Maxxam Analytics Inc

January 22, 2008

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

ATTENTION: Mr. Mike Bisaga

REFERENCE: Ambient Air Monitoring Report For December 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 December 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 December 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.
- There was 0 hours of data for THC that was invalidated as no concentrations fell below the historical background average of 1.5 ppm, a concentration agreed to with the LICA Program Manager.
- On December 9th, 2007 there was an AQI value listed as fair. The offending pollutant was PM 2.5 with a hourly concentration of 33.5 ug/m^3; the AQI value was 28 and occurred at hour beginning 23:00.
- On December 9th the daily calibration for the NO_x analyzer was over range. The technician investigated and found all diagnostic parameters on the analyzer to be normal, it was discovered that flow to the permeation oven was not present. On December 10th the technician returned to repair the flow issue with the permeation oven. A filter was replaced on the pump. A couple 'As Found' points were completed and the analyzer was found to be operating normally and unaffected by the problem. No data was invalidated. Stabilization of permeation oven occurred over several days after repairs occurred.
- During the monthly calibration of the PM 2.5 equipment, a new sample tube connector was installed to reduce leakage in the flow system.
- A new trailer temperature sensor was installed in order to allow monitoring of the trailer temperature. The sensor was installed on December 18th. The data from the sensor is not reported and is used solely for troubleshooting and analysis of data.

Maxxam Analytics Inc

- On December 25th the technician went to the station to investigate the loss of communications. Communication was re-established and there was no observable reason for the initial loss of communications.
- On December 31st a technician was sent out to the trailer to investigate an over range daily span value on the NO_x analyzer. It was discovered a leak in the airflow from the pump to the permeation oven developed, the technician repaired the issue and an internal calibration was run. The analyzer was found to be operating normally and was unaffected by the situation, therefore no data was invalidated.

Passive Network

A summary of the passive monitoring are reported as follows:

- Monitoring period averages for O_3 ranged from 18.8 – 50.5 ppb.
- Monitoring period averages for SO_2 ranged from 0.3 – 1.7 ppb.
- Monitoring period averages for NO_2 ranged from 1.2 – 10.7 ppb.
- Monitoring period averages for H_2S ranged from 0.13 – 0.22 ppb.

Site #1 – The technician noted that some construction activity was present at the site at the time of the change out.

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
December 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 – December 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	0.20	4	31	10,11	1.6	4	100.0
TRS (PPB)	-	-	-	-	0.00	1	14	21,22	0.1	14	100.0
NO_2 (PPB)	212	106	0	0	9.38	32	17	6	23	9	100.0
NO (PPB)	-	-	-	-	3.58	69	14	21	19.6	14	100.0
NOx (PPB)	-	-	-	-	12.85	98	14	21	37.9	14	100.0
O_3 (PPB)	82	-	0	-	19.97	37	1	1,2	32.7	3	100.0
THC (PPM)	-	-	-	-	2.33	4.8	16	21	3.3	9,14	100.0
PM 2.5 (UG/M^3)	-	30	-	0	3.36	33.5	9	0	9.9	9	100.0
TEMPERATURE (DEG C)	-	-	-	-	-15.01	-1.3	24	15	-5.3	25	100.0
RELATIVE HUMIDITY (%)	-	-	-	-	80.66	95.8	26	2	93.5	26	100.0
VECTOR WS (KPH)	-	-	-	-	4.58	17.2	20	0	11.1	3	100.0
VECTOR WD (DEGREES)	-	-	-	-	S	-	-	-	-	-	100.0

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

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION PASSIVE NETWORK			
NETWORK MAXIMUM (PPB)			NETWORK AVERAGE (PPB)
PARAMETER	STATION	READING	READING
NO_2	#25	10.7	3.9
SO_2	#13a	1.7	0.8
H_2S	#21	0.22	0.18
O_3	#3	50.5	24.7

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.

TRS

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

No operational issues during the month. The inlet filter was changed before the monthly calibration was started. Data was corrected using daily zero information.

THC

- Analyzer make / model TECO 51C-LT

No operational issues during the month. 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 0 hours of data was invalidated and the uptime was at 100.0%.

NOx

- Analyzer make / model TECO 42C

On December 9th the technician investigated the reason for an over range daily calibration value. All diagnostic tests were completed and found the analyzer to operating normal and unaffected. On December 10th the technician returned to repair a broken filter on the pump supplying flow to the permeation oven. A couple of 'As Found' points were completed and found the analyzer unchanged and unaffected, therefore no data was invalidated. The daily span was unsteady for a couple of days afterwards while the permeation oven stabilized. On December 31st the technician investigated an over range daily calibration value. It was discovered a leak developed in the airflow from the pump to permeation oven, the leak was repaired and a manual span initiated. The analyzer was operating normally and unaffected, therefore no data was invalidated. The inlet filter was changed before the monthly calibration was started. Data was corrected using daily zero information.

O_3

- Analyzer make / model TECO 49I

No operational issues during the month. The inlet filter was changed before the monthly calibration was started. Data was corrected using daily zero information.

PM 2.5

- Analyzer make / model TEOM 1400A

No operational issues during the month. During the monthly calibration a new sample tube connector was installed to reduce leakage in the flow system.

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.

Relative Humidity

- System make / model Rotronic Hygroclip-S3

No operational issues observed during the month

Temperature (Ambient)

- System make / model Rotronic Hygroclip-S3

No operational issues observed during the month.

Temperature (Trailer)

- System make / model R&R 61

A new sensor installed in the trailer on December 18th. The sensor data is not reported and is used solely for troubleshooting and analysis of data.

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.

Trailer

- No new information to report.

Air Quality Index (AQI)

The AQI data was adjusted to reflect regular monthly calibrations, maintenance, and downtime and daily calibrations. There was one fair AQI value recorded on December 9th at hour beginning 23:00. The offending pollutant was PM 2.5 with an hourly concentration of 33.5 ug/m^3 and an AQI value of 28.

Passive Network

Site #1 – Technician noted construction activity near the site during regular change out of samplers.

LICA - COLD LAKE SITE

MONTHLY SUMMARIES, GRAPHS & WIND ROSES

AIR QUALITY INDEX

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - *COLD LAKE*

DECEMBER 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	19 O3_	19 O3_	18 O3_	18 O3_	17 O3_	16 O3_	16 O3_	16 O3_	10 O3_	9 O3_	10 O3_	12 O3_	13 O3_	14 O3_	13 O3_	**NA** -	10 O3_	11 O3_	10 O3_	10 O3_	11 O3_	10 O3_	8 O3_	8 O3_	19 O3_
2	7 O3_	5 O3_	6 O3_	5 O3_	4 O3_	4 O3_	4 O3_	2 O3_	4 PM2	6 PM2	6 O3_	8 O3_	15 O3_	16 O3_	**NA** -	14 O3_	14 O3_	14 O3_	15 O3_	15 O3_	15 O3_	17 O3_	17 O3_	18 O3_	18 O3_
3	18 O3_	18 O3_	17 O3_	17 O3_	17 O3_	16 O3_	16 O3_	15 O3_	16 O3_	17 O3_	17 O3_	17 O3_	17 O3_	**NA** -	16 O3_	**NA** -	**NA** -	**NA** -	**NA** -	17 O3_	17 O3_	17 O3_	16 O3_	16 O3_	18 O3_
4	16 O3_	16 O3_	16 O3_	16 O3_	15 O3_	15 O3_	15 O3_	14 O3_	14 O3_	14 O3_	15 O3_	15 O3_	**NA** -	15 O3_	15 O3_	14 O3_	15 O3_	14 O3_	15 O3_	15 O3_	15 O3_	15 O3_	15 O3_	16 O3_	16 O3_
5	15 O3_	15 O3_	15 O3_	14 O3_	13 O3_	13 O3_	13 O3_	12 O3_	12 O3_	13 O3_	13 O3_	**NA** -	14 O3_	14 O3_	14 O3_	13 O3_	12 O3_	12 O3_	12 O3_	12 O3_	11 O3_	10 O3_	10 O3_	10 O3_	15 O3_
6	9 O3_	9 O3_	9 O3_	6 O3_	9 O3_	10 O3_	10 O3_	12 O3_	14 O3_	15 O3_	**NA** -	16 O3_	17 O3_	17 O3_	17 O3_	16 O3_	16 O3_	15 O3_	14 O3_	13 O3_	12 O3_	12 O3_	9 O3_	9 O3_	17 O3_
7	11 O3_	12 O3_	13 O3_	13 O3_	11 O3_	6 O3_	6 PM2	6 O3_	6 PM2	**NA** -	13 O3_	15 O3_	16 O3_	16 O3_	15 O3_	13 O3_	11 O3_	8 O3_	3 PM2	3 PM2	3 O3_	3 PM2	3 PM2	3 PM2	16 O3_
8	2 PM2	4 PM2	3 PM2	1 PM2	2 PM2	2 PM2	2 PM2	2 PM2	**NA** -	6 PM2	9 PM2	8 O3_	11 O3_	10 O3_	9 O3_	7 O3_	7 O3_	9 O3_	8 O3_	7 O3_	7 PM2	7 PM2	9 PM2	8 PM2	11 O3_
9	6 PM2	6 PM2	6 PM2	6 PM2	7 PM2	6 PM2	4 PM2	**NA** -	6 PM2	5 PM2	6 PM2	9 PM2	8 O3_	8 PM2	9 PM2	10 PM2	12 PM2	9 PM2	8 PM2	8 PM2	8 PM2	8 PM2	10 PM2	**28** **PM2**	28 PM2
10	17 PM2	11 PM2	12 PM2	15 PM2	13 PM2	11 PM2	**NA** -	10 O3_	13 O3_	15 O3_	16 O3_	16 O3_	18 O3_	18 O3_	18 O3_	15 O3_	**NA** -	**NA** -	**NA** -	11 O3_	11 O3_	11 O3_	12 O3_	13 O3_	18 O3_
11	13 O3_	11 O3_	10 O3_	10 O3_	10 O3_	**NA** -	5 O3_	2 O3_	2 PM2	6 PM2	7 PM2	11 O3_	11 O3_	11 O3_	11 O3_	8 O3_	8 O3_	8 O3_	7 O3_	9 O3_	8 O3_	8 O3_	10 O3_	12 O3_	13 O3_
12	13 O3_	13 O3_	13 O3_	13 O3_	**NA** -	12 O3_	11 O3_	8 O3_	7 O3_	9 O3_	10 O3_	10 O3_	11 O3_	11 O3_	11 O3_	10 O3_	14 O3_	15 O3_	16 O3_	17 O3_	17 O3_	17 O3_	18 O3_	18 O3_	18 O3_
13	18 O3_	17 O3_	17 O3_	**NA** -	15 O3_	14 O3_	14 O3_	12 O3_	12 O3_	13 O3_	12 O3_	15 O3_	15 O3_	13 O3_	11 O3_	10 O3_	11 O3_	12 O3_	10 O3_	9 PM2	2 O3_	15 PM2	7 PM2	5 O3_	18 O3_
14	4 O3_	5 O3_	**NA** -	6 O3_	4 O3_	4 O3_	6 O3_	4 O3_	5 PM2	5 PM2	10 PM2	7 O3_	8 O3_	9 O3_	10 O3_	7 O3_	2 PM2	1 PM2	4 PM2	10 PM2	12 PM2	12 PM2	11 PM2	10 PM2	12 PM2
15	7 PM2	**NA** -	5 PM2	4 PM2	4 PM2	5 O3_	9 O3_	8 O3_	8 O3_	10 O3_	13 O3_	15 O3_	14 O3_	14 O3_	14 O3_	14 O3_	14 O3_	15 O3_	15 O3_	17 O3_	16 O3_	16 O3_	15 O3_	14 O3_	17 O3_
16	**NA** -	13 O3_	14 O3_	14 O3_	14 O3_	14 O3_	14 O3_	12 O3_	8 O3_	8 O3_	8 O3_	11 O3_	10 O3_	10 O3_	10 O3_	8 O3_	4 PM2	8 PM2	9 PM2	10 PM2	8 PM2	8 PM2	9 PM2	**NA** -	14 O3_
17	6 PM2	6 PM2	5 PM2	5 PM2	6 PM2	8 PM2	6 PM2	6 O3_	7 O3_	11 O3_	12 O3_	13 O3_	14 O3_	14 O3_	13 O3_	11 O3_	12 O3_	13 O3_	14 O3_	13 O3_	13 O3_	13 O3_	**NA** -	13 O3_	14 O3_
18	13 O3_	13 O3_	12 O3_	12 O3_	9 O3_	7 O3_	4 PM2	5 PM2	**NA** -	**NA** -	**NA** -	**NA** -	**NA** -	**NA** -	**NA** -	**NA** -	**NA** -	**NA** -	1 O3_	9 O3_	11 O3_	**NA** -	14 O3_	14 O3_	14 O3_
19	14 O3_	14 O3_	14 O3_	14 O3_	14 O3_	13 O3_	13 O3_	10 O3_	9 O3_	10 O3_	9 O3_	7 O3_	8 O3_	8 O3_	7 O3_	5 O3_	5 PM2	6 PM2	6 PM2	6 PM2	**NA** -	5 PM2	4 PM2	9 O3_	14 O3_
20	10 O3_	10 O3_	10 O3_	11 O3_	11 O3_	11 O3_	10 O3_	10 O3_	8 O3_	9 O3_	9 O3_	10 O3_	10 O3_	10 O3_	10 O3_	10 O3_	10 O3_	11 O3_	10 O3_	**NA** -	9 O3_	7 O3_	7 O3_	11 O3_	11 O3_
21	12 O3_	12 O3_	13 O3_	14 O3_	14 O3_	15 O3_	14 O3_	14 O3_	14 O3_	14 O3_	15 O3_	15 O3_	15 O3_	15 O3_	15 O3_	15 O3_	14 O3_	12 O3_	**NA** -	12 O3_	10 O3_	10 O3_	9 O3_	6 O3_	15 O3_
22	7 O3_	6 O3_	7 O3_	6 O3_	6 O3_	5 O3_	1 PM2	3 PM2	2 PM2	8 PM2	8 PM2	11 O3_	12 O3_	11 O3_	10 O3_	10 O3_	10 O3_	**NA** -	13 O3_	13 O3_	14 O3_	15 O3_	16 O3_	16 O3_	16 O3_
23	16 O3_	15 O3_	15 O3_	16 O3_	16 O3_	16 O3_	16 O3_	16 O3_	15 O3_	15 O3_	15 O3_	15 O3_	15 O3_	14 O3_	13 O3_	12 O3_	**NA** -	9 O3_	6 O3_	10 O3_	10 O3_	8 O3_	10 O3_	9 O3_	16 O3_
24	8 O3_	7 O3_	6 O3_	6 O3_	7 O3_	5 O3_	6 O3_	4 O3_	2 PM2	7 PM2	9 O3_	14 O3_	15 O3_	16 O3_	16 O3_	**NA** -	16 O3_	18 O3_	18 O3_	18 O3_	16 O3_	15 O3_	15 O3_	14 O3_	18 O3_
25	13 O3_	14 O3_	15 O3_	14 O3_	12 O3_	10 O3_	10 O3_	8 O3_	10 O3_	11 O3_	12 O3_	14 O3_	16 O3_	16 O3_	**NA** -	16 O3_	16 O3_	16 O3_	16 O3_	16 O3_	16 O3_	17 O3_	17 O3_	16 O3_	17 O3_
26	16 O3_	16 O3_	15 O3_	14 O3_	15 O3_	16 O3_	16 O3_	16 O3_	16 O3_	17 O3_	17 O3_	17 O3_	17 O3_	**NA** -	17 O3_	17 O3_	17 O3_	17 O3_	17 O3_	17 O3_	17 O3_	17 O3_	17 O3_	17 O3_	17 O3_
27	16 O3_	16 O3_	16 O3_	16 O3_	16 O3_	16 O3_	16 O3_	17 O3_	16 O3_	15 O3_	15 O3_	15 O3_	**NA** -	15 O3_	14 O3_	14 O3_	14 O3_	13 O3_	13 O3_	13 O3_	14 O3_	13 O3_	13 O3_	12 O3_	17 O3_
28	11 O3_	12 O3_	14 O3_	14 O3_	13 O3_	13 O3_	13 O3_	13 O3_	12 O3_	13 O3_	13 O3_	**NA** -	12 O3_	13 O3_	14 O3_	14 O3_	13 O3_	12 O3_	12 O3_	12 O3_	12 O3_	13 O3_	13 O3_	13 O3_	14 O3_
29	13 O3_	13 O3_	13 O3_	13 O3_	13 O3_	13 O3_	13 O3_	12 O3_	11 O3_	12 O3_	**NA** -	12 O3_	12 O3_	11 O3_	10 O3_	6 O3_	4 PM2	5 PM2	6 PM2	6 PM2	6 PM2	6 PM2	8 PM2	7 PM2	13 O3_
30	5 PM2	5 PM2	4 PM2	4 PM2	3 PM2	3 PM2	5 O3_	3 O3_	4 O3_	**NA** -	7 PM2	7 O3_	7 O3_	8 O3_	8 O3_	5 O3_	3 PM2	5 PM2	6 PM2	4 PM2	5 PM2	4 PM2	4 PM2	4 O3_	8 O3_
31	4 O3_	6 O3_	6 O3_	6 O3_	4 O3_	4 O3_	4 PM2	5 O3_	**NA** -	8 O3_	**NA** -	9 O3_	9 O3_	8 O3_	7 O3_	6 O3_	6 PM2	7 O3_	6 O3_	6 O3_	7 O3_	6 PM2	6 PM2	8 O3_	9 O3_
PEAK	19 O3_	19 O3_	18 O3_	18 O3_	17 O3_	16 O3_	16 O3_	17 O3_	16 O3_	17 O3_	17 O3_	17 O3_	18 O3_	18 O3_	18 O3_	17 O3_	17 O3_	18 O3_	18 O3_	18 O3_	17 O3_	17 O3_	18 O3_	28 PM2	

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)	0 hrs 0.00%	1 hrs 0.13%	0 hrs 0.00%	0 hrs 0.00%	1 hrs 0.13%
GOOD (1 - 25)	567 hrs 76.21%	126 hrs 16.94%	0 hrs 0.00%	0 hrs 0.00%	693 hrs 93.15%
OVERALL	567 hrs 76.21%	127 hrs 17.07%	0 hrs 0.00%	0 hrs 0.00%	694 hrs 93.28%
UNAVAILABLE	-	-	-	-	50 hrs 6.72%

MOUNTAIN STANDARD TIME

Maxxam Analytics Inc

SO_2

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - *COLD LAKE*

DECEMBER 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	1	1	1	1	1	1	1	1	1	1	1	2	2	2	1	**IZS**	0	0	0	0	0	0	0	0	2	0.8	24
2	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
3	0	0	0	0	0	0	0	0	0	0	0	0	0	**IZS**	0	**C**	**C**	**C**	**IZS**	1	1	1	1	1	1	0.3	24
4	0	1	1	1	1	2	3	3	3	2	2	1	**IZS**	1	1	1	1	1	1	2	2	2	2	2	3	**1.6**	24
5	1	1	1	1	0	0	1	0	1	1	0	**IZS**	0	0	0	0	0	0	0	0	0	0	0	0	1	0.3	24
6	0	0	0	0	0	0	0	0	1	0	**IZS**	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.0	24
7	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
8	0	0	0	0	0	0	0	0	**IZS**	0	0	1	1	1	1	1	1	2	2	2	2	1	1	1	2	0.7	24
9	1	0	0	0	0	0	0	**IZS**	0	0	0	1	1	1	1	1	1	1	1	0	0	0	0	0	1	0.4	24
10	0	0	0	0	0	0	**IZS**	1	1	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	2	0.3	24
11	0	0	0	0	0	**IZS**	0	0	0	0	0	0	0	1	1	0	0	0	0	0	1	1	1	1	1	0.3	24
12	1	1	0	0	**IZS**	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0.1	24
13	0	0	0	**IZS**	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0.1	24
14	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
15	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
16	**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
17	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
18	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	0.0	24
19	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
20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**IZS**	0	1	0	0	1	0.0	24
21	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	0.0	24
22	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
23	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0	**IZS**	0	0	0	0	0	1	1	1	0.3	24
24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**IZS**	0	0	0	0	0	1	1	1	1	0.1	24
25	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
26	0	1	0	0	0	0	0	0	0	0	0	0	0	**IZS**	0	0	0	0	0	0	0	0	0	0	1	0.0	24
27	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
28	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	0.0	24
29	1	1	1	0	0	0	0	0	0	0	**IZS**	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1	24
30	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
31	0	0	0	0	0	0	1	3	**IZS**	**4**	**4**	3	2	0	0	0	0	0	0	0	0	0	0	0	4	0.7	24
HOURLY MAX	1	1	1	1	1	2	3	3	3	4	4	3	2	2	1	1	1	2	2	2	2	2	2	2			
HOURLY AVG	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.3	0.2	0.3	0.3	0.4	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2			

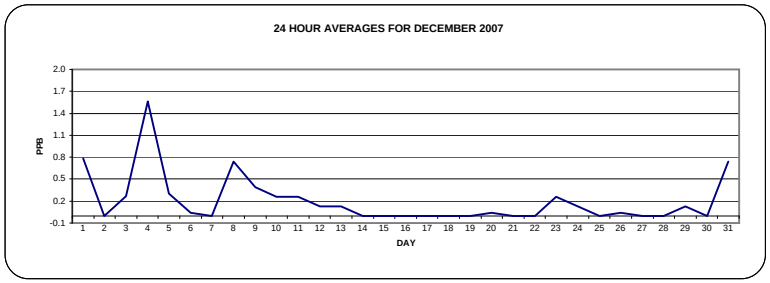
STATUS FLAG CODES

S	- OUT OF SERVICE	IZS	- IZS - DAILY ZERO/SPAN CHECK
N	- INVALID DATA	M	- MISSING DATA
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

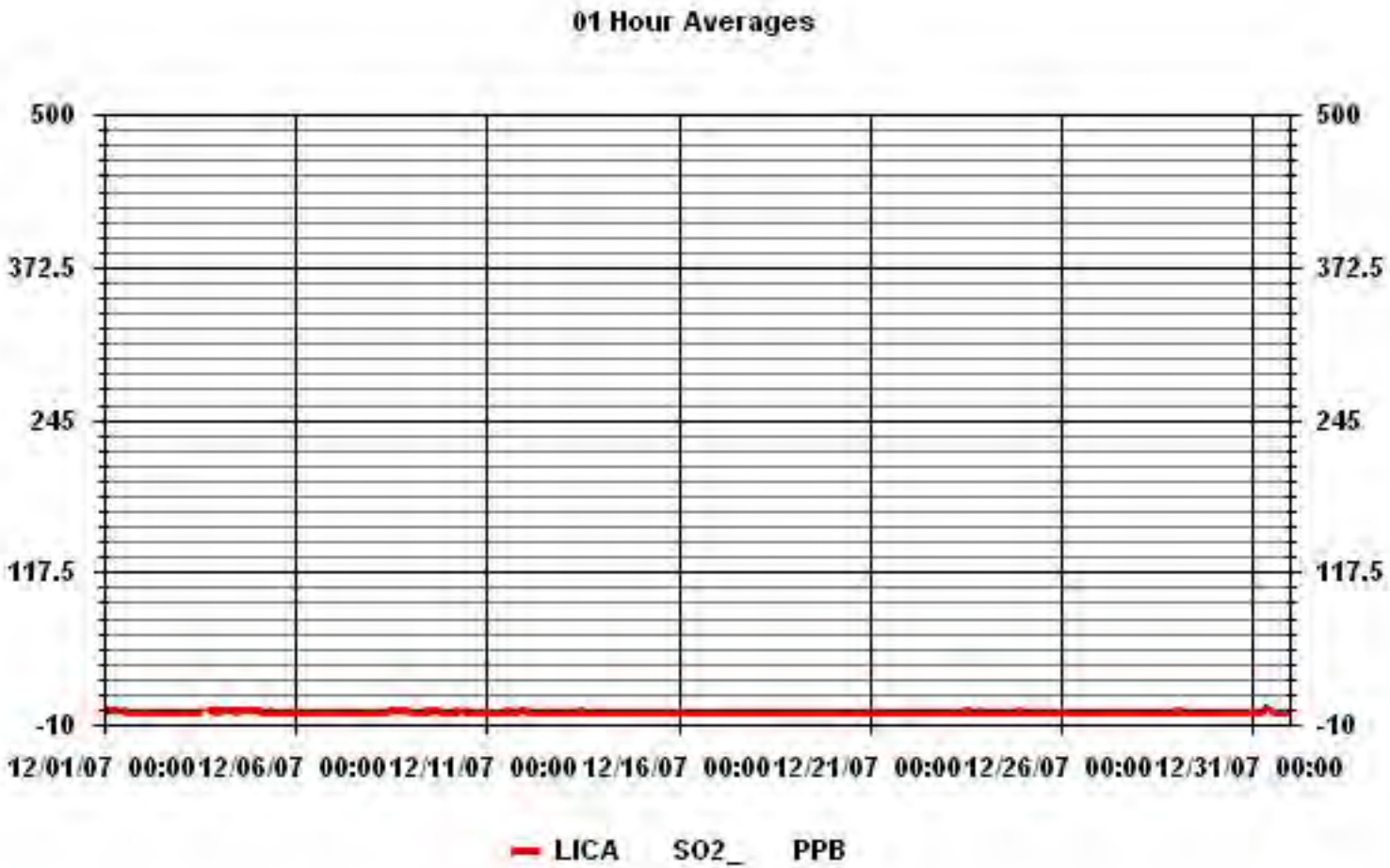
NUMBER OF 1-HR EXCEEDENCES:	0					
NUMBER OF 24-HR EXCEEDENCES:	0					
NUMBER OF NON-ZERO READINGS:	109					
MAXIMUM 1-HR AVERAGE:	4	PPB	@ HOUR(S)	10,11	ON DAY(S)	31
MAXIMUM 24-HR AVERAGE:	1.6	PPB			ON DAY(S)	4



IZS CALIBRATION TIME:	33	HRS	OPERATIONAL TIME:	744	HRS
MONTHLY CALIBRATION TIME:	3	HRS	AMD OPERATION UPTIME:	100.0	%
STANDARD DEVIATION:	0.53		MONTHLY AVERAGE:	0.20	PPB

Maxxam Analytics Inc

MOUNTAIN STANDARD TIME


01 Hour Averages
500
372.5
245
117.5
-10
12/01/07 00:00
12/06/07 00:00
12/11/07 00:00
12/16/07 00:00
12/21/07 00:00
12/26/07 00:00
12/31/07 00:00
LICA SO2_ PPB

LICA
SO2_ / WD Joint Frequency Distribution (Percent)

December 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	.70	1.41	1.41	4.80	12.28	10.87	14.54	3.53	2.68	4.66	9.18	16.38	9.18	3.38	2.40	2.54	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	.70	1.41	1.41	4.80	12.28	10.87	14.54	3.53	2.68	4.66	9.18	16.38	9.18	3.38	2.40	2.54	

Calm : .00 %

Total # Operational Hours : 708

Distribution By Samples

Direction

	Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
<	20	5	10	10	34	87	77	103	25	19	33	65	116	65	24	17	18	708
<	60																	
<	110																	
<	170																	
<	340																	
>=	340																	
	Totals	5	10	10	34	87	77	103	25	19	33	65	116	65	24	17	18	

Calm : .00 %

Total # Operational Hours : 708

Logger : 01 Parameter : SO2_

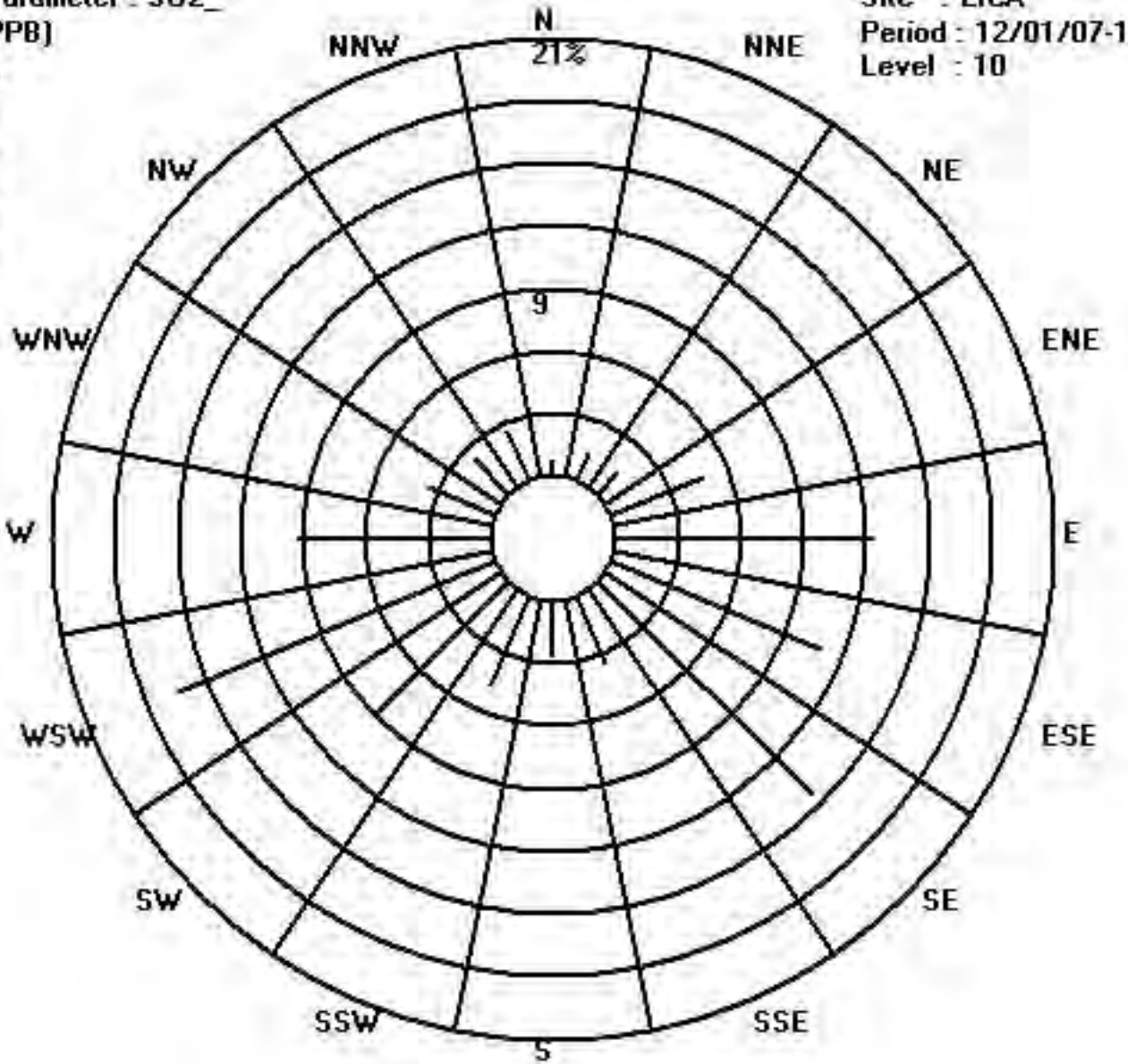
Site : LICA

Period : 12/01/07-12/31/07

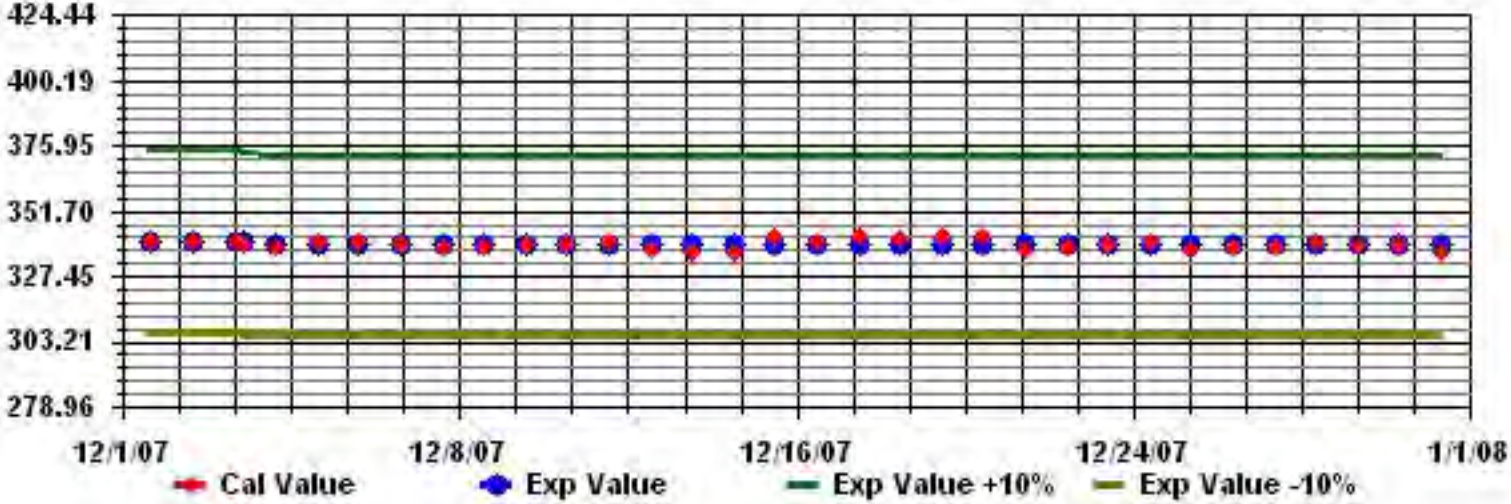
Level : 10

Class Limits (PPB)

- >= 340
- < 340
- < 170
- < 110
- < 60
- < 20



Calibration Graph for Site: LICA Parameter: SO2_ Sequence: SO2 Phase: SPAN



LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - *COLD LAKE*

DECEMBER 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	2	2	2	2	2	2	2	2	2	2	2	4	4	3	2	**IZS**	1	1	1	1	1	0	1	1	4	1.8	24
2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	**IZS**	1	1	1	1	1	1	1	1	1	1	1.0	24
3	1	1	1	1	1	1	1	1	1	1	1	1	1	**IZS**	1	**C**	**C**	**C**	**IZS**	2	2	2	2	1	2	1.2	24
4	1	1	2	2	2	3	4	4	3	3	2	2	**IZS**	2	2	2	2	2	2	2	3	3	3	2	4	2.3	24
5	2	2	2	2	1	1	1	1	1	1	1	**IZS**	1	1	1	1	1	1	1	1	1	1	1	1	2	1.2	24
6	1	1	1	1	1	1	1	1	1	1	**IZS**	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	24
7	0	0	1	0	1	0	0	1	1	**IZS**	1	2	1	1	1	1	1	1	1	1	0	1	1	1	2	0.8	24
8	1	1	0	0	1	1	1	1	**IZS**	1	1	1	1	1	2	2	2	3	2	2	2	2	2	2	3	1.4	24
9	2	1	1	1	1	1	1	**IZS**	1	1	1	1	1	2	2	1	1	1	1	1	1	1	1	1	2	1.1	24
10	1	1	1	1	1	1	**IZS**	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	2	1.2	24
11	1	1	1	1	0	**IZS**	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	2	2	3	1.1	24
12	1	1	1	1	**IZS**	1	1	1	1	1	1	1	1	1	1	2	1	1	0	1	0	0	0	1	2	0.9	24
13	0	1	1	**IZS**	0	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	2	1.0	24
14	0	0	**IZS**	0	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	24
15	1	**IZS**	0	0	1	1	0	1	1	0	1	0	1	1	1	0	1	0	0	0	0	0	1	0	1	0.5	24
16	**IZS**	0	1	0	0	0	0	1	0	0	1	0	1	1	1	1	1	1	1	1	1	1	1	**IZS**	1	0.6	24
17	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	0	1	1	1	1	1	**IZS**	1	1	0.9	24
18	1	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	0	0	1	0	**IZS**	0	1	1	0.6	24
19	1	0	1	0	1	0	1	1	0	0	0	1	1	1	1	1	1	1	1	1	**IZS**	1	0	1	1	0.7	24
20	1	1	1	1	1	1	1	1	1	0	1	0	1	0	0	1	0	1	1	**IZS**	1	1	1	1	1	0.8	24
21	1	0	0	1	0	1	0	1	0	0	1	0	1	1	1	1	0	1	**IZS**	0	0	0	0	0	1	0.4	24
22	0	0	0	0	0	0	1	1	0	1	1	1	1	0	1	1	1	**IZS**	1	1	1	1	1	1	1	0.7	24
23	0	1	1	1	0	1	1	1	1	1	1	1	1	2	1	1	**IZS**	1	1	1	1	1	1	1	2	1.0	24
24	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	**IZS**	0	1	1	1	1	2	1	1	2	1.0	24
25	1	1	1	1	1	1	1	1	1	1	1	1	0	0	**IZS**	0	0	1	1	0	1	1	1	1	1	0.8	24
26	1	1	1	1	1	1	0	1	1	0	1	1	1	**IZS**	0	1	1	1	0	0	1	0	0	0	1	0.7	24
27	0	0	1	0	0	0	0	1	0	0	0	0	**IZS**	0	0	0	0	0	0	1	0	0	0	0	1	0.1	24
28	1	0	0	0	1	0	0	1	1	0	1	**IZS**	0	0	0	0	0	0	0	0	1	1	1	1	1	0.4	24
29	1	1	1	1	1	0	1	0	0	1	**IZS**	1	1	1	1	1	1	0	0	0	0	1	1	1	1	0.7	24
30	0	0	1	1	0	0	0	0	1	**IZS**	1	0	0	0	0	0	0	1	1	1	1	1	1	1	1	0.5	24
31	1	0	1	1	1	1	2	3	**IZS**	**5**	**5**	**5**	4	1	1	1	1	1	1	1	1	1	1	1	5	1.7	24
HOURLY MAX	2	2	2	2	2	3	4	4	3	5	5	5	4	3	2	2	2	3	2	2	3	3	3	2			
HOURLY AVG	0.9	0.7	0.9	0.8	0.8	0.8	0.9	1.2	0.9	1.0	1.2	1.2	1.1	0.9	1.0	0.9	0.8	0.9	0.8	0.9	0.9	1.0	1.0	1.0			

STATUS FLAG CODES

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

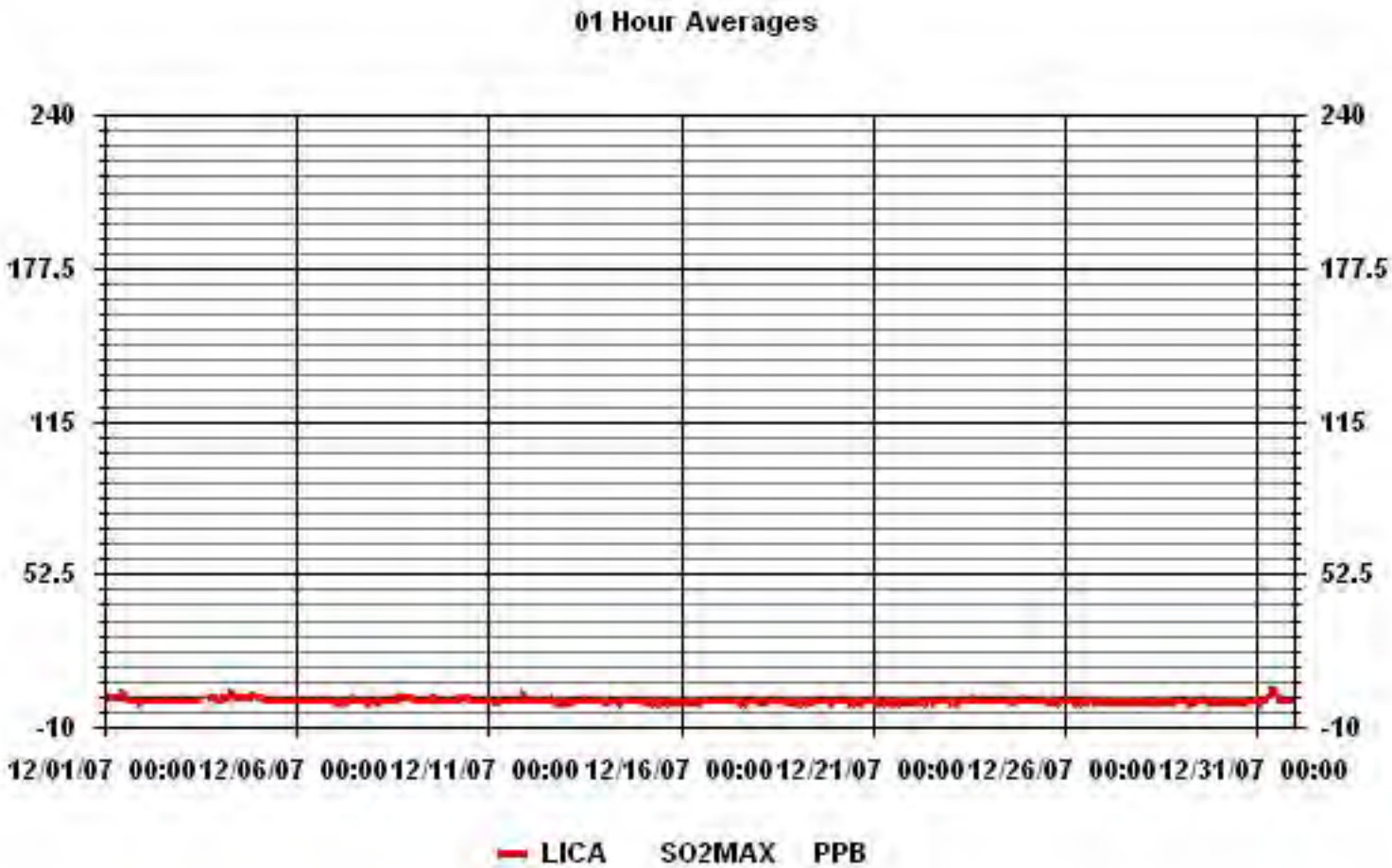
MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	554					
MAXIMUM INSTANTANEOUS VALUE:	5	PPB	@ HOUR(S)	10,11,12	ON DAY(S)	31

IZS CALIBRATION TIME:	33	HRS	OPERATIONAL TIME:	744	HRS
MONTHLY CALIBRATION TIME:	3	HRS			
STANDARD DEVIATION:	0.69				

MOUNTAIN STANDARD TIME

Maxxam Analytics Inc


01 Hour Averages
240
177.5
115
52.5
-10
12/01/07 00:00
12/06/07 00:00
12/11/07 00:00
12/16/07 00:00
12/21/07 00:00
12/26/07 00:00
12/31/07 00:00
LICA SO2MAX PPB

TRS

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - *COLD LAKE*

DECEMBER 2007

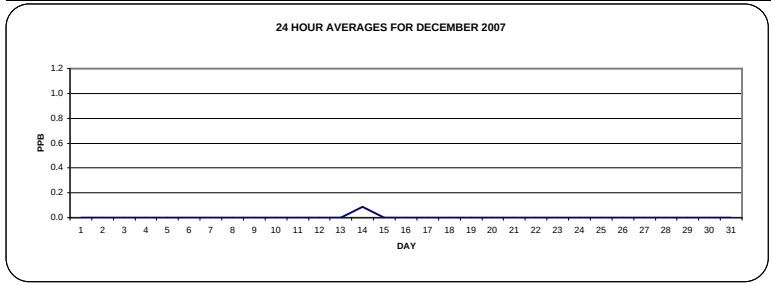
TOTAL REDUCED SULPHUR (TRS) hourly averages in ppb

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	0	0	0	0	0	0	0	0	**IZS**	0	0	0	0	0	0	0	0	0	0.0	24
2	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
3	0	0	0	0	0	0	0	0	0	0	0	0	0	**IZS**	0	**C**	**C**	**C**	**IZS**	0	0	0	0	0	0	0.0	24
4	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
5	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	0.0	24
6	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
7	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
8	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
9	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
10	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
11	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
12	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
13	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
14	0	0	**IZS**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**	**1**	0	0	1	**0.1**	24
15	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
16	**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
17	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
18	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	0.0	24
19	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
20	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
21	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	0.0	24
22	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
23	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
24	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
25	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
26	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
27	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
28	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	0.0	24
29	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
30	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
31	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
HOURLY MAX	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0			
HOURLY AVG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	- MISSING DATA
D	- INSTRUMENT DRIFT	P	- POWER FAILURE
C	- CALIBRATION	NA	- NOT APPLICABLE

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



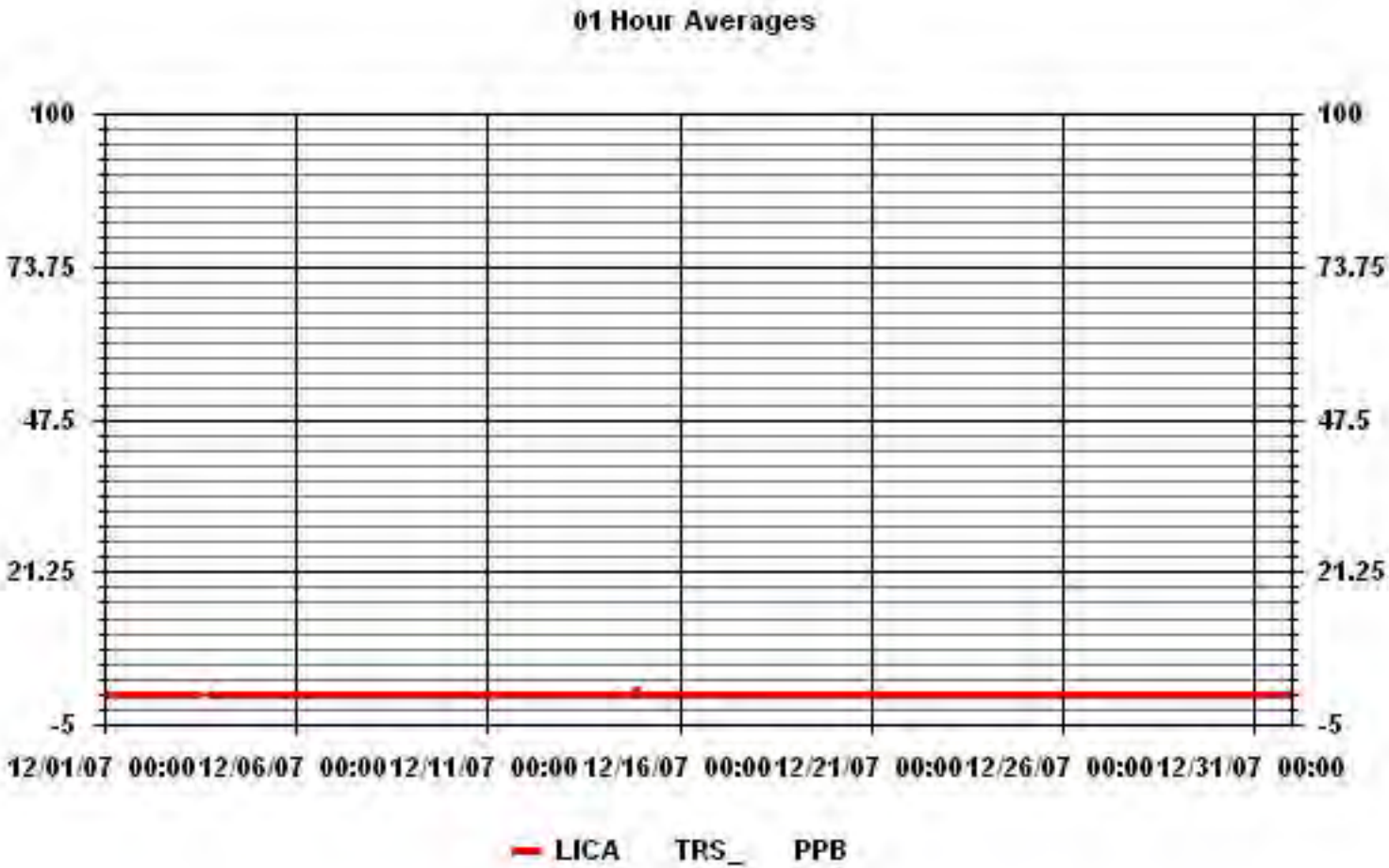
MONTHLY SUMMARY

NUMBER OF 1-HR EXCEEDENCES:	0					
NUMBER OF 24-HR EXCEEDENCES:	0					
NUMBER OF NON-ZERO READINGS:	2					
MAXIMUM 1-HR AVERAGE:	1	PPB	@ HOUR(S)	21,22	ON DAY(S)	14
MAXIMUM 24-HR AVERAGE:	0.1	PPB			ON DAY(S)	14
				VAR-VARIOUS		

IZS CALIBRATION TIME:	33	HRS	OPERATIONAL TIME:	744	HRS
MONTHLY CALIBRATION TIME:	3	HRS	AMD OPERATION UPTIME:	100.0	%
STANDARD DEVIATION:	0.05		MONTHLY AVERAGE:	0.00	PPB

Maxxam Analytics Inc

MOUNTAIN STANDARD TIME


01 Hour Averages
100
73.75
47.5
21.25
-5
12/01/07 00:00
12/06/07 00:00
12/11/07 00:00
12/16/07 00:00
12/21/07 00:00
12/26/07 00:00
12/31/07 00:00
LICA TRS_ PPB

LICA
TRS_ / WD Joint Frequency Distribution (Percent)

December 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	.70	1.41	1.41	4.80	12.28	10.87	14.54	3.53	2.68	4.66	9.18	16.38	9.18	3.38	2.40	2.54	100.00
<	10	.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
>=	50	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	Totals	.70	1.41	1.41	4.80	12.28	10.87	14.54	3.53	2.68	4.66	9.18	16.38	9.18	3.38	2.40	2.54	

Calm : .00 %

Total # Operational Hours : 708

Distribution By Samples

Direction

	Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
<	3	5	10	10	34	87	77	103	25	19	33	65	116	65	24	17	18	708
<	10																	
<	50																	
>=	50																	
	Totals	5	10	10	34	87	77	103	25	19	33	65	116	65	24	17	18	

Calm : .00 %

Total # Operational Hours : 708

Logger : 01 Parameter : TRS_

Class Limits (PPB)

