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AMBIENT AIR MONITORING MONTHLY DATA REPORT
PEACE RIVER AREA MONITORING PROGRAM COMMITTEE
THREE CREEKS 842B STATION

JOB #: 8449-2018-01-80-C

January 2018

Prepared for:

PEACE RIVER AREA MONITORING PROGRAM COMMITTEE

Attention: LILY LIN

DATE: February 21, 2018

Prepared by:

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SUMMARY

In January 2018, Maxxam Analytics was contracted to manage the ambient air quality monitoring and maintenance activities at the Three Creeks 842b Station, near Peace River Oil Sands Area 2, Alberta. The monitoring station provides continuous meteorological measurements and air quality data for compliance parameters, as requested by the PRAMP Committee.

All data collected this month was compliant with the requirements outlined in the Air Monitoring Directive (Alberta Environment and Parks, 2016).

The operational time for all continuous ambient air analyzers, meteorological systems and data acquisition systems were above the 90% requirement.

TRS: Forty-two hours of downtime were recorded this month.

- Due to an analyzer troubleshooting/maintenance event that occurred between January 3 and January 5, thirty-nine hours of downtime were incurred.
- The analyzer spanned outside the lower acceptance limit on January 12. An as-found response check was promptly completed on the same day. The results met AMD requirements. Three hours of downtime were incurred due to this additional quality check.

THC/CH₄/NMHC: Two hours of downtime were recorded this month.

- One hour of downtime was recorded on January 12 at hour 11:00 due to a firmware crash.
- The pressure sensor configuration for the VOC canister sampler, as requested by PRAMP, was implemented on January 16. The span and fuel (Hydrogen) gas cylinders were replaced and a successful zero-span verification was completed as a quality check. One hour of downtime was recorded at hour 11:00 due to this event.

The summary of results is presented on the following pages.

Any deviations or modifications made to the sampling or analytical methods are outlined in Section 1.0, Discussion. On this basis, Maxxam Analytics is issuing this completed report to Peace River Area Monitoring Program Committee, Three Creeks 842b Station.

Should you have any questions concerning the results or if we can be of further assistance, please contact us at 403-219-3661 or toll-free at 1-800-386-7247.

Monthly Continuous Data Summary

Peace River Area Monitoring Program Committee						MAXIMUM VALUES							OPERATIONAL TIME (%)
Three Creeks 842b Station						1-HOUR					24-HOUR		
PARAMETER	OBJECTIVES		EXCEEDANCES		MONTHLY AVERAGE	READING	DAY	HOUR	WIND SPEED (kph)	WIND DIRECTION (sector)	READING	DAY	
	1-hr	24-hr	1-hr	24-hr									
SO ₂ (ppb)	172	48	0	0	0	1	1	0	3.8	S	1	1	100.0
TRS (ppb)	-	-	-	-	0	0	11	23	2.7	E	0	16	94.4
THC (ppm)	-	-	-	-	2.05	2.46	12	2	3.9	ENE	2.23	12	99.7
CH ₄ (ppm)	-	-	-	-	2.05	2.46	12	2	3.9	ENE	2.23	12	99.7
NMHC (ppm)	-	-	-	-	0.00	0.01	3	18	12.0	SW	0.00	1	99.7
RELATIVE HUMIDITY (%)	-	-	-	-	81	95	4	19	5.2	SE	93	22	100.0
BAROMETRIC PRESSURE (millibar)	-	-	-	-	943	965	28	5	0.5	NNE	961	28	100.0
AMBIENT TEMPERATURE (°C)	-	-	-	-	-12.9	2.7	18	14	15.9	SSW	-0.1	18	100.0
STATION TEMPERATURE (°C)	-	-	-	-	21.0	22.7	3	19	7.4	SW	21.6	4	100.0
VECTOR WS (kph)	-	-	-	-	1.1	23.7	6	12	-	WSW	15.2	6	100.0
VECTOR WD (sec)	-	-	-	-	208 (SSW)	-	-	-	-	-	-	-	100.0

SOUR GAS PROCESSING INDUSTRY
MONTHLY REPORT SUMMARY

Three Creeks 842b Station

Peace River Area Monitoring Program Committee

Plant Name / Location

Company

Licence Number	Report Date	
	YEAR	MONTH
N/A	2018	January

CONTINUOUS AMBIENT MONITORING						
PARAMETER	% TIME OPERATIONAL	ONE - HOUR AVERAGE			24 - HOUR AVERAGE	
		MAXIMUM VALUES	NO. READINGS > REGULATION		MAXIMUM VALUES	NO. READINGS > REGULATION
SO ₂	100.0	0.001 ppm	0		0.001 ppm	0
TRS	94.4	0.000 ppm	-		0.000 ppm	-
THC	99.7	2.46 ppm	-		2.23 ppm	-
CH ₄	99.7	2.46 ppm	-		2.23 ppm	-
NMHC	99.7	0.01 ppm	-		0.00 ppm	-
RH	100.0	95 %	-		93 %	-
BP	100.0	965 mb	-		961 mb	-
Ambient TPX	100.0	2.7 °C	-		-0.1 °C	-
Station TPX	100.0	22.7 °C	-		21.6 °C	-
Wind Speed	100.0	23.7 kph	-		15.2 kph	-
Wind Direction	100.0	-	-		-	-

SIGNATURE OF COMPANY REPRESENTATIVE

FOR ALBERTA ENVIRONMENT USE ONLY

Exceedance Summary Report

SO₂ 1-Hour Exceedances

Measured concentrations of sulphur dioxide were below the 1-hour AAAQO of 172 ppb.

SO₂ 24-Hour Exceedances

Measured concentrations of sulphur dioxide were below the 24-hour AAAQO of 48.0 ppb.

In accordance with EPEA and the Substance Release Regulation.

In accordance with A Guide to Release Reporting and the Alberta Ambient Air Quality Objectives and Guidelines Summary.

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1.0 Discussion

This monthly report consists of continuous monitoring results for the following parameters: Sulphur Dioxide (SO₂), Total Reduced Sulphur (TRS), Total Hydrocarbon (THC), Methane (CH₄), Non-Methane Hydrocarbon (NMHC), Relative Humidity (RH), Barometric Pressure (BP), Ambient Temperature (AmbTPX), Station Temperature (StnTPX), Wind Speed (WS) and Wind Direction (WD).

The sample inlet filter for all continuous air analyzers are replaced before the calibration begins. The sample manifold is cleaned during the site visit each month.

Control checks, consisting of a zero and span, are conducted daily on all continuous air monitors. In place of the air sample, zero air (from scrubbed air or gas cylinders) is used for zero checks, and a known concentration of the pollutant being analyzed is used for span checks. These checks are controlled by automatic timers and valves. The total zero span cycle is completed within an hour, the commencement of the zero span cycle is at the beginning of the hour.

Multipoint calibrations are done a minimum of once a month for each continuous air monitor. An additional calibration is required under the following conditions: 1) within three days after the initial start-up and stabilization of a newly installed instrument, 2) prior to shut-down or moving of an instrument which has been working to specification, and 3) when major repair has been done on the instrument.

Time during the first multi-point calibration is not considered downtime (Data is flagged as C). If more than one calibration is performed during the month, the time during the additional calibration is considered as downtime (Data is flagged as C1).

Only one zero/span check is run per day. Time during the zero/span check is not considered as downtime (Data is flagged as S). If an extra zero/span check is performed, the time during the additional check is considered as downtime (Data is flagged as S1).

The AMD requires each instrument and accompanying data recording system to be operational 90% of the time, at a minimum, for each monthly monitoring period.

All sampling, analysis, and QA/QC for this project was performed by Maxxam Analytics and complies with the Alberta Air Monitoring Directive.

Data contained in this monthly report has undergone the verification and validation based on the requirements of the AMD Chapter 6: Ambient Data Quality (December, 2016). The descriptions of the data verification and validation process can be found in Section 5 of this report. Instantaneous data, where applicable, is provided for reference purposes and has not undergone zero correction. The minimum and maximum statistics are highlighted in the data table and are for reference only. The highlighted cells are based on the software's interpretation of the exact position of the minimum or maximum value. The visual presentation of these statistics may not be the obvious choice in a data range due to rounding, truncating or analyzer specifications.

Hourly/minute data have been reviewed based on daily zero/span results and multi-point calibration results. Data may be considered invalid if a zero-corrected span check in excess of +/- 10% of the span concentration (established by the previous multi-point calibration) is encountered and/or significant differences in the calibration factor occurs (greater than 10%).

SULPHUR DIOXIDE (SO₂)

- Operational time, for the monitoring period was 100%.
- The routine monthly calibration was performed on January 4.

TOTAL REDUCED SULPHUR (TRS)

- Operational time, for the monitoring period was 94.4%, equivalent to forty-two hours of downtime.
- The analyzer spanned below the lower acceptance limit on January 2. Two successive span results confirmed the drift. An as-found response check was therefore scheduled for January 3. After an initial attempt that demonstrated a slow response, the regulator was repurged, calibration equipment were checked and the as-found response check was successfully completed afterwards. The span result continued to drift outside the lower acceptance limit following the as-found response check. A shut-down calibration was therefore performed on January 4 in order to renew the scrubber material. The calibration was however deemed unreliable as the analyzer was slow to stabilize. The analyzer was allowed to run overnight to condition the new scrubber material and a successful post-repair calibration was completed on January 5. Data was invalidated back to the successful as-found response check on January 3. Thirty-nine hours of downtime were recorded due to this event.
- The span response on January 11 was close to the lower acceptance limit, and the span check completed on January 12 was outside limits, prompting an immediate site visit where an as-found response check was completed. The results met AMD requirements. It is suspected that the span drift resulted from extreme cold weather conditions as improvements were recorded with increasing ambient temperature. Three hours of downtime were incurred due to this additional quality check.

TOTAL HYDROCARBONS (THC), METHANE (CH₄) and NON-METHANE HYDROCARBONS (NMHC)

- Operational time, for the monitoring period was 99.7%, equivalent to two hours of downtime.
- The routine monthly calibration was performed on January 4.
- Due to a drop in station temperature while the technician moved equipment in/out during a station visit on January 12, the analyzer had a firmware crash. Resetting the analyzer once station temperatures were back in the normal range corrected the problem. One hour of downtime was recorded at hour 11:00 as a result.
- The pressure sensor configuration for the VOC canister sampler, as requested by PRAMP, was implemented on January 16.
- The span and fuel (Hydrogen) gas cylinders were replaced on January 16 and a successful zero-span verification was completed as a quality check. Expected span value was subsequently updated. One hour of downtime was recorded at hour 11:00 due to this event.
- During minute data review, data that were deemed anomalous, due to suspected poor injections, were discarded and the corresponding hourly average was re-calculated. Impacted minute data include: January 3, 15:15-15:16; January 15, 18:56 and January 26, 15:20-15:21.
- The canister sampler is programmed to draw in a whole air sample when the 5-minute average concentration of NMHC is above 0.30 ppm. A representative sample of ambient air is collected over a one-hour period when the canister event is triggered. No canister event was recorded this month.

WIND SPEED (WS) and WIND DIRECTION (WD)

- Operational time, for the monitoring period, was 100%.
- Wind data is reported as vector wind speed and vector wind direction. Wind direction is defined as the direction from which the wind is blowing from and is measured in degrees from true north.

RELATIVE HUMIDITY (RH)

- Operational time, for the monitoring period, was 100%.

BAROMETRIC PRESSURE (BP)

- Operational time, for the monitoring period, was 100%.

AMBIENT TEMPERATURE (AmbTPX)

- Operational time, for the monitoring period, was 100%.

STATION TEMPERATURE (StnTPX)

- Operational time, for the monitoring period, was 100%.

2.0 Project Personnel

Karla Reesor was the contact for Peace River Area Monitoring Program Committee and the Maxxam field technicians were Christopher Wesson and Limin Li.

3.0 Plant Monthly Required AMD Summary

All data collected this month was compliant with the requirements outlined in the Air Monitoring Directive (Alberta Environment and Parks, 2016).

The operational time for all continuous ambient air analyzers, meteorological systems and data acquisition systems were above the 90% requirement.

4.0 Calculations and Results

All calculations and reporting of results follow the methods described in the AMD, 2016.

5.0 Methods and Procedures

The following methods and procedures were used to complete the monitoring program:

Maxxam AIR SOP-00001: Methane, Non-Methane Hydrocarbon Analyzer Monitoring

Maxxam AIR SOP-00208: RM Young Wind Monitor Calibration

Maxxam AIR SOP-00209: Ambient Sulphur Monitoring

There were no deviations from the prescribed methods.

The following instruments were used to perform the test program:

Sulphur Dioxide - Thermo 43i UV Fluorescent Analyzer

Total Reduced Sulphur - Thermo 43i - TLE UV Fluorescent Analyzer

Methane, Non-Methane Hydrocarbon - Thermo 55i FID Analyzer

Wind System - RM Young Unit

Relative Humidity - RM Young Unit

Barometric Pressure - Met One Unit

Ambient Temperature - RM Young Unit

Datalogger - ESC 8832

The following steps were used to complete the data verification and validation process:

Level 0 Preliminary Verification

Level 0 data are raw data obtained directly from the data acquisition system (DAS). Under the step of Level 0, these data undergo a certain amount of manual or automated screening and flagging. It included a) identification of periods of missing data; b) verification of time stamps against reference time; c) verification that instrument diagnostics/datalogger flags indicate normal operation; d) comparison of data to upper and lower limits; e) rate of change flagging indicating that data changed too rapidly or not at all; and f) verification that zero, span and multipoint performance checks are within specifications. This level of verification is performed on a daily basis.

Level 1 Primary Validation

Validation actions under the step of Level 1 include a) review of all screening flags assigned during preliminary verification; b) review of all supporting site information and documentation; c) review of operational acceptance limits for each parameter/analyzer; d) review of daily zero/span and monthly calibration results for all gaseous parameters; and e) application of any necessary adjustments to data (e.g. baseline adjustments, below zero adjustments). This level of validation is performed on a monthly basis.

Level 2 Final Validation

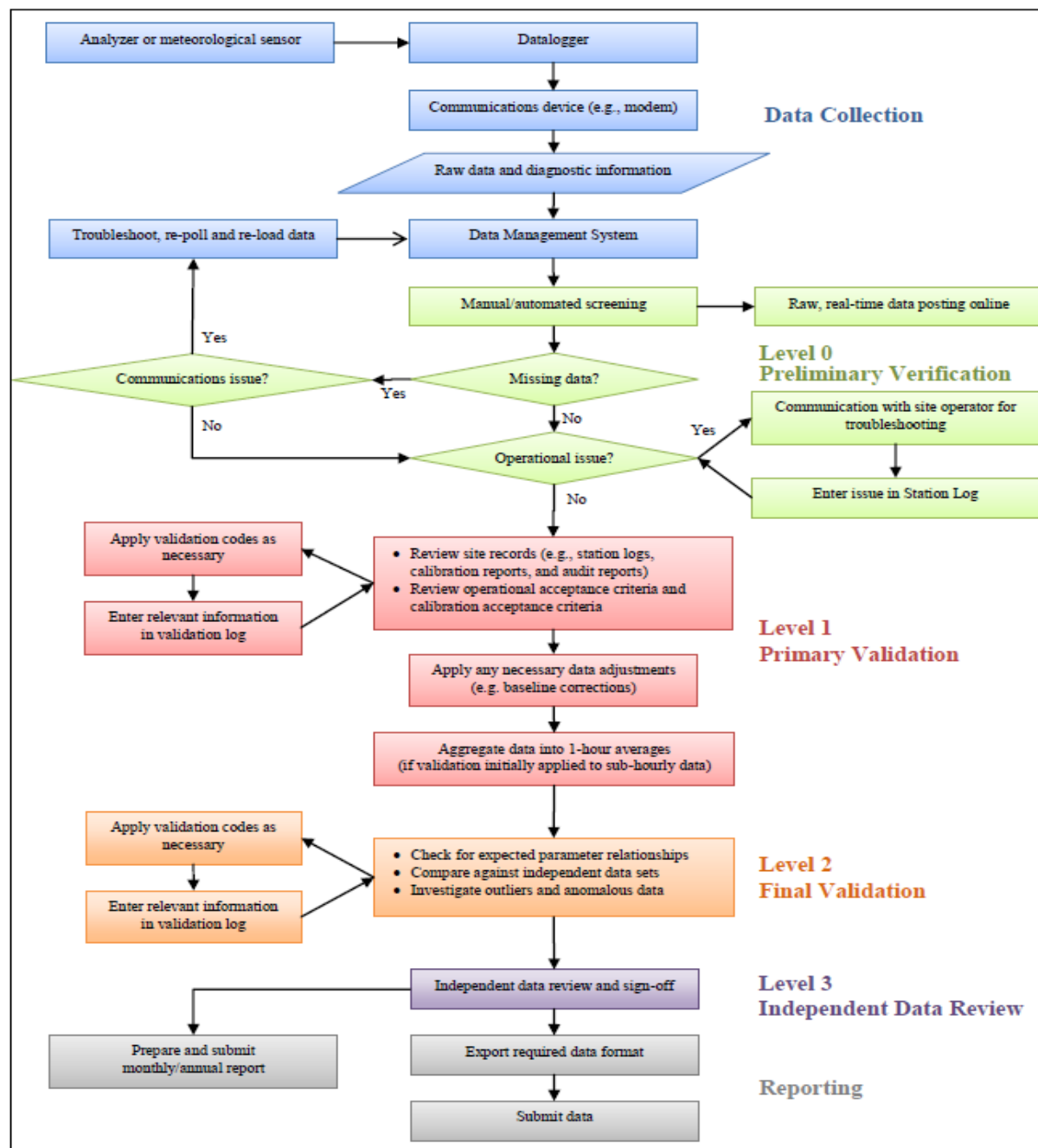
The purpose of Level 2 validation is to verify that there are no inconsistencies among related data, or among regional data measured at nearby sites.

Level 3 Independent Data Review

Level 3 validation is the last step of data review, and it is completed by an individual that is independent of both field operations and primary data validation. A final independent QA review and endorsement is performed during this step before data is submitted to Alberta Environment.

Post-Final Validation

The Post-Final Validation step serves to re-evaluate the data that errors or omissions are discovered and/or suspected after the initial submittal of data. Any data issues or patterns which were not clear on a monthly basis are highlighted during this step. This validation is performed on an annual basis.



Source: Air Monitoring Directive (December 2016), Chapter 6, Ambient Data Quality; Figure 1 Data Collection and Management Process Flow Chart

APPENDIX I
CONTINUOUS MONITORING DATA RESULTS

SULPHUR DIOXIDE

SULPHUR DIOXIDE Hourly Averages (SO₂ ppb)

HR START (MST)	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY	DAILY	24-HR	RDGS.	
HR END (MST)	0:59	1:59	2:59	3:59	4:59	5:59	6:59	7:59	8:59	9:59	10:59	11:59	12:59	13:59	14:59	15:59	16:59	17:59	18:59	19:59	20:59	21:59	22:59	23:59	MIN.	MAX.	AVG.		
DAY																													
1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	0	0	S	0	0	0	0	0	0	0	1	1	24
2	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	24
3	0	0	0	0	0	0	0	0	0	1	1	1	0	0	1	1	S	1	1	0	0	0	0	0	0	0	1	0	24
4	0	0	0	0	0	0	0	0	0	0	0	0	0	C	C	C	C	C	0	0	0	0	0	0	0	0	0	0	24
5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	1	1	0	1	0	0	24
6	1	1	1	1	1	1	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	1	0	24
7	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	24
8	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	0	1	0	24
9	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	24
10	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	24
11	0	0	0	0	0	1	1	1	S	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	24
12	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0	1	0	24
13	0	0	0	0	0	0	S	1	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	24
14	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	24
15	0	0	0	0	S	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	24
16	0	0	0	S	0	0	0	0	0	0	1	1	1	1	1	1	0	0	1	1	1	1	0	1	1	0	1	0	24
17	1	1	S	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	24
18	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	24
19	S	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	S	0	1	0	24
20	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	24
21	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	24
22	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	24
23	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	24
24	0	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	24
25	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	24
26	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	24
27	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	24
28	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	24
29	0	0	0	0	0	1	0	0	0	1	1	1	1	S	1	1	1	1	0	0	0	0	0	1	0	1	0	0	24
30	0	0	0	0	0	0	0	0	0	0	0	0	S	0	1	1	1	1	1	1	1	0	0	0	0	0	1	0	24
31	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	24
HOURLY MAX	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	24
HOURLY AVG	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24

STATUS FLAG CODES

C	- MONTHLY CALIBRATION	Q	- QUALITY ASSURANCE
C1	- REPEAT CALIBRATION	R	- RECOVERY
Y	- MAINTENANCE	X	- MACHINE MALFUNCTION
S	- DAILY ZERO/SPAN CHECK	G	- OUT FOR REPAIR
S1	- REPEAT ZERO/SPAN CHECK	P	- POWER FAILURE

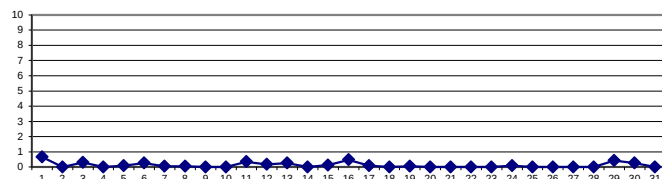
OBJECTIVE LIMIT:

ALBERTA ENVIRONMENT: 1-HR 172 ppb 24-HR 48 ppb

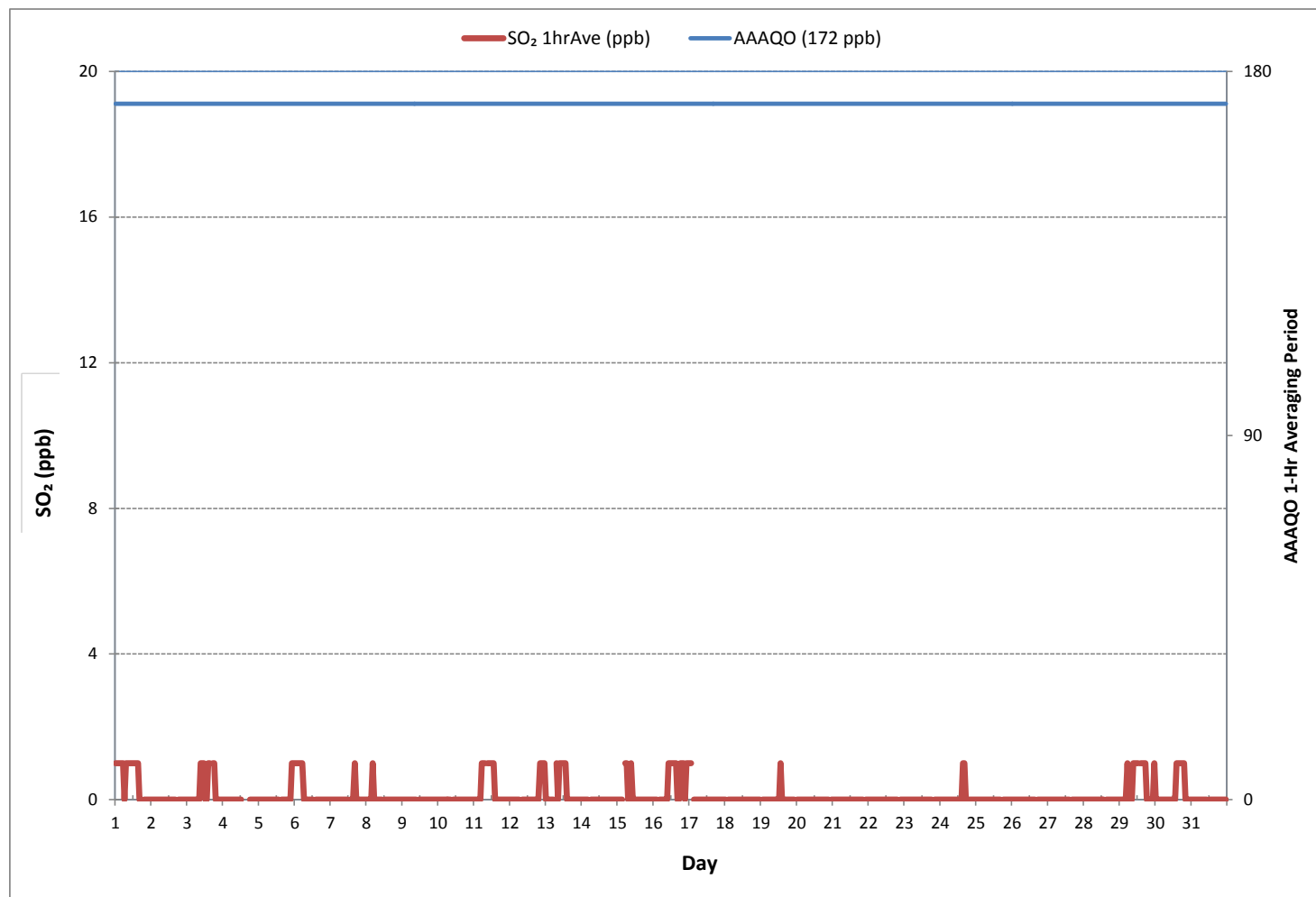
MONTHLY SUMMARY

NUMBER OF 1-HR EXCEEDANCES:	0
NUMBER OF 24-HR EXCEEDANCES:	0
NUMBER OF NON-ZERO READINGS:	85
MINIMUM 1-HR AVERAGE:	0 ppb @ HOUR 6 ON DAY 1
MAXIMUM 1-HR AVERAGE:	1 ppb @ HOUR 0 ON DAY 1
MAXIMUM 24-HR AVERAGE:	1 ppb ON DAY 1
IZS CALIBRATION TIME:	31 hrs
MONTHLY CALIBRATION TIME:	5 hrs
OPERATIONAL TIME:	744 hrs
AMD OPERATION UPTIME:	100.0 %
STANDARD DEVIATION:	0
MONTHLY AVERAGE:	0 ppb

24 HR AVERAGES January 2018



SULPHUR DIOXIDE Hourly Averages (SO₂ ppb)



Wind: PRAMP_842
Poll.: PRAMP_842-SO2[ppb]
Monthly: 18/01
Type: PollutionRose
Direction: Blowing From (Wind Frequency)
Based On 1 Hr.

Calm: 8.19%

Calm Avg: 0.09 [ppb]

Direction	0-3	3-10	10-85	85-170	>170.0	Total
N	15.1	0.0	0.0	0.0	0.0	15.1
NE	6.9	0.0	0.0	0.0	0.0	6.9
E	13.1	0.0	0.0	0.0	0.0	13.1
SE	10.5	0.0	0.0	0.0	0.0	10.5
S	16.1	0.0	0.0	0.0	0.0	16.1
SW	16.8	0.0	0.0	0.0	0.0	16.8
W	5.7	0.0	0.0	0.0	0.0	5.7
NW	7.6	0.0	0.0	0.0	0.0	7.6
Summary	91.8	0.0	0.0	0.0	0.0	91.8

% Icon Classes (ppb)

92 0-3

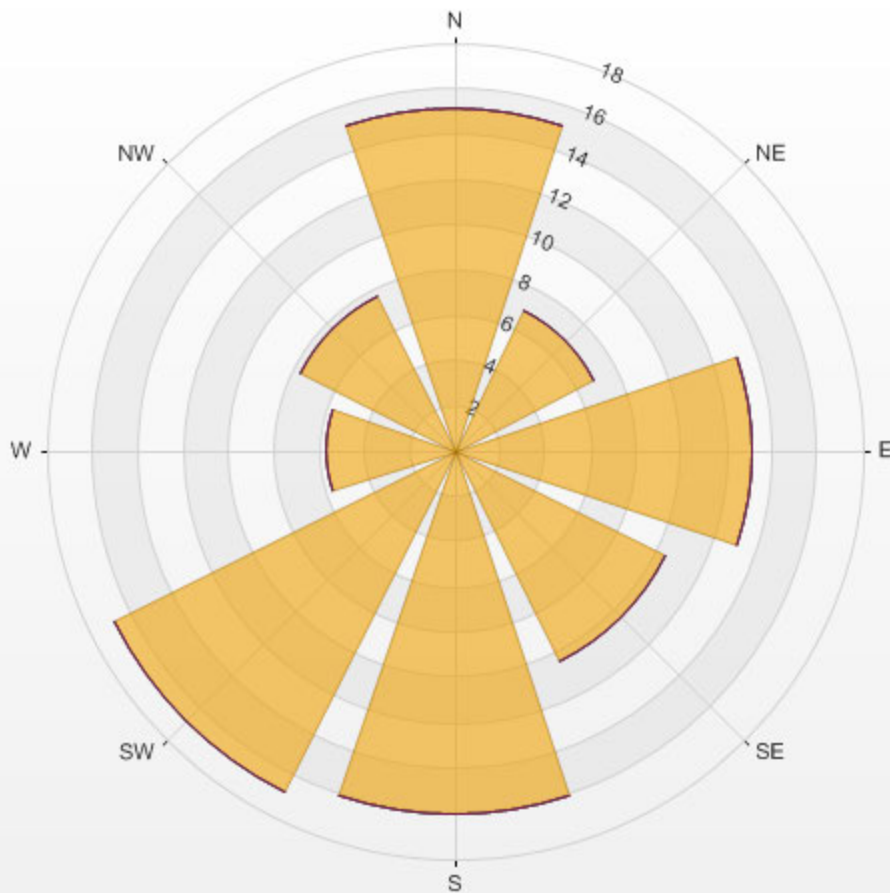
0 3-10

0 10-85

0 85-170

0 >170.0

PRAMP_842 Poll.: PRAMP_842-SO2[ppb] 2018/01/01 00:00 - 2018/01/31 23:00 Calm: 8.19% Calm Poll Avg: 0.09[ppb]



Span Meas Span Ref Span Low Span High



TOTAL REDUCED SULPHUR

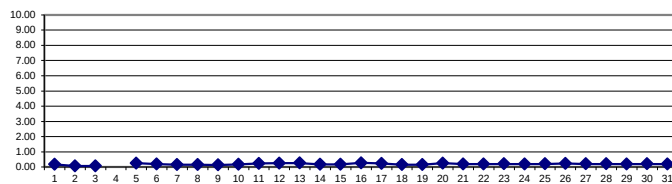
TOTAL REDUCED SULPHUR Hourly Averages (TRS ppb)

HR START (MST)	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY	DAILY	24-HR	RDGS.	
HR END (MST)	0:59	1:59	2:59	3:59	4:59	5:59	6:59	7:59	8:59	9:59	10:59	11:59	12:59	13:59	14:59	15:59	16:59	17:59	18:59	19:59	20:59	21:59	22:59	23:59	MIN.	MAX.	AVG.		
DAY																													
1	0.25	0.22	0.21	0.22	0.23	0.22	0.23	0.24	0.23	0.21	0.19	0.18	0.18	0.19	0.18	0.18	0.16	0.15	S	0.17	0.14	0.10	0.07	0.07	0.07	0.07	0.25	0.18	24
2	0.07	0.07	0.06	0.07	0.06	0.07	0.06	0.07	0.06	0.09	0.07	0.08	0.08	0.08	0.08	0.08	0.08	0.08	S	0.05	0.07	0.07	0.07	0.07	0.05	0.05	0.09	0.07	24
3	0.06	0.07	0.06	0.05	0.06	0.06	0.06	S1	0.08	0.07	0.07	0.07	0.08	0.08	0.08	0.10	S	0.04	0.04	C1	C1	C1	Y	Y	Y	0.04	0.10	0.07	18
4	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y					
5	Y	Y	Y	Y	Y	Y	Y	Y	Y	C	C	C	C	0.25	S	0.25	0.26	0.26	0.26	0.26	0.25	0.25	0.24	0.25	0.24	0.26	0.25	0.15	15
6	0.25	0.25	0.27	0.27	0.25	0.25	0.26	0.22	0.20	0.17	0.15	0.15	0.16	S	0.17	0.16	0.17	0.18	0.18	0.18	0.18	0.18	0.18	0.16	0.15	0.27	0.20	24	
7	0.15	0.15	0.14	0.16	0.17	0.16	0.15	0.16	0.17	0.17	0.15	0.16	S	0.18	0.19	0.16	0.18	0.18	0.18	0.17	0.15	0.15	0.14	0.15	0.14	0.19	0.16	24	
8	0.14	0.14	0.12	0.13	0.19	0.18	0.15	0.15	0.14	0.15	0.14	S	0.21	0.17	0.17	0.16	0.16	0.15	0.14	0.15	0.14	0.13	0.15	0.14	0.12	0.21	0.15	24	
9	0.14	0.13	0.14	0.14	0.15	0.15	0.14	0.15	0.16	0.14	S	0.15	0.14	0.13	0.14	0.13	0.13	0.15	0.13	0.13	0.13	0.13	0.15	0.15	0.13	0.16	0.14	24	
10	0.14	0.14	0.15	0.13	0.13	0.14	0.14	0.15	0.16	S	0.20	0.19	0.18	0.16	0.18	0.17	0.18	0.21	0.23	0.23	0.23	0.22	0.21	0.22	0.13	0.23	0.18	24	
11	0.21	0.22	0.22	0.22	0.22	0.22	0.23	0.23	S	0.24	0.21	0.21	0.19	0.19	0.19	0.19	0.21	0.19	0.21	0.20	0.23	0.32	0.43	0.45	0.19	0.45	0.24	24	
12	0.40	0.39	0.42	0.38	0.34	0.32	0.26	S	0.30	C1	C1	C1	0.24	0.13	0.12	0.13	0.15	0.15	0.15	0.17	0.22	0.25	0.25	0.24	0.12	0.42	0.25	21	
13	0.26	0.26	0.29	0.28	0.28	0.31	S	0.32	0.30	0.29	0.28	0.25	0.26	0.28	0.27	0.27	0.26	0.25	0.24	0.24	0.22	0.20	0.19	0.26	0.19	0.32	0.26	24	
14	0.30	0.26	0.22	0.21	0.19	S	0.21	0.19	0.19	0.20	0.18	0.16	0.17	0.15	0.15	0.16	0.15	0.15	0.16	0.14	0.14	0.15	0.14	0.13	0.13	0.30	0.18	24	
15	0.13	0.13	0.14	0.12	S	0.16	0.15	0.17	0.16	0.18	0.17	0.20	0.19	0.17	0.18	0.19	0.19	0.20	0.20	0.19	0.19	0.18	0.19	0.20	0.12	0.20	0.17	24	
16	0.20	0.19	0.21	S	0.22	0.21	0.23	0.24	0.24	0.24	0.26	0.29	0.28	0.33	0.35	0.34	0.32	0.29	0.30	0.29	0.30	0.30	0.29	0.31	0.19	0.35	0.27	24	
17	0.33	0.31	S	0.28	0.26	0.28	0.28	0.26	0.24	0.26	0.23	0.21	0.23	0.21	0.22	0.21	0.19	0.20	0.18	0.17	0.17	0.17	0.17	0.17	0.17	0.33	0.23	24	
18	0.17	S	0.16	0.15	0.16	0.17	0.15	0.13	0.14	0.15	0.16	0.14	0.15	0.16	0.19	0.18	0.18	0.19	0.17	0.17	0.19	0.18	0.16	0.15	0.13	0.19	0.16	24	
19	S	0.17	0.16	0.18	0.17	0.17	0.17	0.17	0.15	0.15	0.15	0.12	0.14	0.16	0.16	0.14	0.13	0.15	0.13	0.13	0.16	0.17	0.18	S	0.12	0.18	0.16	24	
20	0.27	0.22	0.23	0.22	0.24	0.22	0.21	0.24	0.27	0.31	0.33	0.22	0.24	0.23	0.23	0.22	0.24	0.26	0.28	0.26	0.26	0.26	S	0.26	0.21	0.33	0.25	24	
21	0.24	0.24	0.21	0.22	0.21	0.19	0.20	0.20	0.17	0.17	0.19	0.17	0.20	0.18	0.17	0.20	0.20	0.19	0.21	0.20	0.19	S	0.20	0.18	0.17	0.24	0.20	24	
22	0.18	0.17	0.16	0.18	0.18	0.20	0.21	0.22	0.23	0.21	0.20	0.19	0.19	0.18	0.20	0.19	0.19	0.19	0.20	0.18	S	0.20	0.20	0.19	0.16	0.23	0.19	24	
23	0.20	0.19	0.19	0.20	0.20	0.22	0.22	0.21	0.22	0.20	0.21	0.22	0.20	0.22	0.21	0.20	0.20	0.20	0.20	0.19	S	0.22	0.21	0.18	0.19	0.18	0.22	0.20	24
24	0.19	0.18	0.17	0.17	0.18	0.18	0.18	0.17	0.18	0.18	0.17	0.20	0.20	0.20	0.20	0.21	0.21	0.20	S	0.22	0.22	0.22	0.21	0.20	0.17	0.22	0.19	24	
25	0.20	0.20	0.19	0.18	0.20	0.22	0.24	0.21	0.20	0.20	0.21	0.22	0.21	0.21	0.19	0.20	0.21	S	0.22	0.21	0.20	0.19	0.20	0.20	0.18	0.24	0.20	24	
26	0.19	0.20	0.18	0.19	0.18	0.20	0.22	0.22	0.23	0.24	0.24	0.24	0.27	0.25	0.25	S	0.27	0.24	0.24	0.23	0.23	0.24	0.24	0.24	0.18	0.27	0.23	24	
27	0.23	0.22	0.23	0.23	0.21	0.20	0.21	0.21	0.21	0.20	0.20	0.19	0.19	0.20	0.20	S	0.24	0.23	0.21	0.19	0.18	0.19	0.17	0.18	0.17	0.24	0.21	24	
28	0.18	0.18	0.19	0.20	0.22	0.22	0.21	0.20	0.22	0.21	0.21	0.20	0.20	0.20	S	0.21	0.20	0.21	0.21	0.21	0.20	0.20	0.20	0.20	0.18	0.22	0.20	24	
29	0.21	0.20	0.20	0.20	0.21	0.23	0.24	0.20	0.19	0.18	0.18	0.20	0.22	S	0.22	0.18	0.20	0.21	0.19	0.15	0.15	0.16	0.17	0.18	0.15	0.24	0.19	24	
30	0.20	0.21	0.20	0.20	0.21	0.20	0.21	0.21	0.21	0.22	0.20	0.20	S	0.24	0.21	0.20	0.20	0.21	0.19	0.20	0.20	0.21	0.19	0.20	0.19	0.24	0.21	24	
31	0.20	0.17	0.19	0.18	0.19	0.19	0.17	0.16	0.18	0.16	0.17	S	0.23	0.19	0.18	0.21	0.20	0.20	0.20	0.19	0.17	0.21	0.20	0.19	0.16	0.23	0.19	24	
HOURLY MAX	0.40	0.39	0.42	0.38	0.34	0.32	0.28	0.32	0.30	0.31	0.33	0.29	0.28	0.33	0.35	0.34	0.32	0.29	0.30	0.29	0.30	0.32	0.43	0.45					
HOURLY AVG	0.20	0.20	0.19	0.19	0.20	0.20	0.19	0.20	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.20	0.19	0.19	0.19	0.19	0.19	0.20					

STATUS FLAG CODES

C	- MONTHLY CALIBRATION	Q	- QUALITY ASSURANCE
C1	- REPEAT CALIBRATION	R	- RECOVERY
Y	- MAINTENANCE	X	- MACHINE MALFUNCTION
S	- DAILY ZERO/SPAN CHECK	G	- OUT FOR REPAIR
S1	- REPEAT ZERO/SPAN CHECK	P	- POWER FAILURE

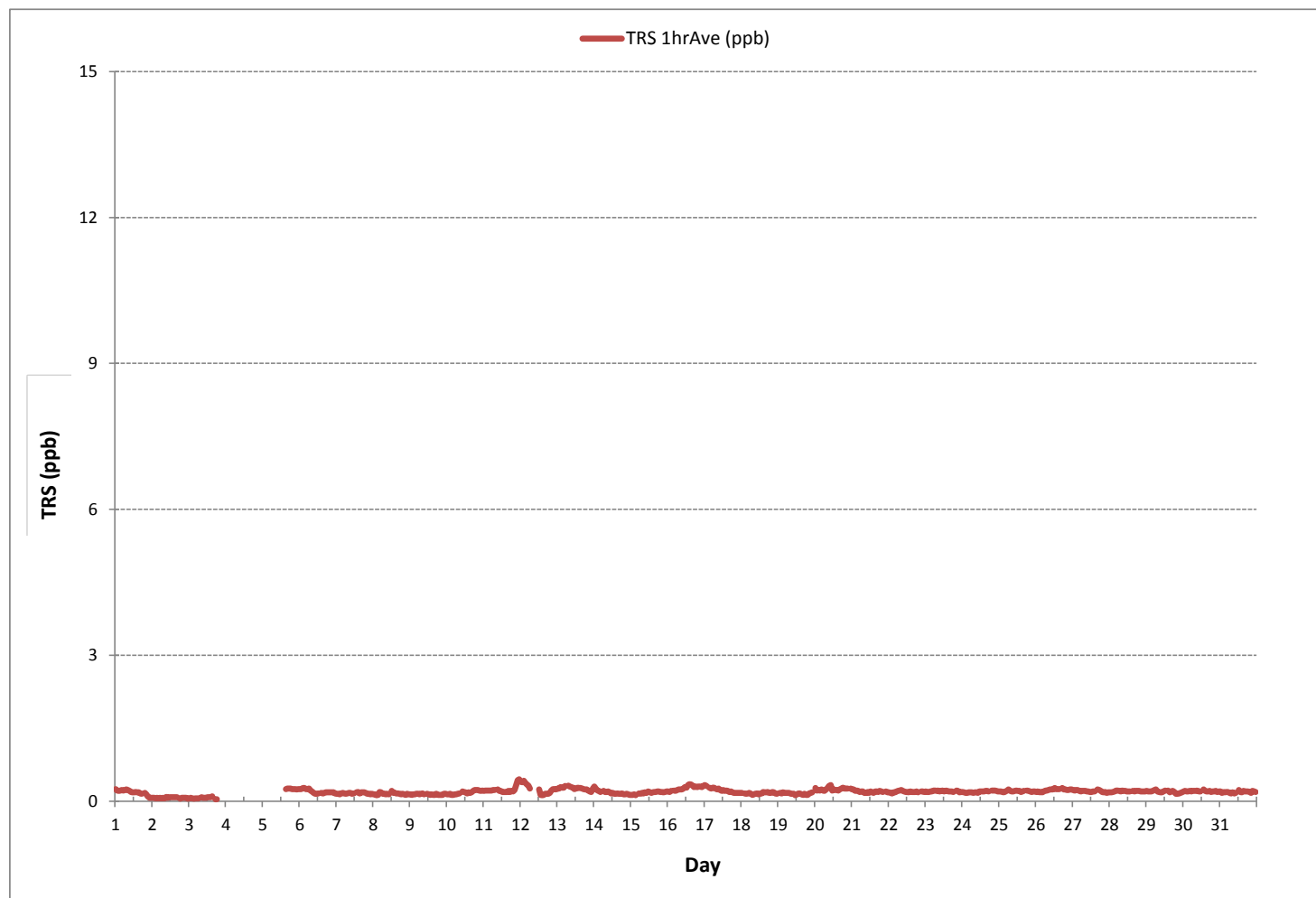
24 HR AVERAGES January 2018



MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	667			
MINIMUM 1-HR AVERAGE:	0.04	ppb @ HOUR	17	ON DAY 3
MAXIMUM 1-HR AVERAGE:	0.45	ppb @ HOUR	23	ON DAY 11
MAXIMUM 24-HR AVERAGE:	0.27	ppb		ON DAY 16
IZS CALIBRATION TIME:	31	hrs	OPERATIONAL TIME:	702 hrs
MONTHLY CALIBRATION TIME:	4	hrs	AMD OPERATION UPTIME:	94.4 %
STANDARD DEVIATION:	0.06		MONTHLY AVERAGE:	0.19 ppb

TOTAL REDUCED SULPHUR Hourly Averages (TRS ppb)



Wind: PRAMP_842
Poll.: PRAMP_842-TRS[ppb]
Monthly: 18/01
Type: PollutionRose
Direction: Blowing From (Wind Frequency)
Based On 1 Hr.

