



Box 8237
5107W-50th Street
Bonnyville, AB T9N 2J5
Phone: (780) 812-2182
Fax: (780) 812-2186
Toll Free: 1-877-737-2182
E-Mail: lica2@lica.ca
Website: <http://www.lica.ca>

Alberta Environment
Monitoring and Science
Data Management
Floor 11 Oxbridge Place
9820 106 Street
Edmonton Alberta T5K 2J6

November 14, 2013

RE: September 2013 Ambient Air Monitoring Monthly Reports

Attached are the monthly ambient air monitoring reports for the LICA Airshed Zone's Cold Lake South, Maskwa, St. Lina, and Elk Point continuous stations. In addition, there are also summaries for the passive monitoring network and speciated VOC and PAH sampling programs.

Should you have any questions, please don't hesitate to contact me directly at (780) 266-7068.

Respectfully,

A handwritten signature in blue ink that reads "Michael Bisaga".

Michael Bisaga

Airshed Program Manager
Lakeland Industry and Community Association

cc (email): LICA Office

Lakeland Industry & Community Association

Cold Lake Monitoring Site

Ambient Air Monitoring

Data Report

For

September 2013

Prepared By:



October 17, 2013

Lakeland Industry & Community Association Cold Lake Monitoring Site Ambient Air Monitoring

Table of Contents	Page		Page
Introduction	3	Calibration Reports	96
Calibration Procedure	4	• Sulphur Dioxide	97
Monthly Continuous Summary	5	• Total Reduced Sulphur	101
Monthly Non-Continuous Summary	6	• Total Hydrocarbons	105
General Monthly Summary	7	• Particulate Matter 2.5	109
Continuous Monitoring	10	• Nitrogen Dioxide	112
• Monthly Summaries, Graphs & Wind Roses	11	• Ozone	117
○ Sulphur Dioxide	12	Passive Bubble Maps	120
○ Total Reduced Sulphur	20	Passive Field Data	125
○ Total Hydrocarbons	28	• Field Notes	126
○ Particulate Matter 2.5	36	Passive Monitoring Laboratory Analysis	129
○ Nitrogen Dioxide	41		
○ Nitric Oxide	49		
○ Oxides of Nitrogen	56		
○ Ozone	64		
○ Ambient Temperature	72		
○ Relative Humidity	75		
○ Vector Wind Speed	78		
○ Vector Wind Direction	85		
○ Standard Deviation Wind Direction	88		
Non-Continuous Monitoring	91		

Introduction

The following Ambient Air Monitoring report was prepared for:

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

Monitoring Location: Cold Lake
Data Period: September 2013

The monthly ambient data report:

- Prepared by Lily Lin
- Reviewed by Lili Zhou

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

Calibration Procedure

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

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

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

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

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

MONTHLY CONTINUOUS DATA SUMMARY

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - COLD LAKE

Continuous Ambient Monitoring – September 2013

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION COLD LAKE 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	48	0	0	0.05	2	5, 12	10, 11	3.1, 6.3	296(WNW), 191(S)	0.3	4	99.9
TRS (PPB)	-	-	-	-	0.38	3	2, 5	5, 21	0.4, 0.6	238(SW), 141(SE)	1.1	11	99.9
NO ₂ (PPB)	159	-	0	-	2.26	10.0	26	5	1.9	230(SW)	4.2	26	99.9
NO (PPB)	-	-	-	-	0.56	14.9	25	7	2.4	254(WSW)	1.8	25	99.9
NO _x (PPB)	-	-	-	-	2.81	24.8	25	7	2.4	254(WSW)	5.4	25	99.9
O ₃ (PPB)	82	-	0	-	22.12	69	4	16, 17	6.4, 4.9	253(WSW), 286(WNW)	32.6	21	99.7
THC (PPM)	-	-	-	-	2.28	4.6	5	7	1.9	257(WSW)	2.8	5	99.7
PM 2.5 (UG/M ³)	-	30	-	0	7.81	61	20	4	1.6	109(ESE)	16.8	16	95.8
TEMPERATURE (DEG C)	-	-	-	-	13.53	30.0	12	15	6.3	190(S)	19.5	2	100.0
RELATIVE HUMIDITY (%)	-	-	-	-	65.62	97	9, 27	VAR	VAR	VAR	86.6	30	100.0
VECTOR WS (KPH)	-	-	-	-	5.25	18.9	17	11	-	266(W)	12.7	17	100.0
VECTOR WD (DEGREES)	-	-	-	-	228(SW)	-	-	-	-	-	-	-	100.0

VAR-VARIOUS NA: NOT AVAILABLE

Monthly Non-Continuous Data Summary

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - COLD LAKE

Passive Ambient Monitoring Network – September 2013

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION PASSIVE NETWORK			
NETWORK MAXIMUM			NETWORK AVERAGE
PARAMETER	STATION	READING (PPB)	READING (PPB)
SO ₂	#12, #27	1.2	0.56
H ₂ S	#27	0.58	0.25
NO ₂	#36	3.1	1.5
O ₃	#32	25.7	18.0

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 – COLD LAKE SOUTH

Sulphur Dioxide (PPB)

- Analyzer make / model – Thermo 43i, S/N: 806528242

No operational issues were observed during the month. Following the as found points check on September 18th, the sample pump was rebuilt. After that, a 3-points calibration was performed. The inlet filter was changed before the calibration was started. 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 were observed during the month. The monthly calibration was performed on September 18th. The inlet filter was changed before the monthly calibration was started. Data was corrected using daily zero information.

Ozone (PPB)

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

No operational issues were observed during the month. The monthly calibration was performed on September 18th. The inlet filter was changed before the monthly calibration was started. Data was corrected using daily zero information. The hourly maximum data collected on September 9th at hour 10 was invalidated as less than 100% of the data for the hour was collected” reason unknown.

General Monthly Summary

AQM STATION – LICA – COLD LAKE SOUTH

Total Hydrocarbon (PPM)

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

No operational issues were observed during the month. The monthly calibration was performed on September 18th. The inlet filter was changed before the monthly calibration was started. Data was corrected using daily zero information.

Nitrogen Dioxide (PPB)

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

No operational issues were observed during the month. The monthly calibration was performed on September 18th. The inlet filter was changed before the monthly calibration was started. Data was corrected using daily zero information.

Particulate Matter 2.5 (UG/M3)

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

A routine Teom audit was performed on September 17th. The Teom filter and the FDMS filter were replaced on the same day. The sample pump for the Teom unit was rebuilt on September 18th. Following the maintenance, another Teom audit was performed. Data was corrected using Alberta air quality guideline. If the data was between 0 to –3, the data was corrected to 0. If the data was below –3, the data was invalidated. Thirty hours of data were invalidated as the data were below –3 ug/m3.

Relative Humidity (PERCENT)

- System make / model - Rotronic Hygroclip-S3

No operational issues were observed during the month.

General Monthly Summary

AQM STATION – LICA – COLD LAKE SOUTH

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

- System make / model –MetOne, S/N: F1644

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

No operational issues were observed during the month. The last wind system calibration was performed on December 18th, 2012.

Ambient Temperature (DEGC)

- System make / model - Rotronic Hygroclip-S3

No operational issues were observed during the month.

Trailer Temperature (DEGC)

- System make / model - R&R 61

No operational issues were observed during the 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

The manifold was cleaned on September 18th. The manifold was cleaned again on September 30th as it was dirty.

Passive Network

The samplers installed at site #2 had been removed and all samples were missing.

Continuous Monitoring

Monthly Summaries, Graphs & Wind Roses

Sulphur Dioxide

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - COLD LAKE

SEPTEMBER 2013

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

STATUS FLAG CODES

C	- CALIBRATION	Q	- QUALITY ASSURANCE
Y	- MAINTENANCE	R	- RECOVERY
S	- DAILY ZERO/SPAN CHECK	X	- MACHINE MALFUNCTION
P	- POWER FAILURE	O	- OPERATOR ERROR
G	- OUT FOR REPAIR	K	- COLLECTION ERROR

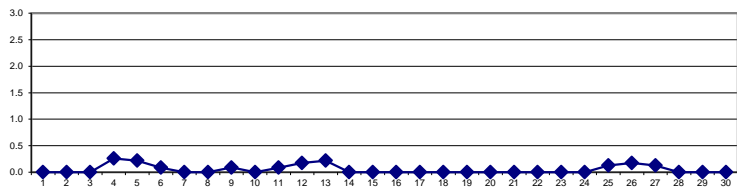
OBJECTIVE LIMIT:

ALBERTA ENVIRONMENT: 1-HR 172 PPB 24-HR 48 PPB

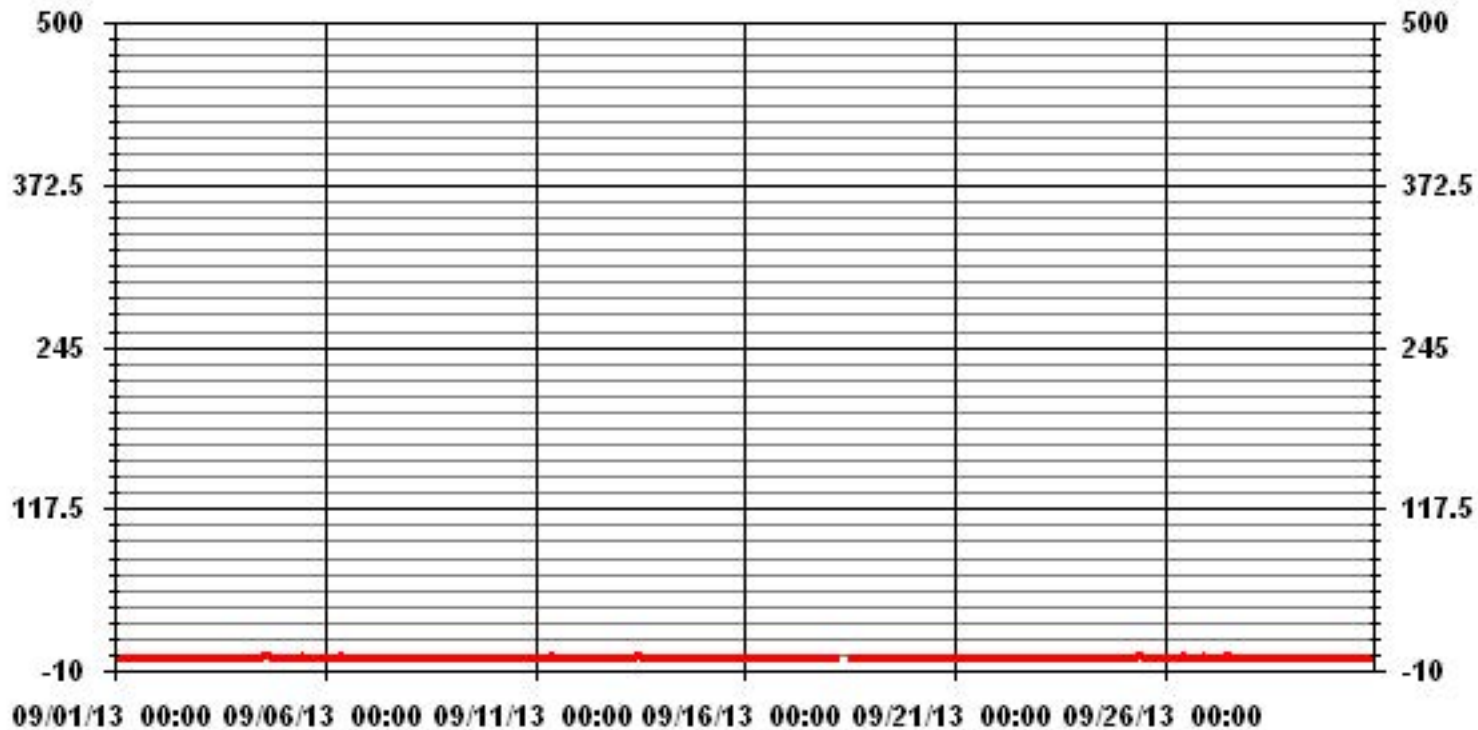
MONTHLY SUMMARY

NUMBER OF 1-HR EXCEEDENCES:	0			
NUMBER OF 24-HR EXCEEDENCES:	0			
NUMBER OF NON-ZERO READINGS:	34			
MAXIMUM 1-HR AVERAGE:	2	PPB	@ HOUR(S)	10, 11
MAXIMUM 24-HR AVERAGE:	0.3	PPB		ON DAY(S) 5, 12
				ON DAY(S) 4
IZS CALIBRATION TIME:	30	HRS	OPERATIONAL TIME:	719 HRS
MONTHLY CALIBRATION TIME:	7	HRS	AMD OPERATION UPTIME:	99.9 %
STANDARD DEVIATION:	0.24		MONTHLY AVERAGE:	0.05 PPB

24 HOUR AVERAGES FOR SEPTEMBER 2013



01 Hour Averages



LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - COLD LAKE

SEPTEMBER 2013

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

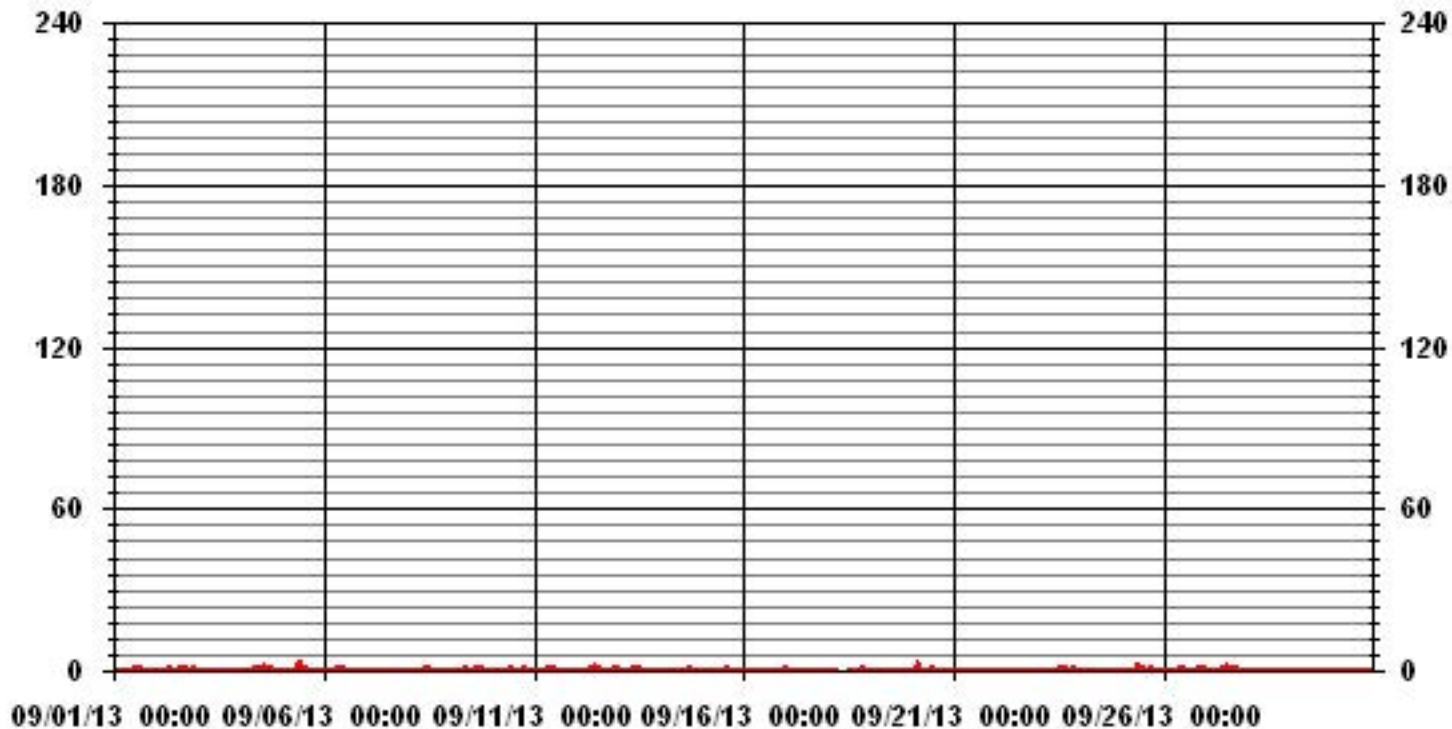
STATUS FLAG CODES

C	- CALIBRATION	Q	- QUALITY ASSURANCE
Y	- MAINTENANCE	R	- RECOVERY
S	- DAILY ZERO/SPAN CHECK	X	- MACHINE MALFUNCTION
P	- POWER FAILURE	O	- OPERATOR ERROR
G	- OUT FOR REPAIR	K	- COLLECTION ERROR

MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	99
MAXIMUM INSTANTANEOUS VALUE:	3 PPB @ HOUR(S) 10 ON DAY(S) 5
IZS CALIBRATION TIME:	30 HRS
MONTHLY CALIBRATION TIME:	7 HRS
STANDARD DEVIATION:	0.41
OPERATIONAL TIME:	719 HRS

01 Hour Averages



LICA
 SO2_ / WDR Joint Frequency Distribution (Percent)

September 2013

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	.73	1.17	3.37	2.63	2.93	4.98	18.03	4.83	3.95	4.25	10.11	14.36	12.46	8.35	5.13	2.63	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	.73	1.17	3.37	2.63	2.93	4.98	18.03	4.83	3.95	4.25	10.11	14.36	12.46	8.35	5.13	2.63	

Calm : .00 %

Total # Operational Hours : 682

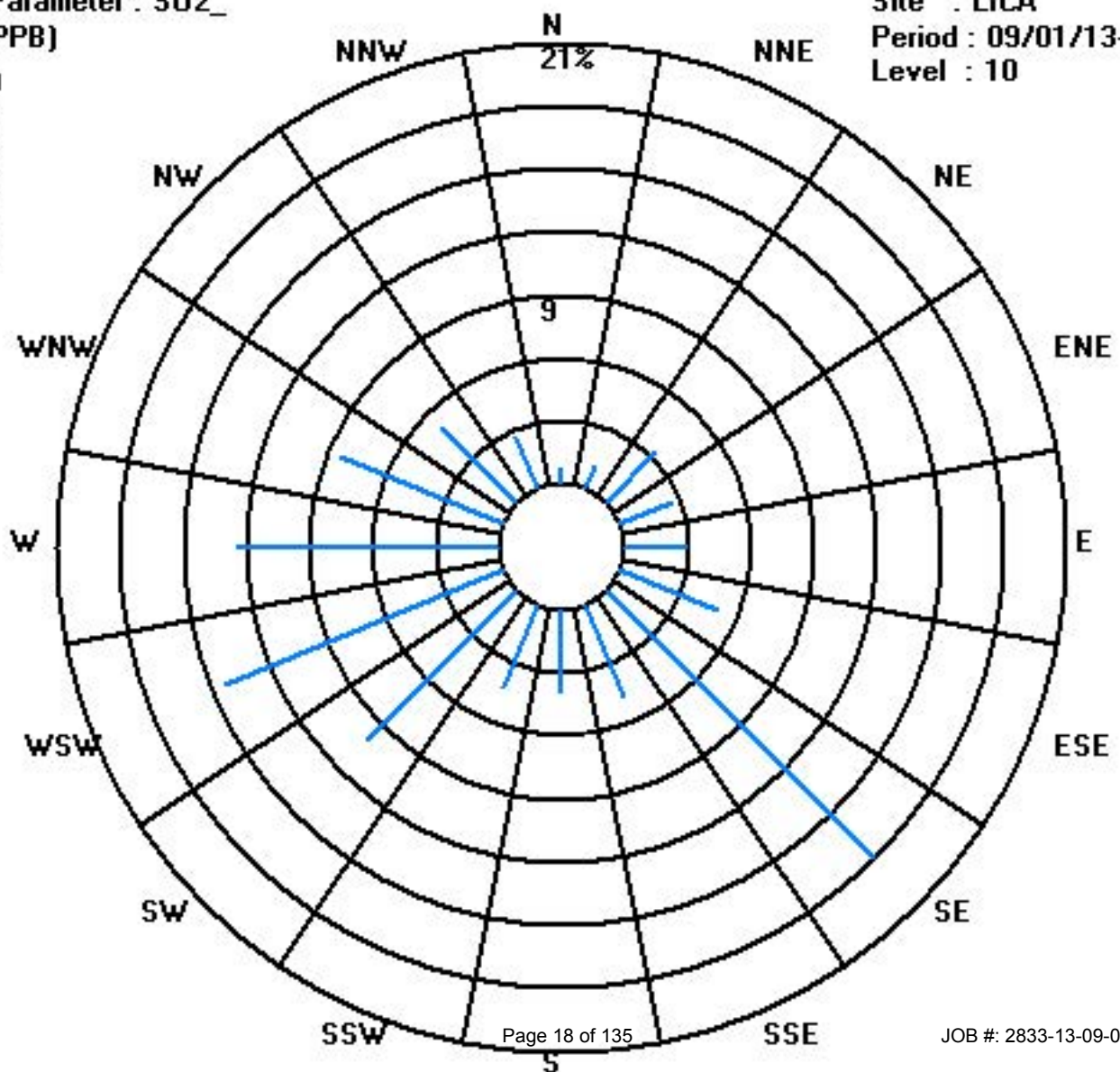
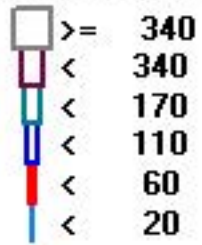
Distribution By Samples

	Direction																
Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
< 20	5	8	23	18	20	34	123	33	27	29	69	98	85	57	35	18	682
< 60																	
< 110																	
< 170																	
< 340																	
>= 340																	
Totals	5	8	23	18	20	34	123	33	27	29	69	98	85	57	35	18	

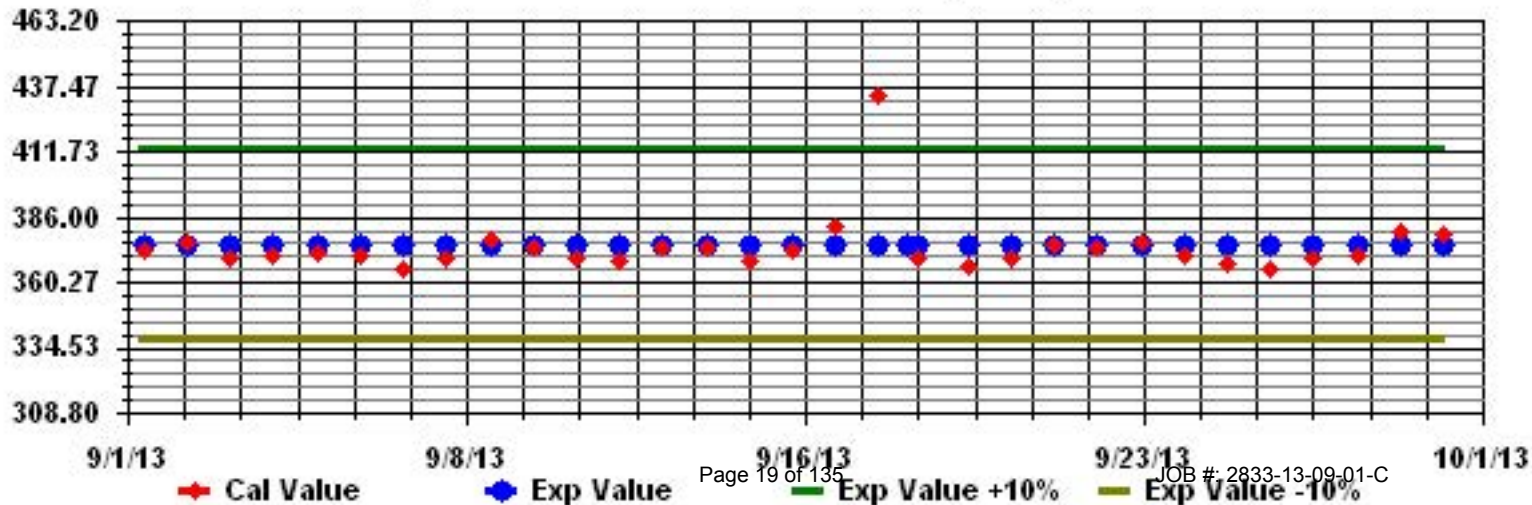
Calm : .00 %

Total # Operational Hours : 682

Class Limits (PPB)



Calibration Graph for Site: LICA Parameter: SO2_ Sequence: S02 Phase: SPAN



Total Reduced Sulphur

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - COLD LAKE

SEPTEMBER 2013

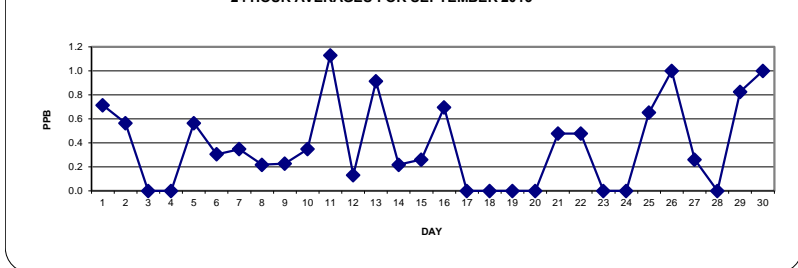
TOTAL REDUCED SULPHUR (TRS) hourly averages in ppb

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	23:00	DAILY	24-HOUR	RDGS.
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.		
1	1	0	0	0	0	0	0	S	S	S	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	24
2	2	1	1	1	2	2	3	2	S	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.6	24
3	3	0	0	0	0	0	0	S	S	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	S	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	1	1	S	2	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	3	1	1	3	0.6	24
6	6	1	0	0	S	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	2	0.3	24
7	7	1	0	S	1	1	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.3	24
8	8	0	S	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	2	2	0.2	24
9	9	S	1	1	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	1	0.2	24
10	10	0	0	0	1	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	S	1	2	0.3	24
11	11	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	S	0	0	2	1.1	24
12	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	1	1	1	1	0.1	24
13	13	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	S	0	0	1	0	2	0.9	24	
14	14	1	2	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	2	0.2	24
15	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	1	1	1	1	1	1	1	1	0.3	24
16	16	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	S	0	0	0	0	0	0	0	0	0	1	0.7	24
17	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0.0	24
18	18	0	0	0	0	0	0	0	C	C	C	C	C	C	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
19	19	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
20	20	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
21	21	0	0	0	0	0	0	0	0	0	0	0	0	S	1	1	1	1	1	1	1	1	1	1	1	1	1	0.5	24
22	22	1	1	1	1	1	1	1	1	1	1	1	S	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.5	24
23	23	0	0	0	0	0	0	0	0	0	0	S	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	S	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	S	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	24
26	26	1	1	1	1	1	1	1	S	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	24
27	27	1	1	1	1	1	1	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	24
28	28	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
29	29	0	0	0	0	S	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	24
30	30	1	1	1	S	1	1	1	1	1	Y	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	23
HOURLY MAX		2	2	2	2	2	3	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	2	2			
HOURLY AVG		0.4	0.4	0.4	0.4	0.5	0.7	0.6	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4			

STATUS FLAG CODES

C	- CALIBRATION	Q	- QUALITY ASSURANCE
Y	- MAINTENANCE	R	- RECOVERY
S	- DAILY ZERO/SPAN CHECK	X	- MACHINE MALFUNCTION
P	- POWER FAILURE	O	- OPERATOR ERROR
G	- OUT FOR REPAIR	K	- COLLECTION ERROR

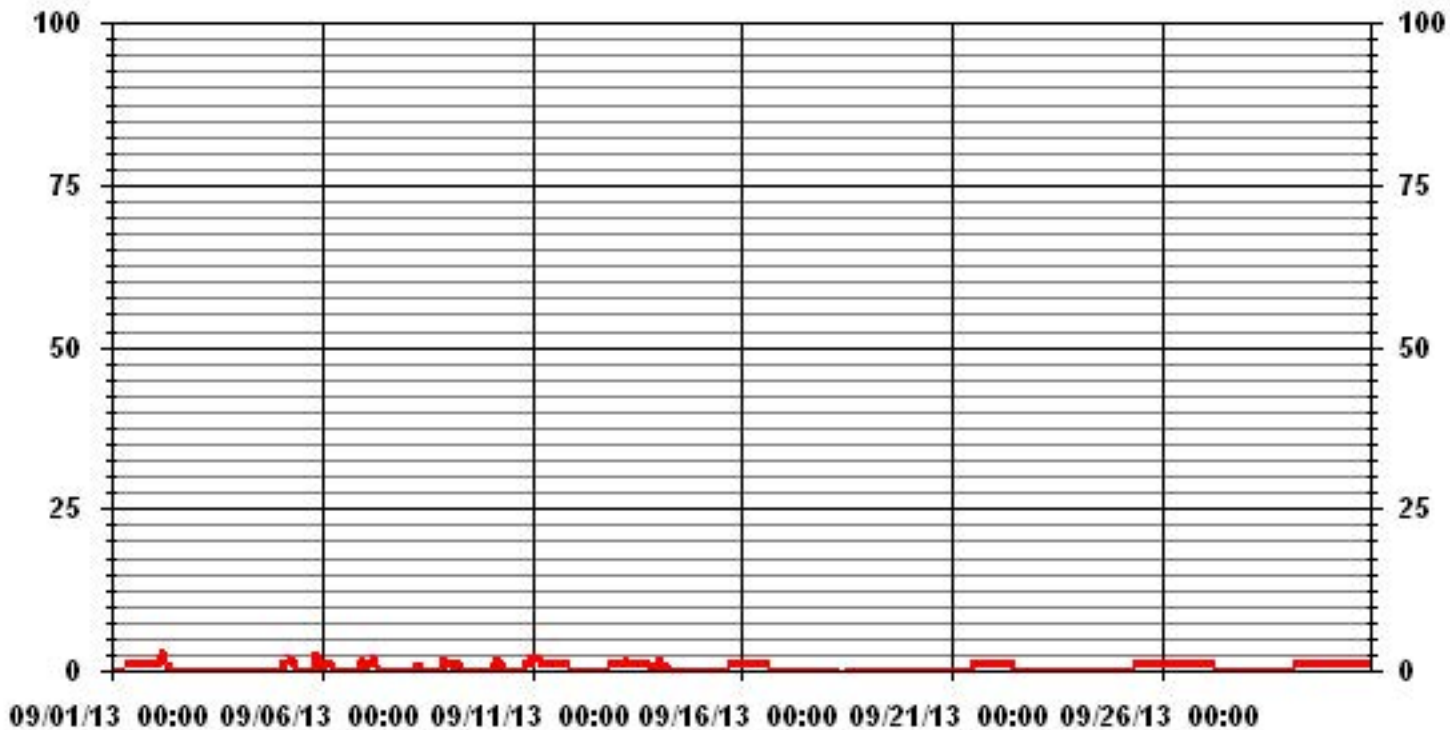
24 HOUR AVERAGES FOR SEPTEMBER 2013



MONTHLY SUMMARY

NUMBER OF 1-HR EXCEEDENCES:	0
NUMBER OF 24-HR EXCEEDENCES:	0
NUMBER OF NON-ZERO READINGS:	237
MAXIMUM 1-HR AVERAGE:	3 PPB @ HOUR(S) 5, 21 ON DAY(S) 2, 5
MAXIMUM 24-HR AVERAGE:	1.1 PPB ON DAY(S) 11
	VAR-VARIOUS
IZS CALIBRATION TIME:	33 HRS
MONTHLY CALIBRATION TIME:	6 HRS
OPERATIONAL TIME:	719 HRS
AMD OPERATION UPTIME:	99.9 %
STANDARD DEVIATION:	0.55
MONTHLY AVERAGE:	0.38 PPB

01 Hour Averages



LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - COLD LAKE

SEPTEMBER 2013

TOTAL REDUCED SULPHUR MAX instantaneous maximum in ppb

MST

DAY	HOUR START																								DAILY 24-HOUR			
	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	MAX.	AVG.	RDGS.
1	1	1	1	1	1	0	S	S	S	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	22
2	2	2	3	5	3	6	3	S	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	1.1	24
3	0	0	0	0	0	0	S	S	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	22
4	1	2	1	0	0	0	S	1	2	1	1	1	0	0	0	0	0	0	0	0	0	0	1	1	1	2	0.6	24
5	1	2	2	1	S	6	5	3	2	0	1	0	0	0	0	0	0	0	0	0	0	10	11	2	3	11	2.1	24
6	6	2	1	S	7	3	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	7	5	7	1.5	24
7	4	1	S	2	4	7	7	6	1	1	0	0	0	0	0	0	1	1	0	1	0	1	1	1	1	7	1.7	24
8	1	S	1	0	1	3	2	1	1	1	0	0	0	0	0	0	0	0	0	0	0	3	0	8	6	8	1.2	24
9	S	1	3	1	2	3	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	S	3	0.7	24
10	2	1	1	4	4	2	3	1	1	0	0	0	0	0	0	0	0	0	0	0	0	4	2	S	4	4	1.3	24
11	4	4	7	6	5	3	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	S	0	1	7	2.0	24	
12	1	2	2	0	1	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	S	1	1	1	2	0.5	24
13	1	1	1	2	3	3	3	2	2	2	1	1	1	1	1	1	1	1	1	S	0	1	2	2	3	1.5	24	
14	2	4	6	1	1	4	1	1	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	6	0.9	24
15	0	0	0	0	3	2	0	1	1	0	0	0	0	0	0	0	0	S	1	1	1	1	1	1	1	3	0.6	24
16	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	S	0	0	0	0	0	0	0	0	1	0.7	24
17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0.0	24
18	0	0	0	0	0	1	0	C	C	C	C	C	C	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1	24
19	0	1	1	1	1	1	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	1	0.2	24
20	1	1	1	2	1	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	2	0.3	24
21	0	0	0	0	0	0	0	0	0	0	0	0	S	1	1	1	1	1	1	1	1	1	1	1	1	1	0.5	24
22	1	1	1	1	1	1	1	1	1	1	1	S	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.5	24
23	0	0	0	0	1	1	2	1	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.2	24
24	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
25	0	0	0	1	1	1	1	1	S	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	0.9	24
26	1	1	1	1	2	1	1	S	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1.0	24
27	1	1	2	2	1	1	S	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.4	24
28	0	0	0	0	0	S	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1	24
29	0	0	0	0	S	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.8	24
30	1	1	1	S	1	1	1	1	1	Y	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1.0	23
HOURLY MAX	6	4	7	6	7	7	7	6	2	2	1	1	1	1	1	1	1	1	1	1	1	10	11	8	6			
HOURLY AVG	1.1	1.0	1.3	1.1	1.6	1.9	1.4	1.2	0.7	0.5	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.9	0.9	1.0	1.1			

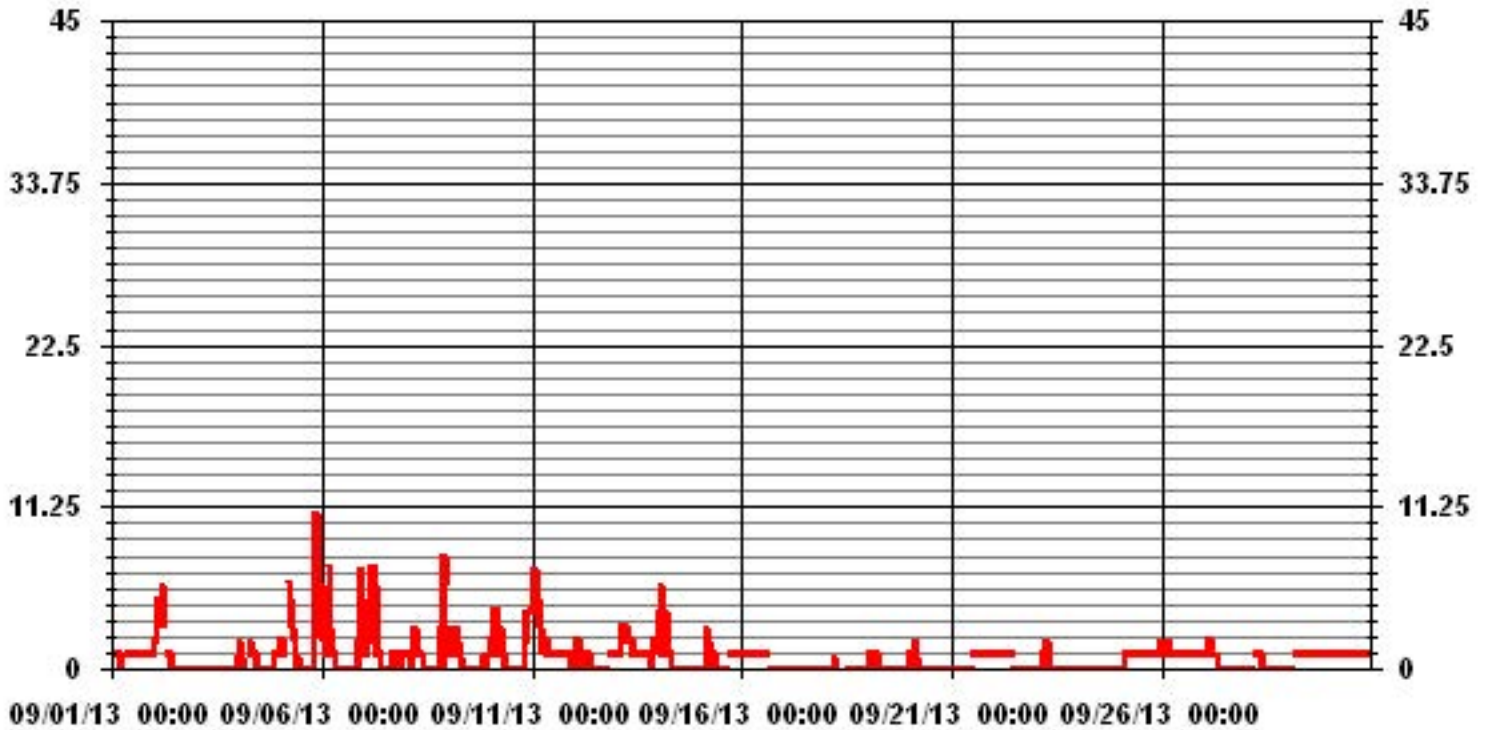
STATUS FLAG CODES

C	- CALIBRATION	Q	- QUALITY ASSURANCE
Y	- MAINTENANCE	R	- RECOVERY
S	- DAILY ZERO/SPAN CHECK	X	- MACHINE MALFUNCTION
P	- POWER FAILURE	O	- OPERATOR ERROR
G	- OUT FOR REPAIR	K	- COLLECTION ERROR

MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	329				
MAXIMUM INSTANTANEOUS VALUE:	11	PPB	@ HOUR(S)	21	ON DAY(S) 5
	VAR - VARIOUS				
IZS CALIBRATION TIME:	34	HRS	OPERATIONAL TIME:	715	HRS
MONTHLY CALIBRATION TIME:	6	HRS			
STANDARD DEVIATION:	1.31				

01 Hour Averages



LICA
 TRS_ / WDR Joint Frequency Distribution (Percent)

September 2013

Distribution By % Of Samples

Logger Id : 01
 Site Name : LICA
 Parameter : TRS_
 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
< 3	.73	1.17	3.38	2.50	2.94	5.00	17.94	4.70	3.82	4.26	10.14	14.26	12.50	8.52	5.14	2.64	99.70
< 10	.00	.00	.00	.00	.00	.00	.14	.00	.00	.00	.00	.14	.00	.00	.00	.00	.29
< 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	.73	1.17	3.38	2.50	2.94	5.00	18.08	4.70	3.82	4.26	10.14	14.41	12.50	8.52	5.14	2.64	

Calm : .00 %

Total # Operational Hours : 680

Distribution By Samples

Limit	Direction															Freq	
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW		NNW
< 3	5	8	23	17	20	34	122	32	26	29	69	97	85	58	35	18	678
< 10							1					1					2
< 50																	
>= 50																	
Totals	5	8	23	17	20	34	123	32	26	29	69	98	85	58	35	18	

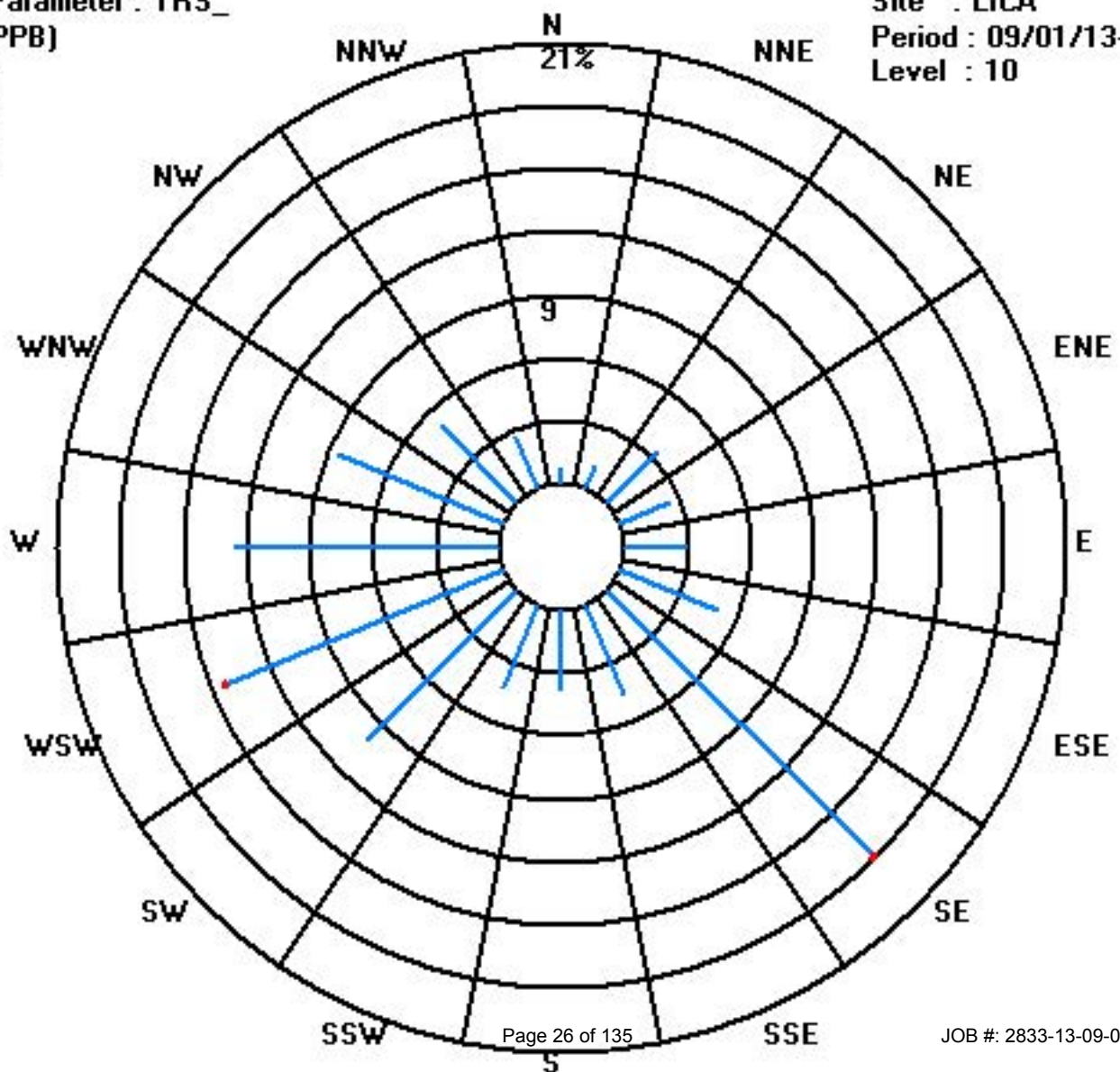
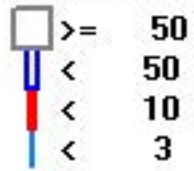
Calm : .00 %