>= 50

< 50

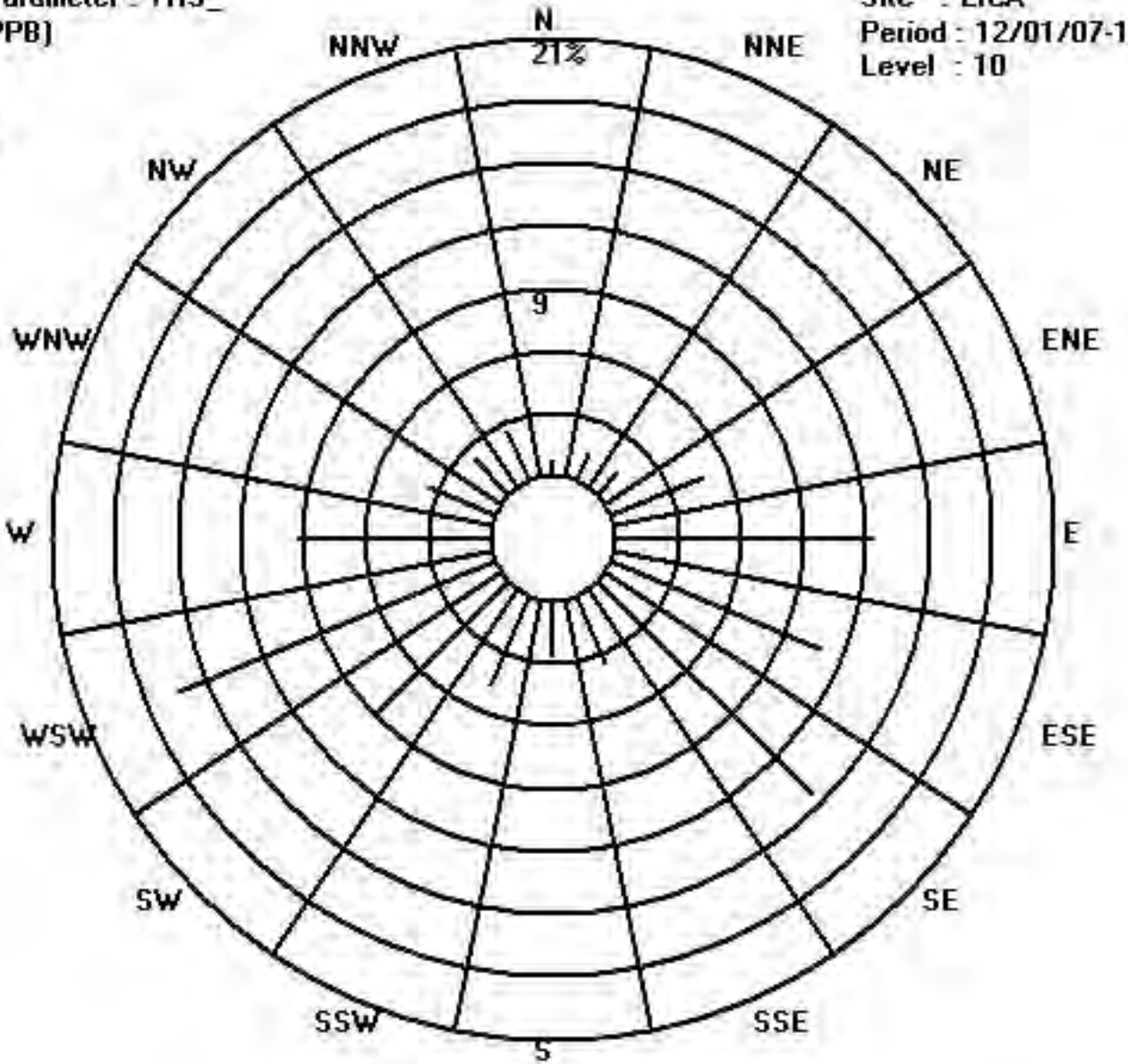
< 10

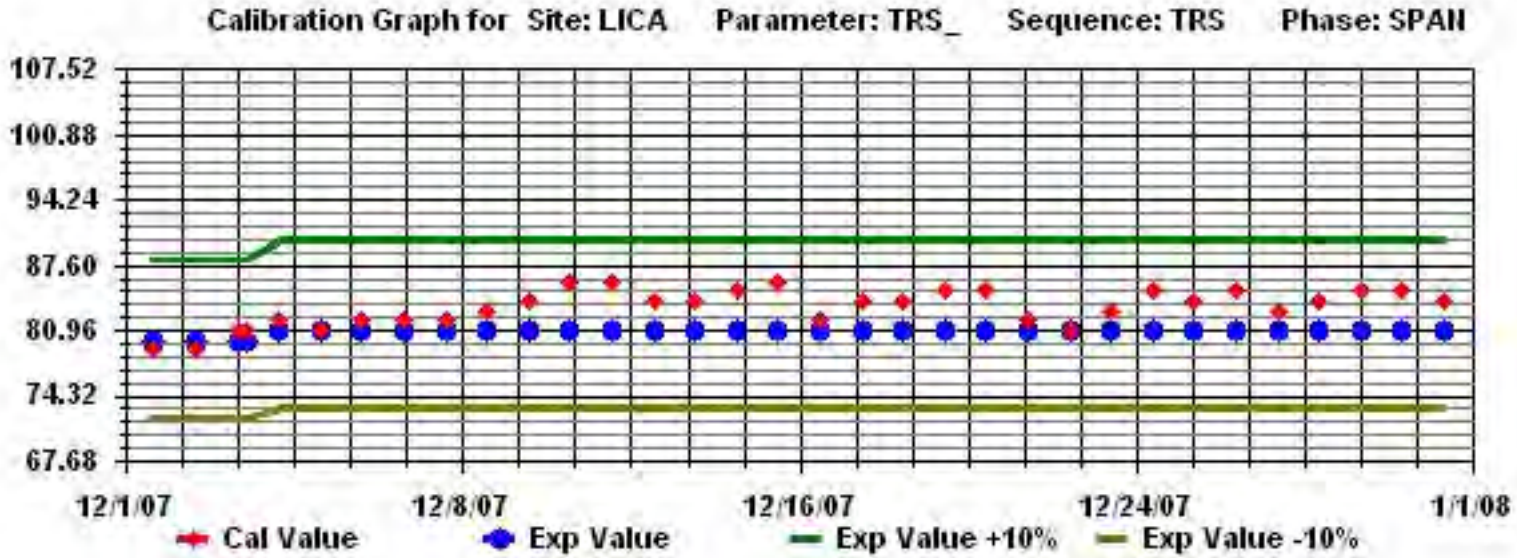
< 3

Site : LICA

Period : 12/01/07-12/31/07

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
12/1/07
12/8/07
12/16/07
12/24/07
1/1/08
Cal Value
Exp Value
Exp Value +10%
Exp Value -10%

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - *COLD LAKE*

DECEMBER 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	1	1	1	1	1	1	1	1	**IZS**	1	1	1	1	1	1	1	1	1	1.0	24
2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	**IZS**	1	1	1	1	1	1	1	1	1	1	1.0	24
3	1	1	1	1	1	1	1	1	1	1	1	1	1	**IZS**	1	**C**	**C**	**C**	**IZS**	0	1	0	0	0	1	0.8	24
4	1	1	0	0	0	1	0	1	0	0	0	0	**IZS**	0	1	0	0	0	0	0	0	0	0	0	1	0.2	24
5	0	1	0	1	1	0	0	0	0	0	0	**IZS**	1	0	1	0	1	1	0	0	1	0	0	1	1	0.4	24
6	0	0	0	1	0	0	0	1	0	1	**IZS**	0	0	0	0	0	1	0	0	0	1	0	1	0	1	0.3	24
7	0	0	0	0	0	0	0	1	0	**IZS**	0	0	0	0	0	0	1	1	1	1	0	1	1	0	1	0.3	24
8	1	1	0	1	1	0	1	1	**IZS**	0	1	0	1	0	0	1	1	1	1	0	1	1	1	0	1	0.7	24
9	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
10	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	1.0	24
11	1	1	1	1	1	**IZS**	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	24
12	1	1	1	0	**IZS**	1	1	1	1	1	1	1	0	1	1	1	1	0	1	1	0	1	0	1	1	0.8	24
13	1	1	1	**IZS**	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	24
14	1	1	**IZS**	1	1	1	1	1	0	1	1	1	1	0	1	1	1	1	1	1	1	**2**	1	1	2	1.0	24
15	1	**IZS**	1	1	1	1	1	1	1	0	1	0	1	1	1	1	1	1	1	1	0	1	1	1	1	0.9	24
16	**IZS**	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	**IZS**	1	1.0	24
17	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	0	1	1	1	**IZS**	1	1	0.9	24
18	1	1	1	1	0	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	**IZS**	1	1	1	0.9	24
19	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	**IZS**	1	1	1	1	0.9	24
20	1	1	1	1	1	0	1	1	1	1	1	1	0	1	1	1	1	1	0	**IZS**	1	1	1	1	1	0.9	24
21	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	**IZS**	0	1	1	1	1	1	0.9	24
22	1	0	1	0	1	0	1	1	1	1	1	1	1	1	1	1	1	**IZS**	1	0	1	0	1	1	1	0.8	24
23	1	1	0	1	1	0	1	1	1	0	1	0	0	1	1	1	**IZS**	1	1	1	1	1	1	1	1	0.8	24
24	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	**IZS**	1	1	1	1	1	1	1	1	1	1.0	24
25	1	1	1	1	1	1	1	1	1	1	1	1	1	1	**IZS**	1	1	1	1	1	1	1	1	1	1	1.0	24
26	1	1	1	1	1	1	1	1	1	1	1	1	1	**IZS**	1	1	1	1	1	1	1	1	1	1	1	1.0	24
27	1	1	1	1	1	1	1	1	1	1	1	1	**IZS**	1	1	1	1	1	1	1	1	1	1	1	1	1.0	24
28	1	1	1	1	1	1	1	1	1	0	1	**IZS**	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	24
29	1	1	1	1	1	1	1	1	1	1	**IZS**	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	24
30	1	1	1	1	1	1	1	1	1	**IZS**	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1.0	24
31	1	1	1	1	1	1	1	1	**IZS**	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1.0	24
HOURLY MAX	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1			
HOURLY AVG	0.9	0.9	0.7	0.9	0.8	0.8	0.9	1.0	0.8	0.8	0.9	0.8	0.8	0.8	0.9	0.9	0.9	0.9	0.8	0.8	0.9	0.9	0.9	0.8			

STATUS FLAG CODES

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

MONTHLY SUMMARY

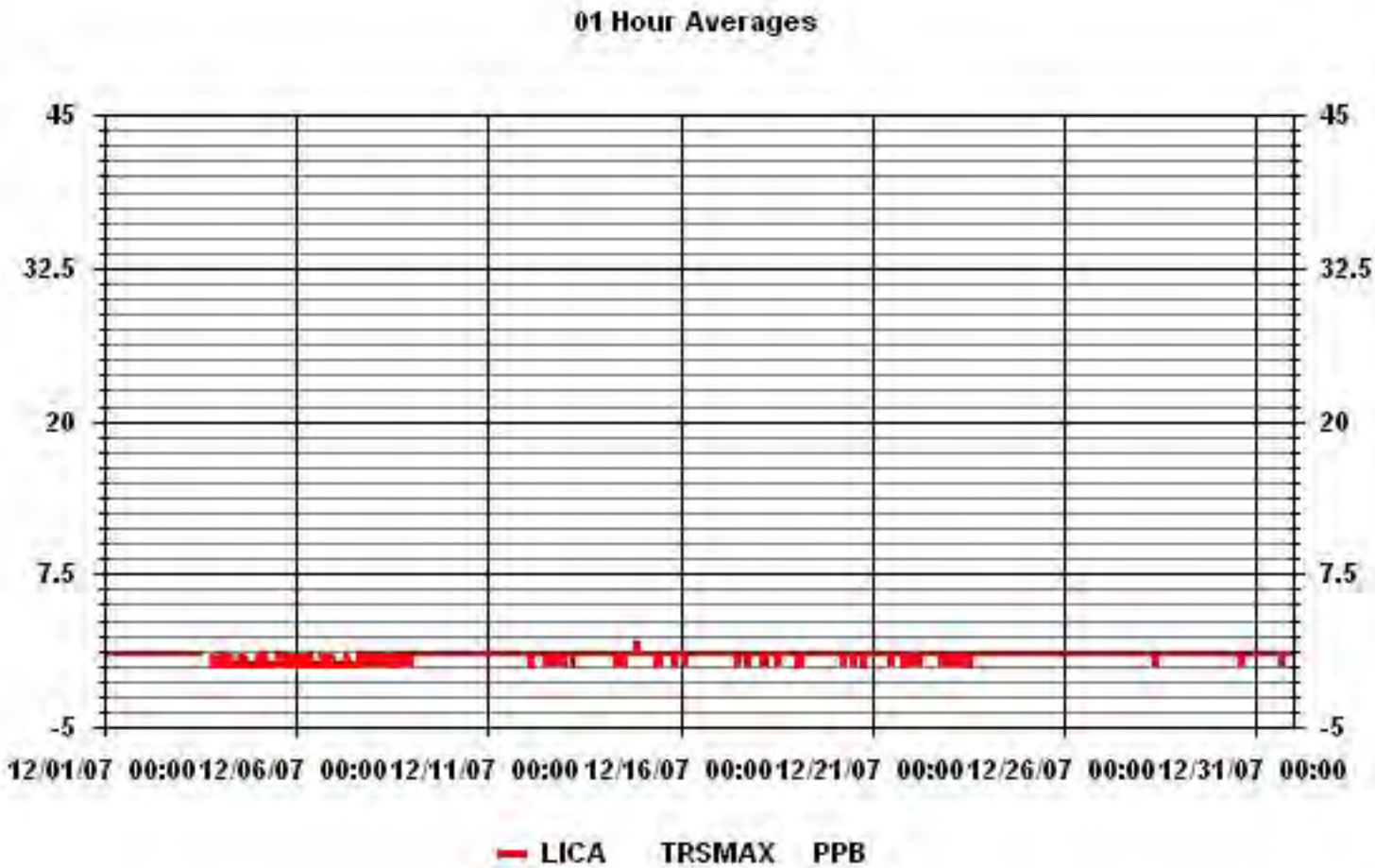
NUMBER OF NON-ZERO READINGS:	595					
MAXIMUM INSTANTANEOUS VALUE:	2	PPB	@ HOUR(S)	22	ON DAY(S)	14

VAR - VARIOUS

IZS CALIBRATION TIME:	33	HRS	OPERATIONAL TIME:	744	HRS
MONTHLY CALIBRATION TIME:	3	HRS			
STANDARD DEVIATION:	0.37				

MOUNTAIN STANDARD TIME

Maxxam Analytics Inc


01 Hour Averages
45
32.5
20
7.5
-5
12/01/07 00:00
12/06/07 00:00
12/11/07 00:00
12/16/07 00:00
12/21/07 00:00
12/26/07 00:00
12/31/07 00:00
LICA TRSMAX PPB

THC

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - *COLD LAKE*

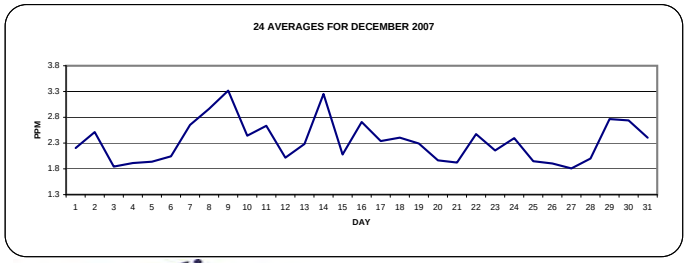
DECEMBER 2007

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	1.8	1.8	1.8	1.8	2.2	2.1	2.1	2.3	2.3	2.2	2.2	2.2	2.2	2.2	**IZS**	2.5	2.5	2.3	2.3	2.3	2.3	2.4	3.1	3.1	2.2	24
2	3.2	3.3	3.7	3	3.3	3.1	3.4	3.3	3.1	2.8	2.8	2.5	2.1	1.9	**IZS**	1.8	1.8	1.9	1.8	1.8	1.8	1.8	1.8	1.8	3.7	2.5	24
3	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	**IZS**	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	24
4	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2	1.9	2	2	**IZS**	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	24
5	1.9	1.9	1.9	2	2	2	2	2	2	1.9	1.9	**IZS**	1.8	1.8	1.8	1.9	1.9	2	1.9	2	2	2	2	2	2.0	1.9	24
6	2	2	2.3	2.2	2	2.1	2.2	2	1.9	1.9	**IZS**	1.9	1.9	1.9	1.9	1.9	2	2	2	2.1	2.2	2.2	2.2	2.2	2.3	2.0	24
7	2.4	2.4	2.4	2.3	2.4	2.4	2.5	2.4	2.9	**IZS**	2.1	2.1	2	2	2.1	2.3	2.3	2.2	2.6	3.2	3.6	3.8	4.3	4.3	4.3	2.7	24
8	3.1	3.6	2.6	3	3	3.5	3.5	3.7	**IZS**	3.1	3.1	2.9	2.8	2.8	2.9	3.4	3.1	2.7	2.7	2.5	2.6	2.5	2.6	2.5	3.7	3.0	24
9	2.8	3	3.5	3.9	3.6	3.4	3.4	**IZS**	2.9	3.5	3.3	3.3	3.3	3.2	3.2	3.1	3	3.1	3.2	3.4	3.5	3.5	3.6	3.6	3.9	**3.3**	24
10	3.3	3.3	3.3	3.2	3	2.6	**IZS**	2.1	2	2	2	2	1.9	1.9	2	2	2.9	2.9	2.5	2.3	2.2	2.2	2.2	2.4	3.3	2.4	24
11	2.6	2.5	3.1	3.2	2.6	**IZS**	3.7	3.1	3.5	2.9	2.8	2.5	2.3	2.2	2.2	2.2	2.4	2.3	2.2	2.2	2.5	2.8	2.6	2.2	3.7	2.6	24
12	2.1	2	2	2	**IZS**	2.1	2.2	2.1	2.2	2.2	2.1	2.1	2.2	2.3	2.2	2.2	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	2.3	2.0	24
13	1.8	1.8	2.2	**IZS**	2.3	2.1	2	2	1.9	1.9	1.9	1.8	1.9	1.9	2	2	2.1	2.6	3	2.9	4.1	3	2.6	2.7	4.1	2.3	24
14	2.9	3.8	**IZS**	3.8	3.9	2.7	2.5	2.7	3	3.1	3.2	3.3	3.2	2.8	2.5	2.8	3.5	3.8	3.8	3.3	3.9	3.4	3.4	3.5	3.9	**3.3**	24
15	3.1	**IZS**	2.8	2.7	2.5	2.4	2.1	2	2	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.9	1.8	1.8	1.9	1.9	3.1	2.1	24
16	**IZS**	1.9	1.9	1.9	1.9	1.9	2	2	2.1	2.8	2.6	2.2	2.5	2.5	2.3	2.5	4.4	3.2	3	3.9	**4.8**	3.8	3.5	**IZS**	4.8	2.7	24
17	3.4	2.9	2.8	3.1	3.4	3.4	3.1	2.3	2.2	2.1	2	2	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2	1.9	**IZS**	2	3.4	2.3	24
18	2	2	2	2.1	2.5	3.1	3.1	3	3	**C**	**C**	**C**	**IZS**	2.6	2.5	2.5	2.4	2.4	2.4	2.2	2.1	**IZS**	1.9	1.9	3.1	2.4	24
19	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2	2	2.3	2.7	2.6	2.6	2.6	2.6	2.8	2.7	2.7	2.7	**IZS**	2.6	2.5	2.1	2.8	2.3	24
20	2	2	2	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2	2	**IZS**	2.2	2.3	2.2	1.9	2.3	2.0	24
21	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9	**IZS**	2	2.3	2.3	2.2	2.4	2.4	1.9	24
22	2.9	3	3.4	3.2	3.7	3.2	2.7	2.9	2.5	2.6	2.4	2.1	2.1	2.1	2.1	2.1	2	**IZS**	2.1	2	2	2	1.9	1.9	3.7	2.5	24
23	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.1	2.2	2.2	2.3	2.3	2.3	2.3	2.4	**IZS**	2.3	2.3	2.2	2.4	2.4	2.4	2.3	2.4	2.2	24
24	2.5	2.6	3.5	3.3	2.8	3.1	3.1	3	3	2.7	2.4	2.1	2	2.1	2.2	**IZS**	2	1.9	1.8	1.8	1.8	1.8	1.8	1.8	3.5	2.4	24
25	1.9	1.9	1.8	1.9	1.9	1.9	1.9	2.6	2	2	2	2	1.9	1.9	**IZS**	2	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.6	1.9	24
26	2	2	2	2	2	2.1	2	2	2	1.9	1.9	1.9	1.9	**IZS**	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	2.1	1.9	24
27	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	**IZS**	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.8	1.8	1.9	1.9	1.8	24
28	1.9	2.1	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	**IZS**	2	2.1	2	2	2	2.2	2.2	2.1	2.2	2.1	2	2	2.2	2.0	24
29	2	2	2	2.1	2.2	2.2	2.3	2.9	2.7	2.4	**IZS**	2.3	2.4	2.4	2.4	3.1	4	3.1	3.3	3.2	3.3	4.1	3.3	3.9	4.1	2.8	24
30	3.1	3.5	3.2	3	3.4	2.8	2	2.6	2.8	**IZS**	2.4	2.1	2.4	2.3	2.2	2.9	3	3.1	2.6	2.5	2.7	2.8	2.9	2.7	3.5	2.7	24
31	2.7	2.5	2.5	2.5	2.6	2.8	3	2.5	**IZS**	2.2	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.2	2.2	2.2	2.2	2.3	2.6	2.3	3.0	2.4	24
HOURLY MAX	3.4	3.8	3.7	3.9	3.9	3.5	3.7	3.7	3.5	3.5	3.3	3.3	3.3	3.2	3.2	3.4	4.4	3.8	3.8	3.9	4.8	4.1	4.3	4.3			
HOURLY AVG	2.4	2.4	2.4	2.4	2.5	2.4	2.4	2.3	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.4	2.3	2.3	2.3	2.5	2.4	2.4	2.4			

STATUS FLAG CODES

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



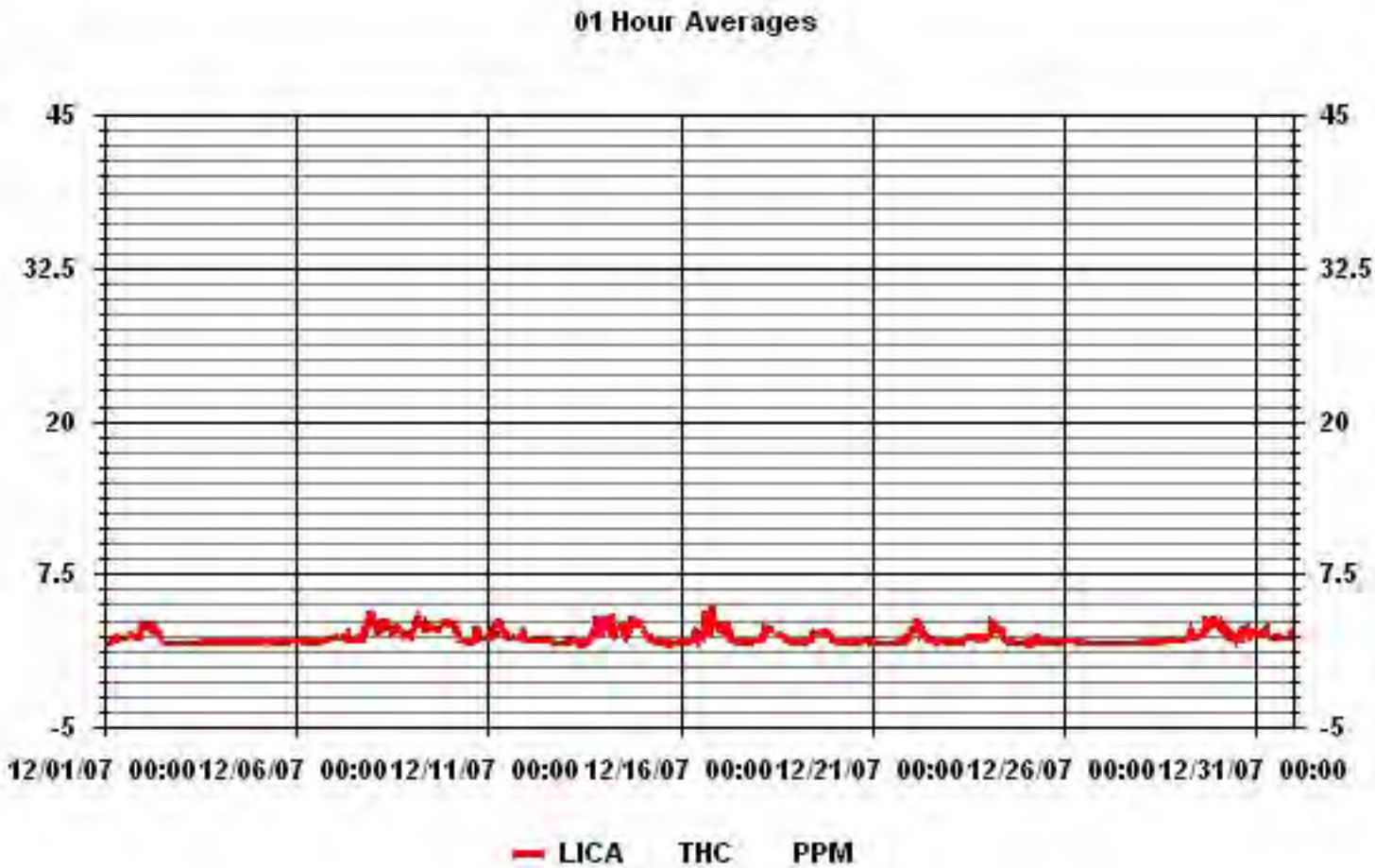
MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	708					
MAXIMUM 1-HR AVERAGE:	4.8	PPM	@ HOUR(S)	21	ON DAY(S)	16
MAXIMUM 24-HR AVERAGE:	3.3	PPM			ON DAY(S)	9,14

IZS CALIBRATION TIME:	33	HRS	OPERATIONAL TIME:	744	HRS
MONTHLY CALIBRATION TIME:	3	HRS	AMD OPERATION UPTIME:	100.0	%
STANDARD DEVIATION:	0.56		MONTHLY AVERAGE:	2.33	PPM

MOUNTAIN STANDARD TIME

Maxxam Analytics Inc


01 Hour Averages
45
32.5
20
7.5
-5
12/01/07 00:00
12/06/07 00:00
12/11/07 00:00
12/16/07 00:00
12/21/07 00:00
12/26/07 00:00
12/31/07 00:00
LICA THC PPM

LICA
THC / WD Joint Frequency Distribution (Percent)

December 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	.70	1.12	1.12	4.09	11.58	9.46	12.71	2.11	1.41	2.40	6.92	13.55	8.05	3.24	1.97	2.40	82.90
<	10.0	.00	.28	.28	.70	1.12	1.27	1.69	1.41	1.12	2.25	2.25	2.82	1.12	.14	.42	.14	17.09
<	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	.70	1.41	1.41	4.80	12.71	10.73	14.40	3.53	2.54	4.66	9.18	16.38	9.18	3.38	2.40	2.54	

Calm : .00 %

Total # Operational Hours : 708

Distribution By Samples

Direction

	Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
<	3.0	5	8	8	29	82	67	90	15	10	17	49	96	57	23	14	17	587
<	10.0		2	2	5	8	9	12	10	8	16	16	20	8	1	3	1	121
<	50.0																	
>=	50.0																	
	Totals	5	10	10	34	90	76	102	25	18	33	65	116	65	24	17	18	

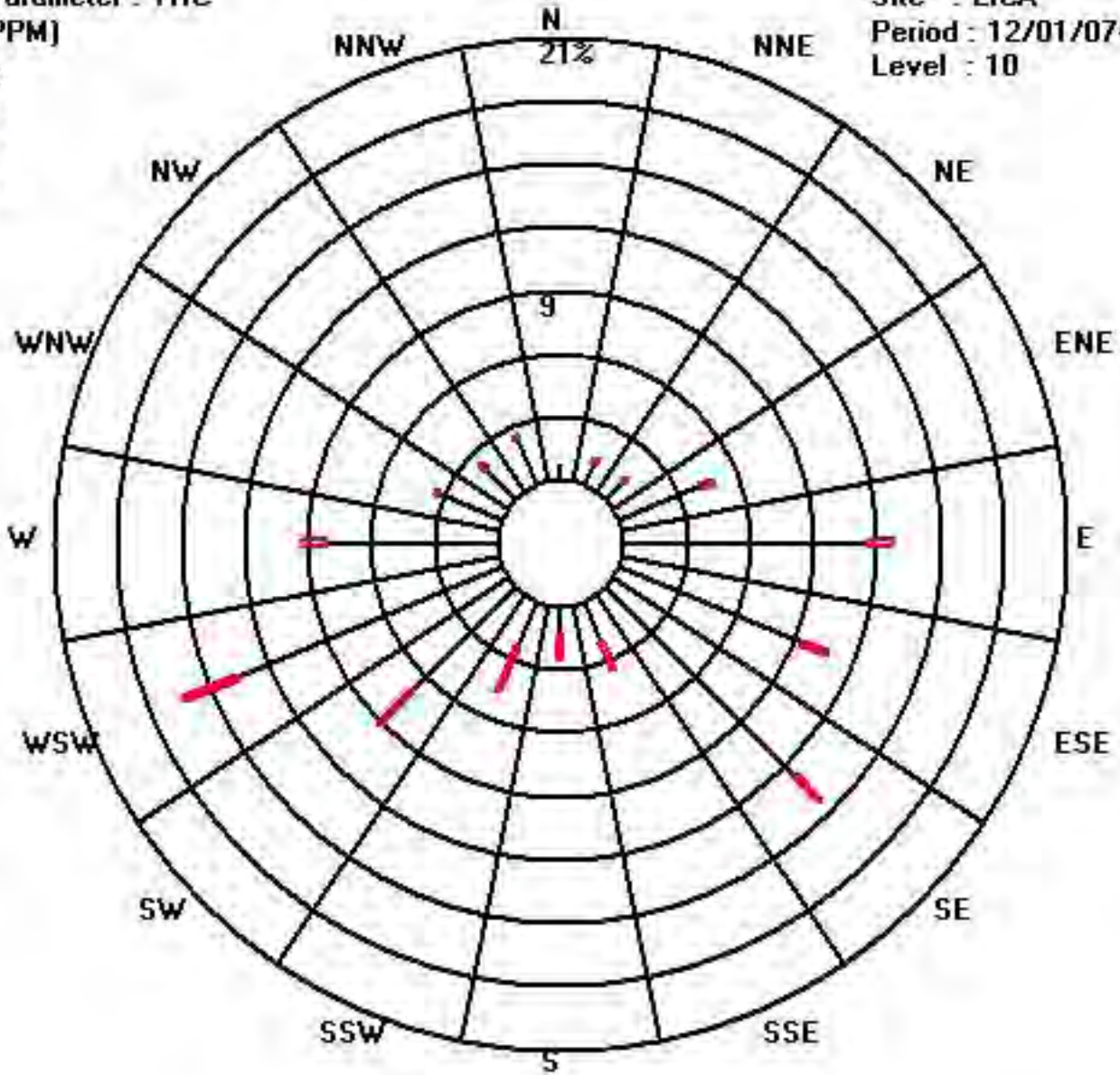
Calm : .00 %

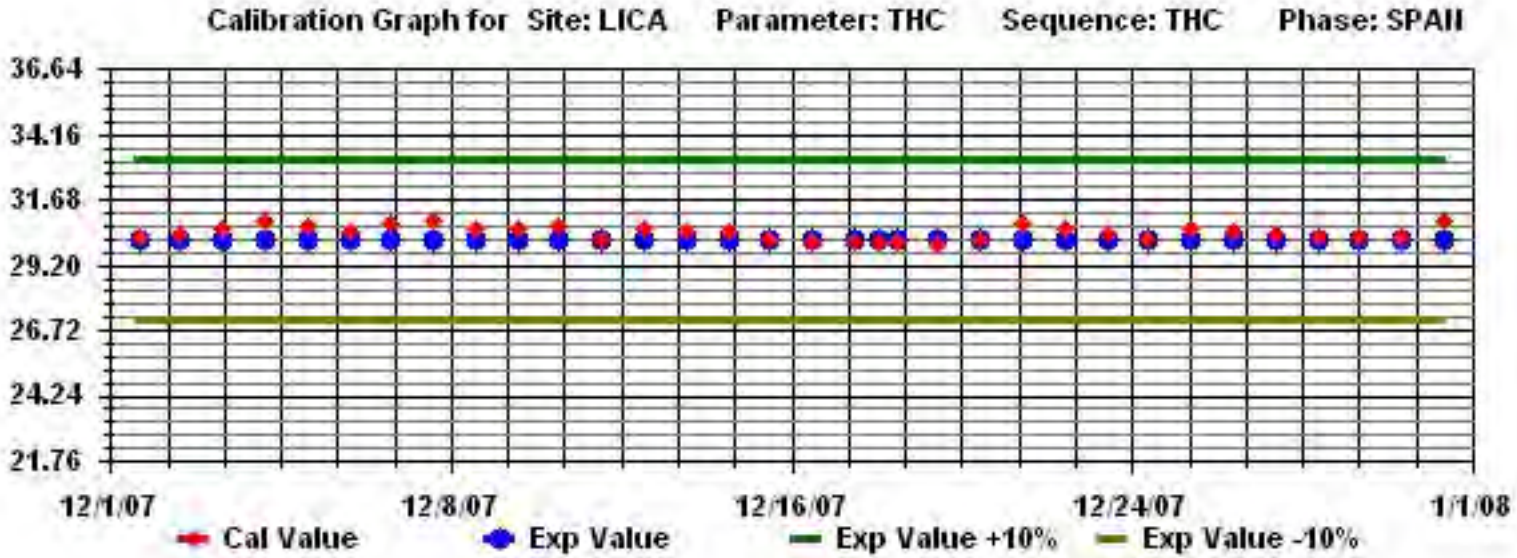
Total # Operational Hours : 708

Logger : 01 Parameter : THC
Class Limits (PPM)

>= 50.0
< 50.0
< 10.0
< 3.0

Site : LICA
Period : 12/01/07-12/31/07
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
12/1/07
12/8/07
12/16/07
12/24/07
1/1/08
Cal Value
Exp Value
Exp Value +10%
Exp Value -10%

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - *COLD LAKE*

DECEMBER 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	1.9	1.9	1.9	1.9	3.6	2.3	3.1	3.6	6.9	2.8	2.3	2.5	2.5	2.7	**IZS**	2.6	2.5	2.5	2.3	2.3	3	3.1	6.3	6.9	2.9	24
2	6.1	6.9	6.4	5.1	5.6	4.8	6.6	4	4	3	5.1	2.8	2.2	2	**IZS**	2	2	2	1.9	1.9	1.9	1.8	1.8	1.8	6.9	3.6	24
3	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.9	1.8	1.8	2	1.8	**IZS**	2	2	1.9	1.9	1.9	2	1.9	1.9	2	2	2	1.9	24
4	2	2	2	2	2	2	2	2	2.2	2	2	2	**IZS**	1.9	1.9	2.8	1.9	1.9	2	1.9	1.9	1.9	1.9	1.9	2.8	2.0	24
5	2	2.1	2.1	2.1	2	2	2.1	2.1	2	1.9	1.9	**IZS**	1.9	1.9	1.9	1.9	2	2	2	2	2.1	2.1	2.1	2	2.1	2.0	24
6	2.2	2.1	4.1	5.2	2.2	2.2	2.3	2.1	2	1.9	**IZS**	2	2	1.9	1.9	2.3	2	2.1	2.1	3.1	3.1	2.5	2.2	2.4	5.2	2.4	24
7	2.5	2.5	2.7	2.4	2.5	2.5	3.2	2.7	5.8	**IZS**	2.3	2.2	2.1	2.1	2.1	3.6	3.6	2.5	4.2	4.6	6.2	5.4	15.2	7.6	15.2	3.9	24
8	6	7	3.3	5.7	4.5	4.6	5.6	7	**IZS**	3.9	3.4	3.2	2.9	2.9	3.3	5.2	5.4	2.9	2.9	2.7	3.7	2.6	2.7	2.6	7	4.1	24
9	6.7	3.4	7.8	8.5	4.9	4.7	6.5	**IZS**	3.5	4.6	3.6	3.4	3.4	3.3	3.5	3.3	3.2	3.2	3.6	3.9	3.9	5.5	3.7	3.7	8.5	4.4	24
10	3.5	3.3	3.4	3.4	3.1	3	**IZS**	2.2	2.1	2	2	2	2	2	2.2	3.2	4.4	4.4	3.8	2.7	2.2	2.2	2.4	2.7	4.4	2.8	24
11	3.3	2.9	4.7	4	3.1	**IZS**	5.4	4.6	4.3	3.4	3.1	2.7	2.5	2.3	3.2	2.4	3.1	2.8	2.3	2.4	2.6	2.9	2.8	2.4	5.4	3.2	24
12	2.1	2.1	2	2	**IZS**	2.2	2.3	2.5	2.3	2.2	2.3	2.2	2.2	2.7	2.5	2.4	1.9	1.9	1.9	1.9	1.8	1.8	1.9	1.8	2.7	2.1	24
13	1.8	1.8	4.5	**IZS**	4.2	2.7	2.1	2.1	2	1.9	1.9	1.9	1.9	2	2	2.1	3	2.9	3.2	3.1	6.3	4.1	3.2	3.4	6.3	2.8	24
14	4.2	4.7	**IZS**	7	8.4	3.1	3.1	3	3.2	3.3	3.7	3.4	3.4	3.5	3.1	4.8	7.3	6.3	4.9	3.9	5.5	3.9	3.7	5.3	8.4	4.5	24
15	3.2	**IZS**	2.9	2.7	2.7	3.7	2.1	2.1	2.1	2	1.9	2	2	2	2	2.1	2	2	1.9	2	1.9	1.9	1.9	1.9	3.7	2.2	24
16	**IZS**	1.9	1.9	2.1	2.1	2	2.1	3.5	3	4	4.3	2.5	2.6	3	2.6	2.9	**21.2**	5.3	3.4	6.6	11.1	4.8	4.8	**IZS**	21.2	4.4	24
17	5.4	3.1	3.2	4.1	6.7	8.1	4	2.9	2.3	2.1	2.1	2	2	2	2	2	2	2	2	2	2.1	2	**IZS**	2	8.1	3.0	24
18	2	2	2	3.1	4.5	6.3	3.9	4.3	4.8	**C**	**C**	**C**	**IZS**	2.7	4.2	2.6	2.5	2.5	2.8	3.3	2.3	**IZS**	2	1.9	6.3	3.1	24
19	1.9	1.9	1.9	1.9	1.9	2	2	2.2	2.8	2.3	2.6	2.8	3	2.7	2.6	2.9	4.4	3	2.9	2.8	**IZS**	3.3	2.6	2.2	4.4	2.5	24
20	2.1	2	2	2	1.9	2	1.9	2	2	1.9	1.9	1.9	1.9	1.9	1.9	2	2	2.1	2.1	**IZS**	2.3	2.3	2.3	2.2	2.3	2.0	24
21	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.1	**IZS**	3	3.7	3.2	2.6	5.5	5.5	2.3	24
22	4.4	5.2	6.4	4.5	6.8	13.4	2.9	6.5	2.8	2.8	2.8	2.3	2.1	2.2	2.2	2.3	2.2	**IZS**	2.2	2.1	2.1	2	2	1.9	13.4	3.7	24
23	1.9	1.9	1.9	1.9	2	1.9	2	2.3	2.5	2.5	2.3	2.5	2.3	2.3	3.3	2.4	**IZS**	2.7	2.4	2.3	2.5	2.5	2.4	2.4	3.3	2.3	24
24	3.8	4.4	6.1	5.7	3.3	6.3	3.7	3.6	4.1	2.9	2.6	2.3	2.1	2.2	2.2	**IZS**	2.3	1.9	1.8	1.8	1.8	1.8	1.8	1.9	6.3	3.1	24
25	1.9	1.9	1.9	1.9	1.9	2	2.1	4.9	2.1	2.5	2.5	2.1	2	2	**IZS**	2.7	2.1	2.1	2	1.9	2	2	2.1	2	4.9	2.2	24
26	2	2	2.1	2	2.1	2.1	2.1	2.1	2.1	2	2.6	2	2	**IZS**	1.9	1.9	1.8	1.8	1.8	2	1.8	1.8	1.8	1.8	2.6	2.0	24
27	2.1	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.8	1.9	1.8	1.9	**IZS**	1.9	2.5	2	1.8	1.8	1.8	1.9	2.2	1.9	2	1.9	2.5	1.9	24
28	1.9	3.2	2.1	2.2	2.1	2.2	2.2	2	1.9	2.1	2.1	**IZS**	2.1	2.2	2.2	2	2.1	2.5	2.5	2.2	2.5	2.3	2.2	2.2	3.2	2.2	24
29	2.1	2	2.1	2.3	2.3	2.4	2.8	4.5	4.2	2.8	**IZS**	2.5	2.4	4	2.5	5.6	5.6	3.9	4.7	4.2	5.1	7.7	4.2	11.3	11.3	4.0	24
30	4.1	6.7	3.8	3.6	5.1	3.7	2.3	5.2	4.5	**IZS**	3.6	3.9	2.6	2.4	2.5	5	5.2	8.6	2.7	2.6	2.9	2.9	3.1	2.9	8.6	3.9	24
31	2.9	2.6	2.6	2.6	2.9	4.2	4	3	**IZS**	2.3	2.2	2.4	2.4	2.4	2.4	2.4	2.3	2.3	2.3	2.3	2.7	3.5	4.4	2.4	4.4	2.8	24
HOURLY MAX	7	7	8	9	8	13	7	7	6	7	5	4	3	4	4	6	21	9	5	7	11	8	15	11			
HOURLY AVG	3.0	3.0	3.1	3.2	3.3	3.5	3.0	3.1	2.9	2.7	2.6	2.4	2.3	2.4	2.5	2.8	3.5	2.9	2.6	2.7	3.1	2.9	3.0	3.1			

STATUS FLAG CODES

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

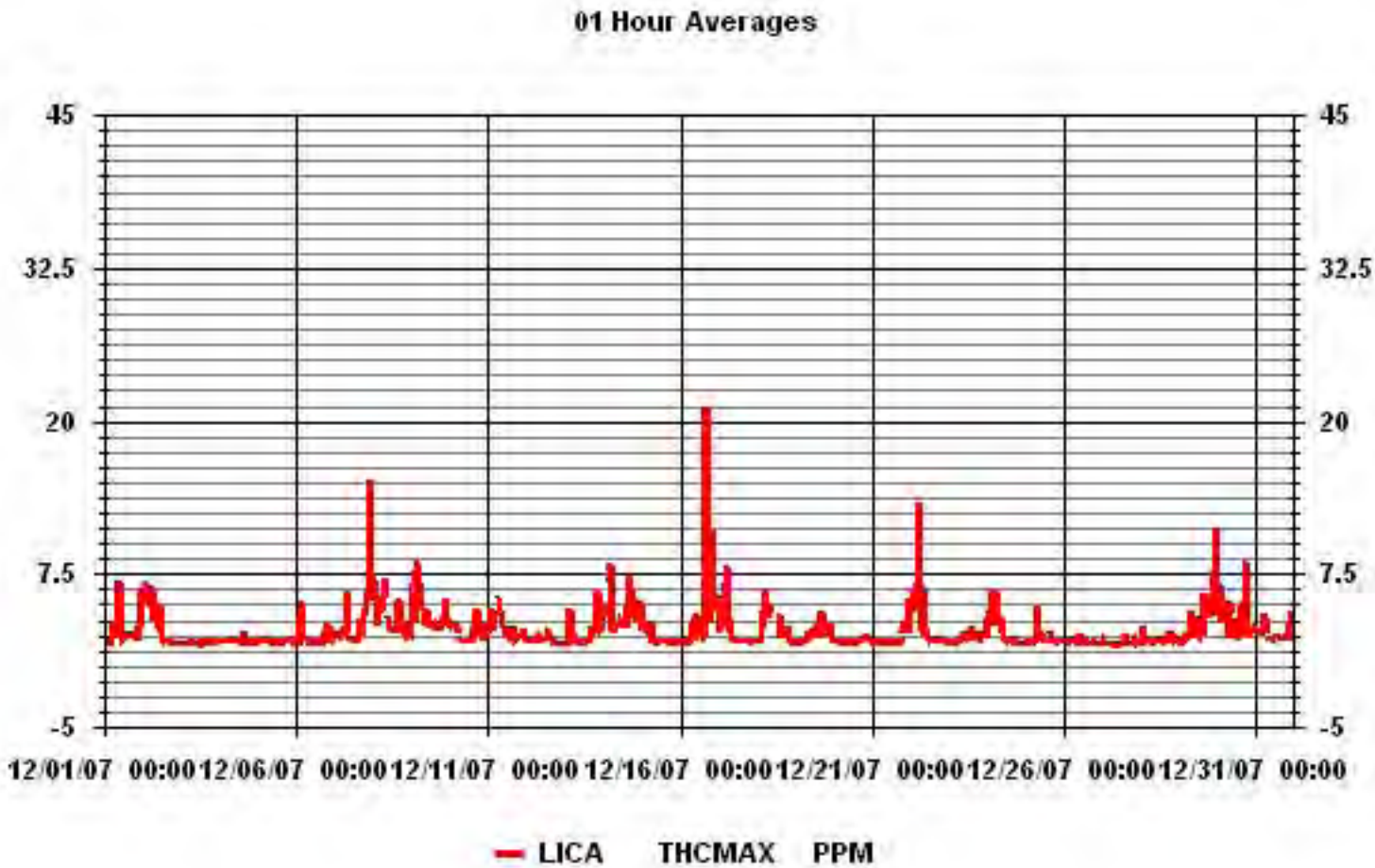
MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	708					
MAXIMUM INSTANTANEOUS VALUE:	21.2	PPM	@ HOUR(S)	17	ON DAY(S)	16

IZS CALIBRATION TIME:	33	HRS	OPERATIONAL TIME:	744	HRS
MONTHLY CALIBRATION TIME:	3	HRS			
STANDARD DEVIATION:	1.63				

MOUNTAIN STANDARD TIME

Maxxam Analytics Inc


01 Hour Averages
45
32.5
20
7.5
-5
12/01/07 00:00
12/06/07 00:00
12/11/07 00:00
12/16/07 00:00
12/21/07 00:00
12/26/07 00:00
12/31/07 00:00
LICA THCMAX PPM

PARTICULATE MATTER 2.5

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - *COLD LAKE*

DECEMBER 2007

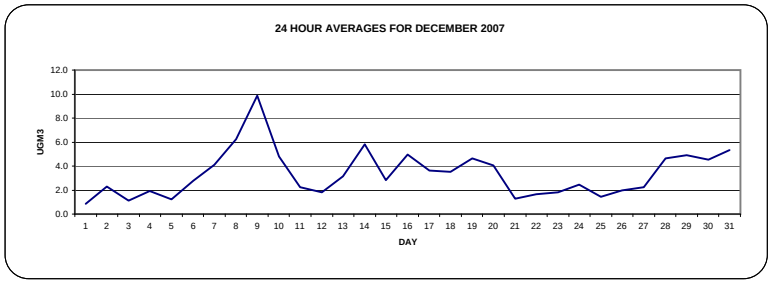
PARTICULATE MATTER 2.5 (PM2.5) hourly averages in ug/m^3