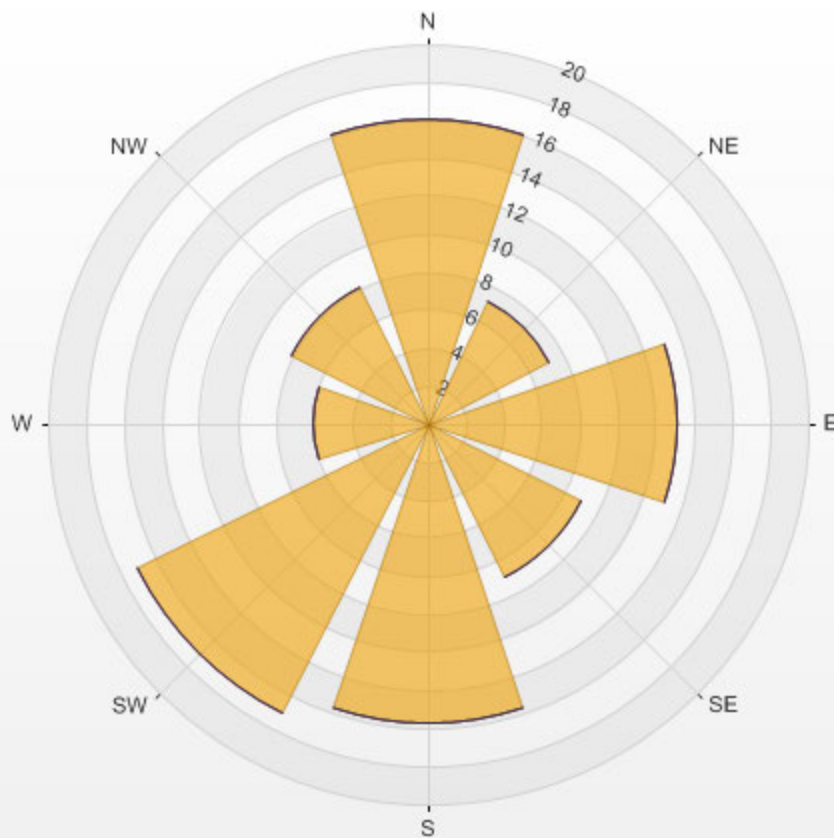
Calm: 7.65%

Calm Avg: 0.20 [ppb]

Direction	0-1	1-3	3-10	>10.0	Total
N	16.0	0.0	0.0	0.0	16.0
NE	7.2	0.0	0.0	0.0	7.2
E	13.2	0.0	0.0	0.0	13.2
SE	9.0	0.0	0.0	0.0	9.0
S	15.7	0.0	0.0	0.0	15.7
SW	17.1	0.0	0.0	0.0	17.1
W	6.0	0.0	0.0	0.0	6.0
NW	8.1	0.0	0.0	0.0	8.1
Summary	92.4	0.0	0.0	0.0	92.4

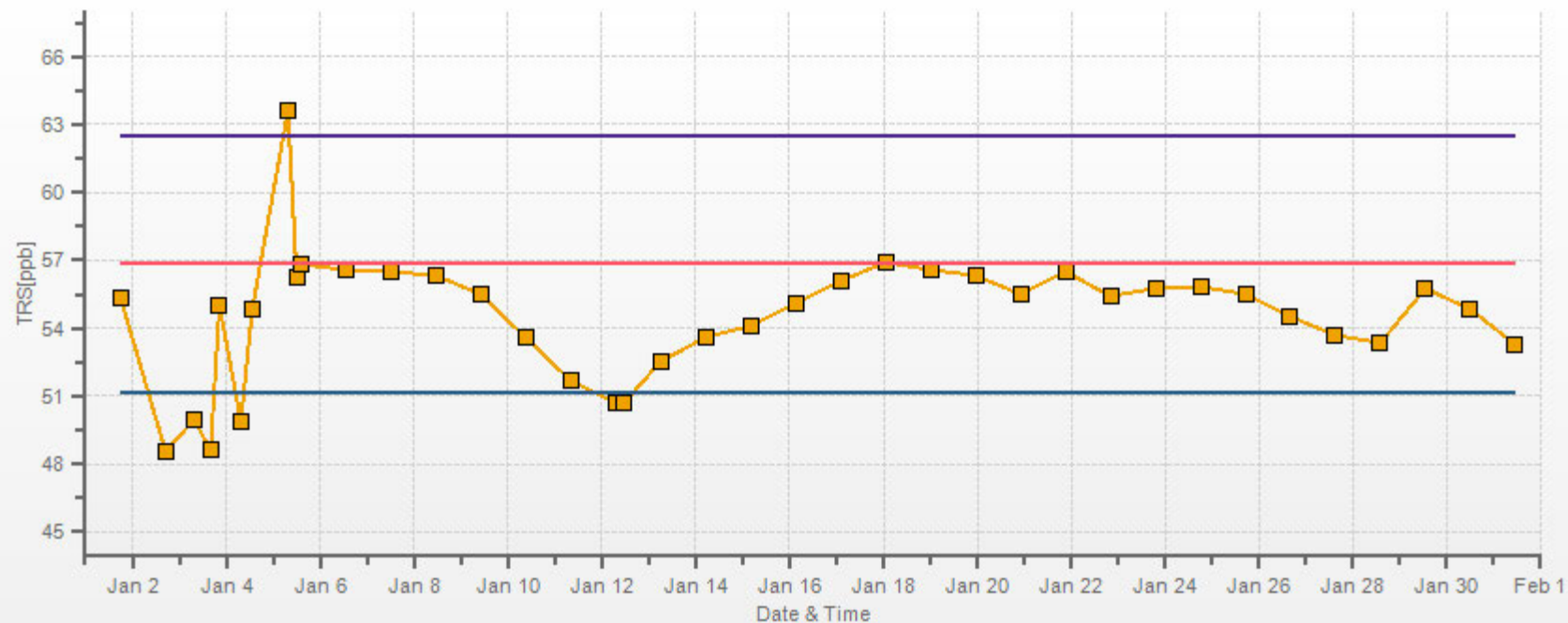
% Icon Classes (ppb)	92	0	0	0	0
	0-1	1-3	3-10	>10.0	

PRAMP_842 Poll.: PRAMP_842-TRS[ppb] 2018/01/01 00:00 - 2018/01/31 23:00 Calm: 7.65% Calm Poll Avg: 0.20[ppb]



TRS[ppb] Calibration: PRAMP_842 Monthly: 18/01 Type: Span

Span Meas Span Ref Span Low Span High



TOTAL HYDROCARBON

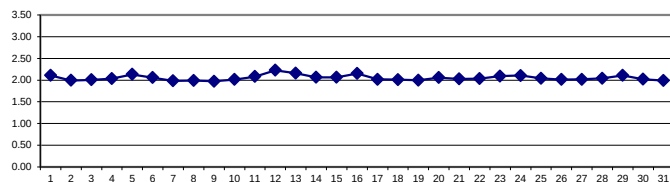
TOTAL HYDROCARBONS Hourly Averages (THC ppm)

HR START (MST)	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY	DAILY	24-HR	RDGS.			
HR END (MST)	0:59	1:59	2:59	3:59	4:59	5:59	6:59	7:59	8:59	9:59	10:59	11:59	12:59	13:59	14:59	15:59	16:59	17:59	18:59	19:59	20:59	21:59	22:59	23:59	MIN.	MAX.	AVG.				
DAY																															
1	2.16	2.15	2.14	2.13	2.14	2.15	2.17	2.20	2.20	2.17	2.13	2.12	2.12	2.13	2.11	2.07	2.05	2.05	S	2.02	2.02	2.00	2.00	1.99	1.99	2.20	2.11	2.11	24		
2	1.98	1.98	1.98	1.98	1.98	1.98	1.98	2.00	2.00	2.03	2.01	2.00	2.00	1.99	1.99	1.99	1.99	S	2.00	1.99	1.99	2.01	2.00	1.99	1.98	2.03	1.99	2.11	24		
3	2.00	2.00	2.01	2.01	2.01	2.01	2.01	2.02	2.02	2.01	2.00	2.00	2.00	2.00	2.01	2.01	S	2.00	2.00	1.99	2.01	1.99	2.00	2.00	1.99	2.02	2.00	2.02	24		
4	2.00	2.00	2.00	2.00	2.00	2.03	2.05	2.04	2.06	2.09	C	C	C	C	1.99	S	2.00	2.00	2.00	2.01	2.01	2.03	2.09	2.17	1.99	2.17	2.03	2.02	24		
5	2.13	2.07	2.05	2.13	2.17	2.14	2.15	2.16	2.11	2.04	2.06	2.09	2.10	2.11	S	2.13	2.13	2.13	2.15	2.17	2.18	2.19	2.20	2.21	1.99	2.04	2.21	2.13	2.11	24	
6	2.21	2.25	2.30	2.26	2.20	2.16	2.13	2.07	2.04	1.98	1.96	1.96	S	1.97	1.97	1.99	1.98	1.98	1.98	1.99	1.99	2.00	2.02	1.98	1.96	2.30	2.06	2.02	2.11	24	
7	1.96	1.97	1.99	1.99	2.00	1.97	1.97	1.97	1.97	1.97	1.97	1.97	S	1.98	1.98	1.98	1.99	1.99	2.00	2.00	2.01	2.01	2.01	1.96	2.01	1.98	2.02	2.01	2.11	24	
8	2.01	2.00	2.00	2.00	2.01	1.99	2.00	2.00	2.01	2.01	2.00	S	2.00	1.99	1.98	1.98	1.98	1.97	1.96	1.96	1.96	1.96	1.96	1.96	1.96	2.01	1.99	2.02	2.11	24	
9	1.96	1.96	1.96	1.96	1.97	1.96	1.97	1.97	1.97	1.97	S	1.97	1.97	1.97	1.97	1.98	1.98	1.98	1.98	1.99	1.99	1.99	1.98	1.98	1.96	1.99	1.97	2.02	2.11	24	
10	1.98	1.98	1.98	1.98	1.99	1.99	1.99	2.00	2.03	S	2.04	2.03	2.04	2.02	2.02	2.00	2.00	2.02	2.02	2.03	2.03	2.03	2.04	2.04	1.98	2.04	2.01	2.02	2.11	24	
11	2.04	2.04	2.05	2.06	2.06	2.07	2.07	2.06	S	2.05	2.06	2.04	2.03	2.02	2.04	2.03	2.03	2.02	2.03	2.03	2.09	2.21	2.31	2.39	2.02	2.39	2.08	2.02	2.11	24	
12	2.40	2.36	2.46	2.45	2.40	2.34	2.25	S	2.34	2.39	2.38	X	2.16	2.14	2.10	2.07	2.05	2.04	2.04	2.06	2.10	2.16	2.15	2.12	2.04	2.46	2.23	2.02	2.11	24	
13	2.14	2.18	2.20	2.19	2.20	2.24	S	2.22	2.21	2.20	2.15	2.12	2.13	2.17	2.16	2.14	2.16	2.16	2.15	2.13	2.12	2.08	2.05	2.15	2.05	2.24	2.16	2.02	2.11	24	
14	2.19	2.17	2.11	2.10	2.07	S	2.08	2.08	2.08	2.10	2.08	2.02	2.03	2.03	2.03	2.05	2.07	2.05	2.02	2.02	2.02	2.03	2.05	2.05	2.02	2.19	2.07	2.02	2.11	24	
15	2.04	2.05	2.05	2.05	S	2.02	2.04	2.05	2.06	2.08	2.07	2.09	2.07	2.04	2.04	2.05	2.06	2.15	2.08	2.08	2.05	2.07	2.09	2.10	2.02	2.15	2.06	2.02	2.11	24	
16	2.11	2.12	2.13	S	2.18	2.14	2.11	2.13	2.12	2.12	2.12	S1	2.11	2.13	2.15	2.18	2.18	2.19	2.19	2.18	2.19	2.18	2.17	2.21	2.11	2.21	2.15	2.02	2.11	24	
17	2.22	2.19	S	2.08	2.05	2.03	2.01	2.00	1.99	1.98	1.98	1.98	1.98	1.99	1.99	1.99	2.00	1.99	1.98	2.00	2.01	1.99	1.99	1.98	1.98	2.22	2.02	2.02	2.11	24	
18	1.99	S	2.00	2.00	2.05	2.04	2.01	2.02	2.03	2.03	2.03	2.00	1.99	1.99	2.00	1.97	1.99	2.02	1.99	2.00	2.01	2.05	2.00	2.01	1.97	2.05	2.01	2.02	2.11	24	
19	S	1.99	1.99	1.99	1.99	2.03	1.98	1.98	2.00	2.00	1.98	1.98	1.98	1.97	1.97	1.97	1.98	1.98	1.98	1.98	2.02	2.09	2.12	S	1.97	2.12	2.00	2.02	2.11	24	
20	2.26	2.24	2.08	2.03	2.01	2.00	2.01	2.01	2.05	2.05	2.06	2.05	2.03	2.02	2.03	2.03	2.04	2.05	2.06	2.06	2.06	S	2.04	2.00	2.26	2.06	2.02	2.02	2.11	24	
21	2.04	2.05	2.06	2.06	2.05	2.03	2.02	2.02	2.00	2.00	2.01	2.02	2.03	2.03	2.02	2.03	2.03	2.03	2.04	2.03	2.03	S	2.02	2.02	2.00	2.06	2.03	2.02	2.11	24	
22	2.02	2.03	2.03	2.03	2.04	2.05	2.04	2.04	2.05	2.05	2.04	2.03	2.03	2.03	2.04	2.04	2.03	2.03	2.03	2.03	S	2.03	2.04	2.04	2.02	2.05	2.04	2.02	2.11	24	
23	2.07	2.09	2.10	2.12	2.13	2.16	2.15	2.14	2.12	2.10	2.07	2.05	2.04	2.04	2.05	2.05	2.05	2.04	2.06	S	2.13	2.12	2.11	2.11	2.04	2.16	2.09	2.02	2.11	24	
24	2.08	2.06	2.04	2.05	2.06	2.06	2.06	2.05	2.06	2.07	2.07	2.12	2.11	2.11	2.13	2.14	2.15	2.15	S	2.16	2.17	2.17	2.16	2.15	2.04	2.17	2.10	2.02	2.11	24	
25	2.14	2.13	2.09	2.06	2.05	2.04	2.04	2.04	2.04	2.04	2.04	2.03	2.03	2.03	2.02	2.02	2.02	S	2.02	2.02	2.02	2.01	2.01	2.01	2.01	2.14	2.04	2.02	2.11	24	
26	2.01	2.01	2.01	2.01	2.01	2.01	2.01	2.01	2.01	2.01	2.01	2.01	2.01	2.01	2.01	2.02	S	2.02	2.01	2.02	2.01	2.01	2.02	2.02	2.01	2.02	2.01	2.02	2.11	24	
27	2.02	2.02	2.02	2.02	2.02	2.02	2.02	2.01	2.01	2.01	2.01	2.01	2.01	2.02	2.02	S	2.03	2.03	2.02	2.02	2.01	2.01	2.01	2.01	2.01	2.03	2.02	2.02	2.11	24	
28	2.01	2.02	2.01	2.05	2.05	2.06	2.05	2.05	2.05	2.05	2.04	2.04	2.02	2.02	S	2.03	2.03	2.04	2.07	2.06	2.04	2.04	2.04	2.04	2.01	2.07	2.04	2.02	2.11	24	
29	2.04	2.04	2.05	2.04	2.06	2.06	2.07	2.08	2.09	2.08	2.10	2.13	2.16	S	2.21	2.22	2.21	2.26	2.15	2.08	2.06	2.07	2.09	2.10	2.04	2.26	2.11	2.02	2.11	24	
30	2.08	2.05	2.04	2.03	2.03	2.03	2.03	2.03	2.03	2.03	2.03	2.02	S	2.02	2.01	2.01	2.01	2.01	2.01	2.01	2.00	1.99	2.00	2.00	1.99	2.08	2.02	2.02	2.11	24	
31	2.00	1.99	1.99	1.99	1.99	2.00	2.00	1.99	1.99	1.99	1.99	S	2.00	2.00	2.00	2.00	2.00	1.99	1.99	1.98	1.99	1.98	1.98	1.98	1.98	1.98	2.00	1.99	2.02	2.11	24
HOURLY MAX	2.40	2.36	2.46	2.45	2.40	2.34	2.25	2.22	2.34	2.39	2.38	2.13	2.16	2.17	2.21	2.22	2.21	2.26	2.19	2.18	2.19	2.21	2.31	2.39							
HOURLY AVG	2.08	2.07	2.06	2.06	2.07	2.06	2.05	2.05	2.06	2.06	2.05	2.03	2.04	2.04	2.04	2.04	2.04	2.05	2.03	2.04	2.04	2.05	2.06	2.06							

STATUS FLAG CODES

C	- MONTHLY CALIBRATION	Q	- QUALITY ASSURANCE
C1	- REPEAT CALIBRATION	R	- RECOVERY
Y	- MAINTENANCE	X	- MACHINE MALFUNCTION
S	- DAILY ZERO/SPAN CHECK	G	- OUT FOR REPAIR
S1	- REPEAT ZERO/SPAN CHECK	P	- POWER FAILURE

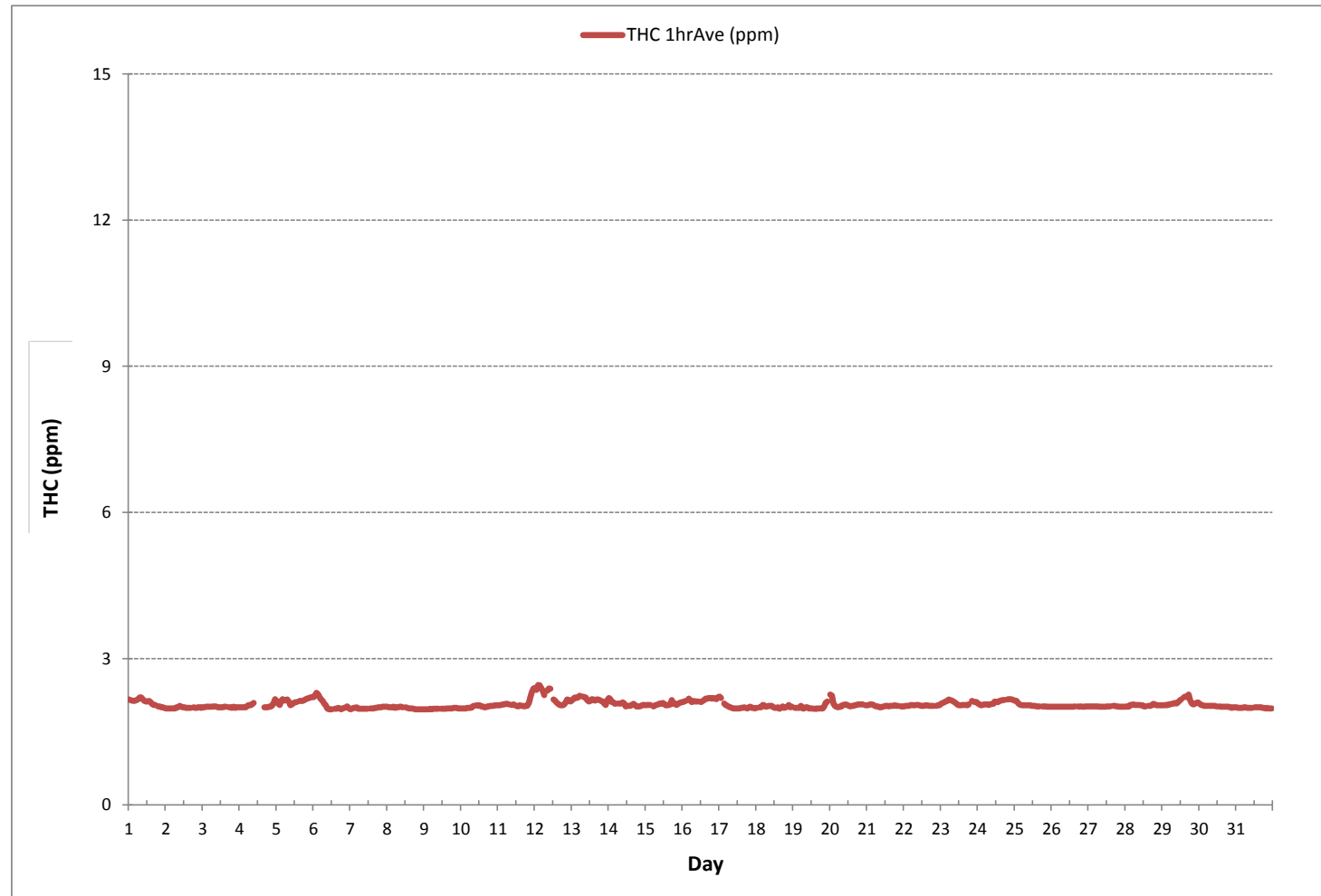
24 HR AVERAGES January 2018



MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	706			
MINIMUM 1-HR AVERAGE:	1.96	ppm @ HOUR	10	ON DAY 6
MAXIMUM 1-HR AVERAGE:	2.46	ppm @ HOUR	2	ON DAY 12
MAXIMUM 24-HR AVERAGE:	2.23	ppm		ON DAY 12
IZS CALIBRATION TIME:	32	hrs	OPERATIONAL TIME:	742 hrs
MONTHLY CALIBRATION TIME:	4	hrs	AMD OPERATION UPTIME:	99.7 %
STANDARD DEVIATION:	0.08		MONTHLY AVERAGE:	2.05 ppm

TOTAL HYDROCARBONS Hourly Averages (THC ppm)



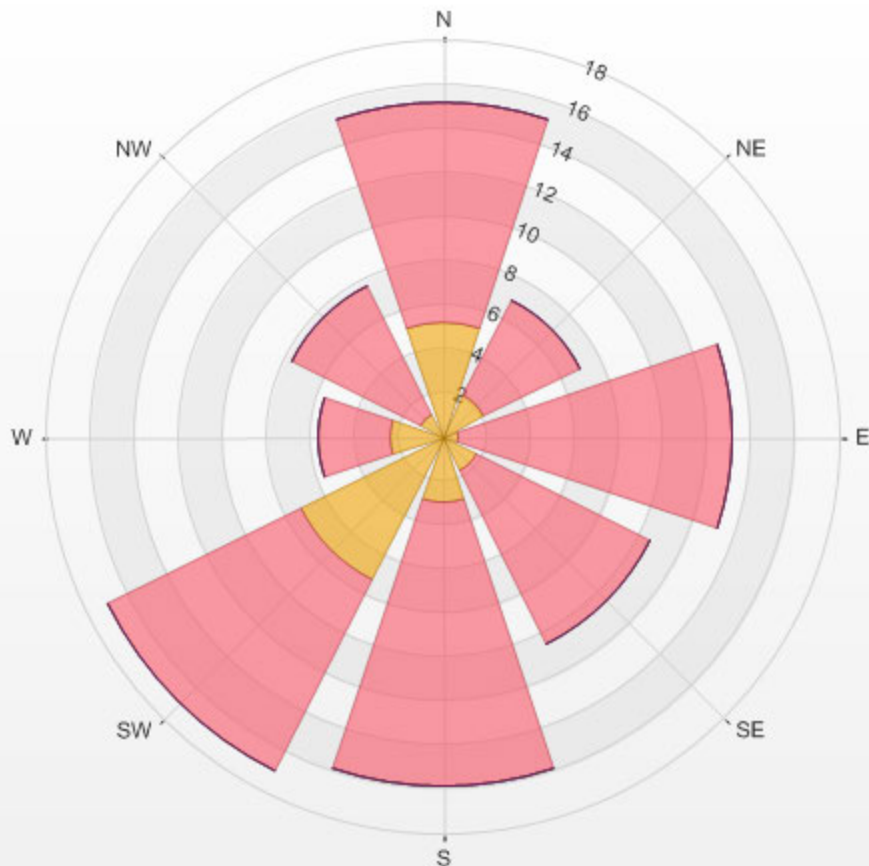
Wind: PRAMP_842
Poll.: PRAMP_842-THC55[ppm]
Monthly: 18/01
Type: PollutionRose
Direction: Blowing From (Wind Frequency)
Based On 1 Hr.

Calm: 8.07%

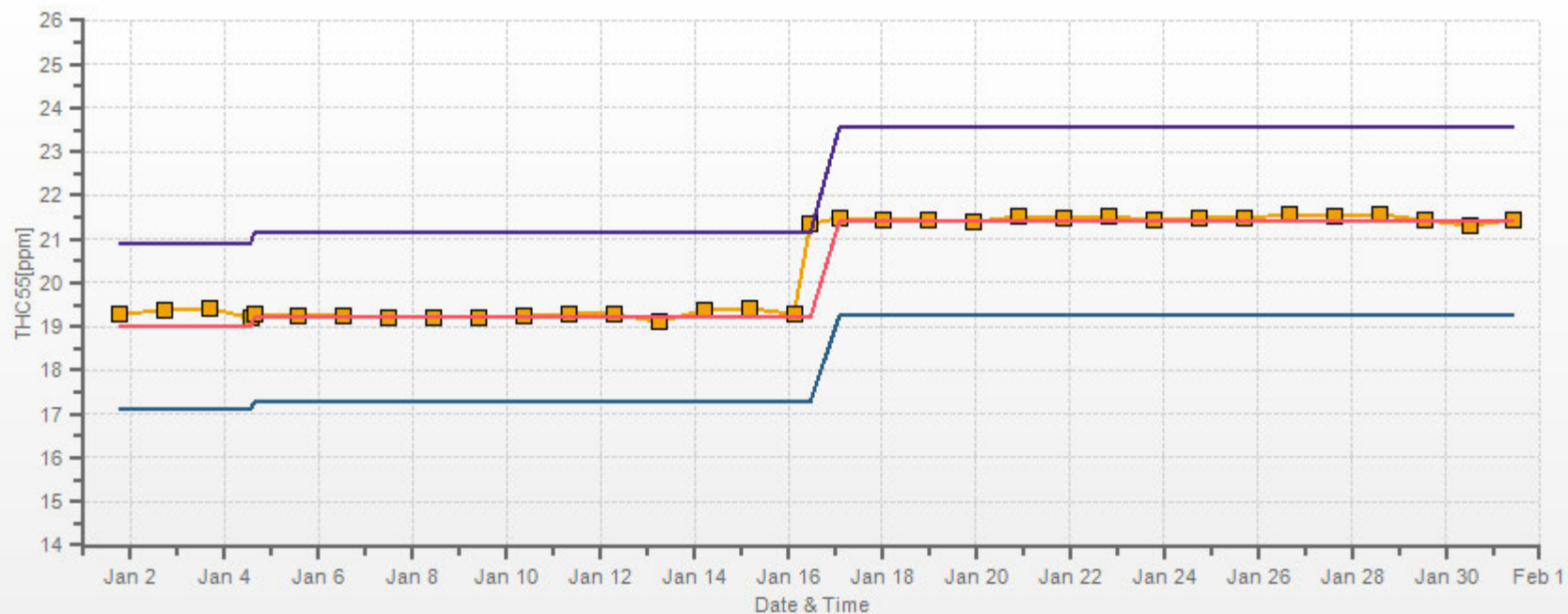
Calm Avg: 2.08 [ppm]

Direction	0-2	2-3	3-5	5-10	>10.0	Total
N	5.2	9.9	0.0	0.0	0.0	15.2
NE	2.1	4.8	0.0	0.0	0.0	6.9
E	0.7	12.5	0.0	0.0	0.0	13.2
SE	1.7	8.8	0.0	0.0	0.0	10.5
S	3.0	12.9	0.0	0.0	0.0	15.9
SW	7.2	9.8	0.0	0.0	0.0	17.0
W	2.4	3.3	0.0	0.0	0.0	5.7
NW	1.1	6.5	0.0	0.0	0.0	7.7
Summary	23.5	68.4	0.0	0.0	0.0	91.9

PRAMP_842 Poll.: PRAMP_842-THC55[ppm] 2018/01/01 00:00 - 2018/01/31 23:00 Calm: 8.07% Calm Poll Avg: 2.08[ppm]



Span Meas Span Ref Span Low Span High



METHANE



PEACE RIVER AREA MONITORING PROGRAM COMMITTEE

Three Creeks 842b Station - January 2018

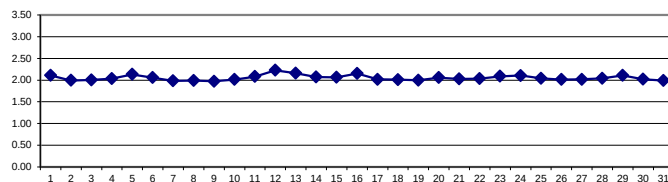
METHANE Hourly Averages (CH₄ ppm)

	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY	DAILY	24-HR	RDGS.	
HR END (MST)	0:59	1:59	2:59	3:59	4:59	5:59	6:59	7:59	8:59	9:59	10:59	11:59	12:59	13:59	14:59	15:59	16:59	17:59	18:59	19:59	20:59	21:59	22:59	23:59	MIN.	MAX.	AVG.		
DAY																													
1	2.16	2.15	2.14	2.13	2.14	2.15	2.17	2.20	2.20	2.17	2.13	2.12	2.12	2.13	2.11	2.07	2.05	2.05	\$	2.02	2.02	2.00	2.00	1.99	1.99	1.99	2.20	2.11	24
2	1.98	1.98	1.98	1.98	1.98	1.98	1.98	2.00	2.00	2.03	2.01	2.00	2.00	1.99	1.99	1.99	1.99	\$	2.00	1.99	1.99	2.00	2.00	1.99	1.98	2.03	1.99	24	
3	2.00	2.00	2.01	2.01	2.01	2.01	2.01	2.02	2.02	2.01	2.00	2.00	2.00	2.00	2.01	2.01	\$	2.00	1.99	1.99	2.01	1.99	2.00	2.00	1.99	2.02	2.00	24	
4	2.00	2.00	2.00	2.00	2.00	2.03	2.05	2.04	2.06	2.09	C	C	C	C	1.99	\$	2.00	2.00	2.00	2.01	2.01	2.03	2.09	2.17	1.99	2.17	2.03	24	
5	2.13	2.07	2.05	2.13	2.17	2.14	2.15	2.16	2.11	2.04	2.06	2.09	2.10	2.11	\$	2.13	2.13	2.13	2.15	2.17	2.18	2.19	2.20	2.21	2.04	2.21	2.13	24	
6	2.21	2.25	2.30	2.26	2.20	2.16	2.13	2.07	2.04	1.98	1.96	1.96	1.96	\$	1.97	1.97	1.99	1.98	1.96	1.98	1.99	2.00	2.02	1.98	1.96	2.30	2.06	24	
7	1.96	1.97	1.99	1.99	2.00	1.97	1.97	1.97	1.97	1.97	1.97	1.97	\$	1.98	1.98	1.98	1.99	1.99	2.00	2.00	2.00	2.01	2.01	2.01	1.96	2.01	1.98	24	
8	2.01	2.00	2.00	2.00	2.01	1.99	1.99	2.00	2.01	2.01	2.00	\$	2.00	1.99	1.98	1.98	1.98	1.97	1.96	1.96	1.96	1.96	1.96	1.96	1.96	2.01	1.99	24	
9	1.96	1.96	1.96	1.96	1.97	1.96	1.97	1.97	1.97	1.97	\$	1.97	1.97	1.97	1.97	1.98	1.98	1.98	1.98	1.99	1.99	1.98	1.98	1.98	1.96	1.99	1.97	24	
10	1.98	1.98	1.98	1.98	1.99	1.99	1.99	2.00	2.03	\$	2.04	2.03	2.04	2.02	2.02	2.00	2.00	2.01	2.02	2.03	2.03	2.03	2.04	2.04	1.98	2.04	2.01	24	
11	2.04	2.04	2.05	2.06	2.06	2.07	2.07	2.06	\$	2.05	2.06	2.04	2.03	2.02	2.04	2.03	2.03	2.02	2.03	2.03	2.09	2.21	2.31	2.39	2.02	2.39	2.08	24	
12	2.40	2.36	2.46	2.45	2.40	2.34	2.25	\$	2.34	2.39	2.38	X	2.16	2.14	2.10	2.07	2.05	2.04	2.04	2.06	2.10	2.16	2.15	2.12	2.04	2.46	2.23	23	
13	2.14	2.18	2.20	2.19	2.20	2.24	\$	2.22	2.21	2.20	2.15	2.12	2.13	2.17	2.16	2.14	2.16	2.16	2.15	2.13	2.12	2.08	2.05	2.15	2.05	2.24	2.16	24	
14	2.19	2.17	2.11	2.10	2.07	\$	2.08	2.08	2.08	2.10	2.08	2.02	2.03	2.03	2.03	2.05	2.07	2.05	2.08	2.02	2.02	2.03	2.05	2.05	2.02	2.19	2.07	24	
15	2.04	2.05	2.05	2.05	\$	2.02	2.04	2.05	2.06	2.08	2.07	2.09	2.07	2.04	2.04	2.05	2.06	2.15	2.08	2.08	2.05	2.07	2.09	2.10	2.02	2.15	2.06	24	
16	2.11	2.12	2.13	\$	2.18	2.14	2.11	2.13	2.12	2.12	2.12	\$1	2.11	2.13	2.15	2.18	2.18	2.19	2.19	2.18	2.19	2.18	2.17	2.21	2.11	2.21	2.15	23	
17	2.22	2.19	\$	2.08	2.05	2.03	2.01	2.00	1.99	1.98	1.98	1.98	1.98	1.99	1.99	2.00	1.99	1.98	1.98	2.00	2.01	1.99	1.99	1.98	1.98	2.22	2.02	24	
18	1.99	\$	2.00	2.00	2.05	2.03	2.01	2.02	2.03	2.03	2.03	2.00	1.99	1.99	2.00	1.97	1.99	2.02	1.99	2.00	2.01	2.05	2.00	2.01	1.97	2.05	2.01	24	
19	\$	1.99	1.99	1.99	1.99	2.03	1.98	1.98	2.00	2.00	1.98	1.98	1.98	1.96	1.97	1.97	1.97	1.98	1.98	1.98	2.02	2.09	2.12	\$	1.96	2.12	2.00	24	
20	2.26	2.24	2.08	2.03	2.01	2.00	2.01	2.01	2.05	2.05	2.06	2.05	2.03	2.02	2.03	2.03	2.04	2.05	2.06	2.06	2.06	2.06	\$	2.04	2.00	2.26	2.06	24	
21	2.04	2.05	2.06	2.06	2.05	2.03	2.02	2.02	2.00	2.00	2.01	2.02	2.03	2.03	2.02	2.03	2.03	2.03	2.04	2.03	2.03	2.03	\$	2.02	2.00	2.06	2.03	24	
22	2.02	2.03	2.03	2.03	2.04	2.05	2.04	2.04	2.05	2.05	2.04	2.03	2.03	2.03	2.04	2.04	2.03	2.03	2.03	2.03	\$	2.03	2.04	2.04	2.02	2.05	2.04	24	
23	2.07	2.09	2.10	2.12	2.13	2.16	2.14	2.14	2.06	2.10	2.07	2.05	2.04	2.04	2.05	2.05	2.05	2.04	2.06	\$	2.13	2.11	2.11	2.11	2.04	2.16	2.09	24	
24	2.08	2.06	2.04	2.05	2.06	2.06	2.06	2.05	2.06	2.07	2.07	2.12	2.11	2.11	2.13	2.14	2.15	2.15	\$	2.16	2.17	2.17	2.16	2.15	2.04	2.17	2.10	24	
25	2.14	2.13	2.09	2.06	2.05	2.04	2.04	2.04	2.04	2.04	2.04	2.03	2.03	2.03	2.02	2.02	2.02	\$	2.02	2.02	2.01	2.01	2.01	2.01	2.01	2.14	2.04	24	
26	2.01	2.01	2.01	2.01	2.00	2.01	2.01	2.01	2.01	2.01	2.01	2.01	2.01	2.01	2.01	2.02	2.02	\$	2.02	2.01	2.02	2.01	2.01	2.02	2.02	2.00	2.02	2.01	24
27	2.02	2.02	2.02	2.02	2.02	2.02	2.02	2.01	2.01	2.01	2.01	2.01	2.02	2.02	2.02	\$	2.03	2.03	2.02	2.02	2.01	2.01	2.01	2.01	2.01	2.01	2.03	2.02	24
28	2.01	2.02	2.01	2.05	2.05	2.06	2.05	2.05	2.05	2.05	2.04	2.04	2.02	2.02	\$	2.03	2.03	2.04	2.07	2.06	2.04	2.04	2.04	2.04	2.01	2.07	2.04	24	
29	2.04	2.04	2.05	2.04	2.06	2.06	2.07	2.08	2.09	2.08	2.10	2.13	2.16	\$	2.20	2.22	2.21	2.26	2.15	2.08	2.06	2.07	2.09	2.10	2.04	2.26	2.11	24	
30	2.08	2.05	2.03	2.03	2.03	2.03	2.03	2.03	2.03	2.03	2.03	2.02	\$	2.02	2.01	2.01	2.01	2.01	2.01	2.01	2.00	1.99	2.00	2.00	1.99	2.08	2.02	24	
31	2.00	1.99	1.99	1.99	1.99	2.00	2.00	1.99	1.99	1.99	1.99	\$	2.00	2.00	2.00	2.00	2.00	1.99	1.99	1.98	1.99	1.98	1.98	1.98	1.98	1.98	2.00	1.99	24
HOURLY MAX	2.40	2.36	2.46	2.45	2.40	2.34	2.25	2.22	2.34	2.39	2.38	2.13	2.16	2.17	2.20	2.22	2.21	2.26	2.19	2.18	2.19	2.21	2.31	2.39					
HOURLY AVG	2.08	2.07	2.06	2.06	2.07	2.06	2.05	2.05	2.06	2.06	2.05	2.03	2.04	2.04	2.04	2.04	2.04	2.05	2.04	2.04	2.04	2.05	2.06	2.06					