Total # Operational Hours : 680

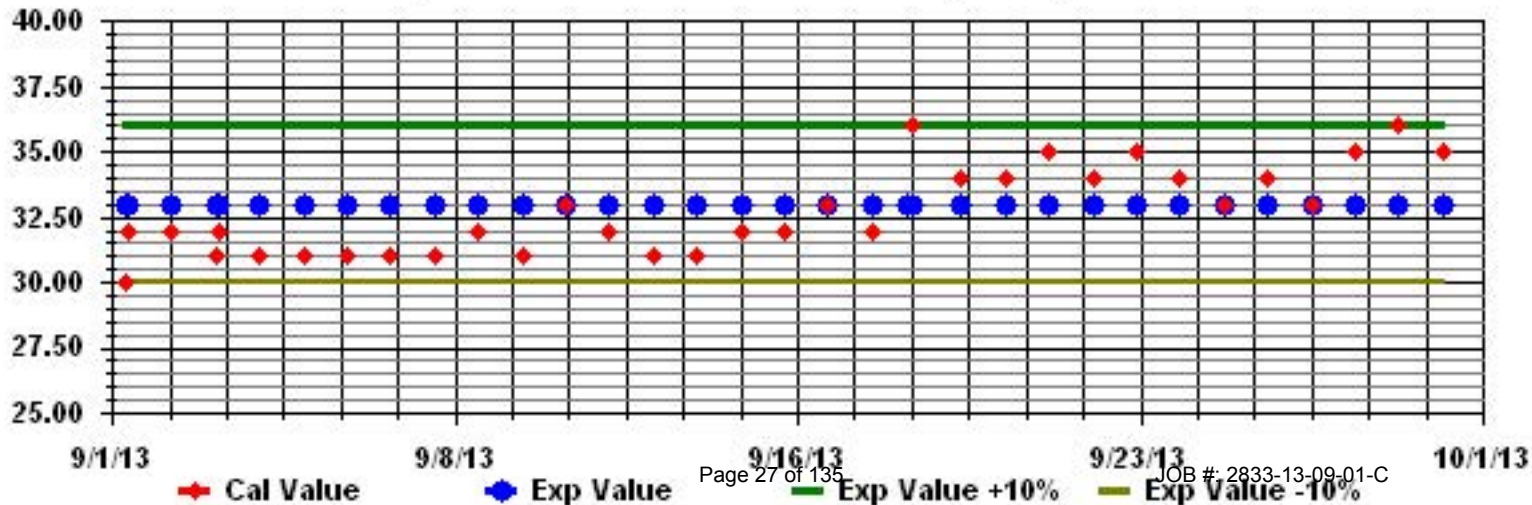
Class Limits (PPB)

Period : 09/01/13-09/30/13

Level : 10

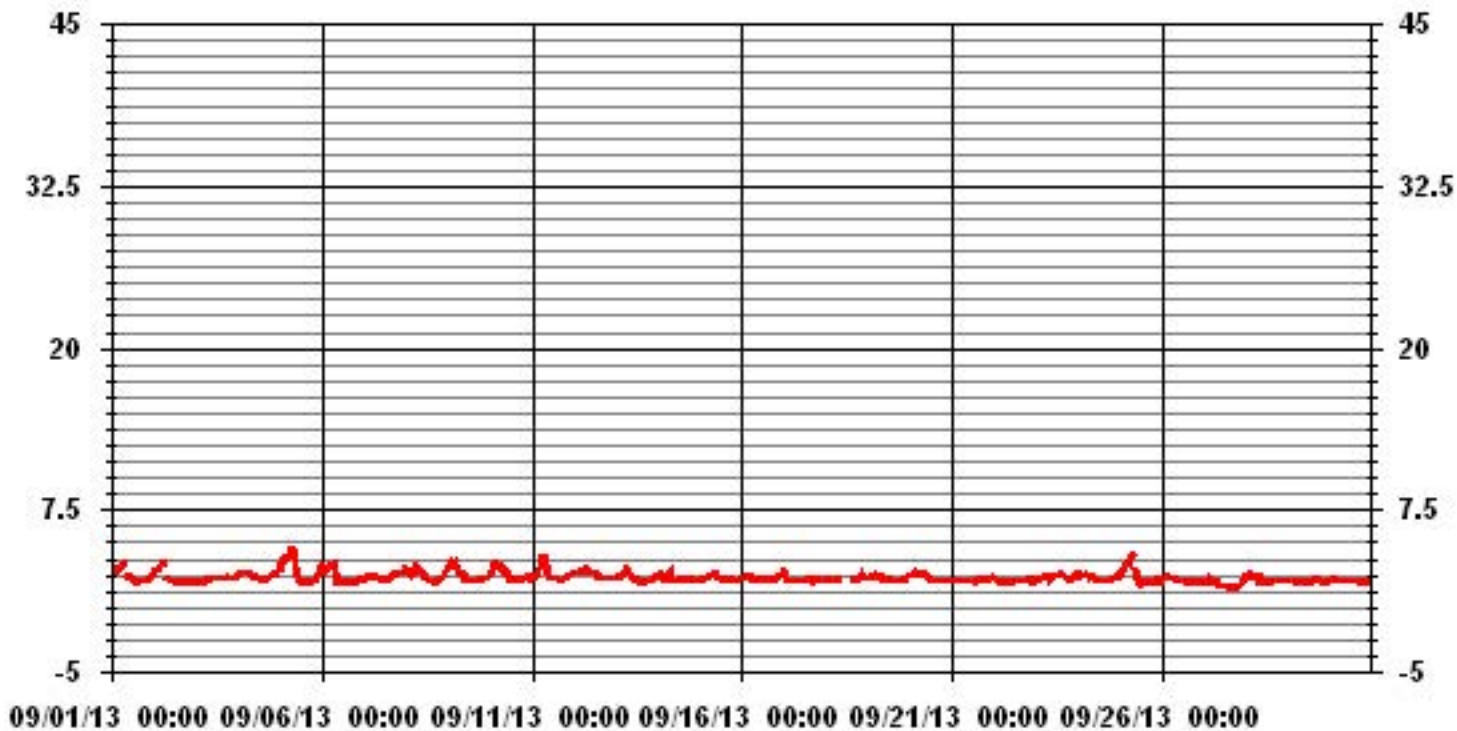


Calibration Graph for Site: LICA Parameter: TRS_ Sequence: TRS Phase: SPAN



Total Hydrocarbons

01 Hour Averages



— LICA THC PPM

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - COLD LAKE

SEPTEMBER 2013

TOTAL HYDROCARBONS MAX instantaneous maximum in ppm

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	3.1	3.1	3	3.3	3.2	3.2	3.7	3.7	S	2.5	2.3	2.4	2.3	2.2	2.1	2	2	2.1	2.2	2.1	2.2	2.2	2.5	2.5	3.7	2.6	24																							
2	2.9	3	3.1	3.1	3.2	3.5	3.5	S	2.5	2.3	2.2	2.1	2.1	2	1.9	1.9	2	1.9	1.9	2.1	2.1	2	2	2	3.5	2.4	24																							
3	1.9	2	1.9	1.9	2.1	2.1	S	2.2	2.2	2.5	2.2	2.2	2.2	3.6	2.4	2.2	2.2	2.5	2.7	2.4	2.3	2.3	2.3	2.4	3.6	2.3	24																							
4	3	2.9	2.7	2.7	3	S	2.8	3	2.6	2.4	2.4	2.4	2.4	2.3	2.2	2.2	2.2	2.3	2.4	2.6	2.8	2.9	3	3.1	3.1	2.6	24																							
5	3.1	3.8	4.1	3.9	S	4.3	4.5	4.8	4.6	3.4	2.8	2.4	2	2	2.1	1.9	1.9	2	2	2.2	2.2	2.5	3	3.3	4.8	3.0	24																							
6	3.6	3.2	3.2	S	3.7	3.7	3.5	3.5	3	2.1	2	2	2	2	1.9	2	2	2	2.4	2	2.8	2.6	2.6	2.5	3.7	2.6	24																							
7	2.4	2.2	S	2.4	2.5	2.7	2.8	2.8	2.6	2.2	2.2	2.2	2.1	2.2	2.2	2.2	2.5	2.6	2.7	3.3	2.8	2.8	2.9	3.9	3.9	2.6	24																							
8	3.3	S	3.3	2.8	3.1	3.1	3.5	3.3	3.1	3	2.8	2.4	2.2	2.2	2.1	2.1	2	2.1	2.6	2.6	2.9	3.1	3.3	3.5	2.7	24																								
9	S	3.9	4.2	3.8	4	3.6	3.1	2.8	2.6	2.6	2.3	2.1	2.1	2.2	2	2	2.1	2.2	2.5	2.5	2.8	2.3	2.3	S	4.2	2.7	24																							
10	2.8	3.1	3.4	3.6	3.4	3.3	3.3	3.1	3	2.9	2.8	2.3	2.2	2.2	2.2	2.2	2.1	2.2	2.2	2.4	2.5	2.6	S	2.3	3.6	2.7	24																							
11	2.5	2.5	2.6	3	3.5	3.7	4	4.2	3.8	2.9	2.4	2.3	2.3	2.3	2.4	2.3	2.3	2.4	2.4	2.3	S	2.9	3	4.2	2.8	24																								
12	2.9	2.8	2.7	2.8	2.9	2.9	3.1	3.1	3.2	3.2	2.7	2.7	2.8	2.7	2.5	2.2	2.2	2.2	2.3	2.4	S	2.3	2.3	2.4	3.2	2.7	24																							
13	2.4	2.5	2.7	2.7	2.9	3	3.2	3.1	3	2.5	2.3	2.2	2.1	2.1	2	2.2	2	2	6.2	S	2.4	2.3	2.4	2.5	6.2	2.6	24																							
14	2.6	2.6	2.8	2.5	2.2	2.5	3	3.1	2.4	2.2	2.2	4.2	2.2	2.3	2.2	2.2	2.2	S	2.4	2.2	2.2	2.1	2.1	4.2	2.5	24																								
15	2.1	2.2	2.2	2.3	2.5	2.4	2.4	2.6	2.6	2.6	2.5	2.3	2.3	2.3	2.2	2.1	2.1	S	2.3	2.7	2.2	2.2	2.2	2.4	2.7	2.3	24																							
16	2.4	2.5	2.3	2.5	2.4	2.4	2.3	2.3	2.9	2.4	2.2	2.2	2.2	2.2	2.1	S	2.1	2.1	2.1	2.2	2.4	2.9	2.7	2.9	2.9	2.4	24																							
17	2.9	2.7	2.4	2.1	2.1	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.2	2.1	S	2.1	2.1	2.1	2.1	2.1	2	2	2.1	2.9	2.2	24																							
18	2.2	2.2	2.2	2.3	2.2	2.3	2.3	2.3	2.2	C	C	C	C	C	S	2.2	2.2	2.2	2.2	2.3	3.2	2.5	2.3	2.3	3.2	2.3	24																							
19	2.4	2.4	2.4	2.5	2.7	2.5	2.5	2.9	2.3	2.2	2.2	2.2	2.2	2.4	S	2.1	2.1	2.2	2.3	2.3	2.4	2.3	2.4	2.5	2.9	2.4	24																							
20	2.7	2.9	2.9	3.4	3.3	2.7	2.7	2.7	2.6	2.7	2.6	2.3	2.1	S	2.1	2.2	2.2	2.2	2.1	2.1	2.1	2	2	3.4	2.5	24																								
21	2	2	2.1	2.1	2.2	2	2	2	2.1	2.2	2.1	2.1	S	2.1	2.2	2.2	2.3	2.7	2.1	2.2	2.3	2.2	2.4	2.5	2.7	2.2	24																							
22	2.4	2.4	2.2	2.1	2	2	2.1	2	2	2	2	S	2.1	2	2	2.1	2.1	2.1	2.3	2.4	2.3	2.1	2.2	2.1	2.4	2.1	24																							
23	2.2	2.2	2.3	2.5	2.6	2.5	2.6	2.7	2.2	2.3	S	2.4	2.5	2.6	2.7	2.7	2.7	2.4	2.3	2.2	2.3	2.4	2.5	2.7	2.4	2.4	24																							
24	2.7	2.8	2.7	2.6	2.6	2.6	2.4	2.5	2.5	S	2.3	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.3	2.2	2.5	2.6	2.6	2.8	2.4	24																							
25	2.6	3	3	3.3	3.8	3.7	4.2	4.5	S	3.2	2.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2	2.3	2.3	2.3	2.2	4.5	2.6	24																							
26	2.3	2.3	2.4	2.4	2.5	2.3	2.3	S	2.3	2.2	2.1	2	2	2	2	2	2	2	2.1	2.1	2.2	2.1	2.1	2.1	2.5	2.2	24																							
27	2.1	2.4	2.3	2.6	2.5	2.1	S	2.3	2	1.8	1.7	1.7	1.7	1.7	1.6	1.5	1.6	1.6	1.8	1.8	2	2.1	2.4	2.6	2.0	24																								
28	2.6	2.6	2.7	2.6	2.4	S	2.4	2.5	2.4	2.3	2.2	2	2	2	2	2.2	2.2	2.2	2.1	2.1	2	2.1	2.1	2.7	2.3	24																								
29	2.1	2.1	2.1	2.1	S	2	2	2	2	1.9	2.2	2.1	2	2.1	2.3	2.3	2.2	2.1	2.1	2	1.9	1.9	1.9	2.1	2.3	2.1	24																							
30	2.1	2.1	2.1	S	2.1	2.1	2.1	2.2	Y	2.1	2.1	2	2	2	2.1	2.1	2.1	2	2	1.9	1.9	2	1.9	2.2	2.1	2.3	24																							
HOURLY MAX	4	4	4	4	4	4	5	5	5	3	3	4	3	4	3	3	3	3	3	6	3	3	3	3	4																									
HOURLY AVG	2.6	2.6	2.7	2.7	2.8	2.8	2.9	2.9	2.6	2.5	2.3	2.3	2.2	2.2	2.1	2.1	2.1	2.2	2.3	2.3	2.3	2.3	2.4	2.5																										

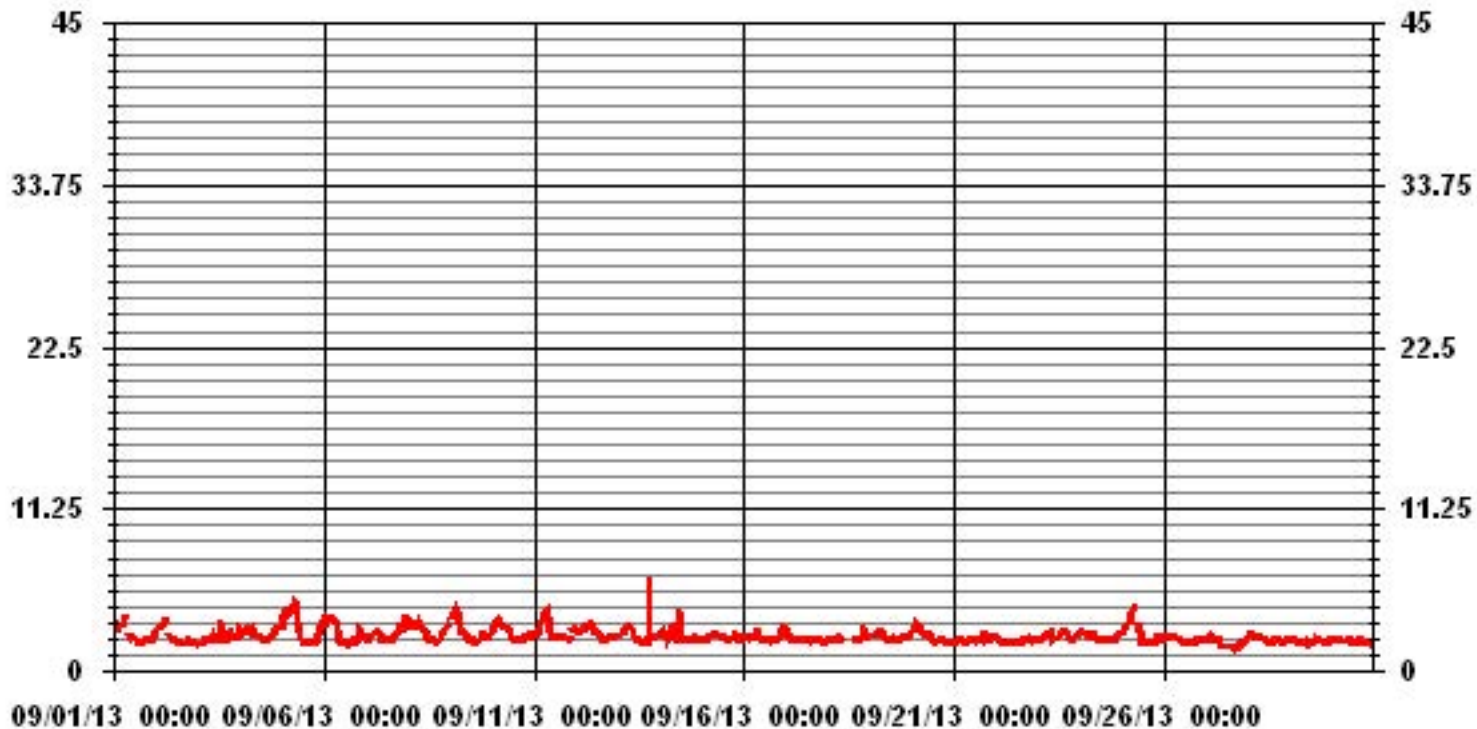
STATUS FLAG CODES

C - CALIBRATION	Q - QUALITY ASSURANCE
Y - MAINTENANCE	R - RECOVERY
S - DAILY ZERO/SPAN CHECK	X - MACHINE MALFUNCTION
P - POWER FAILURE	O - OPERATOR ERROR
G - OUT FOR REPAIR	K - COLLECTION ERROR

MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	682					
MAXIMUM INSTANTANEOUS VALUE:	6.2	PPM	@ HOUR(S)	18	ON DAY(S)	13
IZS CALIBRATION TIME:	31	HRS	OPERATIONAL TIME:	719 HRS		
MONTHLY CALIBRATION TIME:	6	HRS				
STANDARD DEVIATION:	0.51					

01 Hour Averages



— LICA THCMAX PPM

LICA
 THC / WD Joint Frequency Distribution (Percent)

September 2013

Distribution By % Of Samples

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

Wind Parameter : WD
 Instrument Height : 10 Meters

Limit	Direction															Freq	
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW		NNW
< 3.0	.73	1.17	3.36	2.63	2.63	4.68	17.42	4.09	3.51	3.51	8.19	12.88	12.00	8.63	4.53	2.63	92.67
< 10.0	.00	.00	.00	.00	.29	.29	.58	.73	.43	.73	1.90	1.46	.43	.29	.14	.00	7.32
< 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	.73	1.17	3.36	2.63	2.92	4.97	18.00	4.83	3.95	4.24	10.10	14.34	12.44	8.93	4.68	2.63	

Calm : .00 %

Total # Operational Hours : 683

Distribution By Samples

Limit	Direction															Freq	
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW		NNW
< 3.0	5	8	23	18	18	32	119	28	24	24	56	88	82	59	31	18	633
< 10.0					2	2	4	5	3	5	13	10	3	2	1		50
< 50.0																	
>= 50.0																	
Totals	5	8	23	18	20	34	123	33	27	29	69	98	85	61	32	18	

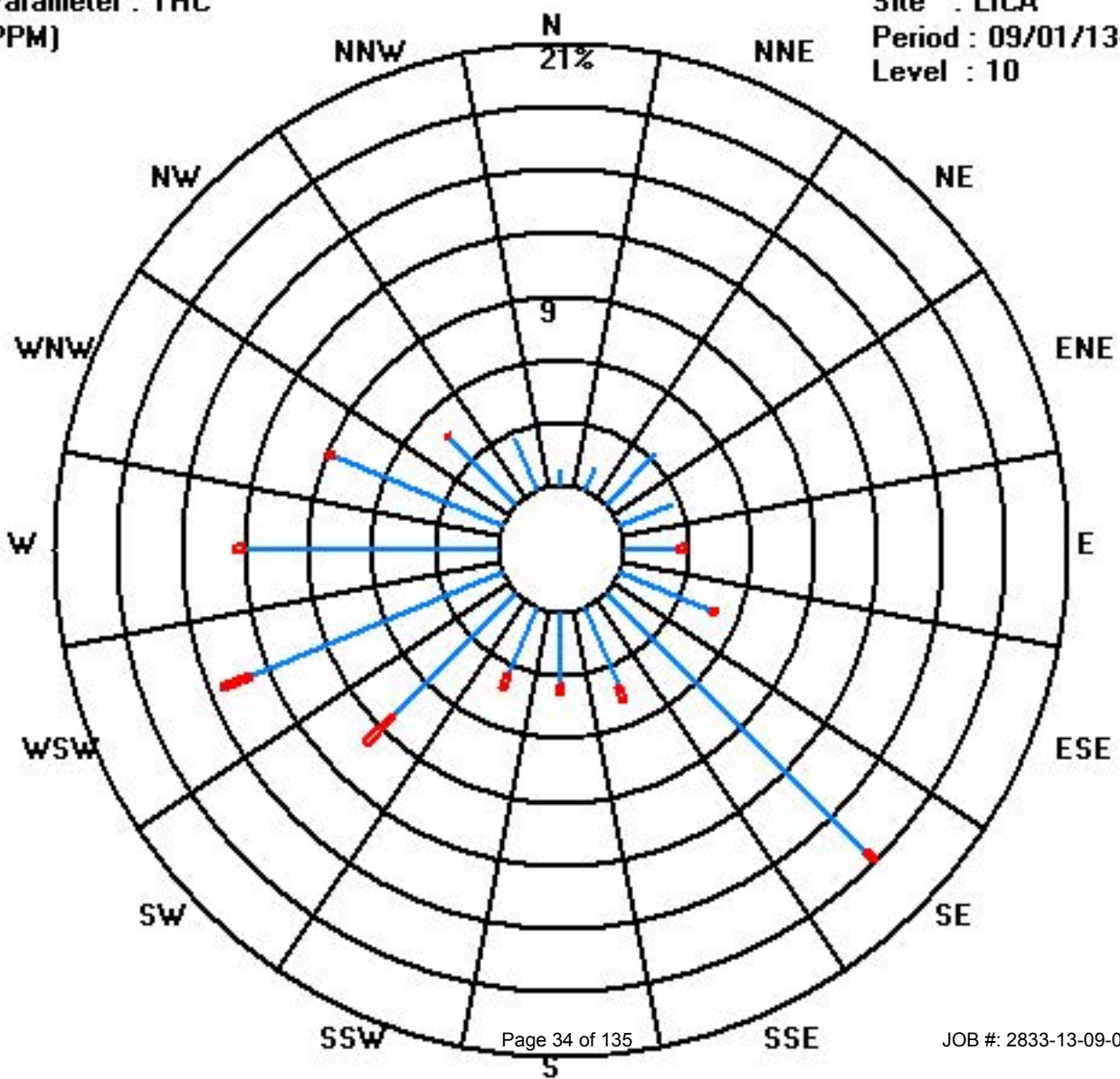
Calm : .00 %

Total # Operational Hours : 683

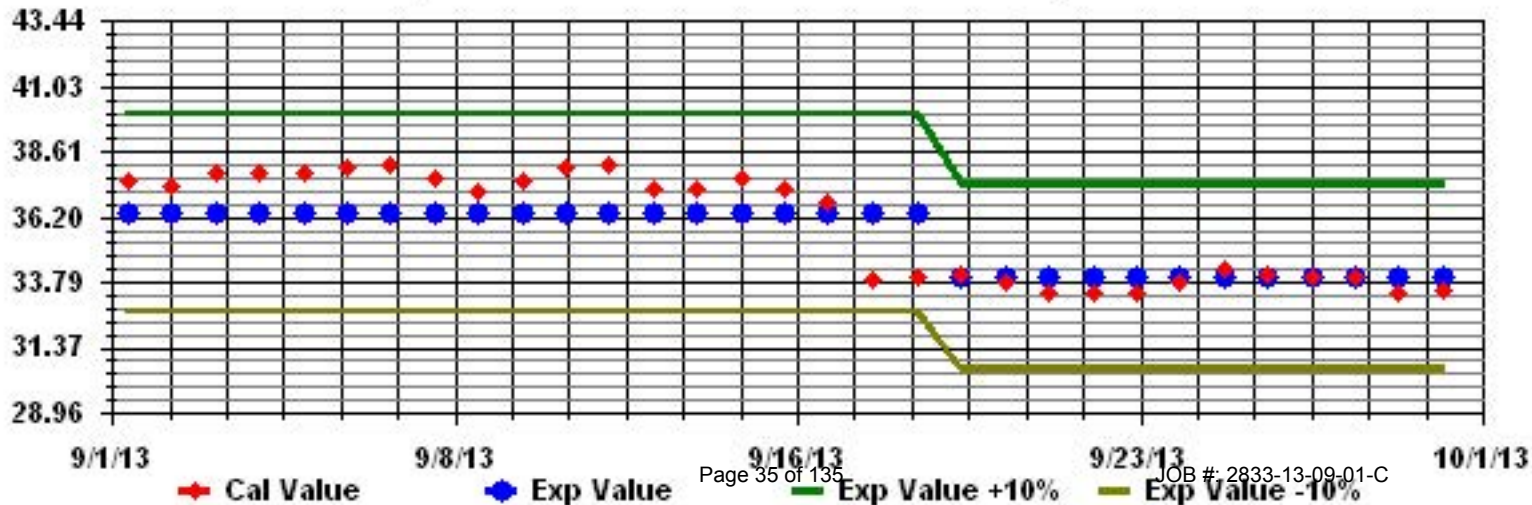
Class Limits (PPM)

Period : 09/01/13-09/30/13

Level : 10



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



Particulate Matter 2.5

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - COLD LAKE

SEPTEMBER 2013

PARTICULATE MATTER 2.5 (PM2.5) hourly averages 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	RDGS.
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.	
1	4	12	6	8	10	6	11	0	6	9	14	19	15	17	19	5	12	10	8	9	0	9	18	15	19	10.1	24
2	8	4	5	8	3	6	4	12	4	23	25	14	11	18	14	11	5	9	0	10	12	6	X	4	25	9.4	23
3	2	0	4	5	11	3	4	0	14	18	0	2	2	1	2	1	1	6	X	24	3	6	8	10	24	5.5	23
4	2	12	7	7	2	9	9	15	5	10	8	18	14	13	13	15	12	10	15	14	18	22	8	12	22	11.3	24
5	19	26	15	13	11	12	10	16	8	3	8	9	8	5	6	5	2	0	0	X	10	0	3	4	26	8.4	23
6	11	5	5	4	5	8	5	5	7	4	1	7	5	8	5	7	4	5	8	5	2	10	3	4	11	5.5	24
7	3	5	5	2	4	5	7	5	6	16	21	7	9	9	10	7	2	3	16	12	19	11	1	11	21	8.2	24
8	9	4	7	13	7	14	28	19	12	14	9	10	7	13	16	7	9	20	9	X	2	14	13	9	28	11.5	23
9	8	4	24	40	21	29	32	19	28	19	13	12	8	8	15	9	7	4	4	9	5	10	4	2	40	13.9	24
10	5	1	4	3	5	3	6	7	13	11	15	19	12	11	1	6	5	7	1	0	0	8	0	2	19	6.0	24
11	0	1	2	X	2	4	8	6	10	2	7	6	5	X	X	2	6	1	11	4	5	3	2	8	11	4.5	21
12	6	5	8	3	2	5	4	11	5	14	18	9	6	9	10	9	11	8	1	10	X	5	12	10	18	7.9	23
13	8	10	10	19	20	22	26	8	0	1	8	11	13	11	9	4	7	6	28	7	16	1	8	10	28	11.0	24
14	12	8	3	3	4	4	5	9	0	6	0	6	2	4	4	9	5	4	12	8	2	5	4	12	5.2	24	
15	1	4	0	5	8	1	6	7	4	6	13	16	0	17	6	6	23	26	1	11	8	1	4	6	26	7.5	24
16	17	0	18	7	12	8	6	13	10	14	12	4	14	23	32	39	36	37	20	8	19	21	34	0	39	16.8	24
17	X	X	X	17	0	0	0	X	C	C	0	3	4	2	3	0	6	X	8	9	8	4	0	2	17	3.9	19
18	2	2	0	2	0	4	3	1	X	0	C	0	0	X	0	19	9	X	0	0	2	5	7	X	19	3.1	20
19	0	0	X	X	4	3	X	3	6	X	0	4	13	0	0	8	0	0	0	5	12	1	3	17	17	4.0	20
20	30	15	7	21	61	14	0	0	5	1	3	5	9	1	3	6	4	7	6	11	9	6	1	8	61	9.7	24
21	12	10	12	17	12	8	10	8	7	9	5	9	14	12	14	14	13	12	14	22	18	10	10	11	22	11.8	24
22	14	14	2	3	0	9	6	9	9	13	6	3	5	0	8	6	4	5	8	14	3	7	8	5	14	6.7	24
23	7	8	9	7	2	6	9	X	10	6	6	9	11	9	9	5	12	7	6	8	2	0	0	0	12	6.4	23
24	6	4	0	1	X	0	0	6	X	0	0	2	4	4	6	10	9	3	6	4	14	X	X	11	14	4.5	20
25	9	0	5	17	21	11	11	X	X	5	2	2	0	5	4	1	6	1	1	6	5	3	X	1	21	5.5	21
26	3	0	1	0	13	5	4	0	6	7	4	9	6	3	0	5	8	5	1	2	2	0	1	6	13	3.8	24
27	4	6	0	4	0	9	X	4	3	5	7	14	5	6	7	3	11	10	10	11	12	1	3	13	14	6.4	23
28	17	7	12	9	4	17	23	11	21	16	9	10	8	5	6	4	8	4	18	15	13	9	4	10	23	10.8	24
29	9	6	9	1	0	7	3	6	0	0	4	12	4	5	4	5	5	5	4	3	4	2	1	4	12	4.1	24
30	3	1	4	5	9	10	5	9	0	6	6	11	16	15	11	13	11	9	4	6	0	0	7	0	16	6.7	24
HOURLY MAX	30	26	24	40	61	29	32	19	28	23	25	19	16	23	32	39	36	37	28	24	19	22	34	17			
HOURLY AVG	8.0	6.0	6.6	8.7	8.7	7.8	8.9	7.5	8.2	8.3	7.8	8.6	8.1	8.3	8.2	7.8	8.6	8.0	7.3	9.0	8.0	6.1	6.2	6.9			

STATUS FLAG CODES

C	- CALIBRATION	Q	- QUALITY ASSURANCE
Y	- MAINTENANCE	R	- RECOVERY
S	- DAILY ZERO/SPAN CHECK	X	- MACHINE MALFUNCTION
P	- POWER FAILURE	O	- OPERATOR ERROR
G	- OUT FOR REPAIR	K	- COLLECTION ERROR

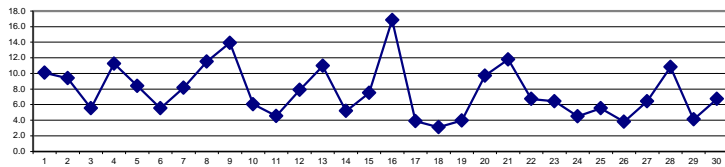
OBJECTIVE LIMIT:

ALBERTA ENVIRONMENT: 1-HR - ug/m³ 24-HR 30 ug/m³

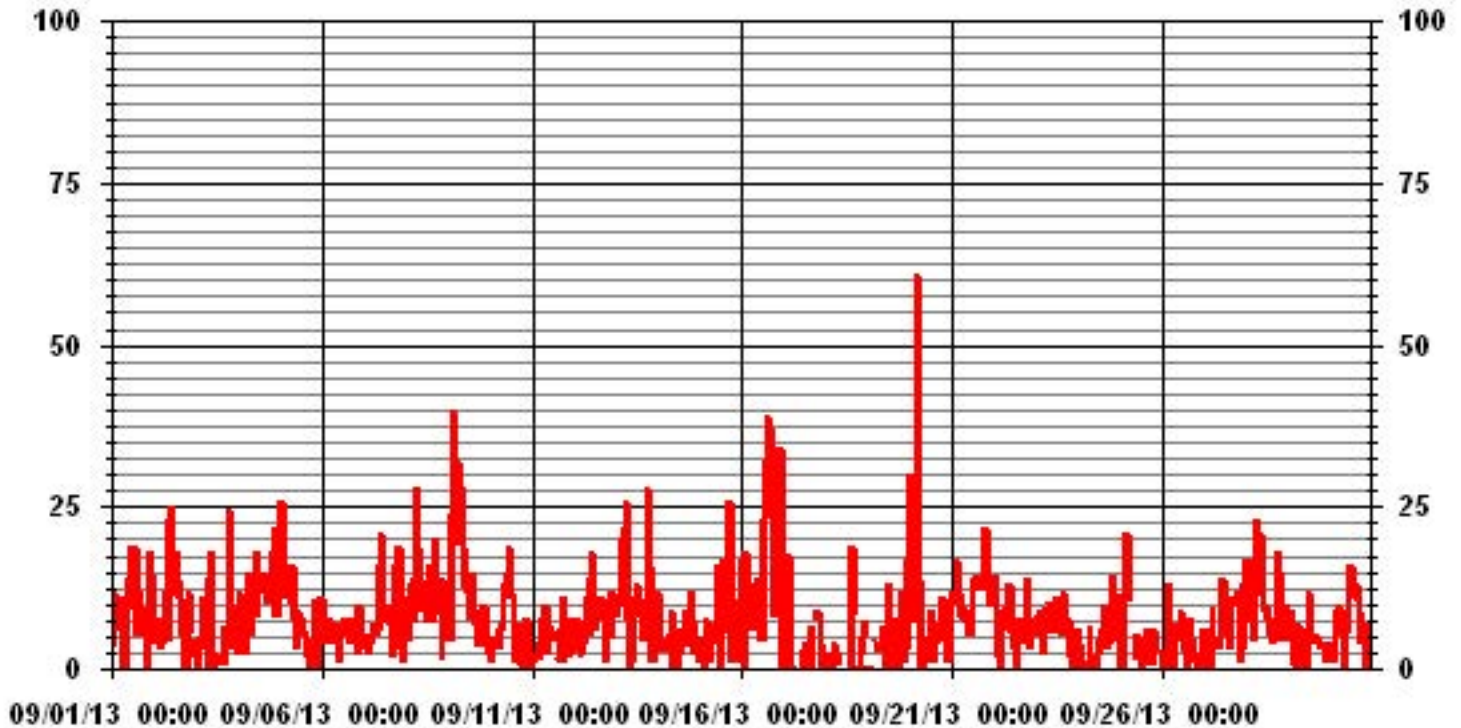
MONTHLY SUMMARY

NUMBER OF 1-HR EXCEEDENCES:	-
NUMBER OF 24-HR EXCEEDENCES:	0
NUMBER OF NON-ZERO READINGS:	616
MAXIMUM 1-HR AVERAGE:	61 UG/M ³ @ HOUR(S) 4 ON DAY(S) 20
MAXIMUM 24-HR AVERAGE:	16.8 UG/M ³ ON DAY(S) 16
IZS CALIBRATION TIME:	0 HRS
MONTHLY CALIBRATION TIME:	4 HRS
STANDARD DEVIATION:	6.75
OPERATIONAL TIME:	690 HRS
AMD OPERATION UPTIME:	95.8 %
MONTHLY AVERAGE:	7.81 UG/M ³

24 HOUR AVERAGES FOR SEPTEMBER 2013



01 Hour Averages



— LICA PM2 UG/M3

LICA
PM2 / WD Joint Frequency Distribution (Percent)

September 2013

Distribution By % Of Samples

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

Wind Parameter : WD
Instrument Height : 10 Meters

Limit	Direction																Freq
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
< 30	.72	1.16	3.49	2.76	3.20	4.95	18.07	4.81	4.08	4.51	9.76	12.97	12.39	8.60	4.66	2.47	98.68
< 60	.00	.00	.00	.00	.00	.00	.58	.00	.00	.14	.00	.29	.00	.00	.00	.14	1.16
< 80	.00	.00	.00	.00	.00	.14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.14
< 120	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
< 240	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
>= 240	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
Totals	.72	1.16	3.49	2.76	3.20	5.10	18.65	4.81	4.08	4.66	9.76	13.26	12.39	8.60	4.66	2.62	

Calm : .00 %

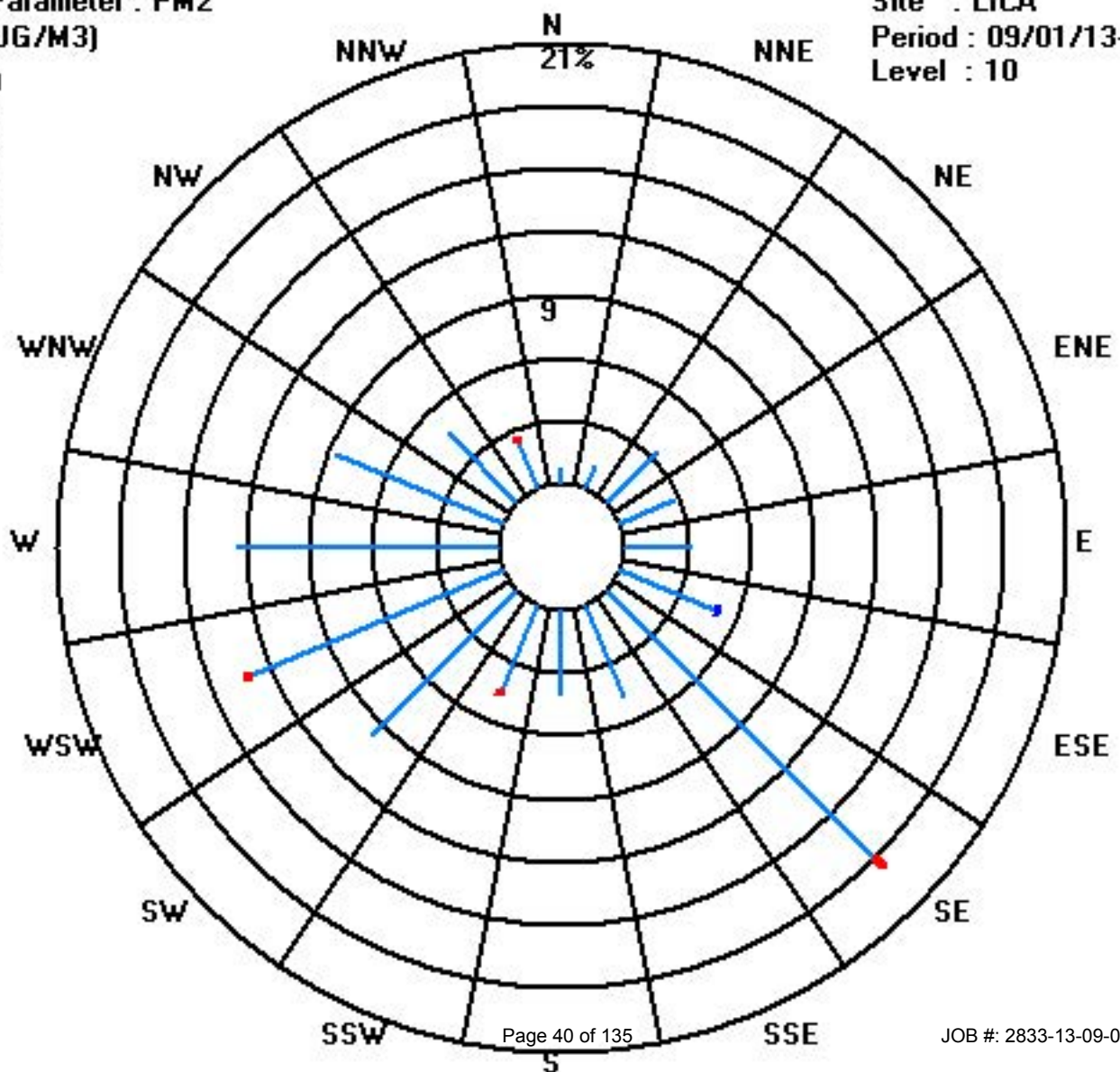
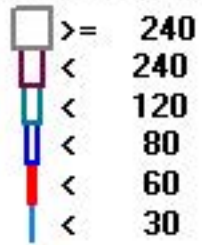
Total # Operational Hours : 686

Distribution By Samples

Limit	Direction																Freq
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
< 30	5	8	24	19	22	34	124	33	28	31	67	89	85	59	32	17	677
< 60							4			1		2				1	8
< 80						1											1
< 120																	
< 240																	
>= 240																	
Totals	5	8	24	19	22	35	128	33	28	32	67	91	85	59	32	18	

