	25.1	25.1	24.9	24.6	24.4	24.2	24.3	24.3	24.3	24.3	24.5	25.0	25.2	25.3	25.5	25.3	25.5	25.5	25.3	25.1	24.9	24.7	24.6	24.3	24.2	25.5	24.8
Feb 24	24.3	24.4	24.3	24.3	24.2	24.2	24.3	24.3	24.3	24.2	24.2	24.4	24.7	25.1	25.3	25.4	25.5	25.4	25.1	24.7	24.3	24.4	24.3	24.3	24.2	25.5	24.6
Feb 25	24.3	24.3	24.3	24.3	24.3	24.3	24.3	24.3	24.3	24.3	24.7	24.8	24.9	25.2	25.3	25.4	25.3	25.3	25.3	25.3	25.2	25.2	25.2	25.2	24.3	25.4	24.8
Feb 26	25.1	24.7	24.3	23.9	23.9	23.9	23.9	23.8	23.8	23.8	23.8	23.8	23.9	23.9	23.8	24.0	24.0	23.9	23.9	23.9	23.9	23.9	23.8	23.8	23.8	25.1	24.0
Feb 27	23.8	23.8	23.8	23.8	23.7	23.7	23.6	23.6	23.7	23.8	23.9	23.9	24.0	23.9	24.0	24.0	24.1	24.1	24.1	24.0	23.9	23.9	23.9	23.9	23.6	24.1	23.9
Feb 28	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	24.0	24.0	24.0	24.1	24.1	24.0	24.0	23.9	23.9	23.9	23.9	23.9	23.9	24.1	23.9
Diurnal Maximum	25.5	25.5	25.6	25.6	25.7	25.7	25.7	25.7	25.5	25.5	25.6	25.6	25.7	25.7	25.6	25.7	25.7	25.7	25.6	25.7	25.7	25.5	25.5	25.5			
Daiurnal Average	23.7	23.7	23.7	23.7	23.7	23.6	23.6	23.6	23.6	23.6	23.7	23.8	23.9	24.0	24.1	24.2	24.1	24.0	24.0	23.9	23.9	23.9	23.8	23.8			

C	Monthly Calibration	**S**	Daily Zero-Span Check	**Q**	Quality Assurance	
K	Collection Error	**N**	No Data (Machine Not in Service)	**Y**	Routine Maintenance	**P** Power Failure
X	InValid Data (Equipment Malfunction /Recovery)	**NRM**	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)			

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.

Timeseries Chart of Hourly Average for ST - St. Lina Site



LAKELAND INDUSTRY & COMMUNITY ASSOCIATION

St. Lina Site - February 2021

Summary of Hourly Averages

PRECIPITATION in mm

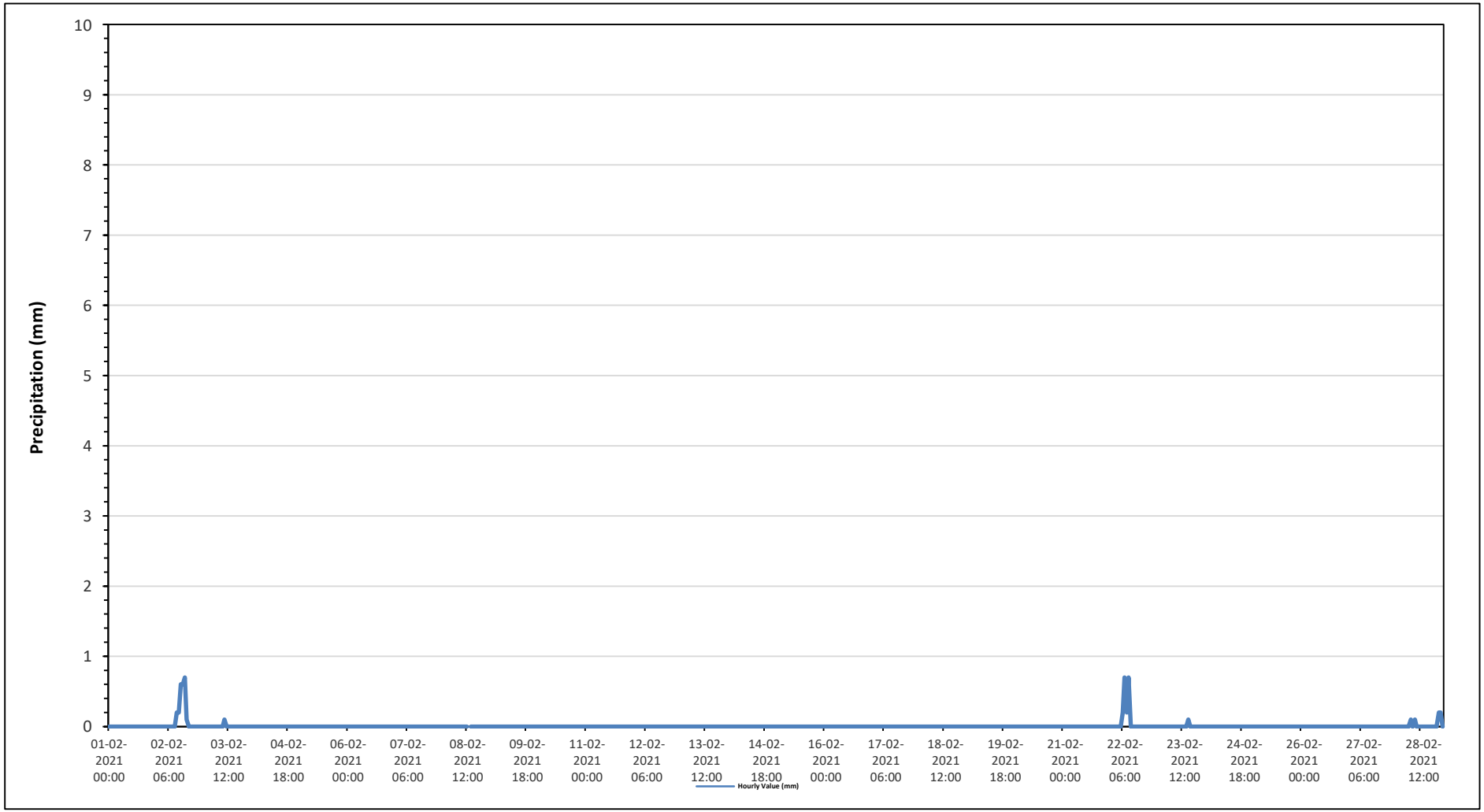
Maximum Hourly Value:	0.7	mm	on February 2 at hour 14	Hours in Service:	672
Maximum Daily Value:	2.4	mm	on February 2	Hours of Data:	671
Minimum Hourly Value:	0.0	mm	on February 1 at hour 0	Hours of Missing Data:	1
Minimum Daily Value:	0.0	mm	on February 1	Hours of Calibration:	0
Monthly Total:	5.0	mm		Operational Uptime:	99.9

Day	Hourly Period Starting at (MST)																								Daily	Daily	Daily
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Minimum	Maximum	Total
Feb 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
Feb 2	0	0	0	0	0	0	0	0	0	0	0.2	0.2	0.6	0.6	**0.7**	0.1	0	0	0	0	0	0	0	0	0.0	**0.7**	**2.4**
Feb 3	0	0	0	0	0	0	0	0	0	0	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.1	0.1
Feb 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
Feb 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
Feb 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
Feb 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
Feb 8	0	0	0	0	0	0	0	0	0	0	0	0	0	**P**	0	0	0	0	0	0	0	0	0	0	0.0	0.0	0.0
Feb 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
Feb 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
Feb 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
Feb 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
Feb 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
Feb 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
Feb 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
Feb 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
Feb 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
Feb 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
Feb 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
Feb 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
Feb 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
Feb 22	0	0	0	0	0	0	0.2	**0.7**	0.2	**0.7**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	**0.7**	1.8
Feb 23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0	0	0	0	0	0	0	0	0.0	0.1	0.1
Feb 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
Feb 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
Feb 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
Feb 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
Feb 28	0	0	0	0	0	0	0	0.1	0	0.1	0	0	0	0	0	0	0	0	0	0	0	0.2	0.2	0	0.0	0.2	0.6
Diurnal Maximum	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.7	0.2	0.7	0.2	0.2	0.6	0.6	0.7	0.1	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.0			
Diurnal Average	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			

C	Monthly Calibration	**S**	Daily Zero-Span Check	**Q**	Quality Assurance	
K	Collection Error	**N**	No Data (Machine Not in Service)	**Y**	Routine Maintenance	**P** Power Failure
X	InValid Data (Equipment Malfunction /Recovery)	**NRM**	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)			

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.

Timeseries Chart of Hourly Average for Precipitation - St. Lina Site



LAKELAND INDUSTRY & COMMUNITY ASSOCIATION

St. Lina Site - February 2021

Summary of Hourly Averages

VECTOR WIND SPEED (VWS) in km/hr

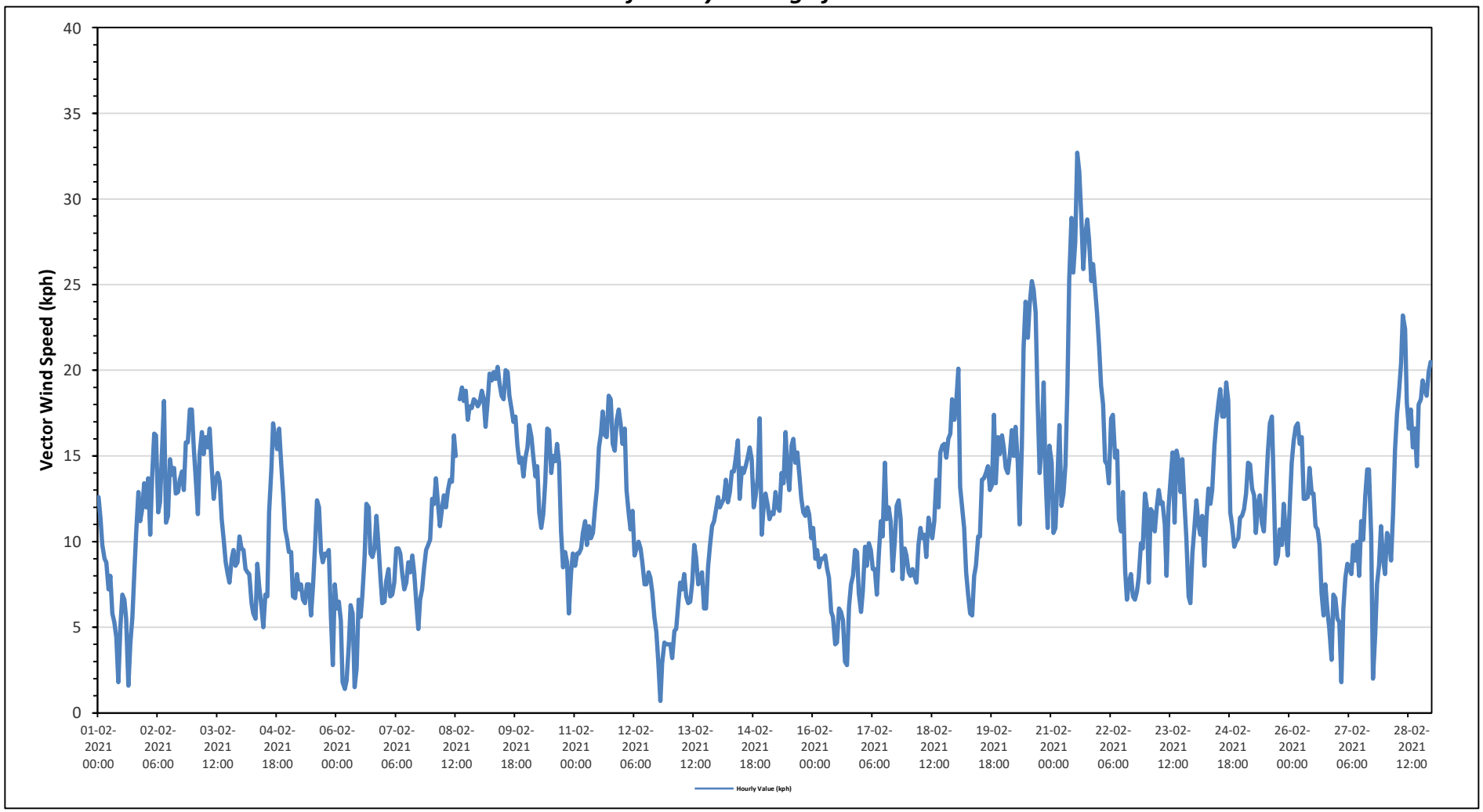
Maximum Hourly Value:	32.7	kph	on February 21 at hour 13	Hours in Service:	672
Maximum Daily Value:	21.5	kph	on February 21	Hours of Data:	671
Minimum Hourly Value:	0.7	kph	on February 12 at hour 19	Hours of Missing Data:	1
Minimum Daily Value:	3.1	kph	on February 16	Hours of Calibration:	0
Monthly Average:	4.8	kph		Operational Uptime:	99.9

Day	Hourly Period Starting at (MST)																							Daily	Daily	Daily
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Minimum	Maximum	Average
Feb 1	12.6	11.3	9.8	9.0	8.8	7.2	8.0	5.8	5.3	4.4	1.8	5.0	6.9	6.6	5.5	1.6	4.1	5.6	8.3	10.5	12.9	11.2	11.9	13.4	1.6	13.4	5.6
Feb 2	12.0	13.7	10.4	13.9	16.3	16.2	11.7	12.3	15.6	18.2	11.1	11.5	14.8	13.9	14.3	12.8	12.9	13.6	14.1	13.0	15.8	15.8	17.7	17.7	10.4	18.2	11.0
Feb 3	15.4	13.8	11.6	15.1	16.4	15.1	16.1	15.5	16.6	14.4	12.5	13.6	14.0	13.5	11.3	10.1	8.8	8.1	7.6	9.0	9.5	8.6	8.8	10.3	7.6	16.6	11.9
Feb 4	9.6	9.5	8.4	8.2	8.1	6.4	5.8	5.5	8.7	7.3	6.3	5.0	6.9	6.8	11.7	14.2	16.9	16.0	15.4	16.6	14.6	12.8	10.7	10.1	5.0	16.9	7.2
Feb 5	9.4	9.4	6.8	6.7	8.1	7.2	7.5	6.6	6.4	7.5	7.5	5.7	7.4	9.7	12.4	12.0	9.4	8.8	9.3	9.2	9.5	5.8	2.8	7.5	2.8	12.4	6.9
Feb 6	6.1	6.5	5.4	1.8	1.4	1.9	4.0	6.3	5.8	1.5	2.6	6.6	5.6	6.9	9.2	12.2	12.0	9.3	9.1	9.6	11.5	9.8	7.9	6.4	1.4	12.2	5.7
Feb 7	6.5	7.7	8.4	6.8	6.9	7.6	9.6	9.6	9.3	8.1	7.2	7.6	8.8	8.2	9.2	8.1	6.6	4.9	6.6	7.2	8.5	9.5	9.8	10.1	4.9	10.1	7.6
Feb 8	12.5	12.2	13.7	12.1	10.9	12.0	12.7	12.0	13.0	13.6	13.5	16.2	15.0	**P**	18.3	19.0	18.2	18.8	17.1	17.9	17.8	18.3	18.2	17.9	10.9	19.0	15.2
Feb 9	18.1	18.8	18.4	16.7	18.3	19.8	19.4	19.9	19.5	20.2	19.2	18.5	18.3	20.0	19.9	18.5	17.7	17.0	17.3	15.6	14.6	14.9	13.8	14.9	13.8	20.2	17.8
Feb 10	15.5	16.8	16.1	15.0	13.8	14.4	11.7	10.8	11.6	13.5	16.6	16.5	14.0	15.0	14.7	15.7	14.6	10.6	8.5	9.4	8.8	5.8	8.2	9.3	5.8	16.8	12.5
Feb 11	8.6	9.3	9.3	9.6	10.5	11.2	9.8	10.9	10.2	10.5	11.9	13.1	15.5	16.3	17.6	16.2	16.1	18.5	18.3	15.7	15.3	17.1	17.7	16.8	8.6	18.5	13.1
Feb 12	15.7	16.6	13.0	11.6	10.7	11.8	9.2	9.6	10.0	9.6	8.8	7.5	7.5	8.2	7.9	7.0	5.6	4.7	2.9	**0.7**	2.9	4.1	4.0	4.0	**0.7**	16.6	6.4
Feb 13	4.0	3.2	4.8	4.9	6.5	7.6	7.2	8.1	6.8	6.4	6.5	7.6	9.8	9.1	7.5	7.8	8.2	6.1	6.1	8.5	9.8	10.9	11.2	11.8	3.2	11.8	6.5
Feb 14	12.6	12.0	12.3	12.5	13.6	12.3	12.9	14.1	14.1	14.8	15.9	12.5	14.3	14.0	14.4	14.9	15.5	14.8	12.0	12.6	13.7	17.2	10.4	12.1	10.4	17.2	12.8
Feb 15	12.8	12.1	11.3	11.7	11.6	12.9	12.0	11.8	14.0	13.4	16.4	14.0	13.0	15.6	16.0	14.6	15.2	13.9	12.5	11.7	11.5	12.0	11.6	10.2	10.2	16.4	12.8
Feb 16	10.8	9.0	9.5	8.5	9.0	9.0	9.2	8.4	7.9	5.9	5.6	4.0	4.1	6.1	5.9	5.4	3.0	2.8	6.2	7.5	8.0	9.5	9.4	7.0	2.8	10.8	**3.1**
Feb 17	5.9	7.1	9.7	8.6	9.9	9.5	8.4	8.4	6.9	9.3	11.2	10.3	14.6	11.3	12.0	11.2	8.3	9.9	12.1	12.4	11.3	7.8	9.6	9.2	5.9	14.6	8.7
Feb 18	8.2	8.0	8.4	8.0	7.6	9.8	10.8	10.2	10.4	9.1	11.4	10.8	10.2	11.2	13.6	12.0	15.2	15.6	15.7	14.9	16.0	16.3	18.3	17.1	7.6	18.3	9.7
Feb 19	18.0	20.1	13.2	12.0	10.8	8.2	6.9	5.8	5.7	8.0	8.6	10.3	10.3	13.6	13.7	14.0	14.4	13.0	13.3	17.4	13.4	16.1	15.1	16.2	5.7	20.1	10.6
Feb 20	15.5	14.3	14.0	15.0	16.5	15.0	16.7	14.6	11.0	15.5	21.3	24.0	21.9	23.8	25.2	24.7	23.4	18.2	14.0	15.6	19.3	14.1	10.8	15.6	10.8	25.2	17.2
Feb 21	14.6	10.5	10.8	13.7	16.8	12.1	12.8	14.5	19.1	25.3	28.9	25.7	27.5	**32.7**	31.6	29.0	25.9	27.9	28.8	27.6	25.2	26.2	24.6	23.3	10.5	**32.7**	**21.5**
Feb 22	21.4	19.1	18.0	14.7	14.5	13.4	17.2	17.4	14.9	15.3	11.3	10.6	12.9	8.3	6.6	7.6	8.1	6.8	6.6	7.1	7.9	9.9	9.6	12.8	6.6	21.4	11.0
Feb 23	12.1	7.6	11.9	11.7	10.6	12.0	13.0	12.2	12.3	11.0	8.0	12.0	13.6	15.2	11.1	15.3	14.7	12.9	14.8	12.1	10.2	6.8	6.4	9.3	6.4	15.3	9.7
Feb 24	10.8	12.4	11.0	10.4	11.5	8.6	11.3	13.1	12.2	13.0	15.6	16.9	18.1	18.9	17.3	17.3	19.3	18.2	11.7	11.0	9.7	10.0	10.2	11.4	8.6	19.3	12.3
Feb 25	11.5	11.9	12.8	14.6	14.5	13.1	12.7	10.5	12.3	12.7	11.1	10.6	12.9	15.2	16.9	17.3	12.9	8.7	9.2	10.7	9.8	12.2	10.6	9.2	8.7	17.3	8.4
Feb 26	12.0	14.6	15.9	16.7	16.9	15.7	16.1	12.5	12.5	12.6	14.3	12.8	12.8	10.9	10.7	9.8	7.0	5.7	7.5	5.9	4.9	3.1	6.9	6.7	3.1	16.9	10.2
Feb 27	5.5	5.3	1.8	6.1	7.9	8.7	8.5	8.1	9.8	8.9	10.0	8.0	11.2	10.1	12.6	14.2	14.2	10.3	2.0	4.6	7.5	8.6	10.9	9.0	1.8	14.2	6.6
Feb 28	8.1	10.5	10.1	8.9	11.6	15.4	17.5	18.6	20.4	23.2	22.4	18.1	16.6	17.7	15.5	16.6	14.4	18.0	18.3	19.4	18.8	18.5	19.9	20.5	8.1	23.2	14.5
Diurnal Maximum	21	20	18	17	18	20	19	20	20	25	29	26	28	33	32	29	26	28	29	28	25	26	25	23			
Daiurnal Average	11.6	11.5	11.0	10.9	11.4	11.2	11.4	11.2	11.5	11.9	12.1	12.0	12.8	13.3	13.7	13.5	13.0	12.1	11.6	11.9	12.1	11.9	11.7	12.1			

C	Monthly Calibration	**S**	Daily Zero-Span Check	**Q**	Quality Assurance			
K	Collection Error	**N**	No Data (Machine Not in Service)	**Y**	Routine Maintenance	**P**	Power Failure	
X	InValid Data (Equipment Malfunction /Recovery)	**NRM**	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)					

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.

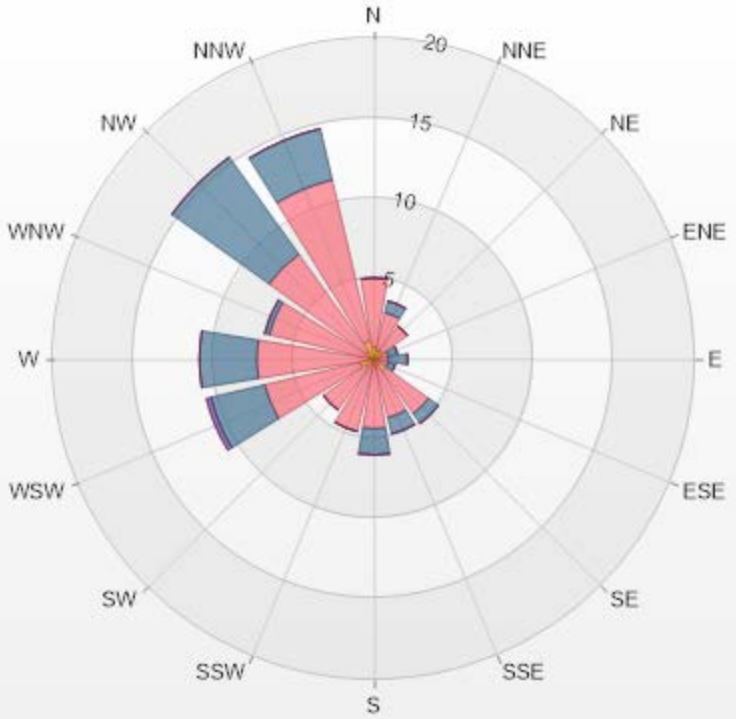
Timeseries Chart of Hourly Average for VWS - St. Lina Site



Wind: St. Lina Monitor: WDS [kph] Monthly: 02-2021 Type: WindRose Direction: Blowing From (Wind Frequency) Based On 1 Hr.
Calm: 0.75% Valid Data: 99.85%

Direction	1.8-6.0	6.0-15.0	15.0-29.0	29.0-39.0	>39.0	Total
N	0.75	4.32	0	0	0	5.07
NNE	0.6	2.38	0.75	0	0	3.73
NE	0.6	1.94	0	0	0	2.54
ENE	0.15	0.75	0.6	0	0	1.5
E	0.3	0.6	1.19	0	0	2.09
ESE	0.15	0.75	0.45	0	0	1.35
SE	0.89	3.28	0.75	0	0	4.92
SSE	0.45	3.28	1.04	0	0	4.77
S	0.15	4.17	1.64	0	0	5.96
SSW	0.3	4.32	0	0	0	4.62
SW	0.6	3.28	0	0	0	3.88
WSW	0.89	6.11	3.43	0.3	0	10.73
W	0.15	7.15	3.58	0	0	10.88
WNW	0.15	6.56	0.3	0	0	7.01
NW	0.6	7.45	7.45	0	0	15.5
NNW	1.19	10.28	3.28	0	0	14.75
Summary	7.92	66.62	24.46	0.3	0	99.3

St. Lina 01-02-2021 00:00 - 28-02-2021 23:00 Calm: 0.75% Calm Wind Avg Speed: 1.38(kph)



% Icon Classes (kph)	8 1.8-6.0	67 6.0-15.0	24 15.0-29.0	0 29.0-39.0	0 >39.0

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION

St. Lina Site - February 2021

Summary of Hourly Averages

WIND DIRECTION (VWD) in sector

Monthly Average: 287 (WNW) degree

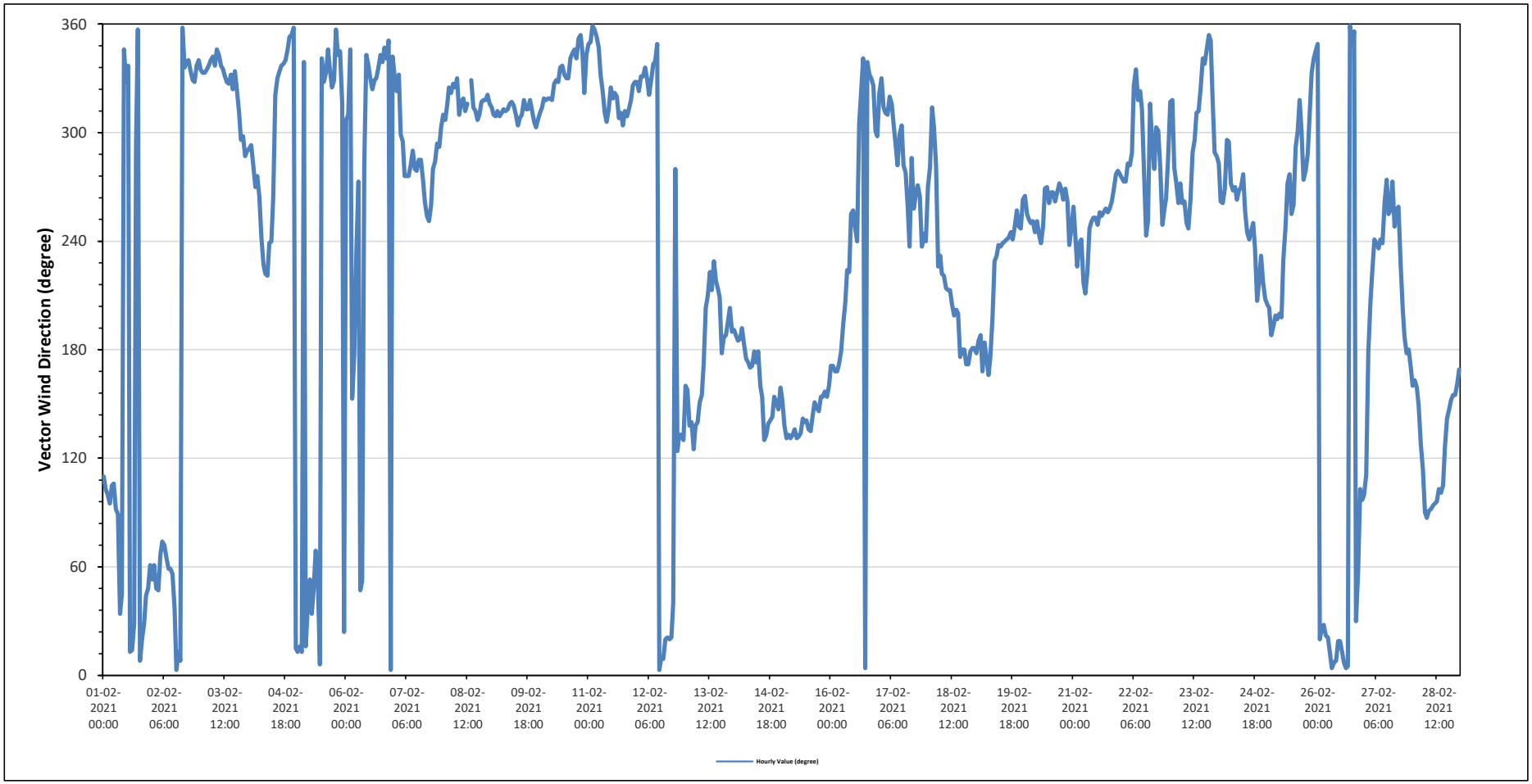
Hours in Service:	672
Hours of Data:	671
Hours of Missing Data:	1
Hours of Calibration:	0
Operational Uptime:	99.9

Day	Hourly Period Starting at (MST)																								Daily Average	
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Degree	Quadrant
Feb 1	ESE	ESE	E	E	ESE	ESE	E	E	NE	NE	NNW	NNW	NNW	NNE	NNE	NNE	WNW	N	N	NNE	NNE	NE	NE	ENE	54	NE
Feb 2	NE	ENE	NE	NE	ENE	ENE	ENE	ENE	ENE	ENE	NE	NE	N	NNE	N	N	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	21	NNE
Feb 3	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NW	NNW	NW	NNW	NW	NW	WNW	WNW	WNW	WNW	329	NNW
Feb 4	WNW	WNW	W	W	W	W	WSW	SW	SW	SW	WSW	WSW	W	NW	NNW	NNW	NNW	NNW	NNW	NNW	N	N	N	NNE	314	NW
Feb 5	NNE	NNE	NNE	NNW	NNE	NE	NE	NE	NE	ENE	NE	N	NNW	NNW	NNW	NNW	NNW	NW	NNW	N	NNW	NNW	NW	NNE	2	N
Feb 6	NW	NW	NNW	SSE	S	SW	W	NE	NE	W	NNW	NNW	NNW	NW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	N	N	NNW	339	NNW
Feb 7	NNW	NW	NNW	WNW	WNW	W	W	W	W	WNW	W	W	WNW	WNW	W	W	WSW	WSW	WSW	W	WNW	WNW	WNW	WNW	286	WNW
Feb 8	NW	NW	NW	NW	NW	NW	NW	NNW	NW	NW	NW	NW	NW	P	NNW	NW	NW	NW	NW	NW	NW	NW	NW	NW	317	NW
Feb 9	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	WNW	NW	NW	NW	NW	NW	NW	NW	NW	WNW	NW	311	NW
Feb 10	NW	NW	NW	NW	NW	NW	NW	NW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	N	N	NNW	NW	NNW	330	NNW
Feb 11	NNW	N	N	N	N	NNW	NNW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	WNW	NW	NW	NW	NW	NW	NNW	323	NW
Feb 12	NNW	NW	NNW	NNW	NNW	NNW	NW	NNW	NNW	NNW	NNW	N	N	N	NNE	NNE	NNE	NNE	NE	W	ESE	SE	SE	SE	347	NNW
Feb 13	SSE	SSE	SE	SE	SE	SE	SE	SSE	SSE	S	SSW	SSW	SW	SSW	SW	SW	SSW	SSW	S	S	S	SSW	SSW	S	186	S
Feb 14	S	S	S	S	S	S	S	S	SSE	S	S	S	S	SSE	SSE	SE	SE	SE	SE	SE	SSE	SSE	SE	SSE	164	SSE
Feb 15	SSE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SSE	SE	SE	SSE	SSE	SSE	SSE	SSE	142	SE
Feb 16	S	S	SSE	SSE	S	S	SSW	SSW	SW	SW	WSW	WSW	WSW	WSW	WNW	NW	NNW	N	NNW	NNW	NNW	NW	WNW	WNW	238	SW
Feb 17	NW	NNW	NW	NW	NW	NW	NW	WNW	WNW	W	WNW	WNW	W	W	WSW	SW	WNW	WSW	W	W	W	SW	WSW	WSW	282	W
Feb 18	W	W	NW	WNW	W	SW	SW	SW	SW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	S	S	S	S	S	S	S	S	204	SSW
Feb 19	S	S	S	SSE	S	S	SSE	S	SSW	SW	SW	SW	SW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	W	224	SW
Feb 20	W	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	W	W	W	W	W	W	W	W	W	W	W	W	SW	WSW	259	WSW
Feb 21	WSW	WSW	SW	WSW	WSW	SW	SSW	SW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	W	W	W	W	W	254	WSW
Feb 22	W	W	W	W	W	WNW	NW	NNW	NW	NW	NW	W	WSW	WSW	NW	WNW	W	WNW	WNW	W	WSW	WSW	W	WNW	288	WNW
Feb 23	NW	NW	W	W	W	W	W	W	WSW	WSW	W	WNW	WNW	NW	NW	NW	NNW	NNW	NNW	N	N	NW	WNW	WNW	300	WNW
Feb 24	W	W	W	W	WNW	WNW	W	W	W	W	W	W	W	WSW	WSW	WSW	WSW	WSW	SW	SSW	SW	SW	SW	SSW	255	WSW
Feb 25	SSW	SSW	S	S	SSW	SSW	SSW	SSW	SW	WSW	W	W	WSW	WSW	WNW	WNW	NW	WNW	W	W	WNW	NW	NNW	NNW	255	WSW
Feb 26	NNW	NNW	NNE	NNE	NNE	NNE	NNE	NNE	N	N	N	NNE	NNE	NNE	N	N	N	N	NNW	N	NNE	ENE	ESE	E	15	NNE
Feb 27	E	ESE	S	SSW	SW	WSW	WSW	SW	WSW	WSW	W	W	WSW	WSW	W	WSW	WSW	WSW	SW	SSW	S	S	S	SSE	233	SW
Feb 28	SSE	SSE	SSE	SSE	SE	ESE	E	E	E	E	E	E	E	ESE	E	ESE	SE	SE	SE	SSE	SSE	SSE	SSE	SSE	124	ESE

C	Monthly Calibration	S	Daily Zero-Span Check	Q	Quality Assurance	
K	Collection Error	N	No Data (Machine Not in Service)	Y	Routine Maintenance	P Power Failure
X	InValid Data (Machine Malfunction /Recovery)	NRM	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)			

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.

