Maxxam Analytics Inc

August 23, 2007

Lakeland Industry & Community Association
Box8237
5006-50 Avenue
Bonnyville, Alberta
T9N 2J5

ATTENTION: Mr. Mike Bisaga

REFERENCE: Ambient Air Monitoring Report For July 2007

Maxxam Analytics Inc. is pleased to submit this report of data collected at the Ambient Air Monitoring Station located at the Lakeland Industry & Community Assoc. Cold Lake site for the month of July 2007.

Included is a summary of the monthly continuous and hourly average reports, equipment calibration reports, as well as a brief description of the calibration procedure. The passive network data are also included in this report.

During the month of July 2007 the following proceedings were noted:

Cold Lake South Site

- All analyzers and wind systems were all above 90% uptime objective for the month.
- All data was within Provincial objectives for the month.
- All data was corrected using daily zero calibration data. Furthermore the PM 2.5 data was corrected using Alberta Environment correction standards.
- On July 4th one hour of data was invalidated as the datalogger was reconfigured for use with CASA Telus Geomatics Website.
- There was a six-hour power failure on July 8th.
- A check on why a low span was detected on July 9th for the TRS revealed that the thermocouple in the converter burnt off, the thermocouple was repaired onsite and the analyzer re-calibrated. As a result 29 hours of data was invalidated.
- The THC analyzer flamed out on July 8th due to a power failure, the technician re-lit the analyzer on July 9th and as a result 17 hours of data was invalidated.
- There was 8 hours of data for THC that was invalidated as the concentration fell below the historical background average of 1.5 ppm, a concentration agreed to with the LICA Program Manager.
- On July 5th the monthly NO_x calibration was completed. During the calibration maintenance was completed in order to repair the problem of the analyzer automatically re-setting. A new analyzer is being setup in order to replace the existing analyzer.
- On July 18th the NO_x analyzer automatically reset internal settings. The analyzer was re-calibrated on July 19th. As a result 40 hours of data was invalidated.
- On July 27th the technician was investigating a low span on the NO_x analyzer, it was determined that the Alberta Environment pump that was re-built two weeks ago was

damaged and needed to be rebuilt again. A Maxxam owned pump was installed in the interim and the analyzer recalibrated. As a result 24 hours of data was invalidated.

- The removal calibration of the Ozone analyzer occurred on July 19th, the new analyzer was installed on July 19th and fully calibrated on July 20th. After a weekend of stabilization the analyzer was recalibrated on July 23rd. On July 27th the analyzer was recalibrated after the ozone concentrations from the calibrator were verified.
- The PM 2.5 was unstable for 34 hours during the month the data was subsequently invalidated.
- On July 4th the analog board, flow controllers, temperature and pressure sensors were calibrated on the PM 2.5. A K_o audit was completed. The water knockout jar was replaced as the current jar was chipped.
- During a trailer check on July 16th the PM 2.5 was found to be in fault mode, a check of the equipment and check of flows showed no problem with the equipment. The filter was changed during this visit. No data was invalidated.
- Cleaned sample manifold. Sealed leaks in the sample manifold housing.

Passive Network

A summary of the passive monitoring are reported as follows:

- Monitoring period averages for O_3 ranged from 19.2 – 31.6 ppb.
- Monitoring period averages for SO_2 ranged from 0.2 – 1.4 ppb.
- Monitoring period averages for NO_2 ranged from 0.1 – 4.1 ppb.
- Monitoring period averages for H_2S ranged from 0.10 – 0.89 ppb.

Please feel free to contact either of Craig Snider at (403) 219-3689 or Darren Morissette (403)-219-3661, should you have any questions concerning this report.

Sincerely,
Maxxam Analytics Inc.

Prepared by: _____ Reviewed by: _____

Darren Morissette, CEPIT
Senior Technologist

Craig Snider, CET
Ambient Manager

Lakeland Industry & Community Association
Cold Lake Monitoring Site
Ambient Air Monitoring
Data Report
For
July 2007

Prepared By:

MAXXAM ANALYTICS INC.

Lakeland Industry & Community Assoc.
COLD LAKE
AMBIENT AIR MONITORING STATION

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CALIBRATION PROCEDURE

The following calibration procedure applies to all calibrations conducted at the Lakeland Industry & Community Association Air Monitoring Station.

Calibration gas concentrations are generated using a dynamic mass flow controlled calibrator. EPA Protocol one gases are diluted with zero air generated on site. The Mass Flow Controllers in the calibrator are referenced using an NIST traceable flow meter once per month. All listed flows are reported as corrected to Standard Temperature and Pressure (STP).

Generated zero gas is introduced to the analyzer first. Three concentrations of calibration gas are then generated in order to introduce points at approximately 50-80%, 25-40% & 10-20% of the analyzer's full-scale range. An auto zero and span are then performed to validate the daily zero and span values recorded to the next multi-point calibration.

All indicated concentrations are taken from the ESC data logger used to collect the data for monthly reporting.

Conformance of each calibration to Alberta Environment regulations is outlined in the individual calibration reports. The slope and correlation coefficient are derived from the calculated and indicated analyzer responses. The percent change is calculated using the previous calibration correction factor and the current correction factor before adjustment. The calibration conforms to the procedure outlined in the *Air Monitoring Directive, Appendix A-10, Section 1.6.*

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION
MONTHLY CONTINUOUS DATA SUMMARY
COLD LAKE

Continuous Ambient Monitoring – July 2007

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION COLD LAKE SITE						MAXIMUM VALUES					OPERATIONAL TIME (PERCENT)
						1-HOUR			24-HOUR		
PARAMETER	OBJECTIVES		EXCEEDENCES		MONTHLY AVERAGE	READING	DAY	HOUR	READING	DAY	
	1-HR	24-HR	1-HR	24-HR							
SO_2 (PPB)	172	57	0	0	0.08	16	2	11	1.8	2	99.2
TRS (PPB)	-	-	-	-	0.26	7	28	2	1	22	96.1
NO_2 (PPB)	212	106	0	0	1.69	8	23	22	2.7	13,23	90.6
NO (PPB)	-	-	-	-	0.15	8	12	5	0.7	12,13	90.6
NOx (PPB)	-	-	-	-	2.17	10	12,13	5,8	3.8	13,26	90.6
O_3 (PPB)	82	-	0	-	23.54	56	3	16	33.3	5	99.2
THC (PPM)	-	-	-	-	1.94	4.3	12	2	2.4	8	96.6
PM 2.5 (UG/M^3)	-	30	-	0	5.03	30.3	15	19	12.1	19	94.6
TEMPERATURE (DEG C)	-	-	-	-	20.29	32.6	23	18	24.7	23	99.2
RELATIVE HUMIDITY (%)	-	-	-	-	67.14	98.3	15	4	82.6	9	99.2
VECTOR WS (KPH)	-	-	-	-	5.43	21.2	19	21	14.9	19	99.2
VECTOR WD (DEGREES)	-	-	-	-	SW	-	-	-	-	-	99.2

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION
Passive Ambient Monitoring Network – July 2007

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION PASSIVE NETWORK			
NETWORK MAXIMUM (PPB)			NETWORK AVERAGE (PPB)
PARAMETER	STATION	READING	READING
NO_2	25	4.1	1.3
SO_2	13	1.4	0.5
H_2S	16	0.89	0.36
O_3	13	31.6	23.7

GENERAL MONTHLY SUMMARY – COLD LAKE

Equipment Operation

The following summary outlines the analyzer performance. Any non-conformances, problems or maintenance performed are detailed at the end of each section.

AQM STATION – LICA – COLD LAKE

SO2

- Analyzer make / model TECO 43A

No operational issues during the month. The inlet filter was changed before the monthly calibration was started. Data was corrected using daily zero information. There were six hours of power failures during the month; the data was subsequently invalidated. On July 4th one hour of data was invalidated as the data logger was reconfigured for use with CASA Telus Geomatics Website.

TRS

- Analyzer make / model TECO 43A
  CD NOVA CDN 101 H_2S Converter

A check for a low span on July 9th revealed a thermocouple fault in the TRS Converter. The thermocouple was repaired on site and the analyzer re-calibrated. As a result, 29 hours of data was invalidated, back to the last valid span. The inlet filter was changed before the monthly calibration was started. Data was corrected using daily zero information. There were six hours of power failures during the month; the data was subsequently invalidated. On July 4th one hour of data was invalidated as the data logger was reconfigured for use with CASA Telus Geomatics Website.

THC

- Analyzer make / model TECO 51C-LT

On July 8th a power failure occurred causing the analyzer to flame out. The technician arrived on July 9th to re-light the analyzer; as a result 17 hours of data was invalidated. The inlet filter was changed before the monthly calibration was started. Data was corrected using daily zero information. It was agreed to with the LICA Program Manager to invalidate all data, after zero correction, which falls below the historical background average of 1.5 ppm. As a result 8 hours of data was invalidated and the uptime was at 96.6%. On July 4th one hour of data was invalidated as the data logger was reconfigured for use with CASA Telus Geomatics Website.

NOx

- Analyzer make / model TECO 42

On July 5th the monthly calibration was completed. During this calibration a couple maintenance procedures were completed in order to repair the problem of the analyzer re-setting automatically. Among the procedures were (1) Sample/ozone flow checked; which resulted in the sintered filters being cleaned, new filters are on order, (2) Reduced moly converter temperature to 325 degrees C. It is suspected that the peripheral Interface Adapter board is causing random resets of the stored parameters. A new analyzer is being set up at Alberta Environment and will be ready in August 2007. On July 18th the analyzer automatically re-set, the problem was corrected on July 19th, the problem resulted in 40 hours of data being invalidated. An investigation on July 27th of a low span revealed that the pump diaphragms were damaged causing a low vacuum. The pump was replaced with a Maxxam owned pump and the analyzer re-calibrated. It was noted that the pump that was damaged is from Alberta Environment and was re-built two weeks before the latest problem. This issue resulted in 24 hours of data being invalidated. There were six hours of power failures during the month; the data was subsequently invalidated. The inlet filter was changed before the monthly calibration was started. Data was corrected using daily zero information. On July 4th one hour of data was invalidated as the data logger was reconfigured for use with CASA Telus Geomatics Website.

O_3

- Analyzer make / model TECO 49

The monthly calibration of the analyzer occurred on July 6th, the analyzer was reading low, the analyzer was checked for leaks and found to be good, the pump was checked for vacuum and found to be good. As the analyzer is out-dated it's scheduled to be replaced later in the month. On July 19th the removal calibration of the analyzer was completed. Afterwards a new analyzer was installed and calibrated as per Alberta Environment instructions. On July 23rd the analyzer was re-calibrated after a weekend of stabilizing and the results were nearing non-linearity on the low points, it was decided to check the ozone values on a NO_x analyzer at a different site, as the current NO_x analyzer is outdated and not as accurate. After verifying the ozone generator values with another NO_x analyzer, the analyzer was re-calibrated on July 27th and found to be correct and linear. The inlet filter was changed before the monthly calibration was started. Data was corrected using daily zero information. There were six hours of power failures during the month; the data was subsequently invalidated. On July 4th one hour of data was invalidated as the data logger was reconfigured for use with CASA Telus Geomatics Website.

PM 2.5

- Analyzer make / model TEOM 1400A

On July 4th the analog board, flow controllers, temperature and pressure sensors were calibrated. A K_o audit was completed. During the monthly audit of the equipment the technician adjusted the flows in order that the measured flows and indicated flows were similar. On July 6th a check of the equipment found all parameters within specified tolerances. The water knockout jar was replaced as the old one was chipped. On July 16th the equipment was found to be in fault mode. The filter was replaced and rubber connections were inspected and re-installed. Flows were checked and found to be good. No data was invalidated as the equipment was found to be

working within the manufacturers specified tolerances. Data for the month was corrected using Alberta Environment standards. There were 34 hours of instability during the month; the data was subsequently invalidated. There were six hours of power failures during the month; the data was subsequently invalidated. On July 4th one hour of data was invalidated as the data logger was reconfigured for use with CASA Telus Geomatics Website.

Wind Speed & Direction

- System make / model MET ONE 50.5

No operational issues observed during the month. The wind system is reported as vector wind speed and vector wind direction. There were six hours of power failures during the month; the data was subsequently invalidated. On July 4th one hour of data was invalidated as the data logger was reconfigured for use with CASA Telus Geomatics Website.

Relative Humidity

- System make / model Rotronic Hygroclip-S3

No operational issues observed during the month. There were six hours of power failures during the month; the data was subsequently invalidated. On July 4th one hour of data was invalidated as the data logger was reconfigured for use with CASA Telus Geomatics Website.

Temperature

- System make / model Rotronic Hygroclip-S3

No operational issues observed during the month. There were six hours of power failures during the month; the data was subsequently invalidated. On July 4th one hour of data was invalidated as the data logger was reconfigured for use with CASA Telus Geomatics Website.

Datalogger

- System make / model ESC 8832
- Software make / version ESC v 5.51a

The ESC 8832 is connected to a modem with DSL for continuous connection with the base computer. On July 4th one hour of data was invalidated as the data logger was reconfigured for use with CASA Telus Geomatics Website.

Air Quality Index (AQI)

The AQI data was adjusted to reflect regular monthly calibrations, maintenance, downtime and daily calibrations.

Trailer

General comments from technician during monthly calibration:

- Glass sample manifold cleaned.
- Sealed leaks in sample manifold housing.

Passive Network

- No problems noted.

LICA - COLD LAKE SITE

MONTHLY SUMMARIES, GRAPHS & WIND ROSES

AIR QUALITY INDEX

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - *COLD LAKE*

JULY 2007

AIR QUALITY INDEX (AQI)

HOUR START HOUR END DAY	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	DAILY MAX.
1	15 O3_	14 O3_	8 O3_	6 O3_	4 PM2	6 O3_	7 O3_	NA -	NA -	19 O3_	NA -	18 O3_	19 O3_	19 O3_	**20** **O3_**	NA -	**20** **O3_**	19 O3_	19 O3_	18 O3_	11 O3_	7 O3_	5 O3_	5 O3_	20 O3_
2	3 O3_	2 O3_	1 O3_	2 PM2	5 PM2	13 PM2	NA -	12 O3_	14 O3_	NA -	**23** **O3_**	**25** **O3_**	24 O3_	24 O3_	22 O3_	NA -	23 O3_	19 O3_	19 O3_	21 O3_	22 O3_	16 O3_	9 O3_	5 O3_	25 O3_
3	4 O3_	2 O3_	1 O3_	6 PM2	8 PM2	NA -	11 O3_	14 O3_	16 O3_	**20** **O3_**	NA -	23 O3_	24 O3_	**28** **O3_**	**29** **O3_**	**30** **O3_**	**26** **O3_**	**27** **O3_**	25 O3_	21 O3_	18 O3_	15 O3_	13 O3_	9 O3_	30 O3_
4	7 O3_	10 O3_	8 O3_	7 O3_	NA -	8 O3_	9 O3_	13 O3_	NA -	NA -	NA -	NA -	NA -	NA -	NA -	NA -	17 O3_	18 O3_	**19** **O3_**	17 O3_	13 PM2	6 O3_	4 O3_	3 O3_	19 O3_
5	2 O3_	1 O3_	1 O3_	NA -	7 PM2	17 PM2	8 O3_	NA -	NA -	NA -	NA -	NA -	NA -	NA -	NA -	NA -	NA -	NA -	**25** **O3_**	**23** **O3_**	21 O3_	17 O3_	16 O3_	16 O3_	25 O3_
6	14 O3_	16 O3_	NA -	17 O3_	15 O3_	14 O3_	15 O3_	NA -	NA -	NA -	NA -	NA -	NA -	NA -	**20** **O3_**	19 O3_	18 O3_	18 O3_	17 O3_	16 O3_	NA -	17 O3_	16 O3_	16 O3_	20 O3_
7	16 O3_	NA -	16 O3_	16 O3_	15 O3_	14 O3_	14 O3_	15 O3_	**18** **O3_**	19 O3_	**20** **O3_**	**20** **O3_**	19 O3_	18 O3_	19 O3_	18 O3_	19 O3_	19 O3_	**20** **O3_**	19 O3_	14 O3_	9 O3_	6 O3_	6 O3_	20 O3_
8	NA -	3 O3_	2 O3_	4 PM2	4 PM2	12 PM2	7 O3_	10 O3_	14 O3_	16 O3_	17 O3_	17 O3_	**20** **O3_**	NA -	NA -	NA -	NA -	NA -	NA -	17 O3_	15 PM2	12 O3_	14 O3_	NA -	20 O3_
9	**15** **O3_**	13 O3_	13 O3_	13 O3_	11 O3_	12 O3_	10 O3_	11 O3_	NA -	**15** **O3_**	14 O3_	14 O3_	13 O3_	13 O3_	13 O3_	13 O3_	13 O3_	13 O3_	13 O3_	10 O3_	8 O3_	9 O3_	NA -	7 O3_	15 O3_
10	7 O3_	NA -	2 O3_	2 O3_	5 PM2	5 PM2	9 PM2	7 O3_	10 O3_	15 O3_	**18** **O3_**	**18** **O3_**	**18** **O3_**	17 O3_	17 O3_	17 O3_	17 O3_	16 O3_	15 O3_	12 O3_	7 PM2	NA -	6 O3_	4 PM2	18 O3_
11	3 PM2	4 PM2	4 O3_	2 O3_	3 PM2	6 PM2	7 PM2	6 PM2	6 O3_	13 O3_	16 O3_	**19** **O3_**	18 O3_	17 O3_	18 O3_	17 O3_	17 O3_	15 O3_	12 O3_	10 O3_	NA -	4 O3_	2 O3_	NA -	19 O3_
12	NA -	1 NO2_	NA -	0 PM2	4 PM2	**21** **PM2**	10 PM2	8 PM2	11 O3_	13 O3_	13 O3_	NA -	15 O3_	15 O3_	NA -	14 O3_	14 O3_	14 O3_	13 O3_	NA -	13 PM2	6 O3_	6 O3_	5 O3_	21 PM2
13	5 O3_	5 PM2	4 PM2	3 O3_	4 PM2	13 PM2	10 PM2	8 O3_	13 O3_	NA -	12 O3_	12 O3_	11 O3_	NA -	NA -	13 O3_	13 O3_	12 O3_	NA -	9 PM2	**17** **PM2**	7 PM2	3 O3_	5 PM2	17 PM2
14	5 PM2	5 PM2	3 PM2	6 PM2	8 PM2	**18** **PM2**	6 O3_	9 PM2	16 PM2	10 O3_	13 PM2	10 O3_	NA -	NA -	16 O3_	NA -	15 O3_	NA -	16 PM2	13 O3_	17 O3_	14 O3_	12 O3_	11 O3_	18 PM2
15	9 O3_	NA -	NA -	3 O3_	1 O3_	16 PM2	6 O3_	7 O3_	11 O3_	12 O3_	12 O3_	13 PM2	13 O3_	15 O3_	16 O3_	15 O3_	NA -	16 O3_	**26** **PM2**	18 PM2	9 O3_	9 O3_	8 O3_	7 PM2	26 PM2
16	5 PM2	3 O3_	3 PM2	NA -	**22** **O3_**	16 O3_	13 O3_	12 O3_	NA -	NA -	NA -	NA -	NA -	**26** **O3_**	25 O3_	NA -	23 O3_	22 O3_	21 O3_	21 O3_	11 O3_	7 O3_	11 O3_	8 O3_	26 O3_
17	3 O3_	2 PM2	1 PM2	1 PM2	2 PM2	6 PM2	8 PM2	8 O3_	9 O3_	12 O3_	13 O3_	13 O3_	15 O3_	**16** **O3_**	NA -	NA -	NA -	NA -	NA -	NA -	NA -	NA -	NA -	NA -	16 O3_
18	NA -	NA -	NA -	NA -	NA -	NA -	NA -	NA -	NA -	NA -	NA -	NA -	NA -	NA -	NA -	NA -	NA -	NA -	NA -	NA -	NA -	NA -	NA -	NA -	-
19	NA -	NA -	NA -	NA -	NA -	NA -	NA -	NA -	NA -	NA -	NA -	NA -	NA -	NA -	NA -	NA -	NA -	NA -	20 O3_	21 O3_	**22** **O3_**	**20** **O3_**	**20** **O3_**	**20** **O3_**	22 O3_
20	**20** **O3_**	**20** **O3_**	**19** **O3_**	17 O3_	16 O3_	14 O3_	NA -	NA -	NA -	NA -	NA -	NA -	NA -	NA -	NA -	NA -	**20** **O3_**	**20** **O3_**	19 O3_	15 O3_	12 O3_	8 O3_	7 O3_	5 O3_	20 O3_
21	4 PM2	11 O3_	15 O3_	14 O3_	11 O3_	7 PM2	14 O3_	12 O3_	15 O3_	18 O3_	NA -	**23** **O3_**	NA -	17 O3_	16 O3_	16 O3_	15 O3_	14 O3_	14 O3_	13 O3_	8 O3_	4 O3_	4 O3_	3 O3_	23 O3_
22	2 O3_	2 PM2	5 PM2	3 O3_	2 PM2	3 PM2	6 O3_	11 O3_	12 O3_	NA -	15 O3_	15 O3_	17 O3_	19 O3_	20 O3_	**21** **O3_**	**21** **O3_**	**21** **O3_**	20 O3_	16 O3_	9 PM2	6 O3_	5 O3_	3 O3_	21 O3_
23	3 PM2	4 PM2	2 PM2	3 PM2	3 PM2	10 PM2	NA -	NA -	NA -	NA -	NA -	NA -	NA -	NA -	NA -	NA -	NA -	**18** **O3_**	17 O3_	13 PM2	10 PM2	6 PM2	8 O3_	11 O3_	18 O3_
24	14 O3_	11 O3_	11 O3_	9 O3_	7 O3_	6 O3_	5 O3_	NA -	10 O3_	11 O3_	11 O3_	12 O3_	NA -	15 O3_	16 O3_	NA -	**18** **O3_**	17 O3_	16 O3_	14 O3_	12 O3_	9 O3_	10 O3_	8 O3_	18 O3_
25	7 O3_	6 O3_	6 O3_	6 O3_	6 O3_	7 O3_	NA -	9 O3_	10 O3_	10 O3_	11 O3_	12 O3_	12 O3_	12 O3_	12 O3_	12 O3_	**13** **O3_**	**13** **O3_**	12 O3_	10 O3_	7 O3_	4 O3_	4 O3_	3 O3_	13 O3_
26	**3** **O3_**	1 O3_	2 O3_	1 O3_	1 PM2	NA -	NA -	NA -	NA -	NA -	NA -	NA -	NA -	NA -	NA -	NA -	NA -	NA -	NA -	NA -	NA -	NA -	NA -	NA -	3 O3_
27	NA -	NA -	NA -	NA -	NA -	NA -	NA -	NA -	NA -	NA -	NA -	NA -	NA -	NA -	21 O3_	21 O3_	20 O3_	**23** **O3_**	20 O3_	18 O3_	15 O3_	15 O3_	15 O3_	14 O3_	23 O3_
28	8 O3_	6 O3_	4 O3_	NA -	10 PM2	8 PM2	11 PM2	11 O3_	16 O3_	20 O3_	21 O3_	23 O3_	**25** **O3_**	**26** **O3_**	NA -	24 O3_	23 O3_	23 O3_	20 O3_	11 O3_	9 O3_	9 PM2	10 PM2	13 PM2	26 O3_
29	12 PM2	13 PM2	NA -	12 PM2	9 PM2	9 PM2	9 PM2	5 O3_	9 PM2	16 O3_	**19** **O3_**	17 O3_	17 O3_	14 O3_	17 O3_	17 O3_	17 O3_	17 O3_	16 O3_	15 O3_	15 O3_	16 O3_	16 O3_	14 O3_	19 O3_
30	13 O3_	NA -	17 O3_	**19** **O3_**	18 O3_	16 O3_	**19** **O3_**	**17** **O3_**	17 O3_	16 O3_	17 O3_	19 O3_	17 O3_	16 O3_	14 O3_	11 O3_	16 O3_	**20** **O3_**	19 O3_	13 O3_	13 O3_	9 O3_	5 O3_	5 O3_	20 O3_
31	NA -	NA -	NA -	NA -	2 O3_	4 O3_	5 O3_	6 O3_	7 O3_	NA -	12 O3_	13 O3_	NA -	13 O3_	13 O3_	**15** **O3_**	**15** **O3_**	**15** **O3_**	13 O3_	12 O3_	10 O3_	8 O3_	7 O3_	NA -	15 O3_
PEAK	20 O3_	20 O3_	19 O3_	19 O3_	22 O3_	21 PM2	19 O3_	17 O3_	18 O3_	20 O3_	23 O3_	25 O3_	25 O3_	28 O3_	29 O3_	30 O3_	26 O3_	27 O3_	26 PM2	23 O3_	22 O3_	20 O3_	20 O3_	20 O3_	

STATUS FLAG CODES

NA	- NOT APPLICABLE

AQI SUMMARY

AQI CLASS	O3	PM 2.5	NO2	SO2	FREQ
VERY POOR (101 - 255)	0 hrs 0.00%	0 hrs 0.00%	0 hrs 0.00%	0 hrs 0.00%	0 hrs 0.00%
POOR (51 - 100)	0 hrs 0.00%	0 hrs 0.00%	0 hrs 0.00%	0 hrs 0.00%	0 hrs 0.00%
FAIR (26 - 50)	7 hrs 0.94%	1 hrs 0.13%	0 hrs 0.00%	0 hrs 0.00%	8 hrs 1.08%
GOOD (1 - 25)	4443 hrs 59.54%	91 hrs 12.23%	1 hrs 0.13%	0 hrs 0.00%	535 hrs 71.91%
OVERALL	450 hrs 60.48%	92 hrs 12.37%	1 hrs 0.13%	0 hrs 0.00%	543 hrs 72.98%
UNAVAILABLE	-	-	-	-	201 hrs 27.02%

MOUNTAIN STANDARD TIME

Maxxam Analytics Inc

SO_2

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - *COLD LAKE*

JULY 2007

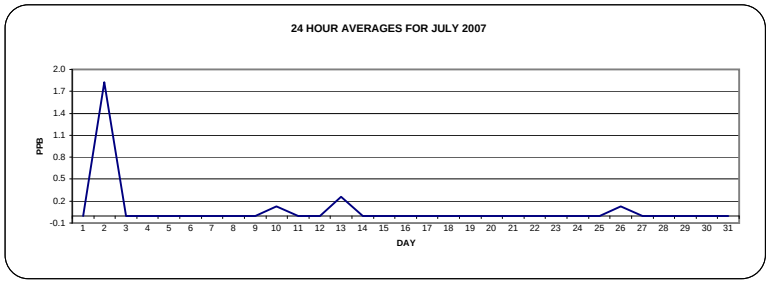
SULPHUR DIOXIDE (SO_2) hourly averages in ppb

HOUR START	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	24-HOUR	
HOUR END	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	0:00	MAX.	AVG.	RDGS.
DAY																											
1	0	0	0	0	0	0	0	**IZS**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
2	0	0	0	0	0	0	**IZS**	0	1	9	**16**	9	5	2	0	0	0	0	0	0	0	0	0	0	16	**1.8**	24
3	0	0	0	0	0	**IZS**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
4	0	0	0	0	**IZS**	0	0	0	**M**	**C**	**C**	**C**	**IZS**	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
5	0	0	0	**IZS**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
6	0	0	**IZS**	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
7	0	**IZS**	0	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
8	**IZS**	0	0	0	0	0	0	0	0	0	0	0	0	**P**	**P**	**P**	**P**	**P**	**P**	0	0	0	0	**IZS**	0	0.0	18
9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**IZS**	0	0	0.0	24
10	0	0	0	0	0	0	0	0	0	2	1	0	0	0	0	0	0	0	0	0	0	**IZS**	0	0	2	0.1	24
11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**IZS**	0	0	0	0	0.0	24
12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**IZS**	0	0	0	0	0	0.0	24
13	0	0	0	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	**IZS**	0	0	0	0	0	3	0.3	24
14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**IZS**	0	0	0	0	0	0	0	0.0	24
15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**IZS**	0	0	0	0	0	0	0	0	0.0	24
16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**IZS**	0	0	0	0	0	0	0	0	0	0.0	24
17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**IZS**	0	0	0	0	0	0	0	0	0	0	0.0	24
18	0	0	0	0	0	0	0	0	0	0	0	0	0	**IZS**	0	0	0	0	0	0	0	0	0	0	0	0.0	24
19	0	0	0	0	0	0	0	0	0	0	0	0	**IZS**	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
20	0	0	0	0	0	0	0	0	0	0	0	**IZS**	**C**	**C**	0	0	0	0	0	0	0	0	0	0	0	0.0	24
21	0	0	0	0	0	0	0	0	0	0	**IZS**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
22	0	0	0	0	0	0	0	0	0	**IZS**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
23	0	0	0	0	0	0	0	0	**IZS**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
24	0	0	0	0	0	0	0	**IZS**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
25	0	0	0	0	0	0	**IZS**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
26	0	0	0	0	0	**IZS**	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	1	0.1	24
27	0	0	0	0	**IZS**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
28	0	0	0	**IZS**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
29	0	0	**IZS**	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
30	0	**IZS**	0	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
31	**IZS**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**IZS**	0	0.0	24
HOURLY MAX	0	0	0	0	0	0	0	3	3	9	16	9	5	2	1	1	1	0	0	0	0	0	0	0			
HOURLY AVG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.4	0.6	0.3	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			

STATUS FLAG CODES

S	- OUT OF SERVICE	IZS	- IZS - DAILY ZERO/SPAN CHECK
N	- INVALID DATA	M	- MAINTENANCE
D	- INSTRUMENT DRIFT	P	- POWER FAILURE
C	- CALIBRATION	NA	- NOT APPLICABLE

OBJECTIVE LIMIT: **ALBERTA ENVIRONMENT:** 1-HR 172 PPB 24-HR 57 PPB



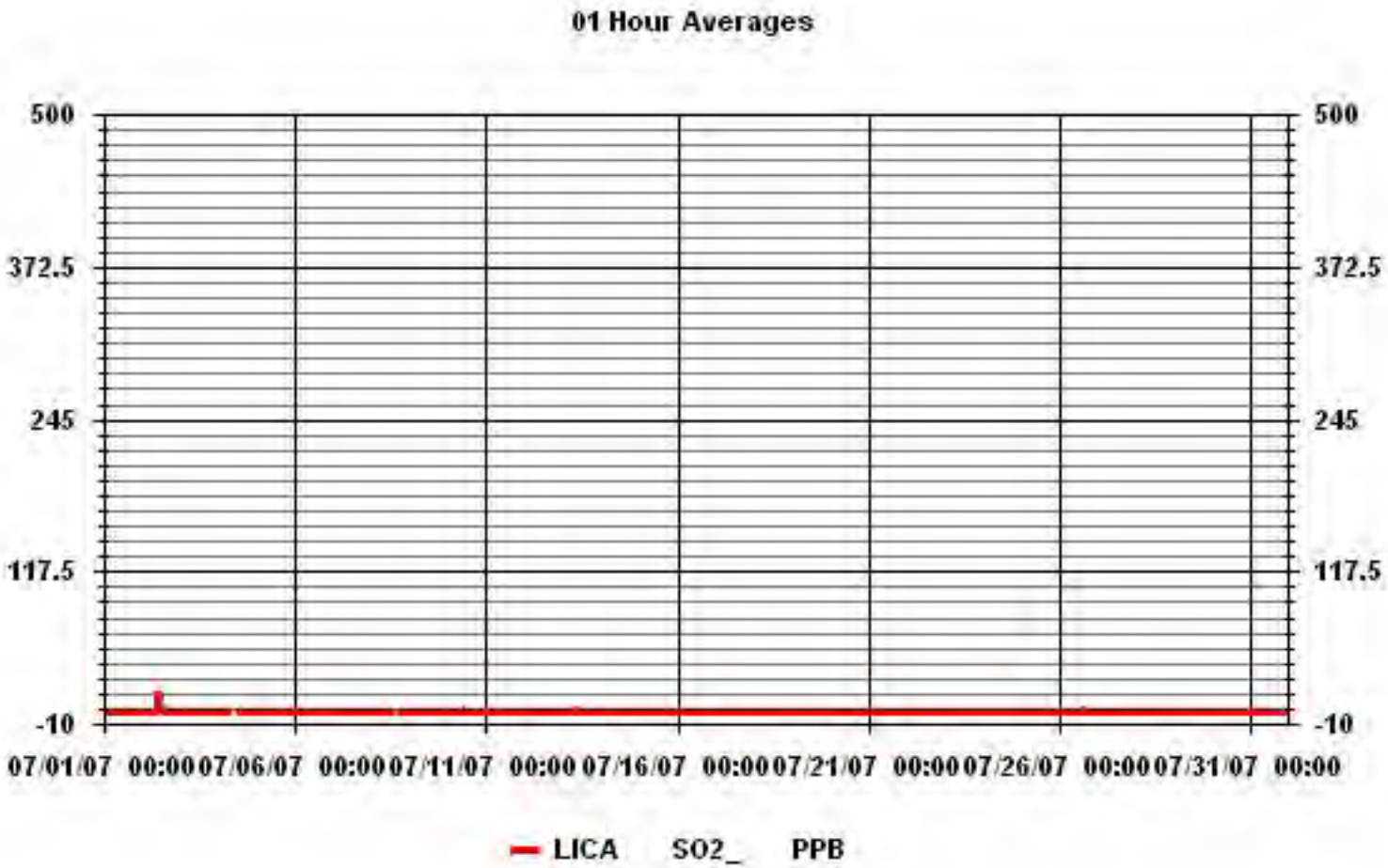
MONTHLY SUMMARY

NUMBER OF 1-HR EXCEEDENCES:	0					
NUMBER OF 24-HR EXCEEDENCES:	0					
NUMBER OF NON-ZERO READINGS:	13					
MAXIMUM 1-HR AVERAGE:	16	PPB	@ HOUR(S)	11	ON DAY(S)	2
MAXIMUM 24-HR AVERAGE:	1.8	PPB			ON DAY(S)	2

IZS CALIBRATION TIME:	34	HRS	OPERATIONAL TIME:	738	HRS
MONTHLY CALIBRATION TIME:	5	HRS	AMD OPERATION UPTIME:	99.2	%
STANDARD DEVIATION:	0.82		MONTHLY AVERAGE:	0.08	PPB

Maxxam Analytics Inc

MOUNTAIN STANDARD TIME


01 Hour Averages
500
372.5
245
117.5
-10
07/01/07 00:00
07/06/07 00:00
07/11/07 00:00
07/16/07 00:00
07/21/07 00:00
07/26/07 00:00
07/31/07 00:00
LICA SO2_ PPB

LICA
SO2_ / WD Joint Frequency Distribution (Percent)

July 2007

Distribution By % Of Samples

Logger Id : 01
Site Name : LICA
Parameter : SO2_
Units : PPB

Wind Parameter : WD
Instrument Height : 10 Meters

Direction

	Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
<	20	3.15	2.14	3.86	3.58	4.58	9.31	14.61	4.15	3.15	5.01	9.59	12.17	13.75	4.87	3.43	2.57	100.00
<	60	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
<	110	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
<	170	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
<	340	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
>=	340	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	Totals	3.15	2.14	3.86	3.58	4.58	9.31	14.61	4.15	3.15	5.01	9.59	12.17	13.75	4.87	3.43	2.57	

Calm : .00 %

Total # Operational Hours : 698

Distribution By Samples

Direction

	Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
<	20	22	15	27	25	32	65	102	29	22	35	67	85	96	34	24	18	698
<	60																	
<	110																	
<	170																	
<	340																	
>=	340																	
	Totals	22	15	27	25	32	65	102	29	22	35	67	85	96	34	24	18	

Calm : .00 %

Total # Operational Hours : 698

Logger : 01 Parameter : SO2_

Site : LICA

Period : 07/01/07-07/31/07

Level : 10

Class Limits (PPB)

>= 340

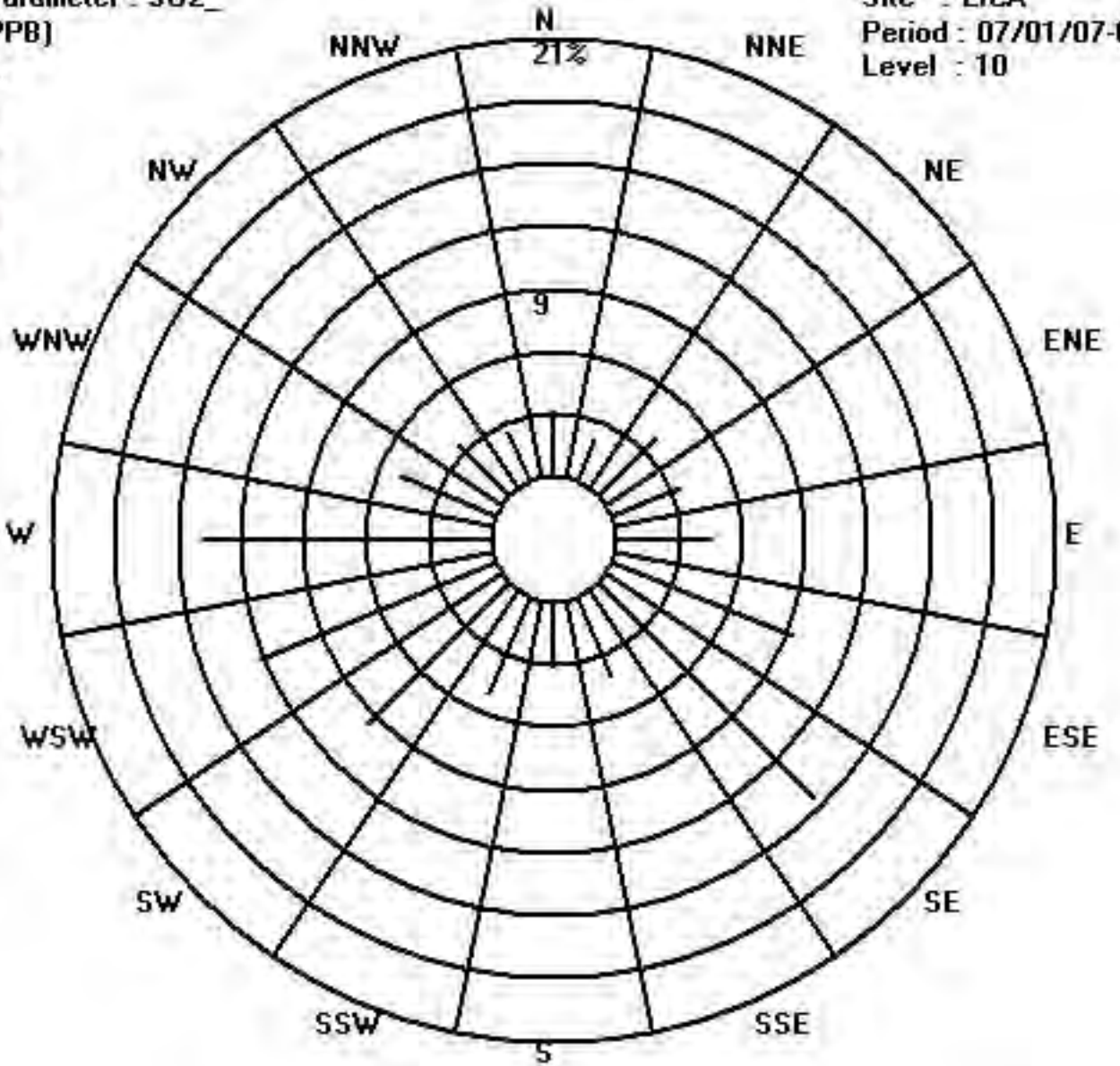
< 340

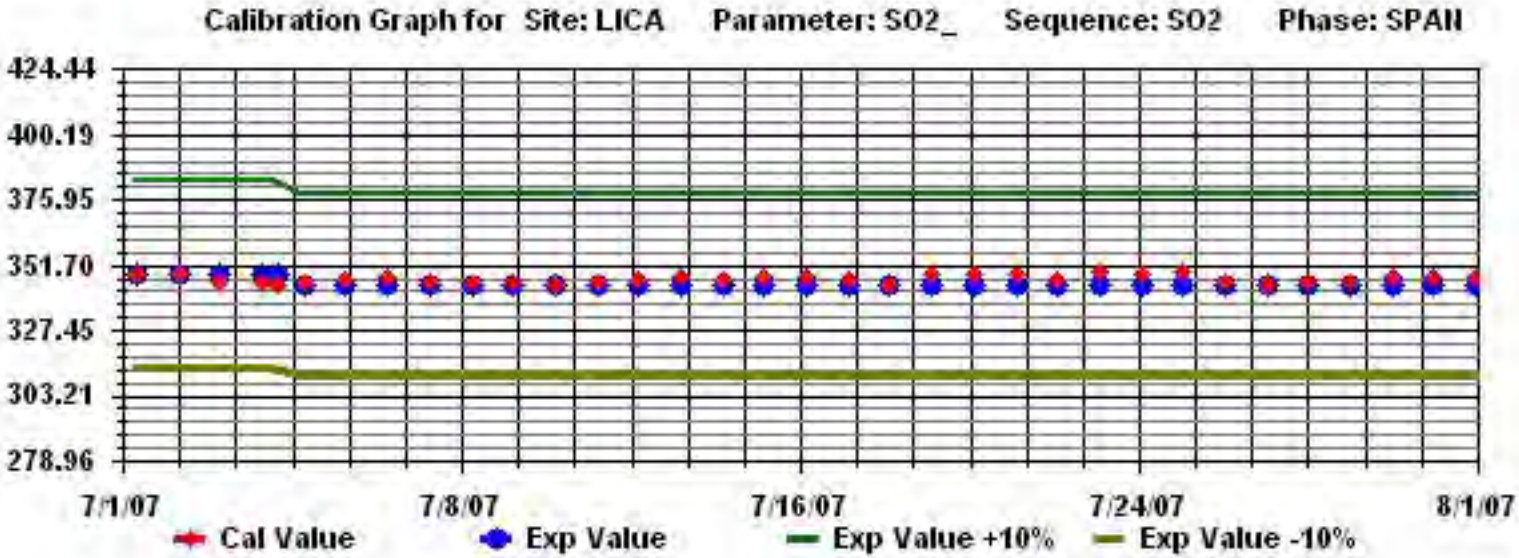
< 170

< 110

< 60

< 20




Calibration Graph for Site: LICA Parameter: SO2_ Sequence: SO2 Phase: SPAN
424.44
400.19
375.95
351.70
327.45
303.21
278.96
7/1/07
7/8/07
7/16/07
7/24/07
8/1/07
Cal Value
Exp Value
Exp Value +10%
Exp Value -10%

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - *COLD LAKE*

JULY 2007

SULPHUR DIOXIDE MAX instantaneous maximum in ppb

HOUR START	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	24-HOUR	
HOUR END	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	0:00	MAX.	AVG.	RDGS.
DAY																											
1	0	0	0	0	0	0	0	**IZS**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
2	0	0	0	0	0	0	**IZS**	0	3	**18**	**18**	13	8	3	1	1	0	0	0	0	0	0	0	0	18	2.8	24
3	0	0	0	0	0	**IZS**	0	1	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	1	0.2	24
4	0	0	0	0	**IZS**	0	0	0	**M**	**C**	**C**	**C**	**IZS**	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
5	0	0	0	**IZS**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
6	0	0	**IZS**	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1	24
7	0	**IZS**	0	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
8	**IZS**	0	0	0	0	0	1	1	1	1	0	0	1	**P**	**P**	**P**	**P**	**P**	**P**	1	0	0	0	**IZS**	1	0.4	18
9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**IZS**	0	0	0.0	24
10	0	0	0	0	0	0	0	1	1	3	2	1	0	0	0	0	0	0	0	0	0	**IZS**	0	0	3	0.3	24
11	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	**IZS**	3	1	0	3	0.2	24
12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**IZS**	0	0	0	0	0	0.0	24
13	0	0	0	0	0	0	1	6	5	1	1	0	0	0	1	0	0	0	**IZS**	0	0	0	0	0	6	0.7	24
14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**IZS**	0	0	0	0	0	0	0	0.0	24
15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**IZS**	0	0	0	0	0	0	0	0	0.0	24
16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**IZS**	0	0	0	0	0	0	0	0	0	0.0	24
17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**IZS**	0	0	0	2	0	0	0	0	0	2	0.1	24
18	0	0	0	0	0	0	0	0	0	0	0	0	0	**IZS**	0	0	0	0	0	0	0	0	0	0	0	0.0	24
19	0	0	0	0	0	0	0	0	0	0	0	0	**IZS**	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
20	0	0	0	0	0	0	0	0	0	0	0	**IZS**	**C**	**C**	0	0	0	0	0	0	0	0	0	0	0	0.0	24
21	0	0	0	0	0	0	0	0	0	0	**IZS**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
22	0	0	0	0	0	0	0	0	0	**IZS**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
23	0	0	0	0	0	0	0	0	**IZS**	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	1	0.1	24
24	0	0	0	0	0	0	0	**IZS**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
25	0	0	0	0	0	0	**IZS**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
26	0	0	0	0	0	**IZS**	0	0	0	0	0	0	0	1	2	2	1	1	1	0	0	0	0	0	2	0.3	24
27	0	0	0	0	**IZS**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
28	0	0	0	**IZS**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
29	0	0	**IZS**	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
30	0	**IZS**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0.0	24
31	**IZS**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**IZS**	0	0.0	24
HOURLY MAX	0	0	0	0	0	0	1	6	5	18	18	13	8	3	2	2	1	1	2	1	0	3	1	0			
HOURLY AVG	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.3	0.8	0.8	0.6	0.3	0.2	0.2	0.1	0.1	0.0	0.1	0.0	0.0	0.1	0.0	0.0			

STATUS FLAG CODES

S	- OUT OF SERVICE	IZS	- IZS - DAILY ZERO/SPAN CHECK
N	- INVALID DATA	M	- MAINTENANCE
D	- INSTRUMENT DRIFT	P	- POWER FAILURE
C	- CALIBRATION	NA	- NOT APPLICABLE

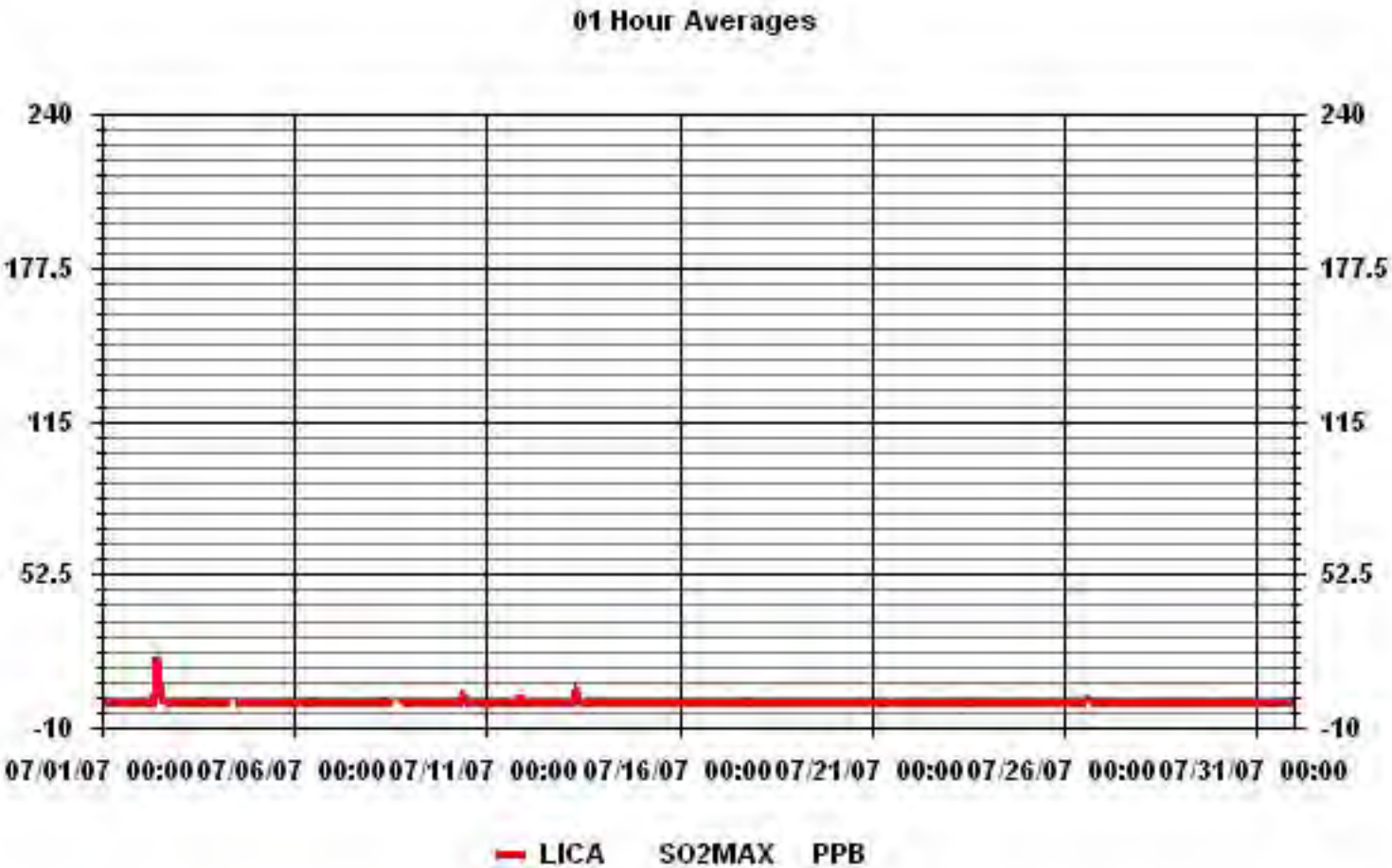
MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	44					
MAXIMUM INSTANTANEOUS VALUE:	18	PPB	@ HOUR(S)	10,11	ON DAY(S)	2

IZS CALIBRATION TIME:	34	HRS	OPERATIONAL TIME:	738	HRS
MONTHLY CALIBRATION TIME:	5	HRS			
STANDARD DEVIATION:	1.20				

MOUNTAIN STANDARD TIME

Maxxam Analytics Inc


01 Hour Averages
240
177.5
115
52.5
-10
07/01/07 00:00
07/06/07 00:00
07/11/07 00:00
07/16/07 00:00
07/21/07 00:00
07/26/07 00:00
07/31/07 00:00
LICA SO2MAX PPB

TRS

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - *COLD LAKE*

JULY 2007

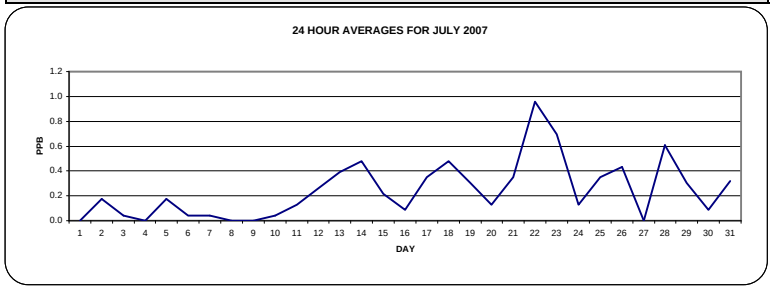
TOTAL REDUCED SULPHUR (TRS) hourly averages in ppb

HOUR START	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	24-HOUR	
HOUR END	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	0:00	MAX.	AVG.	RDGS.
DAY																											
1	0	0	0	0	0	0	0	**IZS**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
2	0	0	1	1	1	1	**IZS**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.2	24
3	0	0	0	0	1	**IZS**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.0	24
4	0	0	0	0	**IZS**	0	0	0	**M**	**C**	**C**	**C**	**IZS**	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
5	0	0	1	**IZS**	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.2	24
6	1	0	**IZS**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.0	24
7	0	**IZS**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0.0	24
8	**IZS**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**NA**	**NA**	1
9	**N**	**N**	**N**	**N**	**N**	**N**	**C**	**C**	**IZS**	0	0	0	0	0	0	0	0	0	0	0	0	0	**IZS**	0	0	0.0	18
10	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**IZS**	0	0	1	0.0	24
11	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	**IZS**	0	0	0	1	0.1	24
12	1	1	1	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	**IZS**	0	0	0	0	1	0.3	24
13	0	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	**IZS**	0	0	1	1	1	1	0.4	24
14	1	1	1	2	1	2	1	1	1	0	0	0	0	0	0	0	0	**IZS**	0	0	0	0	0	0	2	0.5	24
15	0	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	**IZS**	0	0	0	0	0	0	0	1	0.2	24
16	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	**IZS**	0	0	0	0	0	0	0	0	1	0.1	24
17	0	1	1	1	1	2	1	0	0	0	0	0	0	0	**IZS**	0	0	0	0	0	0	0	0	1	2	0.3	24
18	1	1	1	1	3	2	1	1	0	0	0	0	0	**IZS**	0	0	0	0	0	0	0	0	0	0	3	0.5	24
19	0	0	0	1	1	1	0	1	1	1	1	0	**IZS**	0	0	0	0	0	0	0	0	0	0	0	1	0.3	24
20	0	0	0	0	1	1	1	0	0	0	0	**IZS**	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1	24
21	2	1	0	0	0	1	0	1	1	0	**IZS**	0	0	0	0	0	0	0	0	0	0	1	0	1	2	0.3	24
22	2	5	3	2	2	3	2	1	1	**IZS**	0	0	0	0	0	0	0	0	0	0	0	0	0	1	5	**1.0**	24
23	1	2	1	2	2	2	2	0	**IZS**	0	0	1	0	0	0	0	0	0	0	0	0	1	1	1	2	0.7	24
24	0	1	0	0	0	1	1	**IZS**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1	24
25	0	0	0	2	4	1	**IZS**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	4	0.3	24
26	1	2	1	1	1	**IZS**	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.4	24
27	0	0	0	0	**IZS**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
28	2	**7**	2	**IZS**	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	7	0.6	24
29	1	1	**IZS**	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.3	24
30	1	**IZS**	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1	24
31	**IZS**	0	1	0	1	1	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**IZS**	2	0.3	24
HOURLY MAX	2	7	3	2	4	3	2	2	1	1	1	1	0	0	0	0	0	0	0	0	0	1	1	1			
HOURLY AVG	0.5	0.9	0.6	0.6	0.9	0.9	0.7	0.5	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.3			

STATUS FLAG CODES

S	- OUT OF SERVICE	IZS	- IZS - DAILY ZERO/SPAN CHECK
N	- INVALID DATA	M	- MAINTENANCE
D	- INSTRUMENT DRIFT	P	- POWER FAILURE
C	- CALIBRATION	NA	- NOT APPLICABLE

OBJECTIVE LIMIT: **ALBERTA ENVIRONMENT:** 1-HR 172 PPB 24-HR 57 PPB



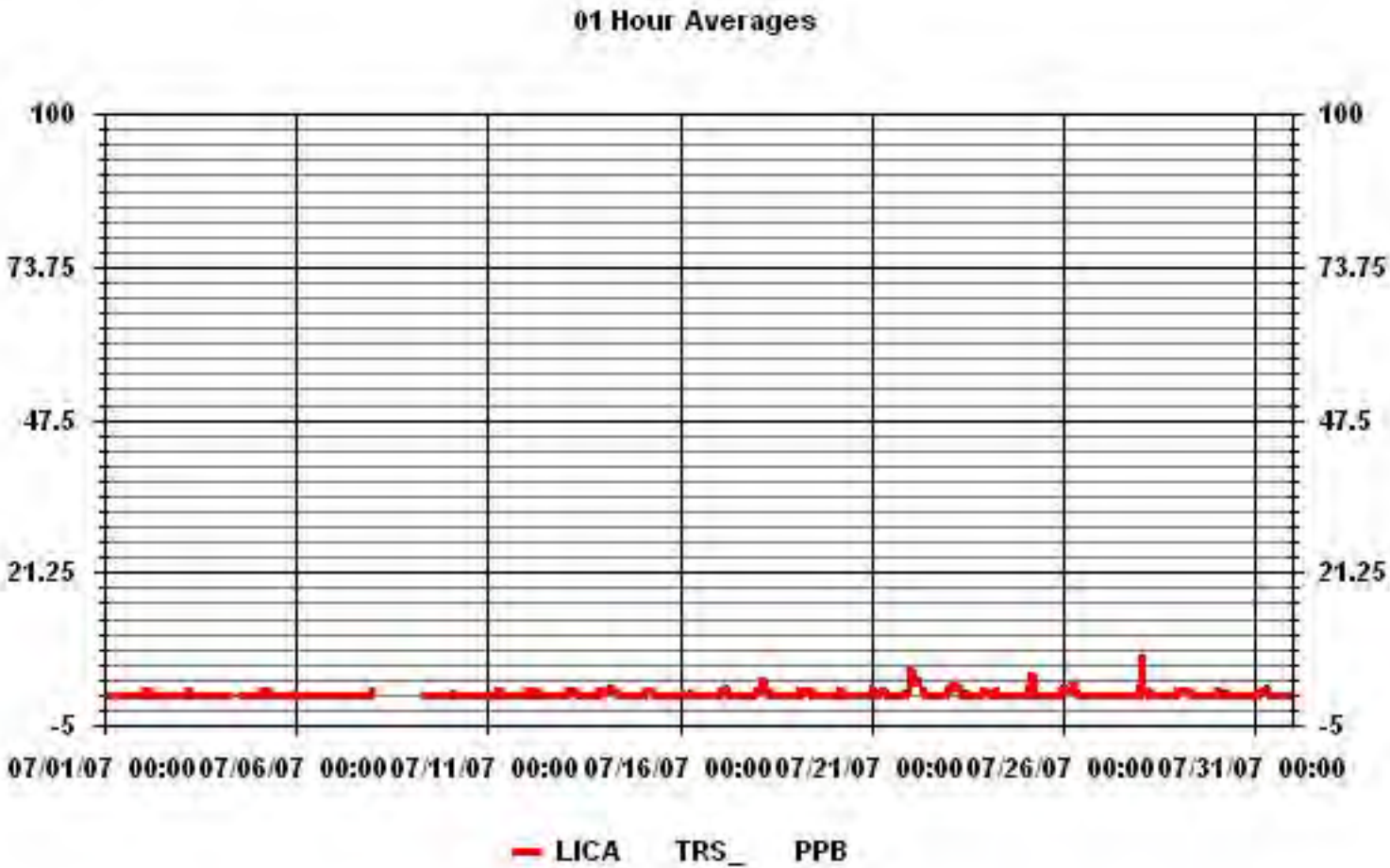
MONTHLY SUMMARY

NUMBER OF 1-HR EXCEEDENCES:	0					
NUMBER OF 24-HR EXCEEDENCES:	0					
NUMBER OF NON-ZERO READINGS:	135					
MAXIMUM 1-HR AVERAGE:	7	PPB	@ HOUR(S)	2	ON DAY(S)	28
MAXIMUM 24-HR AVERAGE:	1.0	PPB			ON DAY(S)	22

IZS CALIBRATION TIME:	34	HRS	OPERATIONAL TIME:	715	HRS
MONTHLY CALIBRATION TIME:	5	HRS	AMD OPERATION UPTIME:	96.1	%
STANDARD DEVIATION:	0.62		MONTHLY AVERAGE:	0.26	PPB

Maxxam Analytics Inc

MOUNTAIN STANDARD TIME


01 Hour Averages
100
73.75
47.5
21.25
-5
07/01/07 00:00
07/06/07 00:00
07/11/07 00:00
07/16/07 00:00
07/21/07 00:00
07/26/07 00:00
07/31/07 00:00
LICA TRS_ PPB

LICA
TRS_ / WD Joint Frequency Distribution (Percent)

July 2007

Distribution By % Of Samples

Logger Id : 01
Site Name : LICA
Parameter : TRS_
Units : PPB

Wind Parameter : WD
Instrument Height : 10 Meters

Direction

Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
< 3	2.81	2.07	3.55	3.40	4.74	9.62	15.11	4.14	3.11	4.74	9.48	12.44	14.07	4.44	2.81	2.51	99.11
< 10	.00	.00	.14	.14	.00	.00	.00	.14	.00	.14	.00	.14	.00	.14	.00	.00	.88
< 50	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
>= 50	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
Totals	2.81	2.07	3.70	3.55	4.74	9.62	15.11	4.29	3.11	4.88	9.48	12.59	14.07	4.59	2.81	2.51	

Calm : .00 %

Total # Operational Hours : 675

Distribution By Samples

Direction

Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
< 3	19	14	24	23	32	65	102	28	21	32	64	84	95	30	19	17	669
< 10			1	1				1		1		1		1			6
< 50																	
>= 50																	
Totals	19	14	25	24	32	65	102	29	21	33	64	85	95	31	19	17	

Calm : .00 %

Total # Operational Hours : 675

Logger : 01 Parameter : TRS_

Class Limits (PPB)