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	0.8	0.3	0.8	0	0.2	1	0.2	0	0	2.5	3.7	3	0.8	0.4	0	0.2	1	1.3	1	1.1	1	0.7	0.2	0.6	3.7	0.9	24
2	1.1	0.9	1.3	1.1	0.8	1.7	0.7	1.7	5	6.8	2.5	6.5	3.6	2.6	2.4	1.9	1.6	2.2	3.2	3.3	1.5	0.8	1.9	0.5	6.8	2.3	24
3	2.5	1.9	0.5	1.8	0	0.9	2.3	0	2.2	1.4	1	0	0	3.1	0	0.2	0.5	1.4	0	1.1	2.3	1	1.8	1.1	3.1	1.1	24
4	1.5	1.6	2.4	1.5	1	2.2	1.7	2.5	2.1	4	2.7	1.5	1.7	2.9	2.5	2.6	2.7	2	1.4	1.4	1.5	1.1	0.8	1	4.0	1.9	24
5	0.8	1.1	1.2	0.1	1	1.1	0.9	1.5	0.9	1	0.8	0.5	0.3	1	1.1	0.5	1.2	1.7	2.1	2.1	1.3	2	2.4	2.5	2.5	1.2	24
6	1.8	4.6	4	5.7	5.7	4.7	4.5	3.4	2.4	2.1	1.4	1.6	0.9	1.3	1.1	2.2	1.4	1.2	0.8	1.5	2.3	3.5	4.3	4.4	5.7	2.8	24
7	4.7	4.5	4.5	3.7	3.6	2.9	7.2	6.6	7.1	9	7.9	3.1	3	2.7	2.7	3.2	3.4	1.6	3.1	3.1	2.3	3	3	3	9.0	4.1	24
8	2.8	4.9	3.1	1.6	2.4	2.5	1.8	2.3	2.9	7.5	10.6	6.5	7.1	7.9	8.1	7.8	7.7	9.2	9.4	8	8.3	8.2	10.3	9.1	10.6	6.3	24
9	6.8	7.3	7.1	7.5	8.1	7.4	4.8	7	7.3	6.5	7.1	10.6	9	9.7	10.8	12.5	13.8	10.7	9.4	9.1	9.2	9.4	12.1	**33.5**	33.5	**9.9**	24
10	19.8	13.2	13.9	17.7	16	13.5	5.4	2.4	1.7	2.1	1.2	0.4	0	0	0	0.8	0	0	1.6	2.4	0.4	1.6	1.6	0.1	19.8	4.8	24
11	0.4	0	1.2	0	1.1	2.6	0	1	2.4	6.9	8.4	6	0.3	2.5	2.3	2.7	3	2.2	3.4	2.1	2.5	0.8	0.5	0.9	8.4	2.2	24
12	0.8	0.7	2.5	0.7	0.2	1.9	1.9	2.3	2.2	2.6	2.7	2.5	3.4	4.3	4	4	0	1.3	0.6	0.8	0.9	1	1	0.6	4.3	1.8	24
13	0.7	0	0.8	0.1	1	1.9	1.3	1.4	1.6	1.1	1	0.4	0.1	0.9	1.1	2.3	7	7.4	6	10.9	1.6	18.5	8.1	0.4	18.5	3.2	24
14	0.2	1.7	2.1	1.2	2.7	4.1	2.3	3.9	6.3	6.2	12.2	4.5	6.1	7.4	2.8	0.7	1.9	1.5	5.2	11.7	14.9	14.6	13.6	11.8	14.9	5.8	24
15	7.9	6.8	6.4	4.6	4.2	2.2	0.9	0.2	0.5	2.8	1.4	0	0.1	0.7	0.8	1.2	1.7	5.1	2.4	9.6	5.5	0.5	0.7	1.1	9.6	2.8	24
16	1	1.9	1.8	2.1	1.7	1.5	2.3	0.6	1.8	3.5	6.1	2.5	4.8	5.3	3.2	4.3	4.4	9.1	11.1	11.5	10	9.8	10.5	8.3	11.5	5.0	24
17	6.6	7.4	5.9	5.9	7.5	9.7	7.4	5.2	0.2	1.8	0.6	0.6	1.1	0.2	0.7	2.8	3	2.7	5.1	2.9	1.3	2.7	2.6	2.6	9.7	3.6	24
18	3.8	3	3	2.1	0.8	2	4.2	5.7	5.2	7.5	7.9	2.8	**C**	**C**	**C**	**C**	**C**	**C**	0.1	8.4	1.6	1.1	0.7	3.8	8.4	3.5	24
19	4	2.2	1.4	3	3.6	3.8	2.7	0.9	5.1	4.8	5.4	4.8	5.9	5.2	5.1	4.6	5.4	7.4	7.6	6.6	7.1	5.4	4.6	4.8	7.6	4.6	24
20	2.2	2.6	2.1	1.7	1.9	1.7	1.4	2.9	3.3	4.4	4.7	4.4	4.5	5.2	6.4	5.7	5	5.6	4.6	6	5.9	7.7	6.6	1.1	7.7	4.1	24
21	2.5	2.9	1.8	1.3	1.1	1.2	1.4	1.3	2.1	2	0.9	1.1	0.9	0.7	0.5	1.4	1	1	0.9	0.7	0	1.7	0.5	1.5	2.9	1.3	24
22	0.5	1.1	1.3	0.8	0.9	1.3	1.7	3.3	2.5	9.2	9.3	0	0.9	0.7	1.4	1	0.6	0.1	0	1	0.4	0.4	1.5	0.4	9.3	1.7	24
23	1.4	1	2.3	0.9	1	1.4	2.7	0.6	0.6	0.7	2.4	0.9	1.7	1.6	2.2	1.8	3	3	5.2	1.9	1.4	2.6	1.5	1.4	5.2	1.8	24
24	2.7	2.1	1.7	1.3	3.6	1.6	3.5	1.6	2.7	7.9	5.9	1.2	1.9	1.6	2	1.2	1.8	2.8	2.5	0.7	1.2	2.1	2.6	2.1	7.9	2.4	24
25	2.2	2.6	2.2	2.6	2.4	0.3	2.8	1.7	1.3	2.4	2.3	1.9	0	0.2	0	0.7	0.3	0.1	0.4	0.9	2.2	2.1	1.5	1.2	2.8	1.4	24
26	0.8	0.8	0.9	0.5	1.5	1.5	1	1.5	2.7	2.3	1.8	1	1.9	2.4	2.6	2.7	2.8	2.4	2.1	3.3	2.3	2.6	3.4	2	3.4	2.0	24
27	2.2	2.1	1.8	0.7	0	0	0.8	0.8	1.1	1.5	1.5	1.6	1.8	3.5	6.7	2.4	1.9	1.9	1.8	3.1	3.5	4.3	4.4	4.5	6.7	2.2	24
28	4.2	5.5	3.6	3.9	4.3	4.4	4.4	5.1	5.7	5.9	6.7	6.6	6.7	2.8	2	3.5	3.6	2.7	3.2	5.2	5.6	4.7	5	5.5	6.7	4.6	24
29	5.1	5.5	5.6	2.5	2	2.8	2.2	2.3	4	4.2	4	4	4.3	4.1	5.2	4.2	4.6	5.5	6.6	7.6	7.5	7.1	9.5	7.8	9.5	4.9	24
30	5.5	6.2	5.1	4.5	4	3.7	2	2.6	2.9	4.1	8.2	4.1	1.9	3.8	3.7	3.9	4	6.4	6.6	5.2	5.8	4.9	4.9	4.7	8.2	4.5	24
31	4.4	4.7	4.4	3.7	2.7	4	4.8	5.2	5.4	5.1	5.2	5.7	3.5	4.9	7.1	6.4	6.7	6	6.4	6	6.5	7.4	6.9	5.3	7.4	5.4	24
HOURLY MAX	20	13	14	18	16	14	7	7	7	9	12	11	9	10	11	13	14	11	11	12	15	19	14	34			
HOURLY AVG	3.3	3.3	3.1	2.7	2.8	3.0	2.6	2.5	2.9	4.2	4.4	2.9	2.6	3.0	3.0	3.0	3.2	3.5	3.7	4.5	3.8	4.3	4.2	4.1			

STATUS FLAG CODES

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

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



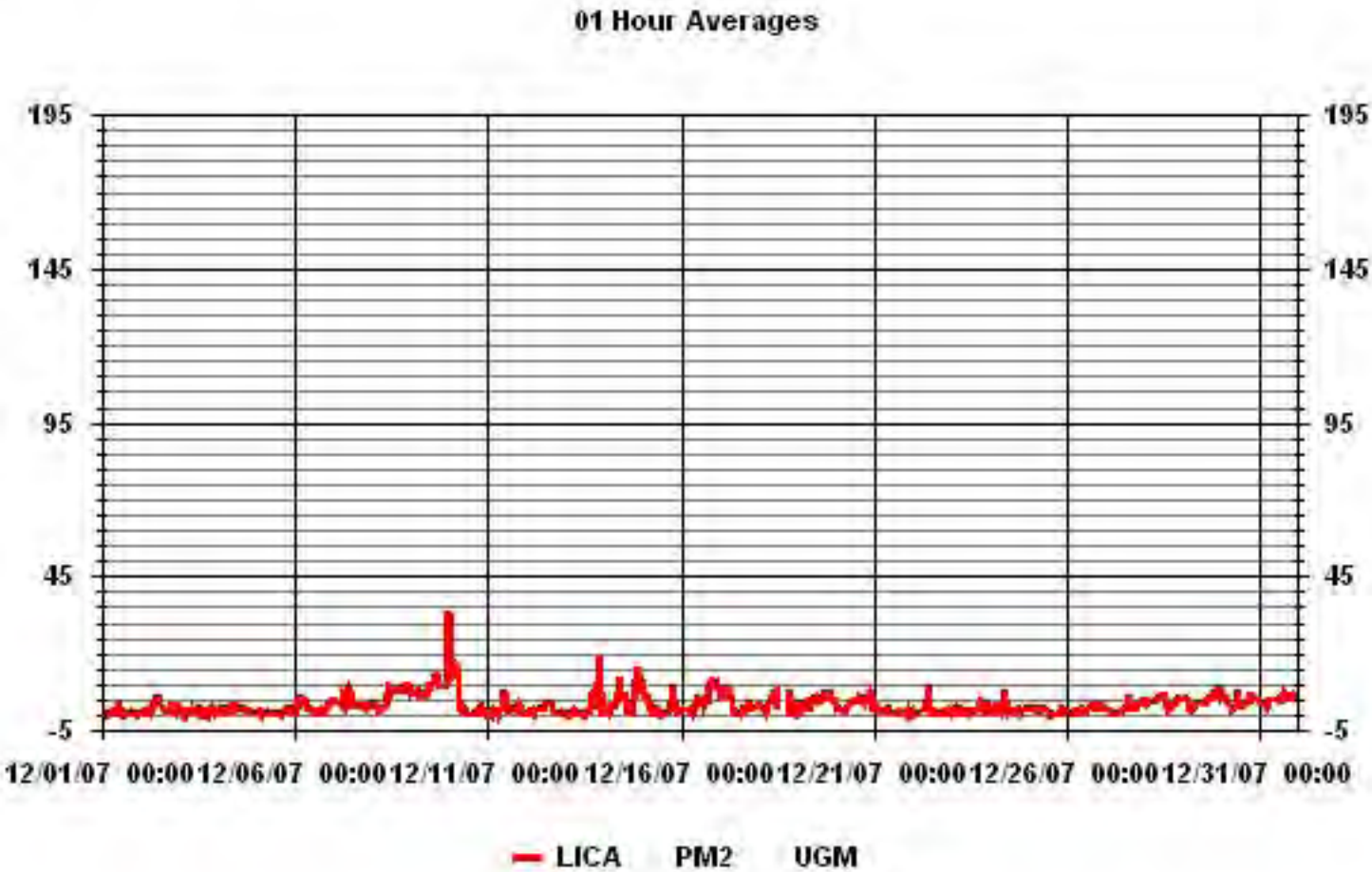
MONTHLY SUMMARY

NUMBER OF 1-HR EXCEEDENCES:	-					
NUMBER OF 24-HR EXCEEDENCES:	0		PROPOSED GUIDELINE			
NUMBER OF NON-ZERO READINGS:	710					
MAXIMUM 1-HR AVERAGE:	33.5	UG/M^3	@ HOUR(S)	0	ON DAY(S)	9
MAXIMUM 24-HR AVERAGE:	9.9	UG/M^3			ON DAY(S)	9

IZS CALIBRATION TIME:	0	HRS	OPERATIONAL TIME:	744	HRS
MONTHLY CALIBRATION TIME:	6	HRS	AMD OPERATION UPTIME:	100.0	%
STANDARD DEVIATION:	3.19		MONTHLY AVERAGE:	3.36	UG/M^3

Maxxam Analytics Inc

MOUNTAIN STANDARD TIME


01 Hour Averages
195
145
95
45
-5
12/01/07 00:00
12/06/07 00:00
12/11/07 00:00
12/16/07 00:00
12/21/07 00:00
12/26/07 00:00
12/31/07 00:00
LICA PM2 UGM

LICA
PM2 / WD Joint Frequency Distribution (Percent)

December 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	.67	.94	1.62	4.74	12.46	11.24	14.36	3.65	2.57	4.74	8.94	16.53	9.07	3.38	2.43	2.43	99.86
<	60.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.13	.00	.00	.00	.00	.13
<	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	.67	.94	1.62	4.74	12.46	11.24	14.36	3.65	2.57	4.74	8.94	16.66	9.07	3.38	2.43	2.43	

Calm : .00 %

Total # Operational Hours : 738

Distribution By Samples

Direction

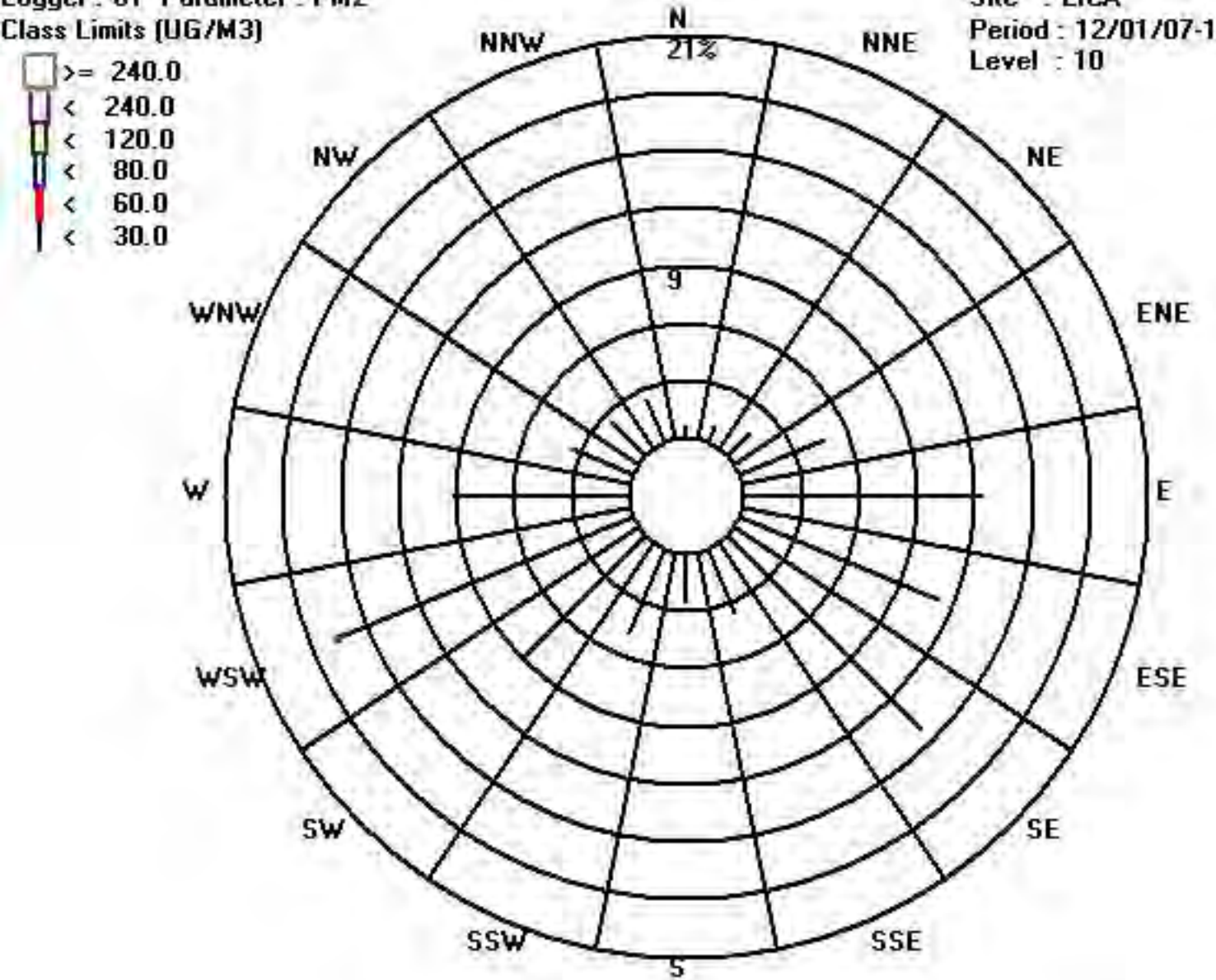
	Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
<	30.0	5	7	12	35	92	83	106	27	19	35	66	122	67	25	18	18	737
<	60.0												1					1
<	80.0																	
<	120.0																	
<	240.0																	
>=	240.0																	
	Totals	5	7	12	35	92	83	106	27	19	35	66	123	67	25	18	18	

Calm : .00 %

Total # Operational Hours : 738

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

Site : LICA
Period : 12/01/07-12/31/07
Level : 10



LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - *COLD LAKE*

DECEMBER 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	3.7	3.2	3.7	2.7	3.6	3.8	3.3	3.4	3.9	7.7	7.5	8.8	3.1	2.7	2.9	2.8	3.6	3.8	4.5	3.4	3.2	2.9	2.9	3.6	8.8	3.9	24
2	4.8	4.1	5	5.3	3.8	4.5	4.8	5.4	8.1	10.8	7	11.1	8.2	7.2	6.9	5	6.6	5.4	6.6	7.1	4.9	5	5.5	3.7	11.1	6.1	24
3	5.6	6.4	4.8	6.9	3.2	5.1	7.6	3.3	7.5	5.6	5.4	4.6	5	9.3	5.5	4	6.5	4.4	3.2	6.1	7.6	5.6	6.2	5.9	9.3	5.6	24
4	5.9	5.1	5.5	4.9	5.9	5.5	4.5	5	6.2	8	5.6	4.5	6.4	5.6	5.5	5.6	4.8	6.8	4.4	3.7	4.2	4.2	3.7	3.7	8	5.2	24
5	4.4	3.3	5	2.9	3.6	4.2	4	4.5	3	4	4	4.2	3.3	3.6	3.7	2.7	4.2	4.3	5.1	5.1	4.3	4.5	5.9	6	6	4.2	24
6	5.1	7.8	6.9	8.5	8.8	8.3	8.4	6.4	6	5.6	5.9	4.2	3.9	4.5	3.6	5.3	4.8	3.6	2.9	4.2	5.7	8.1	7.8	7.3	8.8	6.0	24
7	7.8	7.6	7.3	8.1	7.8	7.8	12.5	12.4	11.5	15.6	11.1	8.5	8.5	6.5	6.4	5.9	6.4	5	6.1	6.3	6.6	6.8	7.2	5.9	15.6	8.2	24
8	6	8.4	8.2	5.9	6.7	6.2	6	6.1	7.3	13.2	19	10.2	10.5	11.3	11.1	11	13.6	13.5	12.1	10.8	11.6	12.6	14.5	12.1	19	10.3	24
9	11.6	12.2	11.1	13.2	12.4	13.2	9.3	11.6	10.4	9.2	11	18.7	12.6	13.6	13.6	15.1	20.6	13.2	12.7	12	11.5	12.1	15.6	61.9	61.9	14.9	24
10	57.5	15.9	17.2	22.6	19.9	18.4	12.7	5.3	4.2	4.7	3.7	3.4	2	2.2	3.2	4.9	3.7	2.9	6.2	6.5	3.9	4.4	6	3.2	57.5	9.8	24
11	3.5	2.9	4	3.1	3.6	17.4	0.6	5.6	7.7	10.2	13.4	9.5	5	4.9	5.3	5.9	6	5.1	5.9	6	5.5	5.3	5	4.8	17.4	6.1	24
12	4.9	6.2	5.6	3.4	2.9	6.4	4.2	4.9	4	4.8	5.5	6.4	5.4	7	5.9	6.6	3.1	4.3	2.8	4	3.6	3.6	2.7	3.3	7	4.6	24
13	3.7	2.2	3.3	4.9	4	7.3	4.4	4.8	4	4	3.7	3.4	2.2	3.3	4	5.1	18.1	18.6	21.1	25.1	5.6	**64.9**	22.6	9.3	64.9	10.4	24
14	6.5	6.6	5.5	5.9	6.8	8.2	6	8.3	9.6	16	16.9	8.3	8.9	11.3	6.5	3.2	4.8	4.8	8.4	18.2	21.5	19.5	18.7	17.4	21.5	10.3	24
15	11.5	10.3	9.3	8.4	6.6	5.8	3.8	3.1	3.4	8	5.7	1.1	4.5	3.2	3.2	3.8	5.1	9.4	7.5	17.4	11.7	4	3.3	4	17.4	6.4	24
16	4.8	4.8	4.5	5.6	4.3	4.3	4.7	3	5.1	7	10	7.5	7.1	8.4	6.7	8.2	8.9	20.8	15.4	15.5	13	13	13.3	12.5	20.8	8.7	24
17	10.1	11.4	9.4	10.8	11.5	13.7	11.1	11.7	3.7	5.1	2.9	2.4	4.3	4.8	5.3	6.1	7.8	6	10.4	8.2	4.3	5.2	7.7	5.1	13.7	7.5	24
18	6.5	5.6	6.2	5.1	5.1	5.1	7	9.9	9.5	14.4	12.5	9.9	**C**	**C**	**C**	**C**	**C**	**C**	13.9	21.3	7	4.4	4.3	6.9	21.3	8.6	24
19	7.5	5.5	4.9	7.6	8.9	9.7	5.4	4.8	10.3	8	11.9	7.5	11	8	7.8	7.2	8.1	13.8	18.8	11.5	11.5	7.9	7.5	7.9	18.8	8.9	24
20	5.6	6.4	4.4	4	4.3	3.8	4.4	7	6.6	6.5	7.6	7.1	7.6	7.8	10.2	8.2	8.2	13.1	7.1	10	8.4	9.6	10	9.9	13.1	7.4	24
21	4.7	5.7	5.3	3.8	3.5	3.2	3.9	3.7	5.6	4.9	3.4	3.2	3	4	4	4	3.2	4.5	5.9	2.9	2.3	5.4	2.9	5.9	5.9	4.1	24
22	3.9	4.3	4.8	4.4	3.7	4.4	6.7	7.5	8.5	14.9	14.5	3.3	6	4.4	4.4	5.5	3.9	3.3	3.1	4.2	4.5	4	4.4	3.6	14.9	5.5	24
23	4.3	4.3	5.7	4.3	3.9	5	11.4	4.3	3.8	5.4	5.3	4.2	5.3	4.9	7.6	4	7.5	7.1	8.4	7.8	4.8	7	4.4	4.7	11.4	5.6	24
24	6.1	3.9	5.4	4.4	7	5.1	7.3	5	5.3	10.9	11.5	3.4	3.9	3.7	3.8	4.7	4.4	5.5	5.2	3.5	3	4.7	5.5	4.8	11.5	5.3	24
25	4.2	5.9	4.5	5.7	5.4	3.8	6.1	4.7	4.2	5.4	5.4	4.9	2.7	2.6	3.8	2.7	2.4	2.3	2.7	2.6	4.8	4.5	3.5	3.7	6.1	4.1	24
26	3.6	2.9	3.8	2.7	3.4	4.4	3.7	4	5.3	5	4.4	4	4.4	5.7	4.9	4.9	5.8	4.5	4.4	5.7	4.5	4.8	5.9	4.5	5.9	4.5	24
27	4.4	5.5	4.4	3.2	2.1	2.6	4	4	3	4.3	4	3.9	4	6.4	10.6	6.2	4.3	4.4	5.1	5	5.7	6.7	7.3	7	10.6	4.9	24
28	7.2	8.3	6.5	6.1	6.8	6.2	6.2	7.4	8.1	8.2	8.7	9.4	10.5	8.7	5.2	5.8	6.1	4.9	5.6	7.8	7.3	7.1	7.7	7.8	10.5	7.2	24
29	7.9	8.2	7.6	7.2	4.8	4.9	4.7	4.4	6.2	6.4	7	6.2	7.1	8.4	9.2	7.1	6.8	10.4	10.1	10.5	10.4	11.4	12.2	10.2	12.2	7.9	24
30	8.8	8.9	8.9	7	6.9	7	5.6	**6.1**	6.1	9.4	12	7.6	5.4	6.4	5.6	6.2	6.1	12.1	10.3	7.5	8	7.5	7.8	7.1	12.1	7.7	24
31	7.2	7.1	6.7	5.9	4.9	6.5	7.5	8	9.1	7.7	8	9.8	10.6	7.5	11.3	10.5	10.8	9.6	9.4	9.1	11.8	14.5	12.8	8.1	14.5	8.9	24
HOURLY MAX	58	16	17	23	20	18	13	12	12	16	19	19	13	14	14	15	21	21	21	25	22	65	23	62			
HOURLY AVG	7.7	6.5	6.3	6.3	6.0	6.8	6.2	6.0	6.4	8.1	8.2	6.5	6.1	6.3	6.3	5.9	6.9	7.6	7.9	8.7	7.2	9.1	7.9	8.4			

STATUS FLAG CODES

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

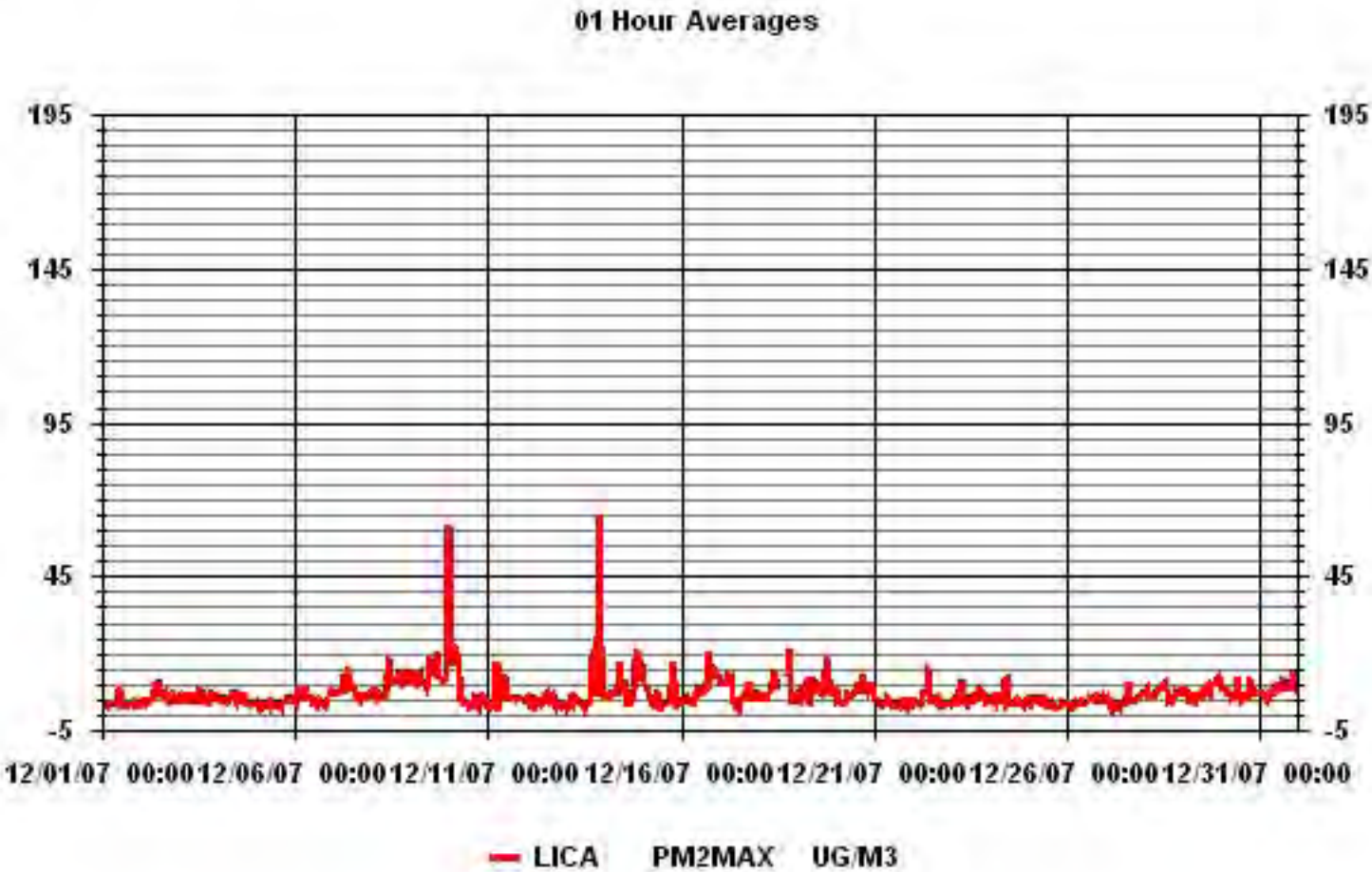
MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	738					
MAXIMUM INSTANTANEOUS VALUE:	64.9	UG/M^3	@ HOUR(S)	22	ON DAY(S)	13

IZS CALIBRATION TIME:	0	HRS	OPERATIONAL TIME:	744	HRS
MONTHLY CALIBRATION TIME:	6	HRS			
STANDARD DEVIATION:	5.06				

MOUNTAIN STANDARD TIME

Maxxam Analytics Inc


01 Hour Averages
195
145
95
45
-5
12/01/07 00:00
12/06/07 00:00
12/11/07 00:00
12/16/07 00:00
12/21/07 00:00
12/26/07 00:00
12/31/07 00:00
LICA PM2MAX UG/M3

NO_2

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - *COLD LAKE*

DECEMBER 2007

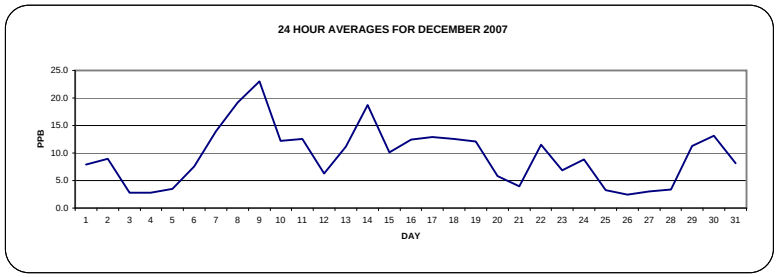
NITROGEN DIOXIDE hourly averages in ppb

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	2	3	2	2	3	12	12	12	9	7	6	9	**IZS**	13	11	14	13	11	12	14	11	14	7.9	24
2	12	13	12	10	11	13	11	16	15	8	13	14	5	4	**IZS**	8	8	8	5	6	5	3	3	2	16	8.9	24
3	2	2	2	2	2	3	3	6	4	3	3	3	3	**IZS**	3	4	3	3	3	2	3	2	2	2	6	2.8	24
4	2	2	2	2	2	4	4	5	5	3	3	2	**IZS**	2	2	4	3	6	3	2	2	2	2	1	6	2.8	24
5	1	1	2	2	3	3	4	4	4	3	2	**IZS**	1	1	2	3	5	5	5	5	6	6	6	6	6	3.5	24
6	8	8	10	14	9	8	9	7	5	4	**IZS**	2	2	1	2	5	5	6	8	8	11	11	16	15	16	7.6	24
7	11	8	8	7	8	14	19	18	23	**IZS**	9	6	5	5	6	10	13	18	26	25	20	20	21	21	26	14.0	24
8	22	24	22	19	19	18	17	17	**IZS**	15	20	15	11	12	15	19	20	18	18	19	23	26	26	25	26	19.1	24
9	30	30	29	29	29	30	25	**IZS**	23	18	17	16	15	16	18	19	23	20	21	22	22	22	27	28	30	**23.0**	24
10	25	26	27	24	21	17	**IZS**	11	6	5	3	3	3	2	2	8	**C**	**C**	**IZS**	13	13	13	12	10	27	12.2	24
11	8	9	6	6	6	**IZS**	11	22	21	26	22	9	9	11	11	16	15	13	16	11	12	13	9	6	26	12.5	24
12	5	6	5	5	**IZS**	7	8	15	17	13	11	10	9	8	7	7	3	2	2	1	1	1	1	1	17	6.3	24
13	1	2	1	**IZS**	2	4	5	11	13	9	12	7	5	9	12	14	13	11	13	20	25	27	25	16	27	11.2	24
14	16	14	**IZS**	9	11	15	12	16	20	15	13	13	14	12	12	16	25	22	25	30	30	31	30	29	31	18.7	24
15	28	**IZS**	27	25	23	17	11	14	16	12	7	3	3	4	5	6	7	4	5	3	3	3	4	4	28	10.2	24
16	**IZS**	5	4	4	3	3	2	5	11	8	13	5	6	9	11	14	23	27	28	25	23	22	22	**IZS**	28	12.4	24
17	21	23	22	23	27	**32**	29	17	14	8	7	6	6	5	7	11	7	6	5	6	5	5	**IZS**	4	32	12.9	24
18	4	5	6	4	7	8	24	25	**C**	**C**	**C**	**C**	**C**	**C**	**IZS**	21	23	25	23	12	7	**IZS**	4	3	25	12.6	24
19	3	3	3	3	3	3	4	9	10	8	12	16	13	12	13	16	21	20	24	25	**IZS**	24	23	9	25	12.0	24
20	6	6	6	5	5	5	5	6	9	7	6	5	5	6	6	4	6	5	6	**IZS**	7	8	8	3	9	5.9	24
21	3	2	2	2	2	2	2	2	3	2	2	1	1	1	1	2	4	8	**IZS**	7	10	10	10	13	13	4.0	24
22	9	10	8	9	9	12	21	21	22	27	19	11	7	9	13	12	14	**IZS**	8	8	6	4	3	3	27	11.5	24
23	4	5	5	2	2	2	2	2	3	4	3	3	4	5	7	10	**IZS**	13	19	12	11	16	11	12	19	6.8	24
24	11	11	10	9	11	14	13	17	19	14	14	9	7	7	6	**IZS**	7	4	3	3	4	3	3	4	19	8.8	24
25	4	4	3	3	4	7	6	7	4	3	2	3	1	2	**IZS**	3	2	3	3	2	2	2	2	3	7	3.3	24
26	3	3	3	3	3	2	2	3	2	2	2	2	2	**IZS**	3	3	2	2	2	3	2	2	2	2	3	2.4	24
27	2	3	3	2	2	2	3	2	2	4	3	3	**IZS**	4	4	4	4	4	4	3	2	2	3	5	5	3.0	24
28	6	3	2	1	2	2	2	2	3	2	2	**IZS**	3	3	3	3	3	5	5	5	5	5	5	5	6	3.3	24
29	5	5	5	5	5	4	5	5	5	5	**IZS**	5	5	6	10	17	20	21	21	21	21	21	21	21	21	11.3	24
30	20	20	21	20	18	17	7	10	9	**IZS**	14	6	6	6	6	10	15	16	15	13	14	16	12	10	21	13.1	24
31	11	7	7	7	10	10	11	12	**IZS**	6	**IZS**	6	5	5	7	8	9	7	8	8	8	9	10	8	12	8.1	24
HOURLY MAX	30	30	29	29	29	32	29	25	23	27	22	16	15	16	18	21	25	27	28	30	30	31	30	29			
HOURLY AVG	9.5	8.7	8.8	8.6	8.7	9.3	9.3	10.3	10.7	8.8	9.1	6.9	5.8	6.2	7.3	9.6	10.9	10.8	11.7	11.1	10.5	11.4	11.2	9.4			

STATUS FLAG CODES

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

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



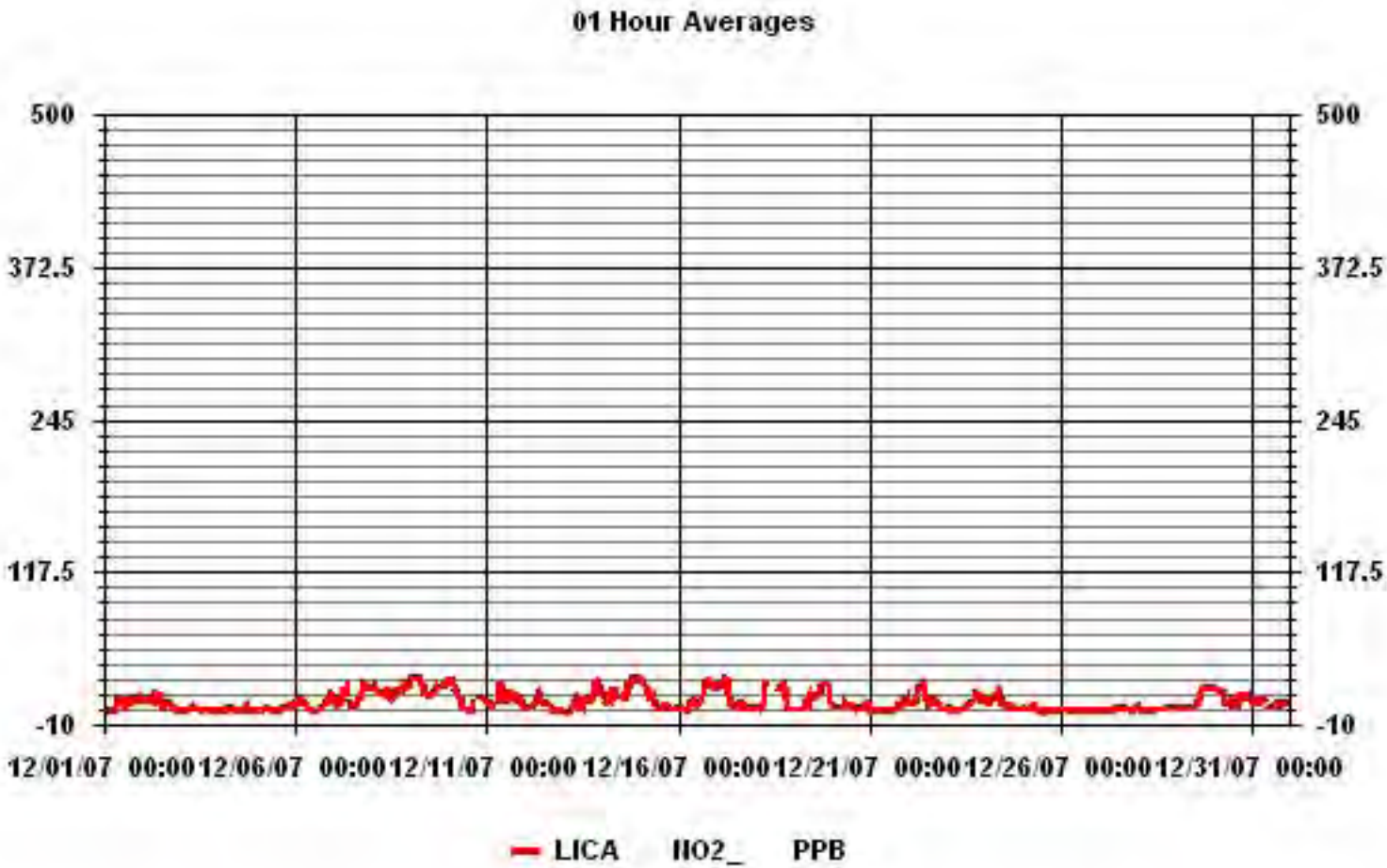
MONTHLY SUMMARY

NUMBER OF 1-HR EXCEEDENCES:	0					
NUMBER OF 24-HR EXCEEDENCES:	0					
NUMBER OF NON-ZERO READINGS:	701					
MAXIMUM 1-HR AVERAGE:	32	PPB	@ HOUR(S)	6	ON DAY(S)	17
MAXIMUM 24-HR AVERAGE:	23.0	PPB			ON DAY(S)	9

IZS CALIBRATION TIME:	35	HRS	OPERATIONAL TIME:	744	HRS
MONTHLY CALIBRATION TIME:	8	HRS	AMD OPERATION UPTIME:	100.0	%
STANDARD DEVIATION:	7.48		MONTHLY AVERAGE:	9.38	PPB

Maxxam Analytics Inc

MOUNTAIN STANDARD TIME


01 Hour Averages
500
372.5
245
117.5
-10
12/01/07 00:00
12/06/07 00:00
12/11/07 00:00
12/16/07 00:00
12/21/07 00:00
12/26/07 00:00
12/31/07 00:00
LICA NO2_ PPB

LICA
NO2_ / WD Joint Frequency Distribution (Percent)

December 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	.71	1.42	1.42	4.85	12.55	10.84	14.55	3.56	2.56	4.42	9.12	16.26	9.27	3.42	2.42	2.56	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	.71	1.42	1.42	4.85	12.55	10.84	14.55	3.56	2.56	4.42	9.12	16.26	9.27	3.42	2.42	2.56	

Calm : .00 %

Total # Operational Hours : 701

Distribution By Samples

Direction

Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
< 50	5	10	10	34	88	76	102	25	18	31	64	114	65	24	17	18	701
< 110																	
< 210																	
>= 210																	
Totals	5	10	10	34	88	76	102	25	18	31	64	114	65	24	17	18	

Calm : .00 %

Total # Operational Hours : 701

Logger : 01 Parameter : NO2_

Class Limits (PPB)

>= 210

< 210

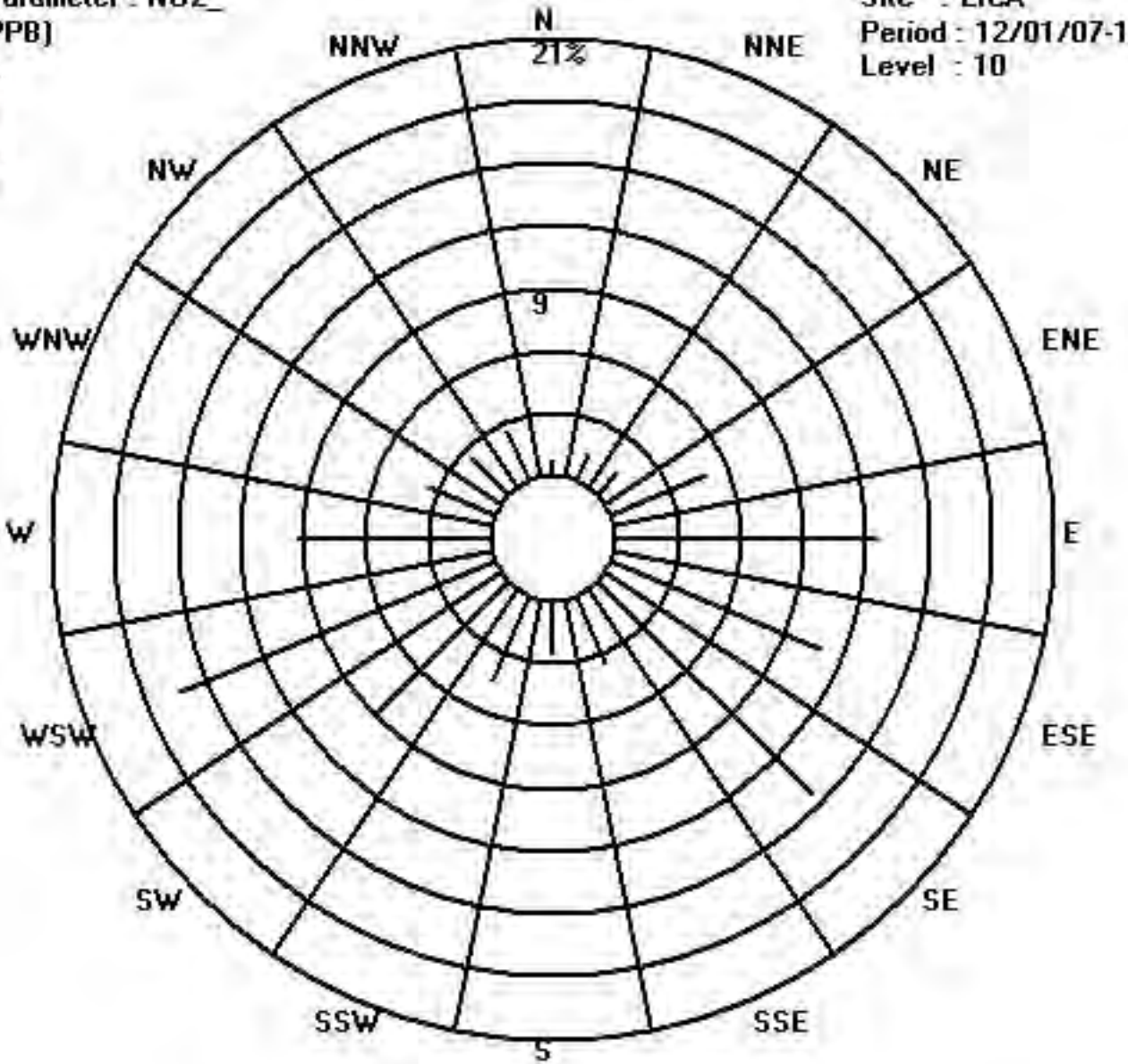
< 110

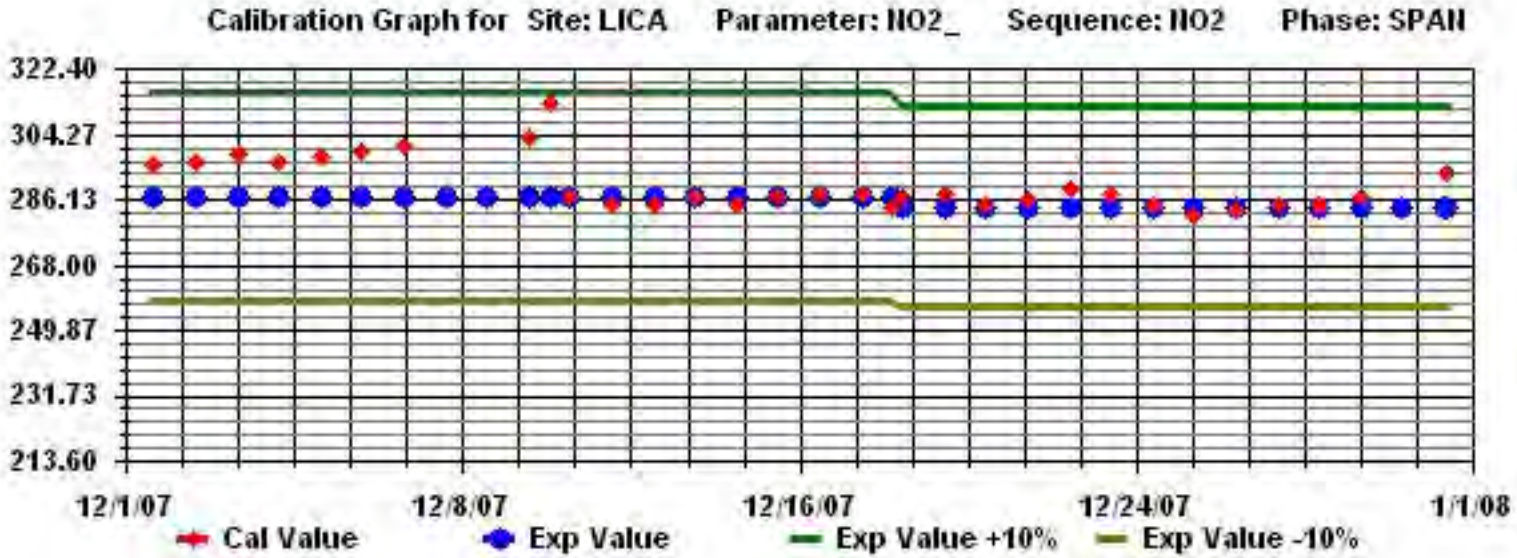
< 50

Site : LICA

Period : 12/01/07-12/31/07

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
12/1/07
12/8/07
12/16/07
12/24/07
1/1/08
Cal Value
Exp Value
Exp Value +10%
Exp Value -10%

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - *COLD LAKE*

DECEMBER 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	1	2	5	6	5	3	5	7	22	20	14	11	9	14	34	**IZS**	16	13	16	15	14	14	16	13	34	12.0	24
2	14	20	18	12	14	23	12	20	18	12	16	21	6	8	**IZS**	11	19	18	10	9	7	4	4	3	23	13.0	24
3	4	4	3	3	7	6	7	12	10	5	5	5	6	**IZS**	5	7	4	5	6	9	4	3	3	3	12	5.5	24
4	3	3	4	3	6	18	8	11	9	5	5	4	**IZS**	5	7	10	5	10	6	4	5	4	4	1	18	6.1	24
5	1	1	3	3	4	4	5	6	6	3	3	**IZS**	2	9	10	6	6	6	8	7	7	8	7	7	10	5.3	24
6	11	8	20	25	14	12	12	9	7	6	**IZS**	3	3	2	3	10	7	8	10	14	17	15	20	19	25	11.1	24
7	16	9	9	9	11	20	23	33	36	**IZS**	17	10	7	7	8	18	18	28	41	31	24	23	24	25	41	19.4	24
8	25	30	24	21	22	26	19	21	**IZS**	21	30	24	12	13	18	24	26	19	18	21	25	29	30	29	30	22.9	24
9	33	35	33	39	33	41	31	**IZS**	27	22	24	24	17	19	23	25	29	22	22	24	24	23	28	29	41	27.3	24
10	27	27	27	27	24	20	**IZS**	18	8	6	4	4	5	3	5	20	**C**	**C**	**IZS**	15	30	17	19	11	30	15.9	24
11	10	14	10	8	7	**IZS**	24	51	25	39	28	39	17	22	29	27	23	20	22	13	14	26	11	10	51	21.3	24
12	6	7	6	7	**IZS**	17	10	24	23	22	22	16	16	11	9	9	12	2	2	2	1	1	1	1	24	9.9	24
13	3	4	4	**IZS**	4	11	9	22	22	21	26	27	17	23	21	28	22	23	19	28	29	33	34	30	34	20.0	24
14	31	23	**IZS**	15	18	22	17	21	23	17	16	16	17	15	16	27	30	30	31	37	37	35	32	32	37	24.3	24
15	29	**IZS**	29	26	26	24	17	20	22	18	11	4	7	7	8	9	11	9	7	7	4	6	5	8	29	13.7	24
16	**IZS**	7	7	8	6	5	3	16	29	18	22	8	8	11	13	17	35	35	40	32	29	25	26	**IZS**	40	18.2	24
17	24	26	31	31	40	43	**53**	44	24	11	9	9	11	13	11	18	12	8	7	9	8	7	**IZS**	5	53	19.7	24
18	6	7	9	9	23	23	39	33	**C**	**C**	**C**	**C**	**C**	**C**	**IZS**	24	27	27	28	18	9	**IZS**	5	4	39	18.2	24
19	3	4	4	4	4	7	6	16	27	19	19	19	17	15	14	21	34	24	26	28	**IZS**	25	25	16	34	16.4	24
20	8	7	7	6	6	7	7	10	16	25	9	12	7	14	12	7	7	6	7	**IZS**	9	9	9	7	25	9.3	24
21	3	3	2	3	2	2	3	2	4	4	3	2	3	2	3	4	7	12	**IZS**	10	14	14	13	24	24	6.0	24
22	14	16	12	13	12	21	24	25	36	42	29	16	13	13	20	19	20	**IZS**	11	11	8	8	7	4	42	17.1	24
23	6	7	9	3	3	17	3	4	6	6	4	4	4	10	14	32	**IZS**	26	25	19	18	24	16	13	32	11.9	24
24	13	16	11	13	14	18	16	18	24	17	17	12	8	8	8	**IZS**	9	6	4	4	5	5	6	4	24	11.1	24
25	5	5	4	4	6	11	12	11	8	5	4	5	2	2	**IZS**	4	4	7	6	4	3	2	4	3	12	5.3	24
26	3	4	5	4	4	3	3	4	4	6	4	9	4	**IZS**	7	11	5	7	6	5	5	3	5	7	11	5.1	24
27	3	4	5	3	4	4	5	7	11	28	9	5	**IZS**	7	10	6	16	9	10	12	3	4	12	9	28	8.1	24
28	8	5	3	3	3	3	3	4	4	3	3	**IZS**	5	3	5	4	6	8	6	6	6	6	5	5	8	4.7	24
29	6	6	6	6	6	6	6	6	7	6	**IZS**	8	6	12	26	26	23	24	23	24	25	24	24	22	26	14.3	24
30	24	22	25	23	21	20	14	14	13	**IZS**	18	10	7	7	7	14	16	21	19	15	17	18	16	11	25	16.2	24
31	13	11	9	8	12	11	12	14	**IZS**	7	**IZS**	7	5	7	9	9	10	9	9	9	9	12	14	9	14	9.8	24
HOURLY MAX	33	35	33	39	40	43	53	51	36	42	30	39	17	23	34	32	35	35	41	37	37	35	34	32			
HOURLY AVG	11.8	11.2	11.5	11.5	12.0	14.9	13.6	16.8	16.8	14.8	13.7	11.9	8.6	10.1	12.7	15.4	15.8	15.2	15.3	14.7	13.7	14.2	14.2	12.1			

