Lakeland Industry & Community Association

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

Prepared By:

Maxxam Analytics

Driven by Service and Science

May 27, 2009

Lakeland Industry & Community Association
Ambient Air Monitoring

Introduction

The following Ambient Air Monitoring report was prepared for:

Mr. Mike Bisaga
Lakeland Industry & Community Association
Box 8237
5107W – 50 Street
Bonnyville, Alberta
T9N 2J5

Monitoring Location: Cold Lake
Data Period: April 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 – April 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	0.02	1	VAR	VAR	VAR	VAR	0.2	3	100.0
TRS (PPB)	-	-	-	-	0.00	0	ALL	ALL	VAR	VAR	0.0	ALL	100.0
NO_2 (PPB)	212	106	0	0	3.45	25	16	4	1	92(E)	6.4	4	100.0
NO (PPB)	-	-	-	-	0.46	39	20	7	1.7	54(NE)	3.7	20	100.0
NOx (PPB)	-	-	-	-	4.18	64	20	7	1.7	54(NE)	10.1	20	100.0
O_3 (PPB)	82	-	0	-	36.31	60	4	17	6.9	243(WSW)	48.5	1	100.0
THC (PPM)	-	-	-	-	1.79	2.9	27	6	0.7	249(WSW)	2.2	25, 27	99.3
PM 2.5 (UG/M^3)	-	30	-	0	4.62	16.2	11	21	2.5	89(E)	7.7	5	100.0
TEMPERATURE (DEG C)	-	-	-	-	2.40	13.6	11	16	4.2	118(ESE)	6.1	20	100.0
RELATIVE HUMIDITY (%)	-	-	-	-	62.53	98.1	19	0	2.5	243(WSW)	93.7	14	100.0
VECTOR WS (KPH)	-	-	-	-	5.67	19.8	23	8	-	307(NW)	13.7	23	100.0
VECTOR WD (DEGREES)	-	-	-	-	50(NE)	-	-	-	-	-	-	-	100.0

VAR-VARIOUS

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

Passive Ambient Monitoring Network – April 2009

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION PASSIVE NETWORK			
NETWORK MAXIMUM			NETWORK AVERAGE
PARAMETER	STATION	READING (PPB)	READING (PPB)
NO_2	#28	6.9	1.8
SO_2	#14	0.9	0.3
H_2S	#10, #14	0.12	0.07
O_3	#12	46.0	34.6

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

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. The daily span had drifter 10% low on April 29th. An as found points calibration was performed to verify proper operation of the analyzer on April 29th. It was suspected a fluctuation in the permeation system, but no critical issue was noticed.

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

Total HydroCarbon (PPM)

- Analyzer make / model -TECO 51C-LT

A multi-points as found point calibration was performed on April 20th, and the result of the calibration showed linearity poor. During the flows measurement, it was noticed a flow of 12cc/m when the H2 solinoid was closed, the pump was off and the FID air pressure was set to zero. The 12cc/m flow disappeared when the FID zero air was disconnected. The CD Nova personnel, Jim Shory, said that this is an early warning sign that the FID air regulator is going to fail and needs replacement. A FID rebuild was performed and allowed the analyzer time to stabilize. It was expected that the analyzer would continue to drift down as the FID "burn-in" after the FID rebuilt. The daily calibration was wet to a 12 hour interval to track drift. A post rebuild calibration was performed on April 21st, and the linearity was much better. A post "burn-in" calibration was performed on April 23rd. The inlet filter was changed before the monthly calibration was started. The inlet tubing and inlet filter was moved to the bottom position on the manifold following the as found points. It was noticed that the sample line ran from the inlet filter to the pump closet and back to the instrument rack. This may have been to accommodate an older style THC analyzer that had been installed in the station prior to the Maxxam contract. The excess tubing was removed to let the sample line run from the inlet filter directly to the rack on April 23rd. Data was corrected using daily zero information.

Ozone (PPB)

- Analyzer make / model - TECO 49I

No operational issues observed during the month. The inlet filter was changed before the monthly calibration was started. A Teflon inlet bulkhead fitting with a stainless steel fitting was replaced due to damages on the old Teflon fitting on the same day.

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. The Ko verification was completed on April 20th, and the Teom passed the audit criteria. Teom and FDMS filters were replaced on the same day. No data was 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.

General Monthly Summary - Cold Lake

AQM STATION – LICA – COLD LAKE

Datalogger

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

The ESC 8832 is connected to a modem with DSL for continuous connection with the base computer.

Trailer

No issue was observed during this month.

Air Quality Index (AQI)

The AQI data was adjusted to reflect regular monthly and daily calibrations, maintenance, and downtime. 39 hours of fair AQI values recorded in April 2009, and all fair AQI values were due to Ozone. The highest hourly concentration of PM2.5 was 16.2 UG/M3 and an AQI value of 14 on April 11th, hour 21. The highest hourly concentration of Ozone was 60 ppb and an AQI value of 33 on April 4th, hour 17.

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*

APRIL 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	23	24	24	24	24	24	23	22	24	25	25	-	28	27	27	28	27	25	25	25	23	21	25	26	28
	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	**NA**	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_
2	25	24	24	23	22	21	18	19	22	24	-	28	31	31	29	29	28	25	21	14	8	10	12	9	31
	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	**NA**	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	PM2	PM2	PM2	O3_
3	7	5	7	7	6	6	7	9	20	-	27	28	29	30	31	31	29	28	25	22	19	24	24	22	31
	PM2	PM2	PM2	PM2	PM2	PM2	PM2	O3_	O3_	**NA**	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_
4	18	16	13	9	8	7	7	7	-	21	23	25	28	30	29	32	33	33	31	25	17	18	15	11	33
	O3_	O3_	O3_	O3_	O3_	O3_	PM2	O3_	**NA**	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_
5	11	12	9	10	7	7	7	-	24	25	27	30	29	28	29	28	28	28	26	25	24	24	23	23	30
	PM2	PM2	PM2	O3_	O3_	PM2	PM2	**NA**	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_
6	23	22	22	22	21	16	-	17	19	19	20	21	23	25	28	30	33	33	32	30	29	26	28	29	33
	O3_	O3_	O3_	O3_	O3_	O3_	**NA**	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_
7	27	24	20	15	16	-	10	-	-	-	-	-	-	-	28	29	30	32	30	23	18	13	11	9	32
	O3_	O3_	O3_	O3_	O3_	**NA**	O3_	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_
8	11	12	8	8	-	8	9	22	23	24	24	25	26	26	26	26	25	24	24	24	23	23	23	23	26
	PM2	PM2	PM2	PM2	**NA**	PM2	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_
9	22	22	23	-	22	21	20	21	21	21	23	24	24	24	24	24	23	23	23	22	22	22	22	22	24
	O3_	O3_	O3_	**NA**	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_
10	21	21	-	20	19	19	19	19	19	19	19	20	20	20	19	19	19	19	18	16	13	14	15	10	21
	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_
11	6	-	5	9	9	6	6	9	11	12	14	17	21	22	25	25	26	25	23	16	9	14	17	13	26
	O3_	**NA**	PM2	O3_	O3_	PM2	PM2	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	PM2	O3_	O3_	O3_
12	-	14	13	15	15	15	12	12	12	15	14	12	13	15	21	22	22	21	21	16	10	4	9	-	22
	NA	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	PM2	O3_	**NA**	O3_
13	6	3	3	6	5	4	6	13	16	21	22	23	23	22	22	22	21	20	19	17	14	14	-	17	23
	O3_	PM2	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	**NA**	O3_	O3_
14	17	17	16	15	15	14	13	13	13	12	12	12	12	15	17	18	19	19	18	18	13	-	9	9	19
	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	**NA**	O3_	O3_	O3_
15	7	4	8	8	6	4	4	6	13	19	21	22	22	24	25	25	25	26	25	23	-	15	12	12	26
	O3_	O3_	PM2	PM2	PM2	PM2	PM2	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	**NA**	O3_	O3_	O3_	O3_
16	9	7	8	6	5	10	10	15	18	20	22	22	23	23	24	24	24	24	22	-	11	10	8	9	24
	O3_	O3_	O3_	O3_	PM2	PM2	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	**NA**	O3_	PM2	PM2	PM2	O3_
17	14	16	17	14	8	6	12	17	17	18	19	21	23	23	24	25	24	24	-	23	23	22	21	22	25
	O3_	O3_	O3_	O3_	O3_	PM2	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	**NA**	O3_	O3_	O3_	O3_	O3_	O3_
18	21	20	20	18	16	16	15	14	14	15	16	16	16	15	14	14	14	-	14	11	5	5	4	4	21
	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	**NA**	O3_	O3_	O3_	O3_	O3_	O3_	O3_
19	5	5	5	8	12	16	16	17	19	21	22	25	26	27	27	28	-	28	27	22	13	11	10	8	28
	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	**NA**	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_
20	5	2	4	5	5	6	5	8	9	16	27	33	-	-	-	-	29	30	30	28	28	19	9	9	33
	O3_	O3_	PM2	PM2	PM2	PM2	PM2	PM2	O3_	O3_	O3_	O3_	**NA**	**NA**	**NA**	**NA**	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_
21	8	7	7	9	7	14	16	19	22	21	22	22	23	23	-	23	23	23	23	23	23	22	22	23	
	O3_	PM2	O3_	PM2	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	**NA**	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_
22	22	21	20	18	17	16	17	20	25	28	26	26	26	-	25	24	24	25	24	23	21	20	20	19	28
	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	**NA**	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_
23	19	17	16	18	20	22	22	22	-	-	-	-	-	-	-	-	-	25	25	24	23	22	20	17	25
	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_
24	19	20	18	19	20	14	17	21	22	23	23	-	21	21	22	21	20	20	21	22	17	13	11	9	23
	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	**NA**	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_
25	7	4	5	3	4	5	13	19	20	23	-	27	26	28	28	27	27	28	29	27	28	28	23	23	29
	O3_	O3_	PM2	PM2	PM2	PM2	O3_	O3_	O3_	O3_	**NA**	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_
26	23	18	14	14	11	12	14	22	23	-	24	24	24	24	24	24	24	24	24	23	22	19	17	13	24
	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	**NA**	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_
27	10	10	10	8	4	4	7	11	-	22	22	22	22	22	22	23	23	23	23	21	20	21	21	20	23
	O3_	O3_	O3_	O3_	O3_	PM2	O3_	O3_	**NA**	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_
28	20	20	18	17	16	16	16	-	17	17	19	21	22	23	23	23	23	24	24	21	15	16	14	14	24
	O3_	O3_	O3_	O3_	O3_	O3_	O3_	**NA**	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_
29	10	12	10	6	5	7	-	17	22	22	23	24	25	25	26	26	26	25	25	23	16	14	11	10	26
	O3_	O3_	O3_	O3_	O3_	PM2	**NA**	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_
30	7	7	6	6	7	-	15	14	19	23	26	28	27	25	24	24	24	24	25	23	23	24	18	14	28
	O3_	O3_	PM2	O3_	O3_	**NA**	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_	O3_
PEAK	27	24	24	24	24	24	23	22	25	28	27	33	31	31	31	32	33	33	32	30	29	28	28	29	
	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)	92	12.8%	33	16, 17	4	0	0.0%	-	-	-	0	0.0%	-	-	-	0	0.0%	-	-	-	92	12.8%
GOOD (1-25)	527	73.2%	-	-	-	53	7.4%	14	21	11	0	0.0%	-	-	-	0	0.0%	-	-	-	580	80.6%
OVERALL	619	86.0%	-	-	-	53	7.4%	-	-	-	0	0.0%	-	-	-	0	0.0%	-	-	-	672	93.3%
UNAVAILABLE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	49	6.8%

Sulphur Dioxide

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - *COLD LAKE*

APRIL 2009

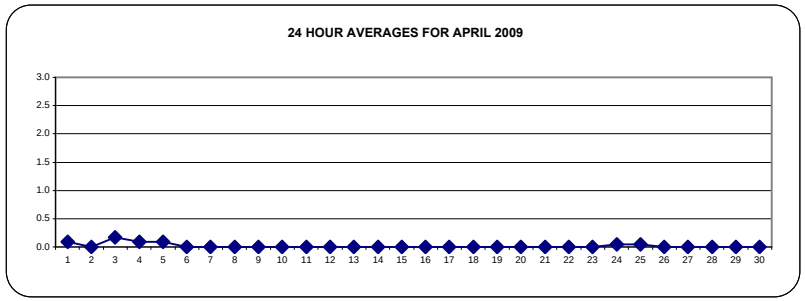
SULPHUR DIOXIDE (SO_2) hourly averages in ppb

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

STATUS FLAG CODES

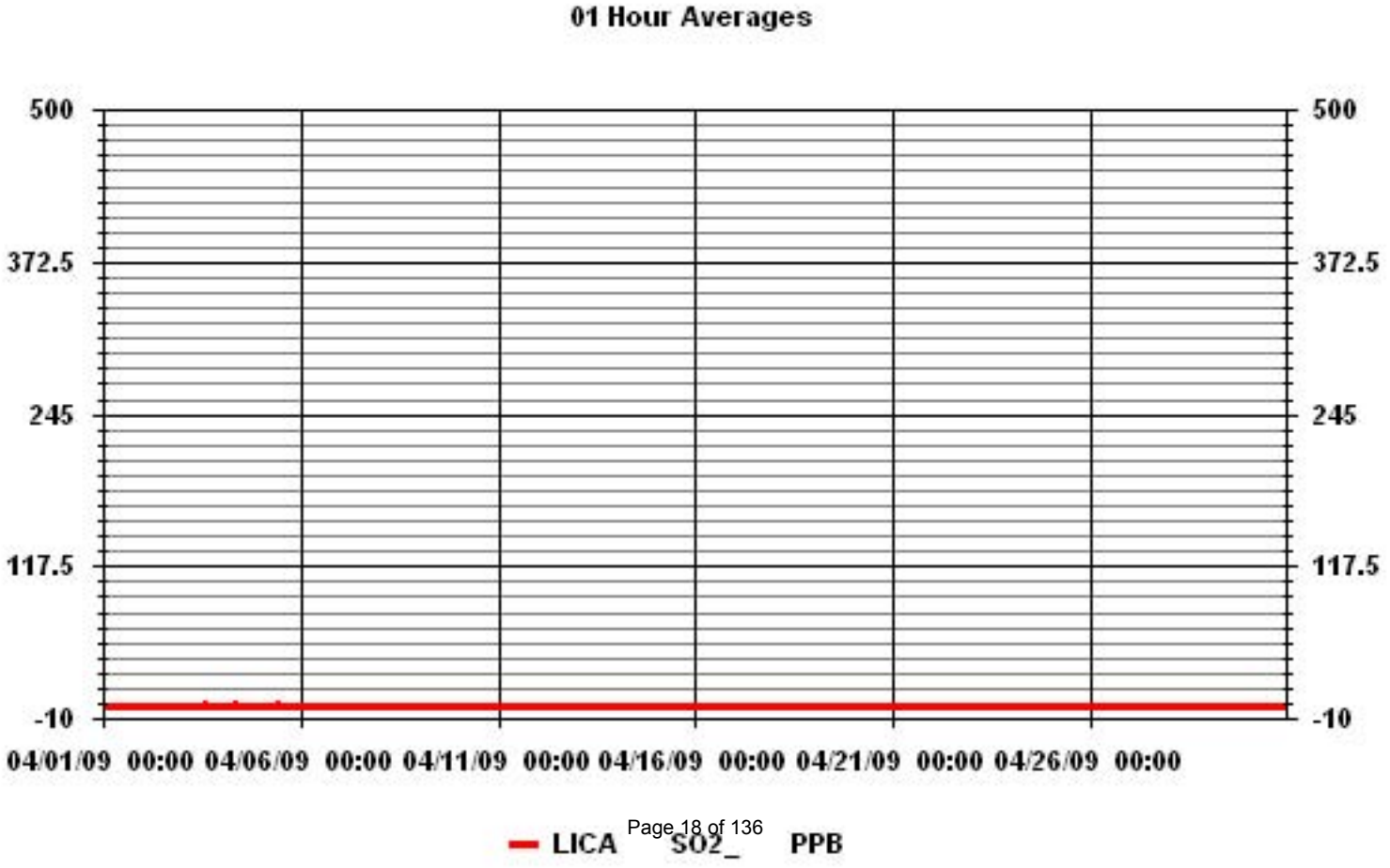
S	- OUT OF SERVICE	IZS	- IZS - DAILY ZERO/SPAN CHECK
N	- INVALID DATA	M	- MAINTENANCE
D	- INSTRUMENT DRIFT	P	- POWER FAILURE
C	- CALIBRATION	NA	- NOT APPLICABLE



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:	12					
MAXIMUM 1-HR AVERAGE:	1	PPB	@ HOUR(S)	VAR	ON DAY(S)	VAR
MAXIMUM 24-HR AVERAGE:	0.2	PPB			ON DAY(S)	3
IZS CALIBRATION TIME:	31	HRS	OPERATIONAL TIME:		720	HRS
MONTHLY CALIBRATION TIME:	4	HRS	AMD OPERATION UPTIME:		100.0	%
STANDARD DEVIATION:	0.13		MONTHLY AVERAGE:		0.02	PPB


01 Hour Averages
500
372.5
245
117.5
-10
04/01/09 00:00
04/06/09 00:00
04/11/09 00:00
04/16/09 00:00
04/21/09 00:00
04/26/09 00:00
LICA SO2_ PPB

LICA
SO2_ / WDR Joint Frequency Distribution (Percent)

April 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	4.23	9.34	12.40	5.40	9.48	11.97	9.92	2.48	2.33	1.16	6.27	5.98	4.96	4.08	6.56	3.35	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	4.23	9.34	12.40	5.40	9.48	11.97	9.92	2.48	2.33	1.16	6.27	5.98	4.96	4.08	6.56	3.35	

Calm : .00 %

Total # Operational Hours : 685

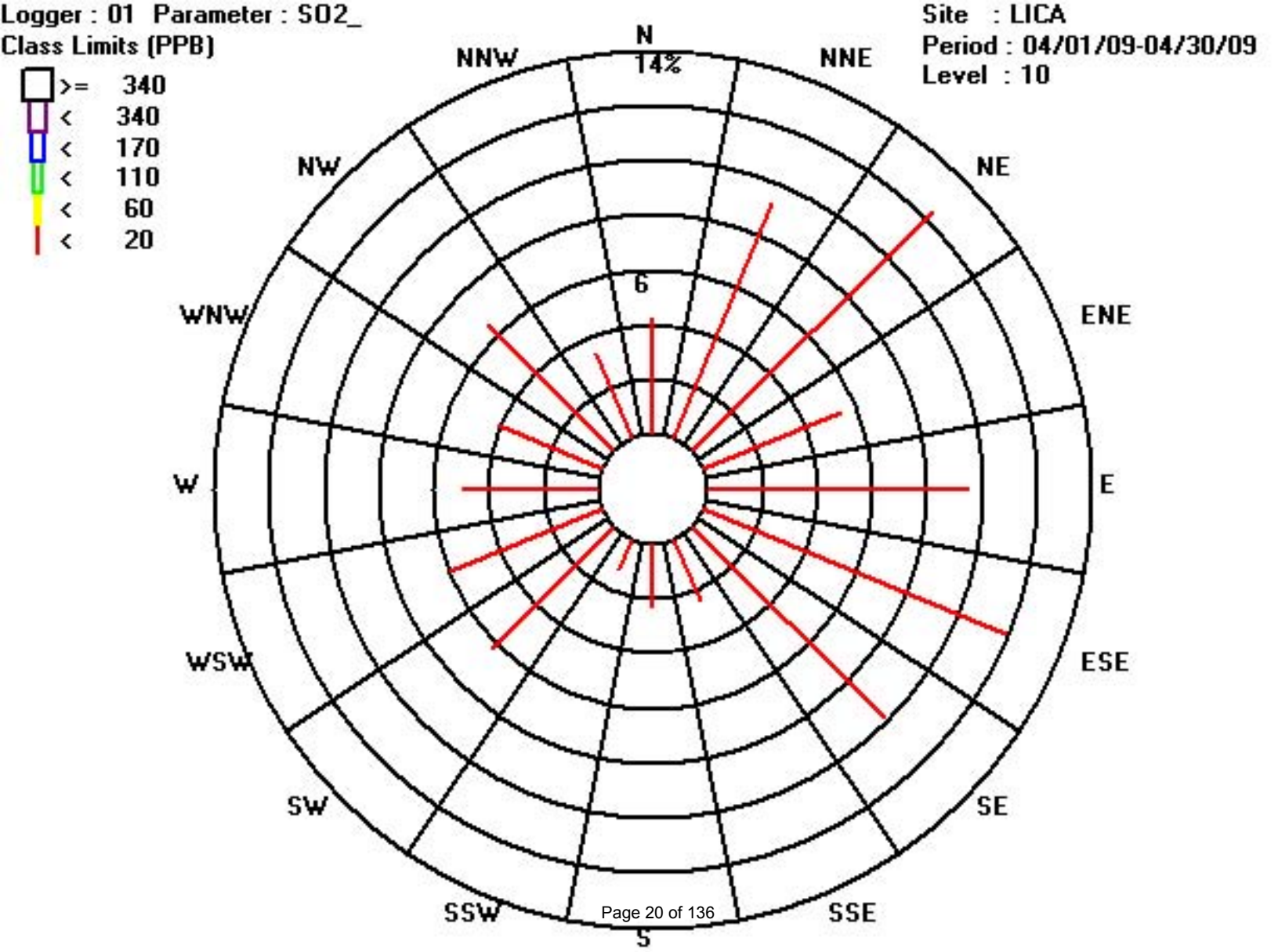
Distribution By Samples

Direction

	Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
<	20	29	64	85	37	65	82	68	17	16	8	43	41	34	28	45	23	685
<	60																	
<	110																	
<	170																	
<	340																	
>=	340																	
	Totals	29	64	85	37	65	82	68	17	16	8	43	41	34	28	45	23	

Calm : .00 %

Total # Operational Hours : 685


Logger : 01 Parameter : SO2_
Class Limits (PPB)
>= 340
< 340
< 170
< 110
< 60
< 20
Site : LICA
Period : 04/01/09-04/30/09
Level : 10
N
14%
NNE
NE
ENE
E
ESE
SE
SSE
S
SSW
SW
WSW
W
WNW
NW
NNW
6

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - *COLD LAKE*

APRIL 2009

SULPHUR DIOXIDE MAX instantaneous maximum in ppb

MST

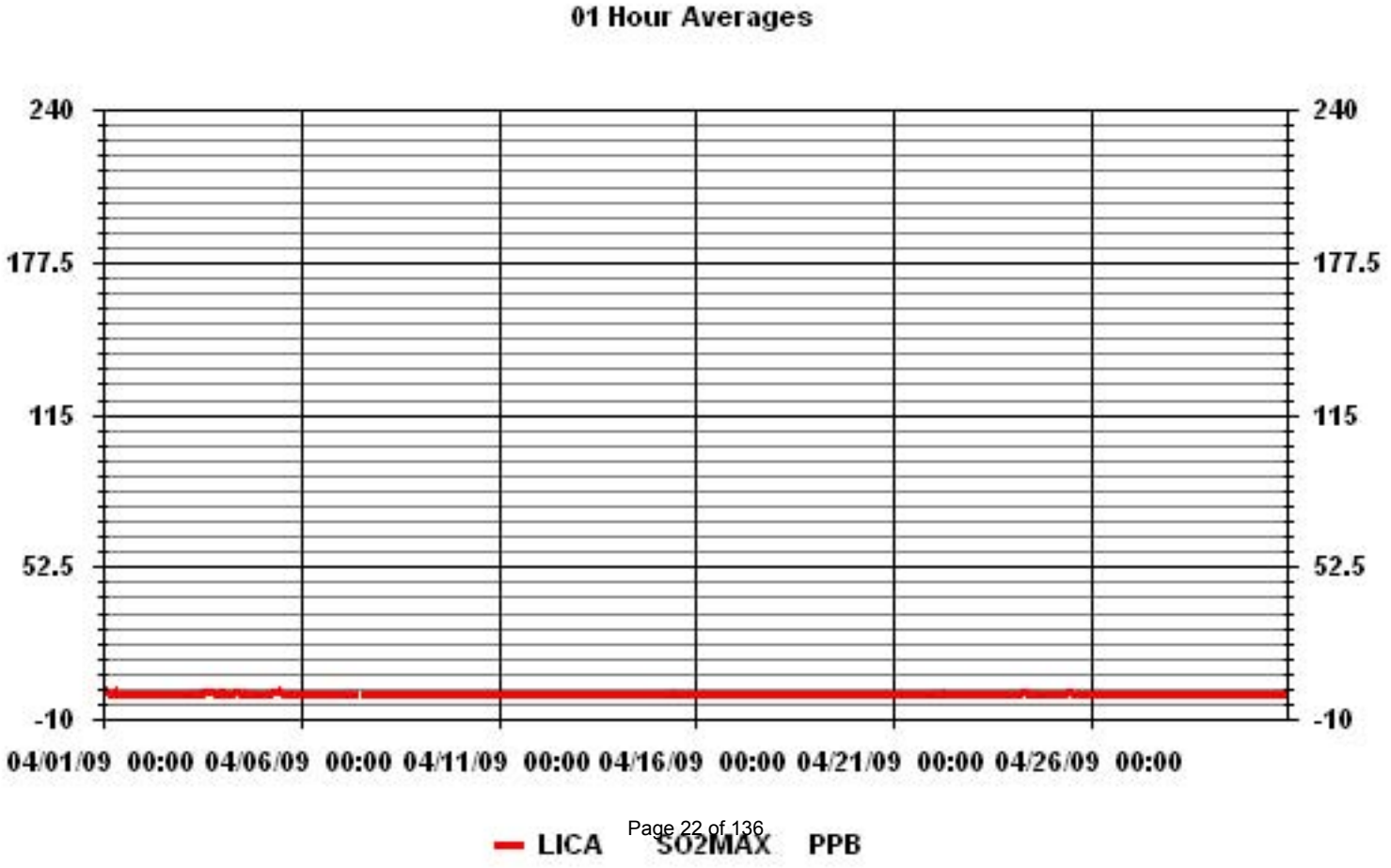
HOUR START	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY	24-HOUR	
HOUR END	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00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

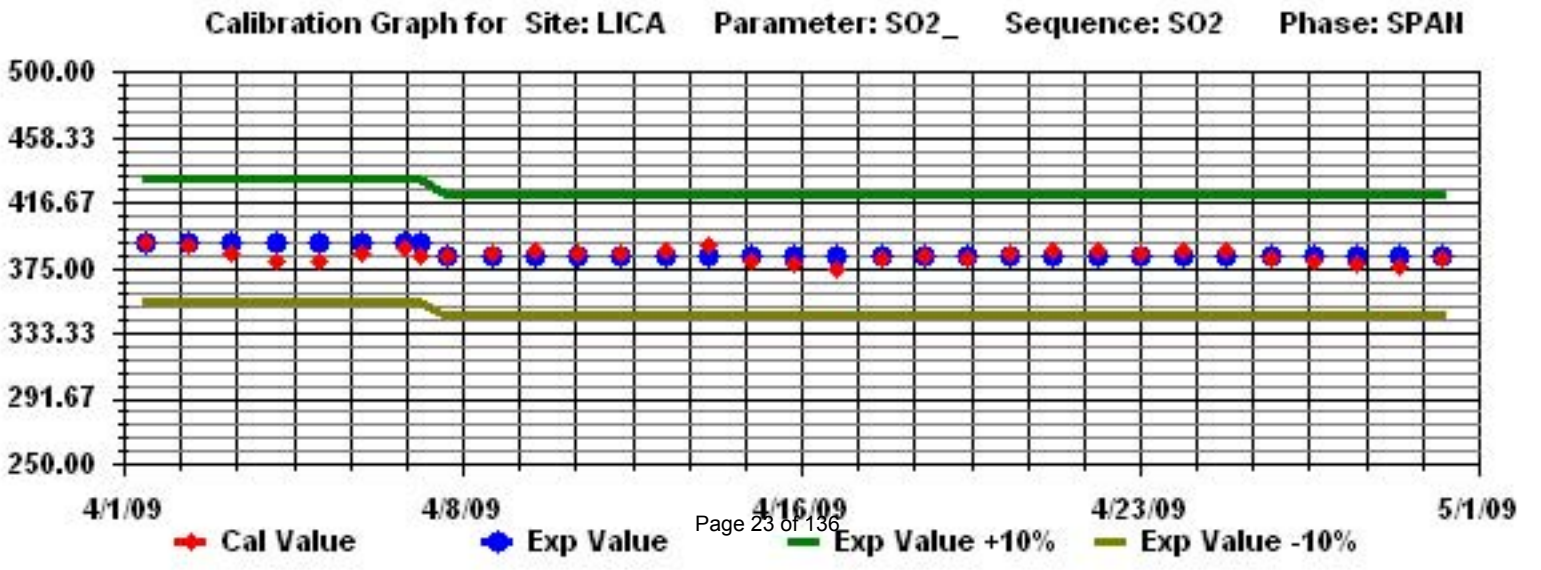
STATUS FLAG CODES

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:	33					
MAXIMUM INSTANTANEOUS VALUE:	2	PPB	@ HOUR(S)	VAR	ON DAY(S)	1, 5
IZS CALIBRATION TIME:	31	HRS	OPERATIONAL TIME:		718	HRS
MONTHLY CALIBRATION TIME:	6	HRS				
STANDARD DEVIATION:	0.24					


01 Hour Averages
240
177.5
115
52.5
-10
04/01/09 00:00
04/06/09 00:00
04/11/09 00:00
04/16/09 00:00
04/21/09 00:00
04/26/09 00:00
LICA SO2MAX PPB


Calibration Graph for Site: LICA Parameter: SO2_ Sequence: SO2 Phase: SPAN
500.00
458.33
416.67
375.00
333.33
291.67
250.00
4/1/09
4/8/09
4/16/09
4/23/09
5/1/09
Cal Value
Exp Value
Exp Value +10%
Exp Value -10%

Total Reduced Sulphur

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - *COLD LAKE*

APRIL 2009

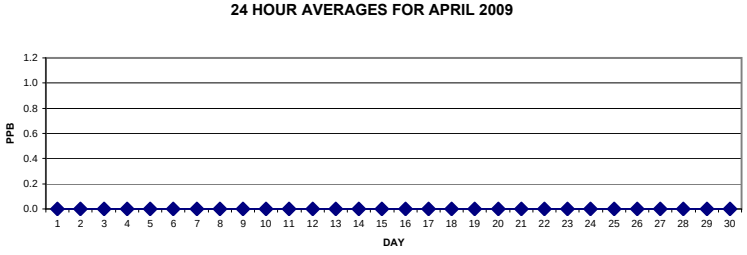
TOTAL REDUCED SULPHUR (TRS) hourly averages in ppb

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	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
2	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
3	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
4	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
5	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
6	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
7	0	0	0	0	0	**IZS**	0	**C**	**C**	**C**	**C**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
8	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
9	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
10	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
11	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
12	**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
13	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
14	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
15	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
16	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
17	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
18	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
19	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
20	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
21	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
22	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
23	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
24	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
25	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
26	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
27	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
28	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
29	0	0	0	0	0	0	**IZS**	0	0	0	0	0	0	0	**C**	**C**	0	0	0	0	0	0	0	0	0	0.0	24
30	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
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

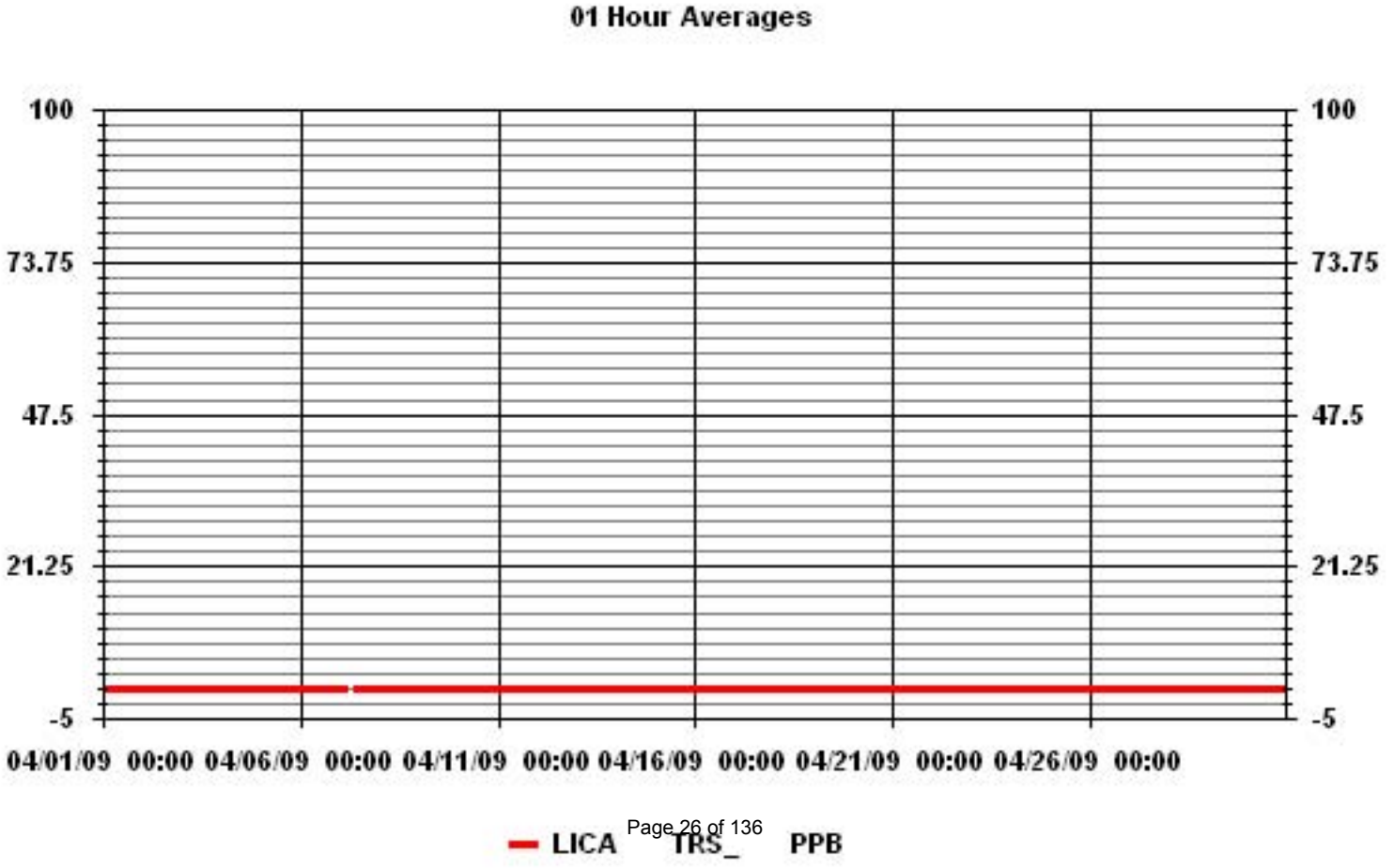


OBJECTIVE LIMIT: **ALBERTA ENVIRONMENT:** 1-HR 172 PPB | 24-HR 57 PPB

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:	31	HRS	OPERATIONAL TIME:	720	HRS
MONTHLY CALIBRATION TIME:	6	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
04/01/09 00:00
04/06/09 00:00
04/11/09 00:00
04/16/09 00:00
04/21/09 00:00
04/26/09 00:00
LICA TRS_ PPB

LICA
TRS_ / WD Joint Frequency Distribution (Percent)

April 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	4.24	9.22	12.29	4.97	9.51	12.29	10.10	2.48	2.34	1.17	6.29	6.00	4.97	4.09	6.58	3.36	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	4.24	9.22	12.29	4.97	9.51	12.29	10.10	2.48	2.34	1.17	6.29	6.00	4.97	4.09	6.58	3.36	

Calm : .00 %

Total # Operational Hours : 683

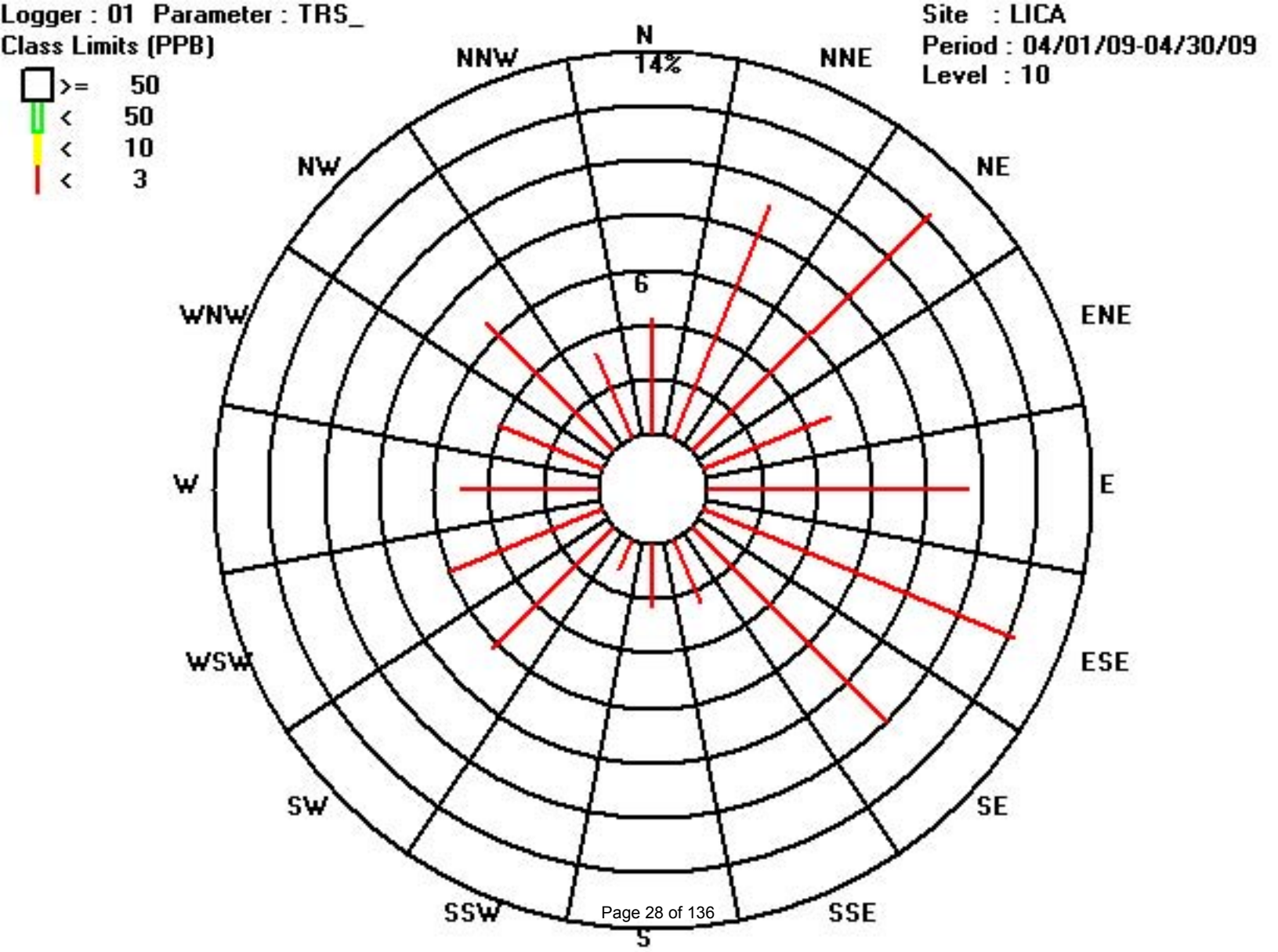
Distribution By Samples

Direction

	Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
<	3	29	63	84	34	65	84	69	17	16	8	43	41	34	28	45	23	683
<	10																	
<	50																	
>=	50																	
	Totals	29	63	84	34	65	84	69	17	16	8	43	41	34	28	45	23	

Calm : .00 %

Total # Operational Hours : 683


Logger : 01 Parameter : TRS_
Class Limits (PPB)
>= 50
< 50
< 10
< 3
Site : LICA
Period : 04/01/09-04/30/09
Level : 10
N
14%
NNE
NE
ENE
E
ESE
SE
SSE
S
SSW
SW
WSW
W
WNW
NW
NNW
6

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - *COLD LAKE*

APRIL 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	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
2	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
3	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
4	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
5	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
6	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
7	0	0	0	0	0	IZS	0	C	C	C	C	C	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
8	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
9	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
10	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
11	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
12	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
13	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
14	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
15	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
16	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
17	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
18	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
19	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
20	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
21	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
22	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
23	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
24	0	0	0	0	0	0	0	P	0	0	0	IZS	0	P	0	0	0	0	0	0	0	0	0	0	0	0.0	22
25	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
26	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
27	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
28	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
29	0	0	0	0	0	0	IZS	0	0	0	0	0	0	C	C	C	0	0	0	0	0	0	0	0	0	0.0	24
30	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
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

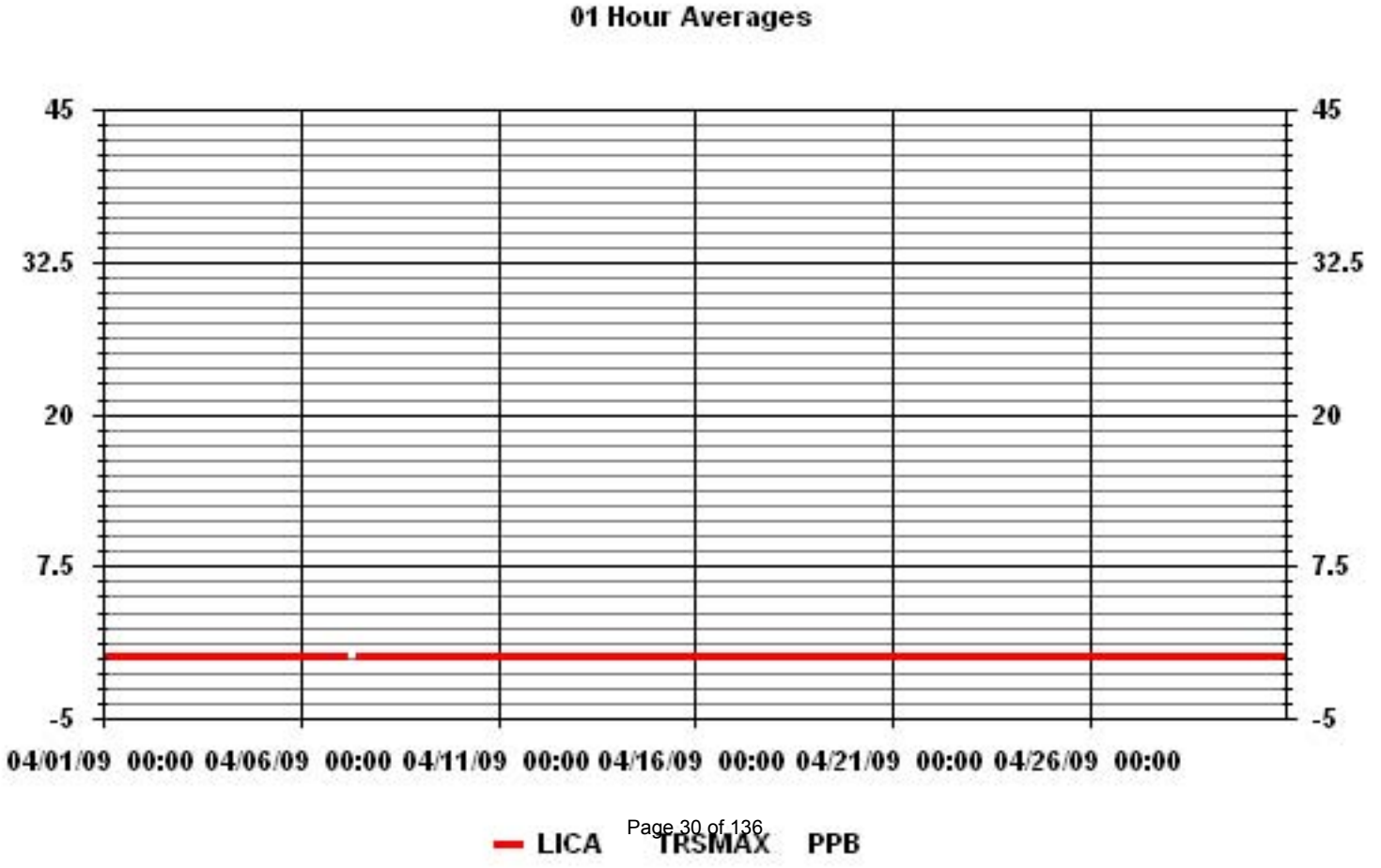
MAXIMUM INSTANTANEOUS VALUE: 0 PPB @ HOUR(S) ALL ON DAY(S) ALL

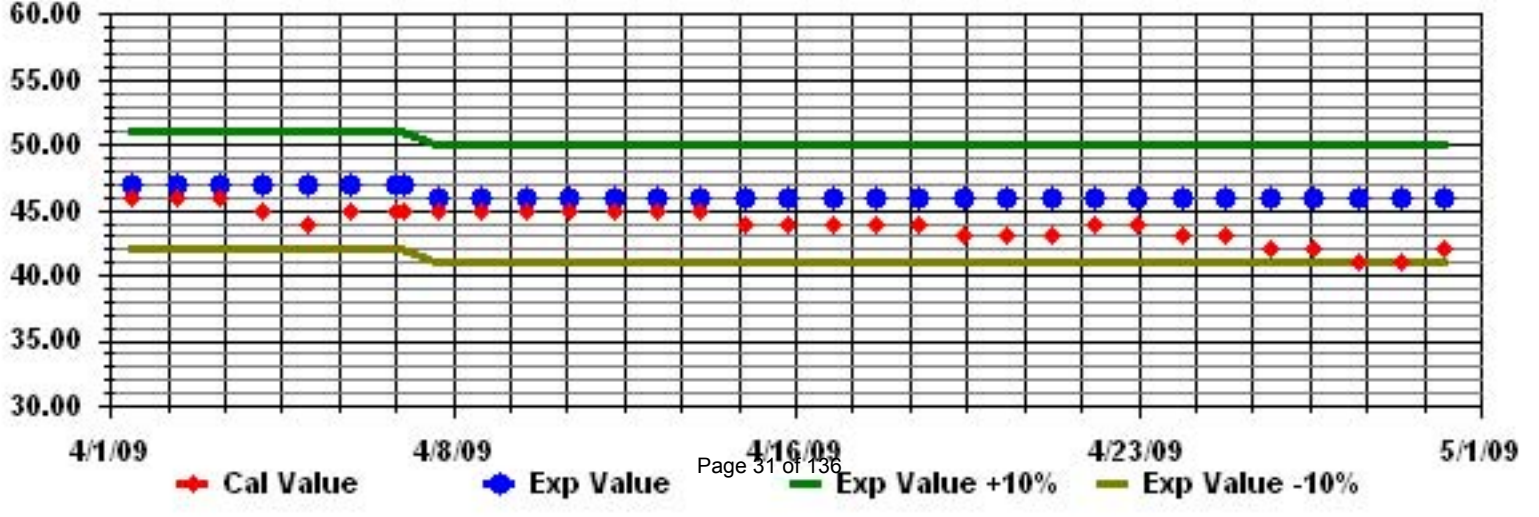
VAR - VARIOUS

IZS CALIBRATION TIME: 31 HRS OPERATIONAL TIME: 718 HRS

MONTHLY CALIBRATION TIME: 8 HRS

STANDARD DEVIATION: 0.00


01 Hour Averages
45
32.5
20
7.5
-5
04/01/09 00:00
04/06/09 00:00
04/11/09 00:00
04/16/09 00:00
04/21/09 00:00
04/26/09 00:00
LICA
TRSMAX
PPB


Calibration Graph for Site: LICA Parameter: TRS_ Sequence: TRS Phase: SPAN
60.00
55.00
50.00
45.00
40.00
35.00
30.00
4/1/09
4/8/09
4/16/09
4/23/09
5/1/09
Cal Value
Exp Value
Exp Value +10%
Exp Value -10%

Total Hydrocarbons

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - *COLD LAKE*

APRIL 2009

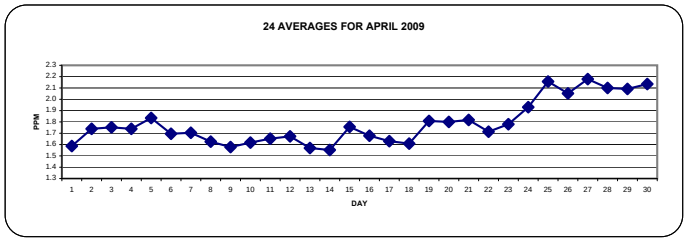
TOTAL HYDROCARBONS (THC) hourly averages in ppm

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	1.8	1.7	1.6	1.6	1.6	1.7	1.9	1.8	1.6	1.6	1.6	**IZS**	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.9	1.6	24
2	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.6	1.8	**IZS**	2	1.8	1.8	1.8	1.8	1.8	1.9	1.8	1.8	1.9	2.1	2.1	2	2.1	1.7	24
3	1.9	2.1	2.1	2	2	1.9	1.8	1.8	1.7	**IZS**	1.7	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.7	1.8	1.8	1.6	1.6	1.6	2.1	1.8	24
4	1.6	1.6	1.7	1.7	1.7	1.7	1.7	1.9	**IZS**	1.6	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.8	1.7	1.8	1.9	1.8	1.9	2	2.0	1.7	24
5	2.1	2.1	2.2	2	2	1.9	2	**IZS**	1.9	1.9	1.9	1.8	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	2.2	1.8	24
6	1.7	1.7	1.7	1.7	1.7	1.8	**IZS**	1.8	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.6	1.6	1.6	1.6	1.7	1.7	1.7	1.7	1.8	1.8	1.7	24
7	2	2	2	2.1	2	**IZS**	2	1.7	1.6	1.6	1.5	1.6	1.5	1.5	1.5	1.5	1.5	1.5	1.6	1.6	1.7	1.7	1.7	1.8	2.1	1.7	24
8	1.9	2.1	1.9	1.8	**IZS**	1.8	1.9	1.6	1.6	1.6	1.6	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.6	1.5	1.5	1.5	2.1	1.6	24
9	1.5	1.6	1.5	**IZS**	1.5	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.5	1.5	1.6	1.9	1.8	1.6	1.6	1.5	1.5	1.5	1.5	1.5	1.9	1.6	24
10	1.5	1.6	**IZS**	1.6	1.6	1.6	1.6	1.6	1.6	1.7	1.6	1.7	1.6	1.6	1.6	1.7	1.7	1.7	1.6	1.6	1.6	1.6	1.6	1.6	1.7	1.6	24
11	1.6	**IZS**	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.6	1.6	1.6	1.5	1.5	1.5	1.6	1.7	1.8	1.7	1.6	1.7	1.8	1.7	24
12	**IZS**	1.6	1.7	1.6	1.5	1.6	1.7	1.7	1.7	1.6	1.6	1.8	2	1.9	1.6	1.6	1.5	1.6	1.5	1.6	1.7	1.9	1.8	**IZS**	2.0	1.7	24
13	1.7	1.7	1.7	1.7	1.8	1.8	1.6	1.6	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	**IZS**	1.5	1.8	1.6	24
14	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.6	1.6	1.5	1.6	1.6	1.6	1.6	1.6	1.6	**IZS**	1.7	1.7	1.7	1.6	24
15	1.8	1.8	1.9	2	2.1	2.1	2.3	2.3	1.9	1.6	1.6	1.6	1.6	1.6	1.5	1.5	1.6	1.6	1.6	1.6	**IZS**	1.6	1.6	1.6	2.3	1.8	24
16	1.7	1.7	1.7	1.8	1.9	1.8	1.7	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	**IZS**	1.7	1.8	1.8	1.8	1.9	1.7	24
17	1.7	1.7	1.6	1.6	1.7	1.7	1.7	1.6	1.6	1.6	1.6	1.6	1.7	1.7	1.9	1.6	1.6	1.6	**IZS**	1.6	1.6	1.5	1.5	1.5	1.9	1.6	24
18	1.6	1.6	1.5	1.5	1.5	1.5	1.6	1.6	1.6	1.6	1.5	1.6	1.6	1.6	1.6	1.6	1.6	**IZS**	1.6	1.6	1.7	1.8	1.8	1.8	1.8	1.6	24
19	1.8	1.9	2.3	2.6	2.4	2.1	2	2	1.9	1.7	1.7	1.6	1.6	1.6	1.6	1.6	**IZS**	1.5	1.5	1.6	1.6	1.6	1.7	1.7	2.6	1.8	24
20	1.8	1.8	1.9	2	2	2.1	2.4	**C**	**C**	**C**	**M**	**M**	**M**	**M**	**M**	**IZS**	1.7	1.6	1.6	1.6	1.5	1.6	1.7	1.7	2.4	1.8	19
21	1.6	1.9	**IZS**	2.3	2.1	**C**	**C**	**C**	**C**	**C**	1.8	1.8	1.8	1.8	**IZS**	1.8	1.8	1.8	1.8	1.8	1.7	1.7	1.7	1.7	2.3	1.8	24
22	1.7	1.7	**IZS**	1.7	1.8	1.8	1.7	1.8	1.7	1.7	1.7	1.7	1.7	1.7	**IZS**	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.8	1.7	24
23	1.7	1.7	**IZS**	1.7	1.7	1.8	1.8	1.8	**C**	**C**	**C**	**C**	**C**	**C**	**C**	**C**	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.8	24
24	1.8	1.8	1.8	1.8	1.8	2	1.9	1.8	1.8	1.8	1.8	**IZS**	2	2	2	2	2	2	2	2	2	2	2.1	2.2	2.2	1.9	24
25	2.1	2.3	2.3	2.3	2.3	2.3	2.2	2.2	2.2	2.1	**IZS**	2.1	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2	2	2.1	2.2	2.3	**2.2**	24
26	2.1	2.1	2.1	2.2	2.2	2.1	2.1	2	2	**IZS**	2	2	2	2	2	2	2	2	2	2	2	2.1	2.1	2.1	2.2	2.1	24
27	2.1	2.1	2.2	2.2	2.4	2.6	**2.9**	2.8	**IZS**	2.1	2.1	2.1	2.1	2	2.1	2	2	2	2.1	2	2.1	2.1	2	2	**2.9**	**2.2**	24
28	2.1	2.1	2.1	2.1	2.1	2.1	2.1	**IZS**	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	24
29	2.1	2.1	2.1	2.2	2.3	2.4	**IZS**	2.1	2.1	2.1	2.1	2.1	2.1	2	2	2	2	2	2	2	2	2.1	2.1	2.1	2.4	2.1	24
30	2.1	2.2	2.3	2.3	2.5	**IZS**	2.6	2.5	2.3	2.1	2.1	2	2	2	2	2	2	2	2	2	2	2	2	2.1	2.6	2.1	24
HOURLY MAX	2.1	2.3	2.3	2.6	2.5	2.6	2.9	2.8	2.3	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2			
HOURLY AVG	1.8	1.8	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.7	1.7	1.8	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.8	1.8	1.8	1.8			

STATUS FLAG CODES

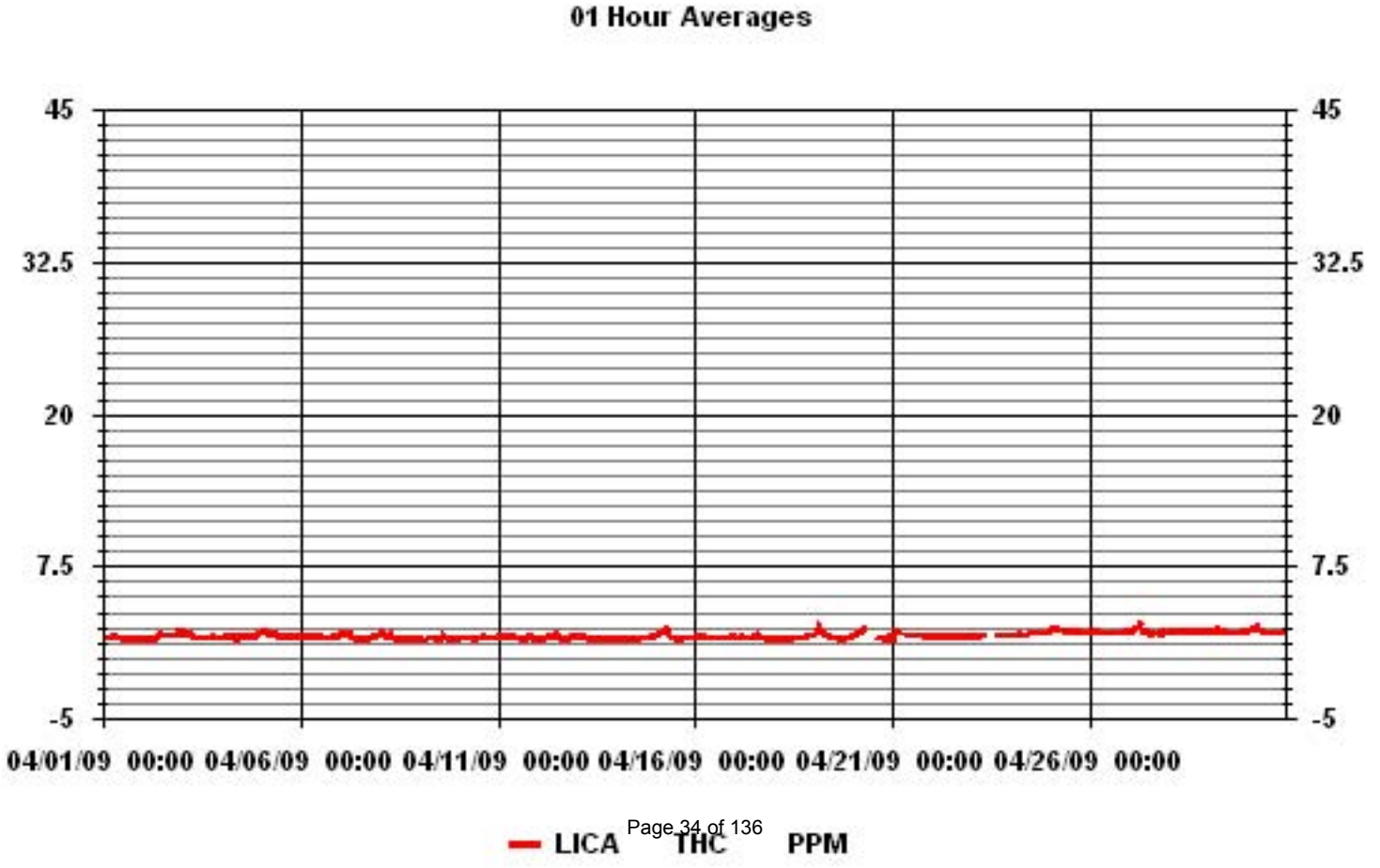
S	- OUT OF SERVICE	IZS	- IZS - DAILY ZERO/SPAN CHECK
N	- INVALID DATA	M	- MISSING DATA
D	- INSTRUMENT DRIFT	P	- POWER FAILURE
C	- CALIBRATION	NA	- NOT APPLICABLE
BB	- BELOW BACKGROUND OF 1.5 PPM		



MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	666					
MAXIMUM 1-HR AVERAGE:	2.9	PPM	@ HOUR(S)	6	ON DAY(S)	27
MAXIMUM 24-HR AVERAGE:	2.2	PPM			ON DAY(S)	25, 27

IZS CALIBRATION TIME:	33	HRS	OPERATIONAL TIME:	715	HRS
MONTHLY CALIBRATION TIME:	16	HRS	AMD OPERATION UPTIME:	99.3	%
STANDARD DEVIATION:	0.24		MONTHLY AVERAGE:	1.79	PPM


01 Hour Averages
45
32.5
20
7.5
-5
04/01/09 00:00
04/06/09 00:00
04/11/09 00:00
04/16/09 00:00
04/21/09 00:00
04/26/09 00:00
LICA THC PPM

LICA
THC / WD Joint Frequency Distribution (Percent)

April 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	4.35	9.45	12.46	5.55	9.45	12.46	10.36	2.55	2.25	1.20	6.30	5.85	4.95	4.05	5.40	3.30	100.00
<	10.0	.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
>=	50.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	Totals	4.35	9.45	12.46	5.55	9.45	12.46	10.36	2.55	2.25	1.20	6.30	5.85	4.95	4.05	5.40	3.30	

Calm : .00 %

Total # Operational Hours : 666

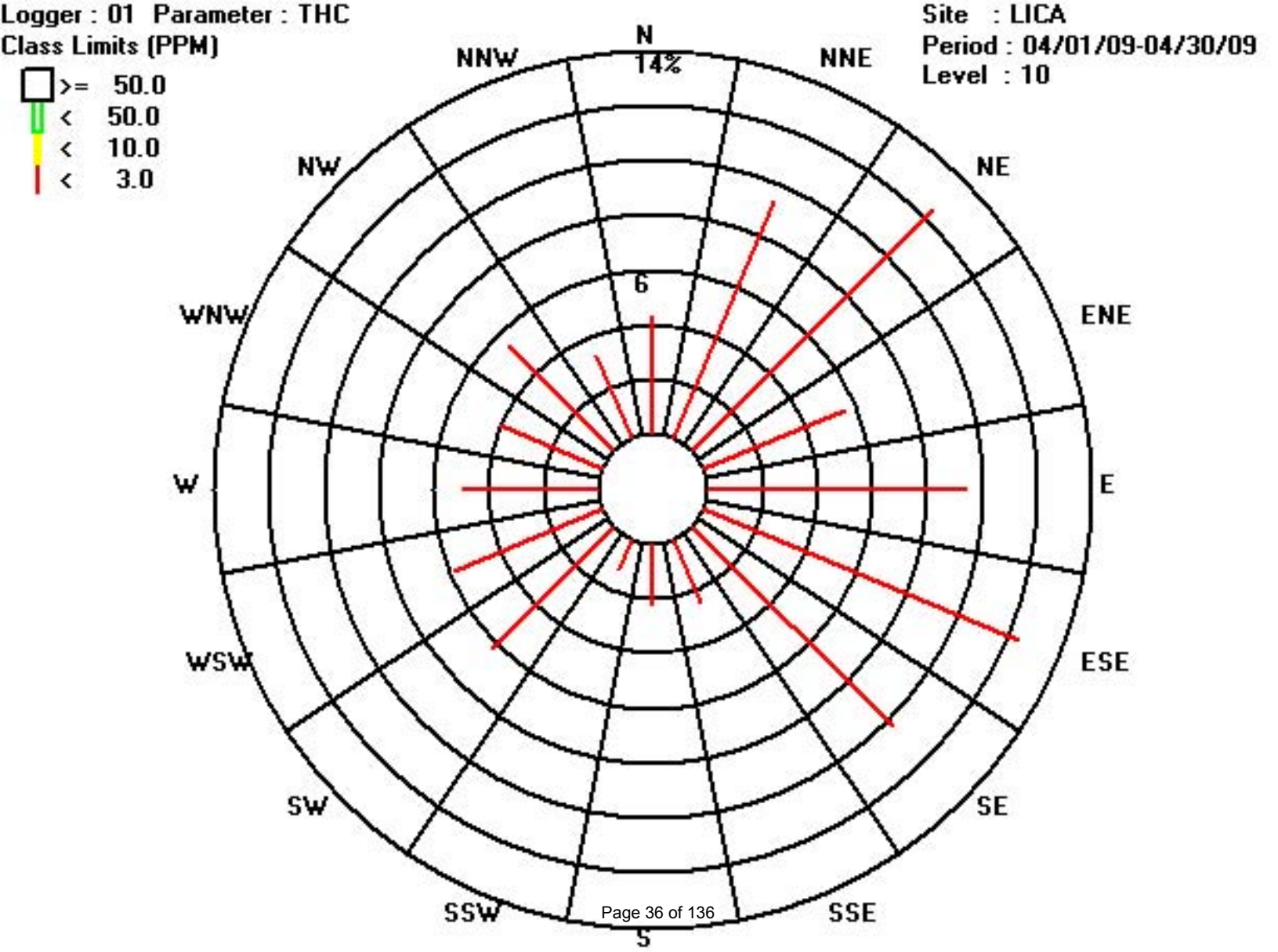
Distribution By Samples

Direction

	Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
<	3.0	29	63	83	37	63	83	69	17	15	8	42	39	33	27	36	22	666
<	10.0																	
<	50.0																	
>=	50.0																	
	Totals	29	63	83	37	63	83	69	17	15	8	42	39	33	27	36	22	

Calm : .00 %

Total # Operational Hours : 666


Logger : 01 Parameter : THC
Class Limits (PPM)
>= 50.0
< 50.0
< 10.0
< 3.0
Site : LICA
Period : 04/01/09-04/30/09
Level : 10
N
14%
NNE
NE
ENE
E
ESE
SE
SSE
S
SSW
SW
WSW
W
WNW
NW
NNW
6

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - COLD LAKE

APRIL 2009

TOTAL HYDROCARBONS MAX instantaneous maximum in ppm

MST

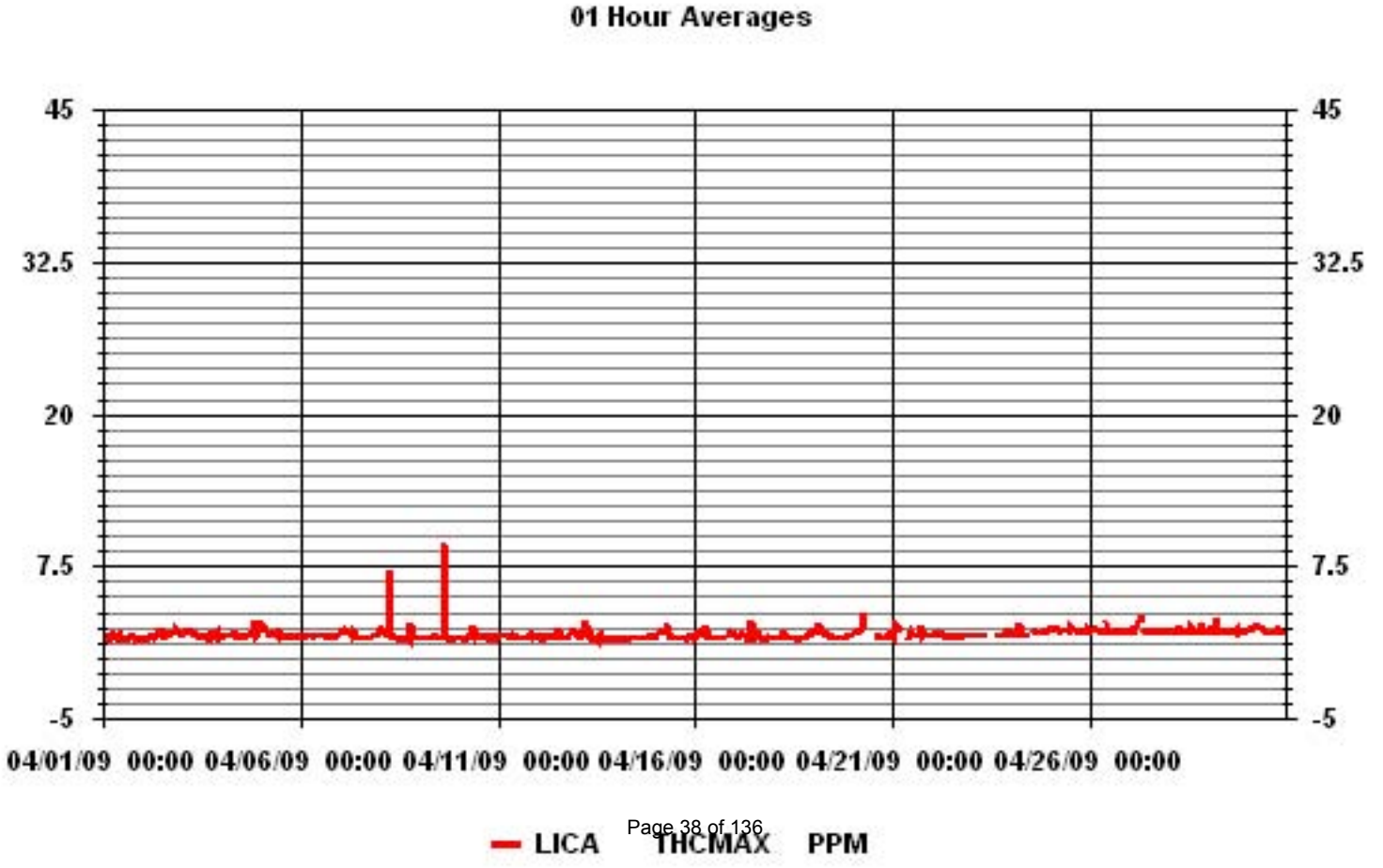
HOUR START	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY	24-HOUR	
HOUR END	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	MAX.	AVG.	RDGS.
DAY																											
1	1.8	1.8	1.7	1.7	1.6	1.8	2	2	1.8	1.7	2	**IZS**	1.5	1.5	1.5	1.6	1.6	1.8	1.8	1.5	1.7	1.6	1.6	1.5	2	1.7	24
2	1.5	1.6	1.5	1.5	1.6	1.6	2	1.6	1.7	2	**IZS**	2.3	2	1.8	1.9	1.9	1.9	2.1	2	2	2.4	2.2	2.2	2.1	2.4	1.9	24
3	2	2.1	2.2	2.2	2.1	2.1	2.1	1.9	1.9	**IZS**	1.8	1.7	1.7	1.7	1.7	1.7	1.7	1.6	1.9	1.9	1.9	2.1	1.6	1.7	2.2	1.9	24
4	1.8	1.7	1.8	1.8	1.8	1.8	1.9	2.1	**IZS**	1.7	1.8	1.9	1.7	1.7	1.7	1.8	1.8	1.8	1.9	2	2.9	2	2.2	2.2	2.9	1.9	24
5	2.9	2.2	2.5	2.3	2.1	2	2.1	**IZS**	2	2.1	1.9	2.3	1.8	1.7	1.9	1.8	1.7	1.7	1.7	1.8	1.8	1.7	1.7	1.7	2.9	2.0	24
6	1.7	1.8	1.7	1.8	1.8	1.9	**IZS**	1.9	1.7	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.7	1.7	1.7	1.7	1.7	1.7	1.8	1.9	1.9	1.8	24
7	2.1	2.1	2.1	2.3	2.1	**IZS**	2.1	1.9	2.3	2.1	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.7	1.9	1.8	1.8	2	2.3	1.9	24
8	2.3	2.4	2.1	2	**IZS**	1.9	7.2	1.7	1.7	1.7	1.6	1.6	1.5	1.5	1.6	1.5	1.6	1.8	1.6	2.9	1.6	1.6	1.6	1.6	7.2	2.0	24
9	1.6	1.6	1.6	**IZS**	1.6	1.6	1.7	1.6	1.6	1.7	1.7	1.7	1.6	1.6	1.6	**9.5**	3.4	1.7	1.7	1.6	1.7	1.6	1.7	1.6	**9.5**	2.1	24
10	1.6	1.6	**IZS**	1.7	1.6	1.7	1.7	1.7	1.7	2.6	1.7	1.9	1.7	1.7	1.7	1.7	1.7	1.8	1.6	1.8	1.7	1.7	1.6	1.8	2.6	1.7	24
11	1.7	**IZS**	1.9	1.8	1.8	1.8	1.8	1.9	1.8	2	1.8	1.7	1.7	1.7	1.6	1.6	1.7	1.6	1.6	1.9	2.1	2	1.7	1.8	2.1	1.8	24
12	**IZS**	1.7	1.7	1.7	1.6	1.7	1.8	1.8	1.8	1.8	1.7	1.9	2.2	2.2	1.8	1.6	1.6	1.6	1.6	1.8	1.9	2.2	2.2	**IZS**	2.2	1.8	24
13	1.9	1.9	1.8	2.1	2.2	3	1.8	2.1	1.7	1.5	1.6	1.5	1.5	1.8	1.5	1.8	1.5	1.5	1.5	1.5	1.6	1.5	**IZS**	1.5	3	1.8	24
14	1.5	1.5	1.5	1.5	1.5	1.6	1.5	1.5	1.5	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.7	1.6	1.6	1.8	**IZS**	1.7	1.7	1.8	1.6	24
15	1.9	2	2	2.2	2.3	2.2	2.5	2.5	2.2	1.6	1.6	1.7	1.6	1.6	1.6	1.6	1.6	1.6	1.7	1.6	**IZS**	1.8	1.8	1.7	2.5	1.9	24
16	2	1.9	1.9	1.9	2.2	2	2.6	1.7	2.1	1.7	1.6	1.6	1.6	1.6	1.7	1.6	1.6	1.6	1.6	**IZS**	1.9	2.1	1.9	1.9	2.6	1.8	24
17	1.9	1.7	1.7	1.8	2	2	1.9	1.6	1.7	1.6	3	1.6	1.7	1.8	2.2	1.8	1.6	1.7	**IZS**	1.6	1.8	1.6	1.6	1.6	3	1.8	24
18	1.6	1.6	1.6	1.6	1.6	1.6	2.1	1.6	1.6	1.6	1.7	1.6	1.6	1.6	1.7	1.6	1.7	**IZS**	1.7	1.9	1.8	1.9	1.9	2.1	2.1	1.7	24
19	2.1	2.1	2.6	2.7	2.6	2.2	2	2.1	2	1.8	1.8	1.7	1.6	1.6	1.6	1.6	**IZS**	1.6	1.6	1.6	1.8	1.8	1.8	1.8	2.7	1.9	24
20	2	2	2.1	2.1	2.2	2.3	3.4	**C**	**C**	**C**	**M**	**M**	**M**	**M**	**M**	**IZS**	1.7	1.7	1.6	1.6	1.6	1.8	1.9	2	3.4	2.0	19
21	1.8	2.9	**IZS**	2.6	2.4	**C**	**C**	**C**	**C**	**C**	1.8	2.1	1.8	1.8	**IZS**	1.8	1.8	2.5	1.8	2	1.8	1.8	1.8	1.8	2.9	2.0	24
22	1.8	1.8	**IZS**	1.9	1.9	1.9	1.9	1.9	1.7	1.7	1.7	1.7	1.7	1.7	**IZS**	1.7	1.7	1.7	1.7	1.8	1.8	1.8	1.8	1.8	1.9	1.8	24
23	1.8	1.8	**IZS**	1.8	1.8	1.8	1.8	1.8	**C**	**C**	**C**	**C**	**C**	**C**	**C**	**C**	1.8	1.8	1.8	1.8	1.9	1.9	1.9	2.3	2.3	1.9	24
24	1.9	1.9	1.9	1.9	1.9	2.7	2.3	P	1.8	1.8	1.8	**IZS**	2.1	P	2.2	2.1	2.1	2	2	2	2.1	2.1	2.2	2.3	2.7	2.1	22
25	2.3	2.4	2.5	2.4	2.5	2.4	2.2	2.3	2.2	2.2	**IZS**	2.1	2.6	2.4	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.5	2.3	2.6	2.3	24
26	2.1	2.2	2.2	2.3	2.3	2.2	2.2	2.1	2.1	**IZS**	2.8	2.1	2.1	2.1	2.3	2.2	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.1	2.8	2.2	24
27	2.3	2.2	2.4	2.3	2.6	2.9	3.1	3.1	**IZS**	2.1	2.2	2.1	2.1	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.2	2.1	2.1	2.1	3.1	2.3	24
28	2.1	2.1	2.1	2.1	2.1	2.3	2.3	**IZS**	2.1	2.1	2.1	2.1	2.2	2.6	2.4	2.1	2.1	2.1	2.1	2.1	2.8	2.2	2.2	2.1	2.8	2.2	24
29	2.3	2.4	2.2	2.3	2.5	3.1	**IZS**	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.4	2.1	2.1	2.1	2.3	2.2	3.1	2.2	24
30	2.2	2.3	2.5	2.4	2.7	**IZS**	2.7	2.6	2.4	2.4	2.1	2.1	2	2	2	2	2	2.2	2.4	2.4	2.1	2.1	2.2	2.1	2.7	2.3	24
HOURLY MAX	3	3	3	3	3	3	7	3	2	3	3	2	3	3	2	10	3	3	2	3	3	2	3	2			
HOURLY AVG	1.9	2.0	2.0	2.0	2.0	2.1	2.3	2.0	1.9	1.9	1.9	1.9	1.8	1.8	1.8	2.1	1.8	1.8	1.8	1.9	2.0	1.9	1.9	1.9			