>= 50

< 50

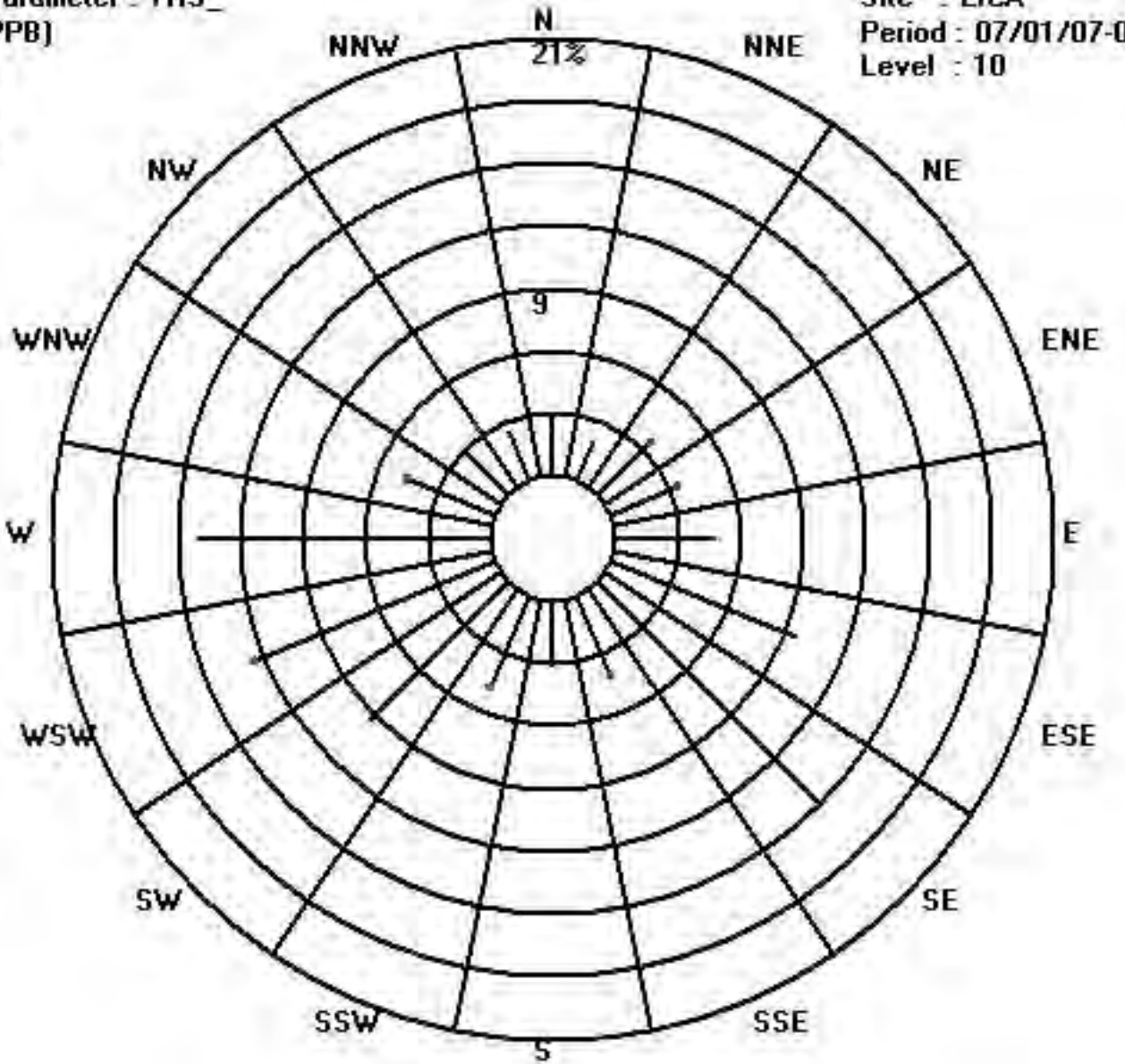
< 10

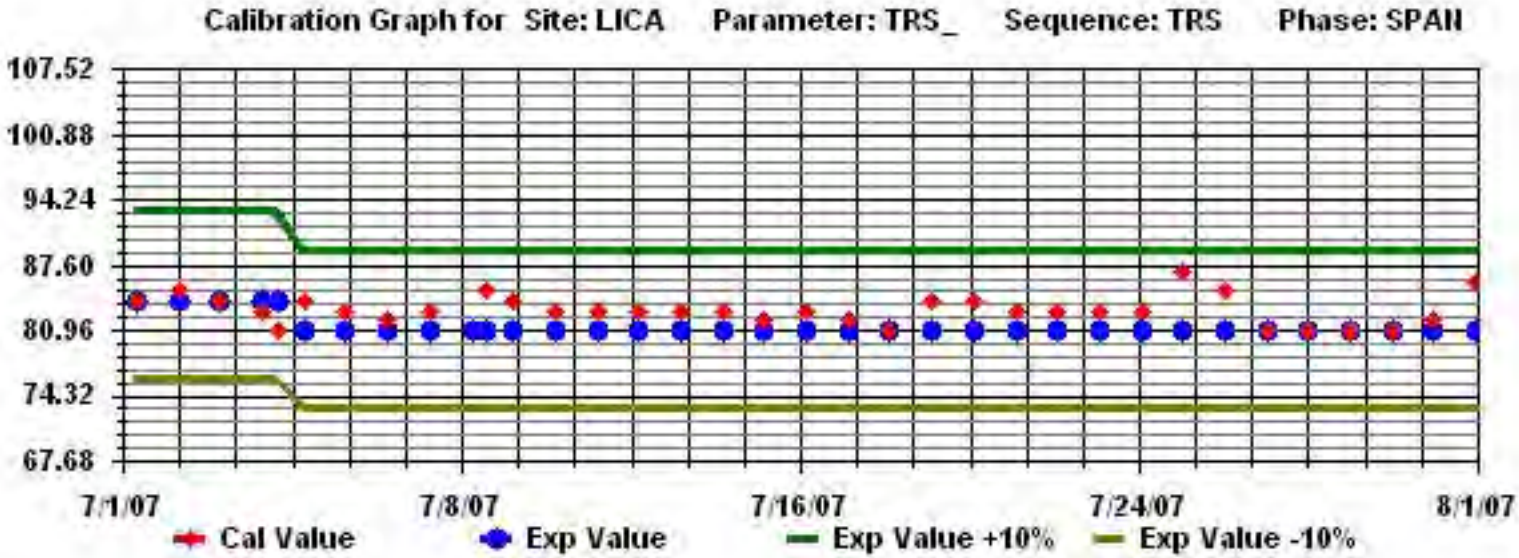
< 3

Site : LICA

Period : 07/01/07-07/31/07

Level : 10




Calibration Graph for Site: LICA Parameter: TRS_ Sequence: TRS Phase: SPAN
107.52
100.88
94.24
87.60
80.96
74.32
67.68
7/1/07
7/8/07
7/16/07
7/24/07
8/1/07
Cal Value
Exp Value
Exp Value +10%
Exp Value -10%

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - *COLD LAKE*

JULY 2007

TOTAL REDUCED SULPHUR MAX instantaneous maximum in ppb

HOUR START	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 24-HOUR		
HOUR END	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	0:00	MAX.	AVG.	RDGS.
DAY																											
1	1	1	1	1	1	1	1	**IZS**	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	24
2	1	1	2	2	3	2	**IZS**	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	1.2	24
3	1	3	1	1	2	**IZS**	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	1.1	24
4	1	1	1	1	**IZS**	1	1	6	**M**	**C**	**C**	**C**	**IZS**	1	1	1	1	1	1	1	1	1	1	1	6	1.3	24
5	1	1	2	**IZS**	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1.2	24
6	1	1	**IZS**	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	24
7	1	**IZS**	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	1.0	24
8	**IZS**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**NA**	**NA**	1
9	**N**	**N**	**N**	**N**	**N**	**N**	**C**	**C**	**IZS**	1	1	1	1	1	1	1	1	1	1	1	1	1	**IZS**	1	1	1.0	18
10	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	**IZS**	1	1	2	1.0	24
11	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	**IZS**	1	1	1	1	1.0	24
12	7	2	2	1	1	1	2	2	1	1	1	1	1	1	1	1	1	1	1	**IZS**	1	1	1	1	7	1.4	24
13	1	1	2	2	3	1	1	1	1	1	1	1	1	1	1	1	1	1	**IZS**	1	1	1	2	2	3	1.3	24
14	2	2	3	3	2	4	2	1	1	1	1	1	1	1	1	1	1	**IZS**	1	1	1	1	1	1	4	1.5	24
15	1	1	3	3	2	1	1	1	1	1	1	1	1	1	1	1	**IZS**	1	1	1	1	1	1	1	3	1.2	24
16	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	**IZS**	1	1	1	1	1	1	1	1	2	1.0	24
17	1	3	2	2	3	4	3	1	1	1	1	1	1	1	**IZS**	1	1	1	1	1	1	1	1	2	4	1.5	24
18	2	2	2	6	5	4	2	1	1	1	1	1	1	**IZS**	1	1	1	1	1	1	1	1	1	1	6	1.7	24
19	1	1	1	1	1	2	1	2	1	2	1	1	**IZS**	1	1	1	1	1	1	1	1	1	1	1	2	1.1	24
20	1	1	1	1	1	1	1	1	1	1	1	**IZS**	1	1	1	1	1	1	1	1	1	1	1	2	2	1.0	24
21	5	4	1	1	1	3	1	1	1	1	**IZS**	1	1	1	1	1	1	1	1	1	1	3	1	3	5	1.6	24
22	6	10	9	4	3	8	3	2	2	**IZS**	1	1	1	1	1	1	1	1	1	1	1	1	1	4	10	2.8	24
23	2	3	2	5	3	3	3	1	**IZS**	1	2	2	1	1	1	1	1	1	1	1	1	1	2	2	5	1.8	24
24	1	2	1	1	1	1	1	**IZS**	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1.0	24
25	1	1	1	5	6	2	**IZS**	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	6	1.4	24
26	8	6	2	2	1	**IZS**	4	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	8	1.8	24
27	1	1	1	1	**IZS**	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	4	4	1.1	24
28	6	**12**	3	**IZS**	3	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	12	2.0	24
29	2	3	**IZS**	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	3	1.3	24
30	4	**IZS**	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	4	1.2	24
31	**IZS**	1	1	1	3	3	2	5	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	**IZS**	5	1.5	24
HOURLY MAX	8	12	9	6	6	8	4	6	4	2	2	2	1	1	1	1	1	1	1	1	1	3	2	4			
HOURLY AVG	2.2	2.5	1.9	2.0	2.0	2.0	1.5	1.5	1.2	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.1	1.1	1.5			

STATUS FLAG CODES

S	- OUT OF SERVICE	IZS	- IZS - DAILY ZERO/SPAN CHECK
N	- INVALID DATA	M	- MAINTENANCE
D	- INSTRUMENT DRIFT	P	- POWER FAILURE
C	- CALIBRATION	NA	- NOT APPLICABLE

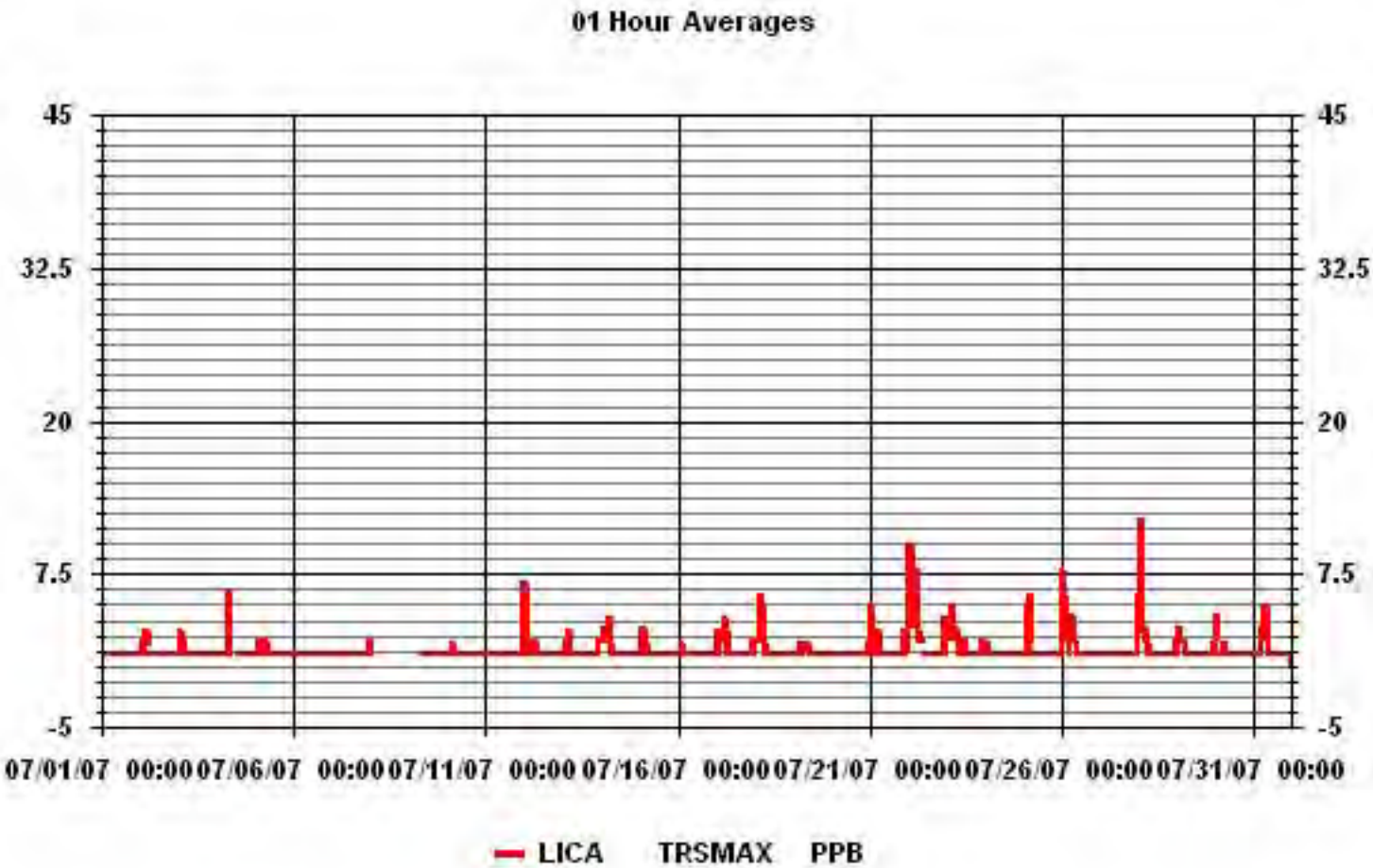
MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	675					
MAXIMUM INSTANTANEOUS VALUE:	12	PPB	@ HOUR(S)	2	ON DAY(S)	28

IZS CALIBRATION TIME:	34	HRS	OPERATIONAL TIME:	715	HRS
MONTHLY CALIBRATION TIME:	5	HRS			
STANDARD DEVIATION:	1.08				

MOUNTAIN STANDARD TIME

Maxxam Analytics Inc


01 Hour Averages
45
32.5
20
7.5
-5
07/01/07 00:00
07/06/07 00:00
07/11/07 00:00
07/16/07 00:00
07/21/07 00:00
07/26/07 00:00
07/31/07 00:00
LICA TRSMAX PPB

THC

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - *COLD LAKE*

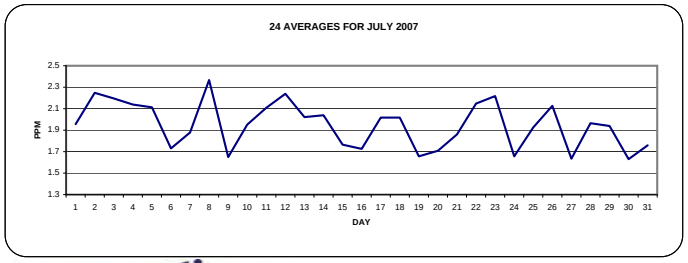
JULY 2007

TOTAL HYDROCARBONS (THC) hourly averages in ppm

HOUR START	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	24-HOUR	
HOUR END	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	0:00	MAX.	AVG.	RDGS.
DAY																											
1	1.8	1.9	2.1	2.7	2.4	2.1	2.1	**IZS**	1.8	1.8	1.7	1.7	1.8	1.7	1.7	1.7	1.7	1.7	1.7	1.8	1.8	2.4	2	2.9	2.9	2.0	24
2	2.6	2.7	2.5	4	2.8	2.5	**IZS**	2	2	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.8	2.3	2.8	3.4	4.0	2.2	24
3	2.8	3.2	2.7	3.2	3.3	**IZS**	2.4	2.1	2	2	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.7	1.8	1.9	2.1	2.4	2.5	3.3	2.2	24
4	2.5	2.1	2.2	2.3	**IZS**	2.3	2.2	2	**M**	1.8	1.7	1.7	**C**	**C**	**C**	**IZS**	2.1	1.6	1.6	1.6	2.8	2.5	2.9	2.6	2.9	2.1	24
5	2.4	2.4	2.8	**IZS**	3.4	3.3	2.3	2.1	2	1.9	1.8	1.8	1.8	1.9	2	1.8	1.8	1.8	1.8	1.8	1.8	1.9	2	2	3.4	2.1	24
6	2	1.9	**IZS**	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.8	1.8	2.0	1.7	24
7	1.7	**IZS**	1.8	1.8	1.8	1.9	1.9	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	2	2.7	2.2	3.3	3.3	1.9	24
8	**IZS**	2.9	3.4	2.7	3.1	3.6	2.3	1.9	1.7	1.7	1.7	1.7	1.7	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	3.6	**2.4**	13
9	**N**	**N**	**N**	**N**	**N**	**N**	**C**	**C**	**IZS**	1.7	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.8	1.8	1.7	**IZS**	1.7	1.8	1.7	18
10	1.9	2.7	2.1	2.6	2.3	2	2	1.8	1.8	1.7	1.7	1.7	1.7	1.6	1.6	1.6	1.6	1.6	1.6	1.7	2.3	**IZS**	2.7	2.6	2.7	2.0	24
11	2.6	3.2	2.4	2.4	2.2	2.6	2.4	2.3	2.1	1.8	1.7	1.7	1.7	1.6	1.7	1.7	1.7	1.7	1.6	1.6	**IZS**	3.2	2.3	2.3	3.2	2.1	24
12	3.2	**4.3**	3.1	2.6	2.6	2.5	2.3	2.1	2	1.9	1.7	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	**IZS**	2.6	2.7	2.7	2.4	4.3	2.2	24
13	2.1	2.2	2.4	2.4	3	2.5	2.2	1.8	1.7	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	**IZS**	1.7	2.3	3.1	2.6	2.1	3.1	2.0	24
14	2.3	2.5	2.5	3.9	3.1	2.9	1.9	1.8	2	1.9	1.9	1.9	1.8	1.8	1.7	1.6	1.6	**IZS**	1.8	1.7	1.5	1.6	1.6	1.6	3.9	2.0	24
15	1.6	1.6	2.4	2.1	2.7	1.9	1.8	1.8	1.7	1.6	1.6	1.6	1.7	1.6	1.6	1.6	**IZS**	1.6	1.7	1.7	1.7	1.6	1.7	1.7	2.7	1.8	24
16	1.8	1.9	2.2	1.9	1.5	1.5	1.6	1.7	1.7	1.7	1.6	1.6	1.6	1.6	1.6	**IZS**	1.6	1.6	1.6	1.8	1.9	1.9	1.7	2.1	2.2	1.7	24
17	3.1	2.1	2.5	2.5	2.6	3	2.1	1.7	1.7	1.7	1.6	1.6	1.6	1.6	**IZS**	1.6	1.6	1.6	1.6	1.7	1.9	2.2	2.4	2.4	3.1	2.0	24
18	2.6	3.1	3.1	2.5	2.7	2.5	2	1.9	1.9	1.8	1.8	1.8	1.7	**IZS**	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	3.1	2.0	24
19	1.7	1.7	1.8	1.8	1.8	1.7	1.7	1.7	1.7	1.7	1.6	1.6	**IZS**	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.8	1.7	24
20	1.6	1.6	1.6	1.7	1.7	1.7	1.8	1.6	1.6	1.6	1.6	**IZS**	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.7	1.8	2	2	2.5	2.5	1.7	24
21	2.7	2.1	1.8	1.8	2	2.1	1.8	1.9	2.2	1.9	**IZS**	1.7	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.7	2	1.9	2.4	2.7	1.9	24
22	2.9	2.7	2.6	2.6	2.6	2.5	2.2	1.9	1.9	**IZS**	1.8	1.8	1.7	1.7	1.7	1.7	1.8	1.7	1.6	1.8	2.2	3	2.5	2.5	3.0	2.1	24
23	2.8	3.2	3	3.2	3.4	3	2.6	2.1	**IZS**	2.1	2.3	2.2	1.8	1.7	1.6	1.6	1.6	1.6	1.6	1.7	1.9	2.1	2.1	1.8	3.4	2.2	24
24	1.7	1.7	1.6	1.6	1.6	1.7	1.7	**IZS**	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.7	2	1.8	1.8	2.0	1.7	24
25	1.8	2.5	2.4	2.6	2.2	1.8	**IZS**	1.7	1.7	1.7	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.7	2	2.7	2.4	2.7	2.7	1.9	24
26	2.9	3.3	2.9	2.8	2.9	**IZS**	2.3	1.9	1.8	1.5	1.5	**BB**	**BB**	**BB**	**BB**	**BB**	**BB**	**BB**	**BB**	1.5	1.6	1.6	1.7	1.7	3.3	2.1	16
27	1.7	1.9	1.8	1.7	**IZS**	1.8	1.8	1.7	1.7	1.6	1.6	1.5	1.6	1.5	1.5	1.6	1.6	1.5	1.5	1.5	1.6	1.6	1.6	1.7	1.9	1.6	24
28	2.3	2.1	2.8	**IZS**	2.3	2.3	2.2	2	1.8	1.8	1.7	1.6	1.6	1.6	1.5	1.5	1.5	1.5	1.5	2	1.8	2.7	2.4	2.7	2.8	2.0	24
29	2.6	3.4	**IZS**	3.1	2.1	2.1	2.1	2.1	2	1.8	1.7	1.7	1.7	1.6	1.6	1.6	1.7	1.6	1.7	1.6	1.7	1.7	1.7	1.7	3.4	1.9	24
30	1.7	**IZS**	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.5	1.6	1.6	1.6	1.6	1.6	1.5	1.6	1.8	1.7	1.6	1.7	2	2.0	1.6	24
31	**IZS**	2.3	2.2	2.4	2.3	2	1.9	1.9	1.7	1.5	1.5	1.5	1.5	1.5	1.6	1.6	1.6	1.6	1.6	1.5	1.6	1.7	1.7	**IZS**	2.4	1.8	24
HOURLY MAX	3.2	4.3	3.4	4.0	3.4	3.6	2.6	2.3	2.2	2.1	2.3	2.2	1.8	1.9	2.0	1.8	2.1	1.9	1.9	2.0	2.8	3.2	2.9	3.4			
HOURLY AVG	2.3	2.5	2.4	2.4	2.4	2.3	2.0	1.9	1.8	1.7	1.7	1.7	1.7	1.6	1.6	1.6	1.7	1.6	1.6	1.7	1.9	2.1	2.1	2.2			

STATUS FLAG CODES

S	- OUT OF SERVICE	IZS	- IZS - DAILY ZERO/SPAN CHECK
N	- INVALID DATA	M	- MAINTENANCE
D	- INSTRUMENT DRIFT	P	- POWER FAILURE
C	- CALIBRATION	NA	- NOT APPLICABLE
BB	- BELOW BACKGROUND OF 1.5 PPM		



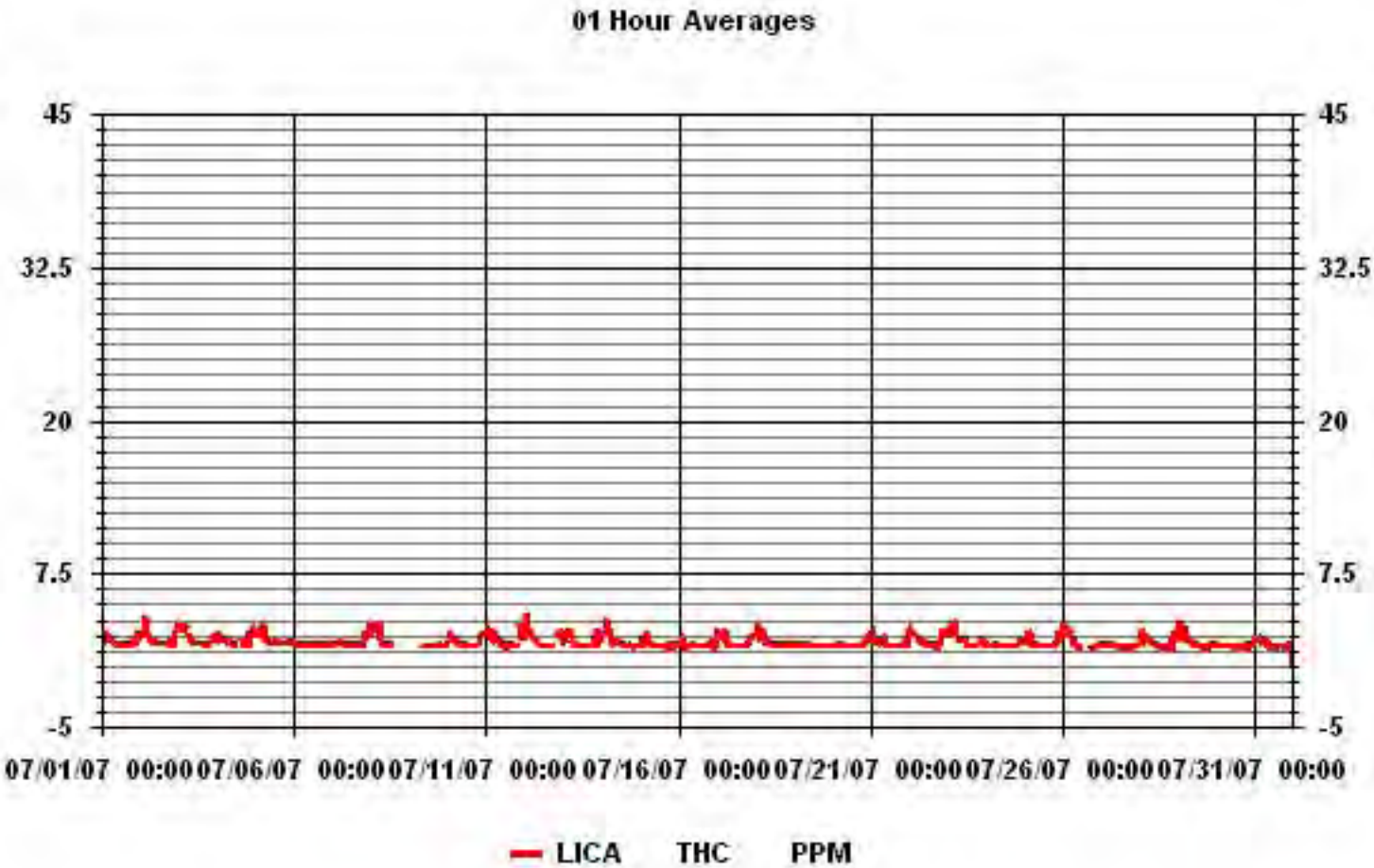
MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	679					
MAXIMUM 1-HR AVERAGE:	4.3	PPM	@ HOUR(S)	2	ON DAY(S)	12
MAXIMUM 24-HR AVERAGE:	2.4	PPM			ON DAY(S)	8

IZS CALIBRATION TIME:	34	HRS	OPERATIONAL TIME:	719	HRS
MONTHLY CALIBRATION TIME:	5	HRS	AMD OPERATION UPTIME:	96.6	%
STANDARD DEVIATION:	0.46		MONTHLY AVERAGE:	1.94	PPM

MOUNTAIN STANDARD TIME

Maxxam Analytics Inc


01 Hour Averages
45
32.5
20
7.5
-5
07/01/07 00:00
07/06/07 00:00
07/11/07 00:00
07/16/07 00:00
07/21/07 00:00
07/26/07 00:00
07/31/07 00:00
LICA THC PPM

LICA
THC / WD Joint Frequency Distribution (Percent)

July 2007

Distribution By % Of Samples

Logger Id : 01
Site Name : LICA
Parameter : THC
Units : PPM

Wind Parameter : WD
Instrument Height : 10 Meters

Direction

	Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
<	3.0	2.79	2.20	3.82	3.68	4.56	9.42	14.58	3.97	2.79	4.27	7.95	11.34	13.54	4.86	2.79	2.50	95.13
<	10.0	.14	.00	.14	.00	.14	.14	.29	.29	.14	.58	1.62	1.17	.14	.00	.00	.00	4.86
<	50.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
>=	50.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	Totals	2.94	2.20	3.97	3.68	4.71	9.57	14.87	4.27	2.94	4.86	9.57	12.51	13.69	4.86	2.79	2.50	

Calm : .00 %

Total # Operational Hours : 679

Distribution By Samples

Direction

	Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
<	3.0	19	15	26	25	31	64	99	27	19	29	54	77	92	33	19	17	646
<	10.0	1		1		1	1	2	2	1	4	11	8	1				33
<	50.0																	
>=	50.0																	
	Totals	20	15	27	25	32	65	101	29	20	33	65	85	93	33	19	17	

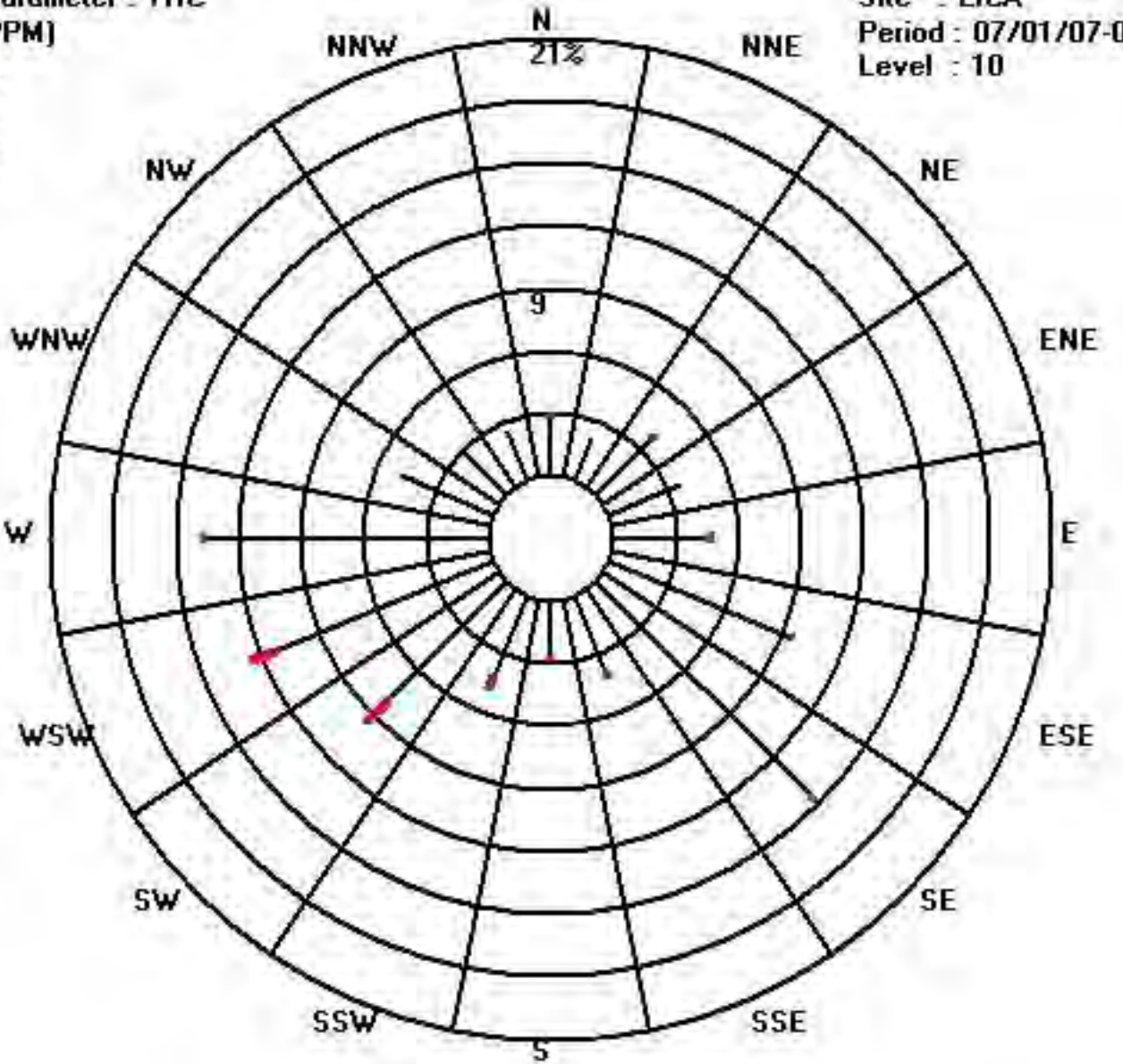
Calm : .00 %

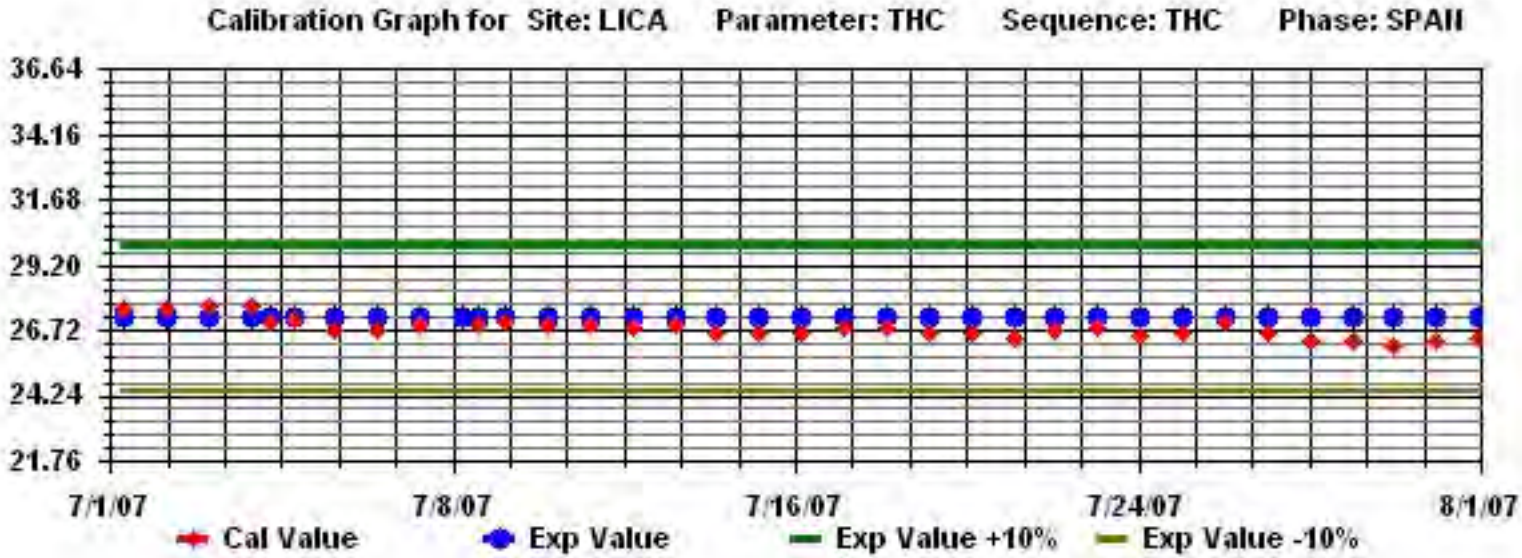
Total # Operational Hours : 679

Logger : 01 Parameter : THC
Class Limits (PPM)

>= 50.0
< 50.0
< 10.0
< 3.0

Site : LICA
Period : 07/01/07-07/31/07
Level : 10




Calibration Graph for Site: LICA Parameter: THC Sequence: THC Phase: SPAII
36.64
34.16
31.68
29.20
26.72
24.24
21.76
7/1/07
7/8/07
7/16/07
7/24/07
8/1/07
Cal Value
Exp Value
Exp Value +10%
Exp Value -10%

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - *COLD LAKE*

JULY 2007

TOTAL HYDROCARBONS MAX instantaneous maximum in ppm

HOUR START	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 24-HOUR		
HOUR END	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	0:00	MAX.	AVG.	RDGS.
DAY																											
1	1.9	3	2.6	7.3	2.8	2.6	2.3	**IZS**	1.9	1.8	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	2.1	2.5	4.1	2.4	4.4	7.3	2.5	24
2	3.6	3.4	2.7	**13.6**	4.1	2.8	**IZS**	2.1	2.1	2	1.9	1.9	1.8	1.8	1.8	1.8	1.9	2.2	2	2	1.9	3.5	4	5.1	13.6	3.0	24
3	3.8	4.6	3.2	4.7	4.2	**IZS**	2.7	2.2	2.1	2.1	1.9	1.9	1.8	1.8	1.8	1.8	2	1.9	1.8	2	1.9	2.7	2.9	3.1	4.7	2.6	24
4	3.2	2.4	2.8	3	**IZS**	2.4	2.3	2.1	**M**	1.8	1.8	1.7	**C**	**C**	**C**	**IZS**	3.5	1.7	1.7	1.8	4.2	3.7	4.1	3.5	4.2	2.7	24
5	2.8	2.8	4.7	**IZS**	4.5	4.2	2.6	2.4	2.1	2	1.9	1.8	1.9	2.1	2.1	1.9	1.8	1.8	1.8	1.8	1.9	1.9	2.1	2.5	4.7	2.4	24
6	2.3	2.1	**IZS**	1.7	1.7	1.7	1.7	1.7	1.8	2.1	1.7	1.7	1.7	1.7	1.7	1.7	1.8	1.7	1.7	1.8	1.8	1.8	2	1.9	2.3	1.8	24
7	1.8	**IZS**	1.8	2.2	1.9	2.5	2.3	1.8	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.8	1.7	1.7	1.7	1.7	3.5	4.3	2.6	6.1	6.1	2.2	24
8	**IZS**	6.1	7.1	3.2	3.7	4.3	4.1	2	1.8	1.7	1.7	1.7	1.8	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	7.1	3.3	13
9	**N**	**N**	**N**	**N**	**N**	**N**	**C**	**C**	**IZS**	1.7	1.7	1.7	1.6	1.8	1.7	1.6	1.6	1.6	1.6	3.5	2.8	2	**IZS**	1.8	3.5	1.9	18
10	3	4.3	3.3	4.2	3.2	2.2	2.1	1.9	1.8	1.8	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	2.1	4.2	**IZS**	4.9	4	4.9	2.5	24
11	4.8	8	3	2.7	2.5	4.1	2.7	2.5	2.3	2.1	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.8	1.8	1.7	**IZS**	5.5	3.3	3.4	8	2.8	24
12	7.5	9.6	4.5	3.1	2.7	2.7	2.4	2.2	2.3	2	1.8	1.7	1.6	1.8	1.6	1.6	1.6	1.6	2.2	**IZS**	3.7	3.7	4.1	2.8	9.6	3.0	24
13	2.5	2.4	3.1	3.2	4.9	2.9	2.5	1.9	1.8	1.7	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	**IZS**	1.8	4	4.7	4	2.5	4.9	2.5	24
14	2.5	4	3.5	6.2	3.9	3.6	2.6	1.9	2	2	2	2	1.8	1.8	1.8	1.7	1.6	**IZS**	2	1.8	1.6	1.7	1.7	1.6	6.2	2.4	24
15	1.7	1.7	3.9	3	3.7	2.1	1.9	1.8	1.8	1.6	1.6	1.7	1.7	1.7	1.7	1.7	**IZS**	1.8	2.3	1.7	1.7	1.7	1.7	1.7	3.9	2.0	24
16	2.2	2.2	4.9	5.7	1.6	1.6	1.8	1.8	1.8	1.7	1.7	1.7	1.6	1.6	1.6	**IZS**	1.6	1.6	1.7	2.8	2.2	2.3	1.9	4.7	5.7	2.3	24
17	5.8	3.1	4.8	3.2	3.3	4.6	3	1.7	1.7	1.8	1.7	1.7	1.6	1.6	**IZS**	1.6	1.6	1.8	1.7	1.7	2.9	3.8	3.3	3.4	5.8	2.7	24
18	4.7	5.8	5.5	3	4.6	4	2.1	1.9	1.9	1.9	1.8	1.8	1.8	**IZS**	1.7	1.7	1.7	1.9	1.7	1.7	1.8	1.8	1.7	1.7	5.8	2.5	24
19	1.7	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.7	1.7	1.7	1.7	**IZS**	1.6	1.6	1.6	1.6	1.6	1.7	1.6	1.6	1.6	1.6	1.7	1.8	1.7	24
20	1.6	1.6	1.6	1.7	1.7	1.9	2	1.7	1.6	1.6	1.6	**IZS**	1.6	1.6	1.7	1.7	1.7	1.7	1.9	1.9	2.2	2.6	2.6	3.2	3.2	1.9	24
21	3.5	4.1	1.9	1.9	2.2	4.1	2.1	2.1	2.5	2.2	**IZS**	1.7	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.7	1.8	2.5	2.1	2.9	4.1	2.2	24
22	4.2	3.3	2.9	2.9	2.8	3	2.4	2.2	2	**IZS**	2.1	1.8	1.7	1.7	1.7	1.8	1.8	1.8	1.7	2.5	3.2	5	3.3	3	5	2.6	24
23	3.6	4	3.9	4	3.7	3.6	3	2.2	**IZS**	2.1	2.5	2.4	1.9	1.9	1.7	1.7	1.7	1.7	1.7	2	2.3	2.4	2.4	2.1	4	2.5	24
24	1.8	1.8	1.7	1.6	1.8	1.8	1.9	**IZS**	1.9	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	2.2	2.5	1.9	1.9	2.5	1.8	24
25	2	4.2	4.4	6.3	2.4	2	**IZS**	1.8	1.7	1.7	1.7	1.7	1.7	1.7	1.6	1.7	1.7	1.7	1.7	1.8	3.1	6.1	4.7	4.7	6.3	2.7	24
26	4.2	5.9	4.2	3.6	3.6	**IZS**	2.8	2.1	2	1.6	1.6	**BB**	**BB**	**BB**	**BB**	**BB**	**BB**	**BB**	**BB**	1.6	1.6	1.6	1.9	1.8	5.9	2.7	16
27	1.9	2.2	2.1	1.8	**IZS**	1.7	1.7	1.6	1.6	1.6	1.5	1.5	1.5	1.5	1.5	1.5	1.8	1.5	1.5	1.5	1.6	1.6	1.6	2	2.2	1.7	24
28	3	2.2	5.8	**IZS**	2.7	3.1	2.1	2.1	1.9	1.8	1.6	1.6	1.6	1.5	1.5	1.5	1.5	1.5	1.5	2.7	2.7	3.5	3.4	5.7	5.8	2.5	24
29	3.3	6.6	**IZS**	5.4	2	2.3	2.3	2.1	2	1.7	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.8	6.6	2.1	24
30	1.7	**IZS**	1.5	1.5	1.6	1.5	1.6	1.5	1.5	1.6	1.6	1.5	1.6	1.6	2.5	1.5	1.5	1.5	1.5	2.7	1.8	1.6	1.7	3.6	3.6	1.7	24
31	**IZS**	2.9	2.6	2.9	2.8	2.7	1.8	1.7	1.6	1.5	1.5	1.5	1.5	1.5	1.6	1.6	1.6	1.6	1.6	1.5	1.5	1.6	1.5	IZS	2.9	1.8	24
HOURLY MAX	8	10	7	14	5	5	4	3	3	2	3	2	2	2	3	2	4	2	2	4	4	6	5	6			
HOURLY AVG	3.1	3.8	3.4	3.8	2.9	2.8	2.3	2.0	1.9	1.8	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	2.0	2.4	2.9	2.7	3.1			

STATUS FLAG CODES

S	- OUT OF SERVICE	IZS	- IZS - DAILY ZERO/SPAN CHECK
N	- INVALID DATA	M	- MAINTENANCE
D	- INSTRUMENT DRIFT	P	- POWER FAILURE
C	- CALIBRATION	NA	- NOT APPLICABLE
BB	- BELOW BACKGROUND OF 1.5 PPM		

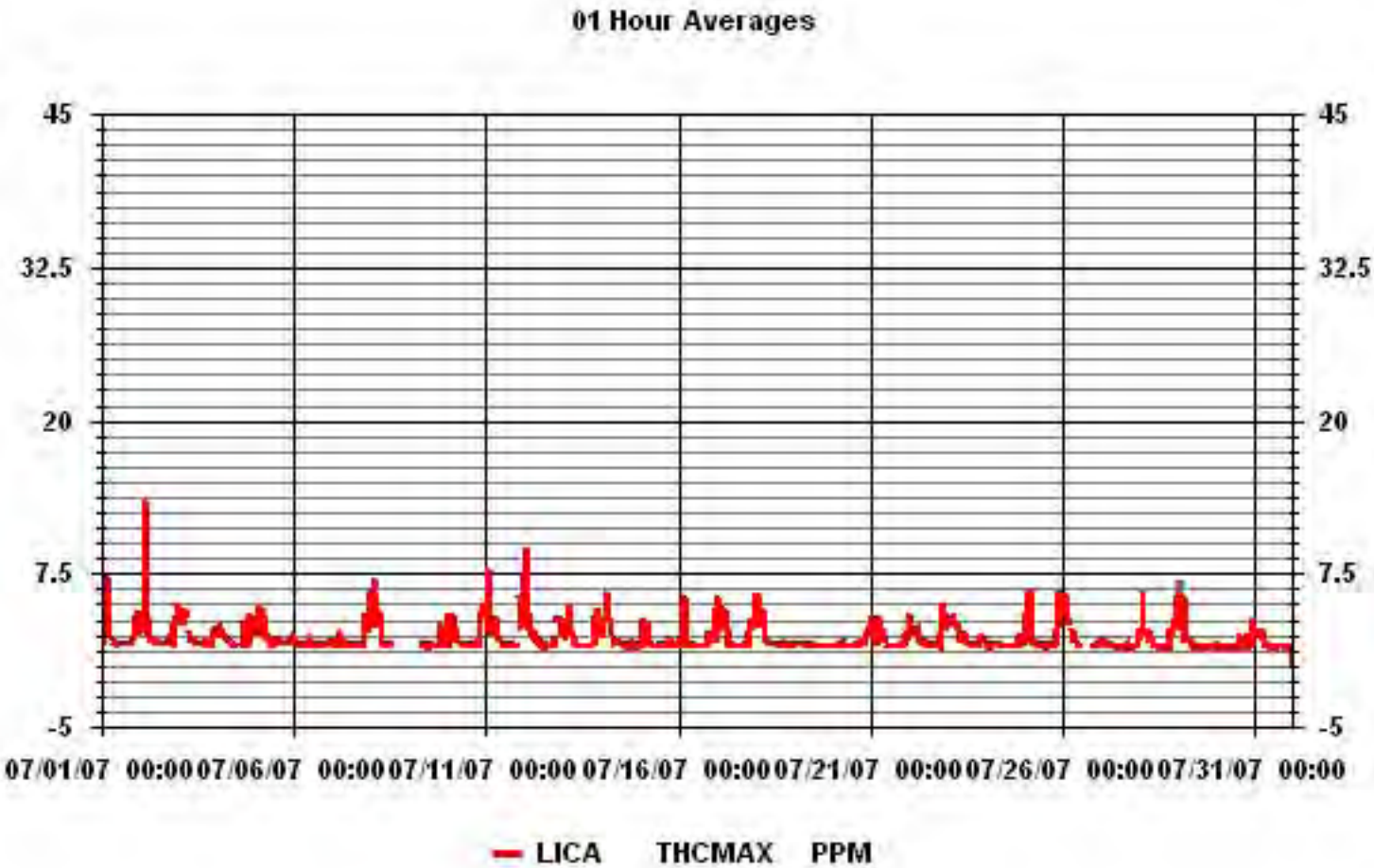
MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	679					
MAXIMUM INSTANTANEOUS VALUE:	13.6	PPM	@ HOUR(S)	4	ON DAY(S)	2

IZS CALIBRATION TIME:	34	HRS	OPERATIONAL TIME:	719	HRS
MONTHLY CALIBRATION TIME:	5	HRS			
STANDARD DEVIATION:	1.18				

MOUNTAIN STANDARD TIME

Maxxam Analytics Inc


01 Hour Averages
45
32.5
20
7.5
-5
07/01/07 00:00
07/06/07 00:00
07/11/07 00:00
07/16/07 00:00
07/21/07 00:00
07/26/07 00:00
07/31/07 00:00
LICA THCMAX PPM

PARTICULATE MATTER 2.5

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - *COLD LAKE*

JULY 2007

PARTICULATE MATTER 2.5 (PM2.5) hourly averages in ug/m^3

HOUR START	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	24-HOUR	
HOUR END	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	0:00	MAX.	AVG.	RDGS.
DAY																											
1	0	4.3	0	2.1	4.4	5	7.6	0.2	**D**	0.9	**D**	0	0	2.1	1.5	**D**	0	2.1	2.2	5.2	8.6	0	0	0.7	8.6	2.2	21
2	0	0.7	0.3	2.6	6.3	16.1	0	5.6	6.9	**D**	9	2.3	3.4	7.9	6.8	**D**	7.7	17.4	0.8	2.4	1.8	5.6	0	0	17.4	4.7	22
3	0.2	0.8	1	6.6	9.1	13.7	6.2	9.8	7	3.7	**D**	1.6	1.1	6.2	1.8	6.1	14.2	4.1	9	13.7	7.4	3.3	1.3	2	14.2	5.6	23
4	3.2	0	0.1	1.7	4.1	7.8	7.8	6.2	**M**	**C**	**C**	**C**	**C**	**C**	**C**	**C**	1.9	3.1	2.3	7.5	15.8	0.7	0	0	15.8	3.9	24
5	0	0	0	0.4	8.2	20.5	6.3	4.4	5.8	6.3	0	0	3.9	12.4	12.1	0	13.5	17.7	12	9.3	7.8	6.8	2.2	0	20.5	6.2	24
6	0.1	10.3	0	4.9	5.3	1	0	0	2	4	1	C	C	**D**	0	1.7	0	0.3	0.8	2.9	**D**	0	1.6	1.2	10.3	1.9	22
7	0	0	0	3.7	7.1	3.1	5.3	5.7	0	0.9	0	1	0	0	0.7	2	10.1	10.4	3.7	6.4	8.3	0.1	0.9	2.3	10.4	3.0	24
8	3.2	1.4	1.7	4.5	5.1	14.5	8.3	9.3	4.1	0.2	0	3.4	3.6	**P**	**P**	**P**	**P**	**P**	**P**	15.3	18	7.5	3.2	3	18.0	5.9	18
9	0.3	2.9	0	1.2	2.3	2.3	2.1	0.3	**D**	0	0	0	6	0	0	0	4.3	8	1.2	5.2	0	0	0	0.7	8.0	1.6	23
10	0	**D**	0	0.5	6.4	6.4	10.4	3.1	3.5	3.1	2.7	2.8	3.5	0.8	0.6	0.2	1.8	2.1	7.4	10.4	8.1	6.2	1.7	4.3	10.4	3.7	23
11	3.1	5.3	1.1	1	3.7	6.9	8.3	7.6	7.2	0	3	5.1	3.2	5.6	2.3	11.7	7	12.8	8.5	5.7	6.5	0	0	**D**	12.8	5.0	23
12	**D**	0	0	0.1	4.6	25.4	11.6	9	7.9	5.1	1.3	**D**	3.6	2.5	**D**	1.2	2.8	0	11.7	8.1	15.1	4.1	5.1	3.7	25.4	5.9	21
13	5.4	5.8	4.5	1.3	4.2	15	11.8	6.2	8.4	**D**	0	1	0	**D**	**D**	0	1.4	6.7	9.1	10.8	20.8	7.9	2.1	6.1	20.8	6.1	21
14	6.1	6.5	4	6.6	10.1	21.9	3.2	10.4	18.7	11.1	15.5	9.9	**D**	**D**	10.9	**D**	0.8	28	18.7	1.9	14.4	0	2.8	2.2	28.0	9.7	21
15	0.6	**D**	**D**	0	0	19.7	3.9	7.2	2.8	6	9	15.2	12.8	12.6	6	2.8	14.7	12.9	**30.3**	21.7	9.1	3.1	5.8	8.9	30.3	9.3	22
16	5.8	1.9	3.4	**D**	0	4.5	3.6	2.6	**C**	**C**	**C**	**C**	**C**	0	0	0.6	0	1.7	5.3	6.7	7.2	6.6	3.9	2.4	7.2	3.1	23
17	0.9	2.7	1.3	1	2.6	7.6	9.1	6.4	7.3	6.6	6.5	6	8.5	6.7	5.3	8.6	6.1	10.3	8.3	1.6	5.6	3.9	4.6	4.5	10.3	5.5	24
18	4.4	4.6	4.2	3.5	5.8	12	9	9	9.1	8.3	7.1	8.8	7.7	7.1	5.7	5.5	7.4	7.1	8	3.8	6.7	5.4	6.7	9	12.0	6.9	24
19	8.8	10.3	9.7	9.5	10.2	10.9	11.9	13.4	13.6	14.2	15.1	11.8	10.8	10.9	14.1	16.1	15.1	12.8	11.7	15.9	13.2	11	10.3	9.5	16.1	**12.1**	24
20	11.5	10.1	8.2	11.7	13	11.8	14.6	0.1	0	0	0	**D**	0	0	0	0.9	0.4	1.6	5.1	7	8	4.5	2.3	3.7	14.6	5.0	23
21	4.4	0	8.5	6.4	5.8	8.5	10.5	12.3	8.7	7.3	5.9	0	**D**	0	0	0.4	0	0	1.7	1	5.7	2.2	1.9	1.3	12.3	4.0	23
22	1.7	1.9	6	1.7	2	3.3	4.6	0	4.4	3.2	1.5	2.6	2.6	1.8	3.6	3.7	4.2	0.4	1.9	9.5	10.6	3.2	4.8	2.6	10.6	3.4	24
23	3.7	4.3	2.9	3.9	3.3	12.2	9	5.5	5.3	6.4	10.3	7.3	2	0	0	0	2.3	2.3	3.1	15.7	12.1	7.7	2.2	12.3	15.7	5.6	24
24	6.2	3.9	2.1	2.8	0.9	2.6	5.1	6.8	4.2	0	1.6	0.9	**D**	0	0	**D**	0	0	0	0.2	0.6	0	0	1.3	6.8	1.8	22
25	0	0	0	0.4	0	0	0	3	2.2	2.4	1.6	0	0	0.3	0	0	0	0	2.4	2.6	4.2	2	1.1	0.9	4.2	1.0	24
26	0.4	0.3	1.5	0	0.6	8.7	3.5	7.3	7.8	2.3	0.8	0	0	0	3.7	5.6	4.6	3.9	8.1	8.3	6.6	5	5	3.9	8.7	3.7	24
27	2.7	4	1.9	2.8	2.3	3.2	5.4	3.4	4.9	6	5.8	5.5	9	7.1	8.5	10.2	11.1	1.9	10.6	7.1	14	8.7	8.4	4.8	14.0	6.2	24
28	2.7	3	2.6	2.3	11.5	9	12.9	12.6	12.6	9.3	7.2	5.3	10.7	0	4.4	2.7	5.6	3.9	11.2	12	9.4	10.6	11.5	15.6	15.6	7.9	24
29	14.7	15.3	12.8	14.8	11.1	10.6	10.4	5.6	10.3	3.2	3.9	10.4	9.2	12.6	**D**	6.9	9.4	4	8.4	3.8	6.6	6.9	7.2	9.7	15.3	9.0	23
30	11.6	0	5.1	1.6	3.5	0	6.4	0.4	4.6	2.9	3.2	0.6	6.9	4	0	6.6	0.1	4.5	9.7	11.9	0.9	2.3	0.4	0	11.9	3.6	24
31	**D**	**D**	**D**	**D**	0	0	0	2.8	0.5	**D**	0.3	0	**D**	0.2	0.3	0	0	1.8	1.4	0	0	0	0	0	2.8	0.4	18
HOURLY MAX	15	15	13	15	13	25	15	13	19	14	16	15	13	13	14	16	15	28	30	22	21	11	12	16			
HOURLY AVG	3.5	3.6	2.9	3.4	5.0	9.2	6.7	5.7	6.3	4.4	4.2	3.9	4.5	3.9	3.4	3.7	4.9	6.1	7.2	7.5	8.4	4.0	3.1	3.9			

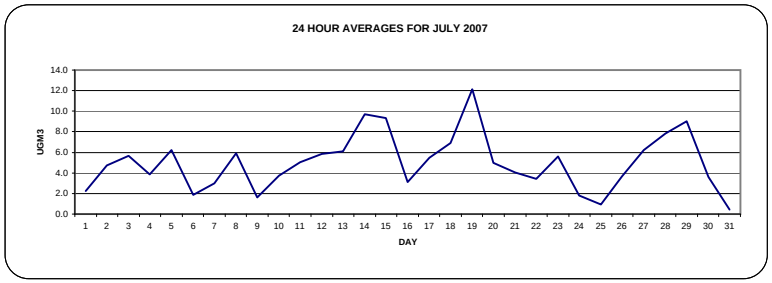
STATUS FLAG CODES

S	- OUT OF SERVICE	IZS	- IZS - DAILY ZERO/SPAN CHECK
N	- INVALID DATA	M	- MAINTENANCE
D	- INSTRUMENT DRIFT	P	- POWER FAILURE
C	- CALIBRATION	NA	- NOT APPLICABLE

OBJECTIVE LIMIT: **ALBERTA ENVIRONMENT:** 1-HR - PPB 24-HR 30 PPB

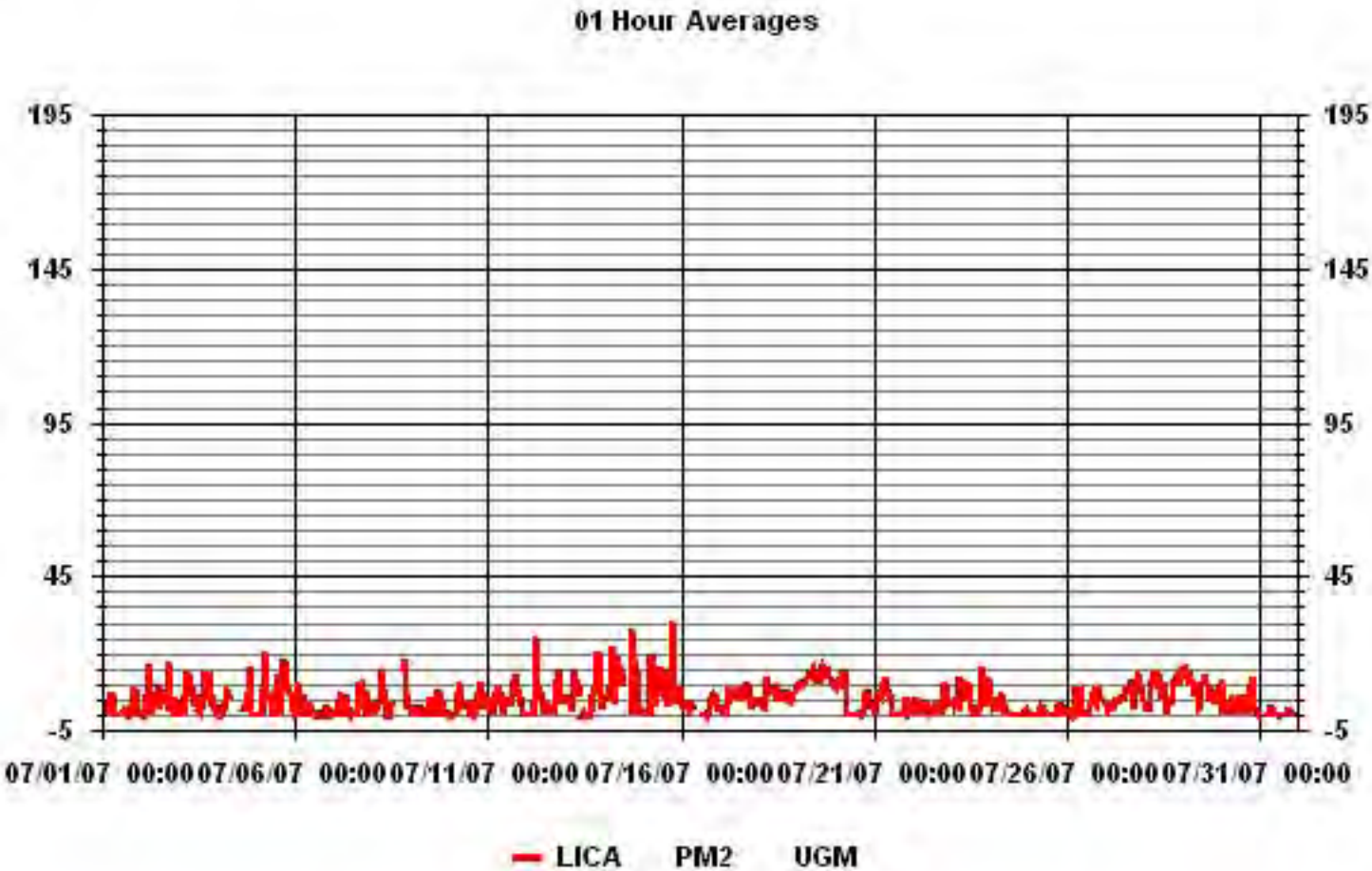
MONTHLY SUMMARY

NUMBER OF 1-HR EXCEEDENCES:	-					
NUMBER OF 24-HR EXCEEDENCES:	0		PROPOSED GUIDELINE			
NUMBER OF NON-ZERO READINGS:	570					
MAXIMUM 1-HR AVERAGE:	30.3	UG/M^3	@ HOUR(S)	19	ON DAY(S)	15
MAXIMUM 24-HR AVERAGE:	12.1	UG/M^3			ON DAY(S)	19



IZS CALIBRATION TIME:	0	HRS	OPERATIONAL TIME:	704	HRS
MONTHLY CALIBRATION TIME:	14	HRS	AMD OPERATION UPTIME:	94.6	%
STANDARD DEVIATION:	4.81		MONTHLY AVERAGE:	5.03	UG/M^3

MOUNTAIN STANDARD TIME


01 Hour Averages
195
145
95
45
-5
07/01/07 00:00
07/06/07 00:00
07/11/07 00:00
07/16/07 00:00
07/21/07 00:00
07/26/07 00:00
07/31/07 00:00
LICA PM2 UGM

LICA
PM2 / WD Joint Frequency Distribution (Percent)

