

Lakeland Industry & Community Association

Cold Lake Monitoring Site
Ambient Air Monitoring
Data Report
For
January 2010

Prepared By:



February 12, 2010

Lakeland Industry & Community Association Ambient Air Monitoring

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Introduction

The following Ambient Air Monitoring report was prepared for:

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Monitoring Location: Cold Lake
Data Period: January 2010

The monthly ambient data report:

- Prepared by Lily Lin
- Reviewed by Craig Snider

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

The 6-day analytical report for VOCs and PAHs:
Authorized by Petro Oh

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 – January 2010

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	0.31	13	2	20	5.8	1(N)	2.3	2	99.7
TRS (PPB)	-	-	-	-	0.00	0	ALL	ALL	VAR	VAR	0.0	ALL	99.7
NO ₂ (PPB)	212	106	0	0	8.37	31	10	16	1.8	66(ENE)	21.0	29	99.5
NO (PPB)	-	-	-	-	3.11	90	15	10	0.8	54(NE)	16.2	15	99.5
NO _x (PPB)	-	-	-	-	11.73	114	15	10	0.8	54(NE)	33.1	28	99.5
O ₃ (PPB)	82	-	0	-	17.95	38	31	VAR	VAR	VAR	31.9	31	99.7
THC (PPM)	-	-	-	-	2.32	5.2	29	10	3.8	250(WSW)	3.6	29	99.7
PM 2.5 (UG/M ³)	-	30	-	0	7.05	33.4	11	23	0.8	79(ENE)	20.7	10	98.3
TEMPERATURE (DEG C)	-	-	-	-	-13.05	2.5	16	14	10	278(W)	-2.0	16	99.7
RELATIVE HUMIDITY (%)	-	-	-	-	79.15	96.0	12	VAR	VAR	VAR	91.8	12	99.7
VECTOR WS (KPH)	-	-	-	-	4.59	15.3	24	3	-	330(NNW)	10.6	24	99.7
VECTOR WD (DEGREES)	-	-	-	-	54(NE)	-	-	-	-	-	-	-	99.7

VAR-VARIOUS

Monthly Non-Continuous Data Summary

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - COLD LAKE

Passive Ambient Monitoring Network – January 2010

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION PASSIVE NETWORK			
NETWORK MAXIMUM			NETWORK AVERAGE
PARAMETER	STATION	READING (PPB)	READING (PPB)
SO ₂	#14	1.6	0.9
H ₂ S	#17	0.21	0.14
NO ₂	#28	8.8	3.3
O ₃	#17	25.4	21.0

Volatile Volatile Organics Data Summary

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - COLD LAKE

Xontech Model 910A – January 02, 2010

Maximum reading (ug/m3)	Volatile Organic
<32	Hexachlorobutadiene

Xontech Model 910A – January 08, 2010

Maximum reading (ug/m3)	Volatile Organic
<32	Hexachlorobutadiene

Xontech Model 910A – January 14, 2010

Maximum reading (ug/m3)	Volatile Organic
<32	Hexachlorobutadiene

Xontech Model 910A – January 20, 2010

Maximum reading (ug/m3)	Volatile Organic
<32	Hexachlorobutadiene

Xontech Model 910A – January 26, 2010

Maximum reading (ug/m3)	Volatile Organic
<32	Hexachlorobutadiene

Polycyclic Aromatic Hydrocarbons (PAHs) Data Summary

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - COLD LAKE

PUF cartridge – January 02, 2010

Maximum reading (ng/m3)	Volatile Organic
<6.055	3-Methylcholanthrene

PUF cartridge – January 08, 2010

Maximum reading (ng/m3)	Volatile Organic
9.749	2-Methylanthracene

PUF cartridge – January 14, 2010

Maximum reading (ng/m3)	Volatile Organic
< 2.0	3-Methylcholanthrene

PUF cartridge – January 20, 2010

Maximum reading (ng/m3)	Volatile Organic
< 2.0	3-Methylcholanthrene

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, S/N: 806528242

No operational issues observed during the month. The inlet filter was changed before the monthly calibration was started on January 13th. Two hours of data are missing this month. Data was corrected using daily zero information.

Total Reduced Sulphur (PPB)

- Analyzer make / model –TEI 450i, S/N: 812728560
- Converter - CD NOVA CDN 101, S/N: 250

No operational issues observed during the month. The Maxxam-Supplied Thomas pump that was being used as the sample pump for the analyzer was removed, and a newly LICA-Owned Thomas pump was installed following the as found points on January 6th. The analyzer was then allowed to stabilize. A multi-point calibration was beginning at 10:30 on January 6th. The inlet filter was changed before the monthly calibration was started. Two hours of data are missing this month. Data was corrected using daily zero information.

Total Hydrocarbon (PPM)

- Analyzer make / model -TECO 51C-LT, S/N: 427408718

No operational issues observed during the month. Following the as found points on January 6th, the internal burner air regulator was replaced. The pump diaphragm, the internal 0.5 micron sample filter were also replaced. The flow then was measured and adjusted following a post repair calibration on January 6th. The inlet filter was changed before the monthly calibration was started. Two hours of data are missing this month. Data was corrected using daily zero information.

General Monthly Summary - Cold Lake

AQM STATION – LICA – COLD LAKE

Nitrogen Dioxide (PPB)

- Analyzer make / model - TECO 42C, S/N: 427408716

No operational issues observed during the month. The analyzer was put in the “Maintenance” mode to check analog out wires on January 6th. The inlet filter was changed before the monthly calibration was started. It was noticed that the NO readings did not coincide with NO₂ and NO_x readings on January 13th; the analyzer and logger values did not agree. The issue was fixed by tightening the wires at both the logger and the analyzer. After the troubleshooting, a single zero and span point calibration was performed; no issue was noticed. Two hours of data are missing this month. Data was corrected using daily zero information.

Ozone (PPB)

- Analyzer make / model - TECO 49i, S/N: 700419951

No operational issues observed during the month. The inlet filter was changed before the monthly calibration was started on January 6th. Two hours of data are missing this month.

Particulate Matter 2.5 (ug/m³)

- Analyzer make / model –TEOM1405F, S/N: 1405A201620804

No operational issues observed during the month. A Teom audit was attempted to perform before the flash card replacement on January 13th. However, issues was encountered. Contacted the manufacturer and they said it was likely a software issue and replacing the flash card should correct the problem. The flash card was replaced. After the flash card replacement, the Teom settings was re-entered, flow, temperature and pressure calibrations were performed followed by a full Teom audit, including a leak check and Ko confirmation. New Teom and FDMS filters were installed right after. The Teom flows were rechecked using Bios DC-2 flow meter on January 18th; flows were good. Temperature and pressure were good as well. The Teom system was left in Maintenance mode to stabilize till 23:00. Two hours of data are missing this month. Data was corrected using Alberta air quality guideline for PM_{2.5} analyzer. If the data was between 0 to –3, the data was corrected to 0. If the data was below –3, the data was invalidated. One hour of data was invalidated as it was below –3.0 ug/m³.

General Monthly Summary - Cold Lake

AQM STATION – LICA – COLD LAKE

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

- System make / model – Met One 50.5, S/N: F1644

No operational issues observed during the month. The wind system is reported as vector wind speed and vector wind direction. Two hours of data are missing this month.

Relative Humidity (PERCENT)

- System make / model - Rotronic Hygroclip-S3

No operational issues observed during the month. Two hours of data are missing this month.

Ambient Temperature (DEGC)

- System make / model - Rotronic Hygroclip-S3

No operational issues observed during the month. Two hours of data are missing this month.

Trailer Temperature (DEGC)

- System make / model - R&R 61

No operational issues observed during the month. Two hours of data are missing this month.

Datalogger

- System make / model - ESC 8832, S/N: 263
- 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.

General Monthly Summary - Cold Lake

AQM STATION – LICA – COLD LAKE

Air Quality Index (AQI)

The AQI data was adjusted to reflect regular monthly and daily calibrations, maintenance, and downtime. Six hours of data were within the Fair range, and all were due to PM2.5. The highest hourly concentration of PM2.5 was 33.4 UG/M3 and an AQI value of 28 on January 11th, hour 23. The highest hourly concentration of Ozone was 38 ppb and an AQI value of 19 on January 31st, hour 21, 22 and 23.

Passive Network

No issue was observed during this month.

Volatile Organics (VOCs)

The volatile organics were sampled on January 2nd, 08th, 16th, 20th and 26th. The sampler was programmed to run for 24 hours, and, every 6 days per sample cycle.

The values for the VOCs in this report were reported as ug/m3.

A flow check and adjustment on the Xontech was performed on January 6th; flow set at 10.0 scc/m, measured 10.0 scc/m using Bios. A leak check was run overnight; cylinder pressure was -28 inHg at 17:10 on January 6th, and -27 inHg at 12:30 on January 7th. No leak was noticed on the Xontech.

Polycyclic Aromatic Hydrocarbons (PAHs)

The PAHs were sampled on January 2nd, 08th, 16th, 20th and 26th. The sampler was programmed to run for 24 hours, and, every 6 days per sample cycle.

The values for the PAHs in this report were reported as ng/m3.

The lab result for January 26th is not included in this report. The result is not available at the time when the monthly report is completed. The result will be included in the monthly report next month.

Continuous Monitoring

Monthly Summaries, Graphs & Wind Roses

Air Quality Index

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - COLD LAKE

JANUARY 2010
AIR QUALITY INDEX (AQI)

MST		0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	DAILY MAX
DAY	HOURLY	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		
1	5	7	5	7	7	12	13	13	14	14	16	-	15	15	15	16	18	17	17	17	17	17	17	17	17	17	18
	PM2	PM2	PM2	PM2	PM2	O3	O3	O3	O3	O3	O3	NA	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3
2	17	16	16	16	16	16	16	16	16	16	15	-	15	14	14	14	13	13	12	12	11	11	10	7	7	17	
	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	O3	O3
3	6	10	7	3	6	11	4	5	11	14	-	14	14	13	13	12	13	13	13	12	10	8	7	8	14	14	
	O3	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	O3
4	8	8	8	9	9	8	6	5	5	-	7	8	8	7	6	6	3	3	2	4	5	6	6	6	9	9	
	O3	O3	O3	O3	O3	O3	O3	O3	PM2	NA	O3	O3	O3	O3	PM2	PM2	PM2	PM2	PM2	PM2	PM2	PM2	PM2	PM2	PM2	PM2	O3
5	6	7	8	9	9	8	9	10	-	13	14	14	15	15	16	15	12	13	14	14	13	10	9	10	16	16	
	O3	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	O3
6	9	10	9	8	5	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-	13	9	10	12	12	13	
	O3	O3	O3	O3	PM2	PM2	PM2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	PM2	PM2	PM2	PM2	PM2	O3	O3
7	12	8	9	10	12	12	-	4	4	9	13	13	15	15	15	15	15	15	12	7	7	8	12	13	15	15	
	O3	O3	O3	O3	O3	O3	NA	PM2	PM2	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3
8	13	13	13	13	13	-	13	13	11	13	13	13	13	13	14	12	9	10	5	3	5	4	6	7	14	14	
	O3	O3	O3	O3	O3	NA	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	PM2	PM2	O3	PM2	PM2	PM2	PM2	PM2	PM2	PM2
9	6	5	7	7	-	6	11	8	8	12	13	8	9	8	7	14	13	20	16	10	16	17	19	20	20		
	PM2	PM2	PM2	PM2	NA	PM2	PM2	PM2	PM2	PM2	O3	PM2	PM2	PM2	PM2	PM2	PM2	PM2	PM2	PM2	PM2	PM2	PM2	PM2	PM2	PM2	O3
10	24	16	14	-	10	14	12	12	9	10	17	26	21	21	18	22	26	27	27	21	25	9	10	9	27	27	
	PM2	PM2	PM2	NA	PM2	PM2	PM2	PM2	PM2	PM2	PM2	PM2	PM2	PM2	PM2	PM2	PM2	PM2	PM2	PM2	PM2	PM2	PM2	PM2	PM2	PM2	O3
11	19	17	-	11	12	13	13	13	14	13	12	12	13	8	7	8	7	7	25	22	27	21	12	28	28	28	
	PM2	PM2	NA	O3	O3	O3	O3	PM2	PM2	O3	O3	O3	O3	O3	O3	PM2	PM2	PM2	PM2	PM2	PM2	PM2	PM2	PM2	PM2	PM2	O3
12	23	-	16	12	5	3	5	9	9	9	9	10	10	10	10	10	9	11	9	9	8	9	11	8	23	23	
	PM2	NA	PM2	PM2	PM2	PM2	O3	O3	O3	O3	O3	O3	O3	O3	O3	PM2	O3	PM2	O3	O3	O3	O3	O3	O3	O3	PM2	PM2
13	-	9	10	11	11	6	11	9	-	-	-	-	-	-	-	9	4	3	4	4	-	4	4	7	-	11	
	NA	PM2	PM2	PM2	PM2	O3	PM2	PM2	NA	NA	NA	NA	NA	NA	NA	O3	O3	PM2	PM2	NA	PM2	PM2	PM2	PM2	NA	PM2	
14	7	7	7	7	5	7	5	7	9	11	10	9	12	10	13	7	12	9	16	11	14	14	-	12	16	16	
	O3	O3	PM2	O3	PM2	PM2	PM2	PM2	PM2	PM2	PM2	PM2	PM2	PM2	PM2	PM2	PM2	PM2	PM2	PM2	PM2	PM2	PM2	PM2	NA	PM2	PM2
15	14	13	10	13	9	8	7	9	7	10	14	15	14	17	13	16	17	17	11	15	10	-	12	11	17	17	
	PM2	PM2	PM2	PM2	PM2	PM2	PM2	PM2	PM2	PM2	PM2	PM2	PM2	PM2	PM2	PM2	PM2	PM2	PM2	PM2	PM2	PM2	PM2	PM2	PM2	PM2	O3
16	9	8	10	8	11	14	14	15	15	16	18	19	19	19	19	18	17	15	15	14	-	15	14	13	19	19	
	PM2	PM2	PM2	PM2	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	NA	O3	O3	O3	O3	O3
17	9	7	6	5	3	3	5	5	6	3	8	16	16	17	18	18	18	18	18	-	18	16	14	15	18	18	
	O3	O3	O3	O3	O3	PM2	PM2	PM2	PM2	PM2	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3
18	15	15	14	14	14	14	11	5	9	11	12	14	14	-	-	-	-	-	-	-	-	-	-	-	-	10	15
	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	PM2	O3	O3
19	9	7	5	5	8	12	13	15	10	9	7	8	7	7	10	11	10	-	7	6	5	9	7	10	15	15	
	PM2	PM2	PM2	PM2	PM2	PM2	PM2	PM2	PM2	PM2	PM2	PM2	PM2	O3	PM2	PM2	PM2	PM2	NA	PM2	PM2	O3	PM2	PM2	PM2	O3	O3
20	8	9	8	7	7	9	7	7	7	8	8	9	9	10	10	10	-	10	10	10	11	12	11	10	10	12	
	O3	PM2	O3	O3	O3	PM2	O3	O3	PM2	O3	O3	O3	O3	O3	O3	O3	NA	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3
21	10	10	11	11	11	11	11	11	10	11	11	11	11	11	11	11	-	11	10	11	11	11	11	11	11	11	11
	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	NA	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3
22	11	11	10	10	12	12	9	11	9	12	12	11	12	13	-	12	12	12	12	12	12	12	12	12	11	13	13
	O3	O3	PM2	O3	PM2	PM2	PM2	PM2	PM2	PM2	PM2	PM2	O3	O3	NA	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3
23	12	12	12	12	13	13	14	13	13	13	13	14	15	-	15	15	15	12	6	8	10	11	12	12	15	15	
	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	O3	O3
24	14	14	11	13	14	13	13	13	14	14	14	14	-	15	15	14	14	14	14	14	14	14	14	14	14	14	15
	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	NA	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3
25	14	14	13	14	13	13	14	14	14	14	14	-	14	14	14	14	14	13	12	12	12	12	12	12	11	14	14
	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	NA	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3
26	12	11	11	10	9	-	9	10	10	11	-	14	15	15	15	14	14	14	14	14	14	13	13	14	15	15	15
	O3	O3	O3	O3	O3	NA	O3	O3	O3	O3	NA	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3
27	14	14	13	12	10	-	10	8	8	-	12	14	15	16	16	14	12	6	4	5	5	5	5	6	16	16	
	O3	O3	O3	O3	O3	NA	O3	O3	O3	NA	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	O3	PM2	PM2	PM2	PM2	O3	O3
28	6	4	5	8	5	5	8	9	-	10	11	9	11	11	12	11	10	7	10	10	6	9	10	7	12	12	
	O3	O3	PM2	PM2	PM2	PM2	PM2	PM2	NA	PM2	PM2	PM2	O3	O3	O3	O3	O3	O3	O3	PM2	PM2	PM2	PM2	PM2	PM2	PM2	O3
29	9	8	8	8	8	7	7	-	9	12	12	12	12	11	15	15	10	13	12	10	11	10	12	9	11	15	
	PM2	PM2	PM2	PM2	PM2	PM2	PM2	NA	PM2	PM2	PM2	PM2	PM2	PM2	PM2	PM2	PM2	PM2	PM2	PM2	PM2	PM2	PM2	PM2	PM2	O3	O3
30	15	13	12	12	13	13	-	14	14	14	14	15	16	16	17	17	17	16	16	17	16	15	15	15	17	17	
	O3	O3	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
31	16	15	16	16	16	-	15	14	15	15	16	16	16	16	15	15	15	15	15	16	18	19	19	19	19	19	
	O3	O3	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
PEAK	24	17	16	16	16	16	16	16	16	16	18	26	21	21	19	22	26	27	27	22	27	21	19	28	28	28	
	O3	O3	O3	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

Sulphur Dioxide

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - COLD LAKE

JANUARY 2010

SULPHUR DIOXIDE (SO₂) 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 MAX.	24-HOUR AVG.	RDGS.		
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	0	0	0	0	0	0	1	1	1	0	0	0	IZS	0	0	0	0	0	0	1	1	0	0	0	1	0.2	24		
2	1	1	1	1	0	0	0	0	0	0	1	IZS	1	1	1	1	1	2	3	7	13	9	6	3	13	2.3	24		
3	1	2	2	1	1	1	2	2	2	1	IZS	1	1	1	1	1	1	1	1	1	0	0	0	0	2	1.0	24		
4	1	1	1	0	1	1	0	0	1	IZS	0	1	1	1	2	1	1	1	0	1	1	2	2	2	2	2	1.0	24	
5	2	2	2	3	2	2	2	1	IZS	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.7	24		
6	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0.1	24	
7	0	0	0	0	1	1	IZS	0	0	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	1	0.5	24		
8	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		
9	0	0	0	0	IZS	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	24		
10	1	0	1	IZS	0	0	0	0	0	0	1	1	1	1	1	1	1	0	0	0	0	0	0	0	1	0.4	24		
11	0	0	IZS	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1	24	
12	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	0.0	24	
13	IZS	0	0	0	0	0	0	0	C	C	C	C	0	0	0	0	0	0	0	0	0	0	0	0	IZS	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	0	0	IZS	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	0	0	0	IZS	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	0	0	IZS	0	0	0	0	0.0	24	
17	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	1	1	0	IZS	0	0	0	0	2	0.3	24		
18	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	0.0	24	
19	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	0.0	24	
20	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	0.0	24	
21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	1	0	0	0	0	0	0	0	0	1	0.0	24	
22	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	0.0	24
23	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	2	1	0	0	2	0.1	24		
24	0	1	3	1	1	1	2	2	2	2	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	3	0.7	24		
25	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	1	1	0	1	0.1	24		
26	0	2	4	4	3	N	1	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0.6	23		
27	0	0	0	0	0	N	0	0	0	IZS	0	0	0	1	1	1	0	0	0	0	0	0	0	0	1	0.1	23		
28	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	0.0	24	
29	0	0	0	0	0	0	0	IZS	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	0.5	24	
30	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	0.0	24	
31	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	0.0	24	
HOURLY MAX	2	2	4	4	3	2	2	2	2	2	1	1	1	1	2	2	1	2	3	7	13	9	6	3					
HOURLY AVG	0.2	0.3	0.5	0.3	0.3	0.3	0.3	0.2	0.3	0.2	0.2	0.2	0.2	0.3	0.4	0.3	0.3	0.3	0.2	0.5	0.6	0.5	0.4	0.3					

STATUS FLAG CODES

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

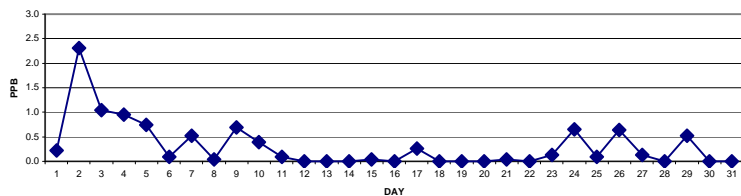
OBJECTIVE LIMIT:

ALBERTA ENVIRONMENT:	1-HR	172	PPB	24-HR	57	PPB
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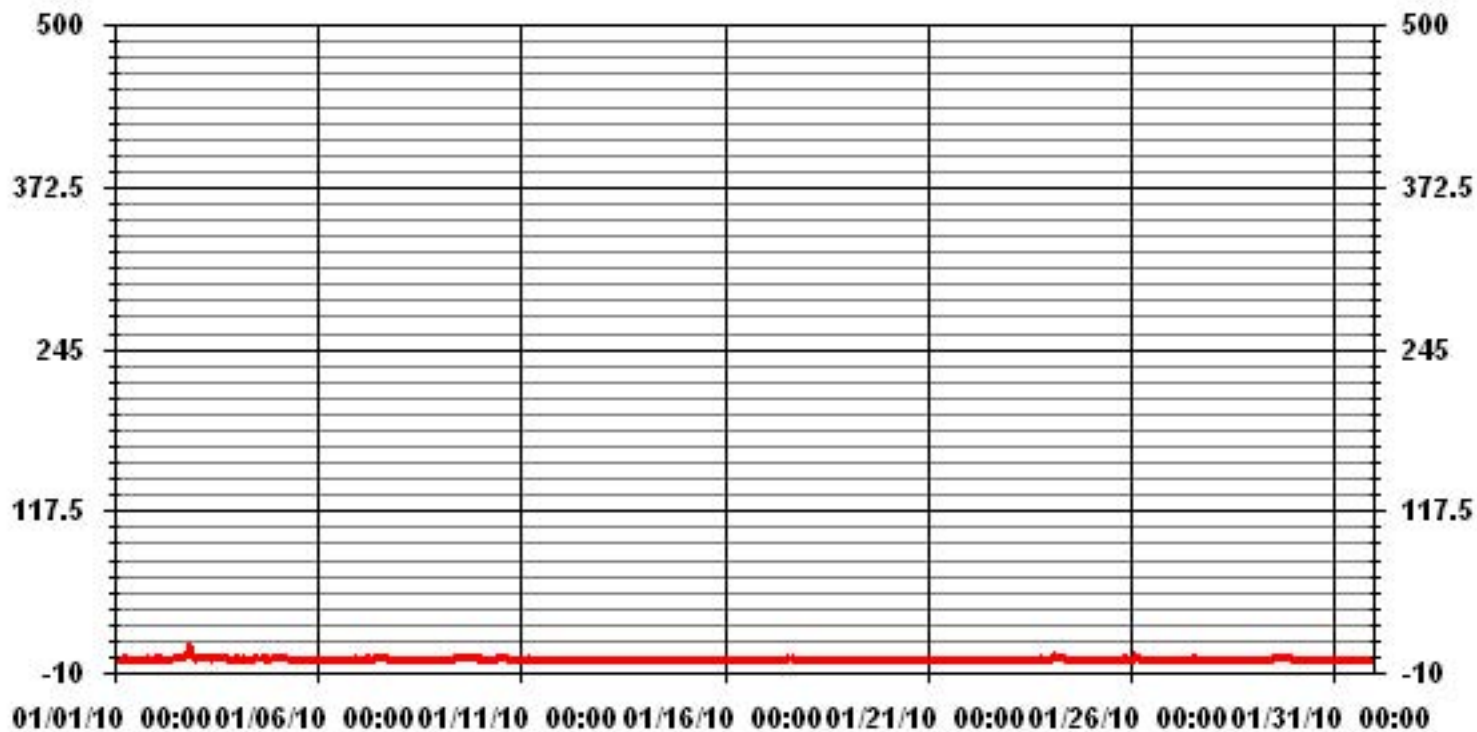
MONTHLY SUMMARY

NUMBER OF 1-HR EXCEEDENCES:	0		
NUMBER OF 24-HR EXCEEDENCES:	0		
NUMBER OF NON-ZERO READINGS:	150		
MAXIMUM 1-HR AVERAGE:	13 PPB @ HOUR(S) 20 ON DAY(S) 2		
MAXIMUM 24-HR AVERAGE:	2.3 PPB ON DAY(S) 2		
IZS CALIBRATION TIME:	32 HRS	OPERATIONAL TIME:	742 HRS
MONTHLY CALIBRATION TIME:	4 HRS	AMD OPERATION UPTIME:	99.7 %
STANDARD DEVIATION:	0.88	MONTHLY AVERAGE:	0.31 PPB

24 HOUR AVERAGES FOR JANUARY 2010



01 Hour Averages



— LICA SO2_ PPB

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - COLD LAKE

JANUARY 2010

SULPHUR DIOXIDE MAX instantaneous maximum in ppt

MST		0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00	DAILY MAX.	24-HOUR AVG.	RDGS.	
HOUR START	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		0	0	0	0	1	1	1	1	1	1	1	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	0.7	24
2		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	4	3	17	15	10	9	5	17	3.4	24			
3		3	2	3	2	1	2	3	2	2	1	1	1	2	2	2	1	1	1	1	1	0	1	1	3	1.6	24			
4		1	1	2	1	1	1	1	1	1	1	1	1	1	3	2	1	1	1	1	1	1	3	3	2	3	1.4	24		
5		3	3	3	3	3	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	3	1.4	24		
6		0	0	0	0	0	0	0	IZS	0	0	1	1	1	1	1	0	1	0	0	0	0	0	1	1	1	0.4	24		
7		1	0	1	1	1	1	IZS	1	1	1	1	2	1	1	1	1	1	1	1	1	0	0	1	0	2	0.9	24		
8		0	1	1	0	1	IZS	0	1	0	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	1	0.6	24		
9		0	0	0	1	IZS	1	1	1	1	1	2	1	1	1	2	1	1	1	1	1	1	1	1	1	2	1.0	24		
10		1	1	1	IZS	1	1	1	0	0	0	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	0.8	24		
11		1	1	IZS	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	0	1	1	0.9	24		
12		1	IZS	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0.1	24		
13		IZS	0	0	0	0	1	1	0	C	C	C	C	1	1	0	0	0	0	0	0	0	0	0	0	0	0.2	24		
14		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	1	1	1	1	1	0.3	24			
15		1	0	0	0	0	0	0	0	0	1	1	1	0	3	2	1	0	0	0	0	0	0	0	0	3	0.4	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	24			
17		0	0	0	0	0	0	0	0	0	0	0	1	1	2	2	2	2	9	1	IZS	1	0	0	0	9	1.0	24		
18		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		
19		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		
20		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		
21		0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	IZS	1	1	1	0	0	0	0	0	1	0.3	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	24		
23		0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	1	3	2	0	0	3	0.3	24		
24		0	3	3	3	2	1	2	3	3	2	1	1	1	IZS	0	0	1	1	0	0	0	0	0	0	3	1.1	24		
25		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	1	0	2	0.2	24		
26		1	2	5	5	3	M	1	1	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0.8	23		
27		0	0	0	0	0	M	0	0	0	IZS	0	1	1	1	1	1	1	0	0	0	0	0	0	0	1	0.3	23		
28		0	0	0	0	0	1	0	1	IZS	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	1	0.4	24		
29		0	0	0	0	0	0	0	0	IZS	0	1	1	1	1	1	2	2	1	2	1	1	1	1	1	2	0.8	24		
30		1	1	1	1	1	1	IZS	0	0	1	1	1	1	1	0	0	0	0	0	1	0	0	0	0	1	0.5	24		
31		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0.0	24		
HOURLY MAX		3	3	5	5	3	2	3	3	3	2	2	2	1	3	3	2	2	9	3	17	15	10	9	5					
HOURLY AVG		0.5	0.5	0.7	0.6	0.6	0.6	0.5	0.6	0.4	0.5	0.6	0.7	0.6	0.8	0.8	0.7	0.5	0.9	0.6	1.1	0.9	0.7	0.7	0.5					

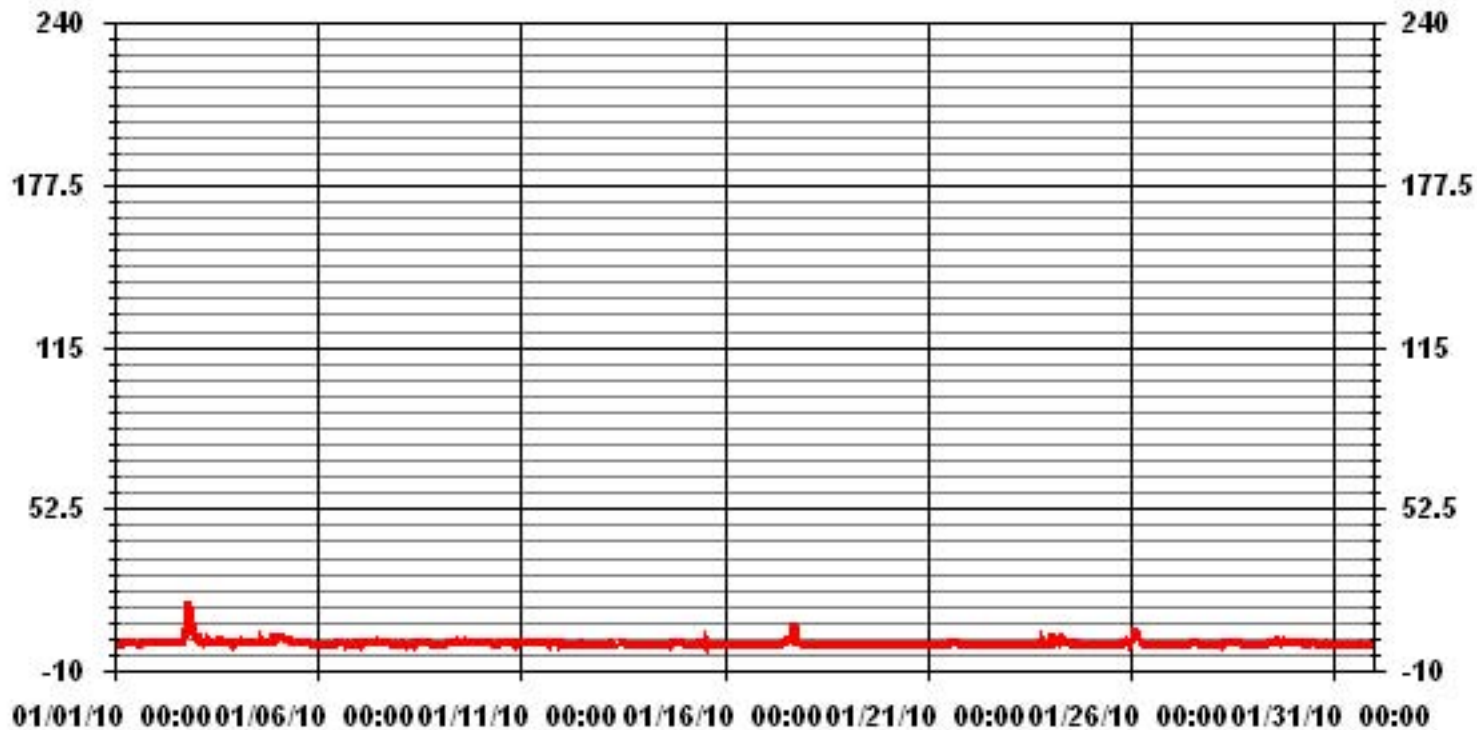
STATUS FLAG CODES

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

MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	314					
MAXIMUM INSTANTANEOUS VALUE:	17	PPB	@ HOUR(S)	19	ON DAY(S)	2
IZS CALIBRATION TIME:	32	HRS		OPERATIONAL TIME:	742 HRS	
MONTHLY CALIBRATION TIME:	4 HRS					
STANDARD DEVIATION:	1.27					

01 Hour Averages



— LICA SO2MAX PPB

LICA
 SO2_ / WDR Joint Frequency Distribution (Percent)

January 2010

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	5.24	6.65	8.35	7.50	13.17	8.35	11.61	1.69	1.41	2.26	5.80	9.91	6.09	3.25	3.39	5.24	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	5.24	6.65	8.35	7.50	13.17	8.35	11.61	1.69	1.41	2.26	5.80	9.91	6.09	3.25	3.39	5.24	

Calm : .00 %

Total # Operational Hours : 706

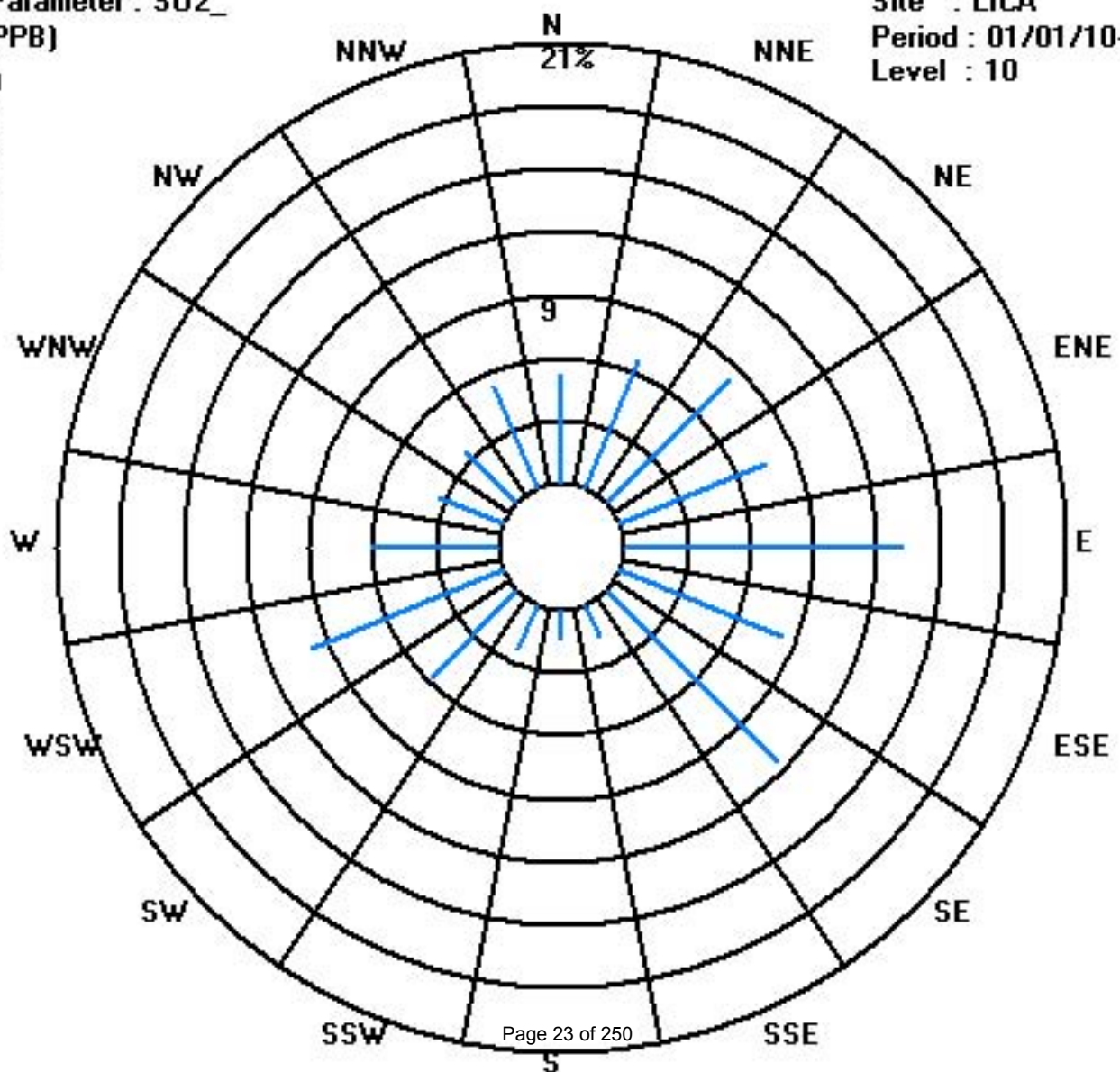
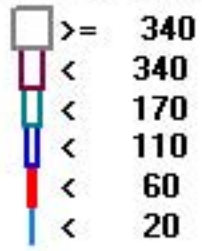
Distribution By Samples

	Direction																
Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
< 20	37	47	59	53	93	59	82	12	10	16	41	70	43	23	24	37	706
< 60																	
< 110																	
< 170																	
< 340																	
>= 340																	
Totals	37	47	59	53	93	59	82	12	10	16	41	70	43	23	24	37	

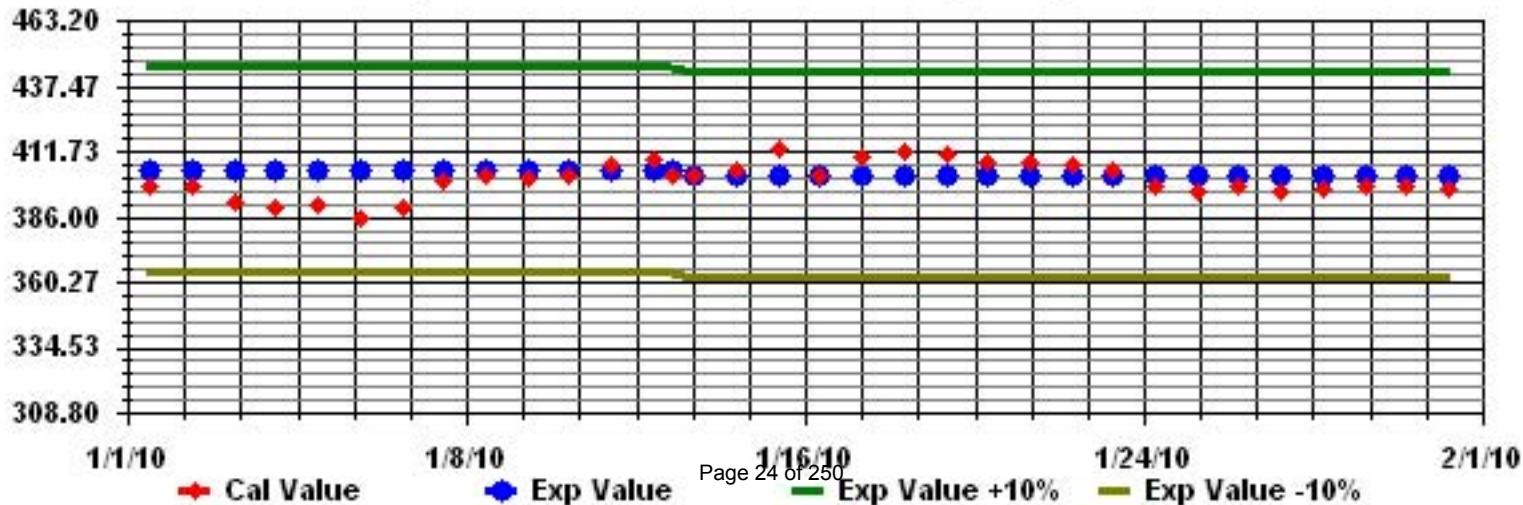
Calm : .00 %

Total # Operational Hours : 706

Class Limits (PPB)



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



Total Reduced Sulphur

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - COLD LAKE

JANUARY 2010

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	24:00	DAILY MAX.	24-HOUR AVG.	RDGS.	
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	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	0.0	24	
2	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	0.0	24	
3	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	0.0	24	
4	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	0.0	24	
5	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	0.0	24	
6	0	0	0	0	0	0	0	IZS	C	C	C	C	C	C	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24	
7	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	0.0	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	0.0	24	
9	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	0.0	24	
10	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	0.0	24	
11	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	0.0	24	
12	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	0.0	24	
13	IZS	0	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	
14	0	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	
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	IZS	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	IZS	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	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	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	0	IZS	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	IZS	0	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	0	IZS	0	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	0	IZS	0	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	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	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	N	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	23
27	0	0	0	0	0	N	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	23
28	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	0.0	24
29	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	0.0	24
30	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	0.0	24
31	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	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	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	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

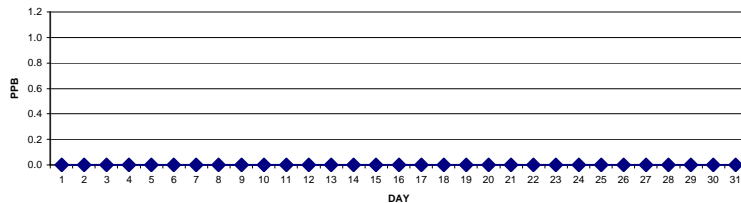
OBJECTIVE LIMIT:

ALBERTA ENVIRONMENT:	1-HR	172	PPB	24-HR	57	PPB
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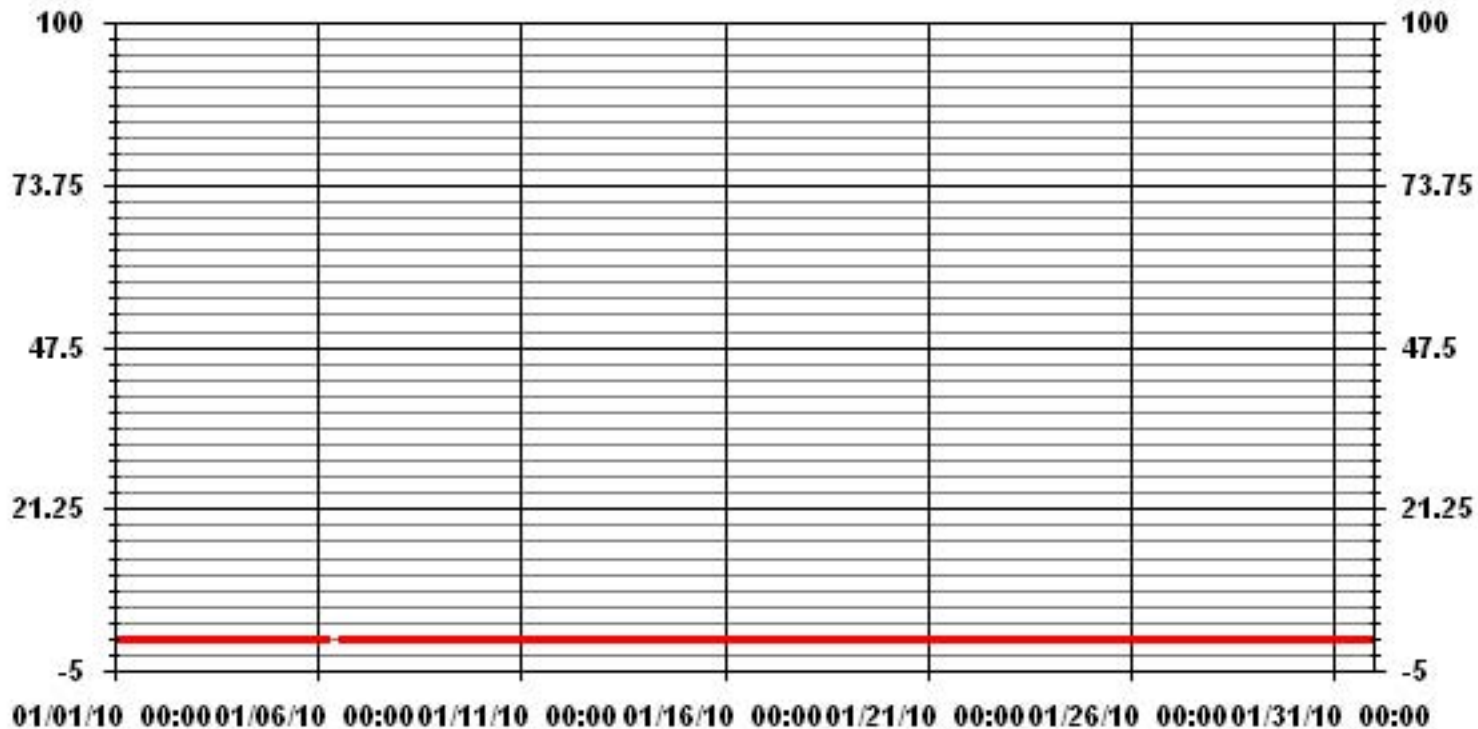
MONTHLY SUMMARY

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:	32 HRS	OPERATIONAL TIME:	742 HRS
MONTHLY CALIBRATION TIME:	6 HRS	AMD OPERATION UPTIME:	99.7 %
STANDARD DEVIATION:	0.00	MONTHLY AVERAGE:	0.00 PPB

24 HOUR AVERAGES FOR JANUARY 2010



01 Hour Averages



— LICA TRS_ PPB

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - COLD LAKE

JANUARY 2010

TOTAL REDUCED SULPHUR MAX instantaneous maximum in ppb

MST																									DAILY 24-HOUR			
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	MAX.	AVG.	RDGS.	
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	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	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
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	0	0	0	0	0	0	0	0	0	0	0	0.0	24
11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
14	0	0	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
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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
19	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	0	0	0	0.0	24
22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
25	0	0	0	0	0	0	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	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	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
31	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	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		
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	0.0	0.0		

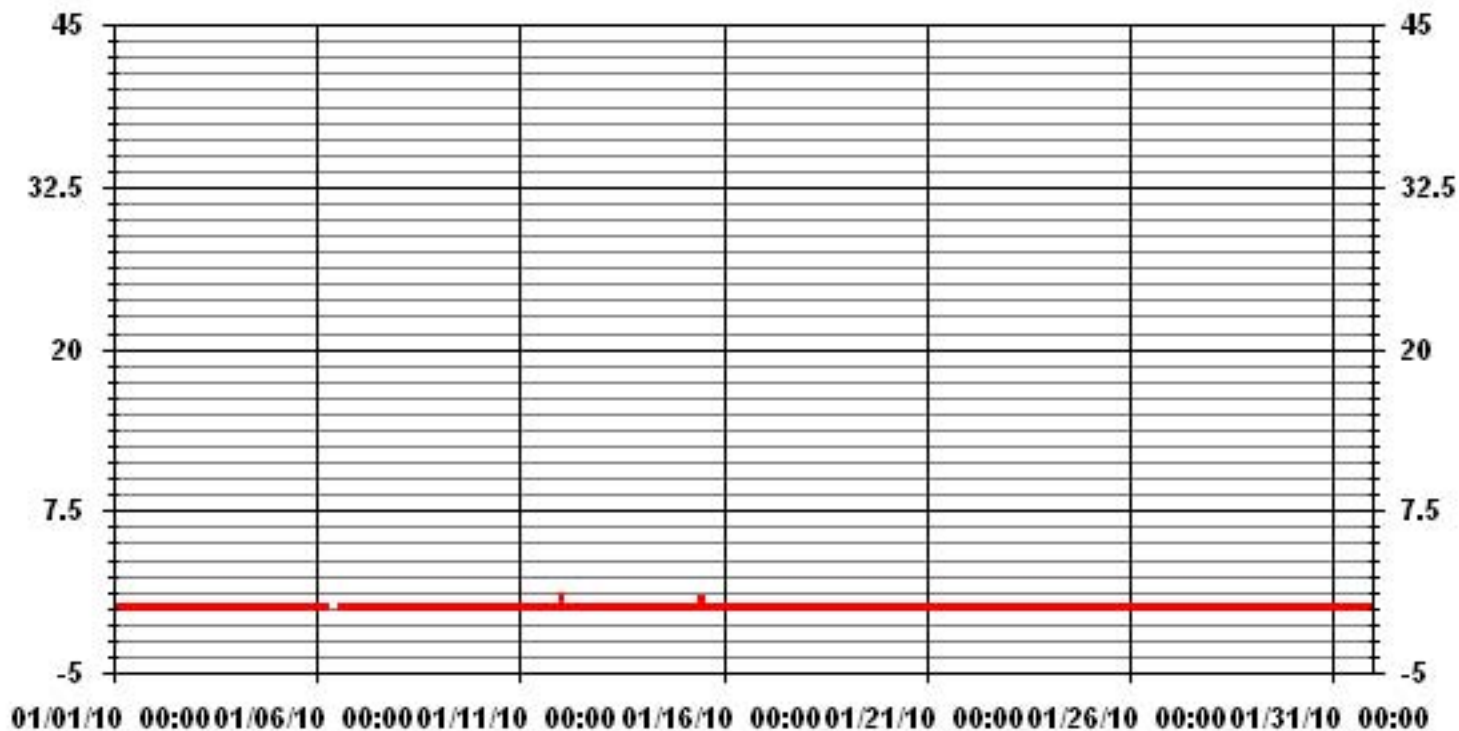
STATUS FLAG CODES

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:	2					
MAXIMUM INSTANTANEOUS VALUE:	1	PPB	@ HOUR(S)	0, 11	ON DAY(S)	12, 15
	VAR - VARIOUS					
IZS CALIBRATION TIME:	32	HRS	OPERATIONAL TIME:	741	HRS	
MONTHLY CALIBRATION TIME:	6	HRS				
STANDARD DEVIATION:	0.05					

01 Hour Averages



— LICA TRSMAX PPB

LICA
 TRS_ / WD Joint Frequency Distribution (Percent)

January 2010

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	5.25	6.67	8.38	7.52	13.06	8.09	11.64	1.70	1.42	2.27	5.82	9.80	5.96	3.26	3.69	5.39	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	5.25	6.67	8.38	7.52	13.06	8.09	11.64	1.70	1.42	2.27	5.82	9.80	5.96	3.26	3.69	5.39	

Calm : .00 %

Total # Operational Hours : 704

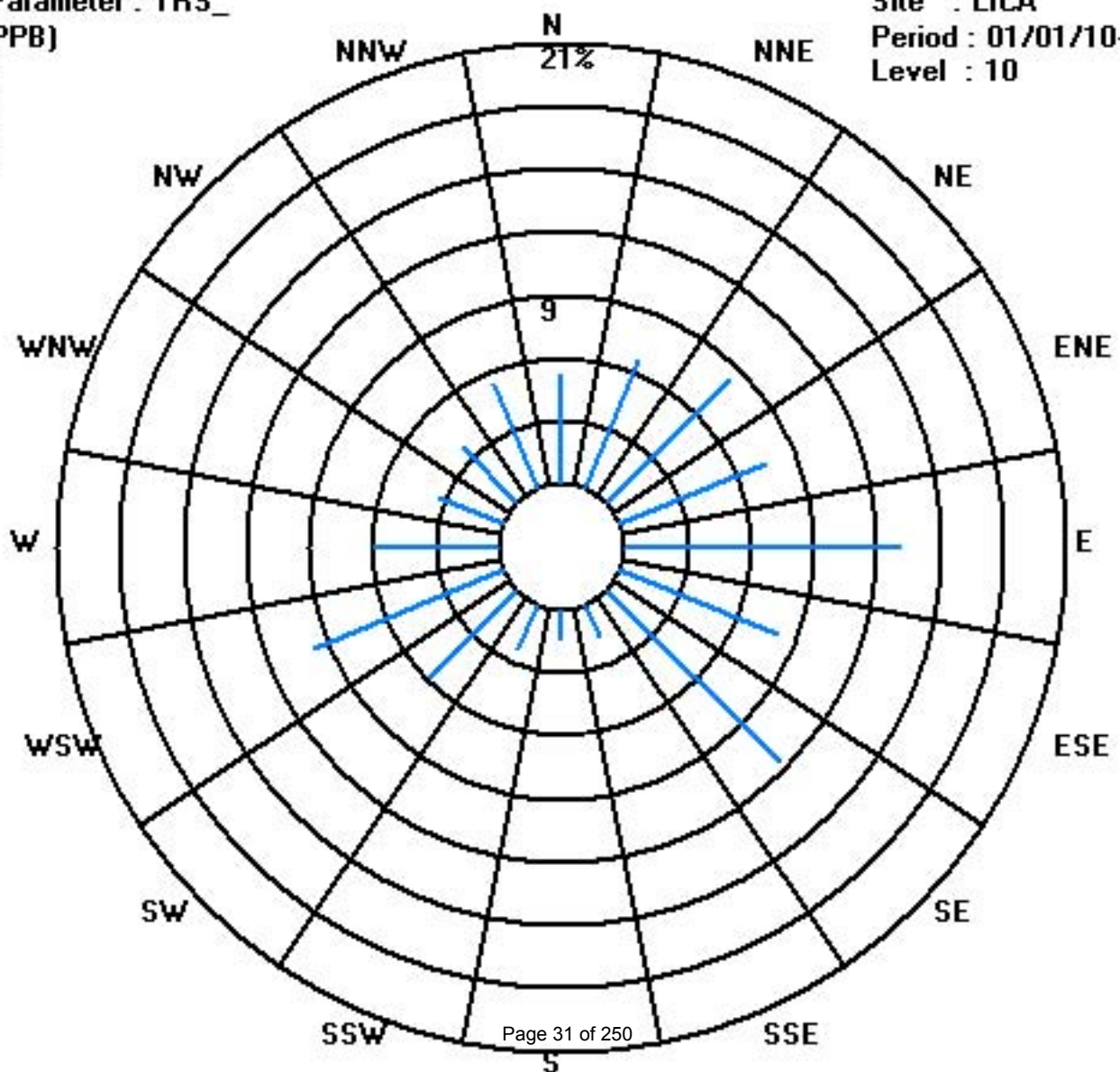
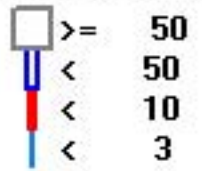
Distribution By Samples

	Direction																
Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
< 3	37	47	59	53	92	57	82	12	10	16	41	69	42	23	26	38	704
< 10																	
< 50																	
>= 50																	
Totals	37	47	59	53	92	57	82	12	10	16	41	69	42	23	26	38	

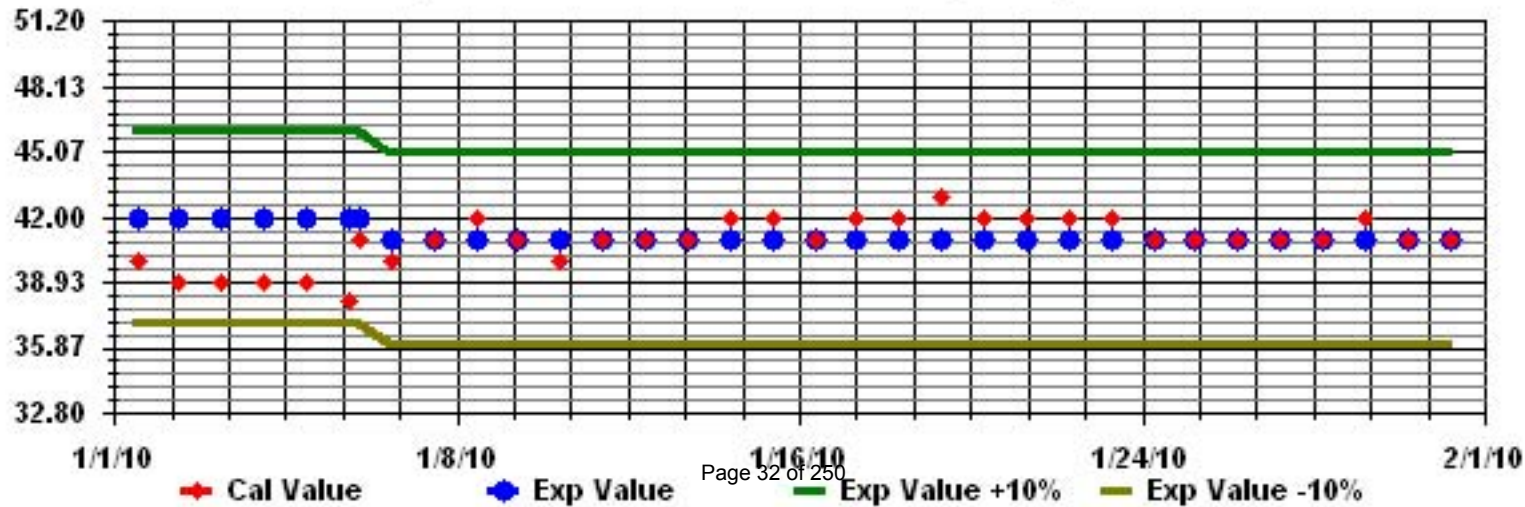
Calm : .00 %

Total # Operational Hours : 704

Class Limits (PPB)



Calibration Graph for Site: LICA Parameter: TRS_ Sequence: TRS Phase: SPAN



Total Hydrocarbons

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - COLD LAKE

JANUARY 2010

TOTAL HYDROCARBONS (THC) hourly averages in ppm

MST		0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY	24-HOUR
DAY	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.
1	2.5	2.6	2.6	2.6	2.7	2.4	2.5	2.6	2.6	2.5	2.3	2.2	IZS	2	2	2	2	2	2	2	2.1	2	2	2	2.7	2.3	24
2	2	2	2	2	2	2	2	2	2.2	2.2	2.1	IZS	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.1	24
3	2.3	2.3	2.4	2.3	2.4	2.4	2.3	2.3	2.1	2.1	IZS	2.1	2.1	2.2	2.2	2.1	2.1	2.1	2.2	2.3	2.4	2.3	2.4	2.2	2.4	2.2	24
4	2.6	2.4	2.3	2.3	2.2	2.3	2.2	2.3	2.3	IZS	2.5	2.4	2.4	2.5	2.5	2.5	2.5	2.4	2.4	2.5	2.5	2.3	2.2	2.2	2.6	2.4	24
5	2.2	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	2.2	2.1	24
6	2.1	2.5	2.9	2.9	3.3	3.5	3.8	IZS	4.5	C	C	C	C	C	C	C	C	C	2.3	2.3	2.3	2.3	2.4	4.5	2.8	24	
7	2.4	2.4	2.4	2.4	2.5	2.5	IZS	2.5	2.6	2.6	2.5	2.4	2.3	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.3	2.2	2.2	2.6	2.3	24	
8	2.3	2.3	2.3	2.2	2.3	IZS	2.4	2.3	2.3	2.5	2.6	2.5	2.6	2.6	2.7	2.8	2.8	2.9	2.9	2.9	3	3.1	3.1	3.1	2.6	24	
9	3.1	3.2	3.2	3.3	IZS	3.3	3.3	3.3	3.2	3.1	2.9	2.9	2.9	3	2.8	3	3.4	3.2	3.8	4.1	4.3	4.6	4.7	4.3	4.7	3.4	24
10	4.3	3.9	3.2	IZS	2.9	2.8	2.8	2.8	2.9	3	3.7	3.5	3.4	3.3	3.2	3.4	3.6	3.8	3.6	3.6	3.1	2.5	2.6	2.6	4.3	3.2	24
11	2.8	2.9	IZS	2.8	2.7	2.5	2.3	2.2	2.1	2.2	2.3	2.2	2.2	2.2	2.2	2.3	2.4	2.5	2.7	2.6	2.6	2.6	2.9	2.9	2.5	24	
12	2.8	IZS	2.6	2.4	2.2	2.3	2.2	2.1	2	2	2	2	2	2	2	2	2	2	1.9	2.1	2	2.1	2.3	2.8	2.1	24	
13	IZS	2.6	2.7	2.7	2.3	2.2	1.9	1.9	2	2.1	2	1.9	1.9	1.9	1.9	1.9	2	2	2.1	2.1	2.1	2	IZS	2.7	2.1	24	
14	2	2	2	2	2	2.1	2	2	2	2.1	2.2	2.4	2.7	2.9	3	3.1	3.1	3.2	3.3	3.4	3.4	IZS	3.1	3.4	2.5	24	
15	3	3	3	3.1	3.1	3.2	3.2	3.3	3.3	3.3	3.5	3.3	3	2.9	3.1	3	2.9	2.9	2.8	2.7	2.5	IZS	2.4	2.4	3.5	3.0	24
16	2.5	3	2.9	2.4	2.1	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	2.1	2.1	IZS	2.1	2.1	2.2	3.0	2.1	24	
17	2.3	2.2	2.2	2.3	2.3	2.5	2.6	2.5	2.4	2.4	2.3	2.1	2.2	2.2	2	2	1.9	IZS	1.9	1.9	1.9	1.9	1.9	1.9	2.6	2.2	24
18	1.9	1.9	1.9	1.9	1.9	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	2	2.1	2.1	1.9	24
19	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.1	2	2.2	2.1	2.1	2.5	2.9	2.7	2.7	2.6	IZS	2.4	2.4	2.5	2.5	2.5	2.4	2.9	2.3	24
20	2.2	2.2	2.1	2.1	2.1	2.1	2	2	2	2	2	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	2.2	2.0	24
21	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	IZS	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	1.9	24
22	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	IZS	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	24
23	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	IZS	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	24
24	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	IZS	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	24
25	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	IZS	1.9	1.9	1.9	1.9	2	2	2	1.9	2.0	24
26	2	1.9	2	2	2	N	2.3	2.2	2.1	2.1	IZS	2	2	2	2	2	2	2	2	2	2	2	2	2.3	2.0	23	
27	2	2.1	2.1	2.2	2.2	N	2.6	2.6	2.6	IZS	2.2	2.2	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.4	2.6	2.2	23
28	2.6	2.5	2.6	2.9	2.7	2.8	3	2.9	IZS	2.9	2.6	2.5	2.4	2.4	2.3	2.4	2.3	2.4	2.4	2.4	2.4	2.5	2.4	2.5	3.0	2.6	24
29	2.5	2.5	2.6	2.6	2.7	2.8	2.9	IZS	3.4	3.9	5.2	4.9	4.4	4	3.5	4.2	3.9	3.7	3.8	4	4.2	4.2	4.5	2.4	5.2	3.6	24
30	2	2	2	2	2	IZS	1.9	1.9	1.9	1.9	2	1.9	1.9	2	1.9	1.9	1.9	1.9	1.9	2	1.9	1.9	1.9	1.9	2.0	1.9	24
31	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	1.9	1.9	1.9	1.9	1.9	1.9	1.9	24
HOURLY MAX	4.3	3.9	3.2	3.3	3.3	3.5	3.8	3.3	4.5	3.9	5.2	4.9	4.4	4.0	3.5	4.2	3.9	3.8	3.8	4.1	4.3	4.6	4.7	4.3			
HOURLY AVG	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.2	2.3	2.3	2.4	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.4	2.4	2.4	2.3	2.3			

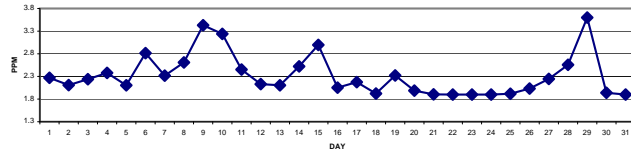
STATUS FLAG CODES

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

MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	701		
MAXIMUM 1-HR AVERAGE:	5.2 PPM	@ HOUR(S)	10 ON DAY(S)
MAXIMUM 24-HR AVERAGE:	3.6 PPM		29 ON DAY(S)
IZS CALIBRATION TIME:	32 HRS	OPERATIONAL TIME:	742 HRS
MONTHLY CALIBRATION TIME:	9 HRS	AMD OPERATION UPTIME:	99.7 %
STANDARD DEVIATION:	0.54	MONTHLY AVERAGE:	2.32 PPM

24 AVERAGES FOR JANUARY 2010



01 Hour Averages



— LICA THC PPM

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - COLD LAKE

JANUARY 2010

TOTAL HYDROCARBONS MAX instantaneous maximum in ppr

MST																										DAILY	24-HOUR		
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	23:00	0:00	MAX.	AVG.	RDGS.
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	23:00	0:00				
DAY																													
1	2.7	2.7	2.7	2.7	2.8	2.6	2.6	2.6	2.7	2.7	2.4	2.3	IZS	2.1	2.3	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2	2.8	2.4	24	
2	2	2	2	2	2	2	2	2	2.5	2.3	2.2	IZS	2.1	2.2	2.2	2.2	2.2	2.2	2.3	2.2	2.3	2.2	2.2	2.3	2.5	2.2	24		
3	2.5	2.5	2.5	2.5	2.6	2.5	2.4	2.4	2.2	2.2	IZS	2.2	2.3	2.2	2.2	2.9	3.4	2.2	2.2	2.3	3.1	3	2.4	2.6	3.4	2.5	24		
4	2.7	2.5	2.5	2.4	2.3	2.6	2.3	2.5	IZS	2.7	2.5	2.8	2.6	2.5	2.6	2.5	2.5	2.5	2.6	2.6	2.4	2.4	2.3	2.8	2.5	24			
5	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	IZS	2.2	2.1	2.1	2.7	2.1	2.1	2.2	2.2	2.1	2.1	2.2	2.1	2.2	2.2	2.2	2.7	2.2	24		
6	2.2	3.4	3.2	3.6	3.6	3.8	4.1	IZS	5.1	C	C	C	C	C	C	C	C	C	C	C	2.7	2.5	2.4	2.5	2.5	5.1	3.2	24	
7	2.5	2.6	2.8	2.5	2.5	2.5	IZS	2.8	2.9	2.7	2.5	2.4	2.3	2.2	2.8	2.2	2.2	2.3	2.3	2.4	2.4	2.4	2.3	2.9	2.5	24			
8	2.5	2.4	2.5	2.3	2.5	IZS	2.5	2.4	2.4	2.6	2.6	2.6	2.8	2.7	2.7	2.9	3.2	3.1	2.9	3	3.1	3.1	3.1	3.2	3.2	2.7	24		
9	3.2	3.3	3.3	3.3	IZS	4	3.6	3.8	3.9	3.5	3.1	3	3	5.3	3	3.3	3.7	3.3	4	4.3	4.4	4.9	4.9	4.6	5.3	3.8	24		
10	4.3	4.3	3.4	IZS	3.1	2.8	2.9	3	3	4.3	4	3.7	3.6	3.4	3.7	7.5	4.2	6.4	4.1	4	3.7	2.6	2.9	2.8	7.5	3.8	24		
11	2.8	3	IZS	2.9	2.8	2.6	2.4	2.4	2.4	2.5	2.7	2.4	2.4	2.3	2.8	2.7	3.3	2.7	2.6	3.1	2.9	3.1	3.1	3.3	3.3	2.7	24		
12	3.8	IZS	2.8	2.7	2.3	2.5	2.4	2.2	2.1	2.1	2.1	2	2.1	2	2.1	2	2	2.1	2	2	2.2	2.1	2.3	2.4	3.8	2.3	24		
13	IZS	2.7	2.7	2.8	2.6	2.3	2	2	M	2.2	2.1	2	2	2	2	2.5	2.2	2.2	2.8	2.2	2.2	2.1	IZS	2.8	2.3	23			
14	2.1	2.1	2	2.1	2.1	2.1	2.5	2.1	2.1	2.2	2.2	2.3	2.6	3	3.1	3.3	3.3	3.4	3.5	3.7	3.8	3.5	IZS	3.4	3.8	2.7	24		
15	3.2	3.1	3.2	3.2	3.2	3.3	3.4	3.4	3.9	3.5	3.6	3.6	3.2	4	3.7	3.2	3	3.1	3	2.9	2.6	IZS	2.5	2.5	4	3.2	24		
16	2.7	3.2	3.2	2.6	2.2	2	2	2	1.9	1.8	1.8	1.9	1.8	1.8	1.9	1.9	2	2.2	2.2	IZS	2.2	2.2	2.2	3.2	2.2	24			
17	2.7	2.5	2.3	2.5	2.5	2.6	2.7	2.7	2.6	2.5	2.2	2.2	3.3	2.4	2.1	2.1	8.8	2	2	IZS	2	2	2	1.9	8.8	2.7	24		
18	1.9	1.9	1.9	1.9	1.9	1.9	2	2.5	2.3	2.1	1.9	1.9	1.9	1.9	2	2.1	2	2	IZS	2.1	2	1.9	2.3	2.3	2.5	2.0	24		
19	2.4	2.2	2.3	2.3	2.3	2.6	2.2	2.2	2.3	2.4	2.2	2.3	2.9	3.1	2.7	2.8	2.7	IZS	2.6	2.6	2.5	2.6	2.6	2.6	3.1	2.5	24		
20	2.4	2.3	2.2	2.2	2.2	2.2	2.1	2.1	2.2	2.1	2	2	2	2	2.1	2.2	IZS	2	2	1.9	1.9	1.9	1.9	1.9	2.4	2.1	24		
21	1.9	1.9	1.9	1.9	2	2	2	2	2.2	2.1	2	2.2	2.1	2.1	2	IZS	2	2	2	2	1.9	1.9	1.9	1.9	2.2	2.0	24		
22	1.9	2	1.9	1.9	1.9	2	2	2.1	2	2.1	2	1.9	1.9	2	IZS	2	2	1.9	2.1	2	1.9	1.9	2.1	1.9	2.1	2.0	24		
23	1.9	2	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.1	2	IZS	1.9	1.9	1.9	2	2	2	1.9	1.9	1.9	1.9	2.1	1.9	24		
24	1.9	2	2	2	2	2	2	1.9	2	1.9	2	1.9	IZS	1.9	1.9	2.1	2	2	2	2	2	2	2	2	2	2.1	2.0	24	
25	2	2	2	2	2	2.6	2	2	2.1	2	2	IZS	1.9	2	1.9	2	1.9	2	2	2.2	2.1	2.1	2.1	2	2.6	2.0	24		
26	2	2	2	2.1	2.2	N	2.4	2.3	2.2	2.1	IZS	2.1	2	2	2.1	2.1	2.2	2.1	2	2	2.2	2.1	2.1	2.1	2.1	2.4	2.1	23	
27	2.1	2.2	2.2	2.2	2.3	N	2.7	3	2.8	IZS	2.5	2.2	2.2	2.2	2.4	2.3	2.6	2.3	2.4	2.3	2.4	2.5	2.4	2.7	3	2.4	23		
28	2.9	2.7	2.8	3.1	3	2.9	3.3	3	IZS	3.1	2.8	2.5	2.5	2.6	2.5	2.4	2.4	2.5	2.7	2.9	2.7	2.6	2.5	2.5	3.3	2.7	24		
29	2.6	2.7	2.7	2.7	2.8	3.2	3.3	IZS	4.2	4.7	5.7	5.5	4.5	4.3	3.7	4.6	4.3	3.8	3.9	4.2	4.3	4.4	5	3.9	5.7	4.0	24		
30	2.2	2	2.1	2	2	2	IZS	2	2	2	2	2.1	2.3	2	2	2.8	2.1	2	2	2	2	2	2	2	2.8	2.1	24		
31	2	2	2	2	2	IZS	2	2	2	1.9	1.9	2	2	2	2.1	2	2	2	2	1.9	2	1.9	1.9	1.9	2.1	2.0	24		
HOURLY MAX	4	4	3	4	4	4	4	4	5	5	6	6	5	5	4	8	4	9	4	4	4	5	5	5					
HOURLY AVG	2.5	2.5	2.4	2.4	2.4	2.5	2.5	2.4	2.6	2.5	2.5	2.4	2.4	2.5	2.4	2.7	2.6	2.7	2.5	2.6	2.5	2.5	2.5	2.5					

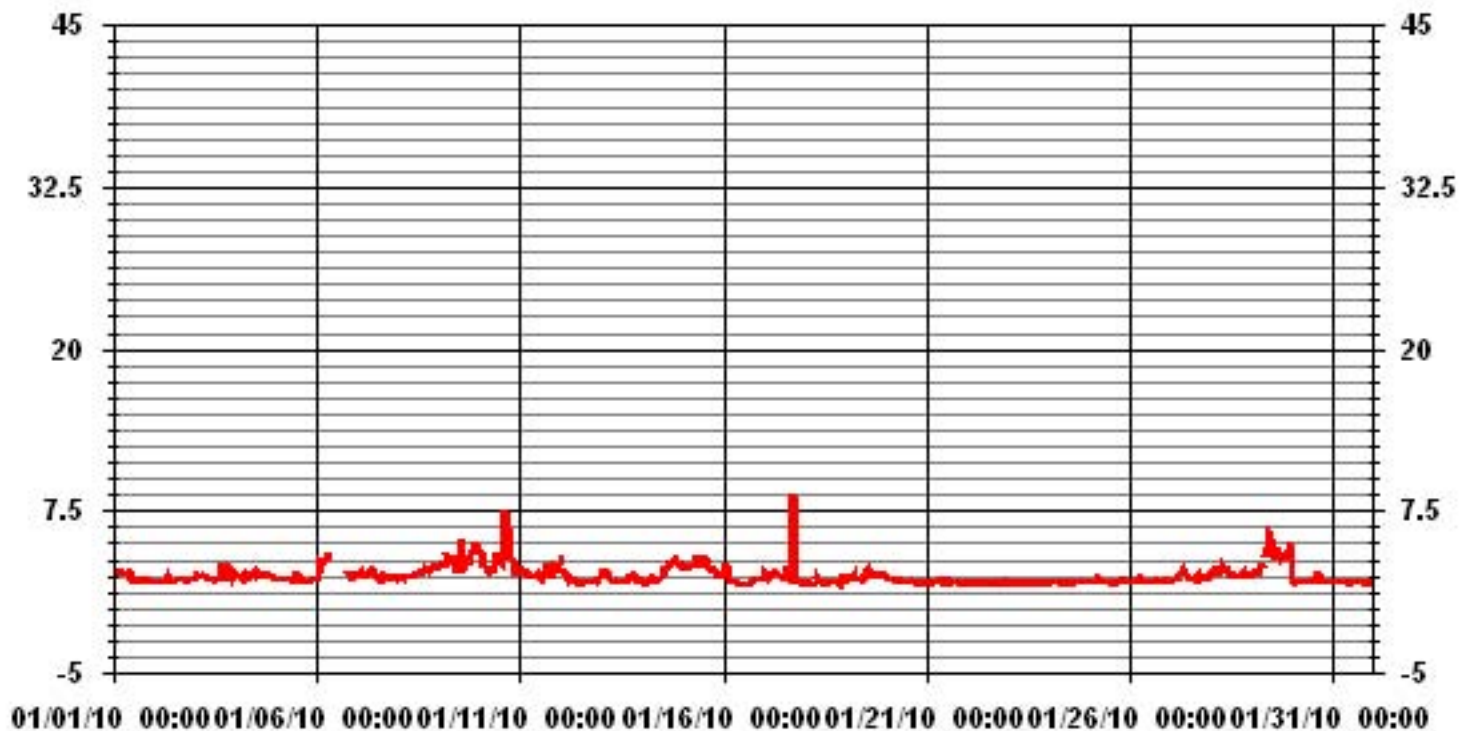
STATUS FLAG CODES

S - OUT OF SERVICE	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:	699					
MAXIMUM INSTANTANEOUS VALUE:	8.8	PPM	@ HOUR(S)	17	ON DAY(S)	17
IZS CALIBRATION TIME:	32	HRS	OPERATIONAL TIME:	741	HRS	
MONTHLY CALIBRATION TIME:	10	HRS				
STANDARD DEVIATION:	0.72					

01 Hour Averages



— LICA THCMAX PPM

LICA
 THC / WD Joint Frequency Distribution (Percent)

January 2010

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	5.13	6.27	7.56	5.84	12.41	7.41	10.84	1.14	1.14	1.71	4.56	6.99	5.42	3.13	3.56	5.27	88.44
< 10.0	.14	.42	.57	1.42	.71	.71	.85	.57	.28	.57	1.28	2.99	.57	.14	.14	.14	11.55
< 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	5.27	6.70	8.13	7.27	13.12	8.13	11.69	1.71	1.42	2.28	5.84	9.98	5.99	3.28	3.70	5.42	

Calm : .00 %

Total # Operational Hours : 701

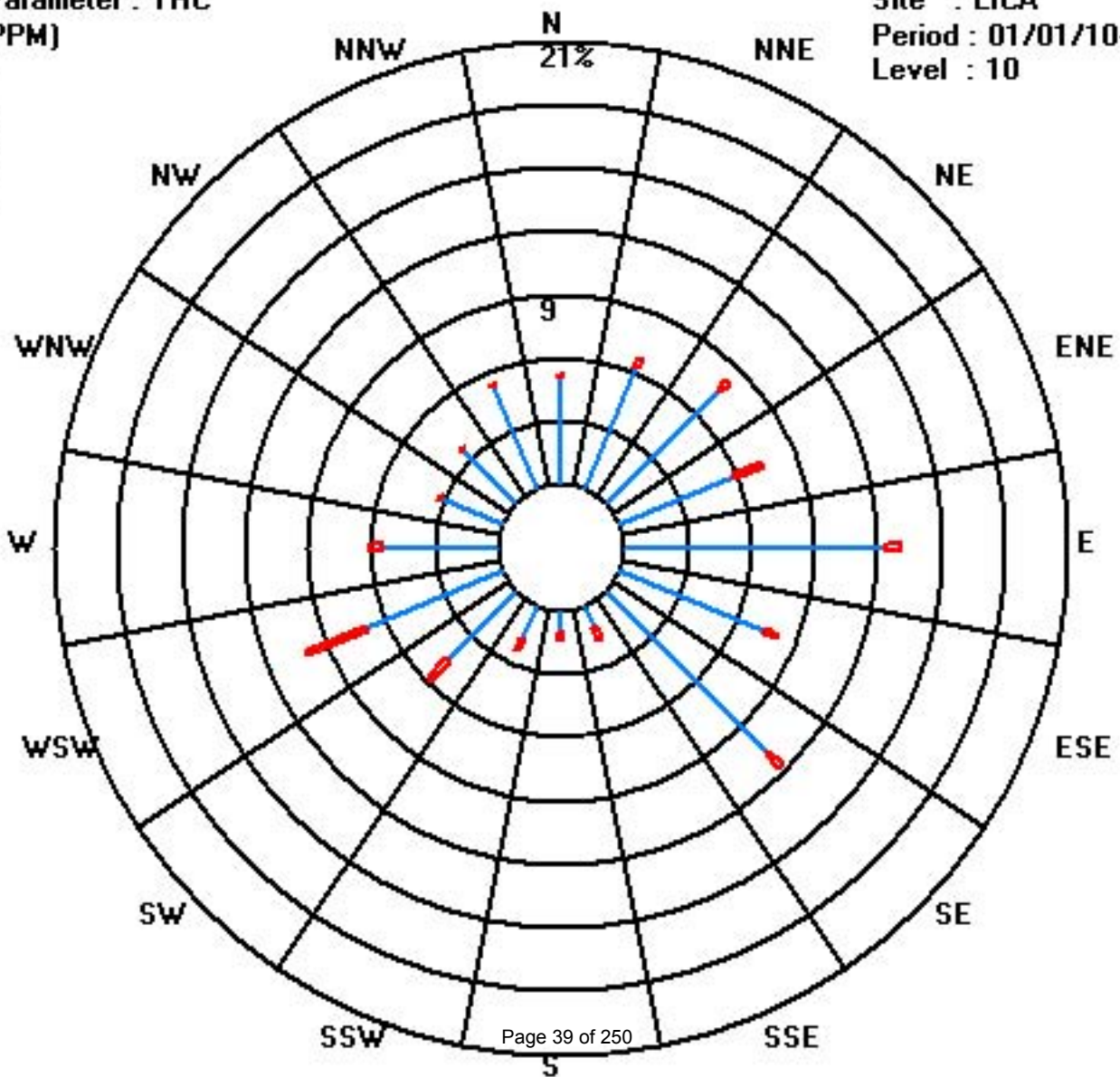
Distribution By Samples

	Direction																
Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
< 3.0	36	44	53	41	87	52	76	8	8	12	32	49	38	22	25	37	620
< 10.0	1	3	4	10	5	5	6	4	2	4	9	21	4	1	1	1	81
< 50.0																	
>= 50.0																	
Totals	37	47	57	51	92	57	82	12	10	16	41	70	42	23	26	38	

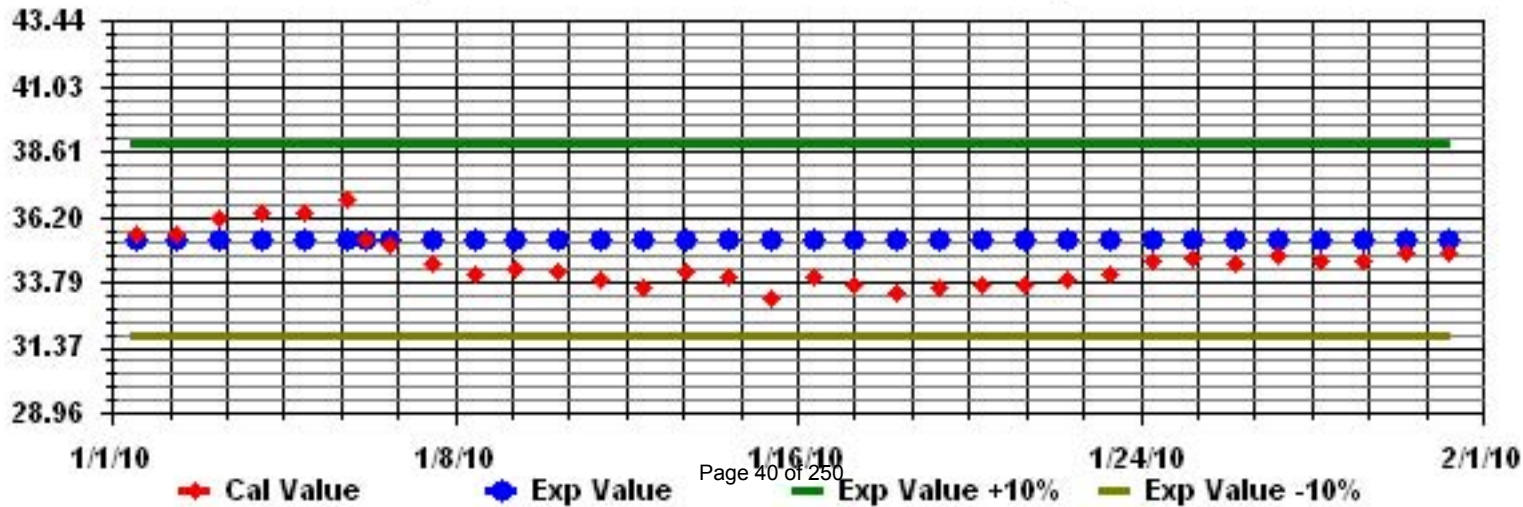
Calm : .00 %

Total # Operational Hours : 701

Class Limits (PPM)



Calibration Graph for Site: LICA Parameter: THC Sequence: THC Phase: SPAN



Particulate Matter 2.5

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - COLD LAKE

JANUARY 2010

PARTICULATE MATTER 2.5 (PM2.5) hourly averages in ug/m³

MST

DAY	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	0:00	DAILY MAX.	24-HOUR AVG.	RDGS.
1	6.4	7.9	5.4	7.9	8.9	4.9	4.9	4.4	2.9	2.9	2.4	0	3.3	4.9	4.3	4.3	1.9	0	4.9	3.3	1.4	2.4	2.4	1.4	8.9	3.9	24	
2	3.3	4.9	5.9	5.4	1.4	5.9	5.4	5.4	4.9	4.3	2.4	4.9	4.9	4.3	4.9	1.4	4.9	3.9	6.4	4.9	6.4	5.4	2.8	3.9	6.4	4.5	24	
3	2.4	12.4	8.9	3.9	6.9	12.9	4.9	5.4	0.9	3.9	5.4	1.9	0.9	0.9	5.9	7.4	4.3	3.9	6.9	2.4	4.3	4.9	3.3	6.4	12.9	5.1	24	
4	5.4	6.4	6.9	2.4	3.4	5.4	0.4	2.4	5.4	7.9	0.9	4.3	5.9	2.8	5.9	4.3	6.9	3.9	3.3	2.8	4.9	6.4	5.4	3.9	7.9	4.5	24	
5	3.9	4.3	5.4	5.4	7.4	3.9	4.3	2.9	10.9	3.9	3.3	0.4	1.9	3.9	0.9	2.9	8.9	5.9	6.4	0.4	2.9	3.9	3.3	4.3	10.9	4.2	24	
6	2.4	2.4	1.4	1.4	5.4	3.3	4.3	10.9	3.9	4.9	2.9	12.9	4.3	5.4	12.4	15.4	11.4	4.9	9.4	15.4	10.9	12.4	6.4	3.3	15.4	7.0	24	
7	6.9	1.9	2.4	1.4	5.4	0.4	5.9	4.3	4.9	4.3	3.9	5.9	7.4	3.9	3.3	3.3	6.9	0.4	7.9	7.4	3.9	2.4	2.4	0.9	7.9	4.1	24	
8	4.3	3.4	6.9	1.9	0.4	4.9	2.4	3.9	3.3	1.9	1.4	3.3	9.4	0	5.4	6.9	3.9	11.9	6.4	2.8	6.4	4.3	7.4	7.9	11.9	4.6	24	
9	7.4	6.4	8.9	8.9	13.9	6.9	12.9	9.8	9.4	14.9	15.9	8.9	10.4	9.8	8.4	8.9	16.4	15.4	24.4	18.9	12.4	19.4	20.4	22.9	24.4	13.0	24	
10	28.4	18.9	16.9	21.9	11.9	16.9	13.9	14.4	10.4	11.9	19.9	30.4	25.4	24.9	21.4	26.9	30.4	31.4	31.9	25.4	29.4	10.9	11.9	10.9	31.9	20.7	24	
11	22.4	20.9	10.9	0.9	8.9	13.4	14.4	14.9	16.4	13.4	11.9	6.4	11.9	8.9	7.9	6.9	8.9	8.4	29.4	26.9	32.4	24.9	14.4	33.4	33.4	15.4	24	
12	27.4	25.4	18.9	14.4	5.4	3.9	5.9	3.3	4.3	0	6.9	5.4	6.4	3.9	11.9	6.4	5.9	13.4	3.9	0	2.8	10.4	13.4	9.8	27.4	8.7	24	
13	10.4	11.4	11.9	13.4	13.4	0	13.4	10.9	C	C	C	C	C	C	C	0.7	0	3	4.3	0	5.1	5.1	8.4	2	13.4	6.7	24	
14	5.7	6.5	8.5	7.3	6.5	8.1	5.4	8.5	10.5	13	11.6	11.4	13.8	12.2	15.9	8.4	14.3	10.5	18.7	13.1	17	17.2	11.5	14.5	18.7	11.3	24	
15	16.8	16	12.3	15.9	10.4	9.3	8.5	11.3	8.4	12.5	16.4	18.4	16.3	19.9	15.4	19.4	20.4	19.9	12.9	18.5	11.6	12.9	13.9	12.9	20.4	14.6	24	
16	10.9	9.9	11.9	9.8	7.9	5.4	0.9	2.8	1.4	1.4	1.4	0	0	0.4	0	3.3	0.9	0	0	2.4	3.9	0.4	6.9	3.3	11.9	3.6	24	
17	5.4	2.8	0	1.4	2.8	3.9	6.4	5.4	7.4	3.9	6.9	4.9	5.4	6.4	5.4	1.4	6.9	4.9	0.9	0.9	0.9	6.4	2.8	2.8	7.4	4.0	24	
18	3.4	5.9	3.3	8.4	1.4	8.4	0.4	1.4	6.9	0	0.4	7.9	1.9	M	M	M	M	M	M	M	M	M	M	M	11.9	11.9	4.4	14
19	11.4	7.9	5.9	5.9	9.4	14.4	15.4	17.4	11.9	10.8	8.9	9.3	7.9	8.9	11.9	13.4	12.4	12.4	7.9	7.4	5.4	10.4	8.9	12.4	17.4	10.3	24	
20	6.4	10.9	2.8	6.9	8.4	10.4	6.4	7.9	8.4	8.9	6.4	8.4	6.4	5.9	3.3	6.9	1.9	5.4	6.4	3.3	5.4	7.9	11.9	9.4	11.9	6.9	24	
21	5.9	6.4	8.9	7.9	9.4	8.9	0	8.9	9.4	8.4	5.4	11.4	8.9	10.8	7.9	9.4	12.4	9.8	4.3	6.9	5.4	7.9	7.4	6.9	12.4	7.9	24	
22	4.3	5.4	12.4	10.4	14.9	14.4	11.4	12.9	10.9	14.4	14.9	13.4	6.4	5.9	2.8	5.9	3.3	3.3	3.3	0.9	0.4	0.4	4.3	1.9	14.9	7.4	24	
23	3.3	2.4	2.9	3.3	2.4	1.9	2.4	1.9	0	2.9	1.4	2.4	0	N	0.4	0.9	2.9	1.9	3.3	5.4	5.4	2.9	5.9	2.9	5.9	2.6	23	
24	4.3	2.9	3.9	4.3	4.9	3.9	2.9	2.9	1.4	2.9	2.4	2.9	1.4	3.3	1.9	5.4	4.3	5.4	5.9	4.3	4.9	2.9	2.4	3.9	5.9	3.6	24	
25	3.3	2.4	4.3	1.9	3.3	3.3	4.3	1.9	4.3	0.9	1.4	0	1.4	3.3	2.9	1.4	3.3	4.9	2.4	0.9	2.4	2.4	4.3	2.4	4.9	2.6	24	
26	0.9	4.3	3.3	4.9	5.9	N	4.9	7.9	3.3	3.9	3.3	1.9	2.4	3.3	3.9	2.9	1.9	3.3	2.4	1.4	2.9	5.4	2.9	0	7.9	3.4	23	
27	0.9	3.3	0.4	1.9	0	N	2.9	3.3	2.9	3.9	5.9	11.4	3.3	1.4	3.9	4.9	5.9	6.9	3.3	2.9	5.4	5.9	6.4	7.4	11.4	4.1	23	
28	2.9	2.9	5.9	9.8	6.4	6.4	9.8	10.8	5.9	12.4	12.9	10.8	9.3	8.9	10.4	6.9	7.4	8.4	11.9	11.9	7.4	11.4	12.4	8.9	12.9	8.8	24	
29	10.9	9.8	9.3	9.8	9.4	8.4	7.9	6.4	10.8	13.9	13.9	14.9	13.4	17.4	17.4	12.4	15.4	14.4	12.4	12.9	12.4	14.4	10.4	9.8	17.4	12.0	24	
30	2.4	4.9	4.9	4.3	3.9	3.3	0.4	2.9	0	2.4	4.3	1.4	4.9	4.3	5.9	4.3	5.4	5.4	6.4	5.9	3.9	5.4	4.9	6.4	6.4	4.1	24	
31	2.9	3.9	3.9	2.9	3.9	2.4	2.9	1.9	3.3	3.9	3.9	3.3	1.4	1.4	3.3	7.4	3.3	6.4	1.4	1.4	0.9	1.9	4.3	0.9	7.4	3.0	24	
HOURLY MAX	28	25	19	22	15	17	15	17	16	15	20	30	25	25	21	27	30	31	32	27	32	25	20	33				
HOURLY AVG	7.5	7.6	7.0	6.7	6.6	6.7	6.0	6.8	6.2	6.5	6.6	7.3	6.6	6.7	7.1	7.0	7.8	7.7	8.3	7.0	7.3	7.6	7.4	7.4				

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:

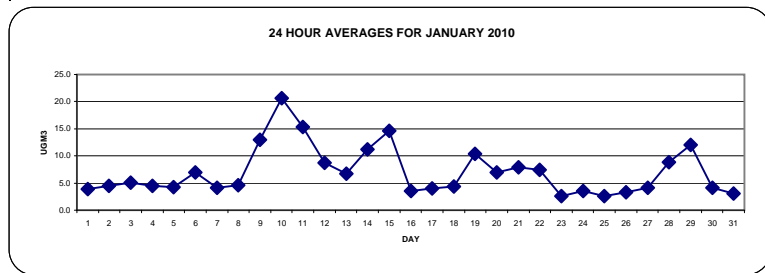
ALBERTA ENVIRONMENT:

1-HR	-	PPB	24-HR	30	PPB
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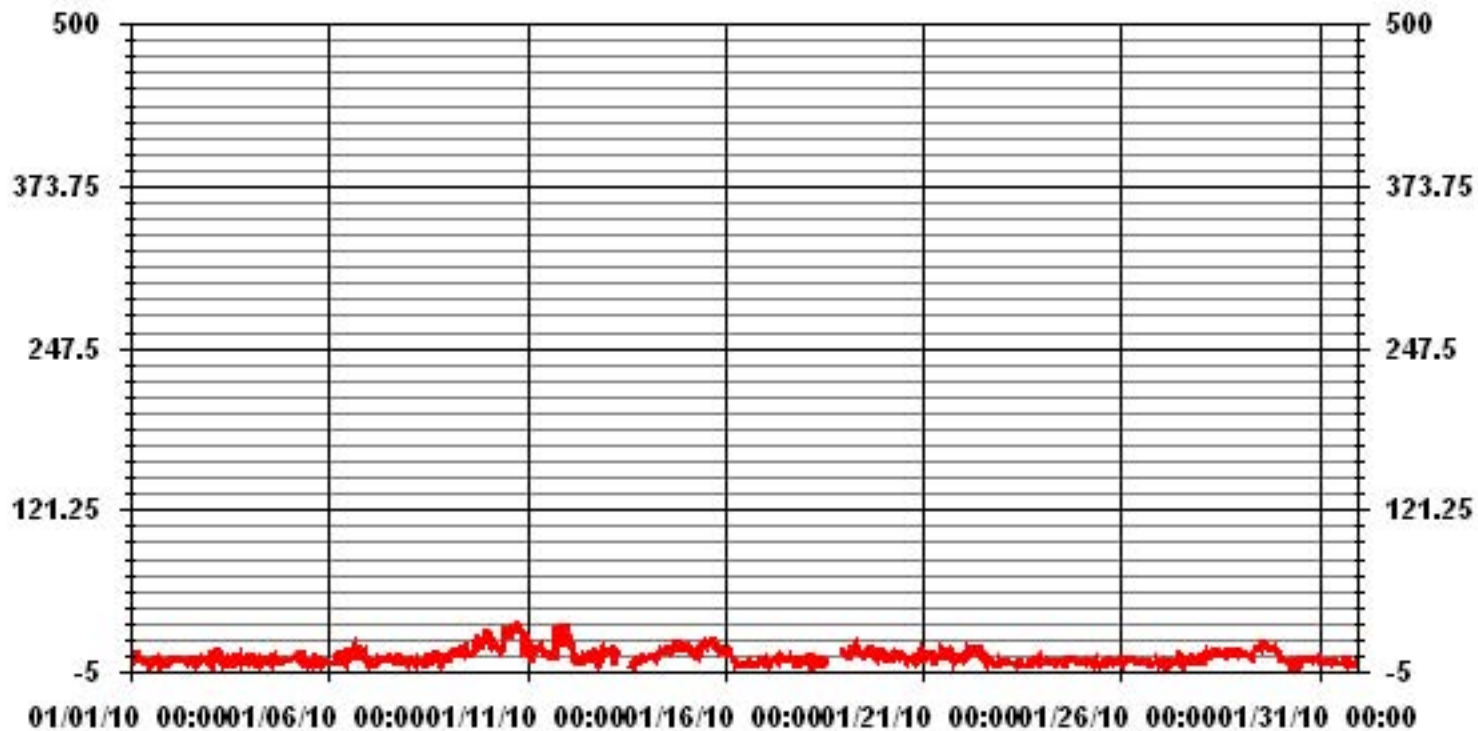
MONTHLY SUMMARY

NUMBER OF 1-HR EXCEEDENCES:	-
NUMBER OF 24-HR EXCEEDENCES:	0 PROPOSED CANADA WIDE GUIDELINE
NUMBER OF NON-ZERO READINGS:	702
MAXIMUM 1-HR AVERAGE:	33.4 UG/M ³ @ HOUR(S) 23 ON DAY(S) 11
MAXIMUM 24-HR AVERAGE:	20.7 UG/M ³ ON DAY(S) 10
IZS CALIBRATION TIME:	0 HRS
MONTHLY CALIBRATION TIME:	7 HRS
STANDARD DEVIATION:	5.75
OPERATIONAL TIME:	731 HRS
AMD OPERATION UPTIME:	98.3 %
MONTHLY AVERAGE:	7.05 UG/M ³

24 HOUR AVERAGES FOR JANUARY 2010



01 Hour Averages



— LICA PM2 UG/M3

Nitrogen Dioxide

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - COLD LAKE

JANUARY 2010

NITROGEN DIOXIDE hourly averages in ppb

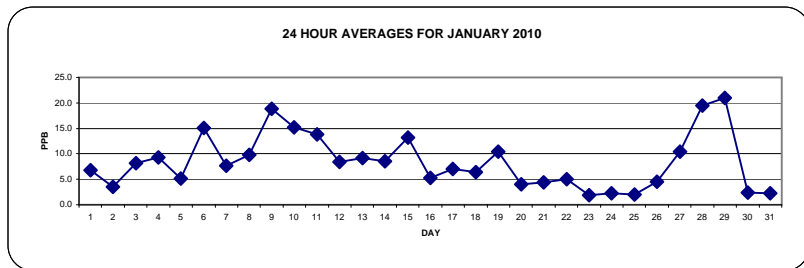
MST		0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY	24-HOUR		
HOURLY MAX	HOURLY AVG	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	MAX.	AVG.	RDGS.	
DAY																													
1		14	15	19	20	22	8	5	6	5	4	4	3	IZS	5	4	5	4	1	2	2	2	2	3	22	6.8	24		
2		3	4	4	4	3	3	3	2	2	3	3	IZS	3	2	2	2	3	3	3	4	6	5	5	9	9	3.5	24	
3		8	14	20	15	18	19	15	19	5	2	IZS	2	2	2	2	5	4	3	4	3	4	6	7	8	20	8.1	24	
4		7	5	5	3	4	6	8	11	12	IZS	7	7	6	6	8	10	15	15	17	16	17	13	9	8	17	9.3	24	
5		7	6	6	5	5	10	7	IZS	5	3	2	2	2	2	2	10	7	4	4	3	7	7	7	10	5.1	24		
6		6	6	8	8	14	17	17	IZS	C	C	C	C	C	C	C	26	25	23	22	21	19	15	8	7	26	15.1	24	
7		6	7	8	7	5	4	IZS	21	19	9	4	4	3	3	3	4	4	3	10	18	14	10	6	4	21	7.7	24	
8		4	4	5	4	4	IZS	5	5	8	5	6	5	5	5	6	9	13	19	24	18	18	17	19	18	24	9.8	24	
9		17	18	18	20	IZS	20	24	23	23	18	14	10	10	10	12	13	20	18	21	24	25	25	25	25	25	18.8	24	
10		25	21	14	IZS	10	7	8	8	9	10	11	12	11	12	14	22	31	29	23	21	18	13	13	8	31	15.2	24	
11		9	8	IZS	6	6	5	5	6	7	6	10	10	9	19	22	16	21	27	27	25	22	18	16	18	27	13.8	24	
12		15	IZS	17	14	13	18	12	9	7	8	6	5	5	5	6	7	8	6	5	5	5	5	7	18	8.4	24		
13		IZS	9	8	8	6	6	5	4	M	M	C	2	2	2	3	7	14	18	18	18	17	10	IZS	18	9.2	22		
14		7	6	5	5	8	9	9	6	6	6	5	5	7	7	9	10	13	14	12	11	11	13	IZS	12	14	8.5	24	
15		10	13	10	10	9	10	10	12	12	13	23	23	11	10	15	18	18	16	16	13	11	IZS	11	9	23	13.2	24	
16		9	12	13	10	7	4	4	4	4	3	2	2	2	2	2	4	6	6	6	IZS	6	5	5	13	5.2	24		
17		6	5	3	5	8	13	17	14	17	16	12	3	3	4	4	4	4	3	3	IZS	3	4	8	4	17	7.1	24	
18		2	3	3	3	3	3	7	19	12	10	6	3	4	6	7	6	4	4	IZS	4	5	5	14	14	19	6.4	24	
19		14	10	11	8	11	13	12	17	17	11	9	7	8	7	8	10	13	IZS	8	10	9	10	9	9	17	10.5	24	
20		5	4	4	4	5	5	5	5	7	4	4	3	3	3	4	4	IZS	4	4	3	3	3	3	3	7	4.0	24	
21		2	3	3	3	3	4	4	4	7	5	7	5	6	4	6	IZS	5	5	5	4	5	4	4	4	7	4.4	24	
22		3	3	4	4	4	6	7	7	9	6	5	5	5	5	IZS	6	5	5	6	5	5	4	3	4	9	5.0	24	
23		2	2	1	1	1	2	1	2	2	2	1	1	1	IZS	1	1	1	1	2	7	4	3	2	1	2	7	1.9	24
24		2	2	4	3	2	2	3	2	2	2	2	2	2	IZS	2	1	3	3	3	2	2	2	2	1	4	2.3	24	
25		1	1	2	1	2	2	1	1	1	0	1	IZS	1	3	1	2	2	2	2	3	3	5	4	4	5	2.0	24	
26		3	4	5	6	6	N	7	7	7	6	IZS	3	2	3	3	5	5	4	3	4	5	4	4	4	7	4.5	23	
27		4	5	6	6	5	N	9	13	12	IZS	7	5	3	4	5	8	11	19	21	17	16	19	21	14	21	10.5	23	
28		9	11	16	23	23	28	29	24	IZS	26	20	21	12	12	10	12	15	18	24	26	22	25	21	22	29	19.5	24	
29		21	22	23	20	19	18	19	IZS	18	18	22	16	14	14	16	25	24	25	27	28	28	29	28	9	29	21.0	24	
30		4	5	5	5	3	3	IZS	2	2	2	2	2	1	1	1	1	2	2	2	2	2	2	2	5	2.4	24		
31		2	3	2	2	2	IZS	3	4	2	1	1	1	1	1	3	3	3	4	4	2	1	2	1	1	4	2.2	24	
HOURLY MAX		25	22	23	23	23	28	29	24	23	26	23	23	14	19	22	26	31	29	27	28	28	29	28	25				
HOURLY AVG		7.6	7.7	8.4	7.8	7.7	8.9	9.1	9.1	8.7	7.4	7.3	6.0	5.1	5.6	6.2	8.2	10.1	10.3	11.1	10.8	10.2	9.7	9.1	8.2				

STATUS FLAG CODES

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

OBJECTIVE LIMIT:

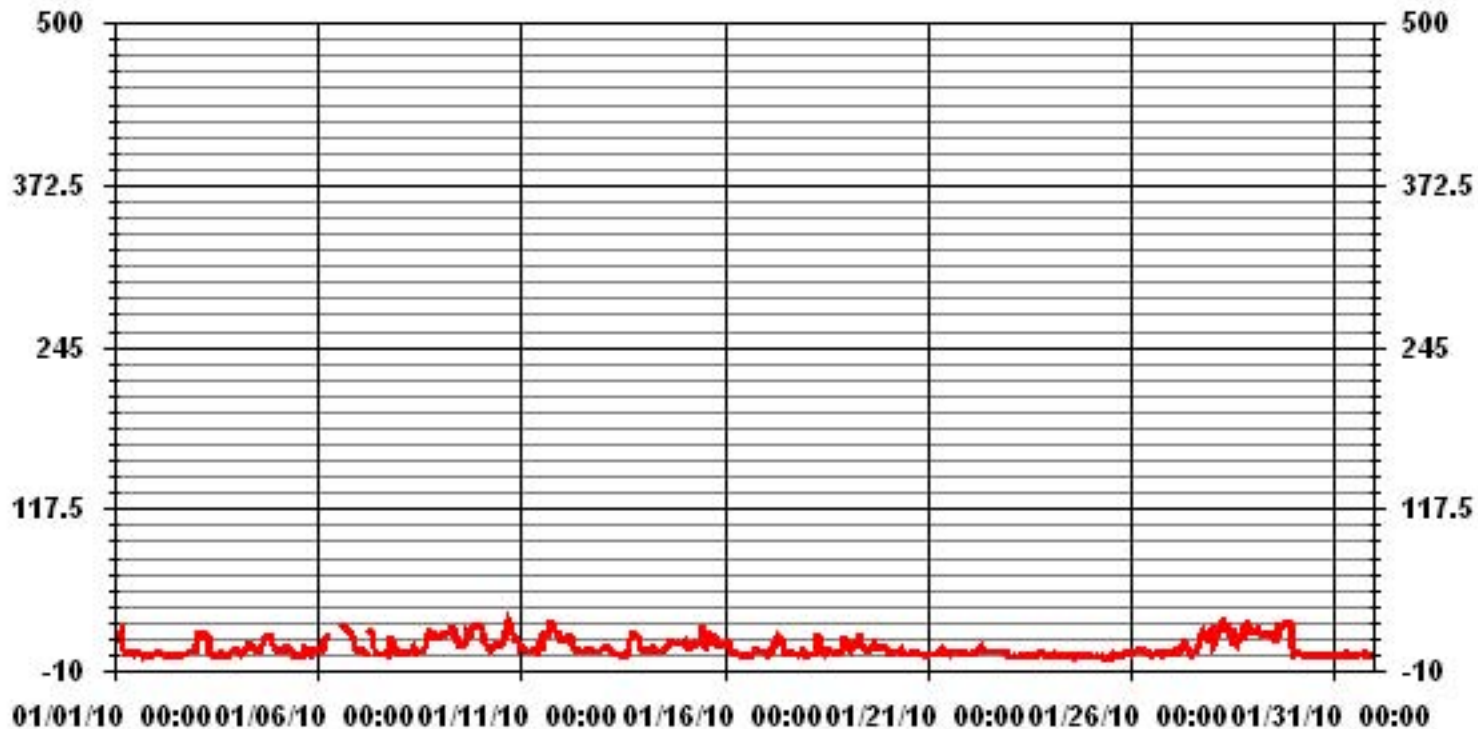
ALBERTA ENVIRONMENT:	1-HR	212	PPB	24-HR	106	PPB
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MONTHLY SUMMARY

NUMBER OF 1-HR EXCEEDENCES:	0					
NUMBER OF 24-HR EXCEEDENCES:	0					
NUMBER OF NON-ZERO READINGS:	699					
MAXIMUM 1-HR AVERAGE:	31	PPB	@ HOUR(S)	16	ON DAY(S)	10
MAXIMUM 24-HR AVERAGE:	21.0	PPB			ON DAY(S)	29
IZS CALIBRATION TIME:	32	HRS	OPERATIONAL TIME:	740	HRS	
MONTHLY CALIBRATION TIME:	8	HRS	AMD OPERATION UPTIME:	99.5	%	
STANDARD DEVIATION:	6.83		MONTHLY AVERAGE:	8.37	PPB	

01 Hour Averages



— LICA H02_ PPB

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - COLD LAKE

JANUARY 2010

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	18	18	22	23	25	23	6	10	7	6	5	7	IZS	6	6	8	7	4	2	3	3	3	4	4	25	9.6	24	
2	5	7	7	7	7	5	6	3	3	3	4	IZS	4	3	3	4	4	4	4	7	8	7	8	16	16	5.6	24	
3	21	23	23	21	30	28	22	24	16	4	IZS	4	3	4	5	10	8	6	9	16	5	13	15	9	30	13.9	24	
4	10	7	6	4	5	10	12	13	14	IZS	13	11	7	6	82	13	21	21	20	18	20	18	11	10	82	15.3	24	
5	8	10	7	7	8	8	49	45	IZS	10	10	7	3	10	5	13	18	15	7	51	8	11	11	11	51	14.4	24	
6	11	12	12	14	21	20	20	IZS	C	C	C	C	C	C	C	C	32	29	25	25	22	12	9	32	18.9	24		
7	10	16	18	24	7	6	IZS	28	38	18	5	22	5	15	5	6	7	5	22	25	18	17	13	12	38	14.9	24	
8	9	6	10	9	6	IZS	12	8	10	10	44	6	6	7	14	15	25	37	28	25	22	22	22	20	44	16.2	24	
9	21	23	21	43	IZS	27	30	26	26	31	19	15	13	13	15	16	26	21	23	26	27	26	26	25	43	23.4	24	
10	26	25	17	IZS	12	9	9	10	14	19	13	17	11	13	17	36	35	34	26	24	26	17	15	10	36	18.9	24	
11	10	9	IZS	7	7	7	13	9	11	12	24	19	51	24	33	35	30	38	32	32	27	29	19	22	51	21.7	24	
12	18	IZS	20	19	18	28	17	14	11	10	10	7	6	6	8	9	14	13	9	12	7	8	7	8	28	12.1	24	
13	IZS	10	10	11	7	8	6	5	M	M	C	3	10	3	5	28	25	24	21	39	20	19	18	IZS	39	14.3	22	
14	10	10	9	12	10	12	12	8	14	11	6	6	10	9	11	12	14	16	14	15	13	17	IZS	14	17	11.5	24	
15	11	16	13	12	11	12	16	14	19	19	31	32	17	15	69	27	25	19	25	18	14	IZS	13	12	69	20.0	24	
16	12	15	15	12	9	6	5	4	5	5	2	3	3	3	2	4	6	10	8	10	IZS	9	9	8	15	7.2	24	
17	9	8	6	8	13	20	20	17	19	20	17	10	5	5	5	16	5	6	3	IZS	4	9	11	7	20	10.6	24	
18	4	3	5	3	3	9	16	26	19	20	11	5	6	8	13	10	5	15	IZS	10	8	5	24	25	26	11.0	24	
19	17	15	15	11	19	17	21	23	22	14	14	9	11	9	10	11	14	IZS	10	11	12	11	11	11	23	13.8	24	
20	12	7	7	6	7	8	6	8	11	6	7	9	7	5	9	7	IZS	7	5	4	4	4	4	4	12	6.7	24	
21	3	4	4	4	4	9	6	7	11	12	25	7	10	7	22	IZS	7	7	25	6	7	5	6	5	25	8.8	24	
22	4	5	5	5	5	14	10	11	11	38	9	6	7	11	IZS	10	8	7	17	7	11	6	5	7	38	9.5	24	
23	4	4	2	2	2	2	2	2	3	4	3	2	2	IZS	2	2	2	5	9	6	3	2	2	2	9	3.0	24	
24	2	3	4	4	3	2	3	3	2	3	2	2	IZS	2	2	4	3	4	4	3	3	2	3	2	4	2.8	24	
25	1	1	2	2	3	4	6	2	1	6	1	IZS	8	76	5	5	4	4	2	5	4	5	5	5	76	6.8	24	
26	4	5	6	9	9	N	9	8	8	9	IZS	4	3	4	5	8	7	6	5	7	7	5	5	7	9	6.4	23	
27	7	9	10	7	10	N	11	22	15	IZS	11	6	5	6	7	15	23	25	30	22	25	40	38	22	40	16.6	23	
28	16	14	23	27	27	84	49	28	IZS	35	24	40	16	25	29	17	20	29	31	29	31	29	25	24	84	29.2	24	
29	25	28	27	22	22	20	23	IZS	24	22	25	22	17	18	19	28	26	28	28	29	30	31	31	23	31	24.7	24	
30	8	6	7	6	5	5	IZS	3	3	3	4	10	3	3	2	3	3	3	4	4	5	3	3	2	10	4.3	24	
31	4	6	5	4	5	IZS	4	6	3	2	2	3	2	5	5	5	5	8	6	4	3	5	3	2	8	4.2	24	
HOURLY MAX	26	28	27	43	30	84	49	45	38	38	44	40	51	76	82	36	35	38	32	51	31	40	38	25				
HOURLY AVG	10.7	10.8	11.3	11.5	10.7	14.9	14.5	13.3	12.6	13.0	12.6	10.5	9.0	11.1	14.3	13.0	13.7	15.1	15.3	16.4	13.3	13.3	12.6	11.3				

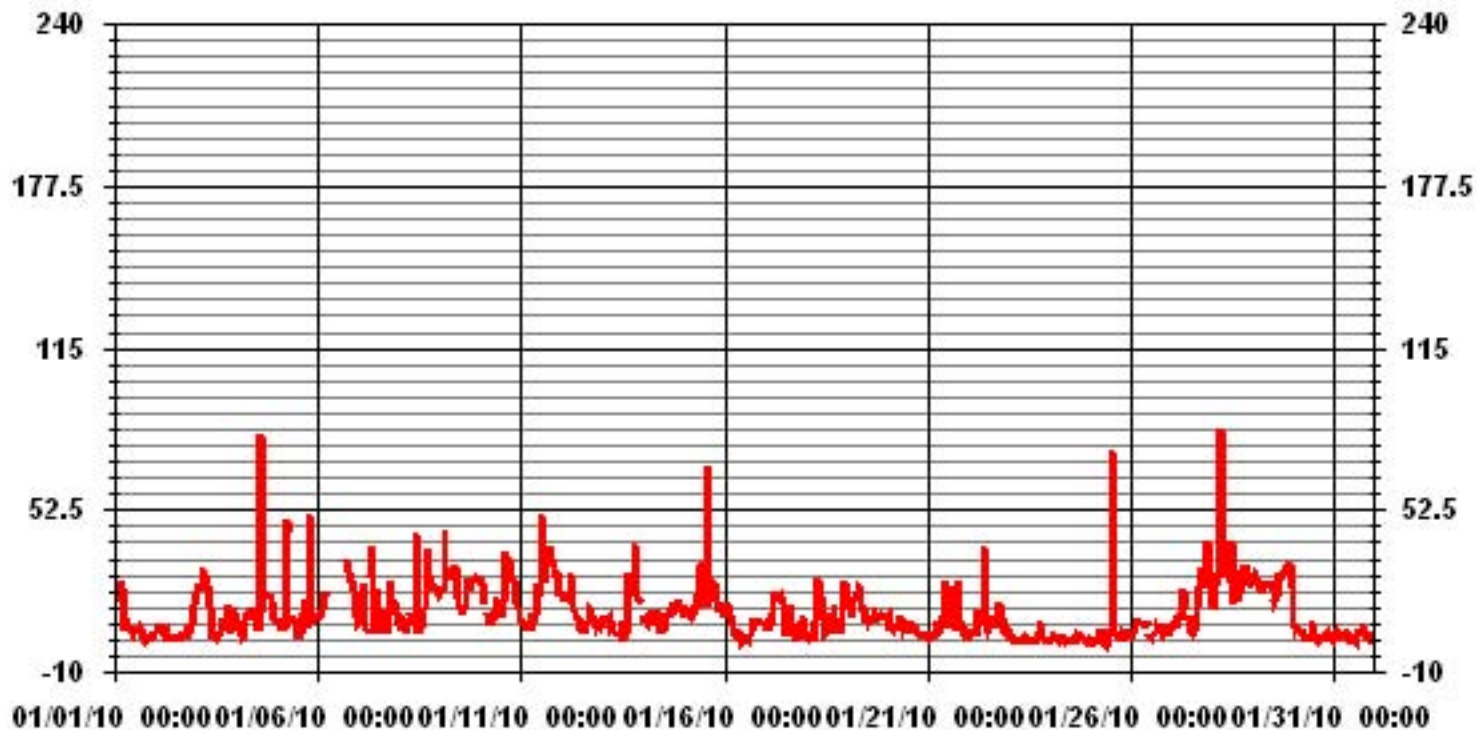
STATUS FLAG CODES

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:	698				
MAXIMUM INSTANTANEOUS VALUE:	84	PPB	@ HOUR(S)	5	ON DAY(S) 28
IZS CALIBRATION TIME:	32	HRS	OPERATIONAL TIME:	740	HRS
MONTHLY CALIBRATION TIME:	10	HRS			
STANDARD DEVIATION	10.54				

01 Hour Averages



— LICA NO2MAX PPB

LICA
 NO2_ / WD Joint Frequency Distribution (Percent)

January 2010

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	5.28	6.71	8.42	7.42	13.14	8.14	11.71	1.71	1.42	2.28	5.85	9.85	6.00	3.14	3.42	5.42	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	5.28	6.71	8.42	7.42	13.14	8.14	11.71	1.71	1.42	2.28	5.85	9.85	6.00	3.14	3.42	5.42	

Calm : .00 %

Total # Operational Hours : 700

Distribution By Samples

	Direction																
Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
< 50	37	47	59	52	92	57	82	12	10	16	41	69	42	22	24	38	700
< 110																	
< 210																	
>= 210																	
Totals	37	47	59	52	92	57	82	12	10	16	41	69	42	22	24	38	

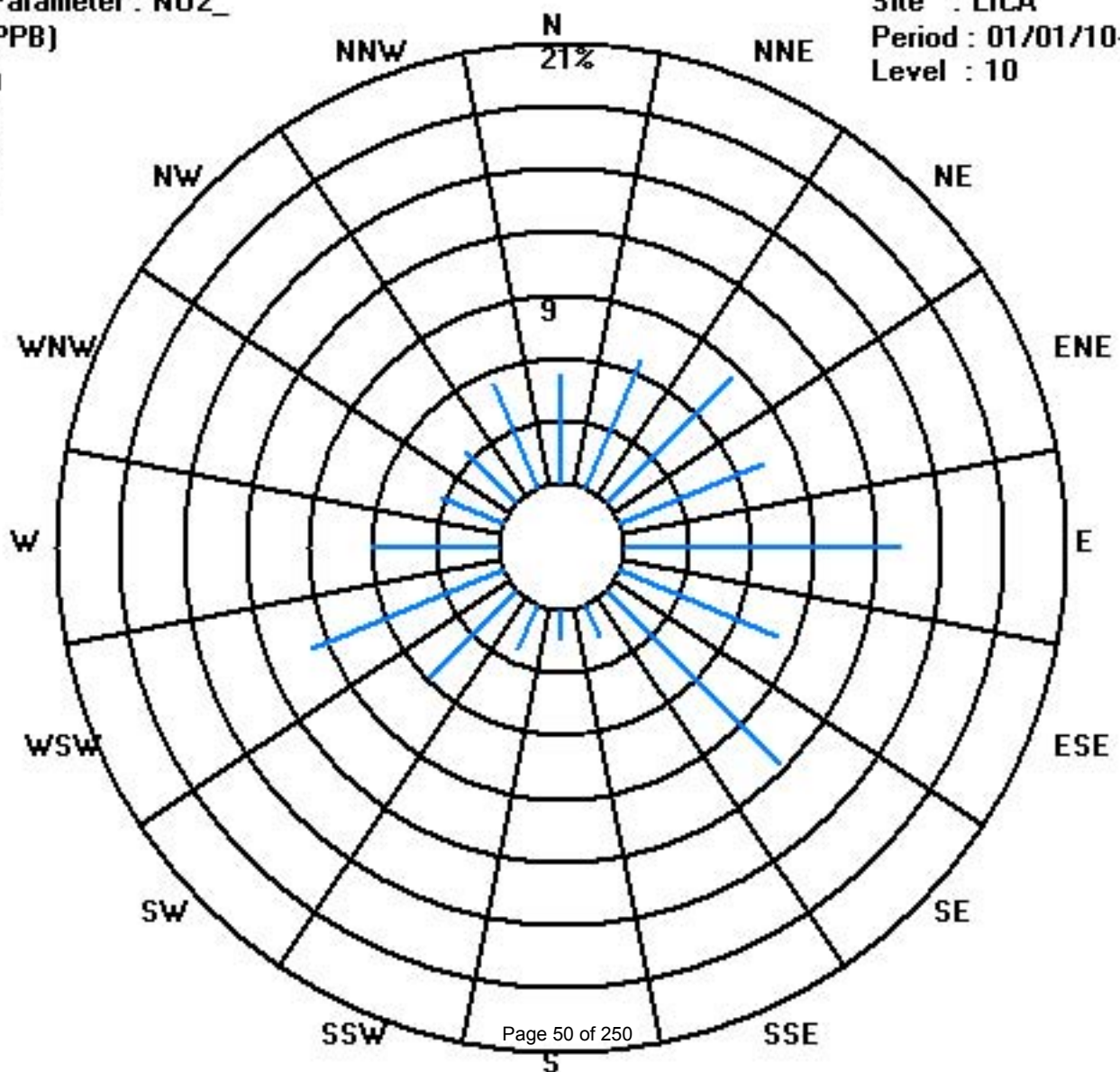
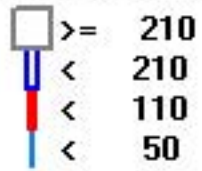
Calm : .00 %

Total # Operational Hours : 700

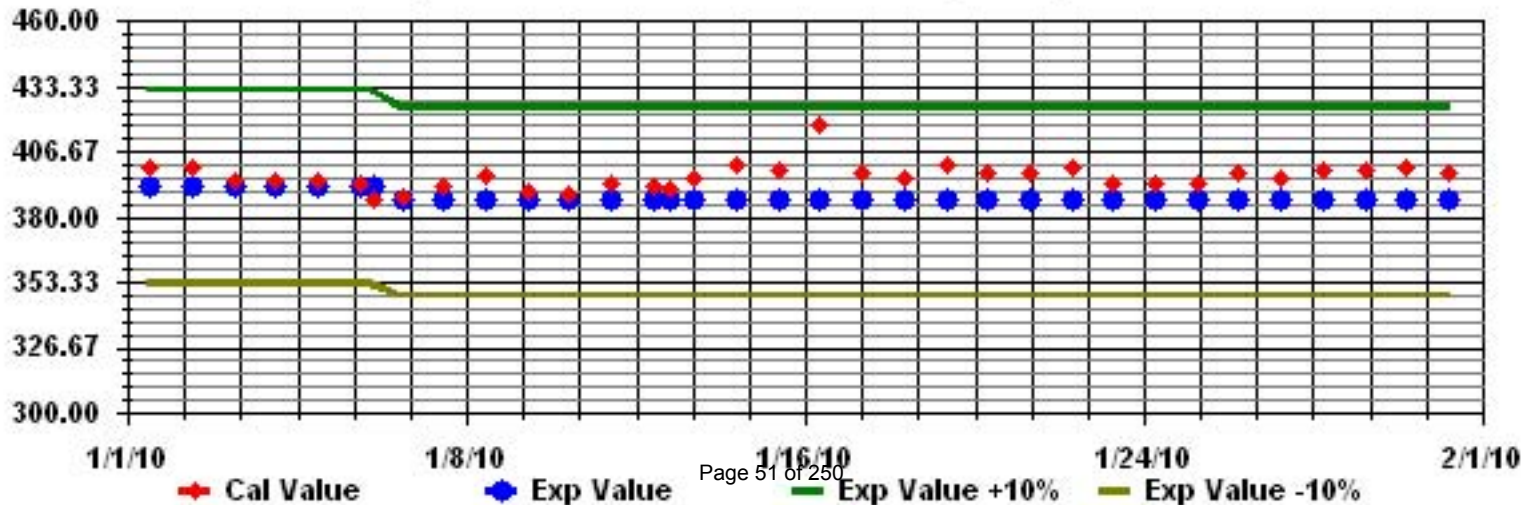
Class Limits (PPB)

Period : 01/01/10-01/31/10

Level : 10



Calibration Graph for Site: LICA Parameter: H02_ Sequence: H02 Phase: SPAN



Nitric Oxide

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - COLD LAKE

JANUARY 2010

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 MAX.	24-HOUR AVG.	RDGS.	
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	0	1	5	4	13	1	0	0	0	1	1	1	IZS	2	1	1	0	0	0	0	0	0	0	0	13	1.3	24	
2	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	0.0	24
3	1	3	4	0	5	7	1	2	0	0	0	IZS	0	0	0	0	1	0	0	0	1	0	0	0	7	1.1	24	
4	0	0	0	0	0	0	0	0	0	0	IZS	3	4	4	3	3	2	1	0	1	0	3	2	1	0	4	1.2	24
5	0	0	0	0	0	1	6	2	IZS	1	1	1	1	0	0	0	1	1	0	1	0	0	0	0	6	0.7	24	
6	0	0	0	0	0	0	0	0	IZS	C	C	C	C	C	C	17	17	17	11	12	8	7	0	0	17	5.6	24	
7	0	0	0	1	0	0	IZS	9	6	3	1	2	1	0	0	0	0	0	0	0	0	0	0	0	9	1.0	24	
8	1	0	0	0	0	IZS	0	0	0	0	2	1	1	1	1	1	2	5	3	2	2	2	6	1	6	1.3	24	
9	2	4	4	13	IZS	7	11	15	10	8	5	2	2	3	3	2	1	0	0	0	2	3	4	1	15	4.4	24	
10	1	0	0	IZS	0	0	0	0	1	6	8	9	7	6	4	9	31	36	19	26	15	0	0	0	36	7.7	24	
11	0	0	IZS	0	1	1	1	1	1	1	4	4	2	6	7	5	4	15	34	42	51	53	44	54	54	14.4	24	
12	46	IZS	22	9	2	6	4	1	1	1	1	1	2	1	1	1	0	0	0	0	0	0	0	0	46	4.3	24	
13	IZS	0	0	0	0	0	0	0	M	M	C	1	1	1	1	3	5	8	10	14	12	8	3	IZS	14	3.5	22	
14	1	0	0	0	0	0	0	0	0	1	1	2	4	4	4	2	1	0	0	0	0	1	IZS	1	4	1.0	24	
15	0	1	0	0	0	6	11	26	36	46	90	70	18	11	14	17	13	7	5	2	0	IZS	0	0	90	16.2	24	
16	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	0.0	24
17	0	0	0	0	0	9	15	11	9	16	10	1	1	1	0	0	0	0	0	0	IZS	0	0	0	16	3.2	24	
18	0	0	0	0	0	0	0	2	1	2	1	0	1	1	2	1	0	0	0	IZS	0	0	0	1	1	2	0.6	24
19	0	0	1	0	4	5	1	7	4	3	4	3	4	4	3	2	1	IZS	0	0	0	0	0	0	7	2.0	24	
20	0	0	0	0	0	1	1	1	2	1	1	1	2	1	1	1	IZS	0	0	0	0	0	0	0	2	0.6	24	
21	0	0	0	0	0	0	0	0	2	3	3	1	2	2	4	IZS	0	0	0	0	0	0	0	0	4	0.7	24	
22	0	0	0	0	0	0	0	0	1	1	1	1	1	0	IZS	1	1	0	1	1	0	0	0	0	1	0.4	24	
23	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	0.0	24
24	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	0.0	24
25	0	0	0	0	0	0	0	0	0	2	0	IZS	0	0	1	0	0	0	0	0	0	0	0	0	2	0.1	24	
26	0	0	0	0	0	N	0	0	1	2	IZS	2	1	1	1	1	0	0	0	0	0	0	0	0	2	0.4	23	
27	0	0	0	0	0	N	0	1	1	IZS	4	3	2	2	2	2	1	0	3	1	1	3	9	1	9	1.6	23	
28	0	0	3	24	15	19	32	32	IZS	55	28	26	11	8	5	4	2	1	8	7	4	11	5	3	55	13.2	24	
29	10	6	10	6	5	7	8	IZS	25	30	39	22	18	14	9	17	4	0	0	0	1	3	3	1	39	10.3	24	
30	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	
31	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1	0.1	24	
HOURLY MAX	46	6	22	24	15	19	32	32	36	55	90	70	18	14	14	17	31	36	34	42	51	53	44	54				
HOURLY AVG	2.1	0.5	1.6	1.9	1.5	2.6	3.1	3.8	3.7	6.8	7.7	5.6	3.1	2.5	2.3	3.0	2.8	3.0	3.2	3.6	3.3	3.1	2.5	2.1				

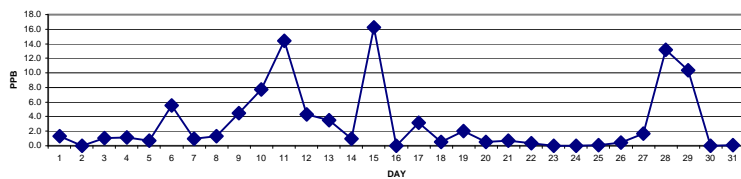
STATUS FLAG CODES

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

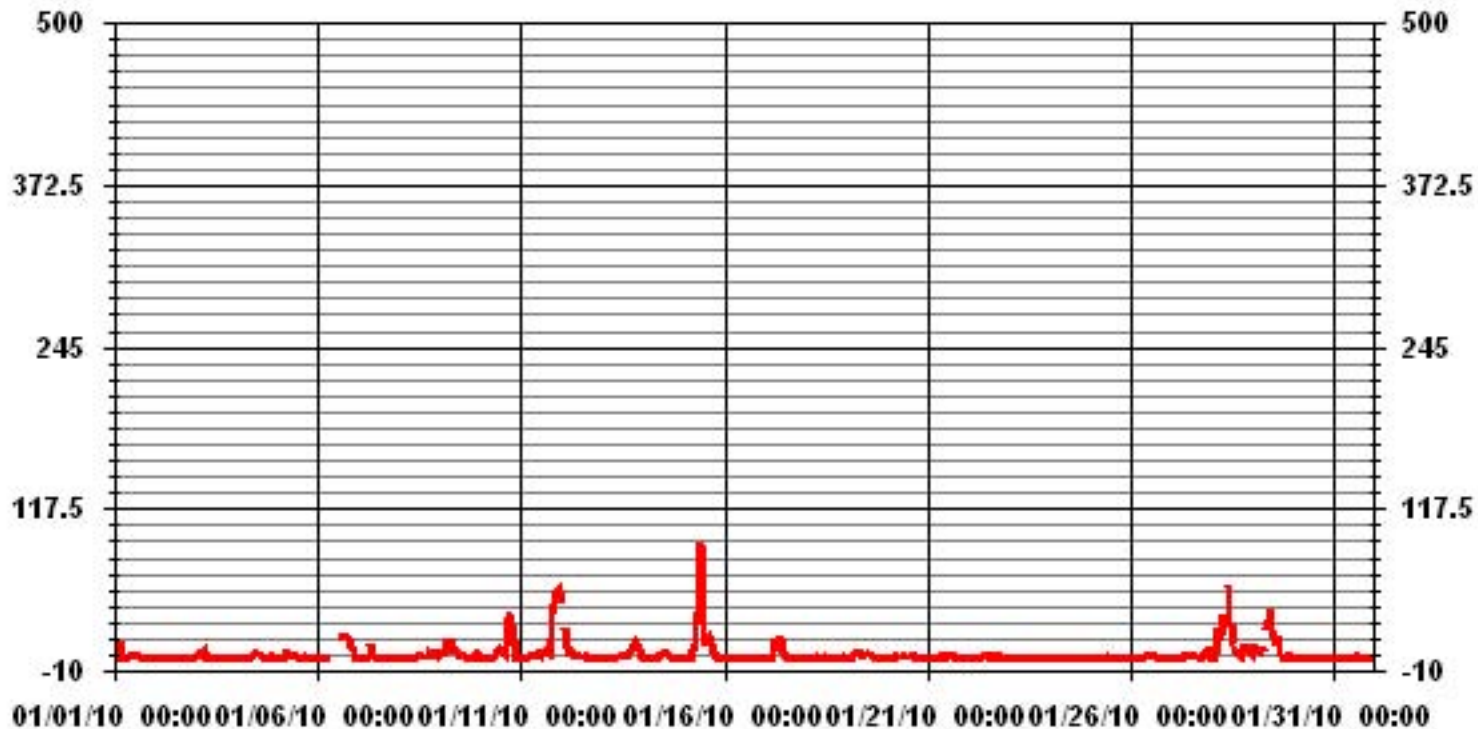
MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	306					
MAXIMUM 1-HR AVERAGE:	90	PPB	@ HOUR(S)	10	ON DAY(S)	15
MAXIMUM 24-HR AVERAGE:	16.2	PPB			ON DAY(S)	15
IZS CALIBRATION TIME:	32	HRS	OPERATIONAL TIME:	740	HRS	
MONTHLY CALIBRATION TIME:	8	HRS	AMD OPERATION UPTIME:	99.5	%	
STANDARD DEVIATION:	8.43		MONTHLY AVERAGE:	3.11	PPB	

24 HOUR AVERAGES FOR JANUARY 2010



01 Hour Averages



— LICA NO_ PPB

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - COLD LAKE

JANUARY 2010

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	2	5	16	10	20	12	1	2	6	2	2	2	IZS	3	4	2	2	2	0	3	0	0	3	1	20	4.3	24	
2	1	1	2	2	2	1	1	0	0	0	0	IZS	1	0	1	4	1	0	1	0	3	2	1	8	8	1.4	24	
3	20	12	12	3	15	28	5	8	1	2	IZS	4	1	2	10	2	2	3	3	23	0	6	2	0	28	7.1	24	
4	0	1	0	2	0	3	4	1	2	IZS	6	8	7	4	53	4	15	4	4	2	8	5	9	1	53	6.2	24	
5	1	3	3	3	2	3	51	42	IZS	4	15	7	4	4	3	5	16	30	1	53	7	7	7	6	53	12.0	24	
6	6	8	6	9	7	6	4	IZS	C	C	C	C	C	C	C	C	99	24	28	26	43	11	5	99	20.1	24		
7	5	1	4	26	2	1	IZS	20	21	13	3	60	8	8	4	4	5	3	3	4	3	3	1	17	60	9.5	24	
8	54	0	2	2	1	IZS	2	2	2	2	26	2	2	3	6	14	27	37	12	21	7	14	13	4	54	11.1	24	
9	10	12	10	68	IZS	13	32	59	40	23	11	9	6	6	6	5	8	5	5	4	4	6	7	3	68	15.3	24	
10	3	2	0	IZS	2	0	0	4	6	18	13	20	8	9	8	27	45	57	36	54	46	9	10	5	57	16.6	24	
11	4	4	IZS	5	4	6	11	16	9	11	38	15	6	11	13	26	12	35	55	66	76	94	62	70	94	28.2	24	
12	58	IZS	27	25	7	20	19	2	4	4	10	4	9	6	10	9	5	6	5	5	5	5	5	5	5	58	11.1	24
13	IZS	5	5	5	6	6	5	6	M	M	C	2	4	2	3	32	21	43	24	45	19	15	12	IZS	45	13.7	22	
14	3	1	0	2	2	3	4	4	7	7	2	4	8	5	6	4	3	2	1	9	5	4	IZS	6	9	4.0	24	
15	2	3	3	3	0	18	34	45	53	68	113	112	56	22	65	31	33	22	24	7	2	IZS	2	1	113	31.3	24	
16	1	1	1	1	1	1	0	1	0	1	0	0	0	1	0	1	2	3	1	0	IZS	1	2	4	4	1.0	24	
17	0	0	1	1	1	26	25	20	18	23	18	6	2	4	2	3	1	3	1	IZS	1	1	2	1	26	7.0	24	
18	0	0	0	0	0	5	1	7	7	13	5	1	7	3	38	8	2	7	IZS	13	1	0	9	9	38	5.9	24	
19	1	8	10	2	15	18	8	23	17	5	9	6	6	5	5	4	2	IZS	1	1	1	1	0	1	23	6.5	24	
20	2	1	2	1	2	2	3	5	6	2	11	4	10	5	9	7	IZS	1	4	2	1	0	0	0	11	3.5	24	
21	0	1	0	0	0	3	1	1	8	44	9	3	8	4	23	IZS	5	3	3	1	2	1	1	1	44	5.3	24	
22	1	1	1	1	1	3	3	1	3	24	2	4	4	4	IZS	13	12	1	16	11	5	2	1	2	24	5.0	24	
23	1	11	0	1	0	1	0	0	1	0	1	1	3	IZS	3	0	0	0	0	0	0	0	0	0	11	1.0	24	
24	0	0	0	0	0	0	0	0	0	0	0	0	1	IZS	0	0	1	0	0	0	0	0	1	0	1	0.1	24	
25	0	0	0	0	0	2	3	0	0	84	0	IZS	4	7	17	6	1	0	1	0	0	0	0	1	84	5.5	24	
26	1	0	0	2	2	N	2	2	2	4	IZS	4	2	3	2	3	2	1	1	1	2	2	1	2	4	1.9	23	
27	2	1	1	1	4	N	2	3	5	IZS	10	6	3	3	3	6	10	8	16	4	6	24	26	6	26	6.8	23	
28	2	1	10	38	27	59	73	51	IZS	83	37	73	14	12	13	7	5	10	103	20	23	19	13	14	103	30.7	24	
29	15	18	17	10	12	11	12	IZS	52	40	45	30	23	21	14	26	10	1	1	4	5	6	8	6	52	16.8	24	
30	2	1	1	1	5	1	IZS	1	2	1	2	5	2	2	3	1	0	1	2	2	2	2	2	1	5	1.8	24	
31	1	1	1	1	1	IZS	1	1	0	0	1	2	1	2	3	3	3	4	2	1	3	3	0	0	4	1.5	24	
HOURLY MAX	58	18	27	68	27	59	73	59	53	84	113	112	56	22	65	32	45	99	103	66	76	94	62	70				
HOURLY AVG	6.6	3.4	4.5	7.5	4.7	9.3	10.6	11.3	10.1	17.7	14.4	14.1	7.5	5.6	11.3	8.9	8.6	13.0	11.7	12.8	8.8	9.2	7.0	6.0				

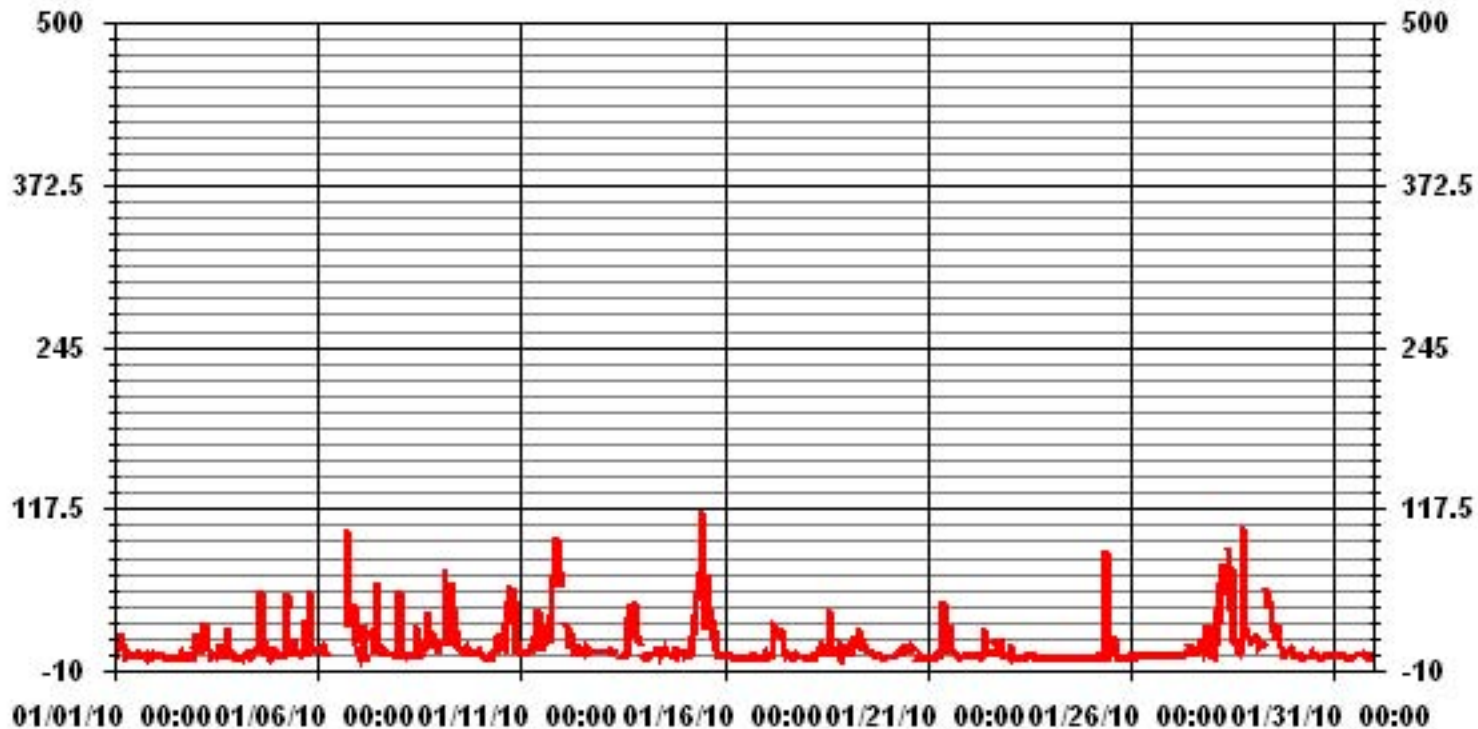
STATUS FLAG CODES

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:	600					
MAXIMUM INSTANTANEOUS VALUE:	113	PPB	@ HOUR(S)	10	ON DAY(S)	15
IZS CALIBRATION TIME:	32	HRS	OPERATIONAL TIME:	740	HRS	
MONTHLY CALIBRATION TIME:	10	HRS				
STANDARD DEVIATION	15.96					

01 Hour Averages



— LICA NOMAX PPB

LICA
NO_ / WD Joint Frequency Distribution (Percent)

January 2010

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	5.28	6.57	8.14	7.42	13.00	8.14	11.71	1.71	1.42	2.14	5.85	9.71	6.00	3.14	3.42	5.42	99.14
< 110	.00	.14	.28	.00	.14	.00	.00	.00	.00	.14	.00	.14	.00	.00	.00	.00	.85
< 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	5.28	6.71	8.42	7.42	13.14	8.14	11.71	1.71	1.42	2.28	5.85	9.85	6.00	3.14	3.42	5.42	

Calm : .00 %

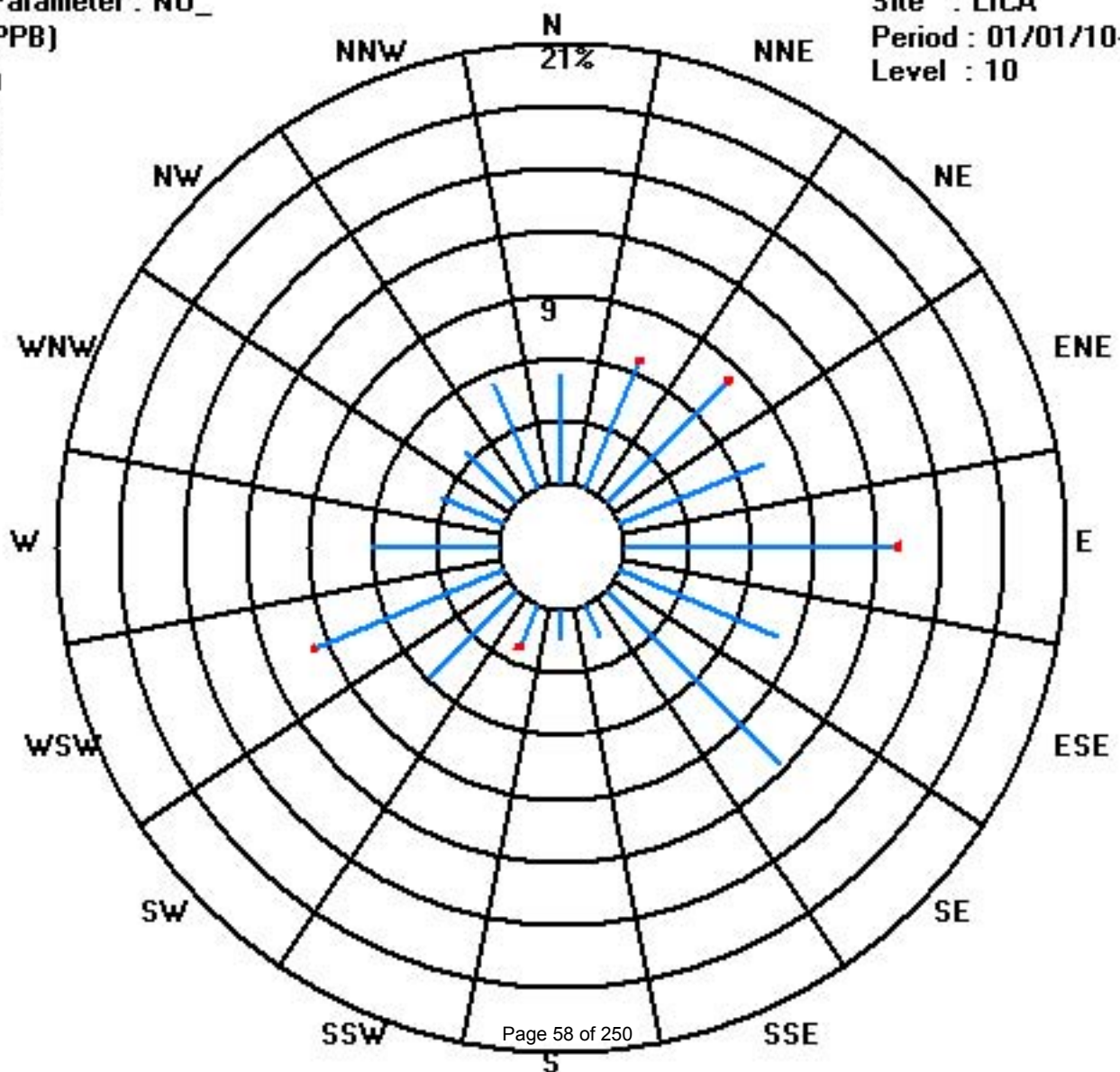
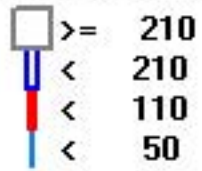
Total # Operational Hours : 700

Distribution By Samples

	Direction																
Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
< 50	37	46	57	52	91	57	82	12	10	15	41	68	42	22	24	38	694
< 110		1	2		1					1		1					6
< 210																	
>= 210																	
Totals	37	47	59	52	92	57	82	12	10	16	41	69	42	22	24	38	

Calm : .00 %

Total # Operational Hours : 700



Oxides of Nitrogen

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - COLD LAKE

JANUARY 2010

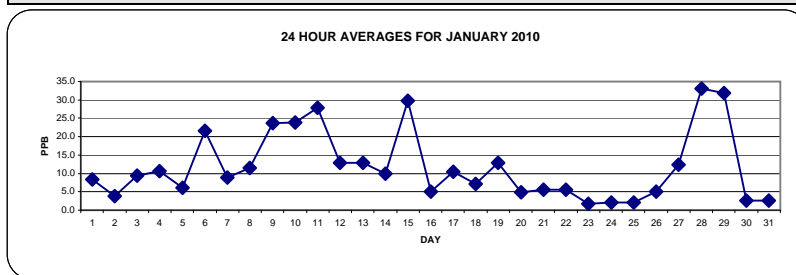
OXIDES OF NITROGEN hourly averages in ppb

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	14	17	24	25	36	9	5	7	5	5	6	4	IZS	7	5	6	4	1	2	2	2	2	3	3	36	8.4	24	
2	3	5	5	5	4	4	3	2	2	3	4	IZS	3	2	2	2	3	3	3	4	6	6	5	9	9	3.8	24	
3	9	17	25	15	23	26	16	22	6	3	IZS	2	2	2	3	6	5	3	4	4	4	6	7	8	26	9.5	24	
4	7	5	5	3	4	6	8	11	12	IZS	10	11	10	8	12	13	16	15	18	16	21	15	10	8	21	10.6	24	
5	7	7	6	6	5	6	16	9	IZS	6	5	4	3	2	3	3	11	8	4	5	3	7	7	7	16	6.1	24	
6	6	6	8	8	14	17	17	IZS	C	C	C	C	C	C	C	44	44	42	36	36	29	24	8	7	44	21.6	24	
7	6	7	9	9	5	4	IZS	31	25	13	5	6	4	4	3	4	4	3	11	19	14	10	6	4	31	9.0	24	
8	5	4	5	4	4	IZS	6	6	9	6	8	6	6	7	7	10	16	24	27	21	20	20	25	19	27	11.5	24	
9	20	23	22	33	IZS	27	35	38	33	27	19	12	12	14	15	15	22	19	21	24	28	29	29	26	38	23.6	24	
10	26	22	14	IZS	10	7	8	8	10	16	19	21	18	19	19	31	64	69	48	49	36	14	14	8	69	23.9	24	
11	9	8	IZS	6	6	5	5	7	7	6	14	13	10	25	29	21	25	42	62	69	73	70	59	71	73	27.9	24	
12	61	IZS	39	23	15	24	16	9	9	9	8	7	7	6	6	7	8	8	7	5	5	6	5	7	61	12.9	24	
13	IZS	9	8	8	6	6	4	4	M	M	C	4	3	3	4	11	19	27	28	33	30	25	13	IZS	33	12.9	22	
14	8	7	5	6	8	10	10	7	7	7	6	7	11	11	13	13	14	15	12	11	11	15	IZS	13	15	9.9	24	
15	10	14	11	10	9	16	21	38	48	59	114	93	29	22	30	35	31	24	21	16	12	IZS	11	9	114	29.7	24	
16	9	13	13	10	7	4	4	4	4	3	2	1	1	1	2	2	4	6	6	6	IZS	5	5	5	13	5.1	24	
17	5	4	3	5	8	23	32	25	27	32	23	5	4	5	4	5	4	3	3	IZS	3	4	8	4	32	10.4	24	
18	2	2	3	3	3	3	7	21	14	12	8	4	5	7	9	7	4	4	IZS	5	5	4	16	15	21	7.1	24	
19	15	11	12	8	16	19	13	24	22	15	14	10	12	11	12	13	14	IZS	8	10	9	10	9	9	24	12.9	24	
20	5	4	5	5	6	6	6	6	9	5	5	5	5	4	6	5	IZS	5	4	4	3	3	3	3	9	4.9	24	
21	3	3	3	3	3	5	5	5	9	8	10	7	8	6	11	IZS	6	6	5	4	5	4	4	4	11	5.5	24	
22	3	3	4	4	4	6	8	7	10	8	6	6	6	6	IZS	7	6	5	7	6	6	4	3	4	10	5.6	24	
23	2	2	1	1	1	2	1	1	2	2	1	1	1	IZS	1	1	1	2	7	4	3	1	1	2	7	1.8	24	
24	2	1	4	3	2	2	2	2	1	2	2	2	IZS	2	2	3	3	3	3	2	1	1	2	1	4	2.1	24	
25	1	1	1	1	2	2	2	1	1	1	1	IZS	1	4	2	3	2	1	2	3	3	4	4	4	4	2.0	24	
26	3	4	4	6	7	N	7	7	8	8	IZS	5	3	4	5	7	6	4	3	4	5	5	4	4	8	5.1	23	
27	5	5	6	6	5	N	10	14	14	IZS	12	8	5	6	7	10	13	20	24	18	17	22	30	16	30	12.4	23	
28	9	11	19	47	38	48	62	56	IZS	82	48	47	24	20	16	16	17	20	33	34	25	37	27	25	82	33.1	24	
29	32	28	33	27	24	26	28	IZS	44	48	62	38	33	29	26	42	28	26	28	29	29	32	31	10	62	31.9	24	
30	4	5	6	5	4	3	IZS	2	2	2	2	2	2	2	2	1	2	2	3	2	2	2	2	2	2	6	2.7	24
31	2	4	2	2	3	IZS	3	4	2	1	1	2	2	4	5	4	4	5	4	2	1	2	1	1	5	2.7	24	
HOURLY MAX	61	28	39	47	38	48	62	56	48	82	114	93	33	29	30	44	64	69	62	69	73	70	59	71				
HOURLY AVG	9.8	8.4	10.2	9.9	9.4	11.7	12.4	13.0	12.7	14.4	15.4	11.9	8.2	8.4	9.0	11.6	13.3	13.8	14.8	14.9	13.7	13.0	11.7	10.3				

STATUS FLAG CODES

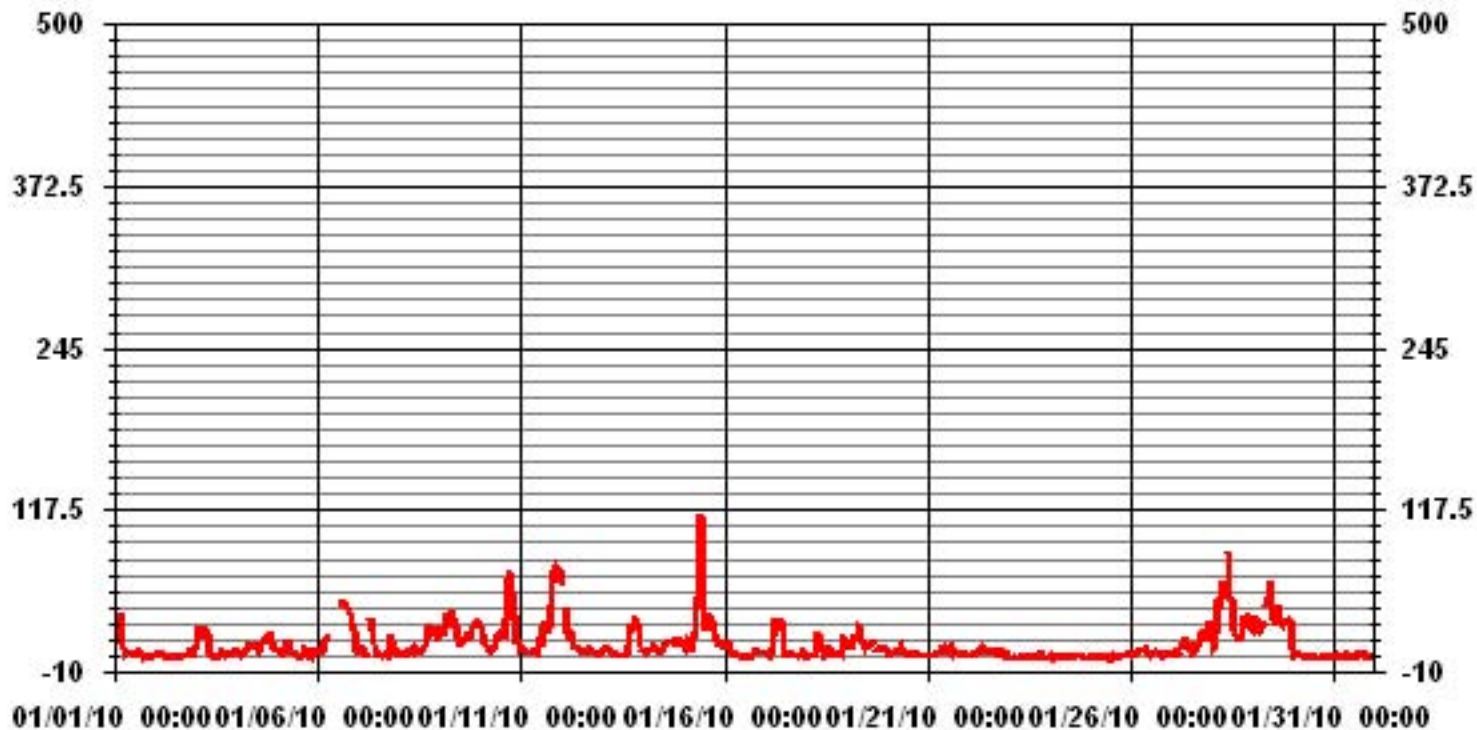
S	- OUT OF SERVICE	IZS	- IZS - DAILY ZERO/SPAN CHECK
N	- INVALID DATA	M	- MISSING DATA
D	- INSTRUMENT DRIFT	P	- POWER FAILURE
C	- CALIBRATION	NA	- NOT APPLICABLE



MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	700					
MAXIMUM 1-HR AVERAGE:	114	PPB	@ HOUR(S)	10	ON DAY(S)	15
MAXIMUM 24-HR AVERAGE:	33.1	PPB			ON DAY(S)	28
IZS CALIBRATION TIME:	32	HRS	OPERATIONAL TIME:	740	HRS	
MONTHLY CALIBRATION TIME:	8	HRS	AMD OPERATION UPTIME:	99.5	%	
STANDARD DEVIATION:	13.59		MONTHLY AVERAGE:	11.73	PPB	

01 Hour Averages



— LICA NOX_ PPB

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - COLD LAKE

JANUARY 2010

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	20	22	35	33	45	34	7	11	14	7	7	9	IZS	9	8	10	9	6	2	4	3	4	6	4	45	13.4	24	
2	6	8	9	8	8	7	8	3	3	4	5	IZS	5	3	3	6	4	4	5	7	11	10	8	19	19	6.7	24	
3	40	35	34	25	40	49	26	32	17	7	IZS	6	4	6	7	12	10	8	10	36	5	20	17	9	49	19.8	24	
4	11	9	6	5	5	11	14	14	15	IZS	17	18	13	10	134	17	34	24	24	20	27	23	14	12	134	20.7	24	
5	9	11	9	10	10	10	85	82	IZS	14	18	13	7	14	6	18	31	43	8	69	8	13	12	11	85	22.2	24	
6	11	14	13	19	22	21	21	IZS	C	C	C	C	C	C	C	C	C	127	53	50	50	58	22	11	127	35.1	24	
7	10	17	22	46	8	6	IZS	47	57	28	7	42	6	23	7	10	12	7	24	28	18	17	14	27	57	21.0	24	
8	37	7	12	10	7	IZS	13	9	12	12	68	7	7	9	20	26	47	70	32	45	28	34	34	24	70	24.8	24	
9	31	35	31	100	IZS	37	62	81	58	52	30	22	17	19	22	19	35	25	27	27	30	31	31	28	100	37.0	24	
10	29	26	17	IZS	13	9	9	13	19	37	26	36	19	20	25	63	80	91	68	77	71	24	25	10	91	35.1	24	
11	10	11	IZS	7	7	9	20	12	15	16	68	33	56	33	45	54	40	64	79	96	94	118	79	89	118	45.9	24	
12	74	IZS	43	44	24	39	33	16	13	13	13	11	10	8	11	15	16	15	10	13	9	9	9	9	74	19.9	24	
13	IZS	11	10	12	8	8	6	5	M	M	C	5	14	5	8	47	43	48	42	79	37	32	30	IZS	79	23.7	22	
14	13	12	9	14	12	15	14	11	16	17	9	9	17	14	16	14	17	18	16	23	17	21	IZS	16	23	14.8	24	
15	13	18	14	15	12	29	49	57	70	87	143	145	67	32	123	59	55	38	48	24	16	IZS	15	13	145	49.7	24	
16	12	16	15	13	9	7	5	5	6	5	2	4	3	3	5	6	10	9	10	IZS	9	10	10	10	16	7.7	24	
17	9	8	6	8	14	45	41	35	38	39	34	15	7	7	7	17	5	10	5	IZS	5	10	12	8	45	16.7	24	
18	3	3	5	4	4	14	17	30	26	32	16	6	8	10	39	12	6	22	IZS	22	9	6	33	32	39	15.6	24	
19	18	18	25	12	34	33	29	44	37	18	23	14	17	14	15	14	15	IZS	11	12	13	12	12	12	44	19.7	24	
20	14	8	9	7	8	10	8	10	16	8	15	10	14	8	14	10	IZS	8	7	6	4	5	4	4	16	9.0	24	
21	4	4	4	4	4	12	7	9	18	22	33	10	16	11	44	IZS	11	8	26	7	9	6	8	5	44	12.3	24	
22	5	6	6	6	6	16	12	12	14	60	11	9	9	14	IZS	14	10	8	31	13	15	7	6	8	60	13.0	24	
23	4	11	2	2	3	3	2	3	5	4	4	2	3	IZS	4	2	2	5	9	6	3	2	1	2	11	3.7	24	
24	2	3	4	4	3	2	3	3	2	3	3	3	3	IZS	2	2	5	3	4	4	3	3	3	2	5	3.0	24	
25	1	1	2	2	3	7	9	2	2	11	2	IZS	13	83	6	10	4	4	3	5	4	5	6	5	83	8.3	24	
26	5	6	6	9	10	N	10	10	10	12	IZS	8	5	7	7	11	8	6	6	8	8	6	6	8	12	7.8	23	
27	8	10	10	8	13	N	12	24	21	IZS	19	11	8	9	10	21	32	32	46	25	32	63	62	27	63	22.9	23	
28	17	14	29	64	51	143	119	77	IZS	117	60	107	30	36	41	24	26	36	118	46	53	47	36	38	143	57.8	24	
29	38	45	44	33	33	30	33	IZS	72	63	70	51	40	37	32	50	36	29	29	31	35	36	39	26	72	40.5	24	
30	10	8	8	6	6	6	IZS	4	5	3	6	11	5	5	4	4	3	3	5	5	8	4	6	3	11	5.6	24	
31	4	7	6	4	6	IZS	5	7	3	3	3	4	3	8	8	6	6	13	7	5	5	8	3	2	13	5.5	24	
HOURLY MAX	74	45	44	100	51	143	119	82	72	117	143	145	67	83	134	63	80	127	118	96	94	118	79	89				
HOURLY AVG	15.6	13.5	14.8	17.8	14.3	22.7	23.4	23.0	21.6	25.7	26.4	22.2	15.1	15.8	23.1	19.8	20.9	26.2	25.5	26.7	21.0	21.4	18.8	15.8				

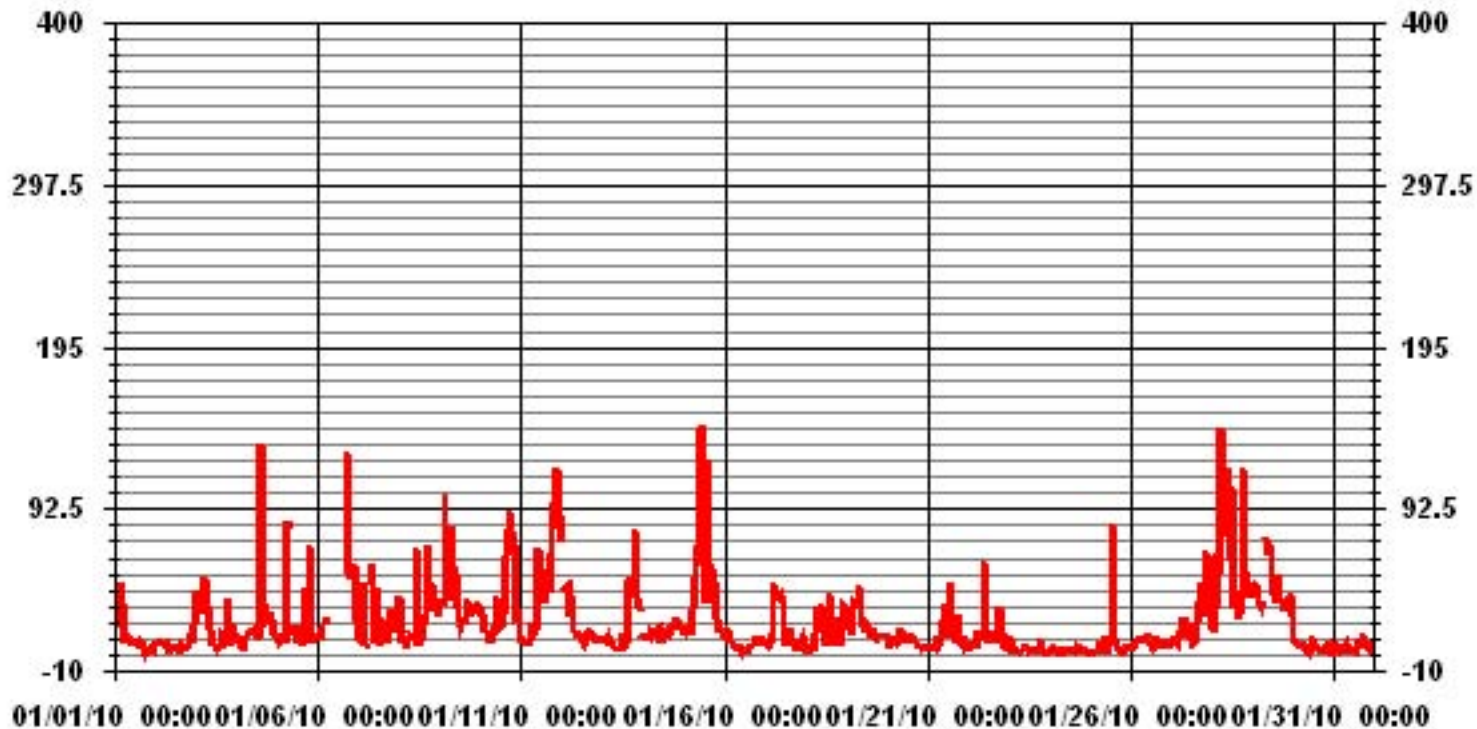
STATUS FLAG CODES

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:	698
MAXIMUM INSTANTANEOUS VALUE:	145 PPB @ HOUR(S) 11 ON DAY(S) 15
IZS CALIBRATION TIME:	32 HRS
MONTHLY CALIBRATION TIME:	10 HRS
STANDARD DEVIATION	22.74
OPERATIONAL TIME:	740 HRS

01 Hour Averages



— LICA NOXMAX PPB

LICA
NOX_ / WD Joint Frequency Distribution (Percent)

January 2010

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	5.28	6.57	8.14	6.71	12.71	8.14	11.71	1.71	1.28	2.14	5.85	9.42	6.00	3.14	3.42	5.42	97.71
< 110	.00	.14	.14	.71	.42	.00	.00	.00	.14	.14	.00	.42	.00	.00	.00	.00	2.14
< 210	.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
Totals	5.28	6.71	8.42	7.42	13.14	8.14	11.71	1.71	1.42	2.28	5.85	9.85	6.00	3.14	3.42	5.42	

Calm : .00 %

Total # Operational Hours : 700

Distribution By Samples

	Direction																
Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
< 50	37	46	57	47	89	57	82	12	9	15	41	66	42	22	24	38	684
< 110		1	1	5	3				1	1		3					15
< 210			1														1
>= 210																	
Totals	37	47	59	52	92	57	82	12	10	16	41	69	42	22	24	38	

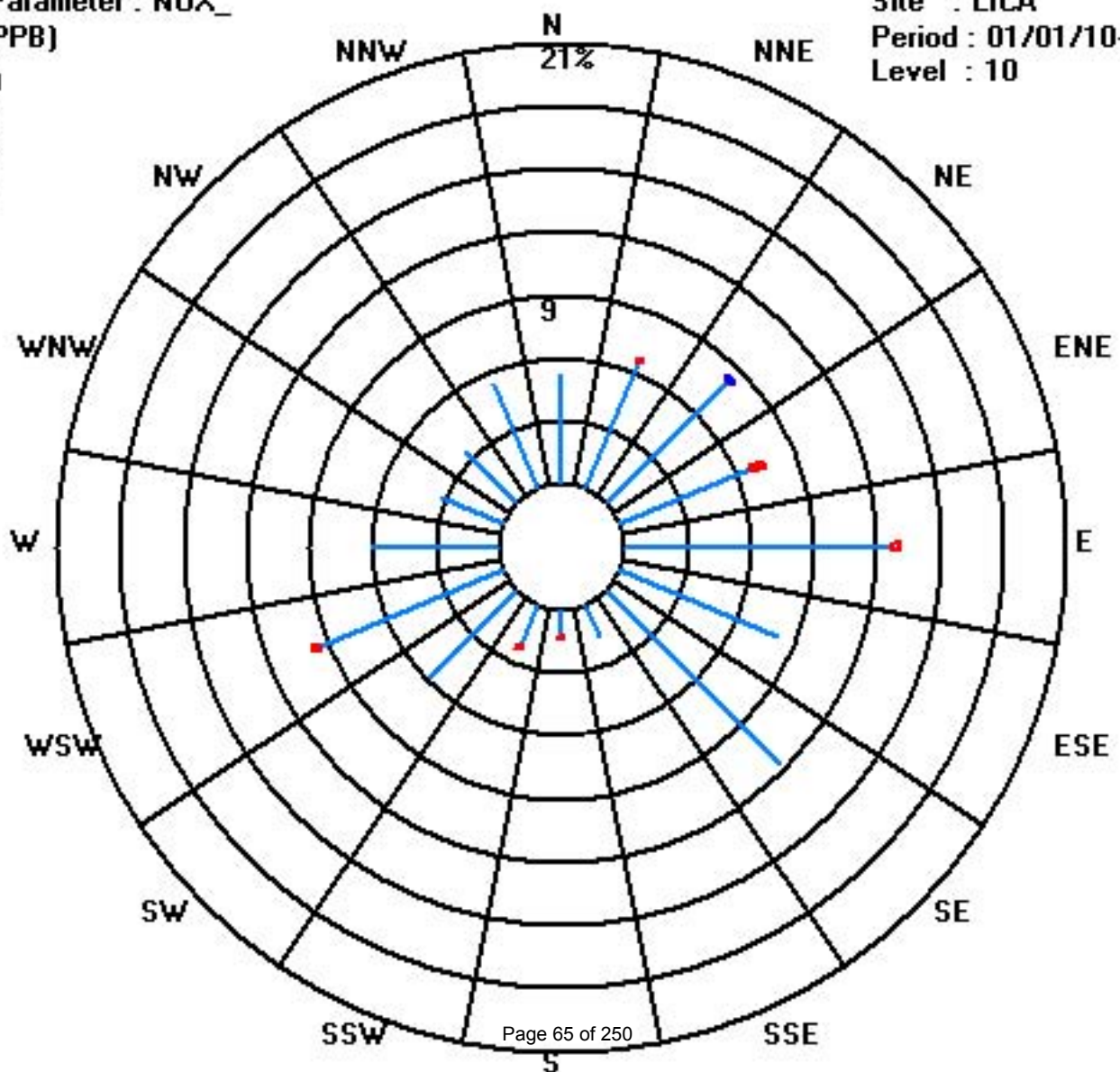
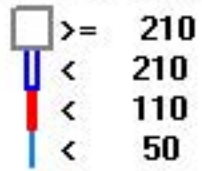
Calm : .00 %

Total # Operational Hours : 700

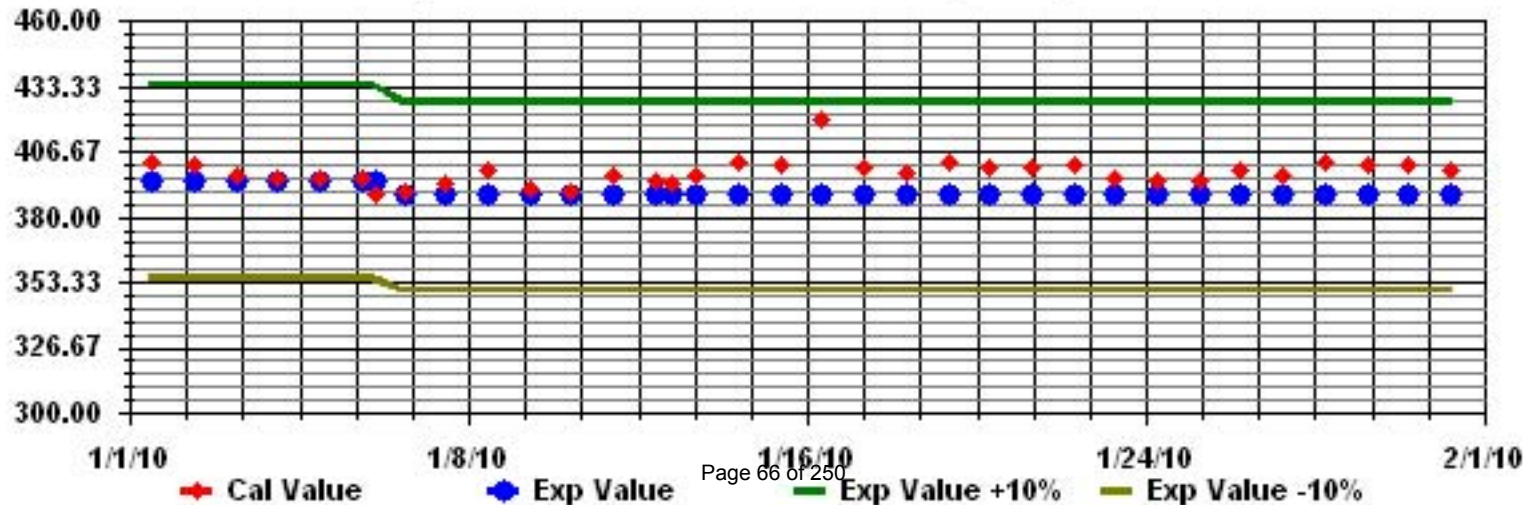
Class Limits (PPB)

Period : 01/01/10-01/31/10

Level : 10



Calibration Graph for Site: LICA Parameter: NOX_ Sequence: NO2 Phase: SPAN



Ozone

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - COLD LAKE

JANUARY 2010

OZONE (O₃) hourly averages in ppb

MST

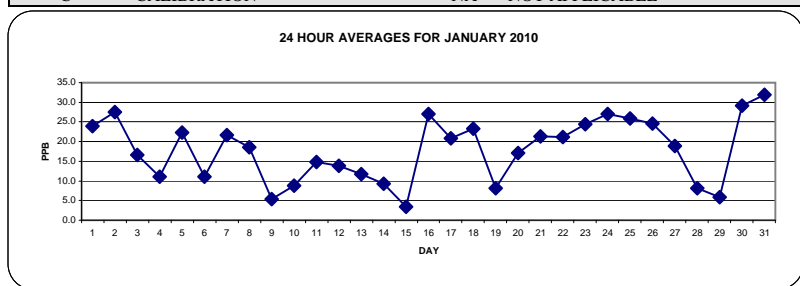
HOUR START	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY	24-HOUR	RDGS.	
HOUR END	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	MAX.	AVG.		
DAY																												
1	6	2	1	1	1	23	25	25	27	28	28	31	IZS	29	30	29	31	35	34	33	33	33	33	33	35	24.0	24	
2	33	32	31	32	32	32	32	32	32	31	30	IZS	29	28	27	27	26	25	24	23	21	21	19	13	33	27.5	24	
3	11	7	2	4	1	3	7	5	22	27	IZS	27	28	26	25	23	25	26	25	24	20	15	14	15	28	16.6	24	
4	16	16	16	17	17	15	12	9	8	IZS	14	14	15	15	14	11	6	5	2	3	2	7	11	11	17	11.1	24	
5	12	14	15	17	17	16	18	19	IZS	25	27	28	29	29	31	30	24	26	28	28	25	19	17	20	31	22.3	24	
6	18	19	18	15	9	4	3	IZS	1	4	7	10	16	17	C	C	C	C	C	2	1	9	23	23	23	11.1	24	
7	23	15	18	20	23	24	IZS	4	7	18	25	26	29	30	30	30	30	30	23	14	13	16	24	25	30	21.6	24	
8	25	26	25	26	26	IZS	26	26	22	25	25	26	26	26	27	23	18	11	3	6	4	3	1	2	27	18.6	24	
9	3	1	0	0	IZS	1	0	0	1	7	12	15	16	16	16	14	7	7	5	2	0	0	0	1	16	5.4	24	
10	1	4	11	IZS	17	18	14	9	7	5	10	12	14	15	13	7	2	2	1	0	4	11	11	16	18	8.9	24	
11	17	18	IZS	21	24	26	26	25	25	26	24	23	25	15	12	15	7	2	1	2	1	1	1	2	26	14.7	24	
12	4	IZS	2	5	7	2	7	17	17	17	18	20	19	19	19	19	17	16	17	17	16	15	14	13	20	13.8	24	
13	IZS	8	9	9	12	12	17	17	18	18	18	20	21	21	20	17	8	2	1	0	0	0	9	IZS	21	11.7	24	
14	13	13	13	13	8	4	8	12	12	13	13	13	11	11	9	9	6	5	6	7	6	4	IZS	5	13	9.3	24	
15	6	3	4	3	2	0	0	0	0	1	2	3	6	7	6	3	1	1	1	6	9	IZS	7	6	9	3.3	24	
16	5	5	9	16	21	27	28	29	30	32	35	37	37	37	37	36	34	29	30	27	IZS	29	27	26	37	27.1	24	
17	18	14	12	9	5	2	0	0	1	5	16	31	32	33	35	35	35	36	36	IZS	35	31	27	30	36	20.8	24	
18	30	29	28	27	27	27	22	10	17	21	24	28	27	25	24	25	28	26	IZS	25	24	22	9	11	30	23.3	24	
19	4	4	2	2	1	2	5	2	4	10	12	15	14	14	14	12	9	IZS	13	10	10	10	10	10	10	15	8.2	24
20	15	16	15	14	14	13	14	14	11	15	16	17	17	19	19	19	IZS	20	20	21	23	22	20	20	23	17.1	24	
21	20	20	21	22	22	22	22	22	20	22	22	22	21	22	22	IZS	21	20	21	22	21	22	21	22	22	22	21.4	24
22	22	21	20	20	20	19	17	18	16	19	19	20	23	25	IZS	23	23	24	23	23	23	24	24	22	25	21.2	24	
23	23	23	24	24	25	26	27	26	25	25	26	28	30	IZS	30	30	29	24	12	16	19	22	23	23	30	24.3	24	
24	27	27	22	25	27	26	25	26	27	27	28	28	IZS	29	30	28	28	27	27	28	28	28	27	27	30	27.0	24	
25	27	27	26	27	26	26	28	28	27	27	27	IZS	27	27	27	27	27	25	24	23	24	23	23	22	28	25.9	24	
26	23	22	21	19	18	N	18	19	20	21	IZS	27	29	29	29	27	27	28	28	26	26	26	28	29	29	24.6	23	
27	28	28	26	23	19	N	19	15	16	IZS	23	27	30	31	31	28	23	12	7	9	8	4	2	8	31	19.0	23	
28	11	8	4	1	0	0	1	0	IZS	5	9	13	21	22	23	22	19	14	6	2	4	1	2	1	23	8.2	24	
29	0	0	0	0	0	0	0	IZS	1	5	8	13	15	16	17	8	9	8	5	3	2	1	1	22	22	5.8	24	
30	29	25	23	24	25	25	IZS	27	28	28	28	30	31	31	33	34	33	32	31	33	32	30	30	30	34	29.2	24	
31	31	30	31	32	32	IZS	29	28	30	30	31	31	31	31	30	30	30	30	31	35	37	38	38	38	38	38	31.9	24
HOURLY MAX	33	32	31	32	32	32	32	32	32	32	35	37	37	37	37	36	35	36	36	35	37	38	38	38				
HOURLY AVG	16.7	15.9	15.0	15.6	15.9	14.6	15.5	16.0	16.3	18.5	19.9	21.9	23.1	23.2	23.4	22.1	20.1	18.9	16.7	15.7	15.7	16.2	16.5	17.5				

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

OBJECTIVE LIMIT:

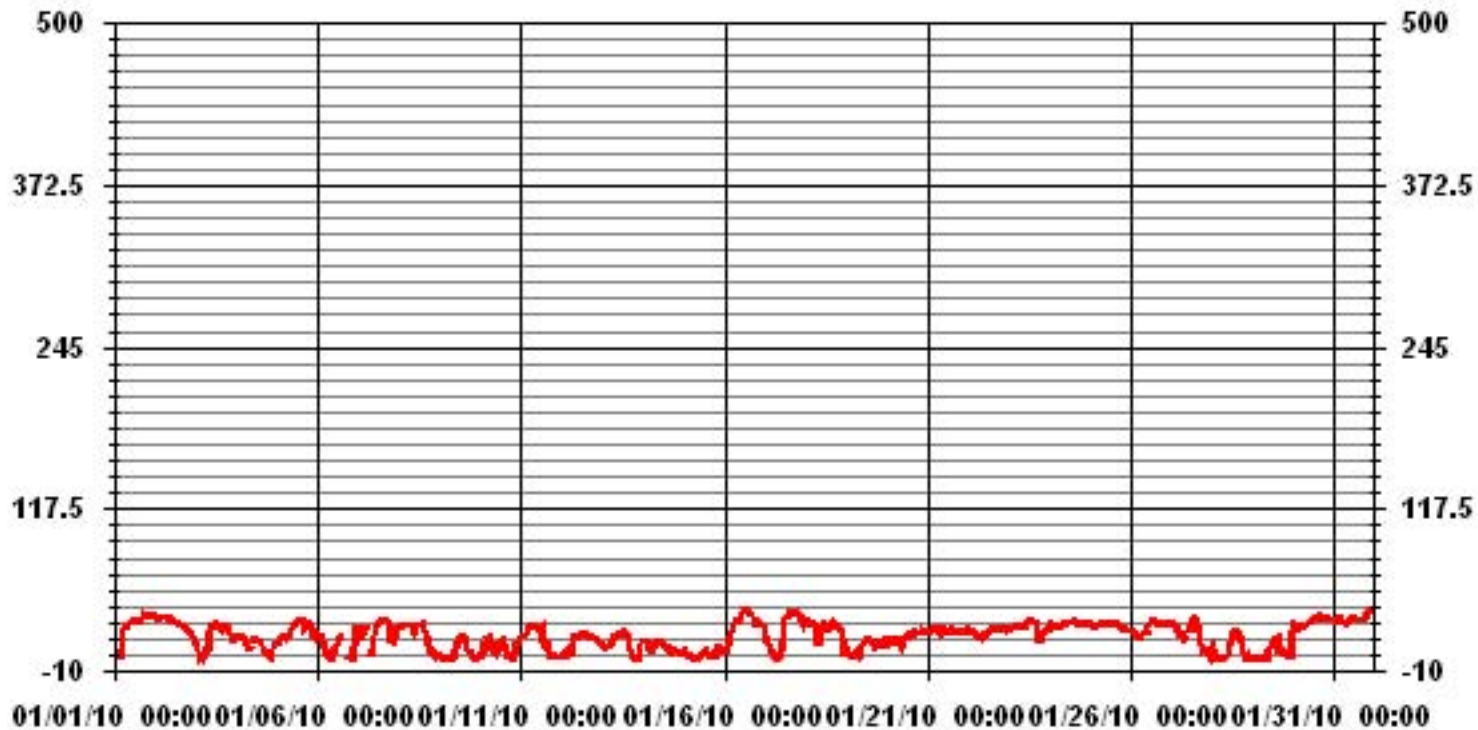
ALBERTA ENVIRONMENT: 1-HR 82 PPB



MONTHLY SUMMARY

NUMBER OF 1-HR EXCEEDENCES:	0				
NUMBER OF NON-ZERO READINGS:	678				
MAXIMUM 1-HR AVERAGE:	38	PPB	@ HOUR(S)	VAR	ON DAY(S) 31
MAXIMUM 24-HR AVERAGE:	31.9	PPB			ON DAY(S) 31
					VAR-VARIOUS
IZS CALIBRATION TIME:	32	HRS	OPERATIONAL TIME:	742	HRS
MONTHLY CALIBRATION TIME:	5	HRS	AMD OPERATION UPTIME	99.7	%
STANDARD DEVIATION	10.29		MONTHLY AVERAGE	17.95	PPB

01 Hour Averages



— LICA 03_ PPB

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - COLD LAKE

JANUARY 2010

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	9	6	7	3	2	28	27	27	28	29	30	33	IZS	30	31	30	35	36	35	34	34	34	34	34	36	25.9	24	
2	34	33	33	33	33	33	33	33	33	32	31	IZS	29	29	28	27	27	26	25	24	21	22	21	17	34	28.6	24	
3	15	12	4	9	3	14	11	12	27	28	IZS	28	29	27	26	25	26	27	27	26	24	20	19	17	29	19.8	24	
4	18	16	17	18	18	16	15	10	11	IZS	15	15	16	16	15	13	9	8	4	5	5	11	13	12	18	12.9	24	
5	15	16	16	17	19	18	20	21	IZS	27	28	29	29	31	32	31	30	29	30	29	28	24	23	23	32	24.6	24	
6	23	22	20	20	15	6	5	IZS	1	6	8	13	21	20	C	C	C	C	C	11	4	20	25	25	25	14.7	24	
7	25	21	25	24	24	24	IZS	13	16	24	27	27	30	31	31	31	31	30	17	22	23	29	30	31	25.5	24		
8	29	28	28	29	28	IZS	28	27	24	26	27	27	27	27	27	28	27	23	20	6	12	8	6	5	5	29	21.5	24
9	11	3	1	1	IZS	2	1	0	2	12	15	17	17	19	19	17	11	9	8	4	1	1	1	1	19	7.5	24	
10	1	10	12	IZS	20	20	18	12	11	8	12	13	16	16	15	12	5	10	8	4	11	13	14	18	20	12.1	24	
11	18	20	IZS	23	25	27	27	26	27	28	28	27	26	23	23	22	13	16	7	7	4	15	5	21	28	19.9	24	
12	56	IZS	9	12	12	4	11	20	19	18	20	20	21	21	21	20	20	19	19	19	19	16	16	14	56	18.5	24	
13	IZS	9	10	10	13	17	18	18	0	20	20	21	21	22	22	20	15	4	2	1	1	1	17	IZS	22	12.8	24	
14	15	15	16	17	11	8	12	13	13	13	14	14	12	12	10	10	8	6	9	9	8	7	IZS	6	17	11.2	24	
15	7	6	5	4	3	1	0	1	1	2	3	4	8	8	7	5	2	4	2	10	11	IZS	10	8	11	4.9	24	
16	7	7	13	19	25	29	29	30	31	34	37	38	38	38	38	37	36	32	31	30	IZS	31	30	31	38	29.2	24	
17	22	20	14	15	9	7	0	0	2	9	28	32	33	35	36	36	36	40	37	IZS	36	34	30	30	40	23.5	24	
18	31	30	29	28	28	28	26	16	24	24	27	28	28	27	28	29	29	28	IZS	27	26	24	19	21	31	26.3	24	
19	7	7	3	4	4	6	10	7	7	11	14	17	16	15	18	13	11	IZS	14	12	12	11	11	12	18	10.5	24	
20	17	16	16	15	15	15	15	15	15	17	18	18	18	21	21	21	IZS	22	21	21	25	23	21	20	25	18.5	24	
21	21	20	22	22	23	23	23	23	22	23	24	24	22	23	24	IZS	23	22	22	23	22	23	22	23	24	22.6	24	
22	23	22	21	21	21	21	19	20	20	21	21	21	27	27	IZS	25	25	26	24	24	25	25	25	24	27	23.0	24	
23	24	24	25	25	26	27	27	27	26	26	26	29	31	IZS	31	31	30	29	16	18	22	24	24	25	31	25.8	24	
24	29	30	24	26	29	27	26	28	28	28	28	29	IZS	30	31	30	29	28	28	29	29	29	28	28	31	28.3	24	
25	28	28	27	27	27	28	28	28	28	28	28	IZS	28	28	28	28	28	27	25	24	25	23	23	23	28	26.7	24	
26	24	23	22	21	21	N	19	20	21	23	IZS	28	30	30	32	29	29	29	29	29	27	28	29	30	32	26.0	23	
27	30	30	28	26	23	N	22	20	18	IZS	27	29	32	32	32	30	29	16	14	12	12	12	10	13	32	22.6	23	
28	14	10	8	3	1	2	5	1	IZS	6	13	18	24	24	25	24	22	21	18	6	11	2	6	2	25	11.6	24	
29	0	1	1	0	0	0	0	IZS	3	8	13	15	16	18	18	17	10	10	6	4	4	3	6	30	30	8.0	24	
30	30	27	24	25	27	26	IZS	28	29	29	30	31	32	32	34	35	34	34	32	35	35	31	30	32	35	30.5	24	
31	32	31	32	33	33	IZS	30	29	30	31	31	31	32	32	31	31	31	32	33	37	38	38	38	39	39	32.8	24	
HOURLY MAX	56	33	33	33	33	33	33	33	33	34	37	38	38	38	38	37	36	40	37	37	38	38	38	39				
HOURLY AVG	20.5	18.1	17.1	17.7	17.9	16.9	17.4	18.1	17.8	20.4	22.2	23.3	24.4	24.8	25.3	24.3	22.7	22.1	19.4	18.1	18.3	19.1	19.5	20.5				

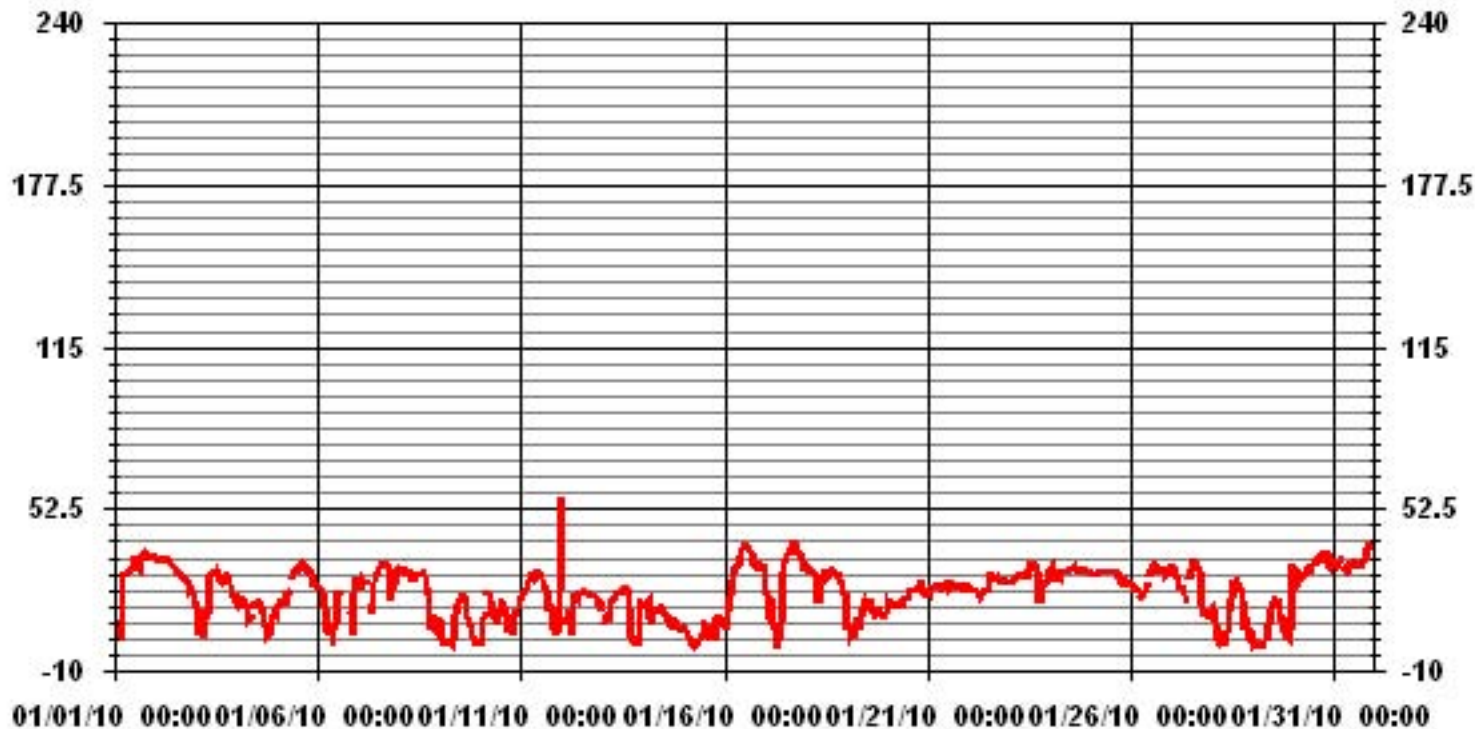
STATUS FLAG CODES

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

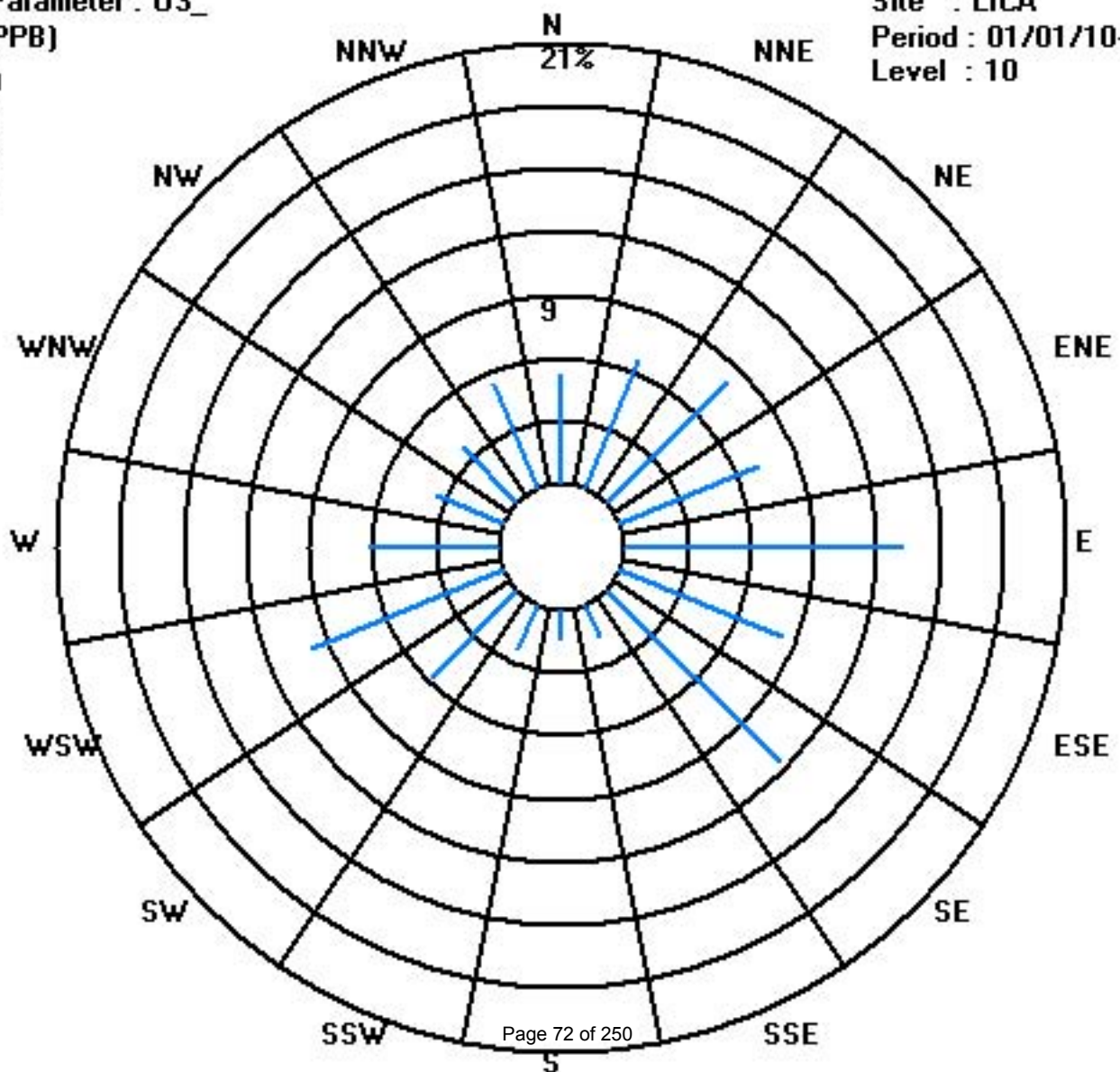
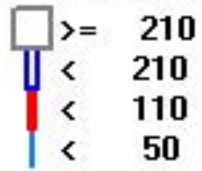
MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	695
MAXIMUM INSTANTANEOUS VALUE:	56 PPB @ HOUR(S) 0 ON DAY(S) 12
IZS CALIBRATION TIME:	32 HRS
MONTHLY CALIBRATION TIME:	5 HRS
OPERATIONAL TIME:	742 HRS
STANDARD DEVIATION	9.87

01 Hour Averages



— LICA O3MAX PPB



LICA
O3_ / WD Joint Frequency Distribution (Percent)

January 2010

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	5.24	6.66	8.08	7.09	13.19	8.36	11.63	1.70	1.41	2.26	5.81	9.92	6.09	3.40	3.68	5.39	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	5.24	6.66	8.08	7.09	13.19	8.36	11.63	1.70	1.41	2.26	5.81	9.92	6.09	3.40	3.68	5.39	

Calm : .00 %

Total # Operational Hours : 705

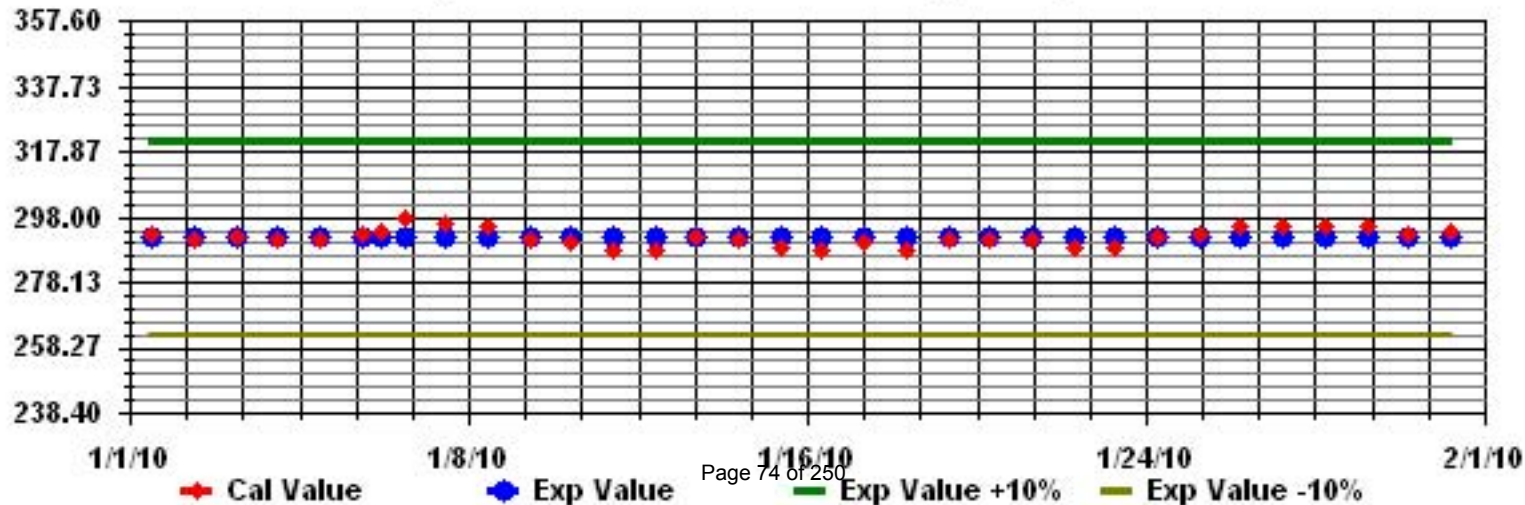
Distribution By Samples

	Direction																
Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
< 50	37	47	57	50	93	59	82	12	10	16	41	70	43	24	26	38	705
< 110																	
< 210																	
>= 210																	
Totals	37	47	57	50	93	59	82	12	10	16	41	70	43	24	26	38	

Calm : .00 %

Total # Operational Hours : 705

Calibration Graph for Site: LICA Parameter: 03_ Sequence: 03 Phase: SPAN



Ambient Temperature

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - COLD LAKE

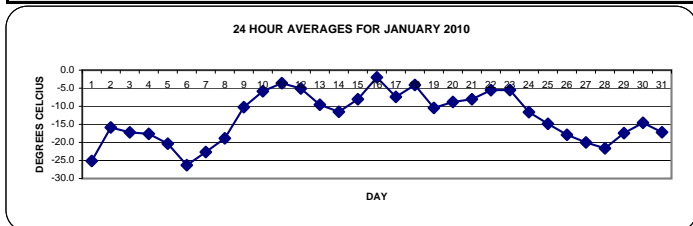
JANUARY 2010

AMBIENT TEMPERATURE hourly averages (Degrees C)

MST		0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	DAILY	24-HOUR	
HOURLY MAX	HOURLY AVG	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		-33.1	-33.6	-33.8	-34	-33.7	-29.4	-29.1	-28.7	-28.2	-27.6	-26.9	-24.8	-23.7	-23.4	-22.1	-21.1	-19.5	-17.6	-18.2	-18.7	-19.1	-19.4	-19.1	-18.5	-17.6	-17.6	-25.1	24
2		-18.1	-18	-17.9	-17.7	-17.5	-17.3	-17.1	-16.8	-16.5	-16.2	-15.7	-14.5	-14.1	-14.1	-13.9	-14	-14.1	-14	-14.3	-14.5	-14.8	-15	-16.6	-18.1	-13.9	-15.9	24	
3		-19.7	-20.4	-19.5	-19.8	-20.9	-20.5	-20.3	-19.5	-17.8	-17.2	-17.1	-16.5	-15.8	-14.8	-14.7	-14.9	-15.1	-14.9	-14.7	-14.5	-16.1	-17	-16.2	-15.4	-14.5	-17.2	24	
4		-15.8	-15.1	-14.8	-15.4	-16.1	-17.8	-20.1	-19.6	-19.1	-19.1	-18.7	-18	-17.5	-17	-16.8	-17	-17.7	-18.1	-18.1	-18.1	-18.3	-18.2	-18.2	-18.4	-14.8	-17.6	24	
5		-18.5	-18.4	-18.6	-18.6	-18.6	-19.1	-20.4	-21	-21.2	-21	-21	-20.8	-20.6	-19.7	-19.3	-19.6	-20.1	-19.8	-19.9	-20.8	-22.3	-23	-23.4	-22.7	-18.4	-20.4	24	
6		-24	-25	-25.3	-26.1	-27.8	-29.2	-30.6	-31.4	-31.6	-30.6	-27.8	-24.9	-23.5	-21.8	-20.7	-20.9	-23.4	-25.8	-27	-27.9	-28.8	-27.5	-24.8	-25.1	-20.7	-26.3	24	
7		-26.2	-28.5	-28.1	-26.9	-26.5	-26.3	-27.9	-29.4	-28.4	-25.7	-22.7	-20.7	-18.1	-17	-16.6	-17	-17.1	-17.6	-18	-19.9	-21.3	-21.5	-21.1	-21.4	-16.6	-22.7	24	
8		-21.5	-21.4	-21.4	-21.4	-21.4	-21.3	-21.3	-21.7	-21.8	-20.7	-19.7	-18.7	-17.4	-16	-13.9	-14.1	-15.1	-16.3	-17.1	-17.6	-17.9	-18.1	-18.3	-18.6	-13.9	-18.9	24	
9		-18.4	-17.8	-17.9	-17.9	-18	-16.9	-14.8	-13.5	-12.3	-10.6	-8.8	-7.9	-7.5	-6.8	-5.6	-5	-5	-5.1	-5.8	-5.7	-6.1	-6.1	-6	-6.2	-5.0	-10.2	24	
10		-6.1	-6.3	-6.8	-6.6	-6.2	-5.9	-7.5	-8.9	-9.9	-9.9	-9.3	-6.8	-5	-3.1	-1.4	-1.4	-2.8	-4.1	-6.1	-7.6	-8.8	-7	-4.5	-4.4	-3.7	-1.4	-5.8	24
11		-3.6	-3.9	-3.9	-3.7	-3.3	-3.1	-3.4	-4	-3.4	-2.9	-2.3	-1.6	-0.8	-0.2	0.1	0	-0.9	-2.5	-3.7	-5.4	-6.8	-8.2	-9.1	-9.7	0.1	-3.6	24	
12		-10.3	-10.5	-10.7	-10.4	-9.3	-9.4	-7.6	-2.5	-2.4	-3	-2.7	-2.2	-2.2	-2.6	-3.1	-3.3	-3.5	-3.5	-3.8	-3.9	-3.9	-3.8	-3.7	-3.8	-2.2	-5.1	24	
13		-4.2	-4.4	-4.7	-5.4	-5.2	-5.1	-6.6	-7.8	-8.9	-10.3	-10.4	-9.6	-9.3	-9.1	-9.8	-10.9	-12.8	-14	-15	-15.2	-14.7	-13.1	-12.8	-4.2	-9.6	24		
14		-13.7	-14.3	-14.9	-15	-16	-16.5	-15.5	-14.2	-14.1	-13.6	-12.8	-11.4	-10.5	-9.6	-8.9	-8.3	-8.2	-7.9	-7.8	-8	-8.3	-9.1	-9.3	-8.8	-7.8	-11.5	24	
15		-8	-8.4	-9.3	-9.7	-10.8	-11.6	-12.7	-12.9	-12.9	-13.2	-9.6	-7.5	-7	-6.6	-5.6	-5.5	-6.3	-6.5	-6.2	-4.5	-3.9	-4	-4.9	-6.7	-3.9	-8.0	24	
16		-7.9	-5.5	-3	-1.6	-1.7	-1.7	-2.2	-1.9	-0.8	0.7	1.1	1.2	1.9	2.2	2.5	2.2	0.1	-2	-2.6	-3.7	-4.3	-5.2	-7.4	-8.3	2.5	-2.0	24	
17		-10.1	-11.7	-13.4	-14.6	-15.1	-15.3	-15.3	-16.3	-16.5	-14.1	-9.5	-4.5	-2.9	-0.7	0.4	0	-0.8	-1.5	-1.8	-2	-2.3	-2.6	-3.4	-3.6	0.4	-7.4	24	
18		-3.8	-4.4	-4.8	-4.9	-4.9	-5	-5.4	-6.5	-6.1	-6.2	-5	-2.8	-2.4	-1.9	-0.9	-0.5	-0.8	-1.7	-2.8	-3.4	-4.3	-5.1	-7.4	-7.5	-0.5	-4.1	24	
19		-9.4	-10.9	-11.6	-12.5	-12.9	-13.2	-13.4	-13.2	-12.8	-11.8	-10.2	-9.3	-8.7	-8.4	-8.5	-8.2	-8.4	-8.5	-9.2	-9.6	-9.8	-10.1	-10.3	-10.2	-8.2	-10.5	24	
20		-10.2	-10.5	-10.4	-10.2	-9.9	-9.7	-9.5	-9.5	-9.8	-9.9	-9.9	-9.7	-9.2	-8.6	-8	-7.4	-6.9	-6.8	-6.8	-6.9	-7.3	-7.8	-8.2	-6.8	-8.8	-8.8	24	
21		-8.1	-7.8	-7.9	-8.7	-9.2	-9.5	-9.9	-9.9	-9.5	-9.1	-8.7	-8.3	-8	-7.6	-7.3	-7.2	-7.2	-7.2	-7.1	-7.1	-7	-7.1	-7	-6.9	-6.9	-8.1	24	
22		-6.7	-6.6	-6.6	-6.4	-6.3	-6.1	-6	-5.9	-5.8	-5.6	-5.3	-4.9	-4.8	-4.9	-4.9	-4.9	-5	-5.2	-5.2	-5.2	-5.2	-5.2	-5.2	-5.1	-4.8	-5.5	24	
23		-5.3	-5.5	-5.7	-5.7	-5.8	-5.9	-5.9	-5.9	-6	-5.9	-5.7	-5.4	-4.9	-4.4	-4.3	-4.4	-4.4	-4.4	-4.7	-5.2	-5.9	-6.6	-7	-7.4	-4.3	-5.5	24	
24		-7.9	-8.7	-8.9	-9.3	-9.8	-10.3	-10.7	-11.1	-11.4	-11.5	-11.5	-11.3	-11.3	-11.1	-11.3	-12.6	-13.5	-13.8	-13.9	-13.9	-14.1	-14.7	-14.9	-14.9	-11.6	24		
25		-14.9	-14.7	-14.6	-14.6	-14.8	-14.8	-15	-15.3	-15.3	-15.2	-15	-14.9	-14.3	-13.9	-14.1	-14.1	-14.2	-14.4	-14.7	-14.8	-14.8	-15	-16	-17.2	-13.9	-14.9	24	
26		-18	-18.8	-19.6	-20.5	-21.2	N	-22.4	-22.4	-21.7	-20.5	-18.7	-16.4	-14.4	-13.8	-13.7	-14.4	-15.6	-16.2	-17	-17.9	-18.3	-18.1	-18.4	-13.5	-17.9	23		
27		-18.8	-19.2	-20.6	-22.4	-24.5	N	-23.8	-23.9	-23.8	-22.2	-19.3	-17.1	-14.8	-13.3	-12.5	-12.1	-13.8	-17.7	-20.3	-21.9	-23.1	-24.1	-25.2	-25.9	-12.1	-20.0	23	
28		-26.2	-27.1	-27.4	-26.8	-28	-27.8	-27.2	-27.7	-27.9	-23.5	-20.6	-18.4	-15.1	-14.1	-14	-12.9	-15.7	-17.6	-18.4	-18.7	-19.8	-20.6	-21.7	-22.1	-12.9	-21.6	24	
29		-22.8	-23.8	-24	-24.5	-25.1	-25.1	-25.6	-25.7	-25.2	-22	-19.3	-16.6	-13	-11.2	-10.7	-10.6	-11.7	-11.8	-11.7	-11.8	-11.8	-11.7	-11.5	-11	-10.6	-17.4	24	
30		-11.3	-12.1	-12.7	-13.2	-13.2	-13.1	-13.2	-13.7	-13.9	-13.9	-14.1	-14.3	-14.2	-14.2	-14.1	-14.4	-14.6	-15	-15.8	-16.2	-17	-17.9	-18.7	-18.9	-11.3	-14.6	24	
31		-18.6	-18.6	-18.7	-19	-19.1	-19.3	-19.3	-19.1	-19.2	-19	-18.3	-17.6	-16.4	-15.5	-15.3	-15.7	-15.7	-15.6	-15.5	-15.2	-15.3	-15.5	-15.6	-15.6	-15.2	-17.2	24	
HOURLY MAX		-3.6	-3.9	-3.0	-1.6	-1.7	-1.7	-2.2	-1.9	-0.8	0.7	1.1	1.2	1.9	2.2	2.5	2.2	0.1	-1.5	-1.8	-2.0	-2.3	-2.6	-3.4	-3.6				
HOURLY AVG		-14.2	-14.6	-14.8	-15.0	-15.3	-14.7	-15.5	-15.5	-15.3	-14.5	-13.3	-12.1	-11.1	-10.4	-9.9	-10.0	-10.6	-11.2	-11.7	-12.1	-12.6	-12.8	-13.1	-13.3				

STATUS FLAG CODES

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

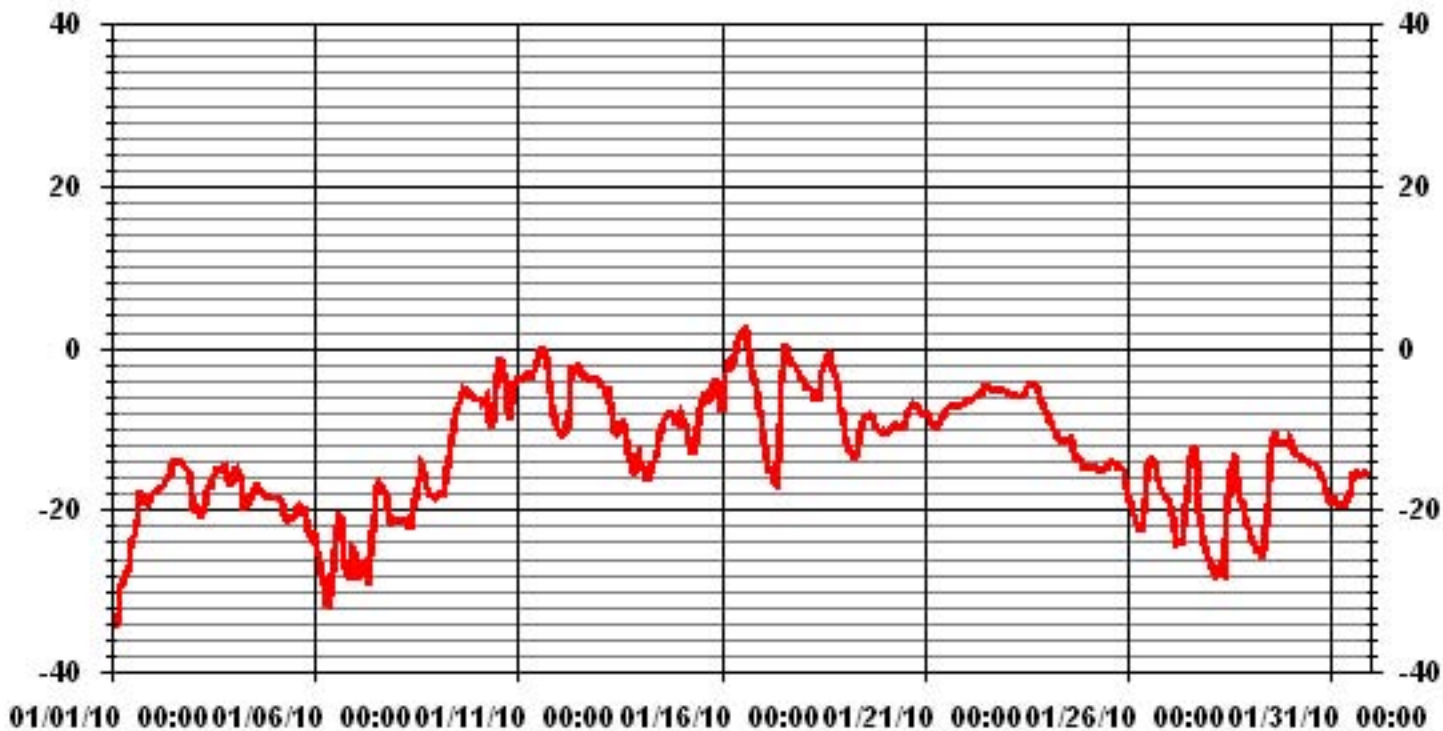


MONTHLY SUMMARY

MINIMUM 1-HR AVERAGE:	-34 °C	@ HOUR(S)	3	ON DAY(S)	1
MAXIMUM 1-HR AVERAGE:	2.5 °C	@ HOUR(S)	14	ON DAY(S)	16
MAXIMUM 24-HR AVERAGE:	-2.0 °C			ON DAY(S)	16
				VAR-VARIOUS	
CALIBRATION TIME:	0	HRS	OPERATIONAL TIME:	742	HRS
STANDARD DEVIATION:	7.41		AMD OPERATION UPTIME:	99.7	%
			MONTHLY AVERAGE:	-13.05	°C

* Outside detection limits of sensor.