Calm : .00 %

Total # Operational Hours : 686



Nitrogen Dioxide

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - COLD LAKE

SEPTEMBER 2013

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	2.1	1.8	1.3	0.8	0.7	1.9	1.8	1.8	S	1.6	1.6	1.7	1.4	1.1	0.8	0.5	0.6	0.6	1.2	1.4	1	1	1	1.4	2.1	1.3	24
2	1.8	1.7	1.4	1.4	1.3	1.3	1.7	S	3.4	2.6	2.4	1.4	1	0.8	0.9	0.6	1	1.3	0.9	1.5	2.3	0.7	0.4	0.1	3.4	1.4	24
3	0	0	0.1	0.4	1.5	1.9	S	1.1	0.6	0.5	0.6	0.8	0.8	0.5	0.3	0.1	0.1	0.4	1.6	1.5	0.8	0.6	0.4	0.5	1.9	0.7	24
4	0.5	0.5	0.9	2.3	4.7	S	5.2	5.5	1.4	1.4	1.9	1.9	2.1	2.3	2.4	3.1	2.5	2.6	3.9	6.4	8.4	9.6	6.7	7.3	9.6	3.6	24
5	4.5	2.6	1.8	1.6	S	1.6	1.9	6.9	8.7	7.5	6.3	2.7	1.3	1.4	0.8	0.5	0	0.1	0.7	6.1	5.2	5.4	5.1	4.1	8.7	3.3	24
6	3.9	3.9	3.5	S	4.1	4.5	5.2	7.5	5.6	2.3	2.3	1.3	0.5	0.4	0.4	0.4	1.1	1.5	2.7	2	2.4	3.3	3.5	2.9	7.5	2.8	24
7	1.3	1.2	S	1.9	2.8	3.5	3.2	3.5	4.1	1.5	1.9	1.5	1.1	0.2	0.4	0.6	1.6	2.8	3	2.4	3	2.4	2.3	2.4	4.1	2.1	24
8	2.7	S	0.9	0.8	1.3	1.6	1.4	1.6	1.8	1.8	1.8	1.2	0.7	0.8	0.6	0.4	0.4	0.4	0.9	2.2	2.1	1.9	1.7	2.2	2.7	1.4	24
9	S	2.2	1.2	1.3	1.4	2.4	4.1	4	3.6	3.2	1.7	0.9	0.6	0.5	0.6	1	0.8	3.5	2.4	2.9	3.7	5.1	3.1	S	5.1	2.3	24
10	2.4	2.8	5	4.5	3.2	3.2	3.9	5.6	5	4.3	2.2	0	0	0.1	0.4	0.3	0	0.1	0.7	2.1	3.6	3.6	S	4.1	5.6	2.5	24
11	3.2	2.6	2.3	2.3	3.6	5.1	6.4	7.6	7.4	4.8	2.5	2.6	1.6	1.1	1.1	1	0.7	0.6	2.9	7.3	6	S	3.1	1.6	7.6	3.4	24
12	1.1	1.1	1.5	1.9	4.2	6.6	6	4.1	1.9	2	1.7	2.2	1.9	1.6	1.2	1.2	1	1	1.9	1.7	S	1.5	1.5	1.8	6.6	2.2	24
13	2.3	2	2	2.5	2.7	3.3	5	8.9	7.3	4.3	3.4	2.4	1.8	1.1	0.7	0.5	0.6	0.8	2.9	S	4.4	4.5	4.5	3.1	8.9	3.1	24
14	1.9	2.3	1.5	0.3	1.1	1.6	3	6.4	1	0.3	0.5	0.8	0.3	0.3	0.3	0.7	1	0.7	S	5.9	2.9	0.8	0.5	0.3	6.4	1.5	24
15	0	0.2	0.3	0.6	1	1.6	3.4	2.3	1.1	1.2	0.9	0.5	0.6	0.6	0.6	0.5	0.6	S	1.2	0.9	0.4	0.3	0.4	0.5	3.4	0.9	24
16	0.6	0.9	0.8	1	0.9	1.3	1.4	1.1	1.2	0.8	0.6	0.6	0.4	0.6	0.9	0.9	S	1.7	3.9	3	2.6	1.7	2.4	5.1	1.5	24	
17	5.1	3.5	2.2	1	0.8	1.1	1.6	1.9	1.6	0.9	0.6	0.6	0.9	0.6	0.4	S	0.7	0.2	0	0.1	0.2	0	0	0	5.1	1.0	24
18	0.7	0.8	1.1	1.7	0.8	2	2.3	C	C	C	C	C	C	C	C	0.7	0.3	0.3	0.6	0.9	2.4	3.2	1.6	1.3	3.2	1.3	24
19	1	1.4	1.2	3.1	4.3	5	6.3	3.3	1.4	0.6	0.4	0.5	1	1.1	S	1.1	0.7	1.2	3.5	6.2	7.2	2	1.7	1.6	7.2	2.4	24
20	1.8	1.3	1.2	2.1	2.6	4.4	4.3	2.5	2	0.5	1.4	1.2	0.6	S	0.7	0.8	1	1.1	2.8	1.5	0.8	0.6	0.5	0.5	4.4	1.6	24
21	0.5	0.8	0.9	1.1	1.2	1	1.1	1.2	1.6	1.2	1.2	1	S	1.1	1	1.6	2.1	3.4	3.8	6.2	4.1	1.2	1.3	1.7	6.2	1.8	24
22	2.8	2.6	2.1	1.9	1.2	1.2	1.3	1.9	1.2	1.2	1	S	0.4	0.3	0.2	0.1	0.1	0.3	3.3	6.5	4.3	1	0.4	0.5	6.5	1.6	24
23	0.4	0.6	1.7	0.9	1.5	2.6	2.5	7.2	2.7	1.3	S	1.7	1.7	2.9	3.6	3.8	3.5	3	2.4	2.1	3.1	5.9	6.8	5.5	7.2	2.9	24
24	6	5.1	4.7	4	4.4	4.8	6.8	4.9	3.9	S	2	1.2	0.6	0.4	0.2	0.4	0.6	0.2	3.3	4	3.9	3.1	2.6	2.7	6.8	3.0	24
25	3.3	3.8	4.3	5.6	8	7.5	9.5	9.9	S	8.1	4.9	0.3	0.5	0.4	0.4	0.6	0.5	1.3	0.4	1.5	4	4	2.8	1.1	9.9	3.6	24
26	1.9	4.2	7.3	7.2	8	10	9.7	S	7.8	4.9	2.4	1.2	1.8	1.7	1	0.5	0.3	1.3	2.1	3.1	4.1	4.1	5.9	5.1	10	4.2	24
27	2.9	3.6	5.2	6.9	8.3	3.3	S	3.9	3.7	2.9	1.6	2	2	1.5	1.3	0.9	0.9	1.5	6.5	7.6	8.2	6.3	5.7	5.3	8.3	4.0	24
28	3.3	3.2	4	3.7	3.5	S	4.1	5.8	5.3	2.6	1.4	0.7	0.3	0.1	0	0.6	0.7	1.3	4.7	4.2	1.8	0.6	0.7	0.9	5.8	2.3	24
29	0.9	1	1.1	1.2	S	1.7	1.5	1.8	1.6	1.2	0.8	0.4	1	0.8	2.1	1.6	1.5	1.7	2.2	1.9	0.9	1	1.1	2.1	2.2	1.4	24
30	2.1	2.9	2.9	S	3.1	3.2	3	4.1	3.1	Y	2.3	2.2	1.9	2.7	3.2	3.2	4.6	2.7	2.4	1.7	1.2	0.6	1.1	0.9	4.6	2.5	23
HOURLY MAX	6.0	5.1	7.3	7.2	8.3	10.0	9.7	9.9	8.7	8.1	6.3	2.7	2.1	2.9	3.6	3.8	4.6	3.5	6.5	7.6	8.4	9.6	6.8	7.3			
HOURLY AVG	2.1	2.1	2.2	2.3	2.9	3.2	3.8	4.3	3.3	2.4	1.9	1.3	1.0	1.0	0.9	1.0	1.0	1.3	2.4	3.3	3.3	2.6	2.4	2.3			

STATUS FLAG CODES

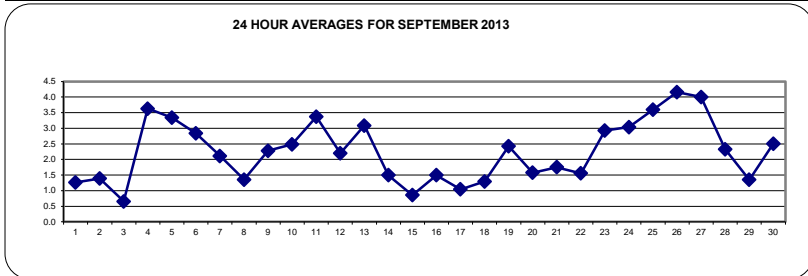
C	- CALIBRATION	Q	- QUALITY ASSURANCE
Y	- MAINTENANCE	R	- RECOVERY
S	- DAILY ZERO/SPAN CHECK	X	- MACHINE MALFUNCTION
P	- POWER FAILURE	O	- OPERATOR ERROR
G	- OUT FOR REPAIR	K	- COLLECTION ERROR

OBJECTIVE LIMIT:

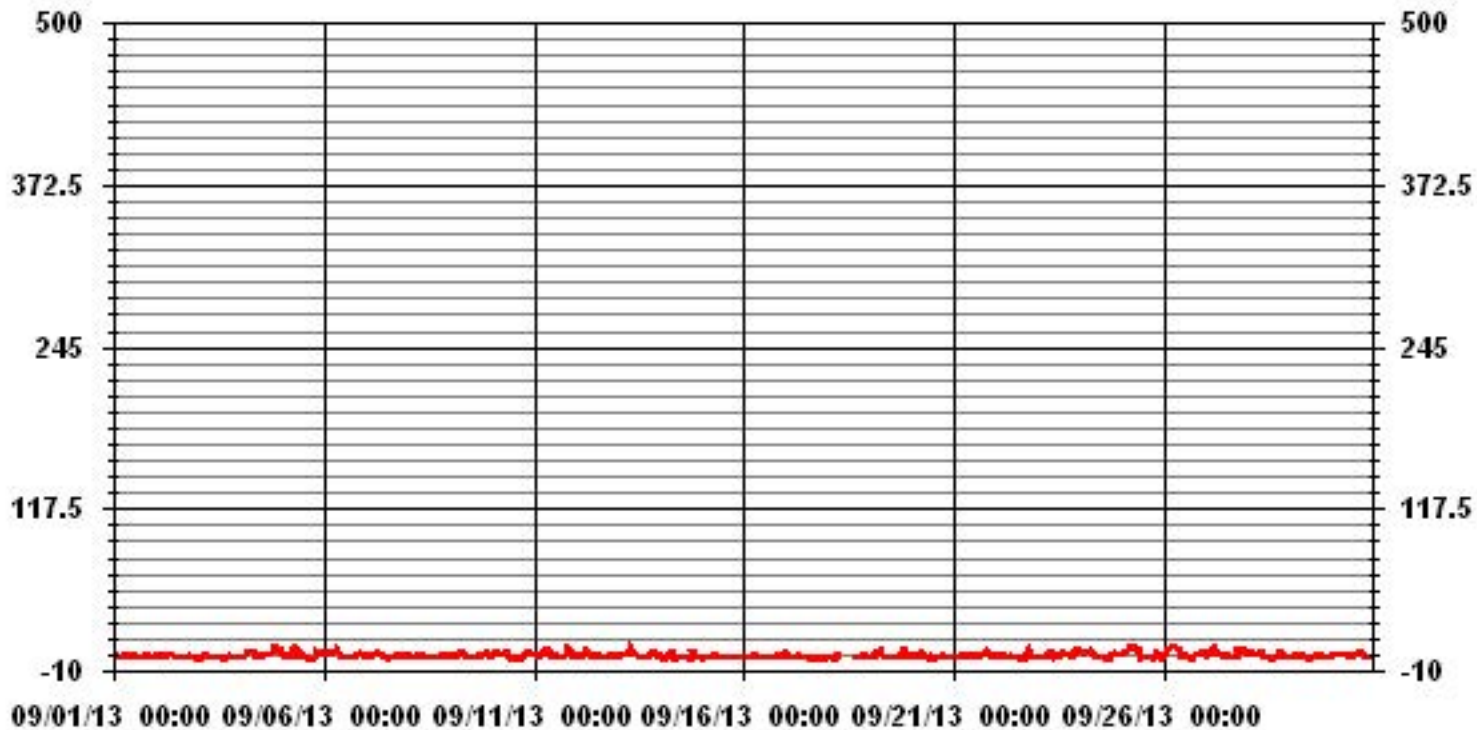
ALBERTA ENVIRONMENT: 1-HR 159 PPB

MONTHLY SUMMARY

NUMBER OF 1-HR EXCEEDENCES:	0					
NUMBER OF NON-ZERO READINGS:	669					
MAXIMUM 1-HR AVERAGE:	10.0	PPB	@ HOUR(S)	5	ON DAY(S)	26
MAXIMUM 24-HR AVERAGE:	4.2	PPB			ON DAY(S)	26
I/ZS CALIBRATION TIME:	30	HRS	OPERATIONAL TIME:	719	HRS	
MONTHLY CALIBRATION TIME:	8	HRS	AMD OPERATION UPTIME:		99.9	%
STANDARD DEVIATION:	1.96		MONTHLY AVERAGE:	2.26	PPB	



01 Hour Averages



— LICA NO2_ PPB

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - COLD LAKE

SEPTEMBER 2013

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	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	2.7	1.7	1.7	1.2	1.2	2.7	2.2	2.2	S	1.7	1.7	1.7	1.2	1.2	1.2	0.7	1.7	0.7	3.7	2.2	1.7	0.7	1.2	1.7	3.7	1.7	24	
2	2.2	2.2	1.7	1.7	1.2	1.7	2.2	S	4.6	4.1	3.1	1.6	2.6	1.1	1.1	0.6	1.1	5.1	1.1	2.1	3.6	1.1	1.6	0.1	5.1	2.1	24	
3	0.1	0.1	0.6	0.6	3.1	3.6	S	2.5	1.0	1.5	0.5	2.0	1.0	4.0	0.0	0.5	0.0	2.0	3.5	3.5	1.5	2.0	0.5	0.5	4.0	1.5	24	
4	0.5	0.5	1.5	3.0	11.4	S	10.7	8.7	3.2	1.7	2.7	2.7	2.7	3.2	5.6	3.7	3.2	8.2	7.7	10.7	12.6	9.7	9.7	12.6	5.5	24		
5	5.7	3.7	2.2	1.7	S	2.1	3.6	8.1	10.6	9.6	8.1	3.6	2.1	2.1	2.6	5.6	1.1	0.1	3.6	11.6	9.6	6.6	6.1	5.1	11.6	5.0	24	
6	5.1	4.6	4.6	S	5.0	7.0	6.5	9.5	9.5	3.5	4.0	2.5	1.5	1.5	1.5	1.0	3.0	2.5	5.5	3.5	4.0	4.5	6.0	8.5	9.5	4.6	24	
7	2.5	2.5	S	3.4	6.3	9.4	4.4	5.4	6.9	3.4	3.9	2.9	2.4	0.4	1.4	1.4	3.4	10.4	6.3	3.4	3.9	2.9	3.4	3.9	10.4	4.1	24	
8	3.9	S	1.7	1.2	3.7	3.7	2.2	1.7	2.2	2.2	4.2	1.7	1.2	1.2	0.7	1.2	0.7	3.7	3.2	4.2	3.2	2.2	2.2	2.7	4.2	2.3	24	
9	S	2.4	1.4	1.9	2.4	3.4	4.4	4.9	4.9	6.3	2.4	1.4	0.9	0.9	1.9	1.9	1.4	7.9	2.9	6.8	5.4	9.9	4.9	S	9.9	3.7	24	
10	3.7	4.2	7.2	6.2	4.2	5.2	7.7	6.6	6.1	6.7	3.7	1.2	0.7	1.2	0.7	2.7	0.7	0.7	1.7	4.2	5.2	4.7	S	5.0	7.7	3.9	24	
11	5.0	3.5	3.0	3.5	6.0	7.0	9.0	8.5	8.5	5.5	4.0	3.5	4.0	2.0	2.5	2.0	1.5	1.0	6.5	13.4	10.0	S	4.3	2.3	13.4	5.1	24	
12	1.8	1.8	2.3	3.3	6.3	7.3	9.8	13.7	2.8	5.8	1.8	2.3	4.8	2.8	1.8	3.8	2.3	1.8	4.3	2.3	S	2.0	2.0	2.5	13.7	3.9	24	
13	3.0	2.5	2.5	9.5	5.5	8.5	9.5	11.9	10.0	6.0	4.0	3.5	2.5	3.0	4.0	2.0	2.0	11.5	S	6.5	6.5	7.0	4.5	11.9	5.6	24		
14	3.0	3.5	3.0	1.0	4.5	3.5	8.0	9.0	3.0	1.0	1.0	4.0	1.0	1.0	1.0	1.5	4.5	2.0	S	11.0	5.5	3.5	1.0	1.0	11.0	3.4	24	
15	0.5	0.5	0.5	3.0	2.5	2.5	5.0	5.0	1.5	3.5	2.0	2.5	1.0	1.0	1.5	1.0	1.0	S	4.5	3.0	1.5	1.0	1.0	1.0	5.0	2.0	24	
16	1.0	1.5	1.5	5.0	2.0	2.0	2.5	3.0	5.5	4.0	2.0	1.5	1.9	2.0	3.5	3.5	S	4.9	12.8	15.9	6.8	2.4	4.4	5.4	15.9	4.1	24	
17	5.9	4.9	4.9	1.4	1.4	1.9	2.4	2.4	3.4	2.4	1.9	1.9	4.9	2.4	0.9	S	2.3	0.3	0.8	0.3	0.3	0.3	0.3	0.3	5.9	2.1	24	
18	1.8	1.8	3.3	4.3	0.8	2.8	2.8	C	C	C	C	C	C	C	S	1.4	1.4	0.9	1.4	1.9	3.9	3.9	3.4	2.9	4.3	2.4	24	
19	1.4	1.9	1.9	3.9	4.9	5.9	24.8	7.9	3.4	2.9	0.9	0.9	1.4	1.4	S	3.5	2.5	2.5	7.5	12.9	13.5	4.5	2.5	2.5	24.8	5.0	24	
20	2.5	2.0	3.0	2.5	5.5	6.5	6.0	3.5	3.0	3.0	2.5	4.5	1.5	S	1.5	4.0	3.5	2.0	6.9	5.0	1.5	2.5	1.0	1.0	6.9	3.3	24	
21	1.0	1.5	1.5	3.0	4.5	1.5	2.0	1.5	4.0	1.5	4.0	4.0	S	1.5	1.5	4.0	8.5	5.5	6.0	10.0	7.0	2.5	2.0	2.5	10.0	3.5	24	
22	3.5	3.0	2.5	2.5	2.0	2.0	2.0	2.0	1.5	2.5	2.5	S	1.4	1.4	0.9	1.4	0.9	0.9	8.4	16.4	12.8	3.9	0.9	0.9	16.4	3.3	24	
23	0.9	1.4	5.9	1.9	3.9	6.4	6.4	28.9	5.3	2.9	S	2.5	3.5	4.0	4.5	4.5	4.5	4.0	4.0	3.0	9.5	9.0	8.5	7.0	28.9	5.8	24	
24	7.5	7.0	5.5	5.0	5.5	5.5	10.5	7.0	6.0	S	3.4	5.4	1.9	1.9	0.9	0.9	3.9	0.9	7.9	6.9	5.4	4.4	3.9	3.9	10.5	4.8	24	
25	3.9	4.9	5.4	7.4	10.9	9.4	11.9	10.9	S	10.0	11.0	1.0	4.5	1.0	1.5	1.5	1.5	2.5	1.5	3.0	7.0	5.5	5.5	2.0	11.9	5.4	24	
26	3.0	8.5	10.0	8.5	11.5	11.9	11.0	S	9.5	6.5	5.0	2.0	8.5	8.5	1.5	1.5	1.5	2.5	3.0	4.0	5.0	5.5	7.0	6.0	11.9	6.2	24	
27	4.0	6.0	9.5	9.5	10.0	5.5	S	6.5	11.9	7.0	4.0	7.5	4.5	2.5	3.0	2.5	2.0	2.5	16.0	12.4	12.9	10.5	8.0	7.5	16.0	7.2	24	
28	5.4	5.0	6.0	4.5	5.0	S	8.0	17.9	15.4	4.0	3.5	1.5	1.0	1.0	0.5	3.0	1.5	3.5	7.5	8.0	5.0	1.5	1.5	2.5	17.9	4.9	24	
29	2.0	2.5	4.0	2.5	S	3.0	2.5	3.0	9.0	6.9	5.5	1.0	2.5	1.5	3.0	2.5	2.5	2.5	3.5	3.5	1.5	2.0	2.0	3.0	9.0	3.1	24	
30	3.0	4.5	4.0	S	4.5	5.0	4.5	8.5	5.4	Y	4.5	3.0	3.0	3.5	5.5	5.5	6.0	6.5	3.5	2.5	2.5	1.5	2.0	1.5	8.5	4.1	23	
HOURLY MAX	7.5	8.5	10.0	9.5	11.5	11.9	24.8	28.9	15.4	10.0	11.0	7.5	8.5	8.5	5.5	5.6	8.5	10.4	16.0	16.4	13.5	12.6	9.7	9.7				
HOURLY AVG	3.0	3.1	3.5	3.7	4.8	4.9	6.5	7.4	5.9	4.3	3.5	2.6	2.5	2.1	1.9	2.5	2.4	2.8	5.4	6.3	5.8	4.2	3.6	3.4				

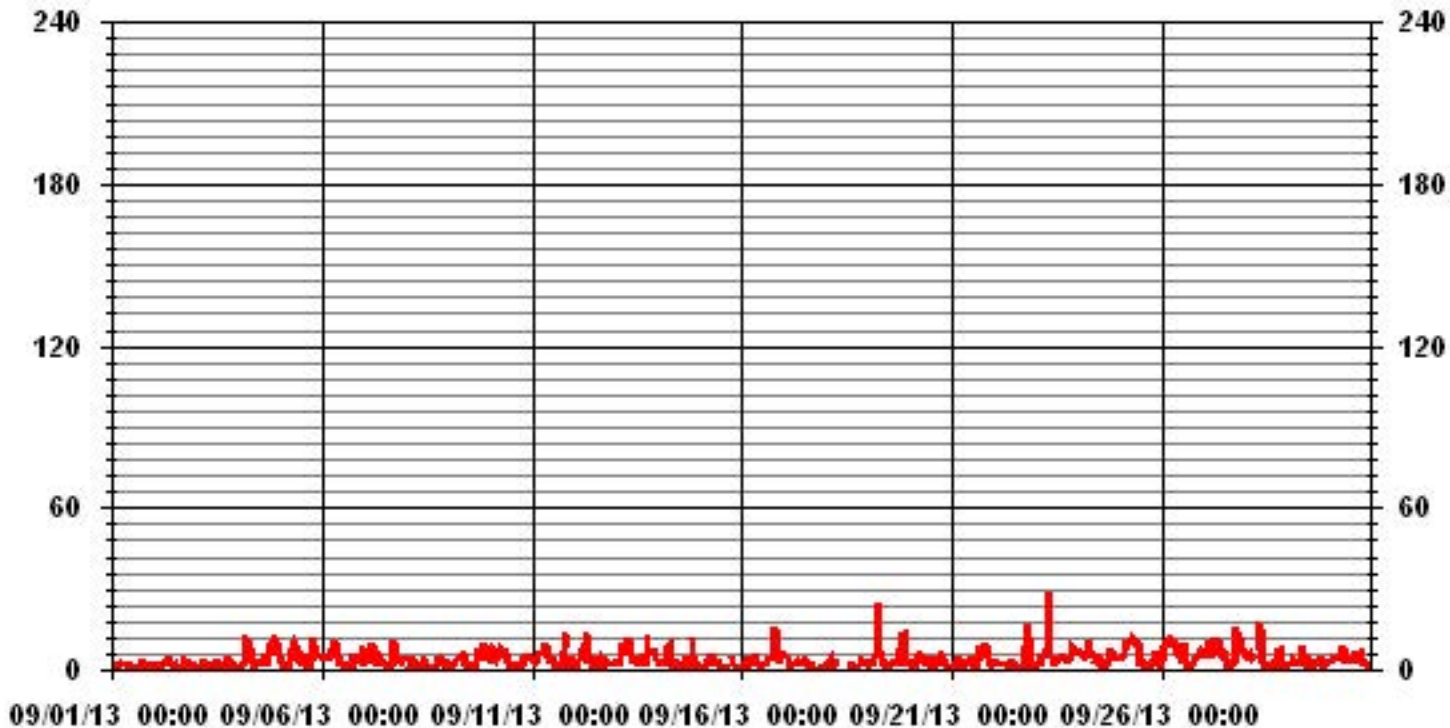
STATUS FLAG CODES

C - CALIBRATION	Q - QUALITY ASSURANCE
Y - MAINTENANCE	R - RECOVERY
S - DAILY ZERO/SPAN CHECK	X - MACHINE MALFUNCTION
P - POWER FAILURE	O - OPERATOR ERROR
G - OUT FOR REPAIR	K - COLLECTION ERROR

MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	679					
MAXIMUM INSTANTANEOUS VALUE:	28.9	PPB	@ HOUR(S)	7	ON DAY(S)	23
IZS CALIBRATION TIME:	31	HRS	OPERATIONAL TIME:	719	HRS	
MONTHLY CALIBRATION TIME:	7	HRS				
STANDARD DEVIATION:	3.27					

01 Hour Averages



— LICA NO2MAX PPB

LICA
 NO2_ / WD Joint Frequency Distribution (Percent)

September 2013

Distribution By % Of Samples

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

Wind Parameter : WD
 Instrument Height : 10 Meters

Limit	Direction															Freq	
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW		NNW
< 50.0	.73	1.17	3.37	2.64	2.93	4.99	18.06	4.84	3.96	4.25	10.13	14.39	12.48	8.51	4.84	2.64	100.00
< 110.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
< 210.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
>= 210.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
Totals	.73	1.17	3.37	2.64	2.93	4.99	18.06	4.84	3.96	4.25	10.13	14.39	12.48	8.51	4.84	2.64	

Calm : .00 %

Total # Operational Hours : 681

Distribution By Samples

Limit	Direction															Freq	
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW		NNW
< 50.0	5	8	23	18	20	34	123	33	27	29	69	98	85	58	33	18	681
< 110.0																	
< 210.0																	
>= 210.0																	
Totals	5	8	23	18	20	34	123	33	27	29	69	98	85	58	33	18	

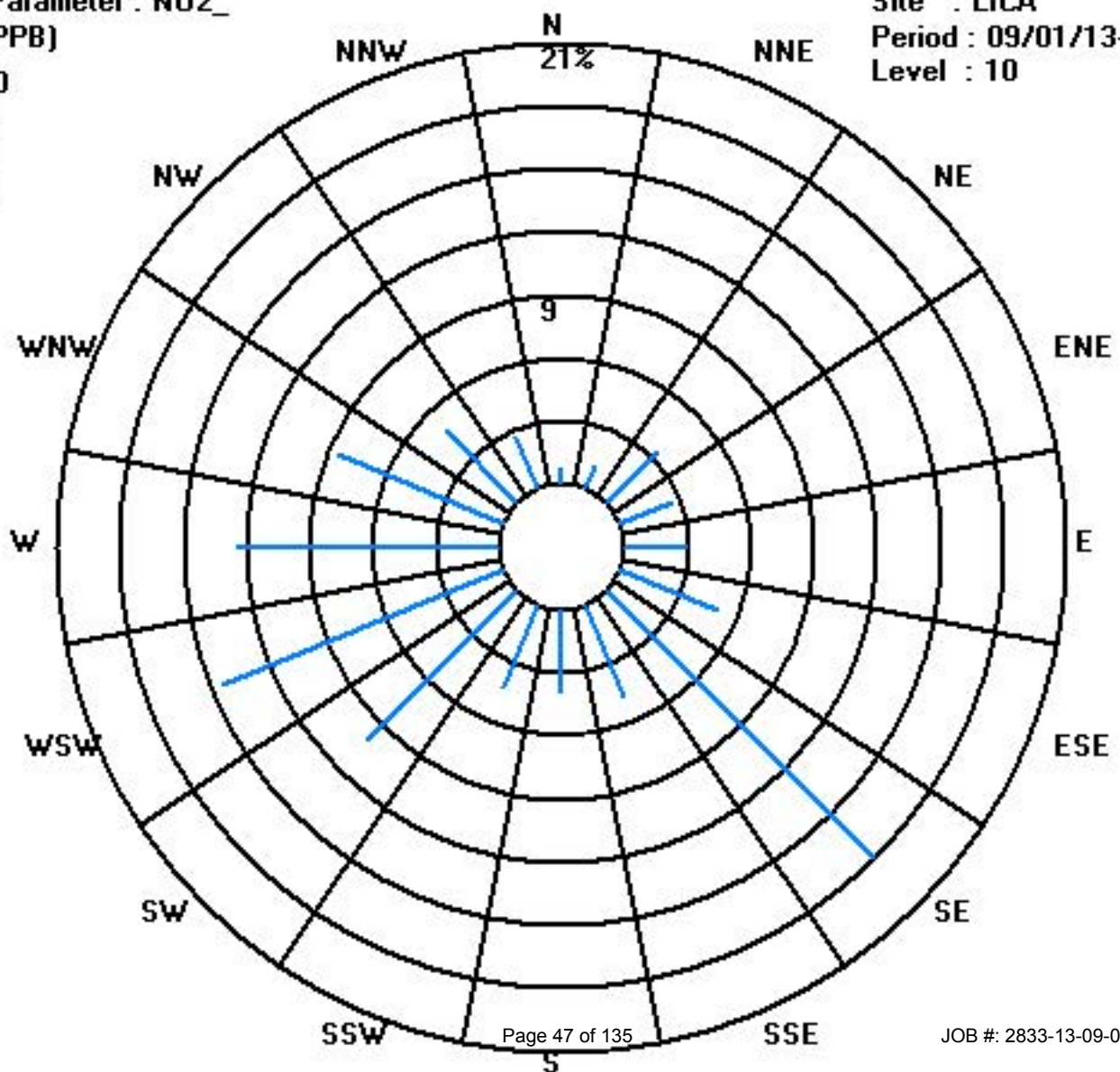
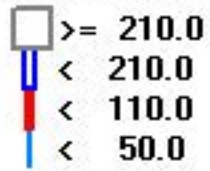
Calm : .00 %

Total # Operational Hours : 681

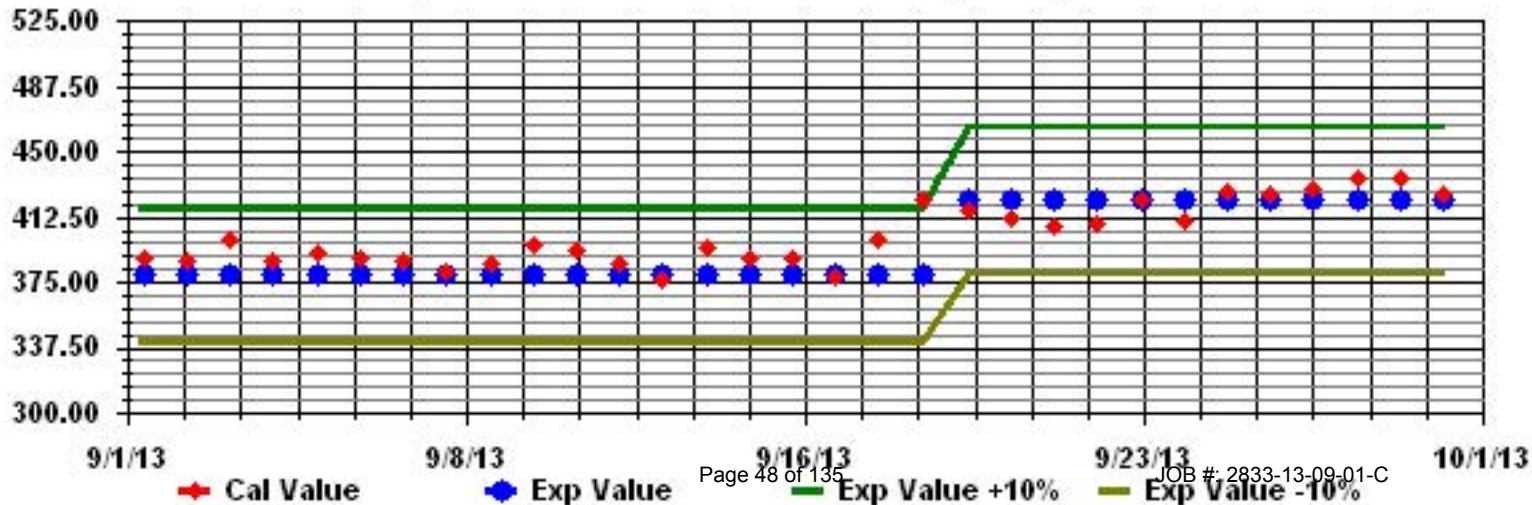
Class Limits (PPB)

Period : 09/01/13-09/30/13

Level : 10



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



Nitric Oxide

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - COLD LAKE

SEPTEMBER 2013

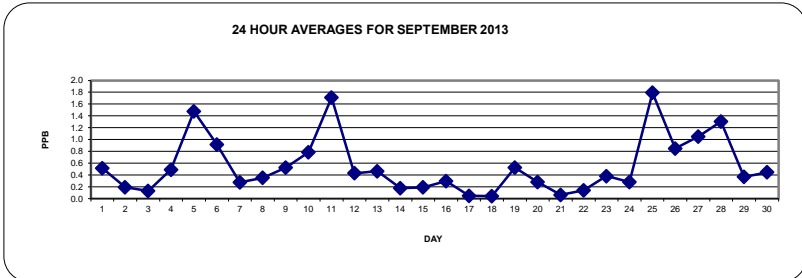
NITRIC OXIDE hourly averages in ppb

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	0.1	0	0.1	0.5	0.7	5.2	4	1	S	0.1	0	0	0	0	0	0	0	0	0.2	0	0	0	0	0	0	5.2	0.5	24
2	0	0	0.1	0	0.2	0.4	1.7	S	1.1	0.4	0.1	0	0.4	0	0	0	0	0.1	0	0	0	0	0	0	0	1.7	0.2	24
3	0	0	0	0	0.4	0.7	S	0.3	0.2	0.5	0.1	0.2	0.1	0.2	0	0	0	0.1	0	0.1	0	0.1	0	0	0	0.7	0.1	24
4	0	0	0	0	1.4	S	3.5	4.7	0.4	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0	0	0	0.1	0.1	0.1	0.1	0.2	4.7	0.5	24
5	0.1	0.4	0.3	0.4	S	2.1	6.2	9.8	6.7	3.3	2.1	0.5	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.3	0.1	0.2	0.2	0.2	0.2	9.8	1.5	24
6	0.2	0.2	0.2	S	0.2	0.9	5	9.5	3.4	0.4	0.2	0	0	0.1	0	0	0.1	0	0.1	0	0	0	0	0	0.6	9.5	0.9	24
7	0	0	S	0	0.4	0.5	0.3	1.8	1.8	0.1	0.5	0.3	0.1	0	0	0	0	0.4	0	0	0	0	0	0	0.2	1.8	0.3	24
8	0	S	0.1	0.1	1	0.5	1.7	1.2	1.2	0.7	0.2	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0	0	0.1	0.1	0.1	0.2	1.7	0.4	24
9	S	0.3	0	0.1	1	1.4	0.4	2.1	2.3	2	0.2	0	0	0	0	0	0	0	1.8	0	0	0	0	0	S	2.3	0.5	24
10	0.2	0.2	0.2	0.4	0.4	1.1	2.6	3.7	3.9	2.9	0.9	0.2	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.2	S	0	3.9	0.8	24	
11	0	0	0	0	0.6	3.2	11	9.1	8.4	4.2	1.4	1	0.4	0	0	0	0	0	0	0	0	S	0	0	11	1.7	24	
12	0	0	0	0.1	0.6	2.7	4	1.6	0.6	0.3	0	0	0	0	0	0	0	0	0	0	S	0	0	0	4	0.4	24	
13	0	0	0	0.6	0.1	0.2	0.6	3.9	2.6	1.1	0.5	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.2	S	0	0	0	0	3.9	0.5	24	
14	0	0	0	0	0.1	0	0.5	3	0.2	0	0	0	0	0	0.2	0	0	0	S	0.1	0	0	0	0	3	0.2	24	
15	0	0	0	0.2	0	0	0.8	0.9	0.5	0.4	0	0	0	0	0	0	0	S	0.6	0.4	0.2	0.2	0.1	0.1	0.9	0.2	24	
16	0.2	0.1	0.2	0.2	0.3	0.2	0.3	0.4	0.6	0.5	0.4	0.3	0.3	0.3	0.3	0.3	S	0.4	0.6	0.7	0.1	0.1	0	0	0.7	0.3	24	
17	0	0	0	0	0	0	0	0.1	0.2	0.2	0.1	0.1	0.2	0.1	0.1	S	0	0	0	0	0	0	0	0	0	0.2	0.0	24
18	0	0	0	0	0	0	0.2	C	C	C	C	C	C	C	C	C	0.1	0.1	0.1	0	0	0	0	0.1	0.1	0.2	0.0	24
19	0	0.1	0.1	0.1	0.2	0.6	4.7	0.9	0.7	0.4	0.3	0.3	0.6	0.6	S	0.1	0	0	0	1.3	1.1	0	0	0	4.7	0.5	24	
20	0	0	0	0	1.1	0.9	0.4	0.5	0.7	2.3	0.4	0	0	S	0	0	0.1	0	0.1	0	0	0	0	0	2.3	0.3	24	
21	0	0	0	0	0	0	0	0	0.3	0.2	0	0.1	S	0	0	0	0.9	0	0	0	0	0	0	0	0.9	0.1	24	
22	0	0	0	0	0	0	0	0	0	0.1	0	S	0.2	0.3	0.3	0.2	0.1	0.1	0.1	0.1	0.8	0.7	0.2	0.1	0	0.8	0.1	24
23	0.1	0	0.2	0.1	0.2	0.4	0.8	4.7	1.1	0.5	S	0.1	0.2	0.1	0.1	0.1	0.1	0	0	0	0	0	0	0	4.7	0.4	24	
24	0	0	0	0	0	0	0.8	1.3	1.9	S	1	0.4	0.5	0.1	0.1	0.1	0.1	0.1	0	0.1	0	0	0.1	0	1.9	0.3	24	
25	0	0	0	0.2	1.3	3.3	9.7	14.9	S	7.2	3.7	0.1	0.4	0.1	0.1	0.1	0.1	0.1	0	0	0	0	0	0	14.9	1.8	24	
26	0	0	0.1	0.3	0.2	1.7	5.4	S	4.7	2.8	1.4	0.1	1.4	1.4	0	0	0	0	0	0	0	0	0	0	5.4	0.8	24	
27	0	0	0.1	0.1	0.1	0.4	S	6.4	5.1	2.6	1.1	1.2	1	0.7	0.3	0.3	0.3	0.2	1.5	0.3	0.4	1.6	0.2	0.3	6.4	1.1	24	
28	0.4	0.2	0.3	0.2	0.3	S	2.5	11.8	6.7	2.1	0.9	0.4	0.4	0.4	0.3	0.6	0.3	0.3	0.6	0.3	0.3	0.2	0.2	0.3	11.8	1.3	24	
29	0.2	0.2	0.4	0.3	S	0.4	0.4	0.5	0.8	0.8	0.5	0.4	0.4	0.4	0.7	0.5	0.3	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.8	0.4	24	
30	0.3	0.3	0.3	S	0.2	0.2	0.3	0.6	0.6	Y	1	0.8	1.1	1.2	0.8	0.4	0.3	0.2	0.1	0.2	0.2	0.3	0.2	0.2	1.2	0.4	23	
HOURLY MAX	0.4	0.4	0.4	0.6	1.4	5.2	11.0	14.9	8.4	7.2	3.7	1.2	1.4	1.4	0.8	0.6	0.9	1.8	1.5	1.3	1.1	1.6	0.2	0.6				
HOURLY AVG	0.1	0.1	0.1	0.1	0.4	1.0	2.4	3.5	2.1	1.3	0.6	0.2	0.3	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1				

STATUS FLAG CODES

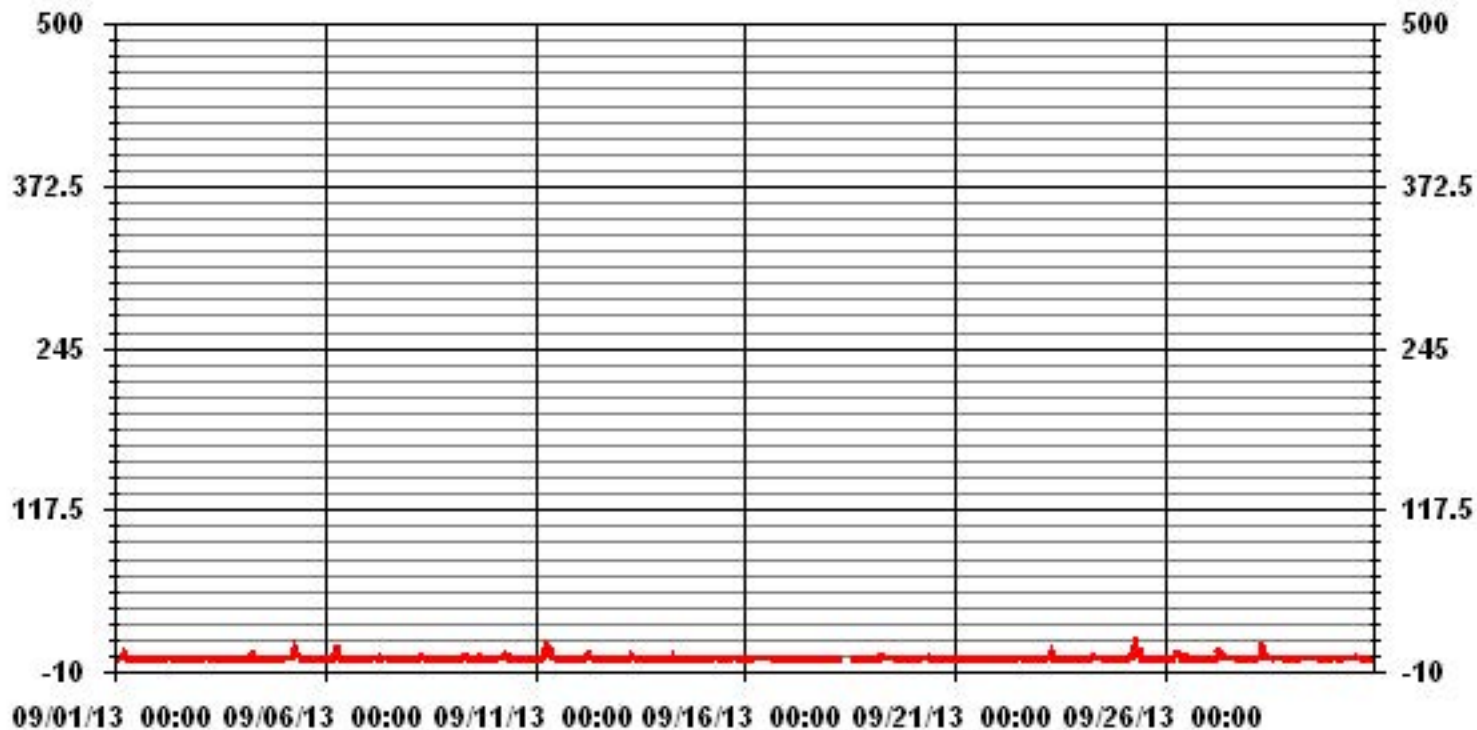
C	- CALIBRATION	Q	- QUALITY ASSURANCE
Y	- MAINTENANCE	R	- RECOVERY
S	- DAILY ZERO/SPAN CHECK	X	- MACHINE MALFUNCTION
P	- POWER FAILURE	O	- OPERATOR ERROR
G	- OUT FOR REPAIR	K	- COLLECTION ERROR



MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	411					
MAXIMUM 1-HR AVERAGE:	14.9	PPB	@ HOUR(S)	7	ON DAY(S)	25
MAXIMUM 24-HR AVERAGE:	1.8	PPB			ON DAY(S)	25
IZS CALIBRATION TIME:	30	HRS	OPERATIONAL TIME:	719	HRS	
MONTHLY CALIBRATION TIME:	8	HRS	AMD OPERATION UPTIME:	99.9	%	
STANDARD DEVIATION:	1.48		MONTHLY AVERAGE:	0.56	PPB	