Timeseries Chart of Hourly Average for VWD - St. Lina Site



LAKELAND INDUSTRY & COMMUNITY ASSOCIATION

St. Lina Site - February 2021

Summary of Hourly Averages

VECTOR WIND SPEED (VWS) in km/hr & WIND DIRECTION (VWD) in sector

WIND SPEED

Maximum Hourly Value:	32.7	kph	on February 21 at hour 13	Hours in Service:	672
Maximum Daily Value:	21.5	kph	on February 21	Hours of Data:	671
Minimum Hourly Value:	0.7	kph	on February 12 at hour 19	Hours of Missing Data:	1
Minimum Daily Value:	3.1	kph	on February 16	Hours of Calibration:	0
Monthly Average:	4.8	kph		Operational Uptime:	99.9

WIND DIRECTION

Monthly Average: 287 (WNW degree

Day	Hourly Period Starting at (MST)																							Daily	Daily	Daily
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Minimum	Maximum	Average
Feb 1	12.6	11.3	9.8	9.0	8.8	7.2	8.0	5.8	5.3	4.4	1.8	5.0	6.9	6.6	5.5	1.6	4.1	5.6	8.3	10.5	12.9	11.2	11.9	13.4	1.6	13.4	5.6
	ESE	ESE	E	E	ESE	ESE	E	E	NE	NE	NNW	NNW	NNW	NNE	NNE	NNE	WNW	N	N	NNE	NNE	NE	NE	ENE			
Feb 2	12.0	13.7	10.4	13.9	16.3	16.2	11.7	12.3	15.6	18.2	11.1	11.5	14.8	13.9	14.3	12.8	12.9	13.6	14.1	13.0	15.8	15.8	17.7	17.7	10.4	18.2	11.0
	NE	ENE	NE	NE	ENE	ENE	ENE	ENE	ENE	ENE	NE	NE	N	NNE	N	N	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW			
Feb 3	15.4	13.8	11.6	15.1	16.4	15.1	16.1	15.5	16.6	14.4	12.5	13.6	14.0	13.5	11.3	10.1	8.8	8.1	7.6	9.0	9.5	8.6	8.8	10.3	7.6	16.6	11.9
	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NW	NNW	NW	NNW	NW	NW	WNW	WNW	WNW	WNW			
Feb 4	9.6	9.5	8.4	8.2	8.1	6.4	5.8	5.5	8.7	7.3	6.3	5.0	6.9	6.8	11.7	14.2	16.9	16.0	15.4	16.6	14.6	12.8	10.7	10.1	5.0	16.9	7.2
	WNW	WNW	W	W	W	W	WSW	SW	SW	SW	WSW	WSW	W	NW	NNW	NNW	NNW	NNW	NNW	NNW	N	N	N	NNE			
Feb 5	9.4	9.4	6.8	6.7	8.1	7.2	7.5	6.6	6.4	7.5	7.5	5.7	7.4	9.7	12.4	12.0	9.4	8.8	9.3	9.2	9.5	5.8	2.8	7.5	2.8	12.4	6.9
	NNE	NNE	NNE	NNW	NNE	NE	NE	NE	NE	ENE	NE	N	NNW	NNW	NNW	NNW	NNW	NW	NNW	N	NNW	NNW	NW	NNE			
Feb 6	6.1	6.5	5.4	1.8	1.4	1.9	4.0	6.3	5.8	1.5	2.6	6.6	5.6	6.9	9.2	12.2	12.0	9.3	9.1	9.6	11.5	9.8	7.9	6.4	1.4	12.2	5.7
	NW	NW	NNW	SSE	S	SW	W	NE	NE	W	NNW	NNW	NNW	NW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	N	N	NNW			
Feb 7	6.5	7.7	8.4	6.8	6.9	7.6	9.6	9.6	9.3	8.1	7.2	7.6	8.8	8.2	9.2	8.1	6.6	4.9	6.6	7.2	8.5	9.5	9.8	10.1	4.9	10.1	7.6
	NNW	NW	NNW	WNW	WNW	W	W	W	W	WNW	W	W	WNW	WNW	W	W	WSW	WSW	WSW	W	WNW	WNW	WNW	WNW			
Feb 8	12.5	12.2	13.7	12.1	10.9	12.0	12.7	12.0	13.0	13.6	13.5	16.2	15.0	P	18.3	19.0	18.2	18.8	17.1	17.9	17.8	18.3	18.2	17.9	10.9	19.0	15.2
	NW	NW	NW	NW	NW	NW	NW	NNW	NW	NW	NW	NW	NW	P	NNW	NW	NW	NW	NW	NW	NW	NW	NW	NW			
Feb 9	18.1	18.8	18.4	16.7	18.3	19.8	19.4	19.9	19.5	20.2	19.2	18.5	18.3	20.0	19.9	18.5	17.7	17.0	17.3	15.6	14.6	14.9	13.8	14.9	13.8	20.2	17.8
	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	WNW	NW	NW	NW	NW	NW	NW	NW	NW	WNW	NW			
Feb 10	15.5	16.8	16.1	15.0	13.8	14.4	11.7	10.8	11.6	13.5	16.6	16.5	14.0	15.0	14.7	15.7	14.6	10.6	8.5	9.4	8.8	5.8	8.2	9.3	5.8	16.8	12.5
	NW	NW	NW	NW	NW	NW	NW	NW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	N	N	NNW	NW	NNW			
Feb 11	8.6	9.3	9.3	9.6	10.5	11.2	9.8	10.9	10.2	10.5	11.9	13.1	15.5	16.3	17.6	16.2	16.1	18.5	18.3	15.7	15.3	17.1	17.7	16.8	8.6	18.5	13.1
	NNW	N	N	N	N	NNW	NNW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	WNW	NW	NW	NW	NW	NW	NNW			
Feb 12	15.7	16.6	13.0	11.6	10.7	11.8	9.2	9.6	10.0	9.6	8.8	7.5	7.5	8.2	7.9	7.0	5.6	4.7	2.9	**0.7**	2.9	4.1	4.0	4.0	**0.7**	16.6	6.4
	NNW	NW	NNW	NNW	NNW	NNW	NW	NNW	NNW	NNW	NNW	N	N	N	NNE	NNE	NNE	NNE	NE	W	ESE	SE	SE	SE			
Feb 13	4.0	3.2	4.8	4.9	6.5	7.6	7.2	8.1	6.8	6.4	6.5	7.6	9.8	9.1	7.5	7.8	8.2	6.1	6.1	8.5	9.8	10.9	11.2	11.8	3.2	11.8	6.5
	SSE	SSE	SE	SE	SE	SE	SE	SSE	SSE	S	SSW	SSW	SW	SSW	SW	S	S	SSW	SSW	S	S	S	SSW	SSW	S			
Feb 14	12.6	12.0	12.3	12.5	13.6	12.3	12.9	14.1	14.1	14.8	15.9	12.5	14.3	14.0	14.4	14.9	15.5	14.8	12.0	12.6	13.7	17.2	10.4	12.1	10.4	17.2	12.8
	S	S	S	S	S	S	S	S	SSE	S	S	S	S	SSE	SSE	SE	SE	SE	SE	SE	SSE	SSE	SE	SSE			
Feb 15	12.8	12.1	11.3	11.7	11.6	12.9	12.0	11.8	14.0	13.4	16.4	14.0	13.0	15.6	16.0	14.6	15.2	13.9	12.5	11.7	11.5	12.0	11.6	10.2	10.2	16.4	12.8
	SSE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SSE	SE	SE	SSE	SSE	SSE	SSE	SSE			
Feb 16	10.8	9.0	9.5	8.5	9.0	9.0	9.2	8.4	7.9	5.9	5.6	4.0	4.1	6.1	5.9	5.4	3.0	2.8	6.2	7.5	8.0	9.5	9.4	7.0	2.8	10.8	**3.1**
	S	S	SSE	SSE	S	S	SSW	SSW	SW	SW	WSW	WSW	WSW	WSW	WNW	NW	NNW	N	NNW	NNW	NNW	NW	WNW	WNW			
Feb 17	5.9	7.1	9.7	8.6	9.9	9.5	8.4	8.4	6.9	9.3	11.2	10.3	14.6	11.3	12.0	11.2	8.3	9.9	12.1	12.4	11.3	7.8	9.6	9.2	5.9	14.6	8.7
	NW	NNW	NW	NW	NW	NW	NW	WNW	WNW	W	WNW	WNW	W	W	WSW	SW	WNW	WSW	W	W	W	SW	WSW	WSW			
Feb 18	8.2	8.0	8.4	8.0	7.6	9.8	10.8	10.2	10.4	9.1	11.4	10.8	10.2	11.2	13.6	12.0	15.2	15.6	15.7	14.9	16.0	16.3	18.3	17.1	7.6	18.3	9.7
	W	W	NW	WNW	W	SW	SW	SW	SW	SSW	SSW	SSW	SSW	SSW	SSW	SSW	S	S	S	S	S	S	S	S			
Feb 19	18.0	20.1	13.2	12.0	10.8	8.2	6.9	5.8	5.7	8.0	8.6	10.3	10.3	13.6	13.7	14.0	14.4	13.0	13.3	17.4	13.4	16.1	15.1	16.2	5.7	20.1	10.6
	S	S	S	SSE	S	S	SSE	S	SSW	SW	SW	SW	SW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	W			
Feb 20	15.5	14.3	14.0	15.0	16.5	15.0	16.7	14.6	11.0	15.5	21.3	24.0	21.9	23.8	25.2	24.7	23.4	18.2	14.0	15.6	19.3	14.1	10.8	15.6	10.8	25.2	17.2
	W	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	W	W	W	W	W	W	W	W	W	W	W	W	SW	WSW			

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION

St. Lina Site - February 2021

Summary of Hourly Averages

VECTOR WIND SPEED (VWS) in km/hr & WIND DIRECTION (VWD) in sector

WIND SPEED

Maximum Hourly Value:	32.7	kph	on February 21 at hour 13	Hours in Service:	672
Maximum Daily Value:	21.5	kph	on February 21	Hours of Data:	671
Minimum Hourly Value:	0.7	kph	on February 12 at hour 19	Hours of Missing Data:	1
Minimum Daily Value:	3.1	kph	on February 16	Hours of Calibration:	0
Monthly Average:	4.8	kph		Operational Uptime:	99.9

WIND DIRECTION

Monthly Average: 287 (WNW degree

Day	Hourly Period Starting at (MST)																								Daily	Daily	Daily
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Minimum	Maximum	Average
Feb 21	14.6	10.5	10.8	13.7	16.8	12.1	12.8	14.5	19.1	25.3	28.9	25.7	27.5	**32.7**	31.6	29.0	25.9	27.9	28.8	27.6	25.2	26.2	24.6	23.3	10.5	**32.7**	**21.5**
	WSW	WSW	SW	WSW	WSW	SW	SSW	SW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	W	W	W	W	W			
Feb 22	21.4	19.1	18.0	14.7	14.5	13.4	17.2	17.4	14.9	15.3	11.3	10.6	12.9	8.3	6.6	7.6	8.1	6.8	6.6	7.1	7.9	9.9	9.6	12.8	6.6	21.4	11.0
	W	W	W	W	W	WNW	NW	NNW	NW	NW	NW	W	WSW	WSW	NW	WNW	W	WNW	WNW	W	WSW	WSW	W	WNW			
Feb 23	12.1	7.6	11.9	11.7	10.6	12.0	13.0	12.2	12.3	11.0	8.0	12.0	13.6	15.2	11.1	15.3	14.7	12.9	14.8	12.1	10.2	6.8	6.4	9.3	6.4	15.3	9.7
	NW	NW	W	W	W	W	W	W	WSW	WSW	W	WNW	WNW	NW	NW	NW	NNW	NNW	NNW	N	N	NW	WNW	WNW			
Feb 24	10.8	12.4	11.0	10.4	11.5	8.6	11.3	13.1	12.2	13.0	15.6	16.9	18.1	18.9	17.3	17.3	19.3	18.2	11.7	11.0	9.7	10.0	10.2	11.4	8.6	19.3	12.3
	W	W	W	W	WNW	WNW	W	W	W	W	W	W	W	WSW	WSW	WSW	WSW	WSW	SW	SSW	SW	SW	SW	SSW			
Feb 25	11.5	11.9	12.8	14.6	14.5	13.1	12.7	10.5	12.3	12.7	11.1	10.6	12.9	15.2	16.9	17.3	12.9	8.7	9.2	10.7	9.8	12.2	10.6	9.2	8.7	17.3	8.4
	SSW	SSW	S	S	SSW	SSW	SSW	SSW	SW	WSW	W	W	WSW	WSW	WNW	WNW	NW	WNW	W	W	WNW	NW	NNW	NNW			
Feb 26	12.0	14.6	15.9	16.7	16.9	15.7	16.1	12.5	12.5	12.6	14.3	12.8	12.8	10.9	10.7	9.8	7.0	5.7	7.5	5.9	4.9	3.1	6.9	6.7	3.1	16.9	10.2
	NNW	NNW	NNE	NNE	NNE	NNE	NNE	NNE	N	N	N	NNE	NNE	NNE	N	N	N	N	NNW	N	NNE	ENE	ESE	E			
Feb 27	5.5	5.3	1.8	6.1	7.9	8.7	8.5	8.1	9.8	8.9	10.0	8.0	11.2	10.1	12.6	14.2	14.2	10.3	2.0	4.6	7.5	8.6	10.9	9.0	1.8	14.2	6.6
	E	ESE	S	SSW	SW	WSW	WSW	SW	WSW	WSW	W	W	WSW	WSW	W	WSW	WSW	WSW	SW	SSW	S	S	S	SSE			
Feb 28	8.1	10.5	10.1	8.9	11.6	15.4	17.5	18.6	20.4	23.2	22.4	18.1	16.6	17.7	15.5	16.6	14.4	18.0	18.3	19.4	18.8	18.5	19.9	20.5	8.1	23.2	14.5
	SSE	SSE	SSE	SSE	SE	ESE	E	E	E	E	E	E	E	ESE	E	ESE	SE	SE	SE	SSE	SSE	SSE	SSE	SSE			

C	Monthly Calibration	**S**	Daily Zero-Span Check	**Q**	Quality Assurance	
K	Collection Error	**N**	No Data (Machine Not in Service)	**Y**	Routine Maintenance	**P** Power Failure
X	InValid Data (Equipment Malfunction /Recovery)	**NRM**	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)			

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION

St. Lina Site - February 2021

Summary of Hour Standard Deviations

STANDARD DEVIATION WIND DIRECTION (STDWD) in Degree

Maximum Hourly Value: 66 degree on February 12 at hour 19

Minimum Hourly Value: 2 degree on February 7 at hour 6

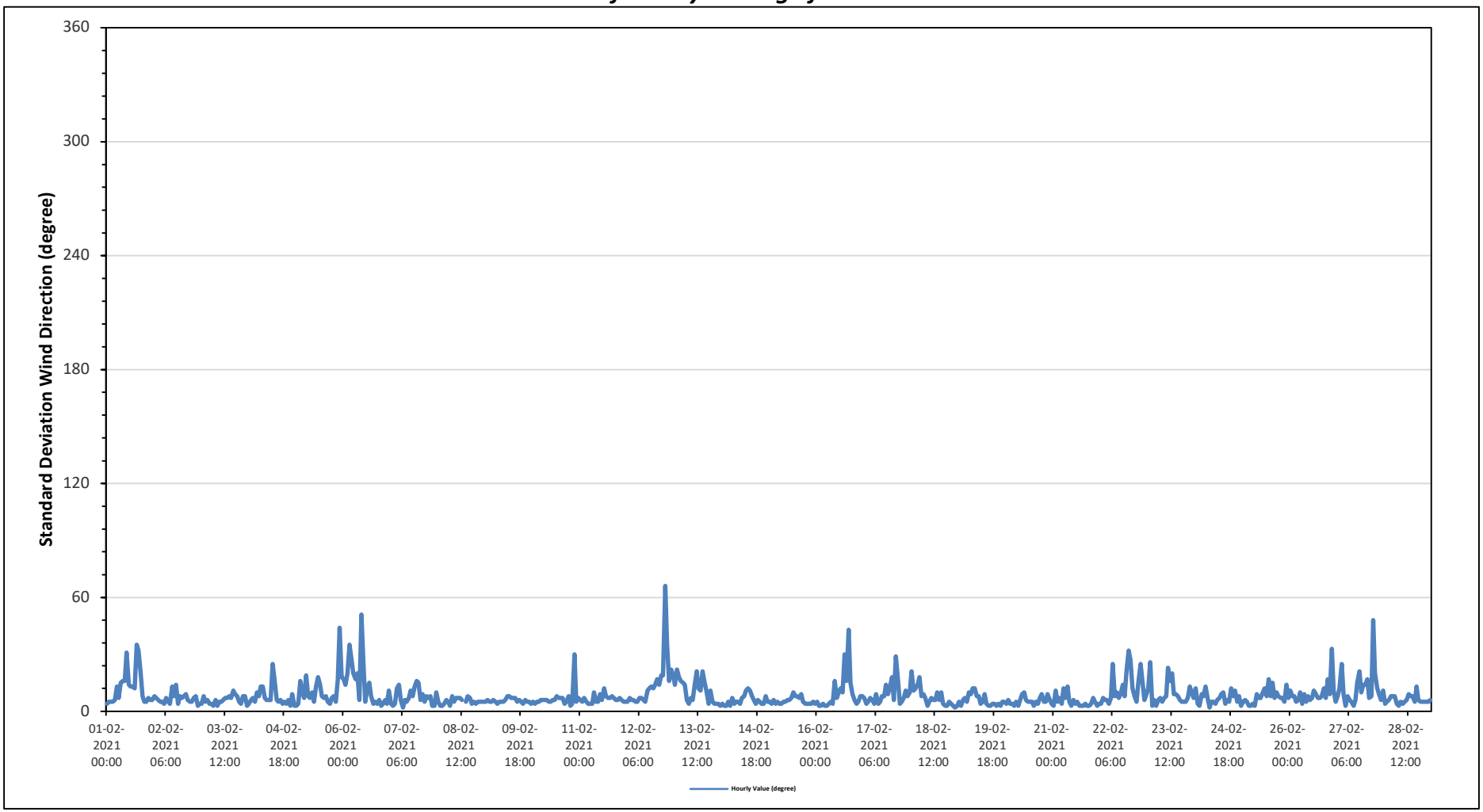
Hours in Service:	672
Hours of Data:	671
Hours of Missing Data:	1
Hours of Calibration:	0
Operational Uptime:	99.9

Day	Hourly Period Starting at (MST)																								Daily Minimum	Daily Maximum
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23		
Feb 1	4	5	5	5	6	13	7	15	16	16	31	14	13	13	12	35	32	21	8	5	5	7	6	6	4	35
Feb 2	8	7	6	5	5	4	7	5	4	13	8	14	4	8	7	8	9	6	5	5	7	8	3	4	3	14
Feb 3	4	8	5	6	4	4	3	6	3	5	5	6	7	7	8	7	11	9	8	5	4	8	8	3	3	11
Feb 4	4	6	7	5	10	8	13	13	7	6	6	6	25	16	6	5	6	4	5	4	6	3	9	3	3	25
Feb 5	3	4	16	10	7	19	8	7	10	5	13	18	14	8	7	8	5	4	7	8	5	17	44	18	3	44
Feb 6	17	14	20	35	27	20	17	20	6	51	25	5	12	15	8	4	5	4	6	3	4	6	4	11	3	51
Feb 7	4	3	4	12	14	6	**2**	6	5	7	11	8	13	16	15	6	9	5	8	7	8	3	3	10	**2**	16
Feb 8	5	3	3	4	6	5	3	8	5	7	7	7	6	**P**	5	8	7	4	5	4	5	5	5	5	3	8
Feb 9	5	6	5	5	6	5	4	5	5	5	6	8	8	7	7	7	5	6	5	4	6	5	5	4	4	8
Feb 10	5	4	5	5	6	6	6	6	5	5	6	6	8	7	7	7	4	5	8	3	4	30	5	7	3	30
Feb 11	6	5	7	5	4	4	4	10	5	5	9	6	12	8	7	7	8	7	6	6	7	6	5	5	4	12
Feb 12	5	7	6	6	5	5	7	7	6	5	11	12	13	12	14	17	14	19	19	**66**	35	16	22	19	5	**66**
Feb 13	14	22	18	16	15	14	6	4	7	6	14	21	12	11	21	15	11	4	11	5	4	4	4	3	3	22
Feb 14	4	3	3	5	3	7	4	5	5	4	7	8	11	12	11	8	6	4	6	5	4	4	8	5	3	12
Feb 15	5	4	6	4	5	4	4	5	5	6	6	7	10	8	8	7	9	5	4	4	4	4	5	4	4	10
Feb 16	5	3	3	4	3	3	4	5	4	16	7	10	12	10	30	16	43	15	9	6	4	5	8	8	3	43
Feb 17	7	4	5	7	6	4	9	4	5	8	8	14	9	13	18	6	29	17	4	5	7	11	8	10	4	29
Feb 18	21	11	12	14	18	8	9	7	3	5	7	6	6	10	6	10	4	3	3	5	4	3	**2**	3	**2**	21
Feb 19	5	3	6	7	5	10	9	12	12	8	8	4	5	9	4	3	3	4	4	3	4	3	5	5	3	12
Feb 20	4	6	4	4	3	5	3	6	9	10	6	5	5	5	3	5	4	7	9	5	5	9	6	4	3	10
Feb 21	3	11	5	7	4	12	7	13	5	3	6	4	5	3	3	3	4	3	3	4	7	5	3	4	3	13
Feb 22	4	7	6	6	4	7	25	8	10	7	9	14	8	22	32	27	12	8	5	15	25	16	6	9	4	32
Feb 23	12	26	3	6	3	6	7	5	7	8	23	16	20	9	9	8	6	5	5	5	7	13	10	7	3	26
Feb 24	12	4	3	9	8	13	7	**2**	5	5	4	6	7	9	10	4	6	5	12	8	11	5	8	3	**2**	13
Feb 25	5	6	5	3	3	4	3	9	7	7	10	12	8	17	8	15	7	10	8	7	7	5	14	7	3	17
Feb 26	11	8	8	5	6	10	4	9	5	8	6	7	11	9	7	7	8	12	7	17	9	33	11	5	4	33
Feb 27	8	12	25	9	3	8	6	5	3	6	15	21	10	14	14	17	7	8	48	20	12	9	6	11	3	48
Feb 28	4	5	6	8	8	8	4	3	5	4	5	6	9	8	8	5	13	6	5	5	5	5	5	6	3	13
Diurnal Minimum	3	3	3	3	3	3	2	2	3	3	4	4	4	3	3	3	3	3	3	3	4	3	2	3		
Daiurnal Maximum	21	26	25	35	27	20	25	20	16	51	31	21	25	22	32	35	43	21	48	66	35	33	44	19		

C	Monthly Calibration	**S**	Daily Zero-Span Check	**Q**	Quality Assurance	
K	Collection Error	**N**	No Data (Machine Not in Service)	**Y**	Routine Maintenance	**P** Power Failure
X	InValid Data (Machine Malfunction /Recovery)	**NRM**	UnitMaint (Repeat Calibration / Repeat Daily Zero-Span Check / Non-Routine Maintenance)			

Daily Average is shown "-" if minimum data completeness criteria of 75% or 18 hours per day is not met.
Monthly Average is shown "-" if minimum data completeness criteria of 75% of days per month is not met.

Timeseries Chart of Hourly Average for STDWD - St. Lina Site



END OF REPORT

This page, 239 of 239, ends the February 2021 Monthly Ambient Air Quality Monitoring Report.

Lakeland Industry & Community Association

FEBRUARY 2021

Ambient Air Monitoring Calibration Report

- COLD LAKE SOUTH STATION-

CAL-LICA-202102-01174

Station Operation and Maintenance:
Bureau Veritas Canada

Data Validation and Report:
LICA / Bureau Veritas Canada

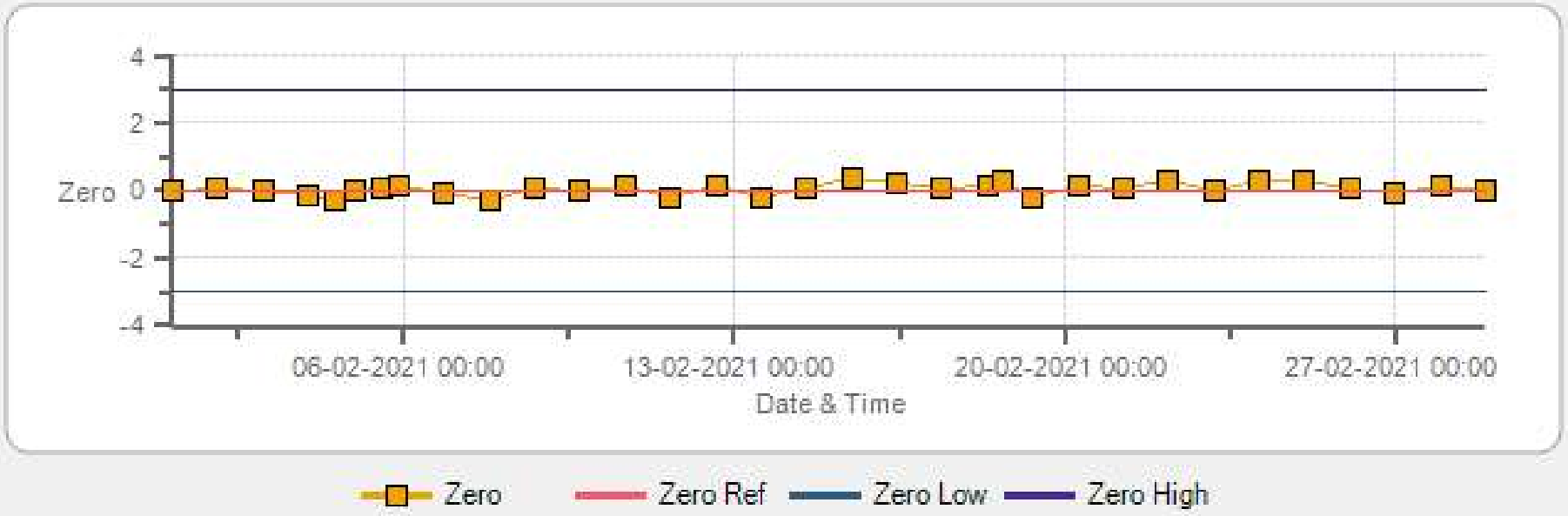
March 18, 2021

DAILY INTERNAL ZERO-SPAN CALIBRATION RECORDS

SO2[ppb] Calibration: Cold Lake South Monthly: 02-2021 Type: SpanAndZero - Zero

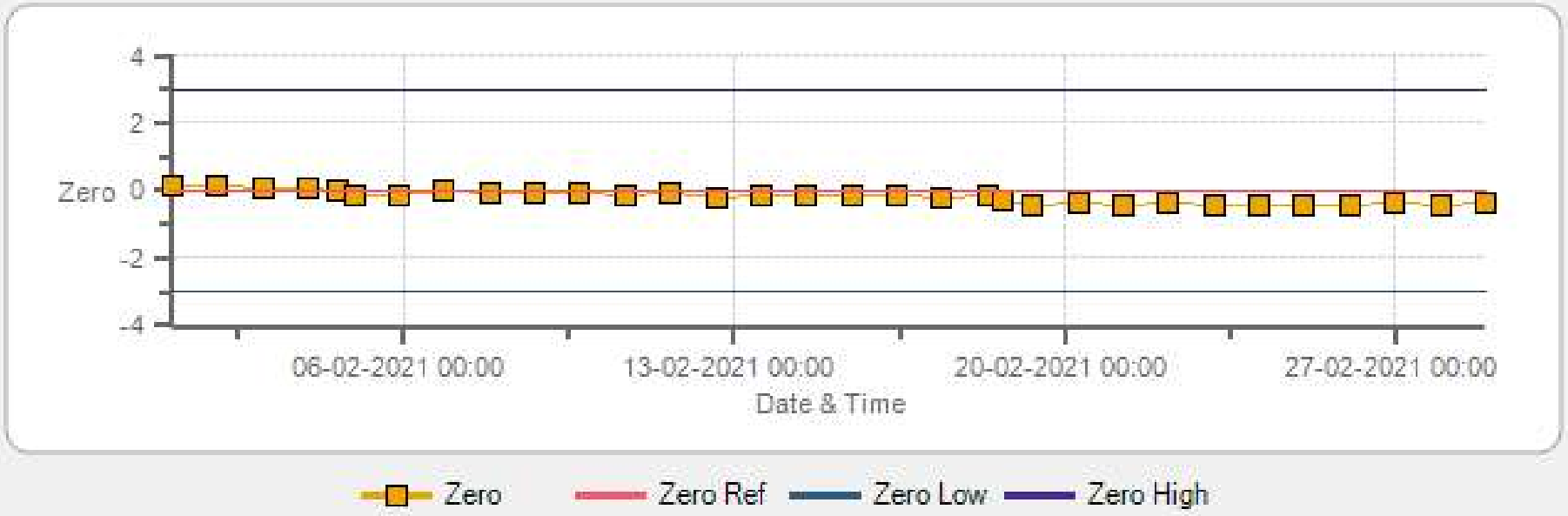
SO2[ppb] Calibration: Cold Lake South Monthly: 02-2021 Type: SpanAndZero - Span

TRS[ppb] Calibration: Cold Lake South Monthly: 02-2021 Type: SpanAndZero - Zero

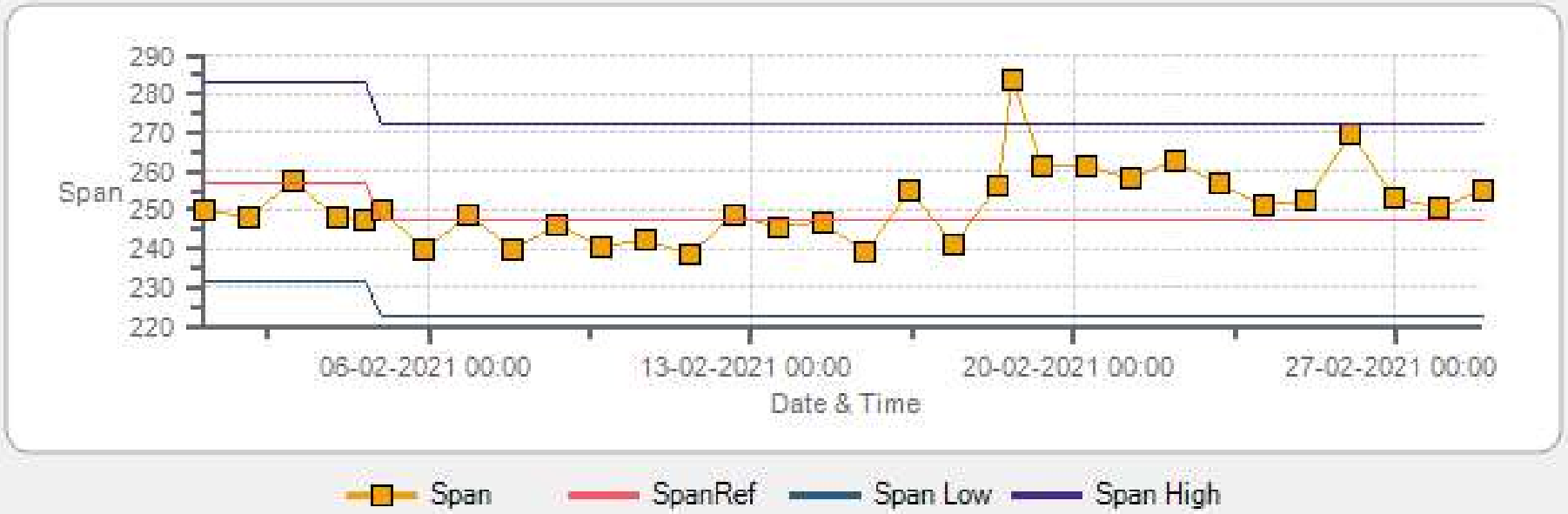


TRS[ppb] Calibration: Cold Lake South Monthly: 02-2021 Type: SpanAndZero - Span

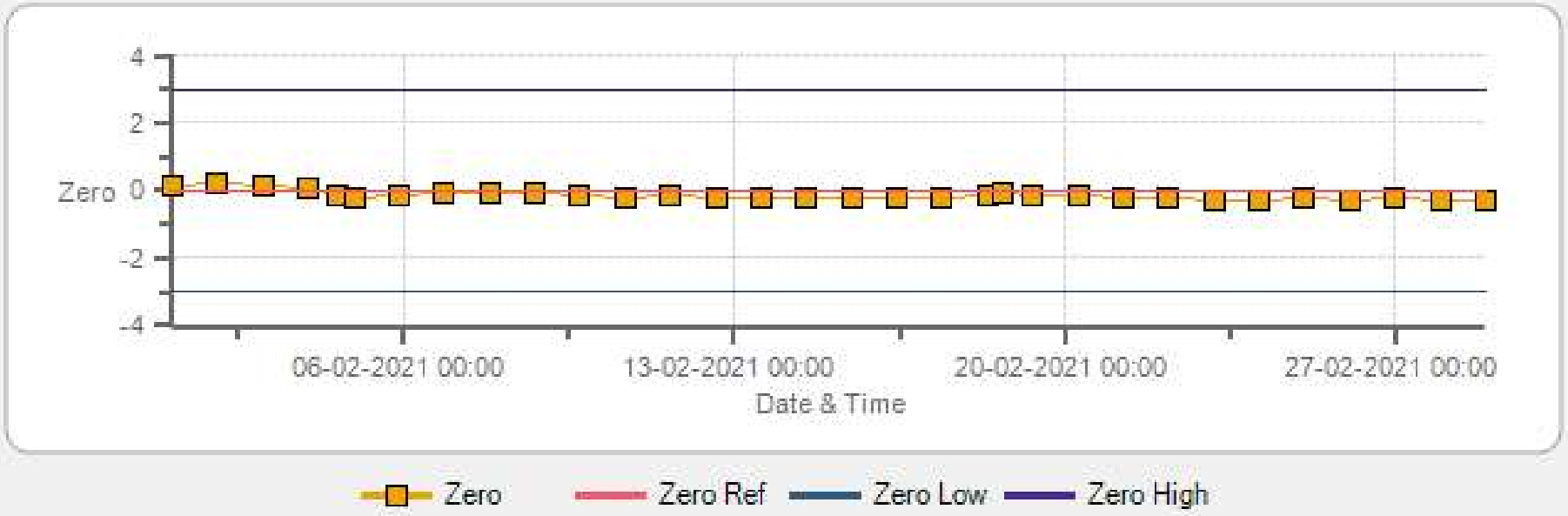
NOX[ppb] Calibration: Cold Lake South Monthly: 02-2021 Type: SpanAndZero - Zero



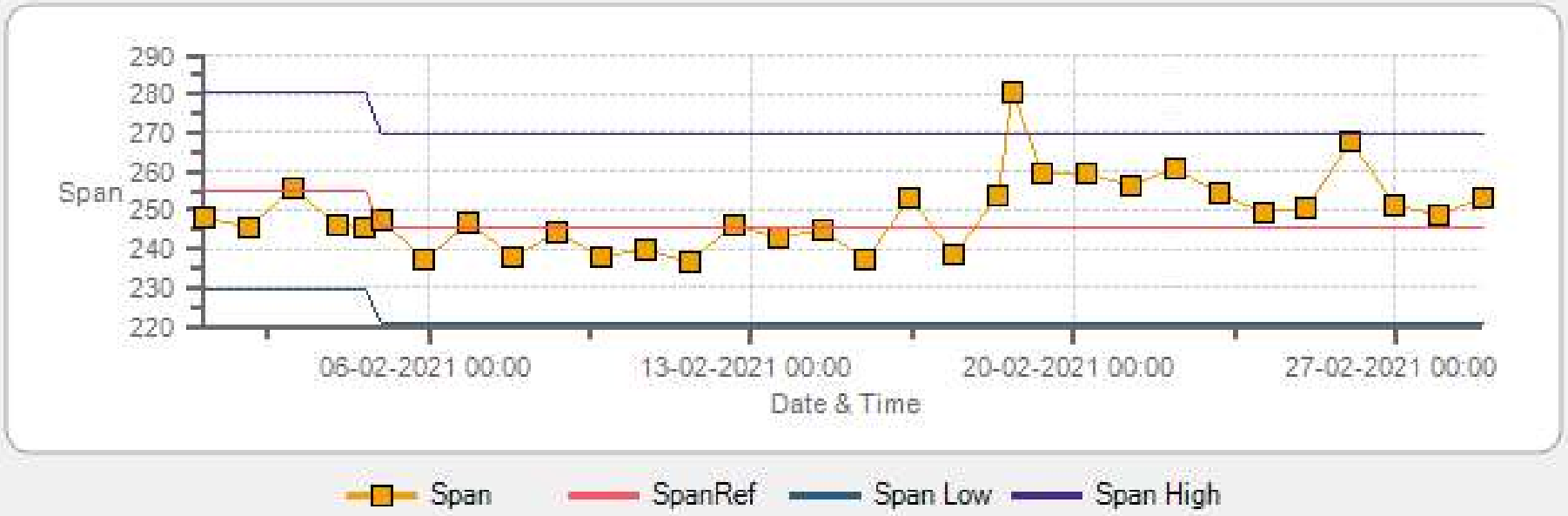
NOX[ppb] Calibration: Cold Lake South Monthly: 02-2021 Type: SpanAndZero - Span