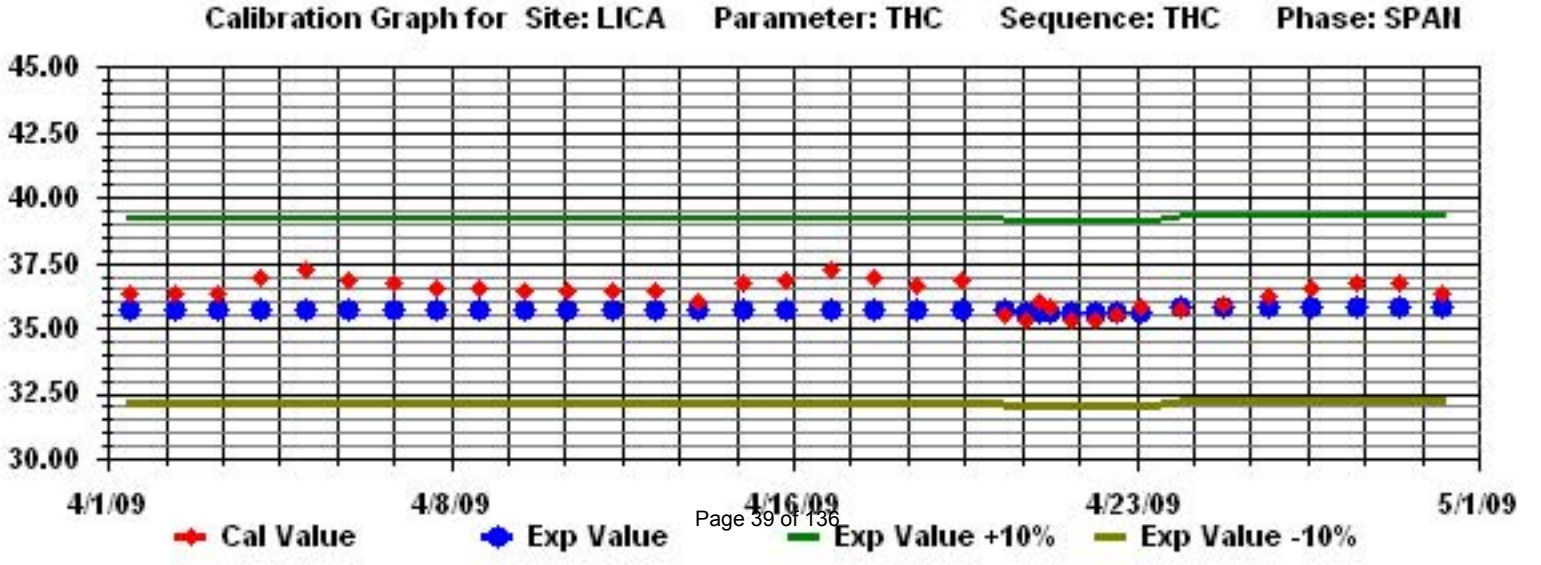
STATUS FLAG CODES

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
BB	- BELOW BACKGROUND OF 1.5 PPM		

MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:		664					
MAXIMUM INSTANTANEOUS VALUE:		9.5	PPM	@ HOUR(S)	15	ON DAY(S)	9
IZS CALIBRATION TIME:	33	HRS		OPERATIONAL TIME:		713	HRS
MONTHLY CALIBRATION TIME:	16	HRS					
STANDARD DEVIATION:	0.48						


01 Hour Averages
45
32.5
20
7.5
-5
04/01/09 00:00
04/06/09 00:00
04/11/09 00:00
04/16/09 00:00
04/21/09 00:00
04/26/09 00:00
LICA THCMAX PPM


Calibration Graph for Site: LICA Parameter: THC Sequence: THC Phase: SPAN
45.00
42.50
40.00
37.50
35.00
32.50
30.00
4/1/09
4/8/09
4/16/09
4/23/09
5/1/09
Cal Value
Exp Value
Exp Value +10%
Exp Value -10%

Particulate Matter 2.5

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - *COLD LAKE*

APRIL 2009

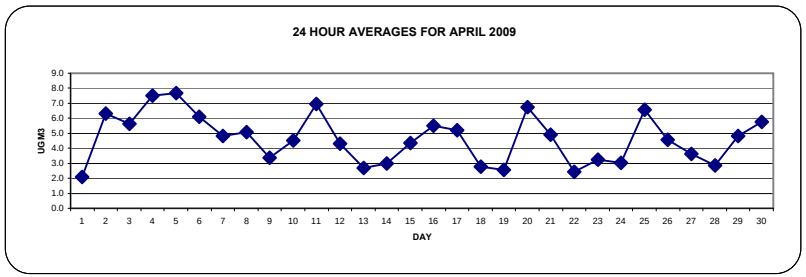
PARTICULATE MATTER 2.5 (PM2.5) hourly averages in ug/m^3

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	1.4	0.7	1.5	0	1.5	4.9	5.6	2.1	0.4	0.5	0.1	1.5	0	2.3	0.7	2.4	2.2	4.4	3.3	4.2	5.7	0	1.2	3.9	5.7	2.1	24
2	4.6	1	2.9	0.7	3.3	7.4	10.2	4.9	1.3	6.9	10.7	9.5	6.6	6.9	5.8	5.9	4.4	6.8	3.4	4	6.8	11.9	14.2	11.4	14.2	6.3	24
3	8.8	5.7	8.9	8.3	7.2	7.2	7.9	6.8	5	3.3	4.8	4.8	3.1	5.8	6.5	3.7	3	4.9	3.7	6.1	11.2	5.3	1.4	1.8	11.2	5.6	24
4	4.6	8.6	6.2	5	5.3	7	7.9	7.8	11.5	5.3	5.8	6.3	7.6	6	3.8	4.7	7.5	7.1	8	8.2	12.8	11.7	9.3	12.5	12.8	7.5	24
5	13.6	14.5	11.3	10.2	6.9	8.3	8.7	13.2	7	7.3	9	6	5.5	6.6	6.4	5.6	7.2	4.8	7	4.6	5.7	4	4	7	14.5	**7.7**	24
6	4.5	2.3	2.3	2.1	10.1	8.7	4.8	4.2	6.6	4.8	7.2	5.3	5.5	5.8	5.3	6.5	7.4	8.3	7	4.7	7.9	7.8	9.8	7.3	10.1	6.1	24
7	5.3	3.8	0.7	0	6	7.6	5.6	6.8	5.5	11.7	3.5	5.6	2.7	0.7	3.8	4.2	2.9	2.3	3.5	4.6	6.3	7.9	8.5	6.4	11.7	4.8	24
8	12.7	14	9.1	9.1	7.9	9.1	8.8	3.9	1.4	3.7	2.5	6.2	5.2	4.8	1.7	3.3	1.5	1.9	2	3.5	0	5.8	2.3	1.1	14.0	5.1	24
9	1.6	4.2	2.1	1.9	3.8	5.9	1.3	1.9	4.6	3.8	3.6	1.3	2.2	4.4	5.3	6	4.8	3.6	2.8	3.5	4.4	1.9	3.1	2.5	6.0	3.4	24
10	2.7	0	1.4	3.1	4	6.1	2.4	4	1.9	2	5.8	5.8	5.4	5.4	3	6.6	7.1	6.9	5.9	4.7	9.5	4.5	3.9	6.1	9.5	4.5	24
11	2.2	2.8	6.1	4.7	3.5	6.7	7.6	8.2	5.3	4.2	8.1	8.2	7.1	6.4	8.7	8.1	5.3	7.5	7.5	8.2	8.4	**16.2**	10.1	5.4	**16.2**	6.9	24
12	7.6	6.6	5.5	6.7	4.2	0.4	6.6	5.9	5.6	7.1	7	3.6	7.5	4.5	1.1	0	0	0.6	0.7	3	2.2	5.3	6.4	5.4	7.6	4.3	24
13	0	3.9	2.3	0	1.7	2.4	2.4	9	3.7	0	2.7	4.1	3.7	2.8	0.3	1.6	2.2	2.4	2.4	5.5	0.9	3.2	3.9	3.2	9.0	2.7	24
14	4.4	6	5.7	5.2	6.1	5	1.4	0.8	0	1.7	0	0	1	0.6	0.3	1.2	4.3	3.3	0	2.3	3.7	4.3	8.1	6.5	8.1	3.0	24
15	3.4	4	9.2	9.2	7.3	4.8	5	6	6.8	6.7	2.1	4.5	4.3	3.5	1.5	2.6	3.2	2.9	4	4.4	3.1	0.3	1.8	3.8	9.2	4.4	24
16	5.4	4.2	9.5	6.9	6.2	12.3	8.3	1.5	3.6	3.6	2.2	4.8	4.4	2.3	3.2	2.5	2.7	3.6	2.4	3.7	6.5	11.8	9.6	11.1	12.3	5.5	24
17	4.5	6.7	6	4.7	2.3	7	5.3	8.5	2.1	4.5	8.4	6	7.9	11.3	7	5.1	7.2	2.1	1.8	2.9	5.1	4.8	0.4	3.2	11.3	5.2	24
18	9.7	6.7	4.4	6.4	3.9	1.4	0.3	1.6	1.3	3.2	5.9	0.9	3.8	3.9	3.6	0	0	0	0.1	0.5	2.6	0.8	0.7	4.8	9.7	2.8	24
19	1.8	2.1	1.7	2.1	1.7	0	2.7	8.1	5.4	2.4	1.2	1.8	0.6	3.6	3.6	3.7	2.4	1.2	3.6	1.2	3.3	3	3.4	1.3	8.1	2.6	24
20	0	2.1	5.2	6.4	5.5	7.3	6.1	9.8	10.6	10.1	16.1	12	**C**	**C**	**C**	5.4	3.7	5.8	5.2	4.3	3.7	5.1	9.7	7.1	16.1	6.7	24
21	3.6	7.8	7.4	10.9	4.2	6.5	8	4.9	3.6	1.3	5.5	2.9	1.1	3	3.8	6.1	4.3	2.4	5.2	3.6	5.5	5.8	5.8	4.3	10.9	4.9	24
22	4.4	2.5	3.9	6.8	4.1	2.6	2.3	0	0	0	5.6	3.9	1.5	1.8	0	0	2.9	0.2	4.2	4.3	2	3.5	1.5	0.5	6.8	2.4	24
23	7	0.2	0	2.8	0	0	0	6.2	4.7	3.6	4	6.1	7.6	3.2	3.3	2.4	2.8	5	0.6	3.2	2.4	6.9	1.9	4	7.6	3.2	24
24	3.6	4.3	5.7	1.1	2.2	4.4	6.4	4.4	7.3	4.3	1	0	0	0	0	2.4	2.6	0	3.6	6.3	2.5	0.2	4.6	6.1	7.3	3.0	24
25	5.3	3.8	6.1	3.2	4.5	6.5	5.8	1	5	6.4	7.4	9.6	10.5	6.7	7.8	5.5	9.9	10.3	9.2	6	5.2	7.5	7.4	7.1	10.5	6.6	24
26	4.1	4.8	7.2	1.8	1.7	7.5	9.9	8.1	6.8	5.3	2.9	6.3	3.9	4.1	2.1	1.6	4.4	4.4	2.7	1.9	4.8	4.3	2.8	6	9.9	4.6	24
27	4.8	2.5	3.4	3.7	2.6	5.3	6.3	6.5	1.1	1.4	2.8	3.7	4.4	2.7	2.9	5.8	3.7	2.2	4.6	4.6	3.1	4	1.7	3.5	6.5	3.6	24
28	1.9	3.8	2.1	2.1	3.1	4.1	4.1	0.2	0.7	1.3	5.3	5.3	1.5	0	3.5	1.2	2.7	0.5	3.9	6.3	1.7	5.4	2.3	5.7	6.3	2.9	24
29	4.2	4.4	2.3	2.8	2.4	8.3	5.5	8.1	4.9	2.7	3.3	2.3	4.3	2.3	4.9	5.7	5.4	4.2	3.1	2.9	7.1	9.5	7.9	7.1	9.5	4.8	24
30	6.2	6.1	7.2	0.7	3.6	4.2	6.3	6.2	6.7	5.4	2.7	7	3.8	6.6	5	5.8	7.1	6.3	6.6	10.7	8.4	4.7	4.8	5.6	10.7	5.7	24
HOURLY MAX	14	15	11	11	10	12	10	13	12	12	16	12	11	11	9	8	10	10	9	11	13	16	14	13			
HOURLY AVG	4.8	4.7	4.9	4.3	4.2	5.6	5.5	5.4	4.3	4.2	4.9	4.8	4.2	4.1	3.6	3.9	4.2	3.9	3.9	4.5	5.1	5.6	5.1	5.4			

STATUS FLAG CODES

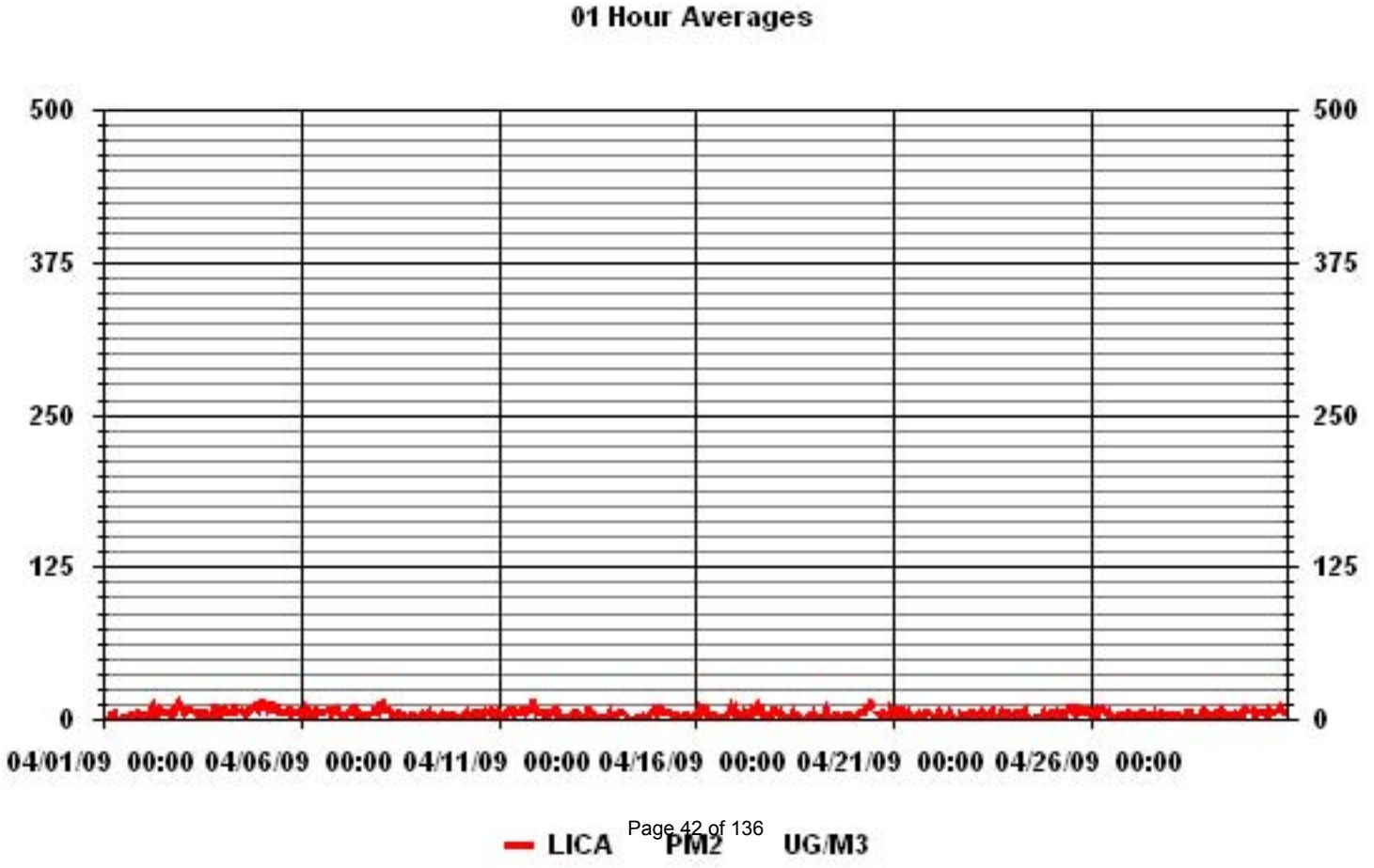
S	- OUT OF SERVICE	IZS	- IZS - DAILY ZERO/SPAN CHECK
N	- INVALID DATA	M	- MISSING DATA
D	- INSTRUMENT DRIFT	P	- POWER FAILURE
C	- CALIBRATION	NA	- NOT APPLICABLE



OBJECTIVE LIMIT: **ALBERTA ENVIRONMENT:** 1-HR - 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:	682						
MAXIMUM 1-HR AVERAGE:	16.2	UG/M^3	@ HOUR(S)	21	ON DAY(S)	11	
MAXIMUM 24-HR AVERAGE:	7.7	UG/M^3			ON DAY(S)	5	
IZS CALIBRATION TIME:	0	HRS	OPERATIONAL TIME:			720	HRS
MONTHLY CALIBRATION TIME:	3	HRS	AMD OPERATION UPTIME:			100.0	%
STANDARD DEVIATION:	2.90		MONTHLY AVERAGE:			4.62	UG/M^3


01 Hour Averages
500
375
250
125
0
04/01/09 00:00
04/06/09 00:00
04/11/09 00:00
04/16/09 00:00
04/21/09 00:00
04/26/09 00:00
LICA PM2 UG/M3

LICA
PM2 / WD Joint Frequency Distribution (Percent)

April 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	4.18	9.20	12.69	5.43	9.34	12.69	9.76	2.51	2.23	1.11	5.99	6.27	4.88	4.04	6.41	3.20	100.00
<	60.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
<	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	4.18	9.20	12.69	5.43	9.34	12.69	9.76	2.51	2.23	1.11	5.99	6.27	4.88	4.04	6.41	3.20	

Calm : .00 %

Total # Operational Hours : 717

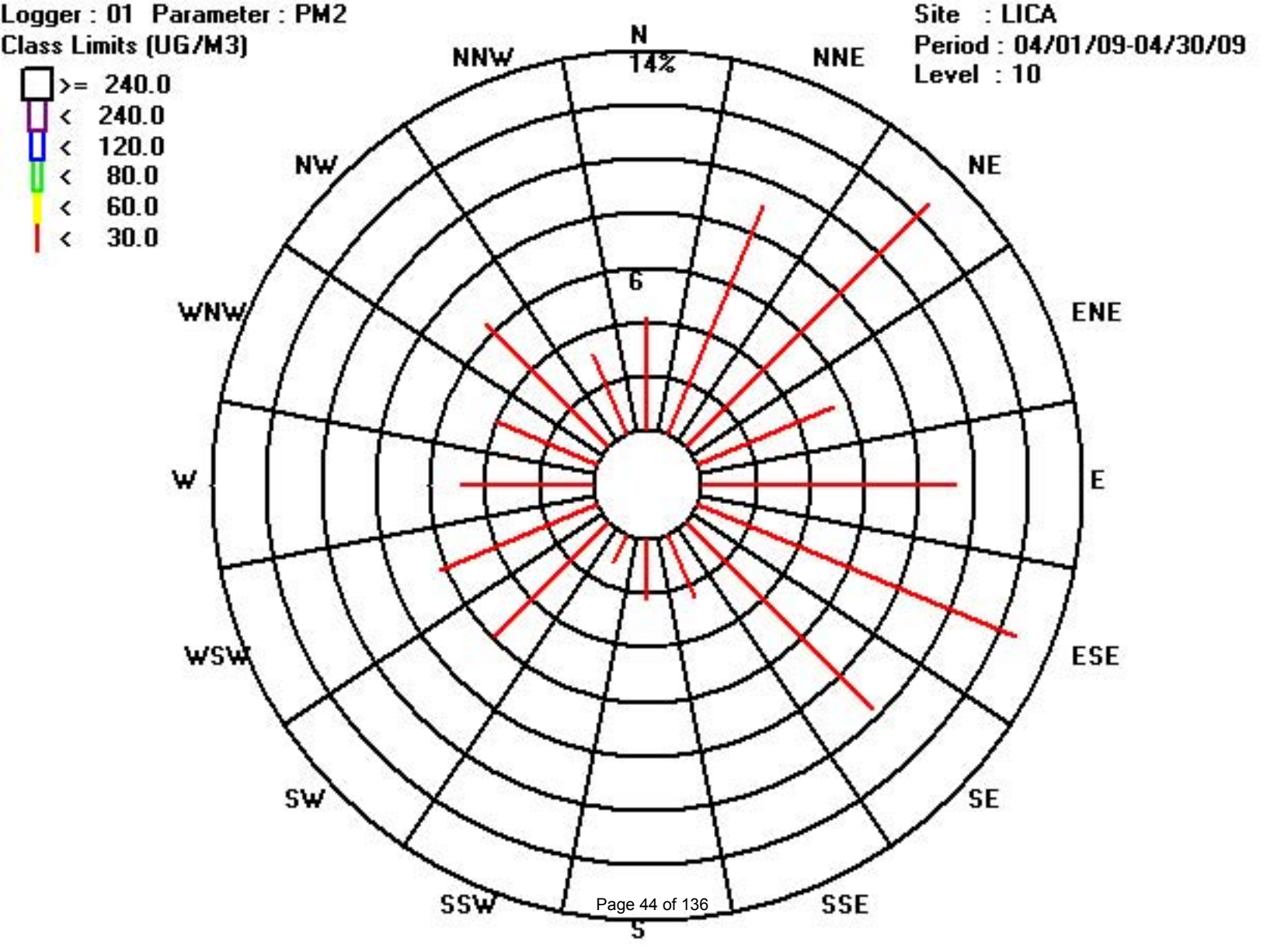
Distribution By Samples

Direction

	Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
<	30.0	30	66	91	39	67	91	70	18	16	8	43	45	35	29	46	23	717
<	60.0																	
<	80.0																	
<	120.0																	
<	240.0																	
>=	240.0																	
	Totals	30	66	91	39	67	91	70	18	16	8	43	45	35	29	46	23	

Calm : .00 %

Total # Operational Hours : 717


Logger : 01 Parameter : PM2
Class Limits (UG/M3)
>= 240.0
< 240.0
< 120.0
< 80.0
< 60.0
< 30.0
Site : LICA
Period : 04/01/09-04/30/09
Level : 10
N
14%
NNE
NE
ENE
E
ESE
SE
SSE
S
SSW
SW
WSW
W
WNW
NW
NNW
6

Nitrogen Dioxide

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - *COLD LAKE*

APRIL 2009

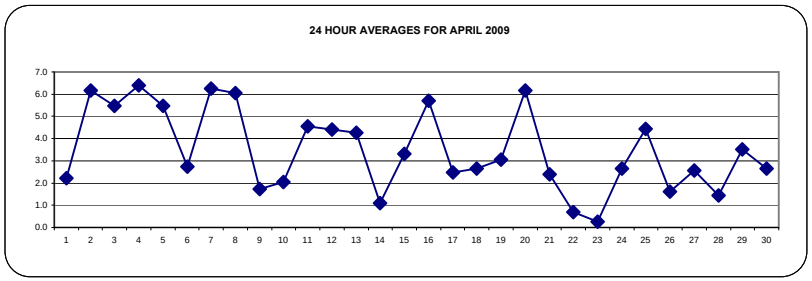
NITROGEN DIOXIDE hourly averages in ppb

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	4	2	1	1	1	1	3	4	2	2	2	**IZS**	1	1	2	1	1	3	3	1	4	7	2	2	7	2.2	24
2	1	1	2	2	4	5	9	8	5	3	**IZS**	2	2	2	3	3	3	4	7	10	13	21	19	13	21	6.2	24
3	8	14	14	9	12	10	9	8	7	**IZS**	2	1	1	1	1	1	1	1	3	6	11	3	1	2	14	5.5	24
4	6	5	4	7	7	10	12	23	**IZS**	2	2	1	1	1	1	1	1	1	2	5	15	11	12	17	23	**6.4**	24
5	16	12	19	14	14	13	18	**IZS**	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	19	5.5	24
6	1	1	1	1	1	8	**IZS**	6	2	1	2	2	2	2	2	2	2	2	3	4	4	6	5	3	8	2.7	24
7	4	4	4	10	6	**IZS**	15	**C**	**C**	**C**	**C**	**C**	**C**	**C**	1	1	1	1	2	6	8	10	13	14	15	6.3	24
8	18	21	18	12	**IZS**	21	24	4	2	1	2	0	0	0	1	1	1	2	3	2	2	2	1	1	24	6.0	24
9	2	2	1	**IZS**	1	4	4	3	2	2	2	1	1	1	1	2	2	2	2	1	1	1	1	1	4	1.7	24
10	1	1	**IZS**	1	2	2	1	1	1	2	1	1	1	1	1	2	2	3	1	3	6	4	2	7	7	2.0	24
11	5	**IZS**	9	3	4	8	7	4	1	1	1	2	1	1	1	1	1	2	3	11	15	12	5	7	15	4.6	24
12	**IZS**	3	7	4	4	3	6	8	6	3	2	3	4	3	1	1	1	1	1	7	7	14	8	**IZS**	14	4.4	24
13	10	9	8	12	7	19	8	6	3	2	1	1	1	2	1	1	1	1	1	1	1	1	**IZS**	1	19	4.3	24
14	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	1	1	1	1	3	**IZS**	6	4	6	1.1	24
15	4	4	4	4	8	7	7	8	5	1	1	1	1	0	0	0	1	1	1	2	**IZS**	5	7	4	8	3.3	24
16	5	5	4	6	**25**	14	9	5	2	1	0	0	1	0	0	0	0	1	1	**IZS**	12	15	14	11	**25**	5.7	24
17	6	3	2	2	7	13	9	2	1	1	1	1	1	1	1	1	1	1	**IZS**	1	1	1	0	0	13	2.5	24
18	1	1	1	1	2	2	3	3	2	2	1	1	1	2	3	3	3	**IZS**	2	3	5	6	7	6	7	2.7	24
19	6	5	7	9	8	3	3	4	4	2	1	0	0	0	0	0	**IZS**	0	1	2	6	4	3	2	9	3.0	24
20	4	8	8	6	8	7	13	25	21	12	3	1	1	1	2	**IZS**	1	1	1	1	1	5	8	4	25	6.2	24
21	4	4	3	3	6	9	6	5	2	1	1	1	1	0	**IZS**	1	1	3	1	1	1	1	0	0	9	2.4	24
22	1	1	1	2	3	3	1	3	1	0	0	0	0	**IZS**	0	0	0	0	0	0	0	0	0	0	3	0.7	24
23	0	0	1	0	0	0	0	0	0	0	0	0	**IZS**	0	0	0	0	0	0	0	0	1	1	2	2	0.3	24
24	2	3	3	4	4	14	10	1	1	0	0	**IZS**	0	0	0	0	0	0	0	1	3	6	4	5	14	2.7	24
25	5	10	12	15	15	16	6	2	2	1	**IZS**	1	1	1	1	2	2	1	2	1	1	1	2	2	16	4.4	24
26	1	2	3	2	5	4	2	1	0	**IZS**	0	0	1	0	1	1	1	1	1	1	2	4	2	2	5	1.6	24
27	2	2	3	2	7	9	11	9	**IZS**	1	1	1	2	1	1	0	0	0	1	1	2	1	1	1	11	2.6	24
28	1	1	1	2	3	3	1	**IZS**	0	0	0	0	0	0	0	0	1	0	1	4	9	2	2	2	9	1.4	24
29	5	4	5	12	10	12	**IZS**	6	1	1	0	0	0	0	0	2	0	1	1	2	5	5	5	4	12	3.5	24
30	5	5	6	3	4	**IZS**	7	11	5	2	1	1	0	0	1	0	1	1	1	2	0	0	2	3	11	2.7	24
HOURLY MAX	18	21	19	15	25	21	24	25	21	12	3	3	4	3	3	3	3	4	7	11	15	21	19	17			
HOURLY AVG	4.4	4.6	5.3	5.2	6.2	7.9	7.3	6.0	3.0	1.7	1.1	0.9	0.9	0.8	0.9	1.0	1.1	1.2	1.6	2.8	4.8	5.2	4.7	4.1			

STATUS FLAG CODES

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

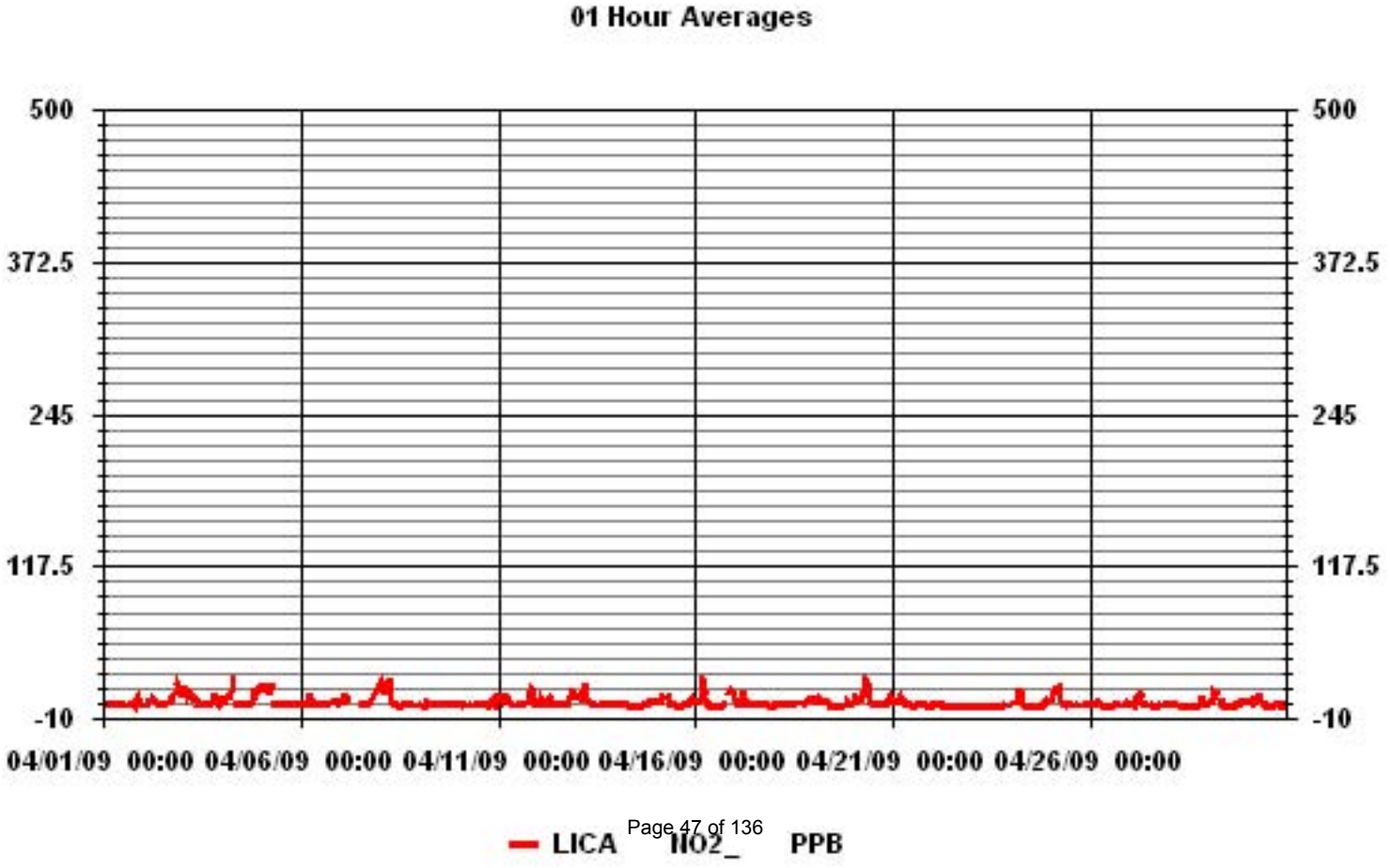


OBJECTIVE LIMIT: **ALBERTA ENVIRONMENT:** 1-HR 212 PPB | 24-HR 106 PPB

MONTHLY SUMMARY

NUMBER OF 1-HR EXCEEDENCES:	0					
NUMBER OF 24-HR EXCEEDENCES:	0					
NUMBER OF NON-ZERO READINGS:	583					
MAXIMUM 1-HR AVERAGE:	25	PPB	@ HOUR(S)	4	ON DAY(S)	16
MAXIMUM 24-HR AVERAGE:	6.4	PPB			ON DAY(S)	4

IZS CALIBRATION TIME:	31	HRS	OPERATIONAL TIME:	720	HRS
MONTHLY CALIBRATION TIME:	7	HRS	AMD OPERATION UPTIME	100.0	%
STANDARD DEVIATION	4.32		MONTHLY AVERAGE	3.45	PPB


01 Hour Averages
500
372.5
245
117.5
-10
04/01/09 00:00
04/06/09 00:00
04/11/09 00:00
04/16/09 00:00
04/21/09 00:00
04/26/09 00:00
LICA NO2_ PPB

LICA
NO2_ / WD Joint Frequency Distribution (Percent)

April 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	4.25	9.23	12.31	5.27	9.53	12.02	9.97	2.49	2.34	1.17	6.30	6.01	4.98	4.10	6.59	3.37	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	4.25	9.23	12.31	5.27	9.53	12.02	9.97	2.49	2.34	1.17	6.30	6.01	4.98	4.10	6.59	3.37	

Calm : .00 %

Total # Operational Hours : 682

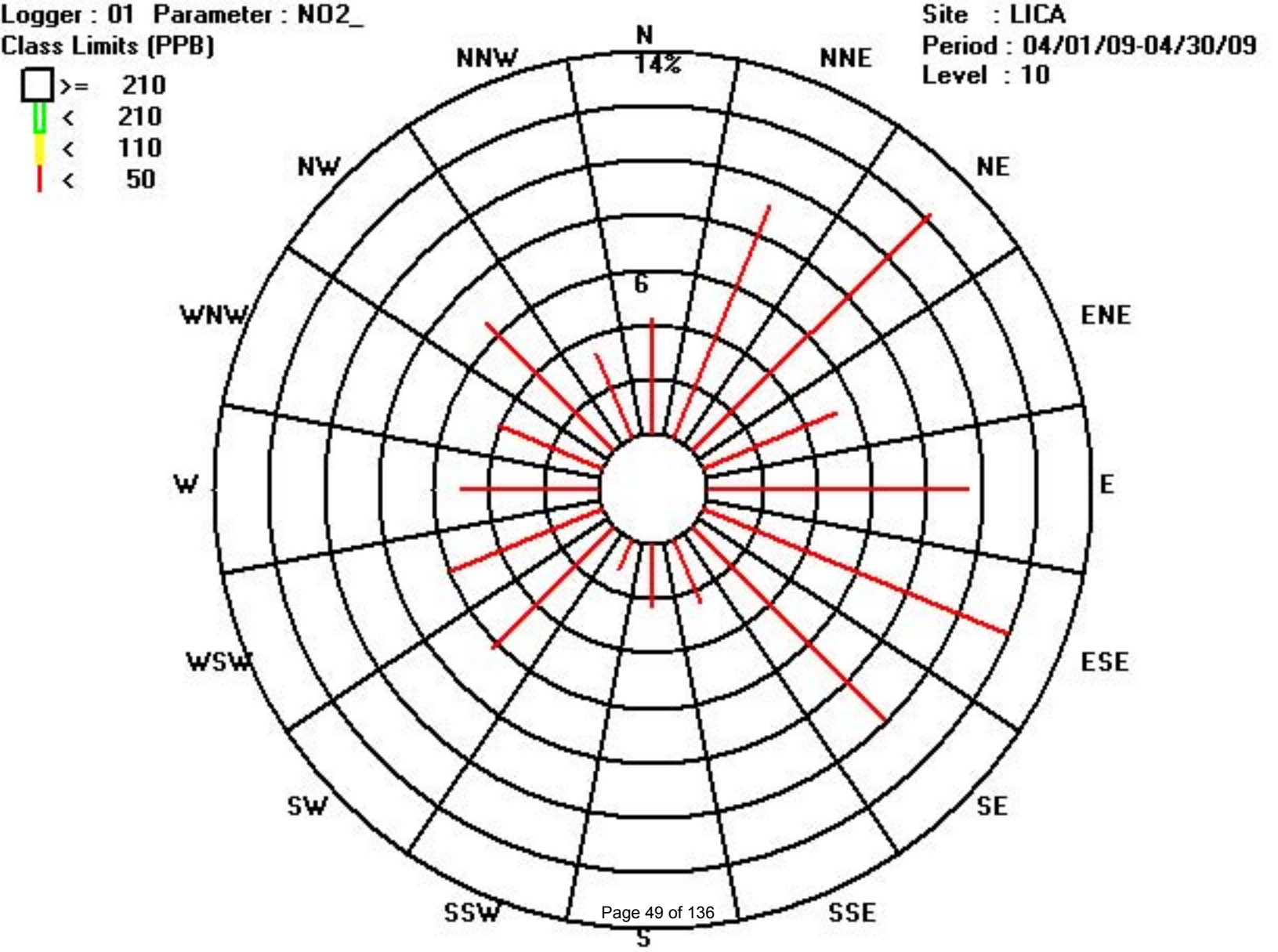
Distribution By Samples

Direction

Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
< 50	29	63	84	36	65	82	68	17	16	8	43	41	34	28	45	23	682
< 110																	
< 210																	
>= 210																	
Totals	29	63	84	36	65	82	68	17	16	8	43	41	34	28	45	23	

Calm : .00 %

Total # Operational Hours : 682


Logger : 01 Parameter : NO2_
Class Limits (PPB)
>= 210
< 210
< 110
< 50
Site : LICA
Period : 04/01/09-04/30/09
Level : 10
N
14%
NNE
NE
ENE
E
ESE
SE
SSE
S
SSW
SW
WSW
W
WNW
NW
NNW
6

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - *COLD LAKE*

APRIL 2009

NITROGEN DIOXIDE MAX instantaneous maximum in ppb

MST

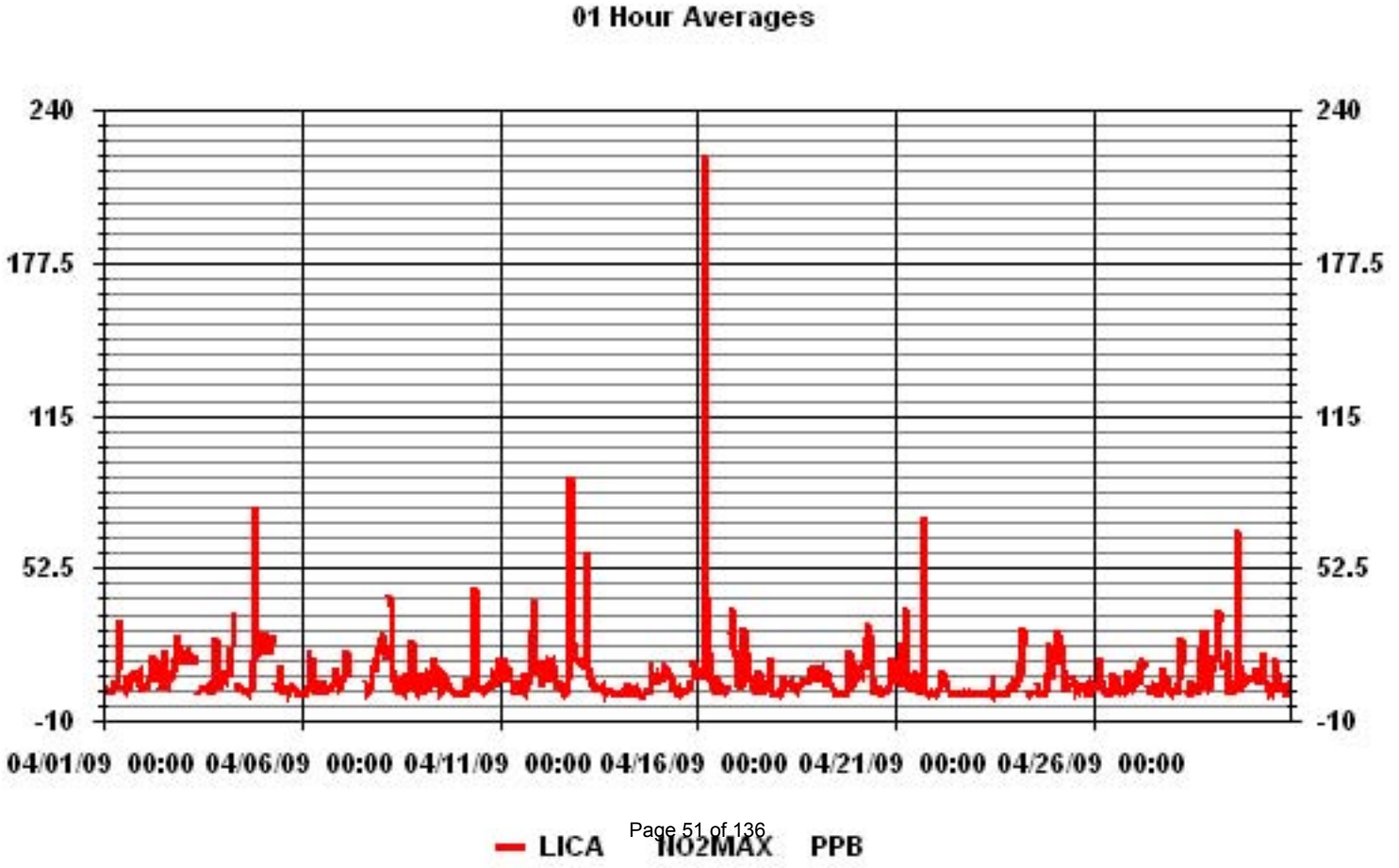
HOUR START	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY	24-HOUR	
HOUR END	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	MAX.	AVG.	RDGS.
DAY																											
1	5	4	2	2	2	2	5	5	3	11	30	**IZS**	4	3	8	4	5	8	10	6	9	10	5	3	30	6.3	24
2	3	4	4	7	7	15	15	11	12	7	**IZS**	4	6	19	5	4	6	7	10	16	21	25	22	18	25	10.8	24
3	13	17	18	13	18	16	15	13	16	**IZS**	2	3	3	3	3	4	2	2	5	20	24	13	3	10	24	10.3	24
4	9	8	7	9	9	19	20	33	**IZS**	4	4	2	4	2	2	2	1	2	3	15	78	16	26	26	78	13.1	24
5	23	17	26	22	17	21	24	**IZS**	5	3	3	13	1	2	2	4	1	2	5	3	3	1	1	1	26	8.7	24
6	1	1	1	2	4	18	**IZS**	15	2	2	5	3	6	2	2	4	3	3	4	5	5	12	8	4	18	4.9	24
7	5	6	8	19	9	**IZS**	24	**C**	**C**	**C**	**C**	**C**	**C**	**C**	**C**	5	2	3	4	13	10	15	17	20	24	10.7	24
8	24	26	22	16	**IZS**	40	37	12	7	2	7	1	3	2	8	2	10	5	5	23	4	3	2	6	40	11.6	24
9	5	9	2	**IZS**	3	9	8	8	16	4	13	6	2	3	9	8	3	5	4	3	2	1	1	1	16	5.4	24
10	1	1	**IZS**	1	7	3	3	4	3	45	6	4	2	4	2	3	3	5	3	6	9	8	4	16	45	6.2	24
11	14	**IZS**	15	6	10	12	M	7	2	2	2	6	3	3	2	9	3	5	6	26	27	39	9	11	39	10.0	24
12	**IZS**	5	15	9	7	7	14	13	14	9	6	3	5	5	3	1	2	2	7	90	26	23	15	**IZS**	90	12.8	24
13	15	14	12	16	11	59	13	8	5	5	4	3	3	4	3	4	1	2	2	2	2	1	**IZS**	1	59	8.3	24
14	1	1	1	1	3	2	4	4	1	1	2	3	1	1	0	0	1	2	2	1	12	**IZS**	9	5	12	2.5	24
15	9	8	6	9	14	10	11	10	8	2	4	2	3	1	2	2	2	2	3	6	**IZS**	13	13	7	14	6.4	24
16	10	12	7	9	**222**	41	29	19	7	4	1	3	8	4	1	3	2	3	4	**IZS**	27	36	20	17	**222**	21.3	24
17	12	5	4	3	28	25	19	9	7	3	8	2	1	11	2	2	6	3	**IZS**	3	16	1	1	1	28	7.5	24
18	1	2	1	2	8	4	6	5	5	6	3	3	2	3	4	5	7	**IZS**	6	6	10	10	12	9	12	5.2	24
19	10	6	11	12	11	4	6	10	5	5	4	3	1	1	1	1	**IZS**	1	1	14	19	11	5	6	19	6.4	24
20	8	11	10	9	14	11	24	30	26	16	8	2	2	3	3	**IZS**	1	2	2	3	3	15	16	6	30	9.8	24
21	6	8	6	4	21	21	36	11	3	4	2	7	11	3	**IZS**	2	4	73	2	2	1	2	1	1	73	10.0	24
22	2	1	2	8	7	10	4	6	3	1	1	1	1	**IZS**	1	1	1	2	1	1	2	1	1	1	10	2.6	24
23	1	1	1	1	1	1	1	1	1	2	1	7	**IZS**	1	1	1	1	1	1	1	3	4	5	2	7	1.7	24
24	7	5	6	14	9	28	22	P	2	1	2	**IZS**	1	P	4	1	1	1	1	2	10	22	7	10	28	7.4	22
25	17	13	27	26	18	21	12	3	3	5	**IZS**	8	7	2	3	2	4	4	3	4	1	1	6	5	27	8.5	24
26	3	4	4	5	16	7	4	2	1	**IZS**	1	4	9	1	8	4	2	3	2	3	6	10	5	3	16	4.7	24
27	4	5	10	5	13	14	14	13	**IZS**	4	2	2	4	3	5	1	1	4	12	4	8	3	2	1	14	5.8	24
28	2	2	2	5	7	24	14	**IZS**	2	1	1	6	1	4	3	1	20	4	3	27	26	8	4	5	27	7.5	24
29	10	17	15	15	35	32	**IZS**	12	12	19	1	3	1	6	3	68	1	13	9	8	8	6	7	7	68	13.4	24
30	7	8	11	6	6	**IZS**	7	18	7	6	2	3	2	5	16	3	10	4	2	5	1	1	3	6	18	6.0	24
HOURLY MAX	24	26	27	26	222	59	37	33	26	45	30	13	11	19	16	68	20	73	12	90	78	39	26	26			
HOURLY AVG	7.9	7.6	8.8	8.8	18.5	17.0	14.5	10.8	6.6	6.4	4.6	4.0	3.5	3.7	3.8	5.2	3.7	6.0	4.2	11.0	12.9	10.7	7.9	7.2			

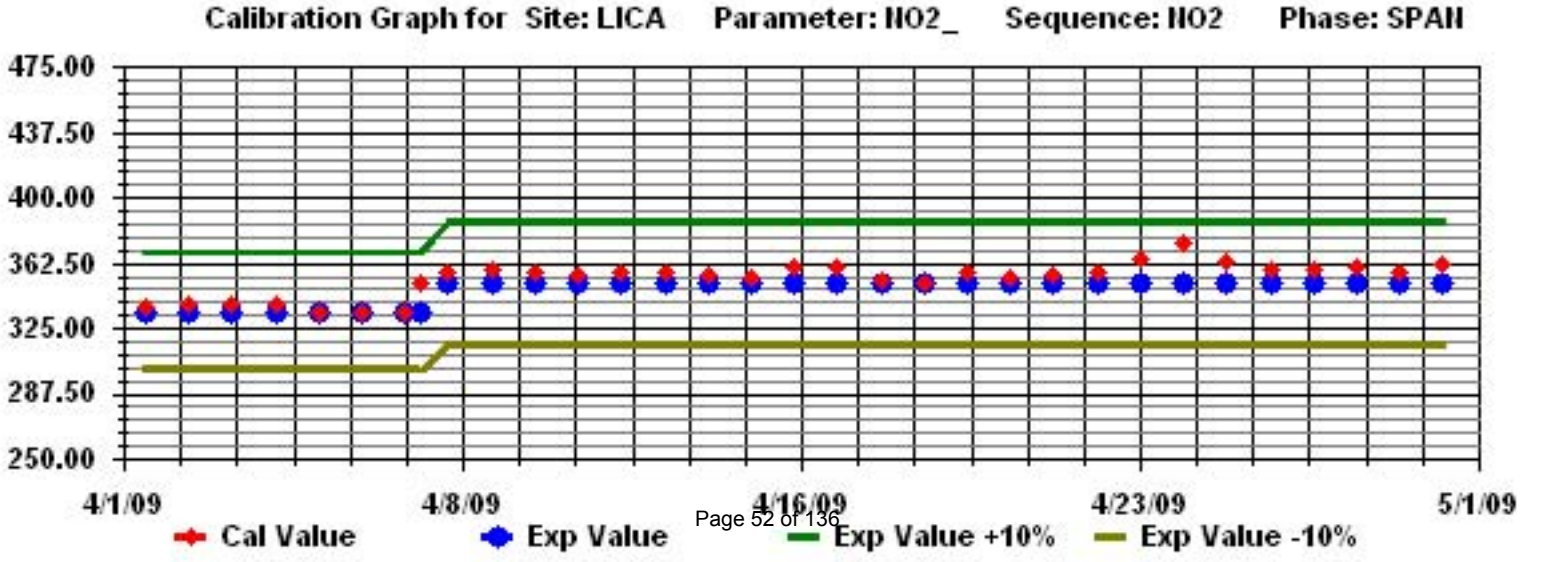
STATUS FLAG CODES

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

NUMBER OF NON-ZERO READINGS:	676					
MAXIMUM INSTANTANEOUS VALUE:	222	PPB	@ HOUR(S)	4	ON DAY(S)	16
IZS CALIBRATION TIME:	31	HRS	OPERATIONAL TIME:		718	HRS
MONTHLY CALIBRATION TIME:	8	HRS				
STANDARD DEVIATION:	12.45					


01 Hour Averages
240
177.5
115
52.5
-10
04/01/09 00:00
04/06/09 00:00
04/11/09 00:00
04/16/09 00:00
04/21/09 00:00
04/26/09 00:00
LICA
NO2MAX
PPB


Calibration Graph for Site: LICA Parameter: NO2_ Sequence: NO2 Phase: SPAN
475.00
437.50
400.00
362.50
325.00
287.50
250.00
4/1/09
4/8/09
4/16/09
4/23/09
5/1/09
Cal Value
Exp Value
Exp Value +10%
Exp Value -10%

Nitric Oxide

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - *COLD LAKE*

APRIL 2009

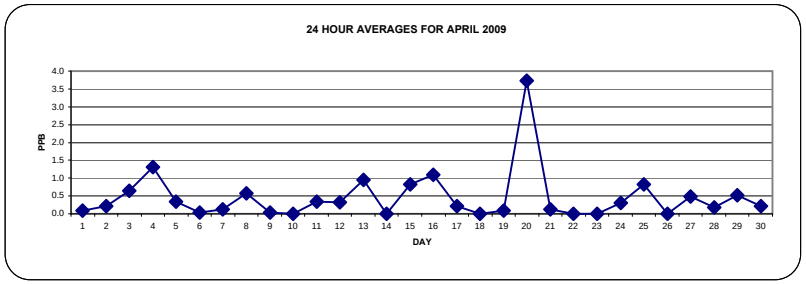
NITRIC OXIDE hourly averages in ppb

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	0	0	0	0	0	0	0	0	0	2	**IZS**	0	0	0	0	0	0	0	0	0	0	0	0	2	0.1	24
2	0	0	0	0	0	0	0	2	2	1	**IZS**	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.2	24
3	0	0	0	0	0	1	5	5	4	**IZS**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0.7	24
4	0	0	0	0	0	0	4	23	**IZS**	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	23	1.3	24
5	0	0	1	0	0	1	6	**IZS**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0.3	24
6	0	0	0	0	0	0	**IZS**	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.0	24
7	0	0	0	0	0	**IZS**	2	**C**	**C**	**C**	**C**	**C**	**C**	**C**	0	0	0	0	0	0	0	0	0	0	2	0.1	24
8	0	0	0	0	**IZS**	4	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0.6	24
9	0	0	0	**IZS**	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.0	24
10	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
11	0	**IZS**	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	1	1	2	0	0	2	0.3	24
12	**IZS**	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	3	2	0	**IZS**	3	0.3	24
13	2	1	2	1	0	10	4	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	**IZS**	0	10	1.0	24
14	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
15	0	0	0	0	1	3	5	7	3	0	0	0	0	0	0	0	0	0	0	0	**IZS**	0	0	0	7	0.8	24
16	0	0	0	0	14	2	3	2	1	0	0	0	0	0	0	0	0	0	0	**IZS**	0	3	0	0	14	1.1	24
17	0	0	0	0	1	1	2	0	1	0	0	0	0	0	0	0	0	0	**IZS**	0	0	0	0	0	2	0.2	24
18	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
19	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	**IZS**	0	0	0	0	0	0	0	1	0.1	24
20	0	0	0	0	1	4	26	**39**	11	5	0	0	0	0	0	**IZS**	0	0	0	0	0	0	0	0	**39**	**3.7**	24
21	0	0	0	0	0	0	2	0	0	0	0	0	0	1	**IZS**	0	0	0	0	0	0	0	0	0	2	0.1	24
22	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
23	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
24	0	0	0	0	0	1	2	3	0	0	0	**IZS**	0	1	0	0	0	0	0	0	0	0	0	0	3	0.3	24
25	0	0	3	4	5	6	1	0	0	0	**IZS**	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0.8	24
26	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
27	0	0	0	0	0	3	5	3	**IZS**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0.5	24
28	0	0	0	0	0	1	2	**IZS**	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	2	0.2	24
29	0	0	0	0	0	9	**IZS**	2	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	9	0.5	24
30	0	0	0	0	0	**IZS**	1	2	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	2	0.2	24
HOURLY MAX	2	1	3	4	14	10	26	39	11	5	2	0	0	1	0	0	1	1	0	1	3	3	0	0			
HOURLY AVG	0.1	0.0	0.2	0.2	0.8	1.6	2.9	3.5	1.0	0.2	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.2	0.0	0.0			

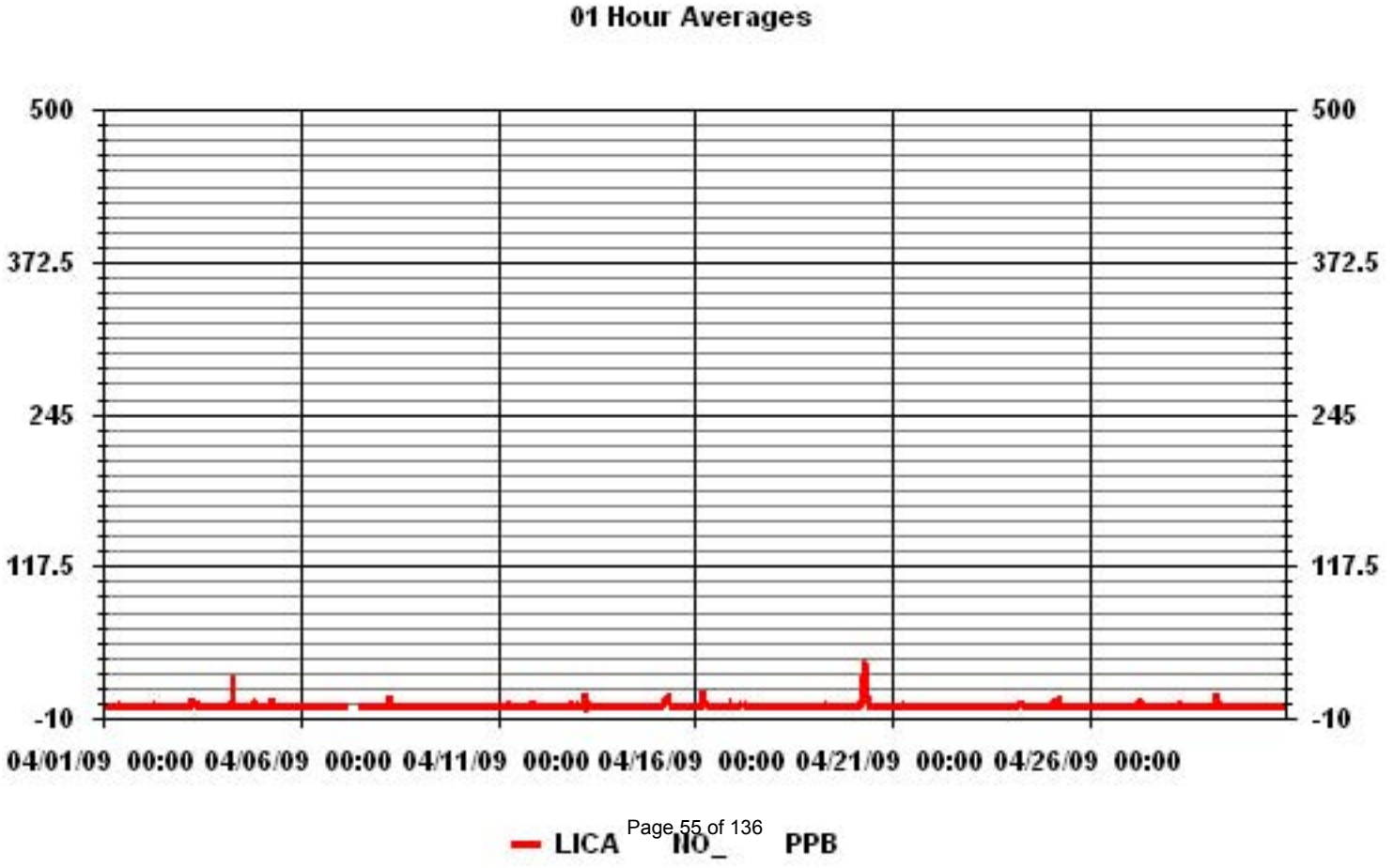
STATUS FLAG CODES

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:		83					
MAXIMUM 1-HR AVERAGE:		39	PPB	@ HOUR(S)	7	ON DAY(S)	20
MAXIMUM 24-HR AVERAGE:		3.7	PPB			ON DAY(S)	20
IZS CALIBRATION TIME:	31	HRS		OPERATIONAL TIME:		720	HRS
MONTHLY CALIBRATION TIME:	7	HRS		AMD OPERATION UPTIME		100.0	%
STANDARD DEVIATION	2.34			MONTHLY AVERAGE		0.46	PPB


01 Hour Averages
500
372.5
245
117.5
-10
04/01/09 00:00
04/06/09 00:00
04/11/09 00:00
04/16/09 00:00
04/21/09 00:00
04/26/09 00:00
LICA NO_ PPB

LICA
NO_ / WD Joint Frequency Distribution (Percent)

April 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	4.25	9.23	12.31	5.27	9.53	12.02	9.97	2.49	2.34	1.17	6.30	6.01	4.98	4.10	6.59	3.37	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	4.25	9.23	12.31	5.27	9.53	12.02	9.97	2.49	2.34	1.17	6.30	6.01	4.98	4.10	6.59	3.37	

Calm : .00 %

Total # Operational Hours : 682

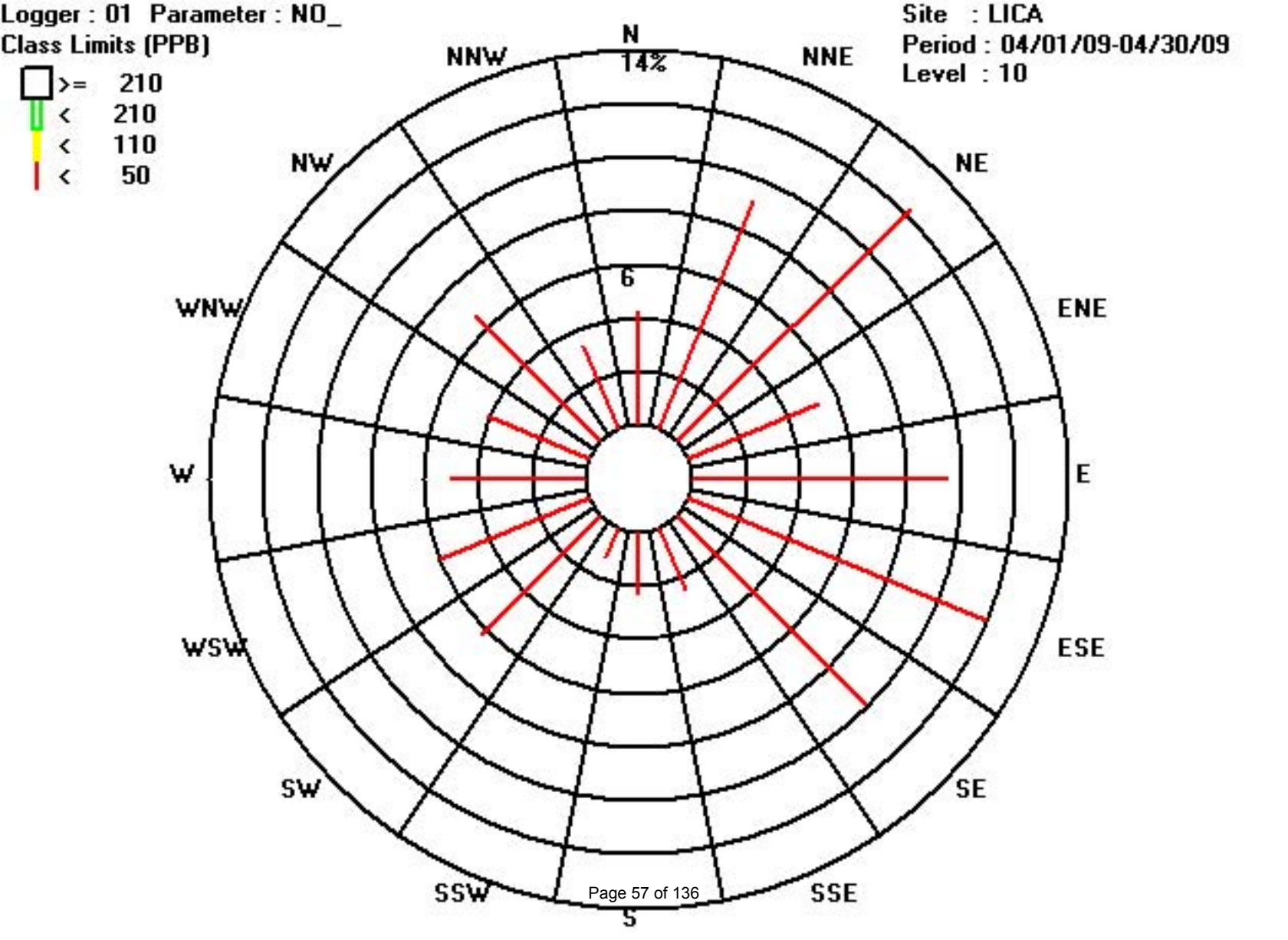
Distribution By Samples

Direction

	Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
<	50	29	63	84	36	65	82	68	17	16	8	43	41	34	28	45	23	682
<	110																	
<	210																	
>=	210																	
	Totals	29	63	84	36	65	82	68	17	16	8	43	41	34	28	45	23	

Calm : .00 %

Total # Operational Hours : 682


Logger : 01 Parameter : NO_
Class Limits (PPB)
>= 210
< 210
< 110
< 50
Site : LICA
Period : 04/01/09-04/30/09
Level : 10
N
14%
NNE
NE
ENE
E
ESE
SE
SSE
S
SSW
SW
WSW
W
WNW
NW
NNW
6

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - *COLD LAKE*

APRIL 2009

NITRIC OXIDE MAX instantaneous maximum in ppb

MST

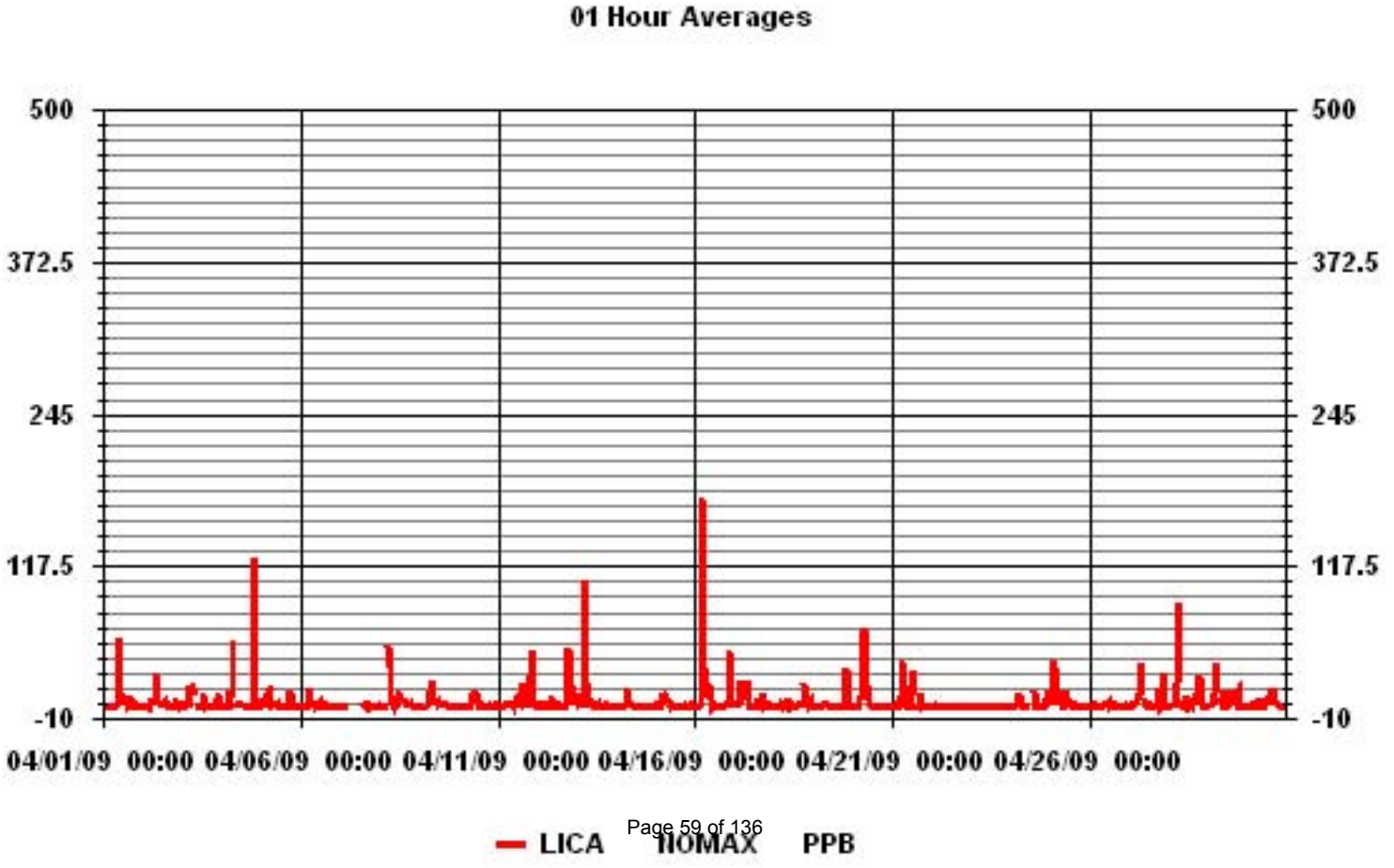
HOUR START	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY	24-HOUR	
HOUR END	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	MAX.	AVG.	RDGS.
DAY																											
1	0	0	0	0	0	0	0	0	1	7	54	**IZS**	8	1	5	1	3	7	6	0	0	0	0	1	54	4.1	24
2	0	0	0	1	0	7	1	5	27	5	**IZS**	3	2	2	4	0	0	1	0	1	6	2	0	2	27	3.0	24
3	0	0	3	2	2	15	16	10	14	**IZS**	0	0	0	11	0	1	0	0	0	2	4	0	11	0	16	4.0	24
4	0	1	0	0	0	10	10	52	**IZS**	2	4	3	4	2	0	0	0	0	0	1	124	0	0	5	124	9.5	24
5	4	0	5	2	1	14	15	**IZS**	4	2	1	3	0	0	0	0	0	0	12	2	2	0	0	0	15	2.9	24
6	0	0	0	0	1	12	**IZS**	3	0	2	1	1	4	0	0	5	0	0	0	0	0	0	0	0	12	1.3	24
7	0	0	0	0	0	**IZS**	5	**C**	**C**	**C**	**C**	**C**	**C**	**C**	**C**	2	0	5	0	0	0	0	0	0	5	0.8	24
8	2	1	0	0	**IZS**	48	35	2	4	0	3	0	13	3	6	5	5	1	1	3	0	0	0	0	48	5.7	24
9	0	1	0	**IZS**	0	1	7	12	22	1	7	3	5	2	2	1	2	2	0	0	0	1	0	0	22	3.0	24
10	1	0	**IZS**	0	0	0	0	3	8	7	10	10	1	2	0	0	0	0	0	2	1	0	2	2	10	2.1	24
11	0	**IZS**	1	0	3	2	3	4	2	3	0	5	7	9	0	20	2	3	1	26	8	47	1	1	47	6.4	24
12	**IZS**	0	2	1	1	0	2	3	2	7	6	1	0	1	1	0	0	0	3	49	31	20	3	**IZS**	49	6.0	24
13	10	5	8	3	1	105	21	3	4	5	2	0	1	3	0	1	0	1	1	1	0	1	**IZS**	0	105	7.7	24
14	0	0	0	0	0	3	13	12	1	1	1	1	0	1	0	0	0	0	0	0	1	**IZS**	0	0	13	1.5	24
15	1	1	0	1	10	7	10	8	5	0	2	0	1	0	0	1	0	2	0	0	**IZS**	0	4	0	10	2.3	24
16	0	0	2	0	**174**	25	31	8	20	8	0	2	2	1	0	0	0	0	2	**IZS**	7	47	3	1	**174**	14.5	24
17	1	1	2	0	21	17	13	16	22	1	0	0	0	0	6	3	1	8	**IZS**	1	2	0	0	0	22	5.0	24
18	0	0	0	0	3	0	2	1	0	7	1	0	0	0	0	1	1	**IZS**	16	0	7	2	5	0	16	2.0	24
19	0	0	0	0	0	0	1	3	2	1	0	0	0	0	0	1	**IZS**	0	0	3	32	1	0	0	32	1.9	24
20	0	1	2	1	6	9	63	66	20	8	2	0	0	0	0	**IZS**	0	0	0	0	0	0	0	0	66	7.7	24
21	1	0	0	0	4	9	39	2	1	0	0	11	9	28	**IZS**	0	1	11	0	1	0	1	0	0	39	5.1	24
22	0	0	2	0	1	0	0	0	0	0	0	0	0	**IZS**	0	0	0	0	0	0	0	0	0	0	2	0.1	24
23	0	0	0	0	0	0	0	0	0	1	0	0	**IZS**	0	0	0	0	0	0	0	0	0	0	0	1	0.0	24
24	0	1	0	1	3	10	3	**P**	0	0	0	**IZS**	0	**P**	10	0	0	0	0	0	5	4	0	10	10	2.2	22
25	9	1	38	34	9	10	3	0	1	11	**IZS**	1	7	2	0	1	1	0	0	0	0	0	0	0	38	5.6	24
26	0	0	0	1	1	0	0	0	0	**IZS**	4	1	4	0	1	3	1	0	0	0	0	2	0	0	4	0.8	24
27	0	0	2	2	3	9	11	33	**IZS**	5	2	1	3	1	1	0	0	13	13	0	2	28	0	0	33	5.6	24
28	0	0	1	2	0	20	84	**IZS**	1	1	0	9	2	2	0	2	11	7	1	25	9	0	0	0	84	7.7	24
29	1	2	1	2	11	34	**IZS**	5	5	12	0	0	1	12	3	10	0	13	15	0	0	0	0	0	34	5.5	24
30	0	1	2	0	0	**IZS**	1	5	1	1	0	4	5	9	14	1	16	5	2	1	0	0	0	0	16	3.0	24
HOURLY MAX	10	5	38	34	174	105	84	66	27	12	54	11	13	28	14	20	16	13	16	49	124	47	11	10			
HOURLY AVG	1.0	0.6	2.4	1.8	8.8	13.1	13.9	9.8	6.2	3.6	3.7	2.2	2.8	3.4	1.9	2.0	1.5	2.7	2.5	4.1	8.3	5.4	1.0	0.8			