01 Hour Averages



LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - COLD LAKE

SEPTEMBER 2013

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	0.5	0.0	0.5	1.0	3.5	8.0	5.6	1.5	S	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.5	0.5	0.0	0.0	0.0	0.0	8.0	1.2	24	
2	0.0	0.0	0.5	0.5	1.0	1.0	2.0	S	2.0	1.5	0.5	0.0	11.0	0.0	0.0	0.0	0.0	1.5	0.0	0.0	0.0	0.0	0.0	0.5	11.0	1.0	24	
3	0.0	0.5	0.5	0.5	8.5	15.0	S	1.5	2.0	5.5	1.0	2.0	1.5	7.5	0.5	0.0	0.0	2.5	2.0	3.0	1.5	2.5	0.0	0.0	15.0	2.5	24	
4	0.0	0.0	0.0	0.0	22.0	S	20.6	13.1	8.6	0.1	0.6	0.1	0.1	0.1	0.1	0.6	0.1	0.1	0.1	0.1	1.6	0.1	2.1	22.0	3.1	24		
5	0.6	1.6	1.1	1.6	S	3.7	15.7	15.7	9.7	6.2	3.2	0.7	0.2	1.2	0.7	1.7	0.2	0.2	0.2	2.7	0.2	0.2	0.7	0.7	15.7	3.0	24	
6	0.2	0.7	0.7	S	1.0	3.0	9.0	13.5	10.0	2.0	1.5	0.5	0.5	2.5	2.0	0.0	1.5	0.5	3.0	1.0	0.5	0.0	0.5	7.0	13.5	2.7	24	
7	0.0	0.0	S	0.5	6.0	9.5	2.0	4.0	8.5	1.0	2.5	1.5	1.0	0.0	0.5	0.0	0.5	10.5	1.5	0.0	1.0	1.0	0.0	4.5	10.5	2.4	24	
8	0.0	S	0.2	0.2	9.2	2.7	4.7	1.7	1.7	1.2	1.7	0.2	0.2	0.7	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.7	9.2	1.2	24	
9	S	2.0	0.5	1.0	2.0	3.0	1.5	3.5	3.5	7.5	1.0	0.0	1.0	0.5	2.0	1.0	0.0	8.5	0.0	2.0	0.0	0.0	0.0	S	8.5	1.8	24	
10	0.2	0.2	0.2	2.2	1.2	8.2	7.7	5.2	9.2	5.2	2.2	0.2	0.2	0.7	0.2	0.7	0.2	0.2	0.2	0.2	0.2	0.2	0.2	S	0.0	9.2	2.0	24
11	0.5	0.0	0.5	0.0	3.0	10.5	21.5	13.5	10.0	5.5	3.5	4.0	3.5	0.5	0.5	0.0	0.0	0.0	0.0	0.5	0.0	S	0.0	0.0	21.5	3.4	24	
12	0.0	0.0	0.0	2.0	2.0	6.0	6.5	4.0	6.5	7.5	0.5	0.0	0.5	1.0	0.0	2.5	0.0	0.5	0.5	0.0	S	0.1	0.1	0.1	7.5	1.8	24	
13	0.1	0.1	0.1	12.1	0.6	4.1	5.1	8.1	4.6	2.1	2.1	1.1	0.1	1.1	2.1	0.6	0.6	0.1	2.6	S	0.0	0.0	0.0	0.0	12.1	2.1	24	
14	0.0	0.5	0.0	0.5	2.0	0.5	3.5	5.0	1.5	0.5	0.5	0.5	0.5	0.0	7.0	0.5	2.0	1.5	S	2.0	1.5	0.5	0.0	0.0	7.0	1.3	24	
15	0.0	1.0	0.0	6.0	1.0	0.5	3.0	3.0	0.5	2.5	1.0	1.0	0.5	0.0	0.5	0.5	0.0	S	7.8	2.8	1.3	0.3	0.3	0.3	7.8	1.5	24	
16	0.3	0.3	0.3	1.8	0.3	0.8	0.8	2.8	2.3	5.8	2.3	3.3	0.8	1.3	0.8	S	9.1	3.1	17.6	4.6	0.1	0.1	0.1	0.1	17.6	2.6	24	
17	0.1	0.1	0.1	0.1	0.1	0.1	0.1	1.1	0.6	2.1	0.6	0.6	1.6	1.6	0.1	S	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1	0.4	24	
18	0.0	0.0	0.0	0.0	0.0	0.0	1.5	C	C	C	C	C	C	C	S	0.6	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	1.5	0.2	24	
19	0.1	0.1	0.1	0.1	1.1	1.6	32.6	9.1	2.1	3.6	0.6	1.6	1.1	1.1	S	3.0	1.5	0.0	0.0	13.0	5.5	0.0	0.0	0.0	32.6	3.4	24	
20	0.3	0.5	1.0	0.5	6.0	8.5	1.5	0.5	2.0	38.0	2.0	2.0	2.0	S	1.5	1.0	3.5	3.5	1.5	0.5	0.0	2.0	0.0	0.0	38.0	3.4	24	
21	0.0	0.0	0.0	5.0	4.0	0.0	0.0	0.5	2.5	3.0	3.0	3.0	S	0.5	0.0	1.5	12.5	0.5	3.0	2.0	0.5	0.0	0.0	0.0	12.5	1.8	24	
22	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.5	1.0	1.0	S	0.3	1.3	0.8	0.8	0.3	0.3	0.3	6.3	4.8	1.8	0.3	0.3	6.3	0.9	24	
23	0.3	0.8	1.8	0.3	0.3	1.3	3.8	38.8	3.8	1.8	S	0.3	3.1	0.6	0.6	1.1	0.6	0.1	0.1	0.1	0.1	0.1	0.1	0.1	38.8	2.6	24	
24	0.1	0.1	0.1	0.1	0.1	0.1	2.1	2.1	2.6	S	2.1	3.6	9.6	1.1	0.1	0.6	0.6	0.1	0.1	0.1	0.1	0.1	0.1	0.1	9.6	1.1	24	
25	0.1	0.1	0.6	1.1	10.1	8.1	15.6	23.1	S	9.1	10.1	0.1	4.6	0.1	0.6	0.6	0.6	0.2	0.1	0.6	0.1	0.1	0.1	0.1	23.1	3.7	24	
26	0.1	0.1	0.1	0.6	1.1	5.6	10.1	S	9.0	4.5	5.0	0.5	10.5	10.5	0.5	0.0	0.5	0.0	0.5	0.0	0.5	0.0	0.0	0.0	10.5	2.6	24	
27	1.0	2.0	2.5	1.5	2.5	3.0	S	14.8	25.3	6.3	2.3	8.8	1.8	0.8	0.8	0.8	0.3	0.3	19.3	2.3	1.3	17.8	0.8	0.3	25.3	5.1	24	
28	3.8	0.3	0.3	0.3	0.3	S	5.4	40.4	28.9	2.9	2.4	0.9	0.4	0.4	0.4	6.4	0.9	0.9	1.9	0.4	0.9	0.4	0.4	0.9	40.4	4.4	24	
29	0.4	0.9	1.4	1.4	S	0.9	1.4	0.9	3.9	3.9	2.9	0.4	0.9	0.4	0.9	0.9	0.9	0.4	0.4	0.4	0.4	0.4	0.4	0.4	3.9	1.1	24	
30	0.4	0.4	0.4	S	0.3	0.3	0.3	5.3	0.8	Y	3.3	0.8	2.3	1.8	1.8	1.3	0.8	0.3	0.3	0.3	0.8	0.8	1.3	1.3	5.3	1.2	23	
HOURLY MAX	3.8	2.0	2.5	12.1	22.0	15.0	32.6	40.4	28.9	38.0	10.1	8.8	11.0	10.5	7.0	6.4	12.5	10.5	19.3	17.6	5.5	17.8	1.3	7.0				
HOURLY AVG	0.3	0.4	0.5	1.5	3.2	3.8	6.6	8.7	6.0	4.8	2.1	1.3	2.1	1.3	0.9	1.0	1.0	1.5	1.9	2.0	0.9	1.0	0.2	0.7				

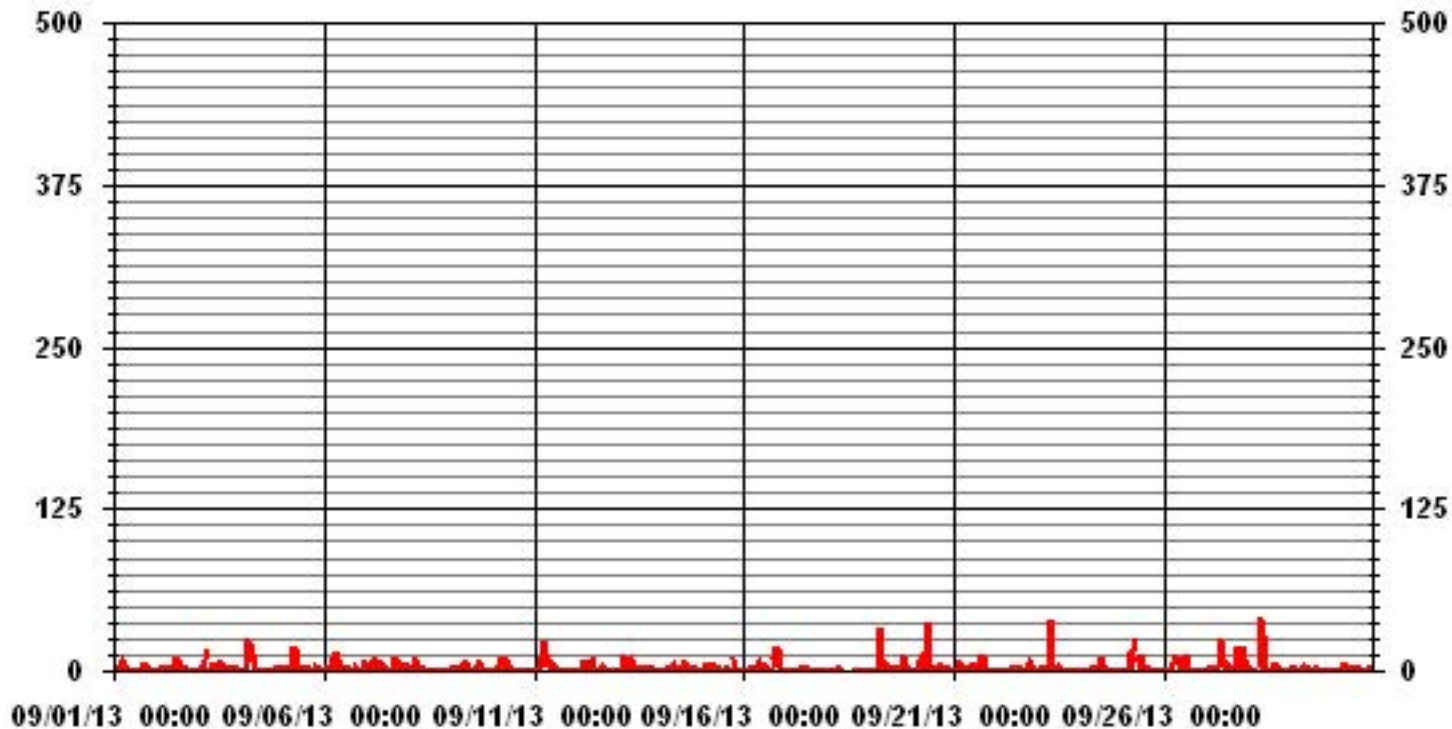
STATUS FLAG CODES

C	- CALIBRATION	Q	- QUALITY ASSURANCE
Y	- MAINTENANCE	R	- RECOVERY
S	- DAILY ZERO/SPAN CHECK	X	- MACHINE MALFUNCTION
P	- POWER FAILURE	O	- OPERATOR ERROR
G	- OUT FOR REPAIR	K	- COLLECTION ERROR

MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	558					
MAXIMUM INSTANTANEOUS VALUE:	40.4	PPB	@ HOUR(S)	7	ON DAY(S)	28
IZS CALIBRATION TIME:	31	HRS	OPERATIONAL TIME:	719	HRS	
MONTHLY CALIBRATION TIME:	7	HRS				
STANDARD DEVIATION:	4.52					

01 Hour Averages



LICA
 NO_ / WD Joint Frequency Distribution (Percent)

September 2013

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
< 50.0	.73	1.17	3.37	2.64	2.93	4.99	18.06	4.84	3.96	4.25	10.13	14.39	12.48	8.51	4.84	2.64	100.00
< 110.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
< 210.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
< 210.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
>= 210.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
Totals	.73	1.17	3.37	2.64	2.93	4.99	18.06	4.84	3.96	4.25	10.13	14.39	12.48	8.51	4.84	2.64	

Calm : .00 %

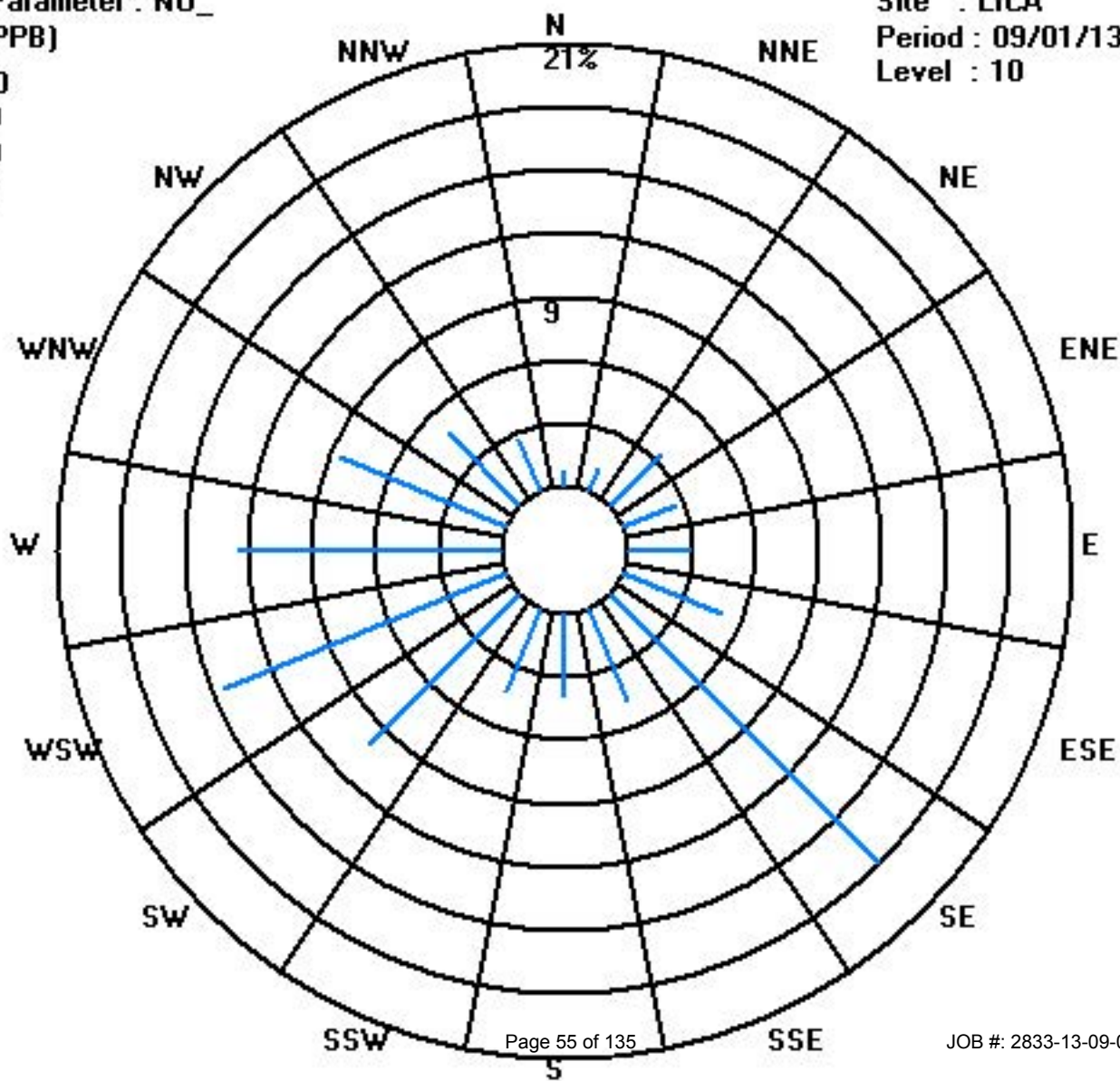
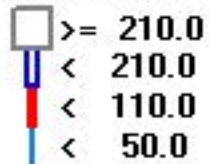
Total # Operational Hours : 681

Distribution By Samples

	Direction																
Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
< 50.0	5	8	23	18	20	34	123	33	27	29	69	98	85	58	33	18	681
< 110.0																	
< 210.0																	
>= 210.0																	
Totals	5	8	23	18	20	34	123	33	27	29	69	98	85	58	33	18	

Calm : .00 %

Total # Operational Hours : 681



Oxides of Nitrogen

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - COLD LAKE

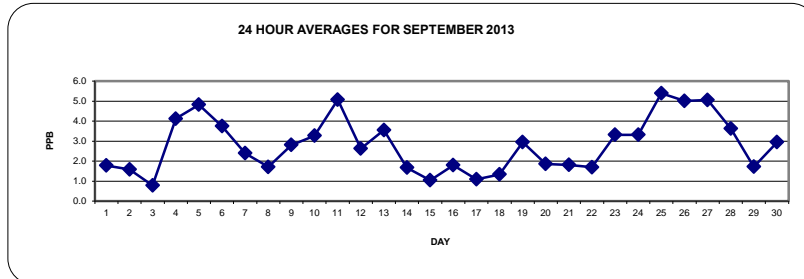
SEPTEMBER 2013

OXIDES OF NITROGEN 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	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	2.2	1.8	1.4	1.3	1.4	7.1	5.8	2.8	S	1.7	1.6	1.7	1.4	1.1	0.8	0.5	0.6	0.6	1.4	1.4	1	1	1	1.4	7.1	1.8	24	
2	2	1.8	1.7	1.5	1.4	1.5	1.7	3.4	S	4.5	3	2.5	1.4	1.4	0.8	0.9	0.6	1	1.4	0.9	1.5	2.3	0.7	0.4	0.1	4.5	1.6	24	
3	3	0	0	0.1	0.4	1.9	2.6	S	1.4	0.8	1	0.7	1	0.9	0.7	0.3	0.1	0.1	0.5	1.6	1.6	0.8	0.7	0.4	0.5	2.6	0.8	24	
4	4	0.5	0.5	0.9	2.3	6.1	S	8.7	10.2	1.8	1.5	2	2	2.2	2.4	2.5	3.2	2.6	2.6	3.9	6.4	8.5	9.7	6.8	7.5	10.2	4.1	24	
5	5	4.6	3	2.1	2	S	3.7	8.1	16.7	15.4	10.8	8.4	3.2	1.5	1.6	1	0.7	0.1	0.2	0.8	6.4	5.3	5.6	5.3	4.3	16.7	4.8	24	
6	6	4.1	4.1	3.7	S	4.3	5.4	10.2	17	9	2.7	2.5	1.3	0.5	0.5	0.4	0.4	1.2	1.5	2.8	2	2.4	3.3	3.5	3.5	17	3.8	24	
7	7	1.3	1.2	S	1.9	3.2	4	3.5	5.3	5.9	1.6	2.4	1.8	1.2	0.2	0.4	0.6	1.6	3.2	3	2.4	3	2.4	2.3	2.6	5.9	2.4	24	
8	8	2.7	S	1	0.9	2.3	2.1	3.1	2.8	3	2.5	2	1.3	0.9	1	0.7	0.5	0.5	0.5	0.9	2.2	2.2	2	1.8	2.4	3.1	1.7	24	
9	9	S	2.5	1.2	1.4	2.4	3.8	4.5	6.1	5.9	5.2	1.9	0.9	0.6	0.5	0.6	1	0.8	5.3	2.4	2.9	3.7	5.1	3.1	S	6.1	2.8	24	
10	10	2.6	3	5.2	4.9	3.6	4.3	6.5	9.3	8.9	7.2	3.1	0.2	0.1	0.3	0.6	0.5	0.1	0.2	0.8	2.2	3.7	3.8	S	4.1	9.3	3.3	24	
11	11	3.2	2.6	2.3	2.3	4.2	8.3	17.4	16.7	15.8	9	3.9	3.6	2	1.1	1.1	1	0.7	0.6	2.9	7.3	6	S	3.1	1.6	17.4	5.1	24	
12	12	1.1	1.1	1.5	2	4.8	9.3	10	5.7	2.5	2.3	1.7	2.2	1.9	1.6	1.2	1.2	1	1	1.9	1.7	S	1.5	1.5	1.8	10	2.6	24	
13	13	2.3	2	2	3.1	2.8	3.5	5.6	12.8	9.9	5.4	3.9	2.6	1.9	1.2	0.9	0.6	0.7	0.9	3.1	S	4.4	4.5	4.5	3.1	12.8	3.6	24	
14	14	1.9	2.3	1.5	0.3	1.2	1.6	3.5	9.4	1.2	0.3	0.5	0.8	0.3	0.3	0.5	0.7	1	0.7	S	6	2.9	0.8	0.5	0.3	9.4	1.7	24	
15	15	0	0.2	0.3	0.8	1	1.6	4.2	3.2	1.6	1.6	0.9	0.5	0.6	0.6	0.6	0.5	0.6	S	1.8	1.3	0.6	0.5	0.5	0.6	4.2	1.0	24	
16	16	0.8	1	1	1.2	1.2	1.5	1.7	1.5	1.8	1.3	1	0.9	0.7	0.9	1.2	1.2	S	2.1	4.5	3.7	2.7	1.8	2.4	5.1	5.1	1.8	24	
17	17	5.1	3.5	2.2	1	0.8	1.1	1.6	2	1.8	1.1	0.7	0.7	1.1	0.7	0.5	S	0.7	0.2	0	0.1	0.2	0	0	0	5.1	1.1	24	
18	18	0.7	0.8	1.1	1.7	0.8	2	2.5	C	C	C	C	C	C	C	C	C	0.8	0.4	0.4	0.6	0.9	2.4	3.2	1.7	1.4	3.2	1.3	24
19	19	1	1.5	1.3	3.2	4.5	5.6	11	4.2	2.1	1	0.7	0.8	1.6	1.7	S	1.2	0.7	1.2	3.5	7.5	8.3	2	1.7	1.6	11	3.0	24	
20	20	1.8	1.3	1.2	2.1	3.7	5.3	4.7	3	2.7	2.8	1.8	1.2	0.6	S	0.7	0.8	1.1	1.1	2.9	1.5	0.8	0.6	0.5	0.5	5.3	1.9	24	
21	21	0.5	0.8	0.9	1.1	1.2	1	1.1	1.2	1.9	1.4	1.2	1.1	S	1.1	1	1.6	3	3.4	3.8	6.2	4.1	1.2	1.3	1.7	6.2	1.8	24	
22	22	2.8	2.6	2.1	1.9	1.2	1.2	1.3	1.9	1.2	1.3	1	S	0.6	0.6	0.5	0.3	0.2	0.4	3.4	7.3	5	1.2	0.5	0.5	7.3	1.7	24	
23	23	0.5	0.6	1.9	1	1.7	3	3.3	11.9	3.8	1.8	S	1.8	1.9	3	3.7	3.9	3.6	3	2.4	2.1	3.1	5.9	6.8	5.5	11.9	3.3	24	
24	24	6	5.1	4.7	4	4.4	4.8	7.6	6.2	5.8	S	3	1.6	1.1	0.5	0.3	0.5	0.7	0.2	3.4	4	3.9	3.1	2.7	2.7	7.6	3.3	24	
25	25	3.3	3.8	4.3	5.8	9.3	10.8	19.2	24.8	S	15.3	8.6	0.4	0.9	0.5	0.5	0.7	0.6	1.3	0.4	1.5	4	4	2.8	1.1	24.8	5.4	24	
26	26	1.9	4.2	7.4	7.5	8.2	11.7	15.1	S	12.5	7.7	3.8	1.3	3.2	3.1	1	0.5	0.3	1.3	2.1	3.1	4.1	4.1	5.9	5.1	15.1	5.0	24	
27	27	2.9	3.6	5.3	7	8.4	3.7	S	10.3	8.8	5.5	2.7	3.2	3	2.2	1.6	1.2	1.2	1.7	8	7.9	8.6	7.9	5.9	5.6	10.3	5.1	24	
28	28	3.7	3.4	4.3	3.9	3.8	S	6.6	17.6	12	4.7	2.3	1.1	0.7	0.5	0.3	1.2	1	1.6	5.3	4.5	2.1	0.8	0.9	1.2	17.6	3.6	24	
29	29	1.1	1.2	1.5	1.5	S	2.1	1.9	2.3	2.4	2	1.3	0.8	1.4	1.2	2.8	2.1	1.8	1.9	2.4	2.1	1.1	1.2	1.2	2.3	2.8	1.7	24	
30	30	2.4	3.2	3.2	S	3.3	3.4	3.3	4.7	3.7	Y	3.3	3	3	3.9	4	3.6	4.9	2.9	2.5	1.9	1.4	0.9	1.3	1.1	4.9	3.0	23	
HOURLY MAX		6.0	5.1	7.4	7.5	9.3	11.7	19.2	24.8	15.8	15.3	8.6	3.6	3.2	3.9	4.0	3.9	4.9	5.3	8.0	7.9	8.6	9.7	6.8	7.5				
HOURLY AVG		2.2	2.2	2.3	2.4	3.3	4.2	6.3	7.8	5.4	3.8	2.5	1.5	1.3	1.2	1.1	1.1	1.1	1.4	2.5	3.4	3.4	2.7	2.4	2.4				

STATUS FLAG CODES

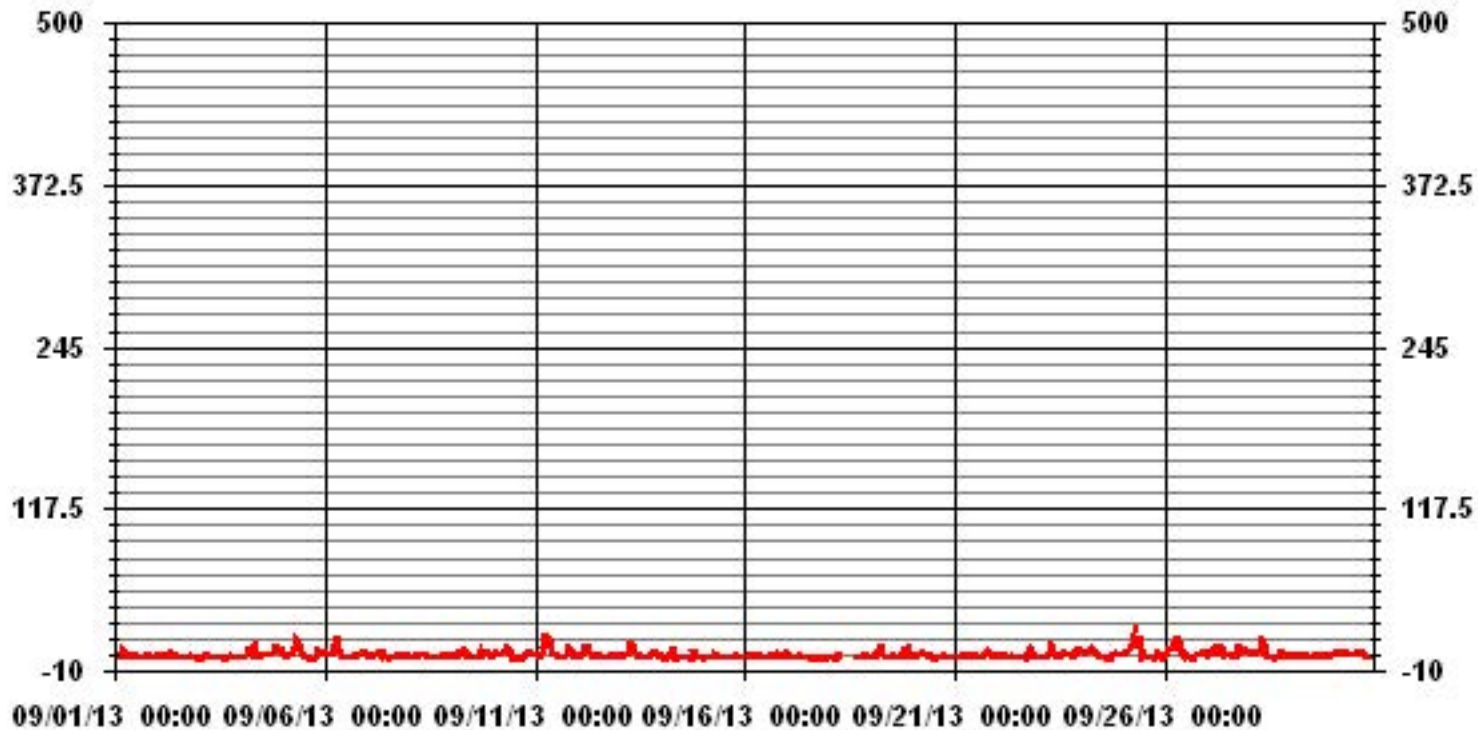
C	- CALIBRATION	Q	- QUALITY ASSURANCE
Y	- MAINTENANCE	R	- RECOVERY
S	- DAILY ZERO/SPAN CHECK	X	- MACHINE MALFUNCTION
P	- POWER FAILURE	O	- OPERATOR ERROR
G	- OUT FOR REPAIR	K	- COLLECTION ERROR



MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	674
MAXIMUM 1-HR AVERAGE:	24.8 PPB @ HOUR(S) 7 ON DAY(S) 25
MAXIMUM 24-HR AVERAGE:	5.4 PPB ON DAY(S) 25
IZS CALIBRATION TIME:	30 HRS
MONTHLY CALIBRATION TIME:	8 HRS
STANDARD DEVIATION:	2.99
OPERATIONAL TIME:	719 HRS
AMD OPERATION UPTIME:	99.9 %
MONTHLY AVERAGE:	2.81 PPB

01 Hour Averages



— LICA NOX_ PPB

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - COLD LAKE

SEPTEMBER 2013

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	3.5	2	2	2	5.5	11	7.5	3.5	S	2.5	2	2	1.5	1.5	1.5	1.5	2	1	5	2.5	1.5	1	1	2	11	2.8	24	
2	2	2.5	2.5	2	2	2.5	4	S	7	6	4	2	12	1.5	1.5	1	1.5	6.5	1	2.5	3.5	1.5	2	1	12	3.1	24	
3	0.5	0.5	1	1.5	11	6	S	4.5	3	3.5	1.5	4.5	3	11	0.5	1	0.5	4.5	4.5	6.5	3.5	4.5	1	1	11	3.4	24	
4	0.5	1	2	3.5	32	S	30.5	20	8	2	3.5	3	3	2.5	3.5	6	4	3	8.5	8	11	14.5	9.5	10	32	8.2	24	
5	6	4.5	3	3	S	6.5	19	22.5	20	16	11.5	4.5	3	3.5	3	7.5	1	0.5	3.5	14.5	10	7	6.5	5	22.5	7.9	24	
6	5.5	5	5	S	5.5	9	14	22	18.5	4.5	4.5	3	2	3	2.5	1	4	3	9	5	4	4.5	6	15	22	6.8	24	
7	2.5	2.5	S	3.5	12	19	6.5	9	14.5	4.5	6	4.5	3.5	1	1.5	1.5	4	20	8	3.5	4	4	3.5	6.5	20	6.3	24	
8	4	S	1.5	1.5	12	6	6.5	3.5	3.5	3.5	6	2	1	1.5	1	1.5	1	1	4	3.5	4.5	3	2.5	3.5	12	3.4	24	
9	S	4	2	2.5	3.5	5	6	8.5	8.5	13.5	3.5	1.5	1.5	1.5	3.5	2.5	1.5	15.5	3	9	5.5	10.5	5	S	15.5	5.3	24	
10	3.5	4.5	7.5	8	4.5	13.5	13	12	13.5	12	5.5	1.5	1	2	1.5	3.5	1	0.5	1.5	4	5.5	5	S	5	13.5	5.6	24	
11	5	3.5	3.5	3.5	8	16	29	21.5	18	11	6.5	7	5	2.5	3	1.5	2	1	6	13.5	10	S	4.5	2.5	29	8.0	24	
12	2	2	2.5	5	7.5	13	16.5	17	9.5	10	2.5	2.5	5	4	2	6.5	2.5	2.5	4.5	2.5	S	2	2	2	17	5.5	24	
13	2.5	2	2.5	20	5.5	9	14.5	18	14.5	7.5	6	4	2.5	3.5	5.5	2.5	2.5	2	14	S	6.5	6.5	7	4.5	20	7.1	24	
14	3	4	3	1	6	4	11	14	4.5	1	1.5	4	1.5	1	4	2	6.5	2	S	12.5	6	3.5	1	1	14	4.3	24	
15	0.5	1	0.5	9	3.5	2.5	8	7.5	2.5	6.5	3	2.5	1.5	1	1.5	1	1	S	11.5	4.5	1.5	0.5	0.5	1	11.5	3.2	24	
16	1	1	1	6.5	1.5	2.5	2.5	4.5	6.5	7	3	2.5	2.5	2.5	4	4	S	6.5	15.5	33.5	11	2.5	4.5	5.5	33.5	5.7	24	
17	6	5	5	1	1.5	2	2.5	3	4	3.5	2.5	2.5	6.5	3	1	S	3.5	0.5	0.5	0.5	0.5	0.5	0	0	6.5	2.4	24	
18	2	1.5	3	4	1	3	4.5	C	C	C	C	C	C	C	S	2	1.5	1	1	1.5	4	3.5	3.5	2.5	4.5	2.5	24	
19	1.5	1.5	2	4	5	6.5	55.5	17	5.5	6	1.5	1.5	2	2.5	S	5.5	3.5	2.5	7.5	26	18	4.5	2.5	2.5	55.5	8.0	24	
20	2.5	2	4	2.5	11.5	12	8	4	4.5	9.5	4.5	6.5	2.5	S	1.5	4.5	7	4.5	8.5	5	1.5	4.5	1	0.5	12	4.9	24	
21	1.1	1	1	6	8	1.5	2	2	6	3.5	6.5	6.5	S	2	1.5	5.5	18.5	5.5	8.5	12	7.5	2.5	2	2.5	18.5	4.9	24	
22	3	3	2.5	2.5	2	1.5	2	2.5	1.5	3.5	3.5	S	1.5	2.5	1.5	1.5	0.5	1	8	21.5	17.5	5	0.5	0.5	21.5	3.9	24	
23	1	2	7.5	1.5	3.5	7	9.5	66.5	8	4.5	S	2.5	6	4.5	4.5	5.5	5	4	3.5	2.5	9	9	8	6.5	66.5	7.9	24	
24	7	6.5	5	5	5.5	5.5	12.5	8	8.5	S	5	8.5	7	2.5	1	1.5	4.5	0.5	8	7	5.5	4	3.5	4	12.5	5.5	24	
25	4	5	5.5	7.5	21	16.5	24.5	32.9	S	19	21	1	9	1	2	2	1.5	2.5	1	3	7	5.5	5.5	1.5	32.9	8.7	24	
26	3	8.5	10	9	12.5	14	20	S	18	10	9.5	2.5	19.5	17.5	1.5	1.5	1	3	3	3.5	5.5	5.5	7	6	20	8.3	24	
27	5	6.5	10.5	10.5	11	7.5	S	19.5	34.5	12.5	6.5	14	6	3	3.5	2.5	1.5	2.5	34.5	14.5	13.5	27.5	7.5	7.5	34.5	11.4	24	
28	9	4.5	5.5	4.5	5	S	12.5	57	43.5	6	5.5	1.5	1.5	1.5	0.5	4	2	3	8.5	8	5.5	1	1.5	3	57	8.5	24	
29	2	3	5	3	S	3.6	3.6	3.6	12.5	10.1	7.6	1.1	3.1	2.1	4.1	3.1	2.6	2.1	3.6	3.6	1.6	1.6	1.6	2.6	12.5	3.8	24	
30	2.6	4.6	4.1	S	4.5	5	4	13	6	Y	6.5	4	4	5	7	6.5	6.5	6.5	3.5	2.5	1.5	3	2	2	13	4.8	23	
HOURLY MAX	9.0	8.5	10.5	20.0	32.0	19.0	55.5	66.5	43.5	19.0	21.0	14.0	19.5	17.5	7.0	7.5	18.5	20.0	34.5	33.5	18.0	27.5	9.5	15.0				
HOURLY AVG	3.2	3.3	3.8	4.8	7.6	7.5	12.5	15.4	11.3	7.4	5.4	3.7	4.2	3.2	2.5	3.1	3.2	3.7	6.9	8.2	6.5	5.1	3.6	3.7				

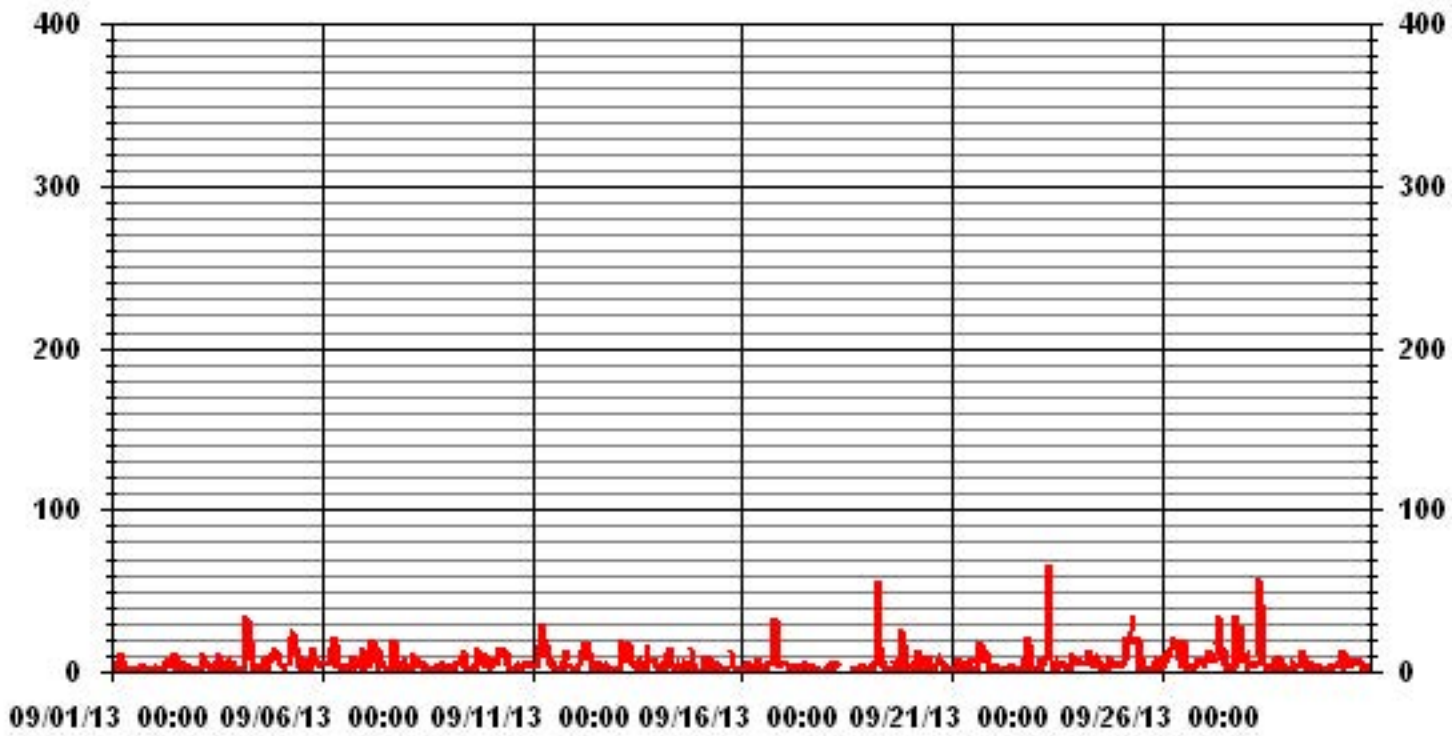
STATUS FLAG CODES

C	- CALIBRATION	Q	- QUALITY ASSURANCE
Y	- MAINTENANCE	R	- RECOVERY
S	- DAILY ZERO/SPAN CHECK	X	- MACHINE MALFUNCTION
P	- POWER FAILURE	O	- OPERATOR ERROR
G	- OUT FOR REPAIR	K	- COLLECTION ERROR

MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	679
MAXIMUM INSTANTANEOUS VALUE:	66.5 PPB @ HOUR(S) 7 ON DAY(S) 23
IZS CALIBRATION TIME:	31 HRS
MONTHLY CALIBRATION TIME:	7 HRS
STANDARD DEVIATION:	6.62
OPERATIONAL TIME:	719 HRS

01 Hour Averages



LICA
 NOX_ / WD Joint Frequency Distribution (Percent)

September 2013

Distribution By % Of Samples

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

Wind Parameter : WD
 Instrument Height : 10 Meters

Limit	Direction															Freq	
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW		NNW
< 50.0	.73	1.17	3.37	2.64	2.93	4.99	18.06	4.84	3.96	4.25	10.13	14.39	12.48	8.51	4.84	2.64	100.00
< 110.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
< 210.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
>= 210.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
Totals	.73	1.17	3.37	2.64	2.93	4.99	18.06	4.84	3.96	4.25	10.13	14.39	12.48	8.51	4.84	2.64	

Calm : .00 %

Total # Operational Hours : 681

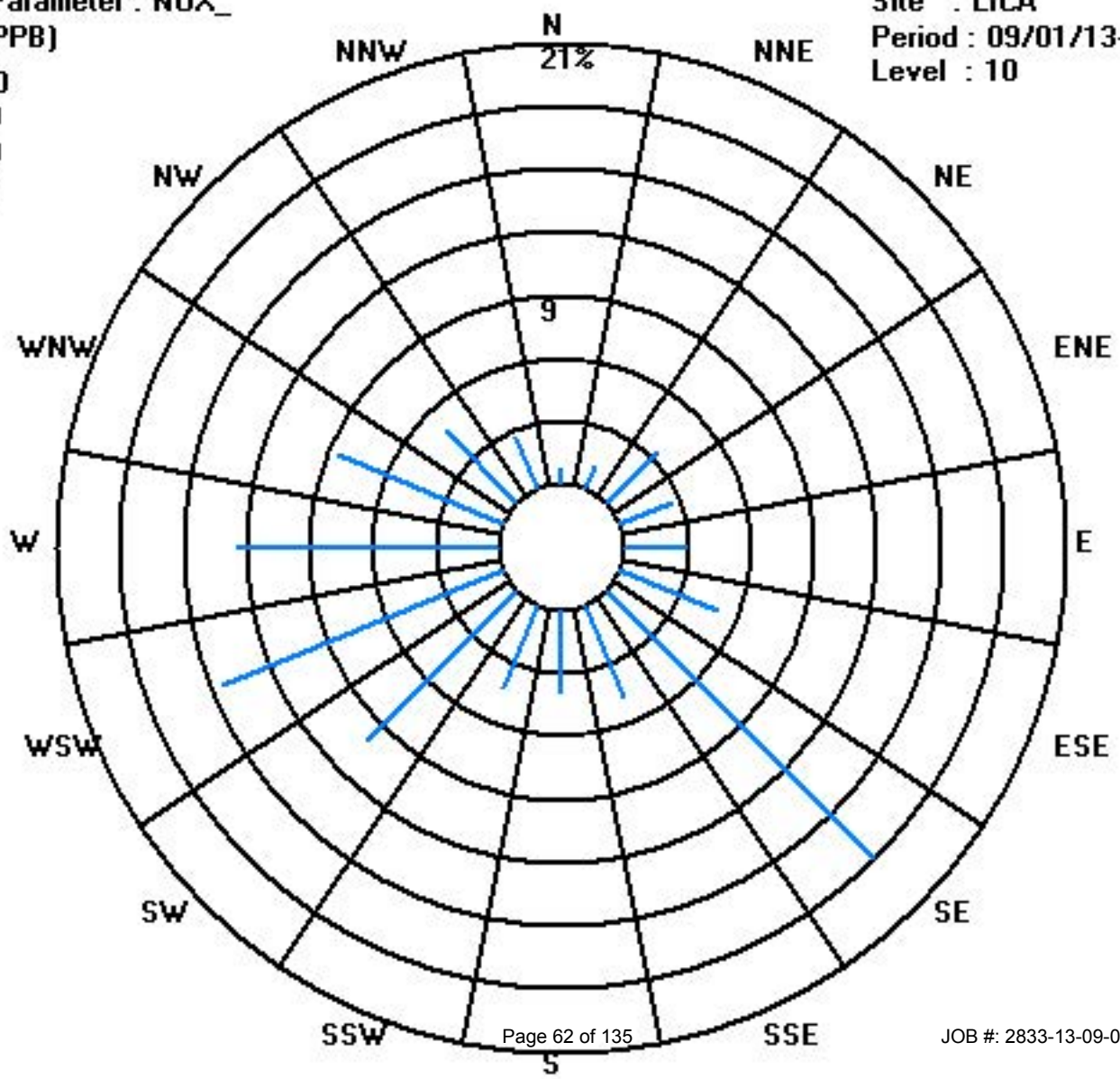
Distribution By Samples

Limit	Direction															Freq	
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW		NNW
< 50.0	5	8	23	18	20	34	123	33	27	29	69	98	85	58	33	18	681
< 110.0																	
< 210.0																	
>= 210.0																	
Totals	5	8	23	18	20	34	123	33	27	29	69	98	85	58	33	18	