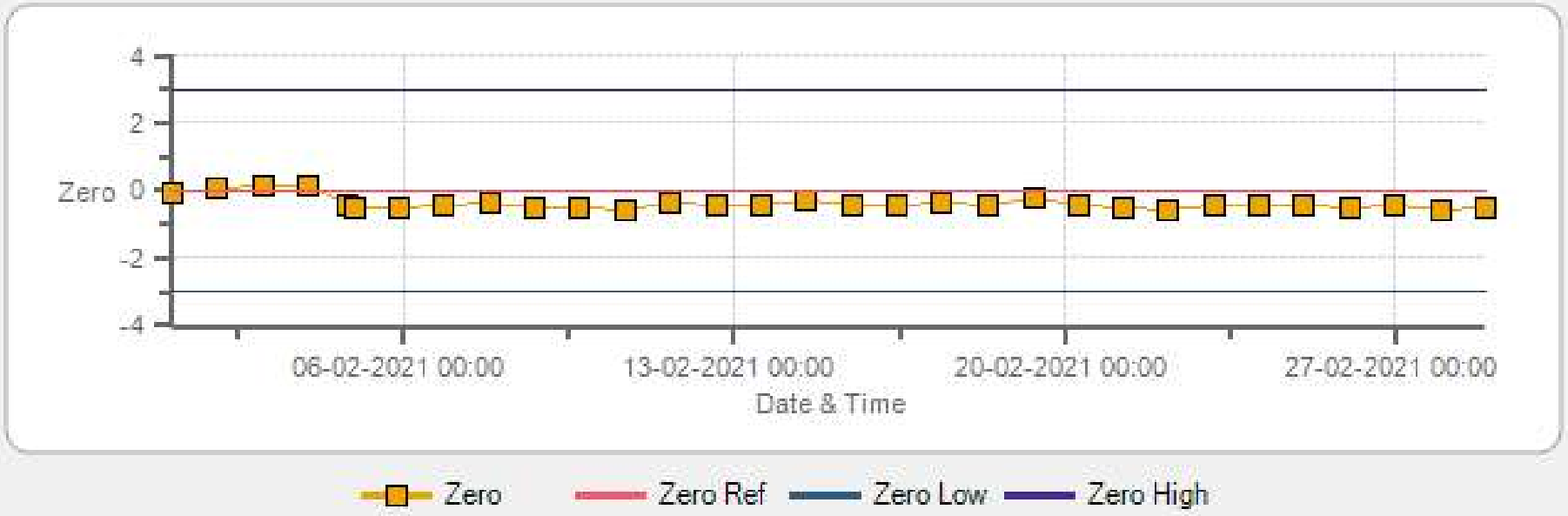
NO2[ppb] Calibration: Cold Lake South Monthly: 02-2021 Type: SpanAndZero - Zero



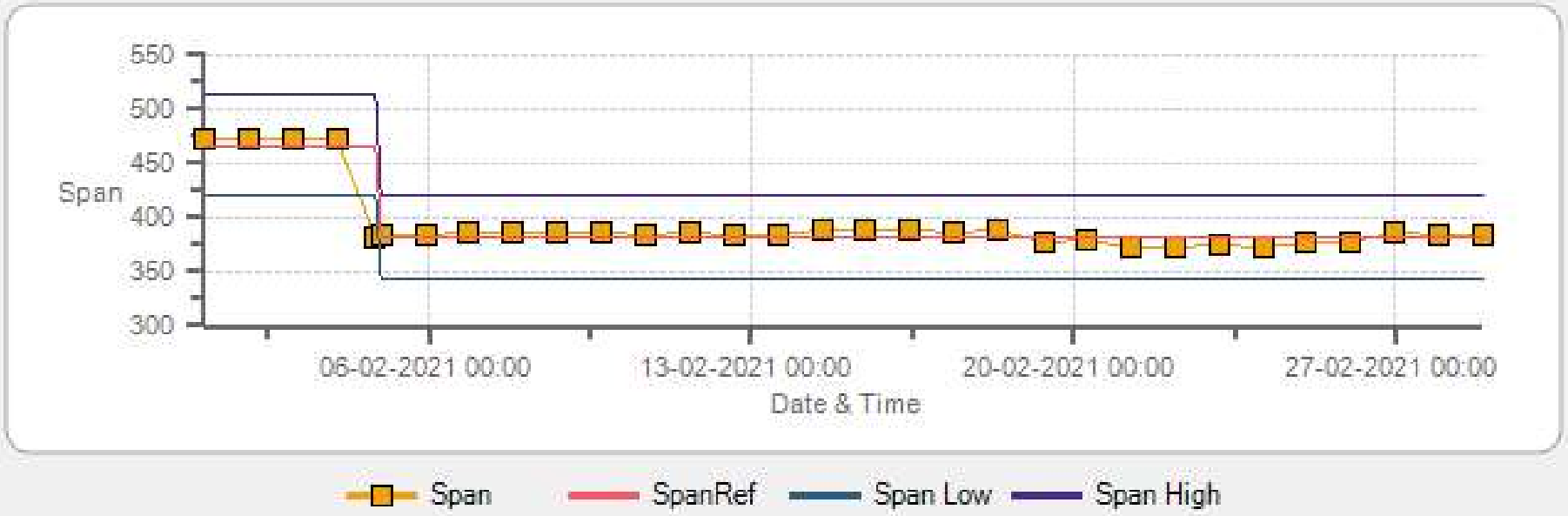
NO2[ppb] Calibration: Cold Lake South Monthly: 02-2021 Type: SpanAndZero - Span

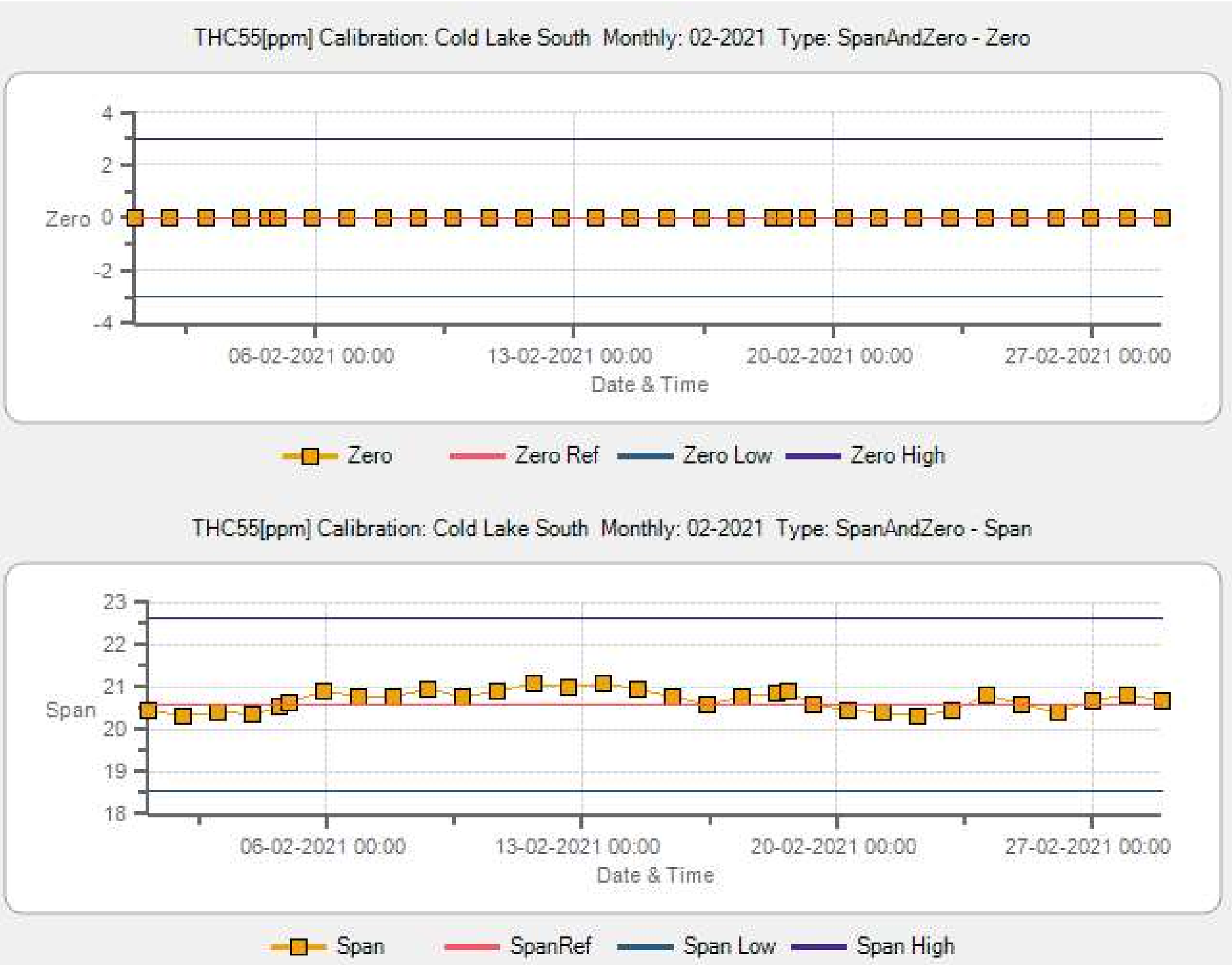


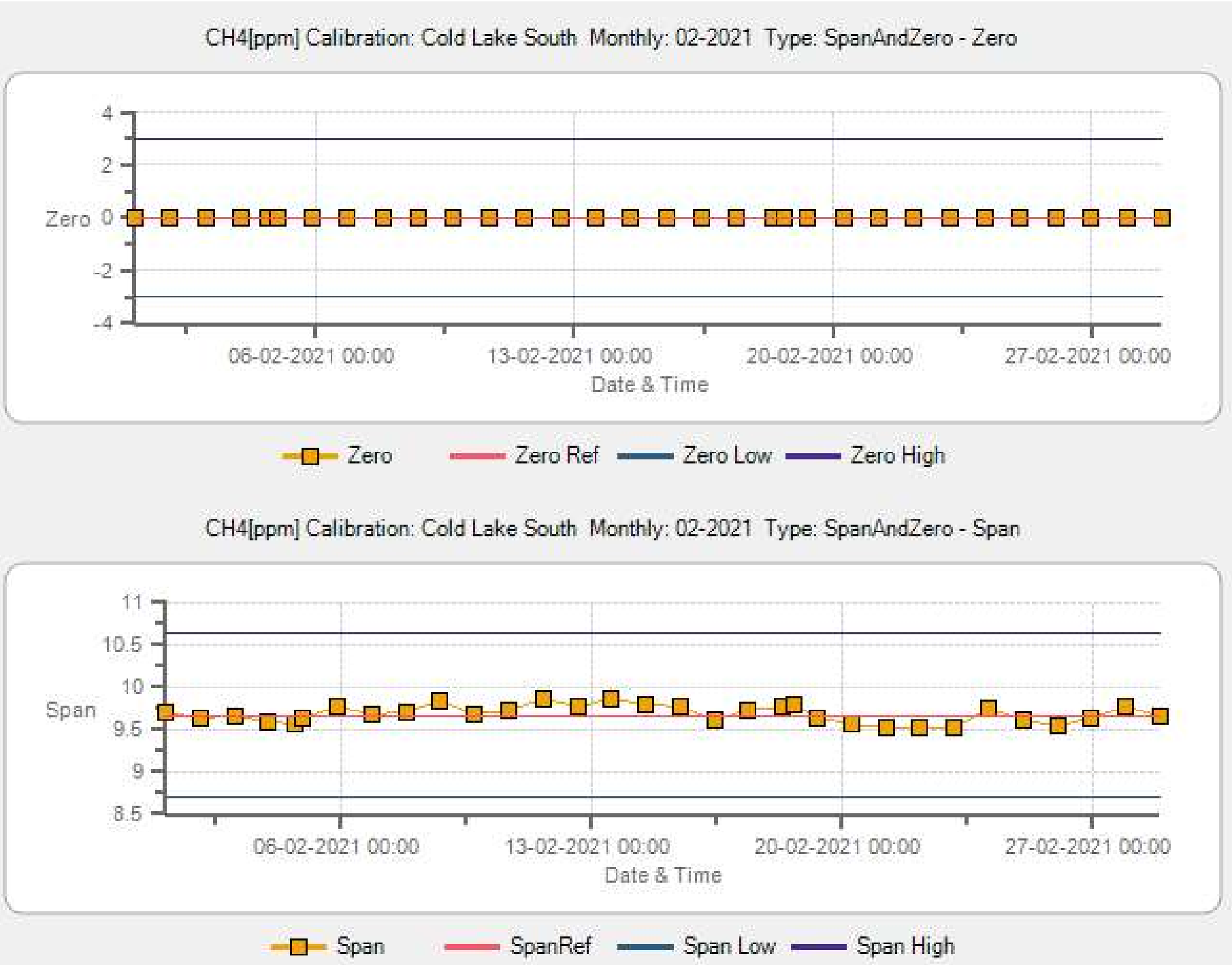
O3[ppb] Calibration: Cold Lake South Monthly: 02-2021 Type: SpanAndZero - Zero



O3[ppb] Calibration: Cold Lake South Monthly: 02-2021 Type: SpanAndZero - Span

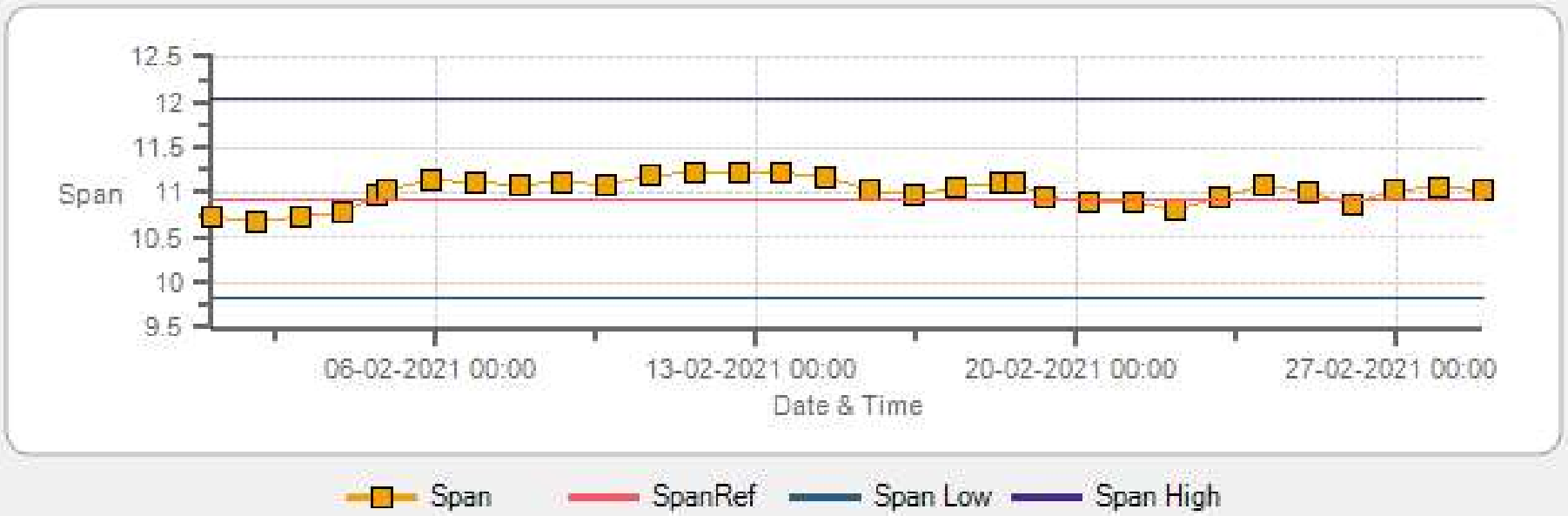



THC55[ppm] Calibration: Cold Lake South Monthly: 02-2021 Type: SpanAndZero - Zero
4
2
Zero 0
-2
-4
06-02-2021 00:00
13-02-2021 00:00
20-02-2021 00:00
27-02-2021 00:00
Date & Time
Zero
Zero Ref
Zero Low
Zero High
THC55[ppm] Calibration: Cold Lake South Monthly: 02-2021 Type: SpanAndZero - Span
23
22
21
Span 20
19
18
06-02-2021 00:00
13-02-2021 00:00
20-02-2021 00:00
27-02-2021 00:00
Date & Time
Span
SpanRef
Span Low
Span High


CH4[ppm] Calibration: Cold Lake South Monthly: 02-2021 Type: SpanAndZero - Zero
4
2
Zero 0
-2
-4
06-02-2021 00:00
13-02-2021 00:00
20-02-2021 00:00
27-02-2021 00:00
Date & Time
Zero
Zero Ref
Zero Low
Zero High
CH4[ppm] Calibration: Cold Lake South Monthly: 02-2021 Type: SpanAndZero - Span
11
10.5
10
Span
9.5
9
8.5
06-02-2021 00:00
13-02-2021 00:00
20-02-2021 00:00
27-02-2021 00:00
Date & Time
Span
SpanRef
Span Low
Span High

NMHC[ppm] Calibration: Cold Lake South Monthly: 02-2021 Type: SpanAndZero - Zero

NMHC[ppm] Calibration: Cold Lake South Monthly: 02-2021 Type: SpanAndZero - Span



MULTI-POINT CALIBRATION RECORDS

SO2 Analyzer Calibration by Dilution

DATE:	04-Feb-2021	PREVIOUS CALIBRATION DATE:	07-Jan-2021
PARAMETER:	SO2	PREVIOUS CORRECTION FACTOR:	0.996
CLIENT:	LICA	TEMPERATURE (°C):	22.3
LOCATION:	CLS	BAROMETRIC (mBar):	950
PURPOSE	Routine	START TIME (MST):	09:09
PERFORMED BY:	Limin Li	END TIME (MST):	12:50

ANALYZER:

MAKE/MODEL	Thermo 43I-TLE	RANGE	500 ppb
SERIAL #	1180260018	FLOW (mL/min)	441
INITIAL		FINAL	
BKG/OFFSET	1.86	BKG/OFFSET	2.1
COEF/SLOPE	0.985	COEF/SLOPE	0.979
Expected (reference) Value	262	Expected (reference) Value	262

CALIBRATION SYSTEM:

CALIBRATOR:		ZERO AIR:	
MAKE:	SABIO	MAKE:	Teledyne
MODEL:	2010	MODEL:	701
ID:	17200415	ID:	1105
MFC CALIBRATION DATE:	01-Oct-2020	OXIDIZER ID:	n/a
CALIBRATION GAS:		FLOWMETERS (if applicable):	
CYLINDER ID:	EY 0001011	HIGH ID	n/a
CONC (ppm):	50.10	EXPIRY DATE	n/a
CYLINDER (psi):	600	LOW ID	n/a
EXPIRY DATE	01-Jul-2027	EXPIRY DATE	n/a

CALIBRATION PARAMETERS:

POINT	HIGH	MID	LOW
TARGET	390	190	95
RANGE	300 - 400	150 - 200	50 - 100

SCRUBBER CHECK (15 MINS; TRS/H2S ONLY):

START TIME:	n/a	SO2 Conc (ppb)	n/a
END TIME:	n/a	Analyzer Response (ppb)	n/a

CALIBRATION:

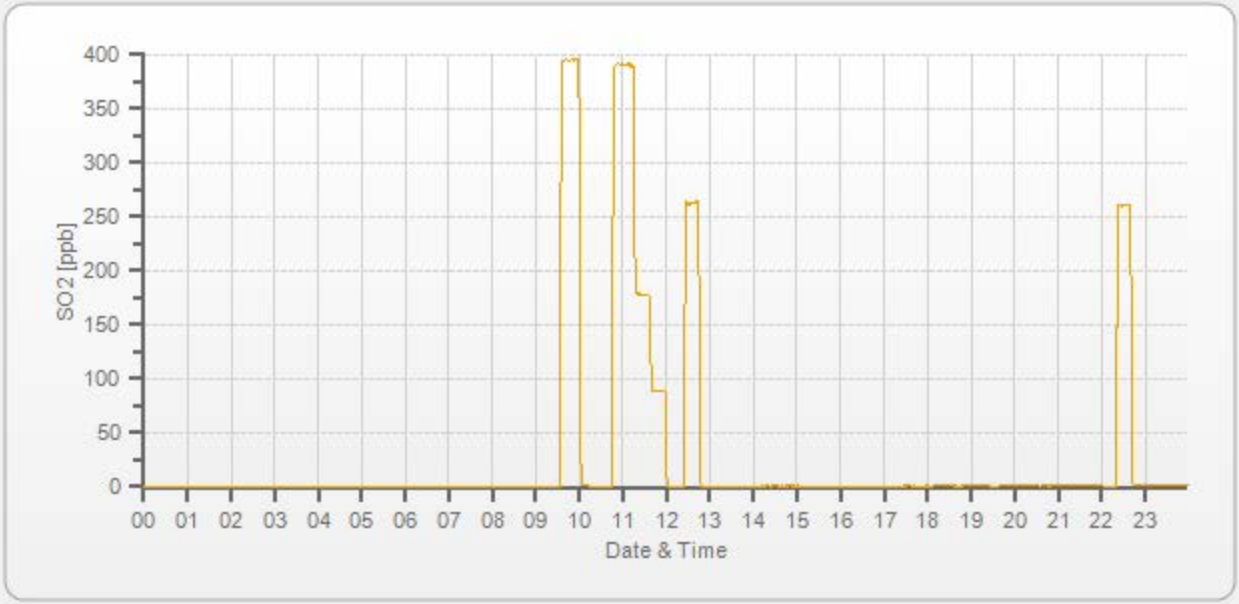
FLOW RATES (mL/min)			CONCENTRATION (ppb)			CORRECTION FACTOR	
			ACTUAL	INDICATED		Initial	Final
DILUENT	GAS	TOTAL		Initial	Final		
6000		6000	0.00	0.1	0		
5953	46.80	6000	390.78	395.5	391	0.988	0.999
5979	21.30	6000	177.86	n/a	178.1	n/a	0.999
5989	10.70	6000	89.35	n/a	88.7	n/a	1.007

LINEAR REGRESSION ANALYSIS:

	CORRELATION	SLOPE	INTERCEPT
VALUE	1.000	1.001	0.0%

COMMENTS:

Sample inlet filter was changed.


SO2[ppb] Station: Cold Lake South Daily: 04-02-2021 Type: AVG 1 Min. [1 Min.]
SO2 [ppb]
400
350
300
250
200
150
100
50
0
00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23
Date & Time
SO2 [ppb]

TRS Analyzer Calibration by Dilution

DATE:	04-Feb-2021	PREVIOUS CALIBRATION DATE:	07-Jan-2021
PARAMETER:	TRS	PREVIOUS CORRECTION FACTOR:	0.999
CLIENT:	LICA	TEMPERATURE (°C):	22.3
LOCATION:	CLS	BAROMETRIC (mBar):	950
PURPOSE	Routine	START TIME (MST):	09:09
PERFORMED BY:	Limin Li	END TIME (MST):	13:36

ANALYZER:

MAKE/MODEL	Thermo 450i	RANGE	100 ppb
SERIAL #	812728560	FLOW (mL/min)	486
INITIAL		FINAL	
BKG/OFFSET	18.6	BKG/OFFSET	18.4
COEF/SLOPE	0.982	COEF/SLOPE	0.963
Expected (reference) Value	39.1	Expected (reference) Value	39.1

CALIBRATION SYSTEM:

CALIBRATOR:		ZERO AIR:	
MAKE:	Environics	MAKE:	Teledyne
MODEL:	6100	MODEL:	701
ID:	5212	ID:	1105
MFC CALIBRATION DATE:	28-Sep-2020	OXIDIZER ID:	n/a
CALIBRATION GAS:		FLOWMETERS (if applicable):	
CYLINDER ID:	EY0001074	HIGH ID	n/a
CONC (ppm):	10.00	EXPIRY DATE	n/a
CYLINDER (psi):	1600	LOW ID	n/a
EXPIRY DATE	16-Jul-2022	EXPIRY DATE	n/a

CALIBRATION PARAMETERS:

POINT	HIGH	MID	LOW
TARGET	78	38	19
RANGE	60 - 80	30 - 40	10 - 20

SCRUBBER CHECK (15 MINS; TRS/H2S ONLY):

START TIME:	09:33	SO2 Conc (ppb)	380
END TIME:	09:59	Analyzer Response (ppb)	0.1

CALIBRATION:

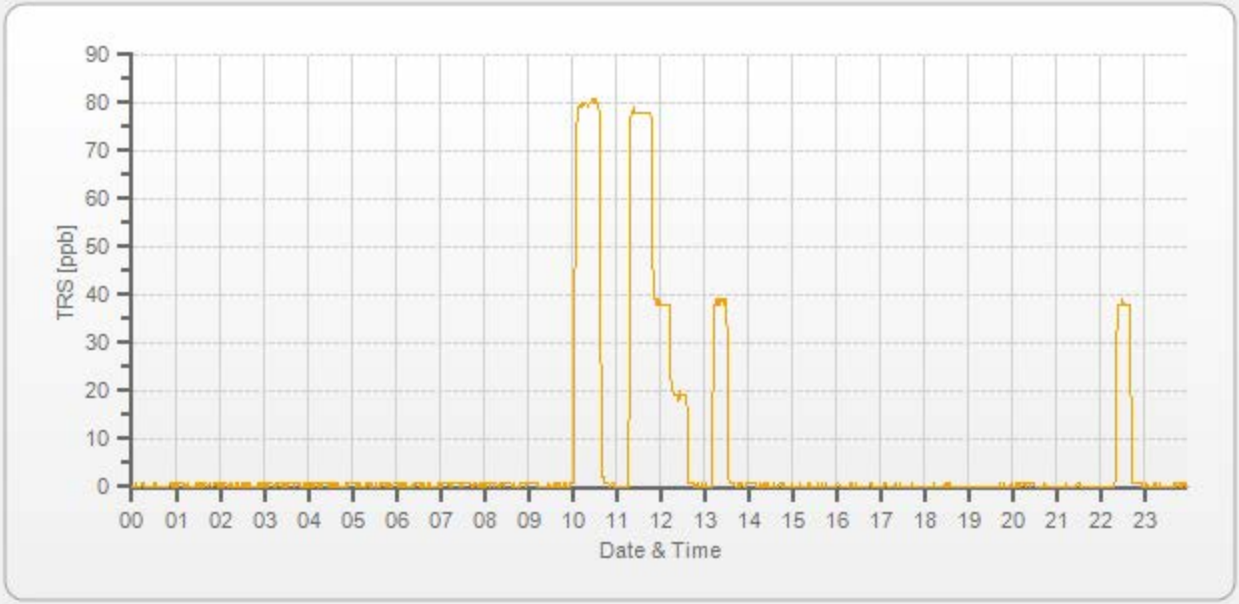
FLOW RATES (mL/min)			CONCENTRATION (ppb)			CORRECTION FACTOR	
			ACTUAL	INDICATED		Initial	Final
DILUENT	GAS	TOTAL		Initial	Final		
7500		7500	0.00	0.1	0		
7442	58.50	7500	78.00	79.8	78	0.979	1.000
7472	28.50	7500	38.00	n/a	37.7	n/a	1.008
7486	14.25	7500	19.00	n/a	18.7	n/a	1.016

LINEAR REGRESSION ANALYSIS:

	CORRELATION	SLOPE	INTERCEPT
VALUE	1.000	1.001	-0.2%

COMMENTS:

Sample inlet filter was changed.


TRS[ppb] Station: Cold Lake South Daily: 04-02-2021 Type: AVG 1 Min. [1 Min.]
TRS [ppb]
90
80
70
60
50
40
30
20
10
0
00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23
Date & Time
TRS [ppb]

TRS Analyzer Calibration by Dilution

DATE:	05-Feb-2021	PREVIOUS CALIBRATION DATE:	n/a
PARAMETER:	TRS	PREVIOUS CORRECTION FACTOR:	n/a
CLIENT:	LICA	TEMPERATURE (°C):	22.3
LOCATION:	CLS	BAROMETRIC (mBar):	959
PURPOSE	Install/Post-Repair	START TIME (MST):	10:30
PERFORMED BY:	Limin Li	END TIME (MST):	13:13

ANALYZER:

MAKE/MODEL	Thermo 450i	RANGE	100 ppb
SERIAL #	812728560	FLOW (mL/min)	472
INITIAL		FINAL	
BKG/OFFSET	18.4	BKG/OFFSET	18.9
COEF/SLOPE	0.963	COEF/SLOPE	1.004
Expected (reference) Value	39.1	Expected (reference) Value	39.1

CALIBRATION SYSTEM:

CALIBRATOR:		ZERO AIR:	
MAKE:	SABIO	MAKE:	Thermo-Electron
MODEL:	2010 D	MODEL:	111
ID:	11900613	ID:	111-22449-204
MFC CALIBRATION DATE:	10-Dec-2020	OXIDIZER ID:	n/a
CALIBRATION GAS:		FLOWMETERS (if applicable):	
CYLINDER ID:	LL 19174	HIGH ID	n/a
CONC (ppm):	10.00	EXPIRY DATE	n/a
CYLINDER (psi):	500	LOW ID	n/a
EXPIRY DATE	16-Jul-2022	EXPIRY DATE	n/a

CALIBRATION PARAMETERS:

POINT	HIGH	MID	LOW
TARGET	78	38	19
RANGE	60 - 80	30 - 40	10 - 20

SCRUBBER CHECK (15 MINS; TRS/H2S ONLY):

START TIME:	n/a	SO2 Conc (ppb)	n/a
END TIME:	n/a	Analyzer Response (ppb)	n/a

CALIBRATION:

FLOW RATES (mL/min)			CONCENTRATION (ppb)			CORRECTION FACTOR	
			ACTUAL	INDICATED		Initial	Final
DILUENT	GAS	TOTAL		Initial	Final		
7500		7500	0.00	n/a	0		
7442	58.50	7500	78.00	n/a	78	n/a	1.000
7472	28.50	7500	38.00	n/a	38.1	n/a	0.997
7486	14.25	7500	19.00	n/a	19	n/a	1.000

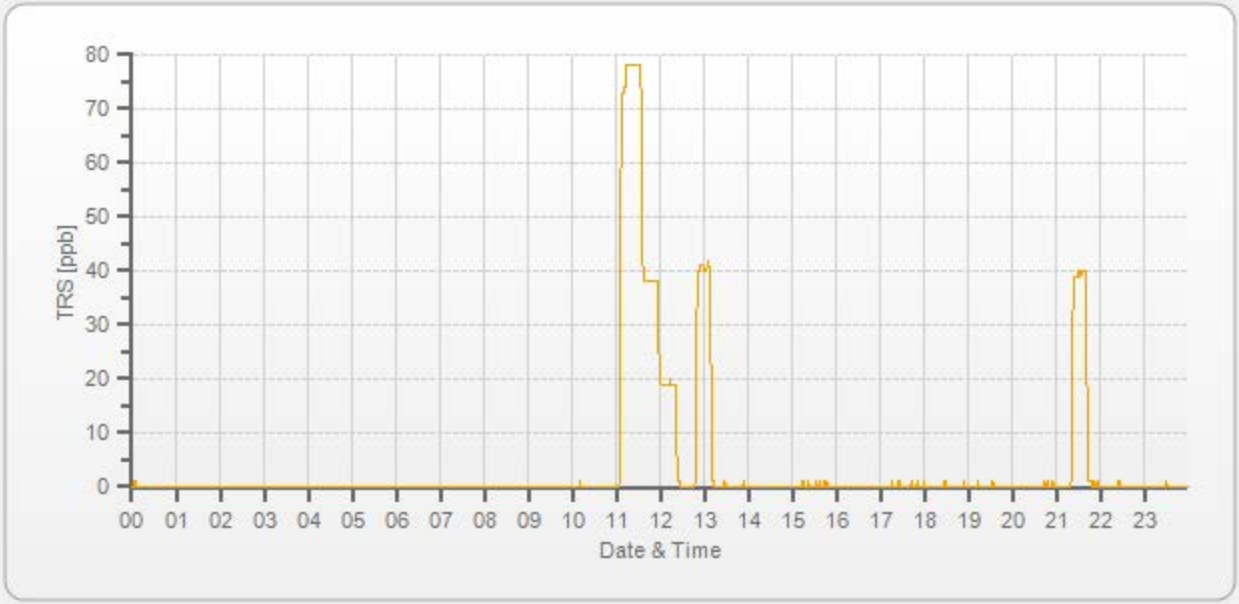
LINEAR REGRESSION ANALYSIS:

	CORRELATION	SLOPE	INTERCEPT
VALUE	1.000	1.000	0.0%

COMMENTS:

Sample pump failed. Installed new pump and completed post repair calibration.

TRS[ppb] Station: Cold Lake South Daily: 05-02-2021 Type: AVG 1 Min. [1 Min.]