STATUS FLAG CODES

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

MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	359					
MAXIMUM INSTANTANEOUS VALUE:	174	PPB	@ HOUR(S)	4	ON DAY(S)	16
IZS CALIBRATION TIME:	31	HRS	OPERATIONAL TIME:		718	HRS
MONTHLY CALIBRATION TIME:	8	HRS				
STANDARD DEVIATION:	12.34					


01 Hour Averages
500
372.5
245
117.5
-10
04/01/09 00:00
04/06/09 00:00
04/11/09 00:00
04/16/09 00:00
04/21/09 00:00
04/26/09 00:00
LICA
NOMAX
PPB

Oxides of Nitrogen

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - *COLD LAKE*

APRIL 2009

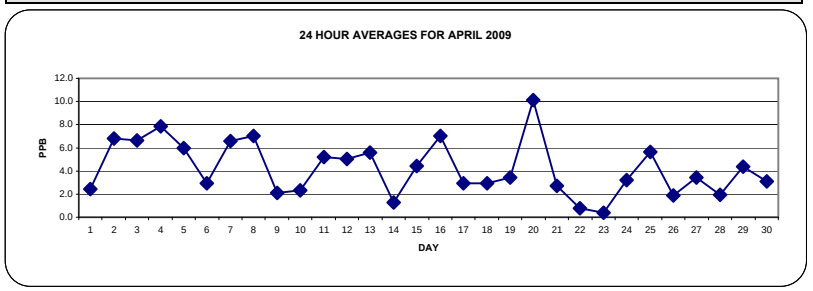
OXIDES OF NITROGEN hourly averages in ppb

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	3	2	1	1	1	1	3	4	2	2	5	**IZS**	1	1	2	1	2	4	4	1	4	7	2	2	7	2.4	24
2	1	1	2	2	4	6	10	10	8	4	**IZS**	3	3	3	3	3	3	4	7	10	14	21	20	14	21	6.8	24
3	9	14	15	9	13	12	14	13	12	**IZS**	2	2	2	2	1	2	1	1	3	7	12	3	2	2	15	6.7	24
4	6	5	4	7	7	10	16	46	**IZS**	3	2	2	2	1	1	1	1	1	2	5	19	11	12	17	46	7.9	24
5	17	12	21	14	14	14	24	**IZS**	3	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	24	6.0	24
6	1	1	1	1	1	9	**IZS**	7	2	2	2	3	3	2	2	2	2	2	3	4	4	6	5	3	9	3.0	24
7	4	4	4	10	6	**IZS**	18	**C**	**C**	**C**	**C**	**C**	**C**	**C**	1	1	1	1	2	6	8	10	14	15	18	6.6	24
8	18	22	18	12	**IZS**	25	34	5	3	2	2	1	1	1	1	1	2	2	3	2	2	2	1	1	34	7.0	24
9	2	2	1	**IZS**	1	4	5	4	4	3	2	2	1	1	2	2	2	3	2	1	1	1	1	1	5	2.1	24
10	1	1	**IZS**	1	2	2	1	1	2	3	2	2	1	1	2	3	3	3	1	3	6	4	2	7	7	2.3	24
11	5	**IZS**	9	3	4	8	9	6	2	2	2	3	2	1	1	1	1	2	4	12	16	15	5	7	16	5.2	24
12	**IZS**	3	7	4	4	3	7	9	6	4	2	3	4	4	2	1	1	1	2	9	10	16	9	**IZS**	16	5.0	24
13	12	10	11	13	7	30	13	8	4	3	2	2	2	2	2	1	1	1	1	1	1	1	**IZS**	1	30	5.6	24
14	1	1	1	1	1	2	2	1	1	0	1	0	0	0	0	0	1	1	1	1	3	**IZS**	6	4	6	1.3	24
15	4	4	4	5	10	11	13	15	9	1	2	1	1	0	0	0	1	1	2	2	**IZS**	5	7	4	15	4.4	24
16	5	5	4	6	40	16	12	7	3	2	1	1	1	0	0	0	0	1	2	**IZS**	12	18	15	11	40	7.0	24
17	7	3	3	2	8	15	11	3	2	1	1	1	1	1	1	1	1	1	**IZS**	1	1	1	0	1	15	2.9	24
18	1	1	1	1	2	2	3	3	2	3	2	1	1	2	3	3	4	**IZS**	3	3	6	7	7	6	7	2.9	24
19	6	5	7	9	8	3	4	6	5	3	2	1	0	0	0	0	**IZS**	0	1	2	7	5	3	2	9	3.4	24
20	4	9	8	7	10	12	39	**64**	32	17	4	1	1	1	2	**IZS**	1	1	1	1	1	5	8	4	**64**	**10.1**	24
21	4	4	3	3	7	9	9	6	2	2	1	1	1	1	**IZS**	1	1	3	1	1	1	1	0	0	9	2.7	24
22	1	1	1	2	3	3	1	4	2	0	0	0	0	**IZS**	0	0	0	0	0	0	0	0	0	0	4	0.8	24
23	0	0	0	0	0	0	1	0	1	1	0	1	**IZS**	0	0	0	0	0	0	0	1	1	2	1	2	0.4	24
24	2	3	3	5	4	16	12	3	1	1	0	**IZS**	0	1	1	0	1	0	0	1	4	7	4	5	16	3.2	24
25	6	11	15	19	21	22	8	2	2	2	**IZS**	2	2	1	2	2	2	2	2	1	1	1	2	2	22	5.7	24
26	1	2	3	3	6	4	3	1	1	**IZS**	1	1	1	0	1	1	1	1	1	1	2	4	2	2	6	1.9	24
27	2	2	3	3	8	12	16	13	**IZS**	1	1	1	3	2	1	1	0	1	2	1	2	2	1	1	16	3.4	24
28	1	1	1	3	4	5	3	**IZS**	1	0	0	1	0	0	0	0	1	1	1	5	10	2	2	2	10	1.9	24
29	5	4	5	12	11	22	**IZS**	9	2	1	0	0	0	1	1	2	1	2	1	2	5	5	5	4	22	4.3	24
30	5	5	7	4	4	**IZS**	8	13	6	3	1	1	1	1	1	0	2	1	1	2	0	0	2	3	13	3.1	24
HOURLY MAX	18	22	21	19	40	30	39	64	32	17	5	3	4	4	3	3	4	4	7	12	19	21	20	17			
HOURLY AVG	4.6	4.8	5.6	5.6	7.3	9.9	10.7	9.7	4.4	2.5	1.6	1.4	1.3	1.1	1.2	1.1	1.3	1.4	1.9	3.0	5.3	5.6	4.8	4.2			

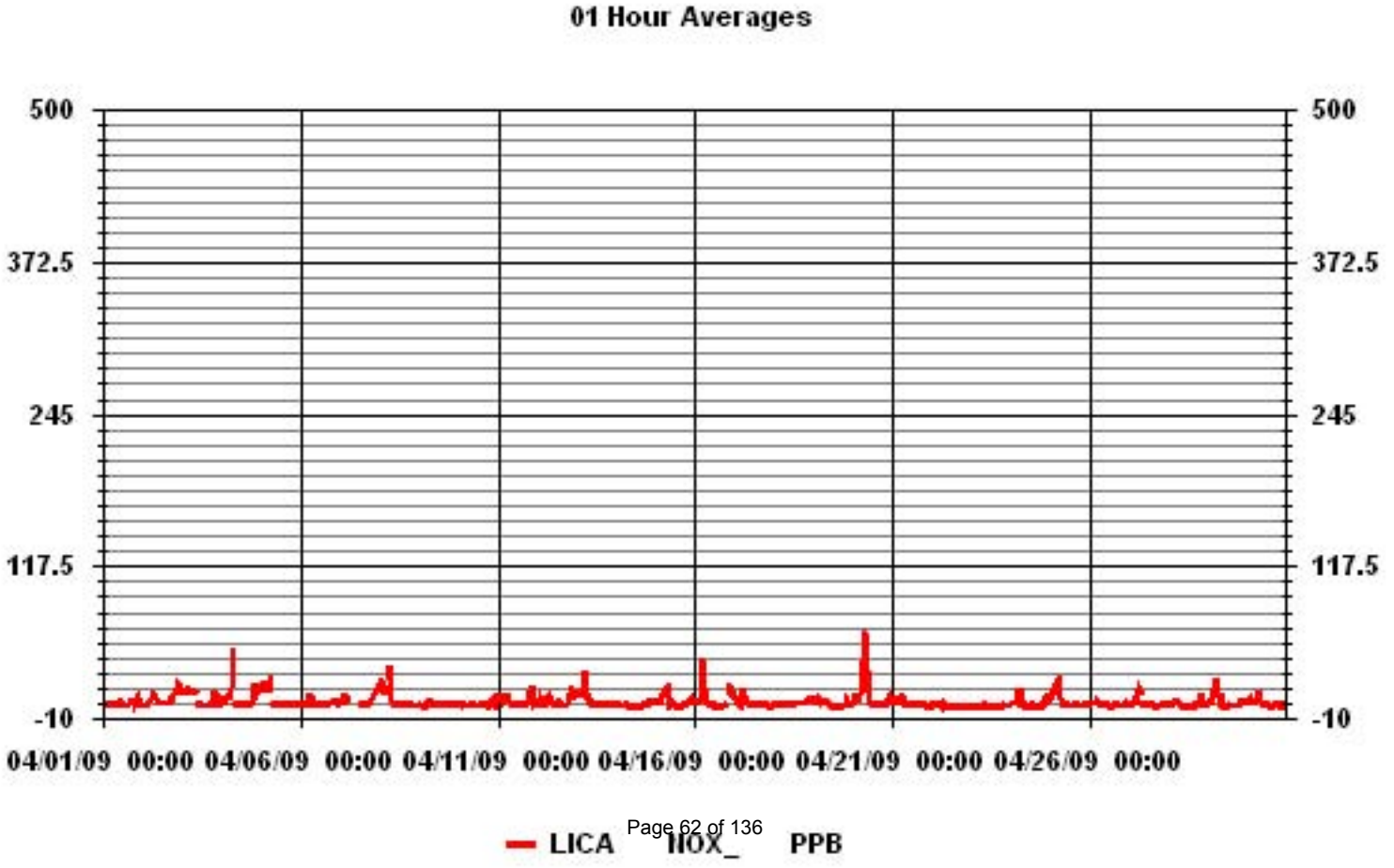
STATUS FLAG CODES

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

NUMBER OF NON-ZERO READINGS:	613					
MAXIMUM 1-HR AVERAGE:	64	PPB	@ HOUR(S)	7	ON DAY(S)	20
MAXIMUM 24-HR AVERAGE:	10.1	PPB			ON DAY(S)	20
IZS CALIBRATION TIME:	31	HRS	OPERATIONAL TIME:		720	HRS
MONTHLY CALIBRATION TIME:	7	HRS	AMD OPERATION UPTIME		100.0	%
STANDARD DEVIATION	5.92		MONTHLY AVERAGE		4.18	PPB


01 Hour Averages
500
372.5
245
117.5
-10
04/01/09 00:00
04/06/09 00:00
04/11/09 00:00
04/16/09 00:00
04/21/09 00:00
04/26/09 00:00
LICA NOX_ PPB

LICA
NOX_ / WD Joint Frequency Distribution (Percent)

April 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	4.25	9.23	12.17	5.27	9.53	12.02	9.97	2.49	2.34	1.17	6.30	6.01	4.98	4.10	6.59	3.37	99.85
<	110	.00	.00	.14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.14
<	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	4.25	9.23	12.31	5.27	9.53	12.02	9.97	2.49	2.34	1.17	6.30	6.01	4.98	4.10	6.59	3.37	

Calm : .00 %

Total # Operational Hours : 682

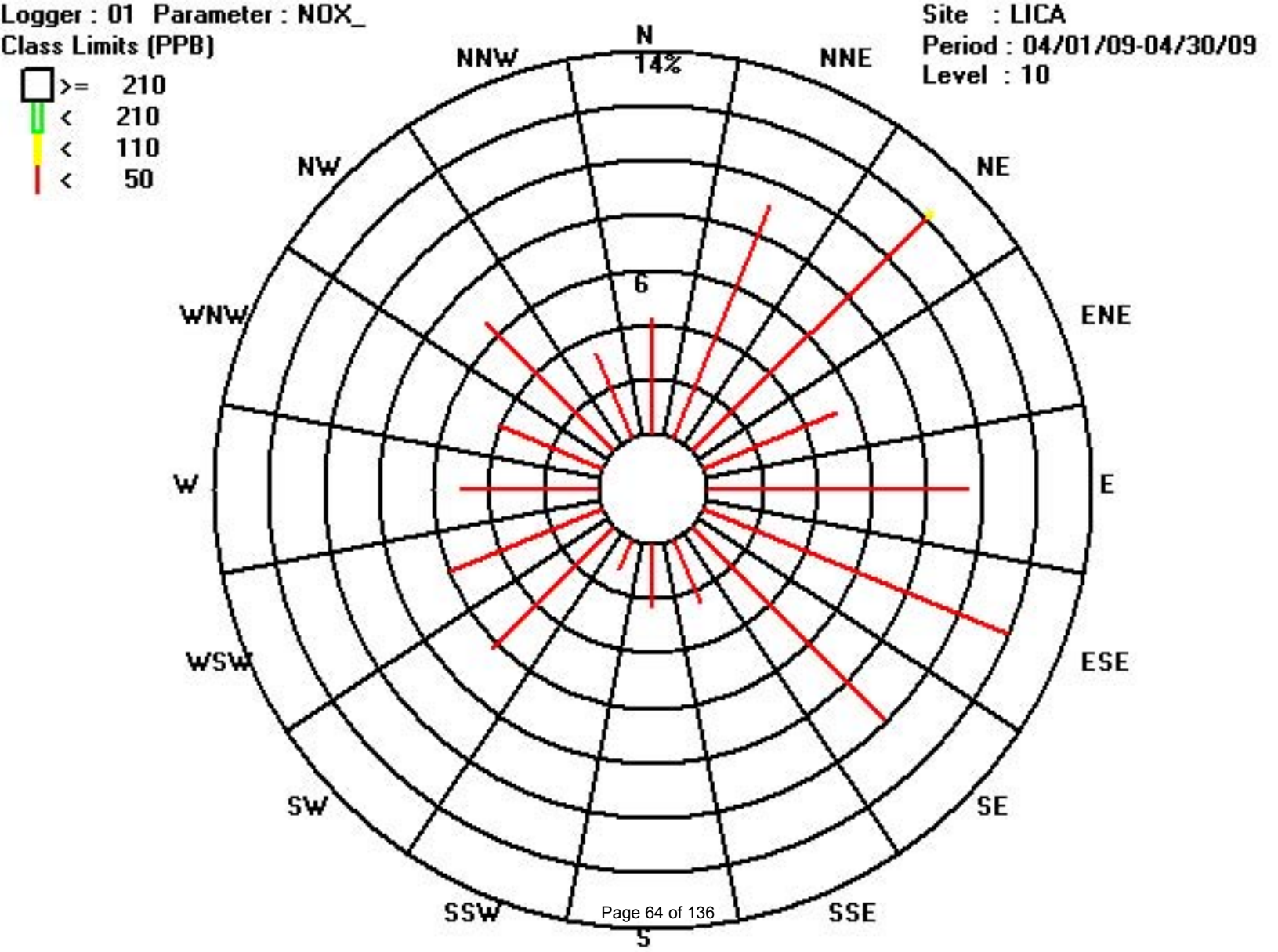
Distribution By Samples

Direction

	Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
<	50	29	63	83	36	65	82	68	17	16	8	43	41	34	28	45	23	681
<	110			1														1
<	210																	
>=	210																	
	Totals	29	63	84	36	65	82	68	17	16	8	43	41	34	28	45	23	

Calm : .00 %

Total # Operational Hours : 682


Logger : 01 Parameter : NOX_
Class Limits (PPB)
>= 210
< 210
< 110
< 50
Site : LICA
Period : 04/01/09-04/30/09
Level : 10
N
14%
NNE
NE
ENE
E
ESE
SE
SSE
S
SSW
SW
WSW
W
WNW
NW
NNW
6

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - *COLD LAKE*

APRIL 2009

OXIDES OF NITROGEN MAX instantaneous maximum in ppb

MST

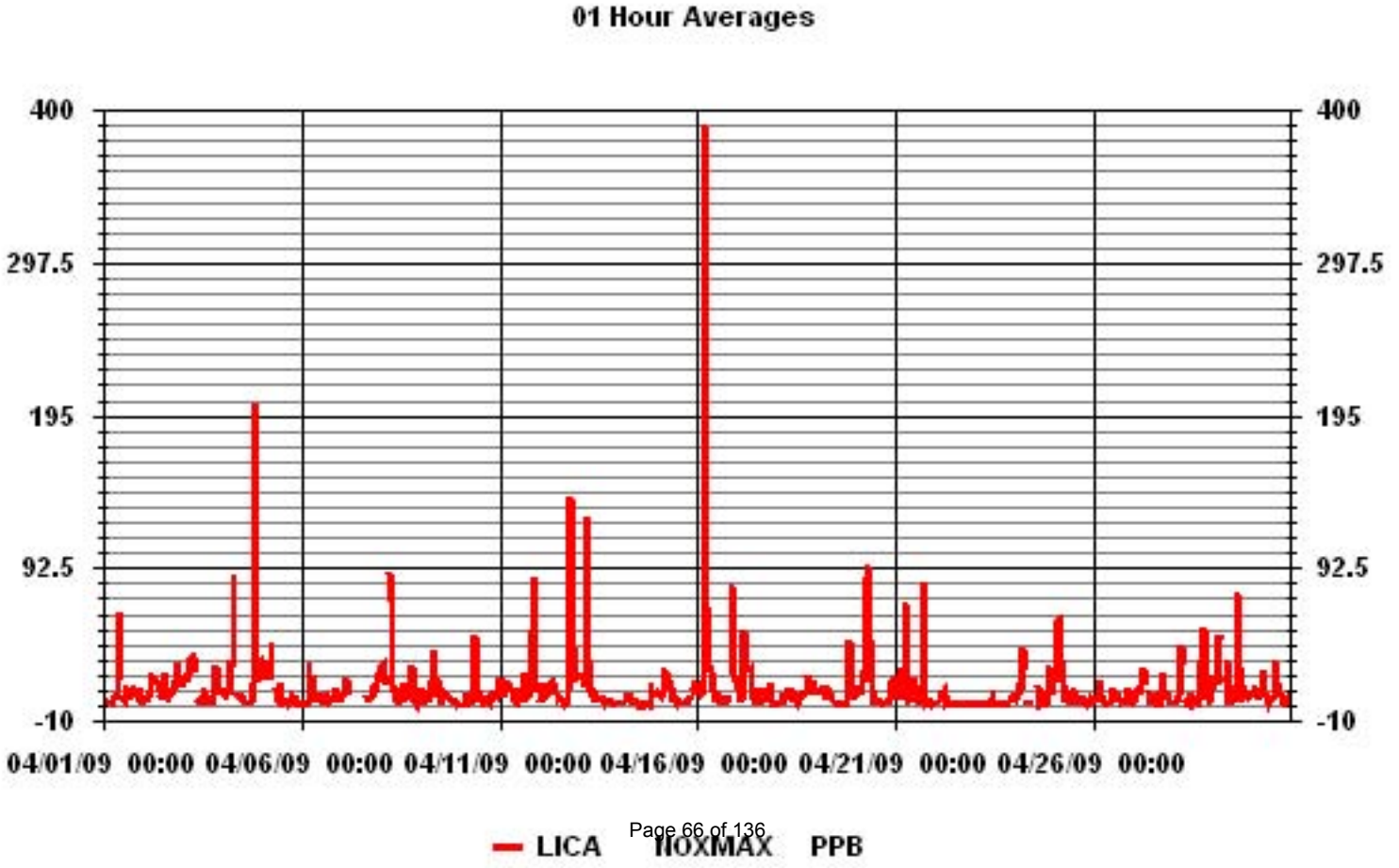
HOUR START	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY	24-HOUR	
HOUR END	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	MAX.	AVG.	RDGS.
DAY																											
1	5	4	2	2	3	2	5	6	4	18	61	**IZS**	5	4	14	6	6	11	13	6	9	10	5	4	61	8.9	24
2	3	4	4	8	8	22	16	16	16	12	**IZS**	7	8	22	6	5	7	8	11	17	26	26	22	19	26	12.7	24
3	13	18	21	16	21	31	32	23	30	**IZS**	3	4	4	12	4	5	2	2	5	22	27	14	8	11	32	14.3	24
4	9	8	7	9	9	28	28	86	**IZS**	7	7	5	8	3	3	2	2	2	3	16	202	16	27	29	202	22.4	24
5	24	17	31	24	18	30	40	**IZS**	10	5	4	16	2	2	2	5	1	2	6	4	5	1	1	1	40	10.9	24
6	1	1	1	2	4	26	**IZS**	19	3	5	6	5	9	3	3	6	3	4	4	5	5	12	8	5	26	6.1	24
7	5	6	8	19	10	**IZS**	30	**C**	**C**	**C**	**C**	**C**	**C**	**C**	**C**	6	3	7	4	13	11	15	17	21	30	11.7	24
8	26	28	22	17	**IZS**	88	71	14	10	3	11	2	4	4	15	7	15	6	6	27	4	4	2	7	88	17.1	24
9	6	11	2	**IZS**	4	10	12	17	37	6	18	9	2	4	11	10	5	8	4	4	3	3	1	2	37	8.2	24
10	2	1	**IZS**	1	8	3	3	4	8	48	12	10	3	6	3	4	3	5	3	8	9	8	7	18	48	7.7	24
11	15	**IZS**	16	6	11	14	12	10	4	4	3	11	7	9	2	22	4	8	8	51	36	86	10	12	86	15.7	24
12	**IZS**	5	16	10	7	8	14	16	17	16	9	5	6	5	4	1	2	2	10	140	57	41	18	**IZS**	140	18.6	24
13	20	20	20	19	13	126	32	11	9	11	4	4	4	5	4	5	2	4	3	3	3	2	**IZS**	2	126	14.2	24
14	2	2	2	2	3	4	9	6	2	2	2	5	1	2	1	0	2	3	2	1	13	**IZS**	9	6	13	3.5	24
15	10	9	7	11	25	18	22	19	13	3	5	2	4	2	2	2	2	3	3	6	**IZS**	13	17	7	25	8.9	24
16	11	13	8	9	**391**	67	58	28	24	10	2	5	9	6	1	4	3	4	6	**IZS**	35	82	22	17	**391**	35.4	24
17	13	5	5	3	50	42	24	24	25	4	9	2	2	12	5	4	7	10	**IZS**	5	16	1	1	2	50	11.8	24
18	1	2	2	2	9	4	8	6	6	11	4	4	2	4	5	7	9	**IZS**	19	7	16	11	17	10	19	7.2	24
19	10	7	11	12	11	4	8	14	8	7	4	3	1	1	1	2	**IZS**	1	1	18	44	12	5	7	44	8.3	24
20	9	12	12	11	21	20	86	94	45	25	11	2	2	3	4	**IZS**	1	2	2	3	3	16	17	6	94	17.7	24
21	6	9	6	4	26	23	69	13	4	5	2	18	15	7	**IZS**	3	6	83	2	3	2	3	1	2	83	13.6	24
22	2	2	3	8	8	10	4	6	4	1	1	1	1	**IZS**	1	1	1	2	1	1	2	1	1	1	10	2.7	24
23	1	1	1	1	1	1	1	1	1	3	1	8	**IZS**	1	1	1	1	1	1	1	3	5	5	2	8	1.9	24
24	8	5	7	15	11	39	26	**P**	2	2	2	**IZS**	1	**P**	11	1	2	2	1	2	10	27	7	20	39	9.6	22
25	23	15	56	57	26	31	15	5	4	8	**IZS**	9	11	3	3	3	5	4	4	4	1	2	6	5	57	13.0	24
26	3	4	4	6	17	8	5	3	2	**IZS**	3	5	11	2	10	7	3	4	3	3	6	12	5	3	17	5.6	24
27	5	5	12	7	14	23	25	17	**IZS**	9	3	3	8	4	6	1	1	6	22	4	8	7	2	2	25	8.4	24
28	2	2	3	6	8	41	30	**IZS**	3	2	1	9	2	4	4	3	31	9	5	53	36	8	4	5	53	11.8	24
29	11	20	16	16	46	46	**IZS**	17	17	31	1	4	2	14	4	77	2	26	15	8	8	6	8	7	77	17.5	24
30	8	10	13	6	6	**IZS**	9	24	9	8	2	4	5	7	30	5	16	10	4	5	1	1	3	7	30	8.4	24
HOURLY MAX	26	28	56	57	391	126	86	94	45	48	61	18	15	22	30	77	31	83	22	140	202	86	27	29			
HOURLY AVG	8.8	8.5	11.0	10.7	27.2	27.5	24.8	19.2	11.7	9.9	7.1	6.0	5.0	5.6	5.7	7.1	5.1	8.2	5.9	15.2	20.7	15.3	8.8	8.3			

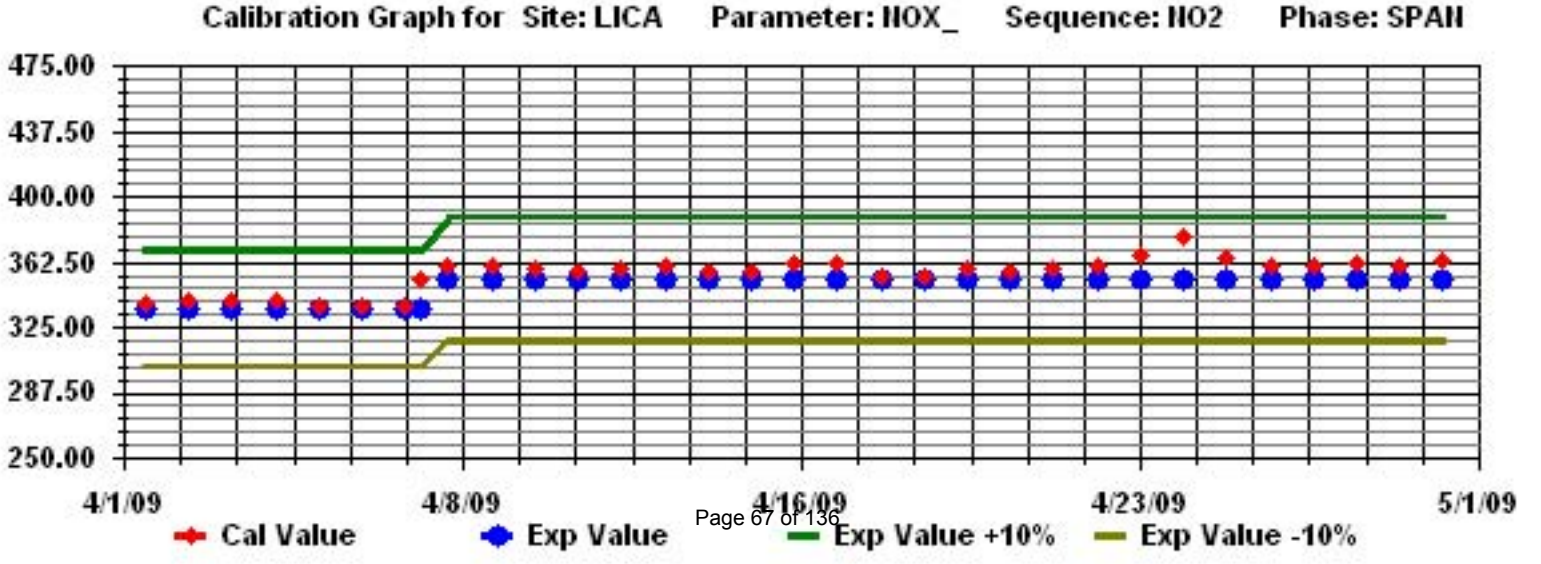
STATUS FLAG CODES

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:	678					
MAXIMUM INSTANTANEOUS VALUE:	391	PPB	@ HOUR(S)	4	ON DAY(S)	16
IZS CALIBRATION TIME:	31	HRS	OPERATIONAL TIME:		718	HRS
MONTHLY CALIBRATION TIME:	8	HRS				
STANDARD DEVIATION:	22.13					


01 Hour Averages
400
297.5
195
92.5
-10
04/01/09 00:00
04/06/09 00:00
04/11/09 00:00
04/16/09 00:00
04/21/09 00:00
04/26/09 00:00
LICA
NOXMAX
PPB


Calibration Graph for Site: LICA Parameter: NOX_ Sequence: NO2 Phase: SPAN
475.00
437.50
400.00
362.50
325.00
287.50
250.00
4/1/09
4/8/09
4/16/09
4/23/09
5/1/09
Cal Value
Exp Value
Exp Value +10%
Exp Value -10%

Ozone

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - *COLD LAKE*

APRIL 2009

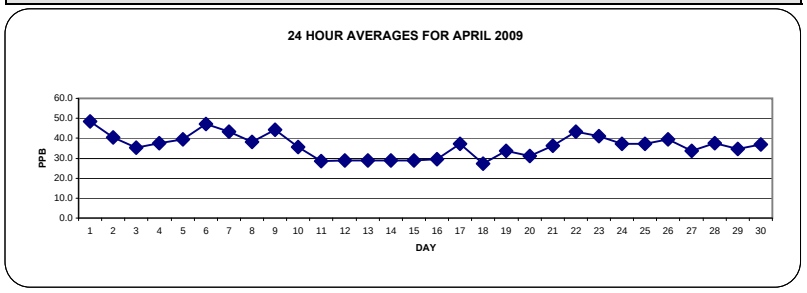
OZONE (O_3) hourly averages in ppb

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	46	47	48	48	48	47	45	44	47	49	50	**IZS**	53	52	52	53	52	49	49	50	45	41	49	51	53	**48.5**	24
2	50	48	48	46	44	41	36	37	43	48	**IZS**	54	57	57	55	55	53	49	41	28	16	8	6	7	57	40.3	24
3	10	6	4	9	6	6	9	17	39	**IZS**	52	54	55	56	57	57	55	54	50	44	37	47	47	43	57	35.4	24
4	35	32	26	17	15	14	11	14	**IZS**	42	45	49	53	56	55	58	59	**60**	57	49	33	35	29	21	**60**	37.6	24
5	17	14	7	20	13	13	12	**IZS**	48	50	52	56	55	53	55	54	54	53	51	49	47	47	46	45	56	39.6	24
6	45	44	44	43	41	32	**IZS**	34	37	38	39	41	45	49	53	56	59	59	58	56	55	51	54	55	59	47.3	24
7	52	48	39	30	31	**IZS**	20	35	52	52	53	53	53	53	53	55	56	58	56	46	35	26	21	17	58	43.2	24
8	13	6	9	14	**IZS**	11	17	43	46	47	48	50	51	51	51	51	50	48	47	47	45	45	45	45	51	38.3	24
9	43	43	45	**IZS**	44	41	40	41	42	42	45	47	48	48	48	47	46	46	45	44	44	43	44	43	48	44.3	24
10	42	41	**IZS**	39	37	37	37	37	37	38	38	39	40	40	38	37	38	37	36	32	25	27	30	19	42	35.7	24
11	11	**IZS**	6	18	18	9	12	17	21	24	28	34	41	44	49	50	51	49	45	32	18	23	34	25	51	28.7	24
12	**IZS**	28	26	30	30	29	23	23	23	30	28	24	26	30	42	44	43	41	42	32	19	7	18	**IZS**	44	29.0	24
13	11	5	6	12	9	8	12	26	32	41	44	45	45	44	44	43	41	40	37	33	28	28	**IZS**	33	45	29.0	24
14	34	33	31	30	29	27	26	26	26	24	24	23	24	30	34	35	37	37	36	35	25	**IZS**	18	18	37	28.8	24
15	14	8	6	5	2	2	6	12	26	38	42	43	44	47	49	50	50	51	49	46	**IZS**	29	24	23	51	29.0	24
16	18	13	16	12	8	14	20	29	36	40	43	43	45	46	47	48	48	48	43	**IZS**	22	13	12	16	48	29.6	24
17	27	31	34	27	16	10	23	34	34	36	38	42	45	46	48	49	48	48	**IZS**	46	45	43	42	43	49	37.2	24
18	42	40	39	36	32	32	29	28	27	30	32	31	32	29	27	27	27	**IZS**	28	22	10	9	8	8	42	27.2	24
19	9	10	9	16	23	31	31	33	37	41	44	50	51	52	52	53	**IZS**	53	52	43	26	21	19	16	53	33.6	24
20	10	4	5	4	1	2	3	6	18	32	52	59	59	58	57	**IZS**	55	56	56	53	53	38	18	17	59	31.1	24
21	16	12	14	13	13	27	31	37	43	42	44	44	45	46	**IZS**	46	45	45	45	46	46	45	44	44	46	36.2	24
22	43	42	40	36	34	32	34	39	49	53	51	51	51	**IZS**	49	48	48	49	48	45	41	40	39	37	53	43.4	24
23	37	34	31	35	40	43	43	44	**C**	**C**	**C**	**C**	**C**	**C**	**C**	**C**	**C**	50	49	48	46	44	39	34	50	41.1	24
24	37	40	36	38	40	28	33	41	43	46	45	**IZS**	42	42	43	41	39	40	41	43	34	25	22	17	46	37.2	24
25	14	7	5	2	2	6	26	38	40	46	**IZS**	52	51	53	53	52	52	54	55	52	53	53	46	45	55	37.3	24
26	45	35	28	28	22	24	28	43	45	**IZS**	47	47	47	47	47	47	47	47	47	46	44	37	33	25	47	39.4	24
27	20	19	20	16	8	7	13	21	**IZS**	43	44	44	43	44	44	46	46	46	45	42	40	42	41	40	46	33.7	24
28	40	39	36	33	31	31	32	**IZS**	33	33	37	41	43	46	45	45	45	47	47	41	30	32	28	27	47	37.5	24
29	20	23	19	11	10	6	**IZS**	34	43	44	46	47	49	50	51	51	51	50	50	45	32	27	22	19	51	34.8	24
30	14	13	9	11	14	**IZS**	30	27	37	45	51	54	52	50	48	48	47	48	49	46	45	47	35	28	54	36.9	24
HOURLY MAX	52	48	48	48	48	47	45	44	52	53	53	59	59	58	57	58	59	60	58	56	55	53	54	55			
HOURLY AVG	28.1	26.4	23.7	23.4	22.8	21.8	24.4	30.7	37.2	40.5	43.0	45.1	46.4	47.1	48.1	48.1	47.9	48.7	46.7	42.8	35.8	33.6	31.5	29.7			

STATUS FLAG CODES

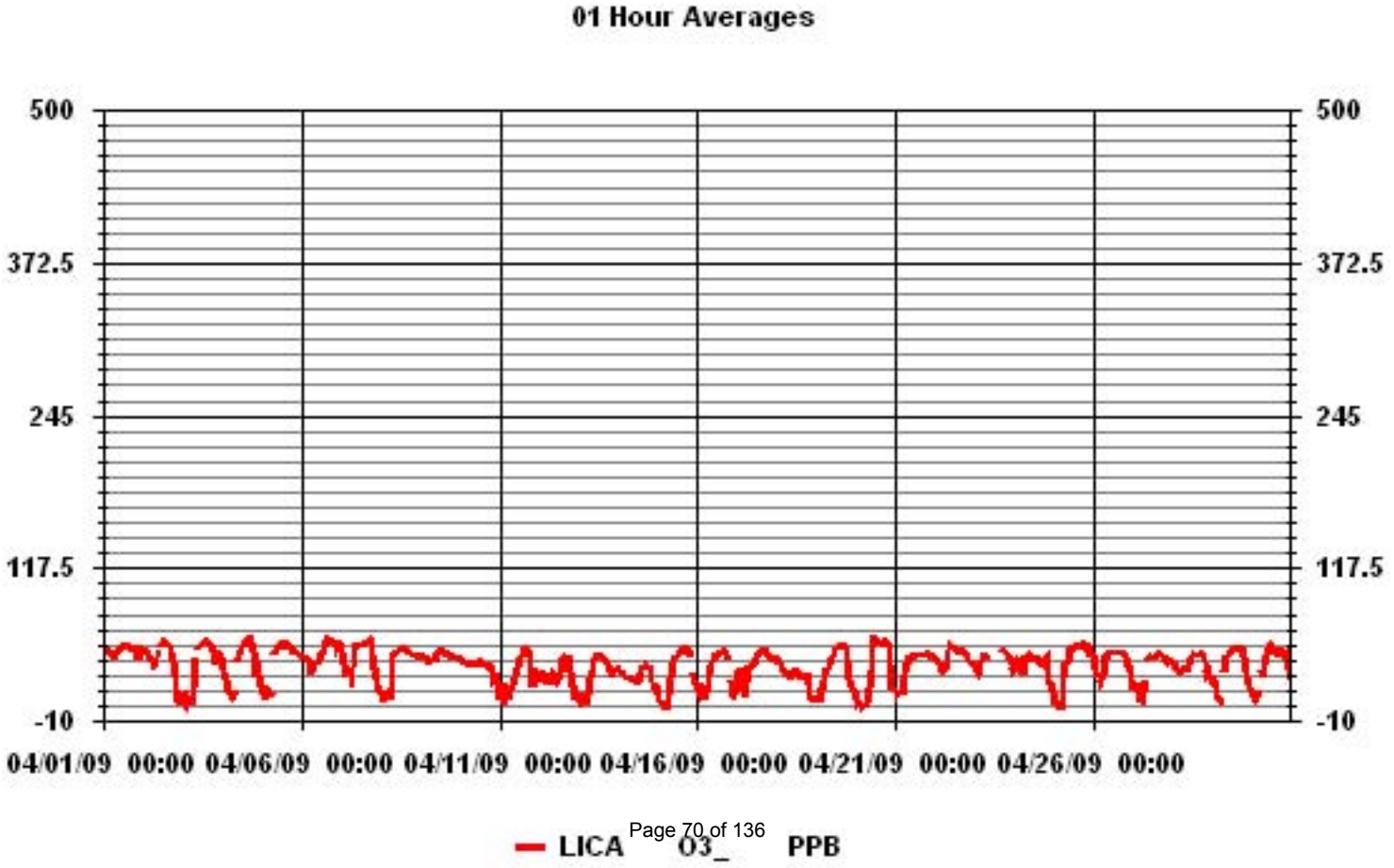
S	- OUT OF SERVICE	IZS	- IZS - DAILY ZERO/SPAN CHECK
N	- INVALID DATA	M	- MISSING DATA
D	- INSTRUMENT DRIFT	P	- POWER FAILURE
C	- CALIBRATION	NA	- NOT APPLICABLE



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

MONTHLY SUMMARY

NUMBER OF 1-HR EXCEEDENCES:	0						
NUMBER OF NON-ZERO READINGS:	681						
MAXIMUM 1-HR AVERAGE:	60	PPB	@ HOUR(S)	17	ON DAY(S)	4	
MAXIMUM 24-HR AVERAGE:	48.5	PPB			ON DAY(S) VAR-VARIOUS	1	
IZS CALIBRATION TIME:	30	HRS	OPERATIONAL TIME:		720	HRS	
MONTHLY CALIBRATION TIME:	9	HRS	AMD OPERATION UPTIME		100.0	%	
STANDARD DEVIATION	14.49		MONTHLY AVERAGE		36.31	PPB	


01 Hour Averages
500
372.5
245
117.5
-10
04/01/09 00:00
04/06/09 00:00
04/11/09 00:00
04/16/09 00:00
04/21/09 00:00
04/26/09 00:00
LICA O3_ PPB

LICA
O3_ / WD Joint Frequency Distribution (Percent)

April 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	3.81	8.22	11.60	4.69	8.51	10.86	8.37	2.20	1.90	.73	3.81	4.11	3.52	3.23	4.25	2.93	82.81
<	110	.44	1.17	.88	.73	1.17	1.46	1.76	.29	.44	.44	2.49	1.90	1.46	.88	1.17	.44	17.18
<	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	4.25	9.39	12.48	5.43	9.69	12.33	10.13	2.49	2.34	1.17	6.31	6.02	4.99	4.11	5.43	3.37	

Calm : .00 %

Total # Operational Hours : 681

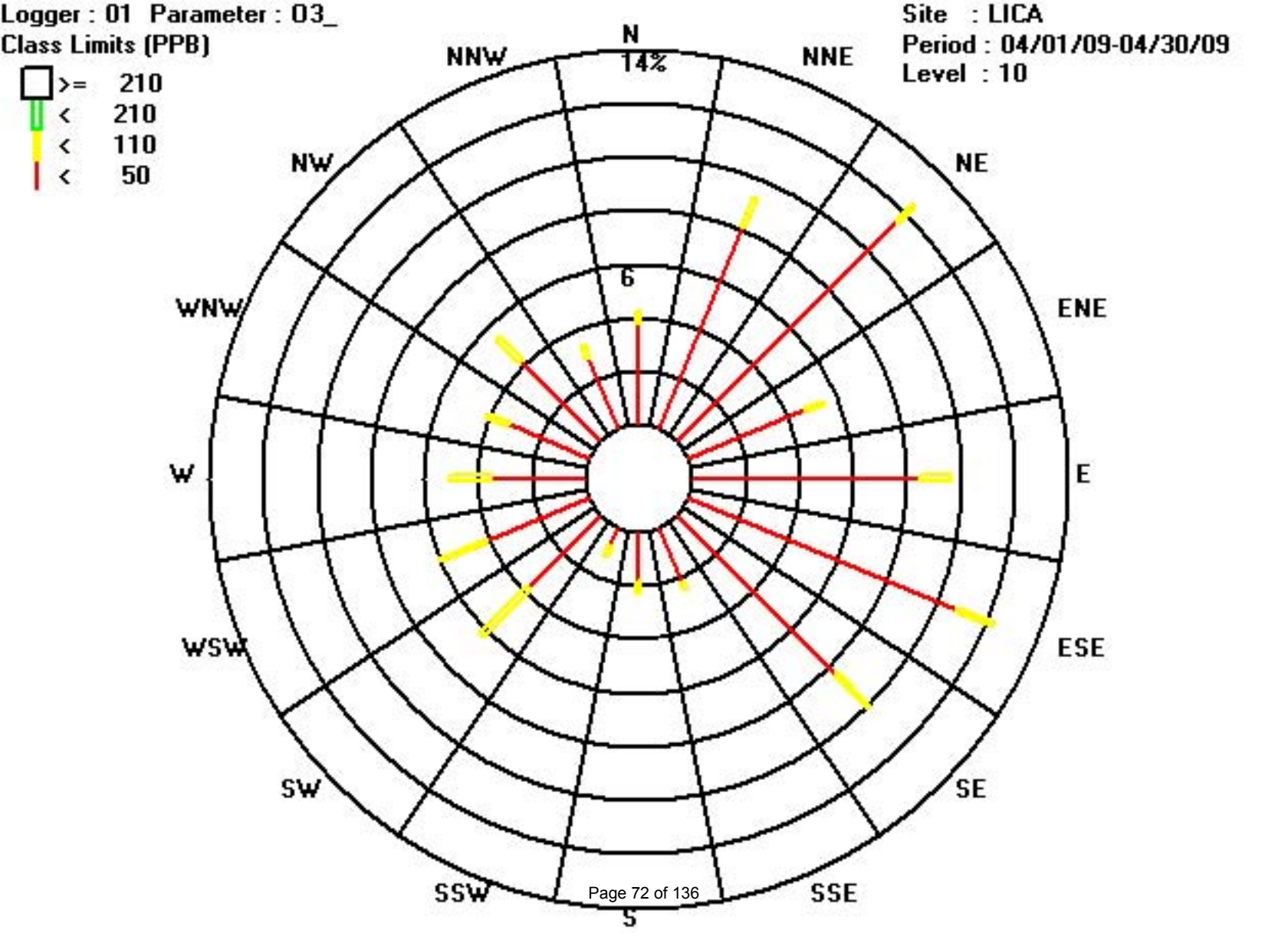
Distribution By Samples

Direction

	Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
<	50	26	56	79	32	58	74	57	15	13	5	26	28	24	22	29	20	564
<	110	3	8	6	5	8	10	12	2	3	3	17	13	10	6	8	3	117
<	210																	
>=	210																	
	Totals	29	64	85	37	66	84	69	17	16	8	43	41	34	28	37	23	

Calm : .00 %

Total # Operational Hours : 681


Logger : 01 Parameter : 03_
Class Limits (PPB)
>= 210
< 210
< 110
< 50
Site : LICA
Period : 04/01/09-04/30/09
Level : 10
N
14%
NNE
NE
ENE
E
ESE
SE
SSE
S
SSW
SW
WSW
W
WNW
NW
NNW
6

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - *COLD LAKE*

APRIL 2009

OZONE MAX instantaneous maximum in ppb

MST

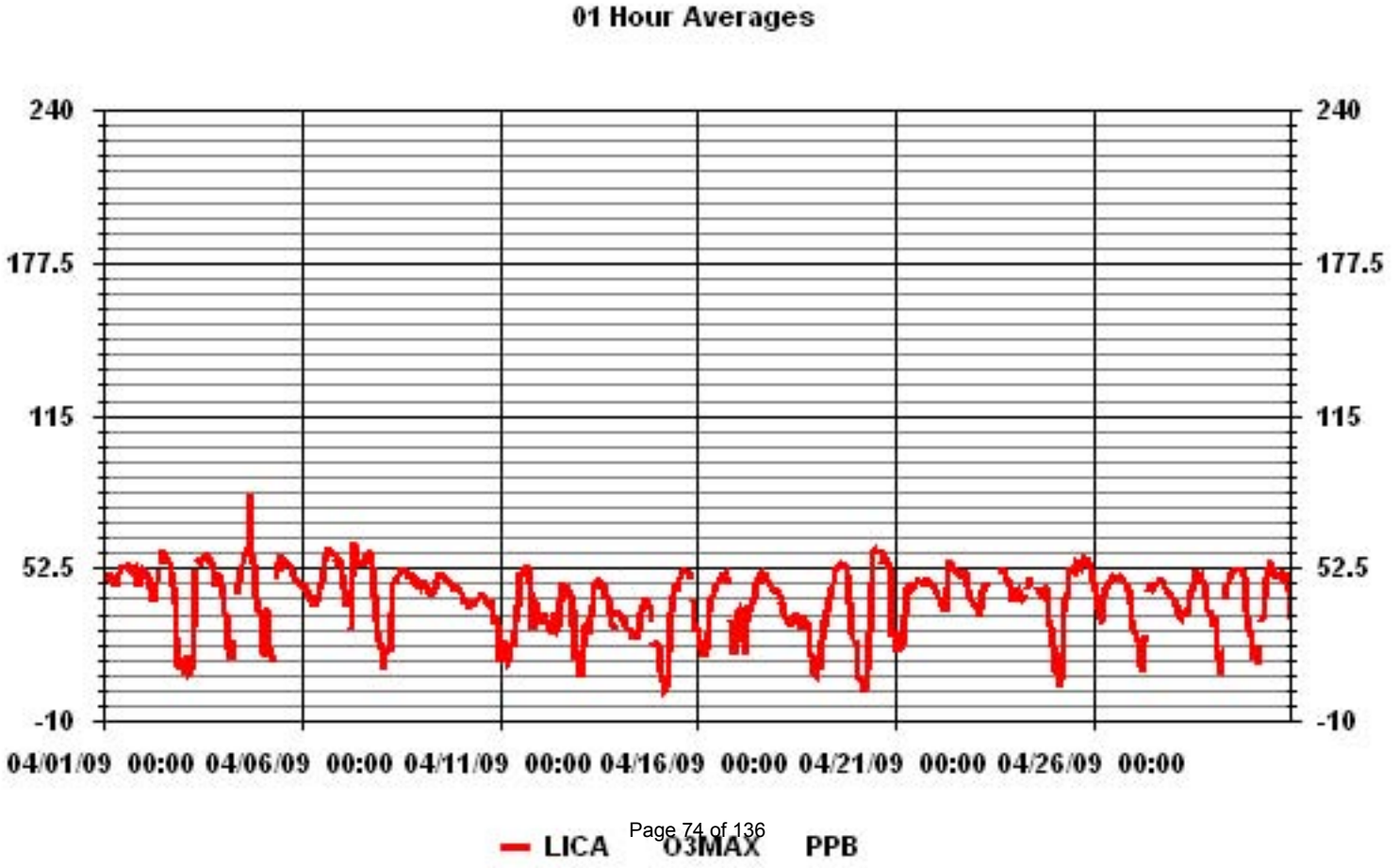
HOUR START	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY	24-HOUR	
HOUR END	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	MAX.	AVG.	RDGS.
DAY																											
1	47	48	48	49	49	49	46	46	49	50	53	**IZS**	53	53	53	54	53	52	51	52	48	45	51	52	54	50.0	24
2	51	50	50	49	45	44	40	39	47	51	**IZS**	55	59	59	57	56	55	52	46	39	25	13	11	13	59	43.7	24
3	15	12	9	17	10	11	14	28	50	**IZS**	56	55	56	57	58	57	57	55	53	50	45	49	49	46	58	39.5	24
4	42	35	34	20	18	19	15	22	**IZS**	43	47	52	54	58	58	60	60	**83**	59	55	42	40	36	35	**83**	42.9	24
5	30	18	17	36	21	17	15	**IZS**	49	51	55	57	57	54	55	55	54	54	52	50	48	47	47	46	57	42.8	24
6	45	45	45	44	42	40	**IZS**	38	38	39	41	44	47	52	55	58	60	60	59	58	58	55	56	56	60	49.3	24
7	54	51	45	37	38	**IZS**	29	49	63	55	54	54	54	54	55	57	58	59	58	54	42	31	27	23	63	47.9	24
8	20	11	18	19	**IZS**	19	34	46	47	47	49	51	51	51	52	52	51	50	49	49	47	46	47	47	52	41.4	24
9	45	46	46	**IZS**	45	43	41	43	43	44	47	49	49	49	49	48	47	47	46	46	44	44	44	44	49	45.6	24
10	43	42	**IZS**	39	39	37	37	38	38	38	39	40	41	41	41	39	39	38	37	39	30	32	32	30	43	37.8	24
11	15	**IZS**	15	23	22	15	16	21	21	27	30	37	51	49	52	52	53	53	47	43	27	34	39	31	53	33.6	24
12	**IZS**	32	30	34	32	31	27	25	27	33	33	28	29	39	45	45	44	43	44	42	29	15	34	**IZS**	45	33.7	24
13	18	8	10	20	29	30	25	32	37	44	46	47	47	46	45	45	41	41	40	35	30	29	**IZS**	34	47	33.9	24
14	34	34	32	32	30	29	27	27	27	25	24	24	26	34	35	37	39	39	37	37	32	**IZS**	22	21	39	30.6	24
15	21	11	8	7	3	4	8	18	34	41	44	44	46	48	50	51	52	52	51	49	**IZS**	38	31	28	52	32.1	24
16	27	19	23	17	17	19	26	35	40	41	44	44	46	47	48	49	49	50	47	**IZS**	30	19	17	21	50	33.7	24
17	34	34	36	35	23	17	30	36	36	38	40	46	47	47	50	51	49	49	**IZS**	47	46	44	43	43	51	40.0	24
18	43	41	41	39	35	33	31	31	28	32	33	33	33	31	28	28	32	**IZS**	31	29	17	17	10	9	43	29.8	24
19	15	13	11	23	31	33	32	35	40	44	46	52	52	53	54	55	**IZS**	54	53	51	39	26	24	22	55	37.3	24
20	22	8	8	7	3	3	4	11	26	47	60	61	60	59	59	**IZS**	56	58	57	55	53	52	25	26	61	35.7	24
21	27	18	20	20	21	33	34	44	45	44	45	45	46	48	**IZS**	47	46	46	47	47	47	46	45	45	48	39.4	24
22	44	43	41	40	38	36	36	44	52	56	53	53	52	**IZS**	50	49	49	50	50	46	44	41	40	38	56	45.4	24
23	37	37	33	36	43	44	44	46	**C**	**C**	**C**	**C**	**C**	**C**	**C**	**C**	**C**	51	51	49	48	46	43	39	51	43.1	24
24	43	43	39	43	42	40	41	**P**	45	47	47	**IZS**	44	**P**	44	43	41	41	43	45	40	32	29	21	47	40.6	22
25	20	11	10	4	7	18	35	40	42	51	**IZS**	53	52	55	54	54	53	56	58	54	54	55	53	48	58	40.7	24
26	47	44	37	37	33	30	41	44	46	**IZS**	48	49	48	48	48	49	48	48	48	47	46	44	39	32	49	43.5	24
27	28	26	23	23	13	10	22	24	**IZS**	44	45	45	44	45	46	47	47	47	47	45	44	43	42	42	47	36.6	24
28	41	40	38	35	33	32	34	**IZS**	34	36	40	43	45	50	52	46	49	50	48	46	41	36	34	34	52	40.7	24
29	28	33	29	16	17	10	**IZS**	41	45	46	49	49	51	52	52	52	52	52	52	50	36	33	28	25	52	39.0	24
30	15	17	16	13	20	**IZS**	32	33	41	49	53	56	53	52	49	49	49	50	51	48	47	48	44	33	56	39.9	24
HOURLY MAX	54	51	50	49	49	49	46	49	63	56	60	61	60	59	59	60	60	83	59	58	58	55	56	56			
HOURLY AVG	32.8	30.0	28.0	28.1	27.6	26.6	29.1	34.7	40.4	43.1	45.2	46.9	48.0	49.3	49.8	49.5	49.4	51.0	48.7	46.8	40.7	37.9	35.9	33.9			

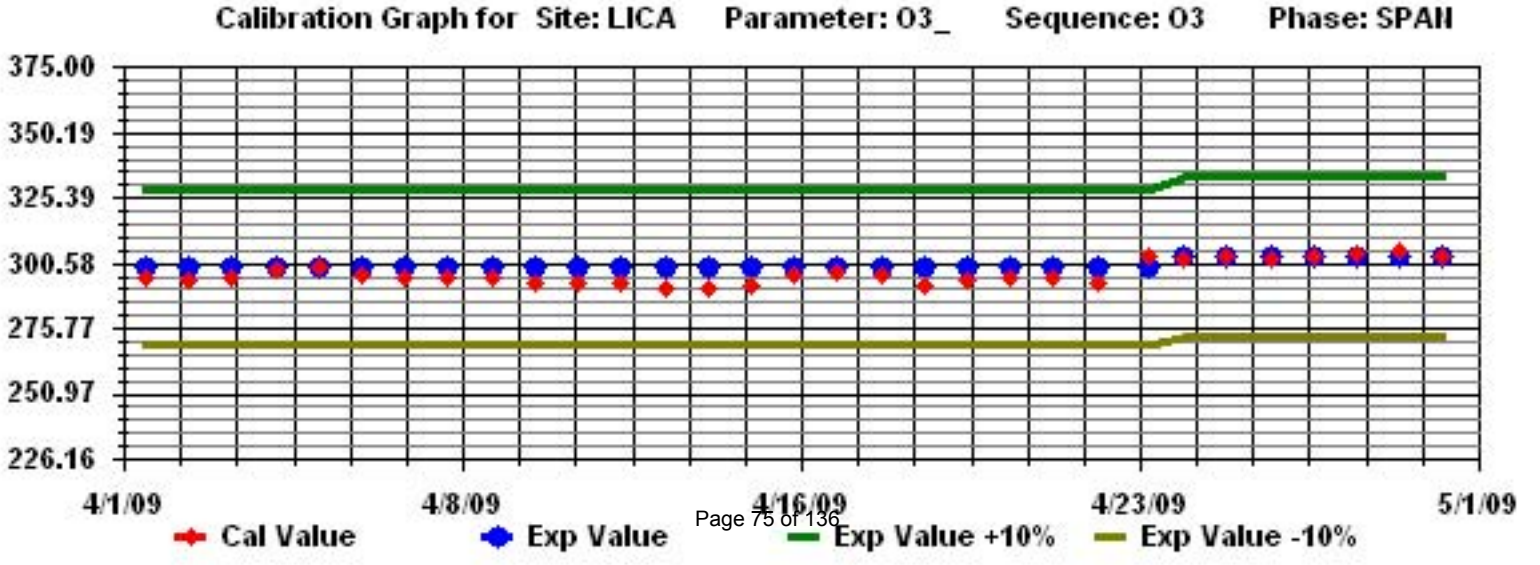
STATUS FLAG CODES

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:	679					
MAXIMUM INSTANTANEOUS VALUE:	83	PPB	@ HOUR(S)	17	ON DAY(S)	4
IZS CALIBRATION TIME:	30	HRS	OPERATIONAL TIME:		718	HRS
MONTHLY CALIBRATION TIME:	9	HRS				
STANDARD DEVIATION:	13.17					


01 Hour Averages
240
177.5
115
52.5
-10
04/01/09 00:00
04/06/09 00:00
04/11/09 00:00
04/16/09 00:00
04/21/09 00:00
04/26/09 00:00
LICA O3MAX PPB


Calibration Graph for Site: LICA Parameter: O3_ Sequence: O3 Phase: SPAN
375.00
350.19
325.39
300.58
275.77
250.97
226.16
4/1/09
4/8/09
4/16/09
4/23/09
5/1/09
Cal Value
Exp Value
Exp Value +10%
Exp Value -10%

Ambient Temperature

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - *COLD LAKE*

APRIL 2009

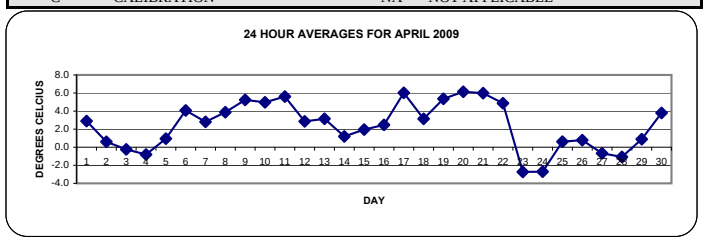
AMBIENT TEMPERATURE hourly averages (Degrees C)

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	1.7	2.3	2	1.4	1.1	0.9	0.6	1	1.8	2.8	3.8	4	4.8	5.2	5.5	5.9	5.8	4.8	3.9	2.9	2.1	2.3	2	0.9	5.9	2.9	24
2	-0.1	-0.5	-0.5	-0.9	-1.7	-1.8	-1.6	-0.3	0.6	1	2.6	3.7	4.4	5.2	4	2	1.8	1.6	1.3	0.1	-0.8	-1.1	-1.7	-2.9	5.2	0.6	24
3	-3.6	-4.3	-4.8	-5.5	-6.4	-7.5	-7.8	-5.4	-1.2	1.2	1.9	3.7	5.1	5.5	5.7	5.6	5.4	5	3.7	0.9	-0.1	0	-1	-1.8	5.7	-0.2	24
4	-3.1	-4.8	-6.3	-7.3	-8.1	**-8.9**	-7.8	-4	-1.8	-0.4	1.2	2.7	4.8	5.8	6.3	6.3	6.1	5.4	4.2	0.9	-1.1	-2.3	-3.2	-3.9	6.3	-0.8	24
5	-4.9	-5.8	-6.5	-6.1	-7.3	-8.2	-6.8	-2.4	0.1	2.2	4.3	5.8	6.7	7.5	7.8	7.5	7.2	6.8	5.2	3.5	2.3	1.8	1.3	0.8	7.8	1.0	24
6	0.9	1.4	1.4	1.3	0.9	0.1	0.3	1.5	2.4	3.1	4.2	5	5.8	6.8	8.3	9	9.7	8.9	7.3	5.5	4.3	3	3.4	3.2	9.7	4.1	24
7	2.5	1.3	-1.2	-2	-2.9	-3.3	-1.5	1.8	2.7	3.6	5	5.8	6.8	7.4	8.2	8.5	9	8.5	7.3	3.6	0.9	-0.6	-1.6	-2.4	9.0	2.8	24
8	-2.4	-2.1	-1.8	-2.2	-2.6	-3.1	-1.1	1.6	3	4.5	6.7	7.8	8.3	8.8	9.3	9.6	9.4	8.6	7.4	6.4	5.2	4.5	3.9	3.3	9.6	3.9	24
9	2.5	2.1	2.4	2.4	2.1	1.7	1.9	2.5	3.2	3.8	5.3	6.7	8.1	8.3	8.9	9.3	10	9.6	8.2	6.8	6	5.1	4.7	4.2	10.0	5.2	24
10	4	4	3.9	4	3.6	2.5	2.6	3.6	4.9	5.6	6.7	7.1	8.2	8.4	6.6	6.9	6.8	7	6.8	5.6	3.7	3	2.6	1.2	8.4	5.0	24
11	-0.5	-0.7	-0.9	-0.1	-0.1	-1	-0.8	1.9	2.9	5.6	7.7	9.4	11	12.1	12.8	13.2	**13.6**	13.3	10.9	7.9	4.9	4.2	4.7	2.6	**13.6**	5.6	24
12	2.2	0.2	-0.2	2.2	1.2	0	1.8	2.6	2.7	3.2	3.6	3.9	4.2	4.5	5.5	6.4	6.6	6.5	6.8	3.8	1	-0.4	-0.3	0.7	6.8	2.9	24
13	-1.4	-2.4	-3	-2.3	-2.7	-2.1	-1.6	0.5	2.9	5.4	6.3	8	8.8	8.9	9.6	9.6	7	5	3.8	3.7	2.7	2.9	3	3	9.6	3.2	24
14	2.9	2.5	2.2	2	1.9	1.5	1	1.1	1.4	1.4	1.3	1.7	1.8	1.9	1.6	0.9	1.1	1.6	1.4	0.9	0	-0.9	-1.1	-1.4	2.9	1.2	24
15	-2.2	-3	-3.6	-4	-4.3	-4.7	-3.3	-0.1	2.1	3.8	5	5.8	6.4	6.8	7.6	7.8	7.8	7.8	7.1	4.5	2.1	0.1	-0.7	-2	7.8	2.0	24
16	-2.4	-2.9	-3.6	-3.9	-4.1	-3.6	-2.2	-0.3	1.9	3.2	4.4	5.7	7.2	8.1	8.8	9.6	9.4	9	8.1	5.6	2.5	0.6	-0.4	-1.4	9.6	2.5	24
17	-0.7	-0.7	-0.4	-2	-3.6	-3.7	-0.2	1.7	3.7	6.6	8.8	10.3	11.4	11.8	12.4	12.2	12.2	12	10.8	9.8	9.2	8.3	7.5	7.1	12.4	6.0	24
18	6.4	5.8	5.3	4.4	3.6	3.2	3	2.9	3	3.1	3.3	3.4	2.6	2	2.3	2.9	4	4.7	4.6	3.7	1.8	0.5	-0.2	-0.9	6.4	3.1	24
19	-1.3	-1.9	-2.1	-2	-1.9	-1.6	-0.1	2.3	5.2	7.5	9.2	10.8	11.8	12.3	12.9	13.2	13	12.9	12.5	9.2	4.5	2	0.5	-0.3	13.2	5.4	24
20	-1	-1.4	-1.8	-2.3	-2.4	-2.5	-0.1	3.4	6.2	10	12.2	12.5	12.8	13	12.8	12.9	12.8	13.1	12.2	9.6	7.7	5.2	2	0.5	13.1	**6.1**	24
21	0	-0.2	0.4	0.7	0.9	2	2.6	4.3	5.1	5.3	5.8	6.4	7.5	9.1	10.2	10.5	10.7	10.5	10	9.5	9.1	8.2	7.7	7.4	10.7	6.0	24
22	6.8	6.2	5.9	4.3	2.7	2	3.9	4.6	5.9	6	5.8	6.7	7	7.5	7.2	6.7	6.6	6.8	6.4	4.6	2.8	1.3	0	-0.8	7.5	4.9	24
23	-1.6	-2	-3.1	-4.2	-5.2	-5.9	-6.1	-5.7	-4.8	-3.7	-2.3	-1.3	-1.1	-0.6	-0.3	-0.1	-0.6	-1	-1.5	-2.1	-2.5	-2.8	-3.3	-3.8	-0.1	-2.7	24
24	-4.2	-4.6	-5.4	-4.9	-5.2	-5.6	-4.7	-4.4	-3.3	-1.8	-1.6	-1.8	0	-1.5	0.2	-0.1	0.4	0.5	0.6	-0.5	-2.4	-3.7	-4.9	-6.1	0.6	-2.7	24
25	-7.2	-7.6	-7.8	-8.1	-8.2	-6.4	-3.6	-1.7	0.7	2.7	4.1	4.4	4.5	5.3	5.8	6.1	6.3	6.3	6.1	4.9	4.3	3.2	0.6	0.1	6.3	0.6	24
26	-0.3	-2.1	-3.3	-3.4	-3.7	-3.5	-0.8	0.7	1.6	3.1	3.9	4.3	3.7	3.1	4.2	4.2	3.8	3.7	3	2.5	1.4	-0.6	-2.7	-4	4.3	0.8	24
27	-5	-5.9	-6.6	-7.2	-7.5	-7.3	-4.4	-2.3	0.5	1.5	3.8	2.7	0.1	2.3	2.5	3.8	3.7	3.7	3.5	2.3	0.9	0.2	-0.2	-1.2	3.8	-0.7	24
28	-2.5	-3.4	-4.3	-5.1	-5.7	-5.4	-4.1	-3.5	-2.8	-1.8	-0.8	0	1.2	2.3	3.1	3.6	4.1	3.9	3.5	1.9	-0.3	-1.8	-3.4	-4.4	4.1	-1.1	24
29	-5.5	-6.1	-7	-7.7	-8.4	-7.3	-2.5	0	2	2.7	3.5	4.5	5.3	6.4	7.3	8.1	8.4	8.5	8.2	5.9	1.3	-1	-2.1	-3.1	8.5	0.9	24
30	-3.6	-4.2	-5	-5.7	-5.7	-3.3	-0.7	1	3.6	6.4	7.8	8.9	8.9	9.2	10.4	10.7	10.7	10.7	10.6	8.7	5.9	5.3	1.4	-0.9	10.7	3.8	24
HOURLY MAX	6.8	6.2	5.9	4.4	3.6	3.2	3.9	4.6	6.2	10.0	12.2	12.5	12.8	13.0	12.9	13.2	13.6	13.3	12.5	9.8	9.2	8.3	7.7	7.4			
HOURLY AVG	-0.8	-1.4	-1.9	-2.1	-2.7	-2.8	-1.5	0.3	1.9	3.3	4.5	5.3	5.9	6.4	6.9	7.1	7.1	6.9	6.1	4.4	2.6	1.6	0.6	-0.2			

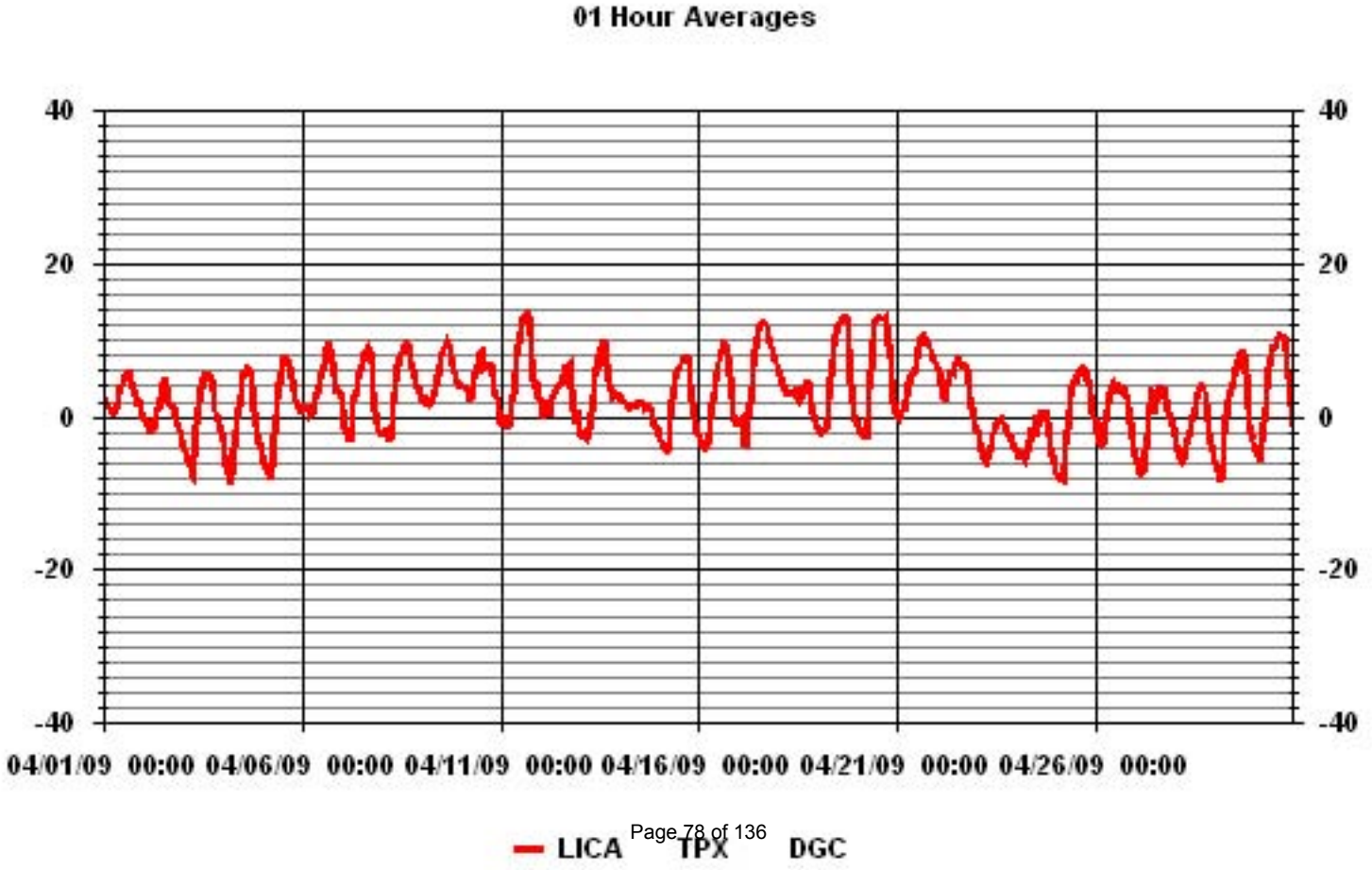
STATUS FLAG CODES

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:	-8.9	^{O}C	@ HOUR(S)	5	ON DAY(S)	4	
MAXIMUM 1-HR AVERAGE:	13.6	^{O}C	@ HOUR(S)	16	ON DAY(S)	11	
MAXIMUM 24-HR AVERAGE:	6.1	^{O}C			ON DAY(S)	20	
					VAR-VARIOUS		
CALIBRATION TIME:	0	HRS	OPERATIONAL TIME:		720	HRS	
			AMD OPERATION UPTIME:		100.0	%	
STANDARD DEVIATION:	4.81		MONTHLY AVERAGE:		2.40	^{O}C	


01 Hour Averages
40
20
0
-20
-40
04/01/09 00:00
04/06/09 00:00
04/11/09 00:00
04/16/09 00:00
04/21/09 00:00
04/26/09 00:00
LICA
TPX
DGC

Relative Humidity

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - *COLD LAKE*

APRIL 2009

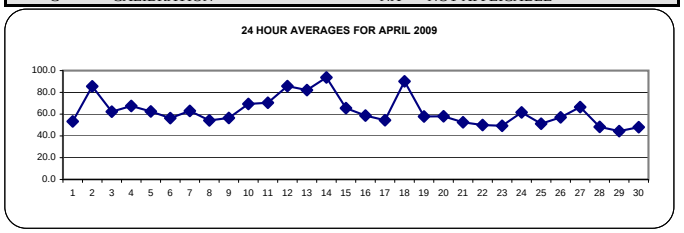
RELATIVE HUMIDITY hourly averages (%)