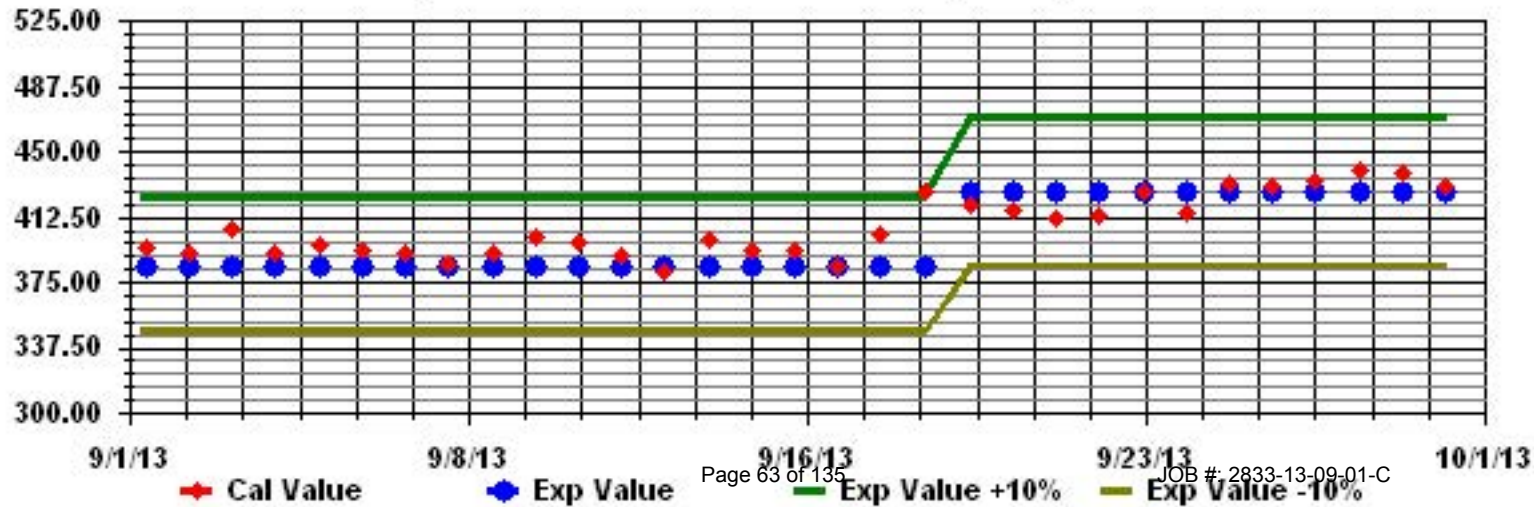
Calm : .00 %

Total # Operational Hours : 681

Class Limits (PPB)



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



Ozone

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - COLD LAKE

SEPTEMBER 2013

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	
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	8	4	1	1	1	2	12	S	27	34	40	43	43	43	44	43	42	37	32	29	28	27	24	44	24.8	24
2	21	11	5	3	1	1	2	S	22	29	38	39	41	42	42	45	54	53	39	30	24	24	21	19	54	26.3	24
3	19	19	19	19	16	15	S	20	18	18	20	21	23	25	24	22	22	21	19	16	16	16	16	17	25	19.2	24
4	14	12	8	7	4	S	3	9	22	28	33	40	48	55	62	68	69	69	59	38	22	12	8	3	69	30.1	24
5	2	2	1	1	S	1	1	4	12	25	34	41	42	44	43	42	41	38	34	18	13	8	5	5	44	19.9	24
6	3	3	3	S	2	1	2	4	12	27	29	31	31	32	32	32	31	31	29	29	23	14	11	9	32	18.3	24
7	10	8	S	7	6	7	6	7	20	26	25	25	25	27	26	24	28	23	15	12	14	15	13	9	28	16.4	24
8	7	S	14	12	5	2	2	6	13	20	28	33	36	40	40	40	39	41	37	24	18	12	10	7	41	21.1	24
9	S	4	2	1	1	4	10	10	13	16	21	25	25	23	25	31	37	29	28	26	18	10	9	S	37	16.7	24
10	6	4	4	2	2	4	3	9	12	18	29	35	37	37	38	39	39	37	35	28	19	15	S	9	39	20.0	24
11	6	5	3	3	2	1	1	6	10	15	22	26	32	37	41	43	43	39	28	17	16	S	11	9	43	18.1	24
12	7	5	4	4	2	1	3	17	23	30	40	45	49	52	54	53	52	50	45	42	S	43	46	44	54	30.9	24
13	41	40	31	22	15	16	12	13	24	30	40	48	48	39	29	29	36	35	35	S	20	16	10	9	48	27.7	24
14	6	3	5	19	22	15	9	11	20	21	22	24	26	27	29	29	31	31	S	18	20	19	17	16	31	19.1	24
15	16	16	15	14	12	9	5	12	17	20	30	35	37	37	37	38	38	S	31	30	29	27	26	26	38	24.2	24
16	27	27	26	25	25	23	22	22	21	25	28	31	34	37	38	40	S	37	33	31	27	22	23	27	40	28.3	24
17	30	30	30	32	32	30	30	29	31	32	36	33	32	30	26	S	19	19	20	18	17	17	16	15	36	26.3	24
18	14	13	12	10	10	7	7	9	10	Y	12	12	13	C	C	C	C	14	13	12	9	7	9	8	14	10.6	23
19	7	5	3	3	2	2	5	8	12	15	15	18	20	22	S	28	27	26	19	12	9	16	13	9	28	12.9	24
20	7	5	4	7	5	8	12	18	20	20	25	33	37	S	40	42	43	40	35	35	35	36	36	36	43	25.2	24
21	35	33	32	30	29	28	27	26	25	26	28	32	S	38	43	44	41	36	35	30	30	34	34	33	44	32.6	24
22	33	34	30	28	27	27	23	22	24	25	29	S	38	40	42	42	43	41	31	25	29	35	35	34	43	32.0	24
23	34	32	22	19	13	8	7	10	26	30	S	33	34	35	38	38	41	41	38	35	32	21	19	17	41	27.1	24
24	18	18	21	20	18	17	14	17	19	S	26	30	32	34	35	34	33	32	22	17	14	12	9	8	35	21.7	24
25	7	6	4	2	2	1	1	4	S	15	24	32	33	34	34	34	33	31	31	27	19	14	18	19	34	18.5	24
26	11	7	3	2	4	1	2	S	5	8	14	15	15	19	20	24	25	24	22	20	18	19	17	17	25	13.6	24
27	18	13	7	4	3	7	S	4	11	16	23	27	29	32	33	35	38	35	23	15	10	9	7	7	38	17.7	24
28	8	6	5	5	4	S	1	3	13	18	27	31	32	34	34	34	35	34	30	29	33	35	34	33	35	22.5	24
29	33	32	30	29	S	26	25	23	22	22	22	23	25	26	25	26	25	22	20	22	23	25	26	18	33	24.8	24
30	15	13	13	S	15	15	14	14	14	Y	10	12	15	17	18	19	16	19	15	12	11	12	12	13	19	14.3	23
HOURLY MAX	41	40	32	32	32	30	30	29	31	32	40	48	49	55	62	68	69	69	59	42	35	43	46	44			
HOURLY AVG	15.9	14.3	12.4	11.8	10.0	9.9	9.0	12.5	17.5	22.3	26.3	30.0	32.1	34.2	35.4	36.4	36.5	34.1	29.6	24.1	20.6	19.8	18.6	17.2			

STATUS FLAG CODES

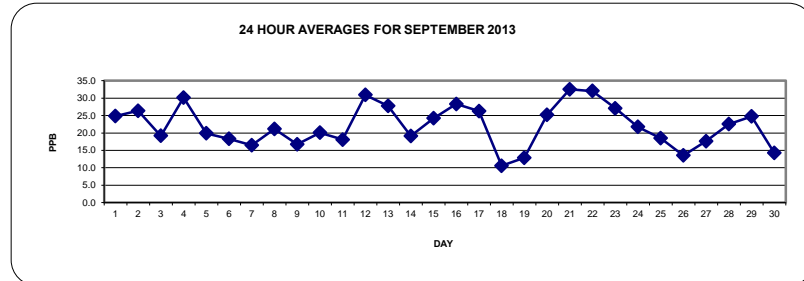
C	- CALIBRATION	Q	- QUALITY ASSURANCE
Y	- MAINTENANCE	R	- RECOVERY
S	- DAILY ZERO/SPAN CHECK	X	- MACHINE MALFUNCTION
P	- POWER FAILURE	O	- OPERATOR ERROR
G	- OUT FOR REPAIR	K	- COLLECTION ERROR

OBJECTIVE LIMIT:

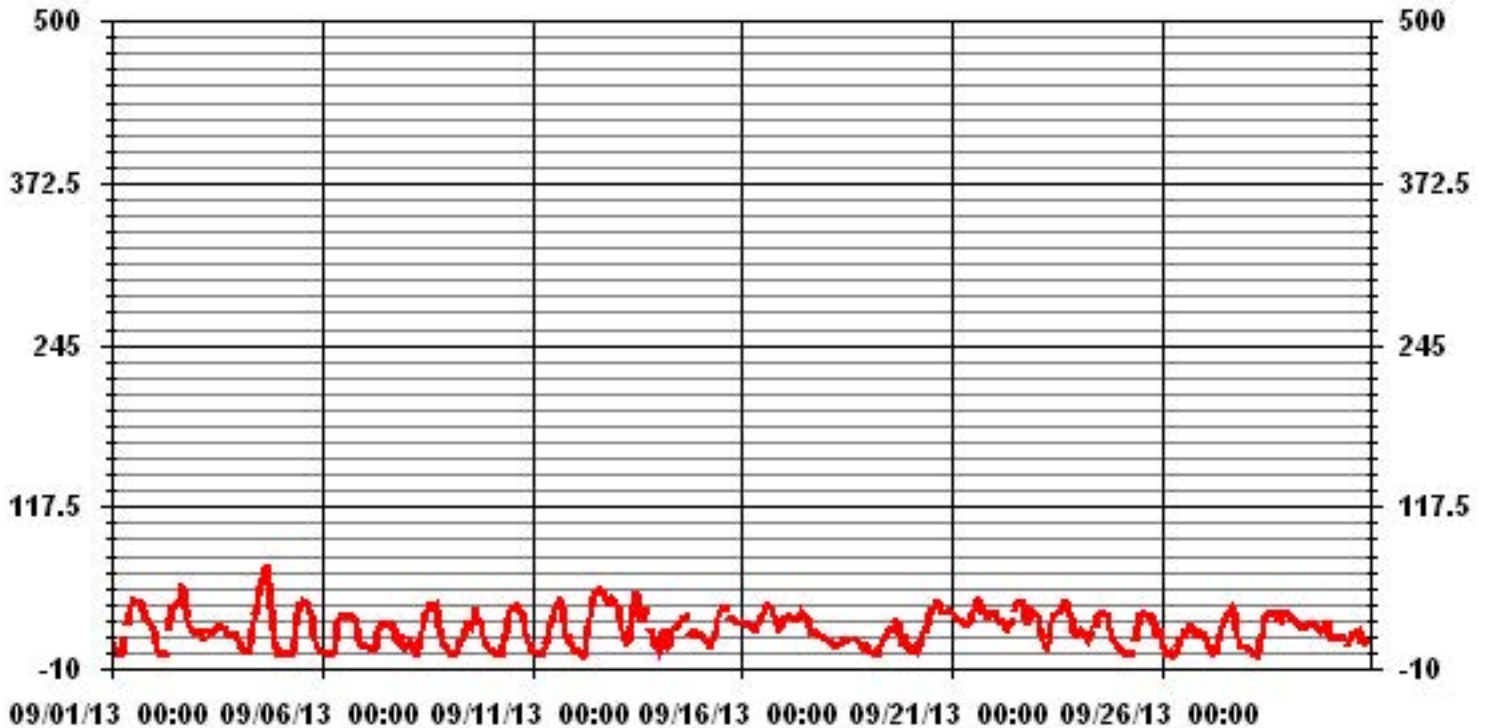
ALBERTA ENVIRONMENT: 1-HR 82 PPB

MONTHLY SUMMARY

NUMBER OF 1-HR EXCEEDENCES:	0					
NUMBER OF NON-ZERO READINGS:	684					
MAXIMUM 1-HR AVERAGE:	69	PPB	@ HOUR(S)	16, 17	ON DAY(S)	4
MAXIMUM 24-HR AVERAGE:	32.6	PPB			ON DAY(S)	21
					VAR-VARIOUS	
IZS CALIBRATION TIME:	30	HRS	OPERATIONAL TIME:	718	HRS	
MONTHLY CALIBRATION TIME:	4	HRS	AMD OPERATION UPTIME:	99.7	%	
STANDARD DEVIATION:	13.15		MONTHLY AVERAGE:	22.12	PPB	



01 Hour Averages



LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - COLD LAKE

SEPTEMBER 2013

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	11	10	8	2	1	1	8	15	S	32	38	42	44	45	45	45	44	44	42	34	31	29	28	26	45	27.2	24
2	25	17	11	6	2	3	6	S	24	35	40	41	44	43	44	46	58	56	48	35	29	26	23	20	58	29.7	24
3	20	19	20	19	19	17	S	20	20	20	22	22	24	26	25	24	24	23	22	18	16	17	17	18	26	20.5	24
4	17	16	12	9	6	S	5	18	27	31	37	45	53	58	69	70	71	72	68	49	36	17	15	5	72	35.0	24
5	3	3	2	2	S	1	1	7	20	29	41	42	45	46	46	44	42	40	38	25	18	12	9	7	46	22.7	24
6	5	4	6	S	4	2	4	7	25	30	31	31	33	34	33	33	32	32	30	30	28	21	16	13	34	21.0	24
7	16	11	S	10	10	14	11	13	27	28	27	26	27	28	27	29	30	26	23	16	15	18	18	12	30	20.1	24
8	10	S	16	15	8	4	5	9	17	24	32	35	38	42	42	42	40	42	41	34	26	20	14	10	42	24.6	24
9	S	7	2	2	1	10	11	12	14	19	24	27	26	24	28	34	38	36	30	27	26	14	15	S	38	19.4	24
10	10	4	7	4	4	9	6	11	17	X	34	37	38	38	40	40	40	39	37	33	25	18	S	12	40	22.9	23
11	9	9	5	4	3	2	3	8	13	20	24	30	35	40	43	45	45	43	36	21	22	S	15	14	45	21.3	24
12	12	7	6	6	4	3	8	23	25	38	44	47	52	54	55	54	53	52	49	44	S	45	46	46	55	33.6	24
13	43	41	36	29	20	26	18	18	28	35	47	49	49	46	32	33	37	37	S	25	19	13	13	49	31.8	24	
14	10	4	9	26	25	22	12	18	22	22	24	25	29	29	31	31	32	34	S	22	22	20	19	17	34	22.0	24
15	16	16	16	15	14	11	7	15	18	24	35	37	38	39	39	39	39	S	34	31	30	28	27	27	39	25.9	24
16	28	27	26	26	25	24	23	23	22	27	30	32	36	38	40	41	S	39	37	33	32	28	27	28	41	30.1	24
17	31	31	32	33	33	31	31	31	32	34	37	35	34	31	29	S	20	20	21	19	18	17	16	16	37	27.5	24
18	15	14	13	11	10	10	8	10	10	Y	Y	14	13	C	C	C	C	C	14	13	11	9	10	9	15	11.4	22
19	9	6	6	3	3	3	8	9	14	15	16	20	23	23	S	29	28	28	26	17	12	20	17	14	29	15.2	24
20	11	8	6	22	18	11	15	20	20	23	30	37	39	S	42	44	44	43	38	36	36	36	37	37	44	28.4	24
21	36	34	33	31	30	29	28	27	27	31	34	S	41	45	45	44	40	37	34	32	35	34	34	45	34.3	24	
22	35	35	33	29	28	28	25	24	25	27	33	S	39	42	43	43	44	43	40	30	34	37	36	35	44	34.3	24
23	35	34	27	26	19	14	11	21	30	31	S	34	35	36	41	40	43	44	40	37	35	25	21	21	44	30.4	24
24	22	22	22	22	20	18	18	18	22	S	28	32	34	35	36	35	34	34	29	21	18	14	12	11	36	24.2	24
25	10	7	5	4	3	1	2	7	S	18	32	33	34	35	35	34	34	33	32	30	26	18	23	22	35	20.8	24
26	15	11	5	5	7	2	3	S	7	10	16	15	19	20	21	26	26	26	23	22	20	21	18	18	26	15.5	24
27	19	18	10	6	5	9	S	10	14	21	27	29	31	33	35	37	39	39	31	22	15	11	11	9	39	20.9	24
28	11	8	7	6	6	S	3	5	18	21	31	31	34	35	35	35	37	36	32	30	35	35	35	34	37	24.3	24
29	34	32	31	30	S	27	25	24	23	22	23	25	26	27	26	26	26	25	22	23	24	27	27	24	34	26.0	24
30	16	14	14	S	16	16	15	17	18	Y	11	15	18	19	20	20	18	24	19	14	11	13	13	13	24	16.1	23
HOURLY MAX	43	41	36	33	33	31	31	31	32	38	47	49	53	58	69	70	71	72	68	49	36	45	46	46			
HOURLY AVG	18.4	16.2	14.7	14.4	12.3	12.4	11.4	15.7	20.7	25.5	30.2	31.8	34.1	36.0	37.4	38.0	37.9	37.5	33.7	27.6	24.4	22.4	21.1	19.5			

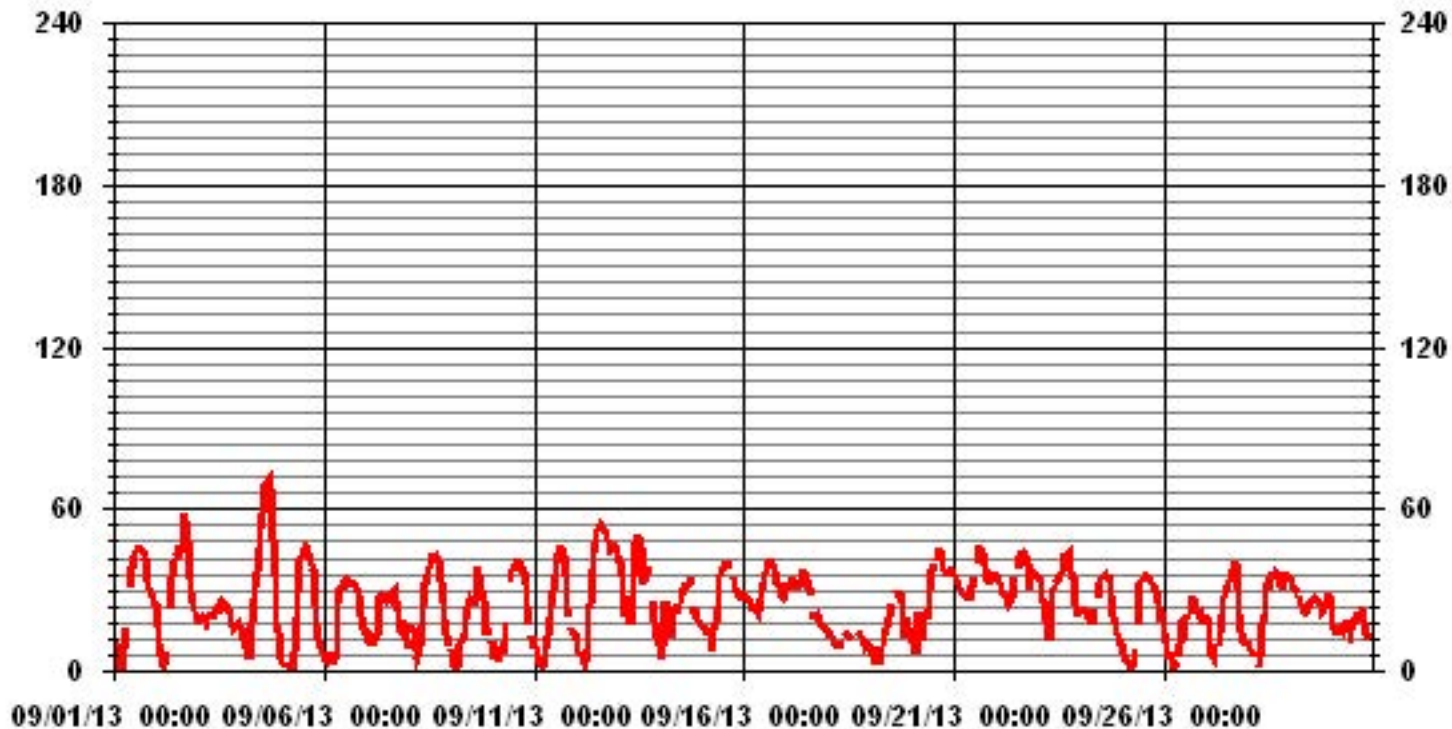
STATUS FLAG CODES

C	- CALIBRATION	Q	- QUALITY ASSURANCE
Y	- MAINTENANCE	R	- RECOVERY
S	- DAILY ZERO/SPAN CHECK	X	- MACHINE MALFUNCTION
P	- POWER FAILURE	O	- OPERATOR ERROR
G	- OUT FOR REPAIR	K	- COLLECTION ERROR

MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	681					
MAXIMUM INSTANTANEOUS VALUE:	72	PPB	@ HOUR(S)	17	ON DAY(S)	4
S CALIBRATION TIME:	30	HRS	OPERATIONAL TIME:	716	HRS	
MONTHLY CALIBRATION TIME:	5	HRS				
STANDARD DEVIATION:	13.10					

01 Hour Averages



— LICA O3MAX PPB

LICA
O3_ / WD Joint Frequency Distribution (Percent)

September 2013

Distribution By % Of Samples

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

Wind Parameter : WD
Instrument Height : 10 Meters

Limit	Direction															Freq	
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW		NNW
< 50	.73	1.16	3.36	2.63	2.92	4.97	17.98	4.82	3.50	3.94	10.08	13.74	12.28	8.62	4.82	2.48	98.09
< 110	.00	.00	.00	.00	.00	.00	.00	.00	.43	.29	.00	.58	.14	.43	.00	.00	1.90
< 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	.73	1.16	3.36	2.63	2.92	4.97	17.98	4.82	3.94	4.23	10.08	14.32	12.42	9.06	4.82	2.48	

Calm : .00 %

Total # Operational Hours : 684

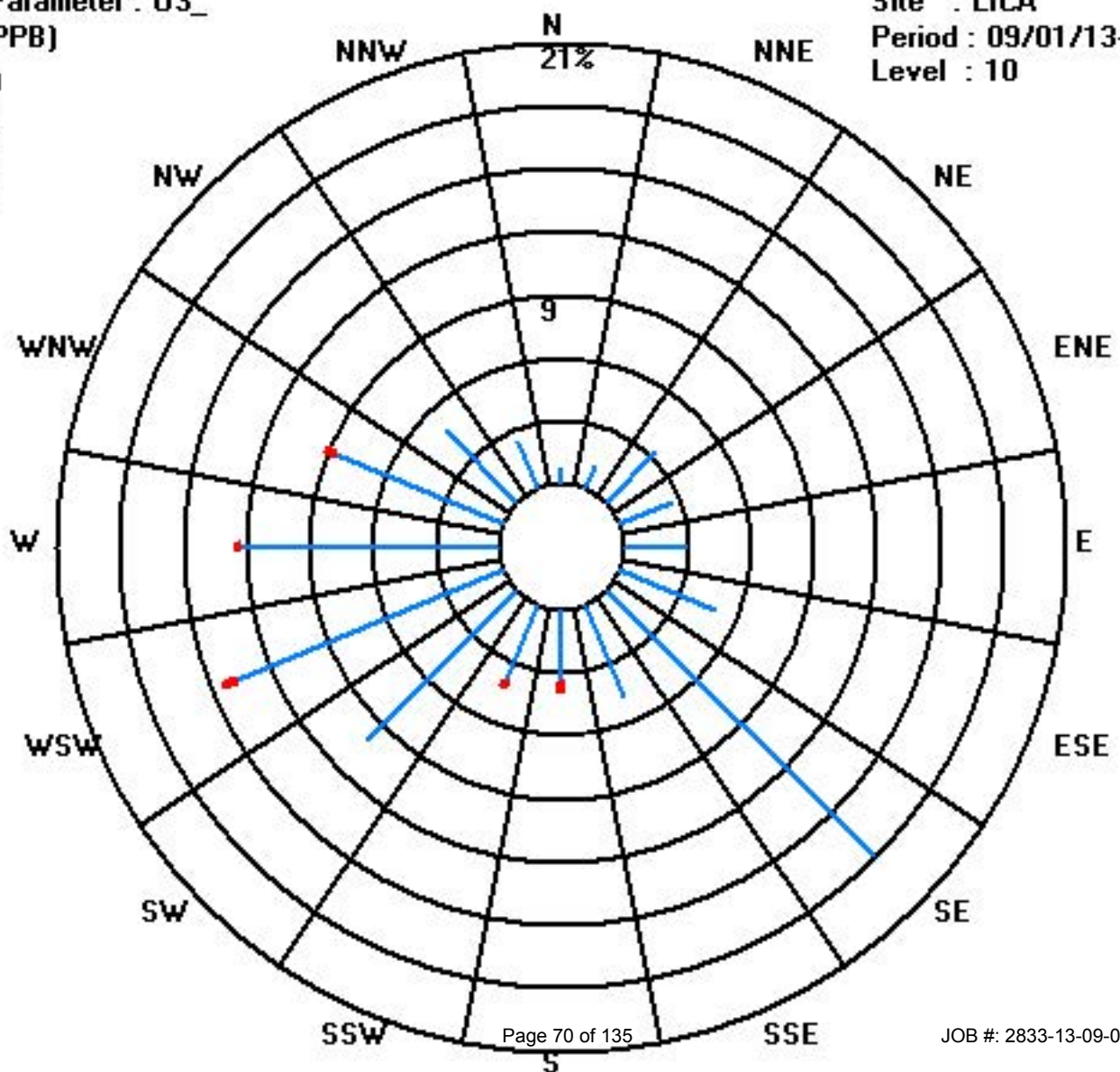
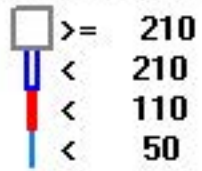
Distribution By Samples

Limit	Direction															Freq	
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW		NNW
< 50	5	8	23	18	20	34	123	33	24	27	69	94	84	59	33	17	671
< 110									3	2		4	1	3			13
< 210																	
>= 210																	
Totals	5	8	23	18	20	34	123	33	27	29	69	98	85	62	33	17	

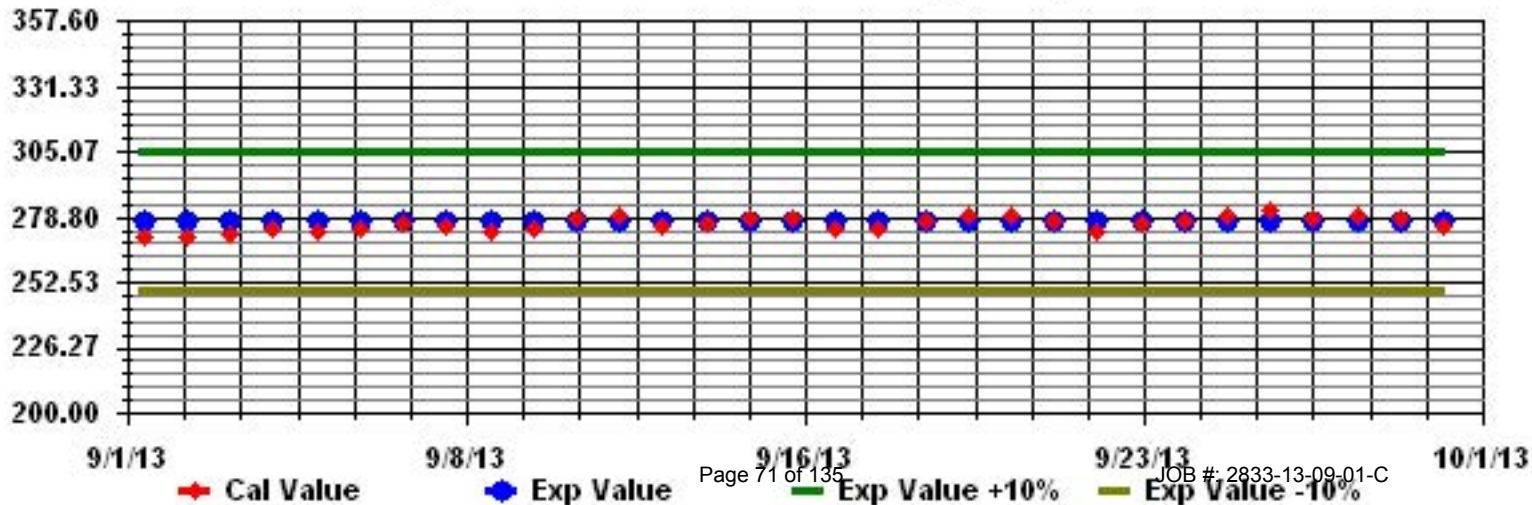
Calm : .00 %

Total # Operational Hours : 684

Class Limits (PPB)



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



Ambient Temperature

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - COLD LAKE

SEPTEMBER 2013

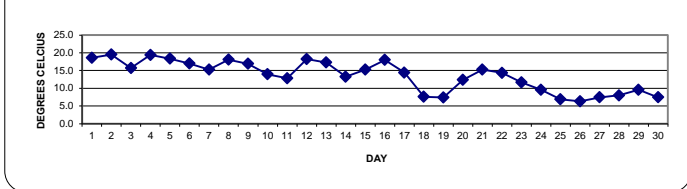
AMBIENT TEMPERATURE hourly averages (Degrees C)

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	23:00	DAILY	24-HOUR	RDGS.
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	MAX.	AVG.	
HOUR END	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00				
DAY																												
1	12.8	12.5	11.5	10.4	9.6	9.3	11.2	15.6	18.3	20.6	22.2	23.5	24.6	25.4	26.1	26.3	26.1	25.4	23.6	20.6	19	18.4	17.3	16.1	26.3	18.6	24	
2	14.9	12.7	11.2	10.3	9.5	9.3	11.4	15.6	18.6	21.4	23.9	25.8	27.2	28.2	28.8	29	28	26.9	24.7	20.8	17.9	19.2	17.8	15.8	29.0	19.5	24	
3	14.2	13	12.2	11.5	10.1	9.2	9.4	10.5	11.8	13.4	15	16.8	18.5	20.1	21.2	22.3	22.6	22.5	20.3	17.9	16.8	16.1	15.7	15.3	22.6	15.7	24	
4	14.2	13.5	12.5	11.8	11.3	10.6	11.8	16.6	20.3	21.5	22.8	24	25.8	27	28.1	28.7	28.7	28.1	25.4	20.2	17.9	16	14.6	13.6	28.7	19.4	24	
5	12.7	11.8	11.3	10.9	10.5	10.2	11.1	15.5	19.2	22.7	25	25.4	25.6	26.8	27.3	27.4	26.8	26	23.4	18	15.1	13.8	12.5	11.8	27.4	18.4	24	
6	11.7	11.9	11.3	10.9	10.6	10.3	11	15.2	16.9	19.6	20.7	21.3	22.7	23.5	24	23.6	23.2	22.9	21.3	19.3	17.9	14.3	12.4	11.8	24.0	17.0	24	
7	11	10.5	10.2	10.1	10.3	10.1	10	12.2	15.5	16.4	17.2	18.1	20.1	21.4	21.7	20.7	18.8	17.6	16.7	15.7	15.6	15.4	15.4	15.2	21.7	15.2	24	
8	15.1	14.9	15.1	14.2	12.3	11.3	11.6	15	18	19.7	21.3	21.9	22.7	24	24	24.7	24.4	23.8	22.2	18.6	16.8	15.1	13.9	13	24.7	18.1	24	
9	12.4	11.8	11.1	10.3	9.6	9.9	12.3	14.6	17	19.3	21.6	23.4	23.8	24.5	25.1	25	24.3	23.3	21.1	18.2	14.9	12	10.8	9.7	25.1	16.9	24	
10	9	8.3	8.1	7.2	6.5	6.6	6.6	10.2	12.9	16.5	19.7	21.1	21.5	21.6	21.5	22.3	22.1	21.5	19.3	15.4	11.3	9.8	8.4	7	22.3	13.9	24	
11	6.1	5.2	4.3	3.6	3	2.9	3.8	8.5	12.5	16.2	18.3	19.5	20.5	21.5	22.5	22.8	22.8	18.3	13.8	11.6	10.3	9	8	22.8	12.8	24		
12	7.2	6.7	6.3	6	5.8	5.5	6.8	12.2	15.8	19.6	22.6	24.1	25.6	27.4	28.8	30	29.8	28.3	25.3	22.3	20.5	20.2	20.9	20	30.0	18.2	24	
13	18.4	17.5	14.2	11.8	10.4	10	10.2	14.8	18.2	19.9	22.4	23	25.2	25.5	25.4	24.2	23.4	22.5	20.1	16.3	12.9	11	9.5	8.3	25.5	17.3	24	
14	7.4	6.7	6.4	9.9	11.6	9.9	8.1	11.8	13.3	14.2	15.5	16.7	17.4	17.7	18.8	19.1	19.1	18.4	16.2	13	12.3	12.5	11.8	10.8	19.1	13.3	24	
15	10.2	10	9.4	8.6	8.1	7.1	6.7	10.2	12.7	15.6	19.3	21.3	21.7	21.9	21.9	22.2	21.9	21.3	19.1	17.5	16.5	15.3	14.1	13.3	22.2	15.2	24	
16	13	12.4	11.9	11.9	11.7	11.5	11.6	13.1	14.4	17.6	19.9	21.6	23.3	24.7	25.7	26.2	26.2	24.8	23	21.2	18.9	16.2	15.7	15.9	26.2	18.0	24	
17	15.7	14.9	15	14.6	13.5	12.3	12.3	13.9	15.4	16.4	17.5	17.1	16.9	16.9	16.5	15.8	15.1	14.5	13.6	12.9	12.2	11.5	11	10.7	17.5	14.4	24	
18	10.2	9	7.4	5.7	5.2	4.8	4.5	6.3	7.2	8.6	9.2	9.2	9.7	9.8	9.9	9.6	9.6	9.2	8.4	7.7	6.5	5.6	5.2	4.4	10.2	7.6	24	
19	3.2	1.8	0.8	0.2	0.1	1.1	2.6	4.1	5.2	6.4	8.4	10.5	12.3	13.8	15.1	16	16.2	15.7	11.5	8.1	6.5	7.1	6.1	4.8	16.2	7.4	24	
20	3.5	2.7	2	2.1	1.6	3.4	4.6	7.4	9.3	11.7	15.1	18.5	19.7	20.5	21	21.6	21.6	20.6	17.8	16.3	15.2	14.1	13.4	12.8	21.6	12.4	24	
21	12.2	11.4	10.5	9.8	9.2	9	8.7	9.7	10.8	13.2	16	18.2	20.3	21.6	22.5	22.2	21.3	19.9	19	17.8	16.2	16.9	15.9	14.3	22.5	15.3	24	
22	14	13.7	12.7	11.6	10.8	9.8	8.8	10	12.2	14.2	16.2	17.8	19	19.5	20.3	21	20.3	19.2	14.6	12	11.9	12.2	11.9	10.9	21.0	14.4	24	
23	10.4	9.6	7.6	5.5	4.4	3.7	3.6	7	11	13	14.5	16	16.5	17	17.3	17.7	18.8	18.8	16.6	14.6	12.1	9	7.9	6.8	18.8	11.6	24	
24	6.8	6.6	7.8	6.8	5.7	5.1	4.9	6.6	9.1	11.8	14	15.5	17.1	17.4	17.1	17.3	16.3	15.1	10.3	7	5.4	3.5	2.1	0.9	17.4	9.6	24	
25	-0.1	-0.9	-1.2	-1.5	-2	-2.3	-2.3	1	5.5	9.9	13.7	14.9	15.3	15.3	15.8	15.3	14.7	13.9	11.4	9.2	6.2	3.6	4.3	4.8	15.8	6.9	24	
26	1.6	0.5	-0.3	-0.6	0.1	-0.1	-0.1	1.7	4.6	7	9.5	10.1	10.6	10.6	11.1	12.3	11.7	9.6	9.1	9.2	8.8	8.5	8.2	7.8	12.3	6.3	24	
27	7.2	5.4	3.6	2.9	2.5	1.6	1	2.6	6.1	8.4	11.1	13	14.2	15.3	15.9	16.1	16.1	14.8	9.8	5.7	3.3	1.7	0.5	-0.4	16.1	7.4	24	
28	-1.1	-1.1	-1.2	-1.7	-0.7	-1.3	-1.7	1.9	7.5	10	12.5	14.5	15.7	16.1	16.2	16	15.6	13.8	12.1	10.6	10.5	10.1	9.4	8.5	16.2	8.0	24	
29	8.2	7.5	7.1	6.5	6.3	6	5.7	6.5	8.1	9.6	12.2	14	14.8	15.6	14.5	14.3	12.8	10	8.4	8.4	8.3	8.2	8.3	7.9	15.6	9.6	24	
30	6.4	5.7	5.4	5.6	6	6.2	6.2	6.5	6.4	6.2	6.8	7.1	8.4	9.6	10.3	10.1	9.5	9.1	8.3	8.1	7.9	7.6	7.6	7.4	10.3	7.4	24	
HOURLY MAX	18.4	17.5	15.1	14.6	13.5	12.3	12.3	16.6	20.3	22.7	25.0	25.8	27.2	28.2	28.8	30.0	29.8	28.3	25.4	22.3	20.5	20.2	20.9	20.0				
HOURLY AVG	9.6	8.9	8.1	7.6	7.1	6.8	7.1	9.9	12.5	14.7	16.8	18.1	19.2	20.0	20.5	20.7	20.3	19.3	17.0	14.5	12.9	11.8	11.1	10.2				

STATUS FLAG CODES

C	- CALIBRATION	Q	- QUALITY ASSURANCE
Y	- MAINTENANCE	R	- RECOVERY
S	- DAILY ZERO/SPAN CHECK	X	- MACHINE MALFUNCTION
P	- POWER FAILURE	O	- OPERATOR ERROR
G	- OUT FOR REPAIR	K	- COLLECTION ERROR

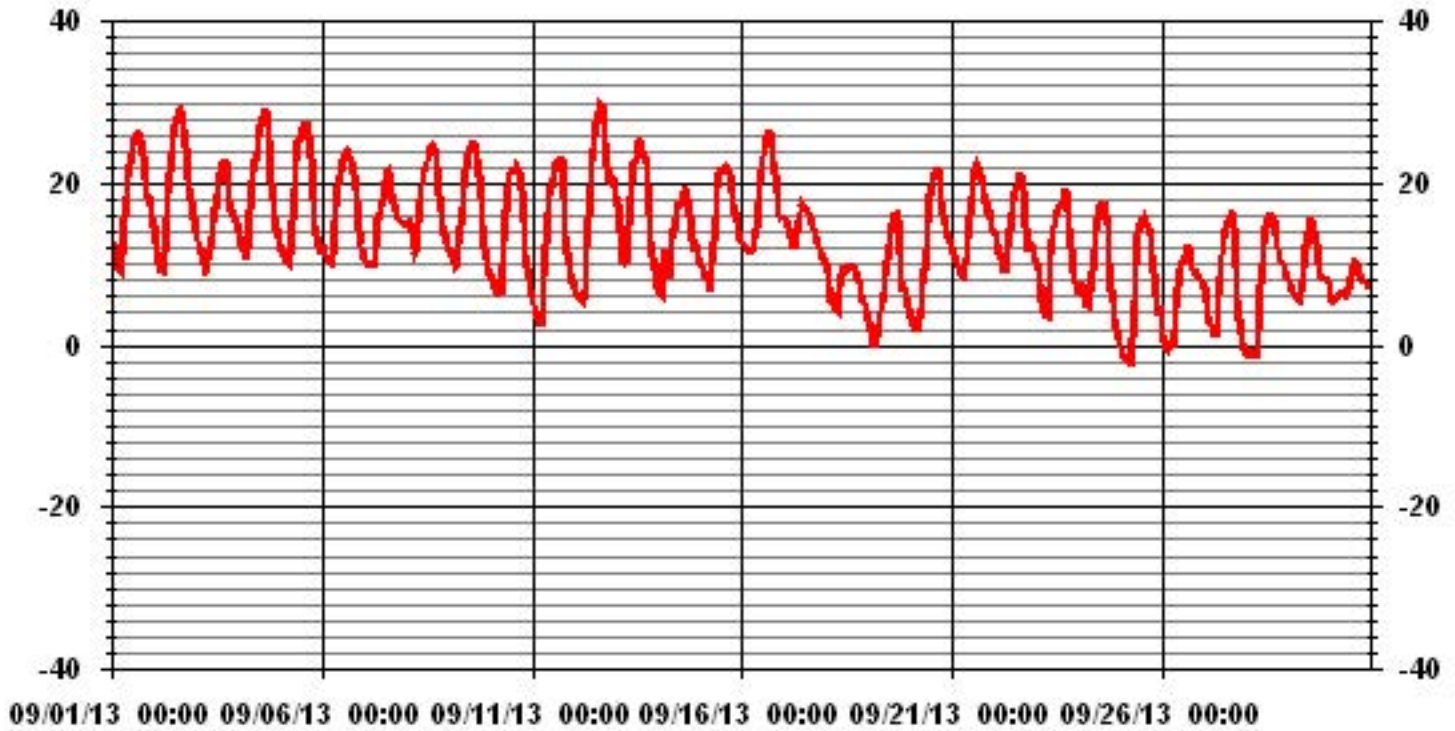
24 HOUR AVERAGES FOR SEPTEMBER 2013



MONTHLY SUMMARY

MINIMUM 1-HR AVERAGE:	-2.3 °C	@ HOUR(S)	5, 6	ON DAY(S)	25
MAXIMUM 1-HR AVERAGE:	30.0 °C	@ HOUR(S)	15	ON DAY(S)	12
MAXIMUM 24-HR AVERAGE:	19.5 °C			ON DAY(S)	2
				VAR-VARIOUS	
CALIBRATION TIME:	0 HRS	OPERATIONAL TIME:	720 HRS		
		AMD OPERATION UPTIME:	100.0 %		
STANDARD DEVIATION:	6.86	MONTHLY AVERAGE:	13.53 °C		

01 Hour Averages



Relative Humidity

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - COLD LAKE

SEPTEMBER 2013

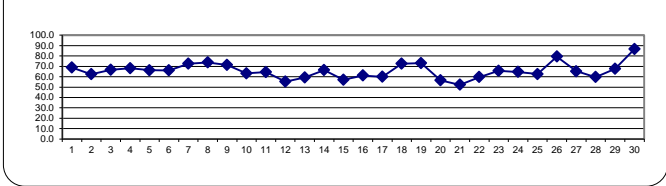
RELATIVE HUMIDITY hourly averages (%)

