Lakeland Industry & Community Association

Cold Lake Monitoring Site
Ambient Air Monitoring
Data Report
For
February 2009

Prepared By:

Maxxam Analytics

Driven by Service and Science

March 23, 2009

Lakeland Industry & Community Association
Ambient Air Monitoring

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Introduction

The following Ambient Air Monitoring report was prepared for:

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Bonnyville, Alberta
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Monitoring Location: Cold Lake
Data Period: February 2009

The monthly ambient data report:

- Prepared by Lily Lin
- Reviewed by Craig Snider

The monthly analytical report for passive monitoring:
Authorized by Levi Manchak

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.*

MONTHLY CONTINUOUS DATA SUMMARY
LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - COLD LAKE

Continuous Ambient Monitoring – February 2009

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION COLD LAKE SITE						MAXIMUM VALUES							OPERATIONAL TIME (PERCENT)
						1-HOUR					24-HOUR		
PARAMETER	OBJECTIVES		EXCEEDENCES		MONTHLY AVERAGE	READING	DAY	HOUR	WIND SPEED (KPH)	WIND DIRECTION (DEGREES)	READING	DAY	
	1-HR	24-HR	1-HR	24-HR									
SO_2 (PPB)	172	57	0	0	0.10	4	20	10	4.1	254(WSW)	0.5	12	100.0
TRS (PPB)	-	-	-	-	0.00	0	ALL	ALL	VAR	VAR	0.0	ALL	100.0
NO_2 (PPB)	212	106	0	0	9.15	35	17	18	0.2	188(S)	20.7	17	100.0
NO (PPB)	-	-	-	-	2.22	73	26	8	0.3	251(WSW)	8.6	18	100.0
NOx (PPB)	-	-	-	-	11.71	106	26	8	0.3	251(WSW)	28.2	17	100.0
O_3 (PPB)	82	-	0	-	25.22	42	22	17	6.1	141(SE)	37.3	22	94.5
THC (PPM)	-	-	-	-	2.08	3.6	6	1	1	31(NNE)	2.8	18	100.0
PM 2.5 (UG/M^3)	-	30	-	0	7.41	30.0	26	9	1.5	113(ESE)	15.5	18	98.7
TEMPERATURE (DEG C)	-	-	-	-	-13.79	7.7	4	14	12.9	277(W)	0.1	8	100.0
RELATIVE HUMIDITY (%)	-	-	-	-	71.62	90.7	7	5	2.9	169(SSE)	85.2	7	100.0
VECTOR WS (KPH)	-	-	-	-	4.37	18.3	1	0	-	315(NW)	8.4	24	100.0
VECTOR WD (DEGREES)	-	-	-	-	321(NW)	-	-	-	-	-	-	-	100.0

VAR-VARIOUS

Monthly Non-Continuous Data Summary
LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - COLD LAKE

Passive Ambient Monitoring Network – February 2009

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION PASSIVE NETWORK			
NETWORK MAXIMUM			NETWORK AVERAGE
PARAMETER	STATION	READING (PPB)	READING (PPB)
NO_2	#28	9.2	3.2
SO_2	#14	1.7	0.8
H_2S	#17	0.20	0.15
O_3	#3	38.6	33.0

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
An AENV audit was carried out at the station on February 24th, 2009.

Sulphur Dioxide (PPB)
- Analyzer make / model – Thermo 43i

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

Total Reduced Sulphur (PPB)
- Analyzer make / model –TEI 450i
- Converter - CD NOVA CDN 101

No operational issues observed during the month. The inlet filter was changed before the monthly calibration was started.

Total HydroCarbon (PPM)
- Analyzer make / model -TECO 51C-LT

No operation issues observed during the month. The Hydrogen cylinder was replaced during the monthly calibration on February 2nd. Another multi-point as found calibration on the analyzer and post adjust calibration were performed using a new Methane/Propane blended cylinder of calibration gas on February 27th. The inlet filter was changed before the monthly calibration was started. Data was corrected using daily zero information.

Nitrogen Dioxide (PPB)
- Analyzer make / model - TECO 42C

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

General Monthly Summary - Cold Lake

AQM STATION – LICA – COLD LAKE

Ozone (PPB)

- Analyzer make / model - TECO 49I

The daily span had spanned 40% low on January 31st and February 1st. It was noticed that the as found zero was OK, but the as found span was low (approximately 40%); the Expected as found span was 386 ppb, and the Actual as found span was 228 ppb. Diagnosis indicated that cell B was at issue. Performed a leak check; the resulting pressure was good (72mmHg), but there were slight cell leaks. During the leak check, the flow through cell A was displayed as 0.017lpm, and cell B was 0.11lpm. this indicates a very slight leak or minor mis calibration of the flow/pressure sensors; this is not likely the cause of the analyzer's problem. During the as found span points, the concentration difference between the cells was excessive; cell A was normal, but cell B was much lower. A solenoid leak check was performed as per the operator's manual instructions; the results of this check were inconclusive. Following these troubleshooting procedures, the instrument was put back to normal configuration, and calibration gas was again introduced to the analyzer. The analyzer response was within acceptable range. It is possible that one of the solenoid valves that control the flow through the cells had some debris causing an internal leak and the troubleshooting process rectified the situation. A post repair calibration was performed on February 2nd. During the multi-points calibration, the exhaust tubing was repaired; there was a small crack in the tubing about 12" from the bulkhead of the analyzer. The inlet filter was also changed before the monthly calibration was started. On February 3rd, the daily span dropped down to 40% low. Performed the as found points; Expected as found span was 386ppb, but Actual as found span was 238ppb. There was an 83% difference between the ozone concentrations of 10 averaged consecutive readings from cell A and B during the span points; Cell B was low. Performed the ozone scrubber test; this test indicated a bad sample valve. It was suspected a bad solenoid valve. A new valve, which received from AENV, had to modify, and then be installed. Check the operation of the analyzer; the concentrations between the 2 cells were very close, and the valve seems to be operating correctly. Put the analyzer into the daily calibration program; response was within tolerance. A post repair calibration then was performed on February 5th. A cell balance check was done while performing the as found span check; the difference in ozone concentrations between the 2 cells was 1.5%, which is considered good. Due to this issue, a total of 33 hours of data was invalidated.

General Monthly Summary - Cold Lake

AQM STATION – LICA – COLD LAKE

Particulate Matter 2.5 (ug/m^3)

- Analyzer make / model –TEOM1405F

No operational issues observed during this month. Seven-hour data were invalidated as it was below –3.0 ug/m^3.

Vector Wind Speed (KPH) & Vector Wind Direction (DEG)

- 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 (PERCENT)

- System make / model - Rotronic Hygroclip-S3

No operational issues observed during the month.

Ambient Temperature (DEGC)

- System make / model - Rotronic Hygroclip-S3

No operational issues observed during the month.

Trailer Temperature (DEGC)

- System make / model - R&R 61

No operational issues observed during the month.

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.

General Monthly Summary - Cold Lake

AQM STATION – LICA – COLD LAKE

Trailer
A Model 910A canister sampler, which purchased by LICA, was dropped-off to be used for VOC sampling in near future.

Air Quality Index (AQI)
The AQI data was adjusted to reflect regular monthly and daily calibrations, maintenance, and downtime. All AQI values recorded in February were within the good range.

Passive Network
No issue was observed during this month.

Continuous Monitoring

Cold Lake

Monthly Summaries, Graphs & Wind Roses

Air Quality Index

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - *COLD LAKE*

FEBRUARY 2009

AIR QUALITY INDEX (AQI)

MST

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

STATUS FLAG CODES	NA - NOT APPLICABLE

V - VARIOUS

AQI CLASS	OZONE (O_3)					PARTICULATE MATTER 2.5 (PM2)					NITROGEN DIOXIDE (NO_2)					SULPHUR DIOXIDE (SO_2)					FREQUENCY	
	HRS	%	MAX AQI	HR	DAY	HRS	%	MAX AQI	HR	DAY	HRS	%	MAX AQI	HR	DAY	HRS	%	MAX AQI	HR	DAY	HRS	%
VERY POOR (101-255)	0	0.0%	-	-	-	0	0.0%	-	-	-	0	0.0%	-	-	-	0	0.0%	-	-	-	0	0.0%
POOR (51-100)	0	0.0%	-	-	-	0	0.0%	-	-	-	0	0.0%	-	-	-	0	0.0%	-	-	-	0	0.0%
FAIR (26-50)	0	0.0%	-	-	-	0	0.0%	-	-	-	0	0.0%	-	-	-	0	0.0%	-	-	-	0	0.0%
GOOD (1-25)	438	58.9%	21	VAR	22	138	18.5%	25	9	26	0	0.0%	-	-	-	0	0.0%	-	-	-	576	77.4%
OVERALL	438	58.9%	-	-	-	138	18.5%	-	-	-	0	0.0%	-	-	-	0	0.0%	-	-	-	576	85.7%
UNAVAILABLE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	96	14.3%

VAR: VARIOUS

Sulphur Dioxide

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - *COLD LAKE*

FEBRUARY 2009

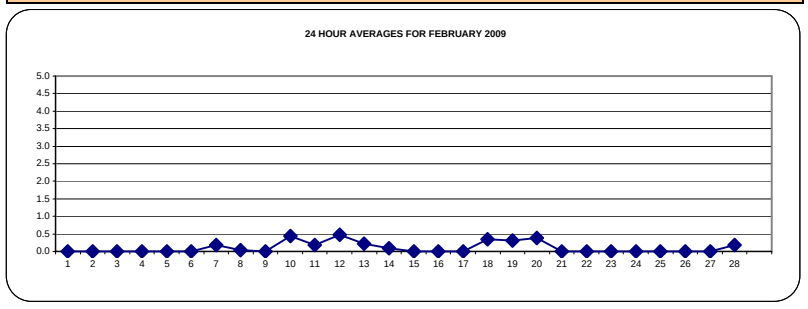
SULPHUR DIOXIDE (SO_2) hourly averages in ppb

MST

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	**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
2	**IZS**	0	0	0	0	0	0	0	0	0	0	0	**C**	**C**	**C**	**C**	0	0	0	0	0	0	0	**IZS**	0	0.0	24
3	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
4	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
5	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
6	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
7	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	1	0	0	**IZS**	0	0	0	0	0	1	0.2	24
8	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	**IZS**	0	0	0	0	0	0	1	0.0	24
9	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
10	0	0	0	0	0	1	1	1	0	1	0	0	1	2	2	**IZS**	1	0	0	0	0	0	0	0	2	0.4	24
11	0	0	0	0	0	0	0	0	0	0	1	1	1	1	**IZS**	0	0	0	0	0	0	0	0	0	1	0.2	24
12	0	0	0	0	0	0	0	0	0	0	1	2	2	**IZS**	1	1	2	1	1	0	0	0	0	0	2	**0.5**	24
13	0	0	0	0	0	0	0	0	0	1	2	2	**IZS**	0	0	0	0	0	0	0	0	0	0	0	2	0.2	24
14	0	0	0	0	0	0	0	0	0	0	0	**IZS**	1	1	0	0	0	0	0	0	0	0	0	0	1	0.1	24
15	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
16	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
17	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
18	0	0	0	0	0	0	0	**IZS**	0	0	0	1	2	1	1	0	0	0	1	1	1	0	0	0	2	0.3	24
19	0	0	0	0	0	0	**IZS**	0	0	0	0	0	0	0	0	0	1	1	2	2	1	0	0	0	2	0.3	24
20	0	1	0	0	0	**IZS**	0	0	0	0	**4**	2	2	0	0	0	0	0	0	0	0	0	0	0	**4**	0.4	24
21	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
22	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
23	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
24	0	**IZS**	0	0	0	0	0	0	**C**	**C**	**C**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
25	**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
26	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
27	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
28	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**IZS**	0	0	0	2	0.2	24
HOURLY MAX	0	2	2	0	0	1	NA	1	0	1	4	2	2	2	2	1	2	1	2	2	1	0	0	0			
HOURLY AVG	0.0	0.1	0.1	0.0	0.0	0.0	NA	0.0	0.0	0.1	0.3	0.3	0.4	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0			

STATUS FLAG CODES

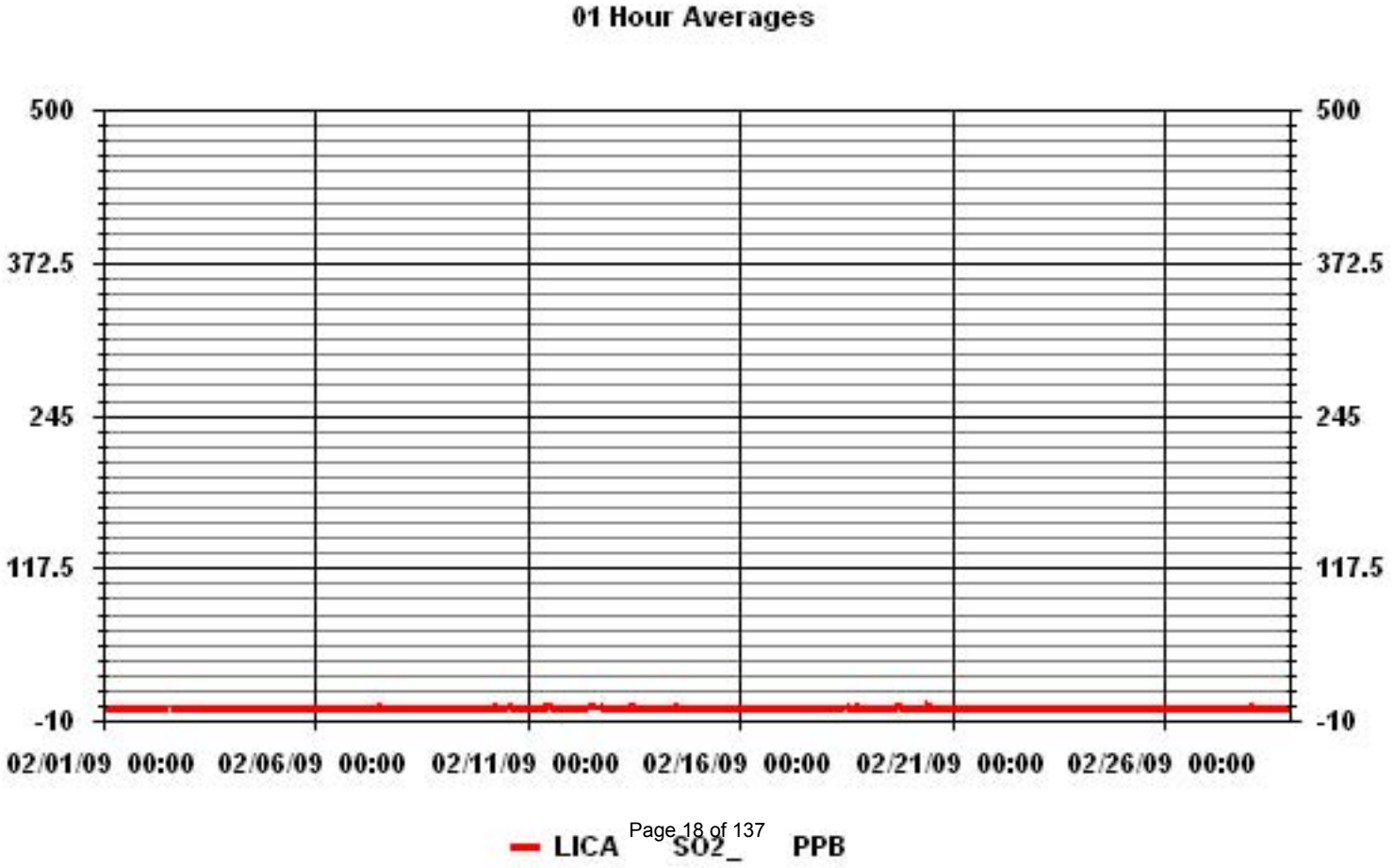
S	- OUT OF SERVICE	IZS	- IZS - DAILY ZERO/SPAN CHECK
N	- INVALID DATA	M	- MAINTENANCE
D	- INSTRUMENT DRIFT	P	- POWER FAILURE
C	- CALIBRATION	NA	- NOT APPLICABLE



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

MONTHLY SUMMARY

NUMBER OF 1-HR EXCEEDENCES:	0					
NUMBER OF 24-HR EXCEEDENCES:	0					
NUMBER OF NON-ZERO READINGS:	48					
MAXIMUM 1-HR AVERAGE:	4	PPB	@ HOUR(S)	10	ON DAY(S)	20
MAXIMUM 24-HR AVERAGE:	0.5	PPB			ON DAY(S)	12
IZS CALIBRATION TIME:	30	HRS	OPERATIONAL TIME:		672	HRS
MONTHLY CALIBRATION TIME:	7	HRS	AMD OPERATION UPTIME:		100.0	%
STANDARD DEVIATION:	0.39		MONTHLY AVERAGE:		0.10	PPB


01 Hour Averages
500
372.5
245
117.5
-10
02/01/09 00:00
02/06/09 00:00
02/11/09 00:00
02/16/09 00:00
02/21/09 00:00
02/26/09 00:00
LICA SO2_ PPB

LICA
SO2_ / WDR Joint Frequency Distribution (Percent)

February 2009

Distribution By % Of Samples

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

Wind Parameter : WDR
Instrument Height : 10 Meters

Direction

	Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
<	20	2.99	8.50	7.71	3.77	9.13	9.44	8.03	2.04	3.14	3.62	12.12	8.66	8.03	5.19	5.51	2.04	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	2.99	8.50	7.71	3.77	9.13	9.44	8.03	2.04	3.14	3.62	12.12	8.66	8.03	5.19	5.51	2.04	

Calm : .00 %

Total # Operational Hours : 635

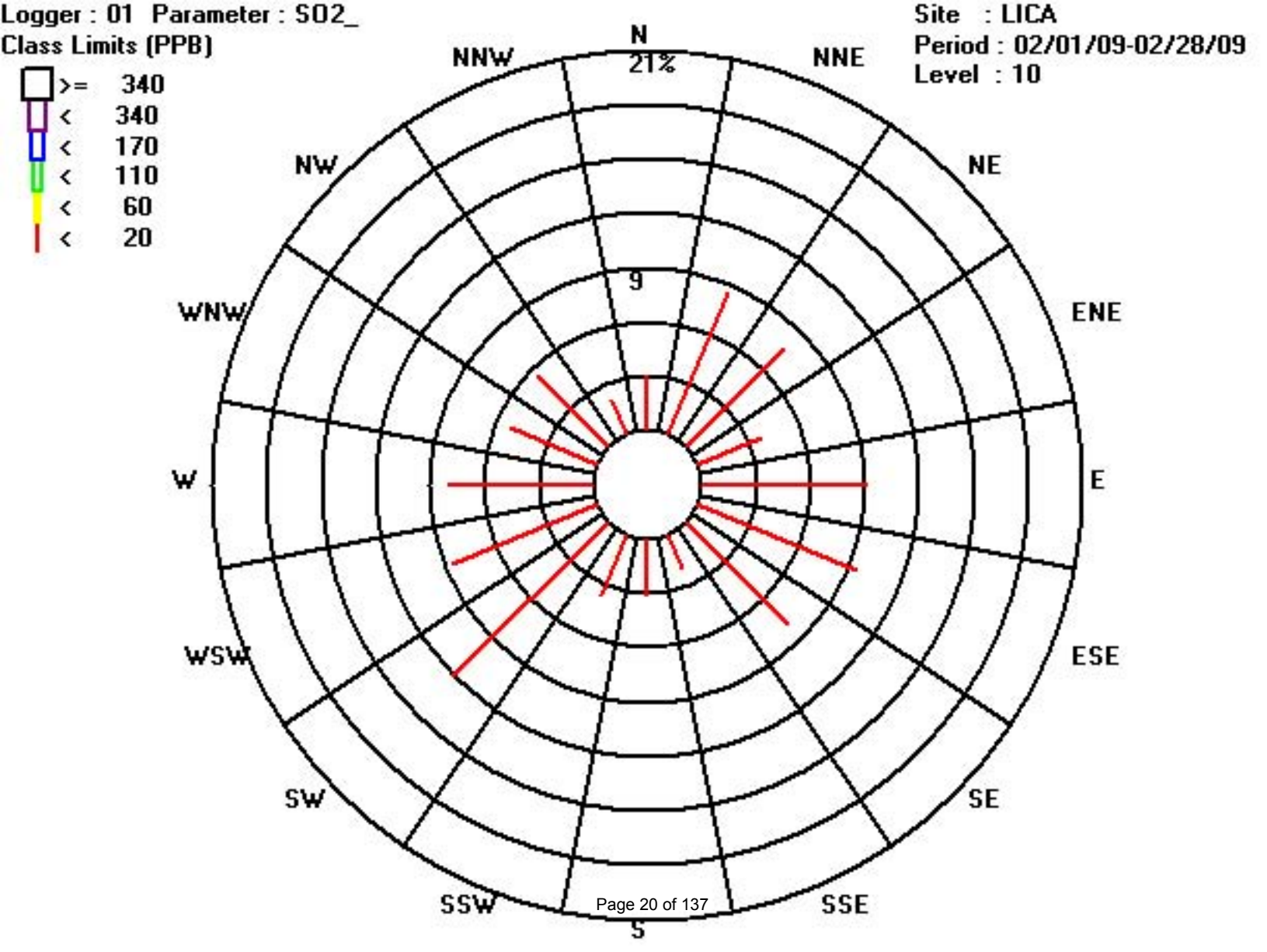
Distribution By Samples

Direction

	Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
<	20	19	54	49	24	58	60	51	13	20	23	77	55	51	33	35	13	635
<	60																	
<	110																	
<	170																	
<	340																	
>=	340																	
	Totals	19	54	49	24	58	60	51	13	20	23	77	55	51	33	35	13	

Calm : .00 %

Total # Operational Hours : 635


Logger : 01 Parameter : SO2_
Class Limits (PPB)
>= 340
< 340
< 170
< 110
< 60
< 20
Site : LICA
Period : 02/01/09-02/28/09
Level : 10
N
21%
NNE
NE
ENE
E
ESE
SE
SSE
S
SSW
SW
WSW
W
WNW
NW
NNW
9

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - *COLD LAKE*

FEBRUARY 2009

SULPHUR DIOXIDE MAX instantaneous maximum in ppb

MST

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	**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
2	**IZS**	0	0	0	0	0	0	0	0	0	0	**C**	**C**	**C**	**C**	**C**	**C**	0	0	0	0	0	0	**IZS**	0	0.0	24
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	**IZS**	0	1	0.1	24
4	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
5	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
6	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
7	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	**IZS**	0	0	0	0	0	1	0.3	24
8	0	0	0	0	0	0	0	0	0	0	0	0	1	2	1	0	0	**IZS**	1	1	1	1	0	0	2	0.3	24
9	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
10	0	0	0	0	0	2	2	2	1	2	1	1	2	3	3	**IZS**	2	1	0	1	1	1	0	0	3	1.1	24
11	0	1	1	0	1	0	0	1	1	1	2	1	2	1	**IZS**	0	0	0	0	0	0	0	0	0	2	0.5	24
12	0	0	0	0	0	0	0	0	0	1	2	3	2	**IZS**	1	2	3	2	1	1	0	0	0	0	3	0.8	24
13	0	0	0	0	0	0	0	0	1	1	3	3	**IZS**	0	0	0	0	0	0	0	0	0	0	0	3	0.3	24
14	0	0	0	0	0	0	0	0	0	1	1	**IZS**	2	1	1	0	0	0	0	0	0	0	0	0	2	0.3	24
15	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
16	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
17	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
18	0	0	0	0	0	0	0	**IZS**	0	0	1	2	2	2	1	1	1	1	1	2	2	1	0	0	2	0.7	24
19	0	0	0	0	0	0	**IZS**	0	0	0	0	0	0	0	1	1	2	2	3	2	2	0	0	0	3	0.6	24
20	1	1	1	0	0	**IZS**	0	0	0	3	**5**	4	2	1	1	0	0	0	0	0	0	0	0	0	**5**	0.8	24
21	0	0	0	0	**IZS**	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0.0	24
22	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
23	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
24	0	**IZS**	0	0	0	0	0	0	**C**	**C**	**C**	**C**	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
25	**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
26	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
27	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	**P**	1	1	0	0	**IZS**	0	0	1	0.2	23
28	1	3	2	1	0	0	0	0	0	1	0	1	1	1	1	1	0	0	0	0	**IZS**	0	0	0	3	0.6	24
HOURLY MAX	1	3	2	1	1	2	2	2	1	3	5	4	2	3	3	2	3	2	3	2	2	1	0	0			
HOURLY AVG	0.1	0.2	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.4	0.6	0.6	0.6	0.5	0.5	0.3	0.4	0.3	0.3	0.3	0.2	0.1	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

MONTHLY SUMMARY

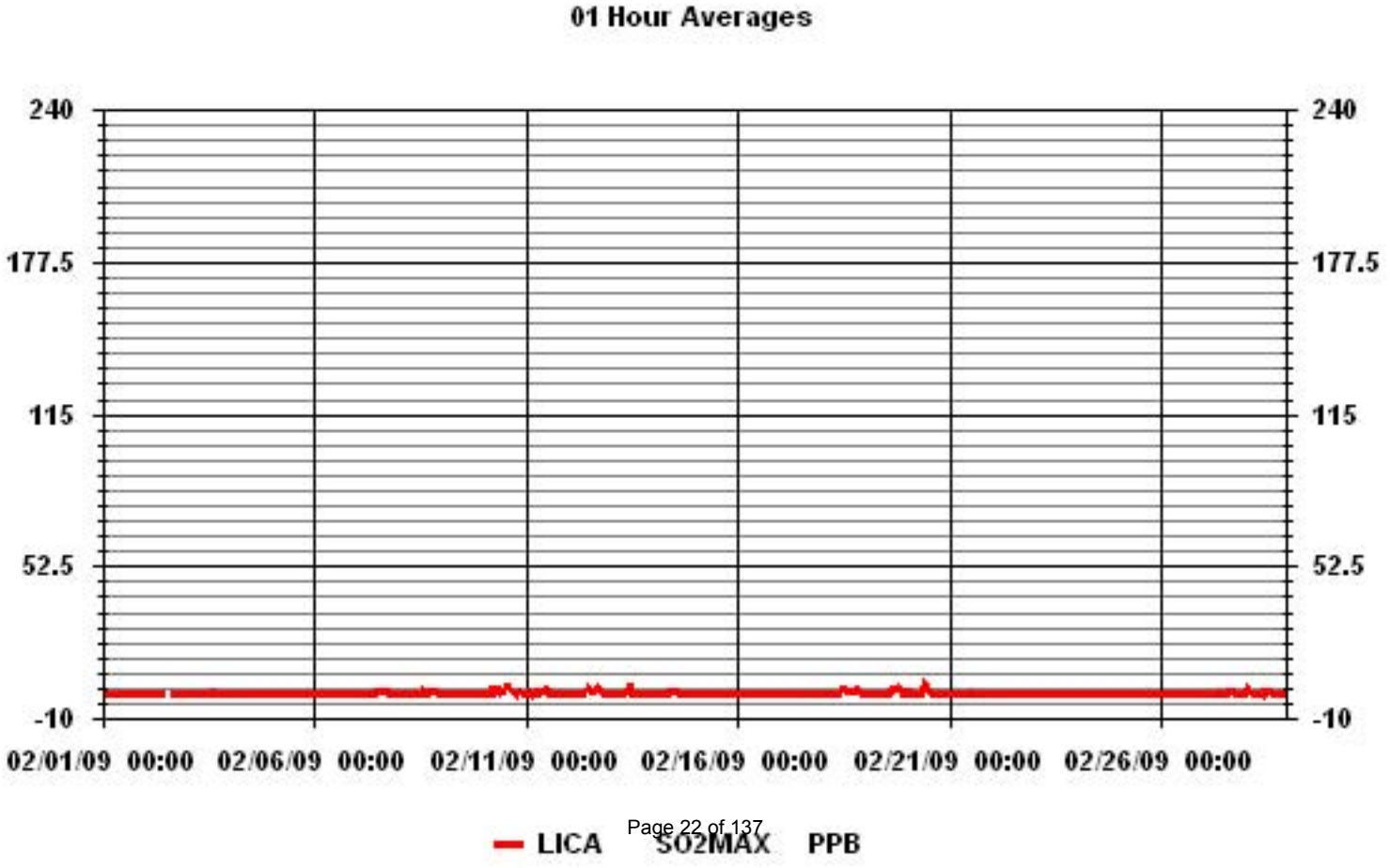
NUMBER OF NON-ZERO READINGS: 104

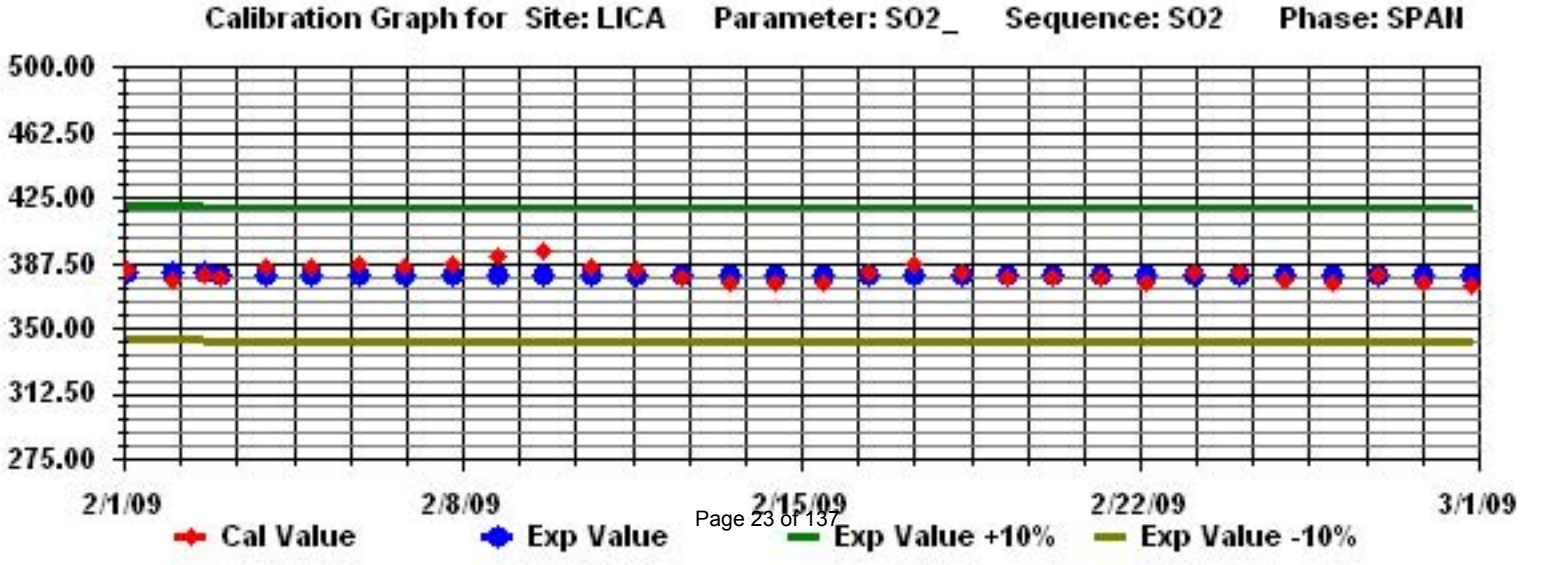
MAXIMUM INSTANTANEOUS VALUE: 5 PPB @ HOUR(S) 10 ON DAY(S) 20

IZS CALIBRATION TIME: 30 HRS OPERATIONAL TIME: 671 HRS

MONTHLY CALIBRATION TIME: 10 HRS

STANDARD DEVIATION: 0.63


01 Hour Averages
240
177.5
115
52.5
-10
02/01/09 00:00
02/06/09 00:00
02/11/09 00:00
02/16/09 00:00
02/21/09 00:00
02/26/09 00:00
LICA
SO2MAX
PPB


Calibration Graph for Site: LICA Parameter: SO2_ Sequence: SO2 Phase: SPAN
500.00
462.50
425.00
387.50
350.00
312.50
275.00
2/1/09
2/8/09
2/15/09
2/22/09
3/1/09
Cal Value
Exp Value
Exp Value +10%
Exp Value -10%

Total Reduced Sulphur

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - *COLD LAKE*

FEBRUARY 2009

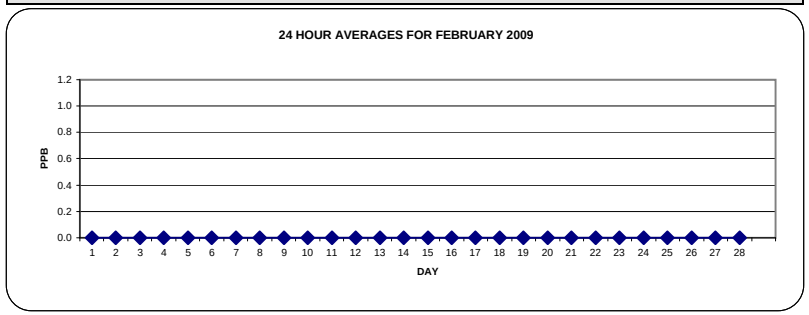
TOTAL REDUCED SULPHUR (TRS) hourly averages in ppb

MST

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	**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
2	**IZS**	0	0	0	0	0	0	0	0	0	0	0	C	C	C	C	0	0	0	0	0	0	0	**IZS**	0	0.0	24
3	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
4	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
5	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
6	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
7	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
8	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
9	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
10	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
11	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
12	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
13	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
14	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
15	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
16	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
17	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
18	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
19	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
20	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
21	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
22	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
23	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
24	0	**IZS**	0	0	0	0	0	0	C	C	C	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
25	**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
26	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
27	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
28	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
HOURLY MAX	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
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

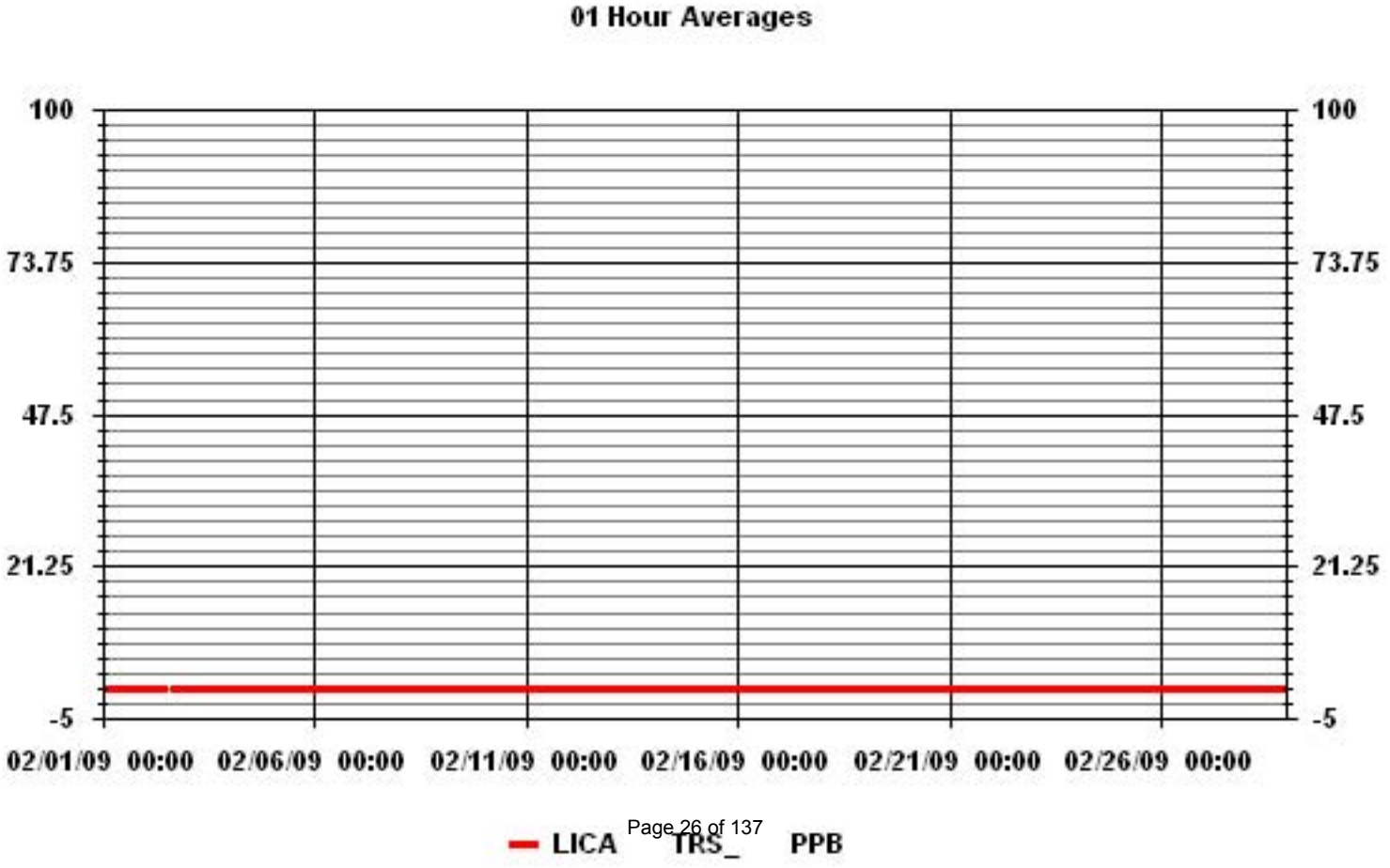


OBJECTIVE LIMIT: **ALBERTA ENVIRONMENT:** 1-HR 172 PPB | 24-HR 57 PPB

MONTHLY SUMMARY

NUMBER OF 1-HR EXCEEDENCES:	0					
NUMBER OF 24-HR EXCEEDENCES:	0					
NUMBER OF NON-ZERO READINGS:	0					
MAXIMUM 1-HR AVERAGE:	0	PPB	@ HOUR(S)	ALL	ON DAY(S)	ALL
MAXIMUM 24-HR AVERAGE:	0.0	PPB			ON DAY(S)	ALL
				VAR-VARIOUS		

IZS CALIBRATION TIME:	30	HRS	OPERATIONAL TIME:	672	HRS
MONTHLY CALIBRATION TIME:	7	HRS	AMD OPERATION UPTIME	100.0	%
STANDARD DEVIATION	0.00		MONTHLY AVERAGE	0.00	PPB


01 Hour Averages
100
73.75
47.5
21.25
-5
02/01/09 00:00
02/06/09 00:00
02/11/09 00:00
02/16/09 00:00
02/21/09 00:00
02/26/09 00:00
LICA TRS_ PPB

LICA
TRS_ / WD Joint Frequency Distribution (Percent)

February 2009

Distribution By % Of Samples

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

Wind Parameter : WD
Instrument Height : 10 Meters

Direction

	Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
<	3	2.99	8.50	7.71	3.77	9.13	9.44	8.03	2.04	3.14	3.62	12.12	8.66	8.03	5.19	5.51	2.04	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	2.99	8.50	7.71	3.77	9.13	9.44	8.03	2.04	3.14	3.62	12.12	8.66	8.03	5.19	5.51	2.04	

Calm : .00 %

Total # Operational Hours : 635

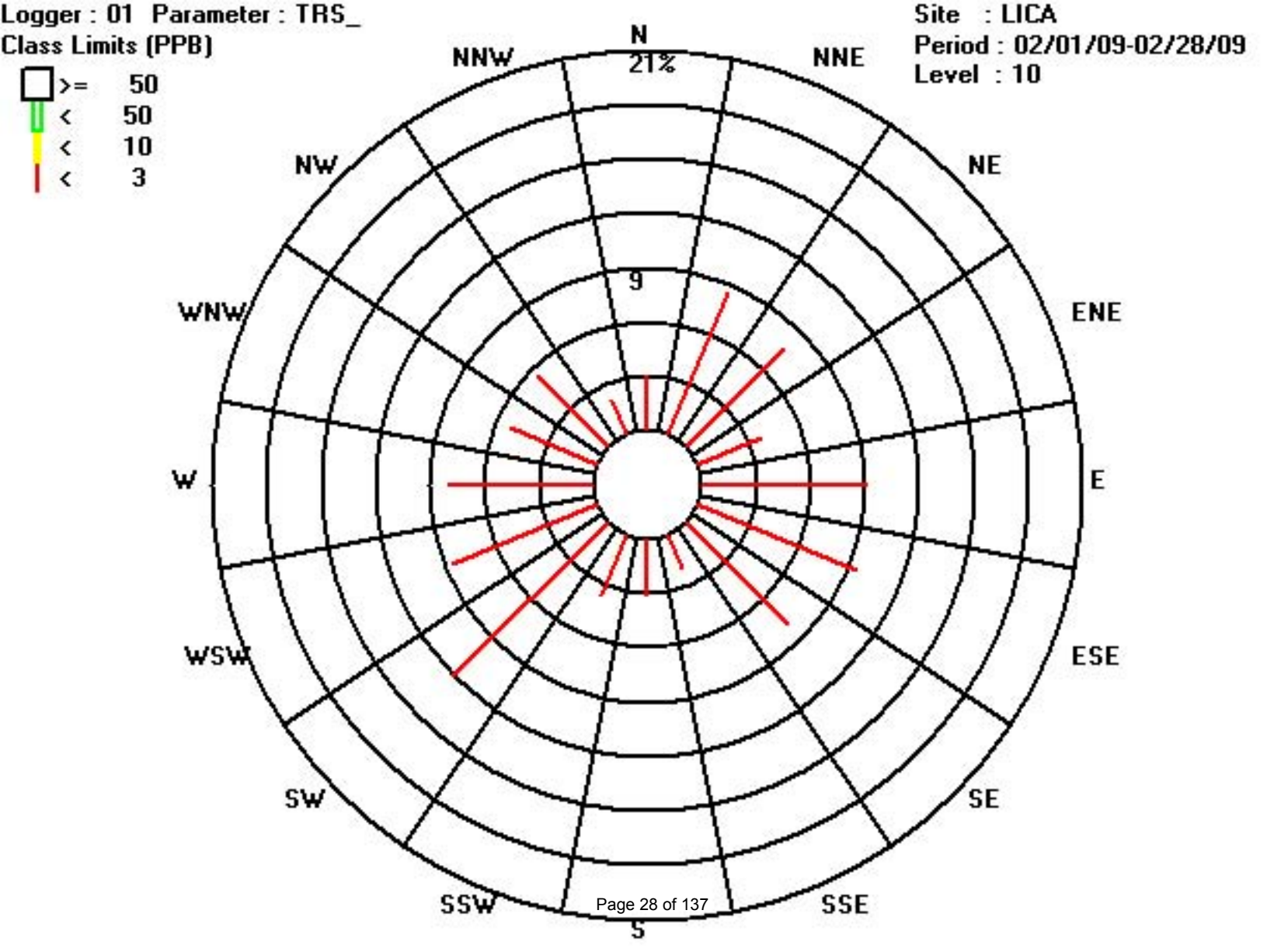
Distribution By Samples

Direction

	Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
<	3	19	54	49	24	58	60	51	13	20	23	77	55	51	33	35	13	635
<	10																	
<	50																	
>=	50																	
	Totals	19	54	49	24	58	60	51	13	20	23	77	55	51	33	35	13	

Calm : .00 %

Total # Operational Hours : 635


Logger : 01 Parameter : TRS_
Class Limits (PPB)
>= 50
< 50
< 10
< 3
Site : LICA
Period : 02/01/09-02/28/09
Level : 10
N
21%
NNE
NE
ENE
E
ESE
SE
SSE
S
SSW
SW
WSW
W
WNW
NW
NNW
9

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - *COLD LAKE*

FEBRUARY 2009

TOTAL REDUCED SULPHUR MAX instantaneous maximum in ppb

MST

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	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
2	IZS	0	0	0	0	0	0	0	0	0	0	C	C	C	C	C	C	0	0	0	0	0	0	IZS	0	0.0	24
3	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
4	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
5	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
6	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
7	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
8	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
9	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
10	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
11	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
12	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
13	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
14	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
15	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
16	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
17	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
18	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
19	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
20	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
21	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
22	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
23	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
24	0	IZS	0	0	0	0	0	0	C	C	C	C	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
25	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
26	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
27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	P	0	0	0	0	IZS	0	0	0	0.0	23
28	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
HOURLY MAX	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
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

MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS: 0

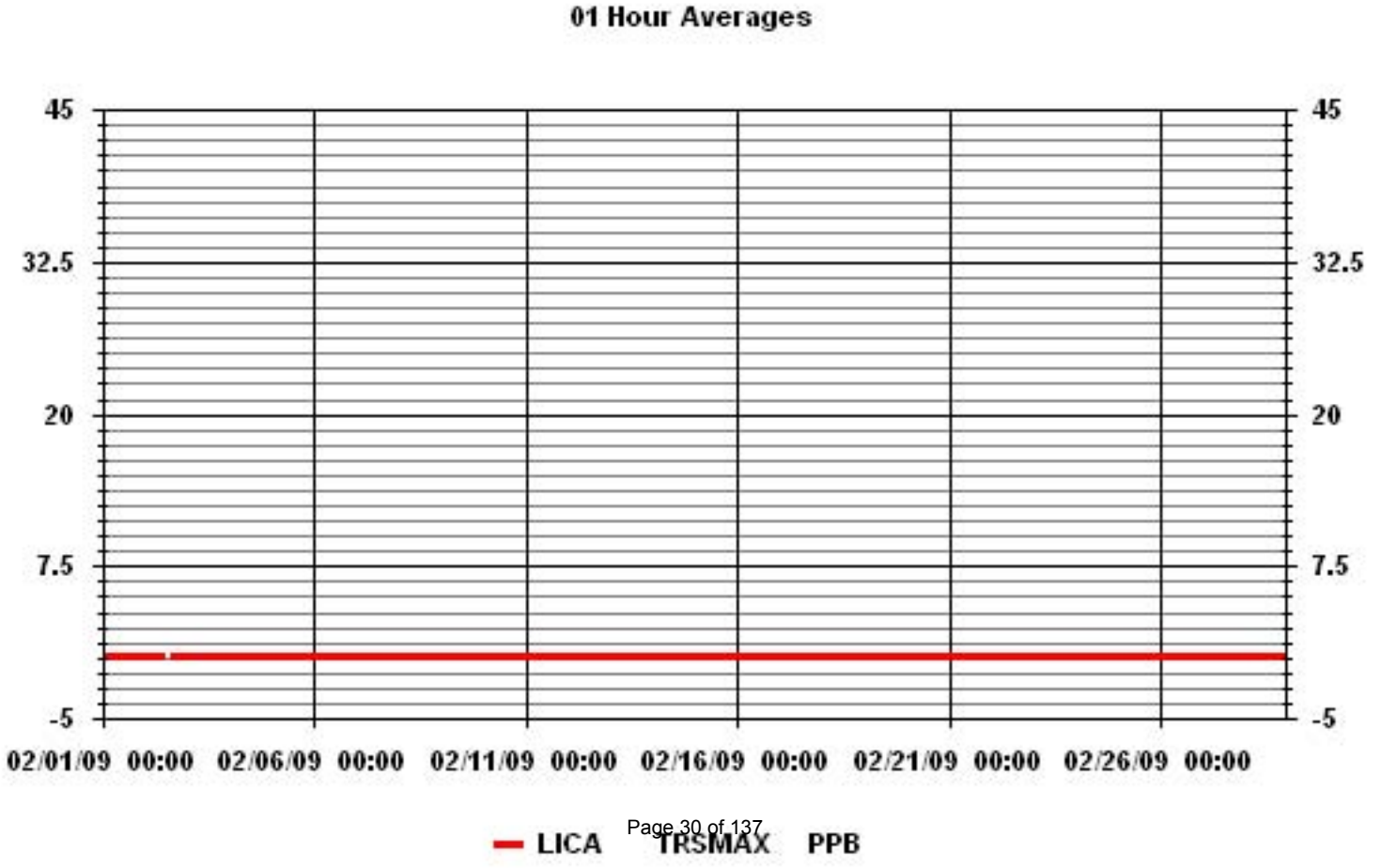
MAXIMUM INSTANTANEOUS VALUE: 0 PPB @ HOUR(S) ALL ON DAY(S) ALL

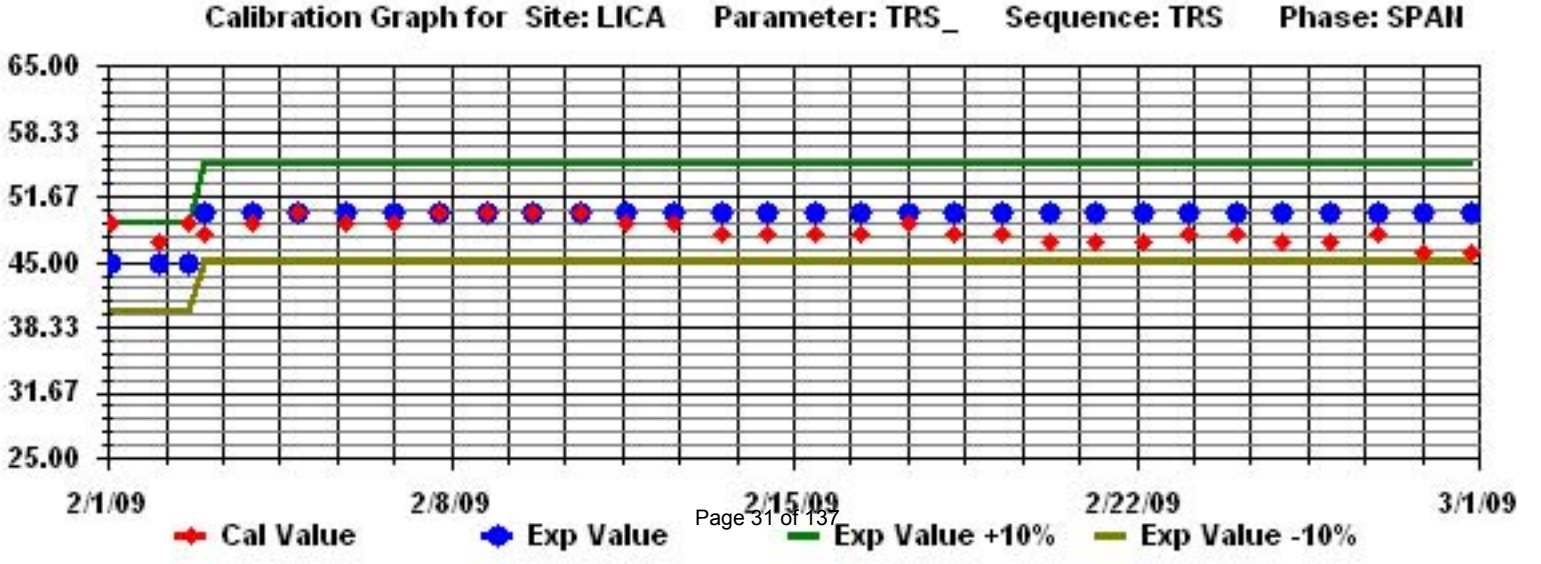
VAR - VARIOUS

IZS CALIBRATION TIME: 30 HRS OPERATIONAL TIME: 671 HRS

MONTHLY CALIBRATION TIME: 10 HRS

STANDARD DEVIATION: 0.00


01 Hour Averages
45
32.5
20
7.5
-5
02/01/09 00:00
02/06/09 00:00
02/11/09 00:00
02/16/09 00:00
02/21/09 00:00
02/26/09 00:00
LICA
TRSMAX
PPB