NOx Calibration by Dilution/Gas-Phase Titration

CALIBRATION:				ANALYZER:			
DATE:	04-Feb-2021	PREVIOUS CALIBRATION DATE:	07-Jan-2021	MAKE/MODEL:	Thermo 42i	PREVIOUS CF.	
CLIENT:	LICA	TEMPERATURE (°C):	22.3	SERIAL #:	1505664393	NOx	1.001
LOCATION:	CLS	BAROMETRIC (mBar):	950	FLOW (mL/min)	654	NO	1.002
PURPOSE	Routine	START TIME (MST):	09:09	RANGE (ppb)	500	NO2	0.999
PERFORMED BY:	Limin Li	END TIME (MST):	14:45	GPT FOR O3?		Yes	

CALIBRATION SYSTEM:

CALIBRATOR:		ZERO AIR:		CALIBRATION GAS:			FLOWMETERS (if applicable):	
MAKE:	SABIO	MAKE:	Teledyne	CYLINDER ID:	EY 0001011		HIGH ID:	n/a
MODEL:	2010	MODEL:	701	NO/NOx (PPM):	50.6	50.8	HIGH EXPIRY:	n/a
ID:	17200415	ID:	1105	CYLINDER (psi):	600		LOW ID:	n/a
MFC CALIBRATION DATE:	01-Oct-2020	OXIDIZER ID:	n/a	EXPIRY DATE	01-Jul-2027		LOW EXPIRY:	n/a

CALIBRATION SETTINGS:

INITIAL	NOx	NO	NO2	FINAL	NOx	NO	NO2
BKG/OFFSET:	5.4	5.2	n/a	BKG/OFFSET:	5.6	5.2	n/a
SLOPE/COEF/CE:	1.003	1.19	0.998	SLOPE/COEF/CE:	1.003	1.199	0.998

EXPECTED (REFERENCE) VALUE:

INITIAL	NOx	NO	NO2	FINAL	NOx	NO	NO2
	257.0	2.3	255.0		247.6	2.4	245.2

CALIBRATION PARAMETERS:

POINT	NO TARGET (PPB)	NO2 TARGET (PPB)	NO2 RANGE	O3 POINT
HIGH	395	250	240-275	n/a
MID	180	154	150-157	Mid
LOW	90	54	50-58	Low
EXTRA 1	n/a	340	300-370	High

NO/NOx CALIBRATION:

FLOW RATE (mL/min)			CONCENTRATION (ppb)									CORRECTION FACTOR (CF.)					
			CALCULATED			INITIAL INDICATED			FINAL INDICATED			INITIAL			FINAL		
DILUENT	GAS	TOTAL	NO	NOx	NO2	NO	NOx	NO2	NO	NOx	NO2	NO	NOx	NO2	NO	NOx	NO2
6000		6000	0.0	0.0	0.0	-0.1	0.1	0.2	0.0	0.0	0.0						
5953	46.80	6000	394.7	396.2	1.6	392.5	394.7	2.1	395.0	396.0	1.0	1.005	1.004		0.999	1.001	
5979	21.30	6000	179.6	180.3	0.7	n/a	n/a	n/a	180.1	180.8	0.7	n/a	n/a		0.997	0.997	
5989	10.70	6000	90.2	90.6	0.4	n/a	n/a	n/a	89.7	90.0	0.3	n/a	n/a		1.006	1.007	

GPT CALIBRATION:

Point	CALIBRATOR			INDICATED (ppb)			NO DROP / O3 Conc (ppb)	NO2 GAIN (ppb)	NO2 Corr. FACTOR	CONV. EFFICIENCY
	GAS	TOTAL	O3 SETPOINT	NO	NOx	NO2				
REFERENCE	39.00	5000	0	396.2	398.0	1.8				
AS-FOUND HIGH	39.00	5000	250	125.0	398.0	273.0	271.2	271.2	1.000	100.00%
ADJUSTED HIGH	n/a	5000	n/a	n/a	n/a	n/a	n/a	**n/a**	**n/a**	n/a
MID	39.00	5000	143	240.0	397.0	157.0	156.2	155.2	1.006	99.36%
LOW	39.00	5000	50	341.0	398.0	57.0	55.2	55.2	1.000	100.00%
NO2 adjustment not required.									AVERAGE:	99.79%

LINEAR REGRESSION ANALYSIS:

	CORRELATION	SLOPE	INTERCEPT
NO	1.000	1.001	-0.03%
NOx	1.000	1.000	-0.02%
NO2	1.000	1.000	-0.07%

COMMENTS:

Sample inlet filter was changed.
Extra GPT point for O3, setpoint=340ppb, NO= 26, NO2=372, NOX=398.


Station: Cold Lake South Daily: 04-02-2021 Type: AVG 1 Min. [1 Min.]
400
350
300
250
200
150
100
50
0
-50
Value
00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23
Date & Time
NOX [ppb]
NO [ppb]
NO2 [ppb]

Ozone Calibration by Direct GPT

DATE:	04-Feb-2021	PREVIOUS CALIBRATION DATE:	08-Jan-2021
PARAMETER:	O3	PREVIOUS CORRECTION FACTOR:	1.001
CLIENT:	LICA	TEMPERATURE (°C):	24.0
LOCATION:	CLS	BAROMETRIC (mBar):	950
PURPOSE	Routine	START TIME (MST):	13:54
PERFORMED BY:	Limin Li	END TIME (MST):	19:22

ANALYZER:

MAKE/MODEL	Thermo 49i	RANGE	500 ppb
SERIAL #	700419951	FLOW (mL/min)	1435
INITIAL		FINAL	
BKG/OFFSET	-0.2	BKG/OFFSET	0.3
COEF/SLOPE	1.057	COEF/SLOPE	1.117
Expected (reference) Value	466	Expected (reference) Value	381.8

CALIBRATION SYSTEM:

CALIBRATOR:		ZERO AIR:	
MAKE:	SABIO	MAKE:	Teledyne
MODEL:	2010	MODEL:	701
ID:	17200415	ID:	1105
MFC CALIBRATION DATE:	01-Oct-2020	OXIDIZER ID:	n/a
	CALIBRATION METHOD:	Direct GPT	
GPT DATE:	04-Feb-2021	GPT END TIME:	14:00

CALIBRATION PARAMETERS:

POINT	HIGH	MID	LOW
RANGE	300 - 400	150 - 200	50 - 100

CALIBRATION:

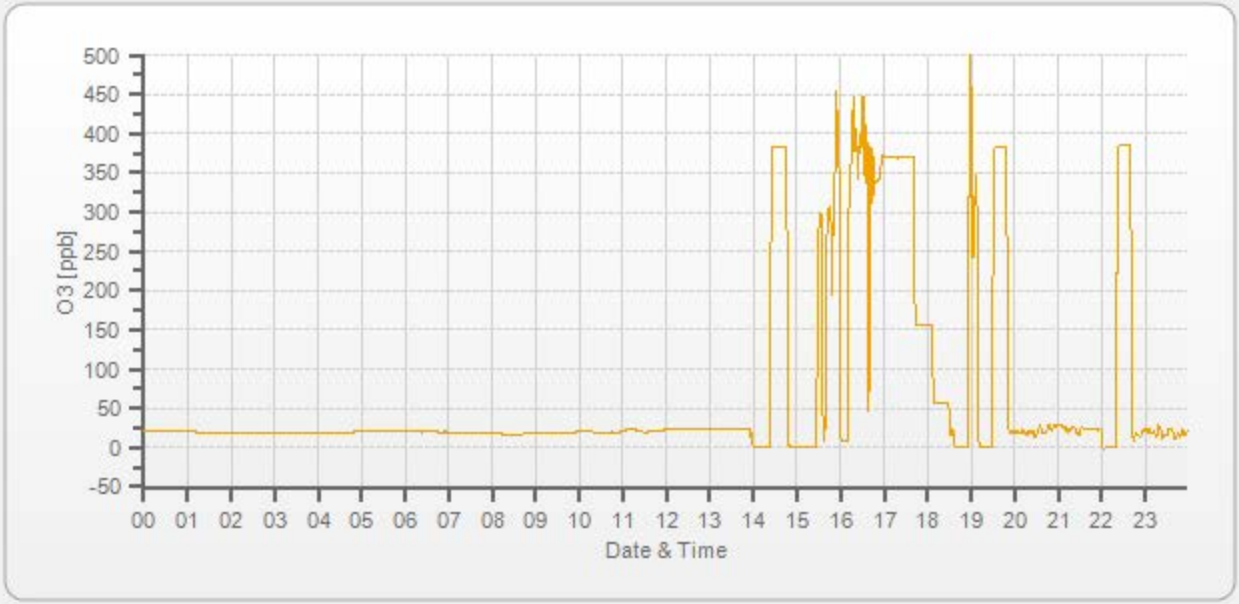
FLOW RATES (mL/min)			CONCENTRATION (ppb)			CORRECTION FACTOR	
			ACTUAL	INDICATED		Initial	Final
DILUENT	GAS	TOTAL		Initial	Final		
5000		5000	0.0	0.4	0.0		
5000		5000	370.2	383.0	370.0	0.968	1.001
5000		5000	156.2	n/a	156.8	n/a	0.996
5000		5000	55.2	n/a	55.9	n/a	0.987

LINEAR REGRESSION ANALYSIS:

	CORRELATION	SLOPE	INTERCEPT
VALUE	1.000	0.999	0.1%

COMMENTS:

As found high OK, adjusted high showed slow response (15:29). Troubleshooting undertaken but no problems found. Calibration restarts at 16:39


O3[ppb] Station: Cold Lake South Daily: 04-02-2021 Type: AVG 1 Min. [1 Min.]
500
450
400
350
300
250
200
150
100
50
0
-50
O3 [ppb]
00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23
Date & Time
O3 [ppb]

Ozone Calibration by Photometer (Varying UV Lamp)

DATE:	05-Feb-2021	PREVIOUS CALIBRATION DATE:	04-Feb-2021
PARAMETER:	O3	PREVIOUS CORRECTION FACTOR:	1.001
CLIENT:	LICA	TEMPERATURE (°C):	23.0
LOCATION:	CLS	BAROMETRIC (mBar):	958
PURPOSE	As-Found	START TIME (MST):	09:15
PERFORMED BY:	Limin Li	END TIME (MST):	10:20

ANALYZER:

MAKE/MODEL	Thermo 49i	RANGE	500 ppb
SERIAL #	700419951	FLOW (mL/min)	1435
INITIAL		FINAL	
BKG/OFFSET	0.3	BKG/OFFSET	0.3
COEF/SLOPE	1.117	COEF/SLOPE	1.117
Expected (reference) Value	381.8	Expected (reference) Value	381.8

CALIBRATION SYSTEM:

CALIBRATOR:		ZERO AIR:	
MAKE:	SABIO	MAKE:	Thermo-Electron
MODEL:	2010 D	MODEL:	111
ID:	11900613	ID:	111-22449-204
MFC CALIBRATION DATE:	10-Dec-2020	OXIDIZER ID:	n/a
	CALIBRATION METHOD:	Photometer (Varying UV Lamp)	
GPT DATE:	n/a	GPT END TIME:	n/a

CALIBRATION PARAMETERS:

POINT	HIGH	MID	LOW
RANGE	300 - 400	150 - 200	50 - 100

CALIBRATION:

FLOW RATES (mL/min)			CONCENTRATION (ppb)			CORRECTION FACTOR	
			ACTUAL	INDICATED		Initial	Final
DILUENT	GAS	TOTAL		Initial	Final		
5000		5000	0.0	-0.2	n/a		
5000		5000	380.0	390.6	n/a	0.972	n/a
5000		5000	n/a	n/a	n/a	n/a	n/a
5000		5000	n/a	n/a	n/a	n/a	n/a

LINEAR REGRESSION ANALYSIS:

	CORRELATION	SLOPE	INTERCEPT
VALUE	n/a	n/a	**n/a**

COMMENTS:

As-found completed with alternate method (photometer) due to unexpected response during Feb 04 calibration.


O3[ppb] Station: Cold Lake South Daily: 05-02-2021 Type: AVG 1 Min. [1 Min.]
O3 [ppb]
450
400
350
300
250
200
150
100
50
0
-50
00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23
Date & Time
O3 [ppb]

Methane/Non-Methane Analyzer Calibration by Dilution

CALIBRATION:

DATE:	04-Feb-2021	PREVIOUS CALIBRATION DATE:	26-Jan-2021
CLIENT:	LICA	TEMPERATURE (°C):	24.4
LOCATION:	CLS	BAROMETRIC (mBar):	950
PURPOSE	Routine	START TIME (MST):	12:38
PERFORMED BY:	Limin Li	END TIME (MST):	17:31

ANALYZER:

VALUE	MAKE/MODEL	SERIAL	FLOW (mL/min)
	Thermo 55i	1180030034	n/a
PARAMETER:	CH4	NMHC	THC
RANGE (ppm):	20	20	40
PREVIOUS CF:	n/a	n/a	n/a

CALIBRATION SYSTEM:

CALIBRATOR:		ZERO AIR:		CALIBRATION GAS:			FLOWMETERS (if applicable):	
MAKE:	Environics	MAKE:	Teledyne	CYLINDER ID:	LL 70331		HIGH ID:	n/a
MODEL:	6100	MODEL:	701	CH_4/C_3H_8 (ppm):	909.0	308.0	HIGH EXPIRY:	n/a
ID:	5212	ID:	1105	CYLINDER (psi):	1700		LOW ID:	n/a
MFC CALIBRATION DATE:	28-Sep-2020	OXIDIZER ID:	111	EXPIRY DATE	21-Jan-2028		LOW EXPIRY:	n/a

CALIBRATION PARAMETERS:

POINT (CH4/NMHC)	HIGH	MID	LOW	CH4 EQUIVILANCE	
TARGET	14	7	3.5	C_3H_8 as CH_4	847.0
RANGE	12 - 16	6 - 8	2 - 4	THC as CH_4	1756.0

EXPECTED (REFERENCE) VALUE:

INITIAL	CH4	NMHC	THC	FINAL	CH4	NMHC	THC
	9.67	10.93	20.59		9.67	10.93	20.59

CALIBRATION:

FLOW RATE (mL/min)			CONCENTRATION (PPM)									CORRECTION FACTOR (CF.)					
			CALCULATED			INITIAL INDICATED			FINAL INDICATED			INITIAL			FINAL		
DILUENT	GAS	TOTAL	CH4	NMHC	THC	CH4	NMHC	THC	CH4	NMHC	THC	CH4	NMHC	THC	CH4	NMHC	THC
3500		3500	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00						
3444	55.80	3500	14.49	13.50	28.00	14.56	13.17	27.73	14.50	13.46	27.96	0.995	1.025	1.010	0.999	1.003	1.001
3472	27.90	3500	7.25	6.75	14.00	n/a	n/a	n/a	7.22	6.72	13.94	n/a	n/a	n/a	1.004	1.005	1.004
3486	13.95	3500	3.62	3.38	7.00	n/a	n/a	n/a	3.63	3.34	6.97	n/a	n/a	n/a	0.998	1.011	1.004

LINEAR REGRESSION ANALYSIS:

	CORRELATION	SLOPE	INTERCEPT
CH4	1.000	1.000	0.0%
NMHC	1.000	0.997	-0.1%
THC	1.000	0.999	0.0%

Comments:

Extended high point to monitor analyzer instability. Traced to zero-air generator output.

Use Zero Chrom? **Yes**

Station: Cold Lake South Daily: 04-02-2021 Type: AVG 1 Min. [1 Min.]

Teledyne T640 Audit/Calibration

Date/Previous Audit Date:	February 19, 2021	January 8, 2021	**Weather Conditions:**	Cloudy/Overcast	
Company:	LICA		**Start Time (mst):**	9:23	
Station:	Cold Lake South		**End Time (mst):**	9:41	
Parameter:	PM 2.5		**Performed By/Reviewer:**	Chris Wesson	Ferdinand Roy
Instrument Data:					
Make/Model:	Teledyne T640		**Serial Number:**	575	
Owner:	LICA		**Alarms (detail in comments):**	No	
Reference Standards/I.D./Expiry Date:					

Flow Standard: DeltaCal DC1 S/N177246 Mar 17, 2021
Temperature: DeltaCal DC1 S/N177246 Mar 17, 2021
Digital Manometer: n/a
Pressure: DeltaCal DC1 S/N177246 Mar 17, 2021

DIAGNOSTICS:

Ambient Pressure (mmHg)	702.7	Ambient Temp (°C)	-13.9	ASC Heater Duty (%)	0.0
Box Temp (°C)	27.0	Current PMT HV (V)	1438	LED Temp (°C)	36.15
P3 Value	47	PMT Setting (V)	1442	Pump PWM (%)	41
Sample Flow (L/min)	4.99	Sample RH (%RH)	4.1	Sample Temp (°C)	23.8

Item:	**As-found**		**As-left**		**Tolerance**
	Reference	**T640x**	**Reference**	**T640x**	
Zero Test (Leak Check)	PM10	0.0	PM10	0.0	0.0 to 0.2
	PM2.5	0.0	PM2.5	0.0	
Ambient Pressure (mmHg)	700.4	702.7	700.4	702.7	+/- 10 mm Hg
Ambient Temperature (°C)	-13.10	-13.9	n/a		+/- 2°C
Sample Flow (L/min)	5.04	5	5.04	5	+/-5% of T640x (e.g., 4.75 – 5.25 lpm)
Additional Monthly Maintenance :					***Completed***
				Inlet cleaned?	Yes
				Sample tubing inspected (inner and outer)?	Yes

Comments:

No issues.

Meteorological System Checklist

Date:	2021/02/04 @12:07pm		
Technician:	Limin Li		
Station:	Cold Lake South		
Unit:	**Make:**	**Model:**	**Serial #:**
Precipitation Sampler:	n/a	n/a	n/a
Temperature Sensor:	Rotronic	HC2A-S3	20404750
Barometric Pressure Sensor:	MetOne	92	Y23368
Relative Humidity Sensor:	Rotronic	HC2A-S3	20404750
Anemometer:	RM Young	05305AQ	177354

AMBIENT TEMPERATURE SENSOR CHECK

Previous check date:	January 8, 2021
Parameter:	Temperature @ 2 metres
Reference Thermometer ID:	FS 160459244 expires June 10, 2021
Reference Temperature (^{o}C):	-16.9
Station - Ambient Temperature (^{o}C):	-17.4
Temperature Difference (^{o}C):	0.5

BAROMETRIC PRESSURE SENSOR CHECK

Previous check date:	January 8, 2021	
Reference Barometer ID:	BRUNTON 5490, expire date: Jan 12, 2022.	
Reference Pressure - Units/Reading:	millibar	950.3
Station Pressure - Units/Reading:	millibar	950.3
Pressure Tolerance +/- 15% of error:	808 - 1093	0.00%

RELATIVE HUMIDITY (HYGROMETER) SENSOR CHECK

Previous check date:	January 8, 2021	
Reference Hygrometer ID:	FS 160459244 expires June 10, 2021	
Reference Hygrometer % RH- Reading:	57.60	
Station Hygrometer % RH- Reading:	63.20	
RH Tolerance +/- 15% of difference:	48.96 - 66.24	-9.7%

ANEMOMETER - WIND SPEED & WIND DIRECTION SENSOR CHECK

WIND SPEED		WIND DIRECTION	
Previous check date:	January 8, 2021	Previous check date:	January 8, 2021
Wind Speed Observed (kph):	10~20	Wind Direction Observed:	SW
Wind speed on Data Logger (kph):	11.6	Wind Direction on Data Logger:	SW
	Annual audit: Sep 25, 2020	Wind Direction Pass/Fail?:	Pass

Comments

Meteorological Sensor Audit/Calibration

Location Information

Company:	LICA	**Performed By:**	Alex Yakupov
Audit Location:	Cold Lake South	**Reviewed By:**	Chris Wesson
Audit Date:	September 25, 2020	**Start/End Time (mst):**	13:38 / 14:40
Calibration Purpose:	installation	**Weather Conditions:**	Mainly sunny

Wind Sensor Information

Sensor ID Data:		**Sensor Outputs:**	
Sensor Make:	RM Young	**Velocity Voltage Output Range:**	n/a
Sensor Model:	05305AQ	**Velocity Unit Output Range:**	0-180
Serial #:	177354	**Direction Voltage Output Range:**	0-1
Previous Cal/Audit Date:	n/a	**Direction Unit Output Range:**	0-360

Wind Calibrator Information

Calibrator I.D. and Expiry Date: RM Young 18802 id# CA4744 expires Aug 6, 2022

Wind Speed Audit Data **+/- 2% of the average correction factor is the limit**

RPM	Wind Speed Generated kph	Clockwise Wind Speed kph	Counter Clockwise Wind Speed kph	Correction Factor
0	0	0.0	0.0	-
1000	18.4	18.2	18.2	1.013
2000	36.9	36.6	36.6	1.007
3000	55.3	55.1	55.1	1.003
4000	73.7	73.6	73.5	1.002
5000	92.2	92.0	92.0	1.002
6000	110.6	110.4	110.4	1.002
7000	129.0	128.8	128.8	1.002
8000	147.4	147.3	147.3	1.001
9000	165.9	165.7	165.7	1.001
10000	184.3	184.2	184.2	1.001
		The audit meets AMD requirements.	**Average Correction Factor=**	**1.003**

Wind Direction Audit Data **+/- 3° of the absolute average degrees difference for all points is the limit**

Generated Wind Direction 0-360 (Up)	Generated Wind Direction 360-0 (Down)	Indicated Wind Direction 0-360 (Up)	Indicated Wind Direction 360-0 (Down)	Degrees Difference 0-360 (Up)	Degrees Difference 360-0 (Down)	Average Absolute Degrees Difference
0	355	0	354	0.1	1.5	0.8
30	330	30	328	0.3	1.7	1.0
60	300	61	298	-0.6	2.0	1.3
90	270	91	268	-1.0	2.1	1.6
120	240	122	239	-1.5	1.1	1.3
150	210	152	210	-1.5	0.4	1.0
180	180	180	180	-0.2	-0.2	0.2
210	150	209	151	0.6	-0.8	0.7
240	120	239	121	1.0	-1.4	1.2
270	90	268	91	2.0	-1.2	1.6
300	60	298	60	2.5	-0.1	1.3
330	30	328	30	1.7	0.4	1.0
355	0	354	0	1.5	0.1	0.8
The audit meets AMD requirements.			**Average Absolute Degrees Difference=**			**1.1**

Comments:

No issues.

End of Report

Lakeland Industry & Community Association

FEBRUARY 2021

Ambient Air Monitoring Calibration Report

- MASKWA STATION-

CAL-LICA-202102-01248

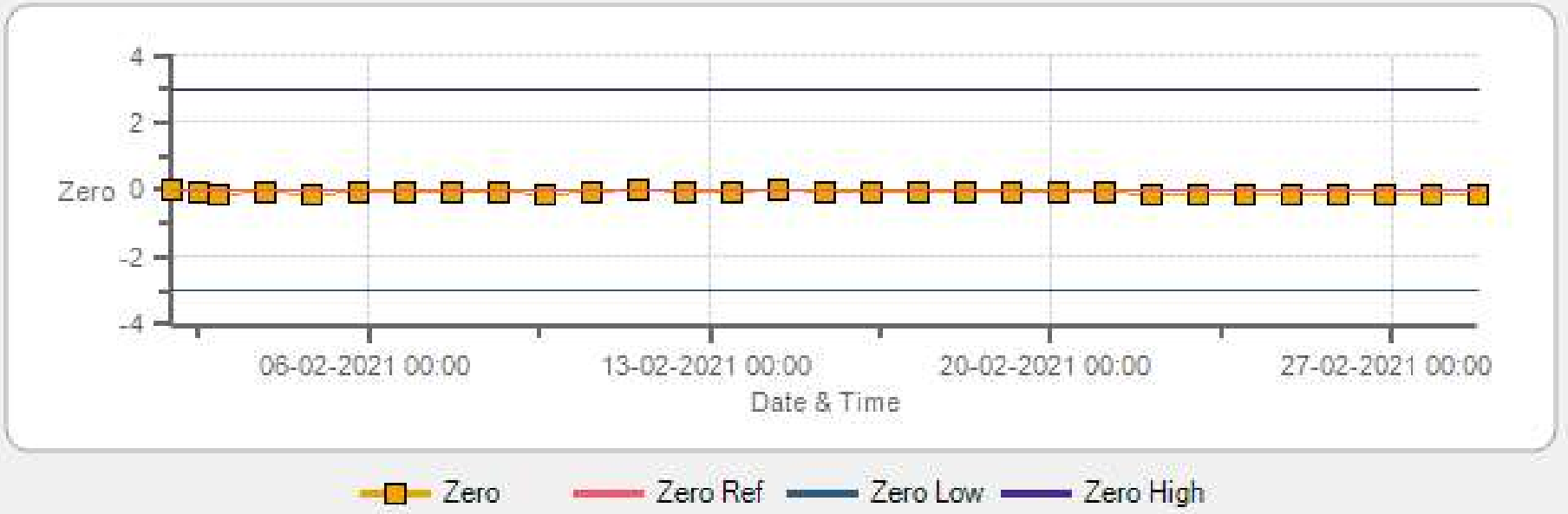
Station Operation and Maintenance:
Bureau Veritas Canada

Data Validation and Report:
LICA / Bureau Veritas Canada

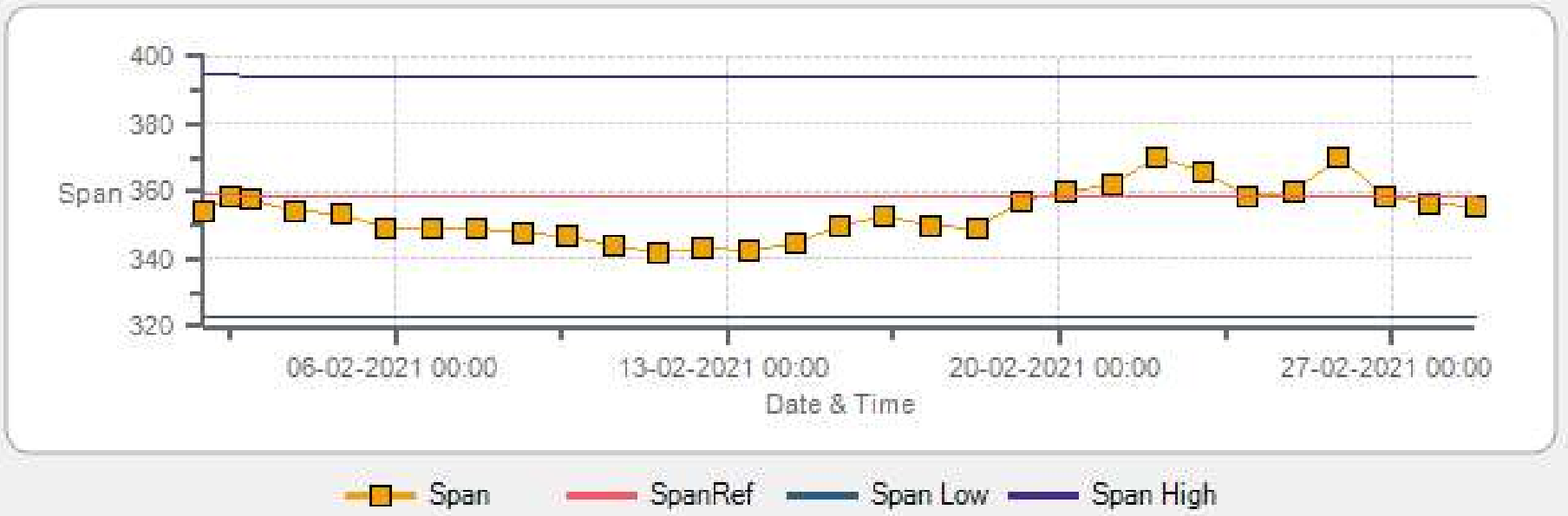
March 18, 2021

DAILY INTERNAL ZERO-SPAN CALIBRATION RECORDS

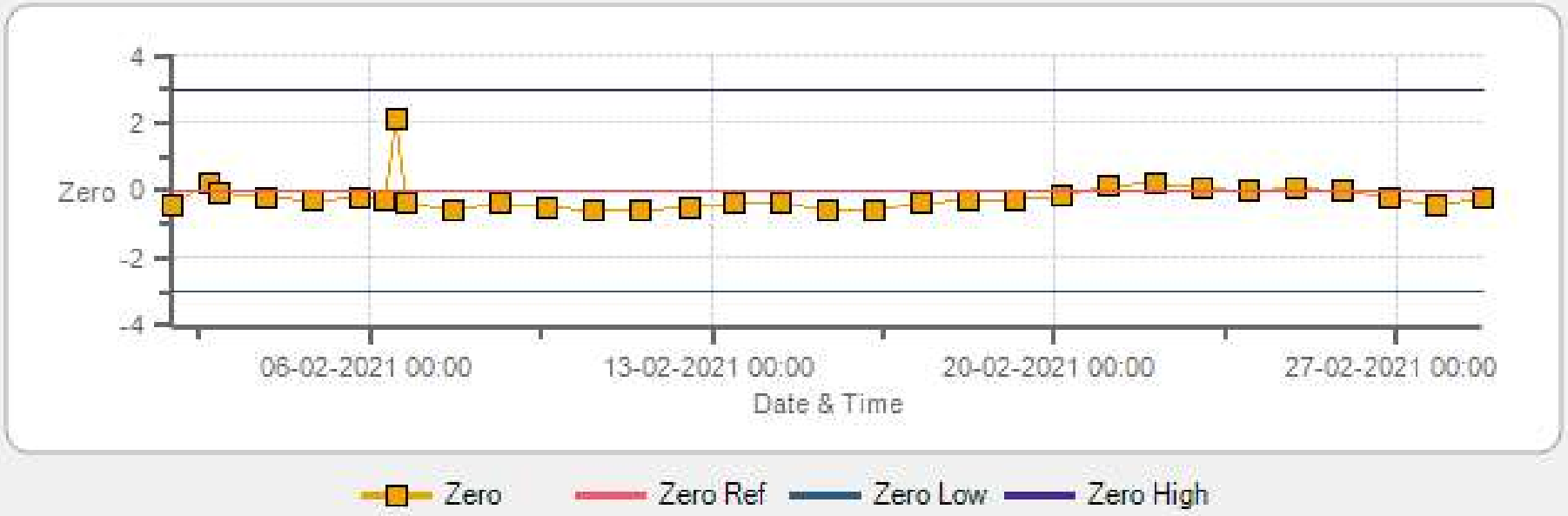
SO2[ppb] Calibration: Maskwa Monthly: 02-2021 Type: SpanAndZero - Zero



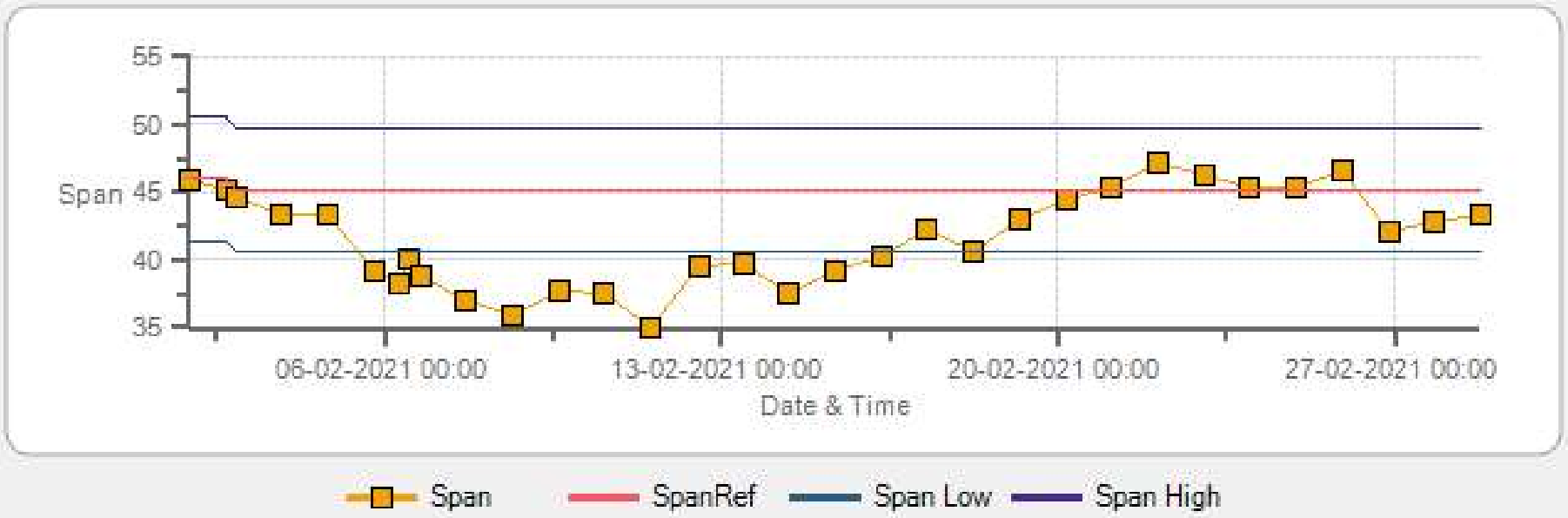
SO2[ppb] Calibration: Maskwa Monthly: 02-2021 Type: SpanAndZero - Span



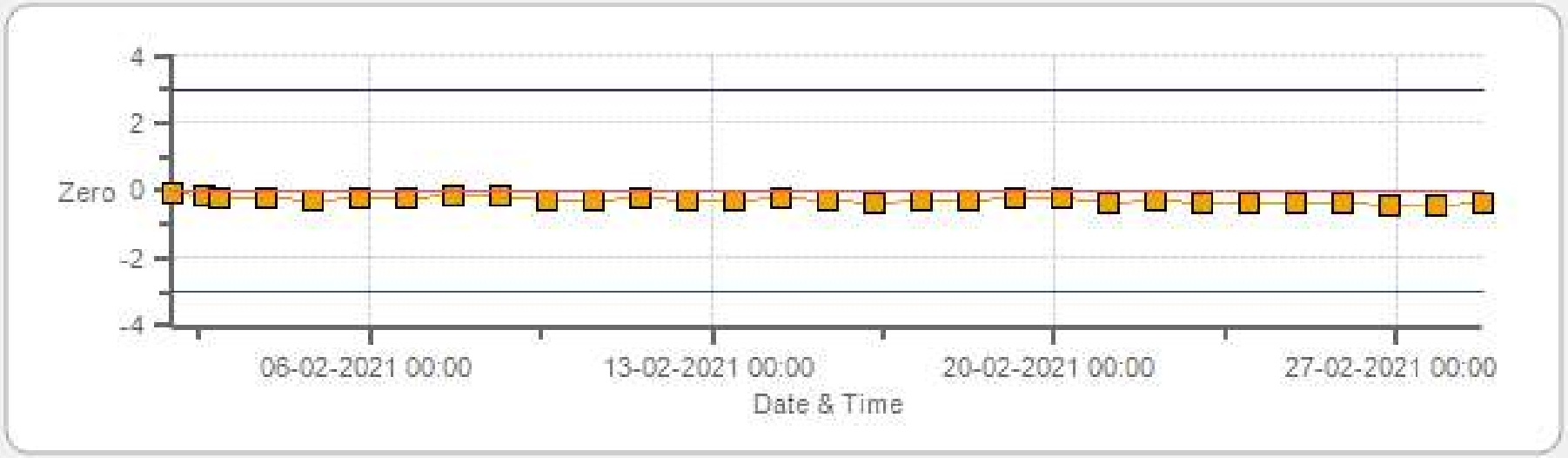
H2S[ppb] Calibration: Maskwa Monthly: 02-2021 Type: SpanAndZero - Zero