July 2007

Distribution By % Of Samples

Logger Id : 01
Site Name : LICA
Parameter : PM2
Units : UG/M3

Wind Parameter : WD
Instrument Height : 10 Meters

Direction

Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
< 30.0	3.19	2.32	4.06	3.33	4.64	10.44	14.65	4.35	3.04	4.64	9.72	13.20	12.77	3.77	2.90	2.75	99.85
< 60.0	.00	.00	.00	.14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.14
< 80.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
< 120.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
< 240.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
>= 240.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
Totals	3.19	2.32	4.06	3.48	4.64	10.44	14.65	4.35	3.04	4.64	9.72	13.20	12.77	3.77	2.90	2.75	

Calm : .00 %

Total # Operational Hours : 689

Distribution By Samples

Direction

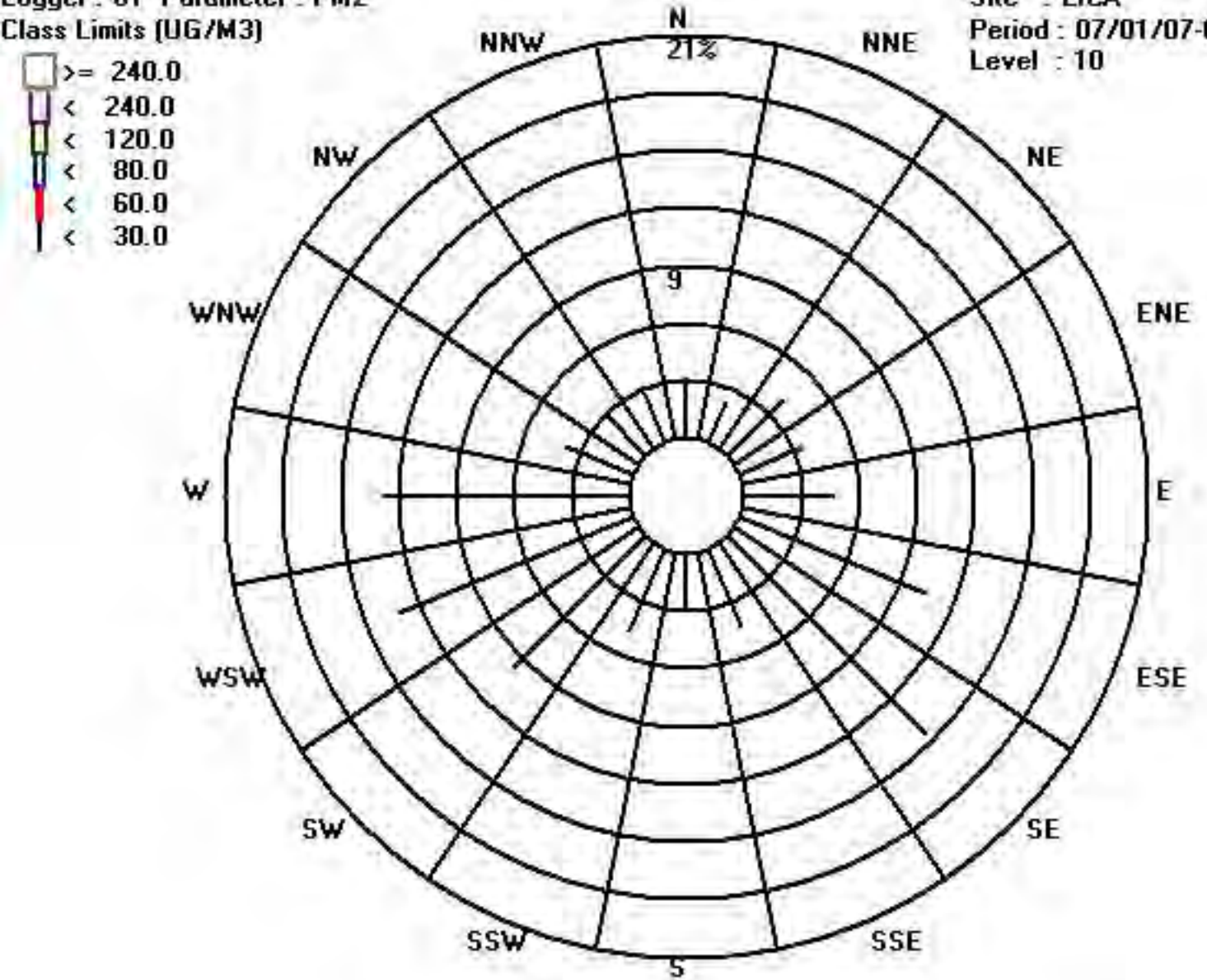
Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
< 30.0	22	16	28	23	32	72	101	30	21	32	67	91	88	26	20	19	688
< 60.0				1													1
< 80.0																	
< 120.0																	
< 240.0																	
>= 240.0																	
Totals	22	16	28	24	32	72	101	30	21	32	67	91	88	26	20	19	

Calm : .00 %

Total # Operational Hours : 689

Logger : 01 Parameter : PM2
Class Limits (UG/M3)

Site : LICA
Period : 07/01/07-07/31/07
Level : 10



LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - *COLD LAKE*

JULY 2007

PARTICULATE MATTER 2.5 MAX instantaneous maximum in ug/r^3

HOUR START	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	24-HOUR	
HOUR END	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	0:00	MAX.	AVG.	RDGS.
DAY																											
1	2	12.2	7.9	12.6	13.2	18.6	20.7	9.7	**D**	13.3	**D**	17.2	13.2	10.5	9.7	**D**	9.1	10.6	13.4	13.3	25.7	7.7	4.3	5.8	25.7	11.9	21
2	1.9	3.2	2.4	5.2	12.3	26.1	26.2	15.1	13.7	**D**	23.8	15.7	32	22.3	21.2	**D**	24.4	28	30.9	18.6	10.5	15	6.8	1.7	32	16.2	22
3	2.8	4.2	2.7	15.2	16.7	21.2	13.2	16	15.6	23.5	**D**	12.7	19.8	18.3	14.7	23.4	25.5	33.7	25.3	20.7	12.3	6.7	6.2	5	33.7	15.5	23
4	11.4	4.2	2.3	5.7	8.9	11.2	13.5	16.1	**M**	**C**	**C**	**C**	**C**	**C**	**C**	**C**	17	22.7	13.3	27.2	33.6	23.9	7.2	0	33.6	13.6	24
5	1.6	2.7	3.7	3.8	25.5	33	33	16	17.6	28	22.1	24.8	30.5	30.9	34.1	19.9	24.9	30.8	24.5	18	15.5	10	5.5	3.2	34.1	19.2	24
6	3.9	49.7	31	15	10.8	7.1	8.8	9	15.1	20.5	28.1	**C**	**C**	**D**	17.6	18.2	19.7	18.8	13.2	13.8	**D**	4.2	4.9	5.5	49.7	15.7	22
7	4.9	4.9	7.1	8.3	9.8	6.4	13.5	14.5	14.5	16.1	15.8	19.4	7.6	15.1	13.6	17.4	39.2	26.5	13.5	14.2	21.5	10.5	9.2	6.5	39.2	13.8	24
8	8.2	6.4	3.9	13	14.6	22.6	19.4	15.5	12.7	12.2	13.2	20.3	14.6	**P**	**P**	**P**	**P**	**P**	**P**	39.7	29.1	14.5	5.6	7.7	39.7	15.2	18
9	3	5.5	3.7	4.5	12.2	23.7	5.5	10.1	**D**	13.2	8	5.9	24.1	16.1	10.9	7.5	16	36.3	8.4	17.1	7.7	1.7	3	2.5	36.3	10.7	23
10	2.7	**D**	1.6	3.8	11	20.8	24.7	13.3	12.6	20.9	21.6	19.1	15.5	15.3	14.1	8.1	10.7	14.3	16.3	29.2	43	21.7	11.4	14.4	43	15.9	23
11	7.7	10.7	5.3	4.4	8	11.6	15.6	16	14.3	15.4	19.9	23.7	18.8	23.7	16.5	34	22.6	25	20.5	26.9	22.4	5.7	4.8	**D**	34	16.2	23
12	**D**	0.3	6.1	3.5	12.4	44.5	28.5	28.1	21.9	23.2	23.9	**D**	17	23.1	**D**	23.3	19.4	16.6	31	31.4	34.1	16.7	8.5	5.5	44.5	20.0	21
13	7.2	8.1	7.1	8.3	16.1	35.7	18	26.4	30.2	**D**	29.7	29	20.6	**D**	**D**	17.3	15.8	19.6	26.4	**91.9**	74.3	32.4	15.4	15.5	91.9	26.0	21
14	14	11.9	8.3	10	18.4	42.1	25.4	22.5	37.1	35.4	47.5	41.5	**D**	**D**	38.4	**D**	21.6	40.4	34.9	83.2	86.5	5.6	10.4	5.9	86.5	30.5	21
15	8.1	**D**	**D**	4.9	5.7	39.2	25	35.7	24.4	17	23.3	26.1	37.6	31.9	36.2	62.9	63	56.8	57.2	36.2	16.4	5.7	9.4	11.7	63	28.8	22
16	13.9	9.9	13.3	**D**	24.1	23.9	6.6	13.2	**C**	**C**	**C**	**C**	**C**	2.8	2.4	3.8	6.4	4.3	10	13.1	13.6	10.2	9.2	4.5	24.1	10.3	23
17	3.3	4.4	4.4	3.3	4.4	10.4	14.2	8.7	10.9	10.8	9.8	9.6	14.7	11.4	13	13.7	10.5	18.1	18.8	4.3	13.1	7.7	8.3	7.1	18.8	9.8	24
18	7	6.4	7.6	6	9	15.7	14.5	12.7	12.6	14	12.7	12.1	13.6	14	12	10	12.1	10	11.4	8.3	9.6	7.6	9.3	11.1	15.7	10.8	24
19	10.5	13.4	11.8	12.2	13.6	13.1	14.2	17.7	17.7	18.8	19.8	21.6	21.8	19.5	19.1	21.7	23	16.7	15.8	22.8	20.8	15.3	14.9	14.2	23	17.1	24
20	15.9	14.5	11	17.8	17.5	17.1	23.3	13.5	8	6.7	4.1	**D**	4.8	5	6.9	7.7	7.4	10.6	22.6	16.3	13.3	8.9	5.9	8	23.3	11.6	23
21	9.2	7.7	16.2	11.7	9.3	15.3	21.3	27.7	19.8	18	19.1	6.1	**D**	8.9	7.7	10.9	7.2	5	6	6.7	10.6	6.2	6.9	4.8	27.7	11.4	23
22	5	6.4	12	6.8	5.4	8.3	10.5	12.4	11.9	8.2	10.1	10.5	9.3	9.9	13.1	12	13.1	6.9	8.7	23.7	26.9	7.8	9.3	5.4	26.9	10.6	24
23	8.3	8	5.1	6.8	6.2	18.2	19.9	15.4	15	16.9	20.5	17.7	15.6	13.7	5.6	6.9	13.2	17.6	12.8	23.2	20.2	12.1	14.1	30.4	30.4	14.3	24
24	27.7	16	13	15.1	8.3	7.8	16.3	18.3	15.5	10.7	10.5	10.7	**D**	9.5	10.8	**D**	8.3	5.6	4.8	4.8	7.8	5.7	3.6	4.3	27.7	10.7	22
25	1.2	1.9	0.6	2.7	2.8	2.5	2.9	8.6	6.8	7.7	8	6	5.3	5.3	6.3	7.8	7.4	5.6	6.6	6.4	10.3	8.9	3.9	4.2	10.3	5.4	24
26	2.9	2.9	3.9	2.3	4	15.8	11.7	11.3	11.6	12	16.9	8.2	7.1	7	11.6	13.2	11.9	12.9	14.5	12.5	9.5	7.5	8.6	6.7	16.9	9.4	24
27	6.8	7.9	6.6	4.9	6.7	6.5	9	6.7	15.2	11.2	12	14.9	13.5	17.4	16.8	21	22	15.6	15.3	13.5	24.4	12.6	11.8	7.2	24.4	12.5	24
28	5.6	6.3	4.8	7.1	17	13.3	19.1	18.6	17.6	23.7	21.8	22.6	36.2	21	14.7	16.8	18	13.2	19.6	31.9	20.3	23.4	18.5	20.9	36.2	18.0	24
29	18.5	20.5	19.1	23.2	19.1	14.2	21.7	13.2	21.7	21.2	17	33.5	19	31.9	**D**	20.6	19.5	15.1	14.4	8.5	10.5	10.9	10.4	16	33.5	18.2	23
30	18.7	4.5	14.9	9	8.3	11	12.1	9.4	13.3	11.1	11.4	13	13.8	11.4	15.4	19	24.1	16.1	21	18.2	15.1	14.1	10.6	7.1	24.1	13.4	24
31	**D**	**D**	**D**	**D**	2.3	7.5	4.2	11.7	13.1	**D**	11.6	10.3	**D**	13.9	6.8	5.6	6.2	26	21.5	7.8	0.1	0.1	2.9	2.1	26	8.5	18
HOURLY MAX	28	50	31	23	26	45	33	36	37	35	48	42	38	32	38	63	63	57	57	92	87	32	19	30			
HOURLY AVG	8.1	9.1	8.2	8.5	11.4	18.2	16.5	15.6	16.3	16.5	17.9	17.4	17.8	15.8	15.0	16.9	18.0	19.3	18.4	22.7	22.0	11.0	8.4	8.2			

STATUS FLAG CODES

S	- OUT OF SERVICE	IZS	- IZS - DAILY ZERO/SPAN CHECK
N	- INVALID DATA	M	- MAINTENANCE
D	- INSTRUMENT DRIFT	P	- POWER FAILURE
C	- CALIBRATION	NA	- NOT APPLICABLE

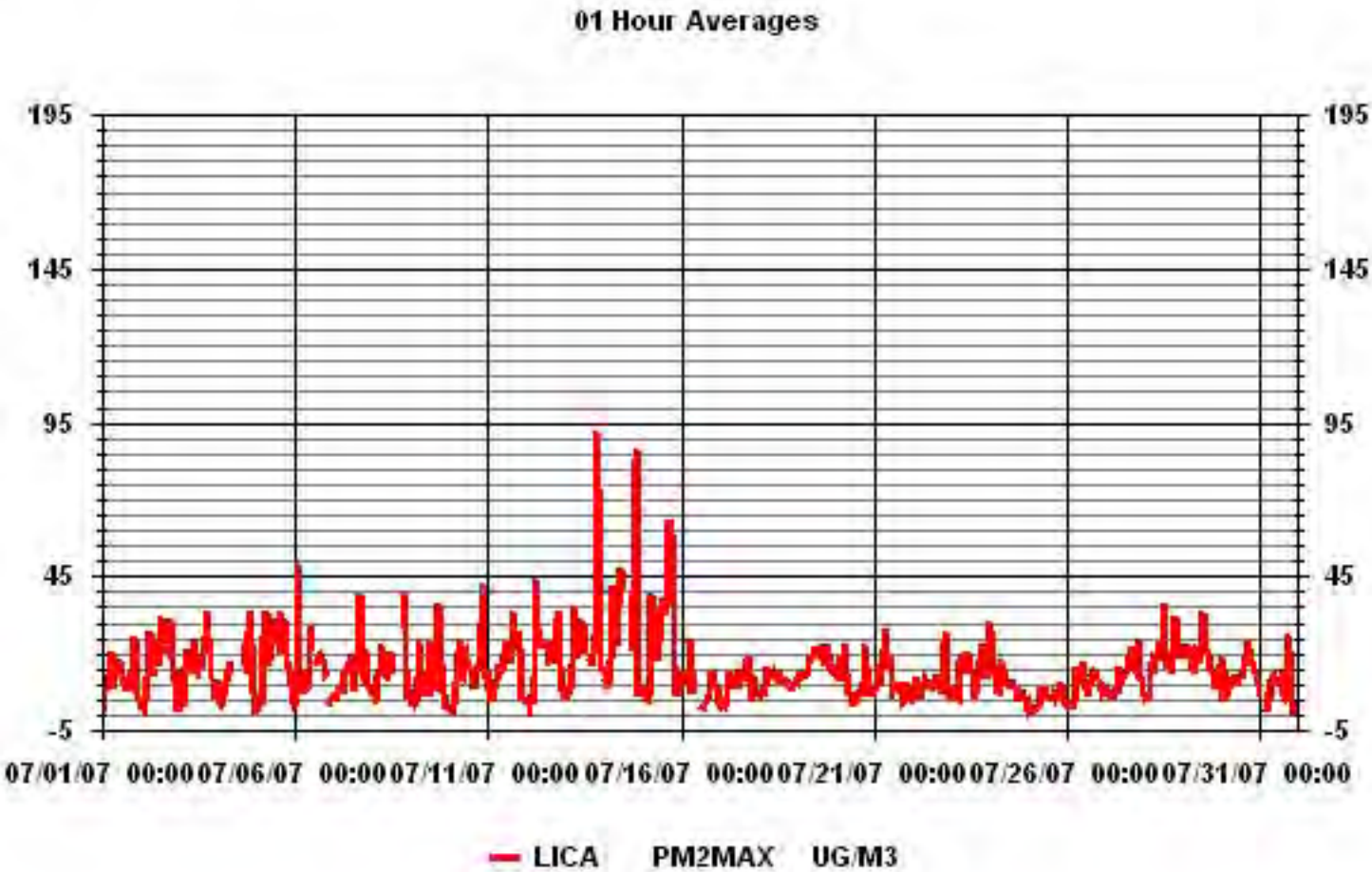
MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	688					
MAXIMUM INSTANTANEOUS VALUE:	91.9	UG/M^3	@ HOUR(S)	20	ON DAY(S)	13

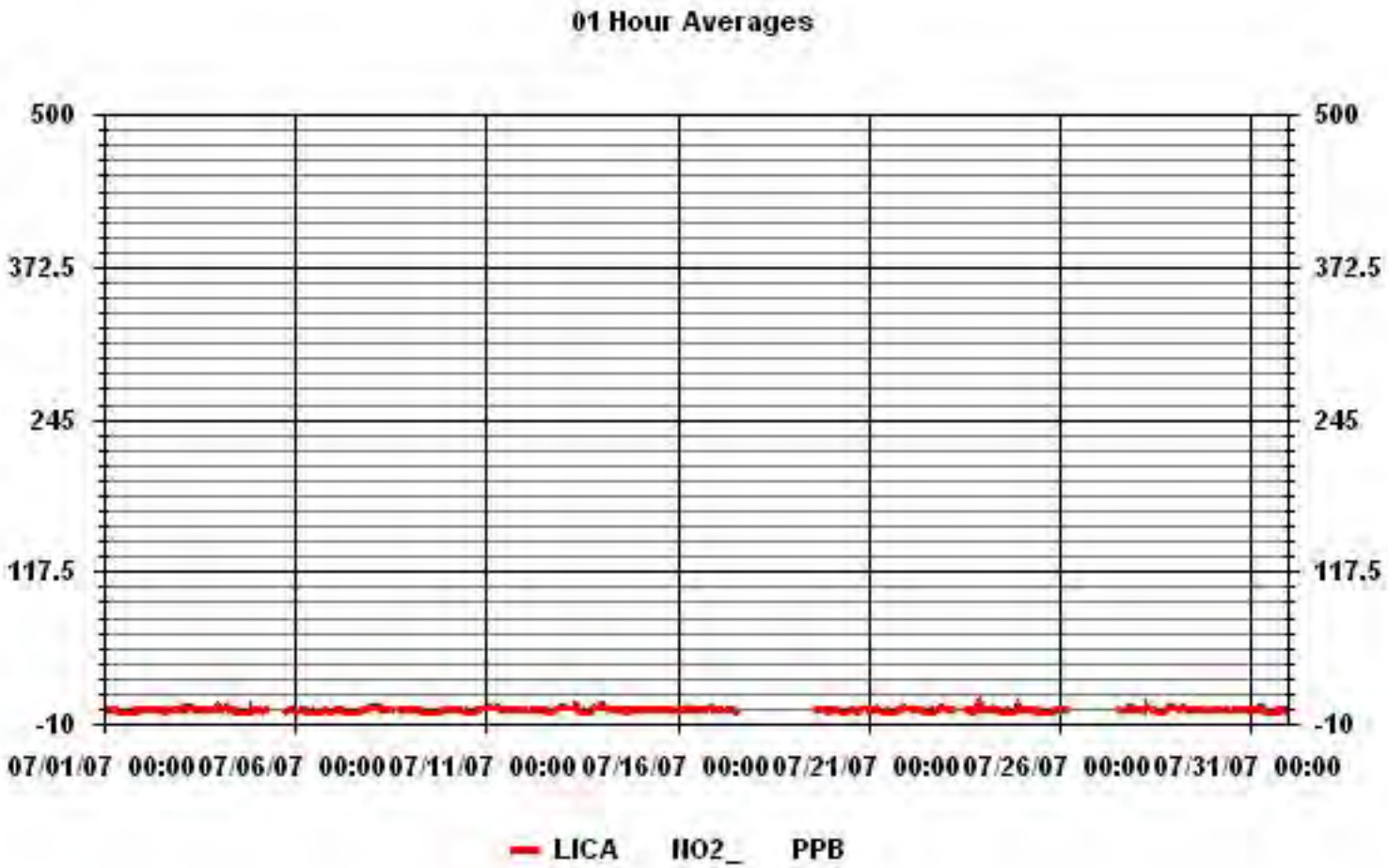
IZS CALIBRATION TIME:	0	HRS	OPERATIONAL TIME:	704	HRS
MONTHLY CALIBRATION TIME:	14	HRS			
STANDARD DEVIATION:	10.64				

MOUNTAIN STANDARD TIME

Maxxam Analytics Inc


01 Hour Averages
195
145
95
45
-5
07/01/07 00:00
07/06/07 00:00
07/11/07 00:00
07/16/07 00:00
07/21/07 00:00
07/26/07 00:00
07/31/07 00:00
LICA PM2MAX UG/M3

NO_2


01 Hour Averages
500
372.5
245
117.5
-10
07/01/07 00:00
07/06/07 00:00
07/11/07 00:00
07/16/07 00:00
07/21/07 00:00
07/26/07 00:00
07/31/07 00:00
LICA NO2_ PPB

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - *COLD LAKE*

JULY 2007

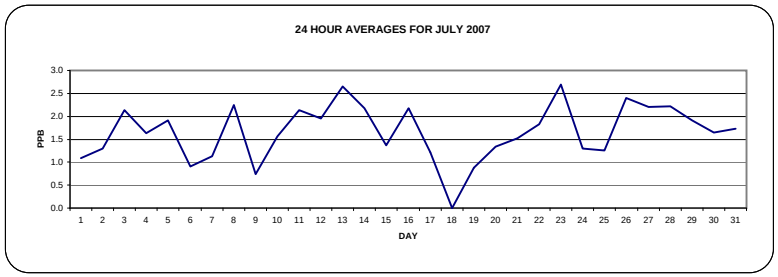
NITROGEN DIOXIDE hourly averages in ppb

HOUR START	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	24-HOUR	
HOUR END	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	0:00	MAX.	AVG.	RDGS.
DAY																											
1	1	1	2	3	2	2	2	IZS	2	1	0	0	0	0	0	0	0	0	0	0	2	3	2	2	3	1.1	24
2	2	2	2	1	1	2	IZS	1	1	1	1	1	1	1	1	0	1	1	2	1	2	2	2	1	2	1.3	24
3	1	1	1	4	4	IZS	5	4	4	2	1	1	1	1	1	1	1	1	1	1	2	2	3	6	6	2.1	24
4	4	2	3	3	IZS	4	4	2	M	1	1	0	0	0	0	0	1	0	0	0	4	2	3	2	4	1.6	24
5	2	3	2	IZS	1	2	2	C	C	C	C	C	C	C	C	C	C	IZS	1	2	2	3	2	1	3	1.9	24
6	2	1	IZS	2	1	1	1	1	0	1	2	1	1	0	0	0	0	1	1	1	1	2	1	0	2	0.9	24
7	1	IZS	2	1	1	2	2	1	0	0	0	0	0	0	0	0	0	1	1	1	1	3	5	4	5	1.1	24
8	IZS	5	5	4	3	4	4	2	1	1	1	1	1	P	P	P	P	P	P	1	1	1	1	IZS	5	2.3	18
9	2	2	1	1	1	1	3	2	0	0	0	0	0	0	0	0	0	0	0	0	1	1	IZS	2	3	0.7	24
10	1	2	1	2	3	2	3	3	2	2	1	1	0	0	0	0	0	0	1	1	4	IZS	4	3	4	1.6	24
11	3	3	5	4	3	3	3	4	2	1	1	1	1	1	1	1	1	1	1	1	IZS	4	2	2	5	2.1	24
12	3	2	1	2	1	2	2	2	2	2	1	1	1	1	1	0	0	0	1	IZS	4	5	5	6	6	2.0	24
13	4	5	5	3	3	3	4	6	6	2	1	1	0	1	1	0	0	0	IZS	2	4	3	3	4	6	2.7	24
14	6	6	4	3	3	3	3	1	1	1	1	1	1	1	1	1	0	IZS	2	2	3	2	2	2	6	2.2	24
15	2	2	3	1	1	N	1	1	1	1	1	1	1	1	1	1	IZS	2	2	2	2	1	1	1	3	1.4	24
16	2	1	2	2	2	2	2	4	2	2	1	1	1	1	1	IZS	2	2	3	3	5	5	2	2	5	2.2	24
17	2	2	2	1	1	1	2	1	1	1	1	1	1	0	IZS	N	N	N	N	N	N	N	N	N	2	1.2	15
18	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	NA	NA	0
19	N	N	N	N	N	N	N	C	C	C	C	C	C	C	C	IZS	1	1	1	1	1	1	1	0	1	0.9	17
20	1	1	1	1	1	1	2	1	0	1	0	IZS	C	C	1	1	1	0	1	2	3	3	3	3	3	1.3	24
21	3	1	1	1	1	3	1	1	2	1	IZS	2	1	0	0	0	0	0	1	1	3	4	4	4	4	1.5	24
22	3	3	3	2	2	3	2	1	1	IZS	1	0	0	1	0	1	1	0	1	2	4	3	4	4	4	1.8	24
23	3	3	2	2	2	4	C	C	C	C	C	C	C	IZS	1	1	1	0	1	3	6	8	4	2	8	2.7	24
24	1	1	1	1	1	3	5	IZS	3	1	1	1	0	0	1	1	0	0	0	0	1	5	2	1	5	1.3	24
25	2	1	2	3	3	3	IZS	2	1	1	1	0	0	0	0	0	0	0	0	1	3	2	2	2	3	1.3	24
26	2	3	3	2	2	IZS	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	3	2.4	6
27	N	N	N	N	N	N	C	C	C	C	C	C	C	IZS	1	1	2	1	2	3	5	4	2	1	5	2.2	18
28	1	2	2	IZS	4	2	6	3	3	2	1	1	1	1	0	0	0	0	1	3	3	5	5	5	6	2.2	24
29	5	4	IZS	3	5	4	3	2	1	1	1	1	1	1	1	1	1	1	2	2	1	1	1	1	5	1.9	24
30	1	IZS	2	1	1	2	2	1	1	1	1	1	2	1	1	2	3	2	2	2	2	2	3	2	3	1.7	24
31	IZS	4	3	2	2	5	5	4	2	0	0	0	0	0	0	0	1	1	0	1	2	3	3	IZS	5	1.7	24
HOURLY MAX	6	6	5	4	5	5	6	6	6	2	2	2	2	1	1	2	3	2	3	3	6	8	5	6			
HOURLY AVG	2.3	2.4	2.3	2.1	2.0	2.6	2.9	2.2	1.6	1.1	0.8	0.8	0.6	0.5	0.6	0.5	0.7	0.6	1.1	1.4	2.7	3.0	2.7	2.4			

STATUS FLAG CODES

S	- OUT OF SERVICE	IZS	- IZS - DAILY ZERO/SPAN CHECK
N	- INVALID DATA	M	- MAINTENANCE
D	- INSTRUMENT DRIFT	P	- POWER FAILURE
C	- CALIBRATION	NA	- NOT APPLICABLE

OBJECTIVE LIMIT: **ALBERTA ENVIRONMENT:** 1-HR 212 PPB | 24-HR 106 PPB



MONTHLY SUMMARY

NUMBER OF 1-HR EXCEEDENCES:	0					
NUMBER OF 24-HR EXCEEDENCES:	0					
NUMBER OF NON-ZERO READINGS:	504					
MAXIMUM 1-HR AVERAGE:	8	PPB	@ HOUR(S)	22	ON DAY(S)	23
MAXIMUM 24-HR AVERAGE:	2.7	PPB			ON DAY(S)	13,23

IZS CALIBRATION TIME:	33	HRS	OPERATIONAL TIME:	674	HRS
MONTHLY CALIBRATION TIME:	34	HRS	AMD OPERATION UPTIME:	90.6	%
STANDARD DEVIATION:	1.38		MONTHLY AVERAGE:	1.69	PPB

Maxxam Analytics Inc

MOUNTAIN STANDARD TIME

LICA
NO2_ / WD Joint Frequency Distribution (Percent)

July 2007

Distribution By % Of Samples

Logger Id : 01
Site Name : LICA
Parameter : NO2_
Units : PPB

Wind Parameter : WD
Instrument Height : 10 Meters

Direction

Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
< 50	3.63	2.47	3.79	3.79	3.63	6.27	11.38	4.45	3.30	5.61	9.90	12.87	16.17	5.77	3.96	2.97	100.00
< 110	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
< 210	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
>= 210	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
Totals	3.63	2.47	3.79	3.79	3.63	6.27	11.38	4.45	3.30	5.61	9.90	12.87	16.17	5.77	3.96	2.97	

Calm : .00 %

Total # Operational Hours : 606

Distribution By Samples

Direction

Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
< 50	22	15	23	23	22	38	69	27	20	34	60	78	98	35	24	18	606
< 110																	
< 210																	
>= 210																	
Totals	22	15	23	23	22	38	69	27	20	34	60	78	98	35	24	18	

Calm : .00 %

Total # Operational Hours : 606

Logger : 01 Parameter : NO2_

Class Limits (PPB)

>= 210

< 210

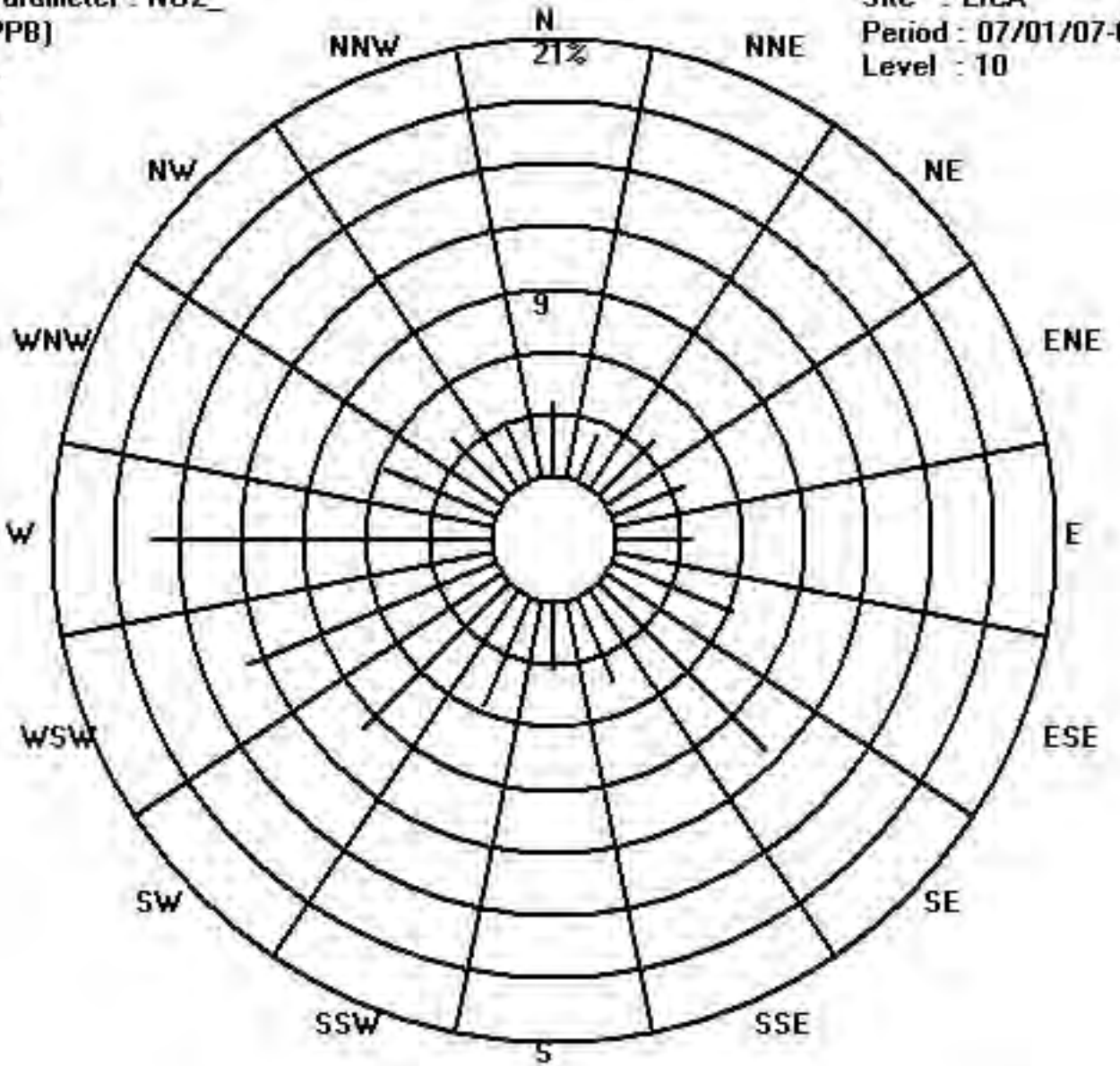
< 110

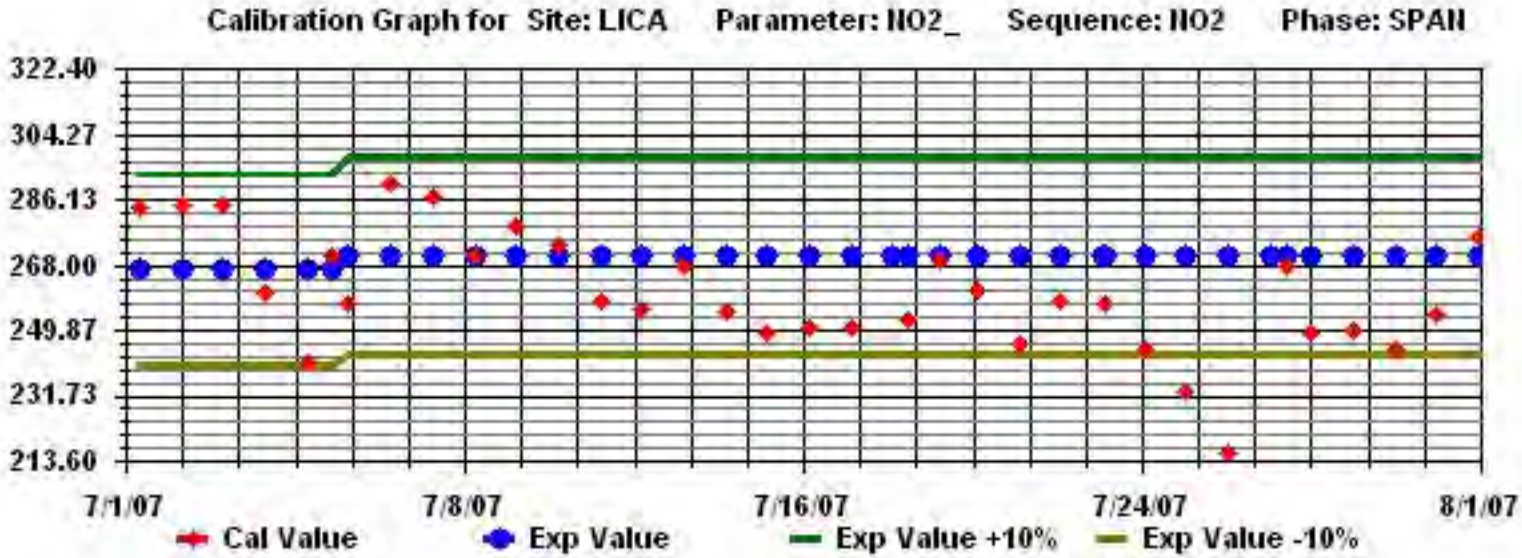
< 50

Site : LICA

Period : 07/01/07-07/31/07

Level : 10




Calibration Graph for Site: LICA Parameter: NO2_ Sequence: NO2 Phase: SPAN
322.40
304.27
286.13
268.00
249.87
231.73
213.60
7/1/07
7/8/07
7/16/07
7/24/07
8/1/07
Cal Value
Exp Value
Exp Value +10%
Exp Value -10%

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - *COLD LAKE*

JULY 2007

NITROGEN DIOXIDE MAX instantaneous maximum in pp

HOUR START	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	24-HOUR	
HOUR END	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	0:00	MAX.	AVG.	RDGS.
DAY																											
1	5	3	4	4	3	3	5	**IZS**	4	1	4	1	1	1	1	1	1	1	1	2	5	3	3	5	5	2.7	24
2	3	3	3	3	1	5	**IZS**	2	1	1	1	4	5	1	1	1	5	1	3	3	4	3	3	3	5	2.6	24
3	2	1	2	6	5	**IZS**	5	5	5	3	2	3	2	3	2	3	1	1	4	2	3	3	5	8	8	3.3	24
4	6	4	10	5	**IZS**	5	6	4	**M**	2	1	1	1	2	4	1	2	1	1	2	6	5	5	3	10	3.5	24
5	3	3	3	**IZS**	12	6	3	**C**	**C**	**C**	**C**	**C**	**C**	**C**	**C**	**C**	**C**	**IZS**	3	5	9	8	4	2	12	5.1	24
6	2	2	**IZS**	3	2	1	1	1	1	2	3	2	9	1	1	1	1	1	2	1	3	4	1	1	9	2.0	24
7	2	**IZS**	4	2	4	3	3	1	0	0	0	0	0	0	0	0	2	3	2	3	3	5	8	4	8	2.1	24
8	**IZS**	6	6	4	4	6	5	3	1	1	1	1	4	**P**	**P**	**P**	**P**	**P**	**P**	1	2	2	2	**IZS**	6	3.1	18
9	3	3	3	1	1	1	4	4	1	3	0	1	1	1	1	1	1	1	2	1	3	1	**IZS**	4	4	1.8	24
10	3	4	2	3	3	3	4	5	3	3	2	1	2	7	1	0	1	1	1	2	6	**IZS**	5	4	7	2.9	24
11	4	4	6	6	5	5	8	9	3	4	3	2	2	2	2	2	5	4	1	2	**IZS**	5	4	3	9	4.0	24
12	3	3	2	3	6	2	2	6	4	3	2	3	2	3	1	1	2	1	2	**IZS**	6	7	7	7	7	3.4	24
13	5	6	6	4	8	5	5	7	8	4	2	1	1	4	4	2	0	0	**IZS**	5	6	4	4	7	8	4.3	24
14	7	8	6	4	4	5	**33**	2	2	3	3	5	1	1	2	3	2	**IZS**	8	4	5	4	3	3	33	5.1	24
15	2	3	5	2	2	2	2	2	1	2	4	3	1	2	1	4	**IZS**	5	4	4	5	2	2	2	5	2.7	24
16	2	2	2	2	3	3	2	6	2	4	2	2	2	3	2	**IZS**	9	3	4	6	10	10	5	2	10	3.8	24
17	2	3	2	1	1	3	4	10	3	2	3	3	3	3	**IZS**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	10	3.1	15
18	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**NA**	**NA**	0
19	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**C**	**C**	**C**	**C**	**C**	**C**	**C**	**C**	**IZS**	5	2	7	3	1	1	1	1	7	2.6	17
20	1	1	1	1	1	2	3	2	0	2	0	**IZS**	**C**	**C**	1	2	5	1	5	3	15	6	4	5	15	2.9	24
21	4	3	1	1	3	5	3	2	2	2	**IZS**	3	2	1	1	0	1	1	1	3	22	9	7	7	22	3.7	24
22	4	3	4	3	4	5	4	2	9	**IZS**	3	1	2	5	1	1	2	1	1	23	23	4	6	6	23	5.1	24
23	4	4	3	3	3	11	**C**	**C**	**C**	**C**	**C**	**C**	**C**	**IZS**	2	4	3	1	2	5	15	13	12	4	15	5.6	24
24	3	2	2	2	2	6	7	**IZS**	5	2	2	1	1	1	2	1	0	0	0	1	3	7	3	3	7	2.4	24
25	4	3	3	3	3	4	**IZS**	3	2	2	3	1	0	1	0	1	4	2	0	2	12	3	3	3	12	2.7	24
26	3	3	4	4	21	**IZS**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	21	7.0	6
27	**N**	**N**	**N**	**N**	**N**	**N**	**C**	**C**	**C**	**C**	**C**	**C**	**C**	**IZS**	5	3	14	5	4	6	9	10	4	3	14	6.3	18
28	2	3	3	**IZS**	5	3	8	4	3	3	1	4	2	2	1	1	0	0	2	5	4	27	7	7	27	4.2	24
29	7	5	**IZS**	5	7	5	3	4	4	2	2	1	3	2	4	1	3	2	2	3	5	2	1	2	7	3.3	24
30	2	**IZS**	3	1	2	15	6	7	2	2	1	12	11	2	2	4	6	3	2	9	5	3	4	2	15	4.6	24
31	**IZS**	6	4	2	3	12	6	5	3	1	2	0	0	1	1	1	1	1	1	2	3	5	5	**IZS**	12	3.0	24
HOURLY MAX	7	8	10	6	21	15	33	10	9	4	4	12	11	7	5	4	14	5	8	23	23	27	12	8			
HOURLY AVG	3.4	3.5	3.6	3.0	4.4	4.8	5.5	4.2	2.9	2.3	2.0	2.3	2.4	2.1	1.7	1.6	3.0	1.7	2.5	4.0	7.1	5.8	4.4	3.9			

STATUS FLAG CODES

S	- OUT OF SERVICE	IZS	- IZS - DAILY ZERO/SPAN CHECK
N	- INVALID DATA	M	- MAINTENANCE
D	- INSTRUMENT DRIFT	P	- POWER FAILURE
C	- CALIBRATION	NA	- NOT APPLICABLE

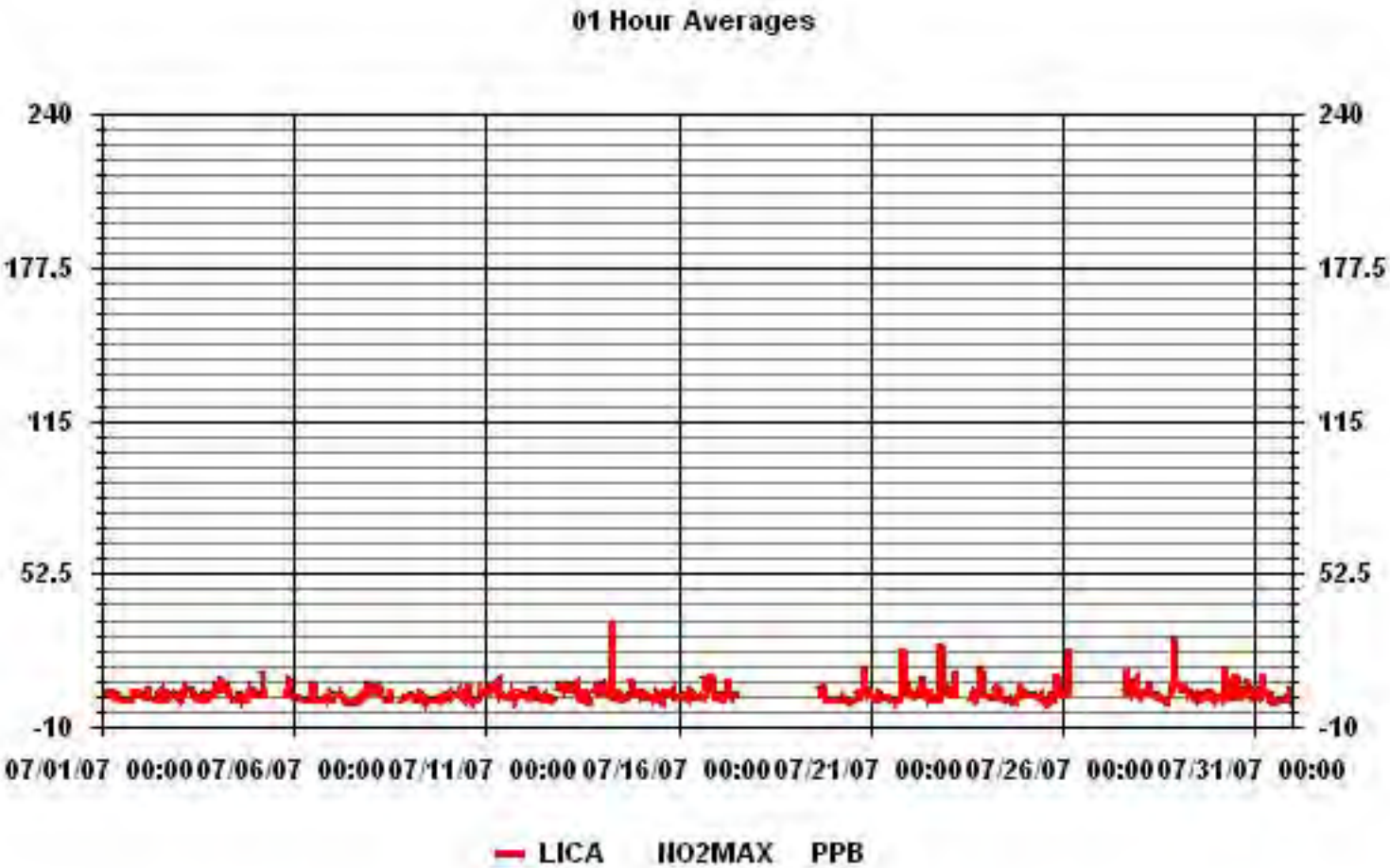
MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	581					
MAXIMUM INSTANTANEOUS VALUE:	33	PPB	@ HOUR(S)	7	ON DAY(S)	14

IZS CALIBRATION TIME:	33	HRS	OPERATIONAL TIME:	674	HRS
MONTHLY CALIBRATION TIME:	34	HRS			
STANDARD DEVIATION:	3.26				

MOUNTAIN STANDARD TIME

Maxxam Analytics Inc


01 Hour Averages
240
177.5
115
52.5
-10
07/01/07 00:00
07/06/07 00:00
07/11/07 00:00
07/16/07 00:00
07/21/07 00:00
07/26/07 00:00
07/31/07 00:00
LICA NO2MAX PPB

NO

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - *COLD LAKE*

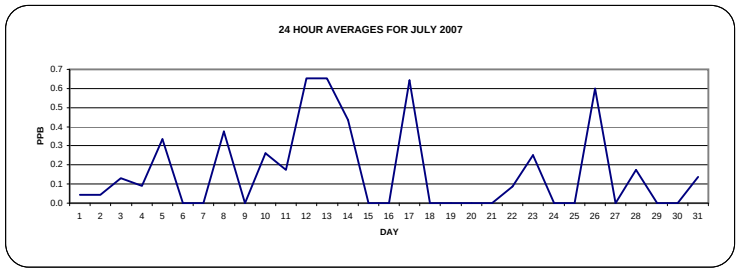
JULY 2007

NITRIC OXIDE hourly averages in ppb

HOUR START	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	24-HOUR	
HOUR END	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	0:00	MAX.	AVG.	RDGS.
DAY																											
1	0	0	0	0	0	0	1	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.0	24
2	0	0	0	0	0	1	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.0	24
3	0	0	0	0	0	IZS	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1	24
4	0	0	0	0	IZS	1	1	0	M	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1	24
5	0	0	0	IZS	2	2	0	C	C	C	C	C	C	C	C	C	C	IZS	0	0	0	0	0	0	2	0.3	24
6	0	0	IZS	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
7	0	IZS	0	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
8	IZS	0	0	0	0	3	2	1	0	0	0	0	0	P	P	P	P	P	P	0	0	0	0	IZS	3	0.4	18
9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0.0	24
10	0	0	0	0	0	0	2	3	1	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	3	0.3	24
11	0	0	0	0	0	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	2	0.2	24
12	0	0	0	3	**8**	2	1	1	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	8	**0.7**	24
13	0	0	0	0	4	4	2	3	2	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	4	**0.7**	24
14	1	2	1	0	1	4	1	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	4	0.4	24
15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0.0	24
16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0.0	24
17	0	0	0	1	2	4	2	0	0	0	0	0	0	0	IZS	N	N	N	N	N	N	N	N	N	4	0.6	15
18	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	NA	NA	0
19	N	N	N	N	N	N	N	C	C	C	C	C	C	C	C	IZS	0	0	0	0	0	0	0	0	0	0.0	17
20	0	0	0	0	0	0	0	0	0	0	0	IZS	C	C	0	0	0	0	0	0	0	0	0	0	0	0.0	24
21	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
22	0	0	0	0	0	1	1	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1	24
23	0	0	0	0	1	3	C	C	C	C	C	C	C	IZS	0	0	0	0	0	0	0	0	0	0	3	0.3	24
24	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
25	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
26	0	0	0	0	3	IZS	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	3	0.6	6
27	N	N	N	N	N	N	C	C	C	C	C	C	C	IZS	0	0	0	0	0	0	0	0	0	0	0	0.0	18
28	0	0	0	IZS	0	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	2	0.2	24
29	0	0	IZS	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
30	0	IZS	0	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
31	IZS	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	1	0.1	24
HOURLY MAX	1	2	1	3	8	4	2	3	2	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0			
HOURLY AVG	0.0	0.1	0.0	0.2	0.8	1.1	0.8	0.5	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			

STATUS FLAG CODES

S	- OUT OF SERVICE	IZS	- IZS - DAILY ZERO/SPAN CHECK
N	- INVALID DATA	M	- MAINTENANCE
D	- INSTRUMENT DRIFT	P	- POWER FAILURE
C	- CALIBRATION	NA	- NOT APPLICABLE



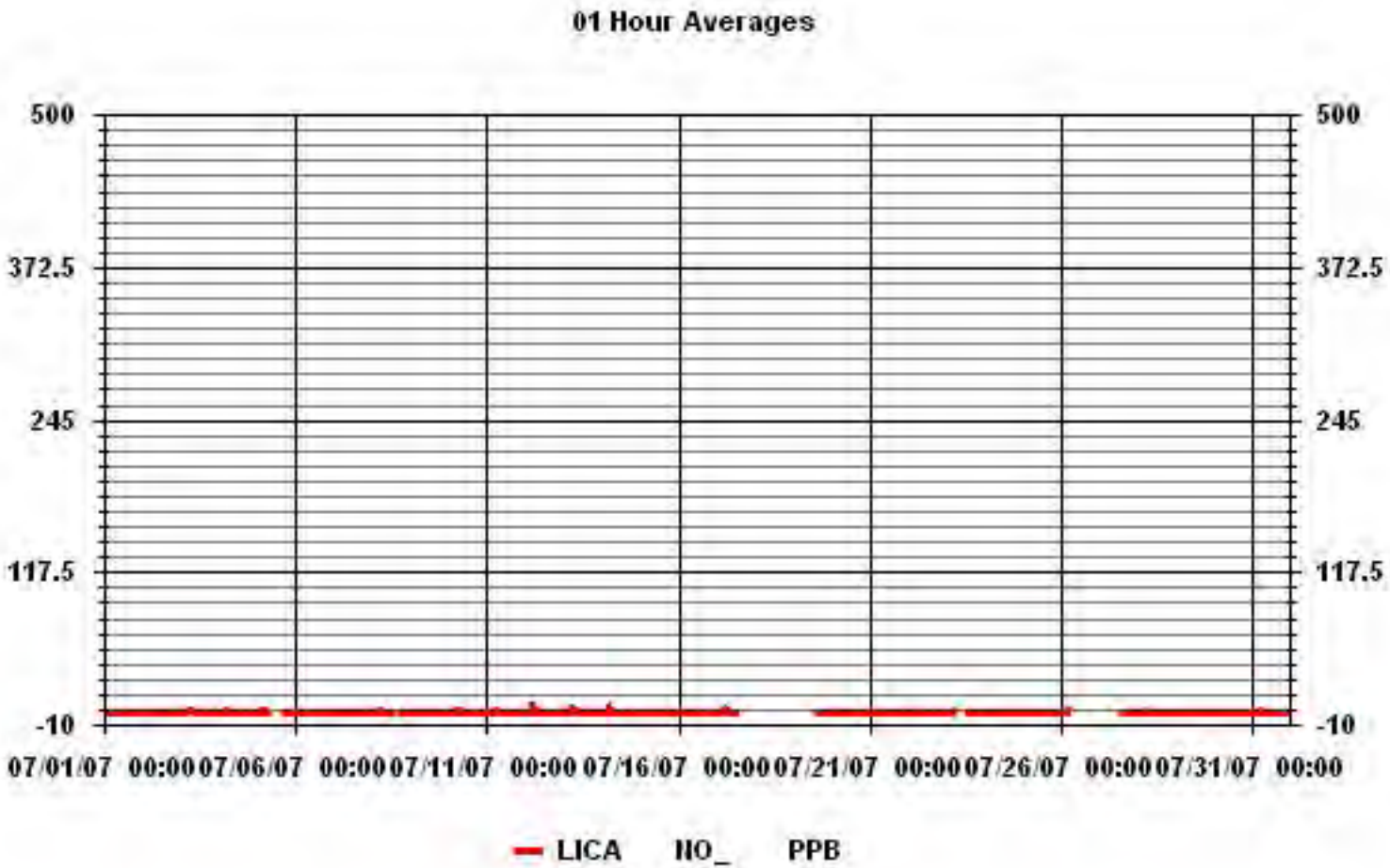
MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	49					
MAXIMUM 1-HR AVERAGE:	8	PPB	@ HOUR(S)	5	ON DAY(S)	12
MAXIMUM 24-HR AVERAGE:	0.7	PPB			ON DAY(S)	12,13

IZS CALIBRATION TIME:	33	HRS	OPERATIONAL TIME:	674	HRS
MONTHLY CALIBRATION TIME:	34	HRS	AMD OPERATION UPTIME:	90.6	%
STANDARD DEVIATION:	0.63		MONTHLY AVERAGE:	0.15	PPB

MOUNTAIN STANDARD TIME

Maxxam Analytics Inc


01 Hour Averages
500
372.5
245
117.5
-10
07/01/07 00:00
07/06/07 00:00
07/11/07 00:00
07/16/07 00:00
07/21/07 00:00
07/26/07 00:00
07/31/07 00:00
LICA NO_ PPB

LICA
NO_ / WD Joint Frequency Distribution (Percent)

July 2007

Distribution By % Of Samples

Logger Id : 01
Site Name : LICA
Parameter : NO_
Units : PPB

Wind Parameter : WD
Instrument Height : 10 Meters

Direction

Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
< 50	3.63	2.47	3.79	3.79	3.63	6.27	11.38	4.45	3.30	5.61	9.90	12.87	16.17	5.77	3.96	2.97	100.00
< 110	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
< 210	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
>= 210	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
Totals	3.63	2.47	3.79	3.79	3.63	6.27	11.38	4.45	3.30	5.61	9.90	12.87	16.17	5.77	3.96	2.97	

Calm : .00 %

Total # Operational Hours : 606

Distribution By Samples

Direction

Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
< 50	22	15	23	23	22	38	69	27	20	34	60	78	98	35	24	18	606
< 110																	
< 210																	
>= 210																	
Totals	22	15	23	23	22	38	69	27	20	34	60	78	98	35	24	18	

Calm : .00 %

Total # Operational Hours : 606

Logger : 01 Parameter : NO_

Class Limits (PPB)

>= 210

< 210

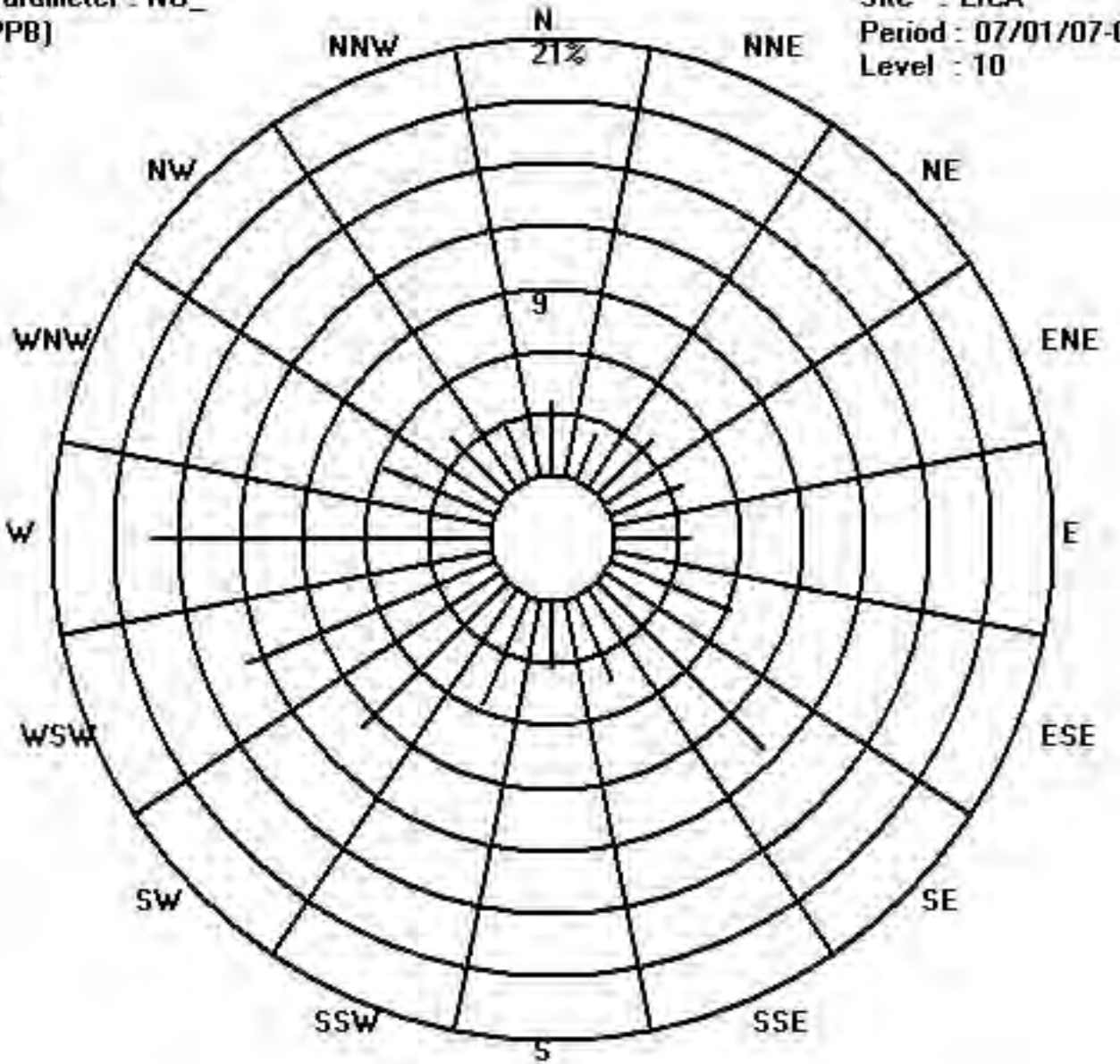
< 110

< 50

Site : LICA

Period : 07/01/07-07/31/07

Level : 10



LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - *COLD LAKE*

JULY 2007

NITRIC OXIDE MAX instantaneous maximum in pp

HOUR START	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	24-HOUR	
HOUR END	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	0:00	MAX.	AVG.	RDGS.
DAY																											
1	7	0	0	0	0	1	3	IZS	0	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0	7	0.6	24
2	0	0	0	0	1	4	IZS	0	0	0	0	3	1	1	0	0	1	0	0	0	0	0	0	0	4	0.5	24
3	0	0	0	0	0	IZS	1	1	2	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	2	0.3	24
4	0	0	0	0	IZS	1	3	1	M	0	0	0	0	0	1	0	1	0	0	0	1	0	0	0	3	0.4	24
5	0	1	0	IZS	46	6	1	C	C	C	C	C	C	C	C	C	C	IZS	0	1	3	4	0	0	46	5.2	24
6	0	0	IZS	1	1	0	0	0	0	1	0	0	1	1	0	0	2	0	0	0	0	0	0	0	2	0.3	24
7	0	IZS	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	0.2	24
8	IZS	0	1	1	1	4	4	1	0	1	0	0	2	P	P	P	P	P	P	0	0	0	0	IZS	4	0.9	18
9	0	0	0	0	0	0	0	1	1	2	0	1	0	1	3	1	1	3	1	0	1	0	IZS	0	3	0.7	24
10	0	0	0	1	1	1	3	4	1	1	0	1	0	3	0	0	1	0	0	0	0	IZS	5	1	5	1.0	24
11	0	1	1	1	1	5	7	10	6	2	3	4	3	0	0	0	1	9	0	0	IZS	1	1	3	10	2.6	24
12	2	1	3	10	24	6	1	6	1	1	1	3	0	1	1	0	1	0	0	IZS	0	0	0	0	24	2.7	24
13	0	0	0	1	24	24	3	7	3	1	0	1	0	3	1	0	0	0	IZS	1	1	1	1	4	24	3.3	24
14	3	10	3	2	4	11	14	3	1	1	1	1	0	0	0	8	4	IZS	11	1	0	1	0	0	14	3.4	24
15	0	1	1	1	4	1	1	1	0	1	0	4	1	0	0	1	IZS	1	1	2	7	0	0	0	7	1.2	24
16	0	1	2	1	0	1	0	1	1	2	0	0	0	1	3	IZS	3	0	0	0	3	0	7	1	7	1.2	24
17	1	1	1	3	4	7	6	3	3	1	1	1	1	1	IZS	N	N	N	N	N	N	N	N	N	7	2.4	15
18	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	NA	NA	0
19	N	N	N	N	N	N	N	C	C	C	C	C	C	C	C	IZS	3	6	8	0	0	3	0	0	8	2.5	17
20	0	0	0	0	0	0	0	0	0	1	0	IZS	C	C	0	0	1	0	1	0	6	0	0	1	6	0.5	24
21	1	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	23	3	0	23	23	2.2	24
22	1	0	2	0	4	4	3	0	3	IZS	5	0	1	5	0	1	0	0	0	15	7	0	3	0	15	2.3	24
23	0	0	1	1	3	17	C	C	C	C	C	C	C	IZS	0	1	0	0	0	0	3	7	3	1	17	2.3	24
24	4	0	0	0	0	0	1	IZS	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	4	0.3	24
25	0	0	0	0	0	0	IZS	1	1	1	1	1	0	0	0	1	5	1	0	0	8	1	0	0	8	0.9	24
26	0	0	0	0	42	IZS	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	42	8.4	6
27	N	N	N	N	N	N	C	C	C	C	C	C	C	IZS	19	0	13	1	0	3	2	3	0	0	19	4.1	18
28	0	0	1	IZS	18	0	3	1	0	0	0	2	2	0	0	0	0	0	0	0	0	47	2	0	47	3.3	24
29	1	1	IZS	0	0	0	0	2	1	0	1	1	3	0	1	1	1	4	1	0	4	1	0	0	4	1.0	24
30	0	IZS	0	0	0	1	1	3	0	0	0	8	12	0	0	1	3	0	0	5	0	0	1	0	12	1.5	24
31	IZS	1	1	0	1	12	3	2	1	0	6	0	0	0	0	0	0	0	0	0	0	0	0	IZS	12	1.2	24
HOURLY MAX	7	10	3	10	46	24	14	10	6	2	6	8	12	5	19	8	13	9	11	15	23	47	7	23			
HOURLY AVG	0.8	0.7	0.7	0.9	6.6	4.1	2.5	2.1	1.1	0.7	0.9	1.3	1.2	0.8	1.3	0.6	1.6	1.0	0.9	1.1	2.6	2.7	0.9	1.3			