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	63.5	56.2	54.1	63.8	67.8	69.5	74.6	64.5	50.6	45.1	41.8	40.8	34.8	33.9	32.8	30.7	32.0	41.1	50.2	58.6	62.6	60.6	66.3	83.1	83.1	53.3	24
2	95.0	95.8	95.9	95.9	95.6	95.5	95.1	91.8	84.5	76.5	69.7	61.9	56.1	53.1	67.2	85.6	88.4	89.3	89.1	92.3	94.1	94.9	95.0	95.0	95.9	85.6	24
3	94.6	93.7	93.0	92.5	91.7	90.9	89.3	84.7	63.9	49.8	47.1	41.4	36.4	36.2	35.0	35.2	35.2	37.1	43.0	54.1	60.2	58.6	62.7	67.9	94.6	62.3	24
4	75.2	81.3	86.6	88.0	88.3	88.4	84.8	75.5	71.6	66.5	60.0	55.4	49.3	45.0	33.6	37.4	41.5	47.1	51.5	66.1	76.3	81.0	83.9	85.9	88.4	67.5	24
5	87.8	89.1	89.3	88.9	88.4	89.4	85.2	72.1	64.1	57.7	50.4	42.1	39.7	36.3	34.6	35.3	36.7	41.8	50.8	61.4	65.3	64.5	63.9	64.4	89.4	62.5	24
6	62.6	60.0	58.9	59.7	62.9	68.9	67.6	61.5	57.5	55.7	53.1	51.2	49.3	47.2	43.4	42.8	40.7	43.9	50.0	57.2	63.6	69.0	64.6	61.4	69.0	56.4	24
7	60.1	63.0	76.1	80.2	83.0	84.3	76.8	67.1	70.2	68.5	62.1	55.7	47.6	43.2	40.0	39.1	37.9	39.8	44.5	58.3	70.3	77.8	81.6	84.3	84.3	63.0	24
8	83.9	84.6	83.6	84.0	83.4	85.0	75.7	62.2	55.8	51.6	44.4	37.5	34.3	31.5	29.8	28.4	28.6	35.0	39.3	40.3	45.3	48.8	52.1	56.8	85.0	54.2	24
9	63.3	66.3	66.3	67.9	68.3	70.1	67.4	62.9	59.7	57.2	51.9	47.4	45.3	46.9	45.5	43.9	40.9	41.3	45.3	50.4	55.7	61.3	63.9	66.2	70.1	56.5	24
10	66.5	66.5	66.4	66.2	67.8	72.4	71.5	67.2	62.2	60.5	57.4	57.1	54.9	54.8	77.8	75.6	74.9	71.4	66.1	72.1	79.4	82.9	84.3	88.4	88.4	69.3	24
11	91.5	93.2	93.6	94.6	94.7	95.4	94.8	85.5	84.0	73.4	66.0	59.5	54.1	49.1	44.1	41.4	39.0	40.7	49.1	58.6	70.8	71.4	69.7	77.1	95.4	70.5	24
12	78.8	83.5	86.0	83.6	86.0	89.4	87.7	85.9	85.8	84.5	87.7	92.8	90.8	90.9	83.1	78.3	76.3	77.2	72.9	84.0	90.7	93.3	94.7	94.3	94.7	85.8	24
13	94.8	95.3	95.2	95.2	94.7	94.5	94.2	92.7	86.5	75.4	72.0	62.0	56.0	55.4	51.9	54.9	66.3	76.9	88.1	92.1	94.7	94.5	93.8	93.3	95.3	82.1	24
14	93.1	94.1	95.9	97.1	97.6	97.5	97.4	97.2	94.9	93.4	93.8	91.8	91.0	90.1	89.1	93.8	93.4	90.6	90.2	88.3	92.5	95.0	95.7	95.6	97.6	**93.7**	24
15	95.4	95.6	95.3	94.8	94.4	93.8	92.5	88.7	77.7	65.2	55.2	52.6	48.3	41.9	37.2	33.1	31.4	29.8	32.9	43.2	55.3	67.2	71.1	80.2	95.6	65.5	24
16	80.8	85.6	86.9	87.7	88.3	84.3	79.8	74.2	63.7	57.7	49.0	44.9	38.8	33.3	29.6	26.1	25.9	26.0	34.6	43.9	58.3	67.8	70.1	71.1	88.3	58.7	24
17	65.7	68.3	69.4	77.9	85.3	85.7	73.6	66.0	59.9	51.9	45.7	40.0	34.9	33.7	34.0	36.8	37.5	38.8	42.2	46.5	48.8	52.3	54.3	56.2	85.7	54.4	24
18	65.0	71.3	75.1	79.4	88.7	92.4	93.8	94.2	94.3	92.3	90.8	91.3	91.8	94.3	95.6	95.9	93.8	88.3	90.9	94.3	96.3	97.2	97.7	97.9	97.9	90.1	24
19	**98.1**	98.0	97.3	94.5	87.9	84.6	80.1	70.9	60.6	52.1	44.1	34.6	29.5	26.0	24.9	23.0	23.0	22.8	24.0	34.8	56.1	67.2	74.1	79.9	**98.1**	57.8	24
20	82.3	84.0	87.0	89.7	88.8	89.8	81.6	66.2	52.9	41.3	32.5	32.4	31.7	34.1	36.1	37.9	37.0	33.5	36.2	46.1	51.7	62.0	76.5	80.9	89.8	58.0	24
21	84.3	85.5	84.4	84.1	84.1	81.0	75.9	54.2	44.0	43.3	39.5	37.4	34.7	32.2	33.4	34.5	34.1	34.8	37.6	40.1	42.2	47.0	46.2	46.3	85.5	52.5	24
22	48.1	50.1	52.4	59.4	64.7	70.7	73.5	80.0	71.6	66.6	58.4	48.6	46.2	39.5	35.6	35.9	36.8	34.2	31.6	29.3	35.3	39.4	43.2	49.4	80.0	50.0	24
23	57.8	63.2	65.8	60.6	60.7	62.0	63.3	59.9	52.9	46.2	39.3	36.5	37.2	35.4	34.5	33.4	34.6	37.8	39.2	42.0	45.7	51.0	58.3	66.1	66.1	49.3	24
24	68.8	75.9	81.7	82.4	86.8	88.2	83.4	80.5	73.3	61.1	50.8	49.3	42.8	66.4	45.6	47.6	40.2	35.0	34.6	37.6	47.6	56.2	65.9	76.1	88.2	61.6	24
25	82.6	81.4	83.0	84.8	85.5	78.5	61.1	50.6	43.5	34.3	32.0	40.8	42.6	41.9	40.0	38.4	37.5	36.0	35.0	38.9	35.5	34.0	44.9	45.5	85.5	51.2	24
26	50.4	61.9	72.6	71.7	74.9	77.2	68.7	62.6	57.7	51.0	44.6	41.9	47.9	57.6	46.7	44.1	44.8	41.1	42.9	43.9	52.5	61.6	70.9	79.6	79.6	57.0	24
27	84.9	85.0	85.0	87.8	89.0	87.5	79.0	71.3	59.4	61.3	51.5	62.4	90.2	78.5	71.9	56.1	49.2	42.8	42.5	49.8	49.3	48.7	55.0	58.1	90.2	66.5	24
28	63.2	64.7	67.5	69.9	71.6	70.2	64.7	59.3	53.9	49.0	43.1	39.1	34.3	28.8	26.9	25.9	24.9	23.3	23.6	29.8	40.9	52.8	62.3	68.7	71.6	48.3	24
29	72.3	73.2	77.3	79.1	82.4	79.6	58.1	43.4	31.8	29.9	27.4	24.8	22.5	21.1	20.2	19.1	18.3	17.9	18.2	25.4	44.7	52.7	57.9	68.6	82.4	44.4	24
30	70.5	73.3	76.9	77.8	81.2	68.5	55.4	49.8	39.6	30.5	30.4	33.5	35.4	38.6	35.6	30.9	29.1	29.0	28.1	33.6	40.6	41.1	55.9	67.1	81.2	48.0	24
HOURLY MAX	98.1	98.0	97.3	97.1	97.6	97.5	97.4	97.2	94.9	93.4	93.8	92.8	91.8	94.3	95.6	95.9	93.8	90.6	90.9	94.3	96.3	97.2	97.7	97.9			
HOURLY AVG	76.0	78.0	80.0	81.3	82.8	82.8	78.2	71.4	64.3	58.3	53.1	50.2	48.3	47.2	45.2	44.7	44.3	44.8	47.5	53.8	60.7	65.1	69.2	73.5			

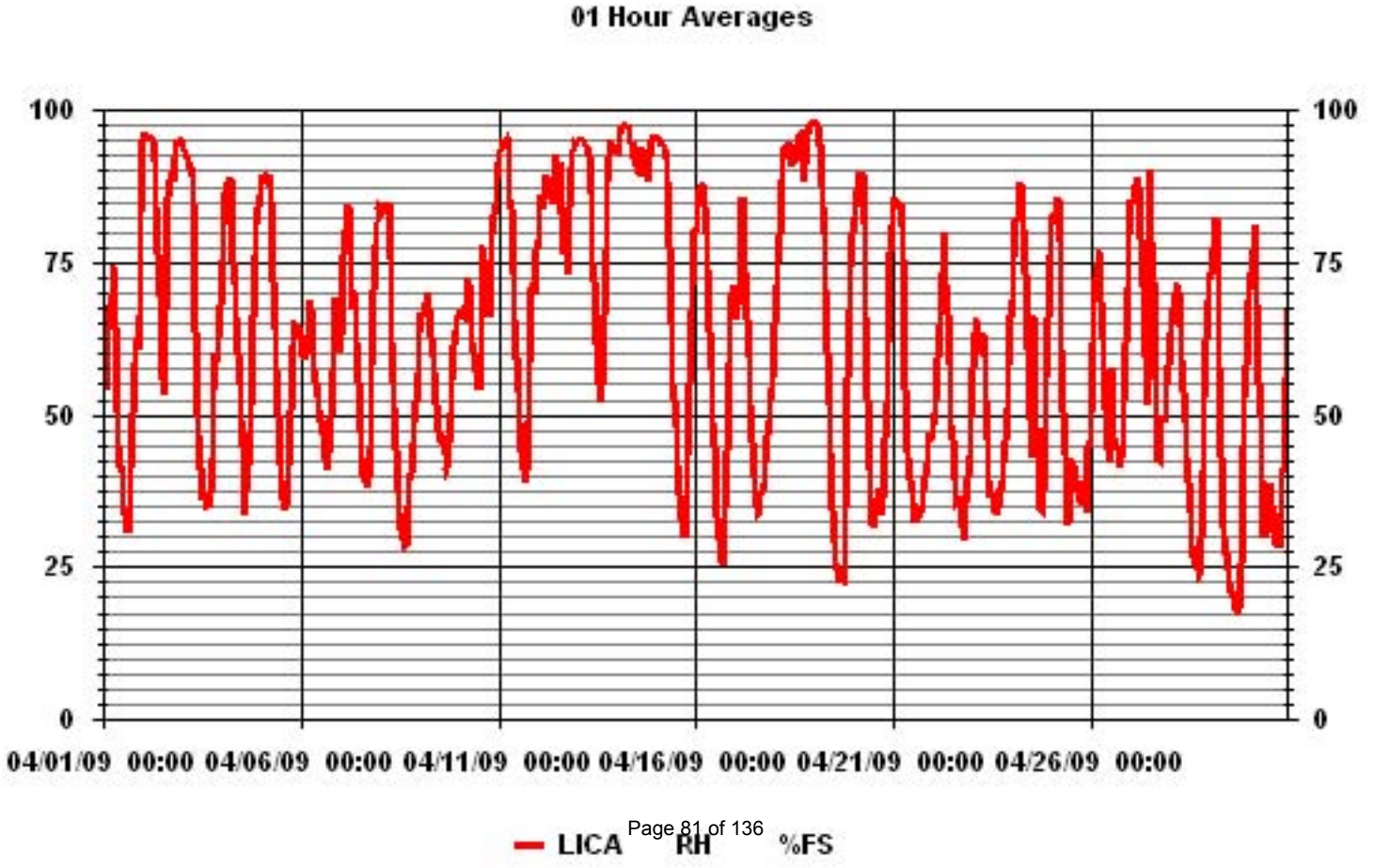
STATUS FLAG CODES

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



MONTHLY SUMMARY

MAXIMUM 1-HR AVERAGE:	98.1	%	@ HOUR(S)	0	ON DAY(S)	19	
MAXIMUM 24-HR AVERAGE:	93.7	%			ON DAY(S)	14	
CALIBRATION TIME:	0	HRS	OPERATIONAL TIME:		720	HRS	
			AMD OPERATION UPTIME:		100.0	%	
STANDARD DEVIATION:	21.53		MONTHLY AVERAGE:		62.53	%	


01 Hour Averages
100
75
50
25
0
04/01/09 00:00
04/06/09 00:00
04/11/09 00:00
04/16/09 00:00
04/21/09 00:00
04/26/09 00:00
LICA RH %FS

Vector Wind Speed

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - *COLD LAKE*

APRIL 2009

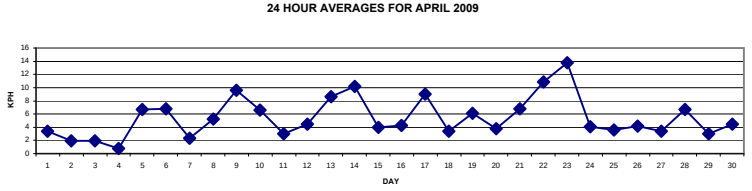
VECTOR WIND SPEED (WS) hourly averages (km/hr)

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	4.9	8.5	7.8	7.4	7.6	4.1	4.1	8.3	7.9	8.4	8.4	7.1	6.8	6.2	4.7	3.3	6	5.6	5.5	4.8	0.5	1.4	5	7.9	8.5	3.4	24
2	4.8	3.4	3.7	3.4	3.5	3.2	2.2	2.6	4.4	5.8	5.3	6.3	7.2	8.5	3	4.1	5.9	4.4	0.9	0.4	0.8	1.1	0.7	0.8	8.5	1.9	24
3	0.6	0.7	0.6	0.6	0.3	0.3	0.5	0.8	2.5	2.2	5.6	4.9	4.4	3.7	7.3	8.8	7.9	7.2	4.4	1.5	1.5	6.9	5.5	2.4	8.8	1.9	24
4	1.7	0.5	0.1	0.5	0.3	0.1	0.4	0.9	2.4	3.5	4.5	4.8	1.9	3.7	5.4	7.3	6.7	6.9	4.2	1.4	1.1	1.2	0.5	0.9	7.3	0.8	24
5	0.7	0.3	1.9	2.6	0.4	1.1	2	2.7	6.6	9	9.6	12.8	10	6.9	7.1	8.8	7.7	6.2	9.6	9.8	12	11.4	12.3	8.8	12.8	6.7	24
6	6.7	7	8.2	10.1	6.2	1.1	2.5	2.7	4.1	7.3	8	7.7	7.7	8.5	9	10.4	9.1	10.2	8	6.3	3.5	5.2	7.1	5.2	10.4	6.7	24
7	6.2	2.5	0.6	0.8	0.7	0.5	0.4	2.4	5.1	3.7	1.6	3.1	3.7	6	3.1	3.3	0.9	5.1	3.5	0.4	0.5	0.5	0.5	0.7	6.2	2.3	24
8	1.4	0.6	0.8	0.3	1.8	1.5	2.3	5.9	7.8	6.6	6.5	11.6	11.3	10.9	10.6	9	7.4	5.6	4.3	5.1	3.8	3.4	3.9	3.7	11.6	5.3	24
9	2.7	4.3	6.2	6.1	8.3	6.7	6	7	8.1	8.6	9.7	13.5	15.8	16.1	15.1	11.1	7.1	7.3	7.4	10.3	14.8	14	13.4	10.3	16.1	9.6	24
10	7.7	10.1	8.1	10.7	6.7	6.4	8.7	8.8	7.3	10.2	9.4	8.8	14	8.5	5.3	2.5	3.9	2.9	3.9	1	1.6	4.5	4	2.3	14.0	6.6	24
11	0.7	1.6	1.8	2.8	2.4	1.5	1.4	2.8	7	3.3	4.6	4.5	3.9	3.8	3.3	3.7	4.2	3.9	3.9	1.7	1.6	2.5	2.3	3.7	7.0	3.0	24
12	3.3	0.9	2.7	5.7	3.5	3.4	2.1	3.1	1.9	4.9	4.1	7.2	6.5	9.4	9.8	9.7	6.6	5.8	5	1.8	1.2	1.8	3.6	3	9.8	4.5	24
13	2.6	1.4	2.5	2.5	1.9	1.3	2.5	3.7	6	11.8	13.2	10.9	11.1	10.5	13.2	12.4	15.5	14.3	14.4	10.9	9.4	11.8	12.2	12.2	15.5	8.7	24
14	13	13.4	12.6	11.5	11.9	9.7	11.1	13.6	11	12.6	11.3	11.8	10.7	11.8	14	13	13.5	11.1	8.7	4.8	2.9	3.5	3	2.8	14.0	10.1	24
15	1	0.6	0.5	1	0.1	0.4	1.7	0.4	3	4.9	5.2	7.2	7.4	9.5	10.2	10.5	8.5	8.2	6.3	3.7	1.7	1.2	0.5	0.9	10.5	3.9	24
16	0.7	1	0.2	0.6	1	2.2	2.3	5.1	6.5	7.1	9.8	9.7	8.2	7.4	8.8	6.1	6.4	5.5	4.4	2	1.3	1.5	2	2.1	9.8	4.2	24
17	3.3	3.6	5.5	2.1	1.3	1.8	2.2	6.9	6.9	7.2	9.1	11.7	12.9	14.4	13.7	14.2	14.5	12.8	10.1	11.1	12	13.1	11.5	14.9	14.9	9.0	24
18	12.9	6.9	8.5	7	2.5	4.9	4.5	3.8	1.4	3.9	3.8	1.9	2	2.9	3.7	1.6	0.9	1.8	1.8	1.1	0.7	1.2	0.4	0.4	12.9	3.4	24
19	2.5	3.4	4	5.7	6.4	6.2	6	7.1	7	7.7	7.7	11.1	12.7	11.6	11	9.1	9.9	9.1	5.2	1.4	1.1	0.3	0.3	0.3	12.7	6.1	24
20	0.5	0.3	0.3	0.5	0.8	0.1	0.8	1.7	1.2	0.9	2.8	4	5.4	7.1	5.7	9.7	11.1	11.6	11.5	6.4	4.8	2.1	0.4	0.9	11.6	3.8	24
21	0	0.5	0.9	0.1	0.8	1.9	3.2	5.5	6.5	6.6	10.2	9.8	9.3	11.1	12.9	10.4	9.6	9.7	8.3	8.6	11.3	8.9	9.2	8.2	12.9	6.8	24
22	7.1	8	7.7	1.1	2.1	4.2	7.6	12.9	15.7	13.8	15	13.9	13.2	14.6	14.6	15.5	12.9	13.1	12.8	13.6	8.4	11.3	10.9	11.1	15.7	10.9	24
23	11.5	16.1	16.6	18.4	18.1	19.2	19.1	19	**19.8**	17.7	17.2	17.7	17.7	17.7	16	15.8	14.9	14.2	14.4	9.5	7	5.4	2.7	1	0.5	**19.8**	**13.7**	24
24	2.8	2.6	2	2.3	2.4	1.7	2.9	5.8	5	4.5	5.1	1.9	7	8.5	5.5	10.1	6.6	5.8	5.8	5	1.7	0.9	0.6	0.1	10.1	4.0	24
25	0.4	0.6	0.9	1	1	1.5	1.8	4.4	5.6	5.7	7.6	6.5	5.3	4	1.7	2	3.4	2.4	2.6	6.1	7.9	5.3	2.7	5.3	7.9	3.6	24
26	3.4	0.2	2.2	2.9	0.3	1.1	0.9	7.5	7.9	5.9	7.7	4.9	6.5	1.5	6.6	6.3	6.3	8	7.8	5.6	3.9	1.1	0.9	0.9	8.0	4.2	24
27	0.2	0.7	0.8	1.6	0.2	0.3	0.7	1.7	2.9	4.4	1.6	3.3	2.5	3.8	6	7.9	7	4.9	4.7	2.1	7.4	5.4	6.5	5.9	7.9	3.4	24
28	5.8	6.1	4.9	3.8	3.1	4.4	6.4	9.4	8.8	9.4	11	12.1	11.5	10.7	9.5	9.5	9	9.4	7.4	4.2	2.3	0.9	1	0.9	12.1	6.7	24
29	0.5	0.7	0.3	0.7	0.3	0.4	1.2	2	2.1	5.2	6.9	7.6	7.6	6.4	6.7	4.5	5.7	6	3.7	1.7	1.1	0.2	0.4	0.3	7.6	3.0	24
30	0.4	0.2	0.3	1.3	2.4	4.1	3.5	3.9	3.4	6.3	8.4	8.2	9.4	5.1	6.1	7.3	8.1	9.6	6.1	2.3	4.5	4.9	0.4	0.4	9.6	4.4	24
HOURLY MAX	13.0	16.1	16.6	18.4	18.1	19.2	19.1	19.0	19.8	17.7	17.2	17.7	17.7	16.1	15.8	15.5	15.5	14.4	14.4	13.6	14.8	14.0	13.4	14.9			
HOURLY AVG	3.7	3.6	3.8	3.8	3.3	3.2	3.7	5.4	6.2	7.0	7.7	8.2	8.5	8.3	8.3	8.2	7.9	7.6	6.4	4.7	4.4	4.3	4.1	3.9			

STATUS FLAG CODES

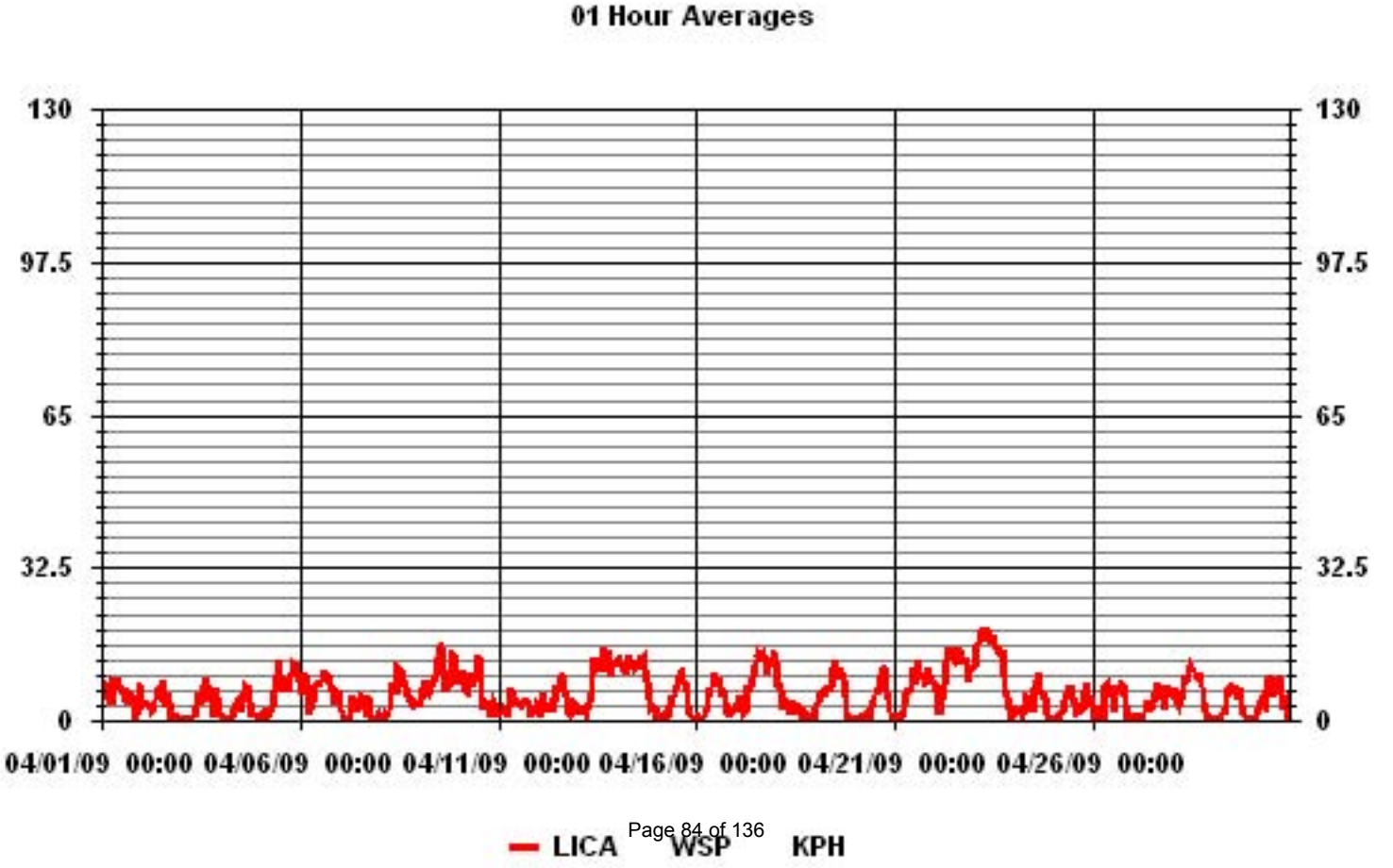
S	- OUT OF SERVICE	IZS	- IZS - DAILY ZERO/SPAN CHECK
N	- INVALID DATA	M	- MISSING DATA
D	- INSTRUMENT DRIFT	P	- POWER FAILURE
C	- CALIBRATION	NA	- NOT APPLICABLE



LAST CALIBRATION: November 5, 2008

MONTHLY SUMMARY

MAXIMUM 1-HR AVERAGE:			19.8	KPH	@ HOUR(S)	8	ON DAY(S) 23
MAXIMUM 24-HR AVERAGE:			13.7	KPH			ON DAY(S) 23
CALMS (≤ 1 KPH)	3.90	%		OPERATIONAL TIME:		720	HRS
MONTHLY CALIBRATION TIME:	0	HRS		AMD OPERATION UPTIME		100.0	%
STANDARD DEVIATION:	4.33			MONTHLY AVERAGE:		5.67	KPH


01 Hour Averages
130
97.5
65
32.5
0
04/01/09 00:00
04/06/09 00:00
04/11/09 00:00
04/16/09 00:00
04/21/09 00:00
04/26/09 00:00
LICA WSP KPH

LICA
WSP / WD Joint Frequency Distribution (Percent)

April 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	2.22	4.58	7.08	4.02	6.66	5.55	3.33	1.66	1.38	.55	3.75	3.88	2.63	1.52	1.80	1.94	52.63
<	12.0	1.38	3.75	4.30	1.11	2.22	5.83	4.02	.27	.27	.41	2.36	2.08	1.80	.97	1.52	1.25	33.61
<	20.0	.27	.55	.83	.13	.13	.83	2.22	.00	.00	.00	.00	.13	.41	1.38	2.77	.00	9.72
<	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	3.88	8.88	12.22	5.27	9.02	12.22	9.58	1.94	1.66	.97	6.11	6.11	4.86	3.88	6.11	3.19	

Calm : 4.02 %

Total # Operational Hours : 720

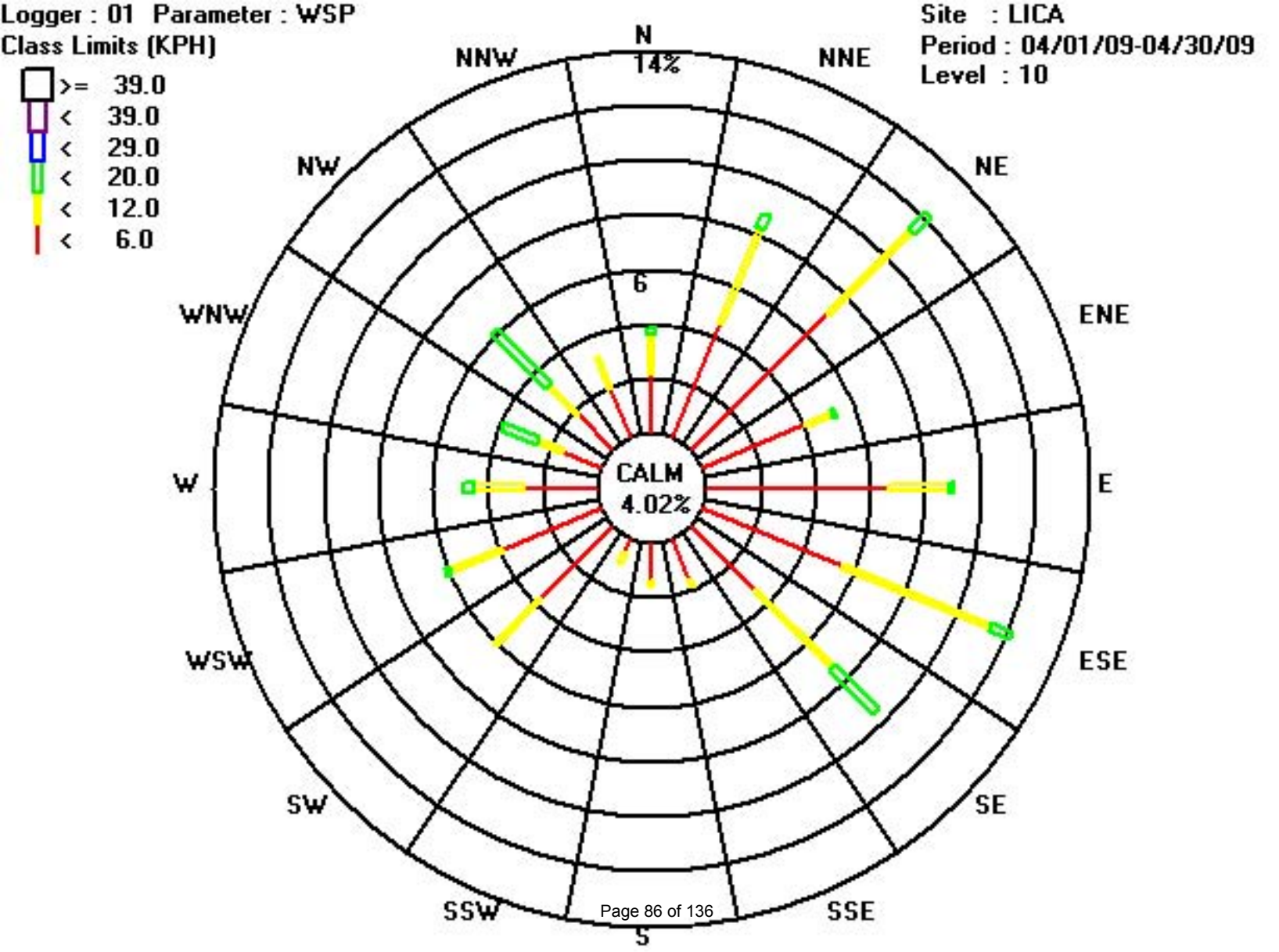
Distribution By Samples

Direction

	Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
<	6.0	16	33	51	29	48	40	24	12	10	4	27	28	19	11	13	14	379
<	12.0	10	27	31	8	16	42	29	2	2	3	17	15	13	7	11	9	242
<	20.0	2	4	6	1	1	6	16					1	3	10	20		70
<	29.0																	
<	39.0																	
>=	39.0																	
	Totals	28	64	88	38	65	88	69	14	12	7	44	44	35	28	44	23	

Calm : 4.02 %

Total # Operational Hours : 720


Logger : 01 Parameter : WSP
Class Limits (KPH)
>= 39.0
< 39.0
< 29.0
< 20.0
< 12.0
< 6.0
Site : LICA
Period : 04/01/09-04/30/09
Level : 10
N
14%
NNE
NE
ENE
E
ESE
SE
SSE
S
SSW
SW
WSW
W
WNW
NW
NNW
6
CALM
4.02%

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - *COLD LAKE*

APRIL 2009

VECTOR WIND SPEED MAX instantaneous maximum in km/hr

MST

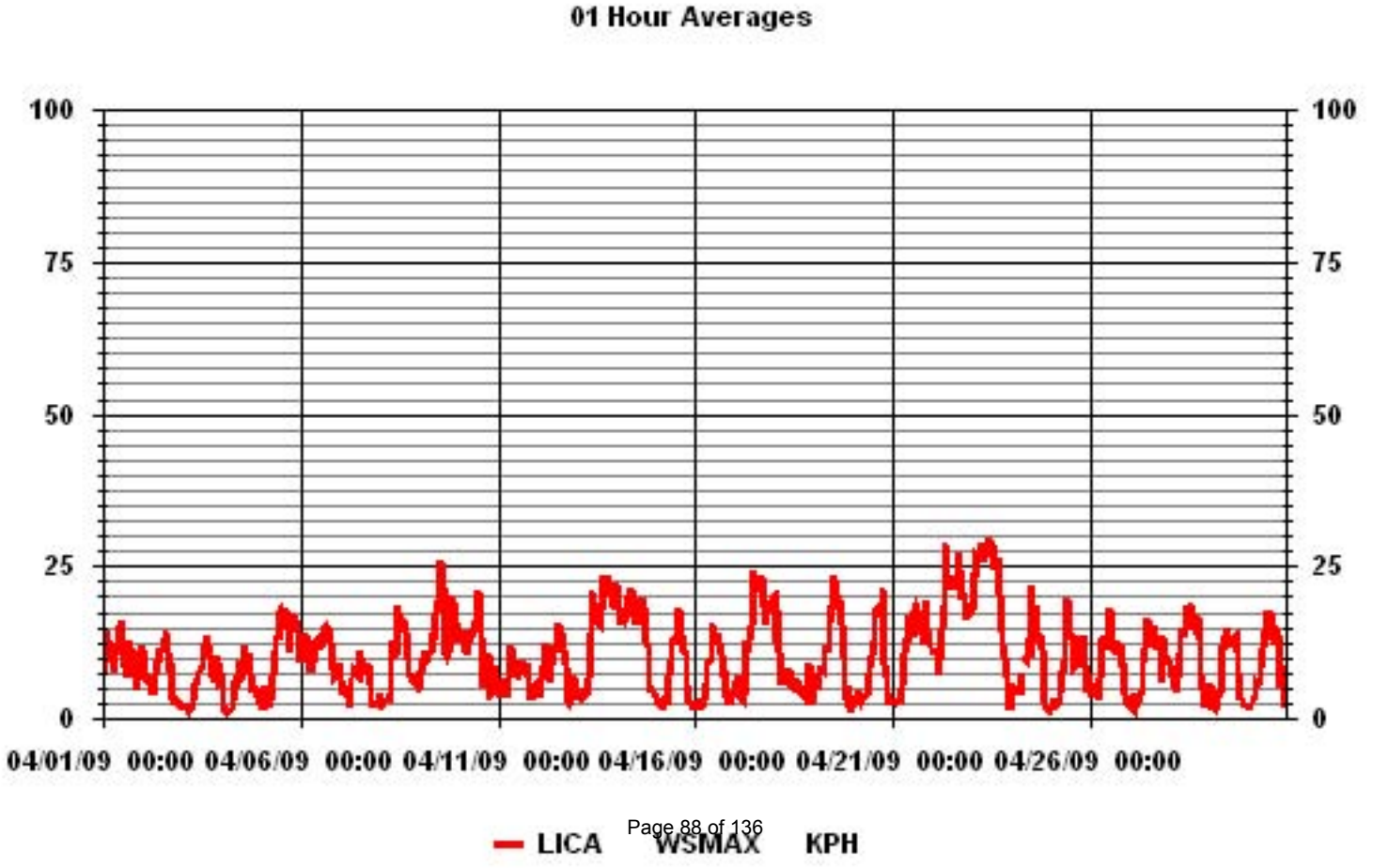
HOUR START	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY
HOUR END	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	MAX.
DAY																									
1	7.7	14.6	11.9	10.2	11.8	9.4	7.4	12	11.7	13.8	15.3	16.1	11.1	8.9	8.4	6.6	12.7	9.9	11.5	9.9	4.8	6.4	8.1	12.1	16.1
2	11.3	7.3	6	7.3	5.7	6.5	4.1	4.6	6.9	9.3	11.1	11.1	11.6	13.1	14.5	11.2	8.9	9.3	3.4	2	3.3	3	2.3	2.5	14.5
3	2.1	1.9	2	2	1.3	1.9	1.8	3.1	5.5	6.4	7.6	8	8.4	10.4	12.2	13.5	12.3	10.5	6.7	7.9	6	10.2	9.4	6	13.5
4	6.3	1.3	1	1.9	1.2	1.3	1.6	2.9	5.6	5.6	7	9.4	6.8	7.1	11.8	10.9	9.7	10.7	7.4	4.5	5.4	3.3	4.9	2.2	11.8
5	4	1.4	4.7	4.7	1.7	3.8	3.7	7.1	11.2	13.5	13	17.4	18	17.5	15.5	18.2	14.7	10.6	14.1	15.1	17.2	15.5	16.1	13.1	18.2
6	9	11.6	12	14.1	12.4	9	7.4	8.5	9.2	12.6	12.9	12	12.1	13.8	14.8	15.2	13.6	15.3	12.9	8.4	6.6	6.9	9.2	7.6	15.3
7	8.9	6.5	3.7	5.1	3.7	2.7	1.9	6.5	8.3	8	7.2	7	11.2	10.1	9.4	7.7	7.1	8.9	6	2.4	2.5	2.3	2.2	2.9	11.2
8	4.1	2.3	2.5	3	3.1	2.6	4.1	10.1	12.7	10.3	10.5	18.6	17.7	15.5	15.6	16.3	14.5	10	6.7	7.5	6.3	5.7	5.9	7.4	18.6
9	4.4	7.6	9.2	9.2	11.2	9.3	10.6	10.9	13.9	12.9	17.2	19.5	25	25.7	23.5	21.6	10.9	10.2	11	14.7	20.2	19.3	18.6	16	25.7
10	12.3	14.3	13.6	13.1	11.2	10.5	14.2	13.2	13.5	14.6	16.2	14	21	17.7	13.7	5.2	7.5	10.1	10.7	3.9	4.1	8.7	8.2	4.5	21
11	5.2	4.1	4	6.5	4.6	4.3	3.6	8.8	12.1	6.6	7.4	7.2	8.8	8.5	8.2	9.5	8.3	8.5	7.2	3.9	3.8	5	4.7	5.5	12.1
12	6.1	3.4	6.4	8.8	6.9	12.3	8.1	5.9	8.9	11.2	11.4	11.9	10.8	15.5	15	14.3	10.1	10.4	8.8	3.1	2.5	3.1	7	6.4	15.5
13	4.1	3.8	4.9	4.1	4.8	3.8	4	6.8	14	21	18.6	16.3	16.1	15.7	18.7	18.6	23.4	20.9	22.9	23.3	20.1	18.6	19.1	17.8	23.4
14	22.4	18.2	18.2	15.2	17.3	16.3	16.8	20.3	16.7	21.4	17.3	19.2	15.3	19.8	19.2	18.1	19.9	18.6	12.7	11.8	4.6	5	4.6	3.8	22.4
15	3.7	2.8	2.4	2.8	1.4	2.6	3.7	2.3	7	9.6	13	13.2	13	14.2	18	16.4	14.1	11.3	10.7	5.6	3.1	2.8	2	2.1	18
16	2.5	3	1.5	2.7	2.5	3.2	5.9	9.3	9.4	10	15.5	15.1	13.2	12.1	14.1	12.7	10.6	7.4	7.5	4	2.7	2.7	4.3	3.5	15.5
17	5.3	5.9	6.8	4.4	3.6	3.1	3.9	12.8	10.8	12.7	15.4	24.3	22.4	20.6	21.6	23	23	18.4	15.5	16.6	18.3	18.8	17.4	19.8	24.3
18	20.1	12.2	18	11.2	5.3	7.8	7.2	6.3	6.1	8	7.1	5.4	5.3	4.2	6.4	5.6	4.4	3.9	3.4	3.3	2.3	8.9	2.9	2.4	20.1
19	4.7	5.9	5.7	7.5	8.4	8.3	8	11.4	11.4	11.5	15.8	18.7	23.5	22.9	20.4	17.7	19.8	15.5	10.4	4.4	4.7	2	1	2	23.5
20	3.2	3.8	2.2	4.7	3.8	2.6	3	3.7	3.9	7.5	8.3	10.4	12.8	17.7	18.1	16.6	17.5	18.2	21.3	9.2	7	4.4	2.2	2.8	21.3
21	2.9	3	2.5	2.8	3.9	3.5	5.5	10.6	13	12.4	16.7	15.9	13.4	17.7	18.6	18.1	16.8	14	11.9	13.3	19.5	14.6	13.4	11.9	19.5
22	11.1	11.2	11.1	7.7	7.8	9.7	14.7	18.5	28.9	21	22.3	22.6	21	23.3	21.7	23.3	27.2	24.5	19.8	20.4	16	18.8	17.5	17.3	28.9
23	17.8	24	23.3	27	26.7	28.9	26.7	25.7	27.2	28.6	27.1	**29.7**	26.6	28.8	24.4	25.4	25.6	20.6	14.6	12.1	10.4	7.1	2.4	1.5	**29.7**
24	5.8	4.6	3.9	5.1	4.5	3.8	6.8	0	9.9	9.6	13.3	10	21.4	0	13.6	18.4	13.3	12.7	14	11.6	3	2	1.5	1.3	21.4
25	1.7	2.4	2.9	3	2.3	2.6	4.1	7.6	9.3	14.2	19.6	14.9	14.4	13.3	8.2	8.5	8.7	13.7	10.2	12.7	13.6	9.1	4.2	7.2	19.6
26	5	3.2	5.7	5	3.7	3.1	6.5	12.9	13.5	11.1	13.3	11.5	18.1	11.9	11.6	11.8	10.6	12.3	12.1	8.6	9.5	4.1	2.5	2.4	18.1
27	2.1	2	1.6	4.2	1.8	2.5	3.8	4.7	11.4	9.3	13.6	16.3	12.3	12.2	13.3	15.3	13.6	11.4	12.8	5.8	13.7	9	10.7	9.8	16.3
28	9.3	8.9	7.3	5.3	4.3	6.6	10.7	14.7	13.4	14.7	18.2	18.2	18.5	19.1	14.7	15.3	13.5	16.8	13.1	7.5	5.1	5	1.9	2.6	19.1
29	2.2	5.9	2.1	1.9	1.6	2.2	3.5	4.4	12	11.2	13.4	14.7	13.9	13.5	11.7	13.5	13.7	11.2	8	3.5	3.4	1.7	2.3	2.2	14.7
30	2	1.4	2.5	3.4	3.8	6.1	5.8	6.2	8.3	11.5	14.3	17.7	14.7	13.8	17.8	13.3	12.2	15.1	14.1	5.2	8.1	8.8	2.1	2.1	17.8
PEAK	22.4	24.0	23.3	27.0	26.7	28.9	26.7	25.7	28.9	28.6	27.1	29.7	26.6	28.8	24.4	25.4	27.2	24.5	22.9	23.3	20.2	19.3	19.1	19.8	

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

MAXIMUM INSTANTANEOUS READING	29.7	KPH	@ HOUR(S)	11
			ON DAY(S)	23


01 Hour Averages
100
75
50
25
0
04/01/09 00:00
04/06/09 00:00
04/11/09 00:00
04/16/09 00:00
04/21/09 00:00
04/26/09 00:00
LICA WSMAX KPH

Vector Wind Direction

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - *COLD LAKE*

APRIL 2009

VECTOR WIND DIRECTION (WD) hourly averages in degrees

MST

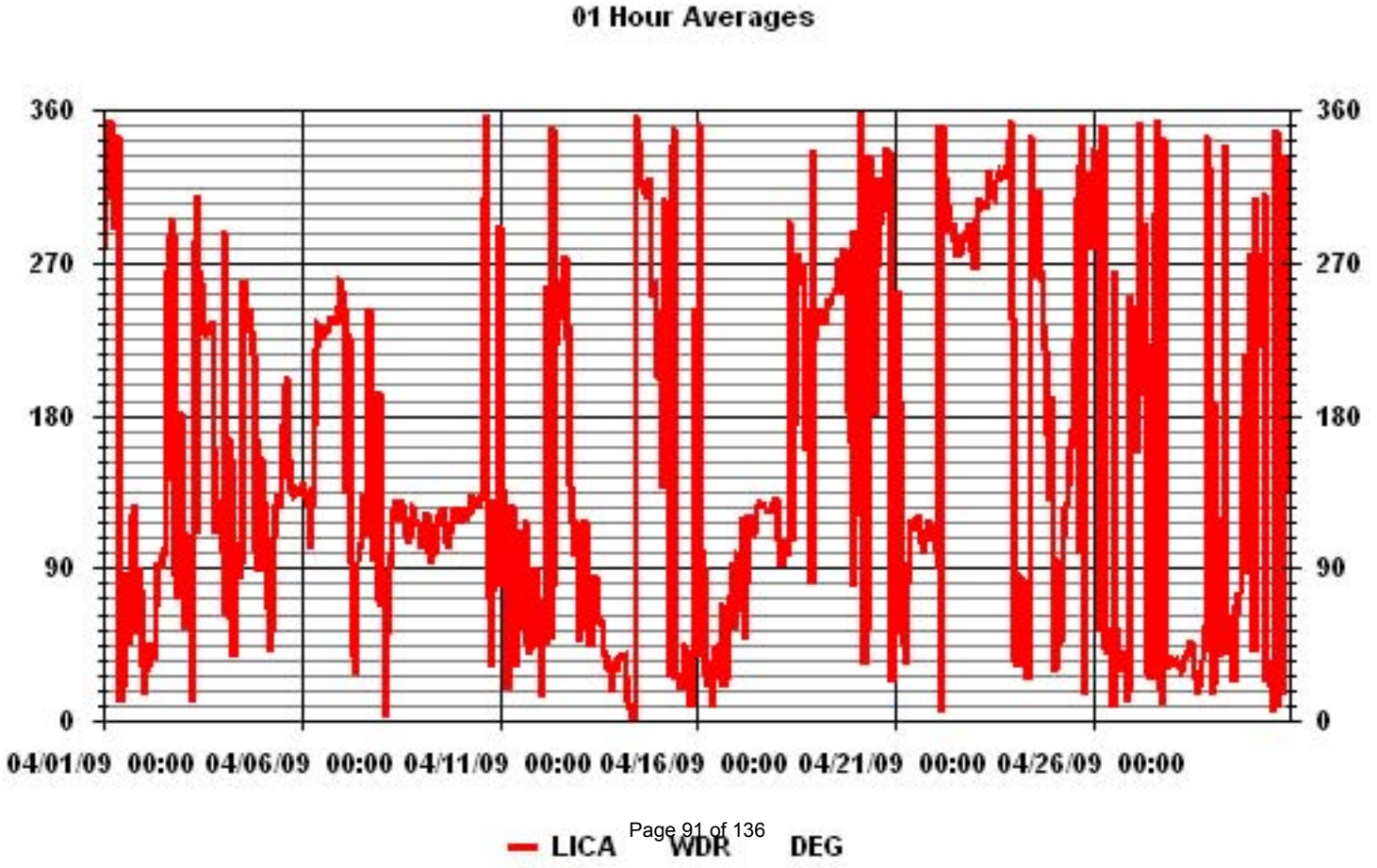
HOUR START	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24-HOUR	24-HOUR AVG	
HOUR END	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	AVG.	QUANDRANT	RDGS.
DAY																											
1	281	320	351	336	354	309	289	315	343	343	11	23	20	56	87	76	44	92	122	128	50	87	88	79	14	NNE	24
2	33	15	28	32	46	39	36	45	67	94	92	90	97	103	141	266	286	296	288	84	107	71	131	183	64	ENE	24
3	148	53	111	83	110	90	10	283	110	310	267	259	249	229	228	229	229	234	236	161	110	131	123	117	214	SSW	24
4	99	289	64	63	167	156	82	37	106	93	83	94	92	260	254	228	241	243	231	216	100	168	87	110	200	SSW	24
5	155	131	87	110	67	41	52	108	128	133	130	129	143	175	199	203	197	155	137	133	134	137	136	135	142	SE	24
6	136	141	137	133	127	101	127	138	173	219	234	233	228	227	229	230	232	239	233	235	238	234	244	259	209	SSW	24
7	258	254	245	133	229	226	94	58	39	27	93	103	103	133	109	112	139	243	234	154	96	96	70	195	133	SE	24
8	67	70	82	1	50	89	100	118	125	130	117	123	131	128	126	122	110	105	108	126	125	118	117	116	119	ESE	24
9	101	114	117	114	123	100	92	103	100	98	115	121	122	124	126	119	105	101	110	112	123	123	126	121	115	ESE	24
10	117	120	120	126	118	122	123	131	131	129	129	125	129	133	232	309	358	71	128	32	76	131	126	104	124	ESE	24
11	292	78	132	136	104	18	43	126	128	102	32	54	83	112	99	108	118	46	39	72	69	89	89	47	84	E	24
12	48	14	71	69	45	257	235	48	350	78	221	238	238	242	259	266	275	225	234	140	118	96	119	107	241	WSW	24
13	47	54	74	77	119	71	44	53	44	83	86	64	57	60	57	42	39	32	29	34	17	30	33	29	47	NE	24
14	36	38	38	38	39	26	12	7	8	1	0	357	343	332	320	317	313	315	307	320	258	250	259	239	354	N	24
15	204	200	242	137	309	192	266	265	26	340	350	25	28	25	19	24	46	38	42	18	8	40	92	243	23	NNE	24
16	110	353	37	101	92	29	20	34	34	7	42	43	33	26	25	69	20	22	24	59	74	94	54	61	36	NE	24
17	97	96	87	120	65	48	80	122	118	114	112	114	125	127	129	129	128	126	123	123	123	124	128	130	121	ESE	24
18	130	107	101	90	107	104	104	97	295	108	106	173	257	276	266	266	270	245	159	164	162	80	336	224	119	ESE	24
19	243	242	240	241	235	235	239	247	246	248	251	254	255	266	272	265	251	278	253	219	182	164	79	289	252	WSW	24
20	150	120	176	359	157	33	50	54	334	287	248	180	232	267	320	292	300	305	326	338	331	337	23	127	302	WNW	24
21	252	244	254	190	52	46	33	80	94	111	119	115	111	120	122	114	105	98	105	112	118	106	112	113	108	ESE	24
22	101	94	95	352	5	352	319	319	306	290	290	291	284	274	276	274	286	283	286	288	287	293	276	279	291	WNW	24
23	265	296	304	308	303	304	305	304	307	325	312	310	309	318	319	323	321	322	319	327	321	343	354	238	310	NW	24
24	34	42	32	75	85	84	58	27	24	35	345	261	280	288	285	313	266	260	234	220	169	144	129	192	312	NW	24
25	29	96	30	49	48	50	108	126	129	138	162	172	160	225	309	328	98	351	15	317	320	323	277	322	139	SE	24
26	338	325	280	324	52	230	351	43	39	43	50	55	8	266	56	35	38	29	41	36	11	16	250	227	30	NNE	24
27	185	220	157	244	353	191	249	293	38	27	223	24	51	190	299	354	344	19	9	344	39	30	37	39	9	N	24
28	32	35	36	34	32	29	30	36	38	41	44	47	39	24	28	15	20	29	36	40	56	346	328	314	32	NNE	24
29	15	189	21	66	120	37	51	50	339	38	59	60	44	22	68	63	75	76	91	179	216	164	86	276	58	ENE	24
30	189	40	309	219	235	241	237	276	311	22	35	20	32	5	302	348	8	42	15	18	322	333	134	225	357	N	24
HOURLY AVG	338	353	351	359	354	352	351	319	350	343	350	357	343	332	320	354	358	351	326	344	331	346	354	322			

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:	720	HRS
STANDARD DEVIATION	102.49		AMD OPERATION UPTIME	100.0	%
			MONTHLY AVERAGE	50	DEG


01 Hour Averages
360
270
180
90
0
04/01/09 00:00
04/06/09 00:00
04/11/09 00:00
04/16/09 00:00
04/21/09 00:00
04/26/09 00:00
LICA WDR DEG

Standard Deviation Wind Direction

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - *COLD LAKE*

APRIL 2009

STANDARD DEVIATION WIND DIRECTION (STDWDIR) hourly averages in degrees

MST

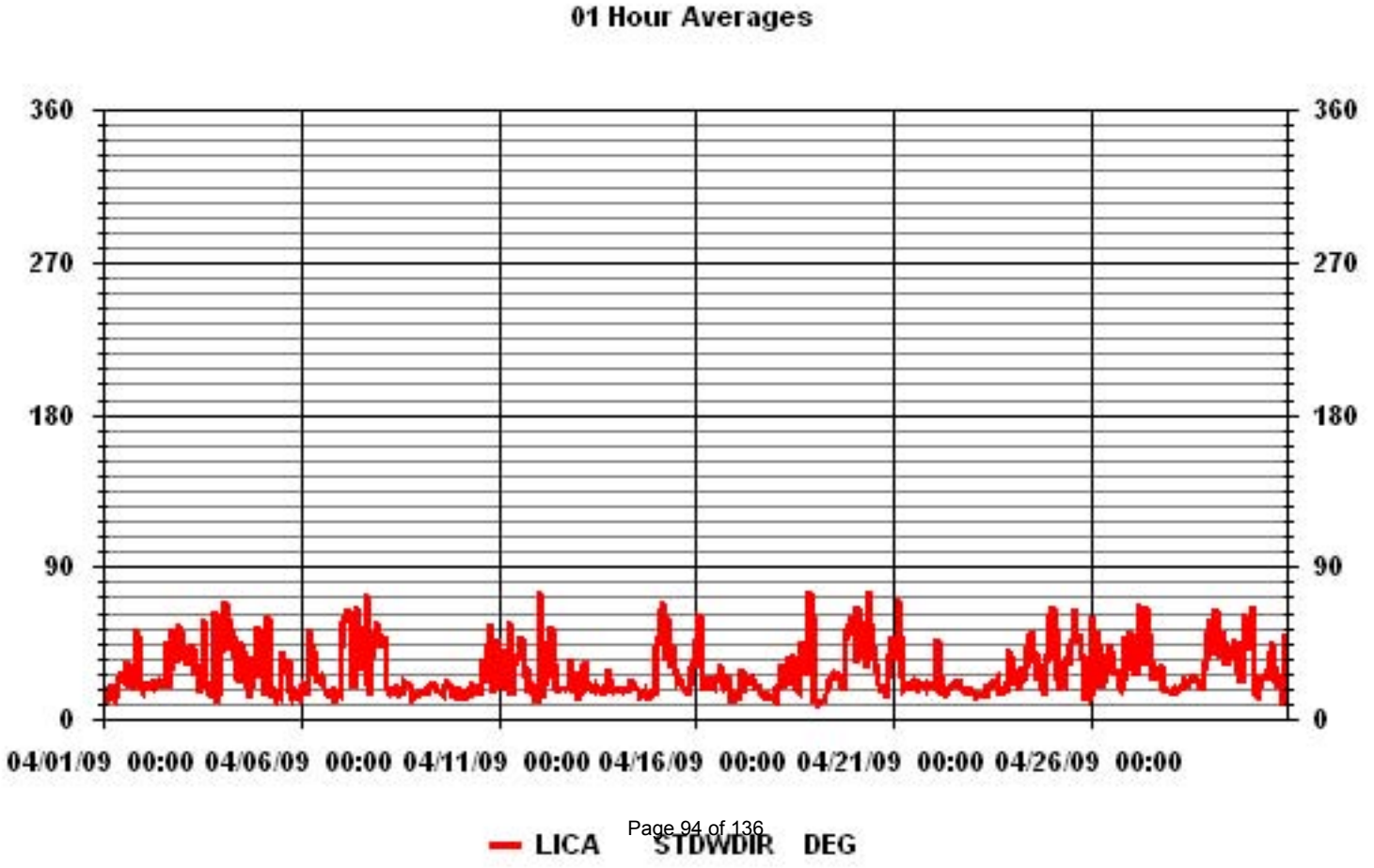
HOUR START	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00
HOUR END	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00
DAY									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

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: 720 HRS


01 Hour Averages
360
270
180
90
0
04/01/09 00:00
04/06/09 00:00
04/11/09 00:00
04/16/09 00:00
04/21/09 00:00
04/26/09 00:00
LICA STDWDIR DEG

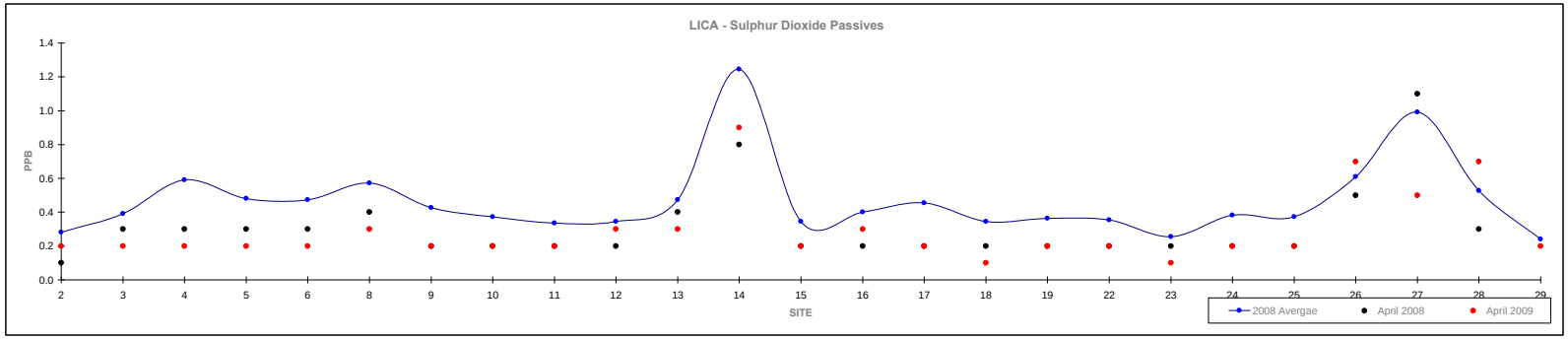
Non-Continuous Monitoring

Passive Summary Results for April 2009

Lakeland Industry & Community Association

Sulphur Dioxide
ppb

	2008																								April 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	0.3	-
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	0.1	#18, #23
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	0.9	#14

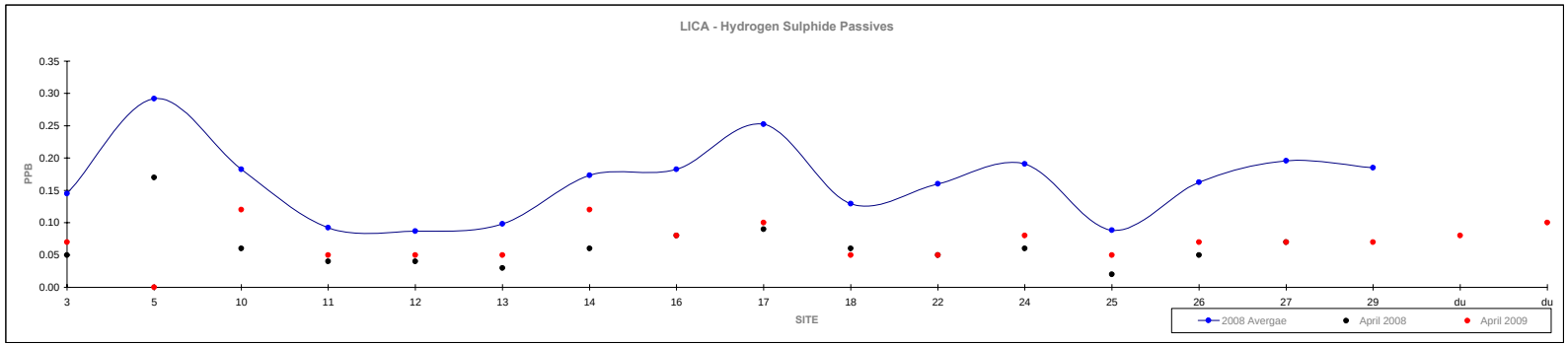


Passive Summary Results for April 2009

Lakeland Industry & Community Association

Hydrogen Sulphide
ppb

	2008																April 2009	
	3	5	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	0.07	-
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	0.05	VARIOUS
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	0.12	#10, #14

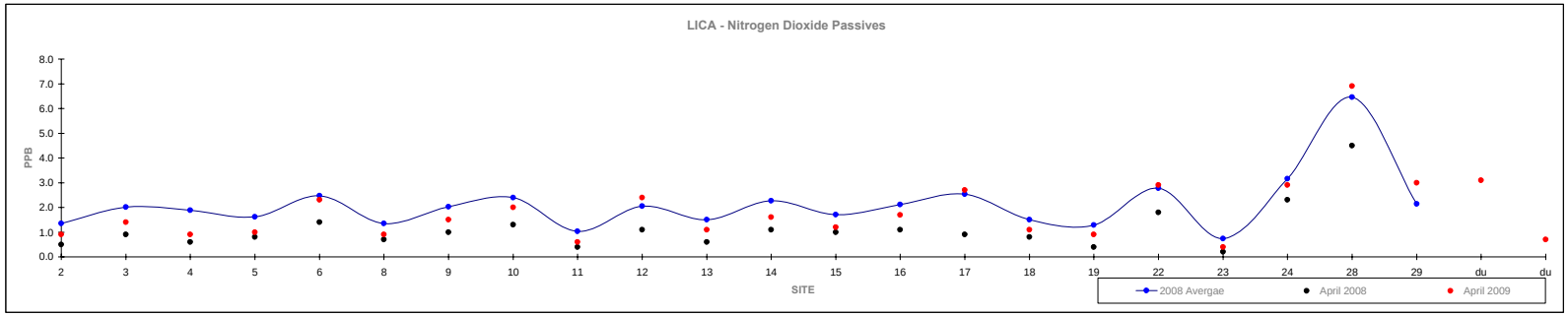


Passive Summary Results for April 2009

Lakeland Industry & Community Association

Nitrogen Dioxide
ppb

	2008																					April 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	1.8	-
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	0.4	#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	6.9	#28



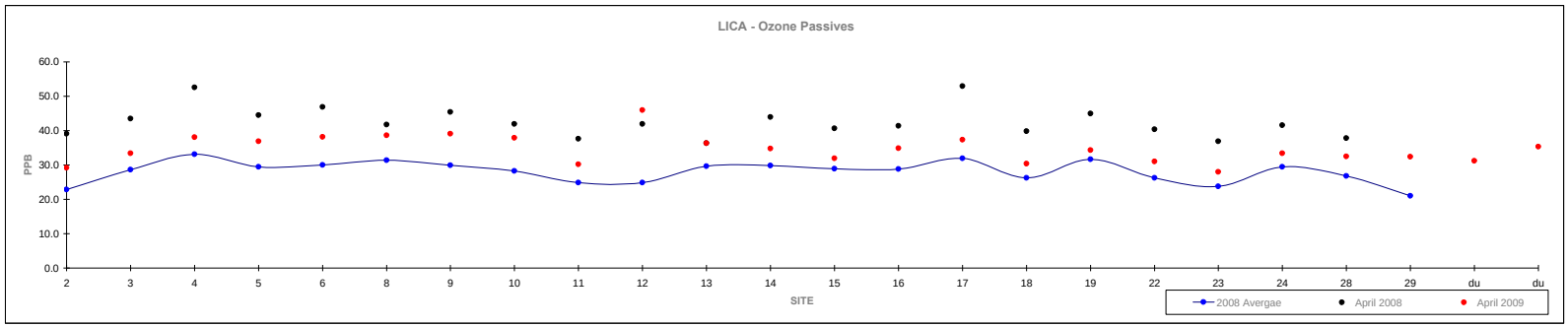
Passive Summary Results for April 2009

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	April 2009 Reading	Site
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	34.6	-
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	28.0	#23
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	46.0	#12



Calibration Reports

Cold Lake

Sulphur Dioxide

SO_2 Calibration Report

Station Information

Calibration Date	April 7, 2009		Previous Calibration	March 4, 2009	
Company	Lakeland Community and Industry Association				
Plant / Location	LICA 1 - Cold Lake South				
Start Time (MST)	10:25		End Time (MST)	14:15	
Reason:	Monthly Calibration				
Barometric Pressure	712	mmHg	Station Temperature	23	Deg C
Cal Gas	52.2	ppm	Cal Gas Expiry date	12/19/2010	
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:	API 700	S/N :	263	Method:	Dilution
DAS Make / Model:	ESC 8832	S/N :	263		
Flow Meter:	API 700	S/N :	263		

Analyzer Settings

	Before Calibration				After Calibration			
Concentration Range			0 - 500	ppb				
Sample Flow / Box Temp	447	ccm	29.1	Deg C	447	ccm	28.9	Deg C
HVPS / Lamp Setting	-631		763		-631		764	
PMT / RxCell Temp	OK	Deg C	45.1	Deg C	OK	Deg C	44.9	Deg C
Converter / IZS Temp	NA	Deg C	45.0	Deg C	NA	Deg C	45.0	Deg C
Offset / Slope	5.1		1.074		5.1		1.057	

Calibration Data

Dilution Flow Rate	Source Gas Flow Rate	Calculated Concentration	Indicated Conc. (DAS)	Correction Factor
4999.0	0	0	0	N/A
4963	38.3	400	406	0.9846
4963	38.3	400	400	0.9994
4976	23.9	250	251	0.9941
4986	14.4	150	150	1.0022
4999.0	0	0	0	N/A
			Sum of Least Squares	0.9983
			New Correction Factor	0.9994

	Before Calibration	After Calibration
Auto Zero	-0.2	-0.3
Auto Span	388.0	383.0
Sample Lines Connected		**YES**
Percent Change from Previous Calibration		-0.7%

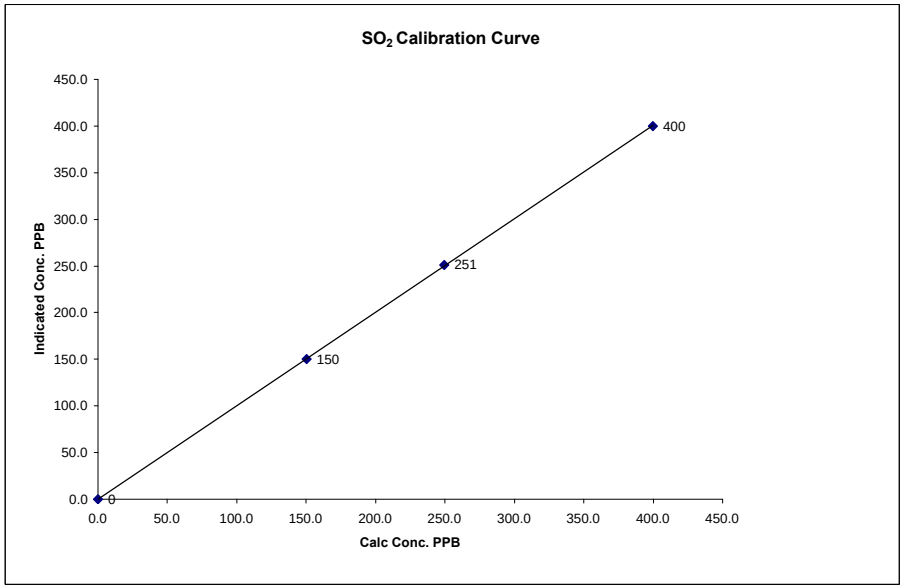
Calibration Performed by: Shea Beaton

SO_2 Calibration Curve

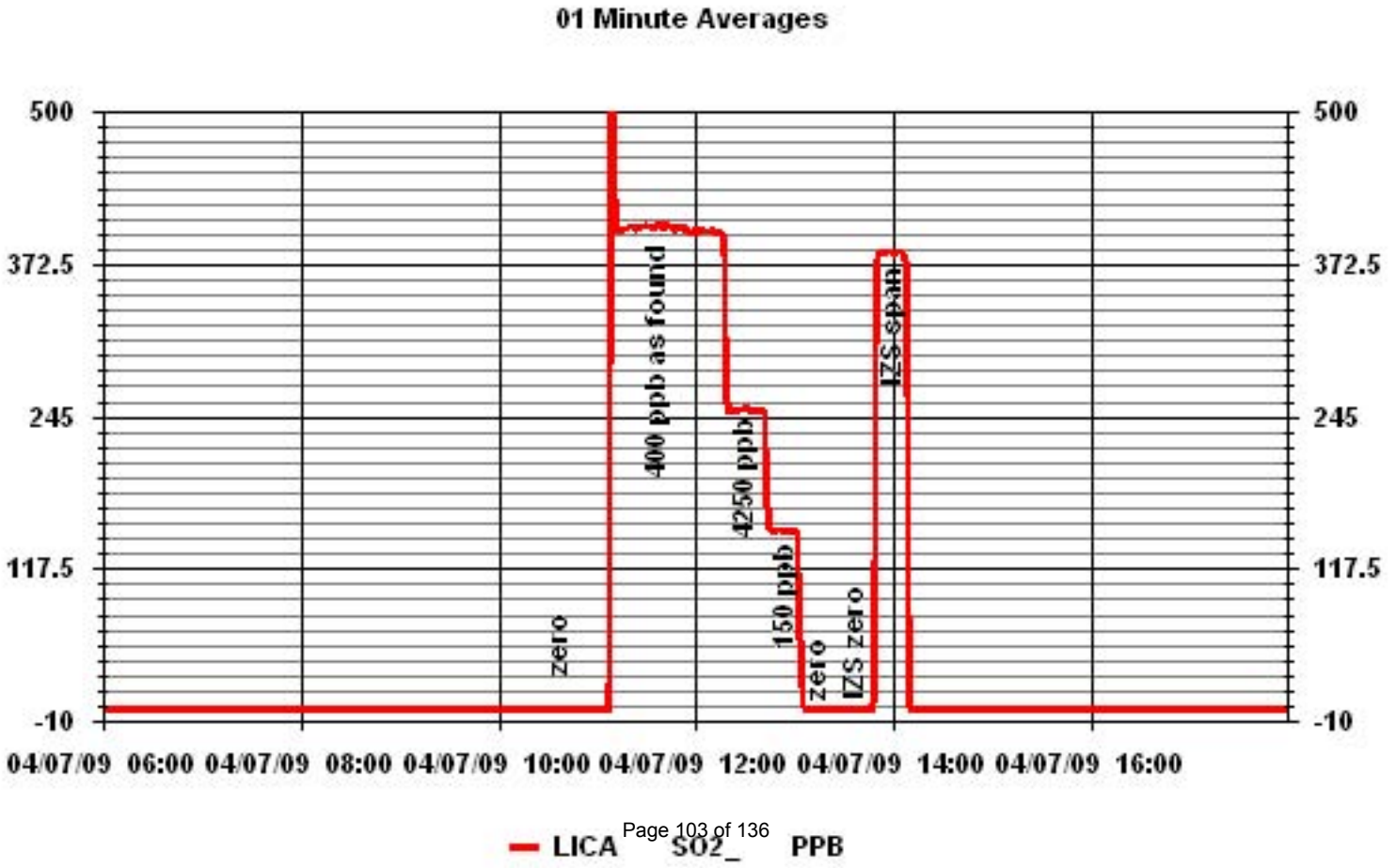
Calibration Date	April 7, 2009			
Company	Lakeland Community and Industry Association			
Plant / Location	LICA 1 - Cold Lake South			
Start Time (MST)	10:25	End Time (MST)	14:15	

Calculated Conc. ppb	Indicated Response ppb	Correction Factor
0	0	n/a
150	150	1.0022
250	251	0.9941
400	400	0.9994

Correlation Coefficient	(≥ 0.995)	0.999981
Slope	(0.85 to 1.15)	1.001648
Intercept	(± 3% F.S.)	0.022263



Notes:


01 Minute Averages
500
372.5
245
117.5
-10
zero
400 ppb as found
4250 ppb
150 ppb
zero
IZS zero
IZS span
04/07/09 06:00
04/07/09 08:00
04/07/09 10:00
04/07/09 12:00
04/07/09 14:00
04/07/09 16:00
LICA SO2_ PPB

Total Reduced Sulphur

TRS Calibration Report

Station Information

Calibration Date	April 7, 2009		Previous Calibration	March 26, 2009	
Company	Lakeland Industry & Community Association				
Plant / Location	LICA 1 - Cold Lake South				
Start Time (MST)	7:30		End Time (MST)	11:10	
Reason:	Monthly Calibration				
Barometric Pressure	712	mm Hg	Station Temperature	23	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 :	831	Method:	Dilution
DAS Make / Model:	ESC 8832	S/N :	263		
Flow Meter:	API 700	S/N :	831		

Analyzer Settings

	Before Calibration				After Calibration			
Concentration Range	0 -100 ppb							
Sample Flow / Box Temp	361	ccm	31.6	Deg C	360	ccm	31.8	Deg C
HVPS / Lamp Setting	-622		771		NA		771	
PMT / RxCell Temp	OK	Deg C	45.1	Deg C	OK	Deg C	45.0	Deg C
Converter / IZS Temp	848	Deg C	45.9	Deg C	NA	Deg C	OK	Deg C
Offset / Slope	11.5		1.201		11.4		1.187	

Calibration Data

Dilution Flow Rate	Source Gas Flow Rate	Calculated Concentration	Indicated Conc. (DAS)	Correction Factor
4999	0	0	0	N/A
4962	37.7	80	78	1.0247
4962	37.7	80	80	0.9991
4978	21.2	45	45	0.9989
4989	11.8	25	25	1.0005
4999	0	0	0	N/A
			Sum of Least Squares	0.9992
			New Correction Factor	0.9991

	Before Calibration	After Calibration
Auto Zero	-0.2	-0.3
Auto Span	45.0	46.0
Sample Lines Connected		YES
Percent Change from Previous Calibration		-0.8%

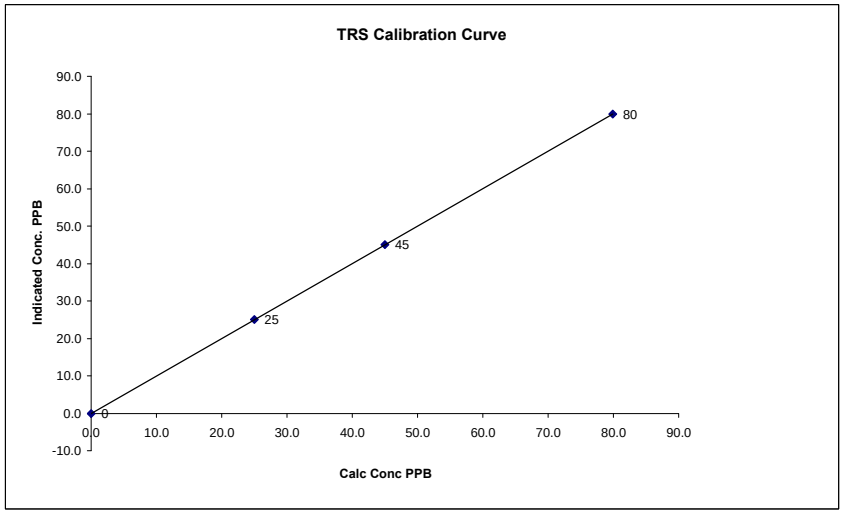
Calibration Performed by: Shea Beaton

TRS Calibration Curve

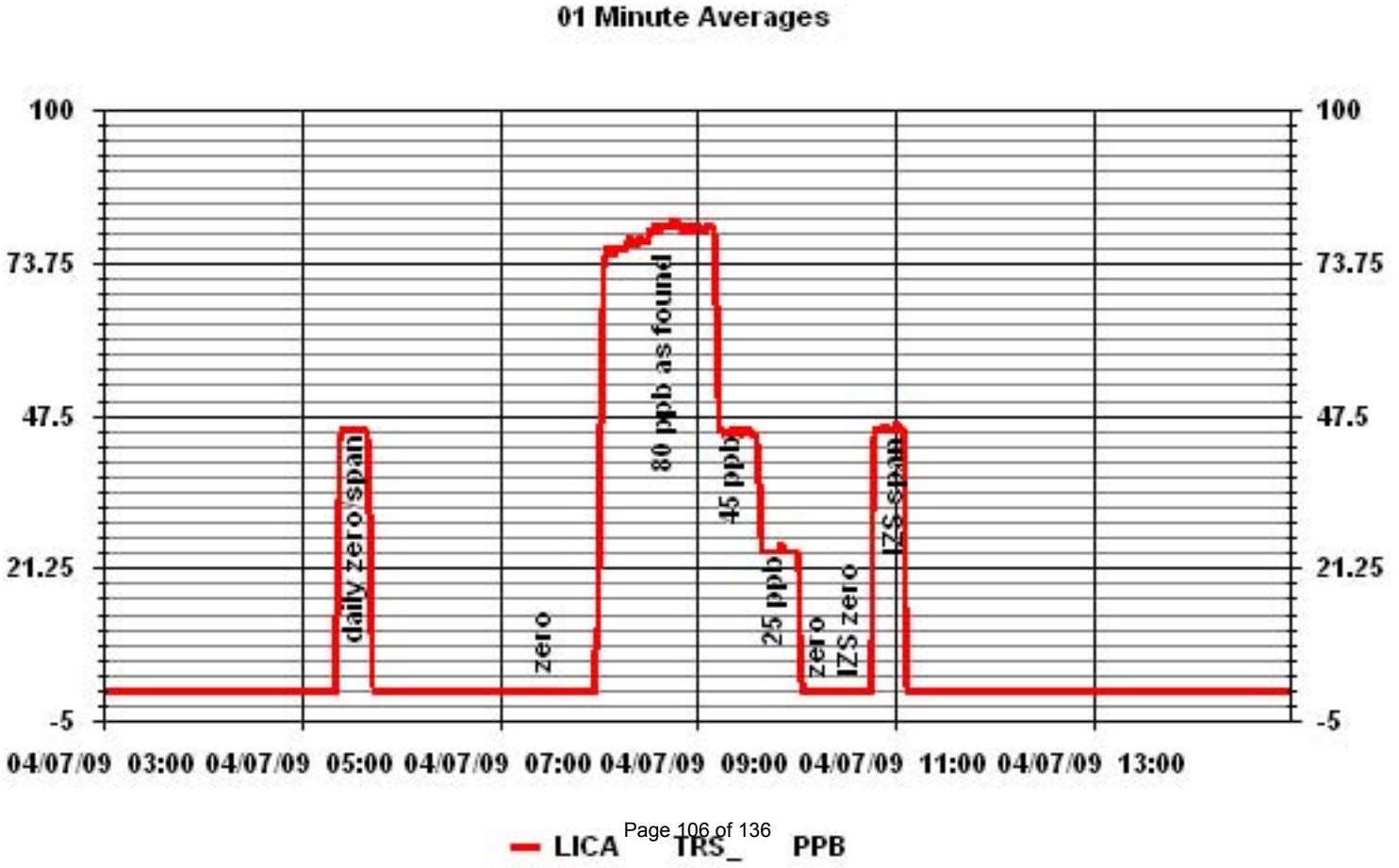
Calibration Date	April 7, 2009			
Company	Lakeland Industry & Community Association			
Plant / Location	LICA 1 - Cold Lake South			
Start Time (MST)	7:30	End Time (MST)	11:10	

Calculated Conc. ppb	Indicated Response ppb	Correction Factor
0	0	n/a
25	25	1.0005
45	45	0.9989
80	80	0.9991

Correlation Coefficient	(≥ 0.995)	1.000000
Slope	(0.85 to 1.15)	1.001035
Intercept	(± 3% F.S.)	-0.011781



Notes:


01 Minute Averages
100
73.75
47.5
21.25
-5
daily zero/span
zero
80 ppb as found
45 ppb
25 ppb
zero
IZS zero
IZS span
04/07/09 03:00 04/07/09 05:00 04/07/09 07:00 04/07/09 09:00 04/07/09 11:00 04/07/09 13:00
LICA TRS_ PPB

Total Hydrocarbons

THC Calibration Report

Station Information

Calibration Date:	April 20, 2009		Previous Calibration	March 4, 2009	
Company:	**Lakeland Industry and Community Association**				
Plant / Location:	**LICA1/Cold Lake**				
Start Time (MST)	7:25		End Time (MST)	9:35	
Reason:	As Found/Pre Repair				
Barometric Pressure:	713	mmHg	Station Temperature:	24	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	19.5	psi	19.5	psi

Calibration Data

Dilution Flow	Source Gas Flow	Calculated Concentration	Indicated Concentration	Correction Factor
3014.0	0.0	0.0	0.1	N/A
3007.0	65.9	39.5	40.8	0.9693
3016.0	35.3	21.3	21.5	0.9922
3005.0	20.2	12.3	12.0	1.0261
3011.0	0	0.0	0.0	N/A
			Correction Factor:	0.9693

Percent Change

Previous Calibration Correction Factor:	0.9940
Current Correction Factor Before Span Adjust:	0.9693
Percent Change:	2.5%

IZS Calibration Data

	Before Calibration	After Calibration
Auto Zero	0.0	NA
Auto Span	36.9	NA
Sample Lines Connected		**YES**

Cylinder Pressures			
Span	1200	psi	
Hydrogen	1000	psi	
Zero Air	unlimited	psi	Maxxam-owned API 701 zero air supply with catalytic oxidizer

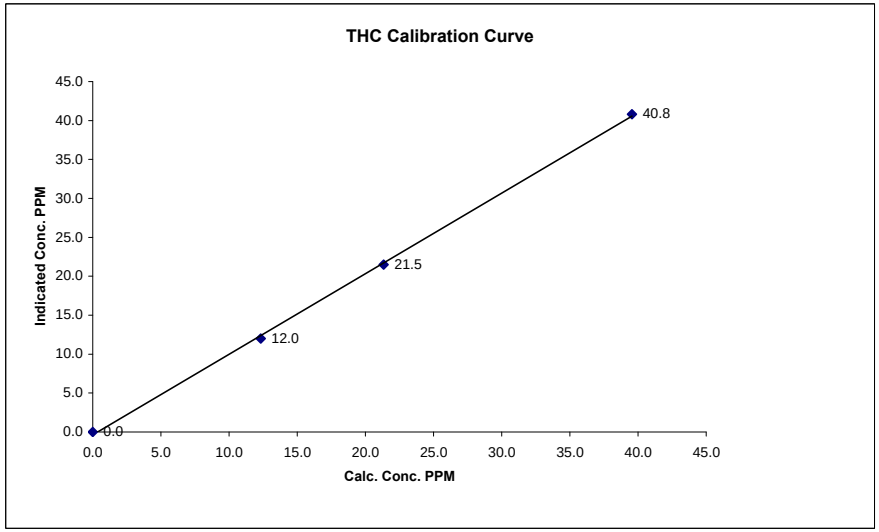
Calibration Performed by: Shea Beaton

THC Calibration Curve

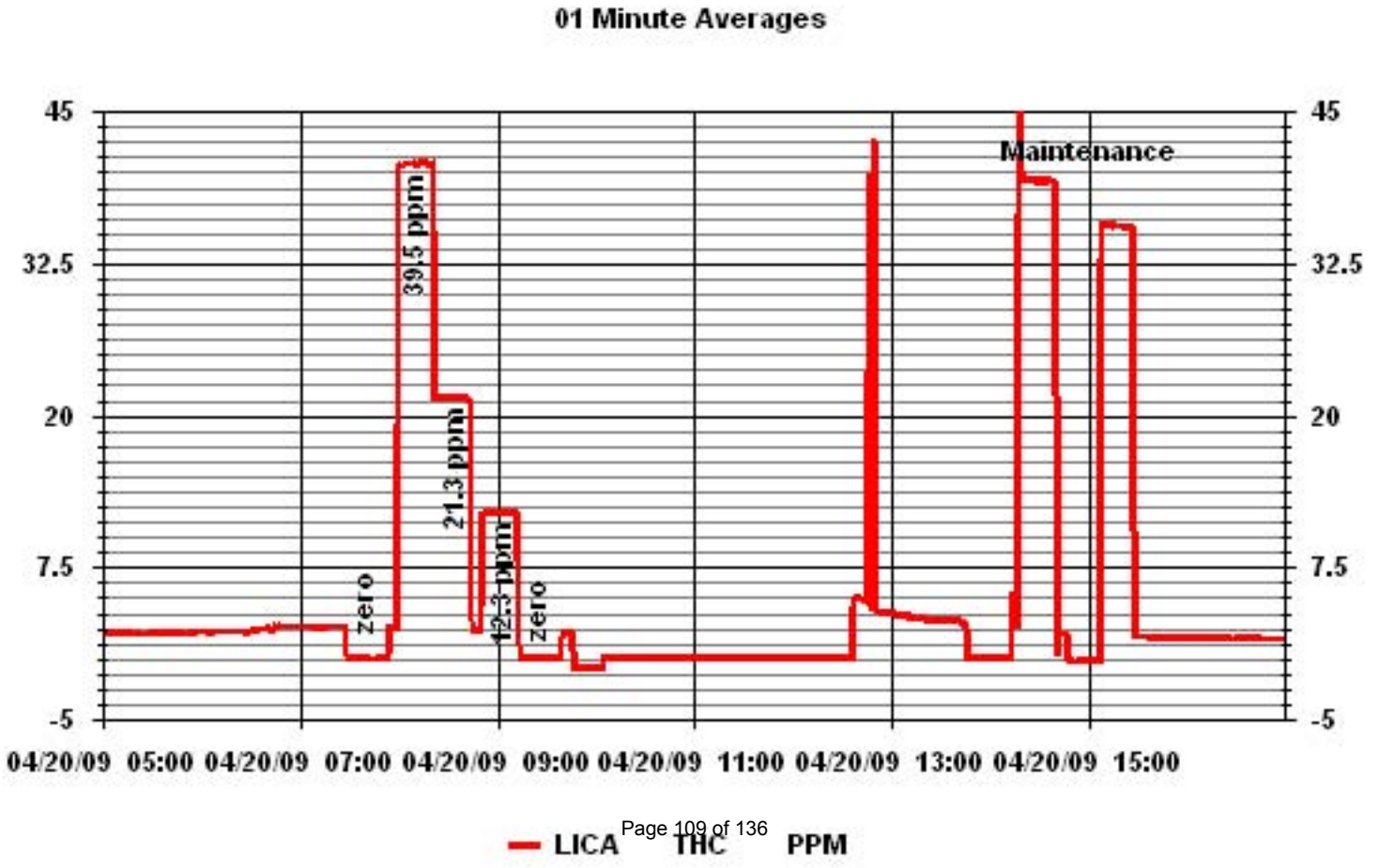
Calibration Date	April 20, 2009				
Company	**Lakeland Industry and Community Association**				
Plant / Location	**LICA1/Cold Lake**				
Start Time (MST)	7:25	End Time	(MST)	9:35	

Calculated Conc. ppm	Indicated Response ppm	Correction Factor
0.0	0.0	
12.3	12.0	1.0261
21.3	21.5	0.9922
39.5	40.8	0.9693

Correlation Coefficient	(≥ 0.995)	0.999576
Slope	(0.85 to 1.15)	1.034924
Intercept	(± 3% F.S.)	-0.361881



Notes: As found cal done prior to FID rebuild.