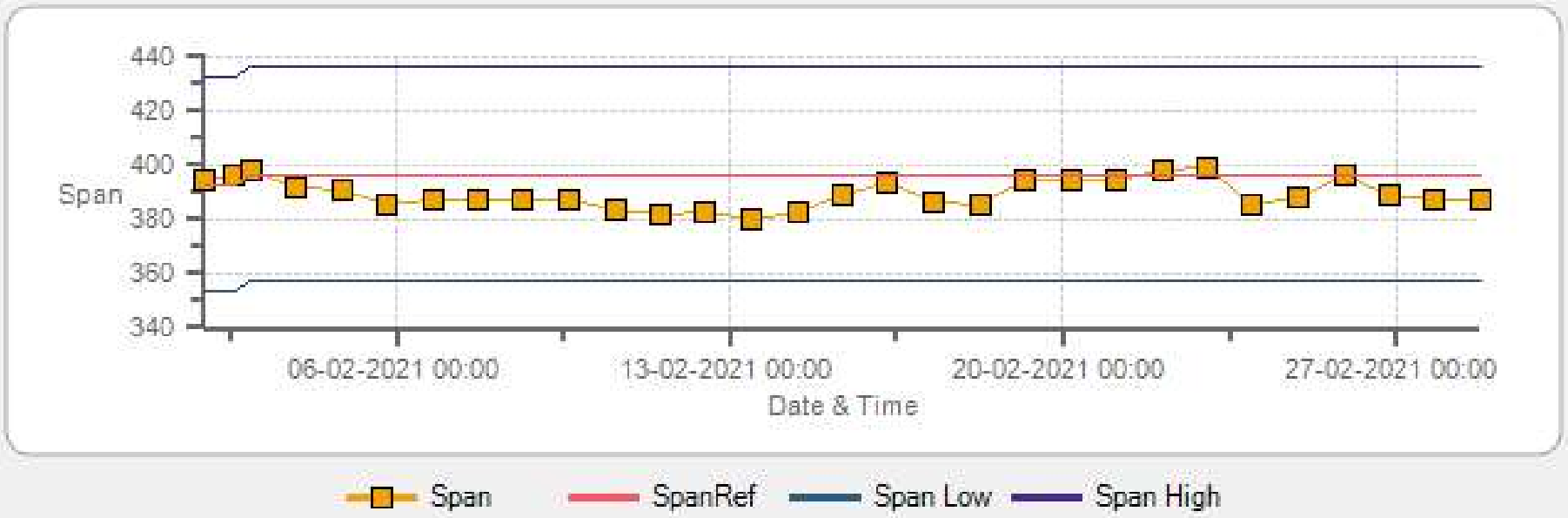
H2S[ppb] Calibration: Maskwa Monthly: 02-2021 Type: SpanAndZero - Span



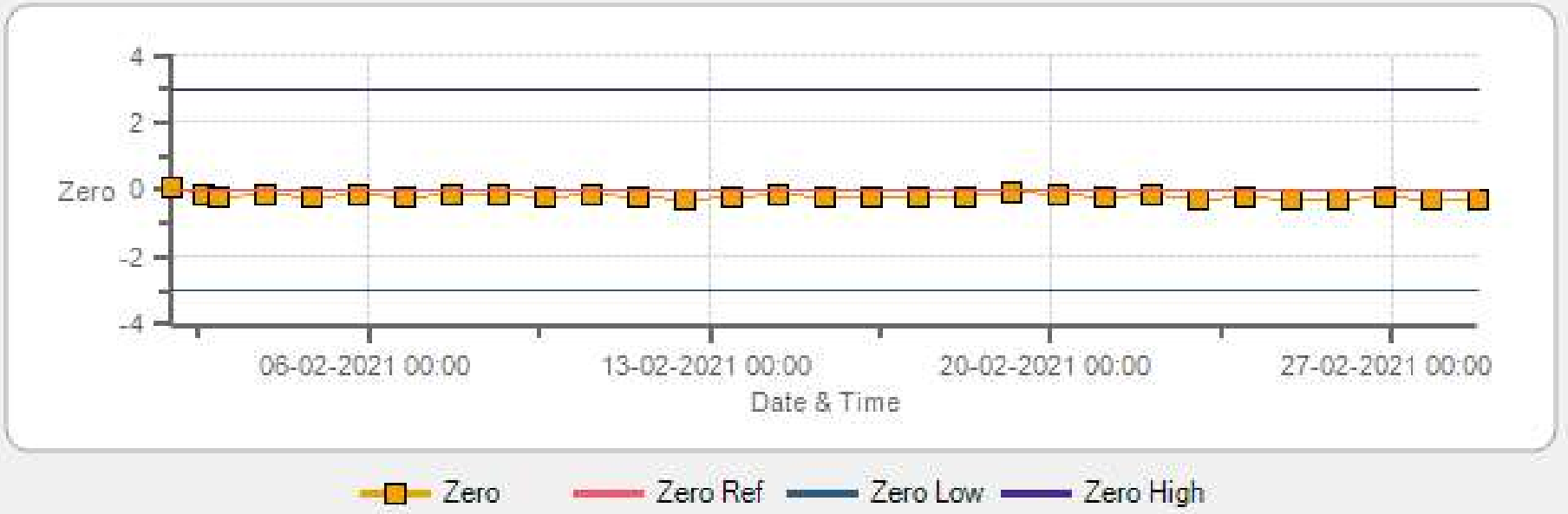
NOX[ppb] Calibration: Maskwa Monthly: 02-2021 Type: SpanAndZero - Zero



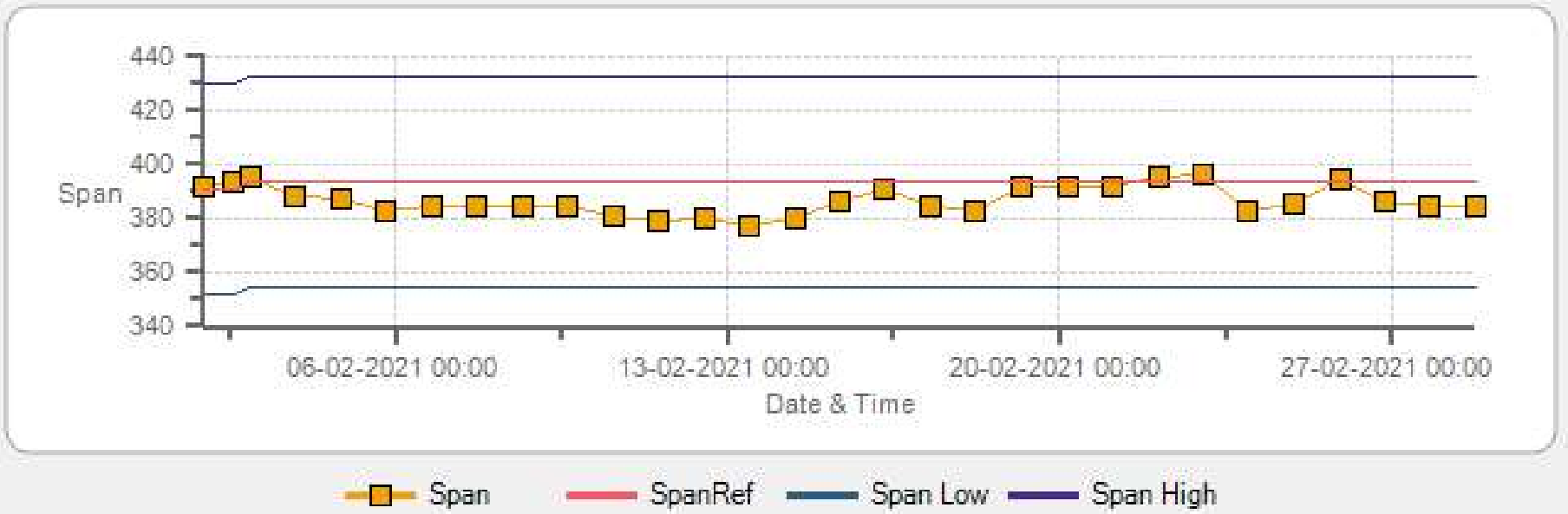
NOX[ppb] Calibration: Maskwa Monthly: 02-2021 Type: SpanAndZero - Span

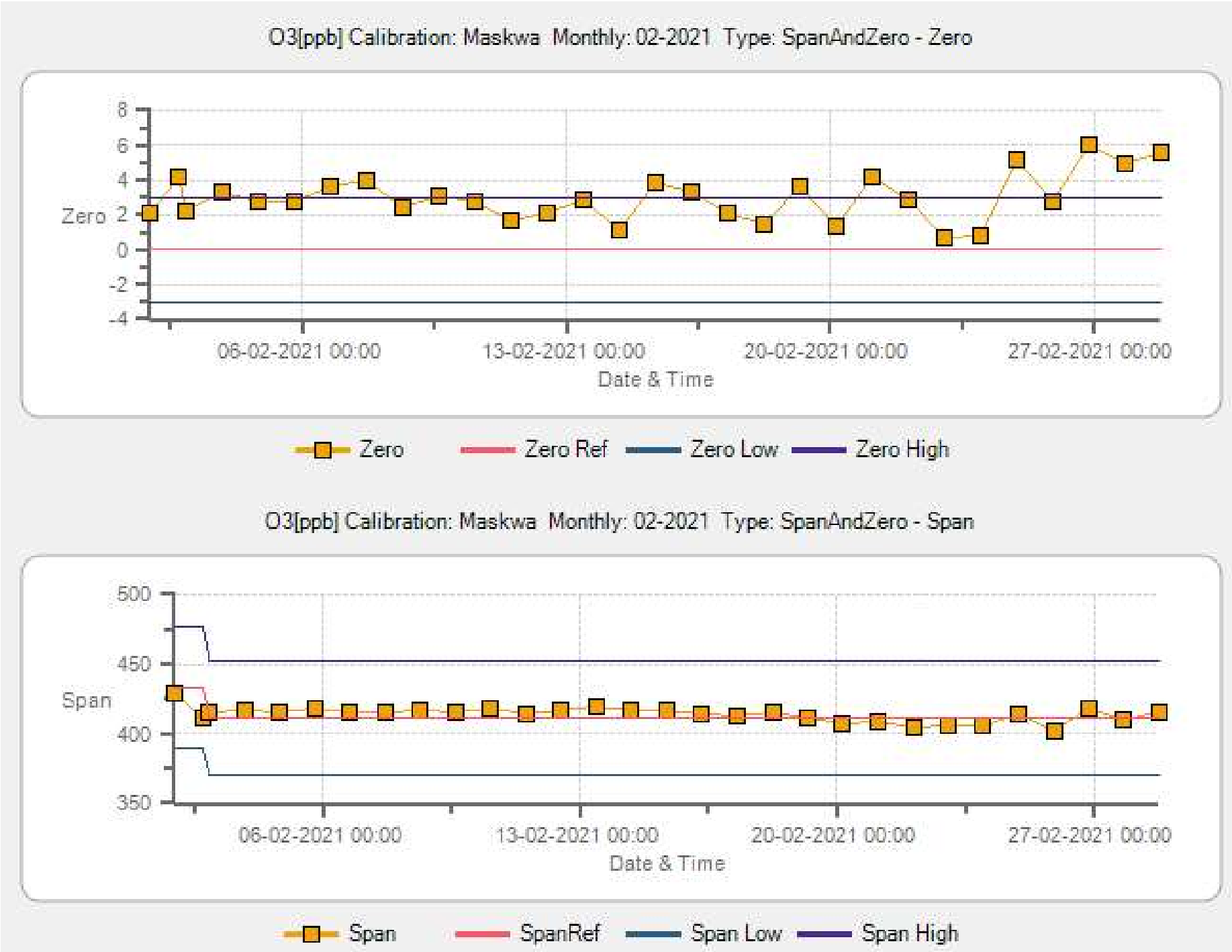


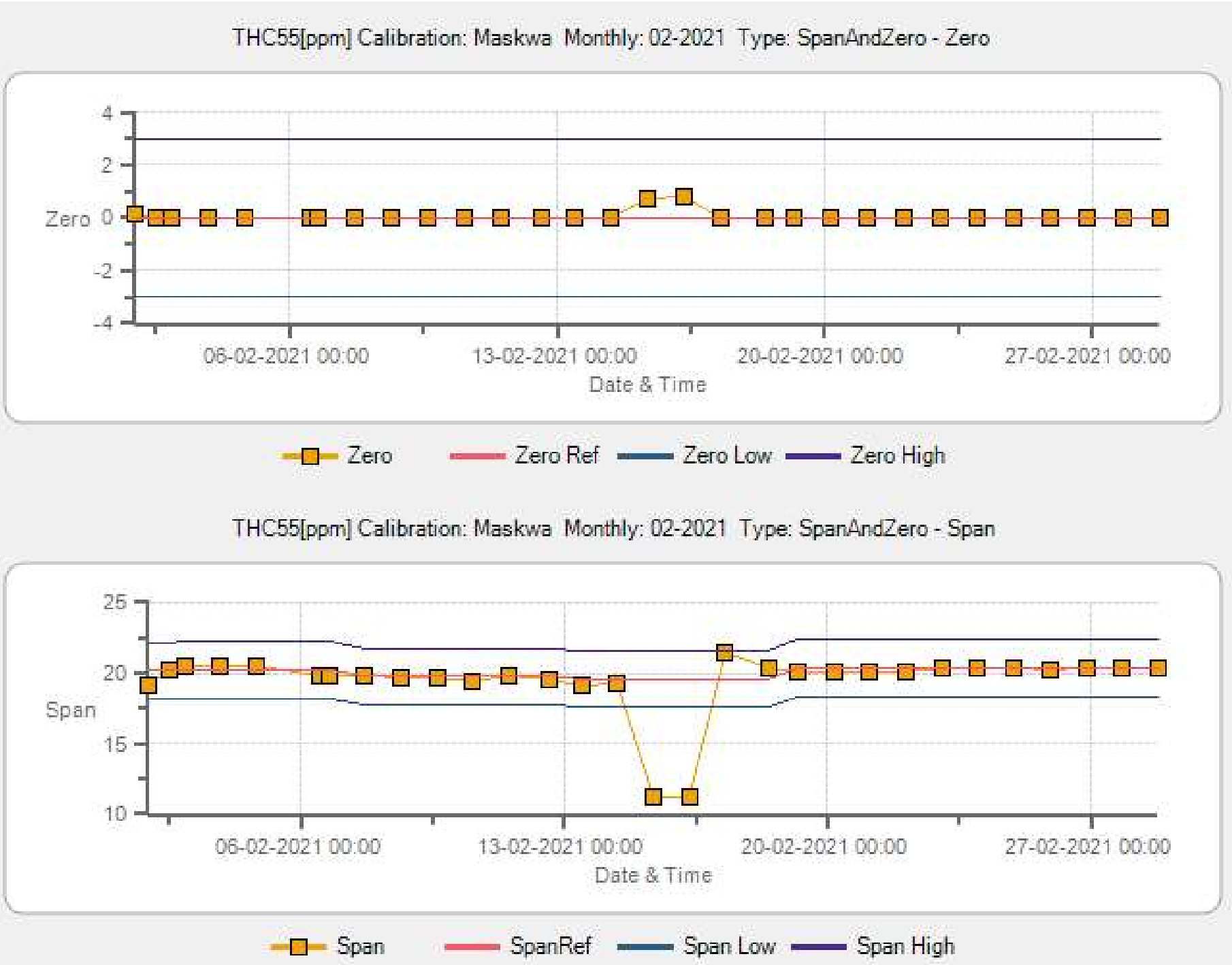
NO2[ppb] Calibration: Maskwa Monthly: 02-2021 Type: SpanAndZero - Zero

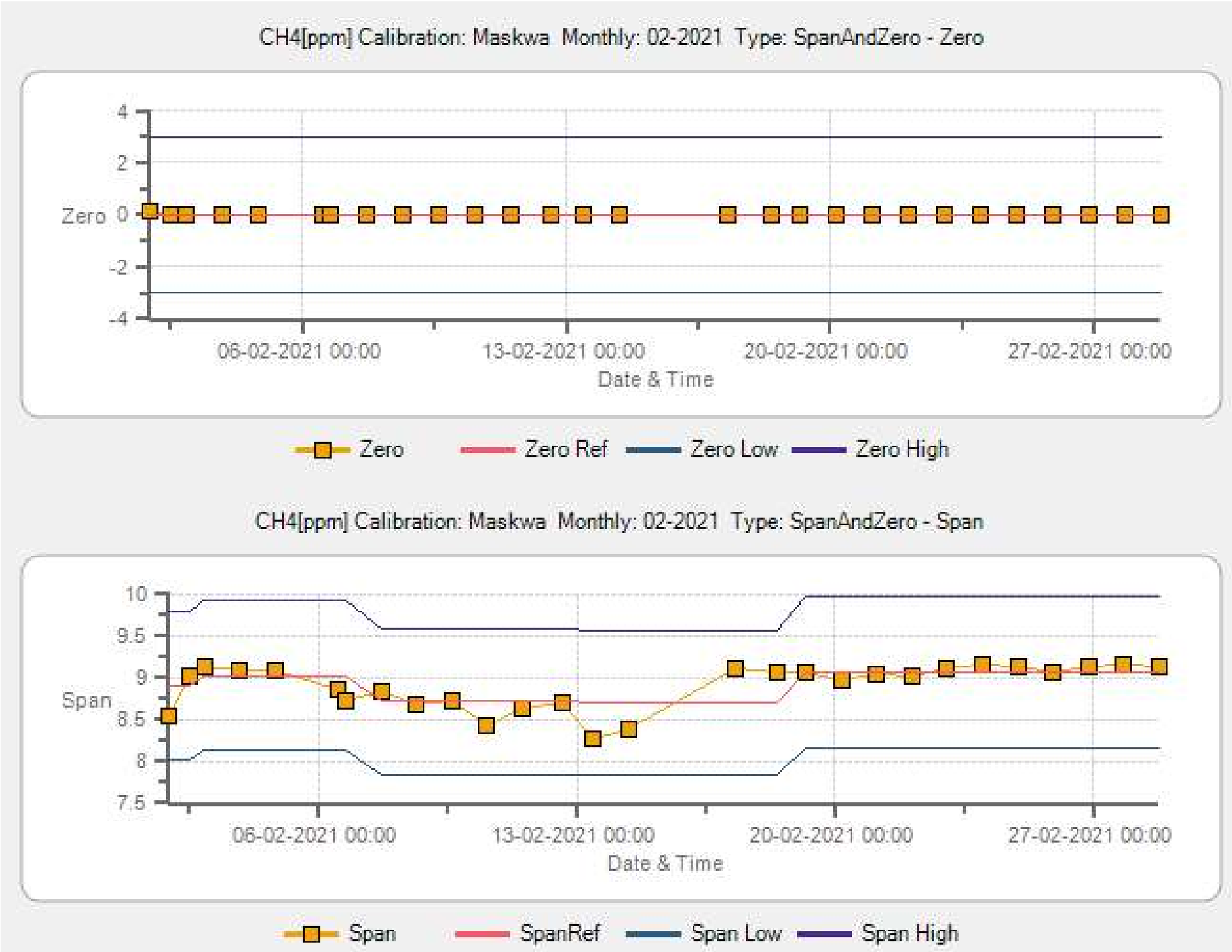


NO2[ppb] Calibration: Maskwa Monthly: 02-2021 Type: SpanAndZero - Span

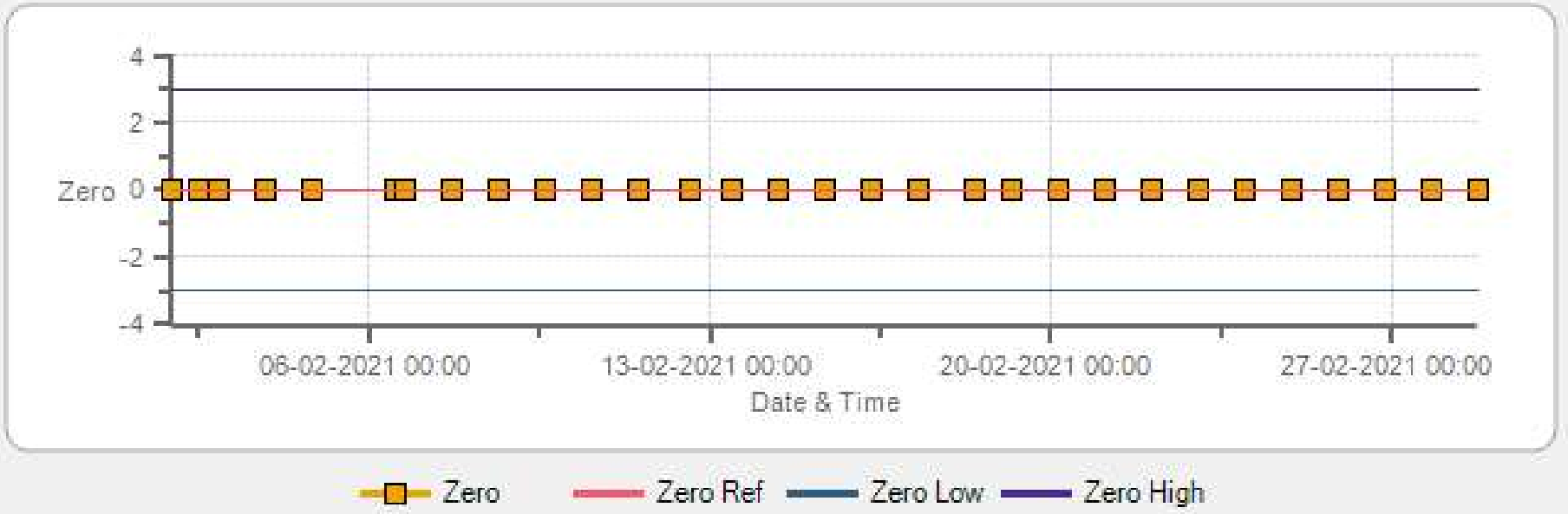



O3[ppb] Calibration: Maskwa Monthly: 02-2021 Type: SpanAndZero - Zero
Zero
8
6
4
2
0
-2
-4
06-02-2021 00:00
13-02-2021 00:00
20-02-2021 00:00
27-02-2021 00:00
Date & Time
Zero
Zero Ref
Zero Low
Zero High
O3[ppb] Calibration: Maskwa Monthly: 02-2021 Type: SpanAndZero - Span
Span
500
450
400
350
06-02-2021 00:00
13-02-2021 00:00
20-02-2021 00:00
27-02-2021 00:00
Date & Time
Span
SpanRef
Span Low
Span High

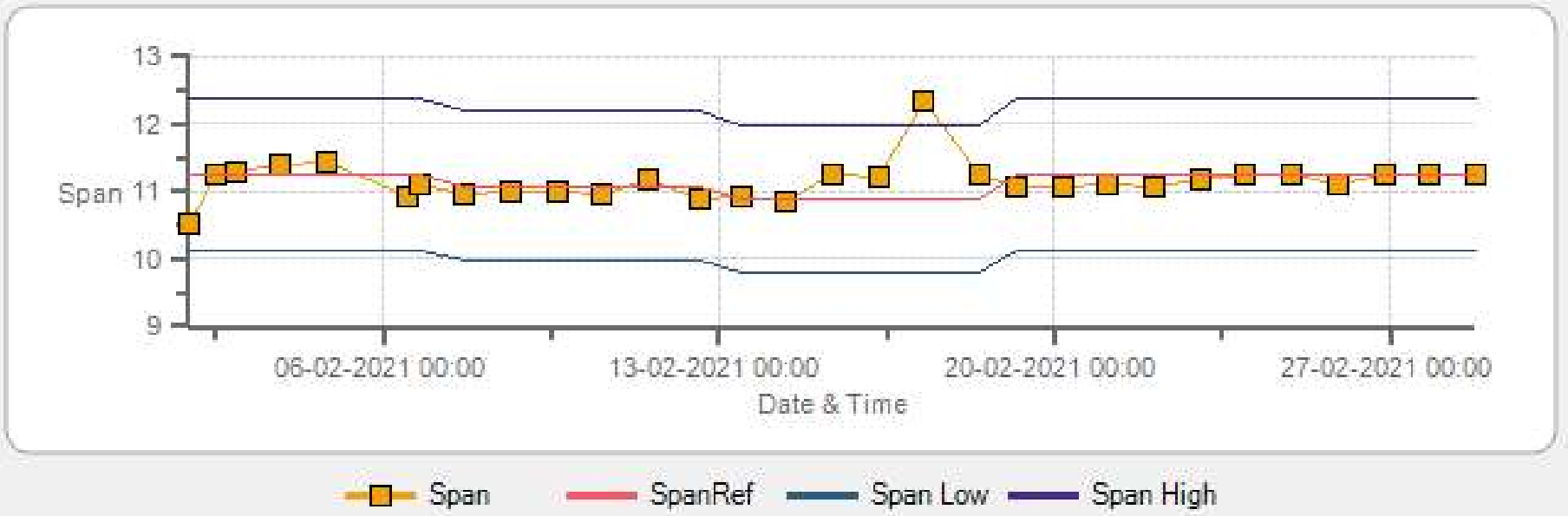

THC55[ppm] Calibration: Maskwa Monthly: 02-2021 Type: SpanAndZero - Zero
4
2
Zero 0
-2
-4
06-02-2021 00:00
13-02-2021 00:00
20-02-2021 00:00
27-02-2021 00:00
Date & Time
Zero
Zero Ref
Zero Low
Zero High
THC55[ppm] Calibration: Maskwa Monthly: 02-2021 Type: SpanAndZero - Span
25
20
Span
15
10
06-02-2021 00:00
13-02-2021 00:00
20-02-2021 00:00
27-02-2021 00:00
Date & Time
Span
SpanRef
Span Low
Span High


CH4[ppm] Calibration: Maskwa Monthly: 02-2021 Type: SpanAndZero - Zero
4
2
Zero 0
-2
-4
06-02-2021 00:00
13-02-2021 00:00
20-02-2021 00:00
27-02-2021 00:00
Date & Time
Zero
Zero Ref
Zero Low
Zero High
CH4[ppm] Calibration: Maskwa Monthly: 02-2021 Type: SpanAndZero - Span
10
9.5
9
Span
8.5
8
7.5
06-02-2021 00:00
13-02-2021 00:00
20-02-2021 00:00
27-02-2021 00:00
Date & Time
Span
SpanRef
Span Low
Span High

NMHC[ppm] Calibration: Maskwa Monthly: 02-2021 Type: SpanAndZero - Zero



NMHC[ppm] Calibration: Maskwa Monthly: 02-2021 Type: SpanAndZero - Span



MULTI-POINT CALIBRATION RECORDS

SO2 Analyzer Calibration by Dilution

DATE:	02-Feb-2021	PREVIOUS CALIBRATION DATE:	21-Jan-2021
PARAMETER:	SO2	PREVIOUS CORRECTION FACTOR:	1.000
CLIENT:	LICA	TEMPERATURE (°C):	22.6
LOCATION:	Maskwa	BAROMETRIC (mBar):	930
PURPOSE	Routine	START TIME (MST):	08:36
PERFORMED BY:	Limin Li	END TIME (MST):	12:08

ANALYZER:

MAKE/MODEL	Thermo 43I-TLE	RANGE	500 ppb
SERIAL #	1180930031	FLOW (mL/min)	439
INITIAL		FINAL	
BKG/OFFSET	2.63	BKG/OFFSET	2.67
COEF/SLOPE	0.988	COEF/SLOPE	0.991
Expected (reference) Value	359	Expected (reference) Value	358.6

CALIBRATION SYSTEM:

CALIBRATOR:		ZERO AIR:	
MAKE:	SABIO	MAKE:	Teledyne
MODEL:	2010	MODEL:	701
ID:	17200415	ID:	1105
MFC CALIBRATION DATE:	01-Oct-2020	OXIDIZER ID:	n/a
CALIBRATION GAS:		FLOWMETERS (if applicable):	
CYLINDER ID:	EY 0001011	HIGH ID	n/a
CONC (ppm):	50.10	EXPIRY DATE	n/a
CYLINDER (psi):	600	LOW ID	n/a
EXPIRY DATE	01-Jul-2027	EXPIRY DATE	n/a

CALIBRATION PARAMETERS:

POINT	HIGH	MID	LOW
TARGET	390	190	95
RANGE	300 - 400	150 - 200	50 - 100

SCRUBBER CHECK (15 MINS; TRS/H2S ONLY):

START TIME:	n/a	SO2 Conc (ppb)	n/a
END TIME:	n/a	Analyzer Response (ppb)	n/a

CALIBRATION:

FLOW RATES (mL/min)			CONCENTRATION (ppb)			CORRECTION FACTOR	
			ACTUAL	INDICATED		Initial	Final
DILUENT	GAS	TOTAL		Initial	Final		
6000		6000	0.00	-0.1	0		
5953	46.80	6000	390.78	390.5	399.6	1.000	0.978
5979	21.30	6000	177.86	n/a	177.9	n/a	1.000
5989	10.70	6000	89.35	n/a	88.4	n/a	1.011

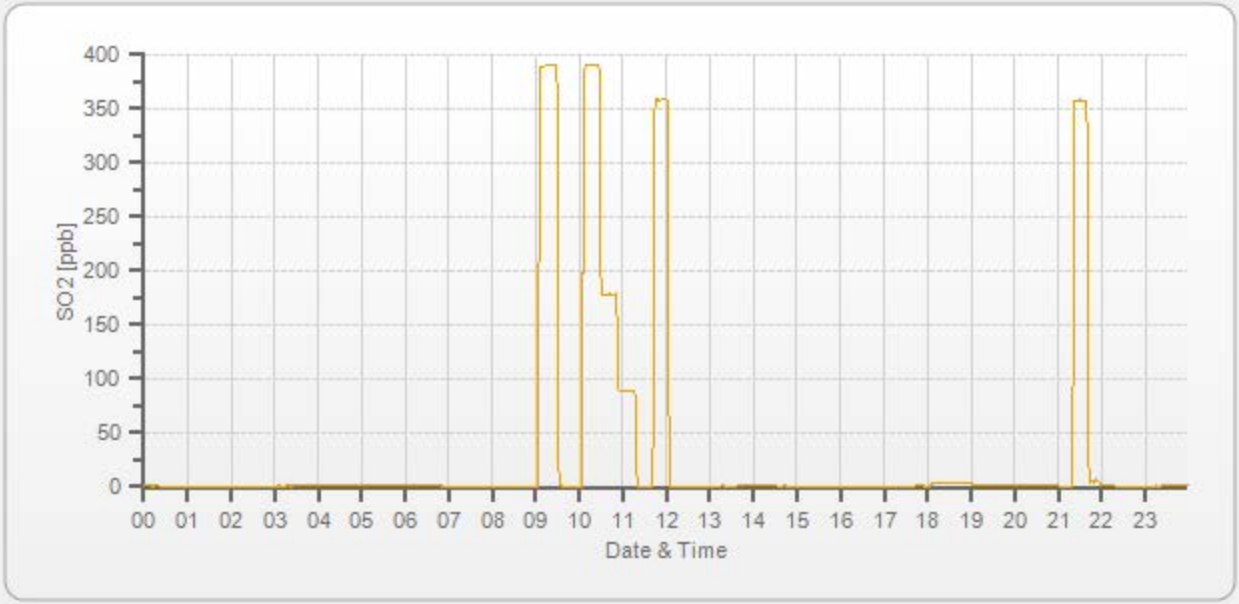
LINEAR REGRESSION ANALYSIS:

	CORRELATION	SLOPE	INTERCEPT
VALUE	1.000	1.025	-0.4%

COMMENTS:

Sample inlet filter was changed.

SO2[ppb] Station: Maskwa Daily: 02-02-2021 Type: AVG 1 Min. [1 Min.]



CAL-LICA-202102-01248

SO2 [ppb]

H2S Analyzer Calibration by Dilution

DATE:	02-Feb-2021	PREVIOUS CALIBRATION DATE:	21-Jan-2021
PARAMETER:	H2S	PREVIOUS CORRECTION FACTOR:	0.999
CLIENT:	LICA	TEMPERATURE (°C):	22.4
LOCATION:	Maskwa	BAROMETRIC (mBar):	928
PURPOSE	Routine	START TIME (MST):	11:55
PERFORMED BY:	Limin Li	END TIME (MST):	16:40

ANALYZER:

MAKE/MODEL	Thermo 450i	RANGE	100 ppb
SERIAL #	CM 17360005	FLOW (mL/min)	885
INITIAL		FINAL	
BKG/OFFSET	27.3	BKG/OFFSET	25.9
COEF/SLOPE	0.82	COEF/SLOPE	0.79
Expected (reference) Value	46	Expected (reference) Value	45.2

CALIBRATION SYSTEM:

CALIBRATOR:		ZERO AIR:	
MAKE:	Environics	MAKE:	Teledyne
MODEL:	6100	MODEL:	701
ID:	5212	ID:	1105
MFC CALIBRATION DATE:	28-Sep-2020	OXIDIZER ID:	n/a
CALIBRATION GAS:		FLOWMETERS (if applicable):	
CYLINDER ID:	EY0001074	HIGH ID	n/a
CONC (ppm):	10.00	EXPIRY DATE	n/a
CYLINDER (psi):	1600	LOW ID	n/a
EXPIRY DATE	16-Jul-2022	EXPIRY DATE	n/a

CALIBRATION PARAMETERS:

POINT	HIGH	MID	LOW
TARGET	78	38	19
RANGE	60 - 80	30 - 40	10 - 20

SCRUBBER CHECK (15 MINS; TRS/H2S ONLY):

START TIME:	13:23	SO2 Conc (ppb)	380
END TIME:	13:43	Analyzer Response (ppb)	0.1

CALIBRATION:

FLOW RATES (mL/min)			CONCENTRATION (ppb)			CORRECTION FACTOR	
			ACTUAL	INDICATED		Initial	Final
DILUENT	GAS	TOTAL		Initial	Final		
7500		7500	0.00	-0.1	0		
7442	58.50	7500	78.00	79.4	78	0.981	1.000
7472	28.50	7500	38.00	n/a	37.8	n/a	1.005
7486	14.25	7500	19.00	n/a	19	n/a	1.000

LINEAR REGRESSION ANALYSIS:

	CORRELATION	SLOPE	INTERCEPT
VALUE	1.000	1.000	0.0%

COMMENTS:

Sample inlet filter was changed.

H2S[ppb] Station: Maskwa Daily: 02-02-2021 Type: AVG 1 Min. [1 Min.]