STATUS FLAG CODES

S	- OUT OF SERVICE	IZS	- IZS - DAILY ZERO/SPAN CHECK
N	- INVALID DATA	M	- MAINTENANCE
D	- INSTRUMENT DRIFT	P	- POWER FAILURE
C	- CALIBRATION	NA	- NOT APPLICABLE

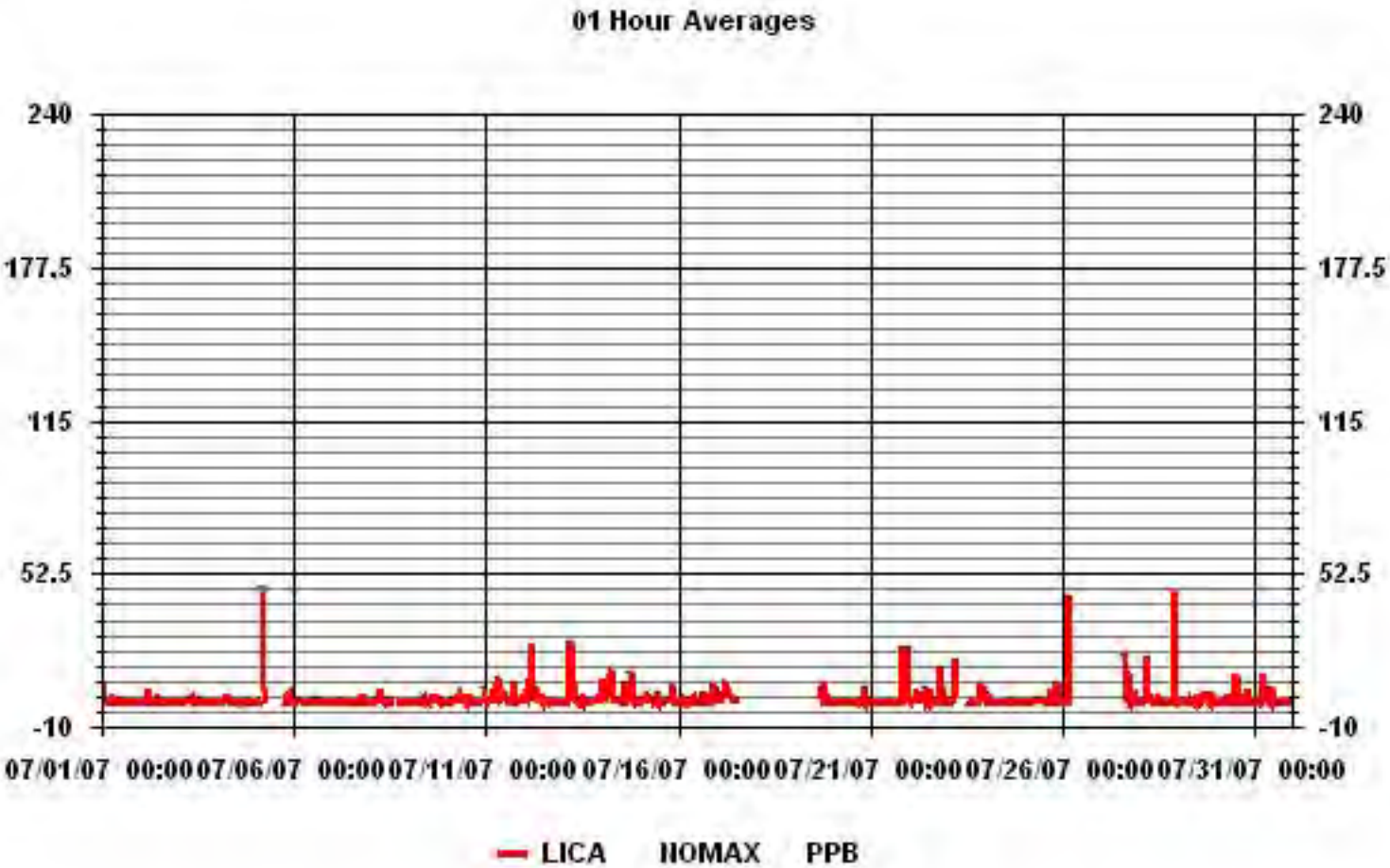
MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	272					
MAXIMUM INSTANTANEOUS VALUE:	47	PPB	@ HOUR(S)	22	ON DAY(S)	28

IZS CALIBRATION TIME:	33	HRS	OPERATIONAL TIME:	674	HRS
MONTHLY CALIBRATION TIME:	34	HRS			
STANDARD DEVIATION:	4.40				

MOUNTAIN STANDARD TIME

Maxxam Analytics Inc


01 Hour Averages
240
177.5
115
52.5
-10
07/01/07 00:00
07/06/07 00:00
07/11/07 00:00
07/16/07 00:00
07/21/07 00:00
07/26/07 00:00
07/31/07 00:00
LICA NOMAX PPB

NO_X

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - *COLD LAKE*

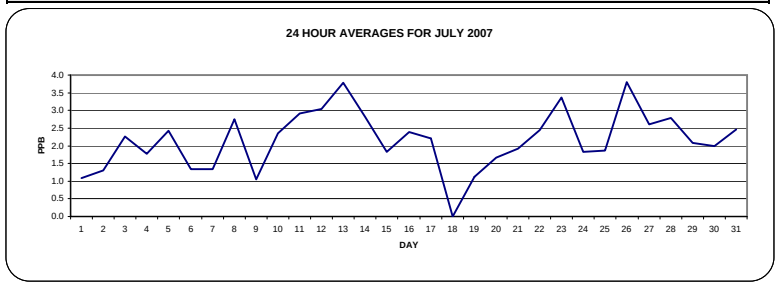
JULY 2007

OXIDES OF NITROGEN hourly averages in ppb

HOUR START	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	24-HOUR	
HOUR END	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	0:00	MAX.	AVG.	RDGS.
DAY																											
1	1	1	2	2	2	2	3	**IZS**	3	1	0	0	0	0	0	0	0	0	0	0	2	2	2	2	3	1.1	24
2	2	2	2	2	1	4	**IZS**	2	1	1	1	1	1	0	0	0	0	1	1	1	2	2	2	1	4	1.3	24
3	1	1	1	4	4	**IZS**	6	5	5	3	1	1	1	1	1	1	1	1	1	1	1	2	3	6	6	2.3	24
4	4	2	3	3	**IZS**	5	6	3	**M**	1	0	0	0	0	0	0	1	0	0	0	4	2	3	2	6	1.8	24
5	2	3	2	**IZS**	4	4	3	**C**	**C**	**C**	**C**	**C**	**C**	**C**	**C**	**C**	**C**	**IZS**	1	2	2	3	2	1	4	2.4	24
6	2	2	**IZS**	2	2	1	1	1	1	1	2	1	1	1	1	1	1	1	2	1	2	2	1	1	2	1.3	24
7	1	**IZS**	2	1	2	2	2	1	1	0	0	0	0	0	0	0	0	1	1	1	2	4	6	4	6	1.3	24
8	**IZS**	5	5	4	4	7	6	3	1	1	1	1	1	**P**	**P**	**P**	**P**	**P**	**P**	1	2	1	1	**IZS**	7	2.8	18
9	2	2	2	1	1	1	3	3	0	1	0	0	0	0	0	0	0	1	1	1	2	1	**IZS**	2	3	1.0	24
10	1	2	1	3	3	3	6	7	4	3	2	1	1	1	1	0	0	1	1	1	4	**IZS**	4	4	7	2.3	24
11	3	4	5	4	4	6	5	6	3	2	2	1	1	1	1	2	2	2	1	1	**IZS**	5	3	3	6	2.9	24
12	3	3	2	5	**10**	5	3	4	3	2	1	1	1	1	1	1	1	1	1	**IZS**	4	5	5	7	10	3.0	24
13	5	5	5	3	7	8	7	**10**	9	3	1	1	1	1	1	1	1	1	**IZS**	2	4	3	3	5	10	**3.8**	24
14	7	8	5	4	4	7	4	2	1	1	1	1	1	1	1	1	1	**IZS**	3	3	3	2	2	2	8	2.8	24
15	2	2	3	2	2	2	2	2	2	1	1	1	1	1	1	1	**IZS**	3	2	2	3	2	2	2	3	1.8	24
16	2	2	2	2	2	2	2	4	2	2	2	2	1	2	1	**IZS**	2	2	3	3	5	6	2	2	6	2.4	24
17	2	2	2	2	4	6	4	2	2	1	1	1	1	1	**IZS**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	6	2.2	15
18	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**NA**	**NA**	0
19	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**C**	**C**	**C**	**C**	**C**	**C**	**C**	**C**	**IZS**	2	1	1	1	1	1	1	1	2	1.1	17
20	1	1	1	1	1	2	2	1	1	1	1	**IZS**	**C**	**C**	1	1	1	1	1	3	4	4	3	3	4	1.7	24
21	3	2	1	1	1	3	1	2	2	2	**IZS**	2	1	1	1	1	1	1	1	1	3	4	4	5	5	1.9	24
22	4	3	3	3	3	4	3	2	2	**IZS**	2	1	1	1	1	1	1	1	1	3	5	3	4	4	5	2.4	24
23	4	3	3	3	3	7	**C**	**C**	**C**	**C**	**C**	**C**	**C**	**IZS**	1	1	1	1	1	4	7	8	5	2	8	3.4	24
24	1	1	2	2	2	3	5	**IZS**	4	1	2	1	1	1	1	1	1	1	1	1	1	5	2	2	5	1.8	24
25	2	1	3	3	3	3	**IZS**	3	2	2	2	1	1	1	0	1	1	0	0	1	4	3	3	3	4	1.9	24
26	3	3	4	3	6	**IZS**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	6	**3.8**	6
27	**N**	**N**	**N**	**N**	**N**	**N**	**C**	**C**	**C**	**C**	**C**	**C**	**C**	**IZS**	2	2	3	1	2	3	5	4	2	2	5	2.6	18
28	2	2	2	**IZS**	5	3	9	4	3	2	1	1	1	1	1	1	1	1	1	3	3	6	5	6	9	2.8	24
29	5	4	**IZS**	4	5	4	3	2	2	2	1	1	1	1	1	1	1	1	2	2	2	1	1	1	5	2.1	24
30	1	**IZS**	2	1	1	2	2	2	2	1	1	2	3	1	1	3	4	3	2	3	2	2	3	2	4	2.0	24
31	**IZS**	5	3	2	3	6	7	5	3	1	1	1	1	1	1	1	1	1	1	2	2	3	3	**IZS**	7	2.5	24
HOURLY MAX	7	8	5	5	10	8	9	10	9	3	2	2	3	2	2	3	4	3	3	4	7	8	6	7			
HOURLY AVG	2.5	2.7	2.6	2.6	3.3	3.9	4.0	3.3	2.5	1.5	1.1	1.0	0.9	0.8	0.8	0.9	1.1	1.1	1.2	1.7	3.0	3.2	2.9	2.9			

STATUS FLAG CODES

S	- OUT OF SERVICE	IZS	- IZS - DAILY ZERO/SPAN CHECK
N	- INVALID DATA	M	- MAINTENANCE
D	- INSTRUMENT DRIFT	P	- POWER FAILURE
C	- CALIBRATION	NA	- NOT APPLICABLE



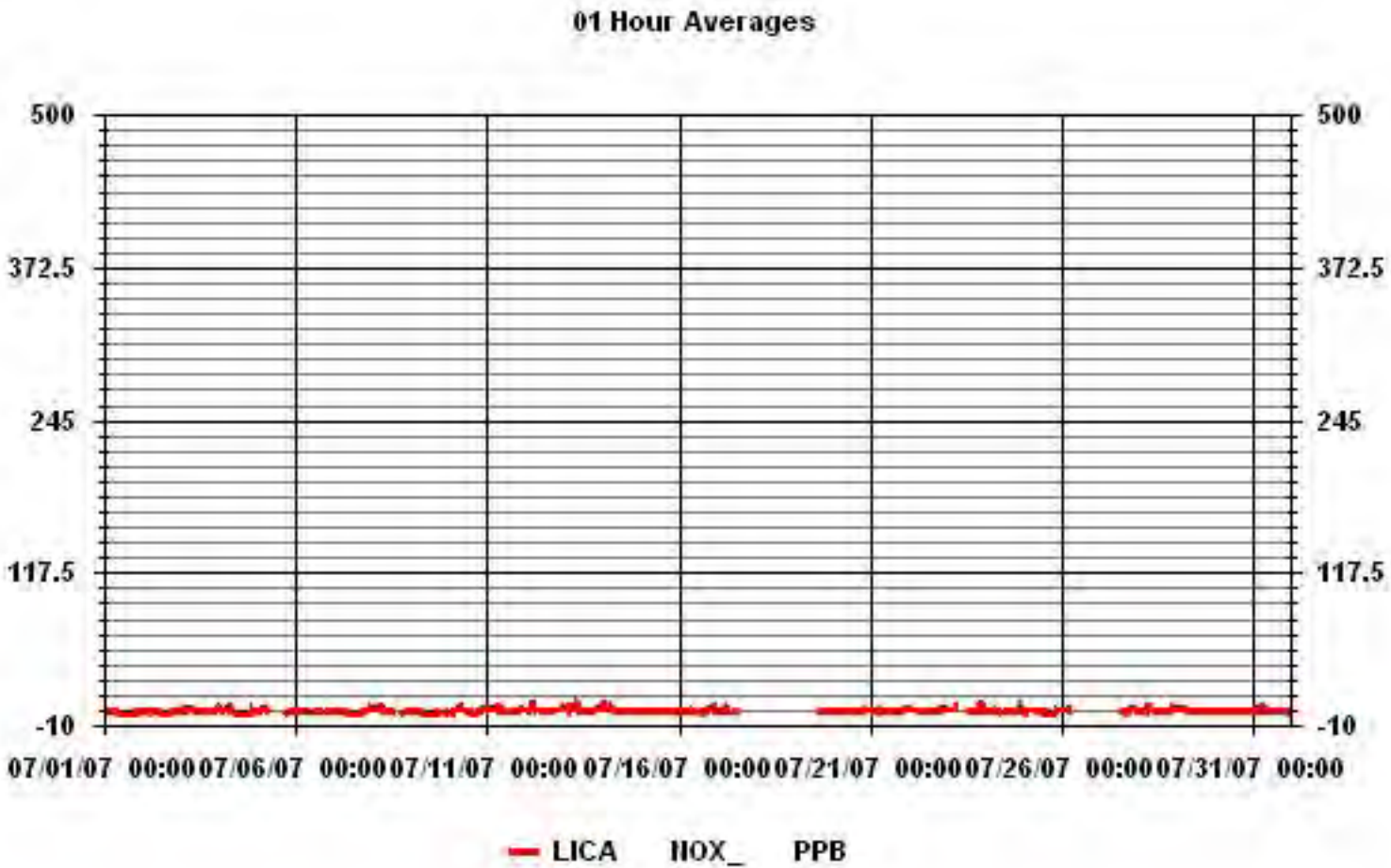
MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	562					
MAXIMUM 1-HR AVERAGE:	10	PPB	@ HOUR(S)	5,8	ON DAY(S)	12,13
MAXIMUM 24-HR AVERAGE:	3.8	PPB			ON DAY(S)	13,26

IZS CALIBRATION TIME:	33	HRS	OPERATIONAL TIME:	674	HRS
MONTHLY CALIBRATION TIME:	34	HRS	AMD OPERATION UPTIME:	90.6	%
STANDARD DEVIATION:	1.69		MONTHLY AVERAGE:	2.17	PPB

MOUNTAIN STANDARD TIME

Maxxam Analytics Inc


01 Hour Averages
500
372.5
245
117.5
-10
07/01/07 00:00
07/06/07 00:00
07/11/07 00:00
07/16/07 00:00
07/21/07 00:00
07/26/07 00:00
07/31/07 00:00
LICA NOX_ PPB

LICA
NOX_ / WD Joint Frequency Distribution (Percent)

July 2007

Distribution By % Of Samples

Logger Id : 01
Site Name : LICA
Parameter : NOX_
Units : PPB

Wind Parameter : WD
Instrument Height : 10 Meters

Direction

Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
< 50	3.63	2.47	3.79	3.79	3.63	6.27	11.38	4.45	3.30	5.61	9.90	12.87	16.17	5.77	3.96	2.97	100.00
< 110	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
< 210	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
>= 210	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
Totals	3.63	2.47	3.79	3.79	3.63	6.27	11.38	4.45	3.30	5.61	9.90	12.87	16.17	5.77	3.96	2.97	

Calm : .00 %

Total # Operational Hours : 606

Distribution By Samples

Direction

Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
< 50	22	15	23	23	22	38	69	27	20	34	60	78	98	35	24	18	606
< 110																	
< 210																	
>= 210																	
Totals	22	15	23	23	22	38	69	27	20	34	60	78	98	35	24	18	

Calm : .00 %

Total # Operational Hours : 606

Logger : 01 Parameter : NOX_

Site : LICA

Period : 07/01/07-07/31/07

Level : 10

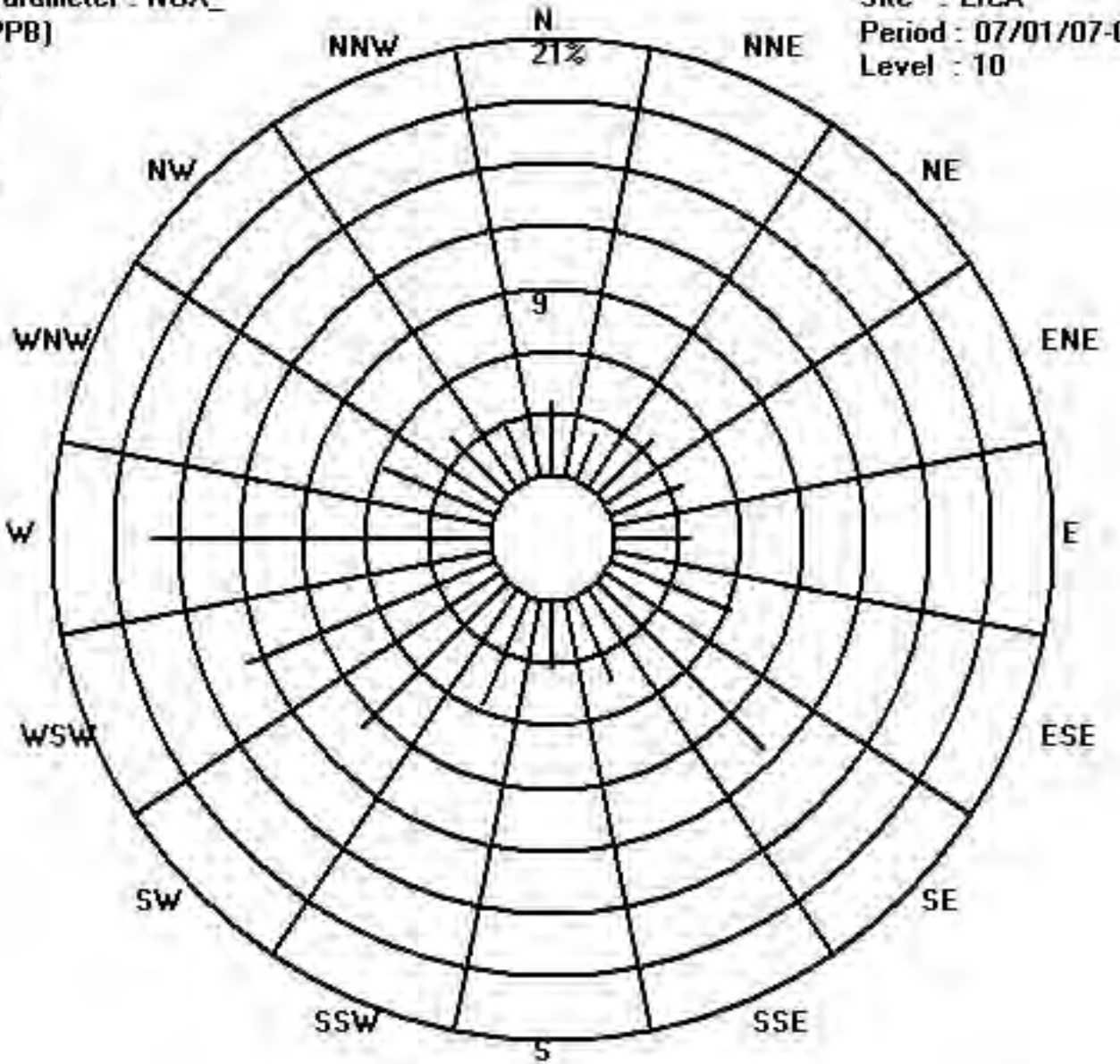
Class Limits (PPB)

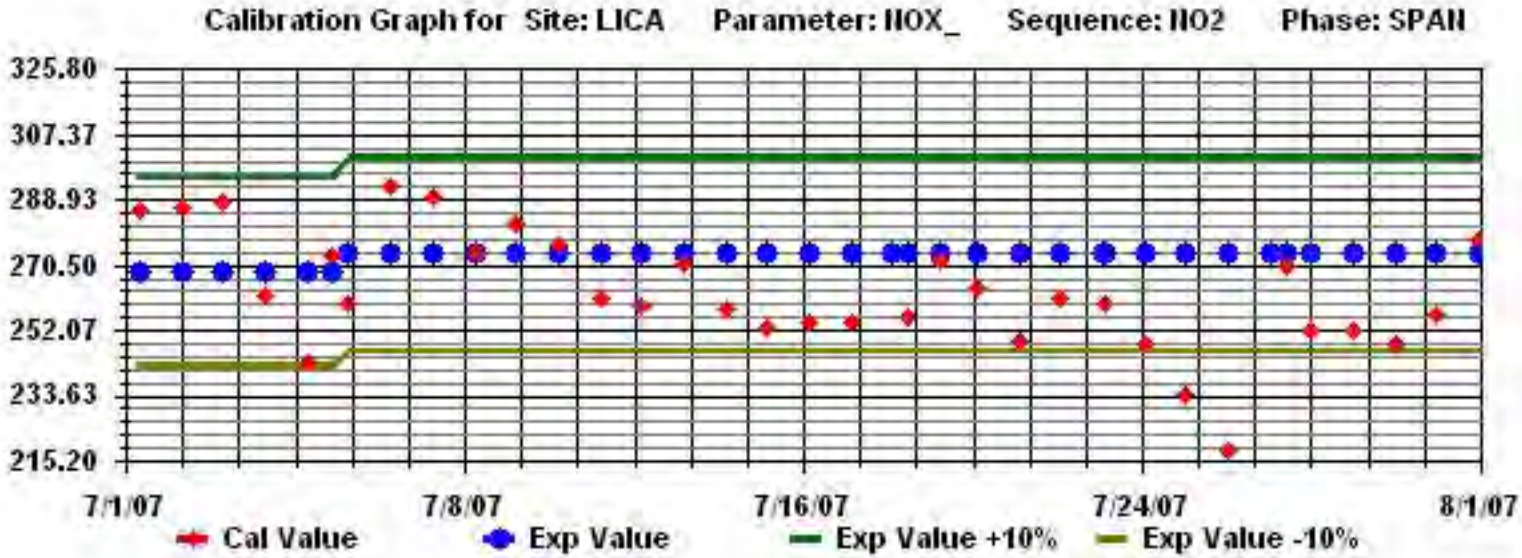
>= 210

< 210

< 110

< 50




Calibration Graph for Site: LICA Parameter: NOX_ Sequence: NO2 Phase: SPAN
325.80
307.37
288.93
270.50
252.07
233.63
215.20
7/1/07
7/8/07
7/16/07
7/24/07
8/1/07
Cal Value
Exp Value
Exp Value +10%
Exp Value -10%

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - *COLD LAKE*

JULY 2007

OXIDES OF NITROGEN MAX instantaneous maximum in pp

HOUR START	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	24-HOUR	
HOUR END	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	0:00	MAX.	AVG.	RDGS.
DAY																											
1	11	3	4	4	3	4	8	**IZS**	5	2	6	0	1	1	1	1	2	1	0	2	5	3	2	5	11	3.2	24
2	3	3	3	3	3	10	**IZS**	2	1	2	1	6	6	3	1	2	7	1	3	3	4	3	3	3	10	3.3	24
3	3	2	2	6	6	**IZS**	7	7	7	4	3	3	3	3	3	2	2	1	5	1	3	3	5	8	8	3.9	24
4	6	4	10	5	**IZS**	7	9	6	**M**	2	1	1	2	2	6	1	3	1	0	2	7	5	5	3	10	4.0	24
5	3	4	4	**IZS**	51	12	5	**C**	**C**	**C**	**C**	**C**	**C**	**C**	**C**	**C**	**C**	**IZS**	4	6	12	9	4	2	51	9.7	24
6	3	3	**IZS**	5	4	1	1	1	1	3	4	3	10	2	1	1	2	1	3	2	3	4	1	1	10	2.6	24
7	3	**IZS**	4	2	4	4	4	2	1	1	1	1	1	1	1	1	3	4	3	4	4	5	9	5	9	3.0	24
8	**IZS**	6	7	6	5	11	10	5	3	3	1	1	6	**P**	**P**	**P**	**P**	**P**	**P**	2	3	3	3	**IZS**	11	4.7	18
9	3	3	3	1	1	1	5	5	2	4	1	2	1	1	4	1	2	4	3	2	4	1	**IZS**	4	5	2.5	24
10	3	4	2	3	4	4	8	9	5	4	3	3	3	7	1	1	3	1	1	2	6	**IZS**	10	5	10	4.0	24
11	5	5	6	6	6	9	16	19	6	5	4	6	5	3	3	3	6	8	1	3	**IZS**	5	5	5	19	6.1	24
12	5	4	5	13	30	8	4	13	6	4	3	6	3	5	2	1	3	1	2	**IZS**	6	7	7	7	30	6.3	24
13	5	6	6	5	32	25	8	12	11	5	3	2	1	8	5	2	1	1	**IZS**	5	7	5	5	11	32	7.4	24
14	10	19	8	6	8	15	34	4	3	5	4	6	1	1	3	11	4	**IZS**	17	5	5	5	3	3	34	7.8	24
15	3	4	6	3	4	3	3	4	2	3	4	4	3	3	2	5	**IZS**	6	5	6	12	3	3	2	12	4.0	24
16	3	3	4	3	3	3	3	8	4	7	2	3	3	4	3	**IZS**	12	3	4	6	11	11	13	3	13	5.2	24
17	3	5	3	4	5	9	10	13	7	3	4	4	5	4	**IZS**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	13	5.6	15
18	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**NA**	**NA**	0
19	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**C**	**C**	**C**	**C**	**C**	**C**	**C**	**C**	**IZS**	7	4	16	4	1	4	1	1	16	4.8	17
20	1	1	1	1	1	3	4	3	1	4	1	**IZS**	C	C	2	2	6	1	7	4	22	6	5	6	22	3.9	24
21	5	3	1	1	4	6	3	3	3	2	**IZS**	3	3	1	2	1	1	1	1	3	45	12	7	23	45	5.8	24
22	5	4	6	4	9	10	7	3	12	**IZS**	4	1	3	7	1	4	3	1	1	35	31	5	9	6	35	7.4	24
23	5	4	5	4	6	26	**C**	**C**	**C**	**C**	**C**	**C**	**C**	**IZS**	3	4	4	1	2	6	18	20	15	5	26	8.0	24
24	6	2	2	3	3	6	7	**IZS**	7	2	3	1	1	1	3	1	1	1	1	1	4	7	4	3	7	3.0	24
25	4	3	3	3	3	4	**IZS**	4	4	3	5	3	1	1	1	2	7	3	1	3	21	4	4	4	21	4.0	24
26	4	4	5	4	61	**IZS**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	61	15.6	6
27	**N**	**N**	**N**	**N**	**N**	**N**	**C**	**C**	**C**	**C**	**C**	**C**	**C**	**IZS**	14	4	28	6	4	9	9	13	5	3	28	9.5	18
28	3	4	4	**IZS**	13	4	12	6	4	4	1	4	4	2	1	1	1	1	3	5	5	**72**	8	7	72	7.3	24
29	7	6	**IZS**	5	8	5	4	6	5	2	3	3	8	2	4	2	4	3	3	4	9	4	1	3	9	4.4	24
30	2	**IZS**	3	1	2	16	8	10	2	3	3	19	23	3	2	4	8	4	3	14	5	3	6	3	23	6.4	24
31	**IZS**	6	4	3	5	24	9	7	4	1	4	1	1	1	1	1	1	1	1	3	3	5	5	**IZS**	24	4.1	24
HOURLY MAX	11	19	10	13	61	26	34	19	12	7	6	19	23	8	14	11	28	8	17	35	45	72	15	23			
HOURLY AVG	4.4	4.4	4.3	4.0	10.5	8.8	7.9	6.6	4.4	3.3	2.9	3.6	4.1	2.9	2.8	2.4	4.8	2.4	3.6	5.3	9.8	8.4	5.5	5.0			

STATUS FLAG CODES

S	- OUT OF SERVICE	IZS	- IZS - DAILY ZERO/SPAN CHECK
N	- INVALID DATA	M	- MAINTENANCE
D	- INSTRUMENT DRIFT	P	- POWER FAILURE
C	- CALIBRATION	NA	- NOT APPLICABLE

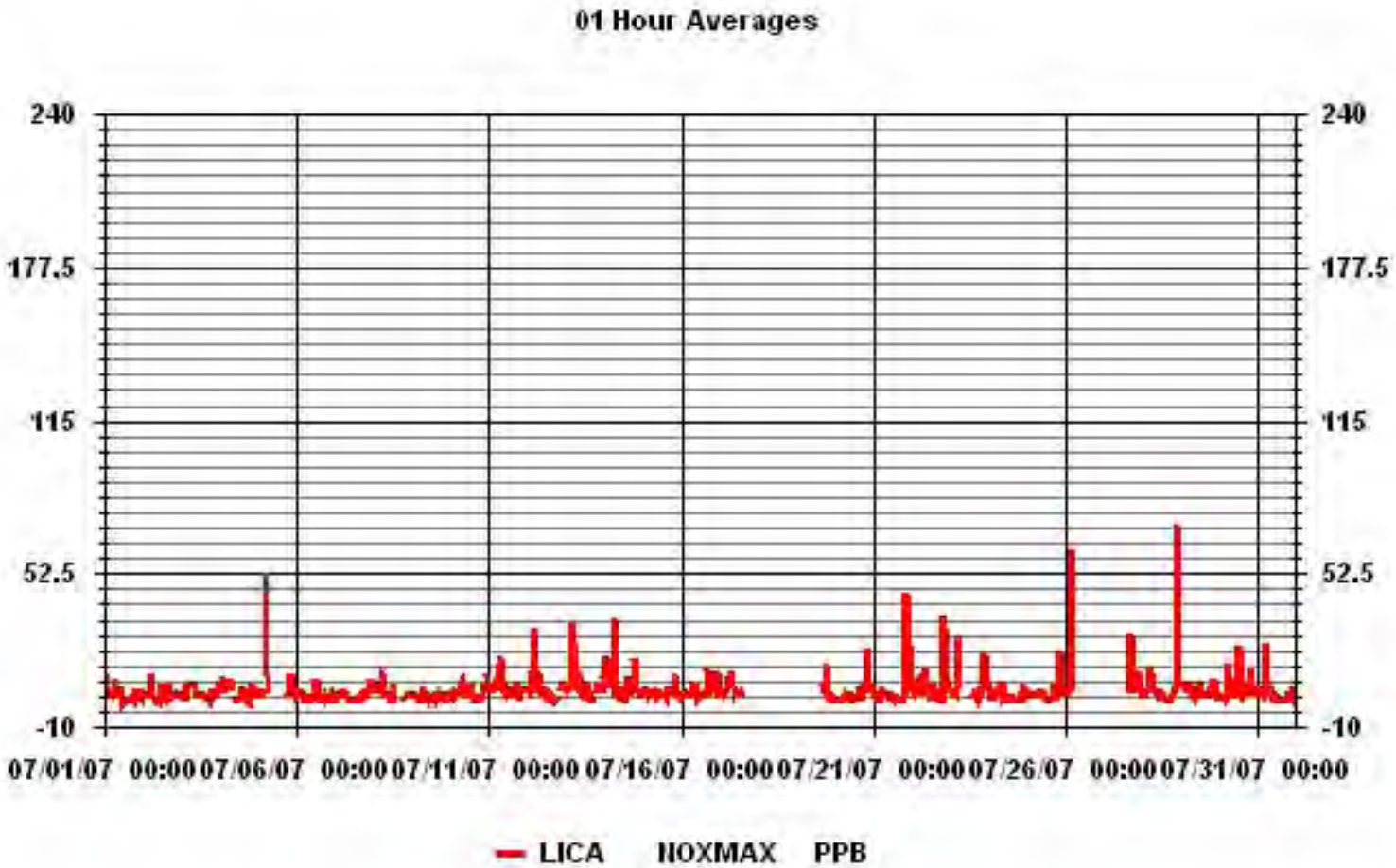
MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	603					
MAXIMUM INSTANTANEOUS VALUE:	72	PPB	@ HOUR(S)	22	ON DAY(S)	28

IZS CALIBRATION TIME:	33	HRS	OPERATIONAL TIME:	674	HRS
MONTHLY CALIBRATION TIME:	34	HRS			
STANDARD DEVIATION:	6.35				

MOUNTAIN STANDARD TIME

Maxxam Analytics Inc


01 Hour Averages
240
177.5
115
52.5
-10
07/01/07 00:00
07/06/07 00:00
07/11/07 00:00
07/16/07 00:00
07/21/07 00:00
07/26/07 00:00
07/31/07 00:00
LICA NOXMAX PPB

O_3

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - *COLD LAKE*

JULY 2007

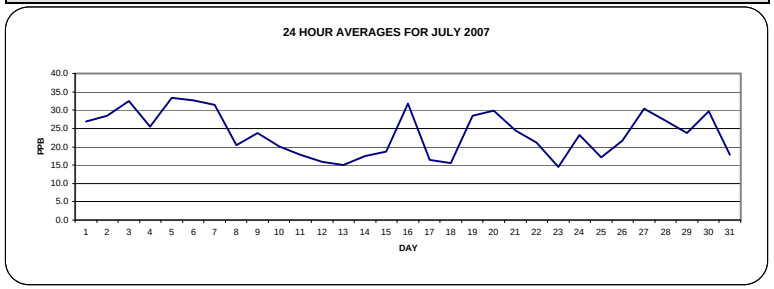
OZONE (O_3) hourly averages in ppb

HOUR START	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	24-HOUR	
HOUR END	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	0:00	MAX.	AVG.	RDGS.
DAY																											
1	29	27	16	12	7	12	14	**IZS**	36	37	35	36	37	38	39	39	40	38	38	36	21	13	10	9	40	26.9	24
2	5	3	2	2	1	4	**IZS**	24	28	41	45	49	48	47	44	46	46	37	37	42	43	31	18	10	49	28.4	24
3	7	4	2	6	7	**IZS**	22	27	32	40	43	45	48	53	55	**56**	51	52	49	42	35	30	25	17	56	32.5	24
4	14	19	16	13	**IZS**	15	18	26	**M**	34	35	37	38	38	37	38	34	35	37	34	17	12	8	6	38	25.5	24
5	3	2	1	**IZS**	1	4	16	25	29	33	49	54	54	54	53	52	53	51	50	46	41	33	32	31	54	**33.3**	24
6	28	31	**IZS**	34	30	28	30	**C**	**C**	**C**	**C**	**C**	**C**	**IZS**	39	37	36	35	34	31	32	33	32	32	39	32.6	24
7	32	**IZS**	31	32	29	27	28	30	35	38	39	39	37	35	37	36	37	38	39	37	27	17	12	11	39	31.4	24
8	**IZS**	6	3	3	2	5	14	19	27	32	34	33	39	**P**	**P**	**P**	**P**	**P**	**P**	33	27	24	27	**IZS**	39	20.5	18
9	30	25	26	25	21	23	20	21	28	29	28	27	25	25	25	26	26	26	26	20	15	17	**IZS**	14	30	23.8	24
10	13	6	4	3	6	8	9	13	19	29	35	35	35	33	33	33	33	32	29	23	13	**IZS**	11	7	35	20.1	24
11	5	4	7	3	2	4	10	10	12	25	32	37	36	33	35	34	33	30	23	19	**IZS**	8	4	2	37	17.7	24
12	0	0	0	0	0	4	9	14	21	26	26	27	29	29	26	28	28	27	25	**IZS**	15	12	12	9	29	16.0	24
13	10	8	7	6	1	3	9	16	25	27	24	23	21	24	25	25	25	24	**IZS**	17	12	7	5	3	27	15.1	24
14	1	1	1	1	1	2	11	15	17	19	21	19	21	30	32	28	30	**IZS**	21	25	34	28	24	21	34	17.5	24
15	17	14	5	6	2	9	11	14	22	23	24	24	26	29	31	29	**IZS**	32	26	23	18	17	15	13	32	18.7	24
16	9	5	2	27	43	32	26	23	32	39	46	52	52	51	49	**IZS**	45	44	42	41	22	14	22	15	52	31.9	24
17	6	3	1	0	0	0	8	16	17	23	26	26	29	31	**IZS**	30	32	30	27	29	23	13	6	3	32	16.5	24
18	2	1	2	1	1	5	12	18	23	25	23	20	18	**IZS**	24	24	21	20	19	19	19	20	21	21	25	15.6	24
19	21	21	17	17	17	18	18	18	20	25	30	35	IZS	41	**C**	**C**	**C**	**IZS**	40	42	44	40	39	39	44	28.5	24
20	39	39	38	34	32	28	**C**	**C**	**C**	**C**	**C**	**C**	**C**	**C**	**C**	**IZS**	40	39	37	30	24	15	14	10	40	29.9	24
21	7	22	30	27	21	13	28	24	29	36	**IZS**	45	39	33	31	31	30	28	27	26	15	8	7	6	45	24.5	24
22	4	3	5	5	2	5	11	21	24	**IZS**	30	30	34	37	39	41	41	41	39	32	16	12	9	6	41	21.2	24
23	4	2	1	1	1	3	11	26	**IZS**	36	**C**	**C**	**C**	**C**	**C**	**C**	**IZS**	35	33	25	12	6	16	21	36	14.6	24
24	27	22	22	17	13	11	9	**IZS**	20	21	22	24	28	30	31	36	36	33	31	28	23	17	20	15	36	23.3	24
25	13	12	11	11	12	13	**IZS**	18	19	20	22	23	23	23	24	24	25	25	23	20	13	8	7	6	25	17.2	24
26	5	2	4	2	0	**IZS**	7	11	17	22	23	25	27	32	42	46	45	44	37	31	24	18	19	15	46	21.7	24
27	11	6	16	22	**IZS**	21	**C**	**C**	**C**	**C**	**IZS**	36	36	39	42	42	40	45	39	36	30	30	30	27	45	30.4	24
28	16	11	7	**IZS**	6	8	10	21	32	39	41	46	49	51	47	47	46	45	40	22	18	10	7	5	51	27.1	24
29	4	3	**IZS**	8	10	9	8	10	16	32	37	34	33	28	33	34	33	33	32	30	30	31	31	28	37	23.8	24
30	26	**IZS**	34	37	35	32	37	33	34	31	33	37	34	32	28	22	32	39	38	25	26	18	9	9	39	29.6	24
31	**IZS**	5	3	5	4	7	9	11	14	21	23	26	26	25	25	29	30	29	26	24	19	16	14	**IZS**	30	17.8	24
HOURLY MAX	39	39	38	37	43	32	37	33	36	41	49	54	54	54	55	56	53	52	50	46	44	40	39	39			
HOURLY AVG	13.4	10.6	10.8	12.4	10.6	12.2	15.4	19.4	24.2	29.7	31.8	33.7	34.1	35.4	35.6	35.1	35.9	35.3	33.2	29.6	23.6	18.6	16.9	14.2			

STATUS FLAG CODES

S	- OUT OF SERVICE	IZS	- IZS - DAILY ZERO/SPAN CHECK
N	- INVALID DATA	M	- MAINTENANCE
D	- INSTRUMENT DRIFT	P	- POWER FAILURE
C	- CALIBRATION	NA	- NOT APPLICABLE

OBJECTIVE LIMIT: **ALBERTA ENVIRONMENT:** 1-HR 82 PPB



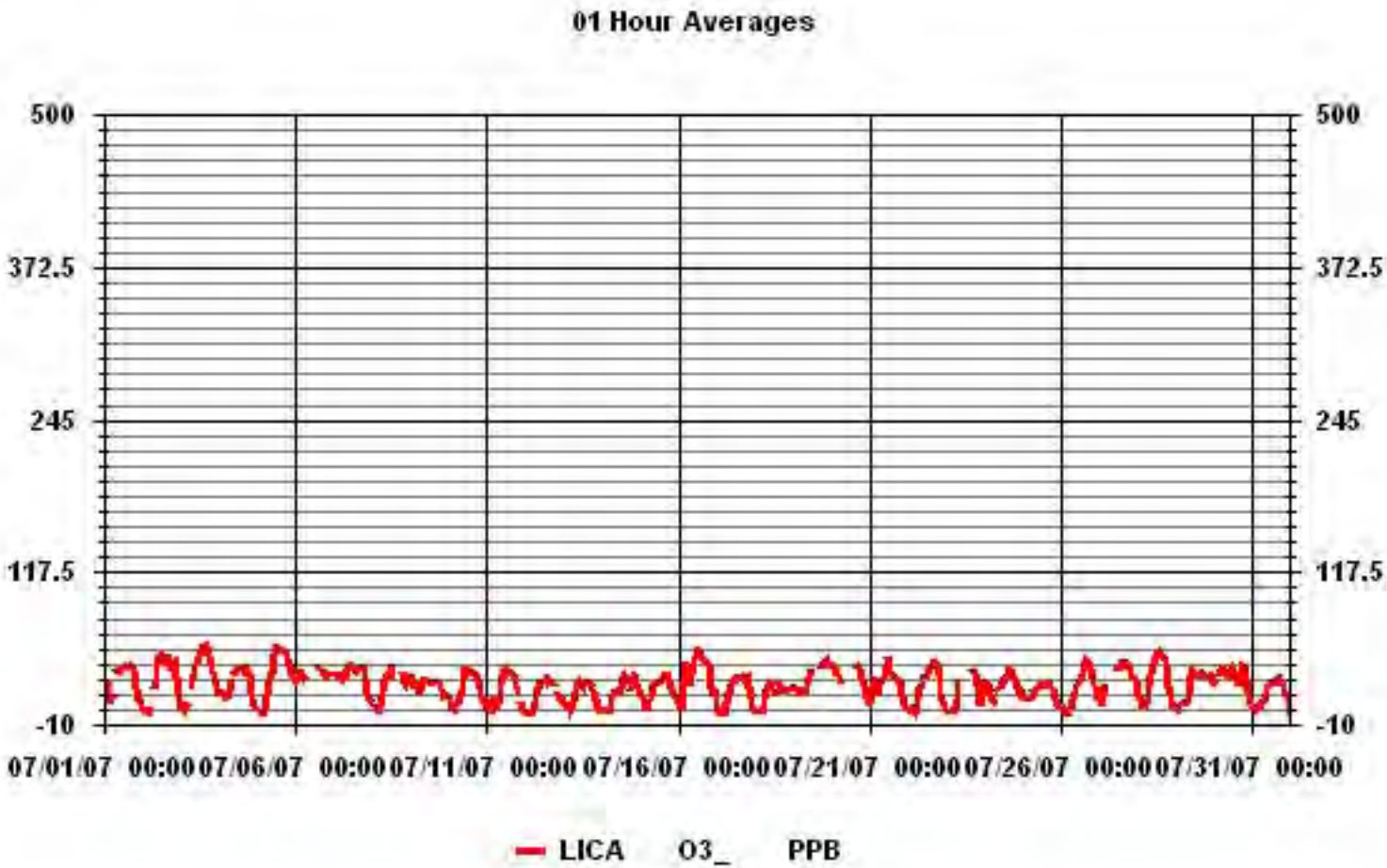
MONTHLY SUMMARY

NUMBER OF 1-HR EXCEEDENCES:	0					
NUMBER OF NON-ZERO READINGS:	663					
MAXIMUM 1-HR AVERAGE:	56	PPB	@ HOUR(S)	16	ON DAY(S)	3
MAXIMUM 24-HR AVERAGE:	33.3	PPB			ON DAY(S)	5

IZS CALIBRATION TIME:	37	HRS	OPERATIONAL TIME:	738	HRS
MONTHLY CALIBRATION TIME:	28	HRS	AMD OPERATION UPTIME:	99.2	%
STANDARD DEVIATION:	13.36		MONTHLY AVERAGE:	23.54	PPB

Maxxam Analytics Inc

MOUNTAIN STANDARD TIME


01 Hour Averages
500
372.5
245
117.5
-10
07/01/07 00:00
07/06/07 00:00
07/11/07 00:00
07/16/07 00:00
07/21/07 00:00
07/26/07 00:00
07/31/07 00:00
LICA O3_ PPB

LICA
O3_ / WD Joint Frequency Distribution (Percent)

July 2007

Distribution By % Of Samples

Logger Id : 01
Site Name : LICA
Parameter : O3_
Units : PPB

Wind Parameter : WD
Instrument Height : 10 Meters

Direction

Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
< 50	3.12	2.08	4.01	3.72	4.46	9.37	13.24	4.31	3.27	4.61	8.92	12.05	13.98	4.76	3.12	2.38	97.47
< 110	.14	.00	.00	.00	.00	.00	1.19	.00	.00	.14	.59	.00	.00	.29	.14	.00	2.52
< 210	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
>= 210	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
Totals	3.27	2.08	4.01	3.72	4.46	9.37	14.43	4.31	3.27	4.76	9.52	12.05	13.98	5.05	3.27	2.38	

Calm : .00 %

Total # Operational Hours : 672

Distribution By Samples

Direction

Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
< 50	21	14	27	25	30	63	89	29	22	31	60	81	94	32	21	16	655
< 110	1						8			1	4			2	1		17
< 210																	
>= 210																	
Totals	22	14	27	25	30	63	97	29	22	32	64	81	94	34	22	16	

Calm : .00 %

Total # Operational Hours : 672

Logger : 01 Parameter : 03_

Class Limits (PPB)

>= 210

< 210

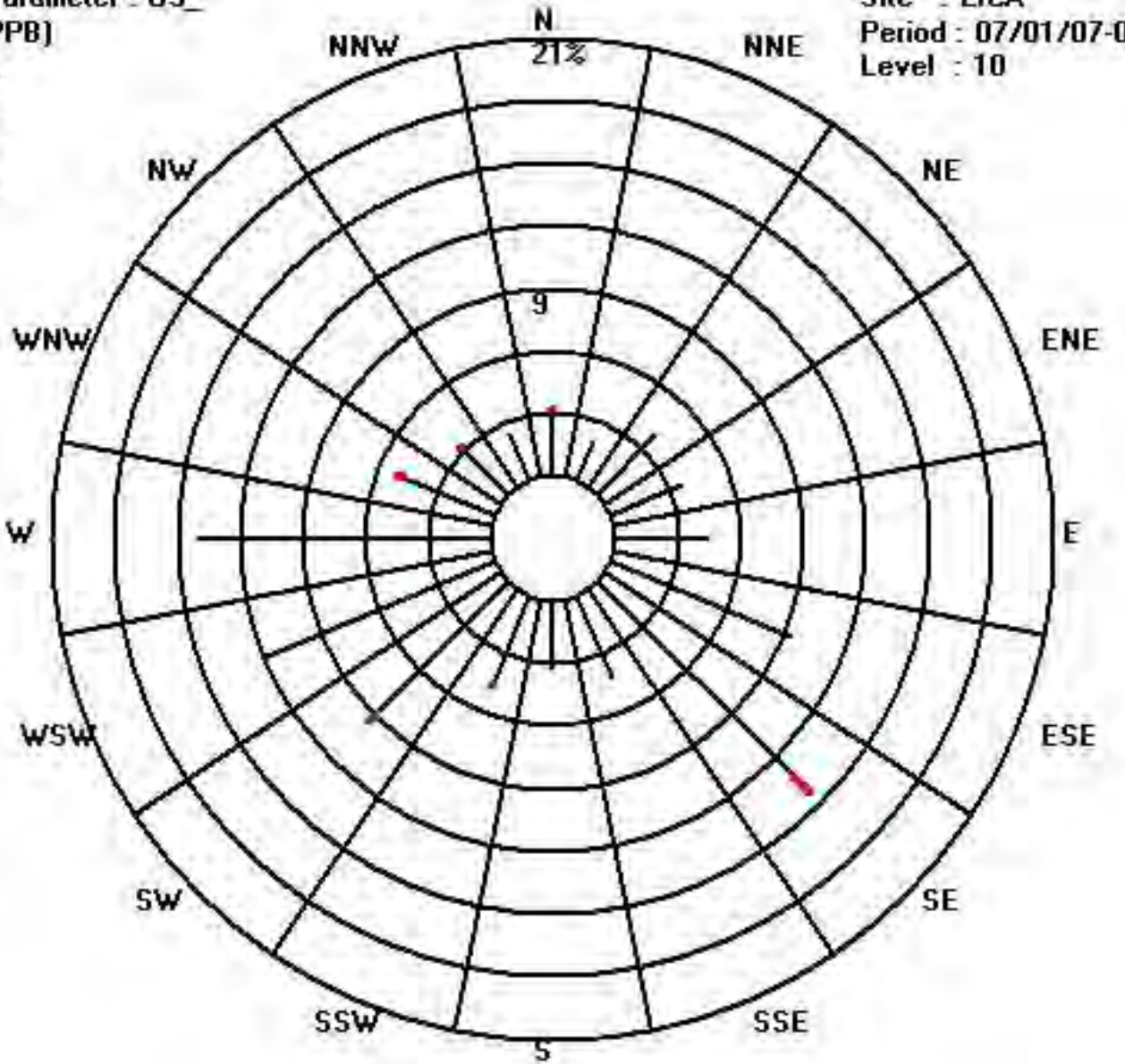
< 110

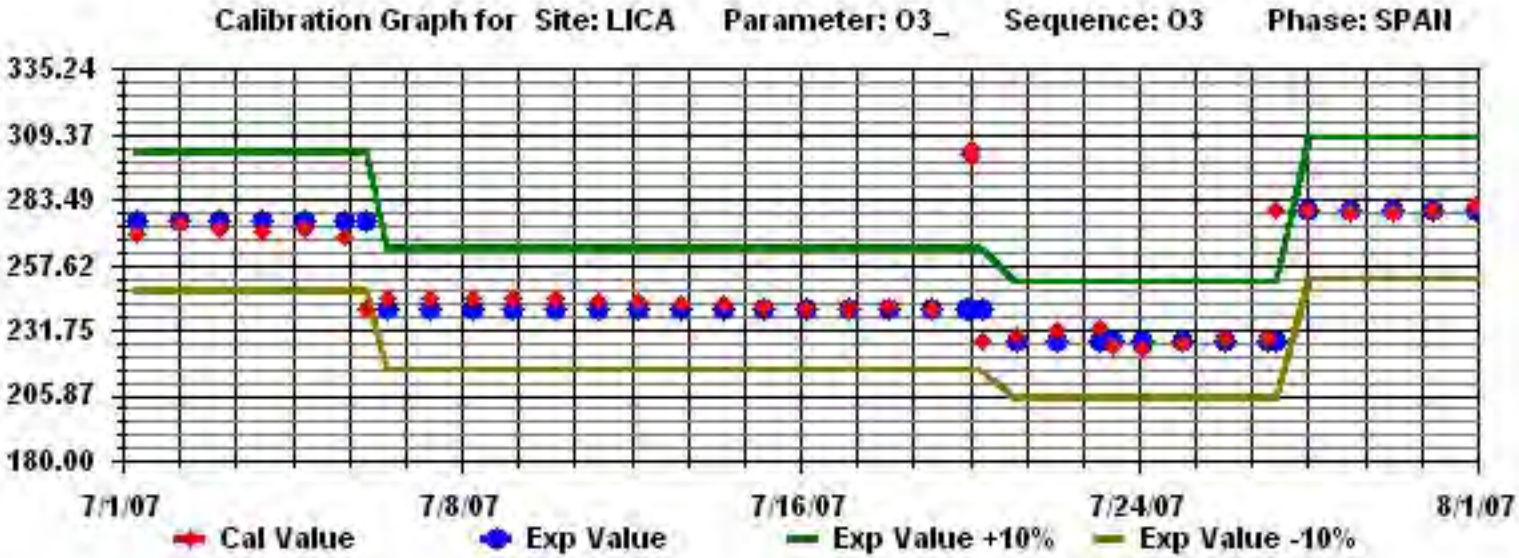
< 50

Site : LICA

Period : 07/01/07-07/31/07

Level : 10




Calibration Graph for Site: LICA Parameter: O3_ Sequence: O3 Phase: SPAN
335.24
309.37
283.49
257.62
231.75
205.87
180.00
7/1/07
7/8/07
7/16/07
7/24/07
8/1/07
Cal Value
Exp Value
Exp Value +10%
Exp Value -10%

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - *COLD LAKE*

JULY 2007

OZONE MAX instantaneous maximum in pp

HOUR START	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	24-HOUR	
HOUR END	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	0:00	MAX.	AVG.	RDGS.
DAY																											
1	32	41	25	24	11	25	19	**IZS**	40	39	39	40	41	42	41	43	43	41	40	39	31	18	14	11	43	32.1	24
2	8	5	4	3	3	10	**IZS**	27	36	45	49	53	52	51	47	50	51	44	43	46	46	42	28	15	53	33.0	24
3	12	5	4	16	16	**IZS**	27	29	38	44	47	49	53	58	57	58	56	56	51	46	39	35	30	22	58	36.9	24
4	21	22	21	17	**IZS**	17	23	31	**M**	37	37	40	41	41	40	41	41	39	39	37	30	16	11	8	41	29.5	24
5	7	4	3	**IZS**	2	11	25	30	32	39	55	58	**60**	57	57	56	56	55	53	49	46	37	35	33	60	37.4	24
6	33	34	**IZS**	37	32	30	34	**C**	**C**	**C**	**C**	**C**	**C**	**IZS**	42	41	38	38	37	34	35	35	34	33	42	35.4	24
7	33	**IZS**	33	33	31	29	30	32	39	40	41	41	40	37	39	40	40	40	41	39	37	24	18	14	41	34.4	24
8	**IZS**	10	4	7	4	9	16	24	31	34	36	37	41	**P**	**P**	**P**	**P**	**P**	**P**	37	34	30	33	**IZS**	41	24.2	18
9	34	31	30	29	25	26	23	27	32	32	30	29	27	28	27	29	29	27	28	27	18	19	**IZS**	15	34	27.0	24
10	14	11	9	5	7	9	11	18	25	33	38	39	39	36	35	36	34	35	33	29	20	**IZS**	15	11	39	23.6	24
11	7	7	10	4	5	9	13	12	16	32	37	39	39	37	38	37	35	34	25	24	**IZS**	12	7	5	39	21.0	24
12	2	1	1	1	1	7	13	19	26	29	29	32	33	32	32	31	31	29	28	**IZS**	20	15	14	11	33	19.0	24
13	11	9	8	8	3	7	12	23	31	34	29	28	27	27	29	28	27	27	**IZS**	22	18	10	8	5	34	18.7	24
14	3	2	4	3	1	3	15	17	19	25	26	24	27	36	35	32	32	**IZS**	25	44	41	32	27	24	44	21.6	24
15	19	19	13	11	4	11	13	18	26	26	26	28	31	33	39	38	**IZS**	35	30	26	22	18	17	14	39	22.5	24
16	12	9	4	44	47	39	29	28	39	45	52	57	57	57	53	**IZS**	53	48	48	48	32	20	25	21	57	37.7	24
17	11	6	5	1	1	1	14	18	22	29	32	32	34	36	**IZS**	35	36	38	32	32	29	19	10	7	38	20.9	24
18	7	3	4	2	3	8	16	23	26	28	25	23	21	**IZS**	28	27	24	23	21	22	20	21	23	22	28	18.3	24
19	22	22	17	18	18	19	19	20	23	30	35	39	**IZS**	44	**C**	**C**	**C**	**IZS**	42	45	46	42	40	41	46	30.6	24
20	40	40	39	37	34	31	**C**	**C**	**C**	**C**	**C**	**C**	**C**	**C**	**C**	IZS	42	41	40	35	28	22	22	16	42	33.4	24
21	9	37	34	32	24	17	33	26	31	40	**IZS**	46	44	35	32	32	31	29	29	27	20	15	10	9	46	27.9	24
22	7	8	11	7	4	8	17	24	26	**IZS**	33	32	36	40	42	42	43	43	40	38	21	17	15	10	43	24.5	24
23	8	4	2	2	2	7	22	30	**IZS**	38	**C**	**C**	**C**	**C**	**C**	**C**	**IZS**	37	35	32	17	10	22	28	38	18.5	24
24	32	25	24	20	17	13	13	**IZS**	24	23	26	27	32	31	34	38	39	35	33	30	27	20	22	19	39	26.3	24
25	16	17	14	12	13	15	**IZS**	19	21	22	22	24	24	24	24	26	26	26	24	22	19	13	10	10	26	19.3	24
26	7	4	5	4	1	**IZS**	9	14	21	25	26	27	28	37	47	49	49	48	41	34	28	24	26	23	49	25.1	24
27	20	10	22	24	**IZS**	23	**C**	**C**	**C**	**C**	**IZS**	38	38	42	45	45	45	47	43	38	35	34	33	34	47	34.2	24
28	25	16	13	**IZS**	10	12	15	26	40	41	45	50	51	55	50	49	48	47	47	32	28	16	13	7	55	32.0	24
29	6	6	**IZS**	13	14	12	11	12	27	38	41	36	36	31	36	36	34	36	35	31	31	32	32	30	41	26.8	24
30	33	**IZS**	36	39	37	34	40	37	37	39	35	40	37	37	31	27	38	43	44	35	29	24	15	15	44	34.0	24
31	**IZS**	11	7	13	12	11	12	13	18	23	26	29	29	27	27	33	31	30	29	27	22	18	16	**IZS**	33	21.1	24
HOURLY MAX	40	41	39	44	47	39	40	37	40	45	55	58	60	58	57	58	56	56	53	49	46	42	40	41			
HOURLY AVG	16.9	14.4	14.0	16.1	13.2	15.6	19.4	23.0	28.7	33.7	35.3	37.0	37.7	38.9	38.7	38.4	39.0	38.3	36.4	34.2	29.0	23.0	20.8	17.7			

STATUS FLAG CODES

S	- OUT OF SERVICE	IZS	- IZS - DAILY ZERO/SPAN CHECK
N	- INVALID DATA	M	- MAINTENANCE
D	- INSTRUMENT DRIFT	P	- POWER FAILURE
C	- CALIBRATION	NA	- NOT APPLICABLE