STATUS FLAG CODES

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

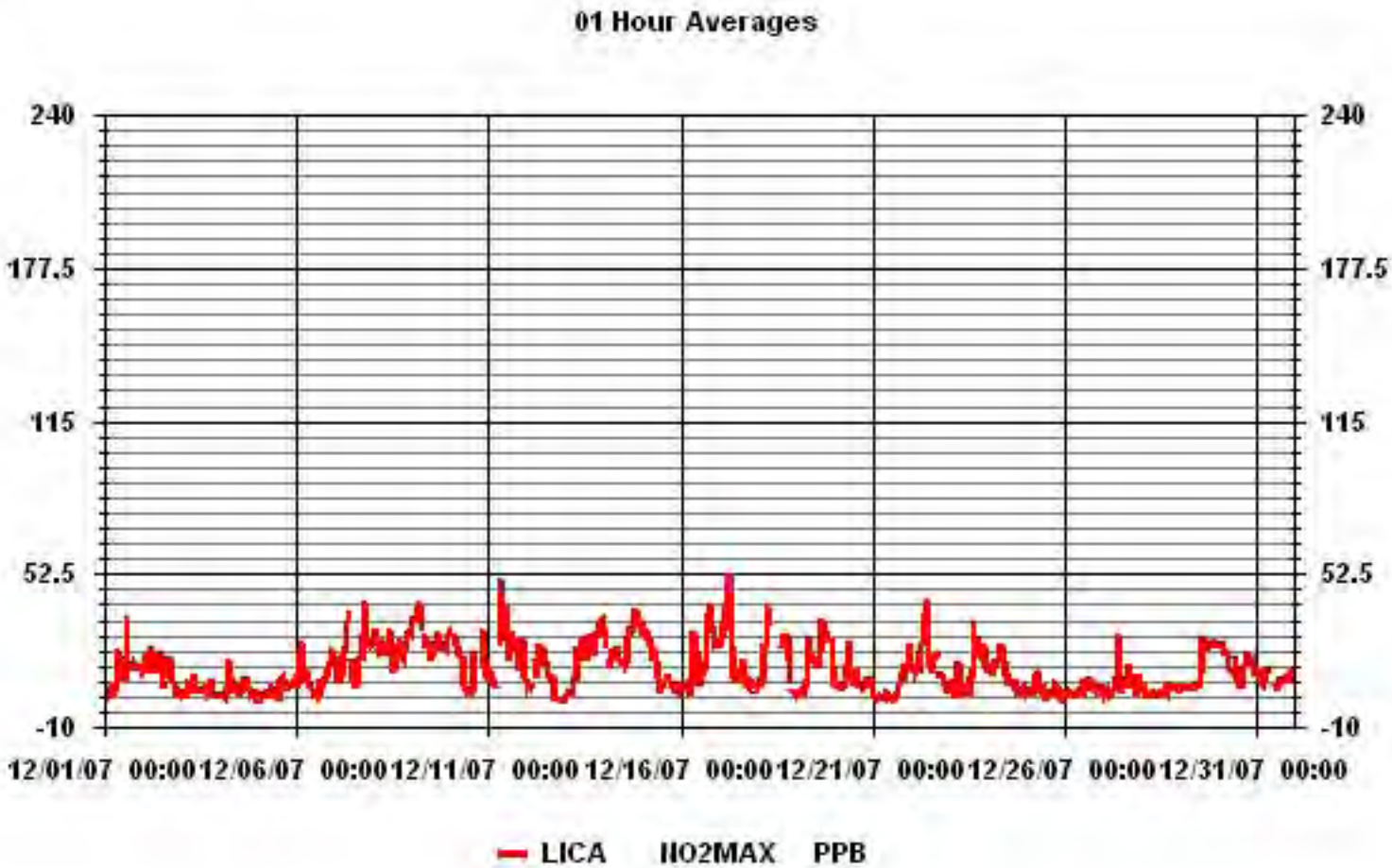
MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	701					
MAXIMUM INSTANTANEOUS VALUE:	53	PPB	@ HOUR(S)	7	ON DAY(S)	17

IZS CALIBRATION TIME:	35	HRS	OPERATIONAL TIME:	744	HRS
MONTHLY CALIBRATION TIME:	8	HRS			
STANDARD DEVIATION:	9.64				

MOUNTAIN STANDARD TIME

Maxxam Analytics Inc


01 Hour Averages
240
177.5
115
52.5
-10
12/01/07 00:00
12/06/07 00:00
12/11/07 00:00
12/16/07 00:00
12/21/07 00:00
12/26/07 00:00
12/31/07 00:00
LICA NO2MAX PPB

NO

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - *COLD LAKE*

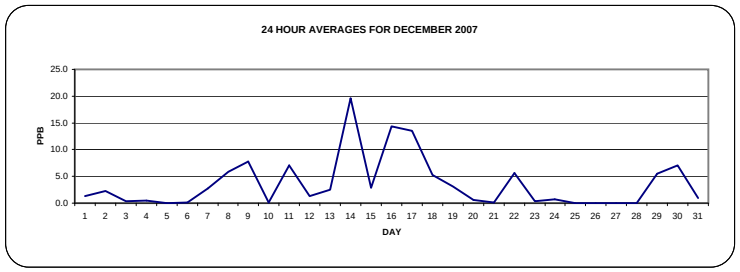
DECEMBER 2007

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	0	0	1	4	6	6	4	3	6	IZS	0	0	0	0	0	0	0	0	6	1.3	24
2	0	0	0	0	0	0	0	1	5	6	15	16	2	2	IZS	2	1	1	0	1	0	0	0	0	16	2.3	24
3	0	0	0	0	1	1	1	2	1	0	0	1	1	IZS	0	1	0	0	0	0	0	0	0	0	2	0.4	24
4	0	0	0	0	0	2	1	1	1	1	1	1	IZS	1	1	1	0	0	0	0	0	0	0	0	2	0.5	24
5	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	0.0	24
6	0	0	0	1	0	0	0	0	0	0	IZS	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0.1	24
7	0	0	0	0	0	0	0	2	10	IZS	5	3	2	2	1	1	0	0	8	12	1	2	7	6	12	2.7	24
8	6	9	8	4	5	2	2	3	IZS	21	36	16	7	7	6	4	0	0	0	0	0	0	0	0	36	5.9	24
9	3	7	13	17	19	19	10	IZS	16	15	11	13	10	8	7	3	1	0	0	0	0	0	2	5	19	7.8	24
10	0	1	1	0	0	0	IZS	0	0	0	0	0	0	0	0	0	C	C	IZS	0	0	0	0	0	1	0.1	24
11	0	0	0	0	0	IZS	2	31	21	39	36	7	7	7	5	5	1	0	1	0	0	0	0	0	39	7.0	24
12	0	0	0	0	IZS	1	0	5	5	4	6	3	3	2	1	0	0	0	0	0	0	0	0	0	6	1.3	24
13	0	0	0	IZS	0	0	0	1	2	4	6	4	2	5	5	3	2	1	0	1	3	11	7	1	11	2.5	24
14	2	1	IZS	0	0	2	0	0	3	8	12	11	11	8	4	3	18	15	48	63	**69**	63	58	52	69	**19.6**	24
15	27	IZS	13	6	6	2	1	1	2	2	2	1	1	1	1	0	0	0	0	0	0	0	0	0	27	2.9	24
16	IZS	0	0	0	0	0	0	0	1	2	9	2	4	5	3	2	13	34	54	54	46	41	47	IZS	54	14.4	24
17	34	30	23	30	51	67	50	10	2	1	2	2	2	1	2	2	1	0	0	0	0	0	IZS	0	67	13.5	24
18	0	0	0	0	0	0	19	30	C	C	C	C	C	C	IZS	10	6	8	9	1	1	IZS	0	0	30	5.3	24
19	0	0	0	0	0	0	0	1	1	1	4	10	6	5	4	3	4	1	8	14	IZS	4	6	0	14	3.1	24
20	0	0	0	0	0	0	0	1	2	3	2	2	1	2	1	0	0	0	0	IZS	0	0	0	0	3	0.6	24
21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	2	2	0.1	24
22	0	0	0	0	0	1	9	9	11	48	22	8	5	5	5	3	1	IZS	1	0	0	0	0	0	48	5.6	24
23	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	IZS	1	1	0	0	1	0	0	1	0.3	24
24	0	0	0	0	0	0	0	0	3	3	5	2	1	1	1	IZS	0	0	0	0	0	0	0	0	5	0.7	24
25	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
26	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
27	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
28	0	0	0	0	0	0	0	0	0	0	0	IZS	1	0	0	0	0	0	0	0	0	0	0	0	1	0.0	24
29	0	0	0	0	0	0	0	0	0	0	IZS	2	2	3	5	5	2	3	6	12	17	17	27	26	27	5.5	24
30	16	18	22	23	11	12	1	1	1	IZS	23	7	8	6	3	4	3	1	1	0	0	1	0	0	23	7.0	24
31	0	0	0	0	0	0	0	0	IZS	1	IZS	4	4	5	4	2	0	0	0	0	0	0	0	0	5	0.9	24
HOURLY MAX	34	30	23	30	51	67	50	31	21	48	36	16	11	8	7	10	18	34	54	63	69	63	58	52			
HOURLY AVG	2.9	2.2	2.7	2.7	3.1	3.6	3.2	3.3	3.1	5.8	7.5	4.4	3.0	2.9	2.4	1.9	1.8	2.2	4.7	5.3	4.6	4.7	5.1	3.1			

STATUS FLAG CODES

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



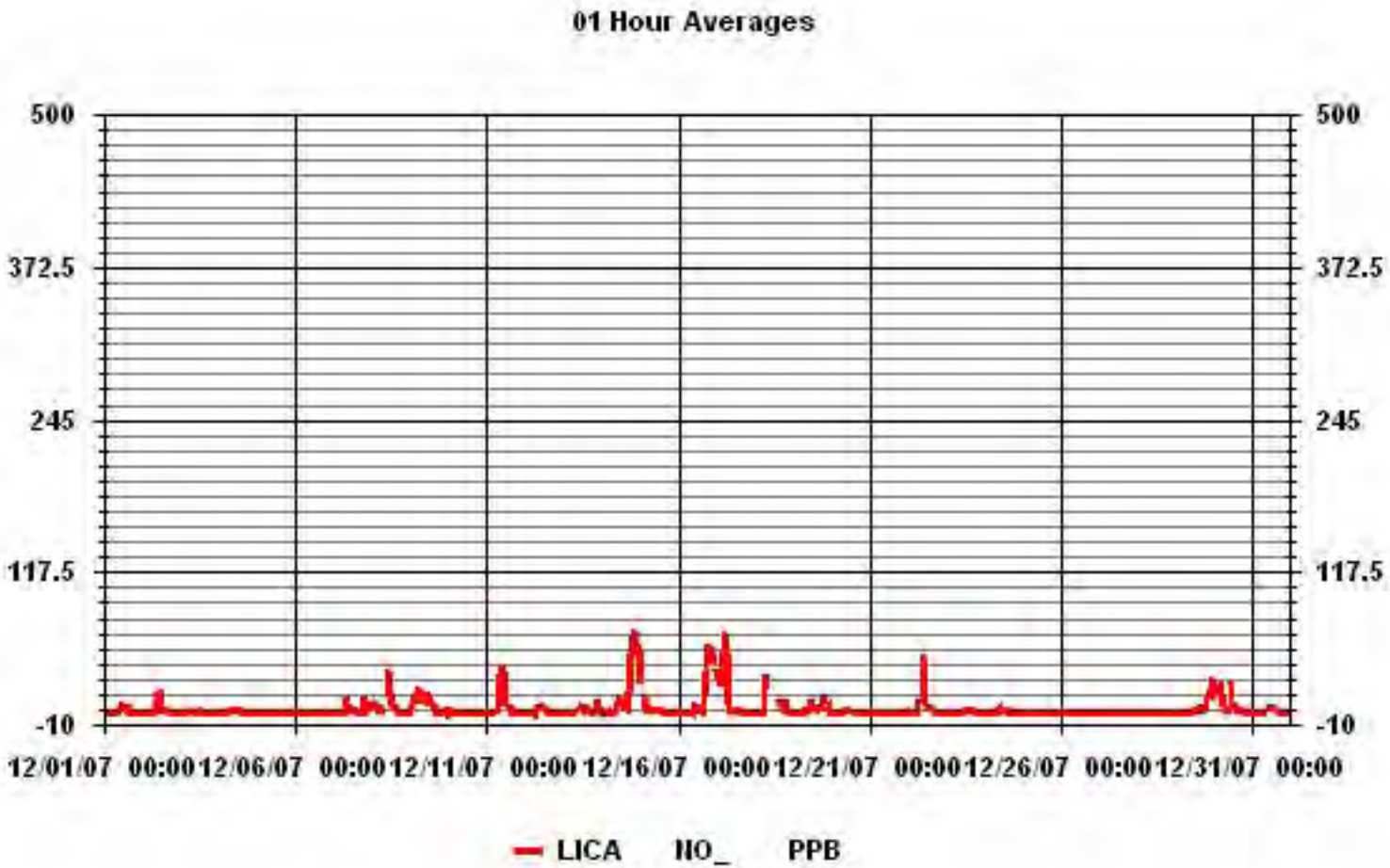
MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	288					
MAXIMUM 1-HR AVERAGE:	69	PPB	@ HOUR(S)	21	ON DAY(S)	14
MAXIMUM 24-HR AVERAGE:	19.6	PPB			ON DAY(S)	14

IZS CALIBRATION TIME:	35	HRS	OPERATIONAL TIME:	744	HRS
MONTHLY CALIBRATION TIME:	8	HRS	AMD OPERATION UPTIME:	100.0	%
STANDARD DEVIATION:	9.39		MONTHLY AVERAGE:	3.58	PPB

MOUNTAIN STANDARD TIME

Maxxam Analytics Inc


01 Hour Averages
500
372.5
245
117.5
-10
12/01/07 00:00
12/06/07 00:00
12/11/07 00:00
12/16/07 00:00
12/21/07 00:00
12/26/07 00:00
12/31/07 00:00
LICA NO_ PPB

LICA
NO_ / WD Joint Frequency Distribution (Percent)

December 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	.71	1.42	1.28	4.70	12.41	10.55	14.40	3.56	2.56	4.27	8.98	16.26	9.27	3.42	2.28	2.42	98.57
< 110	.00	.00	.14	.14	.14	.28	.14	.00	.00	.14	.14	.00	.00	.00	.14	.14	1.42
< 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	.71	1.42	1.42	4.85	12.55	10.84	14.55	3.56	2.56	4.42	9.12	16.26	9.27	3.42	2.42	2.56	

Calm : .00 %

Total # Operational Hours : 701

Distribution By Samples

Direction

Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
< 50	5	10	9	33	87	74	101	25	18	30	63	114	65	24	16	17	691
< 110			1	1	1	2	1			1	1				1	1	10
< 210																	
>= 210																	
Totals	5	10	10	34	88	76	102	25	18	31	64	114	65	24	17	18	

Calm : .00 %

Total # Operational Hours : 701

Logger : 01 Parameter : NO_

Class Limits (PPB)

>= 210

< 210

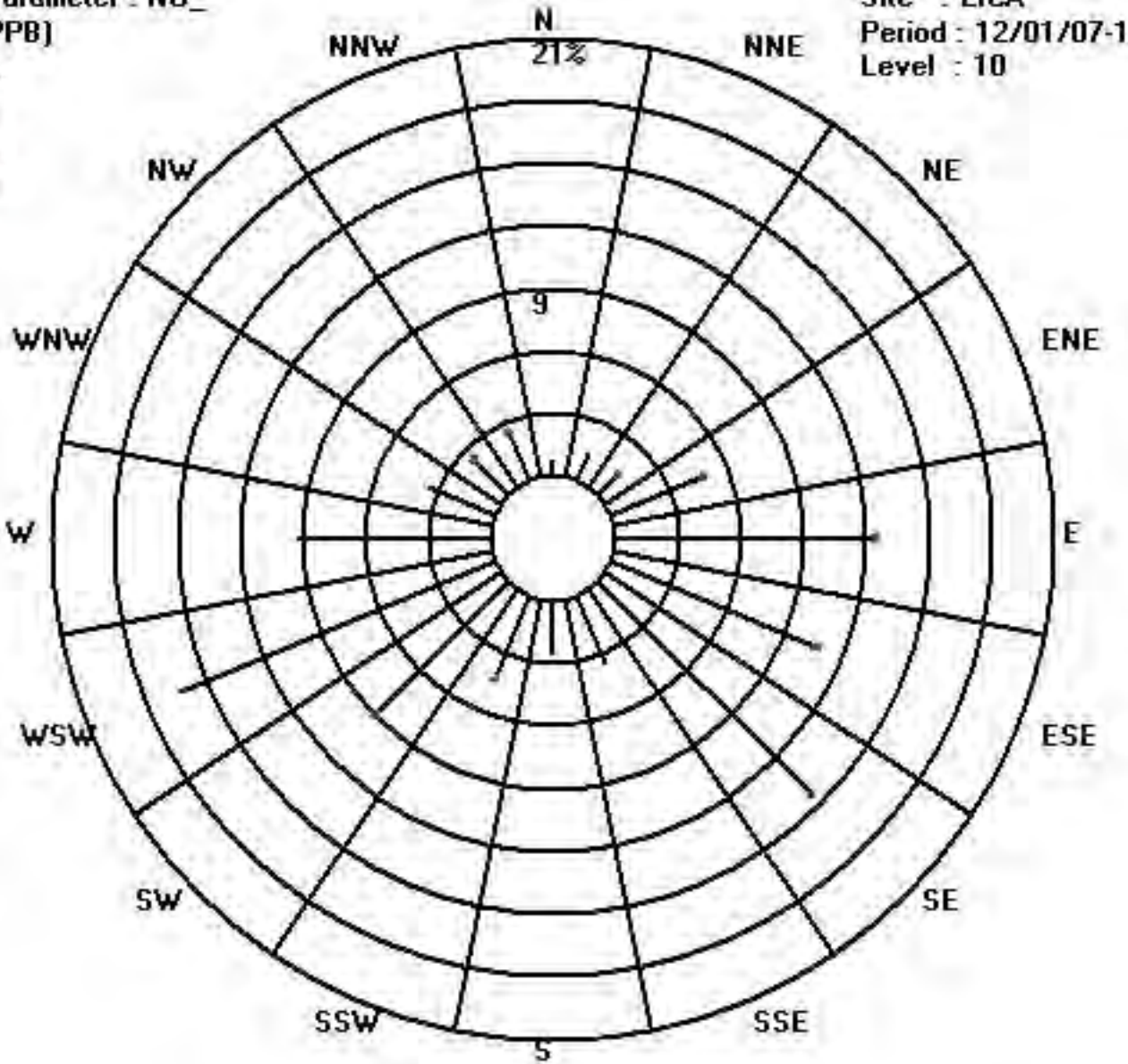
< 110

< 50

Site : LICA

Period : 12/01/07-12/31/07

Level : 10



LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - *COLD LAKE*

DECEMBER 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	0	0	0	0	0	0	0	0	5	9	7	8	5	10	28	**IZS**	7	0	0	0	0	0	0	0	28	3.4	24
2	0	7	1	0	1	3	1	6	8	11	21	26	5	5	**IZS**	14	9	14	4	6	1	2	1	0	26	6.3	24
3	1	1	1	1	4	4	5	6	9	1	1	2	2	**IZS**	1	3	2	1	2	1	1	1	0	1	9	2.2	24
4	1	0	0	1	1	16	5	4	5	1	5	3	**IZS**	3	28	27	2	7	3	2	3	0	0	0	28	5.1	24
5	0	0	0	0	0	0	0	0	0	0	0	**IZS**	0	13	6	1	0	0	0	0	0	0	0	0	13	0.9	24
6	0	0	4	9	0	0	0	0	0	0	**IZS**	0	0	0	0	5	1	0	0	0	0	0	1	2	9	1.0	24
7	0	0	0	1	2	6	2	24	31	**IZS**	20	4	3	12	4	9	5	7	37	35	5	6	19	15	37	10.7	24
8	15	17	14	7	11	8	3	6	**IZS**	38	68	38	8	9	11	11	3	1	0	0	0	2	1	0	68	11.8	24
9	8	23	19	33	32	49	18	**IZS**	28	18	33	30	13	13	14	13	7	16	0	1	1	0	5	7	49	16.6	24
10	2	2	2	1	1	0	**IZS**	0	0	0	0	0	1	0	0	8	**C**	**C**	**IZS**	0	11	1	2	0	11	1.6	24
11	0	0	0	0	0	**IZS**	17	**122**	40	68	51	46	18	20	32	14	10	2	6	2	1	3	5	0	122	19.9	24
12	0	2	0	0	**IZS**	18	1	40	13	12	29	7	6	3	2	1	0	0	0	0	0	0	0	0	40	5.8	24
13	0	0	0	**IZS**	0	19	0	3	5	24	19	22	13	22	15	22	13	7	2	6	13	23	15	12	24	11.1	24
14	18	9	**IZS**	1	5	10	0	1	6	14	15	16	18	12	9	15	39	34	75	79	85	76	67	72	85	29.4	24
15	37	**IZS**	20	14	15	6	2	4	19	5	4	11	3	3	6	2	2	3	1	5	1	2	0	1	37	7.2	24
16	**IZS**	0	0	0	0	0	0	1	17	5	21	6	5	6	4	8	39	54	88	83	63	57	67	**IZS**	88	23.8	24
17	53	34	29	48	72	103	86	68	6	2	4	6	4	5	4	9	14	1	1	3	2	1	**IZS**	0	103	24.1	24
18	0	1	0	1	5	4	46	64	**C**	**C**	**C**	**C**	**C**	**C**	**IZS**	17	20	24	50	3	3	**IZS**	0	0	64	14.9	24
19	0	0	0	0	0	12	4	13	16	4	7	13	11	7	6	5	17	8	16	24	**IZS**	8	9	3	24	8.0	24
20	0	1	1	1	1	1	1	11	15	62	5	7	6	17	5	4	0	0	0	**IZS**	0	0	0	0	62	6.0	24
21	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	2	0	1	**IZS**	2	1	0	5	10	10	1.0	24
22	1	4	0	1	4	17	17	18	30	103	65	15	8	9	11	6	8	**IZS**	2	1	1	1	1	0	103	14.0	24
23	1	1	1	0	0	2	0	0	4	4	0	2	2	2	5	17	**IZS**	21	4	7	2	7	6	1	21	3.9	24
24	1	1	0	4	0	3	0	1	11	5	8	4	2	2	1	**IZS**	4	0	0	0	0	0	1	0	11	2.1	24
25	0	0	0	0	0	2	3	0	0	4	1	2	0	0	**IZS**	1	0	8	2	0	0	0	0	0	8	1.0	24
26	0	0	0	0	0	0	0	0	2	2	0	1	4	**IZS**	4	7	1	5	20	1	1	0	1	1	20	2.2	24
27	0	0	0	0	0	1	1	1	6	14	2	1	**IZS**	4	5	2	8	1	2	16	0	0	23	1	23	3.8	24
28	3	0	0	0	0	0	0	0	0	0	0	**IZS**	1	0	3	0	0	0	0	0	0	0	0	0	3	0.3	24
29	0	0	0	0	0	0	0	0	0	0	**IZS**	3	2	16	22	17	8	14	15	27	27	32	38	38	38	11.3	24
30	26	23	28	27	20	19	5	6	2	**IZS**	31	16	9	7	4	7	7	4	2	1	1	2	1	0	31	10.8	24
31	0	0	0	0	0	0	1	1	**IZS**	1	**IZS**	4	4	5	6	3	0	0	0	0	0	7	0	0	7	1.5	24
HOURLY MAX	53	34	29	48	72	103	86	122	40	103	68	46	18	22	32	27	39	54	88	83	85	76	67	72			
HOURLY AVG	5.6	4.2	4.0	5.0	5.8	10.1	7.3	13.3	9.9	14.6	15.4	10.5	5.5	7.3	8.4	8.6	7.8	8.0	11.4	10.2	7.4	7.7	8.9	5.5			

STATUS FLAG CODES

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

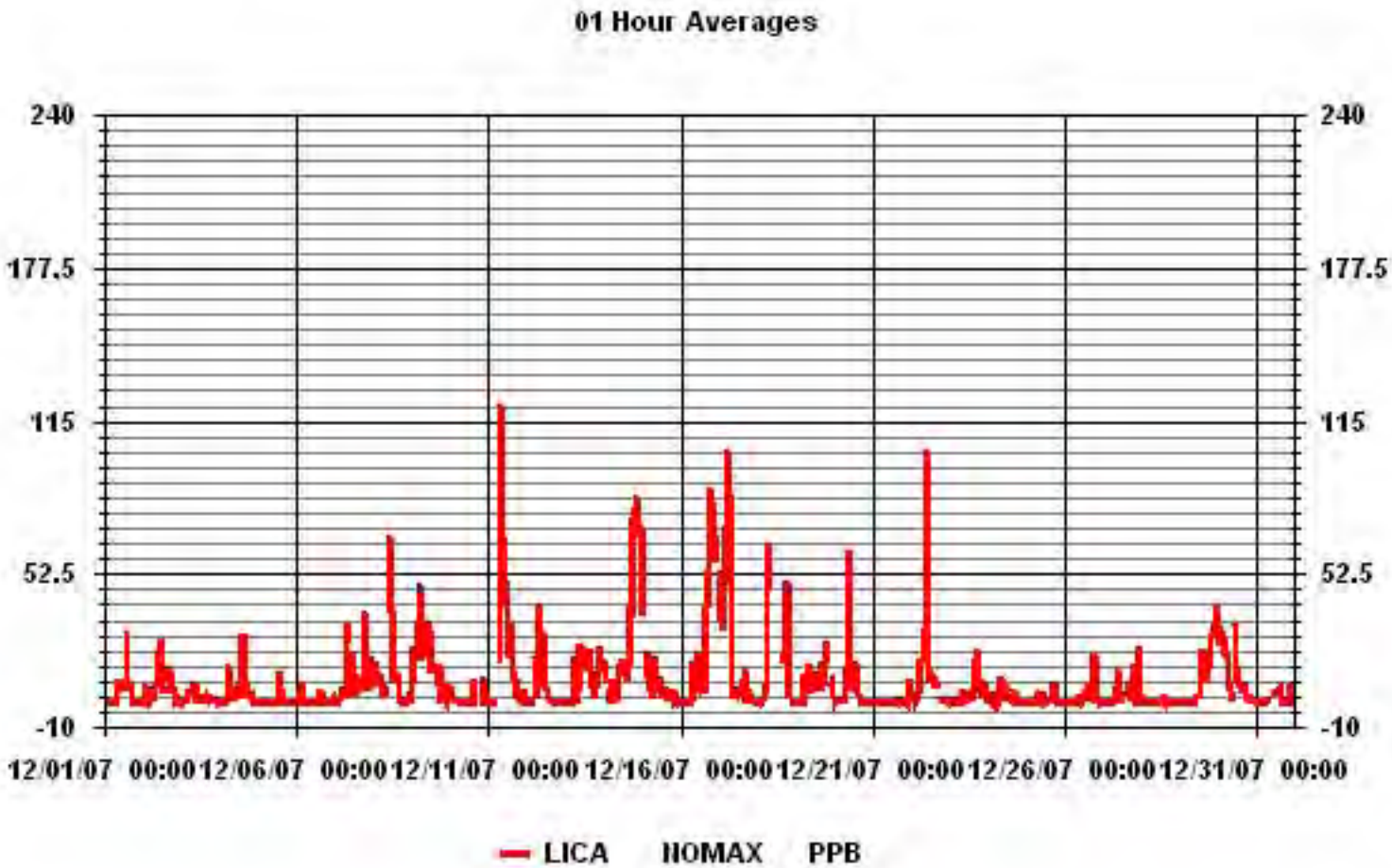
MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	466					
MAXIMUM INSTANTANEOUS VALUE:	122	PPB	@ HOUR(S)	8	ON DAY(S)	11

IZS CALIBRATION TIME:	35	HRS	OPERATIONAL TIME:	744	HRS
MONTHLY CALIBRATION TIME:	8	HRS			
STANDARD DEVIATION:	15.83				

MOUNTAIN STANDARD TIME

Maxxam Analytics Inc


01 Hour Averages
240
177.5
115
52.5
-10
12/01/07 00:00
12/06/07 00:00
12/11/07 00:00
12/16/07 00:00
12/21/07 00:00
12/26/07 00:00
12/31/07 00:00
LICA NOMAX PPB

NO_X

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - *COLD LAKE*

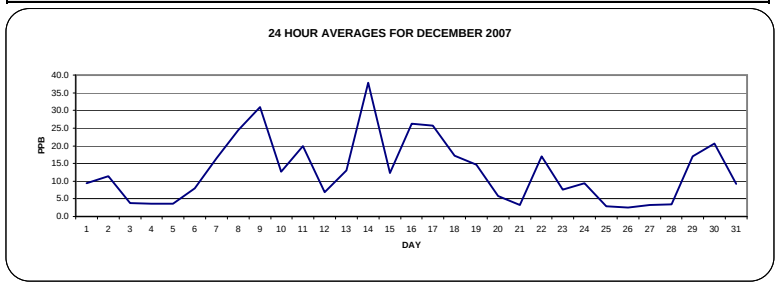
DECEMBER 2007

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	3	2	2	3	14	17	18	16	11	10	16	**IZS**	13	11	14	13	11	12	14	11	18	9.4	24
2	12	14	12	10	11	13	11	17	20	14	29	31	7	6	**IZS**	10	10	9	6	7	6	3	3	3	31	11.5	24
3	3	3	2	2	4	4	5	8	6	4	4	4	5	**IZS**	4	5	4	3	4	3	3	3	2	2	8	3.8	24
4	2	2	2	2	3	6	5	6	6	4	4	3	**IZS**	4	4	5	4	6	4	2	3	2	2	1	6	3.6	24
5	1	1	1	2	3	3	4	4	4	3	3	**IZS**	2	2	2	3	5	5	5	5	6	6	6	6	6	3.6	24
6	8	8	10	16	9	8	9	7	5	5	**IZS**	3	2	1	2	6	5	6	8	9	11	11	17	16	17	7.9	24
7	11	8	8	7	8	15	20	20	34	**IZS**	13	9	6	6	6	10	13	18	33	36	20	21	28	27	36	16.4	24
8	27	32	29	23	24	19	18	19	**IZS**	36	56	30	17	18	21	23	20	17	17	18	22	26	25	25	56	24.4	24
9	33	36	41	46	47	49	34	**IZS**	40	34	28	30	25	25	25	23	24	21	21	23	23	22	29	33	49	31.0	24
10	26	28	28	25	21	17	**IZS**	11	6	5	3	4	3	2	2	9	**C**	**C**	**IZS**	13	14	14	13	9	28	12.7	24
11	8	9	6	6	6	**IZS**	14	54	43	65	59	16	16	19	17	21	16	13	17	11	13	14	9	7	65	20.0	24
12	6	6	5	5	**IZS**	7	7	19	22	17	16	12	12	9	7	6	2	0	1	0	0	0	0	0	22	6.9	24
13	0	1	0	**IZS**	1	4	4	11	14	12	17	10	6	13	17	17	14	11	13	21	28	37	31	17	37	13.0	24
14	18	15	**IZS**	8	11	16	11	16	22	23	25	24	24	20	15	19	43	37	73	92	**98**	93	87	81	98	**37.9**	24
15	54	**IZS**	39	31	28	18	11	14	17	14	9	3	3	4	5	6	6	4	4	3	2	2	3	3	54	12.3	24
16	**IZS**	5	3	3	2	2	1	4	12	10	22	7	10	13	14	15	36	60	82	79	69	62	68	**IZS**	82	26.3	24
17	54	52	44	53	78	98	78	27	15	8	8	8	7	6	8	12	8	6	5	5	5	4	**IZS**	4	98	25.8	24
18	3	4	5	4	6	8	42	55	**C**	**C**	**C**	**C**	**C**	**C**	**IZS**	31	28	33	32	13	7	**IZS**	3	2	55	17.3	24
19	2	2	2	2	2	3	3	9	11	9	15	25	18	17	17	19	25	21	31	38	**IZS**	27	29	9	38	14.6	24
20	6	5	5	4	4	5	5	6	10	10	7	6	5	7	7	4	5	4	5	**IZS**	6	7	7	3	10	5.8	24
21	2	1	1	1	1	1	1	1	2	2	1	1	1	1	1	1	3	7	**IZS**	6	9	9	9	15	15	3.3	24
22	9	10	7	9	8	12	29	29	32	75	41	18	12	14	18	15	15	**IZS**	9	9	7	5	4	3	75	17.0	24
23	4	5	5	2	2	2	2	2	3	5	4	5	5	6	9	12	**IZS**	15	21	13	11	17	12	12	21	7.6	24
24	11	11	10	9	11	14	13	17	22	18	19	11	9	9	8	**IZS**	6	3	2	2	3	2	2	3	22	9.3	24
25	3	3	2	2	3	7	5	6	3	3	2	2	1	1	**IZS**	3	2	3	3	2	2	2	2	3	7	2.8	24
26	3	3	3	3	3	2	2	3	2	2	2	2	2	**IZS**	4	3	3	2	3	3	2	2	2	2	4	2.5	24
27	2	3	3	2	2	3	3	2	2	4	4	3	**IZS**	4	4	4	4	5	5	4	2	3	4	5	5	3.3	24
28	6	3	2	2	2	2	2	2	3	2	2	**IZS**	4	3	3	3	3	5	5	5	5	5	5	5	6	3.4	24
29	5	5	5	5	5	4	5	5	5	6	**IZS**	8	7	9	15	23	23	25	28	33	39	38	48	47	48	17.1	24
30	37	39	43	44	29	30	8	11	11	**IZS**	37	14	14	12	9	14	18	18	17	14	15	17	13	10	44	20.6	24
31	11	7	7	7	10	10	11	12	**IZS**	7	**IZS**	10	9	11	12	10	9	7	8	8	8	10	10	8	12	9.2	24
HOURLY MAX	54	52	44	53	78	98	78	55	43	75	59	31	25	25	25	31	43	60	82	92	98	93	87	81			
HOURLY AVG	12.3	10.7	11.1	11.2	11.6	12.8	12.2	13.3	13.8	14.8	16.6	11.3	8.7	9.0	9.7	11.4	12.7	12.9	16.4	16.3	15.0	15.9	16.2	12.4			

STATUS FLAG CODES

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



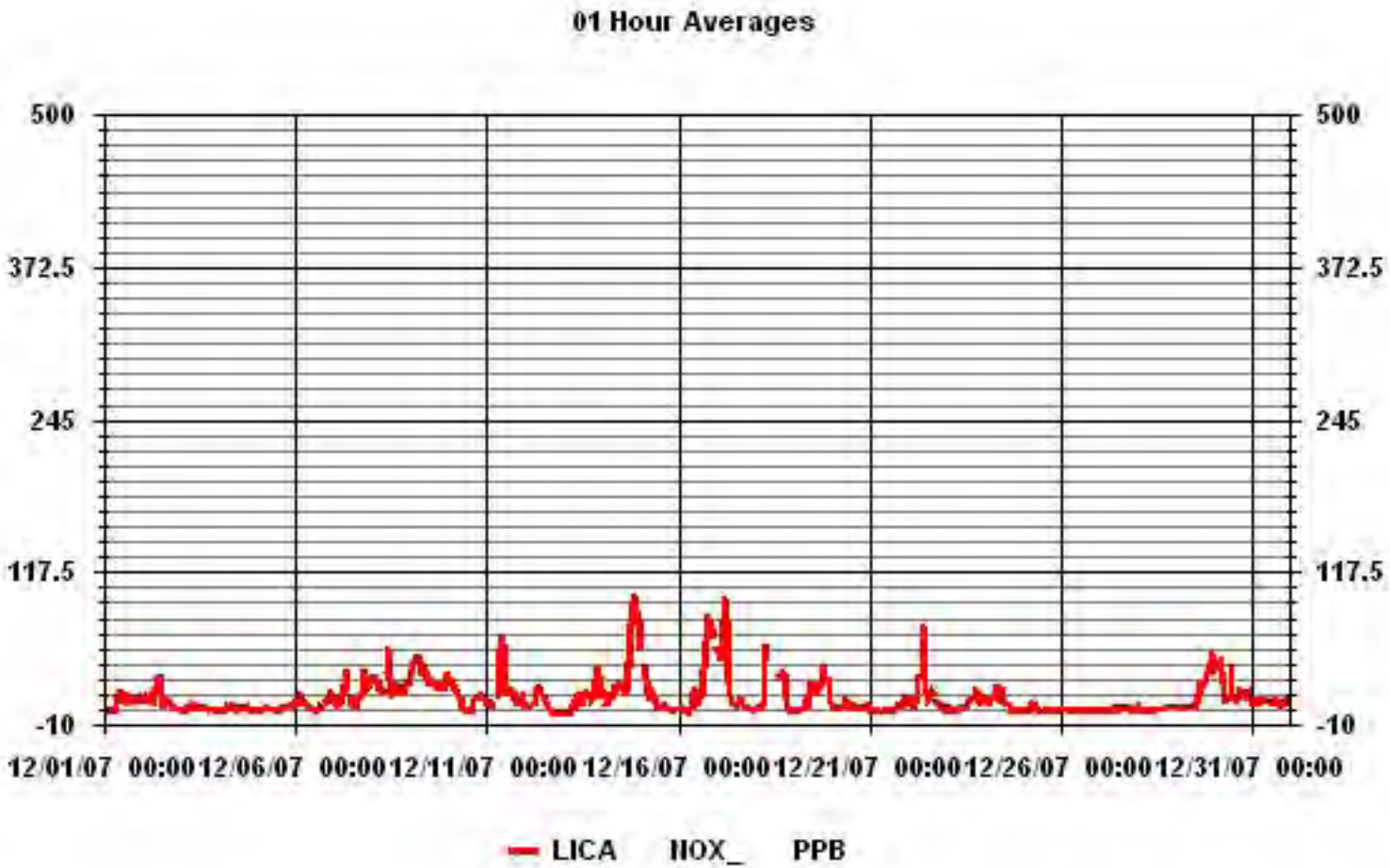
MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	693					
MAXIMUM 1-HR AVERAGE:	98	PPB	@ HOUR(S)	21	ON DAY(S)	14
MAXIMUM 24-HR AVERAGE:	37.9	PPB			ON DAY(S)	14

IZS CALIBRATION TIME:	35	HRS	OPERATIONAL TIME:	744	HRS
MONTHLY CALIBRATION TIME:	8	HRS	AMD OPERATION UPTIME:	100.0	%
STANDARD DEVIATION:	15.16		MONTHLY AVERAGE:	12.85	PPB

MOUNTAIN STANDARD TIME

Maxxam Analytics Inc


01 Hour Averages
500
372.5
245
117.5
-10
12/01/07 00:00
12/06/07 00:00
12/11/07 00:00
12/16/07 00:00
12/21/07 00:00
12/26/07 00:00
12/31/07 00:00
LICA NOX_ PPB

LICA
NOX_ / WD Joint Frequency Distribution (Percent)

December 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	.57	1.42	.99	4.13	12.26	10.41	14.26	3.56	2.42	4.27	8.84	16.26	8.98	3.42	2.13	2.42	96.43
< 110	.14	.00	.42	.71	.28	.42	.28	.00	.14	.14	.28	.00	.28	.00	.28	.14	3.56
< 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	.71	1.42	1.42	4.85	12.55	10.84	14.55	3.56	2.56	4.42	9.12	16.26	9.27	3.42	2.42	2.56	

Calm : .00 %

Total # Operational Hours : 701

Distribution By Samples

Direction

Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
< 50	4	10	7	29	86	73	100	25	17	30	62	114	63	24	15	17	676
< 110	1		3	5	2	3	2		1	1	2		2		2	1	25
< 210																	
>= 210																	
Totals	5	10	10	34	88	76	102	25	18	31	64	114	65	24	17	18	

Calm : .00 %

Total # Operational Hours : 701

Logger : 01 Parameter : NOX_

Class Limits (PPB)

>= 210

< 210

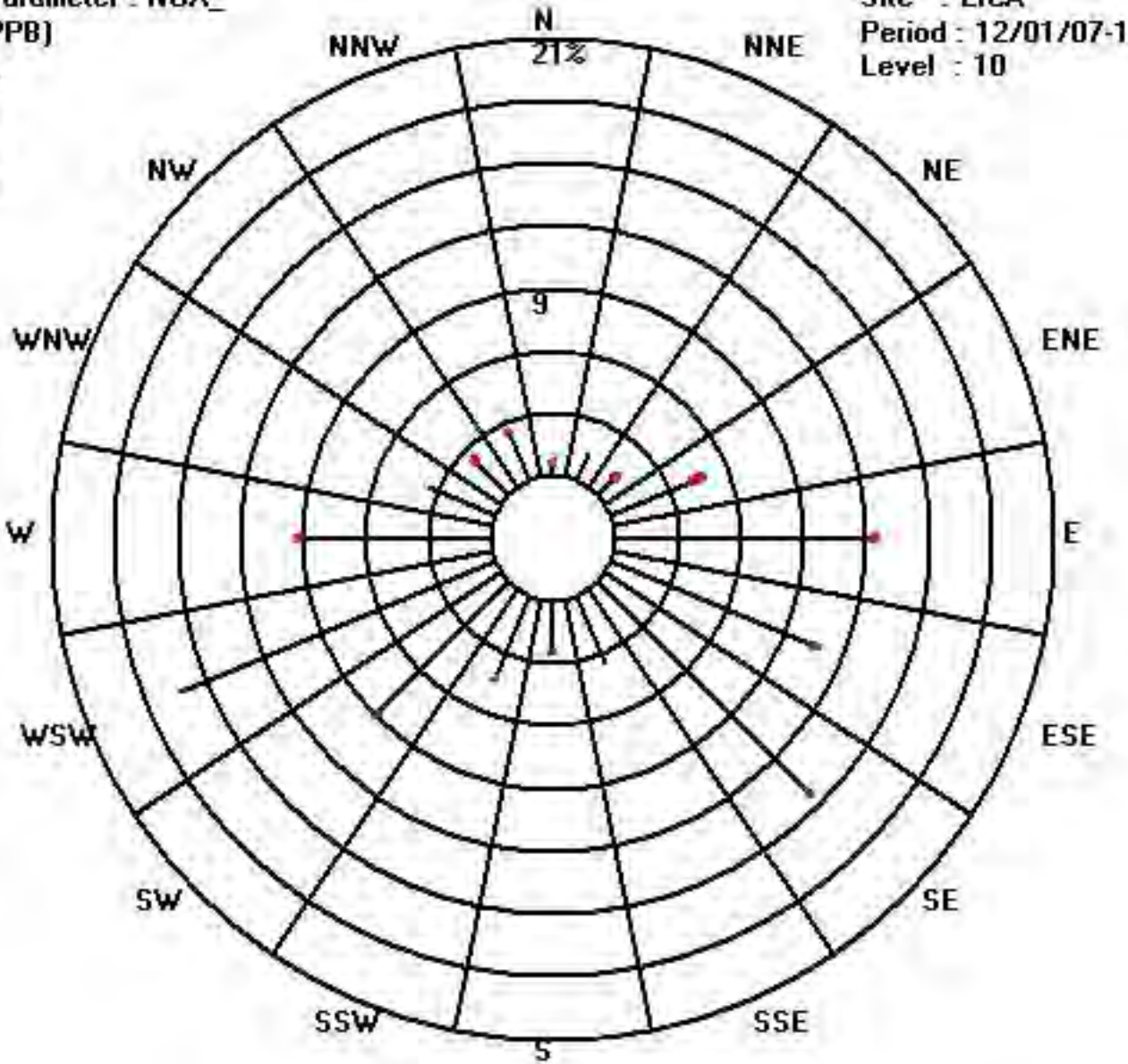
< 110

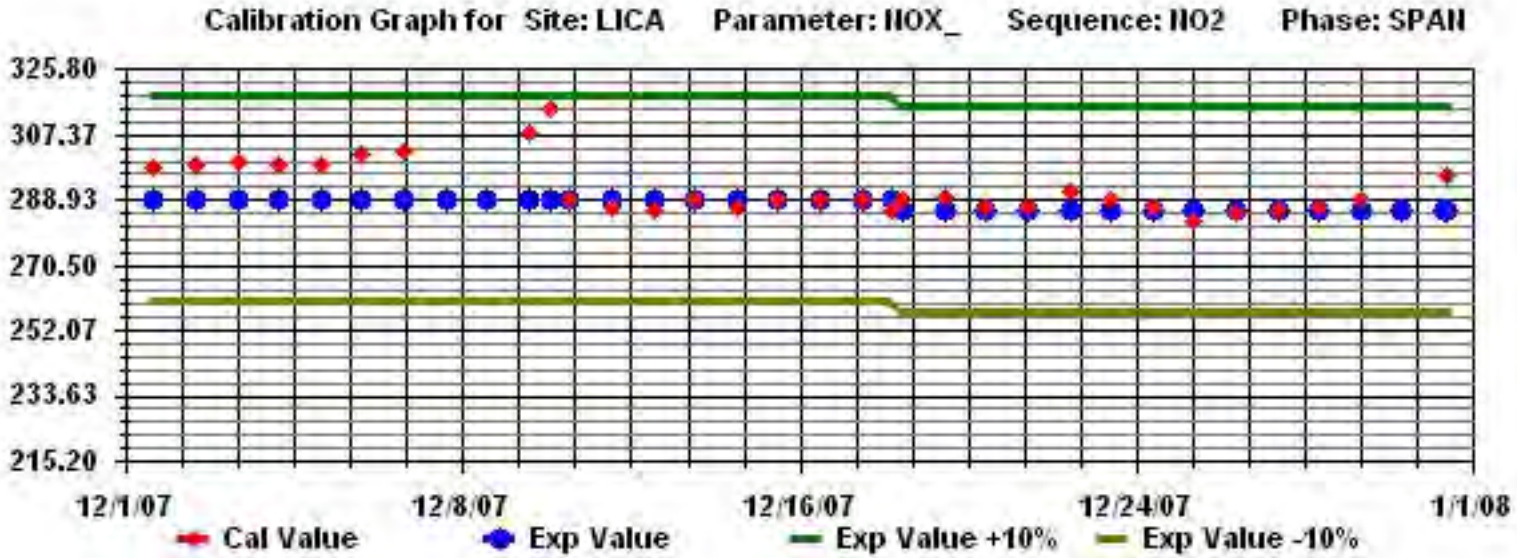
< 50

Site : LICA

Period : 12/01/07-12/31/07

Level : 10




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
12/1/07
12/8/07
12/16/07
12/24/07
1/1/08
Cal Value
Exp Value
Exp Value +10%
Exp Value -10%

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - *COLD LAKE*

DECEMBER 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	1	2	6	6	5	3	5	8	28	30	21	19	16	18	47	**IZS**	17	13	16	16	15	14	16	13	47	14.6	24
2	15	28	19	12	15	27	14	26	23	23	37	47	12	13	**IZS**	14	27	29	15	12	9	5	6	4	47	18.8	24
3	6	5	4	5	11	9	11	17	14	6	7	7	7	**IZS**	7	9	6	7	8	11	5	5	4	4	17	7.6	24
4	4	4	5	4	8	32	13	14	13	6	7	7	**IZS**	7	29	30	6	17	7	6	9	5	4	1	32	10.3	24
5	2	1	3	3	5	4	6	6	6	4	4	**IZS**	3	13	14	7	6	7	9	8	7	8	7	7	14	6.1	24
6	12	9	24	33	14	12	12	10	7	7	**IZS**	4	4	2	4	14	8	8	10	14	18	15	21	22	33	12.3	24
7	16	9	10	9	14	23	24	56	60	**IZS**	28	14	10	14	11	24	23	31	68	64	28	28	41	38	68	28.0	24
8	39	47	35	26	32	33	21	24	**IZS**	59	96	61	20	21	27	31	28	18	17	20	25	29	30	29	96	33.4	24
9	39	58	49	70	63	86	48	**IZS**	52	39	57	53	29	31	36	37	33	36	22	25	26	24	34	37	86	42.8	24
10	30	30	30	29	25	21	**IZS**	19	8	7	5	5	6	3	5	26	**C**	**C**	**IZS**	15	41	19	23	11	41	17.9	24
11	10	14	10	8	8	**IZS**	36	**168**	65	106	79	85	35	39	62	42	33	23	27	16	15	30	12	10	168	40.6	24
12	7	8	7	8	**IZS**	36	9	44	33	33	50	22	22	14	10	10	11	1	1	1	0	0	1	1	50	14.3	24
13	2	4	4	**IZS**	3	29	8	23	25	32	44	36	28	45	35	48	30	27	19	32	40	54	45	40	54	28.4	24
14	47	30	**IZS**	15	22	32	16	22	28	29	31	31	34	27	20	41	68	63	106	113	119	108	98	103	119	52.3	24
15	66	**IZS**	48	38	39	30	18	24	37	23	14	6	7	9	12	9	13	11	7	11	3	6	5	8	66	19.3	24
16	**IZS**	7	7	8	5	4	2	16	46	22	41	14	12	16	17	23	69	78	128	105	87	80	93	**IZS**	128	40.0	24
17	73	56	55	71	109	142	136	112	29	12	13	12	15	18	15	22	17	9	7	10	10	8	**IZS**	5	142	41.6	24
18	6	7	8	9	28	26	84	90	**C**	**C**	**C**	**C**	**C**	**C**	**IZS**	39	39	48	68	20	11	**IZS**	5	3	90	30.7	24
19	3	4	4	4	3	8	5	26	42	22	25	32	28	21	19	25	51	32	42	47	**IZS**	32	34	18	51	22.9	24
20	7	8	7	7	6	7	7	11	27	55	12	17	10	24	18	8	7	5	6	**IZS**	8	8	8	6	55	12.1	24
21	2	2	2	2	2	2	2	2	3	4	2	1	3	2	3	4	6	11	**IZS**	10	15	13	16	31	31	6.1	24
22	14	18	11	13	14	38	41	42	66	109	91	28	21	22	30	25	24	**IZS**	14	13	8	9	9	4	109	28.9	24
23	7	8	10	3	4	19	4	4	11	9	5	6	7	12	18	48	**IZS**	44	30	21	19	28	22	15	48	15.4	24
24	15	17	11	17	14	22	16	20	33	22	24	16	11	10	10	**IZS**	10	5	4	4	4	4	7	4	33	13.0	24
25	4	4	3	3	5	12	14	11	7	5	4	7	1	1	**IZS**	5	4	15	7	4	3	3	5	4	15	5.7	24
26	4	5	6	4	5	4	3	5	5	8	5	10	5	**IZS**	9	14	6	11	20	6	6	4	6	9	20	7.0	24
27	3	5	6	4	4	6	7	8	17	42	11	6	**IZS**	9	12	8	23	10	13	28	4	4	23	10	42	11.4	24
28	9	5	3	3	3	4	4	5	4	4	3	**IZS**	7	4	8	5	6	8	6	6	6	6	6	6	9	5.3	24
29	6	6	6	6	6	6	6	6	7	7	**IZS**	11	9	28	44	43	31	38	38	51	51	51	63	59	63	25.2	24
30	48	46	53	50	40	39	19	21	16	**IZS**	50	27	17	15	12	22	23	26	22	17	19	20	18	11	53	27.4	24
31	14	11	9	9	13	12	14	15	**IZS**	9	**IZS**	12	10	13	14	13	10	9	9	9	10	15	14	9	15	11.5	24
HOURLY MAX	73	58	55	71	109	142	136	168	66	109	96	85	35	45	62	48	69	78	128	113	119	108	98	103			
HOURLY AVG	17.0	15.3	15.2	16.0	17.5	24.3	20.2	28.5	25.4	26.2	28.4	21.3	13.9	16.1	19.6	22.3	21.9	22.1	25.7	23.8	20.7	21.2	22.5	17.4			