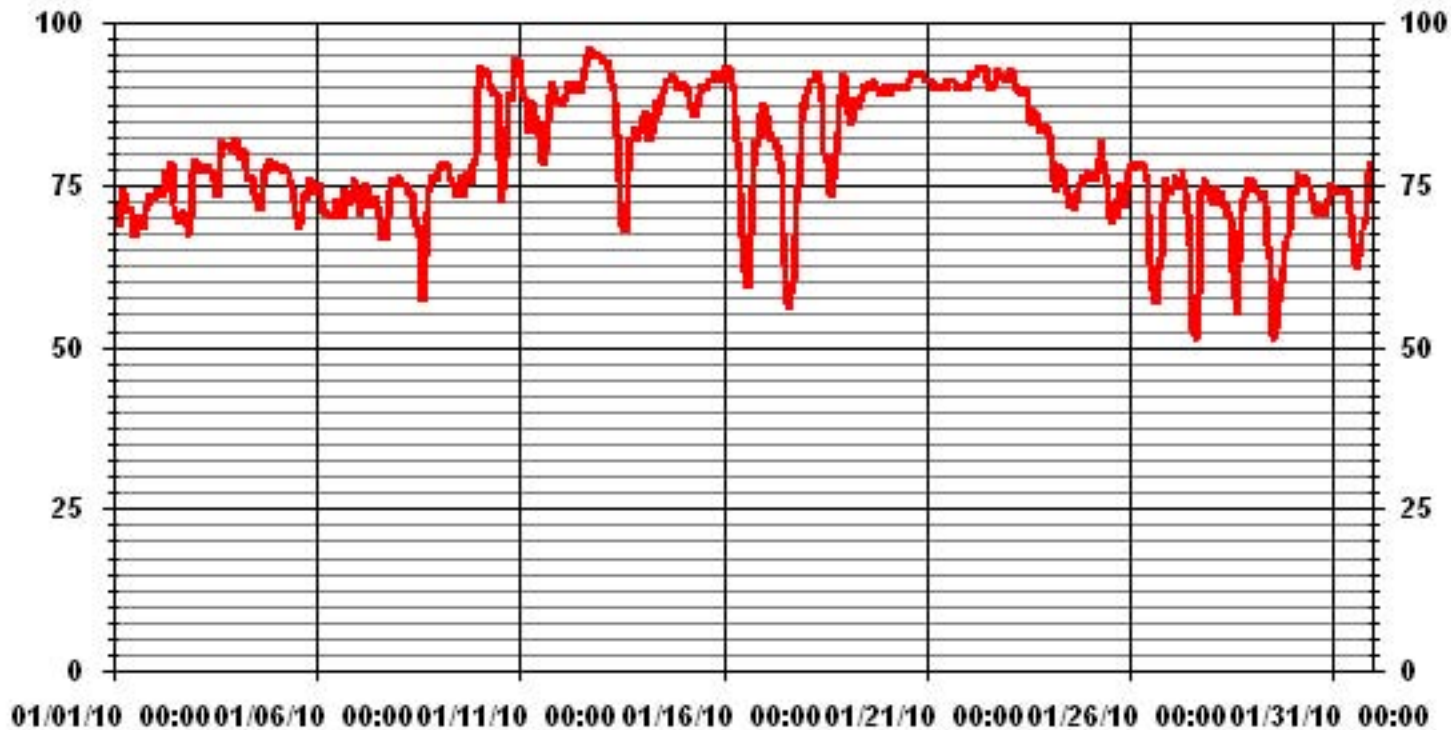
01 Hour Averages



— LICA TPX DGC

Relative Humidity

01 Hour Averages



— LICA RH %FS

Vector Wind Speed

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - COLD LAKE

JANUARY 2010

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

MST		0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY	24-HOUR		
HOURLY MAX	HOURLY AVG	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		0.6	0.4	0.6	0.6	2.7	7.7	7.7	4.9	7.2	7.2	7	8.4	7.9	9	9.2	7.5	5.5	11.5	9.3	7.6	6.9	7.7	6.2	4.4	11.5	5.7	24	
2		4.7	5.9	5.3	4.5	4.5	2.3	2.2	3.2	4.4	4.9	6.9	7.8	9.2	11.2	8.9	7.8	6.3	6.4	6.1	6.5	5.8	4.1	2.4	1.7	11.2	3.9	24	
3		1.3	1.4	0.6	0.4	0.6	0.6	0	0.8	5.5	7.2	7.4	8	7.1	8.1	7	5.4	4.3	4.2	3	1.5	0.9	0.4	1	2	8.1	2.8	24	
4		5.2	3.3	4.6	6	5.6	4.8	2.9	2.3	1.7	4	4.3	4	3.9	3	1.9	2.1	1.9	0.6	0.6	0.5	1.9	1.9	1.6	1.3	6	2.3	24	
5		1.4	1.7	2.6	3	2.7	4.4	4.8	3.8	4.1	4.7	5.5	5.8	5.2	5.3	5	4.8	2.8	3.1	3.3	1.4	0.6	0.5	0.6	0.6	5.8	3.2	24	
6		1.2	1.3	1.1	1.7	2.5	1.5	0.6	0.8	1	0.7	0.9	0.4	1.9	1.1	0.9	1.8	0.5	0.6	0.5	0.4	0.8	3.2	6.9	1.2	6.9	1.4	24	
7		3.5	1	3.2	2.7	5.4	6.6	0	1.3	1.3	4.3	6.2	4.7	4.9	4.1	3.3	6.6	6	8	1.4	1.3	1.5	2.8	3.3	1.7	8.0	3.5	24	
8		2.4	2.4	2.7	2.7	3.4	2.2	3.7	2.8	1.4	2.6	2.7	3.5	2.2	5.4	2.6	2.2	1.5	1.5	1.2	0.3	0.5	0.1	0.4	0.2	5.4	2.1	24	
9		0.2	0.3	0.2	1	0.6	0.5	0.1	0.8	0.8	3.6	2.4	2.6	2.7	3.2	1.3	3.3	1.8	3.4	2.7	1.4	3.2	2.2	2.5	1.3	3.6	1.8	24	
10		1.3	3.7	4.3	2.9	3.6	1.2	0.8	0.7	0.8	1.4	3.9	4	2.8	2.3	1.5	0.6	1.8	2	1.2	0.8	3.8	3.4	3.2	6.3	6.3	2.4	24	
11		5.5	8	10.7	10.4	7.1	13.4	9	5.6	6.2	4.8	2.2	3.9	2.3	1	1.6	1.4	0.6	1	0.4	0.8	0.2	0.4	0.7	0.8	13.4	4.1	24	
12		0.1	0.9	1.6	2.6	1.7	0.9	4.5	9.6	10.7	7.2	7.1	7.3	7.2	7.1	3.4	7.1	3.4	1.4	2.1	3.6	3.8	4.3	3.9	4.7	10.7	4.6	24	
13		2.9	5.4	5.4	4	4.8	5.4	7.5	7.6	8.1	10.3	8.9	7.5	3.7	3.7	4.1	2.8	1	0.8	0.3	1.2	0.5	0.7	4.2	4	10.3	4.4	24	
14		3.8	2.7	2.9	2.5	0.5	1.2	1.9	4.2	2.3	1.2	1.6	0.2	3.2	2.8	4.2	4.5	3.5	3.1	4.9	2.4	1.8	1.9	1.3	2.3	4.9	2.5	24	
15		2.4	1.6	1.1	1.5	0.2	0.4	0.3	0.2	0.4	0.6	0.8	2.5	3	3.2	2.5	1.8	1.8	1.5	0.7	3.9	2.9	1.2	1.5	1.6	3.9	1.6	24	
16		3.7	8.5	11.7	11.2	9.5	7.8	7.1	10	8.9	10.8	13.5	12.6	11.9	11.9	10	7.2	5.1	5.7	5.8	5.1	6.6	4.4	4.7	3.5	13.5	8.2	24	
17		0.5	0.6	1.2	0.2	0.6	1	0.9	0.9	1.7	1.6	2.9	6.9	9.8	8.1	10.8	13.3	12.1	12.2	13	14.2	7.9	1.8	3.5	4.9	14.2	5.4	24	
18		8.1	5.6	5.7	4.9	6.6	5.2	3.3	2.2	3.5	3.8	4.5	9.3	6.2	4.3	4.4	5.8	7.6	6.4	7.5	4.2	4	1.5	2	2.3	9.3	5.0	24	
19		0.6	0.4	0.2	0.6	0.9	0.7	0.3	0.3	0.5	0.3	0.7	2.1	2.8	2.4	2.2	0.4	1.3	2.3	4	1.2	1.8	1.5	2	2.3	4.0	1.3	24	
20		3.1	1.7	2.1	3.4	3.6	4.3	5.6	5.1	4.7	6.1	6.5	7.8	6.8	7.5	7.2	6.3	6.6	7.6	9.9	10.4	9.8	10	9.9	9.1	10.4	6.5	24	
21		8.4	7.5	9.5	10.3	10.4	6.9	7.7	6.9	6.4	6.5	7.9	7.1	6.8	7.3	6.4	7.4	8.1	7.6	7	7	6.4	7.8	7.4	6.9	10.4	7.6	24	
22		6.1	5	5.3	5.1	6	5	4.3	3.8	5.2	6.1	5.9	5.5	5.7	6	5.8	5.5	6.1	5.6	4.8	4.8	4.5	4	4.3	2.9	6.1	5.1	24	
23		4.3	6.1	7	7.6	7.6	7.4	8.6	8	7.4	9.4	8.8	9.5	12.1	10	10.6	9.6	7.4	9.2	11.1	12.4	12.4	12.8	10.9	10.7	12.8	9.2	24	
24		11.9	13.9	12.6	15.3	12.6	13.1	11.9	12	12.2	10.9	9.7	10.3	11.3	13	12.4	13.1	10.8	9.1	8	5.8	5.8	7.4	6.4	6	15.3	10.6	24	
25		6.8	6.5	7.3	6.7	4.9	3.6	6	6.3	4.3	5.6	5.9	6	4	3.2	4.5	3.9	2.5	1.8	1.9	4.1	5.1	6	4.9	5	7.3	4.9	24	
26		5.9	5.5	6	4.7	6.2	N	6.4	7.8	8.2	7.5	7	9.8	8.8	11.5	12.7	11.4	8.6	8.9	8.9	6.4	5.6	6.8	7.2	6.7	12.7	7.8	23	
27		6.5	5	5.2	4.2	2.1	N	6.8	4.7	3.7	6.1	6.6	7.2	6.7	5.3	5.9	4.5	2.5	0.8	0.3	0.6	0.6	0.1	0.8	0.6	7.2	3.8	23	
28		0.3	0.3	7.9	10.1	3	0.6	1.5	0.6	0	0.8	1.4	2.1	1.2	2.2	2.8	3.1	3.1	0.3	0.1	0.3	0.4	0.5	0.7	0.3	10.1	1.8	24	
29		0.5	0.6	0.4	0.4	0.4	0.3	0.6	0.4	0.3	1.7	3.8	3	0.8	0.6	0.7	3.1	3.7	1.6	1	1.8	2.3	1.4	0.9	3.9	3.9	1.4	24	
30		5.5	5.3	4.9	5.5	6.5	7.1	6.9	6.9	7.5	7.8	7.9	9.1	9.3	9	8.4	8.3	7.2	7.4	7.8	9.2	6.3	7.9	7.4	5.3	9.3	7.3	24	
31		2.9	4.9	6.7	6.9	5.2	5.9	6.3	4	8.2	9.3	8.5	7.7	6.5	6.2	6.7	8.5	8.4	8	7.8	7.2	8.5	7.8	8	6.9	9.3	7.0	24	
HOURLY MAX		11.9	13.9	12.6	15.3	12.6	13.4	11.9	12.0	12.2	10.9	13.5	12.6	12.1	13.0	12.7	13.3	12.1	12.2	13.0	14.2	12.4	12.8	10.9	10.7				
HOURLY AVG		3.6	3.8	4.5	4.6	4.3	4.2	4.2	4.1	4.5	5.1	5.5	6.0	5.7	5.8	5.6	5.5	4.6	4.6	4.4	4.1	4.0	3.8	3.9	3.6				

STATUS FLAG CODES

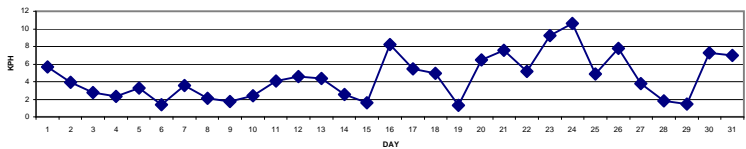
S	- OUT OF SERVICE	IZS	- IZS - DAILY ZERO/SPAN CHECK
N	- INVALID DATA	M	- MISSING DATA
D	- INSTRUMENT DRIFT	P	- POWER FAILURE
C	- CALIBRATION	NA	- NOT APPLICABLE

LAST CALIBRATION: November 5, 2008

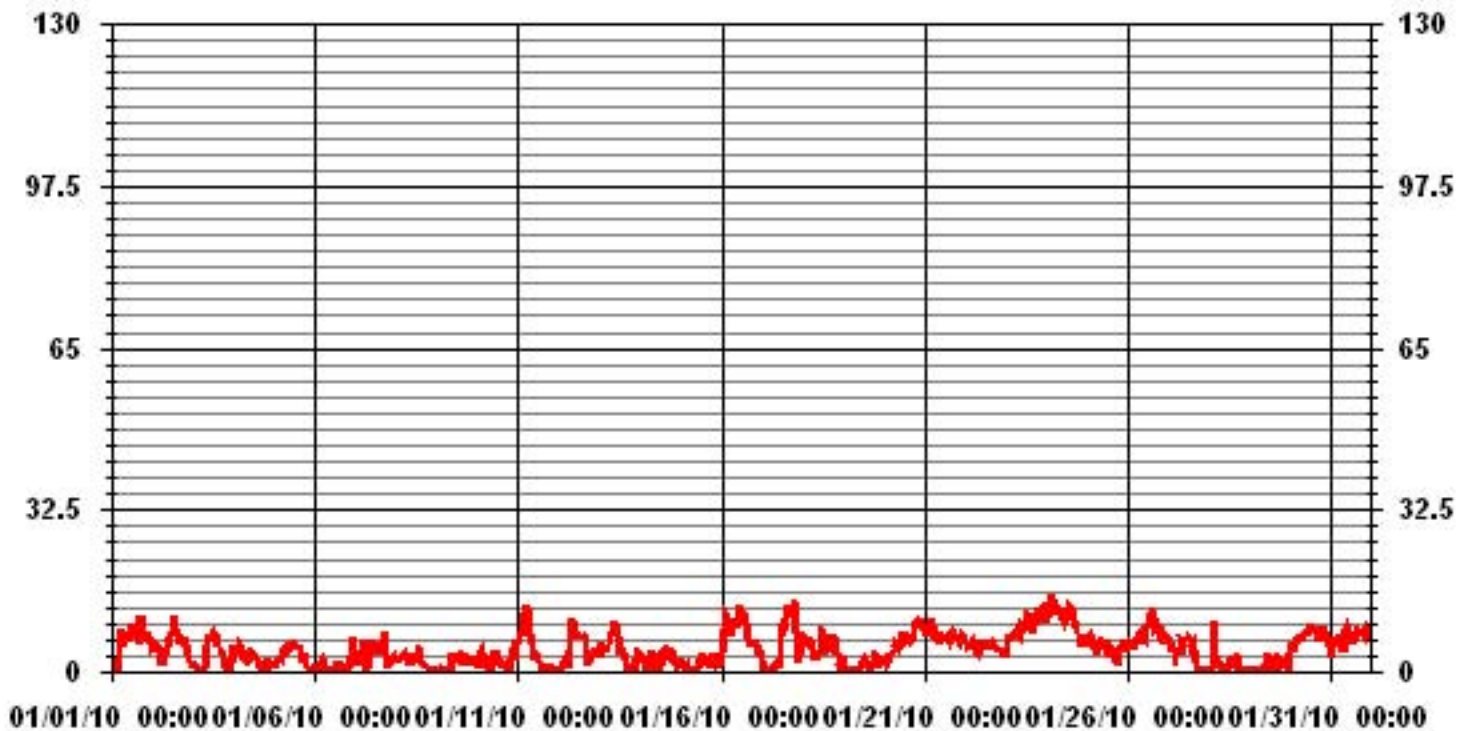
MONTHLY SUMMARY

MAXIMUM 1-HR AVERAGE:	15.3	KPH	@ HOUR(S)	3	ON DAY(S)	24
MAXIMUM 24-HR AVERAGE:	10.6	KPH			ON DAY(S)	24
CALMS (≤ 0 KPH)	4.30	%				
MONTHLY CALIBRATION TIME:	0	HRS				
STANDARD DEVIATION:	3.34					
OPERATIONAL TIME:	742	HRS				
AMD OPERATION UPTIME:	99.7	%				
MONTHLY AVERAGE:	4.59	KPH				

24 HOUR AVERAGES FOR JANUARY 2010



01 Hour Averages



— LICA WSP KPH

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - COLD LAKE

JANUARY 2010

VECTOR WIND SPEED MAX instantaneous maximum in km/hr

MST

HOUR START	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY	
HOUR END	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	MAX.	
DAY																										
1	2.5	13.9	3.1	3.4	4.8	12.9	11.2	9.7	11.4	11.9	10.7	12.6	12.7	13.8	13.4	12	13.3	16.2	14	11.6	9.9	10.3	9.7	8.4	16.2	
2	8.8	9.8	10.3	12.3	9.2	5.3	5.2	7.2	7.9	7.3	11.3	12.5	13.6	16.5	14.8	12.7	9.8	10.1	9.6	10.2	10.3	7.7	3.8	3.3	16.5	
3	3.1	3.7	7.5	3	3	3.2	3	3	10.7	14.5	11.1	12.4	12.4	11.9	11.8	9.4	7.4	7.6	5.7	4.2	2.5	2.4	3.4	4.6	14.5	
4	8.1	6	8.1	9.9	8.4	8	6	5.8	4.1	7.1	8.1	7.7	7	5.5	5.1	4.6	4.2	1.8	1.6	1.7	3.3	3.4	3.1	2.4	9.9	
5	4.2	4	5.4	6.1	6.3	7.1	6.3	5.9	6.4	7.5	7.7	9	9.1	9.7	12.1	8.2	5.8	4.9	5.2	3.6	2.5	2.4	11.5	2.7	12.1	
6	3.6	2.8	2.6	3.7	4.6	5.3	22.5	4.7	2.5	2.7	3	3	3.8	3.8	3.1	3.6	3	1.7	6.5	2.6	3.3	7.1	11	45	45	
7	6.2	3.4	5.9	6.3	7.8	10.6	4.9	4.1	8.2	6.7	11.1	11.4	10.7	8	9.2	11.7	10.5	17.2	3.7	5	4.5	4.4	5.9	3.8	17.2	
8	4.6	3.8	4.9	4.6	6.1	4.6	5.2	5.9	2.7	6.5	6.2	7.2	7.5	12.5	7.3	8.1	8.4	6.2	3.2	3.6	2.7	2.1	3	2.7	12.5	
9	3	3	2.7	2.5	2.6	2.7	2.2	4.1	5.1	7.6	7.9	5.7	6	7	6.5	8.2	9.9	8.8	6.1	4.2	7.2	4.7	5.3	5.3	9.9	
10	3.6	7.4	8.5	6.3	6.7	3.1	3	2.2	3.8	3.4	8.2	7	5.7	5.9	3.8	3.4	4	3.9	3.6	2	6.6	5.6	5	9.6	9.6	
11	8.6	14.1	14.9	13.9	14.2	18.3	23.2	9	9.1	9.6	4.9	6.7	4.9	2.9	6.5	4.2	2.7	2.8	3.2	2.2	2.1	2.9	3.6	4.2	23.2	
12	4	3.4	3.6	5.7	5.4	4.8	8.9	14.4	15.6	14.3	11.2	11	10.9	11.6	10	11.9	8.1	5	5.2	7.1	8.3	9.2	6.4	8.1	15.6	
13	6.6	7.7	8.1	6.5	9.1	14	12.2	11.5	12.3	15.1	13.4	13.4	8	8.5	8.3	6.9	2.3	2.7	2	3.3	3.5	2.7	8.8	9.1	15.1	
14	6.3	5	8.4	8.8	2.7	3.3	5.3	7.9	3.7	3.8	4.5	3.6	6.8	7	8.6	7.9	8.4	7.1	8.8	7.4	4.5	5.2	2.8	4.3	8.8	
15	5.4	4.5	5.1	4.4	2.6	1.6	2.5	2.8	1.6	2.7	2.7	4.7	4.7	4.4	4.2	3.4	4.9	3.9	4.9	9.4	9.6	6.1	3.7	4.9	9.6	
16	10	13.2	17.9	16.1	12.8	10.4	12.6	15.3	12.9	15.6	21.5	23	19.7	19.8	17.4	10.6	8	7.1	7.5	6.6	10.1	7.1	6.7	5.9	23	
17	2.3	2.2	3.3	4.3	1.6	3.2	2.9	1.9	3.3	3.2	7.8	12.6	15.6	13.1	16.5	18.2	17	15.8	16.2	19.7	14.6	6.4	7.2	6.8	19.7	
18	13	10.5	9.1	7.5	10.5	9.1	5.7	4.1	6.7	6.2	7.6	15.8	11	7.4	7.7	12.5	10.4	9.4	10.1	9.2	7.2	5	5.8	8.2	15.8	
19	3.3	2.5	2	6	3.3	3	3.5	4.5	5.7	5	3.6	8.4	7.7	4.9	6.5	3	3.5	5.5	7.1	5.7	4.7	5	4.5	6.8	8.4	
20	5.3	5.7	4.3	6.2	5.8	7.9	8.4	9.6	8.4	11.2	13.6	12.8	10.7	10.4	10.2	9.1	11.5	11.7	16.7	16.2	15.9	16.8	14.8	15.4	16.8	
21	14	12.1	15.3	16.6	16.5	12.2	13.3	11.6	10.7	11.1	13.7	10.4	12.4	12.6	12.1	11.4	12.2	11.3	10.8	12	9.7	11.8	11.3	10.1	16.6	
22	8.9	7.6	8.5	8.6	8.9	8.3	7.5	6.9	9.3	8.7	11.5	8.1	8.3	9.9	8.9	8.7	10.9	10.4	7.2	9.4	8.1	5.9	7.6	5.1	11.5	
23	7.3	9.4	11.1	11.8	11.8	11.6	13.1	15.3	13	13.1	14	16	19.6	14.2	16.2	14.6	11.9	13.2	15.8	20	18.4	20.8	17.1	15.3	20.8	
24	19.4	18.4	19.5	20.5	19.1	18.5	17.2	18.7	16.7	15	19.4	16.4	17.2	17.9	21.3	18.7	16.1	12.7	10.8	7.9	9.1	10	9.6	8.5	21.3	
25	10.1	9	11.4	9.7	8.9	7.2	10.4	9.3	7.3	8.4	9.8	10.3	7.8	8.7	7.6	7.7	5.6	3.4	3.5	7.7	7.9	8.9	7.7	9.5	11.4	
26	8.5	9.1	9	8.2	9.4	N	9.6	11.9	11.1	10.2	13.5	14.9	12.8	16.1	17.8	16.2	11.9	13.1	11.8	10.8	7.8	9.3	9.9	9.5	17.8	
27	8.9	7.7	7.3	7	6.9	N	9.7	6.5	7.1	9.5	10.6	12.1	10.6	10.1	11.1	7.5	5.7	3.6	4	2.7	2	2.3	5.4	4	12.1	
28	3.6	3.9	69.6	50.3	7.8	3.7	4.5	3.6	1.9	2.3	3.3	3.4	3.4	5.4	5.2	5.1	5.6	3.3	2.2	2.4	5.4	2.8	5.6	3.4	69.6	
29	3.1	3.6	3.3	1.8	3.1	2.5	2.7	3.9	3.8	3.2	8.8	7.8	4.1	6	6.4	6.1	6.8	4.3	2.9	3.5	5.6	3.8	4.6	6.4	8.8	
30	8.6	10.4	8.9	9	10.8	11.9	10.9	11.8	12.1	11.1	13.6	13.6	13.8	12.5	12.9	12.9	12	12.1	13.3	13.3	10.2	11	11.2	7.9	13.8	
31	6	8	11.9	10.1	8.4	9.3	9.9	8.4	12	13.6	14.6	12.7	9.8	9.2	11.7	11.7	13	13.9	12	13.9	14.1	11.6	13.3	11.6	14.6	
PEAK	19.4	18.4	69.6	50.3	19.1	18.5	23.2	18.7	16.7	15.6	21.5	23.0	19.7	19.8	21.3	18.7	17.0	17.2	16.7	20.0	18.4	20.8	17.1	45.0		

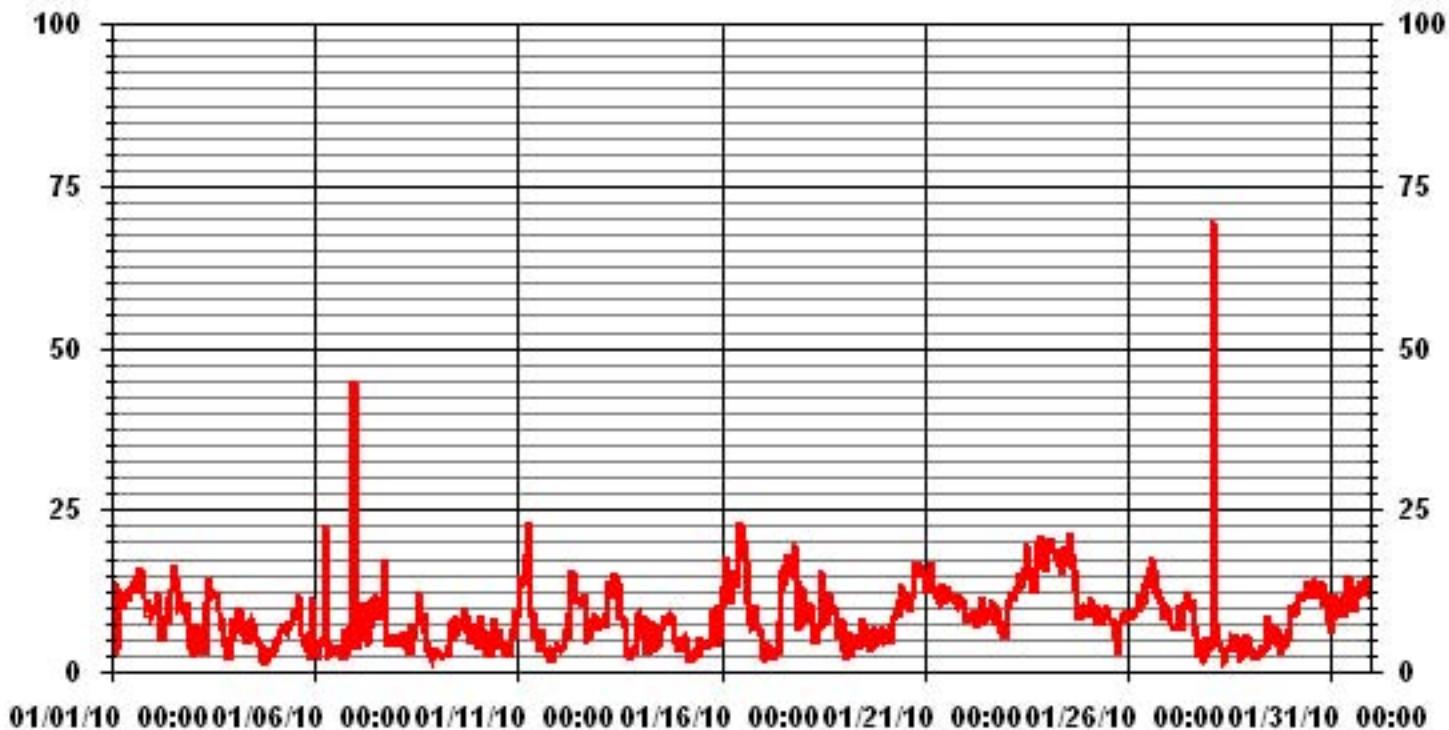
STATUS FLAG CODES

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

MAXIMUM INSTANTANEOUS READING	69.6	KPH	@ HOUR(S)	2
			ON DAY(S)	28

01 Hour Averages



— LICA WSMAX KPH

LICA
WSP / WD Joint Frequency Distribution (Percent)

January 2010

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	3.36	3.63	6.73	5.79	5.66	5.39	6.33	1.07	.94	1.61	4.85	7.14	3.63	2.29	1.75	.80	61.05
< 12.0	1.48	2.83	1.07	1.34	7.41	2.56	4.58	.00	.00	.00	.94	2.42	1.88	.67	1.48	2.83	31.53
< 20.0	.13	.00	.00	.00	.00	.00	.80	.00	.00	.00	.00	.13	.00	.26	.13	1.61	3.09
< 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	4.98	6.46	7.81	7.14	13.07	7.95	11.72	1.07	.94	1.61	5.79	9.70	5.52	3.23	3.36	5.25	

Calm : 4.31 %

Total # Operational Hours : 742

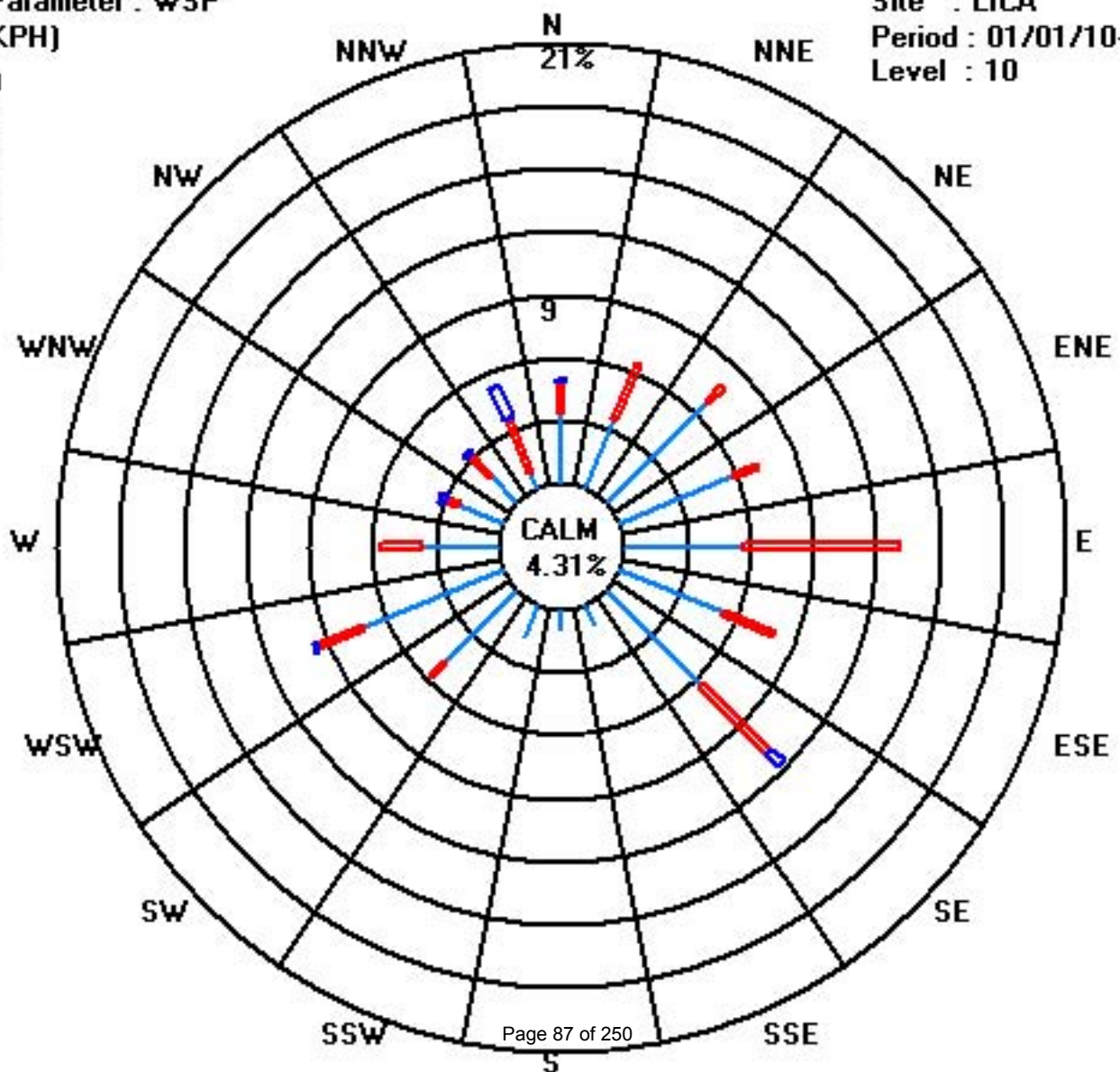
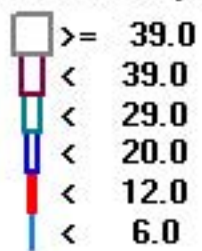
Distribution By Samples

	Direction																
Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
< 6.0	25	27	50	43	42	40	47	8	7	12	36	53	27	17	13	6	453
< 12.0	11	21	8	10	55	19	34				7	18	14	5	11	21	234
< 20.0	1						6					1		2	1	12	23
< 29.0																	
< 39.0																	
>= 39.0																	
Totals	37	48	58	53	97	59	87	8	7	12	43	72	41	24	25	39	

Calm : 4.31 %

Total # Operational Hours : 742

Class Limits (KPH)



Vector Wind Direction

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - COLD LAKE

JANUARY 2010

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	24-HOUR QUADRANT	RDGS.
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.	QUADRANT	RDGS.	
DAY																												
1	50	271	78	32	46	123	129	120	124	102	90	107	85	87	91	94	119	132	131	129	129	125	122	110	111	ESE	24	
2	95	84	82	74	54	78	27	304	299	305	309	327	331	328	337	340	354	354	358	348	1	353	298	281	350	N	24	
3	130	76	64	357	63	20	325	84	126	126	124	123	126	127	97	112	124	122	137	202	100	297	280	120	ESE	24		
4	295	287	288	280	292	280	233	252	254	250	257	253	252	234	283	261	262	268	234	327	3	49	44	353	275	W	24	
5	12	20	30	36	37	44	27	30	35	36	24	24	22	9	19	354	35	13	5	336	349	32	261	323	21	NNE	24	
6	287	23	358	257	259	258	109	243	256	290	265	102	116	98	71	43	53	63	75	80	89	123	130	273	126	SE	24	
7	125	165	125	119	129	131	13	119	131	129	132	139	157	181	162	140	142	142	88	131	128	135	127	129	137	SE	24	
8	130	121	126	130	126	126	127	142	137	157	162	135	207	251	218	217	159	253	196	210	174	151	220	155	160	SSE	24	
9	95	215	126	63	244	81	178	287	58	56	39	325	4	18	342	249	247	235	241	249	238	209	237	127	285	WNW	24	
10	244	135	132	132	124	222	240	239	216	248	256	238	235	248	207	96	66	57	62	51	115	93	87	113	144	SE	24	
11	105	109	125	126	120	128	130	125	124	127	116	125	120	53	126	123	294	64	185	65	195	250	91	79	120	ESE	24	
12	92	83	75	40	89	73	48	84	84	87	75	81	74	81	75	91	114	74	118	326	273	246	245	243	79	ENE	24	
13	225	231	235	265	286	295	310	293	293	306	314	331	351	13	34	50	133	100	50	57	44	253	130	121	304	WNW	24	
14	76	103	124	118	358	122	125	128	131	184	179	253	259	271	228	230	236	251	227	203	145	122	76	106	177	S	24	
15	119	100	168	124	24	82	165	77	191	63	54	52	27	56	60	58	50	352	5	68	100	91	221	241	68	ENE	24	
16	235	246	258	256	252	249	232	242	250	271	287	292	293	280	278	261	254	242	235	223	231	225	241	235	258	WSW	24	
17	103	131	226	71	52	76	71	55	63	50	89	130	125	123	125	126	127	127	129	131	127	125	92	117	121	ESE	24	
18	127	121	122	121	124	125	110	67	109	106	106	124	114	78	84	112	132	133	127	127	119	126	108	89	117	ESE	24	
19	132	10	122	257	68	47	177	357	305	319	82	253	233	244	274	228	266	264	306	307	204	148	258	14	263	W	24	
20	43	38	46	50	51	50	49	63	88	100	77	60	51	57	64	70	80	82	85	85	96	84	85	86	73	ENE	24	
21	84	86	88	86	91	103	97	94	89	82	87	89	82	87	89	80	84	82	89	90	85	85	86	87	87	E	24	
22	92	95	94	85	85	87	89	85	89	94	86	83	88	86	68	57	66	73	61	70	66	57	52	43	78	ENE	24	
23	19	11	11	12	16	18	15	19	20	17	12	8	3	357	355	352	347	329	333	334	332	331	328	322	354	N	24	
24	325	331	331	330	332	327	327	324	330	331	342	339	326	334	328	339	333	336	343	345	349	340	337	331	332	332	NNW	24
25	325	326	318	325	352	353	9	357	349	339	1	12	7	16	31	30	7	320	307	306	312	303	293	280	339	NNW	24	
26	288	291	286	280	252	N	235	238	240	231	233	246	254	247	247	248	254	263	262	266	265	263	270	269	255	WSW	23	
27	265	262	244	241	235	N	246	239	238	250	255	261	262	254	222	224	206	229	176	194	61	261	205	116	245	WSW	23	
28	240	277	219	218	264	34	67	239	271	22	18	49	18	53	47	46	358	45	152	198	275	94	242	274	251	WSW	24	
29	226	202	189	219	216	208	229	211	211	270	250	261	311	347	252	251	236	238	234	256	252	268	5	38	258	WSW	24	
30	33	35	34	40	34	29	19	24	30	37	29	30	30	30	29	26	27	28	40	51	34	43	37	38	32	NNE	24	
31	40	67	74	80	95	90	88	104	126	125	125	118	106	91	82	84	86	87	90	117	120	120	121	120	101	E	24	
HOURLY AVG	325	331	358	357	358	353	327	357	349	339	342	339	351	357	355	354	358	354	358	348	349	353	337	353				

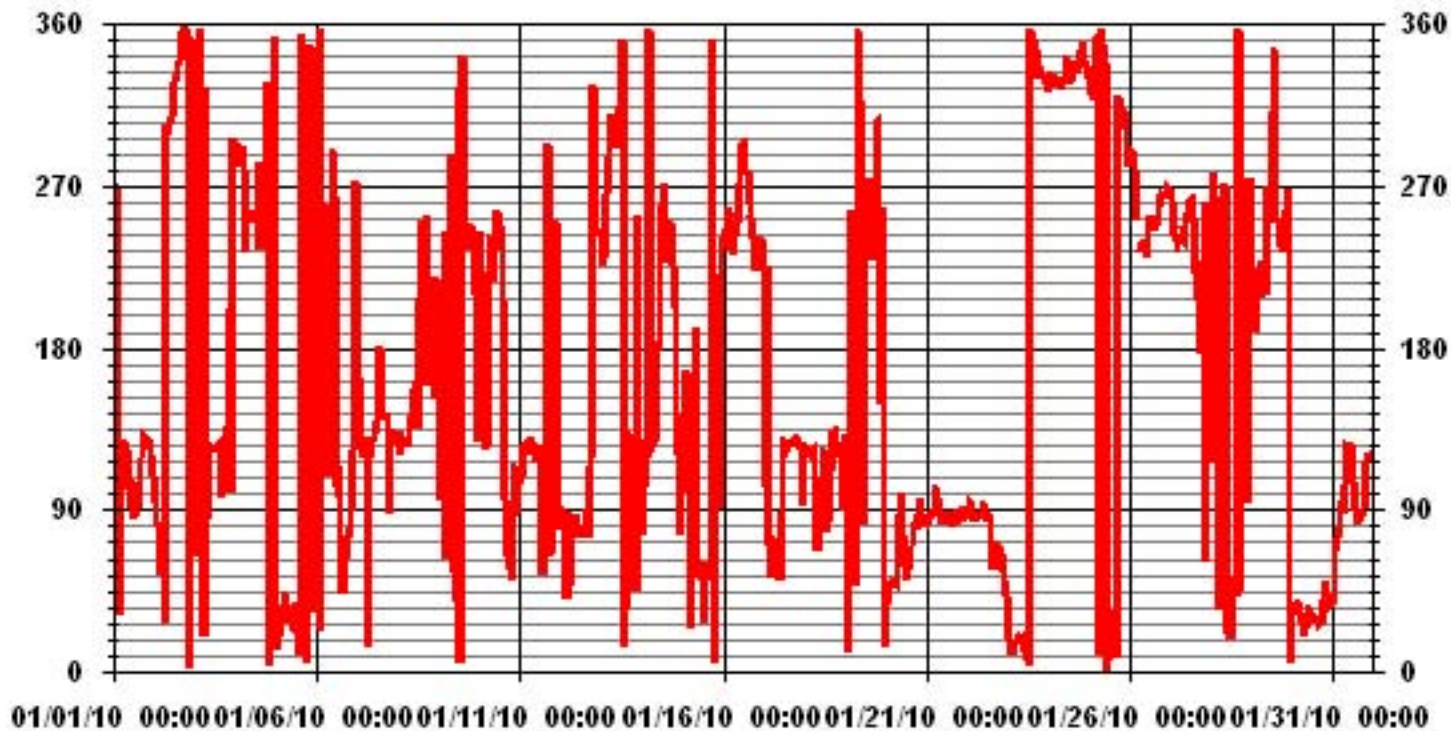
STATUS FLAG CODES

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 :	NA

MONTHLY CALIBRATION TIME:	0 HRS	OPERATIONAL TIME:	742 HRS
STANDARD DEVIATION	102.31	AMD OPERATION UPTIME	99.7 %
		MONTHLY AVERAGE	54 DEG

01 Hour Averages



— LICA WDR DEG

Standard Deviation Wind Direction

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - COLD LAKE

JANUARY 2010

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	72	81	67	55	27	20	13	24	17	22	22	23	19	18	18	19	22	13	13	12	13	14	17	23
2	23	23	22	31	21	33	29	18	18	14	14	17	15	14	19	17	18	17	19	22	19	22	16	31
3	32	35	66	39	65	54	60	59	24	15	16	17	18	17	14	20	21	21	25	20	45	54	42	18
4	11	20	16	17	14	14	20	25	26	18	20	23	22	31	28	24	24	52	43	39	26	26	27	28
5	26	25	24	20	27	17	18	18	18	19	18	20	20	25	24	22	20	22	22	28	34	60	38	32
6	41	31	30	39	31	48	46	38	46	64	59	67	36	59	42	33	61	49	60	53	50	24	11	52
7	21	44	37	27	13	12	55	62	60	19	16	26	32	37	41	22	23	48	44	60	31	17	19	34
8	23	19	18	24	17	48	14	28	31	31	34	29	40	27	51	42	60	33	36	52	49	54	54	62
9	50	41	57	35	39	64	63	60	74	26	28	24	24	31	35	43	50	39	30	31	19	33	33	47
10	48	37	16	36	17	43	54	39	43	49	21	22	29	27	32	67	20	17	25	45	16	19	17	18
11	18	18	16	13	22	13	26	14	13	24	35	20	27	51	42	38	65	34	40	45	62	49	42	46
12	28	33	31	24	43	69	22	18	17	17	18	18	19	18	17	19	24	45	33	35	17	16	17	17
13	20	15	15	13	18	21	14	16	15	13	15	20	36	36	24	26	25	40	66	38	77	60	28	19
14	21	21	20	32	55	40	44	20	25	35	40	69	33	40	21	22	23	31	20	38	37	34	42	25
15	45	44	50	51	55	65	49	37	49	56	51	15	22	17	16	18	55	43	33	46	49	61	52	61
16	27	16	16	15	13	14	14	16	15	18	19	18	18	19	19	18	12	9	12	12	14	15	10	11
17	27	53	41	34	37	53	57	28	27	24	24	16	14	18	14	12	12	12	12	13	17	47	20	15
18	13	18	16	14	14	15	17	21	21	17	21	16	20	20	21	19	14	13	11	21	17	52	53	25
19	70	45	71	42	45	51	69	32	54	33	60	45	35	31	46	80	35	31	17	58	32	37	36	39
20	24	49	26	22	19	19	15	19	21	20	20	18	18	18	17	20	19	19	18	18	20	18	18	18
21	17	18	19	18	20	22	21	21	23	19	19	21	19	22	22	21	18	18	19	18	20	15	17	17
22	19	20	20	18	17	17	18	22	21	20	20	20	21	19	18	16	17	19	18	18	17	19	18	19
23	17	20	16	17	19	19	18	20	19	17	17	19	17	18	22	19	18	14	15	16	16	15	16	14
24	16	16	14	16	15	14	14	13	15	15	19	18	15	16	16	17	17	15	16	20	18	16	14	14
25	13	14	13	15	21	26	20	18	22	18	20	20	30	37	23	23	24	26	15	12	13	11	11	15
26	17	17	16	20	14	N	14	16	15	17	18	17	18	16	16	14	14	15	16	17	17	15	15	16
27	16	19	9	28	34	N	10	11	18	16	18	18	20	25	20	19	24	54	60	48	44	54	32	41
28	47	64	63	44	43	56	38	73	73	52	32	21	47	33	25	19	27	43	44	49	40	56	47	60
29	57	33	58	54	43	55	62	50	64	29	23	35	37	50	38	29	19	32	25	19	20	23	40	18
30	19	18	17	19	18	18	21	19	19	19	22	20	20	20	20	20	20	18	18	15	19	16	17	17
31	29	20	17	19	24	21	20	24	14	14	16	20	22	21	20	18	18	19	18	20	19	19	17	19

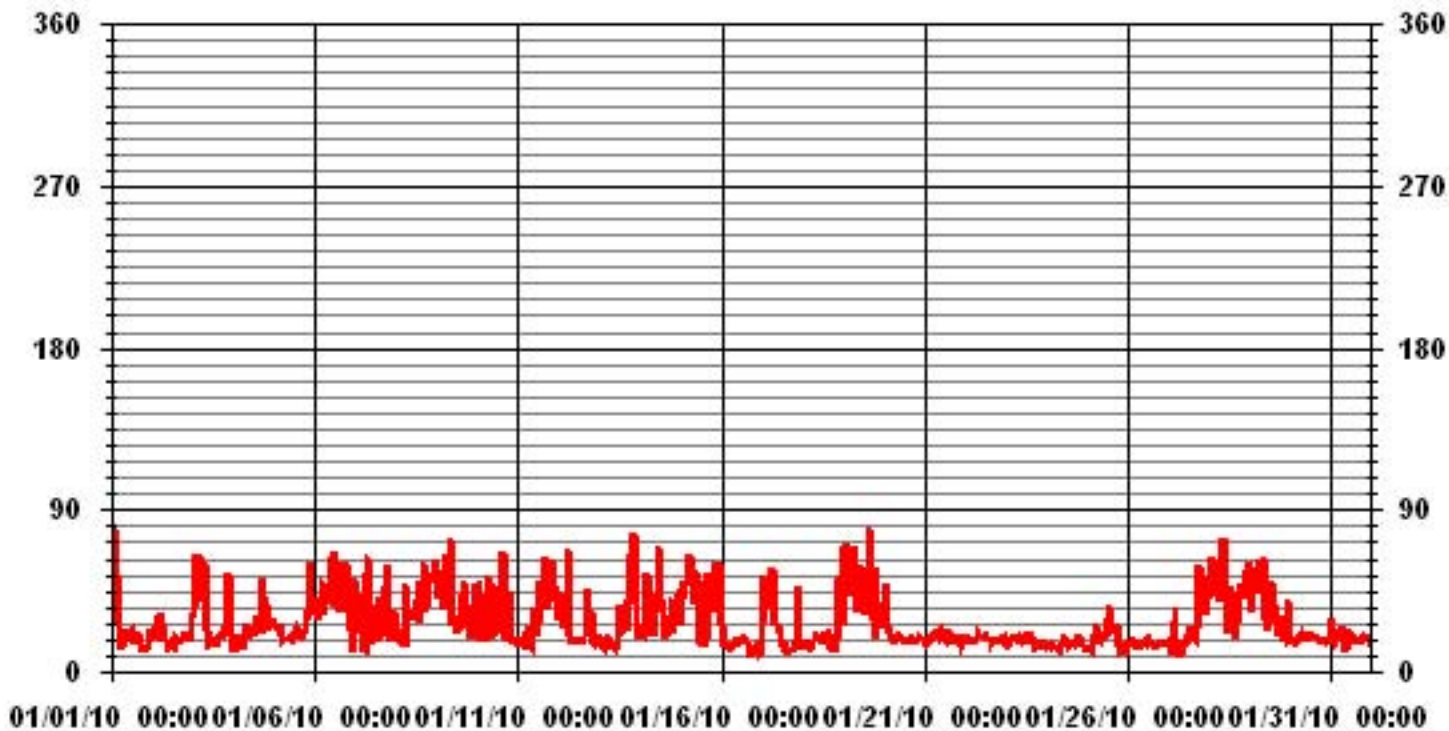
STATUS FLAG CODES

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: December 5, 2008

CALIBRATION TIME: 0 HRS OPERATIONAL TIME: 742 HRS

01 Hour Averages



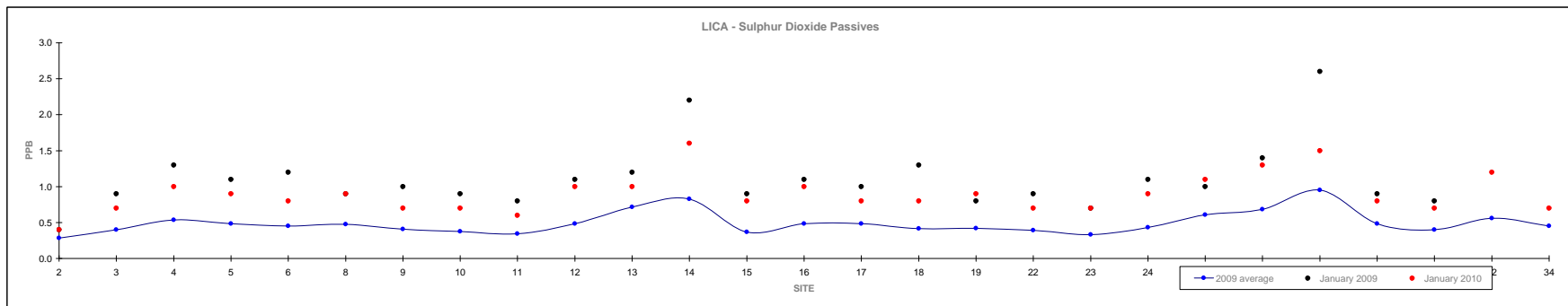
— LICA STDWDIR DEG

Non-Continuous Monitoring

Passive Summary Results for January 2010

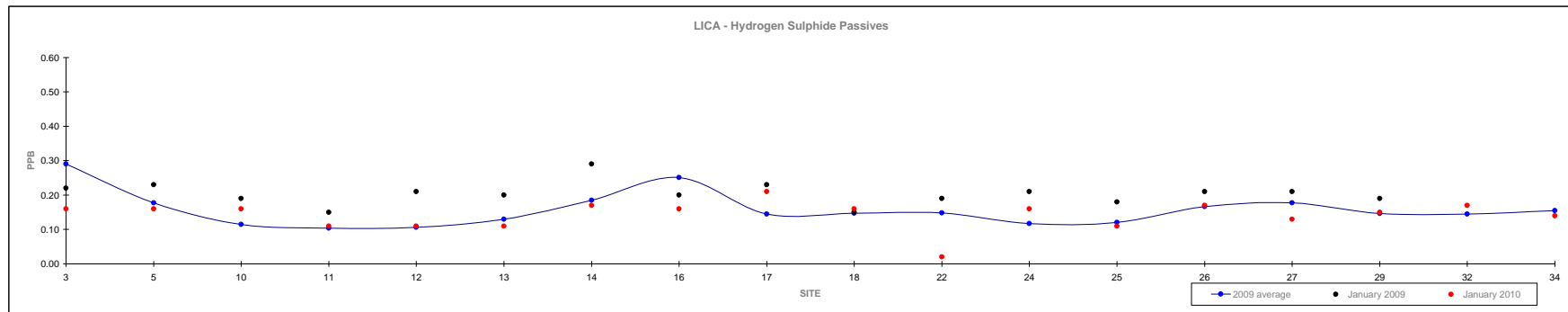
Lakeland Industry & Community Association

	Sulphur Dioxide ppb																												Reading	Site		
	2009																												0.9	-		
Mean	0.3	0.4	0.5	0.5	0.5	0.5	0.4	0.4	0.3	0.5	0.7	0.8	0.4	0.5	0.5	0.4	0.4	0.4	0.3	0.4	0.6	0.7	1.0	0.5	0.4	0.6	0.5			0.9	-	
Minimum	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.2	0.2	0.2	0.4	0.4	0.4	0.4	0.4	#2
Maximum	0.9	0.9	1.3	1.1	1.2	0.9	1.0	0.9	0.8	1.1	1.2	2.2	0.9	1.1	1.0	1.3	0.8	0.9	0.8	1.1	1.4	1.4	2.6	0.9	0.8	1.2	0.5	1.6	#14	1.6	#14	



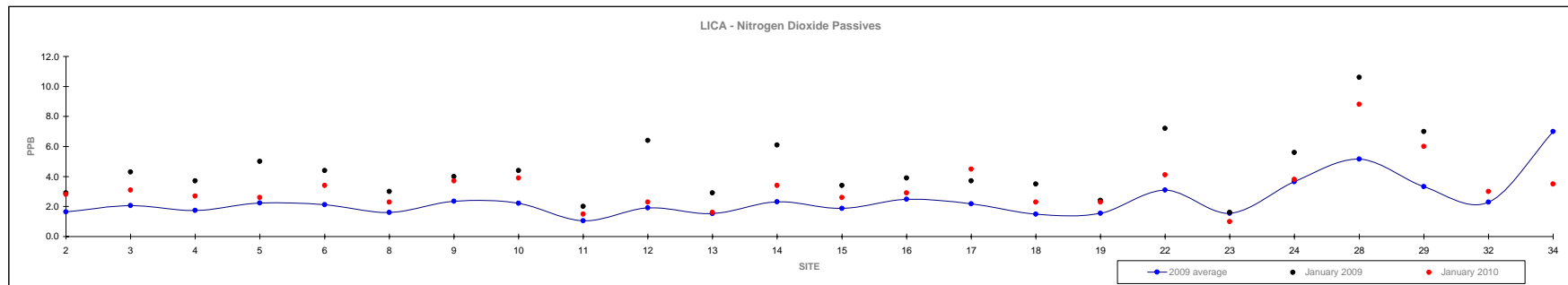
Passive Summary Results for January 2010 Lakeland Industry & Community Association

	Hydrogen Sulphide ppb															January 2010				
	3	5	10	11	12	13	14	16	17	18	22	24	25	26	27	29	32	34	Reading	Site
Mean	0.29	0.18	0.12	0.10	0.11	0.13	0.19	0.25	0.15	0.15	0.15	0.12	0.12	0.17	0.18	0.15	0.15	0.16	0.14	-
Minimum	0.05	0.09	0.03	0.03	0.05	0.03	0.11	0.07	0.08	0.05	0.04	0.06	0.03	0.06	0.07	0.04	0.10	0.10	<0.02	#22
Maximum	0.80	0.29	0.20	0.16	0.21	0.20	0.30	0.54	0.26	0.29	0.24	0.24	0.18	0.28	0.35	0.28	0.19	0.21	0.21	#17



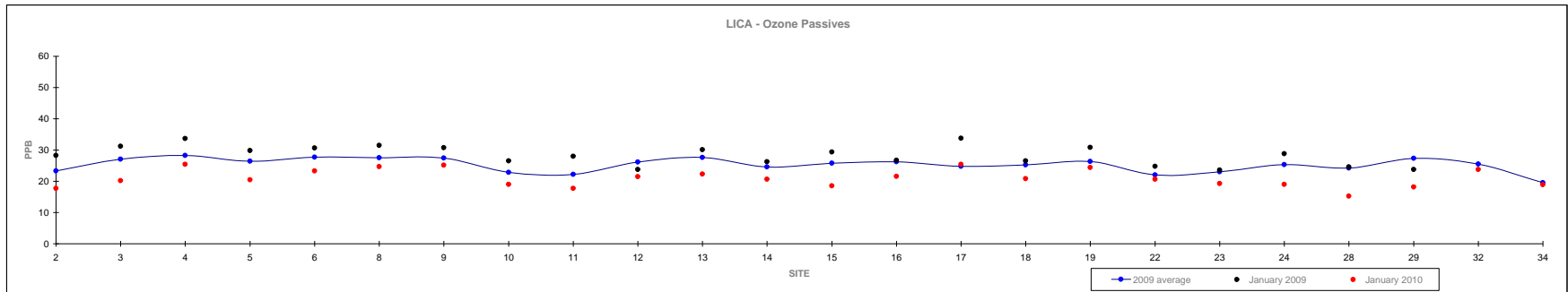
Passive Summary Results for January 2010 Lakeland Industry & Community Association

	Nitrogen Dioxide ppb																												January 2010	
	2	3	4	5	6	8	9	10	11	12	13	14	15	16	17	18	19	22	23	24	28	29	32	34	Reading	Site				
Mean	1.6	2.1	1.7	2.2	2.1	1.6	2.4	2.2	1.0	1.9	1.5	2.3	1.9	2.5	2.2	1.5	1.5	3.1	1.5	3.6	5.2	3.3	2.3	7.0	3.3	-				
Minimum	0.9	0.8	0.8	1.0	0.8	0.9	1.5	0.4	0.5	0.5	0.9	0.9	1.0	1.7	0.7	0.7	0.9	0.2	0.4	2.7	1.0	0.5	1.2	5.6	1.0	#23				
Maximum	2.9	4.6	3.7	5.0	4.4	3.0	4.0	5.0	2.0	6.4	2.9	6.1	3.6	3.9	4.1	3.5	2.4	7.2	2.6	5.6	10.6	7.0	3.0	8.4	8.8	#28				



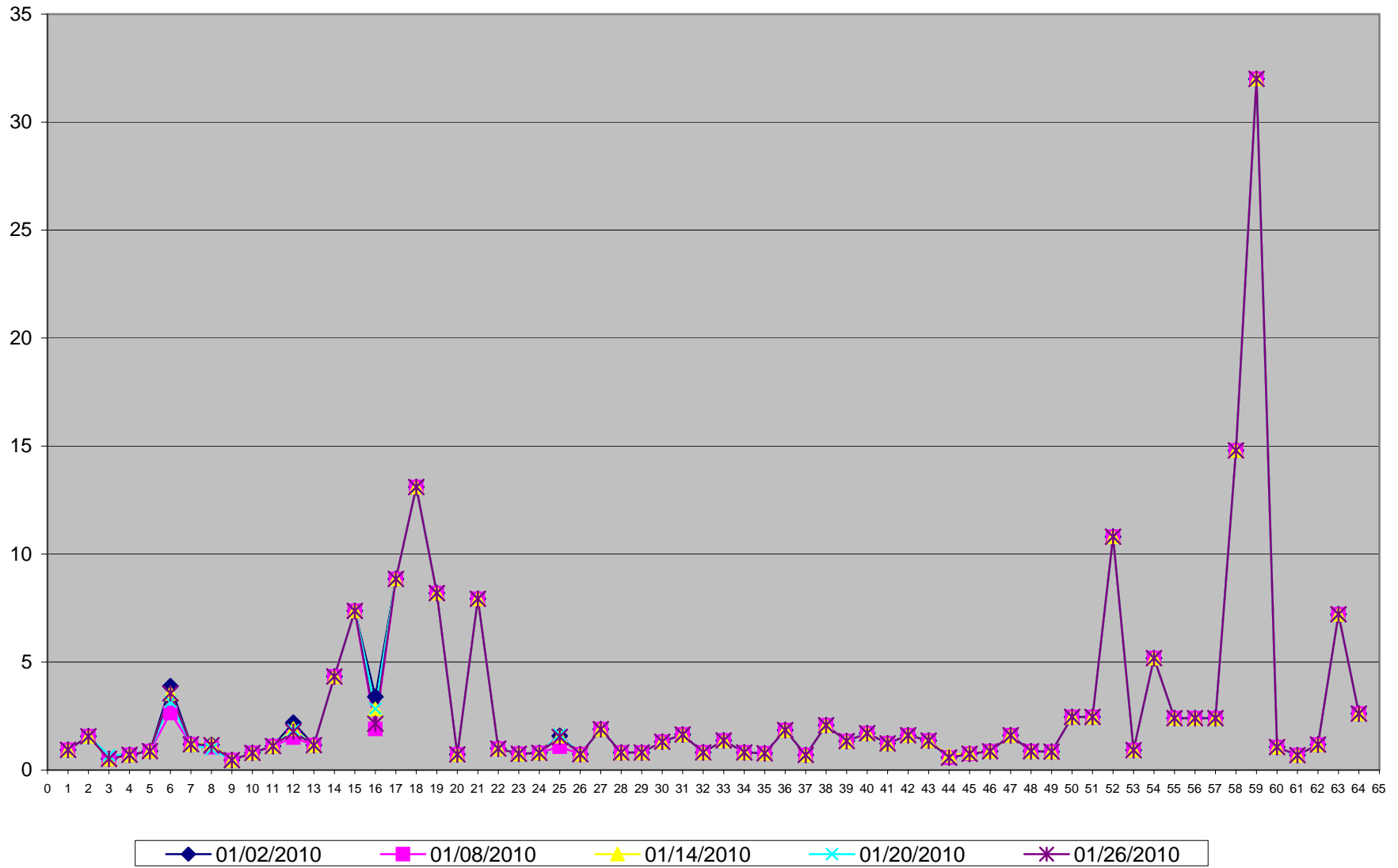
Passive Summary Results for January 2010 Lakeland Industry & Community Association

	Ozone ppb																												January 2010	
	2	3	4	5	6	8	9	10	11	12	13	14	15	16	17	18	19	22	23	24	28	29	32	34	Reading	Site				
Mean	23.3	27.1	28.3	26.5	27.7	27.5	27.5	22.8	22.2	26.2	27.6	24.6	25.8	26.2	24.8	25.2	26.3	22.0	23.0	25.3	24.2	27.3	25.5	19.6	21.0	-				
Minimum	13.3	17.9	17.3	16.0	17.7	15.4	14.9	12.0	14.6	17.3	15.5	14.8	15.5	15.1	13.8	17.7	14.7	13.6	15.3	12.5	14.8	17.8	24.7	18.5	15.2	#28				
Maximum	32.3	38.6	47.5	37.9	43.6	38.6	42.6	38.2	30.2	46.0	36.5	35.4	42.3	36.7	46.5	36.2	41.7	32.6	32.6	40.5	37.7	40.0	26.3	20.6	25.4	#17				



Volatile Organics

Volatile Organics in ug/m3 Site: LICA - Cold Lake South



1	2,2,4-Trimethylpentane	33	1,1,2,2-Tetrachloroethane
2	Carbon Disulfide	34	cis-1,3-Dichloropropene
3	Propene	35	trans-1,3-Dichloropropene
4	Vinyl Acetate	36	1,2-Dichloropropane
5	Vinyl Bromide	37	Bromomethane
6	Dichlorodifluoromethane (FREON 12)	38	Bromoform
7	1,2-Dichlorotetrafluoroethane	39	Bromodichloromethane
8	Chloromethane	40	Dibromochloromethane
9	Vinyl Chloride	41	Heptane
10	Chloroethane	42	Trichloroethylene
11	1,3-Butadiene	43	Tetrachloroethylene
12	Trichlorofluoromethane (FREON 11)	44	Benzene
13	Trichlorotrifluoroethane	45	Toluene
14	Ethanol	46	Ethylbenzene
15	2-Propanol	47	p+m-Xylene
16	2-Propanone	48	o-Xylene
17	Methyl Ethyl Ketone (2-Butanone)	49	Styrene
18	Methyl Isobutyl Ketone	50	1,3,5-Trimethylbenzene
19	Methyl Butyl Ketone (2-Hexanone)	51	1,2,4-Trimethylbenzene
20	Methyl t-butyl ether (MTBE)	52	4-ethyltoluene
21	Ethyl Acetate	53	Chlorobenzene
22	1,1-Dichloroethylene	54	Benzyl chloride
23	cis-1,2-Dichloroethylene	55	1,3-Dichlorobenzene
24	trans-1,2-Dichloroethylene	56	1,4-Dichlorobenzene
25	Methylene Chloride (Dichloromethane)	57	1,2-Dichlorobenzene
26	Chloroform	58	1,2,4-Trichlorobenzene
27	Carbon Tetrachloride	59	Hexachlorobutadiene
28	1,1-Dichloroethane	60	Hexane
29	1,2-Dichloroethane	61	Cyclohexane
30	Ethylene Dibromide	62	Tetrahydrofuran
31	1,1,1-Trichloroethane	63	1,4-Dioxane
32	1,1,2-Trichloroethane	64	Xylene (Total)

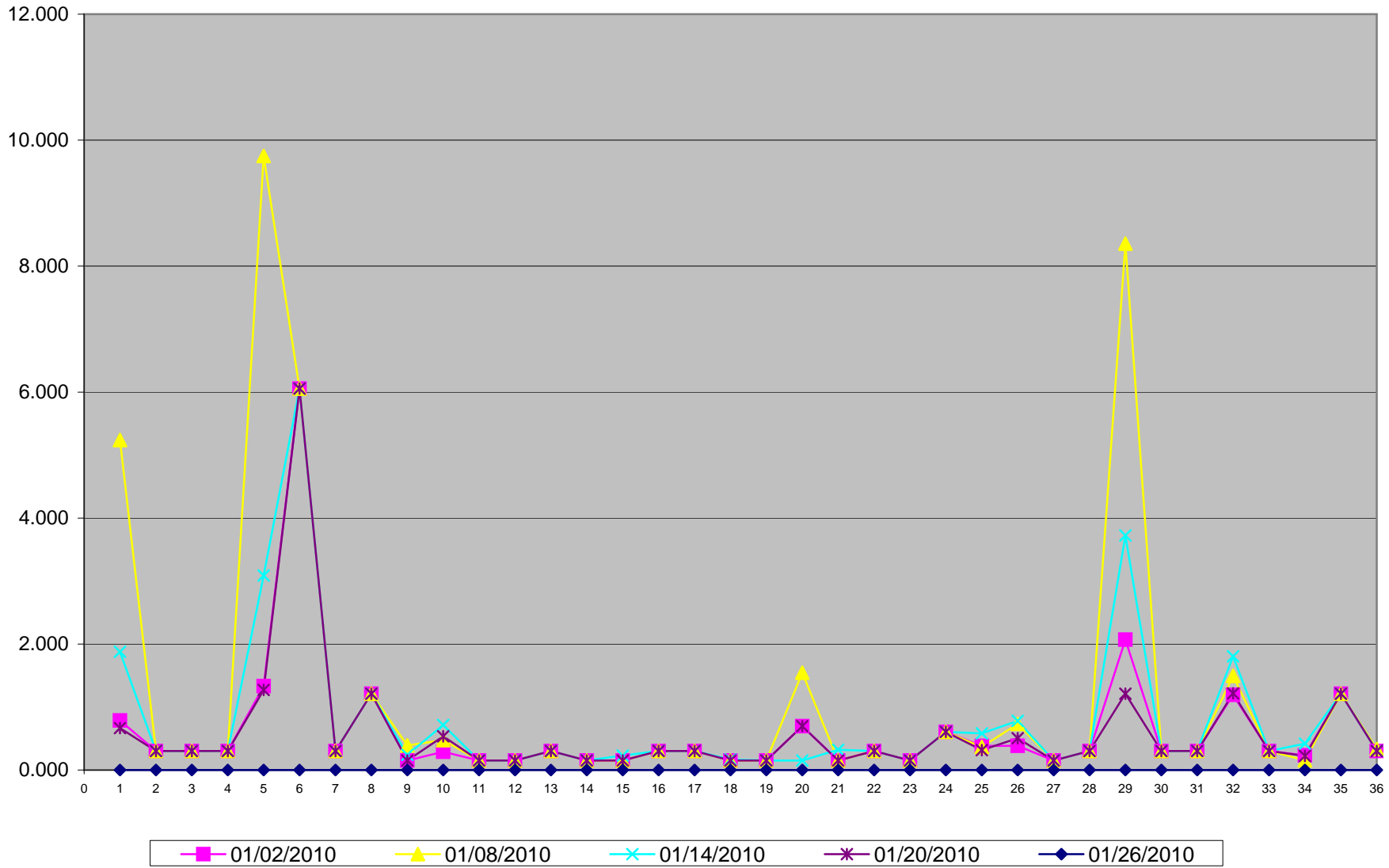
Polycyclic Aromatic Hydrocarbons

Polycyclic Aromatic Hydrocarbons (PAHs) Results for January 2010
LICA- Cold Lake South Site
Unit: ng/m3

PAHs	01/02/2010	01/08/2010	01/14/2010	01/20/2010	01/26/2010
Sample Volume (unit: m3)	330.30	330.30	330.34	330.37	330.35
1 1-Methylnaphthalene	0.787	5.238	1.877	0.666	NOT AVAILABLE
2 1-Methylphenanthrene	0.303	0.303	0.303	0.303	NOT AVAILABLE
3 2-Chloronaphthalene	0.303	0.303	0.303	0.303	NOT AVAILABLE
4 2-Methylantracene	0.303	0.303	0.303	0.303	NOT AVAILABLE
5 2-Methylnaphthalene	1.332	9.749	3.088	1.272	NOT AVAILABLE
6 3-Methylcholanthrene	6.055	6.055	6.055	6.055	NOT AVAILABLE
7 7,12-Dimethylbenzo(a)anthracene	0.303	0.303	0.303	0.303	NOT AVAILABLE
8 9,10-Dimethylantracene	1.211	1.211	1.211	1.211	NOT AVAILABLE
9 Acenaphthene	0.151	0.391	0.242	0.151	NOT AVAILABLE
10 Acenaphthylene	0.291	0.475	0.715	0.536	NOT AVAILABLE
11 Anthracene	0.151	0.151	0.151	0.151	NOT AVAILABLE
12 Benzo(a)anthracene	0.151	0.151	0.151	0.151	NOT AVAILABLE
13 Benzo(a)fluorene	0.303	0.303	0.303	0.303	NOT AVAILABLE
14 Benzo(a)pyrene	0.151	0.151	0.151	0.151	NOT AVAILABLE
15 Benzo(b)fluoranthene	0.151	0.151	0.230	0.151	NOT AVAILABLE
16 Benzo(b)fluorene	0.303	0.303	0.303	0.303	NOT AVAILABLE
17 Benzo(e)pyrene	0.303	0.303	0.303	0.303	NOT AVAILABLE
18 Benzo(g,h,i)perylene	0.151	0.151	0.167	0.151	NOT AVAILABLE
19 Benzo(k)fluoranthene	0.151	0.151	0.151	0.151	NOT AVAILABLE
20 Biphenyl	0.696	1.544	0.151	0.696	NOT AVAILABLE
21 Chrysene	0.151	0.151	0.321	0.151	NOT AVAILABLE
22 Coronene	0.303	0.303	0.303	0.303	NOT AVAILABLE
23 Dibenz(a,h)anthracene	0.151	0.151	0.151	0.151	NOT AVAILABLE
24 Dibenzo(a,e)pyrene	0.606	0.606	0.606	0.606	NOT AVAILABLE
25 Fluoranthene	0.381	0.366	0.581	0.315	NOT AVAILABLE
26 Fluorene	0.384	0.733	0.781	0.506	NOT AVAILABLE
27 Indeno(1,2,3-cd)pyrene	0.151	0.151	0.151	0.151	NOT AVAILABLE
28 m-Terphenyl	0.303	0.303	0.303	0.303	NOT AVAILABLE
29 Naphthalene	2.071	8.356	3.724	1.211	NOT AVAILABLE
30 o-Terphenyl	0.303	0.303	0.303	0.303	NOT AVAILABLE
31 Perylene	0.303	0.303	0.303	0.303	NOT AVAILABLE
32 Phenanthrene	1.193	1.496	1.804	1.217	NOT AVAILABLE
33 p-Terphenyl	0.303	0.303	0.303	0.303	NOT AVAILABLE
34 Pyrene	0.233	0.154	0.418	0.224	NOT AVAILABLE
35 Quinoline	1.211	1.211	1.211	1.211	NOT AVAILABLE
36 Tetralin	0.303	0.333	0.303	0.303	NOT AVAILABLE

Note: - values were calculated by the formula of [reading (ug) x 1000 / sample volume (m3)].
- Where the analytical results are less than the minimum detection limit (MDL), the MDL has been used in calculations.
- See analytical for details.
- Data for January 26th is not available at the time the monthly report is completed. The result will be included in the monthly report next month.

PAHs in ng/m3 Site: LICA - Cold Lake South



1	1-Methylnaphthalene
2	1-Methylphenanthrene
3	2-Chloronaphthalene
4	2-Methylantracene
5	2-Methylnaphthalene
6	3-Methylcholanthrene
7	7,12-Dimethylbenzo(a)anthracene
8	9,10-Dimethylantracene
9	Acenaphthene
10	Acenaphthylene
11	Anthracene
12	Benzo(a)anthracene
13	Benzo(a)fluorene
14	Benzo(a)pyrene
15	Benzo(b)fluoranthene
16	Benzo(b)fluorene
17	Benzo(e)pyrene
18	Benzo(g,h,l)perylene
19	Benzo(k)fluoranthene
20	Biphenyl
21	Chrysene
22	Coronene
23	Dibenz(a,h)anthracene
24	Dibenzo(a,e)pyrene
25	Fluoranthene
26	Fluorene
27	Indeno(1,2,3-cd)pyrene
28	m-Terphenyl
29	Naphthalene
30	o-Terphenyl
31	Perylene
32	Phenanthrene
33	p-Terphenyl
34	Pyrene
35	Quinoline
36	Tetralin

Calibration Reports

Sulphur Dioxide

SO₂ Calibration Report

Station Information

Calibration Date	January 13, 2010	Previous Calibration	December 10, 2009
Company	Lakeland Community and Industry Association		
Plant / Location	LICA 1 - Cold Lake South		
Start Time (MST)	8:35	End Time (MST)	12:00
Reason:	Monthly Calibration		
Barometric Pressure	711 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:	UV absorbtion
Converter Make / Model:	NA	S/N :	NA		
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 - 500		ppb	
Sample Flow / Box Temp	445 ccm	28.3	Deg C	446	Deg C
HVPS / Lamp Setting	-631.2	753		-630.9	752
PMT / RxCell Temp	OK Deg C	45.0	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	1.041		5	1.041

Calibration Data

Dilution Flow Rate	Source Gas Flow Rate	Calculated Concentration	Indicated Conc. (DAS)	Correction Factor
4996	0	0	0	N/A
4961	38.3	400	399	1.0023
4976	13.9	145	253	0.5747
4986	14.4	150	152	0.9890
4999	0	0	0	N/A
Sum of Least Squares				0.1995
New Correction Factor				1.0023

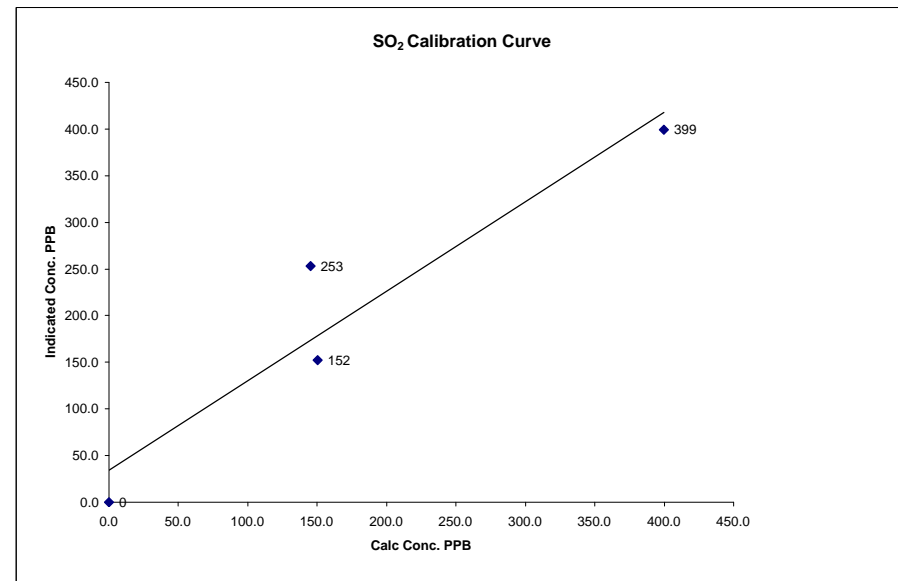
	Before Calibration	After Calibration
Auto Zero	0.4	0.4
Auto Span	410	403
Sample Lines Connected		YES
Percent Change from Previous Calibration		0.0%

Calibration Performed by: Shea Beaton

SO₂ Calibration Curve

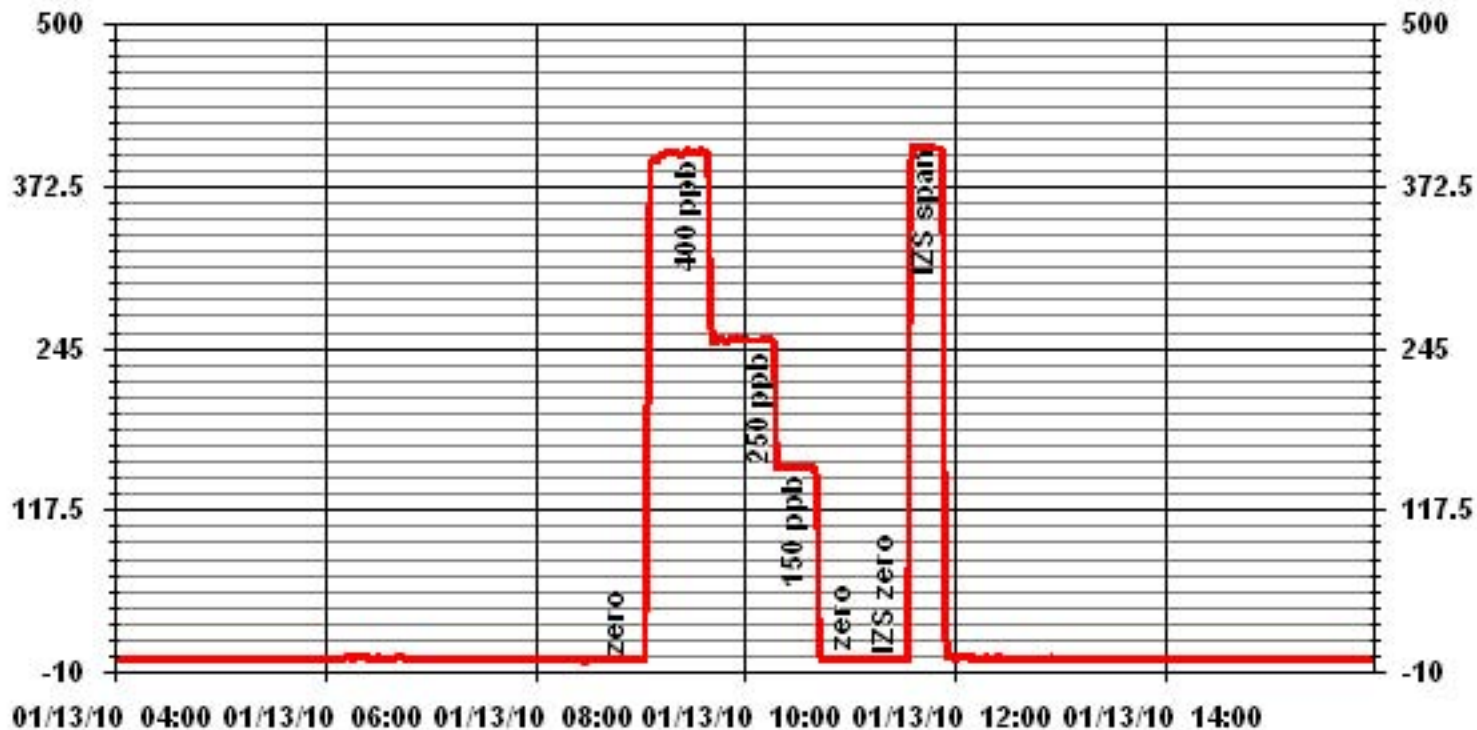
Calibration Date	January 13, 2010
Company	Lakeland Community and Industry Association
Plant / Location	LICA 1 - Cold Lake South
Start Time (MST)	8:35
End Time (MST)	12:00

Calculated Conc. ppb	Indicated Response ppb	Correction Factor	Correlation Coefficient Slope	(≥ 0.995) (0.85 to 1.15)	
0	0	n/a	Intercept	(± 3% F.S.)	0.899524
150	152	0.9890			0.959956
145	253	0.5747			
400	399	1.0023			34.053562



Notes: _____

01 Minute Averages



Total Reduced Sulphur

**TRS Calibration Report
Station Information**

Calibration Date	January 6, 2010	Previous Calibration	December 10, 2009
Company	Lakeland Industry & Community Association		
Plant / Location	LICA 1 - Cold Lake South		
Start Time (MST)	8:30	End Time (MST)	13:45
Reason:	Monthly Calibration		
Barometric Pressure	733 mm Hg	Station Temperature	23 Deg C
Cal Gas	10.8 ppm	Cal Gas Expiry date	June 22, 2010
DAS Output Voltage	0 - 10 Volts		

Equipment Information

Analyzer Make / Model:	TEI 4501	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	369 ccm	31.6 Deg C		365 ccm	31.3 Deg C		
HVPS / Lamp Setting	-622.3	765		-622.3	761		
PMT / RxCell Temp	OK Deg C	45.0 Deg C		OK Deg C	45.2 Deg C		
Converter / IZS Temp	850 Deg C	45.0 Deg C		849 Deg C	45.0 Deg C		
Offset / Slope	11.2	1.156		11.1	1.179		

Calibration Data

Dilution Flow Rate	Source Gas Flow Rate	Calculated Concentration	Indicated Conc. (DAS)	Correction Factor
4997	0	0	0	N/A
4960	37	80	78	1.0252
4997	0	0	0	N/A
4961	37	80	81	0.9871
4975	20.8	45	46	0.9775
4990	11.6	25	25	1.0019
4999	0	0	0	N/A
Sum of Least Squares				0.9859
New Correction Factor				0.9871

Before Calibration

After Calibration

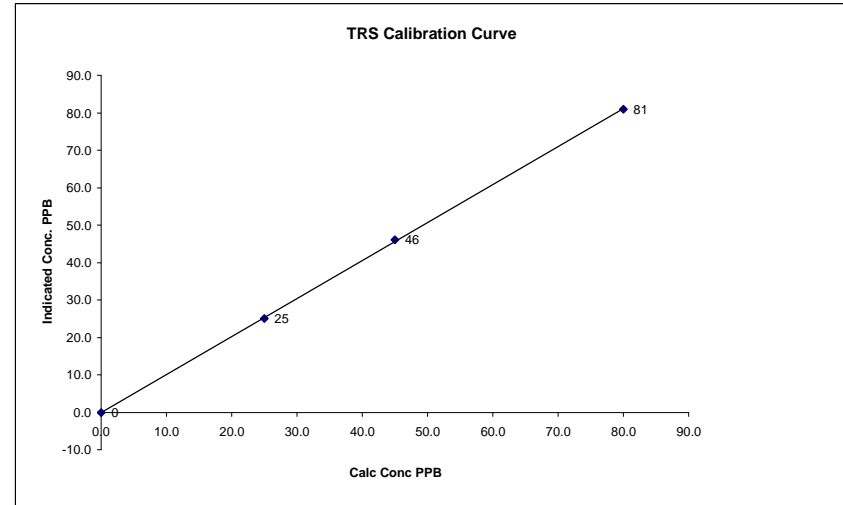
Auto Zero	0.1	0.1
Auto Span	38	41
Sample Lines Connected		YES
Percent Change from Previous Calibration		-2.5%

Calibration Performed by: Shea Beaton

TRS Calibration Curve

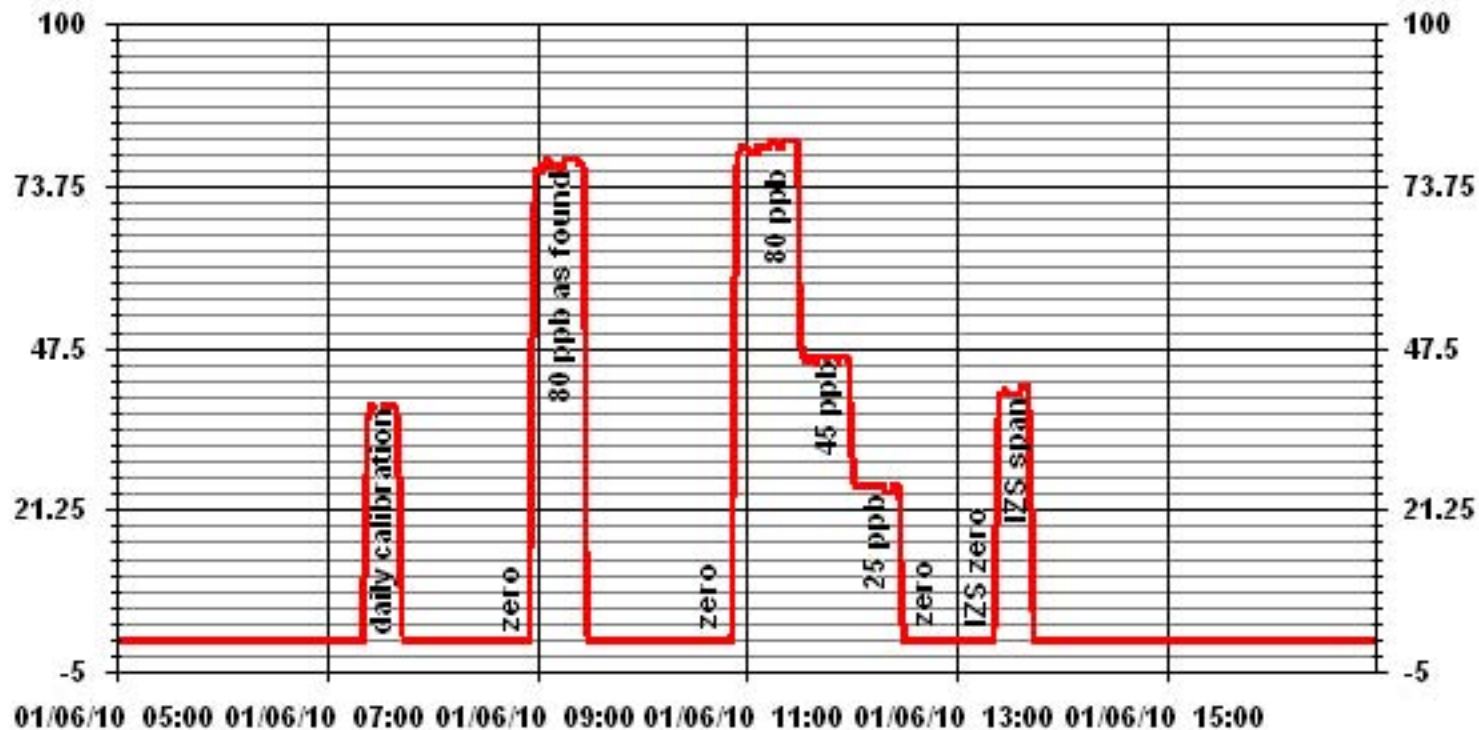
Calibration Date	January 6, 2010
Company	Lakeland Industry & Community Association
Plant / Location	LICA 1 - Cold Lake South
Start Time (MST)	8:30
End Time (MST)	13:45

Calculated Conc. ppb	Indicated Response ppb	Correction Factor	Correlation Coefficient (≥ 0.995)	Slope (0.85 to 1.15)	Intercept (± 3% F.S.)
0	0	n/a	0.999909	1.015450	-0.070676
25	25	1.0019			
45	46	0.9775			
80	81	0.9871			



Notes: _____

01 Minute Averages



Total Hydrocarbons

THC Calibration Report

Station Information

Calibration Date:	January 6, 2010	Previous Calibration	December 11, 2009
Company:	Lakeland Industry and Community Association		
Plant / Location:	LICA1/Cold Lake		
Start Time (MST)	9:36	End Time (MST)	18:15
Reason:	Monthly Calibration		
Barometric Pressure:	733 mmHg	Station Temperature:	23 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
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Analyzer Settings

	Before Calibration	After Calibration
Concentration Range	0 - 50 ppm	0 - 50 ppm
Sample Pressure	6.9 psi	6.5 psi
Hydrogen Pressure	8 psi	8 psi
Air Pressure	19.5 psi	20 psi

Calibration Data

Dilution Flow	Source Gas Flow	Calculated Concentration	Indicated Concentration	Correction Factor
2998	0	0.0	0.1	N/A
2999	65	39.1	40.9	0.9560
2998	0.0	0.0	0.0	N/A
2999	65	39.1	39.4	0.9914
2999	35	21.2	20.9	1.0163
2999	20	12.2	11.9	1.0250
2999	0	0.0	0.0	N/A
Correction Factor:				0.9914

Percent Change

Previous Calibration Correction Factor:	0.9911
Current Correction Factor Before Span Adjust:	0.9560
Percent Change:	3.7%

IZS Calibration Data

	Before Calibration	After Calibration
Auto Zero	0.1	0.0
Auto Span	37.0	35.4
Sample Lines Connected		YES

Cylinder Pressures

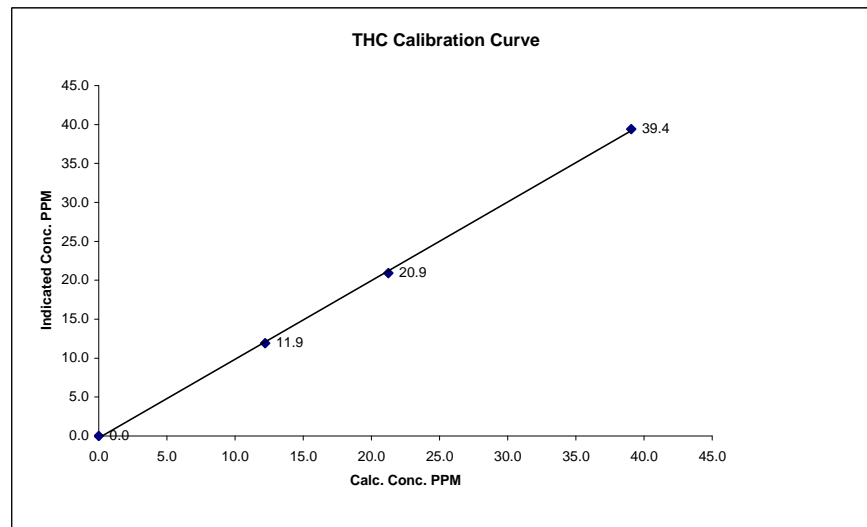
Span	1500 psi
Hydrogen	200 psi
Zero Air	unlimited psi Maxxam-owned API 701 zero air supply with catalytic oxidizer

Calibration Performed by: Shea Beaton

THC Calibration Curve

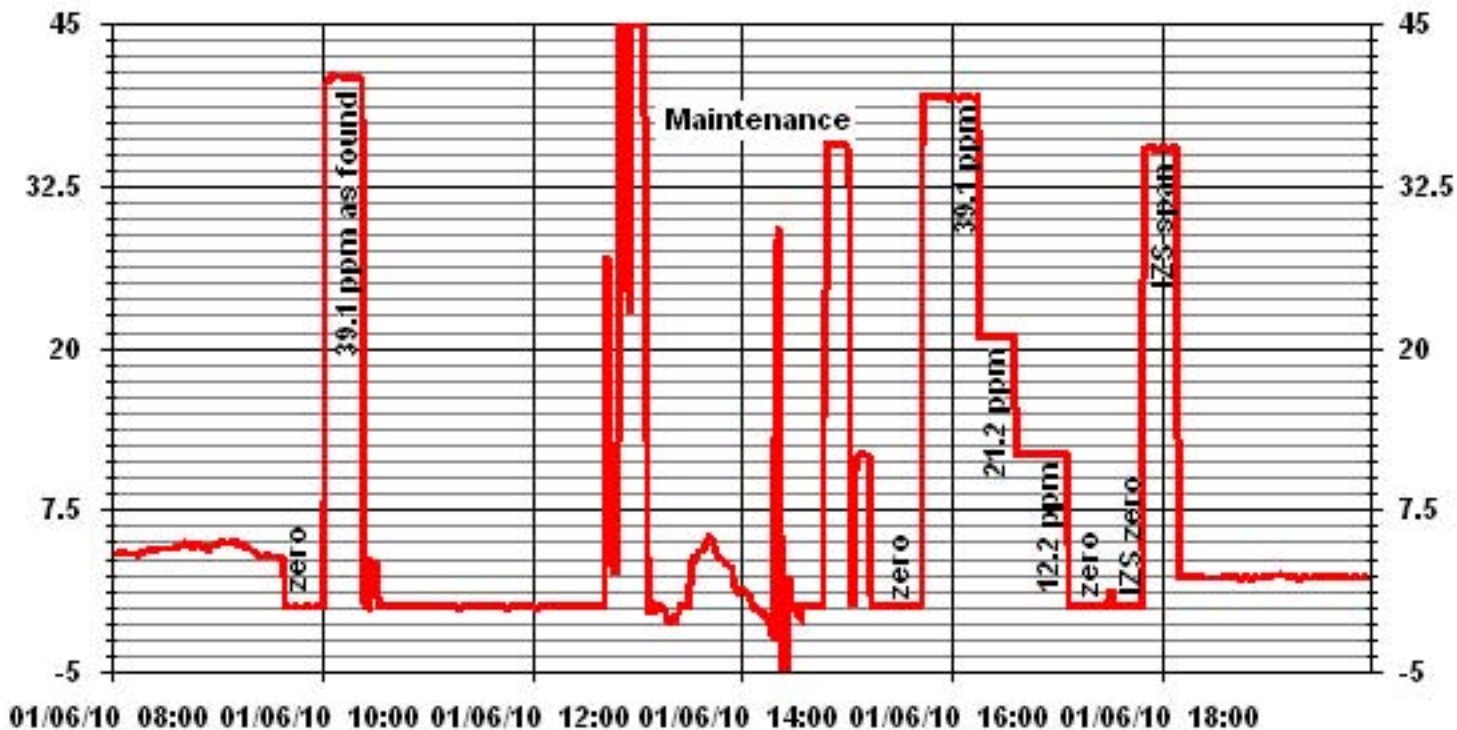
Calibration Date	January 6, 2010		
Company	Lakeland Industry and Community Association		
Plant / Location	LICA1/Cold Lake		
Start Time (MST)	9:36	End Time (MST)	18:15

Calculated Conc. ppm	Indicated Response ppm	Correction Factor	Correlation Coefficient Slope	(≥ 0.995)	0.999731
0.0	0.0		Intercept	(± 3% F.S.)	-0.249136
12.2	11.9	1.0250			
21.2	20.9	1.0163			
39.1	39.4	0.9914			



Notes: As Found points finished at 10:25, following the A/F points the pump diaphragm, 0.5 micron inlet filter, and the burner air regulator were all replaced. Flows were set and optimized. Multit-point cal began at 15:20.

01 Minute Averages



Particulate Matter 2.5

TEOM0 1405F Audit

	<u>Station</u>		<u>Audit Transfer Standard</u>
Date:	January 13, 2010	Make/Model:	Bios DC2
Station Name:	LICA 1	Serial Number:	1193
Location:	Cold Lake South	Cell s/n:	2272
Operator:	LICA	Thermometer s/n:	VWR 90758398

	<u>Sampler</u>		<u>Set-up and current Sampler readings</u>
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 (%)	39%
Firmware Ver.	1.51	K _o Factor	14578.0
Parameter	PM 2.5 (with FDMS)	Temp (°C)	-8.9
		Press (ATM)	0.936

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 <0.10ug	0.003	Warnings	None
Pump Vacuum	0.37		
Temperature/Pressure			
Measured Temp (± 2 °C)	-9.5	D °C	0.6
Measured Press (± 0.01atm)	0.934	DATM	0.002
Flow Audit			
Indicated Main Flow (l/min)	3.00	Main Flow Drift (±10.0%)	1.66%
Measured Main Flow (l/min)	2.95	Flow Adjusted to Measured?	NO
Indicated Bypass Flow (l/min)	13.67	Bypass Flow Drift (±10.0%)	29.00%
Measured Bypass Flow (l/min)	13.63	Flow Adjusted to Measured?	NO
Leak Check		Instrument Setup	
Main (< 0.15 l/min)	Base 0.03, Ref 0.02	Flow Control = Active	
Aux (< 0.15 l/min)	Base 0.00, Ref 0.00	Report Conditions = Standard (25.0 C and 1atm)	
K_o Factor			
Measured	14445.3		
K _o Difference (± 2.5%)	0.91%		

Start Time: 8:50 **Finish Time:** 14:50

Sample Inlet Cleaned: NO **New Filters Installed:** YES
New Filter Loading %: 16.8%

Comments: Prior to this audit, the flash card was changed to facilitate operation of firmware ver 1.51. The ambient temp, pressure and flow were calibrated. The Ko constant was re-entered active/standat flow conditions were set, the S/N was re-entered and the logging option was reconfigured.

Auditor/s: Shea Beaton

Nitrogen Dioxide

NOx - NO- NO₂ Calibration Report

Station Information

Calibration Date	January 6, 2010		Previous Calibration	December 10, 2009	
Company	Lakeland Ind & Comm. Assoc.		Plant/Location	LICA 1 - Cold Lake South	
Start Time (MST)	8:30		End Time (MST)	15:08	
Reason:	Monthly Calibration				
Barometric Pressure	733	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 - 1	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 - 1000			ppb			
Sample Flow/Conv. Temp	744	ccm	316	Deg C	739	ccm	317	Deg C
Ozone Flow / Vacuum	OK	ccm	181.9	mmHg	OK	ccm	182.0	mmHg
HVPS	-821	Volts			-820	Volts		
Rx/ Temp / PMT Temp	49.8	Deg C	-2.5	Deg C	50.2	Deg C	-2.5	Deg C
Box Temp / IZS Temp	32.3	Deg C	OK	Deg C	32.8	Deg C	OK	Deg C
Offset	3.8	NOx	3.7	NO	3.8	NOx	3.7	NO
Slope	1.003	NOx	0.903	NO	1.003	NOx	0.891	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	NO ₂	NOx	NO
3010	0.0	N/A	0	0	0	0	0	N/A	N/A
2986	23.3	N/A	401	400	407	405	2	0.9854	0.9865
2984	23.3	N/A	401	400	401	400	2	1.0008	0.9995
3000	11.7	N/A	201	200	201	201	1	1.0012	0.9973
3005	7.3	N/A	126	125	126	126	0	0.9963	0.9924
3010	0.0	N/A	0	0	1	1	0	N/A	N/A
Converter Efficiency									
2989	23.3	N/A	401	399	400	399	1	N/A	
2986	23.3	300	401	400	397	107	291	99%	
2986	23.3	200	401	400	398	202	196	99%	
2986	23.3	100	401	400	397	308	90	98%	
2980	23.3	N/A	402	400	399	398	1	N/A	
3003	0	N/A	0	0	1	1	0	N/A	N/A

Linearity OK?	Yes	No	Sum of Least Squares	1.0006	0.9986
Flows Checked on-site?	Yes	No	New Correction Factor	1.0008	0.9995
			Average Converter Efficiency	99%	

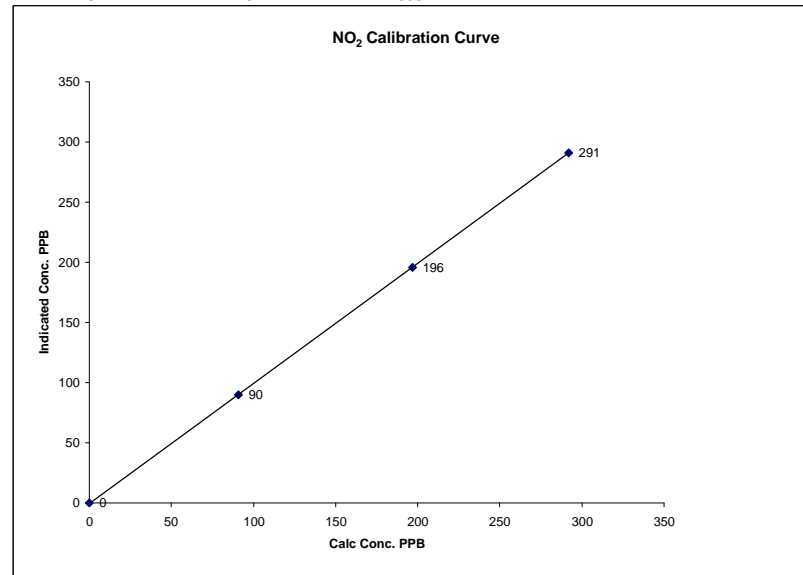
		Before Calibration		After Calibration	
Auto Zero	0.2	NOx	0.3	NO ₂	0.3
Auto Span	396	NOx	395	NO ₂	389
Sample Lines Connected	YES				
Percent Change from Previous Calibration		NOx	1.7%	NO	1.5%

Calibration Performed by: Shea Beaton

NO₂ Calibration Curve

Calibration Date	January 6, 2010	
Company	Lakeland Ind & Comm. Assoc.	
Plant / Location	LICA 1 - Cold Lake South	
Start Time (MST)	8:30	End Time (MST) 15:08

Calculated Conc. ppb	Indicated Response ppb	Correction Factor	Correlation Coefficient (≥ 0.995)	0.999993
0	0	N/A	Slope (0.85 to 1.15)	0.996995
91	90	1.0111	Intercept (± 3% F.S.)	-0.31428
197	196	1.0051		
292	291	1.0034		

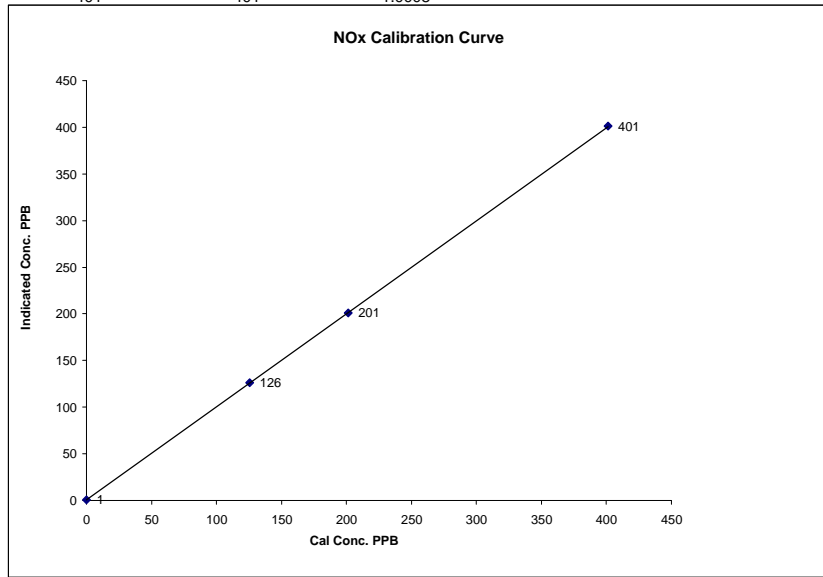


Notes: _____

NOx Calibration Curve

Calibration Date January 6, 2010
 Company Lakeland Ind & Comm. Assoc.
 Plant / Location LICA 1 - Cold Lake South
 Start Time (MST) 8:30 End Time (MST) 15:08

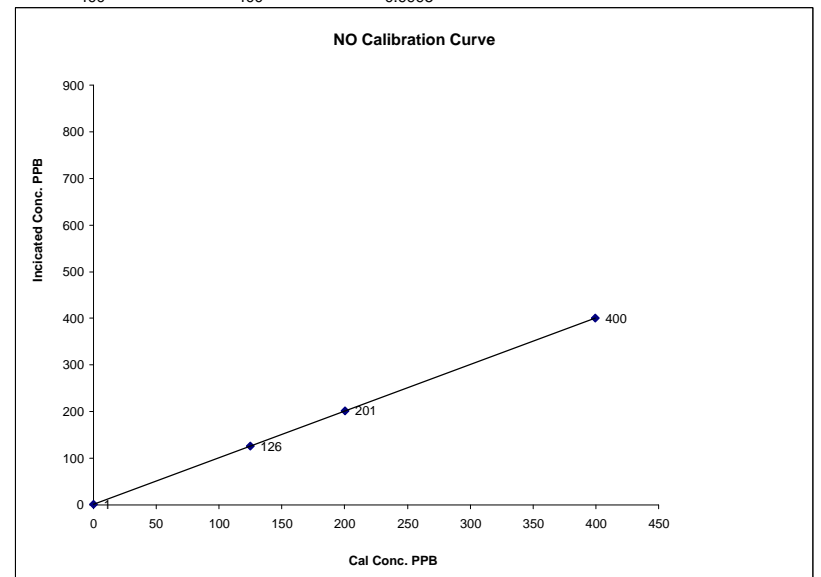
Calculated Conc.	Indicated Response	Correction Factor	Correlation Coefficient	(≥ 0.995)	0.999997
ppb	ppb		Slope	(0.85 to 1.15)	0.996617
0	1	N/A	Intercept	(± 3% F.S.)	0.83979
126	126	0.9963			
201	201	1.0012			
401	401	1.0008			



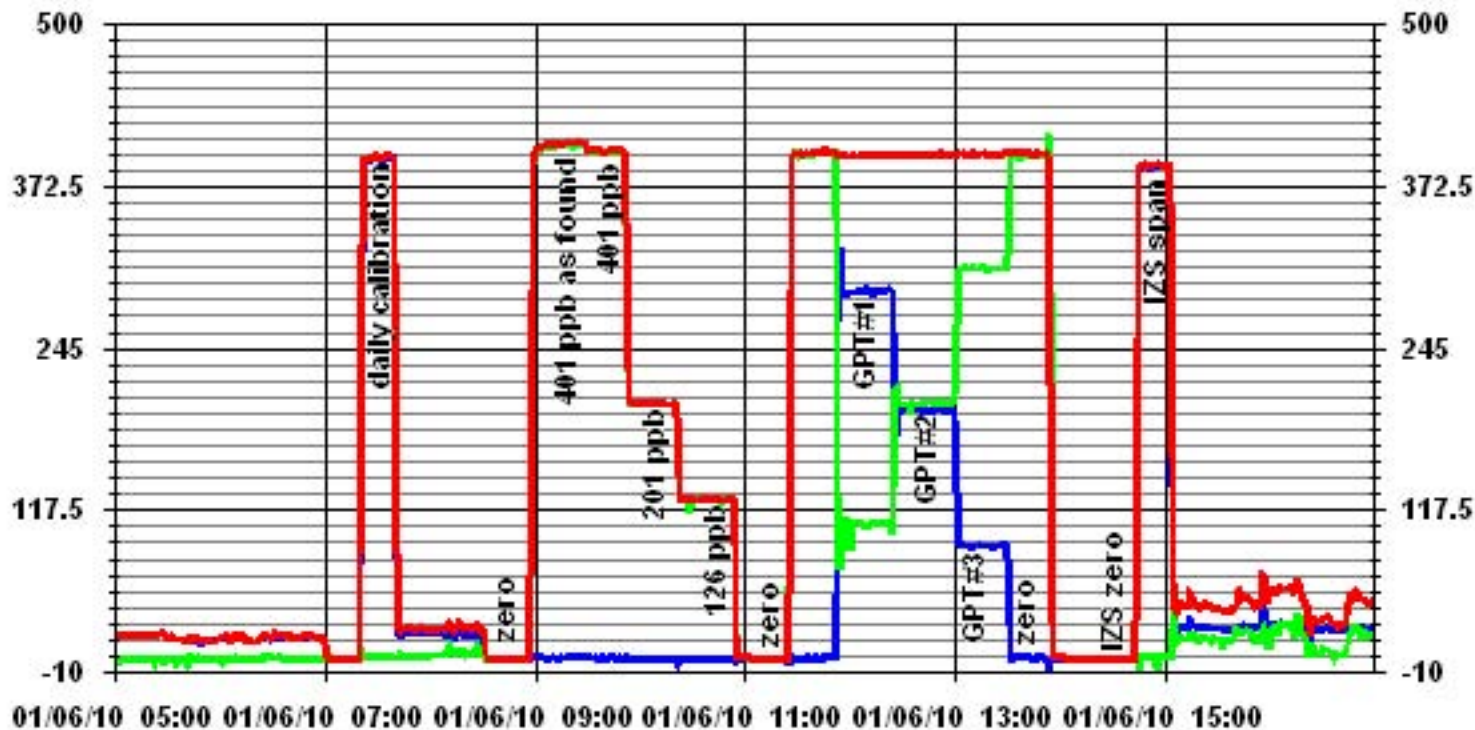
NO Calibration Curve

Calibration Date January 6, 2010
 Company Lakeland Ind & Comm. Assoc.
 Plant / Location LICA 1 - Cold Lake South
 Start Time (MST) 8:30 End Time (MST) 15:08

Calculated Conc.	Indicated Response	Correction Factor	Correlation Coefficient	(≥ 0.995)	1.000000
ppb	ppb		Slope	(0.85 to 1.15)	0.997520
0	1	N/A	Intercept	(± 3% F.S.)	0.8726
125	126	0.9924			
200	201	0.9973			
400	400	0.9995			



01 Minute Averages



Ozone

O₃ Calibration Report

Station Information

Calibration Date	January 6, 2010	Previous Calibration	December 11, 2009
Company	Lakeland Industry & Community Association		
Plant / Location	LICA 1 - Cold Lake South		
Start Time (MST)	14:32	End Time (MST)	18:22
Reason:	Monthly Calibration		
Barometric Pressure	733 mm Hg	Station Temperature	22 Deg C
DAS Output Voltage	0 - 10 Volts		

Equipment Information

Analyzer Make / Model:	TEI 49i	S/N :	700419951	Method:	Fluorescent
Calibrator Make / Model:	Enviroics 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	28.1 Deg C		28.6 Deg C	
O ₃ Set Level	29%		29%	
Bench Lamp/O3 Lamp				
Sample Flow A/B	0.75 LPM	0.766 LPM	0.75 LPM	0.764 LPM
Offset / Slope	0.7	1.007	0.7	1.018

Calibration Data

Dilution Flow Rate	Ozone Set Point	Calculated Concentration	Indicated Conc. (DAS)	Correction Factor
3003	0	0	0	N/A
3004	400	381	376	1.0133
3001	400	381	381	1.0000
3004	200	192	192	1.0000
3004	100	88	87	1.0115
3004	0	0	0	N/A
Sum of Least Squares				N/A
New Correction Factor				1.0000

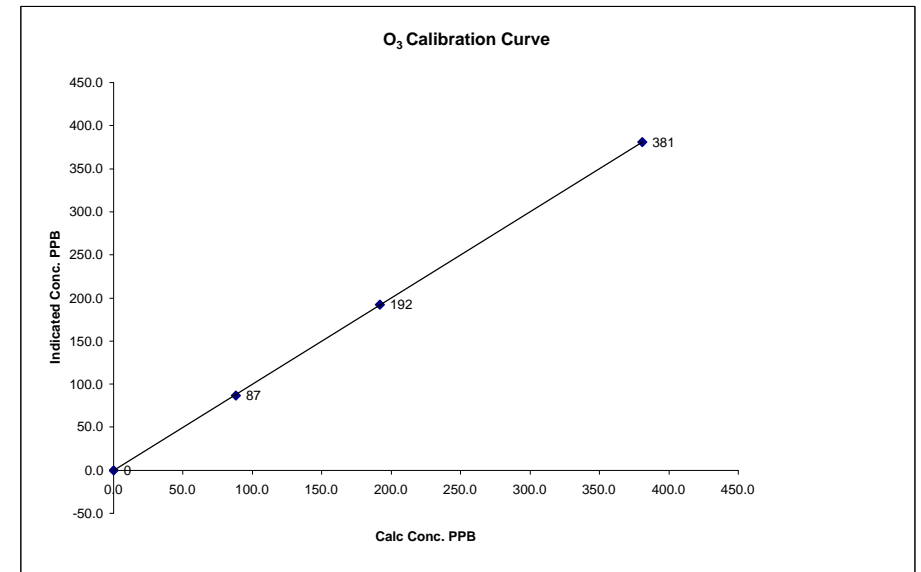
	Before Calibration	After Calibration
Auto Zero	-0.1	0.0
Auto Span	293.0	295.0
Sample Lines Connected		YES
Percent Change from Previous Calibration		-1.6%

Calibration Performed by: Shea Beaton

O₃ Calibration Curve

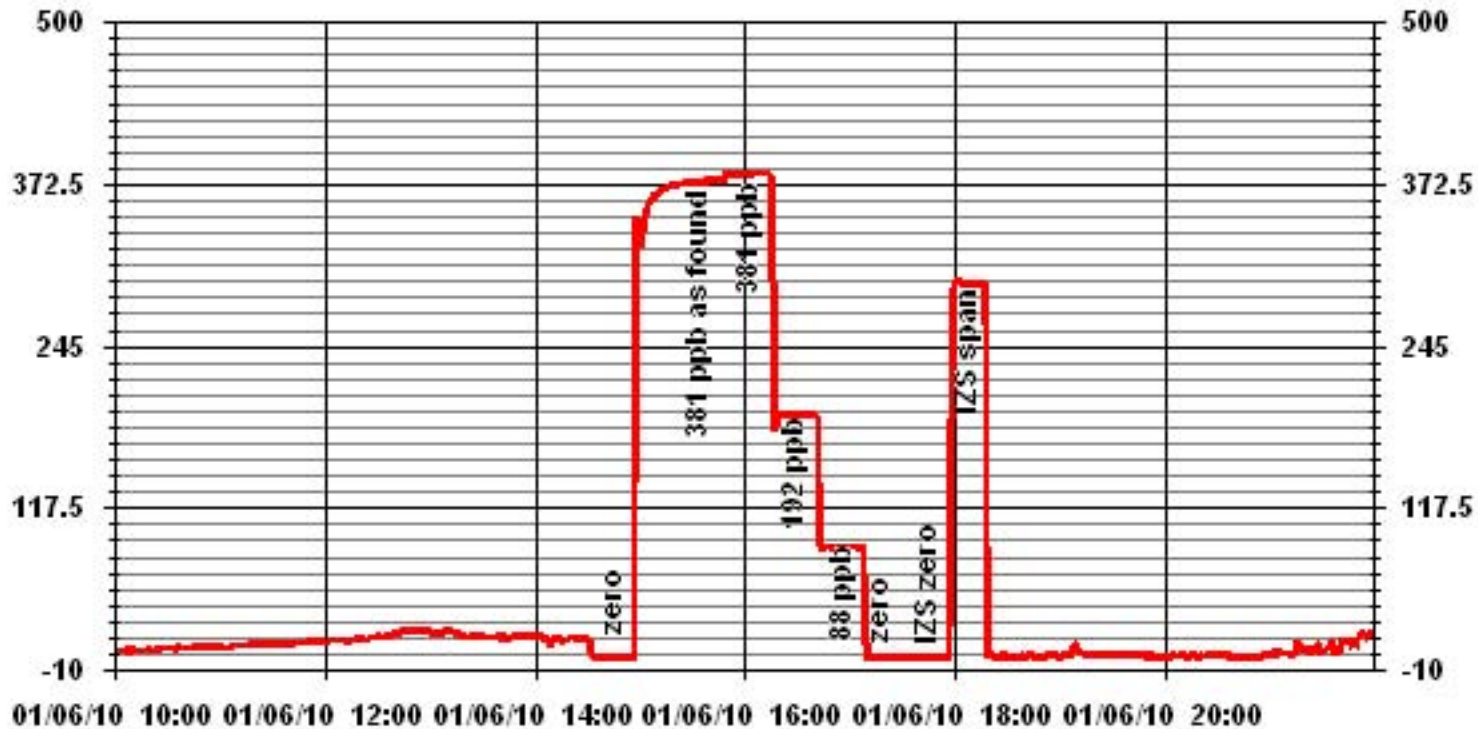
Calibration Date	January 6, 2010		
Company	Lakeland Industry & Community Association		
Plant / Location	LICA 1 - Cold Lake South		
Start Time (MST)	14:32	End Time (MST)	18:22

Calculated Conc. ppb	Indicated Response ppb	Correction Factor	Correlation Coefficient Slope	(≥ 0.995)	
0	0	n/a	Intercept	($\pm 3\%$ F.S.)	0.999992
88	87	1.0115			1.000959
192	192	1.0000			
381	381	1.0000			-0.408502



Notes: Bench Temp=53.5C, O3 lamp temp=67.6C.

01 Minute Averages



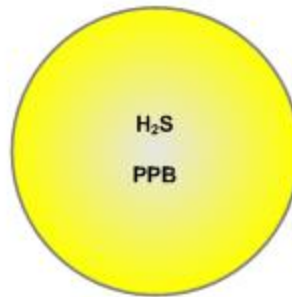
Passive Bubble Maps

Lakeland Industry & Community Association H₂S Passive Bubble Map

JANUARY 2010

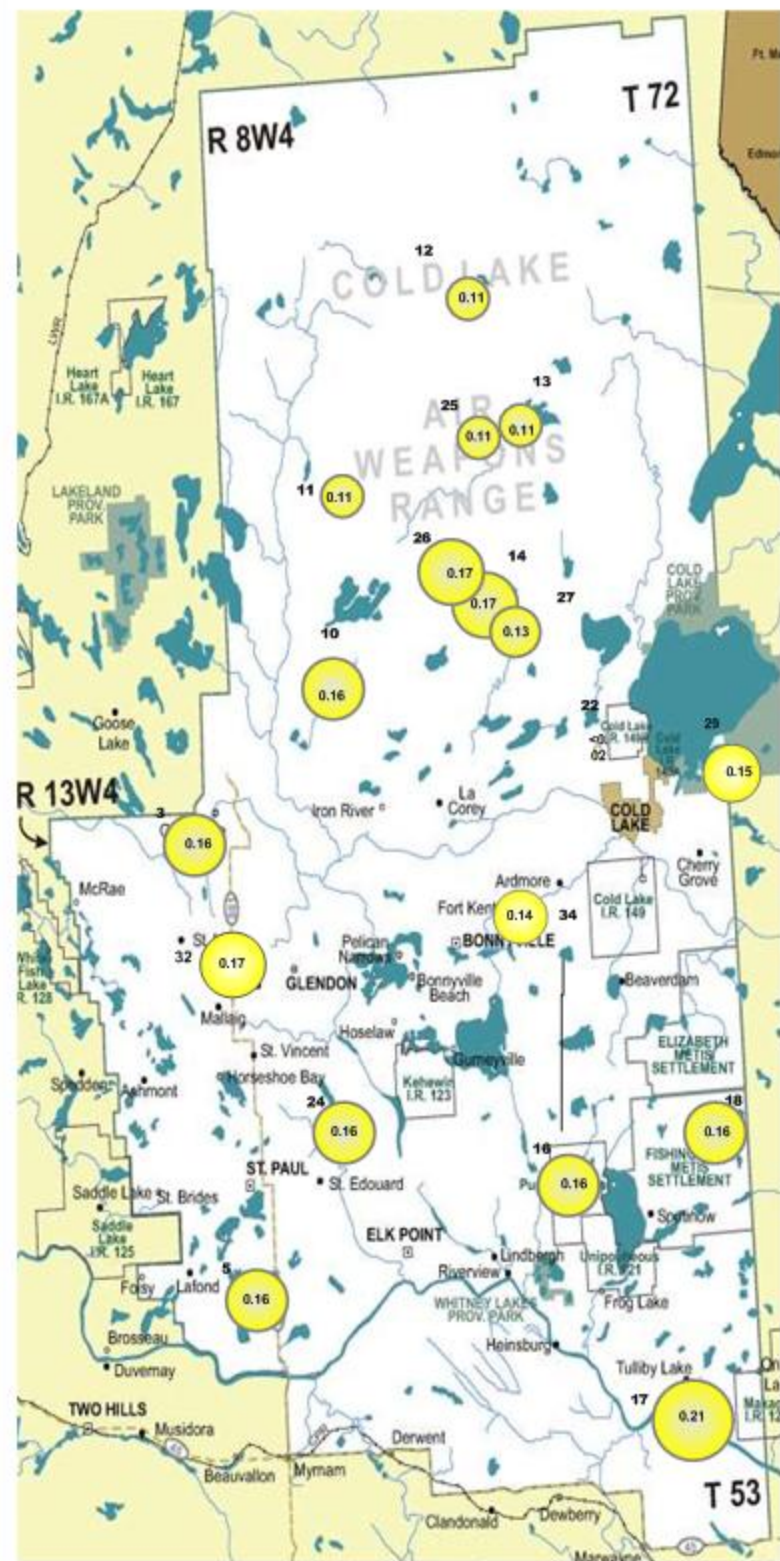
PASSIVE STATIONS

		DUPLICATE
3 – Therien	0.16 PPB	NA
5 – Lake Eliza	0.16 PPB	0.16 PPB
10 – La Corey	0.16 PPB	0.16 PPB
11 – Wolf Lake	0.11 PPB	NA
12 – Foster Creek	0.12 PPB	0.10 PPB
13 – Primrose	0.11 PPB	NA
14 – Maskwa	0.17 PPB	NA
16 – Frog Lake	0.16 PPB	NA
17 – Clear Range	0.21 PPB	0.20 PPB
18 – Fishing Lake	0.16 PPB	NA
22 – Cold Lake South	<0.02 PPB	NA
24 – Fort George	0.15 PPB	0.17 PPB
25 – Burnt Lake	0.11 PPB	NA
26 – Mahihkan	0.17 PPB	0.16 PPB
27 – Mahkeses	0.13 PPB	NA
29 – Cold Lake South 2	0.15 PPB	0.14 PPB
32 – St. Lina	0.17 PPB	NA
34 – Portable	0.14 PPB	NA



Summary

Minimum : <0.02 PPB – Cold Lake South
Maximum: 0.21 PPB – Clear Range
Average: 0.14 PPB *Includes Duplicates

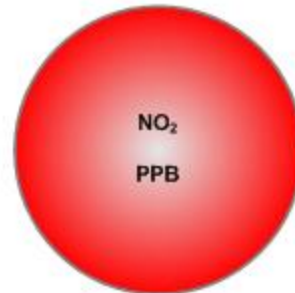


Lakeland Industry & Community Association NO₂ Passive Bubble Map

JANUARY 2010

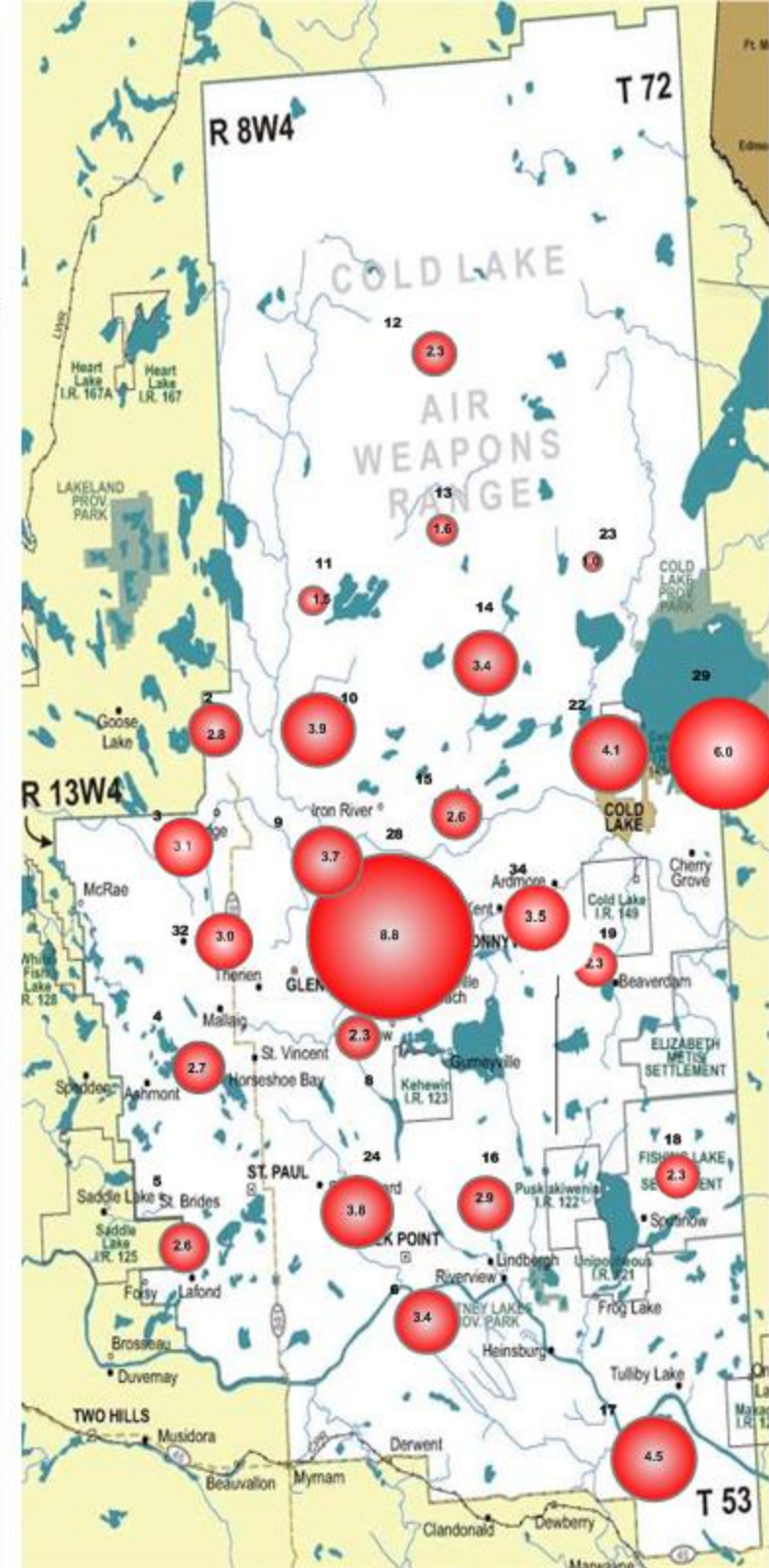
PASSIVE STATIONS

		DUPLICATE
2 – Sand River	2.8 PPB	NA
3 – Therien	3.3 PPB	2.8 PPB
4 – Flat Lake	2.7 PPB	NA
5 – Lake Eliza	2.8 PPB	2.3 PPB
6 – Telegraph Creek	3.4 PPB	NA
8 – Muriel-Kehewin	2.5 PPB	2.1 PPB
9 – Dupre	3.7 PPB	NA
10 – La Corey	3.9 PPB	3.9 PPB
11 – Wolf Lake	1.5 PPB	NA
12 – Foster Creek	2.3 PPB	2.3 PPB
13 – Primrose	1.6 PPB	NA
14 – Maskwa	3.3 PPB	3.5 PPB
15 – Ardmore	2.6 PPB	NA
16 – Frog Lake	2.9 PPB	2.9 PPB
17 – Clear Range	4.5 PPB	NA
18 – Fishing Lake	2.0 PPB	2.5 PPB
19 – Beaverdam	2.3 PPB	NA
22 – Cold Lake South	4.1 PPB	NA
23 – Medley-Martineau	1.1 PPB	0.9 PPB
24 – Fort George	3.8 PPB	NA
28 – Town of Bonnyville	8.8 PPB	8.9 PPB
29 – Cold Lake South 2	6.0 PPB	NA
32 – St. Lina	3.0 PPB	NA
34 – Portable	3.5 PPB	NA



Summary

Minimum : 1.0 PPB – Medley-Martineau
Maximum: 8.8 PPB – Town of Bonnyville
Average: 3.3 PPB *Includes Duplicates

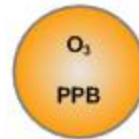


Lakeland Industry & Community Association O₃ Passive Bubble Map

JANUARY 2010

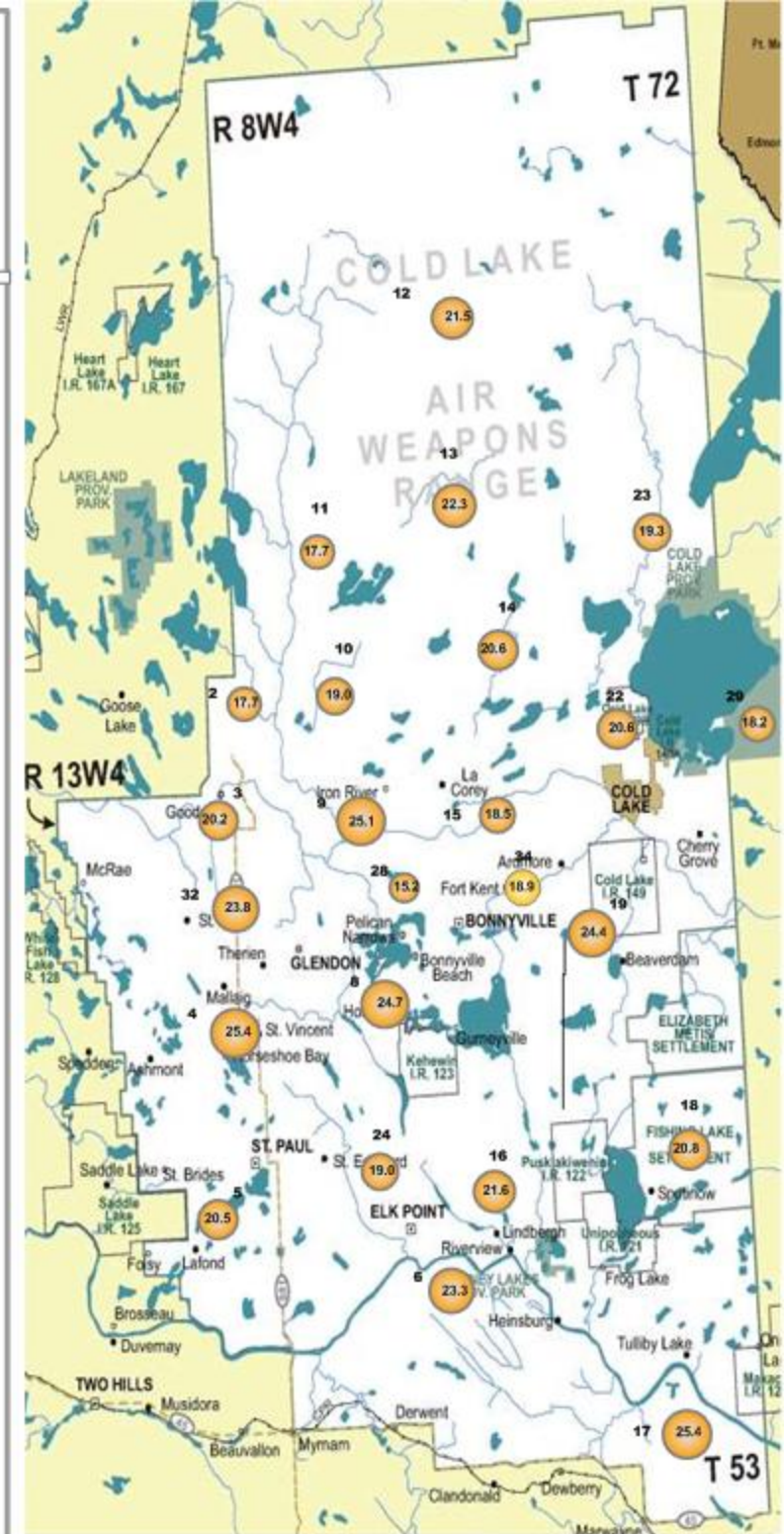
PASSIVE STATIONS

		DUPLICATE
2 – Sand River	17.7 PPB	NA
3 – Therien	19.8 PPB	20.5 PPB
4 – Flat Lake	25.4 PPB	NA
5 – Lake Eliza	20.0 PPB	21.0 PPB
6 – Telegraph Creek	23.3 PPB	NA
8 – Muriel-Kehewin	25.5 PPB	23.9 PPB
9 – Dupre	25.1 PPB	NA
10 – La Corey	19.3 PPB	18.7 PPB
11 – Wolf Lake	17.7 PPB	NA
12 – Foster Creek	22.5 PPB	20.4 PPB
13 – Primrose	22.3 PPB	NA
14 – Maskwa	20.6 PPB	20.5 PPB
15 – Ardmore	18.5 PPB	NA
16 – Frog Lake	20.7 PPB	22.5 PPB
17 – Clear Range	25.4 PPB	NA
18 – Fishing Lake	21.1 PPB	20.5 PPB
19 – Beaverdam	24.4 PPB	NA
22 – Cold Lake South	20.6 PPB	NA
23 – Medley-Martineau	19.4 PPB	19.1 PPB
24 – Fort George	19.0 PPB	NA
28 – Town of Bonnyville	15.6 PPB	14.7 PPB
29 – Cold Lake South 2	18.2 PPB	NA
32 – St. Lina	23.8 PPB	NA
34 – Portable	18.9 PPB	NA



Summary

Minimum : 15.2 PPB –Town of Bonnyville
 Maximum: 25.4 PPB –Clear Range
 Average: 21.0 PPB *Includes Duplicates



Lakeland Industry & Community Association SO₂ Passive Bubble Map

JANUARY 2010

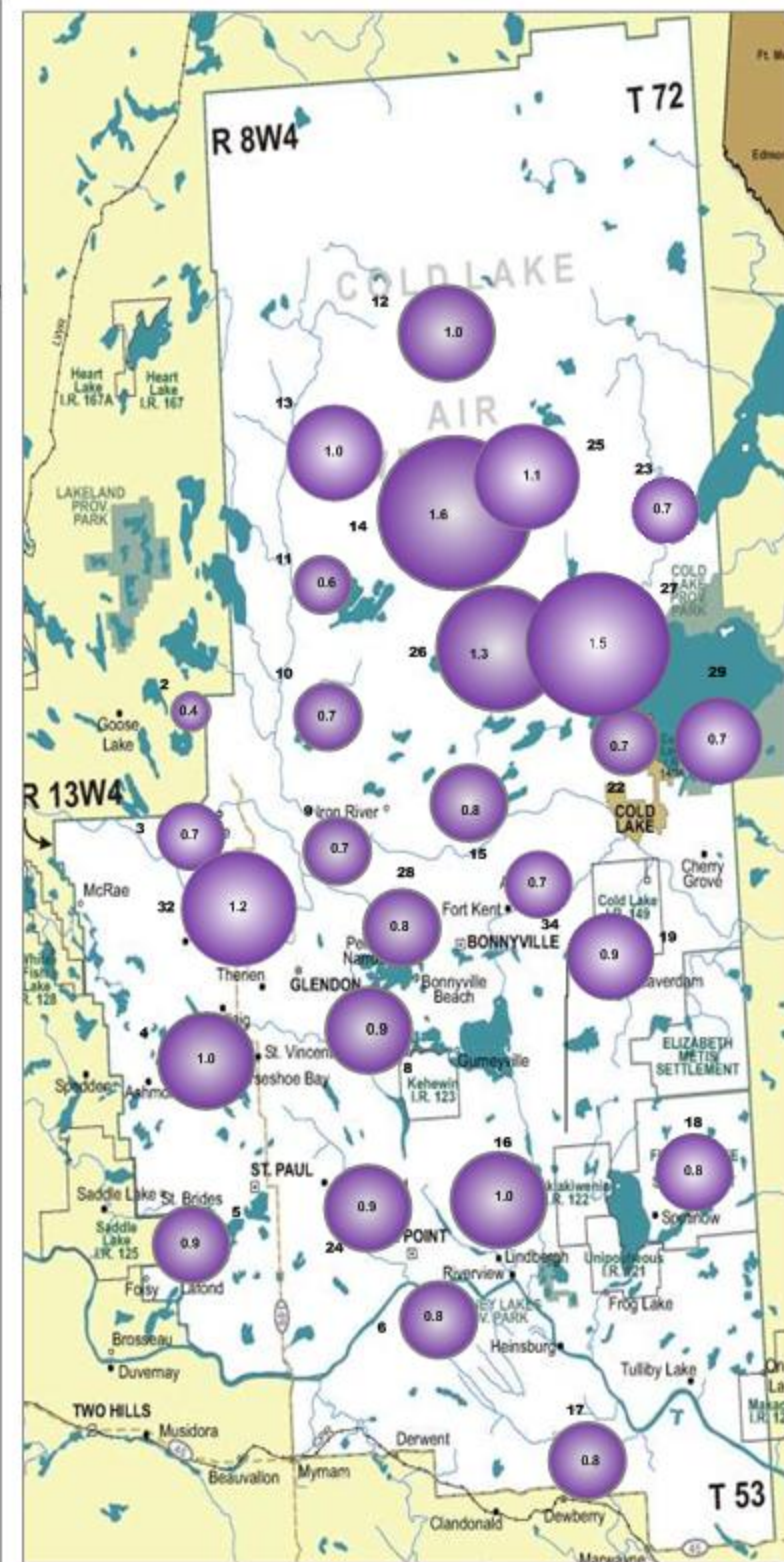
PASSIVE STATIONS

		DUPLICATE
2 – Sand River	0.4 PPB	NA
3 – Therien	0.7 PPB	0.6 PPB
4 – Flat Lake	1.0 PPB	NA
5 – Lake Eliza	0.8 PPB	1.0 PPB
6 – Telegraph Creek	0.8 PPB	NA
8 – Muriel-Kehewin	0.8 PPB	0.9 PPB
9 – Dupre	0.7 PPB	NA
10 – La Corey	0.7 PPB	0.7 PPB
11 – Wolf Lake	0.6 PPB	NA
12 – Foster Creek	0.9 PPB	1.0 PPB
13 – Primrose	1.0 PPB	NA
14 – Maskwa	1.6 PPB	1.6 PPB
15 – Ardmore	0.8 PPB	NA
16 – Frog Lake	0.9 PPB	1.0 PPB
17 – Clear Range	0.8 PPB	NA
18 – Fishing Lake	0.7 PPB	0.8 PPB
19 – Beaverdam	0.9 PPB	NA
22 – Cold Lake South	0.7 PPB	NA
23 – Medley-Martineau	0.7 PPB	0.6 PPB
24 – Fort George	0.9 PPB	NA
25 – Burnt Lake	1.1 PPB	1.1 PPB
26 – Mahikan	1.3 PPB	NA
27 – Mahkeses	1.5 PPB	1.4 PPB
28 – Town of Bonnyville	0.8 PPB	NA
29 – Cold Lake South 2	0.7 PPB	0.6 PPB
32 – St. Lina	1.2 PPB	NA
34 – Portable	0.7 PPB	NA



Summary

Minimum : 0.4 PPB – Sand River
 Maximum: 1.6 PPB –Maskwa
 Average: 0.9 PPB *Includes Duplicates



Passive Field Data

Field Notes

ID	SAMPLER	START		END		NOTES
		DATE	TIME	DATE	TIME	
2	SO ₂ /NO ₂ /O ₃	12/29/09	11:30	01/28/10	10:50	
2A (Dup)	NA	NA	NA	NA	NA	
3	H ₂ S/SO ₂ /NO ₂ /O ₃	12/29/09	10:45	01/28/10	10:15	
3A (Dup)	SO ₂ /NO ₂ /O ₃	12/29/09	10:45	01/28/10	10:15	
4	SO ₂ /NO ₂ /O ₃	12/30/09	15:45	01/29/10	15:45	
4A (Dup)	NA	NA	NA	NA	NA	
5	H ₂ S/SO ₂ /NO ₂ /O ₃	12/30/09	14:05	01/29/10	15:00	
5A (Dup)	H ₂ S/SO ₂ /NO ₂ /O ₃	12/30/09	14:05	01/29/10	15:00	
6	SO ₂ /NO ₂ /O ₃	12/30/09	13:50	01/29/10	13:35	
6A (Dup)	NA	NA	NA	NA	NA	
8	SO ₂ /NO ₂ /O ₃	12/30/09	16:40	01/29/10	16:35	
8A (Dup)	SO ₂ /NO ₂ /O ₃	12/30/09	16:40	01/29/10	16:35	
9	SO ₂ /NO ₂ /O ₃	12/30/09	09:05	01/28/10	08:40	
9A (Dup)	NA	NA	NA	NA	NA	
10	H ₂ S/SO ₂ /NO ₂ /O ₃	12/29/09	12:30	01/28/10	12:00	
10A (Dup)	H ₂ S/SO ₂ /NO ₂ /O ₃	12/29/09	12:30	01/28/10	12:00	
11	H ₂ S/SO ₂ /NO ₂ /O ₃	12/29/09	13:10	01/28/10	12:40	
11A (Dup)	NA	NA	NA	NA	NA	
12	H ₂ S/SO ₂ /NO ₂ /O ₃	12/29/09	14:35	01/28/10	14:00	
12A (Dup)	H ₂ S/SO ₂ /NO ₂ /O ₃	12/29/09	14:35	01/28/10	14:00	
13	H ₂ S/SO ₂ /NO ₂ /O ₃	12/29/09	16:05	01/28/10	15:40	
13A (Dup)	NA	NA	NA	NA	NA	
14	H ₂ S/SO ₂ /NO ₂ /O ₃	12/29/09	17:00	01/28/10	16:50	
14A (Dup)	H ₂ S/SO ₂ /NO ₂ /O ₃	12/29/09	17:00	01/28/10	16:50	
15	SO ₂ /NO ₂ /O ₃	12/29/09	07:15	01/28/10	07:35	
15A (Dup)	NA	NA	NA	NA	NA	
16	H ₂ S/SO ₂ /NO ₂ /O ₃	12/30/09	12:05	01/29/10	11:45	
16A (Dup)	H ₂ S/SO ₂ /NO ₂ /O ₃	12/30/09	12:05	01/29/10	11:45	

ID	SAMPLER	START		END		NOTES
		DATE	TIME	DATE	TIME	
17	H ₂ S/SO ₂ /NO ₂ /O ₃	12/30/09	13:00	01/29/10	12:40	
17A (Dup)	H ₂ S	12/30/09	13:00	01/29/10	12:40	
18	H ₂ S/SO ₂ /NO ₂ /O ₃	12/30/09	11:15	01/29/10	11:05	
18A (Dup)	SO ₂ /NO ₂ /O ₃	12/30/09	11:15	01/29/10	11:05	
19	SO ₂ /NO ₂ /O ₃	12/30/09	10:05	01/29/10	10:05	
19A (Dup)	NA	NA	NA	NA	NA	
22	H ₂ S/SO ₂ /NO ₂ /O ₃	12/30/09	07:45	01/29/10	07:25	
22A (Dup)	NA	NA	NA	NA	NA	
23	SO ₂ /NO ₂ /O ₃	12/29/09	18:35	01/28/10	18:10	
23A (Dup)	SO ₂ /NO ₂ /O ₃	12/29/09	18:35	01/28/10	18:10	
24	H ₂ S/SO ₂ /NO ₂ /O ₃	12/30/09	14:25	01/29/10	14:05	
24A (Dup)	H ₂ S	12/30/09	14:25	01/29/10	14:05	
25	H ₂ S/SO ₂	12/29/09	15:45	01/28/10	15:20	
25A (Dup)	SO ₂	12/29/09	15:45	01/28/10	15:20	
26	H ₂ S/SO ₂	12/29/09	16:45	01/28/10	16:15	
26A (Dup)	H ₂ S	12/29/09	16:45	01/28/10	16:15	
27	H ₂ S/SO ₂	12/29/09	17:30	01/28/10	17:10	
27A (Dup)	SO ₂	12/29/09	17:30	01/28/10	17:10	
28	SO ₂ /NO ₂ /O ₃	12/29/09	08:50	01/28/10	08:05	
28A (Dup)	NO ₂ /O ₃	12/29/09	08:50	01/28/10	08:05	
29	H ₂ S/SO ₂ /NO ₂ /O ₃	12/30/09	07:50	01/29/10	07:35	
29A (Dup)	H ₂ S/SO ₂	12/30/09	07:50	01/29/10	07:35	
32	H ₂ S/SO ₂ /NO ₂ /O ₃	12/29/09	10:05	01/28/10	09:40	
32A (Dup)	NA	NA	NA	NA	NA	
34	H ₂ S/SO ₂ /NO ₂ /O ₃	12/29/09	08:20	01/29/10	08:50	
34A (Dup)	NA	NA	NA	NA	NA	

Passive Network Laboratory Analysis



Your Project #: 2009/12/29 - 2010/01/28
Site:LICA

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

Report Date: 2010/02/11

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B005223
Received: 2010/02/02, 09:09

Sample Matrix: Air
Samples Received: 43

Analyses	Quantity	Date		Laboratory Method	Analytical Method
		Extracted	Analyzed		
H2S Passive Analysis (0)	25	2010/02/10	2010/02/11	EINDSOP-00150	Tang.Passive H2S in
NO2 Passive Analysis (0)	34	2010/02/04	2010/02/11	EINDSOP-00148	Tang Passive NO2 in
O3 Passive Analysis (0)	34	2010/02/03	2010/02/11	EINDSOP-00197	EPA 300 R2.1
SO2 Passive Analysis (0)	39	2010/02/04	2010/02/11	EINDSOP-00149	Tang Passive SO2 in

* 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.

For Service Group specific validation please refer to the Validation Signature Page

Total cover pages: 1

RESULTS OF CHEMICAL ANALYSES OF AIR

Maxxam ID		S63702	S63703	S63704	S63705		
Sampling Date		2009/12/29 11:30	2009/12/29 10:45	2009/12/29 10:45	2009/12/30 15:45		
	Units	2	3	3A (DUP)	4	RDL	QC Batch

Passive Monitoring							
Calculated H2S	ppb		0.16			0.02	3737540
Calculated NO2	ppb	2.8	3.3	2.8	2.7	0.1	3724113
Calculated O3	ppb	17.7	19.8	20.5	25.4	0.1	3720878
Calculated SO2	ppb	0.4	0.7	0.6	1.0	0.1	3724133
RDL = Reportable Detection Limit							

Maxxam ID		S63707	S63708	S63709	S63710		
Sampling Date		2009/12/30 14:05	2009/12/30 14:05	2009/12/30 13:50	2009/12/30 16:40		
	Units	5	5A (DUP)	6	8	RDL	QC Batch

Passive Monitoring							
Calculated H2S	ppb	0.16	0.16			0.02	3737540
Calculated NO2	ppb	2.8	2.3	3.4	2.5	0.1	3724113
Calculated O3	ppb	20.0	21.0	23.3	25.5	0.1	3720878
Calculated SO2	ppb	0.8	1.0	0.8	0.8	0.1	3724133
RDL = Reportable Detection Limit							

Maxxam ID		S63711	S63712	S63713	S63714		
Sampling Date		2009/12/30 16:40	2009/12/30 09:05	2009/12/29 12:30	2009/12/29 12:30		
	Units	8A (DUP)	9	10	10A (DUP)	RDL	QC Batch

Passive Monitoring							
Calculated H2S	ppb			0.16	0.16	0.02	3737540
Calculated NO2	ppb	2.1	3.7	3.9	3.9	0.1	3724113
Calculated O3	ppb	23.9	25.1	19.3	18.7	0.1	3720878
Calculated SO2	ppb	0.9	0.7	0.7	0.7	0.1	3724133
RDL = Reportable Detection Limit							

RESULTS OF CHEMICAL ANALYSES OF AIR

Maxxam ID		S63715	S63716	S63717	S63718		
Sampling Date		2009/12/29 13:10	2009/12/29 14:35	2009/12/29 14:35	2009/12/29 16:05		
	Units	11	12	12A (DUP)	13	RDL	QC Batch

Passive Monitoring							
Calculated H2S	ppb	0.11	0.12	0.10	0.11	0.02	3737540
Calculated NO2	ppb	1.5	2.3	2.3	1.6	0.1	3724123
Calculated O3	ppb	17.7	22.5	20.4	22.3	0.1	3720878
Calculated SO2	ppb	0.6	0.9	1.0	1.0	0.1	3724133

RDL = Reportable Detection Limit

Maxxam ID		S63719	S63720	S63721		
Sampling Date		2009/12/29 17:00	2009/12/29 17:00	2009/12/29 07:15		
	Units	14	14A (DUP)	15	RDL	QC Batch

Passive Monitoring						
Calculated H2S	ppb	0.17			0.02	3737540
Calculated NO2	ppb	3.3	3.5	2.6	0.1	3724123
Calculated O3	ppb	20.6	20.5	18.5	0.1	3720878
Calculated SO2	ppb	1.6	1.6	0.8	0.1	3724133

RDL = Reportable Detection Limit

Maxxam ID		S63722	S63723	S63724	S63725		
Sampling Date		2009/12/30 12:05	2009/12/30 12:05	2009/12/30 13:00	2009/12/30 13:00		
	Units	16	16A (DUP)	17	17A (DUP)	RDL	QC Batch

Passive Monitoring							
Calculated H2S	ppb	0.16		0.21	0.20	0.02	3737540
Calculated NO2	ppb	2.9	2.9	4.5		0.1	3724123
Calculated O3	ppb	20.7	22.5	25.4		0.1	3720880
Calculated SO2	ppb	0.9	1.0	0.8		0.1	3724142

RDL = Reportable Detection Limit

RESULTS OF CHEMICAL ANALYSES OF AIR

Maxxam ID		S63726	S63727	S63728	S63729		
Sampling Date		2009/12/30 11:15	2009/12/30 11:15	2009/12/30 10:05	2009/12/30 07:45		
	Units	18	18A (DUP)	19	22	RDL	QC Batch

Passive Monitoring							
Calculated H2S	ppb	0.16			<0.02	0.02	3737540
Calculated NO2	ppb	2.0	2.5	2.3	4.1	0.1	3724123
Calculated O3	ppb	21.1	20.5	24.4	20.6	0.1	3720880
Calculated SO2	ppb	0.7	0.8	0.9	0.7	0.1	3724142
RDL = Reportable Detection Limit							

Maxxam ID		S63730	S63731	S63732	S63733		
Sampling Date		2009/12/29 18:35	2009/12/29 18:35	2009/12/30 14:25	2009/12/30 14:25		
	Units	23	23A (DUP)	24	24A (DUP)	RDL	QC Batch

Passive Monitoring							
Calculated H2S	ppb			0.15	0.17	0.02	3737540
Calculated NO2	ppb	1.1	0.9	3.8		0.1	3724123
Calculated O3	ppb	19.4	19.1	19.0		0.1	3720880
Calculated SO2	ppb	0.7	0.6	0.9		0.1	3724142
RDL = Reportable Detection Limit							

Maxxam ID		S63734	S63736	S63737	S63738		
Sampling Date		2009/12/29 15:45	2009/12/29 15:45	2009/12/29 16:45	2009/12/29 16:45		
	Units	25	25A (DUP)	26	26A (DUP)	RDL	QC Batch

Passive Monitoring							
Calculated H2S	ppb	0.11		0.17	0.16	0.02	3737540
Calculated SO2	ppb	1.1	1.1	1.3		0.1	3724142
RDL = Reportable Detection Limit							

RESULTS OF CHEMICAL ANALYSES OF AIR

Maxxam ID		S63739	S63839	S63840	S63863		
Sampling Date		2009/12/29 17:30	2009/12/29 17:30	2009/12/29 08:50	2009/12/29 08:50		
	Units	27	27A (DUP)	28	28A (DUP)	RDL	QC Batch

Passive Monitoring							
Calculated H2S	ppb	0.13				0.02	3737540
Calculated NO2	ppb			8.6	8.9	0.1	3724123
Calculated O3	ppb			15.6	14.7	0.1	3720880
Calculated SO2	ppb	1.6	1.4	0.8		0.1	3724142
RDL = Reportable Detection Limit							

Maxxam ID		S63864	S63865	S63866	S63869		
Sampling Date		2009/12/30 07:50	2009/12/30 07:50	2009/12/29 10:05	2009/12/29 08:20		
	Units	29	29A (DUP)	32	34	RDL	QC Batch

Passive Monitoring							
Calculated H2S	ppb	0.15	0.14	0.17	0.14	0.02	3737540
Calculated NO2	ppb	6.0		3.0	3.5	0.1	3724123
Calculated O3	ppb	18.2		23.8	18.9	0.1	3720880
Calculated SO2	ppb	0.7	0.6	1.2	0.7	0.1	3724142
RDL = Reportable Detection Limit							

General Comments

Results relate only to the items tested.

Quality Assurance Report
 Maxxam Job Number: PB005223

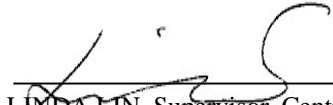
QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
3720878 OZ	Calibration Check	Calculated O3	2010/02/03		101	%	91 - 107
	Spiked Blank	Calculated O3	2010/02/03		96	%	N/A
	Method Blank	Calculated O3	2010/02/03	<0.1		ppb	
3720880 OZ	Calibration Check	Calculated O3	2010/02/03		101	%	91 - 107
	Spiked Blank	Calculated O3	2010/02/03		103	%	N/A
	Method Blank	Calculated O3	2010/02/03	<0.1		ppb	
3724113 DF4	Calibration Check	Calculated NO2	2010/02/04		97	%	76 - 118
	Spiked Blank	Calculated NO2	2010/02/04		104	%	N/A
	Method Blank	Calculated NO2	2010/02/04	<0.1		ppb	
3724123 DF4	Calibration Check	Calculated NO2	2010/02/04		96	%	76 - 118
	Spiked Blank	Calculated NO2	2010/02/04		99	%	N/A
	Method Blank	Calculated NO2	2010/02/04	<0.1		ppb	
3724133 DF4	Calibration Check	Calculated SO2	2010/02/04		100	%	95 - 105
	Spiked Blank	Calculated SO2	2010/02/04		95	%	N/A
	Method Blank	Calculated SO2	2010/02/04	<0.1		ppb	
3724142 DF4	Calibration Check	Calculated SO2	2010/02/04		100	%	95 - 105
	Spiked Blank	Calculated SO2	2010/02/04		98	%	N/A
	Method Blank	Calculated SO2	2010/02/04	<0.1		ppb	
3737540 TM5	Calibration Check	Calculated H2S	2010/02/10		96	%	80 - 120
	Spiked Blank	Calculated H2S	2010/02/10		99	%	N/A

Calibration Check: A calibration standard analyzed at different times to evaluate on-going calibration accuracy.
 Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.
 Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Validation Signature Page

Maxxam Job #: B005223

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



LINDA LIN, Supervisor, Centre for Passive Sampling Technology

=====

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.

Volatile Organics Laboratory Analysis

Maxxam Analytics Inc.

Xontech Model 910A VOC Sample Collection Data Sheet

Client: LICA Sampler s/n: 6167
 Location: Cold Lake South Canister ID: 7849 (Maxxam Supplied)
 Station ID: Lica 1 Canister Installation Date/Time: Dec 31, 09 @ 08:45 mst
 Field Sample ID: LICA VOC/ CLS / Jan 2, 10 Canister Removal Date/Time: Jan 4, 10 @ 14:10 mst

Date and Time Information			
Sample Date	Start Time (MST)	End Time (MST)	Elapsed Time (Hours)
02-Jan-10	01/02/2010 0:00	01/03/2010 0:00	24.00

Flow Settings		
Meter Reading (sccm)	Pot Set Pt.	Pump Pressure Setting (psig)
10.0	550	25

Canister Information	
Initial Canister Vacuum (inHg)	Final Canister Pressure (psig)
-28	18

Canister valve open prior to sampling?: YES / NO
 Timer set to 0.00 minutes prior to sampling? YES / NO
 Canister valve closed prior to disconnection?: YES / NO

Comments: System leak check prior to sampling.

Technician Signiture: Shea Beaton



Your C.O.C. #: 2890

Attention: Shea Beaton

Lakeland Industry & Community Assoc.
P.O. Box 8237
Bonnyville, AB
CANADA T9N 2J5

Report Date: 2010/02/05

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B001045

Received: 2010/01/06, 09:14

Sample Matrix: AIR
Samples Received: 2

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
Canister Pressure (TO-15)	2	N/A	2010/01/06	BRL SOP-00304	EPA TO-15
Volatile Organics in Air (TO-15) ¶	2	N/A	2010/01/06	BRL SOP-00304	EPA TO-15

(1) Air sampling canisters have been cleaned in accordance with U.S. EPA Method TO14A. At the end of the cleaning, evacuation, and pressurization cycles, one canister was selected and was pressurized with Zero Air. This canister was then analyzed via TO14A on a GC/MS. The canister must have been found to contain <0.2 ppbv concentration of all target analytes in order for the batch to have been considered clean. Each canister also underwent a leak check prior to shipment.

Please Note: SUMMA® canister samples will be retained by Maxxam for a period of 5 calendar days from the date of this report, after which time they will be cleaned for reuse. If you require a longer sample storage period, please contact your service representative.

Encryption Key

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

THERESA STEPHENSON, Project Manager
Email: Theresa.Stephenson@MaxxamAnalytics.com
Phone# (905) 817-5763

=====

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.

Maxxam Analytics Inc. is a NELAC accredited laboratory. Certificate # CANA001. Use of the NELAC logo however does not insure that Maxxam is accredited for all of the methods indicated. This certificate shall not be reproduced except in full, without the written approval of Maxxam Analytics Inc. Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section.

Total cover pages: 1

Maxxam Job #: B001045
 Report Date: 2010/02/05

RESULTS OF ANALYSES OF AIR

Maxxam ID		ET9299	ET9300		
Sampling Date		2010/01/02	2010/01/02		
COC Number		2890	2890		
	Units	LICA VOC/CLS/JAN2,10 - 7849	LICA VOC/PORT/JAN 2,10 - 7910	DL	QC Batch

Volatile Organics					
Pressure on Receipt	psig	16	19	N/A	2050428

RDL = Reportable Detection Limit
 QC Batch = Quality Control Batch

Maxxam Job #: B001045
 Report Date: 2010/02/05

VOLATILE ORGANICS BY GC/MS (AIR)

Maxxam ID		ET9299				
Sampling Date		2010/01/02				
COC Number		2890				
	Units	LICA VOC/CLS/JAN2,10 - 7849	DL	ug/m3	DL (ug/m3)	QC Batch

Volatile Organics						
2,2,4-Trimethylpentane	ppbv	<0.20	0.20	<0.934	0.934	2050433
Carbon Disulfide	ppbv	<0.50	0.50	<1.56	1.56	2050433
Propene	ppbv	<0.30	0.30	<0.516	0.516	2050433
Vinyl Acetate	ppbv	<0.20	0.20	<0.704	0.704	2050433
Vinyl Bromide	ppbv	<0.20	0.20	<0.875	0.875	2050433
Dichlorodifluoromethane (FREON 12)	ppbv	0.78	0.20	3.88	0.989	2050433
1,2-Dichlorotetrafluoroethane	ppbv	<0.17	0.17	<1.19	1.19	2050433
Chloromethane	ppbv	0.57	0.30	1.17	0.620	2050433
Vinyl Chloride	ppbv	<0.18	0.18	<0.460	0.460	2050433
Chloroethane	ppbv	<0.30	0.30	<0.792	0.792	2050433
1,3-Butadiene	ppbv	<0.50	0.50	<1.11	1.11	2050433
Trichlorofluoromethane (FREON 11)	ppbv	0.39	0.20	2.19	1.12	2050433
Trichlorotrifluoroethane	ppbv	<0.15	0.15	<1.15	1.15	2050433
Ethanol	ppbv	<2.3	2.3	<4.33	4.33	2050433
2-propanol	ppbv	<3.0	3.0	<7.37	7.37	2050433
2-Propanone	ppbv	1.43	0.80	3.39	1.90	2050433
Methyl Ethyl Ketone (2-Butanone)	ppbv	<3.0	3.0	<8.85	8.85	2050433
Methyl Isobutyl Ketone	ppbv	<3.2	3.2	<13.1	13.1	2050433
Methyl Butyl Ketone (2-Hexanone)	ppbv	<2.0	2.0	<8.19	8.19	2050433
Methyl t-butyl ether (MTBE)	ppbv	<0.20	0.20	<0.721	0.721	2050433
Ethyl Acetate	ppbv	<2.2	2.2	<7.93	7.93	2050433
1,1-Dichloroethylene	ppbv	<0.25	0.25	<0.991	0.991	2050433
cis-1,2-Dichloroethylene	ppbv	<0.19	0.19	<0.753	0.753	2050433
trans-1,2-Dichloroethylene	ppbv	<0.20	0.20	<0.793	0.793	2050433
Methylene Chloride(Dichloromethane)	ppbv	0.45	0.30	1.58	1.04	2050433
Chloroform	ppbv	<0.15	0.15	<0.732	0.732	2050433
Carbon Tetrachloride	ppbv	<0.30	0.30	<1.89	1.89	2050433
1,1-Dichloroethane	ppbv	<0.20	0.20	<0.809	0.809	2050433
1,2-Dichloroethane	ppbv	<0.20	0.20	<0.809	0.809	2050433
Ethylene Dibromide	ppbv	<0.17	0.17	<1.31	1.31	2050433
1,1,1-Trichloroethane	ppbv	<0.30	0.30	<1.64	1.64	2050433

 RDL = Reportable Detection Limit
 QC Batch = Quality Control Batch

Maxxam Job #: B001045
 Report Date: 2010/02/05

VOLATILE ORGANICS BY GC/MS (AIR)

Maxxam ID		ET9299				
Sampling Date		2010/01/02				
COC Number		2890				
	Units	LICA VOC/CLS/JAN2,10 - 7849	DL	ug/m3	DL (ug/m3)	QC Batch
1,1,2-Trichloroethane	ppbv	<0.15	0.15	<0.818	0.818	2050433
1,1,2,2-Tetrachloroethane	ppbv	<0.20	0.20	<1.37	1.37	2050433
cis-1,3-Dichloropropene	ppbv	<0.18	0.18	<0.817	0.817	2050433
trans-1,3-Dichloropropene	ppbv	<0.17	0.17	<0.772	0.772	2050433
1,2-Dichloropropane	ppbv	<0.40	0.40	<1.85	1.85	2050433
Bromomethane	ppbv	<0.18	0.18	<0.699	0.699	2050433
Bromoform	ppbv	<0.20	0.20	<2.07	2.07	2050433
Bromodichloromethane	ppbv	<0.20	0.20	<1.34	1.34	2050433
Dibromochloromethane	ppbv	<0.20	0.20	<1.70	1.70	2050433
Heptane	ppbv	<0.30	0.30	<1.23	1.23	2050433
Trichloroethylene	ppbv	<0.30	0.30	<1.61	1.61	2050433
Tetrachloroethylene	ppbv	<0.20	0.20	<1.36	1.36	2050433
Benzene	ppbv	<0.18	0.18	<0.575	0.575	2050433
Toluene	ppbv	<0.20	0.20	<0.753	0.753	2050433
Ethylbenzene	ppbv	<0.20	0.20	<0.868	0.868	2050433
p+m-Xylene	ppbv	<0.37	0.37	<1.61	1.61	2050433
o-Xylene	ppbv	<0.20	0.20	<0.868	0.868	2050433
Styrene	ppbv	<0.20	0.20	<0.852	0.852	2050433
1,3,5-Trimethylbenzene	ppbv	<0.50	0.50	<2.46	2.46	2050433
1,2,4-Trimethylbenzene	ppbv	<0.50	0.50	<2.46	2.46	2050433
4-ethyltoluene	ppbv	<2.2	2.2	<10.8	10.8	2050433
Chlorobenzene	ppbv	<0.20	0.20	<0.921	0.921	2050433
Benzyl chloride	ppbv	<1.0	1.0	<5.18	5.18	2050433
1,3-Dichlorobenzene	ppbv	<0.40	0.40	<2.40	2.40	2050433
1,4-Dichlorobenzene	ppbv	<0.40	0.40	<2.40	2.40	2050433
1,2-Dichlorobenzene	ppbv	<0.40	0.40	<2.40	2.40	2050433
1,2,4-Trichlorobenzene	ppbv	<2.0	2.0	<14.8	14.8	2050433
Hexachlorobutadiene	ppbv	<3.0	3.0	<32.0	32.0	2050433
Hexane	ppbv	<0.30	0.30	<1.06	1.06	2050433
Cyclohexane	ppbv	<0.20	0.20	<0.688	0.688	2050433
Tetrahydrofuran	ppbv	<0.40	0.40	<1.18	1.18	2050433
1,4-Dioxane	ppbv	<2.0	2.0	<7.21	7.21	2050433
Xylene (Total)	ppbv	<0.60	0.60	<2.61	2.61	2050433
QC Batch = Quality Control Batch						

Maxxam Job #: B001045
 Report Date: 2010/02/05

VOLATILE ORGANICS BY GC/MS (AIR)

Maxxam ID		ET9299				
Sampling Date		2010/01/02				
COC Number		2890				
	Units	LICA VOC/CLS/JAN2,10 - 7849	DL	ug/m3	DL (ug/m3)	QC Batch

Surrogate Recovery (%)						
Bromochloromethane	%	87		N/A	N/A	2050433
D5-Chlorobenzene	%	83		N/A	N/A	2050433
Difluorobenzene	%	89		N/A	N/A	2050433

N/A = Not Applicable
 QC Batch = Quality Control Batch

Maxxam Job #: B001045
 Report Date: 2010/02/05

VOLATILE ORGANICS BY GC/MS (AIR)

Maxxam ID		ET9300				
Sampling Date		2010/01/02				
COC Number		2890				
	Units	LICA VOC/PORT/JAN 2,10 - 7910	DL	ug/m3	DL (ug/m3)	QC Batch
Volatile Organics						
2,2,4-Trimethylpentane	ppbv	<0.20	0.20	<0.934	0.934	2050433
Carbon Disulfide	ppbv	<0.50	0.50	<1.56	1.56	2050433
Propene	ppbv	<0.30	0.30	<0.516	0.516	2050433
Vinyl Acetate	ppbv	<0.20	0.20	<0.704	0.704	2050433
Vinyl Bromide	ppbv	<0.20	0.20	<0.875	0.875	2050433
Dichlorodifluoromethane (FREON 12)	ppbv	0.76	0.20	3.75	0.989	2050433
1,2-Dichlorotetrafluoroethane	ppbv	<0.17	0.17	<1.19	1.19	2050433
Chloromethane	ppbv	0.58	0.30	1.20	0.620	2050433
Vinyl Chloride	ppbv	<0.18	0.18	<0.460	0.460	2050433
Chloroethane	ppbv	<0.30	0.30	<0.792	0.792	2050433
1,3-Butadiene	ppbv	<0.50	0.50	<1.11	1.11	2050433
Trichlorofluoromethane (FREON 11)	ppbv	0.38	0.20	2.14	1.12	2050433
Trichlorotrifluoroethane	ppbv	<0.15	0.15	<1.15	1.15	2050433
Ethanol	ppbv	<2.3	2.3	<4.33	4.33	2050433
2-propanol	ppbv	<3.0	3.0	<7.37	7.37	2050433
2-Propanone	ppbv	1.76	0.80	4.19	1.90	2050433
Methyl Ethyl Ketone (2-Butanone)	ppbv	<3.0	3.0	<8.85	8.85	2050433
Methyl Isobutyl Ketone	ppbv	<3.2	3.2	<13.1	13.1	2050433
Methyl Butyl Ketone (2-Hexanone)	ppbv	<2.0	2.0	<8.19	8.19	2050433
Methyl t-butyl ether (MTBE)	ppbv	<0.20	0.20	<0.721	0.721	2050433
Ethyl Acetate	ppbv	<2.2	2.2	<7.93	7.93	2050433
1,1-Dichloroethylene	ppbv	<0.25	0.25	<0.991	0.991	2050433
cis-1,2-Dichloroethylene	ppbv	<0.19	0.19	<0.753	0.753	2050433
trans-1,2-Dichloroethylene	ppbv	<0.20	0.20	<0.793	0.793	2050433
Methylene Chloride(Dichloromethane)	ppbv	0.44	0.30	1.53	1.04	2050433
Chloroform	ppbv	<0.15	0.15	<0.732	0.732	2050433
Carbon Tetrachloride	ppbv	<0.30	0.30	<1.89	1.89	2050433
1,1-Dichloroethane	ppbv	<0.20	0.20	<0.809	0.809	2050433
1,2-Dichloroethane	ppbv	<0.20	0.20	<0.809	0.809	2050433
Ethylene Dibromide	ppbv	<0.17	0.17	<1.31	1.31	2050433
1,1,1-Trichloroethane	ppbv	<0.30	0.30	<1.64	1.64	2050433
RDL = Reportable Detection Limit QC Batch = Quality Control Batch						

Maxxam Job #: B001045
 Report Date: 2010/02/05

VOLATILE ORGANICS BY GC/MS (AIR)

Maxxam ID		ET9300				
Sampling Date		2010/01/02				
COC Number		2890				
	Units	LICA VOC/PORT/JAN 2,10 - 7910	DL	ug/m3	DL (ug/m3)	QC Batch
1,1,2-Trichloroethane	ppbv	<0.15	0.15	<0.818	0.818	2050433
1,1,2,2-Tetrachloroethane	ppbv	<0.20	0.20	<1.37	1.37	2050433
cis-1,3-Dichloropropene	ppbv	<0.18	0.18	<0.817	0.817	2050433
trans-1,3-Dichloropropene	ppbv	<0.17	0.17	<0.772	0.772	2050433
1,2-Dichloropropane	ppbv	<0.40	0.40	<1.85	1.85	2050433
Bromomethane	ppbv	<0.18	0.18	<0.699	0.699	2050433
Bromoform	ppbv	<0.20	0.20	<2.07	2.07	2050433
Bromodichloromethane	ppbv	<0.20	0.20	<1.34	1.34	2050433
Dibromochloromethane	ppbv	<0.20	0.20	<1.70	1.70	2050433
Heptane	ppbv	<0.30	0.30	<1.23	1.23	2050433
Trichloroethylene	ppbv	<0.30	0.30	<1.61	1.61	2050433
Tetrachloroethylene	ppbv	<0.20	0.20	<1.36	1.36	2050433
Benzene	ppbv	<0.18	0.18	<0.575	0.575	2050433
Toluene	ppbv	<0.20	0.20	<0.753	0.753	2050433
Ethylbenzene	ppbv	<0.20	0.20	<0.868	0.868	2050433
p+m-Xylene	ppbv	<0.37	0.37	<1.61	1.61	2050433
o-Xylene	ppbv	<0.20	0.20	<0.868	0.868	2050433
Styrene	ppbv	<0.20	0.20	<0.852	0.852	2050433
1,3,5-Trimethylbenzene	ppbv	<0.50	0.50	<2.46	2.46	2050433
1,2,4-Trimethylbenzene	ppbv	<0.50	0.50	<2.46	2.46	2050433
4-ethyltoluene	ppbv	<2.2	2.2	<10.8	10.8	2050433
Chlorobenzene	ppbv	<0.20	0.20	<0.921	0.921	2050433
Benzyl chloride	ppbv	<1.0	1.0	<5.18	5.18	2050433
1,3-Dichlorobenzene	ppbv	<0.40	0.40	<2.40	2.40	2050433
1,4-Dichlorobenzene	ppbv	<0.40	0.40	<2.40	2.40	2050433
1,2-Dichlorobenzene	ppbv	<0.40	0.40	<2.40	2.40	2050433
1,2,4-Trichlorobenzene	ppbv	<2.0	2.0	<14.8	14.8	2050433
Hexachlorobutadiene	ppbv	<3.0	3.0	<32.0	32.0	2050433
Hexane	ppbv	<0.30	0.30	<1.06	1.06	2050433
Cyclohexane	ppbv	<0.20	0.20	<0.688	0.688	2050433
Tetrahydrofuran	ppbv	<0.40	0.40	<1.18	1.18	2050433
1,4-Dioxane	ppbv	<2.0	2.0	<7.21	7.21	2050433
Xylene (Total)	ppbv	<0.60	0.60	<2.61	2.61	2050433
QC Batch = Quality Control Batch						

Maxxam Job #: B001045
 Report Date: 2010/02/05

VOLATILE ORGANICS BY GC/MS (AIR)

Maxxam ID		ET9300				
Sampling Date		2010/01/02				
COC Number		2890				
	Units	LICA	DL	ug/m3	DL (ug/m3)	QC Batch
		VOC/PORT/JAN				
		2,10 - 7910				

Surrogate Recovery (%)						
Bromochloromethane	%	89		N/A	N/A	2050433
D5-Chlorobenzene	%	86		N/A	N/A	2050433
Difluorobenzene	%	91		N/A	N/A	2050433

N/A = Not Applicable
 QC Batch = Quality Control Batch

Maxxam Job #: B001045
 Report Date: 2010/02/05

Test Summary

Maxxam ID ET9299 **Collected** 2010/01/02
Sample ID LICA VOC/CLS/JAN2,10 - 7849 **Shipped**
Matrix AIR **Received** 2010/01/06

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Canister Pressure (TO-15)	PRES	2050428	N/A	2010/01/06	LSY
Volatile Organics in Air (TO-15)	GC/MS	2050433	N/A	2010/01/06	LSY

Maxxam ID ET9300 **Collected** 2010/01/02
Sample ID LICA VOC/PORT/JAN 2,10 - 7910 **Shipped**
Matrix AIR **Received** 2010/01/06

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Canister Pressure (TO-15)	PRES	2050428	N/A	2010/01/06	LSY
Volatile Organics in Air (TO-15)	GC/MS	2050433	N/A	2010/01/06	LSY

Maxxam Job #: B001045
Report Date: 2010/02/05

GENERAL COMMENTS

Results relate only to the items tested.

Lakeland Industry & Community Assoc.
 Attention: Shea Beaton
 Client Project #:
 P.O. #:
 Project name:

Quality Assurance Report
 Maxxam Job Number: GB001045

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
2050433 LSY	Spiked Blank	Bromochloromethane	2010/01/06		109	%	60 - 140
		D5-Chlorobenzene	2010/01/06		108	%	60 - 140
		Difluorobenzene	2010/01/06		110	%	60 - 140
		2,2,4-Trimethylpentane	2010/01/06		90	%	70 - 130
		Carbon Disulfide	2010/01/06		91	%	70 - 130
		Propene	2010/01/06		84	%	70 - 130
		Vinyl Acetate	2010/01/06		105	%	70 - 130
		Vinyl Bromide	2010/01/06		97	%	70 - 130
		Dichlorodifluoromethane (FREON 12)	2010/01/06		101	%	70 - 130
		1,2-Dichlorotetrafluoroethane	2010/01/06		85	%	70 - 130
		Chloromethane	2010/01/06		87	%	70 - 130
		Vinyl Chloride	2010/01/06		92	%	70 - 130
		Chloroethane	2010/01/06		92	%	70 - 130
		1,3-Butadiene	2010/01/06		80	%	70 - 130
		Trichlorofluoromethane (FREON 11)	2010/01/06		104	%	70 - 130
		Trichlorotrifluoroethane	2010/01/06		97	%	70 - 130
		Ethanol	2010/01/06		73	%	70 - 130
		2-propanol	2010/01/06		79	%	70 - 130
		2-Propanone	2010/01/06		98	%	70 - 130
		Methyl Ethyl Ketone (2-Butanone)	2010/01/06		94	%	70 - 130
		Methyl Isobutyl Ketone	2010/01/06		86	%	70 - 130
		Methyl Butyl Ketone (2-Hexanone)	2010/01/06		81	%	70 - 130
		Methyl t-butyl ether (MTBE)	2010/01/06		105	%	70 - 130
		Ethyl Acetate	2010/01/06		86	%	70 - 130
		1,1-Dichloroethylene	2010/01/06		95	%	70 - 130
		cis-1,2-Dichloroethylene	2010/01/06		93	%	70 - 130
		trans-1,2-Dichloroethylene	2010/01/06		94	%	70 - 130
		Methylene Chloride(Dichloromethane)	2010/01/06		81	%	70 - 130
		Chloroform	2010/01/06		97	%	70 - 130
		Carbon Tetrachloride	2010/01/06		114	%	70 - 130
		1,1-Dichloroethane	2010/01/06		92	%	70 - 130
		1,2-Dichloroethane	2010/01/06		99	%	70 - 130
		Ethylene Dibromide	2010/01/06		94	%	70 - 130
		1,1,1-Trichloroethane	2010/01/06		106	%	70 - 130
		1,1,2-Trichloroethane	2010/01/06		97	%	70 - 130
		1,1,2,2-Tetrachloroethane	2010/01/06		87	%	70 - 130
		cis-1,3-Dichloropropene	2010/01/06		103	%	70 - 130
		trans-1,3-Dichloropropene	2010/01/06		103	%	70 - 130
		1,2-Dichloropropane	2010/01/06		90	%	70 - 130
		Bromomethane	2010/01/06		93	%	70 - 130
		Bromoform	2010/01/06		112	%	70 - 130
		Bromodichloromethane	2010/01/06		105	%	70 - 130
		Dibromochloromethane	2010/01/06		107	%	70 - 130
		Heptane	2010/01/06		90	%	70 - 130
		Trichloroethylene	2010/01/06		98	%	70 - 130
		Tetrachloroethylene	2010/01/06		104	%	70 - 130
		Benzene	2010/01/06		91	%	70 - 130
		Toluene	2010/01/06		95	%	70 - 130
		Ethylbenzene	2010/01/06		92	%	70 - 130
		p+m-Xylene	2010/01/06		94	%	70 - 130
		o-Xylene	2010/01/06		94	%	70 - 130
		Styrene	2010/01/06		79	%	70 - 130
		1,3,5-Trimethylbenzene	2010/01/06		86	%	70 - 130
		1,2,4-Trimethylbenzene	2010/01/06		83	%	70 - 130
		4-ethyltoluene	2010/01/06		88	%	70 - 130

Lakeland Industry & Community Assoc.
 Attention: Shea Beaton
 Client Project #:
 P.O. #:
 Project name:

Quality Assurance Report (Continued)

Maxxam Job Number: GB001045

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits	
2050433 LSY	Spiked Blank	Chlorobenzene	2010/01/06		93	%	70 - 130	
		Benzyl chloride	2010/01/06		102	%	70 - 130	
1,3-Dichlorobenzene		2010/01/06		90	%	70 - 130		
1,4-Dichlorobenzene		2010/01/06		87	%	70 - 130		
1,2-Dichlorobenzene		2010/01/06		86	%	70 - 130		
1,2,4-Trichlorobenzene		2010/01/06		126	%	70 - 130		
Hexachlorobutadiene		2010/01/06		128	%	70 - 130		
Hexane		2010/01/06		86	%	70 - 130		
Cyclohexane		2010/01/06		90	%	70 - 130		
Tetrahydrofuran		2010/01/06		84	%	70 - 130		
Method Blank	Method Blank	1,4-Dioxane	2010/01/06		80	%	70 - 130	
		Bromochloromethane	2010/01/06		92	%	60 - 140	
		D5-Chlorobenzene	2010/01/06		89	%	60 - 140	
		Difluorobenzene	2010/01/06		93	%	60 - 140	
		2,2,4-Trimethylpentane	2010/01/06	ND, RDL=0.20			ppbv	
		Carbon Disulfide	2010/01/06	ND, RDL=0.50			ppbv	
		Propene	2010/01/06	ND, RDL=0.30			ppbv	
		Vinyl Acetate	2010/01/06	ND, RDL=0.20			ppbv	
		Vinyl Bromide	2010/01/06	ND, RDL=0.20			ppbv	
		Dichlorodifluoromethane (FREON 12)	2010/01/06	ND, RDL=0.20			ppbv	
		1,2-Dichlorotetrafluoroethane	2010/01/06	ND, RDL=0.17			ppbv	
		Chloromethane	2010/01/06	ND, RDL=0.30			ppbv	
		Vinyl Chloride	2010/01/06	ND, RDL=0.18			ppbv	
		Chloroethane	2010/01/06	ND, RDL=0.30			ppbv	
		1,3-Butadiene	2010/01/06	ND, RDL=0.50			ppbv	
		Trichlorofluoromethane (FREON 11)	2010/01/06	ND, RDL=0.20			ppbv	
		Trichlorotrifluoroethane	2010/01/06	ND, RDL=0.15			ppbv	
		Ethanol	2010/01/06	ND, RDL=2.3			ppbv	
		2-propanol	2010/01/06	ND, RDL=3.0			ppbv	
		2-Propanone	2010/01/06	ND, RDL=0.80			ppbv	
		Methyl Ethyl Ketone (2-Butanone)	2010/01/06	ND, RDL=3.0			ppbv	
		Methyl Isobutyl Ketone	2010/01/06	ND, RDL=3.2			ppbv	
		Methyl Butyl Ketone (2-Hexanone)	2010/01/06	ND, RDL=2.0			ppbv	
		Methyl t-butyl ether (MTBE)	2010/01/06	ND, RDL=0.20			ppbv	
		Ethyl Acetate	2010/01/06	ND, RDL=2.2			ppbv	
		1,1-Dichloroethylene	2010/01/06	ND, RDL=0.25			ppbv	
		cis-1,2-Dichloroethylene	2010/01/06	ND, RDL=0.19			ppbv	
		trans-1,2-Dichloroethylene	2010/01/06	ND, RDL=0.20			ppbv	
		Methylene Chloride(Dichloromethane)	2010/01/06	0.38, RDL=0.30			ppbv	
		Chloroform	2010/01/06	ND, RDL=0.15			ppbv	
		Carbon Tetrachloride	2010/01/06	ND, RDL=0.30			ppbv	
		1,1-Dichloroethane	2010/01/06	ND, RDL=0.20			ppbv	
		1,2-Dichloroethane	2010/01/06	ND, RDL=0.20			ppbv	
		Ethylene Dibromide	2010/01/06	ND, RDL=0.17			ppbv	
		1,1,1-Trichloroethane	2010/01/06	ND, RDL=0.30			ppbv	
		1,1,2-Trichloroethane	2010/01/06	ND, RDL=0.15			ppbv	
		1,1,2,2-Tetrachloroethane	2010/01/06	ND, RDL=0.20			ppbv	
		cis-1,3-Dichloropropene	2010/01/06	ND, RDL=0.18			ppbv	
trans-1,3-Dichloropropene	2010/01/06	ND, RDL=0.17			ppbv			
1,2-Dichloropropane	2010/01/06	ND, RDL=0.40			ppbv			
Bromomethane	2010/01/06	ND, RDL=0.18			ppbv			
Bromoform	2010/01/06	ND, RDL=0.20			ppbv			
Bromodichloromethane	2010/01/06	ND, RDL=0.20			ppbv			
Dibromochloromethane	2010/01/06	ND, RDL=0.20			ppbv			
Heptane	2010/01/06	ND, RDL=0.30			ppbv			

Lakeland Industry & Community Assoc.
 Attention: Shea Beaton
 Client Project #:
 P.O. #:
 Project name:

Quality Assurance Report (Continued)

Maxxam Job Number: GB001045

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
2050433 LSY	Method Blank	Trichloroethylene	2010/01/06	ND, RDL=0.30		ppbv	
		Tetrachloroethylene	2010/01/06	ND, RDL=0.20		ppbv	
		Benzene	2010/01/06	ND, RDL=0.18		ppbv	
		Toluene	2010/01/06	ND, RDL=0.20		ppbv	
		Ethylbenzene	2010/01/06	ND, RDL=0.20		ppbv	
		p+m-Xylene	2010/01/06	ND, RDL=0.37		ppbv	
		o-Xylene	2010/01/06	ND, RDL=0.20		ppbv	
		Styrene	2010/01/06	ND, RDL=0.20		ppbv	
		1,3,5-Trimethylbenzene	2010/01/06	ND, RDL=0.50		ppbv	
		1,2,4-Trimethylbenzene	2010/01/06	ND, RDL=0.50		ppbv	
		4-ethyltoluene	2010/01/06	ND, RDL=2.2		ppbv	
		Chlorobenzene	2010/01/06	ND, RDL=0.20		ppbv	
		Benzyl chloride	2010/01/06	ND, RDL=1.0		ppbv	
		1,3-Dichlorobenzene	2010/01/06	ND, RDL=0.40		ppbv	
		1,4-Dichlorobenzene	2010/01/06	ND, RDL=0.40		ppbv	
		1,2-Dichlorobenzene	2010/01/06	ND, RDL=0.40		ppbv	
		1,2,4-Trichlorobenzene	2010/01/06	ND, RDL=2.0		ppbv	
		Hexachlorobutadiene	2010/01/06	ND, RDL=3.0		ppbv	
		Hexane	2010/01/06	ND, RDL=0.30		ppbv	
		Cyclohexane	2010/01/06	ND, RDL=0.20		ppbv	
		Tetrahydrofuran	2010/01/06	ND, RDL=0.40		ppbv	
		1,4-Dioxane	2010/01/06	ND, RDL=2.0		ppbv	
		Xylene (Total)	2010/01/06	ND, RDL=0.60		ppbv	

Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.
 Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.
 Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

Maxxam Analytics Inc.

Xontech Model 910A VOC Sample Collection Data Sheet

Client: LICA Sampler s/n: 6167
 Location: Cold Lake South Canister ID: S2234 (Maxxam Supplied)
 Station ID: Lica 1 Canister Installation Date/Time: Jan 6, 09 @ 17:10 mst
 Field Sample ID: LICA VOC/ CLS / Jan 8, 10 Canister Removal Date/Time: Jan 12, 09 @ 08:00 mst

Date and Time Information			
Sample Date	Start Time (MST)	End Time (MST)	Elapsed Time (Hours)
08-Jan-10	01/08/2010 0:00	01/09/2010 0:00	24.00

Flow Settings		
Meter Reading (sccm)	Pot Set Pt.	Pump Pressure Setting (psig)
10.0	596	25

Canister Information	
Initial Canister Vacuum (inHg)	Final Canister Pressure (psig)
-28	21

Canister valve open prior to sampling?: YES / NO
Timer set to 0.00 minutes prior to sampling? YES / NO
Canister valve closed prior to disconnection?: YES / NO

Comments: System leak check prior to sampling.
- Flow check and reset prior to canister installation - Unit set to 10.0scc/m, verified using Bios DC-2 s/n - 1193
- Performed overnight leak check, at 17:10 on Jan 6, 2010 the cylinder vac was -28inHg with the cylinder valve closed. On Jan 7, 2010 the clinder vac gauge read - -27inHg

Technician Signiture: Shea Beaton



Your C.O.C. #: 5349

Attention: Shea Beaton

Lakeland Industry & Community Assoc.
P.O. Box 8237
Bonnyville, AB
CANADA T9N 2J5

Report Date: 2010/01/21

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B004549

Received: 2010/01/14, 14:22

Sample Matrix: AIR
Samples Received: 2

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
Canister Pressure (TO-15)	1	N/A	2010/01/14	BRL SOP-00304	EPA TO-15
Canister Pressure (TO-15)	1	N/A	2010/01/15	BRL SOP-00304	EPA TO-15
Volatile Organics in Air (TO-15) ¶	1	N/A	2010/01/14	BRL SOP-00304	EPA TO-15
Volatile Organics in Air (TO-15) ¶	1	N/A	2010/01/15	BRL SOP-00304	EPA TO-15

(1) Air sampling canisters have been cleaned in accordance with U.S. EPA Method TO14A. At the end of the cleaning, evacuation, and pressurization cycles, one canister was selected and was pressurized with Zero Air. This canister was then analyzed via TO14A on a GC/MS. The canister must have been found to contain <0.2 ppbv concentration of all target analytes in order for the batch to have been considered clean. Each canister also underwent a leak check prior to shipment.

Please Note: SUMMA® canister samples will be retained by Maxxam for a period of 5 calendar days from the date of this report, after which time they will be cleaned for reuse. If you require a longer sample storage period, please contact your service representative.

Encryption Key

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

THERESA STEPHENSON, Project Manager
Email: Theresa.Stephenson@MaxxamAnalytics.com
Phone# (905) 817-5763

=====
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.

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Your C.O.C. #: 5349

Attention: Shea Beaton

Lakeland Industry & Community Assoc.
P.O. Box 8237
Bonnyville, AB
CANADA T9N 2J5

Report Date: 2010/01/21

CERTIFICATE OF ANALYSIS

-2-

"signatories", as per section.

Total cover pages: 2

Page 2 of 17

Page 159 of 250

Maxxam Job #: B004549
 Report Date: 2010/01/21

RESULTS OF ANALYSES OF AIR

Maxxam ID		EV6291		EV6292		
Sampling Date		2010/01/08 00:00		2010/01/08 00:00		
COC Number		5349		5349		
	Units	LICA VOC/CLS/JAN8,10 - S2234	QC Batch	LICA VOC/PORT/JAN8,10 - S2296	DL	QC Batch

Volatile Organics						
Pressure on Receipt	psig	20	2056052	21	N/A	2057954

RDL = Reportable Detection Limit
 QC Batch = Quality Control Batch

Maxxam Job #: B004549
 Report Date: 2010/01/21

VOLATILE ORGANICS BY GC/MS (AIR)

Maxxam ID		EV6291				
Sampling Date		2010/01/08 00:00				
COC Number		5349				
	Units	LICA	DL	ug/m3	DL (ug/m3)	QC Batch
		VOC/CLS/JAN8,10				
		- S2234				

Volatile Organics						
2,2,4-Trimethylpentane	ppbv	<0.20	0.20	<0.934	0.934	2055894
Carbon Disulfide	ppbv	<0.50	0.50	<1.56	1.56	2055894
Propene	ppbv	<0.30	0.30	<0.516	0.516	2055894
Vinyl Acetate	ppbv	<0.20	0.20	<0.704	0.704	2055894
Vinyl Bromide	ppbv	<0.20	0.20	<0.875	0.875	2055894
Dichlorodifluoromethane (FREON 12)	ppbv	0.53	0.20	2.64	0.989	2055894
1,2-Dichlorotetrafluoroethane	ppbv	<0.17	0.17	<1.19	1.19	2055894
Chloromethane	ppbv	0.51	0.30	1.05	0.620	2055894
Vinyl Chloride	ppbv	<0.18	0.18	<0.460	0.460	2055894
Chloroethane	ppbv	<0.30	0.30	<0.792	0.792	2055894
1,3-Butadiene	ppbv	<0.50	0.50	<1.11	1.11	2055894
Trichlorofluoromethane (FREON 11)	ppbv	0.27	0.20	1.50	1.12	2055894
Trichlorotrifluoroethane	ppbv	<0.15	0.15	<1.15	1.15	2055894
Ethanol	ppbv	<2.3	2.3	<4.33	4.33	2055894
2-propanol	ppbv	<3.0	3.0	<7.37	7.37	2055894
2-Propanone	ppbv	<0.80	0.80	<1.90	1.90	2055894
Methyl Ethyl Ketone (2-Butanone)	ppbv	<3.0	3.0	<8.85	8.85	2055894
Methyl Isobutyl Ketone	ppbv	<3.2	3.2	<13.1	13.1	2055894
Methyl Butyl Ketone (2-Hexanone)	ppbv	<2.0	2.0	<8.19	8.19	2055894
Methyl t-butyl ether (MTBE)	ppbv	<0.20	0.20	<0.721	0.721	2055894
Ethyl Acetate	ppbv	<2.2	2.2	<7.93	7.93	2055894
1,1-Dichloroethylene	ppbv	<0.25	0.25	<0.991	0.991	2055894
cis-1,2-Dichloroethylene	ppbv	<0.19	0.19	<0.753	0.753	2055894
trans-1,2-Dichloroethylene	ppbv	<0.20	0.20	<0.793	0.793	2055894
Methylene Chloride(Dichloromethane)	ppbv	0.31	0.30	1.08	1.04	2055894
Chloroform	ppbv	<0.15	0.15	<0.732	0.732	2055894
Carbon Tetrachloride	ppbv	<0.30	0.30	<1.89	1.89	2055894
1,1-Dichloroethane	ppbv	<0.20	0.20	<0.809	0.809	2055894
1,2-Dichloroethane	ppbv	<0.20	0.20	<0.809	0.809	2055894
Ethylene Dibromide	ppbv	<0.17	0.17	<1.31	1.31	2055894

 RDL = Reportable Detection Limit
 QC Batch = Quality Control Batch

Maxxam Job #: B004549
 Report Date: 2010/01/21

VOLATILE ORGANICS BY GC/MS (AIR)

Maxxam ID		EV6291				
Sampling Date		2010/01/08 00:00				
COC Number		5349				
	Units	LICA	DL	ug/m3	DL (ug/m3)	QC Batch
		VOC/CLS/JAN8,10				
		- S2234				

1,1,1-Trichloroethane	ppbv	<0.30	0.30	<1.64	1.64	2055894
1,1,2-Trichloroethane	ppbv	<0.15	0.15	<0.818	0.818	2055894
1,1,2,2-Tetrachloroethane	ppbv	<0.20	0.20	<1.37	1.37	2055894
cis-1,3-Dichloropropene	ppbv	<0.18	0.18	<0.817	0.817	2055894
trans-1,3-Dichloropropene	ppbv	<0.17	0.17	<0.772	0.772	2055894
1,2-Dichloropropane	ppbv	<0.40	0.40	<1.85	1.85	2055894
Bromomethane	ppbv	<0.18	0.18	<0.699	0.699	2055894
Bromoform	ppbv	<0.20	0.20	<2.07	2.07	2055894
Bromodichloromethane	ppbv	<0.20	0.20	<1.34	1.34	2055894
Dibromochloromethane	ppbv	<0.20	0.20	<1.70	1.70	2055894
Heptane	ppbv	<0.30	0.30	<1.23	1.23	2055894
Trichloroethylene	ppbv	<0.30	0.30	<1.61	1.61	2055894
Tetrachloroethylene	ppbv	<0.20	0.20	<1.36	1.36	2055894
Benzene	ppbv	<0.18	0.18	<0.575	0.575	2055894
Toluene	ppbv	<0.20	0.20	<0.753	0.753	2055894
Ethylbenzene	ppbv	<0.20	0.20	<0.868	0.868	2055894
p+m-Xylene	ppbv	<0.37	0.37	<1.61	1.61	2055894
o-Xylene	ppbv	<0.20	0.20	<0.868	0.868	2055894
Styrene	ppbv	<0.20	0.20	<0.852	0.852	2055894
1,3,5-Trimethylbenzene	ppbv	<0.50	0.50	<2.46	2.46	2055894
1,2,4-Trimethylbenzene	ppbv	<0.50	0.50	<2.46	2.46	2055894
4-ethyltoluene	ppbv	<2.2	2.2	<10.8	10.8	2055894
Chlorobenzene	ppbv	<0.20	0.20	<0.921	0.921	2055894
Benzyl chloride	ppbv	<1.0	1.0	<5.18	5.18	2055894
1,3-Dichlorobenzene	ppbv	<0.40	0.40	<2.40	2.40	2055894
1,4-Dichlorobenzene	ppbv	<0.40	0.40	<2.40	2.40	2055894
1,2-Dichlorobenzene	ppbv	<0.40	0.40	<2.40	2.40	2055894
1,2,4-Trichlorobenzene	ppbv	<2.0	2.0	<14.8	14.8	2055894
Hexachlorobutadiene	ppbv	<3.0	3.0	<32.0	32.0	2055894
Hexane	ppbv	<0.30	0.30	<1.06	1.06	2055894
Cyclohexane	ppbv	<0.20	0.20	<0.688	0.688	2055894
Tetrahydrofuran	ppbv	<0.40	0.40	<1.18	1.18	2055894

QC Batch = Quality Control Batch

Maxxam Job #: B004549
 Report Date: 2010/01/21

VOLATILE ORGANICS BY GC/MS (AIR)

Maxxam ID		EV6291				
Sampling Date		2010/01/08 00:00				
COC Number		5349				
	Units	LICA VOC/CLS/JAN8,10 - S2234	DL	ug/m3	DL (ug/m3)	QC Batch

1,4-Dioxane	ppbv	<2.0	2.0	<7.21	7.21	2055894
Xylene (Total)	ppbv	<0.60	0.60	<2.61	2.61	2055894
Surrogate Recovery (%)						
Bromochloromethane	%	79		N/A	N/A	2055894
D5-Chlorobenzene	%	72		N/A	N/A	2055894
Difluorobenzene	%	80		N/A	N/A	2055894

N/A = Not Applicable
 QC Batch = Quality Control Batch

Maxxam Job #: B004549
 Report Date: 2010/01/21

VOLATILE ORGANICS BY GC/MS (AIR)

Maxxam ID		EV6292				
Sampling Date		2010/01/08 00:00				
COC Number		5349				
	Units	LICA VOC/PORT/JAN8,10 - S2296	DL	ug/m3	DL (ug/m3)	QC Batch

Volatile Organics						
2,2,4-Trimethylpentane	ppbv	<0.20	0.20	<0.934	0.934	2057951
Carbon Disulfide	ppbv	<0.50	0.50	<1.56	1.56	2057951
Propene	ppbv	<0.30	0.30	<0.516	0.516	2057951
Vinyl Acetate	ppbv	<0.20	0.20	<0.704	0.704	2057951
Vinyl Bromide	ppbv	<0.20	0.20	<0.875	0.875	2057951
Dichlorodifluoromethane (FREON 12)	ppbv	0.60	0.20	2.97	0.989	2057951
1,2-Dichlorotetrafluoroethane	ppbv	<0.17	0.17	<1.19	1.19	2057951
Chloromethane	ppbv	0.43	0.30	0.895	0.620	2057951
Vinyl Chloride	ppbv	<0.18	0.18	<0.460	0.460	2057951
Chloroethane	ppbv	<0.30	0.30	<0.792	0.792	2057951
1,3-Butadiene	ppbv	<0.50	0.50	<1.11	1.11	2057951
Trichlorofluoromethane (FREON 11)	ppbv	0.29	0.20	1.62	1.12	2057951
Trichlorotrifluoroethane	ppbv	<0.15	0.15	<1.15	1.15	2057951
Ethanol	ppbv	<2.3	2.3	<4.33	4.33	2057951
2-propanol	ppbv	<3.0	3.0	<7.37	7.37	2057951
2-Propanone	ppbv	1.11	0.80	2.63	1.90	2057951
Methyl Ethyl Ketone (2-Butanone)	ppbv	<3.0	3.0	<8.85	8.85	2057951
Methyl Isobutyl Ketone	ppbv	<3.2	3.2	<13.1	13.1	2057951
Methyl Butyl Ketone (2-Hexanone)	ppbv	<2.0	2.0	<8.19	8.19	2057951
Methyl t-butyl ether (MTBE)	ppbv	<0.20	0.20	<0.721	0.721	2057951
Ethyl Acetate	ppbv	<2.2	2.2	<7.93	7.93	2057951
1,1-Dichloroethylene	ppbv	<0.25	0.25	<0.991	0.991	2057951
cis-1,2-Dichloroethylene	ppbv	<0.19	0.19	<0.753	0.753	2057951
trans-1,2-Dichloroethylene	ppbv	<0.20	0.20	<0.793	0.793	2057951
Methylene Chloride(Dichloromethane)	ppbv	0.47	0.30	1.62	1.04	2057951
Chloroform	ppbv	<0.15	0.15	<0.732	0.732	2057951
Carbon Tetrachloride	ppbv	<0.30	0.30	<1.89	1.89	2057951
1,1-Dichloroethane	ppbv	<0.20	0.20	<0.809	0.809	2057951
1,2-Dichloroethane	ppbv	<0.20	0.20	<0.809	0.809	2057951
Ethylene Dibromide	ppbv	<0.17	0.17	<1.31	1.31	2057951

 RDL = Reportable Detection Limit
 QC Batch = Quality Control Batch

Maxxam Job #: B004549
 Report Date: 2010/01/21

VOLATILE ORGANICS BY GC/MS (AIR)

Maxxam ID		EV6292				
Sampling Date		2010/01/08				
		00:00				
COC Number		5349				
	Units	LICA	DL	ug/m3	DL (ug/m3)	QC Batch
		VOC/PORT/JAN8,10				
		- S2296				
1,1,1-Trichloroethane	ppbv	<0.30	0.30	<1.64	1.64	2057951
1,1,2-Trichloroethane	ppbv	<0.15	0.15	<0.818	0.818	2057951
1,1,2,2-Tetrachloroethane	ppbv	<0.20	0.20	<1.37	1.37	2057951
cis-1,3-Dichloropropene	ppbv	<0.18	0.18	<0.817	0.817	2057951
trans-1,3-Dichloropropene	ppbv	<0.17	0.17	<0.772	0.772	2057951
1,2-Dichloropropane	ppbv	<0.40	0.40	<1.85	1.85	2057951
Bromomethane	ppbv	<0.18	0.18	<0.699	0.699	2057951
Bromoform	ppbv	<0.20	0.20	<2.07	2.07	2057951
Bromodichloromethane	ppbv	<0.20	0.20	<1.34	1.34	2057951
Dibromochloromethane	ppbv	<0.20	0.20	<1.70	1.70	2057951
Heptane	ppbv	<0.30	0.30	<1.23	1.23	2057951
Trichloroethylene	ppbv	<0.30	0.30	<1.61	1.61	2057951
Tetrachloroethylene	ppbv	<0.20	0.20	<1.36	1.36	2057951
Benzene	ppbv	0.20	0.18	0.652	0.575	2057951
Toluene	ppbv	<0.20	0.20	<0.753	0.753	2057951
Ethylbenzene	ppbv	<0.20	0.20	<0.868	0.868	2057951
p+m-Xylene	ppbv	<0.37	0.37	<1.61	1.61	2057951
o-Xylene	ppbv	<0.20	0.20	<0.868	0.868	2057951
Styrene	ppbv	<0.20	0.20	<0.852	0.852	2057951
1,3,5-Trimethylbenzene	ppbv	<0.50	0.50	<2.46	2.46	2057951
1,2,4-Trimethylbenzene	ppbv	<0.50	0.50	<2.46	2.46	2057951
4-ethyltoluene	ppbv	<2.2	2.2	<10.8	10.8	2057951
Chlorobenzene	ppbv	<0.20	0.20	<0.921	0.921	2057951
Benzyl chloride	ppbv	<1.0	1.0	<5.18	5.18	2057951
1,3-Dichlorobenzene	ppbv	<0.40	0.40	<2.40	2.40	2057951
1,4-Dichlorobenzene	ppbv	<0.40	0.40	<2.40	2.40	2057951
1,2-Dichlorobenzene	ppbv	<0.40	0.40	<2.40	2.40	2057951
1,2,4-Trichlorobenzene	ppbv	<2.0	2.0	<14.8	14.8	2057951
Hexachlorobutadiene	ppbv	<3.0	3.0	<32.0	32.0	2057951
Hexane	ppbv	0.47	0.30	1.65	1.06	2057951
Cyclohexane	ppbv	0.35	0.20	1.22	0.688	2057951
Tetrahydrofuran	ppbv	<0.40	0.40	<1.18	1.18	2057951
QC Batch = Quality Control Batch						

Maxxam Job #: B004549
 Report Date: 2010/01/21

VOLATILE ORGANICS BY GC/MS (AIR)

Maxxam ID		EV6292				
Sampling Date		2010/01/08 00:00				
COC Number		5349				
	Units	LICA VOC/PORT/JAN8,10 - S2296	DL	ug/m3	DL (ug/m3)	QC Batch
1,4-Dioxane	ppbv	<2.0	2.0	<7.21	7.21	2057951
Xylene (Total)	ppbv	<0.60	0.60	<2.61	2.61	2057951
Surrogate Recovery (%)						
Bromochloromethane	%	98		N/A	N/A	2057951
D5-Chlorobenzene	%	96		N/A	N/A	2057951
Difluorobenzene	%	99		N/A	N/A	2057951
N/A = Not Applicable QC Batch = Quality Control Batch						

Maxxam Job #: B004549
 Report Date: 2010/01/21

Test Summary

Maxxam ID EV6291 **Collected** 2010/01/08
Sample ID LICA VOC/CLS/JAN8,10 - S2234 **Shipped**
Matrix AIR **Received** 2010/01/14

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Canister Pressure (TO-15)	PRES	2056052	N/A	2010/01/14	S_S
Volatile Organics in Air (TO-15)	GC/MS	2055894	N/A	2010/01/14	S_S

Maxxam ID EV6292 **Collected** 2010/01/08
Sample ID LICA VOC/PORT/JAN8,10 - S2296 **Shipped**
Matrix AIR **Received** 2010/01/14

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Canister Pressure (TO-15)	PRES	2057954	N/A	2010/01/15	VEA
Volatile Organics in Air (TO-15)	GC/MS	2057951	N/A	2010/01/15	VEA

Maxxam Job #: B004549
Report Date: 2010/01/21

GENERAL COMMENTS

Sample EV6292-01: VOCTO15M-A:
Reference standard did not meet criteria for 3 target compounds.
Continuing calibration met criteria for all targets.