Calibration Graph for Site: LICA Parameter: TRS_ Sequence: TRS Phase: SPAN
65.00
58.33
51.67
45.00
38.33
31.67
25.00
2/1/09
2/8/09
2/15/09
2/22/09
3/1/09
Cal Value
Exp Value
Exp Value +10%
Exp Value -10%

Total Hydrocarbons

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - *COLD LAKE*

FEBRUARY 2009

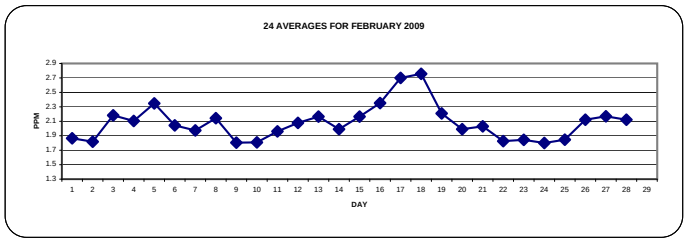
TOTAL HYDROCARBONS (THC) hourly averages in ppm

MST

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	1.7	**IZS**	1.7	1.8	1.8	1.8	1.8	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	2	2.1	2	2	2.1	2	1.8	2.1	1.9	24
2	**IZS**	1.8	1.8	1.8	1.8	1.8	1.9	1.9	**C**	**C**	**C**	**C**	**C**	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	**IZS**	1.9	1.8	24
3	2	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.1	2.2	2.2	2.3	2.3	2.2	2.1	2	2	2.1	2.3	2.4	2.2	2.2	**IZS**	2.4	2.4	2.2	24
4	2.3	2.3	2.3	2.2	2.3	2.2	2.2	2.2	2.3	2.6	2.5	2.2	2.3	1.9	1.7	1.7	1.7	1.7	1.7	1.9	2.1	**IZS**	2	2.1	2.6	2.1	24
5	2.1	2.2	2.4	2.5	2.5	2	2	2	2	2	2.2	2.3	2.3	2.2	2.3	2.3	2.4	2.4	2.9	2.7	**IZS**	2.5	2.9	2.9	2.9	2.3	24
6	3.2	**3.6**	3	2.4	2.4	2.3	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.8	1.8	**IZS**	1.8	1.9	1.9	2.2	**3.6**	2.0	24
7	2.2	2.1	2	2	2.1	2.1	2.1	2	1.9	2	2	1.9	1.9	1.8	1.9	1.8	1.9	1.9	**IZS**	1.9	1.9	1.9	2	2.1	2.2	2.0	24
8	2.1	2.1	2.1	2.1	2.1	2	2.1	2.1	2.1	2	2.1	2.2	2.1	2	2	2.1	2.1	**IZS**	2.5	2.6	2.6	2.2	2	2	2.6	2.1	24
9	1.9	1.9	1.8	1.9	2	1.9	1.9	1.9	1.9	1.8	1.7	1.7	1.7	1.7	1.7	1.8	**IZS**	1.8	1.7	1.7	1.7	1.8	1.8	1.8	2.0	1.8	24
10	1.8	1.8	1.8	1.7	1.7	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	**IZS**	1.8	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.9	1.8	24
11	1.9	1.9	1.9	1.8	1.8	1.9	1.9	1.8	1.8	1.8	1.9	1.8	1.8	1.8	**IZS**	1.9	2	2	2.1	2.1	2.6	2.2	2.2	2.2	2.6	2.0	24
12	2.2	2.2	2.2	2.2	2.2	2.3	2.4	2.6	2.7	2.2	1.9	1.9	1.9	**IZS**	2	1.9	1.8	1.8	1.8	1.9	1.9	1.9	1.9	2	2.7	2.1	24
13	2	2	2.2	2.2	2.3	2.5	2.6	2.7	2.5	2.3	2.1	2	**IZS**	2.1	2.1	2	2	2	2	2	2.1	2.1	2	2	2.7	2.2	24
14	2	2	1.9	1.9	1.9	1.9	2.2	2.2	2.3	2.3	1.9	**IZS**	1.8	1.8	1.8	1.9	1.9	1.9	2	2	2	2	2.1	2.1	2.3	2.0	24
15	2.1	2.2	2.2	2.2	2.3	2.3	2.3	2.4	2.5	2.6	**IZS**	2.2	2.1	2	1.9	1.9	2	2.1	2.1	2	2.1	2.1	2.1	2.1	2.6	2.2	24
16	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.2	**IZS**	2.5	2.5	2.4	2.3	2.3	2.3	2.3	2.4	2.4	2.5	2.4	2.5	2.4	2.4	2.5	2.4	24
17	2.6	2.7	2.8	2.7	2.8	2.8	2.8	2.8	**IZS**	2.8	2.9	3	2.7	2.6	2.5	2.5	2.6	2.6	2.6	2.6	2.7	2.7	2.6	2.7	3.0	2.7	24
18	2.8	3	3.2	3	3	3.1	3.1	**IZS**	3.2	3.1	3.4	3.5	3.2	3.1	2.9	2.9	2.5	2.1	2	2	2	2.1	2.1	2.1	3.5	**2.8**	24
19	2.1	2.2	2.2	2.2	2.3	2.4	**IZS**	2.7	2.8	2.8	2.7	2.5	2.4	2.5	2	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.9	2.8	2.2	24
20	1.8	1.8	1.8	1.9	2	**IZS**	2	2	2	2	2.1	2	2.1	2	2	2	2	2	2	2	2	2.1	2.1	2.1	2.1	2.0	24
21	2.1	2.2	2.3	2.3	**IZS**	2.4	2.4	2.5	2.3	2.2	2	1.9	1.9	1.9	1.9	1.8	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	2.5	2.0	24
22	1.8	1.8	1.8	**IZS**	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	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	24
23	1.9	1.9	**IZS**	1.8	1.9	2.1	2.1	1.9	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	1.8	1.8	1.8	2.1	1.8	24
24	1.8	**IZS**	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	**C**	**C**	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	24
25	**IZS**	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9	2	2	2	**IZS**	2.0	1.8	24
26	2	2	2	2.1	2.1	2.2	2.2	2.3	2.7	2.5	2.1	2.1	2	1.9	1.9	2	2	2	2.1	2.1	2.3	2.3	**IZS**	1.9	2.7	2.1	24
27	1.9	2	2	2	2	2.1	2.1	2.1	2.3	2.3	**C**	**C**	**C**	**C**	**C**	**C**	**C**	2.2	2.3	2.2	2.3	**IZS**	2.4	2.5	2.5	2.2	24
28	2.4	2.2	2.1	2	2.1	2	2	2.1	2.1	2	2.1	2.1	2.1	2.1	2.1	2	2	2	2.1	2.1	**IZS**	2.4	2.4	2.3	2.4	2.1	24
HOURLY MAX	3.2	3.6	3.2	3.0	3.0	3.1	3.1	2.8	3.2	3.1	3.4	3.5	3.2	3.1	2.9	2.9	2.6	2.6	2.9	2.7	2.7	2.7	2.9	2.9			
HOURLY AVG	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1			

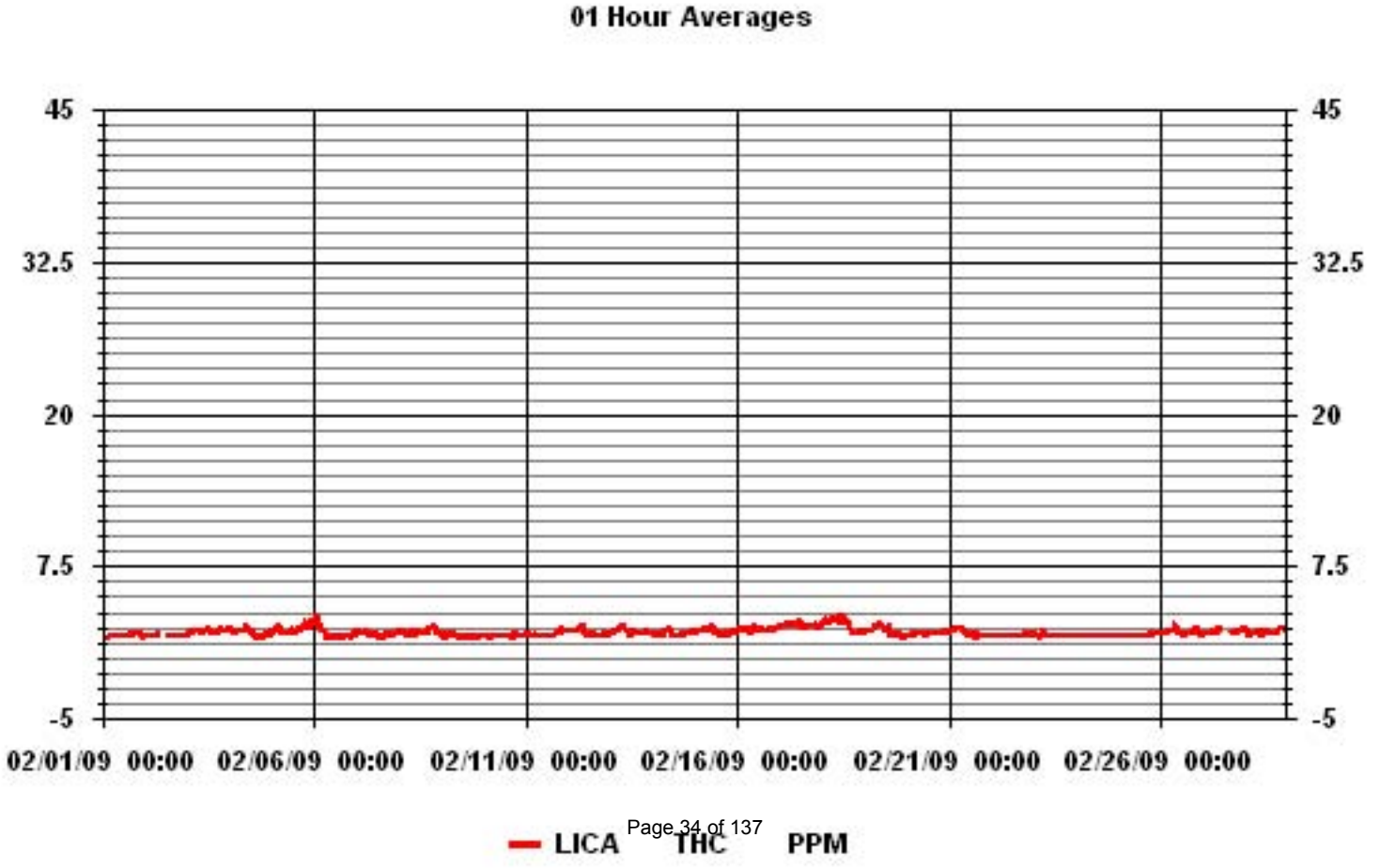
STATUS FLAG CODES

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:	628					
MAXIMUM 1-HR AVERAGE:	3.6	PPM	@ HOUR(S)	1	ON DAY(S)	6
MAXIMUM 24-HR AVERAGE:	2.8	PPM			ON DAY(S)	18
IZS CALIBRATION TIME:	30	HRS	OPERATIONAL TIME:		672	HRS
MONTHLY CALIBRATION TIME:	14	HRS	AMD OPERATION UPTIME:		100.0	%
STANDARD DEVIATION:	0.32		MONTHLY AVERAGE:		2.08	PPM


01 Hour Averages
45
32.5
20
7.5
-5
02/01/09 00:00
02/06/09 00:00
02/11/09 00:00
02/16/09 00:00
02/21/09 00:00
02/26/09 00:00
LICA THC PPM

LICA
THC / WD Joint Frequency Distribution (Percent)

February 2009

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	3.02	8.12	7.96	3.82	8.59	9.39	7.96	2.07	3.18	3.66	10.50	8.43	7.96	5.25	5.41	2.07	97.45
<	10.0	.00	.31	.15	.00	.31	.15	.31	.00	.00	.00	.63	.31	.15	.00	.15	.00	2.54
<	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	3.02	8.43	8.12	3.82	8.91	9.55	8.28	2.07	3.18	3.66	11.14	8.75	8.12	5.25	5.57	2.07	

Calm : .00 %

Total # Operational Hours : 628

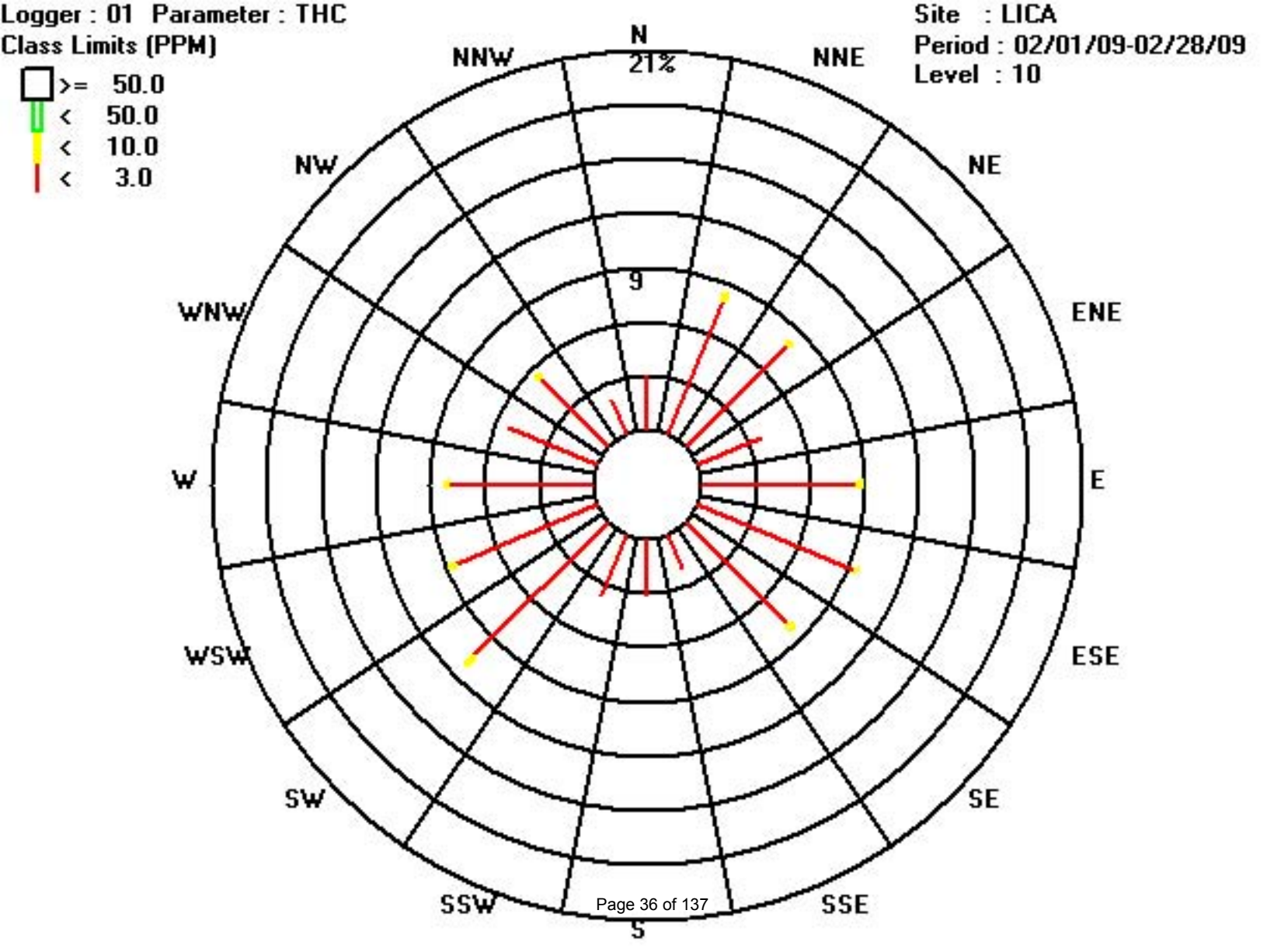
Distribution By Samples

Direction

	Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
<	3.0	19	51	50	24	54	59	50	13	20	23	66	53	50	33	34	13	612
<	10.0		2	1		2	1	2				4	2	1		1		16
<	50.0																	
>=	50.0																	
	Totals	19	53	51	24	56	60	52	13	20	23	70	55	51	33	35	13	

Calm : .00 %

Total # Operational Hours : 628


Logger : 01 Parameter : THC
Class Limits (PPM)
>= 50.0
< 50.0
< 10.0
< 3.0
Site : LICA
Period : 02/01/09-02/28/09
Level : 10
N
21%
NNE
NE
ENE
E
ESE
SE
SSE
S
SSW
SW
WSW
W
WNW
NW
NNW
9

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - *COLD LAKE*

FEBRUARY 2009

TOTAL HYDROCARBONS MAX instantaneous maximum in ppm

MST

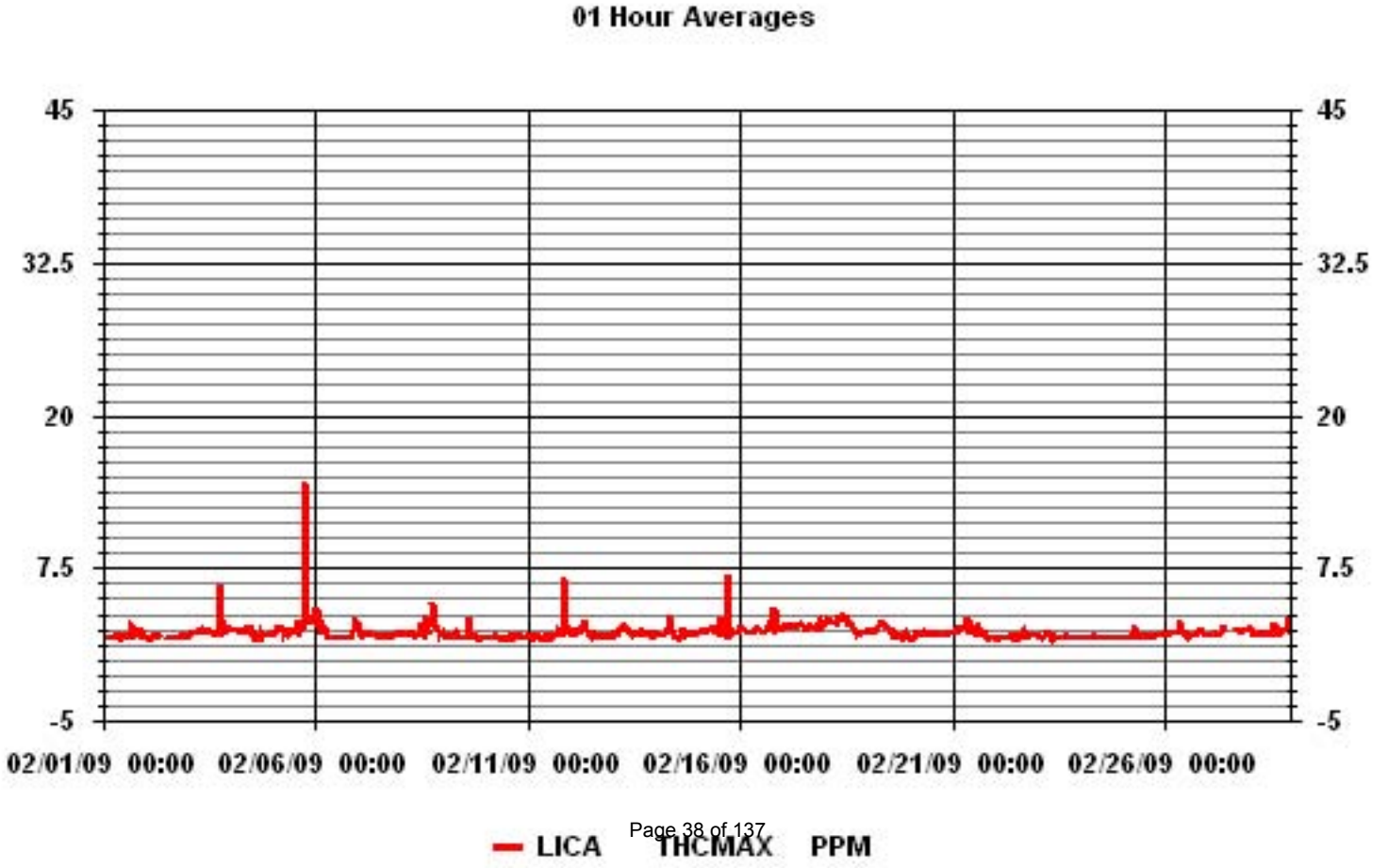
HOUR START	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY	24-HOUR	
HOUR END	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	MAX.	AVG.	RDGS.
DAY																											
1	1.8	**IZS**	1.8	1.8	1.9	1.8	1.8	2	1.9	1.9	1.8	1.9	1.9	1.9	1.9	1.9	2.7	2.5	2.3	2.2	2.1	2.6	2.2	1.9	2.7	2.0	24
2	**IZS**	1.9	1.8	1.9	1.9	1.9	1.9	2	**C**	**C**	**C**	**C**	**C**	1.9	1.8	1.8	1.8	1.9	1.8	1.8	2	1.9	2	**IZS**	2	1.9	24
3	2	2.2	2.2	2.2	2.2	2.3	2.3	2.5	2.2	2.2	2.4	2.4	2.4	2.2	2.2	2.1	2.1	2.1	6.1	3.4	2.5	2.3	**IZS**	2.7	6.1	2.5	24
4	2.6	2.5	2.4	2.4	2.4	2.3	2.3	2.3	2.4	2.7	2.6	2.3	2.5	2.2	1.7	1.7	1.7	2.3	2	2	2.1	**IZS**	2.1	2.3	2.7	2.3	24
5	2.2	2.3	2.6	2.6	2.7	2.6	2.1	2.3	2	2.1	2.4	2.4	2.4	2.3	3.1	2.3	3.1	2.5	**14.5**	3.2	**IZS**	3.3	3.5	3.3	**14.5**	3.1	24
6	4	4	3.5	2.4	2.5	2.5	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	2.3	3.4	2.3	4	2.3	24
7	3	2.2	2	2.1	2.1	2.1	2.2	2.1	2	2	2	2	1.9	1.9	1.9	1.9	1.9	1.9	**IZS**	1.9	2	2.1	2.1	2.1	3	2.1	24
8	2.1	2.1	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2	2.1	3	2.2	2.1	3.6	2.2	2.2	**IZS**	4.4	2.9	2.8	2.6	2.1	2.3	4.4	2.4	24
9	2	2	1.9	2	2.1	2	2.1	2.3	2.1	2	1.8	1.8	1.8	1.8	1.9	3.3	**IZS**	1.9	1.9	1.9	1.7	1.8	1.8	1.8	3.3	2.0	24
10	1.9	1.8	1.8	1.8	1.8	1.9	1.9	1.8	1.8	1.9	1.8	1.9	1.8	1.9	1.9	**IZS**	1.8	2	2.1	2	2.1	1.9	1.8	1.8	2.1	1.9	24
11	2	2	2	1.8	1.9	1.9	1.9	1.9	1.8	1.9	1.9	1.9	1.9	1.8	**IZS**	2	2	2.4	2.2	2.2	6.7	2.4	2.5	2.5	6.7	2.2	24
12	2.2	2.3	2.2	2.3	2.3	2.3	2.5	2.8	3.3	2.5	2.1	1.9	2.3	**IZS**	2	2	1.9	1.9	2	1.9	1.9	1.9	2	2.1	3.3	2.2	24
13	2	2.3	2.2	2.3	2.5	2.6	2.7	2.7	2.6	2.4	2.2	2	**IZS**	2.3	2.1	2.1	2.6	2.1	2.1	2.1	2.3	2.2	2.1	2	2.7	2.3	24
14	2.1	2.2	2	2	2	2.1	2.4	2.4	3.7	2.6	2.2	**IZS**	1.9	1.8	1.9	1.9	2.6	2	2	2	2.1	2.1	2.1	2.1	3.7	2.2	24
15	2.2	2.2	2.3	2.3	2.3	2.3	2.4	2.5	2.6	2.7	**IZS**	2.3	2.2	3.4	2.1	2	2.6	7	2.6	2.2	2.4	2.2	2.2	2.2	7	2.6	24
16	2.5	2.5	2.5	2.4	2.4	2.3	2.4	2.3	2.3	**IZS**	2.6	2.5	2.4	2.3	2.4	2.4	2.8	3.1	2.6	4.2	2.5	2.6	2.6	2.5	4.2	2.6	24
17	2.7	2.8	2.9	2.8	2.8	2.8	2.8	2.9	**IZS**	2.9	3	3	2.9	2.7	2.6	2.7	2.7	2.7	2.8	2.7	2.9	3.2	2.7	2.8	3.2	2.8	24
18	3	3.4	3.3	3.1	3.1	3.2	3.1	**IZS**	3.3	3.3	3.6	3.6	3.5	3.1	3	3	2.7	2.4	2.1	2.2	2.1	2.3	2.2	2.2	3.6	2.9	24
19	2.3	2.3	2.3	2.3	2.4	2.7	**IZS**	3	2.9	2.9	2.8	2.7	2.5	2.5	2.4	2	1.9	2	2	2	1.9	2.2	1.9	1.9	3	2.3	24
20	1.9	1.8	1.9	2.1	2.1	**IZS**	2.1	2.3	2.1	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.2	2.1	2	2	2.1	2.1	2.3	2.2	2.3	2.1	24
21	2.2	2.3	2.6	2.4	**IZS**	2.6	2.6	2.6	3.1	3.1	2.2	2.5	2.6	2.7	1.9	2.7	2.1	2.1	2.2	1.9	1.8	1.9	1.8	1.8	3.1	2.3	24
22	1.8	1.9	1.8	**IZS**	1.8	1.8	1.8	1.8	1.9	1.9	2	1.8	1.9	2	1.8	1.9	2.3	1.9	1.9	1.9	2	2	2	2.1	2.3	1.9	24
23	1.9	1.9	**IZS**	1.8	1.9	2.2	2.1	2.1	1.8	2	1.8	1.8	1.8	1.8	1.8	1.8	2	1.9	1.9	1.8	1.8	1.8	1.8	1.8	2.2	1.9	24
24	1.8	**IZS**	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.8	1.8	**C**	**C**	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.8	24
25	**IZS**	1.8	1.8	1.8	1.8	1.9	1.9	2.8	2	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2	2	2	2	2	**IZS**	2.8	2.0	24
26	2.1	2.1	2.1	2.3	2.4	2.3	2.3	2.4	3	3	2.3	2.1	2.2	1.9	2	2	2	2	2.2	2.2	2.4	2.4	**IZS**	2	3	2.2	24
27	2	2	2	2.1	2.1	2.1	2.1	2.2	2.5	2.5	**C**	**C**	**C**	**C**	**C**	**C**	**C**	2.5	2.3	2.3	2.3	**IZS**	2.5	2.7	2.7	2.3	24
28	2.6	2.2	2.3	2.3	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.1	3	2.2	2.1	2.1	2.3	2.5	**IZS**	2.6	3.5	2.4	3.5	2.3	24
HOURLY MAX	4	4	4	3	3	3	3	3	4	3	4	4	4	3	4	3	3	7	15	4	7	3	4	3			
HOURLY AVG	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.3	2.4	2.3	2.2	2.2	2.2	2.2	2.2	2.1	2.2	2.3	2.8	2.3	2.3	2.3	2.3	2.2			

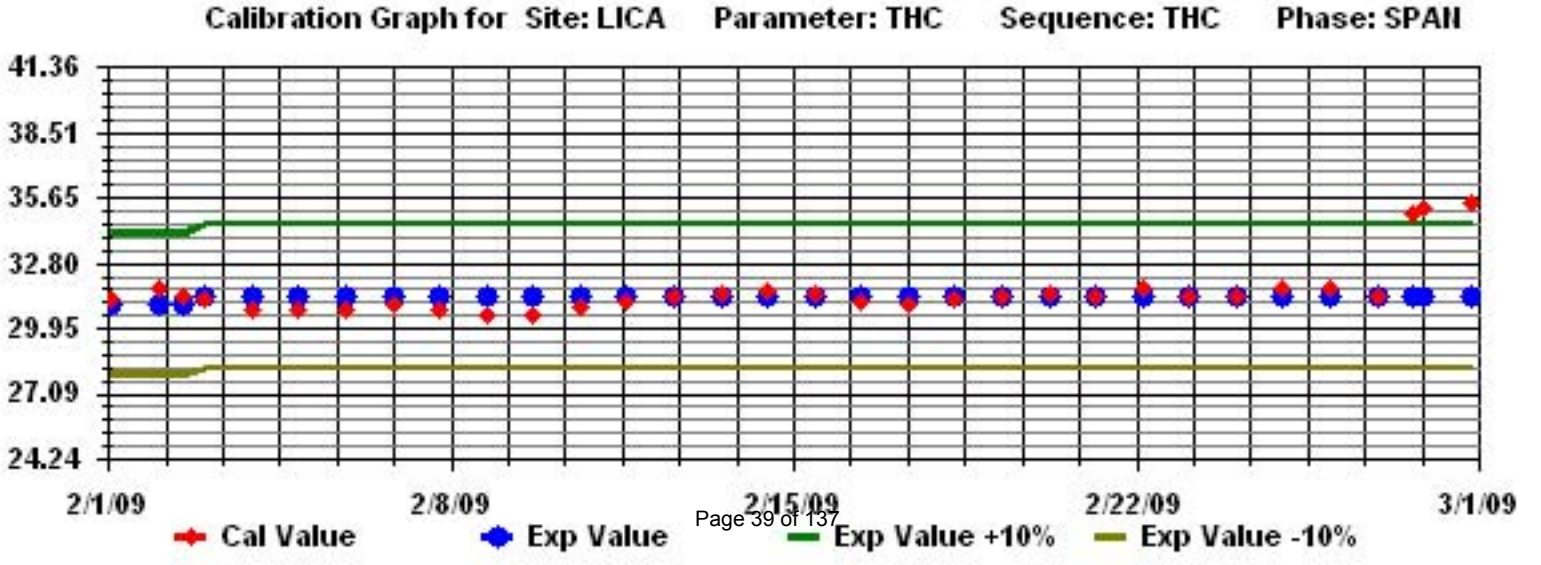
STATUS FLAG CODES

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
BB	- BELOW BACKGROUND OF 1.5 PPM		

MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	628						
MAXIMUM INSTANTANEOUS VALUE:	14.5	PPM	@ HOUR(S)	18	ON DAY(S)	5	
IZS CALIBRATION TIME:	30	HRS	OPERATIONAL TIME:			672	HRS
MONTHLY CALIBRATION TIME:	14	HRS					
STANDARD DEVIATION:	0.71						


01 Hour Averages
45
32.5
20
7.5
-5
02/01/09 00:00
02/06/09 00:00
02/11/09 00:00
02/16/09 00:00
02/21/09 00:00
02/26/09 00:00
LICA THCMAX PPM


Calibration Graph for Site: LICA Parameter: THC Sequence: THC Phase: SPAN
41.36
38.51
35.65
32.80
29.95
27.09
24.24
2/1/09
2/8/09
2/15/09
2/22/09
3/1/09
Cal Value
Exp Value
Exp Value +10%
Exp Value -10%

Particulate Matter 2.5

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - *COLD LAKE*

FEBRUARY 2009

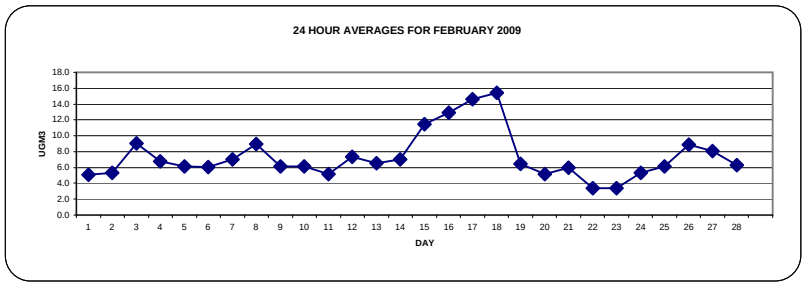
PARTICULATE MATTER 2.5 (PM2.5) hourly averages in ug/m^3

MST

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	3.1	0.7	0	0	2.6	5.6	3.8	3.9	4.3	5.7	1.6	4.8	8.2	11.1	**N**	**N**	1.3	6.5	11.1	10.5	7.4	5.6	7.7	7	11.1	5.1	22
2	5.7	2.6	5.8	5.8	1.9	0.9	7.9	9.1	8	1.9	4.8	6.6	7.9	2.8	9.2	2.3	3.5	7.7	8.7	6.3	0.9	0.6	7.8	9.1	9.2	5.3	24
3	4.2	3.9	10	7.6	6.2	8.2	14.3	13.4	13.2	11	9.3	8.7	6.9	8.7	7.2	6.5	9.3	11	9.6	9.2	8	6.4	9	15.8	15.8	9.1	24
4	16.7	16	14.1	14.8	8	7.2	8.6	9.9	6.7	8.8	12.7	**N**	0	5	0.1	0.3	2	2.6	0	4.5	0.8	0	10.8	7.1	16.7	6.8	23
5	5.7	2	3.9	8.1	12.3	1.8	5	6.6	5.6	0	1.2	3.8	7.2	4.3	9.8	11.4	6.1	8.9	1.1	3.7	8.7	7	11.9	11.8	12.3	6.2	24
6	13	15.1	12.6	10.3	4.7	9	10.5	6	1.8	0	5.3	3.7	2.7	3.4	1.9	3.5	5.4	8.1	3.9	2.4	2.6	7.4	6.4	5.1	15.1	6.0	24
7	4.7	6.4	2.6	1.9	8.6	7.9	6.2	9.1	10	10.4	10.1	11.5	9.8	3.3	9.3	0	0	0	4.8	7.5	10.2	4.6	5	23.8	23.8	7.0	24
8	17.7	5.8	4.1	7.7	6.6	13.5	14.8	8.8	13.1	7.9	9.7	7.5	11.3	8	5.4	2.4	11.9	2.3	3.5	10.9	14.2	12.1	8.1	7.2	17.7	8.9	24
9	8.4	8.7	10.1	4.9	7.4	10.1	8	7.2	8.1	6.5	5	2.9	0	7.9	7	3.8	2.9	8.6	6.9	5.5	5.6	5.2	1.9	4.2	10.1	6.1	24
10	4.8	7	7.7	4.4	8.7	7.3	6.8	6.1	7	8	6.8	7.6	3	5.2	4.3	6.3	6.2	5.7	5	5	5.9	5.9	7.2	5.9	8.7	6.2	24
11	4.1	3.4	2.7	5.9	5.4	3.6	3.9	5	2.4	2.9	0.7	0	5.1	2.6	3.4	1.2	0	2.7	7.1	7.4	15.3	14.8	12.6	12.7	15.3	5.2	24
12	10	6.1	4.9	5.7	9.1	6	4.8	5.8	10.2	11.6	7.9	7.2	3.3	3.7	13.5	12.5	5.8	7.6	16.9	12.6	3.8	3.9	4.2	0	16.9	7.4	24
13	6.6	5.1	4.9	8.2	9.1	5	8	5.2	10	11.1	5.3	8.9	3.9	8.9	5.3	2.7	3.7	7.1	10.8	8.3	5.1	1.4	3.8	7.9	11.1	6.5	24
14	2.4	1.5	2.1	6	6.4	7	8.7	8.6	11.3	14	12.7	3.7	0.2	12.3	5.9	3.8	6.8	8.5	5.1	13	6.3	8.7	7	6.6	14.0	7.0	24
15	13.7	9.2	7.3	4.9	4.2	11.3	14.3	12.9	16.1	21.7	20.5	10.4	13.5	15.3	11.5	10.6	10.3	8.9	10.2	9	6.8	10	13.6	9.4	21.7	11.5	24
16	17.9	21.5	18	13.4	13.3	9.2	7.4	9.3	9.7	5.4	4.4	8.4	6.9	19.7	12.8	16.9	15.5	9.5	12.8	12.3	26	13.7	11.5	13.7	26.0	12.9	24
17	11	12.9	14.8	12.6	11.1	14.3	12.4	20.3	19.6	15.1	10.9	14.1	12.9	11	8.9	15.9	14.3	14.4	18.8	17.5	18.9	17.9	16	15	20.3	14.6	24
18	14.2	20.9	17.6	16.5	18	15.4	15.9	21.6	15.6	20.9	17.8	19.3	20.1	22.4	27.3	23.2	21.3	11.2	7.8	4.2	6.8	3.8	2.9	6.2	27.3	**15.5**	24
19	8.1	7.6	4.7	5.4	5.9	6.4	11	10.5	12.4	9.8	9.9	7.7	8.4	7.5	8.5	3.8	5.4	0.8	6.1	4.1	4.8	1.9	2.3	2.2	12.4	6.5	24
20	1.7	0.3	2.3	4.9	0.6	3.4	6.4	6.6	6.1	6.6	7.8	2.9	**N**	5.5	3.7	7.9	9.6	4.2	6.1	4.2	9	10.2	5.4	3.2	10.2	5.2	23
21	6.9	5.1	6.1	6.8	9.7	9.9	5.8	9.3	9.9	10.9	9.9	5	6	1.7	1	0.1	6.9	5.6	5.7	6.2	2.8	**N**	1.9	4.6	10.9	6.0	23
22	4.1	1.4	0	1.9	1.9	1.8	2.9	3.3	1	2.4	4.3	1.9	**N**	0	5.8	5.7	6	4	3.2	2.9	5	6.6	6.2	6	6.6	3.4	23
23	4.9	6.7	5.9	6.1	3.6	4.2	1.6	1.5	2.7	0	2.4	1.2	0	1.1	5.3	1.7	4.2	1.5	0.3	2.7	5.5	7.1	6.9	4.3	7.1	3.4	24
24	7	3.1	4.2	2	1.6	4.4	4.1	7	**C**	**C**	**C**	**C**	**C**	**C**	15	2.7	4.3	8.8	7.3	4.2	5.2	5.9	3.9	5.1	15.0	5.3	24
25	5	8.7	5.2	6	4.2	9.4	3.4	4.9	1.9	5.5	0	1.2	4.8	9.8	**M**	**M**	8.4	9.3	4	8.1	8.2	11.3	7.9	8	11.3	6.1	22
26	8.8	19.6	9	15.7	13.2	7.7	12.3	7.3	0	**30**	4.2	0	4.4	5	4	6.9	10.6	13.6	10.3	3.7	8	7.5	5.3	5.5	**30.0**	8.9	24
27	7.7	1.2	4.4	8.3	9.6	9.2	4	9.7	16	19.3	14.6	9.3	10.8	6.9	**C**	**C**	6.9	7.8	3	2.3	4.1	8.7	10.1	4.1	19.3	8.1	24
28	4.2	4	6.3	6.1	12.9	1.6	2.4	5.2	10.6	3.4	2.3	6.4	5.9	6.8	4.3	**N**	6.8	6.7	8.5	11.4	13.8	6.3	7	1.7	13.8	6.3	23
HOURLY MAX	18	22	18	17	18	15	16	22	20	30	21	19	20	22	27	23	21	14	19	18	26	18	16	24			
HOURLY AVG	7.9	7.4	6.8	7.2	7.4	7.2	7.7	8.4	8.6	9.3	7.5	6.3	6.5	7.4	7.6	6.3	7.0	6.9	7.1	7.1	7.8	7.2	7.3	7.6			

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

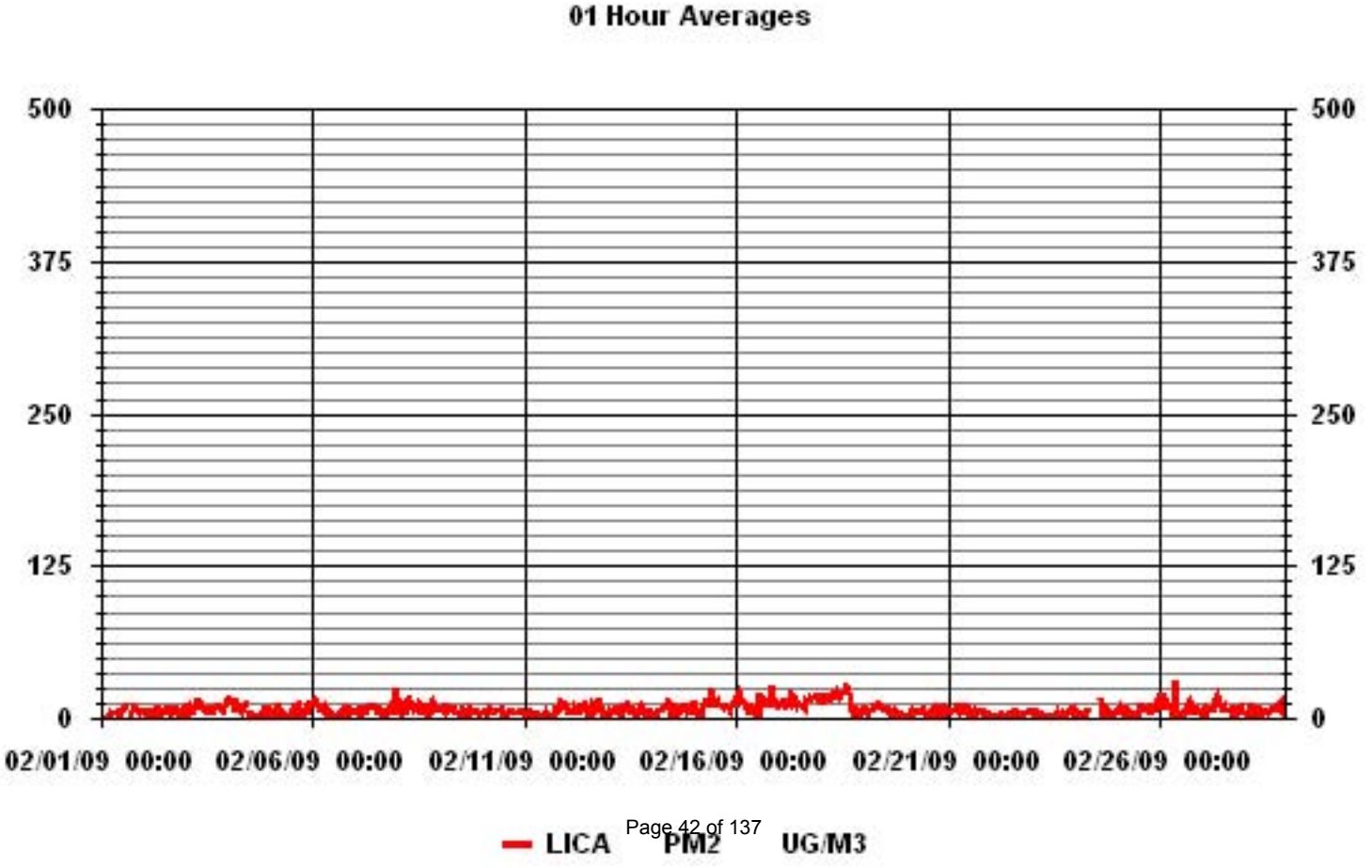


OBJECTIVE LIMIT: **ALBERTA ENVIRONMENT:** 1-HR - PPB | 24-HR 30 PPB

MONTHLY SUMMARY

NUMBER OF 1-HR EXCEEDENCES:	-					
NUMBER OF 24-HR EXCEEDENCES:	0	PROPOSED CANADA WIDE GUIDELINE				
NUMBER OF NON-ZERO READINGS:	634					
MAXIMUM 1-HR AVERAGE:	30.0	UG/M^3	@ HOUR(S)	9	ON DAY(S)	26
MAXIMUM 24-HR AVERAGE:	15.5	UG/M^3			ON DAY(S)	18

IZS CALIBRATION TIME:	0	HRS	OPERATIONAL TIME:	663	HRS
MONTHLY CALIBRATION TIME:	8	HRS	AMD OPERATION UPTIME	98.7	%
STANDARD DEVIATION	4.83		MONTHLY AVERAGE	7.41	UG/M^3


01 Hour Averages
500
375
250
125
0
02/01/09 00:00
02/06/09 00:00
02/11/09 00:00
02/16/09 00:00
02/21/09 00:00
02/26/09 00:00
LICA PM2 UG/M3

LICA
PM2 / WD Joint Frequency Distribution (Percent)

February 2009

Distribution By % Of Samples

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

Wind Parameter : WD
Instrument Height : 10 Meters

Direction

	Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
<	30.0	3.05	7.78	7.93	3.35	8.85	9.61	8.39	2.44	3.35	3.81	11.90	8.39	7.78	5.03	5.95	2.13	99.84
<	60.0	.00	.00	.00	.00	.00	.15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.15
<	80.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
<	120.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
<	240.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
>=	240.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	Totals	3.05	7.78	7.93	3.35	8.85	9.77	8.39	2.44	3.35	3.81	11.90	8.39	7.78	5.03	5.95	2.13	