01 Minute Averages
45
32.5
20
7.5
-5
zero
39.5 ppm
21.3 ppm
12.3 ppm
zero
Maintenance
04/20/09 05:00
04/20/09 07:00
04/20/09 09:00
04/20/09 11:00
04/20/09 13:00
04/20/09 15:00
LICA THC PPM

THC Calibration Report

Station Information

Calibration Date:	April 21, 2009		Previous Calibration	April 20, 2009	
Company:	**Lakeland Industry and Community Association**				
Plant / Location:	**LICA1/Cold Lake**				
Start Time (MST)	5:45		End Time (MST)	9:30	
Reason:	Post Repair Calibration				
Barometric Pressure:	713	mmHg	Station Temperature:	24	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
3014.0	0	0.0	-0.1	N/A
3007.0	66	39.5	39.0	1.0128
3016.0	0.0	0.0	0.0	N/A
3005.0	65.9	39.5	39.5	1.0000
3009.0	35.3	21.3	21.2	1.0047
3013.0	20.2	12.3	12.1	1.0165
3011.0	0	0.0	0.0	N/A
			Correction Factor:	1.0000

Percent Change

Previous Calibration Correction Factor:	0.9693
Current Correction Factor Before Span Adjust:	1.0000
Percent Change:	-3.1%

IZS Calibration Data

	Before Calibration	After Calibration
Auto Zero	-0.5	0.0
Auto Span	35.3	36.0
Sample Lines Connected		**YES**

Cylinder Pressures			
Span	1200	psi	
Hydrogen	1000	psi	
Zero Air	unlimited	psi	Maxxam-owned API 701 zero air supply with catalytic oxidizer

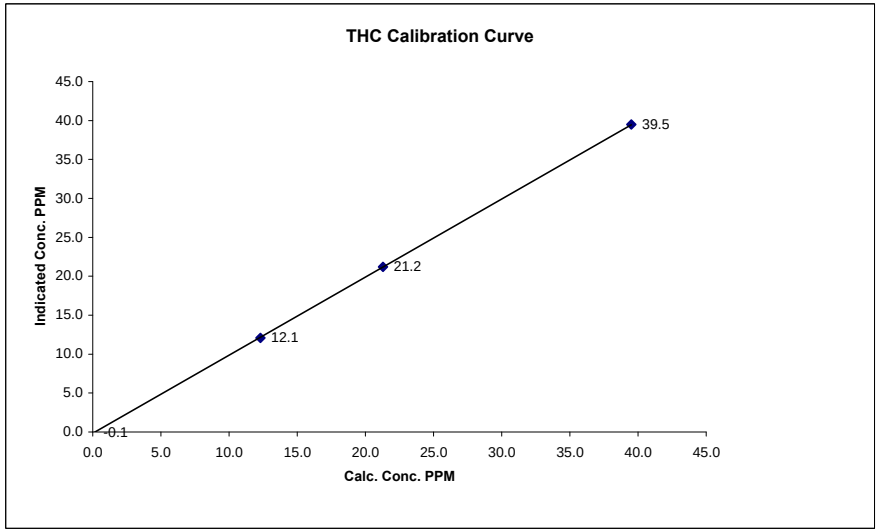
Calibration Performed by: Shea Beaton

THC Calibration Curve

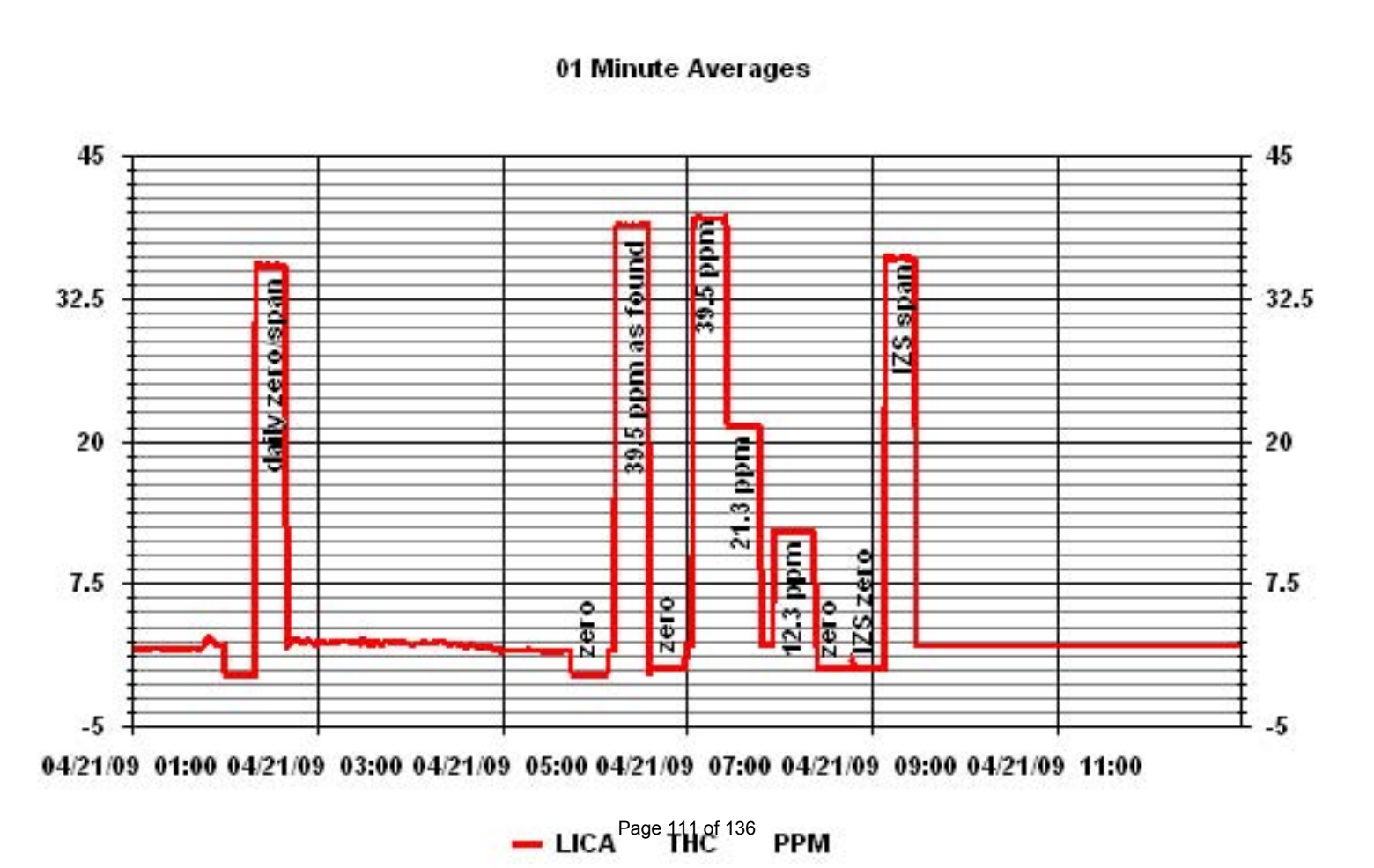
Calibration Date	April 21, 2009				
Company	**Lakeland Industry and Community Association**				
Plant / Location	**LICA1/Cold Lake**				
Start Time (MST)	5:45	End Time	(MST)	9:30	

Calculated Conc. ppm	Indicated Response ppm	Correction Factor
0.0	-0.1	
12.3	12.1	1.0165
21.3	21.2	1.0047
39.5	39.5	1.0000

Correlation Coefficient	(≥ 0.995)	0.999987
Slope	(0.85 to 1.15)	1.003280
Intercept	(± 3% F.S.)	-0.159938



Notes: -FID rebuilt yesterday; -Flows manually measured.


01 Minute Averages
45
32.5
20
7.5
-5
daily zero span
zero
39.5 ppm as found
zero
39.5 ppm
21.3 ppm
12.3 ppm
zero
IZS zero
IZS span
04/21/09 01:00 04/21/09 03:00 04/21/09 05:00 04/21/09 07:00 04/21/09 09:00 04/21/09 11:00
LICA THC PPM

THC Calibration Report

Station Information

Calibration Date:	April 23, 2009	Previous Calibration	April 21, 2009		
Company:	**Lakeland Industry and Community Association**				
Plant / Location:	**LICA1/Cold Lake**				
Start Time (MST)	8:05	End Time (MST)	15:30		
Reason:	Post Burn-in				
Barometric Pressure:	710 mmHg	Station Temperature:	24	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	S/N :	Method
TECO 51C-LT	51CLT-42740-8718	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
3010.0	0	0.0	-0.1	N/A
3005.0	65	39.1	39.2	0.9974
2997.0	0.0	0.0	0.0	N/A
2997.0	65.5	39.4	39.5	0.9975
3009.0	35.1	21.1	21.0	1.0048
2999.0	20.2	12.3	12.1	1.0165
3000.0	0	0.0	0.0	N/A
			Correction Factor:	0.9975

Percent Change

Previous Calibration Correction Factor:	1.0000
Current Correction Factor Before Span Adjust:	0.9975
Percent Change:	0.3%

IZS Calibration Data

	Before Calibration	After Calibration
Auto Zero	-0.1	0.0
Auto Span	35.6	35.9
Sample Lines Connected		**YES**

Cylinder Pressures			
Span	1050	psi	
Hydrogen	950	psi	
Zero Air	unlimited	psi	Maxxam-owned API 701 zero air supply with catalytic oxidizer

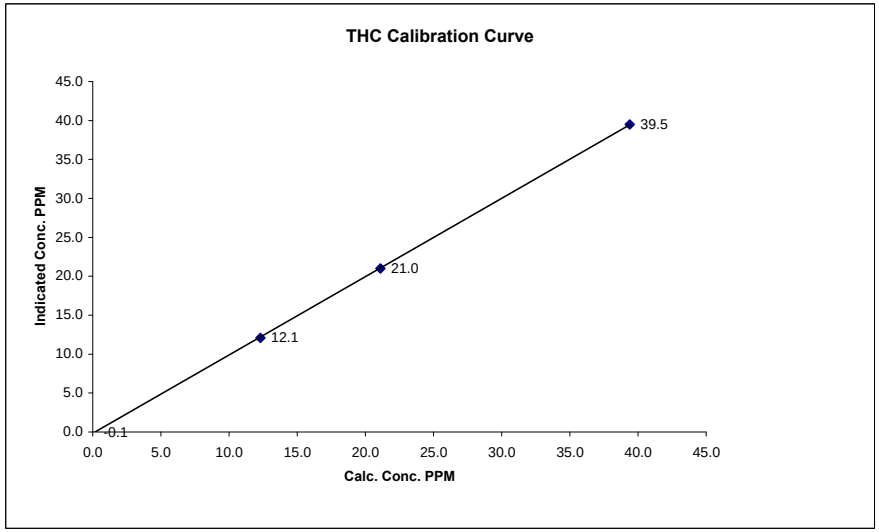
Calibration Performed by: Shea Beaton

THC Calibration Curve

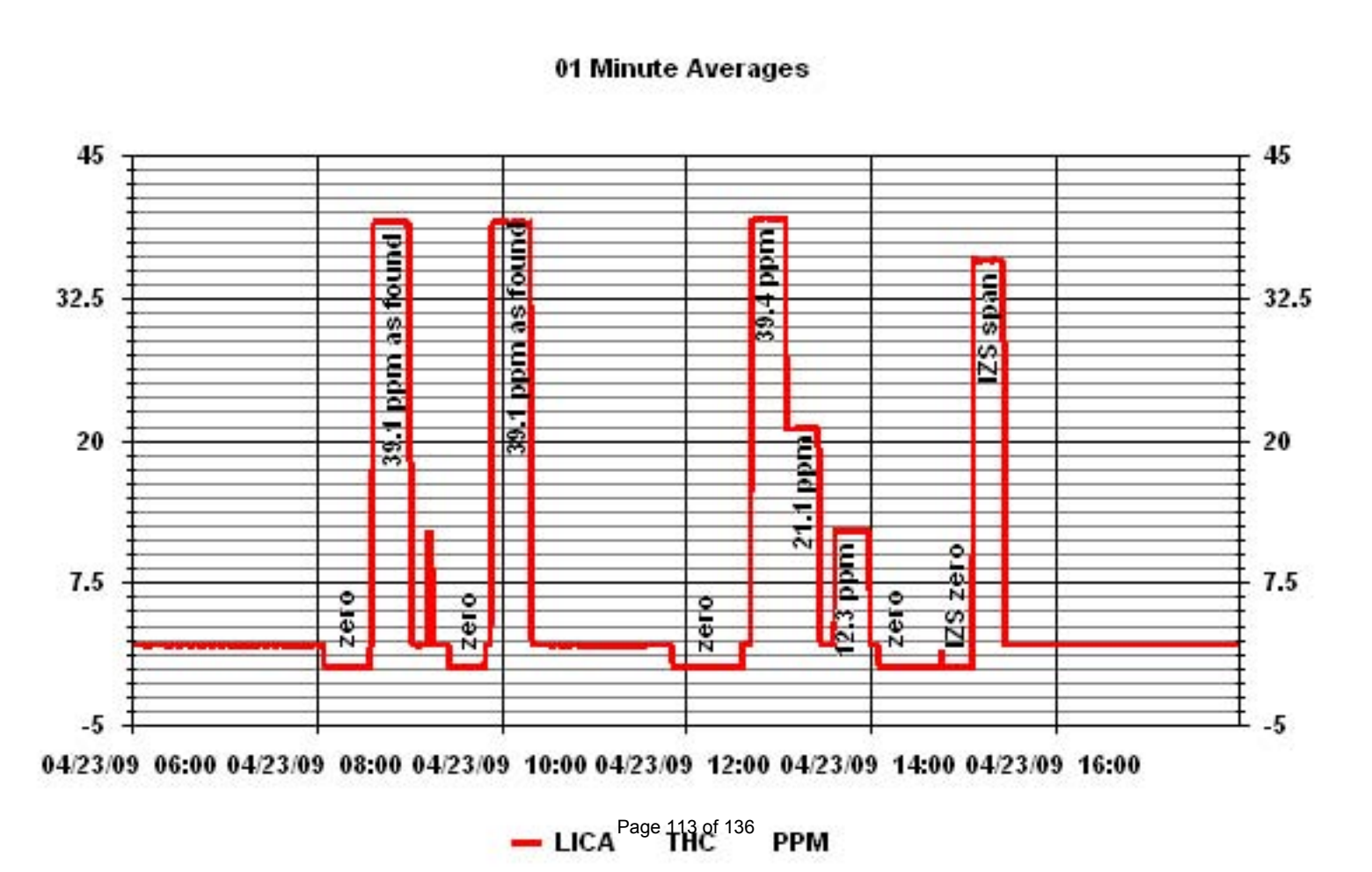
Calibration Date	April 23, 2009		
Company	**Lakeland Industry and Community Association**		
Plant / Location	**LICA1/Cold Lake**		
Start Time (MST)	8:05	End Time (MST)	15:30

Calculated Conc. ppm	Indicated Response ppm	Correction Factor
0.0	-0.1	
12.3	12.1	1.0165
21.1	21.0	1.0048
39.4	39.5	0.9975

Correlation Coefficient	(≥ 0.995)	0.999977
Slope	(0.85 to 1.15)	1.005862
Intercept	(± 3% F.S.)	-0.181695



Notes: Repeated as found points beginning at 9:25 -no adjustements made during initial as founds; Inlet line moved following the AF cal, Multi point restarted at 11:50.


01 Minute Averages
45
32.5
20
7.5
-5
zero
39.1 ppm as found
zero
39.1 ppm as found
zero
39.4 ppm
21.1 ppm
12.3 ppm
zero
IZS zero
IZS span
04/23/09 06:00
04/23/09 08:00
04/23/09 10:00
04/23/09 12:00
04/23/09 14:00
04/23/09 16:00
LICA THC PPM

Particulate Matter 2.5

TEOM® 1405F Audit

Station		Audit Transfer Standard	
Date:	April 20, 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 1775	F-Aux Set Pt (l/min)	13.67
Unit s/n	1405A201620804	Filter Load (%)	35%
Firmware Ver.	1.22	K_o Factor	14578.0
Parameter	PM 2.5 (with FDMS)	Temp (^oC)	13.7
		Press (ATM)	0.932

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**	0.007	Warnings	None
Pump Vacuum	0.34ATM		

Temperature/Pressure

Measured Temp **(± 2 °C)**	13.8	**Δ °C**	-0.1
Measured Press **(± 0.01atm)**	0.937	**ΔATM**	-0.005

Flow Audit

Indicated Main Flow (l/min)	3.00	Main Flow Drift **(±10.0%)**	3.96%
Measured Main Flow (l/min)	2.90	Flow Adjusted to Measured?	YES
Indicated Bypass Flow (l/min)	13.67	Bypass Flow Drift **(±10.0%)**	3.74%
Measured Bypass Flow (l/min)	13.42	Flow Adjusted to Measured?	YES

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	14385.6
K_o Difference **(± 2.5%)**	1.32%

Start Time: 12:40 **Finish Time:** NA

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

New Filter Loading %: 30.0%

Comments: Performed a Ko Verification. Adjusted flows to measured values.

Auditor/s: Shea Beaton

Nitrogen Dioxide

NOx - NO- NO_2 Calibration Report

Station Information

Calibration Date	April 7, 2009		Previous Calibration	March 4, 2009	
Company	**Lakeland Ind & Comm. Assoc.**		Plant/Location	**LICA 1 - Cold Lake South**	
Start Time (MST)	7:30		End Time (MST)	14:15	
Reason:	Monthly Calibrtion				
Barometric Pressure	712 mmHg		Station Temperature	23.0	Deg C
Cal Gas Concentration	NOx 51.8 ppm	NO 51.6 ppm	Cal Gas Expiry date	12/19/2010	
DAS Output Voltage	0 - 5 Volts		Chart Rec. Output	NA	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	712	ccm	317	Deg C	712	ccm	315	Deg C
Ozone Flow / Vacuum	OK	ccm	185.2	mmHg	OK	ccm	184.8	mmHg
HVPS	-821	Volts			767	Volts		
Rx/ Temp / PMT Temp	49.8	Deg C	-2.5	Deg C	49.8	Deg C	-2.5	Deg C
Box Temp / IZS Temp	27.6	Deg C	OK	Deg C	28.4	Deg C	OK	Deg C
Offset	3.6	NOx	3.4	NO	3.8	NOx	3.6	NO
Slope	1.007	NOx	0.903	NO	1.007	NOx	0.952	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
5003.0	0.0	N/A	0	0	0	0	0	N/A	N/A
4979.0	38.9	N/A	402	400	381	379	2	1.0540	1.0555
4979.0	38.9	N/A	402	400	402	399	3	0.9989	1.0025
4990.0	24.3	N/A	251	250	251	249	2	1.0001	1.0043
5000.0	14.6	N/A	151	150	151	149	1	0.9988	1.0083
5022.0	0.0	N/A	0	0	1	0	0	N/A	N/A
								Converter Efficiency	
4984.0	38.9	N/A	401	400	400	398	2	N/A	
4981.0	38.9	300	401	400	397	130	266	99%	
4981.0	38.9	200	401	400	398	207	191	99%	
4984.0	38.9	100	401	400	398	303	95	98%	
4981.0	38.9	N/A	401	400	398	397	1	N/A	
5025.0	0	N/A	0	0	1	0	0	N/A	N/A
Linearity OK?			**Yes**	No	Sum of Least Squares			0.9992	1.0035
Flows Checked on-site?			**Yes**	No	New Correction Factor			0.9989	1.0025
					Average Converter Efficiency			98%	

	Before Calibration				After Calibration			
Auto Zero	0.1	NOx	0.2	NO2	0.1	NOx	0.2	NO2
Auto Span	337.0	NOx	336.0	NO2	353.0	NOx	351.0	NO2
Sample Lines Connected					YES			
Percent Change from Previous Calibration					*NOx*	-0.2%	*NO*	-0.4%

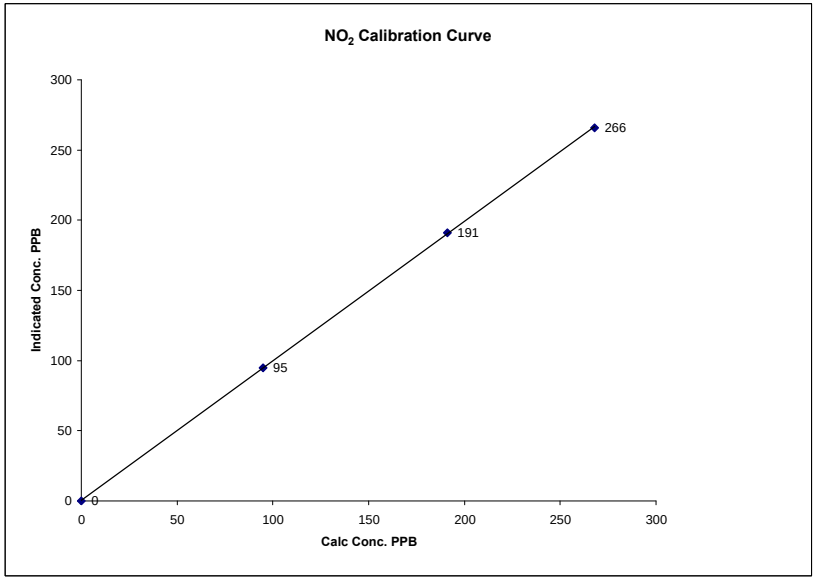
Calibration Performed by: Shea Beaton

NO_2 Calibration Curve

Calibration Date	April 7, 2009		
Company	**Lakeland Ind & Comm. Assoc.**		
Plant / Location	**LICA 1 - Cold Lake South**		
Start Time (MST)	7:30	End Time (MST)	14:15

Calculated Conc. ppb	Indicated Response ppb	Correction Factor
0	0	N/A
95	95	1.0000
191	191	1.0000
268	266	1.0075

Correlation Coefficient	(≥ 0.995)	0.999966
Slope	(0.85 to 1.15)	0.993621
Intercept	(± 3% F.S.)	0.38351

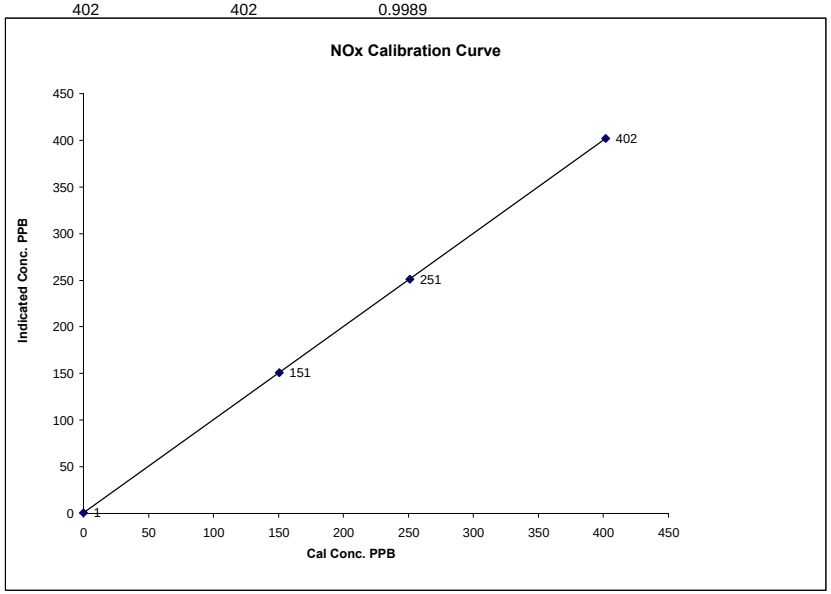


Notes:

NOx Calibration Curve

Calibration Date	April 7, 2009				
Company	**Lakeland Ind & Comm. Assoc.**				
Plant / Location	**LICA 1 - Cold Lake South**				
Start Time (MST)	7:30	End Time (MST)	14:15		

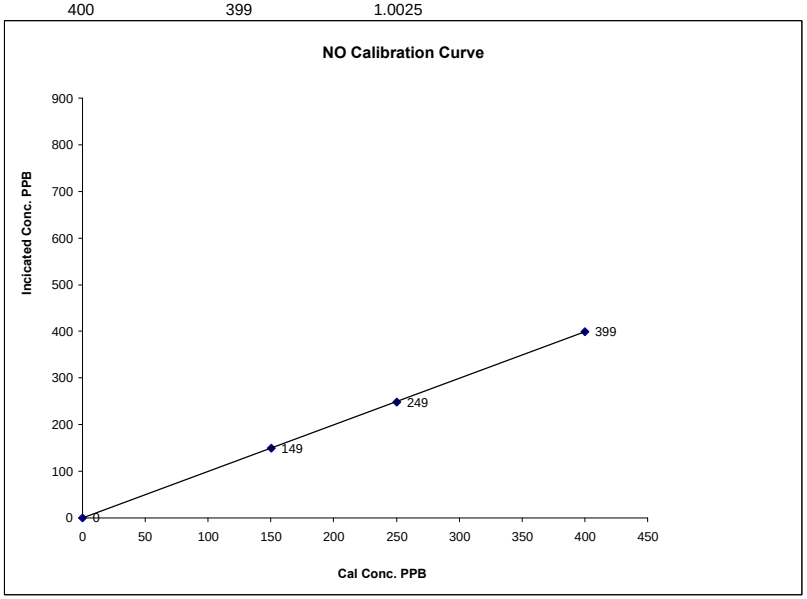
Calculated Conc. ppb	Indicated Response ppb	Correction Factor	Correlation Coefficient	(≥ 0.995)	0.999995
			Slope	(0.85 to 1.15)	0.998546
0	1	N/A	Intercept	(± 3% F.S.)	0.68908
151	151	0.9988			
251	251	1.0001			
402	402	0.9989			

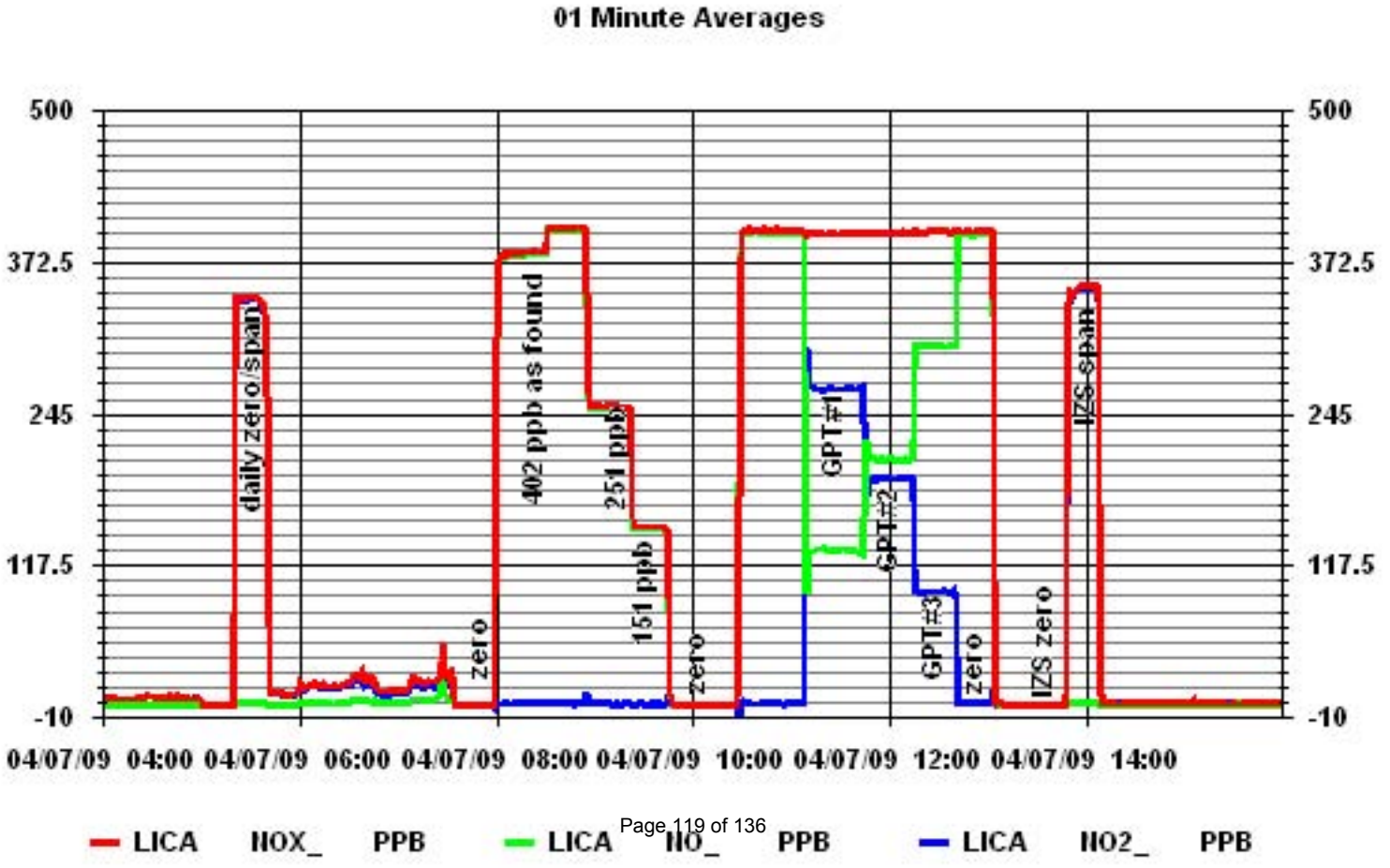


NO Calibration Curve

Calibration Date	April 7, 2009				
Company	**Lakeland Ind & Comm. Assoc.**				
Plant / Location	**LICA 1 - Cold Lake South**				
Start Time (MST)	7:30	End Time (MST)	14:15		

Calculated Conc. ppb	Indicated Response ppb	Correction Factor	Correlation Coefficient	(≥ 0.995)	0.999994
			Slope	(0.85 to 1.15)	1.000825
0	0	N/A	Intercept	(± 3% F.S.)	-1.1357
150	149	1.0083			
250	249	1.0043			
400	399	1.0025			




01 Minute Averages
500
372.5
245
117.5
-10
daily zero/span
zero
402 ppb as found
251 ppb
151 ppb
zero
GPT#1
GPT#2
GPT#3
zero
IZS zero
IZS span
04/07/09 04:00
04/07/09 06:00
04/07/09 08:00
04/07/09 10:00
04/07/09 12:00
04/07/09 14:00
LICA NOX_ PPB
LICA NO_ PPB
LICA NO2_ PPB

Ozone

O_3 Calibration Report

Station Information

Calibration Date	April 23, 2009	Previous Calibration	March 27, 2009
Company	**Lakeland Industry & Community Association**		
Plant / Location	**LICA 1 - Cold Lake South**		
Start Time (MST)	8:05	End Time (MST)	16:35
Reason:		Monthly Calibration	
Barometric Pressure	710 mm Hg	Station Temperature	24 Deg C
DAS Output Voltage	0 - 10 Volts		

Equipment Information

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

Analyzer Settings

	Before Calibration		After Calibration	
Concentration Range	0 - 500 ppb			
Bench Temp/ Pressure	28.6	Deg C	28.4	Deg C
O_3 Set Level	29%		29%	
Bench Lamp/O3 Lamp				
Sample Flow A/B	0.726 LPM	0.739 LPM	0.743 LPM	0.757 LPM
Offset / Slope	0.8	1.048	0.7	1.058

Calibration Data

Dilution Flow Rate	Ozone Set Point	Calculated Concentration	Indicated Conc. (DAS)	Correction Factor
4999	0	0	1	N/A
4999	400	386	403	0.9578
4999	0	0	0	N/A
4998	400	386	387	0.9974
4998	200	194	194	1.0000
4998	100	95	95	1.0000
4999	0	0	0	N/A
			Sum of Least Squares	N/A
			New Correction Factor	0.9974

	Before Calibration	After Calibration
Auto Zero	-0.1	0.0
Auto Span	294.0	303.0
Sample Lines Connected		YES
Percent Change from Previous Calibration		0.5%

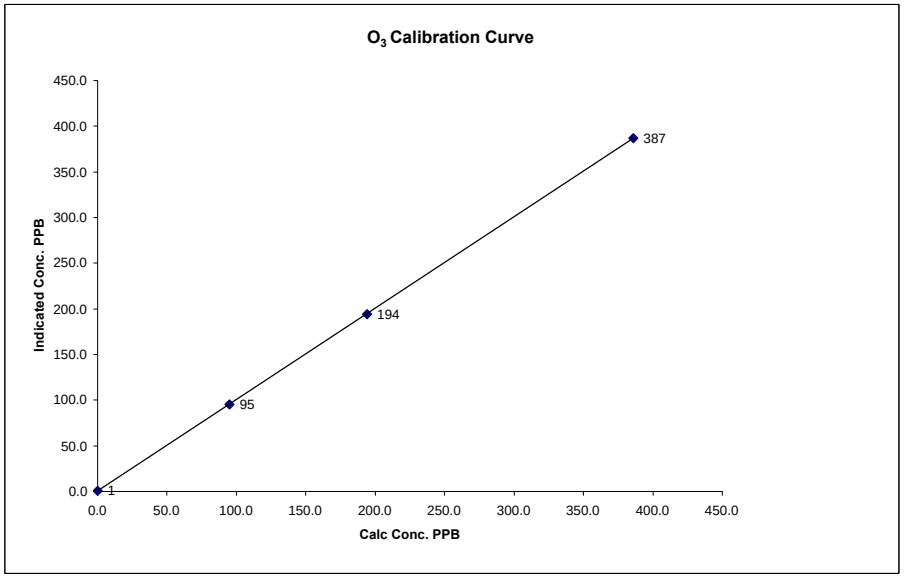
Calibration Performed by: Shea Beaton

O_3 Calibration Curve

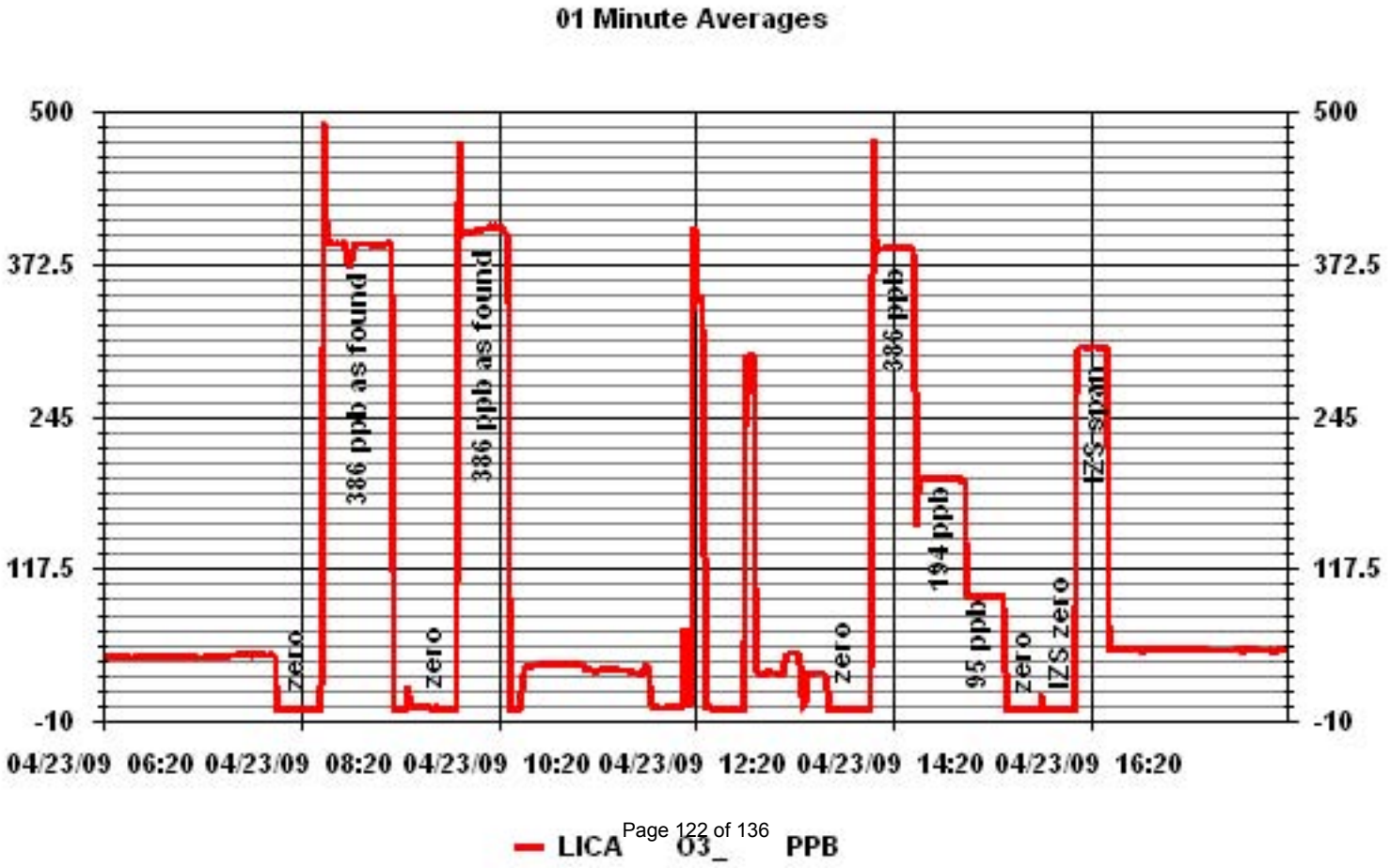
Calibration Date	April 23, 2009		
Company	**Lakeland Industry & Community Association**		
Plant / Location	**LICA 1 - Cold Lake South**		
Start Time (MST)	8:05	End Time (MST)	16:35

Calculated Conc. ppb	Indicated Response ppb	Correction Factor
0	1	n/a
95	95	1.0000
194	194	1.0000
386	387	0.9974

Correlation Coefficient	(≥ 0.995)	0.999988
Slope	(0.85 to 1.15)	1.000593
Intercept	(± 3% F.S.)	0.399886



Notes: pressure =684.4 mmHg , Bench Lamp = 53.6, O3 Lamp = 67.7
Repeated as found points beginning at 09:25, no adjustements made following initial as fpunds.
Multi point cal started at 13:40


01 Minute Averages
500
372.5
245
117.5
-10
zero
386 ppb as found
zero
386 ppb as found
zero
386 ppb
194 ppb
95 ppb
zero
LZS zero
04/23/09 06:20
04/23/09 08:20
04/23/09 10:20
04/23/09 12:20
04/23/09 14:20
04/23/09 16:20
LICA O3_ PPB

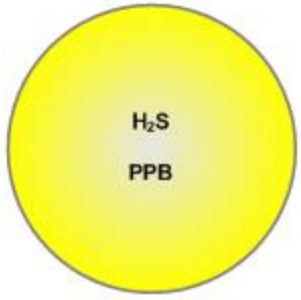
Passive Bubble Maps

Lakeland Industry & Community Association
H_2S Passive Bubble Map

APRIL 2009

PASSIVE STATIONS

3 – Therien	0.07 PPB
5 – Lake Eliza	0.10 PPB
5A – Lake Eliza	0.10 PPB
10 – La Corey	0.12 PPB
11 – Wolf Lake	0.05 PPB
12 – Foster Creek	0.05 PPB
13 – Primrose	0.05 PPB
14 – Maskwa	0.12 PPB
16 – Frog Lake	0.08 PPB
17 – Clear Range	0.10 PPB
18 – Fishing Lake	0.05 PPB
22 – Cold Lake South	0.05 PPB
24 – Fort George	0.08 PPB
24A – Fort George	0.08 PPB
25 – Burnt Lake	0.05 PPB
26 – Mahihkan	0.07 PPB
27 – Hilda Lake	0.07 PPB
29 – Cold Lake South 2	0.07 PPB



Summary

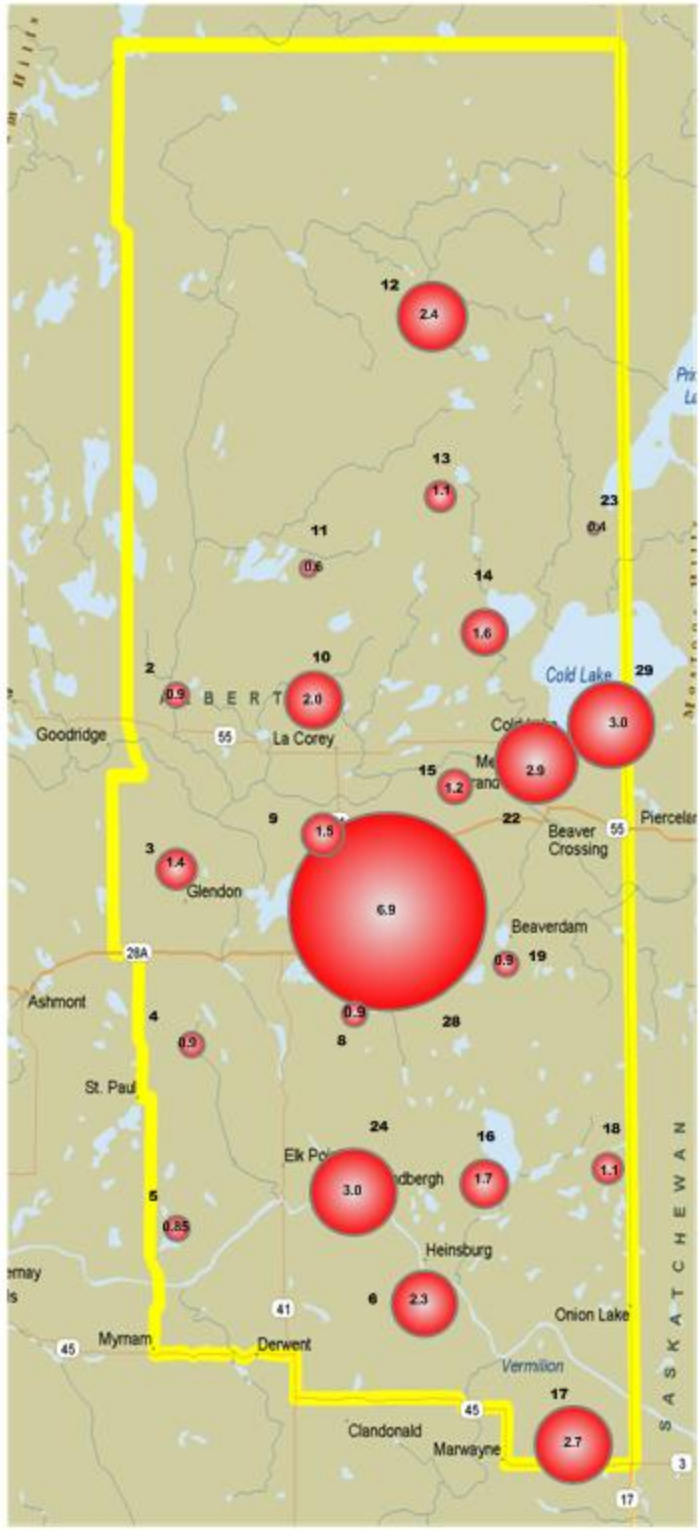
Minimum : 0.05PPB –VARIOUS
Maximum: 0.12 PPB –La Corey and Maskwa
Average: 0.07 PPB *Includes Duplicates

Lakeland Industry & Community Association
NO_2 Passive Bubble Map

APRIL 2009

PASSIVE STATIONS

2 – Sand River	0.9 PPB
3 – Therien	1.4 PPB
4 – Flat Lake	0.9 PPB
5 – Lake Eliza	1.0 PPB
5A – Lake Eliza	0.7 PPB
6 – Telegraph Creek	2.3 PPB
8 – Muriel-Kehewin	0.9 PPB
9 – Dupre	1.5 PPB
10 – La Corey	2.0 PPB
11 – Wolf Lake	0.6 PPB
12 – Foster Creek	2.4 PPB
13 – Primrose	1.1 PPB
14 – Maskwa	1.6 PPB
15 – Ardmore	1.2 PPB
16 – Frog Lake	1.7 PPB
17 – Clear Range	2.7 PPB
18 – Fishing Lake	1.1 PPB
19 – Beaverdam	0.9 PPB
22 – Cold Lake South	2.9 PPB
23 – Medley-Martineau	0.4 PPB
24 – Fort George	2.9 PPB
24A – Fort George	3.1 PPB
28 – Town of Bonnyville	6.9 PPB
29 – Cold Lake South 2	3.0 PPB



Summary

Minimum : 0.4 PPB – Medley-Martineau
Maximum: 6.9 PPB – Town of Bonnyville
Average: 1.9 PPB *Includes Duplicates

Lakeland Industry & Community Association
O_3 Passive Bubble Map

APRIL 2009

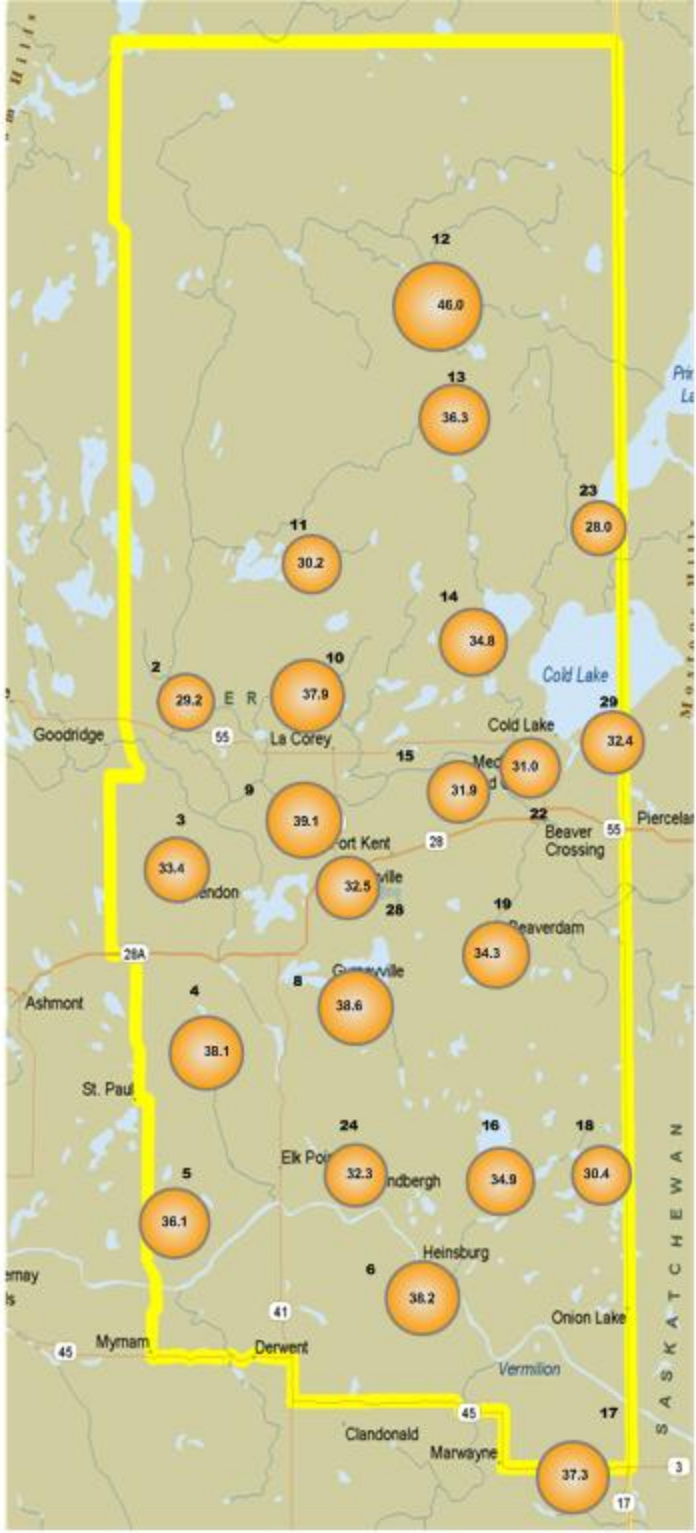
PASSIVE STATIONS

2 – Sand River	29.2 PPB
3 – Therien	33.4 PPB
4 – Flat Lake	38.1 PPB
5 – Lake Eliza	36.9 PPB
5A – Lake Eliza	35.3 PPB
6 – Telegraph Creek	38.2 PPB
8 – Muriel-Kehewin	38.6 PPB
9 – Dupre	39.1 PPB
10 – La Corey	37.9 PPB
11 – Wolf Lake	30.2 PPB
12 – Foster Creek	46.0 PPB
13 – Primrose	36.3 PPB
14 – Maskwa	34.8 PPB
15 – Ardmore	31.9 PPB
16 – Frog Lake	34.9 PPB
17 – Clear Range	37.3 PPB
18 – Fishing Lake	30.1 PPB
19 – Beaverdam	34.3 PPB
22 – Cold Lake South	31.0 PPB
23 – Medley-Martineau	28.0 PPB
24 – Fort George	33.4 PPB
24A – Fort George	31.2 PPB
28 – Town of Bonnyville	32.5 PPB
29 – Cold Lake South 2	32.4 PPB

O_3 PPB

Summary

Minimum : 28.0 PPB –Medley-Martineau
Maximum: 46.0 PPB –Foster Creek
Average: 34.6 PPB *Includes Duplicates



Lakeland Industry & Community Association
SO_2 Passive Bubble Map

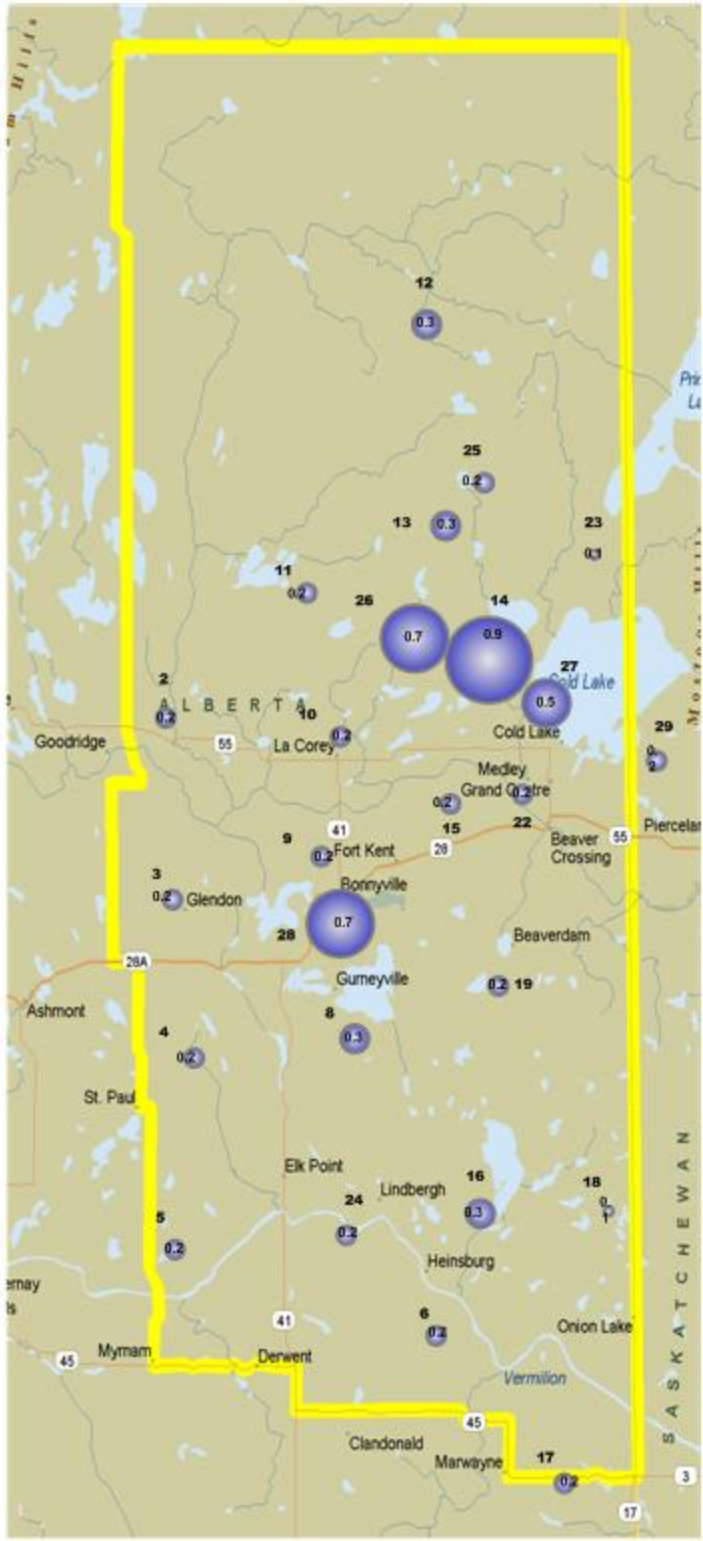
APRIL 2008

PASSIVE STATIONS

2 – Sand River	0.2 PPB
3 – Therien	0.2 PPB
4 – Flat Lake	0.2 PPB
5 – Lake Eliza	0.2 PPB
5A – Lake Eliza	0.2 PPB
6 – Telegraph Creek	0.2 PPB
8 – Muriel-Kehewin	0.3 PPB
9 – Dupre	0.2 PPB
10 – La Corey	0.2 PPB
11 – Wolf Lake	0.2 PPB
12 – Foster Creek	0.3 PPB
13 – Primrose	0.3 PPB
14 – Maskwa	0.9 PPB
15 – Ardmore	0.2 PPB
16 – Frog Lake	0.3 PPB
17 – Clear Range	0.2 PPB
18 – Fishing Lake	0.1 PPB
19 – Beaverdam	0.2 PPB
22 – Cold Lake South	0.2 PPB
23 – Medley-Martineau	0.1 PPB
24 – Fort George	0.2 PPB
24A – Fort George	0.2 PPB
25 – Burnt Lake	0.2 PPB
26 – Mahihkan	0.7 PPB
27 – Hilda Lake	0.5 PPB
28 – Town of Bonnyville	0.7 PPB
29 – Cold Lake South 2	0.2 PPB

Summary

Minimum : 0.1 PPB – Fishing Lake and Medley-Martineau
Maximum: 0.9 PPB –Maskwa
Average: 0.3 PPB *Includes Duplicates



Passive Network Laboratory Analysis

Your Project #: 2009/03/31 - 2009/04/28
Site:LICA

Attention: MICHAEL BISAGA
LAKELAND INDUSTRY AND COMMUNITY ASSOCIATION
PO BOX 8237
5107W- 50TH STREET
BONNYVILLE, AB
CANADA T9N 2J5

Report Date: 2009/05/26

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: A920241
Received: 2009/05/04, 09:35

Sample Matrix: Air
Samples Received: 27

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
H2S Passive Analysis (1)	18	2009/05/10	2009/05/26		EDM SOP-0320
NO2 Passive Analysis (1)	24	2009/05/26	2009/05/26		EDM SOP-0318
O3 Passive Analysis (1)	24	2009/05/26	2009/05/26		EDM SOP-0317
SO2 Passive Analysis (1)	27	2009/05/26	2009/05/26		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

==========

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

RESULTS OF CHEMICAL ANALYSES OF AIR

Maxxam ID		O64471	O64472	O64473	O64474		
Sampling Date		2009/03/31 09:50	2009/03/31 09:15	2009/04/01 13:30	2009/04/01 12:50		
	Units	**2**	**3**	**4**	**5**	**RDL**	**QC Batch**
Passive Monitoring							
Calculated H2S	ppb		0.07		0.10	0.02	3113287
Calculated NO2	ppb	0.9	1.4	0.9	1.0	0.1	3149327
Calculated O3	ppb	29.2	33.4	38.1	36.9	0.1	3149127
Calculated SO2	ppb	0.2	0.2	0.2	0.2	0.1	3149359

RDL = Reportable Detection Limit

Maxxam ID		O64475	O64476	O64477	O64478		
Sampling Date		2009/04/01 11:15	2009/04/01 14:15	2009/03/31 08:40	2009/03/31 10:35		
	Units	**6**	**8**	**9**	**10**	**RDL**	**QC Batch**
Passive Monitoring							
Calculated H2S	ppb				0.12	0.02	3113287
Calculated NO2	ppb	2.3	0.9	1.5	2.0	0.1	3149327
Calculated O3	ppb	38.2	38.6	39.1	37.9	0.1	3149127
Calculated SO2	ppb	0.2	0.3	0.2	0.2	0.1	3149359

RDL = Reportable Detection Limit

Maxxam ID		O64479	O64480	O64481	O64482		
Sampling Date		2009/03/31 11:10	2009/03/31 12:25	2009/03/31 14:00	2009/03/31 15:00		
	Units	**11**	**12**	**13**	**14**	**RDL**	**QC Batch**
Passive Monitoring							
Calculated H2S	ppb	0.05	0.05	0.05	0.12	0.02	3113287
Calculated NO2	ppb	0.6	2.4	1.1	1.6	0.1	3149327
Calculated O3	ppb	30.2	46.0	36.3	34.8	0.1	3149127
Calculated SO2	ppb	0.2	0.3	0.3	0.9	0.1	3149359

RDL = Reportable Detection Limit

RESULTS OF CHEMICAL ANALYSES OF AIR

Maxxam ID		O64483	O64484	O64485	O64486		
Sampling Date		2009/03/31 07:35	2009/04/01 09:35	2009/04/01 10:30	2009/04/01 08:55		
	Units	**15**	**16**	**17**	**18**	**RDL**	**QC Batch**
Passive Monitoring							
Calculated H2S	ppb		0.08	0.10	0.05	0.02	3113287
Calculated NO2	ppb	1.2	1.7	2.7	1.1	0.1	3149327
Calculated O3	ppb	31.9	34.9	37.3	30.4	0.1	3149127
Calculated SO2	ppb	0.2	0.3	0.2	0.1	0.1	3149359
RDL = Reportable Detection Limit							

Maxxam ID		O64487		O64488		
Sampling Date		2009/04/01 08:00		2009/04/01 15:20		
	Units	**19**	**QC Batch**	**22**	**RDL**	**QC Batch**
Passive Monitoring						
Calculated H2S	ppb		3113287	0.05	0.02	3113287
Calculated NO2	ppb	0.9	3149327	2.9	0.1	3149337
Calculated O3	ppb	34.3	3149127	31.0	0.1	3149127
Calculated SO2	ppb	0.2	3149359	0.2	0.1	3149359
RDL = Reportable Detection Limit						

Maxxam ID		O64489	O64490	O64493	O64494		
Sampling Date		2009/03/31 16:25	2009/04/01 12:00	2009/03/31 13:40	2009/03/31 14:35		
	Units	**23**	**24**	**25**	**26**	**RDL**	**QC Batch**
Passive Monitoring							
Calculated H2S	ppb		0.08	0.05	0.07	0.02	3113287
Calculated NO2	ppb	0.4	2.9			0.1	3149337
Calculated O3	ppb	28.0	33.4			0.1	3149127
Calculated SO2	ppb	0.1	0.2	0.2	0.7	0.1	3149365
RDL = Reportable Detection Limit							

Maxxam Job #: A920241
Report Date: 2009/05/26

LAKELAND INDUSTRY AND COMMUNITY ASSOCIATION
Client Project #: 2009/03/31 - 2009/04/28
Site Reference: LICA
Sampler Initials: SB

RESULTS OF CHEMICAL ANALYSES OF AIR

Maxxam ID		O64495	O64496	O64497	O64498		
Sampling Date		2009/03/31 15:20	2009/03/31 08:10	2009/04/01 15:25	2009/04/01 12:00		
	Units	**27**	**28**	**29**	**24A**	**RDL**	**QC Batch**
Passive Monitoring							
Calculated H2S	ppb	0.07		0.07	0.08	0.02	3113287
Calculated NO2	ppb		6.9	3.0	3.1	0.1	3149337
Calculated O3	ppb		32.5	32.4	31.2	0.1	3149127
Calculated SO2	ppb	0.5	0.7	0.2	0.2	0.1	3149365

RDL = Reportable Detection Limit

Maxxam ID		O64499		
Sampling Date		2009/04/01 12:50		
	Units	**5A**	**RDL**	**QC Batch**
Passive Monitoring				
Calculated H2S	ppb	0.10	0.02	3113287
Calculated NO2	ppb	0.7	0.1	3149337
Calculated O3	ppb	35.3	0.1	3149127
Calculated SO2	ppb	0.2	0.1	3149365

RDL = Reportable Detection Limit

General Comments

Results relate only to the items tested.