Results relate only to the items tested.

Lakeland Industry & Community Assoc.
 Attention: Shea Beaton
 Client Project #:
 P.O. #:
 Project name:

Quality Assurance Report
 Maxxam Job Number: GB004549

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
2055894 S_S	Spiked Blank	Bromochloromethane	2010/01/14		103	%	60 - 140
		D5-Chlorobenzene	2010/01/14		106	%	60 - 140
		Difluorobenzene	2010/01/14		104	%	60 - 140
		2,2,4-Trimethylpentane	2010/01/14		102	%	70 - 130
		Carbon Disulfide	2010/01/14		95	%	70 - 130
		Propene	2010/01/14		90	%	70 - 130
		Vinyl Acetate	2010/01/14		110	%	70 - 130
		Vinyl Bromide	2010/01/14		93	%	70 - 130
		Dichlorodifluoromethane (FREON 12)	2010/01/14		95	%	70 - 130
		1,2-Dichlorotetrafluoroethane	2010/01/14		81	%	70 - 130
		Chloromethane	2010/01/14		84	%	70 - 130
		Vinyl Chloride	2010/01/14		89	%	70 - 130
		Chloroethane	2010/01/14		87	%	70 - 130
		1,3-Butadiene	2010/01/14		78	%	70 - 130
		Trichlorofluoromethane (FREON 11)	2010/01/14		95	%	70 - 130
		Trichlorotrifluoroethane	2010/01/14		90	%	70 - 130
		Ethanol	2010/01/14		98	%	70 - 130
		2-propanol	2010/01/14		98	%	70 - 130
		2-Propanone	2010/01/14		96	%	70 - 130
		Methyl Ethyl Ketone (2-Butanone)	2010/01/14		118	%	70 - 130
		Methyl Isobutyl Ketone	2010/01/14		107	%	70 - 130
		Methyl Butyl Ketone (2-Hexanone)	2010/01/14		116	%	70 - 130
		Methyl t-butyl ether (MTBE)	2010/01/14		103	%	70 - 130
		Ethyl Acetate	2010/01/14		98	%	70 - 130
		1,1-Dichloroethylene	2010/01/14		94	%	70 - 130
		cis-1,2-Dichloroethylene	2010/01/14		95	%	70 - 130
		trans-1,2-Dichloroethylene	2010/01/14		96	%	70 - 130
		Methylene Chloride(Dichloromethane)	2010/01/14		81	%	70 - 130
		Chloroform	2010/01/14		92	%	70 - 130
		Carbon Tetrachloride	2010/01/14		105	%	70 - 130
		1,1-Dichloroethane	2010/01/14		92	%	70 - 130
		1,2-Dichloroethane	2010/01/14		94	%	70 - 130
		Ethylene Dibromide	2010/01/14		98	%	70 - 130
		1,1,1-Trichloroethane	2010/01/14		100	%	70 - 130
		1,1,2-Trichloroethane	2010/01/14		96	%	70 - 130
		1,1,2,2-Tetrachloroethane	2010/01/14		94	%	70 - 130
		cis-1,3-Dichloropropene	2010/01/14		109	%	70 - 130
		trans-1,3-Dichloropropene	2010/01/14		110	%	70 - 130
		1,2-Dichloropropane	2010/01/14		93	%	70 - 130
		Bromomethane	2010/01/14		84	%	70 - 130
		Bromoform	2010/01/14		108	%	70 - 130
		Bromodichloromethane	2010/01/14		107	%	70 - 130
		Dibromochloromethane	2010/01/14		112	%	70 - 130
		Heptane	2010/01/14		101	%	70 - 130
		Trichloroethylene	2010/01/14		93	%	70 - 130
		Tetrachloroethylene	2010/01/14		99	%	70 - 130
		Benzene	2010/01/14		94	%	70 - 130
		Toluene	2010/01/14		105	%	70 - 130
		Ethylbenzene	2010/01/14		99	%	70 - 130
		p+m-Xylene	2010/01/14		98	%	70 - 130
		o-Xylene	2010/01/14		99	%	70 - 130
		Styrene	2010/01/14		104	%	70 - 130
		1,3,5-Trimethylbenzene	2010/01/14		100	%	70 - 130
		1,2,4-Trimethylbenzene	2010/01/14		103	%	70 - 130
		4-ethyltoluene	2010/01/14		104	%	70 - 130

Lakeland Industry & Community Assoc.
 Attention: Shea Beaton
 Client Project #:
 P.O. #:
 Project name:

Quality Assurance Report (Continued)

Maxxam Job Number: GB004549

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits	
2055894 S_S	Spiked Blank	Chlorobenzene	2010/01/14		86	%	70 - 130	
		Benzyl chloride	2010/01/14		100	%	70 - 130	
1,3-Dichlorobenzene		2010/01/14		90	%	70 - 130		
1,4-Dichlorobenzene		2010/01/14		84	%	70 - 130		
1,2-Dichlorobenzene		2010/01/14		92	%	70 - 130		
1,2,4-Trichlorobenzene		2010/01/14		78	%	70 - 130		
Hexachlorobutadiene		2010/01/14		104	%	70 - 130		
Hexane		2010/01/14		95	%	70 - 130		
Cyclohexane		2010/01/14		103	%	70 - 130		
Tetrahydrofuran		2010/01/14		104	%	70 - 130		
Method Blank	Method Blank	1,4-Dioxane	2010/01/14		103	%	70 - 130	
		Bromochloromethane	2010/01/14		82	%	60 - 140	
		D5-Chlorobenzene	2010/01/14		75	%	60 - 140	
		Difluorobenzene	2010/01/14		83	%	60 - 140	
		2,2,4-Trimethylpentane	2010/01/14	ND, RDL=0.20			ppbv	
		Carbon Disulfide	2010/01/14	ND, RDL=0.50			ppbv	
		Propene	2010/01/14	ND, RDL=0.30			ppbv	
		Vinyl Acetate	2010/01/14	ND, RDL=0.20			ppbv	
		Vinyl Bromide	2010/01/14	ND, RDL=0.20			ppbv	
		Dichlorodifluoromethane (FREON 12)	2010/01/14	ND, RDL=0.20			ppbv	
		1,2-Dichlorotetrafluoroethane	2010/01/14	ND, RDL=0.17			ppbv	
		Chloromethane	2010/01/14	ND, RDL=0.30			ppbv	
		Vinyl Chloride	2010/01/14	ND, RDL=0.18			ppbv	
		Chloroethane	2010/01/14	ND, RDL=0.30			ppbv	
		1,3-Butadiene	2010/01/14	ND, RDL=0.50			ppbv	
		Trichlorofluoromethane (FREON 11)	2010/01/14	ND, RDL=0.20			ppbv	
		Trichlorotrifluoroethane	2010/01/14	ND, RDL=0.15			ppbv	
		Ethanol	2010/01/14	ND, RDL=2.3			ppbv	
		2-propanol	2010/01/14	ND, RDL=3.0			ppbv	
		2-Propanone	2010/01/14	ND, RDL=0.80			ppbv	
		Methyl Ethyl Ketone (2-Butanone)	2010/01/14	ND, RDL=3.0			ppbv	
		Methyl Isobutyl Ketone	2010/01/14	ND, RDL=3.2			ppbv	
		Methyl Butyl Ketone (2-Hexanone)	2010/01/14	ND, RDL=2.0			ppbv	
		Methyl t-butyl ether (MTBE)	2010/01/14	ND, RDL=0.20			ppbv	
		Ethyl Acetate	2010/01/14	ND, RDL=2.2			ppbv	
		1,1-Dichloroethylene	2010/01/14	ND, RDL=0.25			ppbv	
		cis-1,2-Dichloroethylene	2010/01/14	ND, RDL=0.19			ppbv	
		trans-1,2-Dichloroethylene	2010/01/14	ND, RDL=0.20			ppbv	
		Methylene Chloride(Dichloromethane)	2010/01/14	ND, RDL=0.30			ppbv	
		Chloroform	2010/01/14	ND, RDL=0.15			ppbv	
		Carbon Tetrachloride	2010/01/14	ND, RDL=0.30			ppbv	
		1,1-Dichloroethane	2010/01/14	ND, RDL=0.20			ppbv	
		1,2-Dichloroethane	2010/01/14	ND, RDL=0.20			ppbv	
		Ethylene Dibromide	2010/01/14	ND, RDL=0.17			ppbv	
		1,1,1-Trichloroethane	2010/01/14	ND, RDL=0.30			ppbv	
		1,1,2-Trichloroethane	2010/01/14	ND, RDL=0.15			ppbv	
		1,1,2,2-Tetrachloroethane	2010/01/14	ND, RDL=0.20			ppbv	
		cis-1,3-Dichloropropene	2010/01/14	ND, RDL=0.18			ppbv	
trans-1,3-Dichloropropene	2010/01/14	ND, RDL=0.17			ppbv			
1,2-Dichloropropane	2010/01/14	ND, RDL=0.40			ppbv			
Bromomethane	2010/01/14	ND, RDL=0.18			ppbv			
Bromoform	2010/01/14	ND, RDL=0.20			ppbv			
Bromodichloromethane	2010/01/14	ND, RDL=0.20			ppbv			
Dibromochloromethane	2010/01/14	ND, RDL=0.20			ppbv			
Heptane	2010/01/14	ND, RDL=0.30			ppbv			

Lakeland Industry & Community Assoc.
 Attention: Shea Beaton
 Client Project #:
 P.O. #:
 Project name:

Quality Assurance Report (Continued)

Maxxam Job Number: GB004549

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
2055894 S_S	Method Blank	Trichloroethylene	2010/01/14	ND, RDL=0.30		ppbv	
		Tetrachloroethylene	2010/01/14	ND, RDL=0.20		ppbv	
		Benzene	2010/01/14	ND, RDL=0.18		ppbv	
		Toluene	2010/01/14	ND, RDL=0.20		ppbv	
		Ethylbenzene	2010/01/14	ND, RDL=0.20		ppbv	
		p+m-Xylene	2010/01/14	ND, RDL=0.37		ppbv	
		o-Xylene	2010/01/14	ND, RDL=0.20		ppbv	
		Styrene	2010/01/14	ND, RDL=0.20		ppbv	
		1,3,5-Trimethylbenzene	2010/01/14	ND, RDL=0.50		ppbv	
		1,2,4-Trimethylbenzene	2010/01/14	ND, RDL=0.50		ppbv	
		4-ethyltoluene	2010/01/14	ND, RDL=2.2		ppbv	
		Chlorobenzene	2010/01/14	ND, RDL=0.20		ppbv	
		Benzyl chloride	2010/01/14	ND, RDL=1.0		ppbv	
		1,3-Dichlorobenzene	2010/01/14	ND, RDL=0.40		ppbv	
		1,4-Dichlorobenzene	2010/01/14	ND, RDL=0.40		ppbv	
		1,2-Dichlorobenzene	2010/01/14	ND, RDL=0.40		ppbv	
		1,2,4-Trichlorobenzene	2010/01/14	ND, RDL=2.0		ppbv	
		Hexachlorobutadiene	2010/01/14	ND, RDL=3.0		ppbv	
		Hexane	2010/01/14	ND, RDL=0.30		ppbv	
		Cyclohexane	2010/01/14	ND, RDL=0.20		ppbv	
Tetrahydrofuran	2010/01/14	ND, RDL=0.40		ppbv			
1,4-Dioxane	2010/01/14	ND, RDL=2.0		ppbv			
Xylene (Total)	2010/01/14	ND, RDL=0.6		ppbv			
RPD - Sample/Sample Dup		Vinyl Chloride	2010/01/14	NC		%	25
		1,1-Dichloroethylene	2010/01/14	NC		%	25
		cis-1,2-Dichloroethylene	2010/01/14	NC		%	25
		trans-1,2-Dichloroethylene	2010/01/14	NC		%	25
		Trichloroethylene	2010/01/14	NC		%	25
		Tetrachloroethylene	2010/01/14	NC		%	25
		Bromochloromethane	2010/01/15	103	%	60 - 140	
		D5-Chlorobenzene	2010/01/15	103	%	60 - 140	
2057951 VEA	Spiked Blank	Difluorobenzene	2010/01/15	104	%	60 - 140	
		2,2,4-Trimethylpentane	2010/01/15	88	%	70 - 130	
		Carbon Disulfide	2010/01/15	85	%	70 - 130	
		Propene	2010/01/15	76	%	70 - 130	
		Vinyl Acetate	2010/01/15	87	%	70 - 130	
		Vinyl Bromide	2010/01/15	89	%	70 - 130	
		Dichlorodifluoromethane (FREON 12)	2010/01/15	92	%	70 - 130	
		1,2-Dichlorotetrafluoroethane	2010/01/15	76	%	70 - 130	
		Chloromethane	2010/01/15	76	%	70 - 130	
		Vinyl Chloride	2010/01/15	81	%	70 - 130	
		Chloroethane	2010/01/15	81	%	70 - 130	
		1,3-Butadiene	2010/01/15	69 (1)	%	70 - 130	
		Trichlorofluoromethane (FREON 11)	2010/01/15	93	%	70 - 130	
		Trichlorotrifluoroethane	2010/01/15	87	%	70 - 130	
		Ethanol	2010/01/15	105	%	70 - 130	
		2-propanol	2010/01/15	83	%	70 - 130	
		2-Propanone	2010/01/15	115	%	70 - 130	
		Methyl Ethyl Ketone (2-Butanone)	2010/01/15	92	%	70 - 130	
		Methyl Isobutyl Ketone	2010/01/15	85	%	70 - 130	
		Methyl Butyl Ketone (2-Hexanone)	2010/01/15	92	%	70 - 130	
Methyl t-butyl ether (MTBE)	2010/01/15	87	%	70 - 130			
Ethyl Acetate	2010/01/15	84	%	70 - 130			

Lakeland Industry & Community Assoc.
 Attention: Shea Beaton
 Client Project #:
 P.O. #:
 Project name:

Quality Assurance Report (Continued)

Maxxam Job Number: GB004549

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
2057951 VEA	Spiked Blank	1,1-Dichloroethylene	2010/01/15		86	%	70 - 130
		cis-1,2-Dichloroethylene	2010/01/15		84	%	70 - 130
		trans-1,2-Dichloroethylene	2010/01/15		90	%	70 - 130
		Methylene Chloride(Dichloromethane)	2010/01/15		70	%	70 - 130
		Chloroform	2010/01/15		90	%	70 - 130
		Carbon Tetrachloride	2010/01/15		95	%	70 - 130
		1,1-Dichloroethane	2010/01/15		84	%	70 - 130
		1,2-Dichloroethane	2010/01/15		86	%	70 - 130
		Ethylene Dibromide	2010/01/15		91	%	70 - 130
		1,1,1-Trichloroethane	2010/01/15		93	%	70 - 130
		1,1,2-Trichloroethane	2010/01/15		90	%	70 - 130
		1,1,2,2-Tetrachloroethane	2010/01/15		88	%	70 - 130
		cis-1,3-Dichloropropene	2010/01/15		91	%	70 - 130
		trans-1,3-Dichloropropene	2010/01/15		91	%	70 - 130
		1,2-Dichloropropane	2010/01/15		82	%	70 - 130
		Bromomethane	2010/01/15		81	%	70 - 130
		Bromoform	2010/01/15		102	%	70 - 130
		Bromodichloromethane	2010/01/15		97	%	70 - 130
		Dibromochloromethane	2010/01/15		97	%	70 - 130
		Heptane	2010/01/15		82	%	70 - 130
		Trichloroethylene	2010/01/15		89	%	70 - 130
		Tetrachloroethylene	2010/01/15		95	%	70 - 130
		Benzene	2010/01/15		87	%	70 - 130
		Toluene	2010/01/15		89	%	70 - 130
		Ethylbenzene	2010/01/15		88	%	70 - 130
		p+m-Xylene	2010/01/15		88	%	70 - 130
		o-Xylene	2010/01/15		88	%	70 - 130
		Styrene	2010/01/15		63 (1)	%	70 - 130
		1,3,5-Trimethylbenzene	2010/01/15		87	%	70 - 130
		1,2,4-Trimethylbenzene	2010/01/15		89	%	70 - 130
		4-ethyltoluene	2010/01/15		90	%	70 - 130
		Chlorobenzene	2010/01/15		87	%	70 - 130
		Benzyl chloride	2010/01/15		106	%	70 - 130
		1,3-Dichlorobenzene	2010/01/15		102	%	70 - 130
		1,4-Dichlorobenzene	2010/01/15		102	%	70 - 130
		1,2-Dichlorobenzene	2010/01/15		100	%	70 - 130
		1,2,4-Trichlorobenzene	2010/01/15		145 (1)	%	70 - 130
		Hexachlorobutadiene	2010/01/15		101	%	70 - 130
		Hexane	2010/01/15		79	%	70 - 130
		Cyclohexane	2010/01/15		83	%	70 - 130
		Tetrahydrofuran	2010/01/15		82	%	70 - 130
		1,4-Dioxane	2010/01/15		92	%	70 - 130
	Method Blank	Bromochloromethane	2010/01/15		95	%	60 - 140
		D5-Chlorobenzene	2010/01/15		93	%	60 - 140
		Difluorobenzene	2010/01/15		97	%	60 - 140
		2,2,4-Trimethylpentane	2010/01/15	ND, RDL=0.20		ppbv	
		Carbon Disulfide	2010/01/15	ND, RDL=0.50		ppbv	
		Propene	2010/01/15	ND, RDL=0.30		ppbv	
		Vinyl Acetate	2010/01/15	ND, RDL=0.20		ppbv	
		Vinyl Bromide	2010/01/15	ND, RDL=0.20		ppbv	
		Dichlorodifluoromethane (FREON 12)	2010/01/15	ND, RDL=0.20		ppbv	
		1,2-Dichlorotetrafluoroethane	2010/01/15	ND, RDL=0.17		ppbv	
		Chloromethane	2010/01/15	ND, RDL=0.30		ppbv	
		Vinyl Chloride	2010/01/15	ND, RDL=0.18		ppbv	
		Chloroethane	2010/01/15	ND, RDL=0.30		ppbv	

Lakeland Industry & Community Assoc.
 Attention: Shea Beaton
 Client Project #:
 P.O. #:
 Project name:

Quality Assurance Report (Continued)

Maxxam Job Number: GB004549

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
2057951 VEA	Method Blank	1,3-Butadiene	2010/01/15	ND, RDL=0.50		ppbv	
		Trichlorofluoromethane (FREON 11)	2010/01/15	ND, RDL=0.20		ppbv	
		Trichlorotrifluoroethane	2010/01/15	ND, RDL=0.15		ppbv	
		Ethanol	2010/01/15	ND, RDL=2.3		ppbv	
		2-propanol	2010/01/15	ND, RDL=3.0		ppbv	
		2-Propanone	2010/01/15	ND, RDL=0.80		ppbv	
		Methyl Ethyl Ketone (2-Butanone)	2010/01/15	ND, RDL=3.0		ppbv	
		Methyl Isobutyl Ketone	2010/01/15	ND, RDL=3.2		ppbv	
		Methyl Butyl Ketone (2-Hexanone)	2010/01/15	ND, RDL=2.0		ppbv	
		Methyl t-butyl ether (MTBE)	2010/01/15	ND, RDL=0.20		ppbv	
		Ethyl Acetate	2010/01/15	ND, RDL=2.2		ppbv	
		1,1-Dichloroethylene	2010/01/15	ND, RDL=0.25		ppbv	
		cis-1,2-Dichloroethylene	2010/01/15	ND, RDL=0.19		ppbv	
		trans-1,2-Dichloroethylene	2010/01/15	ND, RDL=0.20		ppbv	
		Methylene Chloride(Dichloromethane)	2010/01/15	0.51, RDL=0.30		ppbv	
		Chloroform	2010/01/15	ND, RDL=0.15		ppbv	
		Carbon Tetrachloride	2010/01/15	ND, RDL=0.30		ppbv	
		1,1-Dichloroethane	2010/01/15	ND, RDL=0.20		ppbv	
		1,2-Dichloroethane	2010/01/15	ND, RDL=0.20		ppbv	
		Ethylene Dibromide	2010/01/15	ND, RDL=0.17		ppbv	
		1,1,1-Trichloroethane	2010/01/15	ND, RDL=0.30		ppbv	
		1,1,2-Trichloroethane	2010/01/15	ND, RDL=0.15		ppbv	
		1,1,2,2-Tetrachloroethane	2010/01/15	ND, RDL=0.20		ppbv	
		cis-1,3-Dichloropropene	2010/01/15	ND, RDL=0.18		ppbv	
		trans-1,3-Dichloropropene	2010/01/15	ND, RDL=0.17		ppbv	
		1,2-Dichloropropane	2010/01/15	ND, RDL=0.40		ppbv	
		Bromomethane	2010/01/15	ND, RDL=0.18		ppbv	
		Bromoform	2010/01/15	ND, RDL=0.20		ppbv	
		Bromodichloromethane	2010/01/15	ND, RDL=0.20		ppbv	
		Dibromochloromethane	2010/01/15	ND, RDL=0.20		ppbv	
		Heptane	2010/01/15	ND, RDL=0.30		ppbv	
		Trichloroethylene	2010/01/15	ND, RDL=0.30		ppbv	
		Tetrachloroethylene	2010/01/15	ND, RDL=0.20		ppbv	
		Benzene	2010/01/15	ND, RDL=0.18		ppbv	
		Toluene	2010/01/15	ND, RDL=0.20		ppbv	
		Ethylbenzene	2010/01/15	ND, RDL=0.20		ppbv	
		p+m-Xylene	2010/01/15	ND, RDL=0.37		ppbv	
		o-Xylene	2010/01/15	ND, RDL=0.20		ppbv	
		Styrene	2010/01/15	ND, RDL=0.20		ppbv	
		1,3,5-Trimethylbenzene	2010/01/15	ND, RDL=0.50		ppbv	
		1,2,4-Trimethylbenzene	2010/01/15	ND, RDL=0.50		ppbv	
		4-ethyltoluene	2010/01/15	ND, RDL=2.2		ppbv	
		Chlorobenzene	2010/01/15	ND, RDL=0.20		ppbv	
		Benzyl chloride	2010/01/15	ND, RDL=1.0		ppbv	
		1,3-Dichlorobenzene	2010/01/15	ND, RDL=0.40		ppbv	
		1,4-Dichlorobenzene	2010/01/15	ND, RDL=0.40		ppbv	
		1,2-Dichlorobenzene	2010/01/15	ND, RDL=0.40		ppbv	
		1,2,4-Trichlorobenzene	2010/01/15	ND, RDL=2.0		ppbv	
		Hexachlorobutadiene	2010/01/15	ND, RDL=3.0		ppbv	
		Hexane	2010/01/15	ND, RDL=0.30		ppbv	
		Cyclohexane	2010/01/15	ND, RDL=0.20		ppbv	
		Tetrahydrofuran	2010/01/15	ND, RDL=0.40		ppbv	
		1,4-Dioxane	2010/01/15	ND, RDL=2.0		ppbv	
		Xylene (Total)	2010/01/15	ND, RDL=0.60		ppbv	

Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.

Lakeland Industry & Community Assoc.
Attention: Shea Beaton
Client Project #:
P.O. #:
Project name:

Quality Assurance Report (Continued)

Maxxam Job Number: GB004549

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.
Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.
NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.
(1) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.

Maxxam Analytics Inc.

Xontech Model 910A VOC Sample Collection Data Sheet

Client: LICA Sampler s/n: 6167
 Location: Cold Lake South Canister ID: S2356 (Maxxam Supplied)
 Station ID: Lica 1 Canister Installation Date/Time: Jan 13, 10 @ 11:15 mst
 Field Sample ID: LICA VOC/CLS / Jan 14, 10 Canister Removal Date/Time: Jan 15, 10 @ 13:35 mst

Date and Time Information			
Sample Date	Start Time (MST)	End Time (MST)	Elapsed Time (Hours)
14-Jan-10	01/14/2010 0:00	01/15/2010 0:00	24.00

Flow Settings		
Meter Reading (sccm)	Pot Set Pt.	Pump Pressure Setting (psig)
10.0	590	25

Canister Information	
Initial Canister Vacuum (inHg)	Final Canister Pressure (psig)
-28	21

Canister valve open prior to sampling?: YES / NO
 Timer set to 0.00 minutes prior to sampling? YES / NO
 Canister valve closed prior to disconnection?: YES / NO

Comments: System leak check prior to sampling.

Technician Signiture: Shea Beaton



Your C.O.C. #: 0562

Attention: Michael Bisaga

Lakeland Industry & Community Assoc.
P.O. Box 8237
Bonnyville, AB
CANADA T9N 2J5

Report Date: 2010/01/25

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B006847

Received: 2010/01/20, 12:03

Sample Matrix: AIR
Samples Received: 2

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
Canister Pressure (TO-15)	2	N/A	2010/01/21	BRL SOP-00304	EPA TO-15
Volatile Organics in Air (TO-15) ¶	2	N/A	2010/01/21	BRL SOP-00304	EPA TO-15

(1) Air sampling canisters have been cleaned in accordance with U.S. EPA Method TO14A. At the end of the cleaning, evacuation, and pressurization cycles, one canister was selected and was pressurized with Zero Air. This canister was then analyzed via TO14A on a GC/MS. The canister must have been found to contain <0.2 ppbv concentration of all target analytes in order for the batch to have been considered clean. Each canister also underwent a leak check prior to shipment.

Please Note: SUMMA® canister samples will be retained by Maxxam for a period of 5 calendar days from the date of this report, after which time they will be cleaned for reuse. If you require a longer sample storage period, please contact your service representative.

Encryption Key

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

THERESA STEPHENSON, Project Manager
Email: Theresa.Stephenson@MaxxamAnalytics.com
Phone# (905) 817-5763

=====

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.

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Total cover pages: 1

Maxxam Job #: B006847
 Report Date: 2010/01/25

RESULTS OF ANALYSES OF AIR

Maxxam ID		EW7866	EW7867		
Sampling Date		2010/01/14	2010/01/14		
COC Number		0562	0562		
	Units	LICAVOC/PORT/JAN14,10 - S2210	LICAVOC/CLS/JAN14,10 - S2356	DL	QC Batch

Volatile Organics					
Pressure on Receipt	psig	21	20	N/A	2061933

RDL = Reportable Detection Limit
 QC Batch = Quality Control Batch

Maxxam Job #: B006847
 Report Date: 2010/01/25

VOLATILE ORGANICS BY GC/MS (AIR)

Maxxam ID		EW7866				
Sampling Date		2010/01/14				
COC Number		0562				
	Units	LICAVOC/PORT/JAN14,10 - S2210	DL	ug/m3	DL (ug/m3)	QC Batch

Volatile Organics						
2,2,4-Trimethylpentane	ppbv	<0.20	0.20	<0.934	0.934	2061945
Carbon Disulfide	ppbv	<0.50	0.50	<1.56	1.56	2061945
Propene	ppbv	<0.30	0.30	<0.516	0.516	2061945
Vinyl Acetate	ppbv	<0.20	0.20	<0.704	0.704	2061945
Vinyl Bromide	ppbv	<0.20	0.20	<0.875	0.875	2061945
Dichlorodifluoromethane (FREON 12)	ppbv	0.71	0.20	3.50	0.989	2061945
1,2-Dichlorotetrafluoroethane	ppbv	<0.17	0.17	<1.19	1.19	2061945
Chloromethane	ppbv	0.57	0.30	1.18	0.620	2061945
Vinyl Chloride	ppbv	<0.18	0.18	<0.460	0.460	2061945
Chloroethane	ppbv	<0.30	0.30	<0.792	0.792	2061945
1,3-Butadiene	ppbv	<0.50	0.50	<1.11	1.11	2061945
Trichlorofluoromethane (FREON 11)	ppbv	0.33	0.20	1.86	1.12	2061945
Trichlorotrifluoroethane	ppbv	<0.15	0.15	<1.15	1.15	2061945
Ethanol	ppbv	<2.3	2.3	<4.33	4.33	2061945
2-propanol	ppbv	<3.0	3.0	<7.37	7.37	2061945
2-Propanone	ppbv	1.68	0.80	3.99	1.90	2061945
Methyl Ethyl Ketone (2-Butanone)	ppbv	<3.0	3.0	<8.85	8.85	2061945
Methyl Isobutyl Ketone	ppbv	<3.2	3.2	<13.1	13.1	2061945
Methyl Butyl Ketone (2-Hexanone)	ppbv	<2.0	2.0	<8.19	8.19	2061945
Methyl t-butyl ether (MTBE)	ppbv	<0.20	0.20	<0.721	0.721	2061945
Ethyl Acetate	ppbv	<2.2	2.2	<7.93	7.93	2061945
1,1-Dichloroethylene	ppbv	<0.25	0.25	<0.991	0.991	2061945
cis-1,2-Dichloroethylene	ppbv	<0.19	0.19	<0.753	0.753	2061945
trans-1,2-Dichloroethylene	ppbv	<0.20	0.20	<0.793	0.793	2061945
Methylene Chloride(Dichloromethane)	ppbv	0.45	0.30	1.57	1.04	2061945
Chloroform	ppbv	<0.15	0.15	<0.732	0.732	2061945
Carbon Tetrachloride	ppbv	<0.30	0.30	<1.89	1.89	2061945
1,1-Dichloroethane	ppbv	<0.20	0.20	<0.809	0.809	2061945
1,2-Dichloroethane	ppbv	<0.20	0.20	<0.809	0.809	2061945
Ethylene Dibromide	ppbv	<0.17	0.17	<1.31	1.31	2061945
1,1,1-Trichloroethane	ppbv	<0.30	0.30	<1.64	1.64	2061945
1,1,2-Trichloroethane	ppbv	<0.15	0.15	<0.818	0.818	2061945

 RDL = Reportable Detection Limit
 QC Batch = Quality Control Batch

Maxxam Job #: B006847
 Report Date: 2010/01/25

VOLATILE ORGANICS BY GC/MS (AIR)

Maxxam ID		EW7866				
Sampling Date		2010/01/14				
COC Number		0562				
	Units	LICAVOC/PORT/JAN14,10 - S2210	DL	ug/m3	DL (ug/m3)	QC Batch
1,1,2,2-Tetrachloroethane	ppbv	<0.20	0.20	<1.37	1.37	2061945
cis-1,3-Dichloropropene	ppbv	<0.18	0.18	<0.817	0.817	2061945
trans-1,3-Dichloropropene	ppbv	<0.17	0.17	<0.772	0.772	2061945
1,2-Dichloropropane	ppbv	<0.40	0.40	<1.85	1.85	2061945
Bromomethane	ppbv	<0.18	0.18	<0.699	0.699	2061945
Bromoform	ppbv	<0.20	0.20	<2.07	2.07	2061945
Bromodichloromethane	ppbv	<0.20	0.20	<1.34	1.34	2061945
Dibromochloromethane	ppbv	<0.20	0.20	<1.70	1.70	2061945
Heptane	ppbv	<0.30	0.30	<1.23	1.23	2061945
Trichloroethylene	ppbv	<0.30	0.30	<1.61	1.61	2061945
Tetrachloroethylene	ppbv	<0.20	0.20	<1.36	1.36	2061945
Benzene	ppbv	0.19	0.18	0.617	0.575	2061945
Toluene	ppbv	0.21	0.20	0.807	0.753	2061945
Ethylbenzene	ppbv	<0.20	0.20	<0.868	0.868	2061945
p+m-Xylene	ppbv	<0.37	0.37	<1.61	1.61	2061945
o-Xylene	ppbv	<0.20	0.20	<0.868	0.868	2061945
Styrene	ppbv	<0.20	0.20	<0.852	0.852	2061945
1,3,5-Trimethylbenzene	ppbv	<0.50	0.50	<2.46	2.46	2061945
1,2,4-Trimethylbenzene	ppbv	<0.50	0.50	<2.46	2.46	2061945
4-ethyltoluene	ppbv	<2.2	2.2	<10.8	10.8	2061945
Chlorobenzene	ppbv	<0.20	0.20	<0.921	0.921	2061945
Benzyl chloride	ppbv	<1.0	1.0	<5.18	5.18	2061945
1,3-Dichlorobenzene	ppbv	<0.40	0.40	<2.40	2.40	2061945
1,4-Dichlorobenzene	ppbv	<0.40	0.40	<2.40	2.40	2061945
1,2-Dichlorobenzene	ppbv	<0.40	0.40	<2.40	2.40	2061945
1,2,4-Trichlorobenzene	ppbv	<2.0	2.0	<14.8	14.8	2061945
Hexachlorobutadiene	ppbv	<3.0	3.0	<32.0	32.0	2061945
Hexane	ppbv	<0.30	0.30	<1.06	1.06	2061945
Cyclohexane	ppbv	<0.20	0.20	<0.688	0.688	2061945
Tetrahydrofuran	ppbv	<0.40	0.40	<1.18	1.18	2061945
1,4-Dioxane	ppbv	<2.0	2.0	<7.21	7.21	2061945
Xylene (Total)	ppbv	<0.60	0.60	<2.61	2.61	2061945
Surrogate Recovery (%)						
Bromochloromethane	%	84		N/A	N/A	2061945
N/A = Not Applicable QC Batch = Quality Control Batch						

Maxxam Job #: B006847
 Report Date: 2010/01/25

VOLATILE ORGANICS BY GC/MS (AIR)

Maxxam ID		EW7866				
Sampling Date		2010/01/14				
COC Number		0562				
	Units	LICAVOC/PORT/JAN14,10 - S2210	DL	ug/m3	DL (ug/m3)	QC Batch

D5-Chlorobenzene	%	84		N/A	N/A	2061945
Difluorobenzene	%	87		N/A	N/A	2061945

N/A = Not Applicable
 QC Batch = Quality Control Batch

Maxxam Job #: B006847
 Report Date: 2010/01/25

VOLATILE ORGANICS BY GC/MS (AIR)

Maxxam ID		EW7867				
Sampling Date		2010/01/14				
COC Number		0562				
	Units	LICAVOC/CLS/JAN14,10	DL	ug/m3	DL (ug/m3)	QC Batch
		- S2356				

Volatile Organics						
2,2,4-Trimethylpentane	ppbv	<0.20	0.20	<0.934	0.934	2061945
Carbon Disulfide	ppbv	<0.50	0.50	<1.56	1.56	2061945
Propene	ppbv	<0.30	0.30	<0.516	0.516	2061945
Vinyl Acetate	ppbv	<0.20	0.20	<0.704	0.704	2061945
Vinyl Bromide	ppbv	<0.20	0.20	<0.875	0.875	2061945
Dichlorodifluoromethane (FREON 12)	ppbv	0.72	0.20	3.55	0.989	2061945
1,2-Dichlorotetrafluoroethane	ppbv	<0.17	0.17	<1.19	1.19	2061945
Chloromethane	ppbv	0.58	0.30	1.20	0.620	2061945
Vinyl Chloride	ppbv	<0.18	0.18	<0.460	0.460	2061945
Chloroethane	ppbv	<0.30	0.30	<0.792	0.792	2061945
1,3-Butadiene	ppbv	<0.50	0.50	<1.11	1.11	2061945
Trichlorofluoromethane (FREON 11)	ppbv	0.34	0.20	1.91	1.12	2061945
Trichlorotrifluoroethane	ppbv	<0.15	0.15	<1.15	1.15	2061945
Ethanol	ppbv	<2.3	2.3	<4.33	4.33	2061945
2-propanol	ppbv	<3.0	3.0	<7.37	7.37	2061945
2-Propanone	ppbv	1.19	0.80	2.82	1.90	2061945
Methyl Ethyl Ketone (2-Butanone)	ppbv	<3.0	3.0	<8.85	8.85	2061945
Methyl Isobutyl Ketone	ppbv	<3.2	3.2	<13.1	13.1	2061945
Methyl Butyl Ketone (2-Hexanone)	ppbv	<2.0	2.0	<8.19	8.19	2061945
Methyl t-butyl ether (MTBE)	ppbv	<0.20	0.20	<0.721	0.721	2061945
Ethyl Acetate	ppbv	<2.2	2.2	<7.93	7.93	2061945
1,1-Dichloroethylene	ppbv	<0.25	0.25	<0.991	0.991	2061945
cis-1,2-Dichloroethylene	ppbv	<0.19	0.19	<0.753	0.753	2061945
trans-1,2-Dichloroethylene	ppbv	<0.20	0.20	<0.793	0.793	2061945
Methylene Chloride(Dichloromethane)	ppbv	0.45	0.30	1.57	1.04	2061945
Chloroform	ppbv	<0.15	0.15	<0.732	0.732	2061945
Carbon Tetrachloride	ppbv	<0.30	0.30	<1.89	1.89	2061945
1,1-Dichloroethane	ppbv	<0.20	0.20	<0.809	0.809	2061945
1,2-Dichloroethane	ppbv	<0.20	0.20	<0.809	0.809	2061945
Ethylene Dibromide	ppbv	<0.17	0.17	<1.31	1.31	2061945
1,1,1-Trichloroethane	ppbv	<0.30	0.30	<1.64	1.64	2061945
1,1,2-Trichloroethane	ppbv	<0.15	0.15	<0.818	0.818	2061945

RDL = Reportable Detection Limit
 QC Batch = Quality Control Batch

Maxxam Job #: B006847
 Report Date: 2010/01/25

VOLATILE ORGANICS BY GC/MS (AIR)

Maxxam ID		EW7867				
Sampling Date		2010/01/14				
COC Number		0562				
	Units	LICAVOC/CLS/JAN14,10	DL	ug/m3	DL (ug/m3)	QC Batch
		- S2356				
1,1,2,2-Tetrachloroethane	ppbv	<0.20	0.20	<1.37	1.37	2061945
cis-1,3-Dichloropropene	ppbv	<0.18	0.18	<0.817	0.817	2061945
trans-1,3-Dichloropropene	ppbv	<0.17	0.17	<0.772	0.772	2061945
1,2-Dichloropropane	ppbv	<0.40	0.40	<1.85	1.85	2061945
Bromomethane	ppbv	<0.18	0.18	<0.699	0.699	2061945
Bromoform	ppbv	<0.20	0.20	<2.07	2.07	2061945
Bromodichloromethane	ppbv	<0.20	0.20	<1.34	1.34	2061945
Dibromochloromethane	ppbv	<0.20	0.20	<1.70	1.70	2061945
Heptane	ppbv	<0.30	0.30	<1.23	1.23	2061945
Trichloroethylene	ppbv	<0.30	0.30	<1.61	1.61	2061945
Tetrachloroethylene	ppbv	<0.20	0.20	<1.36	1.36	2061945
Benzene	ppbv	0.21	0.18	0.667	0.575	2061945
Toluene	ppbv	0.21	0.20	0.792	0.753	2061945
Ethylbenzene	ppbv	<0.20	0.20	<0.868	0.868	2061945
p+m-Xylene	ppbv	<0.37	0.37	<1.61	1.61	2061945
o-Xylene	ppbv	<0.20	0.20	<0.868	0.868	2061945
Styrene	ppbv	<0.20	0.20	<0.852	0.852	2061945
1,3,5-Trimethylbenzene	ppbv	<0.50	0.50	<2.46	2.46	2061945
1,2,4-Trimethylbenzene	ppbv	<0.50	0.50	<2.46	2.46	2061945
4-ethyltoluene	ppbv	<2.2	2.2	<10.8	10.8	2061945
Chlorobenzene	ppbv	<0.20	0.20	<0.921	0.921	2061945
Benzyl chloride	ppbv	<1.0	1.0	<5.18	5.18	2061945
1,3-Dichlorobenzene	ppbv	<0.40	0.40	<2.40	2.40	2061945
1,4-Dichlorobenzene	ppbv	<0.40	0.40	<2.40	2.40	2061945
1,2-Dichlorobenzene	ppbv	<0.40	0.40	<2.40	2.40	2061945
1,2,4-Trichlorobenzene	ppbv	<2.0	2.0	<14.8	14.8	2061945
Hexachlorobutadiene	ppbv	<3.0	3.0	<32.0	32.0	2061945
Hexane	ppbv	<0.30	0.30	<1.06	1.06	2061945
Cyclohexane	ppbv	<0.20	0.20	<0.688	0.688	2061945
Tetrahydrofuran	ppbv	<0.40	0.40	<1.18	1.18	2061945
1,4-Dioxane	ppbv	<2.0	2.0	<7.21	7.21	2061945
Xylene (Total)	ppbv	<0.60	0.60	<2.61	2.61	2061945
Surrogate Recovery (%)						
Bromochloromethane	%	84		N/A	N/A	2061945
N/A = Not Applicable QC Batch = Quality Control Batch						

Maxxam Job #: B006847
 Report Date: 2010/01/25

VOLATILE ORGANICS BY GC/MS (AIR)

Maxxam ID		EW7867				
Sampling Date		2010/01/14				
COC Number		0562				
	Units	LICAVOC/CLS/JAN14,10	DL	ug/m3	DL (ug/m3)	QC Batch
		- S2356				

D5-Chlorobenzene	%	83		N/A	N/A	2061945
Difluorobenzene	%	86		N/A	N/A	2061945

N/A = Not Applicable
 QC Batch = Quality Control Batch

Maxxam Job #: B006847
 Report Date: 2010/01/25

Test Summary

Maxxam ID EW7866 **Collected** 2010/01/14
Sample ID LICAVOC/PORT/JAN14,10 - S2210 **Shipped**
Matrix AIR **Received** 2010/01/20

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Canister Pressure (TO-15)	PRES	2061933	N/A	2010/01/21	LSY
Volatile Organics in Air (TO-15)	GC/MS	2061945	N/A	2010/01/21	LSY

Maxxam ID EW7867 **Collected** 2010/01/14
Sample ID LICAVOC/CLS/JAN14,10 - S2356 **Shipped**
Matrix AIR **Received** 2010/01/20

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Canister Pressure (TO-15)	PRES	2061933	N/A	2010/01/21	LSY
Volatile Organics in Air (TO-15)	GC/MS	2061945	N/A	2010/01/21	LSY

Maxxam Job #: B006847
Report Date: 2010/01/25

GENERAL COMMENTS

Results relate only to the items tested.

Lakeland Industry & Community Assoc.
 Attention: Michael Bisaga
 Client Project #:
 P.O. #:
 Project name:

Quality Assurance Report
 Maxxam Job Number: GB006847

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
2061945 LSY	Spiked Blank	Bromochloromethane	2010/01/21		101	%	60 - 140
		D5-Chlorobenzene	2010/01/21		101	%	60 - 140
		Difluorobenzene	2010/01/21		103	%	60 - 140
		2,2,4-Trimethylpentane	2010/01/21		108	%	70 - 130
		Carbon Disulfide	2010/01/21		101	%	70 - 130
		Propene	2010/01/21		106	%	70 - 130
		Vinyl Acetate	2010/01/21		118	%	70 - 130
		Vinyl Bromide	2010/01/21		101	%	70 - 130
		Dichlorodifluoromethane (FREON 12)	2010/01/21		99	%	70 - 130
		1,2-Dichlorotetrafluoroethane	2010/01/21		86	%	70 - 130
		Chloromethane	2010/01/21		95	%	70 - 130
		Vinyl Chloride	2010/01/21		99	%	70 - 130
		Chloroethane	2010/01/21		100	%	70 - 130
		1,3-Butadiene	2010/01/21		90	%	70 - 130
		Trichlorofluoromethane (FREON 11)	2010/01/21		99	%	70 - 130
		Trichlorotrifluoroethane	2010/01/21		99	%	70 - 130
		Ethanol	2010/01/21		90	%	70 - 130
		2-propanol	2010/01/21		107	%	70 - 130
		2-Propanone	2010/01/21		83	%	70 - 130
		Methyl Ethyl Ketone (2-Butanone)	2010/01/21		109	%	70 - 130
		Methyl Isobutyl Ketone	2010/01/21		113	%	70 - 130
		Methyl Butyl Ketone (2-Hexanone)	2010/01/21		121	%	70 - 130
		Methyl t-butyl ether (MTBE)	2010/01/21		107	%	70 - 130
		Ethyl Acetate	2010/01/21		106	%	70 - 130
		1,1-Dichloroethylene	2010/01/21		103	%	70 - 130
		cis-1,2-Dichloroethylene	2010/01/21		103	%	70 - 130
		trans-1,2-Dichloroethylene	2010/01/21		106	%	70 - 130
		Methylene Chloride(Dichloromethane)	2010/01/21		93	%	70 - 130
		Chloroform	2010/01/21		100	%	70 - 130
		Carbon Tetrachloride	2010/01/21		103	%	70 - 130
		1,1-Dichloroethane	2010/01/21		102	%	70 - 130
		1,2-Dichloroethane	2010/01/21		100	%	70 - 130
		Ethylene Dibromide	2010/01/21		97	%	70 - 130
		1,1,1-Trichloroethane	2010/01/21		101	%	70 - 130
		1,1,2-Trichloroethane	2010/01/21		99	%	70 - 130
		1,1,2,2-Tetrachloroethane	2010/01/21		93	%	70 - 130
		cis-1,3-Dichloropropene	2010/01/21		109	%	70 - 130
		trans-1,3-Dichloropropene	2010/01/21		109	%	70 - 130
		1,2-Dichloropropane	2010/01/21		100	%	70 - 130
		Bromomethane	2010/01/21		92	%	70 - 130
		Bromoform	2010/01/21		105	%	70 - 130
		Bromodichloromethane	2010/01/21		107	%	70 - 130
		Dibromochloromethane	2010/01/21		104	%	70 - 130
		Heptane	2010/01/21		109	%	70 - 130
		Trichloroethylene	2010/01/21		97	%	70 - 130
		Tetrachloroethylene	2010/01/21		97	%	70 - 130
		Benzene	2010/01/21		99	%	70 - 130
		Toluene	2010/01/21		102	%	70 - 130
		Ethylbenzene	2010/01/21		100	%	70 - 130
		p+m-Xylene	2010/01/21		101	%	70 - 130
		o-Xylene	2010/01/21		102	%	70 - 130
		Styrene	2010/01/21		108	%	70 - 130
		1,3,5-Trimethylbenzene	2010/01/21		98	%	70 - 130
		1,2,4-Trimethylbenzene	2010/01/21		96	%	70 - 130
		4-ethyltoluene	2010/01/21		101	%	70 - 130

Lakeland Industry & Community Assoc.
 Attention: Michael Bisaga
 Client Project #:
 P.O. #:
 Project name:

Quality Assurance Report (Continued)

Maxxam Job Number: GB006847

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
2061945 LSY	Spiked Blank	Chlorobenzene	2010/01/21		94	%	70 - 130
		Benzyl chloride	2010/01/21		106	%	70 - 130
		1,3-Dichlorobenzene	2010/01/21		92	%	70 - 130
		1,4-Dichlorobenzene	2010/01/21		91	%	70 - 130
		1,2-Dichlorobenzene	2010/01/21		85	%	70 - 130
		1,2,4-Trichlorobenzene	2010/01/21		118	%	70 - 130
		Hexachlorobutadiene	2010/01/21		96	%	70 - 130
		Hexane	2010/01/21		103	%	70 - 130
		Cyclohexane	2010/01/21		109	%	70 - 130
		Tetrahydrofuran	2010/01/21		112	%	70 - 130
		1,4-Dioxane	2010/01/21		100	%	70 - 130
	Method Blank	Bromochloromethane	2010/01/21		87	%	60 - 140
		D5-Chlorobenzene	2010/01/21		83	%	60 - 140
		Difluorobenzene	2010/01/21		88	%	60 - 140
		2,2,4-Trimethylpentane	2010/01/21	ND, RDL=0.20		ppbv	
		Carbon Disulfide	2010/01/21	ND, RDL=0.50		ppbv	
		Propene	2010/01/21	ND, RDL=0.30		ppbv	
		Vinyl Acetate	2010/01/21	ND, RDL=0.20		ppbv	
		Vinyl Bromide	2010/01/21	ND, RDL=0.20		ppbv	
		Dichlorodifluoromethane (FREON 12)	2010/01/21	ND, RDL=0.20		ppbv	
		1,2-Dichlorotetrafluoroethane	2010/01/21	ND, RDL=0.17		ppbv	
		Chloromethane	2010/01/21	ND, RDL=0.30		ppbv	
		Vinyl Chloride	2010/01/21	ND, RDL=0.18		ppbv	
		Chloroethane	2010/01/21	ND, RDL=0.30		ppbv	
		1,3-Butadiene	2010/01/21	ND, RDL=0.50		ppbv	
		Trichlorofluoromethane (FREON 11)	2010/01/21	ND, RDL=0.20		ppbv	
		Trichlorotrifluoroethane	2010/01/21	ND, RDL=0.15		ppbv	
		Ethanol	2010/01/21	ND, RDL=2.3		ppbv	
		2-propanol	2010/01/21	ND, RDL=3.0		ppbv	
		2-Propanone	2010/01/21	ND, RDL=0.80		ppbv	
		Methyl Ethyl Ketone (2-Butanone)	2010/01/21	ND, RDL=3.0		ppbv	
		Methyl Isobutyl Ketone	2010/01/21	ND, RDL=3.2		ppbv	
		Methyl Butyl Ketone (2-Hexanone)	2010/01/21	ND, RDL=2.0		ppbv	
		Methyl t-butyl ether (MTBE)	2010/01/21	ND, RDL=0.20		ppbv	
		Ethyl Acetate	2010/01/21	ND, RDL=2.2		ppbv	
		1,1-Dichloroethylene	2010/01/21	ND, RDL=0.25		ppbv	
		cis-1,2-Dichloroethylene	2010/01/21	ND, RDL=0.19		ppbv	
		trans-1,2-Dichloroethylene	2010/01/21	ND, RDL=0.20		ppbv	
		Methylene Chloride(Dichloromethane)	2010/01/21	0.44, RDL=0.30		ppbv	
		Chloroform	2010/01/21	ND, RDL=0.15		ppbv	
		Carbon Tetrachloride	2010/01/21	ND, RDL=0.30		ppbv	
		1,1-Dichloroethane	2010/01/21	ND, RDL=0.20		ppbv	
		1,2-Dichloroethane	2010/01/21	ND, RDL=0.20		ppbv	
		Ethylene Dibromide	2010/01/21	ND, RDL=0.17		ppbv	
		1,1,1-Trichloroethane	2010/01/21	ND, RDL=0.30		ppbv	
		1,1,2-Trichloroethane	2010/01/21	ND, RDL=0.15		ppbv	
		1,1,2,2-Tetrachloroethane	2010/01/21	ND, RDL=0.20		ppbv	
		cis-1,3-Dichloropropene	2010/01/21	ND, RDL=0.18		ppbv	
		trans-1,3-Dichloropropene	2010/01/21	ND, RDL=0.17		ppbv	
		1,2-Dichloropropane	2010/01/21	ND, RDL=0.40		ppbv	
		Bromomethane	2010/01/21	ND, RDL=0.18		ppbv	
		Bromoform	2010/01/21	ND, RDL=0.20		ppbv	
		Bromodichloromethane	2010/01/21	ND, RDL=0.20		ppbv	
		Dibromochloromethane	2010/01/21	ND, RDL=0.20		ppbv	
		Heptane	2010/01/21	ND, RDL=0.30		ppbv	

Lakeland Industry & Community Assoc.
 Attention: Michael Bisaga
 Client Project #:
 P.O. #:
 Project name:

Quality Assurance Report (Continued)

Maxxam Job Number: GB006847

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
2061945 LSY	Method Blank	Trichloroethylene	2010/01/21	ND, RDL=0.30		ppbv	
		Tetrachloroethylene	2010/01/21	ND, RDL=0.20		ppbv	
		Benzene	2010/01/21	ND, RDL=0.18		ppbv	
		Toluene	2010/01/21	ND, RDL=0.20		ppbv	
		Ethylbenzene	2010/01/21	ND, RDL=0.20		ppbv	
		p+m-Xylene	2010/01/21	ND, RDL=0.37		ppbv	
		o-Xylene	2010/01/21	ND, RDL=0.20		ppbv	
		Styrene	2010/01/21	ND, RDL=0.20		ppbv	
		1,3,5-Trimethylbenzene	2010/01/21	ND, RDL=0.50		ppbv	
		1,2,4-Trimethylbenzene	2010/01/21	ND, RDL=0.50		ppbv	
		4-ethyltoluene	2010/01/21	ND, RDL=2.2		ppbv	
		Chlorobenzene	2010/01/21	ND, RDL=0.20		ppbv	
		Benzyl chloride	2010/01/21	ND, RDL=1.0		ppbv	
		1,3-Dichlorobenzene	2010/01/21	ND, RDL=0.40		ppbv	
		1,4-Dichlorobenzene	2010/01/21	ND, RDL=0.40		ppbv	
		1,2-Dichlorobenzene	2010/01/21	ND, RDL=0.40		ppbv	
		1,2,4-Trichlorobenzene	2010/01/21	ND, RDL=2.0		ppbv	
		Hexachlorobutadiene	2010/01/21	ND, RDL=3.0		ppbv	
		Hexane	2010/01/21	ND, RDL=0.30		ppbv	
		Cyclohexane	2010/01/21	ND, RDL=0.20		ppbv	
		Tetrahydrofuran	2010/01/21	ND, RDL=0.40		ppbv	
		1,4-Dioxane	2010/01/21	ND, RDL=2.0		ppbv	
		Xylene (Total)	2010/01/21	ND, RDL=0.60		ppbv	

Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.
 Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.
 Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

Maxxam Analytics Inc.

Xontech Model 910A VOC Sample Collection Data Sheet

Client: LICA Sampler s/n: 6167
 Location: Cold Lake South Canister ID: 7614 (Maxxam Supplied)
 Station ID: Lica 1 Canister Installation Date/Time: Jan 18, 10 @ 09:45 mst
 Field Sample ID: LICA VOC/CLS / Jan 20, 10 Canister Removal Date/Time: Jan 22, 10, @ 12:15 mst

Date and Time Information			
Sample Date	Start Time (MST)	End Time (MST)	Elapsed Time (Hours)
20-Jan-10	01/20/2010 0:00	01/21/2010 0:00	24.00

Flow Settings		
Meter Reading (sccm)	Pot Set Pt.	Pump Pressure Setting (psig)
10.0	590	25

Canister Information	
Initial Canister Vacuum (inHg)	Final Canister Pressure (psig)
-28	20

Canister valve open prior to sampling?: YES / NO
Timer set to 0.00 minutes prior to sampling? YES / NO
Canister valve closed prior to disconnection?: YES / NO

Comments: System leak check prior to sampling. COC #2956

Technician Signiture: Shea Beaton



Your C.O.C. #: 2956

Attention: Shea Beaton

Lakeland Industry & Community Assoc.
P.O. Box 8237
Bonnyville, AB
CANADA T9N 2J5

Report Date: 2010/02/03

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B009311

Received: 2010/01/26, 13:17

Sample Matrix: AIR
Samples Received: 2

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
Canister Pressure (TO-15)	2	N/A	2010/01/28	BRL SOP-00304	EPA TO-15
Volatile Organics in Air (TO-15) ¶	2	N/A	2010/01/28	BRL SOP-00304	EPA TO-15

(1) Air sampling canisters have been cleaned in accordance with U.S. EPA Method TO14A. At the end of the cleaning, evacuation, and pressurization cycles, one canister was selected and was pressurized with Zero Air. This canister was then analyzed via TO14A on a GC/MS. The canister must have been found to contain <0.2 ppbv concentration of all target analytes in order for the batch to have been considered clean. Each canister also underwent a leak check prior to shipment.

Please Note: SUMMA® canister samples will be retained by Maxxam for a period of 5 calendar days from the date of this report, after which time they will be cleaned for reuse. If you require a longer sample storage period, please contact your service representative.

Encryption Key

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

THERESA STEPHENSON, Project Manager
Email: Theresa.Stephenson@MaxxamAnalytics.com
Phone# (905) 817-5763

=====

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.

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Total cover pages: 1

Maxxam Job #: B009311
 Report Date: 2010/02/03

RESULTS OF ANALYSES OF AIR

Maxxam ID		EX9948	EX9949		
Sampling Date		2010/01/20 00:00	2010/01/20 00:00		
COC Number		2956	2956		
	Units	LICA VOC/CLS/JAN 20,10-7614	LICA VOC/PORT/JAN 20,10-7785	DL	QC Batch

Volatile Organics					
Pressure on Receipt	psig	18	20	N/A	2067226

RDL = Reportable Detection Limit
 QC Batch = Quality Control Batch

Maxxam Job #: B009311
 Report Date: 2010/02/03

VOLATILE ORGANICS BY GC/MS (AIR)

Maxxam ID		EX9948				
Sampling Date		2010/01/20 00:00				
COC Number		2956				
	Units	LICA VOC/CLS/JAN 20,10-7614	DL	ug/m3	DL (ug/m3)	QC Batch

Volatile Organics						
2,2,4-Trimethylpentane	ppbv	<0.20	0.20	<0.934	0.934	2067218
Carbon Disulfide	ppbv	<0.50	0.50	<1.56	1.56	2067218
Propene	ppbv	<0.30	0.30	<0.516	0.516	2067218
Vinyl Acetate	ppbv	<0.20	0.20	<0.704	0.704	2067218
Vinyl Bromide	ppbv	<0.20	0.20	<0.875	0.875	2067218
Dichlorodifluoromethane (FREON 12)	ppbv	0.64	0.20	3.16	0.989	2067218
1,2-Dichlorotetrafluoroethane	ppbv	<0.17	0.17	<1.19	1.19	2067218
Chloromethane	ppbv	0.47	0.30	0.972	0.620	2067218
Vinyl Chloride	ppbv	<0.18	0.18	<0.460	0.460	2067218
Chloroethane	ppbv	<0.30	0.30	<0.792	0.792	2067218
1,3-Butadiene	ppbv	<0.50	0.50	<1.11	1.11	2067218
Trichlorofluoromethane (FREON 11)	ppbv	0.33	0.20	1.85	1.12	2067218
Trichlorotrifluoroethane	ppbv	<0.15	0.15	<1.15	1.15	2067218
Ethanol	ppbv	<2.3	2.3	<4.33	4.33	2067218
2-propanol	ppbv	<3.0	3.0	<7.37	7.37	2067218
2-Propanone	ppbv	1.20	0.80	2.84	1.90	2067218
Methyl Ethyl Ketone (2-Butanone)	ppbv	<3.0	3.0	<8.85	8.85	2067218
Methyl Isobutyl Ketone	ppbv	<3.2	3.2	<13.1	13.1	2067218
Methyl Butyl Ketone (2-Hexanone)	ppbv	<2.0	2.0	<8.19	8.19	2067218
Methyl t-butyl ether (MTBE)	ppbv	<0.20	0.20	<0.721	0.721	2067218
Ethyl Acetate	ppbv	<2.2	2.2	<7.93	7.93	2067218
1,1-Dichloroethylene	ppbv	<0.25	0.25	<0.991	0.991	2067218
cis-1,2-Dichloroethylene	ppbv	<0.19	0.19	<0.753	0.753	2067218
trans-1,2-Dichloroethylene	ppbv	<0.20	0.20	<0.793	0.793	2067218
Methylene Chloride(Dichloromethane)	ppbv	0.47	0.30	1.63	1.04	2067218
Chloroform	ppbv	<0.15	0.15	<0.732	0.732	2067218
Carbon Tetrachloride	ppbv	<0.30	0.30	<1.89	1.89	2067218
1,1-Dichloroethane	ppbv	<0.20	0.20	<0.809	0.809	2067218
1,2-Dichloroethane	ppbv	<0.20	0.20	<0.809	0.809	2067218
Ethylene Dibromide	ppbv	<0.17	0.17	<1.31	1.31	2067218
RDL = Reportable Detection Limit QC Batch = Quality Control Batch						

Maxxam Job #: B009311
 Report Date: 2010/02/03

VOLATILE ORGANICS BY GC/MS (AIR)

Maxxam ID		EX9948				
Sampling Date		2010/01/20 00:00				
COC Number		2956				
	Units	LICA VOC/CLS/JAN 20,10-7614	DL	ug/m3	DL (ug/m3)	QC Batch
1,1,1-Trichloroethane	ppbv	<0.30	0.30	<1.64	1.64	2067218
1,1,2-Trichloroethane	ppbv	<0.15	0.15	<0.818	0.818	2067218
1,1,2,2-Tetrachloroethane	ppbv	<0.20	0.20	<1.37	1.37	2067218
cis-1,3-Dichloropropene	ppbv	<0.18	0.18	<0.817	0.817	2067218
trans-1,3-Dichloropropene	ppbv	<0.17	0.17	<0.772	0.772	2067218
1,2-Dichloropropane	ppbv	<0.40	0.40	<1.85	1.85	2067218
Bromomethane	ppbv	<0.18	0.18	<0.699	0.699	2067218
Bromoform	ppbv	<0.20	0.20	<2.07	2.07	2067218
Bromodichloromethane	ppbv	<0.20	0.20	<1.34	1.34	2067218
Dibromochloromethane	ppbv	<0.20	0.20	<1.70	1.70	2067218
Heptane	ppbv	<0.30	0.30	<1.23	1.23	2067218
Trichloroethylene	ppbv	<0.30	0.30	<1.61	1.61	2067218
Tetrachloroethylene	ppbv	<0.20	0.20	<1.36	1.36	2067218
Benzene	ppbv	<0.18	0.18	<0.575	0.575	2067218
Toluene	ppbv	<0.20	0.20	<0.753	0.753	2067218
Ethylbenzene	ppbv	<0.20	0.20	<0.868	0.868	2067218
p+m-Xylene	ppbv	<0.37	0.37	<1.61	1.61	2067218
o-Xylene	ppbv	<0.20	0.20	<0.868	0.868	2067218
Styrene	ppbv	<0.20	0.20	<0.852	0.852	2067218
1,3,5-Trimethylbenzene	ppbv	<0.50	0.50	<2.46	2.46	2067218
1,2,4-Trimethylbenzene	ppbv	<0.50	0.50	<2.46	2.46	2067218
4-ethyltoluene	ppbv	<2.2	2.2	<10.8	10.8	2067218
Chlorobenzene	ppbv	<0.20	0.20	<0.921	0.921	2067218
Benzyl chloride	ppbv	<1.0	1.0	<5.18	5.18	2067218
1,3-Dichlorobenzene	ppbv	<0.40	0.40	<2.40	2.40	2067218
1,4-Dichlorobenzene	ppbv	<0.40	0.40	<2.40	2.40	2067218
1,2-Dichlorobenzene	ppbv	<0.40	0.40	<2.40	2.40	2067218
1,2,4-Trichlorobenzene	ppbv	<2.0	2.0	<14.8	14.8	2067218
Hexachlorobutadiene	ppbv	<3.0	3.0	<32.0	32.0	2067218
Hexane	ppbv	<0.30	0.30	<1.06	1.06	2067218
Cyclohexane	ppbv	<0.20	0.20	<0.688	0.688	2067218
Tetrahydrofuran	ppbv	<0.40	0.40	<1.18	1.18	2067218
QC Batch = Quality Control Batch						

Maxxam Job #: B009311
 Report Date: 2010/02/03

VOLATILE ORGANICS BY GC/MS (AIR)

Maxxam ID		EX9948				
Sampling Date		2010/01/20 00:00				
COC Number		2956				
	Units	LICA VOC/CLS/JAN 20,10-7614	DL	ug/m3	DL (ug/m3)	QC Batch
1,4-Dioxane	ppbv	<2.0	2.0	<7.21	7.21	2067218
Xylene (Total)	ppbv	<0.60	0.60	<2.61	2.61	2067218
Surrogate Recovery (%)						
Bromochloromethane	%	74		N/A	N/A	2067218
D5-Chlorobenzene	%	74		N/A	N/A	2067218
Difluorobenzene	%	73		N/A	N/A	2067218
N/A = Not Applicable QC Batch = Quality Control Batch						

Maxxam Job #: B009311
 Report Date: 2010/02/03

VOLATILE ORGANICS BY GC/MS (AIR)

Maxxam ID		EX9949				
Sampling Date		2010/01/20 00:00				
COC Number		2956				
	Units	LICA VOC/PORT/JAN 20,10-7785	DL	ug/m3	DL (ug/m3)	QC Batch

Volatile Organics						
2,2,4-Trimethylpentane	ppbv	<0.20	0.20	<0.934	0.934	2067218
Carbon Disulfide	ppbv	<0.50	0.50	<1.56	1.56	2067218
Propene	ppbv	<0.30	0.30	<0.516	0.516	2067218
Vinyl Acetate	ppbv	<0.20	0.20	<0.704	0.704	2067218
Vinyl Bromide	ppbv	<0.20	0.20	<0.875	0.875	2067218
Dichlorodifluoromethane (FREON 12)	ppbv	0.66	0.20	3.28	0.989	2067218
1,2-Dichlorotetrafluoroethane	ppbv	<0.17	0.17	<1.19	1.19	2067218
Chloromethane	ppbv	0.42	0.30	0.861	0.620	2067218
Vinyl Chloride	ppbv	<0.18	0.18	<0.460	0.460	2067218
Chloroethane	ppbv	<0.30	0.30	<0.792	0.792	2067218
1,3-Butadiene	ppbv	<0.50	0.50	<1.11	1.11	2067218
Trichlorofluoromethane (FREON 11)	ppbv	0.32	0.20	1.82	1.12	2067218
Trichlorotrifluoroethane	ppbv	<0.15	0.15	<1.15	1.15	2067218
Ethanol	ppbv	<2.3	2.3	<4.33	4.33	2067218
2-propanol	ppbv	<3.0	3.0	<7.37	7.37	2067218
2-Propanone	ppbv	1.36	0.80	3.24	1.90	2067218
Methyl Ethyl Ketone (2-Butanone)	ppbv	<3.0	3.0	<8.85	8.85	2067218
Methyl Isobutyl Ketone	ppbv	<3.2	3.2	<13.1	13.1	2067218
Methyl Butyl Ketone (2-Hexanone)	ppbv	<2.0	2.0	<8.19	8.19	2067218
Methyl t-butyl ether (MTBE)	ppbv	<0.20	0.20	<0.721	0.721	2067218
Ethyl Acetate	ppbv	<2.2	2.2	<7.93	7.93	2067218
1,1-Dichloroethylene	ppbv	<0.25	0.25	<0.991	0.991	2067218
cis-1,2-Dichloroethylene	ppbv	<0.19	0.19	<0.753	0.753	2067218
trans-1,2-Dichloroethylene	ppbv	<0.20	0.20	<0.793	0.793	2067218
Methylene Chloride(Dichloromethane)	ppbv	0.41	0.30	1.41	1.04	2067218
Chloroform	ppbv	<0.15	0.15	<0.732	0.732	2067218
Carbon Tetrachloride	ppbv	<0.30	0.30	<1.89	1.89	2067218
1,1-Dichloroethane	ppbv	<0.20	0.20	<0.809	0.809	2067218
1,2-Dichloroethane	ppbv	<0.20	0.20	<0.809	0.809	2067218
Ethylene Dibromide	ppbv	<0.17	0.17	<1.31	1.31	2067218
RDL = Reportable Detection Limit QC Batch = Quality Control Batch						

Maxxam Job #: B009311
 Report Date: 2010/02/03

VOLATILE ORGANICS BY GC/MS (AIR)

Maxxam ID		EX9949				
Sampling Date		2010/01/20 00:00				
COC Number		2956				
	Units	LICA VOC/PORT/JAN 20,10-7785	DL	ug/m3	DL (ug/m3)	QC Batch
1,1,1-Trichloroethane	ppbv	<0.30	0.30	<1.64	1.64	2067218
1,1,2-Trichloroethane	ppbv	<0.15	0.15	<0.818	0.818	2067218
1,1,2,2-Tetrachloroethane	ppbv	<0.20	0.20	<1.37	1.37	2067218
cis-1,3-Dichloropropene	ppbv	<0.18	0.18	<0.817	0.817	2067218
trans-1,3-Dichloropropene	ppbv	<0.17	0.17	<0.772	0.772	2067218
1,2-Dichloropropane	ppbv	<0.40	0.40	<1.85	1.85	2067218
Bromomethane	ppbv	<0.18	0.18	<0.699	0.699	2067218
Bromoform	ppbv	<0.20	0.20	<2.07	2.07	2067218
Bromodichloromethane	ppbv	<0.20	0.20	<1.34	1.34	2067218
Dibromochloromethane	ppbv	<0.20	0.20	<1.70	1.70	2067218
Heptane	ppbv	<0.30	0.30	<1.23	1.23	2067218
Trichloroethylene	ppbv	<0.30	0.30	<1.61	1.61	2067218
Tetrachloroethylene	ppbv	<0.20	0.20	<1.36	1.36	2067218
Benzene	ppbv	<0.18	0.18	<0.575	0.575	2067218
Toluene	ppbv	<0.20	0.20	<0.753	0.753	2067218
Ethylbenzene	ppbv	<0.20	0.20	<0.868	0.868	2067218
p+m-Xylene	ppbv	<0.37	0.37	<1.61	1.61	2067218
o-Xylene	ppbv	<0.20	0.20	<0.868	0.868	2067218
Styrene	ppbv	<0.20	0.20	<0.852	0.852	2067218
1,3,5-Trimethylbenzene	ppbv	<0.50	0.50	<2.46	2.46	2067218
1,2,4-Trimethylbenzene	ppbv	<0.50	0.50	<2.46	2.46	2067218
4-ethyltoluene	ppbv	<2.2	2.2	<10.8	10.8	2067218
Chlorobenzene	ppbv	<0.20	0.20	<0.921	0.921	2067218
Benzyl chloride	ppbv	<1.0	1.0	<5.18	5.18	2067218
1,3-Dichlorobenzene	ppbv	<0.40	0.40	<2.40	2.40	2067218
1,4-Dichlorobenzene	ppbv	<0.40	0.40	<2.40	2.40	2067218
1,2-Dichlorobenzene	ppbv	<0.40	0.40	<2.40	2.40	2067218
1,2,4-Trichlorobenzene	ppbv	<2.0	2.0	<14.8	14.8	2067218
Hexachlorobutadiene	ppbv	<3.0	3.0	<32.0	32.0	2067218
Hexane	ppbv	<0.30	0.30	<1.06	1.06	2067218
Cyclohexane	ppbv	<0.20	0.20	<0.688	0.688	2067218
Tetrahydrofuran	ppbv	<0.40	0.40	<1.18	1.18	2067218
QC Batch = Quality Control Batch						

Maxxam Job #: B009311
 Report Date: 2010/02/03

VOLATILE ORGANICS BY GC/MS (AIR)

Maxxam ID		EX9949				
Sampling Date		2010/01/20 00:00				
COC Number		2956				
	Units	LICA VOC/PORT/JAN 20,10-7785	DL	ug/m3	DL (ug/m3)	QC Batch
1,4-Dioxane	ppbv	<2.0	2.0	<7.21	7.21	2067218
Xylene (Total)	ppbv	<0.60	0.60	<2.61	2.61	2067218
Surrogate Recovery (%)						
Bromochloromethane	%	71		N/A	N/A	2067218
D5-Chlorobenzene	%	71		N/A	N/A	2067218
Difluorobenzene	%	71		N/A	N/A	2067218
N/A = Not Applicable QC Batch = Quality Control Batch						

Maxxam Job #: B009311
 Report Date: 2010/02/03

Test Summary

Maxxam ID EX9948 **Collected** 2010/01/20
Sample ID LICA VOC/CLS/JAN 20,10-7614 **Shipped**
Matrix AIR **Received** 2010/01/26

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Canister Pressure (TO-15)	PRES	2067226	N/A	2010/01/28	MM2
Volatile Organics in Air (TO-15)	GC/MS	2067218	N/A	2010/01/28	MM2

Maxxam ID EX9949 **Collected** 2010/01/20
Sample ID LICA VOC/PORT/JAN 20,10-7785 **Shipped**
Matrix AIR **Received** 2010/01/26

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Canister Pressure (TO-15)	PRES	2067226	N/A	2010/01/28	MM2
Volatile Organics in Air (TO-15)	GC/MS	2067218	N/A	2010/01/28	MM2

Maxxam Job #: B009311
Report Date: 2010/02/03

GENERAL COMMENTS

Results relate only to the items tested.

Lakeland Industry & Community Assoc.
 Attention: Shea Beaton
 Client Project #:
 P.O. #:
 Project name:

Quality Assurance Report
 Maxxam Job Number: GB009311

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
2067218 MM2	Spiked Blank	Bromochloromethane	2010/01/28		97	%	60 - 140
		D5-Chlorobenzene	2010/01/28		98	%	60 - 140
		Difluorobenzene	2010/01/28		97	%	60 - 140
		2,2,4-Trimethylpentane	2010/01/28		90	%	70 - 130
		Carbon Disulfide	2010/01/28		105	%	70 - 130
		Propene	2010/01/28		87	%	70 - 130
		Vinyl Acetate	2010/01/28		97	%	70 - 130
		Vinyl Bromide	2010/01/28		102	%	70 - 130
		Dichlorodifluoromethane (FREON 12)	2010/01/28		110	%	70 - 130
		1,2-Dichlorotetrafluoroethane	2010/01/28		96	%	70 - 130
		Chloromethane	2010/01/28		98	%	70 - 130
		Vinyl Chloride	2010/01/28		104	%	70 - 130
		Chloroethane	2010/01/28		106	%	70 - 130
		1,3-Butadiene	2010/01/28		98	%	70 - 130
		Trichlorofluoromethane (FREON 11)	2010/01/28		111	%	70 - 130
		Trichlorotrifluoroethane	2010/01/28		111	%	70 - 130
		Ethanol	2010/01/28		79	%	70 - 130
		2-propanol	2010/01/28		104	%	70 - 130
		2-Propanone	2010/01/28		101	%	70 - 130
		Methyl Ethyl Ketone (2-Butanone)	2010/01/28		94	%	70 - 130
		Methyl Isobutyl Ketone	2010/01/28		99	%	70 - 130
		Methyl Butyl Ketone (2-Hexanone)	2010/01/28		102	%	70 - 130
		Methyl t-butyl ether (MTBE)	2010/01/28		96	%	70 - 130
		Ethyl Acetate	2010/01/28		94	%	70 - 130
		1,1-Dichloroethylene	2010/01/28		105	%	70 - 130
		cis-1,2-Dichloroethylene	2010/01/28		101	%	70 - 130
		trans-1,2-Dichloroethylene	2010/01/28		97	%	70 - 130
		Methylene Chloride(Dichloromethane)	2010/01/28		97	%	70 - 130
		Chloroform	2010/01/28		103	%	70 - 130
		Carbon Tetrachloride	2010/01/28		112	%	70 - 130
		1,1-Dichloroethane	2010/01/28		98	%	70 - 130
		1,2-Dichloroethane	2010/01/28		103	%	70 - 130
		Ethylene Dibromide	2010/01/28		102	%	70 - 130
		1,1,1-Trichloroethane	2010/01/28		108	%	70 - 130
		1,1,2-Trichloroethane	2010/01/28		103	%	70 - 130
		1,1,2,2-Tetrachloroethane	2010/01/28		100	%	70 - 130
		cis-1,3-Dichloropropene	2010/01/28		105	%	70 - 130
		trans-1,3-Dichloropropene	2010/01/28		103	%	70 - 130
		1,2-Dichloropropane	2010/01/28		100	%	70 - 130
		Bromomethane	2010/01/28		118	%	70 - 130
		Bromoform	2010/01/28		111	%	70 - 130
		Bromodichloromethane	2010/01/28		111	%	70 - 130
		Dibromochloromethane	2010/01/28		110	%	70 - 130
		Heptane	2010/01/28		92	%	70 - 130
		Trichloroethylene	2010/01/28		108	%	70 - 130
		Tetrachloroethylene	2010/01/28		111	%	70 - 130
		Benzene	2010/01/28		97	%	70 - 130
		Toluene	2010/01/28		99	%	70 - 130
		Ethylbenzene	2010/01/28		99	%	70 - 130
		p+m-Xylene	2010/01/28		98	%	70 - 130
		o-Xylene	2010/01/28		100	%	70 - 130
		Styrene	2010/01/28		94	%	70 - 130
		1,3,5-Trimethylbenzene	2010/01/28		99	%	70 - 130
		1,2,4-Trimethylbenzene	2010/01/28		95	%	70 - 130
		4-ethyltoluene	2010/01/28		98	%	70 - 130

Lakeland Industry & Community Assoc.
 Attention: Shea Beaton
 Client Project #:
 P.O. #:
 Project name:

Quality Assurance Report (Continued)

Maxxam Job Number: GB009311

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits	
2067218 MM2	Spiked Blank	Chlorobenzene	2010/01/28		100	%	70 - 130	
		Benzyl chloride	2010/01/28		87	%	70 - 130	
1,3-Dichlorobenzene		2010/01/28		97	%	70 - 130		
1,4-Dichlorobenzene		2010/01/28		93	%	70 - 130		
1,2-Dichlorobenzene		2010/01/28		93	%	70 - 130		
1,2,4-Trichlorobenzene		2010/01/28		74	%	70 - 130		
Hexachlorobutadiene		2010/01/28		91	%	70 - 130		
Hexane		2010/01/28		91	%	70 - 130		
Cyclohexane		2010/01/28		97	%	70 - 130		
Tetrahydrofuran		2010/01/28		93	%	70 - 130		
Method Blank	Method Blank	1,4-Dioxane	2010/01/28		103	%	70 - 130	
		Bromochloromethane	2010/01/28		84	%	60 - 140	
		D5-Chlorobenzene	2010/01/28		82	%	60 - 140	
		Difluorobenzene	2010/01/28		85	%	60 - 140	
		2,2,4-Trimethylpentane	2010/01/28	ND, RDL=0.20			ppbv	
		Carbon Disulfide	2010/01/28	ND, RDL=0.50			ppbv	
		Propene	2010/01/28	ND, RDL=0.30			ppbv	
		Vinyl Acetate	2010/01/28	ND, RDL=0.20			ppbv	
		Vinyl Bromide	2010/01/28	ND, RDL=0.20			ppbv	
		Dichlorodifluoromethane (FREON 12)	2010/01/28	ND, RDL=0.20			ppbv	
		1,2-Dichlorotetrafluoroethane	2010/01/28	ND, RDL=0.17			ppbv	
		Chloromethane	2010/01/28	ND, RDL=0.30			ppbv	
		Vinyl Chloride	2010/01/28	ND, RDL=0.18			ppbv	
		Chloroethane	2010/01/28	ND, RDL=0.30			ppbv	
		1,3-Butadiene	2010/01/28	ND, RDL=0.50			ppbv	
		Trichlorofluoromethane (FREON 11)	2010/01/28	ND, RDL=0.20			ppbv	
		Trichlorotrifluoroethane	2010/01/28	ND, RDL=0.15			ppbv	
		Ethanol	2010/01/28	ND, RDL=2.3			ppbv	
		2-propanol	2010/01/28	ND, RDL=3.0			ppbv	
		2-Propanone	2010/01/28	ND, RDL=0.80			ppbv	
		Methyl Ethyl Ketone (2-Butanone)	2010/01/28	ND, RDL=3.0			ppbv	
		Methyl Isobutyl Ketone	2010/01/28	ND, RDL=3.2			ppbv	
		Methyl Butyl Ketone (2-Hexanone)	2010/01/28	ND, RDL=2.0			ppbv	
		Methyl t-butyl ether (MTBE)	2010/01/28	ND, RDL=0.20			ppbv	
		Ethyl Acetate	2010/01/28	ND, RDL=2.2			ppbv	
		1,1-Dichloroethylene	2010/01/28	ND, RDL=0.25			ppbv	
		cis-1,2-Dichloroethylene	2010/01/28	ND, RDL=0.19			ppbv	
		trans-1,2-Dichloroethylene	2010/01/28	ND, RDL=0.20			ppbv	
		Methylene Chloride(Dichloromethane)	2010/01/28	0.53, RDL=0.30			ppbv	
		Chloroform	2010/01/28	ND, RDL=0.15			ppbv	
		Carbon Tetrachloride	2010/01/28	ND, RDL=0.30			ppbv	
		1,1-Dichloroethane	2010/01/28	ND, RDL=0.20			ppbv	
		1,2-Dichloroethane	2010/01/28	ND, RDL=0.20			ppbv	
		Ethylene Dibromide	2010/01/28	ND, RDL=0.17			ppbv	
		1,1,1-Trichloroethane	2010/01/28	ND, RDL=0.30			ppbv	
		1,1,2-Trichloroethane	2010/01/28	ND, RDL=0.15			ppbv	
		1,1,2,2-Tetrachloroethane	2010/01/28	ND, RDL=0.20			ppbv	
		cis-1,3-Dichloropropene	2010/01/28	ND, RDL=0.18			ppbv	
trans-1,3-Dichloropropene	2010/01/28	ND, RDL=0.17			ppbv			
1,2-Dichloropropane	2010/01/28	ND, RDL=0.40			ppbv			
Bromomethane	2010/01/28	ND, RDL=0.18			ppbv			
Bromoform	2010/01/28	ND, RDL=0.20			ppbv			
Bromodichloromethane	2010/01/28	ND, RDL=0.20			ppbv			
Dibromochloromethane	2010/01/28	ND, RDL=0.20			ppbv			
Heptane	2010/01/28	ND, RDL=0.30			ppbv			

Lakeland Industry & Community Assoc.
 Attention: Shea Beaton
 Client Project #:
 P.O. #:
 Project name:

Quality Assurance Report (Continued)

Maxxam Job Number: GB009311

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
2067218	MM2	Method Blank					
		Trichloroethylene	2010/01/28	ND, RDL=0.30		ppbv	
		Tetrachloroethylene	2010/01/28	ND, RDL=0.20		ppbv	
		Benzene	2010/01/28	ND, RDL=0.18		ppbv	
		Toluene	2010/01/28	ND, RDL=0.20		ppbv	
		Ethylbenzene	2010/01/28	ND, RDL=0.20		ppbv	
		p+m-Xylene	2010/01/28	ND, RDL=0.37		ppbv	
		o-Xylene	2010/01/28	ND, RDL=0.20		ppbv	
		Styrene	2010/01/28	ND, RDL=0.20		ppbv	
		1,3,5-Trimethylbenzene	2010/01/28	ND, RDL=0.50		ppbv	
		1,2,4-Trimethylbenzene	2010/01/28	ND, RDL=0.50		ppbv	
		4-ethyltoluene	2010/01/28	ND, RDL=2.2		ppbv	
		Chlorobenzene	2010/01/28	ND, RDL=0.20		ppbv	
		Benzyl chloride	2010/01/28	ND, RDL=1.0		ppbv	
		1,3-Dichlorobenzene	2010/01/28	ND, RDL=0.40		ppbv	
		1,4-Dichlorobenzene	2010/01/28	ND, RDL=0.40		ppbv	
		1,2-Dichlorobenzene	2010/01/28	ND, RDL=0.40		ppbv	
		1,2,4-Trichlorobenzene	2010/01/28	ND, RDL=2.0		ppbv	
		Hexachlorobutadiene	2010/01/28	ND, RDL=3.0		ppbv	
		Hexane	2010/01/28	ND, RDL=0.30		ppbv	
		Cyclohexane	2010/01/28	ND, RDL=0.20		ppbv	
		Tetrahydrofuran	2010/01/28	ND, RDL=0.40		ppbv	
		1,4-Dioxane	2010/01/28	ND, RDL=2.0		ppbv	
		Xylene (Total)	2010/01/28	ND, RDL=0.6		ppbv	

Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.
 Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.
 Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

Maxxam Analytics Inc.

Xontech Model 910A VOC Sample Collection Data Sheet

Client: LICA Sampler s/n: 6167
 Location: Cold Lake South Canister ID: 7796 (Maxxam Supplied)
 Station ID: Lica 1 Canister Installation Date/Time: Jan 25, 10 @ 14:00 mst
 Field Sample ID: LICA VOC/ CLS / Jan 26, 10 Canister Removal Date/Time: Jan 27, 10 @ 08:20 mst

Date and Time Information			
Sample Date	Start Time (MST)	End Time (MST)	Elapsed Time (Hours)
26-Jan-10	01/26/2010 0:00	01/27/2010 0:00	24.00

Flow Settings		
Meter Reading (sccm)	Pot Set Pt.	Pump Pressure Setting (psig)
10.0	590	25

Canister Information	
Initial Canister Vacuum (inHg)	Final Canister Pressure (psig)
-28	21

Canister valve open prior to sampling?: YES / NO
 Timer set to 0.00 minutes prior to sampling? YES / NO
 Canister valve closed prior to disconnection?: YES / NO

Comments: System leak check prior to sampling. COC #560

Technician Signature: Shea Beaton



Your C.O.C. #: 0560

Attention: Shea Beaton

Lakeland Industry & Community Assoc.
P.O. Box 8237
Bonnyville, AB
CANADA T9N 2J5

Report Date: 2010/02/05

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B010562

Received: 2010/01/28, 08:22

Sample Matrix: AIR
Samples Received: 2

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
Canister Pressure (TO-15)	2	N/A	2010/01/29	BRL SOP-00304	EPA TO-15
Volatile Organics in Air (TO-15) ¶	2	N/A	2010/01/29	BRL SOP-00304	EPA TO-15

(1) Air sampling canisters have been cleaned in accordance with U.S. EPA Method TO14A. At the end of the cleaning, evacuation, and pressurization cycles, one canister was selected and was pressurized with Zero Air. This canister was then analyzed via TO14A on a GC/MS. The canister must have been found to contain <0.2 ppbv concentration of all target analytes in order for the batch to have been considered clean. Each canister also underwent a leak check prior to shipment.

Please Note: SUMMA® canister samples will be retained by Maxxam for a period of 5 calendar days from the date of this report, after which time they will be cleaned for reuse. If you require a longer sample storage period, please contact your service representative.

Encryption Key

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

THERESA STEPHENSON, Project Manager
Email: Theresa.Stephenson@MaxxamAnalytics.com
Phone# (905) 817-5763

=====
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.

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Total cover pages: 1

Maxxam Job #: B010562
 Report Date: 2010/02/05

RESULTS OF ANALYSES OF AIR

Maxxam ID		EY5531	EY5532		
Sampling Date		2010/01/26	2010/01/26		
COC Number		0560	0560		
	Units	LICA VOC/CLS/JAN 26,10	LICA VOC/PORT/JAN 26,10 / 7860	DL	QC Batch

Volatile Organics					
Pressure on Receipt	psig	20	20	N/A	2068481

RDL = Reportable Detection Limit
 QC Batch = Quality Control Batch

Maxxam Job #: B010562
 Report Date: 2010/02/05

VOLATILE ORGANICS BY GC/MS (AIR)

Maxxam ID		EY5531				
Sampling Date		2010/01/26				
COC Number		0560				
	Units	LICA VOC/CLS/JAN 26,10	DL	ug/m3	DL (ug/m3)	QC Batch

Volatile Organics						
2,2,4-Trimethylpentane	ppbv	<0.20	0.20	<0.934	0.934	2068486
Carbon Disulfide	ppbv	<0.50	0.50	<1.56	1.56	2068486
Propene	ppbv	<0.30	0.30	<0.516	0.516	2068486
Vinyl Acetate	ppbv	<0.20	0.20	<0.704	0.704	2068486
Vinyl Bromide	ppbv	<0.20	0.20	<0.875	0.875	2068486
Dichlorodifluoromethane (FREON 12)	ppbv	0.72	0.20	3.55	0.989	2068486
1,2-Dichlorotetrafluoroethane	ppbv	<0.17	0.17	<1.19	1.19	2068486
Chloromethane	ppbv	0.56	0.30	1.15	0.620	2068486
Vinyl Chloride	ppbv	<0.18	0.18	<0.460	0.460	2068486
Chloroethane	ppbv	<0.30	0.30	<0.792	0.792	2068486
1,3-Butadiene	ppbv	<0.50	0.50	<1.11	1.11	2068486
Trichlorofluoromethane (FREON 11)	ppbv	0.32	0.20	1.77	1.12	2068486
Trichlorotrifluoroethane	ppbv	<0.15	0.15	<1.15	1.15	2068486
Ethanol	ppbv	<2.3	2.3	<4.33	4.33	2068486
2-propanol	ppbv	<3.0	3.0	<7.37	7.37	2068486
2-Propanone	ppbv	0.90	0.80	2.14	1.90	2068486
Methyl Ethyl Ketone (2-Butanone)	ppbv	<3.0	3.0	<8.85	8.85	2068486
Methyl Isobutyl Ketone	ppbv	<3.2	3.2	<13.1	13.1	2068486
Methyl Butyl Ketone (2-Hexanone)	ppbv	<2.0	2.0	<8.19	8.19	2068486
Methyl t-butyl ether (MTBE)	ppbv	<0.20	0.20	<0.721	0.721	2068486
Ethyl Acetate	ppbv	<2.2	2.2	<7.93	7.93	2068486
1,1-Dichloroethylene	ppbv	<0.25	0.25	<0.991	0.991	2068486
cis-1,2-Dichloroethylene	ppbv	<0.19	0.19	<0.753	0.753	2068486
trans-1,2-Dichloroethylene	ppbv	<0.20	0.20	<0.793	0.793	2068486
Methylene Chloride(Dichloromethane)	ppbv	0.44	0.30	1.53	1.04	2068486
Chloroform	ppbv	<0.15	0.15	<0.732	0.732	2068486
Carbon Tetrachloride	ppbv	<0.30	0.30	<1.89	1.89	2068486
1,1-Dichloroethane	ppbv	<0.20	0.20	<0.809	0.809	2068486
1,2-Dichloroethane	ppbv	<0.20	0.20	<0.809	0.809	2068486
Ethylene Dibromide	ppbv	<0.17	0.17	<1.31	1.31	2068486
1,1,1-Trichloroethane	ppbv	<0.30	0.30	<1.64	1.64	2068486

 RDL = Reportable Detection Limit
 QC Batch = Quality Control Batch

Maxxam Job #: B010562
 Report Date: 2010/02/05

VOLATILE ORGANICS BY GC/MS (AIR)

Maxxam ID		EY5531				
Sampling Date		2010/01/26				
COC Number		0560				
	Units	LICA VOC/CLS/JAN 26,10	DL	ug/m3	DL (ug/m3)	QC Batch
1,1,2-Trichloroethane	ppbv	<0.15	0.15	<0.818	0.818	2068486
1,1,2,2-Tetrachloroethane	ppbv	<0.20	0.20	<1.37	1.37	2068486
cis-1,3-Dichloropropene	ppbv	<0.18	0.18	<0.817	0.817	2068486
trans-1,3-Dichloropropene	ppbv	<0.17	0.17	<0.772	0.772	2068486
1,2-Dichloropropane	ppbv	<0.40	0.40	<1.85	1.85	2068486
Bromomethane	ppbv	<0.18	0.18	<0.699	0.699	2068486
Bromoform	ppbv	<0.20	0.20	<2.07	2.07	2068486
Bromodichloromethane	ppbv	<0.20	0.20	<1.34	1.34	2068486
Dibromochloromethane	ppbv	<0.20	0.20	<1.70	1.70	2068486
Heptane	ppbv	<0.30	0.30	<1.23	1.23	2068486
Trichloroethylene	ppbv	<0.30	0.30	<1.61	1.61	2068486
Tetrachloroethylene	ppbv	<0.20	0.20	<1.36	1.36	2068486
Benzene	ppbv	<0.18	0.18	<0.575	0.575	2068486
Toluene	ppbv	<0.20	0.20	<0.753	0.753	2068486
Ethylbenzene	ppbv	<0.20	0.20	<0.868	0.868	2068486
p+m-Xylene	ppbv	<0.37	0.37	<1.61	1.61	2068486
o-Xylene	ppbv	<0.20	0.20	<0.868	0.868	2068486
Styrene	ppbv	<0.20	0.20	<0.852	0.852	2068486
1,3,5-Trimethylbenzene	ppbv	<0.50	0.50	<2.46	2.46	2068486
1,2,4-Trimethylbenzene	ppbv	<0.50	0.50	<2.46	2.46	2068486
4-ethyltoluene	ppbv	<2.2	2.2	<10.8	10.8	2068486
Chlorobenzene	ppbv	<0.20	0.20	<0.921	0.921	2068486
Benzyl chloride	ppbv	<1.0	1.0	<5.18	5.18	2068486
1,3-Dichlorobenzene	ppbv	<0.40	0.40	<2.40	2.40	2068486
1,4-Dichlorobenzene	ppbv	<0.40	0.40	<2.40	2.40	2068486
1,2-Dichlorobenzene	ppbv	<0.40	0.40	<2.40	2.40	2068486
1,2,4-Trichlorobenzene	ppbv	<2.0	2.0	<14.8	14.8	2068486
Hexachlorobutadiene	ppbv	<3.0	3.0	<32.0	32.0	2068486
Hexane	ppbv	<0.30	0.30	<1.06	1.06	2068486
Cyclohexane	ppbv	<0.20	0.20	<0.688	0.688	2068486
Tetrahydrofuran	ppbv	<0.40	0.40	<1.18	1.18	2068486
1,4-Dioxane	ppbv	<2.0	2.0	<7.21	7.21	2068486
Xylene (Total)	ppbv	<0.60	0.60	<2.61	2.61	2068486
QC Batch = Quality Control Batch						

Maxxam Job #: B010562
 Report Date: 2010/02/05

VOLATILE ORGANICS BY GC/MS (AIR)

Maxxam ID		EY5531				
Sampling Date		2010/01/26				
COC Number		0560				
	Units	LICA VOC/CLS/JAN 26,10	DL	ug/m3	DL (ug/m3)	QC Batch

Surrogate Recovery (%)						
Bromochloromethane	%	85		N/A	N/A	2068486
D5-Chlorobenzene	%	73		N/A	N/A	2068486
Difluorobenzene	%	85		N/A	N/A	2068486

N/A = Not Applicable
 QC Batch = Quality Control Batch

Maxxam Job #: B010562
 Report Date: 2010/02/05

VOLATILE ORGANICS BY GC/MS (AIR)

Maxxam ID		EY5532				
Sampling Date		2010/01/26				
COC Number		0560				
	Units	LICA	DL	ug/m3	DL (ug/m3)	QC Batch
		VOC/PORT/JAN				
		26,10 / 7860				
Volatile Organics						
2,2,4-Trimethylpentane	ppbv	<0.20	0.20	<0.934	0.934	2068486
Carbon Disulfide	ppbv	<0.50	0.50	<1.56	1.56	2068486
Propene	ppbv	<0.30	0.30	<0.516	0.516	2068486
Vinyl Acetate	ppbv	<0.20	0.20	<0.704	0.704	2068486
Vinyl Bromide	ppbv	<0.20	0.20	<0.875	0.875	2068486
Dichlorodifluoromethane (FREON 12)	ppbv	0.62	0.20	3.05	0.989	2068486
1,2-Dichlorotetrafluoroethane	ppbv	<0.17	0.17	<1.19	1.19	2068486
Chloromethane	ppbv	0.53	0.30	1.08	0.620	2068486
Vinyl Chloride	ppbv	<0.18	0.18	<0.460	0.460	2068486
Chloroethane	ppbv	<0.30	0.30	<0.792	0.792	2068486
1,3-Butadiene	ppbv	<0.50	0.50	<1.11	1.11	2068486
Trichlorofluoromethane (FREON 11)	ppbv	0.29	0.20	1.64	1.12	2068486
Trichlorotrifluoroethane	ppbv	<0.15	0.15	<1.15	1.15	2068486
Ethanol	ppbv	<2.3	2.3	<4.33	4.33	2068486
2-propanol	ppbv	<3.0	3.0	<7.37	7.37	2068486
2-Propanone	ppbv	1.06	0.80	2.52	1.90	2068486
Methyl Ethyl Ketone (2-Butanone)	ppbv	<3.0	3.0	<8.85	8.85	2068486
Methyl Isobutyl Ketone	ppbv	<3.2	3.2	<13.1	13.1	2068486
Methyl Butyl Ketone (2-Hexanone)	ppbv	<2.0	2.0	<8.19	8.19	2068486
Methyl t-butyl ether (MTBE)	ppbv	<0.20	0.20	<0.721	0.721	2068486
Ethyl Acetate	ppbv	<2.2	2.2	<7.93	7.93	2068486
1,1-Dichloroethylene	ppbv	<0.25	0.25	<0.991	0.991	2068486
cis-1,2-Dichloroethylene	ppbv	<0.19	0.19	<0.753	0.753	2068486
trans-1,2-Dichloroethylene	ppbv	<0.20	0.20	<0.793	0.793	2068486
Methylene Chloride(Dichloromethane)	ppbv	0.36	0.30	1.25	1.04	2068486
Chloroform	ppbv	<0.15	0.15	<0.732	0.732	2068486
Carbon Tetrachloride	ppbv	<0.30	0.30	<1.89	1.89	2068486
1,1-Dichloroethane	ppbv	<0.20	0.20	<0.809	0.809	2068486
1,2-Dichloroethane	ppbv	<0.20	0.20	<0.809	0.809	2068486
Ethylene Dibromide	ppbv	<0.17	0.17	<1.31	1.31	2068486
1,1,1-Trichloroethane	ppbv	<0.30	0.30	<1.64	1.64	2068486
RDL = Reportable Detection Limit QC Batch = Quality Control Batch						

Maxxam Job #: B010562
 Report Date: 2010/02/05

VOLATILE ORGANICS BY GC/MS (AIR)

Maxxam ID		EY5532				
Sampling Date		2010/01/26				
COC Number		0560				
	Units	LICA	DL	ug/m3	DL (ug/m3)	QC Batch
		VOC/PORT/JAN				
		26,10 / 7860				
1,1,2-Trichloroethane	ppbv	<0.15	0.15	<0.818	0.818	2068486
1,1,2,2-Tetrachloroethane	ppbv	<0.20	0.20	<1.37	1.37	2068486
cis-1,3-Dichloropropene	ppbv	<0.18	0.18	<0.817	0.817	2068486
trans-1,3-Dichloropropene	ppbv	<0.17	0.17	<0.772	0.772	2068486
1,2-Dichloropropane	ppbv	<0.40	0.40	<1.85	1.85	2068486
Bromomethane	ppbv	<0.18	0.18	<0.699	0.699	2068486
Bromoform	ppbv	<0.20	0.20	<2.07	2.07	2068486
Bromodichloromethane	ppbv	<0.20	0.20	<1.34	1.34	2068486
Dibromochloromethane	ppbv	<0.20	0.20	<1.70	1.70	2068486
Heptane	ppbv	<0.30	0.30	<1.23	1.23	2068486
Trichloroethylene	ppbv	<0.30	0.30	<1.61	1.61	2068486
Tetrachloroethylene	ppbv	<0.20	0.20	<1.36	1.36	2068486
Benzene	ppbv	<0.18	0.18	<0.575	0.575	2068486
Toluene	ppbv	<0.20	0.20	<0.753	0.753	2068486
Ethylbenzene	ppbv	<0.20	0.20	<0.868	0.868	2068486
p+m-Xylene	ppbv	<0.37	0.37	<1.61	1.61	2068486
o-Xylene	ppbv	<0.20	0.20	<0.868	0.868	2068486
Styrene	ppbv	<0.20	0.20	<0.852	0.852	2068486
1,3,5-Trimethylbenzene	ppbv	<0.50	0.50	<2.46	2.46	2068486
1,2,4-Trimethylbenzene	ppbv	<0.50	0.50	<2.46	2.46	2068486
4-ethyltoluene	ppbv	<2.2	2.2	<10.8	10.8	2068486
Chlorobenzene	ppbv	<0.20	0.20	<0.921	0.921	2068486
Benzyl chloride	ppbv	<1.0	1.0	<5.18	5.18	2068486
1,3-Dichlorobenzene	ppbv	<0.40	0.40	<2.40	2.40	2068486
1,4-Dichlorobenzene	ppbv	<0.40	0.40	<2.40	2.40	2068486
1,2-Dichlorobenzene	ppbv	<0.40	0.40	<2.40	2.40	2068486
1,2,4-Trichlorobenzene	ppbv	<2.0	2.0	<14.8	14.8	2068486
Hexachlorobutadiene	ppbv	<3.0	3.0	<32.0	32.0	2068486
Hexane	ppbv	<0.30	0.30	<1.06	1.06	2068486
Cyclohexane	ppbv	<0.20	0.20	<0.688	0.688	2068486
Tetrahydrofuran	ppbv	<0.40	0.40	<1.18	1.18	2068486
1,4-Dioxane	ppbv	<2.0	2.0	<7.21	7.21	2068486
Xylene (Total)	ppbv	<0.60	0.60	<2.61	2.61	2068486
QC Batch = Quality Control Batch						

Maxxam Job #: B010562
 Report Date: 2010/02/05

VOLATILE ORGANICS BY GC/MS (AIR)

Maxxam ID		EY5532				
Sampling Date		2010/01/26				
COC Number		0560				
	Units	LICA	DL	ug/m3	DL (ug/m3)	QC Batch
		VOC/PORT/JAN				
		26,10 / 7860				

Surrogate Recovery (%)						
Bromochloromethane	%	77		N/A	N/A	2068486
D5-Chlorobenzene	%	66		N/A	N/A	2068486
Difluorobenzene	%	74		N/A	N/A	2068486

N/A = Not Applicable
 QC Batch = Quality Control Batch

Maxxam Job #: B010562
 Report Date: 2010/02/05

Test Summary

Maxxam ID EY5531 **Collected** 2010/01/26
Sample ID LICA VOC/CLS/JAN 26,10 **Shipped**
Matrix AIR **Received** 2010/01/28

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Canister Pressure (TO-15)	PRES	2068481	N/A	2010/01/29	S_S
Volatile Organics in Air (TO-15)	GC/MS	2068486	N/A	2010/01/29	S_S

Maxxam ID EY5531 Dup **Collected** 2010/01/26
Sample ID LICA VOC/CLS/JAN 26,10 **Shipped**
Matrix AIR **Received** 2010/01/28

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Volatile Organics in Air (TO-15)	GC/MS	2068486	N/A	2010/01/29	S_S

Maxxam ID EY5532 **Collected** 2010/01/26
Sample ID LICA VOC/PORT/JAN 26,10 / 7860 **Shipped**
Matrix AIR **Received** 2010/01/28

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Canister Pressure (TO-15)	PRES	2068481	N/A	2010/01/29	S_S
Volatile Organics in Air (TO-15)	GC/MS	2068486	N/A	2010/01/29	S_S

Maxxam Job #: B010562
Report Date: 2010/02/05

GENERAL COMMENTS

Results relate only to the items tested.

Lakeland Industry & Community Assoc.
 Attention: Shea Beaton
 Client Project #:
 P.O. #:
 Project name:

Quality Assurance Report
 Maxxam Job Number: GB010562

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
2068486 S_S	Spiked Blank	Bromochloromethane	2010/01/29		104	%	60 - 140
		D5-Chlorobenzene	2010/01/29		105	%	60 - 140
		Difluorobenzene	2010/01/29		106	%	60 - 140
		2,2,4-Trimethylpentane	2010/01/29		91	%	70 - 130
		Carbon Disulfide	2010/01/29		88	%	70 - 130
		Propene	2010/01/29		73	%	70 - 130
		Vinyl Acetate	2010/01/29		98	%	70 - 130
		Vinyl Bromide	2010/01/29		90	%	70 - 130
		Dichlorodifluoromethane (FREON 12)	2010/01/29		90	%	70 - 130
		1,2-Dichlorotetrafluoroethane	2010/01/29		76	%	70 - 130
		Chloromethane	2010/01/29		76	%	70 - 130
		Vinyl Chloride	2010/01/29		79	%	70 - 130
		Chloroethane	2010/01/29		80	%	70 - 130
		1,3-Butadiene	2010/01/29		72	%	70 - 130
		Trichlorofluoromethane (FREON 11)	2010/01/29		95	%	70 - 130
		Trichlorotrifluoroethane	2010/01/29		88	%	70 - 130
		Ethanol	2010/01/29		89	%	70 - 130
		2-propanol	2010/01/29		92	%	70 - 130
		2-Propanone	2010/01/29		93	%	70 - 130
		Methyl Ethyl Ketone (2-Butanone)	2010/01/29		105	%	70 - 130
		Methyl Isobutyl Ketone	2010/01/29		95	%	70 - 130
		Methyl Butyl Ketone (2-Hexanone)	2010/01/29		105	%	70 - 130
		Methyl t-butyl ether (MTBE)	2010/01/29		96	%	70 - 130
		Ethyl Acetate	2010/01/29		88	%	70 - 130
		1,1-Dichloroethylene	2010/01/29		90	%	70 - 130
		cis-1,2-Dichloroethylene	2010/01/29		88	%	70 - 130
		trans-1,2-Dichloroethylene	2010/01/29		89	%	70 - 130
		Methylene Chloride(Dichloromethane)	2010/01/29		74	%	70 - 130
		Chloroform	2010/01/29		87	%	70 - 130
		Carbon Tetrachloride	2010/01/29		102	%	70 - 130
		1,1-Dichloroethane	2010/01/29		86	%	70 - 130
		1,2-Dichloroethane	2010/01/29		91	%	70 - 130
		Ethylene Dibromide	2010/01/29		94	%	70 - 130
		1,1,1-Trichloroethane	2010/01/29		97	%	70 - 130
		1,1,2-Trichloroethane	2010/01/29		88	%	70 - 130
		1,1,2,2-Tetrachloroethane	2010/01/29		88	%	70 - 130
		cis-1,3-Dichloropropene	2010/01/29		102	%	70 - 130
		trans-1,3-Dichloropropene	2010/01/29		107	%	70 - 130
		1,2-Dichloropropane	2010/01/29		83	%	70 - 130
		Bromomethane	2010/01/29		78	%	70 - 130
		Bromoform	2010/01/29		108	%	70 - 130
		Bromodichloromethane	2010/01/29		103	%	70 - 130
		Dibromochloromethane	2010/01/29		107	%	70 - 130
		Heptane	2010/01/29		89	%	70 - 130
		Trichloroethylene	2010/01/29		86	%	70 - 130
		Tetrachloroethylene	2010/01/29		92	%	70 - 130
		Benzene	2010/01/29		85	%	70 - 130
		Toluene	2010/01/29		97	%	70 - 130
		Ethylbenzene	2010/01/29		94	%	70 - 130
		p+m-Xylene	2010/01/29		95	%	70 - 130
		o-Xylene	2010/01/29		96	%	70 - 130
		Styrene	2010/01/29		102	%	70 - 130
		1,3,5-Trimethylbenzene	2010/01/29		97	%	70 - 130
		1,2,4-Trimethylbenzene	2010/01/29		101	%	70 - 130
		4-ethyltoluene	2010/01/29		103	%	70 - 130

Lakeland Industry & Community Assoc.
 Attention: Shea Beaton
 Client Project #:
 P.O. #:
 Project name:

Quality Assurance Report (Continued)

Maxxam Job Number: GB010562

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
2068486 S_S	Spiked Blank	Chlorobenzene	2010/01/29		83	%	70 - 130
		Benzyl chloride	2010/01/29		113	%	70 - 130
		1,3-Dichlorobenzene	2010/01/29		94	%	70 - 130
		1,4-Dichlorobenzene	2010/01/29		93	%	70 - 130
		1,2-Dichlorobenzene	2010/01/29		93	%	70 - 130
		1,2,4-Trichlorobenzene	2010/01/29		97	%	70 - 130
		Hexachlorobutadiene	2010/01/29		102	%	70 - 130
		Hexane	2010/01/29		86	%	70 - 130
		Cyclohexane	2010/01/29		92	%	70 - 130
		Tetrahydrofuran	2010/01/29		89	%	70 - 130
		1,4-Dioxane	2010/01/29		92	%	70 - 130
	Method Blank	Bromochloromethane	2010/01/29		91	%	60 - 140
		D5-Chlorobenzene	2010/01/29		80	%	60 - 140
		Difluorobenzene	2010/01/29		92	%	60 - 140
		2,2,4-Trimethylpentane	2010/01/29	ND, RDL=0.20		ppbv	
		Carbon Disulfide	2010/01/29	ND, RDL=0.50		ppbv	
		Propene	2010/01/29	ND, RDL=0.30		ppbv	
		Vinyl Acetate	2010/01/29	ND, RDL=0.20		ppbv	
		Vinyl Bromide	2010/01/29	ND, RDL=0.20		ppbv	
		Dichlorodifluoromethane (FREON 12)	2010/01/29	ND, RDL=0.20		ppbv	
		1,2-Dichlorotetrafluoroethane	2010/01/29	ND, RDL=0.17		ppbv	
		Chloromethane	2010/01/29	ND, RDL=0.30		ppbv	
		Vinyl Chloride	2010/01/29	ND, RDL=0.18		ppbv	
		Chloroethane	2010/01/29	ND, RDL=0.30		ppbv	
		1,3-Butadiene	2010/01/29	ND, RDL=0.50		ppbv	
		Trichlorofluoromethane (FREON 11)	2010/01/29	ND, RDL=0.20		ppbv	
		Trichlorotrifluoroethane	2010/01/29	ND, RDL=0.15		ppbv	
		Ethanol	2010/01/29	ND, RDL=2.3		ppbv	
		2-propanol	2010/01/29	ND, RDL=3.0		ppbv	
		2-Propanone	2010/01/29	ND, RDL=0.80		ppbv	
		Methyl Ethyl Ketone (2-Butanone)	2010/01/29	ND, RDL=3.0		ppbv	
		Methyl Isobutyl Ketone	2010/01/29	ND, RDL=3.2		ppbv	
		Methyl Butyl Ketone (2-Hexanone)	2010/01/29	ND, RDL=2.0		ppbv	
		Methyl t-butyl ether (MTBE)	2010/01/29	ND, RDL=0.20		ppbv	
		Ethyl Acetate	2010/01/29	ND, RDL=2.2		ppbv	
		1,1-Dichloroethylene	2010/01/29	ND, RDL=0.25		ppbv	
		cis-1,2-Dichloroethylene	2010/01/29	ND, RDL=0.19		ppbv	
		trans-1,2-Dichloroethylene	2010/01/29	ND, RDL=0.20		ppbv	
		Methylene Chloride(Dichloromethane)	2010/01/29	ND, RDL=0.30		ppbv	
		Chloroform	2010/01/29	ND, RDL=0.15		ppbv	
		Carbon Tetrachloride	2010/01/29	ND, RDL=0.30		ppbv	
		1,1-Dichloroethane	2010/01/29	ND, RDL=0.20		ppbv	
		1,2-Dichloroethane	2010/01/29	ND, RDL=0.20		ppbv	
		Ethylene Dibromide	2010/01/29	ND, RDL=0.17		ppbv	
		1,1,1-Trichloroethane	2010/01/29	ND, RDL=0.30		ppbv	
		1,1,2-Trichloroethane	2010/01/29	ND, RDL=0.15		ppbv	
		1,1,2,2-Tetrachloroethane	2010/01/29	ND, RDL=0.20		ppbv	
		cis-1,3-Dichloropropene	2010/01/29	ND, RDL=0.18		ppbv	
		trans-1,3-Dichloropropene	2010/01/29	ND, RDL=0.17		ppbv	
		1,2-Dichloropropane	2010/01/29	ND, RDL=0.40		ppbv	
		Bromomethane	2010/01/29	ND, RDL=0.18		ppbv	
		Bromoform	2010/01/29	ND, RDL=0.20		ppbv	
		Bromodichloromethane	2010/01/29	ND, RDL=0.20		ppbv	
		Dibromochloromethane	2010/01/29	ND, RDL=0.20		ppbv	
		Heptane	2010/01/29	ND, RDL=0.30		ppbv	

Lakeland Industry & Community Assoc.
 Attention: Shea Beaton
 Client Project #:
 P.O. #:
 Project name:

Quality Assurance Report (Continued)

Maxxam Job Number: GB010562

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
2068486 S_S	Method Blank	Trichloroethylene	2010/01/29	ND, RDL=0.30		ppbv	
		Tetrachloroethylene	2010/01/29	ND, RDL=0.20		ppbv	
		Benzene	2010/01/29	ND, RDL=0.18		ppbv	
		Toluene	2010/01/29	ND, RDL=0.20		ppbv	
		Ethylbenzene	2010/01/29	ND, RDL=0.20		ppbv	
		p+m-Xylene	2010/01/29	ND, RDL=0.37		ppbv	
		o-Xylene	2010/01/29	ND, RDL=0.20		ppbv	
		Styrene	2010/01/29	ND, RDL=0.20		ppbv	
		1,3,5-Trimethylbenzene	2010/01/29	ND, RDL=0.50		ppbv	
		1,2,4-Trimethylbenzene	2010/01/29	ND, RDL=0.50		ppbv	
		4-ethyltoluene	2010/01/29	ND, RDL=2.2		ppbv	
		Chlorobenzene	2010/01/29	ND, RDL=0.20		ppbv	
		Benzyl chloride	2010/01/29	ND, RDL=1.0		ppbv	
		1,3-Dichlorobenzene	2010/01/29	ND, RDL=0.40		ppbv	
		1,4-Dichlorobenzene	2010/01/29	ND, RDL=0.40		ppbv	
		1,2-Dichlorobenzene	2010/01/29	ND, RDL=0.40		ppbv	
		1,2,4-Trichlorobenzene	2010/01/29	ND, RDL=2.0		ppbv	
		Hexachlorobutadiene	2010/01/29	ND, RDL=3.0		ppbv	
		Hexane	2010/01/29	ND, RDL=0.30		ppbv	
		Cyclohexane	2010/01/29	ND, RDL=0.20		ppbv	
		Tetrahydrofuran	2010/01/29	ND, RDL=0.40		ppbv	
		1,4-Dioxane	2010/01/29	ND, RDL=2.0		ppbv	
		Xylene (Total)	2010/01/29	ND, RDL=0.60		ppbv	
	RPD - Sample/Sample Dup	2,2,4-Trimethylpentane	2010/01/29	NC		%	25
		Carbon Disulfide	2010/01/29	NC		%	25
		Propene	2010/01/29	NC		%	25
		Vinyl Acetate	2010/01/29	NC		%	25
		Vinyl Bromide	2010/01/29	NC		%	25
		Dichlorodifluoromethane (FREON 12)	2010/01/29	NC		%	25
		1,2-Dichlorotetrafluoroethane	2010/01/29	NC		%	25
		Chloromethane	2010/01/29	NC		%	25
		Vinyl Chloride	2010/01/29	NC		%	25
		Chloroethane	2010/01/29	NC		%	25
		1,3-Butadiene	2010/01/29	NC		%	25
		Trichlorofluoromethane (FREON 11)	2010/01/29	NC		%	25
		Trichlorotrifluoroethane	2010/01/29	NC		%	25
		Ethanol	2010/01/29	NC		%	25
		2-propanol	2010/01/29	NC		%	25
		2-Propanone	2010/01/29	NC		%	25
		Methyl Ethyl Ketone (2-Butanone)	2010/01/29	NC		%	25
		Methyl Isobutyl Ketone	2010/01/29	NC		%	25
		Methyl Butyl Ketone (2-Hexanone)	2010/01/29	NC		%	25
		Methyl t-butyl ether (MTBE)	2010/01/29	NC		%	25
		Ethyl Acetate	2010/01/29	NC		%	25
		1,1-Dichloroethylene	2010/01/29	NC		%	25
		cis-1,2-Dichloroethylene	2010/01/29	NC		%	25
		trans-1,2-Dichloroethylene	2010/01/29	NC		%	25
		Methylene Chloride(Dichloromethane)	2010/01/29	NC		%	25
		Chloroform	2010/01/29	NC		%	25
		Carbon Tetrachloride	2010/01/29	NC		%	25
		1,1-Dichloroethane	2010/01/29	NC		%	25
		1,2-Dichloroethane	2010/01/29	NC		%	25
		Ethylene Dibromide	2010/01/29	NC		%	25

Lakeland Industry & Community Assoc.
 Attention: Shea Beaton
 Client Project #:
 P.O. #:
 Project name:

Quality Assurance Report (Continued)

Maxxam Job Number: GB010562

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
2068486 S_S	RPD - Sample/Sample Dup	1,1,1-Trichloroethane	2010/01/29	NC		%	25
		1,1,2-Trichloroethane	2010/01/29	NC		%	25
		1,1,2,2-Tetrachloroethane	2010/01/29	NC		%	25
		cis-1,3-Dichloropropene	2010/01/29	NC		%	25
		trans-1,3-Dichloropropene	2010/01/29	NC		%	25
		1,2-Dichloropropane	2010/01/29	NC		%	25
		Bromomethane	2010/01/29	NC		%	25
		Bromoform	2010/01/29	NC		%	25
		Bromodichloromethane	2010/01/29	NC		%	25
		Dibromochloromethane	2010/01/29	NC		%	25
		Heptane	2010/01/29	NC		%	25
		Trichloroethylene	2010/01/29	NC		%	25
		Tetrachloroethylene	2010/01/29	NC		%	25
		Benzene	2010/01/29	NC		%	25
		Toluene	2010/01/29	NC		%	25
		Ethylbenzene	2010/01/29	NC		%	25
		p+m-Xylene	2010/01/29	NC		%	25
		o-Xylene	2010/01/29	NC		%	25
		Styrene	2010/01/29	NC		%	25
		1,3,5-Trimethylbenzene	2010/01/29	NC		%	25
		1,2,4-Trimethylbenzene	2010/01/29	NC		%	25
		4-ethyltoluene	2010/01/29	NC		%	25
		Chlorobenzene	2010/01/29	NC		%	25
		Benzyl chloride	2010/01/29	NC		%	25
		1,3-Dichlorobenzene	2010/01/29	NC		%	25
		1,4-Dichlorobenzene	2010/01/29	NC		%	25
		1,2-Dichlorobenzene	2010/01/29	NC		%	25
		1,2,4-Trichlorobenzene	2010/01/29	NC		%	25
		Hexachlorobutadiene	2010/01/29	NC		%	25
		Hexane	2010/01/29	NC		%	25
		Cyclohexane	2010/01/29	NC		%	25
		Tetrahydrofuran	2010/01/29	NC		%	25
		1,4-Dioxane	2010/01/29	NC		%	25
		Xylene (Total)	2010/01/29	NC		%	25

Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.
 Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.
 Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.
 NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.

Polycyclic Aromatic Hydrocarbons Laboratory Analysis

Maxxam Analytics Inc.

Tisch Hi-Vol PUF+ Sample Collection Data Sheet

Client: Lica
 Location: Cold Lake South
 Station ID: Lica1
 Field Sample ID: LICA PUF/CLS/Jan 2, 10

Puf+ s/n: 100-1020
 Motor s/n: 1138
 Installation Date/Time: Dec 31, 09 @ 09:05
 Removal Date/Time: Jan 4, 10 @ 14:15 mst

Date and Time Information			
Sample Date	Start Time (MST)	End Time (MST)	Elapsed Time (Hours)
02-Jan-10	01/02/2010 0:00	01/03/2010 0:00	24.00

PUF and QFF Information			
Date Received	Date Shipped	Puf Expiration Date	QFF Prep Date
29-Dec-09	04-Jan-10	06-Jan-10	????

Set Flow Rate (slpm): 230
 Date of Last Calibration: 10-Aug-09

Sampling Data			
Average Pressure(mmHg)	AverageFlow (Qstd slpm)	Average Temperature (C)	Volume (Vstd m ³)
719	229	-15.9	330.30

Time set correctly prior to sampling? YES
Timer set correctly prior to sampling? YES
Sampling data saved to memory card after sampling? YES

Comments:
GA9H1940 PUFF#1
Ran with a 102mm Quartz Fiber Filter - Sample ID - LICA QFF/CLS/Jan 2, 10

Technician Signature: _____



Your C.O.C. #: 1056

Attention: Shea Beaton

Lakeland Industry & Community Assoc.
P.O. Box 8237
Bonnyville, AB
CANADA T9N 2J5

Report Date: 2010/01/14

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B000891

Received: 2010/01/06, 09:12

Sample Matrix: PUF AND FILTER

Samples Received: 2

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
PAH's in Air (CARB429mod)	2	2010/01/07	2010/01/12	BRL SOP-00201	CARB429(ARBM1,M2)mod

Encryption Key

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

THERESA STEPHENSON, Project Manager
Email: Theresa.Stephenson@MaxxamAnalytics.com
Phone# (905) 817-5763

=====

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Total cover pages: 1

Page 1 of 7

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Maxxam Job #: B000891
 Report Date: 2010/01/14

SEMI-VOLATILE ORGANICS BY GC-MS (PUF AND FILTER)

Maxxam ID		ET8470	ET8471		
Sampling Date		2010/01/02	2010/01/02		
COC Number		1056	1056		
	Units	LICA	LICA	DL	QC Batch
		PUF/QFF/CLS/JAN2,10	PUF/QFF/PORT/JAN2,10		

Semivolatile Organics					
1-Methylnaphthalene	ug	0.26	0.20	0.10	2050878
1-Methylphenanthrene	ug	<0.10	<0.10	0.10	2050878
2-Chloronaphthalene	ug	<0.10	<0.10	0.10	2050878
2-Methylanthracene	ug	<0.10	<0.10	0.10	2050878
2-Methylnaphthalene	ug	0.44	0.29	0.10	2050878
3-Methylcholanthrene	ug	<2.0	<2.0	2.0	2050878
7,12-Dimethylbenzo(a)anthracene	ug	<0.10	<0.10	0.10	2050878
9,10-Dimethylanthracene	ug	<0.40	<0.40	0.40	2050878
Acenaphthene	ug	<0.050	<0.050	0.050	2050878
Acenaphthylene	ug	0.096	<0.050	0.050	2050878
Anthracene	ug	<0.050	<0.050	0.050	2050878
Benzo(a)anthracene	ug	<0.050	<0.050	0.050	2050878
Benzo(a)fluorene	ug	<0.10	<0.10	0.10	2050878
Benzo(a)pyrene	ug	<0.050	<0.050	0.050	2050878
Benzo(b)fluoranthene	ug	<0.050	<0.050	0.050	2050878
Benzo(b)fluorene	ug	<0.10	<0.10	0.10	2050878
Benzo(e)pyrene	ug	<0.10	<0.10	0.10	2050878
Benzo(g,h,i)perylene	ug	<0.050	<0.050	0.050	2050878
Benzo(k)fluoranthene	ug	<0.050	<0.050	0.050	2050878
Biphenyl	ug	0.23	0.20	0.10	2050878
Chrysene	ug	<0.050	<0.050	0.050	2050878
Coronene	ug	<0.10	<0.10	0.10	2050878
Dibenz(a,h)anthracene	ug	<0.050	<0.050	0.050	2050878
Dibenzo(a,e)pyrene	ug	<0.20	<0.20	0.20	2050878
Fluoranthene	ug	0.126	0.073	0.050	2050878
Fluorene	ug	0.127	0.107	0.050	2050878
Indeno(1,2,3-cd)pyrene	ug	<0.050	<0.050	0.050	2050878
m-Terphenyl	ug	<0.10	<0.10	0.10	2050878
Naphthalene	ug	0.684	0.514	0.072	2050878
o-Terphenyl	ug	<0.10	<0.10	0.10	2050878
Perylene	ug	<0.10	<0.10	0.10	2050878
Phenanthrene	ug	0.394	0.260	0.050	2050878
RDL = Reportable Detection Limit QC Batch = Quality Control Batch					

Maxxam Job #: B000891
 Report Date: 2010/01/14

SEMI-VOLATILE ORGANICS BY GC-MS (PUF AND FILTER)

Maxxam ID		ET8470	ET8471		
Sampling Date		2010/01/02	2010/01/02		
COC Number		1056	1056		
	Units	LICA	LICA	DL	QC Batch
		PUF/QFF/CLS/JAN2,10	PUF/QFF/PORT/JAN2,10		
p-Terphenyl	ug	<0.10	<0.10	0.10	2050878
Pyrene	ug	0.077	<0.050	0.050	2050878
Quinoline	ug	<0.40	<0.40	0.40	2050878
Tetralin	ug	<0.10	<0.10	0.10	2050878
Surrogate Recovery (%)					
D10-2-Methylnaphthalene	%	83	94		2050878
D10-Fluoranthene	%	101	111		2050878
D10-Fluorene (FS)	%	79	88		2050878
D10-Phenanthrene	%	101	113		2050878
D12-Benzo(a)anthracene	%	102	111		2050878
D12-Benzo(a)pyrene	%	102	111		2050878
D12-Benzo(b)fluoranthene	%	103	110		2050878
D12-Benzo(ghi)perylene	%	100	109		2050878
D12-Benzo(k)fluoranthene	%	92	104		2050878
D12-Chrysene	%	99	110		2050878
D12-Indeno(1,2,3-cd)pyrene	%	102	111		2050878
D12-Perylene	%	102	113		2050878
D14-Dibenzo(a,h)anthracene	%	102	111		2050878
D14-Terphenyl (FS)	%	89	94		2050878
D8-Acenaphthylene	%	91	104		2050878
D8-Naphthalene	%	83	95		2050878
QC Batch = Quality Control Batch					

Maxxam Job #: B000891
 Report Date: 2010/01/14

Test Summary

Maxxam ID ET8470 **Collected** 2010/01/02
Sample ID LICA PUF/QFF/CLS/JAN2,10 **Shipped**
Matrix PUF AND FILTER **Received** 2010/01/06

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
PAH's in Air (CARB429mod)	GC/MS	2050878	2010/01/07	2010/01/12	WZ

Maxxam ID ET8471 **Collected** 2010/01/02
Sample ID LICA PUF/QFF/PORT/JAN2,10 **Shipped**
Matrix PUF AND FILTER **Received** 2010/01/06

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
PAH's in Air (CARB429mod)	GC/MS	2050878	2010/01/07	2010/01/12	WZ

Maxxam Job #: B000891
Report Date: 2010/01/14

GENERAL COMMENTS

PAHMS-F

7,12-Dimethylbenzo(a)anthracene is above 25% RSD in initial calibration. No positives found for this compounds.

Sample ET8470-01: PAHMS-F

Not calibrated for Benzo(b)Anthracene, Picene, Dibenzo(a,c) anthracene or Triphenylene. An estimated mdl for each of these compounds is 0.1ug. Since Dibenzo(a,c) anthracene co-elutes with Dibenzo(a,h) anthracene and Triphenylene with Chrysene each would have a value below estimated mdl.

Benzo(b)Anthracene elutes after Benzo(a)Anthracene and Chrysene. Picene elutes after Dibenzo(a,h) anthracene. Searched for ions specific to these 2 compounds in the appropriate retention time range with no possible positives detected.

Sample ET8471-01: PAHMS-F

Not calibrated for Benzo(b)Anthracene, Picene, Dibenzo(a,c) anthracene or Triphenylene. An estimated mdl for each of these compounds is 0.1ug. Since Dibenzo(a,c) anthracene co-elutes with Dibenzo(a,h) anthracene and Triphenylene with Chrysene each would have a value below estimated mdl.

Benzo(b)Anthracene elutes after Benzo(a)Anthracene and Chrysene. Picene elutes after Dibenzo(a,h) anthracene. Searched for ions specific to these 2 compounds in the appropriate retention time range with no possible positives detected.

Results relate only to the items tested.

Lakeland Industry & Community Assoc.
 Attention: Shea Beaton
 Client Project #:
 P.O. #:
 Project name:

Quality Assurance Report
 Maxxam Job Number: GB000891

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
2050878 WZ	Spiked Blank	D10-2-Methylnaphthalene	2010/01/12		84	%	50 - 150
		D10-Fluoranthene	2010/01/12		99	%	50 - 150
		D10-Phenanthrene	2010/01/12		99	%	50 - 150
		D12-Benzo(a)anthracene	2010/01/12		89	%	50 - 150
		D12-Benzo(a)pyrene	2010/01/12		99	%	50 - 150
		D12-Benzo(b)fluoranthene	2010/01/12		100	%	50 - 150
		D12-Benzo(ghi)perylene	2010/01/12		98	%	50 - 150
		D12-Benzo(k)fluoranthene	2010/01/12		97	%	50 - 150
		D12-Chrysene	2010/01/12		103	%	50 - 150
		D12-Indeno(1,2,3-cd)pyrene	2010/01/12		98	%	50 - 150
		D12-Perylene	2010/01/12		101	%	50 - 150
		D14-Dibenzo(a,h)anthracene	2010/01/12		98	%	50 - 150
		RPD	D8-Acenaphthylene	2010/01/12		82	%
	D8-Naphthalene		2010/01/12		86	%	50 - 150
	Spiked Blank	Acenaphthene	2010/01/12		80	%	60 - 130
		Acenaphthene	2010/01/12	1.4		%	50
	RPD	Acenaphthylene	2010/01/12		78	%	60 - 130
		Acenaphthylene	2010/01/12	2.4		%	50
	Spiked Blank	Anthracene	2010/01/12		77	%	60 - 130
		Anthracene	2010/01/12	3.6		%	50
	Spiked Blank	Benzo(a)anthracene	2010/01/12		76	%	60 - 130
		Benzo(a)anthracene	2010/01/12	8.8		%	50
	Spiked Blank	Benzo(a)pyrene	2010/01/12		85	%	60 - 130
		Benzo(a)pyrene	2010/01/12	3.4		%	50
	Spiked Blank	Benzo(b)fluoranthene	2010/01/12		85	%	60 - 130
		Benzo(b)fluoranthene	2010/01/12	8.0		%	50
	Spiked Blank	Benzo(g,h,i)perylene	2010/01/12		87	%	60 - 130
		Benzo(g,h,i)perylene	2010/01/12	0.7		%	50
	Spiked Blank	Benzo(k)fluoranthene	2010/01/12		95	%	60 - 130
		Benzo(k)fluoranthene	2010/01/12	5.4		%	50
	Spiked Blank	Chrysene	2010/01/12		94	%	60 - 130
		Chrysene	2010/01/12	1.3		%	50
	Spiked Blank	Dibenz(a,h)anthracene	2010/01/12		88	%	60 - 130
		Dibenz(a,h)anthracene	2010/01/12	0.2		%	50
	Spiked Blank	Fluoranthene	2010/01/12		91	%	60 - 130
		Fluoranthene	2010/01/12	4.4		%	50
	Spiked Blank	Fluorene	2010/01/12		79	%	60 - 130
		Fluorene	2010/01/12	2.0		%	50
	Spiked Blank	Indeno(1,2,3-cd)pyrene	2010/01/12		88	%	60 - 130
		Indeno(1,2,3-cd)pyrene	2010/01/12	0.5		%	50
Spiked Blank	Naphthalene	2010/01/12		84	%	60 - 130	
	Naphthalene	2010/01/12	0.5		%	50	
Spiked Blank	Phenanthrene	2010/01/12		76	%	60 - 130	
	Phenanthrene	2010/01/12	7.5		%	50	
Spiked Blank	Pyrene	2010/01/12		82	%	60 - 130	
	Pyrene	2010/01/12	3.7		%	50	
Method Blank	D10-2-Methylnaphthalene	2010/01/12		90	%	50 - 150	
	D10-Fluoranthene	2010/01/12		109	%	50 - 150	
	D10-Phenanthrene	2010/01/12		107	%	50 - 150	
	D12-Benzo(a)anthracene	2010/01/12		101	%	50 - 150	
	D12-Benzo(a)pyrene	2010/01/12		109	%	50 - 150	
	D12-Benzo(b)fluoranthene	2010/01/12		106	%	50 - 150	
	D12-Benzo(ghi)perylene	2010/01/12		105	%	50 - 150	
	D12-Benzo(k)fluoranthene	2010/01/12		107	%	50 - 150	
	D12-Chrysene	2010/01/12		110	%	50 - 150	

Lakeland Industry & Community Assoc.
 Attention: Shea Beaton
 Client Project #:
 P.O. #:
 Project name:

Quality Assurance Report (Continued)

Maxxam Job Number: GB000891

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
2050878 WZ	Method Blank	D12-Indeno(1,2,3-cd)pyrene	2010/01/12		106	%	50 - 150
		D12-Perylene	2010/01/12		111	%	50 - 150
		D14-Dibenzo(a,h)anthracene	2010/01/12		105	%	50 - 150
		D8-Acenaphthylene	2010/01/12		91	%	50 - 150
		D8-Naphthalene	2010/01/12		92	%	50 - 150
		1-Methylnaphthalene	2010/01/12	ND, RDL=0.10		ug	
		1-Methylphenanthrene	2010/01/12	ND, RDL=0.10		ug	
		2-Chloronaphthalene	2010/01/12	ND, RDL=0.10		ug	
		2-Methylanthracene	2010/01/12	ND, RDL=0.10		ug	
		2-Methylnaphthalene	2010/01/12	ND, RDL=0.10		ug	
		3-Methylcholanthrene	2010/01/12	ND, RDL=2.0		ug	
		7,12-Dimethylbenzo(a)anthracene	2010/01/12	ND, RDL=0.10		ug	
		9,10-Dimethylanthracene	2010/01/12	ND, RDL=0.40		ug	
		Acenaphthene	2010/01/12	ND, RDL=0.050		ug	
		Acenaphthylene	2010/01/12	ND, RDL=0.050		ug	
		Anthracene	2010/01/12	ND, RDL=0.050		ug	
		Benzo(a)anthracene	2010/01/12	ND, RDL=0.050		ug	
		Benzo(a)fluorene	2010/01/12	ND, RDL=0.10		ug	
		Benzo(a)pyrene	2010/01/12	ND, RDL=0.050		ug	
		Benzo(b)fluoranthene	2010/01/12	ND, RDL=0.050		ug	
		Benzo(b)fluorene	2010/01/12	ND, RDL=0.10		ug	
		Benzo(e)pyrene	2010/01/12	ND, RDL=0.10		ug	
		Benzo(g,h,i)perylene	2010/01/12	ND, RDL=0.050		ug	
		Benzo(k)fluoranthene	2010/01/12	ND, RDL=0.050		ug	
		Biphenyl	2010/01/12	ND, RDL=0.10		ug	
		Chrysene	2010/01/12	ND, RDL=0.050		ug	
		Coronene	2010/01/12	ND, RDL=0.10		ug	
		Dibenz(a,h)anthracene	2010/01/12	ND, RDL=0.050		ug	
		Dibenzo(a,e)pyrene	2010/01/12	ND, RDL=0.20		ug	
		Fluoranthene	2010/01/12	ND, RDL=0.050		ug	
		Fluorene	2010/01/12	ND, RDL=0.050		ug	
		Indeno(1,2,3-cd)pyrene	2010/01/12	ND, RDL=0.050		ug	
		m-Terphenyl	2010/01/12	ND, RDL=0.10		ug	
		Naphthalene	2010/01/12	ND, RDL=0.072		ug	
		o-Terphenyl	2010/01/12	ND, RDL=0.10		ug	
		Perylene	2010/01/12	ND, RDL=0.10		ug	
		Phenanthrene	2010/01/12	ND, RDL=0.050		ug	
		p-Terphenyl	2010/01/12	ND, RDL=0.10		ug	
		Pyrene	2010/01/12	ND, RDL=0.050		ug	
		Quinoline	2010/01/12	ND, RDL=0.40		ug	
		Tetralin	2010/01/12	ND, RDL=0.10		ug	

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.
 Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.
 Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.
 Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

Maxxam Analytics Inc.

Tisch Hi-Vol PUF+ Sample Collection Data Sheet

Client: Lica
 Location: Cold Lake South
 Station ID: Lica1
 Field Sample ID: LICA PUF/CLS/Jan 8, 10

Puf+ s/n: 100-1020
 Motor s/n: 1138
 Installation Date/Time: Jan 6, 09 @ 17:00 mst
 Removal Date/Time: Jan 12, 10 @ 08:10 mst

Date and Time Information			
Sample Date	Start Time (MST)	End Time (MST)	Elapsed Time (Hours)
08-Jan-10	01/08/2010 0:00	01/09/2010 0:00	24.00

PUF and QFF Information			
Date Received	Date Shipped	Puf Expiration Date	QFF Prep Date
06-Jan-10	12-Jan-10	14-Jan-10	????

Set Flow Rate (slpm): 230

Date of Last Calibration: 10-Aug-09

Sampling Data			
Average Pressure(mmHg)	AverageFlow (Qstd slpm)	Average Temperature (C)	Volume (Vstd m ³)
717	229	-18.9	330.30

Time set correctly prior to sampling? YES
Timer set correctly prior to sampling? YES
Sampling data saved to memory card after sampling? YES

Comments:

GA9H1940 PUFF#1
Ran with a 102mm Quartz Fiber Filter - Sample ID - LICA QFF/CLS/Jan 8, 10

Technician Signature: _____



Your C.O.C. #: 1040

Attention: Shea Beaton

Lakeland Industry & Community Assoc.
P.O. Box 8237
Bonnyville, AB
CANADA T9N 2J5

Report Date: 2010/01/20

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B004274

Received: 2010/01/14, 08:54

Sample Matrix: Filter
Samples Received: 2

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
PAH's in Air (CARB429mod)	2	2010/01/15	2010/01/18	BRL SOP-00201	CARB429(ARBM1,M2)mod

Encryption Key

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

THERESA STEPHENSON, Project Manager
Email: Theresa.Stephenson@MaxxamAnalytics.com
Phone# (905) 817-5763

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Total cover pages: 1

Maxxam Job #: B004274
 Report Date: 2010/01/20

SEMI-VOLATILE ORGANICS BY GC-MS (FILTER)

Maxxam ID		EV4879	EV4880		
Sampling Date		2010/01/08	2010/01/08		
		00:00	00:00		
COC Number		1040	1040		
	Units	LICA	LICA	DL	QC Batch
		PUFF/CLS/JAN8,10	QFF/PORT/JAN8,10		

Semivolatile Organics					
1-Methylnaphthalene	ug	1.73	0.57	0.10	2057750
1-Methylphenanthrene	ug	<0.10	<0.10	0.10	2057750
2-Chloronaphthalene	ug	<0.10	<0.10	0.10	2057750
2-Methylanthracene	ug	<0.10	<0.10	0.10	2057750
2-Methylnaphthalene	ug	3.22	0.94	0.10	2057750
3-Methylcholanthrene	ug	<2.0	<2.0	2.0	2057750
7,12-Dimethylbenzo(a)anthracene	ug	<0.10	<0.10	0.10	2057750
9,10-Dimethylanthracene	ug	<0.40	<0.40	0.40	2057750
Acenaphthene	ug	0.129	0.054	0.050	2057750
Acenaphthylene	ug	0.157	0.077	0.050	2057750
Anthracene	ug	<0.050	<0.050	0.050	2057750
Benzo(a)anthracene	ug	<0.050	<0.050	0.050	2057750
Benzo(a)fluorene	ug	<0.10	<0.10	0.10	2057750
Benzo(a)pyrene	ug	<0.050	<0.050	0.050	2057750
Benzo(b)fluoranthene	ug	<0.050	<0.050	0.050	2057750
Benzo(b)fluorene	ug	<0.10	<0.10	0.10	2057750
Benzo(e)pyrene	ug	<0.10	<0.10	0.10	2057750
Benzo(g,h,i)perylene	ug	<0.050	<0.050	0.050	2057750
Benzo(k)fluoranthene	ug	<0.050	<0.050	0.050	2057750
Biphenyl	ug	0.51	0.36	0.10	2057750
Chrysene	ug	<0.050	0.054	0.050	2057750
Coronene	ug	<0.10	<0.10	0.10	2057750
Dibenz(a,h)anthracene	ug	<0.050	<0.050	0.050	2057750
Dibenzo(a,e)pyrene	ug	<0.20	<0.20	0.20	2057750
Fluoranthene	ug	0.121	0.100	0.050	2057750
Fluorene	ug	0.242	0.164	0.050	2057750
Indeno(1,2,3-cd)pyrene	ug	<0.050	<0.050	0.050	2057750
m-Terphenyl	ug	<0.10	<0.10	0.10	2057750
Naphthalene	ug	2.76	1.18	0.072	2057750
o-Terphenyl	ug	<0.10	<0.10	0.10	2057750
Perylene	ug	<0.10	<0.10	0.10	2057750

 RDL = Reportable Detection Limit
 QC Batch = Quality Control Batch

Maxxam Job #: B004274
 Report Date: 2010/01/20

SEMI-VOLATILE ORGANICS BY GC-MS (FILTER)

Maxxam ID		EV4879	EV4880		
Sampling Date		2010/01/08 00:00	2010/01/08 00:00		
COC Number		1040	1040		
	Units	LICA	LICA	DL	QC Batch
		PUFF/CLS/JAN8,10	QFF/PORT/JAN8,10		

Phenanthrene	ug	0.494	0.353	0.050	2057750
p-Terphenyl	ug	<0.10	<0.10	0.10	2057750
Pyrene	ug	0.051	<0.050	0.050	2057750
Quinoline	ug	<0.40	<0.40	0.40	2057750
Tetralin	ug	0.11	<0.10	0.10	2057750
Surrogate Recovery (%)					
D10-2-Methylnaphthalene	%	82	76		2057750
D10-Fluoranthene	%	99	89		2057750
D10-Fluorene (FS)	%	79	91		2057750
D10-Phenanthrene	%	95	86		2057750
D12-Benzo(a)anthracene	%	104	111		2057750
D12-Benzo(a)pyrene	%	102	102		2057750
D12-Benzo(b)fluoranthene	%	103	105		2057750
D12-Benzo(ghi)perylene	%	99	99		2057750
D12-Benzo(k)fluoranthene	%	92	94		2057750
D12-Chrysene	%	95	103		2057750
D12-Indeno(1,2,3-cd)pyrene	%	101	99		2057750
D12-Perylene	%	99	101		2057750
D14-Dibenzo(a,h)anthracene	%	102	99		2057750
D14-Terphenyl (FS)	%	87	93		2057750
D8-Acenaphthylene	%	90	88		2057750
D8-Naphthalene	%	81	75		2057750

QC Batch = Quality Control Batch

Maxxam Job #: B004274
 Report Date: 2010/01/20

Test Summary

Maxxam ID EV4879 **Collected** 2010/01/08
Sample ID LICA PUFF/CLS/JAN8,10 **Shipped**
Matrix Filter **Received** 2010/01/14

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
PAH's in Air (CARB429mod)	GC/MS	2057750	2010/01/15	2010/01/18	WZ

Maxxam ID EV4880 **Collected** 2010/01/08
Sample ID LICA QFF/PORT/JAN8,10 **Shipped**
Matrix Filter **Received** 2010/01/14

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
PAH's in Air (CARB429mod)	GC/MS	2057750	2010/01/15	2010/01/18	WZ

Maxxam Job #: B004274
Report Date: 2010/01/20

GENERAL COMMENTS

PAHMS-F

7,12-Dimethylbenzo(a)anthracene is above 25% RSD in initial calibration. No positives found for this compounds.

Sample EV4879-01: PAHMS-F

Not calibrated for Benzo(b)Anthracene, Picene, Dibenzo(a,c) anthracene or Triphenylene. An estimated mdl for each of these compounds is 0.1ug. Since Dibenzo(a,c) anthracene co-elutes with Dibenzo(a,h) anthracene and Triphenylene with Chrysene each would have a value below estimated mdl.

Benzo(b)Anthracene elutes after Benzo(a)Anthracene and Chrysene. Picene elutes after Dibenzo(a,h) anthracene. Searched for ions specific to these 2 compounds in the appropriate retention time range with no possible positives detected.

Sample EV4880-01: PAHMS-F

Not calibrated for Benzo(b)Anthracene, Picene, Dibenzo(a,c) anthracene or Triphenylene. An estimated mdl for each of these compounds is 0.1ug. Since Dibenzo(a,c) anthracene co-elutes with Dibenzo(a,h) anthracene it would have a value below the estimated mdl.

Since Triphenylene co-elutes with Chrysene, the maximum possible value for this compound would be 0.054ug, which is the value reported for Chrysene.

Benzo(b)Anthracene elutes after Benzo(a)Anthracene and Chrysene. Searched for ions specific to this compound in the appropriate retention time range with no possible positive detected.

Picene elutes after Dibenzo(a,h) anthracene. Searched for ions specific to this compounds in the appropriate retention time range, possible positive detected, but would fall below the mdl using Dibenzo(a,h) anthracene calibration.

Results relate only to the items tested.

Lakeland Industry & Community Assoc.
 Attention: Shea Beaton
 Client Project #:
 P.O. #:
 Project name:

Quality Assurance Report
 Maxxam Job Number: GB004274

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
2057750 WZ	Spiked Blank	D10-2-Methylnaphthalene	2010/01/18		88	%	50 - 150
		D10-Fluoranthene	2010/01/18		103	%	50 - 150
		D10-Phenanthrene	2010/01/18		95	%	50 - 150
		D12-Benzo(a)anthracene	2010/01/18		99	%	50 - 150
		D12-Benzo(a)pyrene	2010/01/18		101	%	50 - 150
		D12-Benzo(b)fluoranthene	2010/01/18		103	%	50 - 150
		D12-Benzo(ghi)perylene	2010/01/18		102	%	50 - 150
		D12-Benzo(k)fluoranthene	2010/01/18		96	%	50 - 150
		D12-Chrysene	2010/01/18		98	%	50 - 150
		D12-Indeno(1,2,3-cd)pyrene	2010/01/18		103	%	50 - 150
		D12-Perylene	2010/01/18		100	%	50 - 150
		D14-Dibenzo(a,h)anthracene	2010/01/18		103	%	50 - 150
		RPD	D8-Acenaphthylene	2010/01/18		89	%
	D8-Naphthalene		2010/01/18		90	%	50 - 150
	Spiked Blank	Acenaphthene	2010/01/18		86	%	60 - 130
		Acenaphthene	2010/01/18	16.0		%	50
	RPD	Acenaphthylene	2010/01/18		85	%	60 - 130
		Acenaphthylene	2010/01/18	16.0		%	50
	Spiked Blank	Anthracene	2010/01/18		81	%	60 - 130
		Anthracene	2010/01/18	7.4		%	50
	Spiked Blank	Benzo(a)anthracene	2010/01/18		83	%	60 - 130
		Benzo(a)anthracene	2010/01/18	0.1		%	50
	Spiked Blank	Benzo(a)pyrene	2010/01/18		86	%	60 - 130
		Benzo(a)pyrene	2010/01/18	0.4		%	50
	Spiked Blank	Benzo(b)fluoranthene	2010/01/18		95	%	60 - 130
		Benzo(b)fluoranthene	2010/01/18	32.5		%	50
	Spiked Blank	Benzo(g,h,i)perylene	2010/01/18		91	%	60 - 130
		Benzo(g,h,i)perylene	2010/01/18	1.8		%	50
	Spiked Blank	Benzo(k)fluoranthene	2010/01/18		84	%	60 - 130
		Benzo(k)fluoranthene	2010/01/18	37.4		%	50
	Spiked Blank	Chrysene	2010/01/18		92	%	60 - 130
		Chrysene	2010/01/18	1.3		%	50
	Spiked Blank	Dibenz(a,h)anthracene	2010/01/18		91	%	60 - 130
		Dibenz(a,h)anthracene	2010/01/18	0.6		%	50
	Spiked Blank	Fluoranthene	2010/01/18		96	%	60 - 130
		Fluoranthene	2010/01/18	8.9		%	50
	Spiked Blank	Fluorene	2010/01/18		85	%	60 - 130
		Fluorene	2010/01/18	12.5		%	50
	Spiked Blank	Indeno(1,2,3-cd)pyrene	2010/01/18		91	%	60 - 130
		Indeno(1,2,3-cd)pyrene	2010/01/18	1.3		%	50
Spiked Blank	Naphthalene	2010/01/18		89	%	60 - 130	
	Naphthalene	2010/01/18	14.9		%	50	
Spiked Blank	Phenanthrene	2010/01/18		85	%	60 - 130	
	Phenanthrene	2010/01/18	10.5		%	50	
Spiked Blank	Pyrene	2010/01/18		86	%	60 - 130	
	Pyrene	2010/01/18	10.6		%	50	
Method Blank	D10-2-Methylnaphthalene	2010/01/18		78	%	50 - 150	
	D10-Fluoranthene	2010/01/18		102	%	50 - 150	
	D10-Phenanthrene	2010/01/18		89	%	50 - 150	
	D12-Benzo(a)anthracene	2010/01/18		99	%	50 - 150	
	D12-Benzo(a)pyrene	2010/01/18		102	%	50 - 150	
	D12-Benzo(b)fluoranthene	2010/01/18		104	%	50 - 150	
	D12-Benzo(ghi)perylene	2010/01/18		102	%	50 - 150	
	D12-Benzo(k)fluoranthene	2010/01/18		92	%	50 - 150	
	D12-Chrysene	2010/01/18		99	%	50 - 150	

Lakeland Industry & Community Assoc.
 Attention: Shea Beaton
 Client Project #:
 P.O. #:
 Project name:

Quality Assurance Report (Continued)
 Maxxam Job Number: GB004274

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
2057750 WZ	Method Blank	D12-Indeno(1,2,3-cd)pyrene	2010/01/18		105	%	50 - 150
		D12-Perylene	2010/01/18		101	%	50 - 150
		D14-Dibenzo(a,h)anthracene	2010/01/18		104	%	50 - 150
		D8-Acenaphthylene	2010/01/18		82	%	50 - 150
		D8-Naphthalene	2010/01/18		81	%	50 - 150
		1-Methylnaphthalene	2010/01/18	ND, RDL=0.10		ug	
		1-Methylphenanthrene	2010/01/18	ND, RDL=0.10		ug	
		2-Chloronaphthalene	2010/01/18	ND, RDL=0.10		ug	
		2-Methylanthracene	2010/01/18	ND, RDL=0.10		ug	
		2-Methylnaphthalene	2010/01/18	ND, RDL=0.10		ug	
		3-Methylcholanthrene	2010/01/18	ND, RDL=2.0		ug	
		7,12-Dimethylbenzo(a)anthracene	2010/01/18	ND, RDL=0.10		ug	
		9,10-Dimethylanthracene	2010/01/18	ND, RDL=0.40		ug	
		Acenaphthene	2010/01/18	ND, RDL=0.050		ug	
		Acenaphthylene	2010/01/18	ND, RDL=0.050		ug	
		Anthracene	2010/01/18	ND, RDL=0.050		ug	
		Benzo(a)anthracene	2010/01/18	ND, RDL=0.050		ug	
		Benzo(a)fluorene	2010/01/18	ND, RDL=0.10		ug	
		Benzo(a)pyrene	2010/01/18	ND, RDL=0.050		ug	
		Benzo(b)fluoranthene	2010/01/18	ND, RDL=0.050		ug	
		Benzo(b)fluorene	2010/01/18	ND, RDL=0.10		ug	
		Benzo(e)pyrene	2010/01/18	ND, RDL=0.10		ug	
		Benzo(g,h,i)perylene	2010/01/18	ND, RDL=0.050		ug	
		Benzo(k)fluoranthene	2010/01/18	ND, RDL=0.050		ug	
		Biphenyl	2010/01/18	ND, RDL=0.10		ug	
		Chrysene	2010/01/18	ND, RDL=0.050		ug	
		Coronene	2010/01/18	ND, RDL=0.10		ug	
		Dibenz(a,h)anthracene	2010/01/18	ND, RDL=0.050		ug	
		Dibenzo(a,e)pyrene	2010/01/18	ND, RDL=0.20		ug	
		Fluoranthene	2010/01/18	ND, RDL=0.050		ug	
		Fluorene	2010/01/18	ND, RDL=0.050		ug	
		Indeno(1,2,3-cd)pyrene	2010/01/18	ND, RDL=0.050		ug	
		m-Terphenyl	2010/01/18	ND, RDL=0.10		ug	
		Naphthalene	2010/01/18	ND, RDL=0.072		ug	
		o-Terphenyl	2010/01/18	ND, RDL=0.10		ug	
		Perylene	2010/01/18	ND, RDL=0.10		ug	
		Phenanthrene	2010/01/18	ND, RDL=0.050		ug	
		p-Terphenyl	2010/01/18	ND, RDL=0.10		ug	
		Pyrene	2010/01/18	ND, RDL=0.050		ug	
		Quinoline	2010/01/18	ND, RDL=0.40		ug	
		Tetralin	2010/01/18	ND, RDL=0.10		ug	

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.
 Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.
 Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.
 Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

Maxxam Analytics Inc.

Tisch Hi-Vol PUF+ Sample Collection Data Sheet

Client: Lica
 Location: Cold Lake South
 Station ID: Lica1
 Field Sample ID: LICA PUF/CLS/Jan 14, 10

Puf+ s/n: 100-1020
 Motor s/n: 1138
 Installation Date/Time: Jan 13, 10 @ 15:15 mst
 Removal Date/Time: Jan 15, 10 @ 13:40 mst

Date and Time Information			
Sample Date	Start Time (MST)	End Time (MST)	Elapsed Time (Hours)
14-Jan-10	01/14/2010 0:00	01/15/2010 0:00	24.00

PUF and QFF Information			
Date Received	Date Shipped	Puf Expiration Date	QFF Prep Date
12-Jan-10	18-Jan-10	01-Feb-10	????

Set Flow Rate (slpm): 230
 Date of Last Calibration: 13-Jan-10

Sampling Data			
Average Pressure(mmHg)	AverageFlow (Qstd slpm)	Average Temperature (C)	Volume (Vstd m ³)
710	229	-11.6	330.34

Time set correctly prior to sampling? YES
Timer set correctly prior to sampling? YES
Sampling data saved to memory card after sampling? YES

Comments:
GA9H1959 PUFF#1
Ran with a 102mm Quartz Fiber Filter - Sample ID - LICA QFF/CLS/Jan 14, 10

Technician Signature: _____



Your C.O.C. #: 1058

Attention: Michael Bisaga

Lakeland Industry & Community Assoc.
P.O. Box 8237
Bonnyville, AB
CANADA T9N 2J5

Report Date: 2010/02/03

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B006680

Received: 2010/01/20, 09:16

Sample Matrix: PUF AND FILTER

Samples Received: 2

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
PAH's in Air (CARB429mod)	2	2010/01/21	2010/02/01	BRL SOP-00201	CARB429(ARBM1,M2)mod

Encryption Key

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

THERESA STEPHENSON, Project Manager
Email: Theresa.Stephenson@MaxxamAnalytics.com
Phone# (905) 817-5763

=====

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.

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Total cover pages: 1

Page 1 of 7

Page 236 of 250

Maxxam Job #: B006680
 Report Date: 2010/02/03

SEMI-VOLATILE ORGANICS BY GC-MS (PUF AND FILTER)

Maxxam ID		EW6957	EW6958		
Sampling Date		2010/01/14	2010/01/14		
COC Number		1058	1058		
	Units	LICA	LICA	DL	QC Batch
		PUF/QFF/CLS/JAN14,10	PUF/QFF/PORT/JAN14,10		

Semivolatile Organics					
1-Methylnaphthalene	ug	0.62	0.64	0.10	2061264
1-Methylphenanthrene	ug	<0.10	<0.10	0.10	2061264
2-Chloronaphthalene	ug	<0.10	<0.10	0.10	2061264
2-Methylantracene	ug	<0.10	<0.10	0.10	2061264
2-Methylnaphthalene	ug	1.02	1.05	0.10	2061264
3-Methylcholanthrene	ug	<2.0	<2.0	2.0	2061264
7,12-Dimethylbenzo(a)anthracene	ug	<0.10	<0.10	0.10	2061264
9,10-Dimethylantracene	ug	<0.40	<0.40	0.40	2061264
Acenaphthene	ug	0.080	0.094	0.050	2061264
Acenaphthylene	ug	0.236	0.188	0.050	2061264
Anthracene	ug	<0.050	<0.050	0.050	2061264
Benzo(a)anthracene	ug	<0.050	<0.050	0.050	2061264
Benzo(a)fluorene	ug	<0.10	<0.10	0.10	2061264
Benzo(a)pyrene	ug	<0.050	<0.050	0.050	2061264
Benzo(b)fluoranthene	ug	0.076	0.065	0.050	2061264
Benzo(b)fluorene	ug	<0.10	<0.10	0.10	2061264
Benzo(e)pyrene	ug	<0.10	<0.10	0.10	2061264
Benzo(g,h,i)perylene	ug	0.055	<0.050	0.050	2061264
Benzo(k)fluoranthene	ug	<0.050	<0.050	0.050	2061264
Biphenyl	ug	0.50	0.67	0.10	2061264
Chrysene	ug	0.106	0.084	0.050	2061264
Coronene	ug	<0.10	<0.10	0.10	2061264
Dibenz(a,h)anthracene	ug	<0.050	<0.050	0.050	2061264
Dibenzo(a,e)pyrene	ug	<0.20	<0.20	0.20	2061264
Fluoranthene	ug	0.192	0.170	0.050	2061264
Fluorene	ug	0.258	0.319	0.050	2061264
Indeno(1,2,3-cd)pyrene	ug	<0.050	<0.050	0.050	2061264
m-Terphenyl	ug	<0.10	<0.10	0.10	2061264
Naphthalene	ug	1.23	1.08	0.072	2061264
o-Terphenyl	ug	<0.10	<0.10	0.10	2061264
Perylene	ug	<0.10	<0.10	0.10	2061264
Phenanthrene	ug	0.596	0.729	0.050	2061264

 RDL = Reportable Detection Limit
 QC Batch = Quality Control Batch

Maxxam Job #: B006680
 Report Date: 2010/02/03

SEMI-VOLATILE ORGANICS BY GC-MS (PUF AND FILTER)

Maxxam ID		EW6957	EW6958		
Sampling Date		2010/01/14	2010/01/14		
COC Number		1058	1058		
	Units	LICA	LICA	DL	QC Batch
		PUF/QFF/CLS/JAN14,10	PUF/QFF/PORT/JAN14,10		

p-Terphenyl	ug	<0.10	<0.10	0.10	2061264
Pyrene	ug	0.138	0.108	0.050	2061264
Quinoline	ug	<0.40	<0.40	0.40	2061264
Tetralin	ug	<0.10	<0.10	0.10	2061264
Surrogate Recovery (%)					
D10-2-Methylnaphthalene	%	78	80		2061264
D10-Fluoranthene	%	102	102		2061264
D10-Fluorene (FS)	%	69	67		2061264
D10-Phenanthrene	%	97	96		2061264
D12-Benzo(a)anthracene	%	106	117		2061264
D12-Benzo(a)pyrene	%	100	101		2061264
D12-Benzo(b)fluoranthene	%	97	101		2061264
D12-Benzo(ghi)perylene	%	102	104		2061264
D12-Benzo(k)fluoranthene	%	107	100		2061264
D12-Chrysene	%	106	99		2061264
D12-Indeno(1,2,3-cd)pyrene	%	103	107		2061264
D12-Perylene	%	103	102		2061264
D14-Dibenzo(a,h)anthracene	%	103	107		2061264
D14-Terphenyl (FS)	%	93	92		2061264
D8-Acenaphthylene	%	91	93		2061264
D8-Naphthalene	%	79	78		2061264

QC Batch = Quality Control Batch

Maxxam Job #: B006680
 Report Date: 2010/02/03

Test Summary

Maxxam ID EW6957 **Collected** 2010/01/14
Sample ID LICA PUF/QFF/CLS/JAN14,10 **Shipped**
Matrix PUF AND FILTER **Received** 2010/01/20

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
PAH's in Air (CARB429mod)	GC/MS	2061264	2010/01/21	2010/02/01	WZ

Maxxam ID EW6958 **Collected** 2010/01/14
Sample ID LICA PUF/QFF/PORT/JAN14,10 **Shipped**
Matrix PUF AND FILTER **Received** 2010/01/20

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
PAH's in Air (CARB429mod)	GC/MS	2061264	2010/01/21	2010/02/01	WZ

Maxxam Job #: B006680
Report Date: 2010/02/03

GENERAL COMMENTS

PAHMS-F

7,12-Dimethylbenzo(a)anthracene is above 25% RSD in initial calibration. No positives found for this compounds.

Naphthalene positive found in blank. Samples should be considered to be possibly contaminated to the level found in the blank.

Sample EW6957-01: PAHMS-F

Not calibrated for Benzo(b)Anthracene, Picene, Dibenzo(a,c) anthracene or Triphenylene. An estimated mdl for each of these compounds is 0.1ug. Since Dibenzo(a,c) anthracene co-elutes with Dibenzo(a,h) anthracene it would have a value below the estimated mdl.

Since Triphenylene co-elutes with Chrysene, the maximum possible value for this compound would be 0.11ug, which is the value reported for Chrysene.

Benzo(b)Anthracene elutes after Benzo(a)Anthracene and Chrysene. Searched for ions specific to this compound in the appropriate retention time range with no possible positive detected.

Picene elutes after Dibenzo(a,h) anthracene. Searched for ions specific to this compounds in the appropriate retention time range, possible positive detected, but would fall below the mdl using Dibenzo(a,h) anthracene calibration.

Sample EW6958-01: PAHMS-F

Not calibrated for Benzo(b)Anthracene, Picene, Dibenzo(a,c) anthracene or Triphenylene. An estimated mdl for each of these compounds is 0.1ug. Since Dibenzo(a,c) anthracene co-elutes with Dibenzo(a,h) anthracene it would have a value below the estimated mdl.

Since Triphenylene co-elutes with Chrysene, the maximum possible value for this compound would be 0.08ug, which is the value reported for Chrysene.

Benzo(b)Anthracene elutes after Benzo(a)Anthracene and Chrysene. Searched for ions specific to this compound in the appropriate retention time range with no possible positive detected.

Picene elutes after Dibenzo(a,h) anthracene. Searched for ions specific to this compounds in the appropriate retention time range, possible positive detected, but would fall below the mdl using Dibenzo(a,h) anthracene calibration.

Results relate only to the items tested.

Lakeland Industry & Community Assoc.
 Attention: Michael Bisaga
 Client Project #:
 P.O. #:
 Project name:

Quality Assurance Report
 Maxxam Job Number: GB006680

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
2061264 WZ	Spiked Blank	D10-2-Methylnaphthalene	2010/02/01		83	%	50 - 150
		D10-Fluoranthene	2010/02/01		108	%	50 - 150
		D10-Phenanthrene	2010/02/01		98	%	50 - 150
		D12-Benzo(a)anthracene	2010/02/01		96	%	50 - 150
		D12-Benzo(a)pyrene	2010/02/01		98	%	50 - 150
		D12-Benzo(b)fluoranthene	2010/02/01		96	%	50 - 150
		D12-Benzo(ghi)perylene	2010/02/01		98	%	50 - 150
		D12-Benzo(k)fluoranthene	2010/02/01		88	%	50 - 150
		D12-Chrysene	2010/02/01		92	%	50 - 150
		D12-Indeno(1,2,3-cd)pyrene	2010/02/01		100	%	50 - 150
		D12-Perylene	2010/02/01		97	%	50 - 150
		D14-Dibenzo(a,h)anthracene	2010/02/01		100	%	50 - 150
		RPD	D8-Acenaphthylene	2010/02/01		92	%
	D8-Naphthalene		2010/02/01		84	%	50 - 150
	Spiked Blank	Acenaphthene	2010/02/01		82	%	60 - 130
		Acenaphthene	2010/02/01	4.0		%	50
	RPD	Acenaphthylene	2010/02/01		85	%	60 - 130
		Acenaphthylene	2010/02/01	7.1		%	50
	Spiked Blank	Anthracene	2010/02/01		83	%	60 - 130
		Anthracene	2010/02/01	4.2		%	50
	Spiked Blank	Benzo(a)anthracene	2010/02/01		78	%	60 - 130
		Benzo(a)anthracene	2010/02/01	34.8		%	50
	Spiked Blank	Benzo(a)pyrene	2010/02/01		83	%	60 - 130
		Benzo(a)pyrene	2010/02/01	1.4		%	50
	Spiked Blank	Benzo(b)fluoranthene	2010/02/01		67	%	60 - 130
		Benzo(b)fluoranthene	2010/02/01	21.6		%	50
	Spiked Blank	Benzo(g,h,i)perylene	2010/02/01		86	%	60 - 130
		Benzo(g,h,i)perylene	2010/02/01	3.8		%	50
	Spiked Blank	Benzo(k)fluoranthene	2010/02/01		79	%	60 - 130
		Benzo(k)fluoranthene	2010/02/01	6.9		%	50
	Spiked Blank	Chrysene	2010/02/01		84	%	60 - 130
		Chrysene	2010/02/01	5.7		%	50
	Spiked Blank	Dibenz(a,h)anthracene	2010/02/01		89	%	60 - 130
		Dibenz(a,h)anthracene	2010/02/01	6.2		%	50
	Spiked Blank	Fluoranthene	2010/02/01		99	%	60 - 130
		Fluoranthene	2010/02/01	5.6		%	50
	Spiked Blank	Fluorene	2010/02/01		83	%	60 - 130
		Fluorene	2010/02/01	2.3		%	50
	Spiked Blank	Indeno(1,2,3-cd)pyrene	2010/02/01		89	%	60 - 130
		Indeno(1,2,3-cd)pyrene	2010/02/01	4.4		%	50
Spiked Blank	Naphthalene	2010/02/01		85	%	60 - 130	
	Naphthalene	2010/02/01	2.4		%	50	
Spiked Blank	Phenanthrene	2010/02/01		87	%	60 - 130	
	Phenanthrene	2010/02/01	5.5		%	50	
Spiked Blank	Pyrene	2010/02/01		90	%	60 - 130	
	Pyrene	2010/02/01	7.9		%	50	
Method Blank	D10-2-Methylnaphthalene	2010/02/01		85	%	50 - 150	
	D10-Fluoranthene	2010/02/01		104	%	50 - 150	
	D10-Phenanthrene	2010/02/01		94	%	50 - 150	
	D12-Benzo(a)anthracene	2010/02/01		89	%	50 - 150	
	D12-Benzo(a)pyrene	2010/02/01		97	%	50 - 150	
	D12-Benzo(b)fluoranthene	2010/02/01		91	%	50 - 150	
	D12-Benzo(ghi)perylene	2010/02/01		97	%	50 - 150	
	D12-Benzo(k)fluoranthene	2010/02/01		102	%	50 - 150	
	D12-Chrysene	2010/02/01		100	%	50 - 150	

Lakeland Industry & Community Assoc.
 Attention: Michael Bisaga
 Client Project #:
 P.O. #:
 Project name:

Quality Assurance Report (Continued)

Maxxam Job Number: GB006680

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
2061264 WZ	Method Blank	D12-Indeno(1,2,3-cd)pyrene	2010/02/01		96	%	50 - 150
		D12-Perylene	2010/02/01		99	%	50 - 150
		D14-Dibenzo(a,h)anthracene	2010/02/01		95	%	50 - 150
		D8-Acenaphthylene	2010/02/01		89	%	50 - 150
		D8-Naphthalene	2010/02/01		87	%	50 - 150
		1-Methylnaphthalene	2010/02/01	ND, RDL=0.10		ug	
		1-Methylphenanthrene	2010/02/01	ND, RDL=0.10		ug	
		2-Chloronaphthalene	2010/02/01	ND, RDL=0.10		ug	
		2-Methylantracene	2010/02/01	ND, RDL=0.10		ug	
		2-Methylnaphthalene	2010/02/01	ND, RDL=0.10		ug	
		3-Methylcholanthrene	2010/02/01	ND, RDL=2.0		ug	
		7,12-Dimethylbenzo(a)anthracene	2010/02/01	ND, RDL=0.10		ug	
		9,10-Dimethylantracene	2010/02/01	ND, RDL=0.40		ug	
		Acenaphthene	2010/02/01	ND, RDL=0.050		ug	
		Acenaphthylene	2010/02/01	ND, RDL=0.050		ug	
		Anthracene	2010/02/01	ND, RDL=0.050		ug	
		Benzo(a)anthracene	2010/02/01	ND, RDL=0.050		ug	
		Benzo(a)fluorene	2010/02/01	ND, RDL=0.10		ug	
		Benzo(a)pyrene	2010/02/01	ND, RDL=0.050		ug	
		Benzo(b)fluoranthene	2010/02/01	ND, RDL=0.050		ug	
		Benzo(b)fluorene	2010/02/01	ND, RDL=0.10		ug	
		Benzo(e)pyrene	2010/02/01	ND, RDL=0.10		ug	
		Benzo(g,h,i)perylene	2010/02/01	ND, RDL=0.050		ug	
		Benzo(k)fluoranthene	2010/02/01	ND, RDL=0.050		ug	
		Biphenyl	2010/02/01	ND, RDL=0.10		ug	
		Chrysene	2010/02/01	ND, RDL=0.050		ug	
		Coronene	2010/02/01	ND, RDL=0.10		ug	
		Dibenz(a,h)anthracene	2010/02/01	ND, RDL=0.050		ug	
		Dibenzo(a,e)pyrene	2010/02/01	ND, RDL=0.20		ug	
		Fluoranthene	2010/02/01	ND, RDL=0.050		ug	
		Fluorene	2010/02/01	ND, RDL=0.050		ug	
		Indeno(1,2,3-cd)pyrene	2010/02/01	ND, RDL=0.050		ug	
		m-Terphenyl	2010/02/01	ND, RDL=0.10		ug	
		Naphthalene	2010/02/01	0.090, RDL=0.072		ug	
		o-Terphenyl	2010/02/01	ND, RDL=0.10		ug	
		Perylene	2010/02/01	ND, RDL=0.10		ug	
		Phenanthrene	2010/02/01	ND, RDL=0.050		ug	
		p-Terphenyl	2010/02/01	ND, RDL=0.10		ug	
		Pyrene	2010/02/01	ND, RDL=0.050		ug	
		Quinoline	2010/02/01	ND, RDL=0.40		ug	
		Tetralin	2010/02/01	ND, RDL=0.10		ug	

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.
 Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.
 Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.
 Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

Maxxam Analytics Inc.

Tisch Hi-Vol PUF+ Sample Collection Data Sheet

Client: Lica
 Location: Cold Lake South
 Station ID: Lica1
 Field Sample ID: LICA PUF/CLS/Jan 20, 10

Puf+ s/n: 100-1020
 Motor s/n: 1138
 Installation Date/Time: Jan 18, 10 @ 10:00 mst
 Removal Date/Time: Jan 22, 10 @ 12:25 mst

Date and Time Information			
Sample Date	Start Time (MST)	End Time (MST)	Elapsed Time (Hours)
20-Jan-10	01/20/2010 0:00	01/21/2010 0:00	24.00

PUF and QFF Information			
Date Received	Date Shipped	Puf Expiration Date	QFF Prep Date
15-Jan-10	22-Jan-10	27-Jan-10	????

Set Flow Rate (slpm): 230

Date of Last Calibration: 13-Jan-10

Sampling Data			
Average Pressure(mmHg)	AverageFlow (Qstd slpm)	Average Temperature (C)	Volume (Vstd m ³)
703	229	-8.9	330.37

Time set correctly prior to sampling? YES
Timer set correctly prior to sampling? YES
Sampling data saved to memory card after sampling? YES

Comments: COC #1059
GA9H1977 PUFF#1
Ran with a 102mm Quartz Fiber Filter - Sample ID - LICA QFF/CLS/Jan 20, 10

Technician Signature: _____



Your C.O.C. #: 1059

Attention: Shea Beaton

Lakeland Industry & Community Assoc.
P.O. Box 8237
Bonnyville, AB
CANADA T9N 2J5

Report Date: 2010/02/03

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B009097

Received: 2010/01/26, 09:26

Sample Matrix: PUF AND FILTER

Samples Received: 2

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
PAH's in Air (CARB429mod)	2	2010/01/27	2010/02/01	BRL SOP-00201	CARB429(ARBM1,M2)mod

Encryption Key

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

THERESA STEPHENSON, Project Manager
Email: Theresa.Stephenson@MaxxamAnalytics.com
Phone# (905) 817-5763

=====

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.

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Total cover pages: 1

Maxxam Job #: B009097
 Report Date: 2010/02/03

SEMI-VOLATILE ORGANICS BY GC-MS (PUF AND FILTER)

Maxxam ID		EX8961	EX8962		
Sampling Date		2010/01/20 00:00	2010/01/20 00:00		
COC Number		1059	1059		
	Units	LICA	LICA	DL	QC Batch
		PUF/QFF/CLS/JAN20,10	PUF/QFF/PORT/JAN20,10		

Semivolatile Organics					
1-Methylnaphthalene	ug	0.22	0.14	0.10	2065609
1-Methylphenanthrene	ug	<0.10	<0.10	0.10	2065609
2-Chloronaphthalene	ug	<0.10	<0.10	0.10	2065609
2-Methylantracene	ug	<0.10	<0.10	0.10	2065609
2-Methylnaphthalene	ug	0.42	0.23	0.10	2065609
3-Methylcholanthrene	ug	<2.0	<2.0	2.0	2065609
7,12-Dimethylbenzo(a)anthracene	ug	<0.10	<0.10	0.10	2065609
9,10-Dimethylantracene	ug	<0.40	<0.40	0.40	2065609
Acenaphthene	ug	<0.050	<0.050	0.050	2065609
Acenaphthylene	ug	0.177	0.101	0.050	2065609
Anthracene	ug	<0.050	<0.050	0.050	2065609
Benzo(a)anthracene	ug	<0.050	<0.050	0.050	2065609
Benzo(a)fluorene	ug	<0.10	<0.10	0.10	2065609
Benzo(a)pyrene	ug	<0.050	<0.050	0.050	2065609
Benzo(b)fluoranthene	ug	<0.050	<0.050	0.050	2065609
Benzo(b)fluorene	ug	<0.10	<0.10	0.10	2065609
Benzo(e)pyrene	ug	<0.10	<0.10	0.10	2065609
Benzo(g,h,i)perylene	ug	<0.050	<0.050	0.050	2065609
Benzo(k)fluoranthene	ug	<0.050	<0.050	0.050	2065609
Biphenyl	ug	0.23	0.23	0.10	2065609
Chrysene	ug	<0.050	<0.050	0.050	2065609
Coronene	ug	<0.10	<0.10	0.10	2065609
Dibenz(a,h)anthracene	ug	<0.050	<0.050	0.050	2065609
Dibenzo(a,e)pyrene	ug	<0.20	<0.20	0.20	2065609
Fluoranthene	ug	0.104	0.125	0.050	2065609
Fluorene	ug	0.167	0.160	0.050	2065609
Indeno(1,2,3-cd)pyrene	ug	<0.050	<0.050	0.050	2065609
m-Terphenyl	ug	<0.10	<0.10	0.10	2065609
Naphthalene	ug	0.400	0.260	0.072	2065609
o-Terphenyl	ug	<0.10	<0.10	0.10	2065609
Perylene	ug	<0.10	<0.10	0.10	2065609

 RDL = Reportable Detection Limit
 QC Batch = Quality Control Batch

Maxxam Job #: B009097
 Report Date: 2010/02/03

SEMI-VOLATILE ORGANICS BY GC-MS (PUF AND FILTER)

Maxxam ID		EX8961	EX8962		
Sampling Date		2010/01/20	2010/01/20		
		00:00	00:00		
COC Number		1059	1059		
	Units	LICA	LICA	DL	QC Batch
		PUF/QFF/CLS/JAN20,10	PUF/QFF/PORT/JAN20,10		

Phenanthrene	ug	0.402	0.412	0.050	2065609
p-Terphenyl	ug	<0.10	<0.10	0.10	2065609
Pyrene	ug	0.074	0.071	0.050	2065609
Quinoline	ug	<0.40	<0.40	0.40	2065609
Tetralin	ug	<0.10	<0.10	0.10	2065609
Surrogate Recovery (%)					
D10-2-Methylnaphthalene	%	77	83		2065609
D10-Fluoranthene	%	102	108		2065609
D10-Fluorene (FS)	%	63	72		2065609
D10-Phenanthrene	%	96	101		2065609
D12-Benzo(a)anthracene	%	95	104		2065609
D12-Benzo(a)pyrene	%	96	99		2065609
D12-Benzo(b)fluoranthene	%	96	101		2065609
D12-Benzo(ghi)perylene	%	102	101		2065609
D12-Benzo(k)fluoranthene	%	102	95		2065609
D12-Chrysene	%	105	97		2065609
D12-Indeno(1,2,3-cd)pyrene	%	102	103		2065609
D12-Perylene	%	99	99		2065609
D14-Dibenzo(a,h)anthracene	%	100	103		2065609
D14-Terphenyl (FS)	%	89	86		2065609
D8-Acenaphthylene	%	87	95		2065609
D8-Naphthalene	%	77	83		2065609

QC Batch = Quality Control Batch

Maxxam Job #: B009097
 Report Date: 2010/02/03

Test Summary

Maxxam ID	EX8961	Collected	2010/01/20
Sample ID	LICA PUF/QFF/CLS/JAN20,10	Shipped	
Matrix	PUF AND FILTER	Received	2010/01/26

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
PAH's in Air (CARB429mod)	GC/MS	2065609	2010/01/27	2010/02/01	WZ

Maxxam ID	EX8962	Collected	2010/01/20
Sample ID	LICA PUF/QFF/PORT/JAN20,10	Shipped	
Matrix	PUF AND FILTER	Received	2010/01/26

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
PAH's in Air (CARB429mod)	GC/MS	2065609	2010/01/27	2010/02/01	WZ

Maxxam Job #: B009097
Report Date: 2010/02/03

GENERAL COMMENTS

PAHMS-F

7,12-Dimethylbenzo(a)anthracene is above 25% RSD in initial calibration. No positives found for this compounds.

Not calibrated for Benzo(b)Anthracene, Picene, Dibenzo(a,c) anthracene or Triphenylene. An estimated mdl for each of these compounds is 0.1ug

. Since Dibenzo(a,c) anthracene co-elutes with Dibenzo(a,h) anthracene and Triphenylene with Chrysene each would have a value below estimated mdl.

Benzo(b)Anthracene elutes after Benzo(a)Anthracene and Chrysene. Picene elutes after Dibenzo(a,h) anthracene. Searched for ions specific to these 2 compounds in the appropriate retention time range with no possible positives detected.

Results relate only to the items tested.

Lakeland Industry & Community Assoc.
 Attention: Shea Beaton
 Client Project #:
 P.O. #:
 Project name:

Quality Assurance Report
 Maxxam Job Number: GB009097

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
2065609 WZ	Spiked Blank	D10-2-Methylnaphthalene	2010/02/01		92	%	50 - 150
		D10-Fluoranthene	2010/02/01		108	%	50 - 150
		D10-Phenanthrene	2010/02/01		105	%	50 - 150
		D12-Benzo(a)anthracene	2010/02/01		99	%	50 - 150
		D12-Benzo(a)pyrene	2010/02/01		102	%	50 - 150
		D12-Benzo(b)fluoranthene	2010/02/01		100	%	50 - 150
		D12-Benzo(ghi)perylene	2010/02/01		104	%	50 - 150
		D12-Benzo(k)fluoranthene	2010/02/01		101	%	50 - 150
		D12-Chrysene	2010/02/01		104	%	50 - 150
		D12-Indeno(1,2,3-cd)pyrene	2010/02/01		106	%	50 - 150
		D12-Perylene	2010/02/01		102	%	50 - 150
		D14-Dibenzo(a,h)anthracene	2010/02/01		106	%	50 - 150
		D8-Acenaphthylene	2010/02/01		95	%	50 - 150
		D8-Naphthalene	2010/02/01		93	%	50 - 150
		RPD	Acenaphthene	2010/02/01		86	%
	Spiked Blank	Acenaphthene	2010/02/01	3.9		%	50
	RPD	Acenaphthylene	2010/02/01		88	%	60 - 130
	Spiked Blank	Acenaphthylene	2010/02/01	3.0		%	50
	RPD	Anthracene	2010/02/01		79	%	60 - 130
	Spiked Blank	Anthracene	2010/02/01	2.3		%	50
	RPD	Anthracene	2010/02/01		2.3		50
	Spiked Blank	Benzo(a)anthracene	2010/02/01		82	%	60 - 130
	RPD	Benzo(a)anthracene	2010/02/01		2.8		50
	Spiked Blank	Benzo(a)pyrene	2010/02/01		87	%	60 - 130
	RPD	Benzo(a)pyrene	2010/02/01		5.8		50
	Spiked Blank	Benzo(b)fluoranthene	2010/02/01		89	%	60 - 130
	RPD	Benzo(b)fluoranthene	2010/02/01		4.4		50
	Spiked Blank	Benzo(g,h,i)perylene	2010/02/01		90	%	60 - 130
	RPD	Benzo(g,h,i)perylene	2010/02/01		8.2		50
	Spiked Blank	Benzo(k)fluoranthene	2010/02/01		88	%	60 - 130
	RPD	Benzo(k)fluoranthene	2010/02/01		3.7		50
	Spiked Blank	Chrysene	2010/02/01		92	%	60 - 130
	RPD	Chrysene	2010/02/01		1.2		50
	Spiked Blank	Dibenz(a,h)anthracene	2010/02/01		93	%	60 - 130
	RPD	Dibenz(a,h)anthracene	2010/02/01		11.6		50
	Spiked Blank	Fluoranthene	2010/02/01		99	%	60 - 130
	RPD	Fluoranthene	2010/02/01		2.8		50
	Spiked Blank	Fluorene	2010/02/01		84	%	60 - 130
	RPD	Fluorene	2010/02/01		2.1		50
	Spiked Blank	Indeno(1,2,3-cd)pyrene	2010/02/01		93	%	60 - 130
RPD	Indeno(1,2,3-cd)pyrene	2010/02/01		9.6		50	
Spiked Blank	Naphthalene	2010/02/01		87	%	60 - 130	
RPD	Naphthalene	2010/02/01		3.9		50	
Spiked Blank	Phenanthrene	2010/02/01		87	%	60 - 130	
RPD	Phenanthrene	2010/02/01		8.1		50	
Spiked Blank	Pyrene	2010/02/01		90	%	60 - 130	
RPD	Pyrene	2010/02/01		5.3		50	
Method Blank	D10-2-Methylnaphthalene	2010/02/01		79	%	50 - 150	
	D10-Fluoranthene	2010/02/01		98	%	50 - 150	
	D10-Phenanthrene	2010/02/01		94	%	50 - 150	
	D12-Benzo(a)anthracene	2010/02/01		95	%	50 - 150	
	D12-Benzo(a)pyrene	2010/02/01		96	%	50 - 150	
	D12-Benzo(b)fluoranthene	2010/02/01		93	%	50 - 150	
	D12-Benzo(ghi)perylene	2010/02/01		100	%	50 - 150	
	D12-Benzo(k)fluoranthene	2010/02/01		105	%	50 - 150	
	D12-Chrysene	2010/02/01		103	%	50 - 150	

Lakeland Industry & Community Assoc.
 Attention: Shea Beaton
 Client Project #:
 P.O. #:
 Project name:

Quality Assurance Report (Continued)
 Maxxam Job Number: GB009097

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
2065609 WZ	Method Blank	D12-Indeno(1,2,3-cd)pyrene	2010/02/01		100	%	50 - 150
		D12-Perylene	2010/02/01		100	%	50 - 150
		D14-Dibenzo(a,h)anthracene	2010/02/01		99	%	50 - 150
		D8-Acenaphthylene	2010/02/01		82	%	50 - 150
		D8-Naphthalene	2010/02/01		79	%	50 - 150
		1-Methylnaphthalene	2010/02/01	ND, RDL=0.10		ug	
		1-Methylphenanthrene	2010/02/01	ND, RDL=0.10		ug	
		2-Chloronaphthalene	2010/02/01	ND, RDL=0.10		ug	
		2-Methylantracene	2010/02/01	ND, RDL=0.10		ug	
		2-Methylnaphthalene	2010/02/01	ND, RDL=0.10		ug	
		3-Methylcholanthrene	2010/02/01	ND, RDL=2.0		ug	
		7,12-Dimethylbenzo(a)anthracene	2010/02/01	ND, RDL=0.10		ug	
		9,10-Dimethylantracene	2010/02/01	ND, RDL=0.40		ug	
		Acenaphthene	2010/02/01	ND, RDL=0.050		ug	
		Acenaphthylene	2010/02/01	ND, RDL=0.050		ug	
		Anthracene	2010/02/01	ND, RDL=0.050		ug	
		Benzo(a)anthracene	2010/02/01	ND, RDL=0.050		ug	
		Benzo(a)fluorene	2010/02/01	ND, RDL=0.10		ug	
		Benzo(a)pyrene	2010/02/01	ND, RDL=0.050		ug	
		Benzo(b)fluoranthene	2010/02/01	ND, RDL=0.050		ug	
		Benzo(b)fluorene	2010/02/01	ND, RDL=0.10		ug	
		Benzo(e)pyrene	2010/02/01	ND, RDL=0.10		ug	
		Benzo(g,h,i)perylene	2010/02/01	ND, RDL=0.050		ug	
		Benzo(k)fluoranthene	2010/02/01	ND, RDL=0.050		ug	
		Biphenyl	2010/02/01	ND, RDL=0.10		ug	
		Chrysene	2010/02/01	ND, RDL=0.050		ug	
		Coronene	2010/02/01	ND, RDL=0.10		ug	
		Dibenz(a,h)anthracene	2010/02/01	ND, RDL=0.050		ug	
		Dibenzo(a,e)pyrene	2010/02/01	ND, RDL=0.20		ug	
		Fluoranthene	2010/02/01	ND, RDL=0.050		ug	
		Fluorene	2010/02/01	ND, RDL=0.050		ug	
		Indeno(1,2,3-cd)pyrene	2010/02/01	ND, RDL=0.050		ug	
		m-Terphenyl	2010/02/01	ND, RDL=0.10		ug	
		Naphthalene	2010/02/01	ND, RDL=0.072		ug	
		o-Terphenyl	2010/02/01	ND, RDL=0.10		ug	
		Perylene	2010/02/01	ND, RDL=0.10		ug	
		Phenanthrene	2010/02/01	ND, RDL=0.050		ug	
		p-Terphenyl	2010/02/01	ND, RDL=0.10		ug	
		Pyrene	2010/02/01	ND, RDL=0.050		ug	
		Quinoline	2010/02/01	ND, RDL=0.40		ug	
		Tetralin	2010/02/01	ND, RDL=0.10		ug	

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.
 Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.
 Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.
 Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

Lakeland Industry & Community Association

Maskwa Monitoring Site
Ambient Air Monitoring
Data Report
For
January 2010

Prepared By:



February 5, 2010

Lakeland Industry & Community Association Ambient Air Monitoring Maskwa

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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: January 2010

The monthly ambient data report:

- Prepared by Lily Lin
- Reviewed by Craig Snider

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.

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

- CAL SOP-00211
- CAL SOP-00209
- CAL SOP-00213
- CAL SOP-00214
- CAL SOP-00208

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 – January 2010

LICA MASKWA SITE						MAXIMUM VALUES						OPERATIONAL TIME (PERCENT)	
						OBJECTIVES			EXCEEDENCES		MONTHLY AVERAGE		1-HOUR
PARAMETER	1-HR	24-HR	1-HR	24-HR	READING	DAY	HOUR	WIND SPEED (KPH)	WIND DIRECTION (DEGREES)	READING			DAY
SO2 (PPB)	172	57	0	0	0.68	18	29	13	0.7	304(WNW)	4.7	26	99.7
H2S (PPB)	10	3	0	0	0.11	2	19, 29	VAR	VAR	VAR	0.9	19	99.7
THC (PPM)	-	-	-	-	2.33	4.1	29	10	2	288(WNW)	3.2	15	99.6
NOx (PPB)	-	-	-	-	6.05	49	29	8	0.1	144(SE)	19.3	19	99.7
NO (PPB)	-	-	-	-	0.90	27	29	8	0.1	144(SE)	6.1	19	99.7
NO ₂ (PPB)	212	106	0	0	4.70	22	9, 29	7, 8	0.6, 0.1	262(W), 144(SE)	12.6	9	99.7
VECTOR WS (KPH)	-	-	-	-	4.36	21.8	20	10	-	272(W)	7.5	24	99.7
VECTOR WD (DEGREES)	-	-	-	-	59(ENE)	-	-	-	-	-	-	-	99.7
RELATIVE HUMIDITY (%)	-	-	-	-	73.44	59	12	19, 20	1.4, 3.3	348(NNW), 295(WNW)	85.8	12	99.7
TEMPERATURE (DEG C)	-	-	-	-	-12.91	2.8	16	14	9.7	289(WNW)	-1.3	16	99.7
BAROMETRIC PRESSURE (MILIBAR)	-	-	-	-	941	967	6	9	0.4	228(SW)	964.2	5	99.7
PRECIPITATION (MM)	-	-	-	-	NA	NA	NA	NA	NA	NA	NA	NA	NA

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, S/N: 508

No operational issue was observed during the month. The analyzer was put into the “Maintenance” mode for two hours on January 8th because ATCO and Pyramid electricians connected permanent power to the station. Data was corrected using daily zero information.

Hydrogen Sulphide (PPB)

- Analyzer make / model - API 101E, S/N: 511

No operational issue was observed during the month. The analyzer was put into the “Maintenance” mode for two hours on January 8th because ATCO and Pyramid electricians connected permanent power to the station. Data was corrected using daily zero information.

Total HydroCarbon (PPM)

- Analyzer make / model –TECO 51C-LT, S/N: 436609738

No operational issue was observed during the month. The H2 gas cylinder was changed on January 7th following a leak check performance. The analyzer was put into the “Maintenance” mode for two hours on January 8th because ATCO and Pyramid electricians connected permanent power to the station. Data was corrected using daily zero information.

General Monthly Summary

AQM STATION – LICA – Maskwa

Nitrogen Dioxide (PPB)

- Analyzer make / model - API 200E, S/N:594

No operational issue was observed during the month. The analyzer was put into the “Maintenance” mode for two hours on January 8th because ATCO and Pyramid electricians connected permanent power to the station. The span valued was adjusted twice during the high span point of the monthly calibration on January 14th. Data was corrected using daily zero information.

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

- System make / model - Climatronics MIII replaced to Met One 50.5H, S/N: H10703

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. The wind system was put into the “Maintenance” mode for two hours on January 8th because ATCO and Pyramid electricians connected permanent power to the station.

Relative Humidity (PERCENT)

- System make / model - Met One 083

No operational issues observed during the month. The relative humidity channel was put into the “Maintenance” mode for two hours on January 8th because ATCO and Pyramid electricians connected permanent power to the station.

Precipitation (MM)

- System make / model - Met One 387

No data for precipitation was collected this month; waiting for the electricians to complete the trench/wiring to the new station.

General Monthly Summary

AQM STATION – LICA – Maskwa

Barometric Pressure (MILLIBAR)

- System make / model - Met One 092

No operation issue was observed during the month. The barometric pressure channel was put into the “Maintenance” mode for two hours on January 8th because ATCO and Pyramid electricians connected permanent power to the station.

Ambient Temperature (DEGC)

- System make / model - Met One 060

No operational issue was observed during the month. The ambient temperature channel was put into the “Maintenance” mode for two hours on January 8th because ATCO and Pyramid electricians connected permanent power to the station.

Trailer Temperature (DEG C)

- System make / model – R&R 61

No operational issue was observed during the month. The trailer temperature channel was put into the “Maintenance” mode for two hours on January 8th because ATCO and Pyramid electricians connected permanent power to the station.

Standard Deviation Wind Direction (DEG)

- System make / model – Climatronics MIII replaced to Met One 50.5H

The standard deviation wind direction channel was put into the “Maintenance” mode for two hours on January 8th because ATCO and Pyramid electricians connected permanent power to the station.

General Monthly Summary

AQM STATION – LICA – Maskwa

Datalogger

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

No operational issue was observed during the month.

Trailer

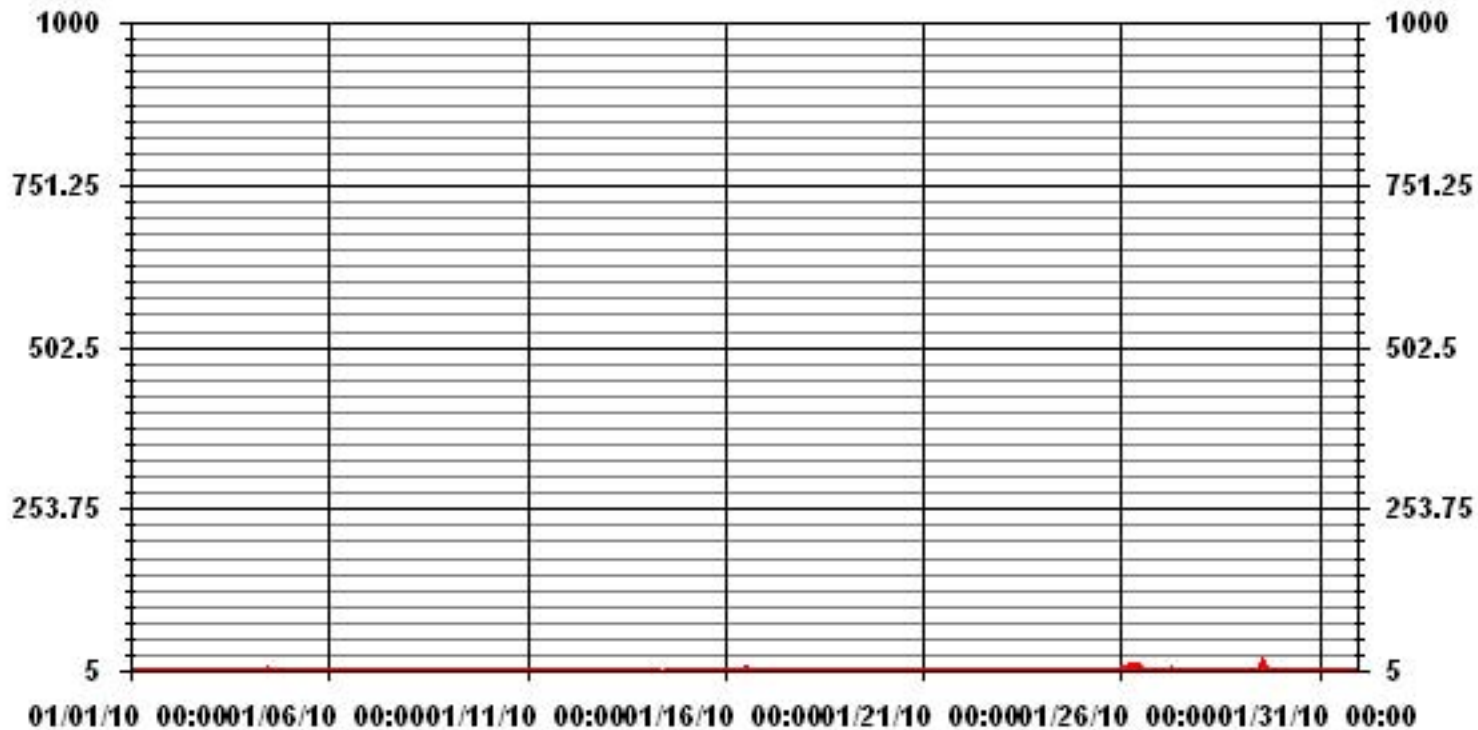
No issues with the station.