STATUS FLAG CODES

C	- MONTHLY CALIBRATION	Q	- QUALITY ASSURANCE
C1	- REPEAT CALIBRATION	R	- RECOVERY
Y	- MAINTENANCE	X	- MACHINE MALFUNCTION
S	- DAILY ZERO/SPAN CHECK	G	- OUT FOR REPAIR
S1	- REPEAT ZERO/SPAN CHECK	P	- POWER FAILURE

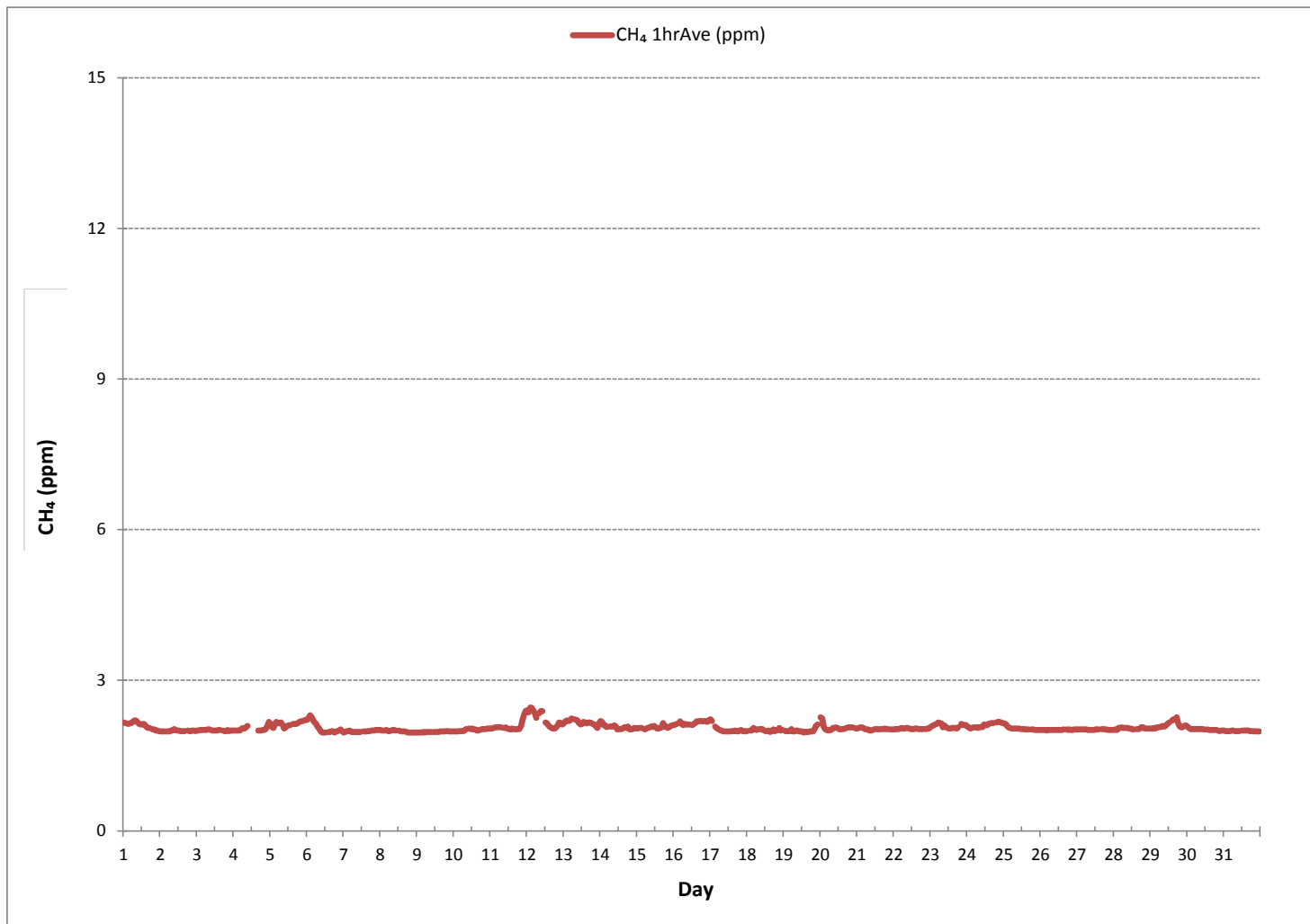
24 HR AVERAGES January 2018



MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	706			
MINIMUM 1-HR AVERAGE:	1.96	ppm @ HOUR	10	ON DAY 6
MAXIMUM 1-HR AVERAGE:	2.46	ppm @ HOUR	2	ON DAY 12
MAXIMUM 24-HR AVERAGE:	2.23	ppm		ON DAY 12
IZS CALIBRATION TIME:	32	hrs	OPERATIONAL TIME:	742 hrs
MONTHLY CALIBRATION TIME:	4	hrs	AMD OPERATION UPTIME:	99.7 %
STANDARD DEVIATION:	0.08		MONTHLY AVERAGE:	2.05 ppm

METHANE Hourly Averages (CH₄ ppm)



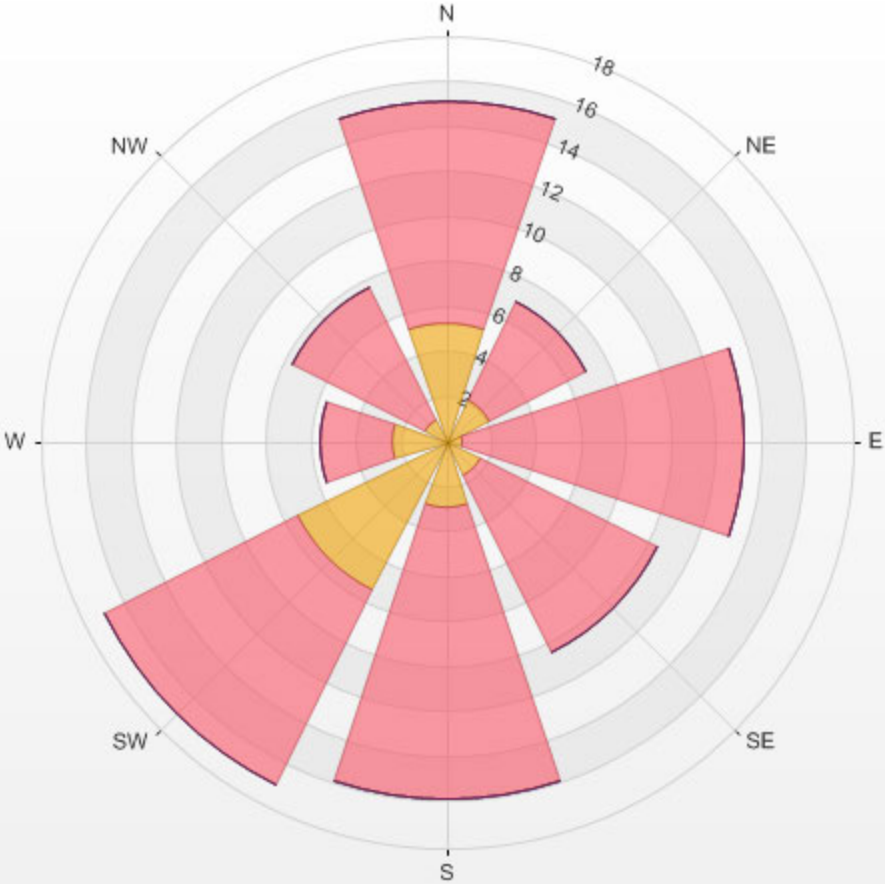
Wind: PRAMP_842
Poll.: PRAMP_842-CH4[ppm]
Monthly: 18/01
Type: PollutionRose
Direction: Blowing From (Wind Frequency)
Based On 1 Hr.

Calm: 8.07%

Calm Avg: 2.08 [ppm]

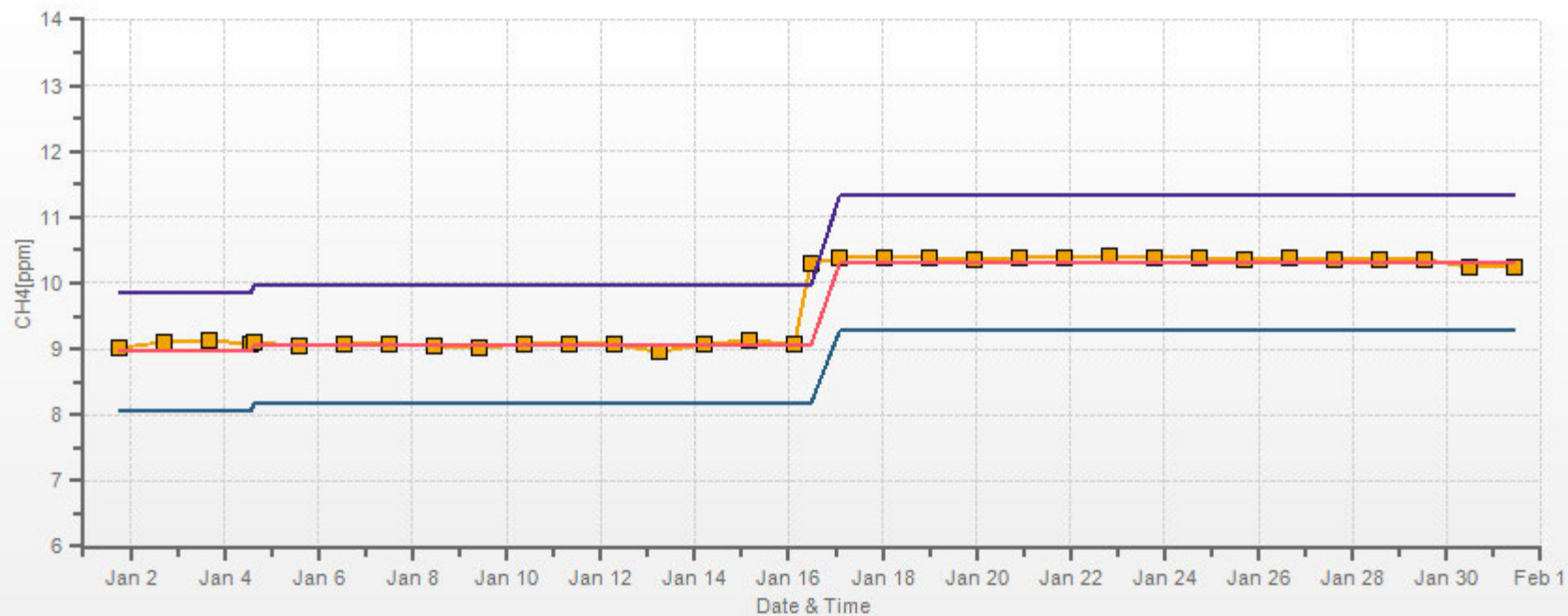
Direction	0-2	2-3	3-5	5-10	>10.0	Total
N	5.2	9.9	0.0	0.0	0.0	15.2
NE	2.1	4.8	0.0	0.0	0.0	6.9
E	0.7	12.5	0.0	0.0	0.0	13.2
SE	1.7	8.8	0.0	0.0	0.0	10.5
S	3.0	12.9	0.0	0.0	0.0	15.9
SW	7.4	9.6	0.0	0.0	0.0	17.0
W	2.4	3.3	0.0	0.0	0.0	5.7
NW	1.1	6.5	0.0	0.0	0.0	7.7
Summary	23.7	68.3	0.0	0.0	0.0	91.9

PRAMP_842 Poll.: PRAMP_842-CH4[ppm] 2018/01/01 00:00 - 2018/01/31 23:00 Calm: 8.07% Calm Poll Avg: 2.08[ppm]



CH4[ppm] Calibration: PRAMP_842 Monthly: 18/01 Type: Span

Span Meas Span Ref Span Low Span High



NON-METHANE HYDROCARBON



PEACE RIVER AREA MONITORING PROGRAM COMMITTEE

Three Creeks 842b Station - January 2018

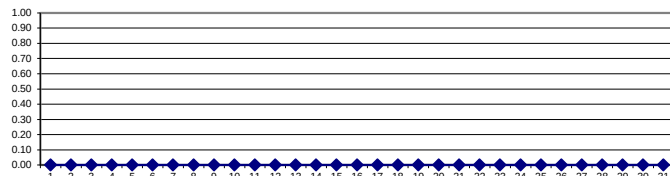
NON-METHANE HYDROCARBONS Hourly Averages (NMHC ppm)

HR START (MST)	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY	DAILY	24-HR	RDGS.	
HR END (MST)	0:59	1:59	2:59	3:59	4:59	5:59	6:59	7:59	8:59	9:59	10:59	11:59	12:59	13:59	14:59	15:59	16:59	17:59	18:59	19:59	20:59	21:59	22:59	23:59	MIN.	MAX.	AVG.		
DAY																													
1	0.00	0.00	0.00	0.00	0.00	0.00	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	24
2	0.00	0.00	0.00	0.00	0.00	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	24
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	0.00	0.00	0.00	0.00	S	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	24
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	C	C	C	C	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	24
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	0.00	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	24
6	0.00	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	24
7	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	0.00	24
8	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	0.00	24
9	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	0.00	24
10	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	0.00	24
11	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	0.00	24
12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	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	0.00	0.00	0.00	23
13	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	0.00	24
14	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	0.00	24
15	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	0.00	24
16	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	23
17	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	0.00	24
18	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	0.00	24
19	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	0.00	24
20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	24
21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	24
22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	24
23	0.00	0.00	0.00	0.00	0.00	0.00	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	24
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	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	24
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	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	24
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	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	24
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	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	24
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	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	24
29	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	0.00	24
30	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	0.00	24
31	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	0.00	24
HOURLY MAX	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	0.00	0.00	
HOURLY AVG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	

STATUS FLAG CODES

C	- MONTHLY CALIBRATION	Q	- QUALITY ASSURANCE
C1	- REPEAT CALIBRATION	R	- RECOVERY
Y	- MAINTENANCE	X	- MACHINE MALFUNCTION
S	- DAILY ZERO/SPAN CHECK	G	- OUT FOR REPAIR
S1	- REPEAT ZERO/SPAN CHECK	P	- POWER FAILURE

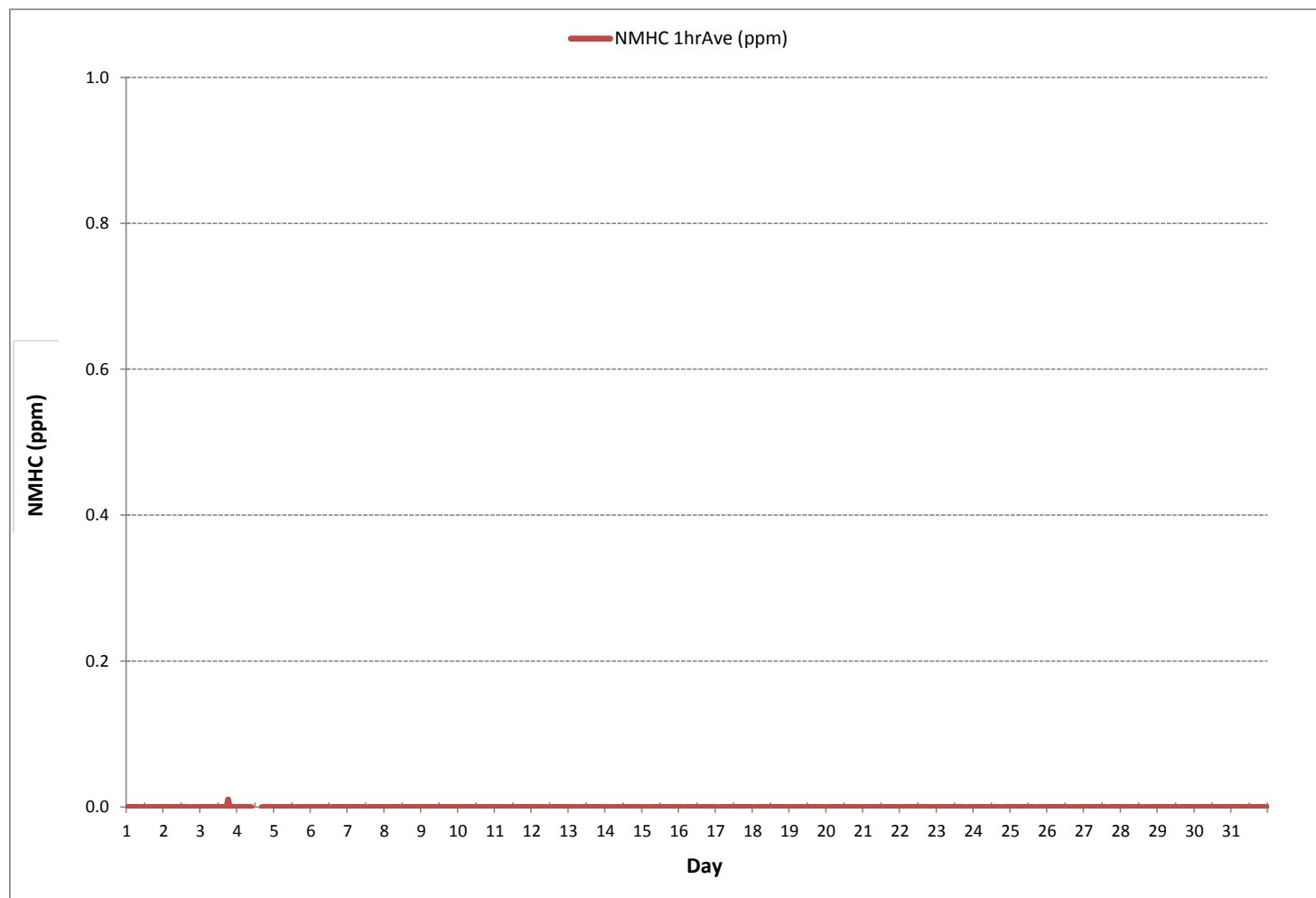
24 HR AVERAGES January 2018



MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	1				
MINIMUM 1-HR AVERAGE:	0.00	ppm	@ HOUR	0	ON DAY 1
MAXIMUM 1-HR AVERAGE:	0.01	ppm	@ HOUR	18	ON DAY 3
MAXIMUM 24-HR AVERAGE:	0.00	ppm			ON DAY 1
IZS CALIBRATION TIME:	32	hrs	OPERATIONAL TIME:	742	hrs
MONTHLY CALIBRATION TIME:	4	hrs	AMD OPERATION UPTIME:	99.7	%
STANDARD DEVIATION:	0.00		MONTHLY AVERAGE:	0.00	ppm

NON-METHANE HYDROCARBONS Hourly Averages (NMHC ppm)



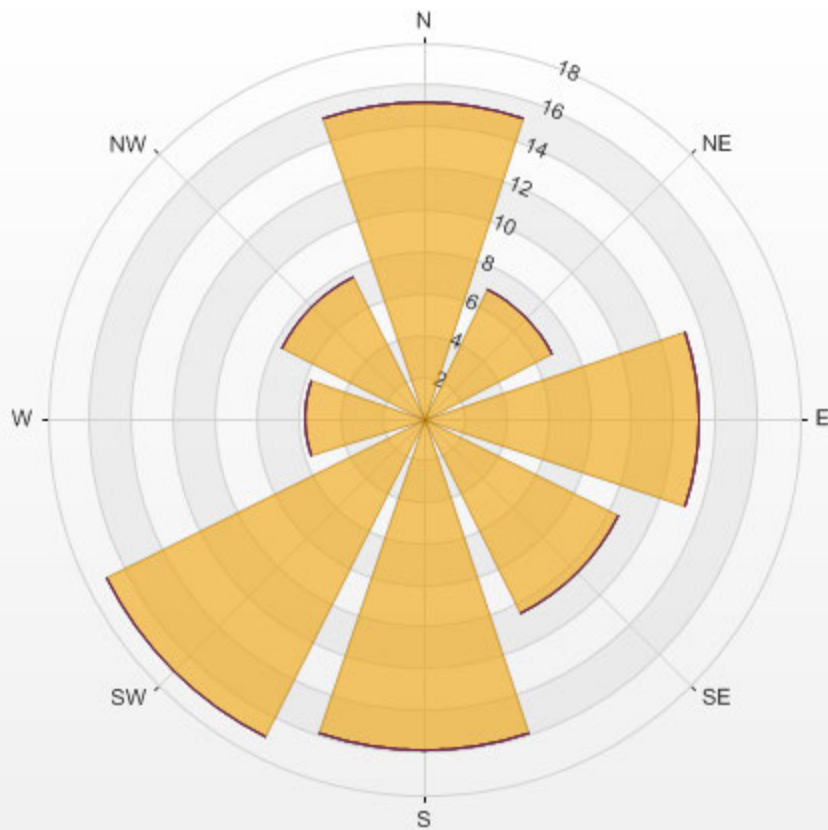
Wind: PRAMP_842
Poll.: PRAMP_842-NMHC[ppm]
Monthly: 18/01
Type: PollutionRose
Direction: Blowing From (Wind Frequency)
Based On 1 Hr.

Calm: 8.07%

Calm Avg: 0.00 [ppm]

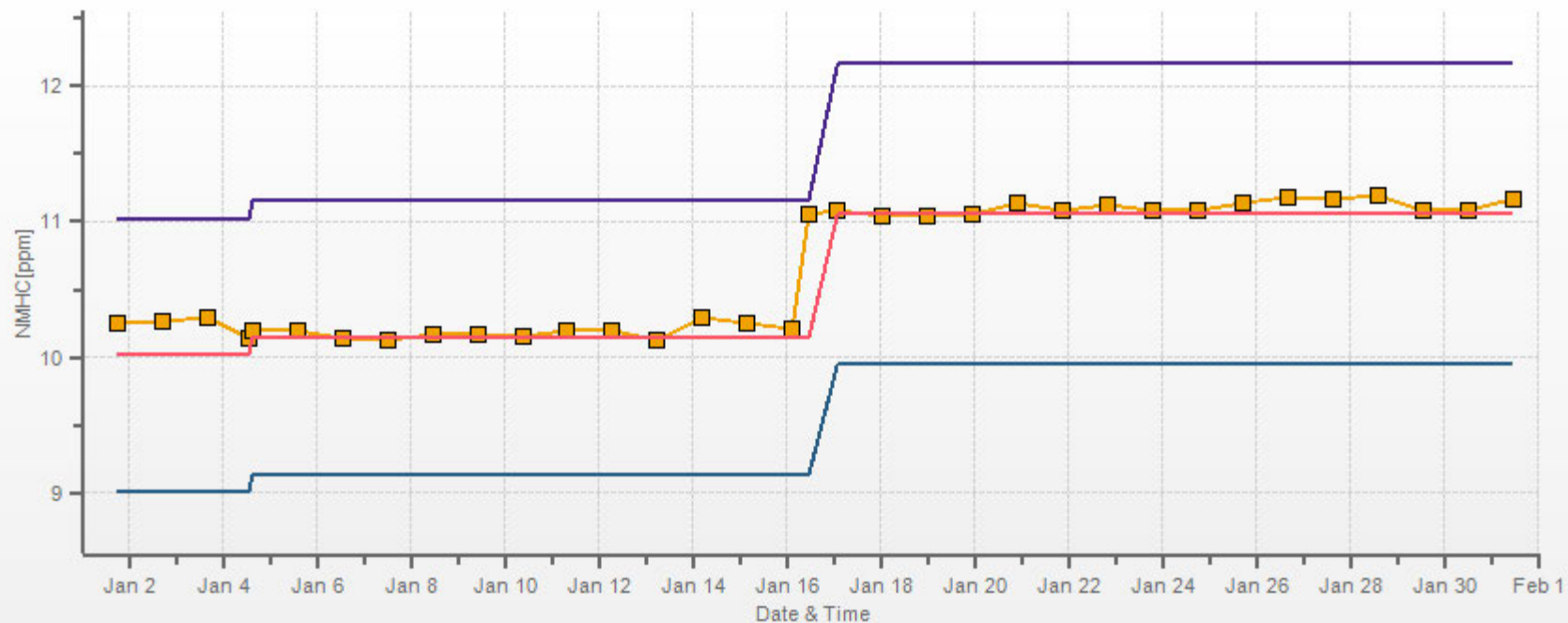
Direction	0-0.1	0.1-0.3	0.3-1	1-2	>2.0	Total
N	15.2	0.0	0.0	0.0	0.0	15.2
NE	6.9	0.0	0.0	0.0	0.0	6.9
E	13.2	0.0	0.0	0.0	0.0	13.2
SE	10.5	0.0	0.0	0.0	0.0	10.5
S	15.9	0.0	0.0	0.0	0.0	15.9
SW	17.0	0.0	0.0	0.0	0.0	17.0
W	5.7	0.0	0.0	0.0	0.0	5.7
NW	7.7	0.0	0.0	0.0	0.0	7.7
Summary	91.9	0.0	0.0	0.0	0.0	91.9

92  0-0.1 0  0.1-0.3 0  0.3-1 0  1-2 0  >2.0



NMHC[ppm] Calibration: PRAMP_842 Monthly: 18/01 Type: Span

Span Meas Span Ref Span Low Span High



WIND SPEED

WIND SPEED Hourly Averages (WS kph)

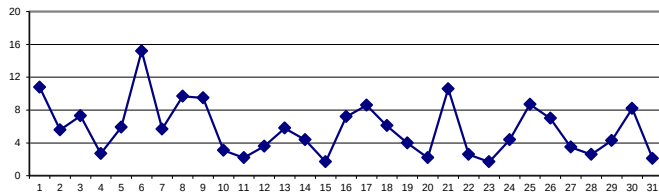
START (MST)	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY	DAILY	24-HR	RDGS.
HR END (MST)	0:59	1:59	2:59	3:59	4:59	5:59	6:59	7:59	8:59	9:59	10:59	11:59	12:59	13:59	14:59	15:59	16:59	17:59	18:59	19:59	20:59	21:59	22:59	23:59	MIN.	MAX.	AVG.	
DAY																												
1	3.8	8.1	8.3	9.1	9.8	9.8	11.0	10.4	12.2	13.7	13.9	17.5	16.7	15.3	17.4	19.9	9.7	4.4	11.4	13.8	10.1	9.7	8.4	9.1	3.8	19.9	10.8	24
2	9.3	4.9	4.2	3.8	1.3	3.0	2.7	4.1	2.4	3.9	4.9	3.4	7.3	11.8	10.5	9.8	9.7	8.4	6.5	13.1	11.6	5.3	5.7	4.4	1.3	13.1	5.6	24
3	7.2	2.8	5.3	5.9	5.1	5.0	6.1	5.9	5.1	10.6	12.1	14.1	13.1	11.6	12.1	14.1	13.0	10.4	12.0	7.4	3.2	8.2	5.9	6.4	2.8	14.1	7.3	24
4	3.2	3.1	3.2	1.7	2.3	3.0	3.3	4.4	4.6	3.4	3.9	2.8	3.5	4.6	4.3	3.2	4.2	3.0	1.4	5.2	2.6	2.4	3.2	4.1	1.4	5.2	2.7	24
5	7.1	6.6	3.4	4.0	0.5	0.9	3.7	5.7	5.2	6.7	8.3	10.1	9.4	9.6	11.4	8.3	5.8	8.1	9.6	10.0	5.3	6.6	8.2	9.5	0.5	11.4	5.9	24
6	5.0	8.9	9.2	9.2	11.2	14.0	17.2	17.6	14.6	20.9	19.1	21.1	23.7	22.6	18.7	18.6	17.3	18.0	17.2	16.7	14.7	13.8	15.0	16.0	5.0	23.7	15.2	24
7	15.4	12.9	11.2	8.6	7.5	7.0	10.2	8.5	5.6	5.9	5.2	9.0	10.0	6.2	7.8	8.4	9.3	6.5	3.8	4.5	4.9	4.4	5.2	3.4	3.4	15.4	5.7	24
8	5.1	2.2	2.4	1.6	9.9	11.2	12.3	13.1	13.9	14.4	14.3	14.6	14.7	14.6	12.1	13.3	11.7	12.6	12.9	12.2	9.5	9.9	9.2	9.4	1.6	14.7	9.7	24
9	10.8	11.0	9.5	9.4	8.4	9.8	8.3	9.0	10.2	10.3	11.1	11.7	12.8	11.6	12.2	11.1	9.8	10.4	11.6	10.9	10.5	8.6	6.9	4.7	4.7	12.8	9.5	24
10	3.2	2.0	0.7	0.4	0.9	1.7	0.9	2.2	1.8	1.7	1.9	5.2	5.7	7.9	7.8	6.6	7.4	8.4	6.6	6.2	6.8	5.8	5.9	4.7	0.4	8.4	3.1	24
11	5.3	6.8	5.3	5.4	6.6	4.9	3.5	2.4	4.3	3.9	3.1	4.1	0.9	2.9	4.2	2.7	2.4	3.3	2.6	1.0	3.4	2.7	2.0	2.7	0.9	6.8	2.2	24
12	1.7	1.9	3.9	0.5	1.3	3.8	3.5	4.2	3.2	1.2	0.3	1.1	5.2	5.1	5.5	5.9	5.3	7.2	6.1	10.1	13.0	11.3	9.9	9.0	0.3	13.0	3.6	24
13	8.9	12.8	8.5	9.3	12.1	15.5	13.6	10.9	7.3	7.7	10.4	11.7	9.5	7.4	5.6	4.7	5.7	4.2	3.1	3.9	2.6	4.5	5.7	6.3	2.6	15.5	5.8	24
14	3.9	3.9	4.9	5.6	4.9	3.3	3.6	2.8	3.9	6.7	3.5	4.6	5.5	5.3	6.2	6.7	7.6	7.5	8.0	8.5	8.3	11.5	11.2	5.3	2.8	11.5	4.4	24
15	6.1	7.1	6.9	4.9	5.0	3.4	3.5	3.6	2.8	5.6	5.0	5.1	1.1	5.1	4.7	2.9	2.0	0.9	0.1	1.7	1.1	0.8	0.9	0.6	0.1	7.1	1.7	24
16	1.0	1.1	0.4	0.2	1.2	2.1	6.4	6.3	5.5	11.1	10.7	11.9	10.2	10.2	11.9	11.9	9.3	9.5	8.9	9.2	8.6	7.9	12.1	12.4	0.2	12.4	7.2	24
17	10.4	6.4	10.0	13.6	12.7	9.1	12.9	9.8	7.7	5.8	14.6	14.9	11.8	13.2	13.6	13.8	12.1	8.9	11.0	5.3	5.3	5.2	8.1	7.6	5.2	14.9	8.6	24
18	5.8	4.9	2.3	3.7	2.9	3.6	2.3	9.2	7.7	9.7	6.8	10.0	16.3	15.6	15.9	13.5	12.8	11.4	9.5	7.3	6.0	6.8	6.1	5.8	2.3	16.3	6.1	24
19	5.4	8.2	7.5	5.4	4.5	5.8	6.3	7.7	7.3	5.7	7.5	7.4	9.3	12.5	8.3	6.7	4.2	0.9	1.6	2.0	1.6	1.9	1.5	1.0	0.9	12.5	4.0	24
20	1.5	2.7	2.9	1.4	2.6	1.7	3.4	1.0	1.8	2.6	3.2	2.0	3.8	5.8	4.8	6.5	5.6	4.8	3.6	3.7	3.9	4.4	4.4	6.1	1.0	6.5	2.2	24
21	5.8	4.5	5.6	8.0	7.5	9.1	9.3	10.0	10.0	11.9	14.4	15.5	12.4	14.3	12.7	13.6	13.6	12.9	13.5	13.3	13.0	11.9	8.4	7.8	4.5	15.5	10.6	24
22	5.4	2.0	2.7	6.6	4.6	6.1	2.3	2.4	3.4	2.2	2.3	3.1	3.1	5.1	3.2	2.7	2.7	3.9	3.3	2.0	2.6	3.8	5.7	5.2	2.0	6.6	2.6	24
23	5.3	3.6	3.3	2.3	2.8	2.2	2.3	4.4	5.6	2.9	5.9	6.4	8.0	7.5	6.6	2.7	1.7	3.6	3.1	3.5	2.4	2.1	3.1	4.6	1.7	8.0	1.7	24
24	4.7	4.7	4.8	4.8	3.7	2.2	1.9	2.6	2.3	2.0	2.6	6.0	6.7	4.9	5.4	5.3	5.3	7.6	6.2	6.7	7.3	4.6	5.4	5.5	1.9	7.6	4.4	24
25	4.2	5.0	5.4	6.8	7.5	7.5	7.2	6.6	7.2	7.4	10.8	11.0	9.9	10.3	9.7	11.2	12.0	10.7	11.5	10.7	9.1	11.4	11.8	10.4	4.2	12.0	8.7	24
26	11.5	9.3	7.9	9.4	7.8	8.7	8.9	9.2	9.5	7.6	7.7	8.4	9.6	10.3	7.9	8.1	7.3	5.7	4.0	2.7	2.7	2.7	3.2	3.1	2.7	11.5	7.0	24
27	2.9	2.6	3.2	4.4	2.7	3.0	3.9	0.3	1.4	1.6	3.5	3.8	5.2	7.0	8.5	8.1	7.8	4.8	3.5	1.5	3.1	3.1	1.5	2.5	0.3	8.5	3.5	24
28	2.0	2.9	2.3	3.9	1.2	0.5	1.2	1.8	2.9	1.5	3.0	3.2	8.1	5.4	3.3	3.7	4.5	5.2	3.7	6.9	7.6	7.0	6.1	6.2	0.5	8.1	2.6	24
29	5.6	7.9	7.4	7.9	8.4	8.5	4.2	6.0	6.1	6.5	5.9	8.3	7.7	7.8	6.6	5.4	3.2	4.8	9.5	7.7	12.7	10.9	12.0	11.2	3.2	12.7	4.3	24
30	11.9	13.4	10.4	7.6	6.5	5.0	5.7	6.5	6.6	7.3	11.5	13.2	14.4	14.6	13.3	13.7	9.1	5.0	3.7	3.8	6.2	4.9	3.4	2.6	2.6	14.6	8.2	24
31	4.5	4.7	3.8	2.7	2.8	2.0	0.4	0.1	0.1	0.4	1.3	1.2	1.2	4.6	2.5	5.7	6.3	4.8	3.1	2.1	2.2	1.7	2.8	2.7	0.1	6.3	2.1	24
HOURLY MAX	15.4	13.4	11.2	13.6	12.7	15.5	17.2	17.6	14.6	20.9	19.1	21.1	23.7	22.6	18.7	19.9	17.3	18.0	17.2	16.7	14.7	13.8	15.0	16.0				
HOURLY AVG	0.9	0.9	0.8	0.6	0.7	0.8	0.9	1.1	1.1	1.1	1.5	2.5	3.2	3.4	2.9	2.5	1.7	1.0	0.8	1.0	0.7	0.9	0.7	0.6				

STATUS FLAG CODES

C	- MONTHLY CALIBRATION	Q	- QUALITY ASSURANCE
C1	- REPEAT CALIBRATION	R	- RECOVERY
Y	- MAINTENANCE	X	- MACHINE MALFUNCTION
S	- DAILY ZERO/SPAN CHECK	G	- OUT FOR REPAIR
S1	- REPEAT ZERO/SPAN CHECK	P	- POWER FAILURE

LAST CALIBRATION: August 30, 2017
DECLINATION : MAGNETIC DECLINATION 15 DEGREE EAST

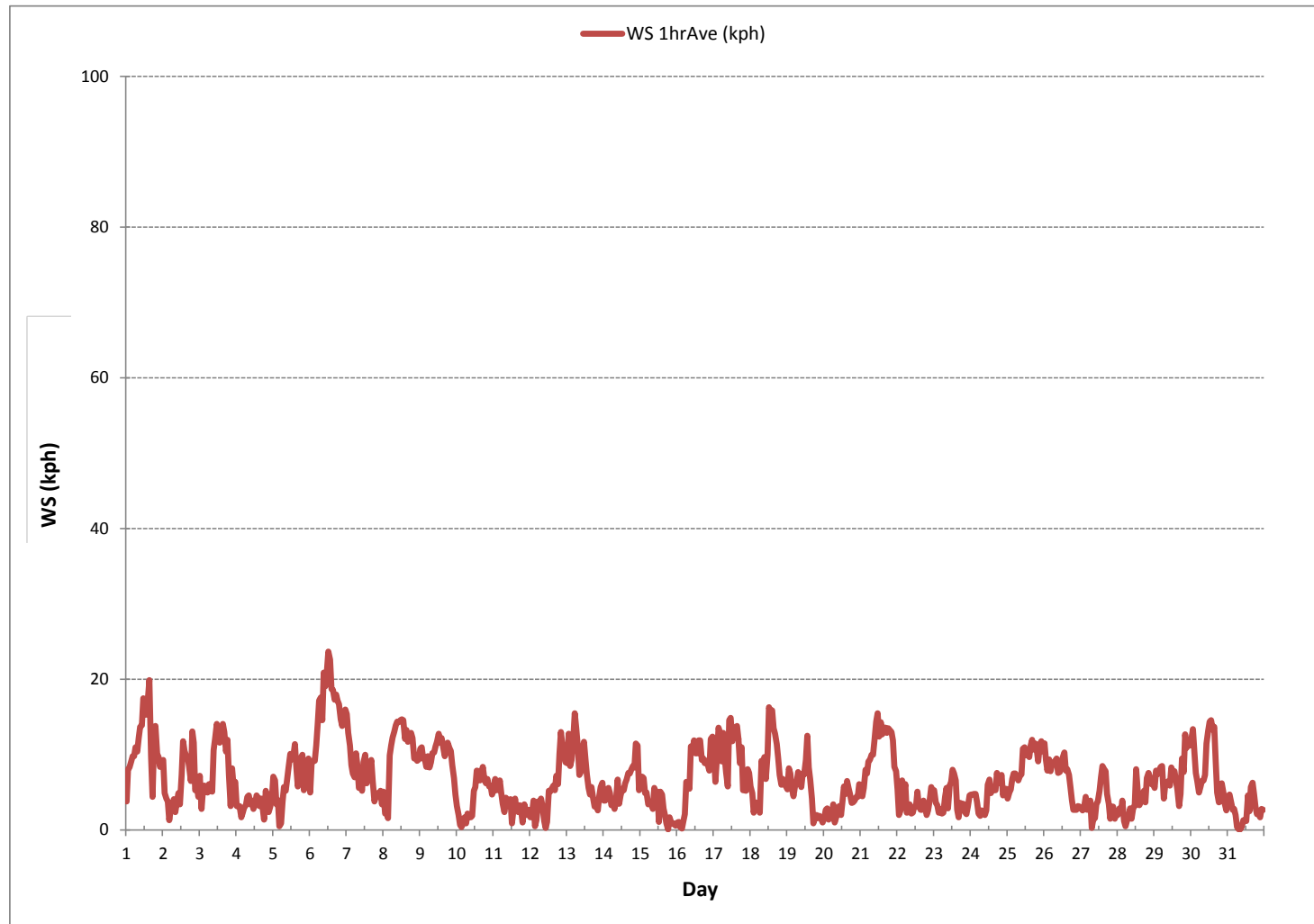
24 HR AVERAGES January 2018



MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	744				
MINIMUM 1-HR AVERAGE:	0.1 kph	@ HOUR	18	ON DAY	15
MAXIMUM 1-HR AVERAGE:	23.7 kph	@ HOUR	12	ON DAY	6
MAXIMUM 24-HR AVERAGE:	15.2 kph			ON DAY	6
MONTHLY CALIBRATION TIME:	0 hrs	OPERATIONAL TIME:	744 hrs		
STANDARD DEVIATION:	4.2	AMD OPERATION UPTIME:	100.0 %		
		MONTHLY AVERAGE:	1.1 kph		

WIND SPEED Hourly Averages (WS kph)



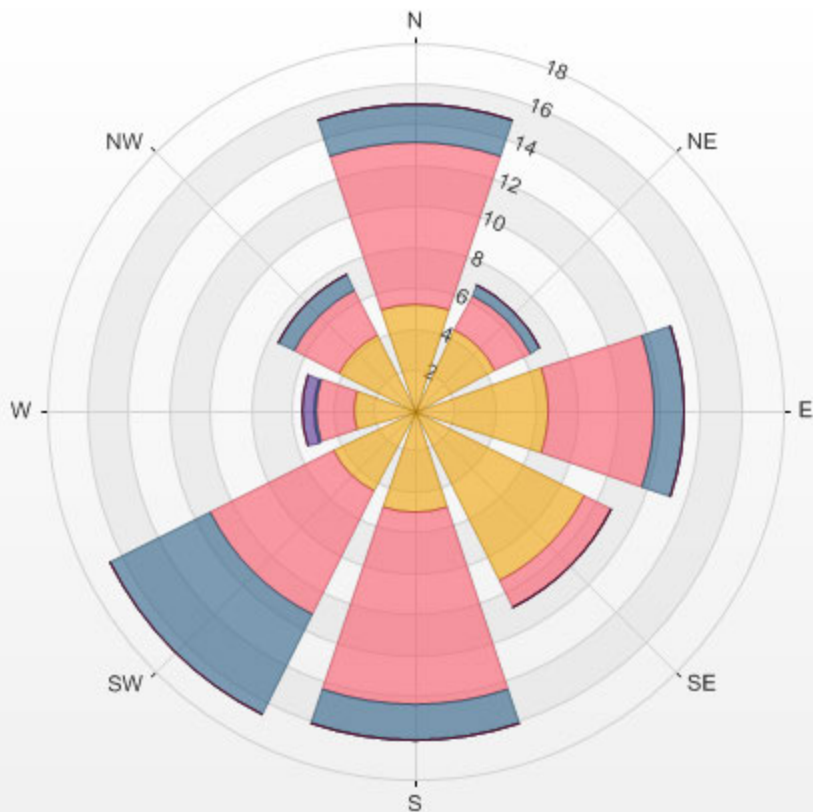
Wind: PRAMP_842
 Monitor: WSP [kph]
 Monthly: 18/01
 Type: WindRose
 Direction: Blowing From (Wind Frequency)
 Based On 1 Hr.