LAKELAND INDUSTRY AND COMMUNITY ASSOCIATION
Attention: MICHAEL BISAGA
Client Project #: 2009/03/31 - 2009/04/28
P.O. #:
Site Reference: LICA

Quality Assurance Report

Maxxam Job Number: PA920241

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
3113287	TM5	Calibration Check	Calculated H2S	2009/05/10		98	%	80 - 120
		SPIKE	Calculated H2S	2009/05/10		101	%	N/A
3149127	LM1	Calibration Check	Calculated O3	2009/05/26		97	%	91 - 107
		SPIKE	Calculated O3	2009/05/26		100	%	N/A
3149327	DF4	Calibration Check	Calculated NO2	2009/05/26		97	%	76 - 118
		SPIKE	Calculated NO2	2009/05/26		99	%	N/A
		BLANK	Calculated NO2	2009/05/26	<0.1		ppb	
3149337	DF4	Calibration Check	Calculated NO2	2009/05/26		102	%	76 - 118
		SPIKE	Calculated NO2	2009/05/26		102	%	N/A
		BLANK	Calculated NO2	2009/05/26	<0.1		ppb	
3149359	DF4	Calibration Check	Calculated SO2	2009/05/26		103	%	95 - 105
		SPIKE	Calculated SO2	2009/05/26		98	%	N/A
		BLANK	Calculated SO2	2009/05/26	<0.1		ppb	
3149365	DF4	Calibration Check	Calculated SO2	2009/05/26		105	%	95 - 105
		SPIKE	Calculated SO2	2009/05/26		103	%	N/A
		BLANK	Calculated SO2	2009/05/26	<0.1		ppb	

N/A = Not Applicable

Maxxam Analytics International Corporation o/a Maxxam Analytics Edmonton: 9331 - 48th Street T6B 2R4 Telephone(780) 468-3500 FAX(780) 466-3332

Passive Field Data

Field Notes

ID	SAMPLER	START		END		NOTES
		DATE	TIME	DATE	TIME	
2	$SO_2/NO_2/O_3$	03/31/09	09:50	04/28/09	09:35	
3	$H_2S/SO_2/NO_2/O_3$	03/31/09	09:15	04/28/09	09:05	
4	$SO_2/NO_2/O_3$	04/01/09	13:30	04/29/09	12:50	
5	$H_2S/SO_2/NO_2/O_3$	04/01/09	12:50	04/29/09	12:15	
6	$SO_2/NO_2/O_3$	04/01/09	11:15	04/29/09	11:05	
8	$SO_2/NO_2/O_3$	04/01/09	19:15	04/29/09	13:40	
9	$SO_2/NO_2/O_3$	03/31/09	08:40	04/28/09	08:25	
10	$H_2S/SO_2/NO_2/O_3$	03/31/09	10:35	04/28/09	10:20	
11	$H_2S/SO_2/NO_2/O_3$	03/31/09	11:10	04/28/09	11:00	
12	$H_2S/SO_2/NO_2/O_3$	03/31/09	12:35	04/28/09	12:25	
13	$H_2S/SO_2/NO_2/O_3$	03/31/09	14:00	04/28/09	13:55	
14	$H_2S/SO_2/NO_2/O_3$	03/31/09	15:00	04/28/09	14:45	
15	$SO_2/NO_2/O_3$	03/31/09	07:35	04/28/09	07:45	
16	$H_2S/SO_2/NO_2/O_3$	04/01/09	09:35	04/29/09	09:35	
17	$H_2S/SO_2/NO_2/O_3$	04/01/09	10:30	04/29/09	10:20	
18	$H_2S/SO_2/NO_2/O_3$	04/01/09	08:55	04/29/09	08:55	
19	$SO_2/NO_2/O_3$	04/01/09	08:00	04/29/08	08:00	
22	$H_2S/SO_2/NO_2/O_3$	04/01/09	15:20	04/28/09	06:10	
23	$SO_2/NO_2/O_3$	03/31/09	16:25	04/28/09	16:20	
24	$H_2S/SO_2/NO_2/O_3$	04/01/09	12:00	04/29/09	11:35	
25	H_2S/SO_2	03/31/09	13:40	04/28/09	13:35	
26	H_2S/SO_2	03/31/09	14:35	04/28/09	14:25	
27	H_2S/SO_2	03/31/09	15:20	04/28/09	15:20	
28	$SO_2/NO_2/O_3$	03/31/09	08:10	04/28/09	08:10	
29	$H_2S/SO_2/NO_2/O_3$	04/01/09	15:25	04/28/09	06:00	
16A	$H_2S/SO_2/NO_2/O_3$	04/01/09	09:35	04/29/09	11:35	
17A	$H_2S/SO_2/NO_2/O_3$	04/01/09	10:30	04/29/09	12:15	

Lakeland Industry & Community Association

Maskwa Monitoring Site
Ambient Air Monitoring
Data Report
For
April 2009

Prepared By:

Maxxam Analytics

Driven by Service and Science

May 20, 2009

Lakeland Industry & Community Association
Ambient Air Monitoring
Maskwa

Table of Contents

Introduction

The following Ambient Air Monitoring report was prepared for:

Mr. Mike Bisaga
Lakeland Industry & Community Association
Box 8237
5107W – 50 Street
Bonnyville, Alberta
T9N 2J5

Monitoring Location: Maskwa
Data Period: April 2009

The monthly ambient data report:

- Prepared by Lily Lin
- Reviewed by Craig Snider

The monthly analytical report for static & passive monitoring:

- Authorized by Levi Manchak

Calibration Procedure

The calibrations conducted at the LICA - Maskwa Air Monitoring Stations conform to the following Maxxam Analytics Standard Operation Procedures:

- CAL SOP-00196
- CAL SOP-00197
- CAL SOP-00193
- CAL SOP-00194
- CAL SOP-00200

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. All calibration's and maintenance conforms to the procedures outlined in the *Air Monitoring Directive, Appendix A-10, Section 1.6.*

MONTHLY CONTINUOUS DATA SUMMARY
LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - MASKWA

Continuous Ambient Monitoring – April 2009

LICA MASKWA 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									
SO2 (PPB)	172	57	0	0	0.36	10	4	9	2.4	144(SE)	2.5	9	99.6
H2S (PPB)	10	3	0	0	0.11	4	19	23	0.2	300(WNW)	0.7	20	100.0
THC (PPM)	-	-	-	-	2.06	3.2	20	6	0.6	52(NE)	2.3	27	100.0
NOx (PPB)	-	-	-	-	1.25	20	15, 20	6, 7	0.4, 2.1	231(SW), 52(NE)	3.5	22	100.0
NO (PPB)	-	-	-	-	0.17	9	15, 20	6, 7	0.4, 2.1	231(SW), 52(NE)	0.9	20	100.0
NO_2 (PPB)	212	106	0	0	0.83	14	18	2	7.6	113(ESE)	2.4	20	100.0
VECTOR WS (KPH)	-	-	-	-	6.03	25.3	13	19	-	38(NE)	11.4	13	100.0
VECTOR WD (DEGREES)	-	-	-	-	65(ENE)	-	-	-	-	-	-	-	100.0
RELATIVE HUMIDITY (%)	-	-	-	-	60.20	92	14, 15	VAR	VAR	VAR	90.9	14	100.0
TEMPERATURE (DEG C)	-	-	-	-	2.29	14.3	11	16	4.7	150(SSE)	6.1	19	100.0
BAROMETRIC PRESSURE (MILIBAR)	-	-	-	-	941.01	958.0	29	7, 8	2.5, 2.3	26(NNE), 355(N)	956.2	28	99.9
PRECIPITATION (MM)	-	-	-	-	0.06	5.6	13	19	25.3	38(NE)	12.9	18	100.0

VAR-VARIOUS

General Monthly Summary

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 - Maskwa

Sulphur Dioxide (PPB)

- Analyzer make / model - API 100E

No operational issue was observed during this month. A new UV lamp and driver board were installed last month. Since that, the UV lamp voltage has dropped by 10% as the lamp "burn-in", which is normal. A lamp calibration and a factory calibration were performed following the as found points on April 21st. A Post repair calibration was performed on April 22nd. The inlet filter was changed before the monthly calibration was started. An alarm test was performed on April 22nd, and proper operation was confirmed. Data was corrected using daily zero information.

Hydrogen Sulphide (PPB)

- Analyzer make / model - API 101E

No operational issues observed during this month. An alarm test was performed on April 22nd, and proper operation was confirmed. The inlet filter was changed before the monthly calibration was started. Data was corrected using daily zero information.

Total HydroCarbon (PPM)

- Analyzer make / model – changed TECO 51-LT to TECO 51C-LT

No operational issues observed during this month. Upon arrival on April 22nd, alarms were observed for "Flow Reg Fail", +15 voltage and –15 voltage. Following the pump rebuild, the analyzer had difficulty regulating as a sample pressure of 7.5 psi. The sample pressure was reduced to 7.2 psi (flow is still within tolerance), and the analyzer is still alarming for "Flow Reg Fail", +15 voltage and –15 voltage. Will contact the manufacturer for advise. The analyzer still could be calibrated, and it still operates fine. The pump diaphragm was replaced following the as found points on April 22nd. The inlet filter was changed before the monthly calibration was started. Data was corrected using daily zero information.

General Monthly Summary

AQM STATION – LICA - Maskwa

Nitrogen Dioxide (PPB)

- Analyzer make / model - API 200E

No operational issues observed during this month. An alarm test was performed on April 22nd, and proper operation was confirmed. The inlet filter was changed before the monthly calibration was started. Data was corrected using daily zero information.

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

- System make / model - Climatronics MIII

The wind system is reported as vector wind speed and vector wind direction. The wind system is reported as vector wind speed and vector wind direction.

Relative Humidity (PERCENT)

- System make / model - Met One 083

No operational issues observed during the month.

Precipitation (MM)

- System make / model - Met One 387

No operational issues observed during the month.

General Monthly Summary

AQM STATION – LICA - Maskwa

Barometric Pressure (MILIBAR)

- System make / model - Met One 092

No operational issues observed during the month. One hour of data is missing on April 29th.

Ambient Temperature (DEGC)

- System make / model - Met One 060

No operational issues observed during the month.

Trailer Temperature (DEG C)

- System make / model – R&R 61

The sensor will allow monitoring of the trailer temperature.

Datalogger

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

The station is connected to a modem to allow for daily polling of the station.

Trailer

No issues with the station.

Continuous Monitoring

Monthly Summaries, Graphs & Wind Roses

Sulphur Dioxide

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - *MASKWA*

APRIL 2009

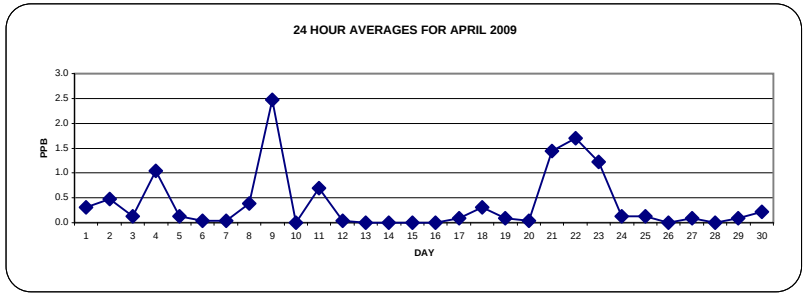
SULPHUR DIOXIDE (SO_2) hourly averages in ppb

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	1	1	0	0	**IZS**	1	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1	1	0.3	24
2	1	1	0	0	0	**IZS**	0	0	0	0	0	0	4	4	1	0	0	0	0	0	0	0	0	0	4	0.5	24
3	0	0	0	0	0	**IZS**	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	2	0	2	0.1	24
4	1	0	0	0	0	**IZS**	0	0	2	**10**	7	3	1	0	0	0	0	0	0	0	0	0	0	0	**10**	1.0	24
5	0	0	0	0	0	**IZS**	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1	24
6	0	0	0	0	0	**IZS**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0.0	24
7	1	0	0	0	0	**IZS**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.0	24
8	0	0	0	0	0	**IZS**	0	0	0	0	0	0	0	0	0	0	0	0	1	7	1	0	0	0	7	0.4	24
9	0	0	0	1	2	**IZS**	0	1	7	7	5	6	2	2	1	0	1	8	5	3	3	1	2	0	8	**2.5**	24
10	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
11	0	0	0	0	0	**IZS**	0	0	2	3	7	3	1	0	0	0	0	0	0	0	0	0	0	0	7	0.7	24
12	0	0	0	0	0	**IZS**	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0.0	24
13	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
14	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
15	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
16	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
17	0	0	0	0	0	**IZS**	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0.1	24
18	0	1	3	2	1	**IZS**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.3	24
19	0	0	0	0	0	**IZS**	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0.1	24
20	0	0	0	0	0	**IZS**	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0.0	24
21	0	0	0	0	0	**IZS**	0	0	0	2	**C**	**C**	**M**	**M**	**M**	5	5	6	3	1	1	0	2	1	6	1.4	21
22	0	1	5	1	0	**IZS**	3	2	**C**	**C**	**C**	**C**	**C**	**C**	1	0	1	2	2	5	1	0	4	1	5	1.7	24
23	1	3	4	3	5	**IZS**	5	1	0	0	1	2	1	1	1	0	0	0	0	0	0	0	0	0	5	1.2	24
24	0	0	0	0	0	**IZS**	0	0	0	0	1	0	1	1	0	0	0	0	0	0	0	0	0	0	1	0.1	24
25	0	0	0	0	0	**IZS**	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	1	0	1	0.1	24
26	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
27	0	0	0	0	0	**IZS**	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	2	0.1	24
28	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
29	0	0	0	0	0	**IZS**	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.1	24
30	0	0	0	0	1	**IZS**	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.2	24
HOURLY MAX	1	3	5	3	5	**NA**	5	3	7	10	7	6	4	4	2	5	5	8	5	7	3	1	4	1			
HOURLY AVG	0.1	0.2	0.4	0.2	0.3	**NA**	0.3	0.3	0.5	0.8	0.8	0.5	0.4	0.4	0.2	0.2	0.3	0.6	0.4	0.5	0.2	0.0	0.4	0.1			

STATUS FLAG CODES

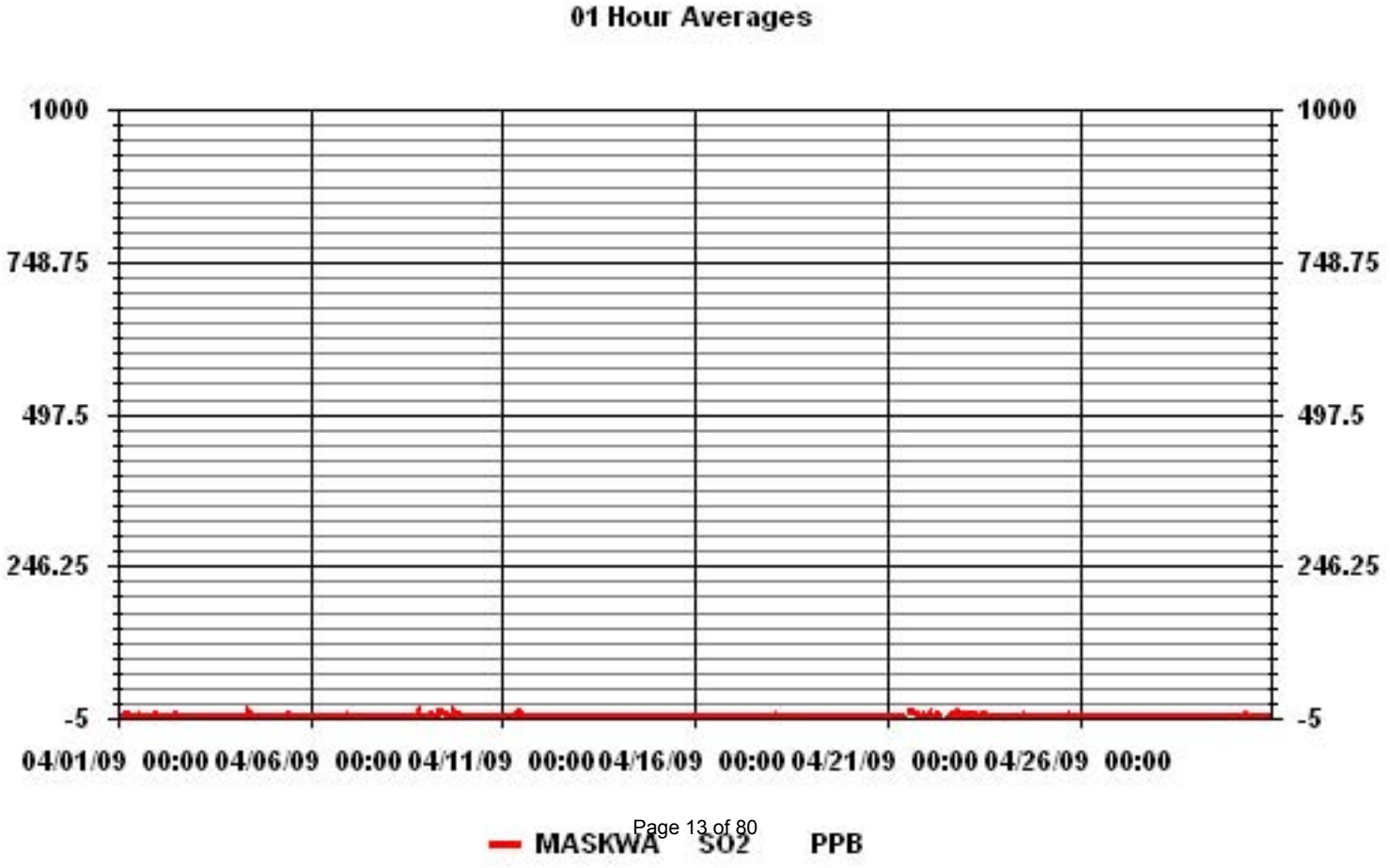
S	- OUT OF SERVICE	IZS	- IZS - DAILY ZERO/SPAN CHECK
N	- INVALID DATA	M	- MAINTENANCE
D	- INSTRUMENT DRIFT	P	- POWER FAILURE
C	- CALIBRATION	NA	- NOT APPLICABLE



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:	105					
MAXIMUM 1-HR AVERAGE:	10	PPB	@ HOUR(S)	9	ON DAY(S)	4
MAXIMUM 24-HR AVERAGE:	2.5	PPB			ON DAY(S)	9
IZS CALIBRATION TIME:	30	HRS	OPERATIONAL TIME:		717	HRS
MONTHLY CALIBRATION TIME:	8	HRS	AMD OPERATION UPTIME:		99.6	%
STANDARD DEVIATION:	1.14		MONTHLY AVERAGE:		0.36	PPB


01 Hour Averages
1000
748.75
497.5
246.25
-5
04/01/09 00:00
04/06/09 00:00
04/11/09 00:00
04/16/09 00:00
04/21/09 00:00
04/26/09 00:00
MASKWA SO2 PPB

MASKWA
SO2 / WD Joint Frequency Distribution (Percent)

April 2009

Distribution By % Of Samples

Logger Id : 03
Site Name : MASKWA
Parameter : SO2
Units : PPB

Wind Parameter : WD
Instrument Height : 10 Meters

Direction

	Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
<	20	6.48	6.77	11.63	11.48	6.92	6.77	7.65	6.48	4.12	7.65	6.03	2.35	3.09	5.00	3.09	4.41	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	6.48	6.77	11.63	11.48	6.92	6.77	7.65	6.48	4.12	7.65	6.03	2.35	3.09	5.00	3.09	4.41	

Calm : .00 %

Total # Operational Hours : 679

Distribution By Samples

Direction

	Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
<	20	44	46	79	78	47	46	52	44	28	52	41	16	21	34	21	30	679
<	60																	
<	110																	
<	170																	
<	340																	
>=	340																	
	Totals	44	46	79	78	47	46	52	44	28	52	41	16	21	34	21	30	

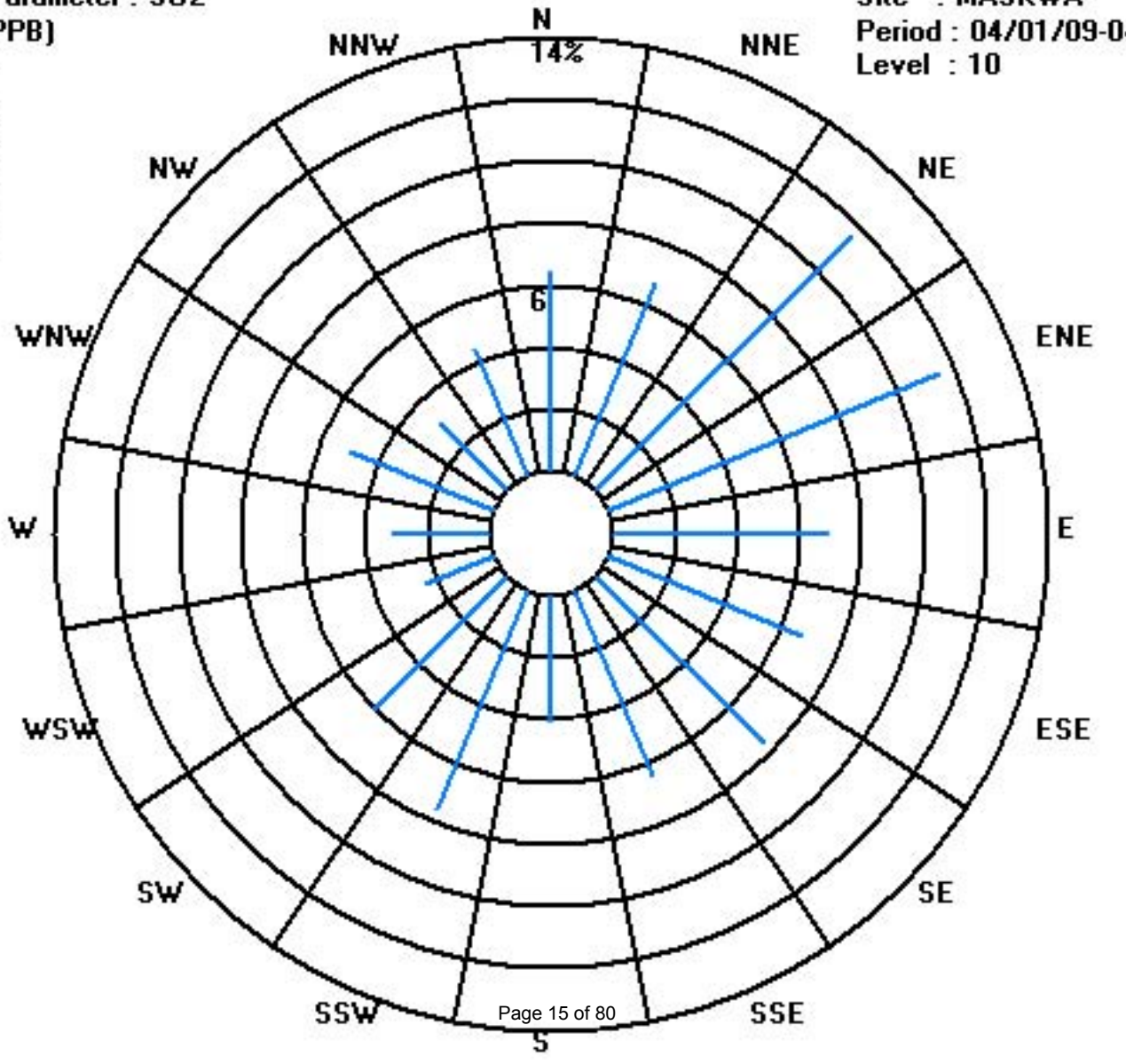
Calm : .00 %

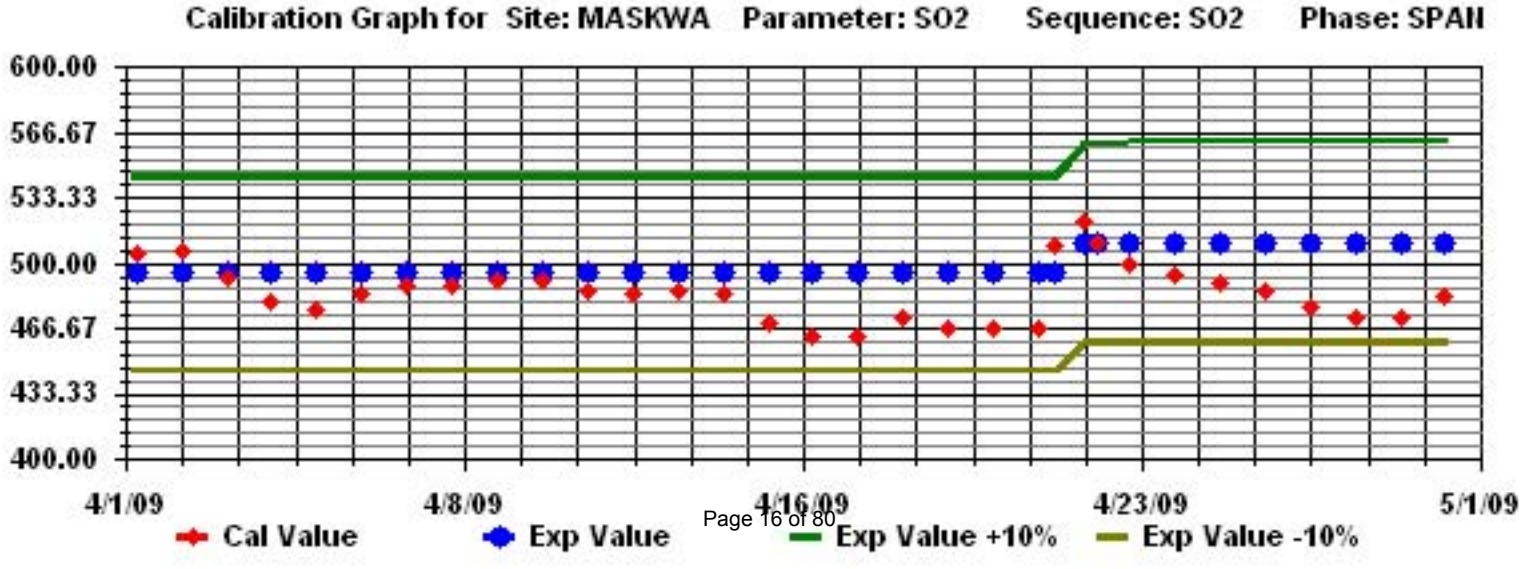
Total # Operational Hours : 679

Logger : 03 Parameter : SO2
Class Limits (PPB)

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

Site : MASKWA
Period : 04/01/09-04/30/09
Level : 10




Calibration Graph for Site: MASKWA Parameter: SO2 Sequence: SO2 Phase: SPAN
600.00
566.67
533.33
500.00
466.67
433.33
400.00
4/1/09
4/8/09
4/16/09
4/23/09
5/1/09
Cal Value
Exp Value
Exp Value +10%
Exp Value -10%

Hydrogen Sulphide

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - *MASKWA*

APRIL 2009

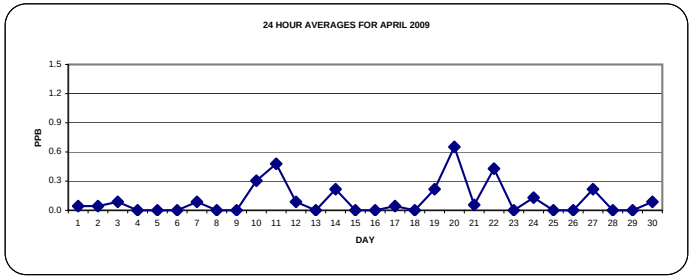
HYDROGEN SULPHIDE (H_2S) hourly averages in ppb

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	0	0	0	0	**IZS**	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0.0	24
2	1	0	0	0	0	**IZS**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.0	24
3	0	0	0	1	0	**IZS**	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1	24
4	0	0	0	0	0	**IZS**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
5	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
6	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
7	0	0	0	0	0	**IZS**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1	0.1	24
8	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
9	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
10	0	0	0	0	0	**IZS**	0	0	0	0	0	1	0	0	0	0	0	1	1	1	1	1	1	0	1	0.3	24
11	0	1	1	0	0	**IZS**	0	1	1	0	1	0	0	0	0	0	1	0	1	1	1	1	1	0	1	0.5	24
12	0	1	1	0	0	**IZS**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1	24
13	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
14	0	0	0	0	0	**IZS**	0	1	1	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0.2	24
15	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
16	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
17	0	0	0	0	0	**IZS**	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0.0	24
18	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
19	0	0	0	0	0	**IZS**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	**4**	**4**	0.2	24
20	2	1	3	2	2	**IZS**	2	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	**0.7**	24
21	0	0	0	0	0	**IZS**	0	0	0	0	**C**	**C**	**C**	**C**	**C**	0	0	0	0	0	0	0	0	1	1	0.1	24
22	0	0	0	0	1	**IZS**	0	0	1	0	1	0	**C**	**C**	1	1	1	1	0	1	0	0	1	0	1	0.4	24
23	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
24	0	0	0	0	0	**IZS**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	2	0.1	24
25	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
26	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
27	0	0	3	2	0	**IZS**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.2	24
28	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
29	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
30	1	1	0	0	0	**IZS**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1	24
HOURLY MAX	2	1	3	2	2	**NA**	2	1	1	1	1	1	0	0	1	1	1	1	1	1	1	2	1	4			
HOURLY AVG	0.1	0.1	0.3	0.2	0.1	**NA**	0.1	0.1	0.2	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2			

STATUS FLAG CODES

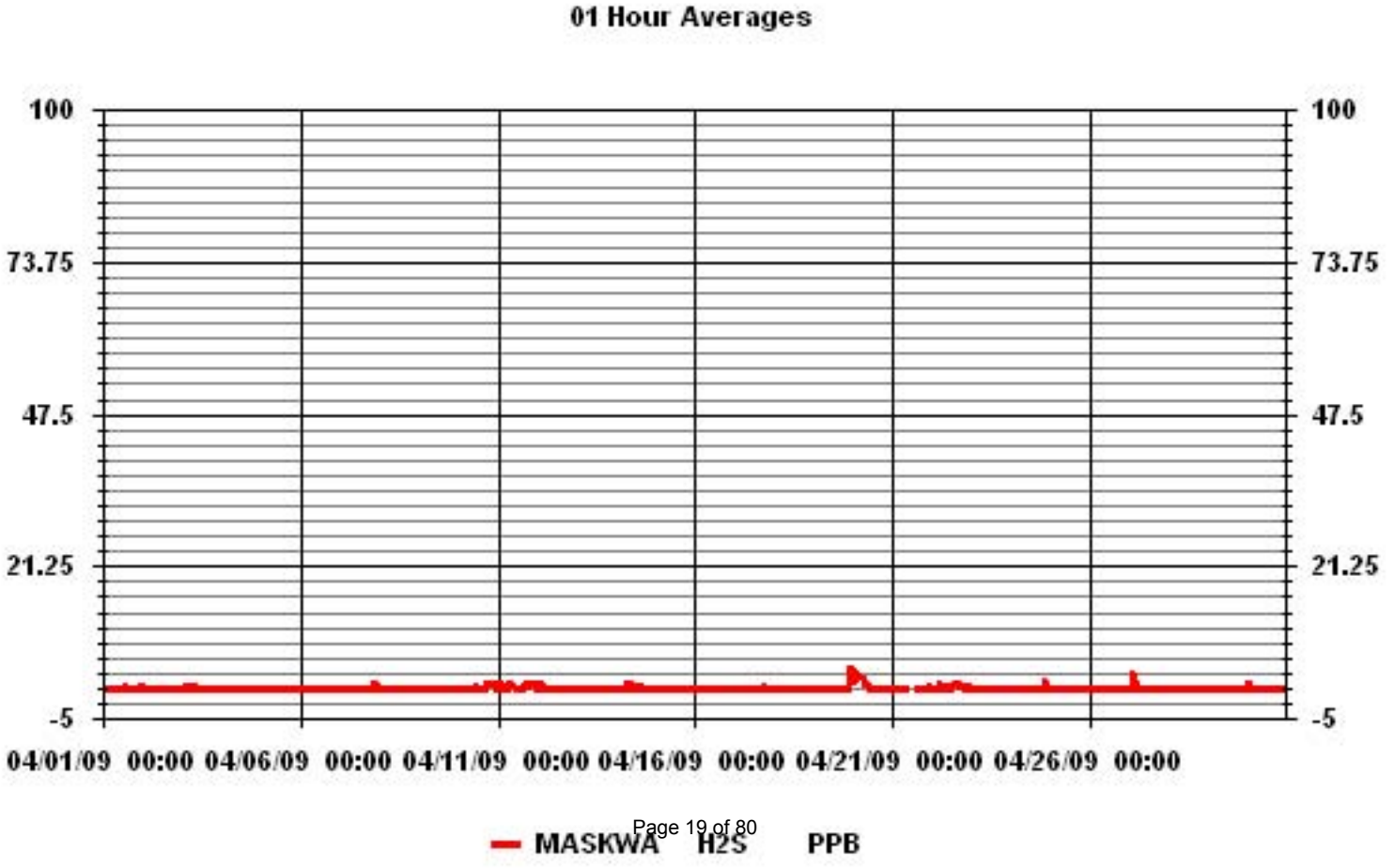
S	- OUT OF SERVICE	IZS	- IZS - DAILY ZERO/SPAN CHECK
N	- INVALID DATA	M	- MAINTENANCE
D	- INSTRUMENT DRIFT	P	- POWER FAILURE
C	- CALIBRATION	NA	- NOT APPLICABLE



OBJECTIVE LIMIT: **ALBERTA ENVIRONMENT:** 1-HR 10 PPB 24-HR 3 PPB

MONTHLY SUMMARY

NUMBER OF 1-HR EXCEEDENCES:	0					
NUMBER OF 24-HR EXCEEDENCES:	0					
NUMBER OF NON-ZERO READINGS:	59					
MAXIMUM 1-HR AVERAGE:	4	PPB	@ HOUR(S)	23	ON DAY(S)	19
MAXIMUM 24-HR AVERAGE:	0.7	PPB			ON DAY(S)	20
					VAR-VARIOUS	
IZS CALIBRATION TIME:	30	HRS	OPERATIONAL TIME:		720	HRS
MONTHLY CALIBRATION TIME:	7	HRS	AMD OPERATION UPTIME:		100.0	%
STANDARD DEVIATION:	0.38		MONTHLY AVERAGE:		0.11	PPB


01 Hour Averages
100
73.75
47.5
21.25
-5
04/01/09 00:00
04/06/09 00:00
04/11/09 00:00
04/16/09 00:00
04/21/09 00:00
04/26/09 00:00
MASKWA H2S PPB

MASKWA
H2S / WD Joint Frequency Distribution (Percent)

April 2009

Distribution By % Of Samples

Logger Id : 03
Site Name : MASKWA
Parameter : H2S
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	6.44	6.73	11.56	11.42	6.88	6.73	7.61	6.44	4.09	7.46	5.85	2.34	3.07	5.27	3.22	4.39	99.56
<	10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.14	.14	.00	.00	.14	.00	.00	.43
<	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	6.44	6.73	11.56	11.42	6.88	6.73	7.61	6.44	4.09	7.61	6.00	2.34	3.07	5.41	3.22	4.39	

Calm : .00 %

Total # Operational Hours : 683

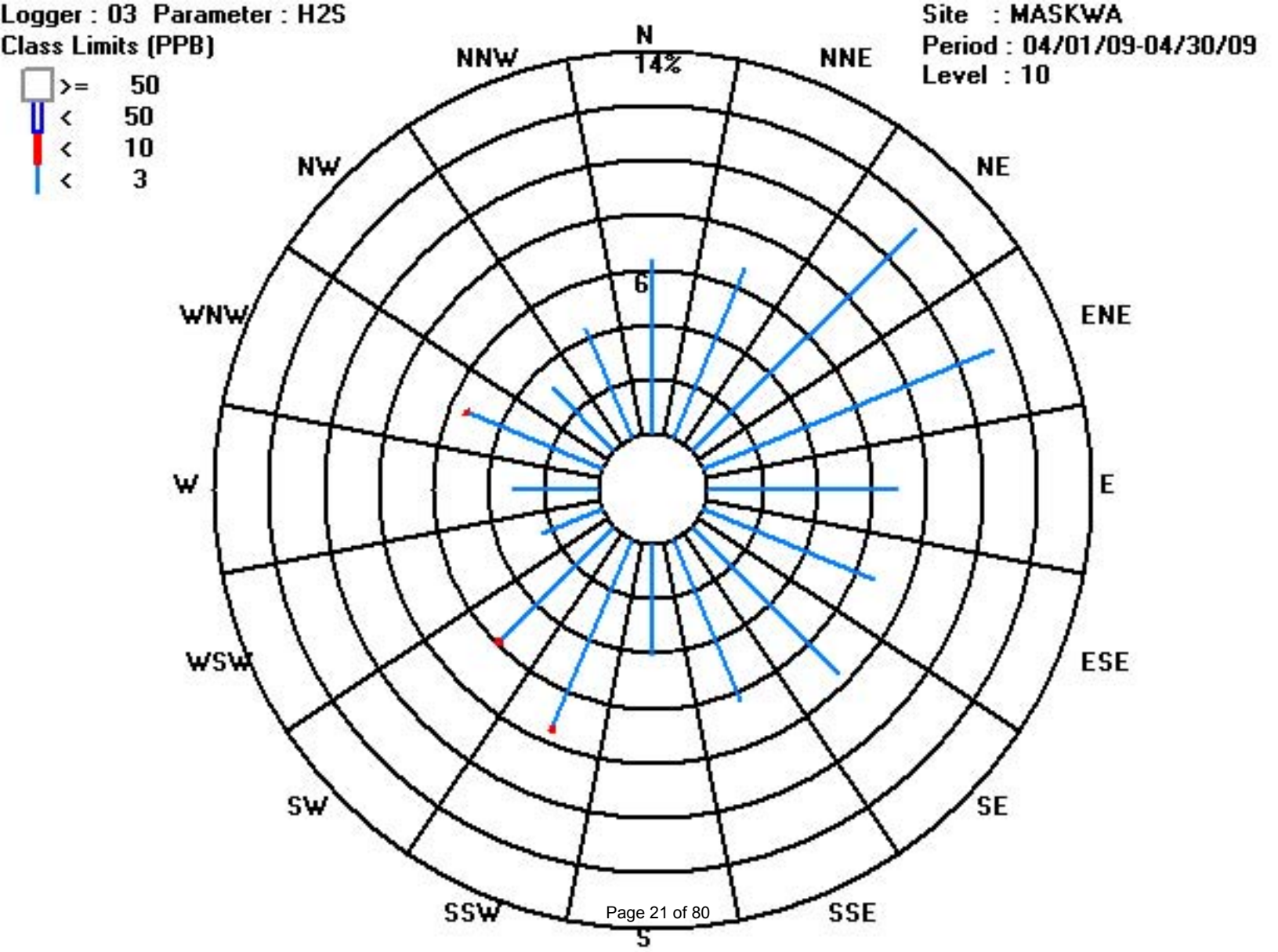
Distribution By Samples

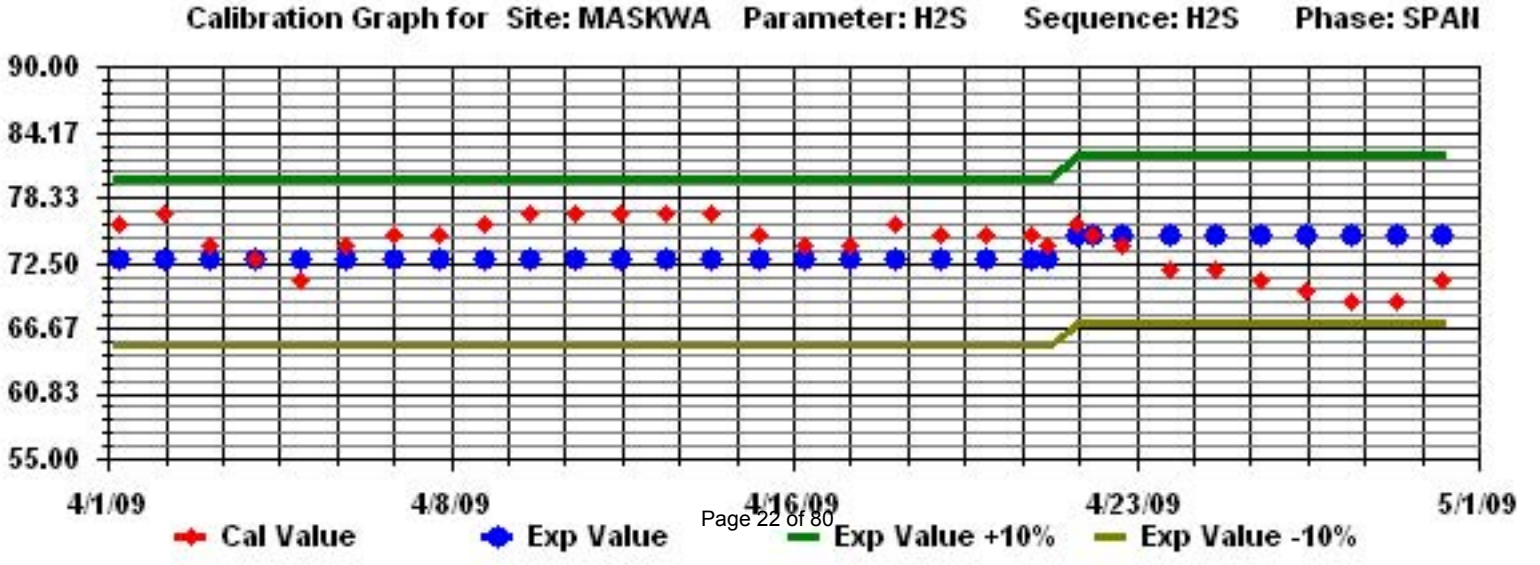
Direction

	Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
<	3	44	46	79	78	47	46	52	44	28	51	40	16	21	36	22	30	680
<	10										1	1			1			3
<	50																	
>=	50																	
	Totals	44	46	79	78	47	46	52	44	28	52	41	16	21	37	22	30	

Calm : .00 %

Total # Operational Hours : 683


Logger : 03 Parameter : H2S
Class Limits (PPB)
>= 50
< 50
< 10
< 3
Site : MASKWA
Period : 04/01/09-04/30/09
Level : 10
N
14%
NNE
NE
ENE
E
ESE
SE
SSE
S
SSW
SW
WSW
W
WNW
NW
NNW
6


Calibration Graph for Site: MASKWA Parameter: H2S Sequence: H2S Phase: SPAN
90.00
84.17
78.33
72.50
66.67
60.83
55.00
4/1/09
4/8/09
4/16/09
4/23/09
5/1/09
Cal Value
Exp Value
Exp Value +10%
Exp Value -10%

Total Hydrocarbons

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - *MASKWA*

APRIL 2009

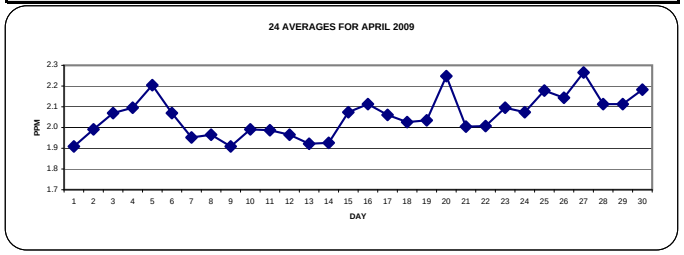
TOTAL HYDROCARBONS hourly averages in ppm

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	1.9	1.9	1.9	1.9	1.9	**IZS**	2	2	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	24
2	1.9	1.9	1.9	1.9	1.9	**IZS**	1.9	1.9	1.9	2	2.1	2.1	2.1	2.2	2.1	2.1	2.1	1.9	1.9	1.9	2	2	2	2.1	2.2	2.0	24
3	2.1	2.1	2.2	2.2	2.2	**IZS**	2.2	2.2	2.2	2.1	2	2	2	2	2	2	2	2	2	2.1	2	2	2	2	2.2	2.1	24
4	2	2	2	2.1	2.1	**IZS**	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.1	24
5	2.2	2.2	2.3	2.4	2.3	**IZS**	2.3	2.3	2.4	2.3	2.3	2.2	2.1	2.1	2.2	2.3	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.4	2.2	24
6	2.1	2.1	2.1	2.1	2.1	**IZS**	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2	2	2	2	2.1	2.1	2.1	1.9	2	2.1	2.1	24
7	2	2	2	2	2	**IZS**	2	2	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2	2	2	2.1	2.1	2.0	24
8	2.1	2.1	2.1	2.1	2	**IZS**	2.1	2	2	2	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2	1.9	1.9	1.9	1.9	2.1	2.0	24
9	1.9	1.9	1.9	1.9	1.9	**IZS**	1.9	1.9	2	2	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	24
10	1.9	1.9	1.9	1.9	2	**IZS**	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2.1	2.1	2.1	2.0	24
11	2	2.1	2.1	2	2.1	**IZS**	2	2.1	2.1	2.1	2	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2	2	2	2	2.1	2.0	24
12	2	2	2	2	2	**IZS**	2.1	2	1.9	1.9	2	2	2	2	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2	2.1	2.1	2.0	24
13	2.1	2.1	2.1	2	2	**IZS**	2	2	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.1	1.9	24
14	1.9	1.9	1.9	1.9	1.9	**IZS**	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2	2.1	2	2	2	2.1	1.9	24
15	2	2.1	2.2	2.2	2.3	**IZS**	2.3	2.2	2.1	2	2	2	2	2	2	2	2	2	2	2	2	2	2.1	2.1	2.3	2.1	24
16	2.2	2.3	2.3	2.4	2.4	**IZS**	2.3	2.1	2.1	2	2	2	2	2	2	2	2	2	2	2	2	2.1	2.2	2.2	2.4	2.1	24
17	2.2	2.1	2.1	2.2	2.2	**IZS**	2.1	2.1	2.1	2	2	2	2	2	2.1	2.2	2	2	2	2	2	2	2	2	2.2	2.1	24
18	2	2	2	2	2	**IZS**	2	2	2	2	2	2	2	2	2.1	2	2.1	2	2	2	2	2.1	2.1	2.2	2.2	2.0	24
19	2.2	2.1	2	2	2	**IZS**	2	2	2.1	2	2	2	2	2	2	2.1	2	2	2	2	2	2	2.1	2.2	2.2	2.0	24
20	2.3	2.5	2.6	2.5	2.8	**IZS**	**3.2**	2.9	2.6	2.4	2	1.9	2	2	2	2	2	1.9	1.9	2	2	2	2.1	2.1	**3.2**	2.2	24
21	2.1	2.1	2.1	2.2	2.1	**IZS**	2	2	2	2	2	2	2	2	2	2	2	2	2	1.9	1.9	1.9	1.9	1.9	2.2	2.0	24
22	1.9	1.9	1.9	1.9	1.9	**IZS**	1.9	1.9	**C**	**C**	**C**	**C**	**C**	**C**	**C**	**C**	**C**	2.1	2.1	2.2	2.1	2	2.2	2.1	2.2	2.0	24
23	2.1	2.1	2.1	2.1	2.2	**IZS**	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.1	2.1	2	2.1	2	2	2.1	2.1	2.1	2.1	2.1	2.2	2.1	24
24	2.1	2.1	2.1	2.1	2.1	**IZS**	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2	2	2	2	2	2	2.1	2.1	2.1	2.1	2.1	24
25	2.2	2.2	2.3	2.3	2.3	**IZS**	2.3	2.3	2.2	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2	2.1	2.1	2.1	2.2	2.1	2.3	2.2	24
26	2.2	2.2	2.3	2.2	2.2	**IZS**	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.3	2.1	24
27	2.3	2.5	2.7	3	2.6	**IZS**	2.4	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.2	3.0	**2.3**	24
28	2.2	2.2	2.2	2.2	2.2	**IZS**	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2	2.1	2	2	2	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.1	24
29	2.2	2.2	2.2	2.2	2.2	**IZS**	2.4	2.1	2.1	2.1	2.1	2.1	2.1	2	2	2	2	2	2	2	2.1	2.1	2.2	2.2	2.4	2.1	24
30	2.3	2.6	2.5	2.2	2.5	**IZS**	2.4	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.6	2.2	24
HOURLY MAX	2.3	2.6	2.7	3.0	2.8	**NA**	3.2	2.9	2.6	2.4	2.3	2.2	2.2	2.2	2.2	2.3	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.2			
HOURLY AVG	2.1	2.1	2.1	2.1	2.1	**NA**	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1			

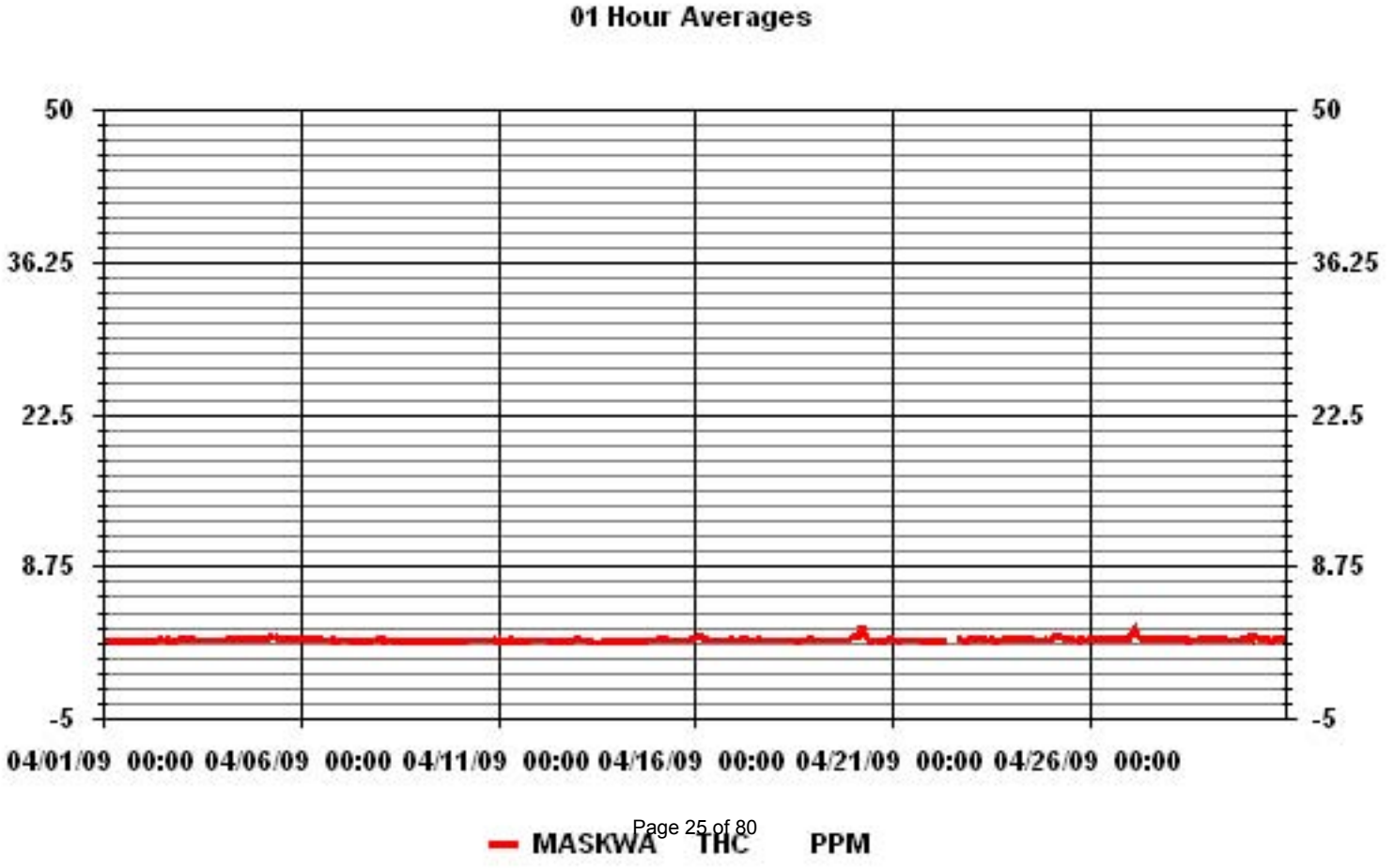
STATUS FLAG CODES

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



MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	681					
MAXIMUM 1-HR AVERAGE:	3.2	PPM	@ HOUR(S)	6	ON DAY(S)	20
MAXIMUM 24-HR AVERAGE:	2.3	PPM			ON DAY(S)	27
					VAR- VARIOUS	
IZS CALIBRATION TIME:	30	HRS	OPERATIONAL TIME:		720	HRS
MONTHLY CALIBRATION TIME:	9	HRS	AMD OPERATION UPTIME:		100.0	%
STANDARD DEVIATION:	0.15		MONTHLY AVERAGE:		2.06	PPM


01 Hour Averages
50
36.25
22.5
8.75
-5
04/01/09 00:00
04/06/09 00:00
04/11/09 00:00
04/16/09 00:00
04/21/09 00:00
04/26/09 00:00
MASKWA THC PPM

MASKWA
THC / WD Joint Frequency Distribution (Percent)

April 2009

Distribution By % Of Samples

Logger Id : 03
Site Name : MASKWA
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	6.46	6.75	11.45	11.45	6.90	7.48	7.63	6.46	4.11	7.63	5.87	2.34	3.08	4.55	3.08	4.40	99.70
< 10.0	.00	.00	.14	.00	.00	.00	.00	.00	.00	.00	.14	.00	.00	.00	.00	.00	.29
< 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	6.46	6.75	11.60	11.45	6.90	7.48	7.63	6.46	4.11	7.63	6.02	2.34	3.08	4.55	3.08	4.40	

Calm : .00 %

Total # Operational Hours : 681

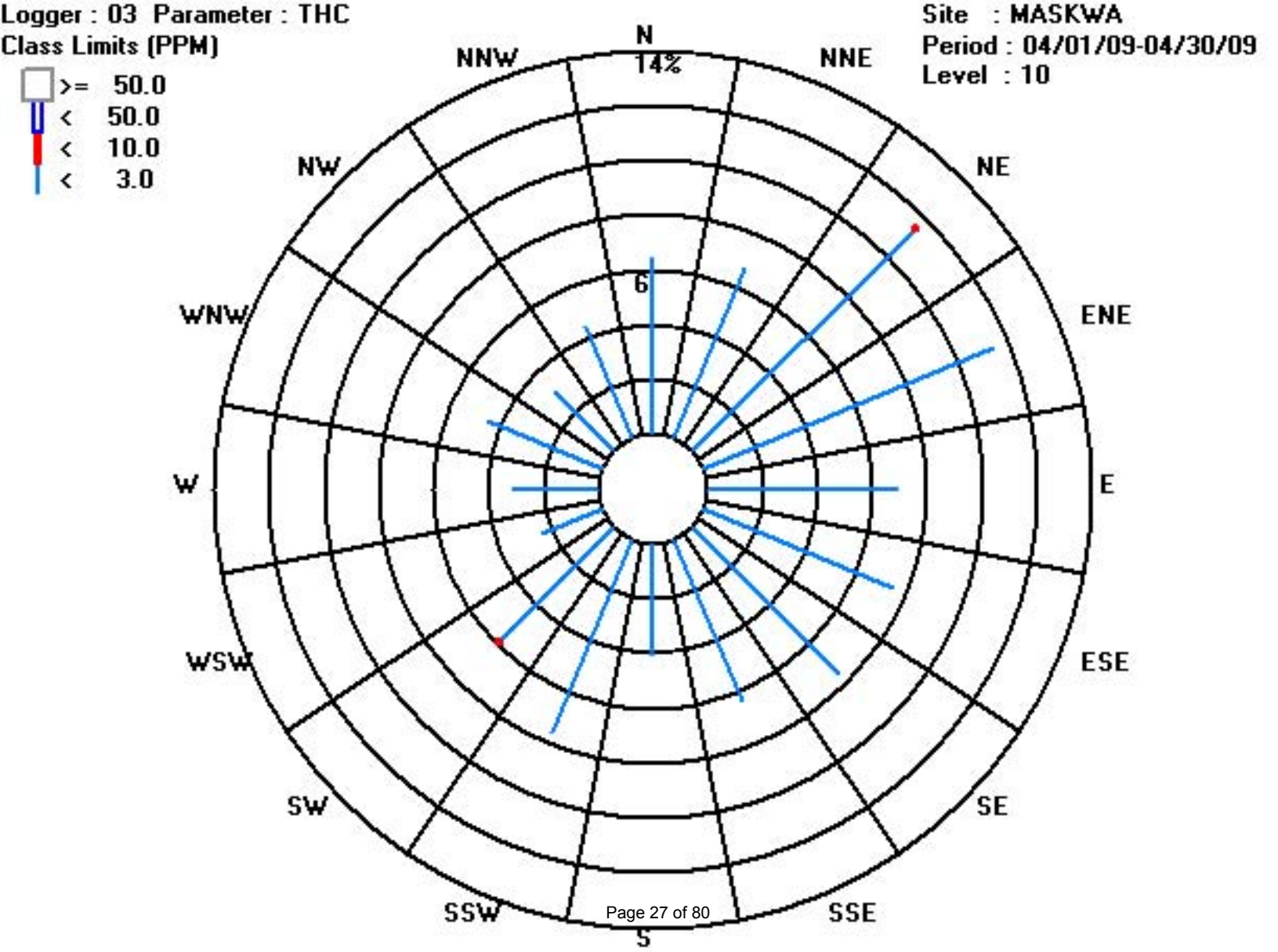
Distribution By Samples

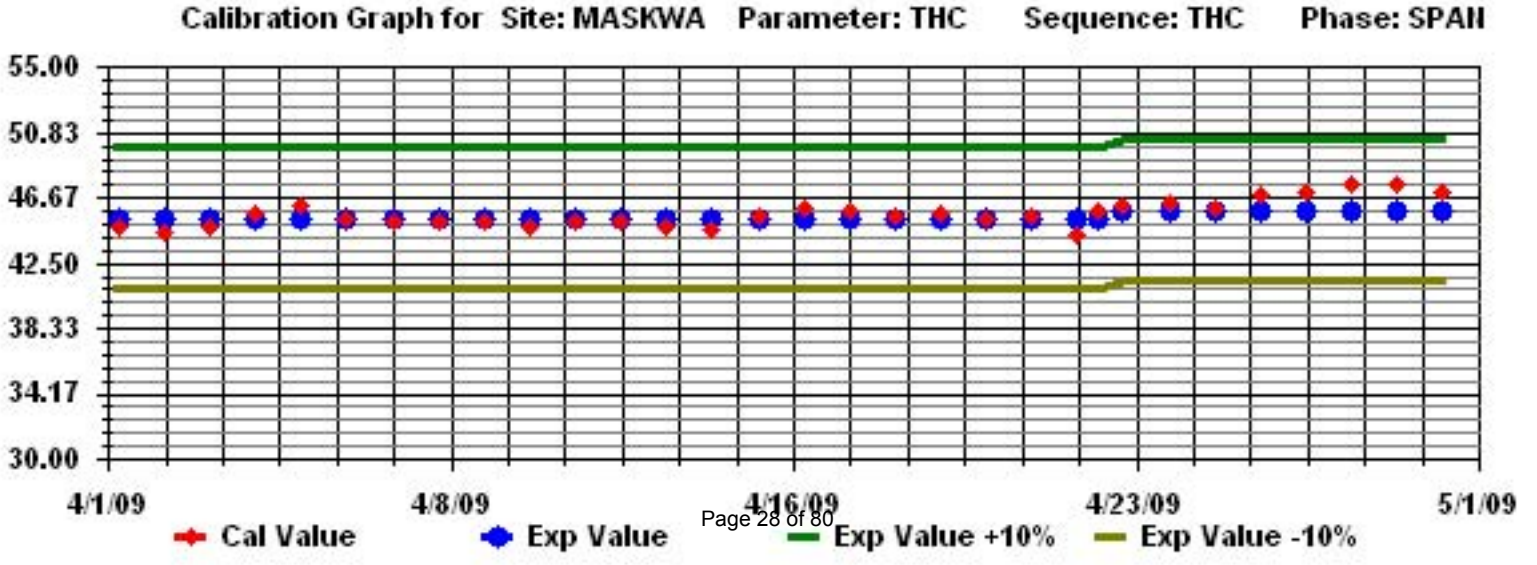
Direction

Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
< 3.0	44	46	78	78	47	51	52	44	28	52	40	16	21	31	21	30	679
< 10.0			1								1						2
< 50.0																	
>= 50.0																	
Totals	44	46	79	78	47	51	52	44	28	52	41	16	21	31	21	30	

Calm : .00 %

Total # Operational Hours : 681


Logger : 03 Parameter : THC
Class Limits (PPM)
>= 50.0
< 50.0
< 10.0
< 3.0
Site : MASKWA
Period : 04/01/09-04/30/09
Level : 10
N
14%
NNE
NE
ENE
E
ESE
SE
SSE
S
SSW
SW
WSW
W
WNW
NW
NNW
6


Calibration Graph for Site: MASKWA Parameter: THC Sequence: THC Phase: SPAN
55.00
50.83
46.67
42.50
38.33
34.17
30.00
4/1/09
4/8/09
4/16/09
4/23/09
5/1/09
Cal Value
Exp Value
Exp Value +10%
Exp Value -10%

Nitrogen Dioxide

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - *MASKWA*

APRIL 2009

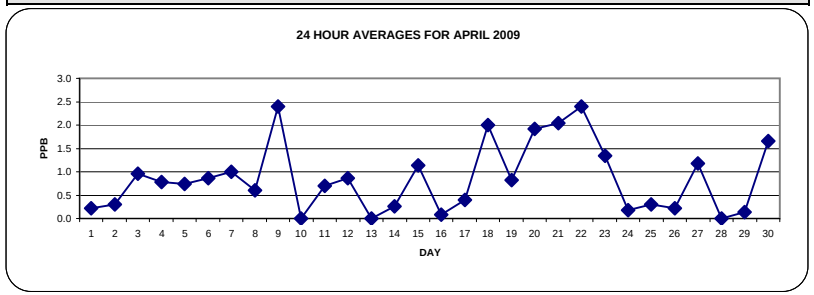
NITROGEN DIOXIDE hourly averages in ppb

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	0	0	0	0	0	**IZS**	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.2	24
2	0	1	0	0	0	**IZS**	0	0	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	3	0.3	24
3	0	0	1	2	2	**IZS**	3	3	5	3	1	0	0	0	0	0	0	0	0	0	0	0	2	0	5	1.0	24
4	2	0	0	0	0	**IZS**	2	0	1	7	5	1	0	0	0	0	0	0	0	0	0	0	0	0	7	0.8	24
5	0	0	0	4	4	**IZS**	2	4	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.7	24
6	0	0	0	0	1	**IZS**	0	0	0	0	0	0	0	0	0	1	0	0	1	2	2	0	0	13	13	0.9	24
7	9	8	3	0	0	**IZS**	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	1.0	24
8	0	0	0	0	2	**IZS**	1	0	0	0	0	0	0	0	0	0	0	0	1	10	0	0	0	0	10	0.6	24
9	0	0	0	0	1	**IZS**	0	2	9	9	5	4	1	1	0	0	0	11	6	2	3	0	1	0	11	2.4	24
10	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
11	0	0	0	0	0	**IZS**	0	0	4	3	7	2	0	0	0	0	0	0	0	0	0	0	0	0	7	0.7	24
12	0	0	0	0	0	**IZS**	2	4	4	1	0	2	5	2	0	0	0	0	0	0	0	0	0	0	5	0.9	24
13	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
14	0	0	0	0	0	**IZS**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	1	1	2	0.3	24
15	0	2	0	2	3	**IZS**	10	3	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2	3	10	1.1	24
16	0	0	0	0	0	**IZS**	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.1	24
17	0	0	0	0	0	**IZS**	2	2	2	0	0	0	2	1	0	0	0	0	0	0	0	0	0	0	2	0.4	24
18	0	4	**14**	5	3	**IZS**	4	0	0	0	0	0	1	1	2	1	5	3	1	1	1	0	0	0	**14**	2.0	24
19	0	0	0	0	0	**IZS**	0	2	10	4	0	0	0	0	0	2	0	0	1	0	0	0	0	0	10	0.8	24
20	0	0	0	1	2	**IZS**	9	9	8	8	1	0	0	0	1	0	3	0	0	0	0	0	2	0	9	1.9	24
21	0	0	0	0	0	**IZS**	0	0	0	6	6	4	2	5	3	7	3	5	3	0	0	0	3	0	7	2.0	24
22	0	0	5	0	0	**IZS**	6	**C**	**C**	**C**	**C**	**C**	**C**	**C**	**C**	0	1	4	1	9	2	0	6	2	9	**2.4**	24
23	1	3	4	3	7	**IZS**	7	1	0	0	1	3	1	0	0	0	0	0	0	0	0	0	0	0	7	1.3	24
24	0	0	0	0	0	**IZS**	0	0	0	0	1	0	2	1	0	0	0	0	0	0	0	0	0	0	2	0.2	24
25	0	0	0	0	0	**IZS**	0	1	1	0	0	0	0	0	0	0	0	1	2	0	0	1	1	0	2	0.3	24
26	0	1	3	1	0	**IZS**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.2	24
27	0	3	4	7	6	**IZS**	1	0	0	0	1	2	0	0	3	0	0	0	0	0	0	0	0	0	7	1.2	24
28	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
29	0	0	0	0	0	**IZS**	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.1	24
30	0	1	3	3	14	**IZS**	10	6	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	14	1.7	24
HOURLY MAX	9	8	14	7	14	**NA**	10	9	10	9	7	4	5	5	3	7	5	11	6	10	3	2	6	13			
HOURLY AVG	0.4	0.8	1.2	0.9	1.5	**NA**	2.2	1.3	1.7	1.5	1.0	0.6	0.6	0.5	0.3	0.4	0.4	0.8	0.5	0.8	0.3	0.1	0.6	0.6			

STATUS FLAG CODES

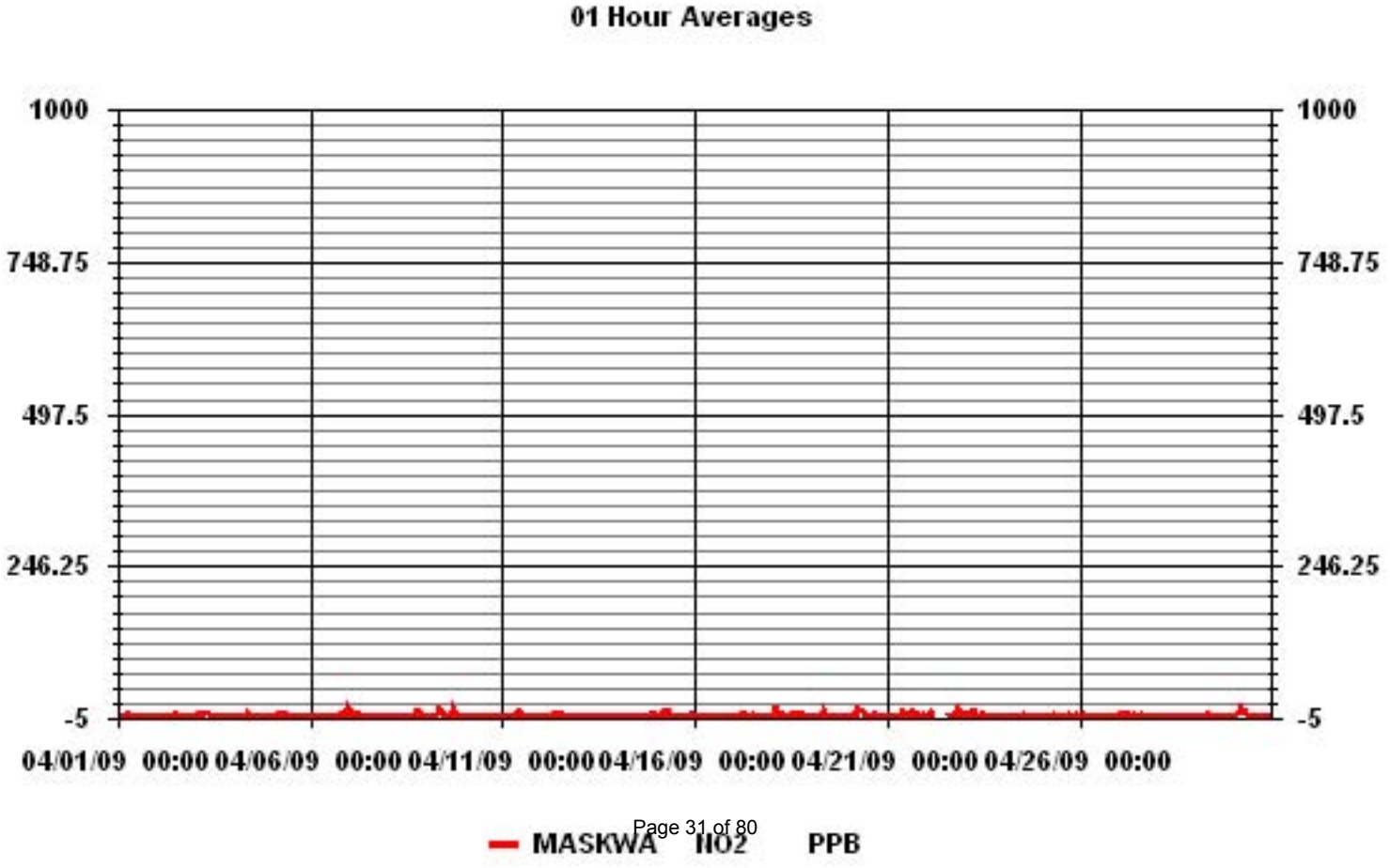
S	- OUT OF SERVICE	IZS	- IZS - DAILY ZERO/SPAN CHECK
N	- INVALID DATA	M	- MAINTENANCE
D	- INSTRUMENT DRIFT	P	- POWER FAILURE
C	- CALIBRATION	NA	- NOT APPLICABLE



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:	169					
MAXIMUM 1-HR AVERAGE:	14	PPB	@ HOUR(S)	2	ON DAY(S)	18
MAXIMUM 24-HR AVERAGE:	2.4	PPB			ON DAY(S)	20
IZS CALIBRATION TIME:	30	HRS	OPERATIONAL TIME:		720	HRS
MONTHLY CALIBRATION TIME:	8	HRS	AMD OPERATION UPTIME:		100.0	%
STANDARD DEVIATION:	2.01		MONTHLY AVERAGE:		0.83	PPB


01 Hour Averages
1000
748.75
497.5
246.25
-5
04/01/09 00:00
04/06/09 00:00
04/11/09 00:00
04/16/09 00:00
04/21/09 00:00
04/26/09 00:00
MASKWA NO2 PPB

MASKWA
NO2 / WD Joint Frequency Distribution (Percent)

April 2009

Distribution By % Of Samples

Logger Id : 03
Site Name : MASKWA
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	6.45	6.74	11.58	11.43	6.89	7.47	7.62	6.45	4.10	7.62	6.01	2.34	3.07	4.83	3.07	4.25	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	6.45	6.74	11.58	11.43	6.89	7.47	7.62	6.45	4.10	7.62	6.01	2.34	3.07	4.83	3.07	4.25	

Calm : .00 %

Total # Operational Hours : 682

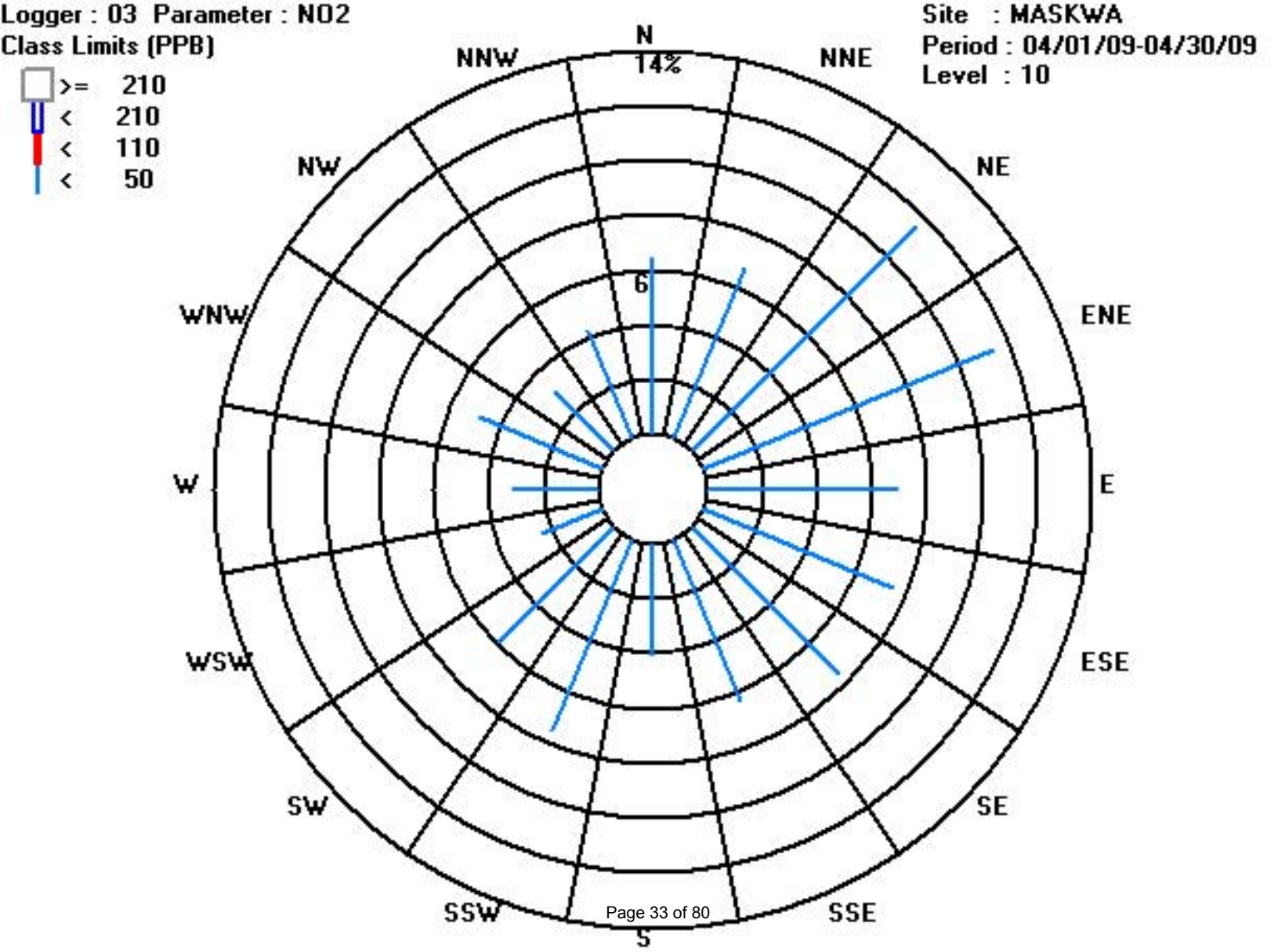
Distribution By Samples

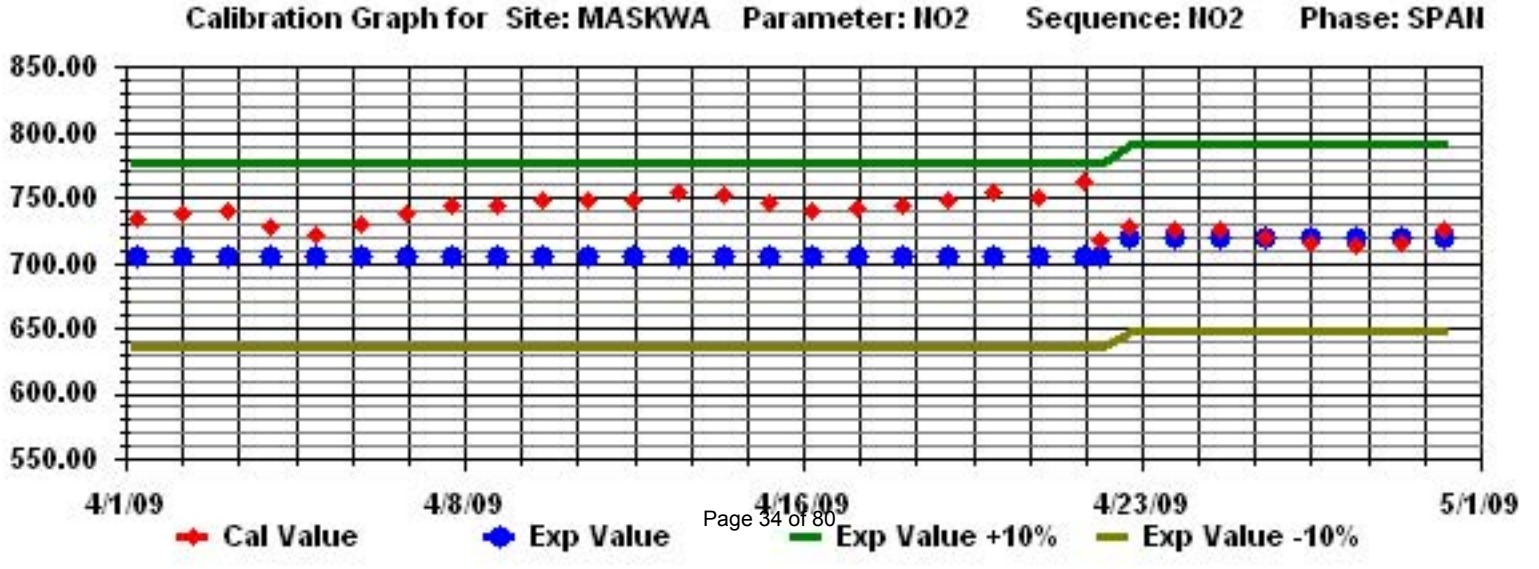
Direction

Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
< 50	44	46	79	78	47	51	52	44	28	52	41	16	21	33	21	29	682
< 110																	
< 210																	
>= 210																	
Totals	44	46	79	78	47	51	52	44	28	52	41	16	21	33	21	29	