Continuous Monitoring

Monthly Summaries, Graphs & Wind Roses

Sulphur Dioxide

01 Hour Averages



— LICA30 SO2_ PPB

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION -MASKWA

FEBRUARY 2010

SULPHUR DIOXIDE MAX instantaneous maximum in ppt

MST		0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY	24-HOUR		
HOUR START	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	0	0	0	0	0	IZS	0	0	0	0	0	1	0	2	2	1	0	0	0	0	3	0	0	3	0.4	24	
2		0	0	0	0	0	0	IZS	0	0	3	4	2	2	4	2	4	4	4	5	8	3	9	6	1	1	9	2.7	24
3		1	0	0	0	IZS	0	1	0	1	1	3	2	3	4	3	3	5	3	3	1	1	1	1	1	1	5	1.7	24
4		1	6	6	IZS	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	6	1	1	6	1.7	24
5		1	1	IZS	1	3	1	1	2	5	5	1	1	2	3	0	1	0	0	1	1	1	1	1	0	5	1.4	24	
6		0	IZS	0	0	0	0	0	1	4	5	4	5	5	4	3	3	6	7	7	6	5	3	3	1	7	3.1	24	
7		IZS	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	IZS	1	1.0	24
8		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	IZS	1	1	1.0	24
9		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	1	1	1	IZS	1	1	1	0.9	24	
10		1	1	1	1	1	1	1	1	1	2	2	1	3	3	0	1	1	1	1	0	0	IZS	0	0	0	3	1.0	24
11		0	0	0	0	0	0	1	1	0	0	0	0	0	0	1	1	1	0	1	1	IZS	1	1	1	1	1	0.4	24
12		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	IZS	5	1	2	2	2	1	5	1.3	24
13		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	IZS	1	1	1	1	1	1	1	1	1.0	24
14		1	1	1	1	1	1	1	1	C	C	C	C	C	2	5	1	IZS	3	0	1	0	2	3	0	5	1.4	24	
15		0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	1	0.1	24
16		0	0	0	0	0	0	0	0	0	2	1	2	3	1	IZS	1	1	0	0	0	0	0	0	0	3	0.5	24	
17		0	0	0	0	0	0	0	1	4	0	1	1	0	IZS	0	3	5	5	4	4	2	8	6	1	8	2.0	24	
18		0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	1	1	2	2	2	1	1	2	0.4	24
19		1	1	1	1	1	1	1	1	1	1	1	1	IZS	1	1	1	3	2	6	3	1	9	1	2	9	2.2	24	
20		10	13	9	10	2	3	13	9	13	10	IZS	1	6	4	6	8	8	8	8	13	13	6	6	1	13	7.8	24	
21		0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
22		0	0	0	0	0	0	0	0	IZS	0	1	1	1	0	0	0	0	0	0	0	0	0	1	0	0	1	0.2	24
23		0	0	0	0	0	0	0	IZS	0	0	1	2	3	1	1	2	1	1	1	3	4	1	1	0	4	1.0	24	
24		0	0	0	0	0	0	0	IZS	0	8	4	3	4	7	5	0	0	0	0	0	1	1	1	2	8	1.6	24	
25		2	3	2	1	1	IZS	0	0	1	2	0	0	0	0	0	0	1	1	0	0	0	0	0	0	3	0.6	24	
26		4	10	2	1	IZS	0	0	0	4	1	0	0	0	1	4	0	5	6	6	9	8	6	3	5	10	3.3	24	
27		3	0	1	IZS	8	6	7	9	7	5	6	7	7	6	5	6	6	0	3	2	1	0	0	0	9	4.1	24	
28		0	0	IZS	0	0	0	0	0	0	1	0	3	2	2	2	1	2	3	3	4	3	4	3	2	4	1.5	24	
HOURLY MAX		10	13	9	10	8	6	13	9	13	10	6	7	7	6	6	8	8	8	8	8	13	13	8	6	9			
HOURLY AVG		1.1	1.5	1.1	0.8	0.9	0.7	1.2	1.2	2.2	2.0	1.3	1.5	2.1	1.7	1.6	1.7	2.0	2.0	2.0	2.2	2.4	2.1	1.4	1.1				

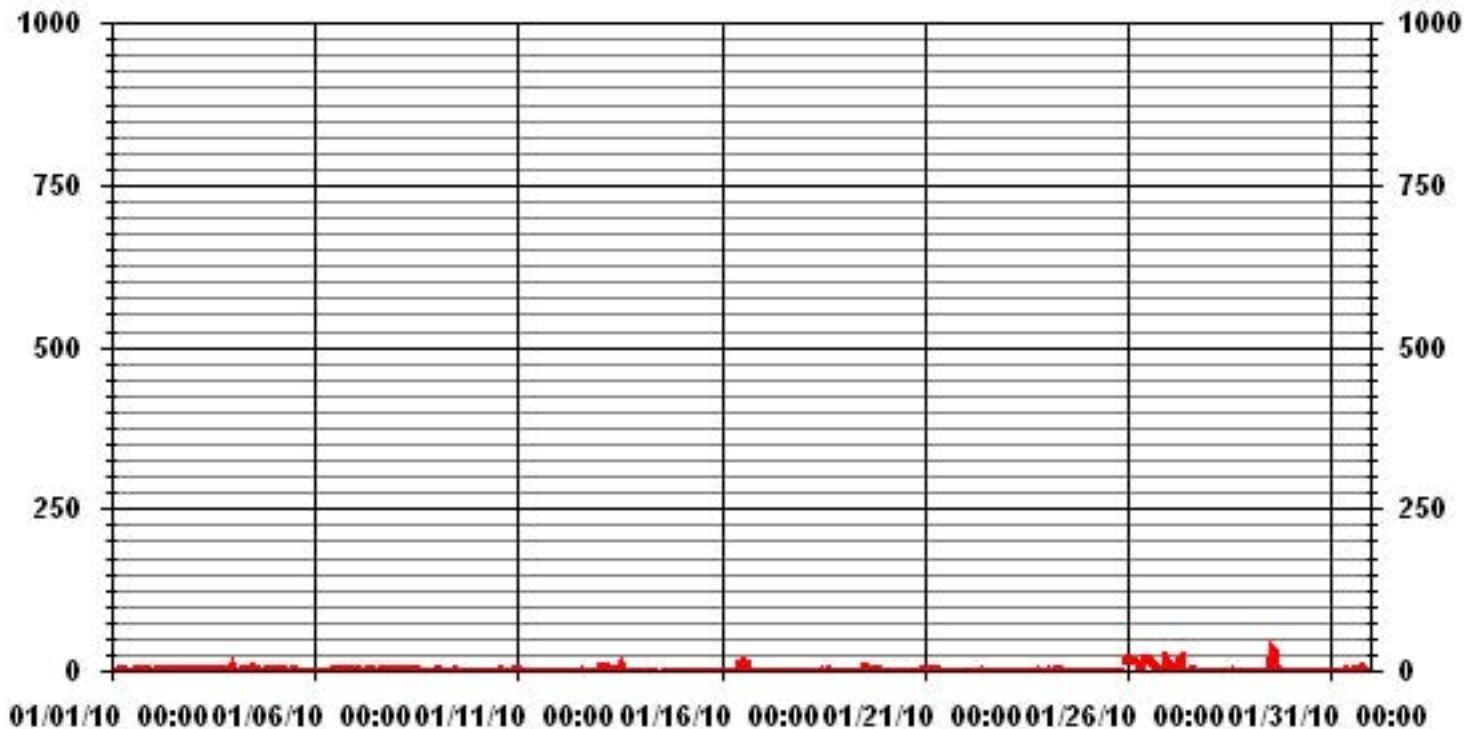
STATUS FLAG CODES

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

MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	413
MAXIMUM INSTANTANEOUS VALUE:	13 PPB @ HOUR(S) 6, 8 ON DAY(S) 20
IZS CALIBRATION TIME:	29 HRS
MONTHLY CALIBRATION TIME:	5 HRS
STANDARD DEVIATION:	2.29
OPERATIONAL TIME:	672 HRS

01 Hour Averages



— LICA30 SO2MAX PPB

LICA30
 SO2_ / WDR Joint Frequency Distribution (Percent)

January 2010

Distribution By % Of Samples

Logger Id : 30
 Site Name : LICA30
 Parameter : SO2_
 Units : PPB

Wind Parameter : WDR
 Instrument Height : 10 Meters

Limit	Direction																Freq
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
< 20	8.21	7.50	10.76	11.47	10.19	8.35	4.95	4.24	4.39	6.09	5.52	1.98	4.39	5.52	3.54	2.83	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	8.21	7.50	10.76	11.47	10.19	8.35	4.95	4.24	4.39	6.09	5.52	1.98	4.39	5.52	3.54	2.83	

Calm : .00 %

Total # Operational Hours : 706

Distribution By Samples

Limit	Direction																Freq
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
< 20	58	53	76	81	72	59	35	30	31	43	39	14	31	39	25	20	706
< 60																	
< 110																	
< 170																	
< 340																	
>= 340																	
Totals	58	53	76	81	72	59	35	30	31	43	39	14	31	39	25	20	

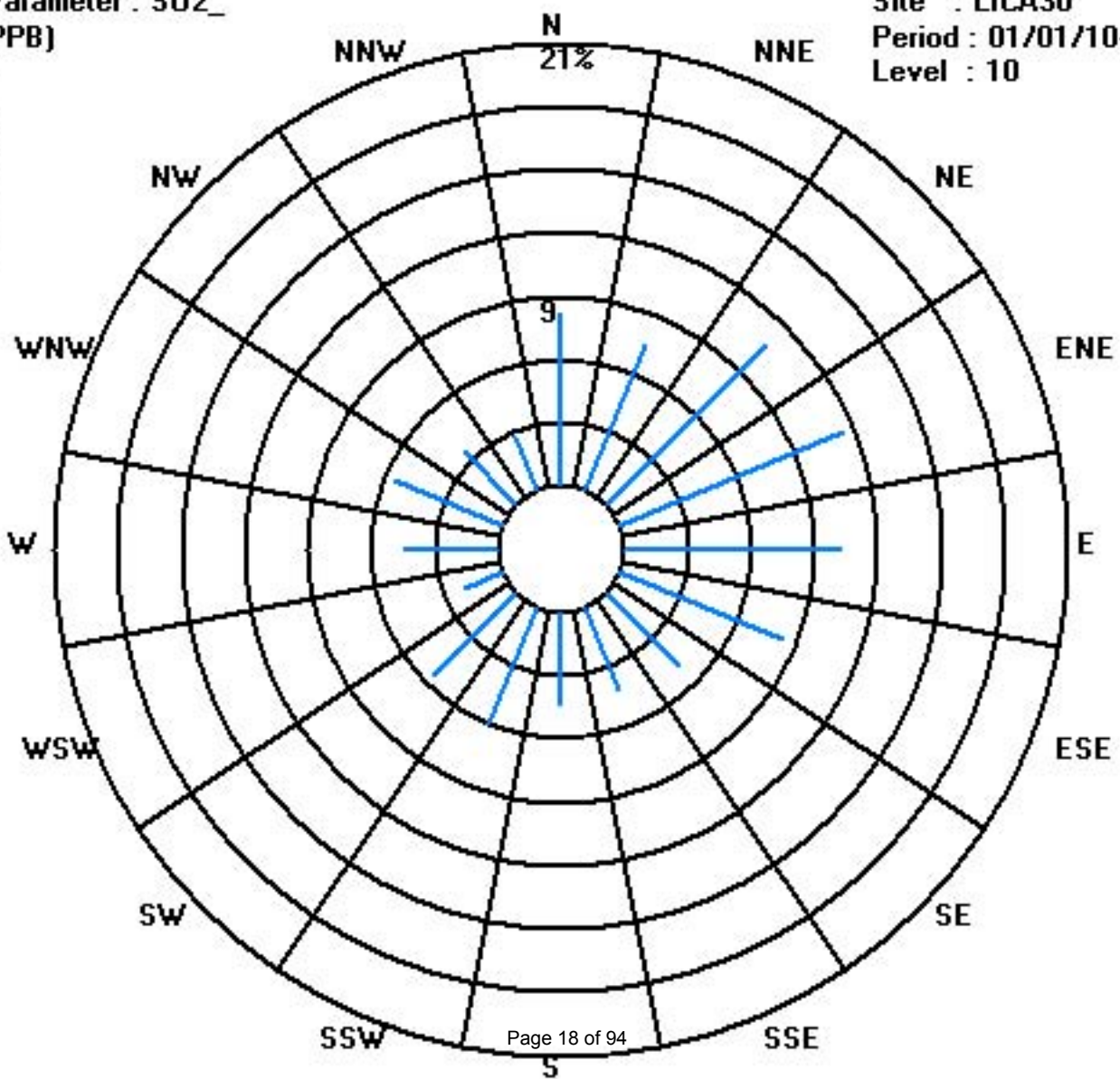
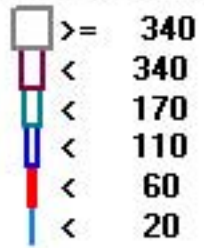
Calm : .00 %

Total # Operational Hours : 706

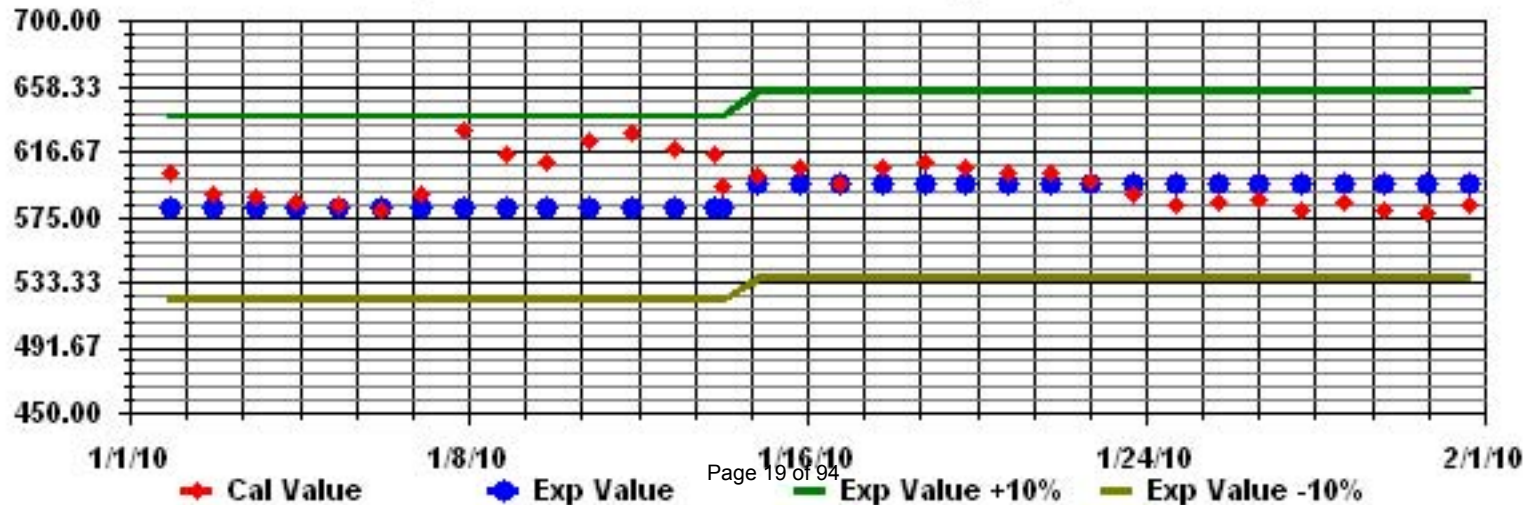
Class Limits (PPB)

Period : 01/01/10-01/31/10

Level : 10



Calibration Graph for Site: LICA30 Parameter: S02_ Sequence: S02 Phase: SPAll



Hydrogen Sulphide

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - MASKWA

JANUARY 2010

HYDROGEN SULPHIDE (H₂S) hourly averages in ppb

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

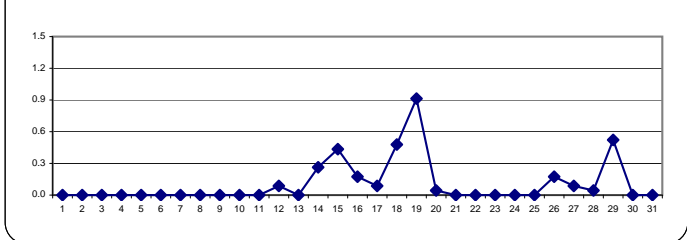
OBJECTIVE LIMIT:

ALBERTA ENVIRONMENT: 1-HR 10 PPB 24-HR 3 PPB

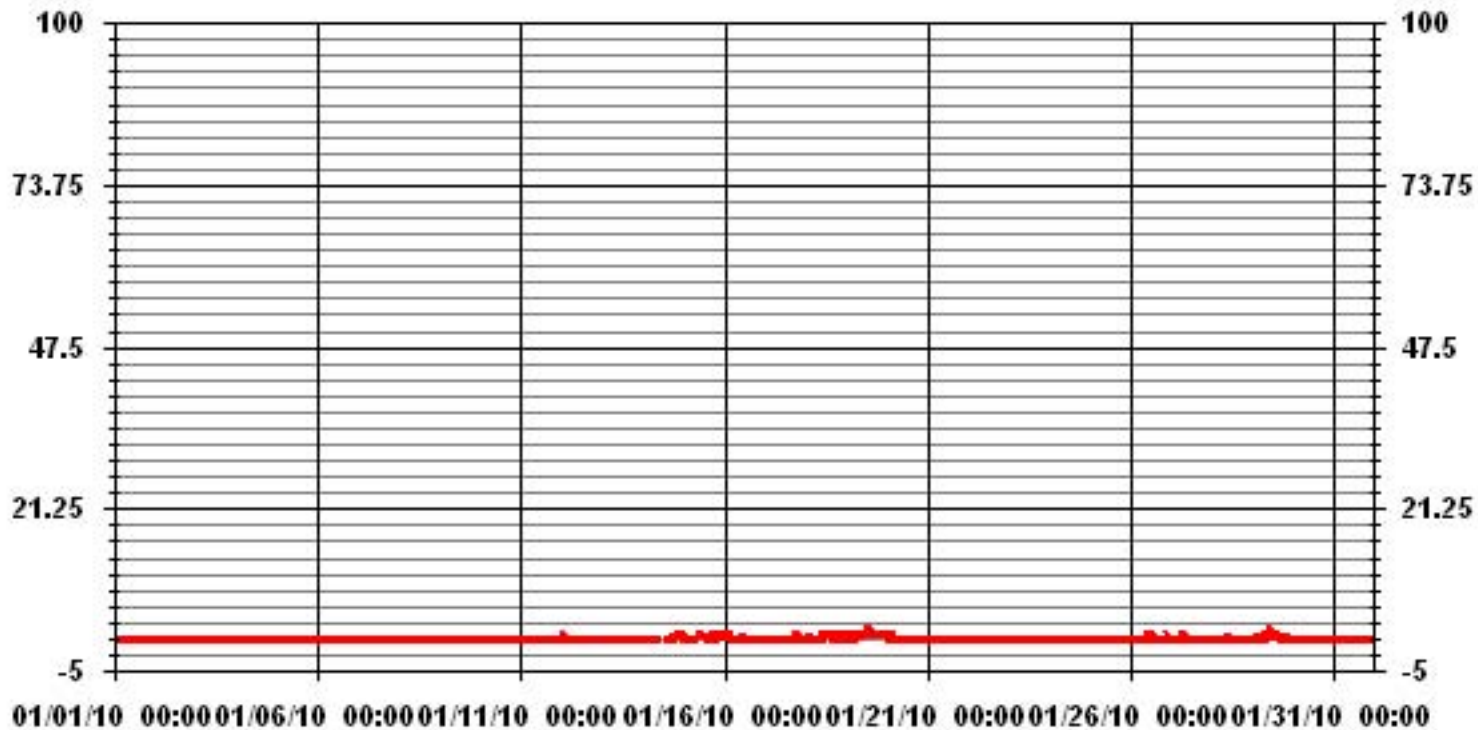
MONTHLY SUMMARY

NUMBER OF 1-HR EXCEEDENCES:	0
NUMBER OF 24-HR EXCEEDENCES:	0
NUMBER OF NON-ZERO READINGS:	71
MAXIMUM 1-HR AVERAGE:	2 PPB @ HOUR(S) VAR ON DAY(S) 19, 29
MAXIMUM 24-HR AVERAGE:	0.9 PPB ON DAY(S) 19 VAR-VARIOUS
IZS CALIBRATION TIME:	32 HRS
MONTHLY CALIBRATION TIME:	4 HRS
STANDARD DEVIATION:	0.33
OPERATIONAL TIME:	742 HRS
AMD OPERATION UPTIME:	99.7 %
MONTHLY AVERAGE:	0.11 PPB

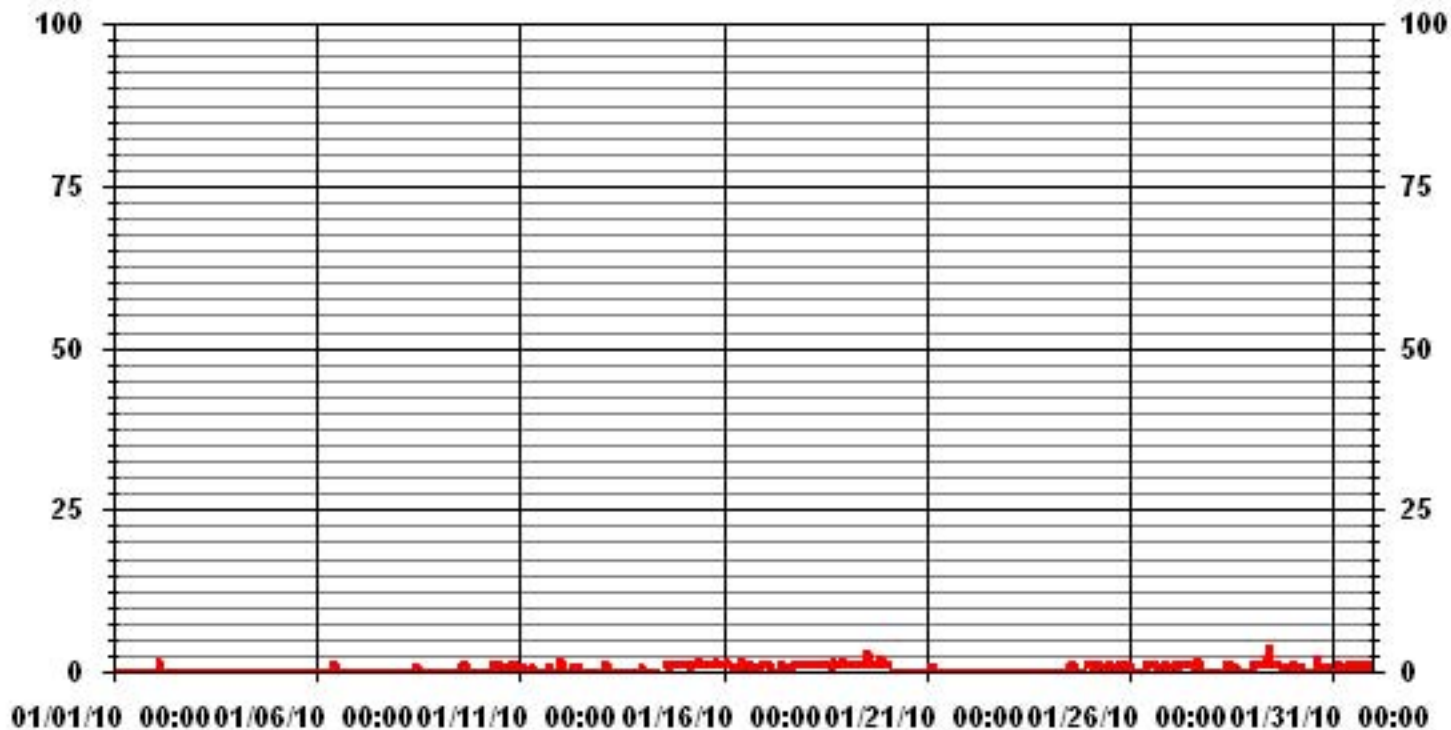
24 HOUR AVERAGES FOR JANUARY 2010



01 Hour Averages



01 Hour Averages



— LICA30 H2S MAX PPB

LICA30
H2S_ / WDR Joint Frequency Distribution (Percent)

January 2010

Distribution By % Of Samples

Logger Id : 30
Site Name : LICA30
Parameter : H2S_
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	
< 3	8.21	7.50	10.76	11.47	10.19	8.35	4.95	4.24	4.39	6.09	5.52	1.98	4.39	5.52	3.54	2.83	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	8.21	7.50	10.76	11.47	10.19	8.35	4.95	4.24	4.39	6.09	5.52	1.98	4.39	5.52	3.54	2.83		

Calm : .00 %

Total # Operational Hours : 706

Distribution By Samples

	Direction																	
Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq	
< 3	58	53	76	81	72	59	35	30	31	43	39	14	31	39	25	20	706	
< 10																		
< 50																		
>= 50																		
Totals	58	53	76	81	72	59	35	30	31	43	39	14	31	39	25	20		

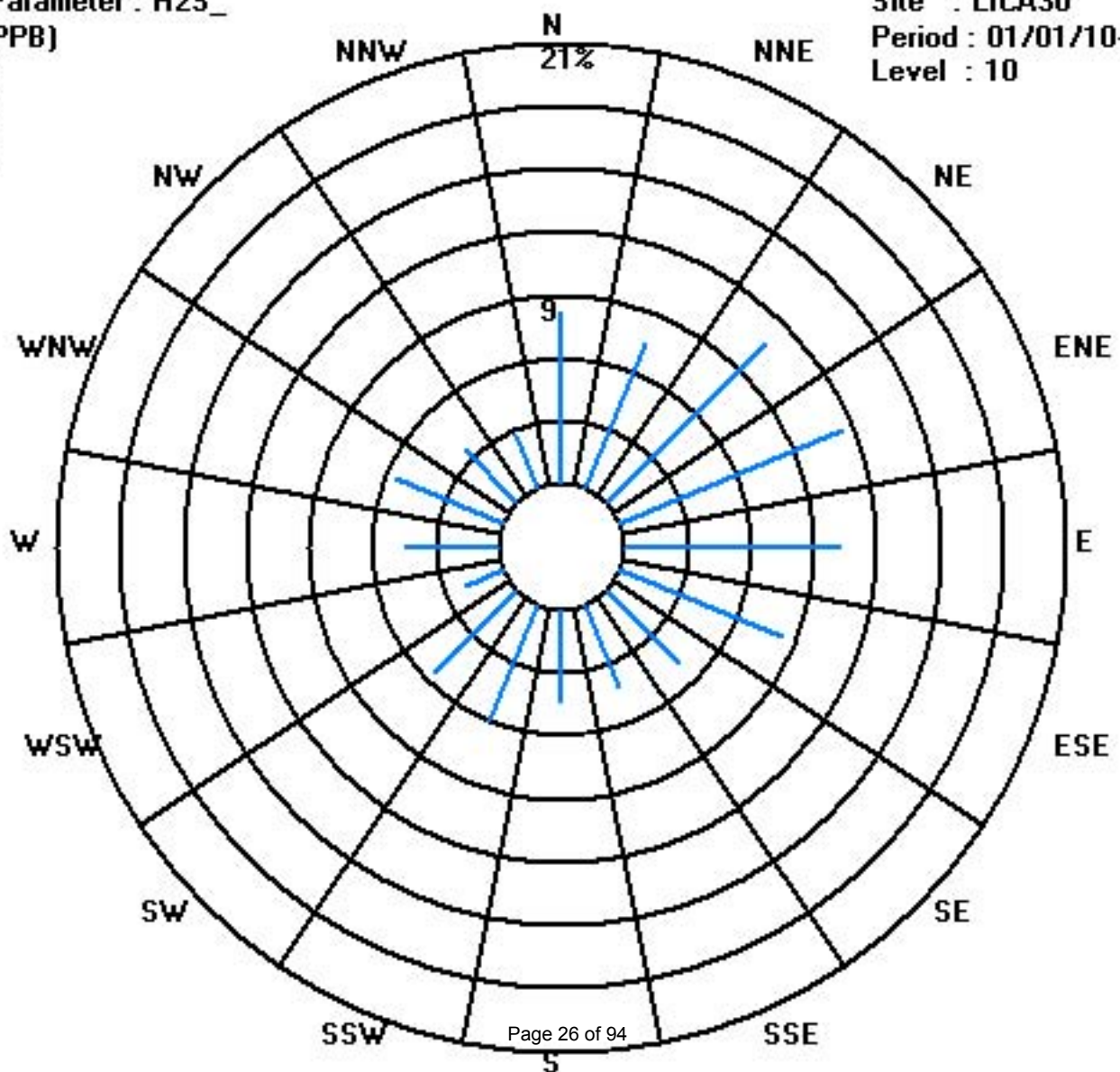
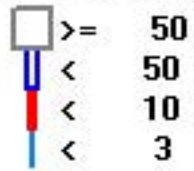
Calm : .00 %

Total # Operational Hours : 706

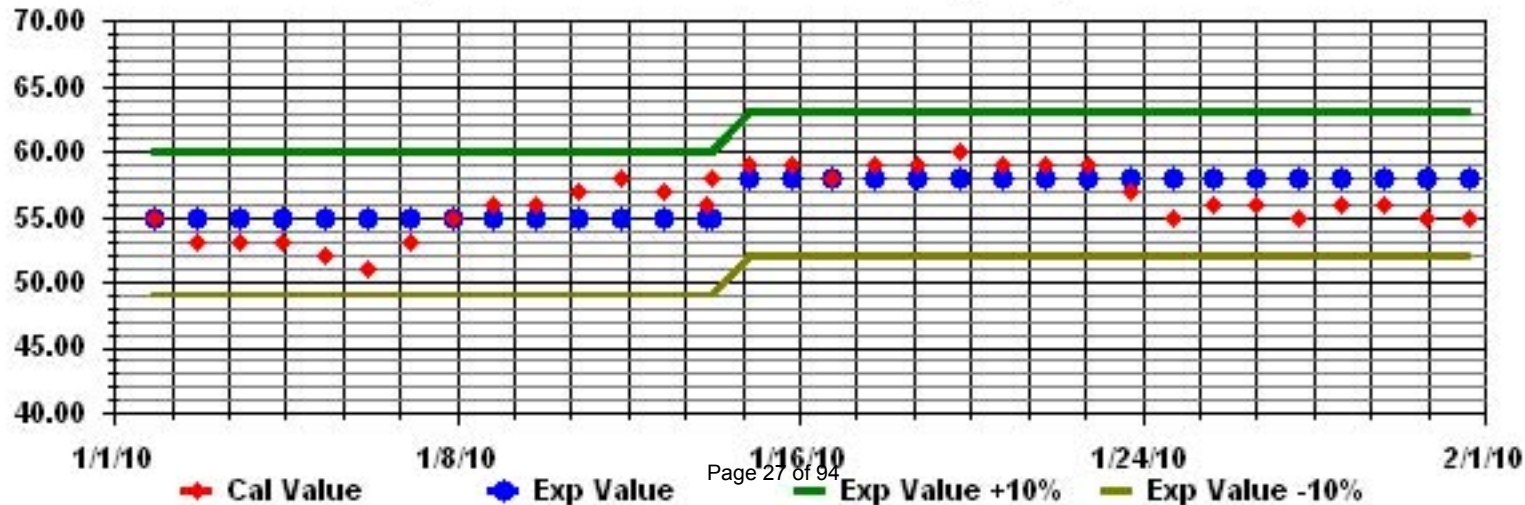
Class Limits (PPB)

Period : 01/01/10-01/31/10

Level : 10



Calibration Graph for Site: LICA30 Parameter: H2S_ Sequence: H2S Phase: SPAll



Total Hydrocarbons

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION -MASKWA

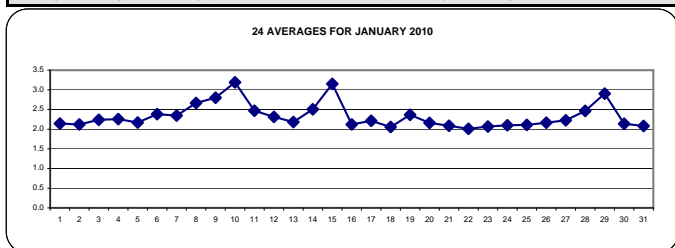
JANUARY 2010

TOTAL HYDROCARBONS hourly averages in ppm

MST		0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY	24-HOUR			
DAY	HOURLY MAX	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.		
1		2.8	3.1	2.6	2.4	2.3	2.2	2.2	2.2	2.2	2.3	2.2	2.1	2	1.9	1.9	1.8	1.8	1.8	1.8	1.9	1.9	1.8	IZS	2.1	3.1	2.1	24		
2		2.1	2.1	2.1	2	2	2	2	2	2	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	IZS	2.2	2.2	2.2	2.1	24		
3		2.3	2.3	2.3	2.4	2.4	2.4	2.2	2.3	2.1	2.1	2.1	2.2	2.2	2.3	2.2	2.2	2.2	2.2	2.2	2.2	IZS	2.2	2.2	2.4	2.4	2.2	24		
4		2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.4	2.4	2.4	IZS	2.3	2.4	2.4	2.2	2.4	2.3	24		
5		2.2	2.3	2.2	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	IZS	2.2	2.4	2.5	2.3	2.2	2.5	2.2	24		
6		2.2	2.2	2.3	2.3	2.3	2.3	2.4	2.5	2.8	2.9	2.9	2.9	2.9	2.4	2.2	2.2	2.2	IZS	2.3	2.2	2.3	2.4	2.2	2.2	2.9	2.4	24		
7		2.3	2.3	2.4	2.4	2.4	2.4	2.4	2.4	M	2.4	2.4	2.4	2.3	2.3	2.2	2.2	IZS	2.3	2.3	2.3	2.3	2.4	2.4	2.4	2.4	2.3	23		
8		2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.5	2.6	2.7	2.7	2.6	2.6	M	M	IZS	2.7	2.8	2.9	3	3	3	3.1	3	3.1	2.7	22		
9		2.9	2.9	2.8	3	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3	2.9	IZS	2.7	2.5	2.4	2.4	2.3	2.2	2.3	2.4	2.9	3.1	2.8	24		
10		3.2	3.2	3.3	3.4	3.4	3.3	3.2	3.3	3.4	3.6	3.7	3.3	3.2	IZS	3.1	3.4	3.5	3.4	3.3	2.7	2.6	2.7	2.6	2.6	3.7	3.2	24		
11		2.8	2.8	2.9	2.9	2.8	2.7	2.5	2.5	2.3	2.3	2.3	2.2	IZS	2.3	2.3	2.3	2.3	2.3	2.3	2.4	2.4	2.3	2.4	2.4	2.9	2.5	24		
12		2.6	2.6	2.6	2.5	2.3	2.2	2.1	2.1	2.1	2.1	2.1	IZS	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.4	2.4	2.4	2.6	2.3	24		
13		2.5	2.4	2.6	2.4	2.3	2.2	2.3	2.2	2.3	2.3	IZS	2	2	2	2	2	2	2	2	2	2.1	2.1	2.1	2.1	2.1	2.6	2.2	24	
14		2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	IZS	2.3	2.6	C	C	C	C	C	C	3.1	3	3	3	3	3	3.1	3	3.1	2.5	24	
15		3.2	3.2	3.3	3.3	3.4	3.4	3.4	3.4	IZS	3.4	3.4	3.3	3.3	3.2	3.2	3.1	3.1	3	2.9	2.9	2.8	2.7	2.8	2.8	3.4	3.2	24		
16		2.8	2.7	2.5	2.2	2	1.9	1.9	IZS	1.9	1.9	2	2	2	2	2.1	2	2	2	2	2	2	2.1	2.4	2.4	2.8	2.1	24		
17		2.4	2.3	2.3	2.3	2.3	2.3	IZS	2.3	2.3	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2	2.1	2.1	2.1	2.4	2.2	24		
18		2.1	2.1	2.1	2.1	2.1	IZS	2.1	2.1	2	2	2.1	2	2	2	2	2	2	2	2	2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	24	
19		2.1	2.1	2.1	2.1	IZS	2.1	2.1	2.1	2.1	2.1	2.2	2.5	2.5	2.6	2.5	2.5	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.5	2.6	2.4	24		
20		2.4	2.4	2.3	IZS	2.2	2.2	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	2.1	2.2	2.1	2.4	2.2	24		
21		2.1	2.1	IZS	2.1	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2	2	2	2	2.2	2.1	24		
22		2	IZS	2	2	2	2	2	2	2	2	2.1	2	2.1	2	2	2	2	2	2	2	2	2	2	2	2	2.1	2.0	24	
23		IZS	2	2	2	2	2	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	2.1	IZS	2.1	2.1	24		
24		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	2.1	2.1	2.1	2.1	2.1	IZS	2.1	2.1	24		
25		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	2.1	2.1	2.1	2.1	IZS	2.2	2.2	2.1	24		
26		2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.2	2.2	2.2	2.3	2.3	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	IZS	2.2	2.2	2.1	2.3	2.2	24	
27		2.1	2.1	2.1	2.2	2.1	2.2	2.2	2.2	2.2	2.2	2.3	2.4	2.2	2.2	2.2	2.1	2.1	2.2	2.4	IZS	2.4	2.3	2.4	2.4	2.4	2.2	24		
28		2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.5	2.6	2.5	2.5	2.5	2.5	IZS	2.5	2.5	2.6	2.6	2.6	2.6	2.6	2.5	24	
29		2.7	2.7	2.7	2.7	2.8	2.9	3	3.2	3.2	3.5	4.1	3	2.7	2.8	2.6	2.5	3	IZS	3.5	3.1	2.8	2.7	2.4	2.2	4.1	2.9	24		
30		2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	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	2.2	2.1	24		
31		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	IZS	2.1	2.1	2.1	2	2	2	2	2	2.1	2.1	24		
HOURLY MAX		3.2	3.2	3.3	3.4	3.4	3.4	3.4	3.4	3.4	3.6	4.1	3.3	3.3	3.2	3.2	3.4	3.5	3.4	3.5	3.1	3.0	3.0	3.1	3.1					
HOURLY AVG		2.4	2.4	2.4	2.4	2.3	2.3	2.3	2.3	2.3	2.4	2.4	2.4	2.3	2.3	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3					

STATUS FLAG CODES

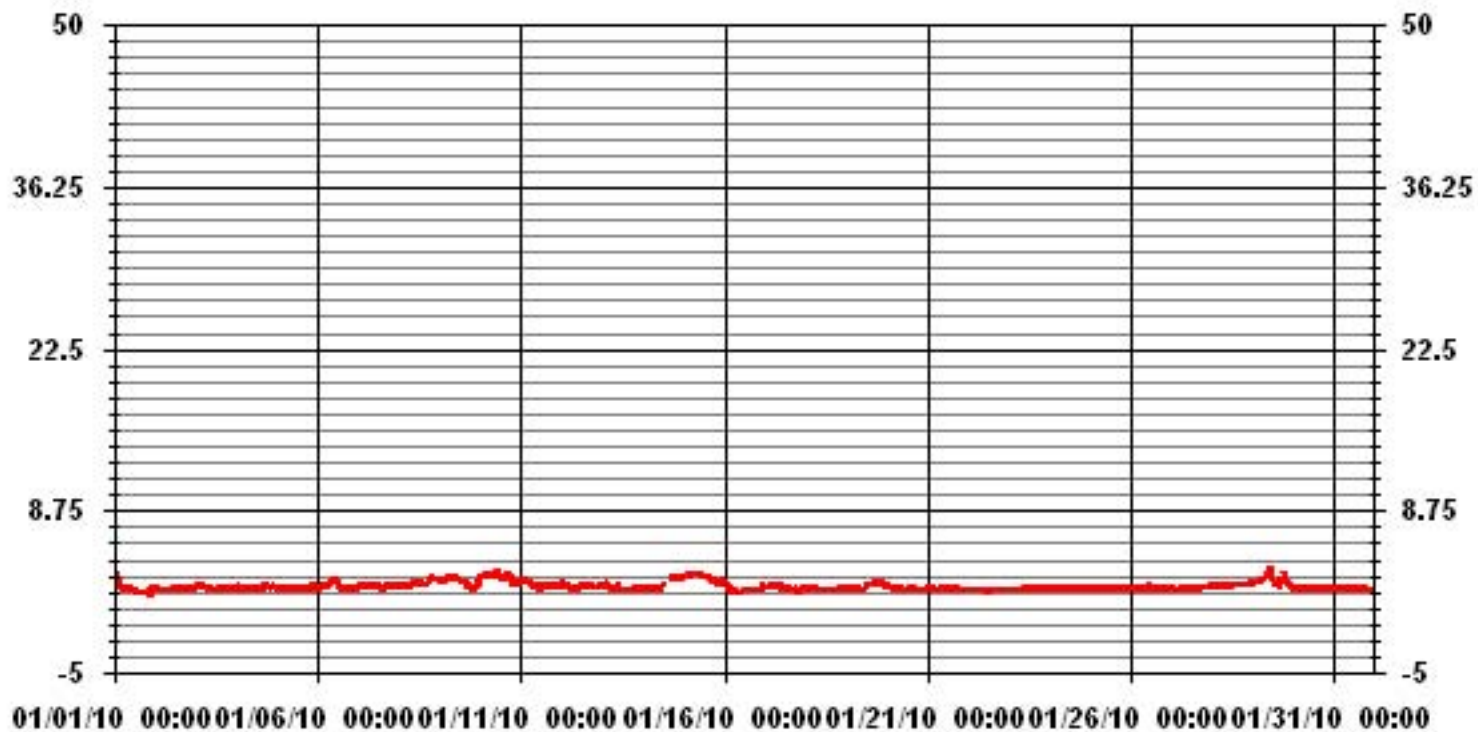
S	- OUT OF SERVICE	IZS	- IZS - DAILY ZERO/SPAN CHECK
N	- INVALID DATA	M	- MAINTENANCE
D	- INSTRUMENT DRIFT	P	- POWER FAILURE
C	- CALIBRATION	NA	- NOT APPLICABLE



MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	704					
MAXIMUM 1-HR AVERAGE:	4.1	PPM	@ HOUR(S)	10	ON DAY(S)	29
MAXIMUM 24-HR AVERAGE:	3.2	PPM			ON DAY(S)	15
					VAR- VARIOUS	
IZS CALIBRATION TIME:	32	HRS	OPERATIONAL TIME:	741	HRS	
MONTHLY CALIBRATION TIME:	5	HRS	AMD OPERATION UPTIME:	99.6	%	
STANDARD DEVIATION:	0.36		MONTHLY AVERAGE:	2.33	PPM	

01 Hour Averages



— LICA30 THC PPM

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - MASKWA

JANUARY 2010

TOTAL HYDROCARBONS MAX instantaneous maximum in ppr

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	3.3	3.3	3.1	2.5	2.4	2.3	2.2	2.3	2.3	2.4	2.3	2.2	2	2.1	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	IZS	1.9	3.3	2.3	24
2	2	2	2	1.9	1.9	1.9	1.8	1.8	1.9	1.9	1.9	2	2	2	2	2.1	2.1	2	2	2	2	2	2	2	IZS	2	2.1	2.1	24
3	2.4	2.2	2.2	2.4	2.7	2.4	2.1	2.2	2.1	1.9	1.9	2	2	2.1	2.1	2.1	2.1	2	2	2	2	2	2	2	IZS	2	2.1	2.3	24
4	2.2	2.1	2	2	2.1	2	2	2	2	2.1	2.2	2.2	2.1	2	2	2.2	2.3	2.2	2.3	2.3	2.3	2.3	2.3	2.3	IZS	2.3	2.3	2.4	24
5	2.1	2.1	2	2	2	1.9	1.9	1.9	2	2	1.9	1.9	1.9	1.9	1.9	2	2	2	2	2	2	2	2	2	IZS	2.1	2.5	2.6	24
6	2	2.1	2.3	2.2	2.2	2.2	2.5	2.6	2.9	2.8	3	3.4	2.5	2	2	2	2	2	2	2	2	2.4	2.3	2.4	IZS	2.4	2.3	2.4	24
7	2.3	2.4	2.4	2.4	2.4	2.4	2.4	2.4	M	2.4	2.4	2.4	2.4	2.3	2.3	2.3	2.3	2.3	2.3	2.2	2.1	2.2	2.2	2.2	IZS	2.2	2.1	2.2	24
8	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.3	2.4	2.7	2.6	2.5	2.4	M	M	IZS	IZS	2.7	2.8	2.8	2.9	2.9	2.9	2.9	IZS	2.9	2.9	2.9	24
9	2.8	2.8	2.9	3.1	3	3	2.9	2.9	2.9	3.1	2.9	2.9	3	2.8	IZS	2.6	2.5	2.4	2.4	2.3	2.1	2.3	2.5	2.8	IZS	3.1	2.7	2.4	24
10	3.1	3.2	3.3	3.3	3.2	3.2	3.1	3.2	3.3	4.1	3.9	3.3	3.1	IZS	3.1	3.3	3.4	3.3	3.3	3.7	2.6	2.6	2.4	2.5	IZS	4.1	3.2	2.4	24
11	2.8	2.7	2.7	2.9	2.8	2.7	2.4	2.3	2.2	2.1	2.3	2.1	IZS	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.4	IZS	2.9	2.4	2.4	24
12	2.4	2.6	2.5	2.5	2.3	2.1	2	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	2	2.1	2.1	IZS	2.6	2.1	2.4	24
13	2.3	2.1	2.3	2.2	2	1.9	1.9	1.9	2	1.9	1.9	1.9	IZS	1.9	2	1.8	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9	IZS	1.9	2.3	2.0	24
14	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2	1.9	IZS	2.2	2.5	C	C	C	C	C	3.2	3.1	3.1	3	3	3.1	3.1	IZS	3.1	3.2	2.4	24
15	3.2	3.3	3.3	3.4	3.4	3.4	3.5	3.5	IZS	3.5	3.5	3.3	3.3	3.3	3.3	3.2	3.1	3	3	2.9	2.8	2.9	2.9	IZS	2.8	3.5	3.2	24	
16	2.8	2.8	2.6	2.3	2.1	2	1.9	IZS	1.9	2	2	2	2	2	2.2	2.1	2	2	2	2	2	2.2	2.5	IZS	2.4	2.8	2.2	24	
17	2.4	2.4	2.3	2.4	2.4	2.4	IZS	2.4	2.4	2.4	2.3	2.3	2.2	2.3	2.3	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	IZS	2.1	2.1	2.4	24
18	2.1	2.2	2.1	2.1	2.1	IZS	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2	2	2.1	2.1	2	2.1	2.1	2.1	2.2	2.2	IZS	2.2	2.2	2.1	24	
19	2.1	2.1	2.1	2.1	IZS	2.2	2.1	2.1	2.2	2.2	2.4	2.6	2.6	2.6	2.5	2.6	2.6	2.6	2.7	2.7	2.6	2.6	2.6	IZS	2.6	2.7	2.4	24	
20	2.5	2.4	2.4	IZS	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.7	IZS	2.2	2.7	2.2	24	
21	2.1	2.2	IZS	2.2	2.2	2.2	2.2	2.3	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.1	2.1	2	IZS	2.1	2	2.3	24	
22	2.1	IZS	2.1	2	2	2	2	2	2	2.1	2.1	2.1	2.1	2.1	2.1	2	2	2	2	2	2	2	2	2	IZS	2	2.1	2.0	24
23	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	2.2	2.1	2.1	2.1	2.1	2.1	IZS	2.1	2.1	2.4	24
24	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	2.1	2.1	2.1	2.1	2.1	2.1	IZS	2.1	2.1	2.1	24
25	2.1	2.1	2.2	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	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	IZS	2.2	2.2	2.1	24
26	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	3	2.3	2.6	2.7	2.2	2.2	2.2	2.3	2.4	2.1	2.4	2.4	2.4	2.3	2.3	IZS	2.3	2.3	2.1	24
27	2.2	2.2	2.3	2.3	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.5	2.4	2.5	2.2	2.2	2.2	2.2	2.4	2.5	IZS	2.4	2.4	IZS	2.4	2.4	2.4	24	
28	2.4	2.4	2.4	2.5	2.4	2.5	2.5	2.5	2.5	2.5	2.4	2.4	2.4	2.6	2.6	2.6	2.5	2.5	2.5	2.5	2.5	2.6	2.6	2.6	IZS	2.6	2.6	2.5	24
29	2.8	2.7	2.9	2.8	2.9	3.2	3.2	3.4	3.4	4	5.2	4	2.9	3	2.8	2.6	3.4	IZS	3.5	3.5	2.9	2.9	2.7	2.3	IZS	5.2	3.2	2.4	24
30	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.2	2.2	2.2	2.1	2.1	2.1	IZS	2.1	2.2	2.2	2.2	2.2	2.2	IZS	2.1	2.3	2.2	24
31	2.1	2.1	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	2.2	IZS	2.2	2.2	2.2	2.1	2.1	2.1	2.1	IZS	2.2	2.1	2.4	24
HOURLY MAX	3	3	3	3	3	3	4	4	3	4	5	4	3	3	3	3	3	3	4	4	3	3	3	3					
HOURLY AVG	2.4	2.4	2.4	2.4	2.3	2.3	2.3	2.3	2.3	2.4	2.4	2.4	2.4	2.3	2.2	2.2	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.4					

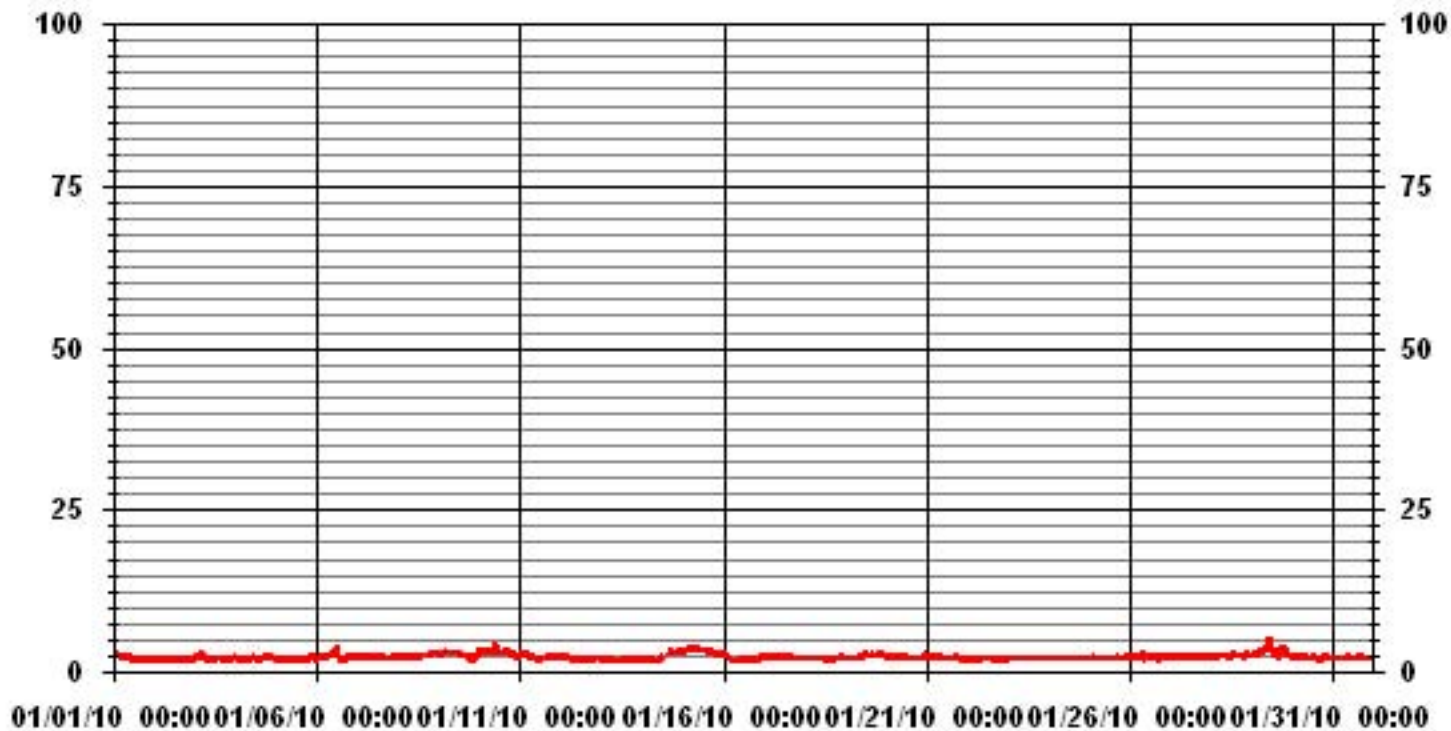
STATUS FLAG CODES

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

MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	703					
MAXIMUM INSTANTANEOUS VALUE:	5.2	PPM	@ HOUR(S)	10	ON DAY(S)	29
IZS CALIBRATION TIME:	33	HRS	OPERATIONAL TIME:	741	HRS	
MONTHLY CALIBRATION TIME:	5	HRS				
STANDARD DEVIATION:	0.41					

01 Hour Averages



— LICA30 THCMAX PPM

LICA30
 THC / WDR Joint Frequency Distribution (Percent)

January 2010

Distribution By % Of Samples

Logger Id : 30
 Site Name : LICA30
 Parameter : THC
 Units : PPM

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	
< 3.0	8.23	6.39	9.09	10.79	9.94	7.95	4.68	3.83	3.55	4.97	3.69	1.56	4.26	5.11	3.55	2.84	90.48	
< 10.0	.00	1.13	1.70	.71	.28	.42	.28	.28	.85	1.27	1.56	.42	.14	.42	.00	.00	9.51	
< 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	8.23	7.52	10.79	11.50	10.22	8.38	4.97	4.11	4.40	6.25	5.25	1.98	4.40	5.53	3.55	2.84		

Calm : .00 %

Total # Operational Hours : 704

Distribution By Samples

	Direction																	
Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq	
< 3.0	58	45	64	76	70	56	33	27	25	35	26	11	30	36	25	20	637	
< 10.0		8	12	5	2	3	2	2	6	9	11	3	1	3			67	
< 50.0																		
>= 50.0																		
Totals	58	53	76	81	72	59	35	29	31	44	37	14	31	39	25	20		

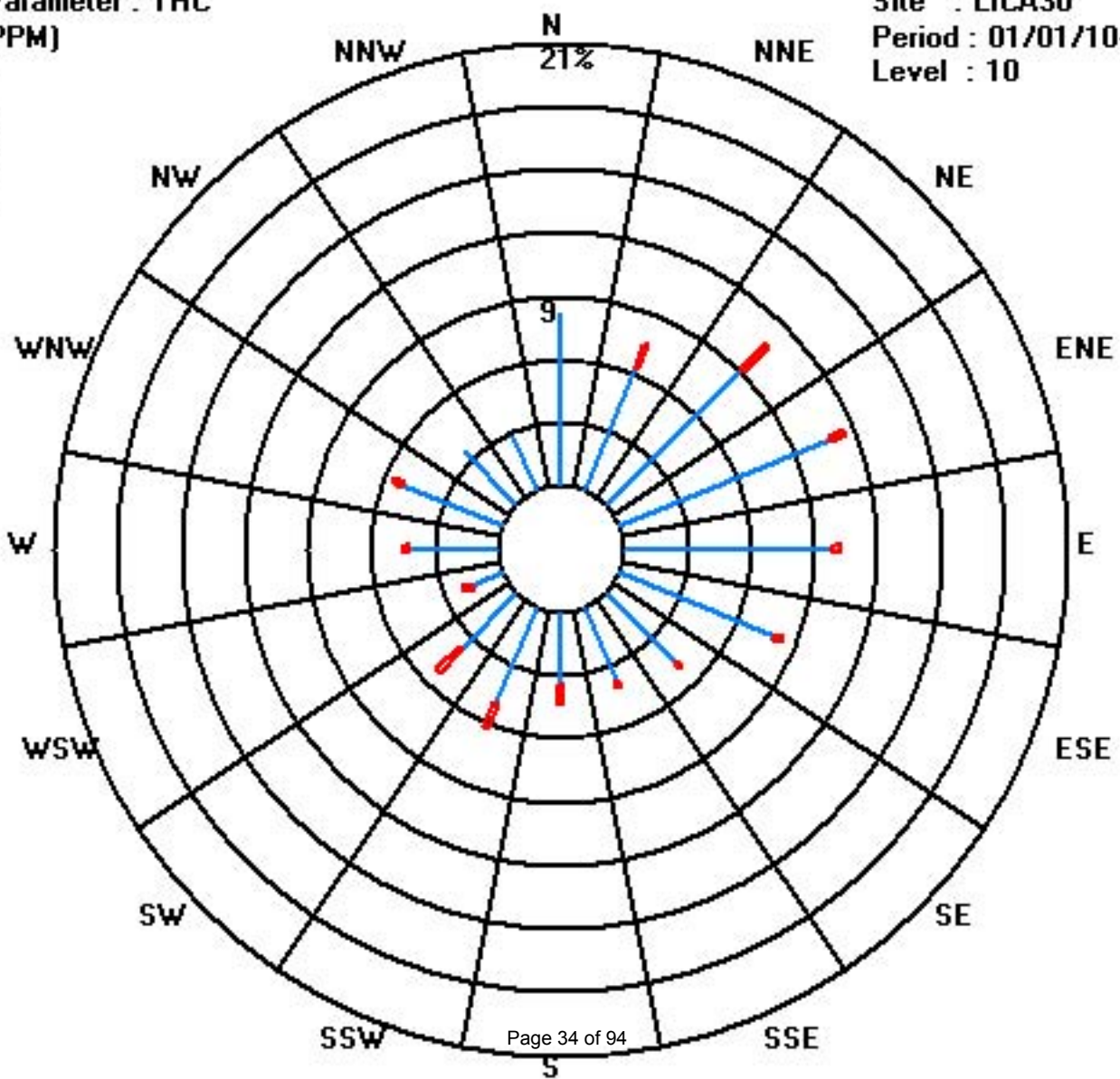
Calm : .00 %

Total # Operational Hours : 704

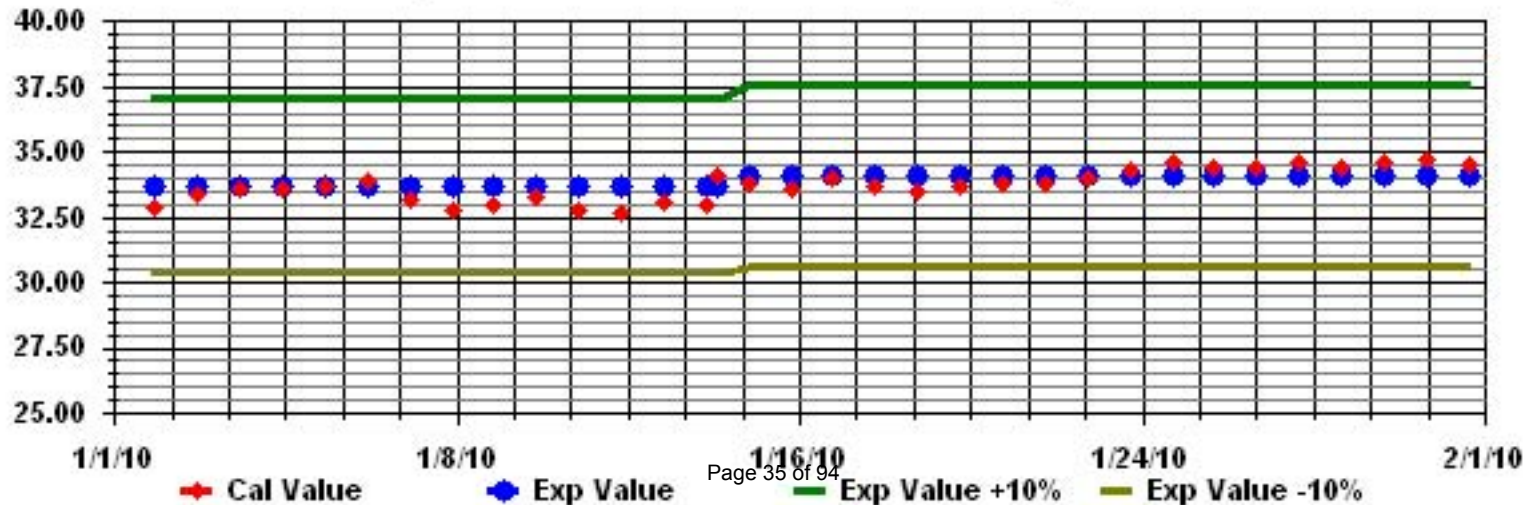
Class Limits (PPM)

Period : 01/01/10-01/31/10

Level : 10



Calibration Graph for Site: LICA30 Parameter: THC Sequence: THC Phase: SPAll



Nitrogen Dioxide

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - MASKWA

JANUARY 2010

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	5	4	4	4	4	3	3	3	3	2	2	1	1	4	2	1	1	1	1	1	1	1	1	1	1	5	2.3	24		
2	1	1	1	1	1	1	0	0	1	2	2	3	2	2	2	2	2	3	3	3	3	3	3	3	3	3	1.8	24		
3	3	4	4	4	3	3	3	2	2	1	1	1	1	2	3	3	3	2	1	1	1	1	1	1	3	6	2.5	24		
4	3	2	2	2	1	2	2	6	8	8	6	7	6	5	3	6	12	13	12	12	12	12	12	12	4	4	3	13	5.3	24
5	3	3	3	3	2	2	1	1	2	2	1	1	1	0	1	1	1	5	1	1	1	1	1	1	5	2.0	24			
6	1	3	4	3	3	3	10	12	17	16	13	11	9	1	2	2	5	1	1	1	1	1	1	1	5	17	6.8	24		
7	4	4	5	5	3	3	3	4	4	4	4	5	4	5	3	4	1	1	1	1	1	1	1	1	2	2	5	3.4	24	
8	2	2	2	2	2	2	3	6	6	6	6	6	5	5	M	M	10	10	10	10	9	9	10	10	12	12	6.2	22		
9	13	14	19	16	13	11	17	22	19	15	12	13	14	15	1	18	16	9	5	4	3	3	6	13	22	12.6	24			
10	16	18	13	14	12	12	13	15	17	13	11	10	9	13	13	16	16	14	13	9	8	8	8	8	8	18	12.4	24		
11	12	9	9	7	6	6	3	4	3	3	4	4	4	1	5	6	7	11	14	13	9	8	6	7	7	14	7.1	24		
12	15	10	11	9	6	4	3	2	2	1	1	1	1	1	2	2	3	2	1	1	4	6	6	6	6	15	4.3	24		
13	9	7	10	6	5	2	2	2	3	1	1	1	1	1	4	3	5	7	13	14	8	4	2	1	3	14	5.0	24		
14	2	1	1	1	3	3	3	3	7	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	12	5.9	24		
15	10	9	10	10	9	10	9	11	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	10	7.9	24		
16	8	8	7	4	2	1	1	1	0	3	7	8	8	4	7	7	1	2	1	1	1	1	5	8	4	8	4.3	24		
17	4	3	3	4	3	3	3	4	5	4	2	2	2	2	2	3	2	2	1	1	1	1	1	1	1	5	2.4	24		
18	1	1	1	1	1	1	3	2	2	3	3	1	2	2	2	1	6	6	2	2	2	3	6	5	6	6	2.5	24		
19	5	3	4	11	1	10	8	8	9	7	6	10	10	16	11	13	19	21	20	20	20	19	18	14	21	12.3	24			
20	8	4	2	1	1	1	1	1	1	1	1	0	1	1	1	1	1	0	0	0	1	1	1	1	1	8	1.3	24		
21	1	0	1	1	1	2	5	4	4	3	1	0	1	0	0	0	0	3	1	1	0	0	0	0	0	5	1.2	24		
22	0	1	1	1	0	0	1	1	1	1	3	1	3	2	2	1	1	1	0	0	0	0	0	0	0	3	0.9	24		
23	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	5	0.9	24		
24	1	2	3	3	2	2	2	2	2	2	1	1	2	2	2	3	2	2	2	2	2	1	1	1	1	3	1.9	24		
25	1	1	2	1	1	0	0	1	0	0	0	0	0	0	1	3	3	1	1	1	1	1	1	1	1	8	1.3	24		
26	9	6	8	7	9	5	5	9	9	7	12	6	5	5	7	6	3	3	6	8	1	1	1	1	1	12	6.7	24		
27	1	1	0	1	0	2	10	7	6	6	6	6	5	6	6	5	10	4	6	1	1	1	1	1	1	10	4.6	24		
28	3	4	5	4	3	4	5	7	8	10	6	6	8	5	7	6	7	9	1	1	1	1	1	1	1	10	6.1	24		
29	7	10	8	6	7	11	11	18	22	17	13	8	10	15	16	18	18	1	1	1	1	1	1	1	1	22	11.8	24		
30	2	2	4	3	3	2	3	5	3	1	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	5	1.2	24		
31	0	0	0	0	0	0	0	0	1	4	3	2	1	1	2	1	1	1	1	1	1	1	1	1	1	5	1.3	24		
HOURLY MAX	16	18	19	16	13	12	17	22	22	17	13	13	14	16	16	18	19	21	20	20	20	19	18	14						
HOURLY AVG	5.0	4.5	4.9	4.5	3.5	3.7	4.3	5.4	5.6	5.0	4.6	4.1	4.0	4.0	4.0	5.2	6.1	5.8	6.0	4.8	4.3	4.4	4.7	4.5						

STATUS FLAG CODES

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

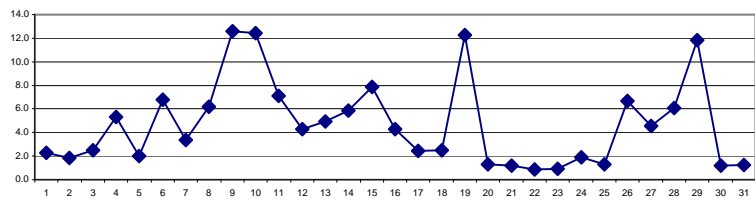
OBJECTIVE LIMIT:

ALBERTA ENVIRONMENT:	1-HR	212	PPB	24-HR	106	PPB
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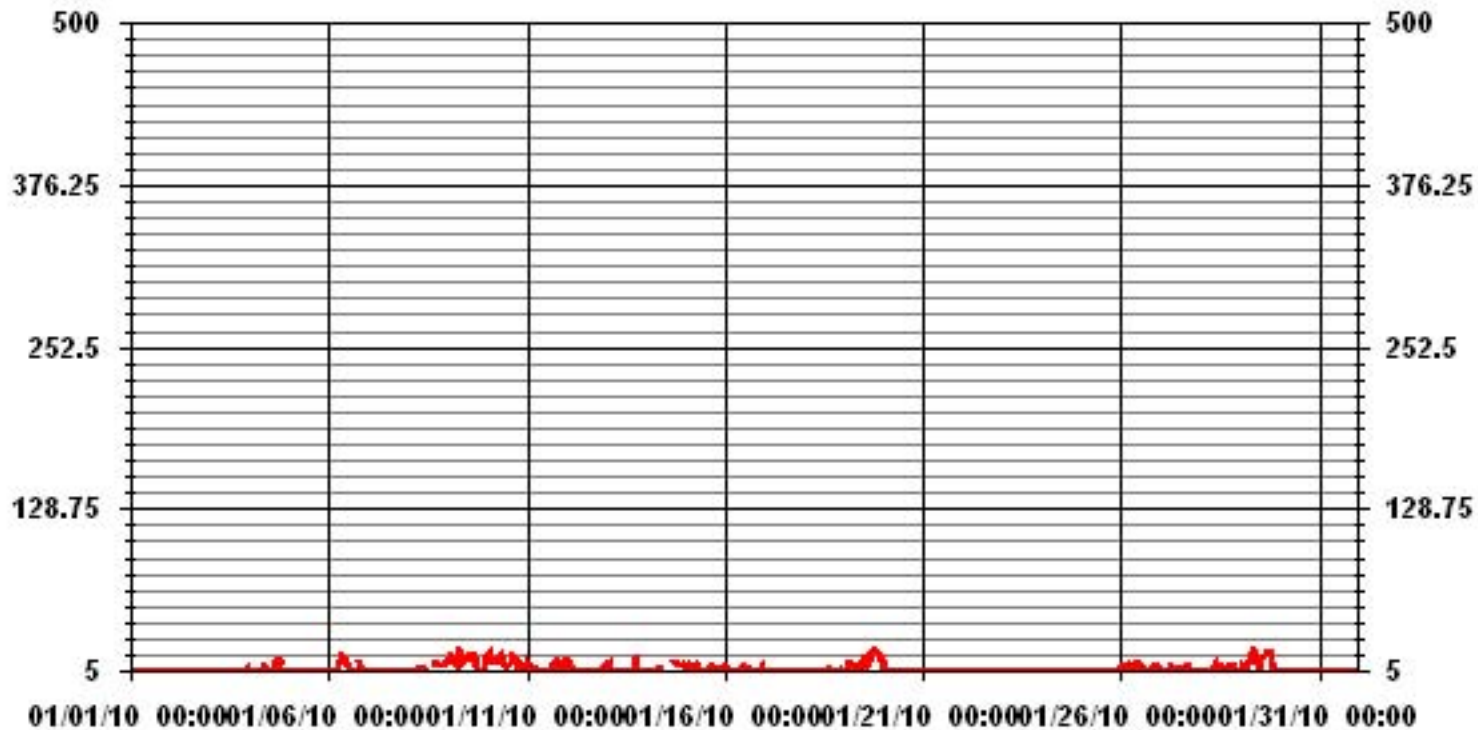
MONTHLY SUMMARY

NUMBER OF 1-HR EXCEEDENCES:	0
NUMBER OF 24-HR EXCEEDENCES:	0
NUMBER OF NON-ZERO READINGS:	626
MAXIMUM 1-HR AVERAGE:	22 PPB @ HOUR(S) 7, 8 ON DAY(S) 9, 29
MAXIMUM 24-HR AVERAGE:	12.6 PPB ON DAY(S) 9
IZS CALIBRATION TIME:	32 HRS
MONTHLY CALIBRATION TIME:	7 HRS
STANDARD DEVIATION:	4.57
OPERATIONAL TIME:	742 HRS
AMD OPERATION UPTIME:	99.7 %
MONTHLY AVERAGE:	4.70 PPB

24 HOUR AVERAGES FOR JANUARY 2010



01 Hour Averages



— LICA30 NO2_ PPB

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - MASKWA

JANUARY 2010

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	6	5	5	5	4	4	4	3	3	3	3	2	3	8	6	3	4	1	1	2	2	2	IZS	3	8	3.6	24	
2	1	4	2	1	1	1	1	1	1	5	3	4	3	3	2	3	3	4	4	4	IZS	4	4	5	2.7	24		
3	4	4	4	4	4	4	5	4	4	2	2	2	2	5	5	7	7	3	2	1	IZS	3	4	10	4.0	24		
4	7	3	2	3	2	3	4	8	10	11	9	10	8	8	5	10	14	14	14	IZS	6	5	4	4	14	7.1	24	
5	4	4	4	4	3	3	2	2	3	2	2	2	2	1	1	2	1	7	IZS	4	7	6	4	3	7	3.2	24	
6	3	4	6	5	3	5	14	15	20	19	15	12	13	3	2	3	12	IZS	14	12	6	8	8	7	20	9.1	24	
7	5	5	6	6	5	4	4	5	5	22	4	6	6	47	4	6	IZS	IZS	3	2	4	3	2	2	3	47	6.9	24
8	3	3	3	3	3	3	5	11	10	9	9	7	8	M	M	IZS	IZS	13	12	12	11	10	11	13	13	8.0	22	
9	14	18	22	19	15	13	21	24	23	18	14	14	16	18	IZS	21	21	12	7	5	4	3	11	15	24	15.1	24	
10	18	20	15	15	13	13	15	16	20	16	17	11	13	IZS	17	17	18	17	16	12	11	11	9	14	20	15.0	24	
11	17	13	12	15	11	11	4	5	4	5	6	6	IZS	6	37	13	17	16	16	11	14	8	11	11	37	11.7	24	
12	18	13	13	11	10	5	4	3	3	2	2	IZS	1	1	4	4	4	3	1	2	11	9	8	10	18	6.2	24	
13	15	12	16	11	12	3	4	5	9	2	IZS	3	3	6	6	8	14	19	16	13	8	3	2	5	19	8.5	24	
14	3	3	2	2	5	4	4	4	10	IZS	C	C	C	C	C	C	C	13	12	11	11	10	10	10	13	7.1	24	
15	10	10	19	11	10	11	11	12	IZS	8	8	12	6	7	8	9	10	10	9	8	8	8	7	9	19	9.6	24	
16	9	9	9	6	3	2	2	IZS	2	10	11	14	15	8	11	17	6	3	2	1	2	8	9	5	17	7.1	24	
17	5	4	4	5	4	4	IZS	7	11	5	3	3	3	3	3	4	3	3	2	2	1	1	1	3	11	3.7	24	
18	2	2	3	2	1	IZS	5	3	4	5	4	3	6	4	2	9	9	4	2	3	3	6	11	8	11	4.4	24	
19	11	5	13	17	IZS	12	10	11	10	10	8	13	13	21	14	18	21	22	21	21	21	20	19	17	22	15.1	24	
20	10	6	3	IZS	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	5	4	2	2	10	2.3	24	
21	1	1	IZS	4	3	5	7	6	7	7	4	1	1	1	1	1	1	6	3	2	1	1	1	1	7	2.9	24	
22	1	IZS	3	1	1	1	1	1	1	3	8	3	6	5	7	1	1	1	1	1	1	1	1	0	8	2.2	24	
23	IZS	0	0	1	1	0	0	1	1	1	1	1	1	1	1	1	2	8	6	4	3	3	3	IZS	8	1.8	24	
24	2	3	4	5	3	3	2	3	3	3	2	2	3	2	3	4	3	3	3	3	3	2	IZS	2	5	2.9	24	
25	2	2	3	3	2	1	1	3	2	1	1	1	1	1	2	2	5	7	1	1	2	IZS	13	13	13	3.0	24	
26	14	11	13	13	13	11	9	20	12	11	19	10	10	10	13	10	8	5	13	12	IZS	13	21	1	21	11.8	24	
27	8	8	2	6	1	10	19	19	16	14	19	21	7	9	9	8	61	9	9	IZS	6	4	6	7	61	12.1	24	
28	4	5	5	5	4	5	6	19	18	15	11	9	10	7	10	8	37	12	IZS	10	7	8	7	6	37	9.9	24	
29	10	11	11	8	9	13	14	23	25	28	16	11	13	22	22	20	23	IZS	21	19	10	9	6	4	28	15.1	24	
30	3	5	5	3	3	3	5	7	5	3	1	0	1	0	0	0	IZS	0	0	0	0	0	0	0	7	1.9	24	
31	0	0	0	0	0	0	0	1	4	6	5	3	1	4	6	IZS	5	3	9	9	2	2	1	0	9	2.7	24	
HOURLY MAX	18	20	22	19	15	13	21	24	25	28	19	21	16	47	37	21	61	22	21	21	21	20	21	17				
HOURLY AVG	7.0	6.4	7.0	6.5	5.0	5.3	6.2	8.1	8.2	8.2	7.2	6.4	6.1	7.6	7.2	7.5	11.5	7.6	7.6	6.6	6.0	5.9	6.8	6.3				

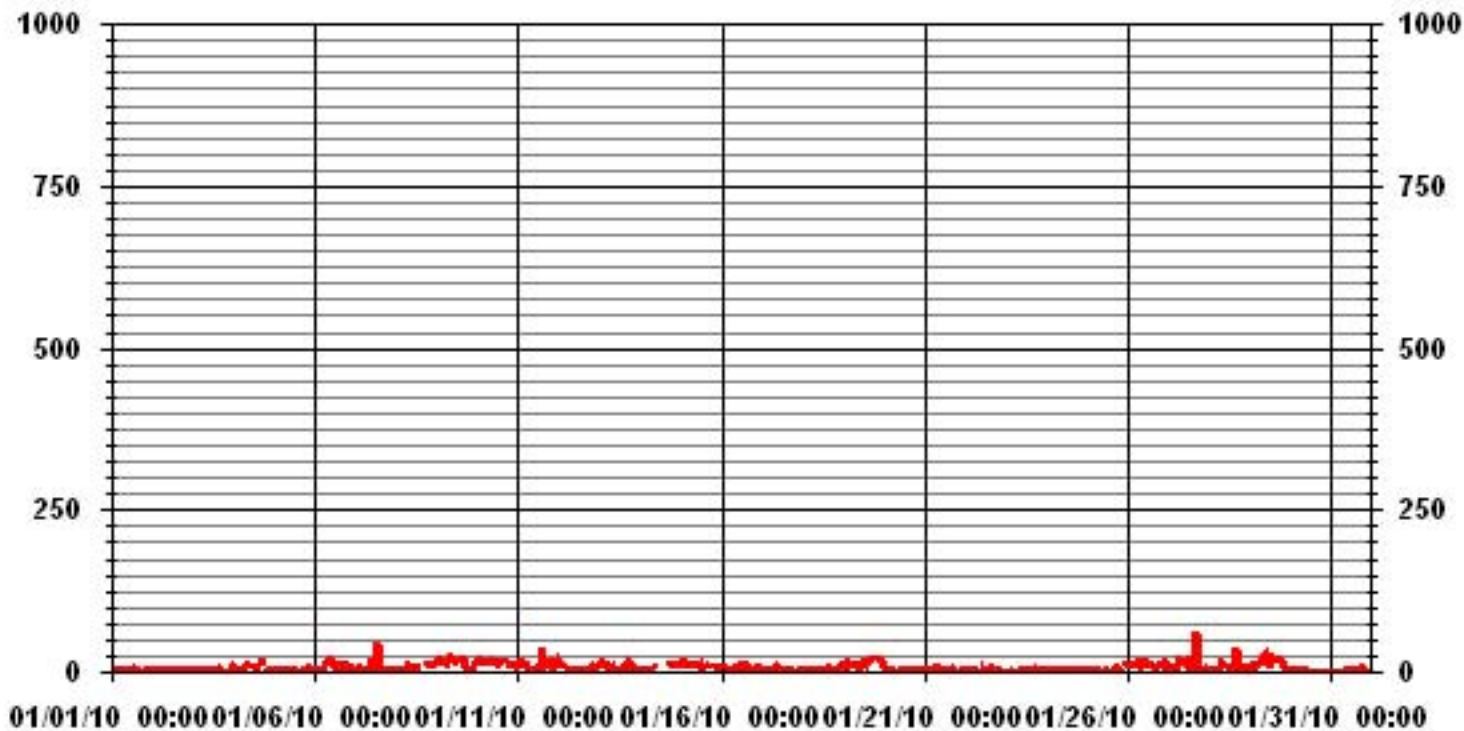
STATUS FLAG CODES

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:	61	PPB	@ HOUR(S)	16	ON DAY(S)	27
IZS CALIBRATION TIME:	33	HRS	OPERATIONAL TIME:	742	HRS	
MONTHLY CALIBRATION TIME:	7	HRS				
STANDARD DEVIATION	6.41					

01 Hour Averages



— LICA30 NO2MAX PPB

LICA30
NO2_ / WDR Joint Frequency Distribution (Percent)

January 2010

Distribution By % Of Samples

Logger Id : 30
Site Name : LICA30
Parameter : NO2_
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
< 50	8.25	7.53	10.81	11.52	10.24	8.39	4.97	4.26	4.40	5.97	5.26	1.99	4.40	5.54	3.55	2.84	100.00
< 110	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
< 210	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
>= 210	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
Totals	8.25	7.53	10.81	11.52	10.24	8.39	4.97	4.26	4.40	5.97	5.26	1.99	4.40	5.54	3.55	2.84	

Calm : .00 %

Total # Operational Hours : 703

Distribution By Samples

	Direction																
Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
< 50	58	53	76	81	72	59	35	30	31	42	37	14	31	39	25	20	703
< 110																	
< 210																	
>= 210																	
Totals	58	53	76	81	72	59	35	30	31	42	37	14	31	39	25	20	

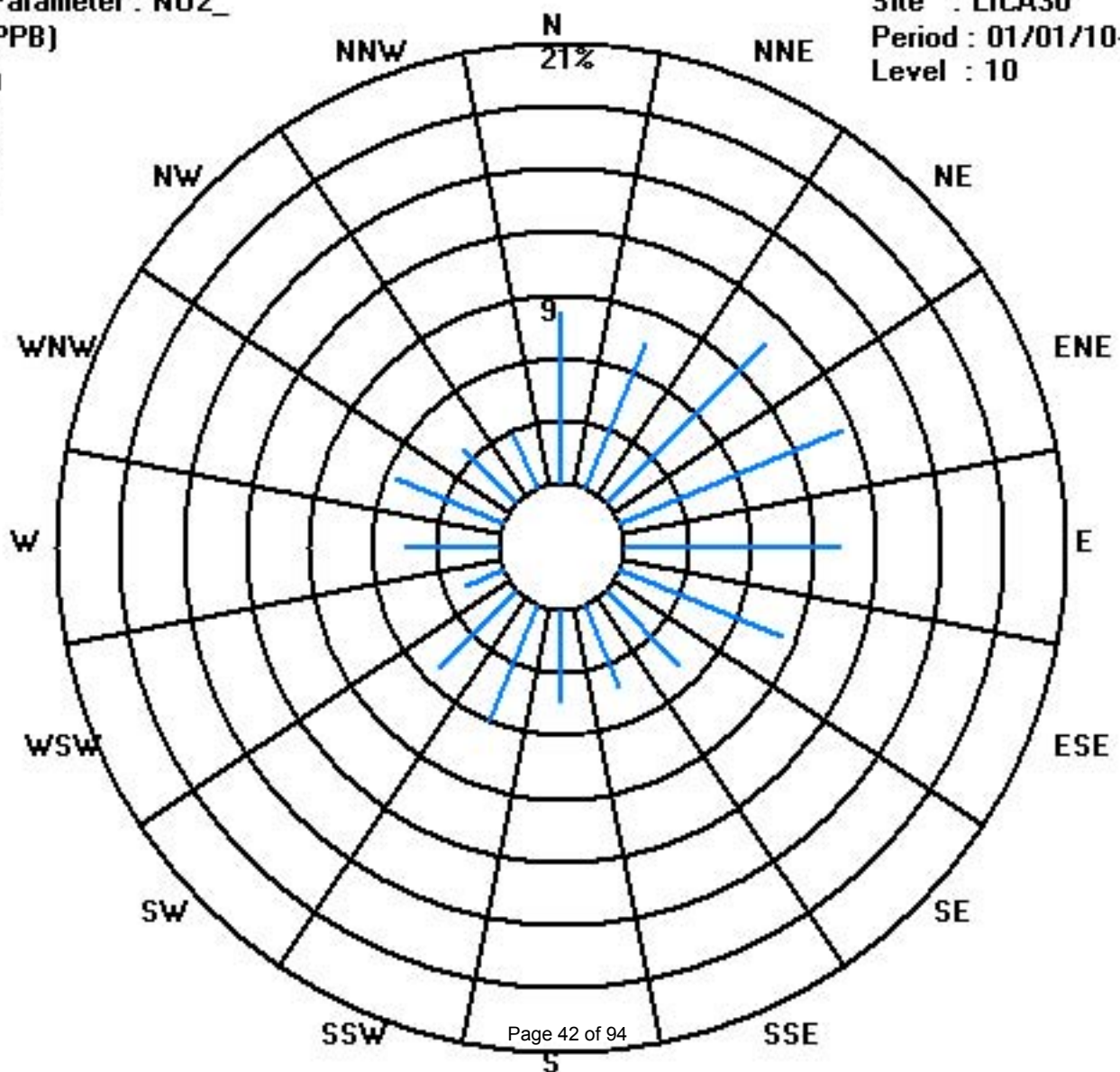
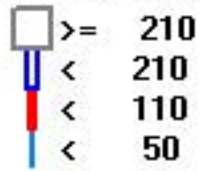
Calm : .00 %

Total # Operational Hours : 703

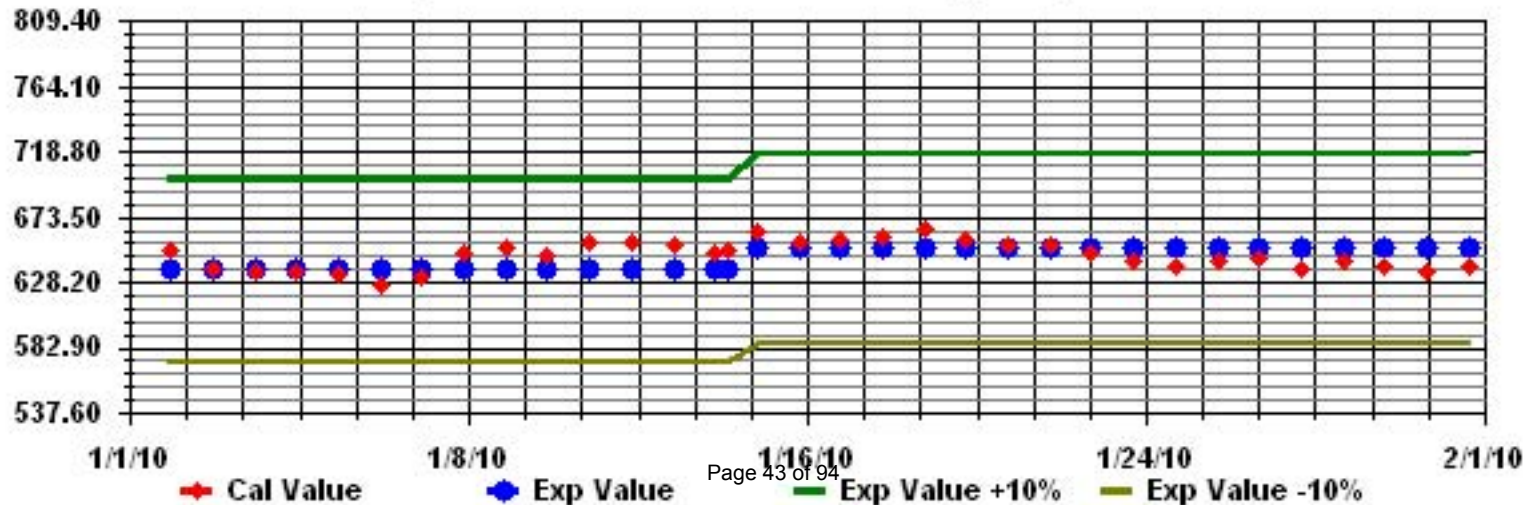
Class Limits (PPB)

Period : 01/01/10-01/31/10

Level : 10



Calibration Graph for Site: LICA30 Parameter: NO2_ Sequence: NO2 Phase: SPAN



Nitric Oxide

LAKELAND INDUSTRY & COMMUNITY ASSOICATION - MASKWA

JANUARY 2010

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	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0.0	24
2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
3	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1	1	0.1	24	
4	0	0	0	0	0	0	0	0	1	2	3	5	4	2	1	1	0	0	0	0	0	0	0	0	0	0	5	0.9	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	0.0	24
6	0	0	0	0	0	0	2	1	9	21	15	13	7	1	0	0	0	0	0	0	0	0	0	0	0	0	21	3.0	24
7	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2	0.1	24	
8	0	0	0	0	0	0	0	0	0	0	1	1	1	M	M	IZS	0	0	0	0	0	0	0	0	0	0	1	0.1	22
9	0	0	0	0	0	0	0	3	1	1	2	3	5	8	IZS	5	0	0	0	0	0	0	0	0	0	8	1.2	24	
10	0	0	0	0	0	0	0	0	1	4	7	6	7	IZS	7	6	2	0	0	0	0	0	0	0	0	7	1.7	24	
11	1	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	1	0	0	0	0	0	0	0	0	0	1	0.1	24	
12	2	2	1	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	2	0.2	24	
13	3	0	3	2	1	0	0	0	0	0	0	0	0	IZS	1	0	3	1	1	0	1	0	0	0	0	3	0.7	24	
14	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	C	C	C	C	C	C	0	0	0	0	0	0	0.0	24	
15	0	0	6	0	0	0	0	2	IZS	8	7	6	4	4	3	1	0	0	0	0	0	0	0	0	0	8	1.8	24	
16	0	0	0	0	0	0	0	0	IZS	0	0	1	4	5	1	2	1	0	0	0	0	0	0	0	0	5	0.6	24	
17	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1	24	
18	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	
19	0	0	0	0	0	0	0	0	0	1	2	8	8	24	8	6	11	12	4	23	19	9	4	1	24	6.1	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	0	0	0	0.0	24	
22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24	
23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24	
25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0.1	24
26	2	1	1	1	2	0	0	1	1	3	10	4	4	3	3	1	0	0	0	0	0	0	0	0	0	10	1.7	24	
27	0	0	0	0	0	0	0	1	0	2	3	5	4	4	2	1	7	0	0	0	0	0	0	0	0	7	1.3	24	
28	0	0	0	0	0	0	0	2	3	9	5	5	7	2	3	1	1	0	0	0	0	0	0	0	0	9	1.7	24	
29	0	0	0	0	0	0	0	10	27	24	18	7	8	16	11	8	3	0	0	0	0	0	0	0	0	27	5.7	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	
31	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.0	24	
HOURLY MAX	3	2	6	2	2	0	2	10	27	24	18	13	8	24	11	8	11	12	4	23	19	9	4	2					
HOURLY AVG	0.3	0.1	0.4	0.1	0.1	0.0	0.1	0.7	1.4	2.5	2.6	2.4	2.2	2.6	1.5	1.1	0.9	0.4	0.1	0.8	0.7	0.3	0.2	0.1					

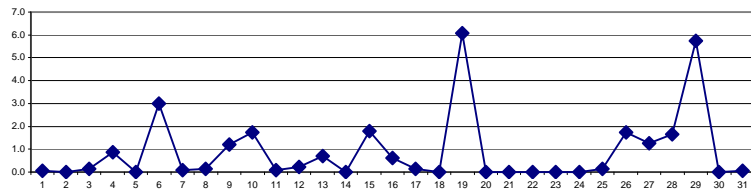
STATUS FLAG CODES

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

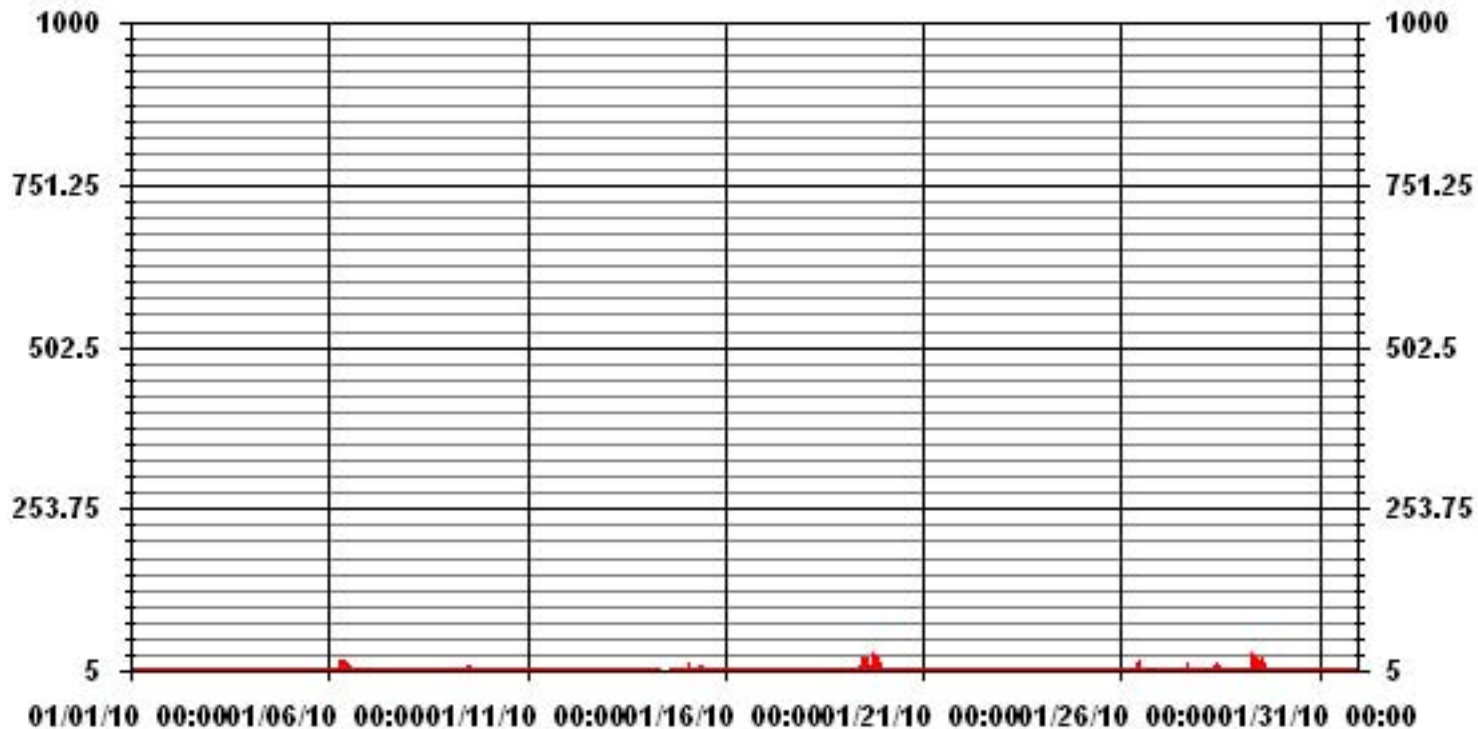
MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	136
MAXIMUM 1-HR AVERAGE:	27 PPB @ HOUR(S) 8 ON DAY(S) 29
MAXIMUM 24-HR AVERAGE:	6.1 PPB ON DAY(S) 19
IZS CALIBRATION TIME:	32 HRS
MONTHLY CALIBRATION TIME:	7 HRS
STANDARD DEVIATION:	2.94
OPERATIONAL TIME:	742 HRS
AMD OPERATION UPTIME:	99.7 %
MONTHLY AVERAGE:	0.90 PPB

24 HOUR AVERAGES FOR JANUARY 2010



01 Hour Averages



LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - MASKWA

JANUARY 2010

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	0:00	DAILY	24-HOUR	
HOUR END	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	MAX.	AVG.	RDGS.	
DAY																												
1	1	1	1	1	0	1	1	1	1	1	1	1	1	2	2	0	0	0	0	1	0	0	IZS	1	2	0.8	24	
2	0	0	1	0	1	0	0	1	0	1	1	1	1	1	0	1	0	0	0	1	0	IZS	1	1	1	0.5	24	
3	1	1	0	0	0	1	1	1	0	1	1	1	1	1	1	1	1	0	0	0	IZS	1	0	3	3	0.7	24	
4	1	1	1	1	1	1	1	5	1	4	4	7	6	4	2	2	2	1	1	IZS	1	1	0	0	7	2.1	24	
5	1	1	1	0	0	1	1	1	1	1	1	1	1	0	1	1	1	1	IZS	1	1	1	1	1	1	0.9	24	
6	0	1	1	1	1	1	11	2	19	30	19	14	14	2	1	1	2	IZS	0	0	0	0	0	0	30	5.2	24	
7	0	0	0	0	0	0	0	0	0	10	1	1	1	19	0	0	IZS	1	0	0	0	0	0	0	19	1.4	24	
8	0	0	0	0	0	0	0	4	2	2	8	2	2	M	M	IZS	IZS	0	0	0	0	0	0	0	8	1.0	22	
9	0	0	0	0	0	0	2	9	10	2	4	5	7	11	IZS	6	4	0	0	0	0	0	0	0	11	2.6	24	
10	0	1	0	0	0	0	0	0	5	12	23	7	15	IZS	11	10	3	1	0	0	0	0	0	2	23	3.9	24	
11	2	1	0	1	0	0	0	0	0	0	1	1	IZS	1	51	2	1	0	1	0	5	0	1	2	51	3.0	24	
12	5	6	4	2	3	0	0	0	0	0	0	IZS	0	0	1	1	0	0	0	0	0	0	0	2	6	1.0	24	
13	9	3	9	7	10	0	0	3	34	1	IZS	2	2	6	4	5	3	6	2	1	0	0	0	34	4.7	24		
14	0	0	0	0	0	0	0	0	2	IZS	C	C	C	C	C	C	C	1	0	1	2	0	0	2	0.4	24		
15	0	0	68	1	0	1	2	7	IZS	11	11	38	5	5	4	3	1	0	0	0	0	0	0	68	6.8	24		
16	0	0	0	0	0	0	1	IZS	1	2	5	8	10	3	4	6	0	0	0	0	0	0	0	10	1.7	24		
17	0	0	0	0	0	0	IZS	1	3	2	2	1	1	1	0	0	0	0	0	0	0	0	0	3	0.5	24		
18	0	0	0	0	0	IZS	0	0	0	1	1	0	2	1	0	1	1	0	0	0	0	0	0	2	0.3	24		
19	0	0	2	2	IZS	0	1	3	2	2	4	13	12	40	50	11	14	15	8	30	23	19	5	3	50	11.3	24	
20	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	
21	0	0	IZS	0	0	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1	24		
22	0	IZS	0	0	0	0	0	0	0	0	2	0	1	0	1	0	0	0	0	0	0	0	0	2	0.2	24		
23	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	
24	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	IZS	1	0.0	24	
25	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	9	0	0	0	IZS	5	5	9	0.9	24	
26	5	4	6	4	3	2	0	29	2	6	23	9	7	6	8	3	1	0	0	1	IZS	4	8	0	29	5.7	24	
27	1	1	0	0	0	0	5	4	5	9	14	24	7	8	5	2	119	2	0	IZS	0	0	0	119	9.0	24		
28	0	0	0	0	0	0	0	26	16	21	14	10	12	5	4	3	28	0	IZS	0	0	0	0	28	6.0	24		
29	0	0	0	0	0	0	3	28	51	52	24	10	13	29	28	10	7	IZS	1	1	0	0	0	52	11.2	24		
30	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	1	0.0	24		
31	0	0	0	0	0	0	0	0	0	1	2	1	1	2	1	IZS	1	0	1	1	0	0	0	2	0.5	24		
HOURLY MAX	9	6	68	7	10	2	11	29	51	52	24	38	15	40	51	11	119	15	8	30	23	19	8	5				
HOURLY AVG	0.9	0.7	3.1	0.7	0.6	0.3	1.0	4.2	5.2	5.8	5.7	5.4	4.3	5.3	6.4	2.5	7.0	1.3	0.5	1.3	1.1	0.9	0.7	0.7				

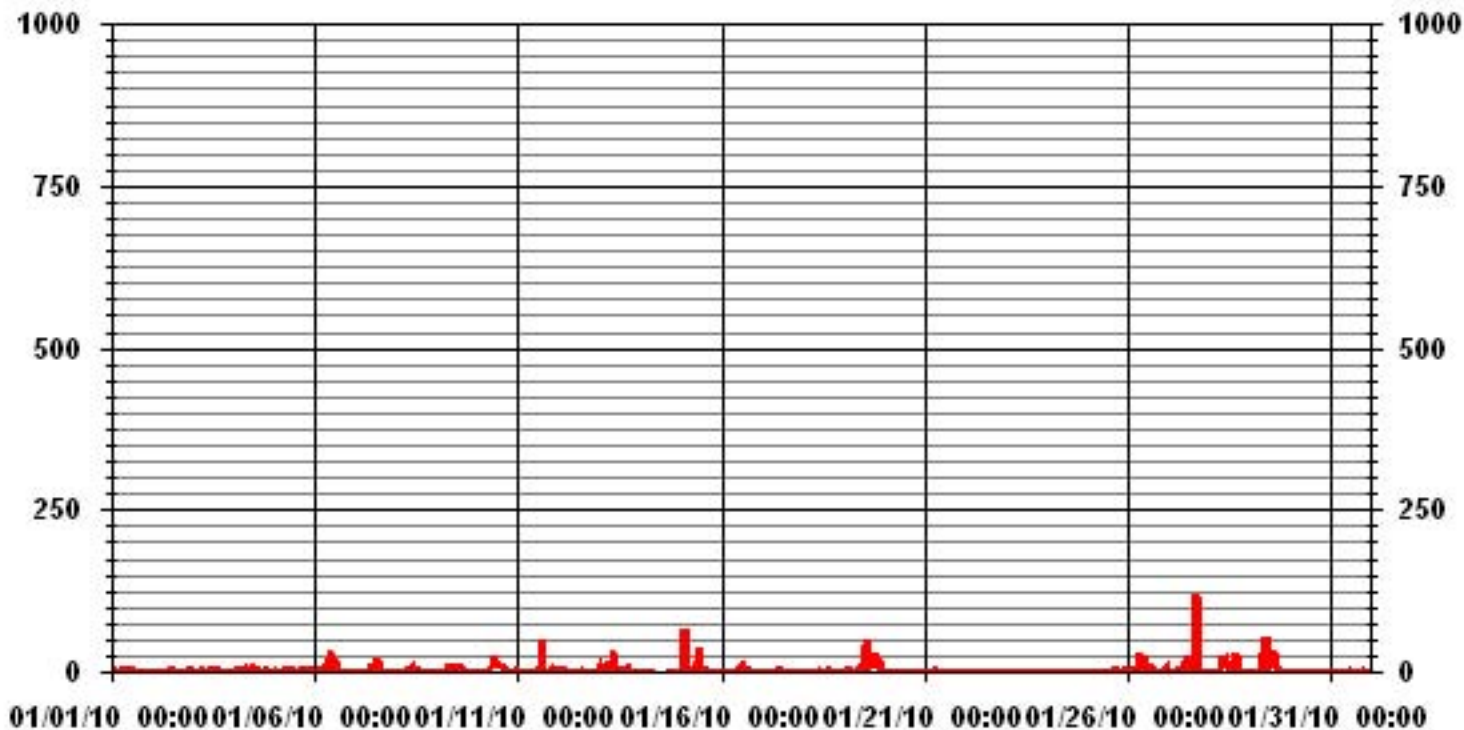
STATUS FLAG CODES

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

MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	307					
MAXIMUM INSTANTANEOUS VALUE:	119	PPB	@ HOUR(S)	16	ON DAY(S)	27
IZS CALIBRATION TIME:	33	HRS	OPERATIONAL TIME:	742	HRS	
MONTHLY CALIBRATION TIME:	7	HRS				
STANDARD DEVIATION	8.10					

01 Hour Averages



LICA30
 NO_ / WDR Joint Frequency Distribution (Percent)

January 2010

Distribution By % Of Samples

Logger Id : 30
 Site Name : LICA30
 Parameter : NO_
 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
< 50	8.25	7.53	10.81	11.52	10.24	8.39	4.97	4.26	4.40	5.97	5.26	1.99	4.40	5.54	3.55	2.84	100.00
< 110	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
< 210	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
>= 210	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
Totals	8.25	7.53	10.81	11.52	10.24	8.39	4.97	4.26	4.40	5.97	5.26	1.99	4.40	5.54	3.55	2.84	

Calm : .00 %

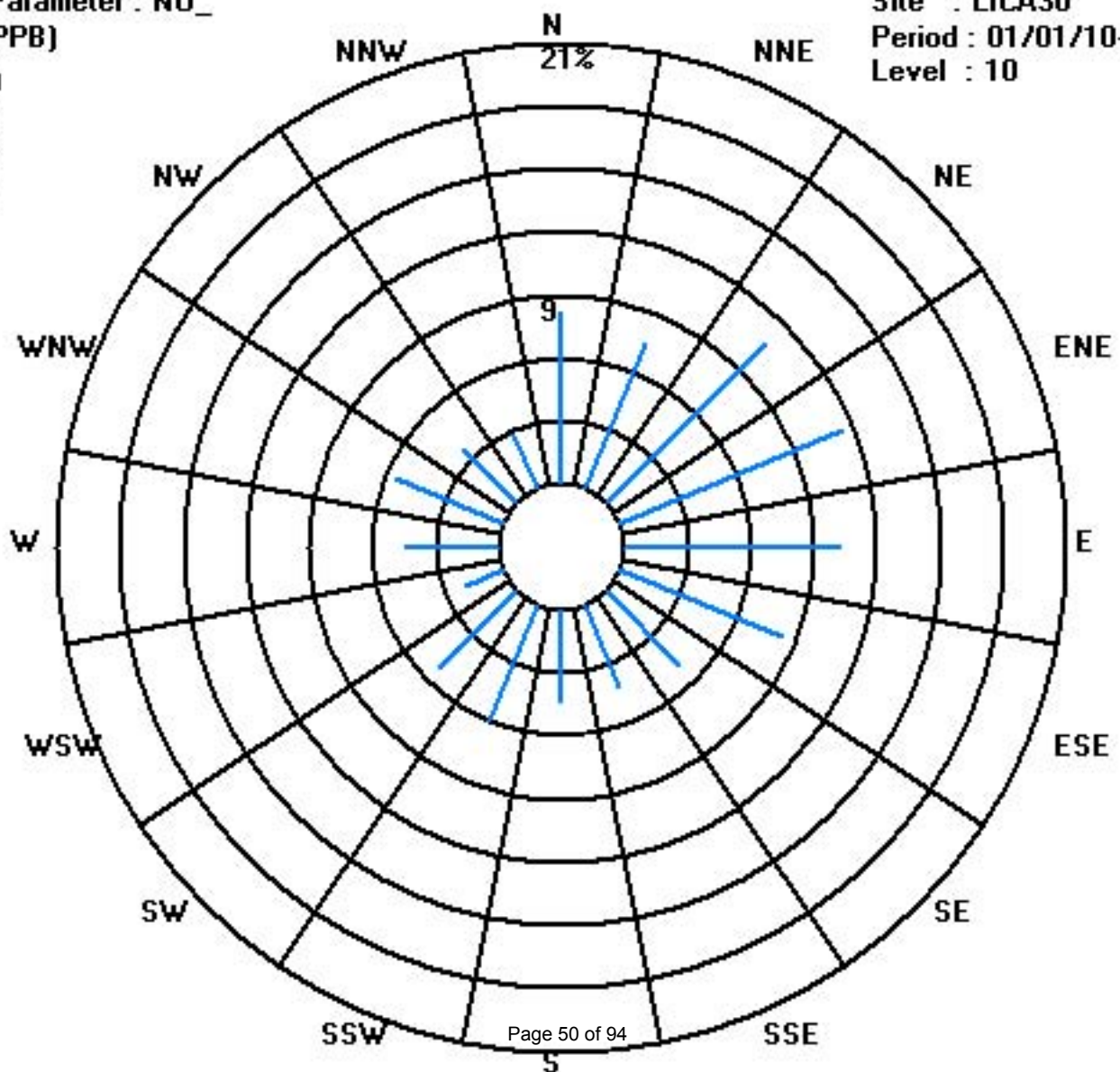
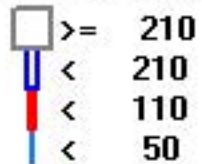
Total # Operational Hours : 703

Distribution By Samples

	Direction																
Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
< 50	58	53	76	81	72	59	35	30	31	42	37	14	31	39	25	20	703
< 110																	
< 210																	
>= 210																	
Totals	58	53	76	81	72	59	35	30	31	42	37	14	31	39	25	20	

Calm : .00 %

Total # Operational Hours : 703



Oxides of Nitrogen

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - MASKWA
JANUARY 2010
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	6	5	4	4	4	4	3	3	3	3	2	2	2	5	3	1	1	1	1	1	1	1	1	IZS	2	6	2.7	24
2	1	2	1	1	1	1	1	1	1	2	3	4	3	3	2	2	2	3	3	4	3	IZS	3	4	4	2.2	24	
3	3	4	4	4	3	3	3	2	2	1	1	2	2	3	4	3	3	2	1	1	IZS	1	3	7	7	2.7	24	
4	4	3	2	2	1	2	3	7	8	11	9	12	10	8	5	7	13	13	13	IZS	6	5	4	3	13	6.6	24	
5	3	4	4	3	3	2	2	2	2	2	2	2	2	1	1	1	1	5	IZS	3	4	5	3	1	5	2.5	24	
6	1	3	4	3	3	3	12	12	26	37	28	24	16	2	2	3	6	IZS	12	7	5	7	6	6	37	9.9	24	
7	5	4	6	5	4	4	3	4	4	6	5	6	5	8	4	4	IZS	2	2	3	2	2	2	2	8	4.0	24	
8	2	2	2	2	2	2	4	7	7	7	7	8	7	M	M	IZS	10	10	10	10	10	10	10	11	12	12	6.8	22
9	13	15	19	16	13	12	19	26	21	17	15	17	21	24	IZS	24	17	9	5	4	3	3	6	14	26	14.5	24	
10	17	18	13	14	12	13	13	15	19	18	20	17	17	IZS	21	23	19	15	14	9	8	9	8	9	23	14.8	24	
11	14	10	9	8	6	6	4	4	4	4	5	5	IZS	6	8	8	12	14	13	9	9	6	8	8	14	7.8	24	
12	17	12	13	11	7	4	3	2	2	2	2	2	IZS	1	1	3	3	3	2	1	1	5	6	7	7	17	5.0	24
13	13	9	13	9	7	2	2	3	4	2	2	IZS	4	2	8	4	7	9	15	15	9	4	2	2	3	15	6.4	24
14	2	1	1	1	3	4	3	3	7	IZS	C	C	C	C	C	C	C	13	11	11	11	10	10	10	13	6.3	24	
15	10	10	17	10	10	10	11	14	IZS	16	14	12	10	11	11	10	10	10	9	8	8	7	7	7	8	17	10.4	24
16	8	9	7	4	2	1	1	IZS	1	4	9	13	14	7	10	9	2	2	1	1	1	5	8	4	14	5.3	24	
17	4	3	3	4	3	3	IZS	5	6	6	4	3	3	3	3	3	2	2	1	1	1	1	1	1	6	2.9	24	
18	1	2	1	1	1	IZS	3	2	2	4	4	2	3	3	2	8	7	2	2	3	2	3	6	5	8	3.0	24	
19	5	3	4	13	IZS	11	9	9	10	9	10	19	19	41	20	21	31	34	25	44	39	29	24	16	44	19.3	24	
20	8	4	2	IZS	2	1	2	1	1	1	1	1	1	1	1	1	1	0	0	0	1	2	1	1	8	1.5	24	
21	1	1	IZS	1	1	3	6	5	4	4	1	1	1	0	1	1	0	3	1	1	0	0	0	0	6	1.6	24	
22	0	IZS	1	1	1	1	1	1	1	1	4	1	3	2	2	1	1	1	0	0	0	0	0	0	4	1.0	24	
23	IZS	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	1	6	5	3	2	2	2	IZS	6	1.0	24	
24	1	2	3	3	2	3	2	2	2	3	2	2	2	2	2	3	2	2	2	2	2	2	1	IZS	1	3	2.1	24
25	1	1	2	2	1	0	0	2	1	0	0	1	0	1	1	1	3	4	1	1	1	1	IZS	7	11	1.8	24	
26	12	8	10	9	11	6	5	11	10	11	22	11	10	9	10	8	4	3	6	9	IZS	11	13	0	22	9.1	24	
27	1	1	1	2	0	2	12	9	7	9	10	12	10	11	9	7	17	5	7	IZS	5	4	5	6	17	6.6	24	
28	3	5	5	5	3	4	5	10	12	20	12	12	16	8	11	8	8	9	IZS	9	7	7	6	6	20	8.3	24	
29	7	10	8	7	8	12	12	28	49	42	31	16	19	32	28	27	21	IZS	21	13	10	8	4	3	49	18.1	24	
30	2	3	4	3	3	2	3	6	4	2	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	6	1.4	24	
31	0	0	0	0	0	0	0	0	2	5	5	3	1	2	3	IZS	3	1	6	5	1	1	1	0	6	1.7	24	
HOURLY MAX	17	18	19	16	13	13	19	28	49	42	31	24	21	41	28	27	31	34	25	44	39	29	24	16				
HOURLY AVG	5.5	5.1	5.4	4.9	3.9	4.0	4.9	6.5	7.4	8.3	7.9	7.3	6.9	7.2	6.1	6.9	7.5	6.4	6.4	5.9	5.2	5.1	5.4	5.0				

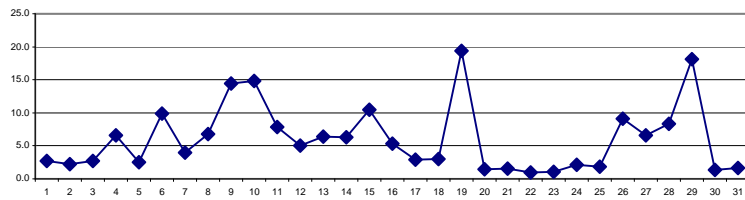
STATUS FLAG CODES

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

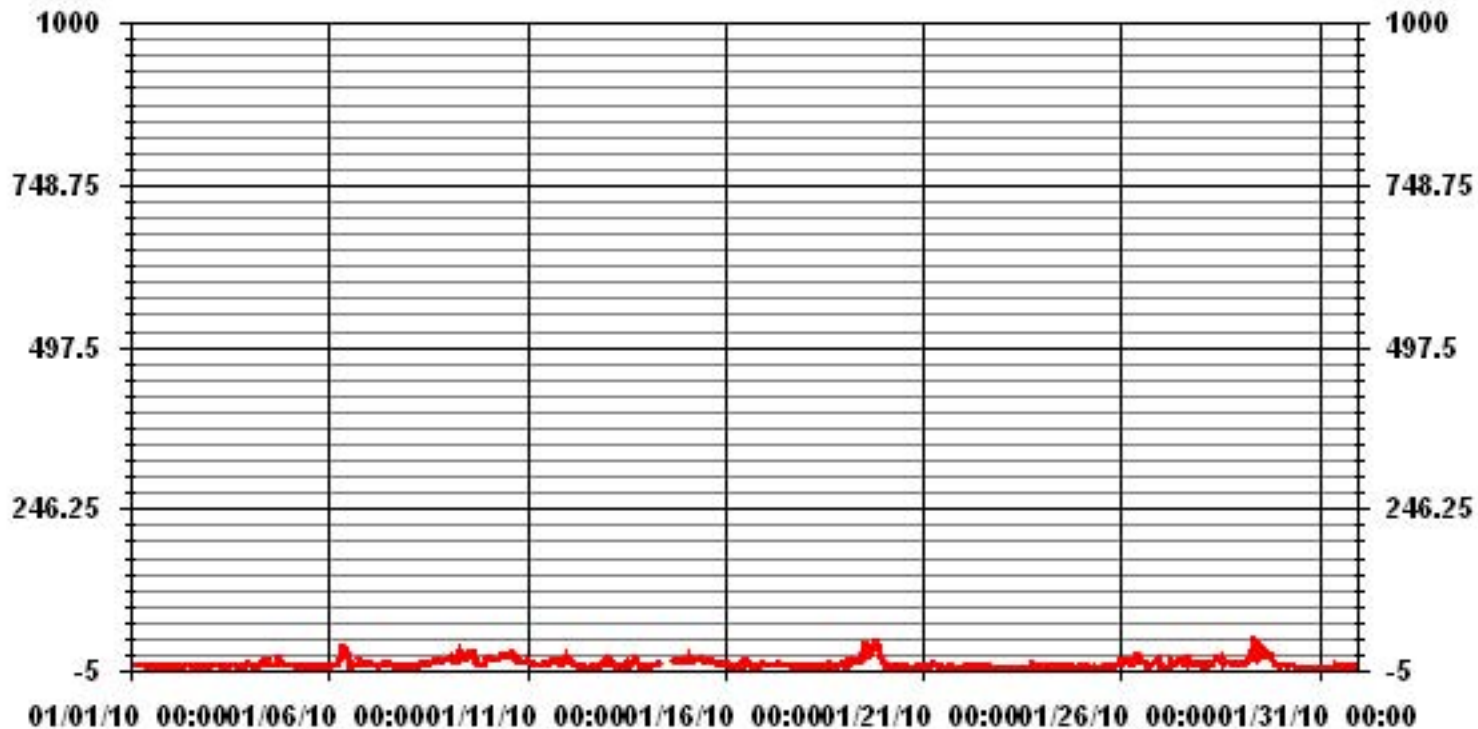
MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	645					
MAXIMUM 1-HR AVERAGE:	49	PPB	@ HOUR(S)	8	ON DAY(S)	29
MAXIMUM 24-HR AVERAGE:	19.3	PPB			ON DAY(S)	19
IZS CALIBRATION TIME:	32	HRS	OPERATIONAL TIME:	742	HRS	
MONTHLY CALIBRATION TIME:	7	HRS	AMD OPERATION UPTIME:	99.7	%	
STANDARD DEVIATION:	6.78		MONTHLY AVERAGE:	6.05	PPB	

24 HOUR AVERAGES FOR JANUARY 2010



01 Hour Averages



— LICA30 NOX_ PPB

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - MASKWA

JANUARY 2010

OXIDES OF NITROGEN MAX instantaneous maximum in ppb

MST		0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY	24-HOUR	
DAY	HR	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.
1	7	6	5	5	5	4	4	4	3	3	4	3	4	10	8	4	4	1	2	2	1	2	IZS	4	10	4.1	24	
2	2	4	2	1	1	1	1	1	1	1	6	4	5	4	4	3	3	3	4	4	4	IZS	4	4	6	3.0	24	
3	4	5	5	4	4	4	5	4	4	2	2	3	3	6	5	8	7	3	3	1	IZS	3	4	13	13	4.4	24	
4	8	3	3	2	2	3	4	13	11	15	14	17	14	12	7	12	14	14	14	IZS	7	6	5	4	17	8.9	24	
5	4	4	5	4	3	3	2	2	3	3	2	2	2	1	2	2	2	7	IZS	4	7	7	4	3	7	3.4	24	
6	3	4	6	6	3	6	25	16	38	49	34	26	27	4	3	4	14	IZS	14	13	6	8	8	7	49	14.1	24	
7	6	5	7	6	5	4	4	6	5	33	6	8	7	52	5	6	IZS	3	3	4	3	3	3	3	52	8.1	24	
8	3	3	3	3	3	3	4	15	12	11	14	10	10	M	M	IZS	IZS	13	13	12	11	11	11	14	15	9.0	22	
9	14	19	23	19	16	14	24	34	34	21	18	19	22	28	IZS	26	25	13	7	5	4	4	12	16	34	18.1	24	
10	18	22	15	15	13	13	16	17	24	27	40	19	28	IZS	28	28	21	19	17	13	11	12	10	17	40	19.3	24	
11	20	15	13	16	11	12	5	5	5	7	8	IZS	8	84	16	18	17	16	11	20	8	13	12	84	15.0	24		
12	23	19	17	14	14	5	4	3	3	3	3	IZS	2	2	6	5	5	3	2	2	12	10	9	13	23	7.8	24	
13	24	15	26	19	23	2	5	7	44	4	IZS	6	6	12	11	13	18	25	19	13	8	3	2	5	44	13.5	24	
14	3	3	2	2	5	5	5	4	12	IZS	C	C	C	C	C	C	C	14	13	12	14	11	10	11	14	7.9	24	
15	11	10	84	12	11	13	14	19	IZS	20	19	47	12	12	11	10	11	9	9	8	8	8	9	84	16.5	24		
16	9	9	9	6	3	2	4	IZS	3	14	15	23	26	11	16	24	6	4	3	1	2	8	10	5	26	9.3	24	
17	5	4	4	5	5	5	IZS	9	15	6	6	5	4	4	3	4	3	3	2	2	2	1	1	3	15	4.4	24	
18	2	3	3	2	1	IZS	6	3	4	7	6	4	9	5	3	11	11	4	2	3	3	6	11	8	11	5.1	24	
19	11	5	16	20	IZS	13	11	12	13	13	13	27	26	61	57	29	36	37	29	52	44	40	25	21	61	26.6	24	
20	11	6	3	IZS	2	2	2	2	2	2	1	1	2	1	1	2	1	1	1	1	1	6	5	2	11	2.6	24	
21	2	1	IZS	4	4	6	8	7	8	8	5	1	1	1	1	1	1	8	3	2	1	1	1	0	8	3.3	24	
22	1	IZS	3	1	1	1	1	1	1	4	10	3	7	5	8	2	1	1	1	1	1	1	1	1	10	2.5	24	
23	IZS	1	1	1	1	0	1	1	2	1	1	2	0	1	1	1	2	8	6	5	3	3	3	IZS	8	2.0	24	
24	2	3	5	5	3	3	2	3	3	4	3	3	4	3	4	5	3	3	3	3	3	3	2	IZS	2	5	3.2	24
25	2	2	3	3	2	1	1	3	2	1	1	2	3	1	2	3	5	11	1	1	2	IZS	19	18	19	3.9	24	
26	20	16	19	18	17	13	9	44	14	18	38	20	17	17	21	13	9	5	13	13	IZS	18	29	1	44	17.5	24	
27	10	9	2	7	1	11	24	24	21	23	33	44	14	17	15	10	172	11	10	IZS	7	4	6	7	172	21.0	24	
28	4	6	6	5	4	5	6	45	35	36	26	19	22	13	14	11	65	12	IZS	11	8	8	7	7	65	16.3	24	
29	10	11	11	8	9	14	17	51	77	80	41	22	26	51	50	30	30	IZS	23	20	11	10	7	4	80	26.7	24	
30	3	6	6	4	4	4	6	8	5	4	2	1	1	1	1	0	IZS	1	0	0	0	0	0	0	8	2.5	24	
31	0	0	0	0	0	0	0	1	5	7	8	5	2	6	8	IZS	6	3	10	9	2	2	1	0	10	3.3	24	
HOURLY MAX	24	22	84	20	23	14	25	51	77	80	41	47	28	61	84	30	172	37	29	52	44	40	29	21				
HOURLY AVG	8.1	7.3	10.2	7.2	5.9	5.7	7.3	12.1	13.6	14.3	13.0	12.2	10.5	12.5	13.5	10.1	18.3	8.9	8.4	7.9	7.3	7.1	7.8	7.1				

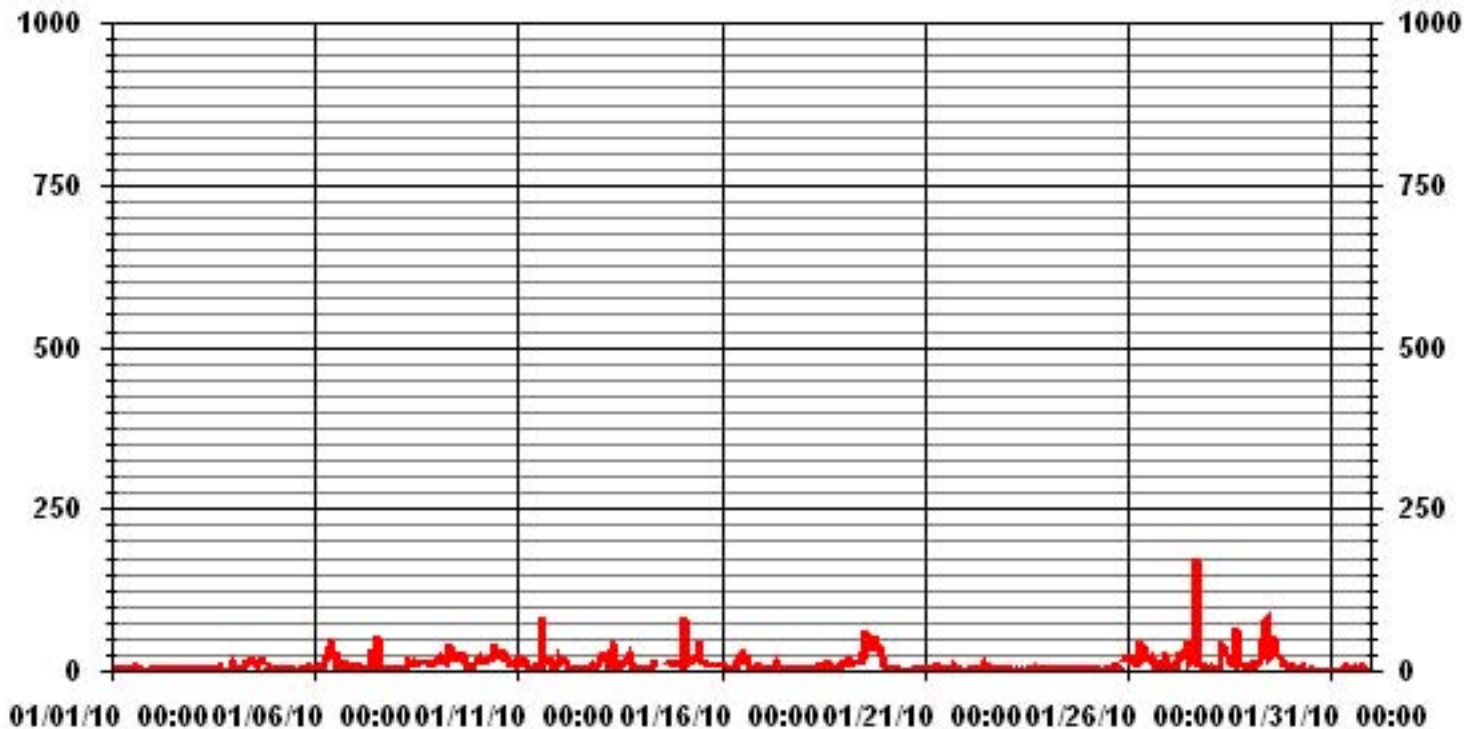
STATUS FLAG CODES

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

MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	684
MAXIMUM INSTANTANEOUS VALUE:	172 PPB @ HOUR(S) 16 ON DAY(S) 27
IZS CALIBRATION TIME:	33 HRS
MONTHLY CALIBRATION TIME:	7 HRS
STANDARD DEVIATION	12.86
OPERATIONAL TIME:	742 HRS

01 Hour Averages



— LICA30 NOxMAX PPB

LICA30
 NOX_ / WDR Joint Frequency Distribution (Percent)

January 2010

Distribution By % Of Samples

Logger Id : 30
 Site Name : LICA30
 Parameter : NOX_
 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
< 50	8.25	7.53	10.81	11.52	10.24	8.39	4.97	4.26	4.40	5.97	5.26	1.99	4.40	5.54	3.55	2.84	100.00
< 110	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
< 210	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
>= 210	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
Totals	8.25	7.53	10.81	11.52	10.24	8.39	4.97	4.26	4.40	5.97	5.26	1.99	4.40	5.54	3.55	2.84	

Calm : .00 %

Total # Operational Hours : 703

Distribution By Samples

	Direction																
Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
< 50	58	53	76	81	72	59	35	30	31	42	37	14	31	39	25	20	703
< 110																	
< 210																	
>= 210																	
Totals	58	53	76	81	72	59	35	30	31	42	37	14	31	39	25	20	

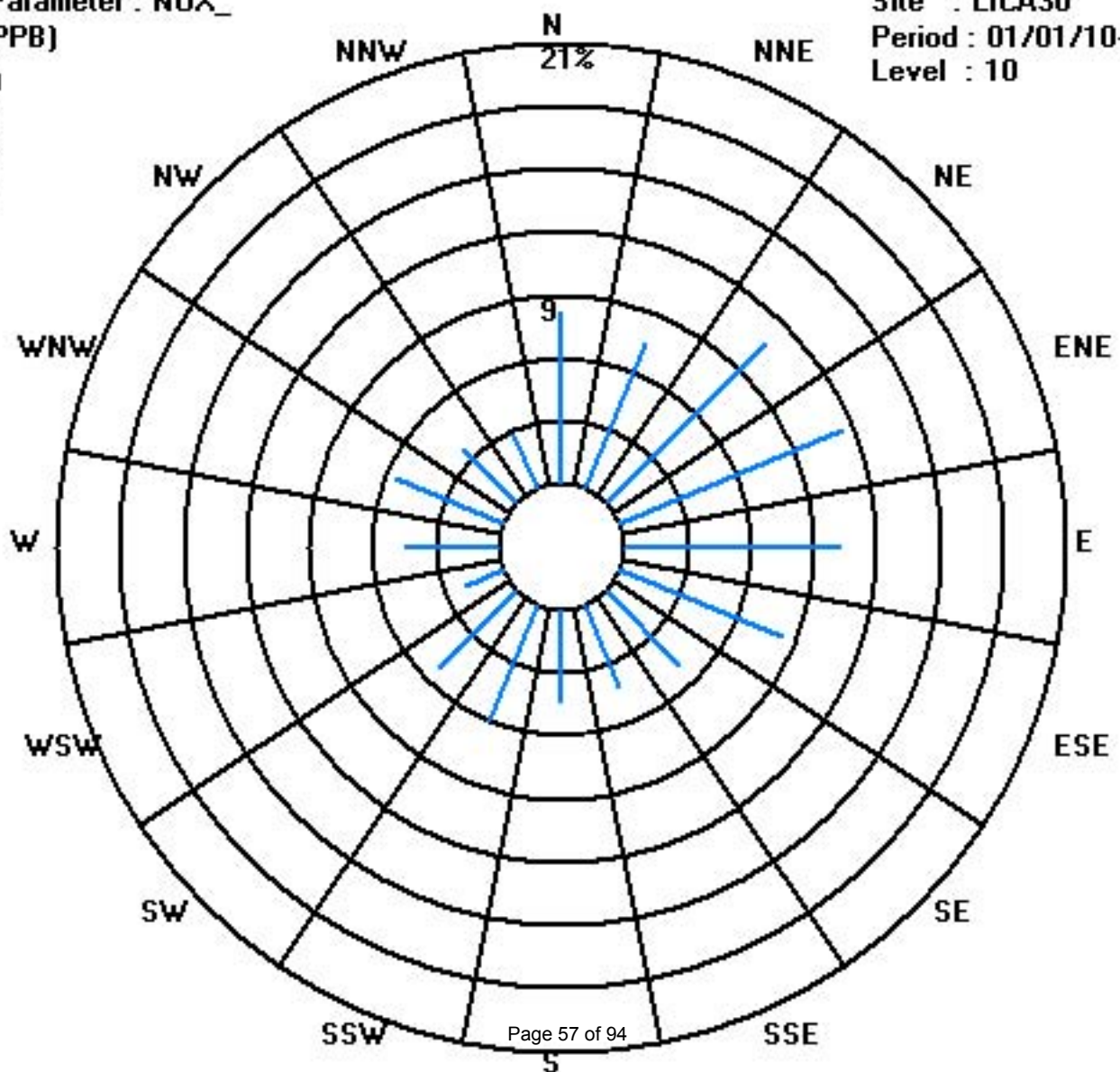
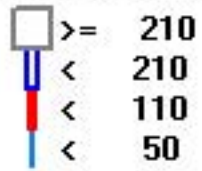
Calm : .00 %

Total # Operational Hours : 703

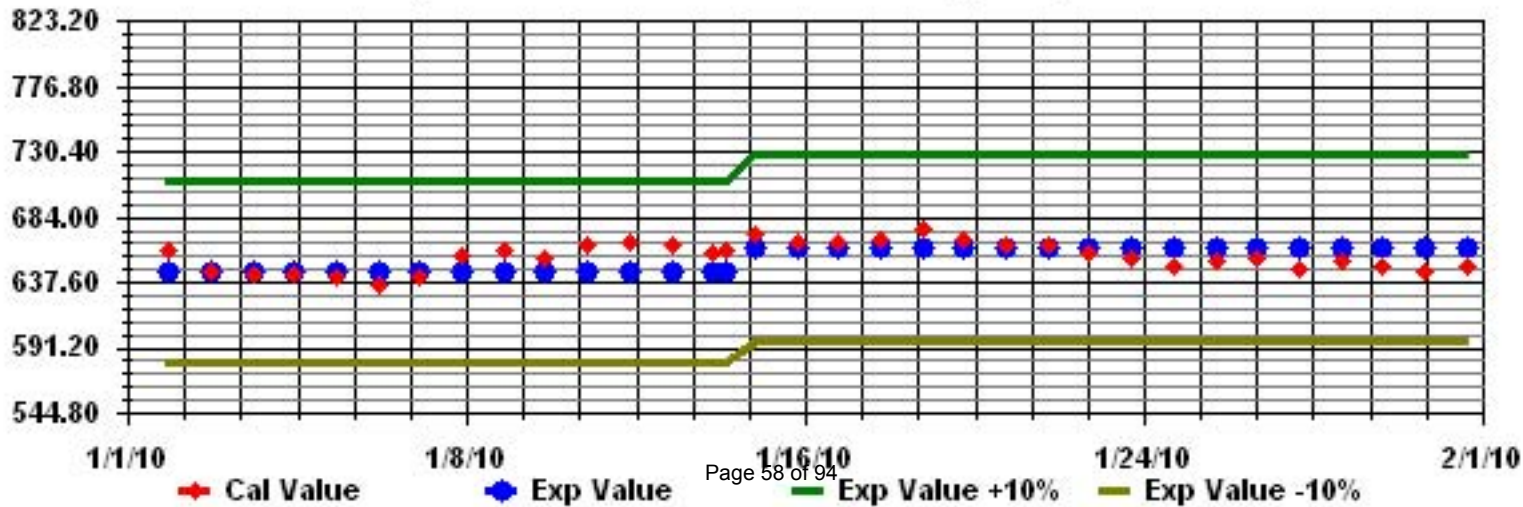
Class Limits (PPB)

Period : 01/01/10-01/31/10

Level : 10



Calibration Graph for Site: LICA30 Parameter: NOX_ Sequence: NO2 Phase: SPAN



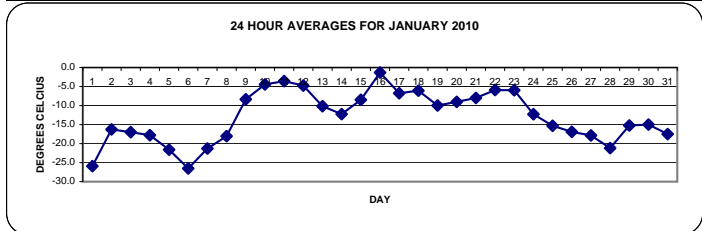
Temperature

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - MASKWA
JANUARY 2010
AMBIENT TEMPERATURE hourly averages (Degrees C)

MST		0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY 24-HOUR		
DAY	HOURLY MAX	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.
1		-34	-34.6	-35.1	-35.5	-35.7	-34.9	-32	-30.3	-31.1	-27.8	-26	-24.2	-22	-21.6	-20.4	-19.6	-19.7	-19.7	-19.5	-19.3	-19.6	-20.1	-19.9	-19.6	-19.3	-25.9	24
2		-19.1	-18.2	-17.9	-17.8	-17.7	-17.4	-17.3	-17	-16.8	-16.3	-15.1	-14.9	-14.8	-14.6	-14.6	-14.3	-14.6	-14.8	-15.1	-15.2	-15.4	-16.4	-18	-17	-14.3	-16.3	24
3		-18.3	-17.8	-18	-19.7	-20	-21	-21	-19.6	-18.1	-17.5	-16.4	-15	-14.2	-14.4	-14.7	-15.3	-15.3	-15.1	-15	-15.9	-17.4	-16.4	-16	-15.5	-14.2	-17.0	24
4		-14.9	-15.2	-15.9	-17.4	-19.7	-19.8	-19.5	-19.1	-18.9	-18.5	-17.6	-16.6	-15.5	-15.7	-16.2	-16.6	-17.7	-18.6	-18.9	-18.8	-18.8	-18.9	-19	-19.1	-14.9	-17.8	24
5		-19.2	-19.2	-19.4	-19.6	-19.8	-20.4	-20.7	-20.8	-21	-20.9	-20.5	-20.1	-18.7	-18.8	-19.2	-19.6	-21.6	-22.6	-22.5	-23.6	-25.5	-26.9	-28.3	-29.4	-18.7	-21.6	24
6		-29.5	-30.1	-30.7	-30.2	-30.7	-30.5	-31.3	-32	-31.8	-29.3	-26	-23.2	-20.6	-20.3	-20.3	-21.5	-23.8	-25.7	-25.8	-27.6	-23.8	-23.8	-23.7	-24.4	-20.3	-26.5	24
7		-25	-24.4	-25.1	-26.6	-24.1	-23.7	-24.1	-23.9	-24.1	-23.4	-21.9	-21.6	-20.1	-18.6	-18.2	-18.4	-18.3	-18.1	-18.9	-18.6	-18.2	-18.4	-18.6	-18.8	-18.1	-21.3	24
8		-18.8	-19	-19.2	-19.3	-19.6	-20.8	-22.3	-21.8	-20.6	-19.6	-18.4	-17.1	-16.2	M	M	-14	-15.7	-16.5	-16.7	-16.9	-16.4	-16	-16	-15.8	-14.0	-18.0	22
9		-15.1	-15.1	-14.6	-16.2	-16.8	-15	-12.9	-11.6	-9.8	-9.8	-9.8	-8.3	-6.9	-5.2	-3.9	-2.8	-2.6	-2.5	-3.1	-3.1	-3.3	-3.8	-3.9	-4.1	-2.5	-8.3	24
10		-4.6	-5.2	-5.7	-6.1	-6.1	-6.1	-6.8	-7.5	-8.6	-8.1	-5.5	-2.4	0.3	2.1	0.5	-1.3	-3.5	-5.4	-6.1	-4.7	-4.4	-4.1	-3.8	-3.5	2.1	-4.4	24
11		-3.3	-3.8	-4.1	-3.9	-4.2	-3.7	-4.4	-4.7	-4.5	-3.7	-2.7	-0.9	-0.5	0	0	-0.3	-1.6	-3.1	-3.7	-4.8	-5.7	-6.3	-7.6	-8.1	0.0	-3.6	24
12		-7.8	-9.5	-9.3	-8.8	-7.1	-5.7	-5.3	-4.8	-5.2	-5.2	-4.4	-3.3	-2.5	-1.8	2	-2.1	-2.5	-2.9	-3.5	-3.8	-3.8	-3.7	-4.3	-4.6	-1.8	-4.7	24
13		-4.4	-4.3	-4.5	-4.9	-5.4	-7.8	-9.3	-10.3	-11.7	-12.1	-11.2	-10	-7.9	-7.1	-8.7	-9.9	-11.9	-14	-15.2	-15.8	-15.8	-14.7	-13.7	-13.2	-4.3	-10.2	24
14		-14.2	-14.9	-15.8	-16.8	-17.1	-17.4	-16.3	-15.5	-14.8	-14	-12.4	-10	-9.3	-8.3	-8.3	-8.7	-9.3	-9.9	-10.1	-10	-10	-10.3	-10.5	-9.8	-8.3	-12.2	24
15		-9.4	-10.1	-10.8	-11.5	-11.6	-11.9	-12.8	-12.9	-13	-12.2	-10.2	-8.1	-7	-5.8	-5.4	-5.7	-6.2	-6.2	-5.8	-5.2	-4.9	-4.4	-5.6	-6.7	-4.4	-8.5	24
16		-6.4	-4.5	-2	-0.8	-0.6	-0.5	-0.8	0	0.3	0.4	0.5	1.1	1.7	2.5	2.8	1.3	-0.8	-2	-2.5	-2.9	-3.3	-3.9	-5	-6	2.8	-1.3	24
17		-7.2	-7.7	-8.7	-9.6	-12.5	-13.7	-14.9	-15.9	-16.6	-14.4	-9.9	-4.3	-0.5	0.4	0.6	-1.9	-2.5	-2.1	-2.3	-2.6	-2.9	-3.1	-4.3	-5.4	0.6	-6.8	24
18		-5.7	-7.8	-8.2	-6.8	-5.7	-7.9	-9.3	-8.5	-9.4	-8.6	-6.8	-4.3	-1.6	-0.8	-1.4	-1.5	-2.4	-3.6	-4.8	-5.3	-6.9	-8.4	-9.6	-10.8	-0.8	-6.1	24
19		-11	-12.7	-13.3	-13.4	-13.4	-14.1	-14.4	-14.2	-12.9	-11	-8.5	-6.5	-6.1	-5.7	-5.9	-6.1	-6.7	-7.6	-8.7	-8.9	-9.2	-9.6	-9.5	-9.9	-5.7	-10.0	24
20		-10.3	-10.2	-10.1	-9.9	-9.9	-9.8	-10	-10.4	-11	-11.1	-10.4	-9.8	-9	-8.6	-8.4	-8.4	-8.2	-7.7	-7.2	-6.9	-6.9	-7.1	-7.5	-7.8	-6.9	-9.0	24
21		-8	-8	-8	-8.2	-8.6	-9.1	-9.6	-9.7	-9.6	-9.2	-8.7	-8.3	-7.8	-7.4	-6.9	-6.7	-6.9	-7.1	-7.1	-7.3	-7.4	-7.5	-7.4	-7.3	-6.7	-8.0	24
22		-7.1	-6.9	-6.8	-6.8	-6.7	-6.6	-6.4	-6.3	-6.2	-5.9	-5.4	-5.2	-4.8	-5	-5.4	-5.5	-5.6	-5.6	-5.6	-5.6	-5.6	-5.5	-5.6	-5.7	-4.8	-5.9	24
23		-5.9	-6.1	-6.1	-6	-6.1	-6.2	-6.1	-6.1	-6.1	-5.9	-5.6	-5.1	-4.7	-4.7	-4.7	-4.8	-5	-5.3	-5.6	-6.2	-7	-7.6	-8	-8.4	-4.7	-6.0	24
24		-9.1	-9.3	-9.5	-10.1	-10.8	-11.2	-11.5	-11.8	-12	-11.9	-11.9	-11.6	-11.4	-11.2	-11.4	-11.8	-13.5	-14.7	-14.9	-14.6	-14.7	-14.9	-15.1	-15.4	-9.1	-12.3	24
25		-15.2	-15.1	-15.2	-15.4	-15.6	-15.8	-16	-16.1	-16	-15.8	-15.5	-14.4	-13.7	-13.5	-13.6	-14	-14.5	-15	-15.3	-15.5	-15.7	-16	-16.7	-17.8	-13.5	-15.3	24
26		-18.8	-19.9	-20.5	-20.4	-20.4	-20.6	-21	-20.6	-19.9	-17.8	-15.2	-13.2	-11.4	-9.8	-9.7	-10.8	-13.6	-16.1	-17	-17.1	-18.4	-18.4	-17.3	-17.8	-9.7	-16.9	24
27		-18.4	-18.5	-19.3	-19.8	-20.6	-21.5	-22.1	-21.1	-20.9	-19	-17.5	-15.2	-11.8	-9.7	-8.9	-9.9	-13.2	-15.8	-16.6	-17.8	-20.2	-22.5	-23.7	-24.3	-8.9	-17.8	24
28		-25.8	-26.5	-26.8	-28	-28	-28.2	-28.8	-29.2	-28.6	-24.8	-21.2	-16.2	-12.7	-11	-10.5	-10.6	-14.7	-17	-17.9	-18.6	-19.6	-20.5	-21.3	-21.7	-10.5	-21.2	24
29		-22.2	-22.2	-23	-23.8	-23.8	-24.1	-24.2	-24.5	-24.1	-19.2	-13.4	-10	-7.7	-6.3	-6.2	-7.4	-9	-10.5	-10.5	-10.6	-10.7	-10.7	-10.6	-10.9	-6.2	-15.2	24
30		-11.3	-11.9	-12.6	-12.7	-12.9	-13.3	-13.5	-13.7	-13.7	-13.8	-13.9	-13.8	-13.5	-13.3	-13.7	-14.5	-15.2	-16.4	-17	-18.3	-19.7	-20.3	-20.1	-20.6	-11.3	-15.0	24
31		-20.7	-20.7	-21	-21.3	-21.4	-21	-20.5	-19.8	-19.2	-18.1	-16.6	-15.6	-14	-14	-14.4	-14.9	-15.6	-15.9	-15.8	-15.7	-15.8	-15.9	-15.9	-15.9	-14.0	-17.5	24
HOURLY MAX		-3.3	-3.8	-2.0	-0.8	-0.6	-0.5	-0.8	0.0	0.3	0.4	0.5	1.1	1.7	2.5	2.8	1.3	-0.8	-2.0	-2.3	-2.6	-2.9	-3.1	-3.8	-3.5			
HOURLY AVG		-14.2	-14.5	-14.7	-15.1	-15.2	-15.5	-15.6	-15.5	-15.4	-14.3	-12.8	-11.2	-9.8	-8.9	-9.0	-9.6	-10.7	-11.5	-11.9	-12.2	-12.5	-12.8	-13.1	-13.4			

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:	-35.7 °C	@ HOUR(S)	4	ON DAY(S)	1	
MAXIMUM 1-HR AVERAGE:	2.8 °C	@ HOUR(S)	14	ON DAY(S)	16	
MAXIMUM 24-HR AVERAGE:	-1.3 °C			ON DAY(S)	16	
CALIBRATION TIME:	0	HRS		OPERATIONAL TIME:	742	HRS
STANDARD DEVIATION:	7.45			AMD OPERATION UPTIME:	99.7	%
				MONTHLY AVERAGE:	-12.91	°C

01 Hour Averages



Relative Humidity

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - MASKWA

JANUARY 2010

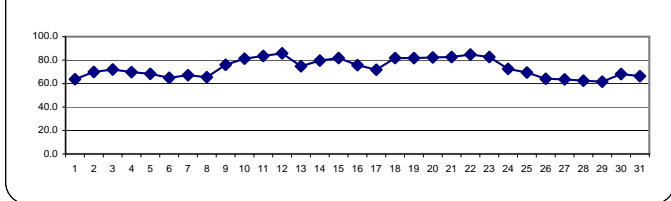
RELATIVE HUMIDITY hourly averages (%)

MST		0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY MAX.	24-HOUR AVG.	RDGS.	
HOUR START	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		60	59	59	59	59	59	62	62	64	64	63	60	62	63	64	66	67	68	69	69	70	70	70	70	70	70	63.8	24
2		70	70	71	70	70	70	70	72	72	72	68	69	67	67	69	69	69	69	69	69	69	71	75	73	75	75	69.9	24
3		74	73	72	74	72	73	72	71	71	71	70	67	65	68	70	72	73	73	74	74	75	74	75	75	75	75	72.0	24
4		73	72	72	72	73	71	70	70	70	68	66	63	61	63	66	69	71	73	73	72	72	72	72	71	73	69.8	24	
5		71	71	71	71	71	70	70	70	69	68	66	65	62	62	64	67	71	71	70	70	70	68	67	65	71	68.3	24	
6		65	65	63	62	62	62	62	61	61	62	63	62	63	65	64	68	70	68	68	67	69	69	68	70	64.9	24		
7		68	68	67	67	68	68	68	68	68	67	65	66	68	68	68	67	67	66	68	67	66	66	66	67	68	67.2	24	
8		67	67	67	67	68	68	68	70	68	65	63	61	61	M	M	60	64	65	65	67	65	64	65	65	70	65.5	22	
9		66	68	68	72	72	71	70	71	72	72	71	71	74	75	76	76	83	85	86	85	85	85	85	86	86	86	76.0	24
10		86	87	85	84	83	83	84	84	84	82	75	69	64	62	71	75	82	85	87	88	87	87	88	88	88	88	81.3	24
11		88	87	87	86	86	84	85	85	85	84	82	77	76	75	76	76	81	86	88	87	87	87	85	85	88	83.5	24	
12		85	83	83	84	86	86	86	86	86	85	85	85	84	84	85	85	86	87	88	89	89	88	87	87	89	85.8	24	
13		87	87	86	87	84	82	80	79	78	73	66	61	55	53	59	65	73	78	78	78	78	77	76	76	77	74.8	24	
14		79	78	76	76	76	75	75	76	80	80	81	81	81	81	81	82	82	82	82	82	82	82	81	81	81	82	79.6	24
15		82	81	81	80	80	80	79	79	78	79	80	79	81	81	82	83	84	84	84	85	85	85	85	85	85	86	81.8	24
16		86	86	88	88	86	82	79	76	76	79	73	65	62	59	56	61	70	74	76	78	78	78	80	82	88	75.8	24	
17		84	84	83	82	81	79	79	77	77	74	71	64	54	53	54	61	62	60	62	68	72	76	81	85	85	71.8	24	
18		86	84	86	86	86	83	83	84	83	81	81	82	76	72	73	74	77	81	84	84	85	85	84	83	86	81.8	24	
19		82	80	79	80	80	79	79	79	80	81	82	83	83	83	83	83	84	85	83	84	83	82	82	83	85	81.8	24	
20		82	82	82	82	82	82	81	80	80	81	81	81	82	82	83	83	83	84	84	84	84	84	84	83	84	82.3	24	
21		83	83	83	83	82	82	82	82	82	82	82	82	82	83	83	83	84	83	83	83	83	83	83	83	84	82.7	24	
22		84	84	84	85	85	85	85	85	85	85	85	85	84	84	85	85	85	85	85	85	85	85	85	85	85	84.8	24	
23		85	85	85	85	84	84	84	84	84	83	83	83	82	82	82	82	82	82	82	81	80	81	80	79	85	82.7	24	
24		77	78	78	75	74	73	74	74	75	73	71	69	69	68	68	69	70	72	73	72	72	72	72	73	78	72.5	24	
25		73	72	72	72	71	71	72	73	73	73	70	65	63	63	64	65	67	68	68	68	68	70	72	73	73	69.4	24	
26		73	73	73	73	73	73	72	72	72	69	61	53	48	42	43	46	56	64	66	67	70	69	65	66	73	64.1	24	
27		68	67	69	69	71	72	73	71	70	65	58	53	48	45	44	47	57	65	65	67	70	72	70	70	73	63.6	24	
28		67	67	66	65	65	65	64	64	64	62	62	56	49	44	47	47	58	65	67	69	71	72	72	72	72	62.5	24	
29		72	71	70	68	69	69	68	68	68	62	50	49	48	47	49	53	55	57	60	63	63	64	66	70	72	61.6	24	
30		70	72	73	72	71	69	69	70	69	69	68	65	63	62	62	64	65	65	67	69	72	71	70	69	73	68.2	24	
31		69	69	69	69	69	69	70	70	70	67	63	60	55	55	58	61	64	66	67	68	70	71	71	72	72	66.3	24	
HOURLY MAX		88	87	88	88	86	86	86	86	86	85	85	85	84	84	85	85	86	87	88	89	89	88	88	88	88			
HOURLY AVG		76.2	75.9	75.7	75.6	75.5	74.8	74.7	74.6	74.6	73.5	71.2	68.8	66.7	66.3	67.5	69.1	72.3	74.1	74.8	75.5	75.9	76.1	76.3	76.5				

STATUS FLAG CODES

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

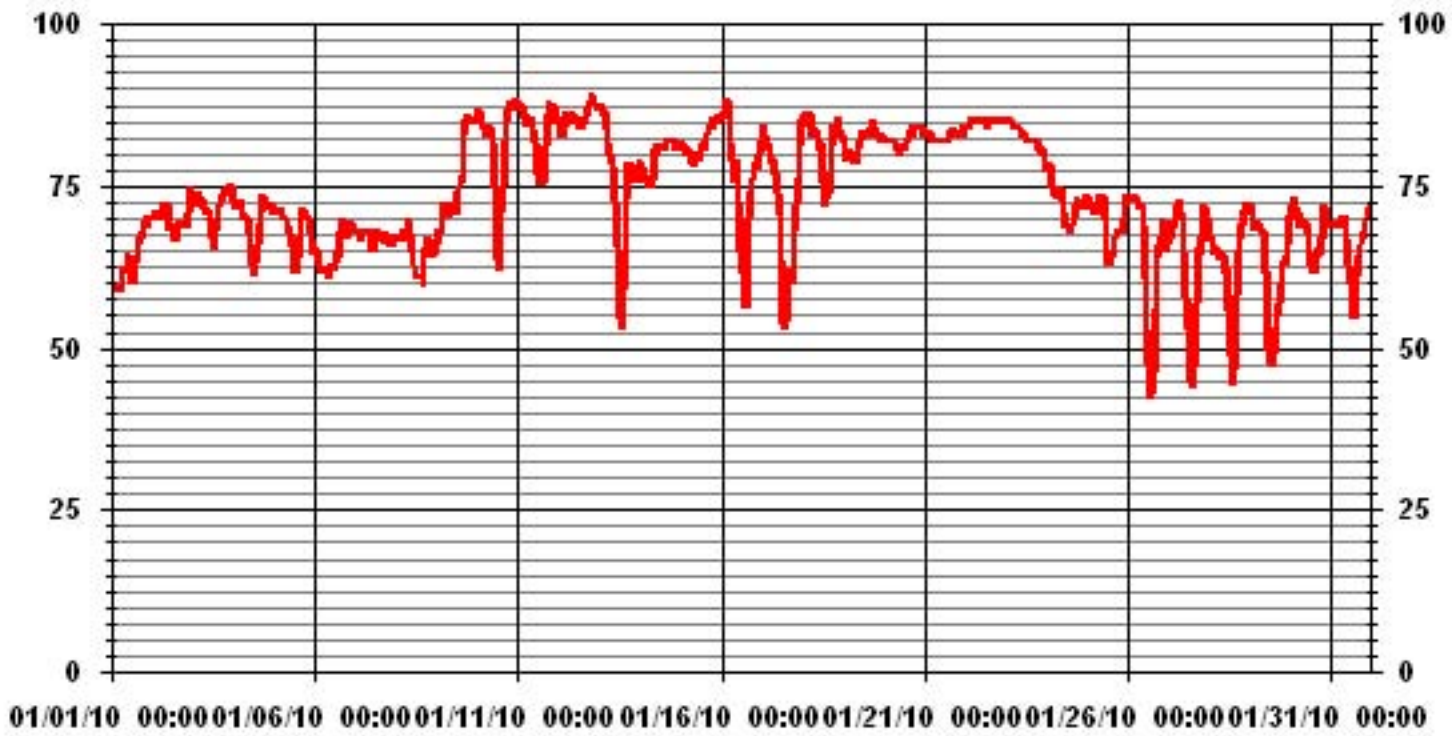
24 HOUR AVERAGES FOR JANUARY 2010



MONTHLY SUMMARY

MAXIMUM 1-HR AVERAGE:	89	%	@ HOUR(S)	19, 20	ON DAY(S)	12
MAXIMUM 24-HR AVERAGE:	85.8	%			ON DAY(S)	12
VAR-VARIOUS						
CALIBRATION TIME:	0	HRS	OPERATIONAL TIME:	742	HRS	
STANDARD DEVIATION:	9.33		AMD OPERATION UPTIME:	99.7	%	
			MONTHLY AVERAGE:	73.44	%	

01 Hour Averages



— LICA30 RH %FS

Barometric Pressure

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - MASKWA

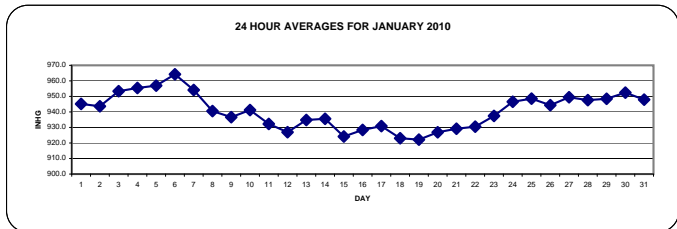
JANUARY 2010

BAROMETRIC PRESSURE hourly averages (millibar)

MST		0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY	24-HOUR		
HOURLY MAX	HOURLY AVG	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		956	955	955	955	954	953	952	950	950	948	947	946	944	942	941	940	939	938	937	937	937	936	936	936	956	956	945.2	24
2		936	936	936	937	937	938	938	939	940	941	942	943	943	944	946	947	948	949	950	950	951	951	952	953	953	953	943.6	24
3		953	953	953	954	954	954	954	954	954	954	953	953	952	952	953	953	952	953	953	953	953	954	954	955	955	955	953.3	24
4		955	955	955	956	956	956	956	956	956	956	956	956	956	955	955	955	955	955	955	955	955	955	955	955	955	955	955.4	24
5		955	955	955	954	955	955	955	955	955	956	956	956	956	956	957	957	957	958	959	959	960	961	962	962	962	962	956.9	24
6		963	963	964	964	964	965	965	966	966	967	966	965	965	964	964	964	964	964	964	964	963	963	962	962	967	964.2	24	
7		962	962	961	961	960	959	958	958	957	957	956	955	954	953	953	951	950	949	949	948	947	947	946	946	962	954.1	24	
8		945	944	944	943	943	942	942	942	941	941	940	940	939	M	M	940	939	939	939	939	939	938	938	937	937	945	940.5	22
9		937	937	936	936	936	935	935	935	935	935	935	935	935	935	936	937	938	938	938	939	939	939	939	939	939	939	936.6	24
10		940	940	939	939	939	939	939	939	939	940	942	942	942	943	943	943	944	944	944	942	942	943	942	941	944	941.2	24	
11		940	938	938	937	935	933	933	932	931	930	931	930	930	930	930	930	931	931	930	930	931	931	931	931	931	940	932.3	24
12		930	931	931	931	930	930	929	928	927	927	927	926	924	925	924	924	924	925	925	925	925	925	926	926	927	931	927.0	24
13		927	928	929	930	931	932	933	934	934	934	936	936	937	937	937	937	938	937	938	938	938	938	938	938	938	938	934.8	24
14		938	938	938	938	937	937	937	935	936	937	937	936	936	936	936	935	935	935	935	934	933	932	932	931	938	935.6	24	
15		931	930	929	928	928	928	928	928	928	927	926	926	925	924	923	922	921	920	919	918	918	917	918	918	931	924.2	24	
16		918	919	921	922	923	923	924	925	926	927	928	929	930	931	932	933	933	934	934	934	934	934	933	934	935	935	928.4	24
17		934	934	934	934	934	934	933	933	933	933	933	932	932	931	930	929	928	928	928	927	927	927	927	926	934	930.9	24	
18		926	926	926	925	925	925	924	924	924	924	924	924	923	923	922	922	921	921	921	921	920	920	920	920	926	923.0	24	
19		920	920	920	920	920	920	920	921	921	922	922	922	922	922	923	923	923	924	924	924	924	925	925	925	925	925	922.2	24
20		925	925	925	926	926	926	926	926	927	927	928	927	927	927	927	927	927	928	928	928	928	928	928	929	929	929	926.9	24
21		929	929	929	929	929	929	929	929	930	930	930	930	929	929	929	929	929	929	929	929	929	929	929	929	929	930	929.2	24
22		929	928	929	929	929	929	929	930	929	930	930	930	930	930	931	931	932	932	932	932	932	933	933	932	933	933	930.5	24
23		934	934	934	934	934	935	935	935	936	936	937	937	937	938	938	939	939	940	940	940	941	941	942	942	942	942	937.4	24
24		942	943	943	944	944	945	945	945	946	946	947	945	946	947	948	947	948	949	949	949	949	950	950	950	950	950	946.5	24
25		950	950	950	950	950	950	949	949	949	949	949	949	949	948	948	948	948	947	947	947	947	947	947	947	947	948.5	24	
26		946	946	946	946	945	945	945	945	944	944	944	944	944	944	943	943	943	943	944	944	944	944	945	945	946	944.3	24	
27		945	946	947	947	947	948	948	948	949	950	950	951	951	951	951	951	951	951	951	950	951	951	951	951	951	951	949.5	24
28		951	951	951	949	948	950	950	949	949	948	947	947	947	946	946	946	946	946	946	946	946	946	946	946	945	951	947.6	24
29		947	947	947	947	947	948	948	948	948	948	949	949	949	949	949	949	949	949	949	948	950	950	949	950	949	950	948.5	24
30		951	951	951	951	951	952	952	952	952	953	953	953	953	953	953	953	953	954	953	953	953	952	953	953	954	952.4	24	
31		953	953	953	952	952	951	951	950	950	949	949	949	948	947	947	945	945	945	944	944	944	943	943	943	953	947.9	24	

STATUS FLAG CODES

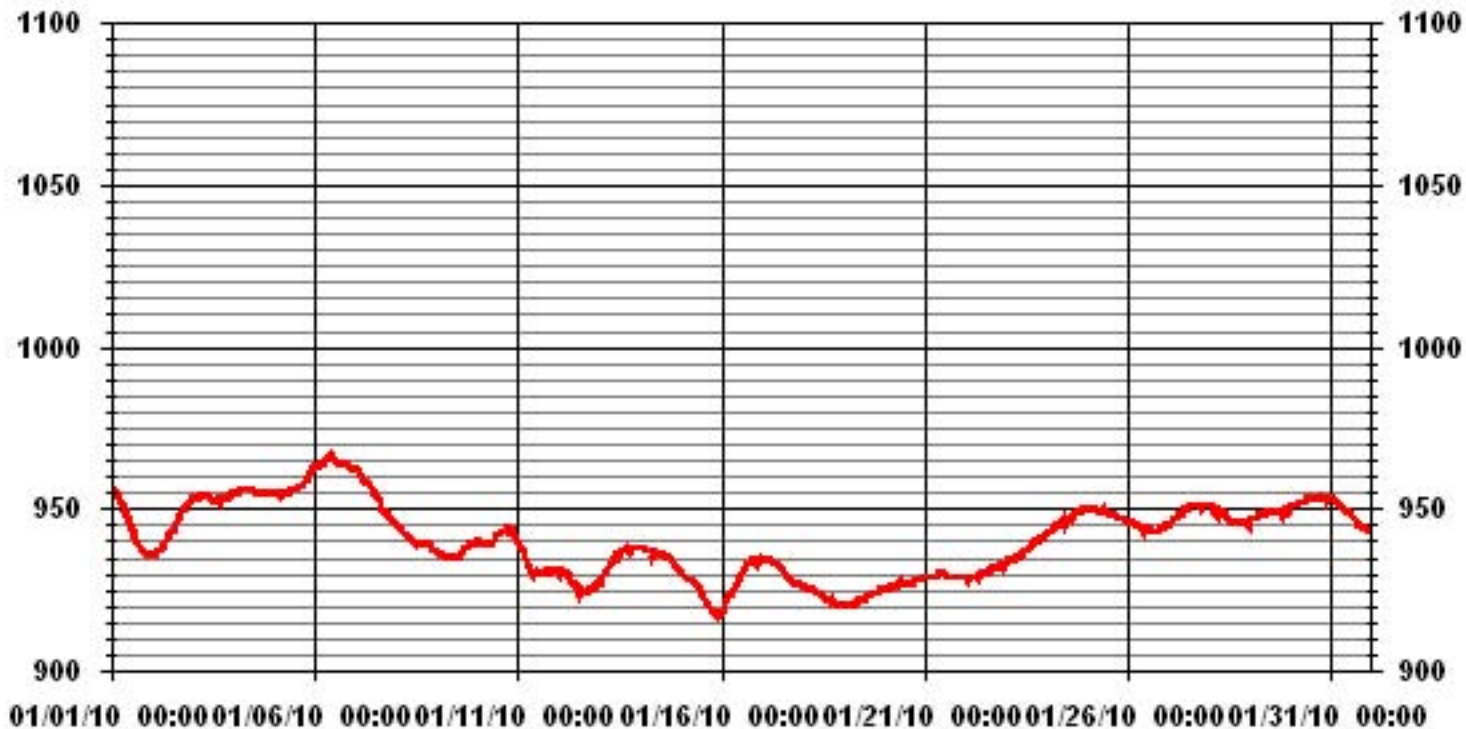
S	- OUT OF SERVICE	IZS	- IZS - DAILY ZERO/SPAN CHECK
N	- INVALID DATA	M	- MAINTENANCE
D	- INSTRUMENT DRIFT	P	- POWER FAILURE
C	- CALIBRATION	NA	- NOT APPLICABLE



MONTHLY SUMMARY

MAXIMUM 1-HR AVERAGE:	967	MB	@ HOUR(S)	9	ON DAY(S)	6
MAXIMUM 24-HR AVERAGE:	964.2	MB			ON DAY(S)	6
					VAR-VARIOUS	
CALIBRATION TIME:	0	HRS	OPERATIONAL TIME:	742	HRS	
			AMD OPERATION UPTIME:	99.7	%	
STANDARD DEVIATION:	11.52		MONTHLY AVERAGE:	941	MB	

01 Hour Averages



Vector Wind Speed

IMPERIAL OIL RESOURCES LTD. - COLD LAKE - MASKWA

JANUARY 2010

WIND SPEED hourly averages (km/hr)

MST		0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY	24-HOUR		
HOURLY MAX	HOURLY AVG	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	0.3	1.4	0.6	2.6	1.8	3	3.1	3.4	7.3	8.8	8.3	10.6	10.5	10.1	8.8	7.5	6.2	5.9	6.7	5.3	5.5	3.3	3	10.6	4.8	24	
2		3.5	3.9	3.2	5.1	4.6	3.9	4.4	1.5	0.8	3.5	4.6	6.1	6.5	8.1	7.7	4.7	4.8	5.5	5	4.6	4.2	2.7	1.5	1.9	8.1	3.6	24	
3		1.4	2.7	3.1	3.1	3.5	3.5	2.5	3.3	4.6	5.5	5.9	5.2	6.1	5	2.5	5.5	4.2	1	2.3	1.3	0.9	0.4	2.9	3.9	6.1	2.4	24	
4		2.8	3.4	4.6	4.4	2.6	2.4	2.2	1.8	1.7	2.1	2.6	2.7	1.6	1.9	2.9	1.5	2.8	0.8	0.6	1.2	1.7	1.9	2.3	2.1	4.6	1.3	24	
5		2.6	2.2	2.4	3.4	3.6	4	3.9	4.5	4.4	5	5.8	6.2	5.6	5.7	2.7	1.7	1.6	1.6	0.9	1.5	1.1	0.4	0.8	0.2	6.2	2.8	24	
6		1.1	0.9	0.7	0.7	0.9	0.6	1.5	0.4	1	0.4	0.7	0.7	1.3	5.6	5.3	4.4	2.3	2.3	3.3	2.5	6	5.3	5.2	4	6	2	24	
7		3.9	5.3	3.8	3.6	6.3	5.8	5.2	5.7	5.8	6.6	7.8	7.6	6.2	7.1	6.8	8.7	9.9	6.8	4	5.3	7.9	6.2	6.6	5.9	9.9	6.1	24	
8		6.1	5.1	5.1	4.2	3.1	1	0.7	2.7	2.7	3.6	2.5	2.5	3.9	M	M	4.5	3.9	2.9	2.8	2.1	4.4	4	3.4	4.6	6.1	3.1	22	
9		2.2	2.7	1.8	1.7	0.9	0.5	0.9	0.6	1.6	4.6	2.7	1.1	2.4	2.3	1	0.5	2.9	3.2	3.6	3.7	3.5	0.8	2.4	2.4	4.6	0.8	24	
10		2.6	4	4.9	2.8	2	1.8	2.4	2.2	2	1.5	3.2	2.4	1.9	1.3	1.6	2.5	1.2	2.7	3.2	3.5	2.9	2.9	3.6	7.4	7.4	1.3	24	
11		7.9	7.1	5.6	5.9	7.1	5.9	2.3	4.4	4.5	2.2	2.3	4.3	3.6	0.1	2.9	2	1.8	0.8	1.2	0.5	0.8	1.3	0.3	2.2	7.9	2.4	24	
12		1.1	0.4	2.5	5.1	9.8	9.2	11.2	12.2	11	9.5	10.8	7.6	6.8	6.2	5.5	2.8	1.9	2.2	1.9	1.4	3.3	2.6	2.3	3	12.2	4.4	24	
13		3.2	4.4	6.2	5.7	6.4	6.2	4.8	4.5	5.3	5.4	4.7	3.4	1.2	2.2	3.5	1.9	1.4	2.6	0.3	2.1	2	1.3	0.9	1.9	6.4	2.3	24	
14		3.2	3.3	1.6	1.1	0.8	0.4	0.4	1.4	0.7	0.6	1.4	1.4	3.5	3.7	4.3	4.1	3.7	3.6	3.7	3.2	1	0.7	1.6	1.2	4.3	1	24	
15		1.7	1.1	0.5	0.6	0.7	0.5	1	0.3	0.5	1.1	1.9	2	3.4	3.5	3.1	3.4	4.5	3.3	2.8	3.4	3	1.1	0.5	1.7	4.5	1.6	24	
16		3.7	6	9.4	10.4	11.5	11	8.1	11.4	11.1	12	14.1	14.1	10.6	10.8	9.7	5.7	3.4	3.4	3.5	3.7	4.8	5.2	5.9	5.6	14.1	7.3	24	
17		4	4.6	3.9	3.5	0.9	0.7	1.8	1.1	1.5	2.4	3.8	1.1	8.9	8.4	7	6.9	7.3	8.7	8.8	9.7	6.6	5.6	4.4	3.5	9.7	3.7	24	
18		3	2.7	3.1	3.9	4.8	2.1	2.8	3.7	4.4	4	2.6	4.4	4.6	6.6	6	4.4	4.8	3.4	3.7	3.1	1.8	1	1.3	0.7	6.6	3.1	24	
19		1.4	0.5	0.5	2.6	3.6	1	0.5	0	0.1	18.2	11.3	11.1	1.2	1.6	2.4	1.4	1.1	2.5	0.9	3	1.6	4.3	4.7	5.8	18.2	1	24	
20		2.7	4.1	2.7	4.3	4.6	4.4	4.6	5.3	4.7	11.6	21.8	8.2	6.1	6.4	6.8	6.9	6.5	6.5	7.1	6.9	6.5	7	7.3	5.5	21.8	3.1	24	
21		5.7	5.7	5.9	7.9	7.6	8.3	10.5	11.7	8.8	7.3	9.4	7.8	6.9	7.9	6.4	6.1	6.1	5.2	5.6	5.1	5	5	5.7	5.3	11.7	6.8	24	
22		5.7	4.6	4.1	4.1	4.4	4.5	4.5	4	5.2	6.3	7	7.5	8.2	6.3	6.5	5.4	5.5	3.5	4.6	5.4	4.9	6.5	6.9	7.2	8.2	5.3	24	
23		8.4	7.4	7.3	6.8	8.5	7.8	7.8	8.2	8.4	8.2	7.3	5	6.1	7.7	7.7	8.1	7.3	8.5	7.7	8.9	9.1	7.8	7.4	7.6	9.1	7.4	24	
24		8.1	8.2	6.6	8.1	7.7	8.6	7.9	8.2	7.8	8.3	9	8.4	7.6	8.5	8.8	9.2	8	5.6	5.1	6.3	8.1	8.1	5.9	4.8	9.2	7.5	24	
25		4.7	4.5	4.1	5.6	6.1	6.6	7.2	5.6	3.3	3.9	6.6	3.7	4.3	4.3	4.9	4.4	3.2	3.6	3.7	3.8	4.4	4.7	5.9	6.4	7.2	4.4	24	
26		6.7	5.8	6.1	6.5	6	4.4	4.5	5.6	7.1	8.1	7.3	6.4	7.5	8.4	9.2	7.8	7.7	7.3	7.2	6.8	5	5.6	6.7	4.8	9.2	6.3	24	
27		3.9	3.6	3.9	4.2	3.2	2.3	1.6	4.1	2.5	3.6	5.1	5.4	4	4.5	5.1	4.1	1.8	3.2	4.4	4.4	2.3	1.5	1.9	1.8	5.4	2.1	24	
28		0.6	0.3	1.1	1.1	0.8	1.1	1	0.7	1	1.6	1.9	1	1.6	0.3	3.9	2.6	1.1	0.7	0.8	0.5	0.3	1	0.2	0.8	3.9	0.5	24	
29		1.2	1.1	2	0.2	0.9	0.7	0.3	0.8	0.1	1.3	2	1	1.1	0.7	1	1.8	3.9	1.9	0.2	1.8	1.4	1.2	3.3	4.3	4.3	0	24	
30		3.7	3.8	3.8	6.9	6.9	7.2	7.5	6.7	7.6	8	8.4	7.5	7.4	6.7	8	7.8	7.1	5.2	5.9	4.2	4.2	4.8	6.2	5.6	8.4	6	24	
31		6.1	5.3	4.8	5.4	5.1	5.1	4.9	5	3.7	4.8	5.7	7.2	6.6	6.6	7.3	6.6	7.1	7.3	6	7.6	8.6	8.6	8.7	6.3	8.7	5.7	24	
HOURLY MAX		8.4	8.2	9.4	10.4	11.5	11.0	11.2	12.2	11.1	18.2	21.8	14.1	10.6	10.8	10.1	9.2	9.9	8.7	8.8	9.7	9.1	8.6	8.7	7.6				
HOURLY AVG		3.7	3.7	3.8	4.2	4.4	4.0	3.9	4.2	4.1	5.4	6.1	5.2	5.1	5.3	5.4	4.7	4.4	3.9	3.8	4.0	4.0	3.7	3.9	3.9				

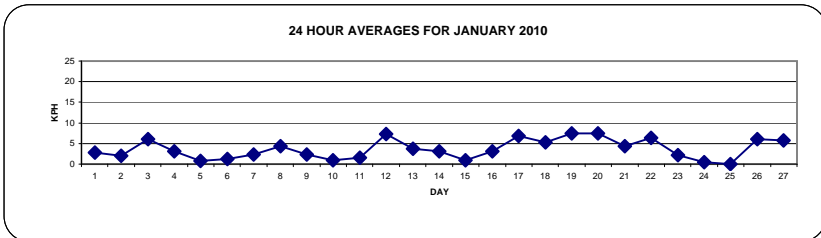
STATUS FLAG CODES

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

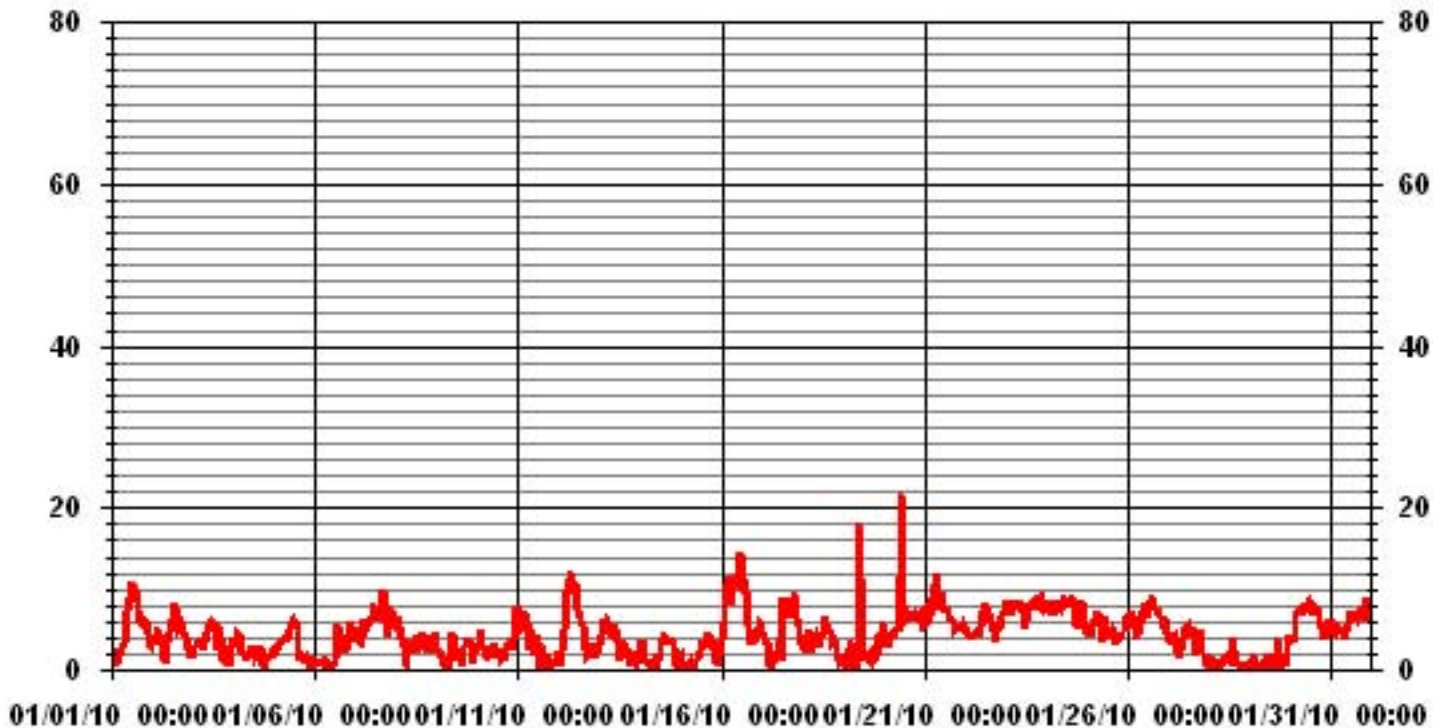
LAST CALIBRATION:	February 4, 2009
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MONTHLY SUMMARY

MAXIMUM 1-HR AVERAGE:	21.8 KPH	@ HOUR(S)	10	ON DAY(S)	20
MAXIMUM 24-HR AVERAGE:	7.5 KPH			ON DAY(S)	24
CALMS (≤ 1 KPH)	8.87 %	OPERATIONAL TIME:		742 HRS	
MONTHLY CALIBRATION TIME:	0 HRS	AMD OPERATION UPTIME		99.7 %	
STANDARD DEVIATION	2.84	MONTHLY AVERAGE		4.36 KPH	



01 Hour Averages



— LICA30 WSP KPH

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - MASKWA

JANUARY 2010

VECTOR WIND SPEED MAX instantaneous maximum in km/hr

MST		0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY	
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	0:00	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		9.5	8.5	8	8.2	10.8	11.9	14.5	16.6	15.8	27.6	29.1	26.3	27.6	36.2	31.2	26.1	24.4	19.2	16.6	20.3	15.3	21.1	18.6	13.8	36.2	
2		15.5	17	12.9	23.5	19.4	12.7	9.9	4.8	9.9	16.4	17	18.5	22.9	23.1	20.9	15.5	16	15.1	13.6	11.9	11.5	11.4	4.6	5.9	23.5	
3		5.2	14.4	17	14.5	13.6	14.7	13.2	13.6	19	20.9	20.9	17.7	18.6	19.4	10.5	23.7	16.8	6.1	5	3.9	2.6	4.8	8.2	18.8	23.7	
4		14.1	16.8	16.8	20.3	13.5	9.1	7.6	10.2	10.4	7.8	11	11.9	10.8	6.2	6.7	6.3	5.4	3.5	3.3	3.7	8.9	10.8	5	11.2	20.3	
5		14	11.2	12.1	7.8	15.1	15.8	15.3	13	13.6	14	18.4	15.5	19.6	20.9	15.3	9.7	3.7	11	2.6	4.4	12.1	2.2	5.6	6.9	20.9	
6		7.4	7.8	6.7	6.7	9.9	6.7	9.5	7.6	9.3	9.5	9.7	9.3	10.6	13.4	12.5	10.6	6.1	5.6	7.4	12.3	15.8	15.8	16.6	13.8	16.6	
7		12.3	13.6	10.8	15.3	18.4	15.8	14.7	16.2	17.3	16.6	25	26.8	18.4	23.9	17.5	24.8	32.2	34.1	11.2	16.2	22.4	17.5	18.1	17	34.1	
8		15.3	13.6	12.7	12.5	9.5	7.3	2.8	10.6	8.6	10.5	14	11.9	14.5	M	M	12.1	14.7	13.4	14.2	10.6	17.7	16.6	13.2	10.4	17.7	
9		9.3	8.6	9.9	5.2	9.5	9.5	7.3	5.4	8.9	17.9	13.8	7.1	7.3	14.4	7.6	9.4	15.3	16.2	8.4	15.7	15.1	5.6	7.8	6.9	17.9	
10		8.2	11	14.9	9.3	7.3	6.7	8.6	8.6	7.3	4.8	10.4	10.8	11.4	10.6	4.8	7.1	5.6	7.9	14.4	17	14.4	15.3	16.2	31	31	
11		31.5	28.1	23.2	19.6	25	24.3	16.8	17	14.9	9.7	10.1	12.7	12.7	6.1	11.4	9.5	8	3.5	8.6	3.2	4.1	3.9	7.8	8.2	31.5	
12		5.8	2.2	9.5	17.7	19.6	17.7	26.1	27.6	25.9	25.2	25.4	21.5	22.8	23	20.3	14.9	7.3	7.1	6.3	5.2	10.4	9.5	8.4	11	27.6	
13		22.2	18.3	23.5	25	31	22.4	19.4	15.3	21.1	19.4	17.9	13.8	11.8	13.6	9.1	8.6	4.6	5	5.4	12.1	10.8	11	10.6	9.7	31	
14		16.2	16	11.5	8.9	8.8	7.1	8.4	10.6	9.1	11.2	13.4	12.5	16.6	10.4	14.7	10.4	10.4	11.4	10.1	10.4	5.6	5.4	5.8	5.2	16.6	
15		5.4	6.5	5.4	4.7	6.2	4.3	4.6	2.2	2.6	3.6	6.1	5.6	8.4	7.1	6.3	8	11.2	9.3	8.2	9.3	16.6	19.2	5.4	6	19.2	
16		12.6	26.9	31.5	33.4	38.6	42.6	34	51.4	41.5	53.8	47.6	42.6	35.3	32.1	33.2	27.5	14.7	11.4	10.6	9.3	11.6	11.6	13.7	13.4	53.8	
17		9.9	11.6	10.4	10.4	4.3	6	5.4	3.9	11	5	8.4	14.7	23	22	20.7	23	23.3	22	23.5	25.6	18	16.8	18.1	17.2	25.6	
18		11.9	12.5	13.2	14.2	14	11.6	12.7	15.1	15.3	14	17.7	18.1	18.3	20.7	20.5	18.1	18.3	13.6	9.9	11.2	6.4	5.2	4.1	4.3	20.7	
19		9.7	9.1	9.3	13.8	11.4	8.4	3	3.5	29.1	30	30.2	29.7	18.6	5.8	6.7	5.8	6.1	7.6	7.1	12.7	13.4	13.6	11.6	15.7	30.2	
20		11.9	9.9	10.8	14	12.7	11.6	11.7	14.7	27.4	31.3	36.4	37.4	19.2	20.1	21.8	16.8	20.7	22	21.5	22.2	22.8	26.9	23.7	25	37.4	
21		22.8	18.1	22.6	24.4	26.9	31.7	29.1	28.2	27.5	24.1	31.3	29.8	26.5	25.4	24.4	22	21.3	22.8	24.8	17.9	20.9	18.8	21	18.3	31.7	
22		22.2	18.8	16.8	16.6	18.3	19.1	17.9	15.3	18.8	21.8	19.8	23.9	25.2	21	21.8	18.8	18.3	14.7	17.5	22	17.2	17.8	21.1	18.8	25.2	
23		21.3	19	20.3	17.9	18.6	19.6	23.3	24.4	20.5	19.6	20.1	14.7	18.8	21.3	22	21.3	22.6	27.4	27.3	40.9	27.6	23.5	27.1	33.2	40.9	
24		29.7	33	24.8	29.8	32.9	30	29.5	25.7	24.1	27.3	26.5	25.4	22.2	30.6	25.9	40.7	31.2	17.9	16.4	18.8	21.8	20.5	17.7	16	40.7	
25		16.6	18.1	17	18.4	16.2	17.5	16.2	14.9	12.3	10.6	15.2	13.7	14.2	12.7	12.1	11	9.7	12.9	14	13.6	19	19.9	22.7	18.8	22.7	
26		25.2	22.7	20.5	26.5	20.1	20.5	19.7	24.6	25.4	25.2	28	24.1	25	29.1	29.5	25.6	28	29.5	25.9	23.7	21.6	19.9	24.6	18.2	29.5	
27		18.4	22	12.5	16.6	10.6	14	18.1	16.6	17	13.8	15.5	12.7	17.7	16.4	20.3	18.3	8	11.2	10.4	11.2	9.1	8.8	6.3	5.9	22	
28		7.3	9.3	8.9	9.5	10.4	9.7	8.4	8.9	10.4	9.7	7.7	9.9	11.9	12.3	13.6	6.7	5	2.8	4.1	3.7	3	3.3	2	9.9	13.6	
29		8.4	4.1	9.5	2.8	8.2	2.6	3.7	2.4	8	9.3	11.9	9.5	12.1	11.6	10.8	6.3	9.3	6.3	4.9	9.5	4.6	4.3	8.4	10.8	12.1	
30		12	8.4	10.1	16.8	15.5	15.7	14.9	14.5	17.5	17	21.3	21.8	24.4	21.3	23.5	28.7	23.2	20.1	23.1	18.6	17.9	19.4	20.9	20.7	28.7	
31		21.7	20.5	17.1	21.4	17.5	18.6	17.3	19	16	19.9	19.9	23.1	21.1	23.2	22.2	22.2	23.5	26.3	23	24.6	26.7	26.3	23.5	21.1	26.7	
PEAK		31.5	33.0	31.5	33.4	38.6	42.6	34.0	51.4	41.5	53.8	47.6	42.6	35.3	36.2	33.2	40.7	32.2	34.1	27.3	40.9	27.6	26.9	27.1	33.2		

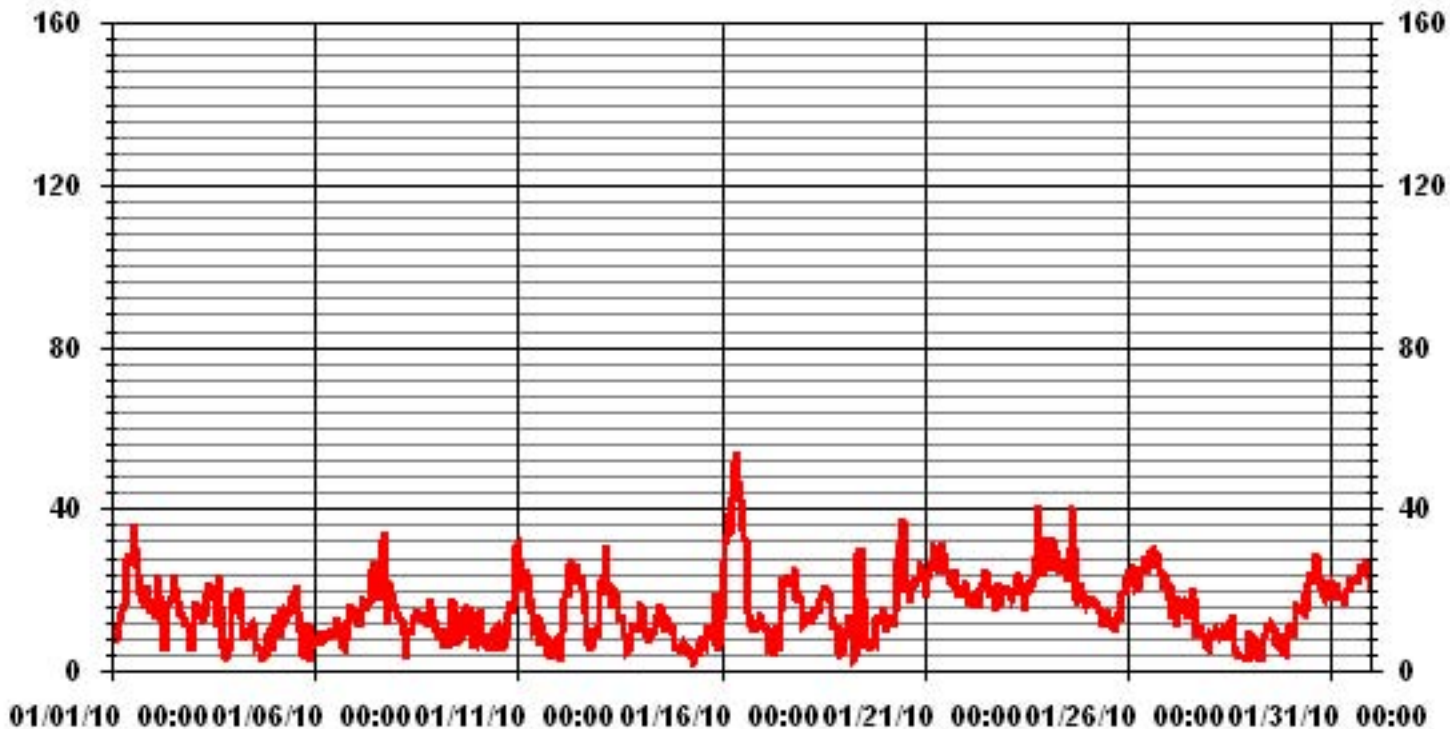
STATUS FLAG CODES

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

MONTHLY SUMMARY

MAXIMUM INSTANTANEOUS READING	53.8	KPH	@ HOUR(S)	9
			ON DAY(S)	16

01 Hour Averages



— LICA30 WSMAX KPH

LICA30
WSP / WDR Joint Frequency Distribution (Percent)

January 2010

Distribution By % Of Samples

Logger Id : 30
Site Name : LICA30
Parameter : WSP
Units : KPH

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
< 6.0	3.63	4.44	9.29	8.62	7.00	4.44	3.63	3.36	3.23	6.46	5.52	2.02	2.29	2.56	3.09	2.29	71.96
< 12.0	4.44	2.83	1.75	2.56	3.36	3.63	1.34	.94	1.07	.00	.00	.00	1.88	2.29	.40	.53	27.08
< 20.0	.00	.00	.00	.13	.00	.00	.00	.00	.00	.00	.00	.00	.13	.40	.00	.00	.67
< 29.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.13	.00	.00	.00	.13
< 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	8.08	7.27	11.05	11.32	10.37	8.08	4.98	4.31	4.31	6.46	5.52	2.02	4.44	5.25	3.50	2.83	

Calm : .13 %

Total # Operational Hours : 742

Distribution By Samples

	Direction																
Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
< 6.0	27	33	69	64	52	33	27	25	24	48	41	15	17	19	23	17	534
< 12.0	33	21	13	19	25	27	10	7	8				14	17	3	4	201
< 20.0				1									1	3			5
< 29.0													1				1
< 39.0																	
>= 39.0																	
Totals	60	54	82	84	77	60	37	32	32	48	41	15	33	39	26	21	

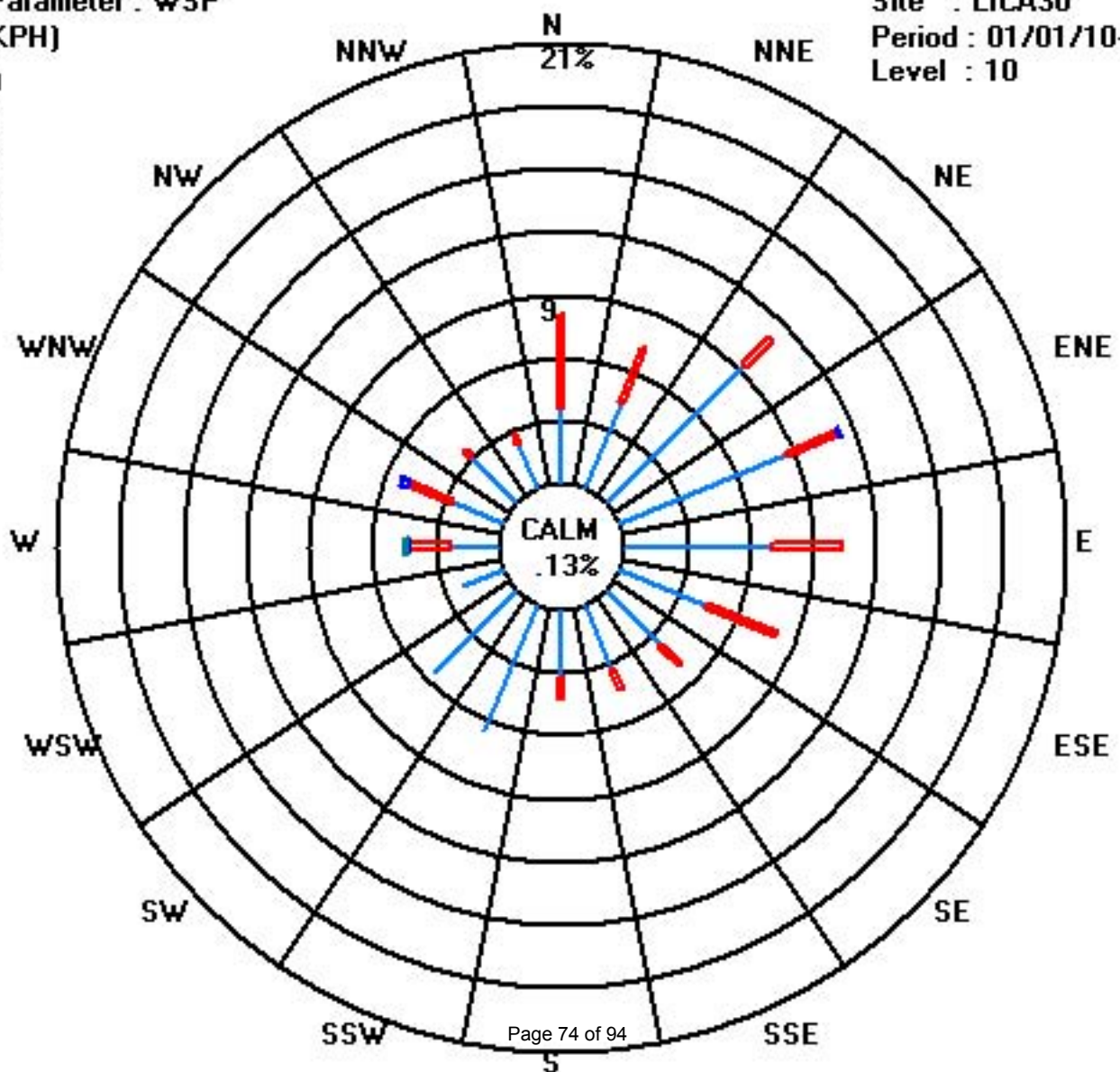
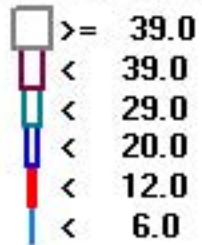
Calm : .13 %

Total # Operational Hours : 742

Class Limits (KPH)

Period : 01/01/10-01/31/10

Level : 10



Vector Wind Direction

IMPERIAL OIL RESOURCES LTD. - COLD LAKE - MASKWA

JANUARY 2010

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	RDGS.
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.	QUADRANT	
DAY																											
1	83	12	16	20	44	54	133	88	99	109	113	115	117	112	119	115	122	127	145	141	140	128	110	66	114	ESE	24
2	74	92	57	48	73	42	36	354	293	310	332	355	352	357	8	356	355	2	357	12	22	23	1	8	12	NNE	24
3	79	93	73	74	71	77	99	76	110	121	120	132	134	125	114	100	121	179	38	26	196	301	216	294	107	ESE	24
4	340	345	326	332	312	324	323	284	325	315	307	302	299	9	26	93	162	143	65	42	53	64	61	59	345	NNW	24
5	64	50	56	43	54	57	51	41	46	41	43	36	42	53	57	88	79	72	55	43	59	111	172	160	50	NE	24
6	211	221	205	175	225	249	221	199	247	228	275	280	206	188	204	187	179	136	135	152	155	153	151	158	176	S	24
7	162	163	138	144	151	162	157	160	162	172	171	163	168	176	160	162	167	181	159	158	174	174	174	170	165	SSE	24
8	171	170	175	178	165	155	50	192	200	196	181	195	219	M	M	200	207	222	231	235	221	223	218	209	197	SSW	22
9	221	217	217	104	25	206	248	262	212	50	27	15	29	82	42	206	64	108	115	53	57	150	173	162	92	E	24
10	211	168	177	180	144	215	223	223	225	204	219	242	249	250	206	184	117	49	64	94	75	85	84	103	156	SSE	24
11	98	88	95	97	93	106	119	116	117	131	161	167	180	280	203	198	248	118	194	212	116	206	239	70	119	ESE	24
12	125	8	80	64	78	73	76	74	74	78	78	69	71	74	96	86	97	47	50	348	295	236	237	257	74	ENE	24
13	295	276	287	305	330	330	318	317	306	328	328	338	291	281	9	16	225	133	118	67	68	66	93	156	321	NW	24
14	95	89	67	355	35	269	51	61	337	46	201	200	220	217	219	202	218	217	208	201	175	181	59	51	193	S	24
15	45	102	292	59	71	92	99	151	16	33	58	34	47	46	42	47	46	49	52	49	55	103	200	241	50	NE	24
16	225	269	277	282	279	274	270	277	280	286	291	298	300	289	289	288	259	246	236	227	223	222	206	211	273	W	24
17	213	211	215	207	60	74	78	61	66	34	37	50	139	135	121	112	128	136	142	143	144	134	115	105	134	SE	24
18	126	100	92	127	138	92	99	89	69	75	54	110	110	118	115	100	115	105	124	134	91	32	68	29	104	ESE	24
19	105	17	16	94	86	45	60	15	272	264	261	259	179	204	212	287	186	217	264	27	146	123	95	43	249	WSW	24
20	56	38	51	46	49	45	44	46	303	281	272	289	64	63	51	44	51	60	65	69	84	99	95	94	41	NE	24
21	87	94	87	99	100	103	103	107	112	99	90	92	89	87	89	90	90	100	88	82	72	77	86	81	93	E	24
22	84	93	77	66	73	73	74	61	75	85	98	90	94	90	83	79	69	56	54	52	55	41	51	55	72	ENE	24
23	41	34	28	30	27	28	19	15	21	29	24	12	4	6	7	6	359	355	349	351	359	1	354	350	11	NNE	24
24	352	357	356	345	351	349	354	347	349	355	2	4	352	355	0	358	352	0	355	5	13	13	359	0	356	N	24
25	358	343	349	8	6	13	18	18	349	0	18	1	8	1	10	3	347	336	339	331	323	321	309	297	352	N	24
26	299	312	306	307	301	272	257	264	276	290	302	302	299	294	290	294	279	275	277	285	274	288	307	321	290	WNW	24
27	332	328	324	321	351	317	267	299	304	202	204	208	256	273	275	270	233	204	200	210	203	211	220	170	259	WSW	24
28	99	232	80	22	230	163	113	30	117	24	33	23	298	79	49	24	36	209	125	128	146	130	333	215	55	NE	24
29	231	184	112	35	246	189	188	231	144	282	288	29	304	304	282	212	197	168	27	50	60	23	35	25	267	W	24
30	43	23	9	24	20	22	22	24	31	33	43	52	59	68	55	56	59	48	60	55	66	58	59	62	43	NE	24
31	67	66	58	64	58	62	61	75	91	110	112	115	115	113	116	99	97	93	104	114	120	118	119	119	98	E	24
HOURLY AVG	358	357	356	355	351	349	354	354	349	355	332	355	352	357	290	358	359	355	357	351	359	321	359	350			

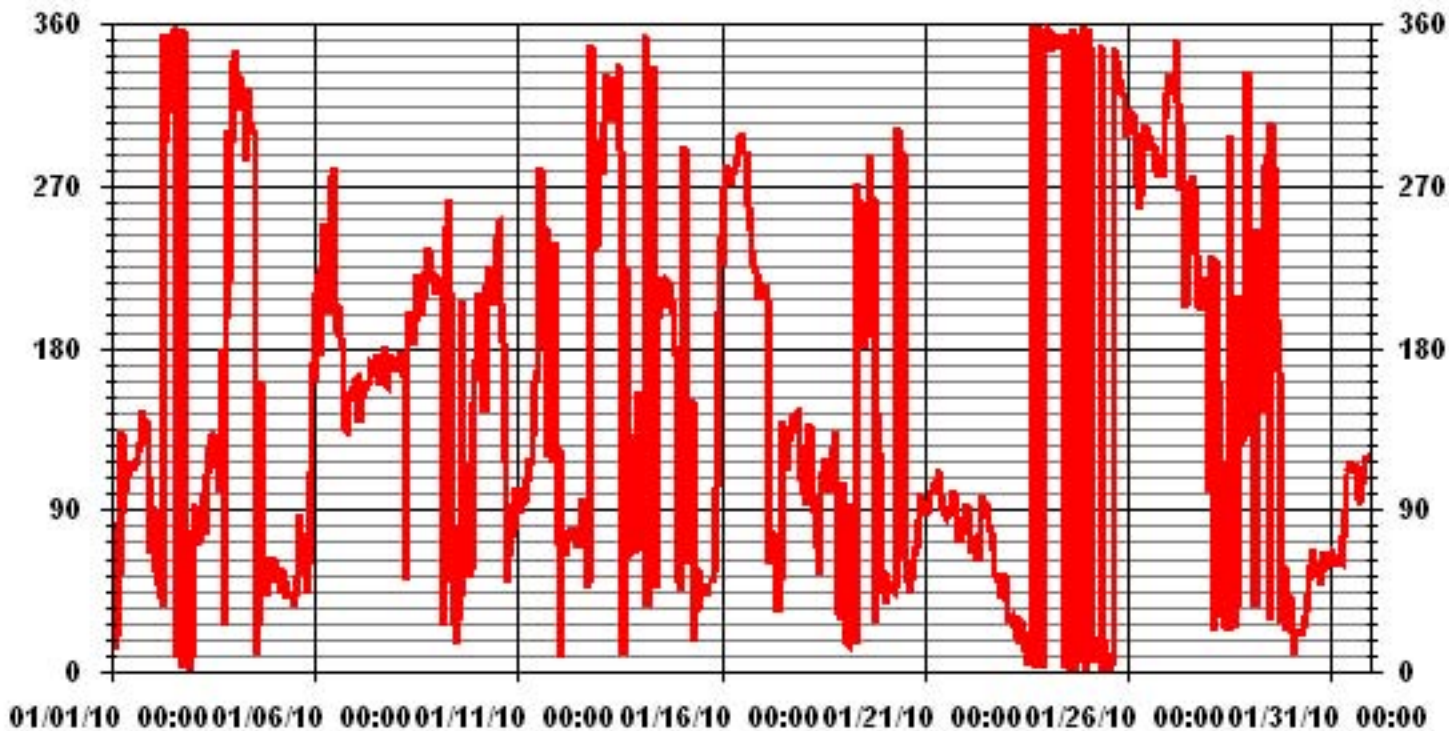
STATUS FLAG CODES

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:	February 4, 2009
DECLINATION :	19 DEGREES FROM MAGNETIC NORTH

MONTHLY CALIBRATION TIME:	0 HRS	OPERATIONAL TIME:	742 HRS
STANDARD DEVIATION	103.37	AMD OPERATION UPTIME	99.7 %
		MONTHLY AVERAGE	59 DEG

01 Hour Averages



Standard Deviation Wind Direction

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - MASKWA

JANUARY 2010

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	23	42	32	53	24	44	34	25	34	21	21	24	20	21	21	22	20	24	23	20	21	20	26	23	
2	21	26	23	25	25	22	20	32	46	35	33	30	29	26	22	25	28	24	25	20	21	30	25	25	
3	29	20	27	20	18	19	40	25	26	23	24	24	24	28	34	24	26	39	18	32	27	53	15	33	
4	39	30	36	33	35	32	31	37	36	31	26	29	38	36	20	32	13	27	42	25	33	16	20	19	
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6	25	19	34	39	45	31	21	55	21	44	56	55	54	18	20	20	17	11	14	49	17	19	18	21	
7	21	18	18	26	20	23	22	21	23	24	24	23	26	24	21	21	21	27	24	20	19	20	19	21	
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11	21	26	37	25	26	31	47	18	21	44	37	25	32	48	39	44	30	48	31	53	52	33	55	27	
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17	13	18	20	21	36	67	26	29	23	19	15	36	21	22	21	19	16	20	20	19	21	20	16	25	
18	45	35	19	23	18	19	15	16	30	25	29	25	26	20	22	27	21	17	18	21	37	61	34	56	
19	38	41	57	42	35	28	60	54	67	41	52	39	71	33	30	39	52	29	55	21	32	43	39	24	
20	34	19	33	23	21	23	19	22	48	39	20	29	27	25	23	20	24	23	23	23	24	27	25	31	
21	28	27	27	28	27	26	25	21	24	26	27	24	24	23	24	25	24	27	29	26	25	24	24	21	
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28	41	49	42	35	45	37	48	35	51	28	25	41	39	39	30	22	44	65	30	60	30	59	46	43	
29	42	47	16	52	29	37	58	23	54	23	34	67	51	58	53	33	24	20	42	25	28	49	17	15	
30	19	15	18	15	17	16	15	16	15	16	20	25	26	28	23	24	24	20	22	20	23	21	22	26	
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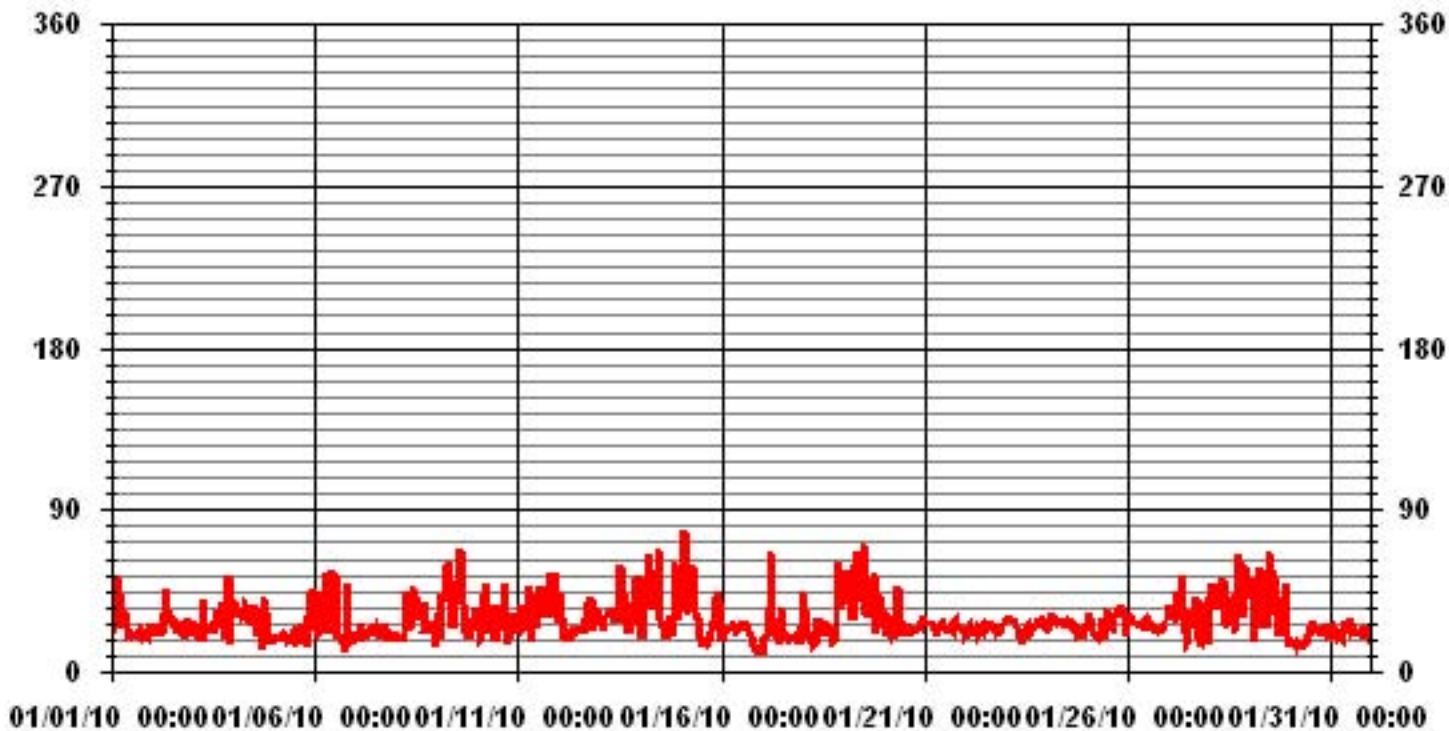
STATUS FLAG CODES

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: February 4, 2009

CALIBRATION TIME: 0 HRS OPERATIONAL TIME: 742 HRS

01 Hour Averages



— LICA30 STDWDIR DEG

Calibration Reports

Sulphur Dioxide

SO₂ Calibration Report

Station Information

Calibration Date	January 14, 2010	Previous Calibration	December 2, 2010
Company	Lakeland Industry & Community Association		
Plant / Location	Cold Lake - Maskwa		
Start Time (MST)	9:40	End Time (MST)	13:53
Reason:	Monthly Calibration		
Barometric Pressure	938 mBar	Station Temperature	25 Deg C
Cal Gas	52.2 ppm	Cal Gas Expiry date	12/19/2010
DAS Output Voltage	0 - 1 Volts	Chart Rec. Output	0 - 1 Volts

Equipment Information

Analyzer Make / Model:	API 100E	S/N :	508	Method:	Fluorescent
Converter Make / Model:	-	S/N :	-		
Calibrator Make / Model:	Enviroics 2000		1991	Method:	Dilution
DAS Make / Model:	ESC 8832	S/N :	AO 791		
Flow Meter:	Enviroics 2000	S/N :	1991		

Analyzer Settings

Before Calibration		After Calibration	
Concentration Range	0 - 1000	ppb	
Sample Flow / Box Temp	603 ccm 33.1 Deg C	601 ccm 34.4 Deg C	
HVPS / Lamp Setting	494 3588	494 3584	
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	30.8 0.987	34.2 0.954	

Calibration Data

Dilution Flow Rate	Source Gas Flow Rate	Calculated Concentration	Indicated Conc. (DAS)	Correction Factor
3010	0	0	2	N/A
3015	0	0	0	N/A
2972	43.8	758	784	0.9670
2972	43.8	758	760	0.9975
2994	23.4	405	401	1.0095
3005	11.7	202	200	1.0123
3018	0	0	-4	N/A
Sum of Least Squares				1.0008
New Correction Factor				0.9975

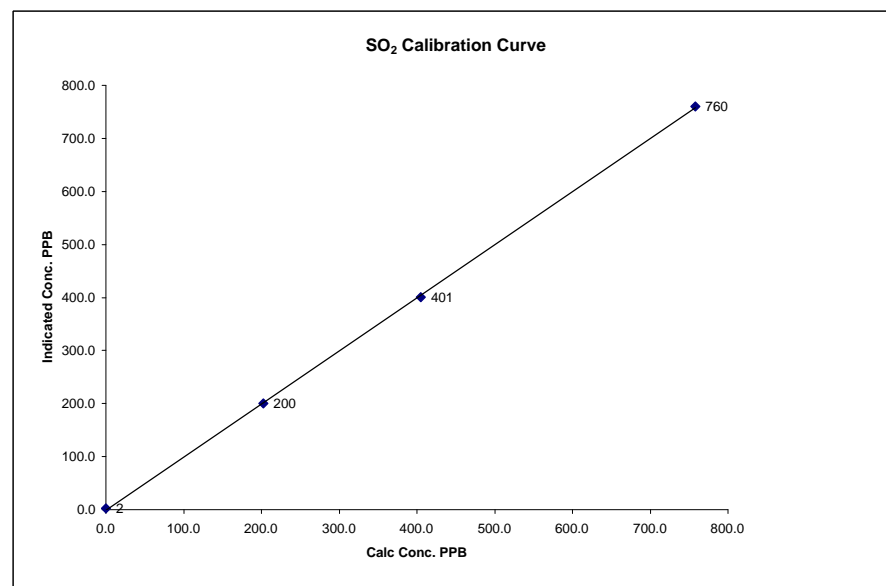
	Before Calibration	After Calibration
Auto Zero	1.1	-0.7
Auto Span	616.0	596.0
Sample Lines Connected		YES
Percent Change from Previous Calibration		3.3%

Calibration Performed by: Shea Beaton

SO₂ Calibration Curve

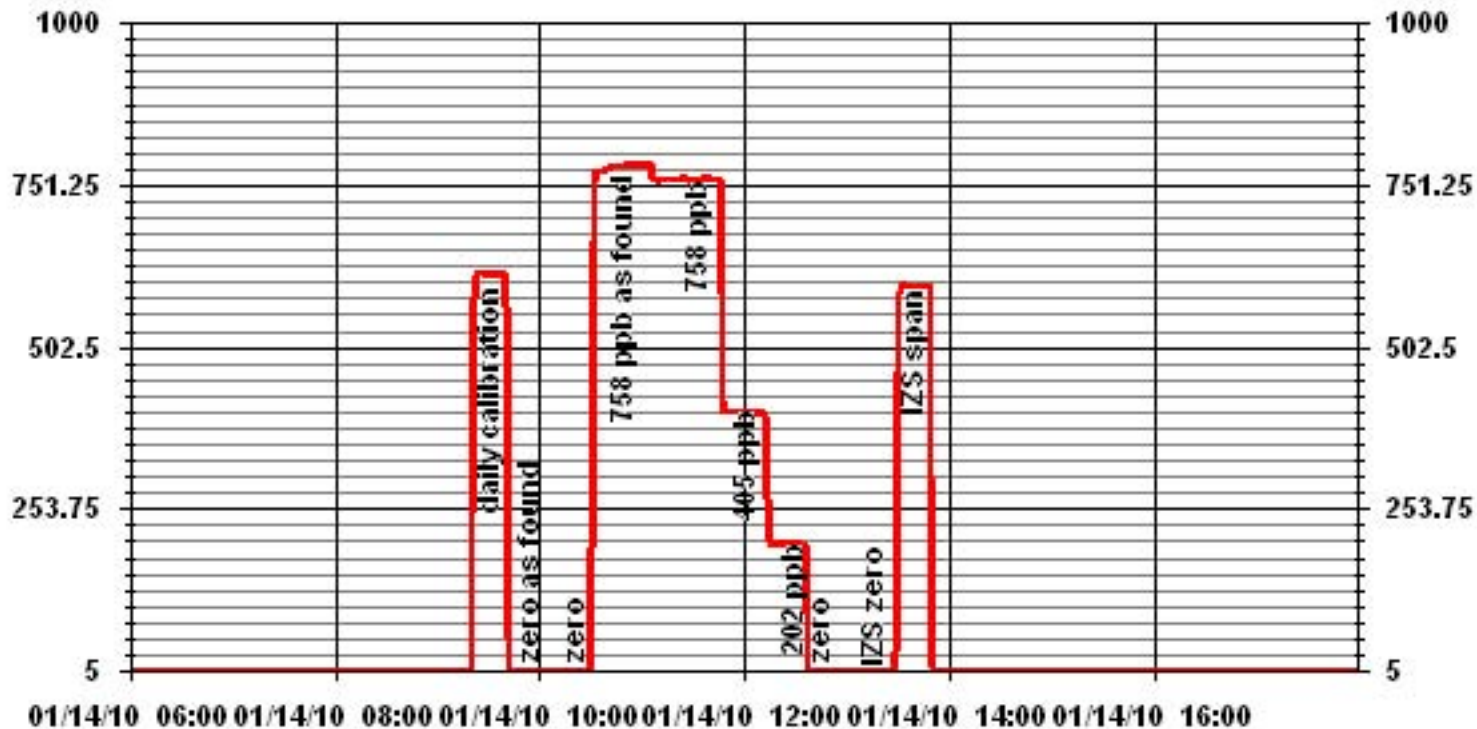
Calibration Date	January 14, 2010
Company	Lakeland Industry & Community Association
Plant / Location	Cold Lake - Maskwa
Start Time (MST)	9:40
End Time (MST)	13:53

Calculated Conc. ppb	Indicated Response ppb	Correction Factor	Correlation Coefficient Slope	(≥ 0.995) (0.85 to 1.15)	0.999916
0	2	n/a	Intercept	(± 3% F.S.)	-0.812142
202	200	1.0123			
405	401	1.0095			
758	760	0.9975			



Notes:

01 Minute Averages



Hydrogen Sulphide

H₂S Calibration Report

Station Information

Calibration Date	January 14, 2010	Previous Calibration	December 2, 2009
Company	Lakelnad Industry & Community Association		
Plant / Location	Cold Lake - Maskwa		
Start Time (MST)	9:40	End Time (MST)	13:20
Reason:	Monthly Calibration		
Barometric Pressure	938 mBar	Station Temperature	25 Deg C
Cal Gas	10.8 ppm	Cal Gas Install date	06/22/2009
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:	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 - 100		ppb	
Sample Flow / Box Temp	526 ccm	33.8	Deg C	528	34 Deg C
HVPS / Lamp Setting	552	2478		552	2474
PMT / RxCell Temp	7.9 Deg C	50	Deg C	7.9	50 Deg C
Converter / IZS Temp	315.6 Deg C	45	Deg C	314.8	45 Deg C
Offset / Slope	26.8	1.027		25.8	1.051

Calibration Data

Dilution Flow Rate	Source Gas Flow Rate	Calculated Concentration	Indicated Conc. (DAS)	Correction Factor
4996	0	0	-1	N/A
4996	0	0	0	N/A
4960	37	80	77	1.0385
4960	37	80	80	0.9996
4982	18.5	40	40	0.9989
4986	11.6	25	26	0.9642
4996	0	0	1	N/A
Sum of Least Squares				0.9968
New Correction Factor				0.9996

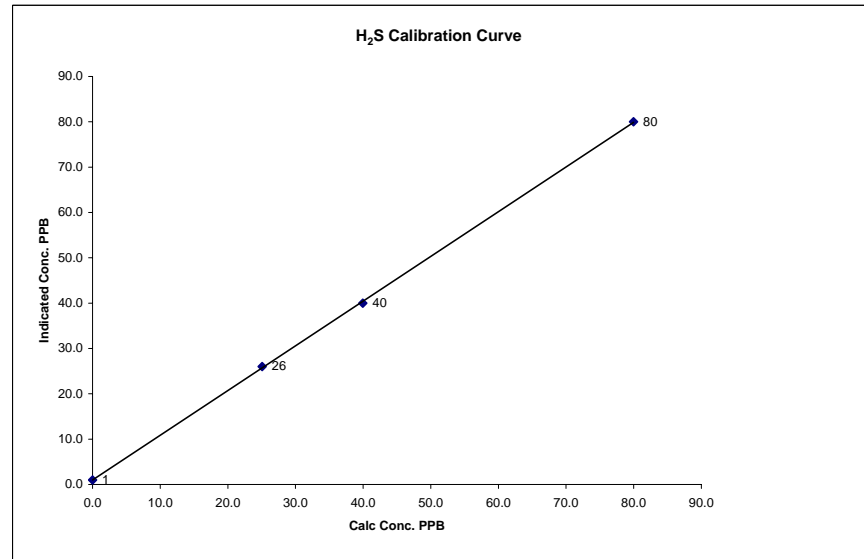
		Before Calibration	After Calibration
Auto Zero		-0.4	0.7
Auto Span		56.0	58.0
Sample Lines Connected			YES
Percent Change from Previous Calibration			-3.7%

Calibration Performed by: Shea Beaton

H₂S Calibration Curve

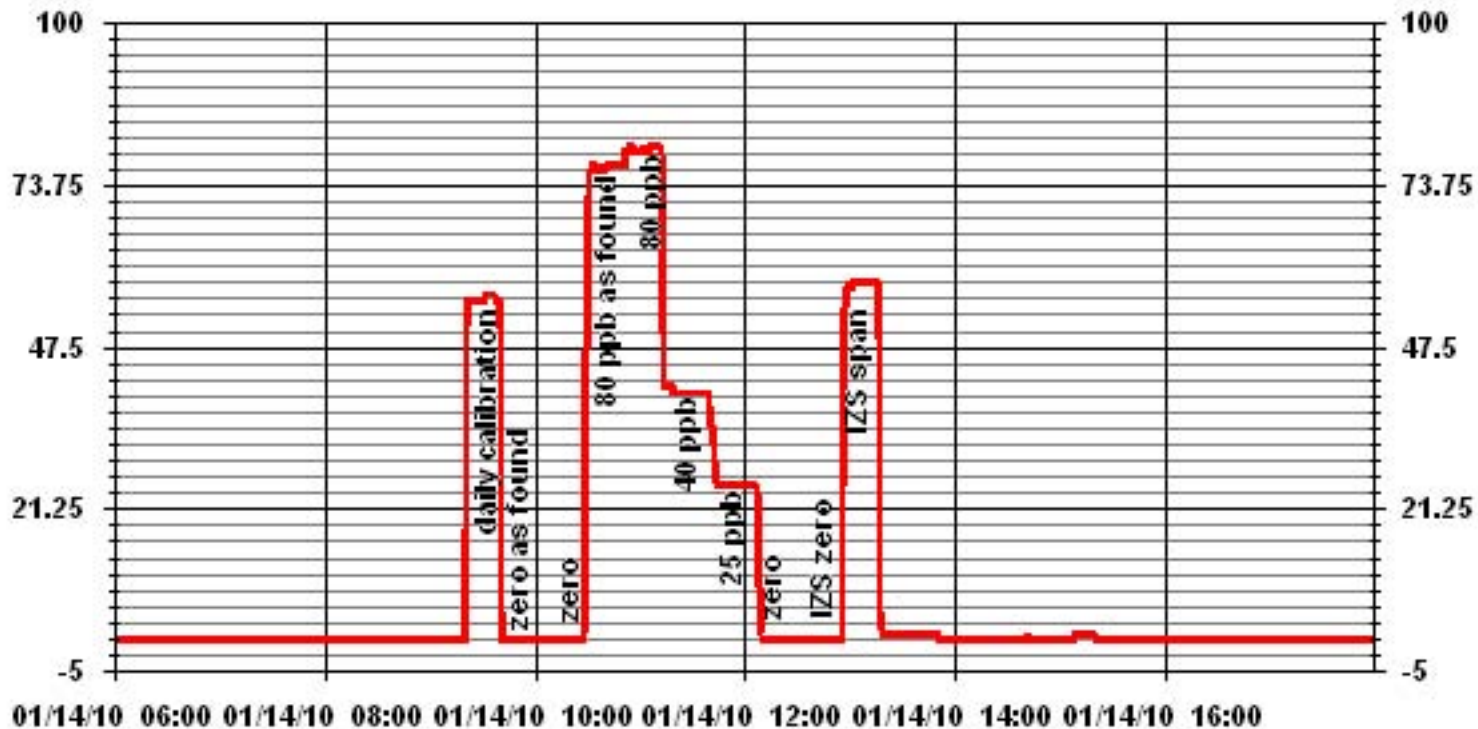
Calibration Date	January 14, 2010
Company	Lakelnad Industry & Community Association
Plant / Location	Cold Lake - Maskwa
Start Time (MST)	9:40
End Time (MST)	13:20

Calculated Conc. ppb	Indicated Response ppb	Correction Factor	Correlation Coefficient Slope	(≥ 0.995)	0.999921
0	1	n/a	Intercept	($\pm 3\%$ F.S.)	0.986592
25	26	0.9642			
40	40	0.9989			
80	80	0.9996			0.987993



Notes:

01 Minute Averages



Total Hydrocarbons

THC Calibration Report

Station Information

Calibration Date:	January 14, 2010	Previous Calibration	December 2, 2009
Company:	Lakeland Industry & Community Association		
Plant / Location:	Cold Lake - Maskwa		
:	(MST) 12:37	End Time	(MST) 16:22
Reason:	Monthly Calibration		
Barometric Pressure:	936 mBar	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
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Analyzer Settings

	Before Calibration		After Calibration	
Concentration Range	0 -50	ppm	0 - 50	ppm
Sample Pressure	7.5	psi	7.5	psi
Hydrogen Pressure	8	psi	8	psi
Air Pressure	20	psi	20	psi

Calibration Data

Dilution Flow	Source Gas Flow	Calculated Concentration	Indicated Concentration	Correction Factor
3000	0	0.0	-0.2	N/A
3000	0.0	0.0	0.0	N/A
3000	65.0	39.0	38.2	1.0222
3000	65.0	39.0	39.3	0.9936
2999	35.0	21.2	21.0	1.0115
2999	20.0	12.2	12.1	1.0081
2999	0	0.0	-0.1	N/A
Correction Factor:				0.9936

Previous Calibration Correction Factor:	0.9993
Current Correction Factor Before Span Adjust:	1.0222
Percent Change:	-2.24%

IZS Calibration Data

	Before Calibration	After Calibration
Auto Zero	-0.2	0.0
Auto Span	33.0	34.1
Sample Lines Connected		YES

Cylinder Pressures

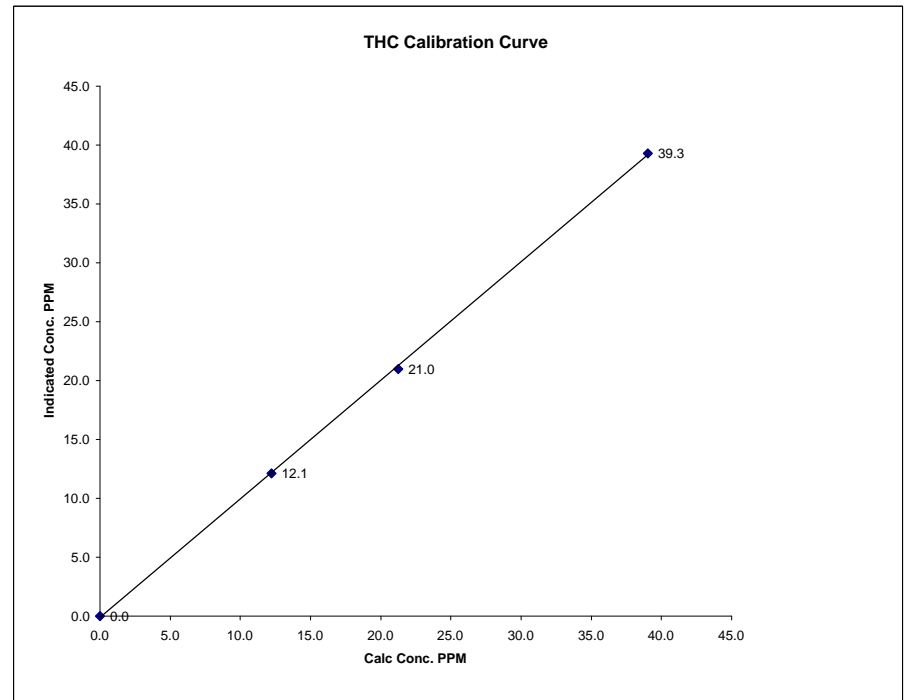
Span	1700	psi
Hydrogen	1950	psi
Zero Air	NA	psi

Calibration Performed by: Shea Beaton

THC Calibration Curve

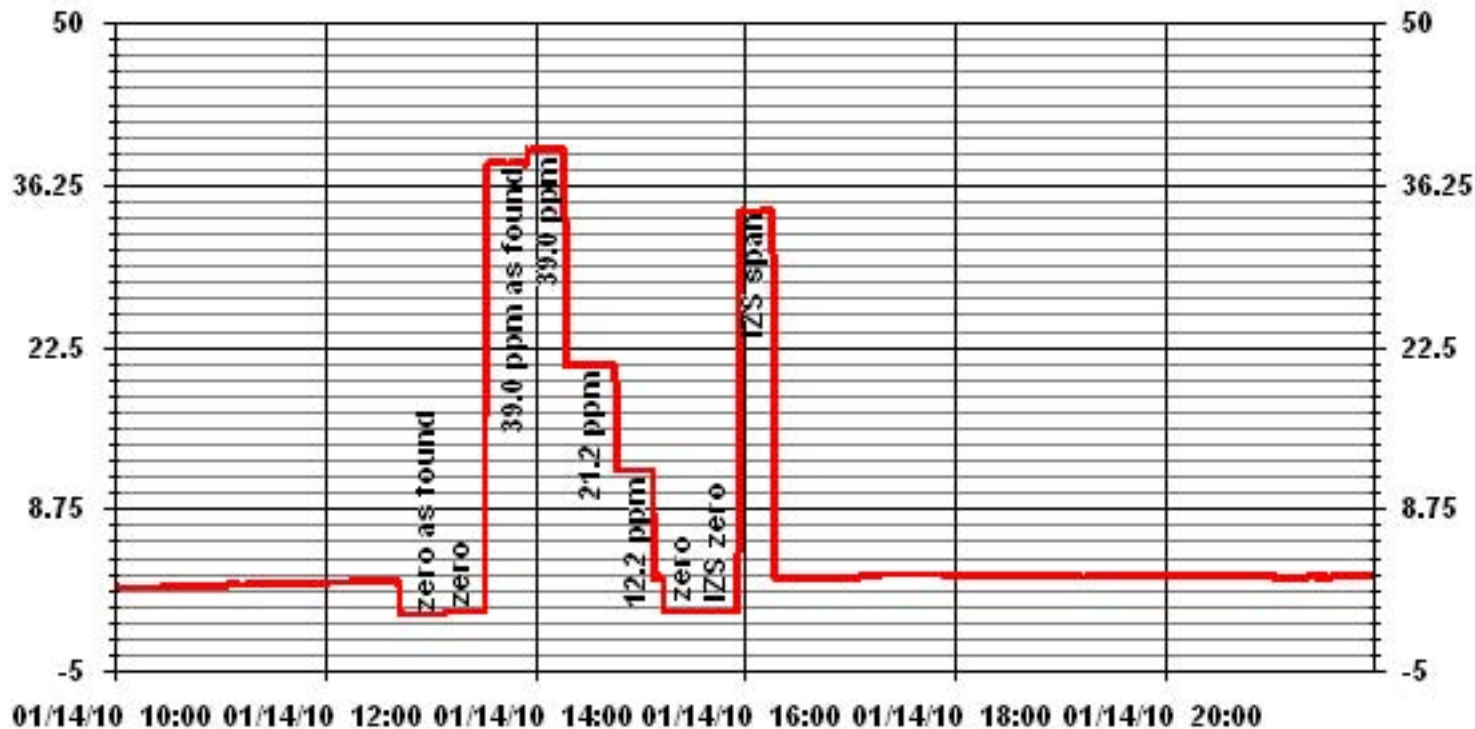
Calibration Date	January 14, 2010		
Company	Lakeland Industry & Community Association		
Plant / Location	Cold Lake - Maskwa		
Start Time (MST)	12:37	End Time (MST)	16:22

Calculated Conc. ppm	Indicated Response ppm	Correction Factor	Correlation Coefficient Slope	(≥ 0.995) (0.85 to 1.15)	0.999882
0.0	0.0		Intercept	(± 3% F.S.)	-0.135621
12.2	12.1	1.0081			
21.2	21.0	1.0115			
39.0	39.3	0.9936			



Notes:

01 Minute Averages



— LICA30 THC PPM

Nitrogen Dioxide

NOx - NO- NO₂ Calibration Report
Station Information

Calibration Date	January 14, 2010	Previous Calibration	December 2, 2009
Company	LICA	Plant/Location	Cold Lake - Maskwa
Start Time (MST)	9:40	End Time (MST)	16:33
Reason:	Monthly Calibration		
Barometric Pressure	938 mBar	Station Temperature	25.0 Deg C
Cal Gas Concentration	NOx 51.8 ppm	NO	51.6 ppm
DAS Output Voltage	0 - 1 Volts	Chart Rec. Output	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	457 ccm	313.5 Deg C		461 ccm	314.6 Deg C		
Ozone Flow / Vacuum HVPS	76 ccm	4.5 *Hg-A		76 ccm	4.5 *Hg-A		
	767 Volts			767 Volts			
Rx/ Temp / PMT Temp	50 Deg C	6.5 Deg C		50 Deg C	6.5 Deg C		
Box Temp / IZS Temp	33.2 Deg C	45.1 Deg C		35.1 Deg C	45.1 Deg C		
Offset	1.4 NOx	0.6 NO		1.4 NOx	0.6 NO		
Slope	1.059 NOx	1.049 NO		1.068 NOx	1.063 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	NO ₂	NOx	NO	
3015	0	N/A	0	0	0	0	0	N/A	N/A	
2972	43.8	N/A	752	749	741	736	4	1.0153	1.0182	
2972	43.8	N/A	752	749	752	749	2	1.0004	1.0006	
2989	23.4	N/A	402	401	398	396	0	1.0110	1.0122	
3005	11.7	N/A	201	200	199	198	0	1.0096	1.0107	
3018	0	N/A	0	0	0	0	-1	N/A	N/A	
Converter Efficiency										
2972	43.8	N/A	752	749	752	751	1	N/A		
2972	43.8	400	752	N/A	748	373	374	99%		
2975	43.8	200	752	N/A	751	564	186	99%		
2975	43.8	100	752	N/A	751	664	87	99%		
2975	43.8	N/A	753	750	752	750	1	N/A		
Correction Factor										
3015	0	N/A	0	0	0	0	-1	N/A	N/A	
Linearity OK? Yes No										
Flows Checked on-site? Yes No										
								Sum of Least Squares	1.0031	1.0035
								New Correction Factor	1.0004	1.0006
								Average Converter Efficiency	99%	

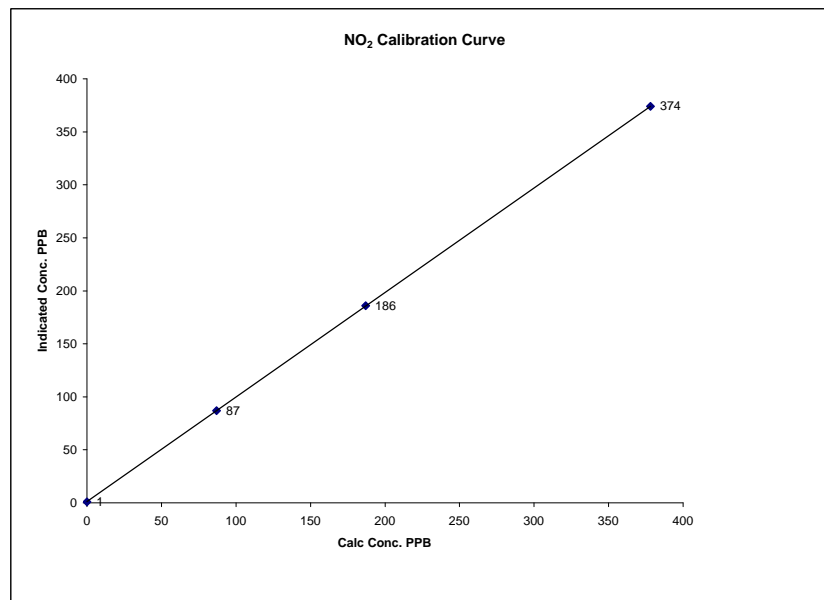
Before Calibration				After Calibration			
Auto Zero	-0.2 NOx	-0.2 NO ₂		0.0 NOx	0.0 NO ₂		
Auto Span	658 NOx	649 NO ₂		661 NOx	651 NO ₂		
Sample Lines Connected YES							
Percent Change from Previous Calibration							
				NOx	-1.7%	NO	-1.7%

Calibration Performed by: Shea Beaton

NO₂ Calibration Curve

Calibration Date	January 14, 2010
Company	LICA
Plant / Location	Cold Lake - Maskwa
Start Time (MST)	9:40
End Time (MST)	16:33

Calculated Conc. ppb	Indicated Response ppb	Correction Factor	Correlation Coefficient Slope Intercept	(≥ 0.995) (0.85 to 1.15) (± 3% F.S.)
0	1	N/A		0.999998
87	87	1.0000		0.986771
187	186	1.0054		
378	374	1.0107		1.156281

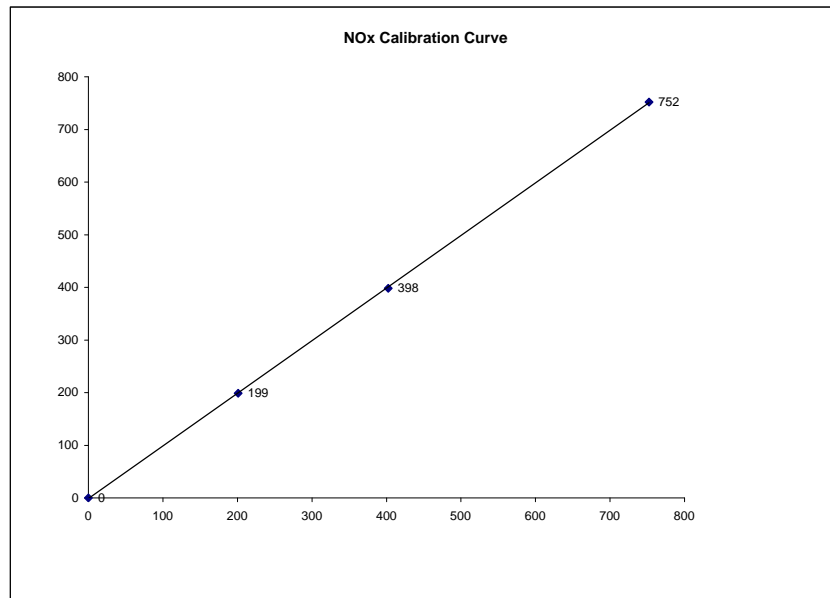


Notes: High span point had to be re-adjusted.