CAL-LICA-202102-01248

H2S [ppb]

H2S Analyzer Calibration by Dilution

DATE:	06-Feb-2021	PREVIOUS CALIBRATION DATE:	02-Feb-2021
PARAMETER:	H2S	PREVIOUS CORRECTION FACTOR:	1.000
CLIENT:	LICA	TEMPERATURE (°C):	22.0
LOCATION:	Maskwa	BAROMETRIC (mBar):	951
PURPOSE	As-Found	START TIME (MST):	10:12
PERFORMED BY:	Limin Li	END TIME (MST):	12:30

ANALYZER:

MAKE/MODEL	Thermo 450i	RANGE	100 ppb
SERIAL #	CM 17360005	FLOW (mL/min)	899
INITIAL		FINAL	
BKG/OFFSET	25.9	BKG/OFFSET	25.9
COEF/SLOPE	0.79	COEF/SLOPE	0.79
Expected (reference) Value	45.2	Expected (reference) Value	45.2

CALIBRATION SYSTEM:

CALIBRATOR:		ZERO AIR:	
MAKE:	Environics	MAKE:	Teledyne
MODEL:	6100	MODEL:	701
ID:	5212	ID:	1105
MFC CALIBRATION DATE:	28-Sep-2020	OXIDIZER ID:	n/a
CALIBRATION GAS:		FLOWMETERS (if applicable):	
CYLINDER ID:	EY0001074	HIGH ID	n/a
CONC (ppm):	10.00	EXPIRY DATE	n/a
CYLINDER (psi):	1600	LOW ID	n/a
EXPIRY DATE	16-Jul-2022	EXPIRY DATE	n/a

CALIBRATION PARAMETERS:

POINT	HIGH	MID	LOW
TARGET	78	38	19
RANGE	60 - 80	30 - 40	10 - 20

SCRUBBER CHECK (15 MINS; TRS/H2S ONLY):

START TIME:	n/a	SO2 Conc (ppb)	n/a
END TIME:	n/a	Analyzer Response (ppb)	n/a

CALIBRATION:

FLOW RATES (mL/min)			CONCENTRATION (ppb)			CORRECTION FACTOR	
			ACTUAL	INDICATED		Initial	Final
DILUENT	GAS	TOTAL		Initial	Final		
7500		7500	0.00	-0.4	n/a		
7442	58.50	7500	78.00	72	n/a	1.077	n/a
7472	28.50	7500	38.00	n/a	n/a	n/a	n/a
7486	14.25	7500	19.00	n/a	n/a	n/a	n/a

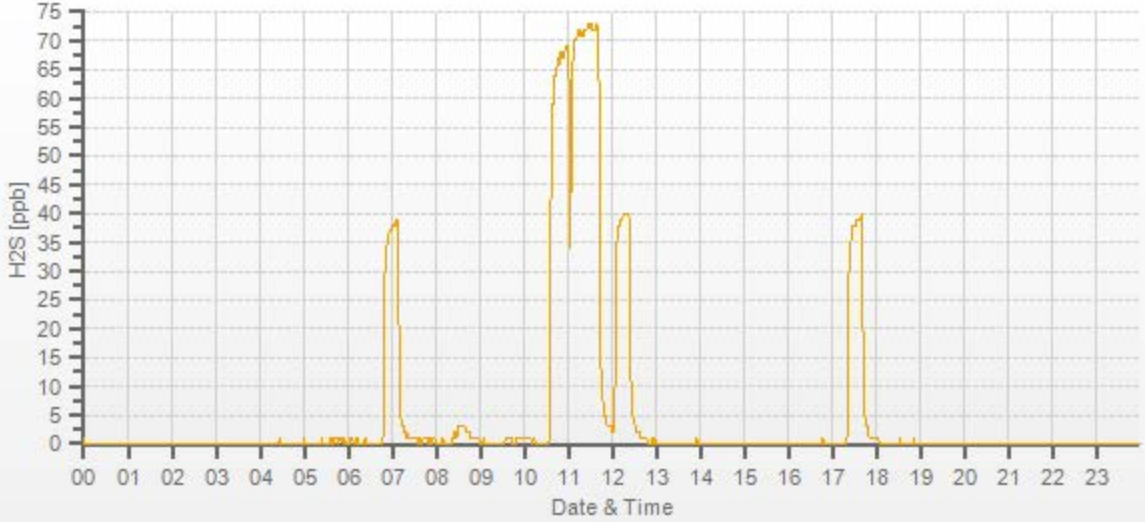
LINEAR REGRESSION ANALYSIS:

	CORRELATION	SLOPE	INTERCEPT
VALUE	n/a	n/a	**n/a**

COMMENTS:

Do as found check due to daily span drift out of limit. Re-purge regulator @ 11:00am.

H2S[ppb] Station: Maskwa Daily: 06-02-2021 Type: AVG 1 Min. [1 Min.]



CAL-LICA-202102-01248

H2S [ppb]

H2S Analyzer Calibration by Dilution

DATE:	12-Feb-2021	PREVIOUS CALIBRATION DATE:	02-Feb-2021
PARAMETER:	H2S	PREVIOUS CORRECTION FACTOR:	1.000
CLIENT:	LICA	TEMPERATURE (°C):	22.2
LOCATION:	Maskwa	BAROMETRIC (mBar):	956
PURPOSE	As-Found	START TIME (MST):	10:13
PERFORMED BY:	Chris Wesson	END TIME (MST):	12:43

ANALYZER:

MAKE/MODEL	Thermo 450i	RANGE	100 ppb
SERIAL #	CM17360005	FLOW (mL/min)	902
INITIAL		FINAL	
BKG/OFFSET	25.6	BKG/OFFSET	n/a
COEF/SLOPE	0.79	COEF/SLOPE	n/a
Expected (reference) Value	45.2	Expected (reference) Value	n/a

CALIBRATION SYSTEM:

CALIBRATOR:		ZERO AIR:	
MAKE:	Environics	MAKE:	API
MODEL:	2000	MODEL:	701
ID:	1991	ID:	1104
MFC CALIBRATION DATE:	14-Oct-2020	OXIDIZER ID:	n/a
CALIBRATION GAS:		FLOWMETERS (if applicable):	
CYLINDER ID:	EY0002519	HIGH ID	n/a
CONC (ppm):	9.41	EXPIRY DATE	n/a
CYLINDER (psi):	1900	LOW ID	n/a
EXPIRY DATE	11-Oct-2023	EXPIRY DATE	n/a

CALIBRATION PARAMETERS:

POINT	HIGH	MID	LOW
TARGET	78	38	19
RANGE	60 - 80	30 - 40	10 - 20

SCRUBBER CHECK (15 MINS; TRS/H2S ONLY):

START TIME:	n/a	SO2 Conc (ppb)	n/a
END TIME:	n/a	Analyzer Response (ppb)	n/a

CALIBRATION:

FLOW RATES (mL/min)			CONCENTRATION (ppb)			CORRECTION FACTOR	
			ACTUAL	INDICATED		Initial	Final
DILUENT	GAS	TOTAL		Initial	Final		
3003		3003	0.00	-0.6	n/a		
2978	24.87	3003	77.93	75.5	n/a	1.024	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

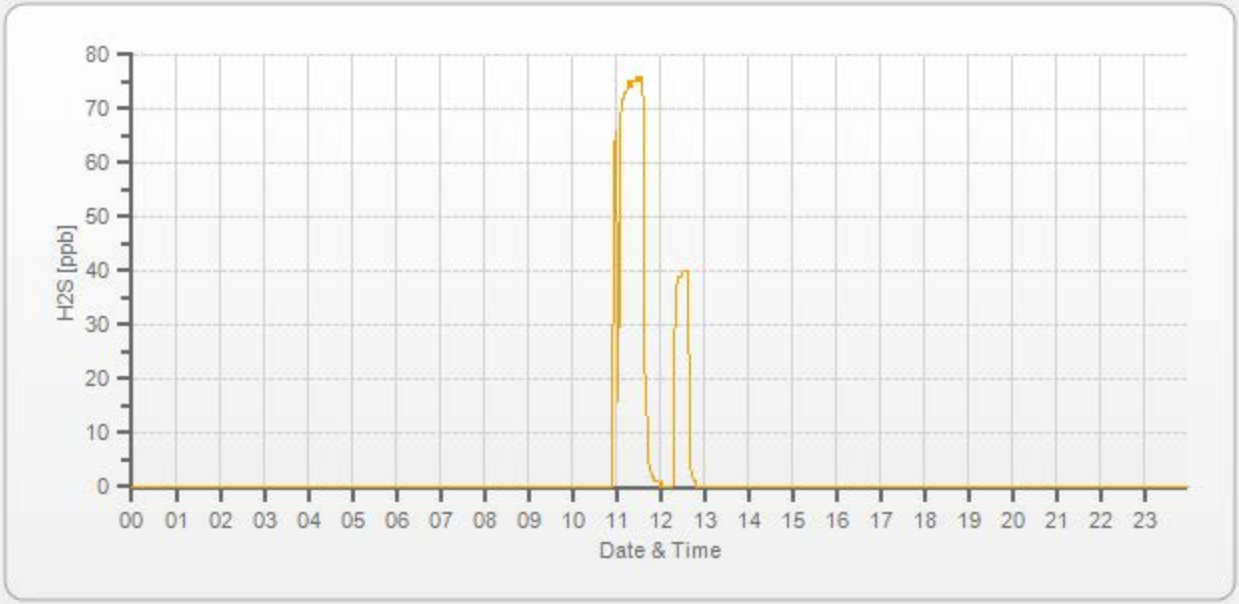
LINEAR REGRESSION ANALYSIS:

	CORRELATION	SLOPE	INTERCEPT
VALUE	n/a	n/a	**n/a**

COMMENTS:

As-found to monitor actual span drift.
11:00 daily ZS starts. As-found high restarted.

H2S[ppb] Station: Maskwa Daily: 12-02-2021 Type: AVG 1 Min. [1 Min.]



CAL-LICA-202102-01248

H2S [ppb]

NOx Calibration by Dilution/Gas-Phase Titration

CALIBRATION:				ANALYZER:			
DATE:	02-Feb-2021	PREVIOUS CALIBRATION DATE:	21-Jan-2021	MAKE/MODEL:	Thermo 42i	PREVIOUS CF.	
CLIENT:	LICA	TEMPERATURE (°C):	22.6	SERIAL #:	1180930028	NOx	0.998
LOCATION:	Maskwa	BAROMETRIC (mBar):	930	FLOW (mL/min)	501	NO	1.000
PURPOSE	Routine	START TIME (MST):	08:36	RANGE (ppb)	500	NO2	0.999
PERFORMED BY:	Limin Li	END TIME (MST):	14:17	GPT FOR O3?		Yes	

CALIBRATION SYSTEM:

CALIBRATOR:		ZERO AIR:		CALIBRATION GAS:			FLOWMETERS (if applicable):	
MAKE:	SABIO	MAKE:	Teledyne	CYLINDER ID:	EY 0001011		HIGH ID:	n/a
MODEL:	2010	MODEL:	701	NO/NOx (PPM):	50.6	50.8	HIGH EXPIRY:	n/a
ID:	17200415	ID:	1105	CYLINDER (psi):	600		LOW ID:	n/a
MFC CALIBRATION DATE:	01-Oct-2020	OXIDIZER ID:	n/a	EXPIRY DATE	01-Jul-2027		LOW EXPIRY:	n/a

CALIBRATION SETTINGS:

INITIAL	NOx	NO	NO2	FINAL	NOx	NO	NO2
BKG/OFFSET:	3	2.9	n/a	BKG/OFFSET:	3.1	2.8	n/a
SLOPE/COEF/CE:	1.007	1.005	1	SLOPE/COEF/CE:	1.004	1.001	1

EXPECTED (REFERENCE) VALUE:

INITIAL	NOx	NO	NO2	FINAL	NOx	NO	NO2
	393.0	2.8	391.0		396.7	3.0	393.7

CALIBRATION PARAMETERS:

POINT	NO TARGET (PPB)	NO2 TARGET (PPB)	NO2 RANGE	O3 POINT
HIGH	395	250	240-275	n/a
MID	180	154	150-157	Mid
LOW	90	54	50-58	Low
EXTRA 1	n/a	340	300-370	High

NO/NOx CALIBRATION:

FLOW RATE (mL/min)			CONCENTRATION (ppb)									CORRECTION FACTOR (CF.)					
			CALCULATED			INITIAL INDICATED			FINAL INDICATED			INITIAL			FINAL		
DILUENT	GAS	TOTAL	NO	NOx	NO2	NO	NOx	NO2	NO	NOx	NO2	NO	NOx	NO2	NO	NOx	NO2
6000		6000	0.0	0.0	0.0	0.2	0.5	0.3	0.0	0.0	0.0						
5953	46.80	6000	394.7	396.2	1.6	397.0	401.0	3.0	395.0	396.0	1.0	0.995	0.989		0.999	1.001	
5979	21.30	6000	179.6	180.3	0.7	n/a	n/a	n/a	180.6	181.3	0.7	n/a	n/a		0.995	0.995	
5989	10.70	6000	90.2	90.6	0.4	n/a	n/a	n/a	90.3	90.4	0.1	n/a	n/a		0.999	1.002	

GPT CALIBRATION:

Point	CALIBRATOR			INDICATED (ppb)			NO DROP / O3 Conc (ppb)	NO2 GAIN (ppb)	NO2 Corr. FACTOR	CONV. EFFICIENCY
	GAS	TOTAL	O3 SETPOINT	NO	NOx	NO2				
REFERENCE	39.00	5000	0	396.3	398.0	1.7				
AS-FOUND HIGH	39.00	5000	250	135.0	398.0	263.0	261.3	261.3	1.000	100.00%
ADJUSTED HIGH	n/a	n/a	n/a	n/a	n/a	n/a	n/a	**n/a**	**n/a**	n/a
MID	39.00	5000	148	242.0	398.0	156.0	154.3	154.3	1.000	100.00%
LOW	39.00	5000	50	343.0	398.0	55.0	53.3	53.3	1.000	100.00%
NO2 adjustment not required.									AVERAGE:	100.00%

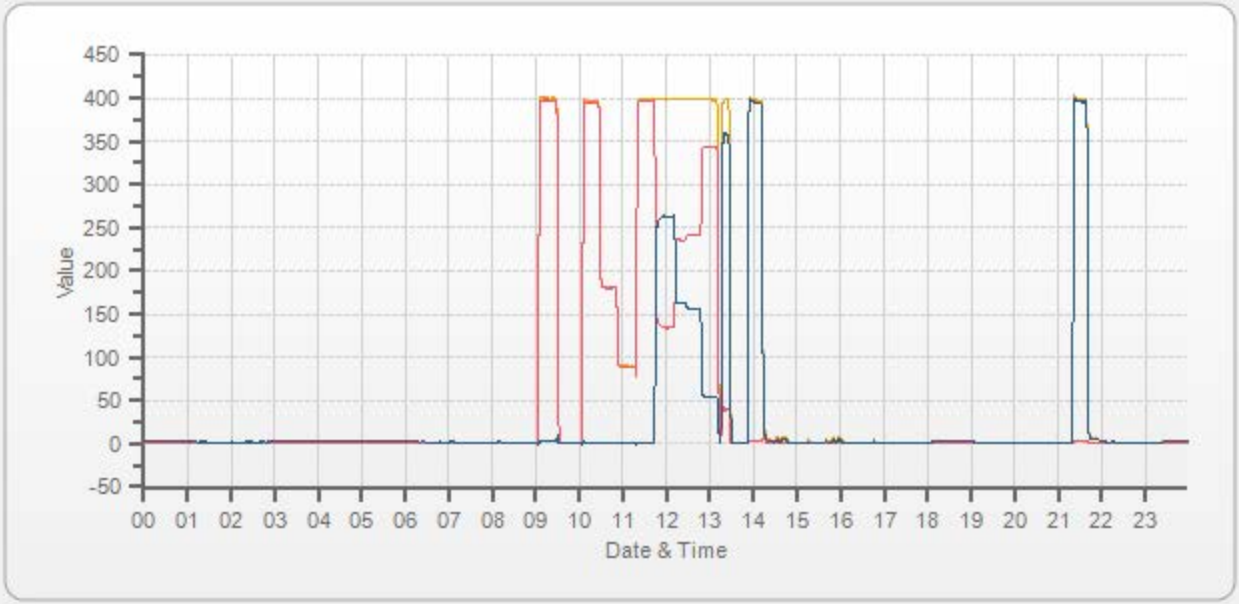
LINEAR REGRESSION ANALYSIS:

	CORRELATION	SLOPE	INTERCEPT
NO	1.000	1.001	0.04%
NOx	1.000	1.000	0.04%
NO2	1.000	1.000	0.00%

COMMENTS:

Sample inlet filter was changed.
Extra GPT point for O3: Setpoint=340ppb, NO= 40, NO2=358, NOX=398.

Station: Maskwa Daily: 02-02-2021 Type: AVG 1 Min. [1 Min.]



CAL-LICA-202102-01248

NOX [ppb] NO [ppb] NO2 [ppb]

Ozone Calibration by Direct GPT

DATE:	02-Feb-2021	PREVIOUS CALIBRATION DATE:	22-Jan-2021
PARAMETER:	O3	PREVIOUS CORRECTION FACTOR:	1.000
CLIENT:	LICA	TEMPERATURE (°C):	22.6
LOCATION:	Maskwa	BAROMETRIC (mBar):	927
PURPOSE	Routine	START TIME (MST):	13:12
PERFORMED BY:	Limin Li	END TIME (MST):	17:23

ANALYZER:

MAKE/MODEL	Thermo 49iQ	RANGE	500 ppb
SERIAL #	1202068570	FLOW (mL/min)	1340
INITIAL		FINAL	
BKG/OFFSET	3.1	BKG/OFFSET	2.9
COEF/SLOPE	1.051	COEF/SLOPE	1.002
Expected (reference) Value	433	Expected (reference) Value	411.3

CALIBRATION SYSTEM:

CALIBRATOR:		ZERO AIR:	
MAKE:	SABIO	MAKE:	Teledyne
MODEL:	2010	MODEL:	701
ID:	17200415	ID:	1105
MFC CALIBRATION DATE:	01-Oct-2020	OXIDIZER ID:	n/a
	CALIBRATION METHOD:	Direct GPT	
GPT DATE:	02-Feb-2021	GPT END TIME:	14:00

CALIBRATION PARAMETERS:

POINT	HIGH	MID	LOW
RANGE	300 - 400	150 - 200	50 - 100

CALIBRATION:

FLOW RATES (mL/min)			CONCENTRATION (ppb)			CORRECTION FACTOR	
			ACTUAL	INDICATED		Initial	Final
DILUENT	GAS	TOTAL		Initial	Final		
5000		5000	0.0	-0.3	0.0		
5000		5000	356.3	373.8	356.3	0.952	1.000
5000		5000	154.3	n/a	154.3	n/a	1.000
5000		5000	53.3	n/a	52.8	n/a	1.009

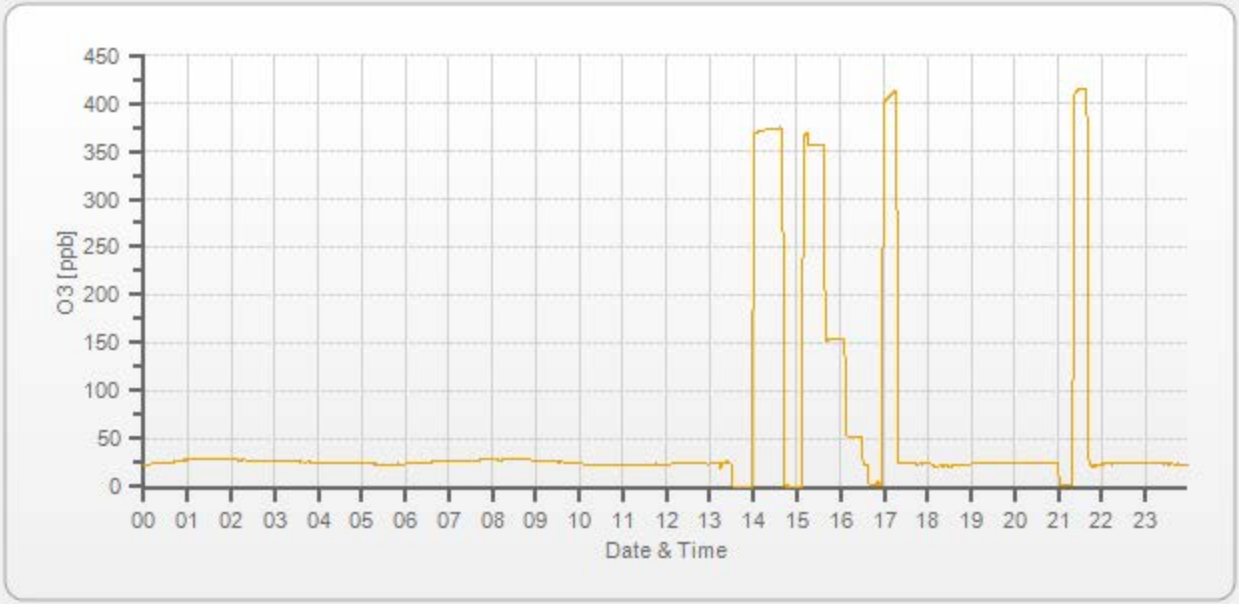
LINEAR REGRESSION ANALYSIS:

	CORRELATION	SLOPE	INTERCEPT
VALUE	1.000	1.001	0.0%

COMMENTS:

Sample inlet filter was changed.

O3[ppb] Station: Maskwa Daily: 02-02-2021 Type: AVG 1 Min. [1 Min.]



CAL-LICA-202102-01248

O3 [ppb]

Methane/Non-Methane Analyzer Calibration by Dilution

CALIBRATION:

DATE:	02-Feb-2021	PREVIOUS CALIBRATION DATE:	n/a
CLIENT:	LICA	TEMPERATURE (°C):	22.6
LOCATION:	Maskwa	BAROMETRIC (mBar):	930
PURPOSE	Install/Post-Repair	START TIME (MST):	09:55
PERFORMED BY:	Limin Li	END TIME (MST):	12:30

ANALYZER:

VALUE	MAKE/MODEL	SERIAL	FLOW (mL/min)
	Thermo 55i	1180930026	n/a
PARAMETER:	CH4	NMHC	THC
RANGE (ppm):	20	20	40
PREVIOUS CF:	n/a	n/a	n/a

CALIBRATION SYSTEM:

CALIBRATOR:		ZERO AIR:		CALIBRATION GAS:			FLOWMETERS (if applicable):	
MAKE:	Environics	MAKE:	Teledyne	CYLINDER ID:	LL 70331		HIGH ID:	n/a
MODEL:	6100	MODEL:	701	CH_4/C_3H_8 (ppm):	909.0	308.0	HIGH EXPIRY:	n/a
ID:	5212	ID:	1105	CYLINDER (psi):	1700		LOW ID:	n/a
MFC CALIBRATION DATE:	28-Sep-2020	OXIDIZER ID:	111	EXPIRY DATE	21-Jan-2028		LOW EXPIRY:	n/a

CALIBRATION PARAMETERS:

POINT (CH4/NMHC)	HIGH	MID	LOW	CH4 EQUIVILANCE	
TARGET	14	7	3.5	C_3H_8 as CH_4	847.0
RANGE	12 - 16	6 - 8	2 - 4	THC as CH_4	1756.0

EXPECTED (REFERENCE) VALUE:

INITIAL	CH4	NMHC	THC	FINAL	CH4	NMHC	THC
	8.91	11.25	20.16		9.03	11.24	20.27

CALIBRATION:

FLOW RATE (mL/min)			CONCENTRATION (PPM)									CORRECTION FACTOR (CF.)					
			CALCULATED			INITIAL INDICATED			FINAL INDICATED			INITIAL			FINAL		
DILUENT	GAS	TOTAL	CH4	NMHC	THC	CH4	NMHC	THC	CH4	NMHC	THC	CH4	NMHC	THC	CH4	NMHC	THC
3500		3500	0.00	0.00	0.00	n/a	n/a	n/a	0.00	0.00	0.00						
3444	55.80	3500	14.49	13.50	28.00	n/a	n/a	n/a	14.48	13.53	28.01	n/a	n/a	n/a	1.001	0.998	0.999
3472	27.90	3500	7.25	6.75	14.00	n/a	n/a	n/a	7.31	6.75	14.06	n/a	n/a	n/a	0.991	1.000	0.996
3486	13.95	3500	3.62	3.38	7.00	n/a	n/a	n/a	3.66	3.37	7.03	n/a	n/a	n/a	0.990	1.002	0.996

LINEAR REGRESSION ANALYSIS:

	CORRELATION	SLOPE	INTERCEPT
CH4	1.000	0.999	0.1%
NMHC	1.000	1.002	0.0%
THC	1.000	1.000	0.1%

Comments:

Post-repair following maintenance (deep cleaning) due to bad injections

Use Zero Chrom? **Yes**

Station: Maskwa Daily: 02-02-2021 Type: AVG 1 Min. [1 Min.]

CAL-LICA-202102-01248

CH4 [ppm] NMHC [ppm]

Methane/Non-Methane Analyzer Calibration by Dilution

CALIBRATION:

DATE:	06-Feb-2021	PREVIOUS CALIBRATION DATE:	n/a
CLIENT:	LICA	TEMPERATURE (°C):	22.0
LOCATION:	Maskwa	BAROMETRIC (mBar):	951
PURPOSE	Install/Post-Repair	START TIME (MST):	10:12
PERFORMED BY:	Limin Li	END TIME (MST):	12:38

ANALYZER:

VALUE	MAKE/MODEL	SERIAL	FLOW (mL/min)
	Thermo 55i	1433563261	n/a
PARAMETER:	CH4	NMHC	THC
RANGE (ppm):	20	20	40
PREVIOUS CF:	n/a	n/a	n/a

CALIBRATION SYSTEM:

CALIBRATOR:		ZERO AIR:		CALIBRATION GAS:			FLOWMETERS (if applicable):	
MAKE:	Environics	MAKE:	Teledyne	CYLINDER ID:	LL 70331		HIGH ID:	n/a
MODEL:	6100	MODEL:	701	CH_4/C_3H_8 (ppm):	909.0	308.0	HIGH EXPIRY:	n/a
ID:	5212	ID:	1105	CYLINDER (psi):	1700		LOW ID:	n/a
MFC CALIBRATION DATE:	28-Sep-2020	OXIDIZER ID:	111	EXPIRY DATE	21-Jan-2028		LOW EXPIRY:	n/a

CALIBRATION PARAMETERS:

POINT (CH4/NMHC)	HIGH	MID	LOW	CH4 EQUIVILANCE	
TARGET	14	7	3.5	C_3H_8 as CH_4	847.0
RANGE	12 - 16	6 - 8	2 - 4	THC as CH_4	1756.0

EXPECTED (REFERENCE) VALUE:

INITIAL	CH4	NMHC	THC	FINAL	CH4	NMHC	THC
	8.91	11.25	20.16		8.72	11.09	19.81

CALIBRATION:

FLOW RATE (mL/min)			CONCENTRATION (PPM)									CORRECTION FACTOR (CF.)					
			CALCULATED			INITIAL INDICATED			FINAL INDICATED			INITIAL			FINAL		
DILUENT	GAS	TOTAL	CH4	NMHC	THC	CH4	NMHC	THC	CH4	NMHC	THC	CH4	NMHC	THC	CH4	NMHC	THC
3500		3500	0.00	0.00	0.00	n/a	n/a	n/a	0.00	0.00	0.00						
3444	55.80	3500	14.49	13.50	28.00	n/a	n/a	n/a	14.50	13.52	28.02	n/a	n/a	n/a	0.999	0.999	0.999
3472	27.90	3500	7.25	6.75	14.00	n/a	n/a	n/a	7.28	6.79	14.07	n/a	n/a	n/a	0.995	0.994	0.995
3486	13.95	3500	3.62	3.38	7.00	n/a	n/a	n/a	3.67	3.41	7.08	n/a	n/a	n/a	0.987	0.990	0.989

LINEAR REGRESSION ANALYSIS:

	CORRELATION	SLOPE	INTERCEPT
CH4	1.000	1.000	0.1%
NMHC	1.000	1.001	0.1%
THC	1.000	1.000	0.1%

Comments:

n/a

Use Zero Chrom? **Yes**

Station: Maskwa Daily: 06-02-2021 Type: AVG 1 Min. [1 Min.]

CAL-LICA-202102-01248

CH4 [ppm] NMHC [ppm]

Methane/Non-Methane Analyzer Calibration by Dilution

CALIBRATION:

DATE:	12-Feb-2021	PREVIOUS CALIBRATION DATE:	06-Feb-2021
CLIENT:	LICA	TEMPERATURE (°C):	22.2
LOCATION:	Maskwa	BAROMETRIC (mBar):	956
PURPOSE	Repeat	START TIME (MST):	10:13
PERFORMED BY:	Chris Wesson	END TIME (MST):	14:13

ANALYZER:

VALUE	MAKE/MODEL	SERIAL	FLOW (mL/min)
	Thermo 55i	1433563261	1166
PARAMETER:	CH4	NMHC	THC
RANGE (ppm):	20	20	40
PREVIOUS CF:	0.999	0.999	0.999

CALIBRATION SYSTEM:

CALIBRATOR:		ZERO AIR:		CALIBRATION GAS:			FLOWMETERS (if applicable):	
MAKE:	Sabio	MAKE:	API	CYLINDER ID:	LL168375		HIGH ID:	n/a
MODEL:	2010	MODEL:	701	CH_4/C_3H_8 (ppm):	914.0	307.0	HIGH EXPIRY:	n/a
ID:	26701218	ID:	1104	CYLINDER (psi):	1500		LOW ID:	n/a
MFC CALIBRATION DATE:	06-Jan-2021	OXIDIZER ID:	n/a	EXPIRY DATE	21-Jan-2028		LOW EXPIRY:	n/a

CALIBRATION PARAMETERS:

POINT (CH4/NMHC)	HIGH	MID	LOW	CH4 EQUIVILANCE	
TARGET	14	7	3.5	C_3H_8 as CH_4	844.3
RANGE	12 - 16	6 - 8	2 - 4	THC as CH_4	1758.3

EXPECTED (REFERENCE) VALUE:

INITIAL	CH4	NMHC	THC	FINAL	CH4	NMHC	THC
	8.72	11.09	19.81		8.70	10.88	19.57

CALIBRATION:

FLOW RATE (mL/min)			CONCENTRATION (PPM)									CORRECTION FACTOR (CF.)					
			CALCULATED			INITIAL INDICATED			FINAL INDICATED			INITIAL			FINAL		
DILUENT	GAS	TOTAL	CH4	NMHC	THC	CH4	NMHC	THC	CH4	NMHC	THC	CH4	NMHC	THC	CH4	NMHC	THC
3099		3099	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.01						
3050	49.30	3099	14.54	13.43	27.97	13.82	14.13	27.95	14.52	13.44	27.96	1.052	0.951	1.001	1.001	0.999	1.000
3074	24.70	3099	7.28	6.73	14.01	n/a	n/a	n/a	7.31	6.74	14.05	n/a	n/a	n/a	0.997	0.998	0.997
3087	12.30	3099	3.63	3.35	6.98	n/a	n/a	n/a	3.62	3.40	7.02	n/a	n/a	n/a	1.002	0.986	0.994

LINEAR REGRESSION ANALYSIS:

	CORRELATION	SLOPE	INTERCEPT
CH4	1.000	0.998	0.1%
NMHC	1.000	1.000	0.1%
THC	1.000	0.999	0.1%

Comments:

No issues

Use Zero Chrom? **No**

Station: Maskwa Daily: 12-02-2021 Type: AVG 1 Min. [1 Min.]

CAL-LICA-202102-01248

CH4 [ppm] NMHC [ppm]

Methane/Non-Methane Analyzer Calibration by Dilution

CALIBRATION:

DATE:	18-Feb-2021	PREVIOUS CALIBRATION DATE:	n/a
CLIENT:	LICA	TEMPERATURE (°C):	23.0
LOCATION:	Maskwa	BAROMETRIC (mBar):	941
PURPOSE	Install/Post-Repair	START TIME (MST):	07:54
PERFORMED BY:	Chris Wesson	END TIME (MST):	10:14

ANALYZER:

VALUE	MAKE/MODEL	SERIAL	FLOW (mL/min)
	Thermo 55i	1314057759	1019
PARAMETER:	CH4	NMHC	THC
RANGE (ppm):	20	20	40
PREVIOUS CF:	n/a	n/a	n/a

CALIBRATION SYSTEM:

CALIBRATOR:		ZERO AIR:		CALIBRATION GAS:			FLOWMETERS (if applicable):	
MAKE:	Sabio	MAKE:	API	CYLINDER ID:	LL168375		HIGH ID:	n/a
MODEL:	2010	MODEL:	701	CH_4/C_3H_8 (ppm):	914.0	307.0	HIGH EXPIRY:	n/a
ID:	26701218	ID:	1104	CYLINDER (psi):	1400		LOW ID:	n/a
MFC CALIBRATION DATE:	06-Jan-2021	OXIDIZER ID:	n/a	EXPIRY DATE	21-Jan-2028		LOW EXPIRY:	n/a

CALIBRATION PARAMETERS:

POINT (CH4/NMHC)	HIGH	MID	LOW	CH4 EQUIVILANCE	
TARGET	14	7	3.5	C_3H_8 as CH_4	844.3
RANGE	12 - 16	6 - 8	2 - 4	THC as CH_4	1758.3

EXPECTED (REFERENCE) VALUE:

INITIAL	CH4	NMHC	THC	FINAL	CH4	NMHC	THC
	n/a	n/a	n/a		8.70	10.88	19.57

CALIBRATION:

FLOW RATE (mL/min)			CONCENTRATION (PPM)									CORRECTION FACTOR (CF.)					
			CALCULATED			INITIAL INDICATED			FINAL INDICATED			INITIAL			FINAL		
DILUENT	GAS	TOTAL	CH4	NMHC	THC	CH4	NMHC	THC	CH4	NMHC	THC	CH4	NMHC	THC	CH4	NMHC	THC
3099		3099	0.00	0.00	0.00	n/a	n/a	n/a	0.00	0.00	0.00						
3050	49.30	3099	14.54	13.43	27.97	n/a	n/a	n/a	14.53	13.42	27.95	n/a	n/a	n/a	1.001	1.001	1.001
3074	24.70	3099	7.28	6.73	14.01	n/a	n/a	n/a	7.19	6.69	13.88	n/a	n/a	n/a	1.013	1.006	1.010
3087	12.30	3099	3.63	3.35	6.98	n/a	n/a	n/a	3.59	3.32	6.92	n/a	n/a	n/a	1.010	1.009	1.008

LINEAR REGRESSION ANALYSIS:

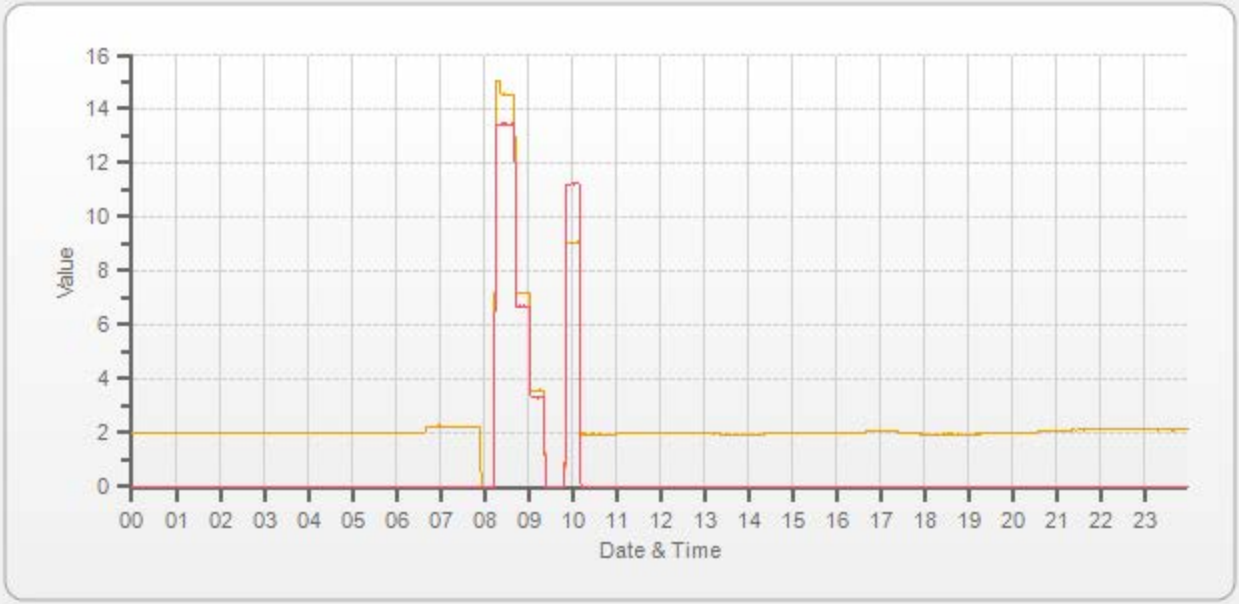
	CORRELATION	SLOPE	INTERCEPT
CH4	1.000	0.999	-0.2%
NMHC	1.000	1.000	-0.1%
THC	1.000	0.999	-0.1%

Comments:

No issues

Use Zero Chrom? **No**

Station: Maskwa Daily: 18-02-2021 Type: AVG 1 Min. [1 Min.]