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	24-HOUR	
HR START	HR 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	96	96	96	96	96	96	92	82	72	61	55	51	47	45	43	39	41	42	51	63	71	72	74	77	96	68.9	24
2	81	91	94	95	95	95	89	81	72	64	55	44	36	31	28	27	32	34	36	51	63	66	67	71	95	62.4	24	
3	73	75	75	79	83	84	83	74	70	65	59	54	51	48	46	47	48	50	61	71	73	76	77	78	84	66.7	24	
4	82	83	85	87	89	91	87	72	58	53	51	50	47	44	43	41	41	44	54	75	83	89	93	93	93	93	68.1	24
5	93	94	95	95	95	95	94	86	74	54	42	38	33	33	31	30	30	34	43	66	78	82	86	89	95	66.3	24	
6	90	88	92	93	93	94	91	76	71	57	54	50	42	38	37	37	39	40	47	54	61	76	82	84	94	66.1	24	
7	86	87	86	86	84	86	89	82	61	59	57	57	52	46	48	55	60	68	78	82	82	83	83	86	89	72.6	24	
8	86	87	84	88	94	95	96	88	72	66	60	57	54	50	50	49	50	52	60	75	81	87	93	95	96	73.7	24	
9	94	95	95	95	95	96	97	88	77	65	58	53	52	50	48	44	38	43	47	56	72	82	85	88	97	71.4	24	
10	90	91	91	93	94	93	93	86	77	62	43	31	29	28	30	30	29	30	37	49	68	76	80	85	94	63.1	24	
11	89	90	91	92	92	92	89	78	68	55	44	40	36	33	30	29	28	31	49	66	74	78	84	89	92	64.5	24	
12	90	90	89	89	88	89	83	65	54	46	39	37	35	33	30	28	28	32	40	48	52	50	45	46	90	55.3	24	
13	52	55	69	78	83	84	84	68	56	51	47	48	44	43	39	37	32	35	41	56	70	78	83	88	88	59.2	24	
14	90	89	91	82	75	82	88	74	67	59	54	51	45	45	43	43	43	47	58	71	73	72	75	79	91	66.5	24	
15	80	79	81	83	84	87	88	75	64	56	43	38	36	37	35	31	31	35	42	45	49	53	57	60	88	57.0	24	
16	61	64	67	69	71	73	74	70	67	60	55	52	48	45	42	40	42	47	53	60	70	80	82	77	82	61.2	24	
17	77	78	76	70	72	74	70	62	54	50	48	48	49	49	49	51	52	52	54	57	59	60	62	65	78	59.9	24	
18	67	71	76	83	86	87	88	80	75	68	64	62	61	60	60	61	61	64	68	71	78	82	82	86	88	72.5	24	
19	89	91	92	93	93	94	92	87	81	75	66	59	53	49	45	42	43	46	64	74	79	79	83	86	94	73.1	24	
20	89	91	92	89	88	86	81	70	63	57	49	38	33	32	32	28	27	31	40	45	47	50	50	51	92	56.6	24	
21	52	55	59	62	65	67	69	66	63	57	50	45	40	37	32	34	37	44	46	51	56	53	56	59	69	52.3	24	
22	60	66	78	84	87	89	91	85	76	66	54	42	36	35	32	29	30	36	53	60	59	59	61	65	91	59.7	24	
23	67	70	77	85	88	88	89	83	68	60	55	50	50	49	47	46	43	43	49	57	67	78	82	86	89	65.7	24	
24	86	86	82	85	89	90	90	83	74	60	50	43	36	31	31	29	31	34	52	65	72	79	85	88	90	64.6	24	
25	88	90	91	91	90	90	90	84	73	56	44	38	35	31	31	34	35	35	42	50	64	73	73	73	91	62.5	24	
26	85	88	90	92	93	93	94	94	87	72	69	69	68	67	58	57	74	76	74	77	77	78	80	94	79.4	24		
27	83	89	92	95	96	97	97	96	84	70	53	41	35	32	30	28	24	29	43	57	66	71	77	82	97	65.3	24	
28	86	85	84	89	89	89	89	76	68	63	53	44	39	34	32	33	33	38	44	49	50	52	55	59	89	59.7	24	
29	58	61	62	64	65	68	70	68	65	63	56	51	50	48	50	53	57	79	91	92	91	89	86	88	92	67.7	24	
30	91	92	92	91	91	91	92	92	93	94	92	90	84	78	74	76	81	81	89	85	84	82	81	82	94	86.6	24	
HOURLY MAX		96	96	96	96	96	97	97	96	94	94	92	90	84	78	74	76	81	81	91	92	91	89	93	95			
HOURLY AVG		80.4	82.2	84.1	85.8	86.8	87.8	87.3	79.0	70.4	62.0	54.1	49.0	45.2	42.7	41.2	40.3	40.8	45.0	53.6	62.5	69.0	72.8	75.2	77.8			

STATUS FLAG CODES

C	- CALIBRATION	Q	- QUALITY ASSURANCE
Y	- MAINTENANCE	R	- RECOVERY
S	- DAILY ZERO/SPAN CHECK	X	- MACHINE MALFUNCTION
P	- POWER FAILURE	O	- OPERATOR ERROR
G	- OUT FOR REPAIR	K	- COLLECTION ERROR

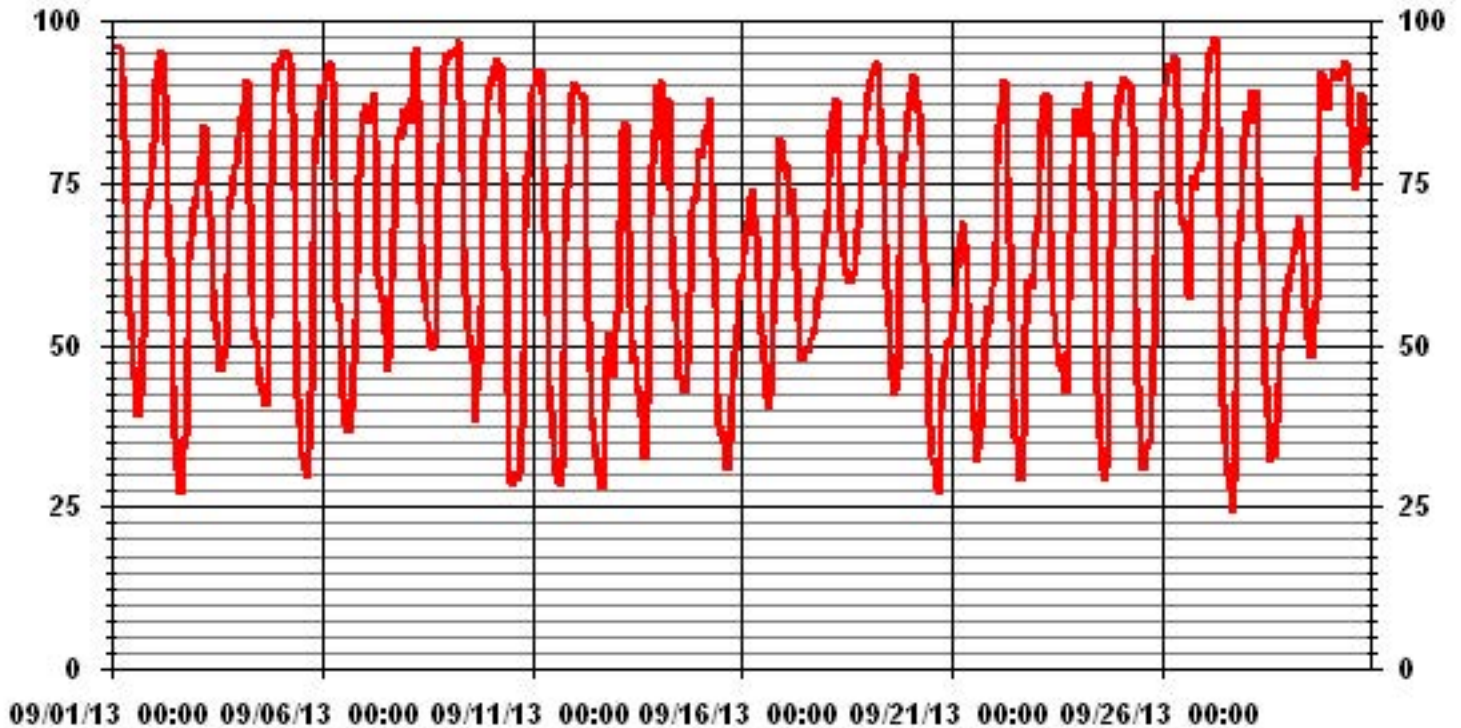
24 HOUR AVERAGES FOR SEPTEMBER 2013



MONTHLY SUMMARY

MAXIMUM 1-HR AVERAGE:	97	%	@ HOUR(S)	VAR	ON DAY(S)	9, 27
MAXIMUM 24-HR AVERAGE:	86.6	%			ON DAY(S)	30
CALIBRATION TIME:	0	HRS	OPERATIONAL TIME:	720	HRS	
STANDARD DEVIATION:	20.36		AMD OPERATION UPTIME:	100.0	%	
			MONTHLY AVERAGE:	65.62	%	

01 Hour Averages



Vector Wind Speed

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - COLD LAKE

SEPTEMBER 2013

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

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	DAILY MAX.	24-HOUR AVG.	RDGS.
1	1.1	1.2	0.9	0.8	0.2	0.9	0.5	1.4	3.9	5.3	5.8	5.4	5.9	6.7	6.1	5.7	5.7	5.8	5.6	5.2	5.7	7.9	5.2	2.1	7.9	3.1	24
2	1.4	0.2	0.9	0.4	0.2	0.4	0.1	3.3	3.7	4.1	4.6	5.7	6.6	8.7	11.7	11	11.1	9.2	5.8	3	2.5	7.5	8.7	9.6	11.7	3.2	24
3	7.6	6.5	7	5.8	3.7	5.4	4.4	6.1	4.3	3.4	3.5	3.5	3.6	3.6	5.2	4.1	4	3.7	3.3	4.5	6.2	7	7.8	5.5	7.8	4.1	24
4	3.7	1.5	1.3	1.7	2	0.8	0.7	2	4.4	7.2	5.9	7.5	6.1	7.2	6.8	7.3	6.4	4.9	3.3	2.4	0.6	0.6	0.8	0.6	7.5	2.5	24
5	0.5	0.7	0.6	0.5	0.9	0.2	0.3	1.9	2.5	3.9	3.1	10.2	8	6.9	8.1	7.8	8.8	6.2	4.4	0.6	1.1	0.6	0.7	0.1	10.2	3.3	24
6	0.6	0.9	1.8	1	1.7	1.1	1.5	1.6	2.7	4.3	5.3	6.3	6.6	6.7	6	6	4.8	5.4	4.6	4.4	2.8	0.3	0.7	0.1	6.7	3.2	24
7	0.9	0.5	0.8	0.9	1	0.6	1.2	0.7	2.4	3.5	4.1	4.3	5.1	7	6.5	6.7	6.4	2.8	0.8	1.6	1.6	1.5	0.3	0.3	7.0	2.6	24
8	0.2	1.1	4.6	1.1	0.9	1	1.2	1.8	3.4	3.6	3.6	5.5	6.7	6.2	7.3	6	6.1	6.4	3.1	1.7	2	1.2	1.4	1.8	7.3	3.2	24
9	1.3	0.4	0.3	0.5	1	2.7	4	5.2	7.3	8	7.5	10.7	11.3	11.7	11.3	13.4	12.3	10.7	6.6	4.9	2.4	1.1	0.9	0.6	13.4	5.7	24
10	0.7	0.8	0.4	0.8	0.6	1.3	1.6	5.1	5.7	6.6	9.1	13.8	13.4	13.3	11.6	10.8	12	8	5.9	3.6	1.4	2.8	1.5	1.7	13.8	5.5	24
11	0.8	0.9	0.7	0.8	1.3	0.7	1.3	1.7	1	0.7	2	4.4	4.3	5.8	4.7	4.2	4.1	2.5	1.8	1.3	1.1	0.7	0.5	0.8	5.8	2.0	24
12	0.3	0.6	0.9	0.3	0.9	1	1.4	4.7	4.3	4.4	4.8	6.3	6.6	5.7	7	6.3	6.2	4.8	4	3.8	2.5	3.4	5.5	5.1	7.0	3.8	24
13	3.3	3.1	1.5	1.2	0.3	0.5	0.3	1.6	3.7	4.2	2.5	6.6	5.3	10.1	12.5	14.4	13	9.7	5.1	0.9	1.1	0.2	0.6	0.5	14.4	4.3	24
14	0.2	0.5	1.1	5.3	3.6	0.4	2.7	1.4	5	4.7	3.5	2.6	5.5	5.6	4.1	4.6	4.9	5.1	2.8	2.4	3.5	6.2	6.3	6.3	6.3	3.7	24
15	6.6	6.6	4.4	5.4	5.3	3.3	1.5	4.3	7.2	7	6.6	9.8	14.6	12.4	15.7	14.3	12.9	9.3	6.7	8.9	10	9.7	8.2	7.8	15.7	8.3	24
16	10.4	10.2	11	11.7	11.8	11.9	10.6	11.8	11.2	11.9	12.4	13.1	16	15.3	13.6	12.9	11.3	7.9	5.8	5.8	1.4	2.2	5	5.6	16.0	10.0	24
17	6.3	7.2	10.3	11.8	8.5	7.2	6.9	7.2	13.7	17.7	18.7	18.9	18.7	16.8	18.3	17.4	17.2	15.3	14.2	11.2	10.1	12.8	11	7.1	18.9	12.7	24
18	6.5	8.1	6.8	4.5	3	2.5	4.2	6.6	9.2	9.5	8.1	8.5	10.1	9.2	9.8	9.9	10	7.5	5.4	6.1	4.1	3.4	3.6	3.5	10.1	6.7	24
19	2.8	3.5	1.4	3.7	2.6	2.5	2.6	2.4	5.3	6.7	5.8	5.2	4.8	5.6	4.5	4.9	3.1	2.6	1.6	1.1	1.5	4	1.8	0.9	6.7	3.4	24
20	0.3	0.1	0.7	1	1.6	3.5	3.8	9.1	10.2	10	10.3	11.5	15.3	13.5	11.8	12.4	11.7	7.8	5.6	7.4	10.1	9.5	10.8	10.8	15.3	7.9	24
21	10.9	11.8	12.2	10.4	11.2	7.9	6.2	9.4	9.6	9.5	8.5	8.9	9.3	9.3	8.8	9.2	8.8	4.9	4.4	3.5	3.4	8.7	8.3	3.7	12.2	8.3	24
22	6.6	7.6	6.6	6.5	8.1	5.7	4.2	5.5	7.5	7.9	7.2	8.5	8.4	6.6	4.5	4.6	4.1	2.8	2.1	3.6	4.4	6.8	7.1	5.9	8.5	6.0	24
23	5.2	4.4	1.4	1	0.6	0.4	0.4	1.5	5	5.6	5.7	4	2.9	4.9	5.5	3.9	3.3	3.5	6.2	4.9	3.9	3.3	4.1	1.4	6.2	3.5	24
24	4.5	4	6.2	5.1	5.3	6.3	4.8	5.9	7.6	7.3	7.7	7.7	6.8	8.8	8.3	7.9	6.9	5.4	2.1	1.3	1.1	0.9	0.7	0.9	8.8	5.1	24
25	0.8	1.5	1	0.1	0.2	0.6	2.1	2.4	4.1	3.7	7.6	9.5	9.6	9.9	7.5	8.7	6.5	6.8	5	3.3	2.4	0.6	4.6	3	9.9	4.2	24
26	1.8	1.4	2.3	2.8	4.7	1.9	2.2	1.5	2.1	1.6	10.1	12.8	12.2	13.1	13.4	12.3	12.5	7.3	6.3	5.5	3.6	6.3	4.7	4.8	13.4	6.1	24
27	3.1	4	3.5	4.9	4.3	5.6	1.6	0.8	1.9	5.4	5.3	6.1	5.2	6.8	6	5.9	7.5	4.1	0.6	0.6	1.1	0.7	0.3	1	7.5	3.6	24
28	0.6	0.1	0.5	1.3	0.4	0.6	0.5	0.6	1.9	4.4	5	6.7	7.1	4.9	4.9	3.5	6.3	4	3.7	3.3	7.8	10.6	8.6	6.5	10.6	3.9	24
29	6.9	6.1	5.8	5.9	6.2	5.9	6.7	7	6.7	7.8	7.4	2	1.4	5	9.6	10.8	11.3	8.1	10.8	11.2	9.1	8.9	9.1	9.8	11.3	7.5	24
30	8.8	6.7	6.8	7.9	4.8	4.5	2.2	4.1	3.8	3.4	2.2	4.2	2.9	2.6	2.1	4.7	5.2	4.9	6.3	8.7	7.1	8.8	9.2	11.1	11.1	5.5	24
HOURLY MAX	10.9	11.8	12.2	11.8	11.8	11.9	10.6	11.8	13.7	17.7	18.7	18.9	18.7	16.8	18.3	17.4	17.2	15.3	14.2	11.2	10.1	12.8	11.0	11.1			
HOURLY AVG	3.5	3.4	3.5	3.5	3.2	2.9	2.7	4.0	5.4	6.1	6.5	7.7	8.0	8.3	8.4	8.4	8.1	6.2	4.8	4.2	3.9	4.6	4.6	4.0			

STATUS FLAG CODES

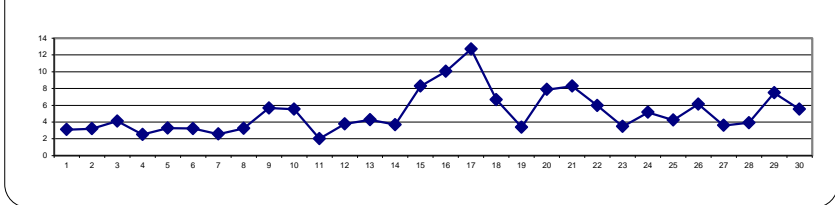
C	- CALIBRATION	Q	- QUALITY ASSURANCE
Y	- MAINTENANCE	R	- RECOVERY
S	- DAILY ZERO/SPAN CHECK	X	- MACHINE MALFUNCTION
P	- POWER FAILURE	O	- OPERATOR ERROR
G	- OUT FOR REPAIR	K	- COLLECTION ERROR

LAST CALIBRATION: November 28, 2012

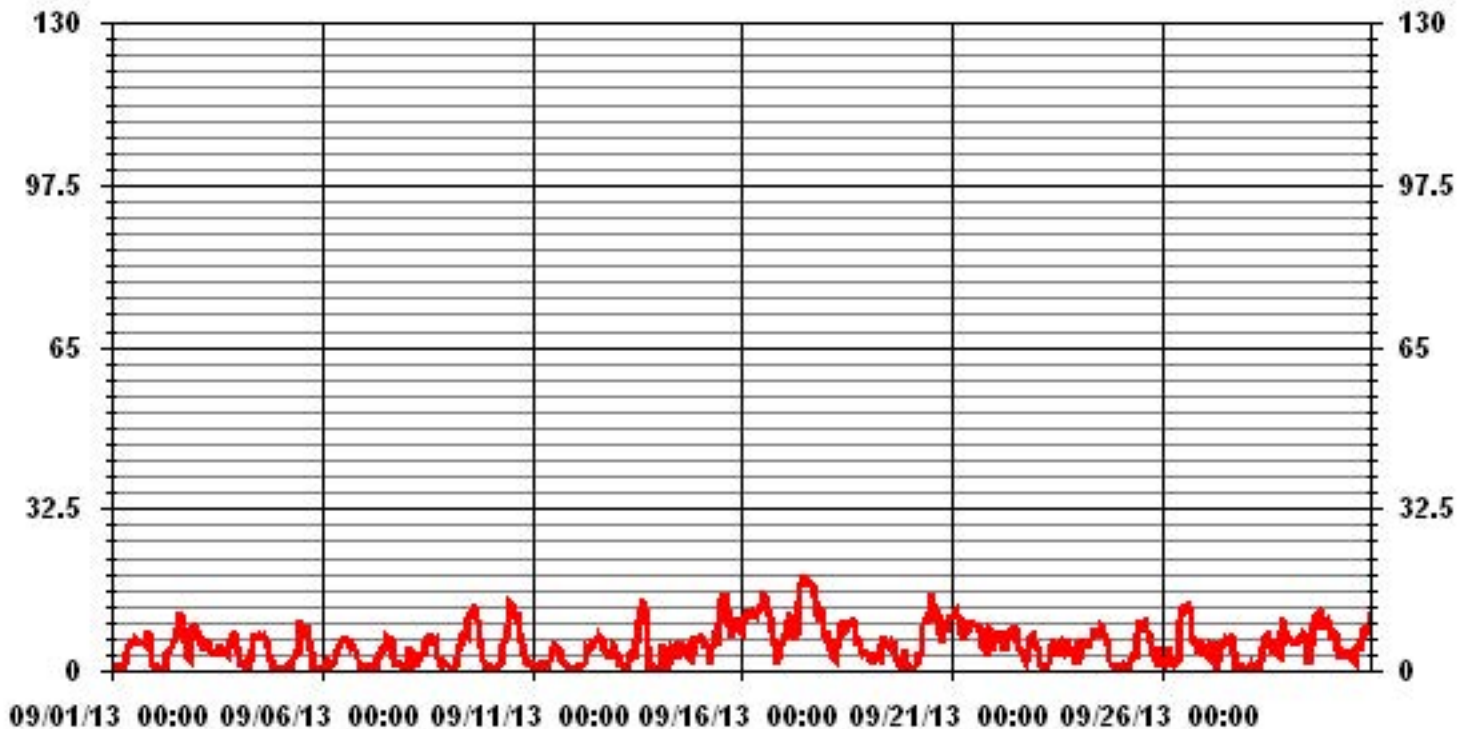
MONTHLY SUMMARY

MAXIMUM 1-HR AVERAGE:	18.9	KPH	@ HOUR(S)	11	ON DAY(S)	17
MAXIMUM 24-HR AVERAGE:	12.7	KPH			ON DAY(S)	17
CALMS (≤ 0 KPH)	3.36	%	OPERATIONAL TIME:	720	HRS	
MONTHLY CALIBRATION TIME:	0	HRS	AMD OPERATION UPTIME:	100.0	%	
STANDARD DEVIATION:	3.84		MONTHLY AVERAGE:	5.25	KPH	

24 HOUR AVERAGES FOR SEPTEMBER 2013



01 Hour Averages



LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - COLD LAKE

SEPTEMBER 2013

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		3.3	2.3	3.3	3	1.8	2	2.5	4	7.7	11.7	10.6	12.5	11.3	15.1	14.1	15	11.3	10.8	7.8	8.2	7.9	9.9	8.9	5.3	15.1	
2		3.5	1.6	2.6	2	1.4	2.1	1.5	6	7	8.4	8.2	12.1	13.3	17.2	21.5	19.8	18.2	13.6	12.2	4.8	7	12.4	12.9	20.2	21.5	
3		12.2	10.1	11.2	11.3	6.6	8.1	8.4	9.2	9.5	6.9	9.9	8.2	9.6	10.4	12.1	11	10	7.8	4.9	5.8	8.7	9.8	9.9	8.8	12.2	
4		5.7	2.8	3.4	3.9	3.9	4.1	3.9	9	11.6	14.3	12.4	13.5	14.2	15.6	13.2	13.6	11	7.8	6.9	4.3	1.7	1.9	2.8	1.7	15.6	
5		1.8	2.5	3	2.6	3.8	2.1	2.3	4.2	4.5	9.3	7.4	16.7	13.7	12.1	17.9	14.3	12.4	12.6	7.8	3.3	3.1	2	2.6	2.7	17.9	
6		3	3.6	5	4	4	3.2	4.2	4	7.7	7.8	10.2	11.5	12.4	11.6	12.2	11.1	8.2	9.5	8.5	6.7	5.8	2	2.6	2.4	12.4	
7		3.1	3.6	2.7	2.5	3.2	3.2	3.9	2.9	6.8	8	6.9	8.3	12.3	12.9	12.9	12.5	11.9	6	2.5	3.4	3.8	4.4	3.5	3.4	12.9	
8		2.9	2.7	7.2	3.1	2.8	3.6	6.3	5.4	8.7	8.3	10.3	11.4	12.1	14.1	13.8	12.4	11.4	11.2	5.8	3.4	4	2.3	4.2	3.7	14.1	
9		3.2	2.1	2.2	2.7	2.9	5.9	6.9	11.5	12.3	12.8	16.4	19.8	18.5	17.6	20	21.5	20.5	16.1	11.7	6.6	4.8	3.5	3	5.1	21.5	
10		3.6	2.6	5	4.7	2.6	3.2	5.6	9.3	11.4	11.2	17.9	22.7	20.5	21.5	19.3	18.7	18.3	17.1	10.1	7	3.9	5	3	4.4	22.7	
11		2.7	4	2.8	1.9	3.4	2.9	2.7	4.4	3.6	6.1	5.9	10.2	11.6	12.4	11	11.3	9.4	5.3	3.3	2.9	2.1	1.7	1.5	2.5	12.4	
12		2.8	1.9	2.9	1.9	2.1	1.6	4.1	7.9	8.8	9.3	9.1	10.9	15.1	13.7	11.9	12.2	10.6	9.1	6.6	5.3	6.1	6.6	10.2	8.4	15.1	
13		6.8	6	3.2	3.7	4.8	4.5	5.3	5.4	9.1	8	8.1	11.7	10.4	15.8	21.2	26.2	21.2	17.2	12.1	2.4	2.9	2.3	2	2.4	26.2	
14		2.4	1.8	3.4	10.6	7.9	4.1	4.2	3.7	9.4	8.4	8.2	9.5	12	10.2	10.5	10.5	8.4	9.2	5.2	3.7	6.6	9	9.4	8.9	12	
15		9.5	9.2	8.3	8.5	8.3	4.9	2.9	8.6	11.6	12.4	13	20.9	22.7	20.1	23.1	21.6	25	15.6	9.3	12.7	13.9	13.4	11.9	12.7	25	
16		13.1	14	15.1	15	14.4	17.5	16.1	17.4	19.1	18.9	18.4	22.1	24.9	22.5	21.7	21	17.1	13.1	9.1	7.4	6.2	4.9	8.6	9.1	24.9	
17		10.3	10.5	17.6	17.1	12.7	11.6	11.5	11.3	22.8	24.4	32.2	29.2	28.2	25.3	27.9	23.8	24.7	23.5	24	19.9	18.8	21	18.7	15.6	32.2	
18		11.3	14.6	10	7.8	5.2	4.8	7	10.4	15.3	14.8	14	12.9	15.8	17.6	15.6	19.4	17.2	12	14.3	10	6.6	4.7	5.4	5.8	19.4	
19		4.6	4.6	3.6	5.5	5.1	5.1	5.7	4.4	12.4	13.1	11.9	13.6	12.3	11.9	10.8	10.9	8.1	6.5	3	2.7	4.4	6.8	3.7	3	13.6	
20		1.3	1.8	3	3.4	3.5	5.9	5.8	12.9	14	15.5	16	18.5	24.8	20.1	22.3	23.3	18.3	15.8	8.7	10.9	13.9	13.2	13.7	14.5	24.8	
21		15.3	16.3	15.1	13.3	14.1	11.1	10.4	12.8	17	15.2	14.3	17.3	16.3	16.4	14.8	14.3	14.6	8.1	8.5	5.9	6	14.2	11.3	7.5	17.3	
22		12.3	15.3	12.3	11	12.8	9.5	8.4	9	13.2	12.4	12.1	15.4	16.4	14.5	10.1	9.3	11.1	5.8	3.7	5.6	6.1	9.3	9.9	9.8	16.4	
23		7.8	6.8	2.7	2.4	3.1	2.7	3.8	6	8.5	9.9	11.1	9.4	7.1	8.6	10.4	8.1	11	6.4	13.1	9.3	7.5	5.2	4.8	4.9	13.1	
24		12.1	7.8	9.9	7.7	7.4	9.6	6.8	12.6	13.6	11.3	14	12.9	13.8	15.9	13	13.1	11.7	9.6	3.9	3.9	3.4	2.8	2.4	2.5	15.9	
25		2.5	3.7	3.9	2.5	2.3	2.2	4.8	7.9	7.5	6.7	17.4	14.8	17.7	14.9	12.7	15.1	12.2	12.4	9.8	5.8	5	3.3	9.1	6.2	17.7	
26		4.4	3.5	4.5	5.4	7.1	5.8	5.4	2.8	5	4.9	17.2	21	17.1	20.5	18.8	19.5	24.8	14.3	9.8	10	6.5	9.5	7.4	8	24.8	
27		5.8	6	4.7	8.4	6.7	9.3	3.8	2.5	4.9	11.6	11.8	13.4	11.5	14.5	12	12.4	15.3	8.2	2.5	1.6	2.4	1.3	2.4	3.3	15.3	
28		1.8	1.6	2.9	3	1.6	3.1	2.3	2	5.3	9	9.9	11.1	12.8	12.1	12.4	10.1	13.8	5.5	5	5.3	12.2	14.8	12.3	10.6	14.8	
29		11.4	9.2	9.8	9.2	12.3	9.7	10.8	11.8	11.2	12.9	12.6	8.8	8.3	14.6	16.2	16.6	16.7	15.9	15.4	16.7	15.9	13.4	13.5	14.7	16.7	
30		12.2	9.6	12.4	14.8	9.9	7	6.3	7.1	6.8	8.4	6	9.1	7.9	5.9	6.1	8.5	8.6	13	12.5	15.1	11.6	14.5	15.5	16.1	16.1	
PEAK		15.3	16.3	17.6	17.1	14.4	17.5	16.1	17.4	22.8	24.4	32.2	29.2	28.2	25.3	27.9	26.2	25.0	23.5	24.0	19.9	18.8	21.0	18.7	20.2		

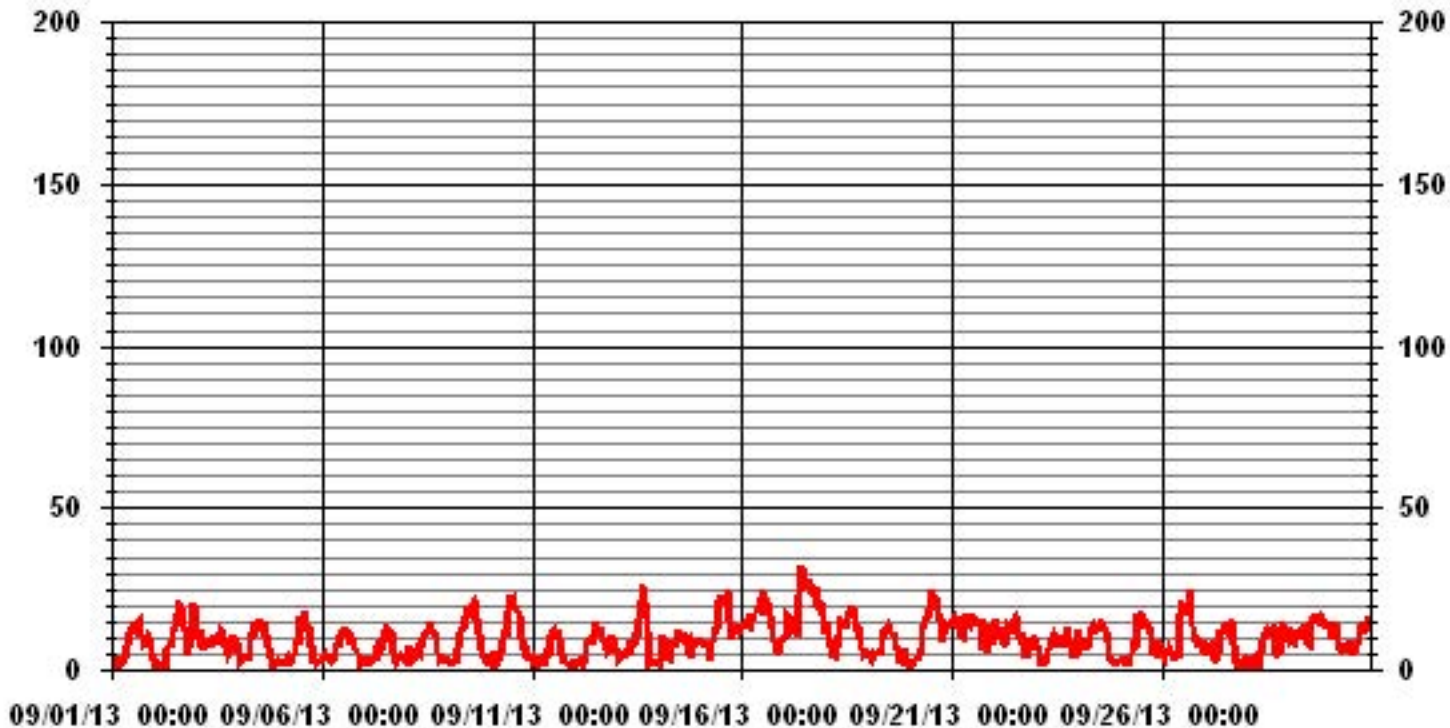
STATUS FLAG CODES

C - CALIBRATION	Q - QUALITY ASSURANCE
Y - MAINTENANCE	R - RECOVERY
S - DAILY ZERO/SPAN CHECK	X - MACHINE MALFUNCTION
P - POWER FAILURE	O - OPERATOR ERROR
G - OUT FOR REPAIR	K - COLLECTION ERROR

MONTHLY SUMMARY

MAXIMUM INSTANTANEOUS READING	32.2	KPH	@ HOUR(S)	10
			ON DAY(S)	17

01 Hour Averages



LICA
WSP / WD Joint Frequency Distribution (Percent)

September 2013

Distribution By % Of Samples

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

Wind Parameter : WD
Instrument Height : 10 Meters

Limit	Direction																Freq
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
< 6.0	.13	.41	1.94	1.80	2.08	4.44	5.97	3.47	3.33	4.02	7.91	9.02	6.52	4.86	1.80	.55	58.33
< 12.0	.55	.41	1.25	.69	.41	.27	9.72	.83	.55	.41	1.25	4.02	5.00	3.61	2.63	.69	32.36
< 20.0	.00	.13	.27	.00	.00	.00	1.94	.13	.00	.00	.00	.13	1.11	.41	.55	1.11	5.83
< 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	.69	.97	3.47	2.50	2.50	4.72	17.63	4.44	3.88	4.44	9.16	13.19	12.63	8.88	5.00	2.36	

Calm : 3.47 %

Total # Operational Hours : 720

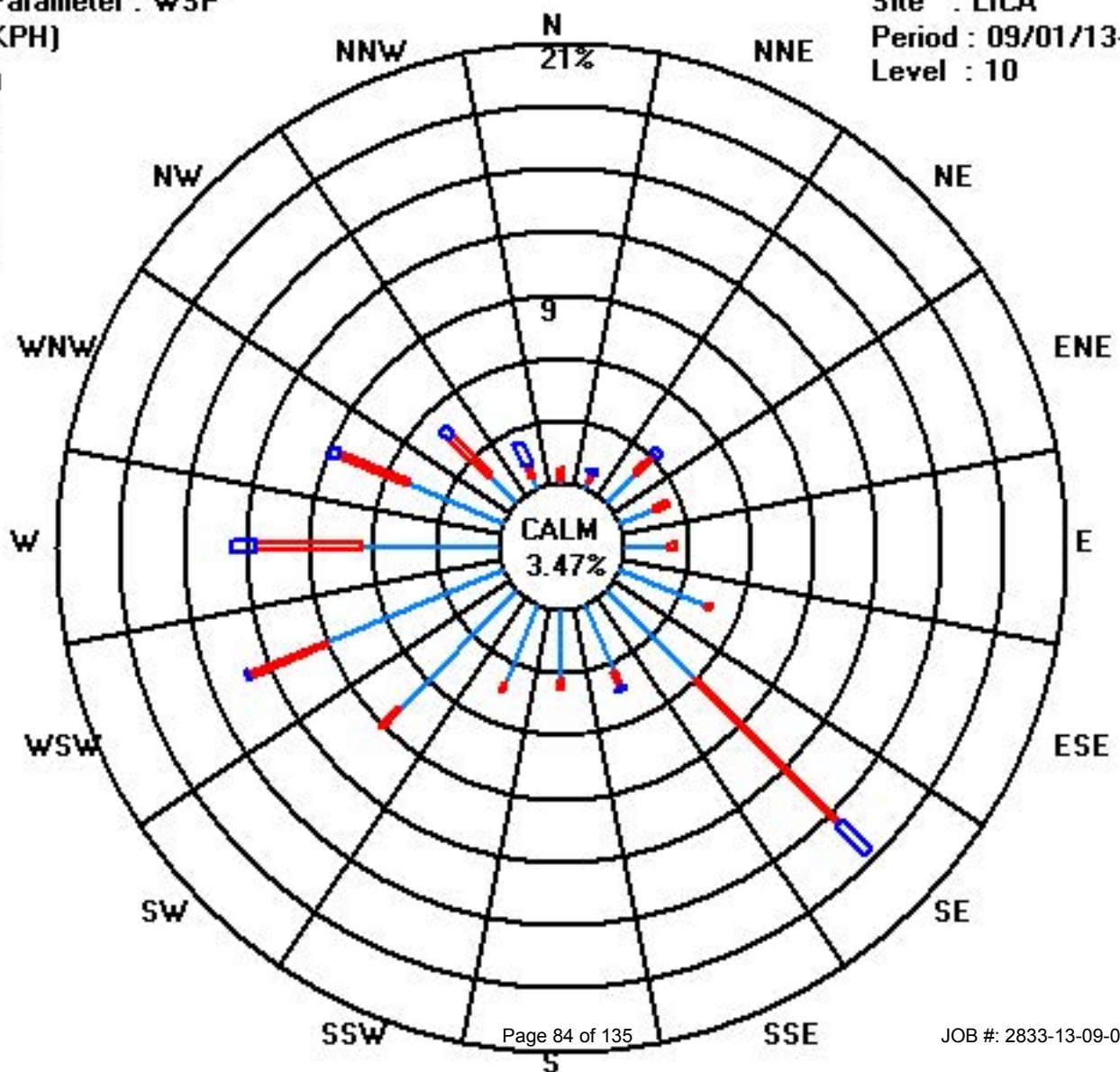
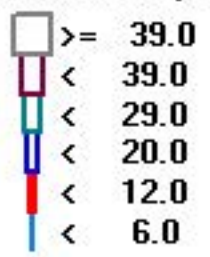
Distribution By Samples

Limit	Direction																Freq
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
< 6.0	1	3	14	13	15	32	43	25	24	29	57	65	47	35	13	4	420
< 12.0	4	3	9	5	3	2	70	6	4	3	9	29	36	26	19	5	233
< 20.0		1	2				14	1				1	8	3	4	8	42
< 29.0																	
< 39.0																	
>= 39.0																	
Totals	5	7	25	18	18	34	127	32	28	32	66	95	91	64	36	17	

Calm : 3.47 %

Total # Operational Hours : 720

Class Limits (KPH)



Vector Wind Direction

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - COLD LAKE

SEPTEMBER 2013

VECTOR WIND DIRECTION (WD) hourly averages in degrees

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-HOUR	24-HOUR AVG																											
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	AVG.	QUADRANT	RDGS.																										
DAY																																																						
1		204	243	298	227	129	81	156	191	206	221	230	222	227	212	207	188	194	161	139	137	140	140	148	153	185	185		S	24																								
2		228	232	234	241	148	238	98	279	269	261	279	289	291	270	262	271	290	301	291	272	341	34	37	66	295	295		WNW	24																								
3		67	64	61	74	106	90	93	75	113	95	108	106	117	132	140	187	166	165	146	140	143	138	141	140	114	114		ESE	24																								
4		146	146	71	79	78	38	53	129	208	219	223	234	237	245	249	257	253	286	272	244	185	173	219	174	232	232		SW	24																								
5		88	234	212	169	236	225	256	257	292	309	296	329	337	318	319	318	311	310	306	211	242	141	239	152	311	311		NW	24																								
6		184	211	251	300	213	225	238	279	340	55	3	12	47	55	40	48	56	52	43	40	67	100	270	195	35	35		NE	24																								
7		218	46	131	100	93	177	241	316	97	122	109	112	124	140	144	157	222	233	177	187	169	179	256	150	150	150		SSE	24																								
8		17	157	148	245	97	285	160	194	231	237	233	230	250	224	239	244	238	225	224	219	221	194	265	245	228	228		SW	24																								
9		177	241	129	192	252	239	246	245	255	272	261	279	286	297	308	332	327	318	313	303	303	265	223	196	202	292	292		WNW	24																							
10		221	226	224	192	232	282	259	254	252	264	287	305	304	305	284	296	306	293	303	287	258	282	207	248	288	288		WNW	24																								
11		232	216	193	156	214	217	119	236	270	64	315	273	281	284	276	292	295	304	136	105	99	65	263	264	272	272		W	24																								
12		243	94	94	98	86	63	116	133	145	176	189	191	188	191	187	190	207	192	147	150	158	206	214	217	181	181		S	24																								
13		211	222	176	142	283	194	234	295	295	290	27	42	33	28	32	51	56	54	52	36	218	280	164	277	38	38		NE	24																								
14		112	135	214	63	71	161	258	228	103	108	111	56	22	46	55	71	102	133	119	118	124	133	133	137	98	98		E	24																								
15		138	134	140	139	140	135	112	134	136	142	165	153	146	151	142	145	141	136	135	135	137	137	134	136	141	141		SE	24																								
16		138	139	137	137	137	136	135	136	138	140	134	133	142	141	145	145	135	127	123	128	158	234	256	252	140	140		SE	24																								
17		252	256	262	264	257	246	238	234	255	261	263	266	268	276	279	276	274	284	282	288	290	294	302	300	271	271		W	24																								
18		290	298	268	282	276	269	299	296	293	282	293	288	309	312	319	326	327	309	308	320	312	297	283	270	300	300		WNW	24																								
19		259	260	256	264	266	278	318	288	317	295	268	277	281	270	270	271	237	210	159	118	116	138	148	113	267	267		W	24																								
20		346	96	137	121	109	127	134	137	141	138	135	136	141	142	148	145	147	142	130	133	134	134	135	134	138	138		SE	24																								
21		133	136	138	136	137	134	133	135	134	131	132	139	138	145	146	146	140	120	103	68	78	140	143	180	135	135		SE	24																								
22		225	239	245	238	237	236	238	242	238	251	261	264	258	242	248	241	226	168	131	131	132	138	139	136	226	226		SW	24																								
23		138	131	109	261	160	54	252	253	127	113	129	140	198	268	254	256	256	275	271	295	295	252	254	259	222	222		SW	24																								
24		253	261	262	246	241	240	249	260	267	267	272	283	268	271	272	264	275	298	241	211	206	215	232	193	263	263		W	24																								
25		169	233	254	217	232	234	238	254	280	270	338	357	349	352	23	43	9	320	332	327	288	221	322	319	340	340		NNW	24																								
26		243	237	237	257	259	230	263	200	176	234	329	338	335	332	340	342	328	322	315	318	292	305	296	290	317	317		NW	24																								
27		296	249	248	248	242	251	232	176	230	235	225	229	203	235	246	225	253	248	217	149	147	113	215	201	237	237		SW	24																								
28		152	77	164	247	149	290	177	59	244	261	256	252	260	245	223	172	150	140	126	108	130	135	131	127	173	173		S	24																								
29		127	126	109	94	98	103	99	103	91	104	132	194	280	290	253	275	291	278	268	275	279	276	275	264	246	246		WSW	24																								
30		260	260	246	259	267	261	263	238	229	226	256	218	248	310	237	244	236	286	308	303	288	288	280	280	280	267	267		W	24																							
HOURLY AVG		346	298	298	300	283	290	318	316	340	309	338	357	349	352	340	342	328	322	332	327	341	305	322	319																													