NOx Calibration Curve

Calibration Date	January 14, 2010	
Company	LICA	
Plant / Location	Cold Lake - Maskwa	
Start Time (MST)	9:40	End Time (MST) 16:33

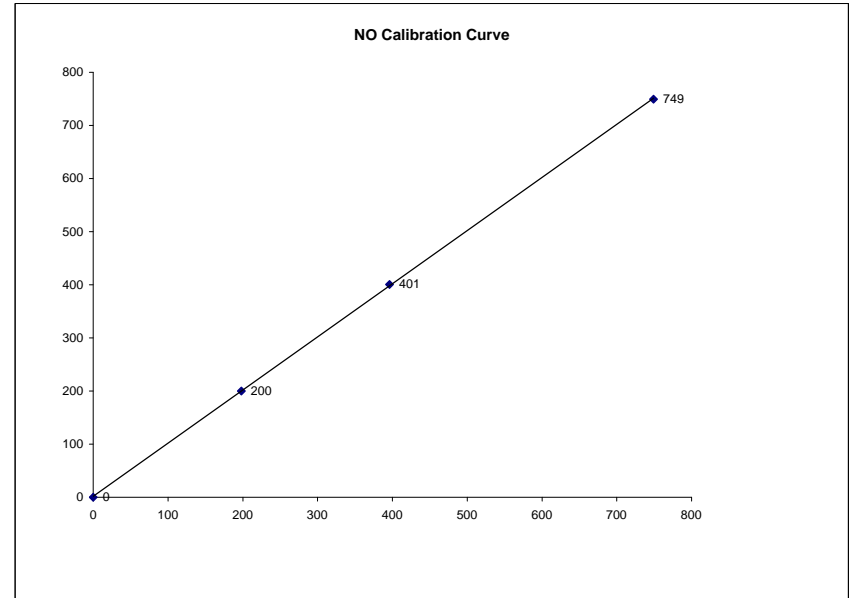
Calculated Conc. ppb	Indicated Response ppb	Correction Factor	Correlation Coefficient	(≥ 0.995)	0.999961
0	0	N/A	Slope	(0.85 to 1.15)	0.999525
201	199	1.0096	Intercept	($\pm 3\%$ F.S.)	-1.487993
402	398	1.0110			
752	752	1.0004			



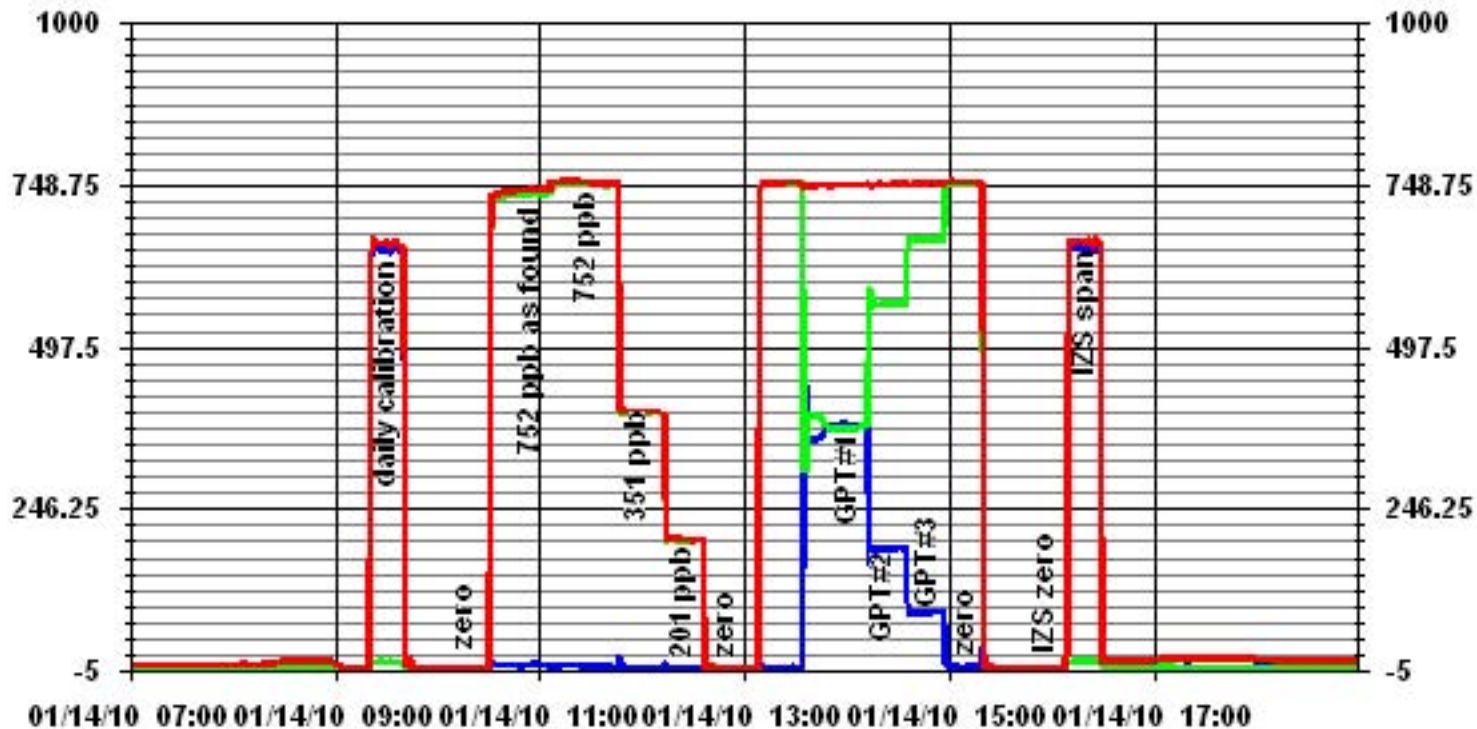
NO Calibration Curve

Calibration Date	January 14, 2010	
Company	LICA	
Plant / Location	Cold Lake - Maskwa	
Start Time (MST)	9:40	End Time (MST) 16:33

Calculated Conc. ppb	Indicated Response ppb	Correction Factor	Correlation Coefficient	(≥ 0.995)	0.999953
0	0	N/A	Slope	(0.85 to 1.15)	0.999403
200	198	1.0107	Intercept	($\pm 3\%$ F.S.)	-1.639142
401	396	1.0122			
749	749	1.0006			



01 Minute Averages



— LICA30 NOX_ PPB
 — LICA30 NO_ PPB
 — LICA30 NO2_ PPB

Lakeland Industry & Community Association

St. Lina Monitoring Site
Ambient Air Monitoring
Data Report
For
January 2010

Prepared By:



February 2, 2010

Lakeland Industry & Community Association

St. Lina

Ambient Air Monitoring

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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: St. Lina

Data Period: January 2010

The monthly ambient data report:

- Prepared by Lily Lin
- Reviewed by Craig Snider

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.

The calibrations conducted at the LICA – St. Lina Air Monitoring Stations conform to the following Maxxam Analytics Standard Operation Procedures:

- CAL SOP-00211
- CAL SOP-00209
- CAL SOP-00213
- CAL SOP-00214
- CAL SOP-00208

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 – ST. LINA

Continuous Ambient Monitoring – January 2010

LICA ST. LINA SITE						MAXIMUM VALUES							OPERATIONAL TIME (PERCENT)
						OBJECTIVES					1-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	0.33	5	3	9	10.6	142(SE)	1.5	8, 9	100.0
H2S (PPB)	10	3	0	0	0.01	1	15, 16	VAR	VAR	VAR	0.4	15	100.0
THC (PPM)	-	-	-	-	2.37	9.4	2	5	9.2	8(N)	3.2	4	95.3
NOx (PPB)	-	-	-	-	4.15	27	8	23	10.9	207(SSW)	15.0	9	99.1
NO (PPB)	-	-	-	-	0.37	5	9, 14	VAR	VAR	VAR	1.6	9	99.1
NO ₂ (PPB)	212	106	0	0	3.71	25	8	23	10.9	207(SSW)	13.4	9	99.1
VECTOR WS (KPH)	-	-	-	-	10.54	26.3	7	17	-	177(S)	17.4	7	100.0
VECTOR WD (DEGREES)	-	-	-	-	156(SSE)	-	-	-	-	-	-	-	100.0

VAR-VARI96.5OUS

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 – St. Lina

Sulphur Dioxide (PPB)

- Analyzer make / model - API 100E, S/N: 468

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

Hydrogen Sulphide (PPB)

- Analyzer make / model - API 101E, S/N: 510

No operational issue was observed during this month. The inlet filter was changed before the monthly calibration was started. It was notice that the Box temperature was high due to a broken box fan; will replace it as soon as parts are available. Data was corrected using daily zero information.

Total HydroCarbon (PPM)

- Analyzer make / model –TECO 51C, S/N: 77021-384

No operational issue was observed during this month. The inlet filter was changed before the monthly calibration was started. The analyzer flamed out on January 1st after the daily calibration due to a power shortage, and it was re-lit on January 2nd. 35 hours of data were invalidated due to this issue. During the trip on January 20th, the pump diaphragm was replaced, flows were optimized, and the H2 gas cylinder and CH4 gas cylinder were replaced. Data was corrected using daily zero information.

General Monthly Summary

AQM STATION – LICA – St. Lina

Nitrogen Dioxide (PPB)

- Analyzer make / model - API 200E, S/N: 592

No operational issue was observed during this month. The as found points calibration was performed on January 20th in order to perform some maintenance works. After the as found point cal, the reaction cell and window were cleaned, the reaction cell o-rings were replaced, the ozone flow orifice assembly was changed, the sample flow orifice, o-rings, spring, and sintered filter were replaced as well. A leak check was performed before and after the maintenance. The analyzer was allowed to stabilize overnight, and a post repair calibration was performed. 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 – Met 50.5, S/N: H12635

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

Datalogger

- System make / model - ESC 8832, S/N: AO717
- Software make/version - ESC v 5.51a

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

Trailer

It was noticed that manifold inlet had excessive frost build up on the trip of January 21st. The frost was cleared from the inlet opening and the area around the opening. Airflow was observed through the manifold prior to frost removal. The throw-away filter in the Bard (the heater/air conditioner) was also replaced on January 21st.

Continuous Monitoring

Monthly Summaries, Graphs & Wind Roses

Sulphur Dioxide

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - ST. LINA

JANUARY 2010

SULPHUR DIOXIDE (SO₂) 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 MAX.	24-HOUR AVG.	RDGS.	
DAY 1	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0.1	24	
2	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	
3	0	0	0	0	0	0	0	1	4	5	3	1	0	0	0	0	2	3	3	3	2	1	IZS	0	5	1.2	24	
4	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	
5	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	1	0.1	24
6	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	0.0	24
7	0	1	1	2	0	0	1	1	2	3	2	1	0	0	0	0	0	0	0	IZS	0	0	0	0	0	3	0.6	24
8	2	3	3	3	2	2	2	2	1	1	1	1	0	1	1	1	1	1	IZS	1	1	1	1	1	2	3	1.5	24
9	2	2	3	2	2	2	3	1	1	1	2	2	1	1	1	2	IZS	1	1	1	1	1	1	1	0	3	1.5	24
10	0	1	1	1	1	1	1	1	0	0	0	0	0	0	1	IZS	1	2	1	1	1	1	0	0	2	0.7	24	
11	1	1	1	1	1	1	0	1	1	1	1	1	1	1	IZS	0	0	0	0	0	0	0	1	3	1	3	0.8	24
12	1	2	3	2	1	0	0	0	0	0	0	0	1	IZS	0	0	0	0	0	0	0	0	0	0	0	3	0.4	24
13	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	0.0	24
14	0	0	0	0	0	0	0	0	0	0	0	IZS	0	1	2	1	0	0	0	0	0	0	1	0	0	2	0.2	24
15	0	0	0	0	0	0	0	0	0	0	IZS	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.6	24
16	1	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.0	24
17	0	0	0	1	1	1	0	1	IZS	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	1	0.5	24
18	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
19	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
20	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
21	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	0.0	24
22	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
23	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	1	1	2	4	2	4	0.6	24	
24	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0.0	24	
25	IZS	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	1	0.2	24
26	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0.0	24
27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0.0	24	
28	0	0	1	1	1	1	1	1	2	1	1	2	4	2	1	0	0	1	0	0	IZS	0	0	0	4	0.9	24	
29	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0	0	0	IZS	0	0	0	0	1	0.2	24	
30	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	
31	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	
HOURLY MAX	2	3	3	3	2	2	3	2	4	5	3	2	4	2	2	2	2	2	3	3	3	2	2	4	2			
HOURLY AVG	0.2	0.3	0.5	0.5	0.4	0.3	0.3	0.3	0.3	0.4	0.5	0.4	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.2			

STATUS FLAG CODES

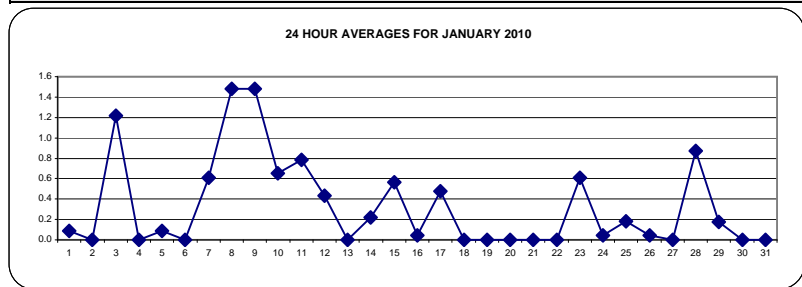
S	- OUT OF SERVICE	IZS	- IZS - DAILY ZERO/SPAN CHECK
N	- INVALID DATA	M	- MAINTENANCE
D	- INSTRUMENT DRIFT	P	- POWER FAILURE
C	- CALIBRATION	NA	- NOT APPLICABLE

OBJECTIVE LIMIT:

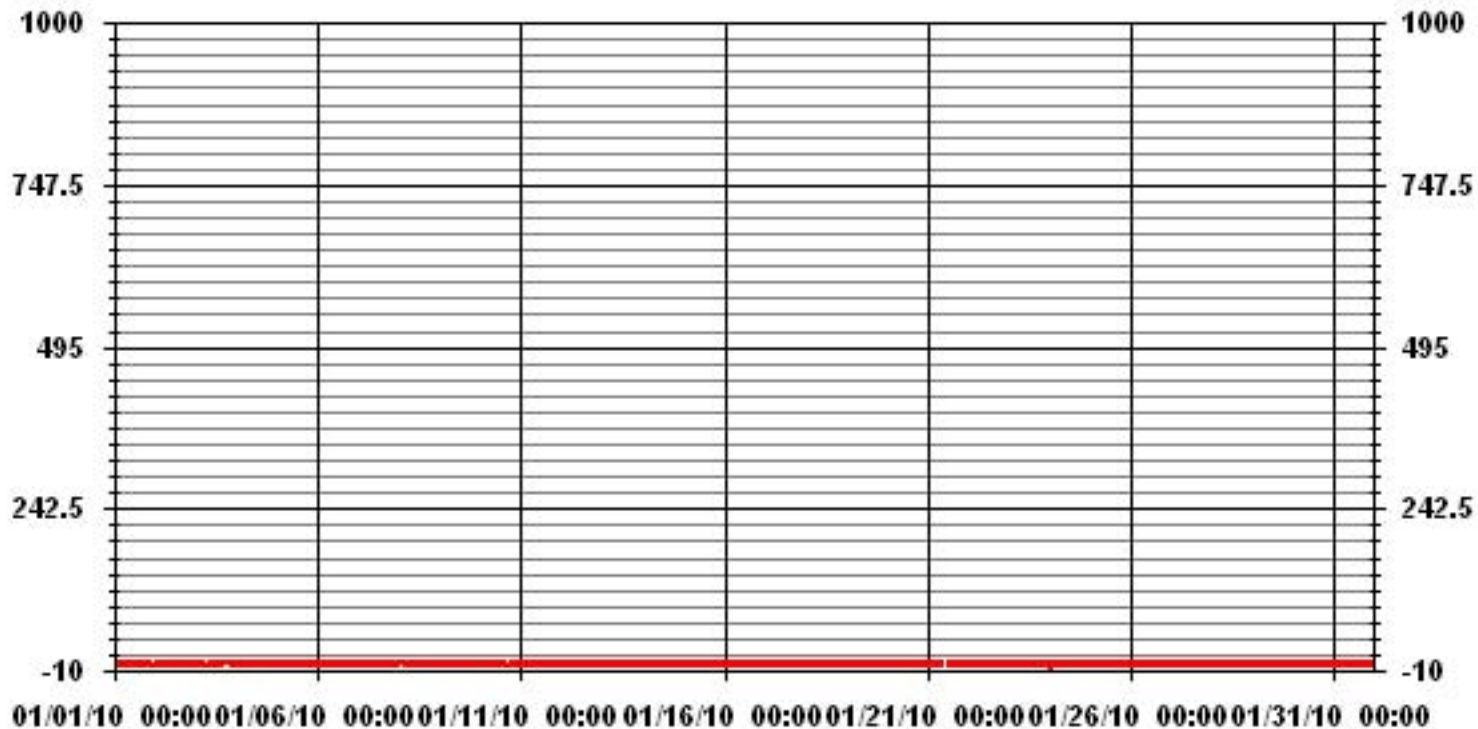
ALBERTA ENVIRONMENT:	1-HR	172	PPB	24-HR	57	PPB
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MONTHLY SUMMARY

NUMBER OF 1-HR EXCEEDENCES:	0		
NUMBER OF 24-HR EXCEEDENCES:	0		
NUMBER OF NON-ZERO READINGS:	164		
MAXIMUM 1-HR AVERAGE:	5 PPB @ HOUR(S) 9 ON DAY(S) 3		
MAXIMUM 24-HR AVERAGE:	1.5 PPB ON DAY(S) 8, 9		
IZS CALIBRATION TIME:	33 HRS	OPERATIONAL TIME:	744 HRS
MONTHLY CALIBRATION TIME:	4 HRS	AMD OPERATION UPTIME:	100.0 %
STANDARD DEVIATION:	0.70	MONTHLY AVERAGE:	0.33 PPB



01 Hour Averages



— LICA31 SO2_ PPB

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - ST. LINA

JANUARY 2010

SULPHUR DIOXIDE MAX instantaneous maximum in ppt

MST		0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY	24-HOUR		
DAY	DAY	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	MAX.	AVG.	RDGS.		
1	1	IZS	P	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	2	1.0	23	
2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	IZS	1	0.7	24	
3	0	0	0	0	0	0	1	3	6	6	4	2	0	1	1	3	4	4	4	3	2	IZS	0	6	2.0	24			
4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0.0	24		
5	0	0	0	0	0	0	0	1	1	2	2	1	1	0	1	1	1	1	1	1	IZS	0	0	0	2	0.6	24		
6	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		
7	1	2	2	3	2	1	2	3	4	4	3	2	1	1	1	1	0	0	IZS	0	1	0	1	1	4	1.6	24		
8	3	4	4	4	3	3	3	2	2	2	2	1	1	2	2	2	2	IZS	2	2	2	2	2	2	3	4	2.4	24	
9	3	3	4	4	3	3	4	3	2	2	3	3	3	2	2	2	IZS	2	2	2	2	2	2	1	1	4	2.5	24	
10	1	2	2	2	2	1	1	1	1	1	1	1	1	1	2	IZS	2	3	2	2	2	2	1	1	3	1.5	24		
11	2	3	2	2	1	1	1	1	1	2	2	2	2	1	IZS	1	1	1	1	1	1	1	2	5	4	5	1.7	24	
12	2	4	4	4	2	1	1	1	1	1	1	1	1	1	IZS	1	1	1	1	1	1	1	1	1	1	4	1.5	24	
13	1	1	1	1	1	1	1	1	1	1	1	1	1	IZS	0	0	0	0	0	0	0	0	1	0	0	1	0.6	24	
14	0	0	0	0	1	1	1	1	1	1	1	1	IZS	1	2	5	2	1	1	1	1	1	1	1	1	5	1.1	24	
15	1	1	1	1	1	1	1	1	1	1	1	IZS	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1.6	24	
16	1	1	1	1	1	1	1	1	1	1	IZS	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	24	
17	1	1	1	1	2	1	1	3	IZS	2	2	2	2	2	2	1	2	1	1	1	1	1	1	1	1	3	1.4	24	
18	1	1	1	1	1	1	1	1	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.3	24	
19	0	0	0	0	0	0	IZS	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	24	
20	1	1	1	1	1	IZS	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	24	
21	1	1	1	1	IZS	1	1	1	C	C	C	C	C	C	0	0	0	0	0	0	0	0	0	0	0	1	0.4	24	
22	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24	
23	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	1	1	3	3	2	3	4	5	4	5	1.1	24		
24	1	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	1	1	2	0.3	24		
25	IZS	2	2	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.5	24	
26	0	1	1	1	2	2	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	2	0.4	24
27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	1	1	0.1	24	
28	2	1	2	2	2	2	2	2	2	2	2	6	6	3	2	1	1	1	1	1	1	IZS	1	1	1	6	2.0	24	
29	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	3	1	1	0	IZS	0	1	0	0	3	1.0	24		
30	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	0.0	24	
31	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	0.0	24	
HOURLY MAX		3	4	4	4	3	3	4	3	6	6	4	6	6	3	5	3	3	3	4	4	4	3	4	5	4			
HOURLY AVG		0.8	1.1	1.1	1.1	1.0	0.9	0.9	1.0	1.0	1.1	1.0	1.0	0.9	0.8	0.9	0.8	0.7	0.9	0.9	0.9	0.8	0.9	1.0	0.9				

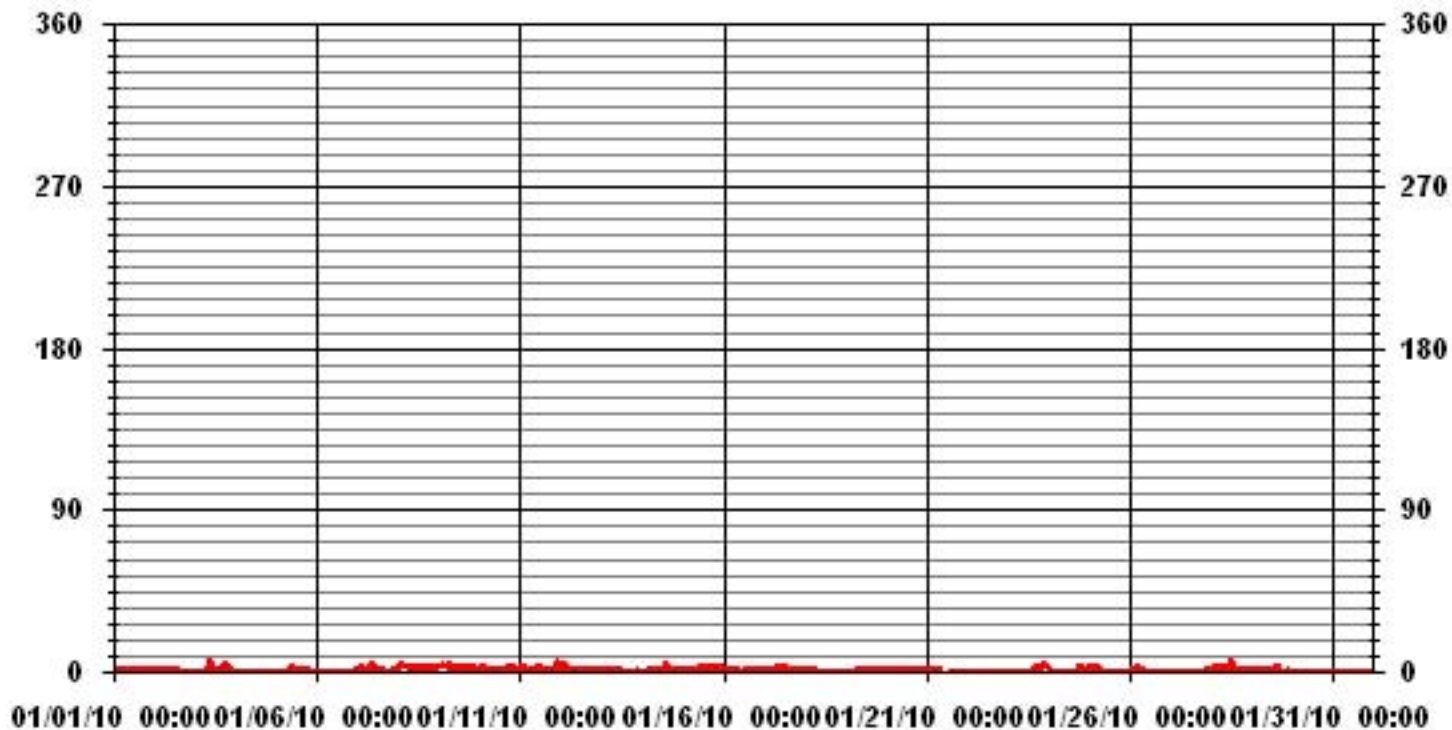
STATUS FLAG CODES

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:	424					
MAXIMUM INSTANTANEOUS VALUE:	6	PPB	@ HOUR(S)	VAR	ON DAY(S)	3, 28
IZS CALIBRATION TIME:	33	HRS		OPERATIONAL TIME:	743	HRS
MONTHLY CALIBRATION TIME:	6	HRS				
STANDARD DEVIATION:	1.06					

01 Hour Averages



— LICA31 SO2MAX PPB

LICA31
SO2_ / WDR Joint Frequency Distribution (Percent)

January 2010

Distribution By % Of Samples

Logger Id : 31
Site Name : LICA31
Parameter : SO2_
Units : PPB

Wind Parameter : WDR
Instrument Height : 10 Meters

Limit	Direction																Freq
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
< 20	5.51	3.81	4.80	8.06	7.92	4.38	6.22	7.07	11.73	10.89	4.10	2.40	2.82	7.49	5.65	7.07	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	5.51	3.81	4.80	8.06	7.92	4.38	6.22	7.07	11.73	10.89	4.10	2.40	2.82	7.49	5.65	7.07	

Calm : .00 %

Total # Operational Hours : 707

Distribution By Samples

Limit	Direction																Freq
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
< 20	39	27	34	57	56	31	44	50	83	77	29	17	20	53	40	50	707
< 60																	
< 110																	
< 170																	
< 340																	
>= 340																	
Totals	39	27	34	57	56	31	44	50	83	77	29	17	20	53	40	50	

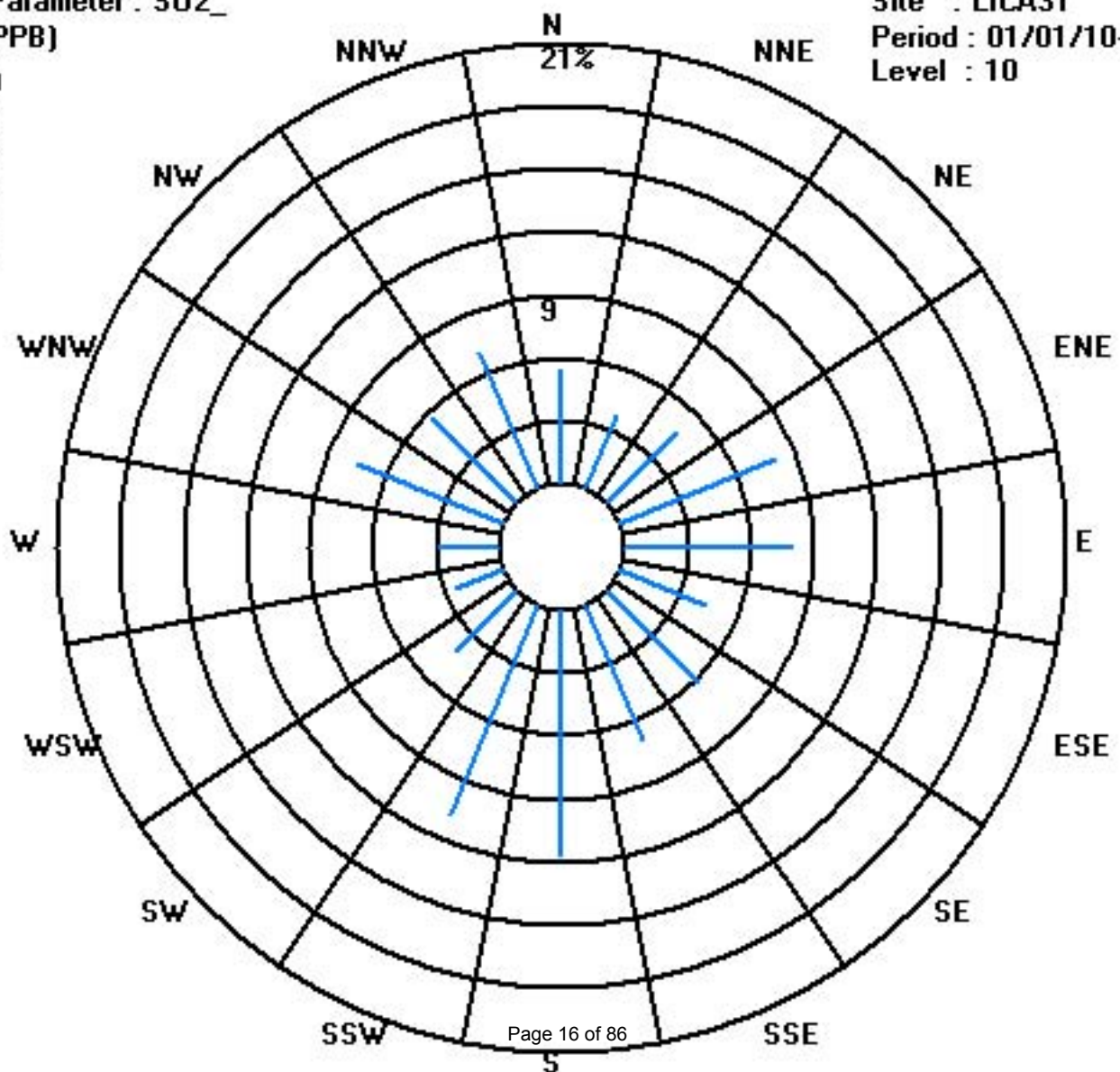
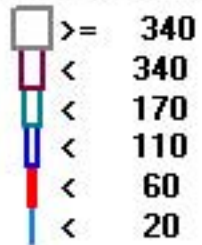
Calm : .00 %

Total # Operational Hours : 707

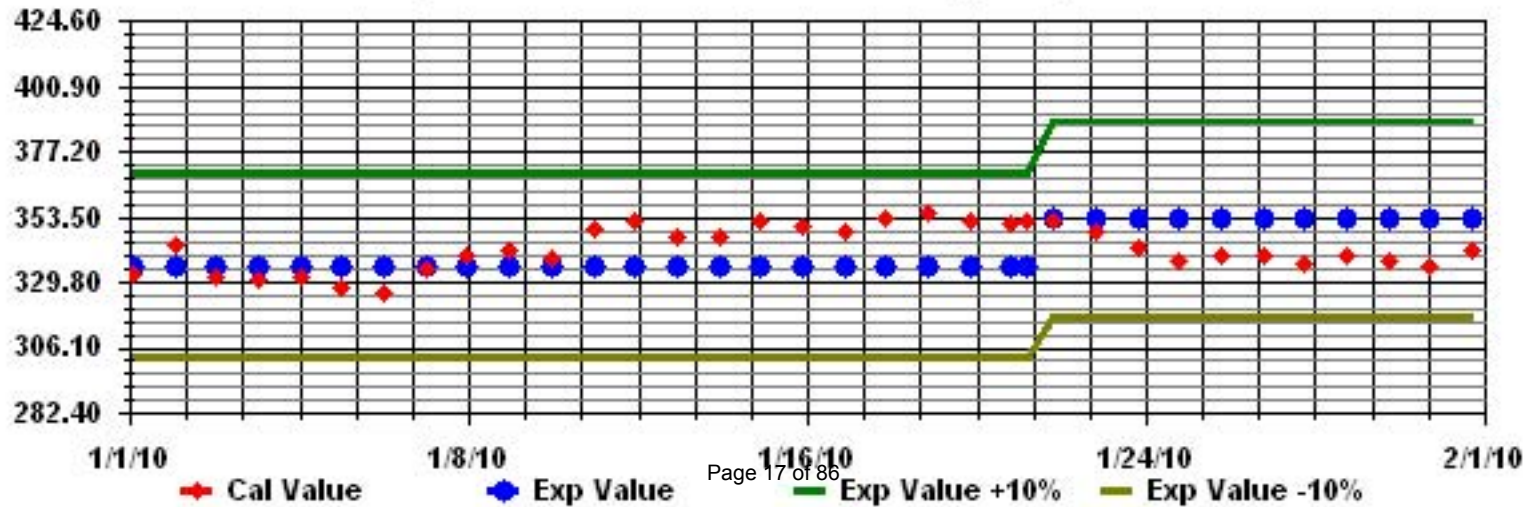
Class Limits (PPB)

Period : 01/01/10-01/31/10

Level : 10



Calibration Graph for Site: LICA31 Parameter: S02_ Sequence: S02 Phase: SPAll



Hydrogen Sulphide

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - ST. LINA

JANUARY 2010

HYDROGEN SULPHIDE (H₂S) hourly averages in ppb

MST		0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00	DAILY 24-HOUR		
DAY	HOURLY MAX	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.	
1	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
2	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	IZS	0	0.0	24
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	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	IZS	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	IZS	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	IZS	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	IZS	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	IZS	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	IZS	0	0	0	0	0	0.0	24			
10	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			
11	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			
12	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			
13	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			
14	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			
15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	1	1	1	1	1	1	1	0.4	24	
16	1	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	1	0.0	24
17	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	0.0	24	
18	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		
19	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		
20	0	0	0	0	0	0	IZS	0	0	0	C	C	C	C	0	0	0	0	0	0	0	0	0	0	0	0.0	24		
21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24		
22	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		
23	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		
24	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		
25	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	0.0	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	24		
27	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		
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	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	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	24		
31	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	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	1	1	1	1	1	1	1	0.0		
HOURLY AVG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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

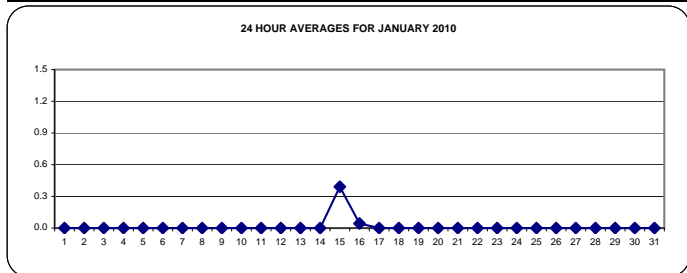
OBJECTIVE LIMIT:

ALBERTA ENVIRONMENT: 1-HR 10 PPB 24-HR 3 PPB

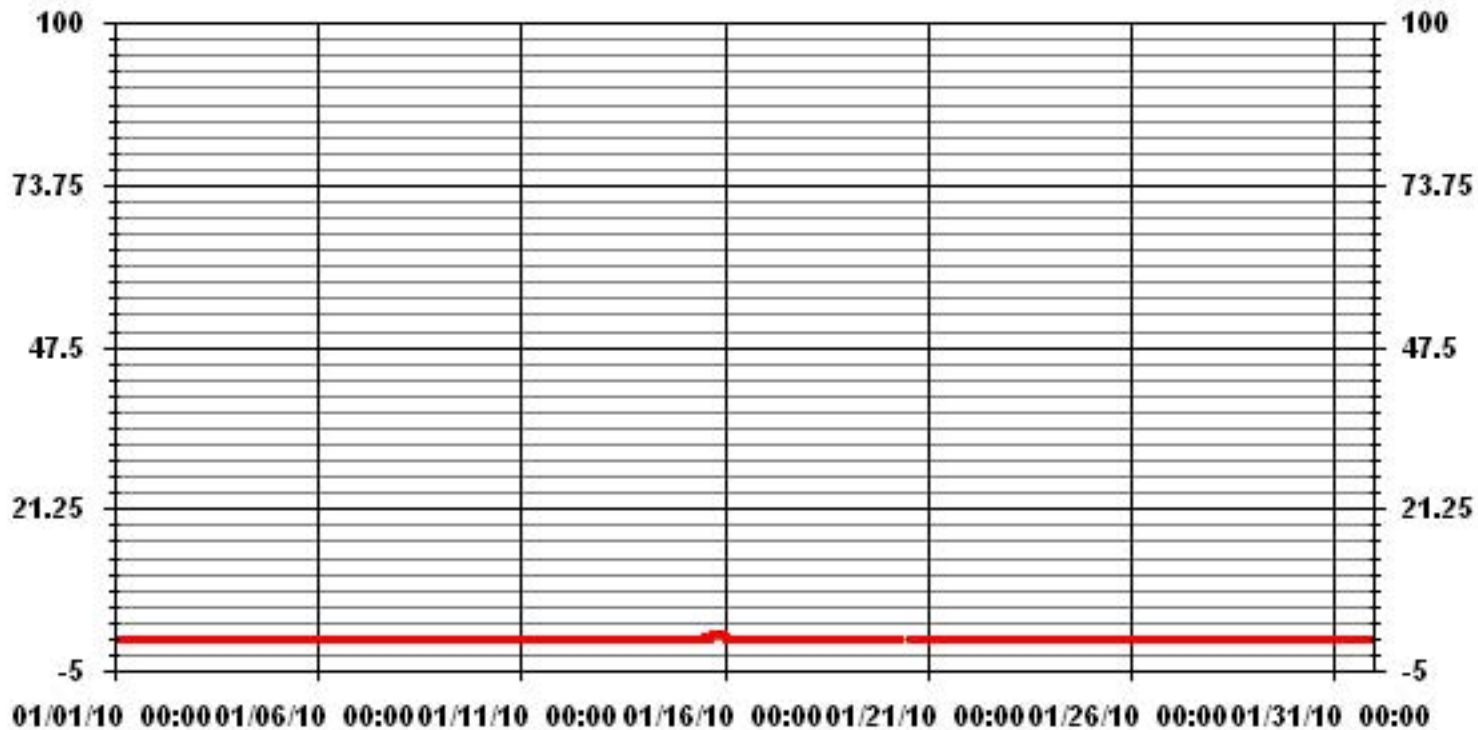
MONTHLY SUMMARY

NUMBER OF 1-HR EXCEEDENCES:	0
NUMBER OF 24-HR EXCEEDENCES:	0
NUMBER OF NON-ZERO READINGS:	10
MAXIMUM 1-HR AVERAGE:	1 PPB @ HOUR(S) VAR ON DAY(S) 15, 16
MAXIMUM 24-HR AVERAGE:	0.4 PPB VAR-VARIOUS ON DAY(S) 15
IZS CALIBRATION TIME:	33 HRS OPERATIONAL TIME: 744 HRS
MONTHLY CALIBRATION TIME:	4 HRS AMD OPERATION UPTIME: 100.0 %
STANDARD DEVIATION:	0.12 MONTHLY AVERAGE: 0.01 PPB

24 HOUR AVERAGES FOR JANUARY 2010



01 Hour Averages



LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - ST. LINA

JANUARY 2010

HYDROGEN SULPHIDE MAX instantaneous maximum in ppb

MST		0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	23:00	DAILY	24-HOUR		
DAY	HR	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.		
1	0	IZS	P	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	23	
2	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	IZS	0	0.0	24	
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	IZS	0	1	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	IZS	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	IZS	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	IZS	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	IZS	0	0	0	0	0	0	0.0	24		
8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	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	IZS	0	0	0	0	0	0	0	0	0.0	24		
10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0.0	24		
11	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	1	0.1	24	
12	0	0	0	0	1	0	1	1	1	0	1	1	1	IZS	1	1	1	0	1	0	0	1	1	0	1	0	1	0.6	24	
13	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	0.0	24	
14	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0.0	24	
15	1	1	1	1	1	1	1	1	1	1	1	IZS	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	24	
16	1	1	1	0	1	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.2	24
17	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0.1	24	
18	1	1	0	0	1	1	1	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.2	24	
19	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24	
20	0	0	0	0	0	IZS	1	1	1	C	C	C	C	C	0	0	1	0	0	0	0	0	0	0	0	1	0.2	24		
21	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	C	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24	
22	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	0.0	24	
23	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24	
24	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	0.0	24	
25	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0.0	24
26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0.0	24
27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24	
28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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	IZS	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	0.0	24	
31	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	24	
HOURLY MAX	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			
HOURLY AVG	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1				

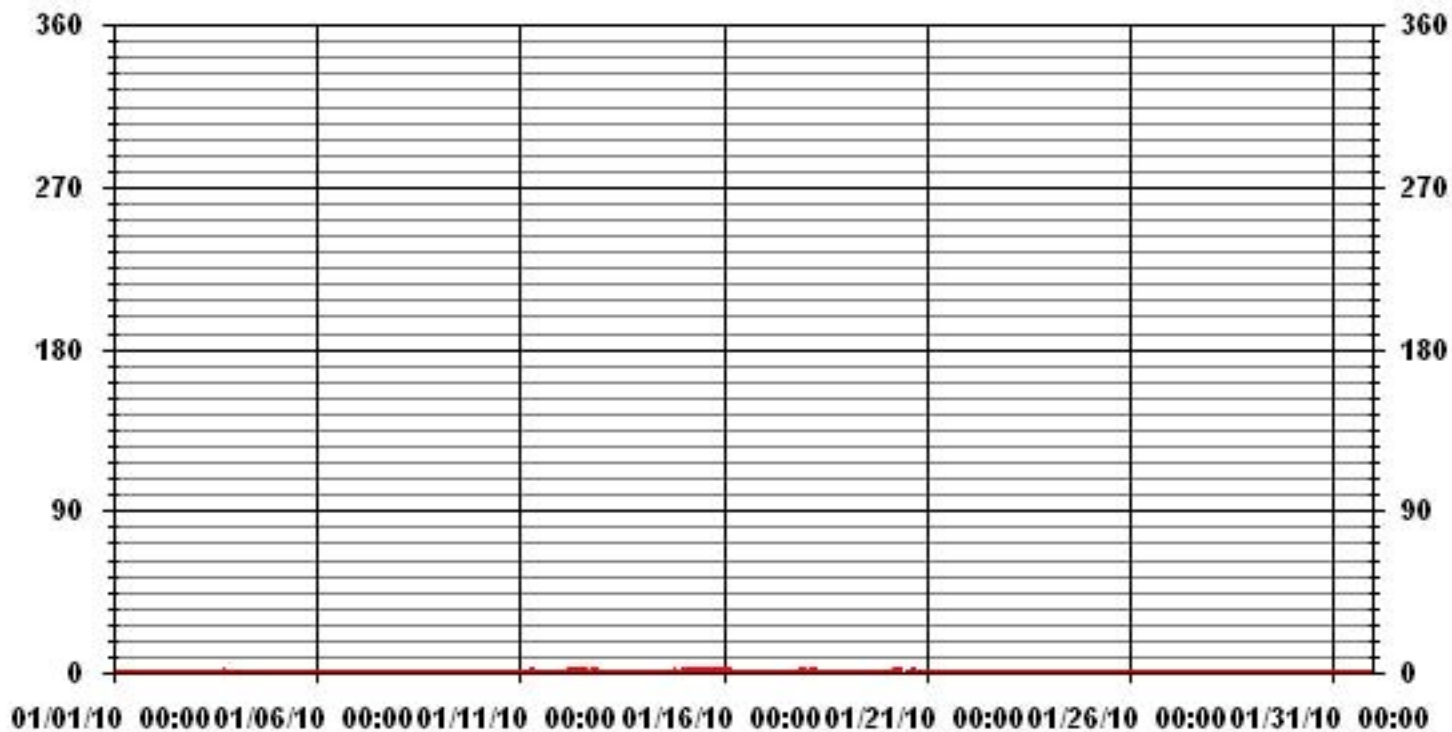
STATUS FLAG CODES

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

MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	56					
MAXIMUM INSTANTANEOUS VALUE:	1	PPB	@ HOUR(S)	VAR	ON DAY(S)	VAR
IZS CALIBRATION TIME:	33	HRS		OPERATIONAL TIME:	743	HRS
MONTHLY CALIBRATION TIME:	6	HRS				
STANDARD DEVIATION:	0.27					

01 Hour Averages



— LICA31 H2S MAX PPB

LICA31
H2S_ / WDR Joint Frequency Distribution (Percent)

January 2010

Distribution By % Of Samples

Logger Id : 31
Site Name : LICA31
Parameter : H2S_
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
< 3	5.51	3.81	4.80	7.92	8.06	4.38	6.22	7.07	11.73	10.89	4.10	2.40	2.82	7.49	5.65	7.07	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	5.51	3.81	4.80	7.92	8.06	4.38	6.22	7.07	11.73	10.89	4.10	2.40	2.82	7.49	5.65	7.07	

Calm : .00 %

Total # Operational Hours : 707

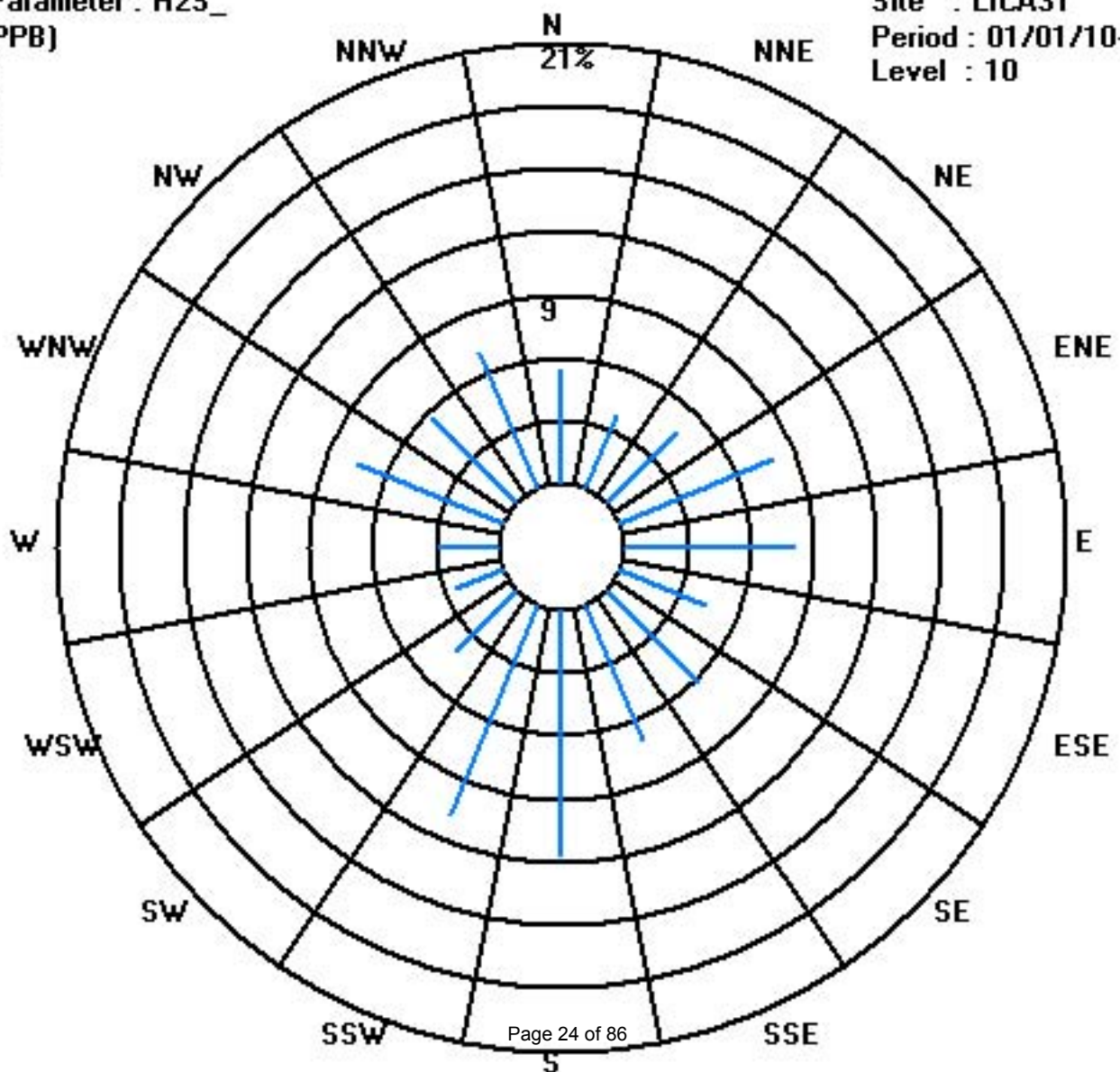
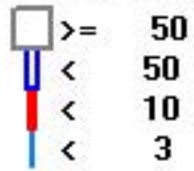
Distribution By Samples

	Direction																
Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
< 3	39	27	34	56	57	31	44	50	83	77	29	17	20	53	40	50	707
< 10																	
< 50																	
>= 50																	
Totals	39	27	34	56	57	31	44	50	83	77	29	17	20	53	40	50	

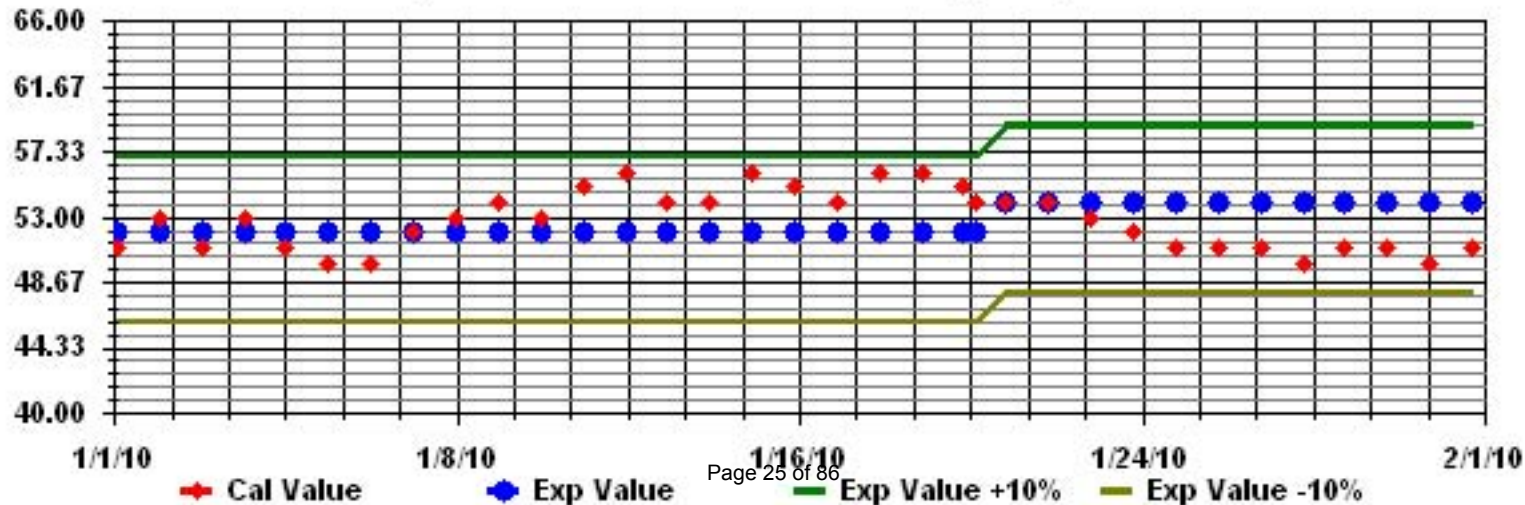
Calm : .00 %

Total # Operational Hours : 707

Class Limits (PPB)



Calibration Graph for Site: LICA31 Parameter: H2S_ Sequence: H2S Phase: SPAll



Total Hydrocarbons

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - ST. LINA

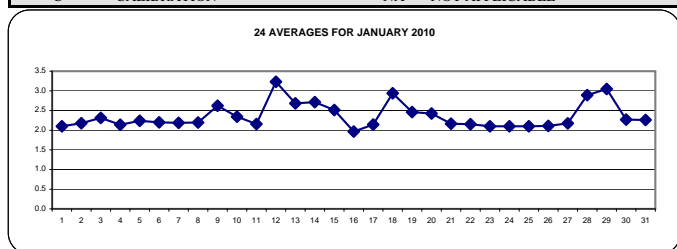
JANUARY 2010

TOTAL HYDROCARBONS hourly averages in ppm

MST		0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY	24-HOUR		
DAY	HOURLY MAX	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.	
1		2.1	IZS	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	2.1	2.1	2	
2		N	N	N	N	N	N	N	N	N	N	N	N	N	C	2.2	2.2	2.2	2.2	2.1	2.1	2.2	2.2	2.2	IZS	2.2	2.2	11	
3		2.1	2.4	2.4	2.6	2.4	2.3	2.3	2.4	2.5	2.5	2.5	2.4	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	IZS	2.2	2.6	24	
4		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	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	IZS	2.2	2.1	24		
5		2.1	2.2	2.3	2.1	2.1	2.1	2.2	2.3	2.4	2.6	2.5	2.3	2.2	2.1	2.1	2.2	2.2	2.2	2.2	2.2	IZS	2.2	2.4	2.3	2.6	2.2	24	
6		2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	IZS	2.2	2.3	2.4	2.4	2.2	24	
7		2.3	2.4	2.4	2.4	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	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	2.4	2.2	24
8		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	2.2	2.2	2.2	IZS	2.3	2.3	2.3	2.4	2.4	2.5	2.5	2.2	24	
9		2.5	2.5	2.5	2.3	2.2	2.3	2.3	2.4	2.9	3	3.1	2.8	3.3	3.1	2.8	2.7	IZS	2.5	2.5	2.5	2.5	2.4	2.6	2.6	3.3	2.6	24	
10		2.5	2.4	2.4	2.3	2.3	2.4	2.4	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.2	IZS	2.3	2.2	2.2	2.2	2.3	2.3	2.7	2.7	2.7	2.3	24	
11		2.6	2.5	2.3	2.2	2.4	2.4	2.3	2.1	2	2	2	2	2	2	IZS	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2	2.1	2.6	2.2	24	
12		2.2	2.1	2	3.3	4.7	4.2	3.9	5.1	4.9	4.5	4.6	4.2	4	IZS	2.5	2.4	2.3	2.2	2.3	2.4	2.4	2.5	2.7	2.9	5.1	3.2	24	
13		3	2.7	2.4	2.4	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	IZS	2	2	2	2.5	9.4	3.8	2.8	3.4	2.1	2.1	2.2	9.4	2.7	24	
14		2.3	2.6	2.9	3.1	3	3	2.9	2.9	3	2.9	2.8	IZS	2.6	2.5	2.6	2.6	2.6	2.7	2.7	2.6	2.6	2.5	2.5	2.5	3.1	2.7	24	
15		2.4	2.4	2.4	2.4	2.5	2.4	2.4	2.4	2.3	2.2	IZS	2.2	2.3	2.2	2.2	2.2	2.8	3.1	3.1	3.1	3.1	2.9	2.6	2.2	3.1	2.5	24	
16		2.1	1.9	1.9	1.9	1.9	1.9	2	1.9	1.9	IZS	1.9	1.9	2	2	2	2	2	2	2	2	2	2	2	2	2.1	2.0	24	
17		2.1	2.1	2.1	2.1	2.2	2.1	2.1	2.1	2.1	IZS	2.3	2.2	2.4	2.3	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.4	2.1	24
18		2.1	3	2.3	2.4	2.7	2.3	2.4	IZS	4	5.3	3.3	4.9	4.3	2.8	2.6	2.7	2.6	2.6	2.7	2.7	2.6	2.5	2.4	2.4	5.3	2.9	24	
19		2.3	2.4	2.4	2.4	2.4	2.5	IZS	2.7	2.5	2.5	2.5	2.4	2.4	2.4	2.5	2.5	2.5	2.4	2.4	2.4	2.5	2.5	2.5	2.6	2.7	2.5	24	
20		2.6	2.7	2.8	2.9	3	IZS	2.7	2.5	2.4	2.3	2.2	2.2	C	C	C	C	C	C	2.1	2.1	2.2	2.2	2.2	2.1	3.0	2.4	24	
21		2.1	2.1	2.2	2.2	IZS	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.2	2.1	2.1	2.2	2.2	2.2	2.2	2.1	2.2	2.2	2.2	24	
22		2.2	2.2	2.1	IZS	2.2	2.2	2.2	2.1	2.2	2.1	2.2	2.3	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.3	2.2	24
23		2.1	2.1	IZS	2	2	2	2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.3	2.2	2.1	2.1	2.1	2.1	2.3	2.1	24
24		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	2.1	2.1	2.1	2.1	2.1	2.1	2.1	24
25		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	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	24
26		2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	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	IZS	2.1	2.2	2.1	24
27		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	2.3	2.3	2.3	2.4	IZS	2.4	2.3	2.4	2.2	24
28		2.2	2.2	2.2	2.2	2.3	2.3	2.5	2.5	2.5	2.5	2.5	2.4	2.4	2.4	2.9	3.5	3.6	3.3	3.7	4.1	IZS	4.1	4	4.2	4.2	2.9	24	
29		3.9	3.5	3	2.8	2.9	3.1	3	2.9	3.1	3.3	3.4	3.3	2.8	3.1	2.8	2.9	3.1	3	2.9	IZS	2.8	2.8	2.9	2.8	3.9	3.0	24	
30		2.7	2.6	2.5	2.4	2.3	2.1	2.1	2.2	2.2	2.2	2.3	2.2	2.3	2.3	2.2	2.2	2.2	2.3	IZS	2.2	2.1	2.2	2.2	2.2	2.7	2.3	24	
31		2.2	2.1	2.2	2.2	2.2	2.3	2.3	2.2	2.2	2.2	2.3	2.3	2.4	2.3	2.3	2.2	2.3	IZS	2.3	2.3	2.3	2.3	2.3	2.3	2.4	2.3	24	
HOURLY MAX		3.9	3.5	3.0	3.3	4.7	4.2	3.9	5.1	4.9	5.3	4.6	4.9	4.3	3.1	2.9	3.5	3.6	9.4	3.8	4.1	3.4	4.1	4.0	4.2				
HOURLY AVG		2.3	2.4	2.3	2.3	2.4	2.3	2.3	2.4	2.5	2.5	2.4	2.4	2.4	2.3	2.3	2.3	2.3	2.6	2.4	2.3	2.3	2.3	2.4	2.4				

STATUS FLAG CODES

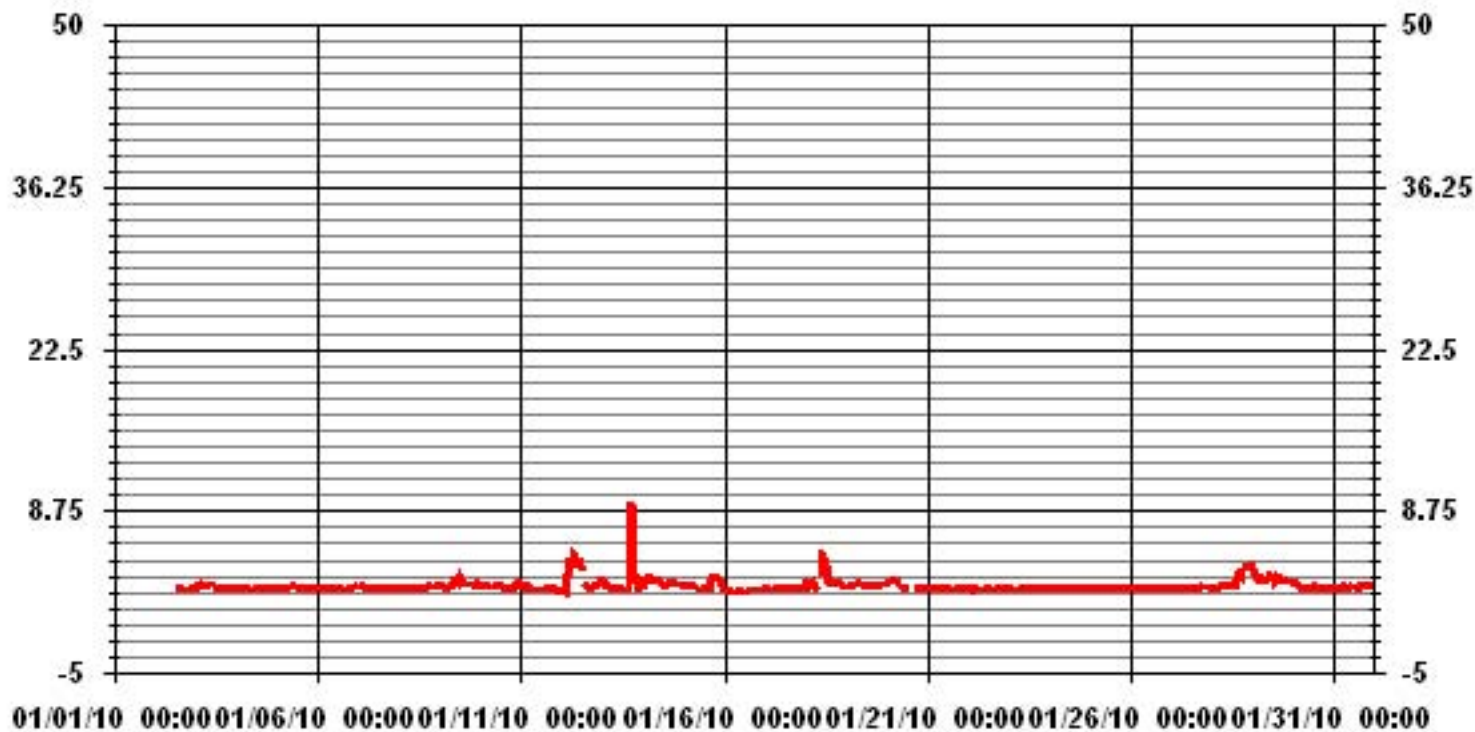
S	- OUT OF SERVICE	IZS	- IZS - DAILY ZERO/SPAN CHECK
N	- INVALID DATA	M	- MAINTENANCE
D	- INSTRUMENT DRIFT	P	- POWER FAILURE
C	- CALIBRATION	NA	- NOT APPLICABLE



MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	670					
MAXIMUM 1-HR AVERAGE:	9.4	PPM	@ HOUR(S)	5	ON DAY(S)	2
MAXIMUM 24-HR AVERAGE:	3.2	PPM			ON DAY(S)	4
					VAR- VARIOUS	
IZS CALIBRATION TIME:	32	HRS	OPERATIONAL TIME:	709	HRS	
MONTHLY CALIBRATION TIME:	7	HRS	AMD OPERATION UPTIME:	95.3	%	
STANDARD DEVIATION:	0.53		MONTHLY AVERAGE:	2.37	PPM	

01 Hour Averages



— LICA31 THC PPM

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - ST. LINA

JANUARY 2010

TOTAL HYDROCARBONS MAX instantaneous maximum in ppr

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	IZS	P	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	2.2	2.2	2	
2	N	N	N	N	N	N	N	N	N	N	N	N	N	C	2.4	2.2	2.4	2.2	2.2	2.2	2.3	2.3	2.3	IZS	2.4	2.3	11		
3	2.2	4	4.1	4.4	3.3	3.2	2.3	2.4	2.5	2.5	2.5	2.5	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.4	IZS	2.3	4.4	2.6	24		
4	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.2	2.2	2.2	2.3	2.3	2.2	2.3	2.3	2.3	5.7	3.9	2.8	3.1	3.2	IZS	4.9	3.7	5.7	2.7	24		
5	2.1	3.6	3.7	5.3	4.3	2.1	2.3	2.3	2.5	2.7	2.6	2.7	2.9	2.8	2.2	2.3	2.8	2.4	2.4	IZS	2.6	9	3	9	3.1	24			
6	2.3	2.4	2.4	3	2.5	2.2	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.2	2.2	2.2	2.2	IZS	2.3	2.4	2.4	2.4	3	2.3	24		
7	2.4	2.4	2.4	2.4	2.3	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	IZS	2.1	2.1	2.1	2.1	2.1	2.1	2.4	2.2	24	
8	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.7	2.2	2.2	2.3	IZS	2.3	2.3	2.4	2.5	2.5	2.5	2.5	2.7	2.2	24	
9	2.6	2.5	2.5	2.4	2.3	2.3	3.8	2.9	4.8	4.5	3.3	3.4	3.4	3.3	3	2.8	IZS	2.6	2.7	2.6	2.6	2.5	2.7	2.7	4.8	3.0	24		
10	3.2	2.5	2.5	2.4	2.4	2.4	2.4	2.4	2.4	2.3	2.3	2.3	2.3	2.3	IZS	2.4	2.3	2.8	2.6	2.3	2.6	2.8	2.8	2.8	3.2	2.5	24		
11	2.6	2.6	2.5	2.2	2.5	2.5	2.4	2.2	2	2	2	2	2	2	IZS	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.6	2.2	24	
12	7.2	2.1	2	33.8	13	14	10.4	12.3	12	10.5	13.4	12.1	13	IZS	10	5.4	2.3	2.3	2.5	2.5	2.4	2.7	2.8	3	33.8	8.3	24		
13	3	3	2.6	2.5	2.3	2.2	2.2	2.2	2.2	2.2	2.1	2.1	IZS	2	2	2.1	26.6	54.2	42.3	12.3	18.7	2.4	2.2	2.2	54.2	8.5	24		
14	2.9	4	3	6.6	4.4	3	2.9	3	3	3	2.9	IZS	2.7	2.6	2.6	2.7	2.7	2.7	2.7	2.7	2.6	2.5	2.5	2.5	6.6	3.0	24		
15	2.4	2.4	2.5	2.4	2.5	2.5	2.4	2.4	2.3	2.3	IZS	2.3	2.3	2.3	2.2	2.5	3.2	3.2	3.2	3.1	3.2	3.1	2.8	2.4	3.2	2.6	24		
16	2.2	2	1.9	1.9	2	2	2	2	2	IZS	2	2	2	2	2	2	2	2	2	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.0	24	
17	2.1	2.2	2.1	2.2	2.2	2.1	2.1	2.1	IZS	2.3	2.3	2.4	2.4	2.3	2.1	2.1	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.4	2.2	24
18	2.1	21.5	2.5	8.4	43.9	2.4	2.5	IZS	37.7	40.4	23.4	26.7	21.4	10.7	3	2.7	2.7	2.7	2.7	2.7	2.7	2.6	2.5	2.5	43.9	11.8	24		
19	2.4	2.5	2.5	2.6	2.9	2.6	IZS	2.8	2.6	2.7	2.5	2.5	2.6	3	2.8	2.5	2.5	2.5	2.5	2.5	2.6	2.6	3.2	3.2	2.6	2.4	24		
20	2.8	2.9	3.2	3	3.1	IZS	3	2.6	2.4	2.4	2.6	2.6	C	C	C	C	C	C	2.4	2.5	2.5	2.4	2.5	2.6	3.2	2.7	24		
21	2.5	2.4	2.5	2.5	IZS	2.4	2.5	2.5	2.5	2.6	2.6	2.5	2.6	2.7	C	2.7	2.3	2.4	2.6	2.6	2.7	2.5	2.4	2.7	2.7	2.5	24		
22	2.7	2.8	2.4	IZS	2.8	2.6	2.6	2.3	2.8	2.5	2.6	2.7	2.6	2.8	2.6	2.2	2.1	2.3	2.1	2.3	2.1	2.1	2.1	2.2	2.8	2.4	24		
23	2.2	2.1	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	2.2	2.3	2.3	2.3	2.2	2.2	2.1	2.1	2.3	2.1	24		
24	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	2.1	2.1	2.1	2.1	2.1	2.1	2.1	24	
25	IZS	2.1	2.1	2.2	2.2	2.3	2.3	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.3	2.2	2.2	2.2	IZS	2.3	2.2	2.4	24		
26	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.1	IZS	2.1	2.2	2.2	24	
27	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.2	2.3	2.2	2.3	2.3	2.3	2.3	2.5	IZS	2.4	2.4	2.5	2.3	24	
28	2.3	2.3	2.3	2.3	2.3	2.4	2.5	2.5	2.5	2.6	2.5	2.5	2.4	2.4	3.4	4.2	5.1	3.6	4	4.2	IZS	4.2	4.2	4.3	5.1	3.1	24		
29	4.2	4.2	3.2	3.1	3.3	3.7	3.6	3	3.3	3.3	4	3.5	3	3.2	3	3.1	3.2	3.3	3	IZS	2.9	3	3	2.9	4.2	3.3	24		
30	2.7	2.7	2.6	2.5	2.4	2.2	2.2	2.2	2.2	2.3	2.3	2.6	2.7	2.7	2.5	2.8	2.7	2.8	IZS	2.5	2.3	2.5	2.7	2.6	2.8	2.5	24		
31	2.5	2.3	2.5	2.6	2.5	2.5	3.3	2.5	2.7	2.8	2.7	2.4	2.4	2.4	2.3	2.3	2.4	IZS	2.3	2.3	2.3	2.3	2.3	2.4	3.3	2.5	24		
HOURLY MAX	7	22	4	34	44	14	10	12	38	40	23	27	21	11	10	5	27	54	42	12	19	4	9	4					
HOURLY AVG	2.6	3.3	2.5	4.1	4.4	2.8	2.7	4.1	4.1	3.6	3.6	3.5	2.7	2.7	2.5	3.5	4.4	3.9	2.8	3.0	2.5	2.8	2.6						

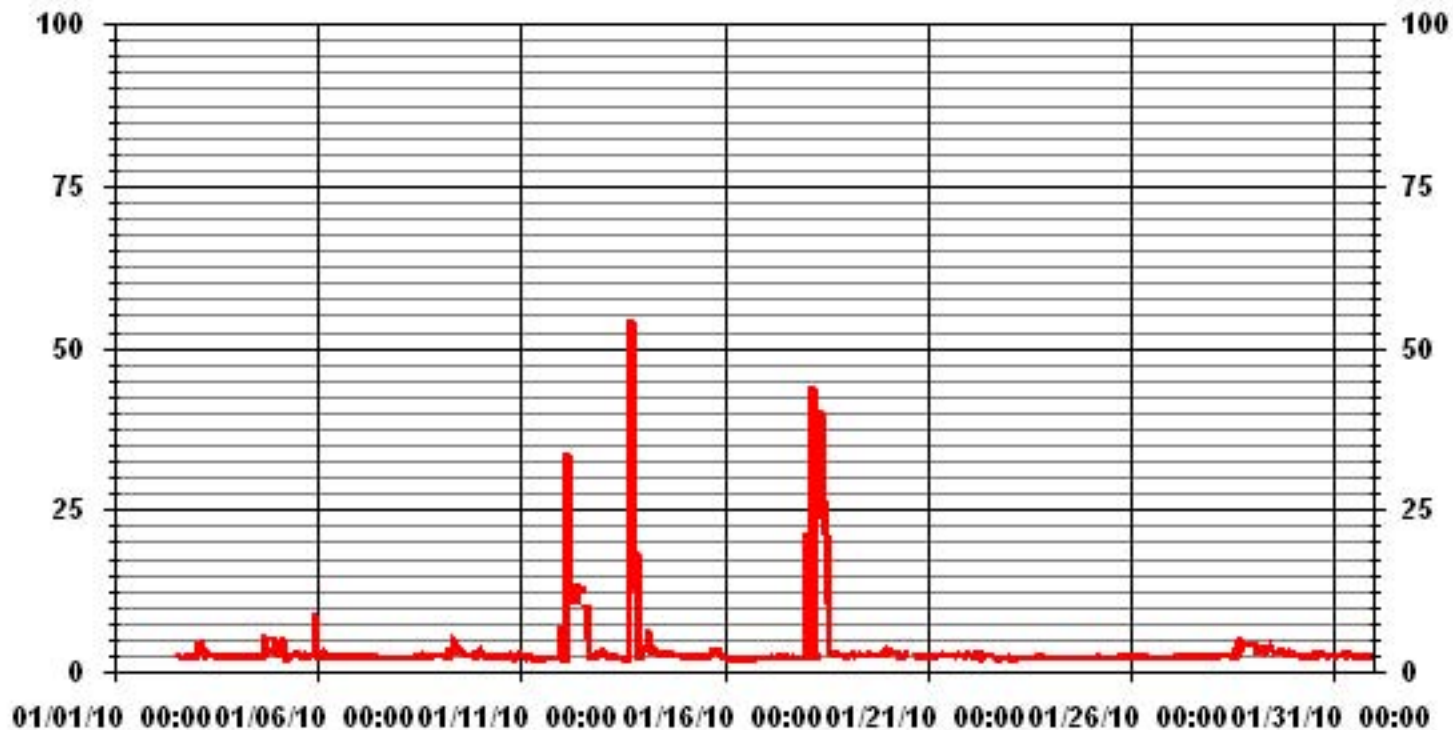
STATUS FLAG CODES

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

MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	669					
MAXIMUM INSTANTANEOUS VALUE:	54.2	PPM	@ HOUR(S)	17	ON DAY(S)	13
IZS CALIBRATION TIME:	32	HRS	OPERATIONAL TIME:	709	HRS	
MONTHLY CALIBRATION TIME:	8	HRS				
STANDARD DEVIATION:	4.45					

01 Hour Averages



— LICA31 THCMAX PPM

LICA31
 THC / WDR Joint Frequency Distribution (Percent)

January 2010

Distribution By % Of Samples

Logger Id : 31
 Site Name : LICA31
 Parameter : THC
 Units : PPM

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
< 3.0	5.22	3.58	4.17	7.16	6.41	3.13	4.77	6.26	11.49	10.89	4.02	2.23	2.83	7.91	5.07	6.86	92.08
< 10.0	.44	.29	.59	.74	1.79	.59	.44	.59	.74	.59	.29	.29	.14	.00	.14	.14	7.91
< 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	5.67	3.88	4.77	7.91	8.20	3.73	5.22	6.86	12.23	11.49	4.32	2.53	2.98	7.91	5.22	7.01	

Calm : .00 %

Total # Operational Hours : 670

Distribution By Samples

	Direction																
Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
< 3.0	35	24	28	48	43	21	32	42	77	73	27	15	19	53	34	46	617
< 10.0	3	2	4	5	12	4	3	4	5	4	2	2	1		1	1	53
< 50.0																	
>= 50.0																	
Totals	38	26	32	53	55	25	35	46	82	77	29	17	20	53	35	47	

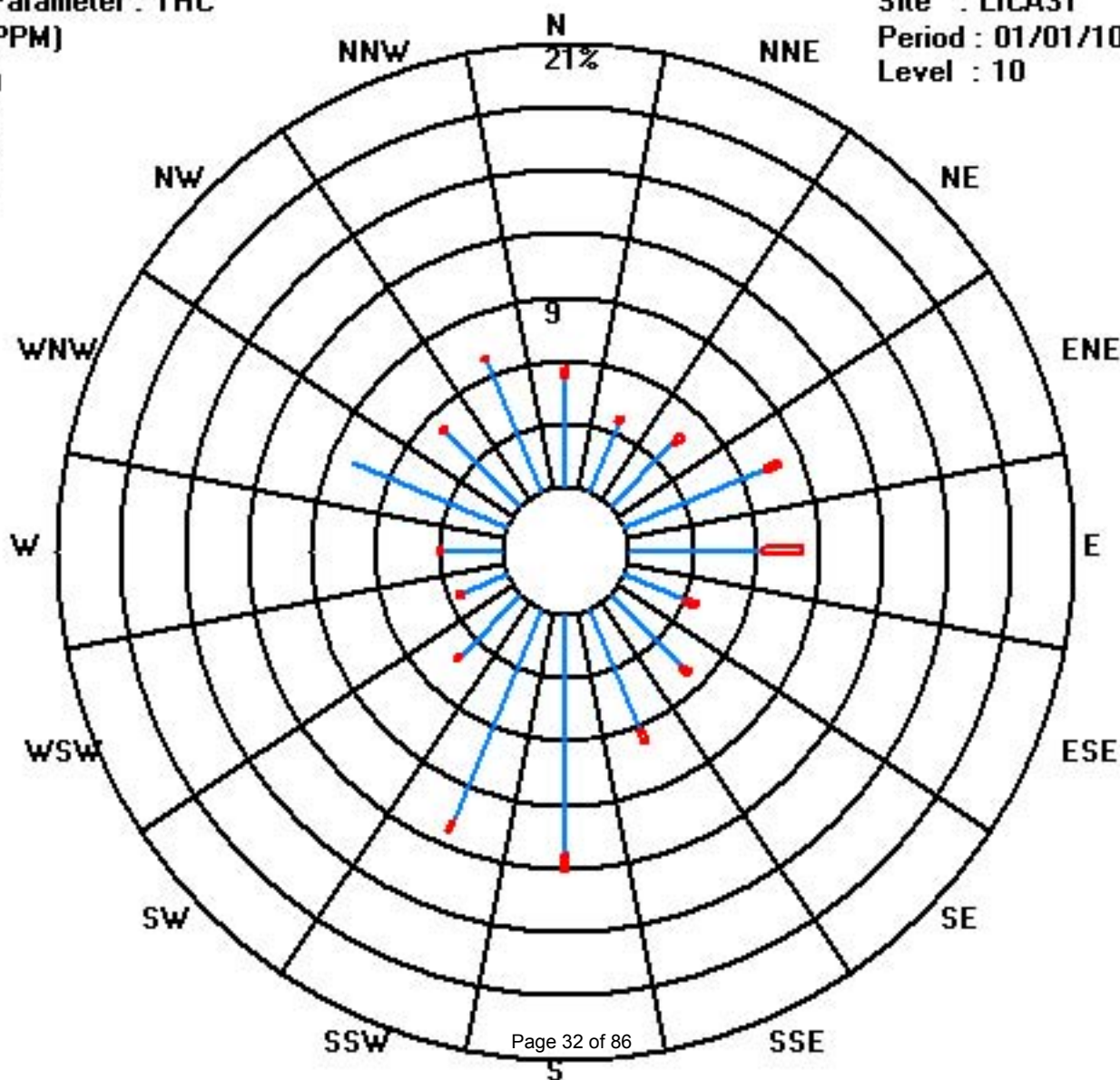
Calm : .00 %

Total # Operational Hours : 670

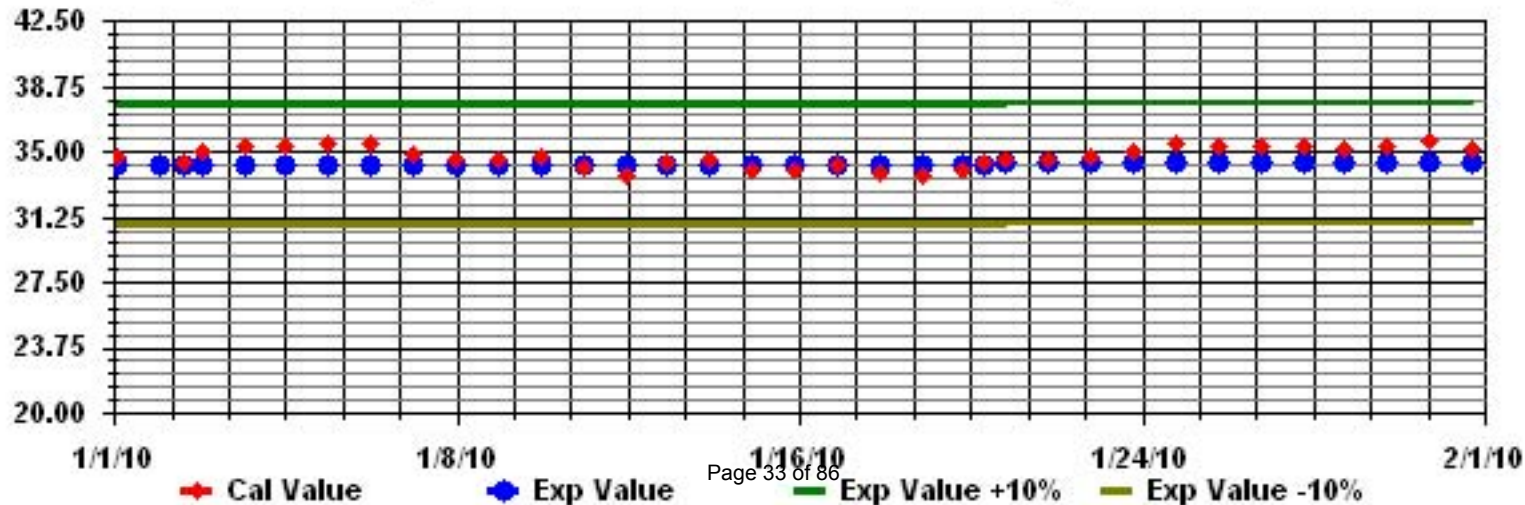
Class Limits (PPM)

Period : 01/01/10-01/31/10

Level : 10



Calibration Graph for Site: LICA31 Parameter: THC Sequence: THC Phase: SPAll



Nitrogen Dioxide

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - ST. LINA

JANUARY 2010

NITROGEN DIOXIDE hourly averages in ppb

MST		0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY	24-HOUR		
HOUR START	HOUR END	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	MAX.	AVG.	RDGS.	
DAY																													
1		1	IZS	1	3	3	3	2	2	2	2	1	2	2	2	2	2	2	1	1	1	2	2	2	2	3	1.9	24	
2		IZS	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	IZS	1	1.0	24
3		0	0	0	1	1	1	2	2	3	2	2	1	1	1	1	3	4	4	4	4	5	IZS	2	5	2.0	24		
4		1	0	0	0	0	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	2	0.2	24
5		0	0	0	0	0	0	2	3	4	5	3	1	0	0	1	2	1	1	1	1	IZS	1	1	2	5	1.2	24	
6		2	2	1	1	0	0	0	0	0	0	0	0	0	0	0	1	2	1	2	1	IZS	2	3	3	3	3	0.9	24
7		2	3	4	4	3	2	2	2	3	3	2	2	1	1	1	1	1	1	1	IZS	0	1	1	1	2	4	1.9	24
8		2	3	3	3	3	3	3	3	3	3	3	4	4	5	6	7	9	IZS	10	12	15	16	19	25	25	7.1	24	
9		24	22	19	15	11	11	9	9	10	11	11	10	10	11	10	13	IZS	14	14	14	14	14	15	18	24	13.4	24	
10		19	15	14	12	12	12	12	13	12	10	9	8	8	8	10	IZS	12	9	8	6	5	4	6	5	19	10.0	24	
11		4	4	2	2	2	2	2	2	2	2	2	2	2	2	IZS	4	6	6	6	7	6	6	6	6	7	3.7	24	
12		6	7	4	4	6	7	8	11	8	6	6	5	4	IZS	3	3	3	3	3	3	3	3	3	4	5	11	5.0	24
13		6	5	4	4	3	2	1	1	1	0	0	0	IZS	0	1	1	1	1	1	1	2	2	2	2	6	1.8	24	
14		3	4	5	5	5	4	4	4	4	4	4	IZS	3	4	6	6	8	12	14	15	13	12	11	11	15	7.0	24	
15		12	13	13	13	13	12	12	11	10	9	IZS	6	6	5	5	6	9	9	10	9	9	8	7	7	13	9.3	24	
16		6	2	1	1	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	1	1	1	2	2	3	6	0.9	24	
17		4	5	6	6	6	4	3	2	IZS	2	2	2	2	1	2	2	2	2	2	1	1	1	1	1	6	2.6	24	
18		1	1	1	1	1	1	1	IZS	2	2	2	2	3	3	3	3	3	4	5	5	5	4	4	4	5	2.7	24	
19		4	5	5	5	5	5	IZS	5	4	4	3	3	3	3	3	4	6	9	9	9	9	8	8	8	9	5.5	24	
20		7	8	9	10	9	IZS	6	3	4	C	M	M	M	M	M	M	M	C	2	2	1	1	1	1	10	4.6	17	
21		1	1	1	1	IZS	1	1	1	2	C	C	C	C	C	C	C	1	2	2	1	1	1	1	2	1.2	24		
22		1	1	1	IZS	1	1	1	2	3	3	3	3	2	2	2	2	2	2	2	1	1	1	1	2	3	1.8	24	
23		2	1	IZS	0	0	0	0	0	0	0	0	0	0	0	1	4	10	13	9	4	4	3	2	13	2.3	24		
24		1	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	2	2	0.4	24	
25		IZS	2	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	2	3	2	2	IZS	3	1.5	24	
26		2	3	3	3	3	2	2	2	2	1	1	0	1	0	0	0	0	1	1	1	1	1	1	IZS	1	3	1.3	24
27		1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	4	6	7	8	14	IZS	15	12	15	3.5	24		
28		8	6	6	4	5	5	6	7	6	7	5	6	6	6	8	10	10	11	12	14	IZS	13	12	13	14	8.1	24	
29		12	11	10	10	10	10	10	8	8	7	7	6	7	7	7	8	8	7	IZS	6	7	9	9	12	8.3	24		
30		6	6	6	5	3	1	1	1	2	2	3	3	4	4	4	2	1	0	IZS	1	1	0	0	0	6	2.4	24	
31		1	1	1	1	1	1	0	0	1	1	1	1	1	1	1	1	1	IZS	1	1	1	1	1	1	1	0.9	24	
HOURLY MAX		24	22	19	15	13	12	12	13	12	11	11	10	10	11	10	13	12	14	14	15	15	16	19	25				
HOURLY AVG		4.8	4.6	4.1	3.9	3.7	3.1	3.2	3.3	3.3	3.2	2.6	2.5	2.6	2.5	2.8	2.9	3.5	4.4	4.8	4.6	4.4	4.3	4.8	5.2				

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

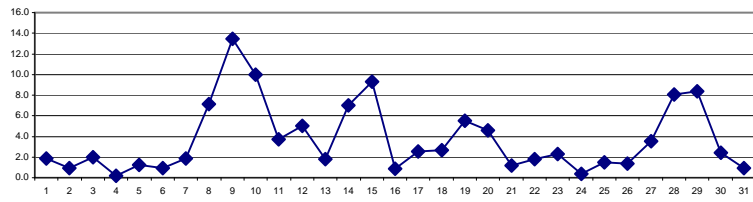
OBJECTIVE LIMIT:

ALBERTA ENVIRONMENT:	1-HR	212	PPB	24-HR	106	PPB
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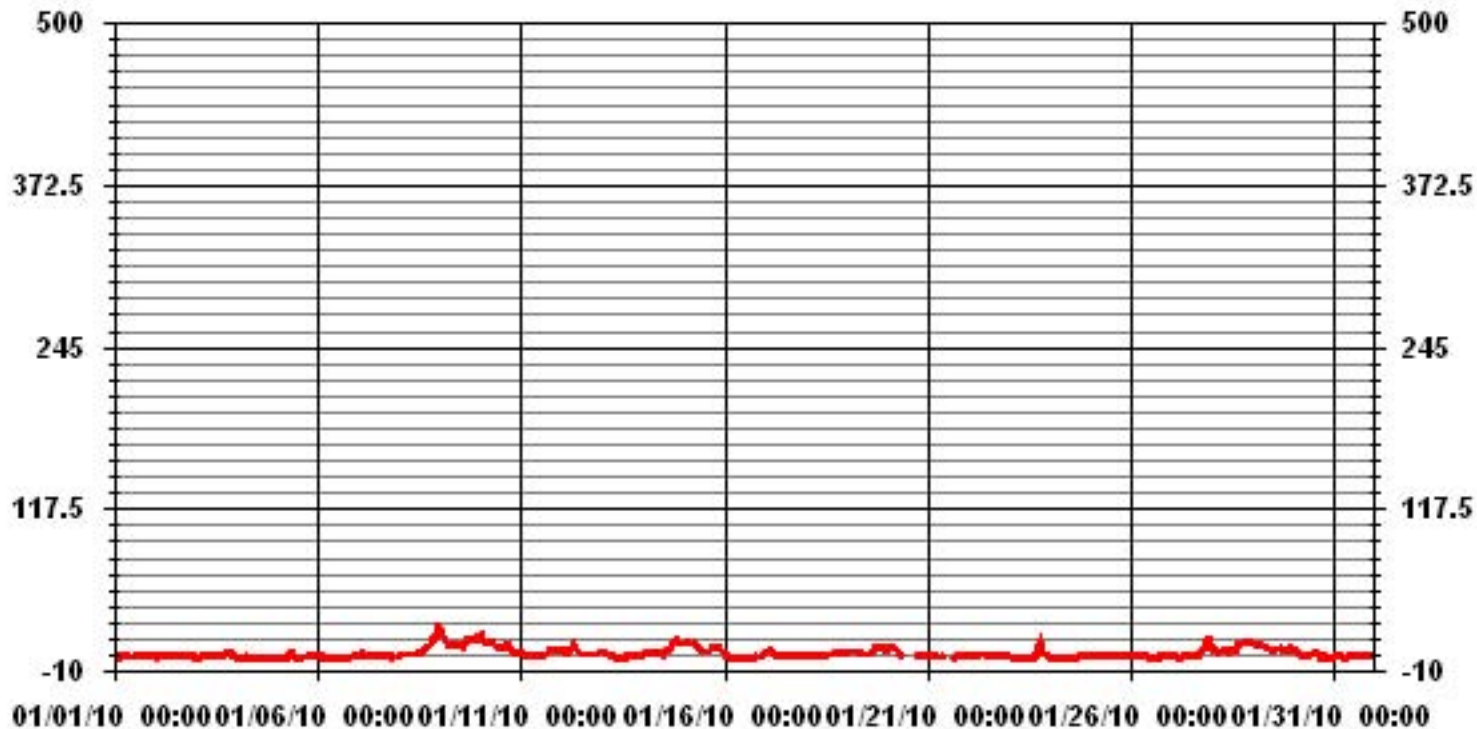
MONTHLY SUMMARY

NUMBER OF 1-HR EXCEEDENCES:	0		
NUMBER OF 24-HR EXCEEDENCES:	0		
NUMBER OF NON-ZERO READINGS:	593		
MAXIMUM 1-HR AVERAGE:	25 PPB @ HOUR(S) 23 ON DAY(S) 8		
MAXIMUM 24-HR AVERAGE:	13.4 PPB ON DAY(S) 9		
IZS CALIBRATION TIME:	33 HRS	OPERATIONAL TIME:	737 HRS
MONTHLY CALIBRATION TIME:	9 HRS	AMD OPERATION UPTIME:	99.1 %
STANDARD DEVIATION:	4.10	MONTHLY AVERAGE:	3.71 PPB

24 HOUR AVERAGES FOR JANUARY 2010



01 Hour Averages



— LICA31 NO2_ PPB

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - ST.LINA

JANUARY 2010

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	1	IZS	P	4	4	4	3	3	3	2	2	2	3	3	2	3	3	2	2	2	2	3	3	3	4	2.7	23	
2	IZS	1	2	2	2	1	3	2	2	2	1	1	1	1	2	2	2	2	2	2	2	2	2	IZS	3	1.8	24	
3	1	1	1	2	2	2	3	3	3	3	2	2	1	2	2	2	4	4	4	5	5	6	IZS	4	6	2.8	24	
4	2	1	1	1	0	1	3	2	2	0	1	1	1	1	1	2	2	1	0	0	0	IZS	0	0	3	1.0	24	
5	0	0	0	0	0	1	4	5	5	5	4	2	1	1	1	2	3	2	2	4	IZS	2	2	3	5	2.1	24	
6	3	3	2	1	1	1	1	1	2	1	1	15	0	1	1	2	2	3	2	IZS	3	3	4	3	15	2.4	24	
7	3	4	4	5	4	3	3	3	3	3	3	3	2	2	1	2	1	2	1	IZS	1	1	2	2	3	5	2.6	24
8	3	4	4	4	3	4	3	3	4	4	4	4	5	14	7	9	10	IZS	11	14	16	18	23	26	26	8.6	24	
9	26	23	21	17	13	13	10	10	12	13	13	11	12	21	12	15	IZS	15	15	16	16	16	17	20	26	15.5	24	
10	20	18	16	13	12	13	13	14	13	12	10	9	9	10	11	IZS	14	12	10	8	7	6	6	6	20	11.4	24	
11	5	4	4	3	3	3	3	2	2	3	3	3	3	3	IZS	5	7	6	7	8	9	7	7	7	9	4.7	24	
12	7	8	5	4	9	9	11	14	9	7	6	6	5	IZS	4	5	4	4	4	4	5	5	5	6	14	6.3	24	
13	7	7	5	4	4	2	2	2	1	1	1	1	IZS	1	3	2	2	1	2	2	3	3	3	3	7	2.7	24	
14	3	5	6	6	6	5	5	5	5	5	5	IZS	4	5	7	8	11	14	16	17	15	13	12	12	17	8.3	24	
15	14	14	14	14	14	13	12	12	11	10	IZS	7	7	7	6	8	11	10	11	10	10	9	8	8	14	10.4	24	
16	7	4	2	1	1	1	1	1	0	IZS	0	0	0	0	1	0	1	1	1	2	2	3	3	4	7	1.6	24	
17	4	7	7	7	7	5	4	2	IZS	2	2	3	2	2	3	3	3	2	2	2	2	2	2	2	7	3.3	24	
18	2	2	2	2	2	2	2	IZS	2	3	3	3	3	4	3	4	4	5	6	6	6	5	5	5	6	3.5	24	
19	5	6	6	6	6	5	IZS	6	6	9	4	3	4	4	4	6	9	10	11	10	10	10	9	9	11	6.9	24	
20	8	9	10	11	10	IZS	8	4	5	C	M	M	M	M	M	M	M	C	3	2	2	2	2	2	11	5.6	17	
21	2	2	2	2	IZS	2	2	2	C	C	C	C	C	C	C	C	2	2	2	2	2	2	2	2	2	2.0	24	
22	1	2	2	IZS	2	2	2	3	3	4	4	3	3	3	3	3	3	2	2	2	2	2	2	3	4	2.5	24	
23	3	2	IZS	1	1	1	1	1	1	1	1	1	1	1	1	2	7	12	14	14	7	4	4	3	14	3.7	24	
24	2	IZS	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	2	2	1	1	2	2	2	1.2	24	
25	IZS	2	3	3	3	3	3	2	2	2	2	1	1	1	1	1	3	2	2	2	4	4	3	IZS	4	2.3	24	
26	3	4	4	3	3	3	3	3	3	2	2	1	1	1	1	1	2	2	2	2	1	1	IZS	1	4	2.1	24	
27	1	1	1	1	1	1	1	1	2	2	1	1	1	3	8	3	6	8	8	11	17	IZS	19	13	19	4.8	24	
28	12	7	7	7	6	6	7	8	7	35	6	7	8	7	10	10	11	11	14	15	IZS	14	14	14	35	10.6	24	
29	14	13	12	11	10	11	11	9	9	8	9	7	7	15	9	8	9	10	8	IZS	10	8	11	11	15	10.0	24	
30	7	7	7	5	5	1	1	2	2	3	4	4	4	4	4	1	1	IZS	2	1	1	1	1	1	7	3.1	24	
31	1	1	2	1	1	1	1	1	1	1	1	2	2	2	2	2	IZS	2	2	2	2	2	2	2	2	1.6	24	
HOURLY MAX	26	23	21	17	14	13	13	14	13	35	13	15	12	21	12	15	14	15	16	17	17	18	23	26				
HOURLY AVG	5.8	5.6	5.3	4.7	4.5	4.0	4.2	4.2	4.2	5.1	3.4	3.7	3.3	4.3	4.0	4.1	4.8	5.2	5.8	5.8	5.6	5.4	6.0	6.1				

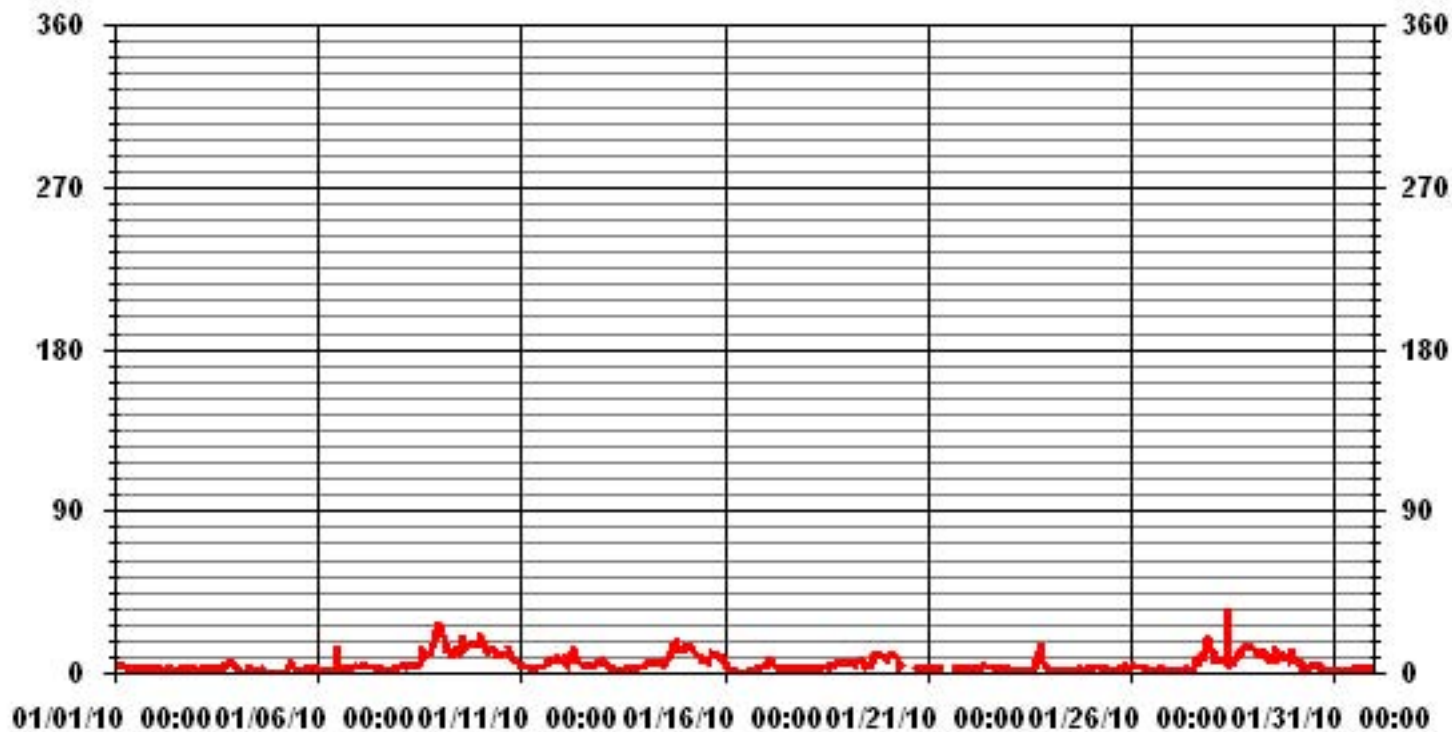
STATUS FLAG CODES

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

MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	673					
MAXIMUM INSTANTANEOUS VALUE:	35	PPB	@ HOUR(S)	9	ON DAY(S)	28
IZS CALIBRATION TIME:	33	HRS	OPERATIONAL TIME:	736	HRS	
MONTHLY CALIBRATION TIME:	10	HRS				
STANDARD DEVIATION	4.63					

01 Hour Averages



— LICA31 NO2MAX PPB

LICA31
 NO2_ / WDR Joint Frequency Distribution (Percent)

January 2010

Distribution By % Of Samples

Logger Id : 31
 Site Name : LICA31
 Parameter : NO2_
 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
< 50	5.61	3.88	4.89	6.47	8.05	4.46	6.33	7.19	11.94	11.07	4.17	2.44	2.87	7.62	5.75	7.19	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	5.61	3.88	4.89	6.47	8.05	4.46	6.33	7.19	11.94	11.07	4.17	2.44	2.87	7.62	5.75	7.19	

Calm : .00 %

Total # Operational Hours : 695

Distribution By Samples

	Direction																
Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
< 50	39	27	34	45	56	31	44	50	83	77	29	17	20	53	40	50	695
< 110																	
< 210																	
>= 210																	
Totals	39	27	34	45	56	31	44	50	83	77	29	17	20	53	40	50	

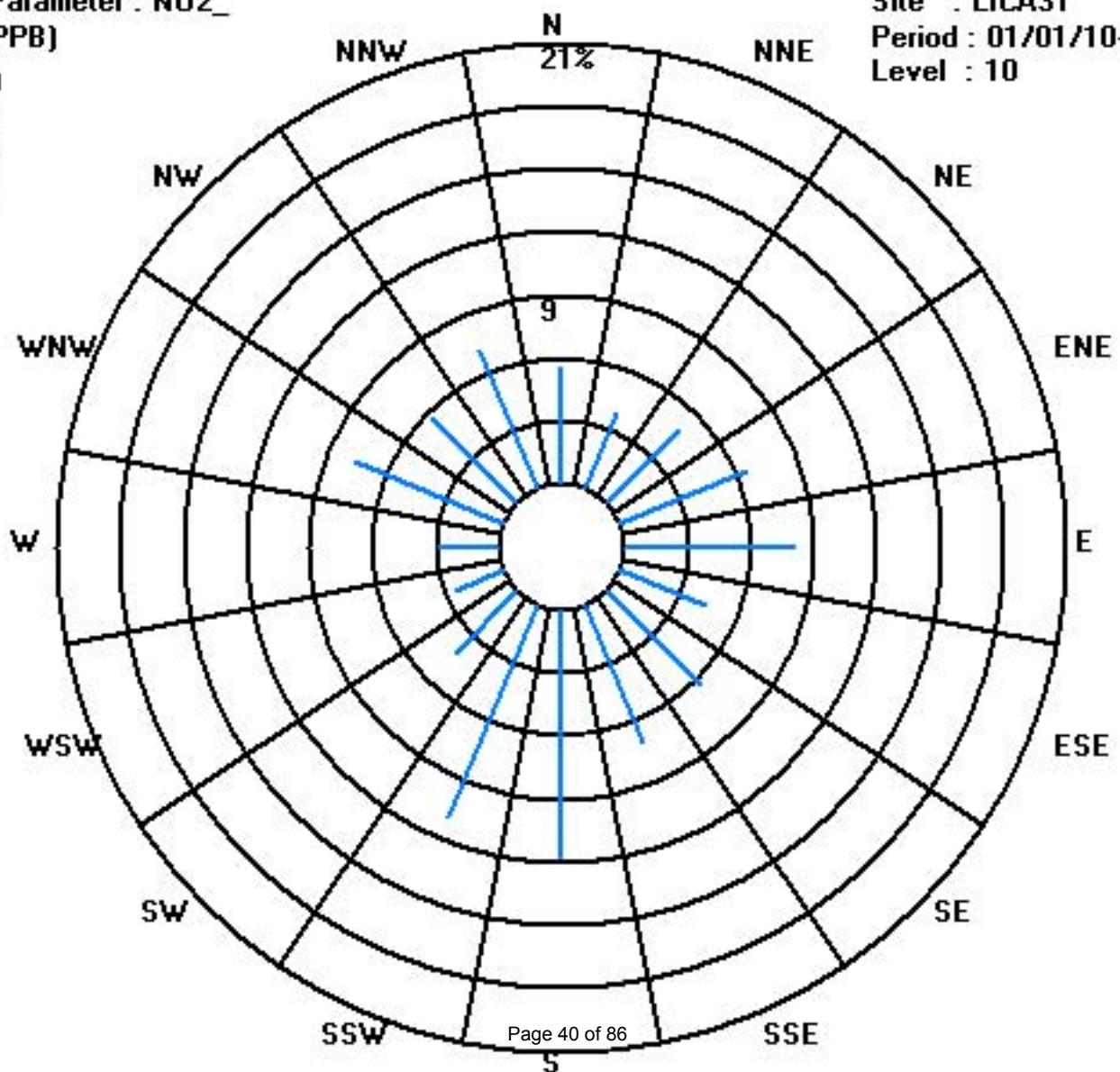
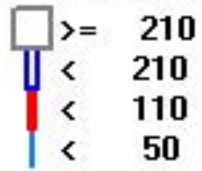
Calm : .00 %

Total # Operational Hours : 695

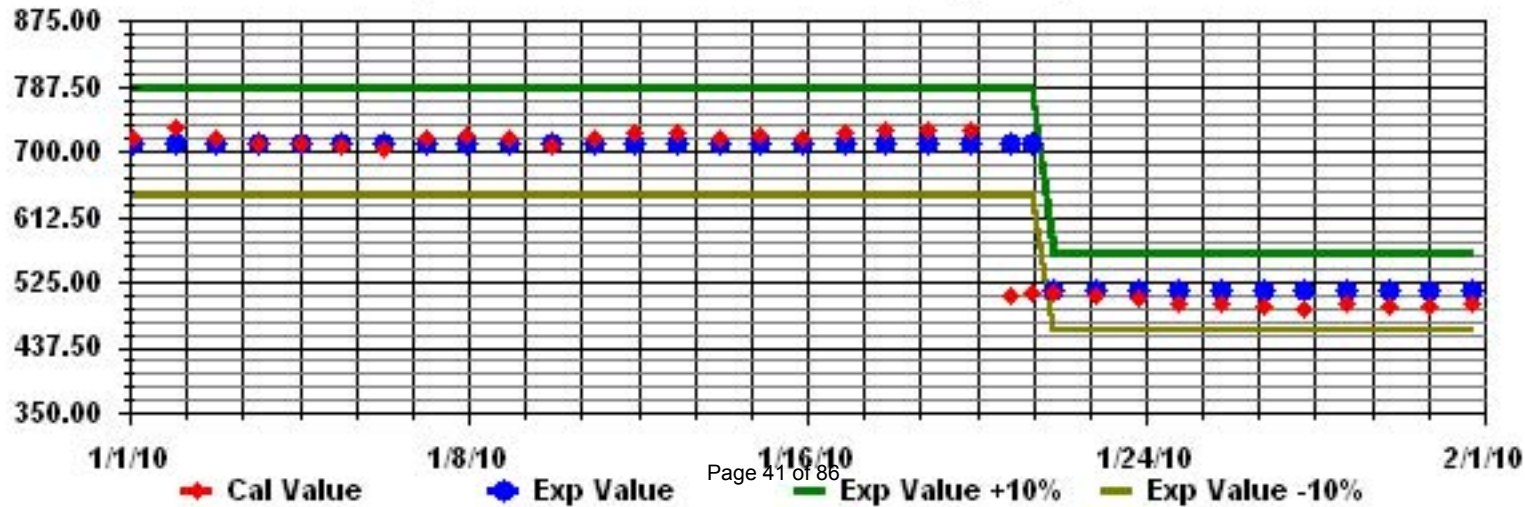
Class Limits (PPB)

Period : 01/01/10-01/31/10

Level : 10



Calibration Graph for Site: LICA31 Parameter: NO2_ Sequence: NO2 Phase: SPAN



Nitric Oxide

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - ST. LINA

JANUARY 2010

NITRIC OXIDE hourly averages in ppb

MST

HOUR START	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY 24-HOUR			
HOUR END	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	MAX.	AVG.	RDGS.	
DAY																												
1	0	IZS	1	1	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
2	IZS	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	1	0.0	24
3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	1	1	0.1	24
4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	1	0	1	0.0	24
5	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	IZS	1	0	0	1	0.2	24
6	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	IZS	1	0	0	0	1	0.1	24
7	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	IZS	1	0	0	0	1	0.2	24
8	0	0	0	0	0	0	0	0	0	0	1	1	2	3	2	2	1	IZS	1	1	1	1	1	2	2	3	0.9	24
9	2	2	1	1	0	0	0	0	0	1	3	3	5	5	4	3	IZS	1	1	1	1	1	1	1	1	5	1.6	24
10	1	1	1	1	0	0	0	0	0	1	2	3	4	3	3	2	IZS	1	0	0	0	0	0	0	0	4	1.0	24
11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	1	0	0	0	0	0	0	0	0	0	1	0.0	24
12	0	0	0	0	0	0	0	0	0	1	2	2	2	IZS	1	0	0	0	0	0	0	0	0	0	0	2	0.3	24
13	0	0	0	0	0	0	0	0	0	0	0	0	IZS	1	1	0	0	0	0	0	0	0	0	0	0	1	0.1	24
14	0	0	0	0	0	0	0	0	0	1	3	IZS	4	4	5	4	2	1	1	1	1	1	0	0	5	1.2	24	
15	1	1	1	1	1	1	1	1	0	1	IZS	2	2	1	1	0	0	0	0	0	0	0	0	0	0	2	0.7	24
16	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
17	0	0	0	0	0	0	0	0	0	IZS	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0.1	24
18	0	0	0	0	0	0	0	IZS	0	0	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0	1	0.2	24
19	0	0	0	0	0	0	IZS	1	0	2	2	2	2	2	2	2	1	1	1	1	1	0	0	0	0	2	0.8	24
20	0	0	1	1	1	IZS	1	0	0	C	M	M	M	M	M	M	M	C	0	0	1	1	1	1	1	1	0.6	17
21	1	1	1	1	IZS	1	1	1	1	C	C	C	C	C	C	C	0	0	0	0	0	0	0	0	0	1	0.5	24
22	0	0	0	IZS	0	0	0	0	0	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	1	0.3	24
23	1	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.0	24
24	0	IZS	1	1	0	1	0	1	0	0	1	1	1	1	1	1	1	0	1	1	1	1	1	0	0	1	0.7	24
25	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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	IZS	0	0	0.0	24
27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0.0	24
28	0	0	0	0	0	0	0	0	0	1	1	2	3	3	2	3	1	0	0	0	0	IZS	0	0	0	3	0.7	24
29	0	0	0	0	0	0	0	0	0	2	3	2	2	2	1	1	0	0	0	0	IZS	0	0	0	0	3	0.6	24
30	0	0	0	0	0	0	0	0	0	0	1	1	2	2	2	1	0	0	0	0	IZS	0	0	0	0	2	0.4	24
31	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	0.0	24
HOURLY MAX	2	2	1	1	1	1	1	1	1	2	3	4	5	5	5	4	2	1	1	1	1	1	1	2	2			
HOURLY AVG	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.5	0.8	0.9	1.1	1.0	0.9	0.7	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2			

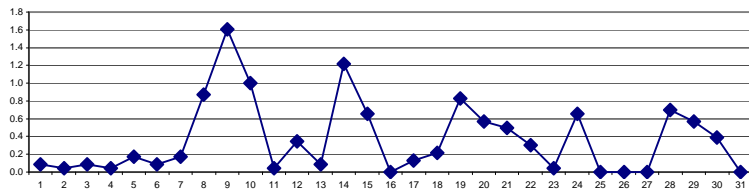
STATUS FLAG CODES

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

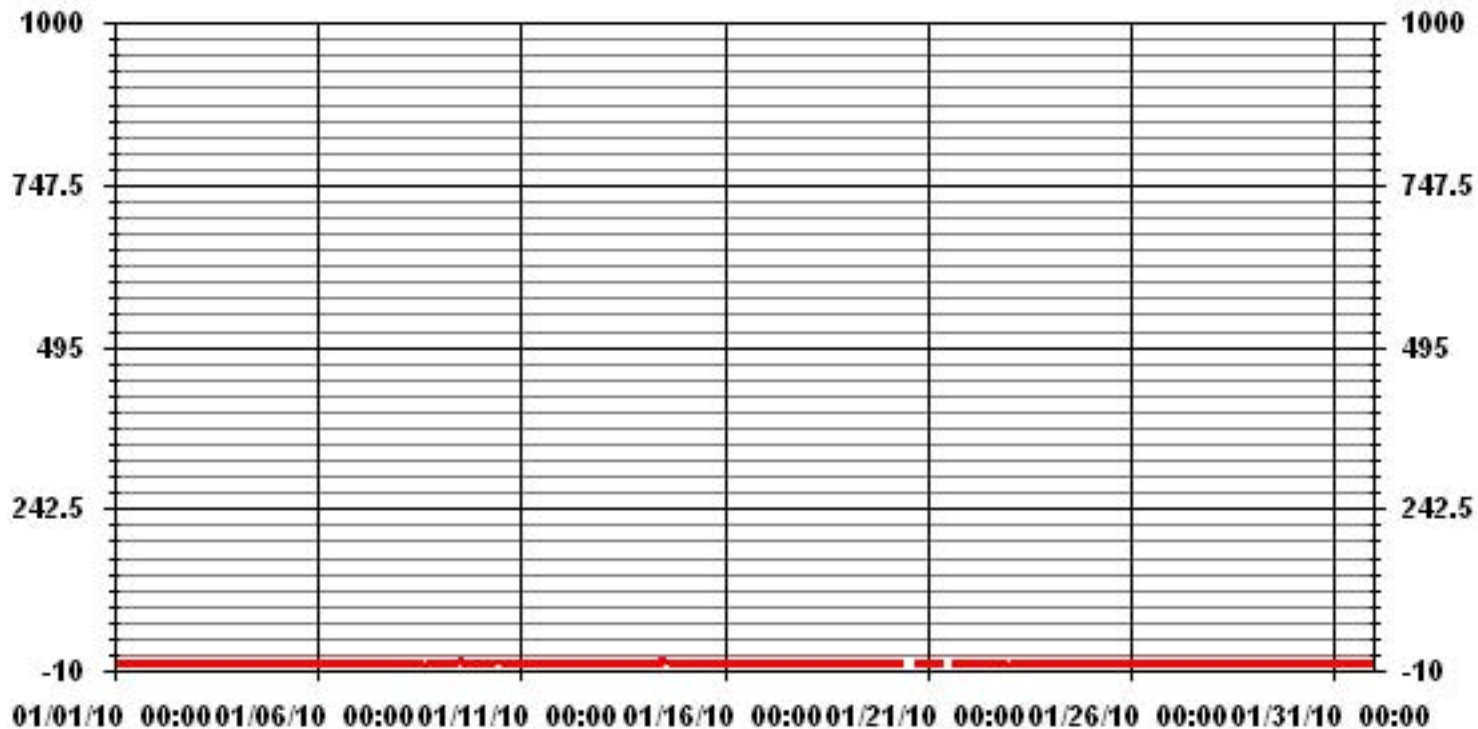
MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	172
MAXIMUM 1-HR AVERAGE:	5 PPB @ HOUR(S) VAR ON DAY(S) 9, 14
MAXIMUM 24-HR AVERAGE:	1.6 PPB ON DAY(S) 9
IZS CALIBRATION TIME:	33 HRS
MONTHLY CALIBRATION TIME:	9 HRS
OPERATIONAL TIME:	737 HRS
AMD OPERATION UPTIME:	99.1 %
STANDARD DEVIATION:	0.77
MONTHLY AVERAGE:	0.37 PPB

24 HOUR AVERAGES FOR JANUARY 2010



01 Hour Averages



— LICA31 NO_ PPB

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - ST. LINA

JANUARY 2010

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	23:00	DAILY	24-HOUR	
HOUR END	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	MAX.	AVG.	RDGS.	
DAY																												
1	1	IZS	P	1	1	1	1	1	0	1	1	1	1	1	1	1	1	0	0	0	0	1	0	1	0.7	23		
2	IZS	3	1	1	0	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	IZS	3	0.9	24	
3	2	1	1	1	1	1	1	0	1	1	1	1	1	1	2	1	1	1	0	1	1	1	1	IZS	3	1.1	24	
4	1	0	0	0	0	1	1	1	1	0	2	1	1	2	1	1	1	0	0	0	0	IZS	3	1	3	0.8	24	
5	0	0	0	0	0	0	1	1	1	2	2	2	1	1	1	1	0	0	2	IZS	3	1	3	3	1.0	24		
6	0	0	1	1	0	0	0	0	2	1	1	32	1	1	0	1	0	0	1	IZS	3	1	1	1	32	2.1	24	
7	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	IZS	3	1	1	0	1	3	1.0	24		
8	1	0	0	0	0	1	1	0	1	1	2	2	3	7	3	3	2	IZS	3	2	1	2	3	3	7	1.8	24	
9	3	2	2	1	1	1	1	1	1	3	5	4	7	12	6	5	IZS	3	1	1	1	1	2	2	12	2.9	24	
10	2	2	1	1	1	1	1	1	1	4	4	5	4	4	4	IZS	3	1	1	0	1	1	1	1	5	2.0	24	
11	1	0	1	0	0	0	0	0	0	2	1	1	1	1	IZS	2	1	1	1	1	0	1	0	1	2	0.7	24	
12	1	0	0	0	1	1	1	1	1	2	2	3	3	IZS	3	1	0	0	0	0	0	0	1	0	1	3	1.0	24
13	1	1	0	1	1	1	0	1	0	1	1	1	IZS	4	3	1	0	0	0	0	0	0	0	0	4	0.7	24	
14	1	1	1	1	1	1	1	1	1	2	5	IZS	5	6	9	7	18	3	2	2	1	1	1	1	18	3.1	24	
15	4	1	1	1	2	2	1	2	1	2	IZS	4	3	3	2	1	1	1	1	1	1	1	1	1	4	1.7	24	
16	1	0	0	0	0	0	0	0	0	IZS	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1	24
17	0	0	1	1	1	1	0	0	IZS	2	1	2	1	1	1	1	0	0	0	0	0	0	0	0	2	0.6	24	
18	0	0	0	0	0	0	0	IZS	2	1	1	2	2	2	1	1	1	1	0	1	1	1	0	0	2	0.7	24	
19	1	0	1	1	1	1	IZS	2	3	9	3	3	4	3	3	4	2	3	1	1	1	1	1	1	1	9	2.1	24
20	1	1	1	2	2	IZS	3	1	1	C	M	M	M	M	M	M	M	C	1	1	1	1	1	1	3	1.3	17	
21	2	2	2	2	IZS	2	2	2	0	C	C	C	C	C	C	C	0	0	0	0	0	0	0	0	2	0.9	24	
22	0	0	0	IZS	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	24
23	1	1	IZS	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	1	0.2	24	
24	0	IZS	2	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	2	1.0	24	
25	IZS	1	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1	1	0	0	0	0	0	0	IZS	1	0.2	24
26	1	0	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	IZS	1	1	0.3	24
27	0	0	0	0	0	0	0	0	0	1	1	1	1	2	9	1	2	2	0	0	1	IZS	1	1	9	1.0	24	
28	1	1	0	0	0	0	0	1	1	6	2	5	4	3	4	3	2	1	0	1	IZS	1	1	2	6	1.7	24	
29	1	1	1	1	1	1	1	1	1	3	4	3	3	12	3	1	1	2	0	IZS	3	1	0	1	12	2.0	24	
30	1	1	0	0	0	0	0	0	0	1	1	2	3	3	3	2	1	0	IZS	1	0	0	0	0	3	0.8	24	
31	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	0	IZS	1	0	0	0	0	0	1	0.3	24	
HOURLY MAX	4	3	2	2	2	2	3	2	3	9	5	32	7	12	9	7	18	3	3	3	3	3	3	3	3			
HOURLY AVG	1.0	0.7	0.6	0.6	0.6	0.6	0.7	0.7	0.8	1.8	1.7	2.9	2.0	2.6	2.3	1.5	1.5	0.8	0.6	0.7	0.7	0.7	0.7	0.7	1.0			

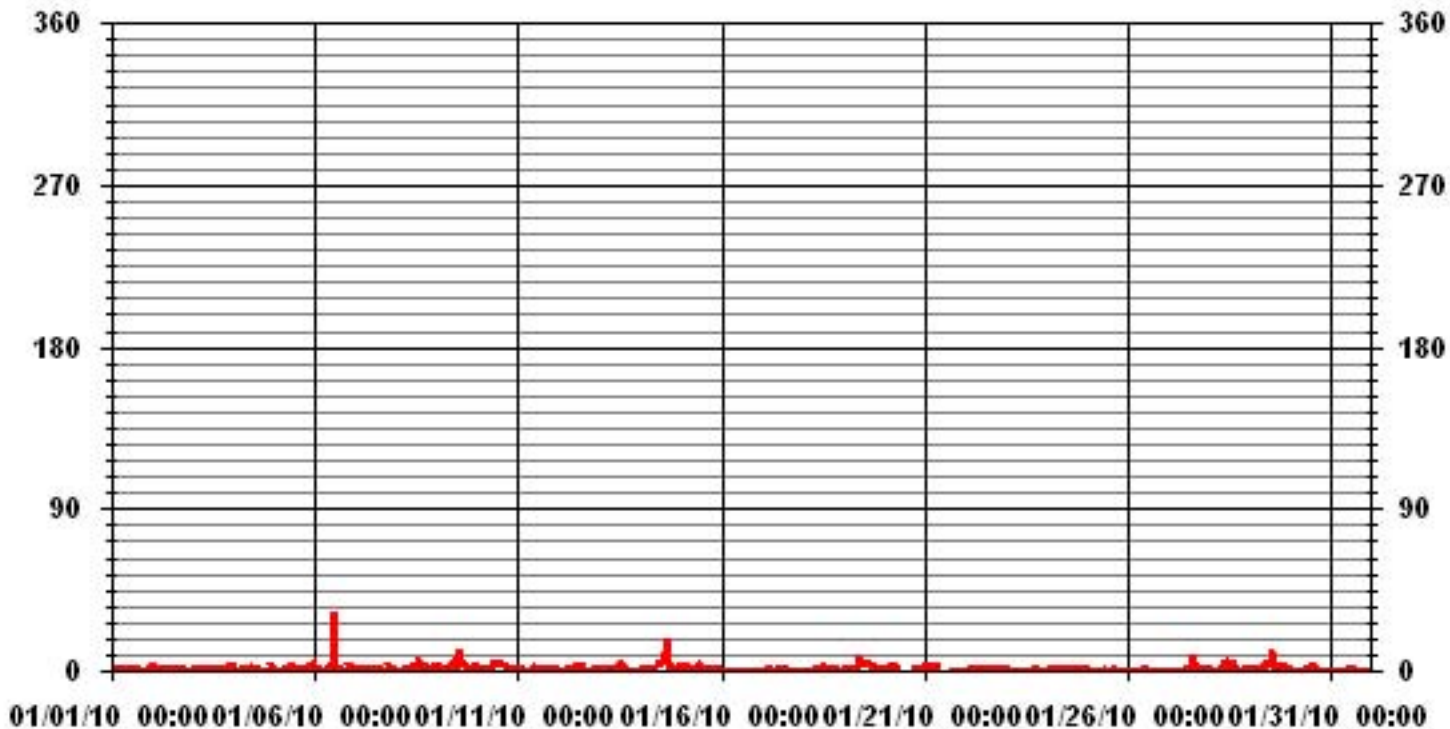
STATUS FLAG CODES

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

MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	460					
MAXIMUM INSTANTANEOUS VALUE:	32	PPB	@ HOUR(S)	11	ON DAY(S)	6
IZS CALIBRATION TIME:	33	HRS	OPERATIONAL TIME:	736	HRS	
MONTHLY CALIBRATION TIME:	9	HRS				
STANDARD DEVIATION	1.91					

01 Hour Averages



LICA31
 NO_ / WDR Joint Frequency Distribution (Percent)

January 2010

Distribution By % Of Samples

Logger Id : 31
 Site Name : LICA31
 Parameter : NO_
 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
< 50	5.61	3.88	4.89	6.47	8.05	4.46	6.33	7.19	11.94	11.07	4.17	2.44	2.87	7.62	5.75	7.19	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	5.61	3.88	4.89	6.47	8.05	4.46	6.33	7.19	11.94	11.07	4.17	2.44	2.87	7.62	5.75	7.19	

Calm : .00 %

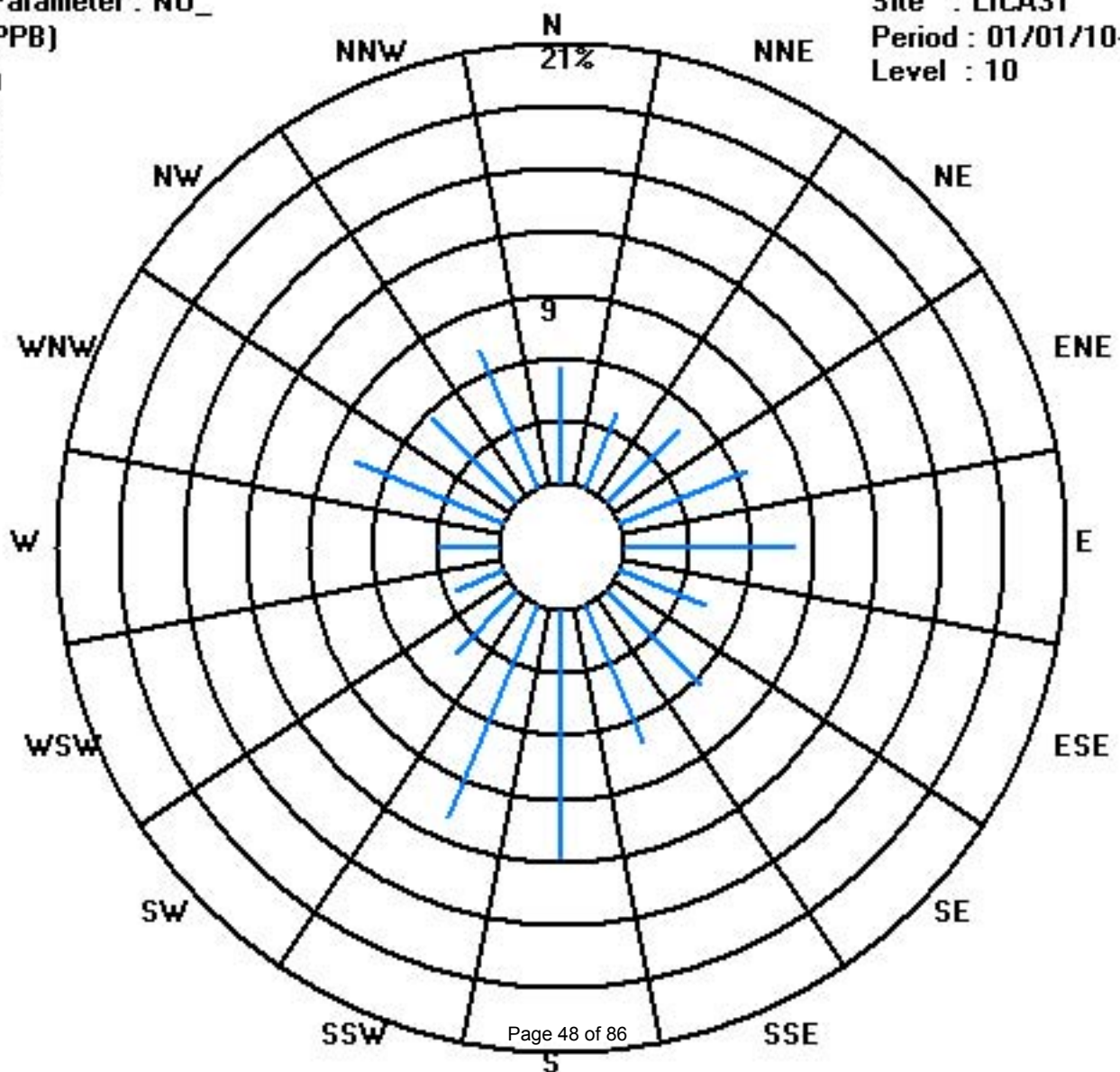
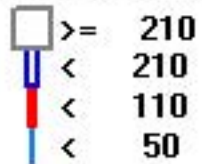
Total # Operational Hours : 695

Distribution By Samples

	Direction																
Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
< 50	39	27	34	45	56	31	44	50	83	77	29	17	20	53	40	50	695
< 110																	
< 210																	
>= 210																	
Totals	39	27	34	45	56	31	44	50	83	77	29	17	20	53	40	50	

Calm : .00 %

Total # Operational Hours : 695



Oxides of Nitrogen

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - ST. LINA

JANUARY 2010

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	IZS	3	3	3	3	2	2	2	2	1	2	2	2	2	2	2	1	1	1	1	1	2	1	3	1.8	24	
2	IZS	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	2	2	2	2	IZS	2	2.0	24	
3	2	1	1	2	2	2	3	3	4	3	3	2	2	2	2	2	3	4	5	5	5	6	IZS	3	6	2.9	24	
4	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	1	0.1	24
5	0	0	0	0	0	0	1	3	3	5	4	2	1	0	0	1	2	1	1	2	IZS	2	1	2	5	1.3	24	
6	2	2	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1	IZS	3	3	3	3	3	0.9	24	
7	2	3	4	4	3	2	2	2	2	3	3	2	2	1	1	1	0	0	IZS	2	2	2	2	3	4	2.1	24	
8	3	3	4	4	4	4	4	4	4	4	4	5	7	9	9	10	10	IZS	11	13	15	17	20	27	27	8.5	24	
9	26	23	21	15	11	11	9	9	10	12	14	13	16	16	14	16	IZS	15	15	15	15	15	16	19	26	15.0	24	
10	20	16	14	13	12	12	13	13	13	12	12	11	11	11	12	IZS	14	10	8	6	5	4	5	5	20	11.0	24	
11	4	3	2	2	2	2	2	1	2	2	2	3	3	3	IZS	5	6	5	6	7	7	7	6	6	7	3.8	24	
12	7	6	4	4	6	7	8	11	8	7	7	7	6	IZS	4	4	3	3	3	3	3	3	4	5	11	5.3	24	
13	6	6	4	4	3	1	1	1	0	0	1	1	IZS	0	0	0	0	0	0	0	0	1	1	1	6	1.3	24	
14	2	3	4	4	4	4	3	4	4	4	6	IZS	7	8	11	10	10	13	15	16	14	13	11	11	16	7.9	24	
15	13	14	14	13	13	13	12	12	10	10	IZS	9	8	7	6	6	9	10	10	10	9	9	8	7	7	14	10.0	24
16	6	2	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	1	2	6	0.5	24	
17	2	4	5	5	5	3	1	0	IZS	2	2	2	3	2	2	2	2	1	1	1	1	1	1	1	5	2.1	24	
18	1	1	1	1	1	1	1	1	IZS	1	2	1	2	3	3	2	3	3	3	4	4	4	3	3	3	4	2.2	24
19	4	4	4	4	4	4	IZS	6	4	6	5	4	5	5	6	7	8	10	10	10	9	8	8	8	10	6.2	24	
20	7	8	9	11	10	IZS	7	3	4	C	M	M	M	M	M	M	M	C	2	2	2	2	2	2	2	11	5.1	17
21	2	2	3	3	IZS	3	3	3	3	C	C	C	C	C	C	C	2	2	2	2	1	1	1	1	3	2.1	24	
22	1	1	1	IZS	2	2	2	2	3	4	3	3	3	3	3	2	2	2	2	2	2	2	2	2	2	4	2.2	24
23	3	2	IZS	1	1	1	1	1	1	1	1	1	1	1	1	2	5	11	14	10	5	4	4	3	14	3.3	24	
24	2	IZS	1	1	0	0	0	1	1	0	1	1	1	1	1	1	1	1	2	2	1	1	2	2	2	2	1.0	24
25	IZS	3	3	3	3	3	3	2	2	2	2	2	2	2	2	1	2	2	1	3	4	3	3	IZS	4	2.4	24	
26	3	4	4	4	3	3	2	3	3	2	2	2	2	1	1	1	1	1	2	2	1	2	IZS	2	4	2.2	24	
27	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	5	7	8	9	15	IZS	16	12	16	4.1	24	
28	8	6	6	4	4	5	6	7	6	7	6	8	9	9	10	12	11	10	12	14	IZS	13	13	14	14	8.7	24	
29	12	11	10	10	9	10	9	8	8	9	10	9	8	9	9	8	8	8	7	IZS	7	7	9	9	12	8.9	24	
30	6	6	5	5	3	1	0	1	1	2	3	4	5	6	6	3	0	0	IZS	1	0	0	0	0	6	2.5	24	
31	0	0	1	0	0	0	0	0	0	0	1	1	1	1	1	1	1	IZS	2	2	2	2	2	2	2	0.9	24	
HOURLY MAX	26	23	21	15	13	13	13	13	13	12	14	13	16	16	14	16	14	15	15	16	15	17	20	27				
HOURLY AVG	5.0	4.7	4.4	4.1	3.7	3.3	3.3	3.5	3.4	3.8	3.5	3.6	4.0	3.8	3.9	3.7	3.9	4.4	5.0	5.0	4.7	4.6	5.1	5.4				

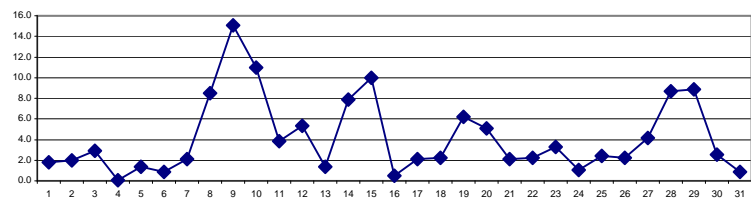
STATUS FLAG CODES

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

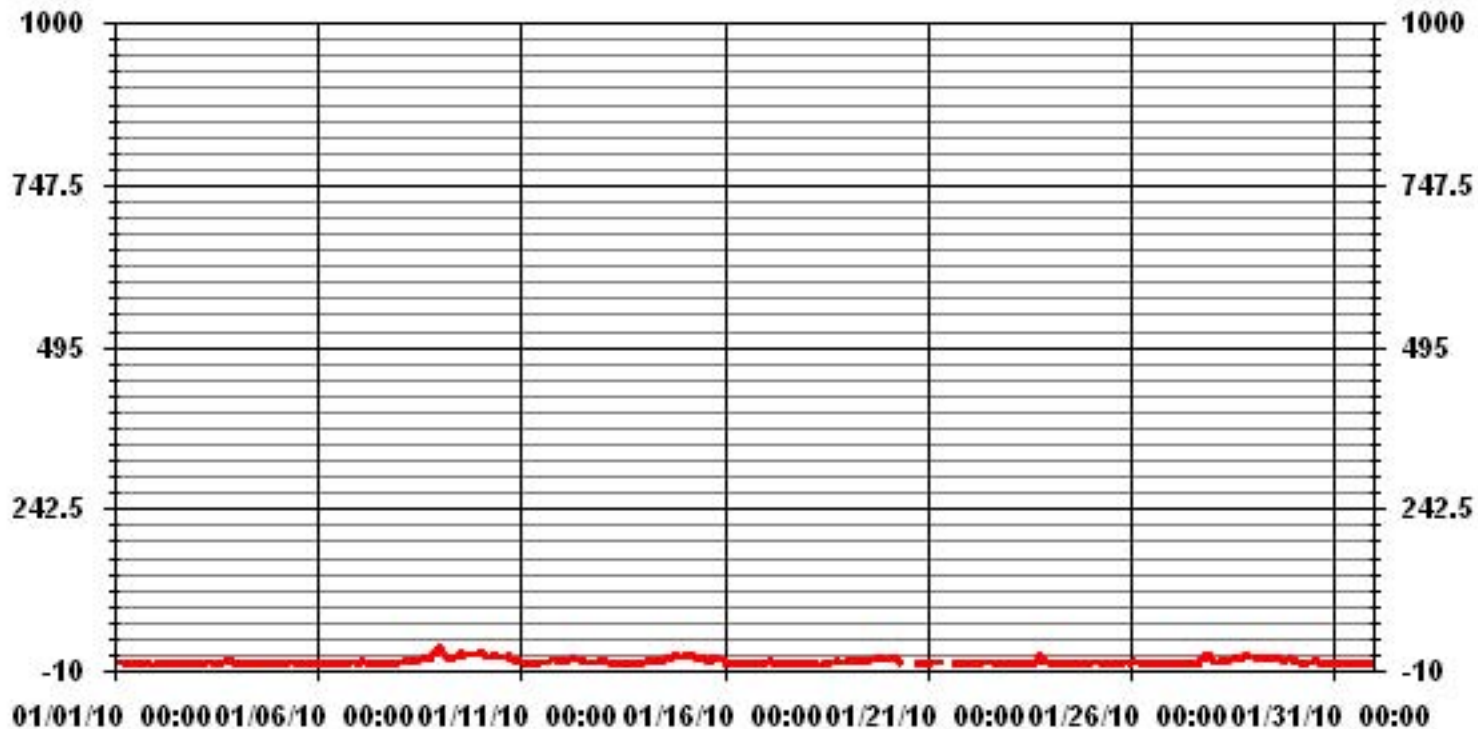
MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	600					
MAXIMUM 1-HR AVERAGE:	27	PPB	@ HOUR(S)	23	ON DAY(S)	8
MAXIMUM 24-HR AVERAGE:	15.0	PPB			ON DAY(S)	9
IZS CALIBRATION TIME:	33	HRS	OPERATIONAL TIME:	737	HRS	
MONTHLY CALIBRATION TIME:	9	HRS	AMD OPERATION UPTIME:	99.1	%	
STANDARD DEVIATION:	4.39		MONTHLY AVERAGE:	4.15	PPB	

24 HOUR AVERAGES FOR JANUARY 2010



01 Hour Averages



— LICA31 NOX_ PPB

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - ST. LINA

JANUARY 2010

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	1	IZS	P	4	4	4	3	3	3	2	2	3	3	3	2	3	2	2	2	1	2	2	2	2	4	2.5	23	
2	IZS	3	3	3	3	2	3	3	3	3	3	2	3	3	3	3	3	3	4	3	3	2	3	IZS	4	2.9	24	
3	3	2	2	3	3	3	4	4	5	4	4	3	3	3	4	3	5	5	5	6	6	7	IZS	6	7	4.0	24	
4	2	1	0	0	0	1	3	1	2	0	2	2	1	2	2	4	2	1	0	0	0	IZS	1	0	4	1.2	24	
5	0	0	0	0	0	0	4	5	5	6	6	2	2	1	1	2	3	2	2	6	IZS	3	2	5	6	2.5	24	
6	3	3	1	1	0	1	1	0	3	0	2	43	0	1	0	2	1	2	2	IZS	4	4	4	3	43	3.5	24	
7	3	4	5	5	4	3	3	3	3	3	3	3	2	2	2	1	1	1	IZS	3	2	3	3	4	5	2.9	24	
8	4	4	5	5	4	4	4	4	5	5	6	7	9	20	10	12	11	IZS	12	15	17	19	25	28	28	10.2	24	
9	28	25	22	18	14	14	11	10	13	14	17	15	17	33	16	17	IZS	17	16	17	17	17	18	21	33	17.7	24	
10	21	19	16	13	13	13	13	14	14	14	13	12	13	13	IZS	16	12	10	7	7	5	6	6	6	21	12.3	24	
11	5	4	4	2	3	3	3	2	2	4	4	3	4	4	IZS	7	7	7	7	8	8	8	7	7	8	4.9	24	
12	8	8	5	4	9	9	12	14	9	8	8	8	7	IZS	5	5	4	4	3	4	5	5	5	6	14	6.7	24	
13	7	7	5	4	4	2	2	3	1	2	1	1	IZS	2	4	1	0	0	1	1	1	1	2	2	7	2.3	24	
14	2	4	5	5	5	4	4	4	5	6	8	IZS	7	10	15	13	25	16	17	18	15	14	12	13	25	9.9	24	
15	15	15	15	14	14	14	13	13	11	11	IZS	10	10	9	7	8	11	11	11	10	10	9	8	8	15	11.2	24	
16	8	4	1	1	1	1	1	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	1	2	3	8	1.0	24
17	3	5	6	6	7	4	2	1	IZS	3	3	4	3	3	3	3	2	2	1	2	2	1	1	1	7	3.0	24	
18	1	1	2	2	1	1	2	IZS	2	2	2	3	4	4	3	4	4	4	5	5	5	5	4	4	5	3.0	24	
19	5	4	4	5	4	4	IZS	7	8	18	6	6	7	6	7	9	9	12	11	11	10	10	9	9	18	7.9	24	
20	8	10	10	12	11	IZS	11	5	6	C	M	M	M	M	M	M	M	C	3	3	3	3	3	3	12	6.5	17	
21	3	3	3	3	IZS	4	4	3	C	C	C	C	C	C	C	C	C	2	3	2	2	2	2	2	4	2.7	24	
22	2	2	2	IZS	2	2	2	3	4	4	4	4	4	3	3	3	3	3	3	3	2	2	2	3	4	2.8	24	
23	3	2	IZS	2	1	1	1	1	1	1	1	2	2	1	2	2	3	8	13	15	14	7	5	5	4	15	4.2	24
24	3	IZS	2	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	3	3	2	2	2	3	3	1.8	24
25	IZS	4	3	3	3	4	3	3	2	3	4	2	2	2	2	2	4	4	3	3	5	5	4	IZS	5	3.2	24	
26	3	4	5	4	4	4	3	3	3	3	3	2	2	2	1	2	2	3	3	2	2	2	IZS	2	5	2.8	24	
27	2	2	2	2	2	2	2	2	2	2	3	2	3	5	14	4	8	10	9	12	18	IZS	20	13	20	6.2	24	
28	12	7	7	6	5	6	7	8	7	40	7	10	10	9	13	13	12	12	14	15	IZS	14	14	15	40	11.4	24	
29	14	13	12	11	10	11	11	9	10	10	12	10	10	25	11	9	9	12	7	IZS	12	8	11	11	25	11.2	24	
30	7	7	7	5	4	1	1	1	2	3	4	5	6	6	6	6	1	1	IZS	2	1	1	1	0	7	3.4	24	
31	1	1	1	1	1	1	1	1	1	1	2	1	2	2	1	1	2	IZS	3	2	2	2	2	3	3	1.5	24	
HOURLY MAX	28	25	22	18	14	14	13	14	14	40	17	43	17	33	16	17	25	17	17	18	18	19	25	28				
HOURLY AVG	6.1	5.8	5.3	4.8	4.6	4.1	4.5	4.4	4.6	6.2	4.7	6.0	4.9	6.3	5.4	5.1	5.5	5.9	6.0	6.1	5.9	5.6	6.2	6.4				

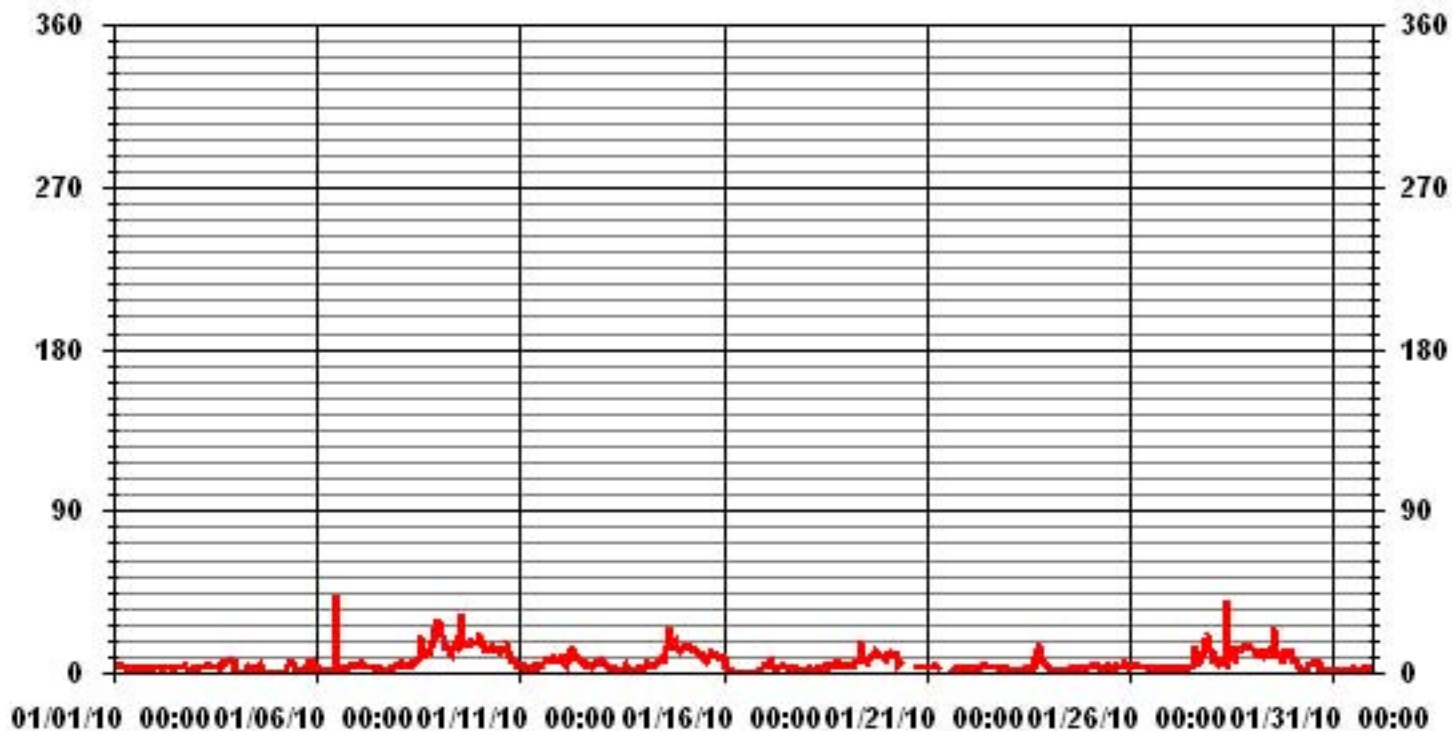
STATUS FLAG CODES

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

MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	658
MAXIMUM INSTANTANEOUS VALUE:	43 PPB @ HOUR(S) 11 ON DAY(S) 6
IZS CALIBRATION TIME:	33 HRS
MONTHLY CALIBRATION TIME:	10 HRS
STANDARD DEVIATION:	5.39
OPERATIONAL TIME:	736 HRS

01 Hour Averages



— LICA31 NOXMAX PPB

LICA31
 NOX_ / WDR Joint Frequency Distribution (Percent)

January 2010

Distribution By % Of Samples

Logger Id : 31
 Site Name : LICA31
 Parameter : NOX_
 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
< 50	5.61	3.88	4.89	6.47	8.05	4.46	6.33	7.19	11.94	11.07	4.17	2.44	2.87	7.62	5.75	7.19	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	5.61	3.88	4.89	6.47	8.05	4.46	6.33	7.19	11.94	11.07	4.17	2.44	2.87	7.62	5.75	7.19	

Calm : .00 %

Total # Operational Hours : 695

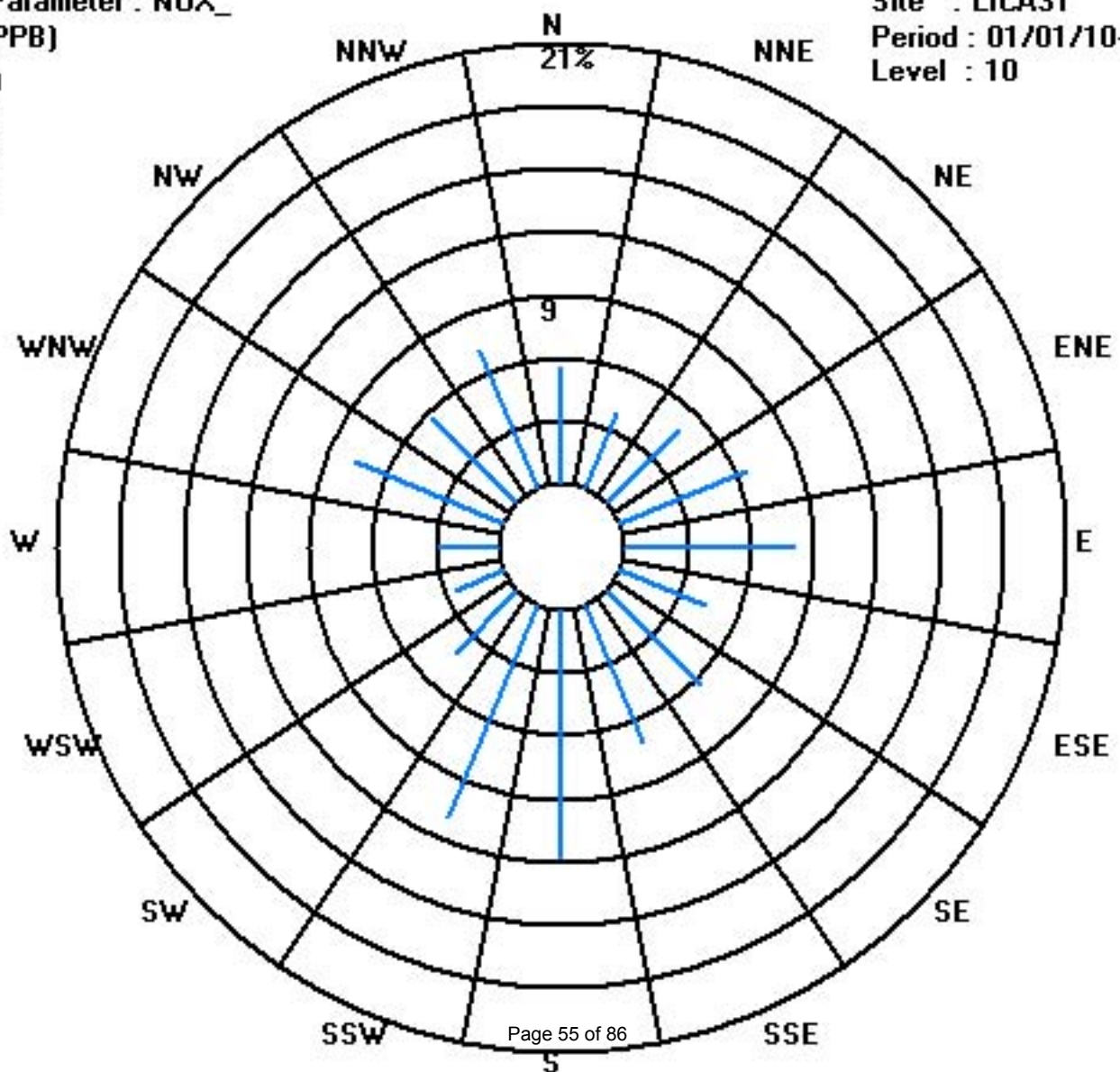
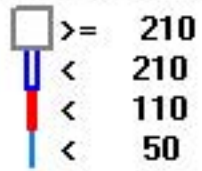
Distribution By Samples

	Direction																
Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
< 50	39	27	34	45	56	31	44	50	83	77	29	17	20	53	40	50	695
< 110																	
< 210																	
>= 210																	
Totals	39	27	34	45	56	31	44	50	83	77	29	17	20	53	40	50	

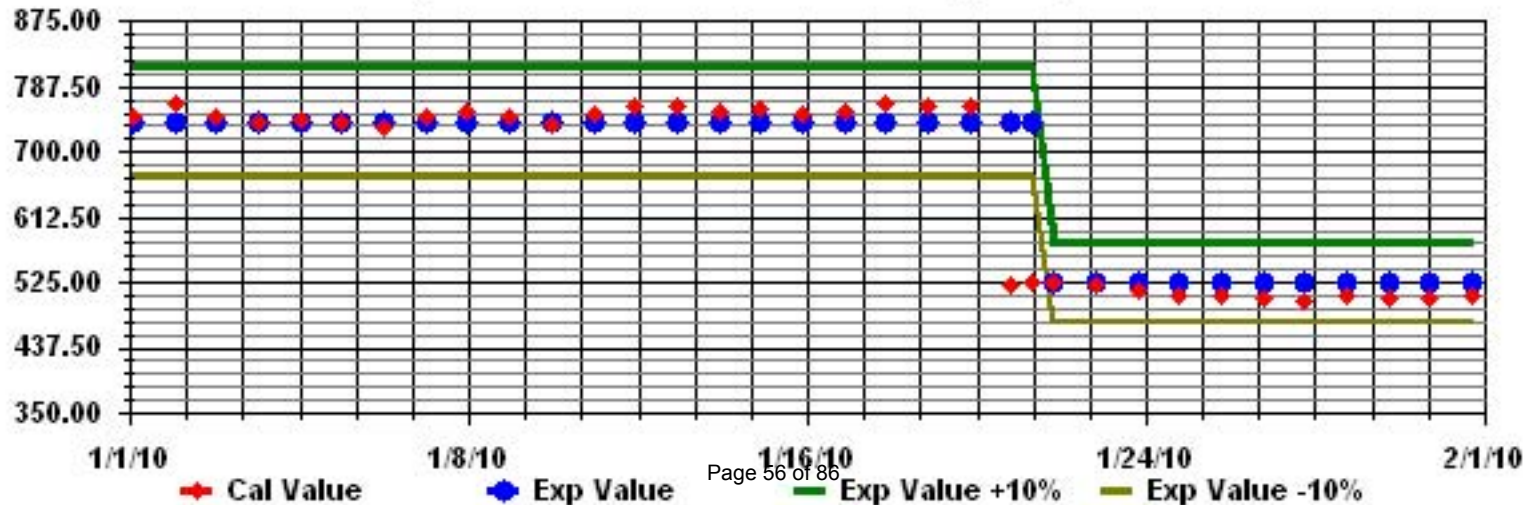
Calm : .00 %

Total # Operational Hours : 695

Class Limits (PPB)



Calibration Graph for Site: LICA31 Parameter: NOX_ Sequence: NO2 Phase: SPAll



Vector Wind Speed

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - ST. LINA

JANUARY 2010

WIND SPEED hourly averages (km/hr)

MST		0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY	24-HOUR	
HOURLY MAX	HOURLY AVG	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		12.6	13.3	12.7	12.7	13.3	14.7	15.6	15.7	16.3	16.2	18.7	17.4	16.8	16.3	16.7	15	14.7	14.9	12	10	10.9	11.1	11	10.5	18.7	13.4	24
2		7.4	8.1	9.8	8.1	6.4	9.2	8	9.6	9.8	11.4	13.3	12.6	14.9	15.4	12.8	10.9	11.4	12.4	9.7	8.1	5.6	6.6	7.1	5.3	15.4	8.3	24
3		4.4	5.3	7.2	9	9.2	9.4	11.5	9.5	9.9	10.6	11	14.8	15.3	11.7	10.8	11.1	11.9	13.2	10.9	9.3	7.7	8.7	8.6	10.7	15.3	3.8	24
4		13.7	11.3	12	9	8	6.7	7.2	8.6	7.8	6.2	3.1	3.2	4.2	4.1	3.1	2.2	0.4	2	1.9	2	1.8	1.8	2.5	3.2	13.7	3.8	24
5		3.7	3.9	6	2.9	3.3	3.7	3.7	5.6	4.1	5.8	5.3	6.4	6.2	6	4.1	2.9	2.5	6.7	6.7	7.1	4.4	2.4	3.2	2.2	7.1	2.5	24
6		1.2	3.7	5.6	5.3	5.9	2.3	1.9	6.4	7.8	8.6	7.6	8	10.3	9.2	9.4	9.1	8.2	8.9	12.4	15.7	15.9	15.6	13.5	15.5	15.9	6.9	24
7		14.4	15.7	14.3	16.2	18.3	18.2	17.7	17.1	16.8	17.6	21	21.3	21.2	18.2	16.9	19.9	23.9	26.3	13.9	13.6	13.4	16.9	15.3	14.8	26.3	17.4	24
8		14.4	15	14.5	10.8	9.8	8.3	10.6	10.7	11.8	9.4	10.1	7.1	11.4	2.9	4.2	7.1	11.8	14.8	16.7	15.8	15	12.7	12.7	10.9	16.7	10.9	24
9		11.3	11.5	11.4	10.5	12.3	10.1	4.6	6.7	8.6	7	3.1	2.6	4.4	2.2	9.3	10.6	9.2	6.3	5.8	6.4	4.2	5	9.7	8.8	12.3	3.5	24
10		6.7	12.9	11.4	9.7	12.4	12.8	11.7	11.2	9	9.1	8.7	7.7	7.2	6.8	5.8	6.5	7.4	9.7	6.6	12.9	12.6	12.5	13.7	13	13.7	7.6	24
11		13.6	14.8	17.3	17.8	19	16.7	18.1	19.9	19.4	15.2	14.3	12.9	14.6	12.9	10.8	11	12.2	12	11.9	11	10.9	9.2	8.6	10.9	19.9	12.6	24
12		10.3	9	10.3	13.1	16.2	15.3	17.8	20.8	20.4	18	13.8	12.2	10.9	9.3	10.3	8.5	8.1	8.8	3.4	8.8	10.2	9.9	12.7	13.8	20.8	6.5	24
13		10.4	13.5	15.2	13.2	13.9	11.6	12.2	10.7	9.9	7.3	6.7	7.9	7.5	6.6	4.1	2	3.2	3.4	6.7	7.5	6.5	5	5.8	8.8	15.2	4.3	24
14		10.1	7.2	9.3	5	4.4	6.4	6.7	5.4	5.2	8.5	7.8	8.8	10.9	7.3	5.8	6.2	10	10.9	10.3	10.8	10.5	11.4	12.4	11.8	12.4	7.6	24
15		11.1	11.6	10.4	10.3	9.9	10	10.3	10.7	12.5	12.1	12.7	12.2	12.7	12	10.6	9	10.1	11.5	11.5	9.2	7.7	9.8	12.9	15.9	15.9	9.1	24
16		15.3	18.2	20.1	21.6	19.5	18.6	20.6	21	23.7	21.3	20.4	22.8	21.1	18.6	16.5	11.2	8.3	9.9	11.6	10.8	9.8	9.1	9.8	10.2	23.7	14.7	24
17		9.8	8	9.3	10.7	12.6	13.7	15.8	15.4	15.1	17.1	18.4	19.8	19.9	20.6	20.3	20	17.9	13.4	16.5	17	15.4	18.6	11.5	9.9	20.6	14.6	24
18		10.6	9.5	9	10.4	8.3	10.3	10.7	10.4	11.2	12.8	9.5	9	9.5	8.8	9.3	11.2	8	9.5	9.3	11.1	5.3	7.4	8.6	8.7	12.8	8.6	24
19		10.3	6.6	4.7	6.4	5.6	4.5	7.6	6.1	4.1	2.9	2.2	3.8	0.8	3.4	2	5.6	7.4	5.7	6.1	5.9	7.3	4.5	2.2	3.5	10.3	1.7	24
20		7.6	11.2	9	8.3	10.9	11.2	9.9	13.3	11.3	12.7	14.8	13.2	13.4	13.4	12.9	14.3	14.3	12.7	13.5	14.9	14.9	14.4	14	12.2	14.9	12.1	24
21		12.2	13.4	11.5	11.7	13	13.4	14	13.3	12.9	11.6	14.8	13.6	12.1	11.7	11.9	9.9	11.6	11.2	11	10.4	9.9	9.8	10.4	8.6	14.8	11.6	24
22		8.2	7.6	8.2	8.8	9.2	8.6	8.3	9.4	7.8	6.2	8	6.2	5.8	6.6	5.9	7	7.3	7.5	8.1	8.9	7.2	5.6	5	5	9.4	7	24
23		6	7.4	8.2	9.9	9.1	10.5	10.5	8.9	8.8	8.6	8.8	10.1	12.3	11.3	12.9	15.2	15	14	13.5	14	14.6	14.7	15.2	15.7	15.7	11	24
24		13.2	14.2	16.7	13.8	18	17.3	15	15.2	16.7	17.8	17.6	14	14.6	15.9	15.7	17.7	16.1	16.3	14.8	12.1	12.2	10.1	8.9	9.2	18	14.3	24
25		8.1	8.6	9.5	8.9	7.9	6.5	2.4	8.2	4.6	3.8	4.7	4.6	6.6	5.6	5	5.3	4.5	3.5	4.8	7.9	7.7	7.9	7.3	8.3	9.5	5.5	24
26		9.4	10.6	12.5	11	12.3	14.4	13.2	14.1	12.6	11.3	14.5	13.7	16.3	16.7	16.3	17.8	16	14.2	13.6	16.2	15.6	17	16.5	15.5	17.8	14.1	24
27		14.9	14.4	13.6	12.8	14.6	13	10.6	10.1	9.3	9.3	8	6.8	3.5	1.9	3	6.9	8.1	8	9.7	11.1	10.6	10.9	10.2	12.2	14.9	6.1	24
28		13	14.2	14.8	15.9	14.8	15.4	15.6	12.2	13.3	12.2	9.4	9.5	8.2	4	4.4	8.1	6.5	4.9	8.2	7.8	6.5	7.6	6.8	8.8	15.9	8.9	24
29		7.2	6.7	8.3	5.6	2.4	2.2	4.8	5.4	3.6	5	2.5	3.4	4.8	5.4	1.5	2.9	3.4	4.5	3.7	5.5	5.3	3.2	6.3	7	8.3	2.6	24
30		7.7	7.6	8.5	8.3	9.3	11.3	8	8.9	10.3	9.2	9.8	10.3	7.4	7.3	9.2	8.1	10.5	10.1	14.3	16	18	17.1	13.4	16.5	18	9.7	24
31		13.8	14.3	14.8	15.9	17.6	16.8	15.5	13.3	12.5	12.7	13	15.9	15.7	15.6	16.7	16.9	14.2	13.1	14.3	15.1	13.1	12.2	12.1	12.2	17.6	13.4	24
HOURLY MAX		15.3	18.2	20.1	21.6	19.5	18.6	20.6	21.0	23.7	21.3	21.0	22.8	21.2	20.6	20.3	20.0	23.9	26.3	16.7	17.0	18.0	18.6	16.5	16.5			
HOURLY AVG		10.1	10.6	11.2	10.8	11.2	11.1	11.0	11.4	11.2	10.9	10.8	10.7	11.0	9.9	9.6	10.0	10.1	10.3	10.1	10.7	10.0	10.0	9.9	10.3			

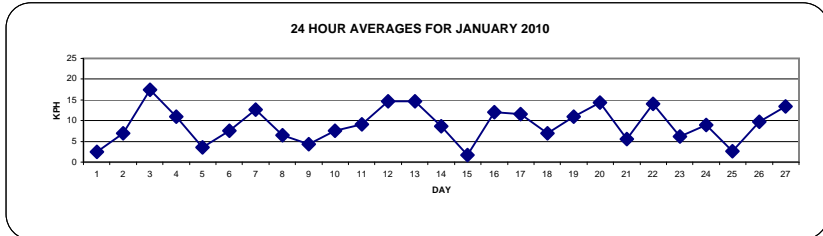
STATUS FLAG CODES

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

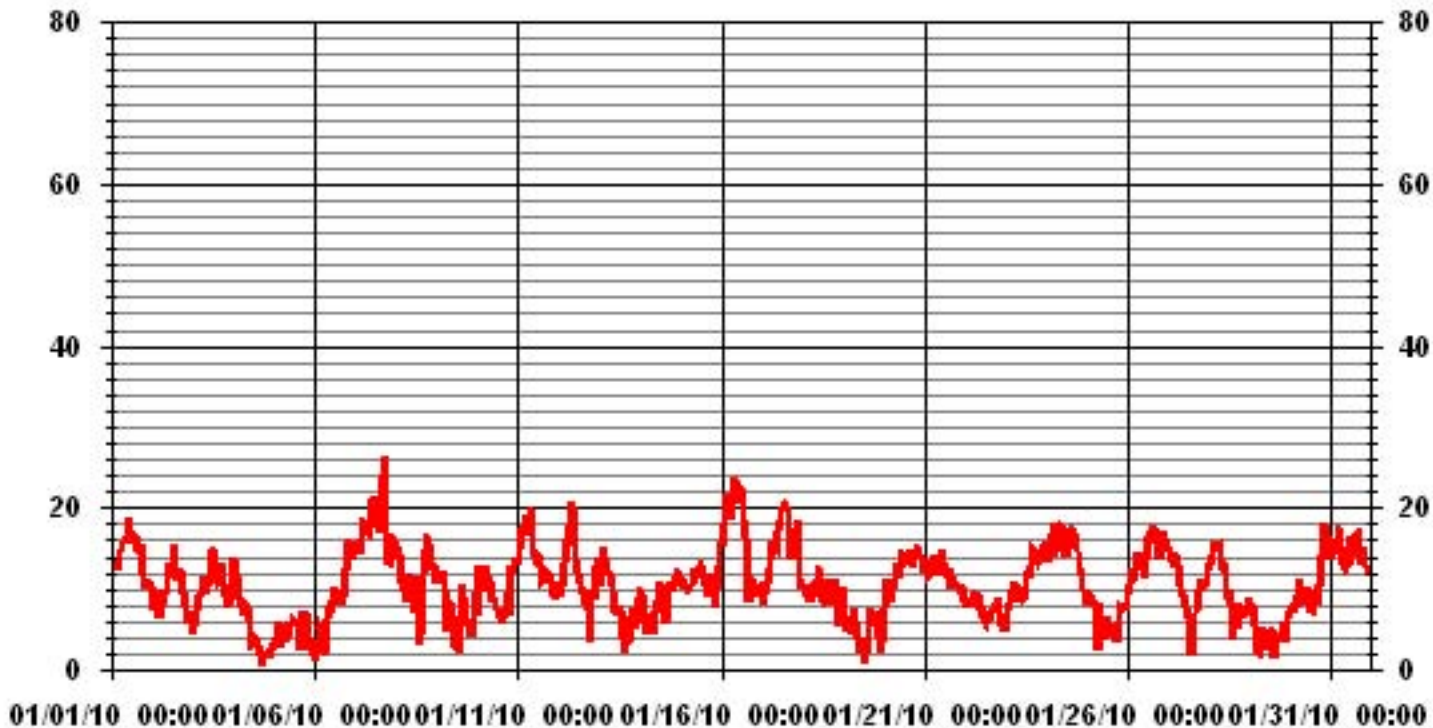
LAST CALIBRATION: February 3, 2009

MONTHLY SUMMARY

MAXIMUM 1-HR AVERAGE:	26.3	KPH	@ HOUR(S)	17	ON DAY(S)	7
MAXIMUM 24-HR AVERAGE:	17.4	KPH			ON DAY(S)	7
CALMS (≤ 0 KPH)	0.27	%	OPERATIONAL TIME:	744	HRS	
MONTHLY CALIBRATION TIME:	0	HRS	AMD OPERATION UPTIME	100.0	%	
STANDARD DEVIATION	4.51		MONTHLY AVERAGE	10.54	KPH	



01 Hour Averages



— LICA31 WSP KPH

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - ST. LINA

JANUARY 2010

VECTOR WIND SPEED MAX instantaneous maximum in km/hr

MST		0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY	
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	MAX.	
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		23.8	24.9	0	25.3	27.9	31.6	31.4	30.7	32.5	32.2	34.4	31.2	36.8	36.6	33.1	32.2	31.6	31.1	25.7	21.1	22.9	24.9	23.8	22.5	36.8	
2		18.8	19.2	19.5	16.2	17.1	22.9	20.3	25.1	26.7	25.9	29.4	26.1	37.2	36.7	30.7	26.8	25.3	32	24.2	20.1	20.3	16.9	20.3	19.4	37.2	
3		19.9	18.6	18.4	22.5	18.8	18.7	19.7	16.9	16.9	21.1	21.2	32.4	32	27.4	24.6	24.4	22.9	22.9	16.9	16.4	21.5	21	19	24.4	32.4	
4		29.1	30.1	25.5	24.4	18.4	16	21.8	18.6	21	20.1	15.8	26.6	24	19.7	17.9	28.5	15.3	19.9	27	28.3	14.7	33.1	65.5	64.7	65.5	
5		12.5	66.8	20.5	89.9	73.3	12.7	49.1	51.5	19.7	11.9	13.4	15.1	16.2	16.4	11	32.7	17.3	51.7	22.9	20.8	46.7	25.5	43.2	60.6	89.9	
6		29.6	66.4	75.3	13.2	56.9	51.7	55.2	18.2	18.2	17.7	19.7	18.4	21.8	19.9	23.3	19	17.7	17.9	22.3	28.3	30.5	29.8	27.9	33.3	75.3	
7		29.7	29.8	29	32.5	38.2	38.5	34.8	33	36.8	34.6	41.8	45.4	46.5	43.4	35.2	41.7	53	60.3	29.8	29.4	28.5	34.4	35	34	60.3	
8		28.3	27	25.9	21	21.6	20.3	20.8	19.5	19.9	20.3	19.2	15.8	26.1	15.8	12.3	15.1	19.2	23.8	25.1	22.5	20.9	18.8	18.2	16	28.3	
9		15.6	15.8	18.8	17.1	17.2	15.8	14.5	14.5	16.8	14.2	12.3	12.1	11.4	13.6	30.3	20.3	16.8	17.7	15.3	14.9	13.5	8.6	15.5	16	30.3	
10		14.7	25.3	26.1	18.6	19.9	20.3	14.4	21	14	11.9	12.7	9.7	9.5	10.6	8.2	11	14.9	14.8	15.3	17.9	22.2	21.6	26.6	24.4	26.6	
11		26.6	27.2	33.3	32.4	32	31.1	35.2	37.6	34.4	30.5	25.9	24	25.9	21.4	18.1	18.8	18.4	16.4	17.1	15.5	17.1	14.9	18.3	14.8	37.6	
12		16.8	13.6	16	20.1	29.4	30.9	40.2	43.9	40.6	37.2	25.1	20.9	19.4	16.4	16.6	18.4	12.7	13.2	13.2	20.5	21.6	23.5	36.9	34.6	43.9	
13		22.9	28.3	26.6	23.1	32.2	29.2	27.7	24.4	22.7	16.6	21.4	21.8	22	18.6	16.2	12.3	16	55.3	17.7	18.4	18.9	13.8	14	12.9	55.3	
14		19.2	18.4	16.4	14.5	9.9	11.2	12.1	12.7	11.2	14.2	14.2	15.8	21.2	15.8	11.6	12.9	19	17.1	18.8	18.8	19.7	26.1	25.3	22.8	26.1	
15		19.4	19	18.1	16	14.2	14.2	16.8	17.7	19.2	17.9	25.5	20.1	20.3	22.9	17.9	16.4	23.5	21.6	23.1	19.9	14.5	14.5	35.6	41	41	
16		40	52.7	49.5	52.5	48.6	41.2	45.2	49.7	57.2	64.3	50.3	54.2	55.7	43.4	36.1	24.1	22.9	16.8	16.6	16.2	14.5	13.2	15.3	15.3	64.3	
17		14.2	13.3	17.1	20.9	24.6	21.4	23.3	29.4	32.6	33.3	36.5	39.5	38.4	40	41.9	39.1	37.2	24.1	32	37.8	26.8	35	31.5	20.3	41.9	
18		17.9	20.1	17.3	20.9	20.1	23.1	22.7	24.2	18.3	22	20.5	17.3	17.5	18.7	17.1	24.6	16.6	17.9	17.3	20.3	18.1	16.4	16.6	15.9	24.6	
19		17.5	16	9.7	9.9	8.6	8.6	15.8	12.5	12.5	7.9	10.1	14.5	8.9	9.9	8.1	12.5	11.4	13.6	14	15.3	24.2	18.4	11.7	13.8	24.2	
20		16	18.8	17.9	17.5	21.8	27	19.6	22.5	23.3	30.9	30.7	27.7	27.7	28.3	27.2	33.3	31.3	25.3	26.6	31.1	27.7	28.7	28.5	25.3	33.3	
21		26.8	25.5	24.2	23.5	25.5	30.5	28.3	27.4	25.1	27.2	27.4	28.7	23.5	25.9	22.2	24.2	21.4	21	21.2	21.4	21.2	17.9	20.1	18.3	30.5	
22		17.1	16.6	17.7	17.3	21.8	18.8	16.2	18.1	15.3	11.7	17.5	12.3	13	15.9	12.3	15.1	14.9	16.8	17.1	18.8	17.3	12.3	11	13	21.8	
23		13.2	16.4	19	25.3	22.9	22.2	26.1	23.1	23.1	19.2	21.6	27.4	29.4	32.6	30.7	34.8	30.3	30.5	29.8	32.1	34.1	34.8	32.4	34.1	34.8	
24		34.9	35	35.2	32.8	40.5	47.6	33.1	32.6	44.2	42.1	50.8	35	32.6	34.1	36.1	40	44.1	46.1	37	30.3	29.4	28.5	22	24.6	50.8	
25		21.6	22.2	24.2	26.6	20.3	24.6	16.4	21.6	13.2	22.7	21.4	20.5	19.4	19.9	15.3	19.9	18.8	26.8	15.8	16.6	17.7	18.4	20.1	16.9	26.8	
26		23.6	22.3	29.8	26.3	32.9	34.6	30.5	29	28.3	25.7	32.7	38.9	37.4	41.9	35.7	47.6	41.5	32.2	25.5	33.7	28.3	34.4	34.2	30.3	47.6	
27		27.7	29.2	31.5	26.6	30.5	25.9	22	19.9	21	21.8	21	18.6	19.4	23.5	9.9	13.2	14.9	15.1	18.2	18.2	18.6	16	20.3	22	31.5	
28		22	25.5	26.4	27.2	31.1	29.8	30.9	24.4	25.9	26.8	23.1	19.9	17.5	13.6	14.2	17.5	26.6	11.2	17.5	17.1	15.3	17.1	16.4	21.4	31.1	
29		21.6	21.8	22.3	9.9	22	61	17.1	9.9	10.4	11.2	11	6	10.6	9.9	12.3	14.3	20.1	20.3	15.6	15.5	19.4	17.5	17.1	21.2	61	
30		21.2	21.6	19.9	19	19.2	21.6	21.2	24.6	21.8	17.9	18.2	19.2	14.9	16.6	17.1	19.7	21.2	21.2	30.3	30.5	40.8	36.3	29.2	31.1	40.8	
31		23.8	24.9	29.4	41.7	33.3	32.4	37.1	26.6	27.2	25.6	28.1	30.7	30.3	29.2	32.9	31.1	27	26.6	27.2	25.9	25.2	23.3	23.6	22.7	41.7	
PEAK		40.0	66.8	75.3	89.9	73.3	61.0	55.2	51.5	57.2	64.3	50.8	54.2	55.7	43.4	41.9	47.6	53.0	60.3	37.0	37.8	46.7	36.3	65.5	64.7		

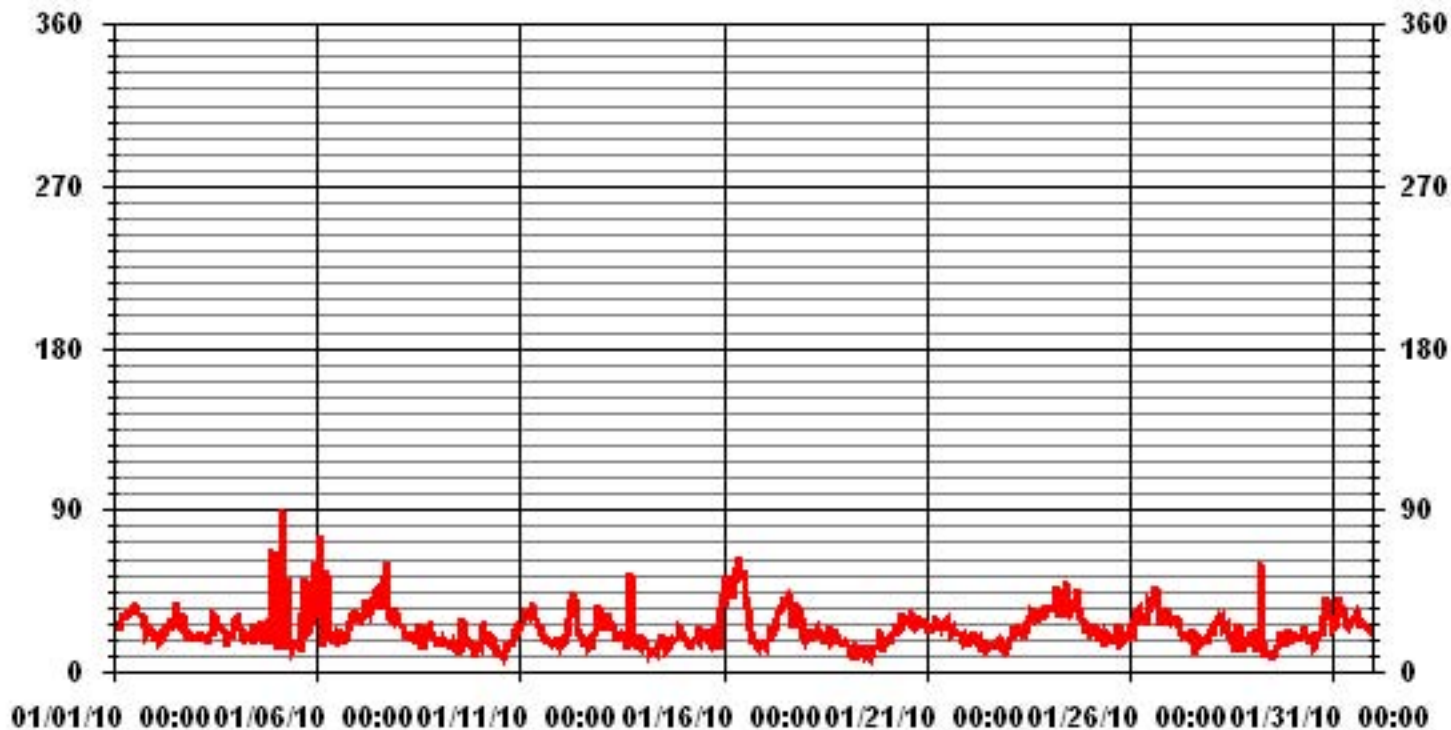
STATUS FLAG CODES

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

MONTHLY SUMMARY

MAXIMUM INSTANTANEOUS READING	89.9	KPH	@ HOUR(S)	3
			ON DAY(S)	5

01 Hour Averages



— LICA31 WSMAX KPH

LICA31
WSP / WDR Joint Frequency Distribution (Percent)

January 2010

Distribution By % Of Samples

Logger Id : 31
Site Name : LICA31
Parameter : WSP
Units : KPH

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
< 6.0	2.28	1.61	1.74	.53	.80	.53	1.07	.53	1.07	1.20	.80	.13	.80	1.34	.67	1.07	16.26
< 12.0	2.82	2.01	2.82	4.56	3.62	1.88	2.28	1.61	4.43	7.52	2.95	1.34	.94	1.88	3.49	1.88	46.10
< 20.0	.67	.00	.00	3.62	3.09	2.01	2.82	4.30	5.77	1.88	.26	.53	.67	3.49	1.74	3.89	34.81
< 29.0	.00	.00	.00	.00	.26	.00	.00	.53	.53	.00	.00	.26	.26	.67	.00	.00	2.55
< 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	5.77	3.62	4.56	8.73	7.79	4.43	6.18	6.98	11.82	10.61	4.03	2.28	2.68	7.39	5.91	6.85	

Calm : .26 %

Total # Operational Hours : 744

Distribution By Samples

	Direction																
Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
< 6.0	17	12	13	4	6	4	8	4	8	9	6	1	6	10	5	8	121
< 12.0	21	15	21	34	27	14	17	12	33	56	22	10	7	14	26	14	343
< 20.0	5			27	23	15	21	32	43	14	2	4	5	26	13	29	259
< 29.0					2			4	4			2	2	5			19
< 39.0																	
>= 39.0																	
Totals	43	27	34	65	58	33	46	52	88	79	30	17	20	55	44	51	

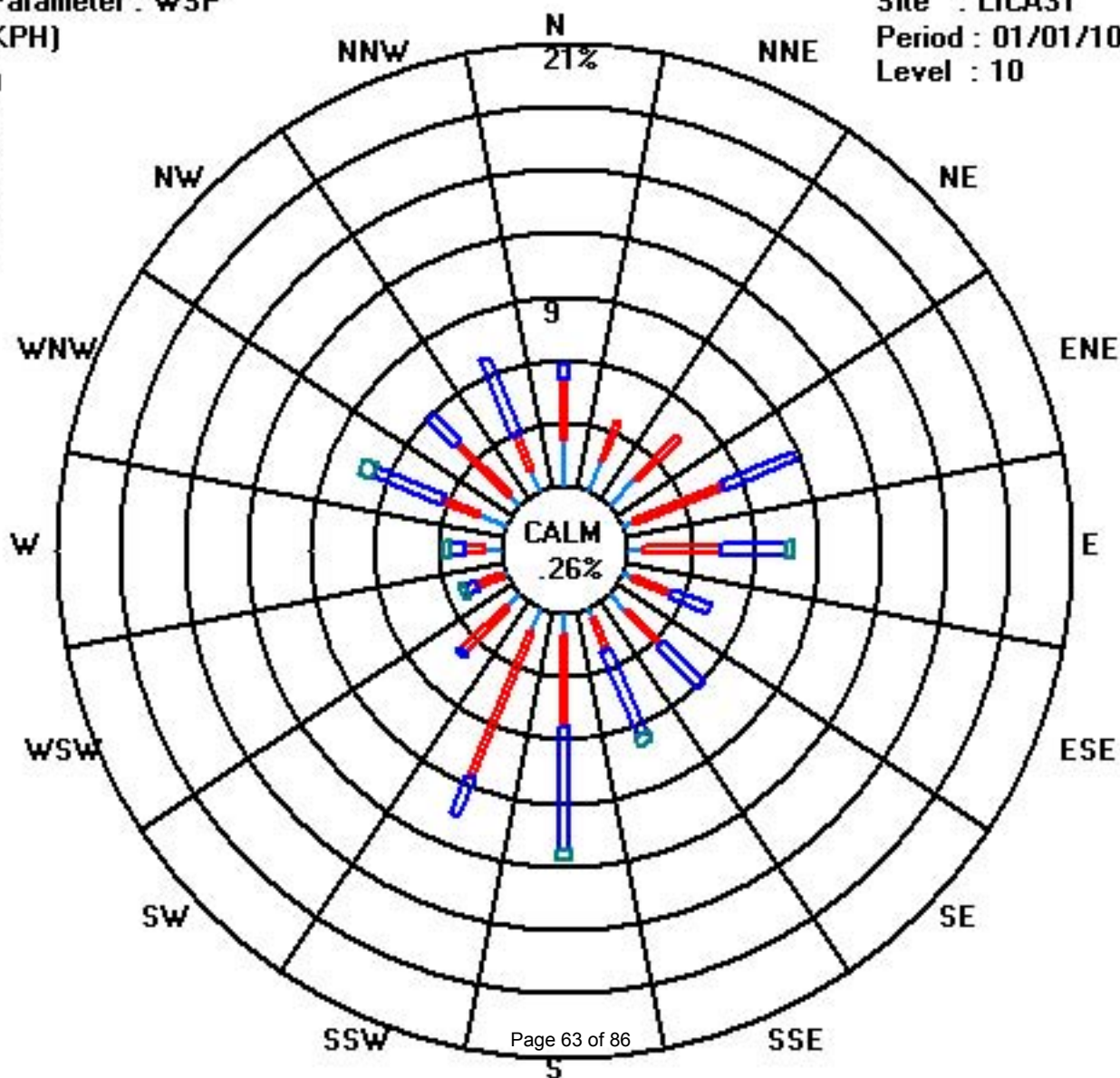
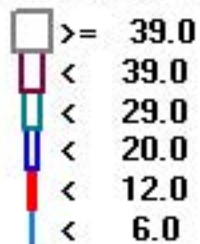
Calm : .26 %

Total # Operational Hours : 744

Class Limits (KPH)

Period : 01/01/10-01/31/10

Level : 10



Vector Wind Direction

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION -ST. LINA

JANUARY 2010

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	RDGS.	
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.	QUADRANT		
DAY 1	149	161	173	145	152	139	147	148	145	147	132	124	122	125	127	122	120	122	131	144	109	107	100	98	173	S	24	
2	64	76	45	48	15	8	340	323	321	321	320	322	338	330	339	332	333	324	336	336	331	307	316	351	351	N	24	
3	37	81	82	88	92	99	105	110	113	142	150	159	179	199	186	194	225	242	243	247	271	292	305	322	322	NW	24	
4	321	327	318	325	320	308	314	331	339	340	314	282	284	287	282	265	293	111	136	133	114	114	79	116	340	NNW	24	
5	134	83	87	82	96	51	21	0	26	54	61	61	64	59	49	22	352	281	288	317	336	313	352	231	352	N	24	
6	177	267	289	297	269	348	292	222	229	221	215	213	171	175	188	197	189	169	158	158	164	170	178	175	348	NNW	24	
7	178	168	171	174	175	189	183	179	176	172	173	183	174	181	170	165	168	177	169	170	158	179	192	191	192	S	24	
8	196	201	199	193	192	176	193	194	202	185	200	195	228	195	187	194	213	217	213	212	213	210	210	207	228	SW	24	
9	206	210	209	200	189	209	134	100	99	118	184	196	36	331	329	301	311	333	283	249	184	196	199	210	333	NNW	24	
10	173	177	176	188	208	223	229	247	229	204	207	222	215	216	217	191	185	178	140	104	123	131	141	137	247	WSW	24	
11	138	148	165	158	156	162	172	173	168	191	190	184	195	209	201	201	208	212	210	221	222	219	238	179	238	SW	24	
12	174	175	147	83	80	83	73	81	88	85	80	76	72	62	61	54	50	57	31	310	299	300	284	258	310	NW	24	
13	254	280	311	317	340	310	311	307	320	319	346	355	357	28	346	357	43	77	66	89	97	137	165	148	357	N	24	
14	137	129	142	169	163	173	166	194	207	215	209	220	217	222	208	195	210	204	198	195	189	176	182	188	222	SW	24	
15	193	199	202	207	204	203	203	202	190	179	175	183	184	173	147	127	137	134	149	153	200	230	257	266	266	W	24	
16	261	272	269	265	262	249	248	258	286	291	288	291	296	296	288	289	280	240	245	236	238	207	210	207	296	WNW	24	
17	205	197	210	184	173	163	158	154	146	145	144	151	149	147	147	149	145	160	159	161	166	172	167	149	210	SSW	24	
18	145	142	127	141	136	132	116	124	103	102	108	99	92	120	108	118	118	114	159	159	174	174	177	174	177	S	24	
19	186	197	152	140	137	128	177	259	259	272	2	288	226	186	243	218	214	293	325	30	40	156	197	48	325	NW	24	
20	55	52	54	52	49	61	65	63	59	62	71	74	65	62	62	58	64	65	70	76	80	85	91	93	93	E	24	
21	96	92	91	92	90	95	95	90	90	81	77	73	71	71	67	70	69	72	78	79	81	80	74	77	96	E	24	
22	81	76	71	68	74	76	73	70	74	66	84	90	87	83	74	47	55	57	51	53	52	45	18	19	90	E	24	
23	16	14	11	10	13	13	9	6	356	0	0	354	358	357	349	346	344	342	340	334	335	334	331	333	358	N	24	
24	334	325	328	331	334	339	336	328	336	338	342	331	332	321	328	339	342	346	356	355	2	6	2	4	356	N	24	
25	352	344	348	2	4	17	20	32	41	9	3	18	20	8	27	5	1	354	311	324	323	318	296	302	354	N	24	
26	296	298	291	300	289	298	291	293	293	279	290	287	286	287	292	285	283	297	299	293	295	294	303	305	305	305	WNW	24
27	305	310	301	297	299	302	302	306	279	285	290	318	332	276	205	211	207	198	188	193	221	209	194	167	332	NNW	24	
28	167	175	166	160	170	169	177	183	175	171	171	190	205	173	78	89	92	134	164	180	176	186	195	245	245	WSW	24	
29	269	312	22	39	308	3	19	43	44	51	211	225	226	226	346	21	5	7	11	326	359	337	321	353	359	N	24	
30	358	4	12	25	29	34	26	25	34	39	54	49	57	60	49	83	78	80	78	71	65	71	81	74	358	N	24	
31	65	64	72	74	79	82	86	78	89	92	100	128	126	123	116	113	109	117	117	111	116	128	129	135	135	SE	24	
HOURLY AVG	358	344	348	331	340	348	340	331	356	340	346	355	358	357	349	357	352	354	356	355	359	337	352	353				

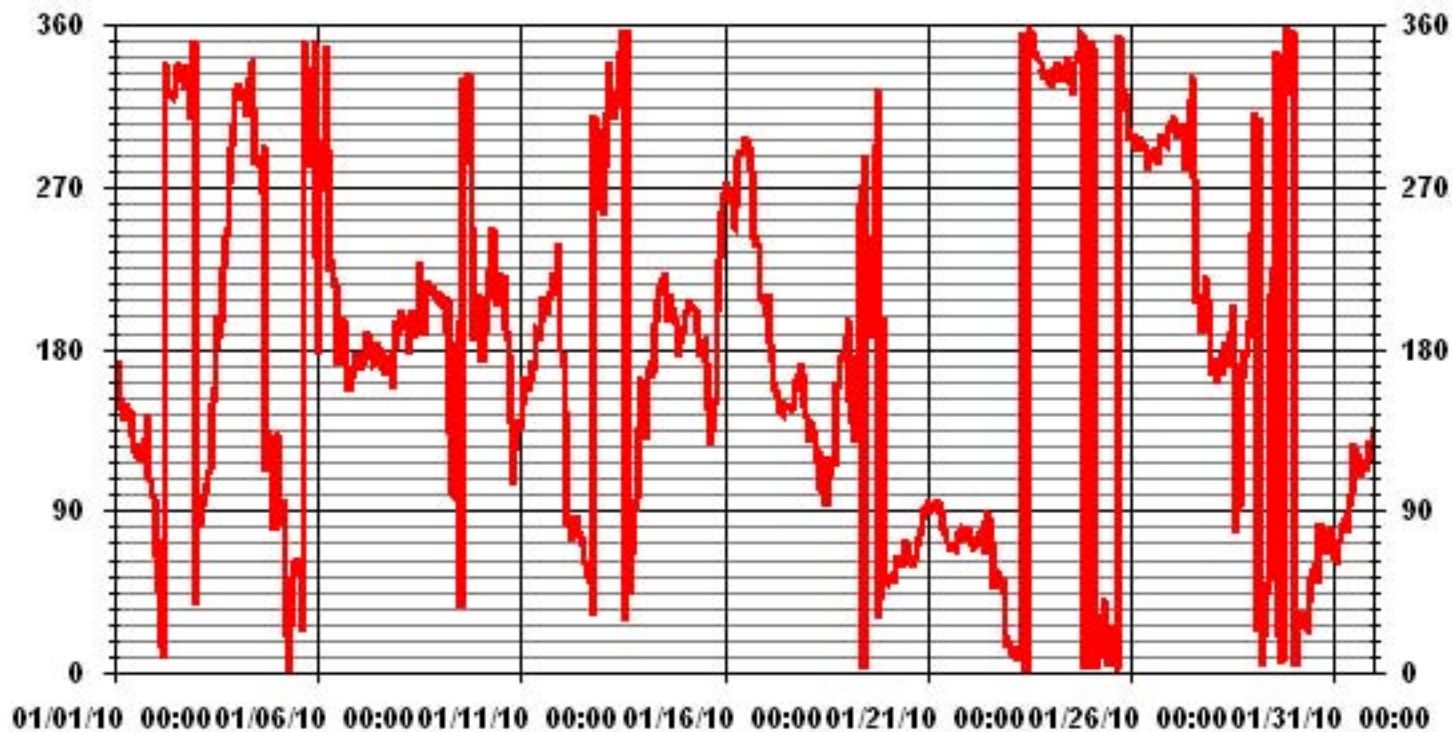
STATUS FLAG CODES

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:	February 3, 2009
DECLINATION :	19 DEGREES FROM MAGNETIC NORTH

MONTHLY CALIBRATION TIME:	0 HRS	OPERATIONAL TIME:	744 HRS
STANDARD DEVIATION	98.97	AMD OPERATION UPTIME	100.0 %
		MONTHLY AVERAGE	156 DEG

01 Hour Averages



Standard Deviation Wind Direction

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - ST.LINA

JANUARY 2010

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	11	12	13	13	12	13	14	13	13	13	12	12	12	13	12	12	11	11	11	12	10	11	10	12
2	11	13	10	12	18	16	16	15	14	12	13	13	15	15	16	17	14	12	16	17	20	14	16	27
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19	8	12	13	10	11	15	19	24	14	17	35	34	75	41	47	12	9	23	18	26	41	42	67	49
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25	16	17	15	17	17	27	49	11	15	26	21	24	20	23	19	20	25	27	14	14	13	13	13	10
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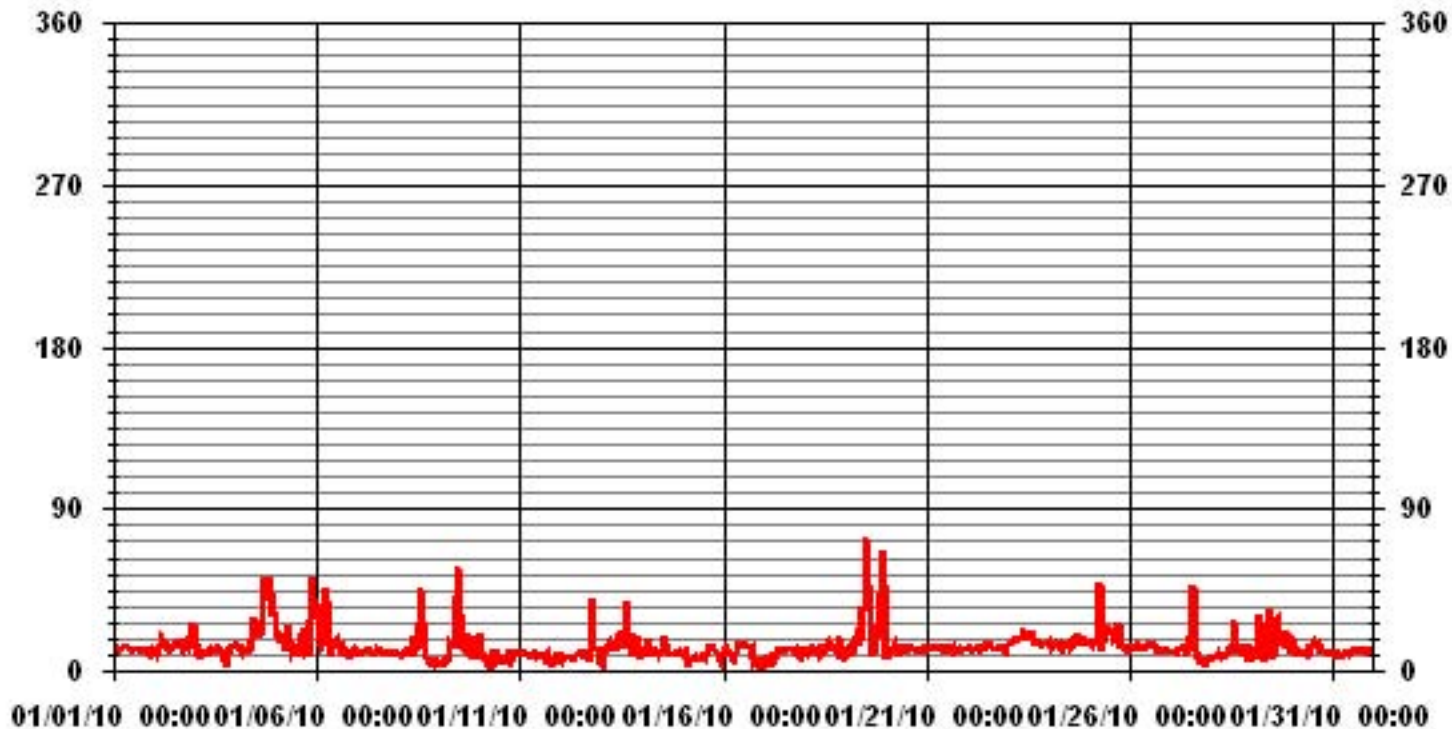
STATUS FLAG CODES

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: February 3, 2009

CALIBRATION TIME: 0 HRS OPERATIONAL TIME: 744 HRS

01 Hour Averages



— LICA31 STDWDIR DEG

Calibration Reports

Sulphur Dioxide

SO₂ Calibration Report

Station Information

Calibration Date	January 21, 2010	Previous Calibration	December 17, 2009
Company	LAKELAND INDUSTRY & COMMUNITY ASSOCIATION		
Plant / Location	ST. LINA		
Start Time (MST)	9:05	End Time (MST)	12:52
Reason:	Monthly Calibration		
Barometric Pressure	- mmHg	Station Temperature	23 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 :	468	Method:	Fluorescent
Converter Make / Model:	-	S/N :	-		
Calibrator Make / Model:	API 700	S/N :	831	Method:	Dilution
DAS Make / Model:	ESC 8832	S/N :	AO717		
Flow Meter:	API 700	S/N :	831		

Analyzer Settings

Before Calibration		After Calibration	
Concentration Range	0 - 1000	ppb	
Sample Flow / Box Temp	555 ccm 31.2 Deg C	553 ccm 31.7 Deg C	
HVPS / Lamp Setting	529 2567	529 2572	
PMT / RxCell Temp	7.9 Deg C 50 Deg C	7.9 Deg C 50 Deg C	
Converter / IZS Temp	NA Deg C 40 Deg C	NA Deg C 40 Deg C	
Offset / Slope	57.4 1.105	58.4 1.113	

Calibration Data

Dilution Flow Rate	Source Gas Flow Rate	Calculated Concentration	Indicated Conc. (DAS)	Correction Factor
4997	0	0	0	N/A
4997	0	0	0	N/A
4924	76.6	800	794	1.0071
4924	76.6	800	800	0.9995
4960	38.3	400	396	1.0101
4980	19.1	199	199	1.0022
4996	0	0	0	N/A
Sum of Least Squares				1.0016
New Correction Factor				0.9995

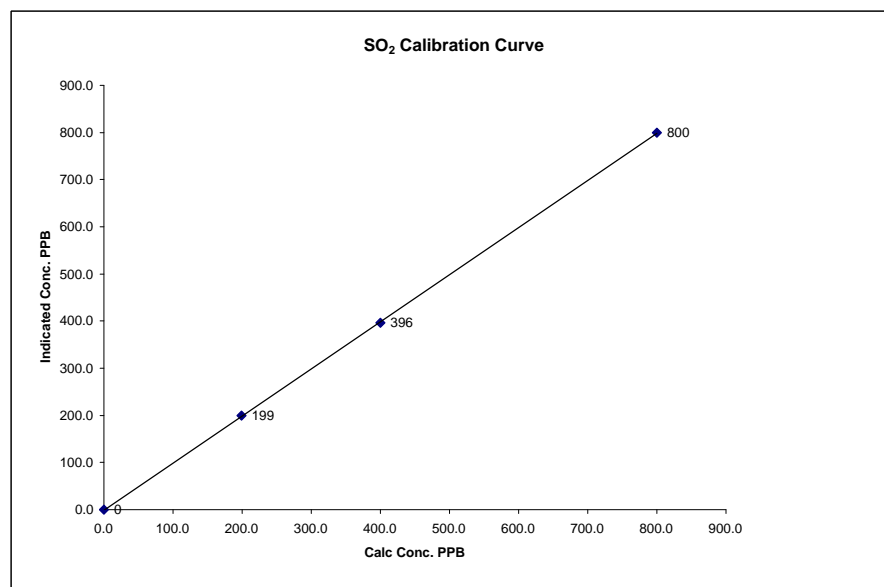
	Before Calibration	After Calibration
Auto Zero	0.9	0.2
Auto Span	352	353
Sample Lines Connected		YES
Percent Change from Previous Calibration		-0.7%

Calibration Performed by: Shea Beaton

SO₂ Calibration Curve

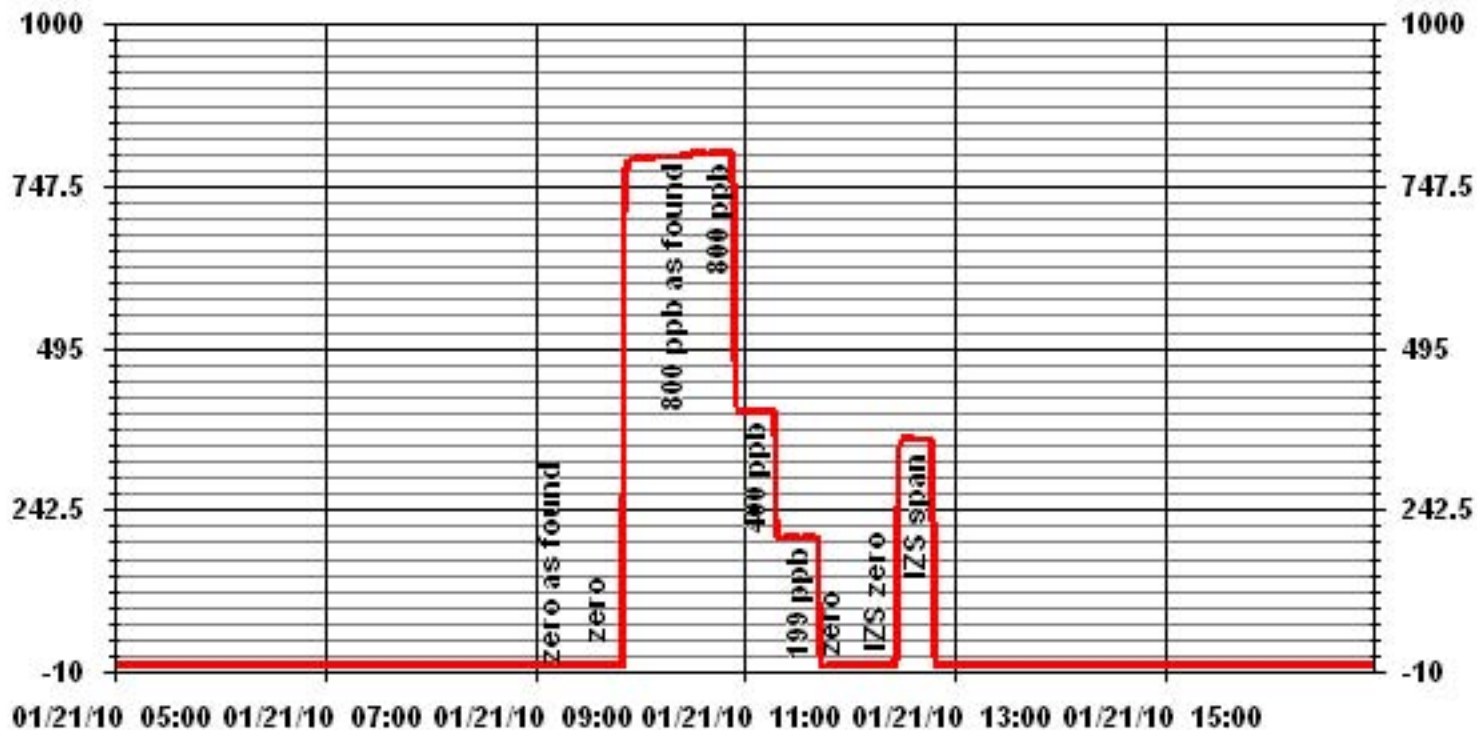
Calibration Date	January 21, 2010
Company	LAKELAND INDUSTRY & COMMUNITY ASSOCIATION
Plant / Location	ST. LINA
Start Time (MST)	9:05
End Time (MST)	12:52

Calculated Conc. ppb	Indicated Response ppb	Correction Factor	Correlation Coefficient Slope	(≥ 0.995) (0.85 to 1.15)	0.999965
0	0	n/a	Intercept	(± 3% F.S.)	-1.051111
199	199	1.0022			
400	396	1.0101			
800	800	0.9995			



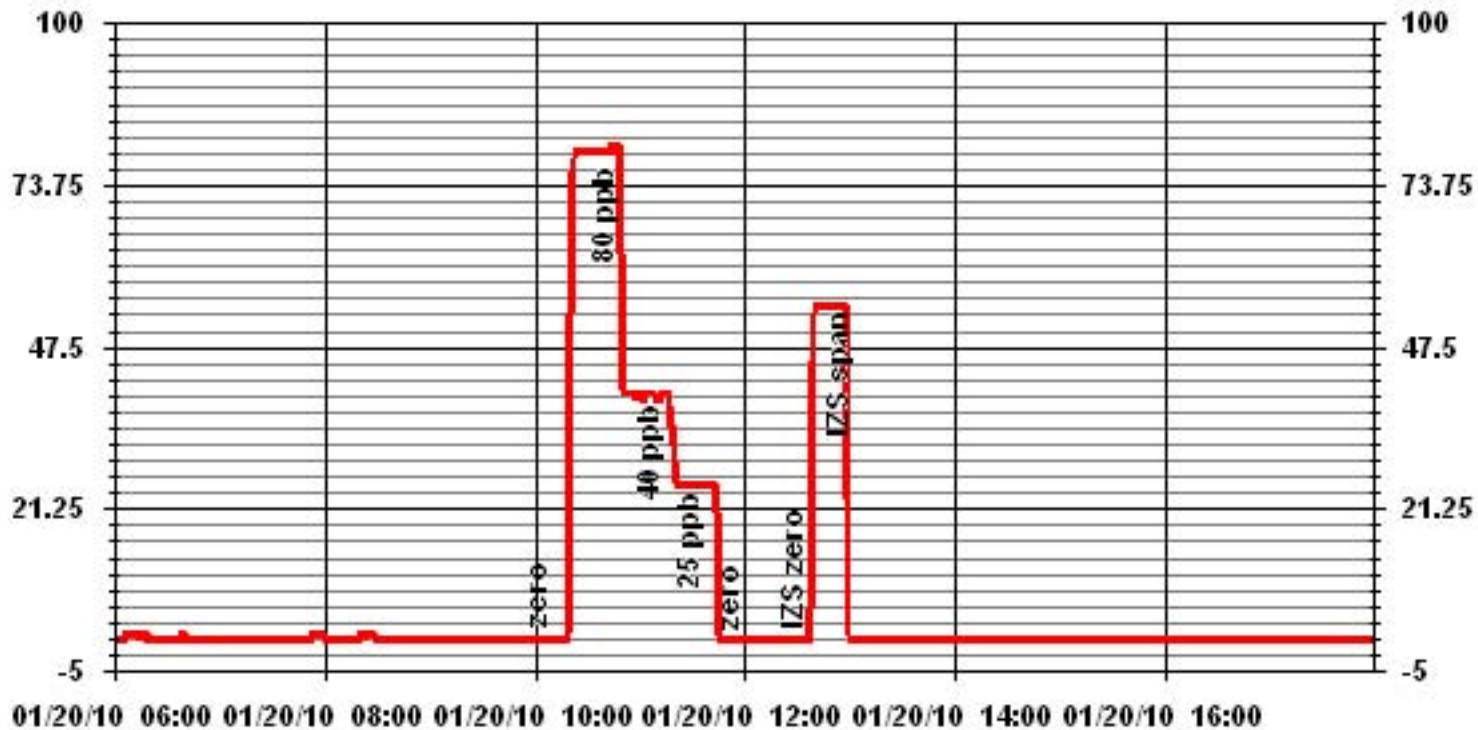
Notes: The as found zero responded as zero, but was close to 1 so the analyzer was zeroed.