Calm: 8.33%

Direction	1.8-6.0	6.0-12.0	12.0-20.0	20.0-29.0	29.0-39.0	>39.0	Total
N	5.2	7.9	1.9	0.0	0.0	0.0	15.1
NE	4.4	1.9	0.5	0.0	0.0	0.0	6.9
E	6.6	5.1	1.5	0.0	0.0	0.0	13.2
SE	9.3	1.5	0.0	0.0	0.0	0.0	10.8
S	5.0	9.4	1.8	0.0	0.0	0.0	16.1
SW	4.4	6.7	5.5	0.0	0.0	0.0	16.7
W	3.0	1.9	0.1	0.5	0.0	0.0	5.5
NW	4.2	2.4	0.9	0.0	0.0	0.0	7.5
Summary	42.1	36.8	12.2	0.5	0.0	0.0	91.7

%	Icon	Classes (kph)	%	Icon	Classes (kph)	%	Icon	Classes (kph)	%	Icon	Classes (kph)	%	Icon	Classes (kph)	%	Icon	Classes (kph)
42		1.8-6.0	37		6.0-12.0	12		12.0-20.0	1		20.0-29.0	0		29.0-39.0	0		>39.0

PRAMP_842 2018/01/01 00:00 - 2018/01/31 23:00 Calm: 8.33% Calm Wind Avg Speed: 1.09(kph)



WIND DIRECTION



PEACE RIVER AREA MONITORING PROGRAM COMMITTEE

Three Creeks 842b Station - January 2018

WIND DIRECTION Hourly Averages (WD)

HR START (MST)	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24-HOUR AVG	24-HR
HR END (MST)	0:59	1:59	2:59	3:59	4:59	5:59	6:59	7:59	8:59	9:59	10:59	11:59	12:59	13:59	14:59	15:59	16:59	17:59	18:59	19:59	20:59	21:59	22:59	23:59	QUADRANT	RDGS.
DAY																										
1	S	SSW	S	SSE	S	S	S	S	S	SSW	SSW	SSW	SSW	SW	SSW	SW	SW	S	SSW	SW	SW	SW	WSW	SW	SSW	24
2	SW	SSW	SSE	WSW	SW	SW	SSE	SSE	ESE	SE	SE	SSE	S	SW	SSW	SSW	SSW	S	S	SSW	SW	S	S	SW	SSW	24
3	SW	SSW	SSE	SE	SE	SE	SE	SSE	SSE	SSW	SW	SW	SW	SW	SW	SSW	SSW	SSW	SW	SW	SSE	SW	WSW	WSW	SSW	24
4	SSW	SSE	S	SW	ESE	ESE	SE	SE	SE	SE	SE	SE	S	S	SSW	SSW	SSE	SSE	ESE	SE	SE	E	ENE	E	SE	24
5	ESE	SE	E	ENE	NE	NE	ENE	ESE	SSE	S	SSE	S	S	SSW	SSW	S	S	S	S	SSE	SSE	SSE	S	SSE	24	
6	S	SSW	SSW	S	SSW	SW	SW	SW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	SW	SW	SW	WSW	SW	SW	WSW	SW	SW	SSW	24
7	SW	WSW	WSW	WSW	WSW	W	W	WSW	SW	SW	SSW	SW	SW	SSW	SSE	SSW	S	SSE	SE	ESE	ESE	SE	SE	SSE	SW	24
8	S	SE	ESE	NNE	N	N	N	NNE	NNE	N	N	N	N	N	N	N	NNE	NNE	NE	NE	NE	NE	NE	NE	NNE	24
9	NE	NE	NE	NE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	NNE	N	NNW	NNW	N	N	N	N	NNW	NNE	24
10	NNW	N	WNW	W	W	WSW	W	NW	WSW	WSW	W	WSW	WSW	WSW	SW	SW	SSW	SSW	SSW	S	S	SSE	SSE	SSE	SW	24
11	SE	SSE	SSE	SSE	S	SSE	SE	SE	SE	SE	SSE	SSE	SSW	WSW	W	WNW	NW	ENE	ENE	E	ENE	E	E	E	SE	24
12	E	ESE	ENE	SE	ESE	SE	SE	SE	ESE	E	WSW	SW	W	WSW	WSW	WSW	SW	SSW	SSW	SSW	SSW	S	SSW	S	SSW	24
13	S	S	S	S	SSW	SSW	S	S	SSE	SSW	SSW	SW	SW	SW	SSW	S	SSE	SE	SE	N	NE	NE	NNE	NW	SSW	24
14	NNW	N	NNE	NNE	NNE	NNW	N	NNE	ENE	ENE	E	E	E	E	E	E	E	ESE	ESE	ESE	ESE	ESE	SE	E	24	
15	ESE	ESE	ESE	ESE	ESE	ESE	ENE	E	ENE	ENE	ENE	ENE	NE	W	WSW	W	SW	SW	SE	E	WNW	E	NW	NW	E	24
16	E	ENE	SE	ESE	SW	SSW	S	SSE	S	SSW	SSW	S	SSW	SSW	SSW	SSW	S	S	S	S	S	S	S	SSE	S	24
17	SSE	SSE	SSW	SW	SSW	SSW	SSW	SW	S	S	SSW	SSW	SSW	S	S	SSE	SSE	SSE	SSE	SSE	ESE	ESE	E	E	ESE	24
18	E	E	NNE	ENE	ESE	SW	SSW	SSW	SSW	SSW	SSE	SSW	SW	SSW	SSW	SW	WSW	WSW	W	W	WSW	WSW	WSW	WSW	SW	24
19	WSW	SW	SW	SW	WSW	SW	SW	SW	WSW	W	WNW	W	W	NW	NW	WNW	WSW	ENE	ENE	E	E	E	E	SSE	W	24
20	ESE	SE	WNW	W	WSW	SW	NW	WSW	SSW	NW	WSW	W	NNW	N	NNW	NNW	NNW	NW	NNW	N	NNE	NNE	NE	NE	NNW	24
21	NE	ENE	ENE	ENE	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	ESE	E	E	24
22	SE	SSE	SE	SW	WSW	SW	SE	SE	S	SE	S	WSW	SW	WSW	WSW	SW	S	S	SSE	SE	SE	SSE	S	S	S	24
23	SW	WSW	SSW	SW	SE	SSE	SSE	SSE	S	S	SW	SW	SW	WSW	WSW	WSW	WSW	NE	ENE	ENE	ENE	ENE	ENE	ENE	SSW	24
24	ENE	NE	NE	NE	NE	N	NW	NNE	ENE	NE	ENE	E	E	E	ENE	ENE	ENE	ENE	ENE	E	ENE	ENE	NE	ENE	ENE	24
25	ENE	NNE	N	N	N	N	N	N	NNW	NNW	NNW	NNW	N	NNW	NNW	NNW	NNW	NNW	NNW	N	NNW	N	N	N	N	24
26	N	N	N	NNW	NNW	NNW	N	N	N	NNW	NNW	NW	NW	NNW	NNW	NNW	NW	NW	NNW	NNW	NNW	NNW	NW	NW	NNW	24
27	NNW	NNW	NNW	N	N	NNW	NW	NNE	NNE	NNW	N	NW	WNW	NW	NW	NNW	NNW	NNW	NNW	NW	NNW	NW	NNW	N	NW	24
28	WNW	ENE	WSW	WSW	SW	NNE	WSW	E	SE	SE	SE	SE	S	SSE	ESE	E	ENE	ENE	ENE	E	E	E	E	E	ESE	24
29	E	E	E	E	E	E	E	E	E	ESE	ESE	ESE	ESE	ESE	ESE	ENE	NE	NE	NNW	NNW	NNW	NNW	NNW	NNW	NNW	24
30	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	N	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	NNW	24
31	N	N	N	N	N	N	NNE	SSE	W	S	W	SW	SW	W	WSW	W	NW	NW	N	N	N	N	N	NNW	NNW	24

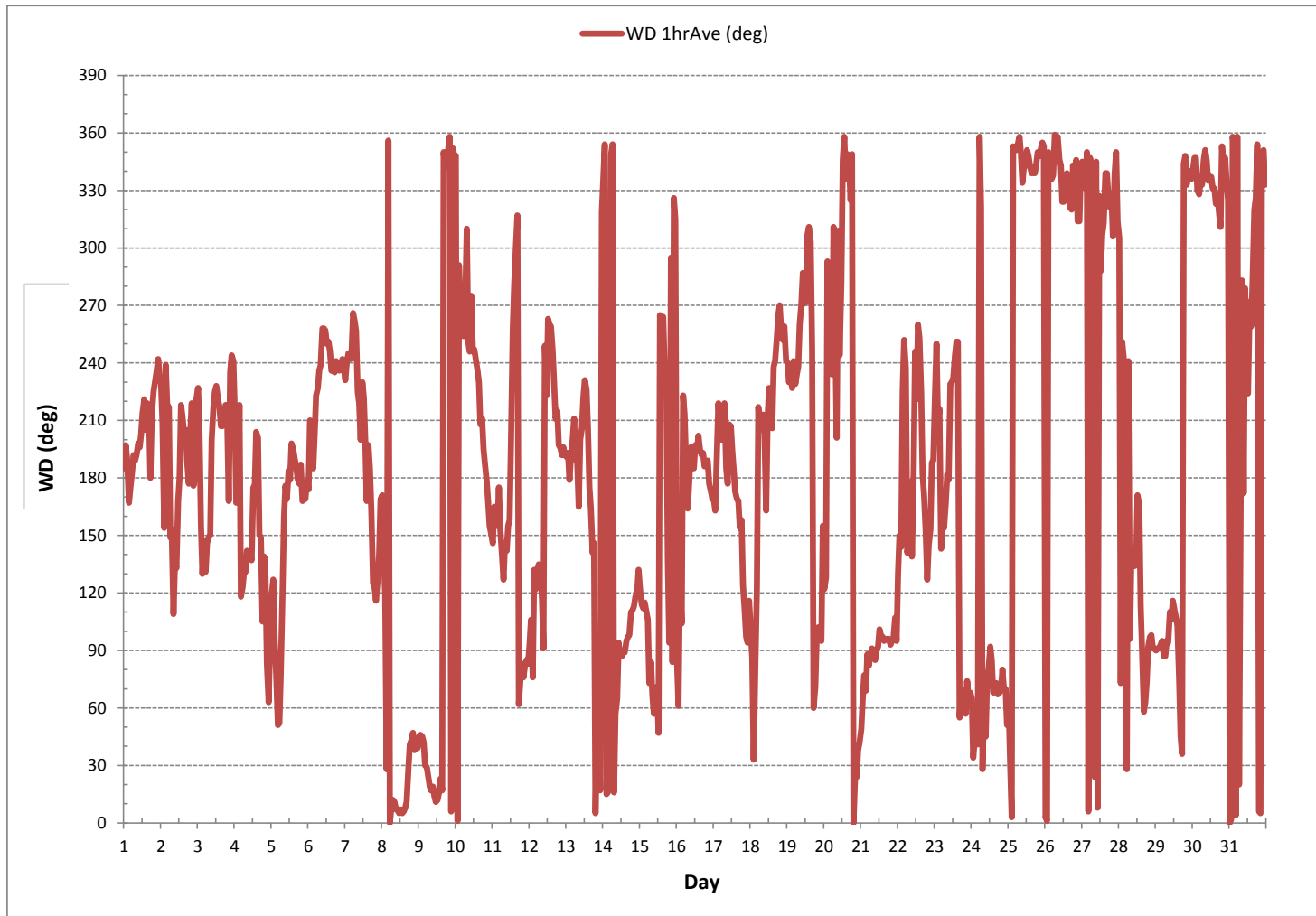
STATUS FLAG CODES

C	- MONTHLY CALIBRATION	Q	- QUALITY ASSURANCE
C1	- REPEAT CALIBRATION	R	- RECOVERY
Y	- MAINTENANCE	X	- MACHINE MALFUNCTION
S	- DAILY ZERO/SPAN CHECK	G	- OUT FOR REPAIR
S1	- REPEAT ZERO/SPAN CHECK	P	- POWER FAILURE

LAST CALIBRATION:	August 30, 2017
DECLINATION :	MAGNETIC DECLINATION 15 DEGREE EAST

MONTHLY CALIBRATION TIME:	0	hrs	OPERATIONAL TIME:	744	hrs
STANDARD DEVIATION:	100		AMD OPERATION UPTIME:	100.0	%
			MONTHLY AVERAGE:	208 (SSW)	

WIND DIRECTION Hourly Averages (WD)



RELATIVE HUMIDITY

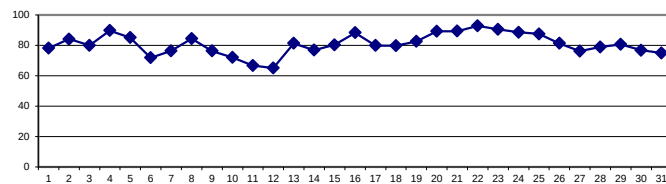
RELATIVE HUMIDITY Hourly Averages (RH %)

HR START (MST)	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY	DAILY	24-HR	RDGS.
HR END (MST)	0:59	1:59	2:59	3:59	4:59	5:59	6:59	7:59	8:59	9:59	10:59	11:59	12:59	13:59	14:59	15:59	16:59	17:59	18:59	19:59	20:59	21:59	22:59	23:59	MIN.	MAX.	AVG.	
DAY																												
1	73	72	73	74	75	76	77	77	78	79	78	76	76	79	79	78	79	82	82	80	82	82	83	83	72	83	78	24
2	82	83	88	90	88	90	90	90	88	90	86	81	78	75	76	77	79	81	85	80	79	86	89	87	75	90	84	24
3	79	86	90	92	91	92	93	91	91	85	76	72	68	64	66	70	72	72	71	72	86	79	78	81	64	93	80	24
4	86	92	94	93	91	91	92	92	92	91	94	93	86	78	74	81	87	90	92	95	93	92	91	92	74	95	90	24
5	93	92	93	92	92	92	92	92	93	91	89	85	78	73	71	77	80	80	80	79	81	83	82	81	71	93	85	24
6	82	80	81	81	79	80	79	78	76	73	73	71	68	67	65	66	64	65	65	65	65	67	66	66	64	82	72	24
7	66	68	70	70	73	73	71	71	76	78	69	68	68	70	70	73	76	82	86	92	90	92	91	90	66	92	76	24
8	90	91	90	91	90	90	88	87	87	85	83	81	82	80	80	81	83	82	79	81	81	80	81	81	79	91	84	24
9	80	80	80	79	80	79	79	79	78	78	77	75	73	73	72	73	75	76	75	74	74	74	74	74	72	80	76	24
10	74	73	72	71	71	72	71	73	73	73	74	74	72	71	70	70	73	74	73	73	72	71	70	70	70	74	72	24
11	70	70	70	69	70	68	68	68	69	67	70	69	65	61	63	59	61	64	68	68	67	66	65	64	59	70	67	24
12	63	63	63	62	62	62	63	62	62	62	61	55	60	61	61	65	69	73	72	74	72	71	72	73	55	74	65	24
13	75	76	76	77	78	78	78	81	83	85	82	80	80	81	81	83	85	86	86	86	87	85	81	82	75	87	81	24
14	83	83	83	82	81	80	81	82	84	84	82	77	68	61	63	66	73	72	72	70	75	79	81	84	61	84	77	24
15	86	86	87	86	86	83	84	87	85	87	70	61	53	68	68	67	72	87	88	89	88	87	86	86	53	89	80	24
16	85	84	84	83	84	87	88	87	87	87	85	91	90	91	90	90	89	90	90	90	90	91	92	92	83	92	88	24
17	92	92	90	86	83	85	85	87	89	92	82	74	69	68	67	71	73	78	78	85	81	72	68	69	67	92	80	24
18	69	71	75	80	81	83	83	81	80	79	82	79	76	80	79	80	79	78	79	81	84	85	83	85	69	85	80	24
19	85	86	85	88	89	91	90	89	90	92	81	76	73	61	56	61	68	82	90	91	90	89	89	89	56	92	83	24
20	90	90	91	91	91	91	93	94	93	93	92	92	91	83	81	77	79	87	88	89	90	90	91	92	77	94	89	24
21	93	92	91	92	92	92	91	91	91	91	90	91	91	90	88	86	86	86	87	87	87	87	87	88	86	93	89	24
22	89	90	92	92	92	94	92	92	92	92	93	93	93	94	93	93	94	94	94	93	93	94	94	94	89	94	93	24
23	93	93	92	92	91	89	89	89	89	89	91	92	91	91	90	91	88	90	90	89	90	91	91	90	88	93	90	24
24	90	90	89	89	89	86	86	86	87	88	88	85	85	87	87	88	89	90	91	91	91	91	91	91	85	91	89	24
25	91	91	90	90	91	91	90	90	89	89	88	87	85	84	84	86	86	86	86	86	85	85	85	84	84	91	87	24
26	83	83	82	82	82	81	81	81	81	81	81	81	80	79	78	79	80	81	82	82	82	82	82	83	78	83	81	24
27	82	83	82	82	82	82	80	79	76	77	75	68	71	64	64	60	64	77	80	80	80	80	80	80	60	83	76	24
28	80	80	80	81	79	78	78	78	78	77	74	72	76	79	80	80	78	80	81	81	81	81	80	80	72	81	79	24
29	80	80	80	81	81	81	82	83	83	81	81	76	74	75	72	70	78	84	84	85	85	86	86	85	70	86	81	24
30	85	84	84	84	83	83	82	82	81	79	77	73	70	68	65	65	69	73	76	77	75	75	75	77	65	85	77	24
31	77	77	77	77	77	77	77	76	76	75	72	73	67	70	68	70	72	75	76	77	77	77	78	78	67	78	75	24
HOURLY MAX	93	93	94	93	92	94	93	94	93	93	94	93	93	93	94	93	93	94	94	95	93	94	94	94				
HOURLY AVG	82	83	83	83	83	83	83	83	83	83	81	78	76	75	74	75	77	81	81	82	82	82	82	82				

STATUS FLAG CODES

C	- MONTHLY CALIBRATION	Q	- QUALITY ASSURANCE
C1	- REPEAT CALIBRATION	R	- RECOVERY
Y	- MAINTENANCE	X	- MACHINE MALFUNCTION
S	- DAILY ZERO/SPAN CHECK	G	- OUT FOR REPAIR
S1	- REPEAT ZERO/SPAN CHECK	P	- POWER FAILURE

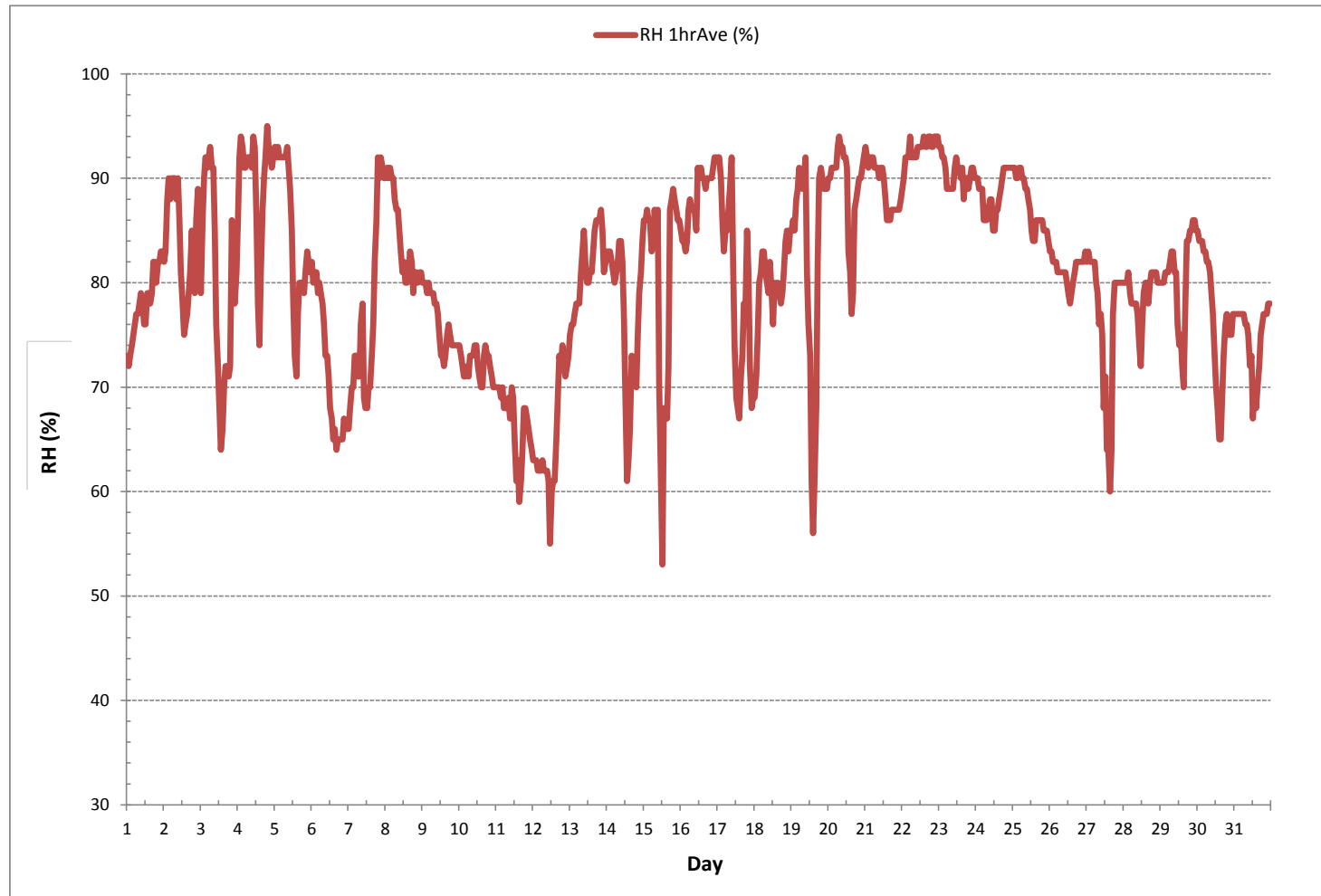
24 HR AVERAGES January 2018



MONTHLY SUMMARY

MINIMUM 1-HR AVERAGE:	53	%	@ HOUR	12	ON DAY	15
MAXIMUM 1-HR AVERAGE:	95	%	@ HOUR	19	ON DAY	4
MAXIMUM 24-HR AVERAGE:	93	%			ON DAY	22
OPERATIONAL TIME:						744 hrs
AMD OPERATION UPTIME:						100.0 %
STANDARD DEVIATION:	9		MONTHLY AVERAGE:			81 %

RELATIVE HUMIDITY Hourly Averages (RH %)



BAROMETRIC PRESSURE



PEACE RIVER AREA MONITORING PROGRAM COMMITTEE

Three Creeks 842b Station - January 2018

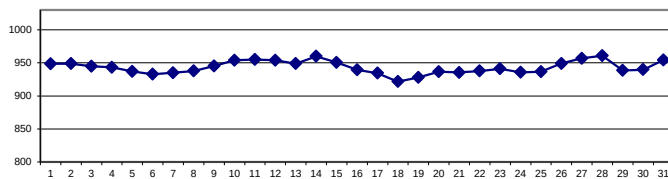
BAROMETRIC PRESSURE Hourly Averages (BP mbar)

HR START (MST)	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY	DAILY	24-HR	RDGS.	
HR END (MST)	0:59	1:59	2:59	3:59	4:59	5:59	6:59	7:59	8:59	9:59	10:59	11:59	12:59	13:59	14:59	15:59	16:59	17:59	18:59	19:59	20:59	21:59	22:59	23:59	MIN.	MAX.	AVG.		
DAY																													
1	955	954	954	953	952	951	951	950	949	948	947	947	946	945	945	945	946	947	947	946	947	946	946	947	945	955	949	24	
2	947	948	950	950	950	950	950	950	950	950	950	950	950	949	949	949	949	949	948	947	946	946	946	946	946	946	950	949	24
3	945	945	946	946	946	946	946	946	945	945	945	945	945	945	944	944	944	944	943	943	943	943	943	943	943	943	946	945	24
4	943	943	944	944	944	944	944	944	944	944	944	944	944	944	943	943	943	942	942	942	942	942	942	941	941	944	943	24	
5	941	940	940	940	940	939	939	939	938	938	938	938	937	937	937	936	936	935	935	934	934	934	933	933	932	932	941	937	24
6	932	932	932	931	931	931	931	931	932	932	933	933	933	933	933	934	934	934	934	934	934	933	933	933	931	934	933	24	
7	934	934	934	935	935	936	936	936	936	937	937	937	937	936	935	935	934	934	934	934	934	934	933	933	933	933	937	935	24
8	933	933	933	933	933	934	934	935	935	936	937	938	938	939	939	940	940	941	942	942	942	942	942	942	933	942	938	24	
9	942	942	942	942	942	942	942	942	943	943	944	944	944	945	945	946	947	948	948	949	949	949	950	950	942	950	945	24	
10	951	951	951	951	952	952	952	952	952	953	953	954	954	953	953	954	955	956	956	957	957	957	957	957	951	957	954	24	
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12	956	956	956	957	957	958	957	957	957	957	955	954	953	952	952	952	952	952	951	951	950	950	949	949	949	958	954	24	
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16	944	943	943	942	942	942	941	940	940	940	939	939	938	938	938	938	938	938	937	937	937	937	937	937	937	944	939	24	
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18	924	923	923	923	922	921	921	921	921	921	921	921	920	920	920	920	921	921	921	921	922	922	922	923	920	924	921	24	
19	923	923	924	924	924	924	925	925	925	926	927	927	928	928	929	929	930	930	931	931	932	932	933	933	923	933	928	24	
20	933	934	934	934	934	934	935	935	935	935	936	936	937	937	937	938	938	939	939	939	939	939	940	940	933	940	937	24	
21	940	940	941	940	940	939	939	938	938	937	936	935	935	934	933	932	932	932	931	931	931	931	931	932	931	941	935	24	
22	932	933	933	934	935	935	936	936	937	937	938	938	938	938	939	939	940	940	941	941	941	941	941	941	932	941	938	24	
23	941	942	942	943	943	943	943	943	943	943	942	942	942	941	941	941	940	940	939	939	938	938	938	937	937	943	941	24	
24	937	936	936	937	936	937	937	937	936	936	935	935	935	935	935	935	935	935	935	935	935	935	934	934	934	937	936	24	
25	935	934	934	934	934	935	934	934	934	935	936	936	936	935	936	937	937	938	939	939	940	940	941	942	934	942	936	24	
26	942	943	944	944	945	946	946	946	947	948	949	949	949	950	950	951	952	952	953	953	953	954	954	955	942	955	949	24	
27	955	955	955	955	955	956	956	956	956	956	955	955	955	955	955	955	956	958	959	960	960	961	962	962	955	962	957	24	
28	963	963	964	964	964	965	965	964	964	964	963	962	962	961	960	959	959	958	958	957	956	955	955	953	953	965	961	24	
29	953	952	951	950	949	947	946	944	943	942	940	937	936	934	932	931	931	930	929	929	929	929	930	930	929	953	939	24	
30	931	932	933	934	935	935	936	936	937	937	938	938	939	939	940	941	943	944	945	946	946	947	948	949	931	949	940	24	
31	950	950	951	952	953	953	954	954	954	955	955	955	954	955	955	955	955	956	956	956	956	956	956	956	950	956	954	24	
HOURLY MAX	963	963	964	964	964	965	965	964	964	964	963	962	962	961	960	960	960	961	960	960	960	961	962	962					
HOURLY AVG	943	943	943	943	943	944	944	943	943	943	943	943	943	943	943	943	943	943	943	943	943	943	943	943					

STATUS FLAG CODES

C	- MONTHLY CALIBRATION	Q	- QUALITY ASSURANCE
C1	- REPEAT CALIBRATION	R	- RECOVERY
Y	- MAINTENANCE	X	- MACHINE MALFUNCTION
S	- DAILY ZERO/SPAN CHECK	G	- OUT FOR REPAIR
S1	- REPEAT ZERO/SPAN CHECK	P	- POWER FAILURE

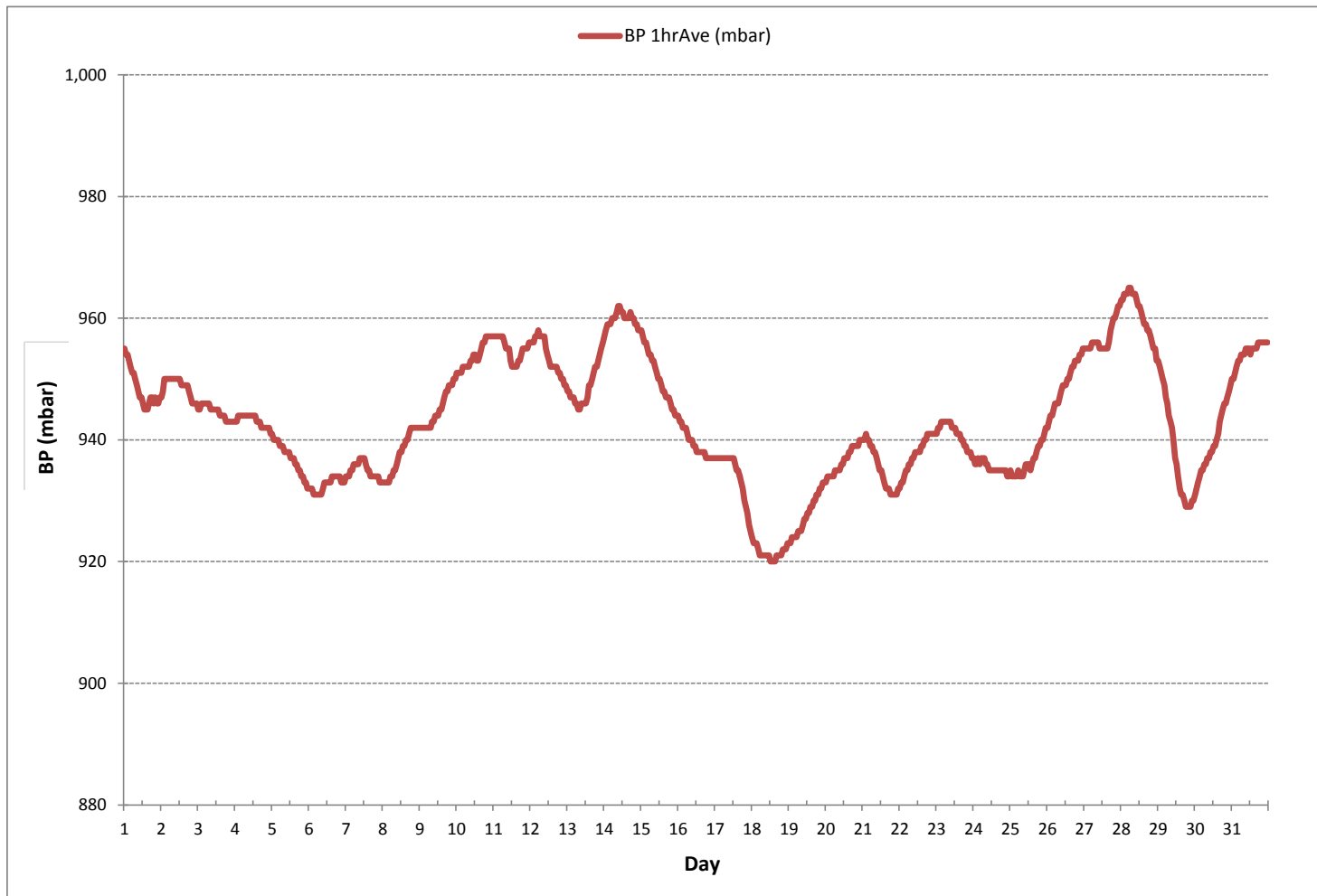
24 HR AVERAGES January 2018



MONTHLY SUMMARY

MINIMUM 1-HR AVERAGE:	920	mbar	@ HOUR	12	ON DAY	18
MAXIMUM 1-HR AVERAGE:	965	mbar	@ HOUR	5	ON DAY	28
MAXIMUM 24-HR AVERAGE:	961	mbar			ON DAY	28
OPERATIONAL TIME:						744 hrs
AMD OPERATION UPTIME:						100.0 %
STANDARD DEVIATION:	10		MONTHLY AVERAGE:			943 mbar

BAROMETRIC PRESSURE Hourly Averages (BP mbar)



AMBIENT TEMPERATURE



PEACE RIVER AREA MONITORING PROGRAM COMMITTEE

Three Creeks 842b Station - January 2018

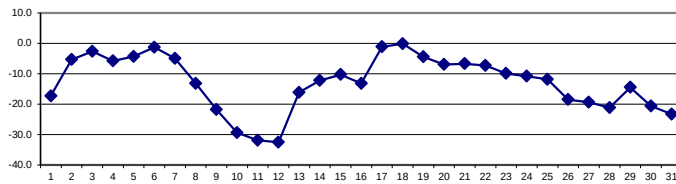
AMBIENT TEMPERATURE Hourly Averages (AmbTPX °C)