Calm : .00 %

Total # Operational Hours : 655

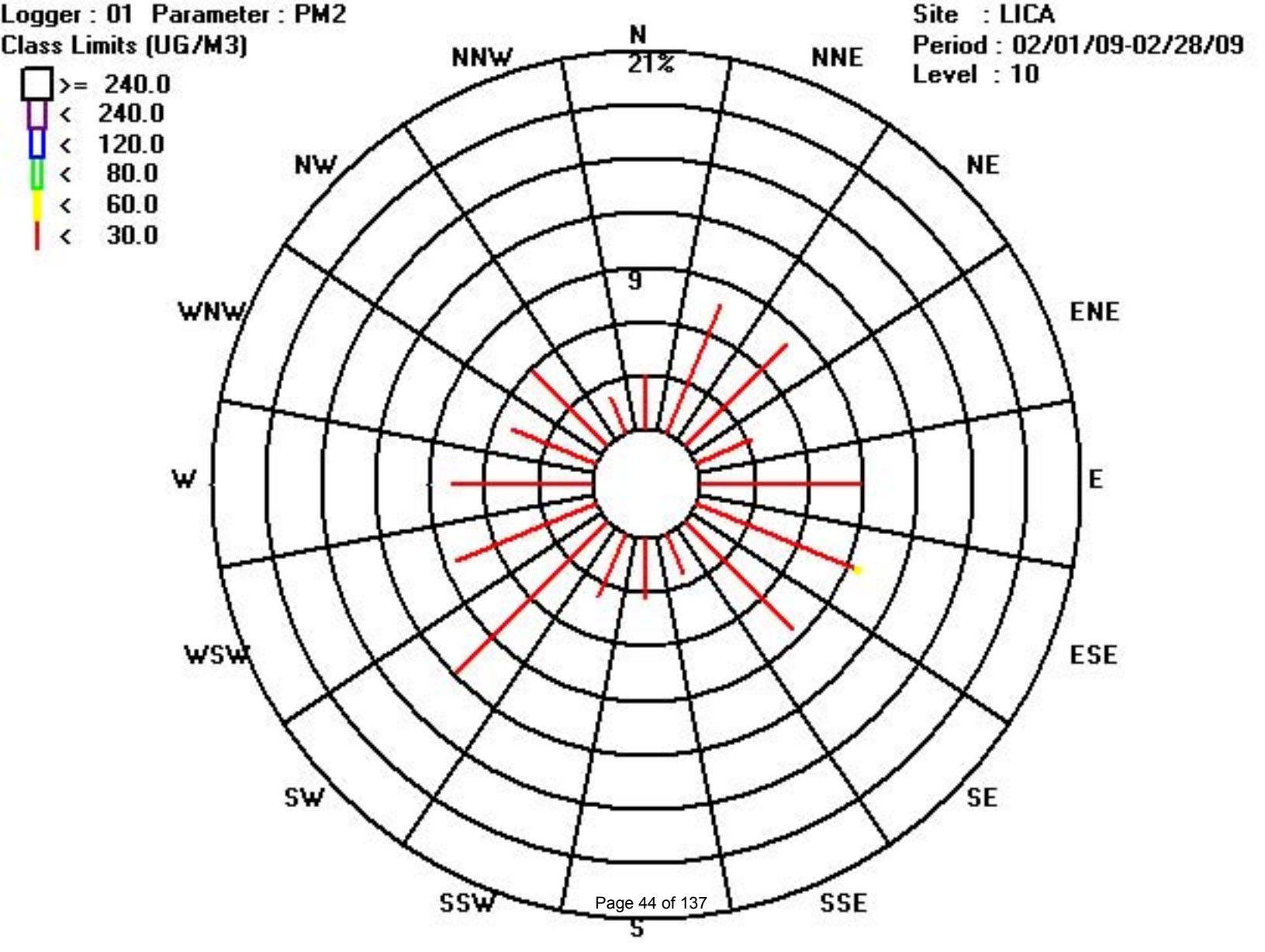
Distribution By Samples

Direction

	Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
<	30.0	20	51	52	22	58	63	55	16	22	25	78	55	51	33	39	14	654
<	60.0						1											1
<	80.0																	
<	120.0																	
<	240.0																	
>=	240.0																	
	Totals	20	51	52	22	58	64	55	16	22	25	78	55	51	33	39	14	

Calm : .00 %

Total # Operational Hours : 655


Logger : 01 Parameter : PM2
Class Limits (UG/M3)
>= 240.0
< 240.0
< 120.0
< 80.0
< 60.0
< 30.0
Site : LICA
Period : 02/01/09-02/28/09
Level : 10
N
21%
NNE
NE
ENE
E
ESE
SE
SSE
S
SSW
SW
WSW
W
WNW
NW
NNW
9

Nitrogen Dioxide

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - *COLD LAKE*

FEBRUARY 2009

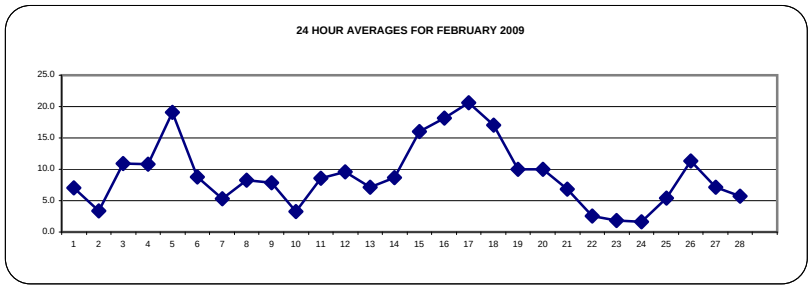
NITROGEN DIOXIDE hourly averages in ppb

MST

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	**IZS**	1	1	1	2	1	2	2	1	1	1	1	2	2	2	4	16	24	26	28	27	15	2	28	7.1	24
2	**IZS**	4	3	4	4	7	4	3	6	3	3	2	**C**	**C**	**C**	**C**	**C**	**C**	**C**	2	2	2	2	**IZS**	7	3.4	24
3	3	3	3	3	3	10	22	20	13	9	9	9	7	5	7	5	9	22	23	22	14	11	**IZS**	19	23	10.9	24
4	20	18	19	16	17	15	14	14	18	18	11	7	6	3	1	2	3	3	10	6	6	**IZS**	5	16	20	10.8	24
5	24	24	30	33	31	11	12	15	16	18	15	7	6	7	8	15	12	17	24	30	**IZS**	25	29	30	33	19.1	24
6	31	31	25	14	13	18	2	2	2	1	1	1	2	2	1	2	4	5	6	**IZS**	8	15	10	6	31	8.8	24
7	4	4	3	3	3	3	4	5	5	5	5	5	5	6	5	6	7	7	**IZS**	7	8	7	6	9	9	5.3	24
8	7	6	5	5	6	10	7	6	6	5	8	7	5	4	4	5	10	**IZS**	10	15	24	15	12	9	24	8.3	24
9	7	6	7	9	13	14	16	23	23	17	6	3	3	3	3	5	**IZS**	9	3	2	2	2	2	2	23	7.8	24
10	2	2	1	1	1	7	7	5	4	5	3	2	3	4	4	**IZS**	3	4	4	3	4	2	2	1	7	3.2	24
11	2	3	4	2	3	3	3	3	4	4	5	4	4	3	**IZS**	4	5	14	15	21	25	24	21	21	25	8.6	24
12	19	17	16	13	11	11	18	22	20	10	5	3	4	**IZS**	3	4	4	4	4	5	7	6	6	8	22	9.6	24
13	7	6	8	9	7	7	9	13	11	6	5	3	**IZS**	6	4	4	5	8	9	7	9	8	8	6	13	7.2	24
14	4	4	5	4	6	7	24	20	21	30	4	**IZS**	2	1	1	1	1	2	6	10	12	11	11	13	30	8.7	24
15	13	13	14	17	16	18	20	23	22	23	**IZS**	14	12	6	4	4	10	17	20	21	22	18	21	21	23	16.0	24
16	27	27	28	29	29	27	27	27	17	**IZS**	11	3	3	4	6	6	11	17	21	18	20	21	20	18	29	18.1	24
17	25	26	26	26	26	25	26	23	**IZS**	10	10	13	8	7	8	11	17	27	**35**	27	23	26	25	25	**35**	**20.7**	24
18	27	29	26	27	26	25	25	**IZS**	22	13	11	12	12	13	13	14	14	14	7	5	6	13	20	19	29	17.1	24
19	13	15	13	9	9	13	**IZS**	28	26	20	15	12	11	8	4	4	4	4	7	4	4	2	2	3	28	10.0	24
20	3	2	3	5	13	**IZS**	32	27	21	17	10	6	6	4	5	5	8	13	6	4	7	13	9	10	32	10.0	24
21	8	7	8	6	**IZS**	11	16	22	17	12	6	4	3	3	3	2	4	5	6	5	3	2	2	2	22	6.8	24
22	2	2	2	**IZS**	2	6	3	2	1	2	1	1	1	1	1	2	3	1	2	1	2	5	9	7	9	2.6	24
23	5	4	**IZS**	2	1	4	4	2	1	1	0	0	1	0	1	1	2	2	4	2	2	1	1	1	5	1.8	24
24	2	**IZS**	2	2	2	2	3	3	**C**	**C**	**C**	1	1	0	2	0	1	1	2	2	2	2	1	2	3	1.7	24
25	**IZS**	1	1	1	1	2	4	4	3	2	1	1	0	1	1	1	3	4	10	18	18	21	20	**IZS**	21	5.4	24
26	17	18	18	13	19	25	27	25	33	31	6	3	2	1	1	1	1	2	3	4	4	4	**IZS**	2	33	11.3	24
27	4	2	3	5	4	4	10	17	10	6	5	4	4	4	5	5	6	8	10	10	15	**IZS**	10	13	17	7.1	24
28	13	4	4	1	2	5	4	8	7	8	2	2	2	1	2	2	3	5	14	30	**IZS**	6	4	3	30	5.7	24
HOURLY MAX	31	31	30	33	31	27	32	28	33	31	15	14	12	13	13	15	17	27	35	30	28	27	29	30			
HOURLY AVG	11.2	10.7	10.3	9.6	10.0	10.8	12.7	13.5	12.7	10.7	6.1	4.8	4.4	3.8	3.8	4.3	5.9	8.9	11.0	11.4	10.7	11.1	10.5	10.3			

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

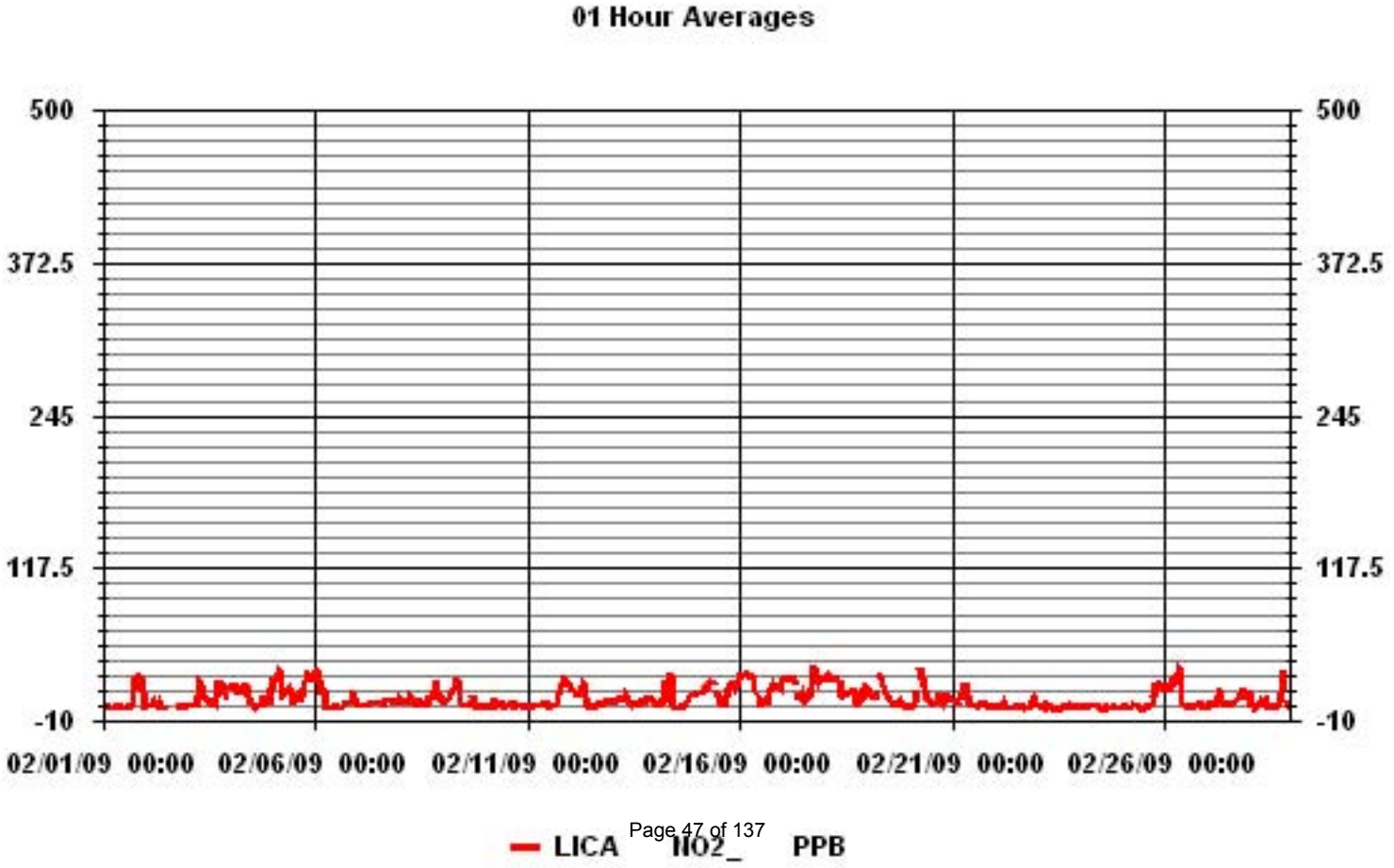


OBJECTIVE LIMIT: **ALBERTA ENVIRONMENT:** 1-HR 212 PPB | 24-HR 106 PPB

MONTHLY SUMMARY

NUMBER OF 1-HR EXCEEDENCES:	0					
NUMBER OF 24-HR EXCEEDENCES:	0					
NUMBER OF NON-ZERO READINGS:	626					
MAXIMUM 1-HR AVERAGE:	35	PPB	@ HOUR(S)	18	ON DAY(S)	17
MAXIMUM 24-HR AVERAGE:	20.7	PPB			ON DAY(S)	17

IZS CALIBRATION TIME:	30	HRS	OPERATIONAL TIME:	672	HRS
MONTHLY CALIBRATION TIME:	10	HRS	AMD OPERATION UPTIME	100.0	%
STANDARD DEVIATION	8.24		MONTHLY AVERAGE	9.15	PPB


01 Hour Averages
500
372.5
245
117.5
-10
02/01/09 00:00
02/06/09 00:00
02/11/09 00:00
02/16/09 00:00
02/21/09 00:00
02/26/09 00:00
LICA NO2_ PPB

LICA
NO2_ / WD Joint Frequency Distribution (Percent)

February 2009

Distribution By % Of Samples

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

Wind Parameter : WD
Instrument Height : 10 Meters

Direction

Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
< 50	3.00	8.54	7.75	3.79	9.17	9.49	7.59	2.05	3.16	3.63	12.18	8.70	8.06	5.22	5.53	2.05	100.00
< 110	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
< 210	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
>= 210	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
Totals	3.00	8.54	7.75	3.79	9.17	9.49	7.59	2.05	3.16	3.63	12.18	8.70	8.06	5.22	5.53	2.05	

Calm : .00 %

Total # Operational Hours : 632

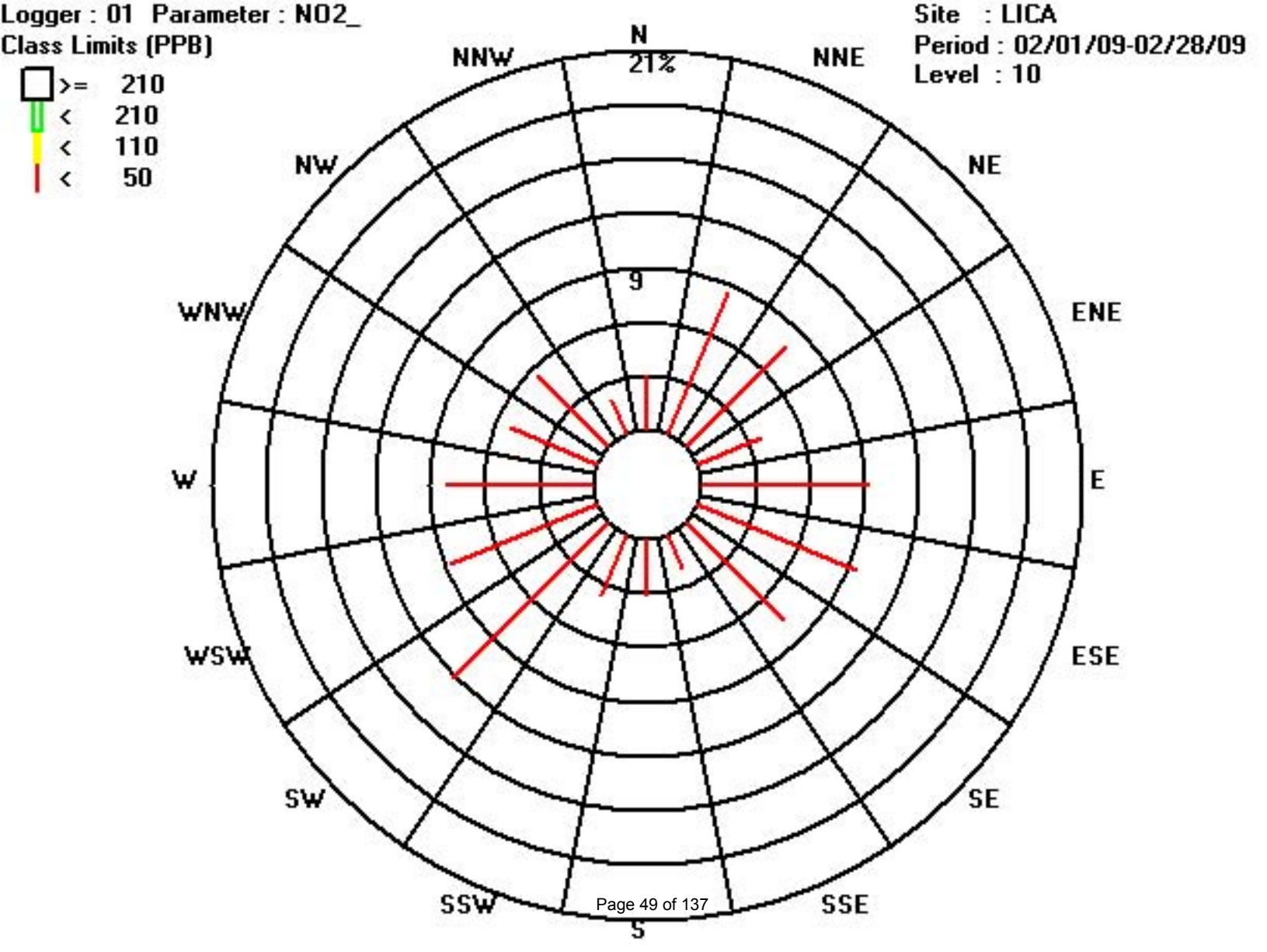
Distribution By Samples

Direction

Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
< 50	19	54	49	24	58	60	48	13	20	23	77	55	51	33	35	13	632
< 110																	
< 210																	
>= 210																	
Totals	19	54	49	24	58	60	48	13	20	23	77	55	51	33	35	13	

Calm : .00 %

Total # Operational Hours : 632


Logger : 01 Parameter : NO2_
Class Limits (PPB)
>= 210
< 210
< 110
< 50
Site : LICA
Period : 02/01/09-02/28/09
Level : 10
N
21%
NNE
NE
ENE
E
ESE
SE
SSE
S
SSW
SW
WSW
W
WNW
NW
NNW
9

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - *COLD LAKE*

FEBRUARY 2009

NITROGEN DIOXIDE MAX instantaneous maximum in ppb

MST

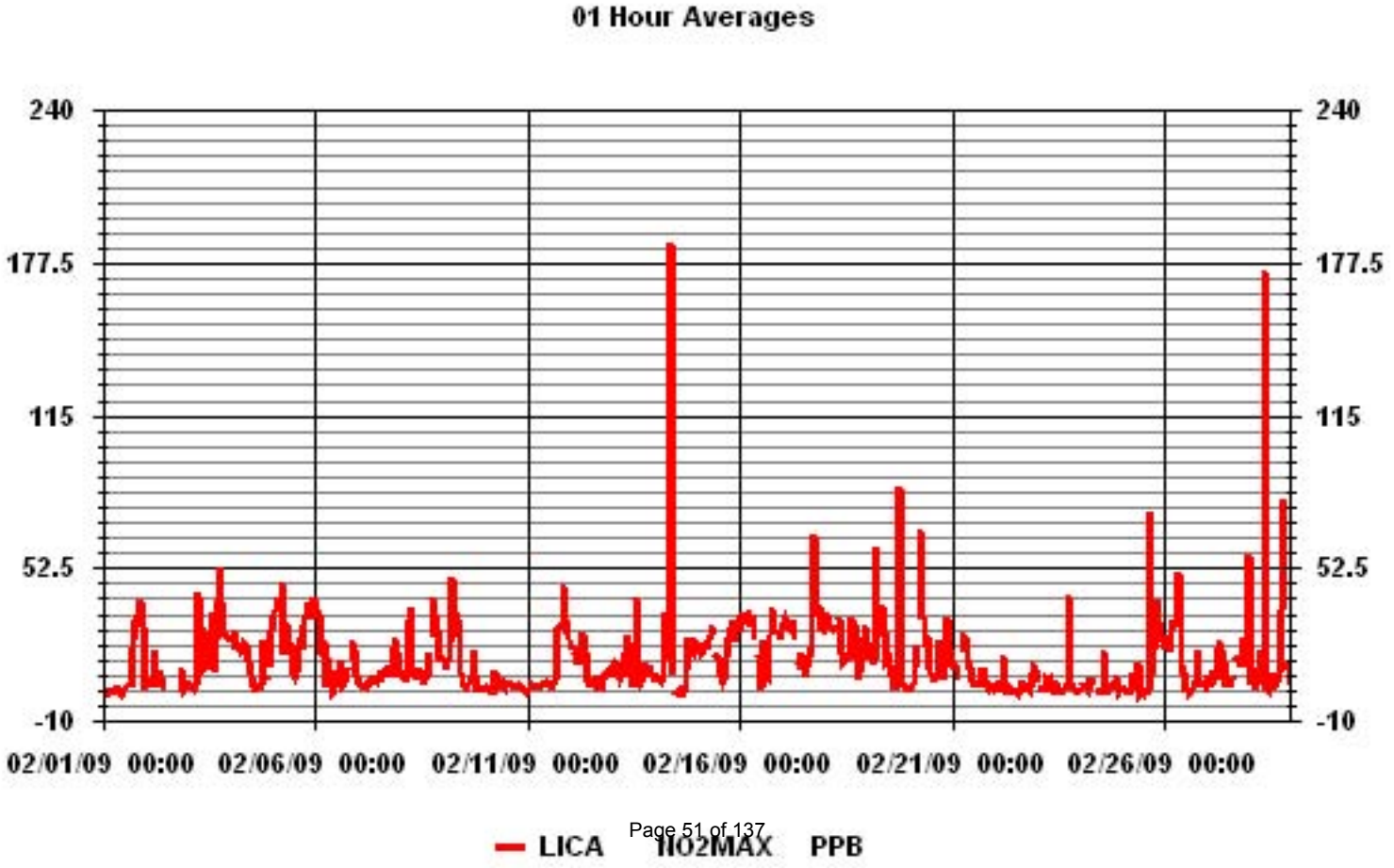
HOUR START	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY	24-HOUR	
HOUR END	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	MAX.	AVG.	RDGS.
DAY																											
1	2	**IZS**	1	2	2	2	2	3	3	3	1	2	3	4	5	4	20	23	31	32	33	39	29	4	39	10.9	24
2	**IZS**	5	5	6	6	19	12	4	11	8	4	**C**	**C**	**C**	**C**	**C**	**C**	**C**	**C**	3	12	3	4	**IZS**	19	7.3	24
3	6	5	4	3	5	43	41	29	25	13	14	26	11	34	12	10	23	39	53	39	25	25	**IZS**	24	53	22.1	24
4	23	23	27	19	22	19	20	22	21	21	15	10	8	5	2	4	4	5	23	9	8	**IZS**	13	27	27	15.2	24
5	33	35	36	40	36	47	17	26	30	21	21	10	8	10	11	24	19	29	33	37	**IZS**	33	33	40	47	27.3	24
6	35	35	34	18	17	23	4	16	9	2	3	5	11	4	15	5	6	10	11	**IZS**	16	23	20	9	35	14.4	24
7	6	5	4	4	5	4	6	6	7	7	6	8	6	9	10	9	9	12	**IZS**	14	20	24	8	18	24	9.0	24
8	9	9	8	6	13	31	36	8	9	7	10	10	9	5	7	8	17	**IZS**	39	24	33	28	16	15	39	15.5	24
9	15	12	12	14	22	49	26	35	32	25	10	5	5	4	5	8	**IZS**	18	9	3	3	3	3	3	49	14.0	24
10	4	3	2	2	2	9	9	7	5	6	4	3	4	5	5	**IZS**	4	4	5	4	4	3	3	2	9	4.3	24
11	3	5	5	4	4	4	4	4	5	5	6	5	5	4	**IZS**	6	7	28	29	29	46	32	26	24	46	12.6	24
12	20	20	20	18	14	14	24	26	23	19	7	4	7	**IZS**	4	8	5	6	5	9	10	9	10	12	26	12.8	24
13	10	8	13	12	7	8	11	18	25	8	22	5	**IZS**	39	6	5	6	14	12	8	13	11	10	9	39	12.2	24
14	6	8	7	6	8	15	34	29	30	**186**	10	**IZS**	2	3	1	1	3	3	11	24	19	18	24	17	**186**	20.2	24
15	19	20	18	19	22	19	23	25	29	27	**IZS**	17	16	9	6	7	16	24	27	27	31	22	30	26	31	20.8	24
16	33	29	34	32	33	30	30	31	25	**IZS**	16	5	3	23	9	8	17	25	36	26	26	26	26	23	36	23.7	24
17	30	32	30	28	28	27	31	25	**IZS**	13	11	18	13	8	12	16	20	38	66	48	32	37	29	28	66	27.0	24
18	30	34	32	29	28	27	28	**IZS**	31	18	14	15	15	16	16	32	17	30	21	7	10	19	24	29	34	22.7	24
19	19	20	16	13	15	60	**IZS**	36	36	25	27	15	16	13	9	4	4	5	86	5	5	4	3	3	86	19.1	24
20	3	4	5	12	20	**IZS**	67	33	32	20	25	12	10	7	7	8	19	23	11	7	13	32	15	20	67	17.6	24
21	13	11	14	8	**IZS**	19	25	25	23	15	12	7	5	5	6	4	9	8	11	7	5	3	4	3	25	10.5	24
22	4	5	3	**IZS**	3	17	6	2	2	3	2	2	2	1	3	4	6	2	4	4	3	9	13	11	17	4.8	24
23	7	7	**IZS**	3	3	7	6	7	3	3	1	6	2	2	2	3	4	5	41	3	5	3	2	2	41	5.5	24
24	3	**IZS**	5	4	4	3	6	6	**C**	**C**	**C**	**C**	2	2	19	1	2	3	5	4	4	8	2	3	19	4.5	24
25	**IZS**	3	3	2	2	3	10	5	6	14	1	2	1	2	2	3	76	9	19	24	39	31	24	**IZS**	76	12.8	24
26	21	22	25	18	27	30	30	30	51	44	14	10	3	3	1	2	3	4	6	19	5	5	**IZS**	3	51	16.3	24
27	8	4	7	10	8	10	20	23	20	10	11	5	5	5	7	8	**P**	16	15	12	23	**IZS**	13	23	23	12.0	23
28	58	5	6	3	5	11	13	19	14	174	4	3	8	3	9	4	6	10	35	79	**IZS**	12	12	6	174	21.7	24
HOURLY MAX	58	35	36	40	36	60	67	36	51	186	27	26	16	39	19	32	76	39	86	79	46	39	33	40			
HOURLY AVG	16.2	14.2	13.9	12.4	13.4	20.4	20.0	18.5	19.5	26.8	10.4	8.4	6.9	8.7	7.3	7.5	12.9	15.1	24.8	18.8	17.0	17.8	15.2	14.8			

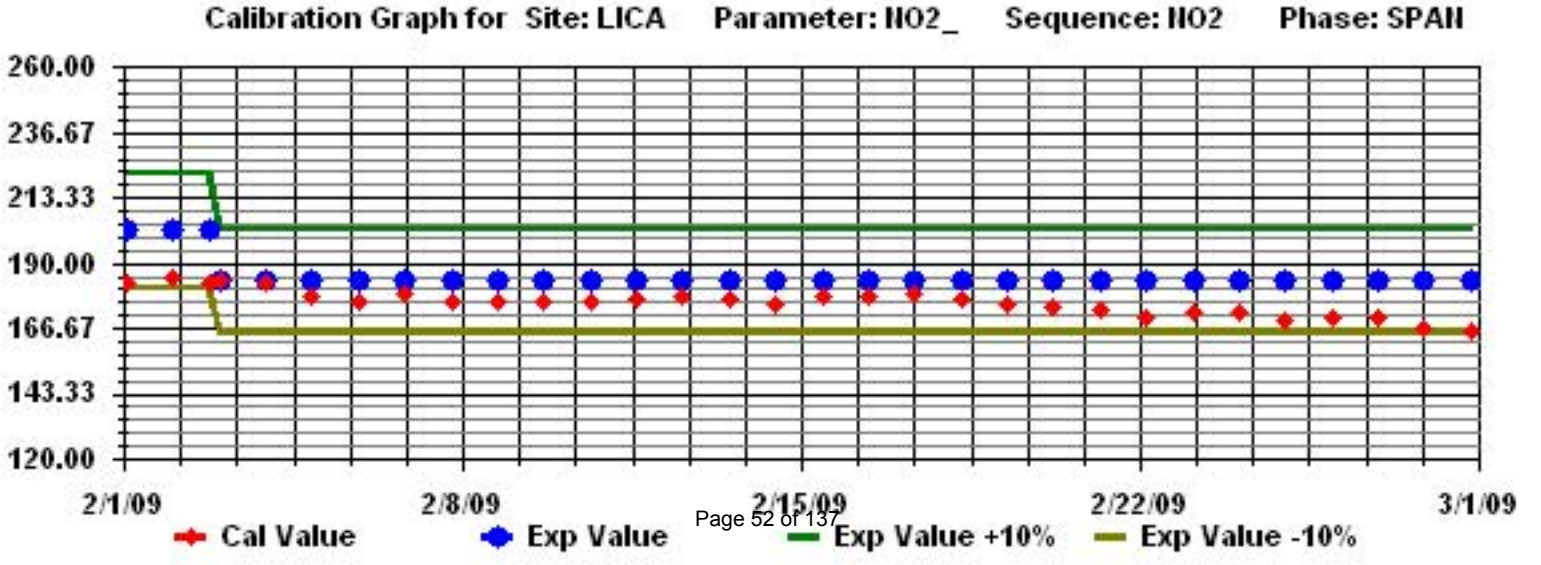
STATUS FLAG CODES

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:	629						
MAXIMUM INSTANTANEOUS VALUE:	186	PPB	@ HOUR(S)	9	ON DAY(S)	14	
IZS CALIBRATION TIME:	30	HRS	OPERATIONAL TIME:			671	HRS
MONTHLY CALIBRATION TIME:	12	HRS					
STANDARD DEVIATION:	15.63						


01 Hour Averages
240
177.5
115
52.5
-10
02/01/09 00:00
02/06/09 00:00
02/11/09 00:00
02/16/09 00:00
02/21/09 00:00
02/26/09 00:00
LICA
NO2MAX
PPB


Calibration Graph for Site: LICA Parameter: NO2_ Sequence: NO2 Phase: SPAN
260.00
236.67
213.33
190.00
166.67
143.33
120.00
2/1/09
2/8/09
2/15/09
2/22/09
3/1/09
Cal Value
Exp Value
Exp Value +10%
Exp Value -10%

Nitric Oxide

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - *COLD LAKE*

FEBRUARY 2009

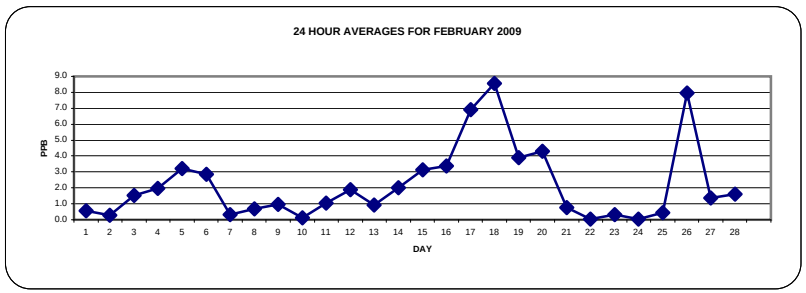
NITRIC OXIDE hourly averages in ppb

MST

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	**IZS**	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	2	2	4	2	1	0	4	0.6	24
2	**IZS**	0	0	0	0	1	0	0	1	0	1	0	**C**	**C**	**C**	**C**	**C**	**C**	**C**	0	1	0	0	**IZS**	1	0.3	24
3	0	0	0	0	0	1	1	1	2	2	4	4	4	3	2	1	0	4	3	2	0	1	**IZS**	0	4	1.5	24
4	1	0	1	0	0	0	1	2	13	15	6	3	3	0	0	0	0	0	0	0	0	**IZS**	0	0	15	2.0	24
5	0	0	2	2	2	1	0	0	1	4	6	3	2	3	2	3	0	0	1	4	**IZS**	2	14	22	22	3.2	24
6	26	26	7	0	0	1	0	0	1	0	0	0	1	0	4	0	0	0	0	**IZS**	0	0	0	0	26	2.9	24
7	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	0	0	0	**IZS**	0	1	0	0	0	1	0.3	24
8	0	0	0	0	0	0	0	0	0	0	3	3	3	1	1	1	1	**IZS**	1	0	2	0	0	0	3	0.7	24
9	0	0	0	0	0	1	1	3	6	6	2	0	1	1	0	1	**IZS**	0	0	0	0	0	0	0	6	1.0	24
10	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	**IZS**	0	0	0	0	0	0	0	0	1	0.1	24
11	0	0	0	0	0	0	0	0	0	1	2	2	3	2	**IZS**	1	1	1	1	1	5	1	1	2	5	1.0	24
12	0	1	0	0	0	0	4	13	11	5	2	2	3	**IZS**	1	1	0	0	0	0	0	0	0	0	13	1.9	24
13	0	0	0	0	0	0	0	0	2	3	3	2	**IZS**	8	2	1	0	0	0	0	0	0	0	0	8	0.9	24
14	0	0	0	0	0	0	2	1	10	29	2	**IZS**	1	0	0	0	0	0	0	0	0	0	1	0	29	2.0	24
15	0	0	0	0	0	0	0	1	11	21	**IZS**	13	10	4	2	1	2	1	0	0	2	0	3	1	21	3.1	24
16	7	7	10	8	1	0	2	10	8	**IZS**	8	2	1	2	3	2	3	1	0	0	0	2	1	0	10	3.4	24
17	5	7	11	7	6	5	6	2	**IZS**	4	6	11	6	5	6	6	6	5	17	6	7	11	5	9	17	6.9	24
18	18	23	13	11	11	12	10	**IZS**	23	12	11	11	10	11	8	9	2	1	0	0	0	0	0	1	23	**8.6**	24
19	0	0	0	0	0	3	**IZS**	16	26	14	11	8	6	3	1	0	0	0	2	0	0	0	0	0	26	3.9	24
20	0	0	0	0	0	**IZS**	11	17	22	20	13	5	5	2	2	1	1	0	0	0	0	0	0	0	22	4.3	24
21	0	0	0	0	**IZS**	0	0	2	6	4	2	1	1	1	1	0	0	0	0	0	0	0	0	0	6	0.8	24
22	0	0	0	**IZS**	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.0	24
23	0	0	**IZS**	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	6	0.3	24
24	0	**IZS**	0	0	0	0	0	0	**C**	**C**	**C**	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0.1	24
25	**IZS**	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	1	0	0	0	1	4	1	**IZS**	4	0.5	24
26	0	0	0	0	0	4	7	21	**73**	64	6	6	2	0	0	0	0	0	0	0	0	0	**IZS**	0	**73**	8.0	24
27	0	0	0	0	0	0	0	3	4	3	4	3	3	3	3	2	1	1	0	0	1	**IZS**	0	0	4	1.3	24
28	0	0	0	0	0	1	0	1	2	15	1	1	1	0	1	1	1	0	2	10	**IZS**	0	0	0	15	1.6	24
HOURLY MAX	26	26	13	11	11	12	11	21	73	64	13	13	10	11	8	9	6	5	17	10	7	11	14	22			
HOURLY AVG	2.2	2.5	1.6	1.0	0.7	1.1	1.7	3.5	8.6	8.6	3.6	3.0	2.6	2.0	1.7	1.2	0.7	0.5	1.3	0.9	0.9	0.9	1.0	1.3			

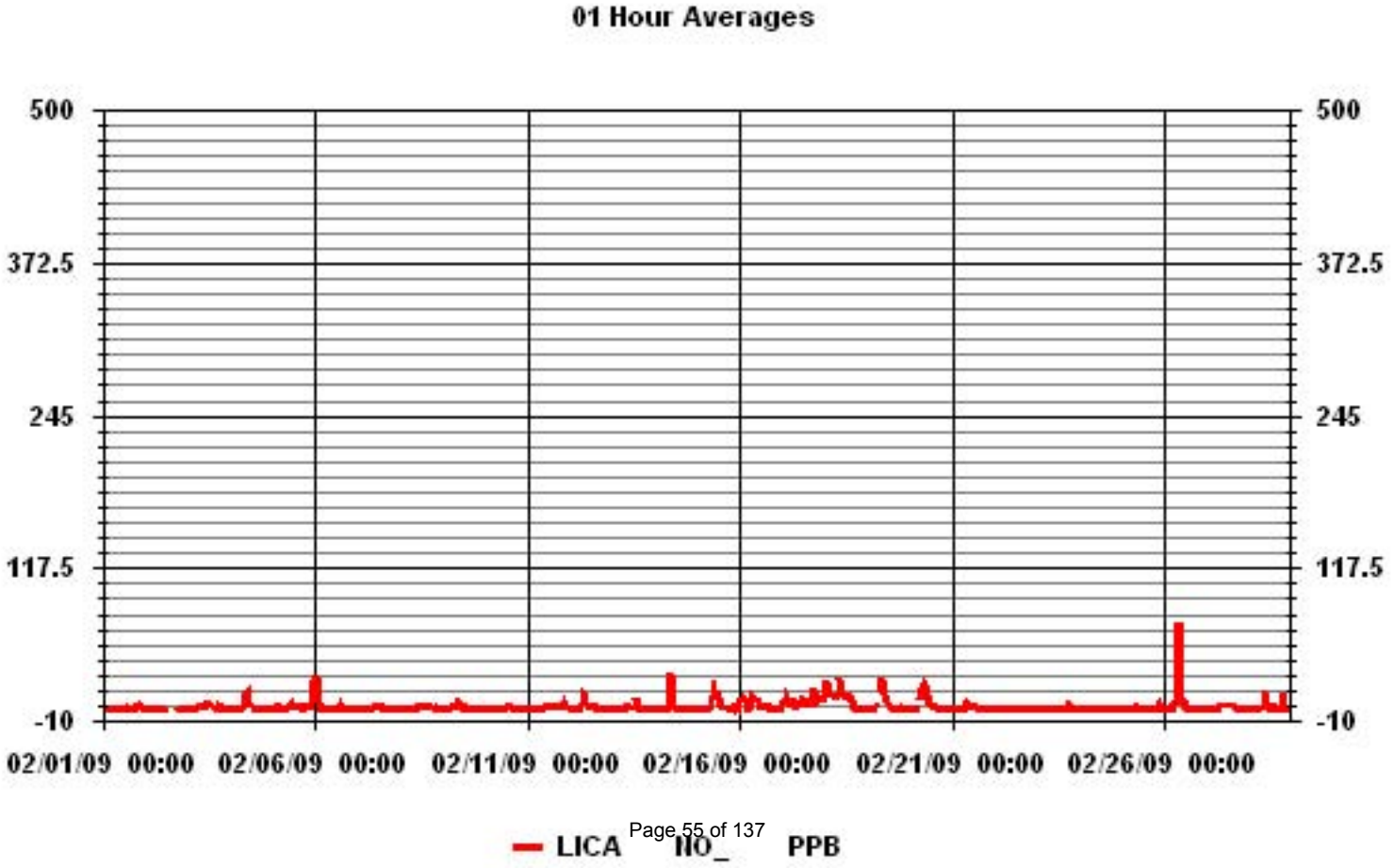
STATUS FLAG CODES

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

NUMBER OF NON-ZERO READINGS:	269						
MAXIMUM 1-HR AVERAGE:	73	PPB	@ HOUR(S)	8	ON DAY(S)	26	
MAXIMUM 24-HR AVERAGE:	8.6	PPB			ON DAY(S)	18	
IZS CALIBRATION TIME:	30	HRS	OPERATIONAL TIME:		672	HRS	
MONTHLY CALIBRATION TIME:	10	HRS	AMD OPERATION UPTIME		100.0	%	
STANDARD DEVIATION	5.66		MONTHLY AVERAGE		2.22	PPB	


01 Hour Averages
500
372.5
245
117.5
-10
02/01/09 00:00
02/06/09 00:00
02/11/09 00:00
02/16/09 00:00
02/21/09 00:00
02/26/09 00:00
LICA NO_ PPB

LICA
NO_ / WD Joint Frequency Distribution (Percent)

February 2009

Distribution By % Of Samples

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

Wind Parameter : WD
Instrument Height : 10 Meters

Direction

	Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
<	50	3.00	8.54	7.75	3.79	9.17	9.33	7.59	2.05	3.16	3.63	12.18	8.54	8.06	5.22	5.53	2.05	99.68
<	110	.00	.00	.00	.00	.00	.15	.00	.00	.00	.00	.00	.15	.00	.00	.00	.00	.31
<	210	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
>=	210	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	Totals	3.00	8.54	7.75	3.79	9.17	9.49	7.59	2.05	3.16	3.63	12.18	8.70	8.06	5.22	5.53	2.05	

Calm : .00 %

Total # Operational Hours : 632

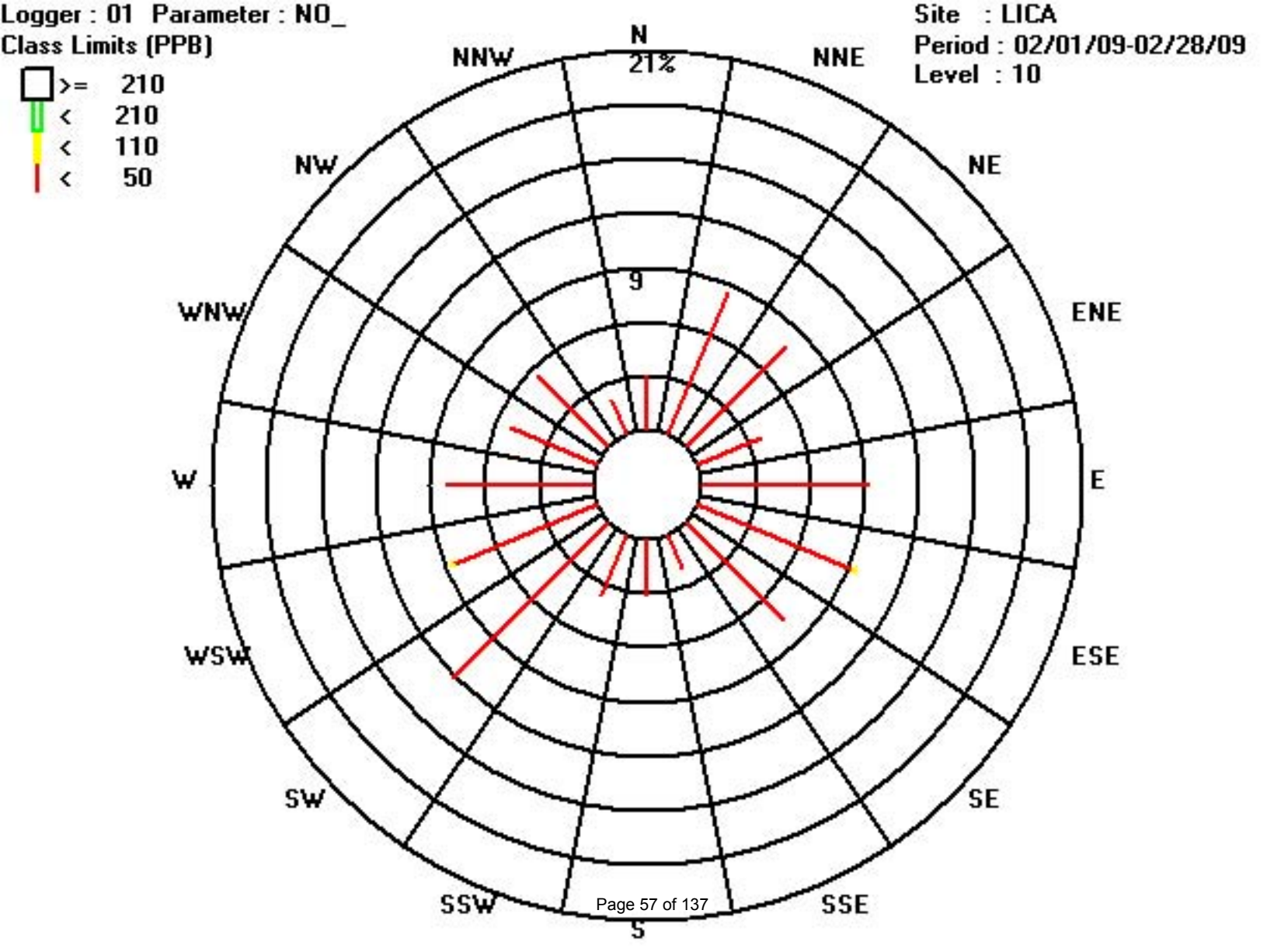
Distribution By Samples

Direction

	Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
<	50	19	54	49	24	58	59	48	13	20	23	77	54	51	33	35	13	630
<	110						1						1					2
<	210																	
>=	210																	
	Totals	19	54	49	24	58	60	48	13	20	23	77	55	51	33	35	13	

Calm : .00 %

Total # Operational Hours : 632


Logger : 01 Parameter : NO_
Class Limits (PPB)
>= 210
< 210
< 110
< 50
Site : LICA
Period : 02/01/09-02/28/09
Level : 10
N
21%
NNE
NE
ENE
E
ESE
SE
SSE
S
SSW
SW
WSW
W
WNW
NW
NNW
9