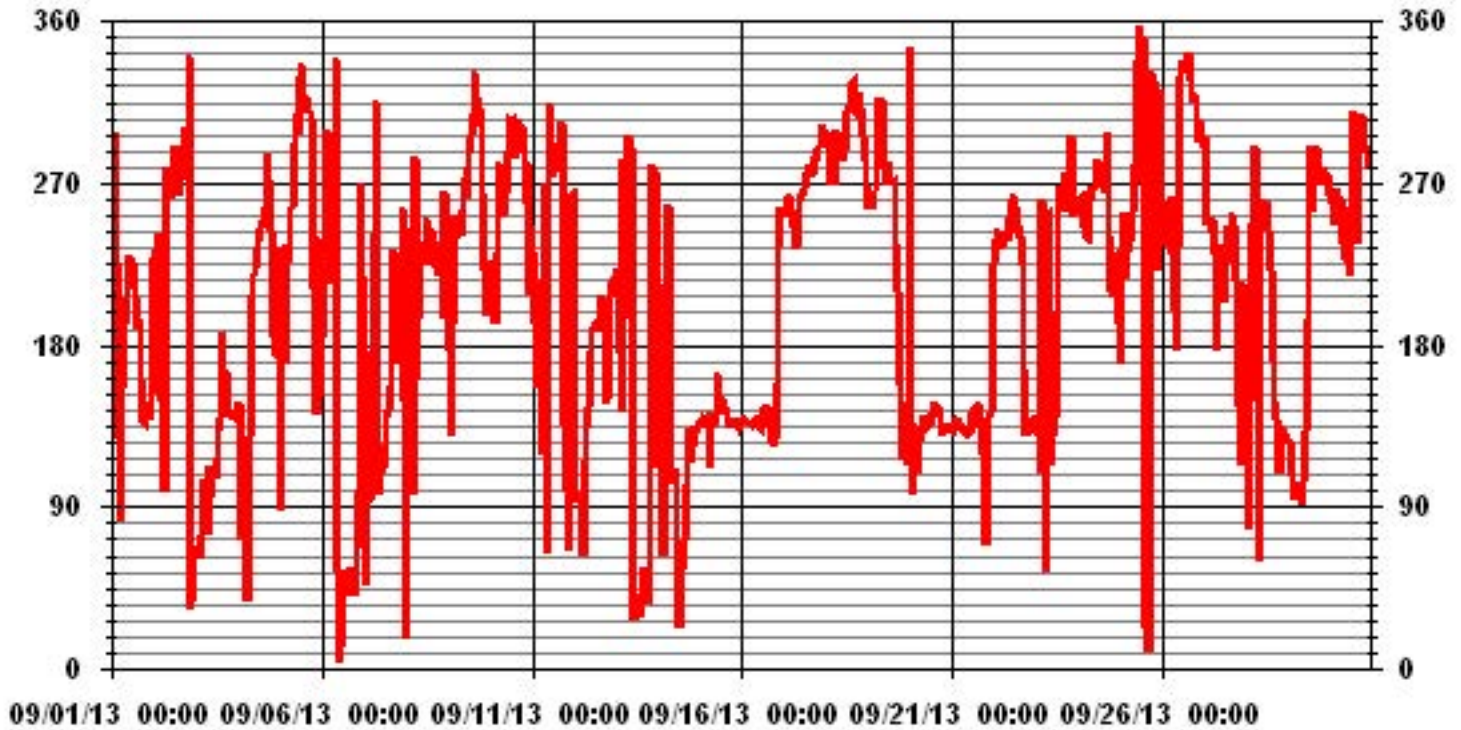
STATUS FLAG CODES

C - CALIBRATION	Q - QUALITY ASSURANCE
Y - MAINTENANCE	R - RECOVERY
S - DAILY ZERO/SPAN CHECK	X - MACHINE MALFUNCTION
P - POWER FAILURE	O - OPERATOR ERROR
G - OUT FOR REPAIR	K - COLLECTION ERROR

LAST CALIBRATION:	November 28, 2012
DECLINATION :	19 DEGREES FROM MAGNETIC NORTH

MONTHLY CALIBRATION TIME:	0	HRS	OPERATIONAL TIME:	720	HRS
STANDARD DEVIATION:	78.94		AMD OPERATION UPTIME:	100.0	%
			MONTHLY AVERAGE:	228	DEG

01 Hour Averages



— LICA WDR DEG

Standard Deviation Wind Direction

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - COLD LAKE

SEPTEMBER 2013

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	55	37	57	25	50	30	68	56	37	37	35	42	38	40	42	41	40	30	12	11	12	12	26	57
2	41	86	46	44	67	61	70	21	35	37	31	35	36	31	25	23	21	18	18	13	27	21	21	19
3	19	19	17	22	22	18	23	25	37	46	57	48	52	53	39	50	47	32	12	11	9	11	11	11
4	15	34	34	26	34	75	41	39	41	35	37	31	41	37	31	30	28	23	16	17	43	45	46	49
5	48	46	43	39	35	50	62	37	29	44	47	24	21	30	28	30	20	17	15	45	51	52	43	70
6	52	45	48	56	22	31	36	36	20	31	27	23	26	33	37	29	30	21	21	22	20	76	52	54
7	54	65	51	54	50	58	29	43	38	33	33	30	35	24	31	26	31	42	57	33	35	46	39	67
8	45	33	12	47	36	50	46	47	45	50	54	42	33	41	35	36	33	29	30	31	35	34	30	27
9	43	68	57	44	67	23	23	28	25	27	30	25	25	25	26	18	17	16	14	11	23	38	43	44
10	56	50	70	59	76	40	55	22	26	25	25	22	21	21	23	24	20	21	16	13	39	16	31	60
11	51	42	36	43	29	37	18	47	44	76	56	51	58	41	52	57	32	36	35	16	26	41	62	35
12	65	55	40	52	38	20	35	18	32	42	44	40	41	43	41	39	37	37	21	23	39	40	32	30
13	34	32	34	63	62	50	61	50	34	33	69	32	37	24	23	20	19	18	19	35	29	62	47	71
14	44	51	43	30	22	49	18	35	31	38	44	55	38	39	42	34	29	20	16	14	17	15	14	13
15	12	13	15	11	11	10	16	17	17	20	40	34	20	25	16	18	15	14	13	15	13	12	13	13
16	11	11	11	11	12	13	15	16	17	16	20	21	16	16	20	19	19	20	21	17	74	44	20	17
17	20	16	21	18	21	24	27	31	25	23	22	22	20	23	22	22	21	22	23	22	21	22	21	22
18	24	20	19	19	21	18	17	24	23	23	29	23	19	20	18	18	17	18	18	14	13	14	18	15
19	13	12	27	12	24	34	23	29	24	26	37	39	47	40	54	42	49	30	30	26	39	21	34	44
20	69	74	62	48	39	17	18	13	14	17	19	21	17	18	27	23	22	16	15	15	14	13	13	14
21	15	13	12	12	12	16	21	16	16	21	25	25	23	24	25	21	15	23	27	19	23	14	12	33
22	25	25	28	27	26	27	29	27	27	27	32	30	32	43	43	38	35	32	11	11	12	12	11	13
23	11	14	23	31	53	49	58	66	23	29	30	56	39	33	28	32	41	22	18	17	17	18	10	43
24	36	21	18	19	20	22	19	18	22	25	28	26	37	32	30	32	25	18	20	19	41	43	59	25
25	47	38	41	69	55	57	30	42	24	33	28	26	28	25	29	23	23	15	11	17	31	46	18	21
26	24	35	19	13	15	38	37	30	33	53	23	20	18	16	17	20	17	17	14	13	18	16	18	21
27	18	14	11	18	23	18	28	48	44	27	45	39	43	35	38	34	25	21	37	43	40	33	61	34
28	53	56	66	33	57	50	51	47	39	36	34	32	34	35	43	43	27	15	14	20	17	13	16	20
29	19	19	21	18	19	19	21	20	23	23	26	54	54	36	26	23	20	21	19	19	21	21	21	17
30	17	19	23	19	24	24	38	32	28	32	53	32	48	49	53	24	25	23	20	20	22	21	21	21

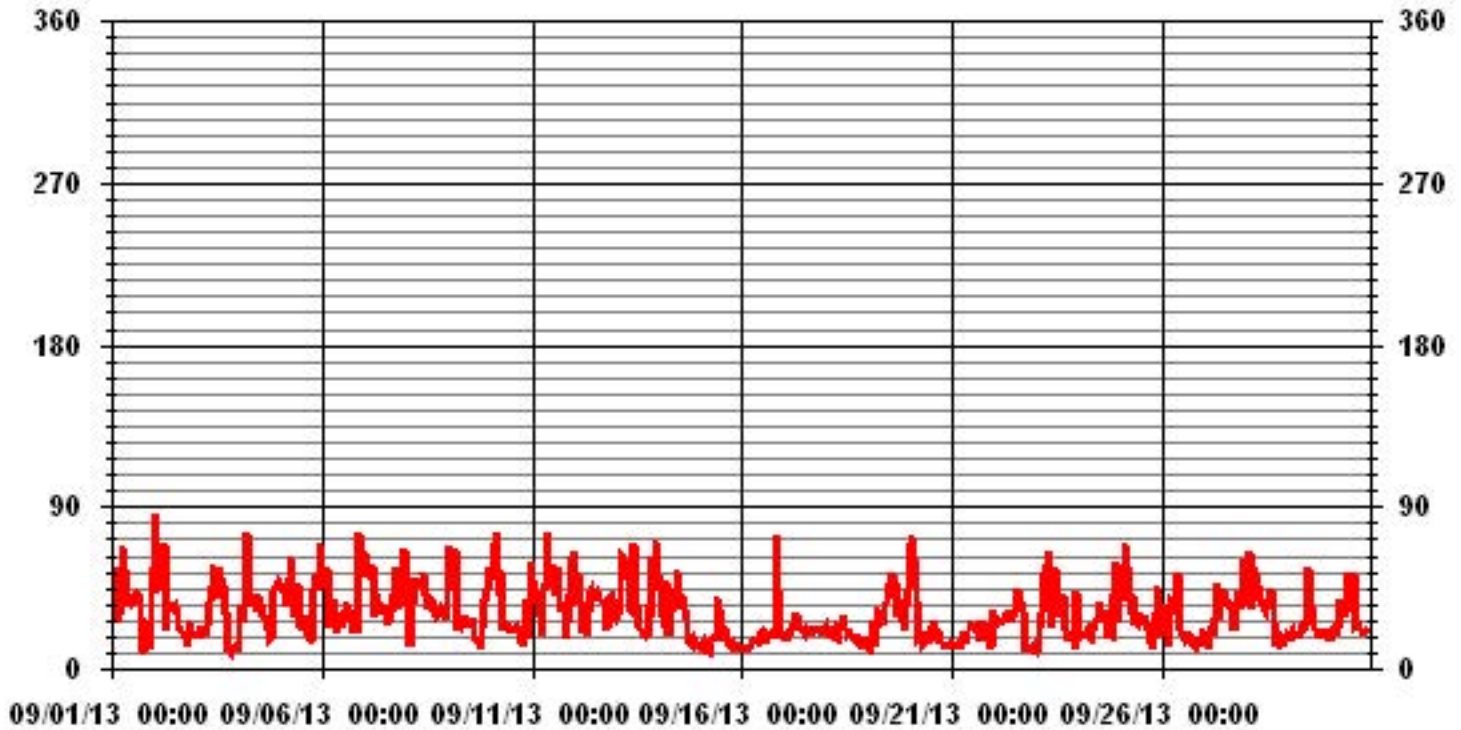
STATUS FLAG CODES

C	- CALIBRATION	Q	- QUALITY ASSURANCE
Y	- MAINTENANCE	R	- RECOVERY
S	- DAILY ZERO/SPAN CHECK	X	- MACHINE MALFUNCTION
P	- POWER FAILURE	O	- OPERATOR ERROR
G	- OUT FOR REPAIR	K	- COLLECTION ERROR

LAST CALIBRATION: November 28, 2012

CALIBRATION TIME: 0 HRS OPERATIONAL TIME: 720 HRS

01 Hour Averages

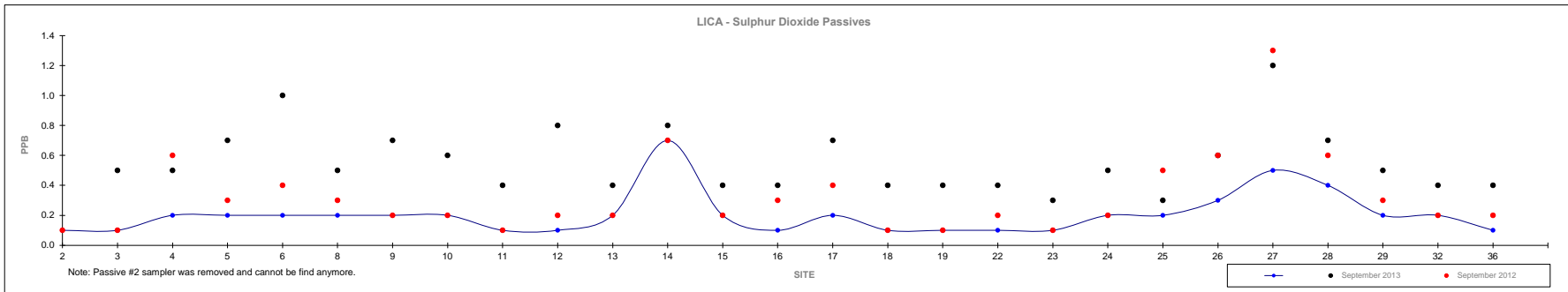


Non-Continuous Monitoring

Passive Summary Results for September 2013

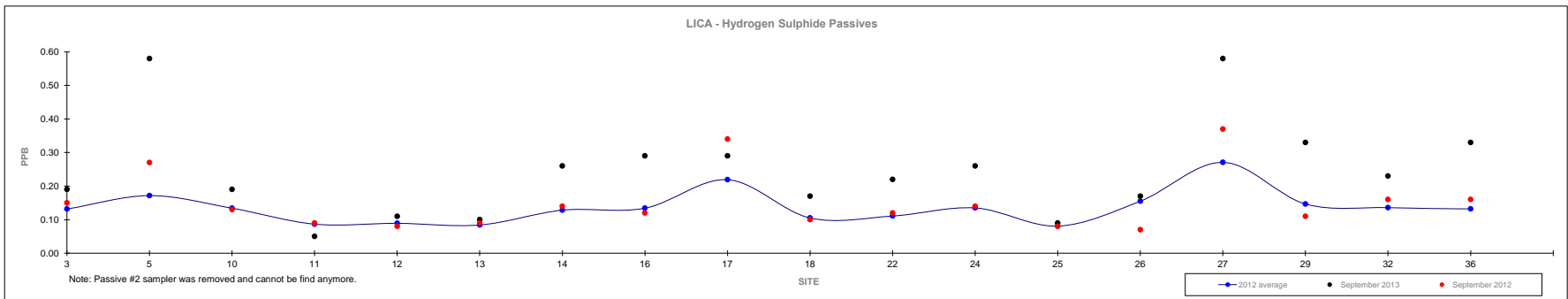
Lakeland Industry & Community Association

	Sulphur Dioxide ppb																																September 2013	
	2	3	4	5	6	8	9	10	11	12	13	14	15	16	17	18	19	22	23	24	25	26	27	28	29	32	36	Reading	Site					
Mean	0.2	0.3	0.5	0.4	0.5	0.5	0.4	0.4	0.3	0.4	0.5	1.0	0.4	0.4	0.5	0.3	0.3	0.3	0.2	0.3	0.6	0.7	1.0	0.6	0.4	0.5	0.3	0.56	-					
Minimum	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.7	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.5	0.4	0.2	0.2	0.1	0.3	#23					
Maximum	0.3	0.6	0.8	0.7	0.7	1.2	0.7	0.7	0.5	0.9	1.1	1.6	0.7	0.7	1.0	0.6	0.7	0.6	0.4	0.7	0.9	1.1	1.8	1.0	0.6	0.8	0.8	1.2	#27					



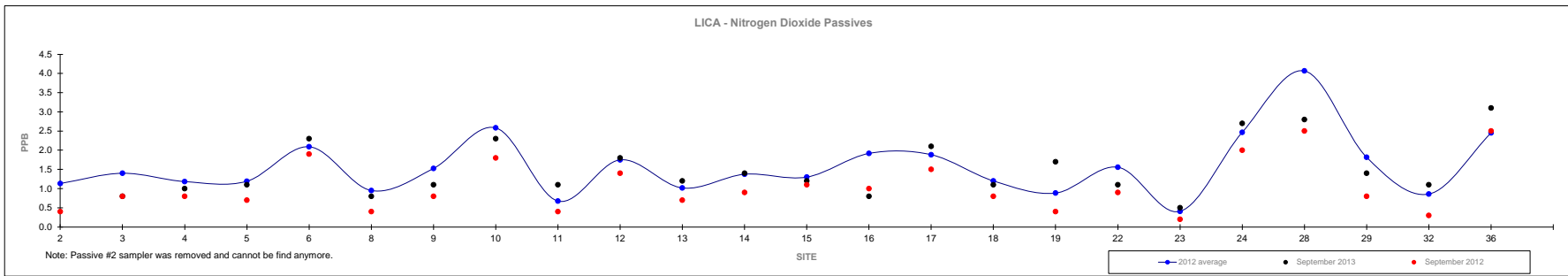
Passive Summary Results for September 2013 Lakeland Industry & Community Association

	Hydrogen Sulphide ppb															September 2013				
	3	5	10	11	12	13	14	16	17	18	22	24	25	26	27	29	32	36	Reading	Site
Mean	0.13	0.17	0.13	0.09	0.09	0.08	0.13	0.13	0.22	0.11	0.11	0.14	0.08	0.16	0.27	0.15	0.14	0.13	0.25	-
Minimum	0.09	0.06	0.08	0.04	0.02	0.02	0.06	0.09	0.09	0.06	0.06	0.07	0.03	0.07	0.02	0.06	0.09	0.07	0.05	#11
Maximum	0.21	0.38	0.35	0.15	0.16	0.16	0.20	0.23	0.55	0.16	0.18	0.24	0.17	0.28	0.74	0.49	0.23	0.23	0.58	#27



Passive Summary Results for September 2013 Lakeland Industry & Community Association

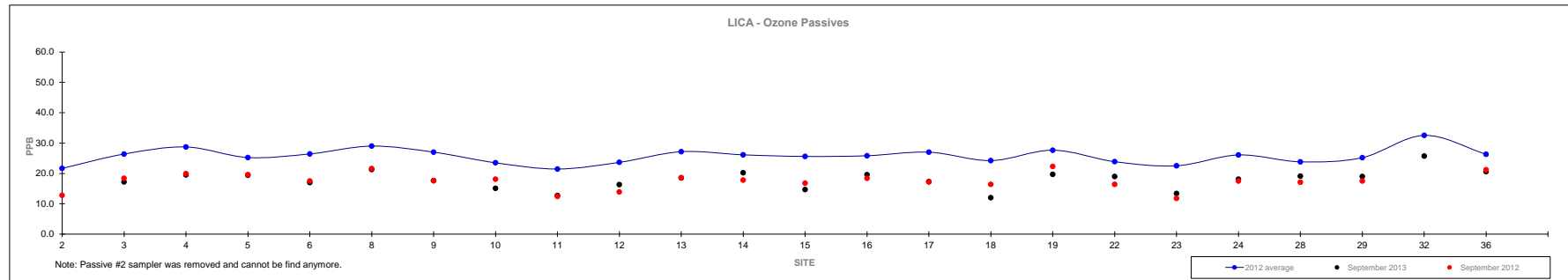
	Nitrogen Dioxide ppb																												September 2013	
	2	3	4	5	6	8	9	10	11	12	13	14	15	16	17	18	19	22	23	24	28	29	32	36	Reading	Site				
Mean	1.1	1.4	1.2	1.2	2.1	1.0	1.5	2.6	0.7	1.8	1.0	1.4	1.3	1.9	1.9	1.2	0.9	1.6	0.4	2.5	4.1	1.8	0.9	2.5	1.5	-				
Minimum	0.4	0.5	0.4	0.3	0.9	0.3	0.7	1.3	0.2	0.4	0.3	0.5	0.3	0.6	0.8	0.4	0.3	0.4	0.1	1.1	1.2	0.4	0.2	1.0	0.5	#23				
Maximum	3.6	3.6	3.6	3.2	4.7	2.1	3.6	5.2	1.8	4.4	2.5	3.2	2.9	4.9	3.9	2.7	2.0	3.2	1.2	6.0	8.6	4.8	2.4	6.6	3.1	#36				



Passive Summary Results for September 2013

Lakeland Industry & Community Association

	Ozone ppb																												September 2013	
	2	3	4	5	6	8	9	10	11	12	2012 13	14	15	16	17	18	19	22	23	24	28	29	32	36	Reading	Site				
Mean	21.7	26.4	28.7	25.2	26.4	29.0	27.0	23.5	21.5	23.7	27.2	26.1	25.6	25.8	27.0	24.2	27.7	23.9	22.5	26.1	23.8	25.2	32.5	26.3	18.0	-				
Minimum	12.8	18.4	18.8	19.0	17.5	21.6	17.6	15.1	12.3	13.9	15.9	17.8	16.8	18.4	16.4	15.8	18.3	15.2	11.8	17.5	17.1	17.5	24.4	20.4	12.0	#18				
Maximum	32.2	41.2	42.3	34.7	37.0	38.8	40.2	35.4	32.1	33.1	38.9	37.4	36.6	38.1	38.7	33.8	35.6	35.2	36.1	37.9	30.2	33.2	40.8	33.1	25.7	#32				



Calibration Reports

Sulphur Dioxide

SO2 Calibration Report Station Information

Calibration Date	September 18, 2013		Previous Calibration	August 15, 2013		
Company	Lakeland Industry & Community Association					
Plant / Location	Cold Lake South					
Start Time (MST)	7:50	End Time (MST)	8:55			
Reason:	AF					
Barometric Pressure	27.95	in HG	Station Temperature	24 Deg C		
Cal Gas	49.6	ppm	Gas Cyl. #	BAL3031	Cal Gas Expiry date	December 29, 2016
DAS Output Voltage	0-10	Volts	Chart Rec. Output	N/A Volts		

Equipment Information

Analyzer Make / Model:	Thermo 43i	S/N :	806528242	Method:	Fluorescent
Converter Make / Model:	N/A	S/N :	N/A		
Calibrator Make / Model:	Enviroincs 6100	S/N :	4760	Method:	Dilution
DAS Make / Model:	ESC 8832	S/N :	A3485K		
Chart Recorder Make / Model:	N/A	S/N:	N/A		
Flow Meter:	Enviroincs 6100	S/N :	4760		

Analyzer Settings

<u>Before Calibration</u>			<u>After Calibration</u>		
Concentration Range	0-500 ppb				
Sample Flow / Box Temp	281 ccm	29.7 Deg C	282 ccm	29.8 Deg C	
HVPS / Lamp Setting	-632.3	725	-632.3	725	
PMT / RxCell Temp	OK Deg C	45 Deg C	OK Deg C	45 Deg C	
Converter / IZS Temp	N/A Deg C	45 Deg C	N/A Deg C	45.0 Deg C	
Offset / Slope	7.7	1.068	7.7	1.068	

Calibration Data

Dilution Flow Rate	Source Gas Flow Rate	Calculated Concentration	Indicated Conc. (DAS)	Correction Factor
4994	0	0	-1	N/A
	No zero adj.			
4920	39.86	399	411	0.9699
Sum of Least Squares New Correction Factor				0.9699

IZS Calibration Data

	<u>Before Calibration</u>	<u>After Calibration</u>
Auto Zero	0.0	0.0
Auto Span	375.3	375.3
Sample Lines Connected		Yes

Percent Change

Previous Month's Calibration Correction Factor:	0.9952
Current Correction Factor Before Span Adjust:	0.9699
Percent Change:	2.6%

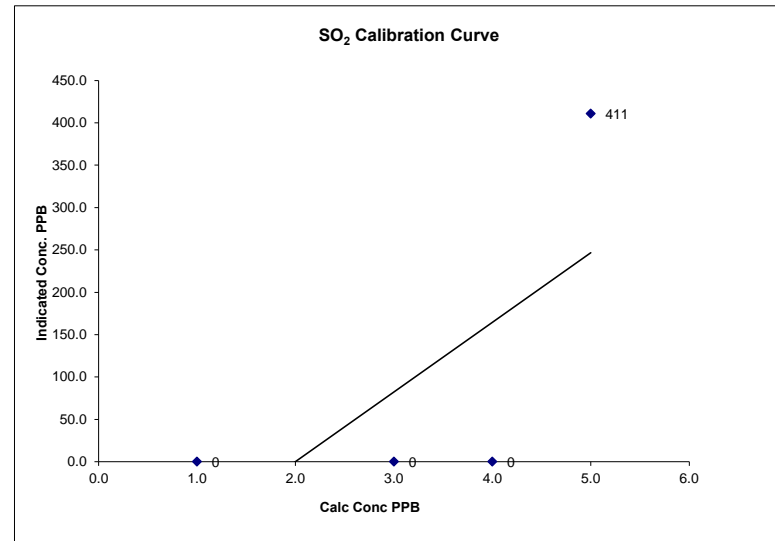
Notes: **N/A : Not applicable**

Calibration Performed by: Waseem Ahmed

SO₂ Calibration Curve

Calibration Date	September 18, 2013		
Company	Lakeland Industry & Community Association		
Plant / Location	Cold Lake South		
Start Time (MST)	7:50	End Time (MST)	8:55

Calculated Conc. ppb	Indicated Response ppb	Correction Factor	Correlation Coefficient Slope Intercept	(≥ 0.995) (0.85 to 1.15) (± 3% F.S.)
0		N/A		
399	411	0.9699		



Notes:

SO2 Calibration Report

Station Information

Calibration Date	September 18, 2013	Previous Calibration	August 15, 2013
Company	Lakeland Industry & Community Association		
Plant / Location	Cold Lake South		
Start Time (MST)	9:35	End Time (MST)	11:54
Reason:	Monthly calibration		
Barometric Pressure	27.96 in HG	Station Temperature	24 Deg C
Cal Gas	49.6 ppm	Gas Cyl. #	BAL3031
DAS Output Voltage	0-10 Volts	Cal Gas Expiry date	December 29, 2016
		Chart Rec. Output	N/A Volts

Equipment Information

Analyzer Make / Model:	Thermo 43i	S/N :	806528242	Method:	Fluorescent
Converter Make / Model:	N/A	S/N :	N/A		
Calibrator Make / Model:	EnviroNics 6100	S/N :	4760	Method:	Dilution
DAS Make / Model:	ESC 8832	S/N :	A3485K		
Chart Recorder Make / Model:	N/A	S/N:	N/A		
Flow Meter:	EnviroNics 6100	S/N :	4760		

Analyzer Settings

Before Calibration			After Calibration		
Concentration Range	0-500 ppb				
Sample Flow / Box Temp	448 ccm	29.5 Deg C	449 ccm	29.8 Deg C	
HVPS / Lamp Setting	-632.3	724	-632.3	725	
PMT / RxCell Temp	OK Deg C	45 Deg C	OK Deg C	45 Deg C	
Converter / IZS Temp	N/A Deg C	45 Deg C	N/A Deg C	45.0 Deg C	
Offset / Slope	7.7	1.068	6.7	1.054	

Calibration Data

Dilution Flow Rate	Source Gas Flow Rate	Calculated Concentration	Indicated Conc. (DAS)	Correction Factor
4994	0	0	0	N/A
	No zero adj.			
4920	39.87	399	400	0.9968
	No span adj.			
4961	20.0	199	202	0.9874
4981	10.0	99	102	0.9753
4994	0	0	0	N/A
			Sum of Least Squares	0.9939
			New Correction Factor	0.9968

IZS Calibration Data

Before Calibration		After Calibration	
Auto Zero	0.0		0.0
Auto Span	375.3		375.3
Sample Lines Connected			Yes

Percent Change

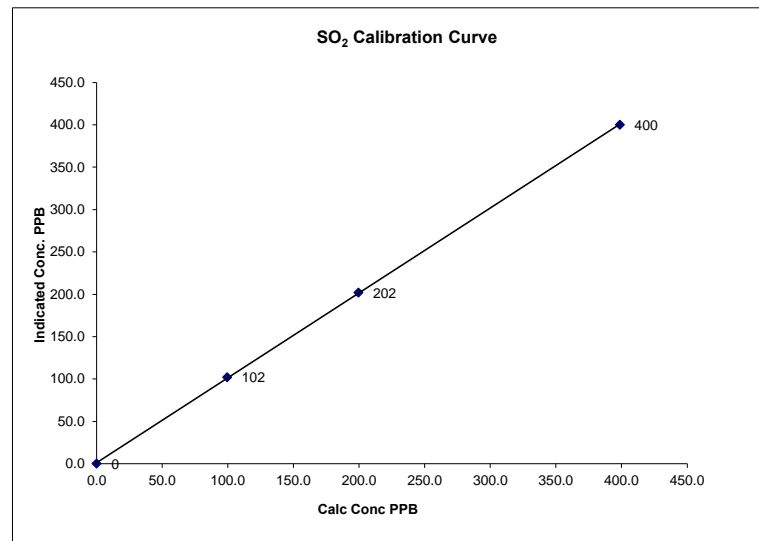
Previous Month's Calibration Correction Factor:	0.9952
Current Correction Factor Before Span Adjust:	0.9968
Percent Change:	-0.2%

Notes: **N/A : Not applicable**

SO₂ Calibration Curve

Calibration Date	September 18, 2013
Company	Lakeland Industry & Community Association
Plant / Location	Cold Lake South
Start Time (MST)	9:35
End Time (MST)	11:54

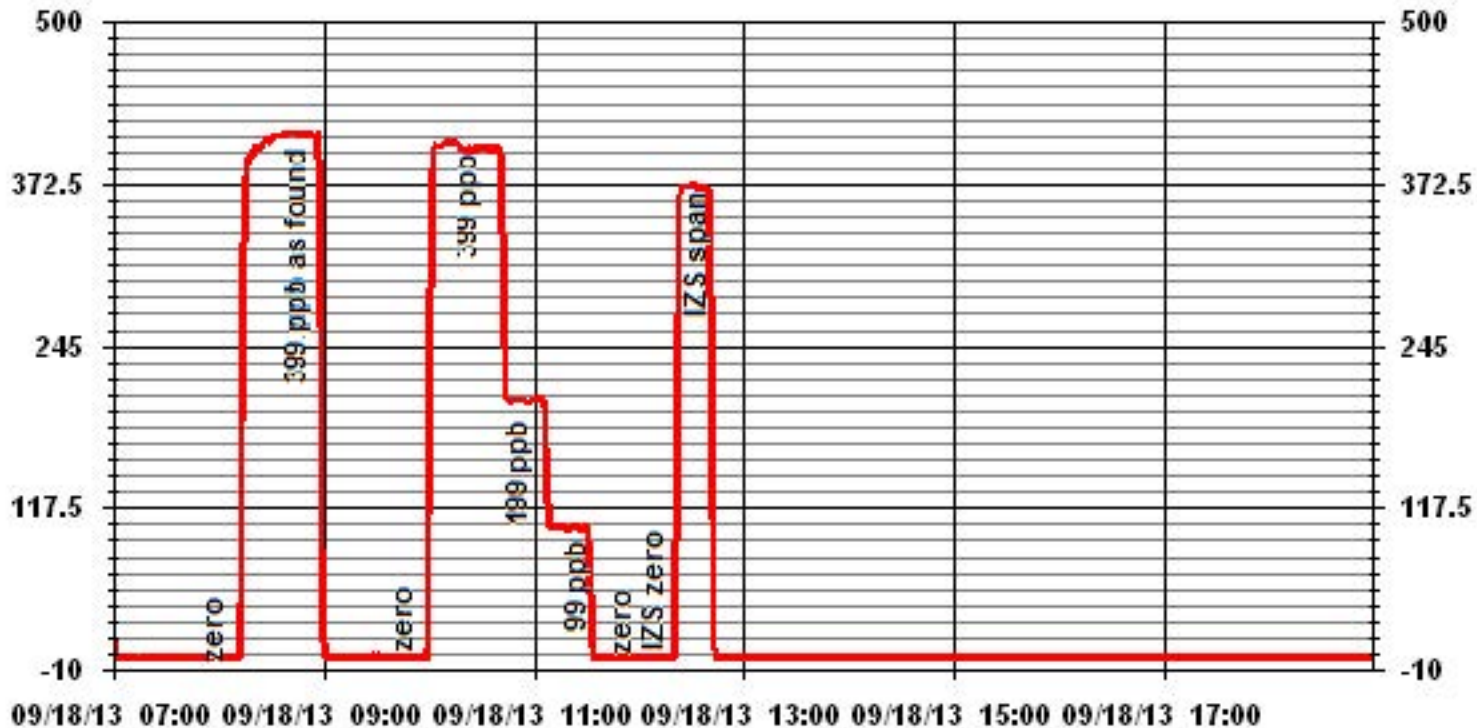
Calculated Conc. ppb	Indicated Response ppb	Correction Factor	Correlation Coefficient Slope Intercept	(≥ 0.995) (0.85 to 1.15) (± 3% F.S.)
0	0	N/A		0.999953
99	102	0.9753		1.001886
199	202	0.9874		
399	400	0.9968		1.260362



Notes:

Calibration Performed by: Waseem Ahmed

01 Minute Averages



Total Reduced Sulphur

**TRS Calibration Report
Station Information**

Calibration Date	September 18, 2013		Previous Calibration	August 15, 2013	
Company	Lakeland Industry & Community Association				
Plant / Location	Cold Lake South				
Start Time (MST)	7:55	End Time (MST)	8:59		
Reason:	AF				
Barometric Pressure	27.95	in HG	Station Temperature	24	Deg C
Cal Gas	10.1	ppm	Gas Cyl. #	BLM005049	Cal Gas Expiry date
DAS Output Voltage	0-10	Volts	Chart Rec. Output	N/A	
Cal Gas Expiry date		December 25, 2015			

Equipment Information

Analyzer Make / Model:	Thermo 450i	S/N :	812728560	Method:	Fluorescent
Converter Make / Model:	CND 101	S/N :	501		
Calibrator Make / Model:	API 700	S/N :	690	Method:	Dilution
DAS Make / Model:	ESC 8832	S/N :	A3485K		
Chart Recorder Make / Model:		N/A	S/N:	N/A	
Flow Meter:	API 700	S/N :	690		

Analyzer Settings

Before Calibration			After Calibration		
Concentration Range	0-100				
Sample Flow / Box Temp	488 ccm	32.1 Deg C	488 ccm	32.3	Deg C
HVPS / Lamp Setting	-650.8	743	-650.8	743	
PMT / RxCell Temp	OK	45 Deg C	OK	45	Deg C
Converter / IZS Temp	810	45 Deg C	810	45.0	Deg C
Offset / Slope	12.7	0.877	12.7	0.877	

Calibration Data

Dilution Flow Rate	Source Gas Flow Rate	Calculated Concentration	Indicated Conc. (DAS)	Correction Factor
5000	0	0	0	N/A
4958	No zero adj. 40	81	79	1.0232
Sum of Least Squares New Correction Factor				1.0232

IZS Calibration Data

Before Calibration		After Calibration	
Auto Zero	0.0	Auto Zero	0.0
Auto Span	33.0	Auto Span	33.0
Sample Lines Connected		Sample Lines Connected	Yes

Percent Change

Previous Month's Calibration Correction Factor:	1.0000
Current Correction Factor Before Span Adjust:	1.0232
Percent Change:	-2.3%

Notes:	N/A : Not applicable

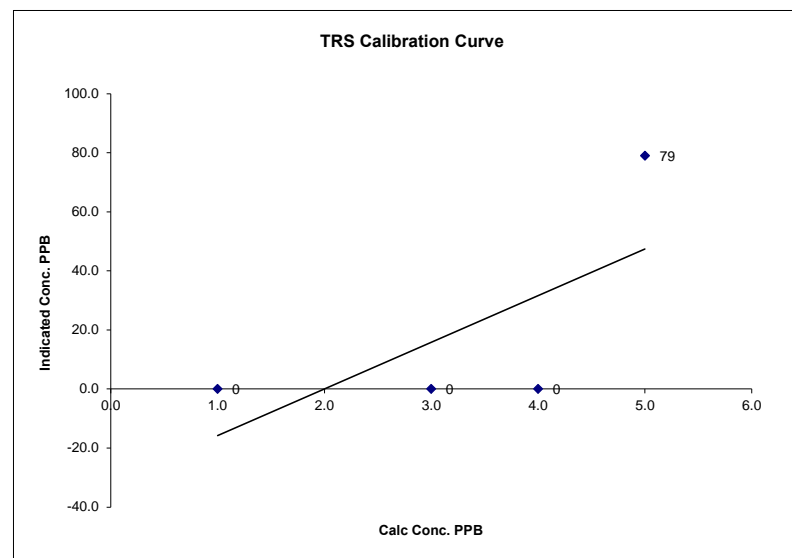
Calibration Performed by: Waseem Ahmed

TRS Calibration Curve

Calibration Date	September 18, 2013		Previous Calibration	August 15, 2013	
Company	Lakeland Industry & Community Association				
Plant / Location	Cold Lake South				
Start Time (MST)	7:55	End Time (MST)	8:59		

Calculated Conc. ppb	Indicated Response ppb	Correction Factor	Correlation Coefficient	(≥ 0.995)
0	0	N/A	Slope	(0.85 to 1.15)
			Intercept	(± 3% F.S.)

81	79	1.0232
----	----	--------



Notes:

TRS Calibration Report

Station Information

Calibration Date	September 18, 2013	Previous Calibration	August 15, 2013
Company	Lakeland Industry & Community Association		
Plant / Location	Cold Lake South		
Start Time (MST)	9:08	End Time (MST)	11:28
Reason:	Monthly calibration		
Barometric Pressure	27.96 in HG	Station Temperature	24 Deg C
Cal Gas	10.1 ppm	Gas Cyl. #	BLM005049
DAS Output Voltage	0-10 Volts	Cal Gas Expiry date	December 25, 2015
		Chart Rec. Output	N/A Volts

Equipment Information

Analyzer Make / Model:	Thermo 450i	S/N :	812728560	Method:	Fluorescent
Converter Make / Model:	CND 101	S/N :	501		
Calibrator Make / Model:	API 700	S/N :	690	Method:	Dilution
DAS Make / Model:	ESC 8832	S/N :	A3485K		
Chart Recorder Make / Model:		N/A	S/N:	N/A	
Flow Meter:	API 700	S/N :	690		

Analyzer Settings

Before Calibration		After Calibration	
Concentration Range	0-100	0-100	
Sample Flow / Box Temp	488 ccm, 32.3 Deg C	487 ccm, 32.6 Deg C	
HVPS / Lamp Setting	-650.8, 743	-650.8, 743	
PMT / RxCell Temp	OK Deg C, 45 Deg C	OK Deg C, 45 Deg C	
Converter / IZS Temp	810 Deg C, 45 Deg C	810 Deg C, 45.0 Deg C	
Offset / Slope	12.7, 0.877	12.8, 0.888	

Calibration Data

Dilution Flow Rate	Source Gas Flow Rate	Calculated Concentration	Indicated Conc. (DAS)	Correction Factor
5000	0	0	0	N/A
	No zero adj.			
4958	40	81	81	1.0000
	No span adj.			
4980	20.0	40	40	1.0000
4990	12.0	24	24	1.0000
5000	0.0	0	0	N/A
Sum of Least Squares				1.0009
New Correction Factor				1.0000

IZS Calibration Data

Before Calibration		After Calibration	
Auto Zero	0.0	Auto Zero	0.0
Auto Span	33.0	Auto Span	33.0
Sample Lines Connected		Sample Lines Connected	Yes

Percent Change

Previous Month's Calibration Correction Factor:	1.0000
Current Correction Factor Before Span Adjust:	1.0000
Percent Change:	0.0%

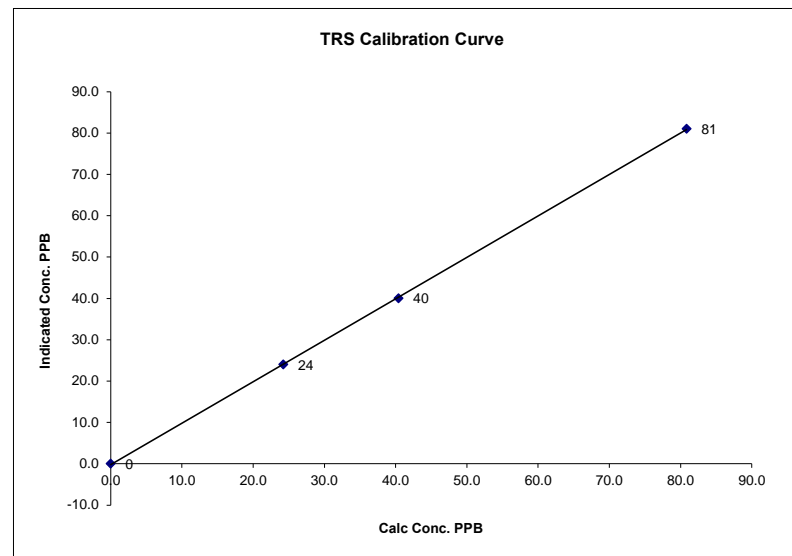
Notes: **N/A : Not applicable**

Calibration Performed by: Waseem Ahmed

TRS Calibration Curve

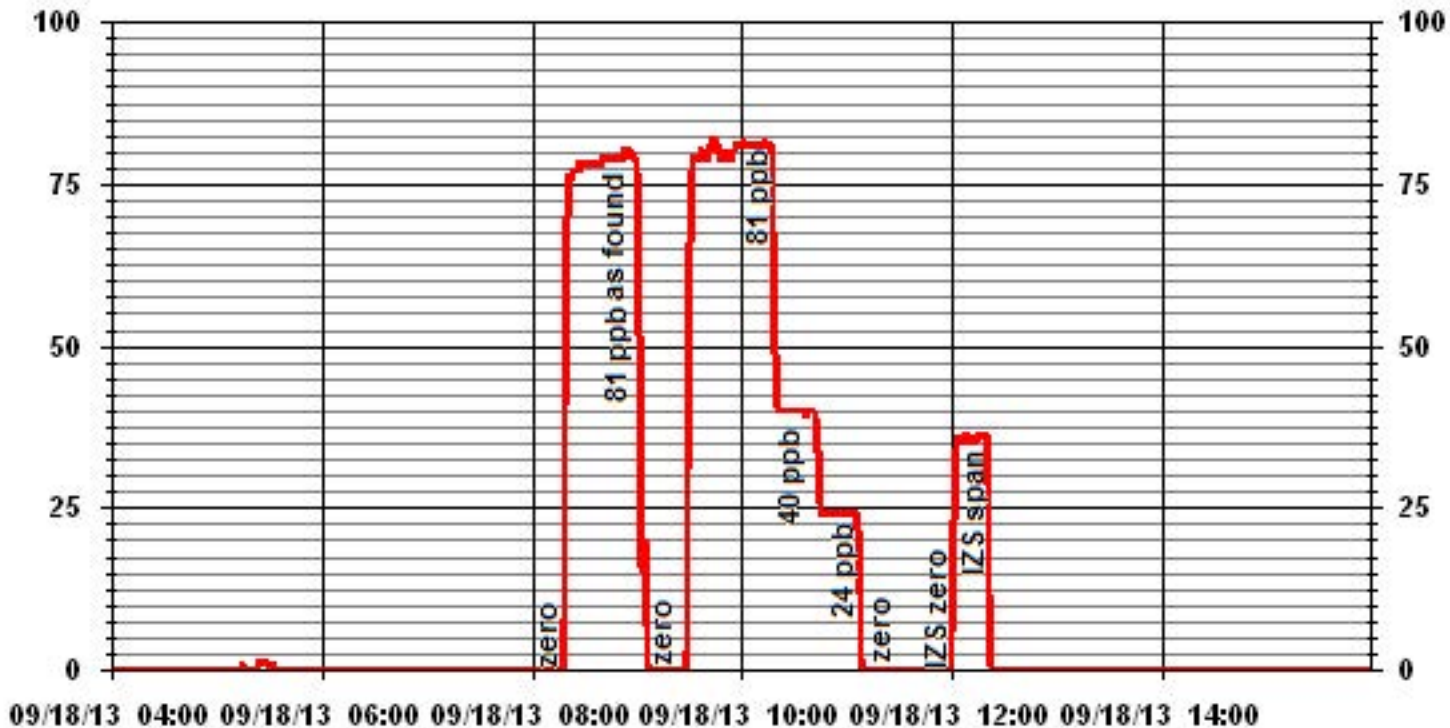
Calibration Date	September 18, 2013
Company	Lakeland Industry & Community Association
Plant / Location	Cold Lake South
Start Time (MST)	9:08
End Time (MST)	11:28

Calculated Conc. ppb	Indicated Response ppb	Correction Factor	Correlation Coefficient (≥ 0.995)	
0	0	N/A	Slope (0.85 to 1.15)	0.999952
24	24	1.0000	Intercept (± 3% F.S.)	1.002494
40	40	1.0000		-0.206349
81	81	1.0000		



Notes:

01 Minute Averages



Total Hydrocarbons

THC Calibration Report

Station Information

Calibration Date:	September 18, 2013	Previous Calibration	August 30, 2013
Company:	Lakeland Industry & Community Association		
Plant / Location:	Cold Lake South		
Start Time (MST)	11:58	End Time (MST)	12:41
Reason:	AF		
Barometric Pressure:	27.98	in HG	Station Temperature:
Calibrator:	API 700	S/N:	690
Cal Gas Concentration:	CH4 593 PPM	C3H8 205 PPM	Gas Cyl. # LL84567
	TOTAL CH4 1156.8 PPM	Cal Gas Expiry Date: June 7, 2014	
DAS make & Model:	ESC 8832	S/N :	A3485K
Chart Recorder:	N/A	S/N:	N/A
Output Voltage Range:	0-10	VDC	Chart Speed:
			N/A mm/hr

Analyzer Information

Make / Model	Thermo 51C-LT	S/N :	427408718	Method	Flame Ionization
--------------	---------------	-------	-----------	--------	------------------

Analyzer Settings

	Before Calibration		After Calibration	
Concentration Range	0-50	ppm	0-50	ppm
Sample Pressure	6.5	psi	6.5	psi
Hydrogen Pressure	9	psi	9	psi
Air Pressure	20	psi	20	psi

Calibration Data

Dilution Flow	Source Gas Flow	Calculated Concentration	Indicated Concentration	Correction Factor
1995	0.0	0.0	-0.1	N/A
	No zero adj.			
1995	74.0	41.4	41.8	0.9898
New Correction Factor:				0.9898

Percent Change

Previous Calibration Correction Factor:	1.0030
Current Correction Factor Before Span Adjust:	0.9898
Percent Change:	1.3%

IZS Calibration Data

	Before Calibration	After Calibration
Auto Zero	0.0	0.0
Auto Span	36.35	36.35
Sample Lines Connected		Yes

Cylinder Pressures

Span 2000 psi Hydrogen 1300 psi Zero Air 34 psi

Notes: **N/A : Not Applicable**

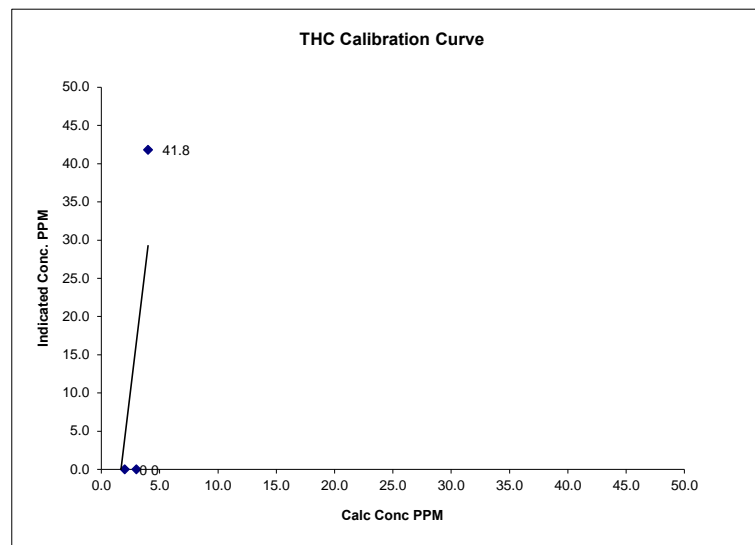
Calibration Performed by: Waseem Ahmed

No Zero Adj.
No Span Adj.