CAL-LICA-202102-01248

CH4 [ppm] NMHC [ppm]

Thermo 5030 SHARP Monitor Monthly Check

Date:	February 17, 2021	**Performed By/Reviewer:**	Chris Wesson | Chris Wesson
Company:	LICA	**Start Time (mst):**	17:03
Station Name/Location:	Maskwa	**End Time (mst):**	17:36
Previous Audit Date:	January 22, 2021	**Calibration Purpose:**	routine monthly
Parameter:	PM 2.5	**Weather Conditions:**	Mainly clear

SHARP Information and Status:

Serial Number:	CM-2209	**Status:**	0.00
Approx Tape remaining:	100%	**Error Code:**	0.00

Reference Standards:

Air Flow

	Manometer	Orifice	Pressure:	Temperature:
Make:	DeltaCal	DeltaCal	DeltaCal	DeltaCal
Model:	DC1	DC1	DC1	DC1
Serial Number:	177246	177246	177246	177246
Calibration Expiration Date:	March 27, 2021	March 27, 2021	March 27, 2021	March 27, 2021

As found temperature and pressure:

Tolerance +/- 4°C		Tolerance +/- 13.33 hPa	
SHARP T1 °C:	-10.1	**SHARP P3 (hPa):**	944.000
Reference °C:	-10.3	**Reference (hPa):**	941.800
Difference °C:	-0.2	**Difference (hPa) :**	2.200

As left temperature and pressure (same as above if as found adequate):

Tolerance +/- 4°C		Tolerance +/- 13.33 hPa	
SHARP T1 °C:	-10.1	**SHARP P3 (hPa):**	944.000
Reference °C:	-10.3	**Reference (hPa):**	941.800
Difference °C:	-0.2	**Difference :**	2.200

As found flows:

Targets: 1000 l/hr / <90%		Flow Tolerance 16.67 lpm +/- 0.67 lpm	
SHARP AirFlow l/hr	1000.00	**SHARP Airflow (l/min)**	16.67
Pump Voltage (%)	54.30	**Reference AirFlow (l/min)**	16.51
		Difference (l/min)	-0.16

As left flows (same as above if as found adequate):

Targets: 1000 l/hr / <90%		Flow Tolerance 16.67 lpm +/- 0.67 lpm	
SHARP AirFlow l/hr	1000.00	**SHARP Airflow (l/min)**	16.67
Pump Voltage (%)	54.30	**Reference AirFlow (l/min)**	16.51
		Difference (l/min)	-0.16

Inlet Assembly:

	Yes/No?	If No, give reason
PM10 Inlet Cleaned	yes	
PM2.5 Cyclone Cleaned	yes	

Comments:

Leak check: 16.51 vs 16.37, 0.14 < 0.8 lpm, passed.

Meteorological System Checklist

Date:	February 2, 2021		
Technician:	Limin Li		
Station:	Maskwa		
Unit:	**Make:**	**Model:**	**Serial #:**
Precipitation Sampler:	Met One	Part 387 - Heated Rain Gauge	F4481
Temperature Sensor:	Rotronic	HC2A-S3	20221366
Barometric Pressure Sensor:	MetOne	Part 090D	F4497
Relative Humidity Sensor:	Rotronic	HC2A-S3	20221366
Anemometer:	RM Young	05305VK	161465

PRECIPITATION SENSOR CHECK

Checklist:	**Reply:**	**Comments:**
Previous check date:	December 24, 2020	
Is the sensor Level?	yes	
Is the heater operating properly?	yes	Change base, heater is ok.
Are the bucket drain holes clean?	yes	
Is the screen on the housing? (screen should be on between July and September	yes	
Is the housing clean?	yes	
Is the area around the housing clean and free from obstacles?	yes	

TIP TEST - Slowly pour water until 10 tip are heard. (10 tips = 1 ml)

# of Tips	**Data Logger Response (ml):**	**Manual Specification = +/- 0.2 ml**
22	2.20	0.00

AMBIENT TEMPERATURE SENSOR CHECK

Previous check date:	December 24, 2020	
Parameter:	Temperature @ 2 metres	
Reference Thermometer ID:	FS 160459244 expires June 10, 2021	
Reference Temperature (^{o}C):	-11.3	
Station - Ambient Temperature (^{o}C):	-11.6	
Temperature Difference (^{o}C):	0.3	

BAROMETRIC PRESSURE SENSOR CHECK

Previous check date:	December 24, 2020	
Reference Barometer ID:	Brunton #5490, Expire date: Jan 12, 2022	
Reference Pressure - Units/Reading:	millibar	927.4
Station Pressure - Units/Reading:	millibar	927
Pressure Tolerance +/- 15% of error:	788 - 1067	0.04%

RELATIVE HUMIDITY (HYGROMETER) SENSOR CHECK

Previous check date:	December 24, 2020	
Reference Hygrometer ID:	FS 160459244 expires June 10, 2021	
Reference Hygrometer % RH- Reading:	78.44	
Station Hygrometer % RH- Reading:	89.10	
RH Tolerance +/- 15% of difference:	66.67 - 90.21	-13.6%

Comments

Meteorological Sensor Audit/Calibration

Location Information

Company:	LICA	**Performed By:**	Alex Yakupov
Audit Location:	Maskwa	**Reviewed By:**	Chris Wesson
Audit Date:	September 10, 2020	**Start/End Time (mst):**	14:51 / 17:06
Calibration Purpose:	routine annual	**Weather Conditions:**	Mix of sun and clouds

Wind Sensor Information

Sensor ID Data:		**Sensor Outputs:**	
Sensor Make:	RM Young	**Velocity Voltage Output Range:**	0-1
Sensor Model:	05305VK	**Velocity Unit Output Range:**	0-200
Serial #:	161465	**Direction Voltage Output Range:**	0-1
Previous Cal/Audit Date:	September 19, 2019	**Direction Unit Output Range:**	0-360

Wind Calibrator Information

Calibrator I.D. and Expiry Date: Model 18860-90/18802 SN: CA 4744, expires - Aug 6, 2022

Wind Speed Audit Data **+/- 2% of the average correction factor is the limit**

RPM	Wind Speed Generated kph	Clockwise Wind Speed kph	Counter Clockwise Wind Speed kph	Correction Factor
0	0	0.0	0.0	-
1000	18.4	18.5	18.5	0.996
2000	36.9	36.9	36.9	0.999
3000	55.3	55.4	55.4	0.998
4000	73.7	73.9	73.9	0.998
5000	92.2	92.4	92.5	0.997
6000	110.6	111.0	111.0	0.996
7000	129.0	129.5	129.5	0.996
8000	147.4	148.1	148.1	0.996
9000	165.9	166.7	166.7	0.995
10000	184.3	185.2	185.2	0.995
		The audit meets AMD requirements.	**Average Correction Factor=**	**0.997**

Wind Direction Audit Data **+/- 3° of the absolute average degrees difference for all points is the limit**

Generated Wind Direction 0-360 (Up)	Generated Wind Direction 360-0 (Down)	Indicated Wind Direction 0-360 (Up)	Indicated Wind Direction 360-0 (Down)	Degrees Difference 0-360 (Up)	Degrees Difference 360-0 (Down)	Average Absolute Degrees Difference
0	355	1	355	1.1	-0.1	0.6
30	330	32	330	-2.1	-0.4	1.2
60	300	64	301	-3.8	-1.0	2.4
90	270	93	272	-3.0	-1.9	2.4
120	240	123	243	-2.7	-2.7	2.7
150	210	152	213	-2.0	-3.2	2.6
180	180	183	183	-3.3	-3.1	3.2
210	150	212	153	-1.8	-3.2	2.5
240	120	241	124	-1.3	-3.7	2.5
270	90	271	94	-0.8	-4.0	2.4
300	60	300	65	0.1	-4.6	2.4
330	30	330	34	-0.4	-4.1	2.2
355	0	355	2	-0.1	1.5	0.8
The audit meets AMD requirements.			**Average Absolute Degrees Difference=**			**2.2**

Comments:

n/a

End of Report

Lakeland Industry & Community Association

FEBRUARY 2021

Ambient Air Monitoring Calibration Report

- ST. LINA STATION-

CAL-LICA-202102-01250

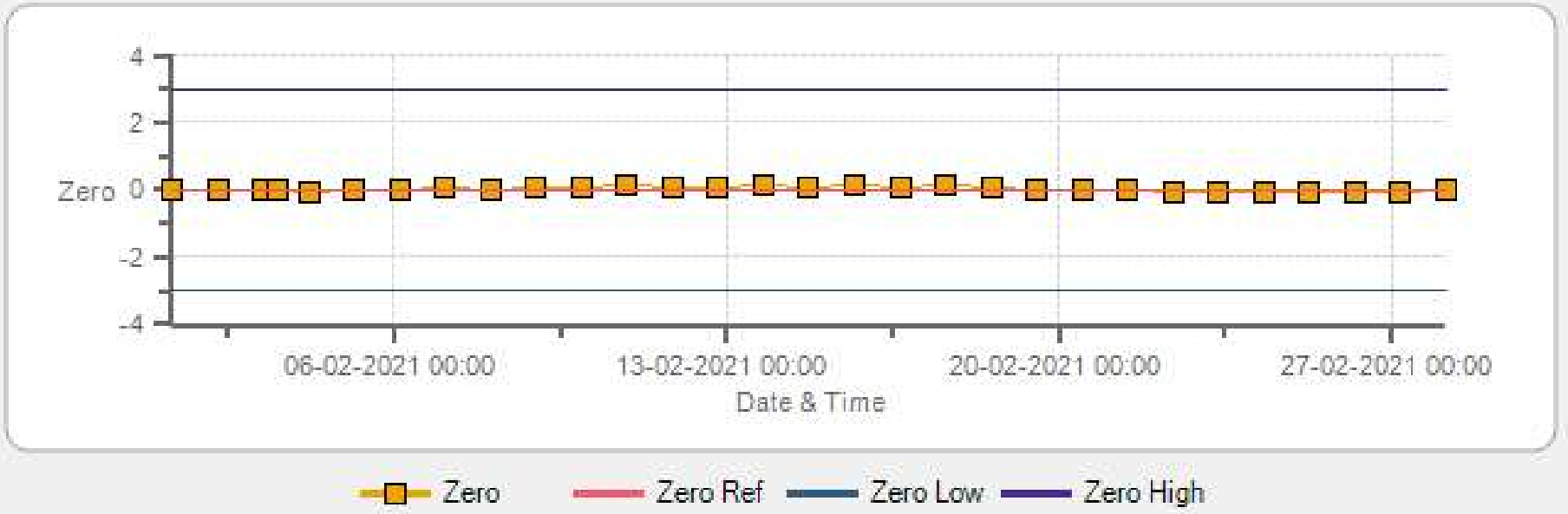
Station Operation and Maintenance:
Bureau Veritas Canada

Data Validation and Report:
LICA / Bureau Veritas Canada

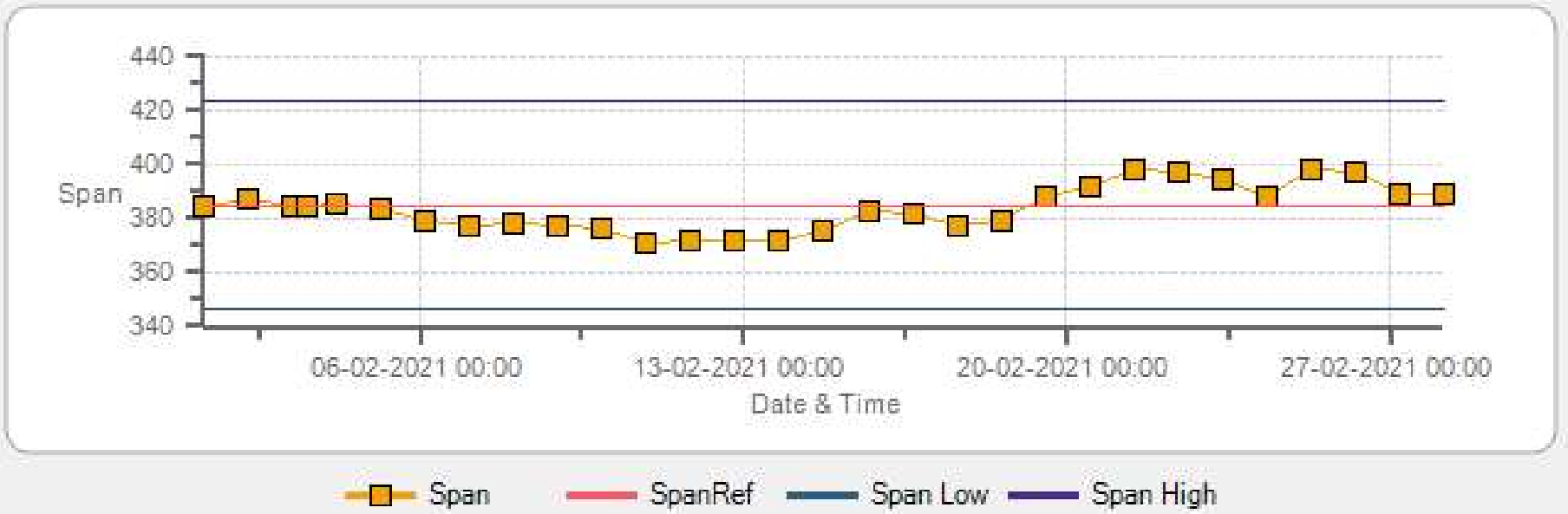
March 18, 2021

DAILY INTERNAL ZERO-SPAN CALIBRATION RECORDS

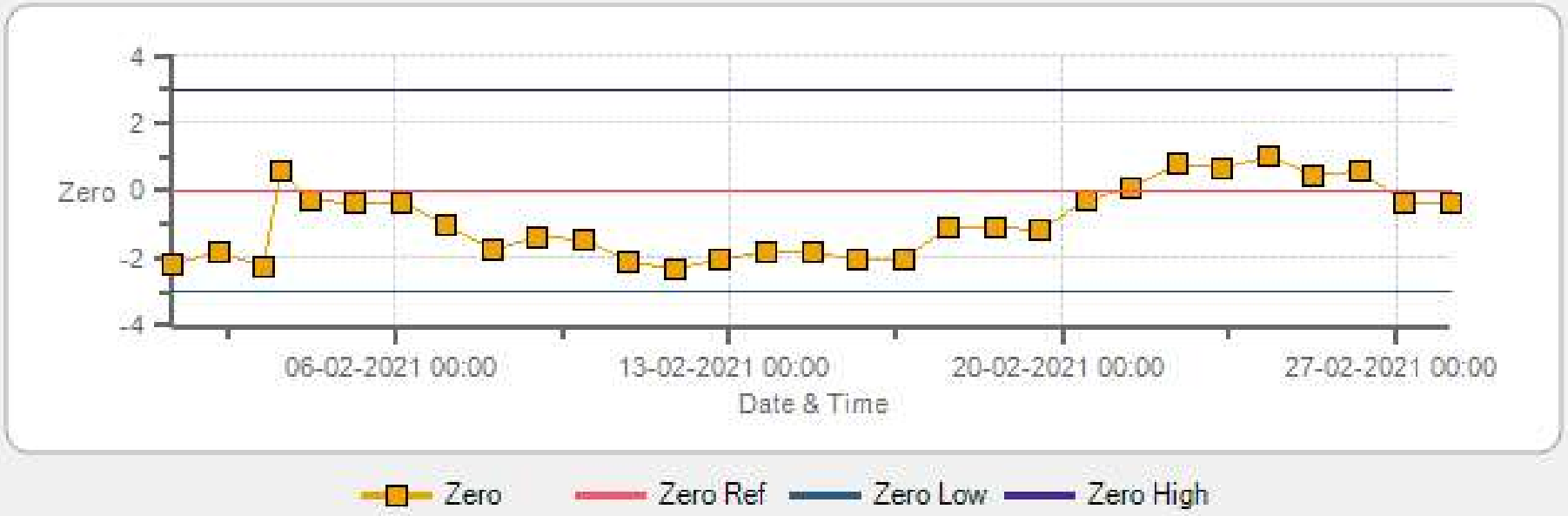
SO2[ppb] Calibration: St. Lina Monthly: 02-2021 Type: SpanAndZero - Zero



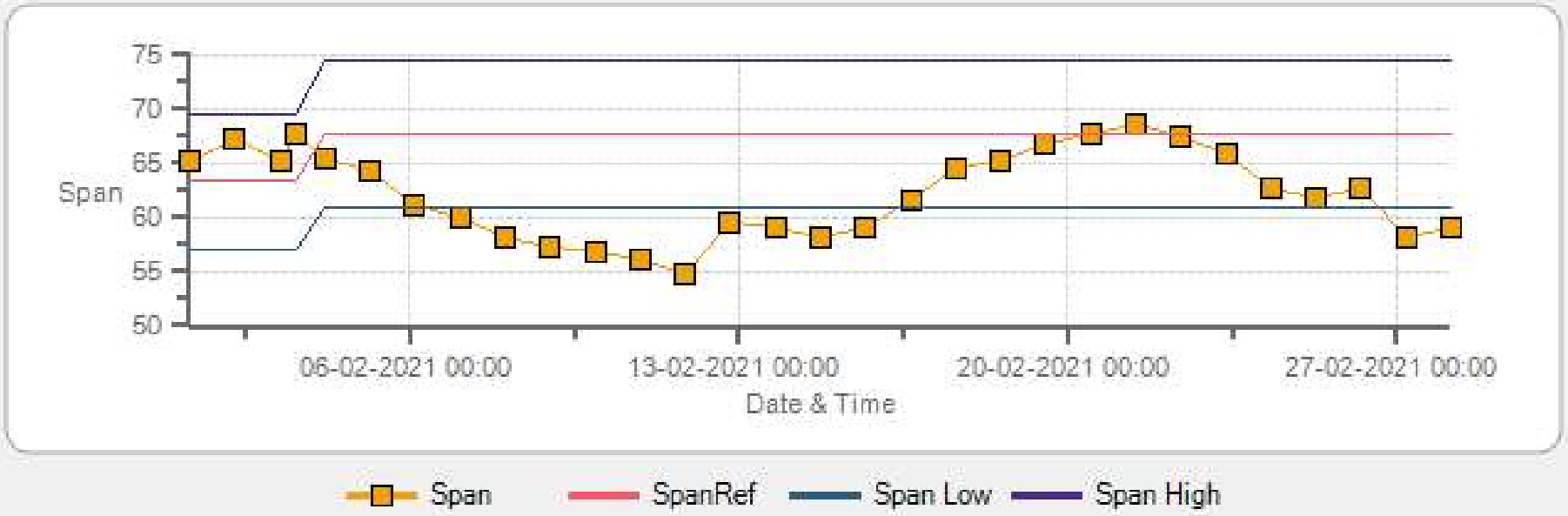
SO2[ppb] Calibration: St. Lina Monthly: 02-2021 Type: SpanAndZero - Span



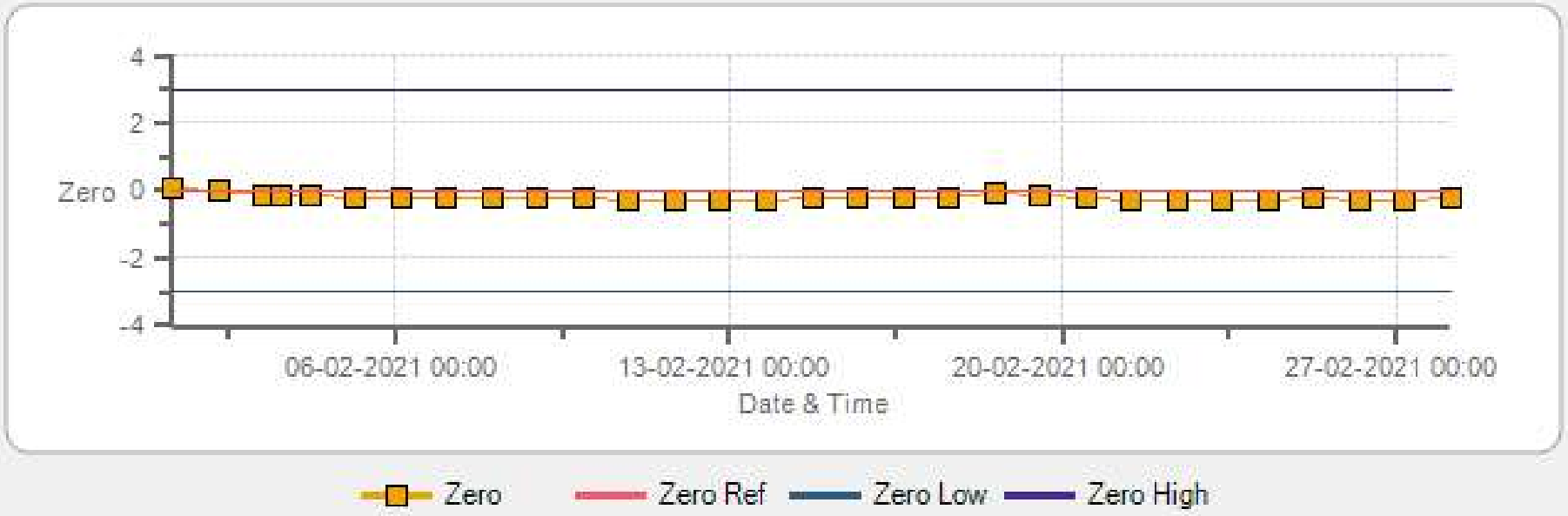
H2S[ppb] Calibration: St. Lina Monthly: 02-2021 Type: SpanAndZero - Zero



H2S[ppb] Calibration: St. Lina Monthly: 02-2021 Type: SpanAndZero - Span



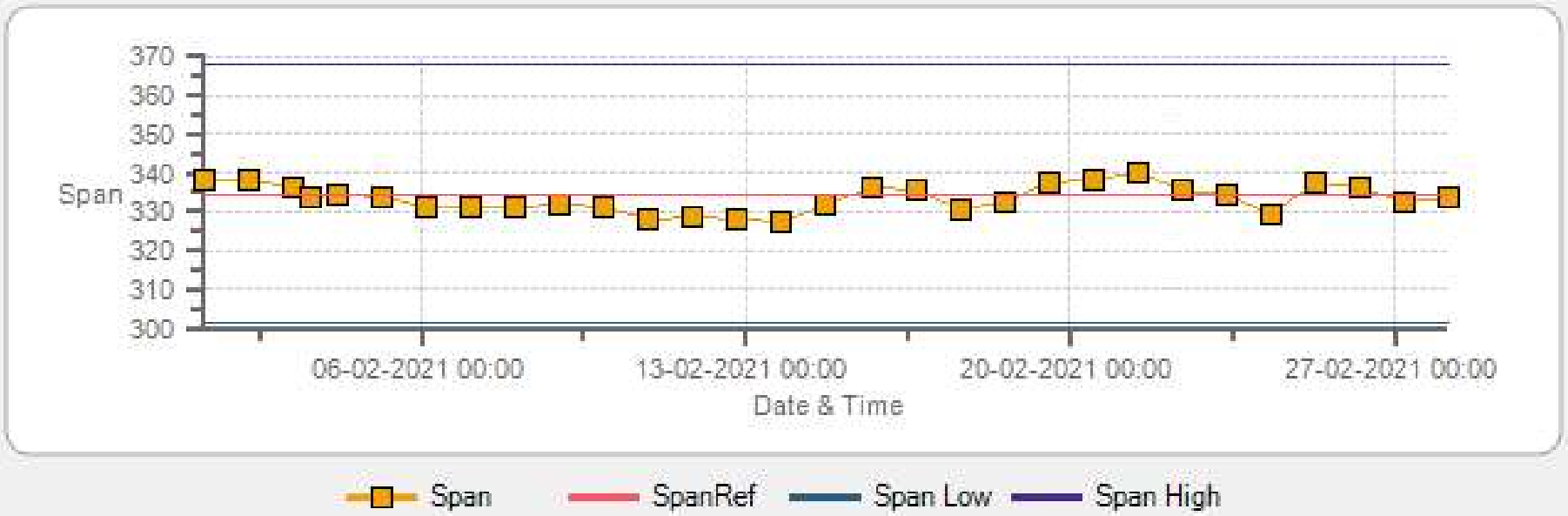
NOX[ppb] Calibration: St. Lina Monthly: 02-2021 Type: SpanAndZero - Zero

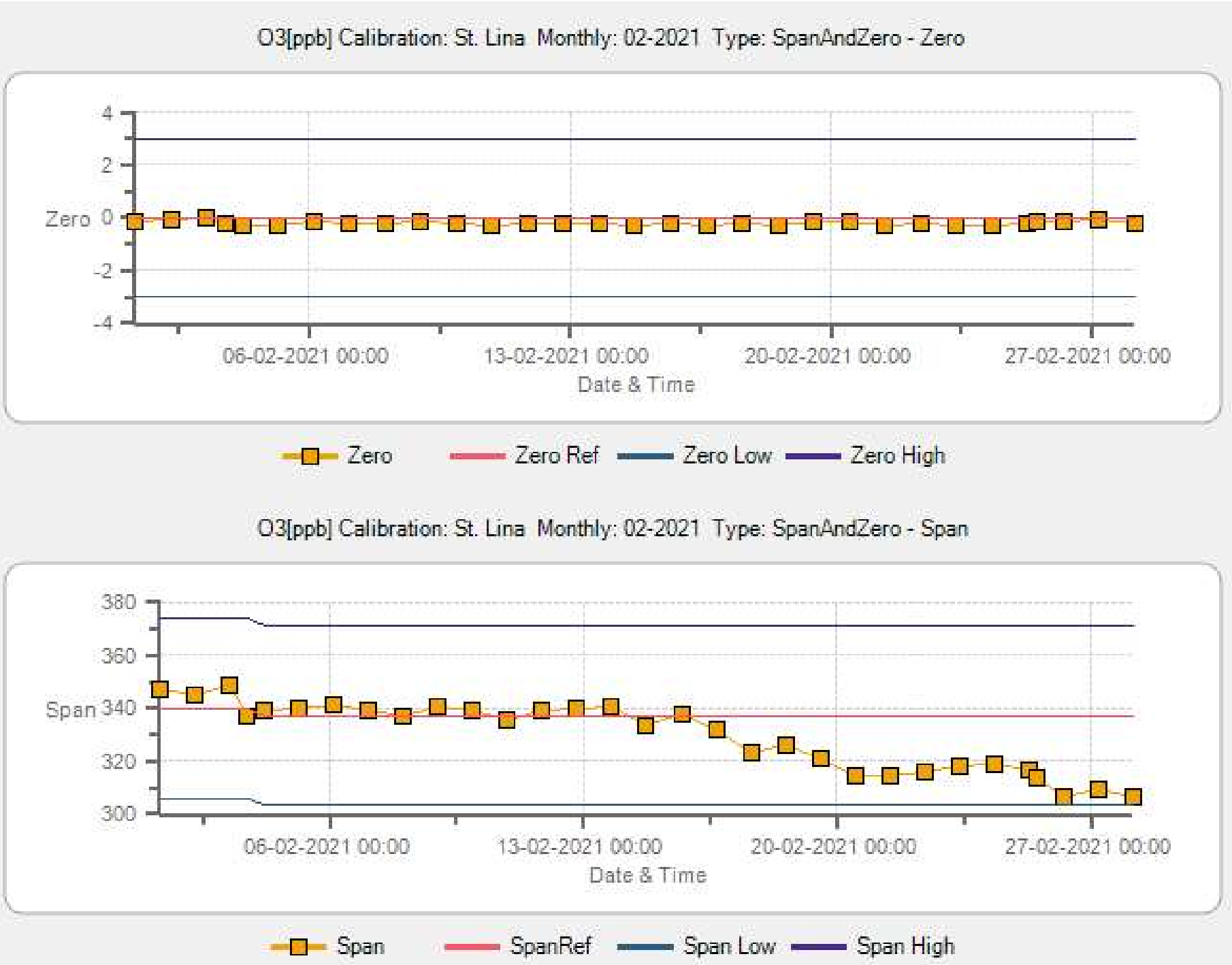


NOX[ppb] Calibration: St. Lina Monthly: 02-2021 Type: SpanAndZero - Span

NO2[ppb] Calibration: St. Lina Monthly: 02-2021 Type: SpanAndZero - Zero

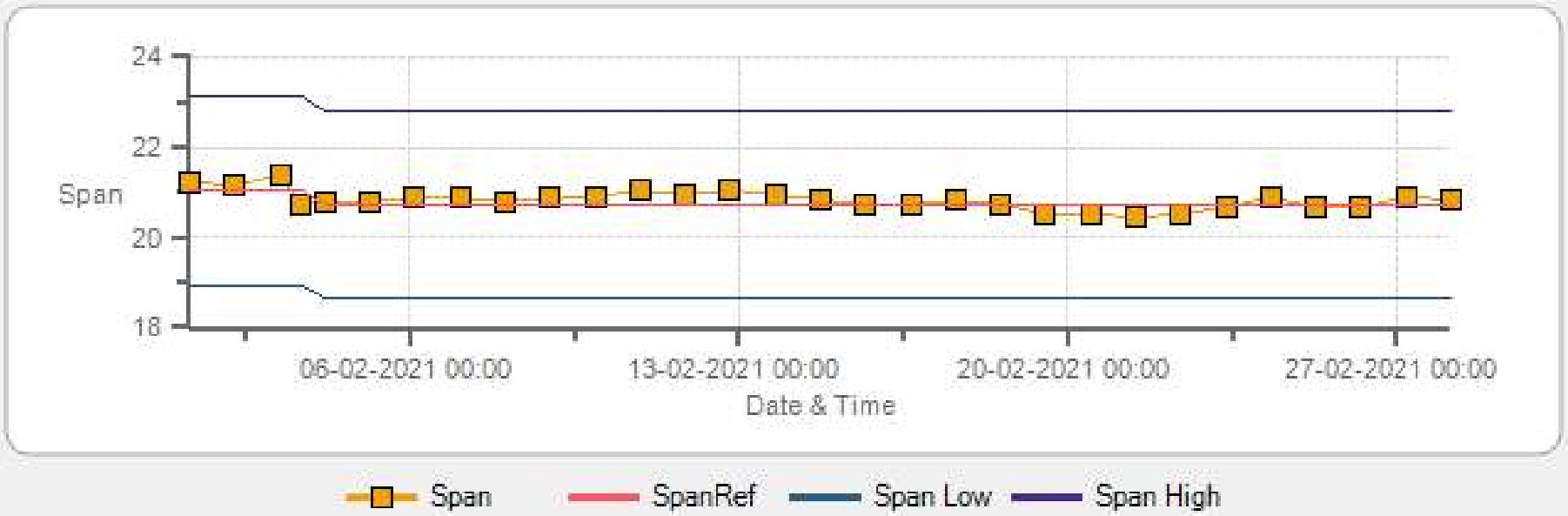
NO2[ppb] Calibration: St. Lina Monthly: 02-2021 Type: SpanAndZero - Span




O3[ppb] Calibration: St. Lina Monthly: 02-2021 Type: SpanAndZero - Zero
4
2
Zero 0
-2
-4
06-02-2021 00:00
13-02-2021 00:00
20-02-2021 00:00
27-02-2021 00:00
Date & Time
Zero
Zero Ref
Zero Low
Zero High
O3[ppb] Calibration: St. Lina Monthly: 02-2021 Type: SpanAndZero - Span
380
360
Span 340
320
300
06-02-2021 00:00
13-02-2021 00:00
20-02-2021 00:00
27-02-2021 00:00
Date & Time
Span
SpanRef
Span Low
Span High

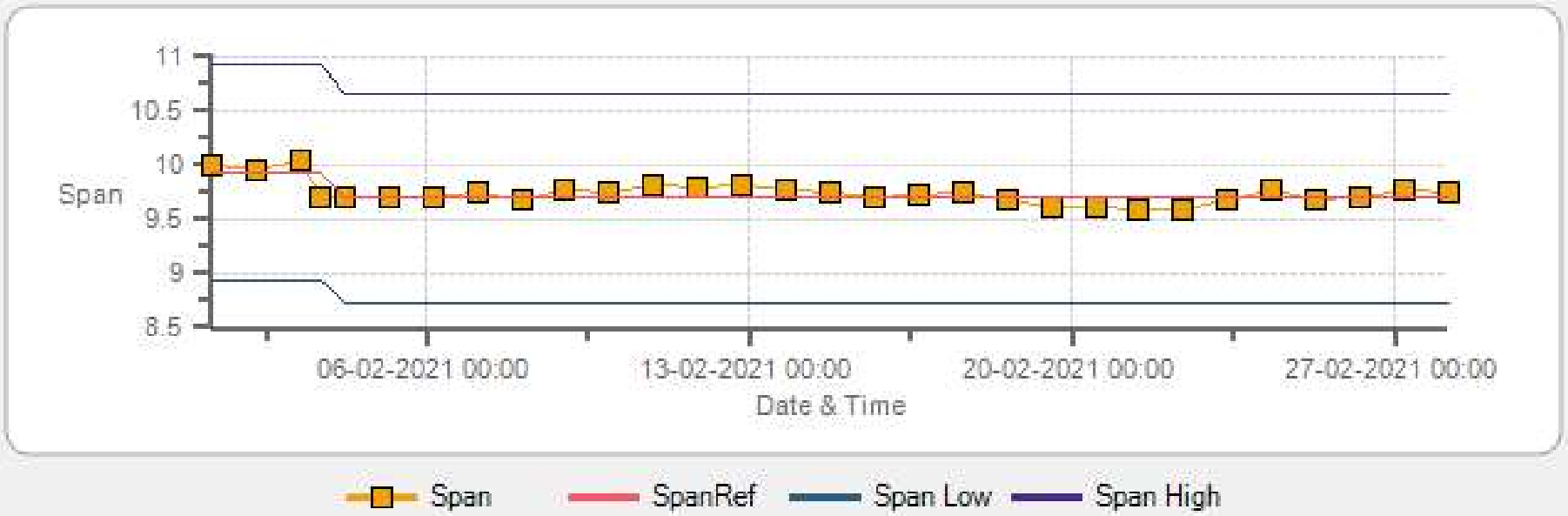
THC55[ppm] Calibration: St. Lina Monthly: 02-2021 Type: SpanAndZero - Zero