STATUS FLAG CODES

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

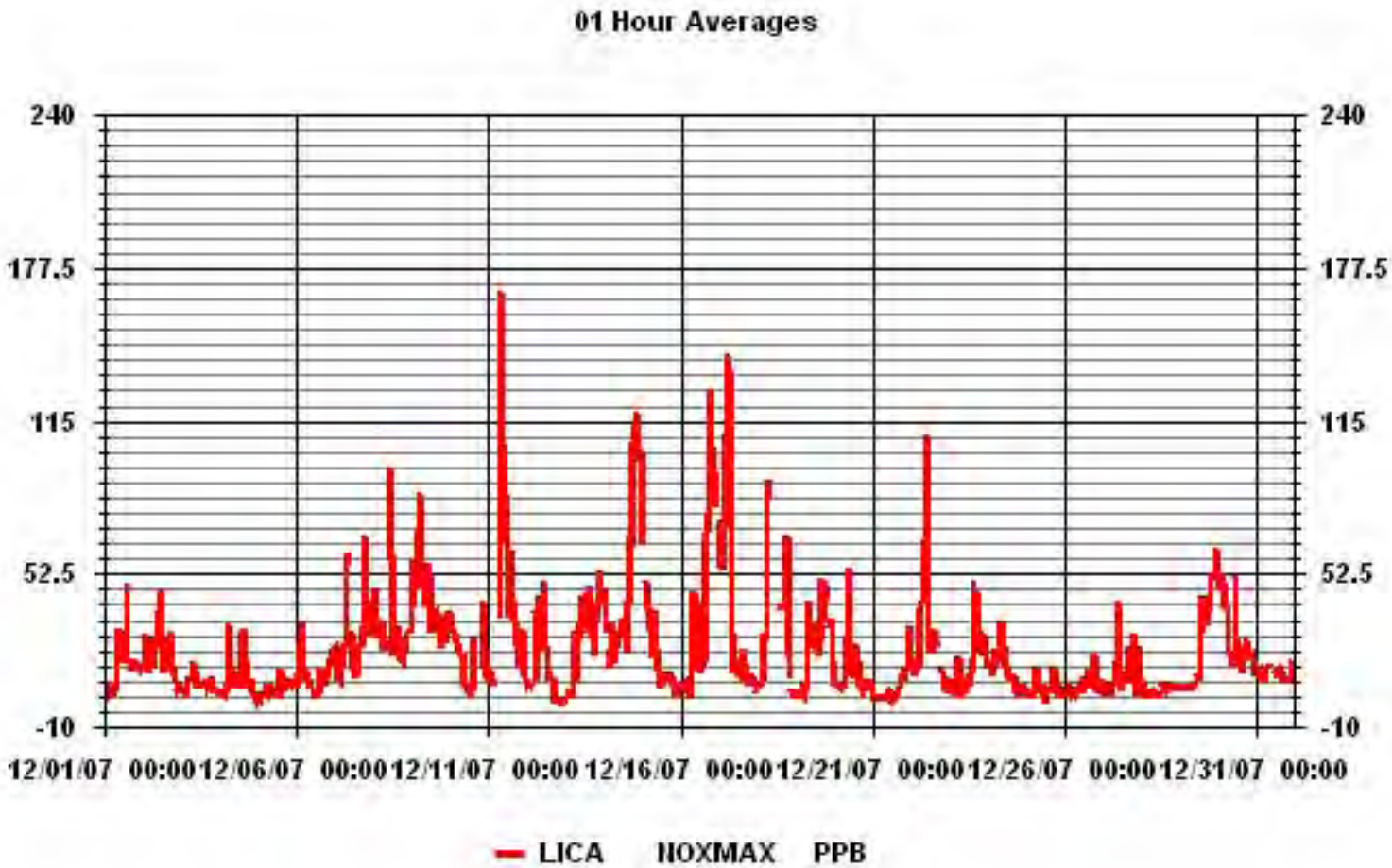
MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	699					
MAXIMUM INSTANTANEOUS VALUE:	168	PPB	@ HOUR(S)	8	ON DAY(S)	11

IZS CALIBRATION TIME:	35	HRS	OPERATIONAL TIME:	744	HRS
MONTHLY CALIBRATION TIME:	8	HRS			
STANDARD DEVIATION:	22.58				

MOUNTAIN STANDARD TIME

Maxxam Analytics Inc


01 Hour Averages
240
177.5
115
52.5
-10
12/01/07 00:00
12/06/07 00:00
12/11/07 00:00
12/16/07 00:00
12/21/07 00:00
12/26/07 00:00
12/31/07 00:00
LICA NOXMAX PPB

O_3

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - *COLD LAKE*

DECEMBER 2007

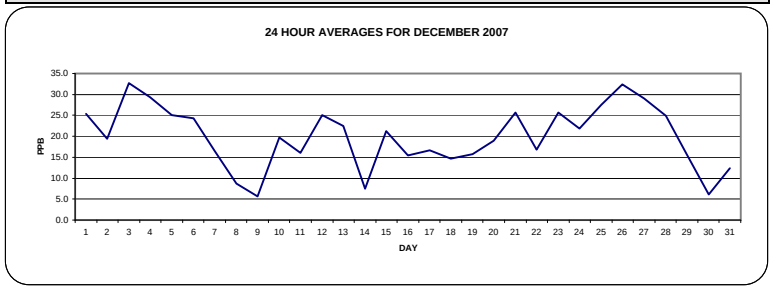
OZONE (O_3) hourly averages in ppb

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	**37**	**37**	36	35	33	32	32	31	20	17	19	23	25	27	26	**IZS**	20	22	19	19	21	19	16	16	37	25.3	24
2	13	10	11	10	8	7	7	4	3	11	11	15	29	31	**IZS**	28	28	28	29	29	30	33	34	36	36	19.3	24
3	35	35	34	33	33	32	31	30	31	33	34	34	33	**IZS**	32	31	32	33	33	33	33	33	32	32	35	**32.7**	24
4	32	31	31	31	30	29	29	27	27	28	29	29	**IZS**	30	29	28	29	27	29	30	30	30	30	31	32	29.4	24
5	30	30	29	28	26	25	25	24	24	26	26	**IZS**	28	28	28	26	23	24	23	23	21	20	20	20	30	25.1	24
6	18	18	17	12	18	19	19	23	27	29	**IZS**	32	33	34	34	31	31	30	28	26	23	23	17	18	34	24.3	24
7	21	24	25	25	21	12	8	12	6	**IZS**	25	29	31	31	30	26	21	15	5	2	5	4	1	1	31	16.5	24
8	2	0	0	1	1	2	2	2	**IZS**	5	8	16	21	20	17	14	14	17	16	14	10	5	7	7	21	8.7	24
9	2	1	0	0	0	0	0	**IZS**	1	5	11	13	15	15	14	11	7	8	7	5	5	5	1	4	15	5.7	24
10	2	2	2	4	6	10	**IZS**	20	25	30	32	32	35	36	36	30	12	12	13	22	22	22	23	25	36	19.7	24
11	25	21	20	19	20	**IZS**	9	3	1	4	7	22	22	22	22	15	15	15	13	17	16	16	20	24	25	16.0	24
12	25	25	25	25	**IZS**	23	22	15	13	17	20	20	21	22	21	20	28	30	32	33	34	34	35	35	35	25.0	24
13	35	34	33	**IZS**	30	28	27	24	23	26	24	29	30	26	22	20	21	23	20	14	4	8	7	10	35	22.5	24
14	8	9	**IZS**	12	8	7	11	7	4	8	11	14	15	17	19	14	1	1	1	1	2	1	1	1	19	7.5	24
15	0	**IZS**	0	1	3	9	17	15	15	20	26	29	28	28	28	27	28	30	30	33	32	31	29	28	33	21.2	24
16	**IZS**	26	27	27	27	27	27	24	16	16	15	22	20	19	20	15	5	1	1	1	1	1	1	**IZS**	27	15.4	24
17	0	1	0	1	1	1	1	12	14	22	24	26	27	27	25	21	24	25	27	26	25	26	**IZS**	26	27	16.6	24
18	26	25	24	24	18	14	2	1	1	3	6	11	13	15	**C**	**C**	**C**	**IZS**	2	17	22	**IZS**	28	28	28	14.7	24
19	28	27	27	27	27	25	25	19	17	20	18	14	16	15	13	10	4	5	2	1	**IZS**	2	2	17	28	15.7	24
20	20	20	20	21	21	21	20	19	16	17	18	20	20	19	19	20	20	21	20	**IZS**	17	13	13	21	21	19.0	24
21	23	24	26	27	28	29	28	28	28	28	29	30	30	30	30	29	28	23	**IZS**	24	19	19	18	11	30	25.6	24
22	13	12	13	11	11	9	1	0	1	4	13	21	24	22	19	20	20	**IZS**	26	26	28	30	31	32	32	16.8	24
23	32	30	30	32	31	31	31	31	30	29	29	29	29	28	26	23	**IZS**	18	12	19	20	15	19	17	32	25.7	24
24	16	14	12	11	13	10	11	7	4	12	17	27	30	31	32	**IZS**	31	35	36	35	31	30	29	27	36	21.8	24
25	26	27	29	27	23	20	19	16	20	22	24	27	31	31	**IZS**	32	32	32	31	32	32	33	33	32	33	27.4	24
26	31	31	30	28	30	31	31	31	32	33	33	34	34	**IZS**	33	34	34	34	34	33	34	33	33	33	34	32.3	24
27	32	31	31	32	32	32	31	33	32	30	30	30	**IZS**	29	28	28	27	26	26	26	27	26	25	23	33	29.0	24
28	22	23	27	27	26	25	25	25	24	25	25	**IZS**	24	26	27	27	25	23	23	24	24	26	25	25	27	24.9	24
29	25	26	25	25	25	26	25	23	22	23	**IZS**	23	23	22	19	11	5	3	1	1	1	1	1	1	26	15.5	24
30	0	0	0	0	0	1	10	6	7	**IZS**	7	13	14	15	16	10	4	5	5	7	5	3	6	8	16	6.2	24
31	8	12	12	11	8	8	7	10	**IZS**	16	19	18	18	15	14	12	11	13	12	12	13	11	10	15	19	12.4	24
HOURLY MAX	37	37	36	35	33	32	32	33	32	33	34	34	35	36	36	34	34	35	36	35	34	34	35	36			
HOURLY AVG	19.6	20.2	19.9	18.9	18.6	18.2	17.8	17.4	16.7	19.3	20.3	23.5	24.8	24.5	24.3	21.9	20.0	20.0	18.5	19.5	19.6	18.4	18.2	20.1			

STATUS FLAG CODES

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

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



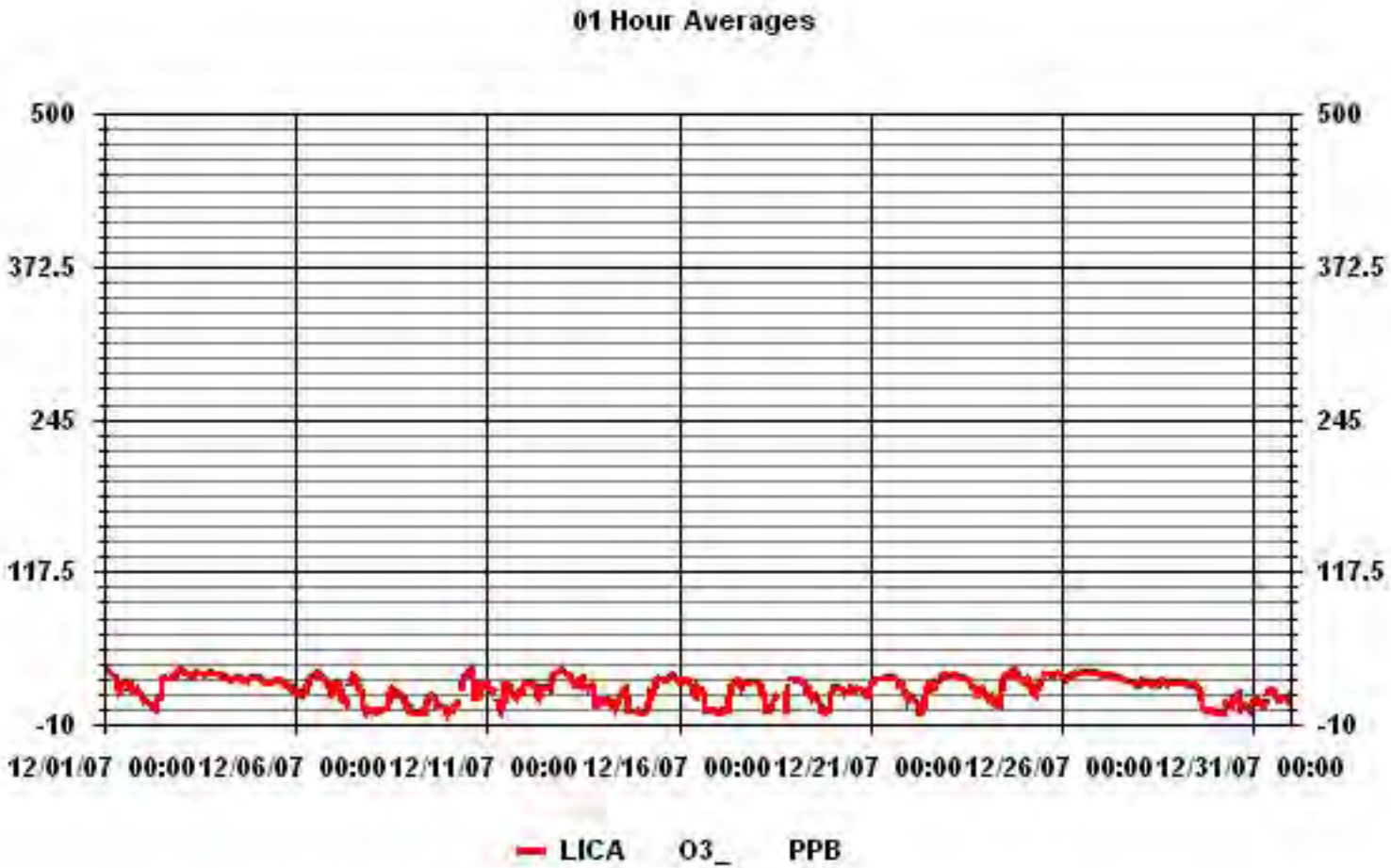
MONTHLY SUMMARY

NUMBER OF 1-HR EXCEEDENCES:	0					
NUMBER OF NON-ZERO READINGS:	691					
MAXIMUM 1-HR AVERAGE:	37	PPB	@ HOUR(S)	1,2	ON DAY(S)	1
MAXIMUM 24-HR AVERAGE:	32.7	PPB			ON DAY(S)	3

IZS CALIBRATION TIME:	33	HRS	OPERATIONAL TIME:	744	HRS
MONTHLY CALIBRATION TIME:	3	HRS	AMD OPERATION UPTIME:	100.0	%
STANDARD DEVIATION:	10.35		MONTHLY AVERAGE:	19.97	PPB

Maxxam Analytics Inc

MOUNTAIN STANDARD TIME


01 Hour Averages
500
372.5
245
117.5
-10
12/01/07 00:00
12/06/07 00:00
12/11/07 00:00
12/16/07 00:00
12/21/07 00:00
12/26/07 00:00
12/31/07 00:00
LICA O3_ PPB

LICA
O3_ / WD Joint Frequency Distribution (Percent)

December 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	.70	.98	1.41	4.80	12.71	10.87	14.54	3.53	2.68	4.66	9.18	16.38	9.18	3.38	2.40	2.54	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	.70	.98	1.41	4.80	12.71	10.87	14.54	3.53	2.68	4.66	9.18	16.38	9.18	3.38	2.40	2.54	

Calm : .00 %

Total # Operational Hours : 708

Distribution By Samples

Direction

Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
< 50	5	7	10	34	90	77	103	25	19	33	65	116	65	24	17	18	708
< 110																	
< 210																	
>= 210																	
Totals	5	7	10	34	90	77	103	25	19	33	65	116	65	24	17	18	

Calm : .00 %

Total # Operational Hours : 708

Logger : 01 Parameter : 03_

Class Limits (PPB)

>= 210

< 210

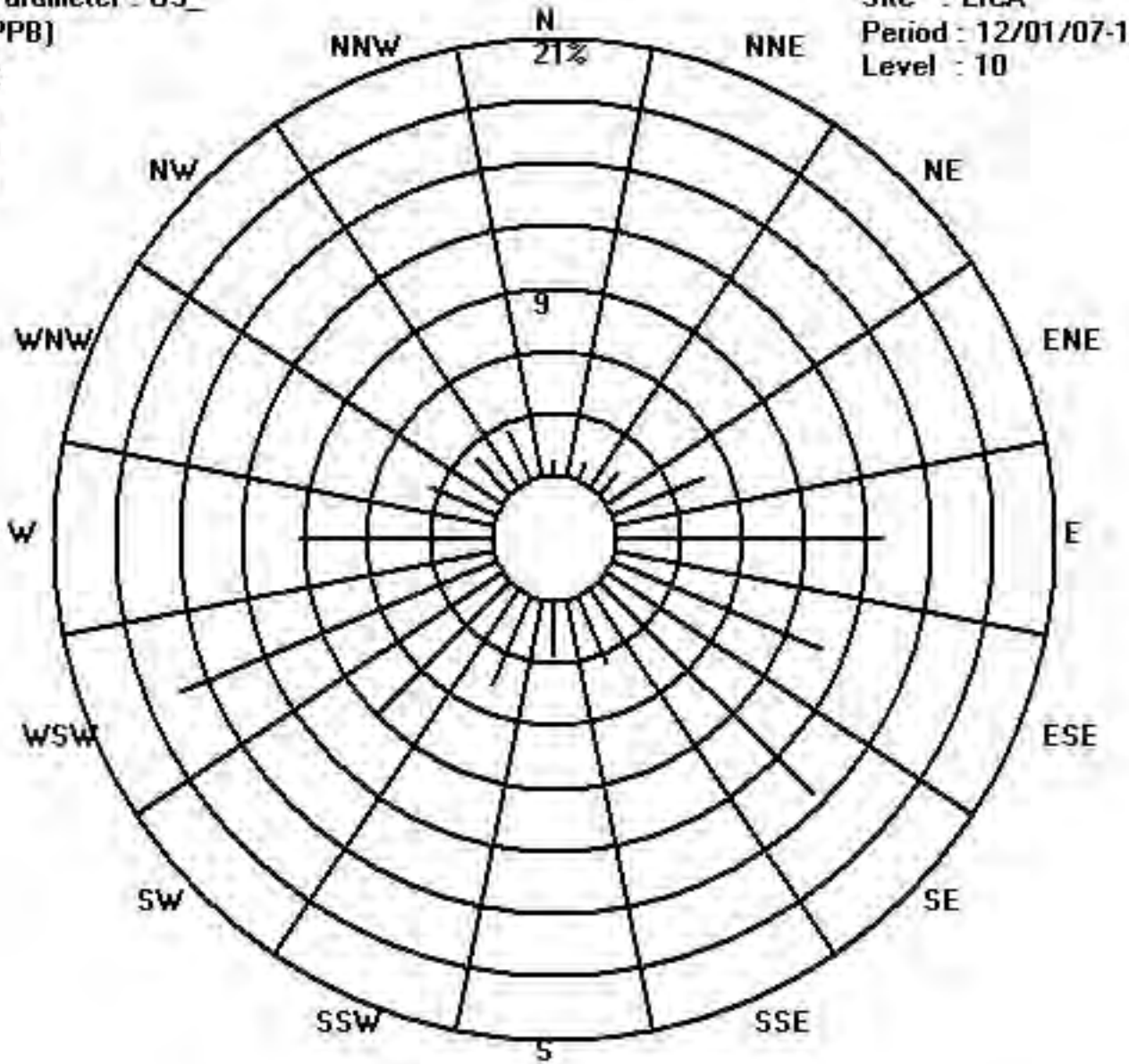
< 110

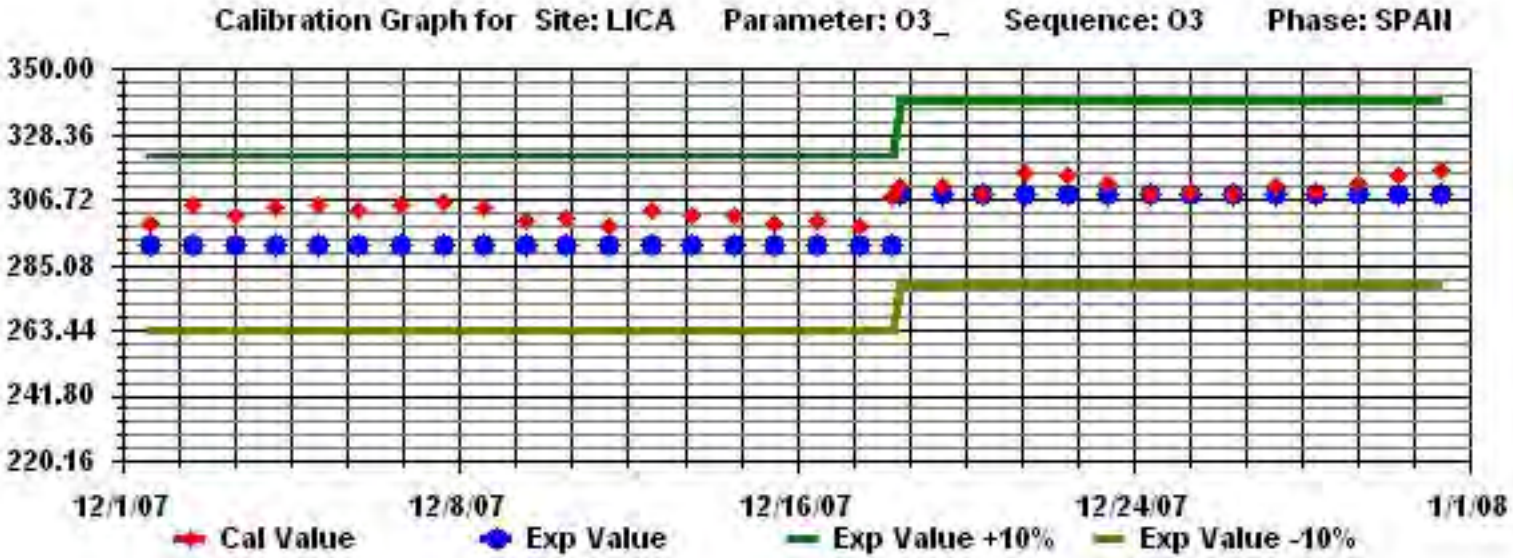
< 50

Site : LICA

Period : 12/01/07-12/31/07

Level : 10




Calibration Graph for Site: LICA Parameter: O3_ Sequence: O3 Phase: SPAN
350.00
328.36
306.72
285.08
263.44
241.80
220.16
12/1/07
12/8/07
12/16/07
12/24/07
1/1/08
Cal Value
Exp Value
Exp Value +10%
Exp Value -10%

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - *COLD LAKE*

DECEMBER 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	37	37	37	36	35	35	34	33	28	25	21	24	26	33	33	**IZS**	23	23	21	22	24	21	18	18	37	28.0	24
2	17	15	13	13	11	8	8	7	6	14	12	28	31	32	**IZS**	30	33	30	31	30	32	34	36	37	37	22.1	24
3	36	35	35	34	34	34	33	32	34	34	35	35	34	**IZS**	33	32	33	34	35	34	34	34	33	33	36	33.9	24
4	33	32	32	31	31	31	30	29	29	29	30	31	**IZS**	30	31	29	30	29	31	31	31	31	31	31	33	30.6	24
5	31	31	30	29	27	26	25	25	25	26	27	**IZS**	29	29	28	28	25	25	25	25	23	21	21	20	31	26.1	24
6	20	19	19	20	21	21	20	26	29	31	**IZS**	33	34	35	35	33	32	31	29	29	27	24	24	20	35	26.6	24
7	25	25	25	26	25	20	16	19	13	**IZS**	28	30	33	32	32	29	24	19	11	7	8	7	4	7	33	20.2	24
8	7	2	1	5	6	4	5	7	**IZS**	6	12	21	22	22	19	17	18	18	17	16	13	8	9	8	22	11.4	24
9	4	2	0	0	0	1	1	**IZS**	3	9	13	15	16	17	16	12	9	9	8	8	7	6	4	10	17	7.4	24
10	6	3	2	5	7	14	**IZS**	24	27	31	33	34	37	37	37	35	26	23	22	24	24	26	26	26	37	23.0	24
11	27	25	22	23	24	**IZS**	16	10	4	6	16	25	27	26	25	25	19	18	17	18	18	18	22	25	27	19.8	24
12	25	26	26	26	**IZS**	25	24	22	21	22	24	23	23	23	22	26	29	31	33	34	34	35	35	36	36	27.2	24
13	36	36	35	**IZS**	33	31	29	30	32	31	33	33	32	32	30	26	33	30	27	29	9	**40**	30	17	40	30.2	24
14	17	16	**IZS**	19	12	14	14	9	6	9	15	16	16	20	21	21	6	7	2	5	9	1	3	1	21	11.3	24
15	1	**IZS**	1	1	10	14	19	18	18	26	30	30	29	29	30	29	30	33	32	36	36	31	30	29	36	23.6	24
16	**IZS**	28	28	28	29	28	27	27	24	20	19	24	21	20	21	18	25	4	2	2	1	1	2	**IZS**	29	18.1	24
17	2	1	1	2	1	2	4	17	21	24	26	27	28	28	27	26	27	27	30	30	27	27	**IZS**	26	30	18.7	24
18	27	26	26	26	24	19	13	3	3	6	11	14	15	16	**C**	**C**	**C**	**IZS**	16	26	26	**IZS**	28	29	29	18.6	24
19	29	27	27	28	28	26	26	25	21	23	22	17	18	17	15	13	7	12	19	4	**IZS**	4	9	20	29	19.0	24
20	21	21	21	23	23	22	21	21	19	19	21	21	21	21	21	21	22	22	20	**IZS**	18	16	15	23	23	20.6	24
21	23	25	27	28	29	29	29	29	28	29	30	30	30	31	31	30	30	26	**IZS**	26	23	21	22	18	31	27.1	24
22	18	18	15	13	13	12	5	1	3	6	23	25	26	25	25	24	26	**IZS**	27	28	29	31	33	33	33	20.0	24
23	33	32	34	33	32	32	32	32	31	30	30	30	30	29	28	25	**IZS**	22	17	21	22	20	20	20	34	27.6	24
24	17	16	14	14	15	11	12	9	8	15	23	30	32	33	33	**IZS**	34	37	37	35	34	31	31	28	37	23.9	24
25	27	30	30	28	25	23	22	18	22	23	25	31	32	32	**IZS**	33	33	33	32	32	34	34	34	33	34	29.0	24
26	32	31	31	29	31	31	32	32	33	34	35	34	35	**IZS**	35	36	36	36	35	34	35	34	34	33	36	33.4	24
27	33	32	33	33	33	33	33	33	33	32	31	32	**IZS**	31	30	29	29	28	28	27	28	27	26	26	33	30.4	24
28	23	26	28	27	27	26	26	26	25	26	26	**IZS**	25	28	28	28	27	24	25	25	26	26	27	26	28	26.1	24
29	26	26	26	27	26	27	26	25	23	24	**IZS**	24	24	24	23	16	8	8	3	2	1	5	2	1	27	17.3	24
30	1	1	1	1	1	7	14	10	9	**IZS**	9	15	15	16	17	14	6	9	8	8	7	6	8	9	17	8.3	24
31	11	13	13	12	11	10	11	11	**IZS**	19	20	20	19	16	15	13	12	15	15	13	14	13	13	18	20	14.2	24
HOURLY MAX	37	37	37	36	35	35	34	33	34	34	35	35	37	37	37	36	36	37	37	36	36	40	36	37			
HOURLY AVG	21.5	21.9	21.1	20.7	20.8	20.5	20.2	20.3	19.9	21.7	23.4	25.9	26.2	26.3	26.5	24.9	23.9	22.9	21.8	22.0	21.8	21.1	21.0	22.0			

STATUS FLAG CODES

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

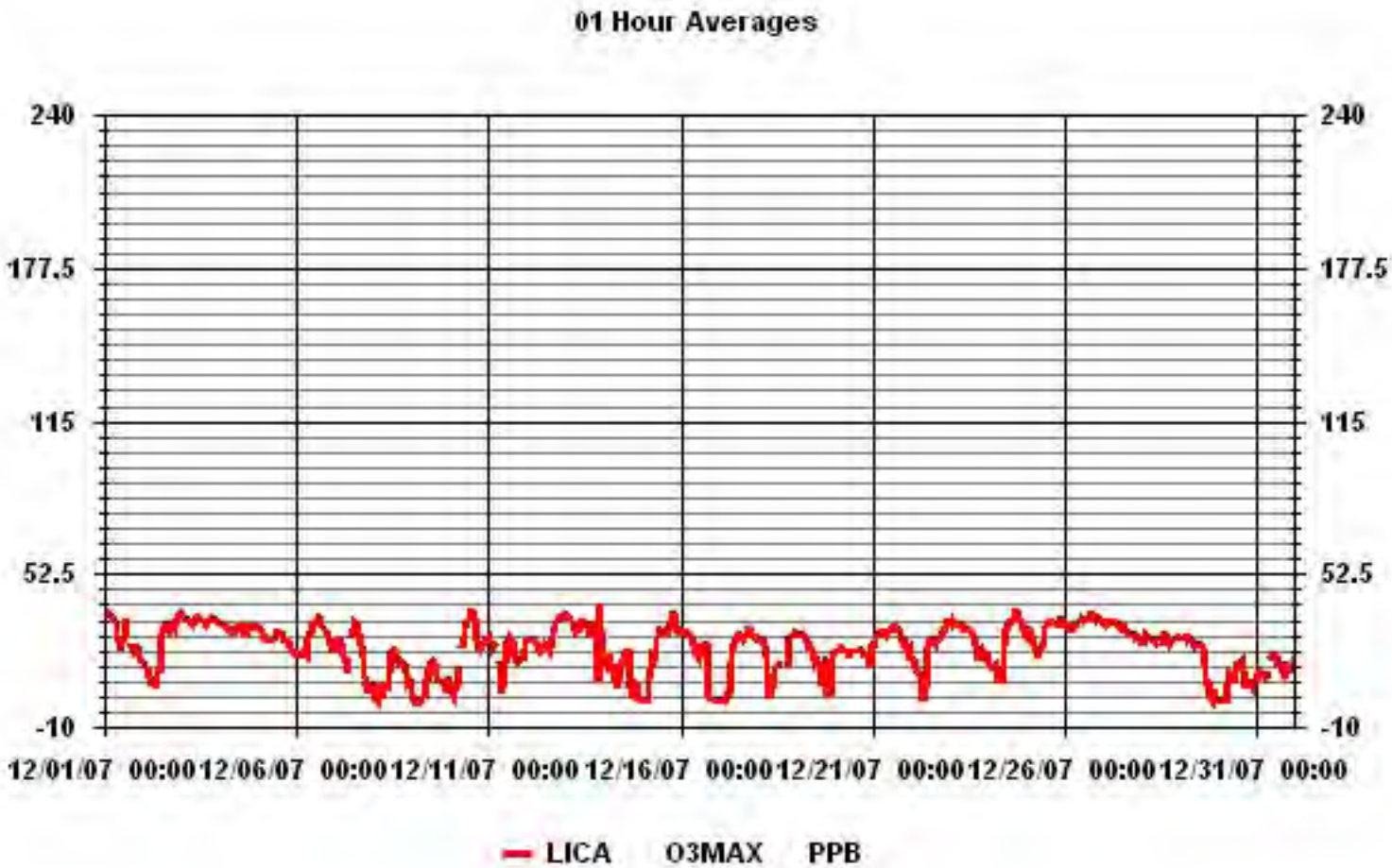
MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	705					
MAXIMUM INSTANTANEOUS VALUE:	40	PPB	@ HOUR(S)	22	ON DAY(S)	13

IZS CALIBRATION TIME:	33	HRS	OPERATIONAL TIME:	744	HRS
MONTHLY CALIBRATION TIME:	3	HRS			
STANDARD DEVIATION:	9.84				

MOUNTAIN STANDARD TIME

Maxxam Analytics Inc


01 Hour Averages
240
177.5
115
52.5
-10
12/01/07 00:00
12/06/07 00:00
12/11/07 00:00
12/16/07 00:00
12/21/07 00:00
12/26/07 00:00
12/31/07 00:00
LICA O3MAX PPB

VECTOR WIND SPEED

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - *COLD LAKE*

DECEMBER 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	5	1.2	2.6	4.6	1.2	1	0.6	0.1	0.8	2.7	2.8	3.5	4.3	3.1	3	3.9	4.5	3.9	2	2.2	2.9	1.6	0.8	0.7	5	1.7	24
2	0.2	0.3	0	1.5	0.5	1.1	0.5	0.6	2.4	0.8	0.7	2	4.8	6	4	6.3	5.5	5	6.4	5.9	8.2	10.3	9.4	10.4	10.4	3.2	24
3	7.7	8.1	9.2	8.2	11.2	11.4	9.7	9.4	10.2	12.7	12.7	13.7	13.5	12.3	13.8	13.3	13.8	13.8	13.7	11.8	10.6	11.7	9.1	8.8	13.8	**11.1**	24
4	9.3	10.7	8.2	8.5	8.7	8.3	8.8	6.7	6.7	6.2	6.6	6.4	7.3	6.5	5.2	5	5.2	4.4	5.7	8.1	6.3	7.2	4.8	2.2	10.7	6.4	24
5	1.8	1.9	3.2	4.7	4.9	6.3	8.3	7.9	8.8	9.6	9.1	11	13.5	13.4	13.4	10	10.2	11.6	9.6	8.5	7.6	8.3	8.7	8.9	13.5	8.4	24
6	9.3	7.9	1	4.1	6.6	6.8	7.6	6.6	7.2	8	9.1	11	9.1	9.3	6.5	8.9	7.8	7.6	7.4	6.5	6.6	5.8	6.4	5.7	11.0	7.2	24
7	6.7	6.8	5.7	4.8	4.6	2.8	3.9	2.4	3.3	4.8	5.2	6	6.5	7.4	6.5	5.5	5.3	1.7	0.5	0.4	0.7	0.2	0.2	0.2	7.4	3.8	24
8	0.2	0.8	1.2	0.8	0.5	0.3	0.5	0.7	0.7	1.2	0.6	2.3	2.7	2.7	3.1	4.7	5.6	7	7.5	7.8	4.5	4.6	6.4	6.1	7.8	3.0	24
9	3.8	0.2	0.5	1	0.6	0.6	1.5	0.5	1	0.9	2.5	2.3	1.5	2.2	2.7	1.3	0.4	1.4	1.4	0.5	0.8	1.1	1.7	3.2	3.8	1.4	24
10	4.2	4.8	3.9	5.2	4.5	4.7	5.8	4.5	7.3	9.7	7.8	5.1	9.4	8.5	5.3	3.3	1.7	3.5	2.8	5.6	7.3	7.1	6	5	9.7	5.5	24
11	3.6	0.5	0.6	0.4	1.9	1.2	1	0.8	0.1	0.1	1.3	3.7	4.2	4.3	4.5	3.1	1.9	2.3	4.1	5.7	7	6.6	6.5	6.9	7.0	3.0	24
12	5.8	5	5	6.9	8.1	6.4	3.6	4.5	4.2	4.5	5.8	2.9	0.3	7.1	8.1	12.7	16.1	14.5	14.2	12	10	9	7.4	6.2	16.1	7.5	24
13	4.7	2.7	1.4	1.1	1.1	0.5	1.9	3.6	3.9	5.7	7.4	8.7	7.6	6.2	6.4	3.5	4	4.3	2.7	1.6	0.4	2	1.8	1.3	8.7	3.5	24
14	1.1	0.7	0.5	0.3	0.5	0.9	1.2	2.3	2.4	2.7	2.6	4	3.3	3.8	5.1	1.7	0.5	0.7	0.4	1	0.8	0.7	1	0.2	5.1	1.6	24
15	0.6	1.2	1.7	1.4	2.1	1.7	3	1.9	2.4	2.8	4.2	9.5	9.2	8.3	6.5	8	7.1	8	6.6	7.6	7.8	6.7	4.8	3.3	9.5	4.9	24
16	4.6	5.4	5.2	3	2.9	2.5	1	1.4	2.1	0.9	1.3	2.1	4.4	2.7	3.8	2.2	0	0.5	1	0.2	0.5	0.3	1.2	0.4	5.4	2.1	24
17	0.6	1.8	0.8	1.8	1	0.8	4.7	5.4	5.4	10.4	9.7	9.3	10.2	8.2	10.4	7.8	7.4	7.7	6.5	5	5.9	3.8	3.3	4.1	10.4	5.5	24
18	5.6	3.3	4.2	2	0.1	1.2	1	0.6	2.2	1	0.1	2.3	3	2.8	3.3	2.9	1.2	0.3	1.4	5.8	8	10.3	8.5	11.4	11.4	3.4	24
19	9.6	6.8	8.2	7.8	6.1	3.3	1.5	2.5	3.2	1.6	4.8	4.5	5.8	7.5	3.7	2.5	1.1	0.3	2.1	1.8	3.6	2.4	2.8	7	9.6	4.2	24
20	10.6	8.3	7.2	8	8.1	9.7	10.4	7.7	8.3	7.7	6.2	5.3	4.7	4.1	3.5	0.9	3.6	9.3	7.5	6	8.4	9.4	10.3	**17.2**	17.2	7.6	24
21	16.3	15.9	16.4	14.6	12.1	11.6	11.4	9	8.8	9.1	9.1	10.4	11.8	12.4	9	7.8	5.1	4.7	4.6	5.3	2.9	5	3	2.3	16.4	9.1	24
22	0.4	0.5	0.4	0.3	0.5	3.5	3.9	1.7	0.1	2	0.9	3.6	3.5	3.9	2.3	4.4	2.9	5.6	6	4.8	6.5	6.7	7.5	7.5	7.5	3.3	24
23	4.5	5	3.6	6.3	6.2	4.8	2.7	2.5	3.2	3.7	3.1	3.4	4.2	4.9	3.2	4.1	2.3	2	2.6	3.7	3.2	2.8	3	2.6	6.3	3.7	24
24	0.8	0.7	1.4	2	5.1	2.1	6	3.5	3.2	5.3	4.8	8.9	9.2	7.2	6.1	5.9	4.7	6.5	6.5	8.2	10.5	9.8	8.9	9.1	10.5	5.7	24
25	9.9	7.7	4.4	3.8	3.1	2.3	0.1	1.3	2.9	4	3.2	3.8	4.2	4.7	3.1	3.5	3.5	4.5	4.6	4.7	2.9	4.5	2.5	4.1	9.9	3.9	24
26	4.1	6.3	5.7	5.6	6.5	5.1	4.4	5.6	7	5.7	5.8	5.9	5.2	3.6	3.9	4.3	3.9	3	2.3	3.2	2.4	4.1	3.4	3.8	7.0	4.6	24
27	3.4	3.3	3.6	3.6	3.3	3.1	2	0.4	2.1	0.8	2.1	1	5.2	3.7	2.4	2.5	3.4	2.4	3.1	2.7	1.8	2.6	1.5	2	5.2	2.6	24
28	2.2	1.1	2.1	2.3	1.9	2	2.2	2.8	1.7	1.6	2.2	2.1	3.2	5.3	4.4	2.9	0.8	1	1.8	2.1	3.2	3.9	3.1	3	5.3	2.5	24
29	2.6	2.5	1.5	3.6	4	3.9	3	1.3	0.9	0.9	1.6	1.5	1.7	0.5	1.3	0.9	0.8	0.3	0.6	0.4	0.1	0.3	1.1	0.7	4.0	1.5	24
30	0.7	0.9	0.5	0.9	0.2	1	2.2	0.6	0.9	0.4	0.3	2.8	2.4	2	2.3	2.7	3.7	4.8	3.4	4.3	4.2	3.2	5.1	4.9	5.1	2.3	24
31	5.1	5.5	5.6	5.7	5.5	5.2	4.4	4.2	5.7	6	5.5	6.4	6.6	7.3	9.4	6.5	7.8	7.8	7.2	8.8	3.5	1.5	2.3	5.5	9.4	5.8	24
HOURLY MAX	16.3	15.9	16.4	14.6	12.1	11.6	11.4	9.4	10.2	12.7	12.7	13.7	13.5	13.4	13.8	13.3	16.1	14.5	14.2	12.0	10.6	11.7	10.3	17.2			
HOURLY AVG	4.7	4.1	3.7	4.0	4.0	3.7	3.8	3.3	3.8	4.3	4.5	5.3	5.9	5.9	5.4	4.9	4.6	4.9	4.7	4.9	4.8	5.0	4.6	5.0			

STATUS FLAG CODES

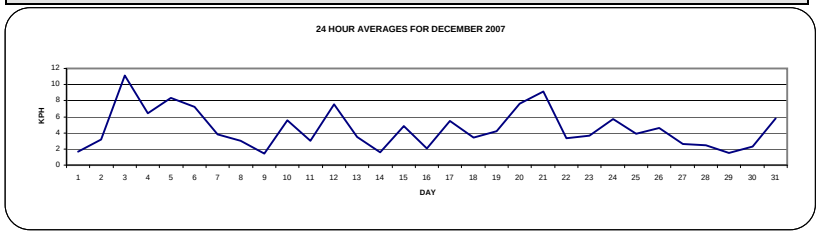
S	- OUT OF SERVICE	IZS	- IZS - DAILY ZERO/SPAN CHECK
N	- INVALID DATA	M	- MISSING DATA
D	- INSTRUMENT DRIFT	P	- POWER FAILURE
C	- CALIBRATION	NA	- NOT APPLICABLE

LAST CALIBRATION: NA

MONTHLY SUMMARY

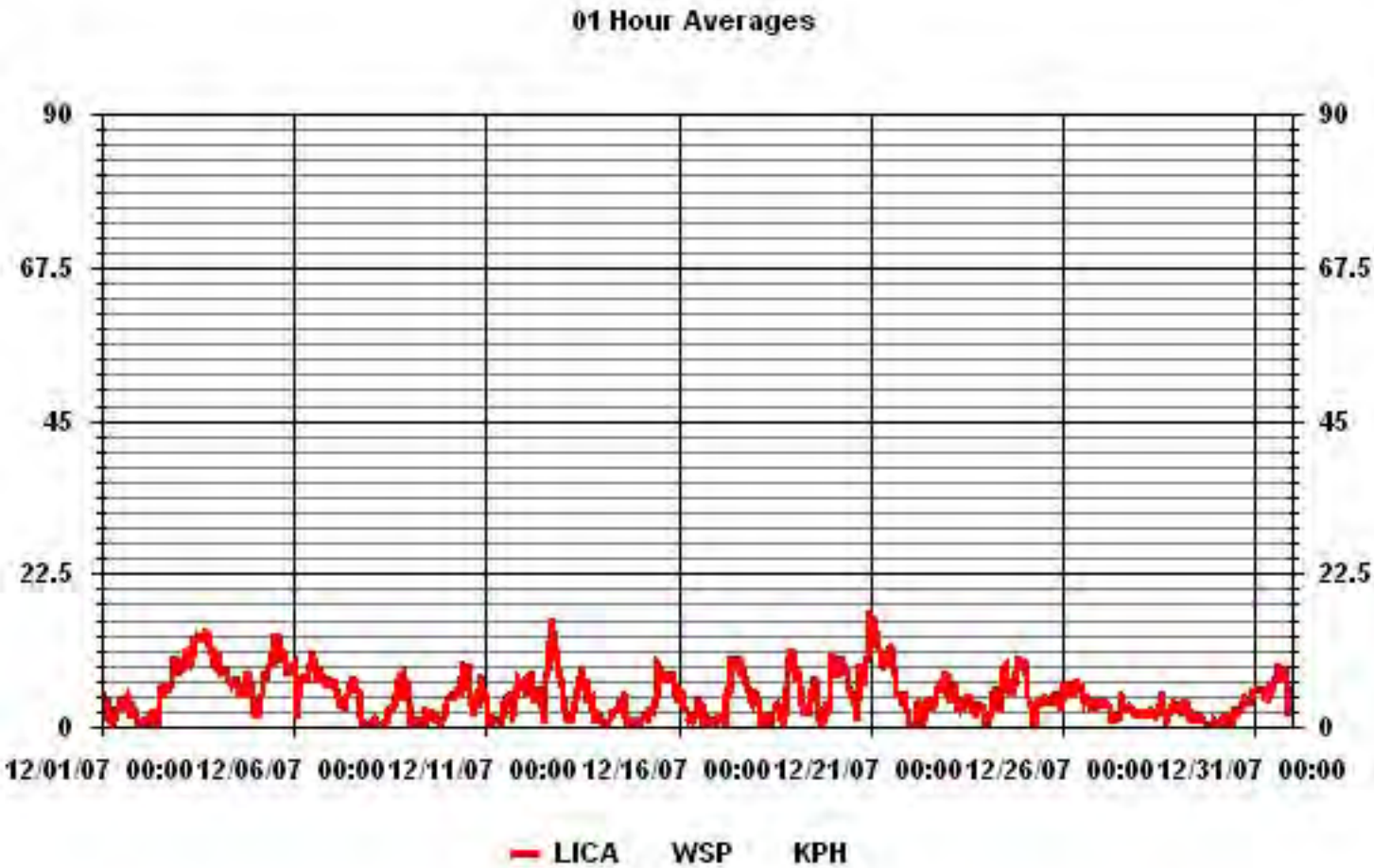
MAXIMUM 1-HR AVERAGE:	17.2	KPH	@ HOUR(S)	0	ON DAY(S)	20
MAXIMUM 24-HR AVERAGE:	11.1	KPH			ON DAY(S)	3

CALMS (≤ 0 KPH)	4.03	%	OPERATIONAL TIME:	744	HRS
MONTHLY CALIBRATION TIME:	0	HRS	AMD OPERATION UPTIME:	100.0	%
STANDARD DEVIATION:	3.38		MONTHLY AVERAGE:	4.58	KPH



MOUNTAIN STANDARD TIME

Maxxam Analytics Inc


01 Hour Averages
90
67.5
45
22.5
0
12/01/07 00:00
12/06/07 00:00
12/11/07 00:00
12/16/07 00:00
12/21/07 00:00
12/26/07 00:00
12/31/07 00:00
LICA WSP KPH

LICA
WSP / WD Joint Frequency Distribution (Percent)

December 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	.40	1.07	1.20	3.22	4.56	7.39	11.29	3.22	2.28	4.43	6.85	12.09	4.56	.80	.94	.80	65.18
<	12.0	.13	.00	.13	1.34	6.31	3.62	2.28	.00	.00	.00	2.01	4.16	3.36	1.88	1.20	.94	27.41
<	20.0	.00	.00	.00	.00	1.34	.00	.00	.00	.00	.00	.00	.00	.80	.53	.26	.40	3.36
<	29.0	.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
>=	39.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	Totals	.53	1.07	1.34	4.56	12.23	11.02	13.57	3.22	2.28	4.43	8.87	16.26	8.73	3.22	2.41	2.15	

Calm : 4.03 %

Total # Operational Hours : 744

Distribution By Samples

Direction

	Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
<	6.0	3	8	9	24	34	55	84	24	17	33	51	90	34	6	7	6	485
<	12.0	1		1	10	47	27	17				15	31	25	14	9	7	204
<	20.0					10								6	4	2	3	25
<	29.0																	
<	39.0																	
>=	39.0																	
	Totals	4	8	10	34	91	82	101	24	17	33	66	121	65	24	18	16	