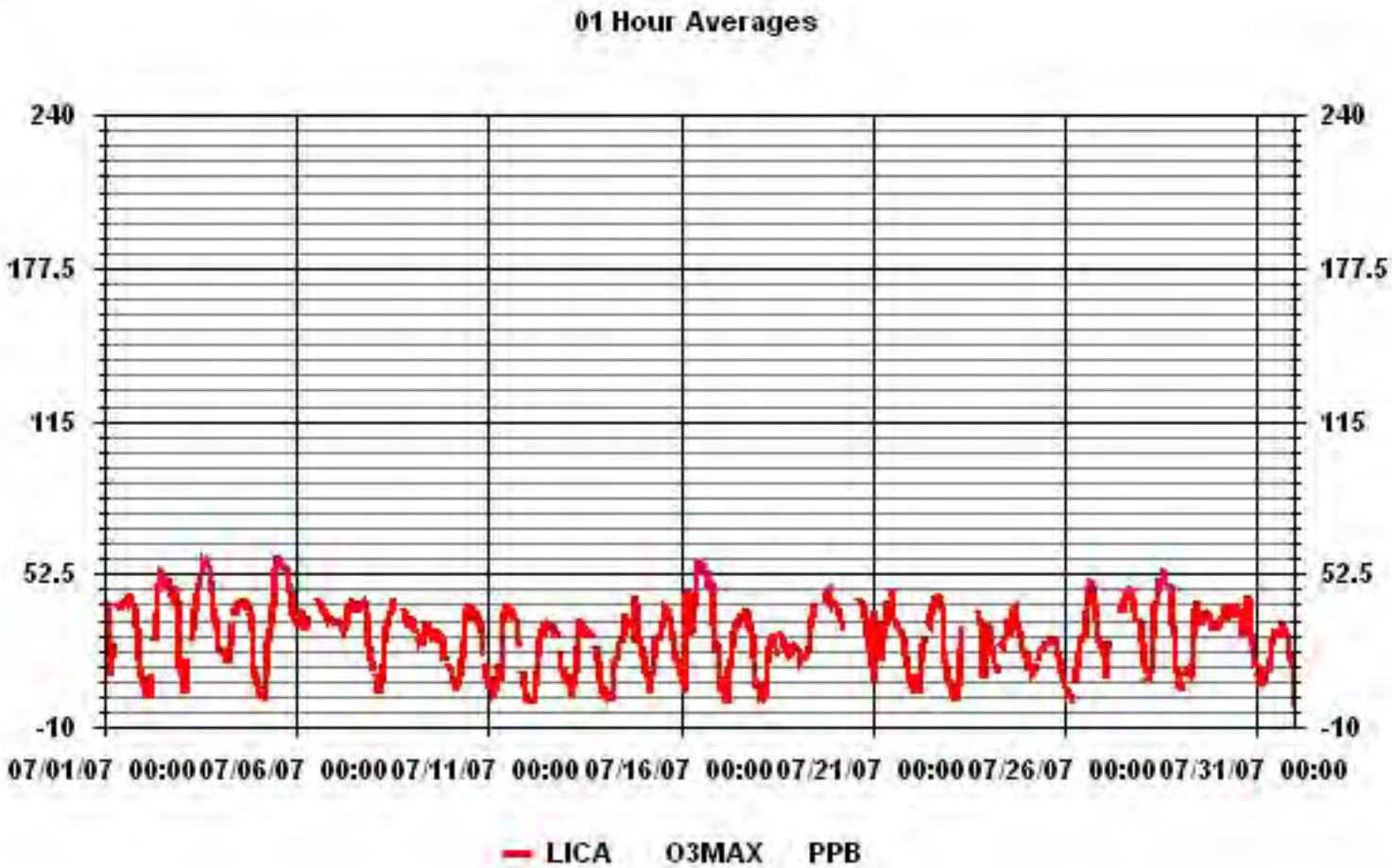
MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	672					
MAXIMUM INSTANTANEOUS VALUE:	60	PPB	@ HOUR(S)	13	ON DAY(S)	5

IZS CALIBRATION TIME:	37	HRS	OPERATIONAL TIME:	738	HRS
MONTHLY CALIBRATION TIME:	28	HRS			
STANDARD DEVIATION:	13.56				

MOUNTAIN STANDARD TIME

Maxxam Analytics Inc


01 Hour Averages
240
177.5
115
52.5
-10
07/01/07 00:00
07/06/07 00:00
07/11/07 00:00
07/16/07 00:00
07/21/07 00:00
07/26/07 00:00
07/31/07 00:00
LICA O3MAX PPB

VECTOR WIND SPEED

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - *COLD LAKE*

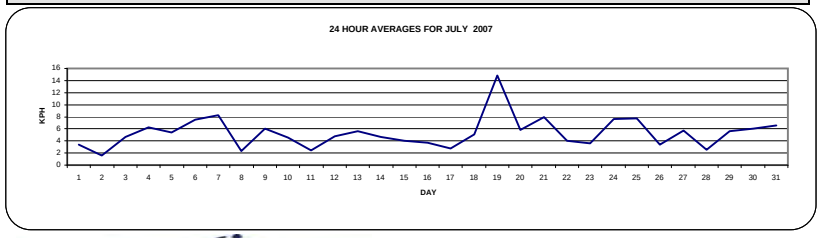
JULY 2007

VECTOR WIND SPEED (WS) hourly averages (km/hr)

HOUR START	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	24-HOUR	
HOUR END	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	0:00	MAX.	AVG.	RDGS.
DAY																											
1	7.4	2.1	0.2	0.7	1.9	1.9	3.4	5.2	4.6	4.9	5.6	5.9	6.4	7.1	7.8	9	8.7	8.2	8.1	4.3	1.7	0.4	1	0.7	9	3.4	24
2	0.3	0.3	0.6	1.5	0.4	1	3.3	3.2	3.8	4.6	2.7	5.1	5.6	5.6	7.9	5	4.2	1.6	2	7.4	2.6	0.6	0.7	0.9	7.9	1.6	24
3	0.6	0.4	0.5	2.1	2.5	5.5	5.8	4	4.5	4.3	5.8	7.6	8.7	7.3	9.6	9	5.8	11.4	3.1	3.7	3.3	3.6	4.1	4	11.4	4.7	24
4	4.7	5.2	5.6	5	4.1	4.1	6	5.5	**M**	9.9	11	11.1	11.2	10.6	10.9	11.6	10.6	9.6	7.4	3.9	1.4	0.9	0.4	0.4	11.6	6.2	24
5	0.6	0.6	0.3	0.4	0.3	0.8	1.6	3.1	5.2	6.1	7.3	9.2	11.8	11.6	11.1	9.8	8.6	7.8	8	6.4	5.5	4.8	4.5	5	11.8	5.4	24
6	2.6	3.5	9.4	7	5.5	7.1	9	9.5	7.1	4.2	11.5	11	11	10.3	10.6	8.8	9.8	9.9	6.3	5	5	5.7	4.4	6.2	11.5	7.5	24
7	7.1	6.1	5.6	8	7.7	6.7	9.2	8.7	10.8	10.9	12	11.1	11.2	12.3	12.8	12.7	10.4	13.3	8	4	2.1	3.1	0.9	2.7	13.3	8.2	24
8	1.6	0.6	1	2.2	0.6	2.3	2.5	1.2	1.9	4	2.2	2.6	1.9	**P**	**P**	**P**	**P**	**P**	**P**	10.7	1.3	2.3	1	3	10.7	2.4	18
9	1.1	3	3.1	2	2.8	3.8	4.3	6.1	10.4	11.7	10.5	12.6	10.4	9.4	10.5	10.5	7	6.5	3.5	0.8	2.9	4.2	3.8	5.2	12.6	6.1	24
10	3.7	2.2	2	2.3	3.1	4.4	5.3	5.2	3.9	2.9	3.4	5.1	6.7	7.8	9.6	9.3	9.6	7.7	5.1	2.3	2.3	2.3	2.9	0.7	9.6	4.6	24
11	0.8	2.2	2.8	0.6	1.1	1.1	0.6	1.4	1.3	4	4.5	4.6	4.7	3.3	1.9	4.5	4	3.6	4.3	1.5	2.5	0.8	0.9	0.5	4.7	2.4	24
12	0.6	0.2	0.8	1.2	1	1.8	2.2	2.6	2.8	4.7	6.1	8.4	9.4	7.5	9.5	9.4	10.2	9.4	4.7	5.3	3	3.5	4.6	4.5	10.2	4.7	24
13	5.2	5.6	4.2	3.8	1.6	1	2.6	3.3	6.2	8.2	8.6	10.1	9	10.6	9.8	11.4	11.1	8.7	5.8	2.5	0.8	1.9	0.4	1.4	11.4	5.6	24
14	1.2	0.8	0.4	1	0.5	0.6	4.8	6.9	4.9	3.4	4.6	7.5	7.3	5.8	5.6	6.7	7.9	6.8	6.8	9.1	4.7	4.9	3.5	5.6	9.1	4.6	24
15	2.9	2	1.1	1.1	0.3	2.7	3.1	2.4	6.2	7	5.6	2.7	3.6	2.8	1.9	4.9	3.6	6.9	5.3	5.7	7.3	6.8	5.7	4	7.3	4.0	24
16	1.6	0.4	0.5	13	10.9	5.1	2.6	4.5	5.5	3.8	4.2	4.1	6.1	4.5	5.2	0.2	3.4	2.2	3.2	2.4	0.1	1.3	4.3	0.8	13.0	3.7	24
17	0.5	0.8	0.2	0.7	0.4	0.3	4.7	6.2	3.7	3.5	3.7	4	4.5	6.7	4.4	4.4	3.1	4.1	4.8	3.9	0.6	0.7	0.2	0.4	6.7	2.8	24
18	0.5	0	0.5	0.7	0.3	1.8	4.6	4.7	5.8	5.4	5.7	5.3	5.1	6	9.1	8.5	7.7	6.9	6.6	5.6	5.7	8.5	8.6	8	9.1	5.1	24
19	9.1	9.5	6.7	7	8.7	8.6	13.3	12.1	11.5	16.4	16.5	18.6	19.4	20.5	20.7	20.7	21.1	19.3	17.5	18	**21.2**	18.6	13.7	8.5	21.2	**14.9**	24
20	7	9.8	13	4.6	4.8	4.6	9.8	10.6	8.7	8.1	8.1	7.9	8.1	4.8	4.8	4.2	4	3.2	2.7	2.9	2.8	2.6	1.8	0	13.0	5.8	24
21	0.3	3.9	7.6	9	3.5	1.4	1.9	4.7	10.2	12.1	15	17.3	17.5	15.9	14.6	14.1	12.4	12.9	8.1	5.6	0.9	0.9	1.2	0.5	17.5	8.0	24
22	1.7	1	0.6	0.8	1.3	1.3	3.1	4.9	6.1	7.8	9.8	10.3	8.2	7.3	5.2	5	4.6	6.2	6.2	2.7	0.9	0.5	1.1	0.6	10.3	4.1	24
23	0.1	1	0.2	0.8	0.4	0.6	3.1	3.1	2.7	2.7	5.8	8	7.5	8.2	8.1	6.5	4.7	3	3.8	3.1	1.6	0.9	2.1	9.1	9.1	3.6	24
24	2	5.5	4.6	4.2	1.2	5.4	3.6	5.7	7.3	6.9	7.3	11.3	12.5	14	13.4	14.2	14.4	13.8	11.2	5.9	4	6.1	5.4	3.3	14.4	7.6	24
25	3.6	2.7	3.8	4.3	5.5	6.8	9.5	11.7	9.5	9.1	11.4	12.1	13.1	12.4	12.5	10.8	10.9	12.2	8.3	5.5	2.9	1.6	3.7	1.5	13.1	7.7	24
26	2	2.3	2.5	0.3	0.4	0.3	2.2	3.2	4.7	2.9	3.9	5	6.2	7.2	3.4	4.1	6.1	3.8	4.9	4.5	3.4	2.6	2.8	3.3	7.2	3.4	24
27	1.5	1.1	3.6	4.9	4.1	4	5.6	6.4	8.8	10.7	10	9.8	7.7	8.6	8	7.4	6	8.8	4.3	4	2.9	3.5	3.6	1.4	10.7	5.7	24
28	1.6	0.7	1	0.2	0.4	2.1	4.1	2.8	3.3	5.1	2.1	0.6	1.1	5.1	4.9	6.9	7.8	6.1	3.9	0.5	0.1	0.4	0.4	0.4	7.8	2.6	24
29	0	0.5	1.1	3.8	2.2	1.9	1	2.1	1.1	5.2	5.8	7.4	8.5	9.2	10.4	11.7	11.9	10	7.5	7.1	8.9	8.2	8.1	1.2	11.9	5.6	24
30	7.1	9.4	5.8	7.2	5	5	6.3	8.9	11.1	13.3	11.2	9.8	5.8	8.7	6.6	3	4.3	0.9	2.2	1.9	5.4	2.8	1.7	2	13.3	6.1	24
31	2.9	1.3	0.1	1.6	1.6	3.7	4.3	4	7.6	13.1	9.7	8.6	8.7	10.1	9.1	8.6	6.7	12.7	6.9	7.2	6.7	6.3	6.6	9.5	13.1	6.6	24
HOURLY MAX	9.1	9.8	13.0	13.0	10.9	8.6	13.3	12.1	11.5	16.4	16.5	18.6	19.4	20.5	20.7	20.7	21.1	19.3	17.5	18.0	21.2	18.6	13.7	9.5			
HOURLY AVG	2.6	2.7	2.9	3.3	2.7	3.2	4.6	5.3	6.0	7.0	7.5	8.2	8.4	8.7	8.7	8.4	8.0	7.9	6.0	4.9	3.7	3.6	3.4	3.1			

STATUS FLAG CODES

S	- OUT OF SERVICE	IZS	- IZS - DAILY ZERO/SPAN CHECK
N	- INVALID DATA	M	- MAINTENANCE
D	- INSTRUMENT DRIFT	P	- POWER FAILURE
C	- CALIBRATION	NA	- NOT APPLICABLE



LAST CALIBRATION: NA

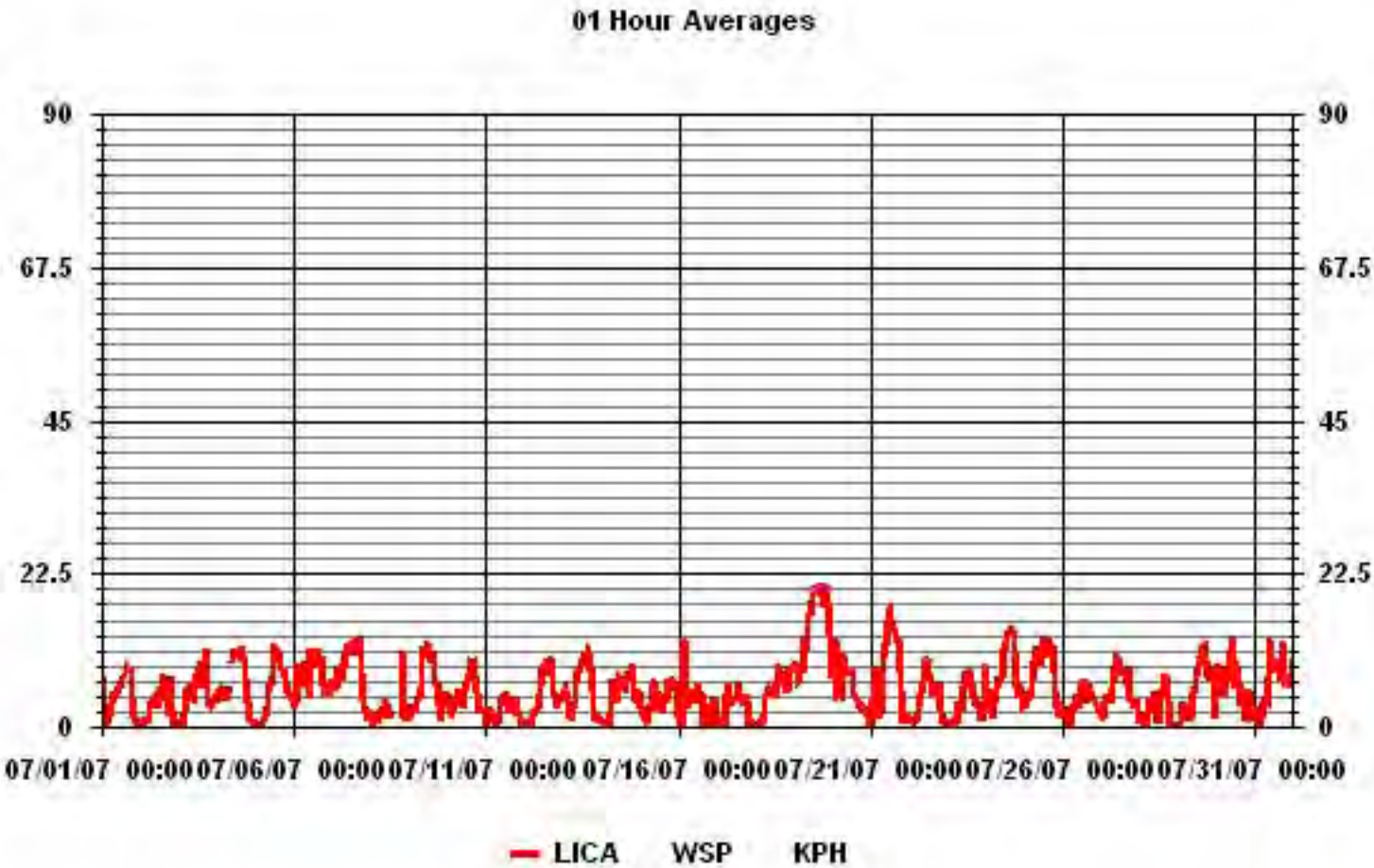
MONTHLY SUMMARY

MAXIMUM 1-HR AVERAGE:	21.2	KPH	@ HOUR(S)	21	ON DAY(S)	19
MAXIMUM 24-HR AVERAGE:	14.9	KPH			ON DAY(S)	19

CALMS (≤ 0 KPH)	3.25	%	OPERATIONAL TIME:	738	HRS
MONTHLY CALIBRATION TIME:	0	HRS	AMD OPERATION UPTIME:	99.2	%
STANDARD DEVIATION:	4.04		MONTHLY AVERAGE:	5.43	KPH

MOUNTAIN STANDARD TIME

Maxxam Analytics Inc


01 Hour Averages
90
67.5
45
22.5
0
07/01/07 00:00
07/06/07 00:00
07/11/07 00:00
07/16/07 00:00
07/21/07 00:00
07/26/07 00:00
07/31/07 00:00
LICA WSP KPH

LICA
WSP / WD Joint Frequency Distribution (Percent)

July 2007

Distribution By % Of Samples

Logger Id : 01
Site Name : LICA
Parameter : WSP
Units : KPH

Wind Parameter : WD
Instrument Height : 10 Meters

Direction

Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
< 6.0	1.89	1.35	2.30	2.98	2.98	5.83	7.32	3.39	2.71	3.93	7.19	8.27	5.02	2.03	1.08	.67	59.02
< 12.0	.94	.81	1.08	.00	1.22	3.66	4.47	.13	.00	.40	2.17	4.07	6.10	2.57	1.89	1.76	31.34
< 20.0	.00	.00	.13	.00	.00	.27	1.35	.00	.00	.00	.00	.40	2.84	.13	.27	.27	5.69
< 29.0	.00	.00	.00	.00	.00	.00	.67	.00	.00	.00	.00	.00	.00	.00	.00	.00	.67
< 39.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
>= 39.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
Totals	2.84	2.17	3.52	2.98	4.20	9.76	13.83	3.52	2.71	4.34	9.36	12.75	13.97	4.74	3.25	2.71	

Calm : 3.25 %

Total # Operational Hours : 737

Distribution By Samples

Direction

Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
< 6.0	14	10	17	22	22	43	54	25	20	29	53	61	37	15	8	5	435
< 12.0	7	6	8		9	27	33	1		3	16	30	45	19	14	13	231
< 20.0			1			2	10					3	21	1	2	2	42
< 29.0							5										5
< 39.0																	
>= 39.0																	
Totals	21	16	26	22	31	72	102	26	20	32	69	94	103	35	24	20	

Calm : 3.25 %

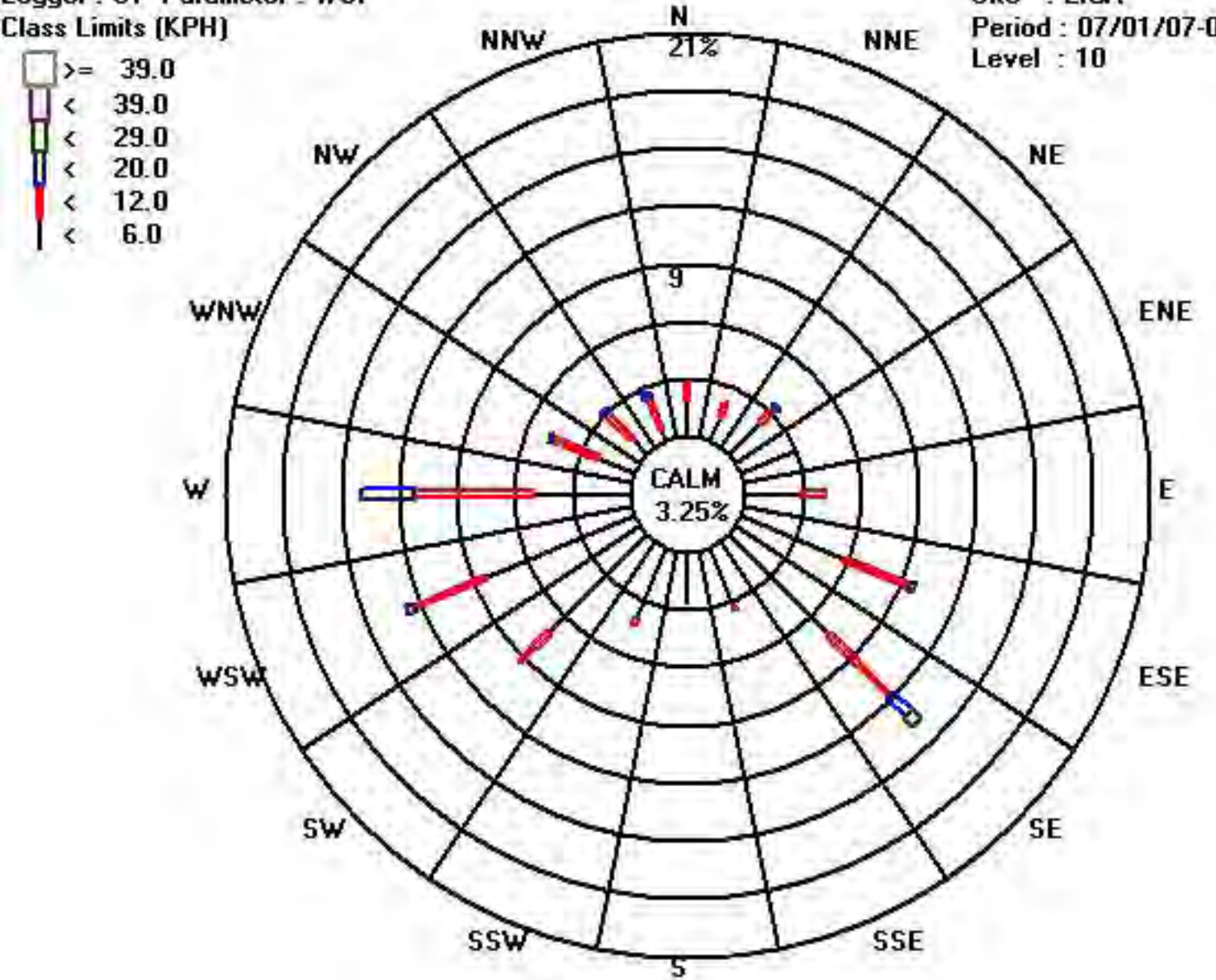
Total # Operational Hours : 737

Logger : 01 Parameter : WSP

Site : LICA

Period : 07/01/07-07/31/07

Level : 10



LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - *COLD LAKE*

JULY 2007

VECTOR WIND SPEED MAX instantaneous maximum in km/hr

HOUR START HOUR END DAY	0:00 1:00	1:00 2:00	2:00 3:00	3:00 4:00	4:00 5:00	5:00 6:00	6:00 7:00	7:00 8:00	8:00 9:00	9:00 10:00	10:00 11:00	11:00 12:00	12:00 13:00	13:00 14:00	14:00 15:00	15:00 16:00	16:00 17:00	17:00 18:00	18:00 19:00	19:00 20:00	20:00 21:00	21:00 22:00	22:00 23:00	23:00 0:00	DAILY MAX.
1	9.8	13.7	5.8	5.2	4.1	6.3	10	10.1	7.8	10.8	9.1	13.1	13.6	15.3	14.6	14.9	14.7	12.8	12.9	8.6	3.2	1.4	2.4	3.3	15.3
	-	W	NNE	ESE	WSW	ESE	WNW	W	WSW	WSW	WNW	WNW	WSW	SW	SSW	SSW	W	SW	WSW	SW	S	S	SE	SW	SW
2	1.7	1.5	1.3	3.8	2.1	2.3	7.3	6.9	8.4	11.5	9.1	11.5	10.5	9.8	13.8	14.8	10.1	4.3	6.4	15.8	7.6	4.9	3.5	3.8	15.8
	ENE	ENE	NE	SW	-	ENE	SE	ESE	SW	WSW	SE	SE	SE	WSW	SE	SE	SW	SW	WSW	N	ESE	SSW	SSW	SW	N
3	2.1	2.7	2.3	5.2	5.1	8	10.5	8.3	7.1	10.2	13.1	13.1	15.5	12.8	16.1	14	10.3	27.3	10.1	7.4	6.1	4.9	6.8	4.9	27.3
	SW	NW	SE	SW	SW	SW	SW	SW	SW	SW	WSW	SSW	SSW	SSW	WSW	WSW	WSW	SW	WSW	WSW	WSW	SW	WSW	WSW	SW
4	7.2	6.9	7	6.8	7	8.7	10.9	9.1	-	14.2	20.4	20.4	16.2	17.5	17.6	18.6	16	15.8	13.6	7.5	2.9	3.2	2.2	1.9	20.4
	WSW	WSW	WSW	WSW	SW	WSW	WSW	W	-	NW	W	WNW	N	WSW	WSW	W	WSW	WNW	W	WNW	WSW	SW	SW	SW	WNW
5	1.8	1.9	1.8	2.2	2.2	3.5	6.4	7.8	9.7	11	14.4	16.1	18.3	17.8	16.9	17.8	15.4	14.1	12.1	8.7	7.7	6.3	6.1	8.7	18.3
	NE	SE	NW	SE	SE	ESE	-	ESE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	ESE	SE
6	5.7	23.4	25.2	11.1	9.8	12	14.2	14.2	13.1	7.6	20.5	19.4	19.3	16.6	17.4	15	14	15.1	12.6	7.5	7.2	8.2	8	11.4	25.2
	ESE	WNW	NW	NE	N	NW	NNW	NW	NW	NE	NW	NW	NW	WNW	WNW	W	W	W	WSW	W	W	W	WSW	WSW	NW
7	10.6	9.6	8.2	11.3	12	10.7	16.9	16.2	17.8	16.8	18.8	16.8	17.9	21	21	20.9	22.2	21.6	14.2	8	4.8	4.1	3.3	4.8	22.2
	WSW	W	WSW	W	W	W	W	WNW	WNW	WSW	WNW	WSW	WSW	WNW	WSW	WNW	NNE	NE	NE	NE	WNW	SW	W	WSW	NNE
8	3.8	4.4	3.3	7.5	2.4	4.3	4.7	4.3	7.7	9.5	10.7	7.7	8.8	-	-	-	-	-	-	18.4	10.5	4.5	3.3	8.1	18.4
	SW	SW	SW	WSW	WNW	SW	W	ESE	N	N	NW	N	SE	-	-	-	-	-	-	WSW	WSW	SW	NNW	E	WSW
9	9.8	7.4	6.5	3.9	5.5	7.6	7.5	12.7	17.5	18.8	18	21	17	15.6	16.2	15.8	13.5	22	7.8	3.6	6.3	6.6	5.6	6.9	22
	ESE	WNW	WNW	NNW	NW	NW	WNW	N	NNW	NW	NNW	-	N	NE	N	NNW	N	N	NNNE	SE	WNW	WNW	WSW	WSW	N
10	6.7	4.1	4.9	5.1	5.2	8.4	8	9	7.3	12	9	12.7	13.6	15	16.2	15	17.8	12.3	8.7	5.2	3.8	4.1	5.2	2.4	17.8
	WSW	SW	SW	SW	SW	WSW	WSW	WSW	WSW	WSW	W	W	SW	WSW	WSW	WSW	WSW	WSW	WNW	NW	SW	WSW	SW	SW	WSW
11	4	4.7	5.6	2.3	2.4	6.1	3.8	4.3	4.9	8.7	8.8	9.5	14.9	8.9	5.8	6.9	5.9	11.2	10.2	2.8	4.2	3.6	3.1	2.4	14.9
	SW	WSW	WSW	E	ESE	SW	WSW	SW	SE	SSW	W	SE	SE	SE	SE	SE	SE	WSW	SSW	SE	SW	SW	SW	SSE	SE
12	2.6	1.9	3.7	2.8	2.3	3.9	4.4	5.9	6.6	9	12.6	14.3	18	13.9	14.6	18.9	16.3	14.1	11.1	8.4	4.4	5.4	6.7	6	18.9
	SSW	SW	E	ESE	SE	S	SSW	WSW	WSW	SSW	SSW	SW	WSW	SSW	WSW	WSW	W	W	W	WSW	SW	WSW	SW	WSW	WSW
13	6.4	7.9	5.7	5.9	4.6	4.2	4.9	10.3	10.1	13.2	16.2	17.5	18.3	18.9	18.4	19.7	17	15.1	10	5.5	5.1	4.9	2.1	3.6	19.7
	WSW	WSW	WSW	WSW	WSW	SW	SW	NW	WNW	WSW	W	W	WNW	WNW	NW	NW	NNW	NW	NW	ENE	NE	SW	SW	ENE	NW
14	3.9	2.6	2	3.8	2.6	2.8	9.8	10.4	8.7	8.5	10.7	16.3	13.6	13.4	10.6	12.3	13	10.4	10.5	27.6	24.3	10.4	8.2	9.1	27.6
	NE	ENE	SW	SW	SW	ESE	SE	SE	SE	SE	SE	SE	ESE	SW	S	SE	SE	ESE	SE	NW	NW	SE	ESE	SE	NW
15	7.6	5.8	4.4	4.8	2.9	5.5	7.8	6.7	10.2	11.3	12.2	11.2	11.4	8.6	7.1	9.5	13	11.3	8.5	10.6	11.8	10.4	10.1	7.5	13
	SE	NE	SSW	SW	ESE	SE	ESE	NE	-	NNE	NNE	SE	SE	SE	E	ESE	NNE	ENE	ENE	E	E	E	E	ESE	NNE
16	4.2	3.1	2.1	26.6	19.6	12.6	4.8	7.9	9	9.3	9.8	10.4	12.3	10.2	9.8	12	9.7	7.6	7.7	7.7	1.6	4.7	9.6	4.1	26.6
	E	ESE	NE	WNW	NNW	-	SE	W	WSW	WNW	W	-	WNW	N	NNE	WNW	WNW	SE	NE	ENE	SW	ESE	E	ESE	WNW
17	3.2	4.2	3.3	2.4	1.6	2.3	9.7	9.6	7.5	7.7	9.4	9.8	10.8	13.4	9.4	8.3	8.1	9.1	12.3	7.4	4.4	2.9	2.3	2.2	13.4
	NE	NE	SW	SE	NE	SW	SE	SE	SE	E	ENE	NE	NNE	N	N	NE	SE	NE	NE	NE	NE	N	NE	SE	N
18	2.4	2.6	5.6	2.8	6.1	4.4	8.5	7.4	9	9.6	8.7	9	9.3	12.2	14.6	13.5	13.9	9.1	10.1	8.8	8.9	12.9	13	11.5	14.6
	NE	SSE	SSW	SE	SW	SE	ESE	SE	SE	SE	E	E	E	SE	SE	ESE	E	ESE	ESE	ESE	ESE	SE	SE	SE	SE
19	14.2	14.3	9.7	11.5	14	14.7	20.2	19.5	18.4	26	23.8	30.3	27.6	27.4	30.5	26	30.2	32	24.8	24.2	28.5	26.7	22.1	16.9	32
	ESE	SE	E	E	ESE	ESE	SE	SE	SE	SE	ESE	SE	SE	SE	SE	ESE	SE	SE	SE	SE	SE	SE	SE	SE	SE
20	11.9	13.7	17.9	11	9.1	10.7	18.4	15.9	16.2	14	14	14.5	13.7	11.7	13.1	11.2	10.9	6.7	5.3	5.8	4.3	4.1	4.6	1.8	18.4
	SE	SE	SE	SE	S	SW	WSW	WNW	WSW	W	WSW	WSW	WSW	W	SW	SW	SW	SSE	SE	SE	ESE	ESE	SE	NW	WSW
21	3	12.3	12.7	13.5	8.9	6.2	9.8	12.4	17.7	19.8	23.7	25.6	26.4	25	25.2	23.5	21.7	20	14.5	9.5	2.6	4.1	3.8	3.3	26.4
	SE	SE	SE	SE	SE	NE	-	SE	WSW	WSW	W	WSW	W	W	WSW	WSW	W	W	-	WSW	SE	NE	SE	N	W
22	4.3	3.2	5.1	3.5	3.2	4.1	5	8.5	10.7	12.6	15.5	17.2	14.7	14.9	13.6	13.6	9.4	10.7	10.2	7.1	2.7	3.3	3.2	2.6	17.2
	S	NNE	NE	NNW	SE	NNE	ESE	E	SE	SE	SE	SE	SE	SE	SSW	SW	SSW	SW	WSW	W	SW	SW	SE	NNE	SE
23	2.9	3.3	2.2	3.1	3	3.1	9.7	6	6.2	8.8	12.6	13.8	15.8	14.2	15.4	11.6	9.5	6.4	6.1	4.7	3.8	3	4.5	31	31
	SE	SW	NNE	NNE	NNW	NNW	SE	ESE	SE	SW	SW	SW	WSW	SW	WSW	SW	SW	SW	ESE	SE	ESE	E	N	NW	NW
24	**33.4**	16.4	13.9	12.9	10.6	9.9	10.3	10.3	12.8	11.9	15.1	17.6	18.7	22.2	19.6	25.6	21.9	21.5	17.4	14	5.4	10.3	9.9	5	33.4
	WSW	-	ENE	WNW	WNW	WNW	NW	WNW	WNW	WSW	WNW	WNW	WNW	W	W	W	W	WNW	W	-	WSW	WSW	-	N	WSW
25	4.9	4.8	5.3	6.2	7.5	11	15.3	18	15.7	15.4	18.5	19.2	19.3	18.8	20.2	18	17.3	19	17.7	9.8	7	6.2	5	8	20.2
	-	WSW	SW	WSW	SW	WSW	WSW	WSW	W	WSW	SW	WNW	W	WSW	WSW	NNW	WSW	W	WSW	WSW	WSW	NNE	WSW	NNW	WSW
26	4.7	4.5	4.9	3.3	1.6	1.6	5.7	6.7	8.3	7.7	10.6	12.4	14	15.3	11	11.6	12.3	11.4	8.1	6.2	6.1	3.9	5.4	4.5	15.3
	WSW	SW	WSW	SW	NE	SW	WSW	WSW	SW	SW	SSW	WNW	WSW	SW	W	SW	SW	SE	SE	SE	ESE	SE	ESE	ESE	SW
27	3.1	2.2	6.2	6.9	7.6	5.8	10.5	10.5	16.2	15.3	14.7	16.1	14.9	14.7	15.8	13	10.1	14.5	7.3	7	4.9	5.5	5.3	4.4	16.2
	ESE	ESE	SE	ESE	SE	ESE	E	E	SE	SE	SE	SE	SE	SE	SE	SE	SE	ESE	E	E	E	ESE	ESE	ESE	SE
28	3.2	3.4	4.9	4	7.5	5.3	7.4	6.6	6.5	9.3	9.3	7.3	14	11.9	10.7	12.2	14.2	10	7.7	1.8	2.2	3.3	3.3	5	14.2
	SW	NNE	-	ENE	NE	WSW	SW	WSW	SW	W	NNW	NNE	WNW	NW	WNW	NW	WNW	NNW	NW	WNW	NW	SE	NNW	-	WNW
29	4.5	4.6	4.1	6.7	9.4	11.3	10.5	11.3	10.4	9.6	12.5	10.9	14.3	13.3	19.6	19.6	22.5	17.6	15	11.7	13.7	11	12.4	11.9	22.5
	N	SW	NW	WSW	SW	SSW	SE	W	SE	SE	SE	N	NE	NE	E	E	E	E	E	E	ESE	ESE	-	WNW	E
30	15.5	15.4	9.9	12.6	9.2	9	10.2	13.7	18.5	19	21	18.1	12.8	13	12.3	10.6	11.2	5.3	5.4	7.4	14.1	10	3.9	5.1	21
	WNW	NNE	NNE	NE	N	NNW	N	NNW	NW	NNW	NW	NW	NNW	W	NNW	N	WNW	SE	SW	WSW	W	WSW	NW	NNW	NW
31	6.5	4.4	3.2	6	4.6	12.2	8.6	8.5	15.8	21.9	18.2	14.7	16.4	13.9	15.2	12.2	11	31.2	17	10.7	9.1	9.5	10.5	13.2	31.2
	W	NNW	SW	W	WSW	SW	WNW	WNW	NW	NW	WNW	WSW	WNW	W	WNW	WNW	W	W	WSW	WSW	WSW	WSW	WSW	WSW	W
PEAK	33.4	23.4	25.2	26.6	19.6	14.7	20.2	19.5	18.5	26.0	23.8	30.3	27.6	27.4	30.5	26.0	30.2	32.0	24.8	27.6	28.5	26.7	22.1	31.0	
	WSW	WNW	NW	WNW	NNW	ESE	SE	SE	NW	SE	ESE	SE	SE	SE	SE	SE	SE	SE	SE	NW	SE	SE	SE	NW	

STATUS FLAG CODES

S	- OUT OF SERVICE	IZS	- IZS - DAILY ZERO/SPAN CHECK
N	- INVALID DATA	M	- MAINTENANCE
D	- INSTRUMENT DRIFT	P	- POWER FAILURE
C	- CALIBRATION	NA	- NOT APPLICABLE

***INSTANTANEOUS MAXIUM BASED ON ONE-MINUTE AVERAGES**

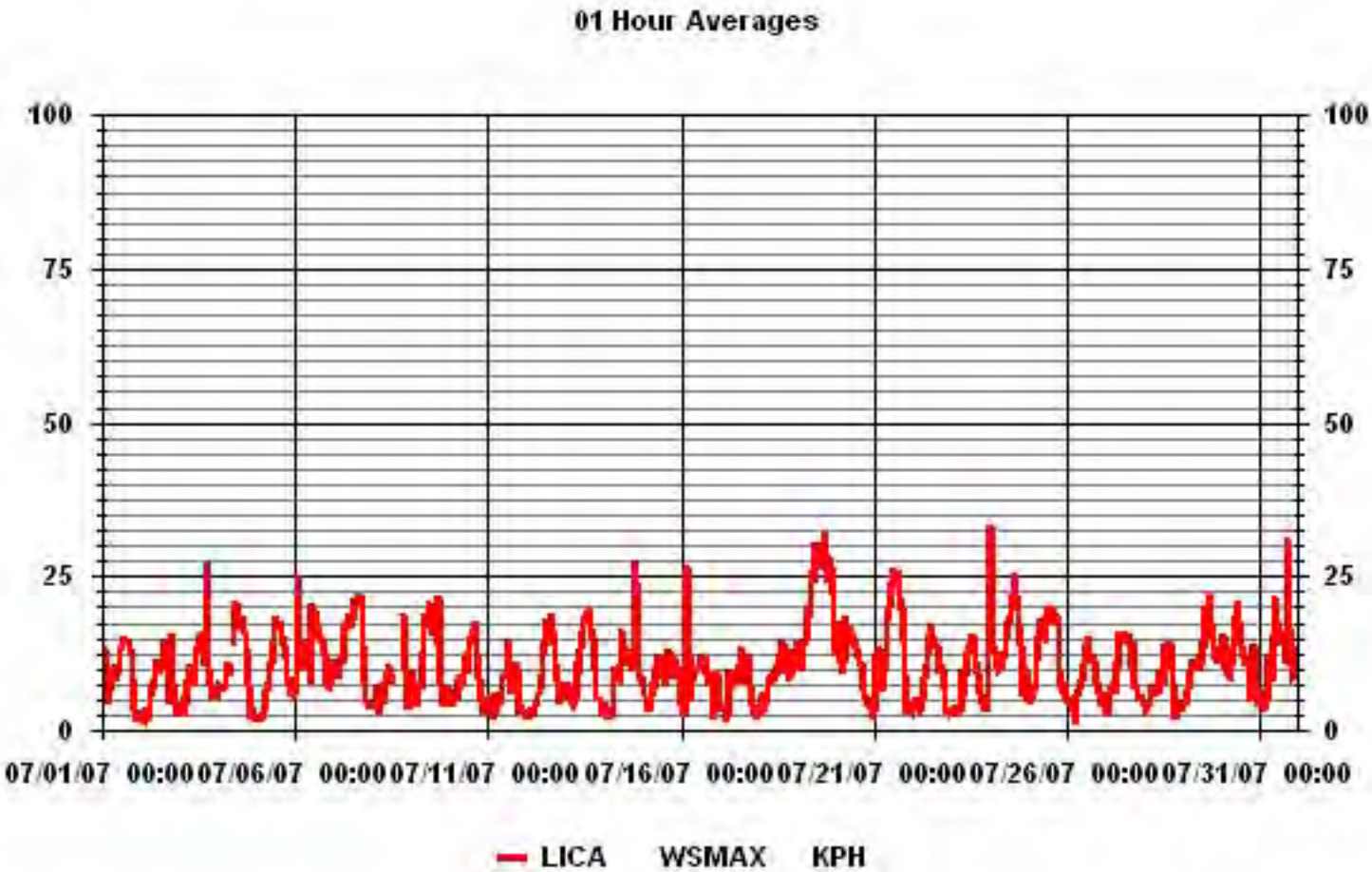
NOTE: WIND DIRECTION CORRESPONDS TO WIND SPEED MAXIMUMS

MONTHLY SUMMARY

MAXIMUM INSTANTANEOUS READING	33.4	KPH	@ HOUR(S)	1
	WSW	DEG	ON DAY(S)	24

MOUNTAIN STANDARD TIME

Maxxam Analytics Inc


01 Hour Averages
100
75
50
25
0
07/01/07 00:00
07/06/07 00:00
07/11/07 00:00
07/16/07 00:00
07/21/07 00:00
07/26/07 00:00
07/31/07 00:00
LICA WSMAX KPH

VECTOR
WIND DIRECTION

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - *COLD LAKE*

JULY 2007

VECTOR WIND DIRECTION (WD) hourly averages in degrees

HOUR START	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	24-HOUR AVG	
HOUR END	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	0:00	AVG.	QUANDRANT	RDGS.
DAY																											
1	128	184	352	179	248	117	261	268	275	275	269	297	244	245	216	232	234	234	238	222	151	152	106	210	237	SW	24
2	74	53	48	239	3	75	119	133	222	199	165	138	139	131	131	139	198	205	260	346	85	238	191	221	153	SSE	24
3	215	276	172	243	237	232	233	241	231	225	245	229	224	230	233	234	231	213	195	237	234	229	241	244	229	SW	24
4	243	252	243	240	241	250	245	262	**M**	276	267	282	278	280	262	261	267	291	288	286	217	198	171	154	266	W	24
5	105	124	213	120	164	138	165	140	131	128	139	132	129	130	129	137	141	137	135	134	133	127	125	128	132	SE	24
6	102	144	341	37	22	333	333	334	346	27	309	320	301	276	272	267	267	263	274	257	274	265	260	248	301	WNW	24
7	274	265	270	267	266	250	263	277	281	273	270	259	274	277	267	271	334	35	40	21	277	242	225	236	279	W	24
8	246	208	222	251	231	237	290	44	30	49	1	77	175	**P**	**P**	**P**	**P**	**P**	**P**	235	265	208	2	108	239	WSW	18
9	353	308	318	298	307	305	295	321	331	344	342	348	355	357	22	7	349	34	42	193	274	283	258	249	340	NNW	24
10	244	210	165	208	237	241	252	259	271	280	260	248	271	262	252	255	266	275	288	279	229	223	229	168	255	WSW	24
11	184	249	252	135	129	193	241	250	178	206	205	213	161	238	180	134	138	151	227	172	227	193	188	143	191	S	24
12	221	195	146	146	138	169	186	217	221	220	224	226	248	242	256	265	258	266	271	247	225	232	233	241	241	WSW	24
13	243	243	250	244	219	216	226	293	298	273	305	284	282	299	318	311	317	325	328	1	64	220	115	66	293	WNW	24
14	49	85	151	231	213	67	123	129	134	151	118	118	128	186	161	157	142	127	126	9	56	134	115	114	126	SE	24
15	77	58	197	202	193	146	138	64	12	32	36	92	124	72	82	108	103	55	66	100	94	105	104	108	83	E	24
16	96	5	75	310	3	81	228	263	246	274	262	287	285	5	19	168	263	99	87	68	70	61	100	159	321	NW	24
17	245	36	127	132	68	223	126	124	116	75	104	63	42	12	27	47	131	86	42	53	37	68	66	141	71	ENE	24
18	81	240	168	96	151	142	125	124	126	105	104	83	82	108	124	113	103	105	118	112	117	121	124	122	113	ESE	24
19	120	117	88	93	105	108	121	124	120	123	126	126	128	127	124	126	127	127	124	124	124	126	129	142	123	ESE	24
20	143	136	133	142	166	195	245	275	273	275	276	264	249	250	207	202	215	147	143	124	122	119	114	132	208	SSW	24
21	48	120	124	127	126	71	126	164	223	261	256	260	265	276	262	266	269	279	283	255	117	138	124	158	252	WSW	24
22	194	49	209	60	138	64	125	94	123	121	126	126	138	139	167	192	205	212	247	254	186	186	167	109	149	SSE	24
23	154	196	98	106	353	51	129	109	167	216	221	251	255	231	249	235	210	197	133	120	103	68	30	300	224	SW	24
24	289	0	41	358	11	278	265	275	287	291	296	286	292	273	266	270	281	276	272	272	256	250	260	265	281	W	24
25	269	234	237	235	239	248	250	256	262	254	242	265	259	253	254	274	265	264	265	262	248	254	240	257	255	WSW	24
26	235	215	251	156	145	188	247	238	232	217	225	236	239	260	253	190	212	173	138	126	112	118	119	126	205	SSW	24
27	112	97	124	128	112	102	91	96	119	128	120	123	114	124	122	116	111	126	112	106	99	104	112	139	116	ESE	24
28	189	287	228	93	58	227	238	255	235	271	301	45	2	320	280	314	310	317	306	164	187	167	29	138	288	WNW	24
29	278	224	261	239	19	173	151	153	105	92	86	30	46	39	86	102	91	97	88	95	113	107	106	96	88	E	24
30	350	40	26	38	8	348	17	332	326	332	342	346	327	275	309	321	348	359	215	225	255	247	342	275	337	NNW	24
31	251	293	176	296	234	228	307	283	286	310	305	284	287	278	279	282	274	260	224	242	239	237	248	253	271	W	24
HOURLY AVG	353	308	352	358	353	348	333	334	346	344	342	348	355	357	318	321	349	359	328	346	277	283	342	300			

STATUS FLAG CODES

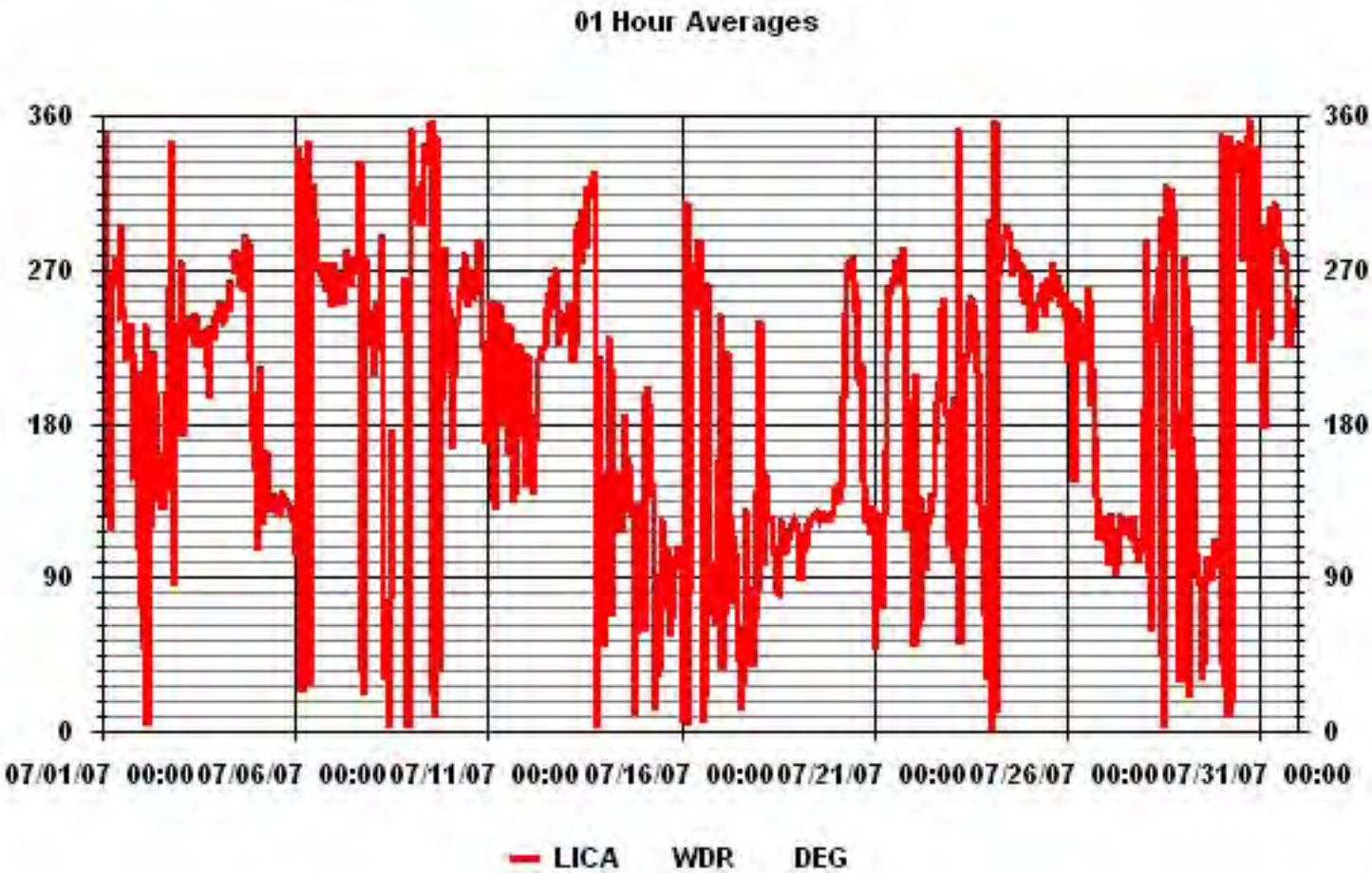
S	- OUT OF SERVICE	IZS	- IZS - DAILY ZERO/SPAN CHECK
N	- INVALID DATA	M	- MAINTENANCE
D	- INSTRUMENT DRIFT	P	- POWER FAILURE
C	- CALIBRATION	NA	- NOT APPLICABLE

LAST CALIBRATION:	NA
DECLINATION :	19 DEGREES FROM MAGNETIC NORTH

MONTHLY CALIBRATION TIME:	0	HRS	OPERATIONAL TIME:	738	HRS
STANDARD DEVIATION	86.28		AMD OPERATION UPTIME	99.2	%
			MONTHLY AVERAGE	232.00	DEG

Maxxam Analytics Inc

MOUNTAIN STANDARD TIME


01 Hour Averages
360
270
180
90
0
07/01/07 00:00
07/06/07 00:00
07/11/07 00:00
07/16/07 00:00
07/21/07 00:00
07/26/07 00:00
07/31/07 00:00
LICA WDR DEG

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - *COLD LAKE*

JULY 2007

STANDARD DEVIATION WIND DIRECTION (STDWDIR) hourly averages in degrees

HOUR START	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
HOUR END	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	0:00
DAY																								
1	9	48	71	54	37	47	29	27	34	37	35	37	37	28	31	24	23	20	19	20	19	38	28	58
2	58	63	49	45	41	32	21	34	36	37	44	39	22	32	21	57	33	31	38	18	28	70	54	33
3	46	39	47	26	31	17	19	29	25	32	30	32	29	29	27	22	19	26	37	35	32	14	14	8
4	9	13	10	10	17	25	15	22	**M**	22	24	23	23	25	23	21	21	20	19	15	18	15	49	40
5	41	49	69	45	71	53	43	44	25	23	36	25	16	17	20	25	29	26	16	12	13	10	12	16
6	22	38	27	25	24	21	19	21	28	38	24	26	25	24	23	21	20	19	20	16	18	18	18	14
7	18	19	21	18	19	26	22	21	23	24	20	23	24	24	22	24	24	20	21	21	32	12	43	9
8	23	59	32	51	28	18	30	66	73	52	52	40	66	**P**	**P**	**P**	**P**	**P**	**P**	32	45	24	34	40
9	66	42	29	25	21	24	20	18	18	28	22	22	23	23	22	21	23	28	27	41	22	16	12	11
10	16	31	32	29	30	15	21	27	32	48	50	44	37	27	27	25	22	20	15	15	12	23	13	47
11	37	20	34	33	39	40	63	32	40	31	40	40	46	53	36	19	14	25	24	34	12	35	34	59
12	50	60	63	36	39	33	36	38	47	37	30	28	27	30	26	25	22	21	19	15	14	13	12	13
13	12	12	11	12	43	49	32	30	19	23	24	24	26	26	30	22	17	19	15	27	46	26	51	19
14	29	29	57	63	41	49	16	15	29	40	31	26	23	39	35	35	25	11	12	29	38	36	47	17
15	26	31	56	43	59	38	37	40	24	24	38	62	53	50	72	34	44	20	20	20	20	21	20	24
16	37	62	50	28	23	29	32	20	25	48	43	43	33	39	41	71	48	55	24	48	59	36	22	29
17	56	53	61	54	58	62	39	17	33	39	45	45	47	29	46	45	54	33	35	24	54	43	74	57
18	63	52	65	51	34	51	16	19	16	23	22	22	20	23	18	21	21	21	17	19	17	15	14	15
19	16	17	19	20	21	22	16	16	18	16	15	15	14	14	15	14	13	13	14	14	13	13	14	27
20	26	17	13	36	39	33	18	21	23	25	27	28	29	54	43	37	39	37	12	22	13	9	30	60
21	60	47	12	11	34	59	62	42	23	20	20	21	21	23	21	22	23	21	19	18	34	45	24	34
22	46	46	67	63	31	42	14	24	19	20	20	21	34	34	44	36	37	25	17	31	49	55	53	42
23	44	45	69	58	64	43	36	29	41	48	38	25	28	26	28	26	33	35	17	11	23	40	25	31
24	41	33	25	38	39	19	49	21	21	20	20	22	22	20	22	21	22	21	21	19	13	13	17	13
25	16	15	12	15	16	15	18	18	22	26	23	23	24	23	24	23	24	21	20	18	39	48	9	50
26	43	18	25	63	62	45	39	35	25	46	50	46	39	30	64	42	30	35	18	11	14	9	18	7
27	19	21	13	12	14	18	19	22	19	15	19	20	25	24	22	21	23	14	19	20	20	16	15	28
28	35	41	61	67	62	44	18	38	29	35	51	58	69	55	40	28	24	16	13	34	61	66	68	66
29	43	68	39	14	39	65	55	36	38	28	23	23	21	21	22	24	22	22	21	20	19	21	20	55
30	20	20	20	21	24	23	21	18	19	19	25	22	21	21	25	55	35	50	25	25	28	47	31	42
31	16	35	58	59	29	27	16	24	22	16	20	25	22	23	21	21	22	20	22	17	16	19	16	15

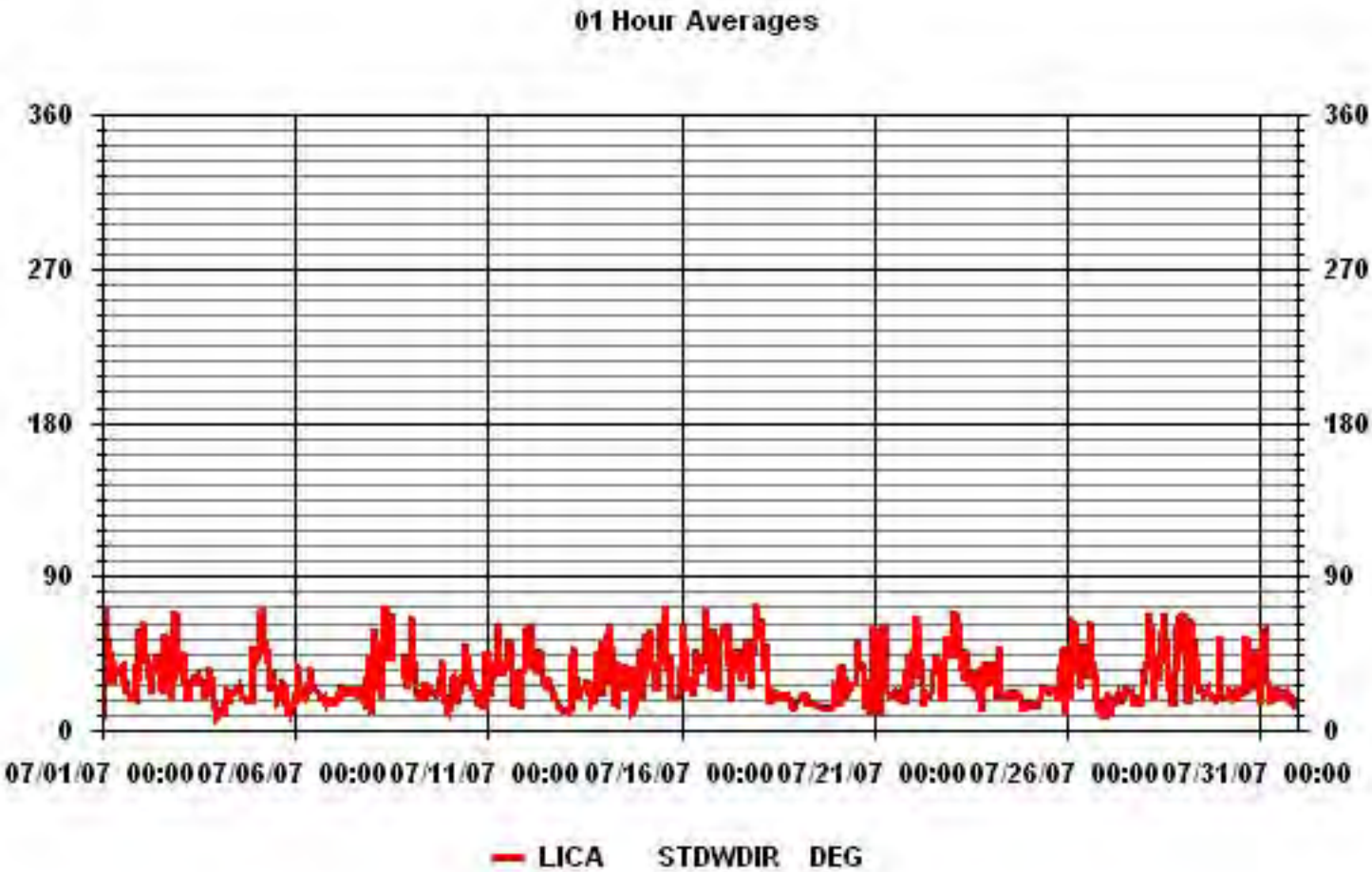
STATUS FLAG CODES

S	- OUT OF SERVICE	IZS	- IZS - DAILY ZERO/SPAN CHECK
N	- INVALID DATA	M	- MAINTENANCE
D	- INSTRUMENT DRIFT	P	- POWER FAILURE
C	- CALIBRATION	NA	- NOT APPLICABLE

LAST CALIBRATION: NA

CALIBRATION TIME: 0 HRS OPERATIONAL TIME: 738 HRS

MOUNTAIN STANDARD TIME


01 Hour Averages
360
270
180
90
0
07/01/07 00:00
07/06/07 00:00
07/11/07 00:00
07/16/07 00:00
07/21/07 00:00
07/26/07 00:00
07/31/07 00:00
LICA STDWDIR DEG

TEMPERATURE

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - *COLD LAKE*

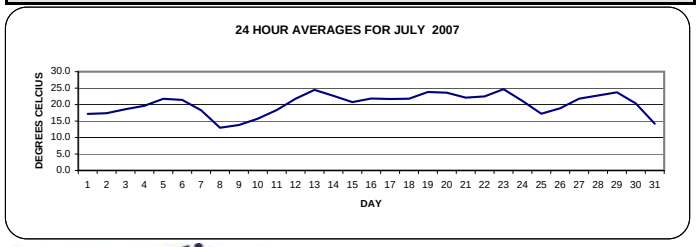
JULY 2007

AMBIENT TEMPERATURE hourly averages (Degrees C)