Calm : .00 %

Total # Operational Hours : 682


Logger : 03 Parameter : NO2
Class Limits (PPB)
>= 210
< 210
< 110
< 50
Site : MASKWA
Period : 04/01/09-04/30/09
Level : 10
N
14%
NNE
NE
ENE
E
ESE
SE
SSE
S
SSW
SW
WSW
W
WNW
NW
NNW
6


Calibration Graph for Site: MASKWA Parameter: NO2 Sequence: NO2 Phase: SPAN
850.00
800.00
750.00
700.00
650.00
600.00
550.00
4/1/09
4/8/09
4/16/09
4/23/09
5/1/09
Cal Value
Exp Value
Exp Value +10%
Exp Value -10%

Nitric Oxide

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - *MASKWA*

APRIL 2009

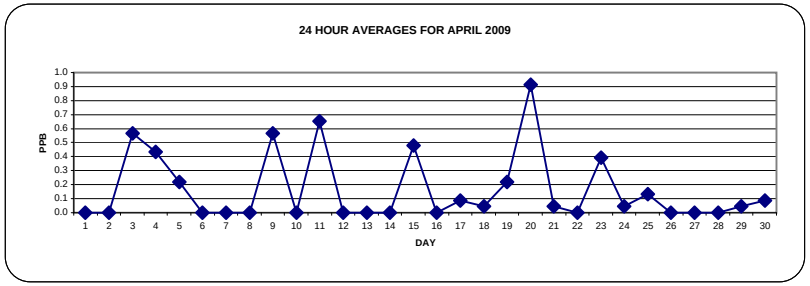
NITRIC OXIDE hourly averages in ppb

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	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
2	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
3	0	0	0	0	0	**IZS**	3	3	5	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0.6	24
4	0	0	0	0	0	**IZS**	0	0	1	5	4	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0.4	24
5	0	0	0	0	0	**IZS**	1	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.2	24
6	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
7	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
8	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
9	0	0	0	0	0	**IZS**	0	0	2	3	2	2	1	1	0	0	0	2	0	0	0	0	0	0	3	0.6	24
10	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
11	0	0	0	0	0	**IZS**	0	0	5	4	5	1	0	0	0	0	0	0	0	0	0	0	0	0	5	0.7	24
12	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
13	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
14	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
15	0	0	0	0	0	**IZS**	**9**	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**9**	0.5	24
16	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
17	0	0	0	0	0	**IZS**	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1	24
18	0	0	0	0	0	**IZS**	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0.0	24
19	0	0	0	0	0	**IZS**	0	0	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.2	24
20	0	0	0	0	0	**IZS**	6	**9**	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**9**	**0.9**	24
21	0	0	0	0	0	**IZS**	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0.0	24
22	0	0	0	0	0	**IZS**	0	**C**	**C**	**C**	**C**	**C**	**C**	**C**	**C**	0	0	0	0	0	0	0	0	0	0	0.0	24
23	0	0	2	0	1	**IZS**	2	0	0	0	1	2	1	0	0	0	0	0	0	0	0	0	0	0	2	0.4	24
24	0	0	0	0	0	**IZS**	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0.0	24
25	0	0	0	0	0	**IZS**	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1	24
26	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
27	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
28	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
29	0	0	0	0	0	**IZS**	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.0	24
30	0	0	0	0	0	**IZS**	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1	24
HOURLY MAX	0	0	2	0	1	**NA**	9	9	5	5	5	2	1	1	0	0	1	2	0	0	0	0	0	0			
HOURLY AVG	0.0	0.0	0.1	0.0	0.0	**NA**	0.8	0.7	0.8	0.6	0.4	0.2	0.1	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0			

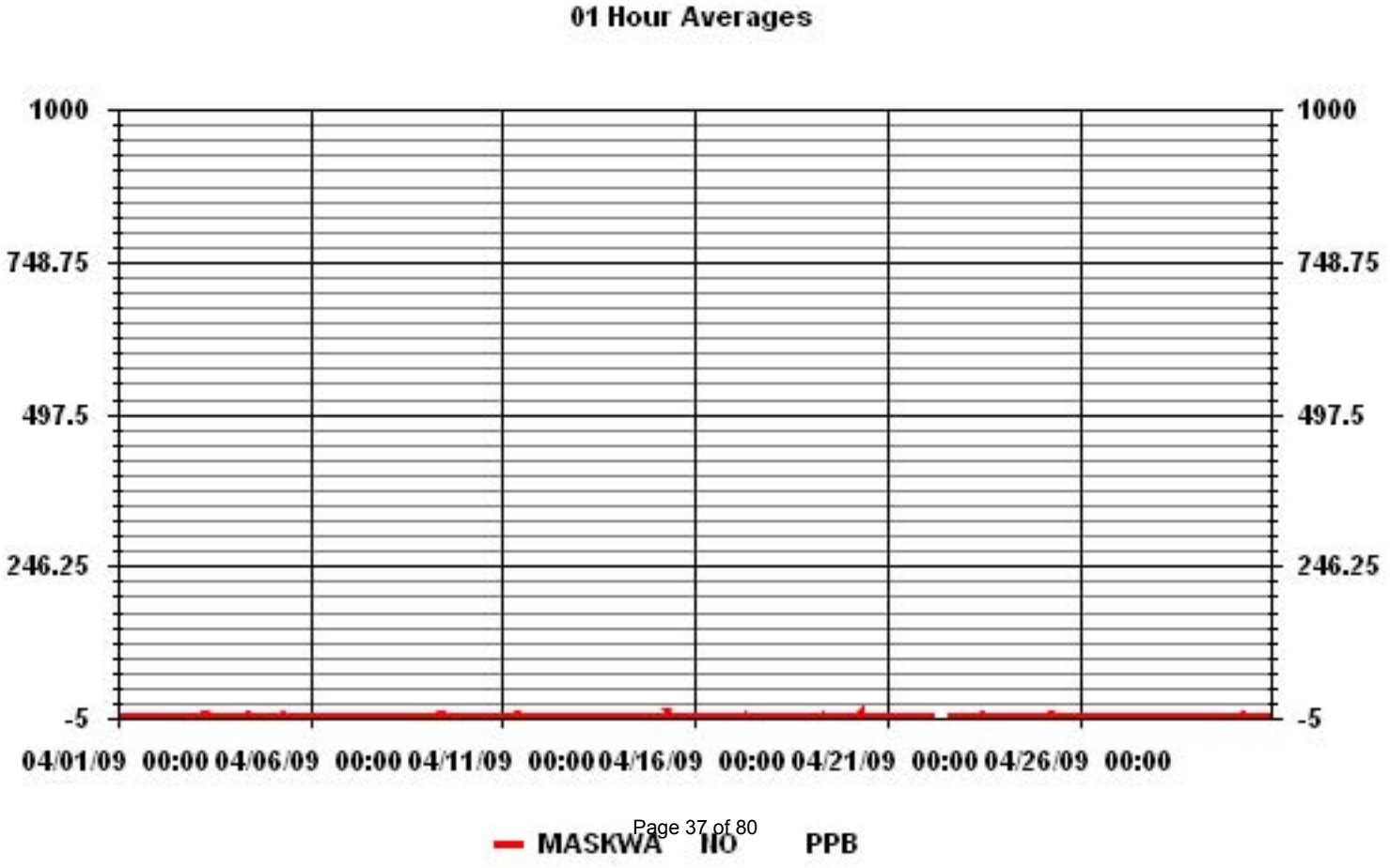
STATUS FLAG CODES

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



MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	46						
MAXIMUM 1-HR AVERAGE:	9	PPB	@ HOUR(S)	6, 7	ON DAY(S)	15, 20	
MAXIMUM 24-HR AVERAGE:	0.9	PPB			ON DAY(S)	20	
IZS CALIBRATION TIME:	30	HRS	OPERATIONAL TIME:		720	HRS	
MONTHLY CALIBRATION TIME:	8	HRS	AMD OPERATION UPTIME:		100.0	%	
STANDARD DEVIATION:	0.80		MONTHLY AVERAGE:		0.17	PPB	


01 Hour Averages
1000
748.75
497.5
246.25
-5
04/01/09 00:00
04/06/09 00:00
04/11/09 00:00
04/16/09 00:00
04/21/09 00:00
04/26/09 00:00
MASKWA NO PPB

MASKWA
NO / WD Joint Frequency Distribution (Percent)

April 2009

Distribution By % Of Samples

Logger Id : 03
Site Name : MASKWA
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	6.45	6.74	11.58	11.43	6.89	7.47	7.62	6.45	4.10	7.62	6.01	2.34	3.07	4.83	3.07	4.25	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	6.45	6.74	11.58	11.43	6.89	7.47	7.62	6.45	4.10	7.62	6.01	2.34	3.07	4.83	3.07	4.25	

Calm : .00 %

Total # Operational Hours : 682

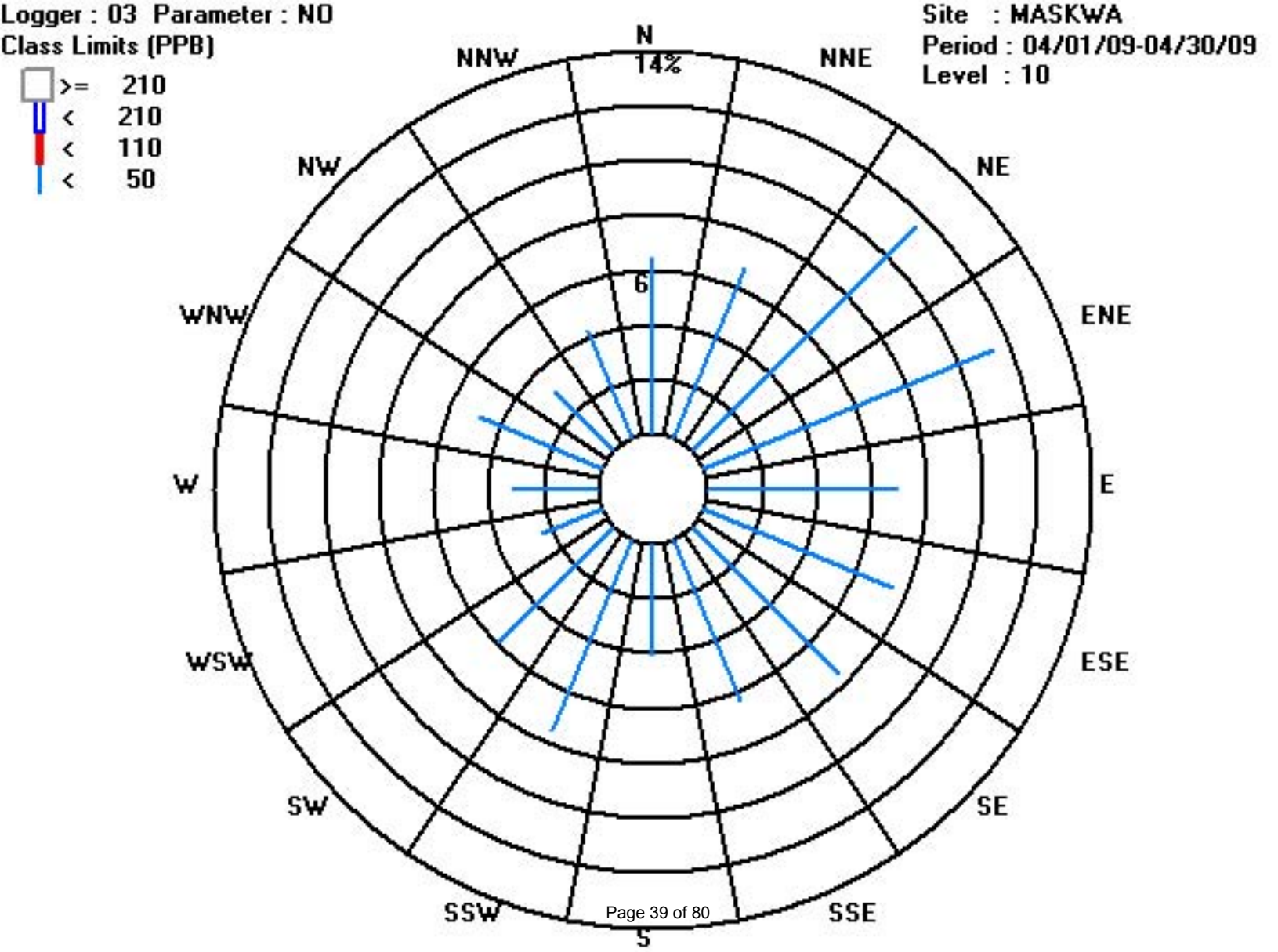
Distribution By Samples

Direction

	Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
<	50	44	46	79	78	47	51	52	44	28	52	41	16	21	33	21	29	682
<	110																	
<	210																	
>=	210																	
	Totals	44	46	79	78	47	51	52	44	28	52	41	16	21	33	21	29	

Calm : .00 %

Total # Operational Hours : 682


Logger : 03 Parameter : NO
Class Limits (PPB)
>= 210
< 210
< 110
< 50
Site : MASKWA
Period : 04/01/09-04/30/09
Level : 10
N
14%
NNE
NE
ENE
E
ESE
SE
SSE
S
SSW
SW
WSW
W
WNW
NW
NNW
6

Oxides of Nitrogen

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - *MASKWA*

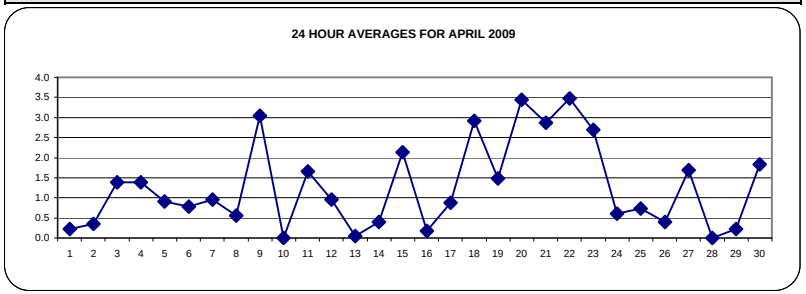
APRIL 2009

OXIDES OF NITROGEN hourly averages in ppb

HOUR START	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY	24-HOUR	
HOUR END	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	MAX.	AVG.	RDGS.
DAY																											
1	0	0	0	0	0	**IZS**	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.2	24
2	0	0	0	0	0	**IZS**	0	0	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0	4	0.3	24
3	0	0	0	1	2	**IZS**	5	6	10	6	1	0	0	0	0	0	0	0	0	0	0	0	1	0	10	1.4	24
4	2	0	0	0	0	**IZS**	3	0	3	12	10	2	0	0	0	0	0	0	0	0	0	0	0	0	12	1.4	24
5	0	0	0	3	4	**IZS**	3	7	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0.9	24
6	0	0	0	0	0	**IZS**	0	0	0	1	0	0	0	0	0	1	0	0	0	2	1	0	0	13	13	0.8	24
7	9	8	2	0	0	**IZS**	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	1.0	24
8	0	0	0	0	1	**IZS**	1	1	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0	10	0.6	24
9	0	0	0	0	0	**IZS**	0	2	13	13	7	6	2	2	0	0	0	14	6	2	3	0	0	0	14	3.0	24
10	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
11	0	0	0	0	0	**IZS**	0	1	10	9	13	4	1	0	0	0	0	0	0	0	0	0	0	0	13	1.7	24
12	0	0	0	0	0	**IZS**	2	4	4	1	0	3	6	2	0	0	0	0	0	0	0	0	0	0	6	1.0	24
13	0	0	0	0	0	**IZS**	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.0	24
14	0	0	0	0	0	**IZS**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	1	2	3	0.4	24
15	1	2	1	3	4	**IZS**	**20**	6	1	3	0	0	0	0	0	0	0	0	0	0	0	0	3	5	**20**	2.1	24
16	0	0	0	0	0	**IZS**	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.2	24
17	0	0	0	0	0	**IZS**	3	4	4	1	0	0	5	3	0	0	0	0	0	0	0	0	0	0	5	0.9	24
18	0	5	16	6	4	**IZS**	5	1	1	0	0	0	2	2	4	2	7	5	2	2	1	1	1	0	16	2.9	24
19	1	0	0	0	0	**IZS**	0	4	16	7	0	0	0	0	1	4	0	0	1	0	0	0	0	0	16	1.5	24
20	0	0	0	1	2	**IZS**	17	**20**	13	13	2	0	1	0	2	1	5	0	0	0	0	0	2	0	**20**	3.4	24
21	0	0	0	0	0	**IZS**	0	0	0	8	9	6	4	7	5	9	4	7	4	0	0	0	3	0	9	2.9	24
22	0	0	6	0	0	**IZS**	7	**C**	**C**	**C**	**C**	**C**	**C**	**C**	**C**	0	3	6	3	12	3	0	9	3	12	**3.5**	24
23	2	5	8	5	10	**IZS**	11	3	0	0	3	7	4	2	2	0	0	0	0	0	0	0	0	0	11	2.7	24
24	0	0	0	0	0	**IZS**	0	0	0	0	2	3	4	3	2	0	0	0	0	0	0	0	0	0	4	0.6	24
25	0	0	0	0	0	**IZS**	0	3	2	1	1	0	0	0	0	1	1	2	2	0	0	1	2	1	3	0.7	24
26	1	1	3	2	1	**IZS**	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.4	24
27	0	3	5	7	7	**IZS**	3	1	1	0	2	3	1	1	4	1	0	0	0	0	0	0	0	0	7	1.7	24
28	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
29	0	0	0	0	0	**IZS**	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0.2	24
30	0	1	2	3	14	**IZS**	12	8	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	14	1.8	24
HOURLY MAX	9	8	16	7	14	**NA**	20	20	16	13	13	7	6	7	5	9	7	14	6	12	3	3	9	13			
HOURLY AVG	0.5	0.8	1.4	1.0	1.6	**NA**	3.4	2.6	2.9	2.6	1.8	1.2	1.2	0.9	0.7	0.6	0.7	1.1	0.6	0.9	0.4	0.2	0.7	0.8			

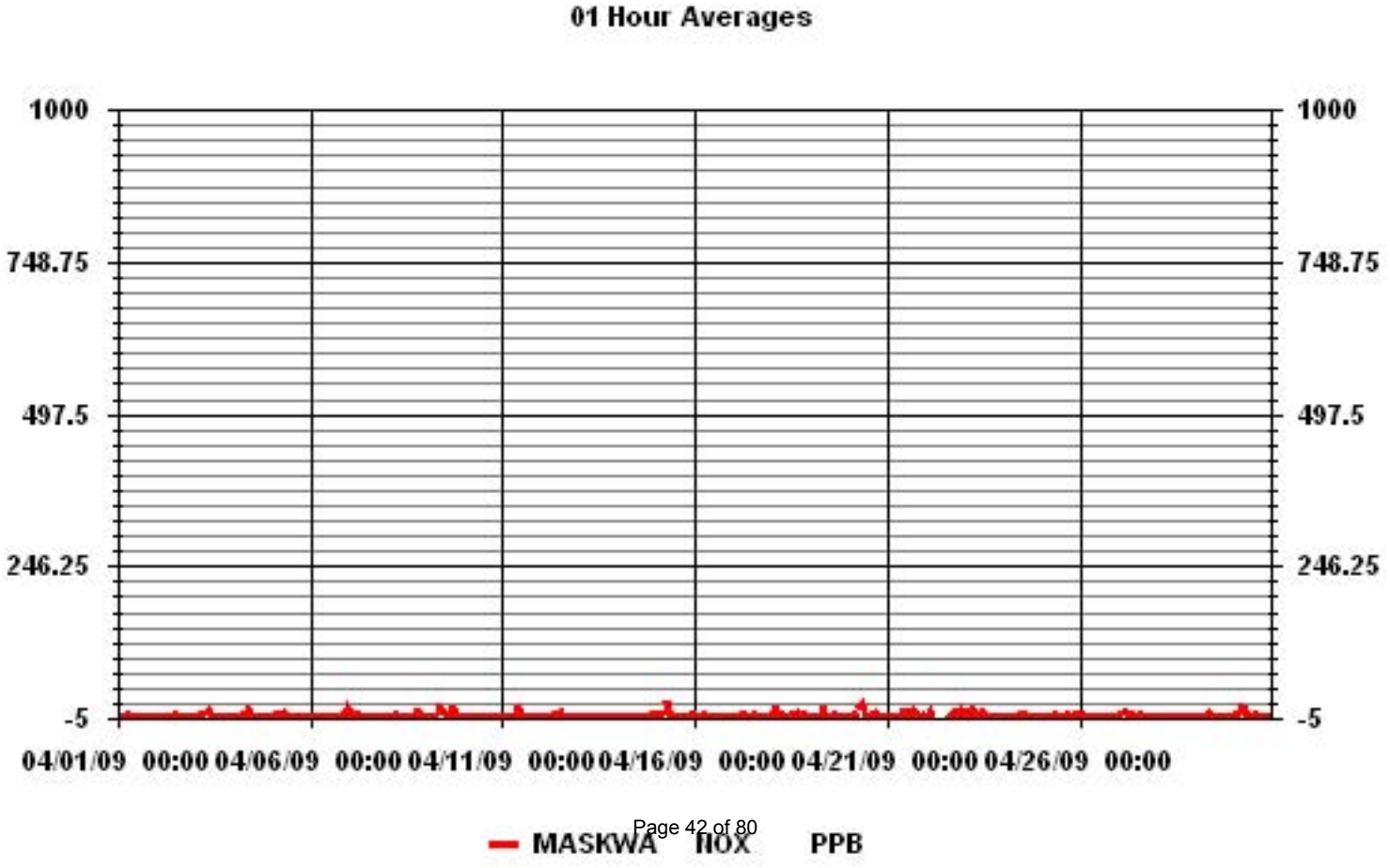
STATUS FLAG CODES

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



MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	199						
MAXIMUM 1-HR AVERAGE:	20	PPB	@ HOUR(S)	6, 7	ON DAY(S)	15, 20	
MAXIMUM 24-HR AVERAGE:	3.5	PPB			ON DAY(S)	22	
IZS CALIBRATION TIME:	30	HRS	OPERATIONAL TIME:		720	HRS	
MONTHLY CALIBRATION TIME:	8	HRS	AMD OPERATION UPTIME:		100.0	%	
STANDARD DEVIATION:	2.86		MONTHLY AVERAGE:		1.25	PPB	


01 Hour Averages
1000
748.75
497.5
246.25
-5
04/01/09 00:00
04/06/09 00:00
04/11/09 00:00
04/16/09 00:00
04/21/09 00:00
04/26/09 00:00
MASKWA NOX PPB

MASKWA
NOX / WD Joint Frequency Distribution (Percent)

April 2009

Distribution By % Of Samples

Logger Id : 03
Site Name : MASKWA
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	6.45	6.74	11.58	11.43	6.89	7.47	7.62	6.45	4.10	7.62	6.01	2.34	3.07	4.83	3.07	4.25	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	6.45	6.74	11.58	11.43	6.89	7.47	7.62	6.45	4.10	7.62	6.01	2.34	3.07	4.83	3.07	4.25	

Calm : .00 %

Total # Operational Hours : 682

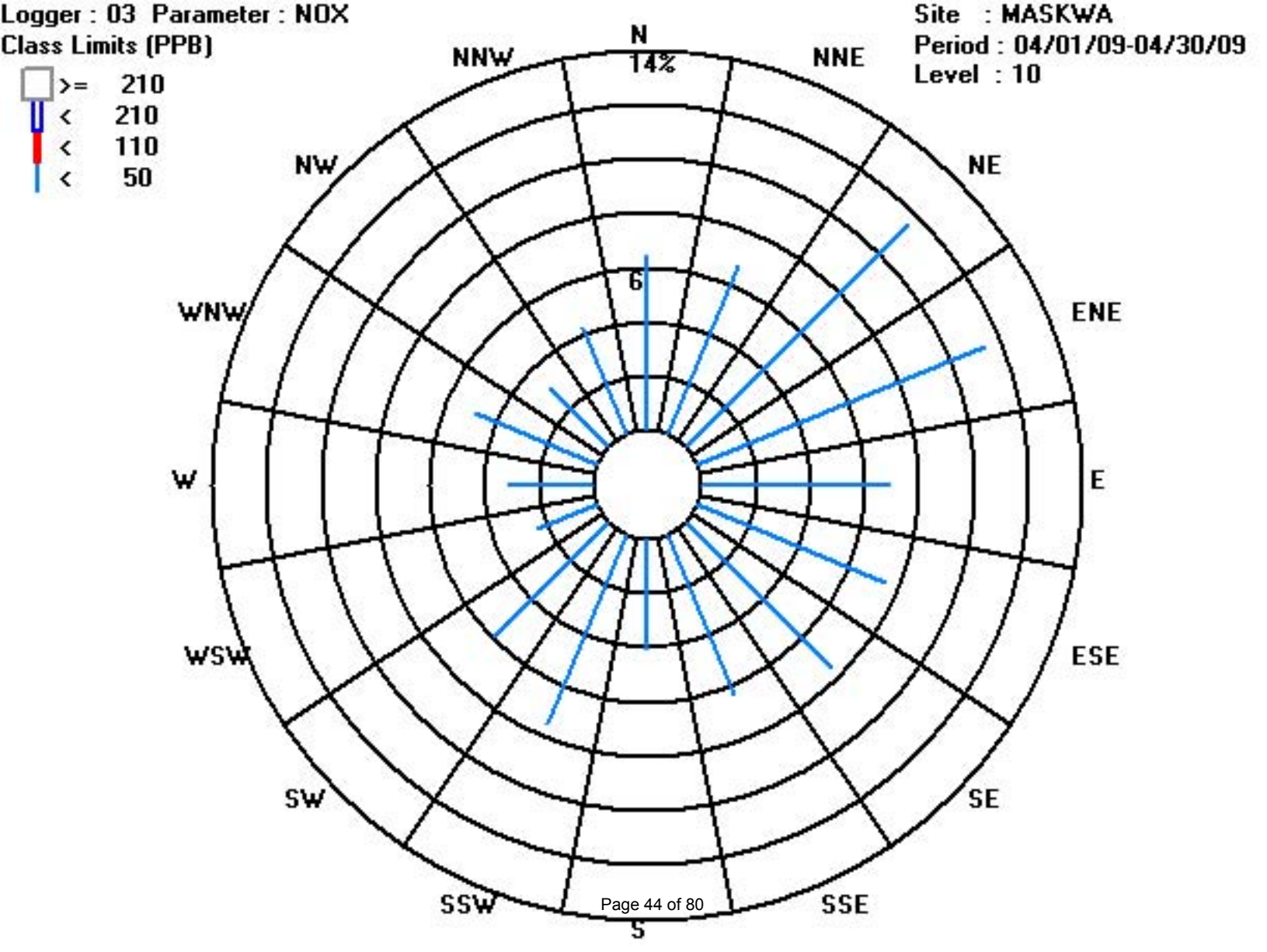
Distribution By Samples

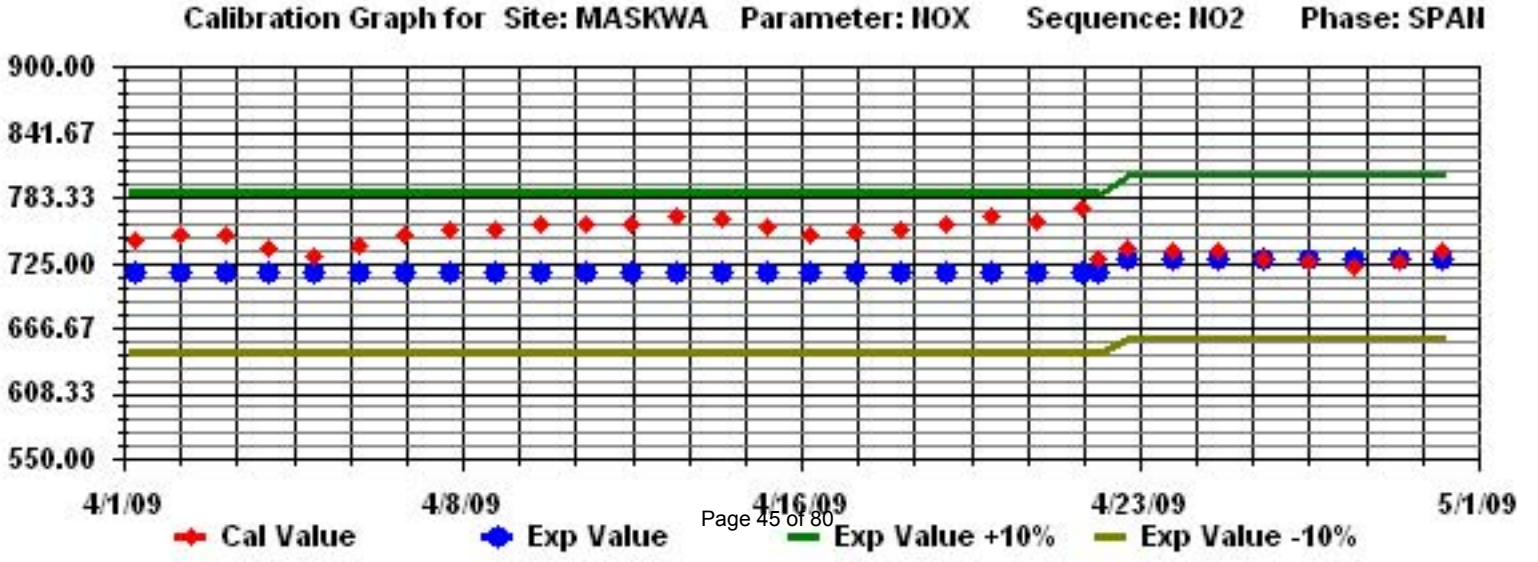
Direction

Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
< 50	44	46	79	78	47	51	52	44	28	52	41	16	21	33	21	29	682
< 110																	
< 210																	
>= 210																	
Totals	44	46	79	78	47	51	52	44	28	52	41	16	21	33	21	29	

Calm : .00 %

Total # Operational Hours : 682


Logger : 03 Parameter : NOX
Class Limits (PPB)
>= 210
< 210
< 110
< 50
Site : MASKWA
Period : 04/01/09-04/30/09
Level : 10
N
14%
NNE
NE
ENE
E
ESE
SE
SSE
S
SSW
SW
WSW
W
WNW
NW
NNW
6


Calibration Graph for Site: MASKWA Parameter: NOX Sequence: NO2 Phase: SPAN
900.00
841.67
783.33
725.00
666.67
608.33
550.00
4/1/09
4/8/09
4/16/09
4/23/09
5/1/09
Cal Value
Exp Value
Exp Value +10%
Exp Value -10%

Temperature

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - *MASKWA*

APRIL 2009

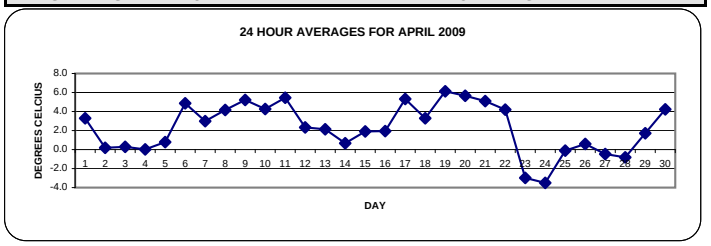
AMBIENT TEMPERATURE hourly averages (Degrees C)

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	2.2	1.9	0.4	0.2	0.3	0	0	0.7	2.5	4.1	5.1	6.9	8.3	7.6	7.9	6.4	6.2	5.2	4	2.3	2.1	1.3	2	1.4	8.3	3.3	24
2	0.4	-0.2	-0.7	-0.9	-1.9	-2.2	-1.5	-0.4	0.1	1.8	3.5	4.9	5.8	5.4	5.3	1.5	0.8	0.2	0	-1.7	-2.7	-3.4	-4.4	-5.2	5.8	0.2	24
3	-5.6	-6.6	-7.5	-8.3	-9.1	-10	-9.7	-4.9	1.8	7.9	8.1	8.8	8.7	7.6	6.9	7.3	6.9	5.9	3.1	1.5	0.3	-1.6	-2.5	-2.1	8.8	0.3	24
4	-4.3	-5.9	-6.9	-7.7	-8.7	-9.1	-8.1	-3.6	1.2	5.3	7.8	8.6	8.2	7.7	7	6.4	6.2	5.5	3.4	0.1	-1	-2.5	-4.2	-4.9	8.6	0.0	24
5	-5.9	-6.8	-8	-8.5	-9.2	-9.5	-7.9	-2.8	3.3	5.3	6.4	7.3	7.5	7.2	7.2	6.9	7.1	6.3	4.6	3.4	2.3	1.2	0.7	0.8	7.5	0.8	24
6	1.1	0.8	0.8	0.9	0.6	0.6	0.8	1.4	2.3	4.4	7	8	8.1	8.3	8.7	10	11.8	11.7	8	6.1	4.6	3.6	3.7	3.5	11.8	4.9	24
7	2.5	0.9	-0.1	-2	-2.8	-3.3	-2	1.7	2.9	5.1	7.6	10.4	9.4	9.2	7.8	8.5	7.7	7.5	6.4	2.3	-0.4	-1.7	-2.8	-3.1	10.4	3.0	24
8	-3	-2.1	-1.8	-2.5	-3.2	-3.4	-1.3	1.4	5.9	6.7	7.7	9	9.6	9.6	9.7	9.6	8.7	7.8	6.7	5.7	5.2	5	4.8	4.1	9.7	4.2	24
9	3.2	2.8	2.5	2	1.8	1.6	1.4	2.8	3.9	5.1	5.9	7.2	8.2	9.2	9.7	9.5	10.1	8.4	7.6	6.3	5.1	4.3	3.7	3	10.1	5.2	24
10	2.8	2.7	2.5	2.2	1.6	1.9	2.6	4.4	6.2	7.1	8	8.6	9.5	7.9	5.7	5.6	6.6	7.3	6	4.4	1.7	0	-1.3	-1.7	9.5	4.3	24
11	-1.8	-2	-2.3	-2.8	-3.1	-3.5	-2.7	0.7	8.1	9.8	11.5	13.3	13.7	14	13.8	13.9	**14.3**	14.2	11.6	6.2	2.5	0.9	0.5	0	**14.3**	5.5	24
12	-0.1	-0.1	-0.3	-0.7	-0.8	-0.2	1.2	2.1	2.8	4.1	4.3	4.6	4.6	5.2	5.6	6.3	6.5	7.3	6.5	2.8	0.8	-1.5	-2.3	-2.8	7.3	2.3	24
13	-3.2	-3.5	-4	-3.8	-4.1	-4.3	-2.8	-0.9	1.1	4.4	7.4	7.9	9	8.1	7.1	6.4	5.1	4.1	3.8	3	2.4	2.5	2.8	2.7	9.0	2.1	24
14	2.4	2.1	1.9	1.7	1.5	1.2	0.9	0.5	0.5	0.6	0.6	1.1	1.5	1	0.5	0.7	0.9	1.4	0.9	0.1	-1	-1.4	-1.7	-2	2.4	0.7	24
15	-2.4	-2.8	-3.7	-4.2	-4.4	-4.6	-1.9	1.8	3.6	5.5	6.2	6.5	6.9	7	7.2	7.3	7.7	7.7	6.5	3.4	0.3	-1.7	-2.8	-3.3	7.7	1.9	24
16	-3.5	-3.9	-4.8	-5.4	-5.7	-5.9	-3.1	0	3.2	5.2	6.3	7.1	8.1	9.2	9	9.3	9.3	8.4	7.3	3.9	0.4	-1.5	-2.7	-3.6	9.3	1.9	24
17	-3.9	-3.8	-4.6	-5.2	-6.1	-5.5	-1.5	2.1	6	8.6	9.8	10.5	11.1	12.4	12.9	12.7	11.8	11.6	10	9.1	8.6	7.7	6.8	6.6	12.9	5.3	24
18	6	4.7	3.9	3.1	2.5	2.3	2.5	2.5	2.8	3.4	3.4	3.8	3	2.2	3.1	4.3	5.1	4.5	4.2	3.7	3.5	3	1.9	-0.4	6.0	3.3	24
19	-0.8	-1	-1.3	-1	-1.2	-1.1	2.3	5.2	8.4	10.4	11.6	12.9	13.2	13.3	13.8	13.2	13.3	13.1	11.9	7.1	3.5	1.1	0.1	-0.9	13.8	**6.1**	24
20	-1.6	-2.1	-2.3	-3.1	-3.3	-2.8	0	3	7.4	11.4	12.5	12.9	13.1	13	13.3	13.4	13.2	12.3	11.2	7.6	4.1	2.2	0.5	-0.1	13.4	5.7	24
21	-0.5	0	0.6	1	0.9	1.2	1.9	3	3.9	5.4	6.3	6.5	7.4	8.8	9.8	9.5	9.6	9.1	8	6.5	6.8	7.2	5.5	3.9	9.8	5.1	24
22	3.7	4.3	4.7	3.3	1.2	2.9	3.5	4.2	5.7	5.4	6	7.4	7.3	7.3	6.7	7	6.1	6.4	5.3	3.3	1.5	0	-1	-1.4	7.4	4.2	24
23	-1.8	-3.1	-4.5	-5.2	-6	-6.7	-6.5	-5.5	-4.2	-2	-1	-0.8	-0.1	0	0.3	-0.1	-0.9	-0.9	-2	-2.7	-3.1	-4	-4.8	-5.9	0.3	-3.0	24
24	-7	-6.8	-7.7	-8.1	-8.4	-8	-5.8	-3.7	-1.2	-0.6	-1.7	0.2	-2.1	-0.7	0	0.7	0.7	1.3	0.7	-1.6	-3.9	-5.4	-6.9	-8.1	1.3	-3.5	24
25	-9.3	-10.1	-10.5	-10.7	**-11.2**	-9.6	-6.3	-2.2	2.8	4	5.1	6.4	6	6.3	6.8	7.5	6.8	7.2	5.5	3.7	1.9	-0.1	-1	-1.7	7.5	-0.1	24
26	-3.2	-4.1	-3.9	-3.2	-3.4	-3.6	-0.2	1.6	4.1	4.6	4.5	4.8	4.7	4.6	4.7	4.6	5	4.1	2.5	1.1	-1.8	-3.8	-4.4	-5.2	5.0	0.6	24
27	-6	-6.7	-7.1	-7.2	-7	-5.8	-2	-0.9	2.4	3.2	3.2	0.8	4.4	2.1	2.5	3.4	4.5	4.2	3.1	1.6	0.9	-0.7	-1.6	-2.6	4.5	-0.5	24
28	-3.5	-4.3	-5	-6.1	-7.9	-7	-4	-2.3	-0.5	0.7	2.1	3	4.1	4.7	5.2	4.6	5.1	4.5	3.3	0.7	-2.3	-4	-5	-5.8	5.2	-0.8	24
29	-7	-7.7	-8.8	-9.4	-9.5	-7.9	-2.9	1.5	4.5	5.3	6.4	7.8	8.7	9.4	10.1	9.8	10.2	9.7	8.9	5.2	1.5	0.8	-1.9	-3.6	10.2	1.7	24
30	-3.8	-4.2	-4.4	-4.5	-4	-1.9	1.1	4.1	7	8.9	8.4	9.3	9.7	11	11.3	11.4	11	10	10.1	7.3	4.7	2	-0.8	-2.2	11.4	4.2	24
HOURLY MAX	6.0	4.7	4.7	3.3	2.5	2.9	3.5	5.2	8.4	11.4	12.5	13.3	13.7	14.0	13.8	13.9	14.3	14.2	11.9	9.1	8.6	7.7	6.8	6.6			
HOURLY AVG	-1.8	-2.3	-2.8	-3.2	-3.7	-3.5	-1.7	0.6	3.3	5.0	6.0	6.9	7.3	7.3	7.3	7.3	7.2	6.9	5.6	3.4	1.6	0.3	-0.6	-1.4			

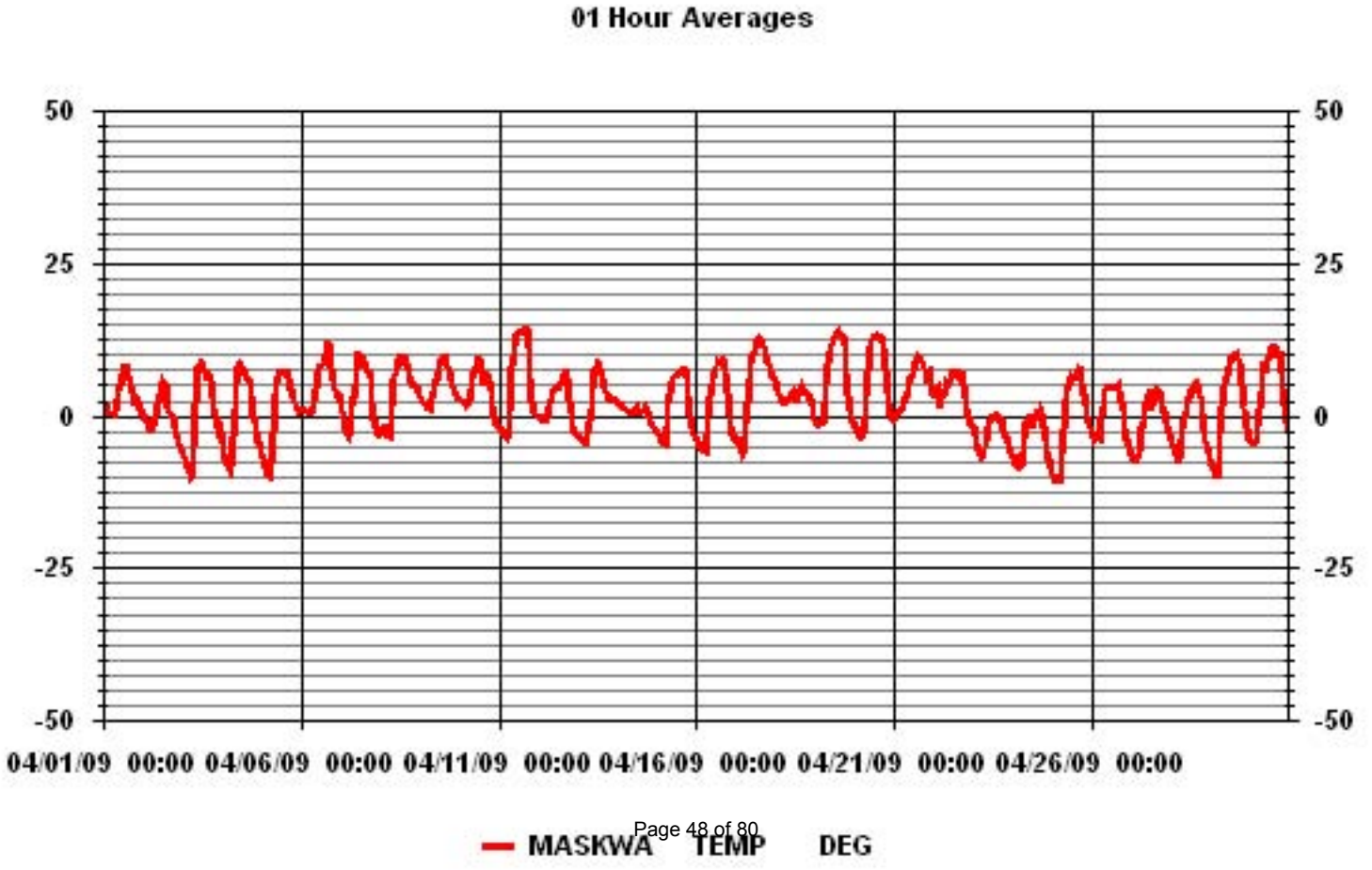
STATUS FLAG CODES

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



MONTHLY SUMMARY

MINIMUM 1-HR AVERAGE:	-11.2	^{o}C	@ HOUR(S)	4	ON DAY(S)	25	
MAXIMUM 1-HR AVERAGE:	14.3	^{o}C	@ HOUR(S)	16	ON DAY(S)	11	
MAXIMUM 24-HR AVERAGE:	6.1	^{o}C			ON DAY(S)	19	
CALIBRATION TIME:	0	HRS	OPERATIONAL TIME:		720	HRS	
			AMD OPERATION UPTIME:		100.0	%	
STANDARD DEVIATION:	5.40		MONTHLY AVERAGE:		2.29	^{o}C	


01 Hour Averages
50
25
0
-25
-50
04/01/09 00:00
04/06/09 00:00
04/11/09 00:00
04/16/09 00:00
04/21/09 00:00
04/26/09 00:00
MASKWA TEMP DEG

Precipitation

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - *MASKWA*

APRIL 2009

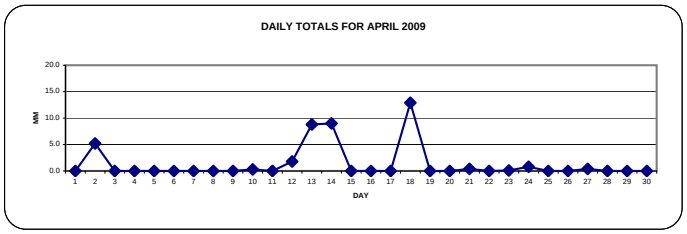
PRECIPITATION hourly averages (mm)

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	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.	TOTAL	RDGS.
DAY																											
1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0	24
2	0	0.1	0	0.7	0	0	0	0.1	0	0	0	0	0	0	0	0.8	2.4	1.1	0	0	0	0	0	0	2.4	5.2	24
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	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	0	0	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	0	0	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	0	0	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	0	0	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	0	0	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	0	0	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	0.3	0	0	0	0	0	0	0	0	0	0.3	0.3	24
11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0	24
12	0	0	0	0	0	0	0	0	0.1	0.1	0	0.1	1.4	0.1	0	0	0	0	0	0	0	0	0	0	1.4	1.8	24
13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**5.6**	3.2	0	0	0	**5.6**	8.8	24
14	0	0	0.3	0.8	1.2	0.3	0.5	0.5	1.3	0.7	1.1	0.4	0	0.3	0.9	0.5	0.2	0	0	0	0	0	0	0	1.3	9.0	24
15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0	24
16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0	24
17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0	24
18	0	0	0	0.6	0.2	0.6	1.3	0.7	1.2	1.5	0.2	1.3	2.6	2	0.6	0.1	0	0	0	0	0	0	0	0	2.6	**12.9**	24
19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0	24
20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0	24
21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0	0.4	0.4	24
22	0	0	0	0	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
23	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.1	24
24	0	0	0	0	0	0	0	0	0	0	0	0	0.8	0	0	0	0	0	0	0	0	0	0	0	0.8	0.8	24
25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0	24
26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0	24
27	0	0	0	0	0	0	0	0.1	0	0	0	0.1	0	0.2	0	0	0	0	0	0	0	0	0	0	0.2	0.4	24
28	0	0	0	0	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
29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0	24
30	0	0	0	0	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
HOURLY MAX	0.1	0.1	0.3	0.8	1.2	0.6	1.3	0.7	1.3	1.5	1.1	1.3	2.6	2.0	0.9	0.8	2.4	1.1	0.0	5.6	3.2	0.0	0.4	0.0			

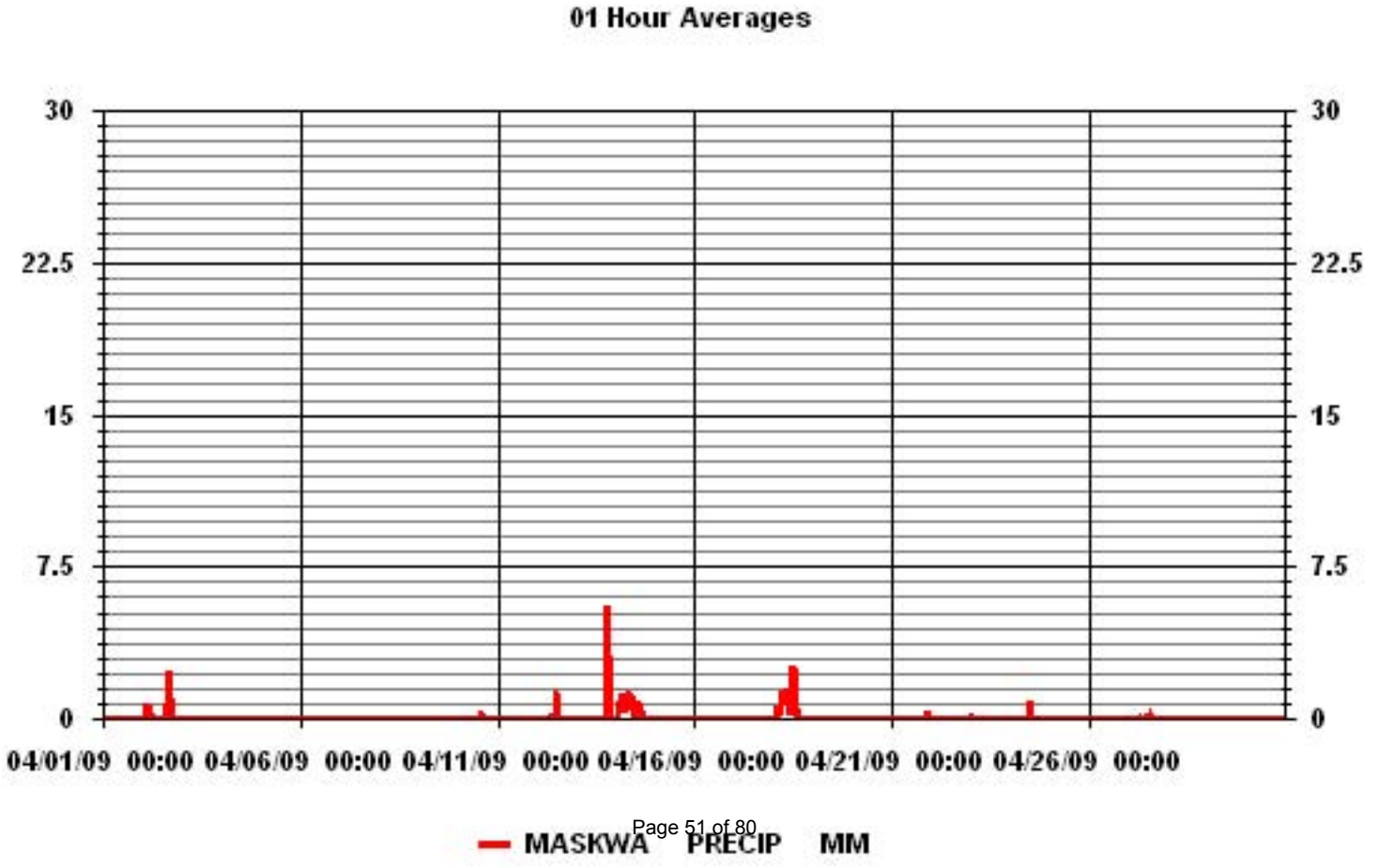
STATUS FLAG CODES

S	- OUT OF SERVICE	IZS	- IZS - DAILY ZERO/SPAN CHECK
N	- INVALID DATA	M	- MAINTENANCE
D	- INSTRUMENT DRIFT	P	- POWER FAILURE
C	- CALIBRATION	MD	-MISSING DATA



MONTHLY SUMMARY

MAXIMUM 1-HR AVERAGE:	5.6	MM	HOUR(S)	19	ON DAY(S)	13
MAXIMUM DAILY TOTAL	12.9	MM			ON DAY(S)	18
MONTHLY TOTAL	39.7	MM				
CALIBRATION TIME:	0	HRS	OPERATIONAL TIME:		720	HRS
			AMD OPERATION UPTIME:		100.0	%
STANDARD DEVIATION:	0.33		MONTHLY AVERAGE:		0.06	MM


01 Hour Averages
30
22.5
15
7.5
0
04/01/09 00:00
04/06/09 00:00
04/11/09 00:00
04/16/09 00:00
04/21/09 00:00
04/26/09 00:00
MASKWA PRECIP MM

Relative Humidity

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - *MASKWA*

APRIL 2009

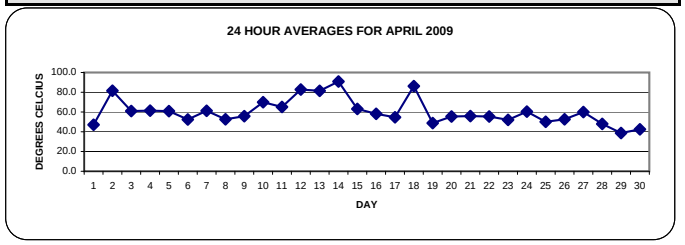
RELATIVE HUMIDITY hourly averages (%)

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	54	55	73	77	77	70	56	50	47	40	32	28	25	27	26	29	31	34	36	42	48	58	54	61	77	47.1	24
2	77	84	88	88	90	90	90	87	85	78	70	64	56	54	55	82	89	90	90	91	91	90	89	89	91	81.5	24
3	88	87	86	86	85	84	84	86	80	56	44	41	41	36	32	29	32	35	43	52	57	65	68	66	88	61.0	24
4	75	81	83	84	85	85	82	71	58	48	41	39	39	37	35	37	35	38	50	64	69	74	81	82	85	61.4	24
5	83	85	85	84	85	85	83	71	55	47	43	40	39	38	38	41	41	44	50	58	65	68	68	65	85	60.9	24
6	62	62	61	61	62	62	62	61	58	52	46	43	44	44	44	41	36	36	48	55	61	58	49	50	62	52.4	24
7	54	60	63	71	75	77	75	70	73	61	49	40	41	42	46	44	46	46	49	63	75	81	84	84	84	61.2	24
8	83	80	78	80	82	81	75	67	47	45	40	37	35	33	31	30	31	34	39	43	44	46	49	53	83	52.6	24
9	58	61	64	66	67	68	71	62	56	51	49	48	46	45	44	44	42	45	47	51	57	62	66	69	71	55.8	24
10	69	70	70	72	74	73	70	64	58	56	54	53	50	57	74	76	71	66	73	78	84	88	89	89	89	69.9	24
11	90	90	89	90	89	90	90	85	65	59	54	48	45	42	42	38	35	34	40	56	68	73	75	76	90	65.1	24
12	77	78	81	83	84	85	82	81	84	84	84	84	87	86	83	78	76	72	71	85	89	90	91	91	91	82.8	24
13	90	90	89	90	89	89	90	91	91	81	67	63	58	62	64	68	75	79	82	89	90	89	89	90	91	81.5	24
14	91	91	92	92	92	92	91	91	91	91	91	91	89	87	91	91	91	89	89	91	91	92	92	92	**92**	**90.9**	24
15	92	91	91	89	89	89	89	80	71	62	58	48	42	37	35	37	38	35	34	41	52	66	75	74	**92**	63.1	24
16	79	81	85	86	86	86	79	71	57	48	43	38	36	34	33	32	32	35	37	44	56	68	73	77	86	58.2	24
17	75	72	77	81	83	82	72	64	51	45	42	42	40	35	31	33	38	40	44	47	50	54	57	57	83	54.7	24
18	62	74	81	85	87	89	89	89	90	88	86	85	86	87	87	85	84	88	89	91	92	92	92	91	92	86.2	24
19	92	87	83	77	76	75	63	56	49	42	35	27	24	24	21	21	20	19	21	32	44	52	63	68	92	48.8	24
20	71	74	76	78	80	80	73	62	50	36	31	33	32	32	34	36	35	36	38	51	63	71	78	81	81	55.5	24
21	83	82	80	79	78	73	65	58	54	44	40	38	37	35	33	35	38	39	45	56	52	52	70	75	83	55.9	24
22	71	64	59	66	77	79	83	83	73	65	58	51	45	38	40	38	40	36	38	35	39	43	53	57	83	55.5	24
23	62	67	64	63	65	66	68	59	51	43	39	39	37	36	35	36	40	40	43	47	54	60	65	70	70	52.0	24
24	76	78	82	84	86	85	78	70	57	46	53	46	73	61	54	44	39	34	32	40	48	54	60	70	86	60.4	24
25	77	81	81	82	81	79	72	63	39	30	31	35	38	38	36	33	34	28	34	36	36	42	47	49	82	50.1	24
26	58	65	69	71	74	76	67	61	50	41	40	40	41	42	43	39	33	36	40	42	50	58	61	66	76	52.6	24
27	69	73	77	78	75	73	66	69	65	57	53	76	55	66	62	55	48	41	37	39	41	47	56	61	78	60.0	24
28	62	65	68	73	79	77	65	56	48	41	37	35	32	29	28	28	27	27	28	34	44	51	56	61	79	48.0	24
29	64	67	73	77	77	71	57	41	28	26	23	20	19	17	15	15	14	15	16	22	34	37	49	53	77	38.8	24
30	53	54	55	56	55	52	44	37	30	33	36	36	40	36	31	28	29	30	30	37	43	50	59	65	65	42.5	24
HOURLY MAX	92	91	92	92	92	92	91	91	91	91	91	91	89	87	91	91	91	90	90	91	92	92	92	92			
HOURLY AVG	73.2	75.0	76.8	78.3	79.5	78.8	74.4	68.5	60.4	53.2	49.0	46.9	45.7	44.6	44.1	44.1	44.0	44.0	47.1	53.7	59.6	64.4	68.6	71.1			

STATUS FLAG CODES

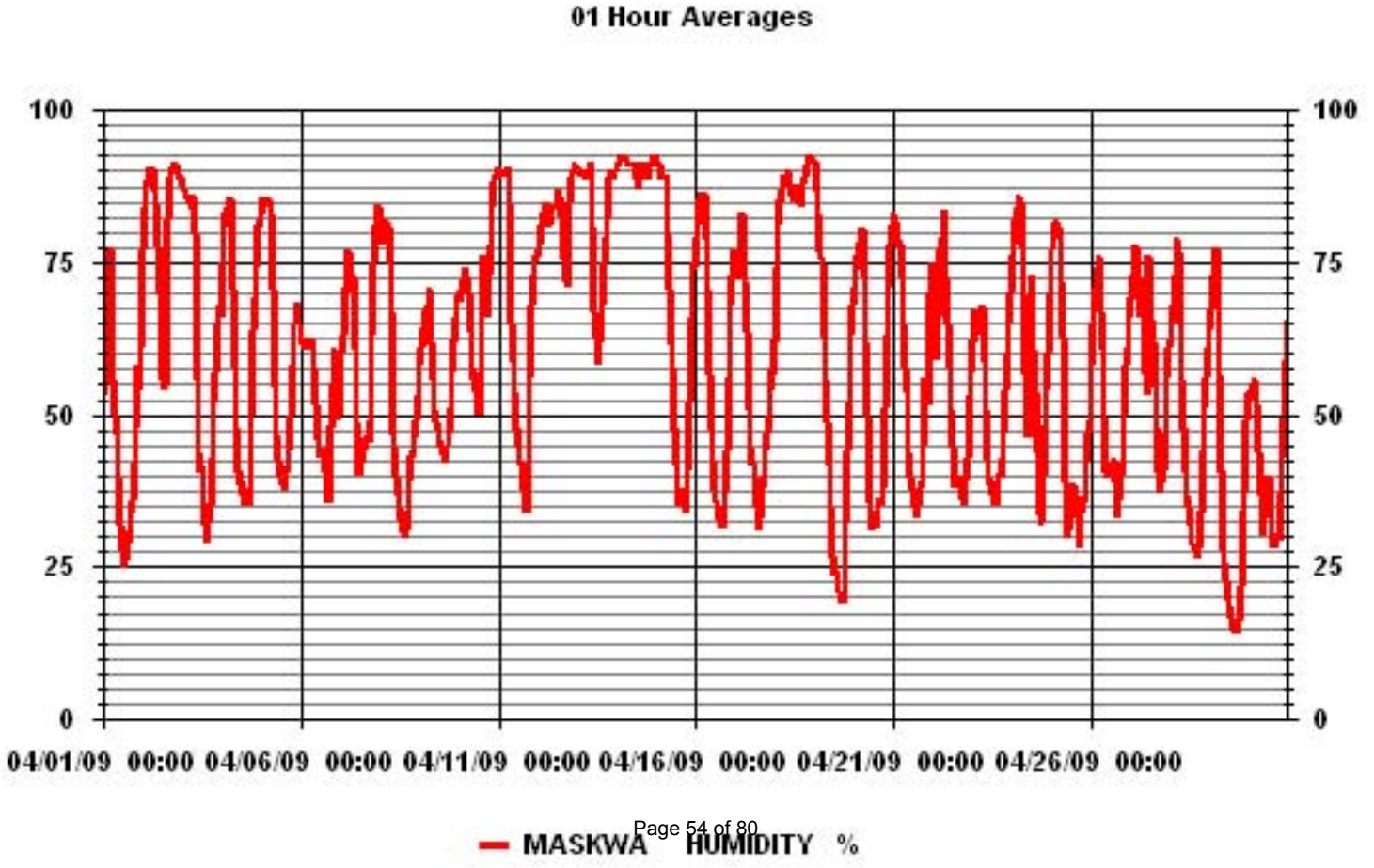
S	- OUT OF SERVICE	IZS	- IZS - DAILY ZERO/SPAN CHECK
N	- INVALID DATA	M	- MAINTENANCE
D	- INSTRUMENT DRIFT	P	- POWER FAILURE
C	- CALIBRATION	NA	- NOT APPLICABLE



MONTHLY SUMMARY

MAXIMUM 1-HR AVERAGE:	92	%	@ HOUR(S)	VAR	ON DAY(S)	14, 15
MAXIMUM 24-HR AVERAGE:	90.9	%			ON DAY(S)	14
					VAR-VARIOUS	

CALIBRATION TIME:	0	HRS	OPERATIONAL TIME:	720	HRS
			AMD OPERATION UPTIME:	100.0	%
STANDARD DEVIATION:	20.57		MONTHLY AVERAGE:	60.20	%


01 Hour Averages
100
75
50
25
0
04/01/09 00:00
04/06/09 00:00
04/11/09 00:00
04/16/09 00:00
04/21/09 00:00
04/26/09 00:00
MASKWA HUMIDITY %

Barometric Pressure

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - *MASKWA*

APRIL 2009

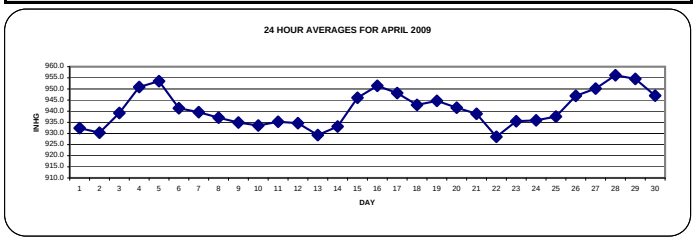
BAROMETRIC PRESSURE hourly averages (milibar)

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	931.0	932.0	932.0	932.0	933.0	933.0	933.0	934.0	934.0	934.0	934.0	934.0	934.0	933.0	933.0	932.0	932.0	932.0	931.0	931.0	931.0	931.0	931.0	931.0	934.0	932.4	24
2	930.0	930.0	930.0	930.0	929.0	929.0	929.0	930.0	929.0	930.0	930.0	930.0	930.0	930.0	930.0	930.0	931.0	931.0	931.0	931.0	932.0	932.0	932.0	932.0	932.0	930.3	24
3	932.0	933.0	933.0	933.0	934.0	935.0	935.0	937.0	938.0	940.0	940.0	940.0	941.0	941.0	941.0	941.0	942.0	942.0	942.0	943.0	944.0	944.0	945.0	945.0	945.0	939.2	24
4	946.0	946.0	947.0	947.0	947.0	948.0	948.0	950.0	951.0	952.0	952.0	953.0	953.0	953.0	953.0	952.0	952.0	953.0	953.0	953.0	953.0	953.0	953.0	953.0	953.0	950.9	24
5	954.0	954.0	954.0	954.0	954.0	954.0	955.0	955.0	956.0	956.0	956.0	956.0	955.0	955.0	955.0	954.0	954.0	953.0	952.0	951.0	950.0	950.0	949.0	948.0	956.0	953.5	24
6	948.0	947.0	946.0	945.0	944.0	944.0	943.0	943.0	942.0	942.0	942.0	941.0	941.0	940.0	939.0	939.0	939.0	939.0	938.0	938.0	938.0	938.0	938.0	938.0	948.0	941.3	24
7	938.0	938.0	938.0	938.0	938.0	939.0	939.0	940.0	941.0	941.0	942.0	942.0	941.0	941.0	941.0	941.0	940.0	940.0	940.0	939.0	939.0	938.0	938.0	938.0	942.0	939.6	24
8	938.0	938.0	938.0	938.0	937.0	937.0	938.0	938.0	938.0	938.0	938.0	938.0	937.0	937.0	937.0	937.0	936.0	936.0	936.0	936.0	936.0	936.0	936.0	936.0	938.0	937.1	24
9	936.0	936.0	936.0	935.0	935.0	935.0	935.0	935.0	935.0	935.0	936.0	936.0	936.0	935.0	935.0	935.0	935.0	935.0	934.0	934.0	934.0	934.0	933.0	933.0	936.0	934.9	24
10	933.0	932.0	932.0	932.0	932.0	932.0	933.0	934.0	934.0	935.0	935.0	934.0	934.0	934.0	934.0	934.0	934.0	934.0	934.0	934.0	934.0	934.0	934.0	934.0	935.0	933.6	24
11	934.0	934.0	934.0	934.0	934.0	934.0	935.0	936.0	937.0	937.0	937.0	937.0	937.0	936.0	936.0	936.0	936.0	936.0	935.0	935.0	934.0	934.0	934.0	934.0	937.0	935.3	24
12	934.0	934.0	934.0	934.0	934.0	934.0	935.0	935.0	935.0	934.0	935.0	935.0	935.0	935.0	936.0	936.0	936.0	936.0	936.0	935.0	934.0	933.0	933.0	933.0	936.0	934.6	24
13	933.0	932.0	932.0	931.0	931.0	931.0	930.0	930.0	930.0	930.0	930.0	930.0	929.0	929.0	928.0	928.0	928.0	928.0	928.0	927.0	927.0	927.0	927.0	927.0	933.0	929.3	24
14	927.0	927.0	927.0	927.0	928.0	928.0	928.0	929.0	929.0	930.0	931.0	931.0	932.0	934.0	935.0	936.0	937.0	938.0	939.0	939.0	940.0	941.0	941.0	941.0	941.0	933.1	24
15	941.0	942.0	942.0	943.0	943.0	944.0	945.0	946.0	947.0	947.0	947.0	947.0	947.0	947.0	947.0	947.0	947.0	947.0	948.0	948.0	948.0	948.0	948.0	949.0	949.0	946.0	24
16	949.0	949.0	950.0	950.0	950.0	951.0	951.0	952.0	953.0	953.0	953.0	953.0	953.0	953.0	953.0	952.0	952.0	952.0	952.0	951.0	951.0	951.0	951.0	951.0	953.0	951.4	24
17	951.0	950.0	950.0	950.0	950.0	949.0	950.0	950.0	951.0	951.0	951.0	950.0	949.0	948.0	948.0	947.0	947.0	946.0	946.0	945.0	945.0	944.0	944.0	944.0	951.0	948.2	24
18	944.0	943.0	942.0	942.0	942.0	942.0	942.0	942.0	942.0	942.0	942.0	943.0	943.0	943.0	943.0	943.0	943.0	943.0	943.0	943.0	944.0	944.0	944.0	944.0	944.0	942.8	24
19	944.0	944.0	944.0	944.0	944.0	945.0	946.0	947.0	947.0	947.0	947.0	946.0	946.0	945.0	945.0	945.0	945.0	945.0	944.0	944.0	943.0	942.0	942.0	942.0	947.0	944.7	24
20	942.0	942.0	941.0	941.0	941.0	941.0	941.0	942.0	942.0	942.0	942.0	942.0	941.0	941.0	941.0	941.0	941.0	942.0	942.0	942.0	942.0	942.0	942.0	942.0	942.0	941.6	24
21	942.0	942.0	942.0	942.0	943.0	943.0	943.0	943.0	942.0	942.0	942.0	941.0	940.0	940.0	939.0	938.0	937.0	936.0	935.0	934.0	933.0	932.0	931.0	930.0	943.0	938.8	24
22	929.0	928.0	927.0	928.0	927.0	927.0	928.0	928.0	927.0	928.0	928.0	929.0	928.0	928.0	929.0	929.0	929.0	929.0	929.0	929.0	930.0	930.0	930.0	930.0	930.0	928.5	24
23	931.0	931.0	931.0	932.0	933.0	934.0	935.0	935.0	936.0	936.0	937.0	937.0	937.0	937.0	937.0	937.0	937.0	937.0	937.0	937.0	937.0	937.0	937.0	937.0	937.0	935.5	24
24	937.0	937.0	937.0	937.0	937.0	937.0	937.0	938.0	938.0	938.0	937.0	937.0	936.0	936.0	936.0	935.0	935.0	935.0	934.0	934.0	934.0	934.0	933.0	933.0	938.0	935.9	24
25	933.0	934.0	934.0	934.0	934.0	934.0	935.0	936.0	937.0	937.0	937.0	938.0	938.0	938.0	938.0	939.0	939.0	939.0	940.0	941.0	941.0	942.0	942.0	942.0	942.0	937.6	24
26	943.0	943.0	944.0	944.0	944.0	945.0	946.0	947.0	947.0	947.0	947.0	947.0	947.0	948.0	948.0	948.0	948.0	949.0	949.0	949.0	949.0	949.0	949.0	949.0	949.0	946.9	24
27	949.0	948.0	948.0	948.0	949.0	949.0	950.0	950.0	951.0	951.0	950.0	950.0	950.0	950.0	950.0	950.0	950.0	950.0	951.0	951.0	952.0	952.0	952.0	953.0	953.0	950.2	24
28	953.0	953.0	954.0	954.0	954.0	955.0	956.0	957.0	957.0	957.0	957.0	957.0	957.0	957.0	957.0	957.0	957.0	957.0	957.0	957.0	957.0	957.0	957.0	957.0	957.0	**956.2**	24
29	957.0	957.0	956.0	956.0	956.0	957.0	958.0	**958.0**	**958.0**	958.0	957.0	956.0	955.0	954.0	954.0	953.0	953.0	952.0	**P**	951.0	950.0	950.0	949.0	949.0	**958.0**	954.5	23
30	948.0	948.0	947.0	947.0	947.0	947.0	947.0	948.0	948.0	948.0	948.0	948.0	948.0	948.0	948.0	947.0	947.0	947.0	946.0	946.0	946.0	946.0	945.0	945.0	948.0	947.0	24
HOURLY MAX	957.0	957.0	956.0	956.0	956.0	957.0	958.0	958.0	958.0	958.0	957.0	957.0	957.0	957.0	957.0	957.0	957.0	957.0	957.0	957.0	957.0	957.0	957.0	957.0			
HOURLY AVG	940.2	940.1	940.1	940.1	940.1	940.4	940.9	941.5	941.7	941.9	942.0	941.9	941.7	941.5	941.5	941.3	941.3	941.2	940.7	940.9	940.9	940.8	940.7	940.7			

STATUS FLAG CODES

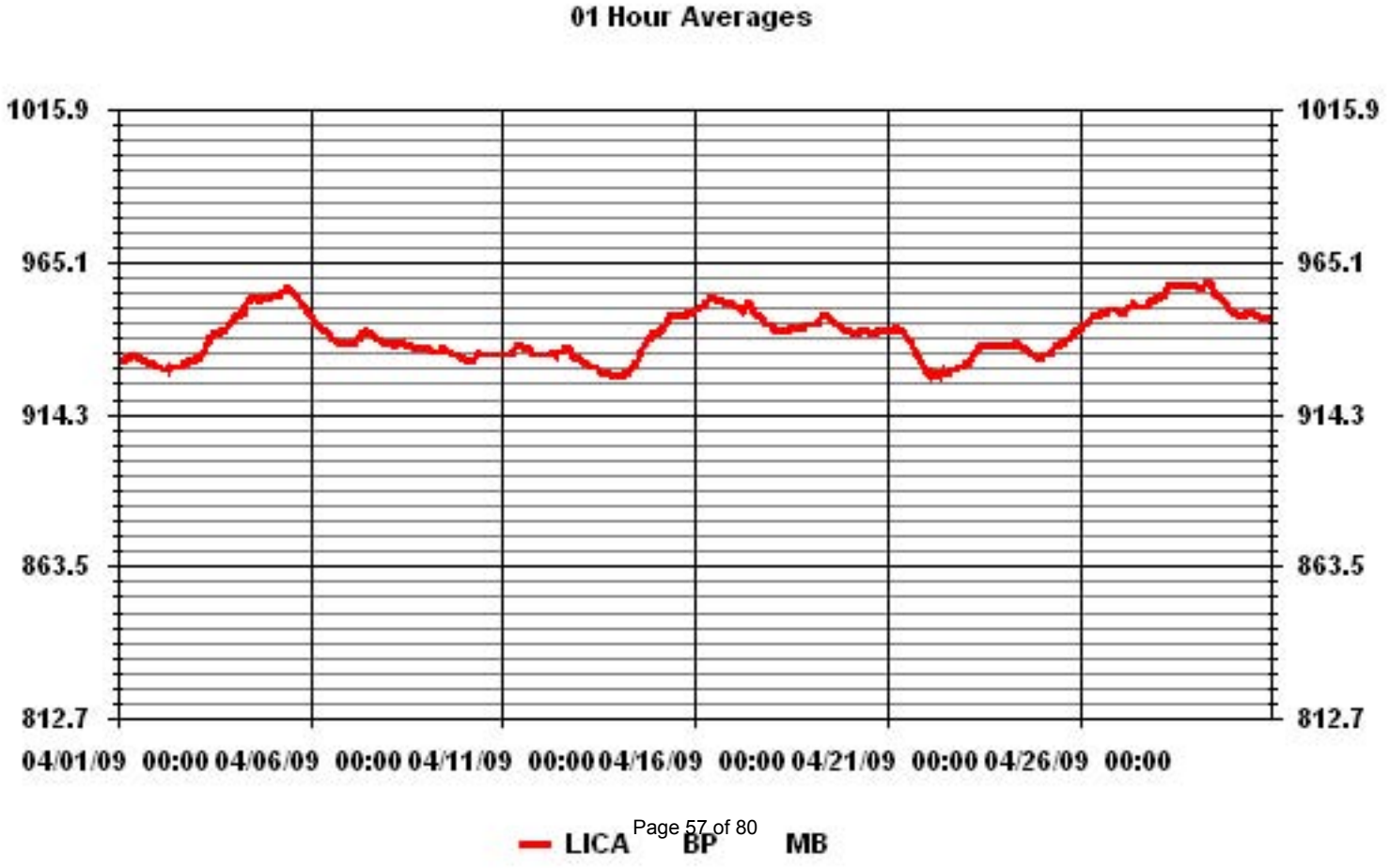
S	- OUT OF SERVICE	IZS	- IZS - DAILY ZERO/SPAN CHECK
N	- INVALID DATA	M	- MAINTENANCE
D	- INSTRUMENT DRIFT	P	- POWER FAILURE
C	- CALIBRATION	NA	- NOT APPLICABLE