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - *COLD LAKE*

FEBRUARY 2009

NITRIC OXIDE MAX instantaneous maximum in ppb

MST

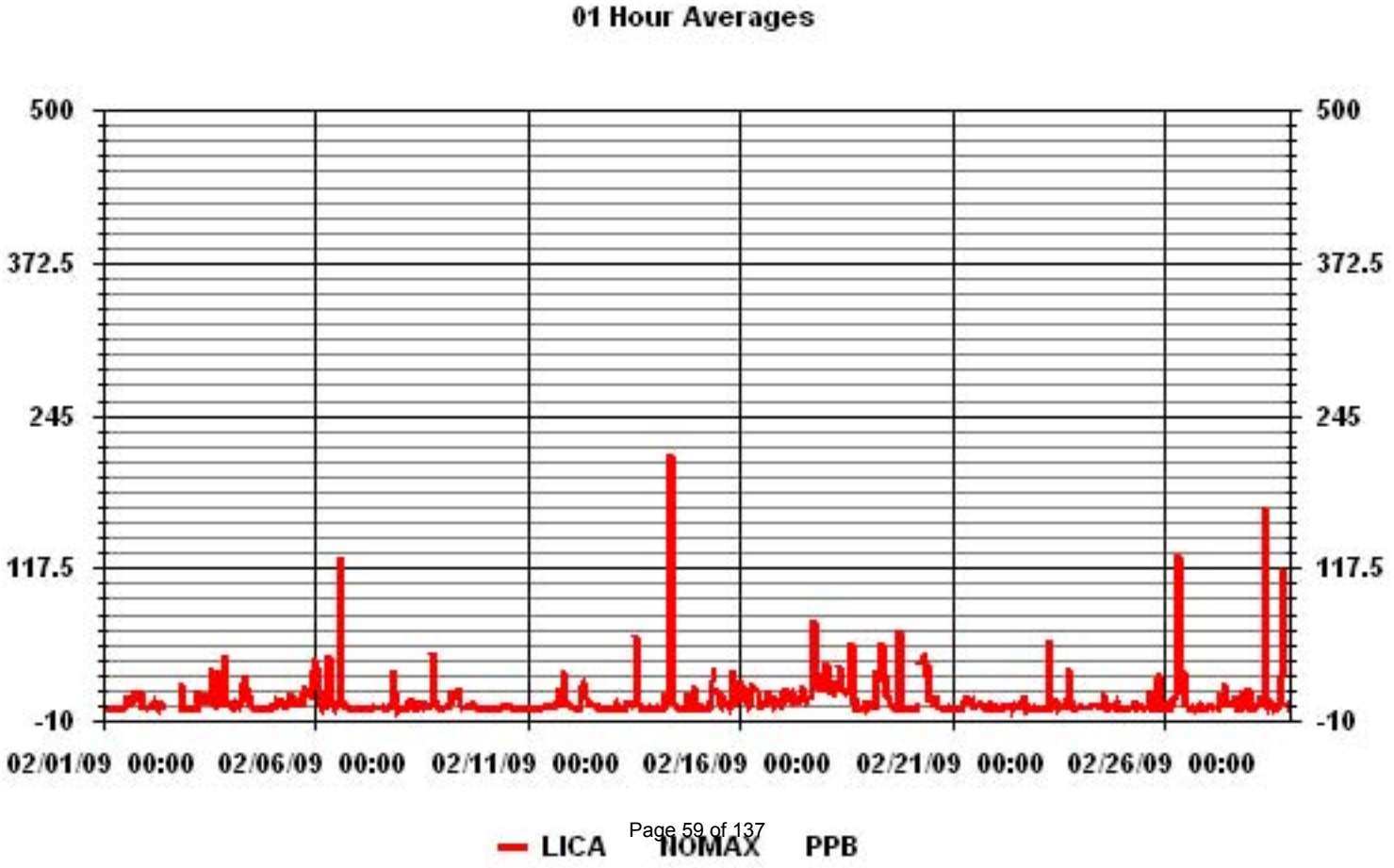
HOUR START	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY	24-HOUR	
HOUR END	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	MAX.	AVG.	RDGS.
DAY																											
1	0	**IZS**	0	0	0	0	0	0	0	0	0	0	1	2	11	1	4	12	15	7	10	14	3	2	15	3.6	24
2	**IZS**	1	2	2	2	6	3	1	6	1	1	**C**	**C**	**C**	**C**	**C**	**C**	**C**	**C**	1	22	0	0	**IZS**	22	3.4	24
3	0	0	0	0	0	16	8	4	12	4	9	11	7	35	6	2	3	25	33	10	2	43	**IZS**	6	43	10.3	24
4	5	2	5	2	4	2	5	22	27	20	12	4	3	1	0	0	0	0	0	0	0	**IZS**	0	5	27	5.2	24
5	1	1	7	5	8	7	2	2	5	8	12	4	3	4	4	7	1	8	20	13	**IZS**	9	32	39	39	8.8	24
6	39	35	18	3	0	3	0	42	42	2	5	2	6	1	126	1	5	2	3	**IZS**	0	2	1	0	126	14.7	24
7	1	0	0	0	0	0	0	0	0	1	1	2	1	2	1	1	0	2	**IZS**	1	32	15	0	2	32	2.7	24
8	1	0	1	0	2	5	9	2	0	1	5	5	5	2	5	4	3	**IZS**	45	2	6	3	1	0	45	4.7	24
9	1	2	1	1	3	15	8	13	14	14	3	1	2	1	1	2	**IZS**	5	3	0	0	0	0	1	15	4.0	24
10	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	**IZS**	0	0	0	0	0	0	0	0	1	0.3	24
11	0	0	0	0	0	0	0	0	1	2	2	3	3	3	**IZS**	2	4	4	18	11	33	5	4	4	33	4.3	24
12	2	2	2	1	0	0	16	20	16	10	3	3	5	**IZS**	2	3	1	0	0	0	0	2	1	0	20	3.9	24
13	0	1	4	0	0	0	0	1	5	6	5	3	**IZS**	58	4	4	0	0	1	0	2	0	0	0	58	4.1	24
14	0	1	1	0	0	1	12	6	29	**212**	5	**IZS**	1	1	0	0	0	0	0	13	3	3	20	0	**212**	13.4	24
15	0	0	2	2	1	0	1	6	23	32	**IZS**	16	14	6	3	7	4	5	1	4	33	1	14	5	33	7.8	24
16	23	12	18	14	5	2	4	18	17	**IZS**	12	2	2	4	4	5	14	7	8	1	2	7	5	4	23	8.3	24
17	12	12	18	9	11	8	12	8	**IZS**	6	10	18	11	7	9	9	9	15	75	40	21	29	14	23	75	16.8	24
18	32	37	27	15	14	23	17	**IZS**	34	18	16	15	13	15	20	55	4	11	0	0	0	0	0	7	55	16.2	24
19	1	3	7	2	2	29	**IZS**	26	55	23	30	12	11	7	3	0	0	0	65	0	0	0	0	0	65	12.0	24
20	0	0	0	0	3	**IZS**	40	43	44	26	39	9	8	4	3	11	2	2	0	0	0	2	0	0	44	10.3	24
21	1	0	0	0	**IZS**	0	3	6	10	5	5	7	2	2	3	3	4	4	3	1	3	4	0	0	10	2.9	24
22	1	1	0	**IZS**	1	3	1	1	1	5	0	3	1	1	2	2	6	10	0	1	1	0	1	1	10	1.9	24
23	0	0	**IZS**	0	0	0	0	58	1	3	0	8	0	1	1	1	1	8	35	1	3	0	0	1	58	5.3	24
24	2	**IZS**	1	1	2	1	1	4	**C**	**C**	**C**	**C**	1	1	12	0	0	1	3	2	1	5	1	2	12	2.2	24
25	**IZS**	1	0	0	0	1	2	1	6	2	2	2	0	1	2	1	16	0	0	1	26	30	6	**IZS**	30	4.5	24
26	0	6	0	0	2	9	12	35	128	103	11	32	3	3	0	0	2	0	2	1	3	0	**IZS**	0	128	15.3	24
27	0	1	1	3	1	2	1	8	13	5	22	4	4	3	3	8	**P**	8	0	0	13	**IZS**	2	4	22	4.8	23
28	17	0	0	1	1	2	3	11	4	168	7	2	5	1	4	3	1	4	27	115	**IZS**	4	5	0	168	16.7	24
HOURLY MAX	39	37	27	15	14	29	40	58	128	212	39	32	14	58	126	55	16	25	75	115	33	43	32	39			
HOURLY AVG	5.3	4.5	4.3	2.3	2.3	5.0	5.9	12.5	19.0	26.1	8.4	6.8	4.3	6.4	8.8	5.1	3.4	5.1	13.7	8.3	8.3	6.8	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

MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	462					
MAXIMUM INSTANTANEOUS VALUE:	212	PPB	@ HOUR(S)	9	ON DAY(S)	14
IZS CALIBRATION TIME:	30	HRS	OPERATIONAL TIME:		671	HRS
MONTHLY CALIBRATION TIME:	12	HRS				
STANDARD DEVIATION:	17.12					


01 Hour Averages
500
372.5
245
117.5
-10
02/01/09 00:00
02/06/09 00:00
02/11/09 00:00
02/16/09 00:00
02/21/09 00:00
02/26/09 00:00
LICA
NOMAX
PPB

Oxides of Nitrogen

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - *COLD LAKE*

FEBRUARY 2009

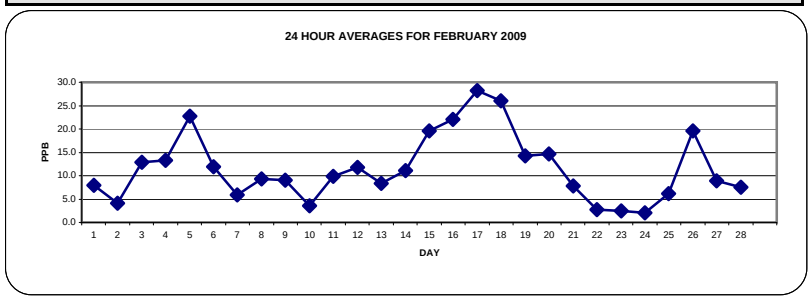
OXIDES OF NITROGEN hourly averages in ppb

MST

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	**IZS**	1	1	1	2	1	2	2	2	1	1	2	3	4	3	5	17	26	29	32	29	16	2	32	8.0	24
2	**IZS**	5	4	4	5	9	4	3	8	4	4	3	**C**	**C**	**C**	**C**	**C**	**C**	**C**	2	3	2	2	**IZS**	9	4.1	24
3	3	3	3	3	3	11	24	21	15	12	14	13	12	9	10	6	10	26	26	25	14	13	**IZS**	20	26	12.9	24
4	21	19	21	17	18	16	16	17	32	34	17	11	10	4	1	2	3	3	10	6	6	**IZS**	5	16	34	13.3	24
5	24	25	32	36	33	12	12	16	18	22	21	10	9	10	10	19	13	18	25	34	**IZS**	28	43	53	53	22.7	24
6	57	58	32	14	13	19	2	2	3	2	2	2	3	2	5	3	5	5	6	**IZS**	8	15	10	6	58	11.9	24
7	4	4	3	3	3	3	4	5	6	6	6	7	7	7	6	7	7	8	**IZS**	7	9	7	6	9	9	5.8	24
8	7	6	6	5	6	10	7	6	6	6	11	11	8	6	6	6	11	**IZS**	12	15	26	15	12	9	26	9.3	24
9	8	6	7	9	13	15	17	26	29	24	8	4	5	4	4	6	**IZS**	9	3	2	2	2	2	2	29	9.0	24
10	2	2	1	1	1	7	7	5	4	6	4	3	5	5	5	**IZS**	3	4	4	3	4	2	2	1	7	3.5	24
11	2	3	4	2	3	3	3	3	5	5	7	6	7	5	**IZS**	5	6	15	16	23	31	26	23	23	31	9.8	24
12	20	18	17	14	11	11	22	35	32	15	7	6	8	**IZS**	5	5	5	4	4	5	7	7	6	8	35	11.8	24
13	7	6	9	9	7	7	9	14	13	9	8	6	**IZS**	14	7	6	6	8	9	7	9	8	9	6	14	8.4	24
14	4	5	6	4	6	7	27	22	32	59	6	**IZS**	3	2	1	1	2	2	6	11	13	11	12	14	59	11.1	24
15	13	13	15	17	17	18	20	24	34	44	**IZS**	28	23	10	6	5	13	19	20	22	24	18	24	23	44	19.6	24
16	34	35	39	38	30	28	29	37	26	**IZS**	20	5	4	7	10	8	14	19	22	18	21	24	21	18	39	22.0	24
17	30	34	38	33	32	31	32	25	**IZS**	15	17	24	15	13	14	18	23	33	53	34	31	38	31	35	53	**28.2**	24
18	45	52	40	38	37	38	36	**IZS**	45	25	23	23	23	25	22	22	17	16	7	5	6	13	20	20	52	26.0	24
19	13	16	13	9	9	17	**IZS**	44	53	35	26	20	18	12	6	4	4	4	10	4	4	2	2	3	53	14.3	24
20	3	2	3	5	14	**IZS**	44	45	43	37	24	11	12	7	7	7	9	14	6	4	7	14	10	10	45	14.7	24
21	8	7	8	6	**IZS**	11	16	24	23	16	9	6	4	4	4	3	5	5	7	5	4	2	2	2	24	7.9	24
22	3	2	2	**IZS**	2	7	3	2	2	2	1	1	1	1	2	2	4	1	2	1	2	5	9	7	9	2.8	24
23	5	4	**IZS**	2	1	4	4	4	1	1	1	1	1	1	1	2	2	2	10	2	3	2	1	1	10	2.4	24
24	3	**IZS**	3	3	2	2	3	3	**C**	**C**	**C**	1	1	1	3	1	1	2	2	2	3	2	2	2	3	2.1	24
25	**IZS**	2	2	1	2	2	4	5	5	3	1	2	1	2	1	1	5	4	10	18	20	25	21	**IZS**	25	6.2	24
26	17	18	18	13	20	30	35	46	**106**	96	12	10	4	1	1	2	2	2	3	4	4	4	**IZS**	2	**106**	19.6	24
27	4	2	3	5	5	5	11	20	14	10	9	8	8	8	8	8	7	9	10	10	16	**IZS**	10	14	20	8.9	24
28	13	5	4	1	2	6	4	9	9	22	4	3	3	1	3	3	4	6	17	41	**IZS**	6	4	4	41	7.6	24
HOURLY MAX	57	58	40	38	37	38	44	46	106	96	26	28	23	25	22	22	23	33	53	41	32	38	43	53			
HOURLY AVG	13.5	13.5	12.4	10.9	11.0	12.3	14.7	17.2	21.8	19.7	10.1	8.4	7.6	6.3	5.8	6.0	7.2	9.8	12.5	12.6	11.9	12.3	11.7	11.9			

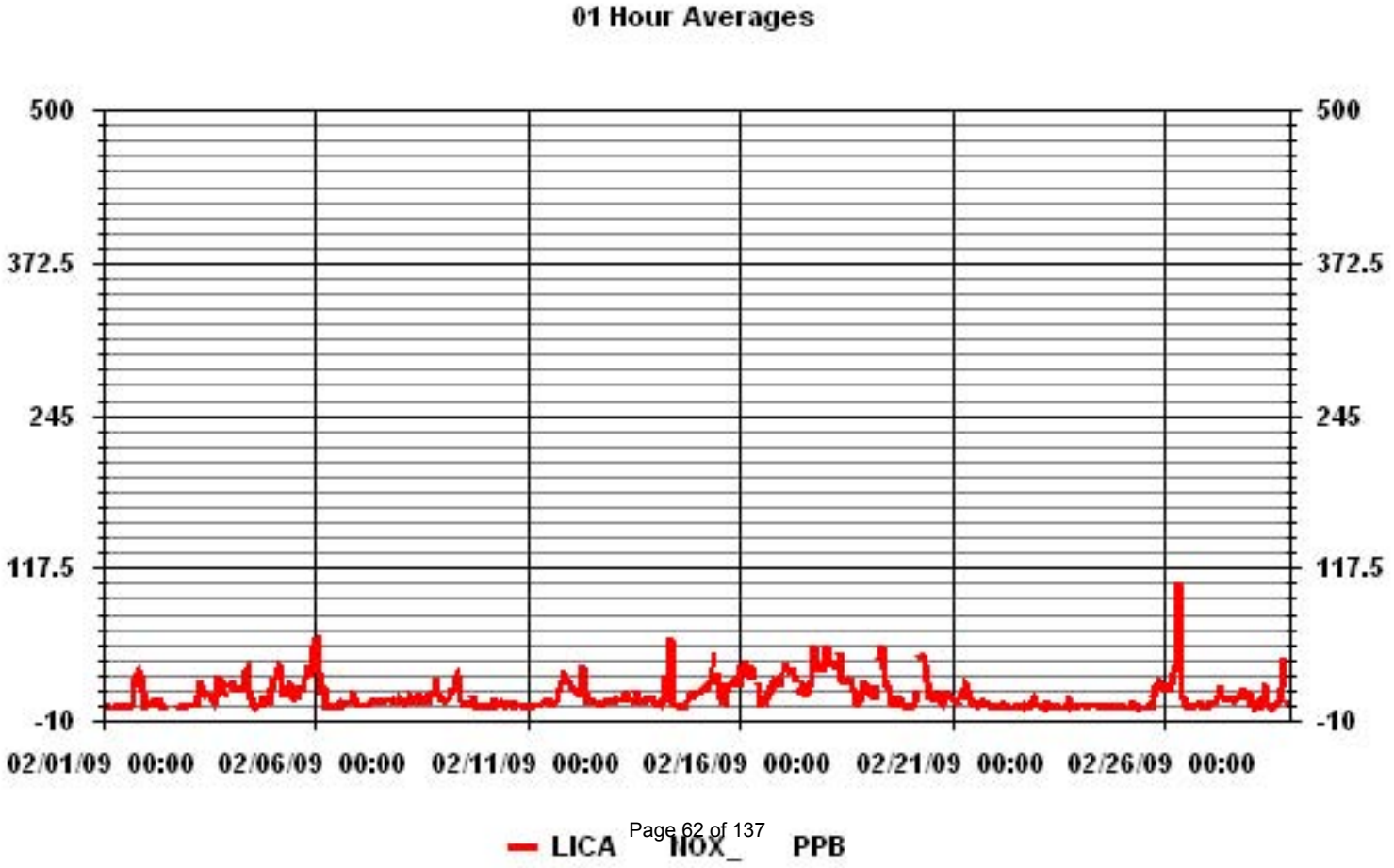
STATUS FLAG CODES

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:	632						
MAXIMUM 1-HR AVERAGE:	106	PPB	@ HOUR(S)	8	ON DAY(S)	26	
MAXIMUM 24-HR AVERAGE:	28.2	PPB			ON DAY(S)	17	
IZS CALIBRATION TIME:	30	HRS	OPERATIONAL TIME:		672	HRS	
MONTHLY CALIBRATION TIME:	10	HRS	AMD OPERATION UPTIME		100.0	%	
STANDARD DEVIATION	12.28		MONTHLY AVERAGE		11.71	PPB	


01 Hour Averages
500
372.5
245
117.5
-10
02/01/09 00:00
02/06/09 00:00
02/11/09 00:00
02/16/09 00:00
02/21/09 00:00
02/26/09 00:00
LICA
NOX_
PPB

LICA
NOX_ / WD Joint Frequency Distribution (Percent)

February 2009

Distribution By % Of Samples

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

Wind Parameter : WD
Instrument Height : 10 Meters

Direction

	Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
<	50	3.00	8.38	7.59	3.79	9.01	9.33	7.43	2.05	3.00	3.63	12.18	8.38	8.06	5.22	5.37	2.05	98.57
<	110	.00	.15	.15	.00	.15	.15	.15	.00	.15	.00	.00	.31	.00	.00	.15	.00	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	3.00	8.54	7.75	3.79	9.17	9.49	7.59	2.05	3.16	3.63	12.18	8.70	8.06	5.22	5.53	2.05	

Calm : .00 %

Total # Operational Hours : 632

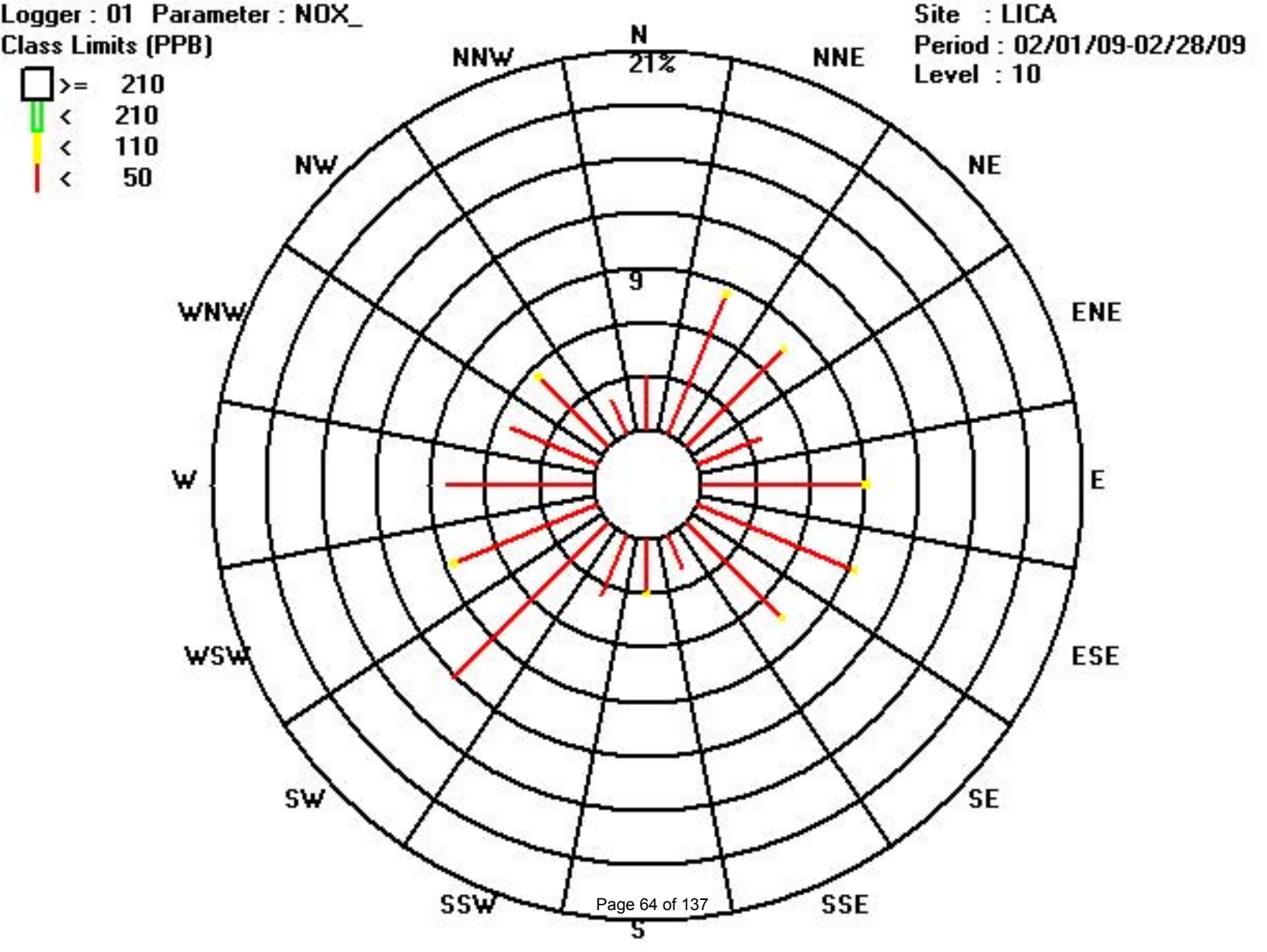
Distribution By Samples

Direction

	Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
<	50	19	53	48	24	57	59	47	13	19	23	77	53	51	33	34	13	623
<	110		1	1		1	1	1		1			2			1		9
<	210																	
>=	210																	
	Totals	19	54	49	24	58	60	48	13	20	23	77	55	51	33	35	13	

Calm : .00 %

Total # Operational Hours : 632


Logger : 01 Parameter : NOX_
Class Limits (PPB)
>= 210
< 210
< 110
< 50
Site : LICA
Period : 02/01/09-02/28/09
Level : 10
N
21%
NNE
NE
ENE
E
ESE
SE
SSE
S
SSW
SW
WSW
W
WNW
NW
NNW
9

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - *COLD LAKE*

FEBRUARY 2009

OXIDES OF NITROGEN MAX instantaneous maximum in ppb

MST

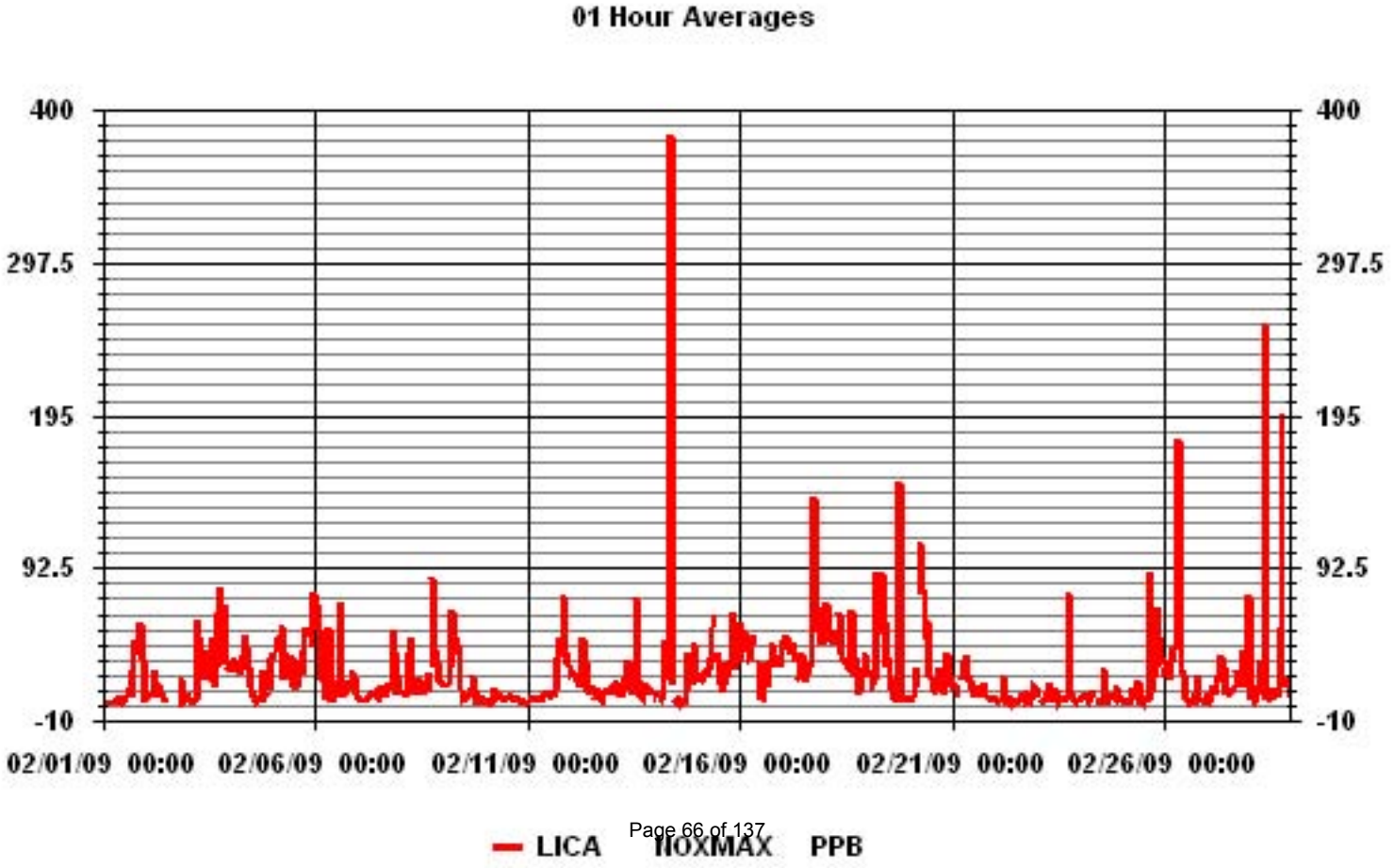
HOUR START	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY	24-HOUR	
HOUR END	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	MAX.	AVG.	RDGS.
DAY																											
1	2	IZS	2	2	2	2	3	3	4	4	2	3	5	6	12	6	24	35	44	39	43	55	32	4	55	14.5	24
2	IZS	6	7	7	9	23	16	6	13	9	5	C	C	C	C	C	C	C	C	4	19	3	4	IZS	23	9.4	24
3	7	6	4	3	5	58	48	33	37	18	24	37	17	45	17	12	26	63	80	49	27	65	IZS	26	80	30.7	24
4	28	24	32	22	26	21	25	33	48	41	27	14	12	7	3	4	5	5	23	9	8	IZS	13	32	48	20.1	24
5	34	36	44	45	41	55	18	29	36	29	34	14	11	15	15	31	21	38	53	49	IZS	41	65	76	76	36.1	24
6	72	69	53	20	17	26	4	51	51	2	9	7	17	6	69	6	8	11	15	IZS	16	23	20	9	72	25.3	24
7	7	5	4	4	5	5	6	7	8	9	7	11	8	11	11	11	10	14	IZS	16	50	38	8	20	50	12.0	24
8	10	10	9	6	16	36	46	10	9	9	16	16	14	8	11	9	20	IZS	84	25	38	31	17	15	84	20.2	24
9	15	14	14	15	25	64	34	47	41	38	12	6	8	6	7	11	IZS	18	11	3	3	3	4	4	64	17.5	24
10	4	3	3	2	3	9	9	7	6	7	6	5	6	7	7	IZS	4	4	5	4	4	3	3	2	9	4.9	24
11	3	5	5	4	4	4	4	4	7	7	9	8	9	7	IZS	9	11	32	46	41	75	37	30	28	75	16.9	24
12	22	23	22	18	15	15	41	45	36	30	11	8	12	IZS	7	12	7	7	5	9	10	10	10	12	45	16.8	24
13	10	10	16	12	8	8	11	19	31	13	28	9	IZS	71	9	9	7	14	13	8	13	12	11	9	71	15.3	24
14	7	9	8	6	9	17	44	31	58	384	16	IZS	4	5	1	2	3	3	11	36	20	20	42	18	384	32.8	24
15	19	20	18	20	24	20	25	32	53	59	IZS	34	30	15	9	14	20	27	28	30	62	24	43	29	62	28.5	24
16	56	41	51	47	37	33	35	48	43	IZS	28	7	6	28	14	14	28	30	42	28	28	31	31	27	56	31.9	24
17	42	43	48	38	40	35	43	32	IZS	19	20	36	25	16	21	26	29	54	141	85	50	66	41	52	141	43.6	24
18	61	69	56	44	41	50	44	IZS	60	36	31	30	28	31	28	65	20	34	21	7	10	19	25	35	69	36.7	24
19	20	22	22	15	17	87	IZS	56	89	48	57	26	28	21	13	6	5	5	151	5	5	5	4	4	151	30.9	24
20	4	4	6	12	23	IZS	108	75	77	45	58	21	19	12	11	13	21	25	11	8	13	35	15	21	108	27.7	24
21	14	11	15	8	IZS	20	27	30	33	21	18	12	7	7	10	7	11	10	15	8	6	4	4	4	33	13.1	24
22	5	5	4	IZS	4	21	8	4	3	7	2	4	3	3	5	7	8	3	4	6	4	9	14	13	21	6.3	24
23	7	7	IZS	3	4	7	6	15	5	5	2	11	2	3	4	4	5	7	77	4	7	4	2	3	77	8.4	24
24	4	IZS	7	6	6	4	7	9	C	C	C	C	3	3	26	2	2	4	9	6	5	14	4	4	26	6.6	24
25	IZS	4	3	3	3	5	12	7	8	17	2	4	2	4	4	5	90	9	19	25	66	47	30	IZS	90	16.8	24
26	21	28	26	18	30	38	41	61	179	147	24	22	6	5	2	3	5	4	8	20	6	5	IZS	3	179	30.5	24
27	8	5	8	14	8	12	21	31	34	15	27	10	10	9	11	12	P	22	15	13	36	IZS	14	26	36	16.4	23
28	75	6	6	4	7	13	14	31	19	257	7	6	12	4	10	7	7	12	52	194	IZS	15	18	7	257	34.0	24
HOURLY MAX	75	69	56	47	41	87	108	75	179	384	58	37	30	71	69	65	90	63	151	194	75	66	65	76			
HOURLY AVG	21.4	18.7	18.3	14.7	15.9	25.5	25.9	28.0	38.0	49.1	18.5	14.4	11.7	13.7	13.0	11.8	15.9	18.8	37.8	27.1	24.0	23.8	19.4	18.6			

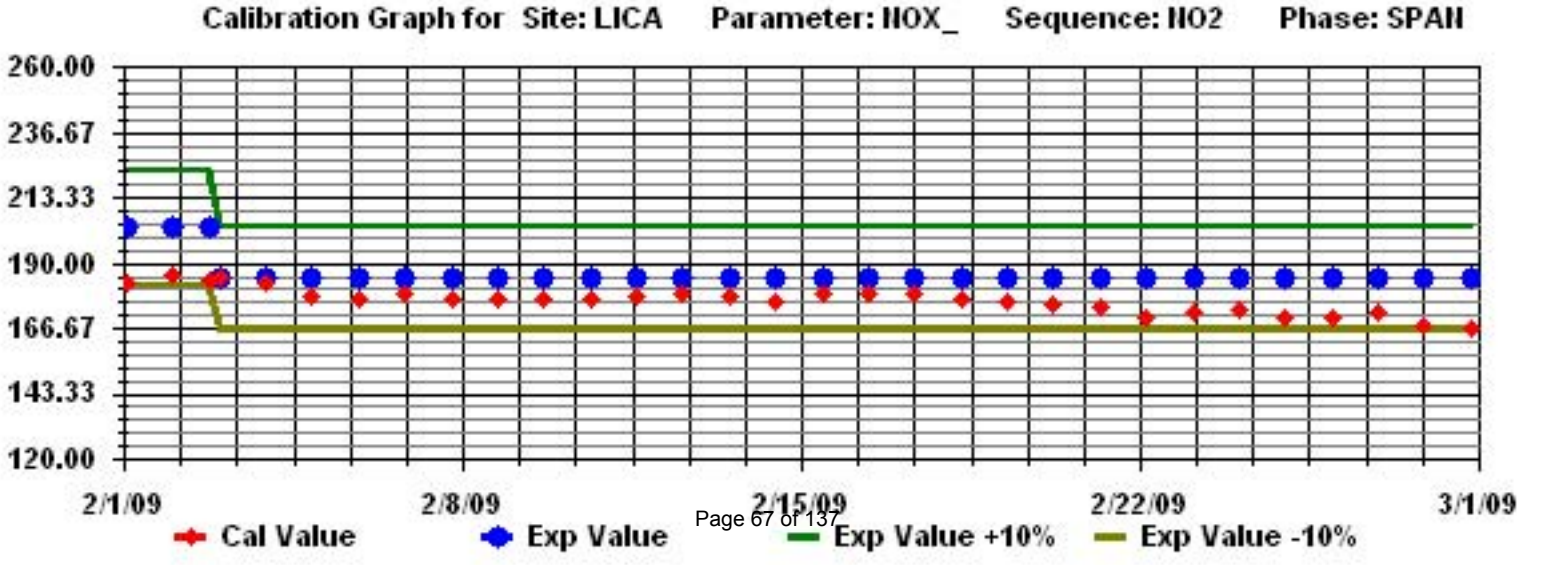
STATUS FLAG CODES

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:	629						
MAXIMUM INSTANTANEOUS VALUE:	384	PPB	@ HOUR(S)	9	ON DAY(S)	14	
IZS CALIBRATION TIME:	30	HRS	OPERATIONAL TIME:			671	HRS
MONTHLY CALIBRATION TIME:	12	HRS					
STANDARD DEVIATION:	28.20						


01 Hour Averages
400
297.5
195
92.5
-10
02/01/09 00:00
02/06/09 00:00
02/11/09 00:00
02/16/09 00:00
02/21/09 00:00
02/26/09 00:00
LICA
NOXMAX
PPB


Calibration Graph for Site: LICA Parameter: NOX_ Sequence: NO2 Phase: SPAN
260.00
236.67
213.33
190.00
166.67
143.33
120.00
2/1/09
2/8/09
2/15/09
2/22/09
3/1/09
Cal Value
Exp Value
Exp Value +10%
Exp Value -10%

Ozone

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - *COLD LAKE*

FEBRUARY 2009

OZONE (O_3) hourly averages in ppb

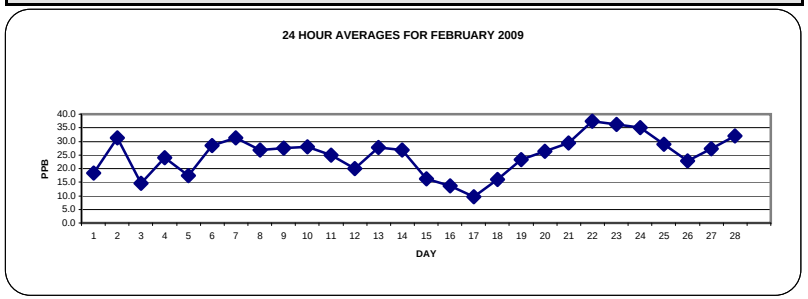
MST

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	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**M**	**M**	**M**	**M**	**C**	34	33	20	11	8	6	5	16	32	34	18.3	9
2	**IZS**	29	28	28	27	26	29	30	**C**	**C**	**C**	**C**	**C**	32	33	31	36	30	37	37	36	34	31	**IZS**	37	31.4	24
3	25	26	23	19	18	15	7	7	12	14	14	14	15	17	16	17	15	7	8	8	12	13	**IZS**	**N**	26	14.6	23
4	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**M**	**M**	**M**	**M**	**M**	**M**	**M**	**M**	**M**	**M**	**M**	**M**	**M**	**M**	**C**	24	24	24.0	2
5	13	11	5	4	4	30	26	22	**C**	**C**	**C**	**C**	36	36	37	29	31	22	14	5	**IZS**	5	1	1	37	17.5	25
6	2	1	7	19	18	14	35	37	38	40	41	41	40	40	39	39	37	36	34	**IZS**	28	18	21	30	41	28.5	24
7	34	32	33	33	32	33	30	28	27	28	28	30	32	33	36	35	34	34	**IZS**	31	29	30	30	26	36	31.2	24
8	27	28	25	20	25	26	26	24	28	29	28	31	33	37	37	35	29	**IZS**	27	20	11	22	24	27	37	26.9	24
9	28	29	29	23	18	21	15	11	10	18	31	33	33	35	35	34	**IZS**	29	36	35	35	33	32	32	36	27.6	24
10	32	32	31	30	30	23	22	24	25	25	26	27	27	27	28	**IZS**	29	28	27	29	28	30	31	31	32	27.9	24
11	29	29	29	32	33	33	33	35	34	32	31	31	33	35	**IZS**	32	29	21	19	9	7	3	3	2	35	25.0	24
12	3	5	5	6	8	9	3	1	7	21	28	31	30	**IZS**	32	31	31	30	33	31	29	29	29	27	33	20.0	24
13	28	28	25	24	26	26	23	19	23	27	29	32	**IZS**	32	33	33	33	30	29	30	26	27	26	29	33	27.7	24
14	33	33	32	33	28	24	8	10	11	14	35	**IZS**	38	39	40	40	40	38	31	24	19	17	17	13	40	26.8	24
15	13	13	11	10	9	7	6	5	11	15	**IZS**	25	28	34	37	37	30	22	17	12	8	10	7	6	37	16.2	24
16	2	1	0	3	4	4	2	2	11	**IZS**	25	33	33	33	32	32	27	21	13	12	7	5	6	7	33	13.7	24
17	1	0	0	0	0	1	1	4	**IZS**	21	22	22	26	28	27	25	20	9	1	4	5	1	1	1	28	9.6	24
18	1	1	2	0	0	0	0	**IZS**	6	14	18	21	24	24	25	26	27	28	35	36	33	23	14	11	36	16.0	24
19	14	12	12	16	15	13	**IZS**	1	5	14	20	24	26	30	33	33	33	33	32	32	32	34	36	36	36	23.3	24
20	35	34	29	25	16	**IZS**	3	3	9	16	25	30	32	34	36	36	35	30	37	39	34	23	24	23	39	26.4	24
21	22	23	22	22	**IZS**	16	11	5	15	25	32	35	37	37	38	40	38	36	35	36	38	38	37	36	40	29.3	24
22	36	35	35	**IZS**	35	33	34	35	36	36	39	39	40	40	40	41	41	**42**	41	42	41	36	29	32	**42**	**37.3**	24
23	32	38	**IZS**	38	38	34	32	32	35	36	37	37	37	38	37	37	37	37	36	37	37	37	37	37	38	36.2	24
24	36	**IZS**	36	36	36	35	34	34	33	34	34	**C**	**C**	35	36	36	36	36	35	35	35	36	35	33	36	35.0	24
25	**IZS**	34	34	34	34	33	31	30	30	31	32	31	33	36	37	37	35	33	25	15	13	9	9	**IZS**	37	28.9	24
26	10	9	9	11	7	2	0	3	7	15	30	32	35	39	39	38	37	36	34	33	32	32	**IZS**	34	39	22.8	24
27	30	33	32	30	29	29	21	13	23	30	31	32	31	31	31	31	31	30	27	26	18	**IZS**	20	20	33	27.3	24
28	23	32	32	37	37	33	32	26	28	32	35	35	36	37	37	37	36	34	24	10	**IZS**	34	35	35	37	32.0	24
HOURLY MAX	36	38	36	38	38	35	35	37	38	40	41	41	40	40	40	41	41	42	41	42	41	38	37	37			
HOURLY AVG	21.2	21.9	21.0	21.3	21.1	20.8	18.6	17.6	20.2	24.7	29.2	30.3	32.0	33.6	34.0	33.7	32.3	28.9	26.8	24.5	24.0	22.5	22.0	23.4			

STATUS FLAG CODES

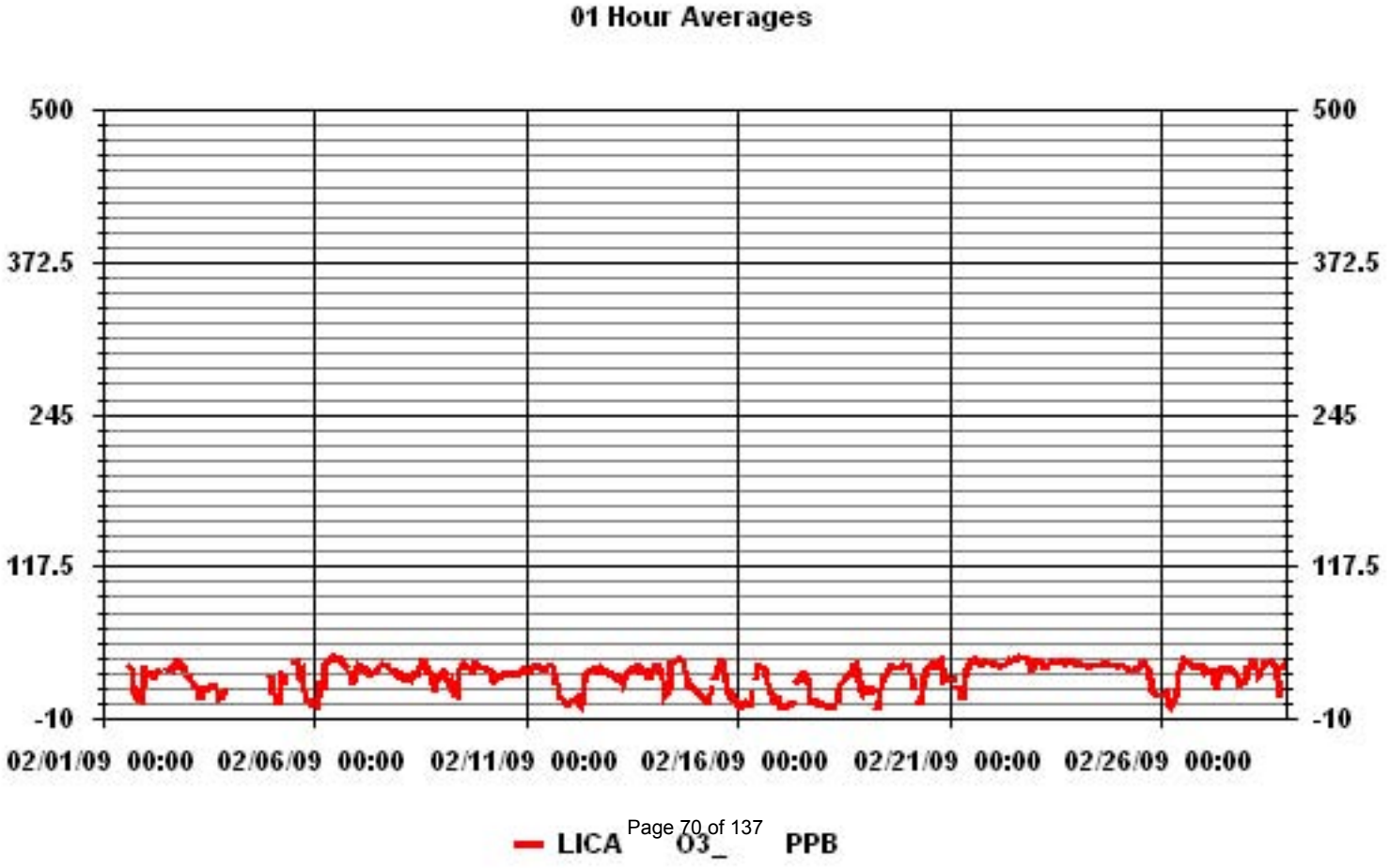
S	- OUT OF SERVICE	IZS	- IZS - DAILY ZERO/SPAN CHECK
N	- INVALID DATA	M	- MISSING DATA
D	- INSTRUMENT DRIFT	P	- POWER FAILURE
C	- CALIBRATION	NA	- NOT APPLICABLE

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



MONTHLY SUMMARY

NUMBER OF 1-HR EXCEEDENCES:	0					
NUMBER OF NON-ZERO READINGS:	584					
MAXIMUM 1-HR AVERAGE:	42	PPB	@ HOUR(S)	17	ON DAY(S)	22
MAXIMUM 24-HR AVERAGE:	37.3	PPB			ON DAY(S)	22
					VAR-VARIOUS	
IZS CALIBRATION TIME:	28	HRS	OPERATIONAL TIME:		635	HRS
MONTHLY CALIBRATION TIME:	13	HRS	AMD OPERATION UPTIME		94.5	%
STANDARD DEVIATION	11.46		MONTHLY AVERAGE		25.22	PPB


01 Hour Averages
500
372.5
245
117.5
-10
02/01/09 00:00
02/06/09 00:00
02/11/09 00:00
02/16/09 00:00
02/21/09 00:00
02/26/09 00:00
LICA O3_ PPB

LICA
O3_ / WD Joint Frequency Distribution (Percent)

February 2009

Distribution By % Of Samples

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

Wind Parameter : WD
Instrument Height : 10 Meters

Direction

Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
< 50	3.19	8.90	8.57	3.52	8.73	9.91	8.73	2.18	3.19	3.86	12.26	8.23	7.05	4.53	5.21	1.84	100.00
< 110	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
< 210	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
>= 210	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
Totals	3.19	8.90	8.57	3.52	8.73	9.91	8.73	2.18	3.19	3.86	12.26	8.23	7.05	4.53	5.21	1.84	

Calm : .00 %

Total # Operational Hours : 595

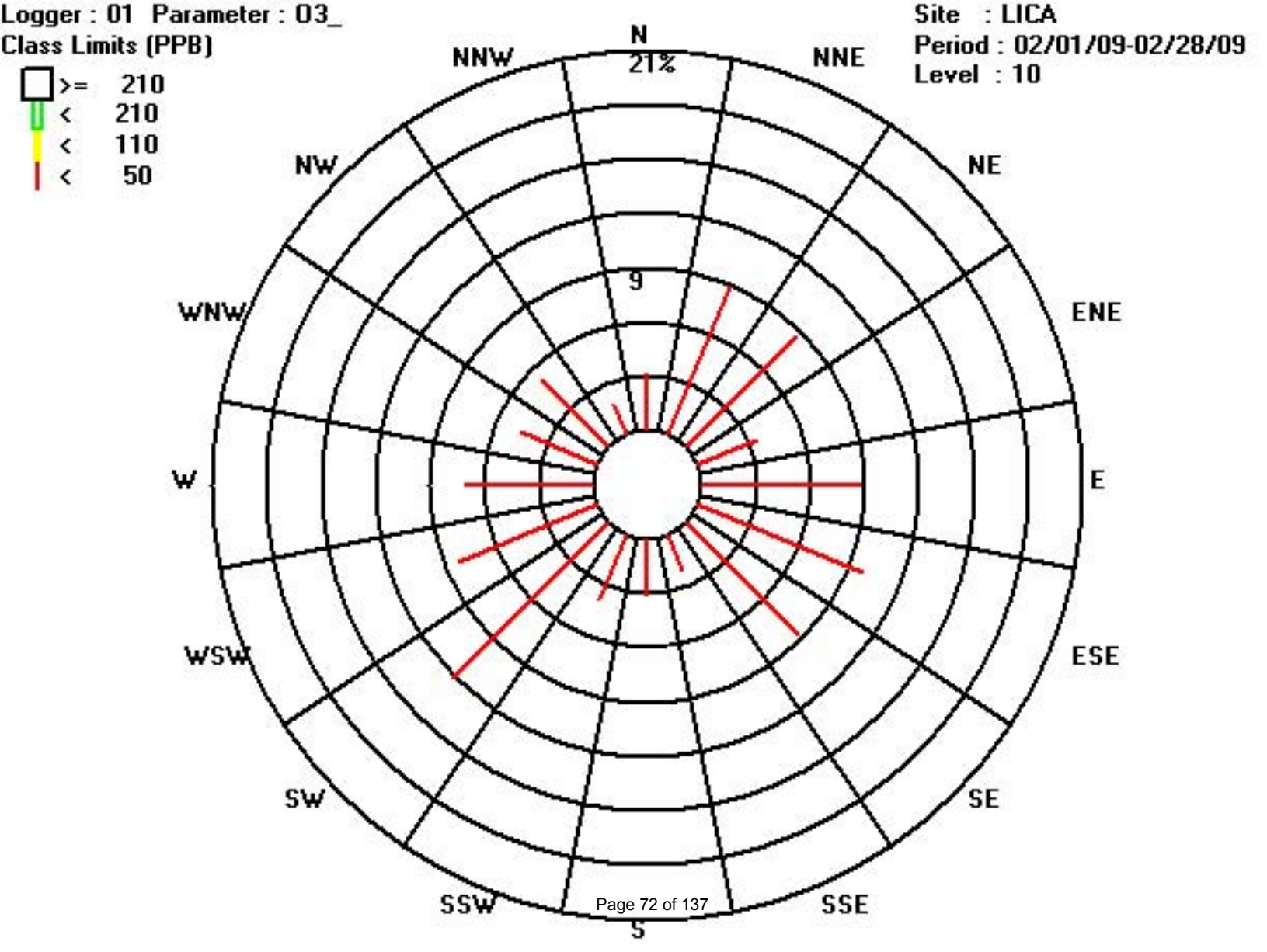
Distribution By Samples

Direction

Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
< 50	19	53	51	21	52	59	52	13	19	23	73	49	42	27	31	11	595
< 110																	
< 210																	
>= 210																	
Totals	19	53	51	21	52	59	52	13	19	23	73	49	42	27	31	11	

Calm : .00 %

Total # Operational Hours : 595


Logger : 01 Parameter : 03_
Class Limits (PPB)
>= 210
< 210
< 110
< 50
Site : LICA
Period : 02/01/09-02/28/09
Level : 10
N
21%
NNE
NE
ENE
E
ESE
SE
SSE
S
SSW
SW
WSW
W
WNW
NW
NNW
9