HOUR START	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	24-HOUR	
HOUR END	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	0:00	MAX.	AVG.	RDGS.
DAY																											
1	13.5	13.2	11.4	10.8	10.7	11.9	14.1	16	18.7	19.7	20.7	21.3	22.2	22.6	22.5	22.8	22.8	22.1	22	20.9	16.9	13.4	11.7	10.4	22.8	17.2	24
2	9.7	9	8.7	8	8.2	11.7	15.2	17.3	19.5	21.4	22.2	22.9	23	23.5	23.6	24.1	23.7	22.8	23.2	20.6	18.5	15.7	13.1	11.7	24.1	17.4	24
3	10.7	10	9.4	9.9	10.3	12.4	14.8	17.7	20.4	22.8	23.9	25.1	25.6	26.4	26.7	26.4	25.4	21.7	20.5	18.9	18.2	17.4	16.5	15.2	26.7	18.6	24
4	14.2	14.5	13.8	12.8	12.5	14.2	16.2	18.7	**M**	22	22.9	23.4	24.3	24.8	25	25.4	25.2	25	25	24.6	21.1	17	15.3	14	25.4	19.6	24
5	13.2	12.2	11.5	10.8	10.6	14.2	18	20.3	21.3	23.6	25.2	26.3	26.9	27.6	28.3	28.9	29	29	28.5	27.5	25.1	22.8	21.3	20.3	29.0	21.8	24
6	20.1	20.3	20	17.9	17.4	17.2	17.7	19	20.9	22.8	23.6	24.3	24.9	25.5	25.7	25.1	24.5	24.8	23.9	22	20.6	19.7	18.6	17.9	25.7	21.4	24
7	18	17.6	17.3	16.8	16.1	15.9	17.3	17.9	19.6	20.5	21.1	22	22.7	22.9	23.4	23.4	21.6	18.2	18.3	18.3	16.2	12.8	11.1	9.7	23.4	18.3	24
8	9.1	8.3	7.5	7	**6.8**	9.4	12.6	15.2	16.7	17.7	18.4	18	19.7	**P**	**P**	**P**	**P**	**P**	**P**	15.1	13.4	13.1	12.8	12.6	19.7	13.0	18
9	12.4	12.4	12.2	12.1	12	12.4	12.5	12.8	13	12.9	14.1	14.6	14.6	15.4	16.5	17	16.9	15.9	15.9	15.7	14.3	13.1	11.6	10.9	17.0	13.8	24
10	10.5	9	8	7.4	8.1	9	10.9	13.5	15.5	17.4	18.4	19.3	20.1	20.8	21.4	21.9	21.7	20.9	20.2	19.1	17.6	16.3	15.6	14.9	21.9	15.7	24
11	13.7	13.8	14.1	13.2	12.6	13.3	15.7	16.8	18	19.6	20.4	21.7	22.6	23	22.8	22.3	22.4	22.4	21.9	20.9	19.8	17.7	16.4	15.5	23.0	18.4	24
12	14.2	13.3	12.5	12.2	12.3	15	17.5	19.7	22	23.7	25	26	26.9	27.4	28	28.4	28.5	28.8	27.8	27.3	24.1	21.7	20.9	19.8	28.8	21.8	24
13	19.1	18.3	17.5	16.6	15	17.4	20.2	23.3	25.7	27	28	28.8	29.9	30.7	31.6	31.9	32	31.8	31.1	29.9	25.1	20.1	18.7	17.8	32.0	24.5	24
14	17.3	16.2	15.4	14.4	14.2	16.9	20.9	22.5	24	26	27.2	28.4	29.3	30.6	30.7	30.8	30.2	28.8	26.6	24.4	17.7	17.3	17.1	17.1	30.8	22.7	24
15	16.5	16.4	15.2	14.7	14.2	15.9	17.1	18.2	19.3	19.1	20	21.9	23.5	25	26.5	27	26.7	25.5	24.5	24.6	23.1	21.6	21	20.7	27.0	20.8	24
16	20.2	18.9	18.3	17.8	16.8	17.5	17.3	17.4	19.5	21.8	23.3	24.4	25.4	25.5	25.7	26.3	26.9	27.1	25.8	24.8	22.8	21	20.8	19.2	27.1	21.9	24
17	17.4	16.9	16.4	15.6	15.3	16.2	18.5	19.6	20.8	22.9	24.4	25.4	26.1	26.6	27.3	27.5	27.9	27.8	26.1	23.7	22.2	20	18.6	17.6	27.9	21.7	24
18	17.1	16.5	16.2	16.1	16.1	17.8	20.4	22.2	23	24	24.1	24	24.5	25.3	25.8	25.8	25.4	25.2	24.6	23.7	22.4	21.6	21	20.3	25.8	21.8	24
19	19.7	19.4	17.9	17.7	17.8	18.5	18.9	19.9	21.7	24	25.6	27.1	28.4	29	29.1	28.9	28.5	28	26.8	25.8	25.1	24.8	24.6	24.7	29.1	23.8	24
20	24.4	23.8	22.9	21.5	21	20.6	20.1	21.2	22.3	23.4	24.5	25.5	26.1	26.8	27.2	27.4	27.3	27.6	26.9	25.4	23.4	20.7	19	17.8	27.6	23.6	24
21	18	20.3	20.5	19.9	19.6	19	19.9	22.3	22.1	23.4	25.4	26	26.1	26.3	26.6	26.4	26.2	25.9	25.5	24.1	20.1	17.1	15.4	14.5	26.6	22.1	24
22	13.3	13.4	13.6	14.5	13.9	15.8	18.3	21.5	22.9	24.9	26.1	27.2	28.2	29.1	29.8	29.8	30.4	30.4	30.2	28.4	22.8	19.6	18.3	17.6	30.4	22.5	24
23	16.3	15.6	15.2	14.8	14.5	16.6	20.5	24	25.6	26.7	27.5	29	30.7	31.6	32.3	32.5	32.5	**32.6**	31.6	28.9	24.8	23.1	23.3	22.3	32.6	**24.7**	24
24	19.6	19.3	19.8	19.7	19.3	18.8	18.8	20	21.7	22.1	22.3	24.1	24.4	24.9	24.9	24.9	24.6	23.9	23.4	22.2	19.7	17.5	16.6	14.1	24.9	21.1	24
25	12.9	11.6	10.6	9.9	10.6	12.2	14.2	15.5	16.8	18.4	19.7	20.8	21.6	22.5	22.8	22.8	23.2	23.2	22.2	21.7	18.8	15.2	13.6	12.8	23.2	17.2	24
26	11.6	10.6	10.7	9.6	8.8	10.7	14.3	16.7	19	21.4	22.6	23.5	24.6	25.2	25.8	26	25.5	25.9	25.1	23.3	21	18.4	17.2	15.9	26.0	18.9	24
27	14.7	13.7	14.9	15.9	15.9	16.6	18	19.5	20.9	22	23.7	24.7	25.8	27.1	27.8	28	28.2	27.9	26.4	25.3	23.3	21.8	21.1	20.1	28.2	21.8	24
28	17.6	16.2	15.1	14.2	15	15.9	17.1	19.9	22.3	24.7	26.7	28.4	29.1	29.5	30.4	30.2	30.2	30.1	29	24.6	22.1	20.2	19.3	18.8	30.4	22.8	24
29	18.8	18.7	18.5	18.6	18.8	18.5	18.9	18.7	20.1	23.3	24.8	24.5	25.7	27.4	29.5	30.2	30.4	30.3	29.1	27	25.8	25.1	24.3	22.6	30.4	23.7	24
30	21.8	21.3	20.5	19.9	19.1	18.3	19.7	20	21.3	20.9	22.2	23.6	23	22.6	21.4	19.5	20.3	21.3	21.5	20	19.7	17.2	16.9	16.3	23.6	20.3	24
31	15.8	14.5	13.1	11.9	11.3	12	12.6	13.2	13.7	15.2	16	18.3	18.3	18.6	17.9	17.4	17.4	16.6	11.6	12.6	11.2	10.6	10.3	10.8	18.6	14.2	24
HOURLY MAX	24.4	23.8	22.9	21.5	21.0	20.6	20.9	24.0	25.7	27.0	28.0	29.0	30.7	31.6	32.3	32.5	32.5	32.6	31.6	29.9	25.8	25.1	24.6	24.7			
HOURLY AVG	15.9	15.3	14.8	14.3	14.0	15.2	17.0	18.7	20.3	21.8	22.9	23.9	24.7	25.5	25.9	26.0	25.9	25.4	24.5	22.9	20.5	18.5	17.5	16.6			

STATUS FLAG CODES

S	- OUT OF SERVICE	IZS	- IZS - DAILY ZERO/SPAN CHECK
N	- INVALID DATA	M	- MAINTENANCE
D	- INSTRUMENT DRIFT	P	- POWER FAILURE
C	- CALIBRATION	NA	- NOT APPLICABLE



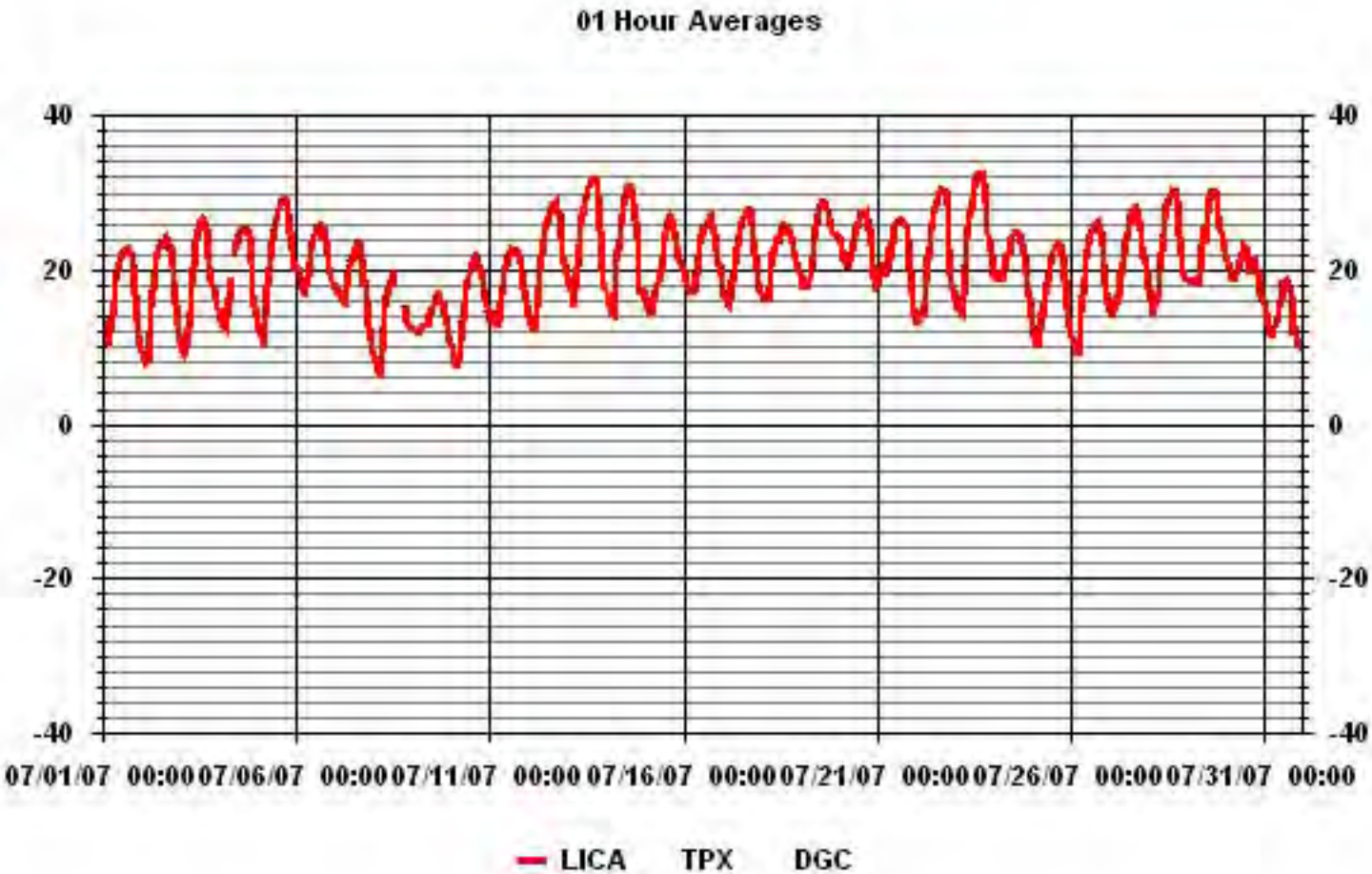
MONTHLY SUMMARY

MINIMUM 1-HR AVERAGE:	6.8	^{o}C	@ HOUR(S)	5	ON DAY(S)	8
MAXIMUM 1-HR AVERAGE:	32.6	^{o}C	@ HOUR(S)	18	ON DAY(S)	23
MAXIMUM 24-HR AVERAGE:	24.7	^{o}C			ON DAY(S)	23

CALIBRATION TIME:	0	HRS	OPERATIONAL TIME:	738	HRS
			AMD OPERATION UPTIME:	99.2	%
STANDARD DEVIATION:	5.54		MONTHLY AVERAGE:	20.29	^{o}C

MOUNTAIN STANDARD TIME

Maxxam Analytics Inc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40
20
0
-20
-40
07/01/07 00:00
07/06/07 00:00
07/11/07 00:00
07/16/07 00:00
07/21/07 00:00
07/26/07 00:00
07/31/07 00:00
LICA TPX DGC

RELATIVE HUMIDITY

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - *COLD LAKE*

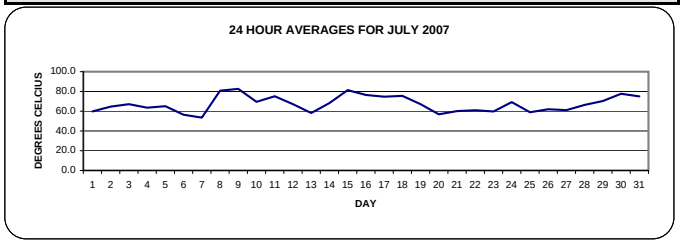
JULY 2007

RELATIVE HUMIDITY hourly averages (%)

HOUR START	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	24-HOUR	
HOUR END	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	0:00	MAX.	AVG.	RDGS.
DAY																											
1	78.3	81.0	91.0	91.1	93.9	87.2	82.9	69.2	52.6	46.6	37.6	34.9	33.4	33.4	34.2	29.7	30.0	33.0	35.4	40.9	63.6	80.2	84.6	90.0	93.9	59.8	24
2	90.2	92.0	92.6	94.9	95.2	81.9	68.7	63.1	58.9	46.9	44.7	40.8	39.3	39.5	43.6	38.3	38.8	51.9	51.8	57.2	62.1	76.9	88.6	92.9	95.2	64.6	24
3	94.3	94.6	94.7	94.7	94.5	87.9	79.5	69.7	60.5	51.1	42.9	37.5	35.4	35.0	33.1	33.9	41.6	50.8	61.6	74.6	81.8	85.0	86.9	89.4	94.7	67.1	24
4	90.9	84.9	84.5	87.6	88.4	81.8	74.7	66.3	**M**	52.7	50.2	44.7	41.7	40.5	40.2	38.1	39.0	41.5	40.0	44.0	66.6	84.9	88.4	90.2	90.9	63.6	24
5	91.2	93.4	94.4	94.2	94.4	84.7	73.5	65.7	64.0	57.7	49.4	44.1	40.2	43.0	44.4	39.2	41.3	46.1	49.9	54.7	63.5	73.6	78.6	80.3	94.4	65.1	24
6	78.4	77.6	77.1	84.9	88.7	87.3	79.7	67.9	59.4	54.0	52.3	44.1	42.4	39.4	35.1	37.5	37.1	36.8	40.0	46.8	46.1	44.1	48.1	49.6	88.7	56.4	24
7	48.3	49.5	49.6	52.8	58.9	62.3	58.6	57.6	49.4	44.7	42.4	40.3	35.8	33.2	31.3	31.5	37.2	56.9	54.7	57.3	69.9	83.9	86.6	90.8	90.8	53.5	24
8	92.5	92.9	93.1	95.0	94.8	88.1	80.8	73.5	66.9	58.1	52.9	52.3	48.9	**P**	**P**	**P**	**P**	**P**	**P**	80.6	94.2	96.0	96.0	97.0	97.0	80.8	18
9	96.1	96.7	97.3	97.1	97.6	95.6	95.0	92.6	85.0	83.3	75.9	72.9	75.7	71.6	64.7	58.9	59.9	73.0	71.1	75.4	83.2	82.7	88.8	92.1	97.6	**82.6**	24
10	94.0	95.4	96.7	97.1	97.8	96.7	92.1	82.1	72.6	60.9	54.7	50.3	47.0	45.5	42.3	40.2	40.1	42.2	48.6	60.0	69.8	78.1	79.8	84.0	97.8	69.5	24
11	88.7	90.5	87.1	90.8	92.1	90.9	83.5	80.8	77.9	67.5	62.2	55.9	52.3	52.4	52.8	57.7	59.7	61.5	67.8	72.9	82.3	89.2	92.7	94.1	94.1	75.1	24
12	95.5	95.7	96.0	96.0	95.0	90.9	86.7	78.4	70.1	63.4	56.8	49.8	46.3	45.9	41.5	39.4	39.8	38.9	43.7	47.7	64.5	73.7	75.5	79.5	96.0	67.1	24
13	81.5	85.0	88.3	91.5	94.0	84.2	75.4	63.5	54.2	47.7	41.0	38.2	36.4	31.6	29.1	27.2	26.8	28.6	32.2	38.2	55.9	79.9	82.1	83.9	94.0	58.2	24
14	84.6	88.1	90.0	94.1	93.5	83.2	68.3	62.7	61.9	58.2	56.3	53.8	47.7	38.2	39.6	37.1	37.9	47.5	60.2	63.4	93.1	92.8	93.1	92.0	94.1	68.2	24
15	94.0	93.4	96.9	**98.3**	98.0	96.2	93.1	89.0	84.9	85.3	81.1	76.5	72.7	68.4	61.5	58.5	56.5	61.2	72.3	75.8	81.1	84.4	85.3	87.3	98.3	81.3	24
16	90.3	94.9	95.9	89.8	90.2	91.5	93.8	93.7	83.7	74.8	68.2	61.8	58.5	60.5	59.7	56.7	52.5	51.6	61.1	67.2	80.3	85.5	82.5	89.6	95.9	76.4	24
17	95.5	95.9	96.2	95.8	95.7	93.9	92.3	89.4	85.0	75.5	69.0	61.7	57.0	50.3	46.2	48.4	46.8	48.7	57.9	62.3	69.3	81.4	87.3	91.0	96.2	74.7	24
18	92.0	94.2	94.6	94.0	94.2	91.0	82.9	77.0	74.8	71.5	70.6	73.5	71.3	67.0	61.8	61.6	63.9	63.5	66.2	67.0	71.3	70.5	68.3	69.2	94.6	75.5	24
19	70.0	71.0	78.8	78.3	78.2	76.3	77.1	76.9	74.9	70.7	66.9	60.5	54.2	51.3	51.7	55.4	57.5	60.7	63.6	68.0	69.6	67.7	66.5	64.2	78.8	67.1	24
20	64.6	65.5	67.9	73.9	74.9	77.1	84.3	72.0	57.3	51.4	45.0	38.4	37.2	34.4	32.5	33.3	33.4	35.2	39.8	49.9	61.1	73.1	78.2	84.0	84.3	56.9	24
21	84.9	70.3	68.7	74.6	78.9	85.2	84.4	77.5	71.0	64.8	52.6	44.1	38.1	34.3	33.3	32.8	33.8	33.1	35.8	40.9	61.0	75.5	81.4	85.3	85.3	60.1	24
22	90.3	88.2	88.5	86.6	89.3	80.8	73.1	55.9	54.7	49.8	45.2	42.8	40.6	38.9	37.2	37.2	36.4	33.3	31.9	42.1	69.6	81.1	84.2	85.6	90.3	61.0	24
23	90.5	92.6	92.2	92.2	92.8	84.9	74.8	59.3	54.2	50.5	51.3	47.2	39.3	32.6	29.5	27.5	27.9	28.9	33.0	47.3	68.1	74.7	67.6	74.7	92.8	59.7	24
24	91.9	95.3	93.9	94.6	92.1	93.2	93.2	87.8	77.6	74.2	71.1	62.8	57.0	52.6	51.6	43.4	39.5	41.8	43.0	46.3	56.7	64.2	61.3	75.4	95.3	69.2	24
25	78.5	80.1	82.8	85.6	80.6	70.4	61.8	57.8	55.6	53.1	49.5	45.1	41.6	39.6	37.8	37.0	35.7	35.2	39.9	44.2	58.2	76.3	83.1	84.6	85.6	58.9	24
26	89.3	92.8	90.4	92.5	93.7	86.7	77.3	71.2	65.7	55.8	50.1	44.7	37.6	33.9	33.5	33.0	35.3	33.3	39.3	49.4	59.5	70.1	72.7	79.0	93.7	62.0	24
27	84.9	88.6	79.2	71.5	70.2	66.5	63.2	58.7	53.7	52.7	50.3	47.6	48.4	47.0	46.6	48.4	49.7	46.0	52.5	56.6	64.3	67.9	73.5	78.3	88.6	61.1	24
28	88.3	94.3	94.4	95.2	93.8	93.2	89.1	80.1	71.4	61.7	53.2	44.8	42.6	38.6	33.5	33.0	33.7	33.6	39.6	60.8	70.3	79.9	82.7	85.2	95.2	66.4	24
29	85.2	87.5	89.8	91.1	93.9	96.0	95.8	94.0	87.6	69.4	61.0	67.1	63.0	61.5	48.4	44.4	46.0	45.6	49.2	55.2	58.4	60.6	64.6	72.7	96.0	70.3	24
30	77.3	75.8	79.2	80.6	84.9	85.2	81.1	79.3	72.5	73.7	67.2	61.9	65.4	68.4	73.3	87.0	78.7	68.8	68.1	80.5	78.9	89.0	93.2	93.1	93.2	77.6	24
31	91.6	95.4	95.2	93.5	94.1	85.9	81.6	79.5	77.7	61.9	59.9	52.2	48.3	47.6	51.7	52.2	53.2	55.1	90.1	82.3	87.8	87.8	88.8	85.5	95.4	75.0	24
HOURLY MAX	96.1	96.7	97.3	98.3	98.0	96.7	95.8	94.0	87.6	85.3	81.1	76.5	75.7	71.6	73.3	87.0	78.7	73.0	90.1	82.3	94.2	96.0	96.0	97.0			
HOURLY AVG	85.9	86.9	87.6	88.7	89.5	85.7	80.6	73.9	67.9	61.0	55.9	51.4	48.2	45.9	44.1	43.3	43.7	46.1	51.3	58.4	69.7	77.8	80.4	83.6			

STATUS FLAG CODES

S	- OUT OF SERVICE	IZS	- IZS - DAILY ZERO/SPAN CHECK
N	- INVALID DATA	M	- MAINTENANCE
D	- INSTRUMENT DRIFT	P	- POWER FAILURE
C	- CALIBRATION	NA	- NOT APPLICABLE



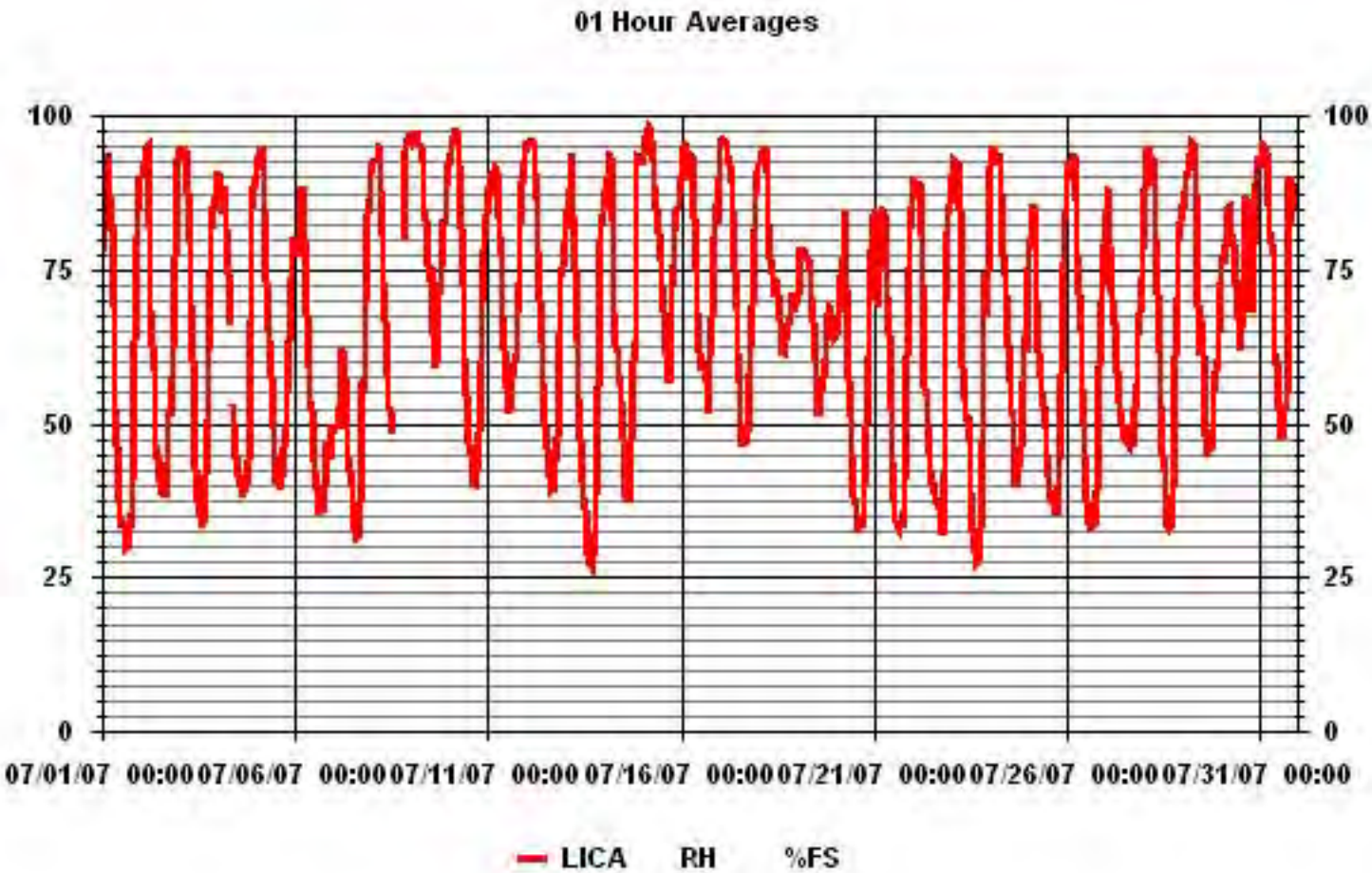
MONTHLY SUMMARY

MAXIMUM 1-HR AVERAGE:	98.3	%	@ HOUR(S)	4	ON DAY(S)	15
MAXIMUM 24-HR AVERAGE:	82.6	%			ON DAY(S)	9

CALIBRATION TIME:	0	HRS	OPERATIONAL TIME:	738	HRS
			AMD OPERATION UPTIME:	99.2	%
STANDARD DEVIATION:	20.24		MONTHLY AVERAGE:	67.14	%

MOUNTAIN STANDARD TIME

Maxxam Analytics Inc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100
75
50
25
0
07/01/07 00:00
07/06/07 00:00
07/11/07 00:00
07/16/07 00:00
07/21/07 00:00
07/26/07 00:00
07/31/07 00:00
LICA RH %FS

JULY 2007
CALIBRATION REPORTS

LICA – COLD LAKE

SO_2

SO_2 Calibration Report

Station Information

Calibration Date	July 4, 2007	Previous Calibration	June 22, 2007
Company	**Lakeland Industry & Community Association**		
Plant / Location	**LICA 1 - Cold Lake South**		
Start Time (MST)	7:30	End Time (MST)	13:00
Reason:	Monthly Calibration		
Barometric Pressure	717 mmHg	Station Temperature	24 Deg C
Cal Gas	49 ppm	Cal Gas Expiry date	10/14/2007
DAS Output Voltage	0 - 10 Volts		

Equipment Information

Analyzer Make / Model:	TECO 43A	S/N :	43A-4468-272	Method:	Fluorescent
Converter Make / Model:	-	S/N :	-		
Calibrator Make / Model:	API 700	S/N :	690	Method:	Dilution
DAS Make / Model:	ESC 8832	S/N :	263		
Flow Meter:	API 700	S/N :	690		

Analyzer Settings

	Before Calibration				After Calibration			
Concentration Range	0 - 500 ppb							
Sample Flow / Box Temp	725	ccm	OK	Deg C	725	ccm	OK	Deg C
HVPS / Lamp Setting	OK		842		OK		845	
PMT / RxCell Temp	OK	Deg C	OK	50	OK	Deg C	OK	Deg C
Converter / IZS Temp	NA	Deg C	OK	40	NA	Deg C	OK	Deg C
Offset / Slope	98		879		98		879	

Calibration Data

Dilution Flow Rate	Source Gas Flow Rate	Calculated Concentration	Indicated Conc. (DAS)	Correction Factor
ZERO	ZERO	0	0	N/A
4959	40.8	400	403	0.9922
4979	20.4	200	200	0.9997
4989	10.2	100	100	0.9998
ZERO	ZERO	0	0	N/A
			Sum of Least Squares	0.9940
			New Correction Factor	0.9922

	Before Calibration	After Calibration
Auto Zero	0	0
Auto Span	345	344
Sample Lines Connected		**YES**
Percent Change from Previous Calibration		0.5%

Notes: Calibration halted before any adjustments were made. Logger configuration was changed in Main office.
Calibration was re-started after changes were made.

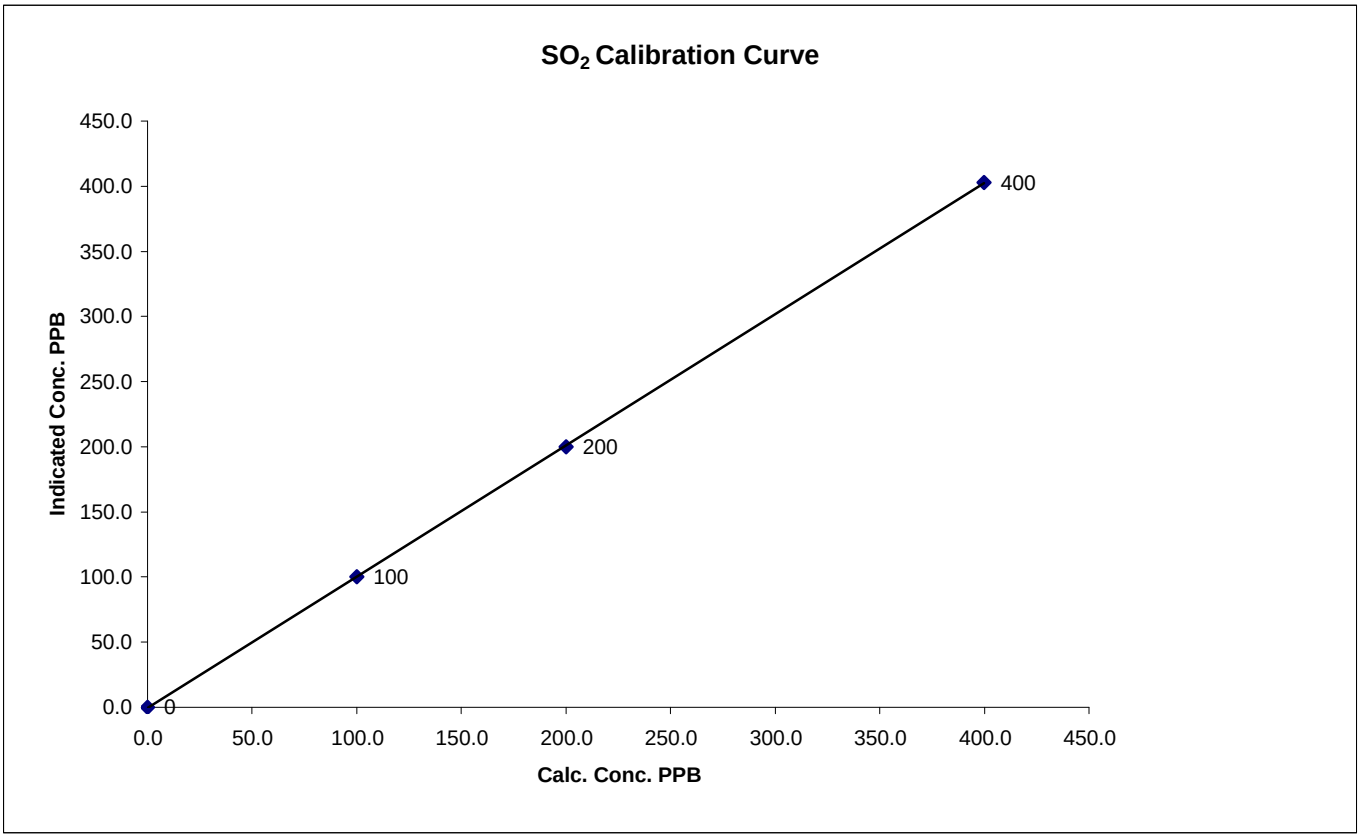
Calibration Performed by: Shea Beaton

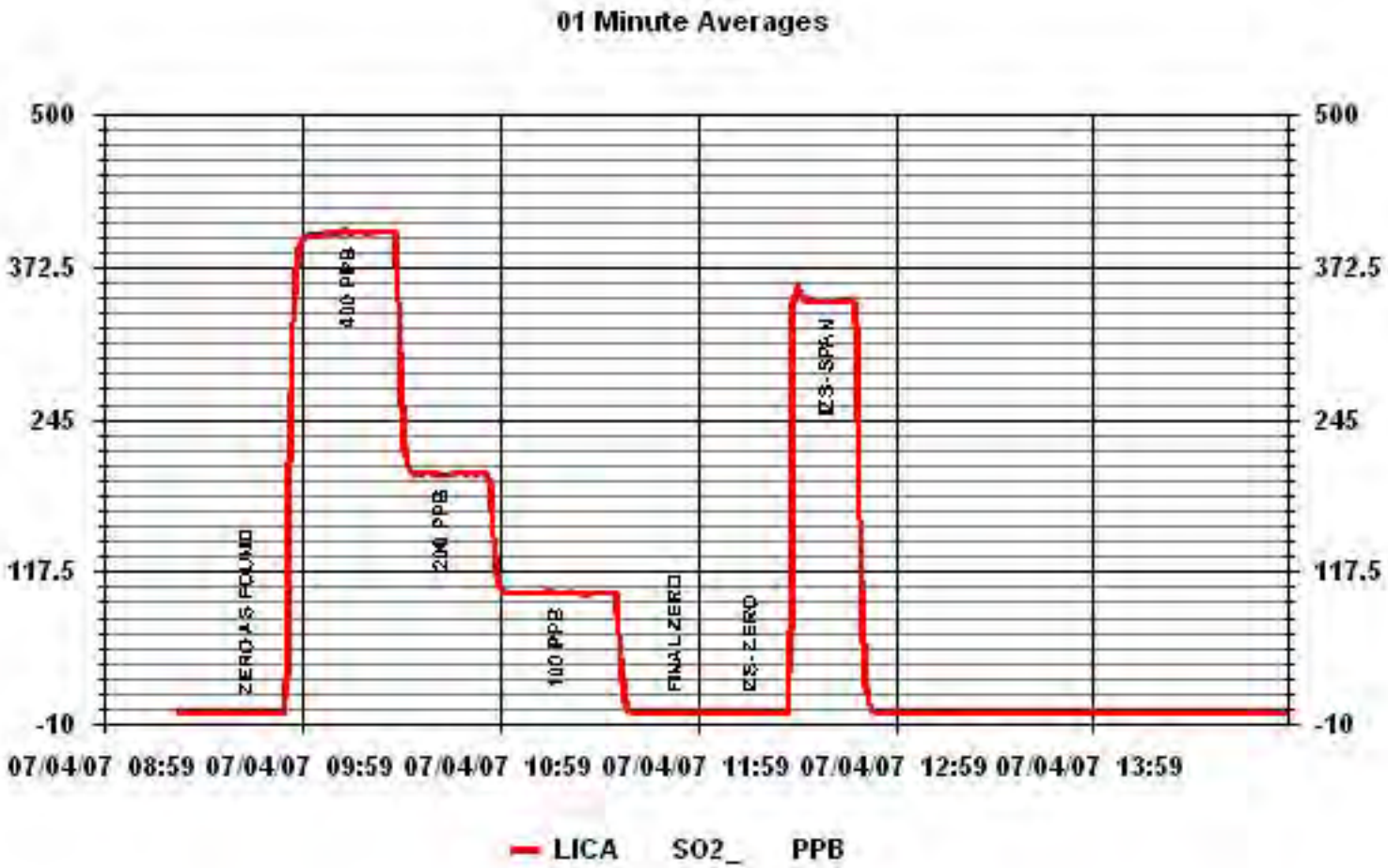
SO_2 Calibration Curve

Calibration Date	July 4, 2007		
Company	**Lakeland Industry & Community Association**		
Plant / Location	**LICA 1 - Cold Lake South**		
Start Time (MST)	7:30	End Time (MST)	13:00

Calculated Conc. ppb	Indicated Response ppb	Correction Factor
0	0	n/a
100	100	0.9998
200	200	0.9997
400	403	0.9922

Correlation Coefficient	(≥ 0.995)	0.999982
Slope	(0.85 to 1.15)	1.008083
Intercept	(± 3% F.S.)	-0.608028




01 Minute Averages
500
372.5
245
117.5
-10
ZERO AS FOUND
400 PPB
200 PPB
100 PPB
FINAL ZERO
CS - ZERO
CS - SPAN
07/04/07 08:59
07/04/07 09:59
07/04/07 10:59
07/04/07 11:59
07/04/07 12:59
07/04/07 13:59
LICA SO2_ PPB

TRS

TRS Calibration Report

Station Information

Calibration Date	July 4, 2007	Previous Calibration	June 7, 2007
Company	**Lakeland Industry & Community Association**		
Plant / Location	**LICA 1 - Cold Lake South**		
Start Time (MST)	7:30	End Time (MST)	13:00
Reason:		Monthly Calibration	
Barometric Pressure	717 mm Hg	Station Temperature	24 Deg C
Cal Gas	10.2 ppm	Cal Gas Expiry date	09/05/2007
DAS Output Voltage	0 - 10 Volts		

Equipment Information

Analyzer Make / Model:	TECO 43A	S/N :	43A-35786-254	Method:	Fluorescent
Converter Make / Model:	CD Nova CDN 101	S/N :	250		
Calibrator Make / Model:	Environics 2000	S/N :	1991	Method:	Dilution
DAS Make / Model:	ESC 8832	S/N :	263		
Flow Meter:	Environics 2000	S/N :	1991		

Analyzer Settings

	Before Calibration				After Calibration			
Concentration Range	0 -100 ppb							
Sample Flow / Box Temp	400	ccm	OK	Deg C	400	ccm	OK	Deg C
HVPS / Lamp Setting	OK		883		OK		885	
PMT / RxCell Temp	OK	Deg C	OK	Deg C	OK	Deg C	OK	Deg C
Converter / IZS Temp	850	Deg C	OK	Deg C	850	Deg C	OK	Deg C
Offset / Slope	820		836		820		836	

Calibration Data

Dilution Flow Rate	Source Gas Flow Rate	Calculated Concentration	Indicated Conc. (DAS)	Correction Factor
ZERO	ZERO	0	1	N/A
4960	39.2	80	80	0.9998
4980	19.6	40	40	0.9997
4990	9.8	20	20	0.9996
ZERO	ZERO	0	1	N/A
			Sum of Least Squares	0.9997
			New Correction Factor	0.9998

	Before Calibration	After Calibration
Auto Zero	0	0
Auto Span	83	81
Sample Lines Connected		YES
Percent Change from Previous Calibration		0.0%

Notes: Calibration halted before any adjustments were made. Logger configuration was changed in Main office. Calibration was re-started after changes were made.

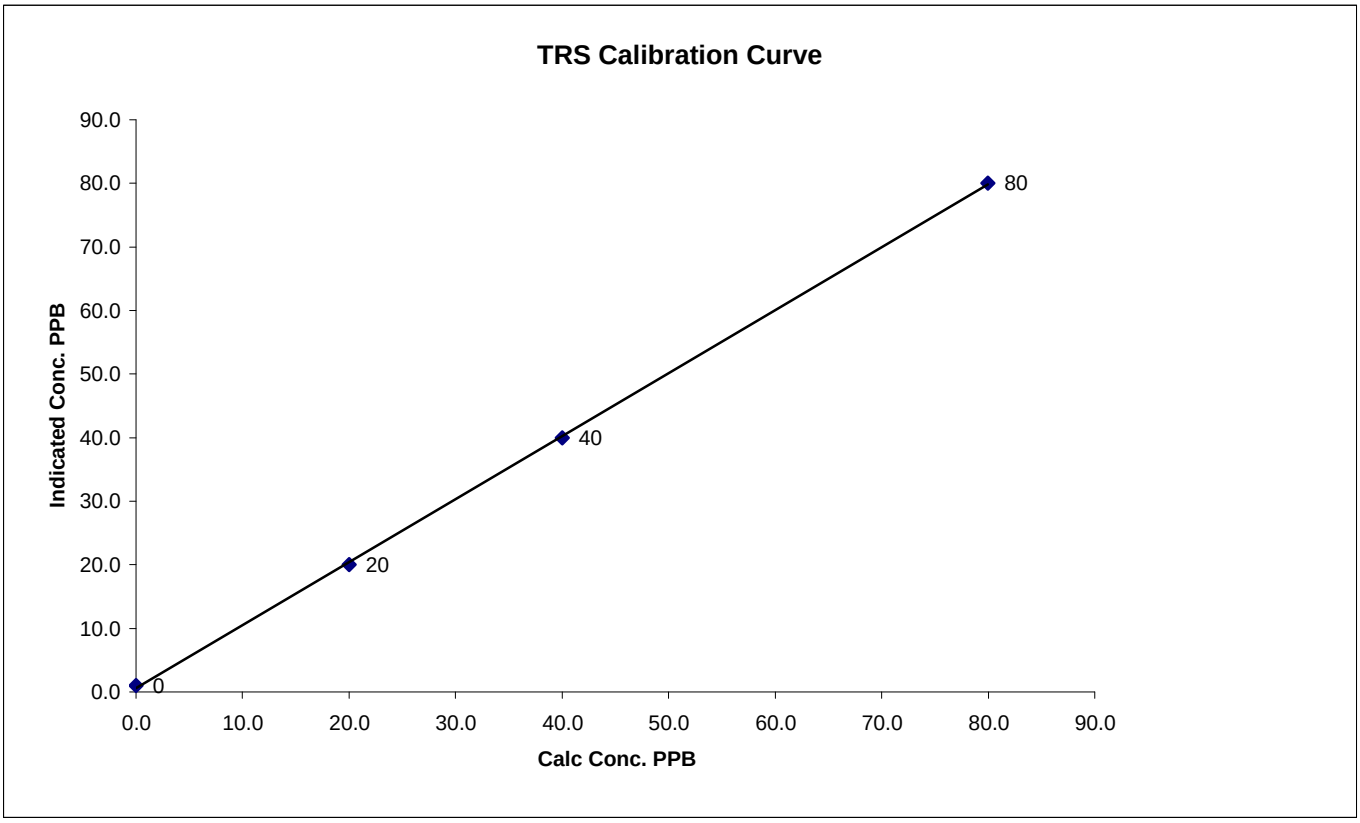
Calibration Performed by: Shea Beaton

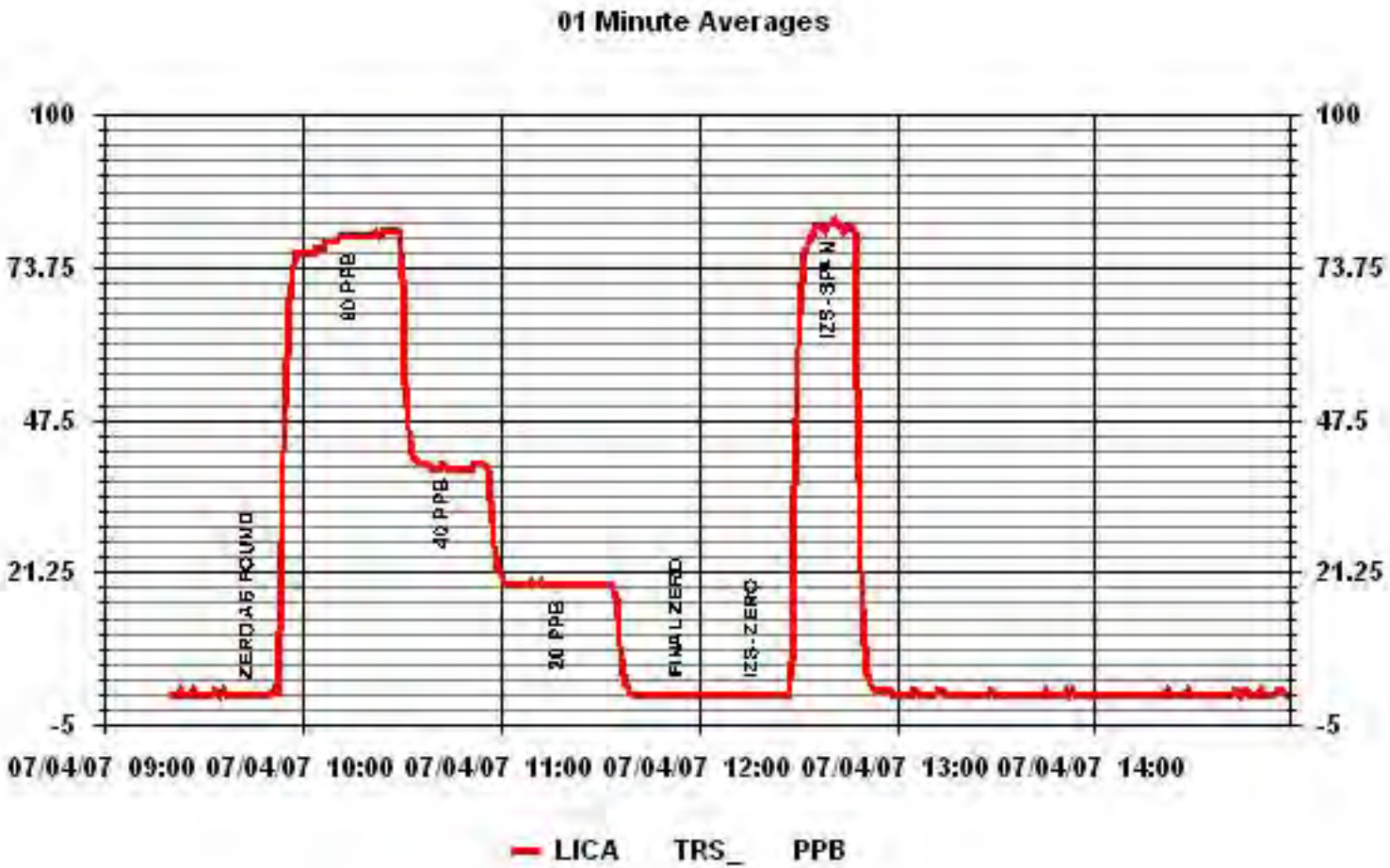
TRS Calibration Curve

Calibration Date	July 4, 2007		
Company	**Lakeland Industry & Community Association**		
Plant / Location	**LICA 1 - Cold Lake South**		
Start Time (MST)	7:30	End Time (MST)	13:00

Calculated Conc. ppb	Indicated Response ppb	Correction Factor
0	1	n/a
20	20	0.9996
40	40	0.9997
80	80	0.9998

Correlation Coefficient	(≥ 0.995)	0.999884
Slope	(0.85 to 1.15)	0.990232
Intercept	(± 3% F.S.)	0.601568




01 Minute Averages
100
73.75
47.5
21.25
-5
ZERO AS FOUND
80 PPB
40 PPB
20 PPB
FINAL ZERO
IZS - ZERO
IZS - SPAN
07/04/07 09:00
07/04/07 10:00
07/04/07 11:00
07/04/07 12:00
07/04/07 13:00
07/04/07 14:00
LICA TRS_ PPB

THC

THC Calibration Report

Station Information

Calibration Date:	July 4, 2007	Previous Calibration	June 8, 2007
Company:	**Lakeland Industry and Community Association**		
Plant / Location:	**LICA1/Cold Lake**		
Start Time (MST)	12:10	End Time (MST)	15:30
Reason:		Monthly Calibration	
Barometric Pressure:	717 mmHg	Station Temperature:	24 Deg C
Calibrator:	Environics 2000	S/N:	1991
Cal Gas Concentration:	1010	ppm	Cal Gas Expiry Date: Jan-10
DAS make & Model:	ESC 8832	S/N :	263
Output Voltage Range:	0 - 10 VDC		

Analyzer Information

Make / Model	TECO 51C-LT	S/N :	51CLT-42740-8718	Method	Flame Ionization

Analyzer Settings

	Before Calibration		After Calibration	
Concentration Range	0 - 50	ppm	0 - 50	ppm
Sample Pressure	6.5	psi	6.5	psi
Hydrogen Pressure	8	psi	8	psi
Air Pressure	18	psi	18	psi

Calibration Data

Dilution Flow	Source Gas Flow	Calculated Concentration	Indicated Concentration	Correction Factor
ZERO	ZERO	0.0	0.0	N/A
1920	79.2	40.0	40.8	0.9807
1920	79.2	40.0	40.1	0.9978
1960	39.6	20.0	19.6	1.0205
1980	19.8	10.0	9.7	1.0309
ZERO	ZERO	0.0	0.1	N/A
			Correction Factor:	0.9978

Percent Change

Previous Calibration Correction Factor:	0.9996
Current Correction Factor Before Span Adjust:	0.9807
Percent Change:	1.9%

IZS Calibration Data

	Before Calibration	After Calibration
Auto Zero	0.0	0.1
Auto Span	27.6	27.0
Sample Lines Connected		**YES**

Notes:	Cylinder Pressures	
	Span	1900 psi
	Hydrogen	750 psi
	Zero Air	Maxxam-owned API 701 zero air supply with catalytic oxidizer

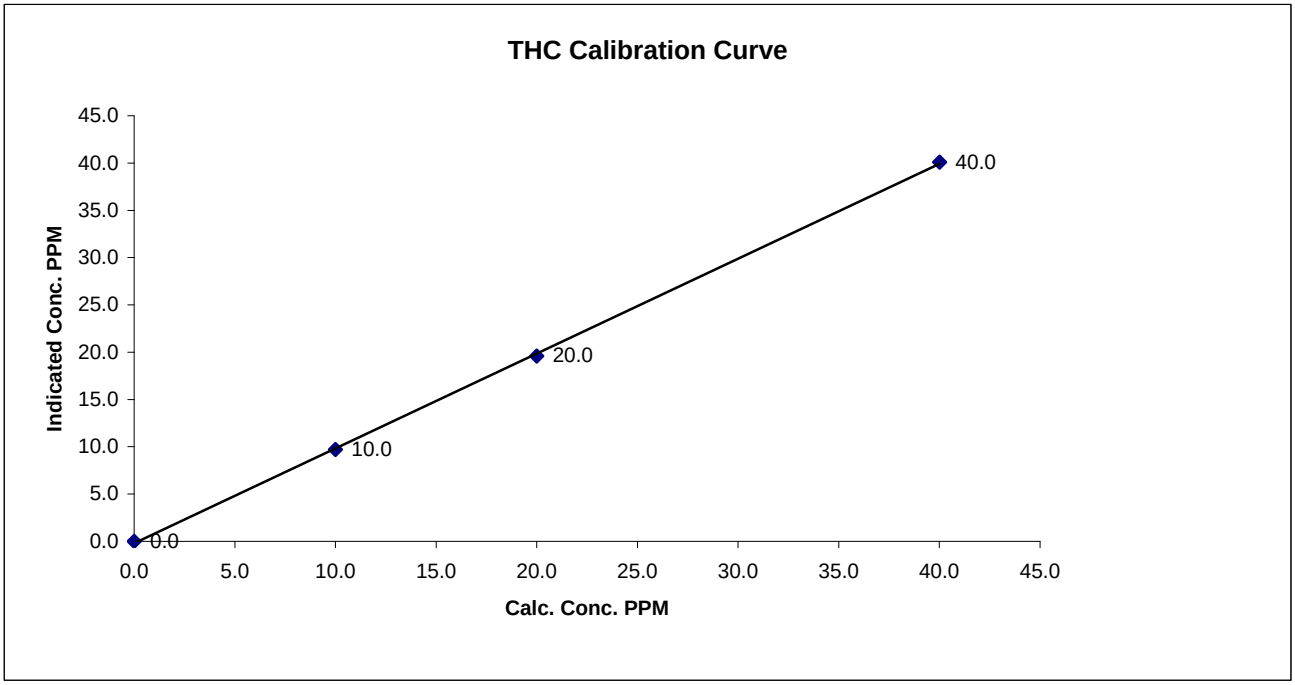
Calibration Performed by: Shea Beaton

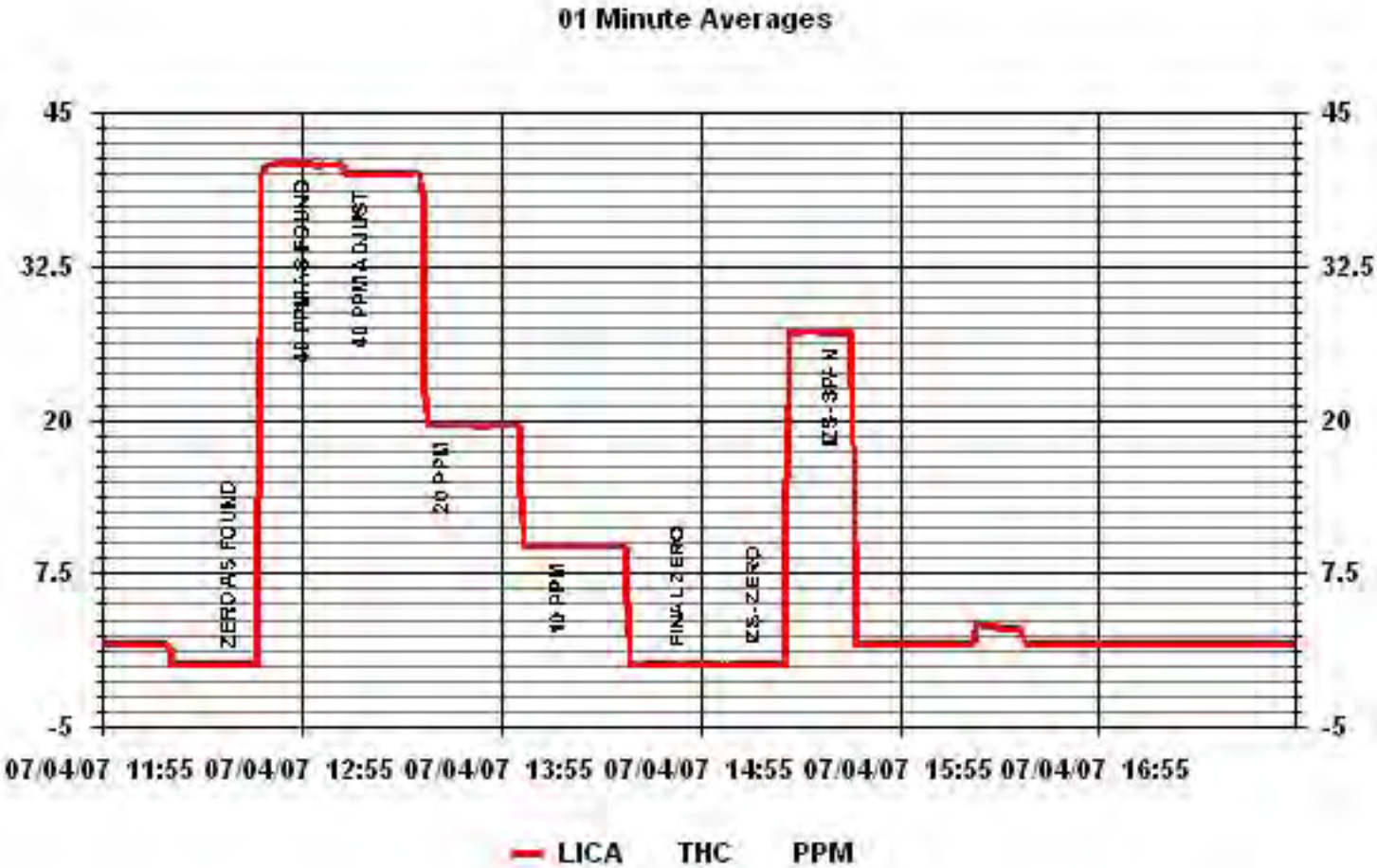
THC Calibration Curve

Calibration Date	July 4, 2007			
Company	**Lakeland Industry and Community Association**			
Plant / Location	**LICA1/Cold Lake**			
Start Time (MST)	12:10	End Time (MST)	15:30	

Calculated Conc. ppm	Indicated Response ppm	Correction Factor
0.0	0.0	
10.0	9.7	1.0309
20.0	19.6	1.0205
40.0	40.1	0.9978

Correlation Coefficient	(≥ 0.995)	0.999826
Slope	(0.85 to 1.15)	1.003686
Intercept	(± 3% F.S.)	-0.218019




01 Minute Averages
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32.5
20
7.5
-5
ZERO AS FOUND
40 PPM AS FOUND
40 PPM ADJUST
20 PPM
10 PPM
FINAL ZERO
ZS-ZERO
ZS-SPAN
07/04/07 11:55
07/04/07 12:55
07/04/07 13:55
07/04/07 14:55
07/04/07 15:55
07/04/07 16:55
LICA THC PPM

PARTICULATE MATTER 2.5

TEOM® Calibration

Station		Transfer Standard	
Date:	July 4, 2007	Make/Model:	Bios DC-2
Station Name:	LICA	Serial Number:	1193
Location:	Cold Lake - South	Cell s/n:	2272
Operator:	Maxxam Analytics	Thermometer s/n:	2178

Sampler		Set-up and current Sampler readings	
Make/Model	R & P Series 1400 a TEOM	F-Main Set Pt (l/min)	3.00
Unit #	AMU 1494	F-Aux Set Pt (l/min)	13.67
Control unit s/n	140AB213859701	Filter Load (%)	40
Transducer s/n	140AB213859701	K_o Factor	11095
Parameter	PM 2.5	Temp (^oC)	23.2
		Press (ATM)	0.946

Conversion from mmHg or "Hg to ATM (Atmospheres)

ATM = (mmHg) X (1.316 X 10 -3) or ATM = ("Hg) X (3.34207 X 10 -2)

Note: Tolerances are noted as BOLD in Brackets

Calibration

Zero flow

	Pump Off		Pump On (Time to reach set points)	
F-Main (l/min)	0.00		**(45-60 Sec)**	35
F-Aux (l/min)	0.00		**(45-60 Sec)**	55

Temperature/Pressure

Measured Temp **(± 1 ^oC)**	23.4	**Δ ^oC**	0.2
Measured Press **(± 1.5% ATM)**	0.942	**Δ % ATM**	-0.4%

Flow Audit

			Δ % from Set-pt
Indicated Main/Aux Flow (l/min)	3.00 / 13.64	**(± 2%)**	0.0% / 0.2%
Total Flow = Main + Aux (l/min)	16.64	**(± 2%)**	0.2%
Measured Total Flow (l/min)	16.30	**(± 1.0 l/min. (5.65%))**	2.1%
Measured Main Flow (l/min)	2.92	**(± 0.2 l/min. (6.25%))**	2.7%

Leak Check

		Actual leakage = Pump On - Pump Off
Main **(< 0.15 l/min)**	NA	NA
Aux **(< 0.15 l/min)**	NA	NA

K_o Factor

Measured	NA
K_o Difference **(± 2.5%)**	NA

Start Time: 9:30 **Finish Time:** 10:30

Sample Inlet Cleaned: YES **Sample Inlet Connected:** YES

Comments: Audit done pre-calibration

Calibrator/s: Shea Beaton

TEOM® Calibration

Station		Transfer Standard	
Date:	July 4, 2007	Make/Model:	Bios DC-2
Station Name:	LICA	Serial Number:	1193
Location:	Cold Lake - South	Cell s/n:	2272
Operator:	Maxxam Analytics	Thermometer s/n:	2178

Sampler		Set-up and current Sampler readings	
Make/Model	R & P Series 1400 a TEOM	F-Main Set Pt (l/min)	3.00
Unit #	AMU 1494	F-Aux Set Pt (l/min)	13.67
Control unit s/n	140AB213859701	Filter Load (%)	41
Transducer s/n	140AB213859701	K_o Factor	11095
Parameter	PM 2.5	Temp (^oC)	25.5
		Press (ATM)	0.942

Conversion from mmHg or "Hg to ATM (Atmospheres)

ATM = (mmHg) X (1.316 X 10 -3) or ATM = ("Hg) X (3.34207 X 10 -2)

Note: Tolerances are noted as BOLD in Brackets

Calibration

Zero flow

	Pump Off		Pump On (Time to reach set points)	
F-Main (l/min)	0.07		**(45-60 Sec)**	35
F-Aux (l/min)	0.17		**(45-60 Sec)**	48

Temperature/Pressure

Measured Temp **(± 1 ^oC)**	25.4	**Δ ^oC**	-0.1
Measured Press **(± 1.5% ATM)**	0.942	**Δ % ATM**	0.0%

Flow Audit

			Δ % from Set-pt
Indicated Main/Aux Flow (l/min)	3.00 / 13.64	**(± 2%)**	0.0% / 0.2%
Total Flow = Main + Aux (l/min)	16.64	**(± 2%)**	0.2%
Measured Total Flow (l/min)	16.59	**(± 1.0 l/min. (5.65%))**	0.3%
Measured Main Flow (l/min)	3.02	**(± 0.2 l/min. (6.25%))**	-0.7%

Leak Check

		Actual leakage = Pump On - Pump Off
Main **(< 0.15 l/min)**	0.08	0.01
Aux **(< 0.15 l/min)**	0.18	0.01

K_o Factor

Measured	10953
K_o Difference **(± 2.5%)**	1.30%

Start Time: 12:50 **Finish Time:** 16:00

Sample Inlet Cleaned: YES **Sample Inlet Connected:** YES

Comments: Post Calibration audit. No software flow adjusts are set.