HR START (MST)	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY	DAILY	24-HR	RDGS.
HR END (MST)	0:59	1:59	2:59	3:59	4:59	5:59	6:59	7:59	8:59	9:59	10:59	11:59	12:59	13:59	14:59	15:59	16:59	17:59	18:59	19:59	20:59	21:59	22:59	23:59	MIN.	MAX.	AVG.	
DAY																												
1	-26.1	-25.5	-26.0	-26.5	-25.9	-25.4	-24.8	-24.4	-24.0	-21.7	-19.5	-17.0	-16.1	-15.5	-13.1	-10.8	-10.1	-11.4	-9.4	-8.5	-8.9	-8.3	-8.0	-7.6	-26.5	-7.6	-17.3	24
2	-6.9	-7.4	-9.7	-9.9	-8.6	-9.1	-9.3	-7.6	-8.7	-11.0	-6.8	-4.6	-2.8	-1.3	-1.4	-1.4	-1.5	-2.0	-3.2	-1.4	-1.3	-3.7	-5.0	-3.9	-11.0	-1.3	-5.4	24
3	-1.8	-4.1	-7.3	-7.0	-6.8	-8.1	-8.0	-6.8	-7.0	-4.3	-2.0	-0.9	0.5	2.0	1.6	0.7	0.5	0.5	1.0	0.3	-3.6	-0.7	-0.6	-1.5	-8.1	2.0	-2.6	24
4	-3.2	-5.7	-6.7	-6.1	-9.3	-10.1	-9.6	-9.5	-8.9	-10.2	-6.1	-4.3	-1.8	0.3	1.4	-0.5	-2.5	-3.6	-6.6	-5.9	-5.4	-7.5	-8.8	-9.0	-10.2	1.4	-5.8	24
5	-8.0	-6.7	-7.4	-7.9	-8.5	-8.2	-8.2	-8.6	-7.0	-4.3	-4.0	-3.1	-1.7	-0.6	-0.1	-1.6	-1.6	-1.4	-1.5	-1.6	-2.2	-3.2	-3.4	-2.7	-8.6	-0.1	-4.3	24
6	-2.2	-1.8	-2.2	-1.9	-0.7	-0.6	-0.5	-0.8	-1.6	-0.7	-0.3	0.2	0.7	0.9	0.3	-0.7	-1.2	-1.9	-2.1	-2.3	-2.7	-3.1	-3.1	-3.1	-3.1	0.9	-1.3	24
7	-3.5	-4.0	-4.1	-4.0	-4.3	-4.1	-3.2	-3.6	-5.1	-5.3	-2.8	-2.4	-2.1	-2.3	-2.6	-3.2	-3.8	-5.7	-8.6	-10.1	-10.7	-9.8	-7.2	-6.7	-10.7	-2.1	-5.0	24
8	-7.6	-8.5	-8.4	-7.5	-6.7	-9.0	-10.4	-11.1	-11.5	-12.0	-12.8	-13.4	-14.0	-14.5	-15.0	-15.6	-15.9	-15.9	-16.7	-17.3	-17.6	-18.1	-18.5	-18.6	-18.6	-6.7	-13.2	24
9	-18.9	-19.3	-19.5	-19.7	-19.8	-20.1	-20.2	-20.4	-20.7	-20.9	-20.7	-20.7	-20.7	-21.0	-21.0	-21.7	-22.6	-23.5	-23.8	-24.3	-25.0	-25.2	-25.6	-26.8	-26.8	-18.9	-21.8	24
10	-27.5	-27.7	-28.9	-30.2	-31.1	-30.6	-31.2	-30.4	-29.3	-29.1	-27.9	-27.1	-26.4	-25.8	-25.5	-25.5	-27.2	-28.8	-30.5	-31.4	-32.0	-33.2	-33.9	-34.1	-34.1	-25.5	-29.4	24
11	-34.4	-34.4	-34.4	-34.4	-34.1	-34.4	-34.8	-34.8	-34.1	-34.7	-30.7	-27.4	-21.5	-21.4	-23.4	-21.8	-26.2	-32.1	-33.7	-34.6	-36.1	-36.2	-37.0	-37.6	-37.6	-21.4	-31.8	24
12	-38.0	-38.5	-38.5	-38.7	-39.1	-39.3	-38.9	-39.0	-39.2	-38.9	-33.4	-27.9	-27.8	-27.3	-26.5	-27.2	-29.0	-29.2	-28.8	-27.9	-27.2	-27.3	-27.2	-26.3	-39.3	-26.3	-32.5	24
13	-26.1	-24.9	-24.5	-23.8	-22.9	-20.8	-19.4	-17.9	-18.5	-17.2	-13.8	-11.6	-11.5	-12.2	-11.7	-11.6	-11.7	-11.8	-11.9	-11.5	-11.3	-12.2	-12.4	-14.6	-26.1	-11.5	-16.1	24
14	-15.6	-15.0	-14.6	-14.4	-14.1	-14.0	-14.5	-14.5	-15.9	-14.9	-13.0	-11.2	-9.2	-7.8	-8.0	-8.7	-10.4	-11.0	-11.4	-11.4	-11.2	-10.8	-10.6	-11.0	-15.9	-7.8	-12.3	24
15	-11.1	-10.5	-10.3	-10.0	-9.9	-9.9	-11.9	-13.2	-14.3	-14.1	-10.0	-4.9	-1.5	-5.1	-5.1	-5.1	-6.1	-9.8	-12.0	-12.9	-13.4	-14.3	-15.4	-15.8	-15.8	-1.5	-10.3	24
16	-16.5	-17.1	-17.5	-18.0	-18.1	-16.6	-14.5	-14.6	-14.7	-14.1	-13.2	-12.7	-11.2	-11.1	-11.0	-11.7	-11.8	-11.9	-11.5	-11.3	-10.7	-10.5	-8.4	-7.3	-18.1	-7.3	-13.2	24
17	-5.9	-4.6	-2.3	-0.4	0.0	-0.5	-0.9	-1.6	-2.3	-4.1	-0.8	0.7	1.6	1.4	1.4	0.5	-0.4	-1.7	-1.9	-4.0	-2.4	-0.4	0.3	0.2	-5.9	1.6	-1.2	24
18	0.1	0.0	-0.5	-1.2	-1.9	-3.3	-4.3	-3.5	-3.2	-2.4	-2.2	1.1	2.4	2.3	2.7	2.3	2.4	2.2	1.8	1.2	0.5	0.2	0.4	-0.1	-4.3	2.7	-0.1	24
19	-0.2	-0.3	-0.2	-0.5	-0.7	-1.1	-1.6	-2.5	-3.6	-4.7	-3.0	-2.6	-2.4	-0.3	0.7	-0.4	-3.1	-7.2	-10.0	-11.4	-12.8	-13.6	-13.3	-11.1	-13.6	0.7	-4.4	24
20	-9.7	-9.2	-8.0	-7.5	-7.5	-7.4	-7.3	-7.4	-7.4	-7.2	-7.6	-7.2	-5.4	-4.8	-4.6	-4.6	-5.4	-6.5	-6.6	-6.6	-6.8	-6.8	-7.0	-7.6	-9.7	-4.6	-6.9	24
21	-8.1	-8.3	-8.4	-8.9	-8.8	-8.4	-8.2	-8.2	-8.2	-8.2	-7.8	-7.2	-6.5	-5.6	-5.1	-4.9	-5.2	-5.3	-5.2	-4.9	-4.9	-4.9	-4.7	-4.8	-8.9	-4.7	-6.7	24
22	-5.1	-6.3	-8.2	-7.5	-9.3	-9.3	-9.0	-9.2	-8.8	-8.4	-7.6	-6.9	-6.8	-6.8	-6.7	-6.5	-6.5	-6.5	-6.6	-6.6	-6.6	-6.7	-6.7	-6.8	-9.3	-5.1	-7.3	24
23	-7.1	-8.0	-8.4	-8.9	-9.8	-11.7	-13.0	-13.4	-12.3	-13.5	-10.0	-7.9	-7.0	-7.2	-7.3	-5.2	-7.8	-11.6	-12.1	-12.8	-11.5	-10.4	-10.2	-10.5	-13.5	-5.2	-9.9	24
24	-10.9	-10.8	-11.6	-12.2	-12.7	-15.1	-16.7	-16.4	-15.3	-13.4	-10.5	-7.9	-8.5	-8.9	-8.6	-8.6	-8.8	-9.2	-9.1	-8.9	-8.9	-8.8	-8.8	-8.7	-16.7	-7.9	-10.8	24
25	-8.7	-8.5	-8.8	-9.3	-9.6	-9.7	-9.8	-9.6	-9.9	-10.5	-11.0	-11.3	-11.1	-11.0	-11.2	-12.1	-13.1	-13.8	-14.4	-15.0	-15.5	-16.0	-16.6	-17.0	-17.0	-8.5	-11.8	24
26	-17.5	-17.8	-18.1	-18.6	-18.8	-19.1	-19.2	-19.3	-19.4	-19.4	-18.9	-18.4	-18.0	-17.9	-17.6	-18.0	-18.4	-18.7	-18.6	-18.4	-18.4	-18.6	-18.4	-18.4	-19.4	-17.5	-18.5	24
27	-18.4	-18.3	-18.3	-18.4	-18.5	-18.6	-20.6	-23.5	-26.0	-25.7	-17.4	-13.8	-17.8	-14.7	-15.3	-14.1	-16.8	-20.9	-21.1	-21.0	-21.3	-21.6	-21.9	-21.8	-26.0	-13.8	-19.4	24
28	-21.7	-21.7	-21.7	-22.7	-23.5	-24.5	-24.8	-24.3	-25.2	-25.1	-22.5	-20.5	-19.7	-19.0	-18.0	-17.9	-18.4	-19.4	-20.6	-19.7	-19.2	-19.1	-19.0	-18.8	-25.2	-17.9	-21.1	24
29	-18.5	-18.4	-18.3	-17.8	-17.5	-17.2	-16.6	-16.3	-15.8	-15.0	-14.0	-12.4	-10.9	-10.4	-9.3	-8.4	-10.4	-11.8	-12.7	-14.6	-15.5	-15.3	-15.1	-15.6	-18.5	-8.4	-14.5	24
30	-16.1	-17.2	-18.1	-18.4	-18.6	-18.7	-18.9	-19.1	-19.7	-20.2	-20.1	-19.8	-20.0	-19.9	-19.5	-20.0	-21.1	-23.1	-24.2	-24.2	-24.0	-24.3	-25.2	-25.3	-25.3	-16.1	-20.7	24
31	-24.8	-24.2	-24.1	-24.1	-24.3	-24.9	-25.4	-26.2	-27.0	-26.5	-24.2	-22.6	-21.4	-22.0	-21.2	-21.7	-21.9	-22.3	-22.0	-21.6	-21.3	-21.9	-21.8	-21.6	-27.0	-21.2	-23.3	24
HOURLY MAX	0.1	0.0	-0.2	-0.4	0.0	-0.5	-0.5	-0.8	-1.6	-0.7	-0.3	1.1	2.4	2.3	2.7	2.3	2.4	2.2	1.8	1.2	0.5	0.2	0.4	0.2				
HOURLY AVG	-13.5	-13.7	-14.0	-14.1	-14.2	-14.5	-14.7	-14.8	-15.0	-14.8	-12.7	-11.2	-10.3	-9.9	-9.7	-9.9	-10.8	-12.1	-12.7	-12.9	-13.2	-13.3	-13.3	-13.4				

STATUS FLAG CODES

C	- MONTHLY CALIBRATION	Q	- QUALITY ASSURANCE
C1	- REPEAT CALIBRATION	R	- RECOVERY
Y	- MAINTENANCE	X	- MACHINE MALFUNCTION
S	- DAILY ZERO/SPAN CHECK	G	- OUT FOR REPAIR
S1	- REPEAT ZERO/SPAN CHECK	P	- POWER FAILURE

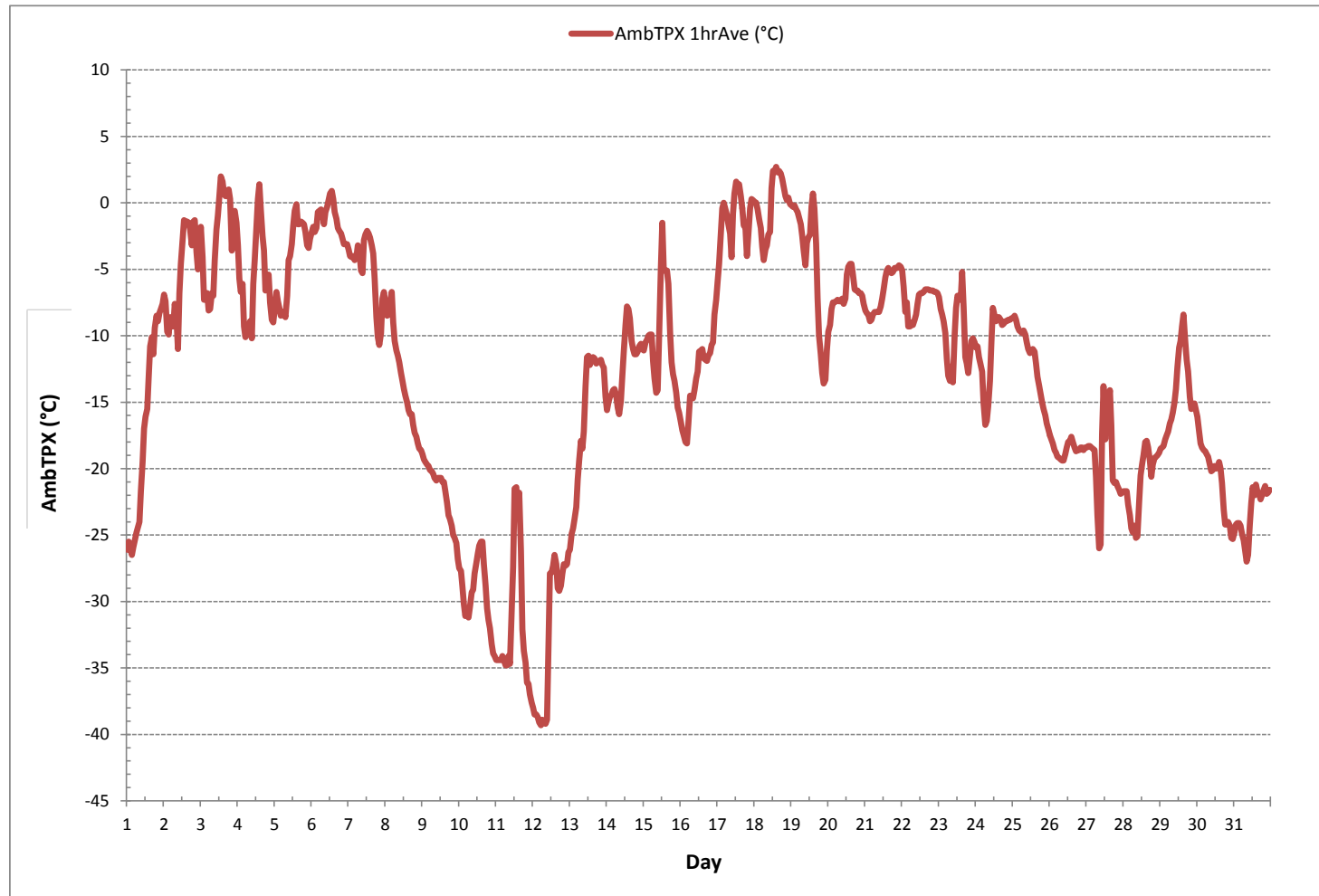
24 HR AVERAGES January 2018



MONTHLY SUMMARY

MINIMUM 1-HR AVERAGE:	-39.3	°C	@ HOUR	5	ON DAY	12
MAXIMUM 1-HR AVERAGE:	2.7	°C	@ HOUR	14	ON DAY	18
MAXIMUM 24-HR AVERAGE:	-0.1	°C			ON DAY	18
OPERATIONAL TIME:					744	hrs
AMD OPERATION UPTIME:					100.0	%
STANDARD DEVIATION:	9.4				MONTHLY AVERAGE:	-12.9 °C

AMBIENT TEMPERATURE Hourly Averages (AmbTPX °C)



STATION TEMPERATURE

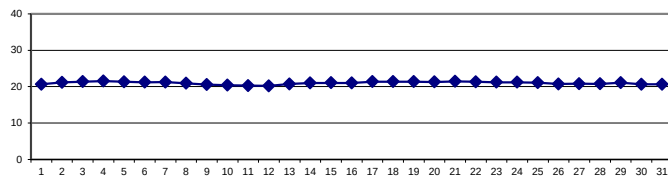
STATION TEMPERATURE Hourly Averages (StnTPX °C)

HR START (MST)	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY MIN.	DAILY MAX.	24-HR AVG.	RDGS.	
HR END (MST)	0:59	1:59	2:59	3:59	4:59	5:59	6:59	7:59	8:59	9:59	10:59	11:59	12:59	13:59	14:59	15:59	16:59	17:59	18:59	19:59	20:59	21:59	22:59	23:59					
DAY																													
1	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.3	20.3	20.2	20.3	20.2	20.5	20.6	20.7	20.5	21.0	21.0	20.9	21.2	21.0	21.1	21.1	21.1	21.1	20.2	21.2	20.6	24
2	21.0	21.3	21.0	21.3	21.0	21.3	21.0	21.3	21.0	21.3	21.0	21.2	21.3	21.0	21.3	21.1	21.1	21.1	21.3	21.9	21.1	21.1	21.3	21.2	21.2	21.0	21.3	21.2	24
3	21.3	21.4	21.2	21.1	21.2	21.1	21.2	21.1	21.2	21.1	21.2	21.2	21.0	21.3	21.1	20.9	21.1	21.3	21.9	22.7	22.4	21.9	21.7	21.5	20.9	20.9	22.7	21.4	24
4	21.2	21.4	21.3	21.3	21.4	21.2	21.4	21.3	21.2	21.5	21.6	22.3	22.4	22.5	22.6	22.3	22.7	21.5	21.1	21.0	21.0	21.3	21.1	20.9	20.9	22.7	21.6	24	
5	21.2	21.2	20.9	21.2	21.1	20.9	21.2	21.2	20.9	21.7	22.2	22.5	21.5	21.1	21.4	21.2	21.2	21.3	21.3	21.2	21.5	21.2	21.4	21.4	20.9	22.5	21.3	24	
6	21.2	21.4	21.3	21.3	21.2	21.5	21.2	21.2	21.2	21.2	21.0	21.3	21.2	21.2	21.2	21.3	21.2	21.2	21.1	21.1	21.2	21.1	21.2	21.1	21.0	21.5	21.2	24	
7	21.3	21.1	21.2	21.4	21.3	21.2	21.3	21.2	21.3	21.2	21.2	21.5	21.1	21.2	21.3	21.2	21.4	21.3	21.2	21.3	21.1	21.3	21.1	21.4	21.1	21.5	21.3	24	
8	21.0	21.3	21.0	21.3	21.0	21.3	21.1	21.1	21.1	20.9	21.0	20.9	20.9	20.8	20.7	20.8	20.8	20.7	20.8	20.9	20.8	20.8	20.6	20.8	20.6	21.3	20.9	24	
9	20.7	20.7	20.7	20.7	20.7	20.6	20.6	20.6	20.6	20.6	20.7	20.4	20.5	20.5	20.6	20.6	20.6	20.5	20.5	20.4	20.3	20.4	20.4	20.4	20.3	20.7	20.6	24	
10	20.4	20.6	20.6	20.4	20.3	20.3	20.5	20.2	20.4	20.5	20.4	20.3	20.3	20.4	20.5	20.4	20.5	20.3	20.5	20.2	20.2	20.4	20.4	20.2	20.2	20.6	20.4	24	
11	20.2	20.2	20.1	20.2	19.9	20.0	20.2	20.2	20.3	20.2	20.3	20.1	20.3	20.3	20.4	20.5	20.5	20.4	20.5	20.4	20.3	20.3	20.2	20.4	19.9	20.5	20.3	24	
12	20.1	20.0	20.4	20.0	20.3	19.9	20.2	19.9	20.2	19.6	20.6	20.4	19.9	20.5	20.3	20.2	20.5	20.4	20.5	20.4	20.1	20.2	20.3	20.1	19.6	20.6	20.2	24	
13	20.4	20.1	20.3	20.5	20.3	20.1	20.2	20.7	20.6	20.6	20.8	20.8	20.9	20.9	21.0	21.1	21.1	21.0	21.0	20.9	21.1	21.1	21.0	20.9	20.1	21.1	20.7	24	
14	21.0	20.9	20.7	21.1	21.0	21.0	20.8	21.0	20.9	20.8	21.2	21.0	21.1	21.0	21.3	21.0	21.1	21.2	21.1	21.1	21.0	21.0	21.2	20.9	20.7	21.3	21.0	24	
15	21.0	21.2	21.0	21.0	21.3	21.1	21.1	21.0	21.1	20.9	21.0	21.0	21.1	20.9	21.2	21.1	21.3	21.2	21.2	21.0	20.5	20.9	21.1	20.9	20.5	21.3	21.0	24	
16	20.9	21.1	20.8	20.9	20.9	21.0	20.9	20.9	20.9	21.1	21.3	20.8	20.8	21.0	21.1	21.1	21.0	21.2	21.2	21.0	21.2	21.2	21.2	21.3	20.8	21.3	21.0	24	
17	21.3	21.5	21.3	21.5	21.4	21.5	21.4	21.4	21.2	21.5	21.5	21.3	21.1	21.2	21.3	21.4	21.2	21.6	21.5	21.4	21.3	21.7	21.4	21.4	21.1	21.7	21.4	24	
18	21.4	21.3	21.4	21.4	21.6	21.4	21.4	21.4	21.5	21.3	21.7	21.4	21.4	21.1	21.6	21.3	21.3	21.2	21.3	21.1	21.7	21.3	21.3	21.3	21.1	21.7	21.4	24	
19	21.6	21.4	21.4	21.4	21.4	21.4	21.3	21.5	21.5	21.3	21.3	21.5	21.3	21.2	21.2	21.5	21.4	21.3	21.6	21.2	21.2	21.3	21.2	21.3	21.2	21.6	21.4	24	
20	21.2	21.2	21.4	21.2	21.5	21.1	21.4	21.1	21.4	21.1	21.5	21.2	21.4	21.3	21.3	21.3	21.3	21.2	21.4	21.1	21.5	21.1	21.5	21.2	21.1	21.5	21.3	24	
21	21.2	21.4	21.3	21.4	21.4	21.4	21.4	21.4	21.4	21.4	21.4	21.4	21.4	21.6	21.5	21.7	21.6	21.5	21.4	21.5	21.5	21.7	21.4	21.4	21.2	21.7	21.4	24	
22	21.4	21.3	21.4	21.3	21.2	21.3	21.5	21.2	21.5	21.2	21.4	21.2	21.2	21.4	21.3	21.4	21.3	21.4	21.4	21.2	21.5	21.3	21.3	21.5	21.2	21.5	21.3	24	
23	21.1	21.4	21.1	21.5	21.2	21.3	21.2	21.1	20.9	21.2	21.1	21.2	21.1	21.2	21.2	21.2	21.4	21.4	21.4	21.4	21.2	21.3	21.1	21.2	21.1	20.9	21.5	21.2	24
24	21.0	21.3	21.2	21.1	21.2	21.1	21.1	20.9	21.1	21.0	21.1	21.2	21.2	21.1	21.3	21.2	21.3	21.4	21.4	21.4	21.3	21.4	21.3	21.5	20.9	21.5	21.2	24	
25	21.3	21.5	21.3	21.4	21.2	21.6	21.2	21.2	21.1	21.2	20.9	21.1	21.1	20.9	21.1	21.0	20.9	20.8	20.8	20.8	20.9	20.8	20.7	20.6	20.6	21.6	21.1	24	
26	20.7	20.8	20.7	20.6	20.6	20.6	20.7	20.7	20.6	20.5	21.0	20.9	20.7	20.6	20.6	20.8	20.7	20.8	20.8	20.8	20.8	21.0	20.8	20.8	20.5	21.0	20.7	24	
27	20.8	20.8	20.8	20.8	21.0	20.9	20.8	20.7	20.8	20.6	20.7	20.8	20.7	20.7	20.8	21.0	20.9	21.0	20.8	20.8	20.9	20.7	20.6	20.7	20.6	21.0	20.8	24	
28	20.8	20.8	20.8	20.8	20.6	20.6	20.7	20.7	20.6	20.5	20.5	20.6	20.8	20.8	21.1	20.9	20.8	20.8	20.8	20.8	21.1	20.9	20.8	20.9	20.5	21.1	20.8	24	
29	20.8	20.8	21.0	20.9	21.0	20.9	21.2	20.9	21.0	21.1	21.1	21.1	21.3	21.2	21.3	21.4	21.3	21.4	21.2	21.0	21.0	20.9	20.9	20.8	20.8	21.4	21.1	24	
30	20.8	20.7	20.7	20.7	20.8	20.9	20.8	20.8	20.8	20.7	20.5	20.4	20.5	20.4	20.6	20.3	20.4	20.7	20.7	20.7	20.6	20.5	20.6	20.6	20.3	20.9	20.6	24	
31	20.6	20.5	20.4	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.7	20.7	20.8	20.7	20.8	20.7	20.7	20.7	20.7	20.7	20.7	20.7	20.4	20.8	20.6	24	
HOURLY MAX	21.6	21.5	21.4	21.5	21.6	21.6	21.5	21.5	21.5	21.7	22.2	22.5	22.4	22.5	22.6	22.3	22.7	21.6	21.9	22.7	22.4	21.9	21.7	21.5					
HOURLY AVG	20.9	21.0	20.9	21.0	21.0	21.0	21.0	20.9	20.9	20.9	21.0	21.0	21.0	21.0	21.1	21.0	21.1	21.1	21.1	21.0	21.0	21.0	21.0	21.0					

STATUS FLAG CODES

C	- MONTHLY CALIBRATION	Q	- QUALITY ASSURANCE
C1	- REPEAT CALIBRATION	R	- RECOVERY
Y	- MAINTENANCE	X	- MACHINE MALFUNCTION
S	- DAILY ZERO/SPAN CHECK	G	- OUT FOR REPAIR
S1	- REPEAT ZERO/SPAN CHECK	P	- POWER FAILURE

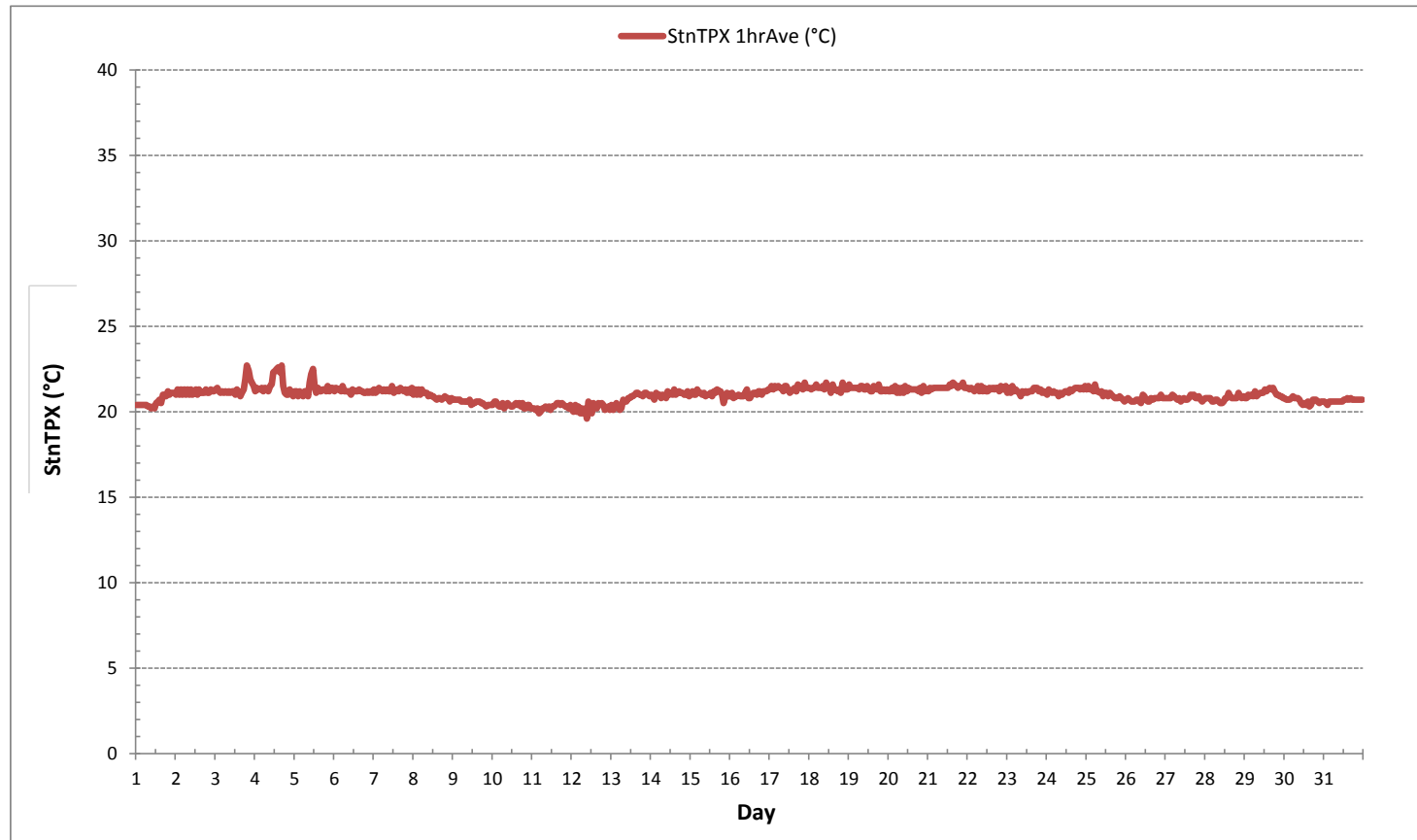
24 HR AVERAGES January 2018



MONTHLY SUMMARY

MINIMUM 1-HR AVERAGE:	19.6	°C	@ HOUR	9	ON DAY	12
MAXIMUM 1-HR AVERAGE:	22.7	°C	@ HOUR	19	ON DAY	3
MAXIMUM 24-HR AVERAGE:	21.6	°C			ON DAY	4
OPERATIONAL TIME:					744	hrs
AMD OPERATION UPTIME:					100.0	%
STANDARD DEVIATION:	0.4		MONTHLY AVERAGE:		21.0	°C

STATION TEMPERATURE Hourly Averages (StnTPX °C)



APPENDIX II
EQUIPMENT CALIBRATION RESULTS

SULPHUR DIOXIDE



Thermo 43i Sulphur Dioxide Analyzer Calibration

Date:	January 4, 2018	Barometer/B.P./units:	Brunton #05490 Expiry Dec 11, 2018	943	millibars
Company/Airshed:	PRAMP	Thermometer/Station Temp:	F.S. 160459244 expires May 18, 2018	22	°C
Location/Station Name:	842b	Weather Conditions:	Sunny		
Parameter:	Sulphur Dioxide	Calibration Purpose:	routine monthly		
Start Time 24 hr. (mst):	13:18	Performed By/Reviewer:	Chris Wesson	Rob Fisher	
End Time 24 hr. (mst):	17:22	Cal Gas Expiry Date:	October 24, 2020		
Calibration Method:	Gas Dilution	Converter Model & s/n (if applicable):	n/a		

Analyzer:	ID# or Serial Number:	835033373	Range ppb:	500
	Last Calibration Date:	December 7, 2017	As Found C.F.:	1.008
	Previous C.F.:	0.999	New C.F.:	0.999

Calibration Standards:	Standard Calibration Points for Ranges	
Low Flow Meter ID/Expiry Date: Defender 530L #156151 Expiry Oct 02, 2018	Point	ppb
High Flow Meter ID/Expiry Date: Defender 530H #156312 Expiry Dec 1, 2018	High	380
Calibrator ID/Expiry Date: Sabio id# 17100415 expires May 16, 2018	Mid	180
Cal Gas Cylinder I.D. #: LL108015	Low	90
Cal Gas Conc. (ppm): 47.9		

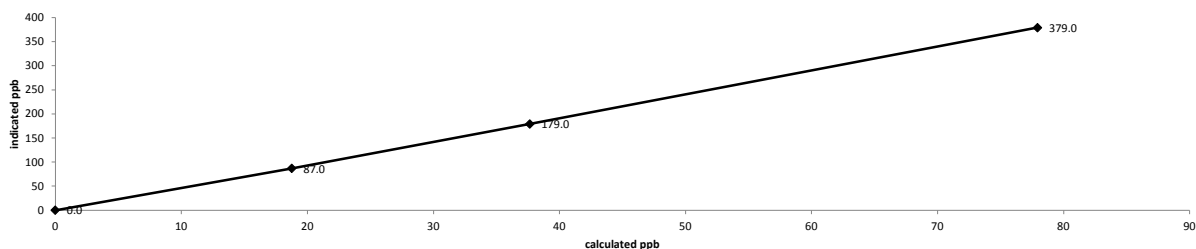
ALL POINTS ARE 15 MINUTES OF STABILITY AS OF SEPTEMBER 23, 2015

Calibrator Flow Rates (cc/min)				Calculated	Indicated Concentration (ppb):	Correction Factors (C.F.):
Point	Diluent	Cal Gas	Total	Concentration (ppb):		
as found zero	6006	0.00	6006	0.0	0.3	n/a
as found high	5967	47.56	6015	378.7	376.0	1.008
adjusted zero	6006	0.00	6006	0.0	0.0	n/a
adjusted high	5967	47.56	6015	378.7	379.0	0.999
mid	6012	22.53	6035	178.9	179.0	0.999
low	6027	11.29	6038	89.5	87.0	1.029
calibrator zero	6006	0.00	6006	0.0	0.2	n/a
Average C.F. =						1.009

Linear Regression/Calibration Results:

Correlation Coefficient =	1.000	LIMITS	> or = 0.995
Slope =	0.997		0.95-1.05
b (Intercept as % of full scale) =	0.21%		± 3% F.S.
% change in C.F. from last cal =	-0.90%		± 10%

Thermo 43i Sulphur Dioxide Analyzer Calibration



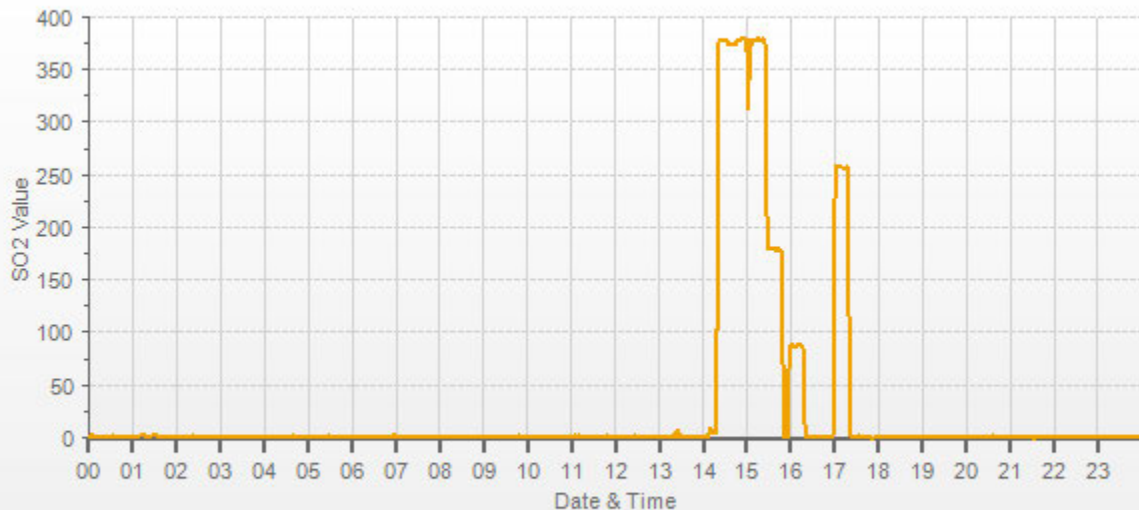
As found:		As left:	
Bkg:	13.5	Bkg:	14.1
Coef:	1.018	Coef:	1.043
Pmt:	-621.2	Pmt:	-621.2
Flash:	882	Flash:	882
Internal:	26.4	Internal:	25.8
Chamber:	44.9	Chamber:	44.8
Perm Oven Gas:	45.01	Perm Oven Gas:	45.00
Perm Oven Heater:	44.08	Perm Oven Heater:	44.08
Pressure:	678.1	Pressure:	678.4
Sample Flow:	0.444	Sample Flow:	0.443
Lamp Intensity:	81	Lamp Intensity:	82
Averaging Time:	120	Averaging Time:	120
Expected Value:	248.0	Expected Value:	256.0

Comments:

The analyzer sample inlet filter was changed. The analyzer cooling fan filter(s) were cleaned. The manifold blower was found to be working normally.

Daily IZS triggered at 15:00 during the "Adjusted High" point. The point was restarted.

SO2[ppb] Station: PRAMP_842 Daily: 18/01/04 Type: AVG 1 Min. [1 Min.]



— SO2[ppb]

TOTAL REDUCED SULPHUR



Thermo 43I-TLE Total Reduced Sulphur Analyzer Calibration

Date:	January 3, 2018	Barometer/B.P./units:	Brunton #05490 Expiry Dec 11, 2018	943	millibars
Company/Airshed:	PRAMP	Thermometer/Station Temp:	F.S. 160459244 expires May 18, 2018	22	°C
Location/Station Name:	842b	Weather Conditions:	Mainly clear		
Parameter:	Total Reduced Sulphur	Calibration Purpose:	as found		
Start Time 24 hr. (mst):	18:46	Performed By/Reviewer:	Chris Wesson	Rob Fisher	
End Time 24 hr. (mst):	20:29	Cal Gas Expiry Date:	August 23, 2020		
Calibration Method:	Gas Dilution	Converter Model & s/n (if applicable):	CD Nova CDN-101 #553		

Analyzer:	ID# or Serial Number:	1162460023	Range ppb:	100
	Last Calibration Date:	December 29, 2017	As Found C.F.:	1.006
	Previous C.F.:	1.000	New C.F.:	n/a

Calibration Standards:	Standard Calibration Points for Ranges								
Low Flow Meter ID/Expiry Date: Defender 530L #156151 Expiry Oct 02, 2018	<table><tr><td>Point</td><td>ppb</td></tr><tr><td>High</td><td>78</td></tr><tr><td>Mid</td><td>38</td></tr><tr><td>Low</td><td>19</td></tr></table>	Point	ppb	High	78	Mid	38	Low	19
Point	ppb								
High	78								
Mid	38								
Low	19								
High Flow Meter ID/Expiry Date: Defender 530H #156312 Expiry Dec 1, 2018									
Calibrator ID/Expiry Date: Sabio id# 17100415 expires May 16, 2018									
Cal Gas Cylinder I.D. #: LL119500									
Cal Gas Conc. (ppm): 9.8									

ALL POINTS ARE 15 MINUTES OF STABILITY AS OF SEPTEMBER 23, 2015

Calibrator Flow Rates (cc/min)				Calculated	Indicated Concentration (ppb):	Correction Factors (C.F.):
Point	Diluent	Cal Gas	Total	Concentration (ppb):		
as found zero	7499	0.00	7499	0.0	-0.2	n/a
as found high	7429	59.72	7489	78.1	77.5	1.006
Average C.F.=						n/a

Linear Regression/Calibration Results:

Correlation Coefficient =	n/a	LIMITS	n/a
Slope =	n/a		n/a
b (Intercept as % of full scale)=	n/a		n/a
% change in C.F. from last cal=	-0.60%		n/a

As found:		As left:	
Bkg:	3.16	Bkg:	3.16
Coef:	0.880	Coef:	0.880
Pmt:	-725.2	Pmt:	-725.2
Flash:	986	Flash:	986
Internal:	30.8	Internal:	30.8
Chamber:	45.0	Chamber:	45.0
Perm Oven Gas:	45.01	Perm Oven Gas:	45.01
Perm Oven Heater:	44.11	Perm Oven Heater:	44.11
Pressure:	666.6	Pressure:	666.6
Sample Flow:	0.406	Sample Flow:	0.406
Lamp Intensity:	89	Lamp Intensity:	89
Converter:	850	Converter:	850
Converter Set:	850	Converter Set:	850
Averaging Time:	120	Averaging Time:	120
Expected Value:	n/a	Expected Value:	n/a

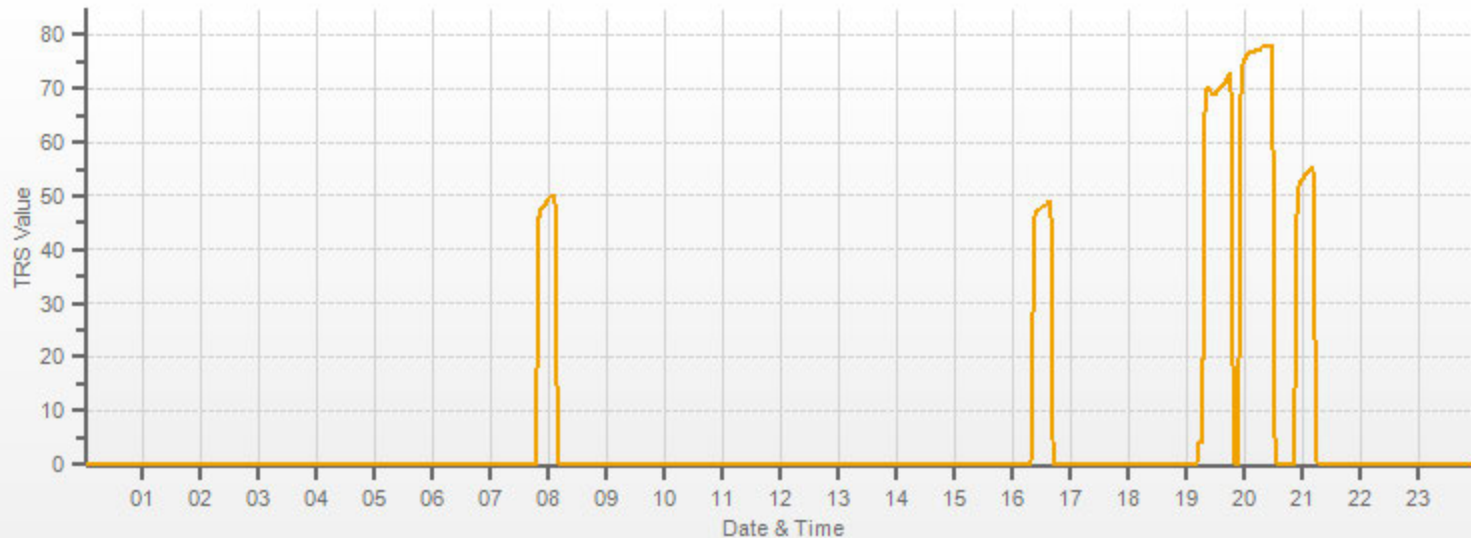
Comments:

The manifold blower was found to be working normally.