01 Minute Averages



Hydrogen Sulphide

01 Minute Averages



— LICA31 H2S_ PPB

Total Hydrocarbons

THC Calibration Report

Station Information			
Calibration Date:	January 20, 2009	Previous Calibration	December 17, 2009
Company:	LAKELAND INDUSTRY & COMMUNITY ASSOCIATION		
Plant / Location:	ST. LINA		
:	(MST) 12:32	End Time	(MST) 17:15
Reason:	Monthly Calibration		
Barometric Pressure:	- mmHg	Station Temperature:	22 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 :	AO717
Output Voltage Range:	0 - 10	VDC	

Analyzer Information

Make / Model	TECO 51C	S/N :	77021-384	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	8.5	psi	8.5	psi
Air Pressure	20	psi	20	psi

Calibration Data

Dilution Flow	Source Gas Flow	Calculated Concentration	Indicated Concentration	Correction Factor
2999	0	0.0	-0.1	N/A
2999	65.0	39.1	38.5	1.0146
2999	0.0	0.0	0.0	N/A
2999	65.0	39.1	39.4	0.9914
2999	35.0	21.2	20.9	1.0163
2999	20.0	12.2	11.9	1.0250
2999	0	0.0	0.0	N/A
Correction Factor:				0.9914

Previous Calibration Correction Factor:	0.9914
Current Correction Factor Before Span Adjust:	1.0146
Percent Change:	-2.28%

IZS Calibration Data

	Before Calibration	After Calibration
Auto Zero	-0.1	0.0
Auto Span	34.0	34.4
Sample Lines Connected		YES

Cylinder Pressures

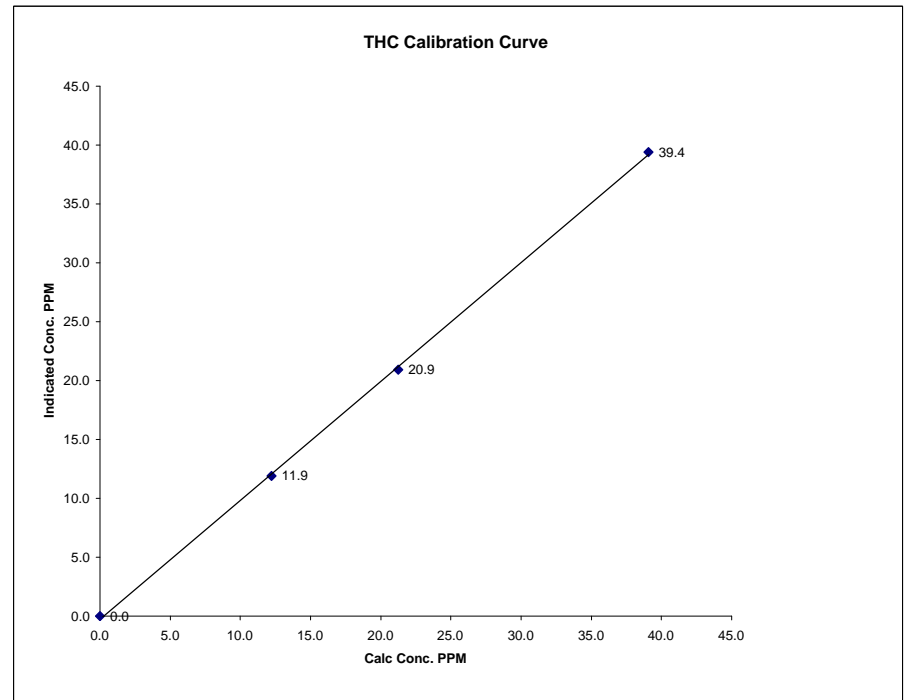
Span	2000	psi	
Hydrogen	2050	psi	
Zero Air	N/A	psi	Unlimited API 701

Calibration Performed by: Shea Beaton

THC Calibration Curve

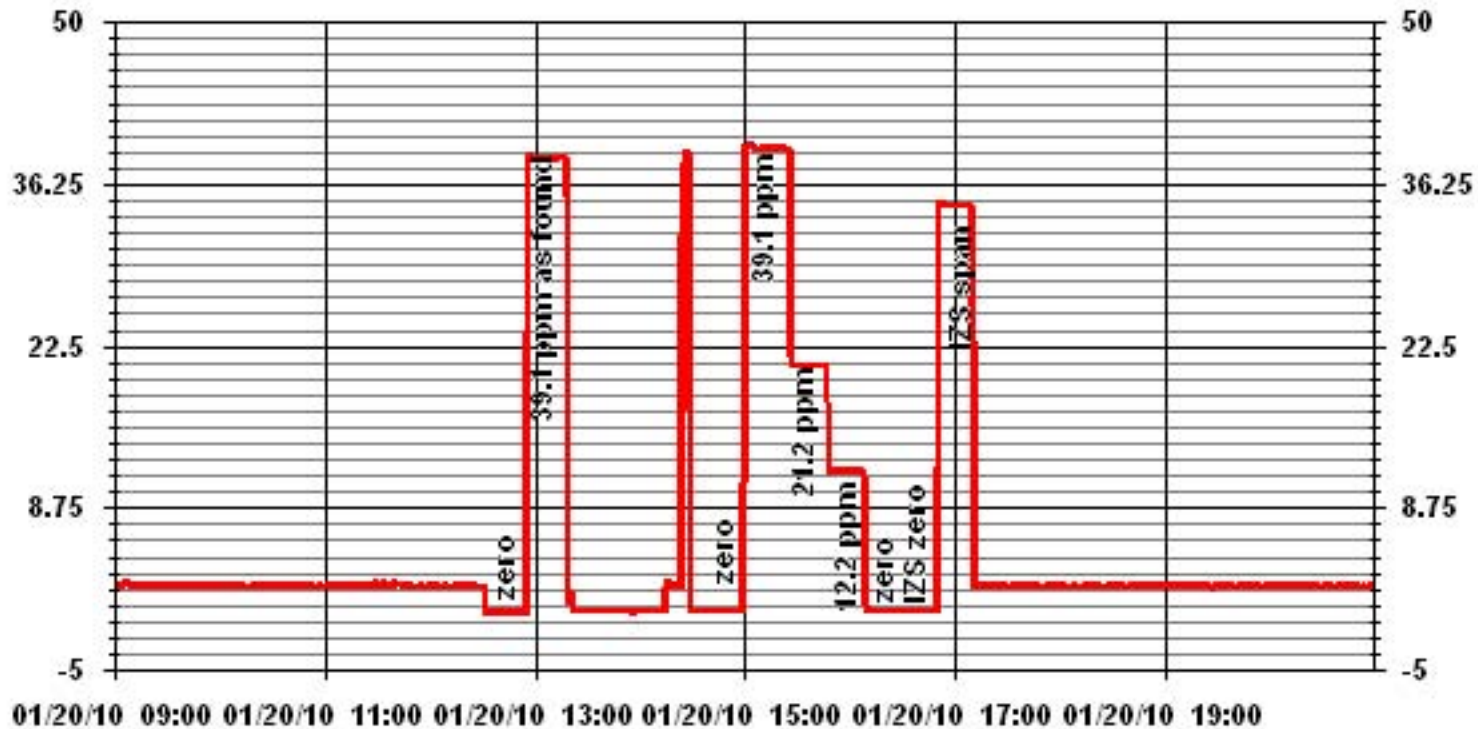
Calibration Date	January 20, 2009		
Company	LAKELAND INDUSTRY & COMMUNITY ASSOCIATION		
Plant / Location	ST. LINA		
Start Time (MST)	12:32	End Time (MST)	17:15

Calculated Conc. ppm	Indicated Response ppm	Correction Factor	Correlation Coefficient (≥ 0.995)	Slope (0.85 to 1.15)	Intercept (± 3% F.S.)
0.0	0.0		0.999731	1.009625	-0.249136
12.2	11.9	1.0250			
21.2	20.9	1.0163			
39.1	39.4	0.9914			



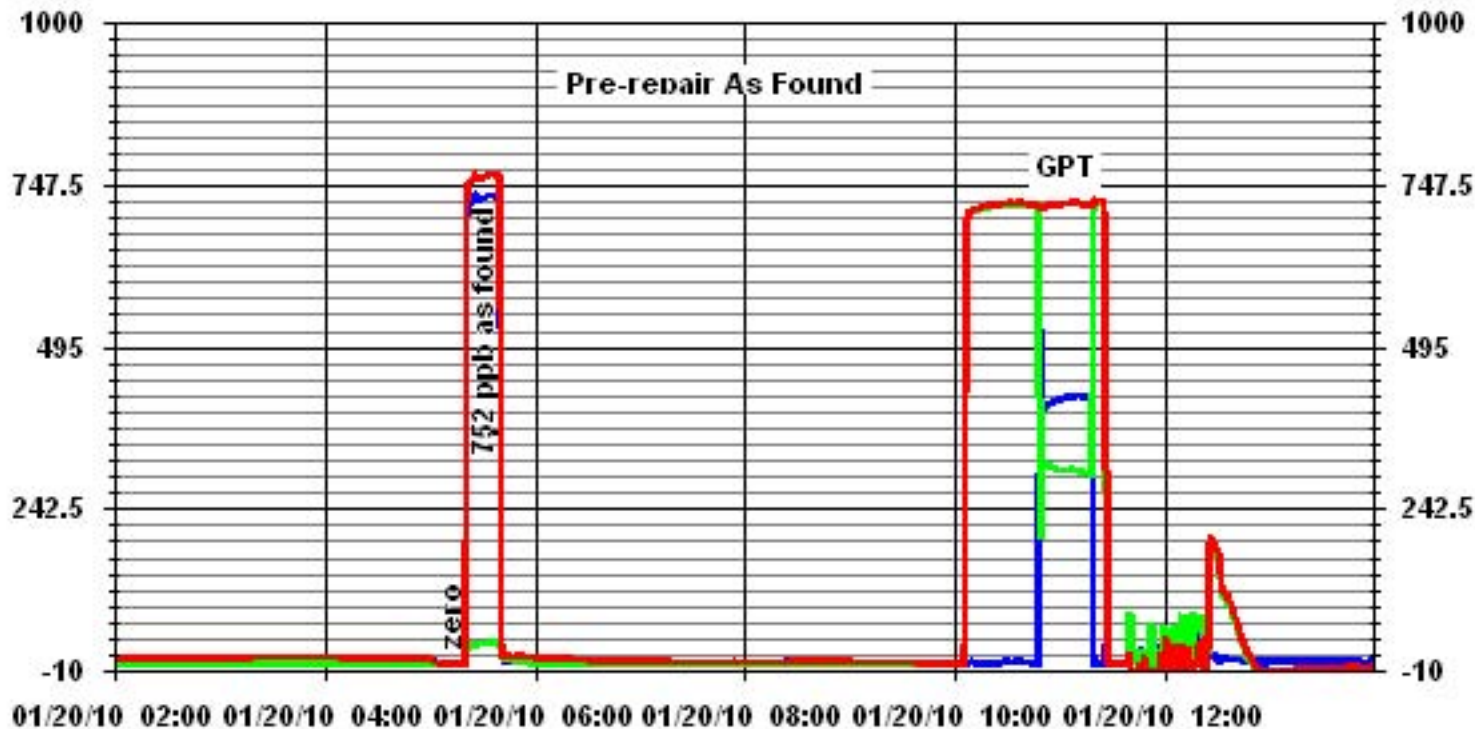
Notes: Flame temp 172.

01 Minute Averages



Nitrogen Dioxide

01 Minute Averages



NOx - NO- NO₂ Calibration Report
Station Information

Calibration Date	January 21, 2010	Previous Calibration	December 17, 2007
Company	LICA	Plant/Location	ST. LINA
Start Time (MST)	9:05	End Time (MST)	15:45
Reason:	Post Repair Calibration		
Barometric Pressure	- mmHg	Station Temperature	23.0 Deg C
Cal Gas Concentration	NOx 51.8 ppm	NO	51.6 ppm
DAS Output Voltage	0 - 1 Volts	Cal Gas Expiry date	12/19/2010

Equipment Information

Analyzer Make / Model:	API 200E	S/N :	592	Method:	Chemiluminescent
Calibrator Make / Model:	EnviroNics 2000	S/N:	1991		
DAS Make / Model:	ESC 8832	S/N :	AO717		
Flow Meter:	EnviroNics 2000	S/N :	1991		

Analyzer Settings

Before Calibration				After Calibration			
Concentration Range	0 - 1000 ppb						
Sample Flow/Conv. Temp	468 ccm	315.1 Deg C		468 ccm	316.2 Deg C		
Ozone Flow / Vacuum HVPS	72 ccm	3.9 *Hg-A		72 ccm	3.9 *Hg-A		
	646 Volts			646 Volts			
Rx/ Temp / PMT Temp	50 Deg C	6.9 Deg C		50 Deg C	6.9 Deg C		
Box Temp / IZS Temp	31.5 Deg C	45.1 Deg C		31.6 Deg C	45.3 Deg C		
Offset	-2.6 NOx	-4.6 NO		0.2 NOx	-1.3 NO		
Slope	1.003 NOx	0.982 NO		1.019 NOx	1.012 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	
3004	0	N/A	0	0	2	2	0	N/A	N/A	
3004	0	N/A	0	0	0	1	0	N/A	N/A	
2961	43.6	N/A	752	749	740	728	12	1.0158	1.0285	
2961	43.6	N/A	752	749	751	748	3	1.0009	1.0010	
2983	23.3	N/A	401	400	396	396	1	1.0138	1.0099	
2992	11.6	N/A	200	199	198	196	2	1.0104	1.0167	
3007	0	N/A	0	0	0	1	0	N/A	N/A	
Converter Efficiency										
2959	43.6	N/A	752	749	751	749	2	N/A		
2959	43.6	600	752	749	749	223	527	100%		
2959	43.6	300	752	749	750	483	267	100%		
2959	43.6	200	752	749	751	570	182	101%		
2960	43.6	N/A	752	749	752	750	2	N/A		
Correction Factor										
3004	0	N/A	0	0	1	1	0	N/A	N/A	
Linearity OK? Yes No										
Flows Checked on-site? Yes No										
								Sum of Least Squares	1.0041	1.0037
								New Correction Factor	1.0009	1.0010
								Average Converter Efficiency	100%	

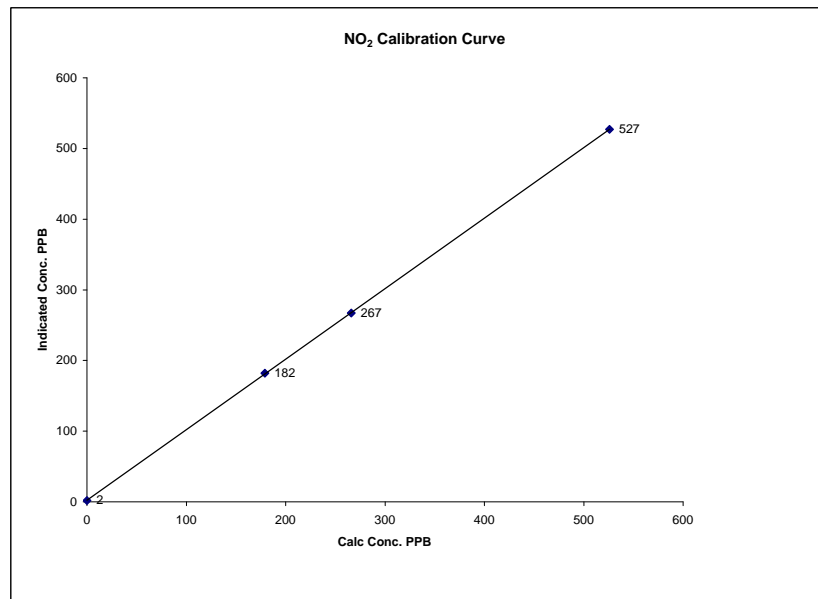
Before Calibration				After Calibration			
Auto Zero	1.8 NOx	0.4 NO2		0.3 NOx	0.0 NO2		
Auto Span	521.0 NOx	507.0 NO2		525.0 NOx	513.0 NO2		
Sample Lines Connected YES							
Percent Change from Previous Calibration							
				NOx	-	NO	-

Calibration Performed by: Shea Beaton

NO₂ Calibration Curve

Calibration Date	January 21, 2010
Company	LICA
Plant / Location	ST. LINA
Start Time (MST)	9:05
End Time (MST)	15:45

Calculated Conc. ppb	Indicated Response ppb	Correction Factor	Correlation Coefficient Slope Intercept	(≥ 0.995) (0.85 to 1.15) (± 3% F.S.)
0	2	N/A		0.999987
179	182	0.9835		0.997425
266	267	0.9963		
526	527	0.9981		2.375184

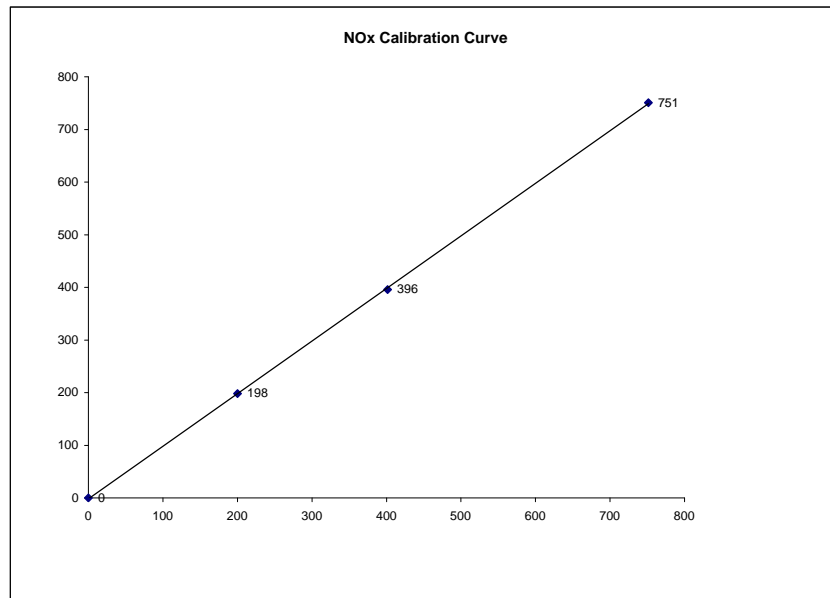


Notes: Yesterday the Rxn cell was cleaned, the O3 and Sample Orifices were changed, and the flow was calibrated. A PMT adjustment was performed.

NOx Calibration Curve

Calibration Date	January 21, 2010	
Company	LICA	
Plant / Location	ST. LINA	
Start Time (MST)	9:05	End Time (MST) 15:45

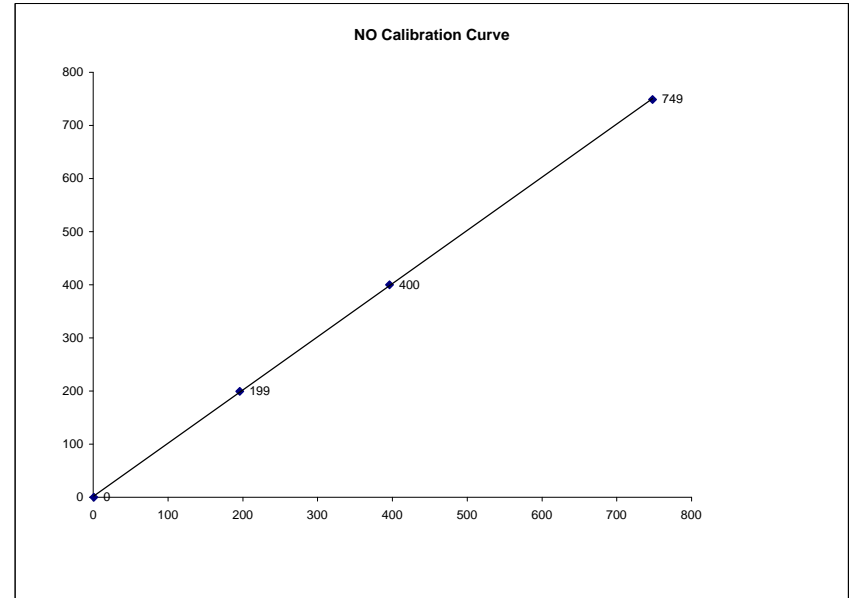
Calculated Conc. ppb	Indicated Response ppb	Correction Factor	Correlation Coefficient	(≥ 0.995)	0.999943
0	0	N/A	Slope	(0.85 to 1.15)	0.998896
200	198	1.0104	Intercept	($\pm 3\%$ F.S.)	-1.676080
401	396	1.0138			
752	751	1.0009			



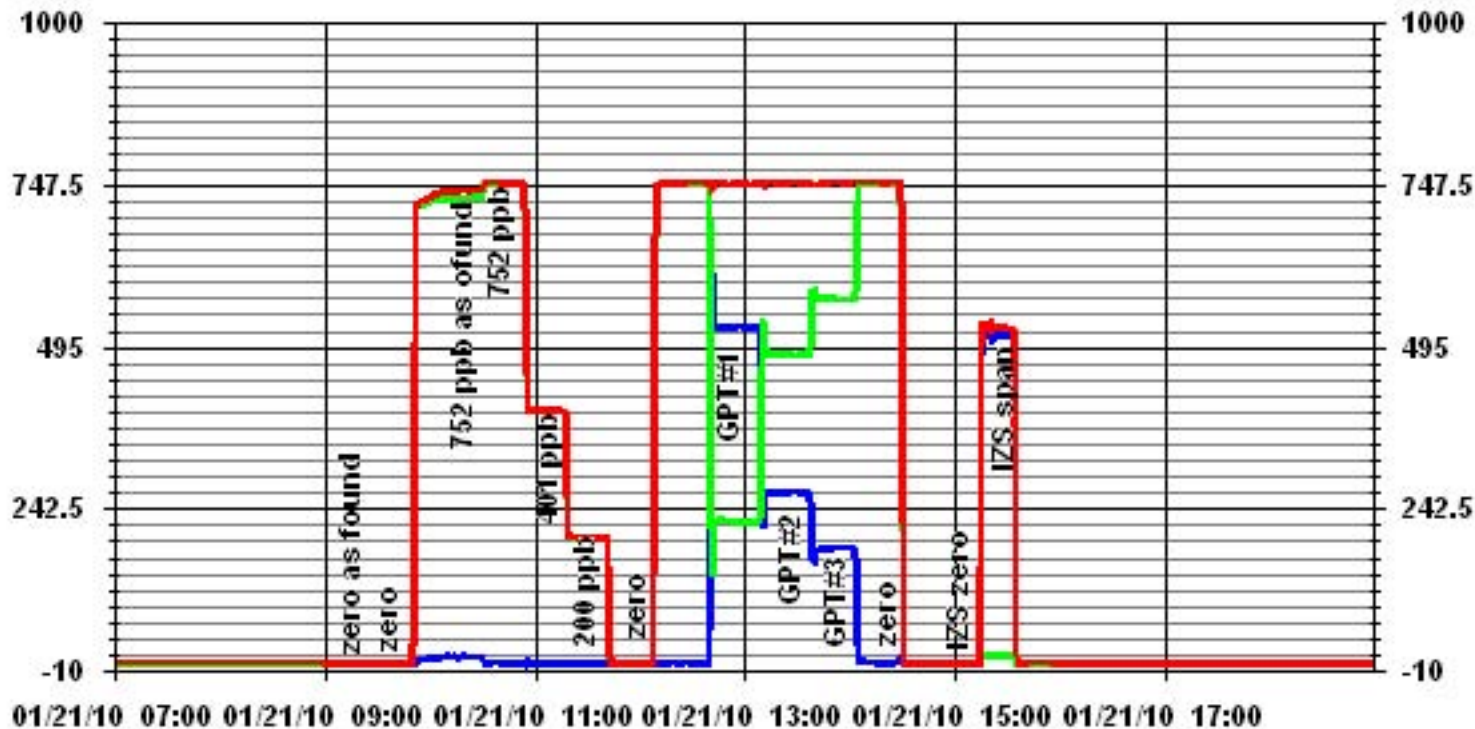
NO Calibration Curve

Calibration Date	January 21, 2010	
Company	LICA	
Plant / Location	ST. LINA	
Start Time (MST)	9:05	End Time (MST) 15:45

Calculated Conc. ppb	Indicated Response ppb	Correction Factor	Correlation Coefficient	(≥ 0.995)	0.999951
0	1	N/A	Slope	(0.85 to 1.15)	0.998531
199	196	1.0167	Intercept	($\pm 3\%$ F.S.)	-1.248055
400	396	1.0099			
749	748	1.0010			



01 Minute Averages



— LICA31 NOX_ PPB
 — LICA31 NO_ PPB
 — LICA31 NO2_ PPB

Lakeland Industry & Community Association

Portable / Devon Wellsite 13-16-62-5 W4M Monitoring Site

Ambient Air Monitoring Data Report

For

January 2010

Prepared By:



Driven by Service and Science

February 12, 2010

Lakeland Industry & Community Association Portable / Devon Wellsite 13-16-62-5 W4M Ambient Air Monitoring

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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: Portable / Devon Wellsite 13-16-62-5 W4M
Data Period: January 2010

The monthly ambient data report:

- Prepared by Lily Lin
- Reviewed by Craig Snider

The 6-days analytical report for VOCs and PAHs:
Authorized by Petro Oh

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 - PORTABLE

Continuous Ambient Monitoring – January 2010

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION PORTABEL / DEVON WELLSITE 13-16-62-5 W4M SITE						MAXIMUM VALUES							OPERATIONAL TIME (PERCENT)
						OBJECTIVES				EXCEEDENCES		MONTHLY AVERAGE	
PARAMETER	1-HR	24-HR	1-HR	24-HR	READING	DAY	HOUR	WIND SPEED (KPH)	WIND DIRECTION (DEGREES)	READING	DAY		
SO ₂ (PPB)	172	57	0	0	0.32	5	3	6	7.9	80(E)	2.0	3	99.9
H ₂ S (PPB)	10	3	-	-	0.07	1	VAR	VAR	VAR	VAR	1.0	15	99.9
THC (PPM)	-	-	-	-	2.70	7.2	6	9	2.5	307(NW)	4.5	29	99.9
NO ₂ (PPB)	212	106	0	0	6.31	27	29	18	3.5	224(WSW)	20.0	29	96.1
NO (PPB)	-	-	-	-	0.99	35	6	9	2.5	307(NW)	8.8	6	96.1
NO _x (PPB)	-	-	-	-	7.46	56	6	9	2.5	307(NW)	28.1	29	96.1
O ₃ (PPB)	82	-	0	-	19.03	41	31	20, 21	15.6, 15.8	110(ESE), 109(ESE)	33.2	31	99.9
PM 2.5 (UG/M ³)	-	30	-	0	3.29	14.3	10	12	3.2	226(SW)	9.3	10	99.6
VECTOR WS (KPH)	-	-	-	-	7.51	29.1	16	9	-	288(WNW)	15.3	16	99.9
VECTOR WD (DEGREES)	-	-	-	-	58(ENE)	-	-	-	-	-	-	-	99.9

VAR-VARIOUS

Volatile Organics Data Summary

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - PORTABLE

Xontech Model 910A – January 02, 2010

Maximum reading (ug/m3)	Volatile Organic
<32.0	Hexachlorobutadiene

Xontech Model 910A – January 08, 2010

Maximum reading (ug/m3)	Volatile Organic
<32.0	Hexachlorobutadiene

Xontech Model 910A – January 14, 2010

Maximum reading (ug/m3)	Volatile Organic
<32.0	Hexachlorobutadiene

Xontech Model 910A – January 20, 2010

Maximum reading (ug/m3)	Volatile Organic
<32.0	Hexachlorobutadiene

Xontech Model 910A – January 26, 2010

Maximum reading (ug/m3)	Volatile Organic
<32.0	Hexachlorobutadiene

Polycyclic Aromatic Hydrocarbons (PAHs) Data Summary

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - PORTABLE SITE

PUF cartridge – January 02, 2010

Maximum reading (ng/m3)	Semi-Volatile Organic
<6.055	3-Methylcholanthrene

PUF cartridge – January 08, 2010

Maximum reading (ng/m3)	Semi-Volatile Organic
9.749	2-Methylnaphthalene

PUF cartridge – January 14, 2010

Maximum reading (ng/m3)	Semi-Volatile Organic
<6.055	3-Methylcholanthrene

PUF cartridge – January 20, 2010

Maximum reading (ng/m3)	Semi-Volatile Organic
<6.055	3-Methylcholanthrene

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 – PORTABLE

Sulphur Dioxide (PPB)

- Analyzer make / model – API 100E, S/N: 467

No operational issues observed during the month. The inlet filter was changed before the monthly calibration was started on January 5th. One hour of data is missing on January 14th. Data was corrected using daily zero information.

Hydrogen Sulphide (PPB)

- Analyzer make / model – API 101E, S/N: 509
- Converter - Internal

No operational issues observed during the month. The inlet filter was changed before the monthly calibration was started on January 5th. One hour of data is missing on January 14th. Data was corrected using daily zero information.

Nitrogen Dioxide (PPB)

- Analyzer make / model – API 200E, S/N: 593

The monthly calibration was performed after the inlet filter was changed on January 5th. It was noticed two faults appeared on the NOx analyzer on January 7th; the faults were “OZONE FLOW WARNING” and “OZONE GENERATOR OFF”. The ozone flow was displayed as 45 cc/min – manually measured the ozone flow at the orifice on the reaction cell at 38 cc/min. The ozone flow is around 80 cc/min normally. The ozone orifice, sintered filter, and o-rings in the orifice holder were replaced on January 7th. After the troubleshooting, the daily calibration program for NO2 channel was started. The results for the daily cal were OK. The data was invalidated back to the last valid daily calibration time, which was January 6th. A total of 23 hours of data was invalidated. A post-repair calibration was performed on January 8th. One hour of data is missing on January 14th. Data was corrected using daily zero information.

General Monthly Summary

AQM STATION – LICA – PORTABLE

Ozone (PPB)

- Analyzer make / model – API 700, S/N: 446

No operational issues observed during the month. The inlet filter was changed before the monthly calibration was started on January 5th. One hour of data is missing on January 14th. Data was corrected using daily zero information.

THC (PPM)

- Analyzer make / model – TECO 51C, S/N: 04366-09739

No operational issues observed during the month. The inlet filter was changed before the monthly calibration was started on January 5th. One hour of data is missing on January 14th. Data was corrected using daily zero information.

Particulate Matter 2.5 (ug/m³)

- Analyzer make / model –TEOM1400A, S/N: 140AB2207400101

No operational issues observed during the month. One hour of data is missing on January 14th. Data was corrected using Alberta air quality guideline for PM2.5 analyzer. If the data was between 0 to –3, the data was corrected to 0. If the data was below –3, the data was invalidated. Two hourly PM2.5 data were invalidated as the values were below –3.0 ug/m³.

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

- System make / model – RM Young 5103VK, S/N: 41334

No operational issues observed during the month. The wind system is reported as vector wind speed and vector wind direction. One hour of data is missing on January 14th.

General Monthly Summary

AQM STATION – LICA – PORTABLE

Datalogger

- System make / model - ESC 8832, S/N: AO717
- 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

The trailer is located at N54°22'04.4", W110°42'14.6", Elevation 560m asl.

The manifold was cleaned during the visit on January 8th. Excessive frost was noticed on the inlet of the manifold intake pipe on January 15th. Airflow was still auditable through the pipe and air movement was observed at the manifold blower exhaust. Frost was removed on January 15th.

Air Quality Index (AQI)

The AQI data was adjusted to reflect regular monthly and daily calibrations, maintenance, and downtime. All AQI values recorded in January 2010 were within Good range. The highest hourly concentration of O3 was 41 ppb and an AQI value of 21 on December 31st; hour 20 and 21. The highest hourly concentration of PM2.5 was 14.3 UG/M3 and an AQI value of 12 on December 10th, hour 12.

General Monthly Summary

AQM STATION – LICA – PORTABLE

Volatile Organics (VOCs)

The volatile organics were sampled from January 2nd to January 26th. The sampler was programmed to run for 24 hours, and, every 6 days per sample cycle.

The values for the VOCs in this report were reported as ug/m3.

Prior to setting up the VOC canister, the flow on the Xontech was measured and adjusted to 10 scc/min; as found flow was 9.7 scc/min.

Polycyclic Aromatic Hydrocarbons (PAHs)

The PAHs were sampled from January 2nd to January 26th. The sampler was programmed to run for 24 hours, and, every 6 days per sample cycle.

The values for the PAHs in this report were reported as ng/m3.

The lab result for January 26th is not included in this report. The result is not available at the time when the monthly report is completed. It will be included in the monthly report next month.

Continuous Monitoring

Monthly Summaries, Graphs & Wind Roses

Air Quality Index

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - PORTABLESITE

JANUARY 2010

AIR QUALITY INDEX (AQI)

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

STATUS FLAG CODES

NA - NOT APPLICABLE

V - VARIOUS

AQI CLASS	OZONE (O ₃)					PARTICULATE MATTER 2.5 (PM _{2.5})					NITROGEN DIOXIDE (NO ₂)					SULPHUR DIOXIDE (SO ₂)					FREQUENCY	
	HRS	%	MAX AQI	HR	DAY	HRS	%	MAX AQI	HR	DAY	HRS	%	MAX AQI	HR	DAY	HRS	%	MAX AQI	HR	DAY	HRS	%
VERY POOR (101-255)	0	0.0%	-	-	-	0	0.0%	-	-	-	0	0.0%	-	-	-	0	0.0%	-	-	-	0	0.0%
POOR (51-100)	0	0.0%	-	-	-	0	0.0%	-	-	-	0	0.0%	-	-	-	0	0.0%	-	-	-	0	0.0%
FAIR (26-50)	0	0.0%	-	-	-	0	0.0%	-	-	-	0	0.0%	-	-	-	0	0.0%	-	-	-	0	0.0%
GOOD (1-25)	547	73.5%	21	20, 21	31	114	15.3%	12	12	10	0	0.0%	-	-	-	0	0.0%	-	-	-	661	88.8%
OVERALL	547	73.5%	-	-	-	114	15.3%	-	-	-	0	0.0%	-	-	-	0	0.0%	-	-	-	661	88.8%
UNAVAILABLE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	83	11.2%

Sulphur Dioxide

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - PORTABLE SITE

JANUARY 2010

SULPHUR DIOXIDE (SO₂) 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 MAX.	24-HOUR AVG.	RDGS.	
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	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	IZS	0	1	1	1	1	1	1	1	1	1	0.3	24
2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	IZS	1	1	1	1	1	0	0	0	0	0	1	0.8	24
3	0	0	1	3	4	4	5	4	3	2	2	2	2	IZS	2	1	1	1	1	1	2	2	2	1	5	2.0	24	
4	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	0.0	24
5	0	0	1	2	1	2	2	2	2	C	C	C	C	0	0	0	0	0	0	0	0	0	0	0	2	0.6	24	
6	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	
7	0	0	0	0	0	0	0	0	0	IZS	1	1	1	0	1	0	1	1	1	1	1	1	0	0	1	0.4	24	
8	0	1	0	0	0	0	0	0	IZS	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	24	
9	1	1	1	0	1	1	1	IZS	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1	0.3	24	
10	0	0	0	0	0	0	IZS	0	0	1	1	1	1	1	1	0	0	0	0	0	0	0	1	0	1	0.3	24	
11	0	1	1	1	1	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.2	24	
12	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24	
13	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24	
14	0	0	IZS	0	0	0	0	0	0	N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	23	
15	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24	
16	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0.0	24	
17	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0.1	24	
18	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	
19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	1	1	1	0.1	24	
20	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	IZS	0	0	0	1	0.8	24	
21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0.0	24	
22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0.0	24	
23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0.0	24	
24	0	1	1	0	1	1	1	1	1	1	1	2	2	2	2	IZS	3	2	1	1	0	0	1	0	3	1.1	24	
25	0	0	0	0	0	0	1	1	0	1	1	1	1	1	IZS	1	0	0	0	0	0	0	0	0	1	0.3	24	
26	0	0	2	2	1	1	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	2	0.3	24	
27	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	
28	0	0	0	0	0	0	0	0	0	0	0	0	IZS	1	1	2	1	1	1	1	0	0	1	0	2	0.4	24	
29	0	1	0	0	0	0	0	0	1	1	IZS	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	24	
30	1	1	1	1	1	1	1	2	1	IZS	0	1	1	1	0	0	0	0	0	0	0	0	0	0	2	0.6	24	
31	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24	
HOURLY MAX	1	1	2	3	4	4	5	4	3	2	2	2	2	2	2	1	3	2	1	1	2	2	2	1				
HOURLY AVG	0.1	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.4	0.5	0.4	0.4	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.3	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

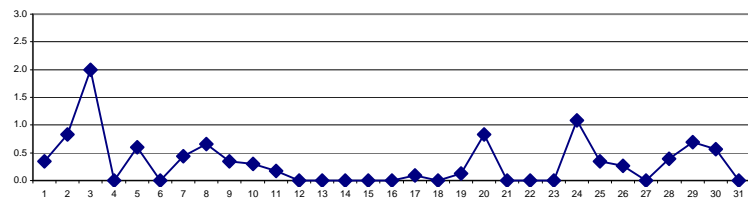
OBJECTIVE LIMIT:

ALBERTA ENVIRONMENT:	1-HR	172	PPB	24-HR	57	PPB
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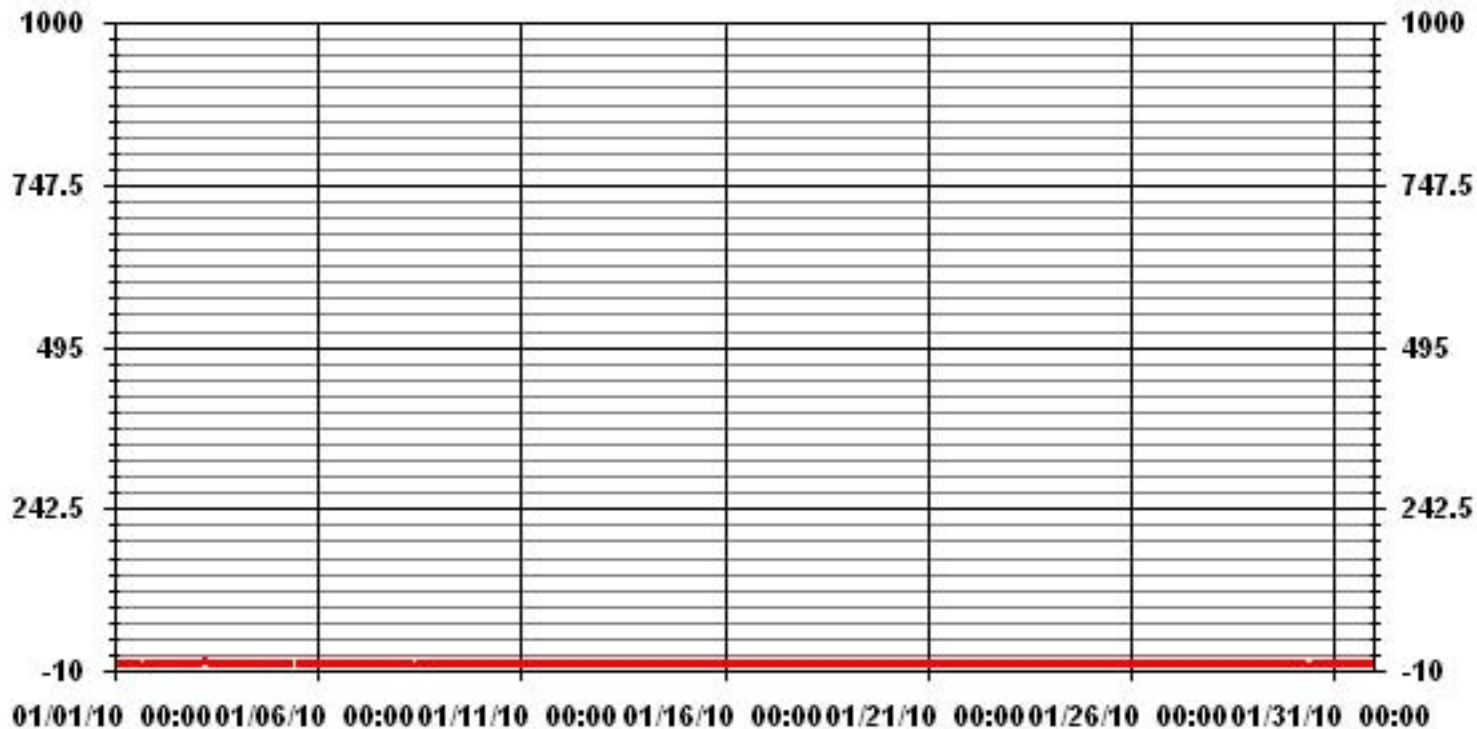
MONTHLY SUMMARY

NUMBER OF 1-HR EXCEEDENCES:	0		
NUMBER OF 24-HR EXCEEDENCES:	0		
NUMBER OF NON-ZERO READINGS:	189		
MAXIMUM 1-HR AVERAGE:	5 PPB @ HOUR(S) 6 ON DAY(S) 3		
MAXIMUM 24-HR AVERAGE:	2.0 PPB ON DAY(S) 3		
IZS CALIBRATION TIME:	31 HRS	OPERATIONAL TIME:	743 HRS
MONTHLY CALIBRATION TIME:	4 HRS	AMD OPERATION UPTIME:	99.9 %
STANDARD DEVIATION:	0.62	MONTHLY AVERAGE:	0.32 PPB

24 HOUR AVERAGES FOR JANUARY 2010



01 Hour Averages



— LICA33 SO2_ PPB

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION -PORTABLE SITE

JANUARY 2010

SULPHUR DIOXIDE MAX instantaneous maximum in ppt

MST		0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY	24-HOUR		
DAY	HR	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.	
1	1	1	1	1	1	2	1	1	1	1	1	2	1	1	1	1	IZS	1	1	2	2	2	2	2	1	2	1.3	24	
2	1	2	2	2	2	2	2	2	2	2	2	2	2	2	1	IZS	2	2	2	2	2	2	2	1	1	2	1.8	24	
3	1	1	3	4	5	5	6	6	4	3	3	3	3	3	IZS	3	2	2	2	2	2	3	3	3	2	6	3.1	24	
4	1	1	1	1	1	1	1	1	1	1	1	1	1	IZS	1	1	1	1	1	1	1	1	1	1	1	1	1.0	24	
5	1	1	2	3	3	3	3	3	3	C	C	C	C	1	1	1	1	1	2	1	1	1	1	1	0	3	1.7	24	
6	0	0	0	0	0	0	1	0	1	1	1	IZS	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	24	
7	1	1	1	1	1	1	1	1	1	2	IZS	2	2	2	1	1	2	2	1	2	2	2	2	2	1	1	2	1.4	24
8	1	1	1	1	1	1	1	1	1	IZS	1	C	2	2	2	2	2	1	1	1	2	2	2	2	2	2	1.5	24	
9	2	2	1	1	2	2	2	IZS	1	1	1	1	1	1	1	2	2	1	1	1	1	1	1	1	1	1	2	1.3	24
10	1	1	1	1	1	1	0	IZS	1	1	1	2	2	2	2	2	1	2	1	1	1	1	1	1	1	1	2	1.2	24
11	1	1	2	1	2	IZS	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	1	0	2	0.9	24	
12	0	0	1	1	IZS	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	1	0	1	0.8	24	
13	1	1	1	IZS	0	0	0	0	0	0	0	1	1	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0.3	24
14	0	0	IZS	0	0	0	0	0	0	0	N	0	1	0	0	1	1	0	1	1	1	1	1	1	1	1	0.5	23	
15	1	IZS	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	24
16	IZS	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	0	0	1	0	0	0	0	1	IZS	1	0.6	24	
17	0	1	0	0	2	0	0	0	0	0	1	1	1	2	2	2	1	1	1	1	1	1	1	1	1	1	2	0.9	24
18	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	24
19	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	IZS	2	2	2	1.1	24	
20	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	IZS	1	1	1	1	2	1.8	24
21	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	IZS	1	1	1	1	1	1	1.0	24
22	1	1	1	1	1	1	1	1	1	1	1	1	M	0	1	1	1	0	IZS	0	0	0	1	1	1	1	0.8	23	
23	1	0	1	1	1	1	1	0	0	1	0	0	1	1	1	0	IZS	0	1	1	2	1	0	0	2	0.7	24		
24	1	2	2	2	2	2	2	1	1	2	2	3	4	3	3	IZS	4	3	2	2	2	1	1	1	1	4	2.0	24	
25	1	1	1	1	1	1	2	2	1	2	1	2	2	2	IZS	2	1	1	1	1	1	1	1	1	1	2	1.3	24	
26	1	1	3	3	2	2	1	1	1	1	1	1	1	1	IZS	1	1	1	1	1	1	1	1	1	1	3	1.3	24	
27	1	1	1	1	1	1	1	1	1	1	1	1	1	1	IZS	1	1	1	1	1	1	1	1	1	1	1	1	1.0	24
28	1	1	1	1	1	1	1	1	1	1	1	1	1	IZS	2	2	3	2	2	2	1	1	1	1	2	2	3	1.4	24
29	1	1	1	1	1	1	1	1	1	1	2	IZS	2	2	2	3	2	2	2	2	2	2	2	1	1	3	1.6	24	
30	2	2	2	2	2	1	3	3	2	IZS	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	3	1.5	24	
31	1	1	1	1	1	1	1	1	1	IZS	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	1	0.5	24	
HOURLY MAX		2	2	3	4	5	5	6	6	4	3	3	3	4	3	3	2	4	3	2	2	3	3	3	3	2			
HOURLY AVG		1.0	1.0	1.3	1.3	1.4	1.2	1.4	1.2	1.1	1.2	1.2	1.4	1.3	1.2	1.4	1.2	1.2	1.1	1.2	1.0	1.1	1.1	1.1	1.1	1.0			

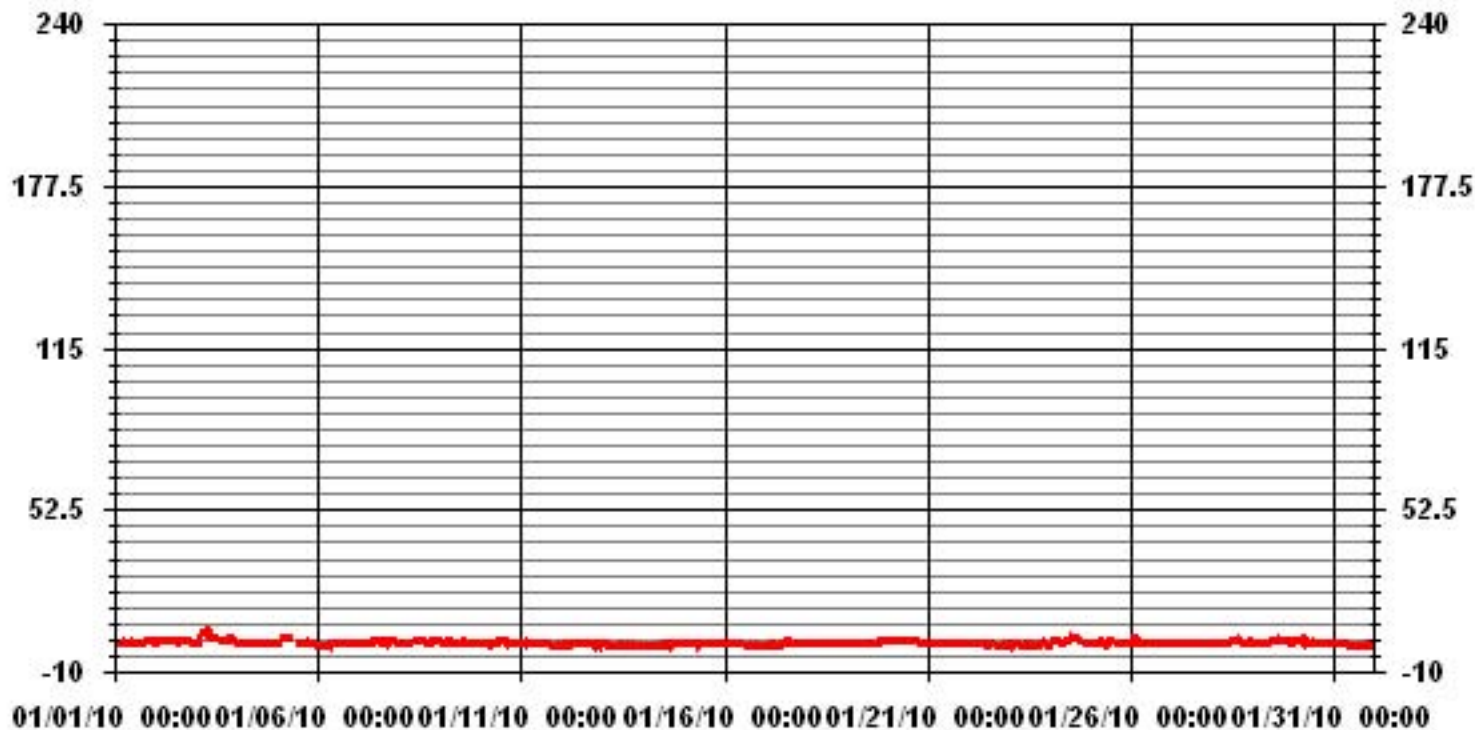
STATUS FLAG CODES

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:	617					
MAXIMUM INSTANTANEOUS VALUE:	6	PPB	@ HOUR(S)	6, 7	ON DAY(S)	3
IZS CALIBRATION TIME:	31	HRS	OPERATIONAL TIME:	742	HRS	
MONTHLY CALIBRATION TIME:	5	HRS				
STANDARD DEVIATION:	0.77					

01 Hour Averages



— LICA33 SO2MAX PPB

LICA33
 SO2_ / WDR Joint Frequency Distribution (Percent)

January 2010

Distribution By % Of Samples

Logger Id : 33
 Site Name : LICA33
 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	4.37	5.93	10.45	21.89	5.79	5.64	3.81	2.82	1.69	4.37	3.24	7.34	6.35	4.51	7.48	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	4.37	5.93	10.45	21.89	5.79	5.64	3.81	2.82	1.69	4.37	3.24	7.34	6.35	4.51	7.48	

Calm : .00 %

Total # Operational Hours : 708

Distribution By Samples

	Direction																
Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
< 20	30	31	42	74	155	41	40	27	20	12	31	23	52	45	32	53	708
< 60																	
< 110																	
< 170																	
< 340																	
>= 340																	
Totals	30	31	42	74	155	41	40	27	20	12	31	23	52	45	32	53	

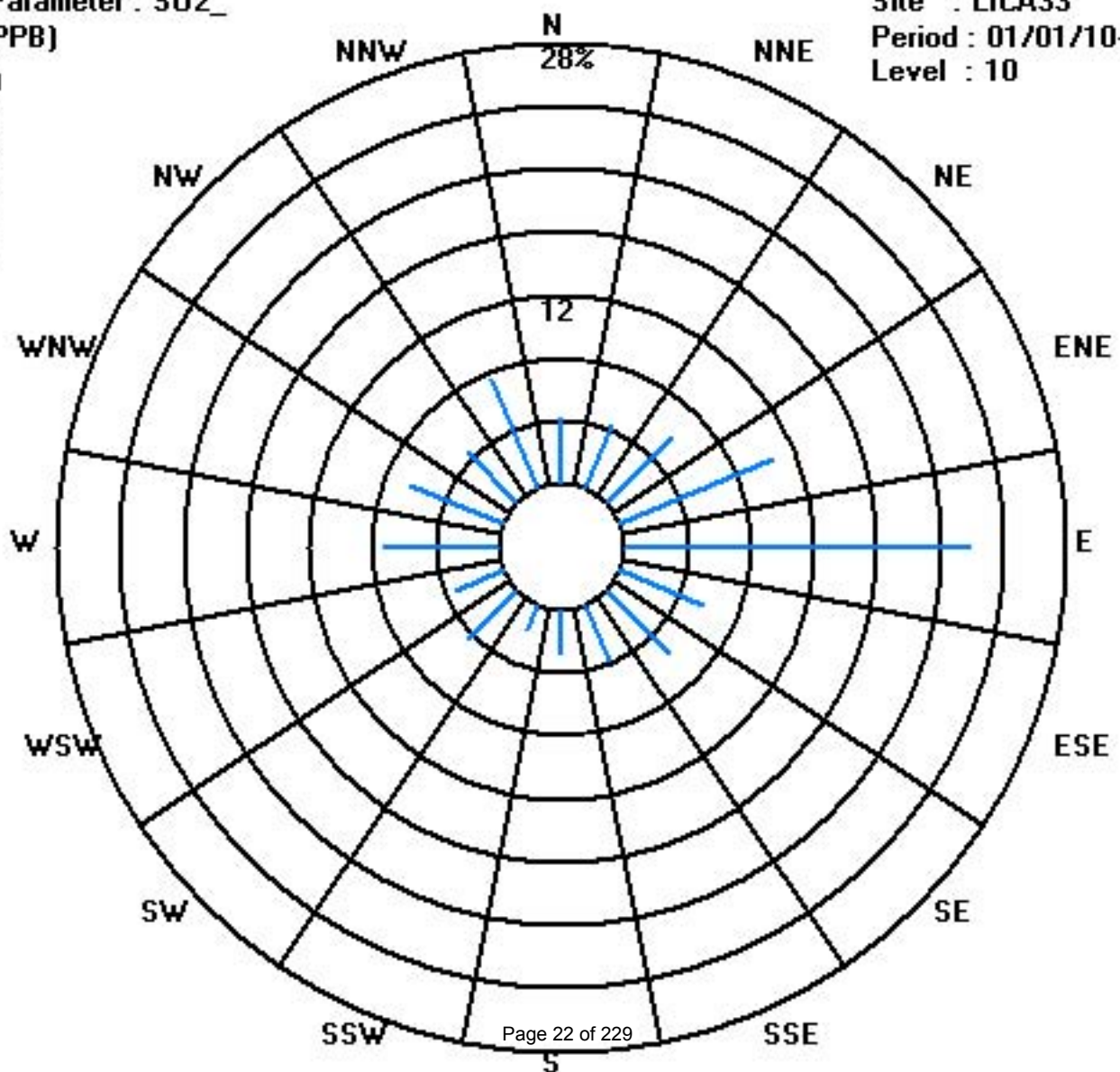
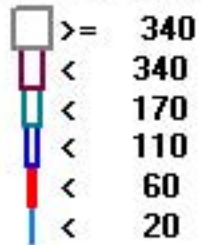
Calm : .00 %

Total # Operational Hours : 708

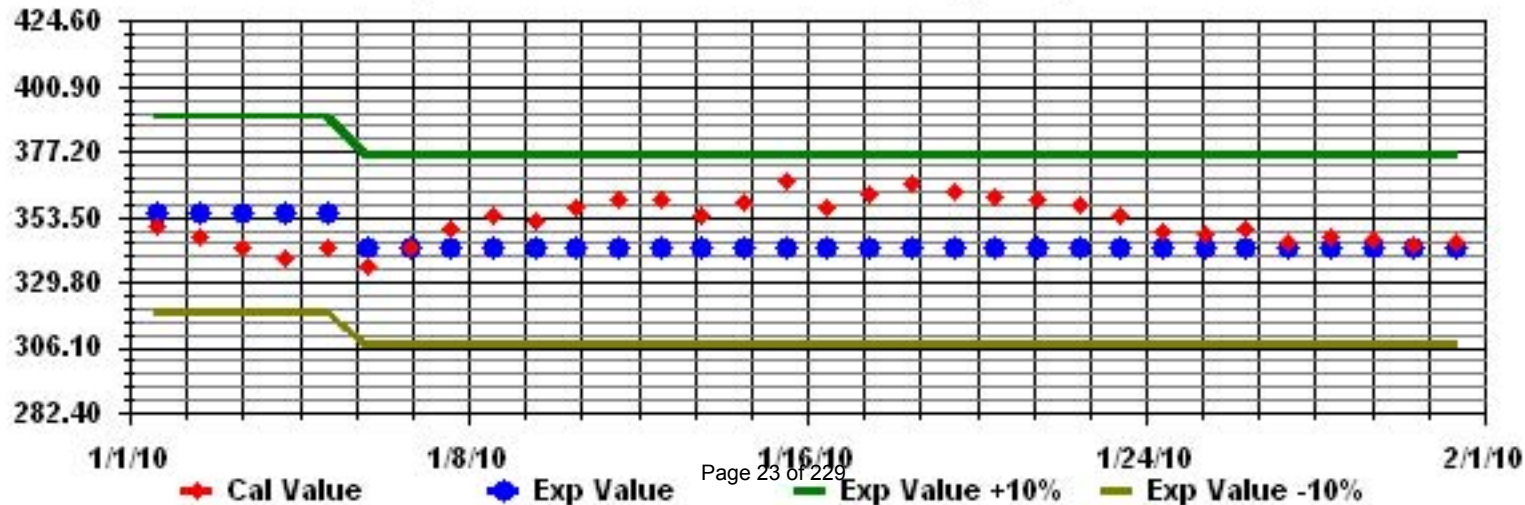
Class Limits (PPB)

Period : 01/01/10-01/31/10

Level : 10



Calibration Graph for Site: LICA33 Parameter: S02_ Sequence: S02 Phase: SPAll



Hydrogen Sulphide

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - PORTABLE

JANUARY 2010

HYDROGEN SULPHIDE (H₂S) hourly averages in ppb

MST		0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY 24-HOUR			
DAY	HOURLY MAX	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.	
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	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
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	C	C	C	C	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	0	0	0	0	0	0	0	0	0	0	0	0.0	24
11		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	24
12		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	0.1	24
13		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
14		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	0.2	23
15		1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
19		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	0	0	0	0.0	24
22		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
23		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
25		0	0	0	0	0	0	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	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	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	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	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
31		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		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
HOURLY AVG		0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	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

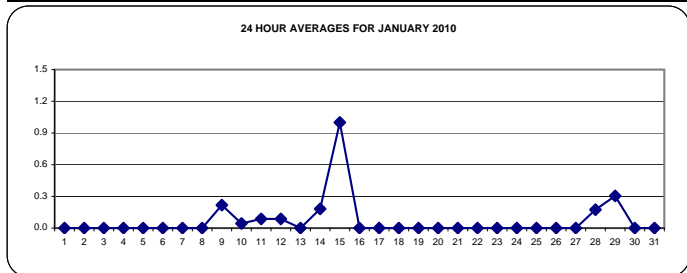
OBJECTIVE LIMIT:

ALBERTA ENVIRONMENT: 1-HR 10 PPB 24-HR 3 PPB

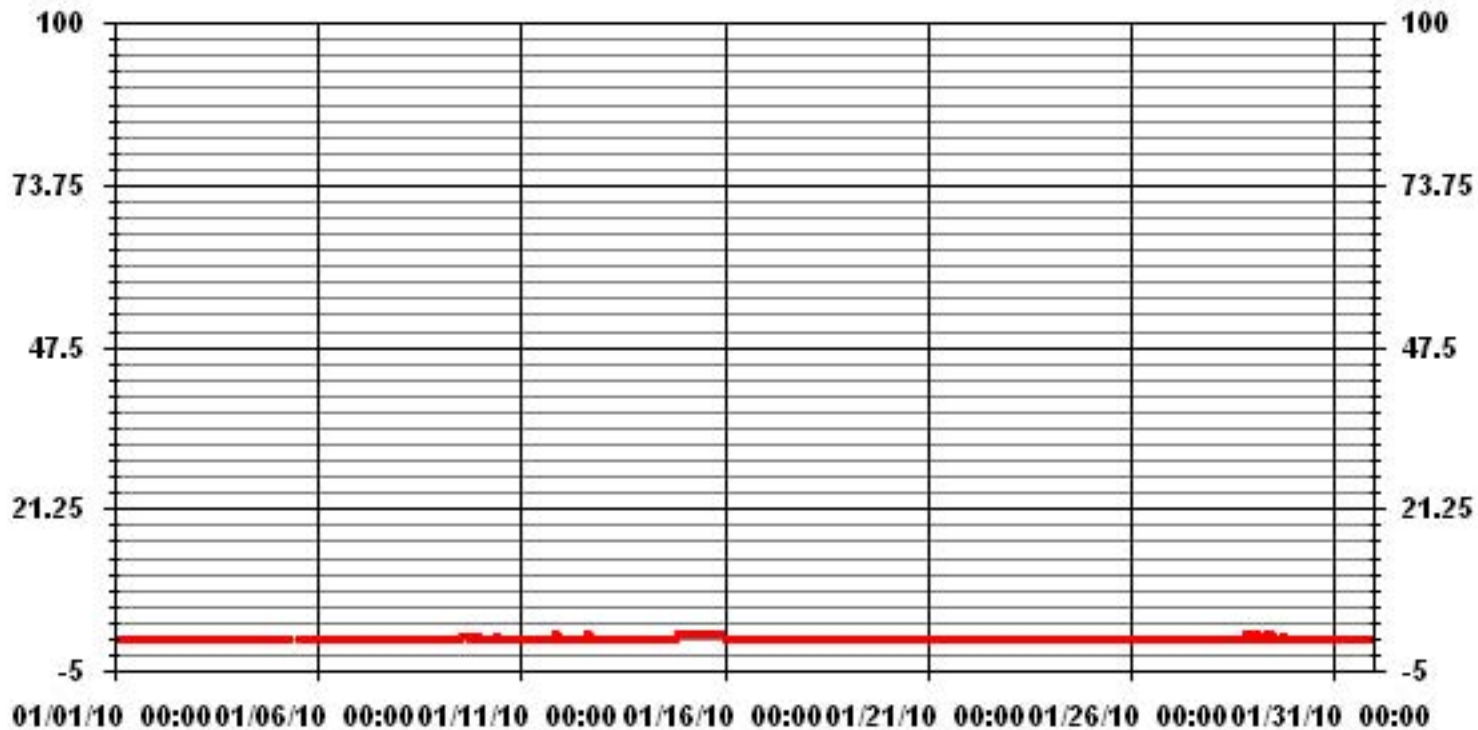
MONTHLY SUMMARY

NUMBER OF 1-HR EXCEEDENCES:	0				
NUMBER OF 24-HR EXCEEDENCES:	0				
NUMBER OF NON-ZERO READINGS:	48				
MAXIMUM 1-HR AVERAGE:	1	PPB	@ HOUR(S)	VAR	ON DAY(S)
MAXIMUM 24-HR AVERAGE:	1.0	PPB			15
				VAR-VARIOUS	
IZS CALIBRATION TIME:	31	HRS	OPERATIONAL TIME:	743	HRS
MONTHLY CALIBRATION TIME:	4	HRS	AMD OPERATION UPTIME:	99.9	%
STANDARD DEVIATION:	0.25		MONTHLY AVERAGE:	0.07	PPB

24 HOUR AVERAGES FOR JANUARY 2010



01 Hour Averages



— LICA33 H2S_ PPB

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - PORTABLE SITE

JANUARY 2010

HYDROGEN SULPHIDE MAX instantaneous maximum in ppb

MST	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY 24-HOUR				
HOUR START	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.		
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	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	0.0	24	
2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0.0	24	
3	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	0.0	24	
4	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	0.0	24	
5	0	0	0	0	0	0	0	0	0	0	C	C	C	0	0	0	0	0	0	2	0	0	0	0	0	2	0.1	24	
6	0	0	2	1	3	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.3	24	
7	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	0.0	24	
8	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	0.2	23	
9	1	1	1	0	0	1	1	IZS	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	24	
10	1	0	0	0	1	1	IZS	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	1	0.6	24	
11	0	0	0	0	1	IZS	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	24	
12	1	1	1	1	IZS	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	24	
13	1	1	1	IZS	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	1	0.3	24	
14	0	0	IZS	0	0	0	0	0	0	0	N	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	0.5	23	
15	1	IZS	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	24	
16	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24	
19	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	IZS	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	0	0	0	0.0	24	
22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24	
23	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	23	
24	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	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	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	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	1	1	1	1	1	1	0	1	1	1	1	IZS	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	24
30	1	1	1	1	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	24	
31	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	1	1	2	1	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	2	1	2	1				
HOURLY AVG	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.4	0.3	0.4	0.3	0.3	0.3				

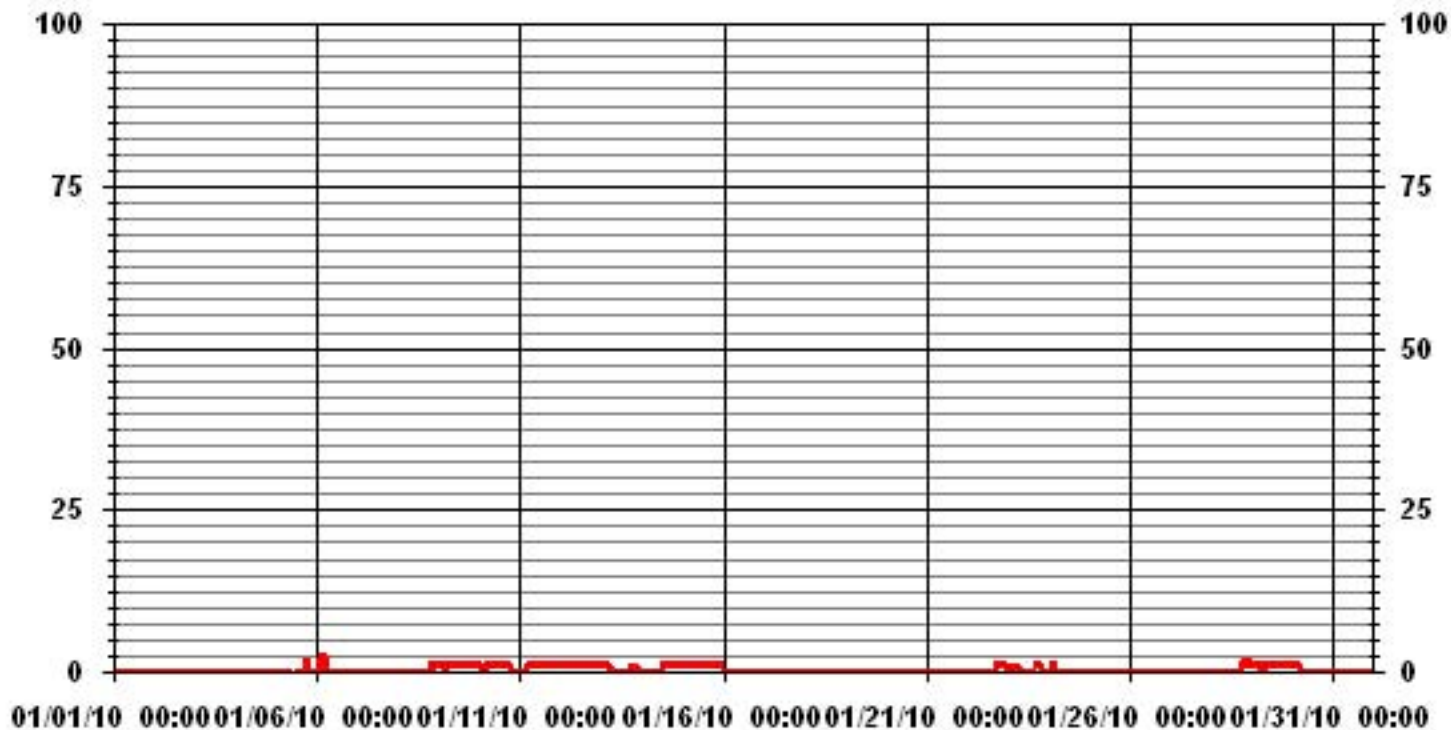
STATUS FLAG CODES

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

MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	170					
MAXIMUM INSTANTANEOUS VALUE:	3	PPB	@ HOUR(S)	4	ON DAY(S)	6
	VAR - VARIOUS					
IZS CALIBRATION TIME:	31	HRS	OPERATIONAL TIME:	741	HRS	
MONTHLY CALIBRATION TIME:	4	HRS				
STANDARD DEVIATION:	0.45					

01 Hour Averages



LICA33
H2S_ / WDR Joint Frequency Distribution (Percent)

January 2010

Distribution By % Of Samples

Logger Id : 33
Site Name : LICA33
Parameter : H2S_
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
< 3	4.23	4.37	5.93	10.45	21.89	5.79	5.64	3.81	2.82	1.69	4.37	3.24	7.34	6.35	4.51	7.48	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	4.23	4.37	5.93	10.45	21.89	5.79	5.64	3.81	2.82	1.69	4.37	3.24	7.34	6.35	4.51	7.48	

Calm : .00 %

Total # Operational Hours : 708

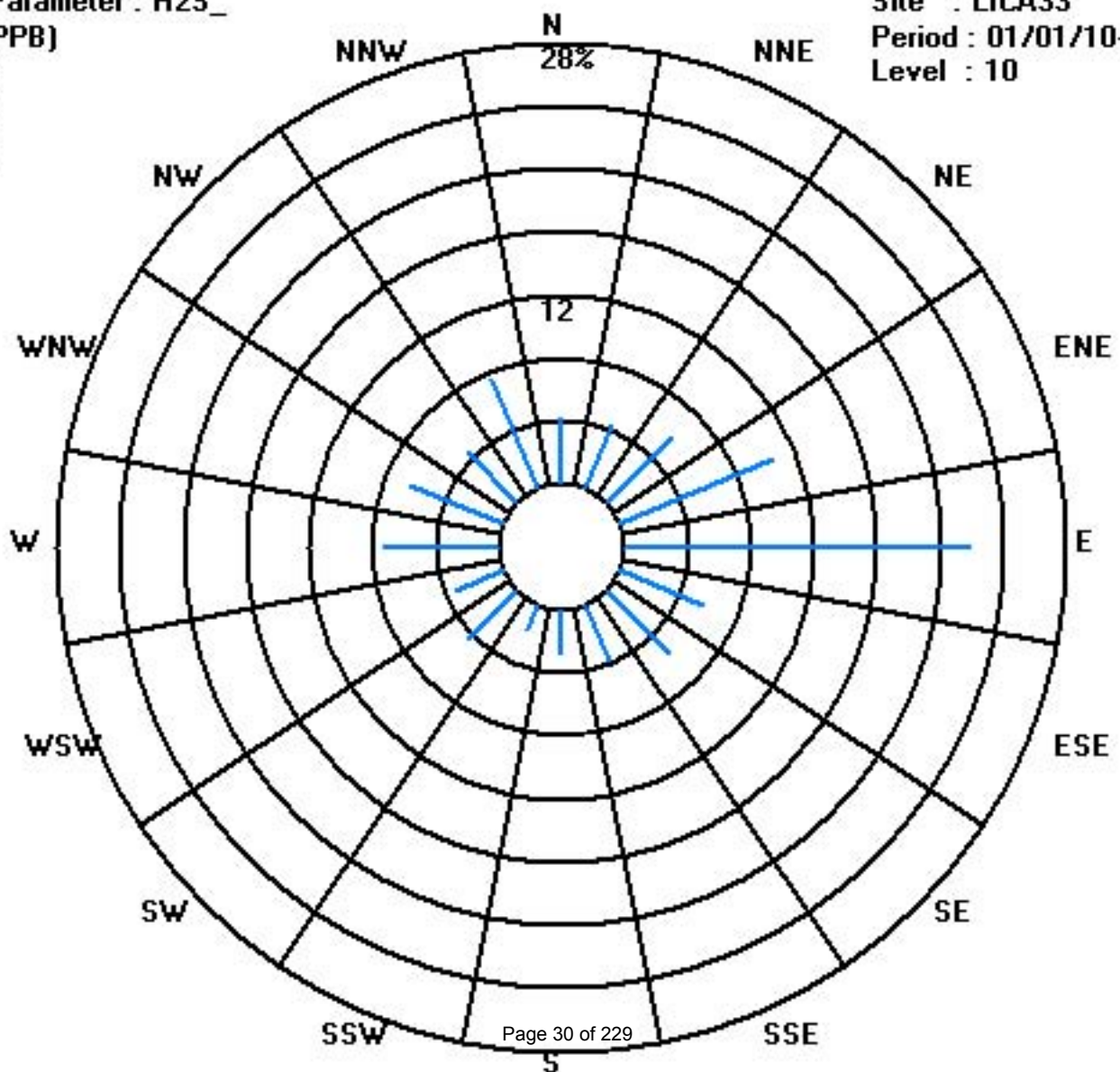
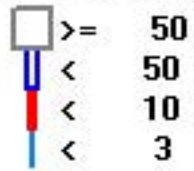
Distribution By Samples

	Direction																
Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
< 3	30	31	42	74	155	41	40	27	20	12	31	23	52	45	32	53	708
< 10																	
< 50																	
>= 50																	
Totals	30	31	42	74	155	41	40	27	20	12	31	23	52	45	32	53	

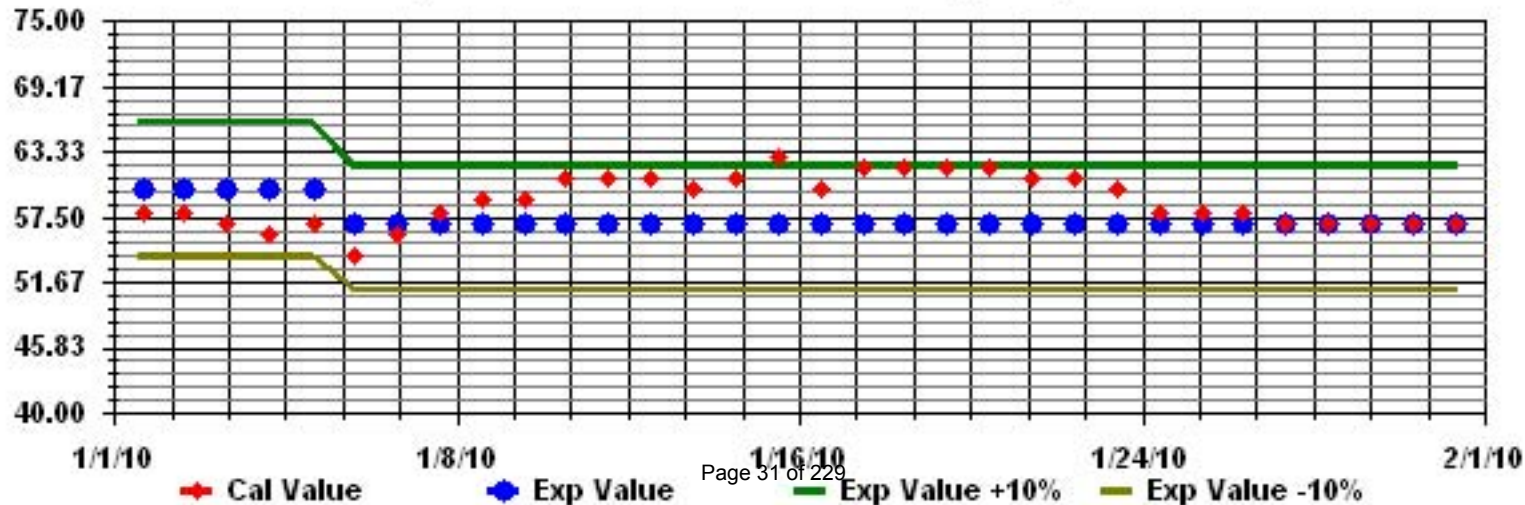
Calm : .00 %

Total # Operational Hours : 708

Class Limits (PPB)



Calibration Graph for Site: LICA33 Parameter: H2S_ Sequence: H2S Phase: SPAll



Particulate Matter 2.5

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - PORTABLE SITE

JANUARY 2010

PARTICULATE MATTER 2.5 (PM2.5) hourly averages in ug/m³

MST

MST	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	23:00	DAILY	24-HOUR	
HOURLY MAX	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	2.9	4.7	2.5	0.1	0	0.1	0	0.6	0.4	0.4	0.6	0	0	0	0.2	0	0	0	0	0.6	0	0	2.4	1.2	4.7	0.7	24	
2	1.4	1.5	2.7	1.5	2.4	3	2.8	3.7	3.1	2.9	3	2	2.3	2.8	3.3	3.5	4	3.1	2.9	2.7	2.5	3.2	2.9	2.7	4.0	2.7	24	
3	2.2	1.9	3.1	2.6	3.3	2.5	2	1.8	2.3	2.1	1.6	1.4	1.8	5.8	7.8	4.7	5.1	5.5	5	2.1	5.4	5.7	6.3	5.1	7.8	3.6	24	
4	1.3	0.9	0.8	0.2	0.5	1	2.5	1.1	0.8	1.5	1.3	0.1	1	0.4	1.5	1	1.3	1.9	2.7	3	2.4	2.3	2.6	2.4	3.0	1.4	24	
5	2.1	2.6	2.3	2.2	2.5	2	1.8	1.6	1.9	2.7	1.4	1.2	0.4	1.2	1.4	1.8	2	2	2.6	3.1	2.7	1.9	1.6	2.7	3.1	2.0	24	
6	2.3	3.3	3.4	2.8	2.8	4.4	6.1	3.6	4.5	4.5	4.4	3.2	3.3	5.7	6.2	4.1	4.7	4.2	2.6	3.2	1.6	1.1	2	4.1	6.2	3.7	24	
7	3.6	3.8	2.9	2.4	0.2	1.4	0.8	0.7	2.7	3.5	1.6	1.1	2.7	1.2	0.6	0.3	0	0.6	0.4	0.5	0.2	0.6	0.6	1	3.8	1.4	24	
8	0.6	1	0	0.7	0.3	0.7	1.4	2	1.9	2.4	0.8	1.9	1.8	3.7	2	2.4	2	2.2	2.7	4.1	5.7	2.6	2.6	3.2	5.7	2.0	24	
9	3.9	4.5	2.7	2.3	3.3	4.3	4.2	4.5	4.4	4.8	5.7	7	5.5	5.7	7.7	6.8	8.9	5.5	6.3	9	9.6	13.4	11	8.9	13.4	6.2	24	
10	9.8	6.8	6	7.5	8.4	7	8.4	7.5	7	13.4	11.6	11.1	14.3	11.3	9.9	11.1	11.2	13.6	11.7	10.3	9.8	8	4.3	2.4	14.3	9.3	24	
11	1.2	1.7	3.3	1.2	0	0	2.4	0	N	1.5	0	0.2	0	2.1	1.6	0.7	2.3	0.4	0	0	2.6	4.5	0	1.7	4.5	1.2	23	
12	4.1	6	4.9	6	4.7	3.8	1.8	1.3	0.1	0	0	0.6	0.2	0.2	0	2.1	1.9	1	0.6	2.5	2.3	4.3	3.1	4	6.0	2.3	24	
13	4.6	5.7	3.9	2.1	5.7	5.7	7.6	8.1	4.2	2.5	0.9	1	1	1	1.8	2.9	2.2	1.8	4.7	1.7	5	4.9	3.2	2.6	8.1	3.5	24	
14	1.4	1.7	2.2	1.5	2.4	5.3	5.4	5.5	6.7	N	6.9	11.6	10.6	10.8	8.1	6.9	9	7.2	8.3	7.2	7.7	9.2	8.2	6.7	11.6	6.5	23	
15	4.1	4.7	5	4.3	5.8	4.8	4.7	7	5	4.8	C	C	C	C	C	3.8	2.7	3	2	2.8	3	2.3	2.7	3.7	7.0	4.0	24	
16	7.2	6.8	3.8	1.4	0	0	0.2	0.7	2	1	1.4	1	0.5	0.8	0.9	0.6	0.2	1.3	0.7	2.2	1.1	1	1.2	3	7.2	1.6	24	
17	4.2	2.7	1.7	2.2	4	2.3	2.4	2.7	2.8	3.3	2.4	0.4	1.1	1.3	0	0.1	0	0.3	0	1.5	0	0	0	0	4.2	1.5	24	
18	0	0	0.1	0	0.4	0.6	0	0.1	0	2.2	0.6	9.9	1	4.4	2.3	3.4	7.1	3.7	2.1	0	0.4	1	1	1	9.9	1.7	24	
19	1.5	4.6	7	5.7	8.3	4	5.6	3.7	3.7	4.3	2.7	3.1	3.9	3.6	3.5	4.6	5	6.4	6.5	6.7	11.6	5.7	2.5	3.6	11.6	4.9	24	
20	2.6	3.1	3.7	3.4	3.6	3.9	1.9	1.3	1.4	3	1.4	2.7	2.4	1.8	2.4	2.2	2.2	2.4	1.7	1.9	3.2	3	3.4	3.6	3.9	2.6	24	
21	4	3.3	4.8	4.5	4.2	4.8	4.8	5.4	5.4	6.1	5.4	4.4	4.8	4.5	5.7	5.6	5.6	5.5	5.2	5.2	4.5	4	3.1	3.3	6.1	4.8	24	
22	3.8	4.6	4.5	4.5	5.2	5.4	6.1	6.4	6.1	6.5	5.9	4.8	4.1	3.8	1.7	1.3	1.8	0.9	1.6	1.8	1.4	1	1.2	1.7	6.5	3.6	24	
23	1.8	0.9	0.8	0.4	1	0.4	0.7	0.6	0.8	N	0.8	0.6	0.5	1	2	2.5	2.9	2.4	3.3	4.8	4.5	4.5	3.9	2.6	4.8	1.9	23	
24	1.8	2.6	3.5	3.7	3.1	3.9	2.9	3.8	3.5	3.4	3.3	2.7	3.1	3.3	4.1	3.3	2.5	3.1	2	2.6	1.8	2.3	1.9	1.7	4.1	2.9	24	
25	2.3	2.4	2	1.8	1.7	1.2	2.2	3.3	2.3	1.7	2.4	0.7	0.8	1	2	1.8	0.9	1.1	1.4	0.7	0.4	1.2	1.3	0.5	3.3	1.5	24	
26	0	1.6	3.6	1.9	1.9	3.1	1.4	2.1	2.7	3.7	3.9	1.7	2.6	1.1	1.6	1.5	0.8	0.8	5.6	5.8	4.2	3.2	2.7	3.2	5.8	2.5	24	
27	3.5	3.8	3	1.3	2	3.7	3.8	4.7	2.8	4	4.4	3.8	0.9	0.8	1.9	2.9	2.1	3.6	3	3.1	6.5	6.5	5.8	4	6.5	3.4	24	
28	4	3.8	1	3.1	2.8	3.2	4	4	3.9	5.1	4.7	5.3	3.3	3.7	4.2	4.4	5.5	4.9	10.7	14	6.4	12.3	10.2	7.3	14.0	5.5	24	
29	5.7	6.6	5.6	11.7	5.6	5.4	4.6	5	9.6	12	7.8	6.7	7.3	8.6	8.2	9	10.5	11.4	13	12.5	13.1	12	12	12.6	13.1	9.0	24	
30	8	8.4	7.9	6.7	3.9	2.3	1.9	1.4	1.4	1.1	1.6	0.6	0.8	1.3	0.8	2.2	2.8	2.1	1.4	2.9	1.8	0.7	1.9	2.2	8.4	2.8	24	
31	1.6	1.1	1.3	1.2	1	1.3	1.6	1.5	1.6	1.8	1.7	1.5	1.1	1.6	1.9	1.6	0.8	1.9	1.7	1.5	0.1	0	0	0.2	1.9	1.2	24	
HOURLY MAX	10	8	8	12	8	7	8	8	10	13	12	12	14	11	10	11	11	14	13	14	13	13	12	13				
HOURLY AVG	3.1	3.5	3.2	2.9	2.9	3.0	3.1	3.1	3.2	3.7	3.0	3.1	2.8	3.2	3.2	3.2	3.5	3.3	3.6	3.8	4.0	3.9	3.4	3.3				

STATUS FLAG CODES

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

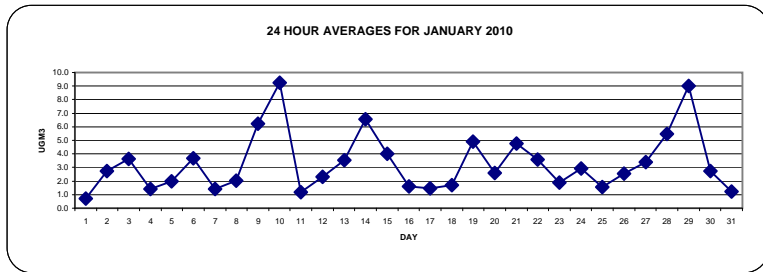
OBJECTIVE LIMIT:

ALBERTA ENVIRONMENT:

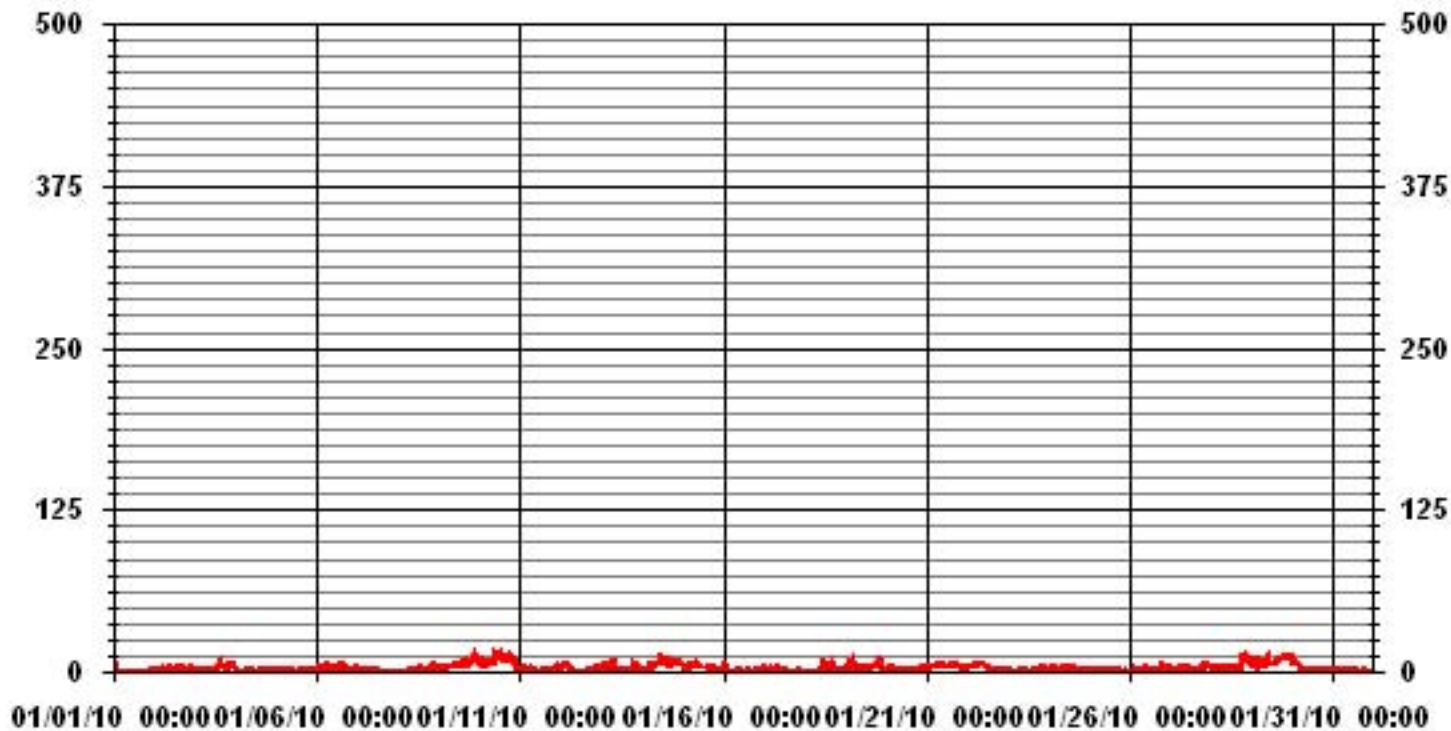
1-HR	-	PPB	24-HR	30	PPB
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MONTHLY SUMMARY

NUMBER OF 1-HR EXCEEDENCES:	-
NUMBER OF 24-HR EXCEEDENCES:	0 PROPOSED CANADA WIDE GUIDELINE
NUMBER OF NON-ZERO READINGS:	694
MAXIMUM 1-HR AVERAGE:	14.3 UG/M ³ @ HOUR(S) 12 ON DAY(S) 10
MAXIMUM 24-HR AVERAGE:	9.3 UG/M ³ ON DAY(S) 10
IZS CALIBRATION TIME:	0 HRS
MONTHLY CALIBRATION TIME:	5 HRS
STANDARD DEVIATION:	2.78
OPERATIONAL TIME:	741 HRS
AMD OPERATION UPTIME:	99.6 %
MONTHLY AVERAGE:	3.29 UG/M ³



01 Hour Averages



— LICA33 PM2 UG/M3

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - PORTABLE SITE

JANUARY 2010

PARTICULATE MATTER 2.5 MAX instantaneous maximum in ug/m³

MST		0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY	24-HOUR		
HOURLY MAX	HOURLY AVG	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	MAX.	AVG.	RDGS.	
DAY																													
1		5.1	7.5	5.1	3.3	1.7	1.8	1.4	2.3	1.8	3	2.4	1.3	0.6	2.2	4.6	2.5	3.6	0.8	2.9	2.5	1.1	2.8	4.6	2.6	7.5	2.8	24	
2		3.5	3.6	6	3.2	4.9	5.5	4.9	6.2	4.7	4.7	4.9	4	4.4	4.9	4.7	5.7	5.7	4.7	6	5.6	4.1	5.1	4.5	4.5	6.2	4.8	24	
3		4.4	3.9	5.7	5.2	5.1	4.4	3.4	3.5	4.1	4.5	3.9	3.6	3.3	8.4	9.6	9.2	7.5	7.1	7.3	4.8	7.8	7.3	8.4	8.1	9.6	5.9	24	
4		4	2.6	2.6	1.9	1.6	3.9	5.9	2.6	2.3	3.6	3.6	1.9	2.8	1.7	3.4	3.1	3.4	4.1	5.6	5	3.8	4.4	4.7	4	5.9	3.4	24	
5		4.5	4.8	4	4.7	4	3.6	3.4	3.1	3.4	7.9	3	2.5	3	3	3.3	3.4	5.2	5.4	4.9	5	5.3	3.6	3.4	4.1	7.9	4.1	24	
6		3.6	5.3	5.5	6	5.2	12	9.9	5.3	6.8	6.2	6.9	5.6	7.1	9.6	9.2	7.5	7.8	6.1	4.6	5.1	4.1	3.4	4.9	7	12	6.4	24	
7		6	7.4	5.8	5.6	1.7	4.1	4.5	3.4	5.2	6.1	6.2	4.7	5.7	5.3	3	3.2	2.4	5.1	3.5	2.3	2.1	2.9	3.3	2.7	7.4	4.3	24	
8		2.3	3.5	2.9	2.5	2.4	3.6	4.1	4.9	4.4	6.1	5.4	5.1	4.6	15.5	4.9	6.2	5.5	6.3	5.5	7.4	9.5	5.6	5.7	6.9	15.5	5.5	24	
9		6.7	7	5.5	3.8	5.5	7.2	6.5	8.1	7	8	8.9	9.6	7.4	9.6	11.8	10	12.3	12.7	12.7	12.1	12.8	19.7	14.7	11.9	19.7	9.6	24	
10		14.7	9.9	8.5	10.4	10.8	10.6	12.5	9.8	11.3	18.2	18.1	18.4	24.4	19.5	14.9	15.5	15.7	18.1	14	13	11.6	10.5	6.7	5.6	24.4	13.4	24	
11		3.8	5	7.9	3.5	2.9	10.8	12.7	0.9	0.2	6.6	1.6	4.7	2	6.8	4.7	5	5.2	3.6	3.2	1.1	7.5	11	2.3	5.2	12.7	4.9	24	
12		6.9	8.1	8.9	9.5	6.5	6.2	5.1	6.4	6.2	1.6	4.2	2.6	3.6	2.6	2.3	4.9	5.1	3.8	2.4	4.6	4.5	7.4	5.6	6.7	9.5	5.2	24	
13		7	8.5	6.5	4.5	8.4	8.5	9.5	10.2	10	5.1	3.3	3.2	3.5	3.7	4.4	5.5	5.1	10.2	10.1	5	7.3	7.5	5.1	4.5	10.2	6.5	24	
14		2.9	4	4.7	3.5	4.6	8	7.2	7.4	9.1	N	9.5	15.3	13.8	16	12.8	9.9	12.1	11.2	12.9	9.9	10.7	13	11.1	9.9	16	9.5	23	
15		7.4	11.1	8.2	8.1	8.6	7	7.7	9.5	8.8	7.5	C	C	C	C	C	6	4.5	5.2	5.1	9	8	6.9	6	6.9	11.1	7.4	23	
16		10.9	9.1	7.5	3.4	1	1.4	3.1	3.5	4	3.6	3.3	2.8	2.6	2.5	2.3	1.9	3	3.3	5.5	7.1	3.8	4.1	3.9	5.4	10.9	4.1	24	
17		7.4	5.1	5.1	4.7	5.8	5	5	8	5.1	5.1	7.1	3.2	6.2	7.2	2.2	2.2	0.3	2.5	3.4	4.1	5.5	3.8	2.5	3	8	4.6	24	
18		3	2.3	1.8	2.2	2.3	2.6	1.6	1.7	2	3.9	3.5	19	4.5	11	6.9	7.7	12.9	10.4	5.8	2.9	4.2	4.3	2.9	3.8	19	5.1	24	
19		5.1	8.7	9.7	10.4	15.8	7.2	10.4	8.6	6.3	7.1	5.5	5.2	7	6.1	5.6	8.1	6.6	8.4	9.9	8.5	15.8	9.5	6.2	6.8	15.8	8.3	24	
20		4.7	5.8	5.3	6	5.3	5.8	6	3.1	3.6	6.1	4.1	5	4.6	4	4.4	3.6	5.3	4.3	4.4	3.9	4.8	4.8	5.5	5.7	6.1	4.8	24	
21		5.5	4.7	6.2	6.6	6.5	6.4	6.6	7.4	7.3	7.5	7	6.8	6	6.6	7.2	7	7.3	7.3	6.9	8.1	6.7	5.1	5	5.1	8.1	6.5	24	
22		6.2	7.4	6.6	6.2	6.3	7	7.5	8.8	7.9	8	8.2	6.8	6.8	5.6	3.4	2.8	3.6	3.1	3.2	4.3	2.6	2.4	2.7	3.5	8.8	5.5	24	
23		3.5	2.9	2.7	1.5	3.1	1.6	2.1	2.1	3	2.2	2.9	2.3	1.6	2.3	4.1	4.2	4.1	4	5.2	6.9	6.3	5.8	5.3	4.3	6.9	3.5	24	
24		3.4	4.6	5.2	5.2	5.6	4.9	4.6	5.6	5.5	5.7	4.6	4.7	5.6	4.4	5.3	5.5	4	5.4	4.4	4.7	3.8	4.5	3	3	5.7	4.7	24	
25		4.5	3.9	3.4	3.4	4	3.1	4.2	5.8	4.9	2.9	5.1	2.5	3.1	3.4	4.3	3.5	2.1	3.4	2.8	1.7	2.4	2.5	3.4	2.3	5.8	3.4	24	
26		2	6.7	7.8	3.3	3.4	5.1	4	3.7	4.3	5.3	6.2	3.4	5.5	3	3.1	3.6	2.1	3	7.9	8.5	6.3	5.2	4.5	4.9	8.5	4.7	24	
27		5.7	6.4	4.5	3.9	4.7	6.6	7.4	11	6.8	6.3	7.3	6.7	3.9	4.3	5.2	6	4.9	6.2	6.2	6.9	11.1	10.2	10.1	6.9	11.1	6.6	24	
28		6.7	5.8	3.4	6.9	5.2	6.1	6	6.9	6.4	7.4	6.4	8.4	6.6	5.8	5.7	6.1	7.8	8.5	22	18.5	11.5	19	20.5	19.4	22	9.5	24	
29		8.2	9.1	10.2	20	11.2	7.3	7.6	7.8	16.8	14.8	13	9.4	8.6	11.7	10.5	11.5	12.7	13.9	16.2	16.1	15.2	13.9	14	14.4	20	12.3	24	
30		12.2	10.8	9.6	9.1	5.7	4.2	3.4	3.3	3.2	2.8	3.5	1.9	2.3	2.8	2.2	3.5	4.6	4	3.5	5.5	4.2	2.3	3.4	4.1	12.2	4.7	24	
31		2.9	2.8	2.3	2.5	2.3	2.9	3.1	3.5	3	2.6	3.1	2.6	2.6	2.8	3.5	2.8	2.1	3.2	3	3	1.8	1.6	1.2	1.3	3.5	2.6	24	
HOURLY MAX		15	11	10	20	16	12	13	11	17	18	18	19	24	20	15	16	16	18	22	19	16	20	21	19				
HOURLY AVG		5.5	6.0	5.8	5.5	5.3	5.8	6.0	5.8	5.8	6.3	5.9	6.0	5.7	6.7	5.9	5.9	6.1	6.5	7.1	6.7	6.9	7.1	6.2	6.2				

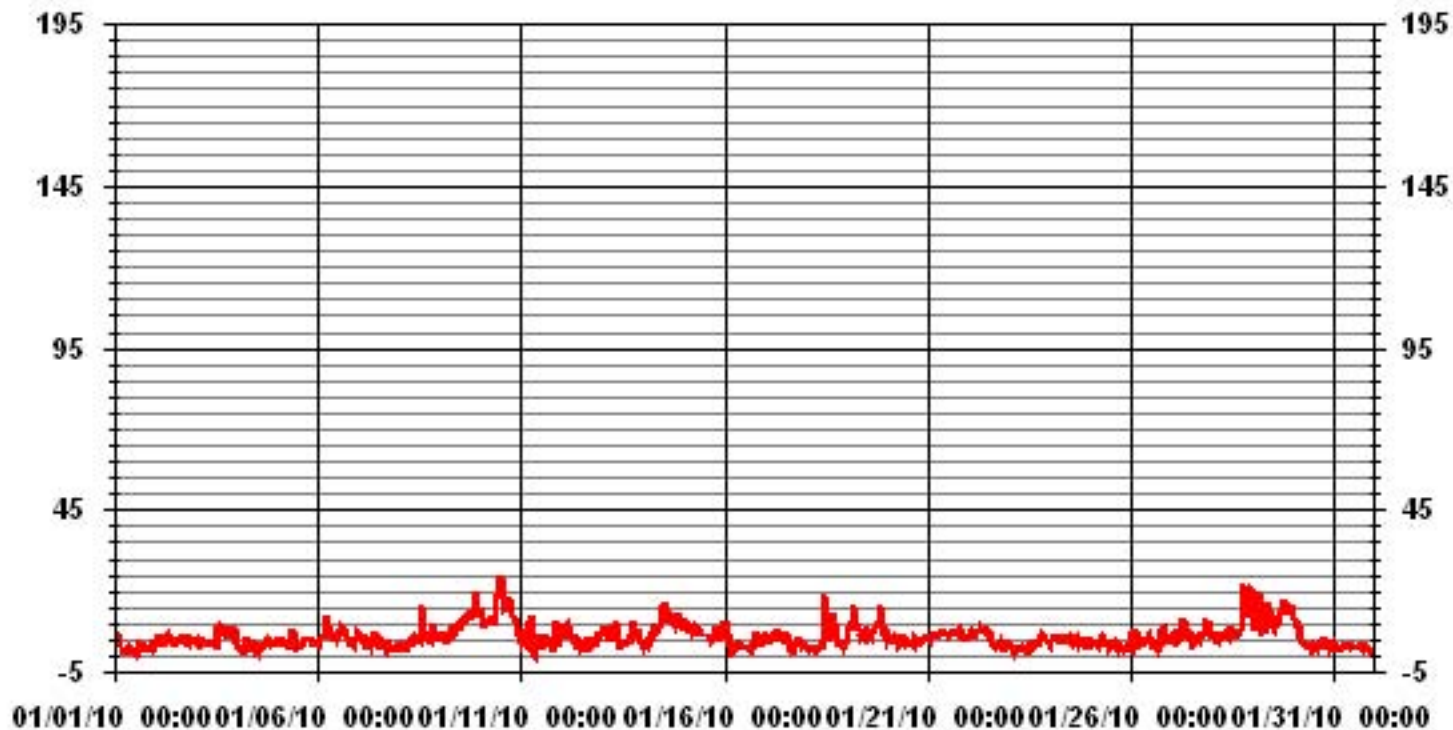
STATUS FLAG CODES

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

MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	690
MAXIMUM INSTANTANEOUS VALUE:	24.4 UG/M ³ @ HOUR(S) 12 ON DAY(S) 10
IZS CALIBRATION TIME:	0 HRS
MONTHLY CALIBRATION TIME:	5 HRS
STANDARD DEVIATION	3.61
OPERATIONAL TIME:	742 HRS

01 Hour Averages



— LICA33 PM2MAX UG/M3

LICA33
 PM2 / WDR Joint Frequency Distribution (Percent)

January 2010

Distribution By % Of Samples

Logger Id : 33
 Site Name : LICA33
 Parameter : PM2
 Units : UG/M3

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
< 30.0	3.94	4.61	5.97	10.19	21.87	5.57	5.84	3.94	2.71	1.63	4.34	3.39	7.33	6.52	4.34	7.74	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	3.94	4.61	5.97	10.19	21.87	5.57	5.84	3.94	2.71	1.63	4.34	3.39	7.33	6.52	4.34	7.74	

Calm : .00 %

Total # Operational Hours : 736

Distribution By Samples

	Direction																
Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
< 30.0	29	34	44	75	161	41	43	29	20	12	32	25	54	48	32	57	736
< 60.0																	
< 80.0																	
< 120.0																	
< 240.0																	
>= 240.0																	
Totals	29	34	44	75	161	41	43	29	20	12	32	25	54	48	32	57	

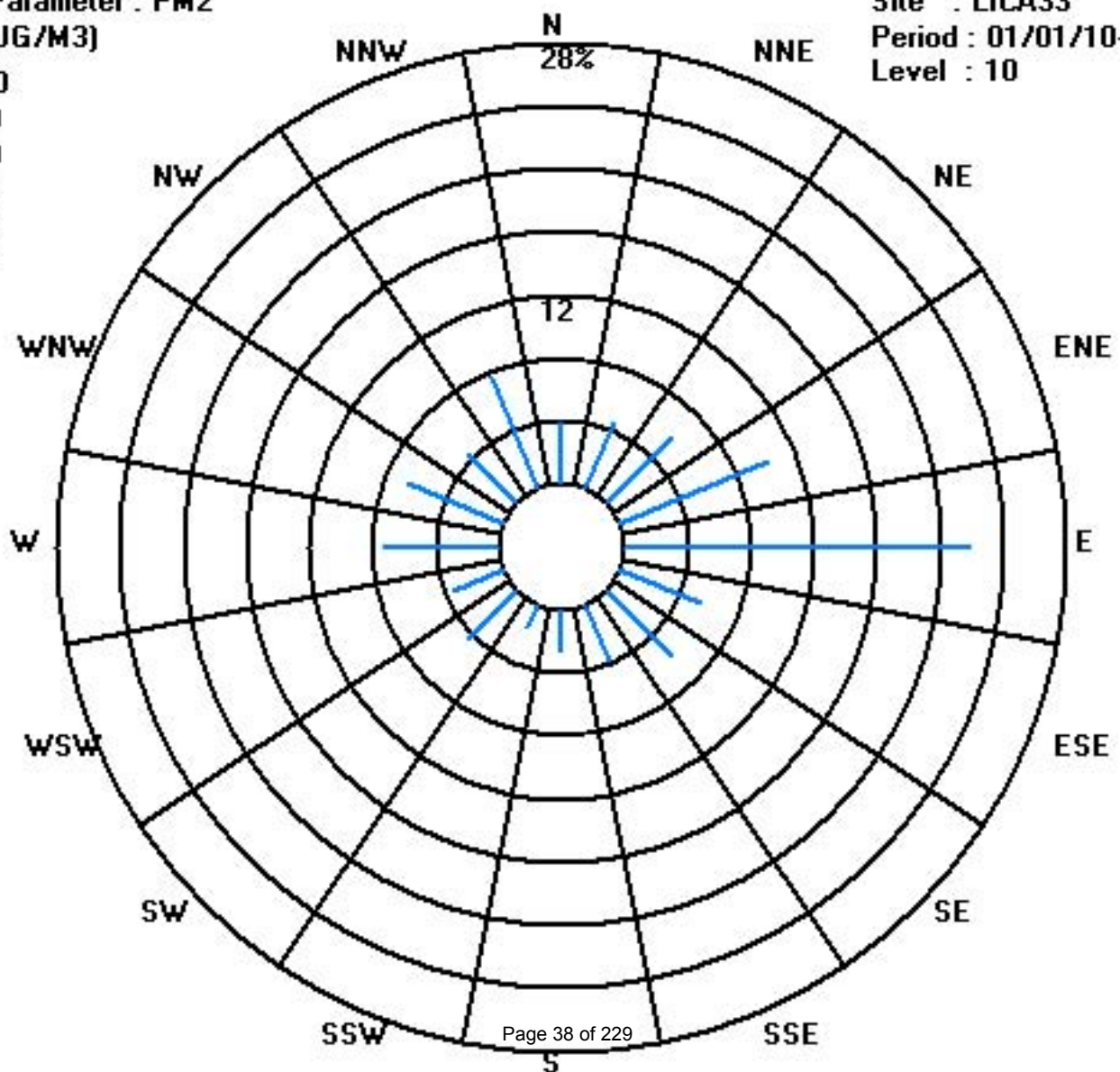
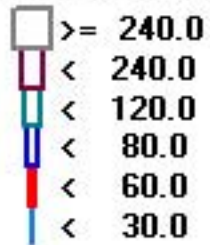
Calm : .00 %

Total # Operational Hours : 736

Class Limits (UG/M3)

Period : 01/01/10-01/31/10

Level : 10



Nitrogen Dioxide

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - PORTABLE SITE

JANUARY 2010

NITROGEN DIOXIDE hourly averages in ppb

MST	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY	24-HOUR		
HOUR START	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.	
HOUR END	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	14	13	9	8	7	8	5	5	5	4	2	2	1	1	IZS	1	1	1	1	1	2	4	3	14	4.8	24	
2	2	1	1	1	1	1	1	1	3	4	2	1	1	1	IZS	2	2	2	2	2	2	2	2	5	5	1.8	24	
3	2	4	5	4	5	6	6	6	5	3	3	2	2	IZS	3	3	4	4	5	4	6	4	6	5	6	4.2	24	
4	2	2	2	3	3	6	7	6	4	4	4	3	IZS	4	4	6	7	6	7	7	9	8	6	7	9	5.1	24	
5	8	10	7	5	6	6	4	2	2	C	C	C	C	C	C	C	2	3	8	5	7	14	14	15	15	6.9	24	
6	16	16	16	19	21	17	19	18	21	21	IZS	N	N	N	N	N	N	N	N	N	N	N	N	N	N	21	18.4	11
7	N	N	N	N	N	N	N	N	N	N	M	M	M	M	M	C	2	3	3	3	3	3	4	4	3.0	9		
8	4	3	3	3	4	5	6	C	C	C	C	C	C	C	6	9	9	9	12	15	18	16	15	14	18	8.9	24	
9	18	19	14	13	13	16	15	IZS	18	15	13	13	14	14	14	17	22	25	24	24	25	23	22	24	25	18.0	24	
10	21	16	14	16	19	18	IZS	18	17	13	11	11	12	12	13	16	19	23	22	20	19	15	12	10	23	16.0	24	
11	9	8	8	8	9	IZS	3	4	4	3	3	5	5	5	10	11	10	9	11	11	12	10	11	12	7.6	24		
12	12	10	10	11	IZS	10	5	5	5	3	2	1	1	2	2	3	2	2	2	3	4	4	5	12	4.6	24		
13	5	6	5	IZS	3	1	1	2	3	3	1	0	0	0	0	1	3	5	7	8	9	7	8	10	10	3.8	24	
14	7	5	IZS	6	6	5	6	4	5	N	4	4	6	7	6	7	8	10	11	12	11	11	15	14	15	7.7	23	
15	13	IZS	11	12	11	11	9	10	9	7	6	7	9	12	13	13	17	16	13	12	11	10	11	17	10.9	24		
16	IZS	11	7	3	1	1	0	0	0	0	0	0	0	0	0	0	1	0	0	2	1	1	1	IZS	11	1.3	24	
17	3	3	3	5	5	5	5	9	12	8	6	5	4	3	3	3	2	2	2	2	2	2	2	IZS	2	12	4.2	24
18	2	5	5	4	5	4	5	5	6	6	5	3	3	3	3	4	5	5	6	6	IZS	7	6	7	4.6	24		
19	8	8	6	9	9	10	9	9	13	10	7	8	7	7	8	9	10	13	14	IZS	13	11	11	14	9.4	24		
20	11	11	9	7	5	4	2	2	3	3	2	2	2	1	1	1	1	1	IZS	1	1	1	1	1	11	3.2	24	
21	1	1	1	1	1	2	1	2	2	2	1	1	1	1	2	1	1	1	IZS	2	2	1	2	1	2	1.4	24	
22	2	2	2	2	1	2	2	2	2	3	3	2	2	2	2	1	2	IZS	1	1	1	1	1	1	3	1.7	24	
23	1	1	1	2	1	1	2	2	2	2	1	1	1	1	1	1	IZS	3	5	4	3	2	1	1	5	1.7	24	
24	1	1	2	2	2	1	1	1	2	2	2	2	2	1	2	IZS	3	3	4	3	2	3	3	2	4	2.0	24	
25	2	2	2	2	2	3	4	4	5	2	1	2	2	IZS	2	2	2	4	3	1	2	3	3	5	2.5	24		
26	3	3	4	4	3	3	3	7	6	2	1	1	1	IZS	1	1	2	2	2	2	2	2	2	2	7	2.6	24	
27	3	3	3	4	4	5	5	8	9	5	3	3	IZS	2	2	6	8	14	11	10	9	9	14	14	14	6.7	24	
28	15	12	11	13	11	11	12	10	10	9	6	IZS	6	6	5	7	12	12	14	15	20	21	25	24	25	12.5	24	
29	24	26	23	22	22	21	20	20	18	15	IZS	12	12	12	14	16	19	23	27	21	22	23	24	25	27	20.0	24	
30	19	20	25	19	8	4	4	4	3	IZS	3	1	0	0	0	0	0	0	0	0	1	0	0	0	25	4.8	24	
31	0	0	1	1	0	0	0	1	IZS	0	0	0	1	0	0	1	1	1	2	2	0	0	0	0	2	0.5	24	
HOURLY MAX	24	26	25	22	22	21	20	20	21	21	13	13	14	14	14	17	22	25	27	24	25	23	25	25				
HOURLY AVG	7.8	7.7	7.4	7.2	6.5	6.4	5.7	6.0	6.9	5.9	3.7	3.5	3.8	3.8	4.2	5.3	6.0	6.9	7.6	7.4	7.2	7.3	7.8	8.0				

STATUS FLAG CODES

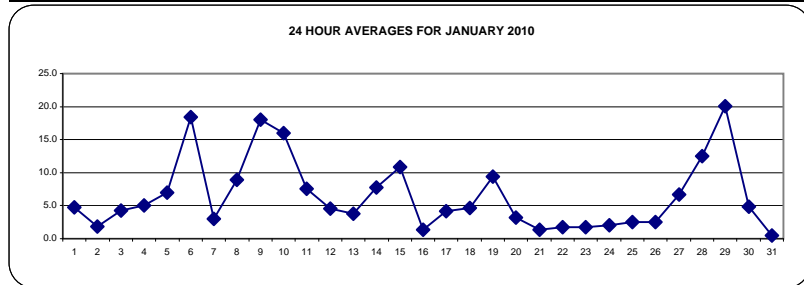
S	- OUT OF SERVICE	IZS	- IZS - DAILY ZERO/SPAN CHECK
N	- INVALID DATA	M	- MAINTENANCE
D	- INSTRUMENT DRIFT	P	- POWER FAILURE
C	- CALIBRATION	NA	- NOT APPLICABLE

OBJECTIVE LIMIT:

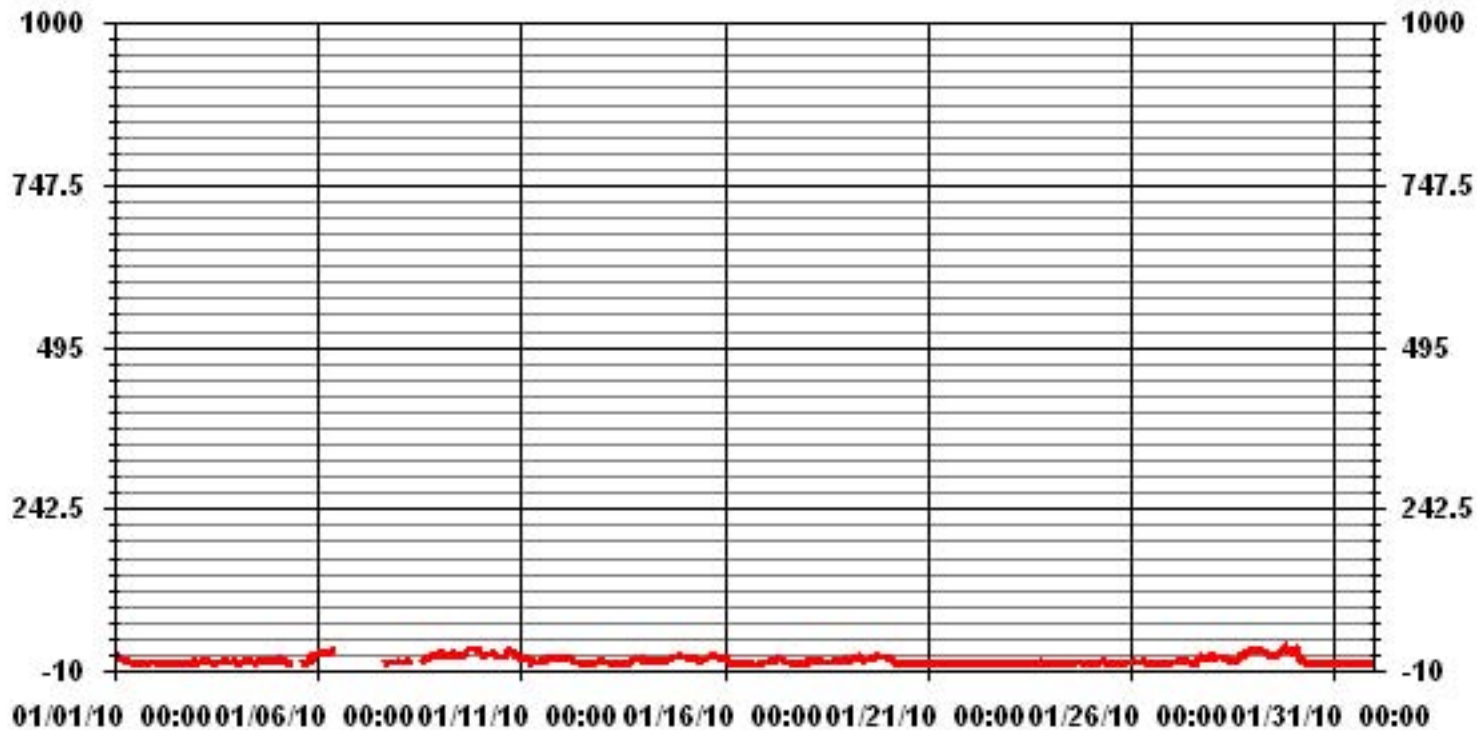
ALBERTA ENVIRONMENT:	1-HR	212	PPB	24-HR	106	PPB
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MONTHLY SUMMARY

NUMBER OF 1-HR EXCEEDENCES:	0
NUMBER OF 24-HR EXCEEDENCES:	0
NUMBER OF NON-ZERO READINGS:	630
MAXIMUM 1-HR AVERAGE:	27 PPB @ HOUR(S) 18 ON DAY(S) 29
MAXIMUM 24-HR AVERAGE:	20.0 PPB ON DAY(S) 29
IZS CALIBRATION TIME:	29 HRS
OPERATIONAL TIME:	715 HRS
MONTHLY CALIBRATION TIME:	15 HRS
AMD OPERATION UPTIME:	96.1 %
STANDARD DEVIATION:	6.10
MONTHLY AVERAGE:	6.31 PPB



01 Hour Averages



— LICA33 NO2_ PPB

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - PORTABLE SITE

JANUARY 2010

NITROGEN DIOXIDE MAX instantaneous maximum in ppb

MST		0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY	24-HOUR	
DAY	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.	
1	13	22	21	12	10	8	9	7	6	7	5	3	2	2	2	IZS	1	2	2	2	2	3	7	5	22	6.7	24	
2	3	2	2	2	2	2	2	2	7	7	3	2	2	2	IZS	2	3	3	2	3	3	2	4	7	7	7	3.0	24
3	4	8	11	5	6	7	7	7	7	4	4	3	2	IZS	4	4	5	6	7	5	8	5	7	7	11	5.8	24	
4	3	3	3	3	4	9	10	7	5	6	6	4	IZS	13	5	8	10	9	8	10	11	10	7	9	13	7.1	24	
5	10	11	9	6	6	7	6	3	3	C	C	C	C	C	C	C	C	4	132	9	10	24	18	22	132	17.5	24	
6	22	18	19	22	23	23	22	19	23	22	IZS	N	N	N	N	N	N	N	N	N	N	N	N	N	N	23	21.3	11
7	N	N	N	N	N	N	N	N	N	M	M	M	M	M	C	C	3	3	4	5	5	4	4	6	6	4.3	9	
8	6	4	4	5	8	8	9	C	C	C	C	C	C	C	8	11	12	9	15	18	20	18	16	16	20	11.0	24	
9	21	24	16	14	14	21	17	IZS	21	19	14	14	15	15	16	19	27	27	26	25	26	25	27	27	27	27	20.4	24
10	23	21	15	21	21	19	IZS	21	20	16	13	12	14	15	15	19	31	25	24	22	21	18	14	14	31	18.9	24	
11	12	11	11	11	17	IZS	4	5	4	4	4	6	6	7	7	13	15	12	11	15	13	13	12	15	17	9.9	24	
12	15	12	13	13	IZS	13	7	6	6	5	3	2	2	2	3	4	6	6	3	3	3	7	8	6	15	6.4	24	
13	6	7	7	IZS	5	2	2	2	5	5	3	1	1	1	1	2	5	37	20	16	19	12	10	13	37	7.9	24	
14	9	9	IZS	8	10	6	8	5	7	N	5	5	7	7	8	8	9	11	12	14	12	12	17	15	17	9.3	23	
15	14	IZS	13	15	13	13	11	11	11	9	7	10	9	11	14	15	16	18	17	14	14	12	11	14	18	12.7	24	
16	IZS	14	10	5	2	1	1	1	1	0	0	0	0	1	1	3	2	1	4	4	1	2	IZS	14	2.5	24		
17	4	4	4	6	6	6	8	15	17	10	7	6	5	4	4	3	3	3	3	3	3	3	3	IZS	3	17	5.7	24
18	3	11	7	6	6	5	6	6	8	7	6	4	4	4	4	4	5	6	6	7	9	IZS	9	8	11	6.1	24	
19	13	12	7	11	10	11	11	14	15	14	10	10	9	9	8	9	11	11	14	15	IZS	16	12	13	16	11.5	24	
20	14	12	10	8	6	7	4	3	3	4	3	3	2	2	2	2	2	2	2	IZS	2	2	2	2	14	4.3	24	
21	2	2	2	2	2	3	3	2	3	3	2	2	2	2	2	2	2	3	IZS	3	2	2	2	2	3	2.3	24	
22	2	3	3	3	2	2	3	3	3	4	4	M	3	3	2	2	2	IZS	2	2	3	2	2	2	4	2.6	23	
23	2	1	3	3	3	2	4	4	4	3	3	3	2	2	2	1	IZS	5	6	6	5	3	2	2	6	3.1	24	
24	2	2	3	3	3	2	2	2	2	2	3	2	4	2	2	IZS	3	4	5	4	3	3	3	3	5	2.8	24	
25	3	3	2	2	3	3	5	7	6	6	3	2	3	3	IZS	3	3	3	6	5	2	4	4	4	7	3.7	24	
26	4	4	4	5	4	5	5	19	9	3	3	1	1	IZS	1	2	2	3	3	3	3	3	3	3	19	4.0	24	
27	3	4	4	4	6	7	6	12	13	17	11	4	IZS	2	5	8	9	16	14	12	10	10	24	18	24	9.5	24	
28	19	18	15	18	12	14	15	11	11	12	8	IZS	8	7	8	8	15	14	16	21	22	28	30	25	30	15.4	24	
29	27	29	26	24	23	24	22	22	35	21	IZS	14	13	13	15	18	21	27	29	25	24	26	25	27	35	23.0	24	
30	26	23	27	26	12	6	5	6	3	IZS	4	3	1	1	1	1	1	1	1	1	1	1	1	1	1	27	6.7	24
31	1	1	1	2	1	1	1	2	IZS	1	0	1	1	1	1	1	2	2	2	2	3	1	0	1	1	3	1.2	24
HOURLY MAX	27	29	27	26	23	24	22	22	35	22	14	14	15	15	16	19	31	37	132	25	26	28	30	27				
HOURLY AVG	9.9	10.2	9.4	9.1	8.3	8.2	7.4	8.0	9.2	8.2	5.2	4.7	4.7	5.2	5.4	6.5	8.1	9.4	13.6	9.5	9.0	9.3	9.8	10.0				

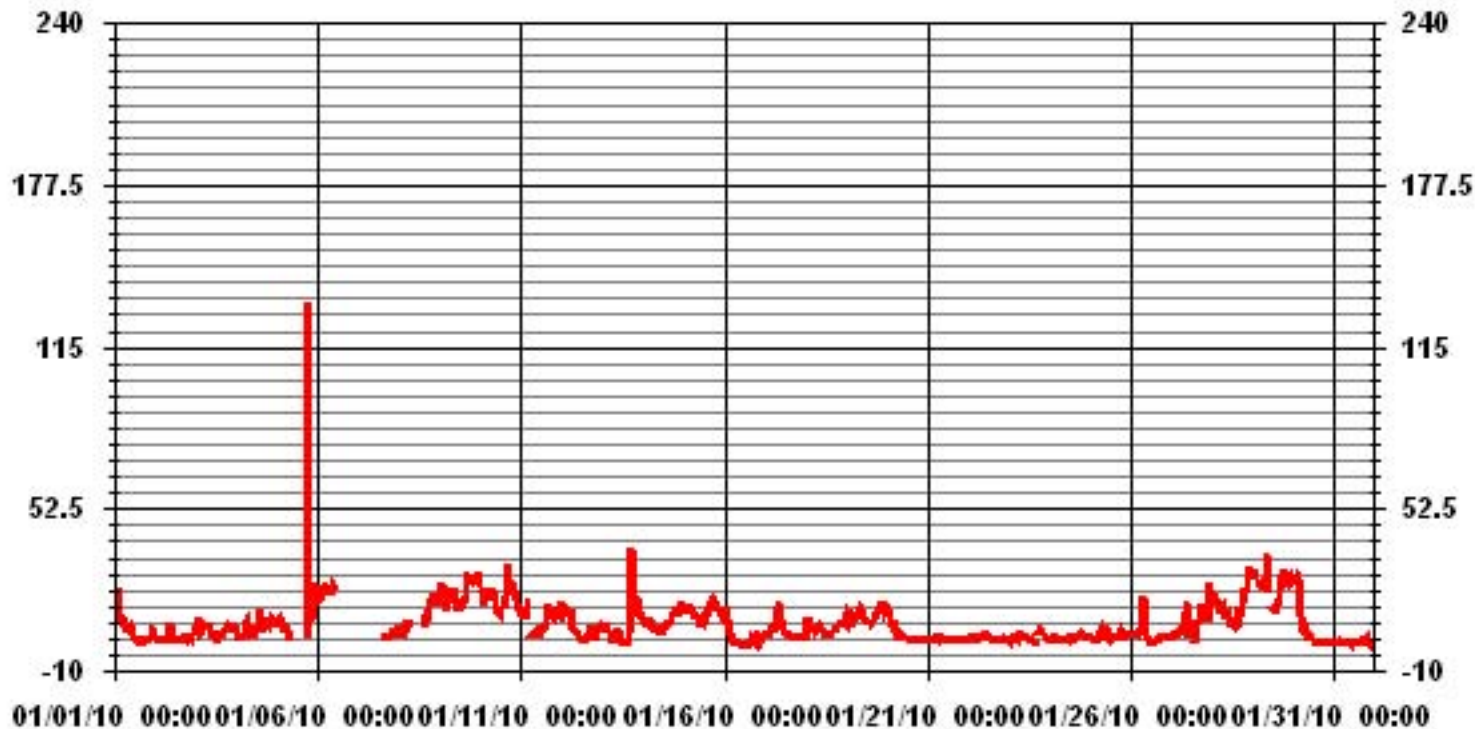
STATUS FLAG CODES

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:	663					
MAXIMUM INSTANTANEOUS VALUE:	132	PPB	@ HOUR(S)	18	ON DAY(S)	5
IZS CALIBRATION TIME:	29	HRS	OPERATIONAL TIME:	714	HRS	
MONTHLY CALIBRATION TIME:	16	HRS				
STANDARD DEVIATION	8.57					

01 Hour Averages



— LICA33 H02MAX PPB

LICA33
 NO2_ / WDR Joint Frequency Distribution (Percent)

January 2010

Distribution By % Of Samples

Logger Id : 33
 Site Name : LICA33
 Parameter : NO2_
 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
< 50	4.47	4.17	6.11	10.73	22.35	4.76	4.61	3.27	2.68	1.78	4.61	3.27	7.74	6.70	4.76	7.89	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	4.47	4.17	6.11	10.73	22.35	4.76	4.61	3.27	2.68	1.78	4.61	3.27	7.74	6.70	4.76	7.89	

Calm : .00 %

Total # Operational Hours : 671

Distribution By Samples

	Direction																
Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
< 50	30	28	41	72	150	32	31	22	18	12	31	22	52	45	32	53	671
< 110																	
< 210																	
>= 210																	
Totals	30	28	41	72	150	32	31	22	18	12	31	22	52	45	32	53	

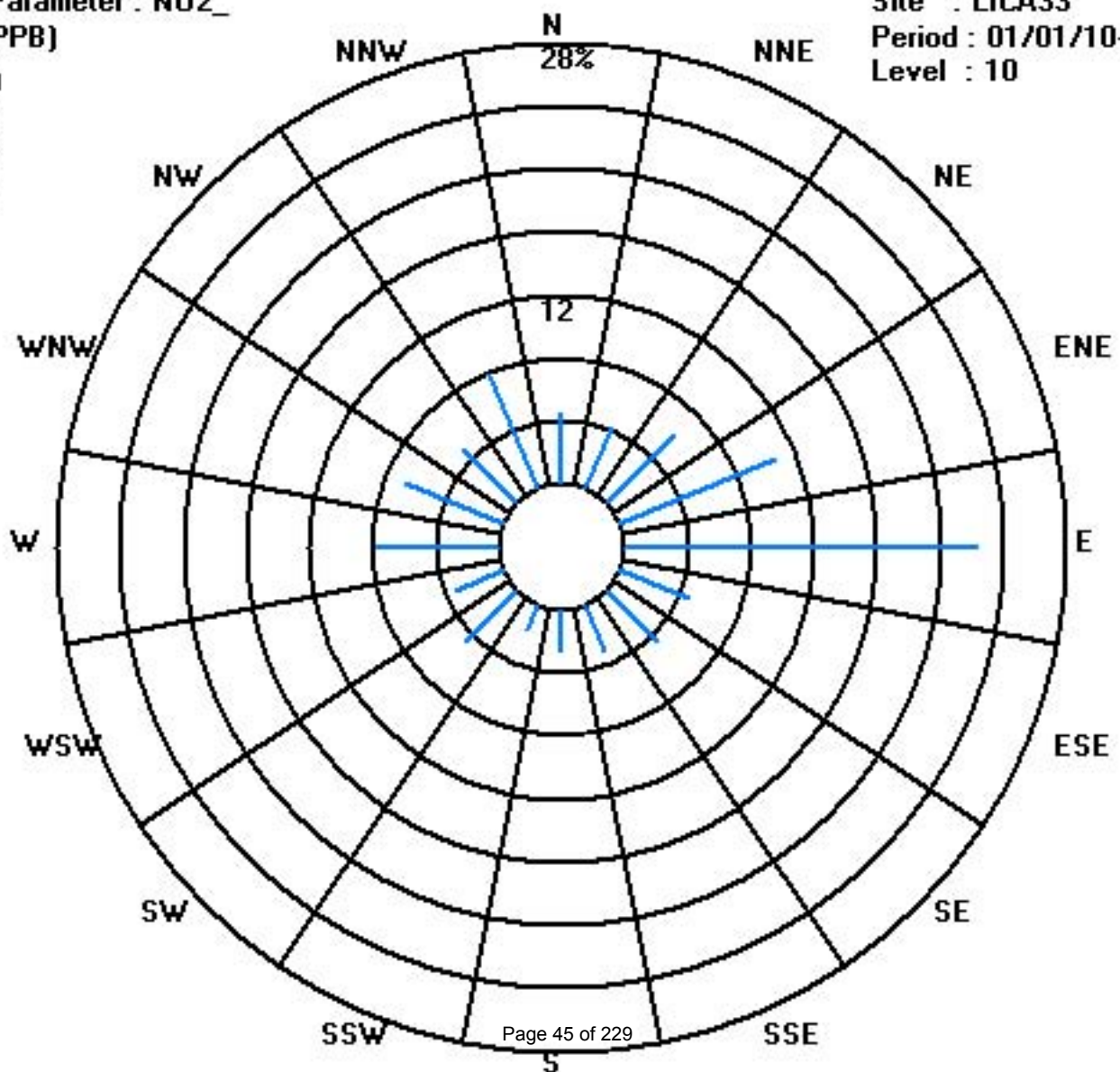
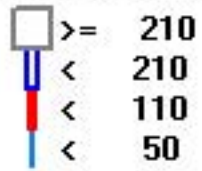
Calm : .00 %

Total # Operational Hours : 671

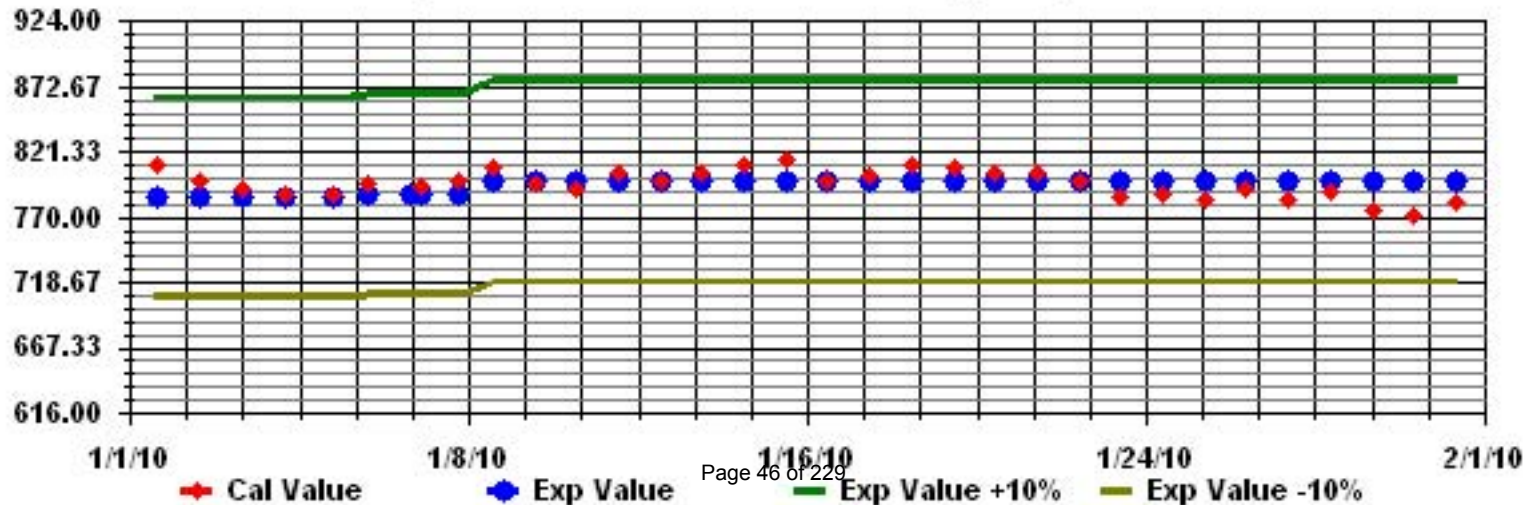
Class Limits (PPB)

Period : 01/01/10-01/31/10

Level : 10



Calibration Graph for Site: LICA33 Parameter: NO2_ Sequence: NO2 Phase: SPAll



Nitric Oxide

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - PORTABLE SITE

JANUARY 2010

NITRIC OXIDE hourly averages in ppb

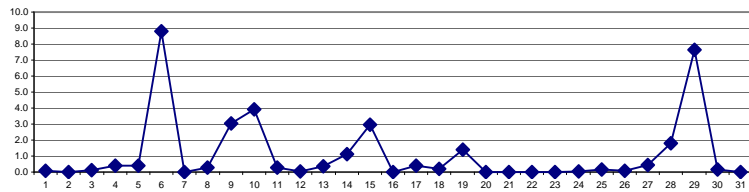
MST

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	0:00	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	1	1	0	0	0	IZS	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	0	0	0	0	IZS	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	0	1	1	1	IZS	0	0	0	0	0	0	0	0	0	0	0	1	0.1	24	
4	0	0	0	0	0	0	0	0	0	0	1	2	IZS	3	2	1	0	0	0	0	0	0	0	0	0	3	0.4	24	
5	0	0	0	0	0	0	0	0	0	C	C	C	C	C	C	C	0	0	7	0	0	0	0	0	7	0.4	24		
6	0	0	0	1	5	5	9	8	25	35	IZS	N	N	N	N	N	N	N	N	N	N	N	N	N	35	8.8	11		
7	N	N	N	N	N	N	N	N	N	N	M	M	M	M	M	C	0	0	0	0	0	0	0	0	0	0.0	9		
8	0	0	0	0	0	0	0	0	C	C	C	C	C	C	3	2	0	0	0	0	0	0	0	0	3	0.3	24		
9	0	2	0	0	0	0	0	IZS	1	4	5	6	7	8	8	7	3	4	2	4	6	1	0	2	8	3.0	24		
10	0	0	0	0	0	0	IZS	2	5	9	13	12	13	10	7	5	6	7	1	0	0	0	0	0	13	3.9	24		
11	0	0	0	0	0	IZS	0	0	0	0	0	1	1	1	1	1	1	0	0	0	0	0	0	0	1	0.3	24		
12	0	0	0	1	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.0	24		
13	0	0	0	IZS	0	0	0	0	0	0	1	1	0	0	0	0	0	0	5	1	0	0	0	0	5	0.3	24		
14	0	0	IZS	0	0	0	0	0	0	N	2	3	5	6	4	2	1	0	0	0	0	0	2	0	6	1.1	23		
15	0	IZS	0	2	0	0	0	0	2	6	9	10	9	10	10	7	1	1	1	0	0	0	0	0	10	3.0	24		
16	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24		
17	0	0	0	0	0	0	0	0	0	2	2	2	2	1	0	0	0	0	0	0	0	0	0	IZS	0	2	0.4	24	
18	0	0	0	0	0	0	0	0	0	1	1	1	1	1	0	0	0	0	0	0	0	0	IZS	0	1	0.2	24		
19	0	0	0	0	0	0	0	0	1	3	4	7	6	4	4	2	1	0	0	0	0	IZS	0	0	7	1.4	24		
20	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		
21	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	0.0	24	
22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0.0	24	
23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0.0	24		
24	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	IZS	0	0	0	0	0	0	0	0	1	0.0	24		
25	0	0	0	0	0	0	0	0	1	0	0	1	1	IZS	1	0	0	0	0	0	0	0	0	0	1	0.2	24		
26	0	0	0	0	0	0	0	1	0	0	1	0	0	IZS	0	0	0	0	0	0	0	0	0	0	1	0.1	24		
27	0	0	0	0	0	0	0	0	1	1	1	2	IZS	1	1	2	1	0	0	0	0	0	0	0	2	0.4	24		
28	0	0	0	0	0	0	0	0	1	5	4	IZS	6	4	3	2	2	0	0	0	0	3	7	4	7	1.8	24		
29	8	13	10	3	7	4	2	9	16	23	IZS	19	15	14	10	8	5	2	7	0	0	0	0	1	23	7.7	24		
30	0	0	2	1	0	0	0	0	0	IZS	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.2	24		
31	0	0	0	0	0	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24		
HOURLY MAX	8	13	10	3	7	5	9	9	25	35	13	19	15	14	10	8	6	7	7	4	6	3	7	4					
HOURLY AVG	0.3	0.5	0.4	0.3	0.4	0.3	0.4	0.7	1.9	3.5	1.8	2.6	2.7	2.6	2.0	1.5	0.7	0.5	0.8	0.2	0.2	0.1	0.3	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

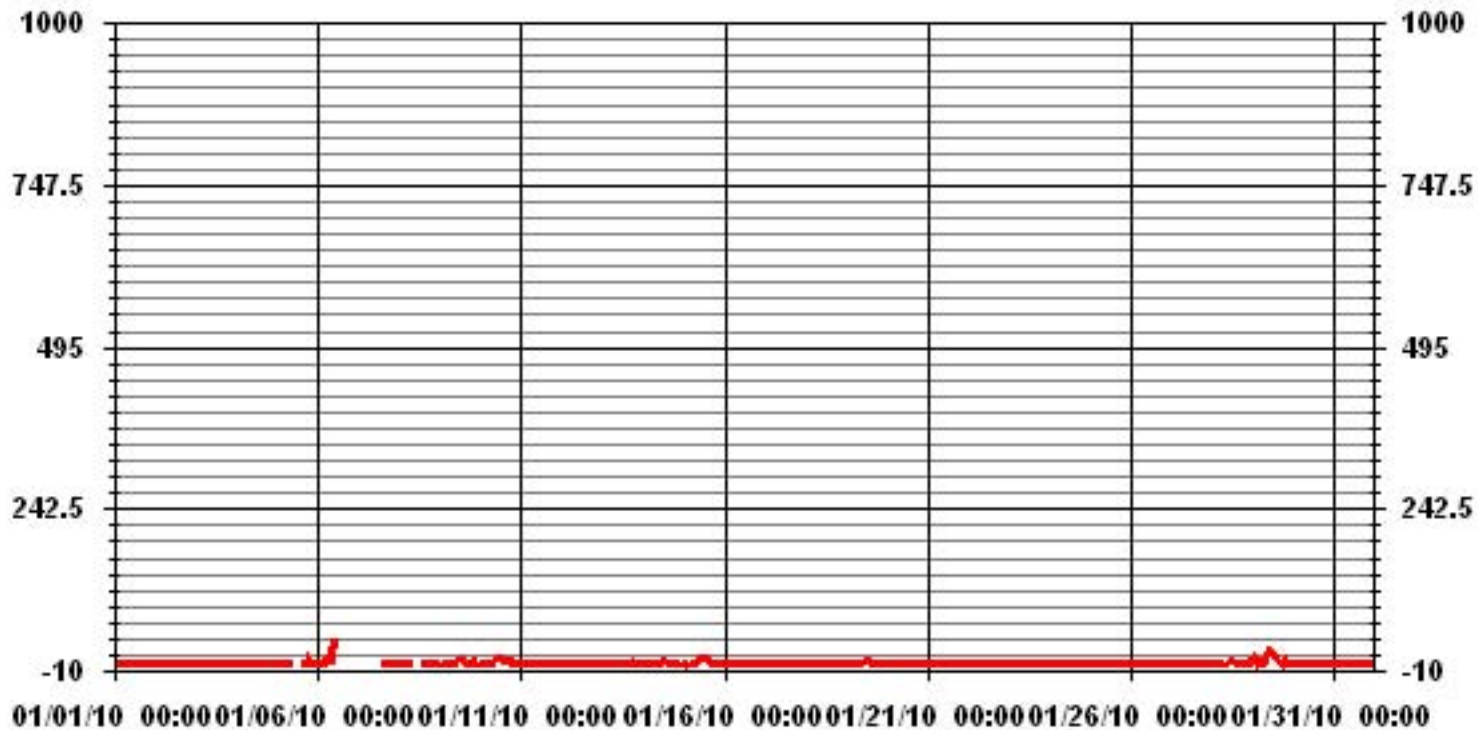
24 HOUR AVERAGES FOR JANUARY 2010



MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	146
MAXIMUM 1-HR AVERAGE:	35 PPB @ HOUR(S) 9 ON DAY(S) 6
MAXIMUM 24-HR AVERAGE:	8.8 PPB ON DAY(S) 6
IZS CALIBRATION TIME:	29 HRS
MONTHLY CALIBRATION TIME:	15 HRS
STANDARD DEVIATION:	3.01
OPERATIONAL TIME:	715 HRS
AMD OPERATION UPTIME:	96.1 %
MONTHLY AVERAGE:	0.99 PPB

01 Hour Averages



— LICA33 NO_ PPB

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - PORTABLE SITE

JANUARY 2010

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	4	4	0	0	0	0	0	0	2	1	1	1	0	1	IZS	0	0	0	0	0	0	0	0	0	4	0.6	24
2	0	0	0	0	0	0	0	0	0	0	1	0	0	0	IZS	0	0	0	0	0	0	0	0	0	0	1	0.0	24
3	0	0	0	0	0	0	0	0	0	0	1	1	1	IZS	1	1	0	0	0	0	0	0	0	0	0	1	0.2	24
4	0	0	0	0	0	0	0	0	0	1	2	2	IZS	12	2	2	1	4	0	0	0	0	0	0	12	1.1	24	
5	0	1	0	0	0	0	0	0	0	C	C	C	C	C	C	C	C	0	174	0	0	2	1	1	174	11.2	24	
6	2	1	1	6	8	9	11	13	30	39	IZS	N	N	N	N	N	N	N	N	N	N	N	N	N	39	12.0	11	
7	N	N	N	N	N	N	N	N	N	N	M	M	M	M	M	C	0	0	0	0	0	0	0	0	0	0	0.0	9
8	0	0	0	0	0	0	0	C	C	C	C	C	C	C	4	3	2	0	1	1	1	1	1	1	4	0.9	24	
9	2	10	1	0	0	2	1	IZS	3	7	6	7	9	9	9	8	5	7	3	6	8	6	2	5	10	5.0	24	
10	2	1	0	2	2	1	IZS	5	8	12	16	13	17	12	8	7	62	27	2	1	1	1	1	1	62	8.8	24	
11	0	0	0	0	1	IZS	1	0	0	1	1	2	2	2	2	3	4	1	0	0	1	1	0	2	4	1.0	24	
12	2	2	2	4	IZS	1	1	0	0	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	4	0.8	24	
13	0	0	0	IZS	0	0	0	0	0	1	1	1	1	1	1	3	6	57	10	4	1	0	1	57	3.9	24		
14	1	0	IZS	1	1	0	0	0	1	N	3	4	7	7	5	3	2	1	0	0	0	0	9	1	9	2.1	23	
15	1	IZS	2	7	1	1	1	1	4	11	13	12	13	12	13	12	3	2	2	1	1	0	1	1	13	5.0	24	
16	IZS	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0	0	0	0	0	0	IZS	1	0.2	24
17	0	0	0	0	0	0	0	2	1	2	3	3	2	1	1	0	0	0	0	0	0	0	0	IZS	1	3	0.7	24
18	0	1	0	0	0	0	0	0	1	2	2	3	2	1	1	1	1	0	0	0	0	0	0	IZS	0	3	0.7	24
19	2	0	0	0	0	0	0	2	5	4	9	9	8	6	5	3	4	1	1	1	IZS	1	1	0	9	2.7	24	
20	0	0	0	0	0	0	0	0	0	1	1	1	1	1	0	0	0	0	0	0	IZS	0	0	0	1	0.2	24	
21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	IZS	0	0	0	0	0	1	0.0	24	
22	0	0	0	0	0	0	0	0	0	0	1	M	1	0	0	0	0	0	IZS	0	0	0	0	0	1	0.1	23	
23	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	IZS	0	0	0	0	0	0	0	1	0.1	24	
24	0	0	0	0	0	0	0	0	0	1	1	1	3	1	0	IZS	1	0	0	0	0	0	0	0	3	0.3	24	
25	0	0	0	0	0	0	0	0	0	2	1	1	1	2	IZS	1	1	0	0	0	0	0	0	0	2	0.4	24	
26	0	0	0	0	0	0	0	29	1	1	3	1	1	IZS	1	1	0	0	0	0	0	0	0	0	29	1.7	24	
27	0	0	0	0	0	0	1	2	17	17	2	IZS	2	2	3	2	1	0	0	0	0	0	3	1	17	2.3	24	
28	1	1	1	2	0	1	1	0	3	10	5	IZS	8	5	4	3	3	1	1	1	1	7	11	11	11	3.5	24	
29	15	17	12	8	10	7	4	15	40	44	IZS	23	19	16	13	9	8	4	11	1	2	1	3	44	12.3	24		
30	1	2	5	3	0	0	0	0	0	IZS	1	1	0	0	0	0	0	0	0	0	0	0	0	0	5	0.6	24	
31	0	0	0	0	0	0	0	0	IZS	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0.1	24	
HOURLY MAX	15	17	12	8	10	9	11	29	40	44	17	23	19	16	13	12	62	27	174	10	8	7	11	11				
HOURLY AVG	1.0	1.4	1.0	1.1	0.8	0.8	0.7	2.4	3.5	6.1	3.5	3.6	4.0	3.6	2.9	2.4	3.7	1.9	8.7	0.8	0.7	0.7	1.1	1.0				

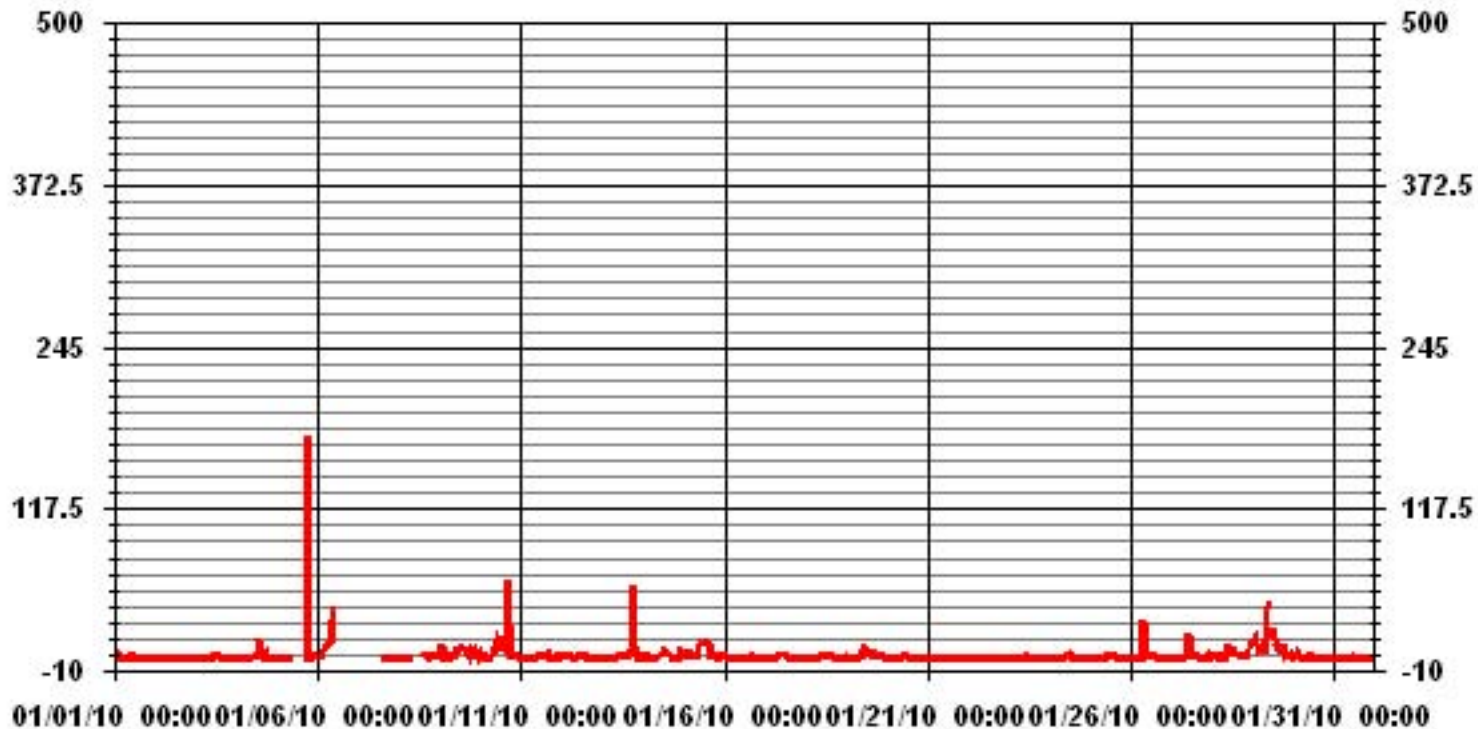
STATUS FLAG CODES

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:	300					
MAXIMUM INSTANTANEOUS VALUE:	174	PPB	@ HOUR(S)	18	ON DAY(S)	5
IZS CALIBRATION TIME:	29	HRS	OPERATIONAL TIME:	714	HRS	
MONTHLY CALIBRATION TIME:	16	HRS				
STANDARD DEVIATION	8.65					

01 Hour Averages



LICA33
 NO_ / WDR Joint Frequency Distribution (Percent)

January 2010

Distribution By % Of Samples

Logger Id : 33
 Site Name : LICA33
 Parameter : NO_
 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
< 50	4.47	4.17	6.11	10.73	22.35	4.76	4.61	3.27	2.68	1.78	4.61	3.27	7.74	6.70	4.76	7.89	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	4.47	4.17	6.11	10.73	22.35	4.76	4.61	3.27	2.68	1.78	4.61	3.27	7.74	6.70	4.76	7.89	

Calm : .00 %

Total # Operational Hours : 671

Distribution By Samples

	Direction																
Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
< 50	30	28	41	72	150	32	31	22	18	12	31	22	52	45	32	53	671
< 110																	
< 210																	
>= 210																	
Totals	30	28	41	72	150	32	31	22	18	12	31	22	52	45	32	53	

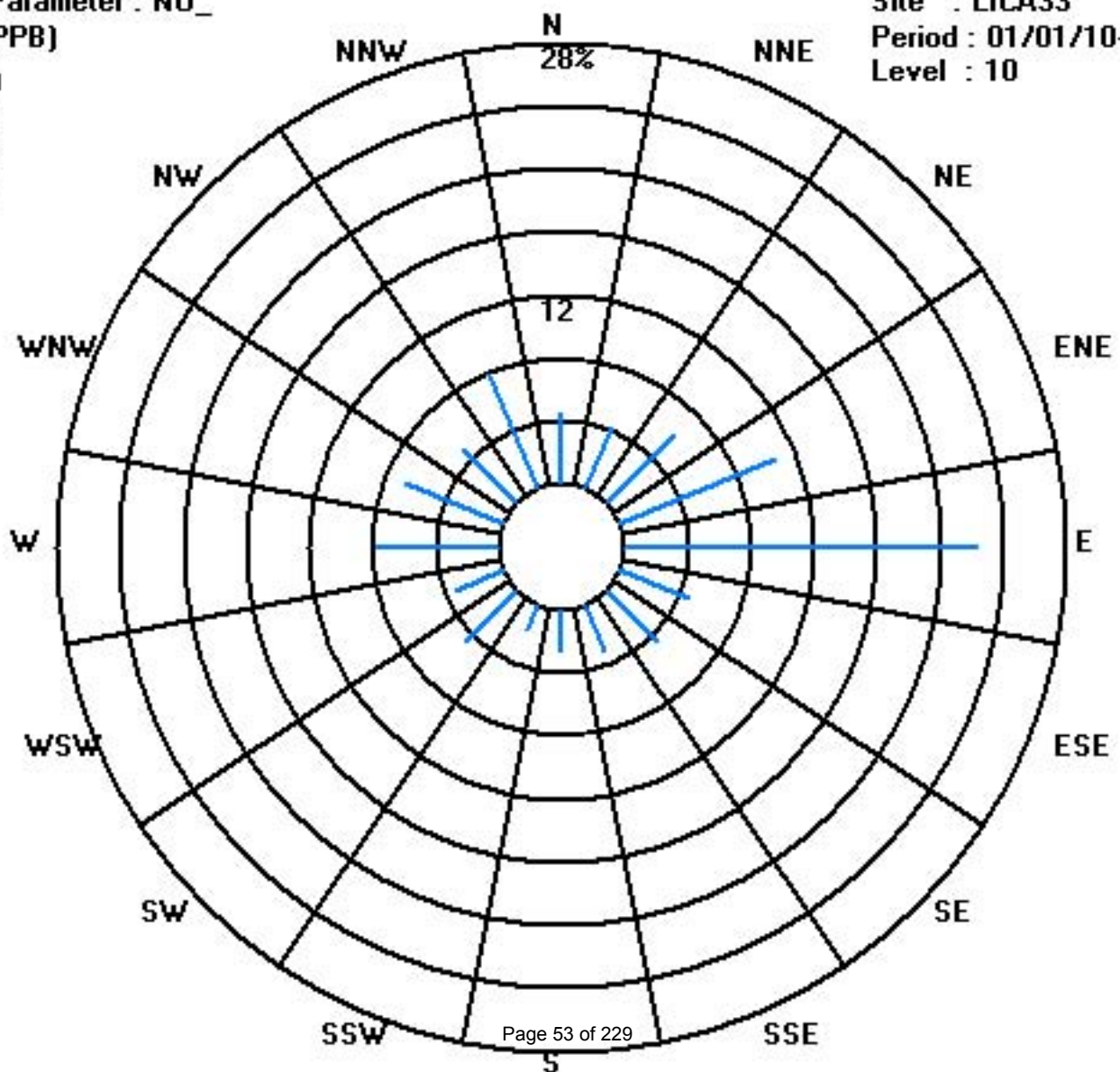
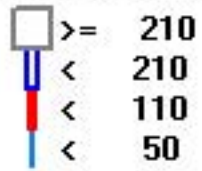
Calm : .00 %

Total # Operational Hours : 671

Class Limits (PPB)

Period : 01/01/10-01/31/10

Level : 10



Oxides of Nitrogen

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - PORTABLE SITE

JANUARY 2010

OXIDES OF NITROGEN hourly averages in ppb

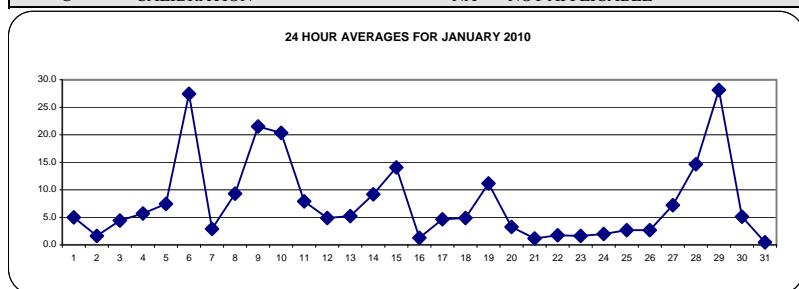
HOUR START	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY	24-HOUR		
HOUR END	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	MAX.	AVG.	RDGS.	
DAY																												
1	12	15	14	9	8	7	8	5	5	6	5	3	2	2	1	IZS	1	1	1	1	1	1	4	3	15	5.0	24	
2	1	1	1	1	1	1	0	1	3	4	2	1	1	1	IZS	2	2	2	2	2	1	1	2	5	5	1.7	24	
3	2	4	5	4	5	6	6	6	5	3	4	3	3	IZS	4	3	4	4	5	4	6	4	6	5	6	4.4	24	
4	2	2	2	3	3	6	7	6	4	5	6	5	IZS	7	6	7	8	7	7	9	8	6	7	9	5.7	24		
5	8	10	7	5	6	6	4	2	2	C	C	C	C	C	C	C	2	3	16	5	7	14	14	15	16	7.4	24	
6	16	16	16	20	26	23	29	26	46	56	IZS	N	N	N	N	N	N	N	N	N	N	N	N	N	56	27.4	11	
7	N	N	N	N	N	N	N	N	N	N	M	M	M	M	M	C	2	2	3	3	3	3	3	4	4	2.9	9	
8	4	3	3	3	4	5	6	C	C	C	C	C	C	C	9	11	10	9	12	15	18	16	16	15	18	9.4	24	
9	18	21	14	13	13	17	16	IZS	20	20	19	19	21	22	22	24	26	30	27	28	31	25	23	26	31	21.5	24	
10	22	17	14	17	20	18	IZS	20	22	23	25	23	26	22	20	22	26	30	24	21	19	15	13	10	30	20.4	24	
11	9	8	7	8	9	IZS	3	4	3	3	4	6	7	6	6	11	13	10	10	11	11	12	10	12	13	8.0	24	
12	13	10	10	12	IZS	10	5	5	5	4	2	2	2	2	3	3	3	2	2	2	3	4	4	4	4	13	4.9	24
13	5	5	5	IZS	4	2	2	2	4	5	3	2	2	2	2	2	4	6	13	11	11	8	9	12	13	5.3	24	
14	9	6	IZS	6	7	5	6	4	5	N	6	8	12	13	11	9	9	10	11	12	11	11	17	15	17	9.2	23	
15	13	IZS	12	14	11	11	10	10	11	13	16	17	17	20	22	20	14	18	17	14	12	11	10	11	22	14.1	24	
16	IZS	12	7	3	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	2	1	1	1	IZS	12	1.3	24	
17	3	3	3	4	5	5	5	10	13	10	9	7	6	4	3	3	2	2	1	2	2	2	IZS	2	13	4.6	24	
18	2	4	5	4	5	4	5	4	6	7	6	5	4	4	3	5	5	5	6	6	IZS	8	6	8	4.9	24		
19	9	8	6	9	9	10	9	10	15	13	12	16	14	12	11	11	11	10	13	14	IZS	13	11	11	16	11.2	24	
20	12	11	9	7	5	4	2	2	3	3	2	2	2	2	1	2	1	1	1	IZS	1	1	1	1	1	12	3.3	24
21	1	1	1	1	1	1	1	1	2	2	1	1	1	1	2	1	1	2	IZS	2	1	1	1	1	2	1.2	24	
22	2	2	2	2	1	2	2	2	2	3	4	2	3	2	2	1	1	IZS	1	1	1	1	1	1	4	1.8	24	
23	1	0	1	2	1	1	2	2	2	2	1	1	1	1	1	0	IZS	3	5	4	3	2	1	1	5	1.7	24	
24	1	1	2	2	1	1	1	1	1	2	2	2	3	2	2	IZS	3	3	3	3	2	2	3	2	3	2.0	24	
25	2	2	1	1	1	2	3	5	4	6	2	2	3	4	IZS	3	2	2	4	3	1	2	3	3	6	2.7	24	
26	3	3	3	4	3	3	3	8	6	2	2	1	1	IZS	1	2	2	2	2	2	2	2	2	2	8	2.7	24	
27	3	3	3	3	4	5	5	8	10	6	4	5	IZS	3	4	8	9	14	11	10	9	9	15	14	15	7.2	24	
28	15	12	11	14	11	12	12	10	11	15	11	IZS	12	10	9	10	14	13	14	15	21	24	33	28	33	14.7	24	
29	32	40	33	25	30	25	23	29	34	38	IZS	32	27	27	24	24	24	25	34	22	23	24	25	27	40	28.1	24	
30	20	20	28	20	8	4	4	4	3	IZS	4	1	1	0	0	1	0	0	0	0	0	0	0	0	28	5.1	24	
31	0	0	1	1	0	0	0	1	IZS	0	0	0	1	1	0	1	1	1	1	1	0	0	0	0	1	0.4	24	
HOURLY MAX	32	40	33	25	30	25	29	29	46	56	25	32	27	27	24	24	26	30	34	28	31	25	33	28				
HOURLY AVG	8.3	8.3	7.8	7.5	7.0	6.8	6.2	6.7	8.8	9.7	5.8	6.4	6.9	6.8	6.5	7.1	6.9	7.5	8.4	7.7	7.4	7.5	8.3	8.4				

STATUS FLAG CODES

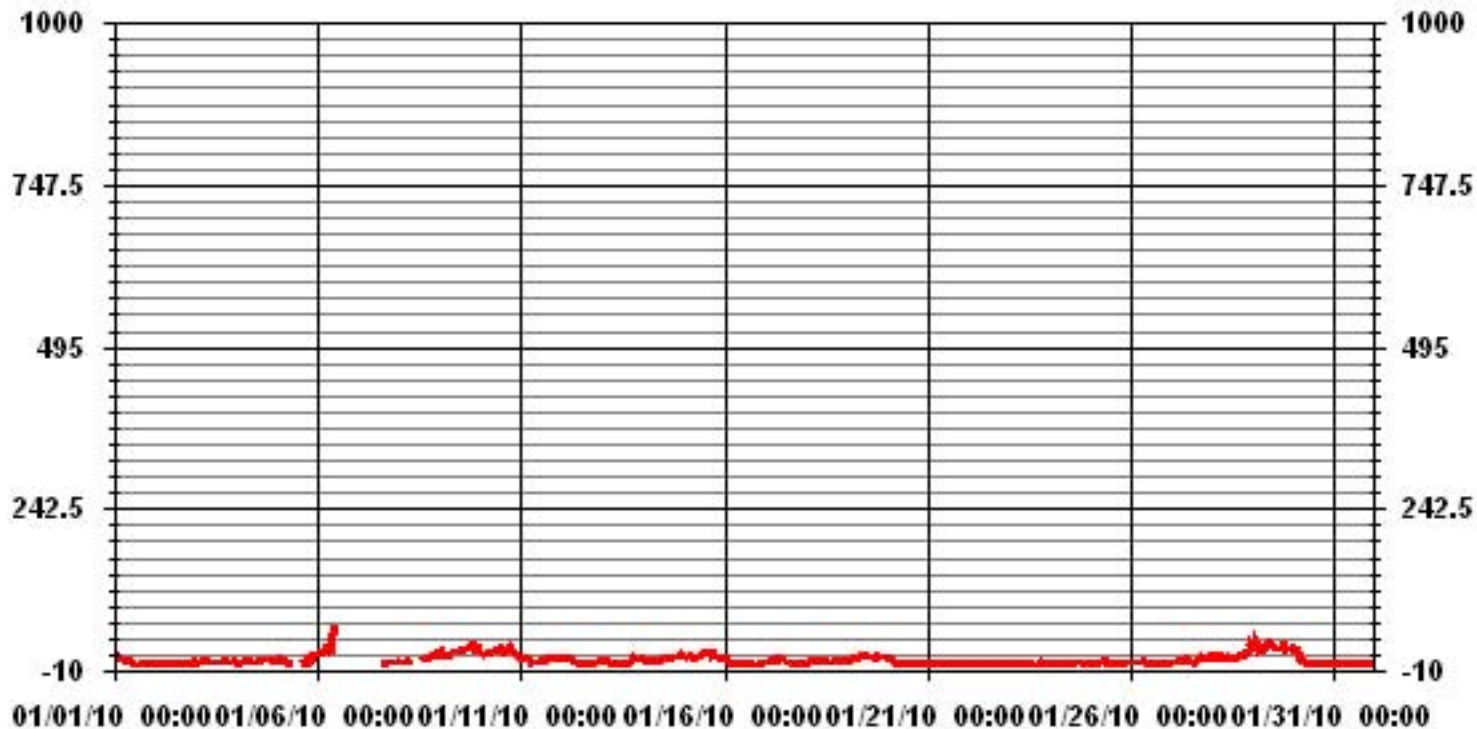
S	- OUT OF SERVICE	IZS	- IZS - DAILY ZERO/SPAN CHECK
N	- INVALID DATA	M	- MAINTENANCE
D	- INSTRUMENT DRIFT	P	- POWER FAILURE
C	- CALIBRATION	NA	- NOT APPLICABLE

MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	632					
MAXIMUM 1-HR AVERAGE:	56	PPB	@ HOUR(S)	9	ON DAY(S)	6
MAXIMUM 24-HR AVERAGE:	28.1	PPB			ON DAY(S)	29
IZS CALIBRATION TIME:	29	HRS	OPERATIONAL TIME:	715	HRS	
MONTHLY CALIBRATION TIME:	15	HRS	AMD OPERATION UPTIME:	96.1	%	
STANDARD DEVIATION:	8.01		MONTHLY AVERAGE:	7.46	PPB	



01 Hour Averages



— LICA33 NOX_ PPB

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - PORTABLE SITE

JANUARY 2010

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	13	26	25	12	10	8	9	7	6	8	6	4	3	2	2	IZS	1	1	1	1	1	3	7	5	26	7.0	24	
2	2	2	2	2	2	1	1	2	7	7	3	2	2	2	IZS	3	3	3	2	3	3	2	4	6	7	2.9	24	
3	4	8	11	5	7	7	7	7	6	4	5	4	3	IZS	4	4	5	6	7	5	8	5	7	7	11	5.9	24	
4	3	3	3	3	4	9	10	8	5	7	8	6	IZS	18	7	9	11	13	8	10	11	10	7	9	18	7.9	24	
5	10	11	9	6	6	7	6	3	3	C	C	C	C	C	C	C	C	4	282	9	9	26	18	23	282	27.0	24	
6	24	19	20	28	31	32	32	32	52	61	IZS	N	N	N	N	N	N	N	N	N	N	N	N	N	61	33.1	11	
7	N	N	N	N	N	N	N	N	N	N	M	M	M	M	M	C	3	3	4	4	5	4	4	6	6	4.1	9	
8	6	4	4	5	8	8	9	C	C	C	C	C	C	12	13	14	10	16	18	21	18	17	17	21	11.8	24		
9	23	34	16	14	14	22	17	IZS	23	27	20	21	23	25	25	25	30	33	29	31	34	32	29	30	34	25.1	24	
10	25	21	15	23	23	19	IZS	25	28	26	28	25	32	26	22	25	87	52	26	23	21	18	15	14	87	26.9	24	
11	13	11	11	11	18	IZS	4	5	4	4	5	7	8	9	8	15	19	12	11	15	14	13	13	16	19	10.7	24	
12	17	14	14	16	IZS	14	7	5	7	5	3	3	3	3	4	6	6	3	3	3	7	8	6	6	17	7.0	24	
13	6	6	7	IZS	6	3	3	4	6	7	5	3	2	2	3	4	9	45	78	27	24	13	11	15	78	12.6	24	
14	11	10	IZS	8	11	6	8	5	7	N	7	9	14	14	12	11	10	11	13	15	12	12	25	16	25	11.2	23	
15	15	IZS	15	23	14	14	11	11	15	20	21	21	22	23	27	28	17	19	19	15	14	12	11	15	28	17.5	24	
16	IZS	15	10	5	2	1	1	1	1	0	0	0	0	0	1	2	3	2	1	4	4	1	1	IZS	15	2.5	24	
17	4	4	4	6	6	6	8	17	17	11	9	8	7	5	4	3	3	2	2	2	2	3	IZS	3	17	5.9	24	
18	3	11	7	5	6	5	6	6	8	9	7	7	6	5	5	5	5	6	6	7	9	IZS	9	8	11	6.6	24	
19	15	12	7	11	11	11	11	16	20	17	19	18	17	14	14	12	15	12	14	15	IZS	17	12	13	20	14.0	24	
20	14	12	11	8	6	7	4	3	3	5	4	3	3	2	2	2	2	2	1	IZS	2	2	2	2	14	4.4	24	
21	2	2	2	2	2	2	2	2	3	3	2	2	2	2	3	2	2	3	IZS	3	2	2	2	2	3	2.2	24	
22	2	3	3	2	2	2	2	3	3	4	5	M	4	3	2	2	2	IZS	2	2	3	2	2	1	5	2.5	23	
23	2	1	3	3	3	2	3	4	3	3	3	3	2	2	2	1	IZS	5	6	6	5	3	2	2	6	3.0	24	
24	2	2	3	3	2	2	2	2	3	3	3	3	7	3	3	IZS	3	4	5	3	3	3	3	3	7	3.0	24	
25	3	3	2	2	2	2	5	7	6	8	4	3	4	5	IZS	4	4	3	6	5	2	3	4	4	8	4.0	24	
26	4	4	4	5	4	5	5	47	10	4	6	2	2	IZS	2	2	3	3	3	3	3	3	2	3	47	5.6	24	
27	3	4	4	4	6	7	6	12	15	30	28	6	IZS	4	7	10	10	17	14	12	10	10	26	18	30	11.4	24	
28	19	19	15	20	13	15	16	11	12	22	13	IZS	16	12	12	12	17	14	16	22	22	34	37	35	37	18.4	24	
29	42	45	37	31	33	31	25	36	75	65	IZS	37	32	28	26	27	27	29	39	26	26	27	26	29	75	34.7	24	
30	28	24	32	29	12	6	5	6	3	IZS	5	4	1	1	1	1	1	1	1	1	1	0	0	1	32	7.1	24	
31	1	1	1	2	1	1	1	2	IZS	1	1	1	2	1	1	1	2	2	2	3	0	0	0	1	3	1.2	24	
HOURLY MAX	42	45	37	31	33	32	32	47	75	65	28	37	32	28	27	28	87	52	282	31	34	34	37	35				
HOURLY AVG	10.9	11.4	10.2	10.1	9.1	8.8	7.8	10.3	12.5	13.9	8.5	8.1	8.7	8.4	8.1	8.7	11.2	11.1	21.3	10.1	9.4	9.8	10.5	10.7				

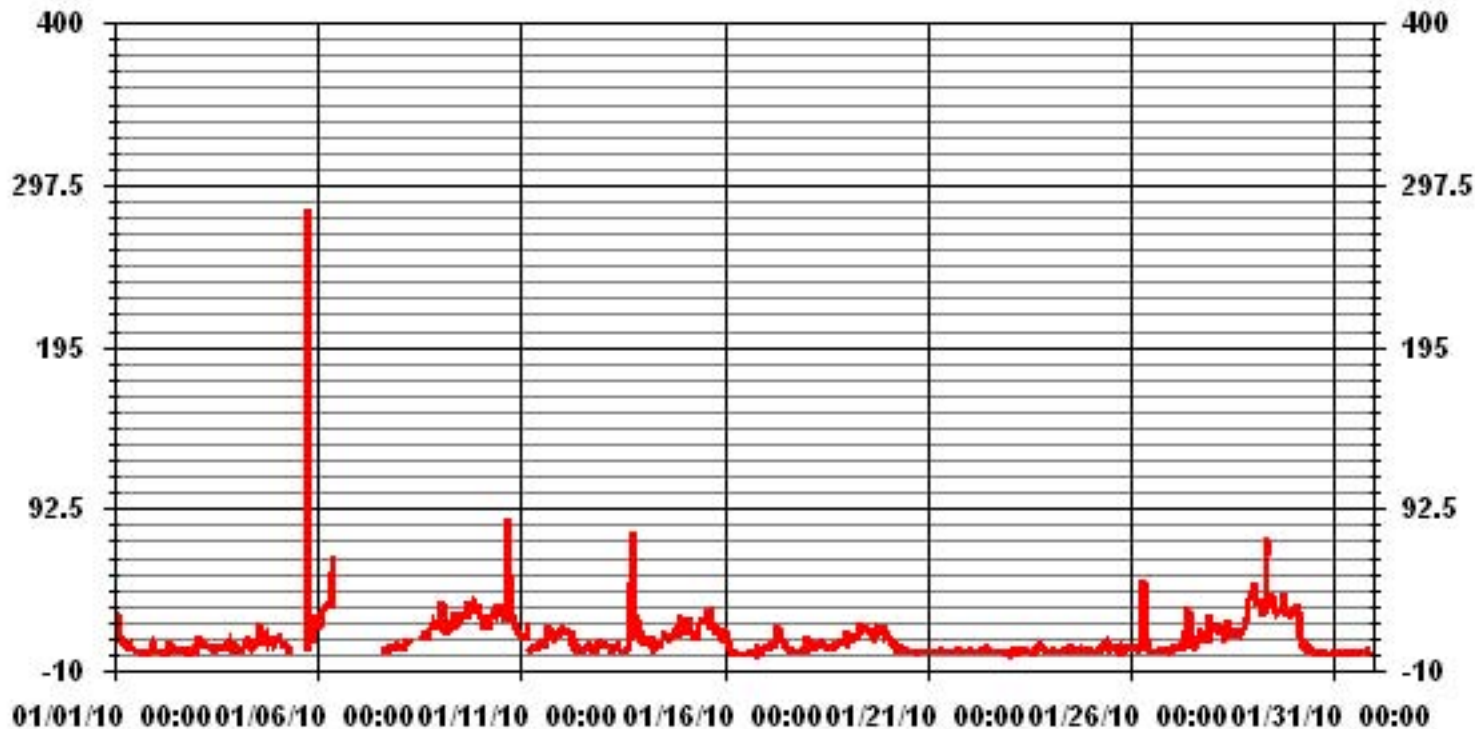
STATUS FLAG CODES

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

MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	659
MAXIMUM INSTANTANEOUS VALUE:	282 PPB @ HOUR(S) 18 ON DAY(S) 5
IZS CALIBRATION TIME:	29 HRS
MONTHLY CALIBRATION TIME:	16 HRS
STANDARD DEVIATION	15.08
OPERATIONAL TIME:	714 HRS

01 Hour Averages



— LICA33 NOxMAX PPB

LICA33
NOX_ / WDR Joint Frequency Distribution (Percent)

January 2010

Distribution By % Of Samples

Logger Id : 33
Site Name : LICA33
Parameter : NOX_
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
< 50	4.47	4.17	6.11	10.73	22.35	4.76	4.61	3.27	2.68	1.78	4.61	3.27	7.74	6.70	4.61	7.89	99.85
< 110	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.14	.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	4.47	4.17	6.11	10.73	22.35	4.76	4.61	3.27	2.68	1.78	4.61	3.27	7.74	6.70	4.76	7.89	

Calm : .00 %

Total # Operational Hours : 671

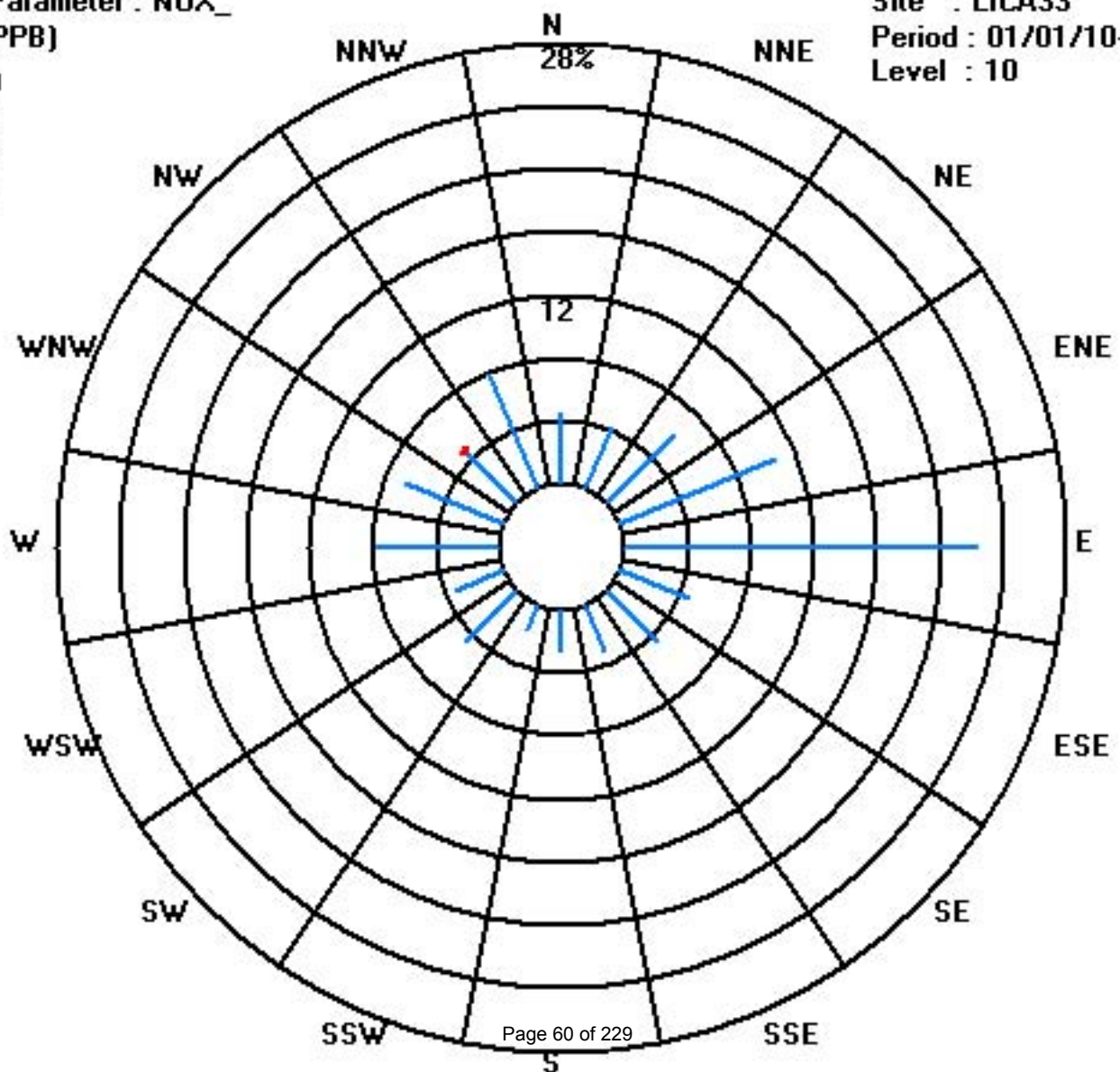
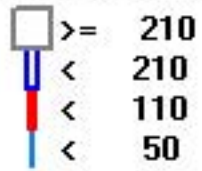
Distribution By Samples

	Direction																
Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
< 50	30	28	41	72	150	32	31	22	18	12	31	22	52	45	31	53	670
< 110															1		1
< 210																	
< 210																	
>= 210																	
Totals	30	28	41	72	150	32	31	22	18	12	31	22	52	45	32	53	

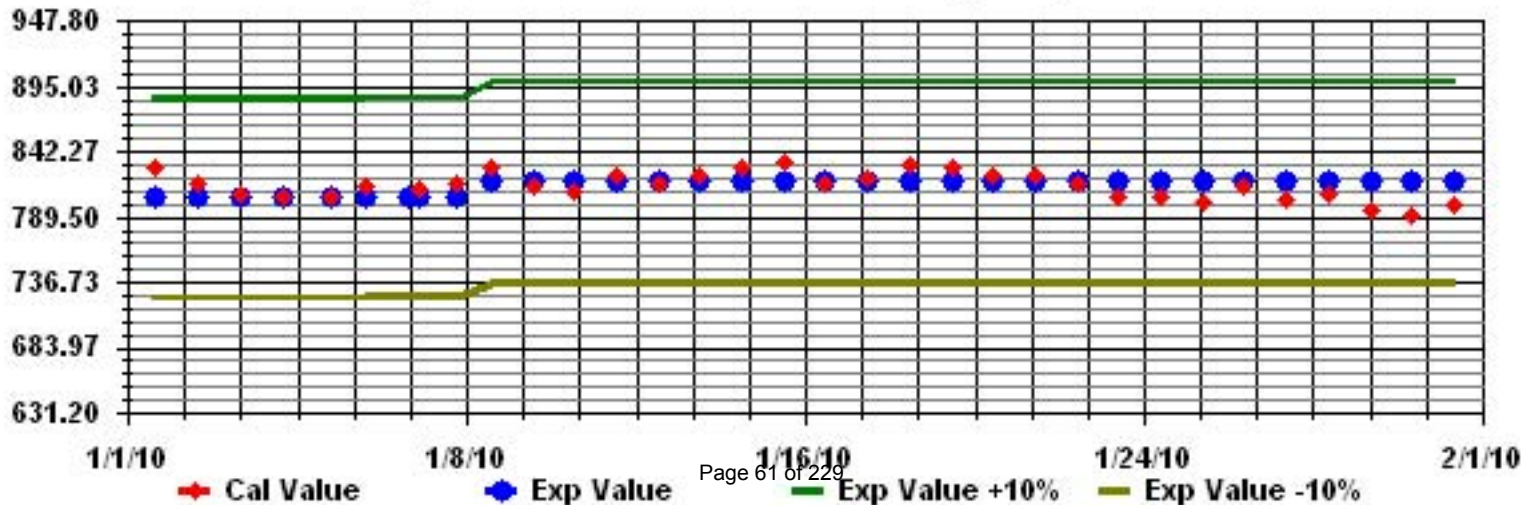
Calm : .00 %

Total # Operational Hours : 671

Class Limits (PPB)



Calibration Graph for Site: LICA33 Parameter: NOX_ Sequence: NO2 Phase: SPAN



Ozone

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - PORTABLE SITE

JANUARY 2010

OZONE (O₃) 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	RDGS.	
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.		
DAY																												
1	13	11	14	20	22	22	21	24	24	25	28	32	33	34	37	IZS	37	36	36	35	34	32	30	32	37	27.5	24	
2	34	35	35	35	35	36	35	35	31	29	31	31	31	30	IZS	27	25	25	25	25	25	25	23	19	36	29.7	24	
3	22	20	19	19	17	18	19	19	19	21	21	22	23	IZS	23	24	23	22	20	21	18	18	16	16	24	20.0	24	
4	20	21	20	20	19	15	14	15	17	17	17	18	IZS	18	18	15	13	13	13	12	11	11	12	10	21	15.6	24	
5	9	7	10	13	12	12	17	22	23	26	28	IZS	33	35	35	C	C	C	C	23	21	15	12	12	35	19.2	24	
6	8	6	7	3	0	0	0	0	0	3	IZS	9	11	11	11	8	2	0	0	2	17	22	24	19	24	7.1	24	
7	17	15	11	14	14	21	13	8	19	IZS	26	27	27	28	27	28	29	30	30	29	29	29	29	29	30	23.0	24	
8	29	30	29	27	25	21	20	18	IZS	25	25	26	27	26	26	23	21	19	14	11	10	12	11	9	30	21.0	24	
9	7	5	9	9	9	6	6	IZS	4	7	10	11	11	12	12	10	4	0	0	0	0	3	4	1	12	6.1	24	
10	2	7	9	6	4	3	IZS	1	1	5	8	11	12	13	12	9	4	2	3	5	6	9	10	11	13	6.7	24	
11	13	14	16	15	16	IZS	29	28	27	28	27	25	25	22	19	16	14	12	10	9	5	5	8	4	29	16.8	24	
12	2	2	2	1	IZS	11	16	17	18	19	20	21	21	21	20	19	18	18	18	17	16	13	12	12	21	14.5	24	
13	12	12	12	IZS	15	19	19	18	17	17	19	21	23	23	23	22	19	15	12	9	9	11	11	8	23	15.9	24	
14	10	12	IZS	11	10	12	11	13	11	N	12	12	11	11	11	10	9	8	6	5	4	2	2	13	9.3	23		
15	3	IZS	2	1	2	1	1	1	1	3	6	7	8	8	8	7	5	1	2	5	7	8	6	4	8	4.2	24	
16	IZS	11	19	26	30	31	32	32	32	35	36	36	36	37	37	36	35	35	35	31	32	32	32	IZS	37	31.7	24	
17	32	30	26	23	20	17	15	13	13	19	23	26	28	35	36	36	36	37	36	34	32	30	IZS	28	37	27.2	24	
18	27	24	23	23	22	22	20	21	19	20	22	26	26	26	26	26	23	20	21	19	19	IZS	14	17	27	22.0	24	
19	11	11	10	6	7	7	8	9	6	10	12	12	13	15	16	14	12	10	7	5	IZS	6	8	8	16	9.7	24	
20	8	8	9	10	11	12	16	16	16	15	18	17	17	18	20	20	21	22	22	IZS	22	23	23	21	23	16.7	24	
21	20	20	20	21	22	23	23	23	23	23	24	25	25	24	23	23	23	22	IZS	21	22	22	22	22	25	22.4	24	
22	22	21	21	21	21	21	21	20	20	20	20	22	22	24	27	28	25	IZS	26	25	25	24	25	24	28	22.8	24	
23	24	24	23	22	23	25	27	26	26	25	27	27	29	30	29	28	IZS	20	15	13	17	22	23	24	30	23.9	24	
24	27	25	23	23	26	26	26	25	26	26	26	28	28	29	29	IZS	28	27	26	27	28	27	26	26	29	26.4	24	
25	26	26	27	26	26	25	23	22	22	22	25	25	25	24	IZS	24	25	25	23	24	25	24	22	23	27	24.3	24	
26	22	22	21	20	22	22	22	19	20	25	27	28	29	IZS	31	31	31	30	29	29	29	29	29	29	31	25.9	24	
27	28	27	27	26	25	23	24	20	20	25	28	28	IZS	34	33	28	26	18	20	18	19	18	12	11	34	23.4	24	
28	10	13	8	10	10	8	8	9	12	14	18	IZS	23	26	29	27	20	18	15	10	7	3	1	1	29	13.0	24	
29	0	0	0	2	0	0	0	0	2	7	IZS	14	17	17	16	14	9	4	1	7	6	6	3	1	17	5.5	24	
30	9	6	2	8	19	24	24	22	24	IZS	24	31	31	31	31	32	33	34	34	33	33	32	31	31	34	25.2	24	
31	31	32	32	32	33	33	32	31	IZS	32	31	31	31	31	31	32	31	31	32	35	41	41	39	39	41	33.2	24	
HOURLY MAX	34	35	35	35	35	36	35	35	32	35	36	36	36	37	37	36	37	37	36	35	41	41	39	39				
HOURLY AVG	16.6	16.6	16.2	16.4	17.2	17.2	18.1	17.6	17.0	19.4	22.0	22.4	23.3	23.9	24.0	22.1	20.8	19.1	18.4	18.0	19.0	18.5	17.3	16.4				