**** During the calibration of the 0-5 lpm MFC the flow rate at 0.5 lpm could be set no lower than 0.54, the tolerance is 0.50 +/- 0.03

Calibrator/s: Shea Beaton

NO_2

NOx - NO- NO_2 Calibration Report

Station Information

Calibration Date	July 5, 2007	Previous Calibration	June 22, 2007
Company	**Lakeland Ind & Comm. Assoc.**	Plant/Location	**LICA 1 - Cold Lake South**
Start Time (MST)	7:45	End Time (MST)	17:20
Reason:	Repair/ Monthly Calibration		
Barometric Pressure	712 mmHg	Station Temperature	24.0 Deg C
Cal Gas Concentration	NOx 52.1 ppm NO 52 ppm	Cal Gas Expiry date	10/14/2007
DAS Output Voltage	0 - 5 Volts		

Equipment Information

Analyzer Make / Model:	TECO 42	S/N :	42-33684-247	Method:	Chemiluminescent
Calibrator Make / Model:	API 700	S/N:	690		
DAS Make / Model:	ESC 8832	S/N :	263		
Flow Meter:	BIOS Dry Cal - DC 2	S/N :	1193		

Analyzer Settings

	Before Calibration				After Calibration			
Concentration Range				0 - 500 ppb				
Sample Flow/Conv. Temp	600	ccm	332	Deg C	594	ccm	325	Deg C
Ozone Flow / Vacuum	19	ccm	-22.5	"Hg-A	92	ccm	-22.5	"Hg-A
HVPS	OK		Volts		OK		Volts	
Rx/ Temp / PMT Temp	50.4	Deg C	-3	Deg C	50.5	Deg C	-2.9	Deg C
Box Temp / IZS Temp	29.7	Deg C	OK	Deg C	28.4	Deg C	OK	Deg C
Offset	3.7	NOx	3.5	NO	3.4	NOx	3.5	NO
Slope	1.002	NOx	1.279	NO	0.999	NOx	1.324	NO

Gas Phase Titration Calibration Data

Dilution Air Flow Rate	Source Flow Rate	O3 Set Point	Calculated Concentration		Indicated Concentration			Correction Factor	
			NOx	NO	NOx	NO	NO2	NOx	NO
ZERO	N/A	N/A	0	0	0	0	0	N/A	N/A
4961	38.5	N/A	401	400	386	384	1	1.0394	1.0428
ZERO	N/A	N/A	0	0	0	0	0	N/A	N/A
4961	38.5	N/A	401	400	405	404	1	0.9906	0.9912
4961	38.5	N/A	401	400	400	400	0	1.0030	1.0011
								Converter Efficiency	
4961	38.5	300	401	N/A	404	35	369	101%	
4961	38.5	200	401	N/A	405	214	192	103%	
4961	38.5	150	401	N/A	405	278	127	104%	
4961	38.5	N/A	401	400	406	405	1	N/A	
								Correction Factor	
4976	24.1	N/A	251	251	250	250	0	1.0045	1.0025
4985	14.4	N/A	150	150	148	148	0	1.0140	1.0120
ZERO	N/A	N/A	0	0	0	0	0	N/A	N/A

Linearity OK?	**Yes**	No	Sum of Least Squares	1.0044	1.0025
Flows Checked on-site?	Yes	**No**	New Correction Factor	1.0030	1.0011
			Average Converter Efficiency	103%	

	Before Calibration				After Calibration			
Auto Zero	0	NOx	0	NO2	0	NOx	0	NO2
Auto Span	243	NOx	241	NO2	274	NOx	271	NO2
Sample Lines Connected					**YES**			
Percent Change from Previous Calibration					*NOx*	-3.5%	*NO*	-3.8%

Calibration halted at second GPT point, analyzer span point re-adjusted, converter efficieny too high, NOx value too high. Nort enough stabilization after repairs

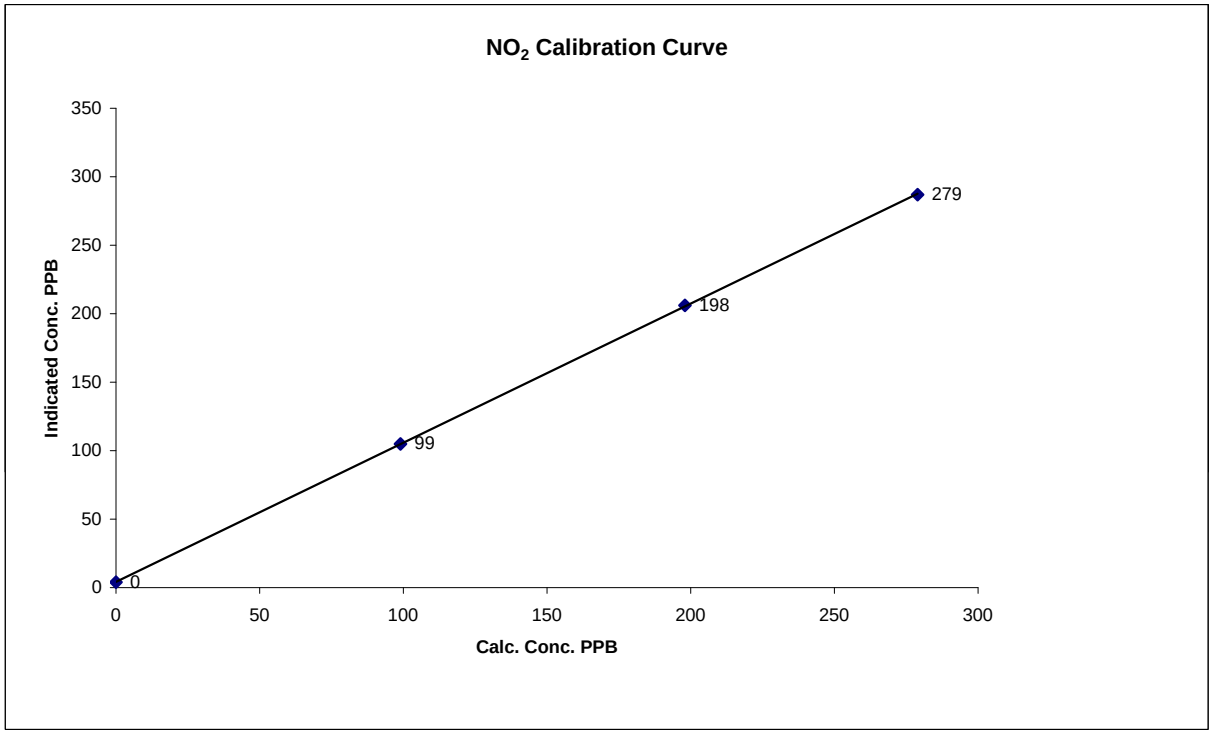
Calibration Performed by: Shea Beaton

NO_2 Calibration Curve

Calibration Date	July 5, 2007		
Company	**Lakeland Ind & Comm. Assoc.**		
Plant / Location	**LICA 1 - Cold Lake South**		
Start Time (MST)	7:45	End Time (MST)	17:20

Calculated Conc. ppb	Indicated Response ppb	Correction Factor
0	1	N/A
122	127	0.9606
186	192	0.9688
365	369	0.9892

Correlation Coefficient	(≥ 0.995)	0.999851
Slope	(0.85 to 1.15)	1.007111
Intercept	(± 3% F.S.)	2.803624

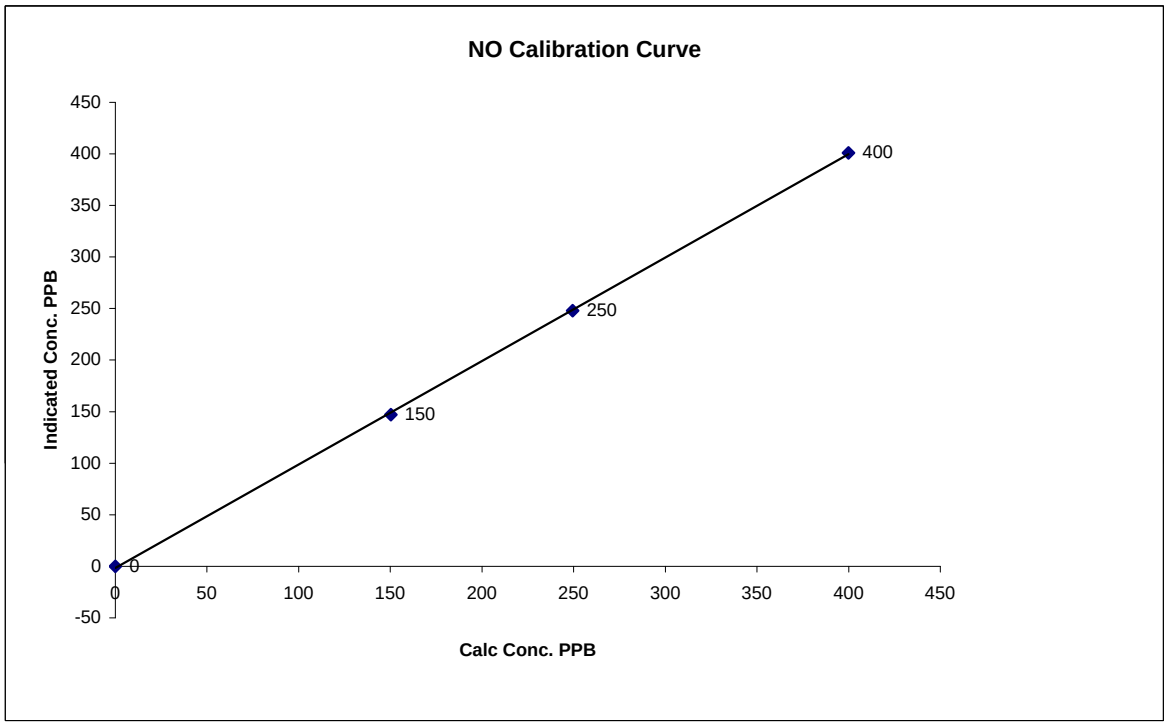


NO Calibration Curve

Calibration Date	July 5, 2007		
Company	**Lakeland Ind & Comm. Assoc.**		
Plant / Location	**LICA 1 - Cold Lake South**		
Start Time (MST)	7:45	End Time (MST)	17:20

Calculated Conc. ppb	Indicated Response ppb	Correction Factor
0	0	N/A
150	148	1.0120
251	250	1.0025
400	400	1.0011

Correlation Coefficient	(≥ 0.995)	0.999980
Slope	(0.85 to 1.15)	0.999643
Intercept	(± 3% F.S.)	-0.641741

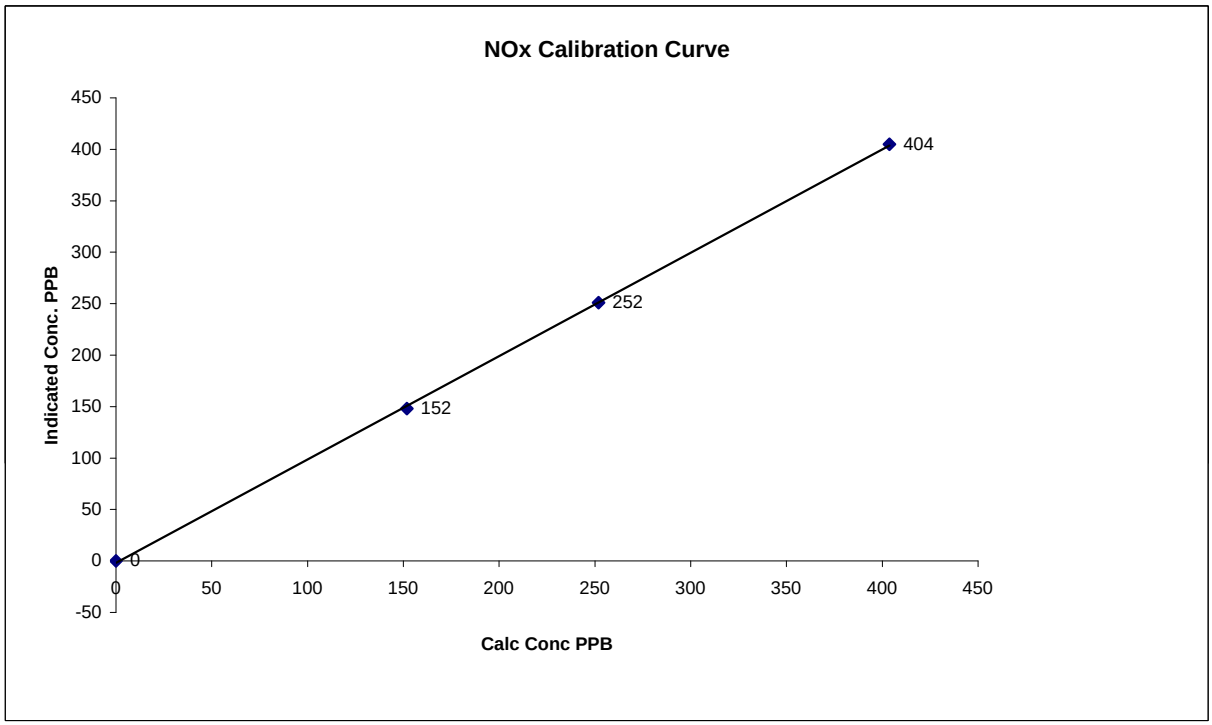


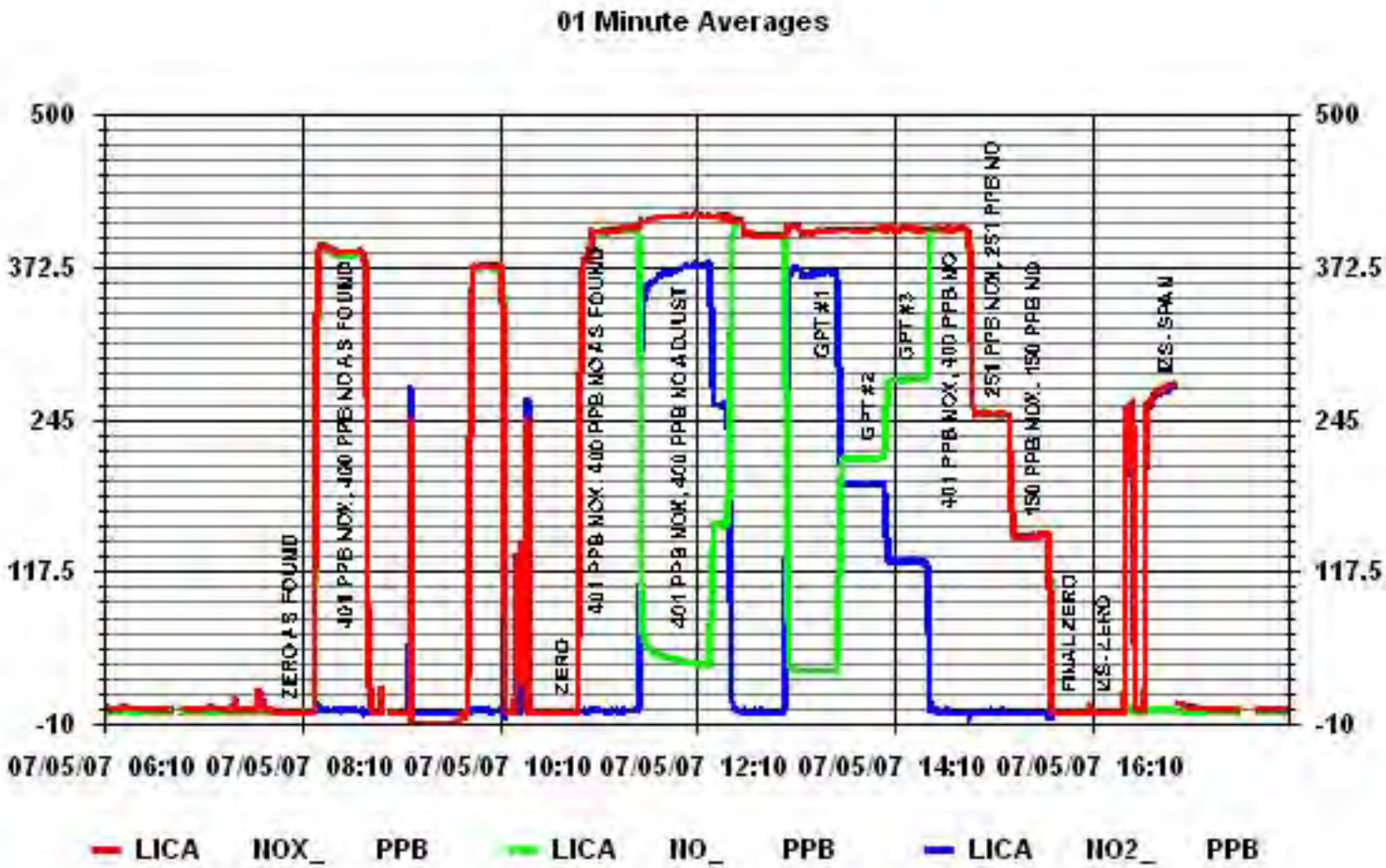
NOx Calibration Curve

Calibration Date	July 5, 2007		
Company	**Lakeland Ind & Comm. Assoc.**		
Plant / Location	**LICA 1 - Cold Lake South**		
Start Time (MST)	7:45	End Time (MST)	17:20

Calculated Conc. ppb	Indicated Response ppb	Correction Factor
0	0	N/A
150	148	1.0140
251	250	1.0045
401	400	1.0030

Correlation Coefficient	(≥ 0.995)	0.999980
Slope	(0.85 to 1.15)	0.997724
Intercept	(± 3% F.S.)	-0.641741




01 Minute Averages
500
372.5
245
117.5
-10
07/05/07 06:10
07/05/07 08:10
07/05/07 10:10
07/05/07 12:10
07/05/07 14:10
07/05/07 16:10
ZERO AS FOUND
401 PPB NOX, 400 PPB NO AS FOUND
ZERO
401 PPB NOX, 400 PPB NO AS FOUND
401 PPB NOX, 400 PPB NO AS DUST
GPT #1
GPT #2
GPT #3
401 PPB NOX, 400 PPB NO
251 PPB NOX, 251 PPB NO
150 PPB NOX, 150 PPB NO
FINAL ZERO
ZERO
LICA NOX_ PPB
LICA NO_ PPB
LICA NO2_ PPB

NOx - NO- NO_2 Calibration Report

Station Information

Calibration Date	July 19, 2007	Previous Calibration	July 5, 2007
Company	**Lakeland Ind & Comm. Assoc.**	Plant/Location	**LICA 1 - Cold Lake South**
Start Time (MST)	7:30	End Time (MST)	14:45
Reason:	Repair Calibration		
Barometric Pressure	710 mmHg	Station Temperature	24.0 Deg C
Cal Gas Concentration	NOx 52.1 ppm NO 52 ppm	Cal Gas Expiry date	10/14/2007
DAS Output Voltage	0 - 5 Volts		

Equipment Information

Analyzer Make / Model:	TECO 42	S/N :	42-33684-247	Method:	Chemiluminescent
Calibrator Make / Model:	Environics 2000	S/N:	1991		
DAS Make / Model:	ESC 8832	S/N :	263		
Flow Meter:	BIOS Dry Cal - DC 2	S/N :	1193		

Analyzer Settings

	Before Calibration				After Calibration			
Concentration Range			0 - 500	ppb				
Sample Flow/Conv. Temp	596	ccm	325	Deg C	585	ccm	325	Deg C
Ozone Flow / Vacuum	89	ccm	-22.5	"Hg-A	90	ccm	-24	"Hg-A
HVPS	OK		Volts		OK		Volts	
Rx/ Temp / PMT Temp	50.4	Deg C	-3	Deg C	50.4	Deg C	-2.9	Deg C
Box Temp / IZS Temp	30.1	Deg C	OK	Deg C	28.5	Deg C	OK	Deg C
Offset	3.5	NOx	3.4	NO	2.7	NOx	2.7	NO
Slope	0.999	NOx	1.324	NO	1.001	NOx	1.051	NO

Gas Phase Titration Calibration Data

Dilution Air Flow Rate	Source Flow Rate	O3 Set Point	Calculated Concentration		Indicated Concentration			Correction Factor	
			NOx	NO	NOx	NO	NO2	NOx	NO
ZERO	N/A	N/A	0	0	0	0	0	N/A	N/A
4961	38.5	N/A	401	400	402	402	0	0.9980	0.9961
ZERO	N/A	N/A	0	0	0	0	0	N/A	N/A
4961	38.5	N/A	401	400	401	401	0	1.0005	0.9986
								Converter Efficiency	
4961	38.5	400	401	N/A	402	55	347	100%	
4961	38.5	250	401	N/A	403	161	242	101%	
4961	38.5	100	401	N/A	403	302	102	103%	
4961	38.5	N/A	401	400	402	402	0	N/A	
								Correction Factor	
4976	24.1	N/A	251	251	250	250	0	1.0045	1.0025
4985	14.4	N/A	150	150	147	146	0	1.0209	1.0259
ZERO	N/A	N/A	0	0	0	0	0	N/A	N/A
Linearity OK?			**Yes**	No	Sum of Least Squares			1.0034	1.0020
Flows Checked on-site?			Yes	**No**	New Correction Factor			1.0005	0.9986
					Average Converter Efficiency			101%	

	Before Calibration				After Calibration			
Auto Zero	0	NOx	0	NO2	0	NOx	0	NO2
Auto Span	256	NOx	253	NO2	272	NOx	269	NO2
Sample Lines Connected					**YES**			
Percent Change from Previous Calibration					*NOx*	-0.7%	*NO*	-0.5%

Rebuilt AENV owned 2 cyl diaphram pump and installed it after the As Found points

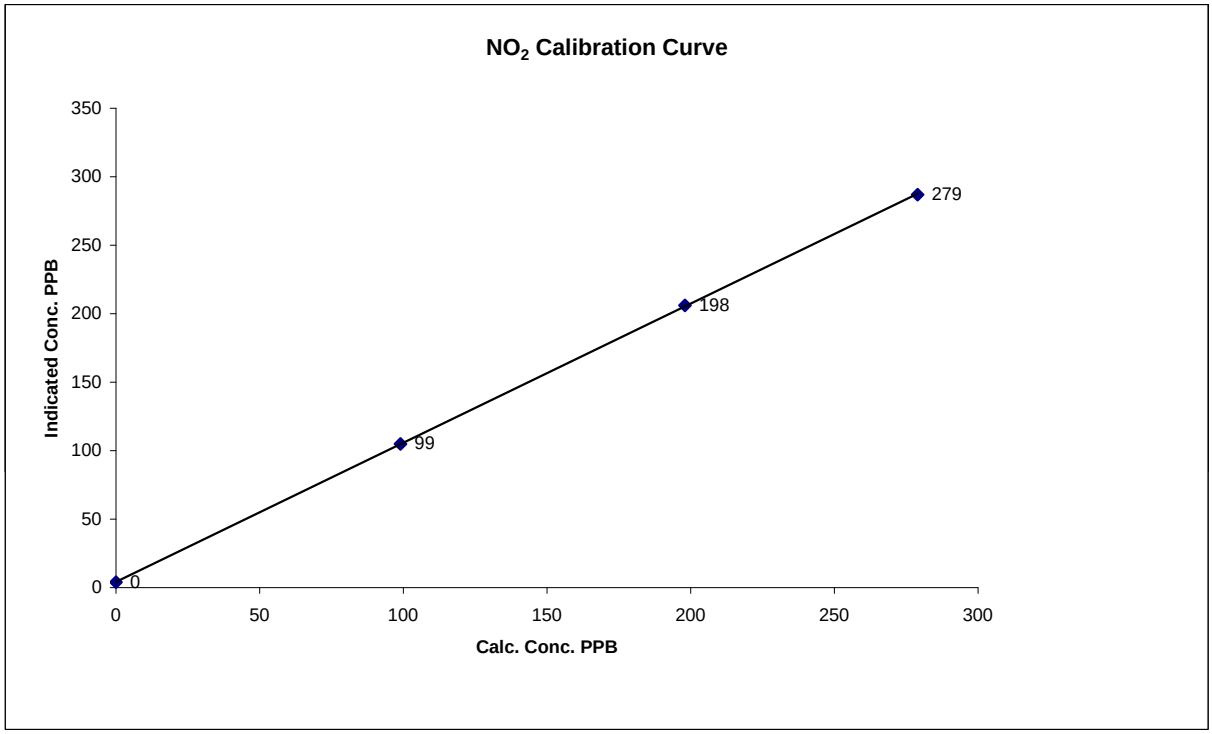
Calibration Performed by: Shea Beaton

NO_2 Calibration Curve

Calibration Date	July 19, 2007		
Company	**Lakeland Ind & Comm. Assoc.**		
Plant / Location	**LICA 1 - Cold Lake South**		
Start Time (MST)	7:30	End Time (MST)	14:45

Calculated Conc. ppb	Indicated Response ppb	Correction Factor
0	0	N/A
99	102	0.9706
240	242	0.9917
346	347	0.9971

Correlation Coefficient	(≥ 0.995)	0.999930
Slope	(0.85 to 1.15)	1.001368
Intercept	(± 3% F.S.)	1.265733

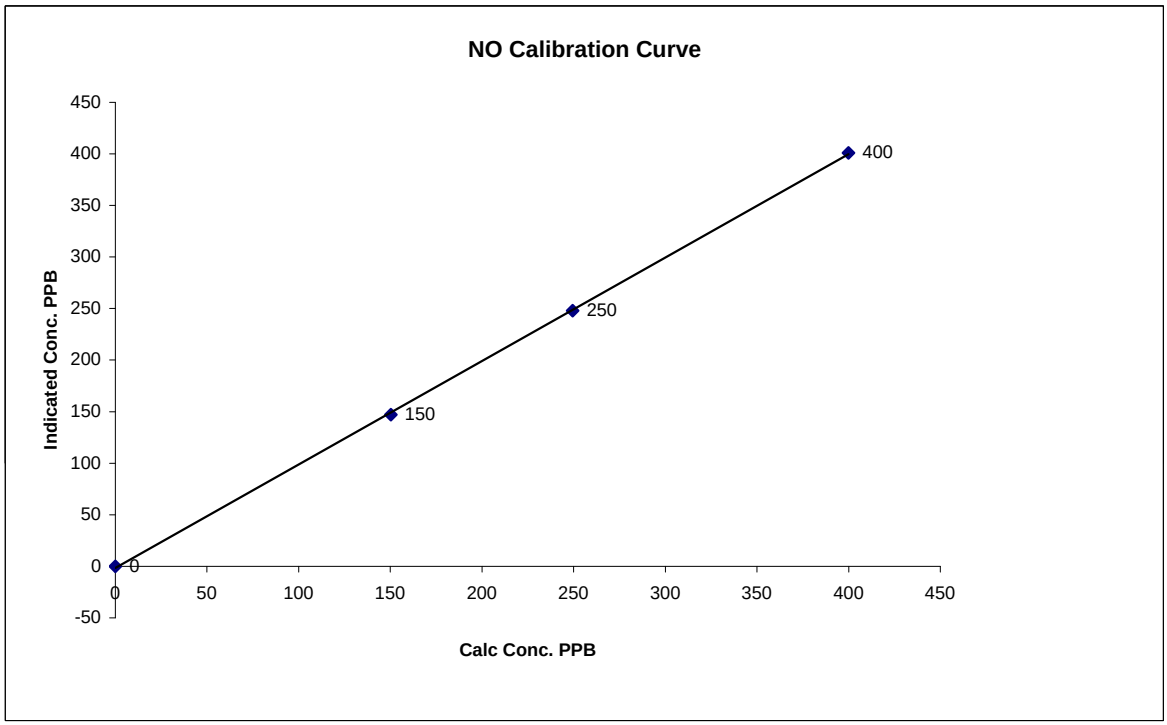


NO Calibration Curve

Calibration Date	July 19, 2007		
Company	**Lakeland Ind & Comm. Assoc.**		
Plant / Location	**LICA 1 - Cold Lake South**		
Start Time (MST)	7:30	End Time (MST)	14:45

Calculated Conc. ppb	Indicated Response ppb	Correction Factor
0	0	N/A
150	146	1.0259
251	250	1.0025
400	401	0.9986

Correlation Coefficient	(≥ 0.995)	0.999879
Slope	(0.85 to 1.15)	1.003174
Intercept	(± 3% F.S.)	-1.598780

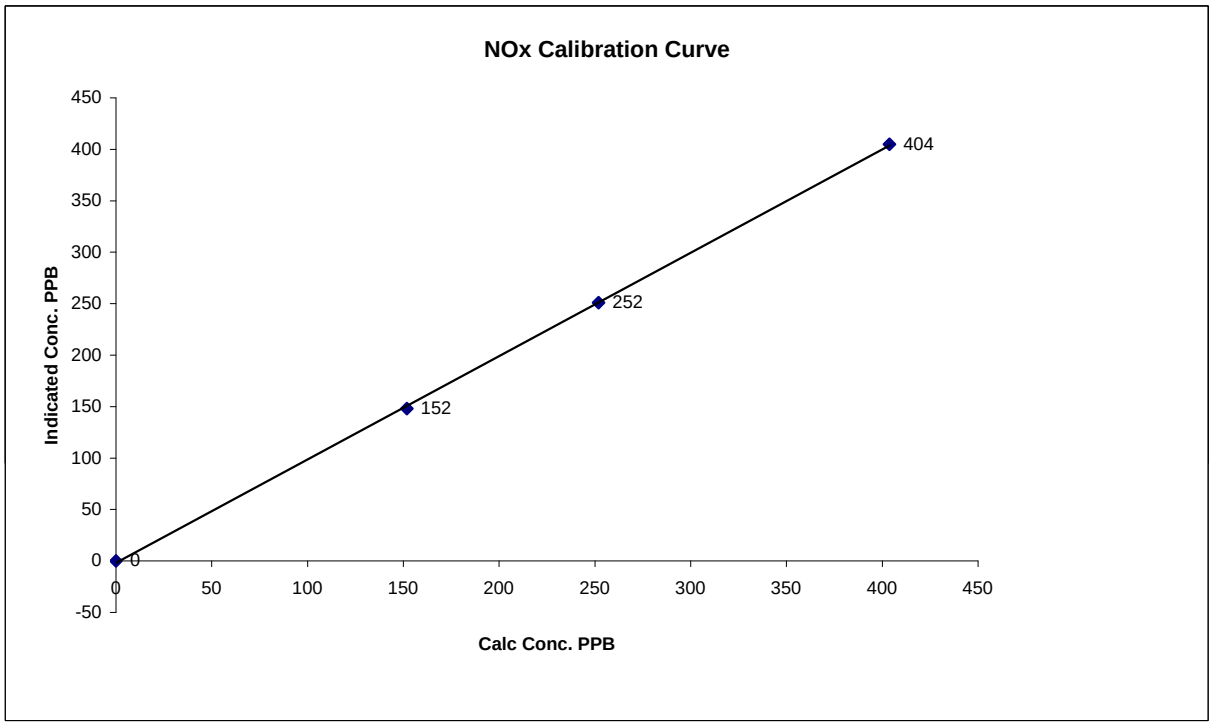


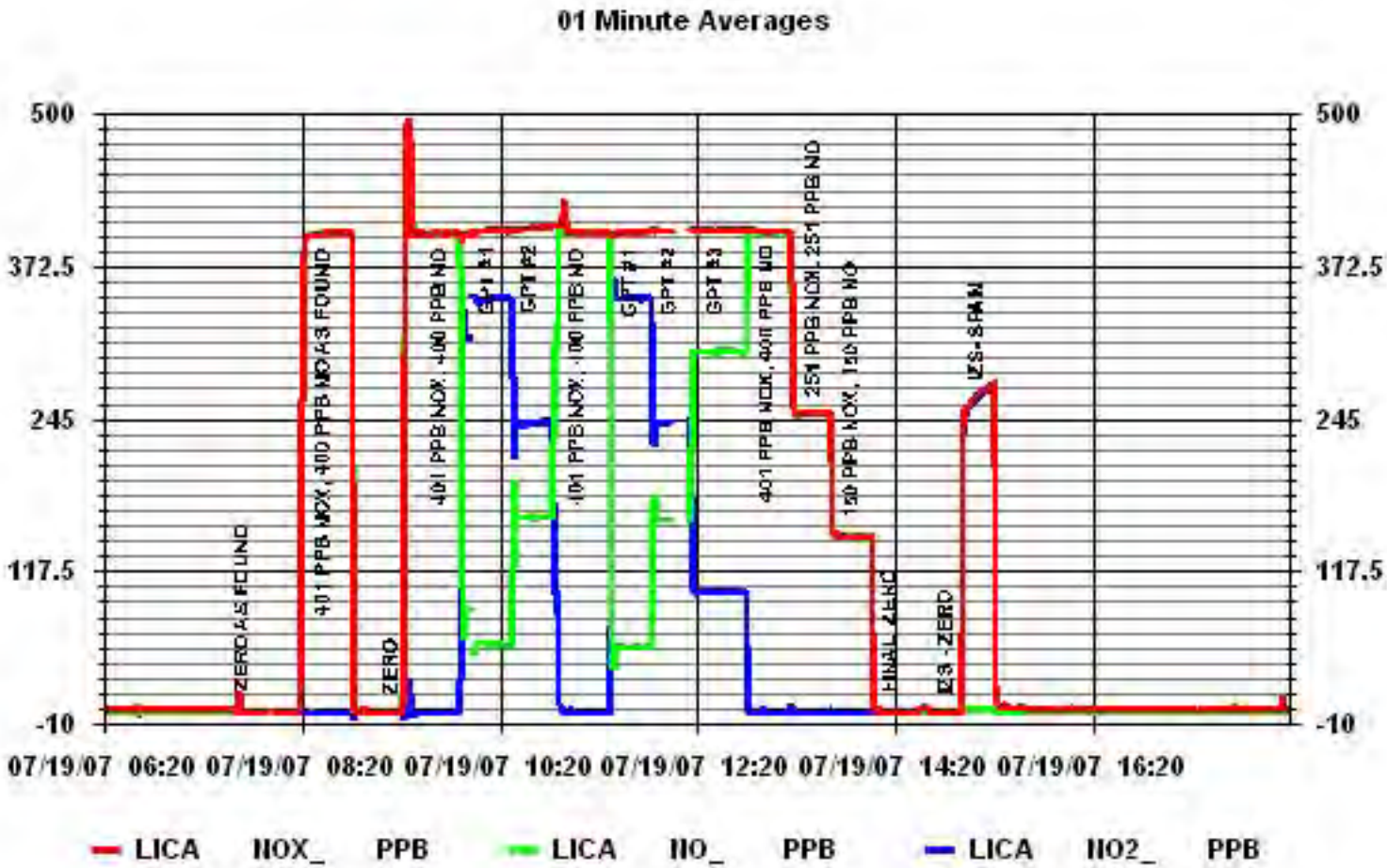
NOx Calibration Curve

Calibration Date	July 19, 2007		
Company	**Lakeland Ind & Comm. Assoc.**		
Plant / Location	**LICA 1 - Cold Lake South**		
Start Time (MST)	7:30	End Time (MST)	14:45

Calculated Conc. ppb	Indicated Response ppb	Correction Factor
0	0	N/A
150	147	1.0209
251	250	1.0045
401	401	1.0005

Correlation Coefficient	(≥ 0.995)	0.999932
Slope	(0.85 to 1.15)	1.000658
Intercept	(± 3% F.S.)	-1.230347




01 Minute Averages
500
372.5
245
117.5
-10
07/19/07 06:20
07/19/07 08:20
07/19/07 10:20
07/19/07 12:20
07/19/07 14:20
07/19/07 16:20
ZERO AS FOUND
401 PPB NOX, 400 PPB NO AS FOUND
ZERO
401 PPB NOX, 400 PPB NO
GPT #1
GPT #2
401 PPB NOX, 400 PPB NO
GPT #1
GPT #2
GPT #3
401 PPB NOX, 400 PPB NO
251 PPB NOX, 251 PPB NO
150 PPB NOX, 150 PPB NO
FINAL ZERO
ZS - ZERO
ZS - SPAN
LICA NOX_ PPB
LICA NO_ PPB
LICA NO2_ PPB

NOx - NO- NO_2 Calibration Report

Station Information

Calibration Date	July 27, 2007	Previous Calibration	July 19, 2007
Company	**Lakeland Ind & Comm. Assoc.**	Plant/Location	**LICA 1 - Cold Lake South**
Start Time (MST)	6:40	End Time (MST)	13:20
Reason:	Repair Calibration		
Barometric Pressure	710 mmHg	Station Temperature	24.0 Deg C
Cal Gas Concentration	NOx 49.8 ppm NO 49.7 ppm	Cal Gas Expiry date	06/18/2009
DAS Output Voltage	0 - 5 Volts		

Equipment Information

Analyzer Make / Model:	TECO 42	S/N :	42-33684-247	Method:	Chemiluminescent
Calibrator Make / Model:	API 700	S/N:	690		
DAS Make / Model:	ESC 8832	S/N :	263		
Flow Meter:	BIOS Dry Cal - DC 2	S/N :	1193		

Analyzer Settings

	Before Calibration				After Calibration			
Concentration Range			0 - 500	ppb				
Sample Flow/Conv. Temp	591	ccm	325	Deg C	585	ccm	325	Deg C
Ozone Flow / Vacuum	90	ccm	22	"Hg-A	90	ccm	-24	"Hg-A
HVPS	OK		Volts		OK		Volts	
Rx/ Temp / PMT Temp	50.5	Deg C	-3	Deg C	50.4	Deg C	-2.9	Deg C
Box Temp / IZS Temp	29.4	Deg C	OK	Deg C	28.5	Deg C	OK	Deg C
Offset	2.7	NOx	2.7	NO	2.7	NOx	2.7	NO
Slope	1.001	NOx	1.051	NO	1.001	NOx	1.051	NO

Gas Phase Titration Calibration Data

Dilution Air Flow Rate	Source Flow Rate	O3 Set Point	Calculated Concentration		Indicated Concentration			Correction Factor	
			NOx	NO	NOx	NO	NO2	NOx	NO
ZERO	N/A	N/A	0	0	0	0	0	N/A	N/A
4959	40.2	N/A	400	400	296	295	1	1.3529	1.3548
ZERO	N/A	N/A	0	0	0	0	0	N/A	N/A
4959	40.2	N/A	400	400	403	402	1	0.9937	0.9942
								Converter Efficiency	
4959	40.2	350	400	N/A	397	5	392	98%	
4959	40.2	250	400	N/A	403	104	298	100%	
4959	40.2	150	400	N/A	403	221	183	101%	
4959	40.2	N/A	400	400	403	401	1	N/A	
								Correction Factor	
4974	25.2	N/A	251	251	251	250	0	1.0001	1.0021
4984	15.1	N/A	150	150	152	151	1	0.9896	0.9942
ZERO	N/A	N/A	0	0	0	0	0	N/A	N/A

Linearity OK?	**Yes**	No	Sum of Least Squares	0.9950	0.9962
Flows Checked on-site?	Yes	**No**	New Correction Factor	0.9937	0.9942
			Average Converter Efficiency	100%	

	Before Calibration				After Calibration			
Auto Zero	0	NOx	0	NO2	0	NOx	0	NO2
Auto Span	198	NOx	197	NO2	270	NOx	268	NO2
Sample Lines Connected					**YES**			
Percent Change from Previous Calibration					*NOx*	-26.0%	*NO*	-26.3%

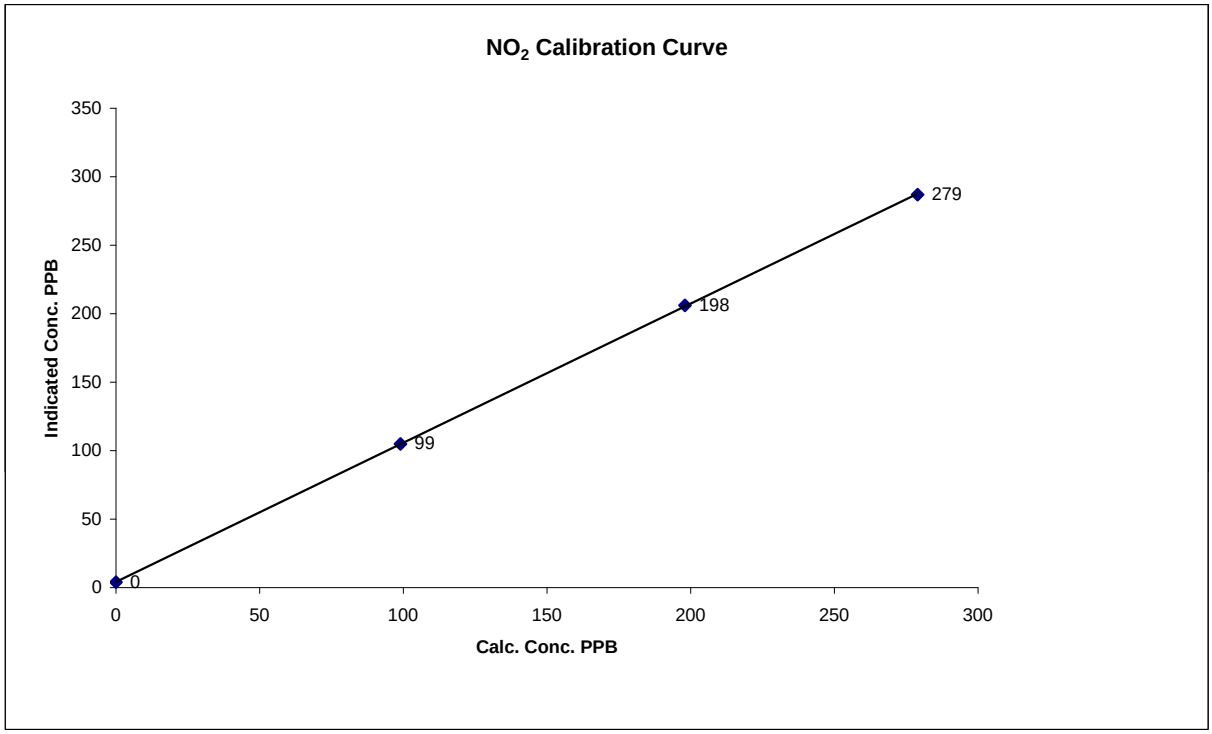
Calibration Performed by: Shea Beaton

NO_2 Calibration Curve

Calibration Date	July 27, 2007		
Company	**Lakeland Ind & Comm. Assoc.**		
Plant / Location	**LICA 1 - Cold Lake South**		
Start Time (MST)	6:40	End Time (MST)	13:20

Calculated Conc. ppb	Indicated Response ppb	Correction Factor
0	1	N/A
181	183	0.9891
298	298	1.0000
397	392	1.0128

Correlation Coefficient	(≥ 0.995)	0.999848
Slope	(0.85 to 1.15)	0.986431
Intercept	(± 3% F.S.)	2.471659

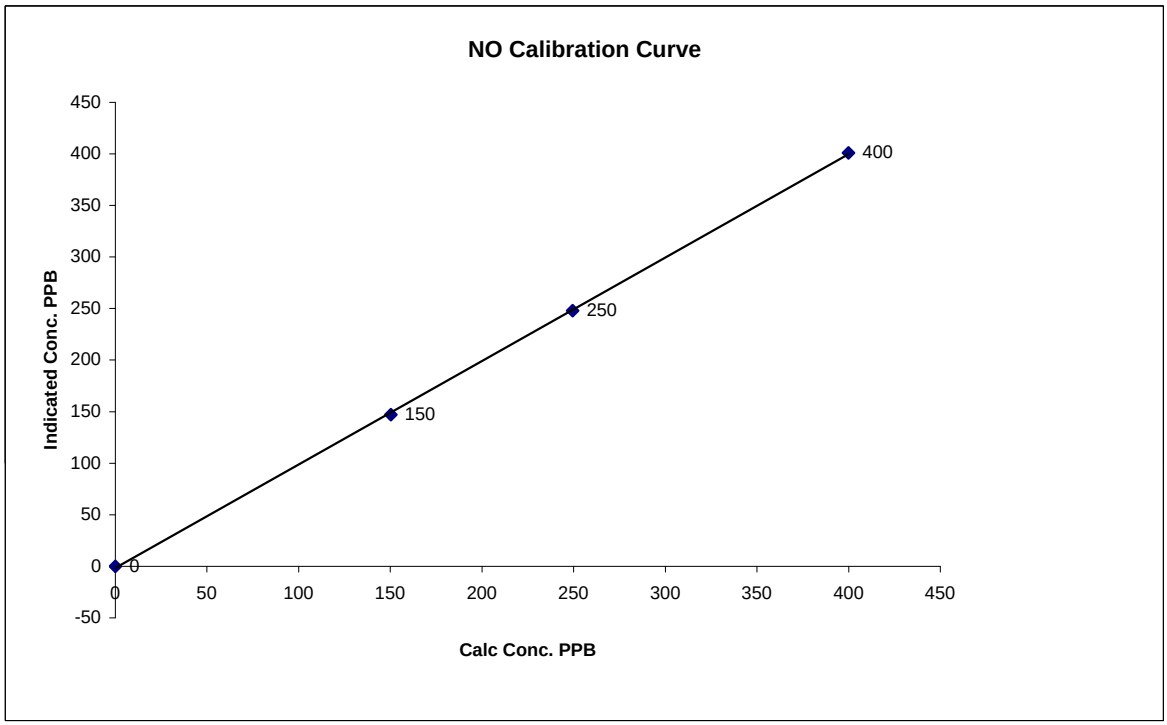


NO Calibration Curve

Calibration Date	July 27, 2007		
Company	**Lakeland Ind & Comm. Assoc.**		
Plant / Location	**LICA 1 - Cold Lake South**		
Start Time (MST)	6:40	End Time (MST)	13:20

Calculated Conc. ppb	Indicated Response ppb	Correction Factor
0	0	N/A
150	151	0.9942
251	250	1.0021
400	402	0.9942

Correlation Coefficient	(≥ 0.995)	0.999966
Slope	(0.85 to 1.15)	1.004689
Intercept	(± 3% F.S.)	-0.263322

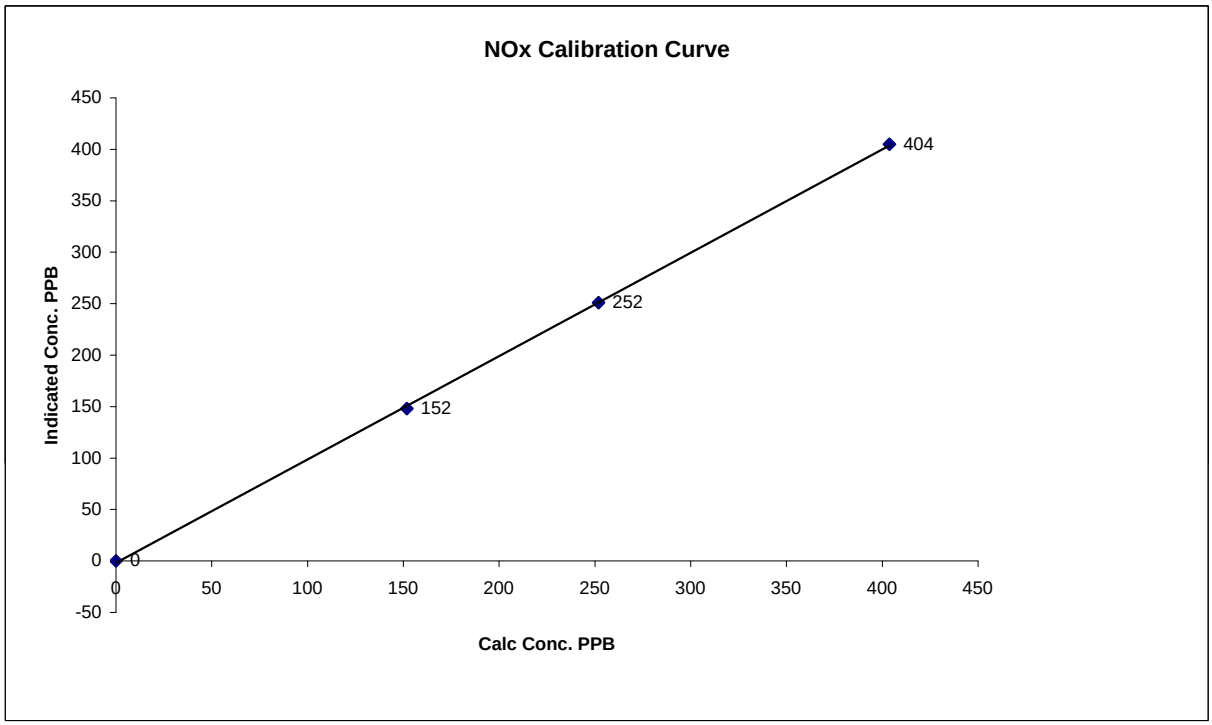


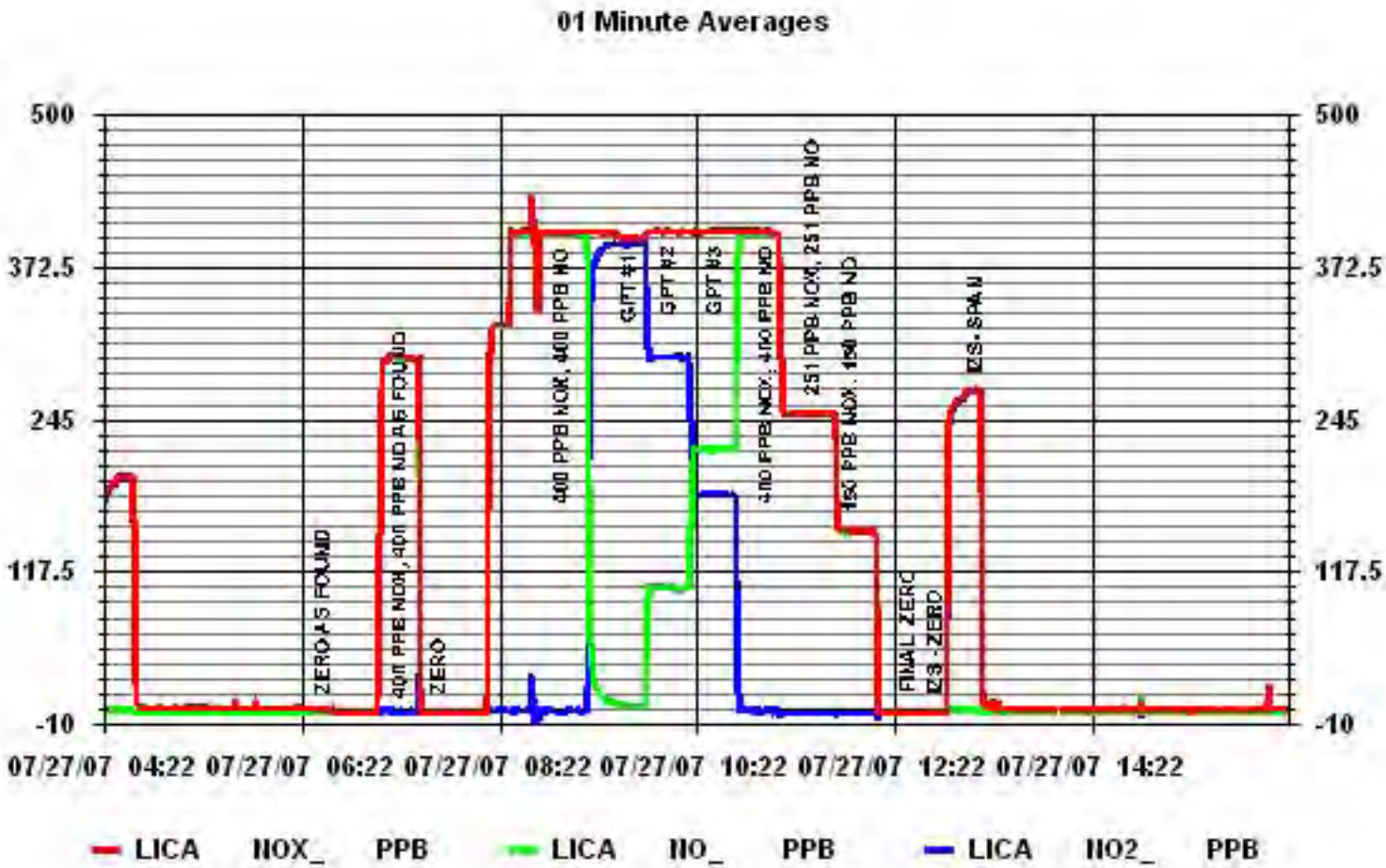
NOx Calibration Curve

Calibration Date	July 27, 2007		
Company	**Lakeland Ind & Comm. Assoc.**		
Plant / Location	**LICA 1 - Cold Lake South**		
Start Time (MST)	6:40	End Time (MST)	13:20

Calculated Conc. ppb	Indicated Response ppb	Correction Factor
0	0	N/A
150	152	0.9896
251	251	1.0001
400	403	0.9937

Correlation Coefficient	(≥ 0.995)	0.999969
Slope	(0.85 to 1.15)	1.005023
Intercept	(± 3% F.S.)	0.015191




01 Minute Averages
500
372.5
245
117.5
-10
07/27/07 04:22
07/27/07 06:22
07/27/07 08:22
07/27/07 10:22
07/27/07 12:22
07/27/07 14:22
ZERO AS FOUND
400 PPB NOX, 400 PPB NO AS FOUND
ZERO
400 PPB NOX, 400 PPB NO
GPT #1
GPT #2
GPT #3
400 PPB NOX, 400 PPB NO
251 PPB NOX, 251 PPB NO
150 PPB NOX, 150 PPB NO
FINAL ZERO
ZS - ZERO
ZS - SPAN
LICA NOX_ PPB
LICA NO_ PPB
LICA NO2_ PPB

OZONE

O_3 Calibration Report

Station Information

Calibration Date	July 6, 2007	Previous Calibration	June 6, 2007
Company	**Lakeland Industry & Community Association**		
Plant / Location	**LICA 1 - Cold Lake South**		
Start Time (MST)	7:40	End Time (MST)	13:40
Reason:		Monthly Calibration	
Barometric Pressure	710 mm Hg	Station Temperature	24 Deg C
DAS Output Voltage	0 - 10 Volts		

Equipment Information

Analyzer Make / Model:	TECO 49	S/N :	AOM-13892-143	Method:	Fluorescent
Calibrator Make / Model:	Environics 2000	S/N :	1991	Method:	Dilution
Calibrator Make / Model:	API 700	S/N :	690	Method:	Dilution
DAS Make / Model:	ESC 8832	S/N :	263		

Analyzer Settings

	Before Calibration		After Calibration	
Concentration Range	0 - 500 ppb			
Box Temp	OK		OK	
O_3 Set Level	3.75		3.75	
Sample Flow A/B	1 LPM	1 LPM	1 LPM	1 LPM
Offset / Slope	50	580	50	523

Calibration Data

Dilution Flow Rate	Ozone Set Point	Calculated Concentration	Indicated Conc. (DAS)	Correction Factor
ZERO	ZERO	0	-1	N/A
5000	300	365	305	1.1967
5000	300	365	358	1.0196
5000	150	186	171	1.0877
ZERO	ZERO	0	0	N/A
5000	300	273	271	1.0074
5000	200	194	182	1.0659
5000	100	98	89	1.1011
ZERO	ZERO	0	0	N/A
			Sum of Least Squares	N/A
			New Correction Factor	1.0074

	Before Calibration	After Calibration
Auto Zero	0	0
Auto Span	269	240
Sample Lines Connected		YES
Percent Change from Previous Calibration		-16.4%

Notes: Calibration halted during second span point due to poor linearity. Re-adjusted analyzer changed calibrators, checked for leaks, checked pressure/temp transducers and then re-started calibration

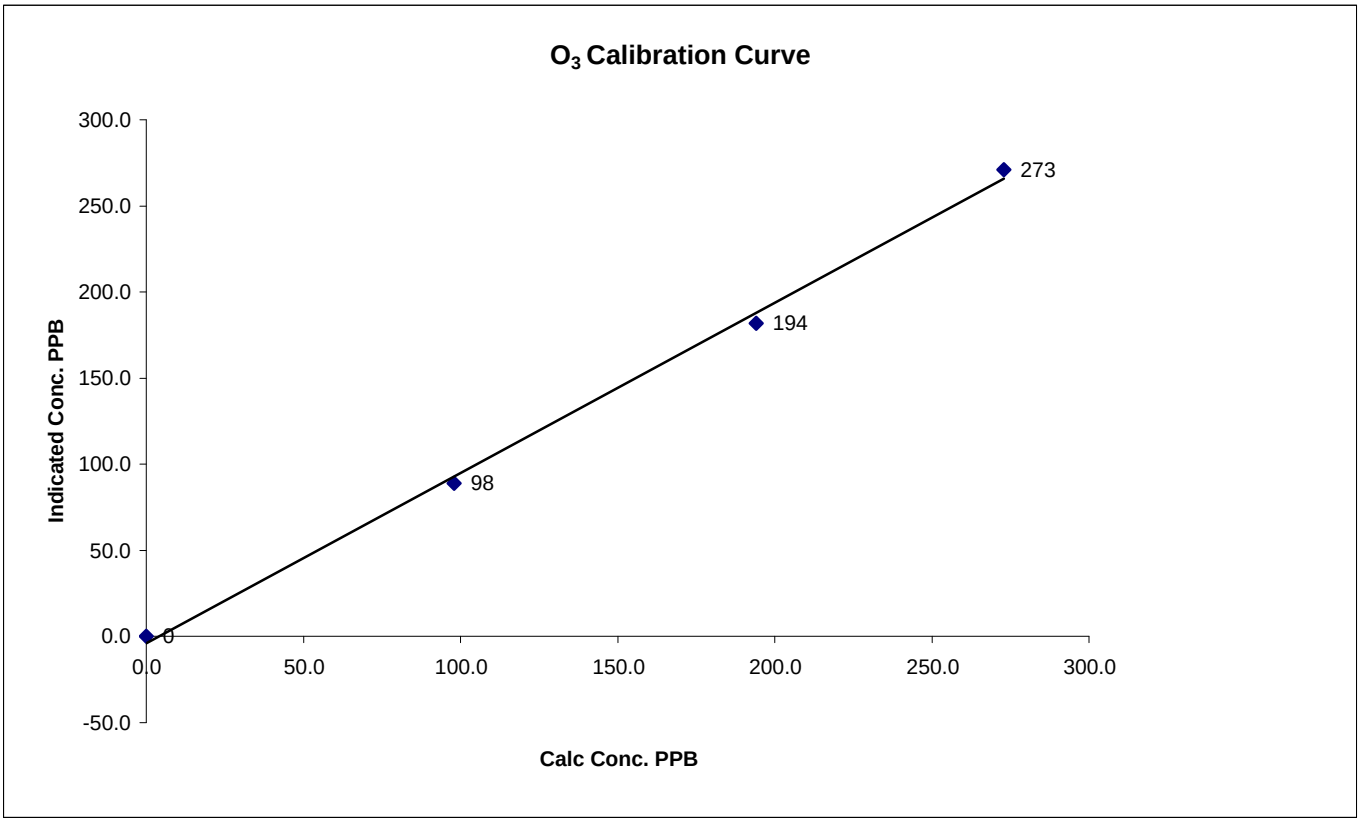
Calibration Performed by: Shea Beaton

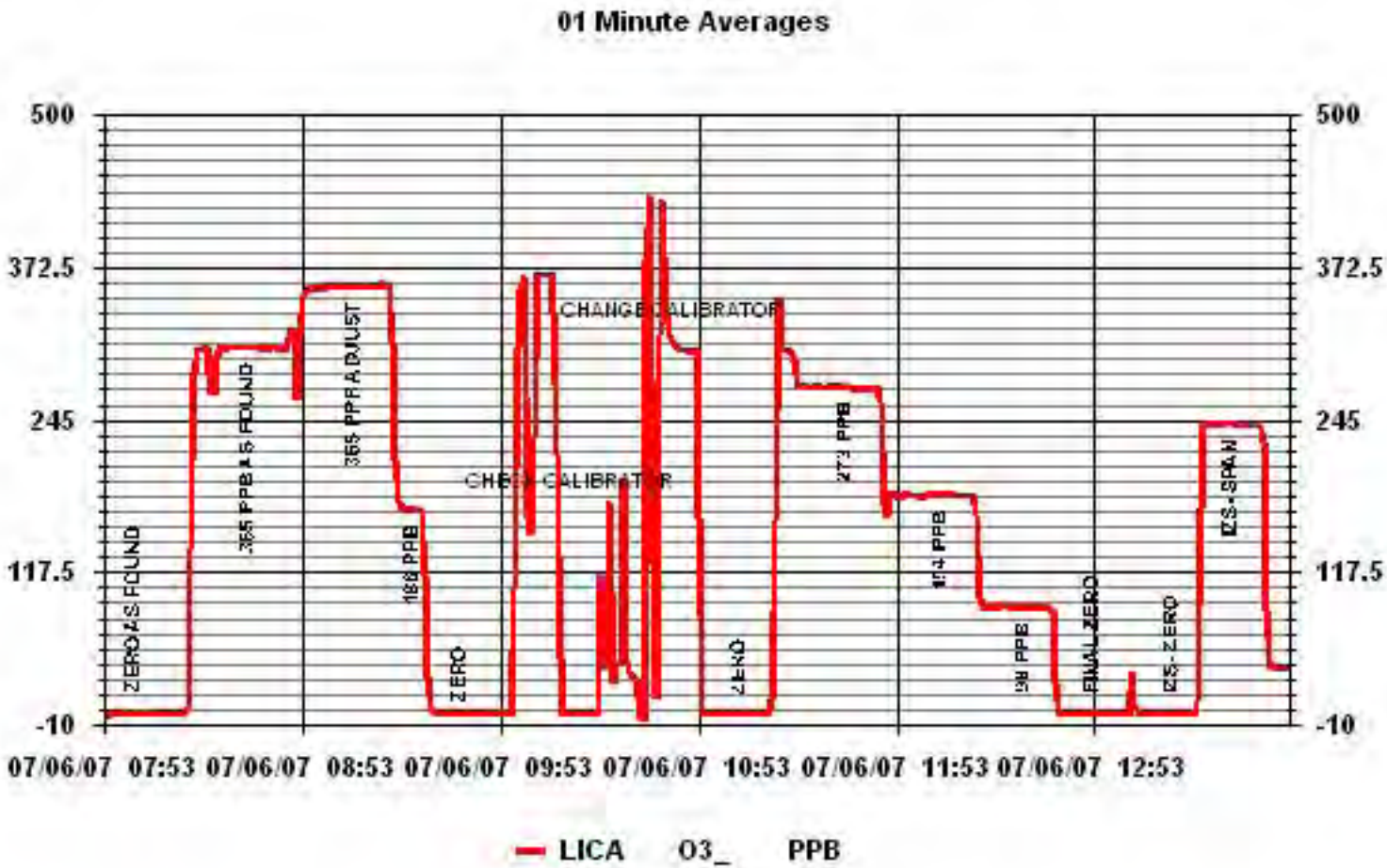
O_3 Calibration Curve

Calibration Date	July 6, 2007		
Company	**Lakeland Industry & Community Association**		
Plant / Location	**LICA 1 - Cold Lake South**		
Start Time (MST)	7:40	End Time (MST)	13:40