An "As Found" was performed due to a drift in the daily span. The high point was slow to stabilize; however the regulator was re-purged and the response was okay.

TRS[ppb] Station: PRAMP_842 Daily: 18/01/03 Type: AVG 1 Min. [1 Min.]

— TRS[ppb]





Thermo 431-TLE Total Reduced Sulphur Analyzer Calibration

Date:	January 5, 2018	Barometer/B.P./units:	Brunton #05490 Expiry Dec 11, 2018	943	millibars
Company/Airshed:	PRAMP	Thermometer/Station Temp:	F.S. 160459244 expires May 18, 2018	21	°C
Location/Station Name:	842b	Weather Conditions:	Mainly clear		
Parameter:	Total Reduced Sulphur	Calibration Purpose:	post repair		
Start Time 24 hr. (mst):	9:18	Performed By/Reviewer:	Chris Wesson	Rob Fisher	
End Time 24 hr. (mst):	12:44	Cal Gas Expiry Date:	August 23, 2020		
Calibration Method:	Gas Dilution	Converter Model & s/n (if applicable):	CD Nova CDN-101 #553		

Analyzer:	ID# or Serial Number:	1162460023	Range ppb:	100
	Last Calibration Date:	n/a	As Found C.F.:	n/a
	Previous C.F.:	n/a	New C.F.:	0.999

Calibration Standards:	Standard Calibration Points for Ranges	SO2 Scrubber Check (10 minutes):	
Low Flow Meter ID/Expiry Date:	Defender 530L #156151 Expiry Oct 02, 2018	Start/End Time 24 hr.:	09:45 / 09:55
High Flow Meter ID/Expiry Date:	Defender 530H #156312 Expiry Dec 1, 2018	SO2 Analyzer Range:	500
Calibrator ID/Expiry Date:	Sabio id# 17100415 expires May 16, 2018	Target Concentration (ppb):	380
Cal Gas Cylinder I.D. #:	LL119500	As Found Zero:	0.0
Cal Gas Conc. (ppm):	9.8	Analyzer Response: (ppb):	0.0
		Zero Corrected Result (ppb):	0.0

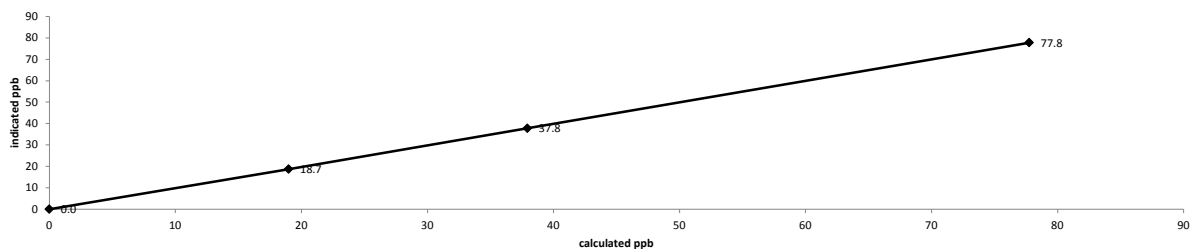
ALL POINTS ARE 15 MINUTES OF STABILITY AS OF SEPTEMBER 23, 2015

Calibrator Flow Rates (cc/min)				Calculated	Indicated Concentration (ppb):	Correction Factors (C.F.):
Point	Diluent	Cal Gas	Total	Concentration (ppb):		
adjusted zero	7511	0.00	7511	0.0	0.0	n/a
adjusted high	7455	59.63	7515	77.8	77.8	0.999
mid	7492	29.11	7521	37.9	37.8	1.003
low	7501	14.56	7516	19.0	18.7	1.015
calibrator zero	7511	0.00	7511	0.0	0.0	n/a
Average C.F. =						1.006

Linear Regression/Calibration Results:

LIMITS	
Correlation Coefficient =	1.000 > or = 0.995
Slope =	0.998 0.95-1.05
b (Intercept as % of full scale) =	0.15% ± 3% F.S.
% change in C.F. from last cal =	n/a n/a

Thermo 431-TLE Total Reduced Sulphur Analyzer Calibration



As found:		As left:	
Bkg:	3.51	Bkg:	2.83
Coef:	1.000	Coef:	0.883
Pmt:	-720.4	Pmt:	-720.4
Flash:	984	Flash:	984
Internal:	30.2	Internal:	30.7
Chamber:	44.9	Chamber:	44.8
Perm Oven Gas:	45.00	Perm Oven Gas:	45.00
Perm Oven Heater:	44.11	Perm Oven Heater:	44.11
Pressure:	663.3	Pressure:	663.3
Sample Flow:	0.404	Sample Flow:	0.405
Lamp Intensity:	88	Lamp Intensity:	89
Converter:	850	Converter:	850
Converter Set:	850	Converter Set:	850
Averaging Time:	120	Averaging Time:	120
Expected Value:	56.8	Expected Value:	56.8

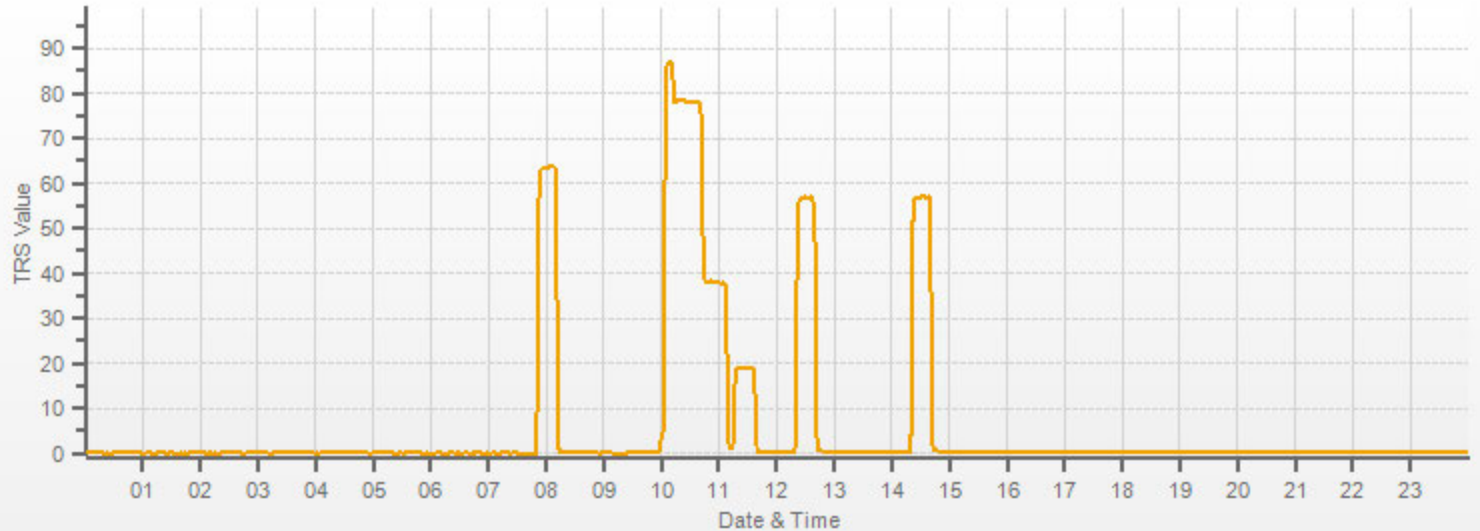
Comments:

The manifold blower was found to be working normally.

A post-repair calibration was performed after replacing the scrubber beads.

TRS[ppb] Station: PRAMP_842 Daily: 18/01/05 Type: AVG 1 Min. [1 Min.]

— TRS[ppb]





Thermo 43I-TLE Total Reduced Sulphur Analyzer Calibration

Date:	January 12, 2018	Barometer/B.P./units:	Brunton 05535 expires December 15, 2018	28.14	inHg
Company/Airshed:	PRAMP	Thermometer/Station Temp:	F.S. 160348895 expires April 8, 2018	21.8	°C
Location/Station Name:	8428	Weather Conditions:	Mainly sunny		
Parameter:	Total Reduced Sulphur	Calibration Purpose:	as found		
Start Time 24 hr. (mst):	10:00	Performed By/Reviewer:	Limin Li	Tom Bourque	
End Time 24 hr. (mst):	12:01	Cal Gas Expiry Date:	August 23, 2020		
Calibration Method:	Gas Dilution	Converter Model & s/n (if applicable):	CD NOVA-CDN 101#534		

Analyzer:	ID# or Serial Number:	1162460023	Range ppb:	100
	Last Calibration Date:	January 5, 2018	As Found C.F.:	1.071
	Previous C.F.:	0.999	New C.F.:	n/a

Calibration Standards:	Standard Calibration Points for Ranges								
Low Flow Meter ID/Expiry Date: Defender Low 152019 expires December 13, 2018	<table><tr><td>Point</td><td>ppb</td></tr><tr><td>High</td><td>78</td></tr><tr><td>Mid</td><td>38</td></tr><tr><td>Low</td><td>19</td></tr></table>	Point	ppb	High	78	Mid	38	Low	19
Point	ppb								
High	78								
Mid	38								
Low	19								
High Flow Meter ID/Expiry Date: Defender High 148944 expires December 13, 2018									
Calibrator ID/Expiry Date: Sabio id# 17200415 expires May 16, 2018									
Cal Gas Cylinder I.D. #: LL119500									
Cal Gas Conc. (ppm): 9.8									

ALL POINTS ARE 15 MINUTES OF STABILITY AS OF SEPTEMBER 23, 2015

Calibrator Flow Rates (cc/min)				Calculated Concentration (ppb):	Indicated Concentration (ppb):	Correction Factors (C.F.):
Point	Diluent	Cal Gas	Total			
as found zero	7297	0.00	7297	0.0	0.0	n/a
as found high	7293	59.37	7352	79.1	73.9	1.071
Average C.F.=						n/a

Linear Regression/Calibration Results:

Correlation Coefficient =	n/a	LIMITS
Slope =	n/a	n/a
b (Intercept as % of full scale)=	n/a	n/a
% change in C.F. from last cal=	-7.20%	n/a

As found:	As left:
Bkg: 2.81	Bkg: 2.81
Coef: 0.883	Coef: 0.883
Pmt: -720.4 V	Pmt: -720.4 V
Flash: 990 V	Flash: 990 V
Internal: 29.4 °C	Internal: 29.4 °C
Chamber: 45.0 °C	Chamber: 45.0 °C
Perm Oven Gas: 45.0 °C	Perm Oven Gas: 45.0 °C
Perm Oven Heater: 44.11 °C	Perm Oven Heater: 44.11 °C
Pressure: 673.2 mmHg	Pressure: 673.2 mmHg
Sample Flow: 0.405 L/Min	Sample Flow: 0.405 L/Min
Lamp Intensity: 88 %	Lamp Intensity: 88 %
Converter: 850 °C	Converter: 850 °C
Converter Set: 820 °C	Converter Set: 820 °C
Averaging Time: 120 Sec	Averaging Time: 120 Sec
Expected Value: 56.8	Expected Value: 56.8

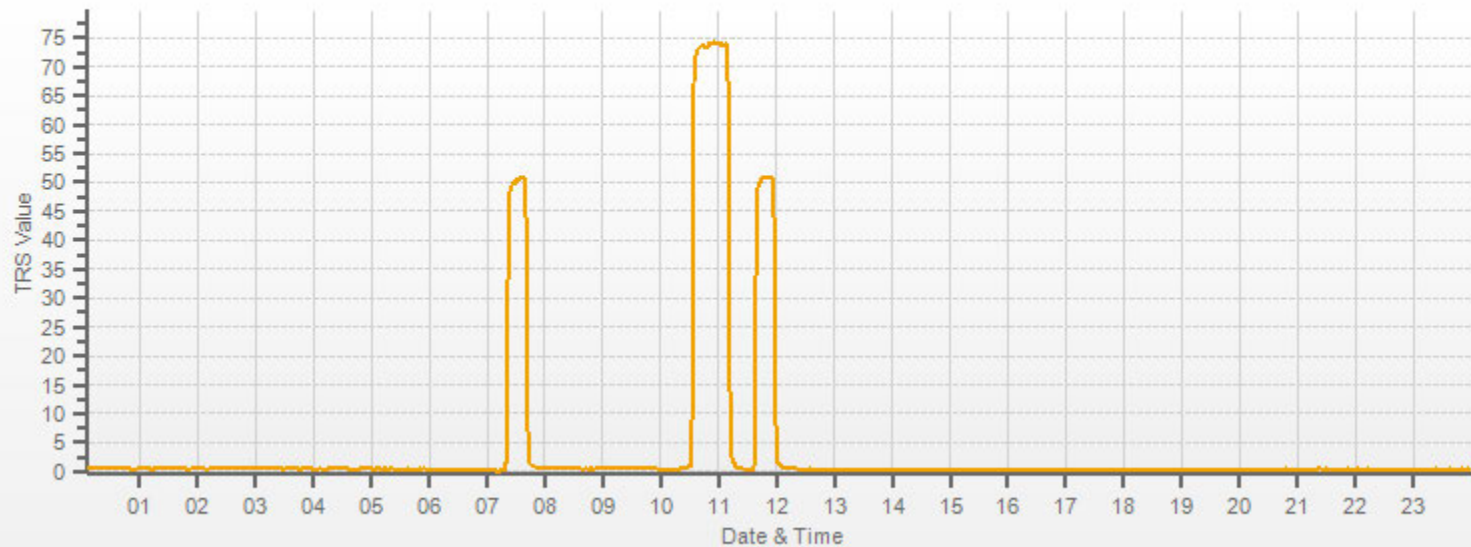
Comments:

The manifold blower was found to be working normally.

An "As found" was performed due to a daily span check drift of -10.8%.

TRS[ppb] Station: PRAMP_842 Daily: 18/01/12 Type: AVG 1 Min. [1 Min.]

— TRS[ppb]



TOTAL HYDROCARBON



Thermo 55i Methane/Non-Methane Analyzer Calibration

Date:	January 4, 2018	Barometer/B.P./units:	Brunton #05490 Expiry Dec 11, 2018	943	millibars
Company/Airshed:	PRAMP	Thermometer/Station Temp:	F.S. 160459244 expires May 18, 2018	21	°C
Location/Station Name:	842b	Weather Conditions:	Mainly clear		
Parameter:	CH4 / NMHC / THC	Calibration Purpose:	routine monthly		
Start/End Time 24 hr. (mst):	09:49 / 13:53	Performed By/Reviewer:	Chris Wesson	Rob Fisher	
Calibration Method:	Gas Dilution	Cal Gas Expiry Date:	October 18, 2025		

Analyzer:	Correction Factors:				
ID# or Serial Number:	1505664392	Previous C.F.:	As Found C.F.:	New C.F.:	
Measured Flow:	1.2 L/min	CH ₄ =	0.999	0.991	0.999
Last Calibration Date:	December 7, 2017	NMHC =	0.998	0.985	0.999
Range ppm:	20 CH4/20 NMHC/40 THC	THC =	0.999	0.988	0.999

Calibration Standards:	Standard Calibration Points for Analyzer Range of 20/20/40 ppm				
Low Flow Meter ID/Expiry Date:	Defender 530L #156151 Expiry Oct 02, 2018	Point	CH4	NMHC	THC
High Flow Meter ID/Expiry Date:	Defender 530H #156312 Expiry Dec 1, 2018	High	13.00	13.00	26.00
Calibrator ID/Expiry Date:	Sabio id# 17100415 expires May 16, 2018	Mid	7.00	7.00	14.00
Cal Gas Cylinder I.D. #:	LL107207	Low	3.00	3.00	6.00
CH4 Cylinder Conc.=	600.0 207.0 =C ₃ H ₈ Cylinder Conc.				
CH ₄ expressed as C ₃ H ₈ =	569.3 1169.3 =total CH4 equivalent				

ALL POINTS ARE 15 MINUTES OF STABILITY AS OF SEPTEMBER 23, 2015												
Calibrator Flow Rates (cc/min)				Calculated CH ₄ (ppm)	Calculated NMHC (ppm)	Calculated THC (ppm)	Indicated CH ₄ (ppm)	Indicated NMHC (ppm)	Indicated THC (ppm)	Correction Factors:		
Point	Diluent	Cal Gas	Total Flow							CH ₄	NMHC	THC
as found zero	2496	0.00	2496	0.00	0.00	0.00	0.00	0.00	0.01	n/a	n/a	n/a
as found high	2433	61.06	2494	14.69	13.94	28.63	14.83	14.15	28.99	0.991	0.985	0.988
adjusted zero	2496	0.00	2496	0.00	0.00	0.00	0.00	0.00	0.01	n/a	n/a	n/a
adjusted high	2433	61.06	2494	14.69	13.94	28.63	14.70	13.95	28.66	0.999	0.999	0.999
mid	2466	30.62	2497	7.36	6.98	14.34	7.44	7.00	14.45	0.989	0.997	0.993
low	2481	15.86	2497	3.81	3.62	7.43	3.85	3.59	7.45	0.990	1.007	0.998
calibrator zero	2496	0.00	2496	0.00	0.00	0.00	0.00	0.00	0.01	n/a	n/a	n/a
Average C.F.=									0.993	1.001	0.997	

Linear Regression/Calibration Results:			
Correlation Coefficient =	1.000	1.000	1.000
Slope =	1.000	1.002	1.001
b (Intercept as % of full scale)=	0.15%	-0.05%	0.08%
% change in C.F. from last cal=	0.85%	1.31%	1.12%
LIMITS			
> or = 0.995			
0.95-1.05			
± 3% F.S.			
± 10%			

As Left Instrument Diagnostics:					
Interface Board Voltages:	Bias Supply:	-293.8	Calibration History cnt'd:	NM Peak Area:	81310
Temperatures:	Detector Oven:	175.0	Crucial Settings:	Methane Start:	n/a
	Filter:	175.0		Methane End:	n/a
	Column Oven:	75.1		Backflush:	n/a
	Internal:	33.9		NMHV Start:	n/a
Cylinder Pressures/reg.:	Carrier:	1200 50	Run History>1:	NMHC End:	n/a
	Fuel:	900 50		Date:	04Jan2018
	Span Gas:	400 15		Time:	13:01
	Zero Air Generator:	50		CH ₄ PK HT:	0
Internal Pressures:	Carrier:	31.1		CH ₄ RT:	8.0
	Fuel:	47.4		CH ₄ Baseline:	-211
	Air:	23.7		CH ₄ LOD:	4
FID Status:	Status:	LIT		CH ₄ SD:	1
	Counts:	~36500		CH ₄ CONC:	0.00
	Flame:	390.4		NM PK HT:	0
	Det Base:	175.1		NM Peak Area:	0
Flame and Power Stats:	Last Power On:	23Nov2017@12:46		NM CONC:	0.00
	Flameouts:	231		NM Base Start:	-198
	Det Oven at Start:	143.0		NM Base End:	-196
	Col Oven at Start:	32.4		NM LOD:	15
Calibration History:	Time:	04Jan2018@11:25		NM Start IDX:	59
	Type:	SPAN		NM End IDX:	45
	Status:	GOOD		NM Max Slope:	9.3e-01
	Check/Adjust:	ADJUST		NM Min Slope:	6.0e-01
	CH ₄ Span Conc:	14.69	Expected Values:	NM PT Count:	0
	CH ₄ SP Ratio:	0.000726		Previous CH ₄ :	9.13
	CH ₄ RT:	12.6		Previous NMHC:	10.3
	CH ₄ PK IDX:	23		Previous THC:	19.00
	CH ₄ PK HT:	20229		New CH ₄ :	9.06
	NM Span Conc:	13.94		New NMHC:	10.14
	NM SP Ratio:	0.000171		New THC:	19.20

Comments:

The analyzer sample inlet filter was changed.

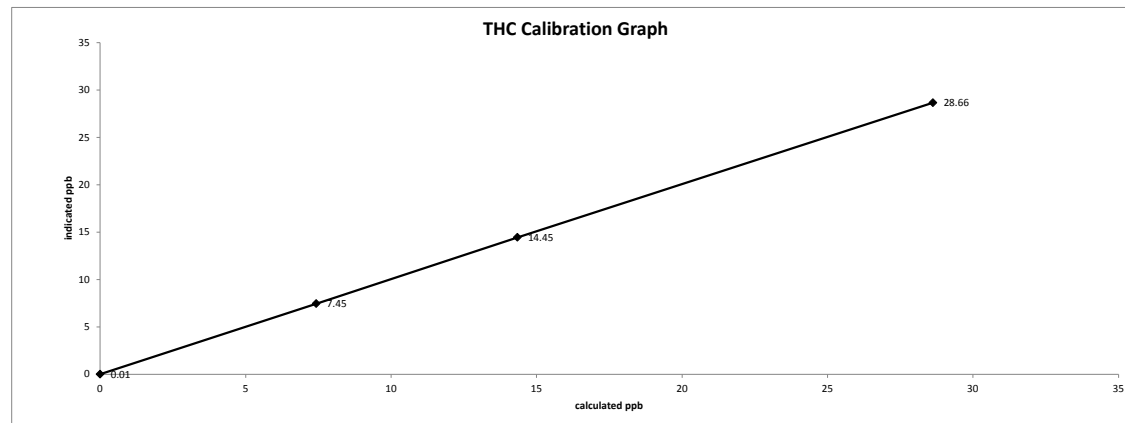
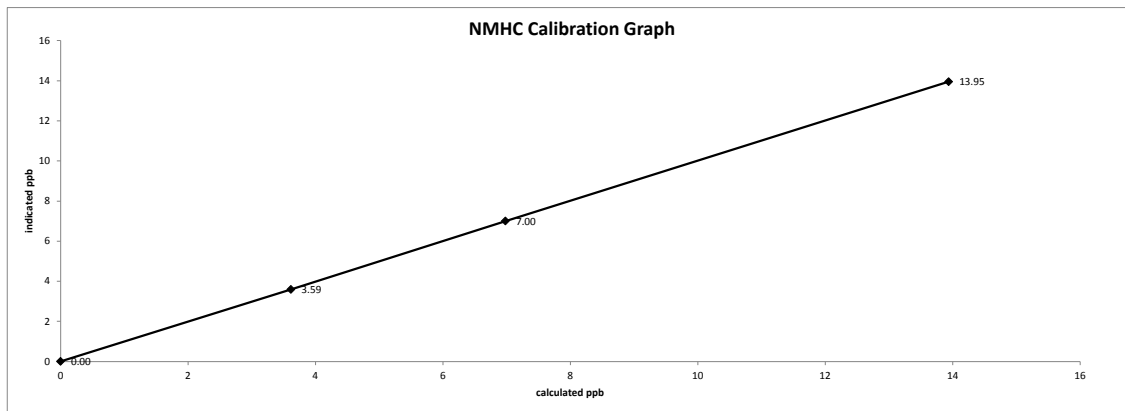
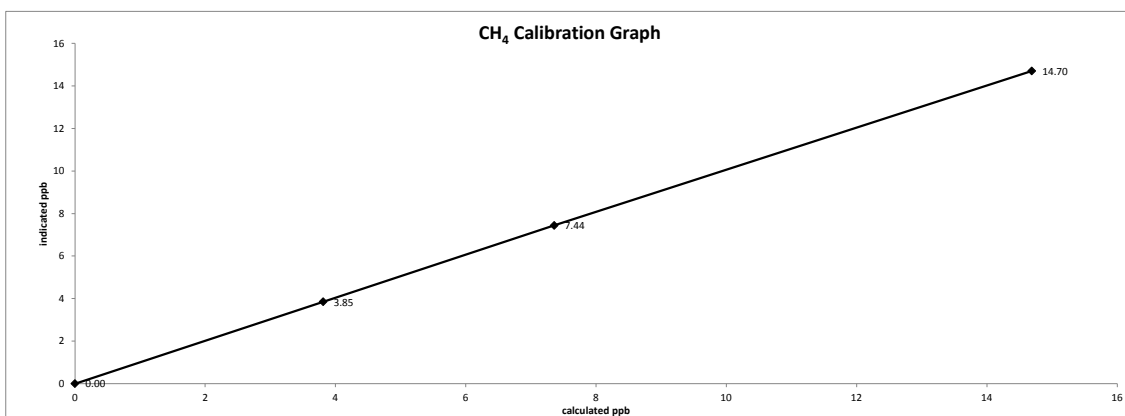
No zero adjustment was required/made. As found zero values were copied to adjusted zero values for linearity calculation purposes.

The analyzer cooling fan filter(s) were cleaned.

The manifold blower was found to be working normally.

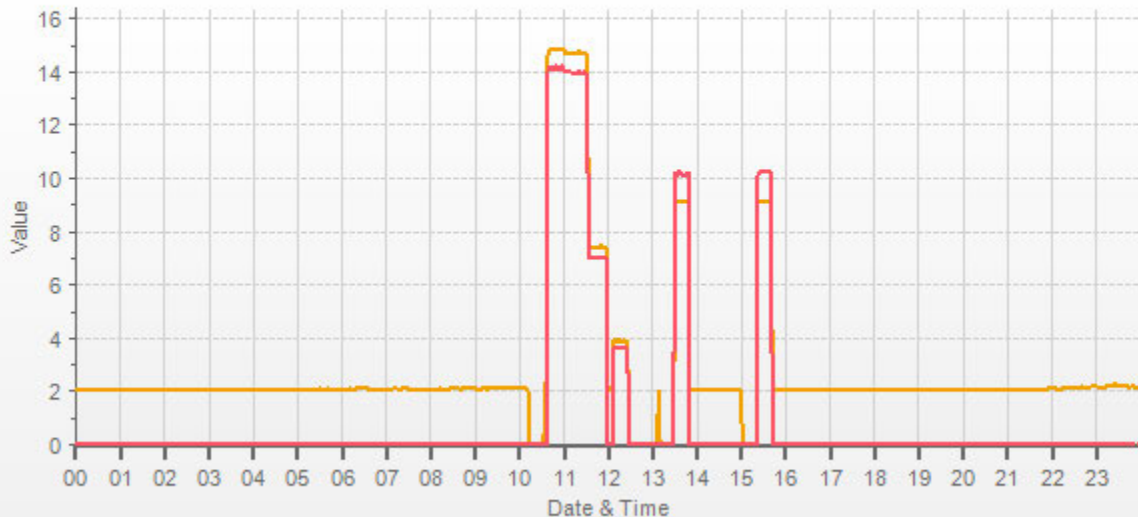
Date: January 4, 2018
Company/Airshed: PRAMP
Location/Station Name: 842b

Start/End Time 24 hr. (mst): 09:49 / 13:53
Calibration Purpose: routine monthly
Calibration Method: Gas Dilution



Station: PRAMP_842 Daily: 18/01/04 Type: AVG 1 Min. [1 Min.]

CH4[ppm] NMHC[ppm]



WIND SYSTEM

Meteorological Sensor Audit/Calibration

Location Information

Company:	PRAMP	Performed By:	Chris Wesson
Audit Location:	842b	Reviewed By:	Tom Bourque
Audit Date:	August 30, 2017	Start /EndTime (mst):	10:50 / 11:20
Calibration Purpose:	installation	Weather Conditions:	Cloudy/Overcast

Wind Sensor Information

Sensor ID Data:		Sensor Outputs:	
Sensor Make:	RM Young	Velocity Voltage Output Range:	0-1V
Sensor Model:	05305VK	Velocity Unit Output Range:	0-200kmh
Serial #:	124638	Direction Voltage Output Range:	0-1V
Previous Cal/Audit Date:	n/a or unknown	Direction Unit Output Range:	0-360°

Wind Calibrator Information

Calibrator Make/ Model:	RM Young	Serial #:	CA 4039
Maxxam Unit ID #:	n/a	Certification Date:	February 24, 2017

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	0.1	-
1000	18.4	18.4	18.5	1.000
2000	36.9	36.7	36.7	1.004
3000	55.3	55.1	55.1	1.004
4000	73.7	73.4	73.4	1.004
5000	92.2	91.8	91.8	1.004
6000	110.6	110.2	110.2	1.003
7000	129.0	128.6	128.6	1.003
8000	147.4	147.1	147.0	1.003
9000	165.9	165.5	165.5	1.002
10000	184.3	184.2	184.1	1.001
The audit meets AMD requirements.			Average Correction Factor=	1.003

Wind Direction Audit Data **+/- 5° 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	353	0.5	2.0	1.3
30	330	28	329	2.0	1.0	1.5
60	300	59	299	1.0	1.0	1.0
90	270	89	269	1.0	1.0	1.0
120	240	118	239	2.0	1.0	1.5
150	210	149	209	1.0	1.0	1.0
180	180	178	179	2.0	1.0	1.5
210	150	208	150	2.0	0.0	1.0
240	120	238	119	2.0	1.0	1.5
270	90	268	89	2.0	1.0	1.5
300	60	298	59	2.0	1.0	1.5
330	30	328	29	2.0	1.5	1.8
355	0	353	0	2.0	0.4	1.2
The audit meets AMD requirements.			Average Absolute Degrees Difference=		1.3	

Comments:

CALIBRATORS

Company Maxxam **Operator:** Micheal Espiritu

Calibrator:				Flow Measurement Device:			
Make/Model	<u>Sabio 2010</u>			Make/Model	<u>Mesa Defender 530</u>		
Serial Number	<u>17100415</u>			Serial Number	<u>L-152019 H-148944</u>		
Last Verification Date	<u>May 2016</u>			Temperature (°C)	<u>25.0 C</u>		
NO Cylinder S/N	<u>EY0000597</u>			Barometric Pressure	<u>697 mmhg</u>		
NO [PPM]	<u>49.0</u>	NOx [PPM]	<u>49.0</u>				
Expiry Date	<u>December 2019</u>						

Dilution Flow (sccm)
 Pt. #1 5000 Pt. #2 5000 Pt. #3 5000
Gas Flow (sccm)
 Pt. #1 80 Pt. #2 40 Pt. #3 20

Calibrator Flow (sccm)		Calculated Conc.(ppm)		Indicated Conc.(ppm)			% Difference vs Audit Gas	
Dilution	Gas	NO	NOx	NO	NO ₂	NOx	NO	NOx
4996	0.0	0.000	0.000	0.000	0.000	0.000	Limit ± 10%	
5029	80.3	0.784	0.783	0.808	-0.013	0.794	3%	1%
5054	38.8	0.376	0.376	0.392	-0.006	0.386	4%	3%
5051	19.5	0.189	0.189	0.196	-0.003	0.193	4%	2%
Absolute Average Percent Difference							4%	2%

LINEAR REGRESSION ANALYSIS

y=mx+b (where x=calculated concentration, y=indicated concentration)

NO		LIMITS		NOx	
Correlation=	1.0000	≥ 0.990		Correlation=	1.0000
m (Slope)=	1.0311	0.90-1.10		m (Slope)=	1.0140
b (Intercept % of FS)=	0.1350	± 3% F.S.		b (Intercept % of FS)=	0.1531

Flow	O ₂ Conc (LC)	NO Decrease	NO	NO ₂	NOX	% Diff. Vs Audit gas	
5029	0.000	0.000	0.803	-0.013	0.790	NO ₂	% Diff. Limit
5029	1.508	0.568	0.235	0.552	0.787	-1%	± 10%
5029	0.882	0.312	0.491	0.298	0.789	0%	± 10%
5029	0.390	0.108	0.695	0.095	0.789	0%	± 10%
Absolute Average Percent Difference						0%	± 10%

LINEAR REGRESSION ANALYSIS

y=mx+b (where x=calculated concentration, y=indicated concentration)

NO₂		LIMITS	
Correlation=	1.0000	≥ 0.995	
m (Slope)=	0.9945	0.90-1.10	
b (Intercept % of FS)=	-1.2646	± 3% F.S.	

AENV Standards		NOx Analyzer	
Audit Calibrator		Make/Model	<u>Teco 42i</u>
Make/Model	<u>Teco 146i</u>	Serial/AMU Number	<u>AMU 1868</u>
Serial/AMU Number	<u>AMU 1809</u>	Last Calibration Date	<u>May 16, 2017</u>
SRM Gas Cylinder No.	<u>CAL018101</u>	Full Scale (ppm)	<u>1.0</u>
Cylinder Conc. (ppm)	<u>48.79</u>	Cylinder Gas Expiry Date	<u>March 2019</u>

COMMENTS: Contains 50.4 ppm SO₂.

Auditor: Al Clark
 Operator Signature: *[Signature]*

Date: May 16, 2017
 Location: McIntyre Center Edmonton

Company Maxxam		Operator: Micheal Espiritu	
Calibrator:		Flow Measurement Device:	
Make/Model	Sabio 2010	Make/Model	Mesa Defender 530
Serial Number	17200415	Serial Number	L-152019 H-148944
Last Verification Date	May 2016	Temperature (°C)	25.0 C
NO Cylinder S/N	EY0000597	Barometric Pressure	697 mmhg
NO [PPM]	49.0	NOx [PPM]	49.0
Expiry Date	December 2019		

Dilution Flow (sccm)			
Pt. #1	5000	Pt. #2	5000
Pt. #3	5000		
Gas Flow (sccm)			
Pt. #1	80	Pt. #2	40
Pt. #3	20		

Calibrator Flow (sccm)		Calculated Conc.(ppm)		Indicated Conc.(ppm)			% Difference vs Audit Gas	
Dilution	Gas	NO	NOx	NO	NO ₂	NOx	NO	NOx
5028	0.0	0.000	0.000	0.000	0.000	0.000	Limit ± 10%	
4930	78.7	0.783	0.783	0.809	-0.012	0.797	3%	2%
4936	38.6	0.383	0.383	0.396	-0.006	0.390	3%	2%
4935	19.4	0.193	0.193	0.199	-0.003	0.196	3%	2%
Absolute Average Percent Difference							3%	2%

LINEAR REGRESSION ANALYSIS $y=mx+b$ (where x=calculated concentration, y=indicated concentration)

NO	LIMITS	NOx
Correlation= 1.0000	≥ 0.990	Correlation= 1.0000
m (Slope)= 1.0334	0.90-1.10	m (Slope)= 1.0181
b (Intercept % of FS)= -0.0105	± 3% F.S.	b (Intercept % of FS)= -0.0148

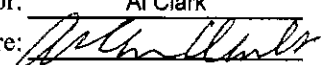
Flow	O ₂ Conc (LC)	NO Decrease	NO	NO ₂	NOX	% Diff. Vs Audit gas	
4930	0.000	0.000	0.806	-0.013	0.795	NO ₂	% Diff. Limit
4930	1.425	0.523	0.283	0.511	0.794	0%	± 10%
4930	0.825	0.278	0.528	0.266	0.795	0%	± 10%
4930	0.386	0.095	0.711	0.085	0.796	3%	± 10%
Absolute Average Percent Difference						1%	± 10%

LINEAR REGRESSION ANALYSIS $y=mx+b$ (where x=calculated concentration, y=indicated concentration)

NO₂	LIMITS
Correlation= 1.0000	≥ 0.995
m (Slope)= 0.9998	0.90-1.10
b (Intercept % of FS)= -1.1702	± 3% F.S.

AENV Standards		NO_x Analyzer	
Audit Calibrator			
Make/Model	Teco 146i	Make/Model	Teco 42i
Serial/AMU Number	AMU 1809	Serial/AMU Number	AMU 1868
SRM Gas Cylinder No.	CAL018101	Last Calibration Date	May 16, 2017
Cylinder Conc. (ppm)	48.79	Full Scale (ppm)	1.0
		Cylinder Gas Expiry Date	March 2019

COMMENTS: Contains 50.4 ppm SO₂.

Auditor: Al Clark
Operator Signature: 

Date: May 16, 2017
Location: McIntyre Center Edmonton

CALIBRATION GASES



Calibration Gas Audit

Single Component Cylinder Gas

File No. 2017-213CGA

Company: Maxxam **Operator's Name:** C. Wesson

Cylinder #: LL119500 **Concentration PPM:** 9.8 **Tolerance(%)** 2 **Certified By:** Praxair

Expiry Date: August 2020

Reference Calibrator and Gas:

Make/Model: R&R MFC 201

Serial Number: AMU 1690

Last Verification Date: September 22, 2017

Gas Type: H2S **Conc.** 20.43

Cylinder Number: CAL015272

Expiry Date: January 2019

Flow Measurement Device:

Make/Model: Mesa Definer 220

Serial Number: H-133034 L-132702

Temp. °C: 23.5 C

B.P. 705 mmhg

Reference Analyzer:

Make/Model: Teco 450i **Serial/AMU Number:** 1980

Instrument Settings: **Zero:** 22.4 **Span:** 1.091 **Range:** 0.1

Last Calibration: **Date:** Sep 22/17 **C.F.** 1.000 **Done By:** Al Clark

Calibrator Flows (sccm)		Indicated Concentration (PPM)	Gas Flow/ Dilution Flow	Concentration Factor	Cylinder Concentration
Dilution	Gas				
5000	0.0	0.0000	~~0.00772~~	~~129.468~~	~~9.5~~
5114	39.5	0.0734	0.00772	129.468	9.5
5096	18.5	0.0345	0.00363	275.459	9.5
5089	9.5	0.0178	0.00187	535.684	9.5

Average Cylinder Concentration: **9.5**

Previous Stated Concentration PPM: 9.8

Percent variance from Stated: 3

Meets Manufacturer Tolerance. Use manufacturers stated concentration ☐ **COMMENTS:** _____

< =5% Outside Manufacturer Tolerance. Use manufacturers concentration ☒ _____

> 5% Outside Manufacturer Tolerance. **DO NOT USE** this cylinder ☐ _____

Auditor: Al Clark

Operator Signature: *Al Clark*

Date: September 22, 2017

Location: McIntyre Center Edmonton

**Praxair**

5700 South Alameda Street

Los Angeles, CA 90058

Tel: (323) 585-2154 Fax: (714) 542-6689

PGVPID: F22017

DocNumber: 000116114

CERTIFICATE OF ANALYSIS EPA PROTOCOL GAS**Customer & Order Information:**

PRAXAIR PKG EDMONTON PLT 8

9501 34TH ST

EDMONTON

AB T6B 2X

Praxair Order Number: 45357200

Customer P. O. Number: 582-280

Customer Reference Number:

Fill Date: 10/12/2017

Part Number: NI NO50MS2E-AQ

Lot Number: 70086728507

Cylinder Style & Outlet: AQ CGA 660

Cylinder Pressure & Volume: 2000 psig 82 cu. ft.