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - *COLD LAKE*

FEBRUARY 2009

OZONE MAX instantaneous maximum in ppb

MST

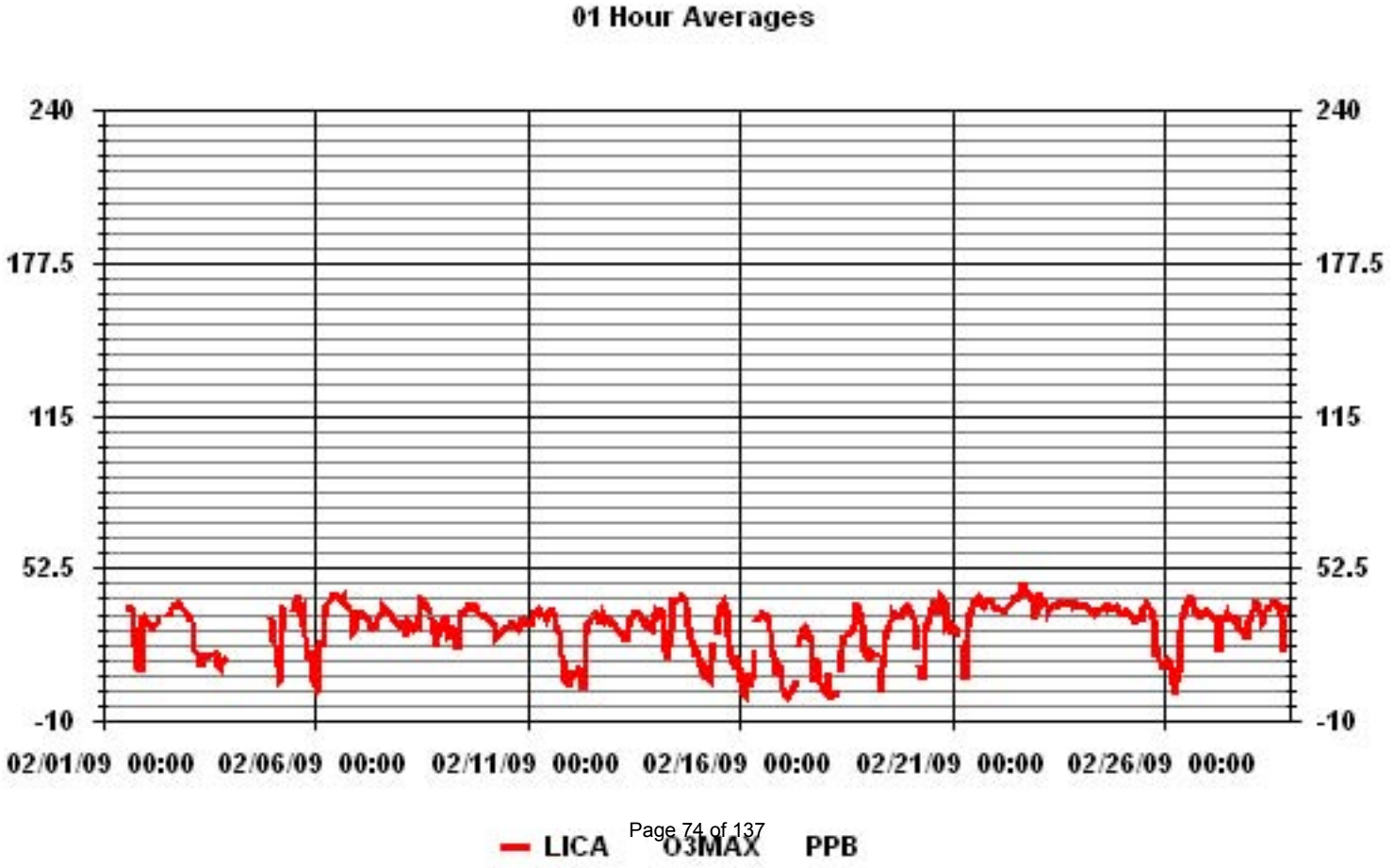
HOUR START	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY	24-HOUR	
HOUR END	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	MAX.	AVG.	RDGS.
DAY																											
1	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**M**	**M**	**M**	**M**	**C**	36	36	29	21	12	11	11	32	33	36	24.6	9
2	**IZS**	30	30	29	28	29	30	32	**C**	**C**	**C**	**C**	**C**	34	36	37	37	37	38	38	37	36	35	**IZS**	38	33.7	24
3	33	32	31	19	18	18	13	13	16	16	16	16	17	17	17	18	18	13	12	14	15	16	**IZS**	**N**	33	18.1	23
4	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**M**	**M**	**M**	**M**	**M**	**M**	**M**	**M**	**M**	**M**	**M**	**M**	**M**	**M**	**C**	31	31	31.0	2
5	23	22	13	7	8	37	29	**C**	**C**	**C**	**C**	**C**	36	39	41	36	37	29	25	16	**IZS**	18	6	8	41	23.9	19
6	5	1	21	23	20	33	37	38	39	41	41	41	41	41	40	41	38	38	37	**IZS**	34	27	28	32	41	32.0	24
7	34	34	34	34	33	33	32	29	28	29	29	32	33	34	37	36	36	35	**IZS**	33	32	31	31	30	37	32.6	24
8	29	30	29	24	31	30	30	28	29	31	30	41	36	38	38	37	35	**IZS**	31	26	20	28	27	30	41	30.8	24
9	31	32	32	26	27	29	24	24	19	28	34	34	34	36	37	37	**IZS**	36	37	37	35	34	33	33	37	31.7	24
10	33	33	32	31	30	29	24	25	26	26	27	28	28	28	30	**IZS**	30	29	28	30	29	31	32	31	33	29.1	24
11	30	30	30	34	34	35	34	36	35	34	32	34	34	36	**IZS**	34	30	28	26	17	15	7	6	4	36	27.6	24
12	7	9	9	10	11	11	7	3	12	25	30	31	31	**IZS**	34	33	31	31	35	34	31	32	32	30	35	22.6	24
13	30	30	28	27	27	26	25	22	27	29	32	33	**IZS**	34	34	34	33	32	30	31	30	29	28	31	34	29.7	24
14	35	34	34	36	32	27	19	15	20	27	39	**IZS**	39	40	41	41	40	40	37	29	24	21	21	16	41	30.7	24
15	19	16	13	11	13	9	8	7	15	21	**IZS**	27	32	37	38	39	36	25	22	17	14	15	15	12	39	20.0	24
16	7	2	1	10	6	7	4	7	18	**IZS**	32	33	34	34	33	33	31	27	20	17	10	10	13	9	34	17.3	24
17	4	1	1	0	1	2	4	6	**IZS**	22	24	24	28	29	28	26	23	16	6	14	14	6	3	3	29	12.4	24
18	2	4	10	0	0	1	1	**IZS**	11	19	21	24	25	25	26	27	29	37	37	37	35	30	19	18	37	19.0	24
19	17	20	17	18	17	17	**IZS**	3	12	17	23	27	29	31	35	34	34	33	33	33	34	36	37	37	37	25.8	24
20	36	35	33	30	20	**IZS**	12	7	13	26	30	32	35	35	39	37	38	34	41	40	39	29	30	30	41	30.5	24
21	26	28	28	26	**IZS**	20	15	7	23	28	34	36	38	38	40	41	40	38	37	38	39	39	39	37	41	32.0	24
22	37	36	36	**IZS**	36	35	35	36	37	38	40	40	40	41	41	42	**47**	43	42	42	42	40	32	34	**47**	38.8	24
23	36	41	**IZS**	39	39	38	34	35	36	37	37	37	38	38	38	38	38	38	38	38	37	38	38	38	41	37.6	24
24	37	**IZS**	37	37	37	37	36	35	34	35	35	**C**	**C**	36	37	36	37	37	36	36	36	37	36	34	37	36.1	24
25	**IZS**	34	35	35	34	33	33	31	31	32	32	32	36	37	38	38	37	36	32	17	18	15	14	**IZS**	38	30.9	24
26	12	14	12	15	12	6	1	6	10	27	32	34	37	39	40	40	38	37	35	34	33	33	**IZS**	35	40	25.3	24
27	34	34	34	33	32	32	29	18	32	32	32	34	32	32	32	31	**P**	32	29	28	27	**IZS**	24	24	34	30.3	23
28	31	33	35	38	38	36	35	31	32	35	36	36	37	38	38	38	38	37	33	19	**IZS**	37	36	37	38	35.0	24
HOURLY MAX	37	41	37	39	39	38	37	38	39	41	41	41	41	41	41	42	47	43	42	42	42	40	39	38			
HOURLY AVG	24.5	24.6	24.6	23.7	23.4	24.4	22.0	20.6	24.1	28.5	31.2	32.1	33.5	34.7	35.5	35.4	34.7	32.6	30.7	28.0	27.6	26.4	25.9	26.3			

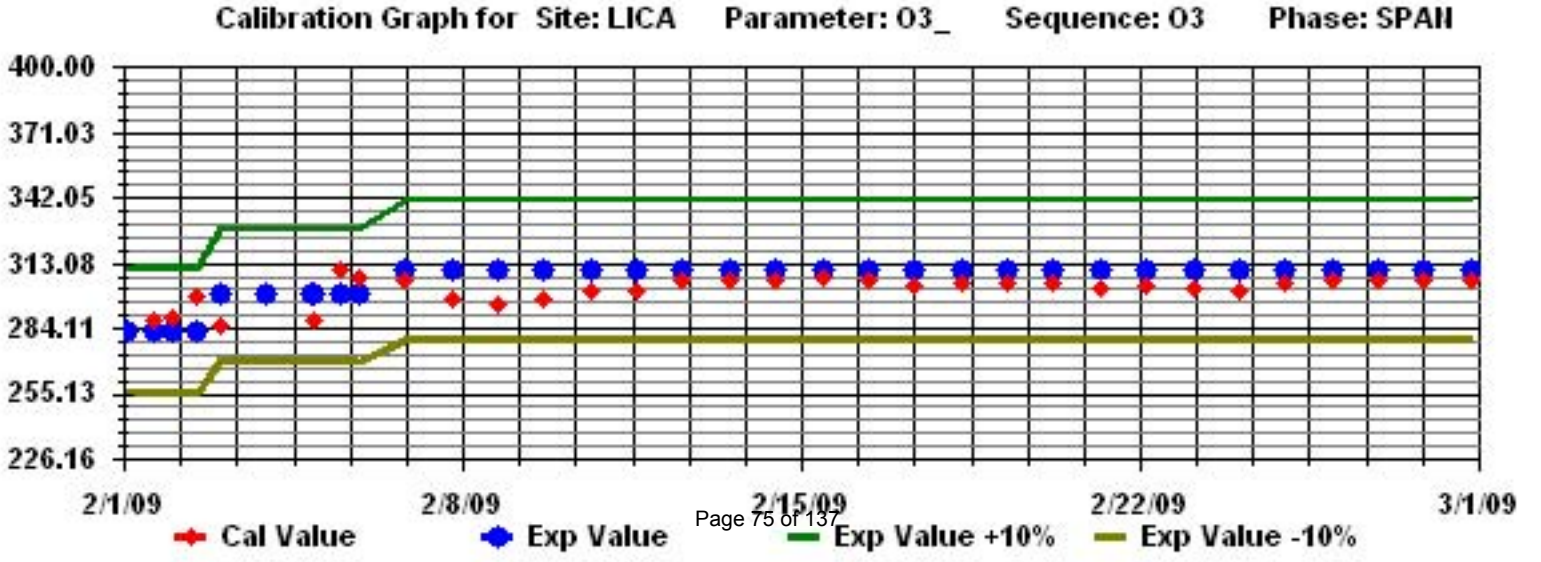
STATUS FLAG CODES

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

NUMBER OF NON-ZERO READINGS:	589					
MAXIMUM INSTANTANEOUS VALUE:	47	PPB	@ HOUR(S)	16	ON DAY(S)	22
IZS CALIBRATION TIME:	28	HRS	OPERATIONAL TIME:		628	HRS
MONTHLY CALIBRATION TIME:	14	HRS				
STANDARD DEVIATION:	10.45					


01 Hour Averages
240
177.5
115
52.5
-10
02/01/09 00:00
02/06/09 00:00
02/11/09 00:00
02/16/09 00:00
02/21/09 00:00
02/26/09 00:00
LICA O3MAX PPB


Calibration Graph for Site: LICA Parameter: O3_ Sequence: O3 Phase: SPAN
400.00
371.03
342.05
313.08
284.11
255.13
226.16
2/1/09
2/8/09
2/15/09
2/22/09
3/1/09
Cal Value
Exp Value
Exp Value +10%
Exp Value -10%

Ambient Temperature

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - *COLD LAKE*

FEBRUARY 2009

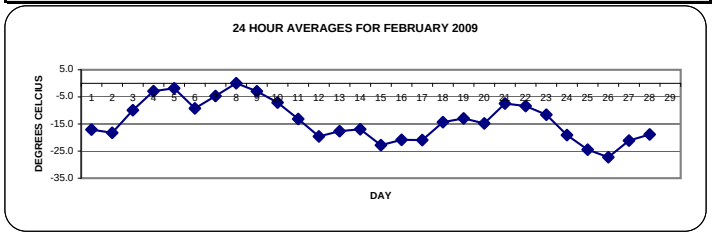
AMBIENT TEMPERATURE hourly averages (Degrees C)

MST

HOUR START	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY	24-HOUR	
HOUR END	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	MAX.	AVG.	RDGS.
DAY																											
1	-7.2	-9.1	-12	-12.7	-14	-15.7	-17.5	-18.6	-19.5	-19	-18.3	-17.1	-15.8	-14.6	-14.7	-14.7	-15.1	-18.3	-20.5	-22.1	-23.7	-24.6	-23.6	-21.2	-7.2	-17.1	24
2	-21.4	-22.6	-23.4	-23.8	-23.5	-23.3	-22.3	-21.8	-21.5	-21.1	-20	-19	-17.6	-16.2	-15	-14.9	-14.8	-14.4	-14.1	-14.2	-13.9	-13.3	-13	-13.1	-13.0	-18.3	24
3	-13	-13	-13	-13	-13.3	-14.3	-14.4	-14.5	-13.9	-13	-11.9	-10.3	-8.1	-6.3	-4.8	-3.5	-3.6	-5.7	-6.9	-7.5	-7.9	-8.1	-8.3	-9.7	-3.5	-9.9	24
4	-10.2	-10.2	-11.1	-11.5	-11.1	-10.4	-9.7	-9.4	-9.8	-8.2	-1.5	3.2	5.4	7.3	**7.7**	7.2	5.7	3.5	0	0.2	-1.1	-1.1	-1.9	-2	**7.7**	-2.9	24
5	-2.5	-2.7	-3.3	-3.4	-4	-1.3	-2.3	-2.9	-2.2	-1.3	-0.4	1.1	2.8	4.9	4	3.1	2.2	-0.9	-3	-4.3	-5.6	-6.9	-7.3	-7.6	4.9	-1.8	24
6	-7.8	-7.6	-6.8	-6.3	-5.8	-5.9	-6.7	-8.4	-9.6	-10	-10.2	-10.2	-10	-9.6	-9.3	-9.1	-9.6	-9.9	-9.8	-10.5	-11.5	-13.3	-13.3	-10.8	-5.8	-9.3	24
7	-9.7	-9.1	-9	-8.5	-9	-9.1	-8.2	-7.8	-8.6	-7.7	-6.3	-4.4	-3.3	-2.5	-1.4	-1	-0.7	-0.6	-0.5	-0.7	-0.9	-0.9	-0.7	-1.7	-0.5	-4.7	24
8	-2.7	-1.7	-1.7	-2.2	-0.8	0.1	-0.9	-2.2	-1.5	-0.5	0.7	2.3	3.2	4.8	5.3	5	3	1.8	0.1	-1.6	-2.2	-2.1	-2.4	-2.4	5.3	**0.1**	24
9	-2.7	-3	-3.7	-5.6	-7.1	-7.7	-7.3	-6.7	-5.9	-4.1	-2.3	-1.3	-0.5	0.2	0.9	1.3	0	-0.9	-1.1	-1.5	-2.2	-2.8	-3.2	-3.3	1.3	-2.9	24
10	**-3.6**	-4	-4.4	-5.1	-5.8	-6.2	-7.3	-7.8	-7.8	-7.8	-7.5	-7.5	-7.7	-7.4	-7.1	-7.1	-7.3	-7.6	-7.7	-7.8	-8.2	-8.3	-9	-10.2	-3.6	-7.1	24
11	-10.7	-10.9	-11.2	-11.4	-11.6	-11.7	-11.9	-12.2	-13.6	-13.8	-13.3	-12.3	-10.7	-9.6	-8.6	-8.5	-10.2	-12.1	-13.9	-17.2	-19.1	-19.3	-20.4	-21.7	-8.5	-13.2	24
12	-23.1	-24.1	-24.9	-25.7	-26.3	-26.9	-27.7	-27.9	-24.2	-19.8	-17.1	-15.8	-14.4	-14.6	-13.5	-12.1	-11.7	-13.5	-14.6	-16.2	-17.8	-18.8	-19.2	-20.4	-11.7	-19.6	24
13	-20.9	-21.1	-21.9	-22.6	-22.7	-22.7	-23.1	-23.5	-22.6	-20.4	-17.7	-15.9	-14.2	-13.9	-13.6	-13.2	-13.8	-14.3	-14.4	-14.4	-14.3	-14.1	-14	-14.3	-13.2	-17.7	24
14	-15	-15.8	-15.7	-15.7	-19.3	-20.5	-19.7	-19.7	-18.9	-15.7	-13.4	-12.9	-11.5	-11.3	-11.7	-11.9	-12.6	-14.4	-17.6	-20.1	-21.7	-22.9	-23.9	-25	-11.3	-17.0	24
15	-26	-26.9	-27.8	-28.5	-28.8	-28.5	-27.6	-27.7	-26.9	-24.8	-21.9	-19.8	-18.1	-15.4	-13.7	-12.7	-13	-16.4	-19.7	-22.2	-23.6	-24.8	-26	-26.7	-12.7	-22.8	24
16	-27	-27.5	-28.2	-26.9	-24	-24.9	-26.3	-26.9	-25.9	-22.2	-19.3	-16.8	-14	-12.4	-13	-13.4	-12.4	-13.3	-16.6	-19.2	-21	-22.1	-22.9	-24	-12.4	-20.8	24
17	-24.5	-25	-25.3	-26	-26.4	-26.9	-26.3	-26.4	-24.4	-21.6	-19.4	-18.2	-16.6	-14.4	-12.8	-12.1	-12.5	-14.2	-17.6	-20.1	-21.8	-23	-23.4	-23.4	-12.1	-20.9	24
18	-23.9	-22.5	-20	-21.5	-22.1	-23.1	-23	-20.8	-19.9	-16.3	-14	-11.8	-10.2	-8.6	-6.5	-4.7	-3.8	-5.4	-6.3	-6.9	-8.6	-12.5	-14.8	-16.6	-3.8	-14.3	24
19	-17.8	-18	-18.5	-19.1	-19.8	-20.2	-20.4	-18.9	-16.3	-13.8	-12	-10	-8.4	-7.4	-6.7	-7	-7.6	-8.3	-8.8	-9.2	-9.7	-9.9	-10.8	-12.1	-6.7	-12.9	24
20	-12.5	-13.9	-17.1	-20.2	-22.2	-24.1	-25.3	-26	-24.8	-18.8	-16	-13.9	-11.6	-9.8	-8.5	-8.3	-8	-8.9	-9.4	-9.3	-10.7	-11.5	-12.3	-11.9	-8.0	-14.8	24
21	-11.4	-10.7	-10.8	-11.3	-11.1	-10.8	-11.1	-11.3	-10.1	-8.6	-6.7	-5.4	-4.3	-4.2	-3.8	-3.7	-3.9	-4.4	-4.7	-5.1	-5.5	-5.9	-6.7	-7.5	-3.7	-7.5	24
22	-8	-8.8	-9.3	-9.7	-10	-10	-9.9	-10	-9.5	-8.7	-7.9	-7.4	-6.4	-5.6	-4.7	-4.5	-4.7	-5.7	-7.1	-8.8	-10.1	-11.5	-11.6	-10.9	-4.5	-8.4	24
23	-10.7	-10.7	-10.7	-11	-10.9	-10.6	-10.7	-10.2	-10.5	-10.7	-10.9	-10.4	-10.2	-9.9	-10	-10.2	-10.6	-11.6	-12.4	-13.6	-14.2	-15	-15.8	-16.4	-9.9	-11.6	24
24	-17.3	-18.4	-19	-19.4	-20	-20.4	-20.7	-21	-21	-20.5	-20	-18.9	-18.2	-17.5	-17.2	-17	-17.2	-17.5	-18	-18.4	-19.1	-20.2	-20.4	-20.7	-17.0	-19.1	24
25	-21	-21.4	-21.8	-22.3	-23	-23.5	-24.1	-24.6	-24.9	-25.2	-25	-24	-23.2	-21.8	-21	-20.6	-20.2	-21.5	-24.4	-27.3	-29.5	-30.9	-32.6	-33.7	-20.2	-24.5	24
26	-34.7	-35.5	-36.3	-37	-37.8	-38.2	**-38.8**	**-38.8**	-35.3	-29.4	-24.7	-21.6	-18.8	-17.7	-17.6	-17.5	-17.6	-18.9	-20.9	-22	-22.9	-23.6	-24	-24.6	-17.5	-27.3	24
27	-26.5	-26.2	-27.2	-27.8	-28	-28.8	-29.3	-29.7	-27.1	-24.4	-21.7	-20.2	-18.9	-16.5	-14.5	-13.3	-12	-12.3	-13.9	-14.9	-16.6	-19.3	-19.8	-18.1	-12.0	-21.1	24
28	-17.9	-15.9	-17.2	-18.6	-20.1	-22.1	-24	-25.6	-23.1	-20.3	-18.9	-17.9	-16	-15.5	-14.4	-13.6	-13.7	-16.2	-19	-20.6	-21.3	-19.8	-20.1	-20.9	-13.6	-18.9	24
HOURLY MAX	-2.5	-1.7	-1.7	-2.2	-0.8	0.1	-0.9	-2.2	-1.5	-0.5	0.7	3.2	5.4	7.3	7.7	7.2	5.7	3.5	0.1	0.2	-0.9	-0.9	-0.7	-1.7			
HOURLY AVG	-15.3	-15.6	-16.1	-16.7	-17.1	-17.4	-17.7	-17.9	-17.1	-15.3	-13.5	-12.0	-10.6	-9.5	-8.8	-8.5	-8.8	-10.1	-11.5	-12.7	-13.7	-14.5	-15.1	-15.4			

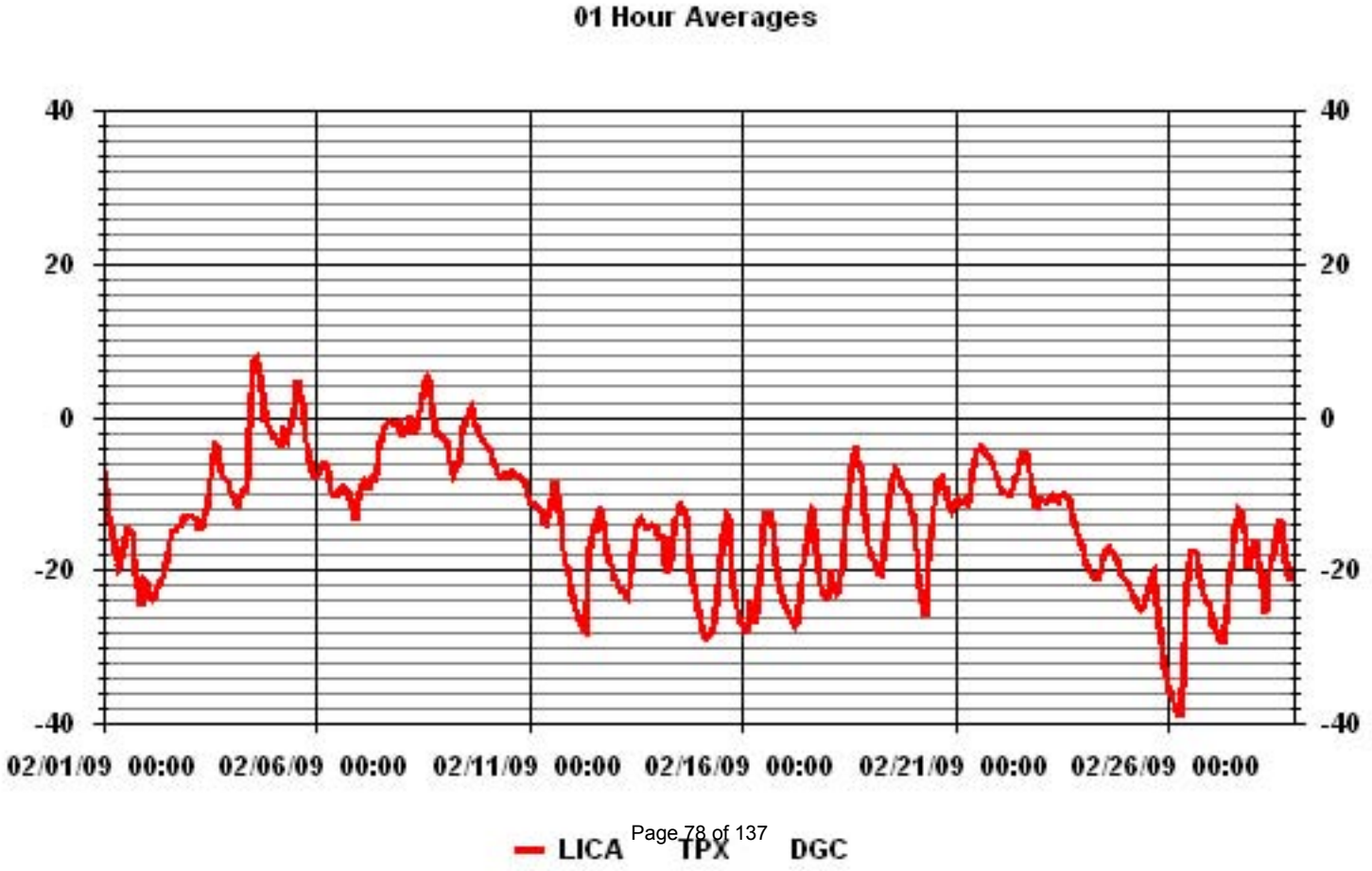
STATUS FLAG CODES

S	- OUT OF SERVICE	OD	- OUTSIDE DECTECTION LIMITS
N	- INVALID DATA	M	- MISSING DATA
D	- INSTRUMENT DRIFT	P	- POWER FAILURE
C	- CALIBRATION	NA	- NOT APPLICABLE



MONTHLY SUMMARY

MINIMUM 1-HR AVERAGE:	-38.8	^{O}C	@ HOUR(S)	6, 7	ON DAY(S)	26
MAXIMUM 1-HR AVERAGE:	7.7	^{O}C	@ HOUR(S)	14	ON DAY(S)	4
MAXIMUM 24-HR AVERAGE:	0.1	^{O}C			ON DAY(S)	8
					VAR-VARIOUS	
CALIBRATION TIME:	0	HRS	OPERATIONAL TIME:		672	HRS
			AMD OPERATION UPTIME:		100.0	%
STANDARD DEVIATION:	8.50		MONTHLY AVERAGE:		-13.79	^{O}C


01 Hour Averages
40
20
0
-20
-40
02/01/09 00:00
02/06/09 00:00
02/11/09 00:00
02/16/09 00:00
02/21/09 00:00
02/26/09 00:00
LICA
TPX
DGC

Relative Humidity

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - *COLD LAKE*

FEBRUARY 2009

RELATIVE HUMIDITY hourly averages (%)

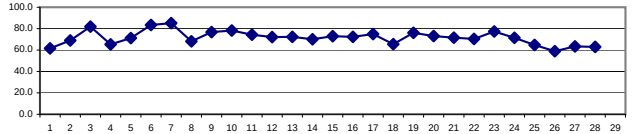
MST

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	68.6	64.5	63.7	60.5	62.2	64.0	66.5	66.6	63.4	59.1	54.8	51.7	48.8	45.9	46.9	48.3	51.4	62.9	71.0	73.4	75.2	75.1	70.6	62.5	75.2	61.6	24
2	63.1	67.1	69.9	70.7	69.6	68.6	66.3	64.6	64.9	65.6	64.0	62.4	61.5	60.3	62.5	71.1	75.9	77.3	77.0	77.6	77.1	74.8	71.7	72.0	77.6	69.0	24
3	72.1	74.7	87.2	89.1	86.4	85.0	84.9	85.0	85.8	85.7	84.5	82.0	76.7	69.8	69.2	70.3	73.0	80.4	84.4	86.1	87.6	88.2	87.8	89.3	89.3	81.9	24
4	89.2	89.2	86.8	86.2	85.4	85.0	85.9	86.2	86.7	82.1	61.5	47.8	43.3	39.1	34.8	35.3	39.3	44.2	58.3	52.6	57.3	58.8	64.9	67.6	89.2	65.3	24
5	71.6	73.5	75.5	76.0	78.3	70.3	73.6	75.5	73.5	70.6	66.2	59.6	53.9	48.1	50.9	55.1	58.8	72.5	79.4	82.3	83.5	86.6	86.8	87.0	87.0	71.2	24
6	87.1	86.5	86.9	88.3	87.1	86.8	78.5	73.6	69.7	67.4	73.9	81.9	84.2	84.5	84.0	85.0	85.6	86.5	86.7	88.0	87.8	87.0	86.3	88.4	88.4	83.4	24
7	88.2	88.5	88.5	89.0	90.0	**90.7**	90.1	89.9	89.8	86.3	84.1	81.8	85.9	87.4	86.2	81.9	81.0	81.6	79.3	80.2	81.4	81.0	78.4	82.5	**90.7**	**85.2**	24
8	82.9	79.4	82.4	85.3	78.4	72.1	75.5	79.6	73.2	67.7	61.4	55.5	52.0	46.7	47.0	49.5	59.1	59.0	64.8	71.7	74.0	71.4	72.6	74.4	85.3	68.2	24
9	76.8	78.4	80.3	85.5	87.8	89.0	88.0	87.1	85.3	79.9	74.2	70.4	68.1	64.8	62.5	61.6	67.7	71.7	73.0	74.0	76.3	78.6	80.4	80.9	89.0	76.8	24
10	82.5	83.7	84.1	82.2	80.9	79.5	79.5	80.3	80.1	76.7	78.6	74.5	71.5	70.4	69.5	71.0	75.4	79.7	82.9	80.0	79.9	79.1	78.1	77.6	84.1	78.2	24
11	78.7	79.5	81.2	81.4	81.7	82.0	82.2	81.6	81.8	78.1	74.2	68.9	63.5	61.2	55.1	54.9	61.1	69.1	74.7	79.5	80.8	78.1	77.8	77.8	82.2	74.4	24
12	75.3	74.9	72.9	73.5	73.2	72.9	72.3	71.9	76.2	79.4	79.2	73.9	67.6	64.8	61.5	58.4	58.8	64.9	67.4	73.3	77.5	79.8	80.8	80.7	80.8	72.1	24
13	80.7	80.6	80.0	79.7	79.5	78.9	78.3	77.8	77.0	75.8	73.5	68.5	61.6	59.9	61.2	62.8	66.1	68.5	68.9	69.6	70.5	71.6	71.9	73.4	80.7	72.3	24
14	73.8	75.4	74.3	73.3	78.4	77.2	79.1	77.3	76.4	72.8	64.4	61.2	55.3	54.2	56.3	56.4	58.3	64.7	72.3	76.3	77.3	76.3	76.3	74.7	79.1	70.1	24
15	73.6	72.7	72.6	71.8	71.4	71.2	76.4	75.8	75.7	76.8	77.9	78.8	79.4	75.0	64.2	59.2	58.6	66.4	74.9	77.1	77.2	75.5	74.6	74.4	79.4	73.0	24
16	74.9	73.9	72.9	74.5	75.8	74.6	74.1	73.0	72.1	74.5	75.9	75.4	67.4	62.5	63.5	64.9	62.2	67.1	74.5	77.5	78.4	77.3	75.3	74.1	78.4	72.3	24
17	75.3	74.9	73.4	72.8	73.0	73.1	78.3	76.8	76.9	77.8	78.6	80.2	81.4	74.7	66.0	63.3	66.5	73.7	78.8	78.8	77.8	76.7	74.9	74.7	81.4	74.9	24
18	74.6	76.1	78.1	75.2	75.7	76.4	75.6	77.9	76.3	71.7	66.7	60.4	56.2	52.7	48.0	44.5	44.2	50.0	53.1	54.5	59.8	71.0	75.5	78.2	78.2	65.5	24
19	78.5	79.3	77.6	78.5	77.9	76.7	77.8	76.7	78.1	78.5	76.7	75.3	73.7	76.6	75.5	76.1	73.0	78.5	74.2	72.8	76.5	74.6	71.7	71.8	79.3	76.1	24
20	72.5	75.1	80.1	80.5	78.6	75.8	75.2	73.8	72.7	69.2	71.1	67.4	65.4	64.9	61.9	61.6	64.0	70.0	74.0	75.7	79.5	80.8	82.4	81.9	82.4	73.1	24
21	81.4	81.3	81.7	82.1	82.8	82.2	82.9	83.9	80.7	76.0	70.1	66.5	63.1	65.4	62.5	60.3	61.9	65.1	65.5	63.6	61.9	62.8	65.7	68.3	83.9	71.6	24
22	70.7	72.6	74.1	77.3	80.9	83.1	84.6	84.3	82.9	80.2	72.9	66.4	59.0	54.5	51.4	51.8	52.5	53.7	61.0	66.4	72.9	77.4	79.0	80.1	84.6	70.4	24
23	80.3	81.4	81.7	85.6	86.7	86.5	87.3	85.8	79.5	76.1	73.4	69.6	66.2	63.2	63.3	65.1	68.3	78.5	82.0	81.9	81.4	79.1	76.8	77.1	87.3	77.4	24
24	76.6	77.0	76.8	76.4	75.9	75.3	75.0	75.3	73.4	70.3	69.9	69.1	68.3	65.2	64.9	65.6	68.2	71.2	72.6	68.9	68.8	68.7	70.0	71.2	77.0	71.4	24
25	72.2	71.9	71.0	70.7	70.2	69.5	70.6	69.8	69.7	67.3	65.1	61.6	58.4	53.3	49.9	47.3	45.6	51.8	62.9	71.0	71.6	72.7	69.7	69.8	72.7	64.7	24
26	68.6	67.9	67.1	66.6	66.0	66.0	65.6	65.3	66.0	65.4	59.2	50.5	44.7	43.0	42.7	43.2	44.8	49.0	55.4	58.8	61.6	63.7	65.8	67.5	68.6	58.9	24
27	71.2	72.5	73.9	74.9	74.6	73.8	73.1	71.4	70.7	65.4	58.2	52.3	50.5	49.2	49.5	50.4	50.6	52.0	57.1	59.5	63.4	69.6	70.6	67.5	74.9	63.4	24
28	69.3	65.7	69.2	66.0	68.0	71.8	75.7	75.9	68.9	63.6	58.9	56.5	51.9	50.7	47.9	46.1	47.4	54.0	63.3	67.4	69.6	66.9	67.2	68.8	75.9	62.9	24
HOURLY MAX	89.2	89.2	88.5	89.1	90.0	90.7	90.1	89.9	89.8	86.3	84.5	82.0	85.9	87.4	86.2	85.0	85.6	86.5	86.7	88.0	87.8	88.2	87.8	89.3			
HOURLY AVG	76.1	76.4	77.3	77.6	77.7	77.1	77.6	77.2	76.0	73.6	70.3	66.8	63.6	61.0	59.2	59.3	61.4	66.6	71.1	72.8	74.5	75.1	75.1	75.5			

STATUS FLAG CODES

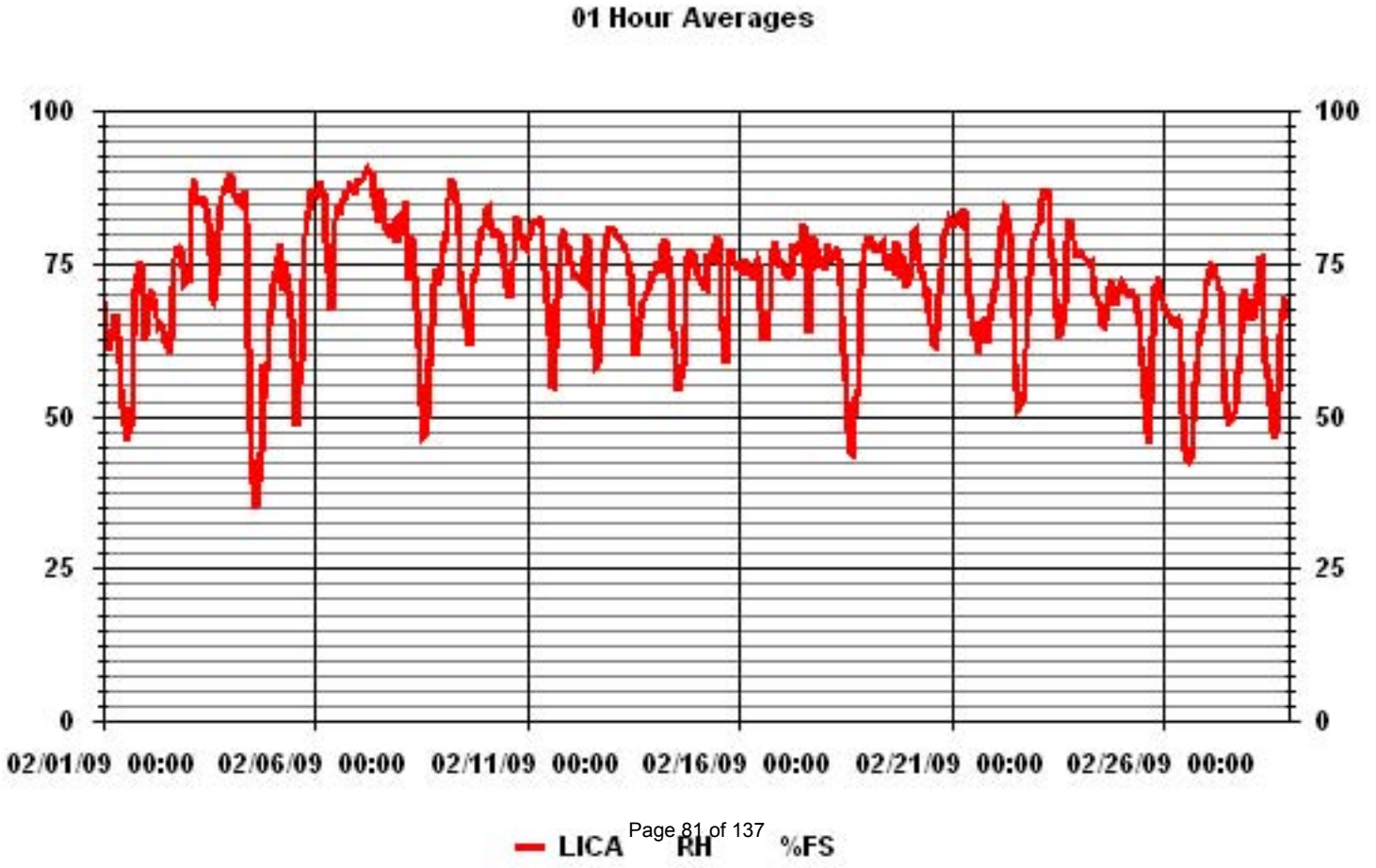
S	- OUT OF SERVICE	IZS	- IZS - DAILY ZERO/SPAN CHECK
N	- INVALID DATA	M	- MISSING DATA
D	- INSTRUMENT DRIFT	P	- POWER FAILURE
C	- CALIBRATION	NA	- NOT APPLICABLE

24 HOUR AVERAGES FOR FEBRUARY 2009



MONTHLY SUMMARY

MAXIMUM 1-HR AVERAGE:		90.7	%	@ HOUR(S)	5	ON DAY(S)	7
MAXIMUM 24-HR AVERAGE:		85.2	%			ON DAY(S)	7
CALIBRATION TIME:	0	HRS		OPERATIONAL TIME:		672	HRS
				AMD OPERATION UPTIME:		100.0	%
STANDARD DEVIATION:	10.59			MONTHLY AVERAGE:		71.62	%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75
50
25
0
02/01/09 00:00
02/06/09 00:00
02/11/09 00:00
02/16/09 00:00
02/21/09 00:00
02/26/09 00:00
LICA RH %FS

Vector Wind Speed

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - *COLD LAKE*

FEBRUARY 2009

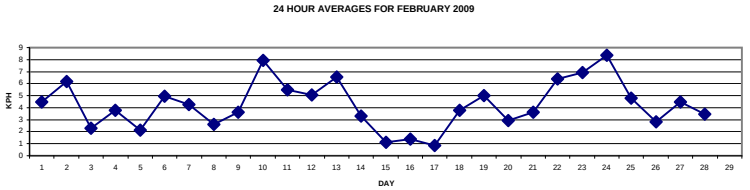
VECTOR WIND SPEED (WS) hourly averages (km/hr)

MST

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	**18.3**	15.2	13	16.2	10.6	10.3	5.5	6.7	7.4	7.7	8.7	7.3	6.5	0.9	3.8	2.2	1.8	1	1.6	1.4	1.2	0.7	4.8	7	**18.3**	4.5	24
2	6.8	6.5	5.5	5.2	5.6	5.5	7.6	7.3	6.3	7.2	8.3	9.1	7.9	8.3	9.3	12.5	9	7.3	6.8	5.8	3	2.4	2.4	2.7	12.5	6.2	24
3	1.2	1.8	2.3	4.4	0.6	0.5	0.7	1.9	3.2	3.3	3.1	4.4	5.6	6.7	5.2	5.4	0.8	1.6	1.6	2.4	2.8	3.2	3.1	2.1	6.7	2.3	24
4	2.1	2.3	1.3	1.2	0.4	0.2	0.5	2.3	0.9	3.2	7.6	9.8	10.6	14.1	12.9	9.9	6.9	5.5	2.7	5.8	4.4	4.5	1.4	0.9	14.1	3.8	24
5	1.1	0.5	1.3	1.4	1.1	3.5	2.3	0.6	1.3	1.6	3.4	6.7	6	3.2	4.3	4	2.9	0.9	0.4	0.2	1.5	0.6	0.9	1	6.7	2.1	24
6	0.9	1	2.1	1.5	0.4	2.9	10.3	11.9	11.8	12.1	10.5	8.7	7.8	7.1	6	5.1	4.3	2.6	0.4	1.1	2.2	0.2	2.6	5.4	12.1	5.0	24
7	4	2.3	2	3	2.7	1.9	4.9	4.7	3.8	4.7	4.9	6.6	8.5	7.7	8.5	8	7.5	5	2.8	1.9	1.7	1.9	1.6	1.1	8.5	4.2	24
8	1.3	0.5	0.5	0.8	2.9	1.6	1.4	1.1	1.3	1.5	0.5	3.2	5.9	6.9	8.8	4.1	2.2	3.9	2.3	0.7	1.7	3.4	2.4	3.3	8.8	2.6	24
9	3.1	3.6	2.8	1.3	1.4	1.5	1.3	0.8	1.8	1.5	3.3	3.3	3.9	2.6	1.1	2.4	2.9	1.8	7.4	9.3	8.8	8.2	6.9	5.5	9.3	3.6	24
10	3.5	3.8	6.2	7.2	7.5	8.2	11.2	10.1	6.9	9.2	9.2	11	12.9	11.4	11.4	10.5	6.3	4.3	3.8	5.7	6.1	7.9	8.4	7.5	12.9	7.9	24
11	7.5	7.4	6.8	6.2	8	6.3	6.6	7.5	5.7	6.7	7.1	6.4	6.8	8.8	6.7	6.3	7.4	6	4	1.3	0.4	1.1	0.3	0.5	8.8	5.5	24
12	0.6	0.1	1.5	0.4	0.2	0	1.3	3.4	6.1	6.4	6.4	8.3	7.9	8.9	8.3	7.2	8.7	5.6	7.6	5.6	6.8	6.5	6.7	6.8	8.9	5.1	24
13	6.8	6.1	6.1	6.6	6.1	6.4	6.5	6	6.7	7.4	8.5	9.3	7.7	8.4	9.1	9.9	8.8	7	4.8	3.7	3	4.5	4	4	9.9	6.6	24
14	4.3	5	5.7	3.7	0.9	0.9	1.1	1.7	0.4	0.2	3.8	4	4.8	6.8	9.5	8.4	7.4	4.4	1.4	2.6	0.1	0.7	0.7	0.5	9.5	3.3	24
15	0.1	0.1	0.1	0.4	0.7	0.4	0.1	0.1	0.8	1.2	0.8	1.3	2.6	3	3	3.5	3.2	2.5	0.6	0.7	0.4	0.2	0	0.5	3.5	1.1	24
16	1.1	0.8	0.4	0.7	0.2	0.1	0.1	0.2	0.8	1.4	1.7	4.7	4.4	3.4	4.4	4.2	1.9	1.4	0.4	0	0.4	0.7	0.2	0.2	4.7	1.4	24
17	0.6	0.6	0.4	0.7	0.5	0.8	0.3	0.5	1.2	0.7	0.5	1.9	3.3	1.7	0.9	1.8	1.9	0.9	0.2	0	0.2	0.3	0	0.3	3.3	0.8	24
18	0.2	0.7	0.8	1.1	0.1	0.3	0	0.3	0.9	1.4	5.5	6.8	9	10.2	9.3	8	6.2	4.4	7.5	5.8	4.4	3.9	2.7	0.7	10.2	3.8	24
19	1.6	1.2	0.4	0.7	0.5	0.1	0	0	0.5	3.1	4.6	4.1	5.8	7.9	11.1	11	8.2	7.7	9.6	8.2	6.7	9.7	10.6	6.7	11.1	5.0	24
20	7.3	4.4	0.2	0	0.6	0.1	0.1	0.4	0.3	1.5	4.1	5.1	5.3	6.6	6.6	6.6	5.4	3.2	4.2	3.9	2.4	1.1	0.6	0.5	7.3	2.9	24
21	0.1	0.4	0.5	0.7	0.3	0.8	0.2	0.4	1.5	2.6	3.7	4.9	5.5	5	5.1	6.9	5.5	6.2	5.7	6	6.3	5.8	6.6	6.6	6.9	3.6	24
22	6	6.8	6.5	7.3	6.3	5.5	5.7	6.7	9	7.3	12.5	12.5	12.3	9.3	7.3	5.8	6	6.1	2.4	4.1	4	1	1.5	1.2	12.5	6.4	24
23	0.8	3.1	2.5	2.4	2.8	2	3.5	7.7	11.8	10.4	11	9.7	8.9	8.6	7.1	7.5	9.2	8	8.9	9.5	7	7.8	8.2	8.2	11.8	6.9	24
24	6.4	6	5.8	5.4	7.6	7.7	7	6.4	7.5	7.4	8.8	9.6	9	10.5	11.9	12	11.3	9.2	9.2	10.2	8	9.1	8.1	7	12.0	**8.4**	24
25	5.7	6	6.1	7	6.8	6.4	5.7	5.8	6.7	8.2	8.6	7.3	8.1	6.7	6.8	4.7	1.7	2.7	1.9	0.1	0.5	0.9	0.6	0.1	8.6	4.8	24
26	2.6	0.4	0.3	0.6	0.3	2.1	0.4	0.4	0.3	1.5	0.7	2.1	1.2	7.7	9	8.5	5.8	4.3	3.1	4.2	6.1	2.2	2.5	1.6	9.0	2.8	24
27	1.1	1.6	1.4	1.2	1.1	1.3	1.3	0.4	3.8	5.7	6.4	6.3	6.9	8.5	9.1	8.7	7.4	7	6.4	6.1	4.2	3	5.2	3.6	9.1	4.5	24
28	5.1	6.7	6.5	5.7	5.6	3.7	1	0.4	0.1	2.3	2	5	2.8	5.1	4.2	4.4	3.6	3	0.4	1.3	2.6	5.1	3.8	2.6	6.7	3.5	24
HOURLY MAX	18.3	15.2	13.0	16.2	10.6	10.3	11.2	11.9	11.8	12.1	12.5	12.5	12.9	14.1	12.9	12.5	11.3	9.2	9.6	10.2	8.8	9.7	10.6	8.2			
HOURLY AVG	3.6	3.4	3.2	3.3	2.9	2.9	3.1	3.4	3.9	4.6	5.6	6.4	6.7	7.0	7.2	6.8	5.5	4.4	3.9	3.8	3.5	3.5	3.5	3.1			