STATUS FLAG CODES

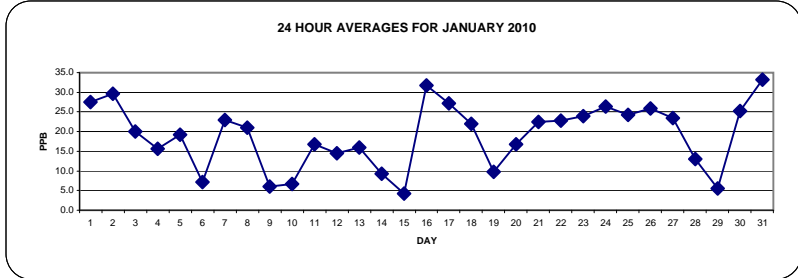
S	- OUT OF SERVICE	IZS	- IZS - DAILY ZERO/SPAN CHECK
N	- INVALID DATA	M	- MISSING DATA
D	- INSTRUMENT DRIFT	P	- POWER FAILURE
C	- CALIBRATION	NA	- NOT APPLICABLE

OBJECTIVE LIMIT:

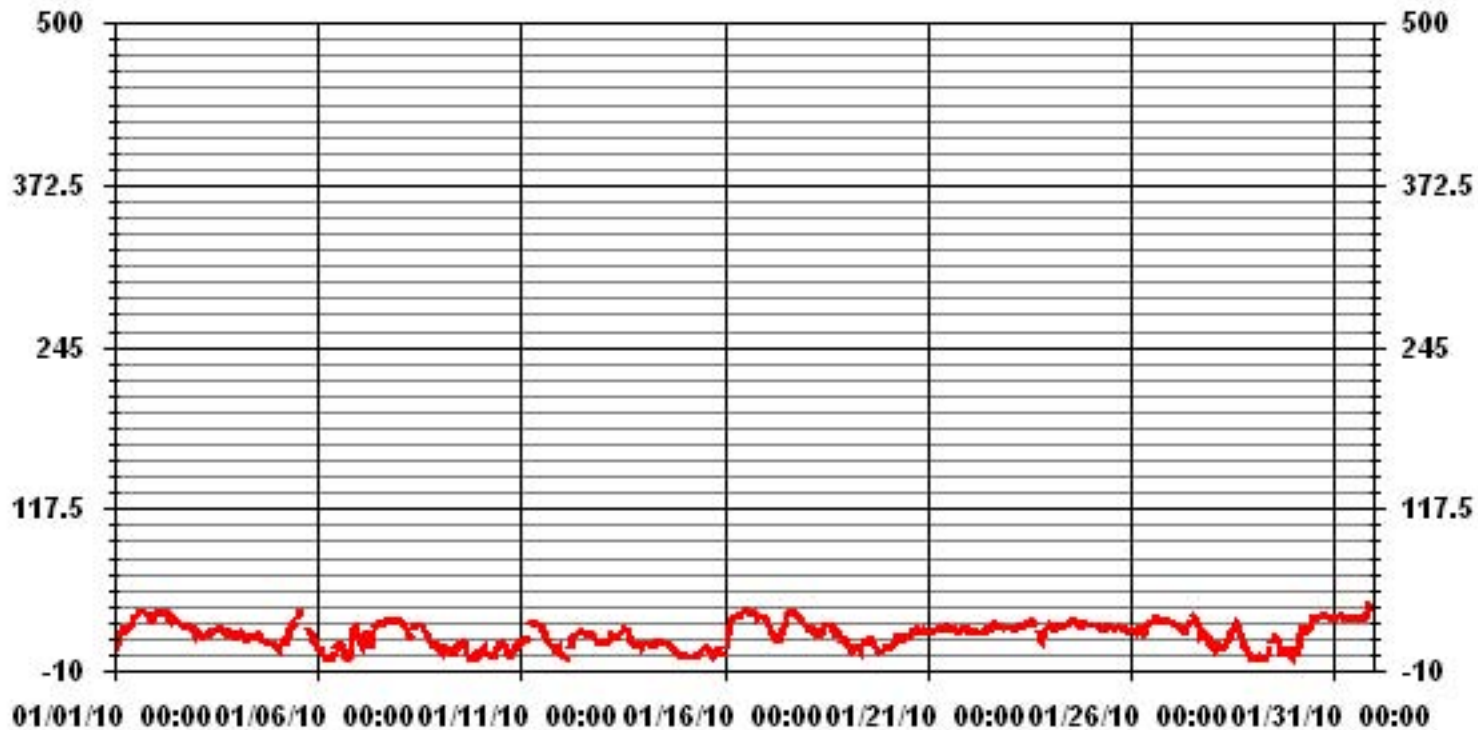
ALBERTA ENVIRONMENT: 1-HR 82 PPB

MONTHLY SUMMARY

NUMBER OF 1-HR EXCEEDENCES:	0					
NUMBER OF NON-ZERO READINGS:	689					
MAXIMUM 1-HR AVERAGE:	41	PPB	@ HOUR(S)	20, 21	ON DAY(S)	31
MAXIMUM 24-HR AVERAGE:	33.2	PPB			ON DAY(S)	31
					VAR-VARIOUS	
IZS CALIBRATION TIME:	32	HRS	OPERATIONAL TIME:	743	HRS	
MONTHLY CALIBRATION TIME:	4	HRS	AMD OPERATION UPTIME	99.9	%	
STANDARD DEVIATION	9.73		MONTHLY AVERAGE	19.03	PPB	



01 Hour Averages



— LICA33_03_ PPB

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - PORTABLE SITE

JANUARY 2010

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	15	14	19	25	24	24	22	25	26	26	31	33	34	36	39	IZS	38	37	37	36	35	34	32	34	39	29.4	24
2	35	36	36	36	36	37	36	36	34	31	32	32	31	31	IZS	28	26	26	26	26	26	26	24	21	37	30.8	24
3	24	23	23	22	19	19	20	20	21	22	22	23	24	IZS	24	25	24	24	23	22	20	19	18	20	25	21.8	24
4	22	22	21	21	21	17	15	17	17	17	19	19	IZS	19	19	17	16	15	15	14	13	13	13	12	22	17.1	24
5	11	9	14	15	14	14	21	23	25	28	30	IZS	35	37	36	C	C	C	C	28	24	20	18	17	37	22.1	24
6	16	13	12	8	1	2	1	1	2	5	IZS	10	12	12	14	13	4	1	1	8	21	24	24	23	24	9.9	24
7	20	17	15	17	20	22	19	14	24	IZS	27	27	28	29	28	30	31	31	31	30	30	30	31	30	31	25.3	24
8	31	31	31	30	28	26	24	20	IZS	26	C	27	28	28	27	25	22	21	18	13	14	15	13	12	31	23.2	24
9	9	9	10	11	10	9	8	IZS	6	10	11	12	12	13	14	12	7	1	1	1	1	12	6	2	14	8.1	24
10	5	9	10	9	5	5	IZS	3	4	7	11	13	15	15	14	12	7	6	6	7	8	11	11	13	15	9.0	24
11	14	16	18	17	19	IZS	31	29	29	29	29	28	27	26	21	18	18	14	12	12	8	7	10	10	31	19.2	24
12	3	3	3	3	IZS	16	18	19	19	20	21	22	22	22	21	20	20	19	19	18	17	16	14	13	22	16.0	24
13	13	13	13	IZS	19	20	20	19	18	19	20	22	24	24	23	23	21	20	17	12	16	14	13	11	24	18.0	24
14	11	13	IZS	14	14	14	13	14	12	N	13	13	12	12	12	11	10	10	8	7	5	3	3	14	10.7	23	
15	4	IZS	3	3	3	2	2	2	4	4	8	8	9	9	8	8	3	4	6	8	9	8	5	9	5.6	24	
16	IZS	16	23	30	31	32	33	33	34	37	37	37	37	38	38	37	36	36	36	34	33	32	33	IZS	38	33.3	24
17	34	32	29	26	24	22	19	14	16	22	25	27	36	36	37	36	37	37	37	35	33	31	IZS	29	37	29.3	24
18	28	28	24	24	23	23	21	21	20	22	24	29	28	28	27	27	24	23	23	21	21	IZS	16	20	29	23.7	24
19	15	13	12	8	8	10	11	12	8	14	14	14	15	16	16	14	14	8	6	IZS	9	9	9	9	16	11.8	24
20	9	10	10	11	12	14	17	17	17	16	19	19	19	20	21	22	22	23	23	IZS	23	24	24	22	24	18.0	24
21	21	21	22	22	23	24	24	24	24	24	24	25	26	25	24	24	24	23	IZS	22	23	23	23	23	26	23.4	24
22	23	22	22	22	22	21	22	21	21	21	21	M	23	27	29	29	27	IZS	26	27	26	25	25	25	29	24.0	23
23	25	25	24	24	24	28	29	28	27	27	28	29	30	31	30	30	IZS	24	16	16	18	24	25	25	31	25.5	24
24	28	28	24	24	27	27	26	27	27	27	28	29	29	30	29	IZS	29	29	27	28	29	28	27	27	30	27.6	24
25	27	27	28	27	27	26	25	23	24	24	26	26	26	25	IZS	26	26	26	25	26	26	26	24	24	28	25.7	24
26	24	23	22	21	23	23	24	22	24	26	29	29	30	IZS	32	33	33	31	30	30	29	29	30	29	33	27.2	24
27	29	28	28	27	26	25	25	24	23	27	29	30	IZS	36	37	31	29	24	25	25	22	20	20	14	37	26.3	24
28	13	16	13	13	12	10	12	13	14	18	20	IZS	26	30	30	28	27	20	18	13	9	7	3	3	30	16.0	24
29	1	1	1	5	1	1	1	1	6	7	IZS	15	20	19	19	17	12	7	4	9	10	11	5	3	20	7.7	24
30	14	10	5	15	24	25	26	24	25	IZS	27	32	32	32	32	33	34	35	35	34	34	34	32	31	35	27.2	24
31	32	33	33	33	34	34	33	32	IZS	32	32	32	32	32	32	32	31	32	33	41	41	42	41	40	42	34.3	24
HOURLY MAX	35	36	36	36	36	37	36	36	34	37	37	37	37	38	39	37	38	37	37	41	41	42	41	40			
HOURLY AVG	18.5	18.7	18.3	18.8	19.1	19.1	20.0	19.2	19.0	21.0	23.5	23.7	24.9	25.4	25.3	23.7	22.7	21.1	20.2	20.3	20.8	20.7	19.2	18.3			

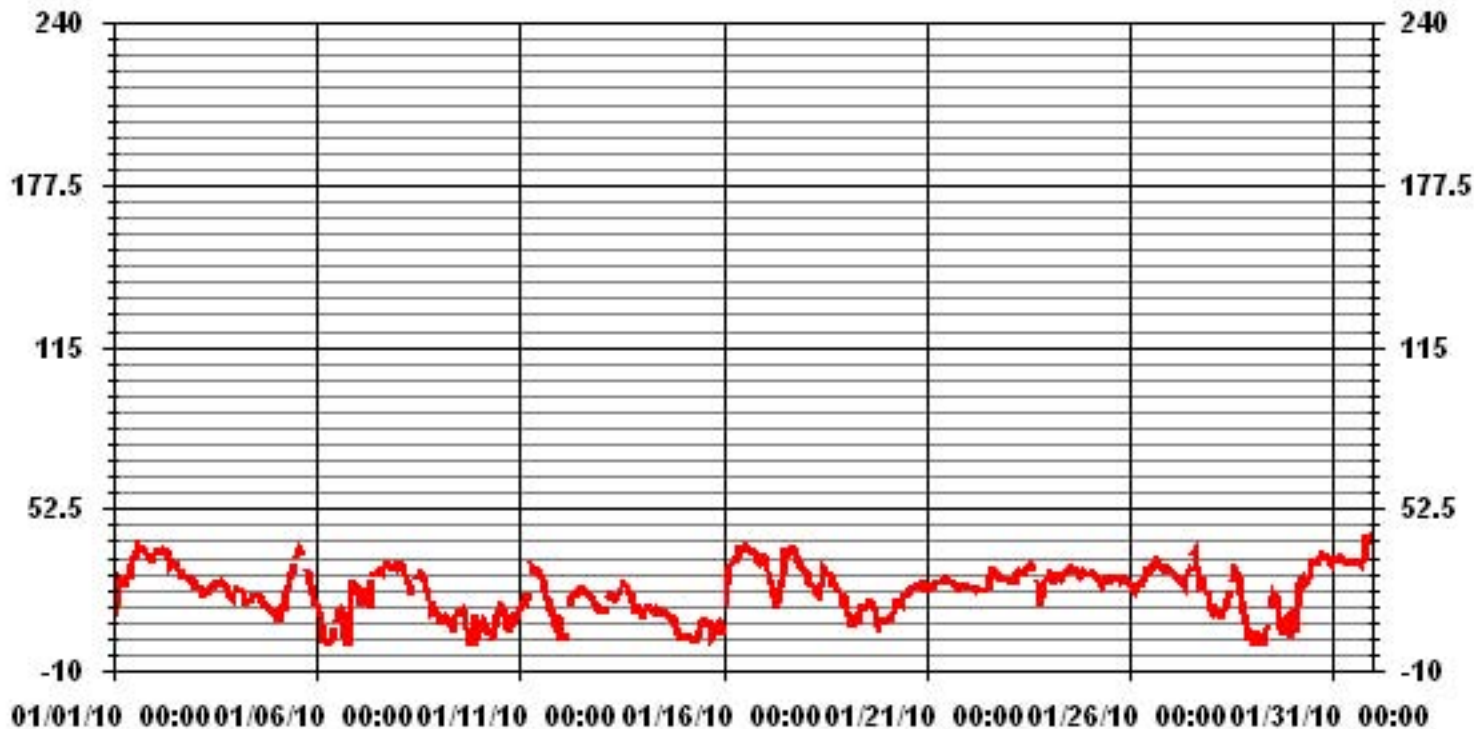
STATUS FLAG CODES

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

MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	705					
MAXIMUM INSTANTANEOUS VALUE:	42	PPB	@ HOUR(S)	21	ON DAY(S)	31
IZS CALIBRATION TIME:	32	HRS	OPERATIONAL TIME:	742	HRS	
MONTHLY CALIBRATION TIME:	5	HRS				
STANDARD DEVIATION	9.42					

01 Hour Averages



— LICA33 O3MAX PPB

LICA33
 O3_ / WDR Joint Frequency Distribution (Percent)

January 2010

Distribution By % Of Samples

Logger Id : 33
 Site Name : LICA33
 Parameter : O3_
 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
< 50	4.24	4.38	5.94	10.46	21.92	5.79	5.65	3.81	2.82	1.69	4.38	3.25	7.35	6.36	4.38	7.49	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	4.24	4.38	5.94	10.46	21.92	5.79	5.65	3.81	2.82	1.69	4.38	3.25	7.35	6.36	4.38	7.49	

Calm : .00 %

Total # Operational Hours : 707

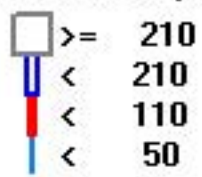
Distribution By Samples

	Direction																
Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
< 50	30	31	42	74	155	41	40	27	20	12	31	23	52	45	31	53	707
< 110																	
< 210																	
>= 210																	
Totals	30	31	42	74	155	41	40	27	20	12	31	23	52	45	31	53	

Calm : .00 %

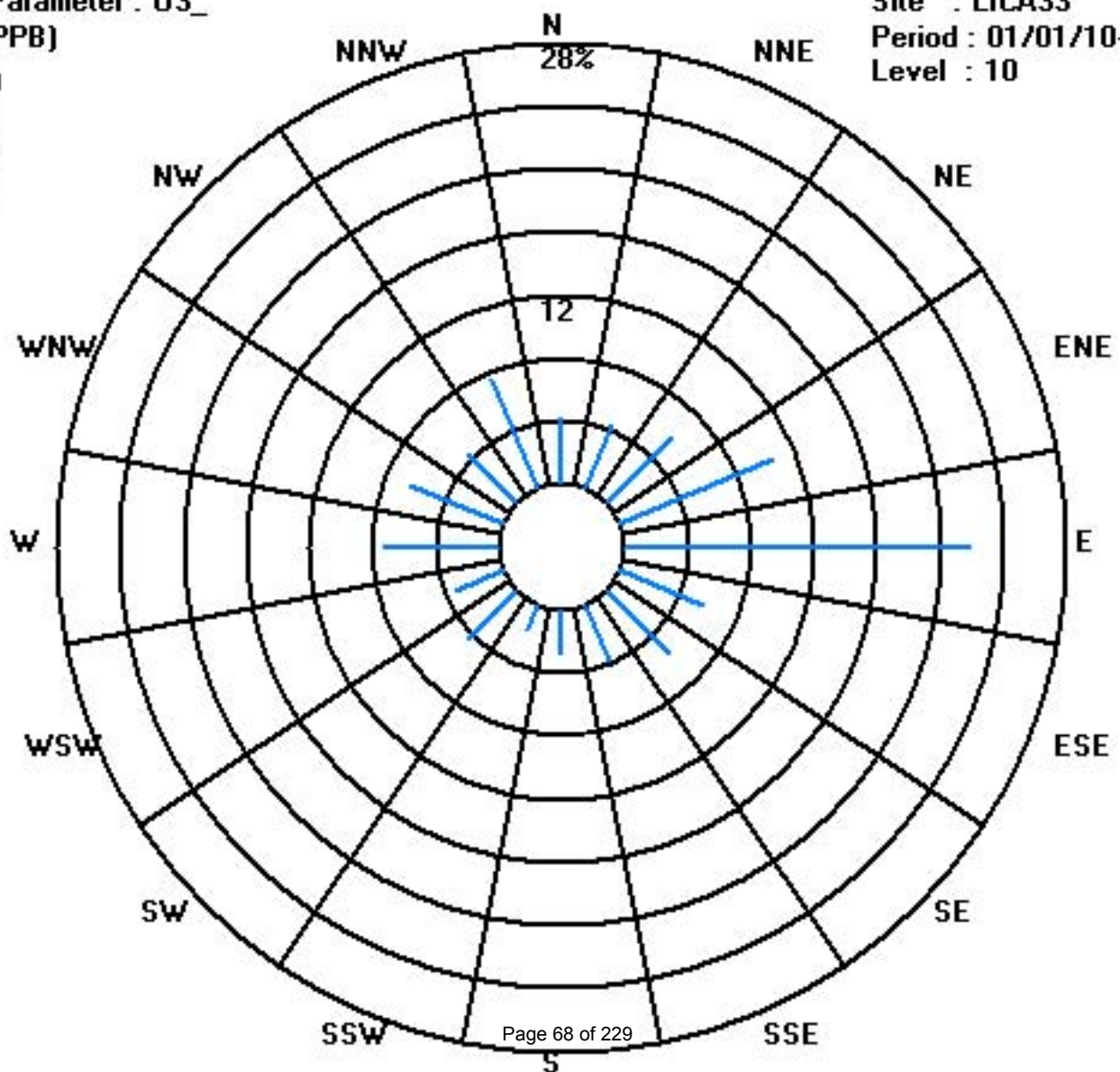
Total # Operational Hours : 707

Class Limits (PPB)

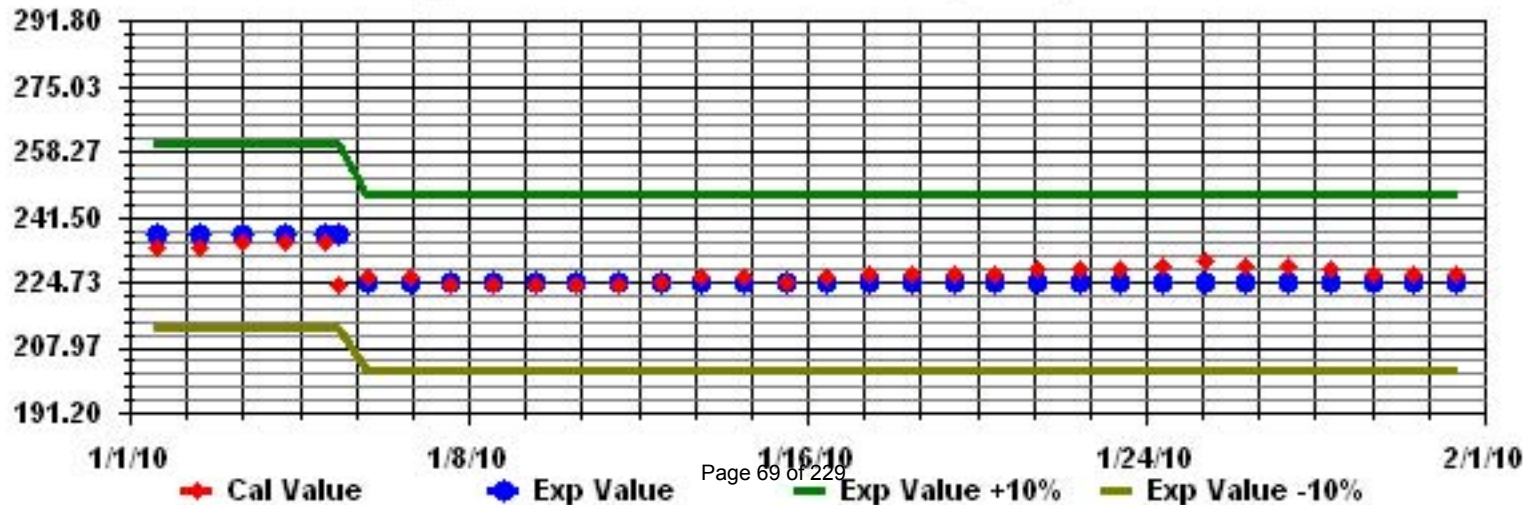


Period : 01/01/10-01/31/10

Level : 10



Calibration Graph for Site: LICA33 Parameter: 03_ Sequence: 03 Phase: SPAN



Total Hydrocarbons

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - PORTABLE SITE

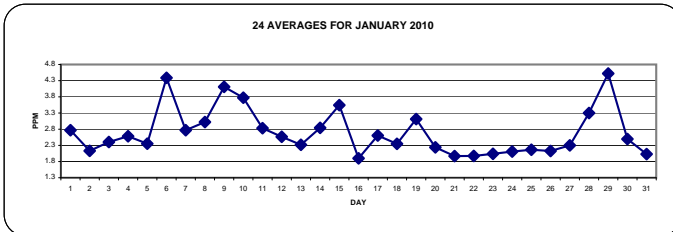
JANUARY 2010

TOTAL HYDROCARBONS (THC) hourly averages in ppm

MST		0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY 24-HOUR				
DAY	DAY	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.		
1	1	4.7	5.2	5.1	3.7	2.9	2.8	2.8	2.6	2.8	2.8	2.7	2.5	2.3	2.2	2.1	IZS	2	2	2	2	2	2.1	2.3	2.1	5.2	2.8	24		
2	2	2	2	2	2	2	2	2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	IZS	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.6	2.1	24
3	3	2.3	2.5	2.5	2.6	2.5	2.5	2.4	2.3	2.3	2.2	2.3	2.2	2.3	IZS	2.7	2.5	2.6	2.5	2.5	2.4	2.3	2.2	2.3	2.4	2.7	2.4	2.4	24	
4	4	2.2	2.3	2.5	2.4	2.3	2.5	2.8	2.6	2.7	2.8	2.6	2.3	IZS	2.6	2.5	2.5	2.5	2.4	2.4	2.7	3	3	2.9	2.9	3.0	2.6	2.4	24	
5	5	2.7	2.9	2.6	2.3	2.4	2.3	2.2	2.1	2.2	2.1	2.1	IZS	C	C	C	C	2.1	2.2	2.2	2.4	2.4	2.4	2.5	2.6	2.9	2.4	24		
6	6	3	3.2	3.6	4.2	5.7	5	5.3	5.9	6.5	7.2	IZS	5.7	4.7	4	3.8	3.9	4.2	4.3	4.4	4	3.2	3	2.9	3.2	7.2	4.4	24		
7	7	3.1	3.3	3.8	3.4	3.3	2.9	3.4	3.6	2.9	IZS	2.7	2.6	2.5	2.4	2.4	2.3	2.3	2.3	2.4	2.4	2.4	2.4	2.4	2.5	3.8	2.8	24		
8	8	2.5	2.4	2.4	2.9	3.2	3.8	3.3	3.2	IZS	3	3.1	2.8	2.8	2.8	2.9	3	3	3.1	3.2	3.2	3.2	3.4	3.5	3.8	3.0	2.4	24		
9	9	4.4	4.5	3.8	3.8	3.6	3.8	3.9	IZS	4.2	4.2	4.1	4	4.2	4	4.1	4.3	4.5	4.6	4.7	4.5	3.8	3.3	4.2	4.7	4.1	2.4	24		
10	10	3.7	3.9	3.3	4.3	4.5	4.4	IZS	4.1	4.1	4.2	4.5	3.9	3.5	3.3	3.3	3.7	3.8	4.7	3.9	3.5	3.4	3.2	2.9	2.7	4.7	3.8	24		
11	11	2.9	3.1	3.3	3.4	3.3	IZS	2.3	2.3	2.3	2.3	2.4	2.4	2.5	2.6	2.7	2.9	3	3.1	3.1	2.9	3	3.3	4	4.0	2.8	2.4	24		
12	12	4.3	4.3	4.4	4.4	IZS	2.9	2.4	2.2	2.3	2.2	2.1	2.1	2	2	2	2	2	2	2	2.1	2.2	2.4	2.3	2.4	4.4	2.6	24		
13	13	2.5	2.5	2.5	IZS	2.1	2	2.1	2.1	2.3	2.2	2.1	2	2	2	2	2	2	2.1	2.2	3	2.8	2.6	2.8	3.4	3.4	2.3	24		
14	14	2.6	2.5	IZS	2.4	2.4	2.4	2.4	2.3	2.4	N	2.5	2.6	2.7	2.9	3	2.9	2.8	2.6	2.8	3.1	3.2	3.3	4.7	4	4.7	2.8	23		
15	15	3.8	IZS	3.8	3.8	3.8	4	3.9	4	4.5	4.6	4.7	3.8	3.6	3.7	3.6	3	2.9	3	2.9	2.8	2.8	2.8	2.8	2.9	4.7	3.5	24		
16	16	IZS	2.7	2.2	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.8	1.9	2	1.9	1.9	1.9	IZS	2.7	1.9	24		
17	17	1.9	1.9	2.1	3.4	3.8	4.4	3.9	3.7	3.3	2.9	2.7	2.5	2.4	2.3	2.3	2.1	2	2	2	2	2.1	2.1	IZS	2.1	4.4	2.6	24		
18	18	2.2	2.3	2.3	2.5	2.9	2.7	2.4	2.2	2.4	2.3	2.2	2.1	2.1	2.1	2	2	2.1	2.1	2.2	2.2	2.6	IZS	3	3.1	3.1	2.3	24		
19	19	3.2	3.2	2.9	3.3	3.1	3.7	3.4	3	3.2	3	2.8	2.8	3.1	2.9	2.8	2.8	2.9	3.1	3.4	3.6	IZS	3.3	3	3.1	3.7	3.1	24		
20	20	3	3	2.8	2.6	2.6	2.6	2.2	2.2	2.1	2.3	2.1	2.1	2.1	2.1	2	2	2	2	2	IZS	1.9	1.9	1.9	3.0	2.2	2.4	24		
21	21	1.9	1.9	1.9	1.9	2	2	2	2	2	2	2	2	2	1.9	2	1.9	2	2	IZS	2	2	2	2	2	2.0	2.0	24		
22	22	2	2	2	2	2	2	2	2	1.9	2	2	2	1.9	1.9	1.9	2	2	IZS	2	1.9	1.9	2	2	2	2.0	2.0	24		
23	23	2	2	2	2	2	2	2	2	2	2	2	2.2	2.1	2.1	2.2	2.2	IZS	2	2	2	2.1	2	2	2	2.2	2.0	24		
24	24	2	2	2	2	2	2	2	2	2	2	2.1	2.1	2	2	2	IZS	2.1	2.2	2.8	2.2	2.1	2.5	2.2	2.2	2.8	2.1	24		
25	25	2.2	2.2	2.2	2.3	2.2	2.1	2.3	2.3	2.1	2.2	2.1	2.1	2.1	2.1	IZS	2	2	2.1	2.2	2.2	2.1	2.1	2.2	2.4	2.4	2.2	24		
26	26	2.4	2.3	2.2	2.3	2.2	2.1	2	2.1	2.1	2	2.1	2.1	2	IZS	2	2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.4	2.1	24	
27	27	2.2	2.4	2.5	2.5	2.7	2.4	2.4	2.2	2.2	2.2	2.3	2.4	IZS	2.2	2.2	2.1	2.1	2.2	2.2	2.3	2.2	2.3	2.3	2.4	2.7	2.3	24		
28	28	3.1	3.2	3.7	4.1	3.6	3.8	3.7	3.5	3.4	3.1	2.9	IZS	2.9	2.9	2.9	2.8	3.5	3.1	3.1	3.1	3.2	3.2	3.4	3.7	4.1	3.3	24		
29	29	4.4	5.1	4.6	4.3	5.3	4.6	4.4	5.4	5.2	4.9	IZS	5.2	4.6	4.6	4.3	4.3	4.2	4.1	4.1	3.9	3.9	3.8	4.1	4.7	5.4	4.5	24		
30	30	4	4.3	5.4	4.1	2.6	2.2	2.1	2.1	2.1	IZS	2.1	2	2	2	2	2	2	2.1	2	2	2	2.1	2.1	5.4	2.5	2.4	24		
31	31	2.1	2.1	2.1	2.1	2	2	2	2.1	IZS	2.1	2.1	2.1	2	2	2	2	2	2	2	2	2	1.9	2	2	2.1	2.0	24		
HOURLY MAX		4.7	5.2	5.4	4.4	5.7	5.0	5.3	5.9	6.5	7.2	4.7	5.7	4.7	4.6	4.3	4.3	4.3	4.7	4.6	4.7	4.5	3.8	4.7	4.7					
HOURLY AVG		2.8	2.9	3.0	3.0	2.9	2.9	2.7	2.7	2.8	2.8	2.5	2.6	2.6	2.6	2.5	2.5	2.5	2.6	2.6	2.6	2.6	2.6	2.6	2.8					

STATUS FLAG CODES

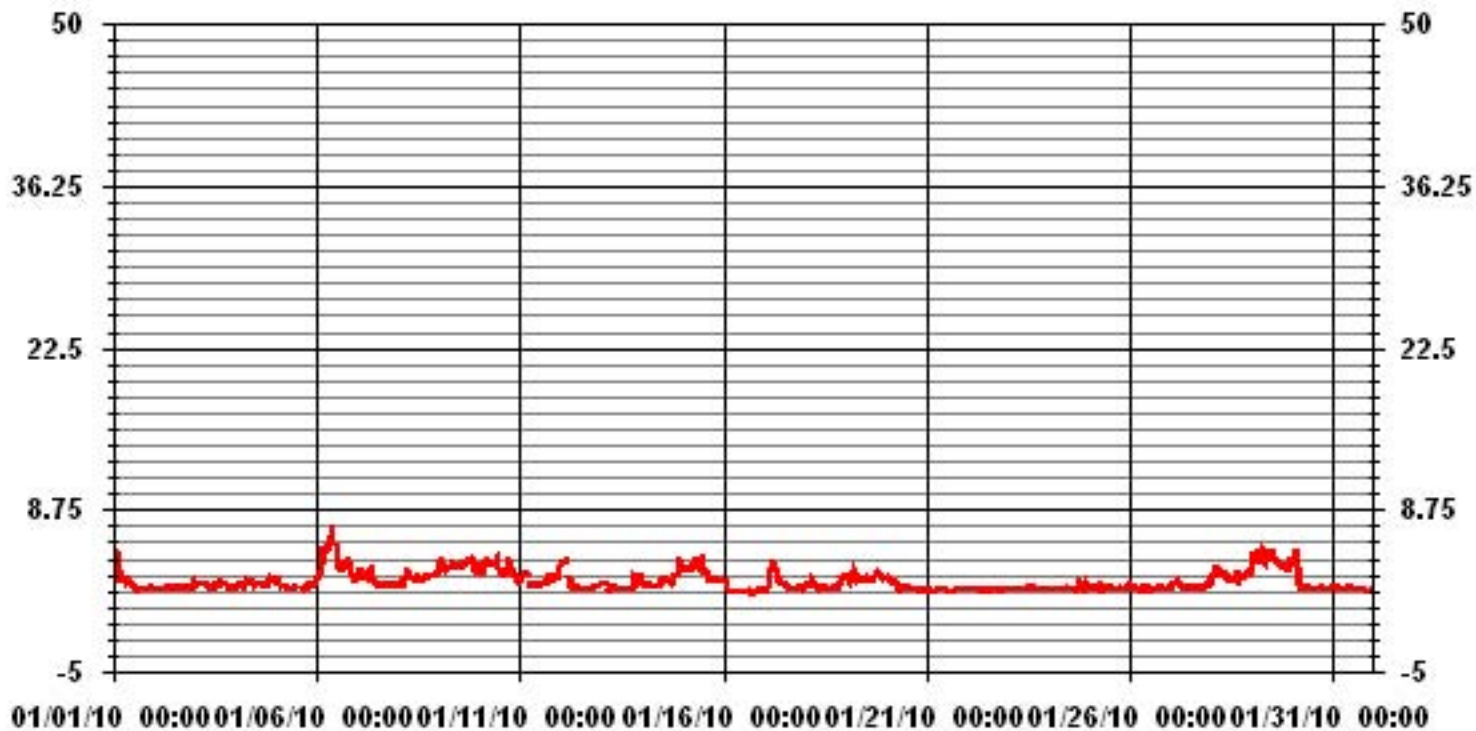
S	- OUT OF SERVICE	IZS	- IZS - DAILY ZERO/SPAN CHECK
N	- INVALID DATA	M	- MAINTENANCE
D	- INSTRUMENT DRIFT	P	- POWER FAILURE
C	- CALIBRATION	NA	- NOT APPLICABLE
BB	- BELOW BACKGROUND OF 1.5 PPM		



MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	707				
MAXIMUM 1-HR AVERAGE:	7.2	PPM @ HOUR(S)	9 ON DAY(S)		
MAXIMUM 24-HR AVERAGE:	4.5	PPM	29 ON DAY(S)		
IZS CALIBRATION TIME:	32	HRS	OPERATIONAL TIME:	743	HRS
MONTHLY CALIBRATION TIME:	4	HRS	AMD OPERATION UPTIME:	99.9	%
STANDARD DEVIATION:	0.85		MONTHLY AVERAGE:	2.70	PPM

01 Hour Averages



— LICA33 THC PPM

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - PORTABLE SITE

JANUARY 2010

TOTAL HYDROCARBONS MAX instantaneous maximum in ppm

MST		0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	23:00	DAILY	24-HOUR	
DAY	HOURLY MAX	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.	
1		5.1	6	16.3	4.5	3.4	2.9	3	2.8	2.9	2.9	2.8	2.6	2.4	2.3	2.2	IZS	2.1	2.1	2.1	2.1	2.1	2.4	2.6	2.2	16.3	3.5	24	
2		2.1	2.1	2.2	2.2	2	2.1	2	2.3	2.3	2.2	2.2	2.1	2.2	2.2	IZS	2.2	2.2	2.2	2.3	2.3	2.3	2.4	2.7	2.8	2.8	2.2	24	
3		2.9	2.7	2.7	2.8	3	2.6	2.6	2.4	2.4	2.3	2.4	2.3	2.3	IZS	2.7	2.7	2.6	2.6	2.6	2.5	2.3	2.3	2.4	2.6	3	2.6	24	
4		2.3	2.4	2.6	2.5	2.4	2.6	3.1	2.8	2.9	2.9	2.9	2.5	IZS	2.6	2.6	2.6	2.5	2.5	2.6	3	3.2	3.5	3.1	3.3	3.5	2.8	24	
5		2.9	3.3	2.8	2.5	2.9	2.4	2.5	2.2	2.4	2.3	2.2	IZS	C	C	C	C	2.4	2.4	2.4	2.6	2.8	2.5	2.9	2.8	3.3	2.6	24	
6		3.6	3.6	4.3	6	6.9	6.2	5.5	6.5	7	7.8	IZS	5.9	5.7	4.5	4.2	4.4	4.5	4.7	4.8	4.3	3.6	3	3	3.3	7.8	4.9	24	
7		3.6	4	4.3	3.7	3.5	3.1	4	4.2	3.1	IZS	2.8	2.7	2.5	2.5	2.5	2.4	2.4	2.4	2.4	2.4	2.5	2.5	2.5	2.6	4.3	3.0	24	
8		2.6	2.5	2.5	8	5.3	6.2	4	3.5	IZS	3.2	C	2.9	2.8	2.9	2.9	2.9	3.2	3.1	3.6	3.3	3.3	3.5	3.6	3.8	8	3.6	24	
9		6.3	7.1	4.1	4.2	4.1	4.2	4.2	IZS	5.1	4.9	4.5	4.1	4.1	4.5	4.5	4.2	4.5	4.6	4.8	4.8	4.7	4.4	3.7	4.4	7.1	4.6	24	
10		4.1	4.8	3.5	6.8	4.6	4.5	IZS	4.2	4.3	4.3	4.9	4.2	3.7	3.4	3.4	4.2	5.5	6.1	4.7	3.7	3.6	3.4	3.1	2.8	6.8	4.3	24	
11		3.1	3.2	3.4	3.7	3.7	IZS	2.4	2.4	2.3	2.3	2.4	2.5	2.6	2.6	3.1	3	2.9	3.8	3.4	3.1	3.6	3.1	3.7	5.1	5.1	3.1	24	
12		5	5.9	5.6	8.2	IZS	3.4	2.6	2.3	2.4	2.3	2.2	2.1	2.1	2	2	2.1	2.1	2.1	2.1	2.2	2.3	2.4	2.4	2.5	8.2	3.0	24	
13		2.6	2.6	2.6	IZS	2.4	2	2.1	2.2	2.5	2.9	2.5	2.2	2.1	2	2.1	2.1	2.1	2.1	3.2	4.3	3.7	2.8	3.2	6.4	6.4	2.7	24	
14		3.6	2.8	IZS	2.6	2.8	2.9	2.5	2.5	3.1	N	2.6	2.7	2.9	3	3.1	3	2.8	2.7	3.2	3.2	3.2	3.7	7.7	4.6	7.7	3.2	23	
15		4.4	IZS	4	4.9	4.1	4.6	4.2	4.4	7.1	5.1	7.3	4.4	4.1	4	3.7	3.6	3	3	3	3	3.3	3	2.8	3.1	7.3	4.1	24	
16		IZS	3	2.4	2	1.9	1.8	1.8	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.9	2	2	1.9	1.9	2.2	2	2	2	IZS	3	2.0	24	
17		2	2	2.2	5.7	6.5	5.8	5.1	5.1	4.7	3.2	2.9	2.8	2.5	2.3	2.4	2.2	2.1	2	2	2	2.1	2.1	IZS	2.1	6.5	3.1	24	
18		2.6	2.6	2.4	2.8	3.5	3.2	2.6	2.3	2.6	2.5	2.3	2.3	2.2	2.2	2.2	2.2	2.3	2.1	2.4	2.3	3.1	IZS	3.5	3.7	3.7	2.6	24	
19		4.7	4	3.3	3.5	3.5	4.1	3.8	3.5	3.6	3.5	3	3	3.3	3	2.9	2.9	3	3.2	3.6	3.7	IZS	3.5	3.1	3.4	4.7	3.4	24	
20		3.3	3.2	3.1	3.1	2.7	2.8	2.5	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	IZS	1.9	2	2	2	3.3	2.4	24	
21		2	2	2	2	2	2	2	2	2.1	2.1	2	2	2	2	2	2	2	2	IZS	2	2	2	2.1	2.1	2.1	2.0	24	
22		2	2.1	2	2.1	2	2.1	2	2	2	2	2	2.1	M	2	2	2	2.3	2.3	IZS	2.3	2.1	2.2	2.3	2	2.4	2.1	23	
23		2.2	2	2	2	2.1	2	2.1	2	2	2.1	2.1	2.5	2.4	2.4	2.5	2.7	IZS	2.1	2.1	2	2.2	2.2	2.2	2.1	2.7	2.2	24	
24		2.2	2.2	2.1	2	2.1	2	2	2	2.1	2.1	2.2	2.2	2	2.1	2	IZS	2.2	2.4	3.6	2.5	2.5	3.4	2.7	2.7	3.6	2.3	24	
25		2.5	2.4	2.5	2.8	2.8	2.4	3	2.7	2.5	2.6	2.6	2.3	2.3	2.2	IZS	2.1	2.1	2.2	2.4	2.4	2.2	2.2	2.3	2.4	3	2.4	24	
26		2.5	2.5	2.4	2.4	2.3	2.2	2.1	2.1	2.2	2.1	2.1	2.1	2.1	IZS	2.1	2	2.1	2.2	2.2	2.3	2.1	2.1	2.2	2.2	2.5	2.2	24	
27		2.3	2.5	2.6	2.6	2.8	2.7	2.5	2.3	2.2	2.2	2.4	2.5	IZS	2.2	2.2	2.2	2.2	2.4	2.4	2.4	2.3	2.7	2.5	2.7	2.8	2.4	24	
28		3.6	3.8	6.1	8.3	3.9	5.8	4.2	4.1	3.9	4	3	IZS	3.1	3.2	3	2.9	4.1	3.3	3.3	3.2	3.3	3.3	3.7	4.1	8.3	4.0	24	
29		5.5	5.6	4.9	4.6	6.7	5.6	4.6	6.4	6.5	6.1	IZS	5.6	5.2	4.7	4.5	4.5	4.4	4.2	4.2	4.1	4	3.9	4.6	5.2	6.7	5.0	24	
30		4.5	5.4	6.3	5.9	3.1	2.4	2.2	2.2	2.3	IZS	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.3	2.2	2.2	2.1	2.1	2.2	2.1	6.3	2.8	24	
31		2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	IZS	2.1	2.1	2.1	2.1	2	2.1	2.1	2.1	2.1	2.1	2.2	2	2	2	2.2	2.1	2.1	24	
HOURLY MAX		6	7	16	8	7	6	6	7	7	8	7	6	6	5	5	5	6	6	5	5	5	4	8	6				
HOURLY AVG		3.3	3.4	3.6	3.9	3.4	3.3	3.0	3.0	3.2	3.1	2.7	2.8	2.7	2.7	2.7	2.7	2.7	2.8	2.9	2.8	2.8	2.8	3.0	3.1				

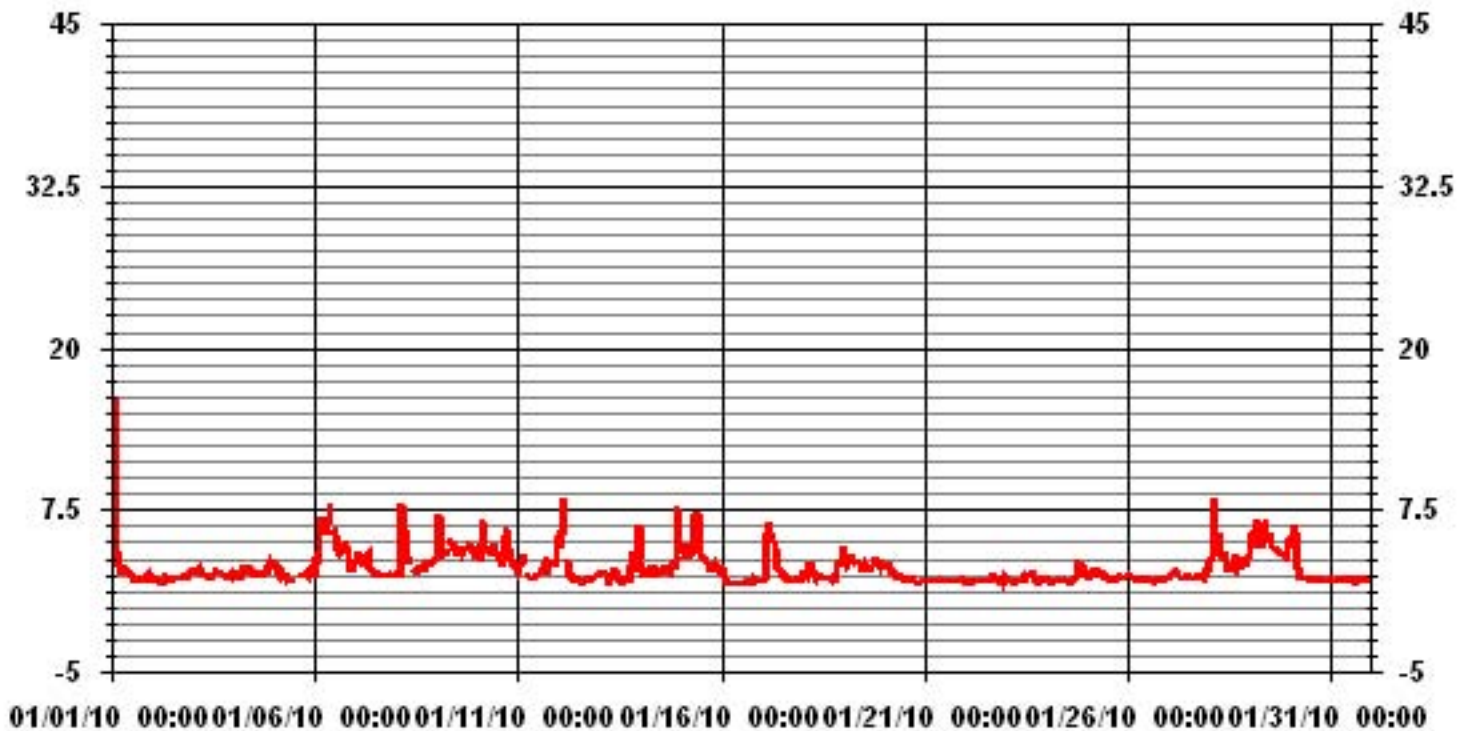
STATUS FLAG CODES

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

MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	705
MAXIMUM INSTANTANEOUS VALUE:	16.3 PPB @ HOUR(S) 2 ON DAY(S) 1
IZS CALIBRATION TIME:	32 HRS
MONTHLY CALIBRATION TIME:	5 HRS
STANDARD DEVIATION	1.27
OPERATIONAL TIME:	742 HRS

01 Hour Averages



— LICA33 THCMAX PPM

LICA33
 THC / WDR Joint Frequency Distribution (Percent)

January 2010

Distribution By % Of Samples

Logger Id : 33
 Site Name : LICA33
 Parameter : THC
 Units : PPM

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
< 3.0	3.53	2.12	4.24	6.50	17.39	3.25	4.38	2.54	1.41	.70	2.40	2.54	5.79	4.66	2.97	6.93	71.42
< 10.0	.70	1.83	1.83	4.10	4.52	2.54	1.27	1.27	1.41	.99	1.98	.70	1.55	1.69	1.55	.56	28.57
< 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	4.24	3.96	6.08	10.60	21.92	5.79	5.65	3.81	2.82	1.69	4.38	3.25	7.35	6.36	4.52	7.49	

Calm : .00 %

Total # Operational Hours : 707

Distribution By Samples

	Direction																
Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
< 3.0	25	15	30	46	123	23	31	18	10	5	17	18	41	33	21	49	505
< 10.0	5	13	13	29	32	18	9	9	10	7	14	5	11	12	11	4	202
< 50.0																	
>= 50.0																	
Totals	30	28	43	75	155	41	40	27	20	12	31	23	52	45	32	53	

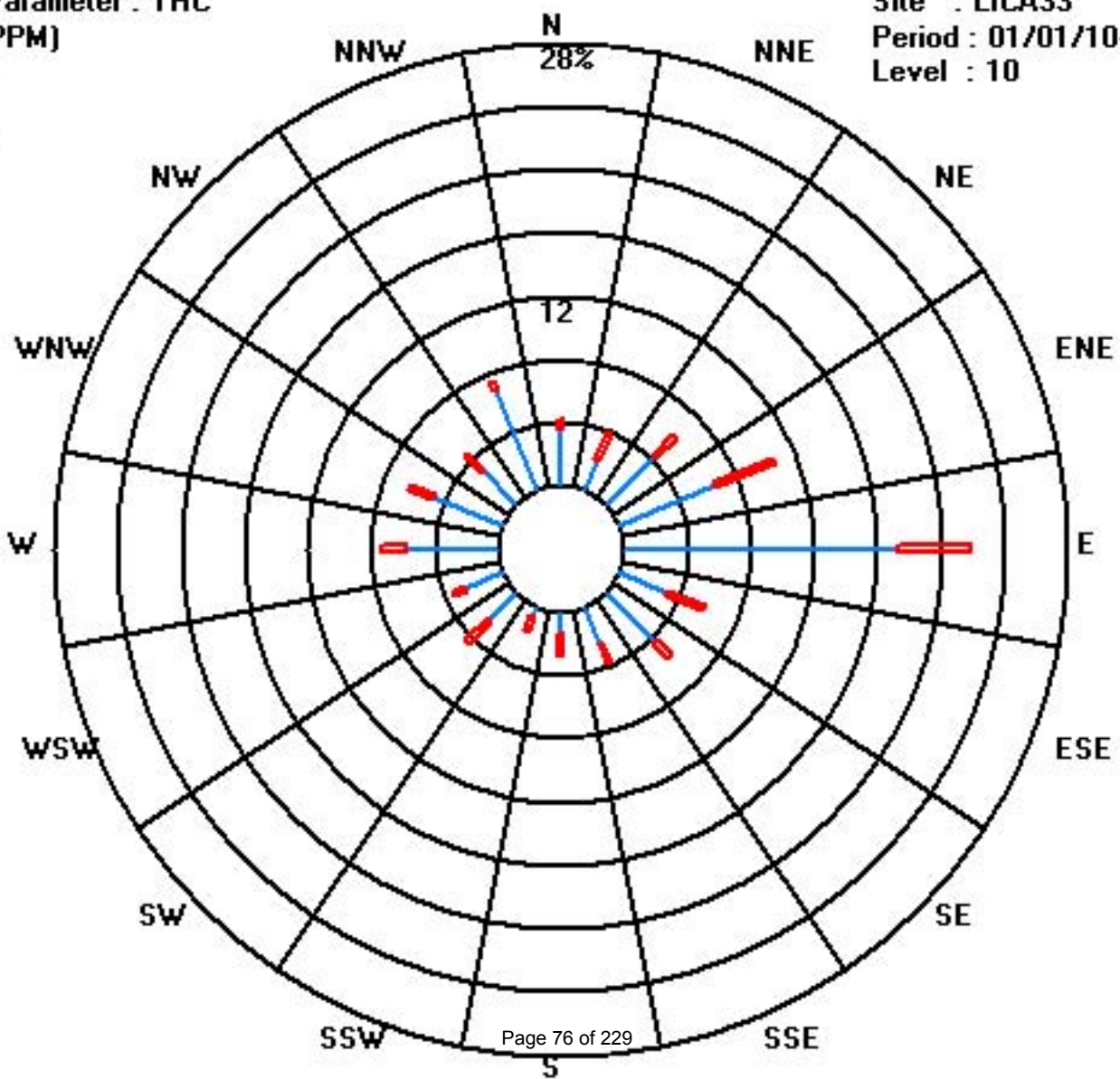
Calm : .00 %

Total # Operational Hours : 707

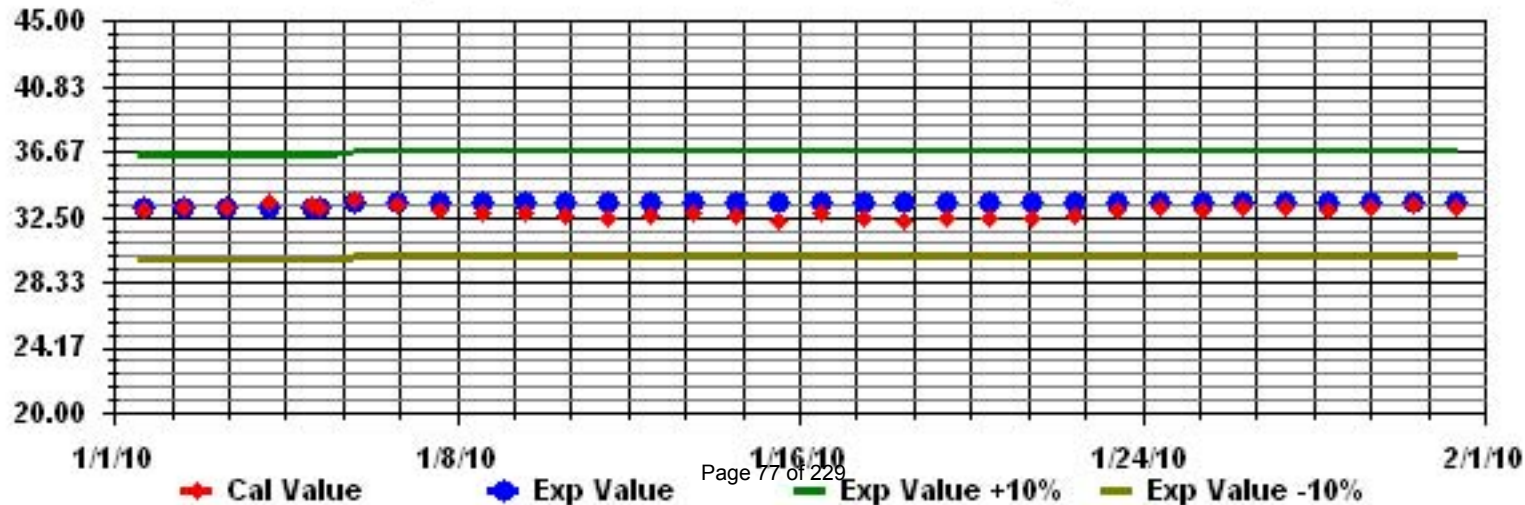
Class Limits (PPM)

Period : 01/01/10-01/31/10

Level : 10



Calibration Graph for Site: LICA33 Parameter: THC Sequence: THC Phase: SPAll



Vector Wind Speed

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - PORTABLE SITE

JANUARY 2010

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

MST		0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY	24-HOUR	
HOURLY MAX	HOURLY AVG	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		4.6	3.2	4.6	7.4	7.8	6.7	7.7	7.2	8.1	10	10.7	11.7	12.8	12.9	15.3	20.4	17	17.8	14.2	13.7	9.9	8.6	7.6	8.9	20.4	9.2	24
2		9.5	10.8	9.1	10.3	8.5	6.8	7	3.9	5.2	10.1	10.2	12.1	11.3	12.2	10.3	7.7	8.6	8.5	7.2	5.6	4.3	5	4.4	12.2	5.8	24	
3		5.4	6.4	6.3	7.4	7.8	7.6	7.9	9	9.8	10.5	10.3	10.9	10	8.1	7.5	6.3	6.2	4	2.3	2.9	8.4	8	9.2	10.6	10.9	3.2	24
4		12.7	11.9	11.9	11.7	7.9	5.6	4.8	6.4	5.1	4.6	3.2	2.8	2.9	4	1.7	1.3	1.2	2	0.9	2.8	2.5	2	2.1	1.6	12.7	3.4	24
5		2.3	2.8	5	3.6	3.8	5.4	7.5	7.2	7.5	8	7.3	4.7	6	5.9	6.5	6.3	5.1	2.7	1.3	3.5	2.7	3	2.5	2.3	8.0	4.7	24
6		3.9	4.1	3.2	1.9	1.9	0.6	1.4	1.9	3.3	2.5	0.3	0.9	3.3	4	2	2.7	4	4	4.8	4.9	8.9	8.4	4.9	3	8.9	3.4	24
7		2	4.1	4.1	3.3	5.1	4.6	1.6	3.7	4.7	8.4	10.9	12	9.6	10.3	11.4	16.1	14.2	17.3	12.4	8.2	8.5	6.7	3.4	5.2	17.3	7.8	24
8		6.5	5.7	3.4	2.6	2	1.9	2.5	3.3	3.8	3.8	5.7	3.8	1.9	4.7	5.8	3.3	2.2	1.8	3.1	1.9	3.1	2.7	1.3	1.9	6.5	3.3	24
9		3.3	1.8	2.2	3.9	3.1	1.2	1.6	2.6	3.9	6.2	3.8	4.2	1.9	2.5	6.4	2	6.8	2.3	3.6	2.6	1.5	3.3	2.9	3.5	6.8	3.2	24
10		1.5	6.3	4.5	5.1	2.5	1.1	2	2.9	1.8	1.3	3.3	4.9	3.2	0.8	1.3	3.1	2.5	4.6	6.3	7.5	8	10.8	12.4	12.7	12.7	4.6	24
11		11.8	12.7	9.5	9.1	12.9	11.2	7.3	12.5	9.2	5.1	5.3	5.3	4.2	2.8	2.6	3.3	2.9	1.2	1.8	0.9	1.5	1.1	2	1.9	12.9	5.8	24
12		1.9	2.2	2.6	4.2	9.2	10	12.7	15.1	20.2	16.1	18.2	16.9	15.7	13.8	13.6	9.5	8.1	7.2	4.3	4	5.5	7	7.6	10	20.2	9.8	24
13		11.9	11.3	16.2	14.6	12.6	15.9	12.9	11.6	5.8	7.7	9.5	8.6	7.1	5.1	4.4	4	1	1.9	1.9	2.5	3.3	3	5.4	6.3	16.2	7.7	24
14		6.3	7.7	7.3	5.4	3.3	2.6	4.7	4.7	2.3	N	0.6	0.3	0.5	1	6	6.3	5.5	5.4	2.8	3.9	3.8	2.8	2.6	3.6	7.7	3.9	23
15		3.4	2.6	1.1	1.2	0.7	1.4	0.6	1.5	1.7	2.2	1.8	3.7	4.5	4.1	5.9	7.2	7.4	8.1	8.4	8.7	6.9	3.4	2.1	4.5	8.7	3.9	24
16		7.5	13.8	14.5	18.1	15.3	14.2	17.8	16.9	19	29.1	23.9	23	23.7	20.4	15.6	11.4	10.9	12.9	11.7	13.7	13.4	6.9	3.2	9.7	29.1	15.3	24
17		5.5	0.1	1.8	3.2	2.7	3.5	3.2	5.4	5.1	6.3	4.8	8.9	6.6	11.6	16.6	18.2	17.4	14.1	9.4	11.9	10.8	11.4	13.6	9.4	18.2	8.4	24
18		7	7.7	6.1	6.6	5.1	4.3	5.1	5.7	7.4	8	7.7	9.7	9.4	8.2	7.4	8.3	5.7	5.9	8.9	8	5.2	3.2	4.1	2.5	9.7	6.6	24
19		1.6	1.7	2.7	2.1	0.3	0.3	0.5	2.7	1.7	1.5	1.6	1.1	2.4	3.2	1.5	2.2	2.7	2.5	3.3	1	1.4	3.2	2	2.1	3.3	1.9	24
20		1.7	2.5	3.7	2.1	2.9	6.2	9.1	9	8.1	9.1	12.2	10	10.9	10.5	11.7	10.9	10.5	11.1	14.8	15.9	15.6	14.7	13.3	12	15.9	9.5	24
21		11.6	12.2	12.6	13.4	15.3	15.7	15	14.2	11.8	11	13.6	16.3	14.9	14.4	13.2	13	12.1	11.9	12.9	12.9	11	11.4	11	11.4	16.3	13.0	24
22		11.8	9.9	10.9	9.9	10.2	10.1	8.9	8.6	8.9	9.7	9.1	9	8.4	7	6.1	8.6	9.5	8.3	9.4	7.4	4.7	5	4.8	5.5	11.8	8.4	24
23		4.7	6.3	9	7.4	6.3	8.9	9	10.2	8.6	8.4	12	12.6	11.8	13.2	14	14	11.7	10.3	13.3	13.1	13	17.2	14.3	11.6	17.2	10.9	24
24		14.1	11.4	13.4	14.4	15.3	13.2	13.4	13.3	12.7	12.9	13.2	13.3	13.5	15.5	14.2	13.1	12.3	7.1	4.8	7.3	10.1	9.3	9.5	8	15.5	11.9	24
25		7	7.7	7.6	7.6	7.9	8.7	6	5.3	4.6	5.6	5.4	7.1	5.8	6	4.7	5.4	6.5	4.9	5	6.2	6	6.7	8.7	9.8	9.8	6.5	24
26		9.7	12	14.1	13.1	11	9.5	9.7	10.5	10.2	10.2	13.6	19.4	17.1	18.4	17.8	17.8	16.9	17.4	16.2	14.5	13.8	12.8	11.5	11.1	19.4	13.7	24
27		11.4	12.1	12.2	12.2	11.9	11.7	7.5	3.3	8.3	6.8	10.2	7.3	9.5	8.5	3.6	4.8	6.1	4.3	4.8	2.5	2.9	4	2.1	5.1	12.2	7.2	24
28		3.8	2.2	4.7	2.3	2.7	3.3	3	2.4	3.2	2.6	4.1	3.8	3.3	4.8	6.3	4.4	3.5	2.1	2.4	1.4	2.5	0.3	2.6	2.9	6.3	3.1	24
29		4.3	2.2	3.7	3.5	2.4	3.7	1.4	0.8	1.2	3.1	5.2	2.7	3.4	1.9	2.6	4.6	1.5	1.4	3.5	1.8	2.6	1.7	1.5	3.4	5.2	2.6	24
30		4.2	2.3	3.2	5.6	5.1	4.9	9.4	10.3	8.2	9.3	10.4	13.3	12.4	11.4	11.7	11.7	11.3	12.5	15.2	16.7	14.2	17.5	15.5	14.3	17.5	10.4	24
31		13.1	12	11.4	13	14.7	16.1	14.4	14.7	15.4	15.1	14.4	14.5	13.4	13.7	15.3	17.3	17	15.3	15.2	14.3	15.6	15.8	13.4	12.1	17.3	14.5	24
HOURLY MAX		14.1	13.8	16.2	18.1	15.3	16.1	17.8	16.9	20.2	29.1	23.9	23.0	23.7	20.4	17.8	20.4	17.4	17.8	16.2	16.7	15.6	17.5	15.5	14.3			
HOURLY AVG		6.6	6.8	7.2	7.3	7.0	7.0	7.0	7.3	7.3	8.2	8.5	8.9	8.4	8.4	8.5	8.5	8.0	7.4	7.3	7.2	7.2	7.0	6.5	6.8			

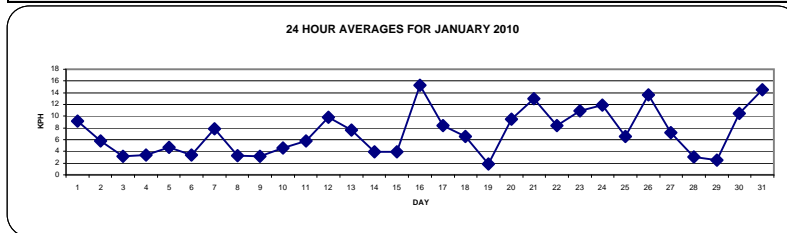
STATUS FLAG CODES

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

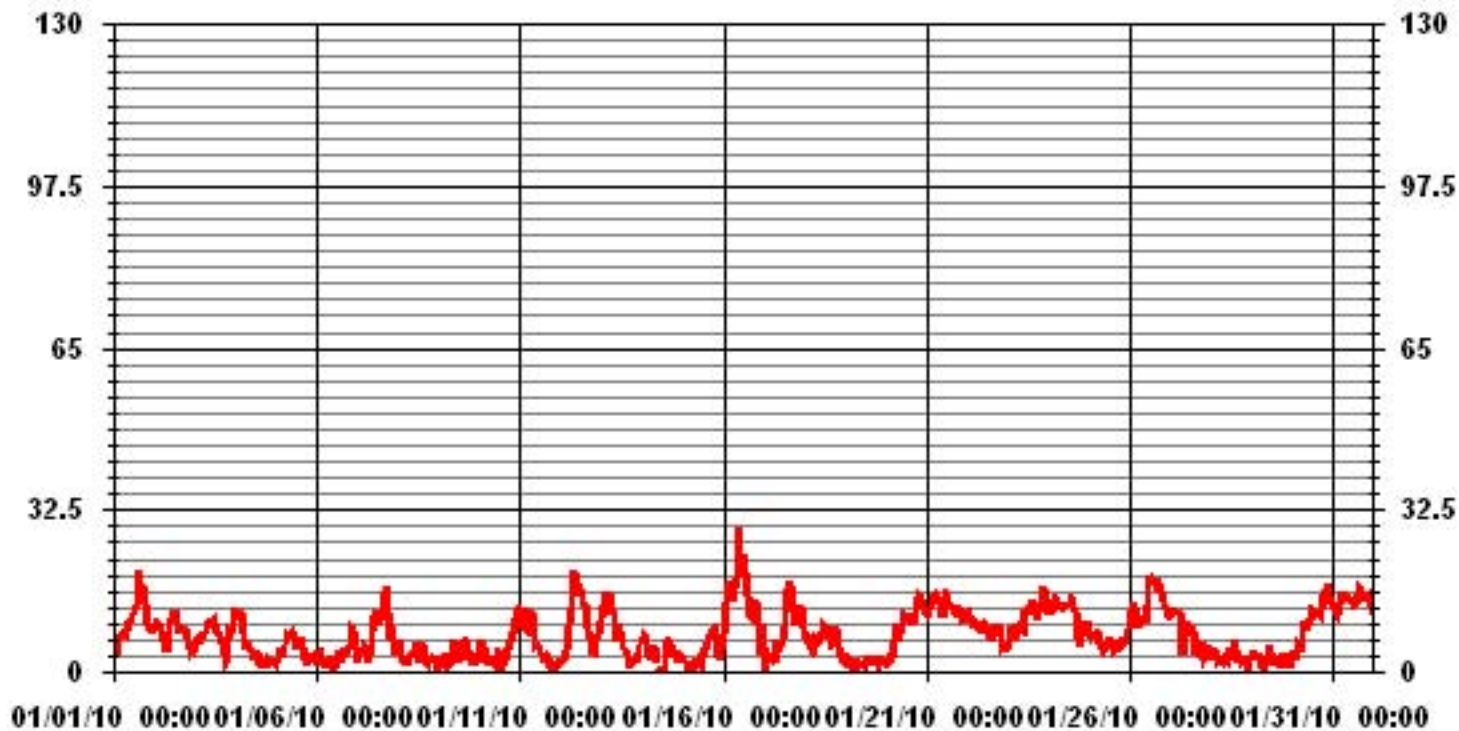
LAST CALIBRATION: September 24, 2009

MONTHLY SUMMARY

MAXIMUM 1-HR AVERAGE:	29.1	KPH	@ HOUR(S)	9	ON DAY(S)	16
MAXIMUM 24-HR AVERAGE:	15.3	KPH			ON DAY(S)	16
CALMS (≤ 0 KPH)	0.81	%			OPERATIONAL TIME:	743 HRS
MONTHLY CALIBRATION TIME:	0	HRS			AMD OPERATION UPTIME	99.9 %
STANDARD DEVIATION:	4.88				MONTHLY AVERAGE	7.51 KPH



01 Hour Averages



— LICA33 WSP KPH

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - PORTABLE SITE

JANUARY 2010

VECTOR WIND SPEED MAX instantaneous maximum in km/hr

MST		0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY	
HOUR START	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		7.3	6.6	7.4	11.7	13.8	9.9	12.7	12.5	12.7	16.9	15.8	17.5	20.4	20.1	33.6	32.9	30.1	30	25.9	20.1	13.9	12.3	10.7	13	33.6	
2		14.1	14.7	15.6	16.9	12.6	10.7	13.2	8.3	10.2	17.2	23.3	23	20.4	23.4	20.2	13.8	17.4	18.3	18.4	15.8	12.1	7.5	7.6	8.2	23.4	
3		8.9	9.7	9.4	11.2	13	10.9	12.8	13	14.2	15.9	15	15.1	14.1	17.5	14.9	17.2	13.4	8.6	7	8.3	12.7	14	13.2	19.3	19.3	
4		22.1	20.1	17.4	17.2	11.3	10	9.6	9.4	9.2	7.4	6.9	6.1	7	7.7	4.5	3.6	4.8	6.1	7.1	6.5	5	4.5	4.5	5.4	22.1	
5		6	5	7.7	6.1	5.7	9.3	11.5	11.8	13.6	11.7	11.6	8.8	9	10	13.1	11.5	7.7	4.9	4.2	5.4	4.2	5	3.9	4.6	13.6	
6		6.8	7.3	6.2	3.8	3.6	3.2	3.4	3.8	5.4	6.1	3.7	3.5	6.5	6.2	4.1	6.1	7	6.2	6.3	7.9	11.1	10.9	9.6	6.4	11.1	
7		5.4	5.9	6.5	5.6	8	7.3	5	5.8	11.5	15.3	20.8	22.9	18.6	22.1	22.8	25.5	34.9	40.3	23.8	18.1	13.8	12.8	5.1	9	40.3	
8		9.9	9.7	5.3	4.2	4.9	5.6	6.5	6.2	9.1	9.2	12.3	8	6.8	16.5	11.6	10.4	9.7	7.5	8.3	5	8.1	9.1	4.7	4.4	16.5	
9		5.5	6.9	9	5.9	5.3	7	5.8	7.8	10.5	12.5	7.6	7.5	6.8	7.2	14.7	10.9	14.5	7.4	7.4	7.6	6.2	7.6	6.5	7.4	14.7	
10		7.5	9.5	7.8	7.4	5.9	4	3.8	5	5.6	4.1	6.6	8.7	7.3	5.1	4.6	4.7	5.2	6.6	9.9	11.2	10.9	16	18.5	19.5	19.5	
11		17.8	18.7	16.4	14.5	20.3	21.3	25.2	24.7	13.3	10.5	8.2	8.8	7.9	6.8	7.7	7.6	7.1	6.1	4.1	4.1	4	5.3	4.7	5.4	25.2	
12		6.1	6.1	4.1	7	14.5	17	23.1	29.4	30.1	23.2	27.3	25.7	22.2	21.1	20.8	15.8	14.9	11.5	9	10.3	10.6	11.1	10.9	17.9	30.1	
13		20	22.9	23.6	23.4	24.1	31.2	19.7	19.1	13.7	14	16.3	14.3	12.6	9.1	10.5	8.4	4.8	5.6	5	4.7	6.5	5.9	8.9	8.5	31.2	
14		9.6	10.6	10.3	8.4	8	7	7.4	8	5.1	N	2.4	3.2	5	7.1	11.2	13.3	12.3	11.3	7.9	6.5	5.6	6.5	6.9	6.3	13.3	
15		6.8	7.4	4.3	3.5	3.1	3.7	3.1	3.9	4	4	4.2	6.4	7.9	6.2	8	10.9	11.8	12.5	16.3	23.1	11.9	11	6.5	7.7	23.1	
16		14.1	23.6	24.6	30.7	26.7	22.3	26.4	26.4	38.1	52.2	44	41.9	41.1	36.1	28.7	19.6	15.8	21.5	17.5	20.6	19	12.2	9.3	15.5	52.2	
17		13	3.2	4.2	4.5	5.6	5.1	4.6	7.7	8.3	9.1	8.3	14.2	24.4	25.9	30	29.6	26.9	27	18	19.7	22.7	18.1	20.2	13.6	30	
18		12.9	10.1	8.7	9.4	8.7	6.9	7.6	10	10.5	11.2	11.2	15.1	15.5	12.7	11.3	12.7	9.9	11.2	12.6	11.7	9.8	6.4	7.9	5.8	15.5	
19		4.7	3.9	6.1	6.2	3	2.2	5.4	8.3	4.7	3.9	4.1	3.2	7.1	7.4	6.8	5.8	6.1	7	7.8	4.1	4.2	6.5	6.4	6	8.3	
20		4.6	5.3	6.5	7	5.9	10.5	17.6	13.3	12.2	13.7	18.4	14.9	15.3	15	16.8	15.8	16.8	16.9	22.4	27	23.6	22.3	19.3	17.9	27	
21		19.8	17.9	19.5	20.7	21.9	22.5	22.2	22.1	18.5	16.4	22.5	24.3	22.7	21.2	21.4	19	18.8	18.1	18.9	17.8	17.1	16.5	16.2	17.4	24.3	
22		18	14.3	14.4	14.5	14.9	15	12.8	13.5	12.6	14.9	13	12.5	12.3	10.2	10	13.1	15.6	12.4	14.7	13.6	8.3	7.4	6.9	10.8	18	
23		7.7	11.7	14.2	13.4	12.1	13.6	17.6	16.8	14.5	15.5	20.4	22.2	21.3	26.8	25.8	29.9	25.8	22.8	26.7	26.3	27.2	30.5	29.1	26.2	30.5	
24		26.6	27.3	27.2	26.4	31	25.8	28.8	27.5	29.7	28.3	25.9	29.7	26.7	30	25.4	22.4	28	16	11.9	15.9	18.1	15.8	18.4	15.3	31	
25		13.8	16.1	13.8	13.2	13.4	16.1	9.8	8.6	8.2	10.4	9	11	10.6	11.5	10.1	10.8	10.7	9.2	7.8	11.3	11.9	11.1	12.2	14.3	16.1	
26		17.1	20	22.1	20.7	16.9	13.4	13.8	14	13.8	15.1	25.5	28.6	24.9	27.8	28.2	30.6	28	25.8	23.2	20.6	20.7	15.6	15.6	15.6	30.6	
27		15.9	17.3	16.8	16.2	17.1	17.2	14.1	9.1	11.4	13.5	14.9	13	14.9	14.1	10	10.6	11.2	10	10.3	9.4	7.1	7	6.8	8.1	17.3	
28		7.8	5.2	7.4	9.4	8.9	5.4	7.3	5.3	5.5	5.4	6.9	6.7	6.8	6.9	8.9	7.1	6.4	5	5.7	4.3	5.8	2.1	5.4	6.4	9.4	
29		7.6	5.1	6.1	9.6	5.3	5.4	3.5	5.2	5.6	9.1	9.1	6.1	6.4	5.1	5.1	5.3	5.7	5.4	6.6	4.6	5.2	4.8	5.6	5.5	9.6	
30		6.6	4.7	4.5	8.8	7.8	9.3	15.8	16.3	12.6	13.4	16.8	18.7	18.9	18.6	16.7	17.1	15.8	17.9	27.1	26.5	21.2	26.6	23.8	21.1	27.1	
31		19.1	16.7	16.2	18	23.1	23	21.1	19.4	21.2	19.4	19.9	19.4	19.6	19.1	21.2	22.7	24.9	23.3	21.6	20.1	21.9	21.1	18.2	16.5	24.9	
PEAK		26.6	27.3	27.2	30.7	31.0	31.2	28.8	29.4	38.1	52.2	44.0	41.9	41.1	36.1	33.6	32.9	34.9	40.3	27.1	27.0	27.2	30.5	29.1	26.2		

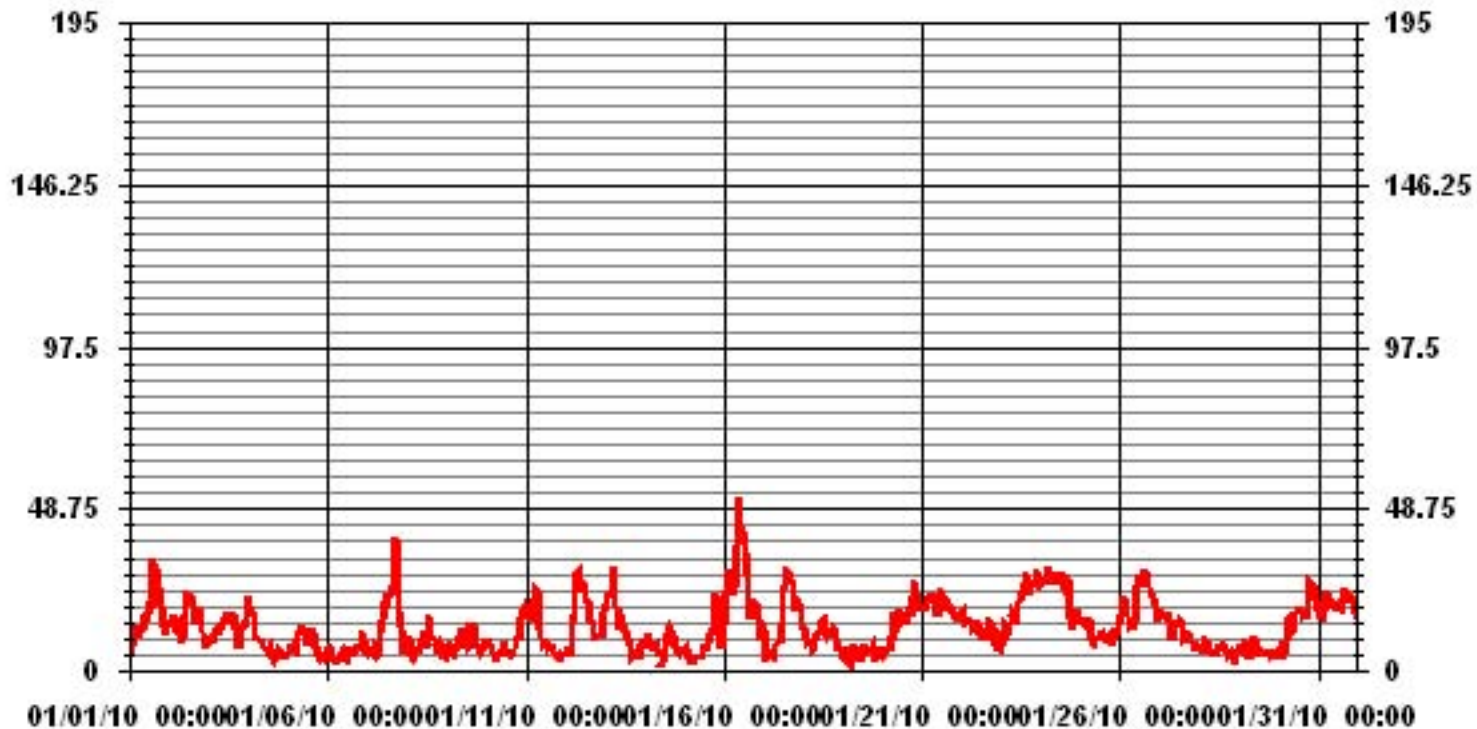
STATUS FLAG CODES

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

MONTHLY SUMMARY

MAXIMUM INSTANTANEOUS READING	52.2	KPH	@ HOUR(S)	9
			ON DAY(S)	16

01 Hour Averages



LICA33
WSP / WDR Joint Frequency Distribution (Percent)

January 2010

Distribution By % Of Samples

Logger Id : 33
Site Name : LICA33
Parameter : WSP
Units : KPH

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	
< 6.0	1.21	3.36	3.63	4.84	5.24	3.36	2.82	2.15	2.28	1.61	3.23	1.61	2.42	2.42	3.09	2.15	45.49	
< 12.0	2.28	1.21	2.01	4.17	9.82	1.48	1.34	1.07	.40	.00	.94	1.21	2.28	1.74	1.07	2.42	33.51	
< 20.0	.53	.00	.53	1.48	6.46	.80	1.48	.67	.00	.00	.13	.53	2.55	1.61	.13	3.09	20.05	
< 29.0	.00	.00	.00	.00	.13	.00	.13	.00	.00	.00	.00	.00	.00	.53	.00	.00	.80	
< 39.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.13	.00	.00	.13	
>= 39.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
Totals	4.03	4.57	6.19	10.49	21.66	5.65	5.78	3.90	2.69	1.61	4.30	3.36	7.26	6.46	4.30	7.67		

Calm : .00 %

Total # Operational Hours : 743

Distribution By Samples

	Direction																	
Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq	
< 6.0	9	25	27	36	39	25	21	16	17	12	24	12	18	18	23	16	338	
< 12.0	17	9	15	31	73	11	10	8	3		7	9	17	13	8	18	249	
< 20.0	4		4	11	48	6	11	5			1	4	19	12	1	23	149	
< 29.0					1		1							4			6	
< 39.0														1			1	
>= 39.0																		
Totals	30	34	46	78	161	42	43	29	20	12	32	25	54	48	32	57		

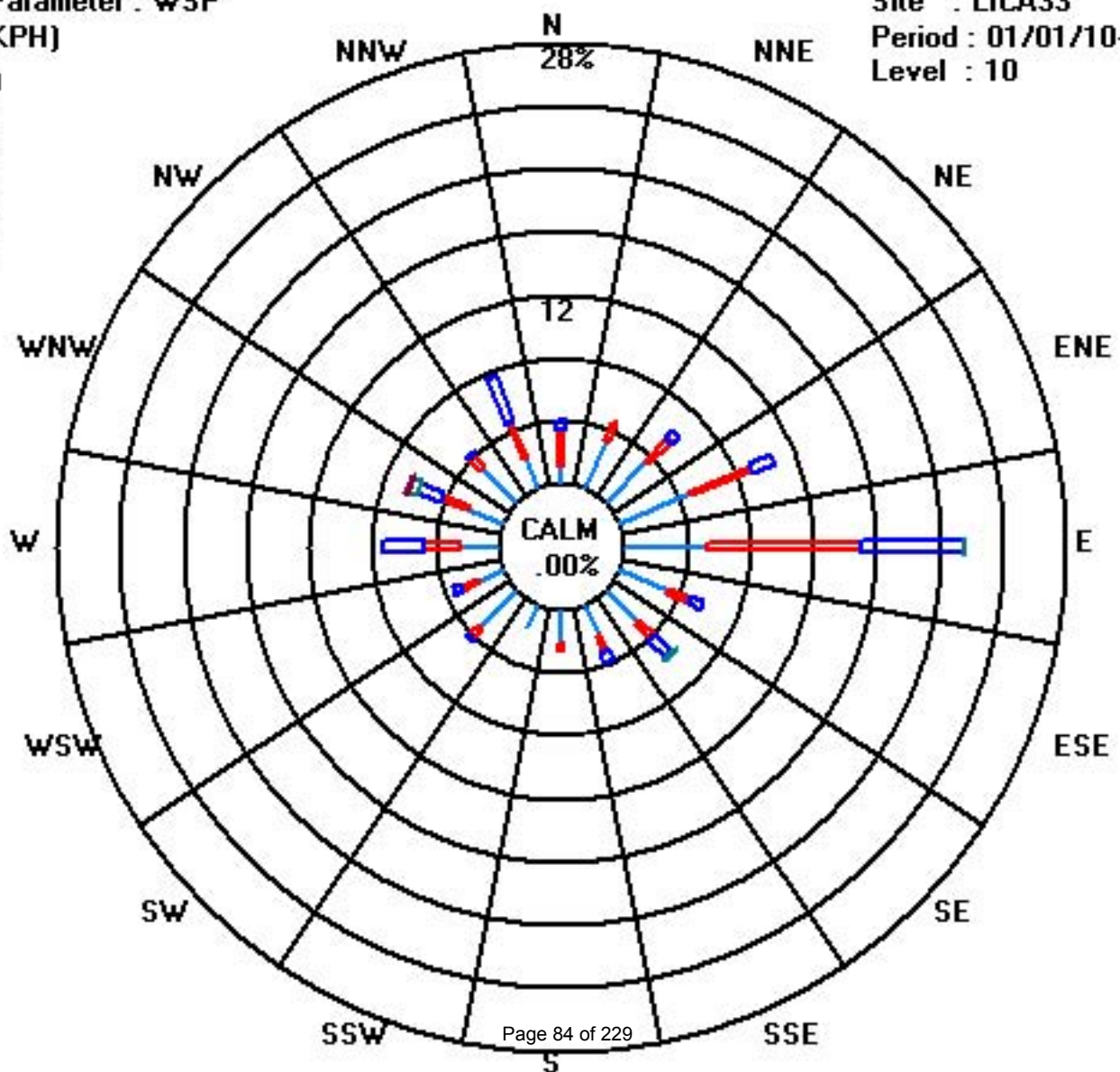
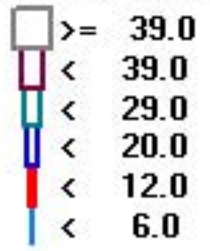
Calm : .00 %

Total # Operational Hours : 743

Class Limits (KPH)

Period : 01/01/10-01/31/10

Level : 10



Vector Wind Direction

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - PORTABLE SITE

JANUARY 2010

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	24-HOUR QUADRANT	RDGS.																							
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.	QUADRANT	RDGS.																								
DAY																																																			
1	99	92	95	96	82	98	86	86	89	88	85	86	81	84	131	140	145	139	138	137	132	101	71	65	108	ESE	24																								
2	69	73	65	53	71	48	29	343	310	307	320	325	328	331	336	327	321	325	329	336	339	331	297	311	350	N	24																								
3	29	69	84	88	88	81	80	81	97	98	98	102	102	141	170	172	160	221	240	237	244	263	273	290	111	ESE	24																								
4	293	286	281	292	297	281	269	276	291	271	288	271	252	233	231	190	170	138	136	91	83	40	36	48	283	W	24																								
5	31	27	49	46	36	43	39	38	48	49	57	51	22	31	33	29	57	54	324	343	347	334	338	309	33	NNE	24																								
6	306	301	284	273	308	224	229	298	297	307	33	112	124	102	66	112	128	128	131	117	116	113	106	83	113	ESE	24																								
7	65	93	83	88	109	113	54	98	136	149	150	154	160	153	144	141	148	163	149	148	147	144	117	146	141	SE	24																								
8	145	144	128	92	83	79	97	144	154	171	136	157	176	240	152	162	183	266	186	218	208	186	199	109	155	SSE	24																								
9	90	76	29	29	35	57	15	23	77	53	20	325	282	62	293	309	246	200	149	239	198	193	181	160	32	NNE	24																								
10	185	100	105	88	81	306	239	256	280	292	279	227	226	242	57	81	141	64	78	82	89	83	90	92	94	E	24																								
11	88	89	96	88	96	113	165	147	115	138	139	139	100	49	110	119	325	352	155	46	159	169	80	76	109	ESE	24																								
12	22	2	39	72	86	71	72	81	96	86	83	81	75	80	72	75	95	82	79	313	273	235	241	269	79	ENE	24																								
13	267	262	275	284	301	290	285	294	344	345	349	350	336	347	354	232	238	139	59	71	128	102	99	56	304	WNW	24																								
14	75	85	91	75	92	27	104	99	13	N	94	155	171	309	241	228	229	236	196	137	109	100	64	64	108	ESE	23																								
15	76	64	72	120	37	26	58	12	123	75	64	51	51	58	73	78	80	81	76	84	68	92	266	260	71	ENE	24																								
16	262	276	273	267	261	253	250	250	263	288	295	296	290	294	293	285	271	265	252	240	233	223	207	224	269	W	24																								
17	227	311	157	141	123	94	90	71	75	84	94	88	102	143	129	137	131	129	138	131	137	139	128	119	125	SE	24																								
18	103	83	86	91	95	84	79	83	95	95	89	84	85	90	84	91	112	114	117	111	100	37	112	109	93	E	24																								
19	71	43	304	301	281	353	306	290	340	220	220	190	159	166	254	282	243	283	337	236	62	147	167	19	265	W	24																								
20	98	59	45	63	78	49	85	99	74	76	84	77	65	62	73	66	76	85	88	88	95	90	89	81	79	ENE	24																								
21	84	87	88	93	93	102	100	104	97	82	81	86	88	87	82	84	87	84	86	85	83	87	84	84	88	88	E	24																							
22	88	84	87	83	83	84	81	76	79	88	94	95	89	89	83	50	50	47	59	70	48	32	26	45	74	ENE	24																								
23	26	14	14	359	10	17	4	4	6	7	7	352	344	346	353	350	344	336	329	330	338	345	341	329	351	N	24																								
24	328	334	336	330	338	330	329	328	329	334	341	344	329	334	331	332	343	344	344	350	356	352	351	346	336	NNW	24																								
25	347	339	356	0	359	355	355	0	326	350	338	338	352	348	342	321	316	319	302	320	322	305	289	277	332	NNW	24																								
26	289	281	295	288	275	247	245	237	236	238	266	278	278	278	275	278	289	280	282	281	269	270	276	276	273	W	24																								
27	276	278	292	296	280	282	264	229	233	235	277	287	293	293	231	191	183	206	207	189	211	285	244	146	263	W	24																								
28	105	24	84	8	330	61	28	57	78	55	29	79	38	81	89	77	356	34	230	267	312	174	233	309	49	NE	24																								
29	260	267	119	230	308	270	268	287	167	225	295	288	280	219	161	169	186	198	224	208	224	104	12	24	241	WSW	24																								
30	44	325	345	32	48	63	29	33	49	58	45	60	37	54	66	68	76	58	55	55	64	57	58	62	53	NE	24																								
31	62	56	68	72	85	90	90	94	94	96	94	90	85	79	81	86	84	86	86	86	95	110	109	108	111	88	E	24																							
HOURLY AVG	347	339	356	359	359	355	355	343	344	350	349	352	352	348	354	350	356	352	344	350	356	352	351	346																											

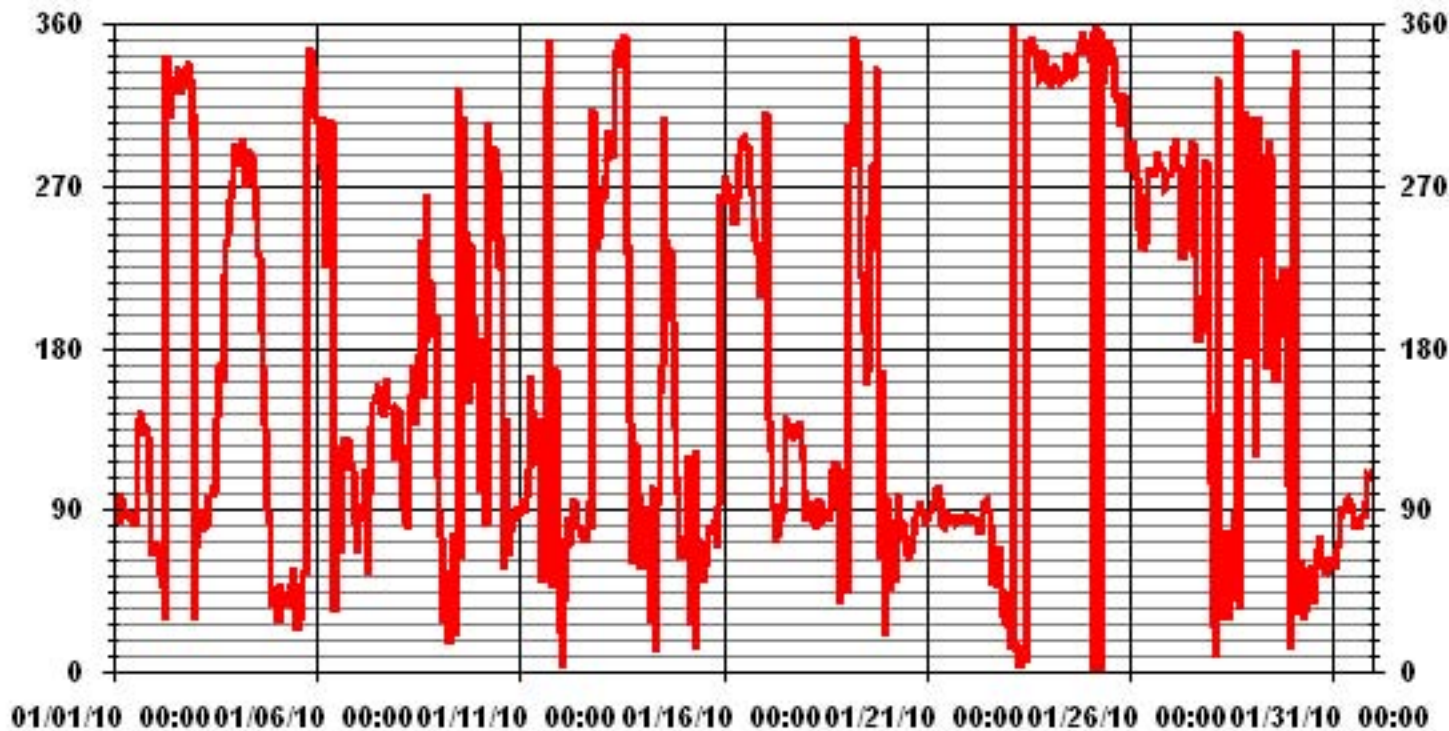
STATUS FLAG CODES

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:	September 24, 2009
DECLINATION :	19 DEGREES FROM MAGNETIC NORTH

MONTHLY CALIBRATION TIME:	0 HRS	OPERATIONAL TIME:	743 HRS
STANDARD DEVIATION	105.38	AMD OPERATION UPTIME	99.9 %
		MONTHLY AVERAGE	58 DEG

01 Hour Averages



— LICA33 WDR DEG

Standard Deviation Wind Direction

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - PORTABLE SITE

JANUARY 2010

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	9	8	9	9	6	6	7	7	7	6	6	7	7	7	14	8	10	9	7	5	4	5	6	6	
2	10	8	10	8	9	9	11	12	10	12	12	13	13	14	15	14	12	12	12	13	13	13	7	12	
3	12	6	6	4	7	6	7	7	6	6	6	6	7	12	14	21	13	16	25	18	6	8	7	7	
4	8	6	5	5	4	9	13	8	9	10	17	14	20	17	21	28	49	49	55	26	21	22	12	11	
5	11	10	6	7	7	5	8	7	8	7	5	11	9	16	11	11	5	9	24	10	9	7	7	10	
6	6	8	8	12	6	16	15	6	6	22	59	13	15	11	13	16	11	6	5	7	3	3	5	9	
7	33	5	6	8	6	7	44	8	11	12	13	13	14	13	10	9	11	14	11	11	10	7	10	7	
8	7	6	16	10	21	20	17	12	10	21	19	23	35	34	16	33	28	24	19	22	23	17	16	26	
9	13	29	32	13	23	50	49	37	22	14	29	20	25	35	12	24	22	28	29	39	33	20	19	15	
10	44	7	13	10	11	50	12	11	26	19	12	9	17	39	38	10	25	9	4	5	5	6	6	6	
11	7	6	9	7	8	9	33	11	4	14	7	11	11	31	18	21	24	57	18	29	29	31	19	15	
12	35	43	11	12	8	6	7	6	6	6	7	6	6	8	7	8	8	10	18	16	10	11	7	9	
13	9	9	6	7	10	8	8	9	14	12	13	14	17	16	23	7	45	22	16	12	13	15	8	7	
14	8	5	5	9	24	16	12	11	20	N	46	58	58	40	15	17	17	12	19	12	7	19	28	14	
15	16	43	61	24	32	17	26	20	25	26	24	9	10	8	5	7	7	7	14	18	21	50	9	9	
16	11	8	8	8	7	6	7	7	9	8	10	9	8	10	8	7	5	7	5	5	3	17	51	7	
17	24	52	20	9	20	9	14	5	7	8	7	6	11	10	9	6	6	12	11	11	23	10	8	8	
18	20	10	7	6	8	9	7	8	5	5	6	8	6	9	8	8	14	11	4	7	10	26	10	16	
19	31	28	17	23	53	33	31	16	25	29	22	35	19	18	26	25	19	17	24	19	46	21	31	24	
20	34	19	14	19	11	7	9	8	9	8	8	9	8	8	8	8	8	8	7	8	8	8	7	7	
21	8	7	8	7	8	7	7	8	7	7	7	7	7	7	8	7	7	7	7	6	7	6	6	7	
22	6	6	6	7	6	6	7	7	7	6	6	7	7	7	7	7	6	8	8	8	10	9	8	9	
23	7	10	11	12	9	10	12	11	10	10	10	11	12	12	12	13	13	14	13	12	13	13	14	13	
24	13	14	14	13	13	13	13	12	13	13	13	13	13	13	12	12	14	13	16	15	11	10	11	12	
25	13	14	11	11	11	10	11	12	12	13	17	12	16	19	19	12	10	11	9	11	12	10	5	5	
26	6	8	7	7	6	5	6	4	5	7	9	7	8	7	8	8	7	6	6	6	7	8	5	5	
27	4	5	5	5	4	4	11	43	4	8	7	8	7	10	25	15	14	16	17	21	13	11	28	7	
28	17	23	6	14	27	11	12	15	10	14	10	14	17	8	7	6	20	27	17	31	16	37	25	20	
29	16	18	21	33	12	10	20	36	34	16	8	17	14	14	22	20	34	38	11	15	20	19	40	10	
30	6	14	6	6	6	7	8	9	9	7	10	9	12	11	9	7	8	7	8	7	7	6	7	6	
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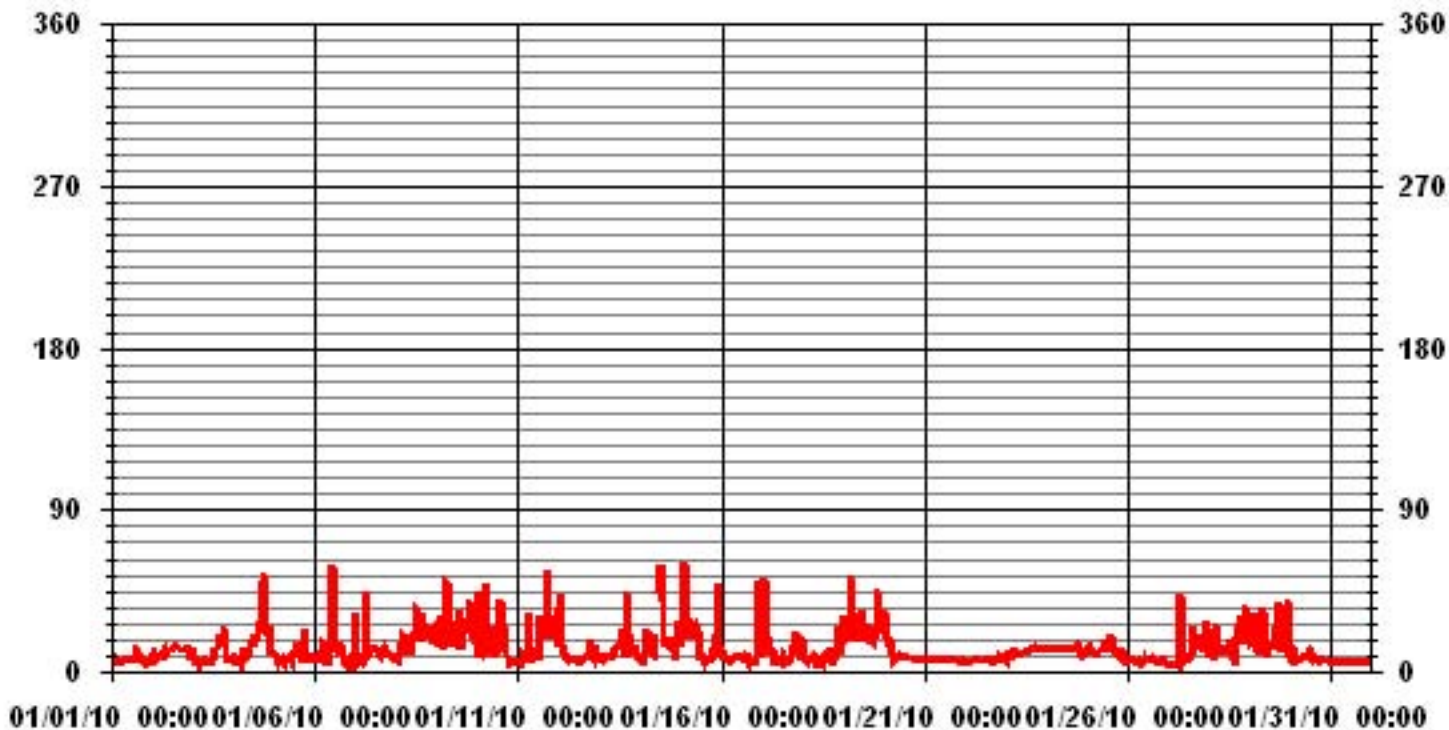
STATUS FLAG CODES

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: September 24, 2009

CALIBRATION TIME: 0 HRS OPERATIONAL TIME: 743 HRS

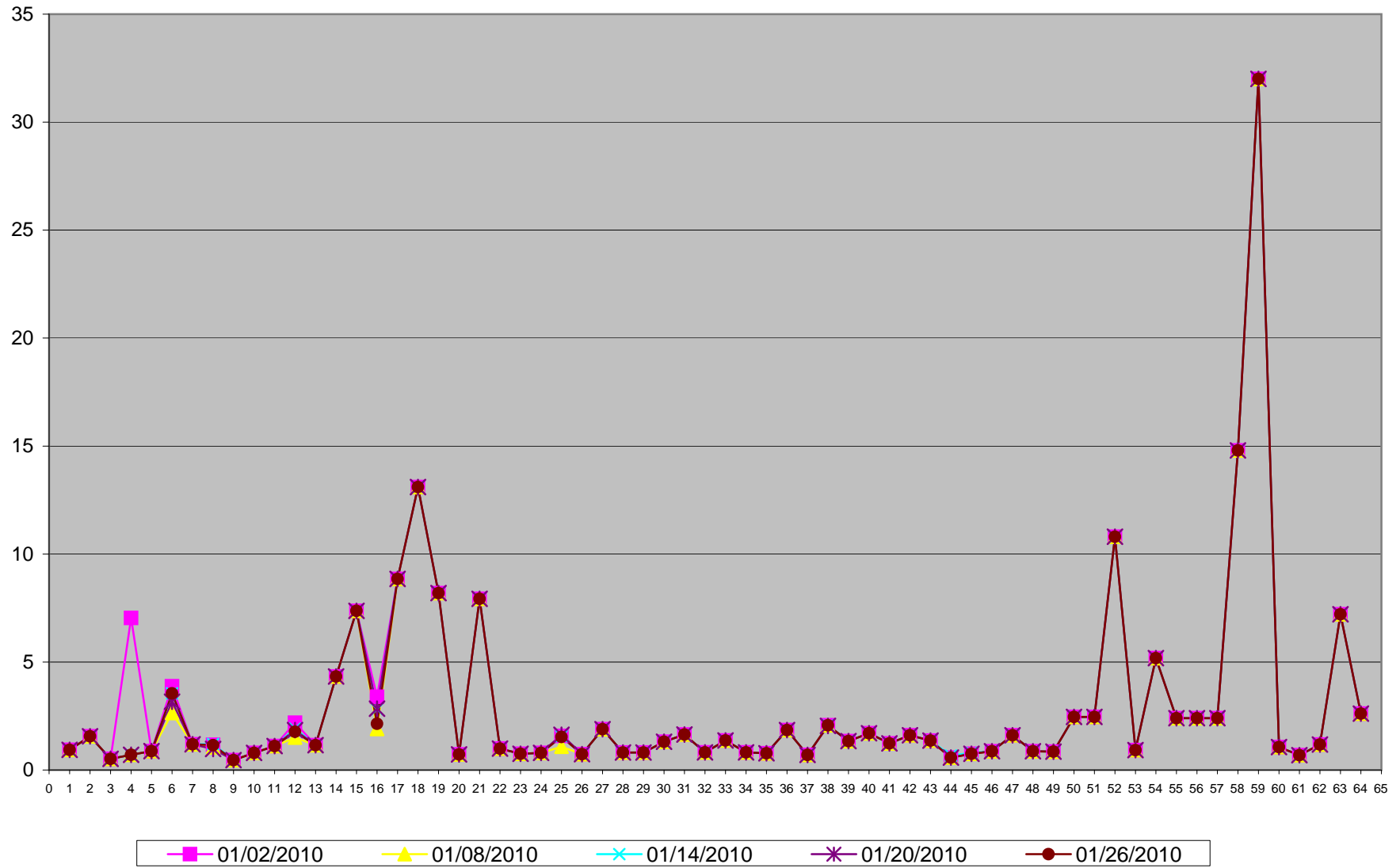
01 Hour Averages



— LICA33 STDWDIR DEG

Volatile Organics

Volatile Organics in ug/m3 Site: LICA - Portable Site



1	2,2,4-Trimethylpentane	33	1,1,2,2-Tetrachloroethane
2	Carbon Disulfide	34	cis-1,3-Dichloropropene
3	Propene	35	trans-1,3-Dichloropropene
4	Vinyl Acetate	36	1,2-Dichloropropane
5	Vinyl Bromide	37	Bromomethane
6	Dichlorodifluoromethane (FREON 12)	38	Bromoform
7	1,2-Dichlorotetrafluoroethane	39	Bromodichloromethane
8	Chloromethane	40	Dibromochloromethane
9	Vinyl Chloride	41	Heptane
10	Chloroethane	42	Trichloroethylene
11	1,3-Butadiene	43	Tetrachloroethylene
12	Trichlorofluoromethane (FREON 11)	44	Benzene
13	Trichlorotrifluoroethane	45	Toluene
14	Ethanol	46	Ethylbenzene
15	2-Propanol	47	p+m-Xylene
16	2-Propanone	48	o-Xylene
17	Methyl Ethyl Ketone (2-Butanone)	49	Styrene
18	Methyl Isobutyl Ketone	50	1,3,5-Trimethylbenzene
19	Methyl Butyl Ketone (2-Hexanone)	51	1,2,4-Trimethylbenzene
20	Methyl t-butyl ether (MTBE)	52	4-ethyltoluene
21	Ethyl Acetate	53	Chlorobenzene
22	1,1-Dichloroethylene	54	Benzyl chloride
23	cis-1,2-Dichloroethylene	55	1,3-Dichlorobenzene
24	trans-1,2-Dichloroethylene	56	1,4-Dichlorobenzene
25	Methylene Chloride (Dichloromethane)	57	1,2-Dichlorobenzene
26	Chloroform	58	1,2,4-Trichlorobenzene
27	Carbon Tetrachloride	59	Hexachlorobutadiene
28	1,1-Dichloroethane	60	Hexane
29	1,2-Dichloroethane	61	Cyclohexane
30	Ethylene Dibromide	62	Tetrahydrofuran
31	1,1,1-Trichloroethane	63	1,4-Dioxane
32	1,1,2-Trichloroethane	64	Xylene (Total)

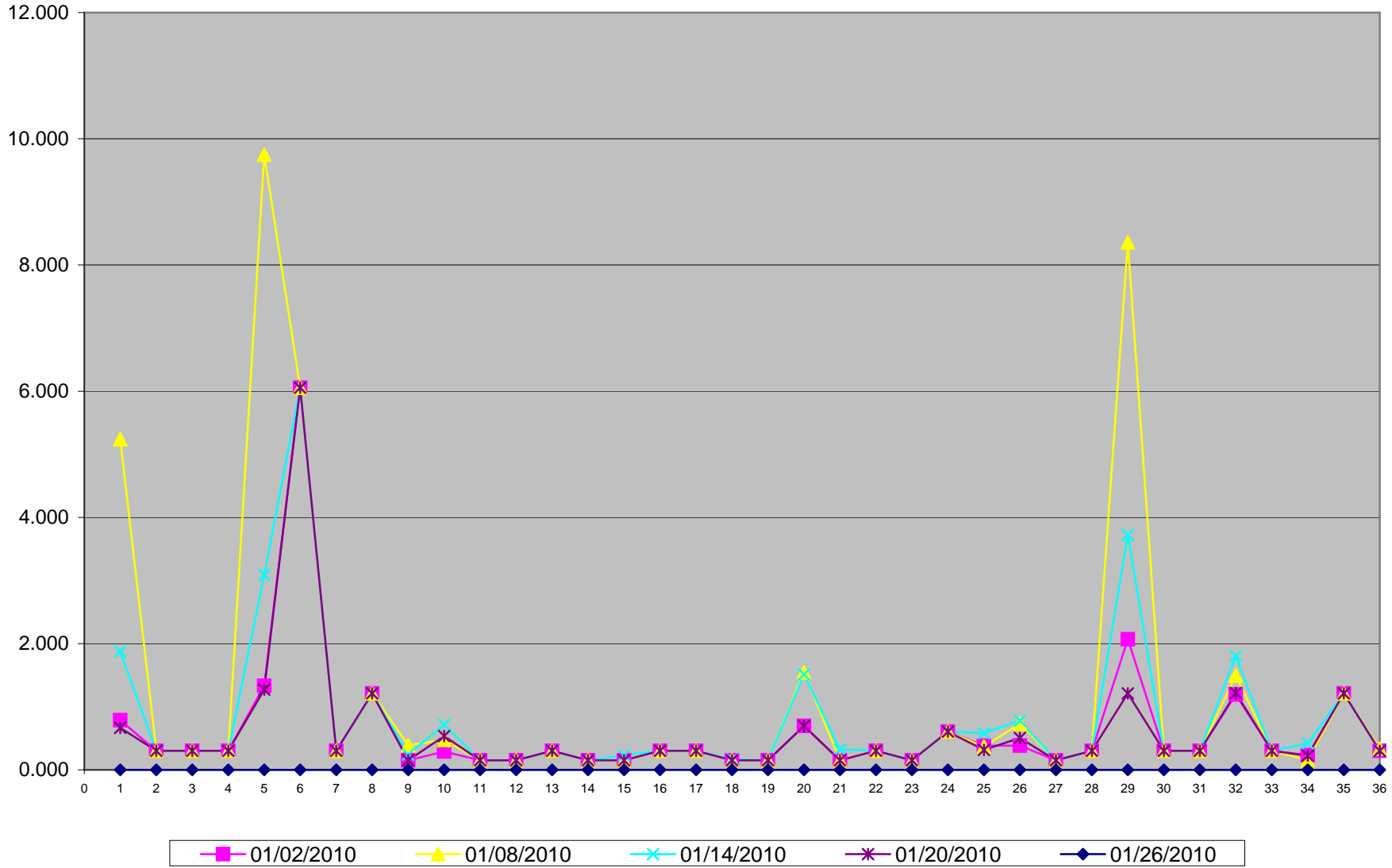
Polycyclic Aromatic Hydrocarbons

Polycyclic Aromatic Hydrocarbons (PAHs) Results for January 2010
LICA- Portable Site
Unit: ng/m3

PAHs	01/02/2010	01/08/2010	01/14/2010	01/20/2010	01/26/2010
Sample Volume (unit: m3)	330.29	330.30	330.30	330.31	330.30
1 1-Methylnaphthalene	0.787	5.238	1.877	0.666	NOT AVAILABLE
2 1-Methylphenanthrene	0.303	0.303	0.303	0.303	NOT AVAILABLE
3 2-Chloronaphthalene	0.303	0.303	0.303	0.303	NOT AVAILABLE
4 2-Methylantracene	0.303	0.303	0.303	0.303	NOT AVAILABLE
5 2-Methylnaphthalene	1.332	9.749	3.088	1.272	NOT AVAILABLE
6 3-Methylcholanthrene	6.055	6.055	6.055	6.055	NOT AVAILABLE
7 7,12-Dimethylbenzo(a)anthracene	0.303	0.303	0.303	0.303	NOT AVAILABLE
8 9,10-Dimethylantracene	1.211	1.211	1.211	1.211	NOT AVAILABLE
9 Acenaphthene	0.151	0.391	0.242	0.151	NOT AVAILABLE
10 Acenaphthylene	0.291	0.475	0.715	0.536	NOT AVAILABLE
11 Anthracene	0.151	0.151	0.151	0.151	NOT AVAILABLE
12 Benzo(a)anthracene	0.151	0.151	0.151	0.151	NOT AVAILABLE
13 Benzo(a)fluorene	0.303	0.303	0.303	0.303	NOT AVAILABLE
14 Benzo(a)pyrene	0.151	0.151	0.151	0.151	NOT AVAILABLE
15 Benzo(b)fluoranthene	0.151	0.151	0.230	0.151	NOT AVAILABLE
16 Benzo(b)fluorene	0.303	0.303	0.303	0.303	NOT AVAILABLE
17 Benzo(e)pyrene	0.303	0.303	0.303	0.303	NOT AVAILABLE
18 Benzo(g,h,i)perylene	0.151	0.151	0.167	0.151	NOT AVAILABLE
19 Benzo(k)fluoranthene	0.151	0.151	0.151	0.151	NOT AVAILABLE
20 Biphenyl	0.696	1.544	1.514	0.696	NOT AVAILABLE
21 Chrysene	0.151	0.151	0.321	0.151	NOT AVAILABLE
22 Coronene	0.303	0.303	0.303	0.303	NOT AVAILABLE
23 Dibenz(a,h)anthracene	0.151	0.151	0.151	0.151	NOT AVAILABLE
24 Dibenzo(a,e)pyrene	0.606	0.606	0.606	0.605	NOT AVAILABLE
25 Fluoranthene	0.381	0.366	0.581	0.315	NOT AVAILABLE
26 Fluorene	0.385	0.733	0.781	0.506	NOT AVAILABLE
27 Indeno(1,2,3-cd)pyrene	0.151	0.151	0.151	0.151	NOT AVAILABLE
28 m-Terphenyl	0.303	0.303	0.303	0.303	NOT AVAILABLE
29 Naphthalene	2.071	8.356	3.724	1.211	NOT AVAILABLE
30 o-Terphenyl	0.303	0.303	0.303	0.303	NOT AVAILABLE
31 Perylene	0.303	0.303	0.303	0.303	NOT AVAILABLE
32 Phenanthrene	1.193	1.496	1.804	1.217	NOT AVAILABLE
33 p-Terphenyl	0.303	0.303	0.303	0.303	NOT AVAILABLE
34 Pyrene	0.233	0.154	0.418	0.224	NOT AVAILABLE
35 Quinoline	1.211	1.211	1.211	1.211	NOT AVAILABLE
36 Tetralin	0.303	0.333	0.303	0.303	NOT AVAILABLE

Note: - values were calculated by the formula of [reading (ug) x 1000 / sample volume (m3)].
- Where the analytical results are less than the minimum detection limit (MDL), the MDL has been used in calculations.
- See analytical for details.
-Data for January 26th is not available at the time when the monthly report is completed. The lab result will be included in the monthly report next month.

PAHs in ng/m3 Site: LICA - Portable Site



1	1-Methylnaphthalene
2	1-Methylphenanthrene
3	2-Chloronaphthalene
4	2-Methlyanthracene
5	2-Methylnaphthalene
6	3-Methylcholanthrene
7	7,12-Dimethylbenzo(a)anthracene
8	9,10-Dimethylanthracene
9	Acenaphthene
10	Acenaphthylene
11	Anthracene
12	Benzo(a)anthracene
13	Benzo(a)fluorene
14	Benzo(a)pyrene
15	Benzo(b)fluoranthene
16	Benzo(b)fluorene
17	Benzo(e)pyrene
18	Benzo(g,h,l)perylene
19	Benzo(k)fluoranthene
20	Biphenyl
21	Chrysene
22	Coronene
23	Dibenz(a,h)anthracene
24	Dibenzo(a,e)pyrene
25	Fluoranthene
26	Fluorene
27	Indeno(1,2,3-cd)pyrene
28	m-Terphenyl
29	Naphthalene
30	o-Terphenyl
31	Perylene
32	Phenanthrene
33	p-Terphenyl
34	Pyrene
35	Quinoline
36	Tetralin

Calibration Reports

Sulphur Dioxide

SO₂ Calibration Report

Station Information

Calibration Date	January 5, 2010	Previous Calibration	December 9, 2009
Company	Lakeland Community and Industry Association		
Plant / Location	Portable / Devon Wellsite 13-16-62-5 W4M		
Start Time (MST)	9:25	End Time (MST)	12:55
Reason:	Monthly Calibration		
Barometric Pressure	724 mmHg	Station Temperature	24 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:	API 100E	S/N :	467	Method:	UV absorbtion
Converter Make / Model:	-	S/N :	-		
Calibrator Make / Model:	api 700	S/N :	831	Method:	Dilution
DAS Make / Model:	ESC 8832	S/N :	AO 717		
Flow Meter:	api 700	S/N :	831		

Analyzer Settings

Before Calibration				After Calibration			
Concentration Range	0 - 500			ppb			
Sample Flow / Box Temp	606 ccm	32.3 Deg C		607 ccm	32.8 Deg C		
HVPS / Lamp Setting	560	3214		560	3208		
PMT / RxCell Temp	8.1 Deg C	50.0 Deg C		8.1 Deg C	50.0 Deg C		
Converter / IZS Temp	NA Deg C	45.0 Deg C		NA Deg C	45.0 Deg C		
Offset / Slope	42.9	1.006		42.9	1.024		

Calibration Data

Dilution Flow Rate	Source Gas Flow Rate	Calculated Concentration	Indicated Conc. (DAS)	Correction Factor
3003	0	0	0	N/A
2968	43.7	757	743	1.0194
2968	43.7	757	758	0.9992
2990	23.4	405	403	1.0058
3003	11.7	203	201	1.0079
3014	0	0	0	N/A
Sum of Least Squares				1.0011
New Correction Factor				0.9992

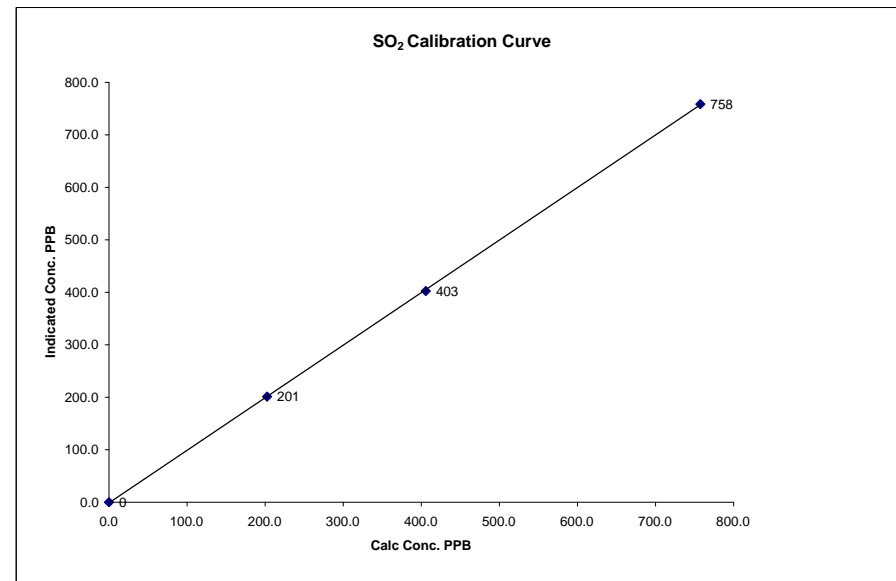
	Before Calibration	After Calibration
Auto Zero	0.4	0.2
Auto Span	340.0	342.0
Sample Lines Connected		YES
Percent Change from Previous Calibration		-2.1%

Calibration Performed by: Shea Beaton

SO₂ Calibration Curve

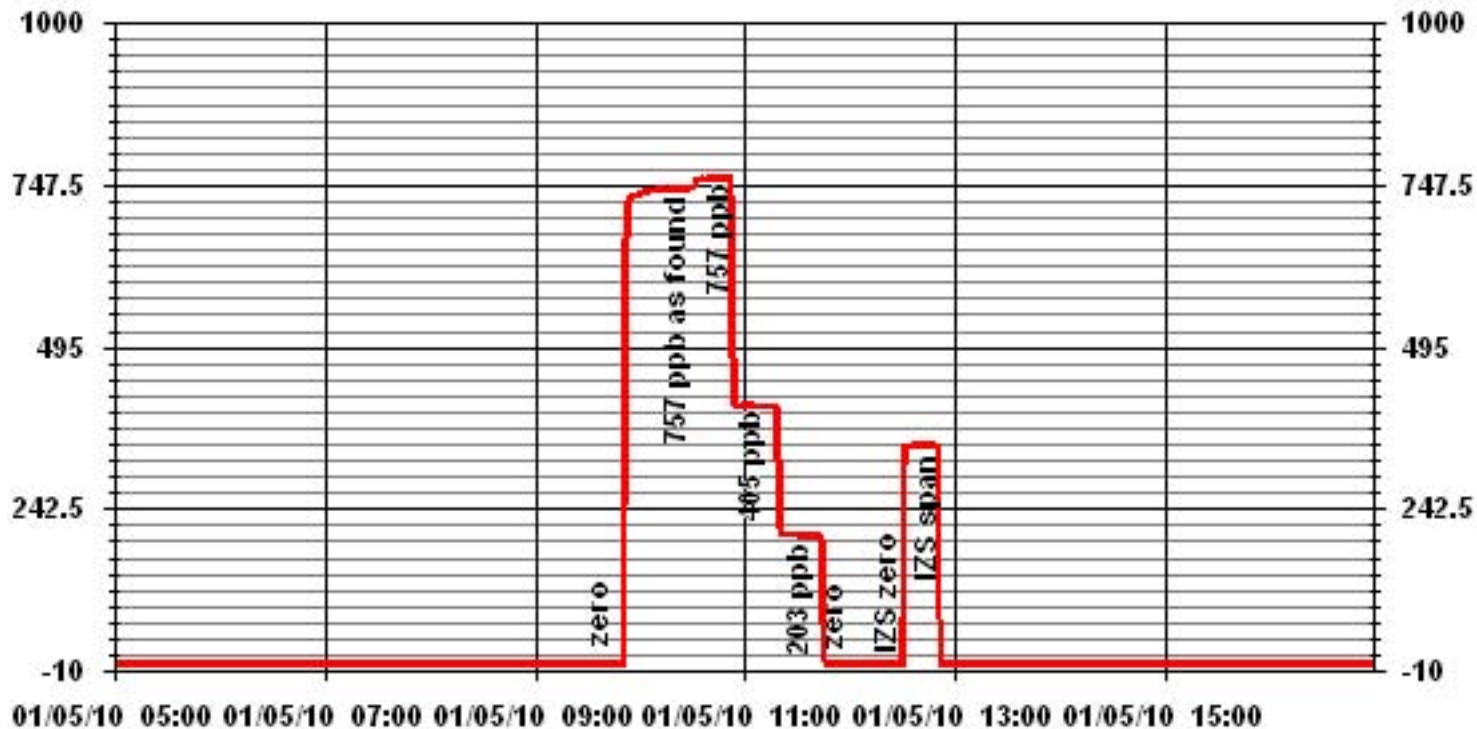
Calibration Date	January 5, 2010
Company	Lakeland Community and Industry Association
Plant / Location	Portable / Devon Wellsite 13-16-62-5 W4M
Start Time (MST)	9:25
End Time (MST)	12:55

Calculated Conc. ppb	Indicated Response ppb	Correction Factor	Correlation Coefficient Slope (≥ 0.995) (0.85 to 1.15)	Intercept (± 3% F.S.)
0	0	n/a	0.999983	1.000986
203	201	1.0079		-1.177339
405	403	1.0058		
757	758	0.9992		



Notes:

01 Minute Averages



Hydrogen Sulphide

H₂S Calibration Report

Station Information

Calibration Date	January 5, 2010	Previous Calibration	December 9, 2009
Company	LAKELAND INDUSTRY & COMMUNITY ASSOCIATION		
Plant / Location	Portable/ Devon Wellsite 13-16-62-5-W4M		
Start Time (MST)	9:25	End Time (MST)	11:02
Reason:	Monthly Calibration		
Barometric Pressure	724 mmHg	Station Temperature	24 Deg C
Cal Gas	10.8 ppm	Cal Gas Expiry date	06/22/2010
DAS Output Voltage	0 - 1 Volts		

Equipment Information

Analyzer Make / Model:	API 101E	S/N :	509	Method:	Fluorescent
Converter Make / Model:	Internal	S/N :	N/A		
Calibrator Make / Model:	API 700	S/N :	831	Method:	Dilution
DAS Make / Model:	ESC 8832	S/N :	AO717		
Flow Meter:	API 700	S/N :	831		

Analyzer Settings

Before Calibration		After Calibration	
Concentration Range	0 - 100 ppb	0 - 100 ppb	
Sample Flow / Box Temp	574 ccm 32.8 Deg C	574 ccm 32.2 Deg C	
HVPS / Lamp Setting	516 2872	516 2871	
PMT / RxCell Temp	7.9 Deg C 50 Deg C	7.9 Deg C 50 Deg C	
Converter / IZS Temp	313 Deg C 45 Deg C	314.6 Deg C 45 Deg C	
Offset / Slope	41.3 1.029	41.3 1.038	

Calibration Data

Dilution Flow Rate	Source Gas Flow Rate	Calculated Concentration	Indicated Conc. (DAS)	Correction Factor
4997	0	0	0	N/A
4959	37	80	79	1.0125
4959	37	80	80	0.9998
4981	18.5	40	40	0.9991
4986	11.6	25	25	1.0027
4998	0	0	0	N/A
Sum of Least Squares				0.9999
New Correction Factor				0.9998

Before Calibration

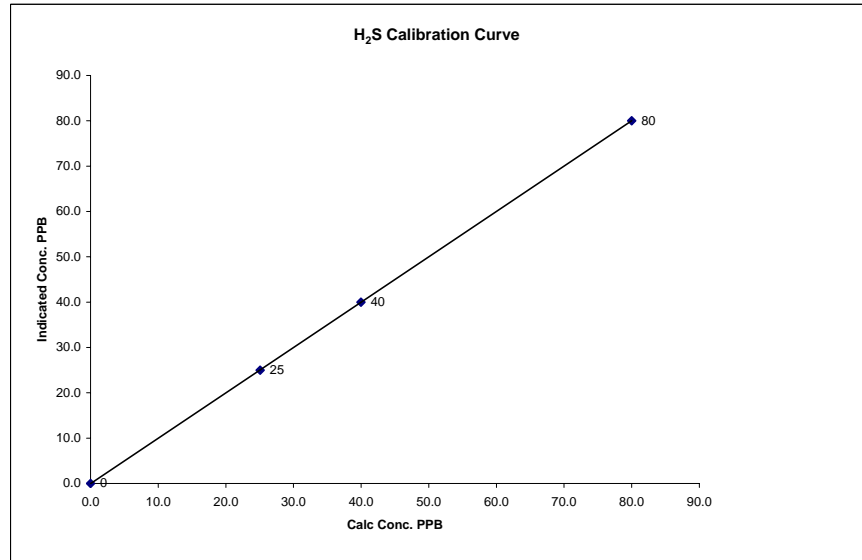
Auto Zero	0.0	After Calibration	0.0
Auto Span	56		57
Sample Lines Connected			YES
Percent Change from Previous Calibration			-1.3%

Calibration Performed by: Shea Beaton

H₂S Calibration Curve

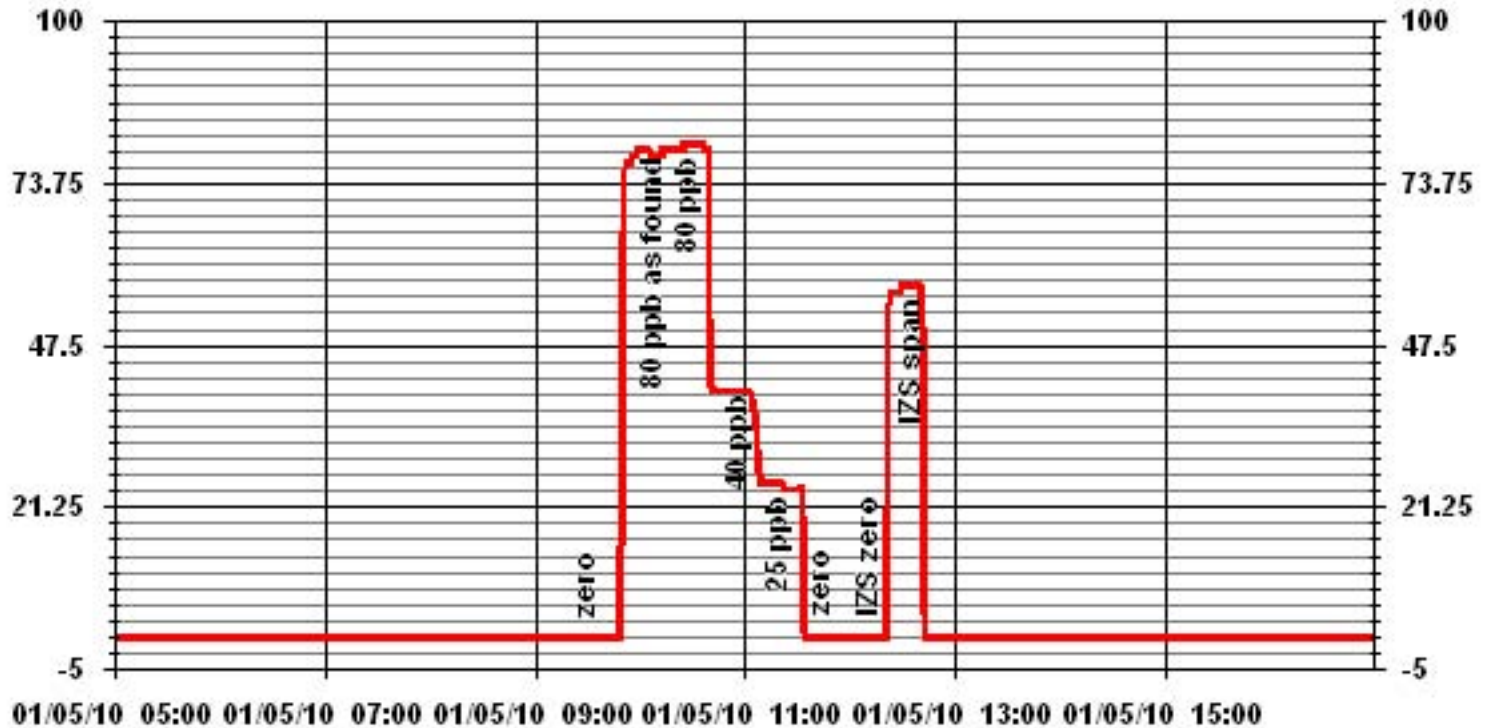
Calibration Date	January 5, 2010
Company	LAKELAND INDUSTRY & COMMUNITY ASSOCIATION
Plant / Location	Portable/ Devon Wellsite 13-16-62-5-W4M
Start Time (MST)	9:25
End Time (MST)	11:02

Calculated Conc. ppb	Indicated Response ppb	Correction Factor	Correlation Coefficient Slope	(≥ 0.995)	(0.85 to 1.15)	($\pm 3\%$ F.S.)
0	0	n/a	Intercept	0.999998	1.000474	-0.021184
25	25	1.0027				
40	40	0.9991				
80	80	0.9998				



Notes:

01 Minute Averages



— LICA33 H2S_ PPB

Particulate Matter 2.5

TEOMÒ Audit

	<u>Station</u>		<u>Audit Transfer Standard</u>
Date:	January 15, 2010	Make/Model:	Streamline FTS
Station Name:	Lica Portable	Serial Number:	Hi-091001 Lo-091099
Location:	Devon Wellsite 13-16-62-5 W4M	Cell s/n:	-
Operator:	LICA	Thermometer s/n:	90758398(VWR Temp)

	<u>Sampler</u>		<u>Set-up and current Sampler readings</u>
Make/Model	R+P Series 1400a Teom	F-Main Set Pt (l/min)	3.00
Unit #	NA	F-Aux Set Pt (l/min)	13.67
Control unit s/n	140AB220740001	Filter Load (%)	60%
Transducer s/n	140AB220740001	K _o Factor	13043
Parameter	PM 2.5	Temp (°C)	-10.7
		Press (ATM)	0.923

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

Zero flow			
	Pump Off		Pump On (Time to reach set points)
F-Main (l/min)	0.06		(45-60 Sec) 45
F-Aux (l/min)	0.15		(45-60 Sec) 58
Temperature/Pressure			
Measured Temp (± 1 °C)	-11.2	D °C	0.5
Measured Press (± 1.5% ATM)	0.923	D % ATM	0.0%
Flow Audit			
Indicated Main/Aux Flow (l/min)	2.99 / 13.66	D % from Set-pt	
Total Flow = Main + Aux (l/min)	16.65	(± 2%)	-0.3% / -0.1%
Measured Total Flow (l/min)	16.15	(± 2%)	-0.1%
Measured Main Flow (l/min)	2.94	(± 1.0 l/min. (5.65%))	-0.50
		(± 0.2 l/min. (6.25%))	-0.05
Leak Check			
Main (< 0.15 l/min)	NA	Actual leakage = Pump On - Pump Off	
Aux (< 0.15 l/min)	NA	0.02 l/min = 0.06-0.07	
		0.19 l/min = 0.32-0.17	
K_o Factor			
Measured	NA		
K _o Difference (± 2.5%)	NA		

Start Time: 10:10 **Finish Time:** -

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

Comments: Replaced the TEOM filter, new filter loading at 18%.
Left the Teom in maintenance mode to stabilize for a few hours.

Auditor/s: Shea Beaton

Nitrogen Dioxide

NOx - NO- NO₂ Calibration Report

Station Information

Calibration Date	January 5, 2010	Previous Calibration	December 8, 2009
Company	Lakeland Ind & Comm. Assoc.	Plant/Location	Portable/ 13-16-62-5W4M
Start Time (MST)	9:25	End Time (MST)	16:00
Reason:	Monthly Calibration		
Barometric Pressure	724 mmHg	Station Temperature	24.0 Deg C
Cal Gas Concentration	NOx 51.8 ppm	NO	51.6 ppm
DAS Output Voltage	0 - 1 Volts	Chart Rec. Output	0 - 1 Volts
Cal Gas Expiry date	12/19/2010		

Equipment Information

Analyzer Make / Model:	API 200E	S/N :	593	Method:	Chemiluminescent
Calibrator Make / Model:	Enviro-nics 2000	S/N:	1991		
DAS Make / Model:	ESC 8832	S/N :	AO717		
Flow Meter:	Enviro-nics 2000	S/N :	1991		

Analyzer Settings

Before Calibration		After Calibration	
Concentration Range	0 - 1000	ppb	0 - 1000
Sample Flow/Conv. Temp	476 ccm	315.2 Deg C	477 ccm
Ozone Flow / Vacuum	80 ccm	4.5 mmHg	80 ccm
HVPS	686 Volts		686 Volts
Rx/ Temp / PMT Temp	50.0 Deg C	6.7 Deg C	50.0 Deg C
Box Temp / IZS Temp	32.2 Deg C	45.3 Deg C	31.8 Deg C
Offset	0.7 NOx	0.2 NO	0.7 NOx
Slope	1.079 NOx	1.068 NO	1.091 NOx

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	NO ₂	NOx	NO
3003	0.0	N/A	0	0	0	0	0	N/A	N/A
2968	43.7	N/A	752	749	744	739	5	1.0102	1.0132
2968	43.7	N/A	752	749	753	750	3	0.9982	0.9983
2990	23.4	N/A	402	401	398	397	1	1.0107	1.0093
3003	11.7	N/A	201	200	199	198	1	1.0102	1.0114
3014	0.0	N/A	0	0	0	0	0	N/A	N/A
Converter Efficiency									
2974	43.8	N/A	752	749	753	751	2	N/A	
2972	43.8	400	752	749	752	370	382	100%	
2974	43.8	200	752	749	753	561	191	99%	
2974	43.8	100	752	749	754	665	89	101%	
2974	43.8	N/A	752	749	754	752	2	N/A	
3013	0	N/A	0	0	0	1	-1	N/A	N/A

Linearity OK?	Yes	No	Sum of Least Squares	1.0014	1.0013
Flows Checked on-site?	Yes	No	New Correction Factor	0.9982	0.9983
			Average Converter Efficiency	100%	

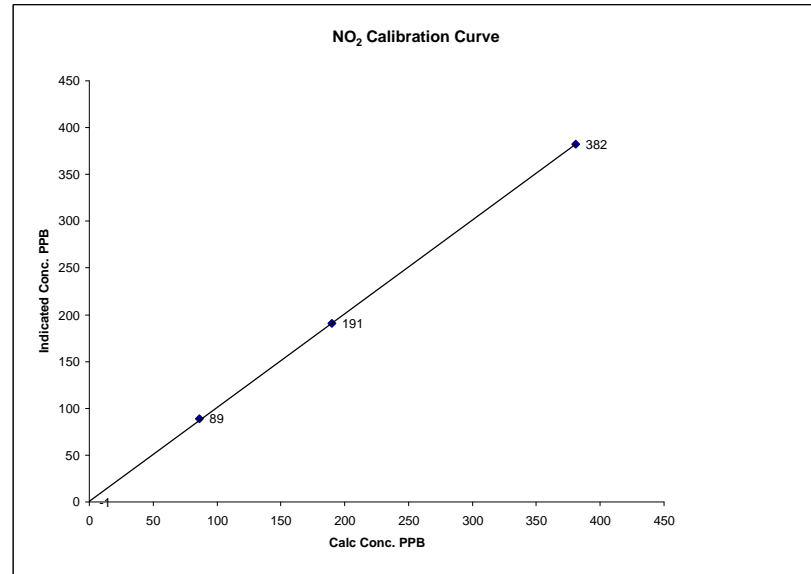
Before Calibration		After Calibration	
Auto Zero	-0.3 NOx	0.2 NO ₂	-0.3 NO ₂
Auto Span	807 NOx	790 NO ₂	806 NOx
Sample Lines Connected	YES		
Percent Change from Previous Calibration	NOx	-1.2%	NO -0.9%

Calibration Performed by: Shea Beaton

NO₂ Calibration Curve

Calibration Date	January 5, 2010
Company	Lakeland Ind & Comm. Assoc.
Plant / Location	Portable/ 13-16-62-5W4M
Start Time (MST)	9:25
End Time (MST)	16:00

Calculated Conc. ppb	Indicated Response ppb	Correction Factor	Correlation Coefficient (≥ 0.995)	Slope (0.85 to 1.15)	Intercept (± 3% F.S.)
0	-1	N/A	0.999906	1.002130	0.65012
86	89	0.9663			
190	191	0.9948			
381	382	0.9974			



Notes:

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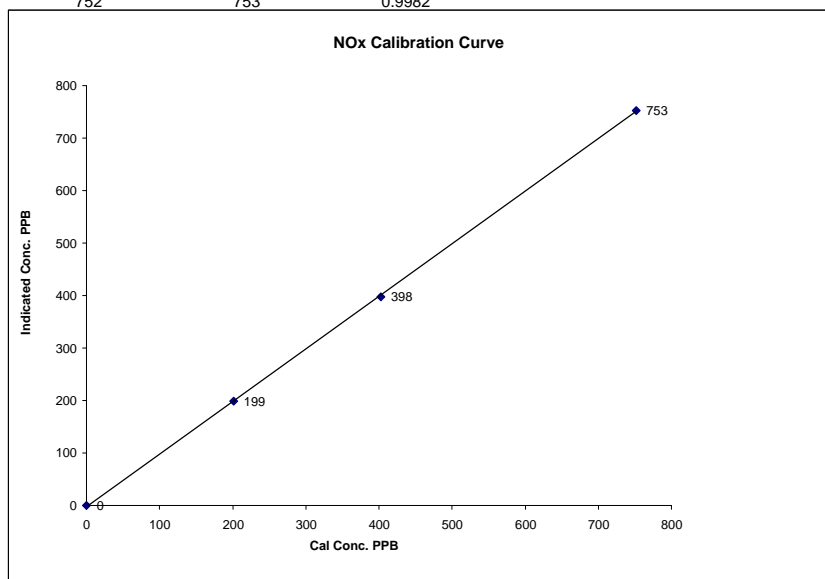
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NOx Calibration Curve

Calibration Date January 5, 2010
 Company Lakeland Ind & Comm. Assoc.
 Plant / Location Portable/ 13-16-62-5W4M
 Start Time (MST) 9:25 End Time (MST) 16:00

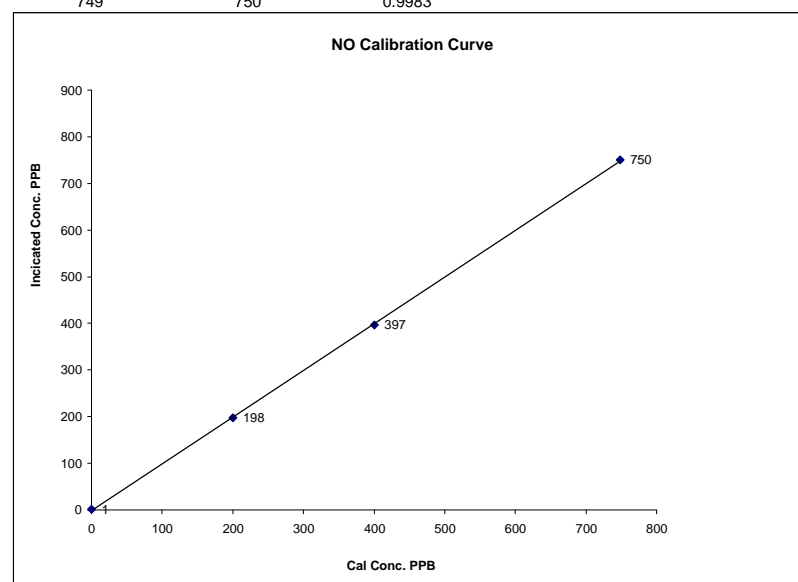
Calculated Conc.	Indicated Response	Correction Factor	Correlation Coefficient	(≥ 0.995)	0.999945
ppb	ppb		Slope	(0.85 to 1.15)	1.001881
0	0	N/A	Intercept	(± 3% F.S.)	-1.86208
201	199	1.0102			
402	398	1.0107			
752	753	0.9982			



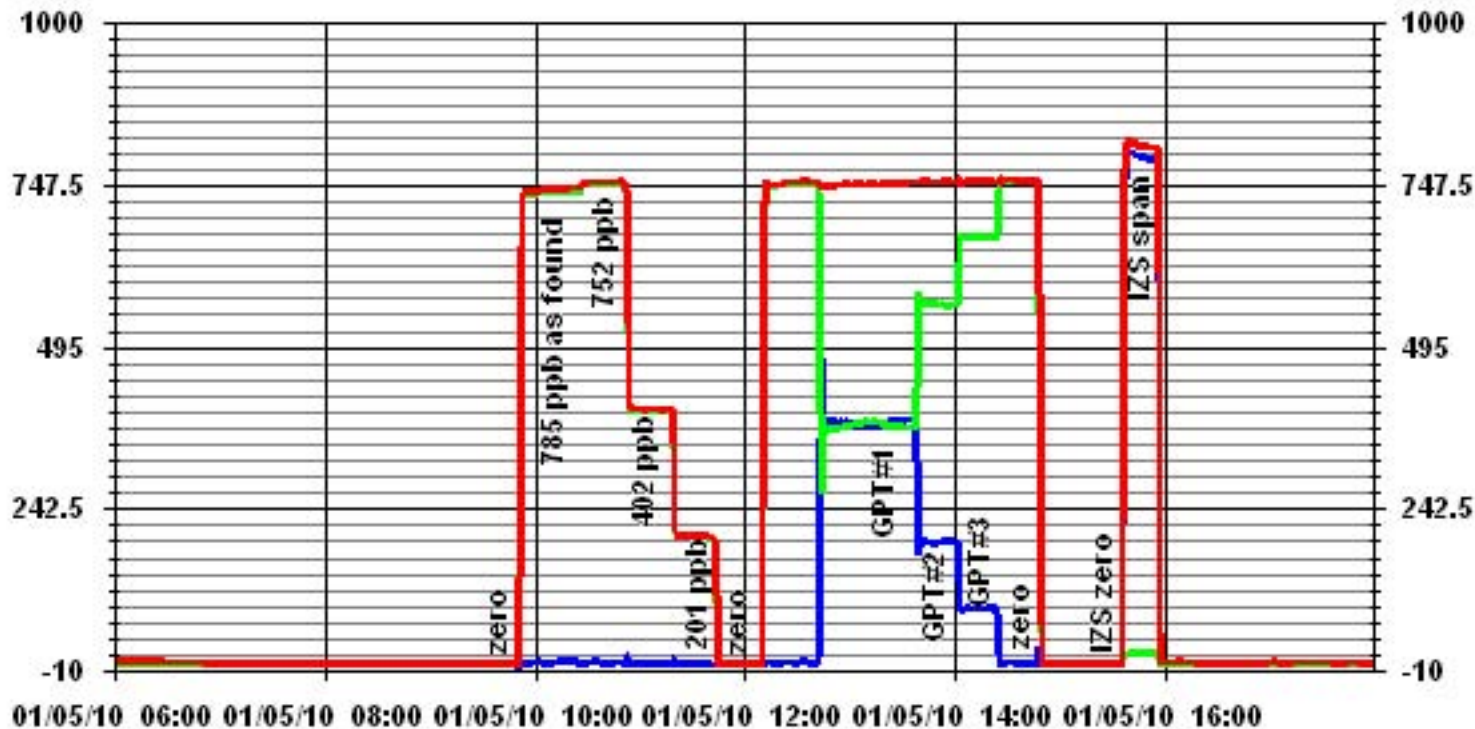
NO Calibration Curve

Calibration Date January 5, 2010
 Company Lakeland Ind & Comm. Assoc.
 Plant / Location Portable/ 13-16-62-5W4M
 Start Time (MST) 9:25 End Time (MST) 16:00

Calculated Conc.	Indicated Response	Correction Factor	Correlation Coefficient	(≥ 0.995)	0.999942
ppb	ppb		Slope	(0.85 to 1.15)	1.007322
0	1	N/A	Intercept	(± 3% F.S.)	-9.4126
200	198	1.0114			
401	397	1.0093			
749	750	0.9983			



01 Minute Averages



NOx - NO- NO₂ Calibration Report

Station Information

Calibration Date	January 8, 2010	Previous Calibration	January 5, 2010
Company	Lakeland Ind & Comm. Assoc.	Plant/Location	Portable/ 13-16-62-5W4M
Start Time (MST)	7:20	End Time (MST)	13:25
Reason:	Post Repair Calibration		
Barometric Pressure	712 mmHg	Station Temperature	24.0 Deg C
Cal Gas Concentration	NOx 51.8 ppm	NO	51.6 ppm
DAS Output Voltage	0 - 1 Volts	Chart Rec. Output	0 - 1 Volts
Cal Gas Expiry date	12/19/2010		

Equipment Information

Analyzer Make / Model:	API 200E	S/N :	593	Method:	Chemiluminescent
Calibrator Make / Model:	EnviroNics 2000	S/N:	1991		
DAS Make / Model:	ESC 8832	S/N :	AO717		
Flow Meter:	EnviroNics 2000	S/N :	1991		

Analyzer Settings

	Before Calibration			After Calibration		
Concentration Range	0 - 1000 ppb			0 - 1000 ppb		
Sample Flow/Conv. Temp	469 ccm	316.1 Deg C		468 ccm	313.9 Deg C	
Ozone Flow / Vacuum	78 ccm	4.1 mmHg		78 ccm	4.1 mmHg	
HVPS	686 Volts			686 Volts		
Rx/ Temp / PMT Temp	50.0 Deg C	6.7 Deg C		50.0 Deg C	6.7 Deg C	
Box Temp / IZS Temp	32.2 Deg C	45.2 Deg C		31.5 Deg C	45.4 Deg C	
Offset	0.7 NOx	0.2 NO		0.7 NOx	0.2 NO	
Slope	1.091 NOx	1.083 NO		1.091 NOx	1.083 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	NO ₂	NOx	NO
3010	0.0	N/A	0	0	0	0	0	N/A	N/A
2967	43.7	N/A	752	749	751	749	2	1.0012	1.0000
2989	23.3	N/A	401	399	398	398	0	1.0067	1.0028
2997	11.6	N/A	200	199	201	199	2	0.9936	0.9997
3013	0.0	N/A	0	0	0	1	0	N/A	N/A
Converter Efficiency									
2970	43.7	N/A	751	748	751	746	4	N/A	
2970	43.7	400	751	748	747	381	367	99%	
2967	43.7	200	752	749	747	564	183	98%	
2970	43.7	100	751	748	748	660	88	98%	
2968	43.7	N/A	752	749	750	744	6	N/A	
3013	0	N/A	0	0	0	1	0	N/A	N/A

Linearity OK?	Yes	No	Sum of Least Squares	1.0019	1.0005
Flows Checked on-site?	Yes	No	New Correction Factor	1.0012	1.0000
			Average Converter Efficiency	98%	

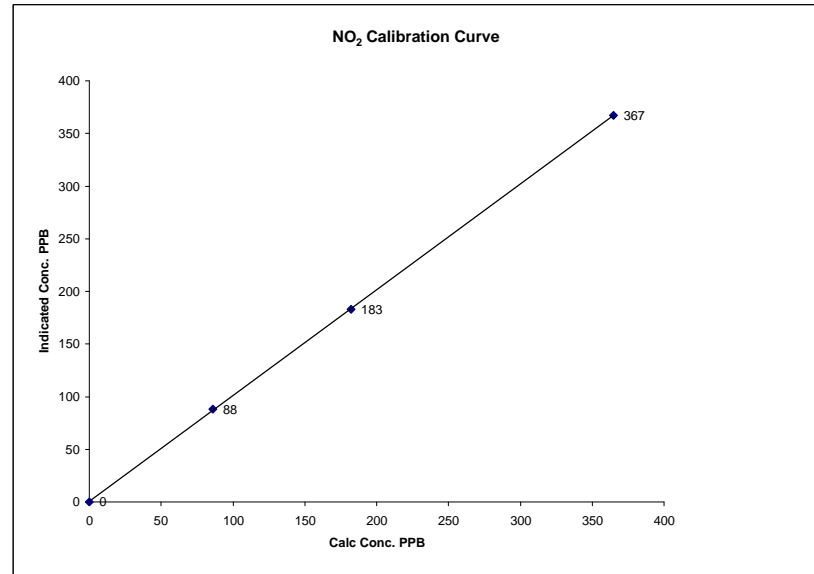
	Before Calibration			After Calibration		
Auto Zero	-1.8 NOx	0.0 NO ₂		0.0 NOx	-0.1 NO ₂	
Auto Span	814 NOx	795 NO ₂		818 NOx	799 NO ₂	
Sample Lines Connected	YES					
Percent Change from Previous Calibration	NOx			NO		

Calibration Performed by: Shea Beaton

NO₂ Calibration Curve

Calibration Date	January 8, 2010
Company	Lakeland Ind & Comm. Assoc.
Plant / Location	Portable/ 13-16-62-5W4M
Start Time (MST)	7:20
End Time (MST)	13:25

Calculated Conc. ppb	Indicated Response ppb	Correction Factor	Correlation Coefficient (≥ 0.995)	
0	0	N/A	Slope (0.85 to 1.15)	1.003979
86	88	0.9773	Intercept (± 3% F.S.)	0.62031
182	183	0.9945		
365	367	0.9946		

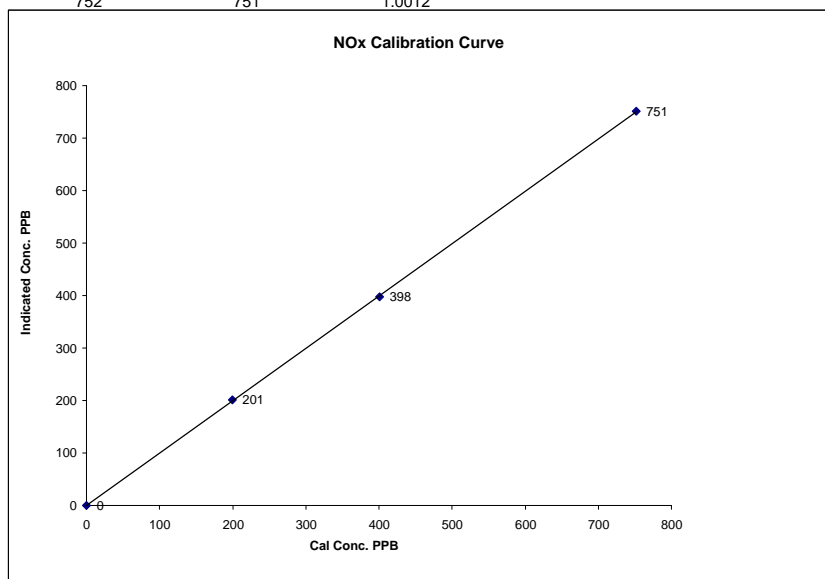


Notes: _____

NOx Calibration Curve

Calibration Date January 8, 2010
 Company Lakeland Ind & Comm. Assoc.
 Plant / Location Portable/ 13-16-62-5W4M
 Start Time (MST) 7:20 End Time (MST) 13:25

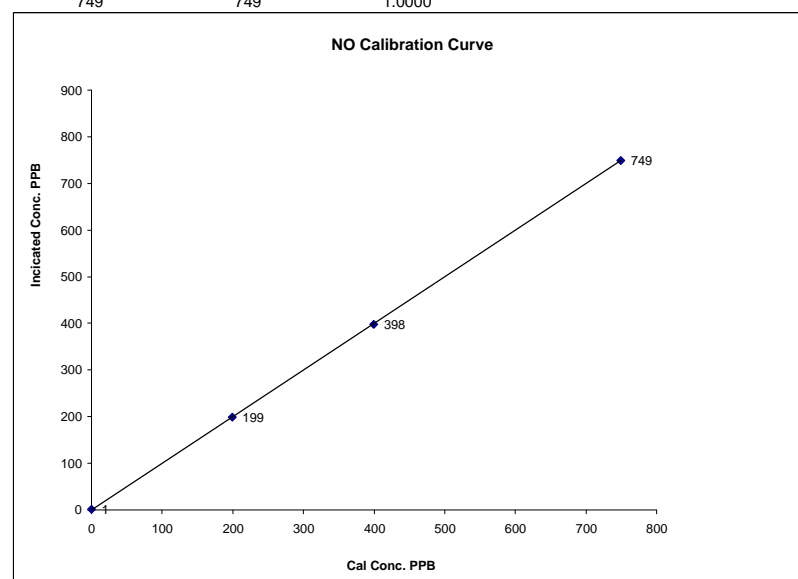
Calculated Conc.	Indicated Response	Correction Factor	Correlation Coefficient	(≥ 0.995)	0.999978
ppb	ppb		Slope	(0.85 to 1.15)	0.997716
0	0	N/A	Intercept	(± 3% F.S.)	0.20644
200	201	0.9936			
401	398	1.0067			
752	751	1.0012			



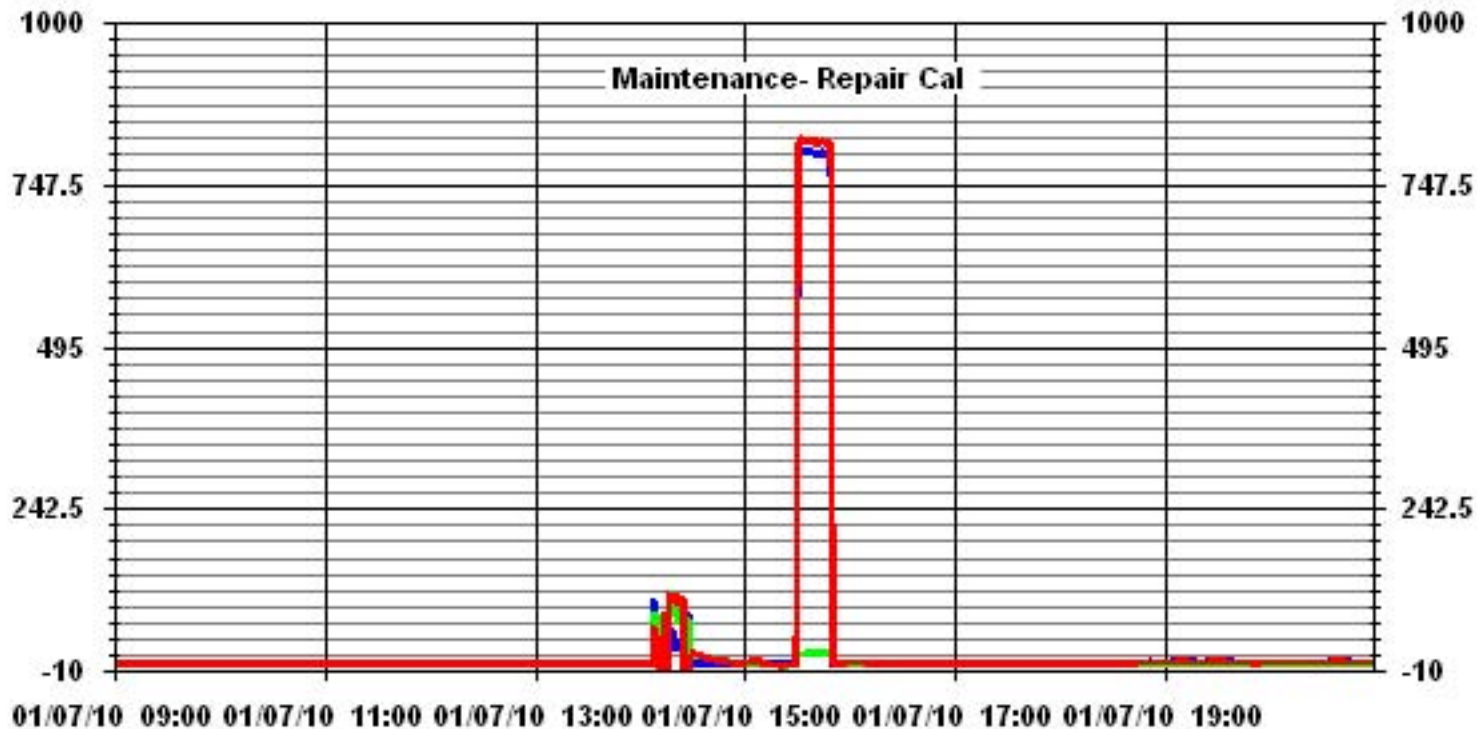
NO Calibration Curve

Calibration Date January 8, 2010
 Company Lakeland Ind & Comm. Assoc.
 Plant / Location Portable/ 13-16-62-5W4M
 Start Time (MST) 7:20 End Time (MST) 13:25

Calculated Conc.	Indicated Response	Correction Factor	Correlation Coefficient	(≥ 0.995)	0.999994
ppb	ppb		Slope	(0.85 to 1.15)	1.000341
0	1	N/A	Intercept	(± 3% F.S.)	-2.4412
199	199	0.9997			
399	398	1.0028			
749	749	1.0000			

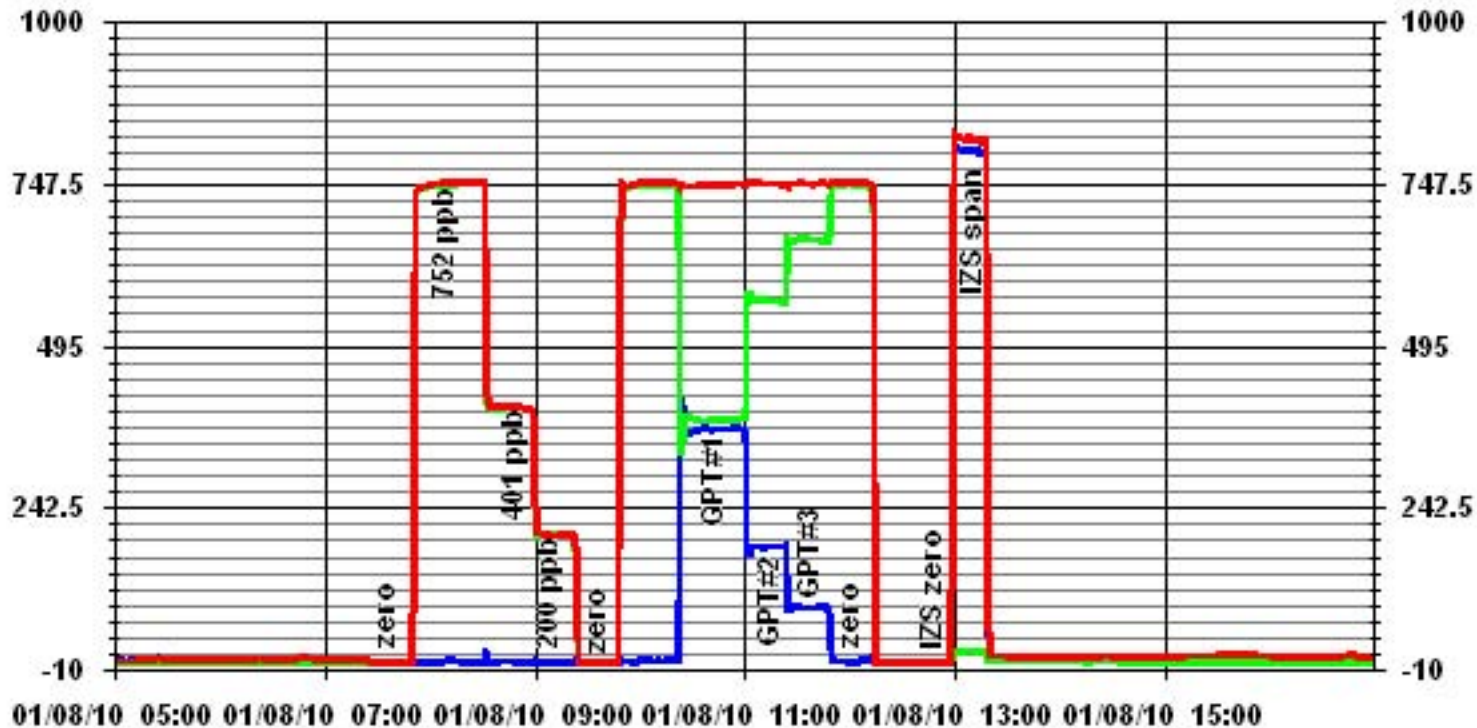


01 Minute Averages



— LICA33 NOX_ PPB — LICA33 NO_ PPB — LICA33 NO2_ PPB

01 Minute Averages



Ozone

O₃ Calibration Report

Station Information

Calibration Date	January 5, 2010	Previous Calibration	December 9, 2009
Company	Lakeland Industry & Community Association		
Plant / Location	Portable / Devon Wellsite 13-16-62-5 W4M		
Start Time (MST)	15:15	End Time (MST)	18:33
Reason:	Monthly Calibration		
Barometric Pressure	724 mm Hg	Station Temperature	24 Deg C
DAS Output Voltage	0 - 10 Volts		

Equipment Information

Analyzer Make / Model:	API 700	S/N :	446	Method:	Photometric
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			
Sample Flow / Box Temp	828 ccm	25.9 Deg C	830	25.4	Deg C				
VAC / PRES	44% IN-HG-A	26.8 IN-HG-A	44% IN-HG-A	26.3	IN-HG-A				
Sample Temp/ Photo Temp	34.2 Deg C	52 Deg C	33.1 Deg C	52	Deg C				
O3 Gen Temp/Orific Temp	48.1 Deg C	47.3 Deg C	48 Deg C	48	Deg C				
Offset/Slop	-3.9	0.998	-3.7	0.955					

Calibration Data

Dilution Flow Rate	Ozone Set Point	Calculated Concentration	Indicated Conc. (DAS)	Correction Factor
3004	0	0	0	N/A
3004	400	381	396	0.9621
3007	400	381	380	1.0026
3005	200	190	192	0.9896
3001	100	86	88	0.9773
3008	0	0	0	N/A
Sum of Least Squares				N/A
New Correction Factor				1.0026

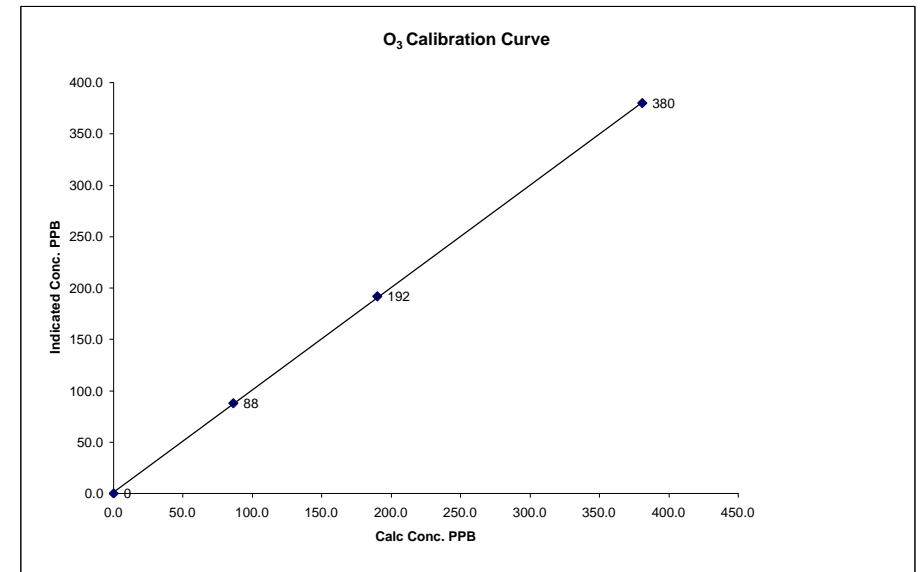
	Before Calibration	After Calibration
Auto Zero	0.3	0.4
Auto Span	235	225
Sample Lines Connected		YES
Percent Change from Previous Calibration		3.9%

Calibration Performed by: Shea Beaton

O₃ Calibration Curve

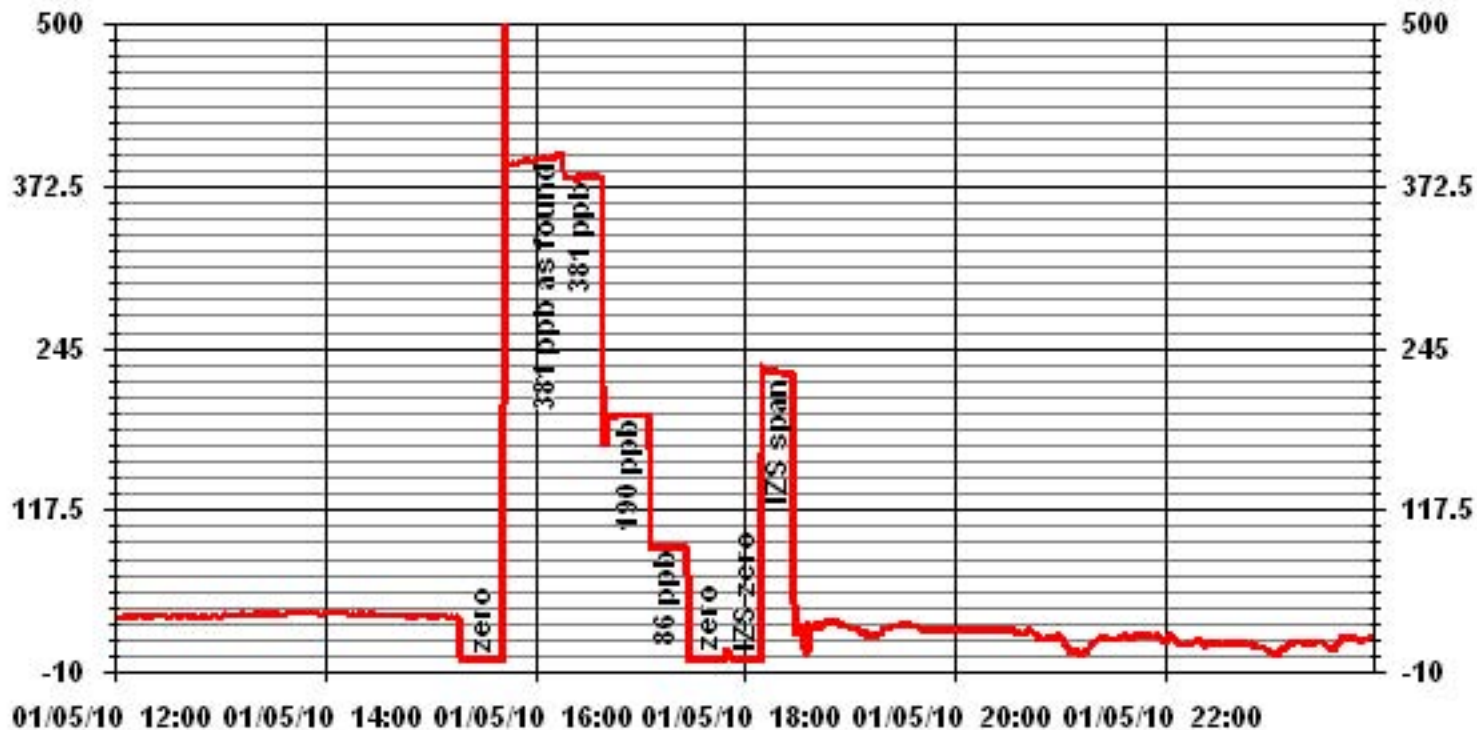
Calibration Date	January 5, 2010
Company	Lakeland Industry & Community Association
Plant / Location	Portable / Devon Wellsite 13-16-62-5 W4M
Start Time (MST)	15:15
End Time (MST)	18:33

Calculated Conc. ppb	Indicated Response ppb	Correction Factor	Correlation Coefficient Slope	(≥ 0.995)	0.999932
0	0	n/a	Intercept	(± 3% F.S.)	1.404500
86	88	0.9773			
190	192	0.9896			
381	380	1.0026			



Notes:

01 Minute Averages



Total Hydrocarbons

THC Calibration Report

Station Information

Calibration Date:	January 5, 2010	Previous Calibration	December 3, 2009
Company:	Lakeland Industry and Community Association		
Plant / Location:	LICA1/Cold Lake		
Start Time (MST)	12:35	End Time (MST)	15:27
Reason:	Monthly Calibration		
Barometric Pressure:	724 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	S/N :	04366-09739	Method	Flame Ionization
--------------	----------	-------	-------------	--------	------------------

Analyzer Settings

	Before Calibration	After Calibration
Concentration Range	0 - 50 ppm	0 - 50 ppm
Sample Pressure	6.8 psi	6.8 psi
Hydrogen Pressure	7.5 psi	7.5 psi
Air Pressure	21 psi	21 psi

Calibration Data

Dilution Flow	Source Gas Flow	Calculated Concentration	Indicated Concentration	Correction Factor
2998	0.0	0.0	0.0	N/A
2999	65.0	39.1	39.5	0.9889
2999	35.0	21.2	21.0	1.0115
2999	20.0	12.2	12.0	1.0165
2999	0	0.0	0.0	N/A
Correction Factor:				0.9889

Percent Change

Previous Calibration Correction Factor:	0.9971
Current Correction Factor Before Span Adjust:	0.9889
Percent Change:	0.8%

IZS Calibration Data

	Before Calibration	After Calibration
Auto Zero	0.1	0.1
Auto Span	33.4	33.3
Sample Lines Connected		YES

Cylinder Pressures

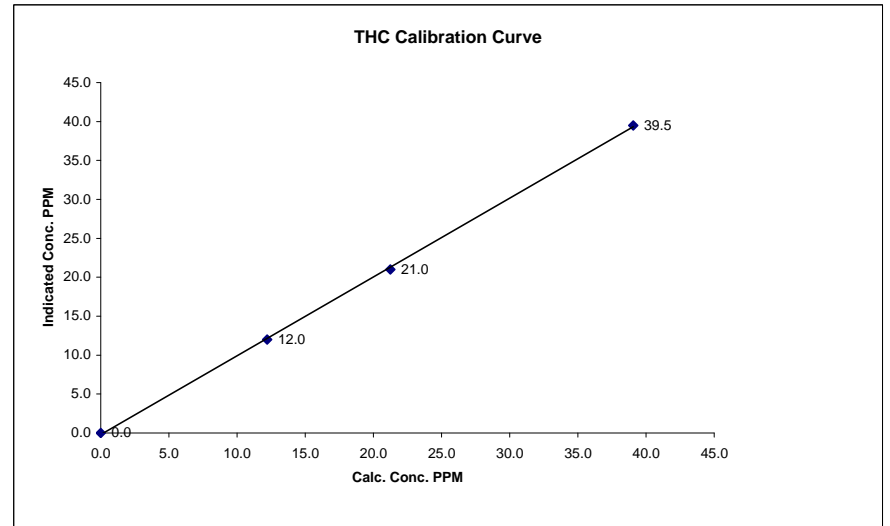
Span	1600 psi
Hydrogen	1200 psi
Zero Air	unlimited psi Using API 700

Calibration Performed by: Shea Beaton

THC Calibration Curve

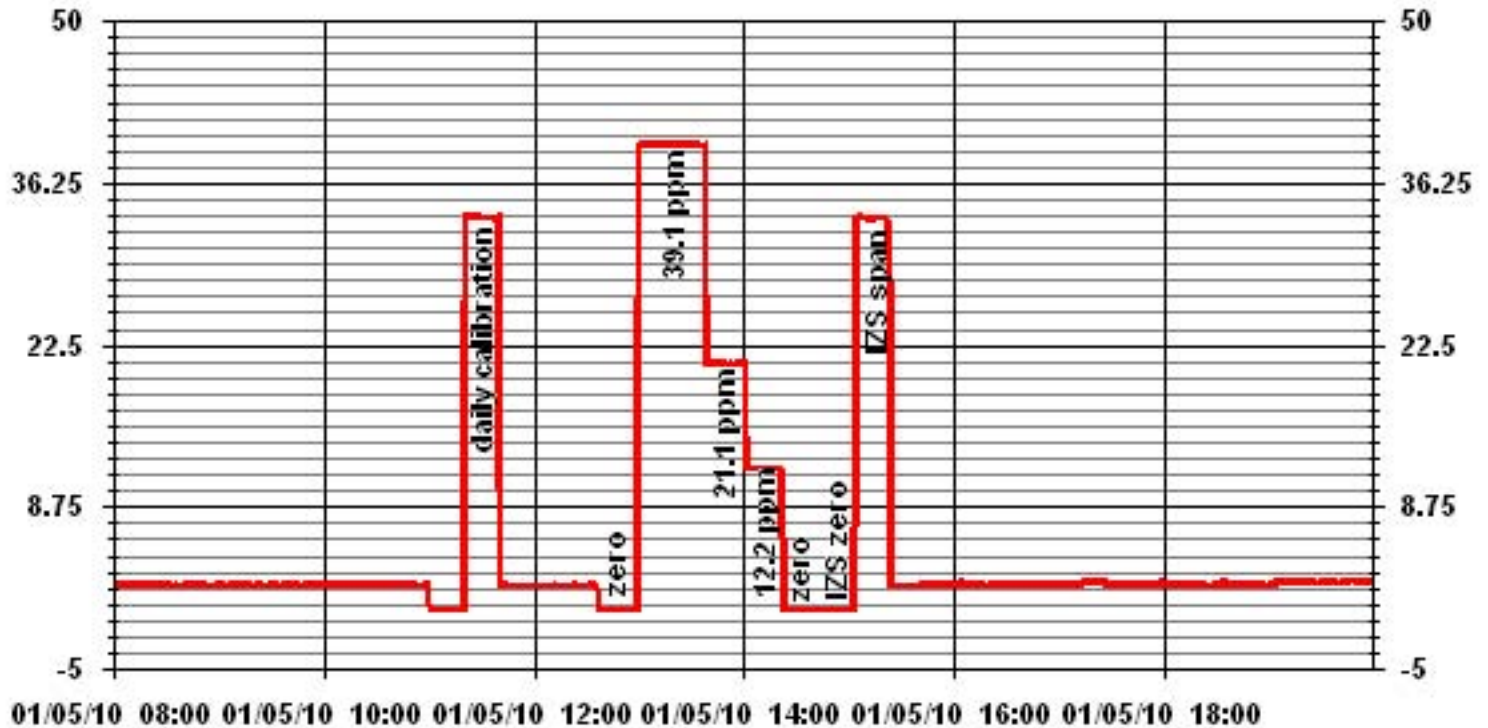
Calibration Date	January 5, 2010
Company	Lakeland Industry and Community Association
Plant / Location	LICA1/Cold Lake
Start Time (MST)	12:35
End Time (MST)	15:27

Calculated Conc. ppm	Indicated Response ppm	Correction Factor	Correlation Coefficient Slope	(≥ 0.995)	0.999788
0.0	0.0		Intercept	(± 3% F.S.)	-0.214610
12.2	12.0	1.0165			
21.2	21.0	1.0115			
39.1	39.5	0.9889			



Notes:

01 Minute Averages



Volatile Organics Laboratory Analysis

Maxxam Analytics Inc.

Xontech Model 910A VOC Sample Collection Data Sheet

Client: LICA Sampler s/n: 6200
 Location: 13-16-62-5 W4M Canister ID: 7910 (Maxxam Supplied)
 Station ID: Lica 33 (Portable) Canister Installation Date/Time: Dec 31, 09 @ 11:45 mst
 Field Sample ID: LICA VOC/PORT/ Jan 2, 10 Canister Removal Date/Time: Jan 4, 10 @ 13:10 mst

Date and Time Information			
Sample Date	Start Time (MST)	End Time (MST)	Elapsed Time (Hours)
02-Jan-10	01/02/2010 0:00	01/03/2010 0:00	24.00

Flow Settings		
Meter Reading (sccm)	Pot Set Pt.	Pump Pressure Setting (psig)
10.0	1460	25

Canister Information	
Initial Canister Vacuum (inHg)	Final Canister Pressure (psig)
-28	19

Canister valve open prior to sampling?: YES / NO
 Timer set to 0.00 minutes prior to sampling? YES / NO
 Canister valve closed prior to disconnection?: YES / NO

Comments: System leak check prior to sampling.

Technician Signiture: Shea Beaton



Your C.O.C. #: 2890

Attention: Shea Beaton

Lakeland Industry & Community Assoc.
P.O. Box 8237
Bonnyville, AB
CANADA T9N 2J5

Report Date: 2010/02/05

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B001045

Received: 2010/01/06, 09:14

Sample Matrix: AIR
Samples Received: 2

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
Canister Pressure (TO-15)	2	N/A	2010/01/06	BRL SOP-00304	EPA TO-15
Volatile Organics in Air (TO-15) ¶	2	N/A	2010/01/06	BRL SOP-00304	EPA TO-15

(1) Air sampling canisters have been cleaned in accordance with U.S. EPA Method TO14A. At the end of the cleaning, evacuation, and pressurization cycles, one canister was selected and was pressurized with Zero Air. This canister was then analyzed via TO14A on a GC/MS. The canister must have been found to contain <0.2 ppbv concentration of all target analytes in order for the batch to have been considered clean. Each canister also underwent a leak check prior to shipment.

Please Note: SUMMA® canister samples will be retained by Maxxam for a period of 5 calendar days from the date of this report, after which time they will be cleaned for reuse. If you require a longer sample storage period, please contact your service representative.

Encryption Key

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

THERESA STEPHENSON, Project Manager
Email: Theresa.Stephenson@MaxxamAnalytics.com
Phone# (905) 817-5763

=====
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Total cover pages: 1

Maxxam Job #: B001045
 Report Date: 2010/02/05

RESULTS OF ANALYSES OF AIR

Maxxam ID		ET9299	ET9300		
Sampling Date		2010/01/02	2010/01/02		
COC Number		2890	2890		
	Units	LICA VOC/CLS/JAN2,10 - 7849	LICA VOC/PORT/JAN 2,10 - 7910	DL	QC Batch

Volatile Organics					
Pressure on Receipt	psig	16	19	N/A	2050428

RDL = Reportable Detection Limit
 QC Batch = Quality Control Batch

Maxxam Job #: B001045
 Report Date: 2010/02/05

VOLATILE ORGANICS BY GC/MS (AIR)

Maxxam ID		ET9299				
Sampling Date		2010/01/02				
COC Number		2890				
	Units	LICA	DL	ug/m3	DL (ug/m3)	QC Batch
		VOC/CLS/JAN2,10				
		- 7849				

Volatile Organics						
2,2,4-Trimethylpentane	ppbv	<0.20	0.20	<0.934	0.934	2050433
Carbon Disulfide	ppbv	<0.50	0.50	<1.56	1.56	2050433
Propene	ppbv	<0.30	0.30	<0.516	0.516	2050433
Vinyl Acetate	ppbv	<0.20	0.20	<0.704	0.704	2050433
Vinyl Bromide	ppbv	<0.20	0.20	<0.875	0.875	2050433
Dichlorodifluoromethane (FREON 12)	ppbv	0.78	0.20	3.88	0.989	2050433
1,2-Dichlorotetrafluoroethane	ppbv	<0.17	0.17	<1.19	1.19	2050433
Chloromethane	ppbv	0.57	0.30	1.17	0.620	2050433
Vinyl Chloride	ppbv	<0.18	0.18	<0.460	0.460	2050433
Chloroethane	ppbv	<0.30	0.30	<0.792	0.792	2050433
1,3-Butadiene	ppbv	<0.50	0.50	<1.11	1.11	2050433
Trichlorofluoromethane (FREON 11)	ppbv	0.39	0.20	2.19	1.12	2050433
Trichlorotrifluoroethane	ppbv	<0.15	0.15	<1.15	1.15	2050433
Ethanol	ppbv	<2.3	2.3	<4.33	4.33	2050433
2-propanol	ppbv	<3.0	3.0	<7.37	7.37	2050433
2-Propanone	ppbv	1.43	0.80	3.39	1.90	2050433
Methyl Ethyl Ketone (2-Butanone)	ppbv	<3.0	3.0	<8.85	8.85	2050433
Methyl Isobutyl Ketone	ppbv	<3.2	3.2	<13.1	13.1	2050433
Methyl Butyl Ketone (2-Hexanone)	ppbv	<2.0	2.0	<8.19	8.19	2050433
Methyl t-butyl ether (MTBE)	ppbv	<0.20	0.20	<0.721	0.721	2050433
Ethyl Acetate	ppbv	<2.2	2.2	<7.93	7.93	2050433
1,1-Dichloroethylene	ppbv	<0.25	0.25	<0.991	0.991	2050433
cis-1,2-Dichloroethylene	ppbv	<0.19	0.19	<0.753	0.753	2050433
trans-1,2-Dichloroethylene	ppbv	<0.20	0.20	<0.793	0.793	2050433
Methylene Chloride(Dichloromethane)	ppbv	0.45	0.30	1.58	1.04	2050433
Chloroform	ppbv	<0.15	0.15	<0.732	0.732	2050433
Carbon Tetrachloride	ppbv	<0.30	0.30	<1.89	1.89	2050433
1,1-Dichloroethane	ppbv	<0.20	0.20	<0.809	0.809	2050433
1,2-Dichloroethane	ppbv	<0.20	0.20	<0.809	0.809	2050433
Ethylene Dibromide	ppbv	<0.17	0.17	<1.31	1.31	2050433
1,1,1-Trichloroethane	ppbv	<0.30	0.30	<1.64	1.64	2050433

 RDL = Reportable Detection Limit
 QC Batch = Quality Control Batch

Maxxam Job #: B001045
 Report Date: 2010/02/05

VOLATILE ORGANICS BY GC/MS (AIR)

Maxxam ID		ET9299				
Sampling Date		2010/01/02				
COC Number		2890				
	Units	LICA VOC/CLS/JAN2,10 - 7849	DL	ug/m3	DL (ug/m3)	QC Batch
1,1,2-Trichloroethane	ppbv	<0.15	0.15	<0.818	0.818	2050433
1,1,2,2-Tetrachloroethane	ppbv	<0.20	0.20	<1.37	1.37	2050433
cis-1,3-Dichloropropene	ppbv	<0.18	0.18	<0.817	0.817	2050433
trans-1,3-Dichloropropene	ppbv	<0.17	0.17	<0.772	0.772	2050433
1,2-Dichloropropane	ppbv	<0.40	0.40	<1.85	1.85	2050433
Bromomethane	ppbv	<0.18	0.18	<0.699	0.699	2050433
Bromoform	ppbv	<0.20	0.20	<2.07	2.07	2050433
Bromodichloromethane	ppbv	<0.20	0.20	<1.34	1.34	2050433
Dibromochloromethane	ppbv	<0.20	0.20	<1.70	1.70	2050433
Heptane	ppbv	<0.30	0.30	<1.23	1.23	2050433
Trichloroethylene	ppbv	<0.30	0.30	<1.61	1.61	2050433
Tetrachloroethylene	ppbv	<0.20	0.20	<1.36	1.36	2050433
Benzene	ppbv	<0.18	0.18	<0.575	0.575	2050433
Toluene	ppbv	<0.20	0.20	<0.753	0.753	2050433
Ethylbenzene	ppbv	<0.20	0.20	<0.868	0.868	2050433
p+m-Xylene	ppbv	<0.37	0.37	<1.61	1.61	2050433
o-Xylene	ppbv	<0.20	0.20	<0.868	0.868	2050433
Styrene	ppbv	<0.20	0.20	<0.852	0.852	2050433
1,3,5-Trimethylbenzene	ppbv	<0.50	0.50	<2.46	2.46	2050433
1,2,4-Trimethylbenzene	ppbv	<0.50	0.50	<2.46	2.46	2050433
4-ethyltoluene	ppbv	<2.2	2.2	<10.8	10.8	2050433
Chlorobenzene	ppbv	<0.20	0.20	<0.921	0.921	2050433
Benzyl chloride	ppbv	<1.0	1.0	<5.18	5.18	2050433
1,3-Dichlorobenzene	ppbv	<0.40	0.40	<2.40	2.40	2050433
1,4-Dichlorobenzene	ppbv	<0.40	0.40	<2.40	2.40	2050433
1,2-Dichlorobenzene	ppbv	<0.40	0.40	<2.40	2.40	2050433
1,2,4-Trichlorobenzene	ppbv	<2.0	2.0	<14.8	14.8	2050433
Hexachlorobutadiene	ppbv	<3.0	3.0	<32.0	32.0	2050433
Hexane	ppbv	<0.30	0.30	<1.06	1.06	2050433
Cyclohexane	ppbv	<0.20	0.20	<0.688	0.688	2050433
Tetrahydrofuran	ppbv	<0.40	0.40	<1.18	1.18	2050433
1,4-Dioxane	ppbv	<2.0	2.0	<7.21	7.21	2050433
Xylene (Total)	ppbv	<0.60	0.60	<2.61	2.61	2050433
QC Batch = Quality Control Batch						

Maxxam Job #: B001045
 Report Date: 2010/02/05

VOLATILE ORGANICS BY GC/MS (AIR)

Maxxam ID		ET9299				
Sampling Date		2010/01/02				
COC Number		2890				
	Units	LICA VOC/CLS/JAN2,10 - 7849	DL	ug/m3	DL (ug/m3)	QC Batch

Surrogate Recovery (%)						
Bromochloromethane	%	87		N/A	N/A	2050433
D5-Chlorobenzene	%	83		N/A	N/A	2050433
Difluorobenzene	%	89		N/A	N/A	2050433

N/A = Not Applicable
 QC Batch = Quality Control Batch

Maxxam Job #: B001045
 Report Date: 2010/02/05

VOLATILE ORGANICS BY GC/MS (AIR)

Maxxam ID		ET9300				
Sampling Date		2010/01/02				
COC Number		2890				
	Units	LICA VOC/PORT/JAN 2,10 - 7910	DL	ug/m3	DL (ug/m3)	QC Batch
Volatile Organics						
2,2,4-Trimethylpentane	ppbv	<0.20	0.20	<0.934	0.934	2050433
Carbon Disulfide	ppbv	<0.50	0.50	<1.56	1.56	2050433
Propene	ppbv	<0.30	0.30	<0.516	0.516	2050433
Vinyl Acetate	ppbv	<0.20	0.20	<0.704	0.704	2050433
Vinyl Bromide	ppbv	<0.20	0.20	<0.875	0.875	2050433
Dichlorodifluoromethane (FREON 12)	ppbv	0.76	0.20	3.75	0.989	2050433
1,2-Dichlorotetrafluoroethane	ppbv	<0.17	0.17	<1.19	1.19	2050433
Chloromethane	ppbv	0.58	0.30	1.20	0.620	2050433
Vinyl Chloride	ppbv	<0.18	0.18	<0.460	0.460	2050433
Chloroethane	ppbv	<0.30	0.30	<0.792	0.792	2050433
1,3-Butadiene	ppbv	<0.50	0.50	<1.11	1.11	2050433
Trichlorofluoromethane (FREON 11)	ppbv	0.38	0.20	2.14	1.12	2050433
Trichlorotrifluoroethane	ppbv	<0.15	0.15	<1.15	1.15	2050433
Ethanol	ppbv	<2.3	2.3	<4.33	4.33	2050433
2-propanol	ppbv	<3.0	3.0	<7.37	7.37	2050433
2-Propanone	ppbv	1.76	0.80	4.19	1.90	2050433
Methyl Ethyl Ketone (2-Butanone)	ppbv	<3.0	3.0	<8.85	8.85	2050433
Methyl Isobutyl Ketone	ppbv	<3.2	3.2	<13.1	13.1	2050433
Methyl Butyl Ketone (2-Hexanone)	ppbv	<2.0	2.0	<8.19	8.19	2050433
Methyl t-butyl ether (MTBE)	ppbv	<0.20	0.20	<0.721	0.721	2050433
Ethyl Acetate	ppbv	<2.2	2.2	<7.93	7.93	2050433
1,1-Dichloroethylene	ppbv	<0.25	0.25	<0.991	0.991	2050433
cis-1,2-Dichloroethylene	ppbv	<0.19	0.19	<0.753	0.753	2050433
trans-1,2-Dichloroethylene	ppbv	<0.20	0.20	<0.793	0.793	2050433
Methylene Chloride(Dichloromethane)	ppbv	0.44	0.30	1.53	1.04	2050433
Chloroform	ppbv	<0.15	0.15	<0.732	0.732	2050433
Carbon Tetrachloride	ppbv	<0.30	0.30	<1.89	1.89	2050433
1,1-Dichloroethane	ppbv	<0.20	0.20	<0.809	0.809	2050433
1,2-Dichloroethane	ppbv	<0.20	0.20	<0.809	0.809	2050433
Ethylene Dibromide	ppbv	<0.17	0.17	<1.31	1.31	2050433
1,1,1-Trichloroethane	ppbv	<0.30	0.30	<1.64	1.64	2050433
RDL = Reportable Detection Limit QC Batch = Quality Control Batch						

Maxxam Job #: B001045
 Report Date: 2010/02/05

VOLATILE ORGANICS BY GC/MS (AIR)

Maxxam ID		ET9300				
Sampling Date		2010/01/02				
COC Number		2890				
	Units	LICA VOC/PORT/JAN 2,10 - 7910	DL	ug/m3	DL (ug/m3)	QC Batch
1,1,2-Trichloroethane	ppbv	<0.15	0.15	<0.818	0.818	2050433
1,1,2,2-Tetrachloroethane	ppbv	<0.20	0.20	<1.37	1.37	2050433
cis-1,3-Dichloropropene	ppbv	<0.18	0.18	<0.817	0.817	2050433
trans-1,3-Dichloropropene	ppbv	<0.17	0.17	<0.772	0.772	2050433
1,2-Dichloropropane	ppbv	<0.40	0.40	<1.85	1.85	2050433
Bromomethane	ppbv	<0.18	0.18	<0.699	0.699	2050433
Bromoform	ppbv	<0.20	0.20	<2.07	2.07	2050433
Bromodichloromethane	ppbv	<0.20	0.20	<1.34	1.34	2050433
Dibromochloromethane	ppbv	<0.20	0.20	<1.70	1.70	2050433
Heptane	ppbv	<0.30	0.30	<1.23	1.23	2050433
Trichloroethylene	ppbv	<0.30	0.30	<1.61	1.61	2050433
Tetrachloroethylene	ppbv	<0.20	0.20	<1.36	1.36	2050433
Benzene	ppbv	<0.18	0.18	<0.575	0.575	2050433
Toluene	ppbv	<0.20	0.20	<0.753	0.753	2050433
Ethylbenzene	ppbv	<0.20	0.20	<0.868	0.868	2050433
p+m-Xylene	ppbv	<0.37	0.37	<1.61	1.61	2050433
o-Xylene	ppbv	<0.20	0.20	<0.868	0.868	2050433
Styrene	ppbv	<0.20	0.20	<0.852	0.852	2050433
1,3,5-Trimethylbenzene	ppbv	<0.50	0.50	<2.46	2.46	2050433
1,2,4-Trimethylbenzene	ppbv	<0.50	0.50	<2.46	2.46	2050433
4-ethyltoluene	ppbv	<2.2	2.2	<10.8	10.8	2050433
Chlorobenzene	ppbv	<0.20	0.20	<0.921	0.921	2050433
Benzyl chloride	ppbv	<1.0	1.0	<5.18	5.18	2050433
1,3-Dichlorobenzene	ppbv	<0.40	0.40	<2.40	2.40	2050433
1,4-Dichlorobenzene	ppbv	<0.40	0.40	<2.40	2.40	2050433
1,2-Dichlorobenzene	ppbv	<0.40	0.40	<2.40	2.40	2050433
1,2,4-Trichlorobenzene	ppbv	<2.0	2.0	<14.8	14.8	2050433
Hexachlorobutadiene	ppbv	<3.0	3.0	<32.0	32.0	2050433
Hexane	ppbv	<0.30	0.30	<1.06	1.06	2050433
Cyclohexane	ppbv	<0.20	0.20	<0.688	0.688	2050433
Tetrahydrofuran	ppbv	<0.40	0.40	<1.18	1.18	2050433
1,4-Dioxane	ppbv	<2.0	2.0	<7.21	7.21	2050433
Xylene (Total)	ppbv	<0.60	0.60	<2.61	2.61	2050433
QC Batch = Quality Control Batch						

Maxxam Job #: B001045
 Report Date: 2010/02/05

VOLATILE ORGANICS BY GC/MS (AIR)

Maxxam ID		ET9300				
Sampling Date		2010/01/02				
COC Number		2890				
	Units	LICA	DL	ug/m3	DL (ug/m3)	QC Batch
		VOC/PORT/JAN				
		2,10 - 7910				

Surrogate Recovery (%)						
Bromochloromethane	%	89		N/A	N/A	2050433
D5-Chlorobenzene	%	86		N/A	N/A	2050433
Difluorobenzene	%	91		N/A	N/A	2050433

N/A = Not Applicable
 QC Batch = Quality Control Batch

Maxxam Job #: B001045
 Report Date: 2010/02/05

Test Summary

Maxxam ID ET9299 **Collected** 2010/01/02
Sample ID LICA VOC/CLS/JAN2,10 - 7849 **Shipped**
Matrix AIR **Received** 2010/01/06

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Canister Pressure (TO-15)	PRES	2050428	N/A	2010/01/06	LSY
Volatile Organics in Air (TO-15)	GC/MS	2050433	N/A	2010/01/06	LSY

Maxxam ID ET9300 **Collected** 2010/01/02
Sample ID LICA VOC/PORT/JAN 2,10 - 7910 **Shipped**
Matrix AIR **Received** 2010/01/06

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Canister Pressure (TO-15)	PRES	2050428	N/A	2010/01/06	LSY
Volatile Organics in Air (TO-15)	GC/MS	2050433	N/A	2010/01/06	LSY

Maxxam Job #: B001045
Report Date: 2010/02/05

GENERAL COMMENTS

Results relate only to the items tested.

Lakeland Industry & Community Assoc.
 Attention: Shea Beaton
 Client Project #:
 P.O. #:
 Project name:

Quality Assurance Report
 Maxxam Job Number: GB001045

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
2050433 LSY	Spiked Blank	Bromochloromethane	2010/01/06		109	%	60 - 140
		D5-Chlorobenzene	2010/01/06		108	%	60 - 140
		Difluorobenzene	2010/01/06		110	%	60 - 140
		2,2,4-Trimethylpentane	2010/01/06		90	%	70 - 130
		Carbon Disulfide	2010/01/06		91	%	70 - 130
		Propene	2010/01/06		84	%	70 - 130
		Vinyl Acetate	2010/01/06		105	%	70 - 130
		Vinyl Bromide	2010/01/06		97	%	70 - 130
		Dichlorodifluoromethane (FREON 12)	2010/01/06		101	%	70 - 130
		1,2-Dichlorotetrafluoroethane	2010/01/06		85	%	70 - 130
		Chloromethane	2010/01/06		87	%	70 - 130
		Vinyl Chloride	2010/01/06		92	%	70 - 130
		Chloroethane	2010/01/06		92	%	70 - 130
		1,3-Butadiene	2010/01/06		80	%	70 - 130
		Trichlorofluoromethane (FREON 11)	2010/01/06		104	%	70 - 130
		Trichlorotrifluoroethane	2010/01/06		97	%	70 - 130
		Ethanol	2010/01/06		73	%	70 - 130
		2-propanol	2010/01/06		79	%	70 - 130
		2-Propanone	2010/01/06		98	%	70 - 130
		Methyl Ethyl Ketone (2-Butanone)	2010/01/06		94	%	70 - 130
		Methyl Isobutyl Ketone	2010/01/06		86	%	70 - 130
		Methyl Butyl Ketone (2-Hexanone)	2010/01/06		81	%	70 - 130
		Methyl t-butyl ether (MTBE)	2010/01/06		105	%	70 - 130
		Ethyl Acetate	2010/01/06		86	%	70 - 130
		1,1-Dichloroethylene	2010/01/06		95	%	70 - 130
		cis-1,2-Dichloroethylene	2010/01/06		93	%	70 - 130
		trans-1,2-Dichloroethylene	2010/01/06		94	%	70 - 130
		Methylene Chloride(Dichloromethane)	2010/01/06		81	%	70 - 130
		Chloroform	2010/01/06		97	%	70 - 130
		Carbon Tetrachloride	2010/01/06		114	%	70 - 130
		1,1-Dichloroethane	2010/01/06		92	%	70 - 130
		1,2-Dichloroethane	2010/01/06		99	%	70 - 130
		Ethylene Dibromide	2010/01/06		94	%	70 - 130
		1,1,1-Trichloroethane	2010/01/06		106	%	70 - 130
		1,1,2-Trichloroethane	2010/01/06		97	%	70 - 130
		1,1,2,2-Tetrachloroethane	2010/01/06		87	%	70 - 130
		cis-1,3-Dichloropropene	2010/01/06		103	%	70 - 130
		trans-1,3-Dichloropropene	2010/01/06		103	%	70 - 130
		1,2-Dichloropropane	2010/01/06		90	%	70 - 130
		Bromomethane	2010/01/06		93	%	70 - 130
		Bromoform	2010/01/06		112	%	70 - 130
		Bromodichloromethane	2010/01/06		105	%	70 - 130
		Dibromochloromethane	2010/01/06		107	%	70 - 130
		Heptane	2010/01/06		90	%	70 - 130
		Trichloroethylene	2010/01/06		98	%	70 - 130
		Tetrachloroethylene	2010/01/06		104	%	70 - 130
		Benzene	2010/01/06		91	%	70 - 130
		Toluene	2010/01/06		95	%	70 - 130
		Ethylbenzene	2010/01/06		92	%	70 - 130
		p+m-Xylene	2010/01/06		94	%	70 - 130
		o-Xylene	2010/01/06		94	%	70 - 130
		Styrene	2010/01/06		79	%	70 - 130
		1,3,5-Trimethylbenzene	2010/01/06		86	%	70 - 130
		1,2,4-Trimethylbenzene	2010/01/06		83	%	70 - 130
		4-ethyltoluene	2010/01/06		88	%	70 - 130

Lakeland Industry & Community Assoc.
 Attention: Shea Beaton
 Client Project #:
 P.O. #:
 Project name:

Quality Assurance Report (Continued)

Maxxam Job Number: GB001045

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
2050433 LSY	Spiked Blank	Chlorobenzene	2010/01/06		93	%	70 - 130
		Benzyl chloride	2010/01/06		102	%	70 - 130
		1,3-Dichlorobenzene	2010/01/06		90	%	70 - 130
		1,4-Dichlorobenzene	2010/01/06		87	%	70 - 130
		1,2-Dichlorobenzene	2010/01/06		86	%	70 - 130
		1,2,4-Trichlorobenzene	2010/01/06		126	%	70 - 130
		Hexachlorobutadiene	2010/01/06		128	%	70 - 130
		Hexane	2010/01/06		86	%	70 - 130
		Cyclohexane	2010/01/06		90	%	70 - 130
		Tetrahydrofuran	2010/01/06		84	%	70 - 130
		1,4-Dioxane	2010/01/06		80	%	70 - 130
	Method Blank	Bromochloromethane	2010/01/06		92	%	60 - 140
		D5-Chlorobenzene	2010/01/06		89	%	60 - 140
		Difluorobenzene	2010/01/06		93	%	60 - 140
		2,2,4-Trimethylpentane	2010/01/06	ND, RDL=0.20		ppbv	
		Carbon Disulfide	2010/01/06	ND, RDL=0.50		ppbv	
		Propene	2010/01/06	ND, RDL=0.30		ppbv	
		Vinyl Acetate	2010/01/06	ND, RDL=0.20		ppbv	
		Vinyl Bromide	2010/01/06	ND, RDL=0.20		ppbv	
		Dichlorodifluoromethane (FREON 12)	2010/01/06	ND, RDL=0.20		ppbv	
		1,2-Dichlorotetrafluoroethane	2010/01/06	ND, RDL=0.17		ppbv	
		Chloromethane	2010/01/06	ND, RDL=0.30		ppbv	
		Vinyl Chloride	2010/01/06	ND, RDL=0.18		ppbv	
		Chloroethane	2010/01/06	ND, RDL=0.30		ppbv	
		1,3-Butadiene	2010/01/06	ND, RDL=0.50		ppbv	
		Trichlorofluoromethane (FREON 11)	2010/01/06	ND, RDL=0.20		ppbv	
		Trichlorotrifluoroethane	2010/01/06	ND, RDL=0.15		ppbv	
		Ethanol	2010/01/06	ND, RDL=2.3		ppbv	
		2-propanol	2010/01/06	ND, RDL=3.0		ppbv	
		2-Propanone	2010/01/06	ND, RDL=0.80		ppbv	
		Methyl Ethyl Ketone (2-Butanone)	2010/01/06	ND, RDL=3.0		ppbv	
		Methyl Isobutyl Ketone	2010/01/06	ND, RDL=3.2		ppbv	
		Methyl Butyl Ketone (2-Hexanone)	2010/01/06	ND, RDL=2.0		ppbv	
		Methyl t-butyl ether (MTBE)	2010/01/06	ND, RDL=0.20		ppbv	
		Ethyl Acetate	2010/01/06	ND, RDL=2.2		ppbv	
		1,1-Dichloroethylene	2010/01/06	ND, RDL=0.25		ppbv	
		cis-1,2-Dichloroethylene	2010/01/06	ND, RDL=0.19		ppbv	
		trans-1,2-Dichloroethylene	2010/01/06	ND, RDL=0.20		ppbv	
		Methylene Chloride(Dichloromethane)	2010/01/06	0.38, RDL=0.30		ppbv	
		Chloroform	2010/01/06	ND, RDL=0.15		ppbv	
		Carbon Tetrachloride	2010/01/06	ND, RDL=0.30		ppbv	
		1,1-Dichloroethane	2010/01/06	ND, RDL=0.20		ppbv	
		1,2-Dichloroethane	2010/01/06	ND, RDL=0.20		ppbv	
		Ethylene Dibromide	2010/01/06	ND, RDL=0.17		ppbv	
		1,1,1-Trichloroethane	2010/01/06	ND, RDL=0.30		ppbv	
		1,1,2-Trichloroethane	2010/01/06	ND, RDL=0.15		ppbv	
		1,1,2,2-Tetrachloroethane	2010/01/06	ND, RDL=0.20		ppbv	
		cis-1,3-Dichloropropene	2010/01/06	ND, RDL=0.18		ppbv	
		trans-1,3-Dichloropropene	2010/01/06	ND, RDL=0.17		ppbv	
		1,2-Dichloropropane	2010/01/06	ND, RDL=0.40		ppbv	
		Bromomethane	2010/01/06	ND, RDL=0.18		ppbv	
		Bromoform	2010/01/06	ND, RDL=0.20		ppbv	
		Bromodichloromethane	2010/01/06	ND, RDL=0.20		ppbv	
		Dibromochloromethane	2010/01/06	ND, RDL=0.20		ppbv	
		Heptane	2010/01/06	ND, RDL=0.30		ppbv	

Lakeland Industry & Community Assoc.
 Attention: Shea Beaton
 Client Project #:
 P.O. #:
 Project name:

Quality Assurance Report (Continued)

Maxxam Job Number: GB001045

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
2050433 LSY	Method Blank	Trichloroethylene	2010/01/06	ND, RDL=0.30		ppbv	
		Tetrachloroethylene	2010/01/06	ND, RDL=0.20		ppbv	
		Benzene	2010/01/06	ND, RDL=0.18		ppbv	
		Toluene	2010/01/06	ND, RDL=0.20		ppbv	
		Ethylbenzene	2010/01/06	ND, RDL=0.20		ppbv	
		p+m-Xylene	2010/01/06	ND, RDL=0.37		ppbv	
		o-Xylene	2010/01/06	ND, RDL=0.20		ppbv	
		Styrene	2010/01/06	ND, RDL=0.20		ppbv	
		1,3,5-Trimethylbenzene	2010/01/06	ND, RDL=0.50		ppbv	
		1,2,4-Trimethylbenzene	2010/01/06	ND, RDL=0.50		ppbv	
		4-ethyltoluene	2010/01/06	ND, RDL=2.2		ppbv	
		Chlorobenzene	2010/01/06	ND, RDL=0.20		ppbv	
		Benzyl chloride	2010/01/06	ND, RDL=1.0		ppbv	
		1,3-Dichlorobenzene	2010/01/06	ND, RDL=0.40		ppbv	
		1,4-Dichlorobenzene	2010/01/06	ND, RDL=0.40		ppbv	
		1,2-Dichlorobenzene	2010/01/06	ND, RDL=0.40		ppbv	
		1,2,4-Trichlorobenzene	2010/01/06	ND, RDL=2.0		ppbv	
		Hexachlorobutadiene	2010/01/06	ND, RDL=3.0		ppbv	
		Hexane	2010/01/06	ND, RDL=0.30		ppbv	
		Cyclohexane	2010/01/06	ND, RDL=0.20		ppbv	
		Tetrahydrofuran	2010/01/06	ND, RDL=0.40		ppbv	
		1,4-Dioxane	2010/01/06	ND, RDL=2.0		ppbv	
		Xylene (Total)	2010/01/06	ND, RDL=0.60		ppbv	

Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.
 Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.
 Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

Maxxam Analytics Inc.