THC55[ppm] Calibration: St. Lina Monthly: 02-2021 Type: SpanAndZero - Span



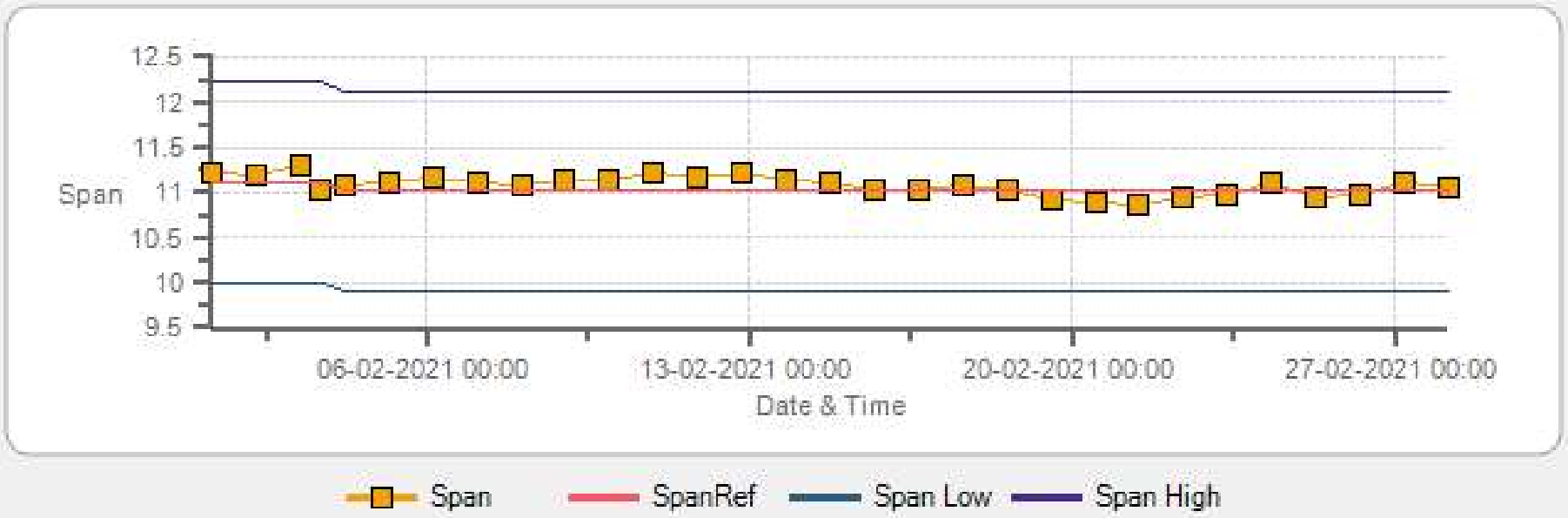
CH4[ppm] Calibration: St. Lina Monthly: 02-2021 Type: SpanAndZero - Zero

CH4[ppm] Calibration: St. Lina Monthly: 02-2021 Type: SpanAndZero - Span



NMHC[ppm] Calibration: St. Lina Monthly: 02-2021 Type: SpanAndZero - Zero

NMHC[ppm] Calibration: St. Lina Monthly: 02-2021 Type: SpanAndZero - Span



MULTI-POINT CALIBRATION RECORDS

SO2 Analyzer Calibration by Dilution

DATE:	03-Feb-2021	PREVIOUS CALIBRATION DATE:	14-Jan-2021
PARAMETER:	SO2	PREVIOUS CORRECTION FACTOR:	0.999
CLIENT:	LICA	TEMPERATURE (°C):	21.9
LOCATION:	St. Lina	BAROMETRIC (mBar):	919
PURPOSE	Routine	START TIME (MST):	09:15
PERFORMED BY:	Limin Li	END TIME (MST):	12:51

ANALYZER:

MAKE/MODEL	Thermo 43I-TLE	RANGE	500 ppb
SERIAL #	1180930030	FLOW (mL/min)	428
INITIAL		FINAL	
BKG/OFFSET	4.43	BKG/OFFSET	4.47
COEF/SLOPE	1.153	COEF/SLOPE	1.16
Expected (reference) Value	385	Expected (reference) Value	385

CALIBRATION SYSTEM:

CALIBRATOR:		ZERO AIR:	
MAKE:	SABIO	MAKE:	Teledyne
MODEL:	2010	MODEL:	701
ID:	17200415	ID:	1105
MFC CALIBRATION DATE:	01-Oct-2020	OXIDIZER ID:	n/a
CALIBRATION GAS:		FLOWMETERS (if applicable):	
CYLINDER ID:	EY 0001011	HIGH ID	n/a
CONC (ppm):	50.10	EXPIRY DATE	n/a
CYLINDER (psi):	600	LOW ID	n/a
EXPIRY DATE	01-Jul-2027	EXPIRY DATE	n/a

CALIBRATION PARAMETERS:

POINT	HIGH	MID	LOW
TARGET	390	190	95
RANGE	300 - 400	150 - 200	50 - 100

SCRUBBER CHECK (15 MINS; TRS/H2S ONLY):

START TIME:	n/a	SO2 Conc (ppb)	n/a
END TIME:	n/a	Analyzer Response (ppb)	n/a

CALIBRATION:

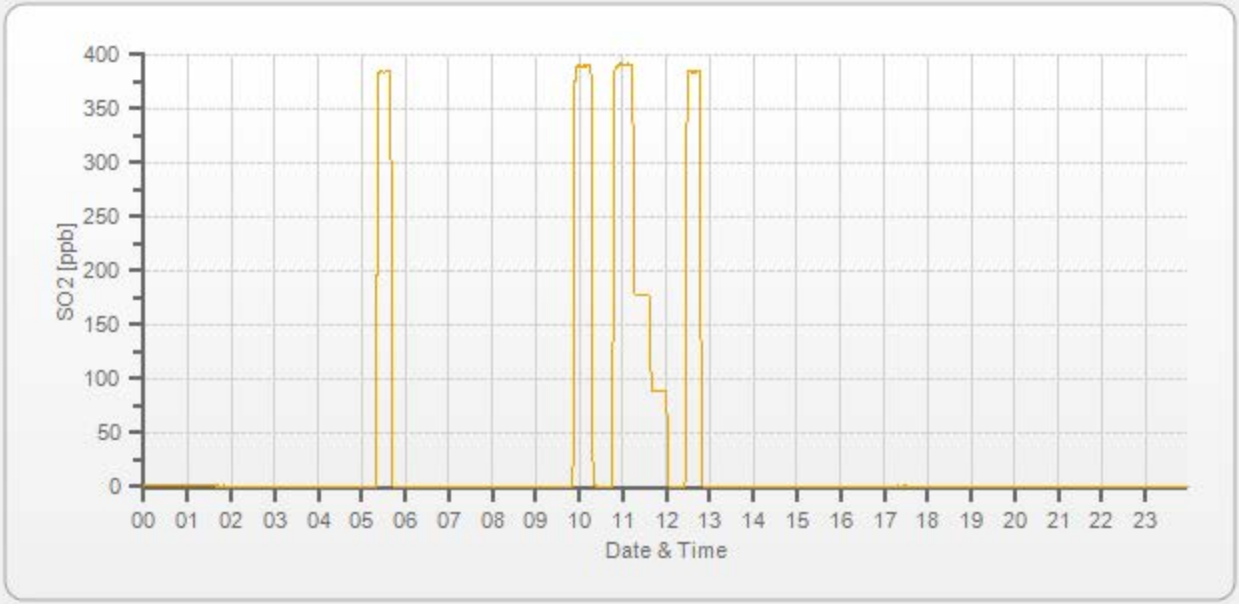
FLOW RATES (mL/min)			CONCENTRATION (ppb)			CORRECTION FACTOR	
			ACTUAL	INDICATED		Initial	Final
DILUENT	GAS	TOTAL		Initial	Final		
6000		6000	0.00	0	0		
5953	46.80	6000	390.78	389.7	391	1.003	0.999
5979	21.30	6000	177.86	n/a	177.7	n/a	1.001
5989	10.70	6000	89.35	n/a	88.3	n/a	1.012

LINEAR REGRESSION ANALYSIS:

	CORRELATION	SLOPE	INTERCEPT
VALUE	1.000	1.002	-0.1%

COMMENTS:

Sample inlet filter was changed.


SO2[ppb] Station: St. Lina Daily: 03-02-2021 Type: AVG 1 Min. [1 Min.]
SO2 [ppb]
400
350
300
250
200
150
100
50
0
00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23
Date & Time
SO2 [ppb]

H2S Analyzer Calibration by Dilution

DATE:	03-Feb-2021	PREVIOUS CALIBRATION DATE:	14-Jan-2021
PARAMETER:	H2S	PREVIOUS CORRECTION FACTOR:	0.999
CLIENT:	LICA	TEMPERATURE (°C):	21.9
LOCATION:	St. Lina	BAROMETRIC (mBar):	919
PURPOSE	Routine	START TIME (MST):	09:15
PERFORMED BY:	Limin Li	END TIME (MST):	14:00

ANALYZER:

MAKE/MODEL	Thermo 450i	RANGE	100 ppb
SERIAL #	CM 18010058	FLOW (mL/min)	818
INITIAL		FINAL	
BKG/OFFSET	52.9	BKG/OFFSET	49.9
COEF/SLOPE	0.865	COEF/SLOPE	0.854
Expected (reference) Value	63.3	Expected (reference) Value	67.7

CALIBRATION SYSTEM:

CALIBRATOR:		ZERO AIR:	
MAKE:	Environics	MAKE:	Teledyne
MODEL:	6100	MODEL:	701
ID:	5212	ID:	1105
MFC CALIBRATION DATE:	28-Sep-2020	OXIDIZER ID:	n/a
CALIBRATION GAS:		FLOWMETERS (if applicable):	
CYLINDER ID:	EY0001074	HIGH ID	n/a
CONC (ppm):	10.00	EXPIRY DATE	n/a
CYLINDER (psi):	1600	LOW ID	n/a
EXPIRY DATE	16-Jul-2022	EXPIRY DATE	n/a

CALIBRATION PARAMETERS:

POINT	HIGH	MID	LOW
TARGET	78	38	19
RANGE	60 - 80	30 - 40	10 - 20

SCRUBBER CHECK (15 MINS; TRS/H2S ONLY):

START TIME:	09:43	SO2 Conc (ppb)	380
END TIME:	10:03	Analyzer Response (ppb)	0.0

CALIBRATION:

FLOW RATES (mL/min)			CONCENTRATION (ppb)			CORRECTION FACTOR	
			ACTUAL	INDICATED		Initial	Final
DILUENT	GAS	TOTAL		Initial	Final		
7500		7500	0.00	-2	0		
7442	58.50	7500	78.00	76.5	78.1	0.994	0.999
7472	28.50	7500	38.00	n/a	38	n/a	1.000
7486	14.25	7500	19.00	n/a	18.9	n/a	1.005

LINEAR REGRESSION ANALYSIS:

	CORRELATION	SLOPE	INTERCEPT
VALUE	1.000	1.002	-0.1%

COMMENTS:

Sample inlet filter was changed. Repurge regulator at 10:24am.


H2S[ppb] Station: St. Lina Daily: 03-02-2021 Type: AVG 1 Min. [1 Min.]
H2S [ppb]
80
70
60
50
40
30
20
10
0
00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23
Date & Time
H2S [ppb]

NOx Calibration by Dilution/Gas-Phase Titration

CALIBRATION:				ANALYZER:			
DATE:	03-Feb-2021	PREVIOUS CALIBRATION DATE:	14-Jan-2021	MAKE/MODEL:	Thermo 42i	PREVIOUS CF.	
CLIENT:	LICA	TEMPERATURE (°C):	21.9	SERIAL #:	1180930029	NOx	1.000
LOCATION:	St. Lina	BAROMETRIC (mBar):	919	FLOW (mL/min)	481	NO	1.000
PURPOSE	Routine	START TIME (MST):	09:15	RANGE (ppb)	500	NO2	1.000
PERFORMED BY:	Limin Li	END TIME (MST):	14:50	GPT FOR O3?		Yes	

CALIBRATION SYSTEM:

CALIBRATOR:		ZERO AIR:		CALIBRATION GAS:			FLOWMETERS (if applicable):	
MAKE:	SABIO	MAKE:	Teledyne	CYLINDER ID:	EY 0001011		HIGH ID:	n/a
MODEL:	2010	MODEL:	701	NO/NOx (PPM):	50.6	50.8	HIGH EXPIRY:	n/a
ID:	17200415	ID:	1105	CYLINDER (psi):	600		LOW ID:	n/a
MFC CALIBRATION DATE:	01-Oct-2020	OXIDIZER ID:	n/a	EXPIRY DATE	01-Jul-2027		LOW EXPIRY:	n/a

CALIBRATION SETTINGS:

INITIAL	NOx	NO	NO2	FINAL	NOx	NO	NO2
BKG/OFFSET:	6.3	6	n/a	BKG/OFFSET:	6.3	6	n/a
SLOPE/COEF/CE:	1.004	1.283	0.999	SLOPE/COEF/CE:	1.005	1.28	0.999

EXPECTED (REFERENCE) VALUE:

INITIAL	NOx	NO	NO2	FINAL	NOx	NO	NO2
	336.8	2.4	334.5		336.8	2.4	334.5

CALIBRATION PARAMETERS:

POINT	NO TARGET (PPB)	NO2 TARGET (PPB)	NO2 RANGE	O3 POINT
HIGH	395	250	240-275	n/a
MID	180	154	150-157	Mid
LOW	90	54	50-58	Low
EXTRA 1	n/a	340	300-370	High

NO/NOx CALIBRATION:

FLOW RATE (mL/min)			CONCENTRATION (ppb)									CORRECTION FACTOR (CF.)					
			CALCULATED			INITIAL INDICATED			FINAL INDICATED			INITIAL			FINAL		
DILUENT	GAS	TOTAL	NO	NOx	NO2	NO	NOx	NO2	NO	NOx	NO2	NO	NOx	NO2	NO	NOx	NO2
6000		6000	0.0	0.0	0.0	-0.2	0.3	0.5	0.0	0.0	0.0						
5953	46.80	6000	394.7	396.2	1.6	397.5	399.4	1.9	395.0	396.0	1.0	0.992	0.993		0.999	1.001	
5979	21.30	6000	179.6	180.3	0.7	n/a	n/a	n/a	179.9	180.6	0.7	n/a	n/a		0.998	0.999	
5989	10.70	6000	90.2	90.6	0.4	n/a	n/a	n/a	89.6	89.9	0.3	n/a	n/a		1.007	1.008	

GPT CALIBRATION:

Point	CALIBRATOR			INDICATED (ppb)			NO DROP / O3 Conc (ppb)	NO2 GAIN (ppb)	NO2 Corr. FACTOR	CONV. EFFICIENCY
	GAS	TOTAL	O3 SETPOINT	NO	NOx	NO2				
REFERENCE	39.00	5000	0	396.0	398.0	2.0				
AS-FOUND HIGH	39.00	5000	250	132.0	398.0	266.0	264	264	1.000	100.00%
ADJUSTED HIGH	n/a	5000	n/a	n/a	n/a	n/a	n/a	**n/a**	**n/a**	n/a
MID	39.00	5000	148	240.0	398.0	158.0	156	156	1.000	100.00%
LOW	39.00	5000	50	342.0	397.0	55.0	54	53	1.019	98.15%
NO2 adjustment not required.									AVERAGE:	99.38%

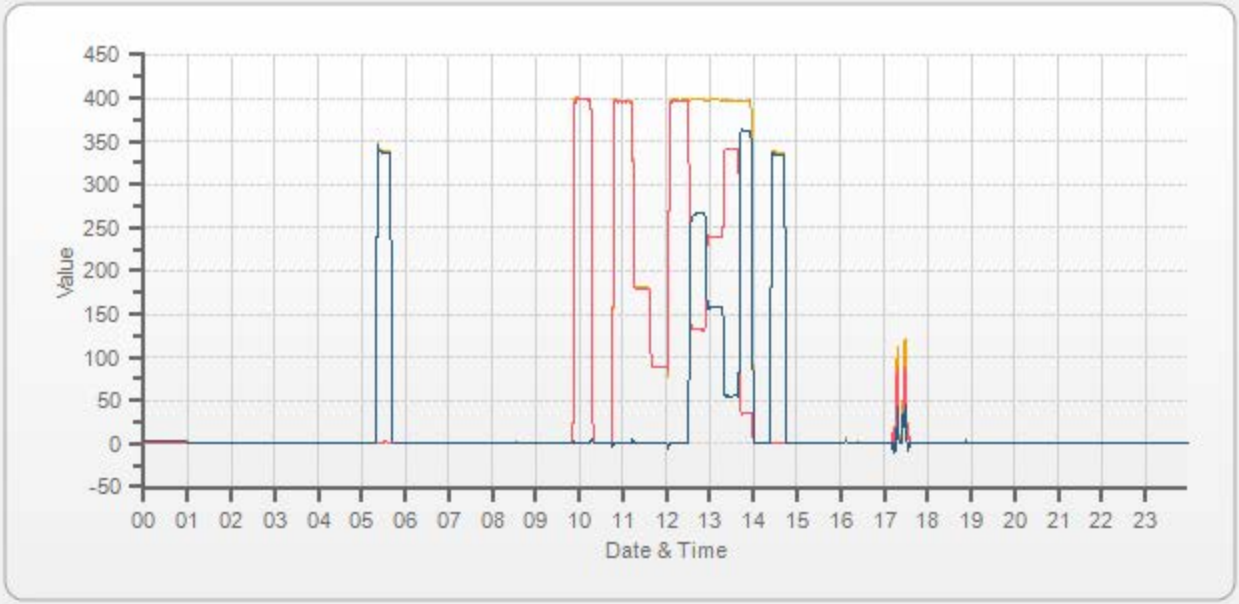
LINEAR REGRESSION ANALYSIS:

	CORRELATION	SLOPE	INTERCEPT
NO	1.000	1.001	-0.05%
NOx	1.000	1.000	-0.03%
NO2	1.000	1.005	-0.22%

COMMENTS:

Sample inlet filter was changed.
Extra point for O3: setpoint=340ppb, NO= 35.7, NO2=362, NOX=397.7.

Station: St. Lina Daily: 03-02-2021 Type: AVG 1 Min. [1 Min.]



Ozone Calibration by Direct GPT

DATE:	03-Feb-2021	PREVIOUS CALIBRATION DATE:	13-Jan-2021
PARAMETER:	O3	PREVIOUS CORRECTION FACTOR:	0.997
CLIENT:	LICA	TEMPERATURE (°C):	23.5
LOCATION:	St. Lina	BAROMETRIC (mBar):	919
PURPOSE	Routine	START TIME (MST):	13:58
PERFORMED BY:	Limin Li	END TIME (MST):	17:42

ANALYZER:

MAKE/MODEL	Thermo 49i	RANGE	500 ppb
SERIAL #	1002240371	FLOW (mL/min)	1483
INITIAL		FINAL	
BKG/OFFSET	0	BKG/OFFSET	0.2
COEF/SLOPE	1.007	COEF/SLOPE	0.979
Expected (reference) Value	340	Expected (reference) Value	337.2

CALIBRATION SYSTEM:

CALIBRATOR:		ZERO AIR:	
MAKE:	SABIO	MAKE:	Teledyne
MODEL:	2010	MODEL:	701
ID:	17200415	ID:	1105
MFC CALIBRATION DATE:	01-Oct-2020	OXIDIZER ID:	n/a
	CALIBRATION METHOD:	Direct GPT	
GPT DATE:	03-Feb-2021	GPT END TIME:	14:00

CALIBRATION PARAMETERS:

POINT	HIGH	MID	LOW
RANGE	300 - 400	150 - 200	50 - 100

CALIBRATION:

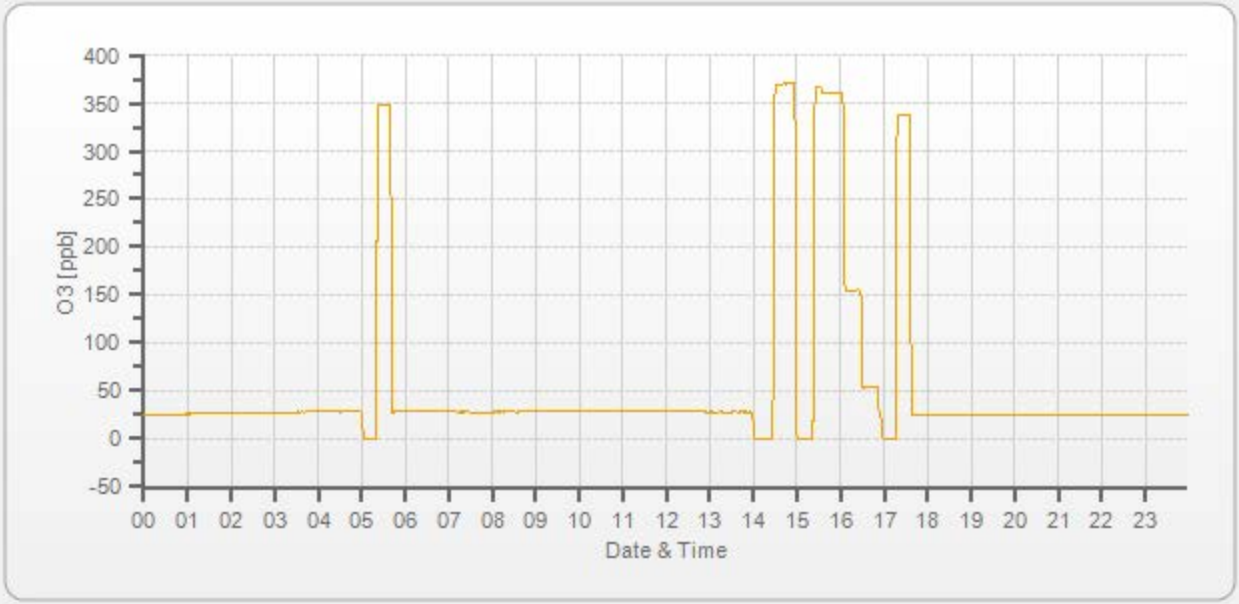
FLOW RATES (mL/min)			CONCENTRATION (ppb)			CORRECTION FACTOR	
			ACTUAL	INDICATED		Initial	Final
DILUENT	GAS	TOTAL		Initial	Final		
5000		5000	0.0	0.2	0.0		
5000		5000	360.0	370.0	360.0	0.973	1.000
5000		5000	156.0	n/a	155.0	n/a	1.006
5000		5000	54.0	n/a	53.3	n/a	1.013

LINEAR REGRESSION ANALYSIS:

	CORRELATION	SLOPE	INTERCEPT
VALUE	1.000	1.001	-0.1%

COMMENTS:

Sample inlet filter was changed.


O3[ppb] Station: St. Lina Daily: 03-02-2021 Type: AVG 1 Min. [1 Min.]
400
350
300
250
200
150
100
50
0
-50
O3 [ppb]
00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23
Date & Time
O3 [ppb]

Methane/Non-Methane Analyzer Calibration by Dilution

CALIBRATION:

DATE:	03-Feb-2021	PREVIOUS CALIBRATION DATE:	20-Jan-2021
CLIENT:	LICA	TEMPERATURE (°C):	23.5
LOCATION:	St. Lina	BAROMETRIC (mBar):	919
PURPOSE	Routine	START TIME (MST):	13:11
PERFORMED BY:	Limin Li	END TIME (MST):	16:43

ANALYZER:

VALUE	MAKE/MODEL	SERIAL	FLOW (mL/min)
	Thermo 55i	1180930025	n/a
PARAMETER:	CH4	NMHC	THC
RANGE (ppm):	20	20	40
PREVIOUS CF:	1.000	0.995	0.998

CALIBRATION SYSTEM:

CALIBRATOR:		ZERO AIR:		CALIBRATION GAS:			FLOWMETERS (if applicable):	
MAKE:	Environics	MAKE:	Teledyne	CYLINDER ID:	LL 70331		HIGH ID:	n/a
MODEL:	6100	MODEL:	701	CH_4/C_3H_8 (ppm):	909.0	308.0	HIGH EXPIRY:	n/a
ID:	5212	ID:	1105	CYLINDER (psi):	1700		LOW ID:	n/a
MFC CALIBRATION DATE:	28-Sep-2020	OXIDIZER ID:	111	EXPIRY DATE	21-Jan-2028		LOW EXPIRY:	n/a

CALIBRATION PARAMETERS:

POINT (CH4/NMHC)	HIGH	MID	LOW	CH4 EQUIVILANCE	
TARGET	14	7	3.5	C_3H_8 as CH_4	847.0
RANGE	12 - 16	6 - 8	2 - 4	THC as CH_4	1756.0

EXPECTED (REFERENCE) VALUE:

INITIAL	CH4	NMHC	THC	FINAL	CH4	NMHC	THC
	9.42	10.81	20.23		9.70	11.02	20.71

CALIBRATION:

FLOW RATE (mL/min)			CONCENTRATION (PPM)									CORRECTION FACTOR (CF.)					
			CALCULATED			INITIAL INDICATED			FINAL INDICATED			INITIAL			FINAL		
DILUENT	GAS	TOTAL	CH4	NMHC	THC	CH4	NMHC	THC	CH4	NMHC	THC	CH4	NMHC	THC	CH4	NMHC	THC
3500		3500	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00						
3444	55.80	3500	14.49	13.50	28.00	15.03	13.70	28.73	14.48	13.48	27.96	0.964	0.986	0.974	1.001	1.002	1.001
3472	27.90	3500	7.25	6.75	14.00	n/a	n/a	n/a	7.14	6.69	13.83	n/a	n/a	n/a	1.015	1.009	1.012
3486	13.95	3500	3.62	3.38	7.00	n/a	n/a	n/a	3.54	3.32	6.86	n/a	n/a	n/a	1.023	1.017	1.020

LINEAR REGRESSION ANALYSIS:

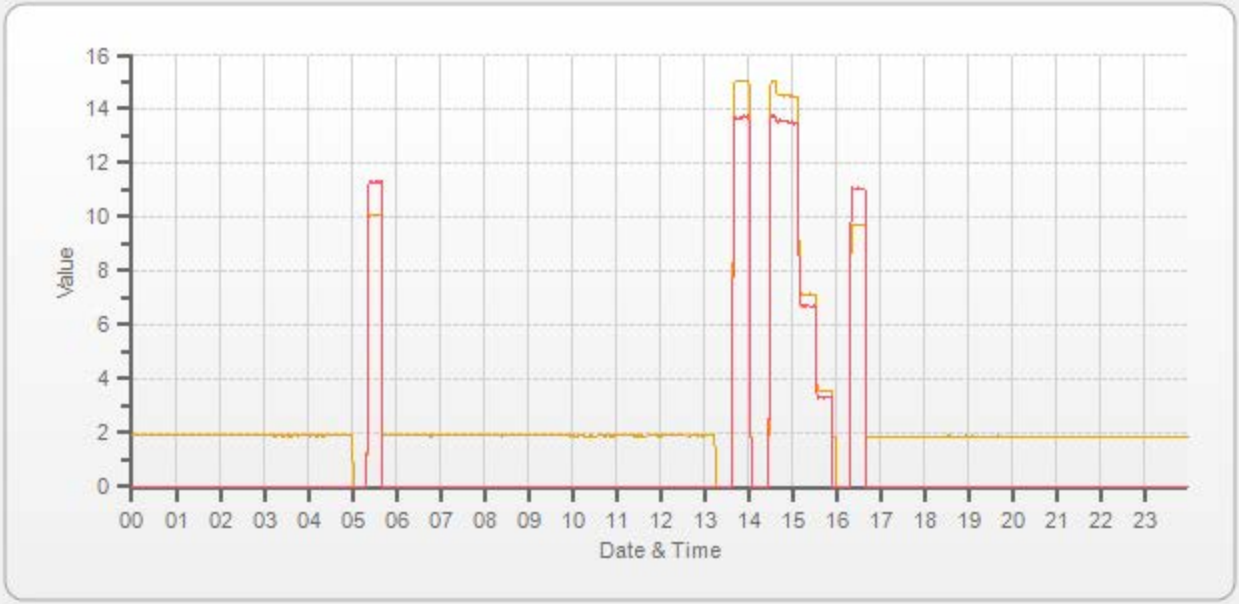
	CORRELATION	SLOPE	INTERCEPT
CH4	1.000	1.000	-0.3%
NMHC	1.000	0.999	-0.1%
THC	1.000	1.000	-0.2%

Comments:

Sample filter was changed.

Use Zero Chrom? **Yes**

Station: St. Lina Daily: 03-02-2021 Type: AVG 1 Min. [1 Min.]



Thermo 5030i SHARP Monitor Monthly Check

Date:	February 17, 2021	**Performed By/Reviewer:**	Chris Wesson | Chris Wesson
Company:	LICA	**Start Time (mst):**	13:35
Station Name/Location:	St. Lina	**End Time (mst):**	14:47
Previous Audit Date:	January 14, 2021	**Calibration Purpose:**	routine monthly
Parameter:	PM 2.5	**Weather Conditions:**	Mainly sunny

SHARP 5030i Information and Status:

Serial Number: CM 17091001 **Filter Tape Counter** 513 / 1

Reference Standards:

	Air Flow			
	Manometer	**Orifice**	**Pressure:**	**Temp / RH:**
Make:	DeltaCal	DeltaCal	DeltaCal	Fisher
Model:	DC1	DC1	DC1	11-661-7A 11755843
Serial Number:	177246	177246	177246	170286131
Calibration Expiration Date:	March 27, 2021	March 27, 2021	March 27, 2021	June 5, 2021

Ambient Temperature (°C)

	Reference	SHARP	Difference
#1	-9.30	-7.9	-1.4

Range	Action
< ± 2°C	OK
2-3 °C	Recalibrate
> 3°C	*Fail*

Ambient Relative Humidity (%RH)

As Found:

	Reference	SHARP	Difference
#1	54.90	50.5	4.4

Range	Action
< ± 2 %RH	OK
2-5 %RH	Recalibrate
> 5 %RH	*Fail*

Barometric Pressure (mmHg)

As Found:

	Reference	SHARP	Difference
#1	698.5	700.2	-1.7

Range	Action
< ± 10 mmHg	OK
10-12 mmHg	Recalibrate
> 12 mmHg	*Fail*

Flow Audit (L/min)

As Found:

	Reference	SHARP		
#1	16.45	16.68	% Difference	1.42%
#2	16.43	16.67		
#3	16.44	16.67		
Average	16.44	16.67		

Range	Action
< ± 4%	OK
4-5%	Recalibrate
>5%	*Fail*

Leak Check (L/min)

	Without Leak Check Adapter			With leak Check Adapter			
	Reference	**SHARP**	**Difference**	**Reference**	**SHARP**	**Difference**	
#1	16.44	16.67	-0.23	16.23	16.66	-0.43	*Leak Limit: 0.80 L/min*
					LEAK RATE:	**-0.20**	

Meteorological System Checklist

Date:	2021/02/03/ 12:48AM		
Technician:	Limin Li		
Station:	St. Lina		
Unit:	**Make:**	**Model:**	**Serial #:**
Precipitation Sampler:	Met One	387D	A23775
Temperature Sensor:	VAISALA	HMP 155A	R2640785 2019
Barometric Pressure Sensor:	Met One	090D	F4498
Relative Humidity Sensor:	VAISALA	HMP 155A	R2640785 2019
Anemometer:	RM Young	05305VK	n/a

AMBIENT TEMPERATURE SENSOR CHECK

Previous check date:	n/a
Parameter:	Temperature @ 2 metres
Reference Thermometer ID:	FS 160459244 expires June 10, 2021
Reference Temperature (^{o}C):	16.9
Station - Ambient Temperature (^{o}C):	17.5
Temperature Difference (^{o}C):	-0.6

BAROMETRIC PRESSURE SENSOR CHECK

Previous check date:	n/a	
Reference Barometer ID:	BRUNTON 5490, expire date: Jan 12, 2022.	
Reference Pressure - Units/Reading:	millibar	933
Station Pressure - Units/Reading:	millibar	919
Pressure Tolerance +/- 15% of error:	793 - 1073	1.50%

RELATIVE HUMIDITY (HYGROMETER) SENSOR CHECK

Previous check date:	n/a	
Reference Hygrometer ID:	FS 160459244 expires June 10, 2021	
Reference Hygrometer % RH- Reading:	60.10	
Station Hygrometer % RH- Reading:	66.50	
RH Tolerance +/- 15% of difference:	51.09 - 69.12	-10.6%

ANEMOMETER - WIND SPEED & WIND DIRECTION SENSOR CHECK

WIND SPEED		WIND DIRECTION	
Previous check date:		Previous check date:	
Wind Speed Observed (kph):	10~20	Wind Direction Observed:	NW
Wind speed on Data Logger (kph):	16.5	Wind Direction on Data Logger:	NW
		Wind Direction Pass/Fail?:	Pass

Comments

Meteorological Sensor Audit/Calibration

Location Information

Company:	LICA	**Performed By:**	Alex Yakupov
Audit Location:	St. Lina	**Reviewed By:**	Chris Wesson
Audit Date:	26/02/2020	**Start/End Time (mst):**	12:38 / 15:06
Calibration Purpose:	installation	**Weather Conditions:**	Mainly sunny

Wind Sensor Information

Sensor ID Data:		**Sensor Outputs:**	
Sensor Make:	RM Young	**Velocity Voltage Output Range:**	0-1 V
Sensor Model:	05305VK	**Velocity Unit Output Range:**	0-200 km/h
Serial #:	161466	**Direction Voltage Output Range:**	0-1 V
Previous Cal/Audit Date:	October 9, 2019	**Direction Unit Output Range:**	0-360 degrees

Wind Calibrator Information

Calibrator I.D. and Expiry Date: : Model 18860-90/18802 SN: CA 4744, expires - June 19, 2020 (ownership - LICA).

Wind Speed Audit Data **+/- 2% of the average correction factor is the limit**

RPM	Wind Speed Generated kph	Clockwise Wind Speed kph	Counter Clockwise Wind Speed kph	Correction Factor
0	0	0.1	0.0	-
1000	18.4	18.5	18.5	0.995
2000	36.9	37.0	37.0	0.997
3000	55.3	55.5	55.5	0.996
4000	73.7	74.0	74.0	0.996
5000	92.2	92.6	92.6	0.996
6000	110.6	111.1	111.1	0.995
7000	129.0	129.7	129.7	0.995
8000	147.4	148.3	148.3	0.994
9000	165.9	166.9	166.9	0.994
10000	184.3	185.5	185.5	0.994
		The audit meets AMD requirements.	**Average Correction Factor=**	**0.995**

Wind Direction Audit Data **+/- 3° of the absolute average degrees difference for all points is the limit**

Generated Wind Direction 0-360 (Up)	Generated Wind Direction 360-0 (Down)	Indicated Wind Direction 0-360 (Up)	Indicated Wind Direction 360-0 (Down)	Degrees Difference 0-360 (Up)	Degrees Difference 360-0 (Down)	Average Absolute Degrees Difference
0	355	0	354	0.0	0.7	0.3
30	330	32	331	-2.0	-0.5	1.3
60	300	62	300	-2.2	0.0	1.1
90	270	93	271	-3.3	-0.6	2.0
120	240	124	242	-3.6	-1.8	2.7
150	210	153	212	-2.9	-2.4	2.7
180	180	182	183	-2.3	-2.8	2.6
210	150	212	154	-1.9	-3.6	2.8
240	120	242	124	-1.5	-4.4	3.0
270	90	270	94	0.0	-4.2	2.1
300	60	300	63	0.5	-3.1	1.8
330	30	330	33	0.5	-2.5	1.5
355	0	354	1	0.7	1.4	1.0
The audit meets AMD requirements.			**Average Absolute Degrees Difference=**			**1.9**

Comments:

The audit was completed to install LICA RM Young Wind System.

End of Report