STATUS FLAG CODES

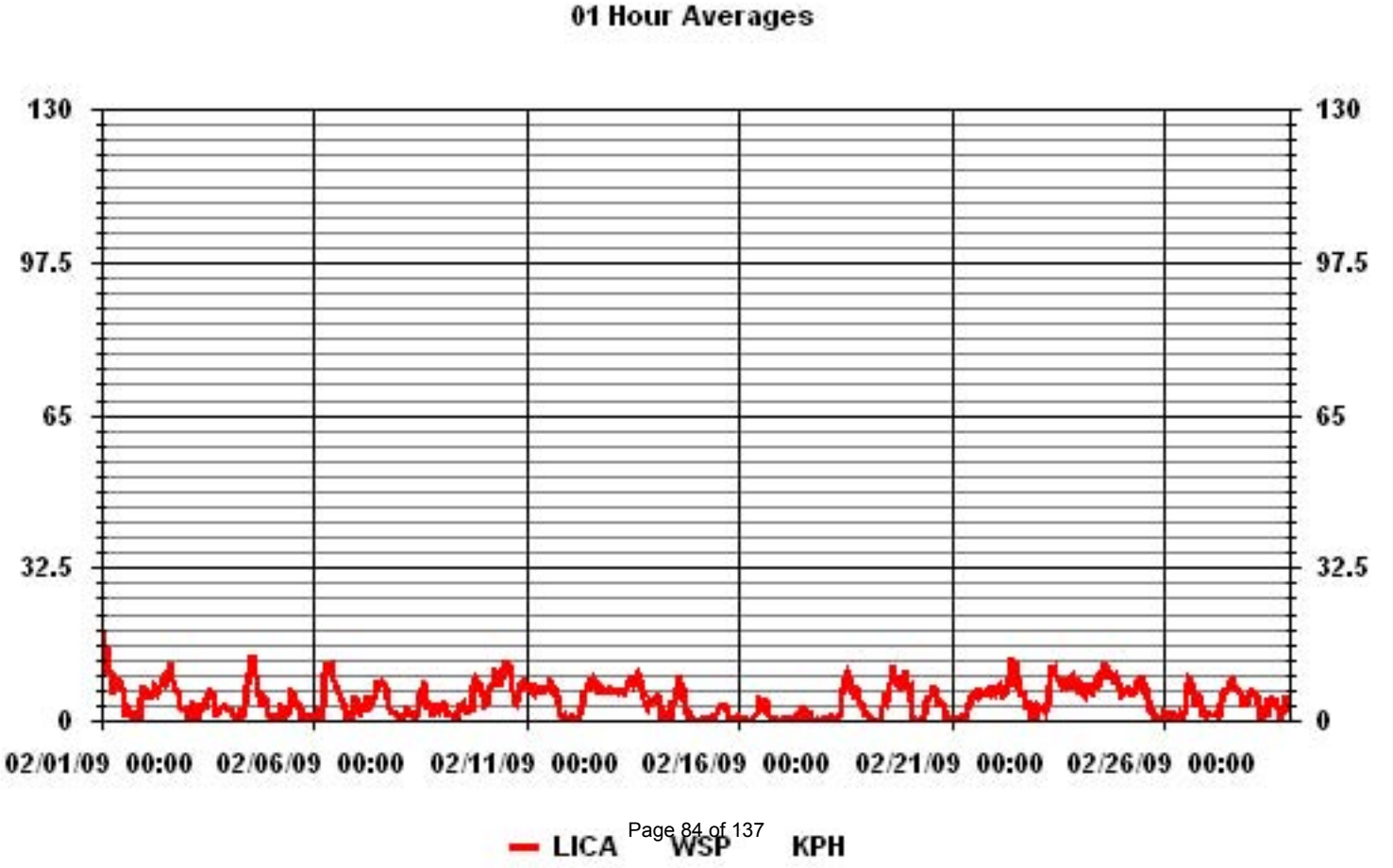
S	- OUT OF SERVICE	IZS	- IZS - DAILY ZERO/SPAN CHECK
N	- INVALID DATA	M	- MISSING DATA
D	- INSTRUMENT DRIFT	P	- POWER FAILURE
C	- CALIBRATION	NA	- NOT APPLICABLE



LAST CALIBRATION: November 5, 2008

MONTHLY SUMMARY

MAXIMUM 1-HR AVERAGE:			18.3	KPH	@ HOUR(S)	0	ON DAY(S) 1
MAXIMUM 24-HR AVERAGE:			8.4	KPH			ON DAY(S) 24
CALMS (≤ 1 KPH)	7.47	%	OPERATIONAL TIME:			672	HRS
MONTHLY CALIBRATION TIME:	0	HRS	AMD OPERATION UPTIME			100.0	%
STANDARD DEVIATION:	3.39		MONTHLY AVERAGE:			4.37	KPH


01 Hour Averages
130
97.5
65
32.5
0
02/01/09 00:00
02/06/09 00:00
02/11/09 00:00
02/16/09 00:00
02/21/09 00:00
02/26/09 00:00
LICA WSP KPH

LICA
WSP / WD Joint Frequency Distribution (Percent)

February 2009

Distribution By % Of Samples

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

Wind Parameter : WD
Instrument Height : 10 Meters

Direction

	Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
<	6.0	1.33	2.82	4.46	2.82	6.39	6.84	5.50	2.23	2.67	2.82	6.39	4.01	3.57	1.93	1.19	1.19	56.25
<	12.0	1.48	4.91	3.42	.29	2.08	2.23	1.19	.00	.00	.14	5.20	3.57	2.97	2.38	3.27	.89	34.07
<	20.0	.00	.29	.00	.00	.00	.00	.59	.00	.00	.00	.00	.00	.29	.14	.59	.00	1.93
<	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	2.82	8.03	7.88	3.12	8.48	9.07	7.29	2.23	2.67	2.97	11.60	7.58	6.84	4.46	5.05	2.08	

Calm : 7.73 %

Total # Operational Hours : 672

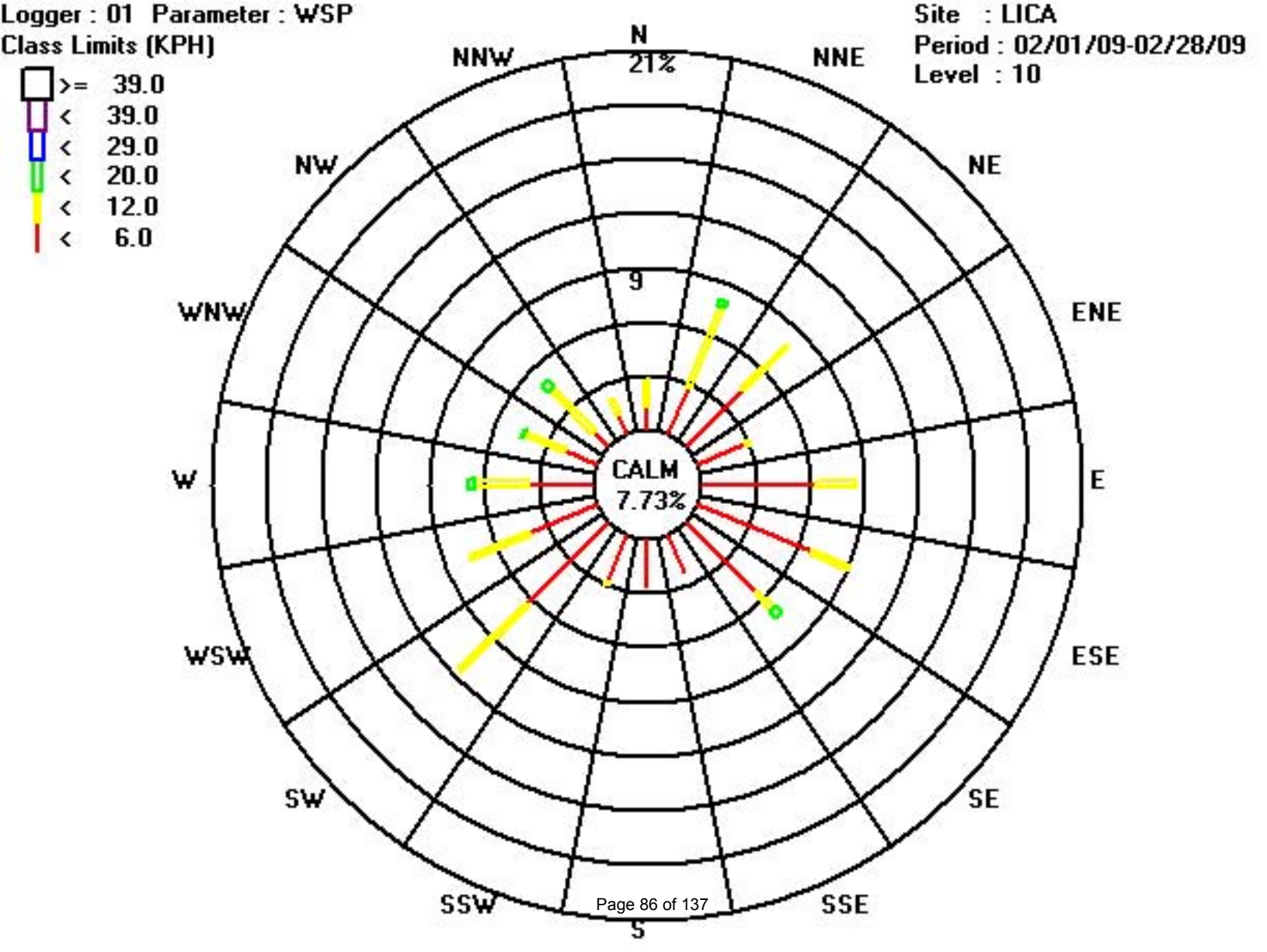
Distribution By Samples

Direction

	Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
<	6.0	9	19	30	19	43	46	37	15	18	19	43	27	24	13	8	8	378
<	12.0	10	33	23	2	14	15	8			1	35	24	20	16	22	6	229
<	20.0		2					4						2	1	4		13
<	29.0																	
<	39.0																	
>=	39.0																	
	Totals	19	54	53	21	57	61	49	15	18	20	78	51	46	30	34	14	

Calm : 7.73 %

Total # Operational Hours : 672


Logger : 01 Parameter : WSP
Class Limits (KPH)
>= 39.0
< 39.0
< 29.0
< 20.0
< 12.0
< 6.0
Site : LICA
Period : 02/01/09-02/28/09
Level : 10
N
21%
NNE
NE
ENE
E
ESE
SE
SSE
S
SSW
SW
WSW
W
WNW
NW
NNW
9
CALM
7.73%

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - *COLD LAKE*

APRIL 2008

VECTOR WIND SPEED MAX instantaneous maximum in km/hr

MST

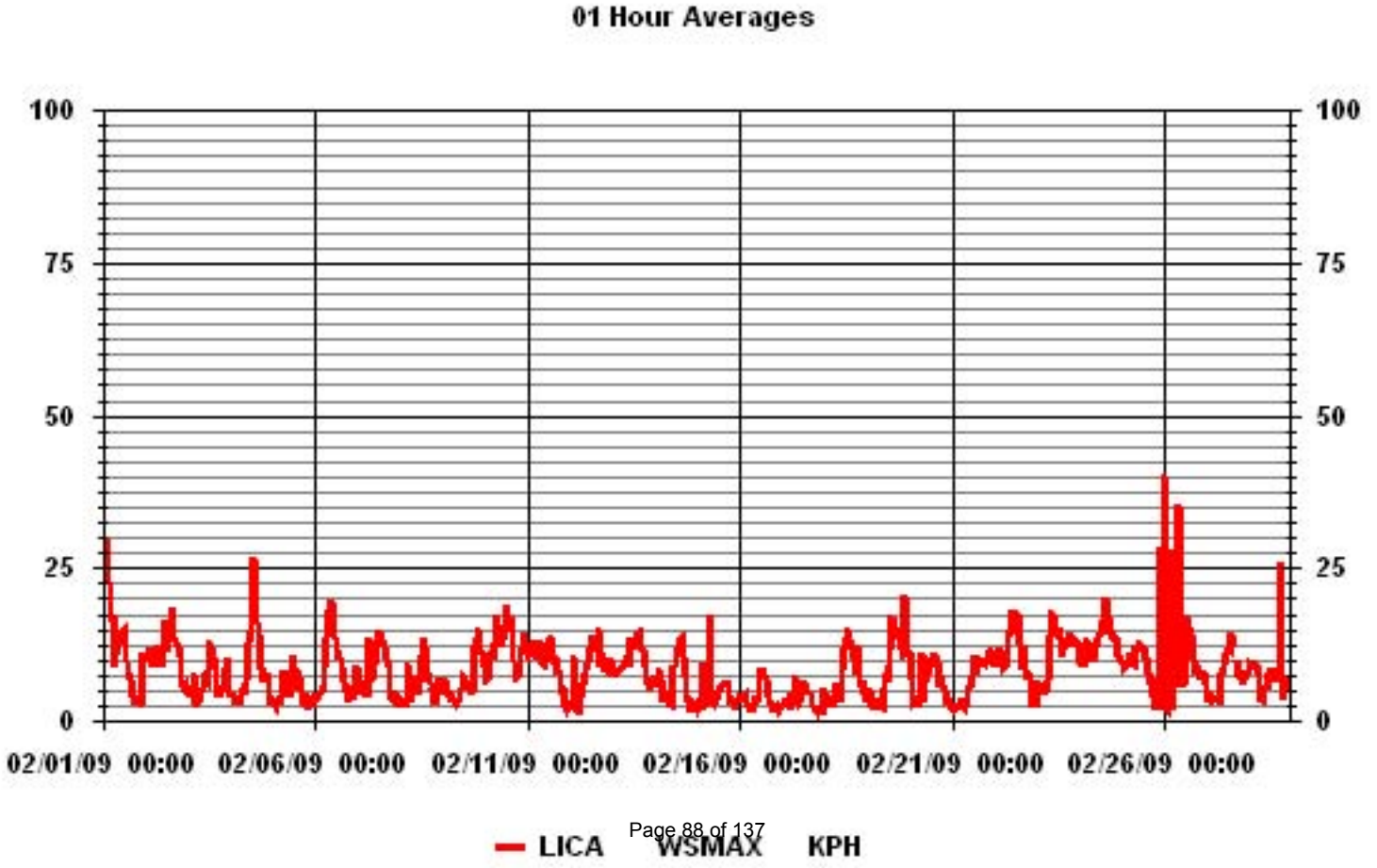
HOUR START	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY
HOUR END	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	MAX.
DAY																									
1	2.9	1.2	3	2	2	1.5	2.9	5.8	9	14.6	18.4	16.4	19.1	19.8	22.5	21.5	20.4	19.2	15.4	11.4	10.1	10.6	9.2	6.7	22.5
2	6.2	7.8	8.1	8	9.2	7.8	9	9.1	13	13.6	15.4	18.7	19.7	20.7	21.3	20.4	23.9	17.4	14.2	12.6	14.6	10	9.1	8.6	23.9
3	9.3	9.9	8.7	8.7	8.7	10.1	7.9	7.2	11	10.5	10.7	12.9	13.3	13	12.7	12.5	9.6	9.8	6.4	10.7	11.7	10.6	8.4	7.3	13.3
4	6.9	8.1	7.9	7.9	6.9	11.1	17.6	15.8	15.3	18.4	17.6	15	14	14.9	13	14.5	13.3	12.6	9	6.3	4	1.5	5.7	2.9	18.4
5	3.3	4.9	7.1	3.3	6.8	2.9	3.5	7.7	9.8	9.2	10.2	11.3	11.2	11.4	12	15	12.6	9.8	7.6	14.2	13.6	12.5	12.8	12.6	15
6	10.5	10.3	11.2	12	11.5	12.3	13.7	12.2	12.2	16	11.5	12.6	11.8	11.1	14.4	12.5	12	11.2	9.9	5.4	7.6	8.1	5	7.6	16
7	6.8	7.7	6.3	6	7.5	7.7	9.5	11	12.4	10.4	11.5	14.2	12.7	10.8	12.3	10.6	9.5	10.1	9.2	6.6	6.8	6.7	6.3	4.6	14.2
8	4	2.5	4.7	3.8	3.8	5.9	8	14	13.6	11.9	10.8	13.6	15.6	12.8	14.5	11.1	12.1	12.6	5.4	5	5	4.8	3.6	1.9	15.6
9	3.7	3.3	4.3	4.3	3.9	2.1	4.2	10.2	12.6	11.3	10.9	16.7	12.9	15.3	19.7	17.8	17.1	14.7	10.8	7.1	3.6	3.3	3	3.1	19.7
10	2.7	3.1	1.6	4.1	1.9	4.3	3.2	3.7	4.1	5.4	6.9	7.7	7.9	10.5	17.3	15.3	13.1	7.3	3.9	5.6	8.3	6.7	3.4	5	17.3
11	2.5	2.4	4.5	4.2	4.6	6.4	5.7	11.9	10.3	10.6	18.4	17.9	20.2	22.2	19.4	22	18.3	18.9	12.9	7.7	7.3	7.1	2.4	1.3	22.2
12	3	2.4	2.3	1.9	2.4	4.4	3.5	6.1	7.2	14.2	13.3	20.2	18.6	16	11.6	11.2	8.6	7.5	5.9	5.4	4.2	4.6	3.5	4.8	20.2
13	4.7	4.6	4.3	3.9	7.1	10.3	7.6	11.7	12.4	14.1	11.7	14.3	14	14.9	14.9	10.5	10.9	9.7	6.1	3.6	13.5	19.1	8.4	5	19.1
14	7.7	6.6	8	7.3	6.8	6.7	8	7.1	12.8	13.3	13.4	14.1	16.3	16	21.8	17.6	17.4	14.7	12.7	9.3	10.7	12.8	12.5	9	21.8
15	5.5	6.9	8.1	6.4	8.4	7.7	8.2	15.3	16.2	18.4	19.6	23.1	24.2	24.5	31.7	31.9	21.4	21.7	17.1	15.7	10.2	7.4	8	6	31.9
16	4.2	6.4	5.7	5.7	8.3	7.1	6.6	10.5	6.7	13	16.9	17.4	19.7	21.8	20.2	17.6	15.2	12.3	15.6	12.1	9.6	5.6	6.9	4.6	21.8
17	5	2.1	1.2	3.2	3.2	3.4	5.8	6.7	11.6	16.9	20.3	26.4	18.3	29.7	12.6	15.2	28.8	26.3	24.1	21	21.3	12.9	9.6	8.7	29.7
18	6.6	6.1	6.1	9.4	13.4	19.8	19.1	22.3	22.3	19.9	22.1	22	23.2	20	21.7	18.2	20.6	19.3	18	19.2	20.2	22.7	25.4	18.2	25.4
19	20.3	18.6	16.6	16.4	17.4	17.3	14.8	15.6	16.8	17.2	19.1	19.3	19.2	19.6	17.9	16	19.7	19.4	22.7	17.9	19.2	17	16.5	20.2	22.7
20	18.7	21.6	20.2	22	21.2	19.8	21.9	24.9	19.2	20.8	20.1	20.8	22.7	20	20.7	19.4	20.3	20.7	19.4	17	15.8	16.5	14.9	15.6	24.9
21	15.5	13.6	12.6	15.7	13.4	12.7	16.8	13.1	15.1	17.2	17.7	18.3	18.1	17.9	21.3	19.6	19.4	**P**	19.5	21.7	18.2	19.6	17.3	14.4	21.7
22	15.2	14.9	17.1	15.3	13.2	14.6	14.8	15.3	18.2	20.4	26.5	26.4	28.1	24.1	36.9	28.1	21.9	23.4	30.5	21.7	12.9	7.7	8.1	7.5	36.9
23	7.6	7.5	8	8.1	6.8	3.2	6.2	6.9	6.3	10.9	13.9	16.4	17.1	17.1	16.4	9	9.7	10.1	9.6	5.1	4.9	4.4	6	5	17.1
24	4.1	5.5	8	5.7	3.4	2.8	3.3	7	7.6	7.6	**M**	12	13.7	13.6	14.5	13.6	12.1	9.8	11	9.8	7	5.6	3.6	1.3	14.5
25	3.7	2.8	1.8	2.6	2.4	3.1	5.4	4.5	4	4.3	5.4	11.2	13.2	16.6	18.8	18.8	19.6	18.6	18.3	10.3	7	2.9	1.7	1.3	19.6
26	1.7	3.8	4.1	2.5	1.5	2.1	3.4	5.6	14.7	15.7	15.7	15.4	17.7	19.1	19.9	17.2	17.6	17.1	12.8	5.8	4.2	4.3	11.6	6.2	19.9
27	4.7	4.4	3.3	3.3	3.6	2.9	4.4	12.4	10	11.8	13.9	15.3	11.5	13.2	14	13.1	15.5	14.1	9.6	12.4	11.2	10	11.1	10.2	15.5
28	12.1	11.1	8	6.1	7.6	11	10.6	7.6	8.4	9.3	15.5	21	21.7	19.7	21.5	25.1	23.7	20.5	17.1	13	7.9	5	8.2	7.3	25.1
29	7.2	6.7	6.7	8.7	8.2	7.5	11.9	13.6	17.9	17.2	21.8	23.6	22.4	23.1	27	26.2	27.7	18.7	19.1	15.7	15.6	19.7	21.2	18.5	27.7
30	21.9	21	22.8	23.7	19.8	21.6	26	26.5	22.2	25.1	27.2	25.8	21.1	24.1	23.8	23.3	18.1	17.5	18	15.2	16.1	18.1	19.3	15.2	27.2
PEAK	21.9	21.6	22.8	23.7	21.2	21.6	26.0	26.5	22.3	25.1	27.2	26.4	28.1	29.7	36.9	31.9	28.8	26.3	30.5	21.7	21.3	22.7	25.4	20.2	

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

MONTHLY SUMMARY

MAXIMUM INSTANTANEOUS READING	36.9	KPH	@ HOUR(S)	15
			ON DAY(S)	22


01 Hour Averages
100
75
50
25
0
02/01/09 00:00
02/06/09 00:00
02/11/09 00:00
02/16/09 00:00
02/21/09 00:00
02/26/09 00:00
LICA WSMAX KPH

Vector Wind Direction

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - *COLD LAKE*

FEBRUARY 2009

VECTOR WIND DIRECTION (WD) hourly averages in degrees

MST

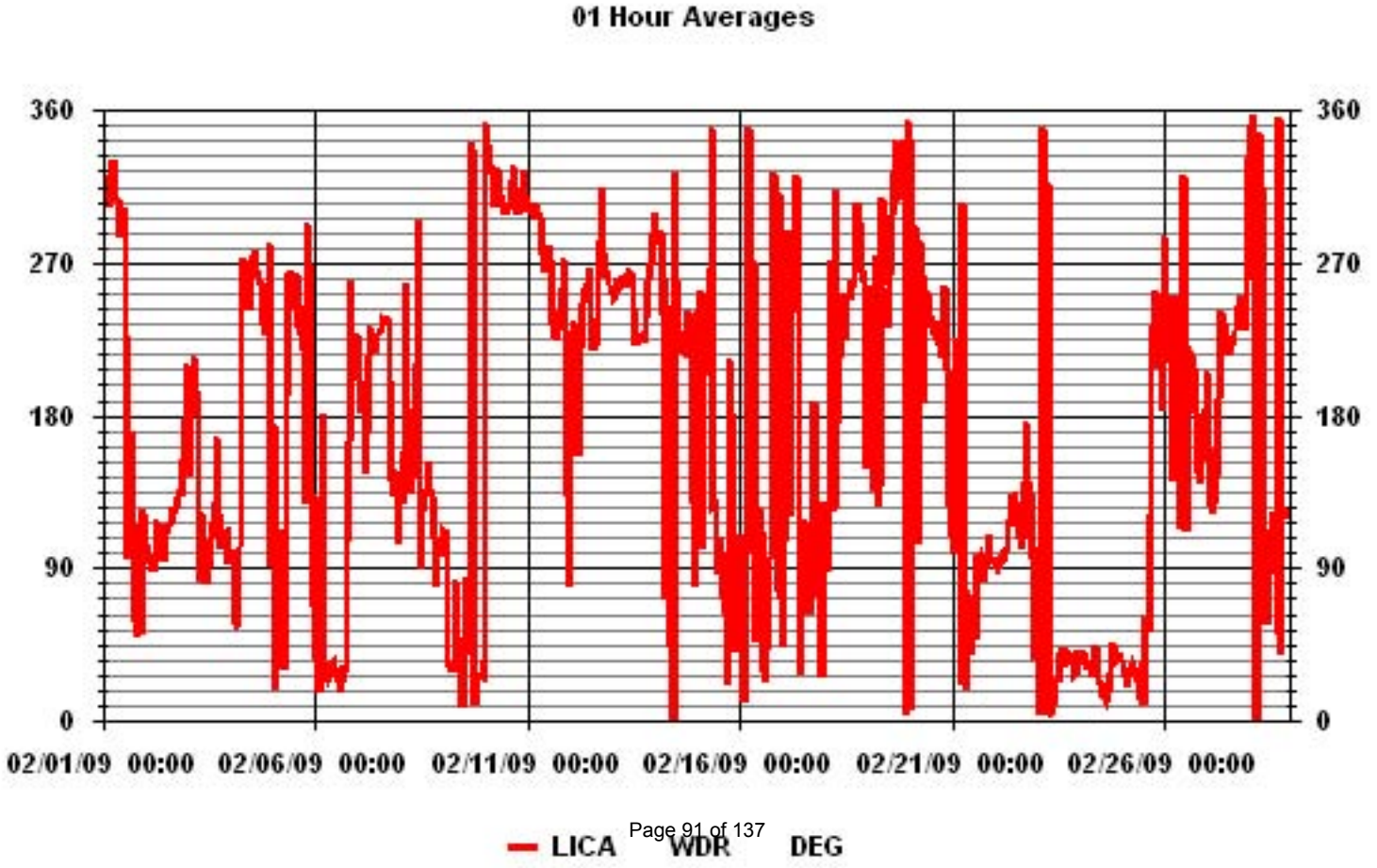
HOUR START	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24-HOUR	24-HOUR AVG	
HOUR END	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	AVG.	QUANDRANT	RDGS.
DAY																											
1	315	321	320	302	314	331	329	308	307	285	295	287	302	229	95	136	171	117	60	49	52	52	125	122	313	NW	24
2	105	93	97	91	88	93	118	116	94	103	94	116	111	115	117	124	124	125	131	134	134	154	178	210	113	ESE	24
3	176	144	194	215	195	181	81	123	114	102	80	91	107	117	107	129	167	123	102	107	111	112	95	94	118	ESE	24
4	94	101	59	57	58	102	271	271	249	254	242	250	261	274	277	267	258	260	234	227	236	242	282	90	257	WSW	24
5	175	18	54	62	113	106	30	68	191	264	266	253	242	264	231	246	228	219	128	293	168	268	67	133	234	SW	24
6	37	31	16	52	181	30	27	24	26	33	35	32	28	24	17	23	33	28	106	165	260	200	223	228	26	NNE	24
7	221	201	181	194	146	169	215	232	229	220	218	227	230	230	237	236	237	235	201	143	132	148	141	104	217	SW	24
8	132	128	159	258	185	133	156	168	143	210	295	89	124	133	135	135	152	137	133	109	78	104	96	106	132	SE	24
9	111	109	112	31	35	29	31	83	36	38	36	7	49	85	73	38	341	338	10	14	27	27	26	36	34	NE	24
10	353	341	333	329	324	303	311	326	311	304	300	300	304	301	305	318	327	309	298	308	309	314	325	311	313	NW	24
11	300	304	300	296	303	303	300	298	276	264	271	278	280	272	234	228	224	236	242	255	273	232	134	79	276	W	24
12	223	203	236	215	156	233	219	246	255	258	254	267	238	219	222	235	269	283	315	277	261	265	258	253	255	WSW	24
13	248	249	253	260	258	261	262	256	263	266	260	261	245	223	223	226	227	223	228	237	260	270	268	288	248	WSW	24
14	300	285	280	289	239	263	72	234	43	244	0	323	261	231	222	220	222	218	214	242	232	129	79	203	250	WSW	24
15	241	209	254	101	226	241	203	267	350	126	127	86	89	108	72	100	64	21	213	183	113	73	40	104	88	E	24
16	110	107	11	26	121	350	98	104	271	46	66	126	113	30	23	41	93	96	98	323	126	75	311	73	72	ENE	24
17	43	105	154	289	120	241	281	253	322	292	27	92	118	113	96	62	78	128	188	83	73	90	25	129	90	E	24
18	116	87	114	271	126	124	313	175	214	223	252	229	225	250	250	260	256	278	306	300	295	266	260	148	258	WSW	24
19	237	257	184	209	135	275	126	138	308	256	249	231	238	262	298	323	342	316	310	311	321	343	3	354	309	NW	24
20	6	342	262	292	104	126	283	187	263	250	254	231	240	228	230	224	235	222	214	226	257	207	127	109	238	SW	24
21	172	98	159	226	145	21	305	79	18	65	39	55	74	48	96	96	98	93	82	90	92	110	96	93	83	E	24
22	96	92	94	91	93	94	100	102	119	115	132	133	129	127	108	102	107	141	176	142	135	96	37	39	113	E	24
23	101	101	3	350	307	278	318	5	3	14	10	24	24	39	41	41	43	35	36	38	39	27	28	37	24	NNE	24
24	41	38	40	39	33	34	36	25	33	44	40	25	23	16	14	12	17	28	36	46	43	36	37	40	30	NNE	24
25	37	32	27	20	26	29	34	32	31	24	12	34	9	59	58	57	121	211	233	253	207	246	223	183	31	NNE	24
26	286	231	211	226	250	141	212	204	251	113	116	322	111	213	218	216	204	209	183	147	139	176	153	184	193	S	24
27	206	161	128	122	128	135	144	190	241	234	236	225	216	218	221	226	230	235	244	250	234	230	246	260	227	SW	24
28	332	351	357	341	0	42	347	197	315	79	56	93	113	123	87	94	50	356	39	127	119	123	126	123	52	NE	24
HOURLY AVG	353	351	357	350	324	350	347	326	350	304	300	323	304	301	305	323	342	356	315	323	321	343	325	354			

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:	November 5, 2008
DECLINATION :	19 DEGREES FROM MAGNETIC NORTH

MONTHLY CALIBRATION TIME:	0	HRS	OPERATIONAL TIME:	672	HRS
STANDARD DEVIATION	97.76		AMD OPERATION UPTIME	100.0	%
			MONTHLY AVERAGE	321	DEG


01 Hour Averages
360
270
180
90
0
02/01/09 00:00
02/06/09 00:00
02/11/09 00:00
02/16/09 00:00
02/21/09 00:00
02/26/09 00:00
LICA WDR DEG

Standard Deviation Wind Direction

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - *COLD LAKE*

FEBRUARY 2009

STANDARD DEVIATION WIND DIRECTION (STDWDIR) hourly averages in degrees

MST

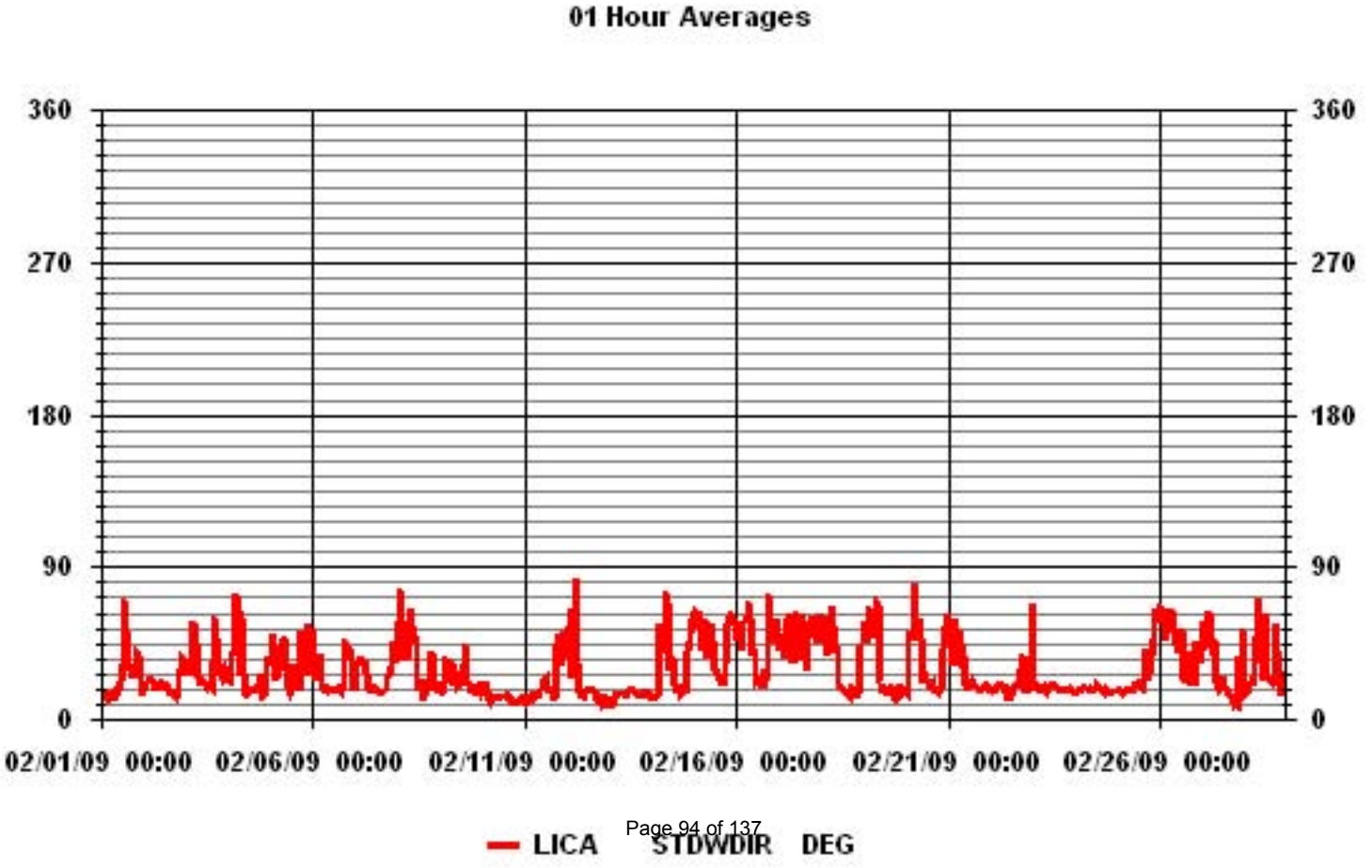
HOUR START	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00
HOUR END	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00
DAY																								
1	13	18	15	13	12	15	16	11	14	18	18	22	32	71	54	31	30	24	33	31	39	38	26	14
2	19	19	21	23	23	23	19	20	21	22	20	20	21	20	18	16	16	15	14	17	29	36	35	30
3	26	34	35	25	58	34	46	25	21	23	22	22	19	20	19	34	61	42	47	27	25	29	31	29
4	24	23	40	38	73	73	65	26	60	28	16	15	16	18	18	19	16	20	27	14	14	19	37	35
5	37	50	38	23	43	29	41	46	48	35	20	17	19	27	32	23	17	53	45	51	25	56	32	36
6	54	34	22	28	39	22	19	18	19	17	18	18	18	18	20	19	17	21	47	40	38	44	24	17
7	28	34	36	36	33	36	28	19	15	19	20	18	17	17	16	16	16	18	25	27	31	37	46	33
8	58	76	60	37	38	36	50	66	56	50	47	26	16	21	11	14	23	20	17	41	27	17	23	15
9	19	16	17	37	24	25	35	33	20	28	20	21	22	33	44	23	20	22	17	16	18	19	17	20
10	20	21	15	14	11	14	12	12	14	15	13	14	13	13	15	13	11	12	10	11	10	13	13	13
11	10	12	14	15	12	12	13	13	15	17	19	24	25	20	18	16	16	11	44	51	31	37	51	36
12	48	55	24	65	55	83	35	17	14	14	17	18	17	17	18	18	17	13	12	15	11	13	13	11
13	9	8	9	13	15	15	16	15	16	15	15	17	18	19	17	16	15	15	15	15	18	15	18	13
14	14	10	13	14	56	41	43	43	75	69	31	31	37	21	18	17	15	16	21	15	41	45	51	60
15	64	63	54	64	41	47	59	36	40	50	57	48	30	27	23	27	20	24	33	56	60	63	55	60
16	46	54	51	41	57	59	59	70	60	38	42	22	23	22	20	18	30	23	74	59	52	46	50	59
17	48	41	50	36	59	48	62	48	32	49	64	40	34	63	55	52	29	50	58	61	49	46	58	62
18	48	45	61	38	57	42	66	57	40	43	20	20	19	17	16	16	14	20	12	16	12	15	42	45
19	57	45	51	66	51	49	54	69	67	22	15	21	17	16	16	15	21	13	12	12	13	21	16	17
20	16	15	52	47	50	80	59	46	59	49	21	28	24	21	19	21	18	18	19	16	18	42	55	62
21	56	58	56	31	59	48	53	46	34	35	21	18	22	19	23	21	20	18	17	17	18	21	21	18
22	19	17	19	18	20	20	21	21	18	20	14	13	14	18	20	22	18	29	38	28	16	29	24	36
23	69	18	20	18	16	21	15	19	16	19	19	21	21	20	19	18	17	17	17	17	17	19	17	17
24	16	17	17	17	18	19	18	18	18	19	18	18	21	20	18	18	17	19	17	16	16	16	17	17
25	17	17	18	16	18	17	18	18	18	18	21	21	22	20	19	24	42	23	27	38	48	66	63	57
26	68	63	63	46	51	66	61	65	55	45	45	40	53	25	24	23	30	22	40	28	19	46	45	33
27	40	58	52	42	63	47	38	47	23	18	20	22	25	19	18	16	15	13	9	10	9	37	11	53
28	14	15	16	21	21	25	48	46	72	33	48	23	62	26	24	24	22	23	56	41	21	14	21	27

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: November 5, 2008

CALIBRATION TIME: 0 HRS OPERATIONAL TIME: 672 HRS


01 Hour Averages
360
270
180
90
0
02/01/09 00:00
02/06/09 00:00
02/11/09 00:00
02/16/09 00:00
02/21/09 00:00
02/26/09 00:00
LICA STDWDIR DEG

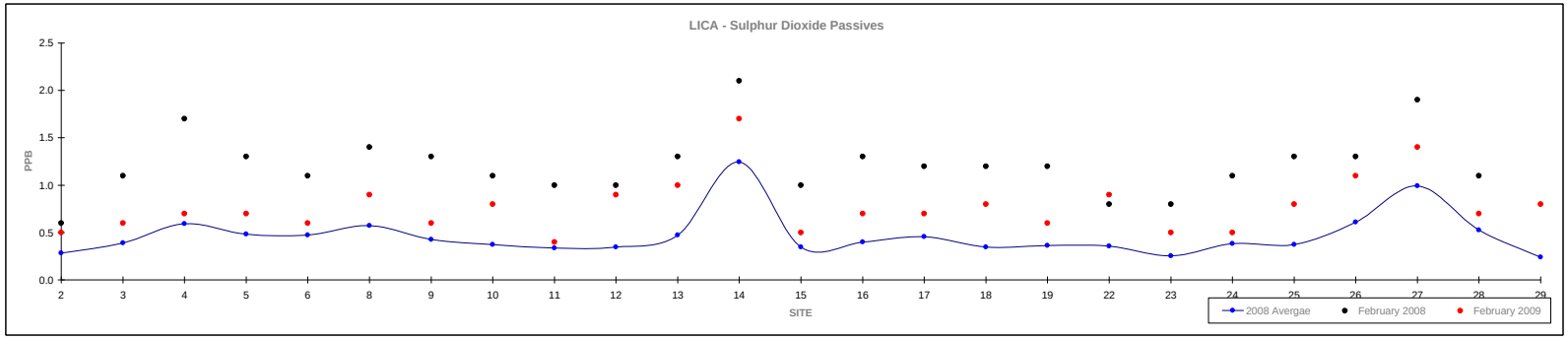
Non-Continuous Monitoring

Passive Summary Results for February 2009

Lakeland Industry & Community Association

Sulphur Dioxide
ppb

	2008																								February 2009	
	2	**3**	**4**	**5**	**6**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**22**	**23**	**24**	**25**	**26**	**27**	**28**	**29**	**Reading**	**Site**
Mean	0.3	0.4	0.6	0.5	0.5	0.6	0.4	0.4	0.3	0.3	0.5	1.2	0.3	0.4	0.5	0.3	0.4	0.4	0.3	0.4	0.4	0.6	1.0	0.5	0.2	1.1	-
Minimum	0.1	0.1	0.2	0.3	0.2	0.3	0.1	0.1	0.1	0.1	0.1	0.7	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.4	0.6	0.3	0.1	0.4	#2
Maximum	0.3	0.4	0.5	0.4	0.6	1.4	1.3	1.1	1.0	1.0	1.3	2.1	1.0	1.3	1.2	1.2	1.2	0.8	0.8	1.1	1.3	1.3	1.9	1.1	0.5	2.6	#27

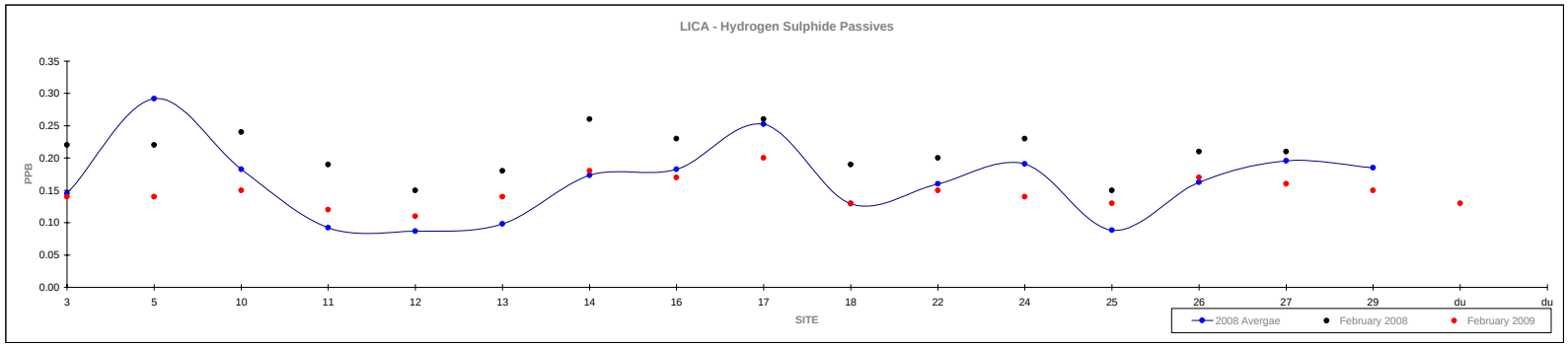


Passive Summary Results for February 2009

Lakeland Industry & Community Association

Hydrogen Sulphide
ppb

	2008																February 2009	
	2	**4**	**10**	**11**	**12**	**13**	**14**	**16**	**17**	**18**	**22**	**24**	**25**	**26**	**27**	**29**	**Reading**	**Site**
Mean	0.1	0.3	0.2	0.1	0.1	0.1	0.2	0.2	0.3	0.1	0.2	0.2	0.1	0.2	0.2	0.2	0.20	-
Minimum	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.15	#11
Maximum	0.3	1.0	0.5	0.2	0.2	0.2	0.3	0.4	0.5	0.2	0.3	0.4	0.2	0.3	0.3	0.3	0.29	#14

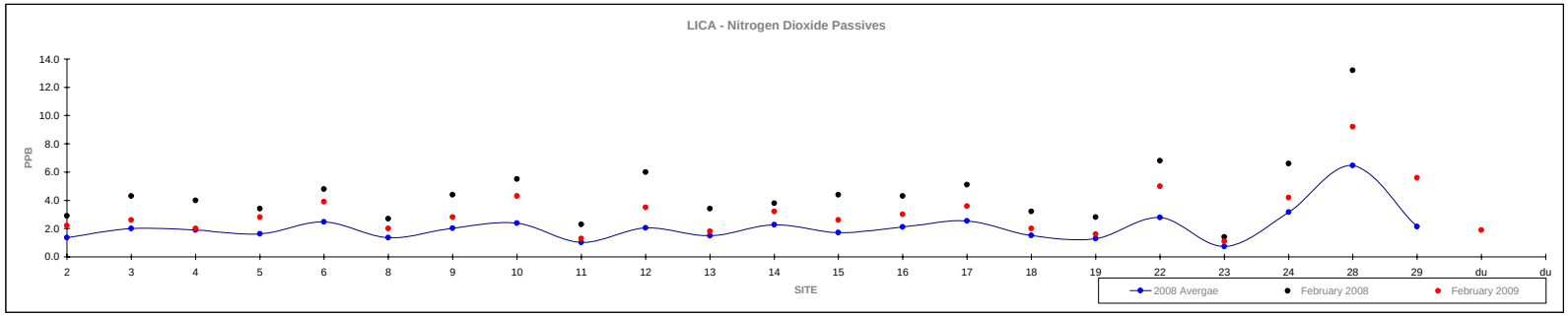


Passive Summary Results for February 2009

Lakeland Industry & Community Association

Nitrogen Dioxide
ppb

	2008																					February 2009	
	2	**3**	**4**	**5**	**6**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**22**	**23**	**24**	**28**	**29**	**Reading**	**Site**
Mean	1.4	2.0	1.9	1.6	2.5	1.4	2.0	2.4	1.0	2.0	1.5	2.3	1.7	2.1	2.5	1.5	1.3	2.8	0.7	3.2	6.5	2.1	4.5	-
Minimum	0.5	0.9	0.4	0.6	1.2	0.6	1.0	1.1	0.3	0.9	0.5	1.1	0.8	1.1	0.9	0.8	0.4	0.9	0.2	1.7	3.1	1.2	1.6	#23
Maximum	2.9	4.3	4.8	4.3	4.8	2.9	4.4	5.5	2.3	6.0	3.4	3.8	4.4	4.4	5.1	3.2	3.2	6.8	2.8	6.6	13.2	3.5	10.6	#28



Passive Summary Results for February 2009

Lakeland Industry & Community Association

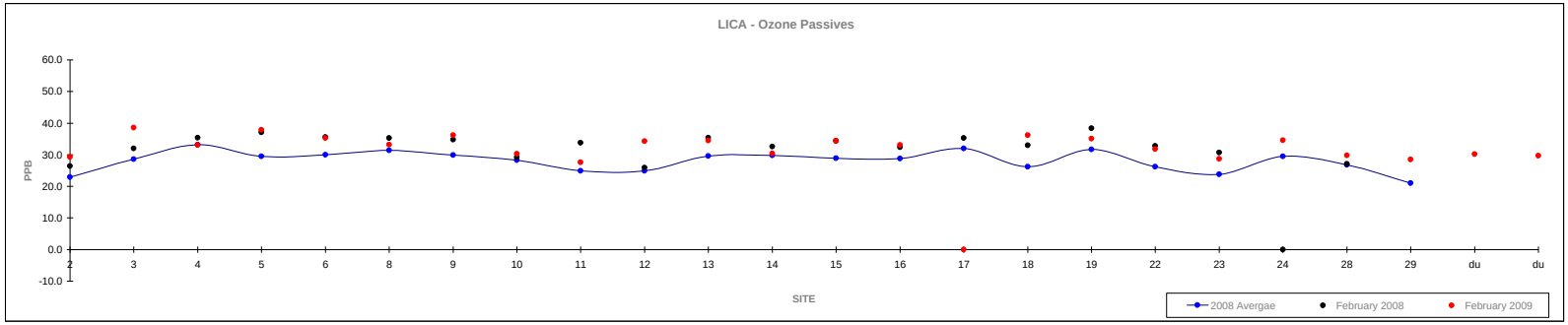
Ozone ppb

2008

	1	2	3	4	5	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	25	26
Mean	22.9	28.6	33.1	29.5	30.0	31.4	29.9	28.3	24.9	24.9	29.6	29.8	28.9	28.8	32.0	26.2	31.7	26.2	23.8	29.5	26.8	21.0
Minimum	12.8	17.8	20.8	17.8	18.2	18.5	19.3	16.3	12.6	14.1	17.2	17.8	16.9	18.8	16.6	13.7	20.9	15.7	13.4	17.7	15.5	17.7
Maximum	39.1	47.6	54.5	46.9	47.6	47.2	45.4	44.3	40.1	41.9	48.2	43.9	50.3	47.7	52.9	45.4	46.8	40.4	36.9	51.1	45.9	26.8

February 2009

	Reading	Site
Mean	28.3	-
Minimum	23.6	#23
Maximum	33.8	#17



Calibration Reports

Cold Lake

Sulphur Dioxide

SO_2 Calibration Report

Station Information

Calibration Date	February 2, 2009		Previous Calibration	January 2, 2009	
Company	**Lakeland Community and Industry Association**				
Plant / Location	**LICA 1 - Cold Lake South**				
Start Time (MST)	8:00		End Time (MST)	16:00	
Reason:	Monthly Calibration				
Barometric Pressure	714	mmHg	Station Temperature	24	Deg C
Cal Gas	52.2	ppm	Cal Gas Expiry date	March 12, 2010	
DAS Output Voltage	0 - 10	Volts			