Xontech Model 910A VOC Sample Collection Data Sheet

Client: LICA Sampler s/n: 6200
 Location: 13-16-62-5 W4M Canister ID: S2296 (Maxxam Supplied)
 Station ID: Lica 33 (Portable) Canister Installation Date/Time: Jan 7, 09 @ 11:00 mst
 Field Sample ID: LICA VOC/PORT/ Jan 8, 10 Canister Removal Date/Time: Jan 12, 09 @ 09:20 mst

Date and Time Information			
Sample Date	Start Time (MST)	End Time (MST)	Elapsed Time (Hours)
08-Jan-10	01/08/2010 0:00	01/09/2010 0:00	24.00

Flow Settings		
Meter Reading (sccm)	Pot Set Pt.	Pump Pressure Setting (psig)
10.0	1482	25

Canister Information	
Initial Canister Vacuum (inHg)	Final Canister Pressure (psig)
-28	21

Canister valve open prior to sampling?: YES / NO
Timer set to 0.00 minutes prior to sampling? YES / NO
Canister valve closed prior to disconnection?: YES / NO

Comments: System leak check prior to sampling.
- Prior to sample set up a flow check/ adjust was performed using Bios DC-2, Flow set to 10.0sccm (initial measurement was 9.7 sccm)

Technician Signiture: Shea Beaton



Your C.O.C. #: 5349

Attention: Shea Beaton

Lakeland Industry & Community Assoc.
P.O. Box 8237
Bonnyville, AB
CANADA T9N 2J5

Report Date: 2010/01/21

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B004549

Received: 2010/01/14, 14:22

Sample Matrix: AIR
Samples Received: 2

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
Canister Pressure (TO-15)	1	N/A	2010/01/14	BRL SOP-00304	EPA TO-15
Canister Pressure (TO-15)	1	N/A	2010/01/15	BRL SOP-00304	EPA TO-15
Volatile Organics in Air (TO-15) ¶	1	N/A	2010/01/14	BRL SOP-00304	EPA TO-15
Volatile Organics in Air (TO-15) ¶	1	N/A	2010/01/15	BRL SOP-00304	EPA TO-15

(1) Air sampling canisters have been cleaned in accordance with U.S. EPA Method TO14A. At the end of the cleaning, evacuation, and pressurization cycles, one canister was selected and was pressurized with Zero Air. This canister was then analyzed via TO14A on a GC/MS. The canister must have been found to contain <0.2 ppbv concentration of all target analytes in order for the batch to have been considered clean. Each canister also underwent a leak check prior to shipment.

Please Note: SUMMA® canister samples will be retained by Maxxam for a period of 5 calendar days from the date of this report, after which time they will be cleaned for reuse. If you require a longer sample storage period, please contact your service representative.

Encryption Key

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

THERESA STEPHENSON, Project Manager
Email: Theresa.Stephenson@MaxxamAnalytics.com
Phone# (905) 817-5763

=====
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.

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Your C.O.C. #: 5349

Attention: Shea Beaton

Lakeland Industry & Community Assoc.
P.O. Box 8237
Bonnyville, AB
CANADA T9N 2J5

Report Date: 2010/01/21

CERTIFICATE OF ANALYSIS

-2-

"signatories", as per section.

Total cover pages: 2

Page 2 of 17

Page 138 of 229

Maxxam Job #: B004549
 Report Date: 2010/01/21

RESULTS OF ANALYSES OF AIR

Maxxam ID		EV6291		EV6292		
Sampling Date		2010/01/08 00:00		2010/01/08 00:00		
COC Number		5349		5349		
	Units	LICA VOC/CLS/JAN8,10 - S2234	QC Batch	LICA VOC/PORT/JAN8,10 - S2296	DL	QC Batch

Volatile Organics						
Pressure on Receipt	psig	20	2056052	21	N/A	2057954

RDL = Reportable Detection Limit
 QC Batch = Quality Control Batch

Maxxam Job #: B004549
 Report Date: 2010/01/21

VOLATILE ORGANICS BY GC/MS (AIR)

Maxxam ID		EV6291				
Sampling Date		2010/01/08 00:00				
COC Number		5349				
	Units	LICA	DL	ug/m3	DL (ug/m3)	QC Batch
		VOC/CLS/JAN8,10				
		- S2234				

Volatile Organics						
2,2,4-Trimethylpentane	ppbv	<0.20	0.20	<0.934	0.934	2055894
Carbon Disulfide	ppbv	<0.50	0.50	<1.56	1.56	2055894
Propene	ppbv	<0.30	0.30	<0.516	0.516	2055894
Vinyl Acetate	ppbv	<0.20	0.20	<0.704	0.704	2055894
Vinyl Bromide	ppbv	<0.20	0.20	<0.875	0.875	2055894
Dichlorodifluoromethane (FREON 12)	ppbv	0.53	0.20	2.64	0.989	2055894
1,2-Dichlorotetrafluoroethane	ppbv	<0.17	0.17	<1.19	1.19	2055894
Chloromethane	ppbv	0.51	0.30	1.05	0.620	2055894
Vinyl Chloride	ppbv	<0.18	0.18	<0.460	0.460	2055894
Chloroethane	ppbv	<0.30	0.30	<0.792	0.792	2055894
1,3-Butadiene	ppbv	<0.50	0.50	<1.11	1.11	2055894
Trichlorofluoromethane (FREON 11)	ppbv	0.27	0.20	1.50	1.12	2055894
Trichlorotrifluoroethane	ppbv	<0.15	0.15	<1.15	1.15	2055894
Ethanol	ppbv	<2.3	2.3	<4.33	4.33	2055894
2-propanol	ppbv	<3.0	3.0	<7.37	7.37	2055894
2-Propanone	ppbv	<0.80	0.80	<1.90	1.90	2055894
Methyl Ethyl Ketone (2-Butanone)	ppbv	<3.0	3.0	<8.85	8.85	2055894
Methyl Isobutyl Ketone	ppbv	<3.2	3.2	<13.1	13.1	2055894
Methyl Butyl Ketone (2-Hexanone)	ppbv	<2.0	2.0	<8.19	8.19	2055894
Methyl t-butyl ether (MTBE)	ppbv	<0.20	0.20	<0.721	0.721	2055894
Ethyl Acetate	ppbv	<2.2	2.2	<7.93	7.93	2055894
1,1-Dichloroethylene	ppbv	<0.25	0.25	<0.991	0.991	2055894
cis-1,2-Dichloroethylene	ppbv	<0.19	0.19	<0.753	0.753	2055894
trans-1,2-Dichloroethylene	ppbv	<0.20	0.20	<0.793	0.793	2055894
Methylene Chloride(Dichloromethane)	ppbv	0.31	0.30	1.08	1.04	2055894
Chloroform	ppbv	<0.15	0.15	<0.732	0.732	2055894
Carbon Tetrachloride	ppbv	<0.30	0.30	<1.89	1.89	2055894
1,1-Dichloroethane	ppbv	<0.20	0.20	<0.809	0.809	2055894
1,2-Dichloroethane	ppbv	<0.20	0.20	<0.809	0.809	2055894
Ethylene Dibromide	ppbv	<0.17	0.17	<1.31	1.31	2055894

 RDL = Reportable Detection Limit
 QC Batch = Quality Control Batch

Maxxam Job #: B004549
 Report Date: 2010/01/21

VOLATILE ORGANICS BY GC/MS (AIR)

Maxxam ID		EV6291				
Sampling Date		2010/01/08 00:00				
COC Number		5349				
	Units	LICA	DL	ug/m3	DL (ug/m3)	QC Batch
		VOC/CLS/JAN8,10				
		- S2234				

1,1,1-Trichloroethane	ppbv	<0.30	0.30	<1.64	1.64	2055894
1,1,2-Trichloroethane	ppbv	<0.15	0.15	<0.818	0.818	2055894
1,1,2,2-Tetrachloroethane	ppbv	<0.20	0.20	<1.37	1.37	2055894
cis-1,3-Dichloropropene	ppbv	<0.18	0.18	<0.817	0.817	2055894
trans-1,3-Dichloropropene	ppbv	<0.17	0.17	<0.772	0.772	2055894
1,2-Dichloropropane	ppbv	<0.40	0.40	<1.85	1.85	2055894
Bromomethane	ppbv	<0.18	0.18	<0.699	0.699	2055894
Bromoform	ppbv	<0.20	0.20	<2.07	2.07	2055894
Bromodichloromethane	ppbv	<0.20	0.20	<1.34	1.34	2055894
Dibromochloromethane	ppbv	<0.20	0.20	<1.70	1.70	2055894
Heptane	ppbv	<0.30	0.30	<1.23	1.23	2055894
Trichloroethylene	ppbv	<0.30	0.30	<1.61	1.61	2055894
Tetrachloroethylene	ppbv	<0.20	0.20	<1.36	1.36	2055894
Benzene	ppbv	<0.18	0.18	<0.575	0.575	2055894
Toluene	ppbv	<0.20	0.20	<0.753	0.753	2055894
Ethylbenzene	ppbv	<0.20	0.20	<0.868	0.868	2055894
p+m-Xylene	ppbv	<0.37	0.37	<1.61	1.61	2055894
o-Xylene	ppbv	<0.20	0.20	<0.868	0.868	2055894
Styrene	ppbv	<0.20	0.20	<0.852	0.852	2055894
1,3,5-Trimethylbenzene	ppbv	<0.50	0.50	<2.46	2.46	2055894
1,2,4-Trimethylbenzene	ppbv	<0.50	0.50	<2.46	2.46	2055894
4-ethyltoluene	ppbv	<2.2	2.2	<10.8	10.8	2055894
Chlorobenzene	ppbv	<0.20	0.20	<0.921	0.921	2055894
Benzyl chloride	ppbv	<1.0	1.0	<5.18	5.18	2055894
1,3-Dichlorobenzene	ppbv	<0.40	0.40	<2.40	2.40	2055894
1,4-Dichlorobenzene	ppbv	<0.40	0.40	<2.40	2.40	2055894
1,2-Dichlorobenzene	ppbv	<0.40	0.40	<2.40	2.40	2055894
1,2,4-Trichlorobenzene	ppbv	<2.0	2.0	<14.8	14.8	2055894
Hexachlorobutadiene	ppbv	<3.0	3.0	<32.0	32.0	2055894
Hexane	ppbv	<0.30	0.30	<1.06	1.06	2055894
Cyclohexane	ppbv	<0.20	0.20	<0.688	0.688	2055894
Tetrahydrofuran	ppbv	<0.40	0.40	<1.18	1.18	2055894

QC Batch = Quality Control Batch

Maxxam Job #: B004549
 Report Date: 2010/01/21

VOLATILE ORGANICS BY GC/MS (AIR)

Maxxam ID		EV6291				
Sampling Date		2010/01/08 00:00				
COC Number		5349				
	Units	LICA VOC/CLS/JAN8,10 - S2234	DL	ug/m3	DL (ug/m3)	QC Batch
1,4-Dioxane	ppbv	<2.0	2.0	<7.21	7.21	2055894
Xylene (Total)	ppbv	<0.60	0.60	<2.61	2.61	2055894
Surrogate Recovery (%)						
Bromochloromethane	%	79		N/A	N/A	2055894
D5-Chlorobenzene	%	72		N/A	N/A	2055894
Difluorobenzene	%	80		N/A	N/A	2055894
N/A = Not Applicable QC Batch = Quality Control Batch						

Maxxam Job #: B004549
 Report Date: 2010/01/21

VOLATILE ORGANICS BY GC/MS (AIR)

Maxxam ID		EV6292				
Sampling Date		2010/01/08 00:00				
COC Number		5349				
	Units	LICA VOC/PORT/JAN8,10 - S2296	DL	ug/m3	DL (ug/m3)	QC Batch

Volatile Organics						
2,2,4-Trimethylpentane	ppbv	<0.20	0.20	<0.934	0.934	2057951
Carbon Disulfide	ppbv	<0.50	0.50	<1.56	1.56	2057951
Propene	ppbv	<0.30	0.30	<0.516	0.516	2057951
Vinyl Acetate	ppbv	<0.20	0.20	<0.704	0.704	2057951
Vinyl Bromide	ppbv	<0.20	0.20	<0.875	0.875	2057951
Dichlorodifluoromethane (FREON 12)	ppbv	0.60	0.20	2.97	0.989	2057951
1,2-Dichlorotetrafluoroethane	ppbv	<0.17	0.17	<1.19	1.19	2057951
Chloromethane	ppbv	0.43	0.30	0.895	0.620	2057951
Vinyl Chloride	ppbv	<0.18	0.18	<0.460	0.460	2057951
Chloroethane	ppbv	<0.30	0.30	<0.792	0.792	2057951
1,3-Butadiene	ppbv	<0.50	0.50	<1.11	1.11	2057951
Trichlorofluoromethane (FREON 11)	ppbv	0.29	0.20	1.62	1.12	2057951
Trichlorotrifluoroethane	ppbv	<0.15	0.15	<1.15	1.15	2057951
Ethanol	ppbv	<2.3	2.3	<4.33	4.33	2057951
2-propanol	ppbv	<3.0	3.0	<7.37	7.37	2057951
2-Propanone	ppbv	1.11	0.80	2.63	1.90	2057951
Methyl Ethyl Ketone (2-Butanone)	ppbv	<3.0	3.0	<8.85	8.85	2057951
Methyl Isobutyl Ketone	ppbv	<3.2	3.2	<13.1	13.1	2057951
Methyl Butyl Ketone (2-Hexanone)	ppbv	<2.0	2.0	<8.19	8.19	2057951
Methyl t-butyl ether (MTBE)	ppbv	<0.20	0.20	<0.721	0.721	2057951
Ethyl Acetate	ppbv	<2.2	2.2	<7.93	7.93	2057951
1,1-Dichloroethylene	ppbv	<0.25	0.25	<0.991	0.991	2057951
cis-1,2-Dichloroethylene	ppbv	<0.19	0.19	<0.753	0.753	2057951
trans-1,2-Dichloroethylene	ppbv	<0.20	0.20	<0.793	0.793	2057951
Methylene Chloride(Dichloromethane)	ppbv	0.47	0.30	1.62	1.04	2057951
Chloroform	ppbv	<0.15	0.15	<0.732	0.732	2057951
Carbon Tetrachloride	ppbv	<0.30	0.30	<1.89	1.89	2057951
1,1-Dichloroethane	ppbv	<0.20	0.20	<0.809	0.809	2057951
1,2-Dichloroethane	ppbv	<0.20	0.20	<0.809	0.809	2057951
Ethylene Dibromide	ppbv	<0.17	0.17	<1.31	1.31	2057951

 RDL = Reportable Detection Limit
 QC Batch = Quality Control Batch

Maxxam Job #: B004549
 Report Date: 2010/01/21

VOLATILE ORGANICS BY GC/MS (AIR)

Maxxam ID		EV6292				
Sampling Date		2010/01/08 00:00				
COC Number		5349				
	Units	LICA VOC/PORT/JAN8,10 - S2296	DL	ug/m3	DL (ug/m3)	QC Batch
1,1,1-Trichloroethane	ppbv	<0.30	0.30	<1.64	1.64	2057951
1,1,2-Trichloroethane	ppbv	<0.15	0.15	<0.818	0.818	2057951
1,1,2,2-Tetrachloroethane	ppbv	<0.20	0.20	<1.37	1.37	2057951
cis-1,3-Dichloropropene	ppbv	<0.18	0.18	<0.817	0.817	2057951
trans-1,3-Dichloropropene	ppbv	<0.17	0.17	<0.772	0.772	2057951
1,2-Dichloropropane	ppbv	<0.40	0.40	<1.85	1.85	2057951
Bromomethane	ppbv	<0.18	0.18	<0.699	0.699	2057951
Bromoform	ppbv	<0.20	0.20	<2.07	2.07	2057951
Bromodichloromethane	ppbv	<0.20	0.20	<1.34	1.34	2057951
Dibromochloromethane	ppbv	<0.20	0.20	<1.70	1.70	2057951
Heptane	ppbv	<0.30	0.30	<1.23	1.23	2057951
Trichloroethylene	ppbv	<0.30	0.30	<1.61	1.61	2057951
Tetrachloroethylene	ppbv	<0.20	0.20	<1.36	1.36	2057951
Benzene	ppbv	0.20	0.18	0.652	0.575	2057951
Toluene	ppbv	<0.20	0.20	<0.753	0.753	2057951
Ethylbenzene	ppbv	<0.20	0.20	<0.868	0.868	2057951
p+m-Xylene	ppbv	<0.37	0.37	<1.61	1.61	2057951
o-Xylene	ppbv	<0.20	0.20	<0.868	0.868	2057951
Styrene	ppbv	<0.20	0.20	<0.852	0.852	2057951
1,3,5-Trimethylbenzene	ppbv	<0.50	0.50	<2.46	2.46	2057951
1,2,4-Trimethylbenzene	ppbv	<0.50	0.50	<2.46	2.46	2057951
4-ethyltoluene	ppbv	<2.2	2.2	<10.8	10.8	2057951
Chlorobenzene	ppbv	<0.20	0.20	<0.921	0.921	2057951
Benzyl chloride	ppbv	<1.0	1.0	<5.18	5.18	2057951
1,3-Dichlorobenzene	ppbv	<0.40	0.40	<2.40	2.40	2057951
1,4-Dichlorobenzene	ppbv	<0.40	0.40	<2.40	2.40	2057951
1,2-Dichlorobenzene	ppbv	<0.40	0.40	<2.40	2.40	2057951
1,2,4-Trichlorobenzene	ppbv	<2.0	2.0	<14.8	14.8	2057951
Hexachlorobutadiene	ppbv	<3.0	3.0	<32.0	32.0	2057951
Hexane	ppbv	0.47	0.30	1.65	1.06	2057951
Cyclohexane	ppbv	0.35	0.20	1.22	0.688	2057951
Tetrahydrofuran	ppbv	<0.40	0.40	<1.18	1.18	2057951
QC Batch = Quality Control Batch						

Maxxam Job #: B004549
 Report Date: 2010/01/21

VOLATILE ORGANICS BY GC/MS (AIR)

Maxxam ID		EV6292				
Sampling Date		2010/01/08 00:00				
COC Number		5349				
	Units	LICA VOC/PORT/JAN8,10 - S2296	DL	ug/m3	DL (ug/m3)	QC Batch
1,4-Dioxane	ppbv	<2.0	2.0	<7.21	7.21	2057951
Xylene (Total)	ppbv	<0.60	0.60	<2.61	2.61	2057951
Surrogate Recovery (%)						
Bromochloromethane	%	98		N/A	N/A	2057951
D5-Chlorobenzene	%	96		N/A	N/A	2057951
Difluorobenzene	%	99		N/A	N/A	2057951
N/A = Not Applicable QC Batch = Quality Control Batch						

Maxxam Job #: B004549
 Report Date: 2010/01/21

Test Summary

Maxxam ID EV6291 **Collected** 2010/01/08
Sample ID LICA VOC/CLS/JAN8,10 - S2234 **Shipped**
Matrix AIR **Received** 2010/01/14

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Canister Pressure (TO-15)	PRES	2056052	N/A	2010/01/14	S_S
Volatile Organics in Air (TO-15)	GC/MS	2055894	N/A	2010/01/14	S_S

Maxxam ID EV6292 **Collected** 2010/01/08
Sample ID LICA VOC/PORT/JAN8,10 - S2296 **Shipped**
Matrix AIR **Received** 2010/01/14

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Canister Pressure (TO-15)	PRES	2057954	N/A	2010/01/15	VEA
Volatile Organics in Air (TO-15)	GC/MS	2057951	N/A	2010/01/15	VEA

Maxxam Job #: B004549
Report Date: 2010/01/21

GENERAL COMMENTS

Sample EV6292-01: VOCTO15M-A:
Reference standard did not meet criteria for 3 target compounds.
Continuing calibration met criteria for all targets.

Results relate only to the items tested.

Lakeland Industry & Community Assoc.
 Attention: Shea Beaton
 Client Project #:
 P.O. #:
 Project name:

Quality Assurance Report
 Maxxam Job Number: GB004549

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
2055894 S_S	Spiked Blank	Bromochloromethane	2010/01/14		103	%	60 - 140
		D5-Chlorobenzene	2010/01/14		106	%	60 - 140
		Difluorobenzene	2010/01/14		104	%	60 - 140
		2,2,4-Trimethylpentane	2010/01/14		102	%	70 - 130
		Carbon Disulfide	2010/01/14		95	%	70 - 130
		Propene	2010/01/14		90	%	70 - 130
		Vinyl Acetate	2010/01/14		110	%	70 - 130
		Vinyl Bromide	2010/01/14		93	%	70 - 130
		Dichlorodifluoromethane (FREON 12)	2010/01/14		95	%	70 - 130
		1,2-Dichlorotetrafluoroethane	2010/01/14		81	%	70 - 130
		Chloromethane	2010/01/14		84	%	70 - 130
		Vinyl Chloride	2010/01/14		89	%	70 - 130
		Chloroethane	2010/01/14		87	%	70 - 130
		1,3-Butadiene	2010/01/14		78	%	70 - 130
		Trichlorofluoromethane (FREON 11)	2010/01/14		95	%	70 - 130
		Trichlorotrifluoroethane	2010/01/14		90	%	70 - 130
		Ethanol	2010/01/14		98	%	70 - 130
		2-propanol	2010/01/14		98	%	70 - 130
		2-Propanone	2010/01/14		96	%	70 - 130
		Methyl Ethyl Ketone (2-Butanone)	2010/01/14		118	%	70 - 130
		Methyl Isobutyl Ketone	2010/01/14		107	%	70 - 130
		Methyl Butyl Ketone (2-Hexanone)	2010/01/14		116	%	70 - 130
		Methyl t-butyl ether (MTBE)	2010/01/14		103	%	70 - 130
		Ethyl Acetate	2010/01/14		98	%	70 - 130
		1,1-Dichloroethylene	2010/01/14		94	%	70 - 130
		cis-1,2-Dichloroethylene	2010/01/14		95	%	70 - 130
		trans-1,2-Dichloroethylene	2010/01/14		96	%	70 - 130
		Methylene Chloride(Dichloromethane)	2010/01/14		81	%	70 - 130
		Chloroform	2010/01/14		92	%	70 - 130
		Carbon Tetrachloride	2010/01/14		105	%	70 - 130
		1,1-Dichloroethane	2010/01/14		92	%	70 - 130
		1,2-Dichloroethane	2010/01/14		94	%	70 - 130
		Ethylene Dibromide	2010/01/14		98	%	70 - 130
		1,1,1-Trichloroethane	2010/01/14		100	%	70 - 130
		1,1,2-Trichloroethane	2010/01/14		96	%	70 - 130
		1,1,2,2-Tetrachloroethane	2010/01/14		94	%	70 - 130
		cis-1,3-Dichloropropene	2010/01/14		109	%	70 - 130
		trans-1,3-Dichloropropene	2010/01/14		110	%	70 - 130
		1,2-Dichloropropane	2010/01/14		93	%	70 - 130
		Bromomethane	2010/01/14		84	%	70 - 130
		Bromoform	2010/01/14		108	%	70 - 130
		Bromodichloromethane	2010/01/14		107	%	70 - 130
		Dibromochloromethane	2010/01/14		112	%	70 - 130
		Heptane	2010/01/14		101	%	70 - 130
		Trichloroethylene	2010/01/14		93	%	70 - 130
		Tetrachloroethylene	2010/01/14		99	%	70 - 130
		Benzene	2010/01/14		94	%	70 - 130
		Toluene	2010/01/14		105	%	70 - 130
		Ethylbenzene	2010/01/14		99	%	70 - 130
		p+m-Xylene	2010/01/14		98	%	70 - 130
		o-Xylene	2010/01/14		99	%	70 - 130
		Styrene	2010/01/14		104	%	70 - 130
		1,3,5-Trimethylbenzene	2010/01/14		100	%	70 - 130
		1,2,4-Trimethylbenzene	2010/01/14		103	%	70 - 130
		4-ethyltoluene	2010/01/14		104	%	70 - 130

Lakeland Industry & Community Assoc.
 Attention: Shea Beaton
 Client Project #:
 P.O. #:
 Project name:

Quality Assurance Report (Continued)

Maxxam Job Number: GB004549

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits	
2055894 S_S	Spiked Blank	Chlorobenzene	2010/01/14		86	%	70 - 130	
		Benzyl chloride	2010/01/14		100	%	70 - 130	
1,3-Dichlorobenzene		2010/01/14		90	%	70 - 130		
1,4-Dichlorobenzene		2010/01/14		84	%	70 - 130		
1,2-Dichlorobenzene		2010/01/14		92	%	70 - 130		
1,2,4-Trichlorobenzene		2010/01/14		78	%	70 - 130		
Hexachlorobutadiene		2010/01/14		104	%	70 - 130		
Hexane		2010/01/14		95	%	70 - 130		
Cyclohexane		2010/01/14		103	%	70 - 130		
Tetrahydrofuran		2010/01/14		104	%	70 - 130		
Method Blank		1,4-Dioxane	2010/01/14		103	%	70 - 130	
		Bromochloromethane	2010/01/14		82	%	60 - 140	
		D5-Chlorobenzene	2010/01/14		75	%	60 - 140	
		Difluorobenzene	2010/01/14		83	%	60 - 140	
		2,2,4-Trimethylpentane	2010/01/14	ND, RDL=0.20			ppbv	
		Carbon Disulfide	2010/01/14	ND, RDL=0.50			ppbv	
		Propene	2010/01/14	ND, RDL=0.30			ppbv	
		Vinyl Acetate	2010/01/14	ND, RDL=0.20			ppbv	
		Vinyl Bromide	2010/01/14	ND, RDL=0.20			ppbv	
		Dichlorodifluoromethane (FREON 12)	2010/01/14	ND, RDL=0.20			ppbv	
		1,2-Dichlorotetrafluoroethane	2010/01/14	ND, RDL=0.17			ppbv	
		Chloromethane	2010/01/14	ND, RDL=0.30			ppbv	
		Vinyl Chloride	2010/01/14	ND, RDL=0.18			ppbv	
		Chloroethane	2010/01/14	ND, RDL=0.30			ppbv	
		1,3-Butadiene	2010/01/14	ND, RDL=0.50			ppbv	
		Trichlorofluoromethane (FREON 11)	2010/01/14	ND, RDL=0.20			ppbv	
		Trichlorotrifluoroethane	2010/01/14	ND, RDL=0.15			ppbv	
		Ethanol	2010/01/14	ND, RDL=2.3			ppbv	
		2-propanol	2010/01/14	ND, RDL=3.0			ppbv	
		2-Propanone	2010/01/14	ND, RDL=0.80			ppbv	
		Methyl Ethyl Ketone (2-Butanone)	2010/01/14	ND, RDL=3.0			ppbv	
		Methyl Isobutyl Ketone	2010/01/14	ND, RDL=3.2			ppbv	
		Methyl Butyl Ketone (2-Hexanone)	2010/01/14	ND, RDL=2.0			ppbv	
		Methyl t-butyl ether (MTBE)	2010/01/14	ND, RDL=0.20			ppbv	
		Ethyl Acetate	2010/01/14	ND, RDL=2.2			ppbv	
		1,1-Dichloroethylene	2010/01/14	ND, RDL=0.25			ppbv	
		cis-1,2-Dichloroethylene	2010/01/14	ND, RDL=0.19			ppbv	
		trans-1,2-Dichloroethylene	2010/01/14	ND, RDL=0.20			ppbv	
		Methylene Chloride(Dichloromethane)	2010/01/14	ND, RDL=0.30			ppbv	
		Chloroform	2010/01/14	ND, RDL=0.15			ppbv	
		Carbon Tetrachloride	2010/01/14	ND, RDL=0.30			ppbv	
		1,1-Dichloroethane	2010/01/14	ND, RDL=0.20			ppbv	
		1,2-Dichloroethane	2010/01/14	ND, RDL=0.20			ppbv	
		Ethylene Dibromide	2010/01/14	ND, RDL=0.17			ppbv	
		1,1,1-Trichloroethane	2010/01/14	ND, RDL=0.30			ppbv	
		1,1,2-Trichloroethane	2010/01/14	ND, RDL=0.15			ppbv	
		1,1,2,2-Tetrachloroethane	2010/01/14	ND, RDL=0.20			ppbv	
		cis-1,3-Dichloropropene	2010/01/14	ND, RDL=0.18			ppbv	
trans-1,3-Dichloropropene	2010/01/14	ND, RDL=0.17			ppbv			
1,2-Dichloropropane	2010/01/14	ND, RDL=0.40			ppbv			
Bromomethane	2010/01/14	ND, RDL=0.18			ppbv			
Bromoform	2010/01/14	ND, RDL=0.20			ppbv			
Bromodichloromethane	2010/01/14	ND, RDL=0.20			ppbv			
Dibromochloromethane	2010/01/14	ND, RDL=0.20			ppbv			
Heptane	2010/01/14	ND, RDL=0.30			ppbv			

Lakeland Industry & Community Assoc.
 Attention: Shea Beaton
 Client Project #:
 P.O. #:
 Project name:

Quality Assurance Report (Continued)

Maxxam Job Number: GB004549

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
2055894 S_S	Method Blank	Trichloroethylene	2010/01/14	ND, RDL=0.30		ppbv	
		Tetrachloroethylene	2010/01/14	ND, RDL=0.20		ppbv	
		Benzene	2010/01/14	ND, RDL=0.18		ppbv	
		Toluene	2010/01/14	ND, RDL=0.20		ppbv	
		Ethylbenzene	2010/01/14	ND, RDL=0.20		ppbv	
		p+m-Xylene	2010/01/14	ND, RDL=0.37		ppbv	
		o-Xylene	2010/01/14	ND, RDL=0.20		ppbv	
		Styrene	2010/01/14	ND, RDL=0.20		ppbv	
		1,3,5-Trimethylbenzene	2010/01/14	ND, RDL=0.50		ppbv	
		1,2,4-Trimethylbenzene	2010/01/14	ND, RDL=0.50		ppbv	
		4-ethyltoluene	2010/01/14	ND, RDL=2.2		ppbv	
		Chlorobenzene	2010/01/14	ND, RDL=0.20		ppbv	
		Benzyl chloride	2010/01/14	ND, RDL=1.0		ppbv	
		1,3-Dichlorobenzene	2010/01/14	ND, RDL=0.40		ppbv	
		1,4-Dichlorobenzene	2010/01/14	ND, RDL=0.40		ppbv	
		1,2-Dichlorobenzene	2010/01/14	ND, RDL=0.40		ppbv	
		1,2,4-Trichlorobenzene	2010/01/14	ND, RDL=2.0		ppbv	
		Hexachlorobutadiene	2010/01/14	ND, RDL=3.0		ppbv	
		Hexane	2010/01/14	ND, RDL=0.30		ppbv	
		Cyclohexane	2010/01/14	ND, RDL=0.20		ppbv	
Tetrahydrofuran	2010/01/14	ND, RDL=0.40		ppbv			
1,4-Dioxane	2010/01/14	ND, RDL=2.0		ppbv			
Xylene (Total)	2010/01/14	ND, RDL=0.6		ppbv			
RPD - Sample/Sample Dup		Vinyl Chloride	2010/01/14	NC		%	25
		1,1-Dichloroethylene	2010/01/14	NC		%	25
		cis-1,2-Dichloroethylene	2010/01/14	NC		%	25
		trans-1,2-Dichloroethylene	2010/01/14	NC		%	25
		Trichloroethylene	2010/01/14	NC		%	25
		Tetrachloroethylene	2010/01/14	NC		%	25
		Bromochloromethane	2010/01/15	103	%	60 - 140	
		D5-Chlorobenzene	2010/01/15	103	%	60 - 140	
2057951 VEA	Spiked Blank	Difluorobenzene	2010/01/15	104	%	60 - 140	
		2,2,4-Trimethylpentane	2010/01/15	88	%	70 - 130	
		Carbon Disulfide	2010/01/15	85	%	70 - 130	
		Propene	2010/01/15	76	%	70 - 130	
		Vinyl Acetate	2010/01/15	87	%	70 - 130	
		Vinyl Bromide	2010/01/15	89	%	70 - 130	
		Dichlorodifluoromethane (FREON 12)	2010/01/15	92	%	70 - 130	
		1,2-Dichlorotetrafluoroethane	2010/01/15	76	%	70 - 130	
		Chloromethane	2010/01/15	76	%	70 - 130	
		Vinyl Chloride	2010/01/15	81	%	70 - 130	
		Chloroethane	2010/01/15	81	%	70 - 130	
		1,3-Butadiene	2010/01/15	69 (1)	%	70 - 130	
		Trichlorofluoromethane (FREON 11)	2010/01/15	93	%	70 - 130	
		Trichlorotrifluoroethane	2010/01/15	87	%	70 - 130	
		Ethanol	2010/01/15	105	%	70 - 130	
		2-propanol	2010/01/15	83	%	70 - 130	
		2-Propanone	2010/01/15	115	%	70 - 130	
		Methyl Ethyl Ketone (2-Butanone)	2010/01/15	92	%	70 - 130	
		Methyl Isobutyl Ketone	2010/01/15	85	%	70 - 130	
		Methyl Butyl Ketone (2-Hexanone)	2010/01/15	92	%	70 - 130	
Methyl t-butyl ether (MTBE)	2010/01/15	87	%	70 - 130			
Ethyl Acetate	2010/01/15	84	%	70 - 130			

Lakeland Industry & Community Assoc.
 Attention: Shea Beaton
 Client Project #:
 P.O. #:
 Project name:

Quality Assurance Report (Continued)

Maxxam Job Number: GB004549

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
2057951 VEA	Spiked Blank	1,1-Dichloroethylene	2010/01/15		86	%	70 - 130
		cis-1,2-Dichloroethylene	2010/01/15		84	%	70 - 130
		trans-1,2-Dichloroethylene	2010/01/15		90	%	70 - 130
		Methylene Chloride(Dichloromethane)	2010/01/15		70	%	70 - 130
		Chloroform	2010/01/15		90	%	70 - 130
		Carbon Tetrachloride	2010/01/15		95	%	70 - 130
		1,1-Dichloroethane	2010/01/15		84	%	70 - 130
		1,2-Dichloroethane	2010/01/15		86	%	70 - 130
		Ethylene Dibromide	2010/01/15		91	%	70 - 130
		1,1,1-Trichloroethane	2010/01/15		93	%	70 - 130
		1,1,2-Trichloroethane	2010/01/15		90	%	70 - 130
		1,1,2,2-Tetrachloroethane	2010/01/15		88	%	70 - 130
		cis-1,3-Dichloropropene	2010/01/15		91	%	70 - 130
		trans-1,3-Dichloropropene	2010/01/15		91	%	70 - 130
		1,2-Dichloropropane	2010/01/15		82	%	70 - 130
		Bromomethane	2010/01/15		81	%	70 - 130
		Bromoform	2010/01/15		102	%	70 - 130
		Bromodichloromethane	2010/01/15		97	%	70 - 130
		Dibromochloromethane	2010/01/15		97	%	70 - 130
		Heptane	2010/01/15		82	%	70 - 130
		Trichloroethylene	2010/01/15		89	%	70 - 130
		Tetrachloroethylene	2010/01/15		95	%	70 - 130
		Benzene	2010/01/15		87	%	70 - 130
		Toluene	2010/01/15		89	%	70 - 130
		Ethylbenzene	2010/01/15		88	%	70 - 130
		p+m-Xylene	2010/01/15		88	%	70 - 130
		o-Xylene	2010/01/15		88	%	70 - 130
		Styrene	2010/01/15		63 (1)	%	70 - 130
		1,3,5-Trimethylbenzene	2010/01/15		87	%	70 - 130
		1,2,4-Trimethylbenzene	2010/01/15		89	%	70 - 130
		4-ethyltoluene	2010/01/15		90	%	70 - 130
		Chlorobenzene	2010/01/15		87	%	70 - 130
		Benzyl chloride	2010/01/15		106	%	70 - 130
		1,3-Dichlorobenzene	2010/01/15		102	%	70 - 130
		1,4-Dichlorobenzene	2010/01/15		102	%	70 - 130
		1,2-Dichlorobenzene	2010/01/15		100	%	70 - 130
		1,2,4-Trichlorobenzene	2010/01/15		145 (1)	%	70 - 130
		Hexachlorobutadiene	2010/01/15		101	%	70 - 130
		Hexane	2010/01/15		79	%	70 - 130
		Cyclohexane	2010/01/15		83	%	70 - 130
		Tetrahydrofuran	2010/01/15		82	%	70 - 130
		1,4-Dioxane	2010/01/15		92	%	70 - 130
	Method Blank	Bromochloromethane	2010/01/15		95	%	60 - 140
		D5-Chlorobenzene	2010/01/15		93	%	60 - 140
		Difluorobenzene	2010/01/15		97	%	60 - 140
		2,2,4-Trimethylpentane	2010/01/15	ND, RDL=0.20		ppbv	
		Carbon Disulfide	2010/01/15	ND, RDL=0.50		ppbv	
		Propene	2010/01/15	ND, RDL=0.30		ppbv	
		Vinyl Acetate	2010/01/15	ND, RDL=0.20		ppbv	
		Vinyl Bromide	2010/01/15	ND, RDL=0.20		ppbv	
		Dichlorodifluoromethane (FREON 12)	2010/01/15	ND, RDL=0.20		ppbv	
		1,2-Dichlorotetrafluoroethane	2010/01/15	ND, RDL=0.17		ppbv	
		Chloromethane	2010/01/15	ND, RDL=0.30		ppbv	
		Vinyl Chloride	2010/01/15	ND, RDL=0.18		ppbv	
		Chloroethane	2010/01/15	ND, RDL=0.30		ppbv	

Lakeland Industry & Community Assoc.
 Attention: Shea Beaton
 Client Project #:
 P.O. #:
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Quality Assurance Report (Continued)

Maxxam Job Number: GB004549

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
2057951 VEA	Method Blank	1,3-Butadiene	2010/01/15	ND, RDL=0.50		ppbv	
		Trichlorofluoromethane (FREON 11)	2010/01/15	ND, RDL=0.20		ppbv	
		Trichlorotrifluoroethane	2010/01/15	ND, RDL=0.15		ppbv	
		Ethanol	2010/01/15	ND, RDL=2.3		ppbv	
		2-propanol	2010/01/15	ND, RDL=3.0		ppbv	
		2-Propanone	2010/01/15	ND, RDL=0.80		ppbv	
		Methyl Ethyl Ketone (2-Butanone)	2010/01/15	ND, RDL=3.0		ppbv	
		Methyl Isobutyl Ketone	2010/01/15	ND, RDL=3.2		ppbv	
		Methyl Butyl Ketone (2-Hexanone)	2010/01/15	ND, RDL=2.0		ppbv	
		Methyl t-butyl ether (MTBE)	2010/01/15	ND, RDL=0.20		ppbv	
		Ethyl Acetate	2010/01/15	ND, RDL=2.2		ppbv	
		1,1-Dichloroethylene	2010/01/15	ND, RDL=0.25		ppbv	
		cis-1,2-Dichloroethylene	2010/01/15	ND, RDL=0.19		ppbv	
		trans-1,2-Dichloroethylene	2010/01/15	ND, RDL=0.20		ppbv	
		Methylene Chloride(Dichloromethane)	2010/01/15	0.51, RDL=0.30		ppbv	
		Chloroform	2010/01/15	ND, RDL=0.15		ppbv	
		Carbon Tetrachloride	2010/01/15	ND, RDL=0.30		ppbv	
		1,1-Dichloroethane	2010/01/15	ND, RDL=0.20		ppbv	
		1,2-Dichloroethane	2010/01/15	ND, RDL=0.20		ppbv	
		Ethylene Dibromide	2010/01/15	ND, RDL=0.17		ppbv	
		1,1,1-Trichloroethane	2010/01/15	ND, RDL=0.30		ppbv	
		1,1,2-Trichloroethane	2010/01/15	ND, RDL=0.15		ppbv	
		1,1,2,2-Tetrachloroethane	2010/01/15	ND, RDL=0.20		ppbv	
		cis-1,3-Dichloropropene	2010/01/15	ND, RDL=0.18		ppbv	
		trans-1,3-Dichloropropene	2010/01/15	ND, RDL=0.17		ppbv	
		1,2-Dichloropropane	2010/01/15	ND, RDL=0.40		ppbv	
		Bromomethane	2010/01/15	ND, RDL=0.18		ppbv	
		Bromoform	2010/01/15	ND, RDL=0.20		ppbv	
		Bromodichloromethane	2010/01/15	ND, RDL=0.20		ppbv	
		Dibromochloromethane	2010/01/15	ND, RDL=0.20		ppbv	
		Heptane	2010/01/15	ND, RDL=0.30		ppbv	
		Trichloroethylene	2010/01/15	ND, RDL=0.30		ppbv	
		Tetrachloroethylene	2010/01/15	ND, RDL=0.20		ppbv	
		Benzene	2010/01/15	ND, RDL=0.18		ppbv	
		Toluene	2010/01/15	ND, RDL=0.20		ppbv	
		Ethylbenzene	2010/01/15	ND, RDL=0.20		ppbv	
		p+m-Xylene	2010/01/15	ND, RDL=0.37		ppbv	
		o-Xylene	2010/01/15	ND, RDL=0.20		ppbv	
		Styrene	2010/01/15	ND, RDL=0.20		ppbv	
		1,3,5-Trimethylbenzene	2010/01/15	ND, RDL=0.50		ppbv	
		1,2,4-Trimethylbenzene	2010/01/15	ND, RDL=0.50		ppbv	
		4-ethyltoluene	2010/01/15	ND, RDL=2.2		ppbv	
		Chlorobenzene	2010/01/15	ND, RDL=0.20		ppbv	
		Benzyl chloride	2010/01/15	ND, RDL=1.0		ppbv	
		1,3-Dichlorobenzene	2010/01/15	ND, RDL=0.40		ppbv	
		1,4-Dichlorobenzene	2010/01/15	ND, RDL=0.40		ppbv	
		1,2-Dichlorobenzene	2010/01/15	ND, RDL=0.40		ppbv	
		1,2,4-Trichlorobenzene	2010/01/15	ND, RDL=2.0		ppbv	
		Hexachlorobutadiene	2010/01/15	ND, RDL=3.0		ppbv	
		Hexane	2010/01/15	ND, RDL=0.30		ppbv	
		Cyclohexane	2010/01/15	ND, RDL=0.20		ppbv	
		Tetrahydrofuran	2010/01/15	ND, RDL=0.40		ppbv	
		1,4-Dioxane	2010/01/15	ND, RDL=2.0		ppbv	
		Xylene (Total)	2010/01/15	ND, RDL=0.60		ppbv	

Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.

Lakeland Industry & Community Assoc.
Attention: Shea Beaton
Client Project #:
P.O. #:
Project name:

Quality Assurance Report (Continued)

Maxxam Job Number: GB004549

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.
Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.
NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.
(1) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.

Maxxam Analytics Inc.

Xontech Model 910A VOC Sample Collection Data Sheet

Client: LICA Sampler s/n: 6200
 Location: 13-16-62-5 W4M Canister ID: S2210 (Maxxam Supplied)
 Station ID: Lica 33 (Portable) Canister Installation Date/Time: Jan 13, 09 @ 16:35 mst
 Field Sample ID: LICA VOC/PORT/ Jan 14, 10 Canister Removal Date/Time: Jan 15, 09 @ 09:35 mst

Date and Time Information			
Sample Date	Start Time (MST)	End Time (MST)	Elapsed Time (Hours)
14-Jan-10	01/14/2010 0:00	01/15/2010 0:00	24.00

Flow Settings		
Meter Reading (sccm)	Pot Set Pt.	Pump Pressure Setting (psig)
10.0	1481	25

Canister Information	
Initial Canister Vacuum (inHg)	Final Canister Pressure (psig)
-28	21

Canister valve open prior to sampling?: YES / NO
 Timer set to 0.00 minutes prior to sampling? YES / NO
 Canister valve closed prior to disconnection?: YES / NO

Comments: System leak check prior to sampling.

Technician Signature: Shea Beaton



Your C.O.C. #: 0562

Attention: Michael Bisaga

Lakeland Industry & Community Assoc.
P.O. Box 8237
Bonnyville, AB
CANADA T9N 2J5

Report Date: 2010/01/25

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B006847

Received: 2010/01/20, 12:03

Sample Matrix: AIR
Samples Received: 2

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
Canister Pressure (TO-15)	2	N/A	2010/01/21	BRL SOP-00304	EPA TO-15
Volatile Organics in Air (TO-15) ¶	2	N/A	2010/01/21	BRL SOP-00304	EPA TO-15

(1) Air sampling canisters have been cleaned in accordance with U.S. EPA Method TO14A. At the end of the cleaning, evacuation, and pressurization cycles, one canister was selected and was pressurized with Zero Air. This canister was then analyzed via TO14A on a GC/MS. The canister must have been found to contain <0.2 ppbv concentration of all target analytes in order for the batch to have been considered clean. Each canister also underwent a leak check prior to shipment.

Please Note: SUMMA® canister samples will be retained by Maxxam for a period of 5 calendar days from the date of this report, after which time they will be cleaned for reuse. If you require a longer sample storage period, please contact your service representative.

Encryption Key

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

THERESA STEPHENSON, Project Manager
Email: Theresa.Stephenson@MaxxamAnalytics.com
Phone# (905) 817-5763

=====

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Total cover pages: 1

Maxxam Job #: B006847
 Report Date: 2010/01/25

RESULTS OF ANALYSES OF AIR

Maxxam ID		EW7866	EW7867		
Sampling Date		2010/01/14	2010/01/14		
COC Number		0562	0562		
	Units	LICAVOC/PORT/JAN14,10 - S2210	LICAVOC/CLS/JAN14,10 - S2356	DL	QC Batch

Volatile Organics					
Pressure on Receipt	psig	21	20	N/A	2061933

RDL = Reportable Detection Limit
 QC Batch = Quality Control Batch

Maxxam Job #: B006847
 Report Date: 2010/01/25

VOLATILE ORGANICS BY GC/MS (AIR)

Maxxam ID		EW7866				
Sampling Date		2010/01/14				
COC Number		0562				
	Units	LICAVOC/PORT/JAN14,10 - S2210	DL	ug/m3	DL (ug/m3)	QC Batch

Volatile Organics						
2,2,4-Trimethylpentane	ppbv	<0.20	0.20	<0.934	0.934	2061945
Carbon Disulfide	ppbv	<0.50	0.50	<1.56	1.56	2061945
Propene	ppbv	<0.30	0.30	<0.516	0.516	2061945
Vinyl Acetate	ppbv	<0.20	0.20	<0.704	0.704	2061945
Vinyl Bromide	ppbv	<0.20	0.20	<0.875	0.875	2061945
Dichlorodifluoromethane (FREON 12)	ppbv	0.71	0.20	3.50	0.989	2061945
1,2-Dichlorotetrafluoroethane	ppbv	<0.17	0.17	<1.19	1.19	2061945
Chloromethane	ppbv	0.57	0.30	1.18	0.620	2061945
Vinyl Chloride	ppbv	<0.18	0.18	<0.460	0.460	2061945
Chloroethane	ppbv	<0.30	0.30	<0.792	0.792	2061945
1,3-Butadiene	ppbv	<0.50	0.50	<1.11	1.11	2061945
Trichlorofluoromethane (FREON 11)	ppbv	0.33	0.20	1.86	1.12	2061945
Trichlorotrifluoroethane	ppbv	<0.15	0.15	<1.15	1.15	2061945
Ethanol	ppbv	<2.3	2.3	<4.33	4.33	2061945
2-propanol	ppbv	<3.0	3.0	<7.37	7.37	2061945
2-Propanone	ppbv	1.68	0.80	3.99	1.90	2061945
Methyl Ethyl Ketone (2-Butanone)	ppbv	<3.0	3.0	<8.85	8.85	2061945
Methyl Isobutyl Ketone	ppbv	<3.2	3.2	<13.1	13.1	2061945
Methyl Butyl Ketone (2-Hexanone)	ppbv	<2.0	2.0	<8.19	8.19	2061945
Methyl t-butyl ether (MTBE)	ppbv	<0.20	0.20	<0.721	0.721	2061945
Ethyl Acetate	ppbv	<2.2	2.2	<7.93	7.93	2061945
1,1-Dichloroethylene	ppbv	<0.25	0.25	<0.991	0.991	2061945
cis-1,2-Dichloroethylene	ppbv	<0.19	0.19	<0.753	0.753	2061945
trans-1,2-Dichloroethylene	ppbv	<0.20	0.20	<0.793	0.793	2061945
Methylene Chloride(Dichloromethane)	ppbv	0.45	0.30	1.57	1.04	2061945
Chloroform	ppbv	<0.15	0.15	<0.732	0.732	2061945
Carbon Tetrachloride	ppbv	<0.30	0.30	<1.89	1.89	2061945
1,1-Dichloroethane	ppbv	<0.20	0.20	<0.809	0.809	2061945
1,2-Dichloroethane	ppbv	<0.20	0.20	<0.809	0.809	2061945
Ethylene Dibromide	ppbv	<0.17	0.17	<1.31	1.31	2061945
1,1,1-Trichloroethane	ppbv	<0.30	0.30	<1.64	1.64	2061945
1,1,2-Trichloroethane	ppbv	<0.15	0.15	<0.818	0.818	2061945

 RDL = Reportable Detection Limit
 QC Batch = Quality Control Batch

Maxxam Job #: B006847
 Report Date: 2010/01/25

VOLATILE ORGANICS BY GC/MS (AIR)

Maxxam ID		EW7866				
Sampling Date		2010/01/14				
COC Number		0562				
	Units	LICAVOC/PORT/JAN14,10 - S2210	DL	ug/m3	DL (ug/m3)	QC Batch

1,1,2,2-Tetrachloroethane	ppbv	<0.20	0.20	<1.37	1.37	2061945
cis-1,3-Dichloropropene	ppbv	<0.18	0.18	<0.817	0.817	2061945
trans-1,3-Dichloropropene	ppbv	<0.17	0.17	<0.772	0.772	2061945
1,2-Dichloropropane	ppbv	<0.40	0.40	<1.85	1.85	2061945
Bromomethane	ppbv	<0.18	0.18	<0.699	0.699	2061945
Bromoform	ppbv	<0.20	0.20	<2.07	2.07	2061945
Bromodichloromethane	ppbv	<0.20	0.20	<1.34	1.34	2061945
Dibromochloromethane	ppbv	<0.20	0.20	<1.70	1.70	2061945
Heptane	ppbv	<0.30	0.30	<1.23	1.23	2061945
Trichloroethylene	ppbv	<0.30	0.30	<1.61	1.61	2061945
Tetrachloroethylene	ppbv	<0.20	0.20	<1.36	1.36	2061945
Benzene	ppbv	0.19	0.18	0.617	0.575	2061945
Toluene	ppbv	0.21	0.20	0.807	0.753	2061945
Ethylbenzene	ppbv	<0.20	0.20	<0.868	0.868	2061945
p+m-Xylene	ppbv	<0.37	0.37	<1.61	1.61	2061945
o-Xylene	ppbv	<0.20	0.20	<0.868	0.868	2061945
Styrene	ppbv	<0.20	0.20	<0.852	0.852	2061945
1,3,5-Trimethylbenzene	ppbv	<0.50	0.50	<2.46	2.46	2061945
1,2,4-Trimethylbenzene	ppbv	<0.50	0.50	<2.46	2.46	2061945
4-ethyltoluene	ppbv	<2.2	2.2	<10.8	10.8	2061945
Chlorobenzene	ppbv	<0.20	0.20	<0.921	0.921	2061945
Benzyl chloride	ppbv	<1.0	1.0	<5.18	5.18	2061945
1,3-Dichlorobenzene	ppbv	<0.40	0.40	<2.40	2.40	2061945
1,4-Dichlorobenzene	ppbv	<0.40	0.40	<2.40	2.40	2061945
1,2-Dichlorobenzene	ppbv	<0.40	0.40	<2.40	2.40	2061945
1,2,4-Trichlorobenzene	ppbv	<2.0	2.0	<14.8	14.8	2061945
Hexachlorobutadiene	ppbv	<3.0	3.0	<32.0	32.0	2061945
Hexane	ppbv	<0.30	0.30	<1.06	1.06	2061945
Cyclohexane	ppbv	<0.20	0.20	<0.688	0.688	2061945
Tetrahydrofuran	ppbv	<0.40	0.40	<1.18	1.18	2061945
1,4-Dioxane	ppbv	<2.0	2.0	<7.21	7.21	2061945
Xylene (Total)	ppbv	<0.60	0.60	<2.61	2.61	2061945
Surrogate Recovery (%)						
Bromochloromethane	%	84		N/A	N/A	2061945

 N/A = Not Applicable
 QC Batch = Quality Control Batch

Maxxam Job #: B006847
 Report Date: 2010/01/25

VOLATILE ORGANICS BY GC/MS (AIR)

Maxxam ID		EW7866				
Sampling Date		2010/01/14				
COC Number		0562				
	Units	LICAVOC/PORT/JAN14,10 - S2210	DL	ug/m3	DL (ug/m3)	QC Batch

D5-Chlorobenzene	%	84		N/A	N/A	2061945
Difluorobenzene	%	87		N/A	N/A	2061945

N/A = Not Applicable
 QC Batch = Quality Control Batch

Maxxam Job #: B006847
 Report Date: 2010/01/25

VOLATILE ORGANICS BY GC/MS (AIR)

Maxxam ID		EW7867				
Sampling Date		2010/01/14				
COC Number		0562				
	Units	LICAVOC/CLS/JAN14,10 - S2356	DL	ug/m3	DL (ug/m3)	QC Batch

Volatile Organics						
2,2,4-Trimethylpentane	ppbv	<0.20	0.20	<0.934	0.934	2061945
Carbon Disulfide	ppbv	<0.50	0.50	<1.56	1.56	2061945
Propene	ppbv	<0.30	0.30	<0.516	0.516	2061945
Vinyl Acetate	ppbv	<0.20	0.20	<0.704	0.704	2061945
Vinyl Bromide	ppbv	<0.20	0.20	<0.875	0.875	2061945
Dichlorodifluoromethane (FREON 12)	ppbv	0.72	0.20	3.55	0.989	2061945
1,2-Dichlorotetrafluoroethane	ppbv	<0.17	0.17	<1.19	1.19	2061945
Chloromethane	ppbv	0.58	0.30	1.20	0.620	2061945
Vinyl Chloride	ppbv	<0.18	0.18	<0.460	0.460	2061945
Chloroethane	ppbv	<0.30	0.30	<0.792	0.792	2061945
1,3-Butadiene	ppbv	<0.50	0.50	<1.11	1.11	2061945
Trichlorofluoromethane (FREON 11)	ppbv	0.34	0.20	1.91	1.12	2061945
Trichlorotrifluoroethane	ppbv	<0.15	0.15	<1.15	1.15	2061945
Ethanol	ppbv	<2.3	2.3	<4.33	4.33	2061945
2-propanol	ppbv	<3.0	3.0	<7.37	7.37	2061945
2-Propanone	ppbv	1.19	0.80	2.82	1.90	2061945
Methyl Ethyl Ketone (2-Butanone)	ppbv	<3.0	3.0	<8.85	8.85	2061945
Methyl Isobutyl Ketone	ppbv	<3.2	3.2	<13.1	13.1	2061945
Methyl Butyl Ketone (2-Hexanone)	ppbv	<2.0	2.0	<8.19	8.19	2061945
Methyl t-butyl ether (MTBE)	ppbv	<0.20	0.20	<0.721	0.721	2061945
Ethyl Acetate	ppbv	<2.2	2.2	<7.93	7.93	2061945
1,1-Dichloroethylene	ppbv	<0.25	0.25	<0.991	0.991	2061945
cis-1,2-Dichloroethylene	ppbv	<0.19	0.19	<0.753	0.753	2061945
trans-1,2-Dichloroethylene	ppbv	<0.20	0.20	<0.793	0.793	2061945
Methylene Chloride(Dichloromethane)	ppbv	0.45	0.30	1.57	1.04	2061945
Chloroform	ppbv	<0.15	0.15	<0.732	0.732	2061945
Carbon Tetrachloride	ppbv	<0.30	0.30	<1.89	1.89	2061945
1,1-Dichloroethane	ppbv	<0.20	0.20	<0.809	0.809	2061945
1,2-Dichloroethane	ppbv	<0.20	0.20	<0.809	0.809	2061945
Ethylene Dibromide	ppbv	<0.17	0.17	<1.31	1.31	2061945
1,1,1-Trichloroethane	ppbv	<0.30	0.30	<1.64	1.64	2061945
1,1,2-Trichloroethane	ppbv	<0.15	0.15	<0.818	0.818	2061945
RDL = Reportable Detection Limit QC Batch = Quality Control Batch						

Maxxam Job #: B006847
 Report Date: 2010/01/25

VOLATILE ORGANICS BY GC/MS (AIR)

Maxxam ID		EW7867				
Sampling Date		2010/01/14				
COC Number		0562				
	Units	LICAVOC/CLS/JAN14,10 - S2356	DL	ug/m3	DL (ug/m3)	QC Batch
1,1,2,2-Tetrachloroethane	ppbv	<0.20	0.20	<1.37	1.37	2061945
cis-1,3-Dichloropropene	ppbv	<0.18	0.18	<0.817	0.817	2061945
trans-1,3-Dichloropropene	ppbv	<0.17	0.17	<0.772	0.772	2061945
1,2-Dichloropropane	ppbv	<0.40	0.40	<1.85	1.85	2061945
Bromomethane	ppbv	<0.18	0.18	<0.699	0.699	2061945
Bromoform	ppbv	<0.20	0.20	<2.07	2.07	2061945
Bromodichloromethane	ppbv	<0.20	0.20	<1.34	1.34	2061945
Dibromochloromethane	ppbv	<0.20	0.20	<1.70	1.70	2061945
Heptane	ppbv	<0.30	0.30	<1.23	1.23	2061945
Trichloroethylene	ppbv	<0.30	0.30	<1.61	1.61	2061945
Tetrachloroethylene	ppbv	<0.20	0.20	<1.36	1.36	2061945
Benzene	ppbv	0.21	0.18	0.667	0.575	2061945
Toluene	ppbv	0.21	0.20	0.792	0.753	2061945
Ethylbenzene	ppbv	<0.20	0.20	<0.868	0.868	2061945
p+m-Xylene	ppbv	<0.37	0.37	<1.61	1.61	2061945
o-Xylene	ppbv	<0.20	0.20	<0.868	0.868	2061945
Styrene	ppbv	<0.20	0.20	<0.852	0.852	2061945
1,3,5-Trimethylbenzene	ppbv	<0.50	0.50	<2.46	2.46	2061945
1,2,4-Trimethylbenzene	ppbv	<0.50	0.50	<2.46	2.46	2061945
4-ethyltoluene	ppbv	<2.2	2.2	<10.8	10.8	2061945
Chlorobenzene	ppbv	<0.20	0.20	<0.921	0.921	2061945
Benzyl chloride	ppbv	<1.0	1.0	<5.18	5.18	2061945
1,3-Dichlorobenzene	ppbv	<0.40	0.40	<2.40	2.40	2061945
1,4-Dichlorobenzene	ppbv	<0.40	0.40	<2.40	2.40	2061945
1,2-Dichlorobenzene	ppbv	<0.40	0.40	<2.40	2.40	2061945
1,2,4-Trichlorobenzene	ppbv	<2.0	2.0	<14.8	14.8	2061945
Hexachlorobutadiene	ppbv	<3.0	3.0	<32.0	32.0	2061945
Hexane	ppbv	<0.30	0.30	<1.06	1.06	2061945
Cyclohexane	ppbv	<0.20	0.20	<0.688	0.688	2061945
Tetrahydrofuran	ppbv	<0.40	0.40	<1.18	1.18	2061945
1,4-Dioxane	ppbv	<2.0	2.0	<7.21	7.21	2061945
Xylene (Total)	ppbv	<0.60	0.60	<2.61	2.61	2061945
Surrogate Recovery (%)						
Bromochloromethane	%	84		N/A	N/A	2061945
N/A = Not Applicable QC Batch = Quality Control Batch						

Maxxam Job #: B006847
 Report Date: 2010/01/25

VOLATILE ORGANICS BY GC/MS (AIR)

Maxxam ID		EW7867				
Sampling Date		2010/01/14				
COC Number		0562				
	Units	LICAVOC/CLS/JAN14,10	DL	ug/m3	DL (ug/m3)	QC Batch
		- S2356				

D5-Chlorobenzene	%	83		N/A	N/A	2061945
Difluorobenzene	%	86		N/A	N/A	2061945

N/A = Not Applicable
 QC Batch = Quality Control Batch

Maxxam Job #: B006847
 Report Date: 2010/01/25

Test Summary

Maxxam ID EW7866 **Collected** 2010/01/14
Sample ID LICAVOC/PORT/JAN14,10 - S2210 **Shipped**
Matrix AIR **Received** 2010/01/20

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Canister Pressure (TO-15)	PRES	2061933	N/A	2010/01/21	LSY
Volatile Organics in Air (TO-15)	GC/MS	2061945	N/A	2010/01/21	LSY

Maxxam ID EW7867 **Collected** 2010/01/14
Sample ID LICAVOC/CLS/JAN14,10 - S2356 **Shipped**
Matrix AIR **Received** 2010/01/20

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Canister Pressure (TO-15)	PRES	2061933	N/A	2010/01/21	LSY
Volatile Organics in Air (TO-15)	GC/MS	2061945	N/A	2010/01/21	LSY

Maxxam Job #: B006847
Report Date: 2010/01/25

GENERAL COMMENTS

Results relate only to the items tested.

Lakeland Industry & Community Assoc.
 Attention: Michael Bisaga
 Client Project #:
 P.O. #:
 Project name:

Quality Assurance Report
 Maxxam Job Number: GB006847

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
2061945 LSY	Spiked Blank	Bromochloromethane	2010/01/21		101	%	60 - 140
		D5-Chlorobenzene	2010/01/21		101	%	60 - 140
		Difluorobenzene	2010/01/21		103	%	60 - 140
		2,2,4-Trimethylpentane	2010/01/21		108	%	70 - 130
		Carbon Disulfide	2010/01/21		101	%	70 - 130
		Propene	2010/01/21		106	%	70 - 130
		Vinyl Acetate	2010/01/21		118	%	70 - 130
		Vinyl Bromide	2010/01/21		101	%	70 - 130
		Dichlorodifluoromethane (FREON 12)	2010/01/21		99	%	70 - 130
		1,2-Dichlorotetrafluoroethane	2010/01/21		86	%	70 - 130
		Chloromethane	2010/01/21		95	%	70 - 130
		Vinyl Chloride	2010/01/21		99	%	70 - 130
		Chloroethane	2010/01/21		100	%	70 - 130
		1,3-Butadiene	2010/01/21		90	%	70 - 130
		Trichlorofluoromethane (FREON 11)	2010/01/21		99	%	70 - 130
		Trichlorotrifluoroethane	2010/01/21		99	%	70 - 130
		Ethanol	2010/01/21		90	%	70 - 130
		2-propanol	2010/01/21		107	%	70 - 130
		2-Propanone	2010/01/21		83	%	70 - 130
		Methyl Ethyl Ketone (2-Butanone)	2010/01/21		109	%	70 - 130
		Methyl Isobutyl Ketone	2010/01/21		113	%	70 - 130
		Methyl Butyl Ketone (2-Hexanone)	2010/01/21		121	%	70 - 130
		Methyl t-butyl ether (MTBE)	2010/01/21		107	%	70 - 130
		Ethyl Acetate	2010/01/21		106	%	70 - 130
		1,1-Dichloroethylene	2010/01/21		103	%	70 - 130
		cis-1,2-Dichloroethylene	2010/01/21		103	%	70 - 130
		trans-1,2-Dichloroethylene	2010/01/21		106	%	70 - 130
		Methylene Chloride(Dichloromethane)	2010/01/21		93	%	70 - 130
		Chloroform	2010/01/21		100	%	70 - 130
		Carbon Tetrachloride	2010/01/21		103	%	70 - 130
		1,1-Dichloroethane	2010/01/21		102	%	70 - 130
		1,2-Dichloroethane	2010/01/21		100	%	70 - 130
		Ethylene Dibromide	2010/01/21		97	%	70 - 130
		1,1,1-Trichloroethane	2010/01/21		101	%	70 - 130
		1,1,2-Trichloroethane	2010/01/21		99	%	70 - 130
		1,1,2,2-Tetrachloroethane	2010/01/21		93	%	70 - 130
		cis-1,3-Dichloropropene	2010/01/21		109	%	70 - 130
		trans-1,3-Dichloropropene	2010/01/21		109	%	70 - 130
		1,2-Dichloropropane	2010/01/21		100	%	70 - 130
		Bromomethane	2010/01/21		92	%	70 - 130
		Bromoform	2010/01/21		105	%	70 - 130
		Bromodichloromethane	2010/01/21		107	%	70 - 130
		Dibromochloromethane	2010/01/21		104	%	70 - 130
		Heptane	2010/01/21		109	%	70 - 130
		Trichloroethylene	2010/01/21		97	%	70 - 130
		Tetrachloroethylene	2010/01/21		97	%	70 - 130
		Benzene	2010/01/21		99	%	70 - 130
		Toluene	2010/01/21		102	%	70 - 130
		Ethylbenzene	2010/01/21		100	%	70 - 130
		p+m-Xylene	2010/01/21		101	%	70 - 130
		o-Xylene	2010/01/21		102	%	70 - 130
		Styrene	2010/01/21		108	%	70 - 130
		1,3,5-Trimethylbenzene	2010/01/21		98	%	70 - 130
		1,2,4-Trimethylbenzene	2010/01/21		96	%	70 - 130
		4-ethyltoluene	2010/01/21		101	%	70 - 130

Lakeland Industry & Community Assoc.
 Attention: Michael Bisaga
 Client Project #:
 P.O. #:
 Project name:

Quality Assurance Report (Continued)

Maxxam Job Number: GB006847

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
2061945 LSY	Spiked Blank	Chlorobenzene	2010/01/21		94	%	70 - 130
		Benzyl chloride	2010/01/21		106	%	70 - 130
		1,3-Dichlorobenzene	2010/01/21		92	%	70 - 130
		1,4-Dichlorobenzene	2010/01/21		91	%	70 - 130
		1,2-Dichlorobenzene	2010/01/21		85	%	70 - 130
		1,2,4-Trichlorobenzene	2010/01/21		118	%	70 - 130
		Hexachlorobutadiene	2010/01/21		96	%	70 - 130
		Hexane	2010/01/21		103	%	70 - 130
		Cyclohexane	2010/01/21		109	%	70 - 130
		Tetrahydrofuran	2010/01/21		112	%	70 - 130
		1,4-Dioxane	2010/01/21		100	%	70 - 130
	Method Blank	Bromochloromethane	2010/01/21		87	%	60 - 140
		D5-Chlorobenzene	2010/01/21		83	%	60 - 140
		Difluorobenzene	2010/01/21		88	%	60 - 140
		2,2,4-Trimethylpentane	2010/01/21	ND, RDL=0.20		ppbv	
		Carbon Disulfide	2010/01/21	ND, RDL=0.50		ppbv	
		Propene	2010/01/21	ND, RDL=0.30		ppbv	
		Vinyl Acetate	2010/01/21	ND, RDL=0.20		ppbv	
		Vinyl Bromide	2010/01/21	ND, RDL=0.20		ppbv	
		Dichlorodifluoromethane (FREON 12)	2010/01/21	ND, RDL=0.20		ppbv	
		1,2-Dichlorotetrafluoroethane	2010/01/21	ND, RDL=0.17		ppbv	
		Chloromethane	2010/01/21	ND, RDL=0.30		ppbv	
		Vinyl Chloride	2010/01/21	ND, RDL=0.18		ppbv	
		Chloroethane	2010/01/21	ND, RDL=0.30		ppbv	
		1,3-Butadiene	2010/01/21	ND, RDL=0.50		ppbv	
		Trichlorofluoromethane (FREON 11)	2010/01/21	ND, RDL=0.20		ppbv	
		Trichlorotrifluoroethane	2010/01/21	ND, RDL=0.15		ppbv	
		Ethanol	2010/01/21	ND, RDL=2.3		ppbv	
		2-propanol	2010/01/21	ND, RDL=3.0		ppbv	
		2-Propanone	2010/01/21	ND, RDL=0.80		ppbv	
		Methyl Ethyl Ketone (2-Butanone)	2010/01/21	ND, RDL=3.0		ppbv	
		Methyl Isobutyl Ketone	2010/01/21	ND, RDL=3.2		ppbv	
		Methyl Butyl Ketone (2-Hexanone)	2010/01/21	ND, RDL=2.0		ppbv	
		Methyl t-butyl ether (MTBE)	2010/01/21	ND, RDL=0.20		ppbv	
		Ethyl Acetate	2010/01/21	ND, RDL=2.2		ppbv	
		1,1-Dichloroethylene	2010/01/21	ND, RDL=0.25		ppbv	
		cis-1,2-Dichloroethylene	2010/01/21	ND, RDL=0.19		ppbv	
		trans-1,2-Dichloroethylene	2010/01/21	ND, RDL=0.20		ppbv	
		Methylene Chloride(Dichloromethane)	2010/01/21	0.44, RDL=0.30		ppbv	
		Chloroform	2010/01/21	ND, RDL=0.15		ppbv	
		Carbon Tetrachloride	2010/01/21	ND, RDL=0.30		ppbv	
		1,1-Dichloroethane	2010/01/21	ND, RDL=0.20		ppbv	
		1,2-Dichloroethane	2010/01/21	ND, RDL=0.20		ppbv	
		Ethylene Dibromide	2010/01/21	ND, RDL=0.17		ppbv	
		1,1,1-Trichloroethane	2010/01/21	ND, RDL=0.30		ppbv	
		1,1,2-Trichloroethane	2010/01/21	ND, RDL=0.15		ppbv	
		1,1,2,2-Tetrachloroethane	2010/01/21	ND, RDL=0.20		ppbv	
		cis-1,3-Dichloropropene	2010/01/21	ND, RDL=0.18		ppbv	
		trans-1,3-Dichloropropene	2010/01/21	ND, RDL=0.17		ppbv	
		1,2-Dichloropropane	2010/01/21	ND, RDL=0.40		ppbv	
		Bromomethane	2010/01/21	ND, RDL=0.18		ppbv	
		Bromoform	2010/01/21	ND, RDL=0.20		ppbv	
		Bromodichloromethane	2010/01/21	ND, RDL=0.20		ppbv	
		Dibromochloromethane	2010/01/21	ND, RDL=0.20		ppbv	
		Heptane	2010/01/21	ND, RDL=0.30		ppbv	

Lakeland Industry & Community Assoc.
 Attention: Michael Bisaga
 Client Project #:
 P.O. #:
 Project name:

Quality Assurance Report (Continued)

Maxxam Job Number: GB006847

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
2061945 LSY	Method Blank	Trichloroethylene	2010/01/21	ND, RDL=0.30		ppbv	
		Tetrachloroethylene	2010/01/21	ND, RDL=0.20		ppbv	
		Benzene	2010/01/21	ND, RDL=0.18		ppbv	
		Toluene	2010/01/21	ND, RDL=0.20		ppbv	
		Ethylbenzene	2010/01/21	ND, RDL=0.20		ppbv	
		p+m-Xylene	2010/01/21	ND, RDL=0.37		ppbv	
		o-Xylene	2010/01/21	ND, RDL=0.20		ppbv	
		Styrene	2010/01/21	ND, RDL=0.20		ppbv	
		1,3,5-Trimethylbenzene	2010/01/21	ND, RDL=0.50		ppbv	
		1,2,4-Trimethylbenzene	2010/01/21	ND, RDL=0.50		ppbv	
		4-ethyltoluene	2010/01/21	ND, RDL=2.2		ppbv	
		Chlorobenzene	2010/01/21	ND, RDL=0.20		ppbv	
		Benzyl chloride	2010/01/21	ND, RDL=1.0		ppbv	
		1,3-Dichlorobenzene	2010/01/21	ND, RDL=0.40		ppbv	
		1,4-Dichlorobenzene	2010/01/21	ND, RDL=0.40		ppbv	
		1,2-Dichlorobenzene	2010/01/21	ND, RDL=0.40		ppbv	
		1,2,4-Trichlorobenzene	2010/01/21	ND, RDL=2.0		ppbv	
		Hexachlorobutadiene	2010/01/21	ND, RDL=3.0		ppbv	
		Hexane	2010/01/21	ND, RDL=0.30		ppbv	
		Cyclohexane	2010/01/21	ND, RDL=0.20		ppbv	
		Tetrahydrofuran	2010/01/21	ND, RDL=0.40		ppbv	
		1,4-Dioxane	2010/01/21	ND, RDL=2.0		ppbv	
		Xylene (Total)	2010/01/21	ND, RDL=0.60		ppbv	

Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.
 Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.
 Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

Maxxam Analytics Inc.

Xontech Model 910A VOC Sample Collection Data Sheet

Client: LICA Sampler s/n: 6200
 Location: 13-16-62-5 W4M Canister ID: 7785 (Maxxam Supplied)
 Station ID: Lica 33 (Portable) Canister Installation Date/Time: Jan 18, 10 @ 11:35 mst
 Field Sample ID: LICA VOC/PORT/ Jan 20, 10 Canister Removal Date/Time: Jan 22, 10 @ 10:45 mst

Date and Time Information			
Sample Date	Start Time (MST)	End Time (MST)	Elapsed Time (Hours)
20-Jan-10	01/20/2010 0:00	01/21/2010 0:00	24.00

Flow Settings		
Meter Reading (sccm)	Pot Set Pt.	Pump Pressure Setting (psig)
10.0	1481	25

Canister Information	
Initial Canister Vacuum (inHg)	Final Canister Pressure (psig)
-28	21

Canister valve open prior to sampling?: YES / NO
 Timer set to 0.00 minutes prior to sampling? YES / NO
 Canister valve closed prior to disconnection?: YES / NO

Comments: System leak check prior to sampling. COC# 2956

Technician Signature: Shea Beaton



Your C.O.C. #: 2956

Attention: Shea Beaton

Lakeland Industry & Community Assoc.
P.O. Box 8237
Bonnyville, AB
CANADA T9N 2J5

Report Date: 2010/02/03

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B009311

Received: 2010/01/26, 13:17

Sample Matrix: AIR
Samples Received: 2

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
Canister Pressure (TO-15)	2	N/A	2010/01/28	BRL SOP-00304	EPA TO-15
Volatile Organics in Air (TO-15) ¶	2	N/A	2010/01/28	BRL SOP-00304	EPA TO-15

(1) Air sampling canisters have been cleaned in accordance with U.S. EPA Method TO14A. At the end of the cleaning, evacuation, and pressurization cycles, one canister was selected and was pressurized with Zero Air. This canister was then analyzed via TO14A on a GC/MS. The canister must have been found to contain <0.2 ppbv concentration of all target analytes in order for the batch to have been considered clean. Each canister also underwent a leak check prior to shipment.

Please Note: SUMMA® canister samples will be retained by Maxxam for a period of 5 calendar days from the date of this report, after which time they will be cleaned for reuse. If you require a longer sample storage period, please contact your service representative.

Encryption Key

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

THERESA STEPHENSON, Project Manager
Email: Theresa.Stephenson@MaxxamAnalytics.com
Phone# (905) 817-5763

=====

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.

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Total cover pages: 1

Maxxam Job #: B009311
 Report Date: 2010/02/03

RESULTS OF ANALYSES OF AIR

Maxxam ID		EX9948	EX9949		
Sampling Date		2010/01/20 00:00	2010/01/20 00:00		
COC Number		2956	2956		
	Units	LICA VOC/CLS/JAN 20,10-7614	LICA VOC/PORT/JAN 20,10-7785	DL	QC Batch

Volatile Organics					
Pressure on Receipt	psig	18	20	N/A	2067226

RDL = Reportable Detection Limit
 QC Batch = Quality Control Batch

Maxxam Job #: B009311
 Report Date: 2010/02/03

VOLATILE ORGANICS BY GC/MS (AIR)

Maxxam ID		EX9948				
Sampling Date		2010/01/20 00:00				
COC Number		2956				
	Units	LICA VOC/CLS/JAN 20,10-7614	DL	ug/m3	DL (ug/m3)	QC Batch

Volatile Organics						
2,2,4-Trimethylpentane	ppbv	<0.20	0.20	<0.934	0.934	2067218
Carbon Disulfide	ppbv	<0.50	0.50	<1.56	1.56	2067218
Propene	ppbv	<0.30	0.30	<0.516	0.516	2067218
Vinyl Acetate	ppbv	<0.20	0.20	<0.704	0.704	2067218
Vinyl Bromide	ppbv	<0.20	0.20	<0.875	0.875	2067218
Dichlorodifluoromethane (FREON 12)	ppbv	0.64	0.20	3.16	0.989	2067218
1,2-Dichlorotetrafluoroethane	ppbv	<0.17	0.17	<1.19	1.19	2067218
Chloromethane	ppbv	0.47	0.30	0.972	0.620	2067218
Vinyl Chloride	ppbv	<0.18	0.18	<0.460	0.460	2067218
Chloroethane	ppbv	<0.30	0.30	<0.792	0.792	2067218
1,3-Butadiene	ppbv	<0.50	0.50	<1.11	1.11	2067218
Trichlorofluoromethane (FREON 11)	ppbv	0.33	0.20	1.85	1.12	2067218
Trichlorotrifluoroethane	ppbv	<0.15	0.15	<1.15	1.15	2067218
Ethanol	ppbv	<2.3	2.3	<4.33	4.33	2067218
2-propanol	ppbv	<3.0	3.0	<7.37	7.37	2067218
2-Propanone	ppbv	1.20	0.80	2.84	1.90	2067218
Methyl Ethyl Ketone (2-Butanone)	ppbv	<3.0	3.0	<8.85	8.85	2067218
Methyl Isobutyl Ketone	ppbv	<3.2	3.2	<13.1	13.1	2067218
Methyl Butyl Ketone (2-Hexanone)	ppbv	<2.0	2.0	<8.19	8.19	2067218
Methyl t-butyl ether (MTBE)	ppbv	<0.20	0.20	<0.721	0.721	2067218
Ethyl Acetate	ppbv	<2.2	2.2	<7.93	7.93	2067218
1,1-Dichloroethylene	ppbv	<0.25	0.25	<0.991	0.991	2067218
cis-1,2-Dichloroethylene	ppbv	<0.19	0.19	<0.753	0.753	2067218
trans-1,2-Dichloroethylene	ppbv	<0.20	0.20	<0.793	0.793	2067218
Methylene Chloride(Dichloromethane)	ppbv	0.47	0.30	1.63	1.04	2067218
Chloroform	ppbv	<0.15	0.15	<0.732	0.732	2067218
Carbon Tetrachloride	ppbv	<0.30	0.30	<1.89	1.89	2067218
1,1-Dichloroethane	ppbv	<0.20	0.20	<0.809	0.809	2067218
1,2-Dichloroethane	ppbv	<0.20	0.20	<0.809	0.809	2067218
Ethylene Dibromide	ppbv	<0.17	0.17	<1.31	1.31	2067218
RDL = Reportable Detection Limit QC Batch = Quality Control Batch						

Maxxam Job #: B009311
 Report Date: 2010/02/03

VOLATILE ORGANICS BY GC/MS (AIR)

Maxxam ID		EX9948				
Sampling Date		2010/01/20 00:00				
COC Number		2956				
	Units	LICA VOC/CLS/JAN 20,10-7614	DL	ug/m3	DL (ug/m3)	QC Batch
1,1,1-Trichloroethane	ppbv	<0.30	0.30	<1.64	1.64	2067218
1,1,2-Trichloroethane	ppbv	<0.15	0.15	<0.818	0.818	2067218
1,1,2,2-Tetrachloroethane	ppbv	<0.20	0.20	<1.37	1.37	2067218
cis-1,3-Dichloropropene	ppbv	<0.18	0.18	<0.817	0.817	2067218
trans-1,3-Dichloropropene	ppbv	<0.17	0.17	<0.772	0.772	2067218
1,2-Dichloropropane	ppbv	<0.40	0.40	<1.85	1.85	2067218
Bromomethane	ppbv	<0.18	0.18	<0.699	0.699	2067218
Bromoform	ppbv	<0.20	0.20	<2.07	2.07	2067218
Bromodichloromethane	ppbv	<0.20	0.20	<1.34	1.34	2067218
Dibromochloromethane	ppbv	<0.20	0.20	<1.70	1.70	2067218
Heptane	ppbv	<0.30	0.30	<1.23	1.23	2067218
Trichloroethylene	ppbv	<0.30	0.30	<1.61	1.61	2067218
Tetrachloroethylene	ppbv	<0.20	0.20	<1.36	1.36	2067218
Benzene	ppbv	<0.18	0.18	<0.575	0.575	2067218
Toluene	ppbv	<0.20	0.20	<0.753	0.753	2067218
Ethylbenzene	ppbv	<0.20	0.20	<0.868	0.868	2067218
p+m-Xylene	ppbv	<0.37	0.37	<1.61	1.61	2067218
o-Xylene	ppbv	<0.20	0.20	<0.868	0.868	2067218
Styrene	ppbv	<0.20	0.20	<0.852	0.852	2067218
1,3,5-Trimethylbenzene	ppbv	<0.50	0.50	<2.46	2.46	2067218
1,2,4-Trimethylbenzene	ppbv	<0.50	0.50	<2.46	2.46	2067218
4-ethyltoluene	ppbv	<2.2	2.2	<10.8	10.8	2067218
Chlorobenzene	ppbv	<0.20	0.20	<0.921	0.921	2067218
Benzyl chloride	ppbv	<1.0	1.0	<5.18	5.18	2067218
1,3-Dichlorobenzene	ppbv	<0.40	0.40	<2.40	2.40	2067218
1,4-Dichlorobenzene	ppbv	<0.40	0.40	<2.40	2.40	2067218
1,2-Dichlorobenzene	ppbv	<0.40	0.40	<2.40	2.40	2067218
1,2,4-Trichlorobenzene	ppbv	<2.0	2.0	<14.8	14.8	2067218
Hexachlorobutadiene	ppbv	<3.0	3.0	<32.0	32.0	2067218
Hexane	ppbv	<0.30	0.30	<1.06	1.06	2067218
Cyclohexane	ppbv	<0.20	0.20	<0.688	0.688	2067218
Tetrahydrofuran	ppbv	<0.40	0.40	<1.18	1.18	2067218
QC Batch = Quality Control Batch						

Maxxam Job #: B009311
 Report Date: 2010/02/03

VOLATILE ORGANICS BY GC/MS (AIR)

Maxxam ID		EX9948				
Sampling Date		2010/01/20 00:00				
COC Number		2956				
	Units	LICA VOC/CLS/JAN 20,10-7614	DL	ug/m3	DL (ug/m3)	QC Batch
1,4-Dioxane	ppbv	<2.0	2.0	<7.21	7.21	2067218
Xylene (Total)	ppbv	<0.60	0.60	<2.61	2.61	2067218
Surrogate Recovery (%)						
Bromochloromethane	%	74		N/A	N/A	2067218
D5-Chlorobenzene	%	74		N/A	N/A	2067218
Difluorobenzene	%	73		N/A	N/A	2067218
N/A = Not Applicable QC Batch = Quality Control Batch						

Maxxam Job #: B009311
 Report Date: 2010/02/03

VOLATILE ORGANICS BY GC/MS (AIR)

Maxxam ID		EX9949				
Sampling Date		2010/01/20 00:00				
COC Number		2956				
	Units	LICA VOC/PORT/JAN 20,10-7785	DL	ug/m3	DL (ug/m3)	QC Batch

Volatile Organics						
2,2,4-Trimethylpentane	ppbv	<0.20	0.20	<0.934	0.934	2067218
Carbon Disulfide	ppbv	<0.50	0.50	<1.56	1.56	2067218
Propene	ppbv	<0.30	0.30	<0.516	0.516	2067218
Vinyl Acetate	ppbv	<0.20	0.20	<0.704	0.704	2067218
Vinyl Bromide	ppbv	<0.20	0.20	<0.875	0.875	2067218
Dichlorodifluoromethane (FREON 12)	ppbv	0.66	0.20	3.28	0.989	2067218
1,2-Dichlorotetrafluoroethane	ppbv	<0.17	0.17	<1.19	1.19	2067218
Chloromethane	ppbv	0.42	0.30	0.861	0.620	2067218
Vinyl Chloride	ppbv	<0.18	0.18	<0.460	0.460	2067218
Chloroethane	ppbv	<0.30	0.30	<0.792	0.792	2067218
1,3-Butadiene	ppbv	<0.50	0.50	<1.11	1.11	2067218
Trichlorofluoromethane (FREON 11)	ppbv	0.32	0.20	1.82	1.12	2067218
Trichlorotrifluoroethane	ppbv	<0.15	0.15	<1.15	1.15	2067218
Ethanol	ppbv	<2.3	2.3	<4.33	4.33	2067218
2-propanol	ppbv	<3.0	3.0	<7.37	7.37	2067218
2-Propanone	ppbv	1.36	0.80	3.24	1.90	2067218
Methyl Ethyl Ketone (2-Butanone)	ppbv	<3.0	3.0	<8.85	8.85	2067218
Methyl Isobutyl Ketone	ppbv	<3.2	3.2	<13.1	13.1	2067218
Methyl Butyl Ketone (2-Hexanone)	ppbv	<2.0	2.0	<8.19	8.19	2067218
Methyl t-butyl ether (MTBE)	ppbv	<0.20	0.20	<0.721	0.721	2067218
Ethyl Acetate	ppbv	<2.2	2.2	<7.93	7.93	2067218
1,1-Dichloroethylene	ppbv	<0.25	0.25	<0.991	0.991	2067218
cis-1,2-Dichloroethylene	ppbv	<0.19	0.19	<0.753	0.753	2067218
trans-1,2-Dichloroethylene	ppbv	<0.20	0.20	<0.793	0.793	2067218
Methylene Chloride(Dichloromethane)	ppbv	0.41	0.30	1.41	1.04	2067218
Chloroform	ppbv	<0.15	0.15	<0.732	0.732	2067218
Carbon Tetrachloride	ppbv	<0.30	0.30	<1.89	1.89	2067218
1,1-Dichloroethane	ppbv	<0.20	0.20	<0.809	0.809	2067218
1,2-Dichloroethane	ppbv	<0.20	0.20	<0.809	0.809	2067218
Ethylene Dibromide	ppbv	<0.17	0.17	<1.31	1.31	2067218
RDL = Reportable Detection Limit QC Batch = Quality Control Batch						

Maxxam Job #: B009311
 Report Date: 2010/02/03

VOLATILE ORGANICS BY GC/MS (AIR)

Maxxam ID		EX9949				
Sampling Date		2010/01/20 00:00				
COC Number		2956				
	Units	LICA VOC/PORT/JAN 20,10-7785	DL	ug/m3	DL (ug/m3)	QC Batch
1,1,1-Trichloroethane	ppbv	<0.30	0.30	<1.64	1.64	2067218
1,1,2-Trichloroethane	ppbv	<0.15	0.15	<0.818	0.818	2067218
1,1,2,2-Tetrachloroethane	ppbv	<0.20	0.20	<1.37	1.37	2067218
cis-1,3-Dichloropropene	ppbv	<0.18	0.18	<0.817	0.817	2067218
trans-1,3-Dichloropropene	ppbv	<0.17	0.17	<0.772	0.772	2067218
1,2-Dichloropropane	ppbv	<0.40	0.40	<1.85	1.85	2067218
Bromomethane	ppbv	<0.18	0.18	<0.699	0.699	2067218
Bromoform	ppbv	<0.20	0.20	<2.07	2.07	2067218
Bromodichloromethane	ppbv	<0.20	0.20	<1.34	1.34	2067218
Dibromochloromethane	ppbv	<0.20	0.20	<1.70	1.70	2067218
Heptane	ppbv	<0.30	0.30	<1.23	1.23	2067218
Trichloroethylene	ppbv	<0.30	0.30	<1.61	1.61	2067218
Tetrachloroethylene	ppbv	<0.20	0.20	<1.36	1.36	2067218
Benzene	ppbv	<0.18	0.18	<0.575	0.575	2067218
Toluene	ppbv	<0.20	0.20	<0.753	0.753	2067218
Ethylbenzene	ppbv	<0.20	0.20	<0.868	0.868	2067218
p+m-Xylene	ppbv	<0.37	0.37	<1.61	1.61	2067218
o-Xylene	ppbv	<0.20	0.20	<0.868	0.868	2067218
Styrene	ppbv	<0.20	0.20	<0.852	0.852	2067218
1,3,5-Trimethylbenzene	ppbv	<0.50	0.50	<2.46	2.46	2067218
1,2,4-Trimethylbenzene	ppbv	<0.50	0.50	<2.46	2.46	2067218
4-ethyltoluene	ppbv	<2.2	2.2	<10.8	10.8	2067218
Chlorobenzene	ppbv	<0.20	0.20	<0.921	0.921	2067218
Benzyl chloride	ppbv	<1.0	1.0	<5.18	5.18	2067218
1,3-Dichlorobenzene	ppbv	<0.40	0.40	<2.40	2.40	2067218
1,4-Dichlorobenzene	ppbv	<0.40	0.40	<2.40	2.40	2067218
1,2-Dichlorobenzene	ppbv	<0.40	0.40	<2.40	2.40	2067218
1,2,4-Trichlorobenzene	ppbv	<2.0	2.0	<14.8	14.8	2067218
Hexachlorobutadiene	ppbv	<3.0	3.0	<32.0	32.0	2067218
Hexane	ppbv	<0.30	0.30	<1.06	1.06	2067218
Cyclohexane	ppbv	<0.20	0.20	<0.688	0.688	2067218
Tetrahydrofuran	ppbv	<0.40	0.40	<1.18	1.18	2067218
QC Batch = Quality Control Batch						

Maxxam Job #: B009311
 Report Date: 2010/02/03

VOLATILE ORGANICS BY GC/MS (AIR)

Maxxam ID		EX9949				
Sampling Date		2010/01/20 00:00				
COC Number		2956				
	Units	LICA VOC/PORT/JAN 20,10-7785	DL	ug/m3	DL (ug/m3)	QC Batch

1,4-Dioxane	ppbv	<2.0	2.0	<7.21	7.21	2067218
Xylene (Total)	ppbv	<0.60	0.60	<2.61	2.61	2067218
Surrogate Recovery (%)						
Bromochloromethane	%	71		N/A	N/A	2067218
D5-Chlorobenzene	%	71		N/A	N/A	2067218
Difluorobenzene	%	71		N/A	N/A	2067218

N/A = Not Applicable
 QC Batch = Quality Control Batch

Maxxam Job #: B009311
 Report Date: 2010/02/03

Test Summary

Maxxam ID EX9948 **Collected** 2010/01/20
Sample ID LICA VOC/CLS/JAN 20,10-7614 **Shipped**
Matrix AIR **Received** 2010/01/26

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Canister Pressure (TO-15)	PRES	2067226	N/A	2010/01/28	MM2
Volatile Organics in Air (TO-15)	GC/MS	2067218	N/A	2010/01/28	MM2

Maxxam ID EX9949 **Collected** 2010/01/20
Sample ID LICA VOC/PORT/JAN 20,10-7785 **Shipped**
Matrix AIR **Received** 2010/01/26

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Canister Pressure (TO-15)	PRES	2067226	N/A	2010/01/28	MM2
Volatile Organics in Air (TO-15)	GC/MS	2067218	N/A	2010/01/28	MM2

Maxxam Job #: B009311
Report Date: 2010/02/03

GENERAL COMMENTS

Results relate only to the items tested.

Lakeland Industry & Community Assoc.
 Attention: Shea Beaton
 Client Project #:
 P.O. #:
 Project name:

Quality Assurance Report
 Maxxam Job Number: GB009311

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
2067218 MM2	Spiked Blank	Bromochloromethane	2010/01/28		97	%	60 - 140
		D5-Chlorobenzene	2010/01/28		98	%	60 - 140
		Difluorobenzene	2010/01/28		97	%	60 - 140
		2,2,4-Trimethylpentane	2010/01/28		90	%	70 - 130
		Carbon Disulfide	2010/01/28		105	%	70 - 130
		Propene	2010/01/28		87	%	70 - 130
		Vinyl Acetate	2010/01/28		97	%	70 - 130
		Vinyl Bromide	2010/01/28		102	%	70 - 130
		Dichlorodifluoromethane (FREON 12)	2010/01/28		110	%	70 - 130
		1,2-Dichlorotetrafluoroethane	2010/01/28		96	%	70 - 130
		Chloromethane	2010/01/28		98	%	70 - 130
		Vinyl Chloride	2010/01/28		104	%	70 - 130
		Chloroethane	2010/01/28		106	%	70 - 130
		1,3-Butadiene	2010/01/28		98	%	70 - 130
		Trichlorofluoromethane (FREON 11)	2010/01/28		111	%	70 - 130
		Trichlorotrifluoroethane	2010/01/28		111	%	70 - 130
		Ethanol	2010/01/28		79	%	70 - 130
		2-propanol	2010/01/28		104	%	70 - 130
		2-Propanone	2010/01/28		101	%	70 - 130
		Methyl Ethyl Ketone (2-Butanone)	2010/01/28		94	%	70 - 130
		Methyl Isobutyl Ketone	2010/01/28		99	%	70 - 130
		Methyl Butyl Ketone (2-Hexanone)	2010/01/28		102	%	70 - 130
		Methyl t-butyl ether (MTBE)	2010/01/28		96	%	70 - 130
		Ethyl Acetate	2010/01/28		94	%	70 - 130
		1,1-Dichloroethylene	2010/01/28		105	%	70 - 130
		cis-1,2-Dichloroethylene	2010/01/28		101	%	70 - 130
		trans-1,2-Dichloroethylene	2010/01/28		97	%	70 - 130
		Methylene Chloride(Dichloromethane)	2010/01/28		97	%	70 - 130
		Chloroform	2010/01/28		103	%	70 - 130
		Carbon Tetrachloride	2010/01/28		112	%	70 - 130
		1,1-Dichloroethane	2010/01/28		98	%	70 - 130
		1,2-Dichloroethane	2010/01/28		103	%	70 - 130
		Ethylene Dibromide	2010/01/28		102	%	70 - 130
		1,1,1-Trichloroethane	2010/01/28		108	%	70 - 130
		1,1,2-Trichloroethane	2010/01/28		103	%	70 - 130
		1,1,2,2-Tetrachloroethane	2010/01/28		100	%	70 - 130
		cis-1,3-Dichloropropene	2010/01/28		105	%	70 - 130
		trans-1,3-Dichloropropene	2010/01/28		103	%	70 - 130
		1,2-Dichloropropane	2010/01/28		100	%	70 - 130
		Bromomethane	2010/01/28		118	%	70 - 130
		Bromoform	2010/01/28		111	%	70 - 130
		Bromodichloromethane	2010/01/28		111	%	70 - 130
		Dibromochloromethane	2010/01/28		110	%	70 - 130
		Heptane	2010/01/28		92	%	70 - 130
		Trichloroethylene	2010/01/28		108	%	70 - 130
		Tetrachloroethylene	2010/01/28		111	%	70 - 130
		Benzene	2010/01/28		97	%	70 - 130
		Toluene	2010/01/28		99	%	70 - 130
		Ethylbenzene	2010/01/28		99	%	70 - 130
		p+m-Xylene	2010/01/28		98	%	70 - 130
		o-Xylene	2010/01/28		100	%	70 - 130
		Styrene	2010/01/28		94	%	70 - 130
		1,3,5-Trimethylbenzene	2010/01/28		99	%	70 - 130
		1,2,4-Trimethylbenzene	2010/01/28		95	%	70 - 130
		4-ethyltoluene	2010/01/28		98	%	70 - 130

Lakeland Industry & Community Assoc.
 Attention: Shea Beaton
 Client Project #:
 P.O. #:
 Project name:

Quality Assurance Report (Continued)

Maxxam Job Number: GB009311

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
2067218 MM2	Spiked Blank	Chlorobenzene	2010/01/28		100	%	70 - 130
		Benzyl chloride	2010/01/28		87	%	70 - 130
		1,3-Dichlorobenzene	2010/01/28		97	%	70 - 130
		1,4-Dichlorobenzene	2010/01/28		93	%	70 - 130
		1,2-Dichlorobenzene	2010/01/28		93	%	70 - 130
		1,2,4-Trichlorobenzene	2010/01/28		74	%	70 - 130
		Hexachlorobutadiene	2010/01/28		91	%	70 - 130
		Hexane	2010/01/28		91	%	70 - 130
		Cyclohexane	2010/01/28		97	%	70 - 130
		Tetrahydrofuran	2010/01/28		93	%	70 - 130
		1,4-Dioxane	2010/01/28		103	%	70 - 130
	Method Blank	Bromochloromethane	2010/01/28		84	%	60 - 140
		D5-Chlorobenzene	2010/01/28		82	%	60 - 140
		Difluorobenzene	2010/01/28		85	%	60 - 140
		2,2,4-Trimethylpentane	2010/01/28	ND, RDL=0.20		ppbv	
		Carbon Disulfide	2010/01/28	ND, RDL=0.50		ppbv	
		Propene	2010/01/28	ND, RDL=0.30		ppbv	
		Vinyl Acetate	2010/01/28	ND, RDL=0.20		ppbv	
		Vinyl Bromide	2010/01/28	ND, RDL=0.20		ppbv	
		Dichlorodifluoromethane (FREON 12)	2010/01/28	ND, RDL=0.20		ppbv	
		1,2-Dichlorotetrafluoroethane	2010/01/28	ND, RDL=0.17		ppbv	
		Chloromethane	2010/01/28	ND, RDL=0.30		ppbv	
		Vinyl Chloride	2010/01/28	ND, RDL=0.18		ppbv	
		Chloroethane	2010/01/28	ND, RDL=0.30		ppbv	
		1,3-Butadiene	2010/01/28	ND, RDL=0.50		ppbv	
		Trichlorofluoromethane (FREON 11)	2010/01/28	ND, RDL=0.20		ppbv	
		Trichlorotrifluoroethane	2010/01/28	ND, RDL=0.15		ppbv	
		Ethanol	2010/01/28	ND, RDL=2.3		ppbv	
		2-propanol	2010/01/28	ND, RDL=3.0		ppbv	
		2-Propanone	2010/01/28	ND, RDL=0.80		ppbv	
		Methyl Ethyl Ketone (2-Butanone)	2010/01/28	ND, RDL=3.0		ppbv	
		Methyl Isobutyl Ketone	2010/01/28	ND, RDL=3.2		ppbv	
		Methyl Butyl Ketone (2-Hexanone)	2010/01/28	ND, RDL=2.0		ppbv	
		Methyl t-butyl ether (MTBE)	2010/01/28	ND, RDL=0.20		ppbv	
		Ethyl Acetate	2010/01/28	ND, RDL=2.2		ppbv	
		1,1-Dichloroethylene	2010/01/28	ND, RDL=0.25		ppbv	
		cis-1,2-Dichloroethylene	2010/01/28	ND, RDL=0.19		ppbv	
		trans-1,2-Dichloroethylene	2010/01/28	ND, RDL=0.20		ppbv	
		Methylene Chloride(Dichloromethane)	2010/01/28	0.53, RDL=0.30		ppbv	
		Chloroform	2010/01/28	ND, RDL=0.15		ppbv	
		Carbon Tetrachloride	2010/01/28	ND, RDL=0.30		ppbv	
		1,1-Dichloroethane	2010/01/28	ND, RDL=0.20		ppbv	
		1,2-Dichloroethane	2010/01/28	ND, RDL=0.20		ppbv	
		Ethylene Dibromide	2010/01/28	ND, RDL=0.17		ppbv	
		1,1,1-Trichloroethane	2010/01/28	ND, RDL=0.30		ppbv	
		1,1,2-Trichloroethane	2010/01/28	ND, RDL=0.15		ppbv	
		1,1,2,2-Tetrachloroethane	2010/01/28	ND, RDL=0.20		ppbv	
		cis-1,3-Dichloropropene	2010/01/28	ND, RDL=0.18		ppbv	
		trans-1,3-Dichloropropene	2010/01/28	ND, RDL=0.17		ppbv	
		1,2-Dichloropropane	2010/01/28	ND, RDL=0.40		ppbv	
		Bromomethane	2010/01/28	ND, RDL=0.18		ppbv	
		Bromoform	2010/01/28	ND, RDL=0.20		ppbv	
		Bromodichloromethane	2010/01/28	ND, RDL=0.20		ppbv	
		Dibromochloromethane	2010/01/28	ND, RDL=0.20		ppbv	
		Heptane	2010/01/28	ND, RDL=0.30		ppbv	

Lakeland Industry & Community Assoc.
 Attention: Shea Beaton
 Client Project #:
 P.O. #:
 Project name:

Quality Assurance Report (Continued)

Maxxam Job Number: GB009311

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
2067218	MM2	Method Blank					
		Trichloroethylene	2010/01/28	ND, RDL=0.30		ppbv	
		Tetrachloroethylene	2010/01/28	ND, RDL=0.20		ppbv	
		Benzene	2010/01/28	ND, RDL=0.18		ppbv	
		Toluene	2010/01/28	ND, RDL=0.20		ppbv	
		Ethylbenzene	2010/01/28	ND, RDL=0.20		ppbv	
		p+m-Xylene	2010/01/28	ND, RDL=0.37		ppbv	
		o-Xylene	2010/01/28	ND, RDL=0.20		ppbv	
		Styrene	2010/01/28	ND, RDL=0.20		ppbv	
		1,3,5-Trimethylbenzene	2010/01/28	ND, RDL=0.50		ppbv	
		1,2,4-Trimethylbenzene	2010/01/28	ND, RDL=0.50		ppbv	
		4-ethyltoluene	2010/01/28	ND, RDL=2.2		ppbv	
		Chlorobenzene	2010/01/28	ND, RDL=0.20		ppbv	
		Benzyl chloride	2010/01/28	ND, RDL=1.0		ppbv	
		1,3-Dichlorobenzene	2010/01/28	ND, RDL=0.40		ppbv	
		1,4-Dichlorobenzene	2010/01/28	ND, RDL=0.40		ppbv	
		1,2-Dichlorobenzene	2010/01/28	ND, RDL=0.40		ppbv	
		1,2,4-Trichlorobenzene	2010/01/28	ND, RDL=2.0		ppbv	
		Hexachlorobutadiene	2010/01/28	ND, RDL=3.0		ppbv	
		Hexane	2010/01/28	ND, RDL=0.30		ppbv	
		Cyclohexane	2010/01/28	ND, RDL=0.20		ppbv	
		Tetrahydrofuran	2010/01/28	ND, RDL=0.40		ppbv	
		1,4-Dioxane	2010/01/28	ND, RDL=2.0		ppbv	
		Xylene (Total)	2010/01/28	ND, RDL=0.6		ppbv	

Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.
 Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.
 Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

Maxxam Analytics Inc.

Xontech Model 910A VOC Sample Collection Data Sheet

Client: LICA Sampler s/n: 6200
 Location: 13-16-62-5 W4M Canister ID: 7860 (Maxxam Supplied)
 Station ID: Lica 33 (Portable) Canister Installation Date/Time: Jan 25, 10 @ 11:15 mst
 Field Sample ID: LICA VOC/PORT/ Jan 26, 10 Canister Removal Date/Time: Jan 27, 10 @ 09:40 mst

Date and Time Information			
Sample Date	Start Time (MST)	End Time (MST)	Elapsed Time (Hours)
26-Jan-10	01/26/2010 0:00	01/27/2010 0:00	24.00

Flow Settings		
Meter Reading (sccm)	Pot Set Pt.	Pump Pressure Setting (psig)
10.0	1481	25

Canister Information	
Initial Canister Vacuum (inHg)	Final Canister Pressure (psig)
-28	21

Canister valve open prior to sampling?: YES / NO
 Timer set to 0.00 minutes prior to sampling? YES / NO
 Canister valve closed prior to disconnection?: YES / NO

Comments: System leak check prior to sampling. COC# 560

Technician Signiture: Shea Beaton



Your C.O.C. #: 0560

Attention: Shea Beaton

Lakeland Industry & Community Assoc.
P.O. Box 8237
Bonnyville, AB
CANADA T9N 2J5

Report Date: 2010/02/05

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B010562

Received: 2010/01/28, 08:22

Sample Matrix: AIR
Samples Received: 2

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
Canister Pressure (TO-15)	2	N/A	2010/01/29	BRL SOP-00304	EPA TO-15
Volatile Organics in Air (TO-15) ¶	2	N/A	2010/01/29	BRL SOP-00304	EPA TO-15

(1) Air sampling canisters have been cleaned in accordance with U.S. EPA Method TO14A. At the end of the cleaning, evacuation, and pressurization cycles, one canister was selected and was pressurized with Zero Air. This canister was then analyzed via TO14A on a GC/MS. The canister must have been found to contain <0.2 ppbv concentration of all target analytes in order for the batch to have been considered clean. Each canister also underwent a leak check prior to shipment.

Please Note: SUMMA® canister samples will be retained by Maxxam for a period of 5 calendar days from the date of this report, after which time they will be cleaned for reuse. If you require a longer sample storage period, please contact your service representative.

Encryption Key

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

THERESA STEPHENSON, Project Manager
Email: Theresa.Stephenson@MaxxamAnalytics.com
Phone# (905) 817-5763

=====

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Total cover pages: 1

Maxxam Job #: B010562
 Report Date: 2010/02/05

RESULTS OF ANALYSES OF AIR

Maxxam ID		EY5531	EY5532		
Sampling Date		2010/01/26	2010/01/26		
COC Number		0560	0560		
	Units	LICA VOC/CLS/JAN 26,10	LICA VOC/PORT/JAN 26,10 / 7860	DL	QC Batch

Volatile Organics					
Pressure on Receipt	psig	20	20	N/A	2068481

RDL = Reportable Detection Limit
 QC Batch = Quality Control Batch

Maxxam Job #: B010562
 Report Date: 2010/02/05

VOLATILE ORGANICS BY GC/MS (AIR)

Maxxam ID		EY5531				
Sampling Date		2010/01/26				
COC Number		0560				
	Units	LICA VOC/CLS/JAN 26,10	DL	ug/m3	DL (ug/m3)	QC Batch

Volatile Organics						
2,2,4-Trimethylpentane	ppbv	<0.20	0.20	<0.934	0.934	2068486
Carbon Disulfide	ppbv	<0.50	0.50	<1.56	1.56	2068486
Propene	ppbv	<0.30	0.30	<0.516	0.516	2068486
Vinyl Acetate	ppbv	<0.20	0.20	<0.704	0.704	2068486
Vinyl Bromide	ppbv	<0.20	0.20	<0.875	0.875	2068486
Dichlorodifluoromethane (FREON 12)	ppbv	0.72	0.20	3.55	0.989	2068486
1,2-Dichlorotetrafluoroethane	ppbv	<0.17	0.17	<1.19	1.19	2068486
Chloromethane	ppbv	0.56	0.30	1.15	0.620	2068486
Vinyl Chloride	ppbv	<0.18	0.18	<0.460	0.460	2068486
Chloroethane	ppbv	<0.30	0.30	<0.792	0.792	2068486
1,3-Butadiene	ppbv	<0.50	0.50	<1.11	1.11	2068486
Trichlorofluoromethane (FREON 11)	ppbv	0.32	0.20	1.77	1.12	2068486
Trichlorotrifluoroethane	ppbv	<0.15	0.15	<1.15	1.15	2068486
Ethanol	ppbv	<2.3	2.3	<4.33	4.33	2068486
2-propanol	ppbv	<3.0	3.0	<7.37	7.37	2068486
2-Propanone	ppbv	0.90	0.80	2.14	1.90	2068486
Methyl Ethyl Ketone (2-Butanone)	ppbv	<3.0	3.0	<8.85	8.85	2068486
Methyl Isobutyl Ketone	ppbv	<3.2	3.2	<13.1	13.1	2068486
Methyl Butyl Ketone (2-Hexanone)	ppbv	<2.0	2.0	<8.19	8.19	2068486
Methyl t-butyl ether (MTBE)	ppbv	<0.20	0.20	<0.721	0.721	2068486
Ethyl Acetate	ppbv	<2.2	2.2	<7.93	7.93	2068486
1,1-Dichloroethylene	ppbv	<0.25	0.25	<0.991	0.991	2068486
cis-1,2-Dichloroethylene	ppbv	<0.19	0.19	<0.753	0.753	2068486
trans-1,2-Dichloroethylene	ppbv	<0.20	0.20	<0.793	0.793	2068486
Methylene Chloride(Dichloromethane)	ppbv	0.44	0.30	1.53	1.04	2068486
Chloroform	ppbv	<0.15	0.15	<0.732	0.732	2068486
Carbon Tetrachloride	ppbv	<0.30	0.30	<1.89	1.89	2068486
1,1-Dichloroethane	ppbv	<0.20	0.20	<0.809	0.809	2068486
1,2-Dichloroethane	ppbv	<0.20	0.20	<0.809	0.809	2068486
Ethylene Dibromide	ppbv	<0.17	0.17	<1.31	1.31	2068486
1,1,1-Trichloroethane	ppbv	<0.30	0.30	<1.64	1.64	2068486

 RDL = Reportable Detection Limit
 QC Batch = Quality Control Batch

Maxxam Job #: B010562
 Report Date: 2010/02/05

VOLATILE ORGANICS BY GC/MS (AIR)

Maxxam ID		EY5531				
Sampling Date		2010/01/26				
COC Number		0560				
	Units	LICA VOC/CLS/JAN 26,10	DL	ug/m3	DL (ug/m3)	QC Batch
1,1,2-Trichloroethane	ppbv	<0.15	0.15	<0.818	0.818	2068486
1,1,2,2-Tetrachloroethane	ppbv	<0.20	0.20	<1.37	1.37	2068486
cis-1,3-Dichloropropene	ppbv	<0.18	0.18	<0.817	0.817	2068486
trans-1,3-Dichloropropene	ppbv	<0.17	0.17	<0.772	0.772	2068486
1,2-Dichloropropane	ppbv	<0.40	0.40	<1.85	1.85	2068486
Bromomethane	ppbv	<0.18	0.18	<0.699	0.699	2068486
Bromoform	ppbv	<0.20	0.20	<2.07	2.07	2068486
Bromodichloromethane	ppbv	<0.20	0.20	<1.34	1.34	2068486
Dibromochloromethane	ppbv	<0.20	0.20	<1.70	1.70	2068486
Heptane	ppbv	<0.30	0.30	<1.23	1.23	2068486
Trichloroethylene	ppbv	<0.30	0.30	<1.61	1.61	2068486
Tetrachloroethylene	ppbv	<0.20	0.20	<1.36	1.36	2068486
Benzene	ppbv	<0.18	0.18	<0.575	0.575	2068486
Toluene	ppbv	<0.20	0.20	<0.753	0.753	2068486
Ethylbenzene	ppbv	<0.20	0.20	<0.868	0.868	2068486
p+m-Xylene	ppbv	<0.37	0.37	<1.61	1.61	2068486
o-Xylene	ppbv	<0.20	0.20	<0.868	0.868	2068486
Styrene	ppbv	<0.20	0.20	<0.852	0.852	2068486
1,3,5-Trimethylbenzene	ppbv	<0.50	0.50	<2.46	2.46	2068486
1,2,4-Trimethylbenzene	ppbv	<0.50	0.50	<2.46	2.46	2068486
4-ethyltoluene	ppbv	<2.2	2.2	<10.8	10.8	2068486
Chlorobenzene	ppbv	<0.20	0.20	<0.921	0.921	2068486
Benzyl chloride	ppbv	<1.0	1.0	<5.18	5.18	2068486
1,3-Dichlorobenzene	ppbv	<0.40	0.40	<2.40	2.40	2068486
1,4-Dichlorobenzene	ppbv	<0.40	0.40	<2.40	2.40	2068486
1,2-Dichlorobenzene	ppbv	<0.40	0.40	<2.40	2.40	2068486
1,2,4-Trichlorobenzene	ppbv	<2.0	2.0	<14.8	14.8	2068486
Hexachlorobutadiene	ppbv	<3.0	3.0	<32.0	32.0	2068486
Hexane	ppbv	<0.30	0.30	<1.06	1.06	2068486
Cyclohexane	ppbv	<0.20	0.20	<0.688	0.688	2068486
Tetrahydrofuran	ppbv	<0.40	0.40	<1.18	1.18	2068486
1,4-Dioxane	ppbv	<2.0	2.0	<7.21	7.21	2068486
Xylene (Total)	ppbv	<0.60	0.60	<2.61	2.61	2068486
QC Batch = Quality Control Batch						

Maxxam Job #: B010562
 Report Date: 2010/02/05

VOLATILE ORGANICS BY GC/MS (AIR)

Maxxam ID		EY5531				
Sampling Date		2010/01/26				
COC Number		0560				
	Units	LICA VOC/CLS/JAN 26,10	DL	ug/m3	DL (ug/m3)	QC Batch

Surrogate Recovery (%)						
Bromochloromethane	%	85		N/A	N/A	2068486
D5-Chlorobenzene	%	73		N/A	N/A	2068486
Difluorobenzene	%	85		N/A	N/A	2068486

N/A = Not Applicable
 QC Batch = Quality Control Batch

Maxxam Job #: B010562
 Report Date: 2010/02/05

VOLATILE ORGANICS BY GC/MS (AIR)

Maxxam ID		EY5532				
Sampling Date		2010/01/26				
COC Number		0560				
	Units	LICA	DL	ug/m3	DL (ug/m3)	QC Batch
		VOC/PORT/JAN				
		26,10 / 7860				
Volatile Organics						
2,2,4-Trimethylpentane	ppbv	<0.20	0.20	<0.934	0.934	2068486
Carbon Disulfide	ppbv	<0.50	0.50	<1.56	1.56	2068486
Propene	ppbv	<0.30	0.30	<0.516	0.516	2068486
Vinyl Acetate	ppbv	<0.20	0.20	<0.704	0.704	2068486
Vinyl Bromide	ppbv	<0.20	0.20	<0.875	0.875	2068486
Dichlorodifluoromethane (FREON 12)	ppbv	0.62	0.20	3.05	0.989	2068486
1,2-Dichlorotetrafluoroethane	ppbv	<0.17	0.17	<1.19	1.19	2068486
Chloromethane	ppbv	0.53	0.30	1.08	0.620	2068486
Vinyl Chloride	ppbv	<0.18	0.18	<0.460	0.460	2068486
Chloroethane	ppbv	<0.30	0.30	<0.792	0.792	2068486
1,3-Butadiene	ppbv	<0.50	0.50	<1.11	1.11	2068486
Trichlorofluoromethane (FREON 11)	ppbv	0.29	0.20	1.64	1.12	2068486
Trichlorotrifluoroethane	ppbv	<0.15	0.15	<1.15	1.15	2068486
Ethanol	ppbv	<2.3	2.3	<4.33	4.33	2068486
2-propanol	ppbv	<3.0	3.0	<7.37	7.37	2068486
2-Propanone	ppbv	1.06	0.80	2.52	1.90	2068486
Methyl Ethyl Ketone (2-Butanone)	ppbv	<3.0	3.0	<8.85	8.85	2068486
Methyl Isobutyl Ketone	ppbv	<3.2	3.2	<13.1	13.1	2068486
Methyl Butyl Ketone (2-Hexanone)	ppbv	<2.0	2.0	<8.19	8.19	2068486
Methyl t-butyl ether (MTBE)	ppbv	<0.20	0.20	<0.721	0.721	2068486
Ethyl Acetate	ppbv	<2.2	2.2	<7.93	7.93	2068486
1,1-Dichloroethylene	ppbv	<0.25	0.25	<0.991	0.991	2068486
cis-1,2-Dichloroethylene	ppbv	<0.19	0.19	<0.753	0.753	2068486
trans-1,2-Dichloroethylene	ppbv	<0.20	0.20	<0.793	0.793	2068486
Methylene Chloride(Dichloromethane)	ppbv	0.36	0.30	1.25	1.04	2068486
Chloroform	ppbv	<0.15	0.15	<0.732	0.732	2068486
Carbon Tetrachloride	ppbv	<0.30	0.30	<1.89	1.89	2068486
1,1-Dichloroethane	ppbv	<0.20	0.20	<0.809	0.809	2068486
1,2-Dichloroethane	ppbv	<0.20	0.20	<0.809	0.809	2068486
Ethylene Dibromide	ppbv	<0.17	0.17	<1.31	1.31	2068486
1,1,1-Trichloroethane	ppbv	<0.30	0.30	<1.64	1.64	2068486
RDL = Reportable Detection Limit QC Batch = Quality Control Batch						

Maxxam Job #: B010562
 Report Date: 2010/02/05

VOLATILE ORGANICS BY GC/MS (AIR)

Maxxam ID		EY5532				
Sampling Date		2010/01/26				
COC Number		0560				
	Units	LICA	DL	ug/m3	DL (ug/m3)	QC Batch
		VOC/PORT/JAN				
		26,10 / 7860				
1,1,2-Trichloroethane	ppbv	<0.15	0.15	<0.818	0.818	2068486
1,1,2,2-Tetrachloroethane	ppbv	<0.20	0.20	<1.37	1.37	2068486
cis-1,3-Dichloropropene	ppbv	<0.18	0.18	<0.817	0.817	2068486
trans-1,3-Dichloropropene	ppbv	<0.17	0.17	<0.772	0.772	2068486
1,2-Dichloropropane	ppbv	<0.40	0.40	<1.85	1.85	2068486
Bromomethane	ppbv	<0.18	0.18	<0.699	0.699	2068486
Bromoform	ppbv	<0.20	0.20	<2.07	2.07	2068486
Bromodichloromethane	ppbv	<0.20	0.20	<1.34	1.34	2068486
Dibromochloromethane	ppbv	<0.20	0.20	<1.70	1.70	2068486
Heptane	ppbv	<0.30	0.30	<1.23	1.23	2068486
Trichloroethylene	ppbv	<0.30	0.30	<1.61	1.61	2068486
Tetrachloroethylene	ppbv	<0.20	0.20	<1.36	1.36	2068486
Benzene	ppbv	<0.18	0.18	<0.575	0.575	2068486
Toluene	ppbv	<0.20	0.20	<0.753	0.753	2068486
Ethylbenzene	ppbv	<0.20	0.20	<0.868	0.868	2068486
p+m-Xylene	ppbv	<0.37	0.37	<1.61	1.61	2068486
o-Xylene	ppbv	<0.20	0.20	<0.868	0.868	2068486
Styrene	ppbv	<0.20	0.20	<0.852	0.852	2068486
1,3,5-Trimethylbenzene	ppbv	<0.50	0.50	<2.46	2.46	2068486
1,2,4-Trimethylbenzene	ppbv	<0.50	0.50	<2.46	2.46	2068486
4-ethyltoluene	ppbv	<2.2	2.2	<10.8	10.8	2068486
Chlorobenzene	ppbv	<0.20	0.20	<0.921	0.921	2068486
Benzyl chloride	ppbv	<1.0	1.0	<5.18	5.18	2068486
1,3-Dichlorobenzene	ppbv	<0.40	0.40	<2.40	2.40	2068486
1,4-Dichlorobenzene	ppbv	<0.40	0.40	<2.40	2.40	2068486
1,2-Dichlorobenzene	ppbv	<0.40	0.40	<2.40	2.40	2068486
1,2,4-Trichlorobenzene	ppbv	<2.0	2.0	<14.8	14.8	2068486
Hexachlorobutadiene	ppbv	<3.0	3.0	<32.0	32.0	2068486
Hexane	ppbv	<0.30	0.30	<1.06	1.06	2068486
Cyclohexane	ppbv	<0.20	0.20	<0.688	0.688	2068486
Tetrahydrofuran	ppbv	<0.40	0.40	<1.18	1.18	2068486
1,4-Dioxane	ppbv	<2.0	2.0	<7.21	7.21	2068486
Xylene (Total)	ppbv	<0.60	0.60	<2.61	2.61	2068486
QC Batch = Quality Control Batch						

Maxxam Job #: B010562
 Report Date: 2010/02/05

VOLATILE ORGANICS BY GC/MS (AIR)

Maxxam ID		EY5532				
Sampling Date		2010/01/26				
COC Number		0560				
	Units	LICA	DL	ug/m3	DL (ug/m3)	QC Batch
		VOC/PORT/JAN				
		26,10 / 7860				

Surrogate Recovery (%)						
Bromochloromethane	%	77		N/A	N/A	2068486
D5-Chlorobenzene	%	66		N/A	N/A	2068486
Difluorobenzene	%	74		N/A	N/A	2068486

N/A = Not Applicable
 QC Batch = Quality Control Batch

Maxxam Job #: B010562
 Report Date: 2010/02/05

Test Summary

Maxxam ID EY5531 **Collected** 2010/01/26
Sample ID LICA VOC/CLS/JAN 26,10 **Shipped**
Matrix AIR **Received** 2010/01/28

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Canister Pressure (TO-15)	PRES	2068481	N/A	2010/01/29	S_S
Volatile Organics in Air (TO-15)	GC/MS	2068486	N/A	2010/01/29	S_S

Maxxam ID EY5531 Dup **Collected** 2010/01/26
Sample ID LICA VOC/CLS/JAN 26,10 **Shipped**
Matrix AIR **Received** 2010/01/28

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Volatile Organics in Air (TO-15)	GC/MS	2068486	N/A	2010/01/29	S_S

Maxxam ID EY5532 **Collected** 2010/01/26
Sample ID LICA VOC/PORT/JAN 26,10 / 7860 **Shipped**
Matrix AIR **Received** 2010/01/28

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Canister Pressure (TO-15)	PRES	2068481	N/A	2010/01/29	S_S
Volatile Organics in Air (TO-15)	GC/MS	2068486	N/A	2010/01/29	S_S

Maxxam Job #: B010562
Report Date: 2010/02/05

GENERAL COMMENTS

Results relate only to the items tested.

Lakeland Industry & Community Assoc.
 Attention: Shea Beaton
 Client Project #:
 P.O. #:
 Project name:

Quality Assurance Report

Maxxam Job Number: GB010562

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
2068486 S_S	Spiked Blank	Bromochloromethane	2010/01/29		104	%	60 - 140
		D5-Chlorobenzene	2010/01/29		105	%	60 - 140
		Difluorobenzene	2010/01/29		106	%	60 - 140
		2,2,4-Trimethylpentane	2010/01/29		91	%	70 - 130
		Carbon Disulfide	2010/01/29		88	%	70 - 130
		Propene	2010/01/29		73	%	70 - 130
		Vinyl Acetate	2010/01/29		98	%	70 - 130
		Vinyl Bromide	2010/01/29		90	%	70 - 130
		Dichlorodifluoromethane (FREON 12)	2010/01/29		90	%	70 - 130
		1,2-Dichlorotetrafluoroethane	2010/01/29		76	%	70 - 130
		Chloromethane	2010/01/29		76	%	70 - 130
		Vinyl Chloride	2010/01/29		79	%	70 - 130
		Chloroethane	2010/01/29		80	%	70 - 130
		1,3-Butadiene	2010/01/29		72	%	70 - 130
		Trichlorofluoromethane (FREON 11)	2010/01/29		95	%	70 - 130
		Trichlorotrifluoroethane	2010/01/29		88	%	70 - 130
		Ethanol	2010/01/29		89	%	70 - 130
		2-propanol	2010/01/29		92	%	70 - 130
		2-Propanone	2010/01/29		93	%	70 - 130
		Methyl Ethyl Ketone (2-Butanone)	2010/01/29		105	%	70 - 130
		Methyl Isobutyl Ketone	2010/01/29		95	%	70 - 130
		Methyl Butyl Ketone (2-Hexanone)	2010/01/29		105	%	70 - 130
		Methyl t-butyl ether (MTBE)	2010/01/29		96	%	70 - 130
		Ethyl Acetate	2010/01/29		88	%	70 - 130
		1,1-Dichloroethylene	2010/01/29		90	%	70 - 130
		cis-1,2-Dichloroethylene	2010/01/29		88	%	70 - 130
		trans-1,2-Dichloroethylene	2010/01/29		89	%	70 - 130
		Methylene Chloride(Dichloromethane)	2010/01/29		74	%	70 - 130
		Chloroform	2010/01/29		87	%	70 - 130
		Carbon Tetrachloride	2010/01/29		102	%	70 - 130
		1,1-Dichloroethane	2010/01/29		86	%	70 - 130
		1,2-Dichloroethane	2010/01/29		91	%	70 - 130
		Ethylene Dibromide	2010/01/29		94	%	70 - 130
		1,1,1-Trichloroethane	2010/01/29		97	%	70 - 130
		1,1,2-Trichloroethane	2010/01/29		88	%	70 - 130
		1,1,2,2-Tetrachloroethane	2010/01/29		88	%	70 - 130
		cis-1,3-Dichloropropene	2010/01/29		102	%	70 - 130
		trans-1,3-Dichloropropene	2010/01/29		107	%	70 - 130
		1,2-Dichloropropane	2010/01/29		83	%	70 - 130
		Bromomethane	2010/01/29		78	%	70 - 130
		Bromoform	2010/01/29		108	%	70 - 130
		Bromodichloromethane	2010/01/29		103	%	70 - 130
		Dibromochloromethane	2010/01/29		107	%	70 - 130
		Heptane	2010/01/29		89	%	70 - 130
		Trichloroethylene	2010/01/29		86	%	70 - 130
		Tetrachloroethylene	2010/01/29		92	%	70 - 130
		Benzene	2010/01/29		85	%	70 - 130
		Toluene	2010/01/29		97	%	70 - 130
		Ethylbenzene	2010/01/29		94	%	70 - 130
		p+m-Xylene	2010/01/29		95	%	70 - 130
		o-Xylene	2010/01/29		96	%	70 - 130
		Styrene	2010/01/29		102	%	70 - 130
		1,3,5-Trimethylbenzene	2010/01/29		97	%	70 - 130
		1,2,4-Trimethylbenzene	2010/01/29		101	%	70 - 130
		4-ethyltoluene	2010/01/29		103	%	70 - 130

Lakeland Industry & Community Assoc.
 Attention: Shea Beaton
 Client Project #:
 P.O. #:
 Project name:

Quality Assurance Report (Continued)
 Maxxam Job Number: GB010562

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits	
2068486 S_S	Spiked Blank	Chlorobenzene	2010/01/29		83	%	70 - 130	
		Benzyl chloride	2010/01/29		113	%	70 - 130	
1,3-Dichlorobenzene		2010/01/29		94	%	70 - 130		
1,4-Dichlorobenzene		2010/01/29		93	%	70 - 130		
1,2-Dichlorobenzene		2010/01/29		93	%	70 - 130		
1,2,4-Trichlorobenzene		2010/01/29		97	%	70 - 130		
Hexachlorobutadiene		2010/01/29		102	%	70 - 130		
Hexane		2010/01/29		86	%	70 - 130		
Cyclohexane		2010/01/29		92	%	70 - 130		
Tetrahydrofuran		2010/01/29		89	%	70 - 130		
Method Blank	Method Blank	1,4-Dioxane	2010/01/29		92	%	70 - 130	
		Bromochloromethane	2010/01/29		91	%	60 - 140	
		D5-Chlorobenzene	2010/01/29		80	%	60 - 140	
		Difluorobenzene	2010/01/29		92	%	60 - 140	
		2,2,4-Trimethylpentane	2010/01/29	ND, RDL=0.20			ppbv	
		Carbon Disulfide	2010/01/29	ND, RDL=0.50			ppbv	
		Propene	2010/01/29	ND, RDL=0.30			ppbv	
		Vinyl Acetate	2010/01/29	ND, RDL=0.20			ppbv	
		Vinyl Bromide	2010/01/29	ND, RDL=0.20			ppbv	
		Dichlorodifluoromethane (FREON 12)	2010/01/29	ND, RDL=0.20			ppbv	
		1,2-Dichlorotetrafluoroethane	2010/01/29	ND, RDL=0.17			ppbv	
		Chloromethane	2010/01/29	ND, RDL=0.30			ppbv	
		Vinyl Chloride	2010/01/29	ND, RDL=0.18			ppbv	
		Chloroethane	2010/01/29	ND, RDL=0.30			ppbv	
		1,3-Butadiene	2010/01/29	ND, RDL=0.50			ppbv	
		Trichlorofluoromethane (FREON 11)	2010/01/29	ND, RDL=0.20			ppbv	
		Trichlorotrifluoroethane	2010/01/29	ND, RDL=0.15			ppbv	
		Ethanol	2010/01/29	ND, RDL=2.3			ppbv	
		2-propanol	2010/01/29	ND, RDL=3.0			ppbv	
		2-Propanone	2010/01/29	ND, RDL=0.80			ppbv	
		Methyl Ethyl Ketone (2-Butanone)	2010/01/29	ND, RDL=3.0			ppbv	
		Methyl Isobutyl Ketone	2010/01/29	ND, RDL=3.2			ppbv	
		Methyl Butyl Ketone (2-Hexanone)	2010/01/29	ND, RDL=2.0			ppbv	
		Methyl t-butyl ether (MTBE)	2010/01/29	ND, RDL=0.20			ppbv	
		Ethyl Acetate	2010/01/29	ND, RDL=2.2			ppbv	
		1,1-Dichloroethylene	2010/01/29	ND, RDL=0.25			ppbv	
		cis-1,2-Dichloroethylene	2010/01/29	ND, RDL=0.19			ppbv	
		trans-1,2-Dichloroethylene	2010/01/29	ND, RDL=0.20			ppbv	
		Methylene Chloride(Dichloromethane)	2010/01/29	ND, RDL=0.30			ppbv	
		Chloroform	2010/01/29	ND, RDL=0.15			ppbv	
		Carbon Tetrachloride	2010/01/29	ND, RDL=0.30			ppbv	
		1,1-Dichloroethane	2010/01/29	ND, RDL=0.20			ppbv	
		1,2-Dichloroethane	2010/01/29	ND, RDL=0.20			ppbv	
		Ethylene Dibromide	2010/01/29	ND, RDL=0.17			ppbv	
		1,1,1-Trichloroethane	2010/01/29	ND, RDL=0.30			ppbv	
		1,1,2-Trichloroethane	2010/01/29	ND, RDL=0.15			ppbv	
		1,1,2,2-Tetrachloroethane	2010/01/29	ND, RDL=0.20			ppbv	
		cis-1,3-Dichloropropene	2010/01/29	ND, RDL=0.18			ppbv	
trans-1,3-Dichloropropene	2010/01/29	ND, RDL=0.17			ppbv			
1,2-Dichloropropane	2010/01/29	ND, RDL=0.40			ppbv			
Bromomethane	2010/01/29	ND, RDL=0.18			ppbv			
Bromoform	2010/01/29	ND, RDL=0.20			ppbv			
Bromodichloromethane	2010/01/29	ND, RDL=0.20			ppbv			
Dibromochloromethane	2010/01/29	ND, RDL=0.20			ppbv			
Heptane	2010/01/29	ND, RDL=0.30			ppbv			

Lakeland Industry & Community Assoc.
 Attention: Shea Beaton
 Client Project #:
 P.O. #:
 Project name:

Quality Assurance Report (Continued)

Maxxam Job Number: GB010562

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
2068486 S_S	Method Blank	Trichloroethylene	2010/01/29	ND, RDL=0.30		ppbv	
		Tetrachloroethylene	2010/01/29	ND, RDL=0.20		ppbv	
		Benzene	2010/01/29	ND, RDL=0.18		ppbv	
		Toluene	2010/01/29	ND, RDL=0.20		ppbv	
		Ethylbenzene	2010/01/29	ND, RDL=0.20		ppbv	
		p+m-Xylene	2010/01/29	ND, RDL=0.37		ppbv	
		o-Xylene	2010/01/29	ND, RDL=0.20		ppbv	
		Styrene	2010/01/29	ND, RDL=0.20		ppbv	
		1,3,5-Trimethylbenzene	2010/01/29	ND, RDL=0.50		ppbv	
		1,2,4-Trimethylbenzene	2010/01/29	ND, RDL=0.50		ppbv	
		4-ethyltoluene	2010/01/29	ND, RDL=2.2		ppbv	
		Chlorobenzene	2010/01/29	ND, RDL=0.20		ppbv	
		Benzyl chloride	2010/01/29	ND, RDL=1.0		ppbv	
		1,3-Dichlorobenzene	2010/01/29	ND, RDL=0.40		ppbv	
		1,4-Dichlorobenzene	2010/01/29	ND, RDL=0.40		ppbv	
		1,2-Dichlorobenzene	2010/01/29	ND, RDL=0.40		ppbv	
		1,2,4-Trichlorobenzene	2010/01/29	ND, RDL=2.0		ppbv	
		Hexachlorobutadiene	2010/01/29	ND, RDL=3.0		ppbv	
		Hexane	2010/01/29	ND, RDL=0.30		ppbv	
		Cyclohexane	2010/01/29	ND, RDL=0.20		ppbv	
		Tetrahydrofuran	2010/01/29	ND, RDL=0.40		ppbv	
		1,4-Dioxane	2010/01/29	ND, RDL=2.0		ppbv	
		Xylene (Total)	2010/01/29	ND, RDL=0.60		ppbv	
	RPD - Sample/Sample Dup	2,2,4-Trimethylpentane	2010/01/29	NC		%	25
		Carbon Disulfide	2010/01/29	NC		%	25
		Propene	2010/01/29	NC		%	25
		Vinyl Acetate	2010/01/29	NC		%	25
		Vinyl Bromide	2010/01/29	NC		%	25
		Dichlorodifluoromethane (FREON 12)	2010/01/29	NC		%	25
		1,2-Dichlorotetrafluoroethane	2010/01/29	NC		%	25
		Chloromethane	2010/01/29	NC		%	25
		Vinyl Chloride	2010/01/29	NC		%	25
		Chloroethane	2010/01/29	NC		%	25
		1,3-Butadiene	2010/01/29	NC		%	25
		Trichlorofluoromethane (FREON 11)	2010/01/29	NC		%	25
		Trichlorotrifluoroethane	2010/01/29	NC		%	25
		Ethanol	2010/01/29	NC		%	25
		2-propanol	2010/01/29	NC		%	25
		2-Propanone	2010/01/29	NC		%	25
		Methyl Ethyl Ketone (2-Butanone)	2010/01/29	NC		%	25
		Methyl Isobutyl Ketone	2010/01/29	NC		%	25
		Methyl Butyl Ketone (2-Hexanone)	2010/01/29	NC		%	25
		Methyl t-butyl ether (MTBE)	2010/01/29	NC		%	25
		Ethyl Acetate	2010/01/29	NC		%	25
		1,1-Dichloroethylene	2010/01/29	NC		%	25
		cis-1,2-Dichloroethylene	2010/01/29	NC		%	25
		trans-1,2-Dichloroethylene	2010/01/29	NC		%	25
		Methylene Chloride(Dichloromethane)	2010/01/29	NC		%	25
		Chloroform	2010/01/29	NC		%	25
		Carbon Tetrachloride	2010/01/29	NC		%	25
		1,1-Dichloroethane	2010/01/29	NC		%	25
		1,2-Dichloroethane	2010/01/29	NC		%	25
		Ethylene Dibromide	2010/01/29	NC		%	25

Lakeland Industry & Community Assoc.
 Attention: Shea Beaton
 Client Project #:
 P.O. #:
 Project name:

Quality Assurance Report (Continued)

Maxxam Job Number: GB010562

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
2068486 S_S	RPD - Sample/Sample Dup	1,1,1-Trichloroethane	2010/01/29	NC		%	25
		1,1,2-Trichloroethane	2010/01/29	NC		%	25
		1,1,2,2-Tetrachloroethane	2010/01/29	NC		%	25
		cis-1,3-Dichloropropene	2010/01/29	NC		%	25
		trans-1,3-Dichloropropene	2010/01/29	NC		%	25
		1,2-Dichloropropane	2010/01/29	NC		%	25
		Bromomethane	2010/01/29	NC		%	25
		Bromoform	2010/01/29	NC		%	25
		Bromodichloromethane	2010/01/29	NC		%	25
		Dibromochloromethane	2010/01/29	NC		%	25
		Heptane	2010/01/29	NC		%	25
		Trichloroethylene	2010/01/29	NC		%	25
		Tetrachloroethylene	2010/01/29	NC		%	25
		Benzene	2010/01/29	NC		%	25
		Toluene	2010/01/29	NC		%	25
		Ethylbenzene	2010/01/29	NC		%	25
		p+m-Xylene	2010/01/29	NC		%	25
		o-Xylene	2010/01/29	NC		%	25
		Styrene	2010/01/29	NC		%	25
		1,3,5-Trimethylbenzene	2010/01/29	NC		%	25
		1,2,4-Trimethylbenzene	2010/01/29	NC		%	25
		4-ethyltoluene	2010/01/29	NC		%	25
		Chlorobenzene	2010/01/29	NC		%	25
		Benzyl chloride	2010/01/29	NC		%	25
		1,3-Dichlorobenzene	2010/01/29	NC		%	25
		1,4-Dichlorobenzene	2010/01/29	NC		%	25
		1,2-Dichlorobenzene	2010/01/29	NC		%	25
		1,2,4-Trichlorobenzene	2010/01/29	NC		%	25
		Hexachlorobutadiene	2010/01/29	NC		%	25
		Hexane	2010/01/29	NC		%	25
		Cyclohexane	2010/01/29	NC		%	25
		Tetrahydrofuran	2010/01/29	NC		%	25
		1,4-Dioxane	2010/01/29	NC		%	25
		Xylene (Total)	2010/01/29	NC		%	25

Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.

Polycyclic Aromatic Hydrocarbons Laboratory Analysis

Maxxam Analytics Inc.

Tisch Hi-Vol PUF+ Sample Collection Data Sheet

Client: Lica
 Location: 13-16-62-5 W4M
 Station ID: Lica 33 (Portable)
 Field Sample ID: LICA PUF/PORT/Jan 2, 10

Puf+ s/n: 100-1015
 Motor s/n: 1139
 Installation Date/Time: Dec 31, 09 @ 12:05 mst
 Removal Date/Time: Jan 4, 10 @ 13:20 mst

Date and Time Information			
Sample Date	Start Time (MST)	End Time (MST)	Elapsed Time (Hours)
02-Jan-10	01/02/2010 0:00	01/03/2010 0:00	24.00

PUF and QFF Information			
Date Received	Date Shipped	Puf Expiration Date	QFF Prep Date
29-Dec-09	04-Jan-10	06-Jan-10	????

Set Flow Rate (slpm): 230

Date of Last Calibration: 02-Oct-09

Sampling Data			
Average Pressure(mmHg)	AverageFlow (Qstd slpm)	Average Temperature (C)	Volume (Vstd m ³)
720	229	-15.4	330.29

Time set correctly prior to sampling? YES
Timer set correctly prior to sampling? YES
Sampling data saved to memory card after sampling? YES

Comments:

GA9H1940 PUFF#2
Ran with a 102mm Quartz Fiber Filter - Sample ID - LICA QFF/PORT/Jan 2, 10

Technician Signature: _____



Your C.O.C. #: 1056

Attention: Shea Beaton

Lakeland Industry & Community Assoc.
P.O. Box 8237
Bonnyville, AB
CANADA T9N 2J5

Report Date: 2010/01/14

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B000891

Received: 2010/01/06, 09:12

Sample Matrix: PUF AND FILTER

Samples Received: 2

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
PAH's in Air (CARB429mod)	2	2010/01/07	2010/01/12	BRL SOP-00201	CARB429(ARBM1,M2)mod

Encryption Key

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

THERESA STEPHENSON, Project Manager
Email: Theresa.Stephenson@MaxxamAnalytics.com
Phone# (905) 817-5763

=====

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Total cover pages: 1

Maxxam Job #: B000891
 Report Date: 2010/01/14

SEMI-VOLATILE ORGANICS BY GC-MS (PUF AND FILTER)

Maxxam ID		ET8470	ET8471		
Sampling Date		2010/01/02	2010/01/02		
COC Number		1056	1056		
	Units	LICA	LICA	DL	QC Batch
		PUF/QFF/CLS/JAN2,10	PUF/QFF/PORT/JAN2,10		

Semivolatile Organics					
1-Methylnaphthalene	ug	0.26	0.20	0.10	2050878
1-Methylphenanthrene	ug	<0.10	<0.10	0.10	2050878
2-Chloronaphthalene	ug	<0.10	<0.10	0.10	2050878
2-Methylanthracene	ug	<0.10	<0.10	0.10	2050878
2-Methylnaphthalene	ug	0.44	0.29	0.10	2050878
3-Methylcholanthrene	ug	<2.0	<2.0	2.0	2050878
7,12-Dimethylbenzo(a)anthracene	ug	<0.10	<0.10	0.10	2050878
9,10-Dimethylanthracene	ug	<0.40	<0.40	0.40	2050878
Acenaphthene	ug	<0.050	<0.050	0.050	2050878
Acenaphthylene	ug	0.096	<0.050	0.050	2050878
Anthracene	ug	<0.050	<0.050	0.050	2050878
Benzo(a)anthracene	ug	<0.050	<0.050	0.050	2050878
Benzo(a)fluorene	ug	<0.10	<0.10	0.10	2050878
Benzo(a)pyrene	ug	<0.050	<0.050	0.050	2050878
Benzo(b)fluoranthene	ug	<0.050	<0.050	0.050	2050878
Benzo(b)fluorene	ug	<0.10	<0.10	0.10	2050878
Benzo(e)pyrene	ug	<0.10	<0.10	0.10	2050878
Benzo(g,h,i)perylene	ug	<0.050	<0.050	0.050	2050878
Benzo(k)fluoranthene	ug	<0.050	<0.050	0.050	2050878
Biphenyl	ug	0.23	0.20	0.10	2050878
Chrysene	ug	<0.050	<0.050	0.050	2050878
Coronene	ug	<0.10	<0.10	0.10	2050878
Dibenz(a,h)anthracene	ug	<0.050	<0.050	0.050	2050878
Dibenzo(a,e)pyrene	ug	<0.20	<0.20	0.20	2050878
Fluoranthene	ug	0.126	0.073	0.050	2050878
Fluorene	ug	0.127	0.107	0.050	2050878
Indeno(1,2,3-cd)pyrene	ug	<0.050	<0.050	0.050	2050878
m-Terphenyl	ug	<0.10	<0.10	0.10	2050878
Naphthalene	ug	0.684	0.514	0.072	2050878
o-Terphenyl	ug	<0.10	<0.10	0.10	2050878
Perylene	ug	<0.10	<0.10	0.10	2050878
Phenanthrene	ug	0.394	0.260	0.050	2050878

 RDL = Reportable Detection Limit
 QC Batch = Quality Control Batch

Maxxam Job #: B000891
 Report Date: 2010/01/14

SEMI-VOLATILE ORGANICS BY GC-MS (PUF AND FILTER)

Maxxam ID		ET8470	ET8471		
Sampling Date		2010/01/02	2010/01/02		
COC Number		1056	1056		
	Units	LICA	LICA	DL	QC Batch
		PUF/QFF/CLS/JAN2,10	PUF/QFF/PORT/JAN2,10		

p-Terphenyl	ug	<0.10	<0.10	0.10	2050878
Pyrene	ug	0.077	<0.050	0.050	2050878
Quinoline	ug	<0.40	<0.40	0.40	2050878
Tetralin	ug	<0.10	<0.10	0.10	2050878
Surrogate Recovery (%)					
D10-2-Methylnaphthalene	%	83	94		2050878
D10-Fluoranthene	%	101	111		2050878
D10-Fluorene (FS)	%	79	88		2050878
D10-Phenanthrene	%	101	113		2050878
D12-Benzo(a)anthracene	%	102	111		2050878
D12-Benzo(a)pyrene	%	102	111		2050878
D12-Benzo(b)fluoranthene	%	103	110		2050878
D12-Benzo(ghi)perylene	%	100	109		2050878
D12-Benzo(k)fluoranthene	%	92	104		2050878
D12-Chrysene	%	99	110		2050878
D12-Indeno(1,2,3-cd)pyrene	%	102	111		2050878
D12-Perylene	%	102	113		2050878
D14-Dibenzo(a,h)anthracene	%	102	111		2050878
D14-Terphenyl (FS)	%	89	94		2050878
D8-Acenaphthylene	%	91	104		2050878
D8-Naphthalene	%	83	95		2050878

QC Batch = Quality Control Batch

Maxxam Job #: B000891
 Report Date: 2010/01/14

Test Summary

Maxxam ID ET8470 **Collected** 2010/01/02
Sample ID LICA PUF/QFF/CLS/JAN2,10 **Shipped**
Matrix PUF AND FILTER **Received** 2010/01/06

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
PAH's in Air (CARB429mod)	GC/MS	2050878	2010/01/07	2010/01/12	WZ

Maxxam ID ET8471 **Collected** 2010/01/02
Sample ID LICA PUF/QFF/PORT/JAN2,10 **Shipped**
Matrix PUF AND FILTER **Received** 2010/01/06

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
PAH's in Air (CARB429mod)	GC/MS	2050878	2010/01/07	2010/01/12	WZ

Maxxam Job #: B000891
Report Date: 2010/01/14

GENERAL COMMENTS

PAHMS-F

7,12-Dimethylbenzo(a)anthracene is above 25% RSD in initial calibration. No positives found for this compounds.

Sample ET8470-01: PAHMS-F

Not calibrated for Benzo(b)Anthracene, Picene, Dibenzo(a,c) anthracene or Triphenylene. An estimated mdl for each of these compounds is 0.1ug. Since Dibenzo(a,c) anthracene co-elutes with Dibenzo(a,h) anthracene and Triphenylene with Chrysene each would have a value below estimated mdl.

Benzo(b)Anthracene elutes after Benzo(a)Anthracene and Chrysene. Picene elutes after Dibenzo(a,h) anthracene. Searched for ions specific to these 2 compounds in the appropriate retention time range with no possible positives detected.

Sample ET8471-01: PAHMS-F

Not calibrated for Benzo(b)Anthracene, Picene, Dibenzo(a,c) anthracene or Triphenylene. An estimated mdl for each of these compounds is 0.1ug. Since Dibenzo(a,c) anthracene co-elutes with Dibenzo(a,h) anthracene and Triphenylene with Chrysene each would have a value below estimated mdl.

Benzo(b)Anthracene elutes after Benzo(a)Anthracene and Chrysene. Picene elutes after Dibenzo(a,h) anthracene. Searched for ions specific to these 2 compounds in the appropriate retention time range with no possible positives detected.

Results relate only to the items tested.

Lakeland Industry & Community Assoc.
 Attention: Shea Beaton
 Client Project #:
 P.O. #:
 Project name:

Quality Assurance Report
 Maxxam Job Number: GB000891

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
2050878 WZ	Spiked Blank	D10-2-Methylnaphthalene	2010/01/12		84	%	50 - 150
		D10-Fluoranthene	2010/01/12		99	%	50 - 150
		D10-Phenanthrene	2010/01/12		99	%	50 - 150
		D12-Benzo(a)anthracene	2010/01/12		89	%	50 - 150
		D12-Benzo(a)pyrene	2010/01/12		99	%	50 - 150
		D12-Benzo(b)fluoranthene	2010/01/12		100	%	50 - 150
		D12-Benzo(ghi)perylene	2010/01/12		98	%	50 - 150
		D12-Benzo(k)fluoranthene	2010/01/12		97	%	50 - 150
		D12-Chrysene	2010/01/12		103	%	50 - 150
		D12-Indeno(1,2,3-cd)pyrene	2010/01/12		98	%	50 - 150
		D12-Perylene	2010/01/12		101	%	50 - 150
		D14-Dibenzo(a,h)anthracene	2010/01/12		98	%	50 - 150
		RPD	D8-Acenaphthylene	2010/01/12		82	%
	D8-Naphthalene		2010/01/12		86	%	50 - 150
	Spiked Blank	Acenaphthene	2010/01/12		80	%	60 - 130
		Acenaphthene	2010/01/12	1.4		%	50
	RPD	Acenaphthylene	2010/01/12		78	%	60 - 130
		Acenaphthylene	2010/01/12	2.4		%	50
	Spiked Blank	Anthracene	2010/01/12		77	%	60 - 130
		Anthracene	2010/01/12	3.6		%	50
	Spiked Blank	Benzo(a)anthracene	2010/01/12		76	%	60 - 130
		Benzo(a)anthracene	2010/01/12	8.8		%	50
	Spiked Blank	Benzo(a)pyrene	2010/01/12		85	%	60 - 130
		Benzo(a)pyrene	2010/01/12	3.4		%	50
	Spiked Blank	Benzo(b)fluoranthene	2010/01/12		85	%	60 - 130
		Benzo(b)fluoranthene	2010/01/12	8.0		%	50
	Spiked Blank	Benzo(g,h,i)perylene	2010/01/12		87	%	60 - 130
		Benzo(g,h,i)perylene	2010/01/12	0.7		%	50
	Spiked Blank	Benzo(k)fluoranthene	2010/01/12		95	%	60 - 130
		Benzo(k)fluoranthene	2010/01/12	5.4		%	50
	Spiked Blank	Chrysene	2010/01/12		94	%	60 - 130
		Chrysene	2010/01/12	1.3		%	50
	Spiked Blank	Dibenz(a,h)anthracene	2010/01/12		88	%	60 - 130
		Dibenz(a,h)anthracene	2010/01/12	0.2		%	50
	Spiked Blank	Fluoranthene	2010/01/12		91	%	60 - 130
		Fluoranthene	2010/01/12	4.4		%	50
	Spiked Blank	Fluorene	2010/01/12		79	%	60 - 130
		Fluorene	2010/01/12	2.0		%	50
	Spiked Blank	Indeno(1,2,3-cd)pyrene	2010/01/12		88	%	60 - 130
		Indeno(1,2,3-cd)pyrene	2010/01/12	0.5		%	50
Spiked Blank	Naphthalene	2010/01/12		84	%	60 - 130	
	Naphthalene	2010/01/12	0.5		%	50	
Spiked Blank	Phenanthrene	2010/01/12		76	%	60 - 130	
	Phenanthrene	2010/01/12	7.5		%	50	
Spiked Blank	Pyrene	2010/01/12		82	%	60 - 130	
	Pyrene	2010/01/12	3.7		%	50	
Method Blank	D10-2-Methylnaphthalene	2010/01/12		90	%	50 - 150	
	D10-Fluoranthene	2010/01/12		109	%	50 - 150	
	D10-Phenanthrene	2010/01/12		107	%	50 - 150	
	D12-Benzo(a)anthracene	2010/01/12		101	%	50 - 150	
	D12-Benzo(a)pyrene	2010/01/12		109	%	50 - 150	
	D12-Benzo(b)fluoranthene	2010/01/12		106	%	50 - 150	
	D12-Benzo(ghi)perylene	2010/01/12		105	%	50 - 150	
	D12-Benzo(k)fluoranthene	2010/01/12		107	%	50 - 150	
	D12-Chrysene	2010/01/12		110	%	50 - 150	

Lakeland Industry & Community Assoc.
 Attention: Shea Beaton
 Client Project #:
 P.O. #:
 Project name:

Quality Assurance Report (Continued)
 Maxxam Job Number: GB000891

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
2050878 WZ	Method Blank	D12-Indeno(1,2,3-cd)pyrene	2010/01/12		106	%	50 - 150
		D12-Perylene	2010/01/12		111	%	50 - 150
		D14-Dibenzo(a,h)anthracene	2010/01/12		105	%	50 - 150
		D8-Acenaphthylene	2010/01/12		91	%	50 - 150
		D8-Naphthalene	2010/01/12		92	%	50 - 150
		1-Methylnaphthalene	2010/01/12	ND, RDL=0.10		ug	
		1-Methylphenanthrene	2010/01/12	ND, RDL=0.10		ug	
		2-Chloronaphthalene	2010/01/12	ND, RDL=0.10		ug	
		2-Methylantracene	2010/01/12	ND, RDL=0.10		ug	
		2-Methylnaphthalene	2010/01/12	ND, RDL=0.10		ug	
		3-Methylcholanthrene	2010/01/12	ND, RDL=2.0		ug	
		7,12-Dimethylbenzo(a)anthracene	2010/01/12	ND, RDL=0.10		ug	
		9,10-Dimethylantracene	2010/01/12	ND, RDL=0.40		ug	
		Acenaphthene	2010/01/12	ND, RDL=0.050		ug	
		Acenaphthylene	2010/01/12	ND, RDL=0.050		ug	
		Anthracene	2010/01/12	ND, RDL=0.050		ug	
		Benzo(a)anthracene	2010/01/12	ND, RDL=0.050		ug	
		Benzo(a)fluorene	2010/01/12	ND, RDL=0.10		ug	
		Benzo(a)pyrene	2010/01/12	ND, RDL=0.050		ug	
		Benzo(b)fluoranthene	2010/01/12	ND, RDL=0.050		ug	
		Benzo(b)fluorene	2010/01/12	ND, RDL=0.10		ug	
		Benzo(e)pyrene	2010/01/12	ND, RDL=0.10		ug	
		Benzo(g,h,i)perylene	2010/01/12	ND, RDL=0.050		ug	
		Benzo(k)fluoranthene	2010/01/12	ND, RDL=0.050		ug	
		Biphenyl	2010/01/12	ND, RDL=0.10		ug	
		Chrysene	2010/01/12	ND, RDL=0.050		ug	
		Coronene	2010/01/12	ND, RDL=0.10		ug	
		Dibenz(a,h)anthracene	2010/01/12	ND, RDL=0.050		ug	
		Dibenzo(a,e)pyrene	2010/01/12	ND, RDL=0.20		ug	
		Fluoranthene	2010/01/12	ND, RDL=0.050		ug	
		Fluorene	2010/01/12	ND, RDL=0.050		ug	
		Indeno(1,2,3-cd)pyrene	2010/01/12	ND, RDL=0.050		ug	
		m-Terphenyl	2010/01/12	ND, RDL=0.10		ug	
		Naphthalene	2010/01/12	ND, RDL=0.072		ug	
		o-Terphenyl	2010/01/12	ND, RDL=0.10		ug	
		Perylene	2010/01/12	ND, RDL=0.10		ug	
		Phenanthrene	2010/01/12	ND, RDL=0.050		ug	
		p-Terphenyl	2010/01/12	ND, RDL=0.10		ug	
		Pyrene	2010/01/12	ND, RDL=0.050		ug	
		Quinoline	2010/01/12	ND, RDL=0.40		ug	
		Tetralin	2010/01/12	ND, RDL=0.10		ug	

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.
 Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.
 Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.
 Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

Maxxam Analytics Inc.

Tisch Hi-Vol PUF+ Sample Collection Data Sheet

Client: Lica
 Location: 13-16-62-5 W4M
 Station ID: Lica 33 (Portable)
 Field Sample ID: LICA PUF/PORT/Jan 8, 10

Puf+ s/n: 100-1015
 Motor s/n: 1139
 Installation Date/Time: Jan 7, 10 @ 11:25 mst
 Removal Date/Time: Jan12, 10 @ 09:25 mst

Date and Time Information			
Sample Date	Start Time (MST)	End Time (MST)	Elapsed Time (Hours)
08-Jan-10	01/08/2010 0:00	01/09/2010 0:00	24.00

PUF and QFF Information			
Date Received	Date Shipped	Puf Expiration Date	QFF Prep Date
06-Jan-10	12-Jan-10	14-Jan-10	????

Set Flow Rate (slpm): 230

Date of Last Calibration: 02-Oct-09

Sampling Data			
Average Pressure(mmHg)	AverageFlow (Qstd slpm)	Average Temperature (C)	Volume (Vstd m ³)
719	229	-18.3	330.30

Time set correctly prior to sampling? YES
Timer set correctly prior to sampling? YES
Sampling data saved to memory card after sampling? YES

Comments:

GA9H1940 PUFF#2
Ran with a 102mm Quartz Fiber Filter - Sample ID - LICA QFF/PORT/Jan 8, 10

Technician Signature: _____



Your C.O.C. #: 1040

Attention: Shea Beaton

Lakeland Industry & Community Assoc.
P.O. Box 8237
Bonnyville, AB
CANADA T9N 2J5

Report Date: 2010/01/20

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B004274

Received: 2010/01/14, 08:54

Sample Matrix: Filter
Samples Received: 2

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
PAH's in Air (CARB429mod)	2	2010/01/15	2010/01/18	BRL SOP-00201	CARB429(ARBM1,M2)mod

Encryption Key

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

THERESA STEPHENSON, Project Manager
Email: Theresa.Stephenson@MaxxamAnalytics.com
Phone# (905) 817-5763

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Total cover pages: 1

Maxxam Job #: B004274
 Report Date: 2010/01/20

SEMI-VOLATILE ORGANICS BY GC-MS (FILTER)

Maxxam ID		EV4879	EV4880		
Sampling Date		2010/01/08	2010/01/08		
		00:00	00:00		
COC Number		1040	1040		
	Units	LICA	LICA	DL	QC Batch
		PUFF/CLS/JAN8,10	QFF/PORT/JAN8,10		

Semivolatile Organics					
1-Methylnaphthalene	ug	1.73	0.57	0.10	2057750
1-Methylphenanthrene	ug	<0.10	<0.10	0.10	2057750
2-Chloronaphthalene	ug	<0.10	<0.10	0.10	2057750
2-Methylantracene	ug	<0.10	<0.10	0.10	2057750
2-Methylnaphthalene	ug	3.22	0.94	0.10	2057750
3-Methylcholanthrene	ug	<2.0	<2.0	2.0	2057750
7,12-Dimethylbenzo(a)anthracene	ug	<0.10	<0.10	0.10	2057750
9,10-Dimethylantracene	ug	<0.40	<0.40	0.40	2057750
Acenaphthene	ug	0.129	0.054	0.050	2057750
Acenaphthylene	ug	0.157	0.077	0.050	2057750
Anthracene	ug	<0.050	<0.050	0.050	2057750
Benzo(a)anthracene	ug	<0.050	<0.050	0.050	2057750
Benzo(a)fluorene	ug	<0.10	<0.10	0.10	2057750
Benzo(a)pyrene	ug	<0.050	<0.050	0.050	2057750
Benzo(b)fluoranthene	ug	<0.050	<0.050	0.050	2057750
Benzo(b)fluorene	ug	<0.10	<0.10	0.10	2057750
Benzo(e)pyrene	ug	<0.10	<0.10	0.10	2057750
Benzo(g,h,i)perylene	ug	<0.050	<0.050	0.050	2057750
Benzo(k)fluoranthene	ug	<0.050	<0.050	0.050	2057750
Biphenyl	ug	0.51	0.36	0.10	2057750
Chrysene	ug	<0.050	0.054	0.050	2057750
Coronene	ug	<0.10	<0.10	0.10	2057750
Dibenz(a,h)anthracene	ug	<0.050	<0.050	0.050	2057750
Dibenzo(a,e)pyrene	ug	<0.20	<0.20	0.20	2057750
Fluoranthene	ug	0.121	0.100	0.050	2057750
Fluorene	ug	0.242	0.164	0.050	2057750
Indeno(1,2,3-cd)pyrene	ug	<0.050	<0.050	0.050	2057750
m-Terphenyl	ug	<0.10	<0.10	0.10	2057750
Naphthalene	ug	2.76	1.18	0.072	2057750
o-Terphenyl	ug	<0.10	<0.10	0.10	2057750
Perylene	ug	<0.10	<0.10	0.10	2057750

 RDL = Reportable Detection Limit
 QC Batch = Quality Control Batch

Maxxam Job #: B004274
 Report Date: 2010/01/20

SEMI-VOLATILE ORGANICS BY GC-MS (FILTER)

Maxxam ID		EV4879	EV4880		
Sampling Date		2010/01/08	2010/01/08		
		00:00	00:00		
COC Number		1040	1040		
	Units	LICA	LICA	DL	QC Batch
		PUFF/CLS/JAN8,10	QFF/PORT/JAN8,10		

Phenanthrene	ug	0.494	0.353	0.050	2057750
p-Terphenyl	ug	<0.10	<0.10	0.10	2057750
Pyrene	ug	0.051	<0.050	0.050	2057750
Quinoline	ug	<0.40	<0.40	0.40	2057750
Tetralin	ug	0.11	<0.10	0.10	2057750
Surrogate Recovery (%)					
D10-2-Methylnaphthalene	%	82	76		2057750
D10-Fluoranthene	%	99	89		2057750
D10-Fluorene (FS)	%	79	91		2057750
D10-Phenanthrene	%	95	86		2057750
D12-Benzo(a)anthracene	%	104	111		2057750
D12-Benzo(a)pyrene	%	102	102		2057750
D12-Benzo(b)fluoranthene	%	103	105		2057750
D12-Benzo(ghi)perylene	%	99	99		2057750
D12-Benzo(k)fluoranthene	%	92	94		2057750
D12-Chrysene	%	95	103		2057750
D12-Indeno(1,2,3-cd)pyrene	%	101	99		2057750
D12-Perylene	%	99	101		2057750
D14-Dibenzo(a,h)anthracene	%	102	99		2057750
D14-Terphenyl (FS)	%	87	93		2057750
D8-Acenaphthylene	%	90	88		2057750
D8-Naphthalene	%	81	75		2057750

QC Batch = Quality Control Batch

Maxxam Job #: B004274
 Report Date: 2010/01/20

Test Summary

Maxxam ID EV4879 **Collected** 2010/01/08
Sample ID LICA PUFF/CLS/JAN8,10 **Shipped**
Matrix Filter **Received** 2010/01/14

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
PAH's in Air (CARB429mod)	GC/MS	2057750	2010/01/15	2010/01/18	WZ

Maxxam ID EV4880 **Collected** 2010/01/08
Sample ID LICA QFF/PORT/JAN8,10 **Shipped**
Matrix Filter **Received** 2010/01/14

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
PAH's in Air (CARB429mod)	GC/MS	2057750	2010/01/15	2010/01/18	WZ

Maxxam Job #: B004274
Report Date: 2010/01/20

GENERAL COMMENTS

PAHMS-F

7,12-Dimethylbenzo(a)anthracene is above 25% RSD in initial calibration. No positives found for this compounds.

Sample EV4879-01: PAHMS-F

Not calibrated for Benzo(b)Anthracene, Picene, Dibenzo(a,c) anthracene or Triphenylene. An estimated mdl for each of these compounds is 0.1ug. Since Dibenzo(a,c) anthracene co-elutes with Dibenzo(a,h) anthracene and Triphenylene with Chrysene each would have a value below estimated mdl.

Benzo(b)Anthracene elutes after Benzo(a)Anthracene and Chrysene. Picene elutes after Dibenzo(a,h) anthracene. Searched for ions specific to these 2 compounds in the appropriate retention time range with no possible positives detected.

Sample EV4880-01: PAHMS-F

Not calibrated for Benzo(b)Anthracene, Picene, Dibenzo(a,c) anthracene or Triphenylene. An estimated mdl for each of these compounds is 0.1ug. Since Dibenzo(a,c) anthracene co-elutes with Dibenzo(a,h) anthracene it would have a value below the estimated mdl.

Since Triphenylene co-elutes with Chrysene, the maximum possible value for this compound would be 0.054ug, which is the value reported for Chrysene.

Benzo(b)Anthracene elutes after Benzo(a)Anthracene and Chrysene. Searched for ions specific to this compound in the appropriate retention time range with no possible positive detected.

Picene elutes after Dibenzo(a,h) anthracene. Searched for ions specific to this compounds in the appropriate retention time range, possible positive detected, but would fall below the mdl using Dibenzo(a,h) anthracene calibration.

Results relate only to the items tested.

Lakeland Industry & Community Assoc.
 Attention: Shea Beaton
 Client Project #:
 P.O. #:
 Project name:

Quality Assurance Report
 Maxxam Job Number: GB004274

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
2057750 WZ	Spiked Blank	D10-2-Methylnaphthalene	2010/01/18		88	%	50 - 150
		D10-Fluoranthene	2010/01/18		103	%	50 - 150
		D10-Phenanthrene	2010/01/18		95	%	50 - 150
		D12-Benzo(a)anthracene	2010/01/18		99	%	50 - 150
		D12-Benzo(a)pyrene	2010/01/18		101	%	50 - 150
		D12-Benzo(b)fluoranthene	2010/01/18		103	%	50 - 150
		D12-Benzo(ghi)perylene	2010/01/18		102	%	50 - 150
		D12-Benzo(k)fluoranthene	2010/01/18		96	%	50 - 150
		D12-Chrysene	2010/01/18		98	%	50 - 150
		D12-Indeno(1,2,3-cd)pyrene	2010/01/18		103	%	50 - 150
		D12-Perylene	2010/01/18		100	%	50 - 150
		D14-Dibenzo(a,h)anthracene	2010/01/18		103	%	50 - 150
		D8-Acenaphthylene	2010/01/18		89	%	50 - 150
		D8-Naphthalene	2010/01/18		90	%	50 - 150
	RPD	Acenaphthene	2010/01/18		16.0	%	60 - 130
	Spiked Blank	Acenaphthene	2010/01/18			%	50
	RPD	Acenaphthylene	2010/01/18		16.0	%	60 - 130
	Spiked Blank	Acenaphthylene	2010/01/18			%	50
	RPD	Anthracene	2010/01/18		7.4	%	60 - 130
	Spiked Blank	Anthracene	2010/01/18			%	50
	RPD	Benzo(a)anthracene	2010/01/18		0.1	%	60 - 130
	Spiked Blank	Benzo(a)anthracene	2010/01/18			%	50
	RPD	Benzo(a)pyrene	2010/01/18		0.4	%	60 - 130
	Spiked Blank	Benzo(a)pyrene	2010/01/18			%	50
	RPD	Benzo(b)fluoranthene	2010/01/18		32.5	%	60 - 130
	Spiked Blank	Benzo(b)fluoranthene	2010/01/18			%	50
	RPD	Benzo(g,h,i)perylene	2010/01/18		1.8	%	60 - 130
	Spiked Blank	Benzo(g,h,i)perylene	2010/01/18			%	50
	RPD	Benzo(k)fluoranthene	2010/01/18		37.4	%	60 - 130
	Spiked Blank	Benzo(k)fluoranthene	2010/01/18			%	50
	RPD	Chrysene	2010/01/18		1.3	%	60 - 130
	Spiked Blank	Chrysene	2010/01/18			%	50
	RPD	Dibenz(a,h)anthracene	2010/01/18		0.6	%	60 - 130
	Spiked Blank	Dibenz(a,h)anthracene	2010/01/18			%	50
	RPD	Fluoranthene	2010/01/18		8.9	%	60 - 130
	Spiked Blank	Fluoranthene	2010/01/18			%	50
	RPD	Fluorene	2010/01/18		12.5	%	60 - 130
	Spiked Blank	Fluorene	2010/01/18			%	50
	RPD	Indeno(1,2,3-cd)pyrene	2010/01/18		1.3	%	60 - 130
	Spiked Blank	Indeno(1,2,3-cd)pyrene	2010/01/18			%	50
RPD	Naphthalene	2010/01/18		14.9	%	60 - 130	
Spiked Blank	Naphthalene	2010/01/18			%	50	
RPD	Phenanthrene	2010/01/18		10.5	%	60 - 130	
Spiked Blank	Phenanthrene	2010/01/18			%	50	
RPD	Pyrene	2010/01/18		10.6	%	60 - 130	
Spiked Blank	Pyrene	2010/01/18			%	50	
Method Blank	D10-2-Methylnaphthalene	2010/01/18			78	%	50 - 150
	D10-Fluoranthene	2010/01/18			102	%	50 - 150
	D10-Phenanthrene	2010/01/18			89	%	50 - 150
	D12-Benzo(a)anthracene	2010/01/18			99	%	50 - 150
	D12-Benzo(a)pyrene	2010/01/18			102	%	50 - 150
	D12-Benzo(b)fluoranthene	2010/01/18			104	%	50 - 150
	D12-Benzo(ghi)perylene	2010/01/18			102	%	50 - 150
	D12-Benzo(k)fluoranthene	2010/01/18			92	%	50 - 150
	D12-Chrysene	2010/01/18			99	%	50 - 150

Lakeland Industry & Community Assoc.
 Attention: Shea Beaton
 Client Project #:
 P.O. #:
 Project name:

Quality Assurance Report (Continued)
 Maxxam Job Number: GB004274

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
2057750 WZ	Method Blank	D12-Indeno(1,2,3-cd)pyrene	2010/01/18		105	%	50 - 150
		D12-Perylene	2010/01/18		101	%	50 - 150
		D14-Dibenzo(a,h)anthracene	2010/01/18		104	%	50 - 150
		D8-Acenaphthylene	2010/01/18		82	%	50 - 150
		D8-Naphthalene	2010/01/18		81	%	50 - 150
		1-Methylnaphthalene	2010/01/18	ND, RDL=0.10		ug	
		1-Methylphenanthrene	2010/01/18	ND, RDL=0.10		ug	
		2-Chloronaphthalene	2010/01/18	ND, RDL=0.10		ug	
		2-Methylanthracene	2010/01/18	ND, RDL=0.10		ug	
		2-Methylnaphthalene	2010/01/18	ND, RDL=0.10		ug	
		3-Methylcholanthrene	2010/01/18	ND, RDL=2.0		ug	
		7,12-Dimethylbenzo(a)anthracene	2010/01/18	ND, RDL=0.10		ug	
		9,10-Dimethylanthracene	2010/01/18	ND, RDL=0.40		ug	
		Acenaphthene	2010/01/18	ND, RDL=0.050		ug	
		Acenaphthylene	2010/01/18	ND, RDL=0.050		ug	
		Anthracene	2010/01/18	ND, RDL=0.050		ug	
		Benzo(a)anthracene	2010/01/18	ND, RDL=0.050		ug	
		Benzo(a)fluorene	2010/01/18	ND, RDL=0.10		ug	
		Benzo(a)pyrene	2010/01/18	ND, RDL=0.050		ug	
		Benzo(b)fluoranthene	2010/01/18	ND, RDL=0.050		ug	
		Benzo(b)fluorene	2010/01/18	ND, RDL=0.10		ug	
		Benzo(e)pyrene	2010/01/18	ND, RDL=0.10		ug	
		Benzo(g,h,i)perylene	2010/01/18	ND, RDL=0.050		ug	
		Benzo(k)fluoranthene	2010/01/18	ND, RDL=0.050		ug	
		Biphenyl	2010/01/18	ND, RDL=0.10		ug	
		Chrysene	2010/01/18	ND, RDL=0.050		ug	
		Coronene	2010/01/18	ND, RDL=0.10		ug	
		Dibenz(a,h)anthracene	2010/01/18	ND, RDL=0.050		ug	
		Dibenzo(a,e)pyrene	2010/01/18	ND, RDL=0.20		ug	
		Fluoranthene	2010/01/18	ND, RDL=0.050		ug	
		Fluorene	2010/01/18	ND, RDL=0.050		ug	
		Indeno(1,2,3-cd)pyrene	2010/01/18	ND, RDL=0.050		ug	
		m-Terphenyl	2010/01/18	ND, RDL=0.10		ug	
		Naphthalene	2010/01/18	ND, RDL=0.072		ug	
		o-Terphenyl	2010/01/18	ND, RDL=0.10		ug	
		Perylene	2010/01/18	ND, RDL=0.10		ug	
		Phenanthrene	2010/01/18	ND, RDL=0.050		ug	
		p-Terphenyl	2010/01/18	ND, RDL=0.10		ug	
		Pyrene	2010/01/18	ND, RDL=0.050		ug	
		Quinoline	2010/01/18	ND, RDL=0.40		ug	
		Tetralin	2010/01/18	ND, RDL=0.10		ug	

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.
 Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.
 Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.
 Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

Maxxam Analytics Inc.

Tisch Hi-Vol PUF+ Sample Collection Data Sheet

Client: Lica
 Location: 13-16-62-5 W4M
 Station ID: Lica 33 (Portable)
 Field Sample ID: LICA PUF/PORT/Jan 14, 10

Puf+ s/n: 100-1015
 Motor s/n: 1139
 Installation Date/Time: Jan 13, 10 @ 16:44 mst
 Removal Date/Time: Jan 15, 10 @ 09:45 mst

Date and Time Information			
Sample Date	Start Time (MST)	End Time (MST)	Elapsed Time (Hours)
14-Jan-10	01/14/2010 0:00	01/15/2010 0:00	24.00

PUF and QFF Information			
Date Received	Date Shipped	Puf Expiration Date	QFF Prep Date
12-Jan-10	18-Jan-10	01-Feb-10	????

Set Flow Rate (slpm): 230

Date of Last Calibration: 02-Oct-09

Sampling Data			
Average Pressure(mmHg)	AverageFlow (Qstd slpm)	Average Temperature (C)	Volume (Vstd m ³)
713	229	-11.1	330.30

Time set correctly prior to sampling? YES
Timer set correctly prior to sampling? YES
Sampling data saved to memory card after sampling? YES

Comments:

GA9H1959 PUFF#2
Ran with a 102mm Quartz Fiber Filter - Sample ID - LICA QFF/PORT/Jan 14, 10
****The 102mm filter had a build-up of frost following the sampling run****

Technician Signature: _____



Your C.O.C. #: 1058

Attention: Michael Bisaga
Lakeland Industry & Community Assoc.
P.O. Box 8237
Bonnyville, AB
CANADA T9N 2J5

Report Date: 2010/02/03

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B006680
Received: 2010/01/20, 09:16

Sample Matrix: PUF AND FILTER
Samples Received: 2

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
PAH's in Air (CARB429mod)	2	2010/01/21	2010/02/01	BRL SOP-00201	CARB429(ARBM1,M2)mod

Encryption Key

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

THERESA STEPHENSON, Project Manager
Email: Theresa.Stephenson@MaxxamAnalytics.com
Phone# (905) 817-5763

=====

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Total cover pages: 1

Maxxam Job #: B006680
 Report Date: 2010/02/03

SEMI-VOLATILE ORGANICS BY GC-MS (PUF AND FILTER)

Maxxam ID		EW6957	EW6958		
Sampling Date		2010/01/14	2010/01/14		
COC Number		1058	1058		
	Units	LICA	LICA	DL	QC Batch
		PUF/QFF/CLS/JAN14,10	PUF/QFF/PORT/JAN14,10		

Semivolatile Organics					
1-Methylnaphthalene	ug	0.62	0.64	0.10	2061264
1-Methylphenanthrene	ug	<0.10	<0.10	0.10	2061264
2-Chloronaphthalene	ug	<0.10	<0.10	0.10	2061264
2-Methylantracene	ug	<0.10	<0.10	0.10	2061264
2-Methylnaphthalene	ug	1.02	1.05	0.10	2061264
3-Methylcholanthrene	ug	<2.0	<2.0	2.0	2061264
7,12-Dimethylbenzo(a)anthracene	ug	<0.10	<0.10	0.10	2061264
9,10-Dimethylantracene	ug	<0.40	<0.40	0.40	2061264
Acenaphthene	ug	0.080	0.094	0.050	2061264
Acenaphthylene	ug	0.236	0.188	0.050	2061264
Anthracene	ug	<0.050	<0.050	0.050	2061264
Benzo(a)anthracene	ug	<0.050	<0.050	0.050	2061264
Benzo(a)fluorene	ug	<0.10	<0.10	0.10	2061264
Benzo(a)pyrene	ug	<0.050	<0.050	0.050	2061264
Benzo(b)fluoranthene	ug	0.076	0.065	0.050	2061264
Benzo(b)fluorene	ug	<0.10	<0.10	0.10	2061264
Benzo(e)pyrene	ug	<0.10	<0.10	0.10	2061264
Benzo(g,h,i)perylene	ug	0.055	<0.050	0.050	2061264
Benzo(k)fluoranthene	ug	<0.050	<0.050	0.050	2061264
Biphenyl	ug	0.50	0.67	0.10	2061264
Chrysene	ug	0.106	0.084	0.050	2061264
Coronene	ug	<0.10	<0.10	0.10	2061264
Dibenz(a,h)anthracene	ug	<0.050	<0.050	0.050	2061264
Dibenzo(a,e)pyrene	ug	<0.20	<0.20	0.20	2061264
Fluoranthene	ug	0.192	0.170	0.050	2061264
Fluorene	ug	0.258	0.319	0.050	2061264
Indeno(1,2,3-cd)pyrene	ug	<0.050	<0.050	0.050	2061264
m-Terphenyl	ug	<0.10	<0.10	0.10	2061264
Naphthalene	ug	1.23	1.08	0.072	2061264
o-Terphenyl	ug	<0.10	<0.10	0.10	2061264
Perylene	ug	<0.10	<0.10	0.10	2061264
Phenanthrene	ug	0.596	0.729	0.050	2061264

 RDL = Reportable Detection Limit
 QC Batch = Quality Control Batch

Maxxam Job #: B006680
 Report Date: 2010/02/03

SEMI-VOLATILE ORGANICS BY GC-MS (PUF AND FILTER)

Maxxam ID		EW6957	EW6958		
Sampling Date		2010/01/14	2010/01/14		
COC Number		1058	1058		
	Units	LICA	LICA	DL	QC Batch
		PUF/QFF/CLS/JAN14,10	PUF/QFF/PORT/JAN14,10		

p-Terphenyl	ug	<0.10	<0.10	0.10	2061264
Pyrene	ug	0.138	0.108	0.050	2061264
Quinoline	ug	<0.40	<0.40	0.40	2061264
Tetralin	ug	<0.10	<0.10	0.10	2061264
Surrogate Recovery (%)					
D10-2-Methylnaphthalene	%	78	80		2061264
D10-Fluoranthene	%	102	102		2061264
D10-Fluorene (FS)	%	69	67		2061264
D10-Phenanthrene	%	97	96		2061264
D12-Benzo(a)anthracene	%	106	117		2061264
D12-Benzo(a)pyrene	%	100	101		2061264
D12-Benzo(b)fluoranthene	%	97	101		2061264
D12-Benzo(ghi)perylene	%	102	104		2061264
D12-Benzo(k)fluoranthene	%	107	100		2061264
D12-Chrysene	%	106	99		2061264
D12-Indeno(1,2,3-cd)pyrene	%	103	107		2061264
D12-Perylene	%	103	102		2061264
D14-Dibenzo(a,h)anthracene	%	103	107		2061264
D14-Terphenyl (FS)	%	93	92		2061264
D8-Acenaphthylene	%	91	93		2061264
D8-Naphthalene	%	79	78		2061264

QC Batch = Quality Control Batch

Maxxam Job #: B006680
 Report Date: 2010/02/03

Test Summary

Maxxam ID EW6957 **Collected** 2010/01/14
Sample ID LICA PUF/QFF/CLS/JAN14,10 **Shipped**
Matrix PUF AND FILTER **Received** 2010/01/20

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
PAH's in Air (CARB429mod)	GC/MS	2061264	2010/01/21	2010/02/01	WZ

Maxxam ID EW6958 **Collected** 2010/01/14
Sample ID LICA PUF/QFF/PORT/JAN14,10 **Shipped**
Matrix PUF AND FILTER **Received** 2010/01/20

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
PAH's in Air (CARB429mod)	GC/MS	2061264	2010/01/21	2010/02/01	WZ

Maxxam Job #: B006680
Report Date: 2010/02/03

GENERAL COMMENTS

PAHMS-F

7,12-Dimethylbenzo(a)anthracene is above 25% RSD in initial calibration. No positives found for this compounds.

Naphthalene positive found in blank. Samples should be considered to be possibly contaminated to the level found in the blank.

Sample EW6957-01: PAHMS-F

Not calibrated for Benzo(b)Anthracene, Picene, Dibenzo(a,c) anthracene or Triphenylene. An estimated mdl for each of these compounds is 0.1ug. Since Dibenzo(a,c) anthracene co-elutes with Dibenzo(a,h) anthracene it would have a value below the estimated mdl.

Since Triphenylene co-elutes with Chrysene, the maximum possible value for this compound would be 0.11ug, which is the value reported for Chrysene.

Benzo(b)Anthracene elutes after Benzo(a)Anthracene and Chrysene. Searched for ions specific to this compound in the appropriate retention time range with no possible positive detected.

Picene elutes after Dibenzo(a,h) anthracene. Searched for ions specific to this compounds in the appropriate retention time range, possible positive detected, but would fall below the mdl using Dibenzo(a,h) anthracene calibration.

Sample EW6958-01: PAHMS-F

Not calibrated for Benzo(b)Anthracene, Picene, Dibenzo(a,c) anthracene or Triphenylene. An estimated mdl for each of these compounds is 0.1ug. Since Dibenzo(a,c) anthracene co-elutes with Dibenzo(a,h) anthracene it would have a value below the estimated mdl.

Since Triphenylene co-elutes with Chrysene, the maximum possible value for this compound would be 0.08ug, which is the value reported for Chrysene.

Benzo(b)Anthracene elutes after Benzo(a)Anthracene and Chrysene. Searched for ions specific to this compound in the appropriate retention time range with no possible positive detected.

Picene elutes after Dibenzo(a,h) anthracene. Searched for ions specific to this compounds in the appropriate retention time range, possible positive detected, but would fall below the mdl using Dibenzo(a,h) anthracene calibration.

Results relate only to the items tested.

Lakeland Industry & Community Assoc.
 Attention: Michael Bisaga
 Client Project #:
 P.O. #:
 Project name:

Quality Assurance Report
 Maxxam Job Number: GB006680

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
2061264 WZ	Spiked Blank	D10-2-Methylnaphthalene	2010/02/01		83	%	50 - 150
		D10-Fluoranthene	2010/02/01		108	%	50 - 150
		D10-Phenanthrene	2010/02/01		98	%	50 - 150
		D12-Benzo(a)anthracene	2010/02/01		96	%	50 - 150
		D12-Benzo(a)pyrene	2010/02/01		98	%	50 - 150
		D12-Benzo(b)fluoranthene	2010/02/01		96	%	50 - 150
		D12-Benzo(ghi)perylene	2010/02/01		98	%	50 - 150
		D12-Benzo(k)fluoranthene	2010/02/01		88	%	50 - 150
		D12-Chrysene	2010/02/01		92	%	50 - 150
		D12-Indeno(1,2,3-cd)pyrene	2010/02/01		100	%	50 - 150
		D12-Perylene	2010/02/01		97	%	50 - 150
		D14-Dibenzo(a,h)anthracene	2010/02/01		100	%	50 - 150
		D8-Acenaphthylene	2010/02/01		92	%	50 - 150
		D8-Naphthalene	2010/02/01		84	%	50 - 150
	RPD	Acenaphthene	2010/02/01		82	%	60 - 130
	Spiked Blank	Acenaphthene	2010/02/01	4.0		%	50
	RPD	Acenaphthylene	2010/02/01		85	%	60 - 130
	Spiked Blank	Acenaphthylene	2010/02/01	7.1		%	50
	RPD	Anthracene	2010/02/01		83	%	60 - 130
	Spiked Blank	Anthracene	2010/02/01	4.2		%	50
	RPD	Anthracene	2010/02/01		4.2	%	50
	Spiked Blank	Benzo(a)anthracene	2010/02/01		78	%	60 - 130
	RPD	Benzo(a)anthracene	2010/02/01	34.8		%	50
	Spiked Blank	Benzo(a)pyrene	2010/02/01		83	%	60 - 130
	RPD	Benzo(a)pyrene	2010/02/01	1.4		%	50
	Spiked Blank	Benzo(b)fluoranthene	2010/02/01		67	%	60 - 130
	RPD	Benzo(b)fluoranthene	2010/02/01	21.6		%	50
	Spiked Blank	Benzo(g,h,i)perylene	2010/02/01		86	%	60 - 130
	RPD	Benzo(g,h,i)perylene	2010/02/01	3.8		%	50
	Spiked Blank	Benzo(k)fluoranthene	2010/02/01		79	%	60 - 130
	RPD	Benzo(k)fluoranthene	2010/02/01	6.9		%	50
	Spiked Blank	Chrysene	2010/02/01		84	%	60 - 130
	RPD	Chrysene	2010/02/01	5.7		%	50
	Spiked Blank	Dibenz(a,h)anthracene	2010/02/01		89	%	60 - 130
	RPD	Dibenz(a,h)anthracene	2010/02/01	6.2		%	50
	Spiked Blank	Fluoranthene	2010/02/01		99	%	60 - 130
	RPD	Fluoranthene	2010/02/01	5.6		%	50
	Spiked Blank	Fluorene	2010/02/01		83	%	60 - 130
	RPD	Fluorene	2010/02/01	2.3		%	50
	Spiked Blank	Indeno(1,2,3-cd)pyrene	2010/02/01		89	%	60 - 130
RPD	Indeno(1,2,3-cd)pyrene	2010/02/01	4.4		%	50	
Spiked Blank	Naphthalene	2010/02/01		85	%	60 - 130	
RPD	Naphthalene	2010/02/01	2.4		%	50	
Spiked Blank	Phenanthrene	2010/02/01		87	%	60 - 130	
RPD	Phenanthrene	2010/02/01	5.5		%	50	
Spiked Blank	Pyrene	2010/02/01		90	%	60 - 130	
RPD	Pyrene	2010/02/01	7.9		%	50	
Method Blank	D10-2-Methylnaphthalene	2010/02/01		85	%	50 - 150	
	D10-Fluoranthene	2010/02/01		104	%	50 - 150	
	D10-Phenanthrene	2010/02/01		94	%	50 - 150	
	D12-Benzo(a)anthracene	2010/02/01		89	%	50 - 150	
	D12-Benzo(a)pyrene	2010/02/01		97	%	50 - 150	
	D12-Benzo(b)fluoranthene	2010/02/01		91	%	50 - 150	
	D12-Benzo(ghi)perylene	2010/02/01		97	%	50 - 150	
	D12-Benzo(k)fluoranthene	2010/02/01		102	%	50 - 150	
	D12-Chrysene	2010/02/01		100	%	50 - 150	

Lakeland Industry & Community Assoc.
 Attention: Michael Bisaga
 Client Project #:
 P.O. #:
 Project name:

Quality Assurance Report (Continued)

Maxxam Job Number: GB006680

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
2061264 WZ	Method Blank	D12-Indeno(1,2,3-cd)pyrene	2010/02/01		96	%	50 - 150
		D12-Perylene	2010/02/01		99	%	50 - 150
		D14-Dibenzo(a,h)anthracene	2010/02/01		95	%	50 - 150
		D8-Acenaphthylene	2010/02/01		89	%	50 - 150
		D8-Naphthalene	2010/02/01		87	%	50 - 150
		1-Methylnaphthalene	2010/02/01	ND, RDL=0.10		ug	
		1-Methylphenanthrene	2010/02/01	ND, RDL=0.10		ug	
		2-Chloronaphthalene	2010/02/01	ND, RDL=0.10		ug	
		2-Methylantracene	2010/02/01	ND, RDL=0.10		ug	
		2-Methylnaphthalene	2010/02/01	ND, RDL=0.10		ug	
		3-Methylcholanthrene	2010/02/01	ND, RDL=2.0		ug	
		7,12-Dimethylbenzo(a)anthracene	2010/02/01	ND, RDL=0.10		ug	
		9,10-Dimethylantracene	2010/02/01	ND, RDL=0.40		ug	
		Acenaphthene	2010/02/01	ND, RDL=0.050		ug	
		Acenaphthylene	2010/02/01	ND, RDL=0.050		ug	
		Anthracene	2010/02/01	ND, RDL=0.050		ug	
		Benzo(a)anthracene	2010/02/01	ND, RDL=0.050		ug	
		Benzo(a)fluorene	2010/02/01	ND, RDL=0.10		ug	
		Benzo(a)pyrene	2010/02/01	ND, RDL=0.050		ug	
		Benzo(b)fluoranthene	2010/02/01	ND, RDL=0.050		ug	
		Benzo(b)fluorene	2010/02/01	ND, RDL=0.10		ug	
		Benzo(e)pyrene	2010/02/01	ND, RDL=0.10		ug	
		Benzo(g,h,i)perylene	2010/02/01	ND, RDL=0.050		ug	
		Benzo(k)fluoranthene	2010/02/01	ND, RDL=0.050		ug	
		Biphenyl	2010/02/01	ND, RDL=0.10		ug	
		Chrysene	2010/02/01	ND, RDL=0.050		ug	
		Coronene	2010/02/01	ND, RDL=0.10		ug	
		Dibenz(a,h)anthracene	2010/02/01	ND, RDL=0.050		ug	
		Dibenzo(a,e)pyrene	2010/02/01	ND, RDL=0.20		ug	
		Fluoranthene	2010/02/01	ND, RDL=0.050		ug	
		Fluorene	2010/02/01	ND, RDL=0.050		ug	
		Indeno(1,2,3-cd)pyrene	2010/02/01	ND, RDL=0.050		ug	
		m-Terphenyl	2010/02/01	ND, RDL=0.10		ug	
		Naphthalene	2010/02/01	0.090, RDL=0.072		ug	
		o-Terphenyl	2010/02/01	ND, RDL=0.10		ug	
		Perylene	2010/02/01	ND, RDL=0.10		ug	
		Phenanthrene	2010/02/01	ND, RDL=0.050		ug	
		p-Terphenyl	2010/02/01	ND, RDL=0.10		ug	
		Pyrene	2010/02/01	ND, RDL=0.050		ug	
		Quinoline	2010/02/01	ND, RDL=0.40		ug	
		Tetralin	2010/02/01	ND, RDL=0.10		ug	

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.
 Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.
 Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.
 Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

Maxxam Analytics Inc.

Tisch Hi-Vol PUF+ Sample Collection Data Sheet

Client: Lica
 Location: 13-16-62-5 W4M
 Station ID: Lica 33 (Portable)
 Field Sample ID: LICA PUF/PORT/Jan 20, 10

Puf+ s/n: 100-1015
 Motor s/n: 1139
 Installation Date/Time: Jan 18, 10 @ mst
 Removal Date/Time: Jan 22, 10 @ 10:55 mst

Date and Time Information			
Sample Date	Start Time (MST)	End Time (MST)	Elapsed Time (Hours)
20-Jan-10	01/20/2010 0:00	01/21/2010 0:00	24.00

PUF and QFF Information			
Date Received	Date Shipped	Puf Expiration Date	QFF Prep Date
15-Jan-10	22-Jan-10	27-Jan-10	????

Set Flow Rate (slpm): 230

Date of Last Calibration: 02-Oct-09

Sampling Data			
Average Pressure(mmHg)	AverageFlow (Qstd slpm)	Average Temperature (C)	Volume (Vstd m ³)
706	229	-8.6	330.31

Time set correctly prior to sampling? YES
Timer set correctly prior to sampling? YES
Sampling data saved to memory card after sampling? YES

Comments: COC # 1059

GA9H1977 PUFF#2

Ran with a 102mm Quartz Fiber Filter - Sample ID - LICA QFF/PORT/Jan 20, 10

- Excessive frost build-up on 102mm QFF, frost fell off the filter when PUFF and QFF were transported from the sampler on the roof to the ground.

Technician Signature: _____



Your C.O.C. #: 1059

Attention: Shea Beaton

Lakeland Industry & Community Assoc.
P.O. Box 8237
Bonnyville, AB
CANADA T9N 2J5

Report Date: 2010/02/03

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B009097

Received: 2010/01/26, 09:26

Sample Matrix: PUF AND FILTER

Samples Received: 2

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
PAH's in Air (CARB429mod)	2	2010/01/27	2010/02/01	BRL SOP-00201	CARB429(ARBM1,M2)mod

Encryption Key

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

THERESA STEPHENSON, Project Manager
Email: Theresa.Stephenson@MaxxamAnalytics.com
Phone# (905) 817-5763

=====
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Total cover pages: 1

Maxxam Job #: B009097
 Report Date: 2010/02/03

SEMI-VOLATILE ORGANICS BY GC-MS (PUF AND FILTER)

Maxxam ID		EX8961	EX8962		
Sampling Date		2010/01/20 00:00	2010/01/20 00:00		
COC Number		1059	1059		
	Units	LICA	LICA	DL	QC Batch
		PUF/QFF/CLS/JAN20,10	PUF/QFF/PORT/JAN20,10		

Semivolatile Organics					
1-Methylnaphthalene	ug	0.22	0.14	0.10	2065609
1-Methylphenanthrene	ug	<0.10	<0.10	0.10	2065609
2-Chloronaphthalene	ug	<0.10	<0.10	0.10	2065609
2-Methylantracene	ug	<0.10	<0.10	0.10	2065609
2-Methylnaphthalene	ug	0.42	0.23	0.10	2065609
3-Methylcholanthrene	ug	<2.0	<2.0	2.0	2065609
7,12-Dimethylbenzo(a)anthracene	ug	<0.10	<0.10	0.10	2065609
9,10-Dimethylantracene	ug	<0.40	<0.40	0.40	2065609
Acenaphthene	ug	<0.050	<0.050	0.050	2065609
Acenaphthylene	ug	0.177	0.101	0.050	2065609
Anthracene	ug	<0.050	<0.050	0.050	2065609
Benzo(a)anthracene	ug	<0.050	<0.050	0.050	2065609
Benzo(a)fluorene	ug	<0.10	<0.10	0.10	2065609
Benzo(a)pyrene	ug	<0.050	<0.050	0.050	2065609
Benzo(b)fluoranthene	ug	<0.050	<0.050	0.050	2065609
Benzo(b)fluorene	ug	<0.10	<0.10	0.10	2065609
Benzo(e)pyrene	ug	<0.10	<0.10	0.10	2065609
Benzo(g,h,i)perylene	ug	<0.050	<0.050	0.050	2065609
Benzo(k)fluoranthene	ug	<0.050	<0.050	0.050	2065609
Biphenyl	ug	0.23	0.23	0.10	2065609
Chrysene	ug	<0.050	<0.050	0.050	2065609
Coronene	ug	<0.10	<0.10	0.10	2065609
Dibenz(a,h)anthracene	ug	<0.050	<0.050	0.050	2065609
Dibenzo(a,e)pyrene	ug	<0.20	<0.20	0.20	2065609
Fluoranthene	ug	0.104	0.125	0.050	2065609
Fluorene	ug	0.167	0.160	0.050	2065609
Indeno(1,2,3-cd)pyrene	ug	<0.050	<0.050	0.050	2065609
m-Terphenyl	ug	<0.10	<0.10	0.10	2065609
Naphthalene	ug	0.400	0.260	0.072	2065609
o-Terphenyl	ug	<0.10	<0.10	0.10	2065609
Perylene	ug	<0.10	<0.10	0.10	2065609

 RDL = Reportable Detection Limit
 QC Batch = Quality Control Batch

Maxxam Job #: B009097
 Report Date: 2010/02/03

SEMI-VOLATILE ORGANICS BY GC-MS (PUF AND FILTER)

Maxxam ID		EX8961	EX8962		
Sampling Date		2010/01/20	2010/01/20		
		00:00	00:00		
COC Number		1059	1059		
	Units	LICA	LICA	DL	QC Batch
		PUF/QFF/CLS/JAN20,10	PUF/QFF/PORT/JAN20,10		

Phenanthrene	ug	0.402	0.412	0.050	2065609
p-Terphenyl	ug	<0.10	<0.10	0.10	2065609
Pyrene	ug	0.074	0.071	0.050	2065609
Quinoline	ug	<0.40	<0.40	0.40	2065609
Tetralin	ug	<0.10	<0.10	0.10	2065609
Surrogate Recovery (%)					
D10-2-Methylnaphthalene	%	77	83		2065609
D10-Fluoranthene	%	102	108		2065609
D10-Fluorene (FS)	%	63	72		2065609
D10-Phenanthrene	%	96	101		2065609
D12-Benzo(a)anthracene	%	95	104		2065609
D12-Benzo(a)pyrene	%	96	99		2065609
D12-Benzo(b)fluoranthene	%	96	101		2065609
D12-Benzo(ghi)perylene	%	102	101		2065609
D12-Benzo(k)fluoranthene	%	102	95		2065609
D12-Chrysene	%	105	97		2065609
D12-Indeno(1,2,3-cd)pyrene	%	102	103		2065609
D12-Perylene	%	99	99		2065609
D14-Dibenzo(a,h)anthracene	%	100	103		2065609
D14-Terphenyl (FS)	%	89	86		2065609
D8-Acenaphthylene	%	87	95		2065609
D8-Naphthalene	%	77	83		2065609

QC Batch = Quality Control Batch

Maxxam Job #: B009097
 Report Date: 2010/02/03

Test Summary

Maxxam ID EX8961 **Collected** 2010/01/20
Sample ID LICA PUF/QFF/CLS/JAN20,10 **Shipped**
Matrix PUF AND FILTER **Received** 2010/01/26

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
PAH's in Air (CARB429mod)	GC/MS	2065609	2010/01/27	2010/02/01	WZ

Maxxam ID EX8962 **Collected** 2010/01/20
Sample ID LICA PUF/QFF/PORT/JAN20,10 **Shipped**
Matrix PUF AND FILTER **Received** 2010/01/26

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
PAH's in Air (CARB429mod)	GC/MS	2065609	2010/01/27	2010/02/01	WZ

Maxxam Job #: B009097
Report Date: 2010/02/03

GENERAL COMMENTS

PAHMS-F

7,12-Dimethylbenzo(a)anthracene is above 25% RSD in initial calibration. No positives found for this compounds.

Not calibrated for Benzo(b)Anthracene, Picene, Dibenzo(a,c) anthracene or Triphenylene. An estimated mdl for each of these compounds is 0.1ug

. Since Dibenzo(a,c) anthracene co-elutes with Dibenzo(a,h) anthracene and Triphenylene with Chrysene each would have a value below estimated mdl.

Benzo(b)Anthracene elutes after Benzo(a)Anthracene and Chrysene. Picene elutes after Dibenzo(a,h) anthracene. Searched for ions specific to these 2 compounds in the appropriate retention time range with no possible positives detected.

Results relate only to the items tested.

Lakeland Industry & Community Assoc.
 Attention: Shea Beaton
 Client Project #:
 P.O. #:
 Project name:

Quality Assurance Report
 Maxxam Job Number: GB009097

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
2065609 WZ	Spiked Blank	D10-2-Methylnaphthalene	2010/02/01		92	%	50 - 150
		D10-Fluoranthene	2010/02/01		108	%	50 - 150
		D10-Phenanthrene	2010/02/01		105	%	50 - 150
		D12-Benzo(a)anthracene	2010/02/01		99	%	50 - 150
		D12-Benzo(a)pyrene	2010/02/01		102	%	50 - 150
		D12-Benzo(b)fluoranthene	2010/02/01		100	%	50 - 150
		D12-Benzo(ghi)perylene	2010/02/01		104	%	50 - 150
		D12-Benzo(k)fluoranthene	2010/02/01		101	%	50 - 150
		D12-Chrysene	2010/02/01		104	%	50 - 150
		D12-Indeno(1,2,3-cd)pyrene	2010/02/01		106	%	50 - 150
		D12-Perylene	2010/02/01		102	%	50 - 150
		D14-Dibenzo(a,h)anthracene	2010/02/01		106	%	50 - 150
		D8-Acenaphthylene	2010/02/01		95	%	50 - 150
		D8-Naphthalene	2010/02/01		93	%	50 - 150
		RPD	Acenaphthene	2010/02/01		86	%
	Spiked Blank	Acenaphthene	2010/02/01	3.9		%	50
	RPD	Acenaphthylene	2010/02/01		88	%	60 - 130
	Spiked Blank	Acenaphthylene	2010/02/01	3.0		%	50
	RPD	Anthracene	2010/02/01		79	%	60 - 130
	Spiked Blank	Anthracene	2010/02/01	2.3		%	50
	RPD	Benzo(a)anthracene	2010/02/01		82	%	60 - 130
	Spiked Blank	Benzo(a)anthracene	2010/02/01	2.8		%	50
	RPD	Benzo(a)pyrene	2010/02/01		87	%	60 - 130
	Spiked Blank	Benzo(a)pyrene	2010/02/01	5.8		%	50
	RPD	Benzo(b)fluoranthene	2010/02/01		89	%	60 - 130
	Spiked Blank	Benzo(b)fluoranthene	2010/02/01	4.4		%	50
	RPD	Benzo(g,h,i)perylene	2010/02/01		90	%	60 - 130
	Spiked Blank	Benzo(g,h,i)perylene	2010/02/01	8.2		%	50
	RPD	Benzo(k)fluoranthene	2010/02/01		88	%	60 - 130
	Spiked Blank	Benzo(k)fluoranthene	2010/02/01	3.7		%	50
	RPD	Chrysene	2010/02/01		92	%	60 - 130
	Spiked Blank	Chrysene	2010/02/01	1.2		%	50
	RPD	Dibenz(a,h)anthracene	2010/02/01		93	%	60 - 130
	Spiked Blank	Dibenz(a,h)anthracene	2010/02/01	11.6		%	50
	RPD	Fluoranthene	2010/02/01		99	%	60 - 130
	Spiked Blank	Fluoranthene	2010/02/01	2.8		%	50
	RPD	Fluorene	2010/02/01		84	%	60 - 130
	Spiked Blank	Fluorene	2010/02/01	2.1		%	50
	RPD	Indeno(1,2,3-cd)pyrene	2010/02/01		93	%	60 - 130
	Spiked Blank	Indeno(1,2,3-cd)pyrene	2010/02/01	9.6		%	50
RPD	Naphthalene	2010/02/01		87	%	60 - 130	
Spiked Blank	Naphthalene	2010/02/01	3.9		%	50	
RPD	Phenanthrene	2010/02/01		87	%	60 - 130	
Spiked Blank	Phenanthrene	2010/02/01	8.1		%	50	
RPD	Pyrene	2010/02/01		90	%	60 - 130	
Spiked Blank	Pyrene	2010/02/01	5.3		%	50	
Method Blank	D10-2-Methylnaphthalene	2010/02/01		79	%	50 - 150	
	D10-Fluoranthene	2010/02/01		98	%	50 - 150	
	D10-Phenanthrene	2010/02/01		94	%	50 - 150	
	D12-Benzo(a)anthracene	2010/02/01		95	%	50 - 150	
	D12-Benzo(a)pyrene	2010/02/01		96	%	50 - 150	
	D12-Benzo(b)fluoranthene	2010/02/01		93	%	50 - 150	
	D12-Benzo(ghi)perylene	2010/02/01		100	%	50 - 150	
	D12-Benzo(k)fluoranthene	2010/02/01		105	%	50 - 150	
	D12-Chrysene	2010/02/01		103	%	50 - 150	

Lakeland Industry & Community Assoc.
 Attention: Shea Beaton
 Client Project #:
 P.O. #:
 Project name:

Quality Assurance Report (Continued)
 Maxxam Job Number: GB009097

QA/QC Batch	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	%Recovery	Units	QC Limits
2065609 WZ	Method Blank	D12-Indeno(1,2,3-cd)pyrene	2010/02/01		100	%	50 - 150
		D12-Perylene	2010/02/01		100	%	50 - 150
		D14-Dibenzo(a,h)anthracene	2010/02/01		99	%	50 - 150
		D8-Acenaphthylene	2010/02/01		82	%	50 - 150
		D8-Naphthalene	2010/02/01		79	%	50 - 150
		1-Methylnaphthalene	2010/02/01	ND, RDL=0.10		ug	
		1-Methylphenanthrene	2010/02/01	ND, RDL=0.10		ug	
		2-Chloronaphthalene	2010/02/01	ND, RDL=0.10		ug	
		2-Methylanthracene	2010/02/01	ND, RDL=0.10		ug	
		2-Methylnaphthalene	2010/02/01	ND, RDL=0.10		ug	
		3-Methylcholanthrene	2010/02/01	ND, RDL=2.0		ug	
		7,12-Dimethylbenzo(a)anthracene	2010/02/01	ND, RDL=0.10		ug	
		9,10-Dimethylanthracene	2010/02/01	ND, RDL=0.40		ug	
		Acenaphthene	2010/02/01	ND, RDL=0.050		ug	
		Acenaphthylene	2010/02/01	ND, RDL=0.050		ug	
		Anthracene	2010/02/01	ND, RDL=0.050		ug	
		Benzo(a)anthracene	2010/02/01	ND, RDL=0.050		ug	
		Benzo(a)fluorene	2010/02/01	ND, RDL=0.10		ug	
		Benzo(a)pyrene	2010/02/01	ND, RDL=0.050		ug	
		Benzo(b)fluoranthene	2010/02/01	ND, RDL=0.050		ug	
		Benzo(b)fluorene	2010/02/01	ND, RDL=0.10		ug	
		Benzo(e)pyrene	2010/02/01	ND, RDL=0.10		ug	
		Benzo(g,h,i)perylene	2010/02/01	ND, RDL=0.050		ug	
		Benzo(k)fluoranthene	2010/02/01	ND, RDL=0.050		ug	
		Biphenyl	2010/02/01	ND, RDL=0.10		ug	
		Chrysene	2010/02/01	ND, RDL=0.050		ug	
		Coronene	2010/02/01	ND, RDL=0.10		ug	
		Dibenz(a,h)anthracene	2010/02/01	ND, RDL=0.050		ug	
		Dibenzo(a,e)pyrene	2010/02/01	ND, RDL=0.20		ug	
		Fluoranthene	2010/02/01	ND, RDL=0.050		ug	
		Fluorene	2010/02/01	ND, RDL=0.050		ug	
		Indeno(1,2,3-cd)pyrene	2010/02/01	ND, RDL=0.050		ug	
		m-Terphenyl	2010/02/01	ND, RDL=0.10		ug	
		Naphthalene	2010/02/01	ND, RDL=0.072		ug	
		o-Terphenyl	2010/02/01	ND, RDL=0.10		ug	
		Perylene	2010/02/01	ND, RDL=0.10		ug	
		Phenanthrene	2010/02/01	ND, RDL=0.050		ug	
		p-Terphenyl	2010/02/01	ND, RDL=0.10		ug	
		Pyrene	2010/02/01	ND, RDL=0.050		ug	
		Quinoline	2010/02/01	ND, RDL=0.40		ug	
		Tetralin	2010/02/01	ND, RDL=0.10		ug	

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.
 Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.
 Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.
 Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.