Calm : 4.03 %

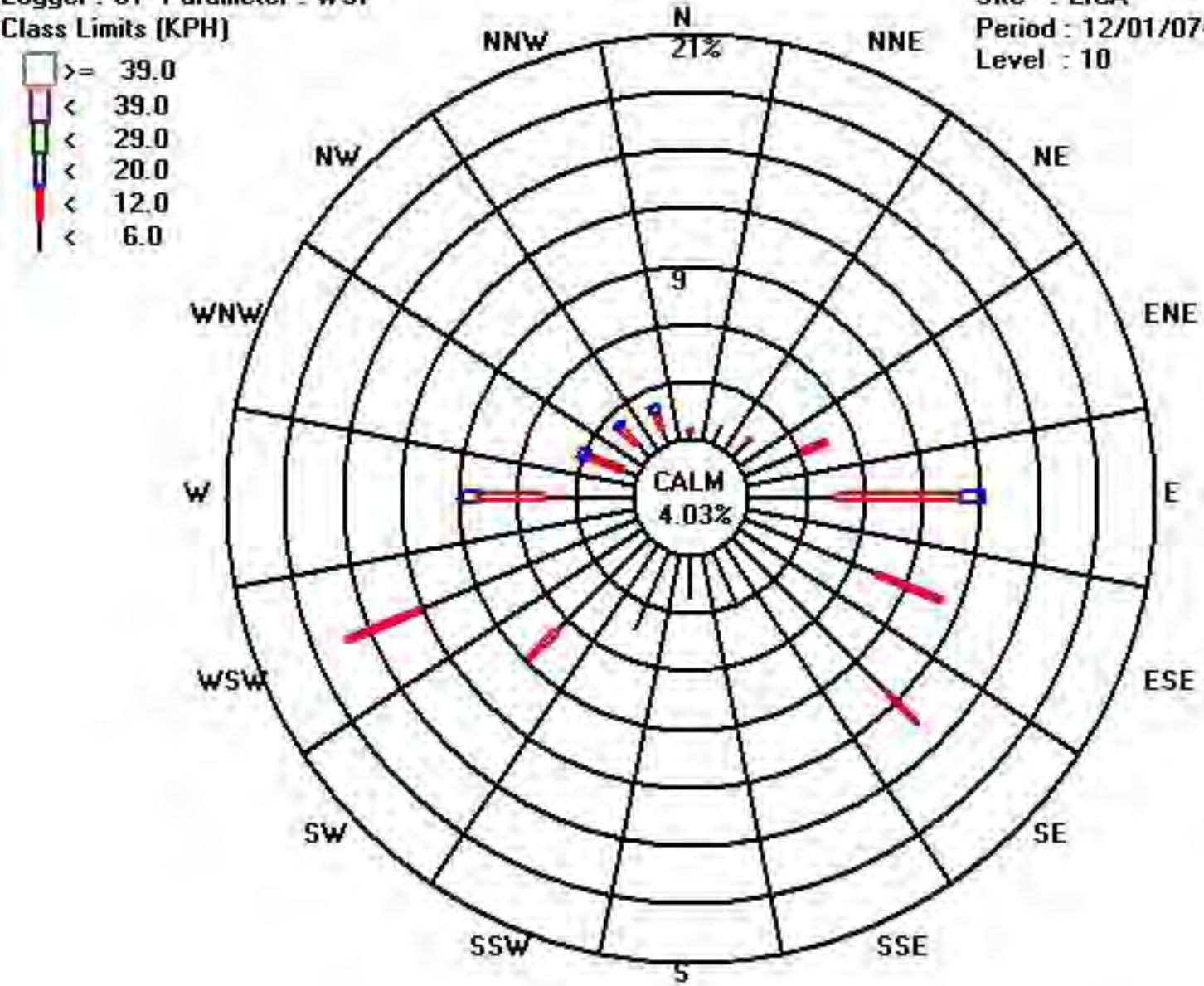
Total # Operational Hours : 744

Logger : 01 Parameter : WSP

Site : LICA

Period : 12/01/07-12/31/07

Level : 10



LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - *COLD LAKE*

DECEMBER 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	7.7 NW	7.5 E	6.7 SE	8.5 SE	6.7 ESE	4.1 SE	2.8 ESE	2.8 W	9.1 SSE	6 W	6.4 W	8.4 WSW	7.7 WSW	5 WSW	6 SW	6.4 SSW	7.5 SW	7.1 WSW	4.5 WNW	5.3 WNW	6.4 W	3.1 SW	12.9 N	2.6 N	12.9 N
2	1.1 SSE	1.4 E	16.1 N	12.8 N	3.4 S	2.5 SW	5.2 S	4.9 SE	4 SW	23.2 SSE	5.2 S	30.9 SW	8.1 ESE	12.2 E	6.9 SE	11.1 E	11.5 E	9.4 E	13.1 E	12.8 E	14.8 E	14.4 E	15.1 E	14.4 E	30.9 SW
3	11.4 NE	12.9 E	16.9 E	13 ENE	15.6 NE	17 ENE	15.4 ENE	15.8 NE	20.2 E	18.6 E	19.8 E	19.7 E	22.2 E	18.1 E	19.5 E	23.9 E	20.1 E	22 E	25.5 E	21 E	15.7 E	17.7 E	16.8 E	15.6 E	25.5 E
4	17.5 E	15.4 E	14.8 E	15.8 E	13.9 E	13.2 E	15.2 E	14.8 E	12.3 E	10.1 E	12 E	11.6 E	12.5 E	11.5 E	8.4 ESE	7.8 SE	7.8 ESE	7 SE	10.3 SE	12.2 SE	10 ESE	11.1 SE	7.2 SE	4.6 SE	17.5 E
5	4.8 S	4.8 SW	6.9 SW	8.1 WSW	11.1 W	12.1 W	12.1 WSW	12.4 W	13.3 W	14.7 W	14.7 W	15.7 WNW	20.3 WNW	20.5 WNW	21.4 WNW	18.6 W	14.5 WSW	14.4 WSW	13.8 WSW	13.7 WSW	11.3 SSW	12.8 SW	12 SW	11.4 SW	21.4 WNW
6	13.4 SW	12 SW	4.5 WSW	10.5 WSW	13.5 W	9.6 W	11.4 W	10.7 WNW	13.2 NW	14 NW	14.7 NW	15.5 NW	15.2 WNW	17.1 NW	9.7 WNW	13.5 W	13.5 W	10.2 WSW	9.5 WSW	9.3 WSW	8.4 WSW	7.9 SW	8.2 WSW	6.9 WSW	17.1 NW
7	8.4 WSW	7.9 WSW	7.3 WSW	6.7 WSW	6.5 WSW	32 SE	7.7 WSW	6.2 WSW	5.3 WSW	8.3 WSW	7.3 W	10.6 WNW	12.5 W	12.9 W	10.5 WSW	7.5 WSW	7.7 SW	5.2 WSW	10.2 SW	5.8 N	10.8 SW	2 N	10.9 N	2.9 N	32 SE
8	9.5 N	2.9 SW	6.2 S	8.6 SSE	17.1 N	11.6 N	8.9 NW	20.4 NNE	1.9 WSW	27.4 SSE	2 WSW	5.3 SW	6.2 WSW	6.2 WNW	6 WNW	8.4 SW	9.9 W	8.5 SW	9.9 WSW	10.2 SW	8.1 SW	7.3 WSW	9 WSW	9.2 WSW	27.4 SSE
9	9 WSW	2.5 WSW	2.6 NE	3 SE	10.8 S	4.7 N	4.8 N	5.6 SSE	3.9 W	4.4 N	9 SE	6 WNW	3.7 SSW	7.2 W	5 SE	4.3 SE	2.3 WSW	3.4 S	3.1 SW	2.3 WSW	2.4 SW	2.9 WNW	3.7 WNW	8.1 WSW	10.8 S
10	7.2 WSW	6.3 WSW	6.8 WSW	7.5 W	7.2 W	7.5 WSW	8.2 WNW	7.3 WNW	13.3 NW	14.7 NW	14 NNW	15 WNW	17.2 WNW	12.6 WNW	11.6 WNW	6.6 W	3.5 SW	4.6 SW	5.6 SW	7.6 WSW	9.9 WSW	9 WSW	8.2 WSW	6.5 WSW	17.2 WNW
11	6 SW	3.3 SE	2.6 ESE	2.2 SE	4.9 WSW	2.7 SE	2.3 SW	3.6 N	4.2 N	2.4 WSW	4.5 SE	5.8 SE	7.1 SE	6.3 SE	7.7 SE	5.7 SE	5.3 SE	4.8 SE	6.4 SE	9.1 ESE	10.6 SE	13.4 ESE	11.2 SE	10 SE	13.4 ESE
12	8.9 SE	8.5 E	10.9 SE	10.1 ESE	11.9 SE	10.5 ESE	5.6 SE	7.2 SE	6.4 SE	7.8 ESE	9.3 SE	5.9 SE	4.6 N	10.8 NNNW	12.2 NW	20.8 NNW	22.5 NNW	19.5 NNW	18.9 NW	18.7 NNW	13.7 NNW	12.6 NW	12.9 NW	9.6 NNW	22.5 NNW
13	7 NNW	7 NNE	3.2 SW	2.4 WSW	4.4 SW	3.9 N	3.7 SE	8 SE	7.6 SE	9 SE	10.5 SE	12.3 SE	11.6 SE	10.6 ESE	10.8 SE	8.1 SE	6.9 SE	6.8 SE	4.9 SE	3.2 SE	1.5 ESE	4.5 ESE	3.4 ESE	2.8 ESE	12.3 SE
14	9.6 SE	2.2 ESE	3.9 WSW	5.7 S	16.4 N	3.4 W	3 WSW	4.3 WSW	4.4 WSW	6.8 W	5.2 W	5.9 WSW	4.8 W	5.8 W	7.4 SW	5 WSW	2.6 SW	10.8 S	2.6 NE	8.4 S	10.4 S	2.3 NE	2 NE	2.3 NE	16.4 N
15	3.6 W	3.3 NNE	3.9 N	3.1 NE	3.5 ENE	3.3 SE	5.7 E	3.7 E	5.9 E	4.5 E	10.7 SE	17 ESE	15 SE	14.1 SE	10.8 ESE	12.2 E	11.1 E	15.4 SE	11.5 SE	11.2 SE	11.7 SE	11.2 ESE	8.7 ESE	5.9 ESE	17 ESE
16	7.9 SE	9.4 SE	7.1 SE	6.3 ESE	5.9 SE	6.1 SE	3 S	2.6 SE	3.2 SE	2.7 ESE	4 ESE	4.2 WSW	7.4 W	5.3 WSW	6.4 WSW	6.8 N	1.7 N	6.4 NNE	2.9 ESE	6.6 S	14.9 S	1.8 SW	3.1 E	2.6 ENE	14.9 S
17	8.9 W	8.2 SE	3.8 NNE	40.5 NW	4.1 E	9.5 S	41.4 NW	9.9 E	11.1 E	15.9 E	13.9 E	13.1 E	16.1 E	14.1 ESE	16.4 E	12.8 E	12.6 E	11.9 E	10.9 E	10.7 E	9.8 E	6.8 E	5.7 E	9.5 ESE	41.4 NW
18	11.3 SE	6.7 SE	7.5 SE	5.8 SE	3 E	3.3 WSW	3.8 E	2.4 S	4.2 WSW	3 SE	1.9 SE	4.6 E	5.7 SE	6.1 E	10.4 E	12.3 NNE	4.4 N	5.5 S	5.4 N	9 ESE	13.2 E	16.2 SE	16.9 ESE	17.3 ESE	17.3 ESE
19	15.8 SE	12.7 ESE	12.2 ESE	11.8 ESE	10.2 ESE	7.1 SE	4.8 SSW	4.9 SE	6.8 WSW	3.6 WSW	9.1 SW	9.4 SW	11.5 SW	11.3 SW	8.4 W	7 SW	3.7 SE	3.2 E	5.2 N	3.9 NE	7.3 NE	4.1 NE	6.1 ENE	10.4 E	15.8 SE
20	17.1 E	13.6 E	10.4 E	10.8 ENE	15.2 E	15 E	17.9 E	14.3 E	13.9 E	12.6 E	10.5 E	10 E	7.8 E	6.3 ESE	8 SE	4.8 SE	7.7 W	16.2 W	14.5 W	9.6 WSW	15 W	14.7 WNW	17.1 W	22.1 W	22.1 W
21	23 WSW	23.5 W	25.9 WSW	23.1 W	16 W	17.3 W	18.3 WSW	14.4 WSW	14.5 W	13.1 W	15.1 WNW	14.4 WNW	15.8 WNW	17.6 WNW	14.6 NW	12.5 WNW	9.6 WNW	8.4 WSW	6.8 WSW	9.8 W	5.1 WSW	7 WSW	5.9 WSW	62.9 SSE	62.9 SSE
22	3.2 WSW	7.2 SE	1.9 SW	9.3 SE	3.4 WSW	97.3 SSE	**128** SSE	4.1 W	25.5 NE	4.5 ENE	12.2 S	9.2 E	7.6 E	10.4 WNW	15.6 W	7.8 E	7.6 ESE	9.5 E	8.9 E	8.2 E	10.1 E	10.9 SE	11.9 ESE	11.3 ESE	128 SSE
23	11 SE	9.8 E	10.1 SE	9.9 SE	8.3 SE	7.8 SE	8.3 SE	5.5 SE	6.5 SE	11 SE	7.4 S	8 SW	7.7 SE	8.2 SE	5.1 SE	7.2 SE	5.4 ESE	5.5 SE	5.8 E	7.5 ESE	6.8 ESE	4.5 NE	6.6 E	4.8 ENE	11 SE
24	2.8 SW	3.6 NW	4.1 SW	6.8 WSW	8.3 WSW	6 SW	8.3 WSW	9.9 W	5.5 SW	7.1 W	7.4 WSW	13.5 WSW	12.7 WSW	10.3 WSW	10.6 WSW	8.4 WSW	6.8 WSW	8.5 WSW	9.5 W	13.6 WNW	16.6 NW	14.2 NW	14.3 NW	13.4 NNW	16.6 NW
25	14.1 NNW	12.1 N	7.4 NNE	6.7 NW	6.1 NW	5.7 ENE	2.7 W	4.2 SE	4.9 SE	7.2 SE	7.1 SE	7.3 SSW	9.2 SW	9.2 SSW	6.5 SE	6.8 SE	7.1 SE	7.5 SE	6.7 SE	6.8 SE	7.4 S	9 SW	6.8 S	8 SE	14.1 NNW
26	8.1 SE	10 SE	9.2 ESE	9.9 SE	10.9 SE	9.9 SE	10.3 SE	9.4 SE	9.9 SE	10.8 SE	9.5 SE	9.9 SE	9.8 SE	8 SE	8.5 ESE	8.1 E	8.7 SE	6.7 SE	6.9 E	5.9 E	6.7 SE	7.8 E	7.2 SE	7.8 SE	10.9 SE
27	6.7 SE	6.8 SE	6.3 SE	7.1 SE	6.1 SE	7.2 E	5.2 SE	5.5 SE	4.7 N	3.3 NNE	3.6 NNW	4.9 SE	7.8 SE	7.3 SE	4.7 SE	5.5 ESE	6.5 E	6.3 E	6.3 E	6.4 E	3.5 S	5.1 WSW	4 NE	5.5 E	7.8 SE
28	5.5 E	3.1 SW	6.3 SE	4.9 SW	3.6 WSW	3.6 SE	4.2 SE	5.1 SE	4.1 SE	3.7 SW	5.2 SE	5.4 SW	5.8 WSW	8.7 SW	10.3 WSW	7.2 W	3.9 WSW	3.4 SE	4.9 W	5.8 WNW	7.4 SW	6.7 SSW	6.2 SSW	6.6 SSW	10.3 WSW
29	5.6 WNW	9.4 W	6.2 WSW	8.6 SW	7.3 SSW	7.7 SW	4.9 SW	2.7 SW	2.6 SW	2.4 S	3.5 WSW	3.4 WSW	3.2 WNW	3.8 NE	3 E	5.9 N	2.6 SW	15.4 S	2.6 NE	2.2 E	8.7 S	6.7 N	2.7 NE	12.1 S	15.4 S
30	8.5 S	13 SSW	24.2 WNW	3.8 N	3.5 N	3.7 E	30 SSW	6.3 S	2.6 SW	2.5 E	10.1 N	4.9 WSW	4.7 W	4.5 WSW	4.5 WSW	3.7 SW	5.5 WSW	7.7 WSW	5.9 WSW	6.6 WSW	6.7 WSW	6.8 WSW	7 WSW	7.4 WSW	30 SSW
31	7.5 WSW	9.1 W	7.3 WSW	8.9 WSW	6.8 WSW	7.1 WSW	7.2 SW	6.6 WSW	10.1 WSW	10 WSW	9.3 WSW	10 SW	10.6 SW	11.2 SW	14.5 WSW	10.5 SW	10.8 SSW	13.6 SW	11.4 WSW	13.5 SSW	10.8 WSW	12.8 N	7.2 SSW	10 SSW	14.5 WSW
PEAK	23.0 WSW	23.5 W	25.9 WSW	40.5 NW	17.1 N	97.3 SSE	128.0 SSE	20.4 NNE	25.5 NE	27.4 SSE	19.8 E	30.9 SW	22.2 E	20.5 WNW	21.4 WNW	23.9 E	22.5 NNW	22.0 E	25.5 E	21.0 E	16.6 NW	17.7 E	17.1 W	62.9 SSE	

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**

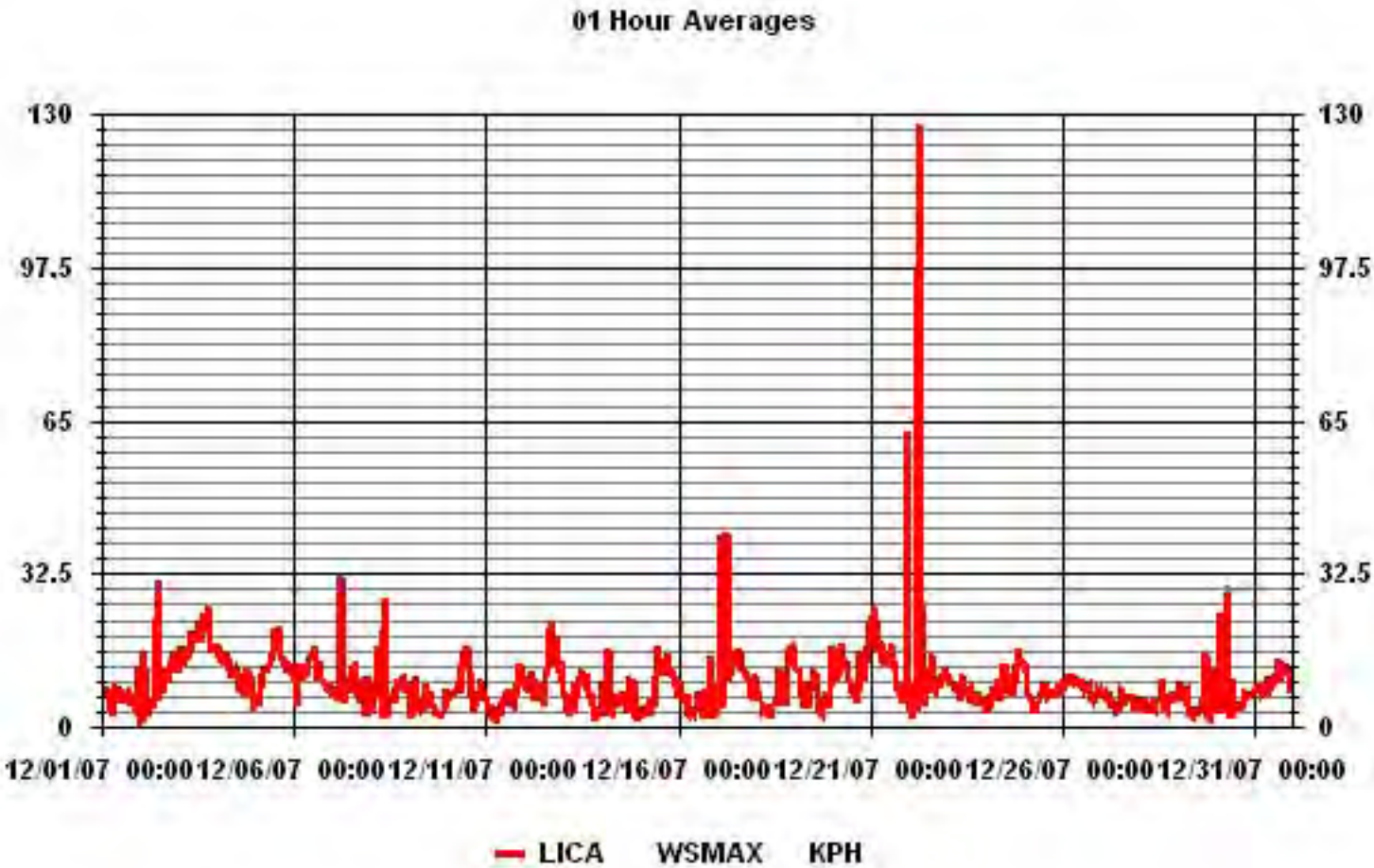
NOTE: WIND DIRECTION CORRESPONDS TO WIND SPEED MAXIMUMS

MONTHLY SUMMARY

MAXIMUM INSTANTANEOUS READING	128	KPH	@ HOUR(S)	7
	SSE	DEG	ON DAY(S)	22

Maxxam Analytics Inc

MOUNTAIN STANDARD TIME


01 Hour Averages
130
97.5
65
32.5
0
12/01/07 00:00
12/06/07 00:00
12/11/07 00:00
12/16/07 00:00
12/21/07 00:00
12/26/07 00:00
12/31/07 00:00
LICA WSMAX KPH

VECTOR
WIND DIRECTION

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - *COLD LAKE*

DECEMBER 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	310	0	125	133	149	220	158	244	208	238	253	234	238	231	246	225	231	244	260	270	265	248	304	211	236	SW	24
2	268	152	163	241	146	232	211	104	235	219	269	118	107	89	108	85	105	104	105	98	90	91	92	81	99	E	24
3	66	72	72	75	55	57	62	63	81	84	86	81	88	88	85	83	84	88	87	81	85	81	81	74	78	ENE	24
4	85	83	84	82	84	82	90	91	78	92	88	94	86	98	113	114	119	123	111	121	122	129	129	163	97	E	24
5	185	201	217	234	255	251	258	266	266	266	270	273	283	289	286	272	262	255	247	239	224	229	234	239	258	WSW	24
6	237	235	205	241	259	272	270	288	306	304	305	300	284	293	278	255	260	253	252	255	243	237	244	247	267	W	24
7	246	244	239	245	244	230	260	253	260	255	264	275	268	255	252	234	234	250	172	147	220	102	254	147	249	WSW	24
8	275	206	246	182	309	203	235	275	244	179	262	240	259	284	251	219	230	231	236	236	242	241	242	251	239	WSW	24
9	250	145	70	133	100	122	247	248	233	154	165	283	210	248	141	149	218	153	230	211	154	258	275	250	212	SSW	24
10	239	249	258	259	259	266	287	272	292	316	338	299	281	291	294	251	202	213	233	238	242	241	243	239	269	W	24
11	235	165	198	210	265	136	226	126	119	356	122	137	128	128	134	128	155	141	122	123	126	130	124	122	135	SE	24
12	116	101	117	123	128	128	126	129	131	126	131	128	51	331	326	328	329	327	326	324	325	320	327	336	349	NNW	24
13	348	12	242	210	217	163	142	136	139	136	133	128	125	127	130	126	139	134	137	125	146	113	122	127	128	SE	24
14	116	119	154	177	22	286	247	254	249	249	251	252	248	258	242	255	192	191	56	79	219	56	59	334	243	WSW	24
15	314	46	24	53	57	97	80	65	88	100	117	119	118	111	105	93	91	115	111	119	120	122	107	113	106	ESE	24
16	119	130	127	144	136	139	190	139	137	132	131	273	260	244	252	348	29	73	116	128	218	67	72	69	153	SSE	24
17	94	66	58	264	111	197	323	82	68	84	81	83	86	111	87	91	97	94	96	97	96	110	108	104	89	E	24
18	124	127	132	149	80	241	126	188	250	125	186	101	116	99	83	28	22	32	88	106	102	115	113	122	113	ESE	24
19	123	123	118	121	129	147	179	137	237	220	230	234	222	237	255	231	169	140	25	47	50	57	72	80	148	SE	24
20	90	85	84	76	80	80	87	90	86	85	86	90	93	102	123	215	265	282	284	257	267	277	279	266	78	ENE	24
21	262	261	266	267	265	267	264	273	269	266	285	290	290	301	294	287	281	256	250	253	239	242	252	155	270	W	24
22	206	128	197	192	213	187	154	249	47	56	125	92	72	73	76	93	94	99	102	96	95	113	121	120	107	ESE	24
23	110	85	112	132	131	139	156	153	139	135	172	208	137	135	131	126	112	107	71	113	113	48	51	68	121	ESE	24
24	145	265	213	227	234	226	233	251	247	254	254	259	255	254	254	250	251	251	262	285	307	318	332	342	270	W	24
25	348	352	5	334	345	62	331	129	130	135	150	223	215	204	160	132	142	135	132	136	173	203	183	143	147	SE	24
26	136	135	129	131	133	140	136	126	132	135	131	133	124	110	91	86	118	127	82	59	99	100	102	124	122	ESE	24
27	132	109	95	125	109	95	68	191	338	337	9	12	128	108	104	108	109	104	109	118	217	262	32	69	103	ESE	24
28	114	201	165	234	241	135	144	134	139	209	153	213	240	234	249	308	245	175	260	275	216	216	230	248	215	SSW	24
29	265	273	272	217	215	214	217	207	203	196	271	267	275	61	69	180	211	135	82	119	97	92	79	189	231	SW	24
30	210	154	236	96	130	66	225	208	206	107	286	251	260	255	254	237	250	244	261	250	247	245	243	246	243	WSW	24
31	255	267	258	256	252	245	236	253	252	245	252	233	227	228	237	229	235	236	238	229	243	314	221	210	241	WSW	24
HOURLY AVG	348	352	272	334	345	286	331	288	338	356	338	300	290	331	326	348	329	327	326	324	325	320	332	342			

STATUS FLAG CODES

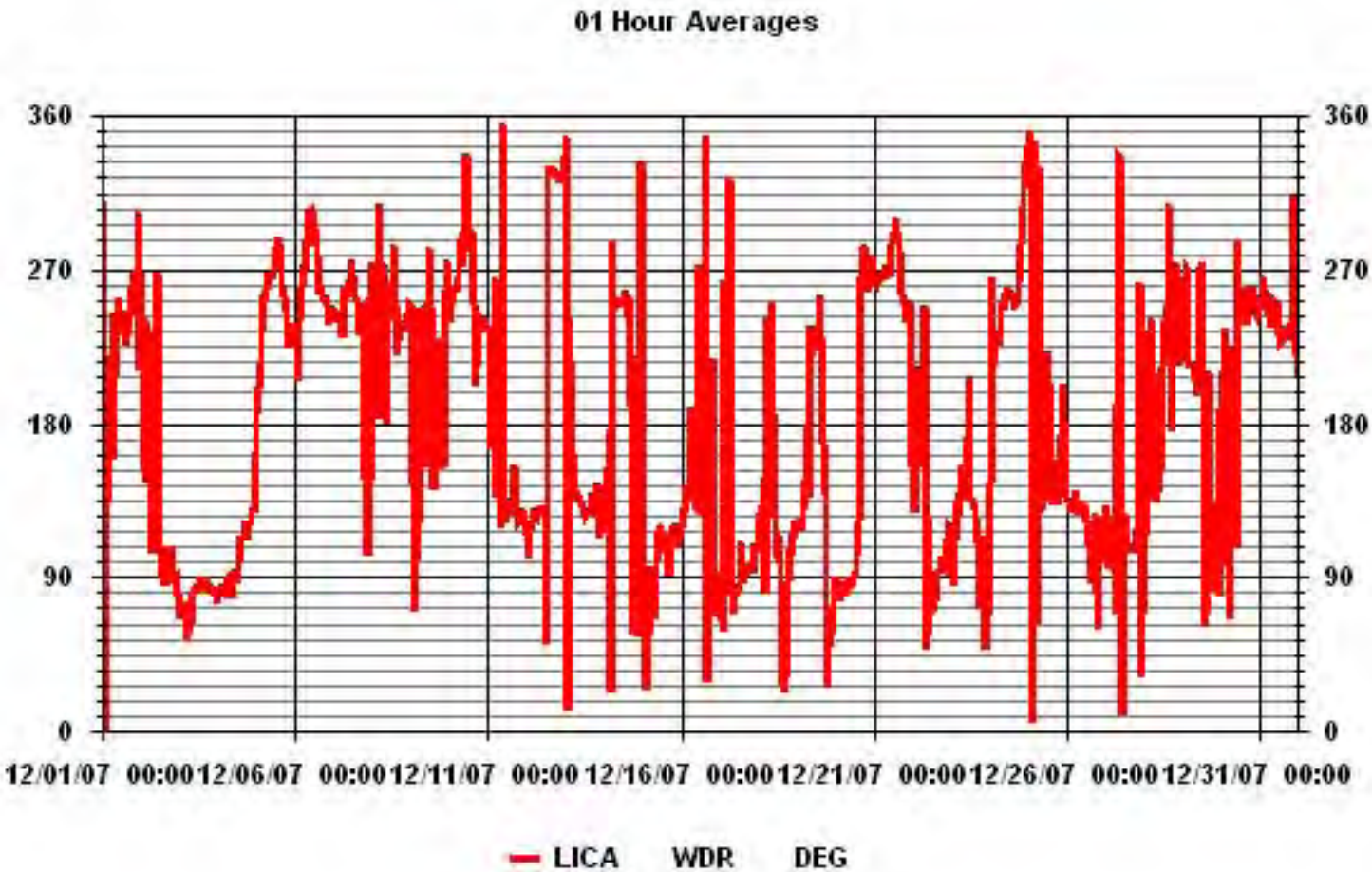
S	- OUT OF SERVICE	IZS	- IZS - DAILY ZERO/SPAN CHECK
N	- INVALID DATA	M	- MISSING DATA
D	- INSTRUMENT DRIFT	P	- POWER FAILURE
C	- CALIBRATION	NA	- NOT APPLICABLE

LAST CALIBRATION:	NA
DECLINATION :	19 DEGREES FROM MAGNETIC NORTH

MONTHLY CALIBRATION TIME:	0	HRS	OPERATIONAL TIME:	744	HRS
STANDARD DEVIATION	80.15		AMD OPERATION UPTIME	100.0	%
			MONTHLY AVERAGE	179.00	DEG

Maxxam Analytics Inc

MOUNTAIN STANDARD TIME


01 Hour Averages
360
270
180
90
0
12/01/07 00:00
12/06/07 00:00
12/11/07 00:00
12/16/07 00:00
12/21/07 00:00
12/26/07 00:00
12/31/07 00:00
LICA WDR DEG

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - *COLD LAKE*

DECEMBER 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	12	68	38	17	60	27	40	69	53	26	31	22	20	28	21	20	15	23	31	31	30	30	45	42
2	63	57	51	28	45	24	61	64	27	55	26	32	22	19	25	18	19	20	19	21	18	18	18	16
3	16	18	19	18	14	15	17	16	19	17	18	18	18	18	18	17	17	17	17	16	18	17	18	18
4	19	16	19	18	18	19	19	21	20	23	22	22	21	19	20	19	18	17	20	16	18	13	18	37
5	42	35	23	16	20	17	16	18	16	17	17	17	17	16	17	17	16	13	13	14	16	15	15	14
6	13	15	59	37	21	22	19	15	11	14	13	16	18	17	18	16	17	14	13	20	8	10	11	11
7	10	9	9	16	12	44	33	28	36	27	25	24	23	18	15	14	10	51	51	57	43	63	73	61
8	67	36	43	47	62	51	55	44	43	71	37	38	26	26	22	12	15	12	11	10	11	13	12	22
9	37	53	47	53	49	35	32	35	46	39	32	44	56	36	24	50	40	39	27	50	52	19	26	22
10	15	13	20	15	17	16	12	14	15	13	18	26	17	16	19	19	33	14	30	12	10	10	9	12
11	19	55	46	55	40	33	25	41	58	55	43	25	19	15	17	19	24	25	15	14	15	16	21	17
12	21	25	19	14	13	14	16	12	14	14	15	24	52	12	12	12	14	12	12	12	12	11	14	17
13	20	27	23	29	37	56	37	23	17	13	14	13	17	16	14	29	16	14	19	32	60	35	20	33
14	44	52	83	59	73	40	30	24	26	29	25	17	18	18	14	40	53	52	49	43	54	44	26	57
15	41	41	36	34	19	28	24	23	21	20	19	18	18	19	20	18	19	18	20	16	17	16	22	23
16	18	14	12	26	25	21	43	28	15	53	26	22	18	20	19	42	55	61	64	62	41	36	29	55
17	47	24	64	55	51	59	58	19	18	15	14	15	16	19	15	17	20	18	21	21	21	23	22	21
18	19	24	18	35	77	35	39	43	26	55	47	47	19	26	25	17	42	50	47	19	19	18	19	16
19	17	19	18	17	14	26	25	18	29	36	19	24	20	15	23	26	52	65	30	31	18	26	23	15
20	15	16	17	17	16	15	16	19	18	16	18	23	21	22	23	53	24	18	23	15	17	18	18	16
21	16	16	16	16	16	17	17	18	17	16	16	15	17	15	15	16	22	25	18	19	18	7	35	41
22	53	55	54	58	38	61	58	25	66	26	45	29	29	27	29	24	33	21	21	21	21	21	17	16
23	22	22	26	13	12	21	54	33	31	30	35	35	26	18	32	14	23	45	26	22	28	21	24	26
24	55	38	28	36	15	32	13	30	17	12	14	15	14	14	17	11	11	13	15	14	11	14	15	17
25	18	18	21	22	26	42	68	36	12	14	34	27	29	33	36	16	25	15	15	15	42	35	40	28
26	20	19	19	20	14	25	19	16	15	24	17	19	20	27	26	22	25	26	48	26	48	20	26	39
27	31	24	23	26	28	33	29	38	20	63	24	44	15	22	29	24	21	22	21	23	27	16	26	34
28	21	32	34	24	33	19	28	23	36	50	38	28	36	18	29	23	40	36	30	47	23	17	23	29
29	31	31	38	25	23	21	16	25	38	37	40	29	27	42	30	45	41	61	49	60	80	68	29	66
30	50	62	89	49	63	66	67	69	46	63	43	24	28	28	21	14	9	15	23	19	14	18	14	15
31	19	21	18	17	15	11	17	26	16	15	20	17	19	18	16	20	15	14	16	15	27	45	27	21

STATUS FLAG CODES

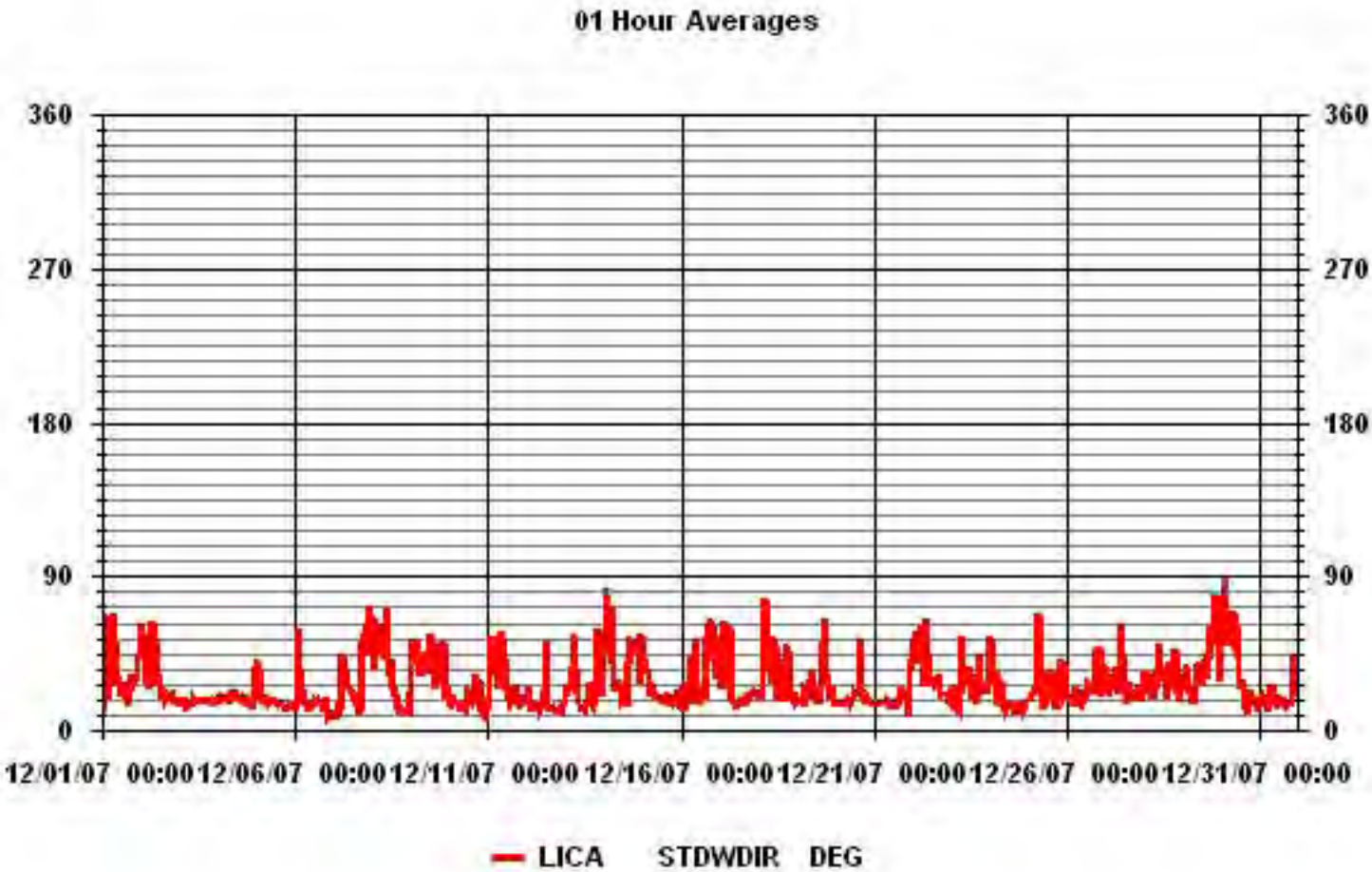
S	- OUT OF SERVICE	IZS	- IZS - DAILY ZERO/SPAN CHECK
N	- INVALID DATA	M	- MISSING DATA
D	- INSTRUMENT DRIFT	P	- POWER FAILURE
C	- CALIBRATION	NA	- NOT APPLICABLE

LAST CALIBRATION: NA

CALIBRATION TIME: 0 HRS OPERATIONAL TIME: 744 HRS

Maxxam Analytics Inc

MOUNTAIN STANDARD TIME


01 Hour Averages
360
270
180
90
0
12/01/07 00:00
12/06/07 00:00
12/11/07 00:00
12/16/07 00:00
12/21/07 00:00
12/26/07 00:00
12/31/07 00:00
LICA STDWDIR DEG

TEMPERATURE

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - *COLD LAKE*

DECEMBER 2007

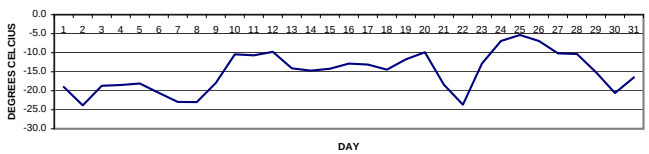
AMBIENT TEMPERATURE hourly averages (Degrees C)

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	-15.3	-15.9	-16.3	-16.9	-17.5	-17.9	-17.8	-18.3	-20.6	-21.7	-20.3	-18.4	-18.1	-17.2	-17.8	-19.8	-20.5	-20.7	-20.4	-20.1	-20.2	-20	-21.3	-23	-15.3	-19.0	24
2	-24.2	-24.8	-26	-27.3	-27.9	-28.9	-29.9	-30.4	-30.9	-28.2	-26	-23.4	-21.4	-20.4	-19.9	-20.3	-20.4	-21	-21.1	-21	-20.1	-19.8	-19.5	-19.4	-19.4	-23.8	24
3	-19.1	-18.8	-18.9	-19	-18.9	-18.8	-19	-19.2	-18.6	-18.5	-18.2	-18.1	-18.1	-18.2	-18.7	-18.8	-18.7	-18.8	-18.9	-18.9	-18.8	-18.7	-18.5	-18.3	-18.1	-18.7	24
4	-18.4	-18.6	-18.8	-18.8	-18.9	-19	-19.4	-19.8	-20.2	-19.6	-19.1	-18.7	-18.1	-17.6	-17.5	-17.4	-17.6	-18	-18	-18.1	-18.1	-18.2	-18.1	-17.7	-17.4	-18.5	24
5	-17.4	-17	-16.9	-16.7	-16.7	-16.8	-16.7	-16.6	-16.4	-16.1	-15.8	-15.7	-15.6	-15.5	-15.6	-16.5	-18.2	-19.7	-20.7	-21.6	-22.7	-23.1	-23.2	-23.3	-15.5	-18.1	24
6	-23.5	-23	-23.5	-24	-22.4	-22.1	-21.3	-20.6	-20.7	-20.3	-20.1	-19.5	-18.9	-18.2	-17.8	-17.7	-17.7	-17.9	-18.5	-19.8	-20.7	-20.9	-21.6	-22.4	-17.7	-20.5	24
7	-22.7	-22.7	-23	-24.1	-26.5	-27.9	-27	-24.5	-25.3	-22.9	-20	-18.2	-17.1	-16.5	-16	-17.6	-19.4	-21.5	-23.4	-25.1	-26.3	-26.9	-27.7	-28.3	-16.0	-22.9	24
8	-28.8	-29.2	-29.9	-30.3	-30.5	-30.2	-30.6	-30.5	-30.4	-27.8	-22.5	-19.4	-18.1	-16.2	-14.6	-15.3	-17.1	-17.3	-17.6	-18.4	-19	-20.6	-18.8	-18.4	-14.6	-23.0	24
9	-19.5	-21.7	-22.8	-23.9	-24.5	-24.7	-25.1	-24.8	-23.5	-21.6	-19.4	-17.6	-15.9	-15	-14.2	-14	-13.5	-13.6	-12.9	-12.9	-12.8	-12.5	-12.2	-12	-12.0	-17.9	24
10	-12.2	-12.5	-11.9	-11.3	-10.7	-10	-9.1	-8.6	-8.1	-7.8	-8	-7.8	-8.5	-9	-8.7	-9.1	-11.6	-12.7	-13.3	-12	-12.1	-12	-11.6	-11.5	-7.8	-10.4	24
11	-12	-12.1	-11.7	-10.9	-10.7	-11.6	-14.4	-15.9	-16.6	-14.9	-12.3	-9.8	-8.6	-7.9	-7.8	-8.1	-8.3	-8.5	-9	-9.1	-9	-9.1	-9.2	-9.2	-7.8	-10.7	24
12	-9.1	-9	-9	-9.4	-9.5	-9.4	-9.2	-9.1	-9	-8.7	-8.2	-7.6	-6.9	-7.1	-7	-7.1	-9.2	-10.8	-12.1	-12.9	-13.2	-13.5	-13.6	-13.7	-6.9	-9.8	24
13	-13.8	-13.9	-14.4	-14.6	-14.5	-14.4	-14.5	-14.5	-14.4	-14.4	-14.1	-13.7	-13.2	-12.7	-12.3	-11.7	-11.5	-12	-13.2	-14	-15.2	-16.2	-17	-18.4	-11.5	-14.1	24
14	-19.4	-20.1	-19.8	-18.5	-18.4	-16.2	-15.4	-15.2	-14.7	-15	-12.7	-10.7	-9.6	-7.3	-5.8	-7.9	-12.2	-14.9	-16.2	-16.4	-16.4	-16.3	-16.4	-17.7	-5.8	-14.7	24
15	-18.3	-17.9	-17.4	-16.9	-16.6	-16.1	-15.5	-15.2	-15.6	-14.8	-13.5	-14	-13.5	-12.8	-12.8	-12.5	-12.3	-12	-12.1	-12.3	-12.3	-12.4	-12.2	-12.2	-12.0	-14.2	24
16	-12.4	-12.5	-12.8	-12.8	-12.7	-12.6	-12.6	-13.3	-14.6	-14.7	-11.8	-10.9	-9.2	-6.3	-5.4	-7.4	-10.6	-13.2	-14.6	-15.9	-17	-17.9	-18.4	-19.2	-5.4	-12.9	24
17	-20	-19.8	-19.8	-20.5	-20.9	-19.6	-18.6	-13.7	-13.2	-11.9	-10.7	-10.1	-9.6	-9.3	-9.9	-9.7	-9.8	-9.8	-9.4	-9.3	-9.5	-9.5	-9.9	-10.2	-9.3	-13.1	24
18	-10.3	-10.4	-10.6	-11.5	-14	-16.3	-17.6	-17.8	-18	-17.3	-15.4	-13.7	-13	-11.8	-11.7	-14.9	-16.7	-18.1	-17.7	-14.4	-14.4	-14.3	-13.9	-12.9	-10.3	-14.4	24
19	-12.3	-12.1	-11.7	-11.2	-11.2	-11.2	-11.2	-11.8	-12.8	-12.1	-11.5	-12.2	-11.9	-12.3	-11.5	-11.1	-12.1	-11.9	-11.9	-12.7	-11.8	-11	-11.9	-10.3	-10.3	-11.7	24
20	-9.8	-10.2	-10.1	-10	-10	-10.2	-10.6	-10.8	-10.7	-10.6	-10.3	-10.2	-10	-9.8	-9.6	-9.3	-9.3	-9.4	-9.2	-9.1	-9	-8.9	-9	-11	-8.9	-9.9	24
21	-13.6	-15.3	-16.4	-17.2	-17.5	-17.6	-17.7	-17.6	-17.7	-17.6	-17.2	-17	-16.7	-16.6	-16.7	-16.7	-17.9	-19.2	-19.9	-20.7	-22.6	-22.9	-24.1	-25.6	-13.6	-18.4	24
22	-27.2	-28	-28.8	-29.4	-30.1	-30.8	-30.3	-31.4	**-31.8**	-28.8	-24.2	-22.6	-21	-20.6	-19.8	-19.2	-18.7	-18.1	-18.6	-18.7	-18.1	-17.4	-17.2	-17	-17.0	-23.7	24
23	-16.3	-16.4	-16.2	-16.5	-16.5	-16.4	-15.8	-15.2	-15.1	-14.8	-13.9	-12	-10.9	-9.9	-10.4	-11.1	-11.1	-10.7	-10.7	-10.3	-9.5	-9.5	-9.8	-9.8	-9.5	-12.9	24
24	-10	-10.1	-11.4	-12.9	-12.5	-13.6	-13.4	-13.8	-15.3	-11.7	-7.6	-4.4	-3	-2	**-1.3**	-2.7	-3.8	-2.9	-2.3	-1.9	-1.9	-2.1	-2.4	-3	-1.3	-6.9	24
25	-3.7	-4.4	-5	-5.3	-5.4	-6.3	-7.2	-7.3	-7.3	-7.1	-6.4	-5.7	-5.2	-4.8	-4.6	-4.6	-4.6	-4.7	-5	-5	-4.6	-4.4	-4.6	-5	-3.7	**-5.3**	24
26	-5.4	-5.9	-6.4	-7	-6.7	-6.9	-7	-7	-6.9	-6.8	-6.9	-7	-6.8	-6.5	-6.3	-6.6	-6.8	-7	-7.1	-7.4	-7.7	-7.8	-7.9	-8.3	-5.4	-6.9	24
27	-8.5	-8.8	-9.3	-9.8	-10.2	-10.8	-10.9	-11	-10.9	-10.6	-10.4	-10	-10.3	-10.3	-10.2	-10.2	-10.4	-10.4	-10.4	-10.4	-10.2	-10.1	-10	-10	-8.5	-10.2	24
28	-10.2	-10.2	-10.2	-10.2	-10.2	-10.4	-10.6	-10.8	-10.7	-10.6	-10.5	-10.1	-9.9	-10.1	-10.1	-10.2	-10	-10.1	-10	-10.1	-10.2	-10.7	-10.9	-11.1	-9.9	-10.3	24
29	-11.2	-11.2	-11.2	-12	-12.8	-13.3	-13.5	-14.3	-14.1	-13.5	-13.4	-13.3	-13	-12.7	-12.5	-14.5	-16.7	-17.6	-18.6	-18.7	-19.4	-20.8	-22	-22.9	-11.2	-15.1	24
30	-23.5	-23.8	-23.2	-23.5	-23.3	-22.2	-21.7	-23.2	-23.2	-22.2	-19.8	-19.1	-17	-15.7	-15.7	-18.1	-21.5	-22.1	-20.4	-19.9	-19.3	-18.9	-18.7	-18.3	-15.7	-20.6	24
31	-17.9	-17.3	-17.4	-17.7	-19.4	-20.4	-19.9	-18.1	-16.9	-16.9	-16.6	-17.7	-17.9	-17.2	-16.7	-16.1	-15.8	-14.8	-14.1	-13.5	-13.1	-13.3	-13.8	-12.7	-12.7	-16.5	24
HOURLY MAX	-3.7	-4.4	-5.0	-5.3	-5.4	-6.3	-7.0	-7.0	-6.9	-6.8	-6.4	-4.4	-3.0	-2.0	-1.3	-2.7	-3.8	-2.9	-2.3	-1.9	-1.9	-2.1	-2.4	-3.0			
HOURLY AVG	-15.7	-15.9	-16.2	-16.5	-16.7	-16.9	-16.9	-16.8	-16.9	-16.1	-14.7	-13.8	-13.1	-12.5	-12.2	-12.8	-13.7	-14.2	-14.4	-14.5	-14.7	-14.8	-15.0	-15.3			