Calculated Conc. ppb	Indicated Response ppb	Correction Factor
0	0	n/a
98	89	1.1011
194	182	1.0659
273	271	1.0074

Correlation Coefficient	(≥ 0.995)	0.997792
Slope	(0.85 to 1.15)	0.987912
Intercept	(± 3% F.S.)	-4.042556




01 Minute Averages
500
372.5
245
117.5
-10
07/06/07 07:53
07/06/07 08:53
07/06/07 09:53
07/06/07 10:53
07/06/07 11:53
07/06/07 12:53
ZERO AS FOUND
365 PPB AS FOUND
365 PPB ADJUST
188 PPB
ZERO
CHANGE CALIBRATOR
CHECK CALIBRATOR
ZERO
273 PPB
114 PPB
58 PPB
FINAL ZERO
ZS-ZERO
ZS-SPAN
LICA O3_ PPB

O_3 Calibration Report

Station Information

Calibration Date	July 19, 2007	Previous Calibration	July 6, 2007
Company	**Lakeland Industry & Community Association**		
Plant / Location	**LICA 1 - Cold Lake South**		
Start Time (MST)	14:00	End Time (MST)	16:45
Reason:		Removal Calibration	
Barometric Pressure	710 mm Hg	Station Temperature	24 Deg C
DAS Output Voltage	0 - 10 Volts		

Equipment Information

Analyzer Make / Model:	TECO 49	S/N :	AOM-13892-143	Method:	Fluorescent
Calibrator Make / Model:	Environics 2000	S/N :	1991	Method:	Dilution
DAS Make / Model:	ESC 8832	S/N :	263		

Analyzer Settings

	Before Calibration		After Calibration	
Concentration Range	0 - 500 ppb			
Box Temp	OK		OK	
O_3 Set Level	3.75		3.75	
Sample Flow A/B	1 LPM	1 LPM	1 LPM	1 LPM
Offset / Slope	50	523	50	523

Calibration Data

Dilution Flow Rate	Ozone Set Point	Calculated Concentration	Indicated Conc. (DAS)	Correction Factor
ZERO	ZERO	0	-1	N/A
5000	400	347	388	0.8943
5000	250	241	238	1.0126
5000	100	98	94	1.0426
ZERO	ZERO	0	0	N/A
			Sum of Least Squares	N/A
			New Correction Factor	0.8943

	Before Calibration	After Calibration
Auto Zero	0	NA
Auto Span	241	NA
Sample Lines Connected		YES
Percent Change from Previous Calibration		12.6%

Notes:

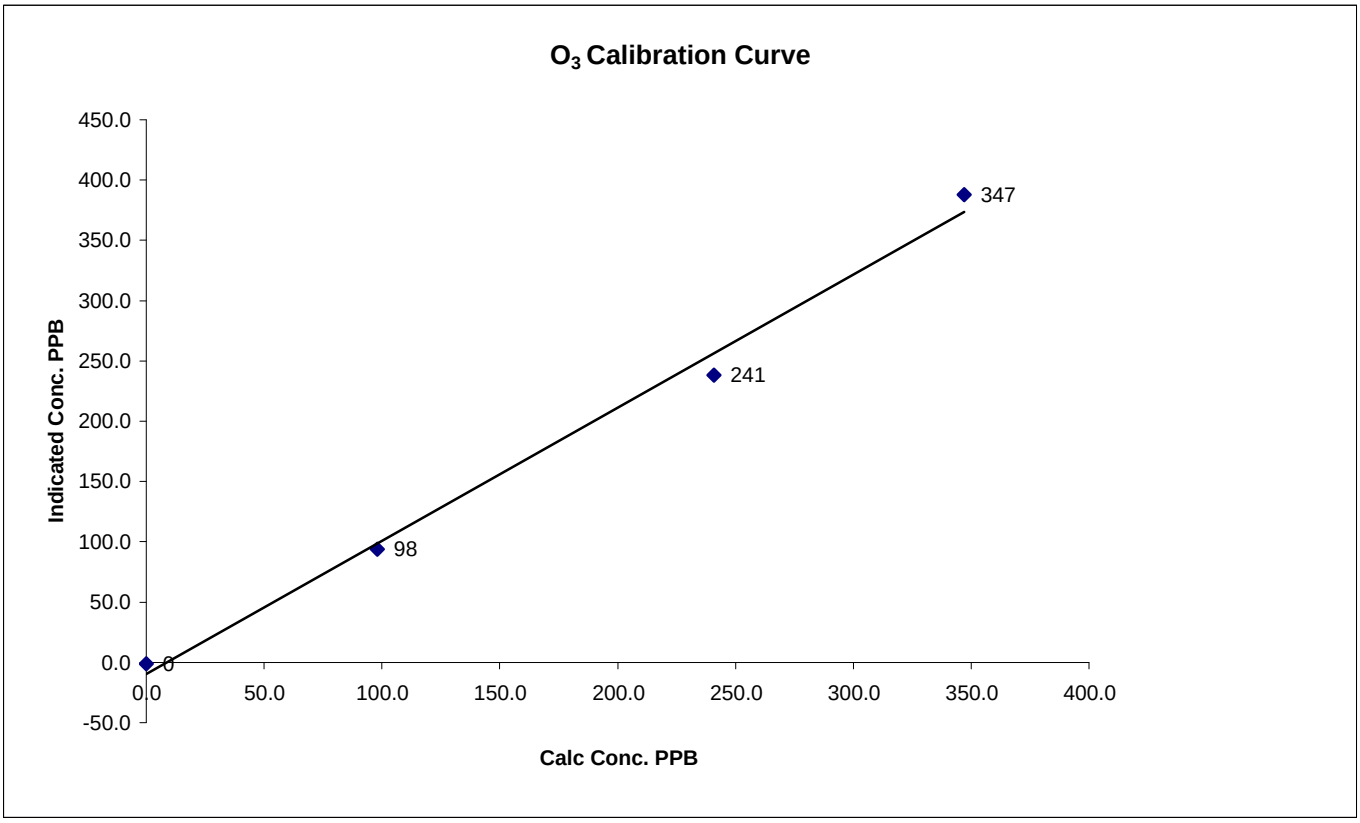
Calibration Performed by: Shea Beaton

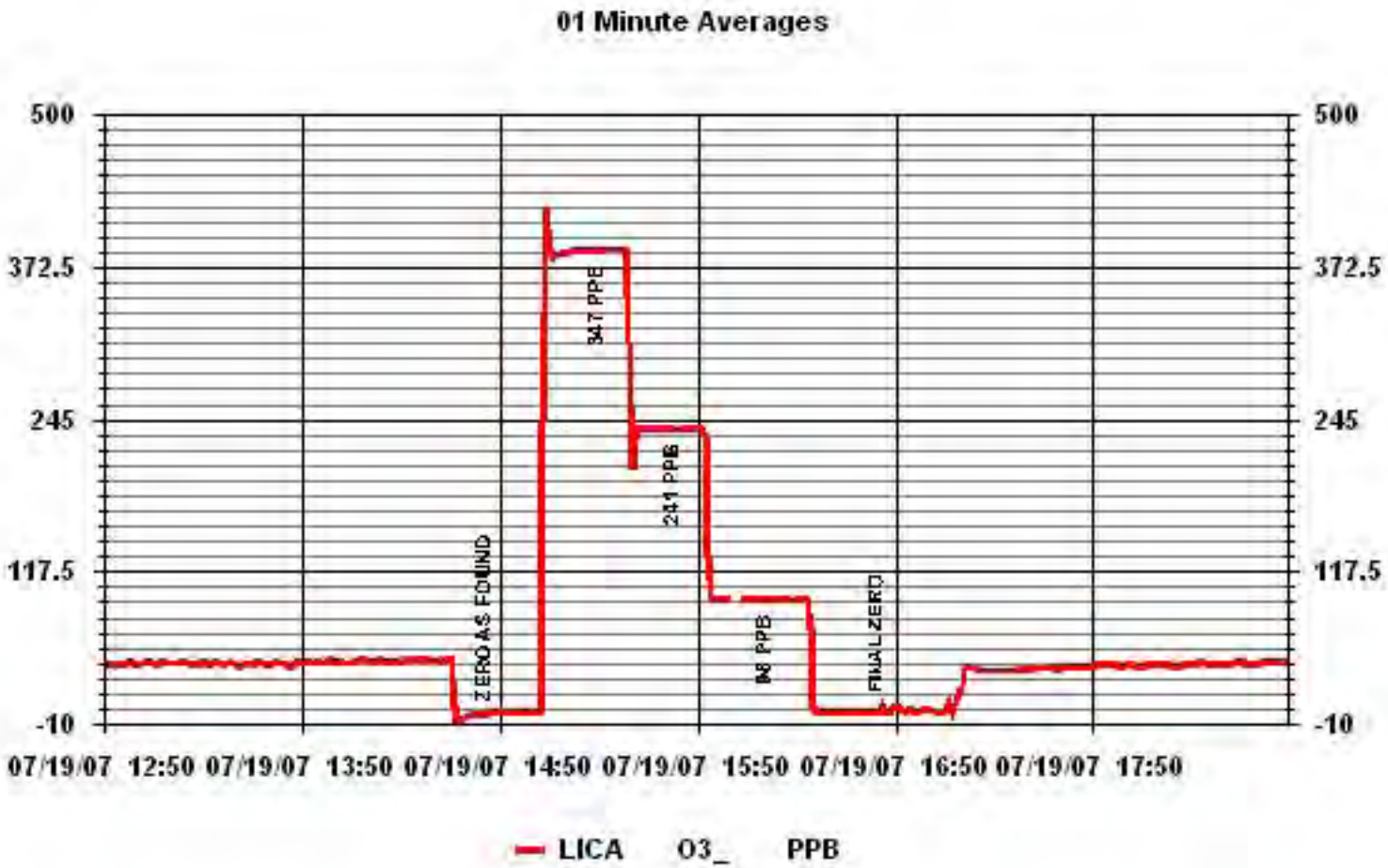
O_3 Calibration Curve

Calibration Date	July 19, 2007		
Company	**Lakeland Industry & Community Association**		
Plant / Location	**LICA 1 - Cold Lake South**		
Start Time (MST)	14:00	End Time (MST)	16:45

Calculated Conc. ppb	Indicated Response ppb	Correction Factor
0	-1	n/a
98	94	1.0426
241	238	1.0126
347	388	0.8943

Correlation Coefficient	(≥ 0.995)	0.992552
Slope	(0.85 to 1.15)	1.105792
Intercept	(± 3% F.S.)	-9.893286




01 Minute Averages
500
372.5
245
117.5
-10
07/19/07 12:50
07/19/07 13:50
07/19/07 14:50
07/19/07 15:50
07/19/07 16:50
07/19/07 17:50
ZERO AS FOUND
347 PPB
241 PPB
86 PPB
FINAL ZERO
LICA O3_ PPB

O_3 Calibration Report

Station Information

Calibration Date	July 20, 2007	Previous Calibration	July 19, 2007
Company	**Lakeland Industry & Community Association**		
Plant / Location	**LICA 1 - Cold Lake South**		
Start Time (MST)	11:41	End Time (MST)	15:15
Reason:		Installation Calibration	
Barometric Pressure	707 mm Hg	Station Temperature	24 Deg C
DAS Output Voltage	0 - 10 Volts		

Equipment Information

Analyzer Make / Model:	TEI 49i	S/N :	700419951	Method:	Fluorescent
Calibrator Make / Model:	Environics 2000	S/N :	1991	Method:	Dilution
DAS Make / Model:	ESC 8832	S/N :	263		

Analyzer Settings

	Before Calibration		After Calibration	
Concentration Range	0 - 500 ppb			
Box Temp	28.7		NA	
O_3 Set Level	29		NA	
Sample Flow A/B	0.746 LPM	0.749 LPM	NA LPM	NA LPM
Offset / Slope	2.8	1.214	0.3	0.903

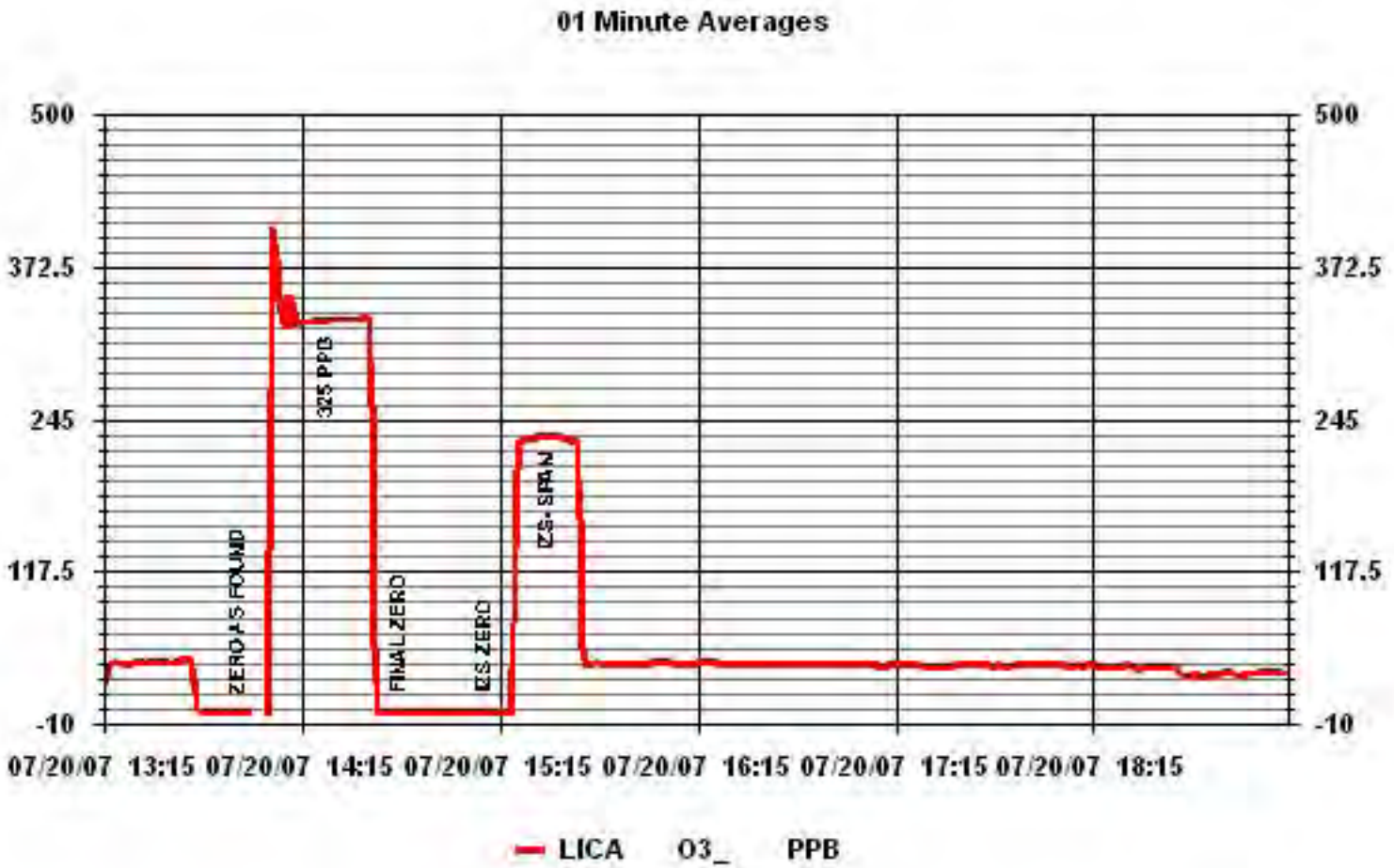
Calibration Data

Dilution Flow Rate	Ozone Set Point	Calculated Concentration	Indicated Conc. (DAS)	Correction Factor
ZERO	ZERO	0	0	N/A
5000	400	325	327	0.9939
ZERO	ZERO	0	0	N/A
			Sum of Least Squares	N/A
			New Correction Factor	0.9939

	Before Calibration	After Calibration
Auto Zero	NA	0
Auto Span	NA	228
Sample Lines Connected		YES
Percent Change from Previous Calibration		NA

Notes: Pressure - 702
Bench Lamp - 53.7
O3 Lamp - 67.7

Calibration Performed by: Shea Beaton


01 Minute Averages
500
372.5
245
117.5
-10
ZERO AS FOUND
325 PPB
FINAL ZERO
ES ZERO
ES- SPAN
07/20/07 13:15
07/20/07 14:15
07/20/07 15:15
07/20/07 16:15
07/20/07 17:15
07/20/07 18:15
LICA O3_ PPB

O_3 Calibration Report

Station Information

Calibration Date	July 23, 2007	Previous Calibration	July 20, 2007
Company	**Lakeland Industry & Community Association**		
Plant / Location	**LICA 1 - Cold Lake South**		
Start Time (MST)	9:45	End Time (MST)	16:15
Reason:		Installation Calibration	
Barometric Pressure	710 mm Hg	Station Temperature	24 Deg C
DAS Output Voltage	0 - 10 Volts		

Equipment Information

Analyzer Make / Model:	TEI 49i	S/N :	700419951	Method:	Fluorescent
Calibrator Make / Model:	Environics 2000	S/N :	1991	Method:	Dilution
DAS Make / Model:	ESC 8832	S/N :	263		

Analyzer Settings

	Before Calibration		After Calibration	
Concentration Range	0 - 500 ppb			
Box Temp/ Pressure	28.9	703.8	NA	703.8
O_3 Set Level	29%		29%	
Bench Lamp/O3 Lamp	53.6	67.6	53.6	67.6
Sample Flow A/B	0.748 LPM	0.75 LPM	0.756 LPM	0.748 LPM
Offset / Slope	0.3	0.903	0.3	0.865

Calibration Data

Dilution Flow Rate	Ozone Set Point	Calculated Concentration	Indicated Conc. (DAS)	Correction Factor
ZERO	ZERO	0	0	N/A
5000	400	320	334	0.9581
ZERO	ZERO	0	0	N/A
5000	400	320	324	0.9877
5000	250	220	199	1.1055
5000	100	92	80	1.1500
ZERO	ZERO	0	0	N/A
			Sum of Least Squares	N/A
			New Correction Factor	0.9877

	Before Calibration	After Calibration
Auto Zero	0	0
Auto Span	233	225
Sample Lines Connected		YES
Percent Change from Previous Calibration		3.7%

Notes:

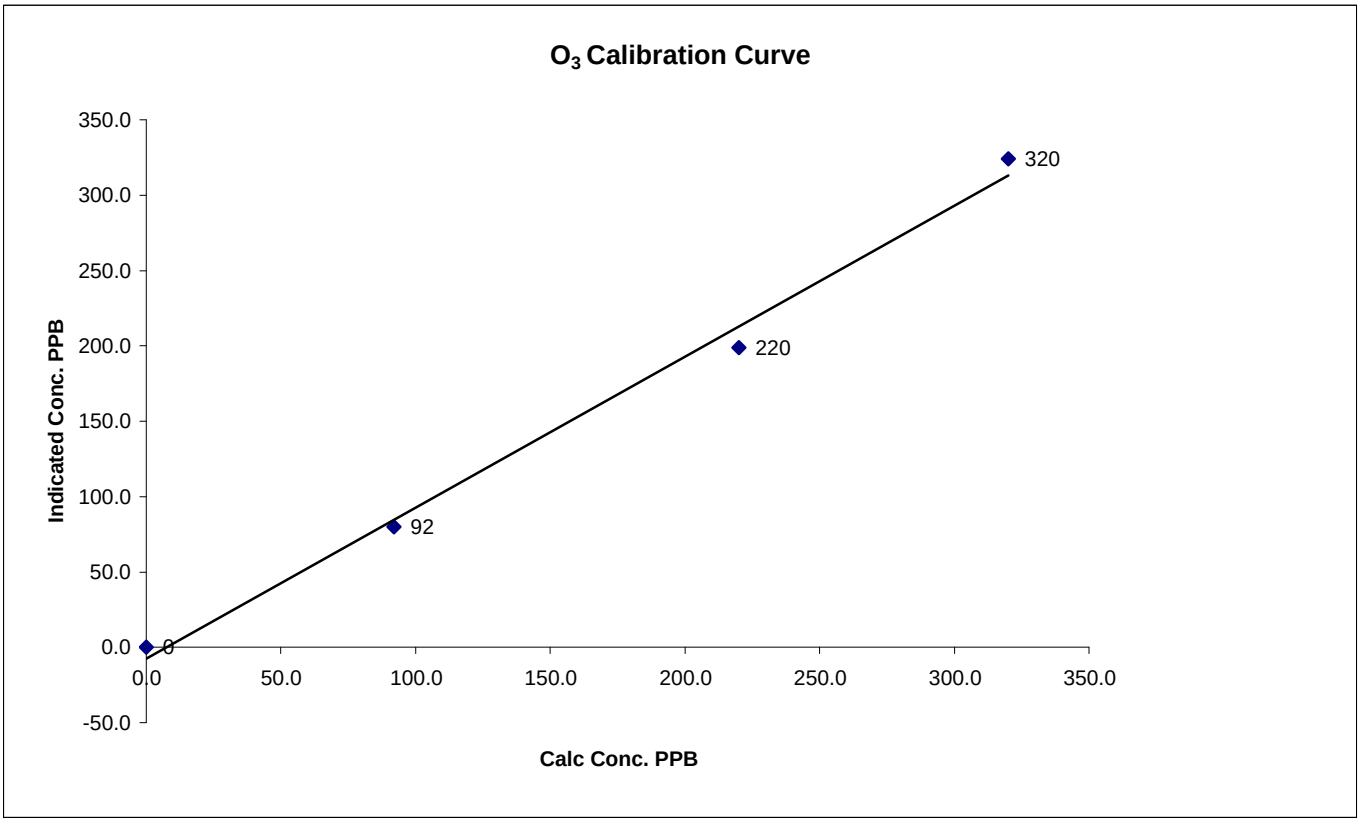
Calibration Performed by: Shea Beaton

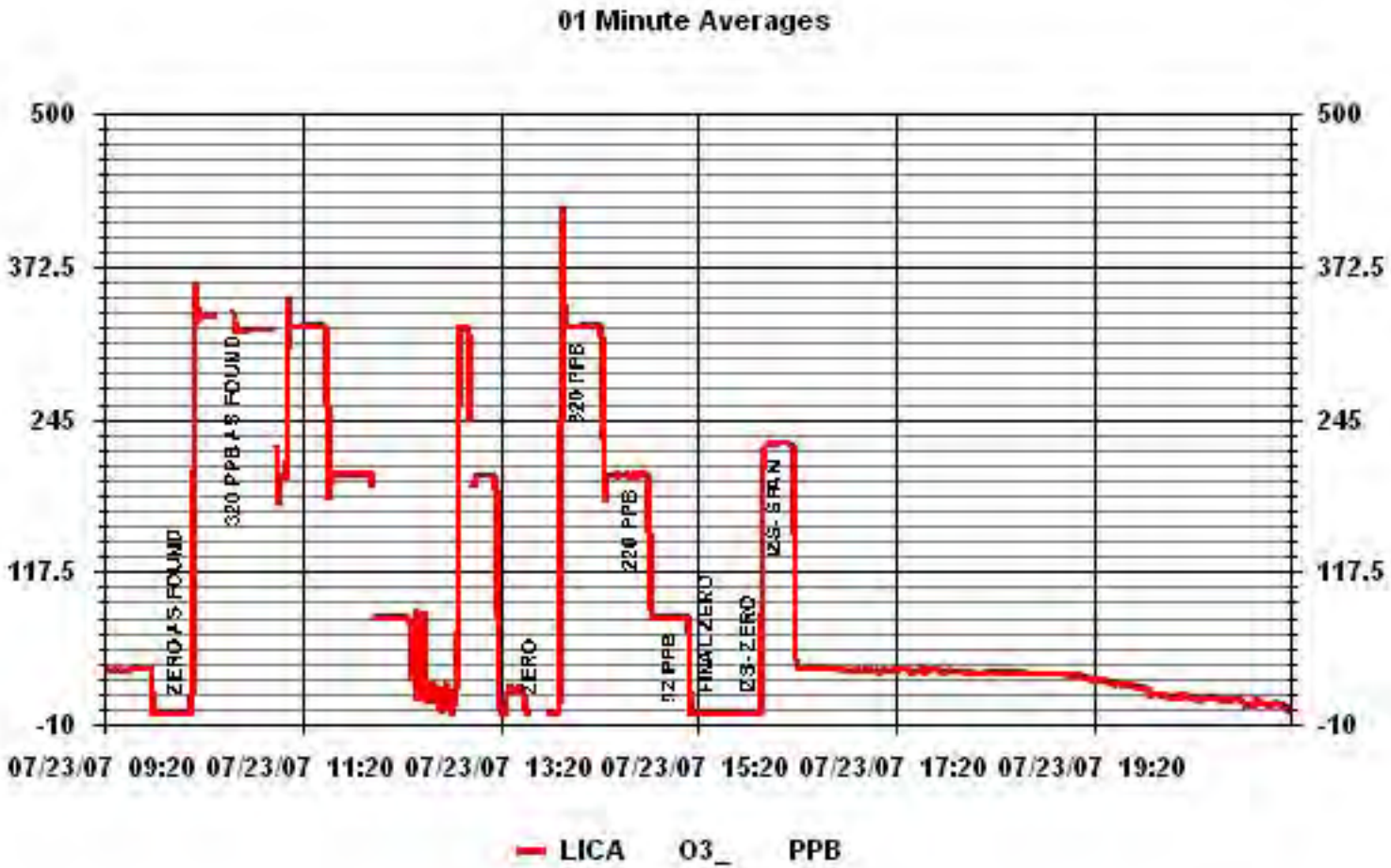
O_3 Calibration Curve

Calibration Date	July 23, 2007		
Company	**Lakeland Industry & Community Association**		
Plant / Location	**LICA 1 - Cold Lake South**		
Start Time (MST)	9:45	End Time (MST)	16:15

Calculated Conc. ppb	Indicated Response ppb	Correction Factor
0	0	n/a
92	80	1.1500
220	199	1.1055
320	324	0.9877

Correlation Coefficient	(≥ 0.995)	0.993501
Slope	(0.85 to 1.15)	1.002323
Intercept	(± 3% F.S.)	-7.617021




01 Minute Averages
500
372.5
245
117.5
-10
07/23/07 09:20
07/23/07 11:20
07/23/07 13:20
07/23/07 15:20
07/23/07 17:20
07/23/07 19:20
ZERO AS FOUND
320 PPB AS FOUND
ZERO
320 PPB
220 PPB
12 PPB
FINAL ZERO
O3-ZERO
O3-SPAN
LICA O3_ PPB

O_3 Calibration Report

Station Information

Calibration Date	July 27, 2007	Previous Calibration	July 23, 2007
Company	**Lakeland Industry & Community Association**		
Plant / Location	**LICA 1 - Cold Lake South**		
Start Time (MST)	6:40	End Time (MST)	10:15
Reason:		Calibration	
Barometric Pressure	710 mm Hg	Station Temperature	24 Deg C
DAS Output Voltage	0 - 10 Volts		

Equipment Information

Analyzer Make / Model:	TEI 49i	S/N :	700419951	Method:	Fluorescent
Calibrator Make / Model:	Environics 2000	S/N :	1991	Method:	Dilution
DAS Make / Model:	ESC 8832	S/N :	263		

Analyzer Settings

	Before Calibration		After Calibration	
Concentration Range	0 - 500 ppb			
Box Temp/ Pressure	28.9	703.8	28.7	703.8
O_3 Set Level	29%		29%	
Bench Lamp/O3 Lamp	53.6	67.6	53.6	67.6
Sample Flow A/B	0.701 LPM	0.709 LPM	0.699 LPM	0.706 LPM
Offset / Slope	0.3	0.865	0.4	1.061

Calibration Data

Dilution Flow Rate	Ozone Set Point	Calculated Concentration	Indicated Conc. (DAS)	Correction Factor
ZERO	ZERO	0	0	N/A
5000	400	399	326	1.2239
5000	400	399	400	0.9975
5000	250	247	247	1.0000
5000	100	99	99	1.0000
ZERO	ZERO	0	0	N/A
			Sum of Least Squares	N/A
			New Correction Factor	0.9975

	Before Calibration	After Calibration
Auto Zero	0	0
Auto Span	229	280
Sample Lines Connected		YES
Percent Change from Previous Calibration		-19.3%

Notes:

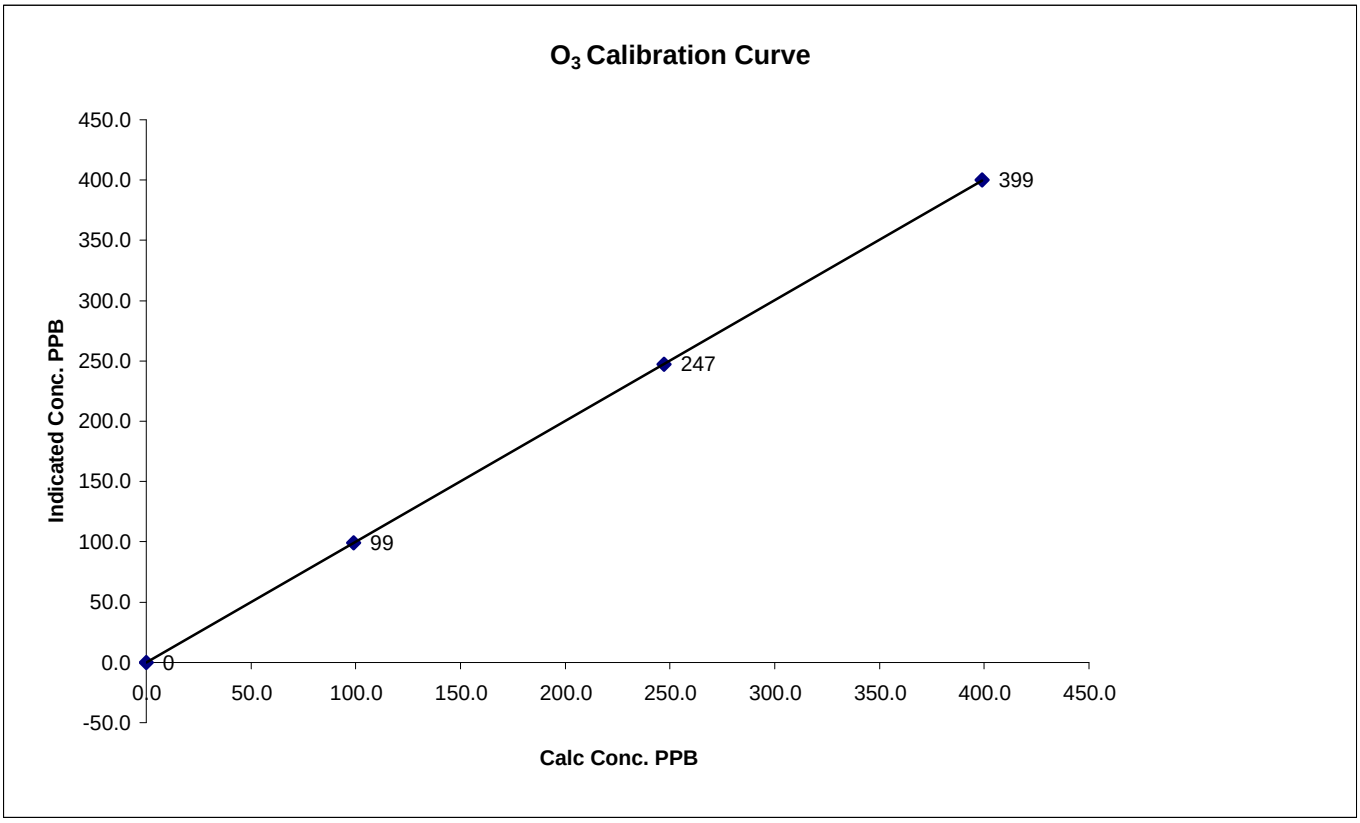
Calibration Performed by: Shea Beaton

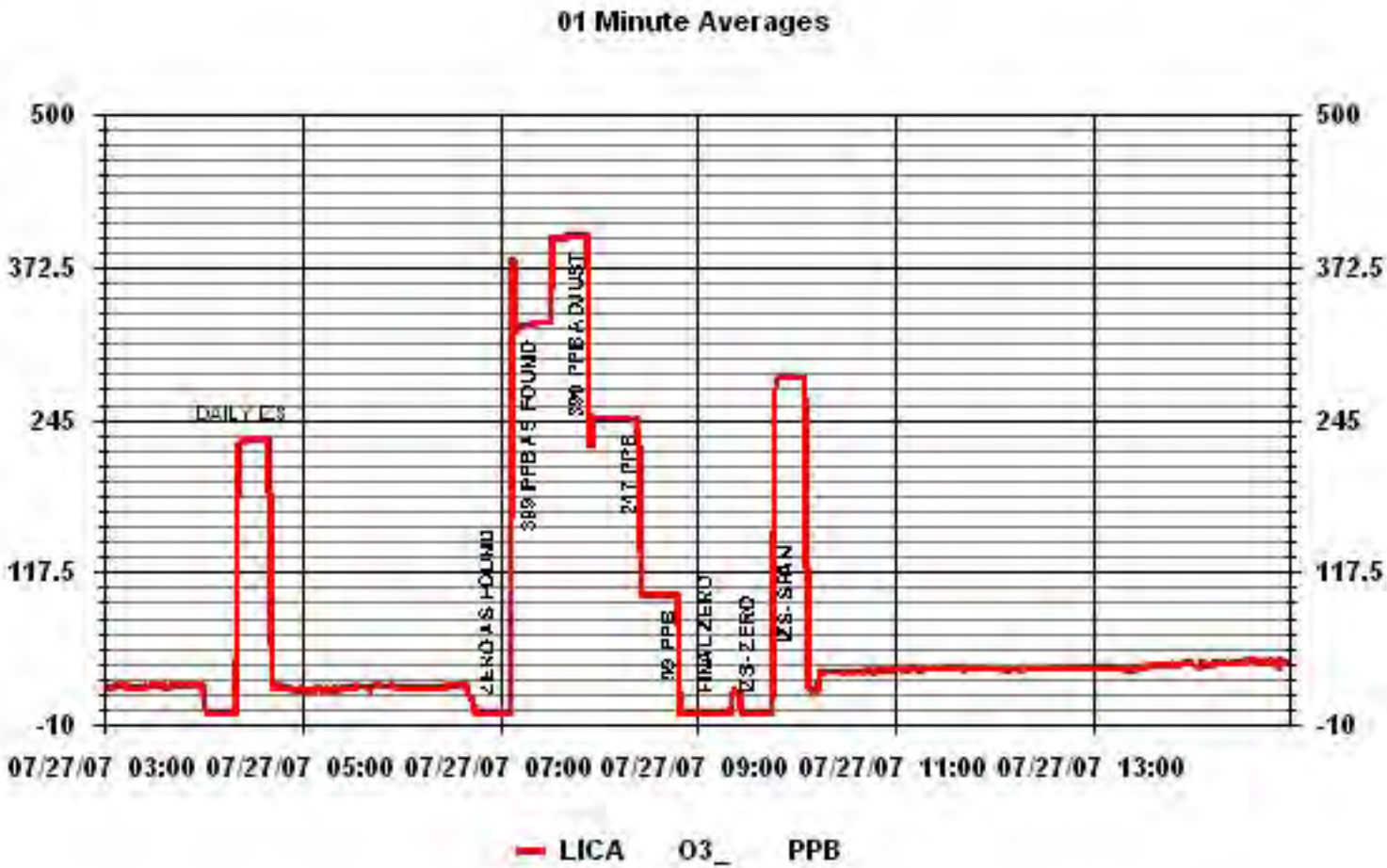
O_3 Calibration Curve

Calibration Date	July 27, 2007		
Company	**Lakeland Industry & Community Association**		
Plant / Location	**LICA 1 - Cold Lake South**		
Start Time (MST)	6:40	End Time (MST)	10:15

Calculated Conc. ppb	Indicated Response ppb	Correction Factor
0	0	n/a
99	99	1.0000
247	247	1.0000
399	400	0.9975

Correlation Coefficient	(≥ 0.995)	0.999997
Slope	(0.85 to 1.15)	1.002331
Intercept	(± 3% F.S.)	-0.184221



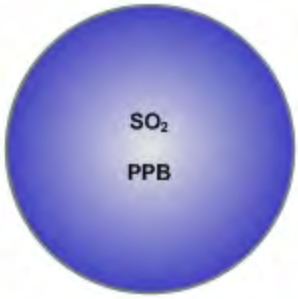

01 Minute Averages
500
372.5
245
117.5
-10
DAILY CS
ZERO AS FOUND
389 PPB AS FOUND
390 PPB AS ADJUST
217 PPB
99 PPB
FINAL ZERO
CS-ZERO
CS-SPAN
07/27/07 03:00
07/27/07 05:00
07/27/07 07:00
07/27/07 09:00
07/27/07 11:00
07/27/07 13:00
LICA O3_ PPB

JULY 2007
LICA
PASSIVE BUBBLE MAPS

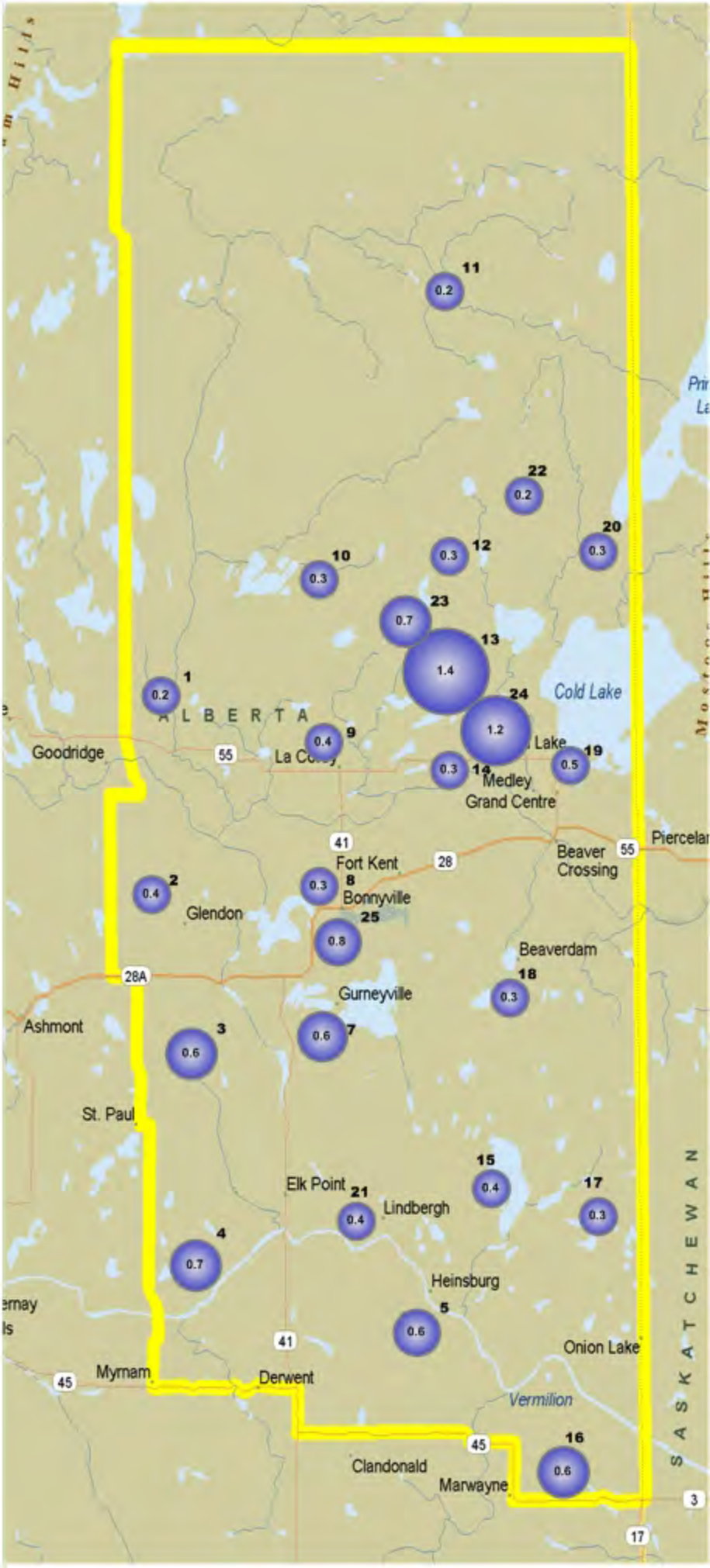
LICA
Lakeland Industry & Community Association

PASSIVE BUBBLE MAP

July 2007



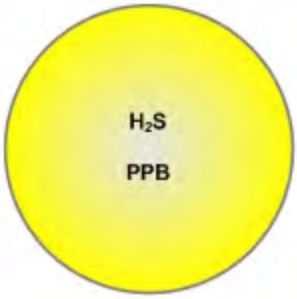
Maxxam Analytics Inc



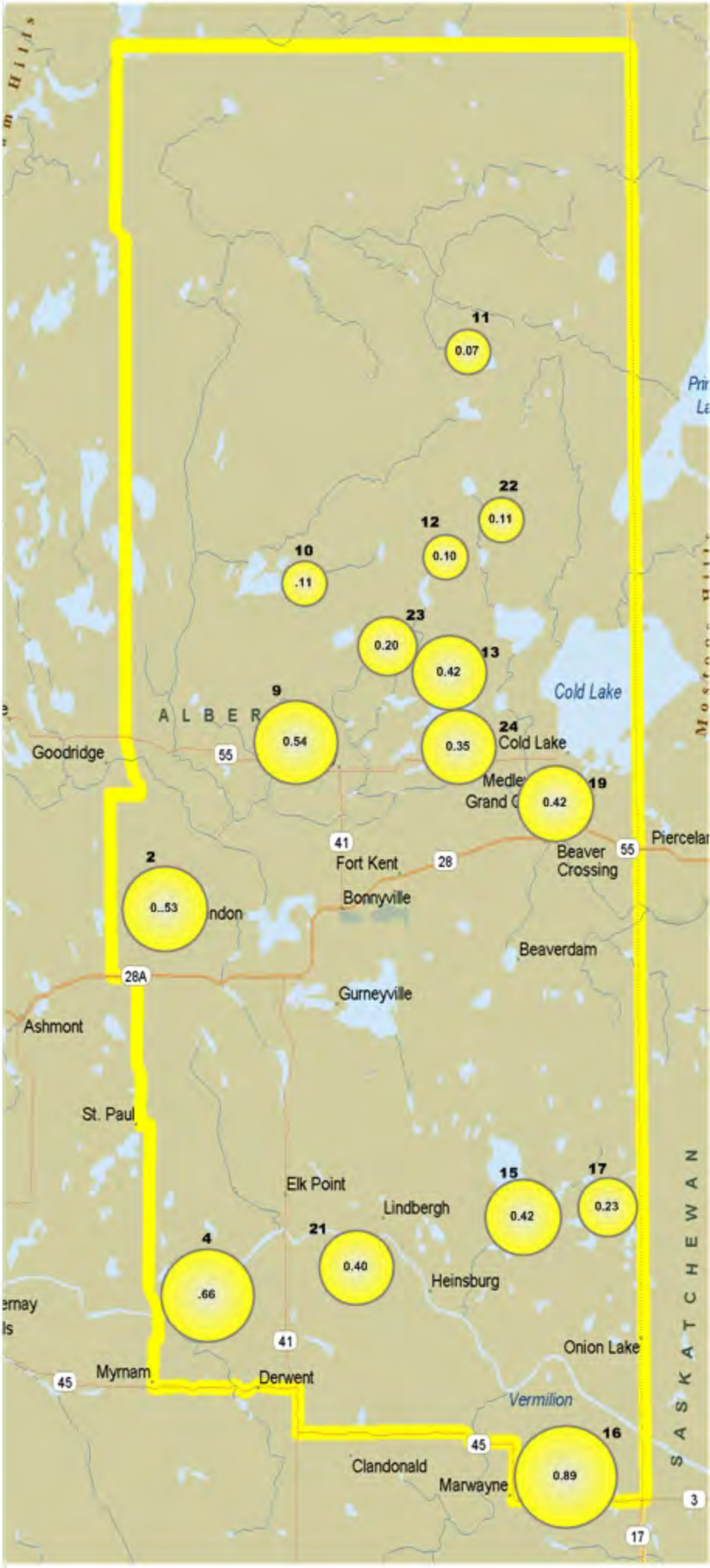
LICA
Lakeland Industry & Community Association

PASSIVE BUBBLE MAP

July 2007



Maxxam Analytics Inc

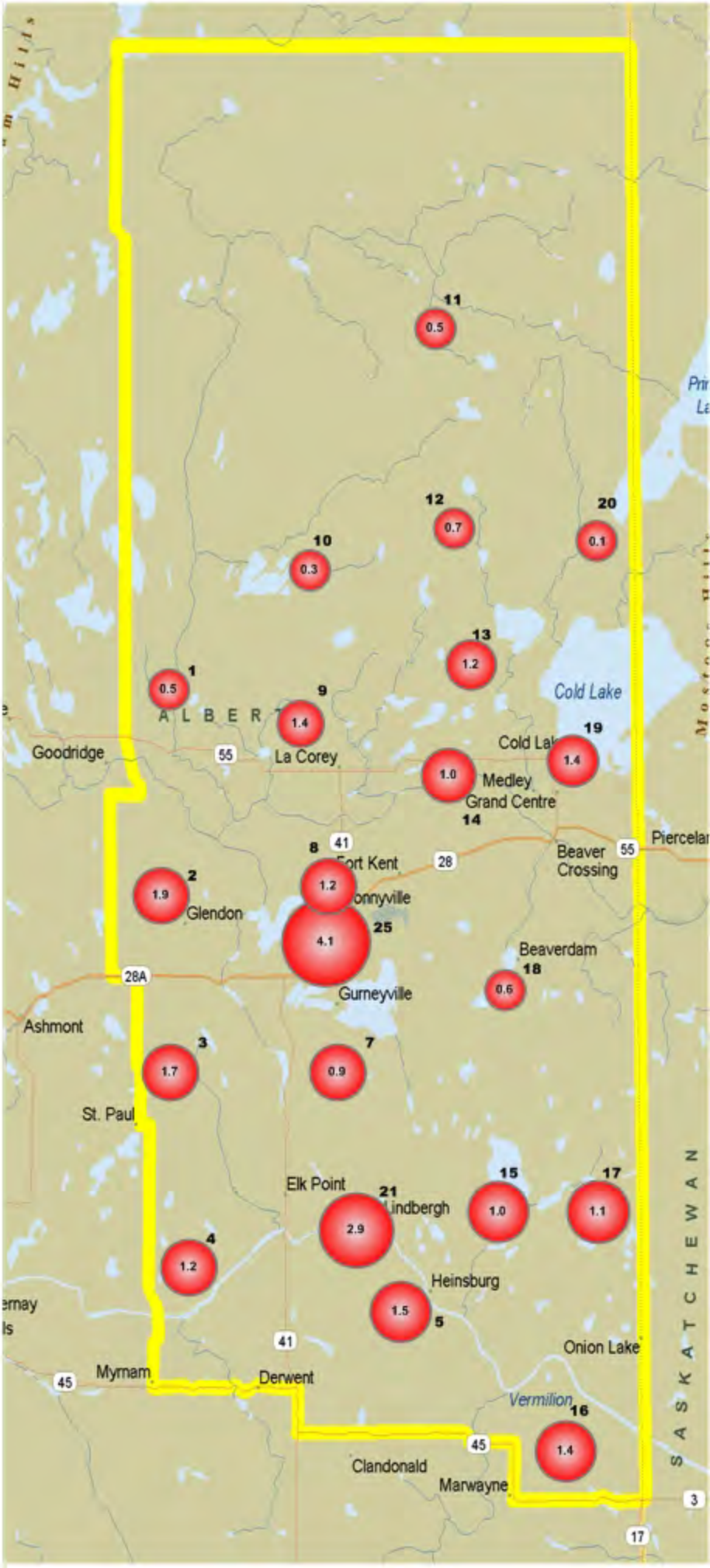


LICA
Lakeland Industry & Community Association

PASSIVE BUBBLE MAP

July 2007

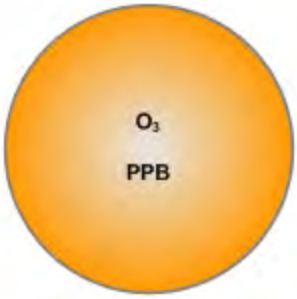
Maxxam Analytics Inc



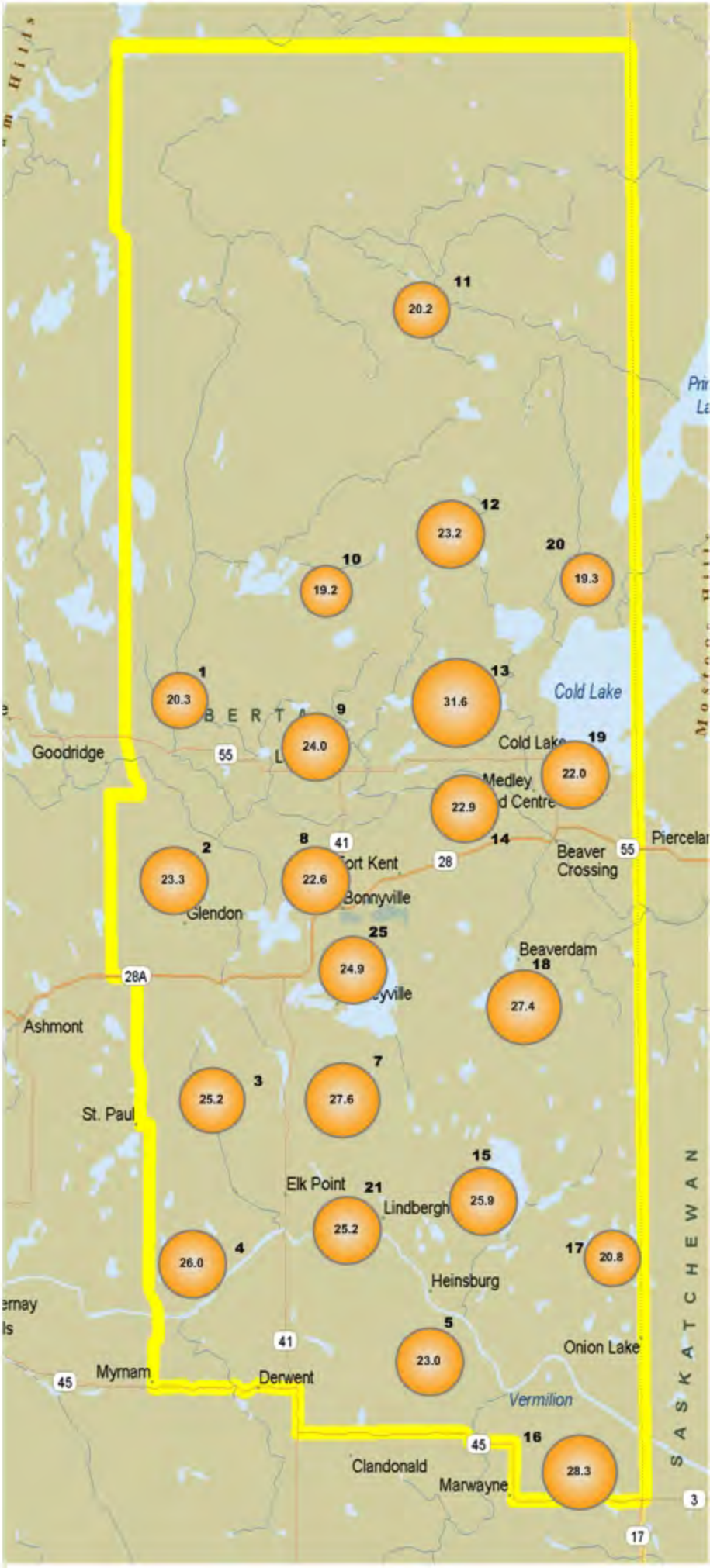
LICA
Lakeland Industry & Community Association

PASSIVE BUBBLE MAP

July 2007



Maxxam Analytics Inc



JULY 2007
LICA PASSIVE NETWORK
LAB ANALYSIS

Maxxam Analytics Inc

Your Project #: JULY 2007
Site:LICA

Attention: MICHAEL BISAGA
LAKELAND INDUSTRY AND COMMUNITY ASSOCIATION
PO BOX 8237
5006 - 50TH AVENUE
BONNYVILLE, AB
CANADA T9N 2J5

Report Date: 2007/08/22

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: A735166
Received: 2007/08/03, 12:33

Sample Matrix: Air
Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
H2S Passive Analysis (1)	1	2007/08/22	2007/08/22		EDM SOP-0320
NO2 Passive Analysis (1)	1	2007/08/22	2007/08/22		EDM SOP-0318
O3 Passive Analysis (1)	1	2007/08/22	2007/08/22		EDM SOP-0317
SO2 Passive Analysis (1)	1	2007/08/22	2007/08/22		EDM SOP-0319

Sample Matrix: Air
Samples Received: 25

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
H2S Passive Analysis (1)	16	2007/08/22	2007/08/22		EDM SOP-0320
NO2 Passive Analysis (1)	22	2007/08/22	2007/08/22		EDM SOP-0318
O3 Passive Analysis (1)	22	2007/08/22	2007/08/22		EDM SOP-0317
SO2 Passive Analysis (1)	25	2007/08/22	2007/08/22		EDM SOP-0319

(1) The detection limit is based on a 30 day sampling period.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

JODI HANSON, Project Manager, Customer Service
Email: jodi.hanson@maxxamanalytics.com
Phone# (780) 468-3500

==========
Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section

Your Project #: JULY 2007
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CERTIFICATE OF ANALYSIS

5.10.2 of ISO/IEC 17025:2005(E), signing the reports. SCC and CAEAL have approved this reporting process and electronic report format.

Total cover pages: 2

LAKELAND INDUSTRY AND COMMUNITY ASSOCIATION
Attention: MICHAEL BISAGA
Client Project #: JULY 2007
P.O. #:
Site Reference: LICA

Maxxam Job Number : PA735166
Report Date : 2007/08/22

Sample Description	Set Number	Matrix	Date Sampled	Calculated H2S ppb	Calculated NO2 ppb	Calculated O3 ppb
1	G3196	Air	2007/06/27	N/A	0.5	20.3
2	G3196	Air	2007/06/27	0.53	1.9	23.3
3	G3197	Air	2007/06/28	N/A	1.7	25.2
4	G3197	Air	2007/06/28	0.66	1.2	26.0
5	G3197	Air	2007/06/28	N/A	1.5	23.0
7	G3197	Air	2007/06/28	N/A	0.9	27.6
8	G3197	Air	2007/06/27	N/A	1.2	22.6
9	G3198	Air	2007/06/27	0.54	1.4	24.0
10	G3198	Air	2007/06/27	0.11	0.3	19.2
11	G3198	Air	2007/06/27	0.07	0.5	20.2
12	G3198	Air	2007/06/27	0.10	0.7	23.2
13	G3198	Air	2007/06/27	0.42	1.2	31.6
14	G3198	Air	2007/06/27	N/A	1.0	22.9
15	G3198	Air	2007/06/28	0.42	1.0	25.9
16	G3198	Air	2007/06/28	0.89	1.4	28.3
17	G3198	Air	2007/06/28	0.24	1.2	21.0
18	G3198	Air	2007/06/28	N/A	0.6	27.4
19	G3199	Air	2007/06/27	0.45	1.0	22.8
20	G3199	Air	2007/06/27	N/A	0.1	19.3
21	G3199	Air	2007/06/28	0.40	2.9	25.2
17A	G3199	Air	2007/06/28	0.21	0.9	20.5
19A	G3199	Air	2007/06/27	0.38	1.8	21.2
22	G3199	Air	2007/06/27	0.11	N/A	N/A
23	G3199	Air	2007/06/27	0.20	N/A	N/A
24	G3200	Air	2007/06/27	0.35	N/A	N/A
25	G3200	Air	2007/06/27	N/A	4.1	24.9

LAKELAND INDUSTRY AND COMMUNITY ASSOCIATION
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P.O. #:
Site Reference: LICA

Maxxam Job Number : PA735166
Report Date : 2007/08/22

Sample Description	Set Number	Matrix	Date Sampled	Calculated SO2 ppb
1	G3196	Air	2007/06/27	0.2
2	G3196	Air	2007/06/27	0.4
3	G3197	Air	2007/06/28	0.6
4	G3197	Air	2007/06/28	0.7
5	G3197	Air	2007/06/28	0.6
7	G3197	Air	2007/06/28	0.6
8	G3197	Air	2007/06/27	0.3
9	G3198	Air	2007/06/27	0.4
10	G3198	Air	2007/06/27	0.3
11	G3198	Air	2007/06/27	0.2
12	G3198	Air	2007/06/27	0.3
13	G3198	Air	2007/06/27	1.4
14	G3198	Air	2007/06/27	0.3
15	G3198	Air	2007/06/28	0.4
16	G3198	Air	2007/06/28	0.6
17	G3198	Air	2007/06/28	0.3
18	G3198	Air	2007/06/28	0.3
19	G3199	Air	2007/06/27	0.5
20	G3199	Air	2007/06/27	0.3
21	G3199	Air	2007/06/28	0.4
17A	G3199	Air	2007/06/28	0.2
19A	G3199	Air	2007/06/27	0.5
22	G3199	Air	2007/06/27	0.2
23	G3199	Air	2007/06/27	0.7
24	G3200	Air	2007/06/27	1.2
25	G3200	Air	2007/06/27	0.8

LAKELAND INDUSTRY AND COMMUNITY ASSOCIATION
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P.O. #:
Site Reference: LICA

Quality Assurance Report

Maxxam Job Number: PA735166

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
1804558	KR	Calibration Check	Calculated H2S	2007/08/22		93	%	80 - 120
		SPIKE	Calculated H2S	2007/08/22		101	%	N/A
1804559	DF4	Calibration Check	Calculated NO2	2007/08/22		101	%	76 - 118
		SPIKE	Calculated NO2	2007/08/22		100	%	N/A
		BLANK	Calculated NO2	2007/08/22	<0.1		ppb	
1804560	LM1	Calibration Check	Calculated O3	2007/08/22		100	%	91 - 107
		SPIKE	Calculated O3	2007/08/22		101	%	N/A
1804565	DF4	Calibration Check	Calculated SO2	2007/08/22		101	%	95 - 105
		SPIKE	Calculated SO2	2007/08/22		102	%	N/A
		BLANK	Calculated SO2	2007/08/22	<0.1		ppb	

N/A = Not Applicable

JULY 2007
PASSIVE FIELD DATA

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION
PASSIVE FIELD DATA

SAMPLER	ID	START		END		NOTES
		DATE	TIME	DATE	TIME	
$SO_2/NO_2/O_3$	1	06/27/07	9:40	07/31/07	10:15	
$H_2S/SO_2/NO_2/O_3$	2	06/27/07	9:05	07/31/07	9:45	
$SO_2/NO_2/O_3$	3	06/28/07	14:00	08/01/07	14:40	
$H_2S/SO_2/NO_2/O_3$	4	06/28/07	13:20	08/01/07	14:05	
$SO_2/NO_2/O_3$	5	06/28/07	11:50	08/01/07	12:45	
$SO_2/NO_2/O_3$	7	06/28/07	14:50	08/01/07	15:30	
$SO_2/NO_2/O_3$	8	06/27/07	8:30	07/31/07	9:10	
$H_2S/SO_2/NO_2/O_3$	9	06/27/07	13:15	07/31/07	14:00	
$H_2S/SO_2/NO_2/O_3$	10	06/27/07	10:40	07/31/07	11:15	
$H_2S/SO_2/NO_2/O_3$	11	06/27/07	11:55	07/31/07	12:35	
$H_2S/SO_2/NO_2/O_3$	12	06/27/07	14:45	07/31/07	15:55	
$H_2S/SO_2/NO_2/O_3$	13	06/27/07	15:50	07/31/07	16:50	
$SO_2/NO_2/O_3$	14	06/27/07	7:40	07/31/07	8:10	
$H_2S/SO_2/NO_2/O_3$	15	06/28/07	10:15	08/01/07	11:05	
$H_2S/SO_2/NO_2/O_3$	16	06/28/07	11:05	08/01/07	12:00	
$H_2S/SO_2/NO_2/O_3$	17	06/28/07	9:25	08/01/07	10:15	
$SO_2/NO_2/O_3$	18	06/28/07	8:20	08/01/07	9:20	
$H_2S/SO_2/NO_2/O_3$	19	06/27/07	18:15	08/01/07	8:20	
$SO_2/NO_2/O_3$	20	06/27/07	17:20	07/31/07	18:30	
$H_2S/SO_2/NO_2/O_3$	21	06/28/07	12:25	08/01/07	13:20	
H_2S/SO_2	22	06/27/07	14:30	07/31/07	15:30	
H_2S/SO_2	23	06/27/07	15:35	07/31/07	16:30	
H_2S/SO_2	24	06/27/07	16:15	07/31/07	17:30	
$SO_2/NO_2/O_3$	25	06/27/07	8:10	07/31/07	8:35	
$H_2S/SO_2/NO_2/O_3$	17A	06/28/07	9:25	08/01/07	10:15	
$H_2S/SO_2/NO_2/O_3$	19A	06/27/07	18:15	08/01/07	8:20	