Certified Concentration:

Expiration Date:	10/24/2020	NIST Traceable
Cylinder Number:	LL108015	Analytical Uncertainty:
52.2 ppm	NITRIC OXIDE	± 0.7 %
47.9 ppm	SULFUR DIOXIDE	± 1 %
Balance	NITROGEN	

NOx = 52.3 ppm

NOx for Reference Only

Certification Information: Certification Date: 10/24/2017 Term: 36 Months Expiration Date: 10/24/2020

This cylinder was certified according to the 2012 EPA Traceability Protocol, Document #EPA-600/R-12/531, using Procedure G1. Do Not Use this Standard if Pressure is less than 100 PSIG.

Analytical Data:

(R=Reference Standard, Z=Zero Gas, C=Gas Candidate)

1. Component: NITRIC OXIDE

Requested Concentration: 50 ppm
Certified Concentration: 52.2 ppm
Instrument Used: Thermo Electron 42i-LS S/N 1030645077
Analytical Method: Chemiluminescence
Last Multipoint Calibration: 10/14/2017

First Analysis Data:		Date: 10/17/2017	
Z: 0	R: 50.8	C: 52	Conc: 51.99
R: 50.8	Z: 0	C: 52.1	Conc: 52.09
Z: 0	C: 52.1	R: 50.8	Conc: 52.09
UOM: ppm	Mean Test Assay: 52.056 ppm		

Reference Standard Type:

Ref. Std. Cylinder #: CC363145
Ref. Std. Conc: 50.79 ppm
Ref. Std. Traceable to SRM #: vs. 1683b
SRM Sample #: 45-V-42
SRM Cylinder #: CAL017897

Second Analysis Data:		Date: 10/24/2017	
Z: 0	R: 50.8	C: 52.4	Conc: 52.39
R: 50.8	Z: 0	C: 52.3	Conc: 52.29
Z: 0	C: 52.4	R: 50.8	Conc: 52.39
UOM: ppm	Mean Test Assay: 52.356 ppm		

2. Component: SULFUR DIOXIDE

Requested Concentration: 50 ppm
Certified Concentration: 47.9 ppm
Instrument Used: Ametek 921CE S/N AW-921-S321
Analytical Method: Ultraviolet Absorption
Last Multipoint Calibration: 10/13/2017

First Analysis Data:		Date: 10/17/2017	
Z: 0	R: 48.2	C: 48.4	Conc: 48.748
R: 48.2	Z: 0	C: 48.5	Conc: 48.849
Z: 0	C: 48.5	R: 48.3	Conc: 48.849
UOM: ppm	Mean Test Assay: 48.815 ppm		

Reference Standard Type: NTRM
Ref. Std. Cylinder #: CC72593
Ref. Std. Conc: 48.58 ppm
Ref. Std. Traceable to SRM #: n/a
SRM Sample #: 12070103
SRM Cylinder #: N/A

Second Analysis Data:		Date: 10/24/2017	
Z: 0	R: 48.2	C: 48	Conc: 48.378
R: 48.2	Z: 0	C: 48.1	Conc: 48.479
Z: 0	C: 48.1	R: 48.2	Conc: 48.479
UOM: ppm	Mean Test Assay: 48.446 ppm		

Analyzed by:

Henry Koung

Certified by:

Amalia Real

Information contained herein has been prepared at your request by qualified experts within Praxair Distribution, Inc. While we believe that the information is accurate within the limits of the analytical methods employed and is complete to the extent of the specific analyses performed, we make no warranty or representation as to the suitability of the use of the information for any purpose. The information is offered with the understanding that any use of the information is at the sole discretion and risk of the user. In no event shall the liability of Praxair Distribution, Inc., arising out of the use of the information contained herein exceed the fee established for providing such information.



Praxair
5700 South Alameda Street
Los Angeles, CA 90058
Tel: (323) 585-2154 Fax: (714) 542-6689
PGVPID: F22017

DocNumber: 000116091

Customer & Order Information:

MAXXAM ANALYTICS INC
500 1919 MINNESOTA CRT
MISSISSAUGA ON L5N 0C

Praxair Order Number: 44723832
Customer P. O. Number: PO0000001677
Customer Reference Number:

Fill Date: 10/13/2017
Part Number: NI ME600P2E-AQ
Lot Number: 70086728604
Cylinder Style & Outlet: AQ CGA 350
Cylinder Pressure & Volume: 2200 psig 82 cu. ft.

Certified Concentration:

Expiration Date:	10/18/2025	NIST Traceable
Cylinder Number:	LL107207	Analytical Uncertainty:
207 ppm	PROPANE	± 0.6 %
600 ppm	METHANE	± 0.3 %
Balance	NITROGEN	

Certification Information: Certification Date: 10/18/2017 Term: 96 Months Expiration Date: 10/18/2025
This cylinder was certified according to the 2012 EPA Traceability Protocol, Document #EPA-600/R-12/531, using Procedure G1. Do Not Use this Standard if Pressure is less than 100 PSIG.

Analytical Data:

(R=Reference Standard, Z=Zero Gas, C=Gas Candidate)

1. Component: PROPANE

Requested Concentration: 200 ppm
Certified Concentration: 207 ppm
Instrument Used: MKS Multigas 2031 FTIR
Analytical Method: Fourier Transform Infrared
Last Multipoint Calibration: 10/15/2017

First Analysis Data:	Date:	10/17/2017
Z: 0 R: 246.85 C: 200.17 Conc: 207.23		
R: 246.89 Z: 0 C: 200 Conc: 207.05		
Z: 0 C: 200.25 R: 246.96 Conc: 207.30		
UOM: ppm	Mean Test Assay:	207.19 ppm

Reference Standard Type: GMIS

Ref. Std. Cylinder #: 30718442
Ref. Std. Conc: 255.6 ppm
Ref. Std. Traceable to SRM #: 2644a
SRM Sample #: 101-C-45
SRM Cylinder #: XF0038298

Second Analysis Data:	Date:	
Z: 0 R: 0 C: 0 Conc: 0		
R: 0 Z: 0 C: 0 Conc: 0		
Z: 0 C: 0 R: 0 Conc: 0		
UOM: ppm	Mean Test Assay:	0 ppm

2. Component: METHANE

Requested Concentration: 600 ppm
Certified Concentration: 600 ppm
Instrument Used: MKS Multigas 2031 FTIR
Analytical Method: Fourier Transform Infrared
Last Multipoint Calibration: 9/27/2017

First Analysis Data:	Date:	10/17/2017
Z: 0 R: 934.60 C: 565.92 Conc: 600.16		
R: 934.66 Z: 0 C: 566.72 Conc: 601		
Z: 0 C: 565.99 R: 931.33 Conc: 600.22		
UOM: ppm	Mean Test Assay:	600.46 ppm

Reference Standard Type: GMIS

Ref. Std. Cylinder #: DT0010335
Ref. Std. Conc: 990 ppm
Ref. Std. Traceable to SRM #: RGM#DT00
SRM Sample #: N/A
SRM Cylinder #: DT0007710

Second Analysis Data:	Date:	
Z: 0 R: 0 C: 0 Conc: 0		
R: 0 Z: 0 C: 0 Conc: 0		
Z: 0 C: 0 R: 0 Conc: 0		
UOM: ppm	Mean Test Assay:	0 ppm

Analyzed by:

Jenna Lockman

Certified by:

Jose Vasquez

Information contained herein has been prepared at your request by qualified experts within Praxair Distribution, Inc. While we believe that the information is accurate within the limits of the analytical methods employed and is complete to the extent of the specific analyses performed, we make no warranty or representation as to the suitability of the use of the information for any purpose. The information is offered with the understanding that any use of the information is at the sole discretion and risk of the user. In no event shall the liability of Praxair Distribution, Inc., arising out of the use of the information contained herein exceed the fee established for providing such information.

APPENDIX III
MAXIMUM INSTANTANEOUS DATA

SULPHUR DIOXIDE Instantaneous Maximum (SO₂ ppb)

HR START (MST)	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY	DAILY	24-HR	RDGS.	
HR END (MST)	0:59	1:59	2:59	3:59	4:59	5:59	6:59	7:59	8:59	9:59	10:59	11:59	12:59	13:59	14:59	15:59	16:59	17:59	18:59	19:59	20:59	21:59	22:59	23:59	MIN.	MAX.	AVG.		
DAY																													
1	2	2	2	1	1	1	1	1	1	1	1	1	1	2	2	2	1	1	S	1	1	1	1	1	1	1	2	1	24
2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	S	1	1	1	1	1	1	1	1	1	1	24
3	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	S	1	1	1	1	1	1	1	1	1	2	1	24
4	1	1	1	1	1	1	1	1	1	1	1	1	1	C	C	C	C	C	1	1	1	1	1	1	1	1	1	1	24
5	0	1	1	1	0	0	0	1	1	1	1	1	1	1	S	1	S	1	1	1	1	1	1	1	1	0	1	1	24
6	1	1	1	1	2	2	1	1	1	1	1	1	1	S	1	1	1	1	1	1	1	1	1	1	1	1	2	1	24
7	1	1	1	1	1	1	0	1	1	1	1	1	S	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	24
8	1	1	1	1	1	1	1	1	0	1	0	S	1	1	1	0	0	0	0	0	0	0	0	0	0	0	1	1	24
9	1	0	0	0	1	0	1	0	0	0	S	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	24
10	1	0	0	1	0	0	0	0	0	S	0	1	1	1	1	0	1	1	1	1	1	1	1	1	1	0	1	1	24
11	1	1	1	1	1	1	1	2	S	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	24
12	1	1	1	1	1	1	1	S	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	1	2	1	24	
13	1	2	1	1	1	1	S	2	1	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	2	1	24	
14	1	1	1	1	1	S	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	24	
15	1	1	1	1	S	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	24	
16	1	1	1	S	1	1	1	1	1	1	2	2	1	2	2	1	1	1	1	1	1	1	1	2	1	2	1	24	
17	2	2	S	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	24	
18	1	S	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	24	
19	S	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	S	1	2	1	24	
20	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	S	1	1	1	1	24	
21	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	S	1	1	1	1	1	24	
22	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	S	1	1	1	1	1	1	24	
23	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	S	1	1	1	1	1	1	1	24	
24	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	S	1	1	1	1	1	1	1	1	24	
25	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	S	1	1	1	1	1	1	1	1	1	24	
26	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	S	1	1	1	1	1	1	1	1	1	1	24	
27	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	S	1	1	1	1	1	1	1	1	1	1	1	24	
28	1	1	1	1	1	1	1	1	1	1	1	1	1	1	S	1	1	1	1	1	1	1	1	1	1	1	1	24	
29	1	1	1	1	1	2	1	1	1	2	2	2	S	2	2	2	2	2	2	1	1	1	1	1	1	1	2	1	24
30	1	1	1	1	1	1	1	1	1	1	1	0	S	1	2	1	1	1	1	1	1	1	1	1	0	2	1	24	
31	1	1	1	1	1	1	1	1	1	1	1	S	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	24	
HOURLY MAX	2	2	2	1	2	2	1	2	1	2	2	2	2	2	2	2	2	2	2	2	1	2	2	2	2				
HOURLY AVG	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1					

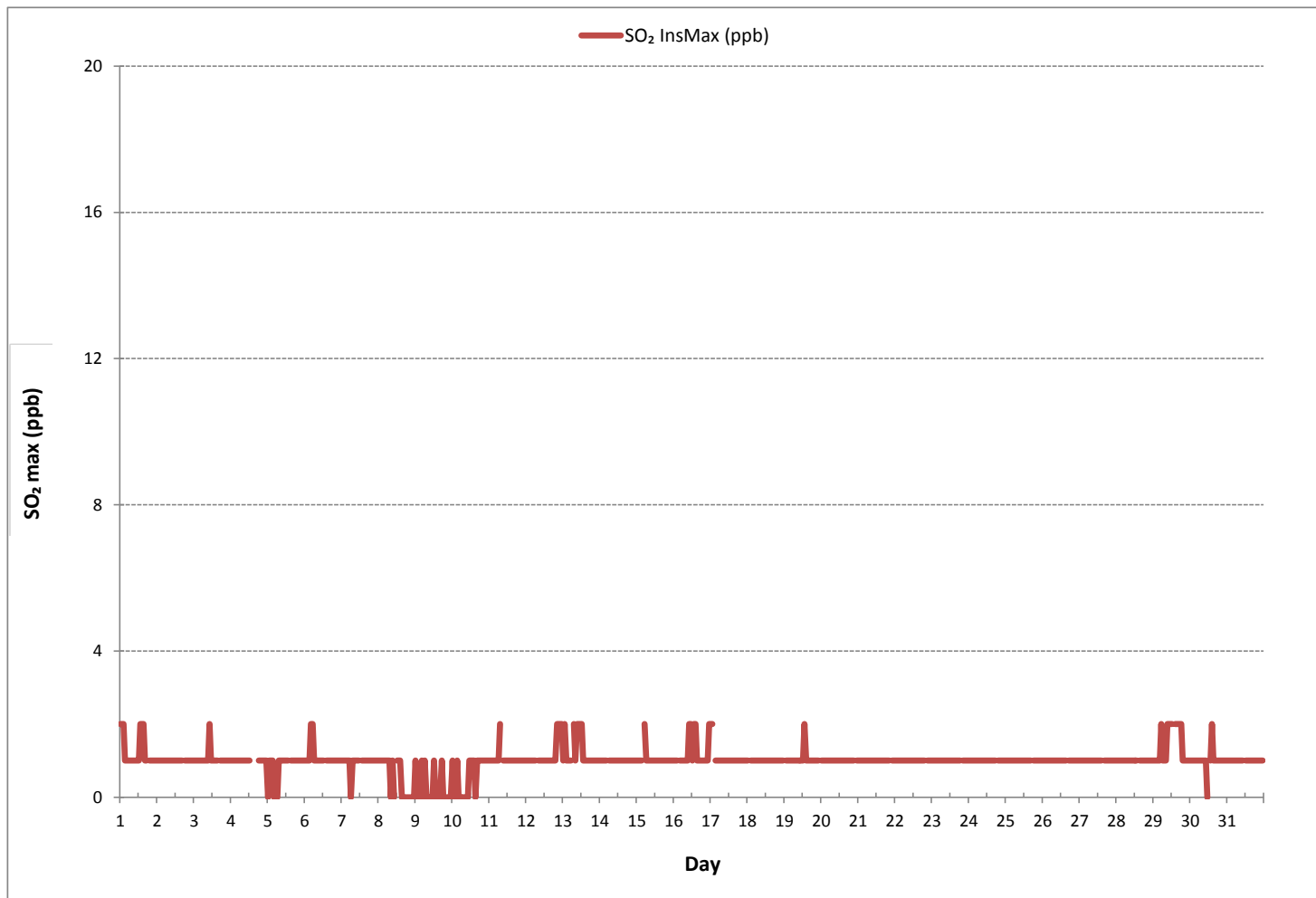
STATUS FLAG CODES

C	- MONTHLY CALIBRATION	Q	- QUALITY ASSURANCE
C1	- REPEAT CALIBRATION	R	- RECOVERY
Y	- MAINTENANCE	X	- MACHINE MALFUNCTION
S	- DAILY ZERO/SPAN CHECK	G	- OUT FOR REPAIR
S1	- REPEAT ZERO/SPAN CHECK	P	- POWER FAILURE

MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	664
MAXIMUM INSTANTANEOUS VALUE:	2 ppb @ HOUR 0 ON DAY 1
IZS CALIBRATION TIME:	31 hrs
MONTHLY CALIBRATION TIME:	5 hrs
STANDARD DEVIATION:	0
OPERATIONAL TIME:	744 hrs

SULPHUR DIOXIDE Instantaneous Maximum (SO₂ ppb)





PEACE RIVER AREA MONITORING PROGRAM COMMITTEE

Three Creeks 842b Station - January 2018

TOTAL REDUCED SULPHUR Instantaneous Maximum (TRS ppb)

HR START (MST)	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY MIN.	DAILY MAX.	24-HR AVG.	RDGS.	
HR END (MST)	0:59	1:59	2:59	3:59	4:59	5:59	6:59	7:59	8:59	9:59	10:59	11:59	12:59	13:59	14:59	15:59	16:59	17:59	18:59	19:59	20:59	21:59	22:59	23:59					
DAY																													
1	0.25	0.20	0.20	0.22	0.23	0.20	0.23	0.25	0.20	0.17	0.17	0.15	0.17	0.15	0.17	0.15	0.15	0.09	S	0.15	0.12	0.09	0.05	0.05	0.05	0.05	0.25	0.17	24
2	0.05	0.05	0.02	0.07	0.05	0.07	0.02	0.05	0.00	0.05	0.02	0.05	0.05	0.00	0.00	0.02	0.05	S	0.00	0.02	0.02	0.02	0.02	0.00	0.00	0.00	0.07	0.03	24
3	0.02	0.00	0.00	0.00	0.00	0.02	0.02	S1	S1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	C1	C1	C1	C1	Y	Y	Y	0.00	0.02	0.00	16
4	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y					
5	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	C	C	C	C	0.30	S	0.33	0.30	0.30	0.30	0.33	0.30	0.30	0.33	0.30	0.33	0.31	15	
6	0.33	0.30	0.36	0.33	0.39	0.33	0.33	0.30	0.25	0.22	0.25	0.25	0.28	S	0.25	0.20	0.22	0.25	0.22	0.22	0.25	0.25	0.20	0.17	0.17	0.39	0.27	24	
7	0.22	0.17	0.17	0.20	0.17	0.20	0.17	0.15	0.20	0.17	0.15	0.20	S	0.22	0.20	0.17	0.20	0.20	0.17	0.17	0.15	0.20	0.17	0.15	0.15	0.22	0.18	24	
8	0.17	0.17	0.12	0.17	0.22	0.20	0.12	0.20	0.12	0.12	0.15	S	0.22	0.20	0.17	0.17	0.17	0.22	0.17	0.22	0.17	0.17	0.17	0.20	0.12	0.22	0.17	24	
9	0.15	0.17	0.17	0.17	0.20	0.20	0.22	0.20	0.22	0.20	S	0.20	0.20	0.15	0.20	0.17	0.20	0.17	0.20	0.17	0.17	0.20	0.20	0.18	0.15	0.22	0.19	24	
10	0.17	0.18	0.20	0.17	0.17	0.17	0.17	0.20	0.20	S	0.25	0.25	0.25	0.22	0.28	0.22	0.22	0.28	0.30	0.28	0.28	0.28	0.28	0.28	0.17	0.30	0.23	24	
11	0.28	0.30	0.30	0.30	0.30	0.28	0.33	0.30	S	0.30	0.28	0.28	0.25	0.28	0.28	0.25	0.28	0.28	0.28	0.28	0.36	0.47	0.51	0.57	0.25	0.57	0.32	24	
12	0.49	0.47	0.51	0.51	0.41	0.41	0.33	S	0.44	C1	C1	C1	C1	0.33	0.30	0.30	0.33	0.30	0.28	0.33	0.33	0.36	0.44	0.36	0.28	0.51	0.38	20	
13	0.36	0.33	0.39	0.36	0.36	0.39	S	0.41	0.41	0.38	0.38	0.33	0.36	0.38	0.41	0.36	0.38	0.36	0.36	0.36	0.33	0.36	0.33	0.49	0.33	0.49	0.37	24	
14	0.43	0.43	0.36	0.36	0.36	S	0.41	0.36	0.33	0.36	0.36	0.30	0.33	0.30	0.30	0.30	0.30	0.30	0.30	0.28	0.28	0.28	0.30	0.28	0.28	0.43	0.33	24	
15	0.25	0.28	0.28	0.25	S	0.28	0.28	0.28	0.26	0.30	0.28	0.33	0.28	0.26	0.28	0.28	0.25	0.30	0.26	0.25	0.25	0.25	0.25	0.25	0.25	0.33	0.27	24	
16	0.26	0.25	0.25	S	0.28	0.23	0.28	0.28	0.25	0.28	0.33	0.30	0.28	0.36	0.41	0.36	0.36	0.28	0.30	0.33	0.33	0.31	0.30	0.30	0.23	0.41	0.30	24	
17	0.33	0.33	S	0.30	0.25	0.28	0.28	0.25	0.23	0.28	0.23	0.20	0.22	0.20	0.20	0.25	0.20	0.20	0.17	0.17	0.15	0.17	0.17	0.17	0.15	0.33	0.23	24	
18	0.15	S	0.20	0.17	0.15	0.20	0.15	0.17	0.15	0.20	0.20	0.15	0.17	0.20	0.22	0.20	0.23	0.23	0.20	0.20	0.25	0.25	0.20	0.20	0.15	0.25	0.19	24	
19	S	0.23	0.20	0.22	0.25	0.20	0.20	0.17	0.17	0.15	0.12	0.09	0.09	0.12	0.12	0.09	0.08	0.09	0.15	0.07	0.09	0.15	0.17	S	0.07	0.25	0.15	24	
20	0.22	0.20	0.20	0.15	0.17	0.17	0.15	0.15	0.25	0.25	0.41	0.22	0.17	0.17	0.17	0.15	0.17	0.20	0.22	0.20	0.20	0.20	S	0.20	0.15	0.41	0.20	24	
21	0.20	0.20	0.12	0.15	0.17	0.15	0.12	0.12	0.09	0.09	0.12	0.09	0.15	0.12	0.15	0.15	0.12	0.15	0.15	0.15	0.15	S	0.12	0.12	0.09	0.20	0.14	24	
22	0.12	0.09	0.12	0.15	0.12	0.15	0.15	0.18	0.20	0.17	0.17	0.12	0.15	0.15	0.17	0.12	0.12	0.15	0.15	0.12	S	0.15	0.17	0.17	0.09	0.20	0.15	24	
23	0.17	0.17	0.12	0.15	0.17	0.20	0.20	0.17	0.18	0.17	0.17	0.17	0.17	0.23	0.17	0.15	0.15	0.17	0.15	S	0.20	0.20	0.12	0.15	0.12	0.23	0.17	24	
24	0.15	0.12	0.12	0.15	0.12	0.12	0.20	0.12	0.12	0.12	0.12	0.12	0.17	0.15	0.15	0.15	0.15	0.15	S	0.17	0.20	0.17	0.17	0.17	0.12	0.20	0.15	24	
25	0.17	0.15	0.15	0.12	0.17	0.17	0.20	0.17	0.17	0.17	0.15	0.20	0.20	0.18	0.15	0.17	0.17	S	0.17	0.17	0.18	0.15	0.17	0.15	0.12	0.20	0.17	24	
26	0.17	0.15	0.17	0.17	0.15	0.15	0.20	0.17	0.20	0.20	0.23	0.20	0.23	0.20	0.25	0.23	S	0.25	0.28	0.22	0.22	0.20	0.25	0.20	0.15	0.28	0.20	24	
27	0.25	0.25	0.23	0.25	0.20	0.20	0.22	0.20	0.22	0.23	0.22	0.20	0.20	0.22	0.22	S	0.25	0.22	0.23	0.20	0.22	0.22	0.20	0.20	0.20	0.25	0.22	24	
28	0.22	0.18	0.22	0.22	0.22	0.28	0.23	0.23	0.25	0.22	0.22	0.22	0.20	0.25	S	0.25	0.22	0.22	0.28	0.25	0.22	0.28	0.25	0.25	0.18	0.28	0.23	24	
29	0.28	0.28	0.22	0.25	0.25	0.28	0.28	0.26	0.25	0.22	0.22	0.25	0.25	S	0.28	0.23	0.28	0.28	0.20	0.20	0.18	0.17	0.17	0.20	0.17	0.28	0.24	24	
30	0.23	0.25	0.22	0.23	0.23	0.25	0.22	0.20	0.20	0.22	0.20	0.20	S	0.28	0.25	0.25	0.25	0.23	0.22	0.23	0.22	0.26	0.26	0.26	0.20	0.28	0.23	24	
31	0.22	0.22	0.25	0.25	0.28	0.30	0.25	0.22	0.23	0.25	0.28	S	0.33	0.30	0.28	0.28	0.28	0.25	0.28	0.25	0.22	0.28	0.25	0.23	0.22	0.33	0.26	24	
HOURLY MAX	0.49	0.47	0.51	0.51	0.41	0.41	0.41	0.41	0.44	0.38	0.41	0.33	0.36	0.38	0.41	0.36	0.38	0.36	0.36	0.36	0.47	0.51	0.57						
HOURLY AVG	0.23	0.22	0.21	0.22	0.22	0.22	0.21	0.21	0.21	0.20	0.21	0.20	0.21	0.21	0.22	0.21	0.22	0.22	0.22	0.21	0.22	0.23	0.22	0.22					

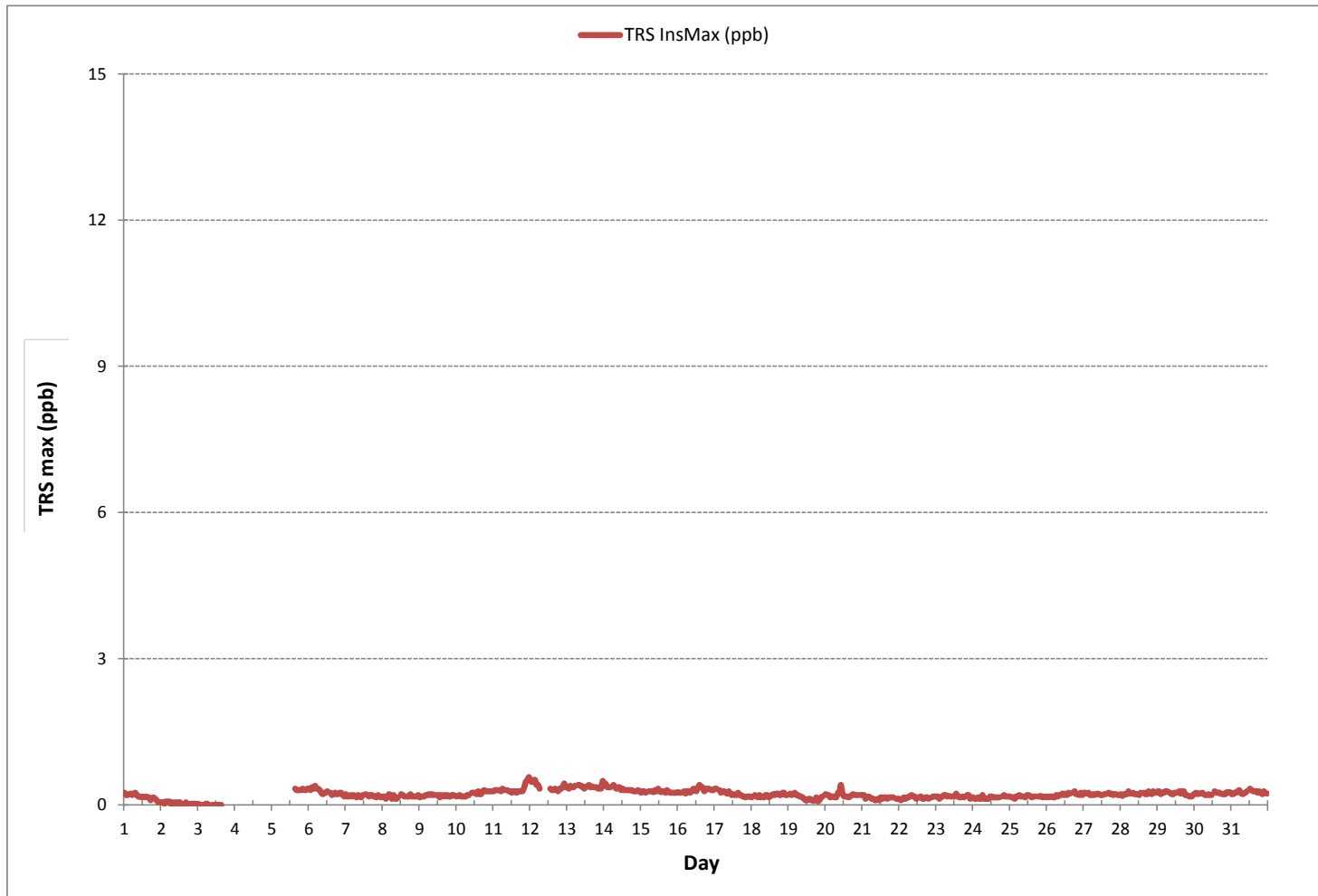
STATUS FLAG CODES

C	- MONTHLY CALIBRATION	Q	- QUALITY ASSURANCE
C1	- REPEAT CALIBRATION	R	- RECOVERY
Y	- MAINTENANCE	X	- MACHINE MALFUNCTION
S	- DAILY ZERO/SPAN CHECK	G	- OUT FOR REPAIR
S1	- REPEAT ZERO/SPAN CHECK	P	- POWER FAILURE

MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	647				
MAXIMUM INSTANTANEOUS VALUE:	0.57	ppb	@ HOUR	23	ON DAY 11
IZS CALIBRATION TIME:	31	hrs	OPERATIONAL TIME:	699	hrs
MONTHLY CALIBRATION TIME:	4	hrs			
STANDARD DEVIATION:	0.09				

TOTAL REDUCED SULPHUR Instantaneous Maximum (TRS ppb)





PEACE RIVER AREA MONITORING PROGRAM COMMITTEE

Three Creeks 842b Station - January 2018

TOTAL HYDROCARBONS Instantaneous Maximum (THC ppm)

HR START (MST)	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY	DAILY	24-HR	RDGS.
HR END (MST)	0:59	1:59	2:59	3:59	4:59	5:59	6:59	7:59	8:59	9:59	10:59	11:59	12:59	13:59	14:59	15:59	16:59	17:59	18:59	19:59	20:59	21:59	22:59	23:59	MIN.	MAX.	AVG.	
DAY																												
1	2.19	2.18	2.18	2.17	2.18	2.19	2.21	2.22	2.23	2.23	2.18	2.16	2.16	2.17	2.16	2.15	2.09	2.08	S	2.06	2.06	2.03	2.04	2.01	2.01	2.23	2.14	24
2	2.03	2.02	2.01	2.02	2.01	2.01	2.01	2.05	2.04	2.11	2.06	2.03	2.03	2.02	2.03	2.04	2.02	S	2.03	2.02	2.02	2.03	2.03	2.02	2.01	2.11	2.03	24
3	2.03	2.03	2.03	2.05	2.04	2.05	2.04	2.05	2.05	2.04	2.03	2.03	2.02	2.03	2.04	X	S	2.03	2.46	2.04	2.05	2.03	2.03	2.03	2.02	2.46	2.06	23
4	2.03	2.03	2.03	2.02	2.03	2.08	2.13	2.12	2.15	C	C	C	C	C	2.02	S	2.02	2.03	2.03	2.04	2.06	2.08	2.20	2.27	2.02	2.27	2.08	24
5	2.22	2.15	2.13	2.19	2.24	2.21	2.23	2.26	2.18	2.08	2.10	2.13	2.14	2.15	S	2.17	2.16	2.17	2.18	2.20	2.21	2.22	2.23	2.23	2.08	2.26	2.18	24
6	2.24	2.31	2.33	2.31	2.27	2.21	2.17	2.12	2.12	2.05	2.00	1.99	2.00	S	2.03	2.02	2.03	2.02	2.00	2.04	2.05	2.08	2.08	1.99	2.33	2.11	24	
7	2.00	2.00	2.04	2.06	2.04	2.00	2.00	2.02	2.01	2.00	1.99	2.00	S	2.01	2.01	2.01	2.01	2.02	2.03	2.02	2.02	2.04	2.04	2.03	1.99	2.06	2.02	24
8	2.04	2.03	2.02	2.04	2.03	2.02	2.02	2.03	2.03	2.03	2.03	S	S	2.03	2.02	2.01	2.01	2.02	2.01	2.01	1.99	2.00	2.02	2.00	1.99	2.04	2.02	24
9	1.99	2.00	1.99	2.01	2.00	2.01	2.00	2.02	2.01	2.00	S	2.00	2.02	2.01	2.03	2.01	2.02	2.01	2.01	2.02	2.01	2.03	2.01	2.02	1.99	2.03	2.01	24
10	2.00	2.02	2.01	2.02	2.04	2.03	2.04	2.04	2.12	S	2.09	2.12	2.12	2.09	2.10	2.04	2.03	2.06	2.04	2.07	2.05	2.07	2.07	2.07	2.00	2.12	2.06	24
11	2.07	2.07	2.08	2.09	2.09	2.09	2.09	2.09	S	2.07	2.09	2.07	2.06	2.07	2.09	2.06	2.06	2.06	2.05	2.06	2.30	2.40	2.44	2.64	2.05	2.64	2.14	24
12	2.53	2.43	2.60	2.55	2.45	2.41	2.35	S	2.47	2.48	2.46	X	2.23	2.20	2.19	2.11	2.09	2.10	2.07	2.10	2.18	2.21	2.21	2.16	2.07	2.60	2.30	23
13	2.19	2.22	2.26	2.22	2.24	2.27	S	2.26	2.24	2.24	2.20	2.16	2.18	2.21	2.20	2.17	2.20	2.19	2.18	2.17	2.15	2.15	2.09	2.22	2.09	2.27	2.20	24
14	2.22	2.20	2.18	2.13	2.12	S	2.12	2.12	2.13	2.13	2.15	2.05	2.05	2.06	2.06	2.08	2.13	2.11	2.05	2.05	2.06	2.11	2.08	2.05	2.22	2.11	24	
15	2.07	2.11	2.08	2.09	S	2.05	2.09	2.09	2.09	2.13	2.11	2.19	2.10	2.10	2.07	2.08	2.12	2.28	X	2.16	2.13	2.12	2.13	2.16	2.05	2.28	2.12	23
16	2.16	2.16	2.19	S	2.27	2.19	2.17	2.16	2.15	2.16	2.15	S1	S1	2.17	2.19	2.21	2.21	2.22	2.21	2.21	2.22	2.21	2.21	2.25	2.15	2.27	2.19	22
17	2.25	2.22	S	2.15	2.08	2.07	2.05	2.04	2.02	2.01	2.00	2.00	2.01	2.01	2.01	2.01	2.03	2.02	2.01	2.06	2.07	2.03	2.01	2.01	2.00	2.25	2.05	24
18	2.02	S	2.04	2.10	2.11	2.10	2.05	2.07	2.06	2.06	2.06	2.06	2.01	2.02	2.03	2.00	2.08	2.06	2.01	2.02	2.11	2.17	2.02	2.05	2.00	2.17	2.06	24
19	S	2.02	2.01	2.01	2.02	2.17	2.01	2.01	2.04	2.03	2.02	2.01	2.01	2.00	2.00	2.00	2.01	2.01	2.01	2.02	2.08	2.19	2.25	S	2.00	2.25	2.04	24
20	2.34	2.35	2.17	2.07	2.04	2.04	2.05	2.04	2.13	2.11	2.18	2.11	2.06	2.06	2.05	2.06	2.07	2.08	2.08	2.09	2.09	2.08	S	2.07	2.04	2.35	2.11	24
21	2.07	2.09	2.09	2.09	2.09	2.06	2.05	2.05	2.04	2.04	2.05	2.05	2.06	2.05	2.06	2.06	2.06	2.06	2.06	2.06	2.06	S	2.05	2.05	2.04	2.09	2.06	24
22	2.05	2.06	2.06	2.07	2.07	2.14	2.07	2.07	2.08	2.08	2.07	2.06	2.06	2.07	2.07	2.07	2.06	2.06	2.06	S	2.06	2.06	2.08	2.05	2.14	2.07	24	
23	2.12	2.12	2.14	2.15	2.18	2.20	2.18	2.17	2.16	2.14	2.12	2.08	2.06	2.07	2.07	2.07	2.09	2.10	S	2.17	2.16	2.15	2.15	2.06	2.20	2.13	24	
24	2.13	2.10	2.07	2.08	2.09	2.09	2.09	2.08	2.24	2.10	2.10	2.18	2.15	2.15	2.17	2.17	2.18	2.19	S	2.20	2.20	2.21	2.19	2.19	2.07	2.24	2.15	24
25	2.17	2.17	2.15	2.09	2.08	2.07	2.07	2.07	2.07	2.07	2.07	2.06	2.06	2.06	2.05	2.05	2.05	S	2.05	2.04	2.04	2.04	2.04	2.04	2.04	2.17	2.07	24
26	2.04	2.04	2.04	2.03	2.03	2.03	2.03	2.03	2.04	2.04	2.03	2.05	2.04	2.04	2.04	X	S	2.05	2.05	2.04	2.04	2.05	2.04	2.05	2.03	2.05	2.04	23
27	2.05	2.05	2.04	2.04	2.04	2.04	2.05	2.04	2.04	2.04	2.05	2.04	2.04	2.04	2.04	S	2.06	2.06	2.05	2.05	2.04	2.04	2.04	2.04	2.04	2.06	2.04	24
28	2.04	2.04	2.04	2.12	2.09	2.10	2.08	2.08	2.10	2.08	2.07	2.08	2.05	2.05	S	2.05	2.06	2.08	2.13	2.13	2.07	2.07	2.06	2.07	2.04	2.13	2.08	24
29	2.07	2.08	2.08	2.07	2.08	2.09	2.09	2.11	2.12	2.12	2.14	2.17	2.19	S	2.24	2.25	2.26	2.30	2.27	2.12	2.09	2.11	2.14	2.14	2.07	2.30	2.14	24
30	2.12	2.08	2.06	2.07	2.06	2.06	2.06	2.06	2.06	2.06	2.06	2.05	S	2.04	2.04	2.04	2.04	2.05	2.06	2.04	2.03	2.03	2.02	2.02	2.02	2.12	2.05	24
31	2.03	2.02	2.03	2.03	2.02	2.03	2.02	2.02	2.02	2.03	2.02	S	2.03	2.03	2.03	2.04	2.03	2.02	2.02	2.01	2.02	2.01	2.03	2.01	2.01	2.04	2.02	24
HOURLY MAX	2.53	2.43	2.60	2.55	2.45	2.41	2.35	2.26	2.47	2.48	2.46	2.19	2.23	2.21	2.24	2.25	2.26	2.30	2.46	2.21	2.30	2.40	2.44	2.64				
HOURLY AVG	2.12	2.11	2.11	2.10	2.10	2.10	2.09	2.09	2.11	2.10	2.09	2.07	2.07	2.07	2.07	2.07	2.08	2.09	2.08	2.07	2.09	2.10	2.10	2.11				