STATUS FLAG CODES

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

24 HOUR AVERAGES FOR DECEMBER 2007



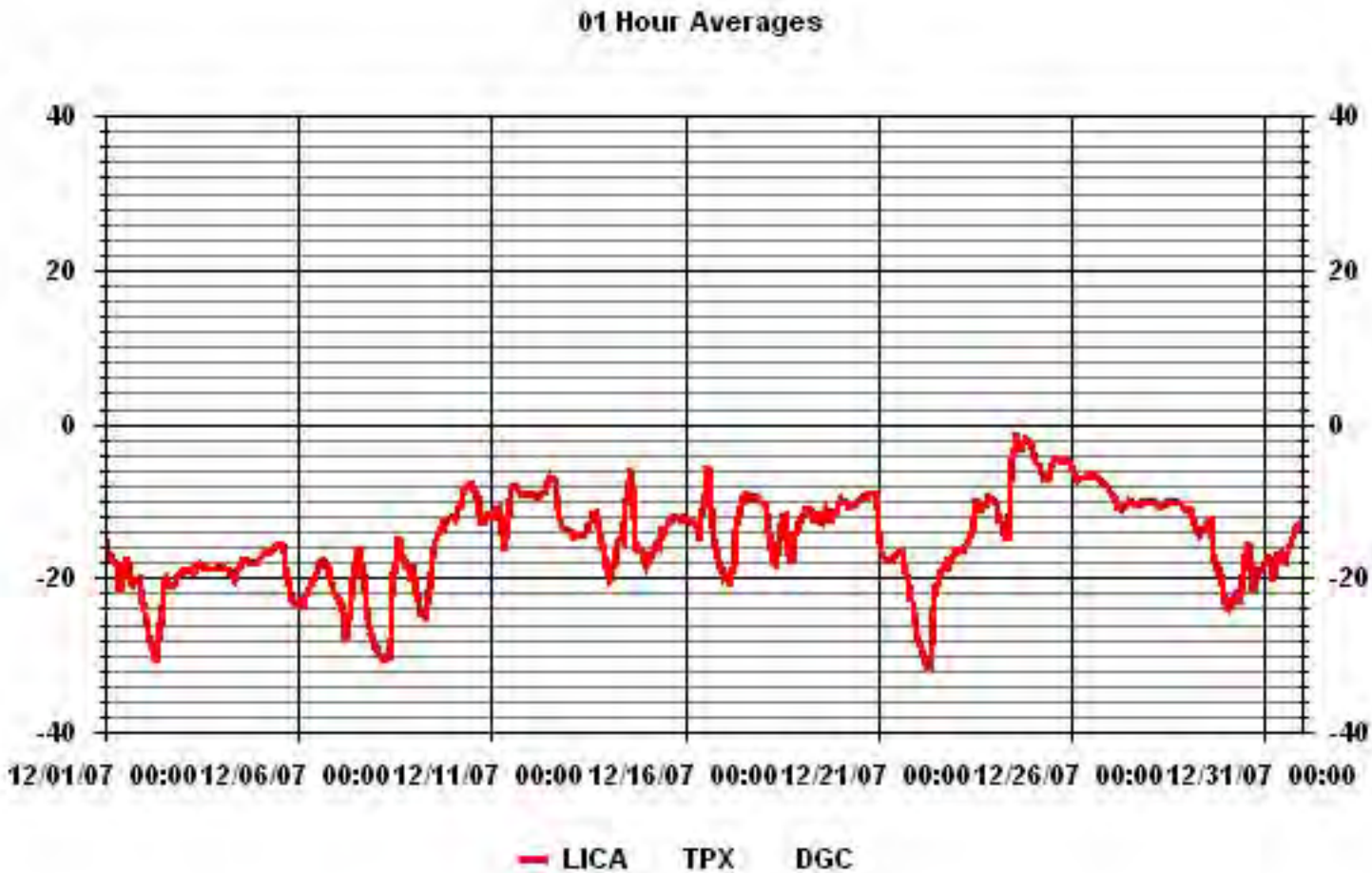
MONTHLY SUMMARY

MINIMUM 1-HR AVERAGE:	-31.8	^{o}C	@ HOUR(S)	9	ON DAY(S)	22
MAXIMUM 1-HR AVERAGE:	-1.3	^{o}C	@ HOUR(S)	15	ON DAY(S)	24
MAXIMUM 24-HR AVERAGE:	-5.3	^{o}C			ON DAY(S)	25

CALIBRATION TIME:	0	HRS	OPERATIONAL TIME:	744	HRS
			AMD OPERATION UPTIME:	100.0	%
STANDARD DEVIATION:	5.89		MONTHLY AVERAGE:	-15.01	^{o}C

MOUNTAIN STANDARD TIME

Maxxam Analytics Inc


01 Hour Averages
40
20
0
-20
-40
12/01/07 00:00
12/06/07 00:00
12/11/07 00:00
12/16/07 00:00
12/21/07 00:00
12/26/07 00:00
12/31/07 00:00
LICA TPX DGC

RELATIVE HUMIDITY

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - *COLD LAKE*

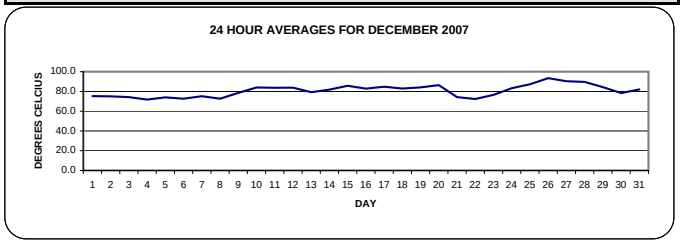
DECEMBER 2007

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	74.3	78.3	78.7	79.2	78.7	79.6	79.1	78.9	78.8	75.4	74.6	68.9	67.6	63.1	65.9	72.3	75.1	76.7	76.5	76.6	77.3	76.5	77.6	76.3	79.6	75.3	24
2	76.0	75.5	74.0	73.1	74.4	72.1	72.8	73.3	70.9	68.0	70.8	75.1	77.0	74.2	73.8	77.0	78.2	79.1	78.5	79.3	79.3	78.5	75.7	74.3	79.3	75.0	24
3	75.5	75.3	73.4	74.0	74.7	74.8	73.8	75.1	74.3	72.9	72.9	74.2	74.9	73.3	73.4	73.8	72.9	72.4	73.4	75.4	76.0	76.2	75.1	73.9	76.2	74.2	24
4	72.1	72.1	70.9	70.7	70.6	69.5	69.0	69.1	70.3	70.3	69.7	69.1	68.9	68.9	69.2	70.9	72.5	73.6	74.6	75.4	75.5	76.2	76.6	76.3	76.6	71.8	24
5	76.6	76.2	75.7	75.9	77.1	77.2	76.4	76.0	75.2	73.3	72.7	71.4	68.7	67.9	68.0	68.9	72.8	73.0	73.2	74.8	76.4	76.7	76.7	75.3	77.2	74.0	24
6	74.3	73.2	74.5	76.2	73.3	73.7	73.9	73.3	71.9	69.0	66.6	64.7	63.6	62.2	63.1	66.9	75.8	76.0	76.2	79.2	79.9	79.5	78.7	78.1	79.9	72.7	24
7	78.3	78.4	77.8	76.9	75.2	74.1	75.2	76.0	75.8	76.4	77.0	74.1	70.6	69.4	67.0	73.5	79.6	80.0	77.5	75.8	74.6	74.2	73.5	72.9	80.0	75.2	24
8	72.2	72.7	71.8	71.7	71.6	71.2	71.6	70.7	70.9	69.6	67.2	68.3	69.9	66.2	65.1	72.2	77.8	76.9	76.2	76.9	77.2	78.7	78.4	77.9	78.7	72.6	24
9	78.8	79.5	78.3	77.7	76.0	75.7	74.7	74.7	74.8	74.7	77.4	76.3	73.8	73.9	73.9	75.4	77.1	83.4	84.1	84.7	85.0	84.8	85.0	85.0	85.0	78.5	24
10	85.9	86.0	86.1	87.2	88.0	88.5	87.9	86.3	85.3	82.6	80.9	78.6	76.6	73.7	73.7	76.7	84.1	86.2	86.2	88.2	86.8	86.3	86.6	87.6	88.5	84.0	24
11	87.9	87.0	86.5	86.8	87.6	88.0	83.6	83.5	81.4	79.3	80.1	83.5	81.4	81.1	82.2	83.9	84.1	85.2	86.5	86.7	82.2	80.2	80.4	80.6	88.0	83.7	24
12	80.0	80.2	81.8	87.8	88.5	88.7	89.4	89.7	89.7	89.1	87.3	87.5	86.2	86.3	87.7	87.8	82.7	80.5	79.1	76.9	77.3	76.6	76.0	75.0	89.7	83.8	24
13	74.9	74.8	78.5	80.8	80.4	80.6	80.7	79.3	77.6	78.2	77.6	76.8	76.6	76.7	76.8	76.5	77.4	79.1	82.0	83.3	84.0	84.8	82.9	81.5	84.8	79.2	24
14	79.8	78.2	78.6	79.7	79.7	82.4	81.7	83.5	84.7	83.0	79.7	81.1	81.2	76.0	76.0	81.1	87.5	84.5	83.4	86.2	85.2	84.5	84.0	82.1	87.5	81.8	24
15	82.0	82.7	82.9	82.9	83.5	83.8	84.6	84.6	84.1	85.0	85.9	85.8	86.6	87.1	87.2	87.8	87.9	88.3	87.8	87.5	87.4	87.2	87.2	87.0	88.3	85.7	24
16	86.5	86.1	86.0	85.9	86.0	86.2	86.2	85.8	84.9	82.2	81.1	81.2	79.2	73.9	72.8	82.0	88.2	86.8	85.1	82.4	80.9	80.2	80.3	78.9	88.2	82.9	24
17	78.8	79.4	79.8	78.6	78.6	80.6	83.0	87.1	87.0	87.8	87.0	86.0	85.0	82.7	86.4	87.8	89.3	88.8	87.8	87.3	87.3	86.0	86.2	86.3	89.3	84.8	24
18	86.0	87.5	86.8	86.9	85.9	82.4	81.6	80.7	81.2	79.8	77.2	79.8	80.3	77.7	79.4	80.9	83.1	82.2	82.1	85.3	84.9	86.1	86.3	86.0	87.5	82.9	24
19	85.5	85.4	85.8	84.6	84.2	84.7	84.3	86.1	86.2	83.2	82.2	81.8	81.2	80.9	80.2	80.1	84.3	83.5	84.5	86.0	85.1	85.1	87.4	86.6	87.4	84.1	24
20	84.2	85.0	86.3	86.7	86.5	85.8	83.7	83.7	84.4	84.9	85.2	86.3	87.9	91.4	91.9	91.4	90.9	90.6	89.3	88.4	86.4	83.0	81.5	78.2	91.9	86.4	24
21	76.4	75.3	72.5	72.3	72.7	72.7	73.8	73.8	77.8	79.0	75.6	73.7	70.9	69.3	67.7	68.4	71.2	75.3	76.8	77.5	77.7	78.4	76.9	76.4	79.0	74.3	24
22	74.3	73.7	72.8	72.6	71.8	71.8	74.2	70.9	71.8	73.7	72.4	74.6	72.4	73.0	73.0	73.8	74.2	71.3	71.5	72.0	71.0	68.6	69.8	71.2	74.6	72.4	24
23	72.1	73.2	73.5	74.2	76.7	77.3	78.9	81.2	81.7	78.0	77.6	71.9	71.0	73.8	72.4	72.2	75.1	78.4	78.8	80.2	78.7	79.5	80.3	79.9	81.7	76.5	24
24	82.1	83.5	86.2	86.4	87.5	86.0	87.2	85.7	84.2	86.5	83.6	77.8	75.9	72.5	70.9	78.1	83.6	85.3	90.8	88.5	83.3	84.3	85.8	83.7	90.8	83.3	24
25	82.8	82.5	82.9	84.7	86.0	85.7	87.4	87.7	85.2	84.6	84.5	85.3	87.5	86.2	86.1	85.9	87.1	88.4	89.6	90.4	92.2	93.7	93.4	94.2	94.2	87.3	24
26	95.2	**95.8**	94.5	94.0	93.7	93.0	92.8	93.1	93.4	93.2	93.0	93.0	93.1	93.3	93.5	93.6	93.5	93.3	93.2	93.2	93.2	93.1	92.8	92.5	95.8	**93.5**	24
27	92.3	91.8	91.4	91.1	90.8	90.1	89.9	89.7	89.7	89.9	90.1	90.3	90.3	90.2	90.1	90.1	89.9	89.8	89.9	90.1	90.1	90.3	90.1	90.3	92.3	90.3	24
28	90.0	89.8	90.0	90.0	89.9	89.8	89.6	89.5	89.4	89.4	89.6	89.8	89.8	89.8	89.7	89.5	89.8	89.8	89.7	89.7	89.6	89.3	88.9	88.8	90.0	89.6	24
29	88.9	88.9	88.7	87.8	87.2	86.7	86.2	85.1	85.6	85.9	85.7	85.6	85.8	86.2	85.9	84.3	82.5	81.8	80.7	80.7	79.9	78.6	78.1	77.3	88.9	84.3	24
30	77.0	77.0	77.4	77.0	77.1	78.1	78.1	77.2	77.1	77.5	78.3	77.9	78.8	79.6	78.6	77.8	77.5	78.7	79.2	79.6	80.1	80.1	80.4	80.8	80.8	78.4	24
31	81.2	81.6	81.7	81.4	80.4	79.9	80.0	81.9	82.7	82.5	82.8	81.0	78.7	78.0	79.6	82.1	82.7	83.1	83.4	84.0	84.4	85.1	85.1	84.8	85.1	82.0	24
HOURLY MAX	95.2	95.8	94.5	94.0	93.7	93.0	92.8	93.1	93.4	93.2	93.0	93.0	93.1	93.3	93.5	93.6	93.5	93.3	93.2	93.2	93.2	93.7	93.4	94.2			
HOURLY AVG	80.7	80.9	80.8	81.1	81.1	81.0	81.0	81.1	80.9	80.2	79.6	79.1	78.4	77.4	77.5	79.4	81.6	82.0	82.2	82.7	82.2	82.0	81.9	81.3			

STATUS FLAG CODES

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



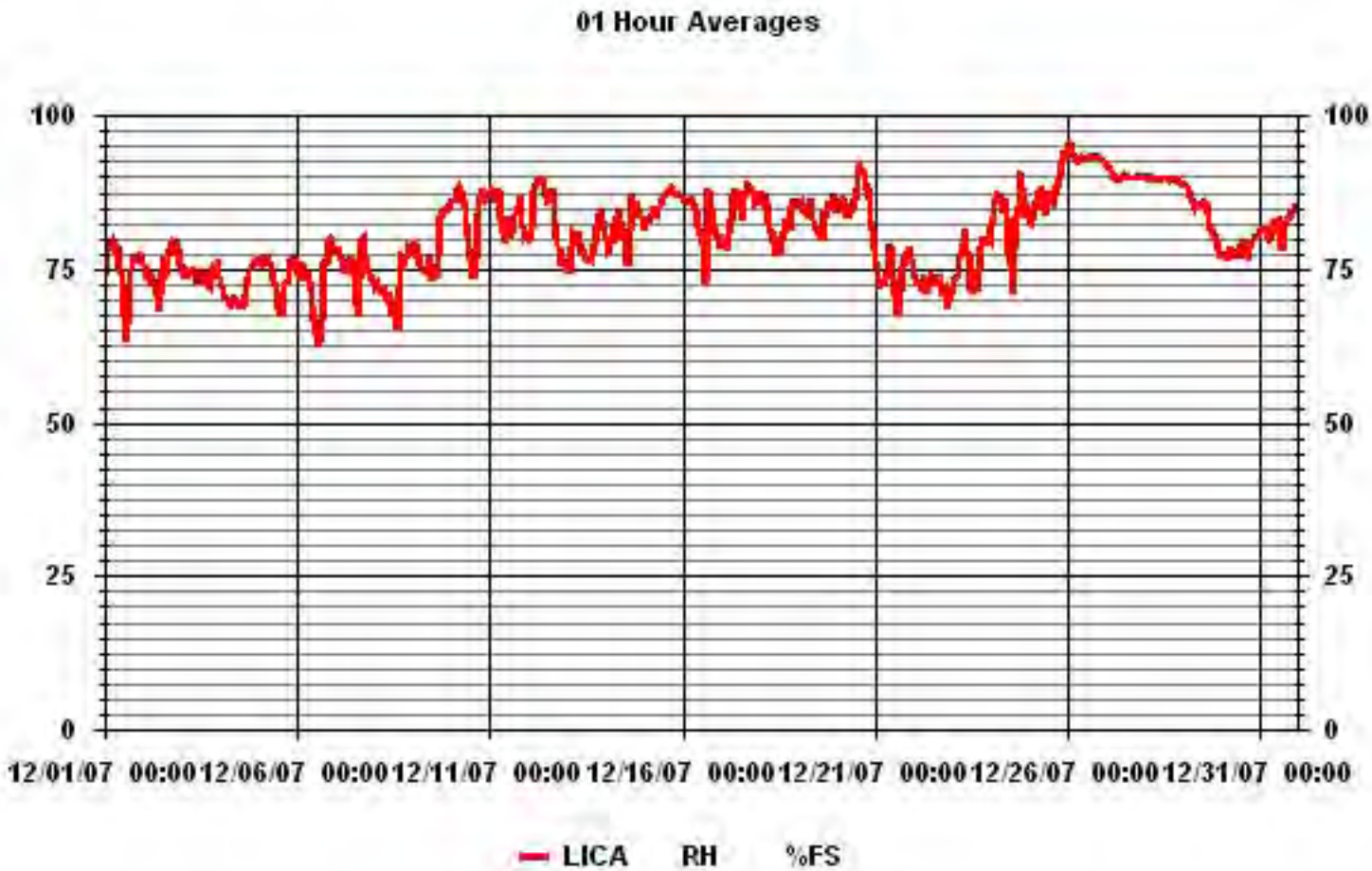
MONTHLY SUMMARY

MAXIMUM 1-HR AVERAGE:	95.8	%	@ HOUR(S)	2	ON DAY(S)	26
MAXIMUM 24-HR AVERAGE:	93.5	%			ON DAY(S)	26

CALIBRATION TIME:	0	HRS	OPERATIONAL TIME:	744	HRS
			AMD OPERATION UPTIME:	100.0	%
STANDARD DEVIATION:	6.66		MONTHLY AVERAGE:	80.66	%

MOUNTAIN STANDARD TIME

Maxxam Analytics Inc


01 Hour Averages
100
75
50
25
0
12/01/07 00:00
12/06/07 00:00
12/11/07 00:00
12/16/07 00:00
12/21/07 00:00
12/26/07 00:00
12/31/07 00:00
LICA RH %FS

DECEMBER 2007
CALIBRATION REPORTS

LICA – COLD LAKE

SO_2

SO_2 Calibration Report

Station Information

Calibration Date	December 3, 2007		Previous Calibration	November 19, 2007	
Company	**Lakeland Industry & Community Association**				
Plant / Location	**LICA 1 - Cold Lake South**				
Start Time (MST)	14:45		End Time (MST)	18:15	
Reason:			Monthly Calibration		
Barometric Pressure	715	mmHg	Station Temperature	21	Deg C
Cal Gas	50.2	ppm	Cal Gas Expiry date	06/18/2009	
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	700	ccm	OK	Deg C	700	ccm	OK	Deg C
HVPS / Lamp Setting	OK		849		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		906		103		906	

Calibration Data

Dilution Flow Rate	Source Gas Flow Rate	Calculated Concentration	Indicated Conc. (DAS)	Correction Factor
ZERO	ZERO	0	1	N/A
ZERO	ZERO	0	0	N/A
4960	39.8	400	401	0.9965
4975	24.9	250	250	1.0000
4985	14.9	150	151	0.9907
ZERO	ZERO	0	0	N/A
			Sum of Least Squares	0.9969
			New Correction Factor	0.9965

	Before Calibration	After Calibration
Auto Zero	1	0
Auto Span	341	339
Sample Lines Connected		**YES**
Percent Change from Previous Calibration		0.0%

Notes:

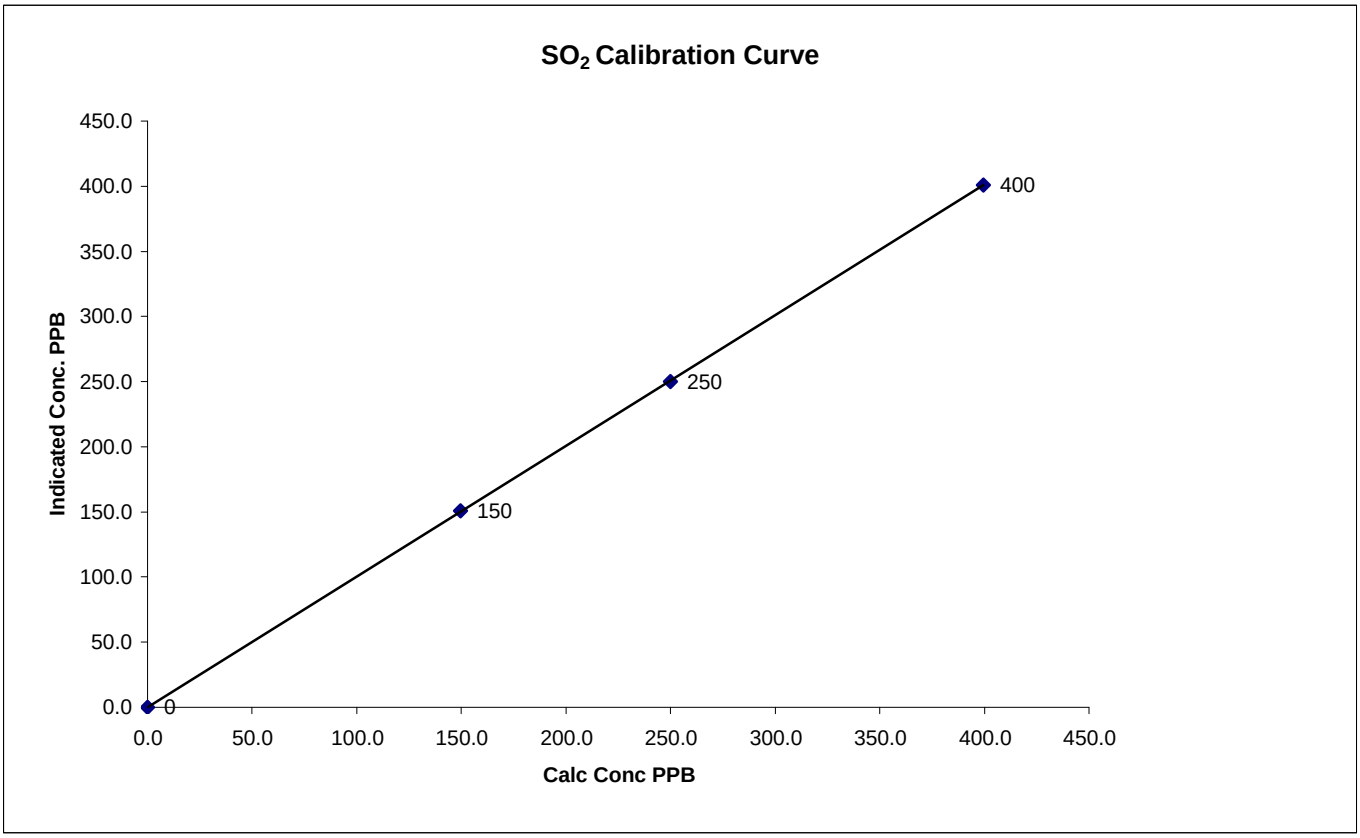
Calibration Performed by: Shea Beaton

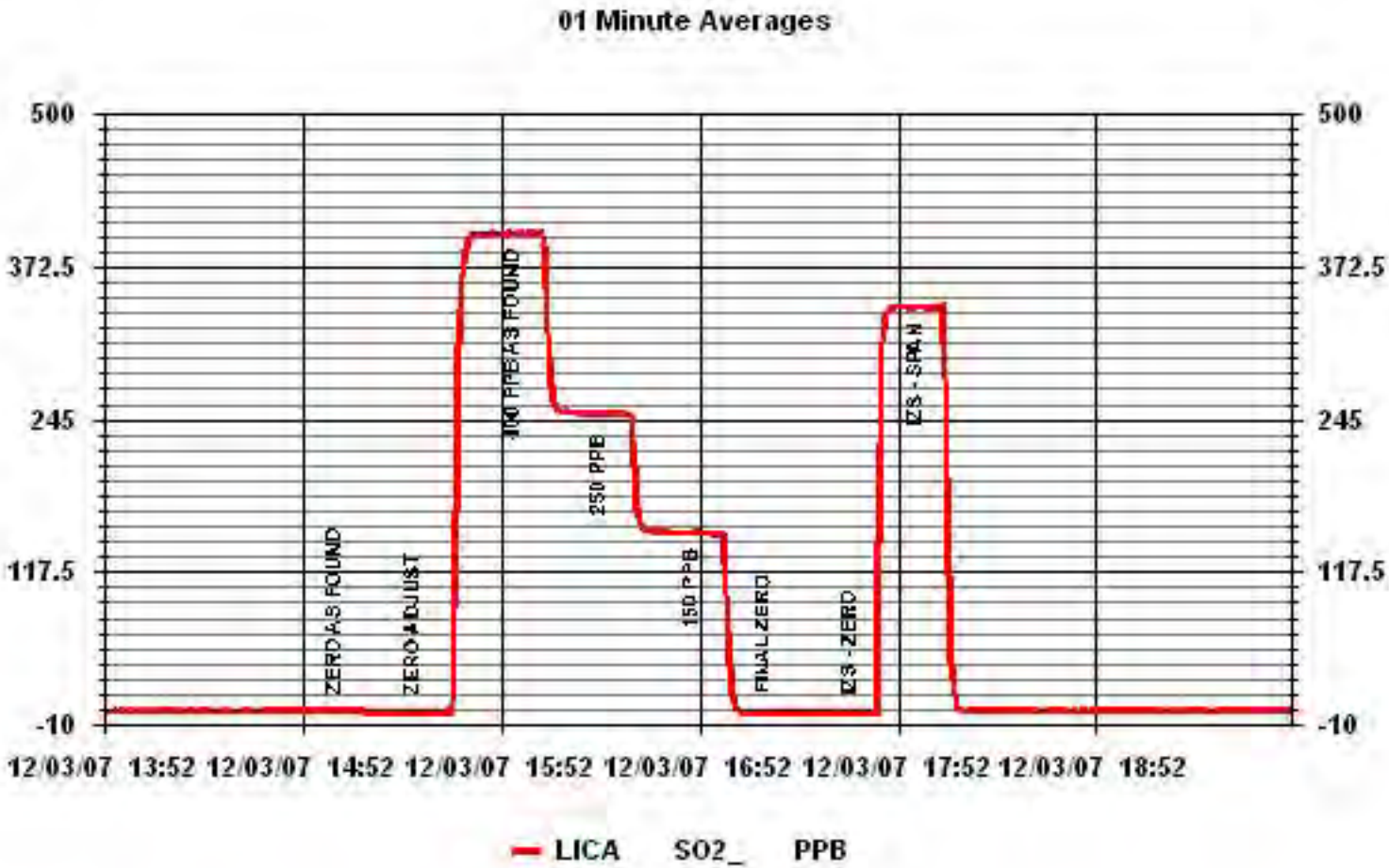
SO_2 Calibration Curve

Calibration Date	December 3, 2007		
Company	**Lakeland Industry & Community Association**		
Plant / Location	**LICA 1 - Cold Lake South**		
Start Time (MST)	14:45	End Time (MST)	18:15

Calculated Conc. ppb	Indicated Response ppb	Correction Factor
0	0	n/a
150	151	0.9907
250	250	1.0000
400	401	0.9965

Correlation Coefficient	(≥ 0.995)	0.999983
Slope	(0.85 to 1.15)	1.002447
Intercept	(± 3% F.S.)	0.209001




01 Minute Averages
500
372.5
245
117.5
-10
ZERO AS FOUND
ZERO ADJUST
100 PPB AS FOUND
250 PPB
150 PPB
FINAL ZERO
ZS - ZERO
ZS - SPAN
12/03/07 13:52
12/03/07 14:52
12/03/07 15:52
12/03/07 16:52
12/03/07 17:52
12/03/07 18:52
LICA SO2_ PPB

TRS

TRS Calibration Report

Station Information

Calibration Date	December 3, 2007	Previous Calibration	November 19, 2007
Company	**Lakeland Industry & Community Association**		
Plant / Location	**LICA 1 - Cold Lake South**		
Start Time (MST)	14:45	End Time (MST)	18:15
Reason:	Monthly Calibration		
Barometric Pressure	715 mm Hg	Station Temperature	21 Deg C
Cal Gas	10.2 ppm	Cal Gas Expiry date	07/03/2008
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		887		OK		882	
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	850		764		879		764	

Calibration Data

Dilution Flow Rate	Source Gas Flow Rate	Calculated Concentration	Indicated Conc. (DAS)	Correction Factor
ZERO	ZERO	0	1	N/A
ZERO	ZERO	0	0	N/A
4960	39.3	80	80	1.0023
4980	19.7	40	40	1.0048
4990	9.8	20	20	0.9996
ZERO	ZERO	0	0	N/A
			Sum of Least Squares	1.0026
			New Correction Factor	1.0023

	Before Calibration	After Calibration
Auto Zero	0	0
Auto Span	81	81
Sample Lines Connected		YES
Percent Change from Previous Calibration		-0.3%

Notes:

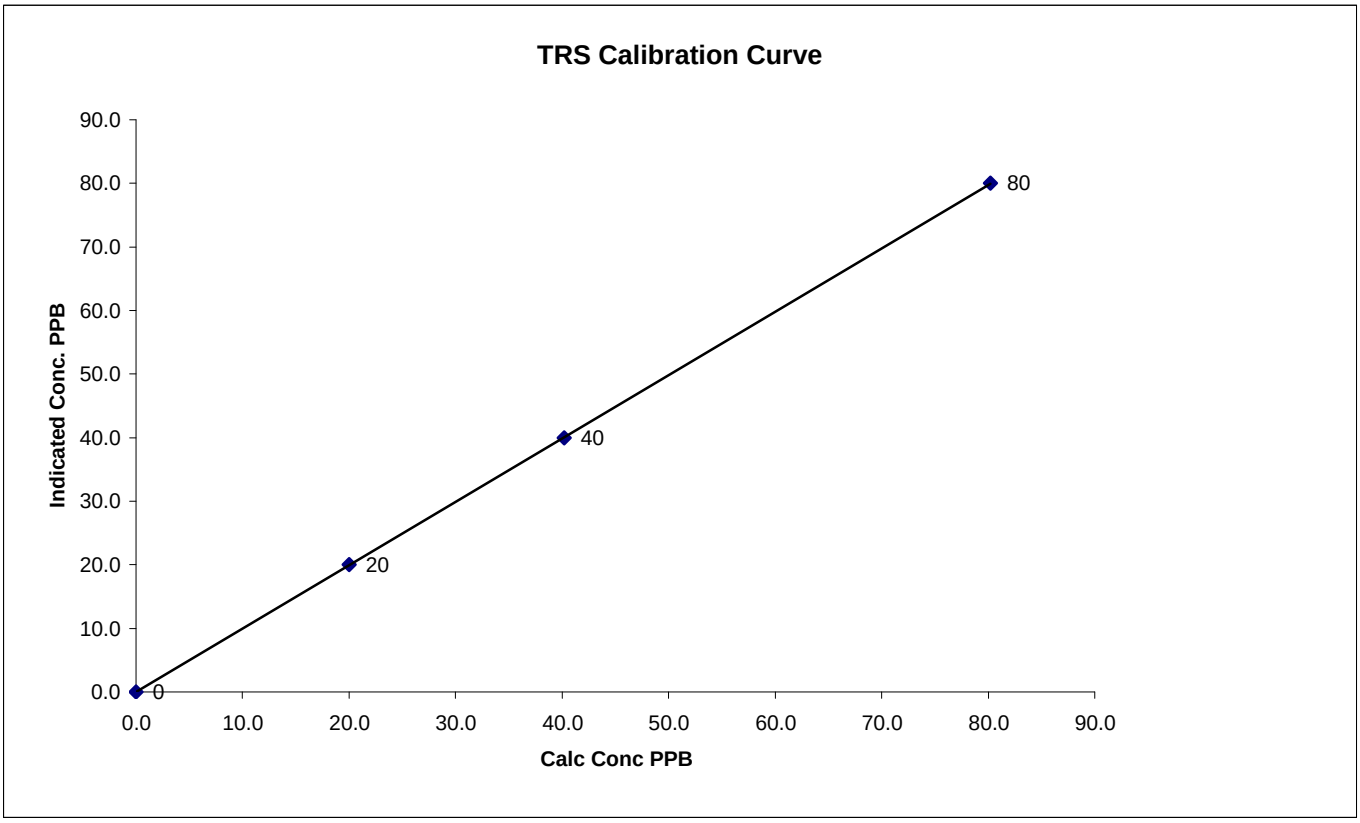
Calibration Performed by: Shea Beaton

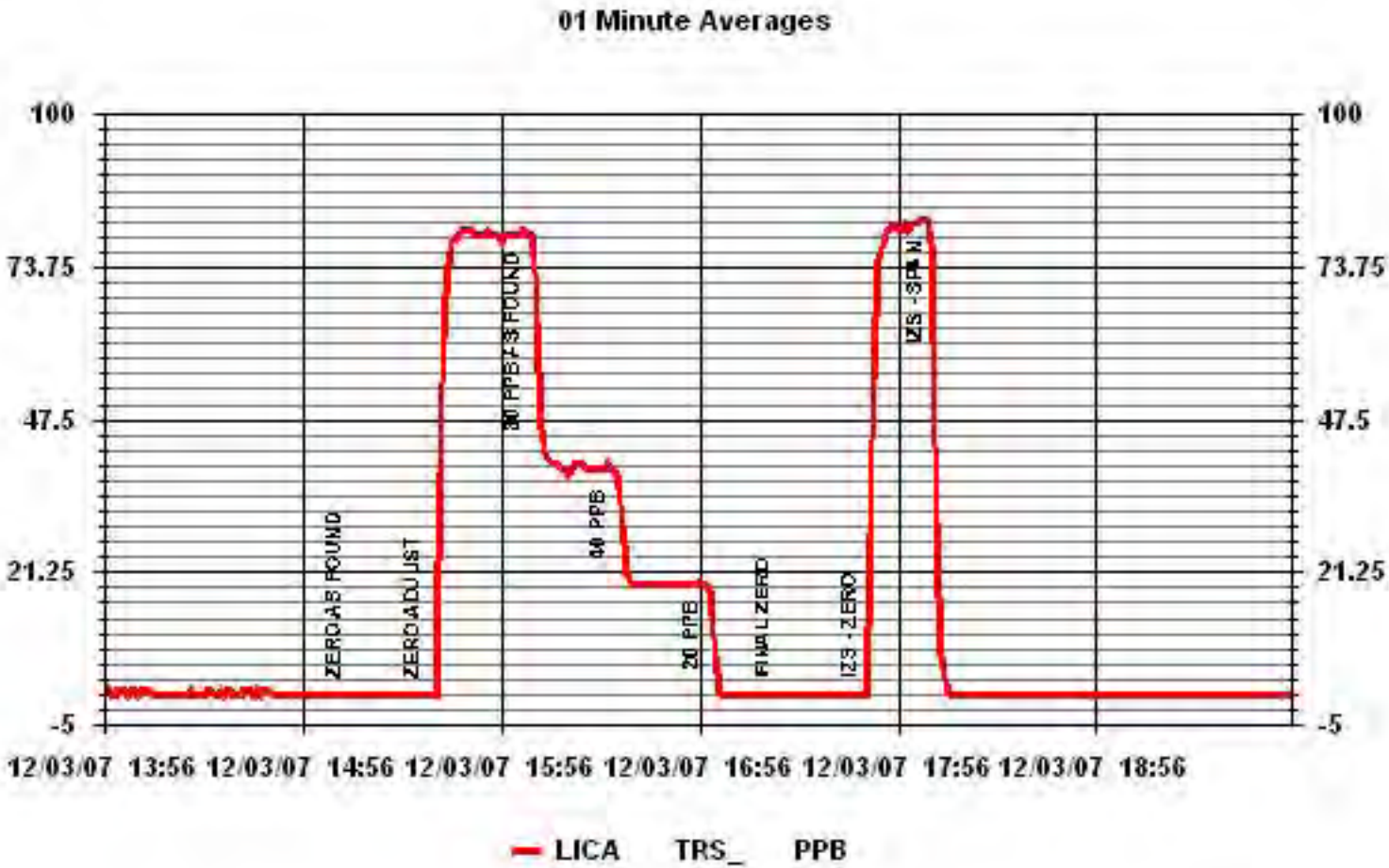
TRS Calibration Curve

Calibration Date	December 3, 2007		
Company	**Lakeland Industry & Community Association**		
Plant / Location	**LICA 1 - Cold Lake South**		
Start Time (MST)	14:45	End Time (MST)	18:15

Calculated Conc. ppb	Indicated Response ppb	Correction Factor
0	0	n/a
20	20	0.9996
40	40	1.0048
80	80	1.0023

Correlation Coefficient	(≥ 0.995)	0.999997
Slope	(0.85 to 1.15)	0.997345
Intercept	(± 3% F.S.)	0.001554




01 Minute Averages
100
73.75
47.5
21.25
-5
ZERO AS FOUND
ZERO ADJUST
80 PPB AS FOUND
40 PPB
20 PPB
FINAL ZERO
IZS - ZERO
IZS - SPAN
12/03/07 13:56
12/03/07 14:56
12/03/07 15:56
12/03/07 16:56
12/03/07 17:56
12/03/07 18:56
LICA TRS_ PPB

THC

THC Calibration Report

Station Information

Calibration Date:	December 18, 2007	Previous Calibration	November 19, 2007
Company:	**Lakeland Industry and Community Association**		
Plant / Location:	**LICA1/Cold Lake**		
Start Time (MST)	9:25	End Time (MST)	12:15
Reason:		Monthly Calibration	
Barometric Pressure:	706 mmHg	Station Temperature:	22 Deg C
Calibrator:	API 700	S/N:	690
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	9	psi	9	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
2000	80.0	38.8	39.0	0.9961
2000	40.0	19.8	19.4	1.0208
2000	20.0	10.0	9.6	1.0417
ZERO	ZERO	0.0	0.0	N/A
			Correction Factor:	0.9961

Percent Change

Previous Calibration Correction Factor:	0.9961
Current Correction Factor Before Span Adjust:	0.9961
Percent Change:	0.0%

IZS Calibration Data

	Before Calibration	After Calibration
Auto Zero	0.0	0.0
Auto Span	30.1	30.2
Sample Lines Connected		**YES**

Notes:	Cylinder Pressures	
	Span	1550 psi
	Hydrogen	1700 psi
	Zero Air	Maxxam-owned API 701 zero air supply with catalytic oxidizer

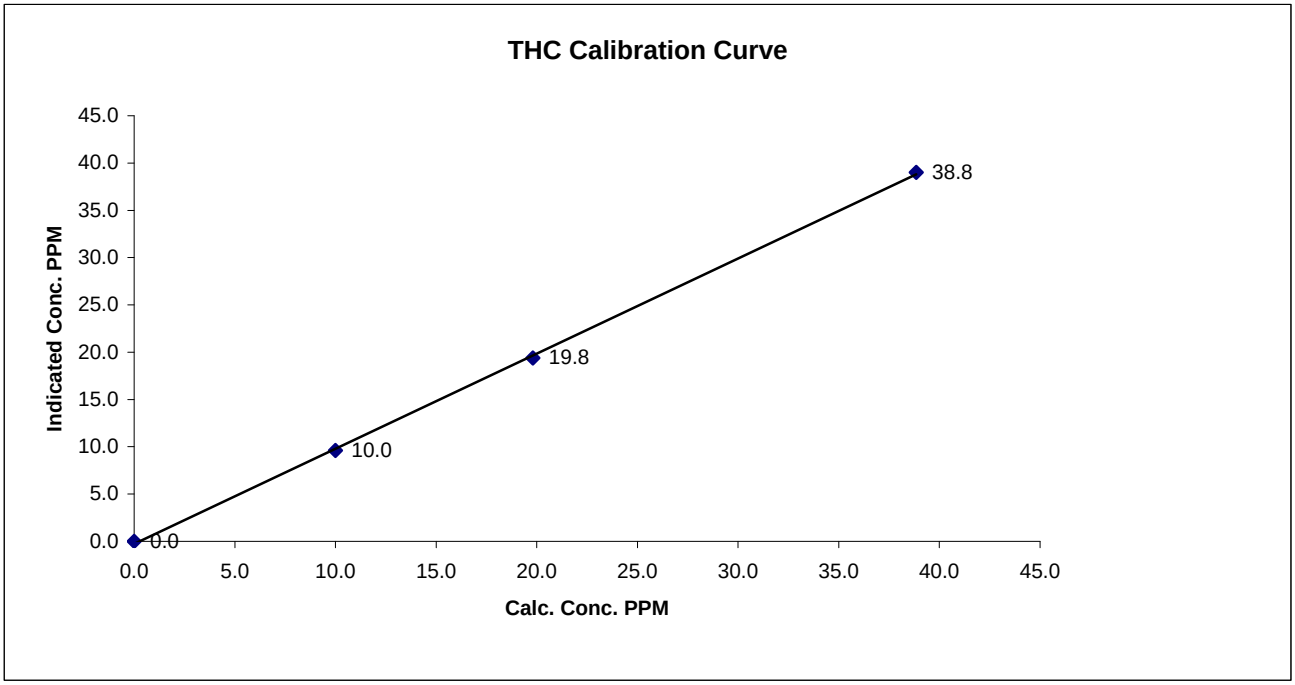
Calibration Performed by: Shea Beaton

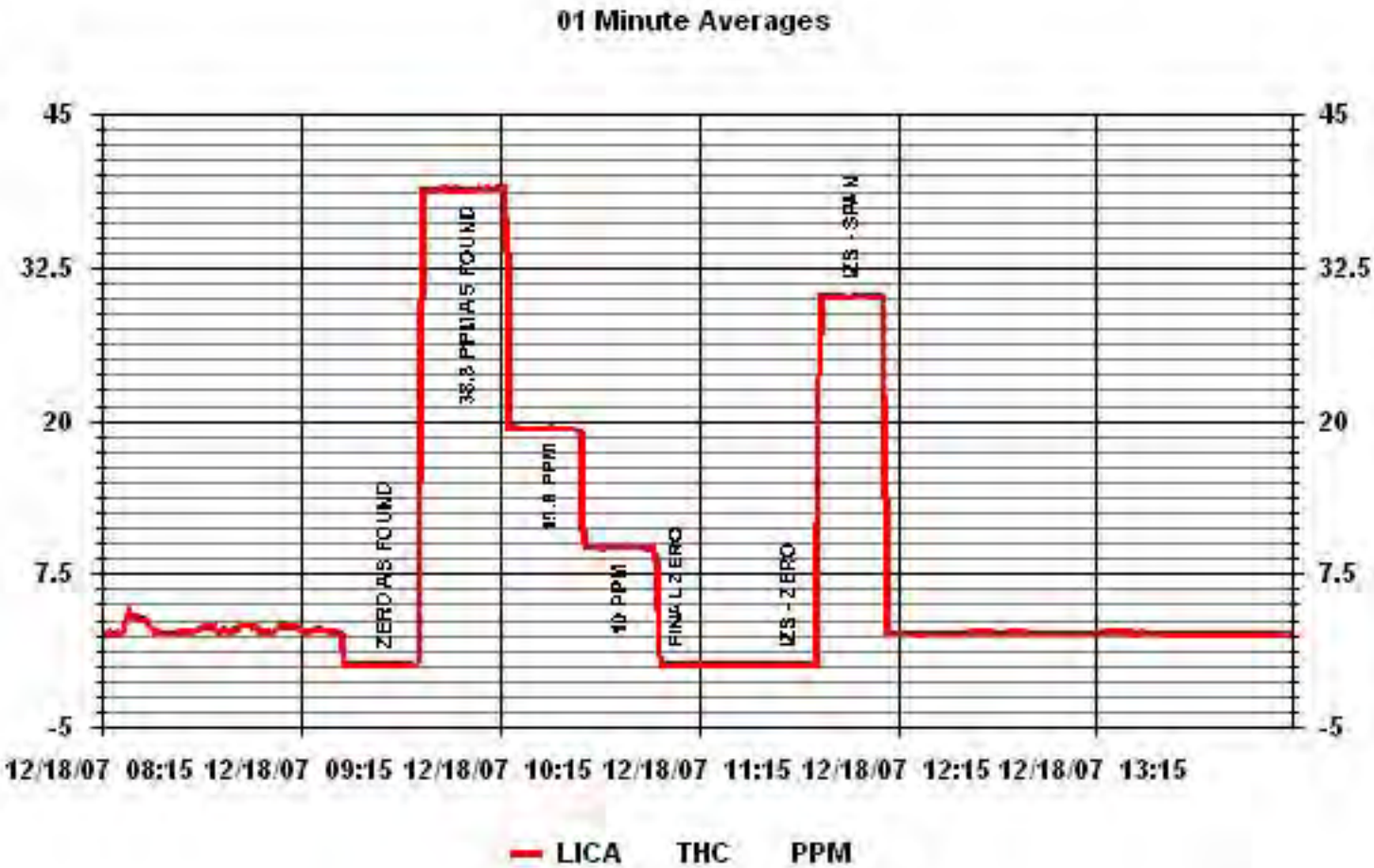
THC Calibration Curve

Calibration Date	December 18, 2007			
Company	**Lakeland Industry and Community Association**			
Plant / Location	**LICA1/Cold Lake**			
Start Time (MST)	9:25	End Time (MST)	12:15	

Calculated Conc. ppm	Indicated Response ppm	Correction Factor
0.0	0.0	
10.0	9.6	1.0417
19.8	19.4	1.0208
38.8	39.0	0.9961

Correlation Coefficient	(≥ 0.995)	0.999749
Slope	(0.85 to 1.15)	1.006238
Intercept	(± 3% F.S.)	-0.269581




01 Minute Averages
45
32.5
20
7.5
-5
ZERO AS FOUND
38.8 PPM AS FOUND
31.8 PPM
10 PPM
FINAL ZERO
IZS - ZERO
IZS - SPAN
12/18/07 08:15
12/18/07 09:15
12/18/07 10:15
12/18/07 11:15
12/18/07 12:15
12/18/07 13:15
LICA THC PPM

PARTICULATE MATTER 2.5

TEOM® Calibration

Station		Transfer Standard	
Date:	December 18, 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 (%)	37
Transducer s/n	140AB213859701	K_o Factor	11095
Parameter	PM 2.5	Temp (^oC)	-11.3
		Press (ATM)	0.929

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)**	36
F-Aux (l/min)	0.17		**(45-60 Sec)**	52

Temperature/Pressure

Measured Temp **(± 1 ^oC)**	-11.6	**Δ ^oC**	-0.3
Measured Press **(± 1.5% ATM)**	0.929	**Δ % ATM**	0.0%

Flow Audit

			Δ % from Set-pt	
Indicated Main/Aux Flow (l/min)	3.00 / 13.65	**(± 2%)**	0.0% / 0.1%
Total Flow = Main + Aux (l/min)	16.65	**(± 2%)**	0.1%
Measured Total Flow (l/min)	17.59	**(± 1.0 l/min. (5.65%))**	-5.3%
Measured Main Flow (l/min)	3.09	**(± 0.2 l/min. (6.25%))**	-2.9%

Leak Check

		Actual leakage = Pump On - Pump Off
Main **(< 0.15 l/min)**	0.13	0.06
Aux **(< 0.15 l/min)**	0.08	0.09

K_o Factor

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

Start Time: 12:00 **Finish Time:** 17:00

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

Comments: Values were recorded prior to maintenance, replaced sample tube hose connection in order reduce leak, leakage now at Main 0.11 l/min and Aux 0.08 l/min. Performed software flow cal to bring indicated flows closer to expected.
Fadj Main = 0.932 - Flow 3.02 lpm, Fadj Aux = 0.925 - Total flow = 16.84lpm

Calibrator/s: Shea Beaton

NO_2

NOx - NO- NO_2 Calibration Report

Station Information

Calibration Date	December 18, 2007	Previous Calibration	November 19, 2007
Company	**Lakeland Ind & Comm. Assoc.**	Plant/Location	**LICA 1 - Cold Lake South**
Start Time (MST)	8:10	End Time (MST)	14:55
Reason:	Monthly Calibration		
Barometric Pressure	706 mmHg	Station Temperature	23.0 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 42C	S/N :	42-7408-716	Method:	Chemiluminescent
Calibrator Make / Model:	Environics 2000	S/N:	1991		
DAS Make / Model:	ESC 8832	S/N :	263		
Flow Meter:	Environics 2000	S/N :	1991		

Analyzer Settings

	Before Calibration				After Calibration			
Concentration Range			0 - 500	ppb				
Sample Flow/Conv. Temp	736	ccm	317	Deg C	739	ccm	317	Deg C
Ozone Flow / Vacuum	OK	ccm	173.1	"Hg-A	OK	ccm	173.3	"Hg-A
HVPS	-821		Volts		-821		Volts	
Rx/ Temp / PMT Temp	49.5	Deg C	-2.5	Deg C	49.5	Deg C	-2.5	Deg C
Box Temp / IZS Temp	30.8	Deg C	OK	Deg C	30.7	Deg C	OK	Deg C
Offset	2.6	NOx	2.5	NO	2.5	NOx	2.6	NO
Slope	1	NOx	0.69	NO	1	NOx	0.690	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	401	401	0	0.9986	0.9966
4959	40.2	N/A	400	400	404	404	0	0.9912	0.9892
								Converter Efficiency	
4959	40.2	350	400	N/A	399	96	303	98%	
4959	40.2	200	400	N/A	401	211	190	98%	
4959	40.2	100	400	N/A	402	307	95	98%	
4959	40.2	N/A	400	400	401	401	0	N/A	
								Correction Factor	
4974	25.2	N/A	251	251	251	251	0	1.0001	0.9981
4984	15.1	N/A	150	150	151	151	0	0.9962	0.9942
ZERO	N/A	N/A	0	0	0	0	0	N/A	N/A

Linearity OK?	**Yes**	No	Sum of Least Squares	0.9939	0.9920
Flows Checked on-site?	Yes	**No**	New Correction Factor	0.9912	0.9892
			Average Converter Efficiency	98%	

	Before Calibration				After Calibration			
Auto Zero	1	NOx	0	NO2	1	NOx	0	NO2
Auto Span	289	NOx	288	NO2	286	NOx	284	NO2
Sample Lines Connected					**YES**			
Percent Change from Previous Calibration					*NOx*	0.5%	*NO*	0.5%

Notes: Power supply voltages +15 @ 15.1v, +5 @ 5.0v, -15 @ -15.1v, battery at 0.6v