MONTHLY SUMMARY

MAXIMUM 1-HR AVERAGE:	958.0	INHG	@ HOUR(S)	7, 8	ON DAY(S)	29
MAXIMUM 24-HR AVERAGE:	956.2	INHG			ON DAY(S)	28
					VAR-VARIOUS	

CALIBRATION TIME:	0	HRS	OPERATIONAL TIME:	719	HRS
			AMD OPERATION UPTIME:	99.9	%
STANDARD DEVIATION:	8.09		MONTHLY AVERAGE:	941.01	INHG


01 Hour Averages
1015.9
965.1
914.3
863.5
812.7
04/01/09 00:00
04/06/09 00:00
04/11/09 00:00
04/16/09 00:00
04/21/09 00:00
04/26/09 00:00
LICA
BP
MB

Vector Wind Speed

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - *MASKWA*

APRIL 2009

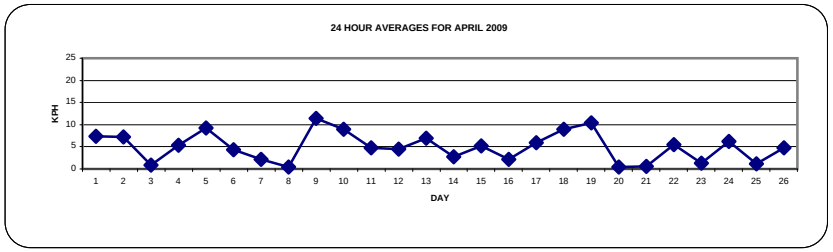
WIND SPEED hourly averages (km/hr)

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	5.3	8.9	7.7	8.9	4.7	4	4	5.8	8.5	12.1	9.1	5	1.3	3.6	3	4.9	3.9	5.9	3.6	2.9	4.8	1.8	4.9	5.5	12.1	3.2	24
2	8.1	6.1	5.8	6.9	5	4	4.8	7.3	7.5	8.4	7.5	6.7	8.3	8.4	7	7.5	2.3	8.9	1.6	0.4	1.3	0.6	0.4	0.4	8.9	3.5	24
3	0.4	0.4	0.4	0.5	0.4	0.4	0.4	0.4	0.4	0.8	3.9	3	3.6	5.9	8	4.8	5.6	5.9	4.9	1.9	5	3.9	5.2	5.9	8	1.3	24
4	2.5	2.4	1.4	1.9	1.7	2.1	2.8	2.2	2.4	2.4	1.9	2.7	4.1	5.6	9.2	10.3	10.6	10.2	7.8	3.9	4.1	2.4	2	1.4	10.6	2.6	24
5	1.3	1	1.9	1.5	1.5	1.6	2.3	3.2	8.3	10	11	12.3	13.7	16.7	16.1	11.5	13.6	11.5	8.5	11.1	11	10.2	9.4	11.8	16.7	7.4	24
6	11.8	12.7	13.3	11.6	6.3	6.5	5.2	6.9	7.3	8.7	6.1	7.3	10.6	13.5	12.7	10.8	8.4	8.1	7.7	4.3	4.8	5	6.7	6	13.5	7.2	24
7	5.7	2.8	2.7	2	2.1	2.2	2.7	6	7	6.9	4.6	1.4	3	6.3	7.4	5.4	5.4	6.3	5	4.1	1.2	0.6	0.4	0.6	7.4	0.8	24
8	1	1.4	2.3	3.9	2.8	3.4	2.8	2.9	7.1	7.4	10.3	9.9	10.2	10.9	9.5	9.4	7.9	6	6.7	6.2	5.3	6.3	9.2	8.6	10.9	5.3	24
9	6.9	6	6.3	8.1	6.1	5.2	5.8	8.2	10.4	10	11.4	11.4	13	12.6	12.5	11.6	11	10	11.7	13.1	10	9.7	8	7.7	13.1	9.3	24
10	8.2	7.7	7.6	5.7	4.6	6.8	7.6	8.6	8.2	9	10.3	11.5	10.9	7	5.7	2.2	2.7	2.8	4.1	3.2	2.5	2.7	2.6	1.6	11.5	4.4	24
11	1.4	2.7	1.6	1.5	0.5	2.5	2.9	2.4	1.1	3.7	4.2	3	3.2	4.5	6.1	5.3	4.7	5.1	4.6	3.4	3.2	3.8	4.2	4.3	6.1	2.2	24
12	4.9	4.9	5.4	5.3	5.4	0.7	1.6	4.3	3.3	3.5	6.5	4.5	5.6	6.5	7.9	7.6	6.6	4.3	3.9	4.3	3.1	1.5	1.2	1.6	7.9	0.4	24
13	2.9	2.9	3.2	3.5	2.7	2.8	3.4	5	6.8	9.7	10.1	10.2	15	16.6	16.3	18.6	22.8	20	17.8	**25.3**	19	14.8	12.9	16.9	**25.3**	**11.4**	24
14	17.2	17.4	17.3	15.7	15.7	16.2	14	11	9.8	11.1	10.2	8.7	11.4	12.6	11	9.9	8.9	9.8	7	1.5	2.2	2.9	1.3	0.4	17.4	9	24
15	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.6	3.7	5	6.2	9.1	11.7	13.7	16.3	16.1	13.7	11.3	7.1	3.4	3.1	0.6	1.2	1.1	16.3	4.8	24
16	1.1	1	0.7	1.9	2.2	2	2.8	5.2	7.5	8	9.3	11.5	10.7	6	8.4	6	5.6	5.9	4.5	2.7	1.4	2.8	2.7	3.1	11.5	4.5	24
17	3.9	3.3	3.2	3.1	3.6	4.2	2.9	4.2	6.7	7.4	10.6	10.9	11.5	11.7	12.3	12.8	10.8	9.6	8.6	8.5	11.5	9.6	8.5	7.9	12.8	7	24
18	7.9	7.6	7.6	6.8	3.4	4.2	5.9	4.5	2.7	3.7	4.4	1.7	2.9	1.4	2	1.2	3	5.4	4.7	4.6	4.3	2.3	1.5	1.7	7.9	2.7	24
19	0.8	0.4	0.4	0.4	0.4	2.3	7.3	8	7.6	7.4	10.2	10.1	11.5	10.7	10.6	10.6	8.9	10.4	8	1.7	1	1.4	1	0.2	11.5	5.2	24
20	1.8	1	0.7	1.3	0.7	0.9	0.6	2.1	1.5	1.9	5.2	5.5	5.1	6.6	6.1	8.7	8.1	9.8	8	5.5	2.4	0.5	0.4	0.4	9.8	2.1	24
21	0.4	0.4	1.2	3.3	4.2	4.6	5.1	6.6	5.2	6.2	7.2	10.2	8.9	9.2	11.5	9.6	8.7	9.4	7.7	7	9.6	9.4	4.7	5.6	11.5	5.9	24
22	5.6	4.2	3.7	3.7	4	5.5	6.2	8.1	12.3	12.7	14.2	11.4	13.8	14.8	14.2	13.6	13.6	14.1	9.7	14.3	11.6	14.6	10.8	11.6	14.8	9	24
23	13.8	12.4	14.2	13.6	14.9	14.1	13.7	13.4	13.6	12.9	13.8	13.5	12.7	12.6	13.6	11.4	10.3	7.9	7.2	6.2	4.3	2.2	2.8	3.2	14.9	10.4	24
24	2.1	2.9	3.3	2.9	2.7	4.3	6.3	6.6	3.8	0.6	2.2	5.5	3.1	2.8	4.4	4.6	5.4	3.7	6	5.8	2.3	2.2	2.7	1.8	6.6	0.4	24
25	0.4	0.4	0.5	1.2	0.4	2.1	2.1	3.2	3.9	7.6	9.3	6.7	7.7	1.1	1	4.6	1.8	8.1	8.9	6.1	4.2	2.3	3.4	2.7	9.3	0.6	24
26	1.4	1	2.2	2.7	1.3	2.6	5.5	6.8	6.2	7.8	7.2	7	11.3	9.6	8.9	11.8	10.7	13.4	10.7	7.5	3.5	1.2	1.4	1	13.4	5.5	24
27	0.4	1.7	2.4	2.3	1.8	1.8	2.5	6	2.1	2	3.5	6	4.2	6.2	4.7	7.1	2.7	3.6	8.5	7	8.3	6.9	6	8.2	8.5	1.3	24
28	8.5	8.5	6.9	3.8	2.2	4.2	6.2	7.4	6.8	9.7	8.2	7.5	7.8	8.6	8.3	10.7	9.9	9.2	9	5.3	3.8	2.7	3.1	3.1	10.7	6.2	24
29	2.3	1.1	0.6	1.2	1.6	1.8	3.8	2.5	2.3	3.5	2.4	2.1	3.6	3	5.2	5.6	5.7	6.1	3.4	3.9	4.9	5.3	2	0.4	6.1	1.1	24
30	0.5	0.6	0.7	2	1.3	1.4	3.2	2.4	9.5	13.4	8.3	7.1	8.5	7.1	8.7	9.7	11.6	9.3	10.9	5.8	6.9	2.5	0.7	0.3	13.4	4.8	24
HOURLY MAX	17.2	17.4	17.3	15.7	15.7	16.2	14.0	13.4	13.6	13.4	14.2	13.5	15.0	16.7	16.3	18.6	22.8	20.0	17.8	25.3	19.0	14.8	12.9	16.9			
HOURLY AVG	4.3	4.1	4.2	4.3	3.5	3.8	4.5	5.4	6.1	7.1	7.6	7.4	8.3	8.5	9.0	8.8	8.2	8.4	7.3	6.0	5.4	4.4	4.0	4.2			

STATUS FLAG CODES

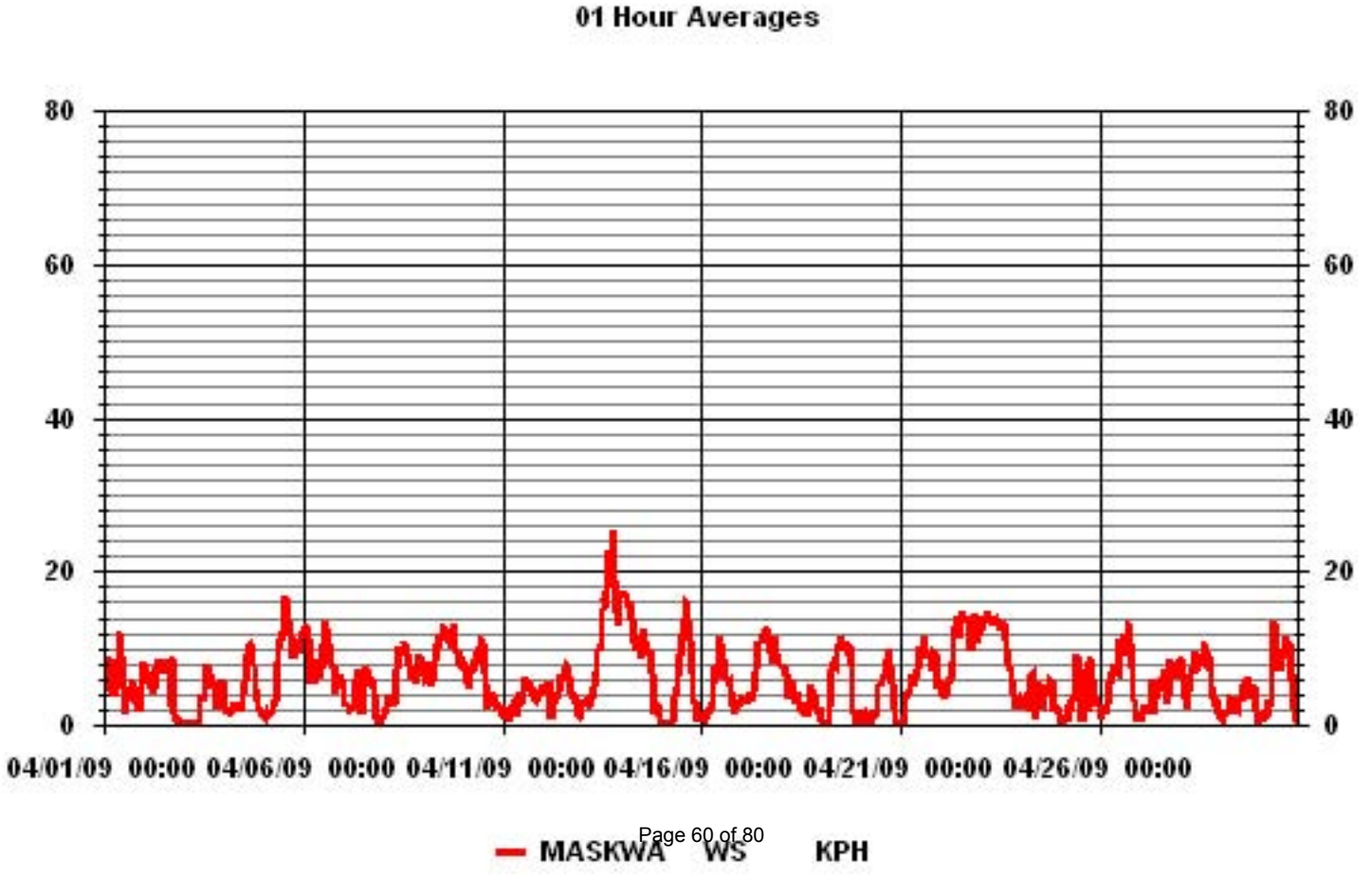
S	- OUT OF SERVICE	IZS	- IZS - DAILY ZERO/SPAN CHECK
N	- INVALID DATA	M	- MAINTENANCE
D	- INSTRUMENT DRIFT	P	- POWER FAILURE
C	- CALIBRATION	NA	- NOT APPLICABLE



LAST CALIBRATION: November 7, 2007

MONTHLY SUMMARY

MAXIMUM 1-HR AVERAGE:	25.3	KPH	@ HOUR(S)	19	ON DAY(S)	13	
MAXIMUM 24-HR AVERAGE:	11.4	KPH			ON DAY(S)	13	
CALMS (≤ 1 KPH)	7.66	%	OPERATIONAL TIME:		720	HRS	
MONTHLY CALIBRATION TIME:	0	HRS	AMD OPERATION UPTIME		100.0	%	
STANDARD DEVIATION	4.25		MONTHLY AVERAGE		6.03	KPH	


01 Hour Averages
80
60
40
20
0
04/01/09 00:00
04/06/09 00:00
04/11/09 00:00
04/16/09 00:00
04/21/09 00:00
04/26/09 00:00
MASKWA WS KPH

MASKWA
WS / WD Joint Frequency Distribution (Percent)

April 2009

Distribution By % Of Samples

Logger Id : 03
Site Name : MASKWA
Parameter : WS
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	2.77	2.50	5.55	8.33	4.58	2.63	2.36	2.22	2.08	2.77	3.47	1.94	1.94	.83	1.11	1.52	46.66
<	12.0	3.19	2.77	2.50	2.50	1.80	4.44	3.61	3.47	1.38	3.19	.69	.00	.83	2.77	.69	2.08	35.97
<	20.0	.13	.97	2.22	.00	.00	.00	.55	.41	.55	.55	.00	.00	.00	1.52	1.38	.69	9.02
<	29.0	.00	.00	.41	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.41
<	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	6.11	6.25	10.69	10.83	6.38	7.08	6.52	6.11	4.02	6.52	4.16	1.94	2.77	5.13	3.19	4.30	

Calm : 7.91 %

Total # Operational Hours : 720

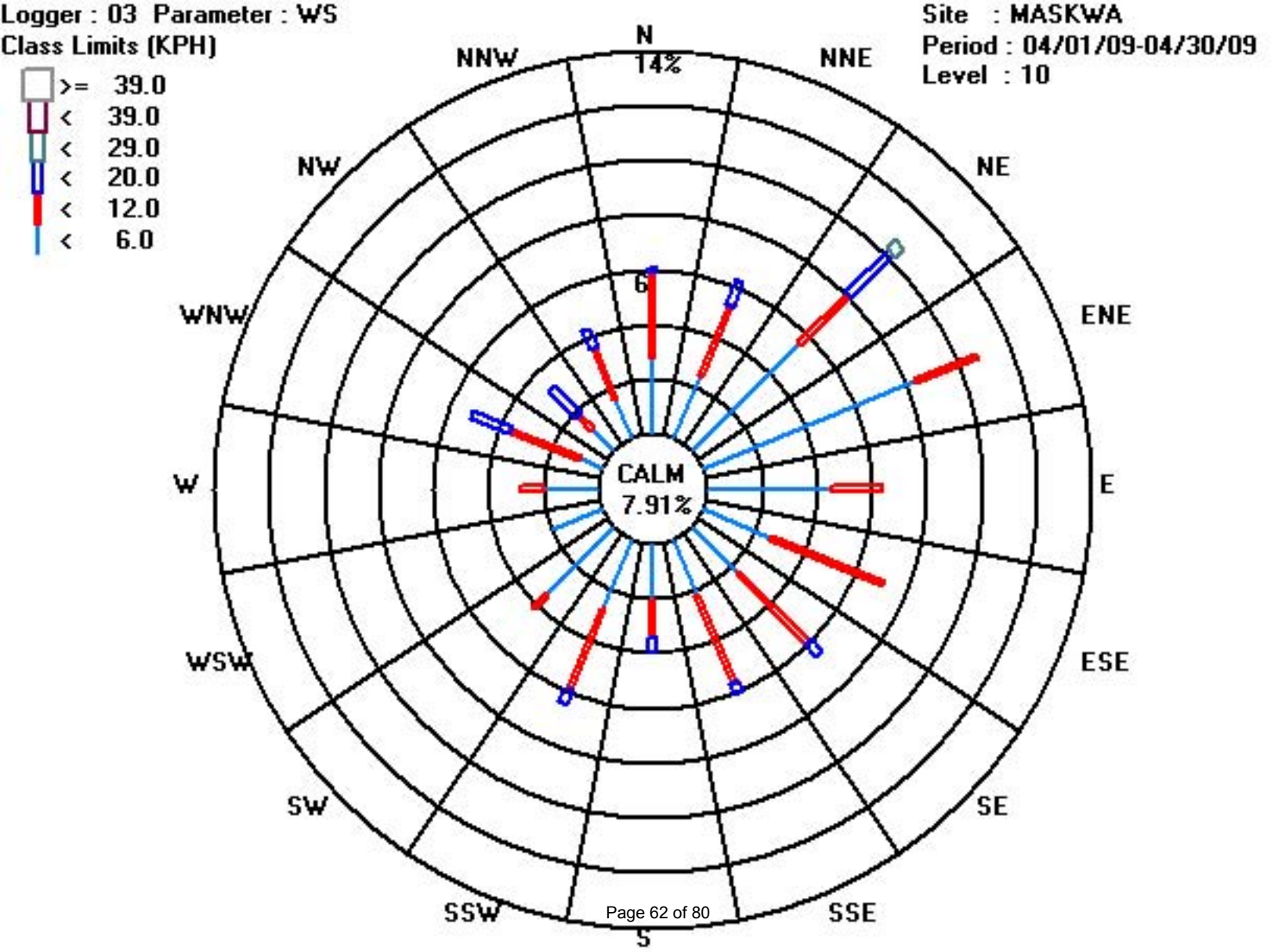
Distribution By Samples

Direction

	Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
<	6.0	20	18	40	60	33	19	17	16	15	20	25	14	14	6	8	11	336
<	12.0	23	20	18	18	13	32	26	25	10	23	5		6	20	5	15	259
<	20.0	1	7	16				4	3	4	4				11	10	5	65
<	29.0			3														3
<	39.0																	
>=	39.0																	
	Totals	44	45	77	78	46	51	47	44	29	47	30	14	20	37	23	31	

Calm : 7.91 %

Total # Operational Hours : 720


Logger : 03 Parameter : WS
Class Limits (KPH)
>= 39.0
< 39.0
< 29.0
< 20.0
< 12.0
< 6.0
Site : MASKWA
Period : 04/01/09-04/30/09
Level : 10
N
14%
NNE
NE
ENE
E
ESE
SE
SSE
S
SSW
SW
WSW
W
WNW
NW
NNW
6
CALM
7.91%

Vector Wind Direction

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - *MASKWA*

APRIL 2009

WIND DIRECTION hourly averages in degrees

MST

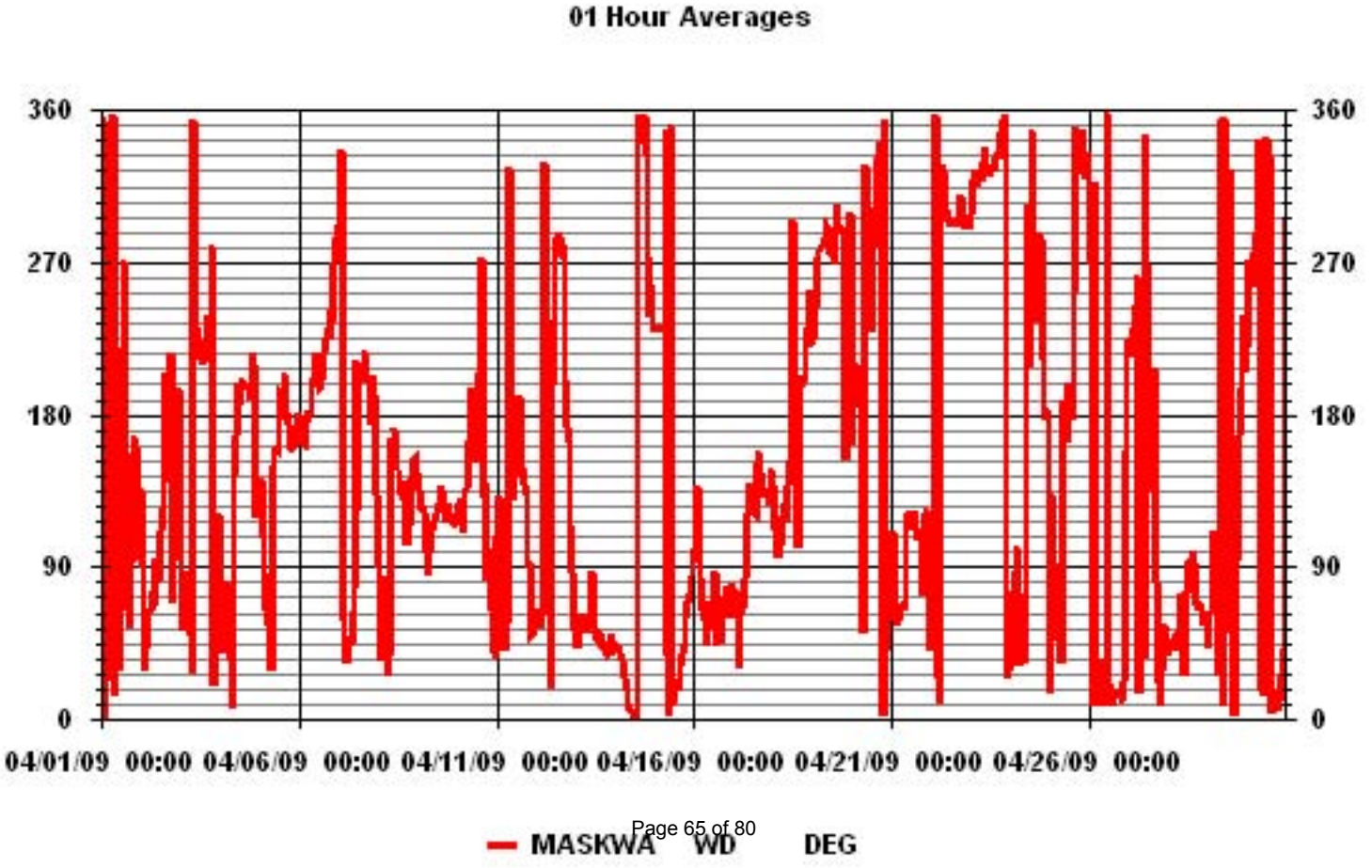
HOUR START	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24-HOUR	24-HOUR AVG	
HOUR END	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	AVG.	QUANDRANT	RDGS.
DAY																											
1	355	4	1	23	353	341	337	358	14	34	33	79	87	220	272	64	157	54	92	155	167	162	103	94	33	NNE	24
2	137	90	28	42	49	63	65	73	72	92	91	81	111	124	152	204	139	197	217	69	93	129	135	196	101	E	24
3	130	79	52	74	69	88	51	27	354	247	233	225	213	220	210	224	239	236	227	280	19	30	96	121	217	SW	24
4	79	61	38	77	81	74	66	36	6	144	168	198	186	200	200	199	197	195	199	189	217	211	119	121	183	S	24
5	135	143	109	88	66	57	37	29	150	159	160	159	176	194	193	204	186	182	175	161	160	161	164	174	171	S	24
6	180	177	177	164	163	175	182	178	196	202	217	202	195	196	200	216	225	231	224	242	234	270	284	292	201	SSW	24
7	279	286	336	59	43	33	45	48	44	64	77	212	123	210	201	201	218	201	200	174	178	203	193	134	161	SSE	24
8	91	41	35	84	79	62	25	37	165	166	172	151	148	134	134	130	141	104	104	115	143	154	155	156	135	SE	24
9	147	136	125	125	123	99	85	98	113	113	117	121	128	125	138	136	124	116	122	127	122	119	116	114	121	ESE	24
10	121	127	130	120	110	134	137	165	194	194	159	181	151	204	239	273	131	141	82	101	74	66	41	36	149	SSE	24
11	108	65	132	108	62	40	58	56	326	161	129	162	168	176	191	142	150	139	133	91	91	49	50	63	119	ESE	24
12	58	65	63	54	61	329	70	84	78	18	197	236	284	273	288	286	282	273	201	173	164	116	88	52	304	WNW	24
13	64	41	63	57	54	60	62	51	53	74	87	70	49	48	52	51	44	42	46	38	39	39	51	46	49	NE	24
14	46	45	44	40	37	35	25	18	10	7	5	3	1	0	357	350	339	349	357	333	275	237	257	231	17	NNE	24
15	231	231	231	231	231	231	231	349	39	1	352	10	11	19	17	24	32	39	45	60	69	74	85	98	24	NNE	24
16	97	134	138	113	85	65	59	43	69	58	58	56	59	87	43	60	73	44	66	77	77	60	69	80	63	ENE	24
17	67	77	61	30	62	75	65	83	122	125	140	125	122	121	151	159	147	139	131	134	137	126	135	148	127	SE	24
18	139	114	113	95	107	103	120	127	116	138	153	175	295	146	193	101	198	198	203	199	220	231	253	230	147	SE	24
19	226	228	243	272	277	280	283	282	293	292	291	276	274	269	286	304	286	291	287	253	153	171	214	300	283	W	24
20	161	200	211	200	189	190	52	52	327	260	229	240	229	279	302	308	332	341	335	2	354	40	58	64	304	WNW	24
21	80	111	59	56	59	66	67	64	68	121	111	123	119	119	123	108	108	111	110	73	121	125	85	40	101	E	24
22	43	69	83	358	26	9	323	327	324	303	294	298	291	296	293	293	296	297	310	302	292	290	298	290	305	WNW	24
23	298	319	321	324	314	321	318	329	336	338	329	325	321	327	323	332	335	344	343	354	331	358	24	28	327	NW	24
24	76	69	41	88	102	31	51	74	58	33	304	207	300	348	254	276	240	234	287	284	214	177	183	180	305	WNW	24
25	15	133	62	93	47	51	41	33	189	170	163	199	194	193	177	252	350	322	340	345	349	319	321	335	271	W	24
26	304	268	306	7	318	8	32	36	29	14	8	359	21	18	8	14	14	17	14	14	10	22	159	223	14	NNE	24
27	224	222	214	231	244	263	15	32	111	35	345	270	162	148	133	196	208	81	23	7	29	40	57	41	48	NE	24
28	40	42	46	47	50	41	52	74	47	27	27	75	93	95	94	99	93	69	64	69	68	60	55	58	64	ENE	24
29	42	63	64	76	111	69	35	26	355	7	356	330	235	50	325	41	2	34	93	168	196	211	238	205	28	NNE	24
30	219	272	269	255	276	278	287	342	28	18	14	342	342	328	329	3	11	7	17	5	11	26	41	293	359	N	24
HOURLY AVG	355	319	336	358	353	341	337	358	355	338	356	359	342	348	357	350	350	349	357	354	354	358	321	335			

STATUS FLAG CODES

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

LAST CALIBRATION:	November 7, 2007
DECLINATION :	19 DEGREES FROM MAGNETIC NORTH

MONTHLY CALIBRATION TIME:	0	HRS	OPERATIONAL TIME:	720	HRS
STANDARD DEVIATION	101.29		AMD OPERATION UPTIME	100.0	%
			MONTHLY AVERAGE	65	DEG


01 Hour Averages
360
270
180
90
0
04/01/09 00:00
04/06/09 00:00
04/11/09 00:00
04/16/09 00:00
04/21/09 00:00
04/26/09 00:00
MASKWA WD DEG

Calibration Reports

Maskwa

Sulphur Dioxide

SO_2 Calibration Report

Station Information

Calibration Date	April 21, 2009		Previous Calibration	March 25, 2009	
Company	**Lakeland Industry & Community Association**				
Plant / Location	**Cold Lake - Maskwa**				
Start Time (MST)	10:35		End Time (MST)	14:30	
Reason:	As Found				
Barometric Pressure	27.83	inHg	Station Temperature	24	Deg C
Cal Gas	52.2	ppm	Cal Gas Expiry date	12/19/2010	
DAS Output Voltage	0 - 1	Volts			

Equipment Information

Analyzer Make / Model:	API 100E	S/N :	508	Method:	Fluorescent
Converter Make / Model:	-	S/N :	-		
Calibrator Make / Model:	API 700	`	831	Method:	Dilution
DAS Make / Model:	ESC 8832	S/N :	AO 791		
Flow Meter:	API 700	S/N :	831		

Analyzer Settings

	Before Calibration				After Calibration			
Concentration Range			0 -1000	ppb				
Sample Flow / Box Temp	614	ccm	34.3	Deg C	612	ccm	35.7	Deg C
HVPS / Lamp Setting	478		2754		498		3532	
PMT / RxCell Temp	7.7	Deg C	50	Deg C	7.7	Deg C	50	Deg C
Converter / IZS Temp	NA	Deg C	45	Deg C	NA	Deg C	45	Deg C
Offset / Slope	55		0.99		59.7		1.011	

Calibration Data

Dilution Flow Rate	Source Gas Flow Rate	Calculated Concentration	Indicated Conc. (DAS)	Correction Factor
4999	0	0	0	N/A
4921.0	76.6	800	735	1.0886
			Sum of Least Squares	#DIV/0!
			New Correction Factor	0.0000

	Before Calibration	After Calibration
Auto Zero	0.0	0.8
Auto Span	468.0	510.0
Sample Lines Connected		YES
Percent Change from Previous Calibration		#DIV/0!

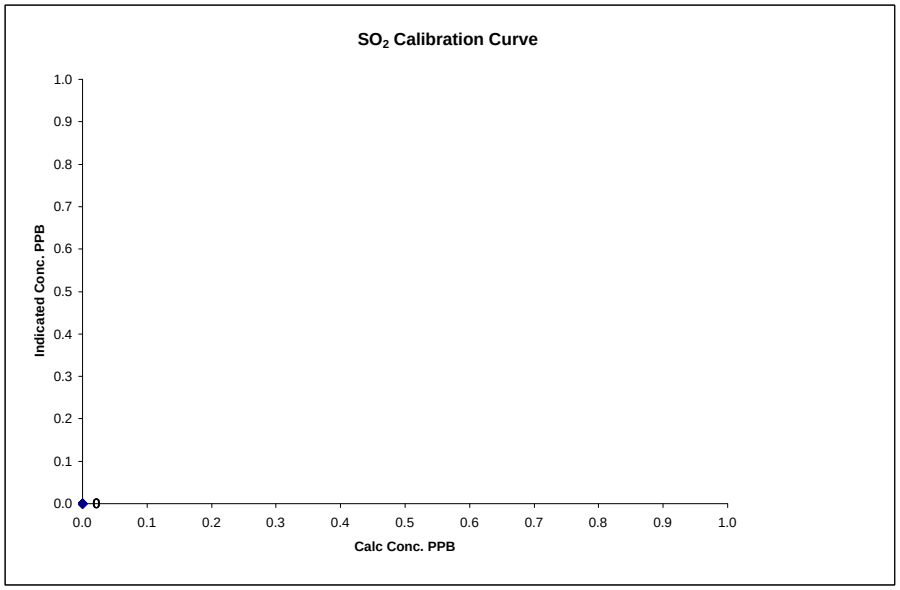
Calibration Performed by: Shea Beaton

SO_2 Calibration Curve

Calibration Date	April 21, 2009			
Company	**Lakeland Industry & Community Association**			
Plant / Location	**Cold Lake - Maskwa**			
Start Time (MST)	10:35	End Time (MST)	14:30	

Calculated Conc. ppb	Indicated Response ppb	Correction Factor
0	0	n/a
0	0	#DIV/0!
0	0	#DIV/0!
0	0	#DIV/0!

Correlation Coefficient	(≥ 0.995)	#DIV/0!
Slope	(0.85 to 1.15)	#DIV/0!
Intercept	(± 3% F.S.)	#DIV/0!



Notes: Last month a new UV lamp and driver board were installed. The UV lamp voltage has dropped by 10& due to burn-in. Performed A/F points, floowed by a lamp adjustment and factory cal. Adjusted span. Will do multi-point tomorrow.

SO_2 Calibration Report

Station Information

Calibration Date	April 22, 2009		Previous Calibration	March 25, 2009	
Company	**Lakeland Industry & Community Association**				
Plant / Location	**Cold Lake - Maskwa**				
Start Time (MST)	9:40		End Time (MST)	13:25	
Reason:	Post Repair Calibration				
Barometric Pressure	27.41	inHg	Station Temperature	25	Deg C
Cal Gas	52.2	ppm	Cal Gas Expiry date	12/19/2010	
DAS Output Voltage	0 - 1	Volts			

Equipment Information

Analyzer Make / Model:	API 100E	S/N :	508	Method:	Fluorescent
Converter Make / Model:	-	S/N :	-		
Calibrator Make / Model:	API 700	S/N :	831	Method:	Dilution
DAS Make / Model:	ESC 8832	S/N :	AO 791		
Flow Meter:	API 700	S/N :	831		

Analyzer Settings

	Before Calibration				After Calibration			
Concentration Range			0 -1000	ppb				
Sample Flow / Box Temp	603	ccm	35.6	Deg C	603	ccm	35.4	Deg C
HVPS / Lamp Setting	498		3501		498		3499	
PMT / RxCell Temp	7.7	Deg C	50	Deg C	7.7	Deg C	50	Deg C
Converter / IZS Temp	NA	Deg C	45	Deg C	NA	Deg C	45	Deg C
Offset / Slope	59		1.01		59.7		0.995	

Calibration Data

Dilution Flow Rate	Source Gas Flow Rate	Calculated Concentration	Indicated Conc. (DAS)	Correction Factor
4999	0	0	1	N/A
4999	0	0	0	N/A
4921.0	76.6	800	811	0.9865
4921.0	76.6	800	801	0.9989
4961.0	38.3	400	398	1.0048
4978.0	19.1	200	200	0.9976
4999.0	0	0	0	N/A
			Sum of Least Squares	0.9999
			New Correction Factor	0.9989

	Before Calibration	After Calibration
Auto Zero	1.2	0.9
Auto Span	521.0	511.0
Sample Lines Connected		YES
Percent Change from Previous Calibration		-0.3%

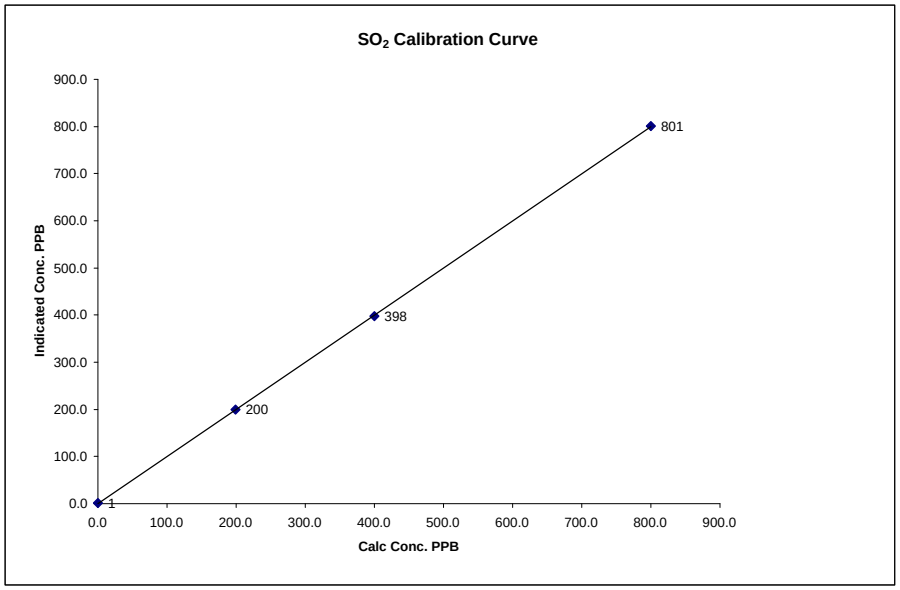
Calibration Performed by: Shea Beaton

SO_2 Calibration Curve

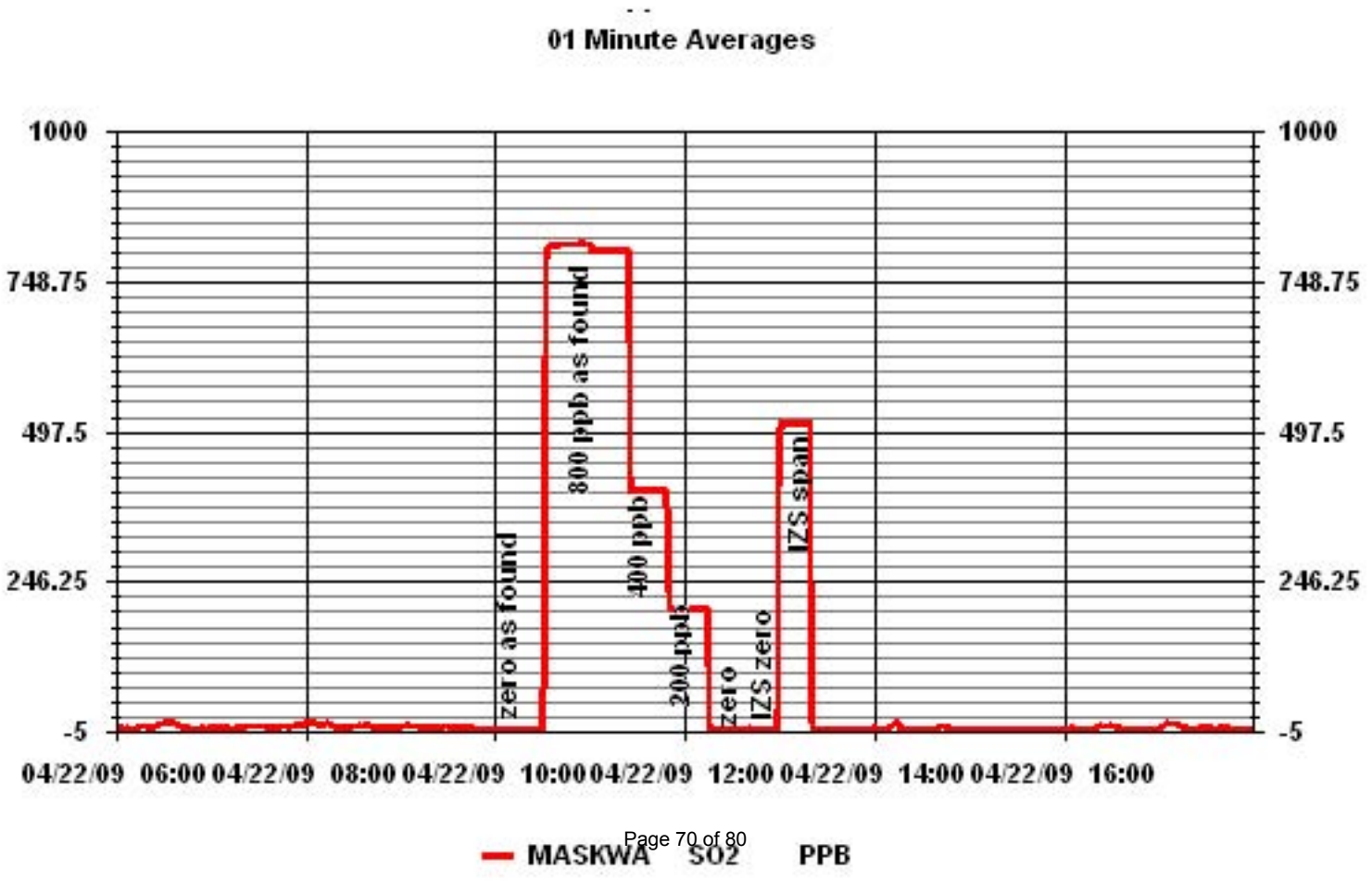
Calibration Date	April 22, 2009				
Company	**Lakeland Industry & Community Association**				
Plant / Location	**Cold Lake - Maskwa**				
Start Time (MST)	9:40		End Time (MST)	13:25	

Calculated Conc. ppb	Indicated Response ppb	Correction Factor
0	1	n/a
200	200	0.9976
400	398	1.0048
800	801	0.9989

Correlation Coefficient	(≥ 0.995)	0.999984
Slope	(0.85 to 1.15)	0.999695
Intercept	(± 3% F.S.)	0.227936



Notes:


01 Minute Averages
1000
748.75
497.5
246.25
-5
zero as found
800 ppb as found
400 ppb
200 ppb
zero
IZS zero
IZS span
04/22/09 06:00 04/22/09 08:00 04/22/09 10:00 04/22/09 12:00 04/22/09 14:00 04/22/09 16:00
MASKWA SO2 PPB

Hydrogen Sulphide

H_2S Calibration Report

Station Information

Calibration Date	April 21, 2009		Previous Calibration	March 24, 2009	
Company	**Lakelnad Industry & Community Association**				
Plant / Location	**Cold Lake - Maskwa**				
Start Time (MST)	10:30		End Time (MST)	14:30	
Reason:	Monthly Calibration				
Barometric Pressure	27.83	inHg	Station Temperature	24	Deg C
Cal Gas	10.6	ppm	Cal Gas Expiry date	04/03/2009	
DAS Output Voltage	0 - 1	Volts			

Equipment Information

Analyzer Make / Model:	API 101E	S/N :	511	Method:	Fluorescent
Converter Make / Model:	Internal	S/N :	N/A		
Calibrator Make / Model:	Environics 2000	S/N :	1991	Method:	Dilution
DAS Make / Model:	ESC 8832	S/N :	AO 791		
Flow Meter:	Environics 2000	S/N :	1991		

Analyzer Settings

	Before Calibration				After Calibration			
Concentration Range			0 - 100	ppb				
Sample Flow / Box Temp	532	ccm	35.7	Deg C	531	ccm	36	Deg C
HVPS / Lamp Setting	524		2461		524		2460	
PMT / RxCell Temp	7.9	Deg C	49.9	Deg C	7.9	Deg C	50	Deg C
Converter / IZS Temp	314.5	Deg C	45	Deg C	315.2	Deg C	45	Deg C
Offset / Slope	69.2		1.122		69.2		1.103	

Calibration Data

Dilution Flow Rate	Source Gas Flow Rate	Calculated Concentration	Indicated Conc. (DAS)	Correction Factor
5006	0	0	0	N/A
4971	37.8	80	81	0.9876
4981	37.9	80	80	1.0006
4998	19	40	40	1.0036
5009	11.8	25	25	0.9965
5019	0	0	0	N/A
			Sum of Least Squares	1.0008
			New Correction Factor	1.0006

	Before Calibration	After Calibration
Auto Zero	0.9	0.9
Auto Span	76.0	75.0
Sample Lines Connected		YES
Percent Change from Previous Calibration		-0.9%

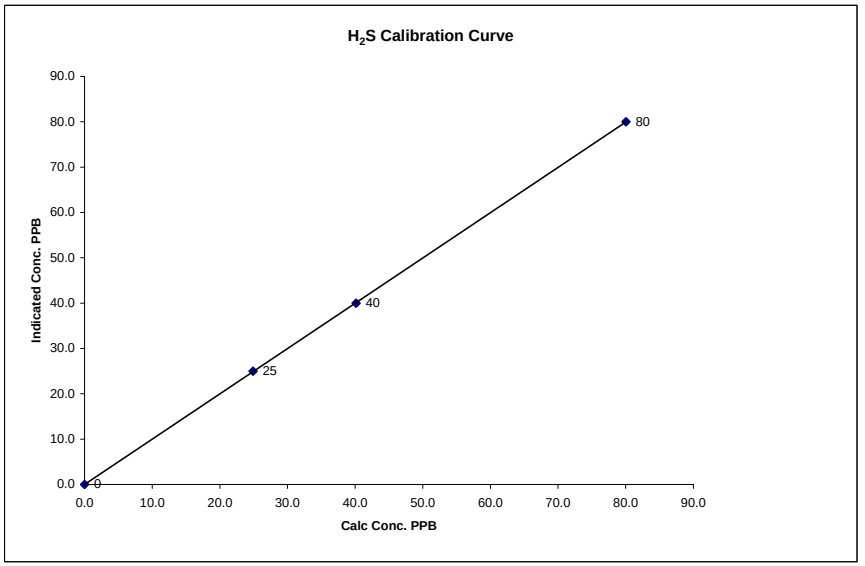
Calibration Performed by: Shea Beaton

H_2S Calibration Curve

Calibration Date	April 21, 2009		
Company	**Lakelnad Industry & Community Association**		
Plant / Location	**Cold Lake - Maskwa**		
Start Time (MST)	10:30	End Time (MST)	14:30

Calculated Conc. ppb	Indicated Response ppb	Correction Factor
0	0	n/a
25	25	0.9965
40	40	1.0036
80	80	1.0006

Correlation Coefficient	(≥ 0.995)	0.999993
Slope	(0.85 to 1.15)	0.998952
Intercept	(± 3% F.S.)	0.012706



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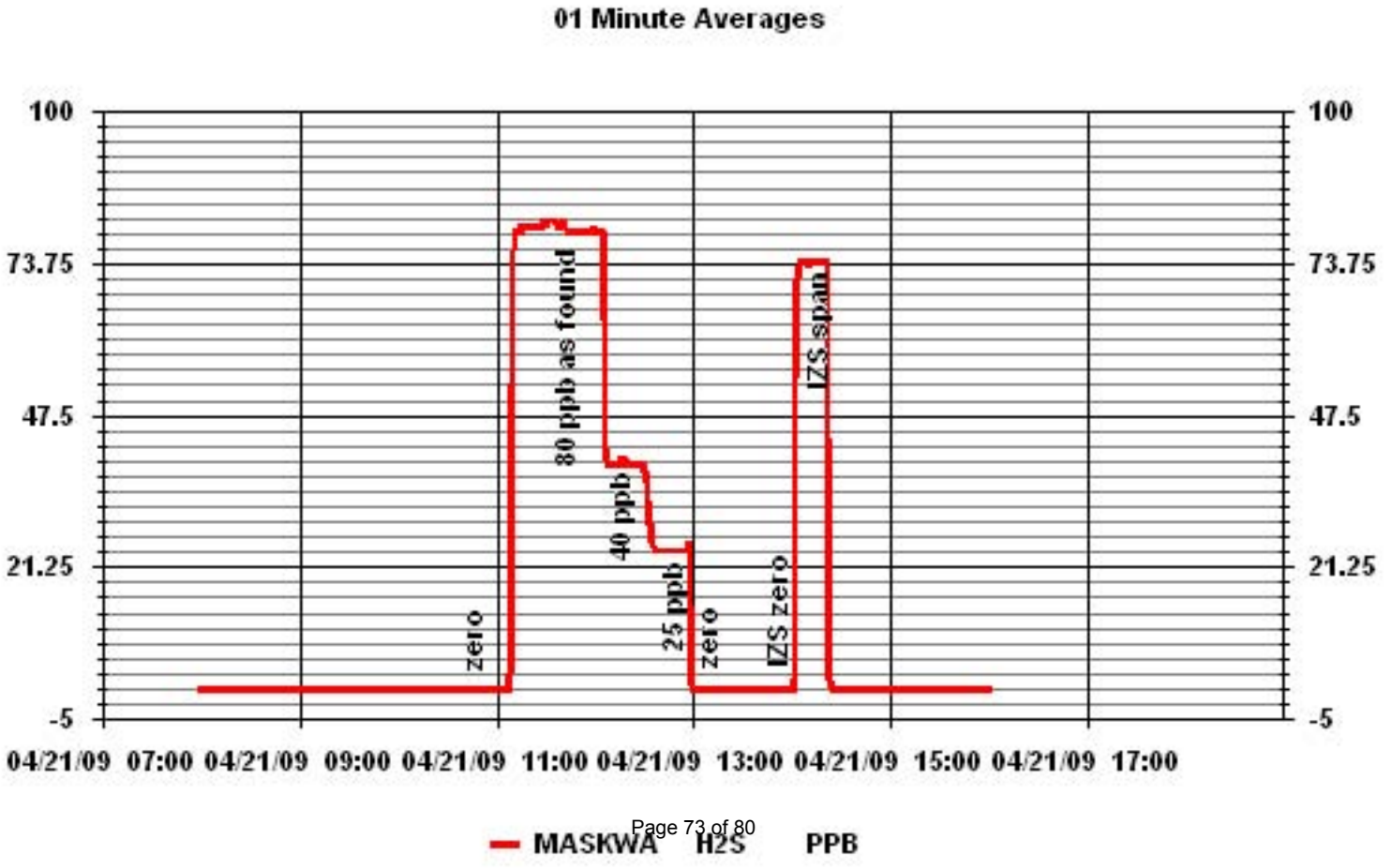

01 Minute Averages
100
73.75
47.5
21.25
-5
zero
80 ppb as found
40 ppb
25 ppb
zero
IZS zero
IZS span
04/21/09 07:00
04/21/09 09:00
04/21/09 11:00
04/21/09 13:00
04/21/09 15:00
04/21/09 17:00
MASKWA H2S PPB

Total Hydrocarbons

THC Calibration Report

Station Information

Calibration Date:	April 22, 2009	Previous Calibration	March 25, 2009
Company:	**Lakeland Industry & Community Association**		
Plant / Location:	**Cold Lake - Maskwa**		
: (MST)	8:00	End Time (MST)	17:05
Reason:	Monthly Calibration		
Barometric Pressure:	27.41 inHg	Station Temperature:	25 Deg C
Calibrator:	API 700	S/N:	831
Cal Gas Concentration:	299 Prop/ 1019 Meth ppm	Cal Gas Expiry Date:	August 21, 2011
DAS make & Model:	ESC 8832	S/N :	AO 791
Output Voltage Range:	0 - 10 VDC		

Analyzer Information

Make / Model	TECO 51C-LT	S/N :	436609738	Method	Flame Ionization

Analyzer Settings

	Before Calibration		After Calibration	
Concentration Range	0 -50	ppm	0 - 50	ppm
Sample Pressure	7.5	psi	7.2	psi
Hydrogen Pressure	8	psi	8	psi
Air Pressure	18	psi	18	psi

Calibration Data

Dilution Flow	Source Gas Flow	Calculated Concentration	Indicated Concentration	Correction Factor
3007	0	0.0	-0.1	N/A
3008	65.8	39.4	37.9	1.0396
3023	0.0	0.0	0.0	N/A
3009	65.8	39.4	39.5	0.9975
3018	35.1	21.2	21.2	1.0000
3008	20.1	12.2	12.1	1.0083
3010	0	0.0	0.5	N/A
			Correction Factor:	0.9975

Previous Calibration Correction Factor:	0.9976	
Current Correction Factor Before Span Adjust:	0.9975	
Percent Change:	0.01%	

IZS Calibration Data

	Before Calibration	After Calibration
Auto Zero	-0.1	0.0
Auto Span	44.5	45.9
Sample Lines Connected		YES

Cylinder Pressures		
Span	1100	psi
Hydrogen	1000	psi
Zero Air	1050	psi

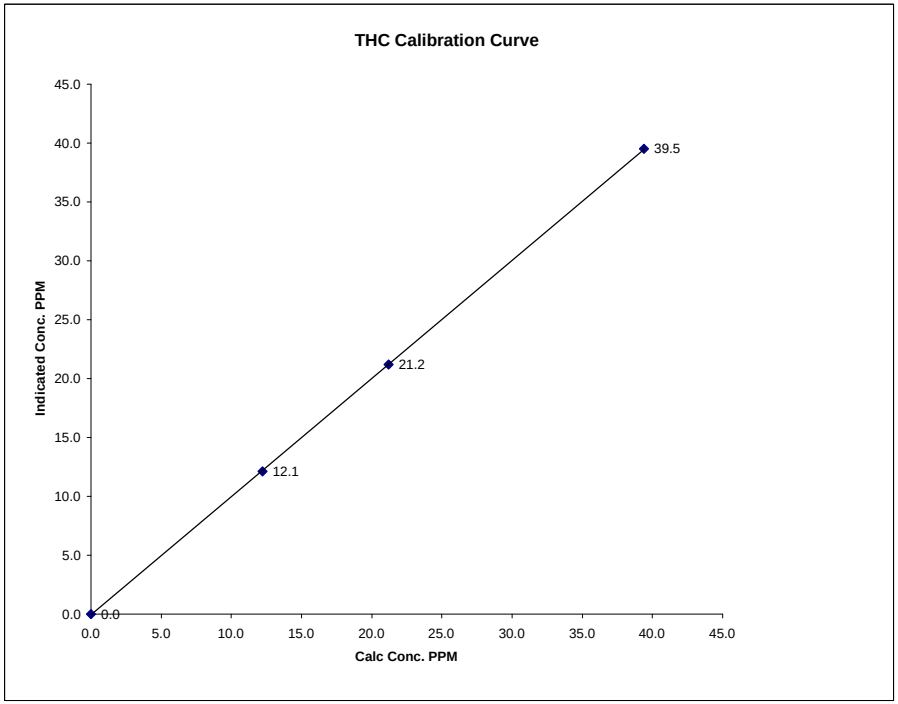
Calibration Performed by: Shea Beaton

THC Calibration Curve

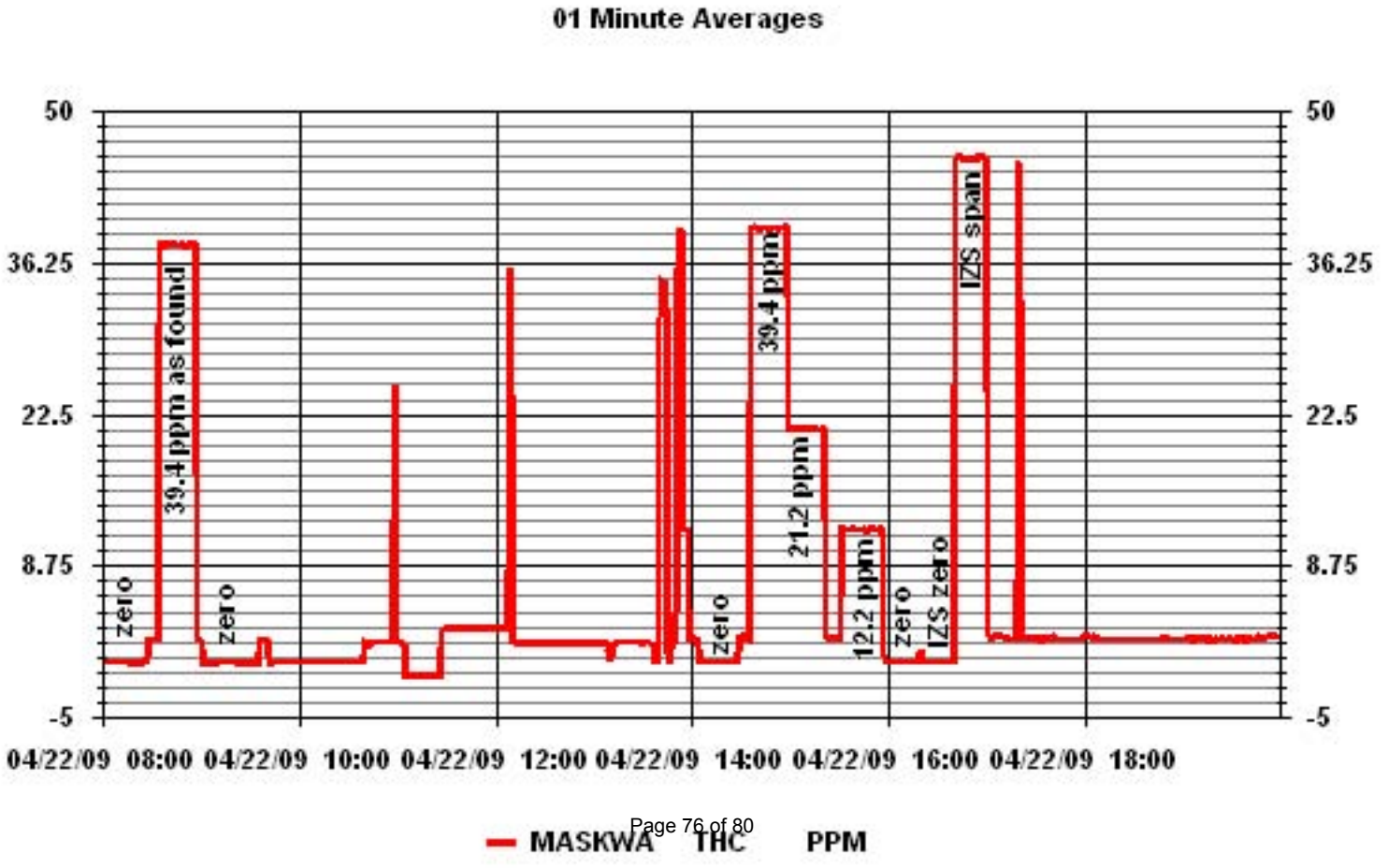
Calibration Date	April 22, 2009		
Company	**Lakeland Industry & Community Association**		
Plant / Location	**Cold Lake - Maskwa**		
Start Time (MST)	8:00	End Time (MST)	17:05

Calculated Conc. ppm	Indicated Response ppm	Correction Factor
0.0	0.0	
12.2	12.1	1.0083
21.2	21.2	1.0000
39.4	39.5	0.9975

Correlation Coefficient	(≥ 0.995)	0.999987
Slope	(0.85 to 1.15)	1.003294
Intercept	(± 3% F.S.)	-0.059955



Notes:


01 Minute Averages
50
36.25
22.5
8.75
-5
zero
39.4 ppm as found
zero
39.4 ppm
21.2 ppm
12.2 ppm
zero
IZS zero
IZS span
04/22/09 08:00
04/22/09 10:00
04/22/09 12:00
04/22/09 14:00
04/22/09 16:00
04/22/09 18:00
MASKWA THC PPM

Nitrogen Dioxide

NOx - NO- NO_2 Calibration Report

Station Information

Calibration Date	April 22, 2009		Previous Calibration	March 11, 2009	
Company	**LICA**		Plant/Location	**Cold Lake - Maskwa**	
Start Time (MST)	8:00		End Time (MST)	14:50	
Reason:	As Found Calibration				
Barometric Pressure	27.41	inHg	Station Temperature	25.0	Deg C
Cal Gas Concentration	NOx 51.8	ppm NO 51.6 ppm	Cal Gas Expiry date	12/16/2010	
DAS Output Voltage	0 - 1	Volts			

Equipment Information

Analyzer Make / Model:	API 200E	S/N :	594	Method:	Chemiluminescent
Calibrator Make / Model:	Environics 2000	S/N:	1991		
DAS Make / Model:	ESC 8832	S/N :	AO 791		
Flow Meter:	Environics 2000	S/N :	1991		

Analyzer Settings

	Before Calibration				After Calibration			
Concentration Range			0 - 1000	ppb				
Sample Flow/Conv. Temp	454	ccm	314.7	Deg C	454	ccm	313.7	Deg C
Ozone Flow / Vacuum	75	ccm	3.8	"Hg-A	76	ccm	3.8	"Hg-A
HVPS	767		Volts		767		Volts	
Rx/ Temp / PMT Temp	50	Deg C	6.5	Deg C	50	Deg C	6.6	Deg C
Box Temp / IZS Temp	36.3	Deg C	45.1	Deg C	36.1	Deg C	45.1	Deg C
Offset	1.2	NOx	0.2	NO	1.2	NOx	0.2	NO
Slope	1.261	NOx	1.252	NO	1.208	NOx	1.204	NO

Gas Phase Titration Calibration Data

Dilution Air Flow Rate	Source Flow Rate	O3 Set Point	Calculated Concentration NOx	Calculated Concentration NO	Indicated Concentration NOx	Indicated Concentration NO	Indicated Concentration NO2	Correction Factor NOx	Correction Factor NO
5001.0	0	N/A	0	0	0	-1	0	N/A	N/A
4923.0	77.5	N/A	803	800	838	830	8	0.9580	0.9635
4923.0	77.5	N/A	803	800	804	799	4	0.9985	1.0009
4961.0	38.8	N/A	402	400	399	397	2	1.0075	1.0086
4985.0	19.4	N/A	201	200	197	196	0	N/A	N/A
5001.0	0	N/A	0	0	-1	0	-1		
								Converter Efficiency	
4920.0	77.5	N/A	803	800	804	802	1	N/A	
4923.0	77.5	400	803	N/A	802	435	367	100%	
4923.0	77.5	200	803	N/A	803	616	195	104%	
4923.0	77.5	100	803	N/A	803	712	91	100%	
4923.0	77.5	N/A	803	800	804	804	1	N/A	
								Correction Factor	
5003.0	0	N/A	0	0	-1	-1	-1	N/A	N/A
Linearity OK?			**Yes**	No	Sum of Least Squares			1.0012	1.0033
Flows Checked on-site?			Yes	**No**	New Correction Factor			0.9985	1.0009
					Average Converter Efficiency			101%	

	Before Calibration				After Calibration			
Auto Zero	-1.0	NOx	-1.0	NO2	-1.0	NOx	-1.0	NO2
Auto Span	775.0	NOx	763.0	NO2	730.0	NOx	719.0	NO2
Sample Lines Connected					YES			
Percent Change from Previous Calibration					*NOx*	0.2%	*NO*	0.1%

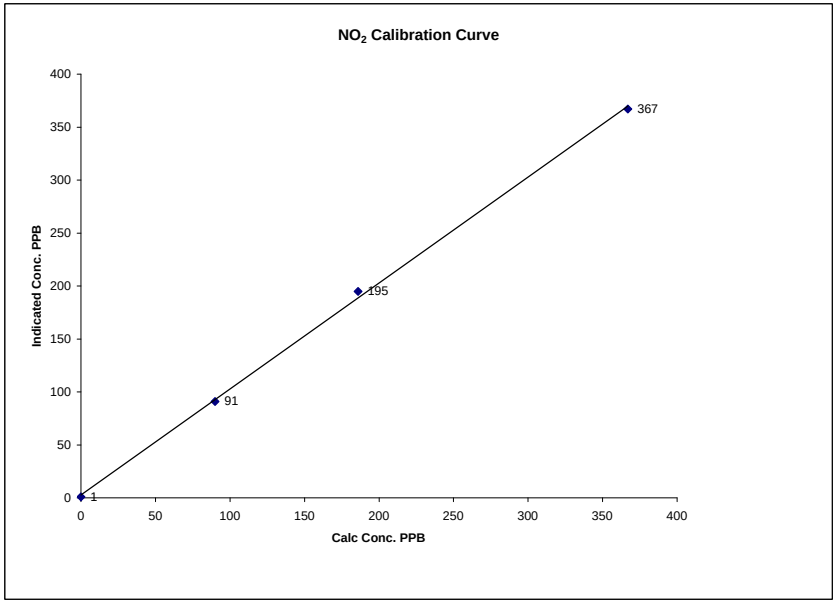
Calibration Performed by: Shea Beaton

NO_2 Calibration Curve

Calibration Date	April 22, 2009		
Company	**LICA**		
Plant / Location	**Cold Lake - Maskwa**		
Start Time (MST)	8:00	End Time (MST)	14:50

Calculated Conc. ppb	Indicated Response ppb	Correction Factor
0	1	N/A
90	91	0.9890
186	195	0.9538
367	367	1.0000

Correlation Coefficient	(≥ 0.995)	0.999288
Slope	(0.85 to 1.15)	0.999943
Intercept	(± 3% F.S.)	2.759229

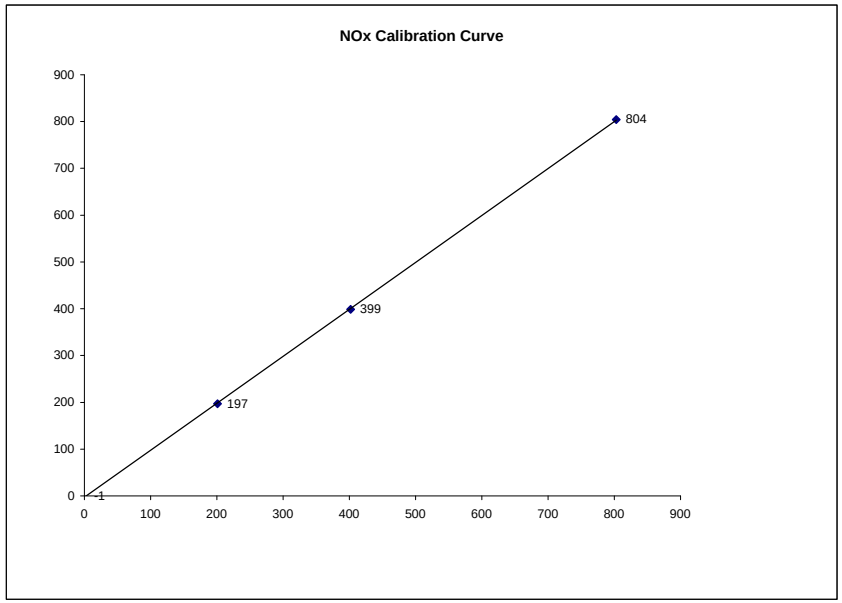


Notes:

NOx Calibration Curve

Calibration Date	April 22, 2009				
Company	LICA				
Plant / Location	Cold Lake - Maskwa				
Start Time (MST)	8:00	End Time (MST)	14:50		

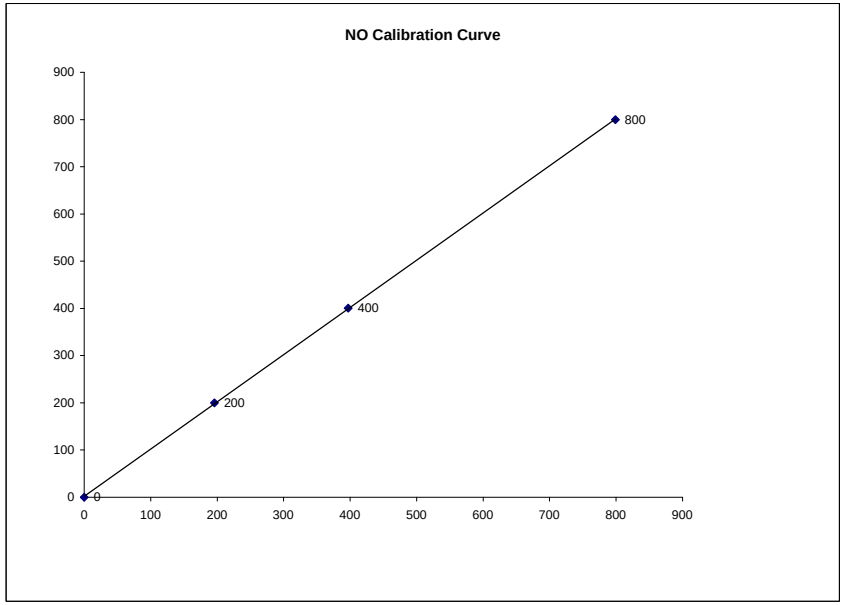
Calculated Conc. ppb	Indicated Response ppb	Correction Factor	Correlation Coefficient	(≥ 0.995)	0.999972
			Slope	(0.85 to 1.15)	1.003707
0	-1	N/A	Intercept	(± 3% F.S.)	-2.955334
201	197	1.0193			
402	399	1.0075			
803	804	0.9985			

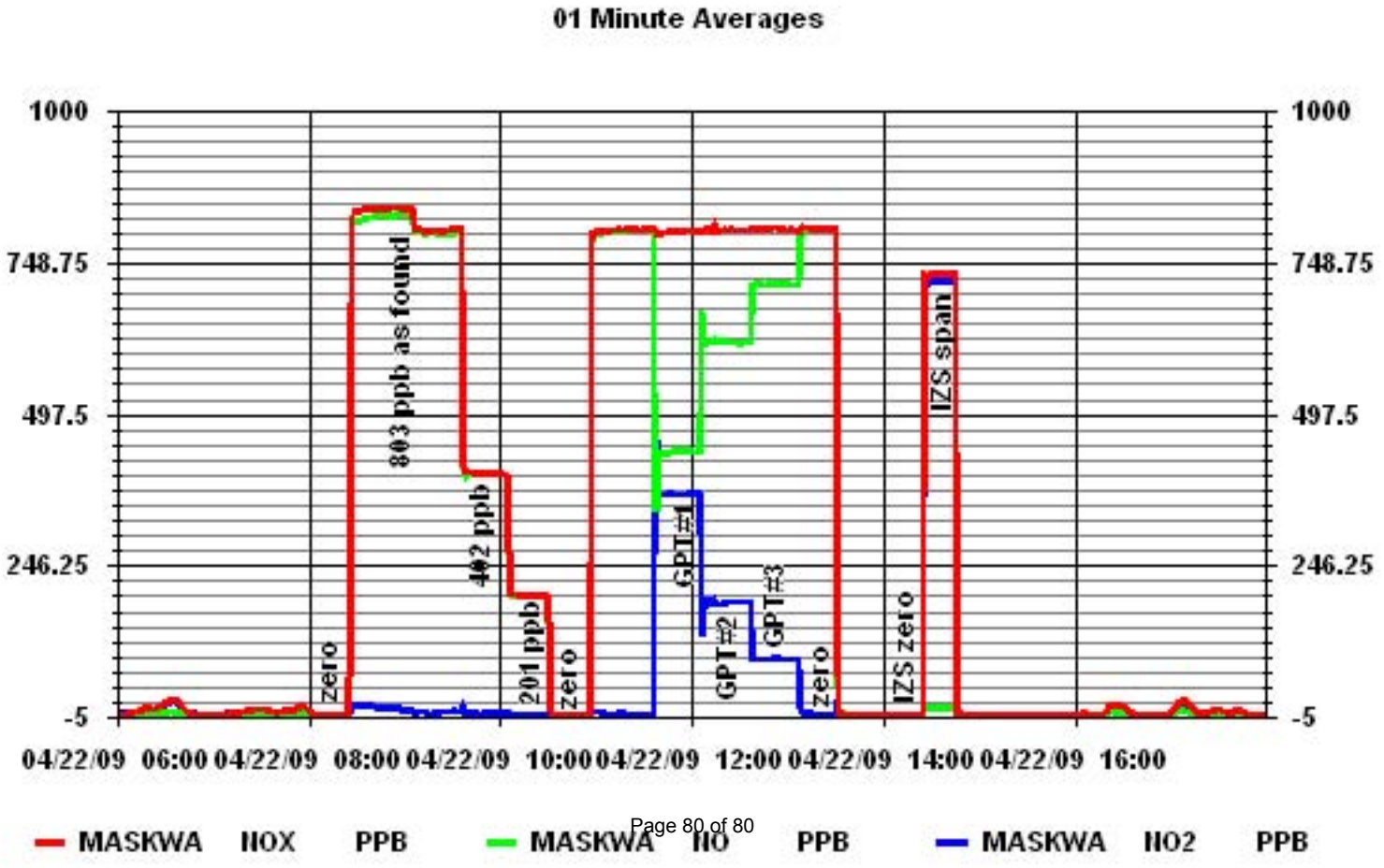


NO Calibration Curve

Calibration Date	April 22, 2009				
Company	LICA				
Plant / Location	Cold Lake - Maskwa				
Start Time (MST)	8:00	End Time (MST)	14:50		

Calculated Conc. ppb	Indicated Response ppb	Correction Factor	Correlation Coefficient	(≥ 0.995)	0.999966
			Slope	(0.85 to 1.15)	1.000309
0	0	N/A	Intercept	(± 3% F.S.)	-2.154235
200	196	1.0206			
400	397	1.0086			
800	799	1.0009			




01 Minute Averages
1000
748.75
497.5
246.25
-5
zero
803 ppb as found
402 ppb
201 ppb
zero
GPT#1
GPT#2
GPT#3
zero
IZS zero
IZS span
04/22/09 06:00 04/22/09 08:00 04/22/09 10:00 04/22/09 12:00 04/22/09 14:00 04/22/09 16:00
MASKWA NOX PPB
MASKWA NO PPB
MASKWA NO2 PPB