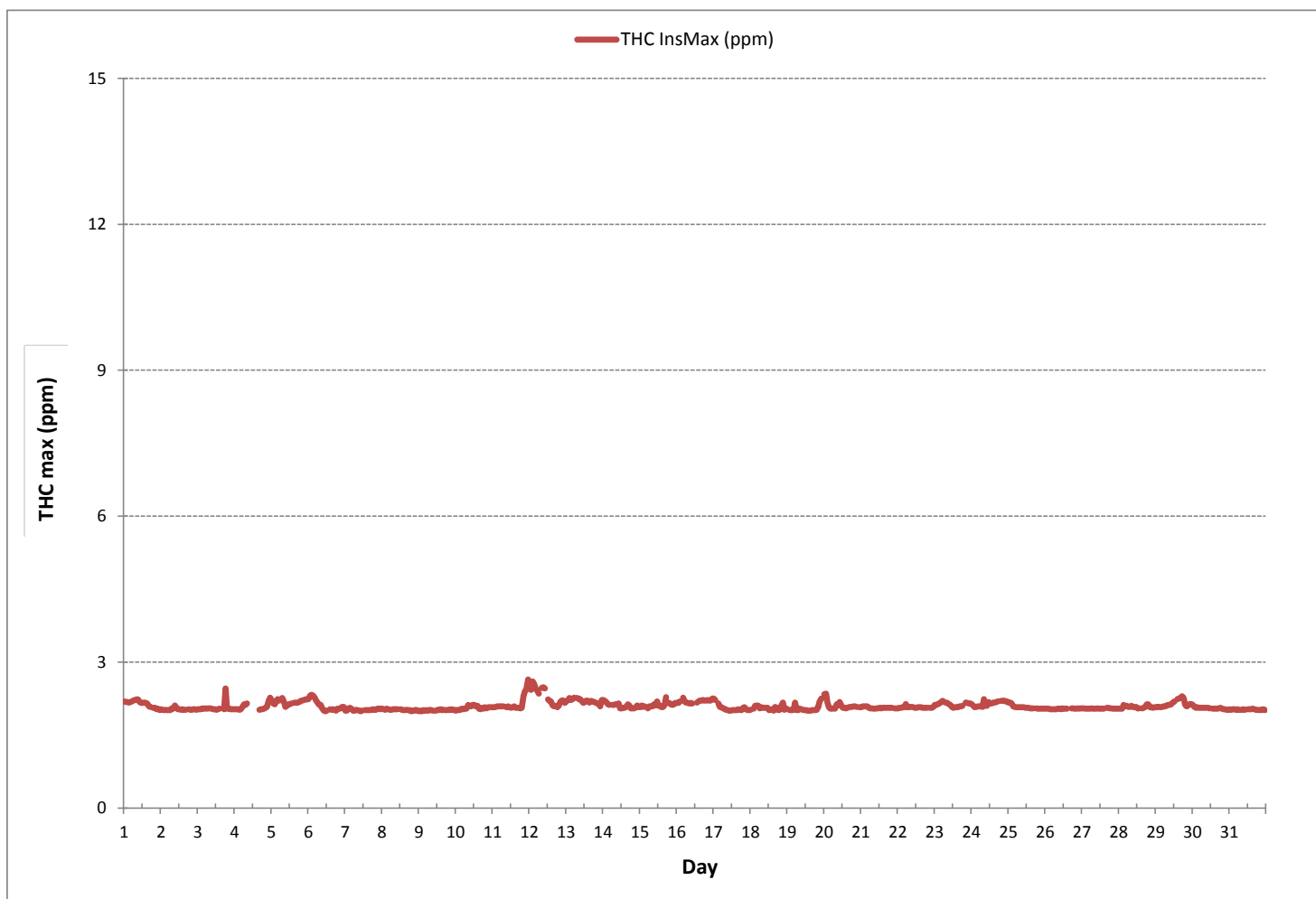
STATUS FLAG CODES

C	- MONTHLY CALIBRATION	Q	- QUALITY ASSURANCE
C1	- REPEAT CALIBRATION	R	- RECOVERY
Y	- MAINTENANCE	X	- MACHINE MALFUNCTION
S	- DAILY ZERO/SPAN CHECK	G	- OUT FOR REPAIR
S1	- REPEAT ZERO/SPAN CHECK	P	- POWER FAILURE

MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	701				
MAXIMUM INSTANTANEOUS VALUE:	2.64	ppm	@ HOUR	23	ON DAY 11
IZS CALIBRATION TIME:	32	hrs	OPERATIONAL TIME:	738	hrs
MONTHLY CALIBRATION TIME:	5	hrs			
STANDARD DEVIATION:	0.09				

TOTAL HYDROCARBONS Instantaneous Maximum (THC ppm)





PEACE RIVER AREA MONITORING PROGRAM COMMITTEE

Three Creeks 842b Station - January 2018

METHANE MAX Instantaneous Maximum (CH₄ ppm)

HR START (MST)	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY MIN.	DAILY MAX.	24-HR AVG.	RDGS.	
HR END (MST)	0:59	1:59	2:59	3:59	4:59	5:59	6:59	7:59	8:59	9:59	10:59	11:59	12:59	13:59	14:59	15:59	16:59	17:59	18:59	19:59	20:59	21:59	22:59	23:59					
DAY																													
1	2.18	2.17	2.16	2.15	2.16	2.17	2.19	2.21	2.22	2.21	2.16	2.14	2.14	2.15	2.14	2.13	2.08	2.07	S	2.04	2.05	2.02	2.03	2.00	2.00	2.00	2.22	2.13	24
2	2.02	2.00	2.00	2.00	1.99	2.00	2.00	2.03	2.02	2.09	2.04	2.02	2.02	2.00	2.01	2.01	S	2.01	2.00	2.00	2.00	2.01	2.01	2.01	2.01	1.99	2.09	2.01	24
3	2.01	2.02	2.02	2.04	2.03	2.03	2.03	2.03	2.03	2.03	2.02	2.02	2.01	2.02	2.02	X	S	2.02	2.00	2.02	2.03	2.02	2.01	2.01	2.01	2.00	2.04	2.02	23
4	2.01	2.01	2.02	2.01	2.02	2.07	2.11	2.10	2.13	C	C	C	C	C	2.01	S	2.01	2.01	2.01	2.03	2.04	2.07	2.19	2.26	2.01	2.26	2.06	24	
5	2.21	2.13	2.12	2.18	2.23	2.20	2.21	2.25	2.16	2.06	2.07	2.11	2.12	2.13	S	2.15	2.14	2.15	2.16	2.19	2.19	2.21	2.22	2.22	2.06	2.25	2.17	24	
6	2.24	2.29	2.31	2.31	2.26	2.19	2.15	2.11	2.10	2.04	1.98	1.97	1.98	S	2.02	2.00	2.02	2.01	1.98	2.03	2.03	2.03	2.06	2.06	1.97	2.31	2.09	24	
7	1.98	1.99	2.03	2.04	2.03	1.99	1.98	2.01	1.99	1.98	1.98	1.99	S	1.99	2.00	2.00	2.00	2.01	2.01	2.01	2.01	2.02	2.03	2.02	1.98	2.04	2.00	24	
8	2.03	2.01	2.01	2.02	2.02	2.01	2.01	2.01	2.02	2.02	2.02	S	2.01	2.01	2.00	1.99	2.00	1.99	2.00	1.97	1.99	1.98	2.01	1.99	1.97	2.03	2.01	24	
9	1.98	1.99	1.98	1.99	1.99	2.00	1.99	2.00	1.99	1.99	S	1.99	2.00	1.99	2.01	1.99	2.00	2.00	2.00	2.01	2.00	2.01	2.00	2.01	1.98	2.01	2.00	24	
10	1.99	2.00	2.00	2.01	2.03	2.01	2.02	2.02	2.11	S	2.07	2.10	2.10	2.07	2.09	2.02	2.02	2.05	2.03	2.06	2.04	2.05	2.06	2.06	1.99	2.11	2.04	24	
11	2.05	2.06	2.06	2.08	2.08	2.08	2.08	2.07	S	2.06	2.07	2.05	2.05	2.06	2.08	2.04	2.05	2.04	2.04	2.04	2.29	2.38	2.43	2.63	2.04	2.63	2.12	24	
12	2.52	2.41	2.60	2.54	2.44	2.39	2.34	S	2.46	2.46	2.44	X	2.21	2.18	2.17	2.10	2.08	2.08	2.05	2.08	2.16	2.19	2.20	2.14	2.05	2.60	2.28	23	
13	2.18	2.20	2.25	2.21	2.23	2.26	S	2.25	2.23	2.23	2.19	2.14	2.16	2.20	2.19	2.15	2.18	2.18	2.16	2.15	2.13	2.13	2.07	2.21	2.07	2.26	2.19	24	
14	2.21	2.19	2.16	2.11	2.10	S	2.11	2.10	2.11	2.11	2.13	2.04	2.04	2.04	2.05	2.07	2.11	2.09	2.03	2.04	2.04	2.05	2.08	2.07	2.03	2.21	2.09	24	
15	2.06	2.10	2.07	2.07	S	2.04	2.07	2.08	2.08	2.11	2.09	2.18	2.08	2.08	2.06	2.07	2.10	2.27	X	2.15	2.11	2.10	2.11	2.14	2.04	2.27	2.10	23	
16	2.14	2.14	2.18	S	2.26	2.17	2.15	2.14	2.13	2.14	2.13	S1	S1	2.15	2.17	2.20	2.19	2.21	2.20	2.20	2.20	2.20	2.24	2.13	2.26	2.18	22		
17	2.24	2.21	S	2.13	2.07	2.05	2.03	2.02	2.01	2.00	1.99	1.99	1.99	2.00	2.00	2.00	2.01	2.01	1.99	2.04	2.06	2.02	2.00	2.00	1.99	2.24	2.04	24	
18	2.01	S	2.03	2.08	2.10	2.09	2.03	2.05	2.05	2.05	2.05	2.05	2.00	2.01	2.02	1.99	2.07	2.05	2.00	2.01	2.10	2.15	2.01	2.04	1.99	2.15	2.05	24	
19	S	2.01	2.00	2.00	2.01	2.15	2.00	2.00	2.02	2.01	2.01	1.99	2.00	1.99	1.98	1.98	1.99	2.00	1.99	2.01	2.06	2.17	2.24	S	1.98	2.24	2.03	24	
20	2.32	2.33	2.15	2.06	2.03	2.02	2.04	2.03	2.11	2.09	2.17	2.08	2.04	2.04	2.04	2.05	2.06	2.07	2.07	2.07	2.07	S	2.06	2.02	2.33	2.09	24		
21	2.06	2.07	2.07	2.08	2.07	2.05	2.03	2.04	2.03	2.02	2.03	2.04	2.04	2.04	2.04	2.04	2.05	2.05	2.05	2.05	S	2.04	2.04	2.02	2.08	2.05	24		
22	2.04	2.05	2.05	2.05	2.05	2.12	2.05	2.06	2.06	2.06	2.05	2.05	2.05	2.05	2.05	2.06	2.05	2.04	2.04	S	2.05	2.05	2.06	2.04	2.12	2.05	24		
23	2.11	2.10	2.12	2.14	2.16	2.18	2.16	2.15	2.14	2.12	2.10	2.07	2.05	2.06	2.06	2.06	2.07	2.07	2.08	S	2.15	2.14	2.13	2.14	2.05	2.18	2.11	24	
24	2.11	2.08	2.06	2.07	2.07	2.07	2.08	2.07	2.08	2.09	2.09	2.16	2.13	2.13	2.15	2.15	2.17	2.17	S	2.18	2.19	2.19	2.18	2.18	2.06	2.19	2.12	24	
25	2.15	2.15	2.13	2.07	2.07	2.06	2.06	2.05	2.05	2.06	2.05	2.05	2.04	2.04	2.03	2.03	2.04	S	2.03	2.03	2.03	2.03	2.02	2.02	2.02	2.15	2.06	24	
26	2.03	2.02	2.02	2.02	2.02	2.02	2.02	2.02	2.02	2.03	2.02	2.03	2.02	2.02	2.02	X	S	2.03	2.03	2.03	2.03	2.03	2.03	2.03	2.02	2.03	2.02	23	
27	2.03	2.03	2.03	2.03	2.03	2.03	2.03	2.03	2.03	2.02	2.03	2.03	2.03	2.03	2.03	S	2.05	2.04	2.04	2.04	2.03	2.02	2.03	2.03	2.02	2.05	2.03	24	
28	2.03	2.03	2.03	2.10	2.07	2.08	2.07	2.06	2.08	2.07	2.05	2.06	2.03	2.03	S	2.04	2.05	2.07	2.12	2.11	2.06	2.06	2.05	2.05	2.03	2.12	2.06	24	
29	2.05	2.06	2.07	2.06	2.07	2.08	2.08	2.09	2.10	2.10	2.12	2.15	2.17	S	2.23	2.24	2.25	2.28	2.26	2.10	2.08	2.08	2.12	2.12	2.05	2.28	2.13	24	
30	2.10	2.07	2.05	2.05	2.04	2.05	2.04	2.05	2.04	2.04	2.04	2.04	S	2.03	2.02	2.03	2.03	2.04	2.04	2.02	2.01	2.01	2.01	2.01	2.01	2.10	2.04	24	
31	2.01	2.01	2.02	2.02	2.01	2.02	2.01	2.01	2.00	2.01	2.00	S	2.02	2.02	2.01	2.03	2.01	2.01	2.01	2.00	2.01	1.99	2.01	2.00	1.99	2.03	2.01	24	
HOURLY MAX	2.52	2.41	2.60	2.54	2.44	2.39	2.34	2.25	2.46	2.46	2.44	2.18	2.21	2.20	2.23	2.24	2.25	2.28	2.26	2.20	2.29	2.38	2.43	2.63					
HOURLY AVG	2.10	2.10	2.09	2.09	2.09	2.09	2.07	2.07	2.09	2.08	2.08	2.06	2.06	2.06	2.06	2.06	2.06	2.07	2.05	2.06	2.07	2.08	2.09	2.10					

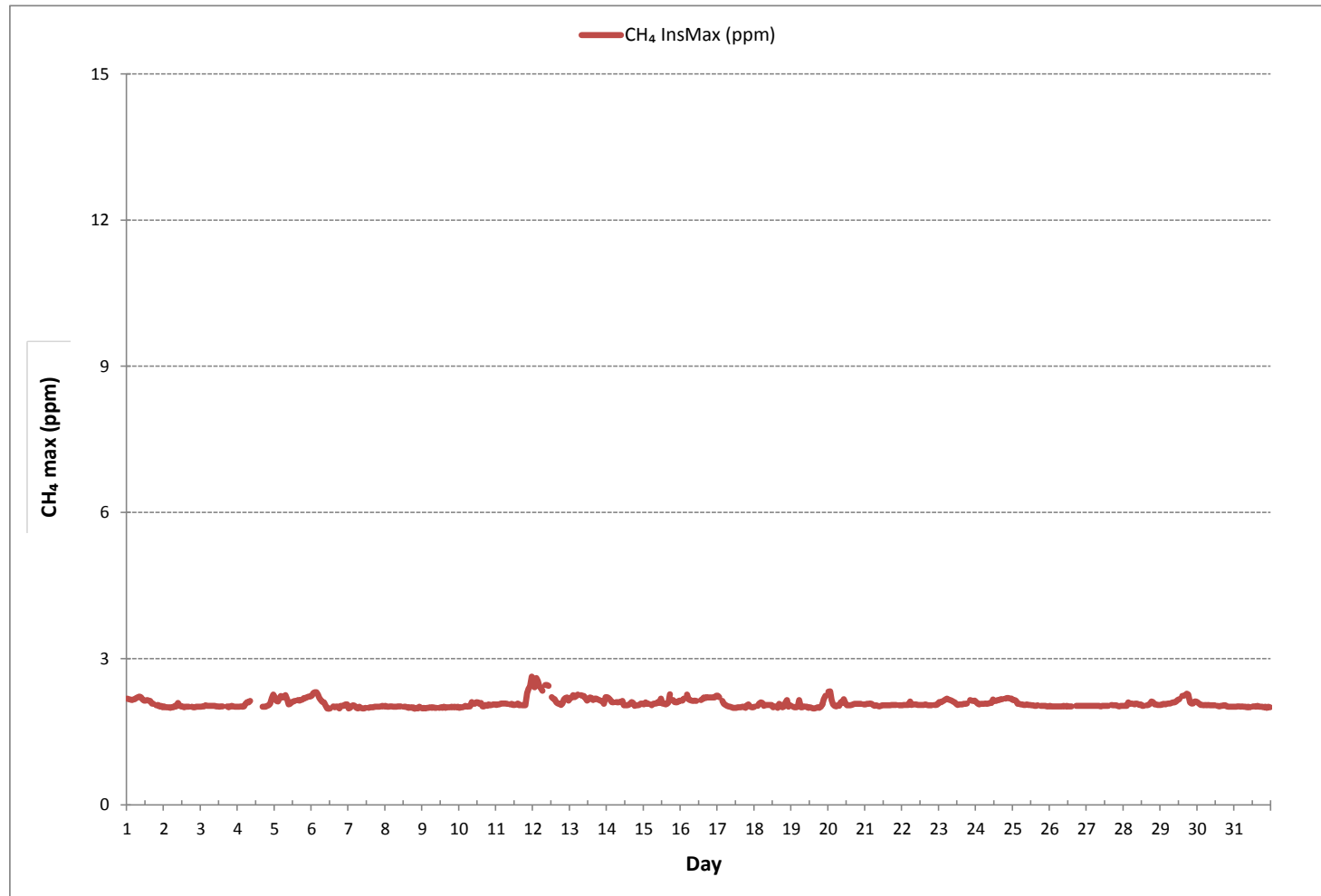
STATUS FLAG CODES

C	- MONTHLY CALIBRATION	Q	- QUALITY ASSURANCE
C1	- REPEAT CALIBRATION	R	- RECOVERY
Y	- MAINTENANCE	X	- MACHINE MALFUNCTION
S	- DAILY ZERO/SPAN CHECK	G	- OUT FOR REPAIR
S1	- REPEAT ZERO/SPAN CHECK	P	- POWER FAILURE

MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	701				
MAXIMUM INSTANTANEOUS VALUE:	2.63	ppm	@ HOUR	23	ON DAY 11
IZS CALIBRATION TIME:	32	hrs	OPERATIONAL TIME:	738	hrs
MONTHLY CALIBRATION TIME:	5	hrs			
STANDARD DEVIATION:	0.09				

METHANE MAX Instantaneous Maximum (CH₄ ppm)





PEACE RIVER AREA MONITORING PROGRAM COMMITTEE

Three Creeks 842b Station - January 2018

NON-METHANE HYDROCARBONS Instantaneous Maximum (NMHC ppm)

HR START (MST)	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY	DAILY	24-HR	RDGS.		
HR END (MST)	0:59	1:59	2:59	3:59	4:59	5:59	6:59	7:59	8:59	9:59	10:59	11:59	12:59	13:59	14:59	15:59	16:59	17:59	18:59	19:59	20:59	21:59	22:59	23:59	MIN.	MAX.	AVG.			
DAY																														
1	0.00	0.00	0.00	0.00	0.00	0.00	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	24	
2	0.00	0.00	0.00	0.00	0.00	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	24	
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	0.00	0.00	0.00	X	S	0.00	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.45	0.02	23	
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	C	C	C	C	C	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	24
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	0.00	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	24
6	0.00	0.00	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	24
7	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	0.00	0.00	24
8	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	0.00	0.00	24
9	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	0.00	0.00	24
10	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	0.00	0.00	24
11	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	0.00	0.00	24
12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S	0.00	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	0.00	0.00	0.00	0.00	23
13	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	0.00	0.00	24
14	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	0.00	0.00	24
15	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	X	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	23
16	0.00	0.00	0.00	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	S1	S1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	22
17	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	0.00	0.00	24
18	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	0.00	0.00	24
19	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	S	0.00	0.00	0.00	0.00	24
20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	24
21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	24
22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	24
23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	24
24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.15	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	0.15	0.01	0.00	24
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	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	24
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	X	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	23
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	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	24
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	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	24
29	0.00	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	0.00	24
30	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	0.00	0.00	24
31	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	0.00	0.00	24
HOURLY MAX	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.45	0.00	0.00	0.00	0.00	0.00	0.00					
HOURLY AVG	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	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00					

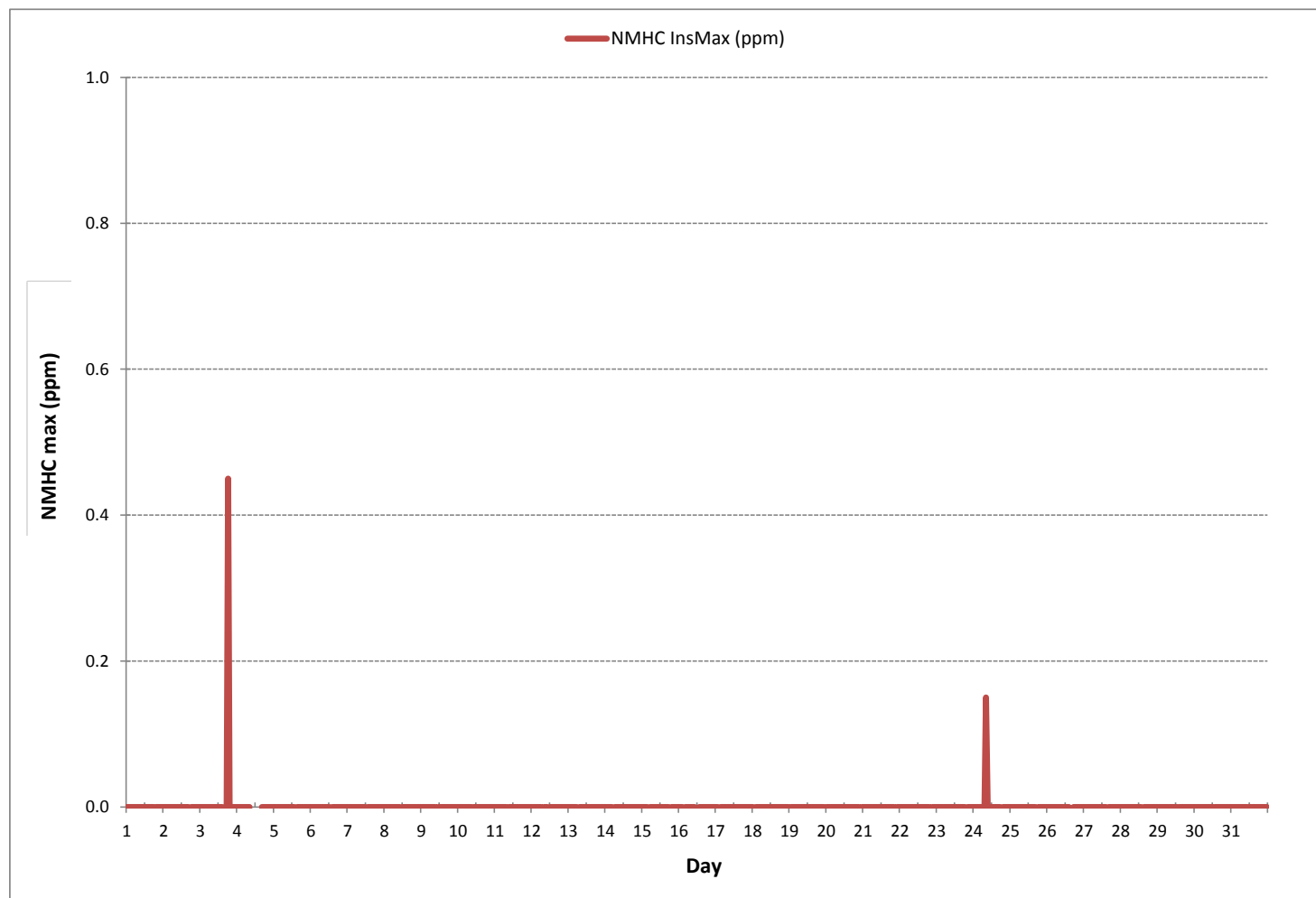
STATUS FLAG CODES

C	- MONTHLY CALIBRATION	Q	- QUALITY ASSURANCE
C1	- REPEAT CALIBRATION	R	- RECOVERY
Y	- MAINTENANCE	X	- MACHINE MALFUNCTION
S	- DAILY ZERO/SPAN CHECK	G	- OUT FOR REPAIR
S1	- REPEAT ZERO/SPAN CHECK	P	- POWER FAILURE

MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	2
MAXIMUM INSTANTANEOUS VALUE:	0.45 ppm @ HOUR 18 ON DAY 3
IZS CALIBRATION TIME:	32 hrs
MONTHLY CALIBRATION TIME:	5 hrs
STANDARD DEVIATION:	0.02
OPERATIONAL TIME:	738 hrs

NON-METHANE HYDROCARBONS Instantaneous Maximum (NMHC ppm)





PEACE RIVER AREA MONITORING PROGRAM COMMITTEE

Three Creeks 842b Station - January 2018

WIND SPEED Instantaneous Maximum (WS kph)

HR START (MST)	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY	DAILY	24-HR	RDGS.
HR END (MST)	0:59	1:59	2:59	3:59	4:59	5:59	6:59	7:59	8:59	9:59	10:59	11:59	12:59	13:59	14:59	15:59	16:59	17:59	18:59	19:59	20:59	21:59	22:59	23:59	MIN.	MAX.	AVG.	
DAY																												
1	12.5	16.7	17.1	17.3	18.7	17.7	20.0	20.4	29.3	23.4	26.2	30.8	31.9	27.3	32.6	35.9	24.3	16.5	22.4	28.3	18.6	18.1	18.6	17.3	12.5	35.9	22.6	24
2	17.2	15.2	8.2	12.6	6.5	9.9	8.9	10.8	7.8	8.2	8.6	9.6	13.7	21.2	21.1	19.4	20.3	17.1	11.8	22.4	23.0	13.2	12.4	17.8	6.5	23.0	14.0	24
3	15.1	7.6	10.2	10.3	9.6	8.0	10.1	9.0	8.5	21.2	23.1	25.9	23.3	21.1	23.1	23.2	25.8	20.0	20.7	19.2	7.4	18.5	12.7	13.0	7.4	25.9	16.1	24
4	7.2	7.7	6.8	7.7	4.1	7.2	6.7	9.2	8.4	7.3	8.7	7.3	7.9	8.0	9.4	9.6	10.8	12.2	6.6	12.6	8.5	5.8	7.0	8.6	4.1	12.6	8.1	24
5	13.8	14.6	6.9	7.0	6.2	5.9	7.3	10.6	12.8	12.6	13.4	17.9	17.6	18.4	20.9	16.2	11.0	16.9	17.5	17.8	10.4	13.1	14.4	15.6	5.9	20.9	13.3	24
6	10.8	15.8	18.3	15.9	22.6	24.0	34.9	31.2	27.3	42.5	35.9	40.9	41.3	40.4	35.4	31.2	32.2	33.8	30.9	28.2	26.9	23.3	29.7	34.6	10.8	42.5	29.5	24
7	27.0	21.9	21.1	14.9	12.7	17.0	17.2	17.3	14.0	16.1	13.2	15.2	18.9	11.8	13.3	17.5	17.3	11.1	10.1	8.5	9.5	7.3	9.2	7.3	7.3	27.0	14.6	24
8	9.4	4.9	4.7	9.4	23.5	24.2	28.2	31.9	30.1	31.4	33.4	36.9	33.4	32.6	29.8	32.1	27.6	28.1	32.8	30.0	24.9	21.5	20.6	19.7	4.7	36.9	25.0	24
9	23.1	28.8	24.8	20.8	17.3	22.2	18.7	20.2	21.8	23.6	24.1	30.9	27.4	28.3	28.5	33.9	22.9	22.7	26.0	25.6	25.2	20.5	19.0	10.7	10.7	33.9	23.6	24
10	8.6	8.4	2.3	2.0	3.2	3.6	3.2	5.7	3.8	3.6	4.6	8.4	11.0	12.0	11.6	11.1	12.3	15.3	11.7	9.9	9.9	8.9	8.4	7.8	2.0	15.3	7.8	24
11	10.4	14.7	12.2	12.8	16.2	10.7	9.8	5.6	8.0	9.7	8.0	8.9	6.5	6.6	6.9	5.1	6.9	7.0	6.6	5.9	7.7	5.3	5.1	4.8	4.8	16.2	8.4	24
12	4.1	3.8	6.5	5.2	4.0	7.8	7.1	10.1	8.0	4.0	3.3	8.8	9.0	10.5	10.1	11.3	10.2	12.6	12.0	18.9	20.2	20.9	18.0	18.1	3.3	20.9	10.2	24
13	17.9	19.8	16.1	15.7	21.6	27.4	25.1	23.9	17.2	19.5	20.6	22.4	16.3	12.8	9.3	8.9	10.5	7.4	6.9	9.3	6.7	13.1	16.0	11.1	6.7	27.4	15.6	24
14	9.3	9.8	9.4	10.7	9.9	8.9	8.4	7.0	9.5	15.0	11.2	12.5	12.7	16.0	16.5	17.7	20.9	21.0	22.4	22.0	21.1	27.1	27.5	15.8	7.0	27.5	15.1	24
15	15.3	20.3	16.5	15.8	12.3	11.3	7.8	8.5	5.7	7.9	9.1	9.2	7.6	10.0	7.9	5.3	3.6	3.6	4.7	6.0	4.7	4.4	4.5	3.3	3.3	20.3	8.6	24
16	3.5	3.4	3.1	2.0	4.3	7.8	12.1	12.0	13.8	19.3	20.2	20.1	17.7	17.3	20.5	20.4	17.2	16.1	17.3	16.9	17.4	17.9	22.5	25.1	2.0	25.1	14.5	24
17	18.3	14.2	18.1	23.2	21.2	18.9	21.8	18.0	15.8	16.4	26.1	25.7	22.7	20.3	23.4	22.0	18.3	17.7	19.5	10.5	12.3	12.9	22.2	17.7	10.5	26.1	19.1	24
18	15.2	12.7	18.8	10.2	11.3	11.4	9.9	17.1	15.7	23.4	14.1	26.2	31.2	30.8	30.3	22.4	24.7	20.8	18.9	15.4	10.9	11.3	12.0	10.5	9.9	31.2	17.7	24
19	10.5	14.9	13.6	13.3	11.0	10.5	11.4	12.6	11.7	12.1	16.0	14.9	15.2	20.1	17.0	13.9	8.8	4.2	4.5	4.9	3.3	4.6	3.7	3.4	3.3	20.1	10.7	24
20	5.2	6.5	11.0	6.9	5.7	4.4	8.4	4.5	6.3	5.6	7.3	4.5	12.2	13.5	13.0	12.4	14.3	9.0	7.3	9.3	11.4	10.9	12.0	14.2	4.4	14.3	9.0	24
21	14.6	13.0	14.0	20.1	22.6	22.0	24.2	25.4	27.2	29.4	32.1	39.1	36.3	34.7	30.4	31.6	30.8	31.5	30.3	28.8	29.0	27.8	22.0	20.7	13.0	39.1	26.6	24
22	15.7	9.7	10.2	12.2	10.9	12.9	7.6	5.6	6.6	5.6	6.2	8.0	7.3	9.1	9.3	6.7	5.8	7.1	7.1	5.1	5.3	8.9	11.5	11.1	5.1	15.7	8.6	24
23	10.4	7.9	8.3	6.3	6.1	7.9	5.4	6.8	8.3	7.1	9.6	12.0	13.4	11.5	11.0	8.5	5.1	7.8	7.7	6.6	7.3	7.7	11.5	13.5	5.1	13.5	8.7	24
24	11.1	12.7	11.6	12.6	14.0	5.4	6.5	7.2	7.6	10.5	7.3	19.5	16.3	14.3	13.0	16.3	13.1	18.5	15.7	19.5	19.1	12.4	14.1	13.5	5.4	19.5	13.0	24
25	13.4	12.7	12.9	14.7	16.4	17.2	15.2	14.2	16.6	15.6	21.0	21.7	24.0	22.7	19.4	27.0	30.4	22.2	27.3	25.9	20.9	22.8	26.9	24.2	12.7	30.4	20.2	24
26	28.4	21.7	23.8	23.2	20.1	18.5	20.7	20.5	22.4	19.1	20.8	16.3	17.3	18.9	17.0	16.4	14.7	10.8	8.5	6.8	6.4	4.9	5.8	6.5	4.9	28.4	16.2	24
27	9.5	6.9	7.6	9.8	6.2	6.1	7.8	3.2	4.9	5.2	9.9	8.3	8.6	10.7	13.0	14.2	15.1	10.5	8.5	4.4	7.2	8.5	6.2	6.6	3.2	15.1	8.3	24
28	5.7	6.6	7.3	8.8	5.2	2.9	3.8	4.8	5.9	6.2	8.5	7.9	14.1	15.0	10.5	9.3	10.2	10.7	9.3	18.8	18.1	19.5	16.4	15.1	2.9	19.5	10.0	24
29	15.0	16.9	16.9	21.0	18.4	23.1	10.5	17.2	15.0	17.6	14.4	18.2	18.8	18.9	17.5	13.0	14.9	15.6	24.0	18.2	25.3	28.7	23.9	26.1	10.5	28.7	18.7	24
30	30.6	32.7	24.4	16.0	14.7	12.2	14.2	16.3	14.9	16.1	27.1	28.0	33.1	33.0	28.9	26.0	20.4	11.4	8.5	13.4	16.6	12.7	9.3	6.6	6.6	33.1	19.5	24
31	11.7	10.6	11.0	6.9	9.3	4.4	2.5	2.5	1.5	2.1	4.0	4.2	4.1	9.4	7.5	9.8	11.2	11.0	8.5	6.3	6.1	6.0	6.2	5.7	1.5	11.7	6.8	24
HOURLY MAX	30.6	32.7	24.8	23.2	23.5	27.4	34.9	31.9	30.1	42.5	35.9	40.9	41.3	40.4	35.4	35.9	32.2	33.8	32.8	30.0	29.0	28.7	29.7	34.6				
HOURLY AVG	13.6	13.3	12.7	12.4	12.4	12.6	12.8	13.2	13.1	14.8	15.7	18.1	18.4	18.6	18.0	17.7	16.5	15.2	15.0	15.3	14.2	14.1	14.5	13.7				

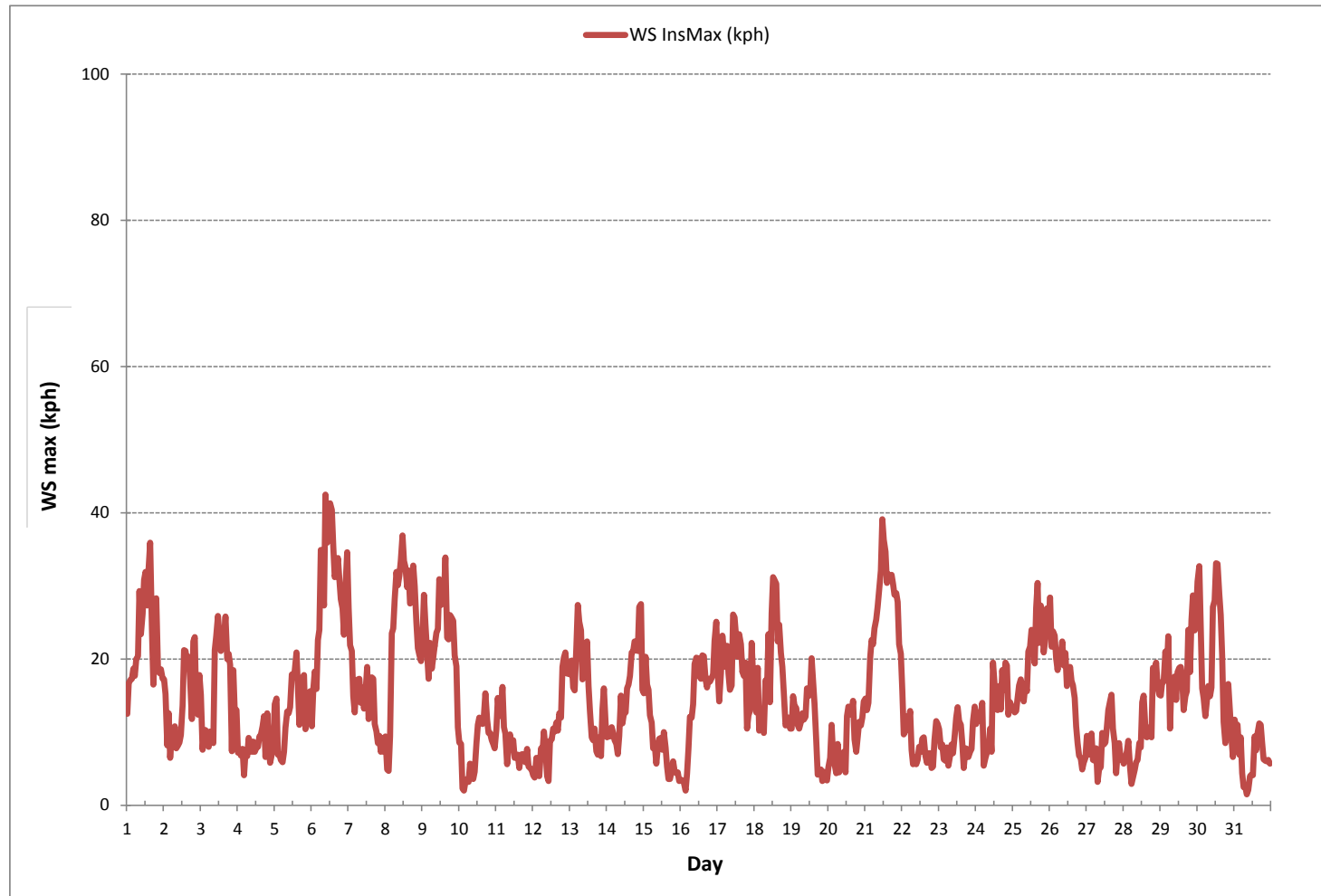
STATUS FLAG CODES

C	- MONTHLY CALIBRATION	Q	- QUALITY ASSURANCE
C1	- REPEAT CALIBRATION	R	- RECOVERY
Y	- MAINTENANCE	X	- MACHINE MALFUNCTION
S	- DAILY ZERO/SPAN CHECK	G	- OUT FOR REPAIR
S1	- REPEAT ZERO/SPAN CHECK	P	- POWER FAILURE

MONTHLY SUMMARY

MAXIMUM INSTANTANEOUS VALUE:	42.5	kph	@ HOUR	9	ON DAY	6
OPERATIONAL TIME:	744	hrs				

WIND SPEED Instantaneous Maximum (WS kph)



APPENDIX IV
REPORT CERTIFICATION FORM

Report Certification Form

Alberta Airshed (if applicable)	EPA Approval or Code of Practice Registration # (if applicable)
YES	NA
Company Name (if applicable)	Industrial Operation Name (if applicable)
Peace River Area Monitoring Program Committee	Three Creeks 842b Station
Name of the Representative of the Person Responsible (Last, First, Middle)	Position / Title of the Representative of the Person Responsible
Wunmi Adekanmbi	Project Manager, Customer Service, Air Services
Is an External Party Certifying the Report? (If 'Yes', fill in the fields below for the external person.)	
☐ Yes ☒ No	
Name of External Person Certifying the Report (Last, First, Middle)	Position / Title of External Person Certifying the Report
NA	NA
Company Name for the External Person Certifying the Report	Identification of Qualifications / Professional Designations of the External Person Certifying the Report
NA	NA

I certify that I have reviewed and verified the submitted report. I also certify that the report presented with this certification form is complete, accurate and representative of the monitoring results and timeframe.



Signature of the Representative of the Person
Responsible / External Person Certifying the Report

Feb 21, 2018

Report Issued Date (dd-mm-yyyy)

APPENDIX V
DATA VALIDATION CERTIFICATION FORM



Validation Certificate Form

Client: Peace River Area Monitoring Program Committee

Project #: 8449-2018-01-80-C

Site: Three Creeks 842b Station

Contact: Karla Reesor

Level 0 Preliminary Verification



Date Feb 14, 2018

Level 1 Primary Validation



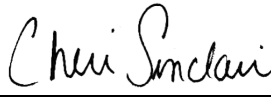
Date Feb 14, 2018

Level 2 Final Validation



Date Feb 20, 2018

Level 3 Independent Data Review



Date Feb 21, 2018

Post-Final Validation

NA

Date NA

Notes

The Post-Final Validation step serves to re-evaluate the data that errors or omissions are discovered and/or suspected after the initial submittal of data. This validation is performed on an annual basis.