Equipment Information

Analyzer Make / Model:	Thermon 43i	S/N :	806528242	Method:	Fluorescent
Converter Make / Model:	-	S/N :	-		
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 - 500	ppb				
Sample Flow / Box Temp	450	ccm	29.2	Deg C	450	ccm	29.6	Deg C
HVPS / Lamp Setting	-630.9		775		-630.9		773	
PMT / RxCell Temp	OK	Deg C	45.1	Deg C	OK	Deg C	45.0	Deg C
Converter / IZS Temp	NA	Deg C	45.0	Deg C	NA	Deg C	45.0	Deg C
Offset / Slope	5.7		1.074		5.1		1.074	

Calibration Data

Dilution Flow Rate	Source Gas Flow Rate	Calculated Concentration	Indicated Conc. (DAS)	Correction Factor
5002.3	0	0	-1	N/A
4999.6	0	0	0	N/A
4961.9	38.8	405	405	1.0000
4975.4	24.3	254	253	1.0028
4986.2	14.6	152	153	0.9961
5002.3	0	0	0	N/A
			Sum of Least Squares	0.3482
			New Correction Factor	1.0000

	Before Calibration	After Calibration
Auto Zero	-0.8	-0.4
Auto Span	378.1	381.1
Sample Lines Connected		**YES**
Percent Change from Previous Calibration		0.2%

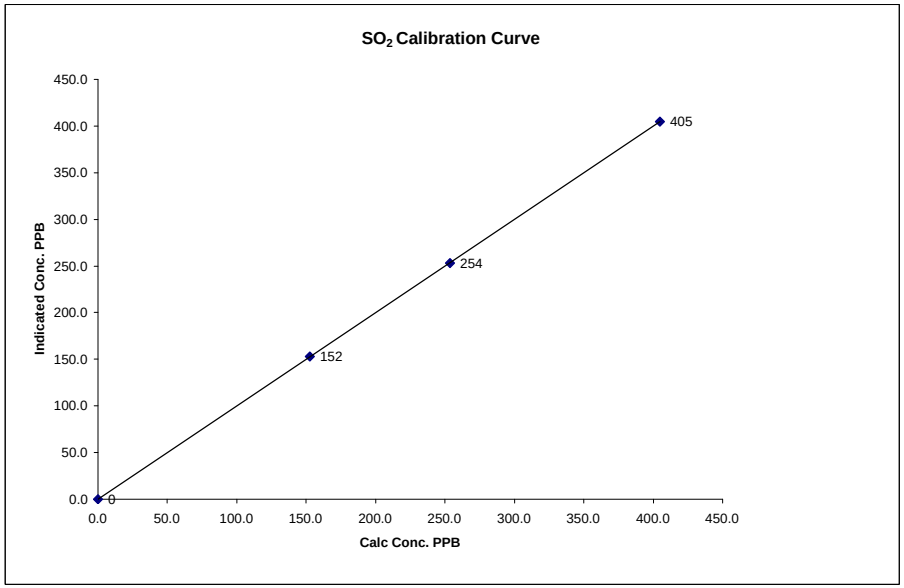
Calibration Performed by: Shea Beaton

SO_2 Calibration Curve

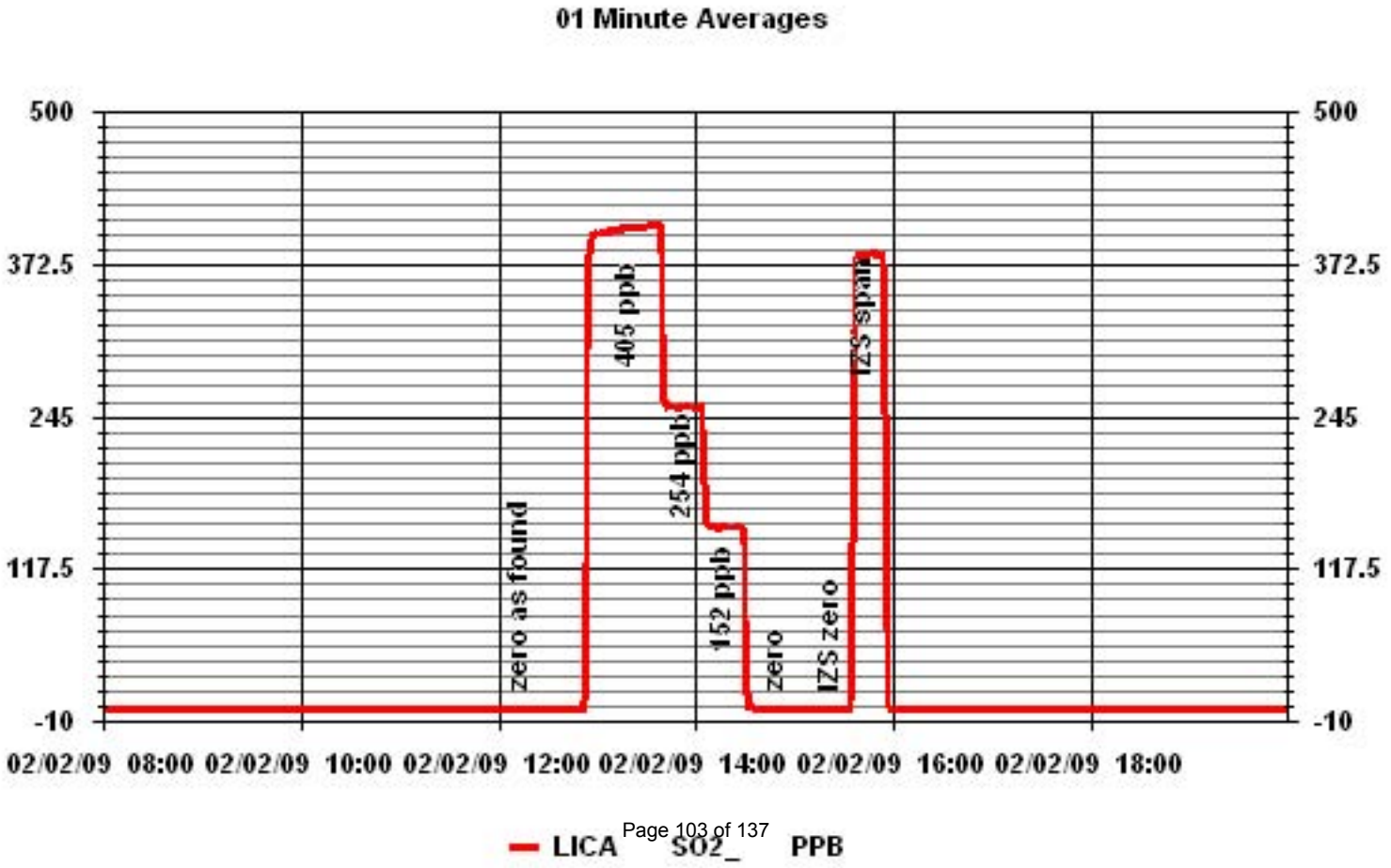
Calibration Date	February 2, 2009			
Company	**Lakeland Community and Industry Association**			
Plant / Location	**LICA 1 - Cold Lake South**			
Start Time (MST)	8:00	End Time (MST)	16:00	

Calculated Conc. ppb	Indicated Response ppb	Correction Factor
0	0	n/a
152	153	0.9961
254	253	1.0028
405	405	1.0000

Correlation Coefficient	(≥ 0.995)	0.999991
Slope	(0.85 to 1.15)	0.999204
Intercept	(± 3% F.S.)	0.130847



Notes: Pressure=678.0, Lamp intensity=74%


01 Minute Averages
500
372.5
245
117.5
-10
zero as found
405 ppb
254 ppb
152 ppb
zero
IZS zero
IZS span
02/02/09 08:00
02/02/09 10:00
02/02/09 12:00
02/02/09 14:00
02/02/09 16:00
02/02/09 18:00
LICA SO2_ PPB

Total Reduced Sulphur

TRS Calibration Report

Station Information

Calibration Date	February 2, 2009		Previous Calibration	January 2, 2009	
Company	**Lakeland Industry & Community Association**				
Plant / Location	**LICA 1 - Cold Lake South**				
Start Time (MST)	12:05		End Time (MST)	15:50	
Reason:			Post- Repair Calibration		
Barometric Pressure	714	mm Hg	Station Temperature	24	Deg C
Cal Gas	10.6	ppm	Cal Gas Expiry date	April 3, 2009	
DAS Output Voltage	0 - 10	Volts			

Equipment Information

Analyzer Make / Model:	TEI 450i	S/N :	812728560	Method:	Fluorescent
Converter Make / Model:	CD Nova CDN 101	S/N :	250		
Calibrator Make / Model:	API 700	S/N :	631	Method:	Dilution
DAS Make / Model:	ESC 8832	S/N :	263		
Flow Meter:	API 700	S/N :	631		

Analyzer Settings

	Before Calibration				After Calibration			
Concentration Range			0 -100	ppb				
Sample Flow / Box Temp	362	ccm	32.6	Deg C	361	ccm	32.9	Deg C
HVPS / Lamp Setting	-922		785		-622		785	
PMT / RxCell Temp	OK	Deg C	44.9	Deg C	OK	Deg C	44.9	Deg C
Converter / IZS Temp	850	Deg C	45.0	Deg C	850	Deg C	45.0	Deg C
Offset / Slope	11.6		1.216		11.8		1.239	

Calibration Data

Dilution Flow Rate	Source Gas Flow Rate	Calculated Concentration	Indicated Conc. (DAS)	Correction Factor
4996	0	0	0	N/A
4960	37.7	80	79	1.0122
4960	37.7	80	81	0.9872
4976	21.2	45	45	0.9993
4986	11.7	25	25	0.9926
4996	0	0	0	N/A
			Sum of Least Squares	0.9902
			New Correction Factor	0.9872

	Before Calibration	After Calibration
Auto Zero	-0.2	-0.2
Auto Span	48.0	49.5
Sample Lines Connected		YES
Percent Change from Previous Calibration		1.3%

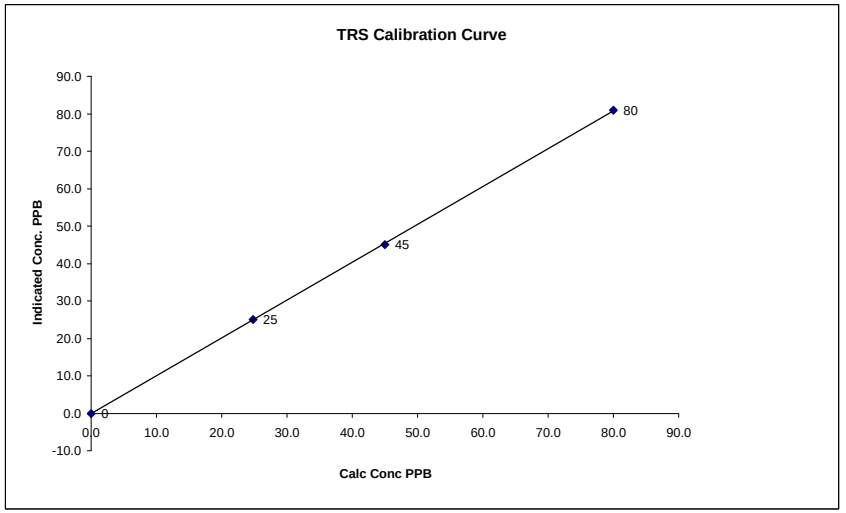
Calibration Performed by: Shea Beaton

TRS Calibration Curve

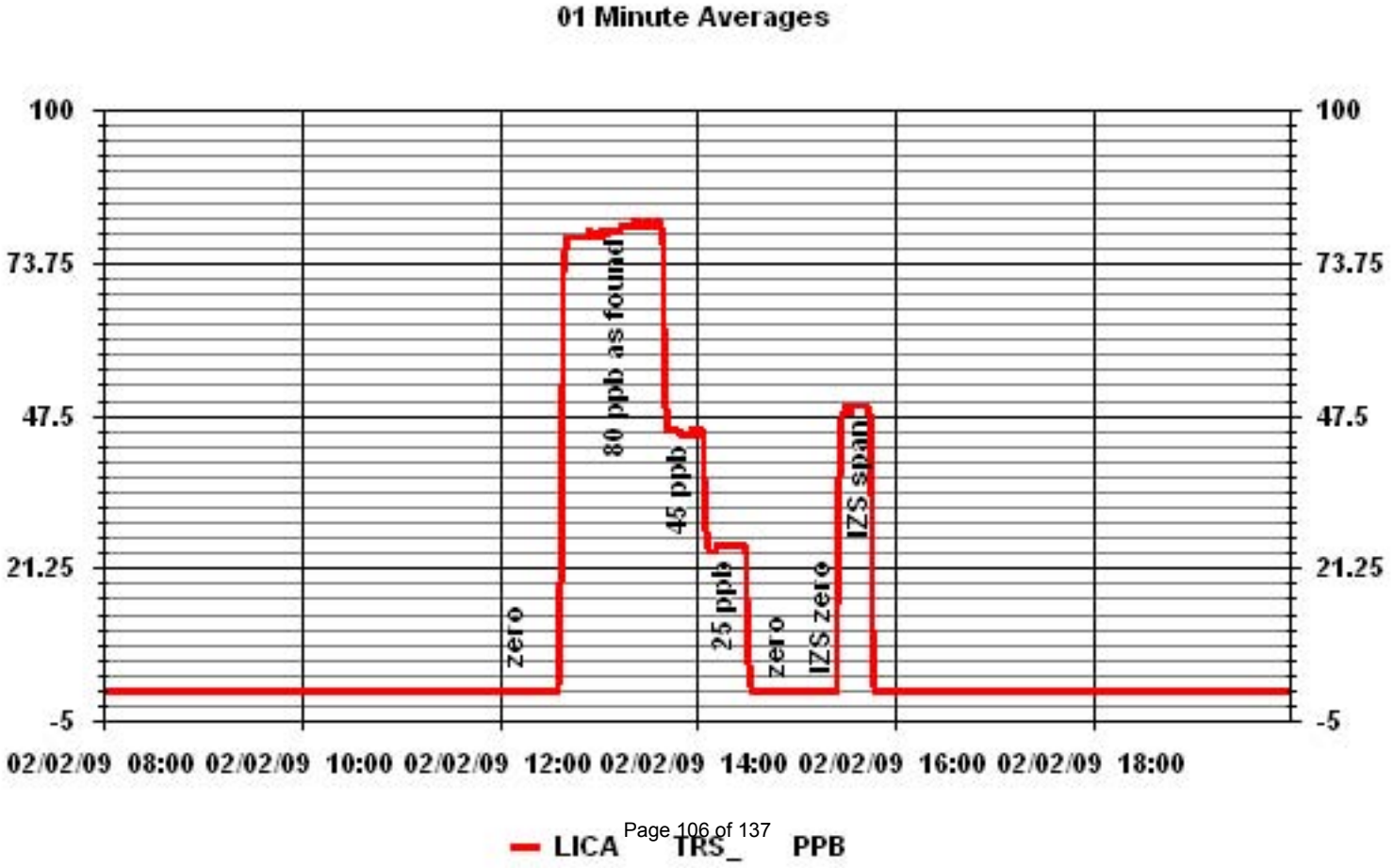
Calibration Date	February 2, 2009				
Company	**Lakeland Industry & Community Association**				
Plant / Location	**LICA 1 - Cold Lake South**				
Start Time (MST)	12:05		End Time (MST)	15:50	

Calculated Conc. ppb	Indicated Response ppb	Correction Factor
0	0	n/a
25	25	0.9926
45	45	0.9993
80	81	0.9872

Correlation Coefficient	(≥ 0.995)	0.999942
Slope	(0.85 to 1.15)	1.012287
Intercept	(± 3% F.S.)	-0.146340



Notes: Pressure 668.4 inHg, Lamp intensity 90%.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100
73.75
47.5
21.25
-5
zero
80 ppb as found
45 ppb
25 ppb
zero
IZS zero
IZS span
02/02/09 08:00
02/02/09 10:00
02/02/09 12:00
02/02/09 14:00
02/02/09 16:00
02/02/09 18:00
LICA TRS_ PPB

Total Hydrocarbons

THC Calibration Report

Station Information

Calibration Date:	February 2, 2009		Previous Calibration	January 2, 2009	
Company:	**Lakeland Industry and Community Association**				
Plant / Location:	**LICA1/Cold Lake**				
Start Time (MST)	8:30		End Time (MST)	12:35	
Reason:	Monthly Calibration				
Barometric Pressure:	714	mmHg	Station Temperature:	24	Deg C
Calibrator:	API 700		S/N:	831	
Cal Gas Concentration:	1000	ppm	Cal Gas Expiry Date:	2/22/2011	
DAS make & Model:	ESC 8832		S/N :	263	
Output Voltage Range:	0 - 10	VDC			

Analyzer Information

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

Analyzer Settings

	Before Calibration		After Calibration	
Concentration Range	0 - 50	ppm	0 - 50	ppm
Sample Pressure	6.5	psi	6.5	psi
Hydrogen Pressure	8	psi	8	psi
Air Pressure	17.5	psi	17.5	psi

Calibration Data

Dilution Flow	Source Gas Flow	Calculated Concentration	Indicated Concentration	Correction Factor
2001.0	0	0.0	0.1	N/A
2001.0	80	38.4	38.8	0.9908
2001.0	0.0	0.0	0.0	N/A
2001.0	80.0	38.4	38.7	0.9934
2001.0	40.0	19.6	19.7	0.9948
2001.0	20.0	9.9	9.7	1.0202
2001.0	0	0.0	0.0	N/A
			Correction Factor:	0.9934

Percent Change

Previous Calibration Correction Factor:	0.9934
Current Correction Factor Before Span Adjust:	0.9934
Percent Change:	0.0%

IZS Calibration Data

	Before Calibration	After Calibration
Auto Zero	0.1	0.0
Auto Span	31.7	31.4
Sample Lines Connected		**YES**

Cylinder Pressures			
Span	600	psi	
Hydrogen	700	psi	
Zero Air	unlimited	psi	Maxxam-owned API 701 zero air supply with catalytic oxidizer

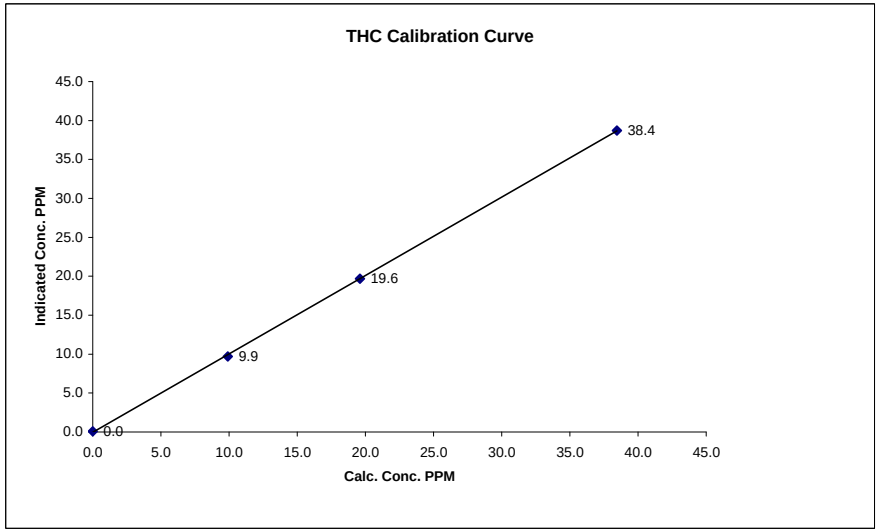
Calibration Performed by: Shea Beaton

THC Calibration Curve

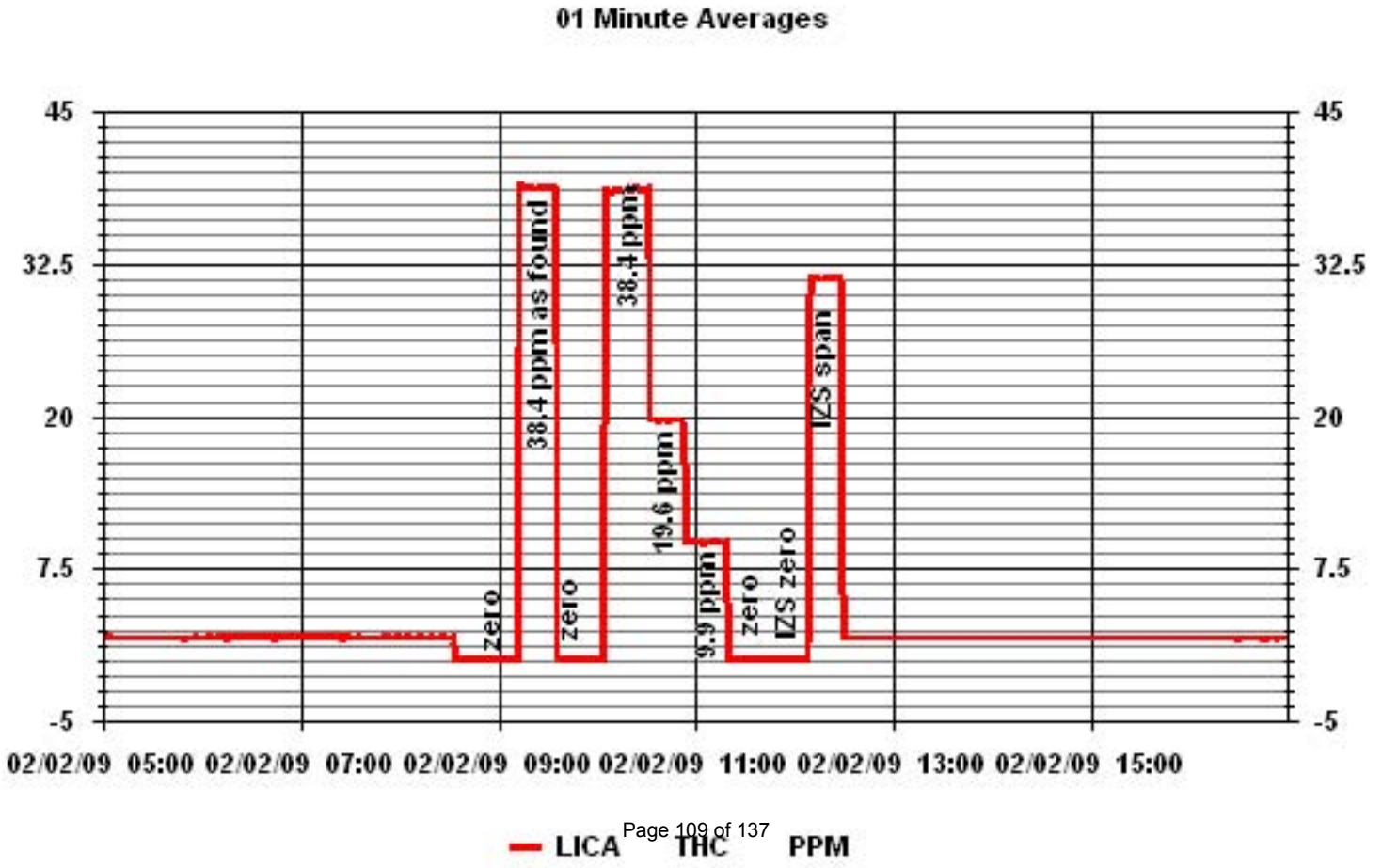
Calibration Date	February 2, 2009				
Company	**Lakeland Industry and Community Association**				
Plant / Location	**LICA1/Cold Lake**				
Start Time (MST)	8:30	End Time	(MST)	12:35	

Calculated Conc. ppm	Indicated Response ppm	Correction Factor
0.0	0.1	
9.9	9.7	1.0202
19.6	19.7	0.9948
38.4	38.7	0.9934

Correlation Coefficient	(≥ 0.995)	0.999914
Slope	(0.85 to 1.15)	1.006788
Intercept	(± 3% F.S.)	-0.049634



Notes: following the as found points, the H2 and inlet filter were changed.


01 Minute Averages
45
32.5
20
7.5
-5
zero
38.4 ppm as found
zero
38.4 ppm
19.6 ppm
9.9 ppm
zero
IZS zero
IZS span
02/02/09 05:00
02/02/09 07:00
02/02/09 09:00
02/02/09 11:00
02/02/09 13:00
02/02/09 15:00
LICA THC PPM

THC Calibration Report

Station Information

Calibration Date:	February 27, 2009		Previous Calibration	February 2, 2009	
Company:	**Lakeland Industry and Community Association**				
Plant / Location:	**LICA1/Cold Lake**				
Start Time (MST)	10:34		End Time (MST)	12:46	
Reason:	As Found Calibration				
Barometric Pressure:	718	mmHg	Station Temperature:	25	Deg C
Calibrator:	API 700		S/N:	831	
Cal Gas Concentration:	299Prop/1019Meth	ppm	Cal Gas Expiry Date:	8/11/2011	
DAS make & Model:	ESC 8832		S/N :	263	
Output Voltage Range:	0 - 10	VDC			

Analyzer Information

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

Analyzer Settings

	Before Calibration		After Calibration	
Concentration Range	0 - 50	ppm	0 - 50	ppm
Sample Pressure	6.5	psi	6.5	psi
Hydrogen Pressure	8	psi	8	psi
Air Pressure	17.5	psi	17.5	psi

Calibration Data

Dilution Flow	Source Gas Flow	Calculated Concentration	Indicated Concentration	Correction Factor
2989.0	0.0	0.0	0.0	N/A
3006.0	70.1	42.0	37.4	1.1236
3039.0	35.1	21.1	18.5	1.1387
3057.0	14.8	8.9	7.7	1.1544
3052.0	0	0.0	0.0	N/A
			Correction Factor:	1.1236

Percent Change

Previous Calibration Correction Factor:	0.9934
Current Correction Factor Before Span Adjust:	1.1236
Percent Change:	-11.6%

IZS Calibration Data

	Before Calibration	After Calibration
Auto Zero	0.1	N/A
Auto Span	31.4	N/A
Sample Lines Connected		**YES**

Cylinder Pressures			
Span	300	psi	
Hydrogen	200	psi	
Zero Air	unlimited	psi	Maxxam-owned API 701 zero air supply with catalytic oxidizer

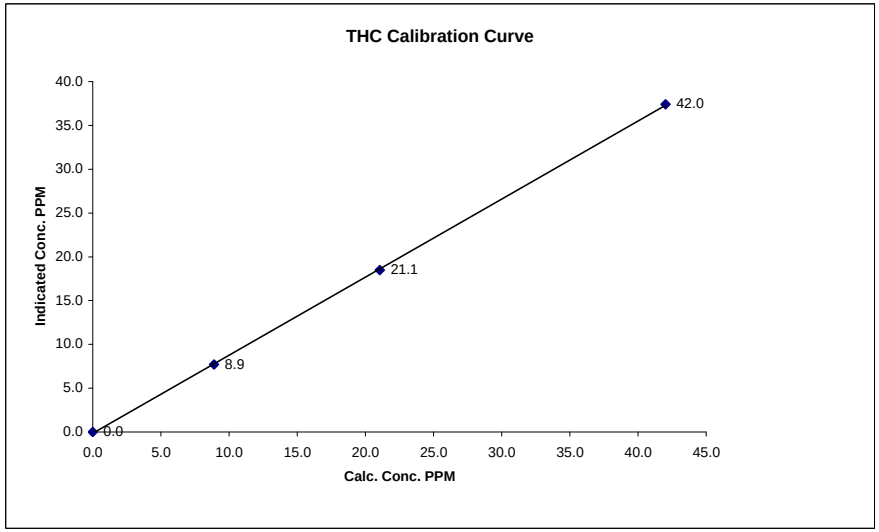
Calibration Performed by: Shea Beaton

THC Calibration Curve

Calibration Date	February 27, 2009		
Company	**Lakeland Industry and Community Association**		
Plant / Location	**LICA1/Cold Lake**		
Start Time (MST)	10:34	End Time (MST)	12:46

Calculated Conc. ppm	Indicated Response ppm	Correction Factor
0.0	0.0	
8.9	7.7	1.1544
21.1	18.5	1.1387
42.0	37.4	1.1236

Correlation Coefficient	(≥ 0.995)	0.999934
Slope	(0.85 to 1.15)	0.891175
Intercept	(± 3% F.S.)	-0.136151



Notes: Flows measured manually at each point.

THC Calibration Report

Station Information

Calibration Date:	February 27, 2009		Previous Calibration	February 2, 2009	
Company:	**Lakeland Industry and Community Association**				
Plant / Location:	**LICA1/Cold Lake**				
Start Time (MST)	13:40		End Time (MST)	16:40	
Reason:	As Found Calibration				
Barometric Pressure:	718	mmHg	Station Temperature:	25	Deg C
Calibrator:	API 700		S/N:	831	
Cal Gas Concentration:	299Prop/1019Meth	ppm	Cal Gas Expiry Date:	8/11/2011	
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	6.9	psi	6.9	psi
Hydrogen Pressure	8	psi	8	psi
Air Pressure	19.5	psi	19.5	psi

Calibration Data

Dilution Flow	Source Gas Flow	Calculated Concentration	Indicated Concentration	Correction Factor
3057.0	0.0	0.0	0.0	N/A
3051.0	69.6	41.1	41.2	0.9982
3031.0	34.4	20.7	20.5	1.0094
3041.0	14.4	8.7	8.5	1.0224
3047.0	0	0.0	0.0	N/A
			Correction Factor:	0.9982

Percent Change

Previous Calibration Correction Factor:	1.1236
Current Correction Factor Before Span Adjust:	0.9982
Percent Change:	12.6%

IZS Calibration Data

	Before Calibration	After Calibration
Auto Zero	0.1	0.0
Auto Span	31.4	35.1
Sample Lines Connected		**YES**

Cylinder Pressures			
Span	300	psi	
Hydrogen	2000	psi	
Zero Air	unlimited	psi	Maxxam-owned API 701 zero air supply with catalytic oxidizer

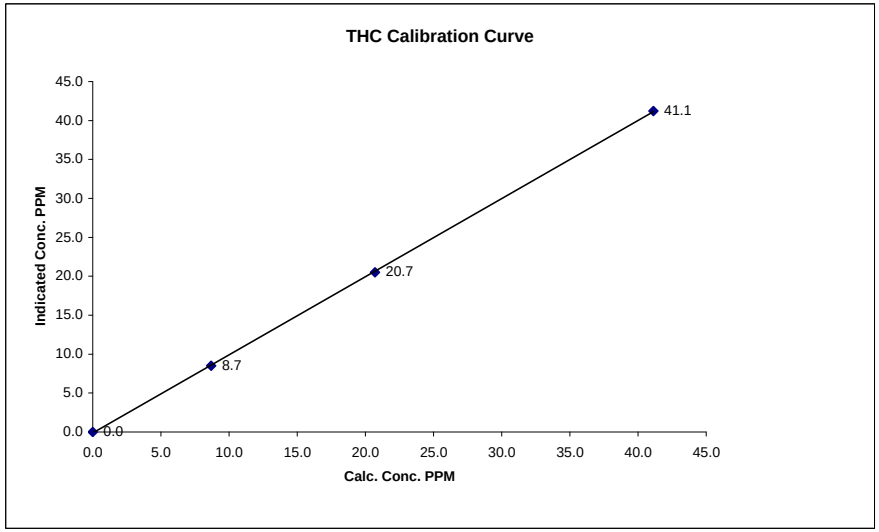
Calibration Performed by: Shea Beaton

THC Calibration Curve

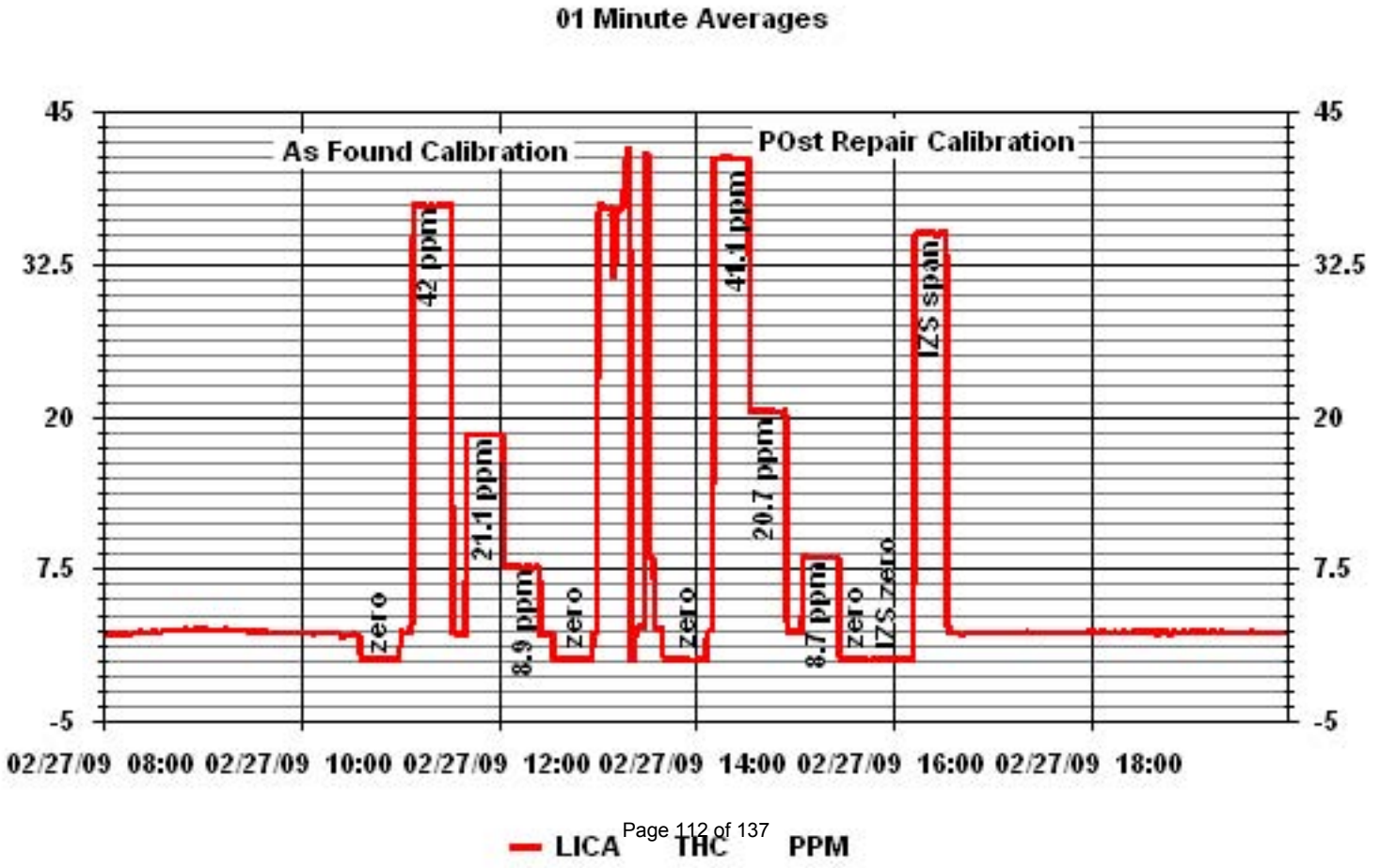
Calibration Date	February 27, 2009		
Company	**Lakeland Industry and Community Association**		
Plant / Location	**LICA1/Cold Lake**		
Start Time (MST)	13:40	End Time (MST)	16:40

Calculated Conc. ppm	Indicated Response ppm	Correction Factor
0.0	0.0	
8.7	8.5	1.0224
20.7	20.5	1.0094
41.1	41.2	0.9982

Correlation Coefficient	(≥ 0.995)	0.999952
Slope	(0.85 to 1.15)	1.002957
Intercept	(± 3% F.S.)	-0.130027



Notes: Flow / Pressures optimized and H2 cylinder changed prior to calibration. Flows manually measured at each point.


01 Minute Averages
As Found Calibration
POst Repair Calibration
45
32.5
20
7.5
-5
zero
42 ppm
21.1 ppm
8.9 ppm
zero
zero
41.1 ppm
20.7 ppm
8.7 ppm
zero
IZS zero
IZS span
02/27/09 08:00
02/27/09 10:00
02/27/09 12:00
02/27/09 14:00
02/27/09 16:00
02/27/09 18:00
LICA THC PPM

Particulate Matter 2.5

TEOM® 1405F Audit

Station		Audit Transfer Standard	
Date:	February 27, 2009	Make/Model:	Bios DC2
Station Name:	LICA 1	Serial Number:	1193
Location:	Cold Lake South	Cell s/n:	2272
Operator:	LICA	Thermometer s/n:	2178

Sampler		Set-up and current Sampler readings	
Make/Model	Thermo Scientific Series 1405F	F-Main Set Pt (l/min)	3.00
Unit #	AMU 1776	F-Aux Set Pt (l/min)	13.67
Unit s/n	1405A01570804	Filter Load (%)	30%
Firmware Ver.	1.18	K_o Factor	13716.0
Parameter	PM 2.5 (with FDMS)	Temp (^oC)	-14.5
		Press (ATM)	0.95

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

Audit

Status

Noise **<0.10*u* g**	0.072	Warnings	None
Pump Vacuum	0.30		

Temperature/Pressure

Measured Temp **(± 2 ^oC)**	-14.9	**Δ ^oC**	0.4
Measured Press **(± 0.01atm)**	0.945	**ΔATM**	0.0

Flow Audit

Indicated Main Flow (l/min)	3.00	Main Flow Drift **(±10.0%)**	5.00%
Measured Main Flow (l/min)	3.15	Flow Adjusted to Measured?	No
Indicated Bypass Flow (l/min)	13.67	Bypass Flow Drift **(±10.0%)**	7.32%
Measured Bypass Flow (l/min)	14.67	Flow Adjusted to Measured?	No

Leak Check

Main **(< 0.15 l/min)**	NA
Aux **(< 0.15 l/min)**	NA

Instrument Setup

Flow Control = Active

Report Conditions = Standard (25.0 C and 1atm)

K_o Factor

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

Start Time: 14:15 **Finish Time:** 15:40

Sample Inlet Cleaned: Yes **New Filters Installed:** NO

New Filter Loading %: NA

Comments: Instrument was audited by AENV on Feb 24, 2009; filters were both changed then. A leak check and a Ko audit were performed by AENV.

Auditor/s: Shea Beaton

Nitrogen Dioxide

NOx - NO- NO_2 Calibration Report

Station Information

Calibration Date	February 2, 2009		Previous Calibration	January 2, 2009	
Company	**Lakeland Ind & Comm. Assoc.**		Plant/Location	**LICA 1 - Cold Lake South**	
Start Time (MST)	12:05		End Time (MST)	18:30	
Reason:	Post-Repair Calibration				
Barometric Pressure	714 mmHg		Station Temperature	24.0	Deg C
Cal Gas Concentration	NOx 52.0 ppm	NO 51.5 ppm	Cal Gas Expiry date	03/12/2010	
DAS Output Voltage	0 - 1 Volts		Chart Rec. Output	0 - 1	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	767	ccm	317	Deg C	768	ccm	318	Deg C
Ozone Flow / Vacuum	OK	ccm	166.5	mmHg	OK	ccm	166.8	mmHg
HVPS	-821	Volts			-821	Volts		
Rx/ Temp / PMT Temp	49.7	Deg C	-2.4	Deg C	49.4	Deg C	-2.4	Deg C
Box Temp / IZS Temp	28.8	Deg C	OK	Deg C	28.6	Deg C	OK	Deg C
Offset	3.2	NOx	3.1	NO	3.2	NOx	3.1	NO
Slope	1.008	NOx	0.811	NO	1.008	NOx	0.811	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
4999.6	0.0	N/A	0	0	0	0	0	N/A	N/A
4961.9	38.8	N/A	403	400	403	399	4	1.0012	1.0015
4975.4	24.3	N/A	253	250	252	250	2	1.0029	1.0012
4986.2	14.6	N/A	152	150	152	151	1	0.9988	0.9957
5002.3	0.0	N/A	0	0	0	0	0	N/A	N/A
								Converter Efficiency	
4961.9	38.8	N/A	403	400	402	399	3	N/A	
4961.9	38.8	300	403	400	399	129	270	99%	
4961.9	38.8	200	403	400	399	208	191	98%	
4961.9	38.8	100	403	400	400	303	97	98%	
4961.9	38.8	N/A	403	400	401	398	3	N/A	
4999.7	0	N/A	0	0	1	0	0	N/A	N/A
Linearity OK?			**Yes**	No	Sum of Least Squares			1.0014	1.0009
Flows Checked on-site?			**Yes**	No	New Correction Factor			1.0012	1.0015
					Average Converter Efficiency			98%	

	Before Calibration				After Calibration			
Auto Zero	0.3	NOx	0.3	NO2	0.1	NOx	0.1	NO2
Auto Span	186.3	NOx	185.7	NO2	184.7	NOx	184.0	NO2
Sample Lines Connected					YES			
Percent Change from Previous Calibration					*NOx*	0.2%	*NO*	-0.3%

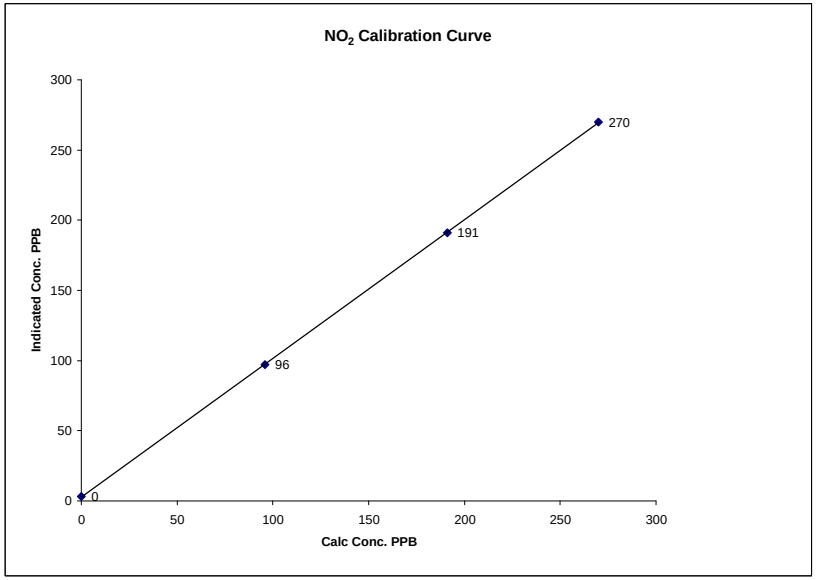
Calibration Performed by: Shea Beaton

NO_2 Calibration Curve

Calibration Date	February 2, 2009		
Company	**Lakeland Ind & Comm. Assoc.**		
Plant / Location	**LICA 1 - Cold Lake South**		
Start Time (MST)	12:05	End Time (MST)	18:30

Calculated Conc. ppb	Indicated Response ppb	Correction Factor
0	3	N/A
96	97	0.9897
191	191	1.0000
270	270	1.0000

Correlation Coefficient	(≥ 0.995)	0.999980
Slope	(0.85 to 1.15)	0.988766
Intercept	(± 3% F.S.)	2.56439



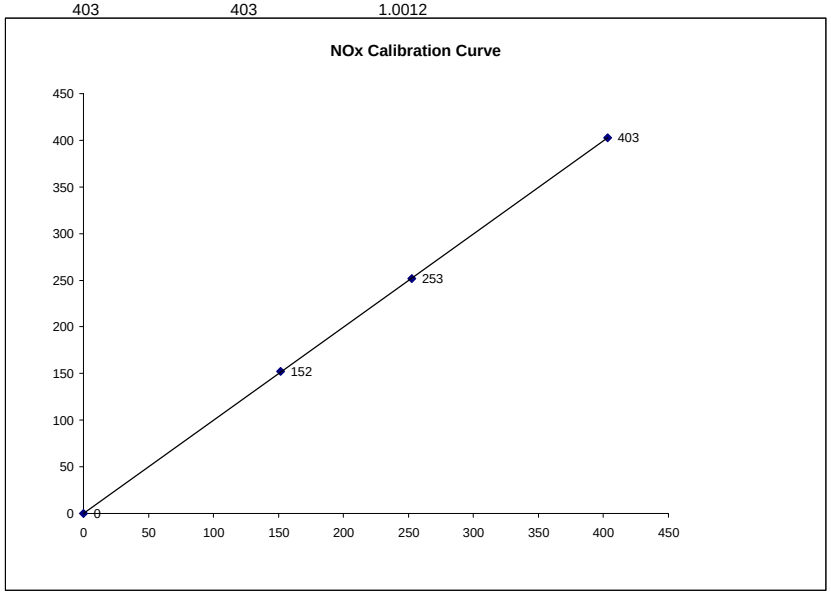
Notes:

NOx Calibration Curve

Calibration Date	February 2, 2009				
Company	**Lakeland Ind & Comm. Assoc.**				
Plant / Location	**LICA 1 - Cold Lake South**				
Start Time (MST)	12:05	End Time (MST)	18:30		

Calculated Conc. ppb	Indicated Response ppb	Correction Factor
0	0	N/A
152	152	0.9988
253	252	1.0029
403	403	1.0012

Correlation Coefficient	(≥ 0.995)	0.999996
Slope	(0.85 to 1.15)	0.998382
Intercept	(± 3% F.S.)	0.07323

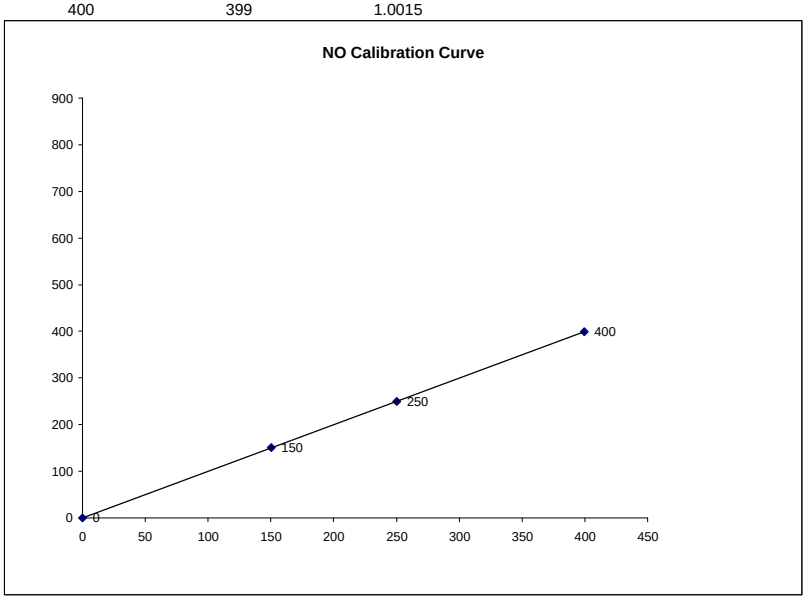


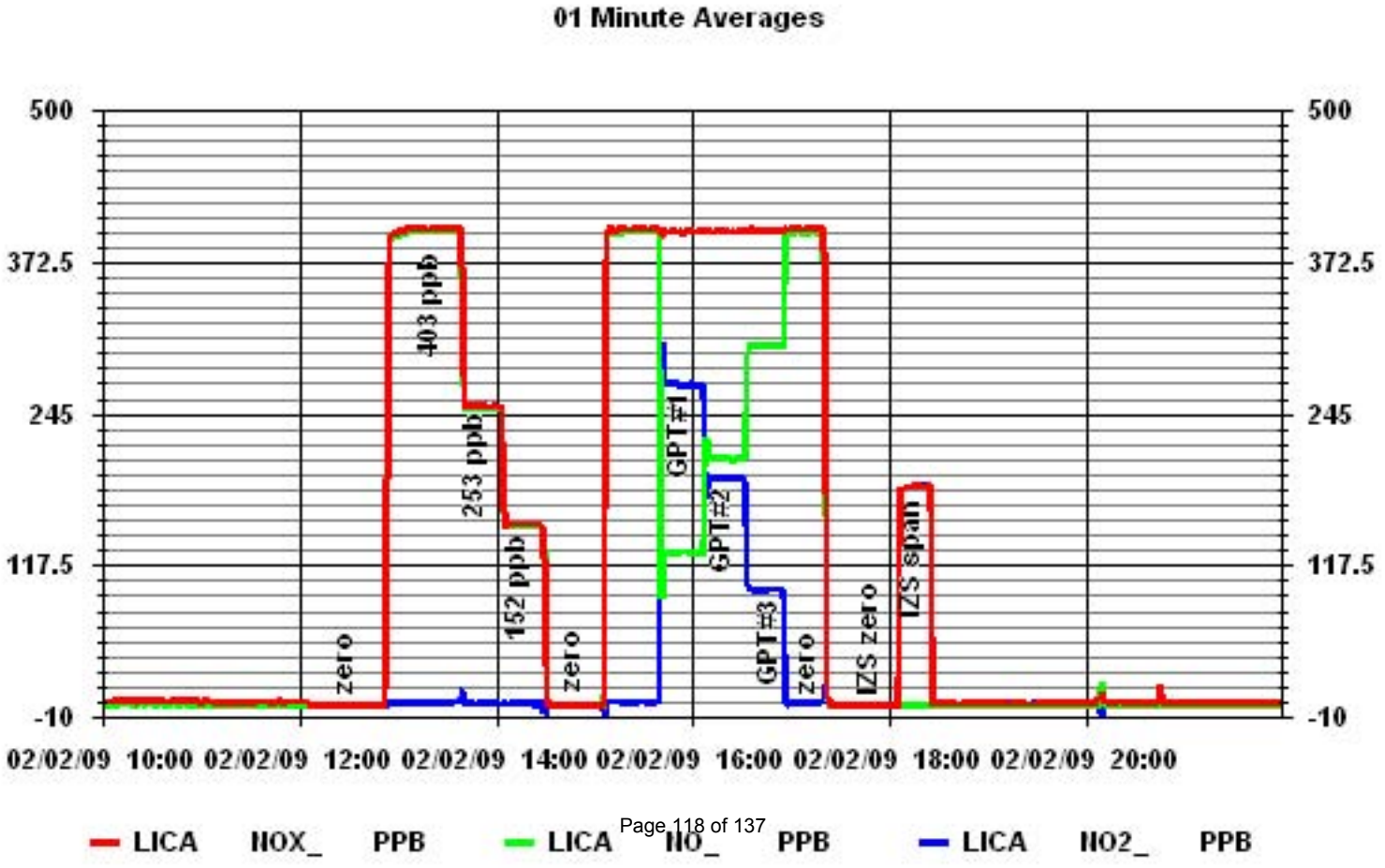
NO Calibration Curve

Calibration Date	February 2, 2009				
Company	**Lakeland Ind & Comm. Assoc.**				
Plant / Location	**LICA 1 - Cold Lake South**				
Start Time (MST)	12:05	End Time (MST)	18:30		