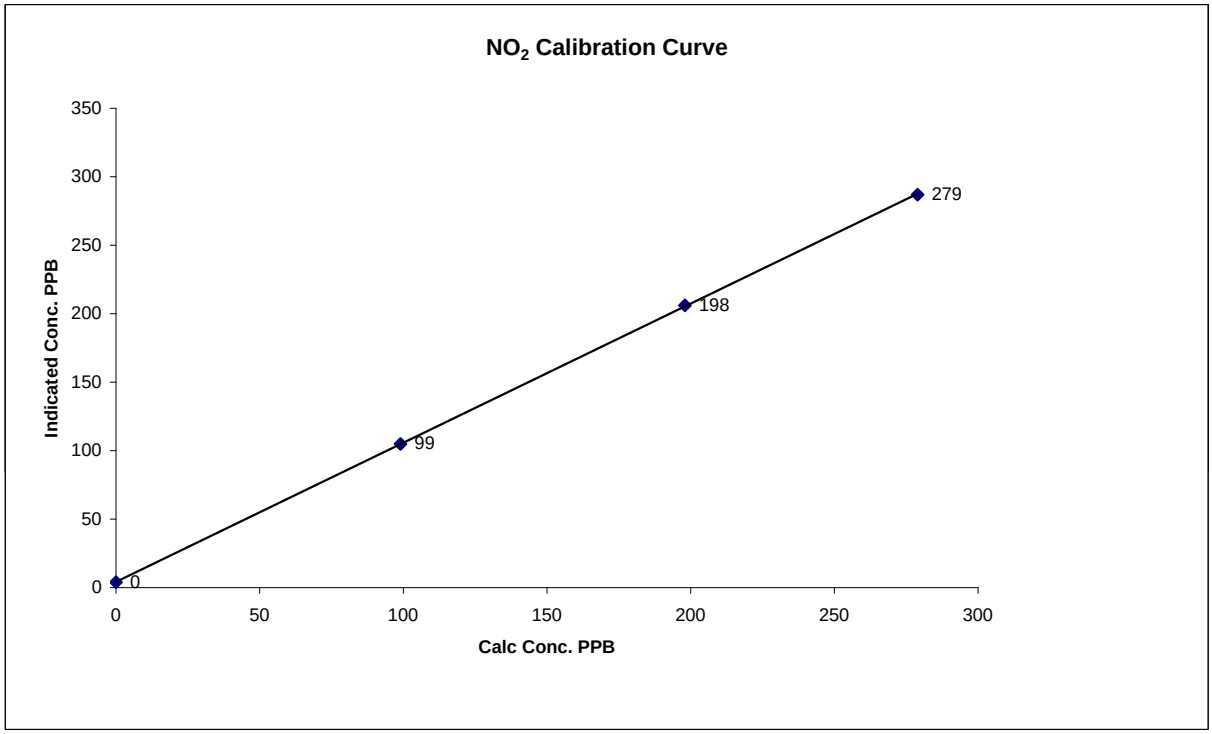
Calibration Performed by: Shea Beaton

NO_2 Calibration Curve

Calibration Date	December 18, 2007		
Company	**Lakeland Ind & Comm. Assoc.**		
Plant / Location	**LICA 1 - Cold Lake South**		
Start Time (MST)	8:10	End Time (MST)	14:55

Calculated Conc. ppb	Indicated Response ppb	Correction Factor
0	0	N/A
97	95	1.0211
193	190	1.0158
308	303	1.0165

Correlation Coefficient	(≥ 0.995)	0.999997
Slope	(0.85 to 1.15)	0.984306
Intercept	(± 3% F.S.)	-0.153710

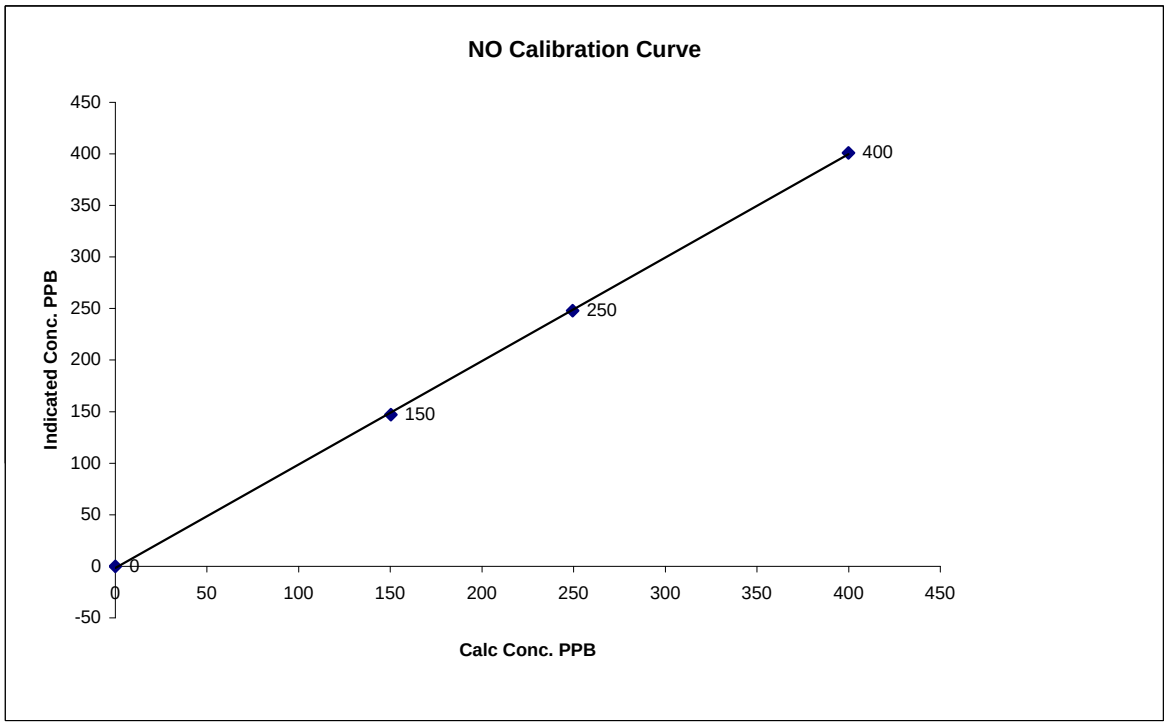


NO Calibration Curve

Calibration Date	December 18, 2007		
Company	**Lakeland Ind & Comm. Assoc.**		
Plant / Location	**LICA 1 - Cold Lake South**		
Start Time (MST)	8:10	End Time (MST)	14:55

Calculated Conc. ppb	Indicated Response ppb	Correction Factor
0	0	N/A
150	151	0.9942
251	251	0.9981
400	401	0.9966

Correlation Coefficient	(≥ 0.995)	0.999997
Slope	(0.85 to 1.15)	1.002932
Intercept	(± 3% F.S.)	0.088096

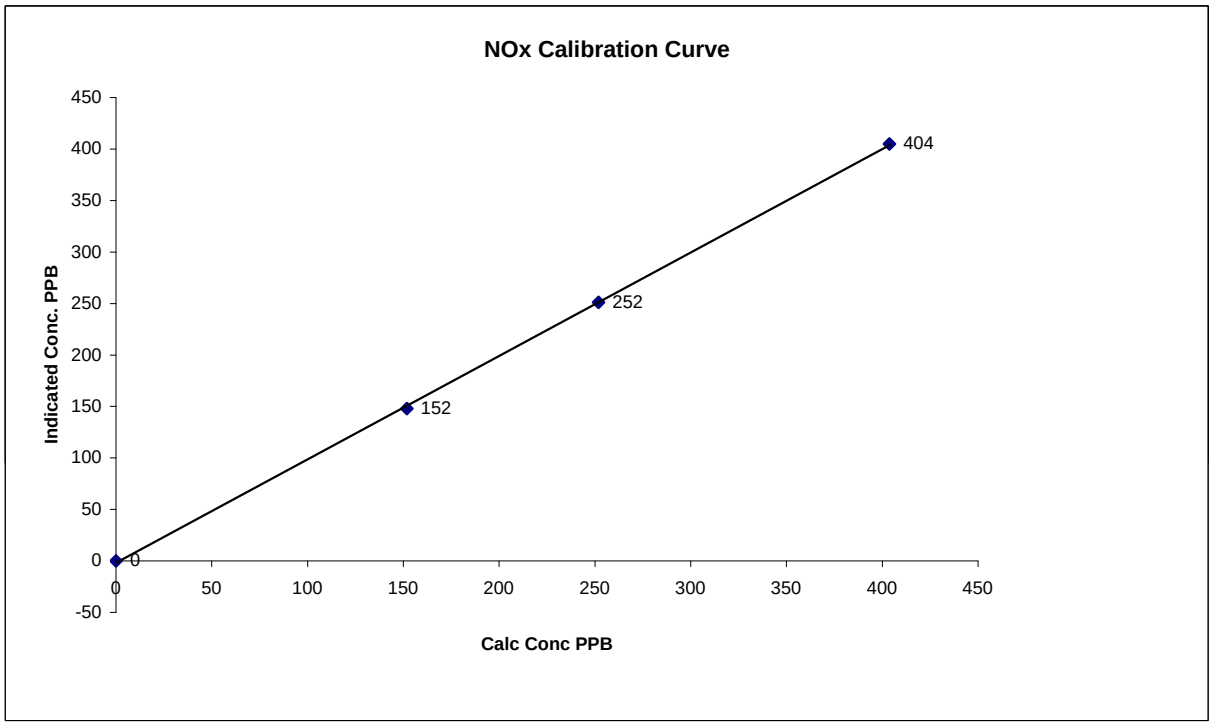


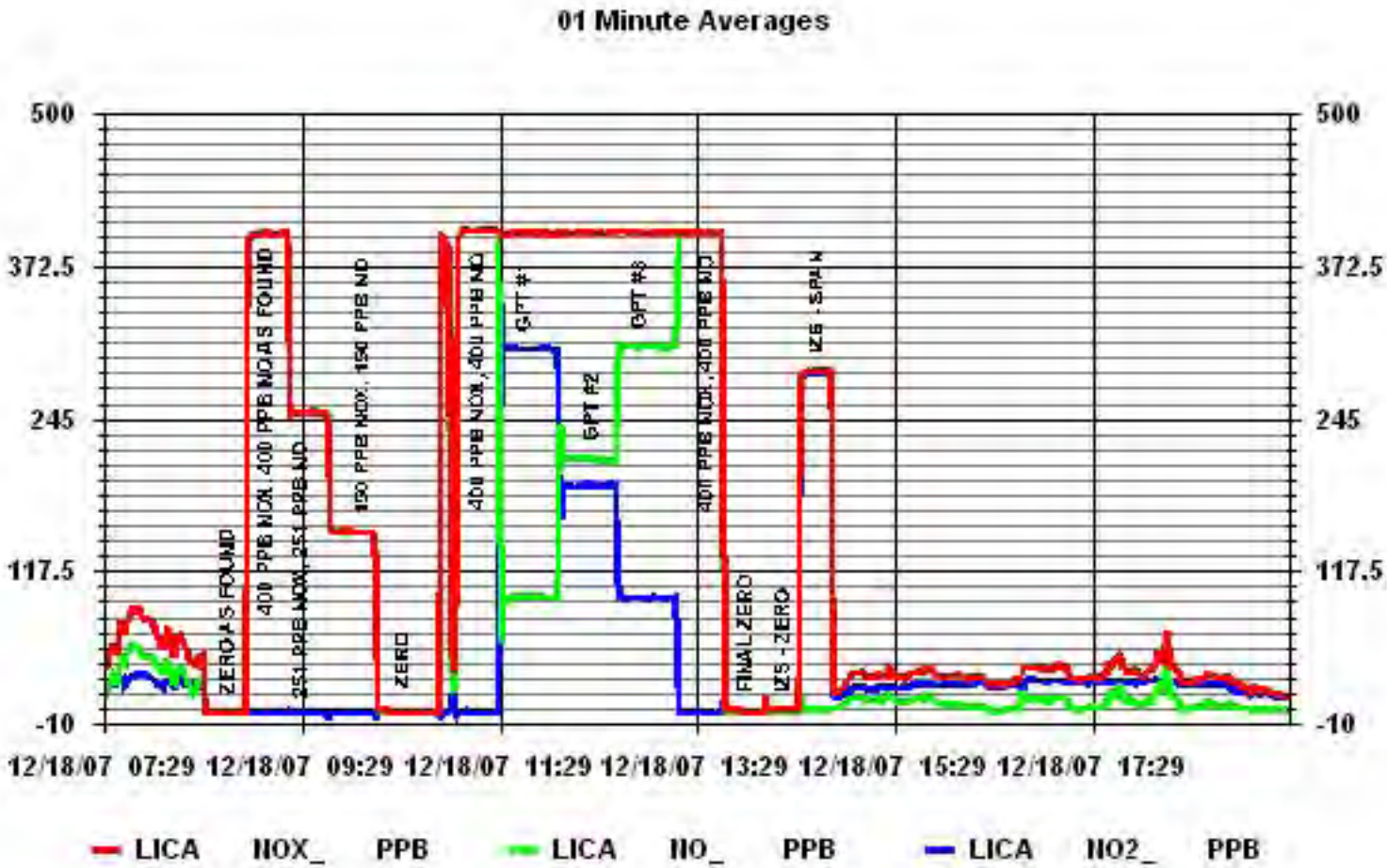
NOx Calibration Curve

Calibration Date	December 18, 2007		
Company	**Lakeland Ind & Comm. Assoc.**		
Plant / Location	**LICA 1 - Cold Lake South**		
Start Time (MST)	8:10	End Time (MST)	14:55

Calculated Conc. ppb	Indicated Response ppb	Correction Factor
0	0	N/A
150	151	0.9962
251	251	1.0001
400	401	0.9986

Correlation Coefficient	(≥ 0.995)	0.999997
Slope	(0.85 to 1.15)	1.000918
Intercept	(± 3% F.S.)	0.088096




01 Minute Averages
500
372.5
245
117.5
-10
ZERO AS FOUND
400 PPB NOX, 400 PPB NO AS FOUND
251 PPB NOX, 251 PPB NO
150 PPB NOX, 150 PPB NO
ZERO
400 PPB NOX, 400 PPB NO
GPT #1
GPT #2
GPT #3
400 PPB NOX, 400 PPB NO
FINAL ZERO
IZS - ZERO
IZS - SPAN
12/18/07 07:29
12/18/07 09:29
12/18/07 11:29
12/18/07 13:29
12/18/07 15:29
12/18/07 17:29
LICA NOX_ PPB
LICA NO_ PPB
LICA NO2_ PPB

OZONE

O_3 Calibration Report

Station Information

Calibration Date	December 18, 2007	Previous Calibration	November 19, 2007
Company	**Lakeland Industry & Community Association**		
Plant / Location	**LICA 1 - Cold Lake South**		
Start Time (MST)	14:10	End Time (MST)	17:40
Reason:		Monthly Calibration	
Barometric Pressure	706 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			
Bench Temp/ Pressure	29.7	659.6	29.6	659.6
O_3 Set Level	29%		29%	
Bench Lamp/O3 Lamp	53.6	67.7	53.6	67.7
Sample Flow A/B	0.711 LPM	0.722 LPM	0.732 LPM	0.743 LPM
Offset / Slope	0.8	1.058	0.8	1.102

Calibration Data

Dilution Flow Rate	Ozone Set Point	Calculated Concentration	Indicated Conc. (DAS)	Correction Factor
ZERO	ZERO	0	0	N/A
5000	350	344	331	1.0393
5000	350	344	345	0.9971
5000	200	197	200	0.9850
5000	100	97	98	0.9898
ZERO	ZERO	0	0	N/A
			Sum of Least Squares	N/A
			New Correction Factor	0.9971

	Before Calibration	After Calibration
Auto Zero	0	0
Auto Span	298	309
Sample Lines Connected		YES
Percent Change from Previous Calibration		-3.8%

Notes:

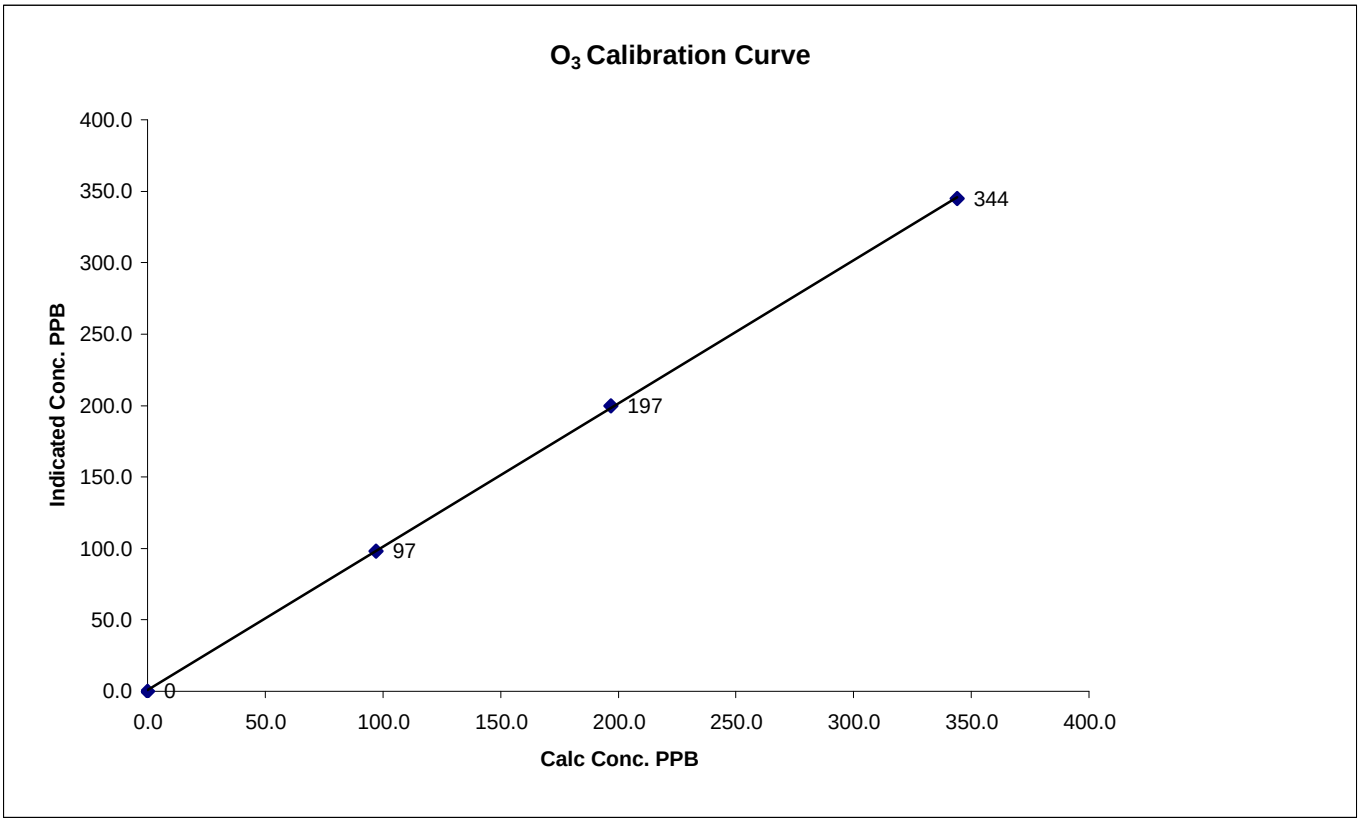
Calibration Performed by: Shea Beaton

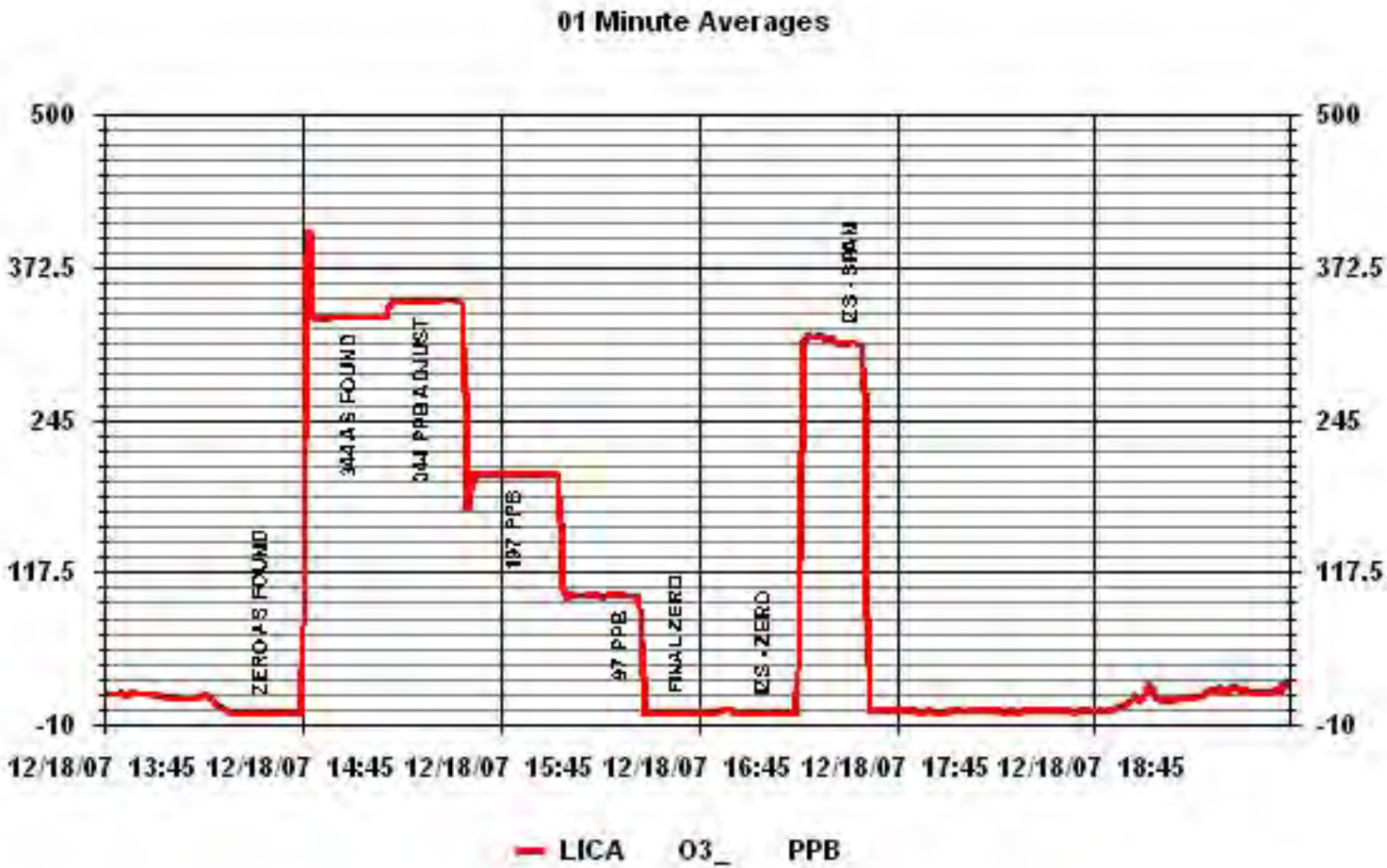
O_3 Calibration Curve

Calibration Date	December 18, 2007		
Company	**Lakeland Industry & Community Association**		
Plant / Location	**LICA 1 - Cold Lake South**		
Start Time (MST)	14:10	End Time (MST)	17:40

Calculated Conc. ppb	Indicated Response ppb	Correction Factor
0	0	n/a
97	98	0.9898
197	200	0.9850
344	345	0.9971

Correlation Coefficient	(≥ 0.995)	0.999940
Slope	(0.85 to 1.15)	1.003619
Intercept	(± 3% F.S.)	0.672735



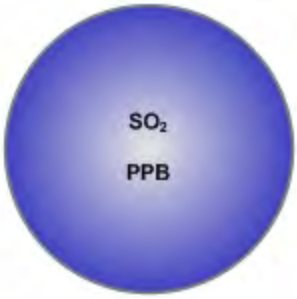

01 Minute Averages
500
372.5
245
117.5
-10
ZERO AS FOUND
344 AS FOUND
344 PPB ADJUST
197 PPB
97 PPB
FINAL ZERO
ZS - ZERO
ZS - SPAN
12/18/07 13:45
12/18/07 14:45
12/18/07 15:45
12/18/07 16:45
12/18/07 17:45
12/18/07 18:45
LICA O3_ PPB

DECEMBER 2007
LICA
PASSIVE BUBBLE MAPS

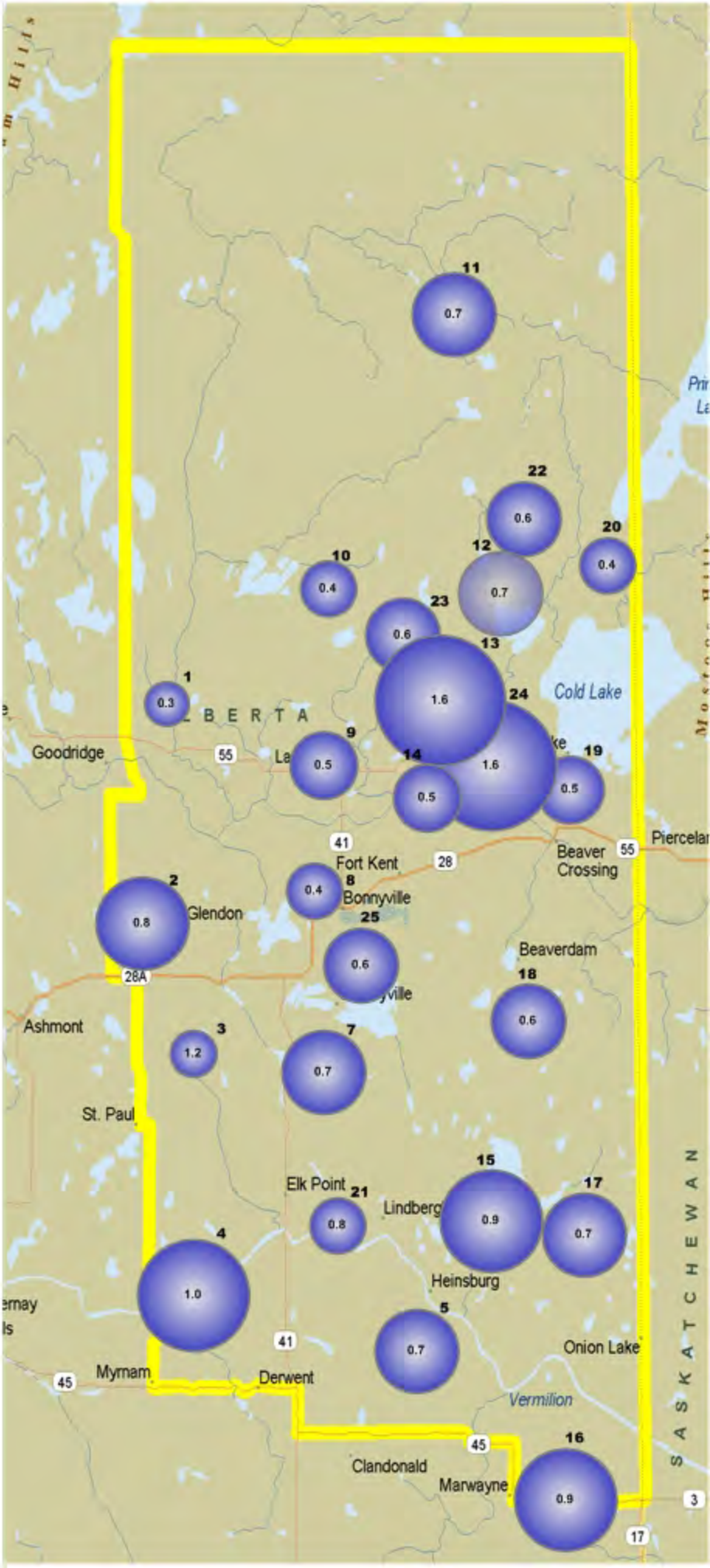
LICA
Lakeland Industry & Community Association

PASSIVE BUBBLE MAP

December 2007



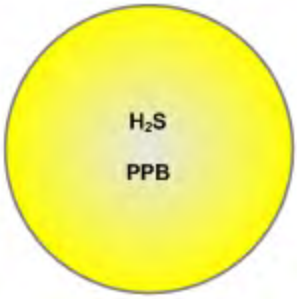
Maxxam Analytics Inc

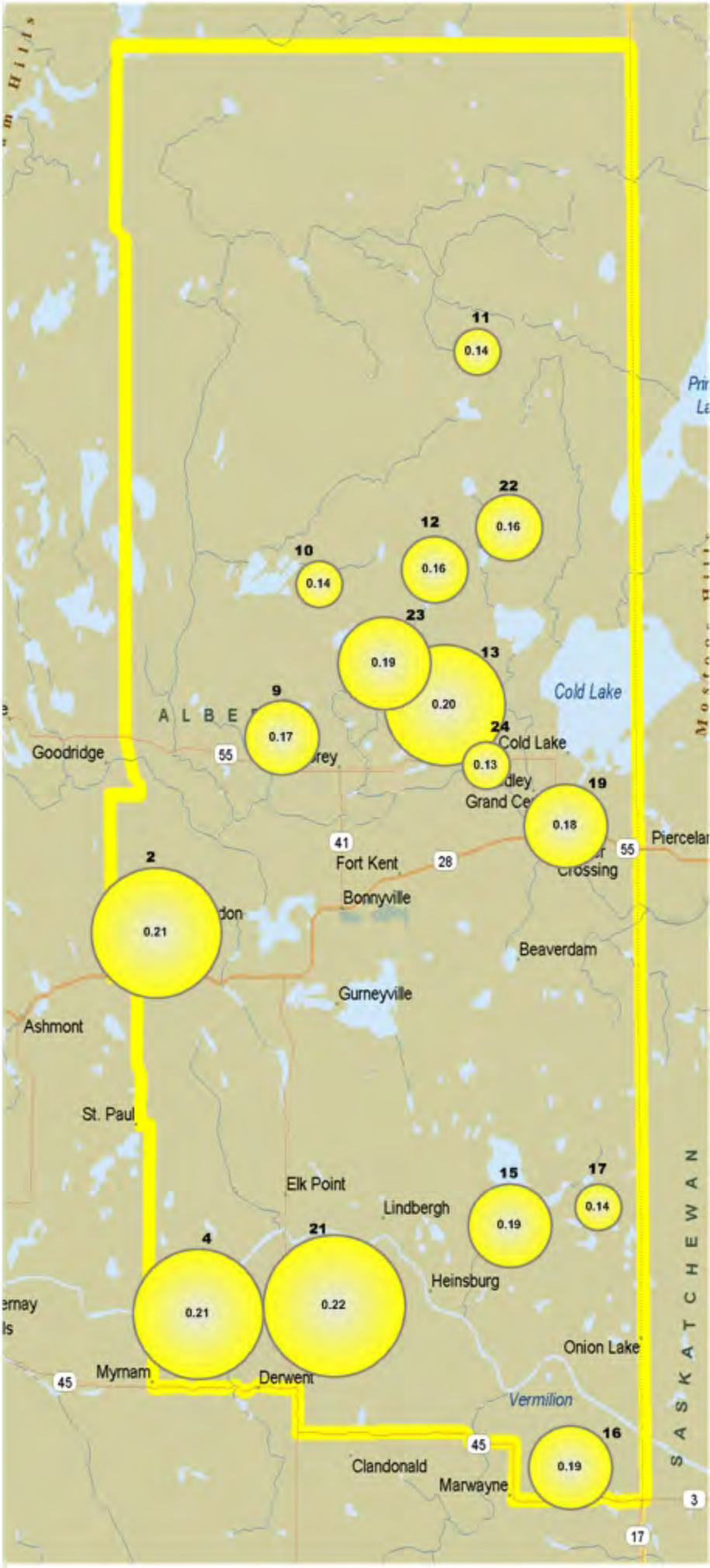


LICA
Lakeland Industry & Community Association

PASSIVE BUBBLE MAP

December 2007





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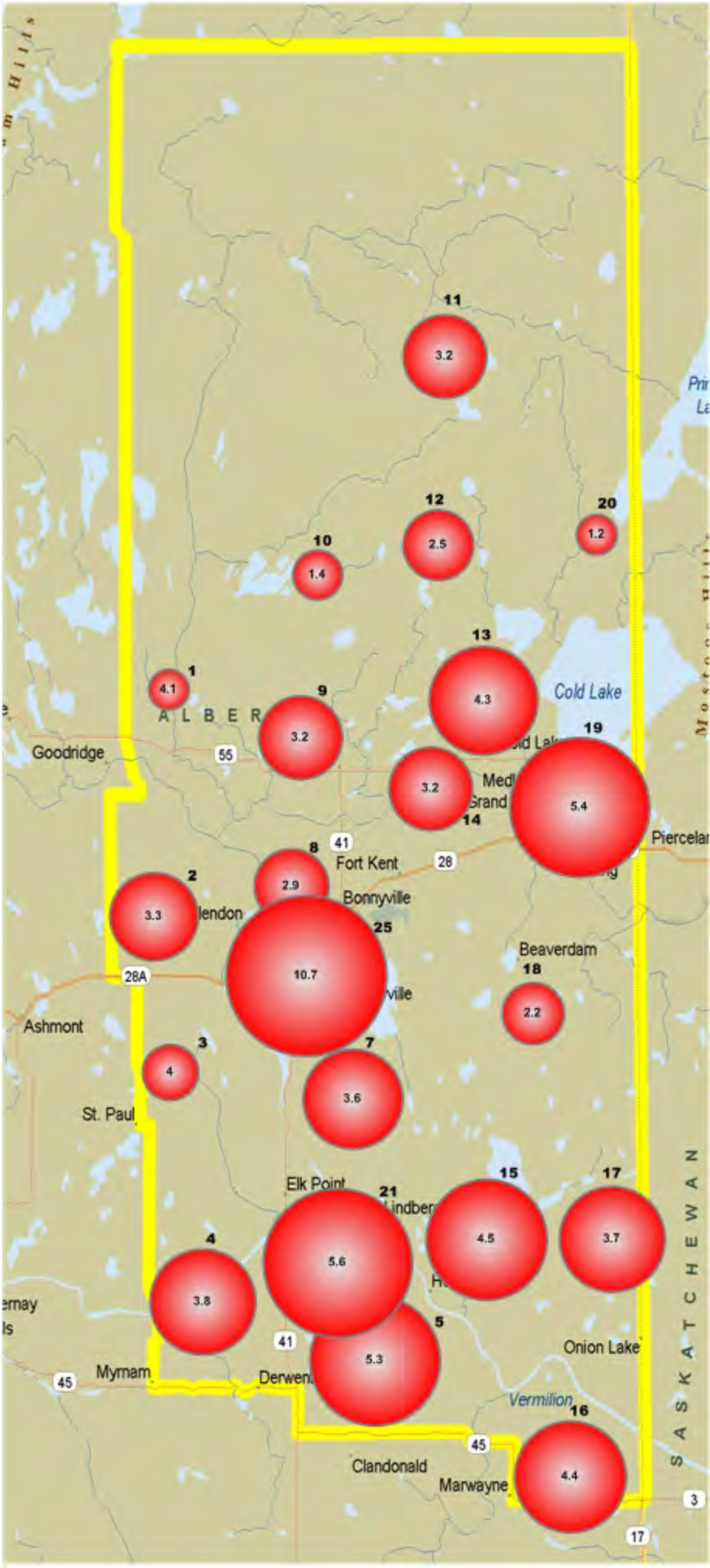
LICA

Lakeland Industry & Community Association

PASSIVE BUBBLE MAP

December 2007



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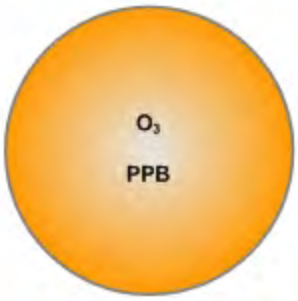
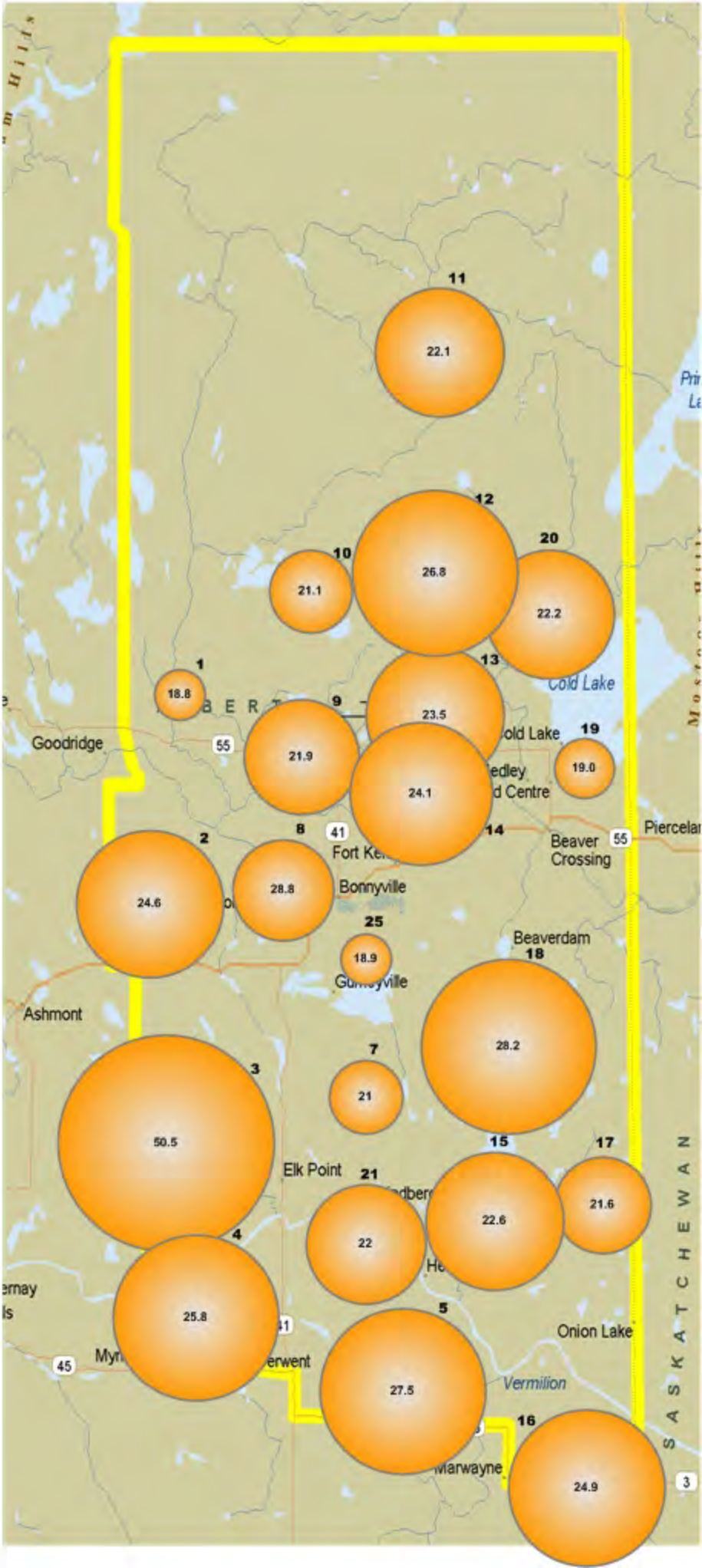
PASSIVE BUBBLE MAP

December 2007





Maxxam Analytics Inc

DECEMBER 2007
LICA PASSIVE NETWORK
LAB ANALYSIS

Your Project #: DECEMBER 2007
Site:LICA

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

Report Date: 2008/01/22

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: A800650
Received: 2008/01/07, 10:52

Sample Matrix: Air
Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
H2S Passive Analysis (1)	1	2008/01/21	2008/01/21		EDM SOP-0320
NO2 Passive Analysis (1)	1	2008/01/21	2008/01/21		EDM SOP-0318
O3 Passive Analysis (1)	1	2008/01/14	2008/01/14		EDM SOP-0317
SO2 Passive Analysis (1)	1	2008/01/21	2008/01/21		EDM SOP-0319

Sample Matrix: Air
Samples Received: 25

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
H2S Passive Analysis (1)	16	2008/01/21	2008/01/21		EDM SOP-0320
NO2 Passive Analysis (1)	22	2008/01/21	2008/01/21		EDM SOP-0318
O3 Passive Analysis (1)	22	2008/01/14	2008/01/14		EDM SOP-0317
SO2 Passive Analysis (1)	25	2008/01/21	2008/01/21		EDM SOP-0319

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

(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

Your Project #: DECEMBER 2007
Site:LICA

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

Report Date: 2008/01/22

CERTIFICATE OF ANALYSIS

==========

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

Maxxam Job #: A800650
Report Date: 2008/01/22

LAKELAND INDUSTRY AND COMMUNITY ASSOCIATION
Client Project #: DECEMBER 2007
Site Reference: LICA
Sampler Initials: SB

RESULTS OF CHEMICAL ANALYSES OF AIR

Maxxam ID		I50867		
Sampling Date		2007/11/29 15:35		
	Units	**12A**	**RDL**	**QC Batch**
Passive Montioring				
Calculated H2S	ppb	0.14	0.02	2077185
Calculated NO2	ppb	2.1	0.1	2077192
Calculated O3	ppb	26.7	0.1	2062955
Calculated SO2	ppb	0.6	0.1	2077196

RDL = Reportable Detection Limit

Maxxam Job #: A800650
Report Date: 2008/01/22

LAKELAND INDUSTRY AND COMMUNITY ASSOCIATION
Client Project #: DECEMBER 2007
Site Reference: LICA
Sampler Initials: SB

RESULTS OF CHEMICAL ANALYSES OF AIR

Maxxam ID		I50847	I50848	I50849	I50850		
Sampling Date		2007/11/29 10:50	2007/11/29 10:10	2007/11/30 15:40	2007/11/30 15:05		
	Units	**1**	**2**	**3**	**4**	**RDL**	**QC Batch**
Passive Montioring							
Calculated H2S	ppb		0.21		0.21	0.02	2077185
Calculated NO2	ppb	4.1	3.3	4.0	3.8	0.1	2077192
Calculated O3	ppb	18.8	24.6	50.5	25.8	0.1	2062955
Calculated SO2	ppb	0.3	0.8	1.2	1.0	0.1	2077196

RDL = Reportable Detection Limit

Maxxam ID		I50851	I50852	I50853	I50854		
Sampling Date		2007/11/30 13:50	2007/11/30 16:25	2007/11/29 09:35	2007/11/29 11:35		
	Units	**5**	**7**	**8**	**9**	**RDL**	**QC Batch**
Passive Montioring							
Calculated H2S	ppb				0.17	0.02	2077185
Calculated NO2	ppb	5.3	3.6	2.9	3.2	0.1	2077192
Calculated O3	ppb	27.5	21.0	28.8	21.9	0.1	2062955
Calculated SO2	ppb	0.7	0.7	0.4	0.5	0.1	2077196

RDL = Reportable Detection Limit

Maxxam ID		I50855	I50856	I50857	I50858		
Sampling Date		2007/11/29 12:15	2007/11/29 14:00	2007/11/29 15:35	2007/11/29 17:10		
	Units	**10**	**11**	**12**	**13**	**RDL**	**QC Batch**
Passive Montioring							
Calculated H2S	ppb	0.14	0.14	0.18	0.20	0.02	2077185
Calculated NO2	ppb	1.4	3.2	2.8	4.3	0.1	2077192
Calculated O3	ppb	21.1	22.1	26.9	24.4	0.1	2062955
Calculated SO2	ppb	0.4	0.7	0.8	1.4	0.1	2077196

RDL = Reportable Detection Limit

Maxxam Job #: A800650
Report Date: 2008/01/22

LAKELAND INDUSTRY AND COMMUNITY ASSOCIATION
Client Project #: DECEMBER 2007
Site Reference: LICA
Sampler Initials: SB

RESULTS OF CHEMICAL ANALYSES OF AIR

Maxxam ID		I50859	I50860	I50861	I50862		
Sampling Date		2007/11/29 08:40	2007/11/30 12:30	2007/11/30 13:10	2007/11/30 11:50		
	Units	**14**	**15**	**16**	**17**	**RDL**	**QC Batch**
Passive Montioring							
Calculated H2S	ppb		0.19	0.19	0.14	0.02	2077185
Calculated NO2	ppb	3.2	4.5	4.4	3.7	0.1	2077192
Calculated O3	ppb	24.1	22.6	24.9	21.6	0.1	2062955
Calculated SO2	ppb	0.5	0.9	0.9	0.7	0.1	2077196

RDL = Reportable Detection Limit

Maxxam ID		I50863	I50864	I50865	I50866		
Sampling Date		2007/11/30 11:00	2007/11/29 07:45	2007/11/30 09:30	2007/11/30 14:25		
	Units	**18**	**19**	**20**	**21**	**RDL**	**QC Batch**
Passive Montioring							
Calculated H2S	ppb		0.18		0.22	0.02	2077185
Calculated NO2	ppb	2.2	5.4	1.2	5.6	0.1	2077192
Calculated O3	ppb	28.2	20.6	22.2	22.0	0.1	2062955
Calculated SO2	ppb	0.6	0.5	0.4	0.8	0.1	2077196

RDL = Reportable Detection Limit

Maxxam ID		I50868	I50871	I50872	I50873		
Sampling Date		2007/11/29 17:10	2007/11/29 15:15	2007/11/29 16:30	2007/11/29 17:35		
	Units	**13A**	**22**	**23**	**24**	**RDL**	**QC Batch**
Passive Montioring							
Calculated H2S	ppb	0.20	0.16	0.19	0.13	0.02	2077185
Calculated NO2	ppb	4.3				0.1	2077192
Calculated O3	ppb	22.6				0.1	2062955
Calculated SO2	ppb	1.7	0.6	0.6	1.6	0.1	2077196

RDL = Reportable Detection Limit

Maxxam Job #: A800650
Report Date: 2008/01/22

LAKELAND INDUSTRY AND COMMUNITY ASSOCIATION
Client Project #: DECEMBER 2007
Site Reference: LICA
Sampler Initials: SB

RESULTS OF CHEMICAL ANALYSES OF AIR

Maxxam ID		I50874		
Sampling Date		2007/11/29 09:10		
	Units	**25**	**RDL**	**QC Batch**
Passive Montioring				
Calculated NO2	ppb	10.7	0.1	2077192
Calculated O3	ppb	19.0	0.1	2062955
Calculated SO2	ppb	0.6	0.1	2077196

RDL = Reportable Detection Limit

Maxxam Job #: A800650
Report Date: 2008/01/22

LAKELAND INDUSTRY AND COMMUNITY ASSOCIATION
Client Project #: DECEMBER 2007
Site Reference: LICA
Sampler Initials: SB

General Comments

Sample I50850-01: #4 O3 low reading was noticed.

Results relate only to the items tested.

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

Quality Assurance Report

Maxxam Job Number: PA800650

QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
2062955 LM1	Calibration Check	Calculated O3	2008/01/14		100	%	91 - 107
	SPIKE	Calculated O3	2008/01/14		100	%	N/A
	BLANK	Calculated O3	2008/01/14	<0.1		ppb	
2077192 DF4	Calibration Check	Calculated NO2	2008/01/21		98	%	76 - 118
	SPIKE	Calculated NO2	2008/01/21		99	%	N/A
	BLANK	Calculated NO2	2008/01/21	<0.1		ppb	
2077196 DF	Calibration Check	Calculated SO2	2008/01/21		101	%	95 - 105
	SPIKE	Calculated SO2	2008/01/21		102	%	N/A
	BLANK	Calculated SO2	2008/01/21	<0.1		ppb	

N/A = Not Applicable

Edmonton: 9331 - 48th Street T6B 2R4 Telephone(780) 468-3500 FAX(780) 466-3332

DECEMBER 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	11/29/07	10:50	12/28/07	09:45	CONSTRUCTION ACTIVITY NEARBY
$H_2S/SO_2/NO_2/O_3$	2	1129/07	10:10	12/28/07	09:05	
$SO_2/NO_2/O_3$	3	11/30/07	15:40	12/29/07	15:15	
$H_2S/SO_2/NO_2/O_3$	4	11/30/07	15:05	12/29/07	14:35	
$SO_2/NO_2/O_3$	5	11/30/07	13:50	12/29/07	13:15	
$SO_2/NO_2/O_3$	7	11/30/07	16:25	12/29/07	16:00	
$SO_2/NO_2/O_3$	8	11/29/07	09:35	12/28/07	08:30	
$H_2S/SO_2/NO_2/O_3$	9	11/29/07	11:35	12/28/07	10:25	
$H_2S/SO_2/NO_2/O_3$	10	11/29/07	12:15	12/28/07	11:05	
$H_2S/SO_2/NO_2/O_3$	11	11/29/07	14:00	12/28/07	12:20	
$H_2S/SO_2/NO_2/O_3$	12	11/29/07	15:35	12/28/07	14:00	
$H_2S/SO_2/NO_2/O_3$	13	11/29/07	17:10	12/28/07	15:00	
$SO_2/NO_2/O_3$	14	11/29/07	08:40	12/28/07	07:10	
$H_2S/SO_2/NO_2/O_3$	15	11/30/07	12:30	12/29/07	11:50	
$H_2S/SO_2/NO_2/O_3$	16	11/30/07	13:10	12/29/07	12:30	
$H_2S/SO_2/NO_2/O_3$	17	11/30/07	11:50	12/29/07	11:10	
$SO_2/NO_2/O_3$	18	11/30/07	11:00	12/29/07	10:15	
$H_2S/SO_2/NO_2/O_3$	19	11/29/07	07:45	12/29/07	08:15	
$SO_2/NO_2/O_3$	20	11/30/07	09:30	12/28/07	16:20	
$H_2S/SO_2/NO_2/O_3$	21	11/30/07	14:25	12/29/07	13:50	
H_2S/SO_2	22	11/29/07	15:15	12/28/07	13:40	
H_2S/SO_2	23	11/29/07	16:30	12/28/07	14:35	
H_2S/SO_2	24	11/29/07	17:35	12/28/07	15:25	
$SO_2/NO_2/O_3$	25	11/29/07	09:10	12/28/07	07:40	
$H_2S/SO_2/NO_2/O_3$	12A	11/29/07	15:35	12/28/07	14:00	
$H_2S/SO_2/NO_2/O_3$	13A	11/29/07	17:10	12/28/07	15:00	