Calculated Conc. ppb	Indicated Response ppb	Correction Factor
0	0	N/A
150	151	0.9957
250	250	1.0012
400	399	1.0015

Correlation Coefficient	(≥ 0.995)	0.999994
Slope	(0.85 to 1.15)	0.995311
Intercept	(± 3% F.S.)	0.1629




01 Minute Averages
500
372.5
245
117.5
-10
zero
403 ppb
253 ppb
152 ppb
zero
GPT#1
GPT#2
GPT#3
zero
IZS zero
IZS span
02/02/09 10:00 02/02/09 12:00 02/02/09 14:00 02/02/09 16:00 02/02/09 18:00 02/02/09 20:00
LICA NOX_ PPB
LICA NO_ PPB
LICA NO2_ PPB

Ozone

O_3 Calibration Report

Station Information

Calibration Date	02/002/2009	Previous Calibration	January 13, 2008
Company	**Lakeland Industry & Community Association**		
Plant / Location	**LICA 1 - Cold Lake South**		
Start Time (MST)	8:13	End Time (MST)	12:45
Reason:		Monthly Calibration	
Barometric Pressure	714 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:	GPT
DAS Make / Model:	ESC 8832	S/N :	263		

Analyzer Settings

	Before Calibration		After Calibration	
Concentration Range	0 - 500 ppb			
Bench Temp/ Pressure	29.6	Deg C	29.5	Deg C
O_3 Set Level	29%		29%	
Bench Lamp/O3 Lamp				
Sample Flow A/B	0.738 LPM	0.752 LPM	0.745 LPM	0.758 LPM
Offset / Slope	0.7	0.993	0.7	1.029

Calibration Data

Dilution Flow Rate	Ozone Set Point	Calculated Concentration	Indicated Conc. (DAS)	Correction Factor
4997	0	0	0	N/A
5000	400	386	376	1.0266
5000	0	0	0	N/A
5000	400	386	386	1.0000
5000	200	195	194	1.0052
5000	100	95	95	1.0000
5000	0	0	0	N/A
			Sum of Least Squares	N/A
			New Correction Factor	1.0000

	Before Calibration	After Calibration
Auto Zero	0.2	0.1
Auto Span	289.9	298.6
Sample Lines Connected		YES
Percent Change from Previous Calibration		-3.0%

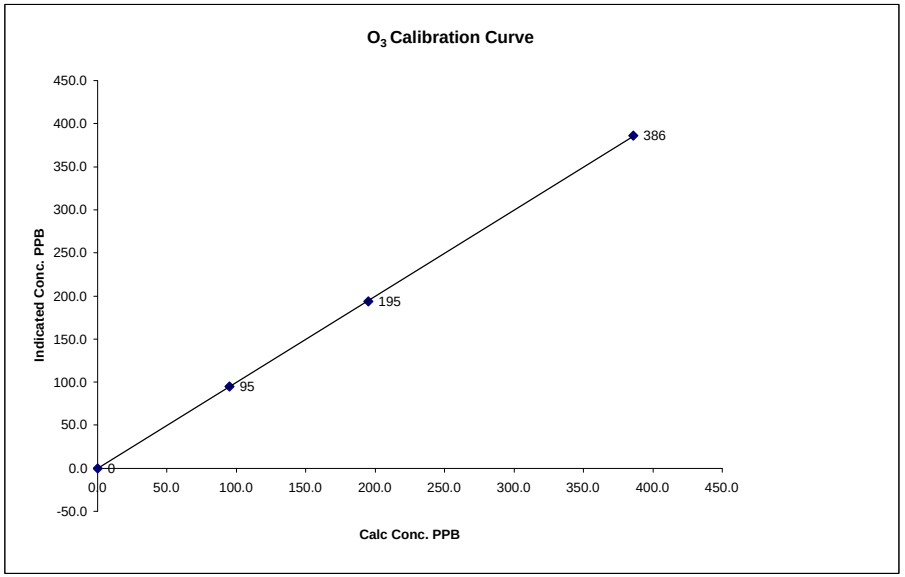
Calibration Performed by: Shea Beaton

O_3 Calibration Curve

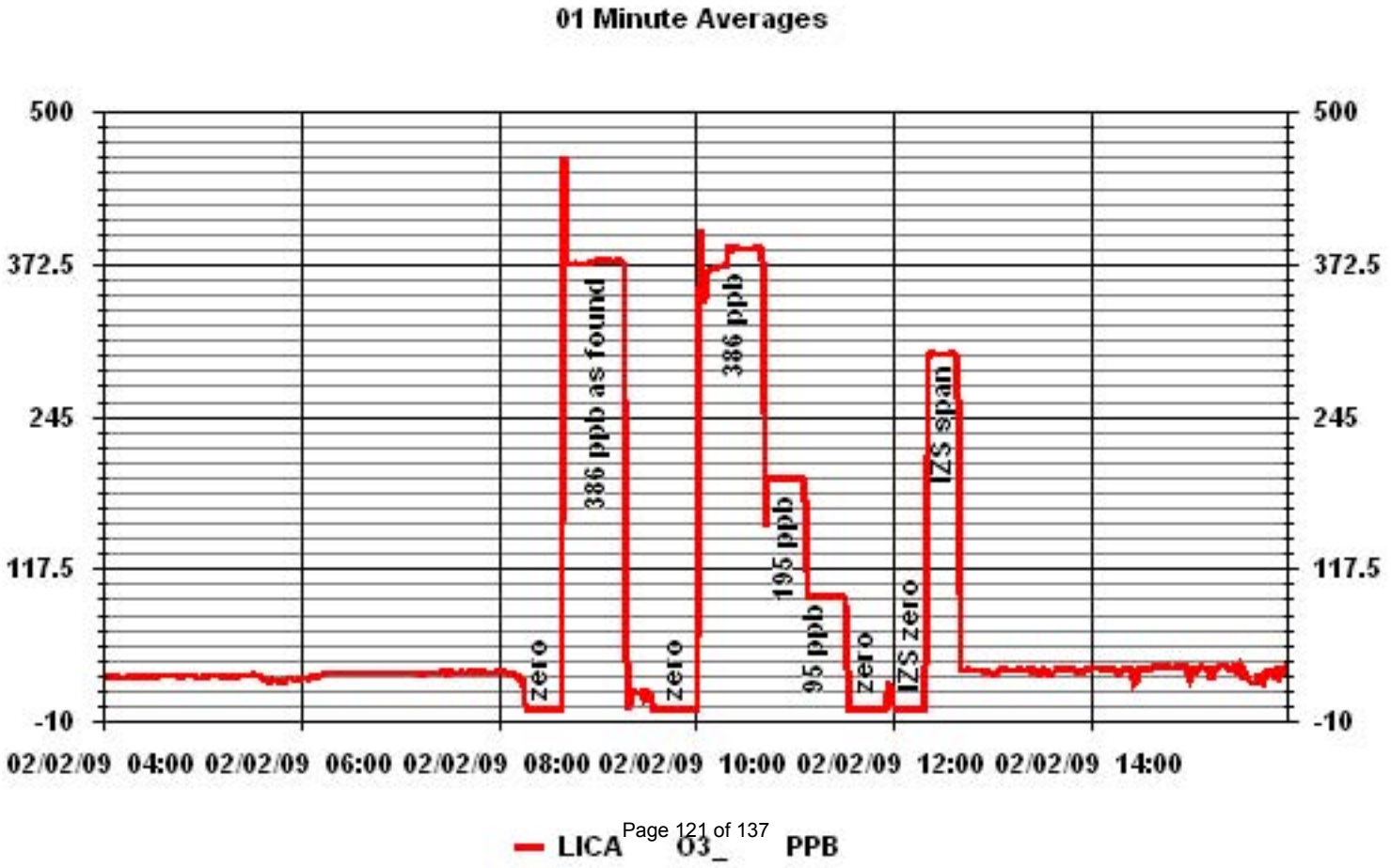
Calibration Date	02/002/2009		
Company	**Lakeland Industry & Community Association**		
Plant / Location	**LICA 1 - Cold Lake South**		
Start Time (MST)	8:13	End Time (MST)	12:45

Calculated Conc. ppb	Indicated Response ppb	Correction Factor
0	0	n/a
95	95	1.0000
195	194	1.0052
386	386	1.0000

Correlation Coefficient	(≥ 0.995)	0.999991
Slope	(0.85 to 1.15)	0.999682
Intercept	(± 3% F.S.)	-0.196285



Notes: pressure =702.6 mmHg , Bench Lamp = 53.6, O3 Lamp = 67.7
Intensity; Cell A=91814, Cell B=77862


01 Minute Averages
500
372.5
245
117.5
-10
zero
386 ppb as found
zero
386 ppb
195 ppb
95 ppb
zero
IZS zero
IZS span
02/02/09 04:00
02/02/09 06:00
02/02/09 08:00
02/02/09 10:00
02/02/09 12:00
02/02/09 14:00
LICA O3_ PPB

O_3 Calibration Report

Station Information

Calibration Date	February 5, 2009	Previous Calibration	February 2, 2009
Company	**Lakeland Industry & Community Association**		
Plant / Location	**LICA 1 - Cold Lake South**		
Start Time (MST)	7:50	End Time (MST)	11:55
Reason:		Post Repair Calibration	
Barometric Pressure	709 mm Hg	Station Temperature	25 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:	GPT
DAS Make / Model:	ESC 8832	S/N :	263		

Analyzer Settings

	Before Calibration		After Calibration	
Concentration Range	0 - 500 ppb			
Bench Temp/ Pressure	29.5	Deg C	28.9	Deg C
O_3 Set Level	29%		29%	
Bench Lamp/O3 Lamp				
Sample Flow A/B	0.734 LPM	0.757 LPM	0.734 LPM	0.748 LPM
Offset / Slope	0.7	1.029	0.7	1.049

Calibration Data

Dilution Flow Rate	Ozone Set Point	Calculated Concentration	Indicated Conc. (DAS)	Correction Factor
5000	0	0	0	N/A
5000	400	386	380	1.0158
5000	0	0	0	N/A
5000	400	386	386	1.0000
5000	200	195	197	0.9898
5000	100	95	96	0.9896
5000	0	0	0	N/A
			Sum of Least Squares	N/A
			New Correction Factor	1.0000

	Before Calibration	After Calibration
Auto Zero	-0.1	-0.2
Auto Span	288.1	310.1
Sample Lines Connected		YES
Percent Change from Previous Calibration		0.0%

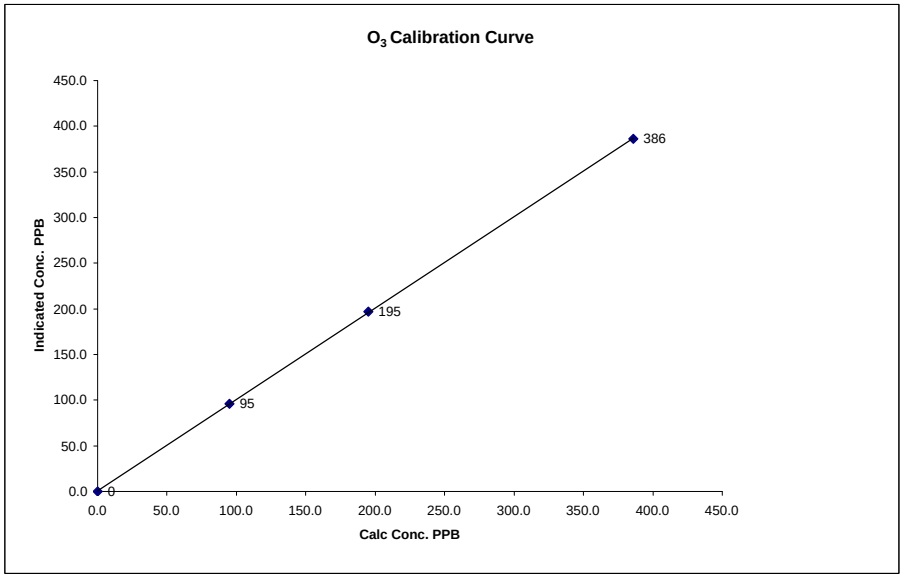
Calibration Performed by: Shea Beaton

O_3 Calibration Curve

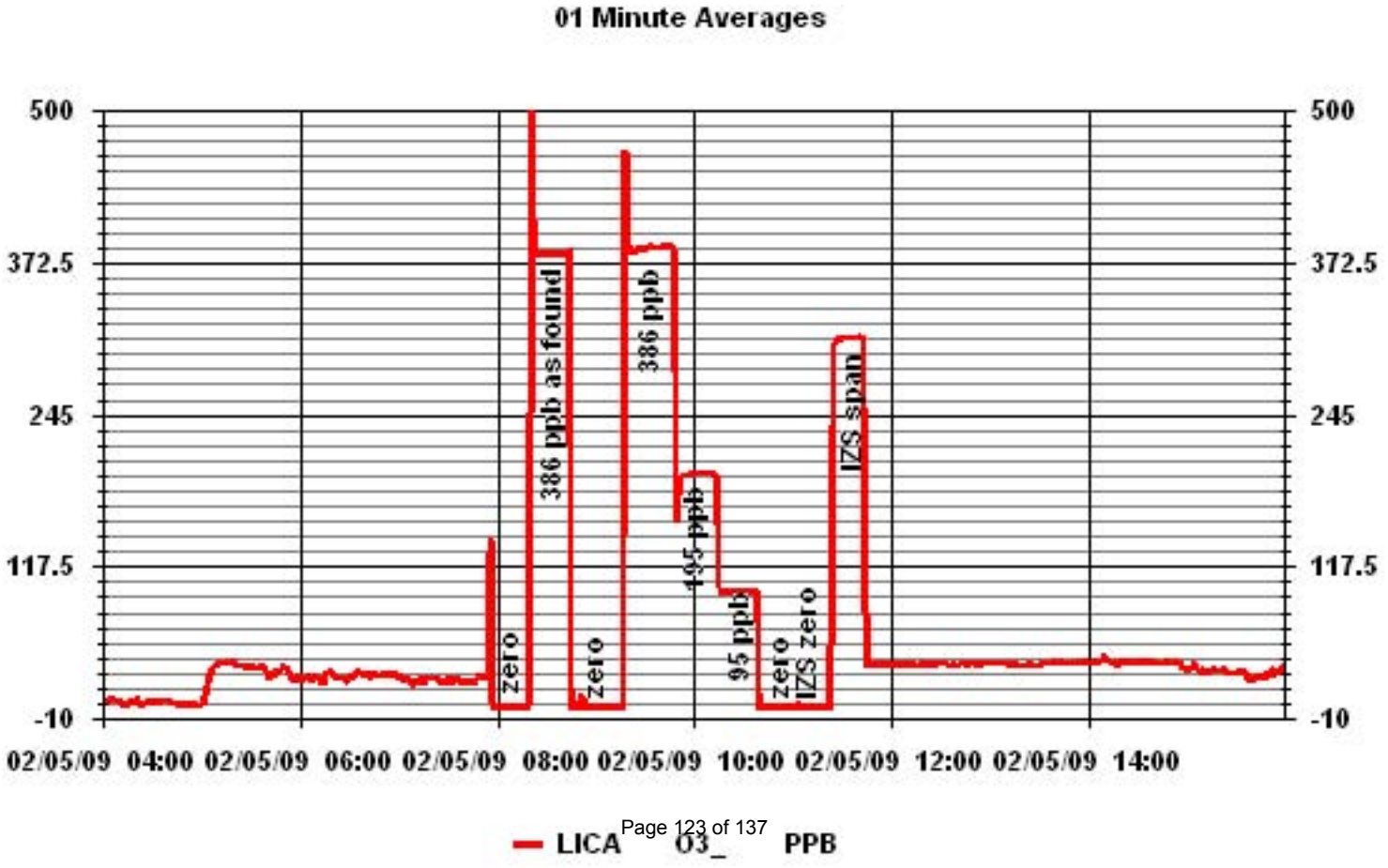
Calibration Date	February 5, 2009		
Company	**Lakeland Industry & Community Association**		
Plant / Location	**LICA 1 - Cold Lake South**		
Start Time (MST)	7:50	End Time (MST)	11:55

Calculated Conc. ppb	Indicated Response ppb	Correction Factor
0	0	n/a
95	96	0.9896
195	197	0.9898
386	386	1.0000

Correlation Coefficient	(≥ 0.995)	0.999966
Slope	(0.85 to 1.15)	0.999731
Intercept	(± 3% F.S.)	0.795451



Notes: pressure =697.0 mmHg , Bench Lamp = 53.6, O3 Lamp = 67.7 Intensity; Cell A=91340, Cell B=77748


01 Minute Averages
500
372.5
245
117.5
-10
zero
386 ppb as found
zero
386 ppb
495 ppb
95 ppb
zero
IZS zero
IZS span
02/05/09 04:00
02/05/09 06:00
02/05/09 08:00
02/05/09 10:00
02/05/09 12:00
02/05/09 14:00
LICA O3_ PPB

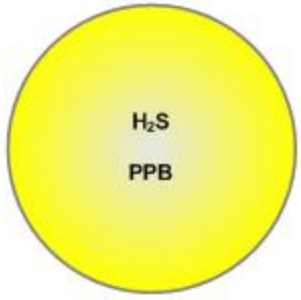
Passive Bubble Maps

Lakeland Industry & Community Association
H_2S Passive Bubble Map

FEBRUARY 2009

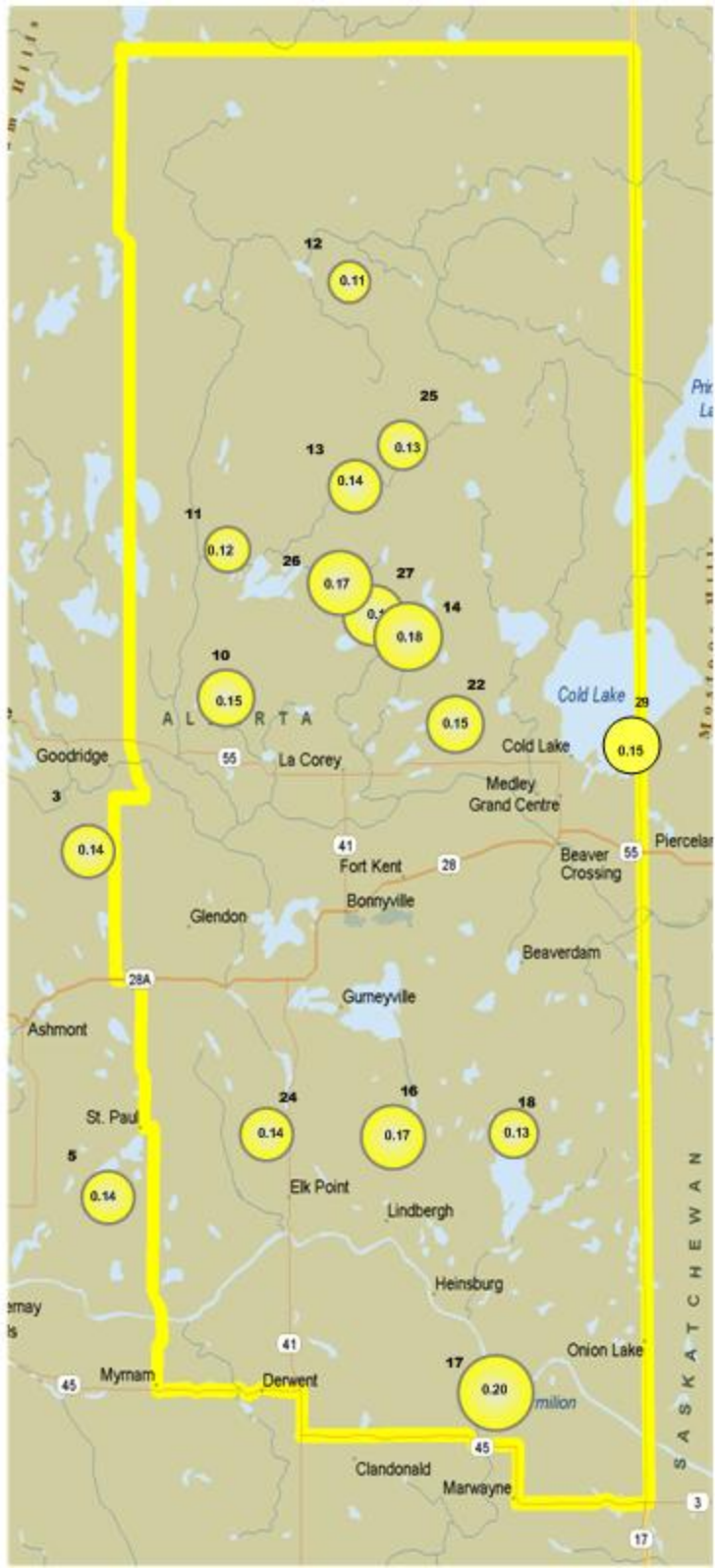
PASSIVE STATIONS

3 – Therien	0.14 PPB
5 – Lake Eliza	0.14 PPB
10 – La Corey	0.15 PPB
11 – Wolf Lake	0.12 PPB
12 – Foster Creek	0.11 PPB
13 – Primrose	0.14 PPB
14 – Maskwa	0.18 PPB
16 – Frog Lake	0.17 PPB
17 – Clear Range	0.20 PPB
18 – Fishing Lake	0.13 PPB
18A – Fishing Lake	0.13 PPB
22 – Cold Lake South	0.15 PPB
24 – Fort George	0.14 PPB
25 – Burnt Lake	0.13 PPB
26 – Mahihkan	0.17 PPB
27 – Hilda Lake	0.16 PPB
29 – Cold Lake South 2	0.15 PPB



Summary

Minimum : 0.11PPB –Foster Creek
Maximum: 0.20 PPB –Clear Range
Average: 0.15 PPB *Includes Duplicates

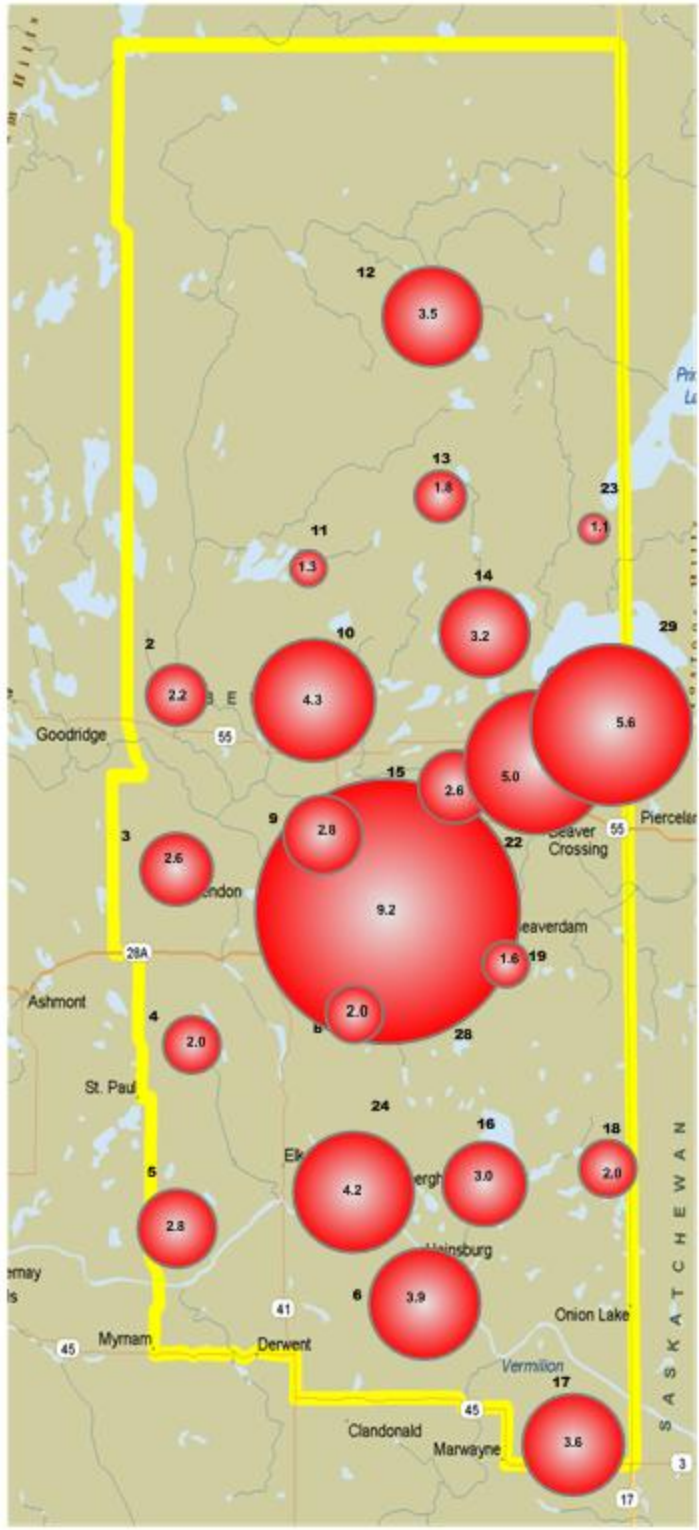


Lakeland Industry & Community Association
NO_2 Passive Bubble Map

FEBRUARY 2009

PASSIVE STATIONS

2 – Sand River	2.2 PPB
3 – Therien	2.6 PPB
4 – Flat Lake	2.0 PPB
5 – Lake Eliza	2.8 PPB
6 – Telegraph Creek	3.9 PPB
8 – Muriel-Kehewin	2.0 PPB
9 – Dupre	2.8 PPB
10 – La Corey	4.3 PPB
11 – Wolf Lake	1.3 PPB
12 – Foster Creek	3.5 PPB
13 – Primrose	1.8 PPB
14 – Maskwa	3.2 PPB
15 – Ardmore	2.6 PPB
16 – Frog Lake	3.0 PPB
17 – Clear Range	3.6 PPB
18 – Fishing Lake	2.0 PPB
18A – Fishing Lake	1.9 PPB
19 – Beaverdam	1.6 PPB
22 – Cold Lake South	5.0 PPB
23 – Medley-Martineau	1.1 PPB
24 – Fort George	4.2 PPB
28 – Town of Bonnyville	9.2 PPB
29 – Cold Lake South 2	5.6 PPB
29A – Cold Lake South 2	5.3 PPB



Summary

Minimum : 1.1 PPB – Medley-Martineau
Maximum: 9.2 PPB – Town of Bonnyville
Average: 3.2 PPB *Includes Duplicates

Lakeland Industry & Community Association
O_3 Passive Bubble Map

FEBRUARY 2009

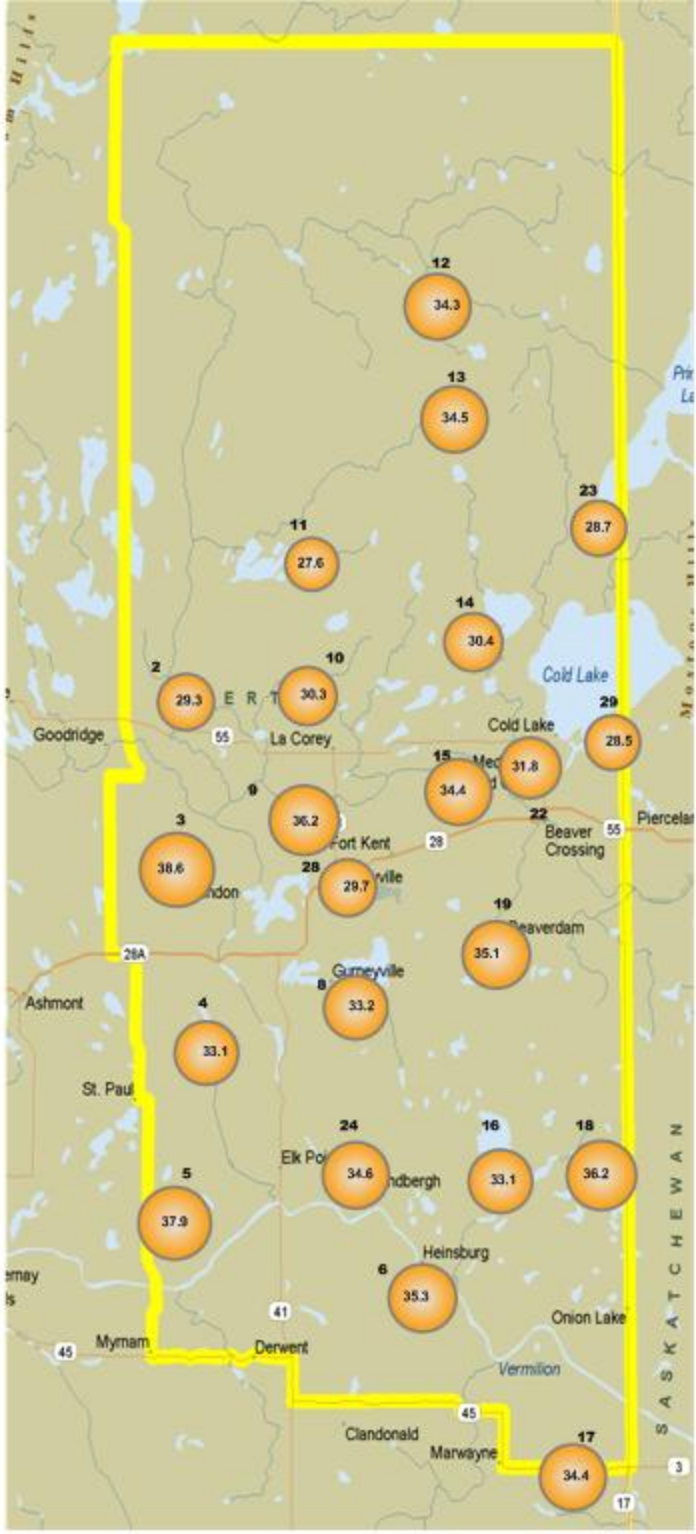
PASSIVE STATIONS

2 – Sand River	29.3 PPB
3 – Therien	38.6 PPB
4 – Flat Lake	33.1 PPB
5 – Lake Eliza	37.9 PPB
6 – Telegraph Creek	35.3 PPB
8 – Muriel-Kehewin	33.2 PPB
9 – Dupre	36.2 PPB
10 – La Corey	30.3 PPB
11 – Wolf Lake	27.6 PPB
12 – Foster Creek	34.3 PPB
13 – Primrose	34.5 PPB
14 – Maskwa	30.4 PPB
15 – Ardmore	34.4 PPB
16 – Frog Lake	33.1 PPB
17 – Clear Range	34.4 PPB
18 – Fishing Lake	36.2 PPB
18A – Fishing Lake	30.2 PPB
19 – Beaverdam	35.1 PPB
22 – Cold Lake South	31.8 PPB
23 – Medley-Martineau	28.7 PPB
24 – Fort George	34.6 PPB
28 – Town of Bonnyville	29.7 PPB
29 – Cold Lake South 2	28.5 PPB
29A – Cold Lake South 2	29.7 PPB

O_3 PPB

Summary

Minimum : 27.6 PPB –Wolf Lake
Maximum: 38.6 PPB –Therien
Average: 33.0 PPB *Includes Duplicates



Lakeland Industry & Community Association
SO_2 Passive Bubble Map

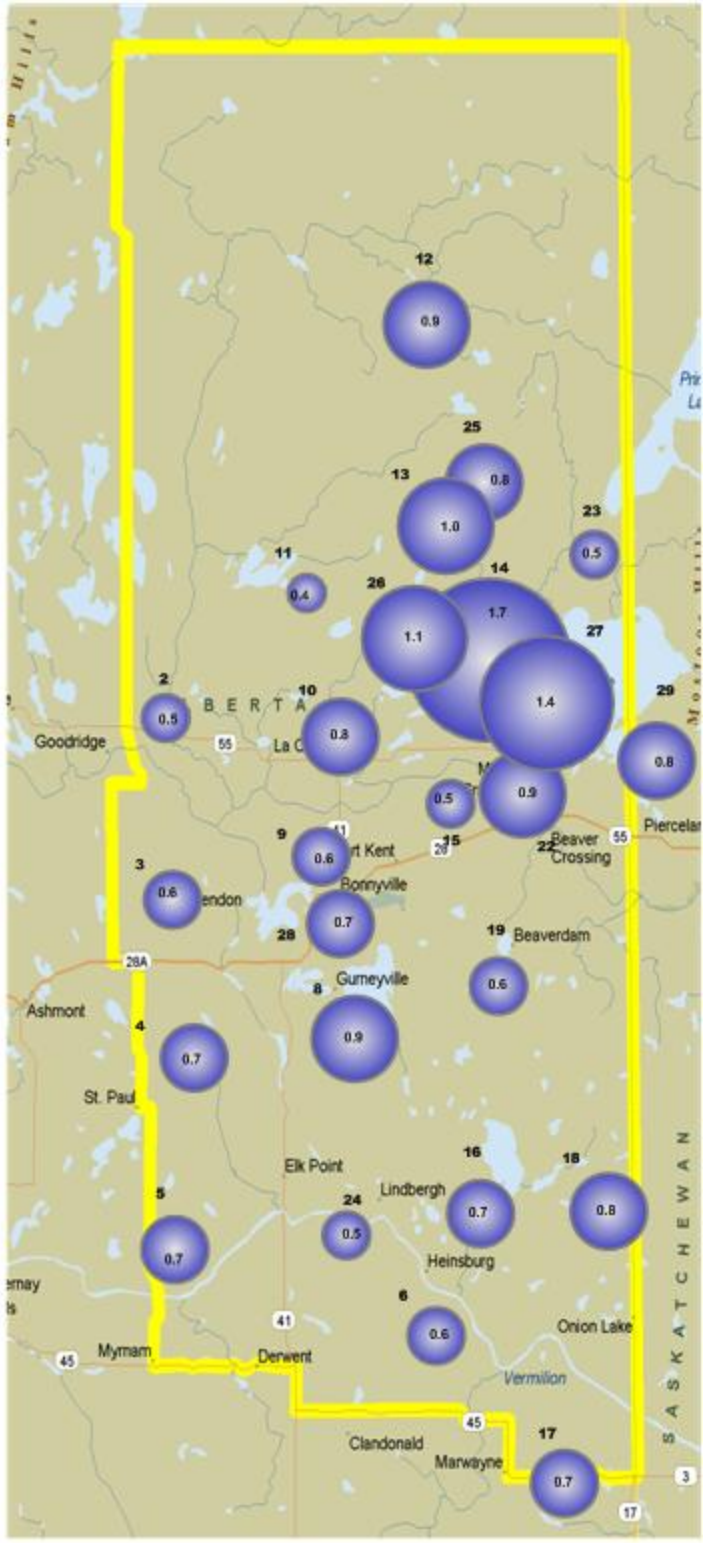
FEBRUARY 2008

PASSIVE STATIONS

2 – Sand River	0.5 PPB
3 – Therien	0.6 PPB
4 – Flat Lake	0.7 PPB
5 – Lake Eliza	0.7 PPB
6 – Telegraph Creek	0.6 PPB
8 – Muriel-Kehewin	0.9 PPB
9 – Dupre	0.6 PPB
10 – La Corey	0.8 PPB
11 – Wolf Lake	0.4 PPB
12 – Foster Creek	0.9 PPB
13 – Primrose	1.0 PPB
14 – Maskwa	1.7 PPB
15 – Ardmore	0.5 PPB
16 – Frog Lake	0.7 PPB
17 – Clear Range	0.7 PPB
18 – Fishing Lake	0.8 PPB
18A – Fishing Lake	0.7 PPB
19 – Beaverdam	0.6 PPB
22 – Cold Lake South	0.9 PPB
23 – Medley-Martineau	0.5 PPB
24 – Fort George	0.5 PPB
25 – Burnt Lake	0.8 PPB
26 – Mahihkan	1.1 PPB
27 – Hilda Lake	1.4 PPB
28 – Town of Bonnyville	0.7 PPB
29 – Cold Lake South 2	0.8 PPB
29A – Cold Lake South 2	0.7 PPB

Summary

Minimum : 0.4 PPB – Wolf Lake
Maximum: 1.7 PPB – Maskwa
Average: 0.8 PPB *Includes Duplicates



Passive Network Laboratory Analysis

Your Project #: 2009/01/29 - 2009/02/28
Site:LICA

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

Report Date: 2009/03/20

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: A909579
Received: 2009/03/04, 08:20

Sample Matrix: Air
Samples Received: 27

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
H2S Passive Analysis (1)	17	2009/03/19	2009/03/20		EDM SOP-0320
NO2 Passive Analysis (1)	24	2009/03/17	2009/03/20		EDM SOP-0318
O3 Passive Analysis (1)	24	2009/03/13	2009/03/20		EDM SOP-0317
SO2 Passive Analysis (1)	27	2009/03/13	2009/03/20		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.

LEVI MANCHAK,
Email:
Phone# (780) 378-8500

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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 CALA have approved this reporting process and electronic report format.

Total cover pages: 1

Maxxam Job #: A909579
Report Date: 2009/03/20

LAKELAND INDUSTRY AND COMMUNITY ASSOCIATION
Client Project #: 2009/01/29 - 2009/02/28
Site Reference: LICA
Sampler Initials: SB

RESULTS OF CHEMICAL ANALYSES OF AIR

Maxxam ID		N93758	N93759	N93760	N93761		
Sampling Date		2009/01/29 07:15	2009/01/29 06:30	2009/01/30 12:05	2009/01/30 11:25		
	Units	**2 SIEBERT**	**3: THERIEN**	**4: FLAT LAKE**	**5: LAKE ELIZA**	**RDL**	**QC Batch**
Passive Monitoring							
Calculated H2S	ppb		0.14		0.14	0.02	2999800
Calculated NO2	ppb	2.2	2.6	2.0	2.8	0.1	2992400
Calculated O3	ppb	29.3	38.6	33.1	37.9	0.1	2986550
Calculated SO2	ppb	0.5	0.6	0.7	0.7	0.1	2988709

RDL = Reportable Detection Limit

Maxxam ID		N93762	N93763	N93764	N93765		
Sampling Date		2009/01/30 10:10	2009/01/30 12:55	2009/01/29 16:50	2009/01/29 08:00		
	Units	**6: TELEGRAPH CREEK**	**8: KEHEWIN**	**9: NORTH BONNYVILLE**	**10: LACOREY**	**RDL**	**QC Batch**
Passive Monitoring							
Calculated H2S	ppb				0.15	0.02	2999800
Calculated NO2	ppb	3.9	2.0	2.8	4.3	0.1	2992400
Calculated O3	ppb	35.3	33.2	36.2	30.3	0.1	2986550
Calculated SO2	ppb	0.6	0.9	0.6	0.8	0.1	2988709

RDL = Reportable Detection Limit

Maxxam ID		N93766	N93767	N93768	N93769		
Sampling Date		2009/01/29 08:40	2009/01/29 09:55	2009/01/29 11:30	2009/01/29 12:20		
	Units	**11: WOLF LAKE**	**12: FOSTER CREEK**	**13: BURNT LAKE**	**14: ESS CCPAD**	**RDL**	**QC Batch**
Passive Monitoring							
Calculated H2S	ppb	0.12	0.11	0.14	0.18	0.02	2999800
Calculated NO2	ppb	1.3	3.5	1.8	3.2	0.1	2992400
Calculated O3	ppb	27.6	34.3	34.5	30.4	0.1	2986550
Calculated SO2	ppb	0.4	0.9	1.0	1.7	0.1	2988712

RDL = Reportable Detection Limit

RESULTS OF CHEMICAL ANALYSES OF AIR

Maxxam ID		N93770	N93771	N93772	N93773		
Sampling Date		2009/01/29 16:15	2009/01/30 08:30	2009/01/30 09:15	2009/01/30 07:15		
	Units	**15: ARDMORE**	**16: FROG LAKE**	**17: MABWAYNE**	**18: FISHING LAKE**	**RDL**	**QC Batch**
Passive Monitoring							
Calculated H2S	ppb		0.17	0.20	0.13	0.02	2999800
Calculated NO2	ppb	2.6	3.0	3.6	2.0	0.1	2992400
Calculated O3	ppb	34.4	33.1	34.4	36.2	0.1	2986550
Calculated SO2	ppb	0.5	0.7	0.7	0.8	0.1	2988712

RDL = Reportable Detection Limit

Maxxam ID		N93774	N93775	N93776	N93777		
Sampling Date		2009/01/30 06:35	2009/01/29 15:05	2009/01/29 14:10	2009/01/29 10:45		
	Units	**19: BEAVER DAM**	**22: COLD LAKE**	**23: PRIMROSE**	**24: ELK POINT**	**RDL**	**QC Batch**
Passive Monitoring							
Calculated H2S	ppb		0.15		0.14	0.02	2999800
Calculated NO2	ppb	1.6	5.0	1.1	4.2	0.1	2992400
Calculated O3	ppb	35.1	31.8	28.7	34.6	0.1	2986550
Calculated SO2	ppb	0.6	0.9	0.5	0.5	0.1	2988712

RDL = Reportable Detection Limit

Maxxam ID		N93780		N93781	N93782		
Sampling Date		2009/01/29 11:10		2009/01/29 12:05	2009/01/29 12:15		
	Units	**25: CNRL PRIM**	**QC Batch**	**26: ESSO AC**	**27: ESSO LW**	**RDL**	**QC Batch**
Passive Monitoring							
Calculated H2S	ppb	0.13	2999800	0.17	0.16	0.02	2999806
Calculated SO2	ppb	0.8	2988712	1.1	1.4	0.1	2988712

RDL = Reportable Detection Limit

Maxxam Job #: A909579
Report Date: 2009/03/20

LAKELAND INDUSTRY AND COMMUNITY ASSOCIATION
Client Project #: 2009/01/29 - 2009/02/28
Site Reference: LICA
Sampler Initials: SB

RESULTS OF CHEMICAL ANALYSES OF AIR

Maxxam ID		N93783	N93784	N93785	N93805		
Sampling Date		2009/01/30 13:30	2009/01/29 15:25	2009/01/30 07:15	2009/01/29 15:25		
	Units	**28: BONNYVILLE**	**29: COLD LAKE**	**18A: FISHING LAKE DUP**	**29A: COLD LAKE DUP**	**RDL**	**QC Batch**
Passive Monitoring							
Calculated H2S	ppb		0.15	0.13		0.02	2999806
Calculated NO2	ppb	9.2	5.6	1.9	5.3	0.1	2992400
Calculated O3	ppb	29.8	28.5	30.2	29.7	0.1	2986564
Calculated SO2	ppb	0.7	0.8	0.7	0.7	0.1	2988712

RDL = Reportable Detection Limit

General Comments

Results relate only to the items tested.

LAKELAND INDUSTRY AND COMMUNITY ASSOCIATION
Attention: MICHAEL BISAGA
Client Project #: 2009/01/29 - 2009/02/28
P.O. #:
Site Reference: LICA

Quality Assurance Report

Maxxam Job Number: PA909579

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
2986550	OZ	Calibration Check	Calculated O3	2009/03/13		99	%	91 - 107
		SPIKE	Calculated O3	2009/03/13		101	%	N/A
		BLANK	Calculated O3	2009/03/13	<0.1		ppb	
2986564	OZ	Calibration Check	Calculated O3	2009/03/13		99	%	91 - 107
		SPIKE	Calculated O3	2009/03/13		101	%	N/A
		BLANK	Calculated O3	2009/03/13	<0.1		ppb	
2988709	DF4	Calibration Check	Calculated SO2	2009/03/13		100	%	95 - 105
		SPIKE	Calculated SO2	2009/03/13		99	%	N/A
		BLANK	Calculated SO2	2009/03/13	<0.1		ppb	
2988712	DF4	Calibration Check	Calculated SO2	2009/03/13		100	%	95 - 105
		SPIKE	Calculated SO2	2009/03/13		99	%	N/A
		BLANK	Calculated SO2	2009/03/13	<0.1		ppb	
2992400	DF4	Calibration Check	Calculated NO2	2009/03/17		103	%	76 - 118
		SPIKE	Calculated NO2	2009/03/17		98	%	N/A
		BLANK	Calculated NO2	2009/03/17	<0.1		ppb	
2999800	TM5	Calibration Check	Calculated H2S	2009/03/19		102	%	80 - 120
		SPIKE	Calculated H2S	2009/03/19		99	%	N/A
2999806	TM5	Calibration Check	Calculated H2S	2009/03/19		102	%	80 - 120
		SPIKE	Calculated H2S	2009/03/19		99	%	N/A

N/A = Not Applicable

Passive Field Data

Field Notes

SAMPLER	SITE	ID	START		END		NOTES
			DATE	TIME	DATE	TIME	
$SO_2/NO_2/O_3$		2	01/29/2009	07:15	02/28/2009	07:05	
$H_2S/SO_2/NO_2/O_3$		3	01/29/2009	06:30	02/28/2009	06:25	
$SO_2/NO_2/O_3$		4	01/30/2009	12:05	03/01/2009	12:40	
$H_2S/SO_2/NO_2/O_3$		5	01/30/2009	11:25	03/01/2009	12:00	
$SO_2/NO_2/O_3$		6	01/30/2009	10:10	03/01/2009	10:45	
$SO_2/NO_2/O_3$		8	01/30/2009	12:55	03/01/2009	13:30	
$SO_2/NO_2/O_3$		9	01/29/2008	16:50	02/28/2009	15:35	
$H_2S/SO_2/NO_2/O_3$		10	01/30/2009	08:00	02/28/2009	07:55	
$H_2S/SO_2/NO_2/O_3$		11	01/29/2009	08:40	02/28/2009	07:30	
$H_2S/SO_2/NO_2/O_3$		12	01/29/2009	09:55	02/28/2009	09:45	
$H_2S/SO_2/NO_2/O_3$		13	01/29/2009	11:30	02/28/2009	11:10	
$H_2S/SO_2/NO_2/O_3$		14	01/29/2009	12:20	02/28/2009	12:00	
$SO_2/NO_2/O_3$		15	01/29/2009	16:15	02/28/2009	15:05	
$H_2S/SO_2/NO_2/O_3$		16	01/30/2009	08:30	03/01/2009	08:45	
$H_2S/SO_2/NO_2/O_3$		17	01/30/2009	09:15	03/01/2009	09:35	
$H_2S/SO_2/NO_2/O_3$		18	01/30/2009	07:45	03/01/2009	08:00	
$SO_2/NO_2/O_3$		19	01/30/2009	06:35	03/01/2009	06:55	
$H_2S/SO_2/NO_2/O_3$		22	01/29/2009	15:05	02/28/2009	14:05	
$SO_2/NO_2/O_3$		23	01/29/2009	14:10	02/28/2009	13:15	
$H_2S/SO_2/NO_2/O_3$		24	01/30/2009	10:45	03/01/2009	11:20	
H_2S/SO_2		25	01/29/2009	11:10	02/28/2009	10:50	
H_2S/SO_2		26	01/29/2009	12:05	02/28/2009	11:45	
H_2S/SO_2		27	01/29/2009	12:45	02/28/2009	12:20	
$SO_2/NO_2/O_3$		28	01/30/2009	13:30	03/01/2009	14:15	
$H_2S/SO_2/NO_2/O_3$		29	01/29/2009	15:25	02/28/2009	14:15	
$H_2S/SO_2/NO_2/O_3$		18A	01/29/2009	12:20	03/01/2009	08:00	
$H_2S/SO_2/NO_2/O_3$		29A	01/29/2009	15:05	02/28/2009	14:15	