THC Calibration Curve

Calibration Date	September 18, 2013
Company	Lakeland Industry & Community Association
Plant / Location	Cold Lake South
Start Time (MST)	11:58 End Time (MST) 12:41

Calculated Conc.	Indicated Response	Correction Factor	Correlation Coefficient	(≥ 0.995)
ppm	ppm		Slope	(0.85 to 1.15)
0.0	-0.1	N/A	Intercept	(± 3% F.S.)
41.4	41.8	0.9898		



Notes:

THC Calibration Report

Station Information

Calibration Date:	September 18, 2013	Previous Calibration	August 30, 2013
Company:	Lakeland Industry & Community Association		
Plant / Location:	Cold Lake South		
Start Time (MST)	12:45	End Time (MST)	14:46
Reason:	Monthly calibration		
Barometric Pressure:	27.99 in HG	Station Temperature:	24 Deg C
Calibrator:	API 700	S/N:	690
Cal Gas Concentration:	CH4 593 PPM	C3H8 205 PPM	
	TOTAL CH4 1156.8 PPM	Gas Cyl. # LL84567	Cal Gas Expiry Date: June 7, 2014
DAS make & Model:	ESC 8832	S/N :	A3485K
Chart Recorder:	N/A	S/N:	N/A
Output Voltage Range:	0-10 VDC	Chart Speed:	N/A mm/hr

Analyzer Information

Make / Model	Thermo 51C-LT	S/N :	427408718	Method	Flame Ionization
--------------	---------------	-------	-----------	--------	------------------

Analyzer Settings

	Before Calibration		After Calibration	
Concentration Range	0-50	ppm	0-50	ppm
Sample Pressure	6.5	psi	6.5	psi
Hydrogen Pressure	9	psi	9	psi
Air Pressure	20	psi	20	psi

Calibration Data

Dilution Flow	Source Gas Flow	Calculated Concentration	Indicated Concentration	Correction Factor
1995	0.0	0.0	0.0	N/A
	No zero adj.			
1995	74.0	41.4	41.3	1.0018
	No span adj.			
1995	37.0	21.1	20.9	1.0078
1995	20.0	11.5	11.1	1.0344
1995	0.0	0.0	0.0	N/A
New Correction Factor:				1.0018

Percent Change

Previous Calibration Correction Factor:	1.0030
Current Correction Factor Before Span Adjust:	1.0018
Percent Change:	0.1%

IZS Calibration Data

	Before Calibration	After Calibration
Auto Zero	0.0	0.0
Auto Span	36.35	33.98
Sample Lines Connected		Yes

Cylinder Pressures			
Span	2000 psi	Hydrogen	1300 psi
		Zero Air	34 psi

Notes: **N/A : Not Applicable**

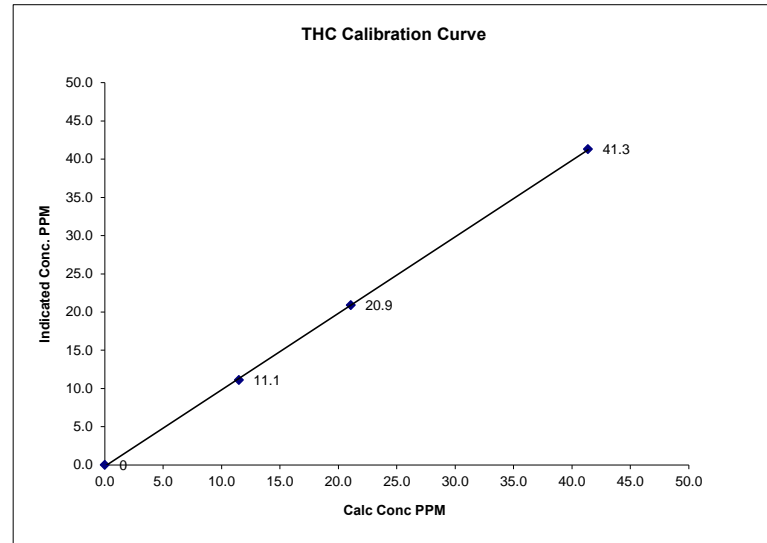
Calibration Performed by: Waseem Ahmed

No Zero Adj.
No Span Adj.

THC Calibration Curve

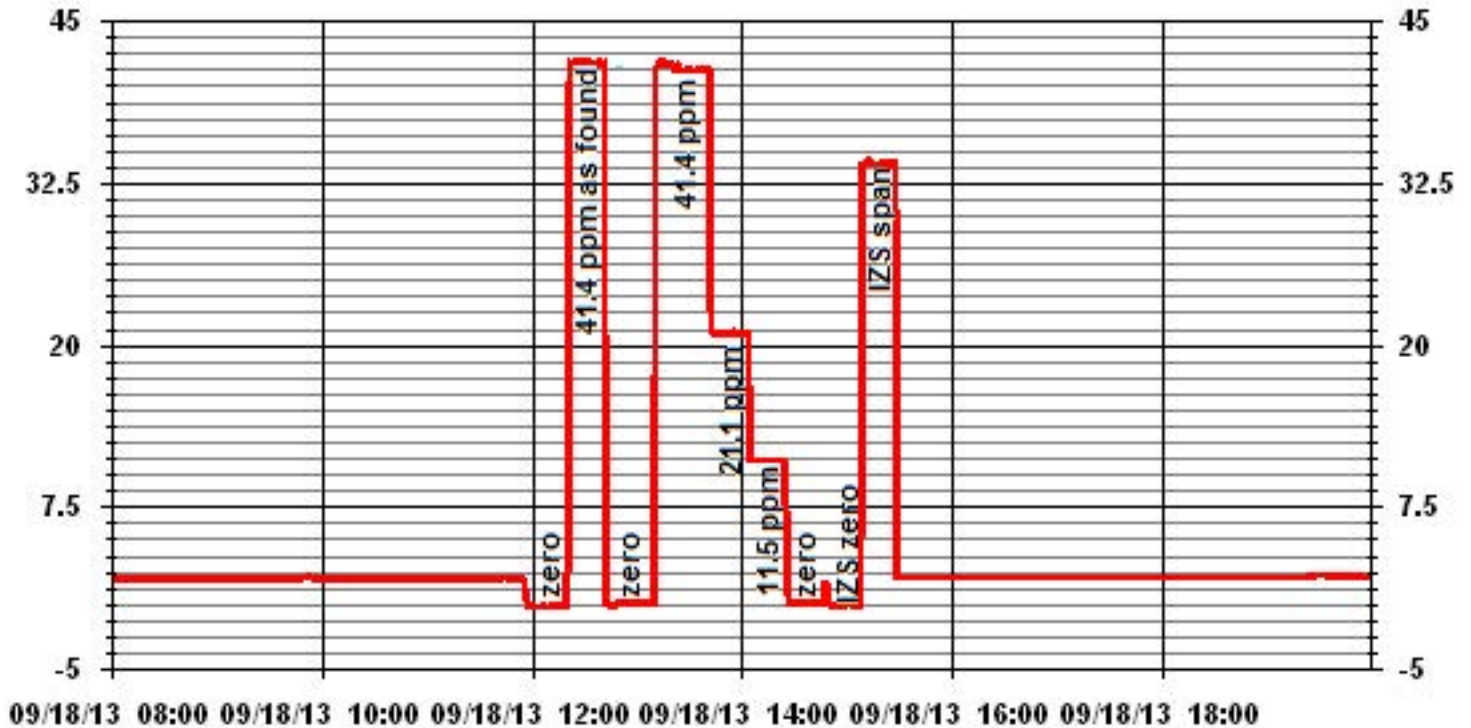
Calibration Date	September 18, 2013		
Company	Lakeland Industry & Community Association		
Plant / Location	Cold Lake South		
Start Time (MST)	12:45	End Time (MST)	14:46

Calculated Conc. ppm	Indicated Response ppm	Correction Factor	Correlation Coefficient (≥ 0.995)	0.999911
0.0	0.0	N/A	Slope (0.85 to 1.15)	1.000641
11.5	11.1	1.0344	Intercept (± 3% F.S.)	-0.16601
21.1	20.9	1.0078		
41.4	41.3	1.0018		



Notes:

01 Minute Averages



Particulate Matter 2.5

TEOM 1405F Audit

<u>Station</u>		<u>Audit Transfer Standard</u>	
Date:	September 17, 2013	Make/Model:	Streamline FTS
Station Name:	LICA 1	Serial Number:	LO 091099, HI 091001
Location:	Cold Lake South	Cell s/n:	N/A
Operator:	LICA	Thermometer s/n:	Station Temp. Sensor
<u>Sampler</u>		<u>Set-up and current Sampler readings</u>	
Make/Model	Thermo TEOM 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 (%)	18.0%
Firmware Ver.	1.52	K _o Factor	14578.0
Parameter	PM 2.5 (with FDMS)	Temp (°C)	15.3
		Press (ATM)	0.925

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 <0.10µg	0.007	Warnings	None
Pump Vacuum <0.40atm	0.38	Pump Gauge (inHg)	N/A
Temperature/Pressure		D °C	
Measured Temp (± 2 °C)	15.2		0.0
Measured Press (± 0.01atm)	0.916	DATM	0.009
Flow Audit		Instrument Setup	
Indicated Main Flow (l/min)	3.00	Main Flow Drift (±10.0%)	0.31%
Measured Main Flow (l/min)	2.96	Flow Adjusted to Measured?	Yes
Indicated Bypass Flow (l/min)	13.67	Bypass Flow Drift (±10.0%)	0.64%
Measured Bypass Flow (l/min)	13.66	Flow Adjusted to Measured?	Yes
Leak Check		Instrument Setup	
Main (< 0.15 l/min)	Base= 0.00 Ref = 0.00	Flow Control=	Active
Aux (< 0.6 l/min)	Base= 0.00 Ref = 0.00	Report Conditions=	Actual
K_o Factor			
Measured	N/A		
K _o Difference (± 2.5%)	N/A		

Start Time: 7:30 **Finish Time:** 9:00

Sample Inlet Cleaned: Yes **New Filters Installed:** Yes
New Filter Loading %: 14.3%

Comments:

Auditor/s: Waseem Ahmed

TEOM 1405F Audit

<u>Station</u>		<u>Audit Transfer Standard</u>	
Date:	<u>September 18, 2013</u>	Make/Model:	<u>Streamline FTS</u>
Station Name:	<u>LICA 1</u>	Serial Number:	<u>LO 091099, HI 091001</u>
Location:	<u>Cold Lake South</u>	Cell s/n:	<u>N/A</u>
Operator:	<u>LICA</u>	Thermometer s/n:	<u>Station Temp. Sensor</u>
<u>Sampler</u>		<u>Set-up and current Sampler readings</u>	
Make/Model	<u>Thermo TEOM Series 1405F</u>	F-Main Set Pt (l/min)	<u>3.00</u>
Unit #	<u>AMU 1775</u>	F-Aux Set Pt (l/min)	<u>13.67</u>
Unit s/n	<u>1405A201620804</u>	Filter Load (%)	<u>16.8%</u>
Firmware Ver.	<u>1.52</u>	K _o Factor	<u>14578.0</u>
Parameter	<u>PM 2.5 (with FDMS)</u>	Temp (°C)	<u>10.1</u>
		Press (ATM)	<u>0.935</u>

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 <0.10µg	<u>0.024</u>	Warnings	<u>None</u>
Pump Vacuum <0.40atm	<u>0.35</u>	Pump Gauge (inHg)	<u>N/A</u>
Temperature/Pressure		D °C	
Measured Temp (± 2 °C)	<u>9.9</u>		<u>0.2</u>
Measured Press (± 0.01atm)	<u>0.933</u>	DATM	<u>0.002</u>
Flow Audit			
Indicated Main Flow (l/min)	<u>3.00</u>	Main Flow Drift (±10.0%)	<u>1.81%</u>
Measured Main Flow (l/min)	<u>3.04</u>	Flow Adjusted to Measured?	<u>Yes</u>
Indicated Bypass Flow (l/min)	<u>13.67</u>	Bypass Flow Drift (±10.0%)	<u>0.77%</u>
Measured Bypass Flow (l/min)	<u>13.87</u>	Flow Adjusted to Measured?	<u>Yes</u>
Leak Check		Instrument Setup	
Main (< 0.15 l/min)	<u>Base= NA Ref = NA</u>	Flow Control=Active	
Aux (< 0.6 l/min)	<u>Base= NA Ref = NA</u>	Report Conditions=Actual	
K_o Factor			
Measured	<u>N/A</u>		
K _o Difference (± 2.5%)	<u>N/A</u>		

Start Time: 11:30 **Finish Time:** 12:55

Sample Inlet Cleaned: No **New Filters Installed:** NA

New Filter Loading %: NA

Comments:

Auditor/s: Waseem Ahmed

Nitrogen Dioxide

NOx - NO- NO2 Calibration Report

Station Information

Calibration Date	September 18, 2013	Previous Calibration	August 15, 2013
Company	LICA	Plant/Location	Cold Lake South
Start Time (MST)	7:50	End Time (MST)	8:55
Reason:	AF		
Barometric Pressure	27.95 in HG	Station Temperature	24 Deg C
Cal Gas Concentration	NOx 49.3 ppm	NO	49.2 ppm
Cal Gas Cylinder #	BAL3031	Cal Gas Expiry date	December 29, 2016
DAS Output Voltage	0-10 Volts	Chart Rec. Output	N/A Volts

Equipment Information

Analyzer Make / Model:	Thermo 42C	S/N :	427408716	Method:	Chemiluminescent
Calibrator Make / Model:	EnviroNics 6100	S/N:	4760		
DAS Make / Model:	ESC 8832	S/N :	A3485K		
Chart Recorder Make / Model:	N/A	S/N:	N/A		
Flow Meter:	EnviroNics 6100	S/N :	4760		

Analyzer Settings

Before Calibration				After Calibration			
Concentration Range							
Sample Flow/Conv. Temp	682 ccm	318 Deg C		680 ccm	317 Deg C		
Ozone Flow / Vacuum	OK ccm	196.4 *Hg-A		OK ccm	196.4 *Hg-A		
HVPS / A ZERO	-821 Volts	N/A MV		-821 Volts	N/A MV		
Rx/ Temp / PMT Temp	49.9 Deg C	-2.5 Deg C		49.9 Deg C	-2.5 Deg C		
Box Temp / IZS Temp	28.4 Deg C	OK Deg C		28.9 Deg C	OK Deg C		
Offset	4.3 NOx	4.1 NO		4.3 NOx	4.1 NO		
Slope	1.006 NOx	1.023 NO		1.006 NOx	1.023 NO		
NO2 COEF / Conv Efficiency	0.998 NO2	N/A		0.998 NO2	N/A		

Dilution Calibration Data

Dilution Air Flow Rate	Source Flow Rate	O3 Set Point	Calculated Concentration			Indicated Concentration			Correction Factor	
			NOx	NO	NO2	NOx	NO	NO2	NOx	NO
4994	0.0	NA	0	0	NA	0	0	0	NA	NA
	No zero adj.									
4915	39.9	NA	397	396	NA	379	377	2	1.0464	1.0499

Gas Phase Titration Calibration Data

Dilution Air Flow Rate	Source Flow Rate	O3 Set Point	Calculated Concentration			Indicated Concentration			NO2 Correction Factor	NO2 Conv Efficiency
			NOx	NO	NO2	NOx	NO	NO2		

Linearity OK?	Yes	No	Sum of Least Squares Correction Factors:	NOx= 1.0464	NO= 1.0499	NO2=
			Average Converter Efficiency=			

IZS Calibration Data

Before Calibration				After Calibration			
Auto Zero	0.0 NOx	0.0 NO2		0.0 NOx	0.0 NO2		
Auto Span	385 NOx	379 NO2		385 NOx	379 NO2		
	Sample Lines Connected:			YES			

Percent Change

	NOx	NO	NO2
Previous Month's Calibration Correction Factor	0.997	0.997	
Current Correction Factor Before Span Adjust	1.046	1.050	
Percent Change	-4.8%	-5.0%	

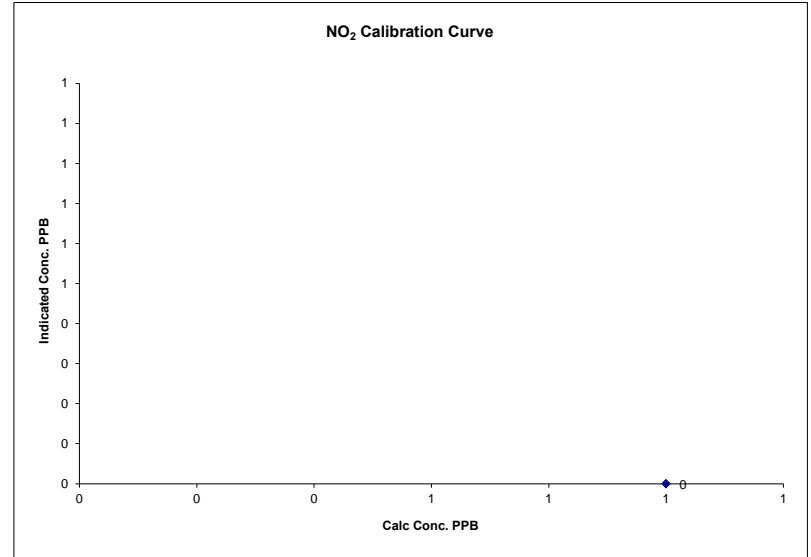
Notes: **NA : Not Applicable**

Calibration Performed by: Waseem Ahmed

NO2 Calibration Curve

Calibration Date	September 18, 2013
Company	LICA
Plant / Location	Cold Lake South
Start Time (MST)	7:50
End Time (MST)	8:55

Calculated Conc. ppb	Indicated Response ppb	Correction Factor	Correlation Coefficient (≥ 0.995)
2			Slope (0.85 to 1.15)
			Intercept (± 3% F.S.)



Notes:

NOx - NO- NO2 Calibration Report

Station Information

Calibration Date	September 18, 2013	Previous Calibration	August 15, 2013
Company	LICA	Plant/Location	Cold Lake South
Start Time (MST)	9:35	End Time (MST)	13:41
Reason:	Monthly calibration		
Barometric Pressure	27.96 in HG	Station Temperature	24 Deg C
Cal Gas Concentration	NOx 49.3 ppm	NO	49.2 ppm
Cal Gas Cylinder #	BAL3031	Cal Gas Expiry date	December 29, 2016
DAS Output Voltage	0-10 Volts	Chart Rec. Output	N/A Volts

Equipment Information

Analyzer Make / Model:	Thermo 42C	S/N :	427408716	Method:	Chemiluminescent
Calibrator Make / Model:	EnviroNics 6100	S/N:	4760		
DAS Make / Model:	ESC 8832	S/N :	A3485K		
Chart Recorder Make / Model:	N/A	S/N:	N/A		
Flow Meter:	EnviroNics 6100	S/N :	4760		

Analyzer Settings

Before Calibration				After Calibration			
Concentration Range							
Sample Flow/Conv. Temp	682 ccm	318 Deg C		683 ccm	317 Deg C		
Ozone Flow / Vacuum	OK ccm	196.4 °Hg-A		OK ccm	196.7 °Hg-A		
HVPS / A ZERO	-821 Volts	N/A MV		-821 Volts	N/A MV		
Rx/ Temp / PMT Temp	49.9 Deg C	-2.5 Deg C		49.5 Deg C	-2.5 Deg C		
Box Temp / IZS Temp	28.4 Deg C	OK Deg C		28.9 Deg C	OK Deg C		
Offset	4.3 NOx	4.1 NO		4.6 NOx	4.3 NO		
Slope	1.006 NOx	1.023 NO		1.003 NOx	1.076 NO		
NO2 COEF / Conv Efficiency	0.998 NO2	N/A		0.998 NO2	N/A		

Dilution Calibration Data

Dilution Air Flow Rate	Source Flow Rate	O3 Set Point	Calculated Concentration			Indicated Concentration			Correction Factor	
			NOx	NO	NO2	NOx	NO	NO2	NOx	NO
4994	0.0	NA	0	0	NA	0	0	0	NA	NA
	No zero adj.									
4920	39.9	NA	396	395	NA	396	396	1	1.0000	0.9987
	No span adj.									
4961	20.0	NA	198	198	NA	201	200	1	0.9863	0.9892
4981	10.0	NA	99	99	NA	102	101	1	0.9694	0.9770
4994	0.0	NA	0	0	NA	0	0	0	NA	NA

Gas Phase Titration Calibration Data

Dilution Air Flow Rate	Source Flow Rate	O3 Set Point	Calculated Concentration			Indicated Concentration			NO2 Correction Factor	NO2 Conv Efficiency
			NOx	NO	NO2	NOx	NO	NO2		
4920	39.9	NA	396	395	NA	396	395	1	NA	NA
4920	39.9	350	396	NA	311	396	85	311	1.0000	100.00%
	No adj.									
4920	39.9	150	396	NA	134	397	262	135	0.9926	100.75%
4920	39.9	75	396	NA	66	397	330	66	1.0000	100.00%

Linearity OK?	Yes	No	Sum of Least Squares Correction Factors:	NOx= 0.996	NO= 0.996	NO2= 0.999
				NOx= 1.0000	NO= 0.9987	NO2= 1.0000
				Average Converter Efficiency= 100.25%		

IZS Calibration Data

Before Calibration				After Calibration			
Auto Zero	0.0 NOx	0.0 NO2		0.0 NOx	0.0 NO2		
Auto Span	385 NOx	379 NO2		427 NOx	422 NO2		
	Sample Lines Connected:			YES			

Percent Change

	NOx	NO	NO2
Previous Month's Calibration Correction Factor	0.997	0.997	1.000
Current Correction Factor Before Span Adjust	1.000	0.999	1.000
Percent Change	-0.3%	-0.2%	0.0%

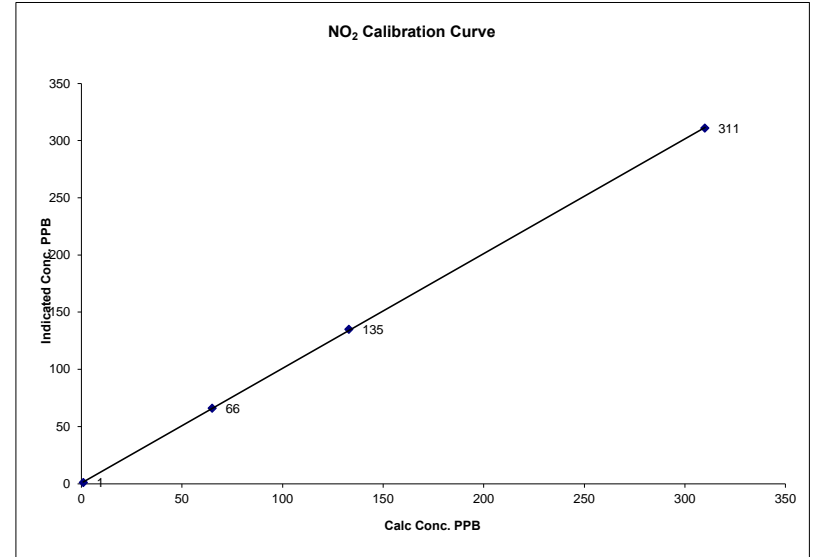
Notes: **NA : Not Applicable**

Calibration Performed by: Waseem Ahmed

NO2 Calibration Curve

Calibration Date	September 18, 2013
Company	LICA
Plant / Location	Cold Lake South
Start Time (MST)	9:35
End Time (MST)	13:41

Calculated Conc. ppb	Indicated Response ppb	Correction Factor	Correlation Coefficient Slope	(≥ 0.995) Intercept	(0.85 to 1.15) (± 3% F.S.)
1	1	NA			0.999969
65	66	0.9848			1.002479
133	135	0.9852			0.68453
310	311	0.9968			

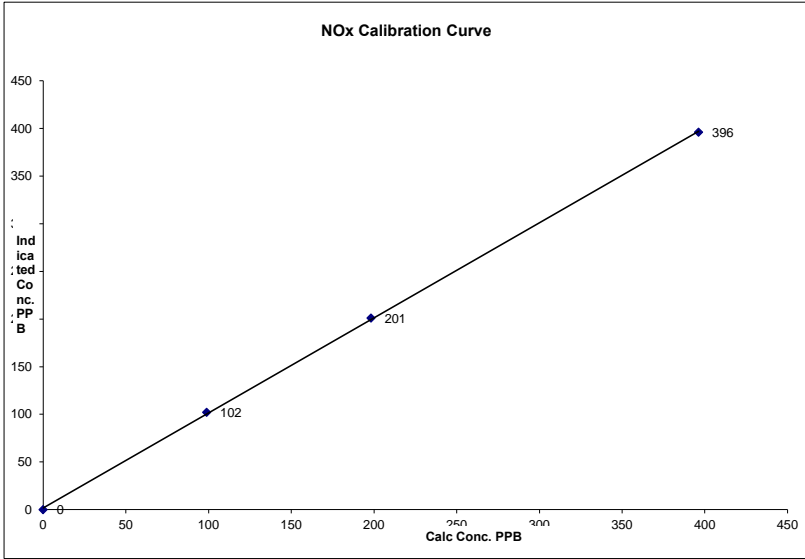


Notes:

NOx Calibration Curve

Calibration Date	September 18, 2013		
Company	LICA		
Plant / Location	Cold Lake South		
Start Time (MST)	9:35	End Time (MST)	13:41

Calculated Conc. ppb	Indicated Response ppb	Correction Factor	Correlation Coefficient (≥ 0.995)	0.999894
0	0	NA	Slope (0.85 to 1.15)	0.997314
99	102	0.9694	Intercept (± 3% F.S.)	1.85981
198	201	0.9863		
396	396	1.0000		

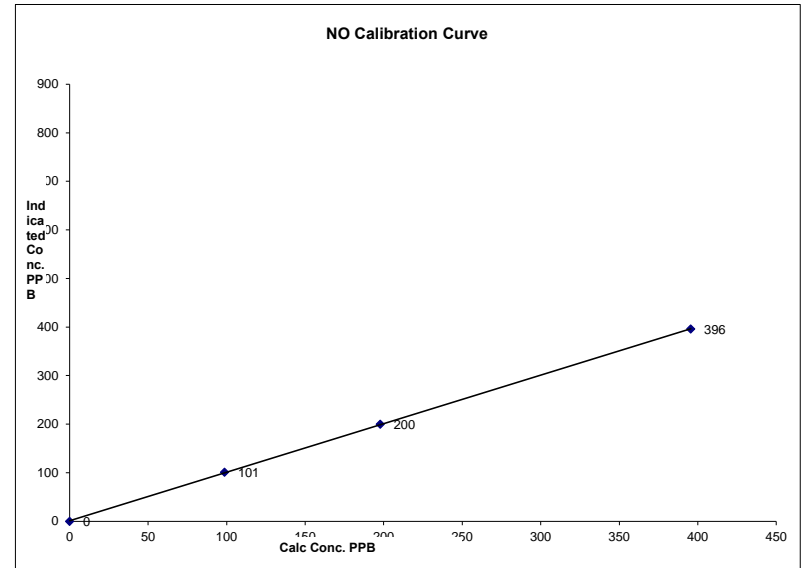


Notes:

NO Calibration Curve

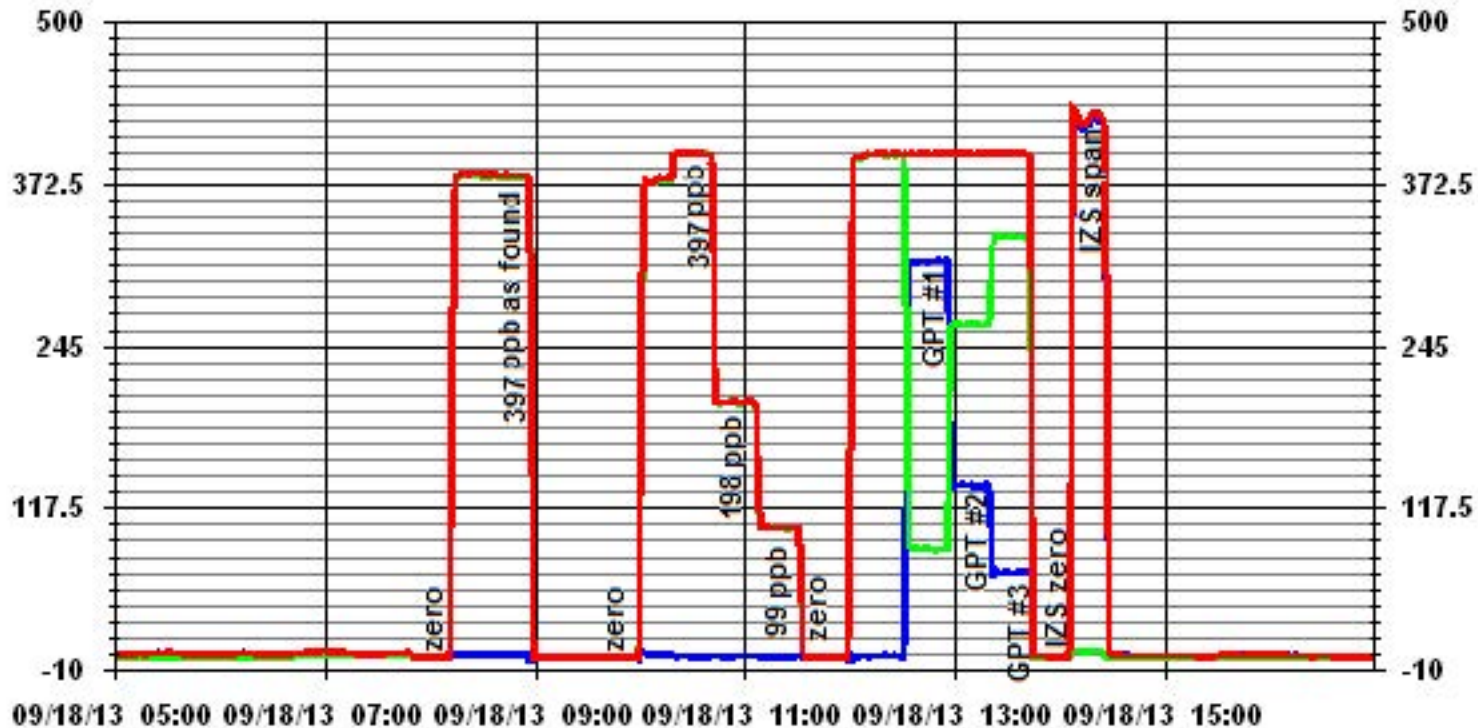
Calibration Date	September 18, 2013		
Company	LICA		
Plant / Location	Cold Lake South		
Start Time (MST)	9:35	End Time (MST)	13:41

Calculated Conc. ppb	Indicated Response ppb	Correction Factor	Correlation Coefficient (≥ 0.995)	0.999952
0	0	NA	Slope (0.85 to 1.15)	0.999919
99	101	0.9770	Intercept (± 3% F.S.)	1.25976
198	200	0.9892		
395	396	0.9987		



Notes:

01 Minute Averages



Ozone

O₃ Calibration Report

Station Information

Calibration Date	September 18, 2013	Previous Calibration	August 15, 2013
Company	Lakeland Industry & Community Association		
Plant / Location	LICA 1 - Cold Lake South		
Start Time (MST)	14:14	End Time (MST)	16:20
Reason:	Monthly Calibration		
Barometric Pressure	27.99 inHg	Station Temperature	25 Deg C
DAS Output Voltage	0 - 10 Volts		

Equipment Information

Analyzer Make / Model:	Thermo 49i	S/N :	700419951	Method:	Photometric
Calibrator Make / Model:	Envionics 6100	S/N :	4760	Method:	GPT
DAS Make / Model:	ESC 8832	S/N :	3485		

Analyzer Settings

Before Calibration				After Calibration			
Concentration Range	0 - 500			ppb			
Cell A Flow / Cell B Flow	710 LPM	750 LPM		710 LPM	750 LPM		
O ₃ Set Level	703 mmHg			703 mmHg			
Bench Lamp	29.4 Deg C			29.8 Deg C			
O ₃ Lamp / Box Temp	53.5 Deg	67.5 Deg C		53.5 Deg C	67.5 Deg C		
Offset / Slope	-0.1	1.045		-0.1	1.035		

Calibration Data

Dilution Flow Rate	Ozone Set Point	Calculated Concentration	Indicated Conc. (DAS)	Correction Factor
4995	0	0	0	NA
	No Zero Adj.			
4995	350	310	313	0.9904
4995	350	310	310	1.0000
4995	150	133	133	1.0000
4995	75	65	65	1.0000
4995	0	0	0	NA
Sum of Least Squares				1.0000
New Correction Factor				1.0000

IZS Calibration Data

Before Calibration		After Calibration	
Auto Zero	0.0	Auto Zero	0.0
Auto Span	277	Auto Span	277
Sample Lines Connected		Sample Lines Connected	YES
Previous Calibration Correction Factor:		Previous Calibration Correction Factor:	0.9968
Current Correctio Factor Before Span Adjust:		Current Correctio Factor Before Span Adjust:	0.9904
Percent Change:		Percent Change:	0.6%

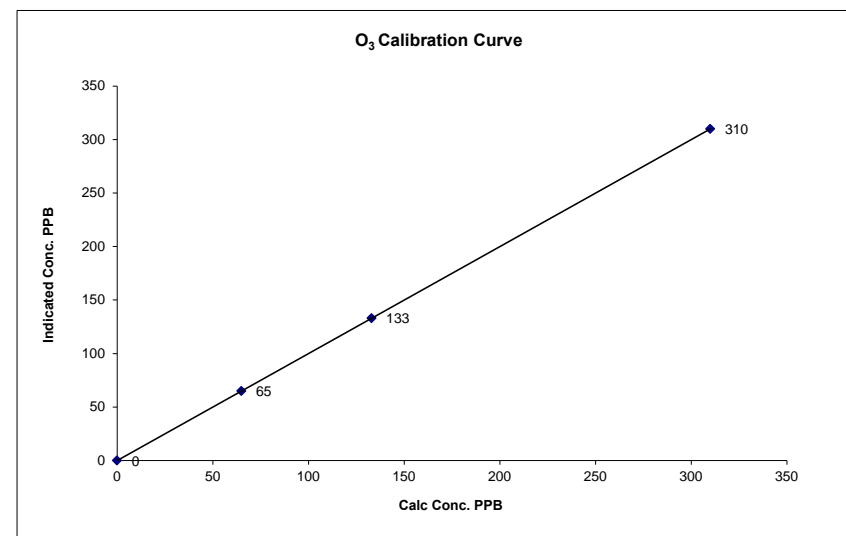
Note: NA : Not Applicable

Calibration Performed by: Waseem Ahmed

O₃ Calibration Curve

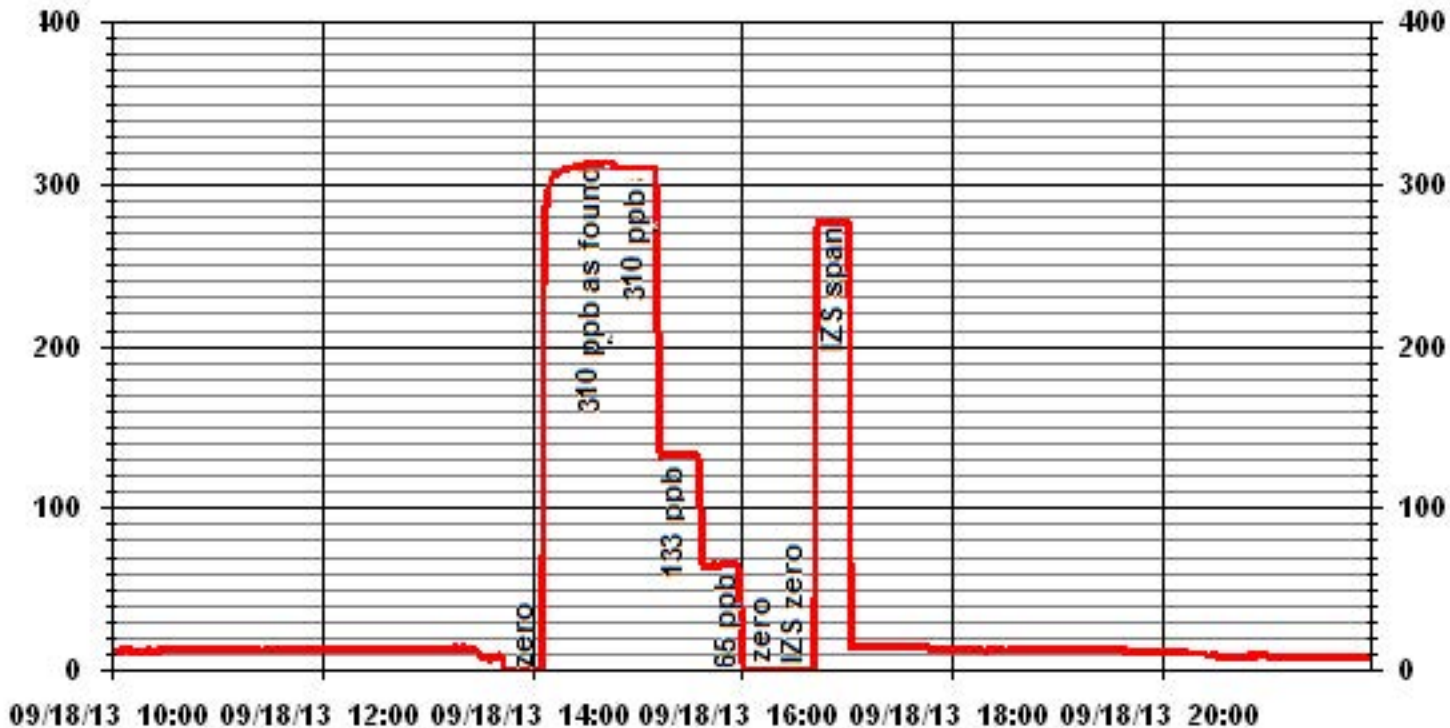
Calibration Date	September 18, 2013
Company	Lakeland Industry & Community Association
Plant / Location	LICA 1 - Cold Lake South
Start Time (MST)	14:14
End Time (MST)	16:20

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	1.000000	1.000000	0.000000
65	65	1.0000			
133	133	1.0000			
310	310	1.0000			



Notes:

01 Minute Averages



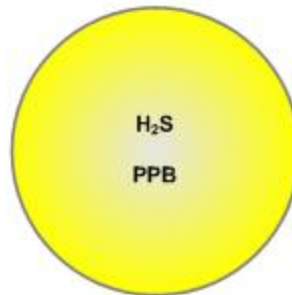
Passive Bubble Maps

Lakeland Industry & Community Association H₂S Passive Bubble Map

SEPTEMBER 2013

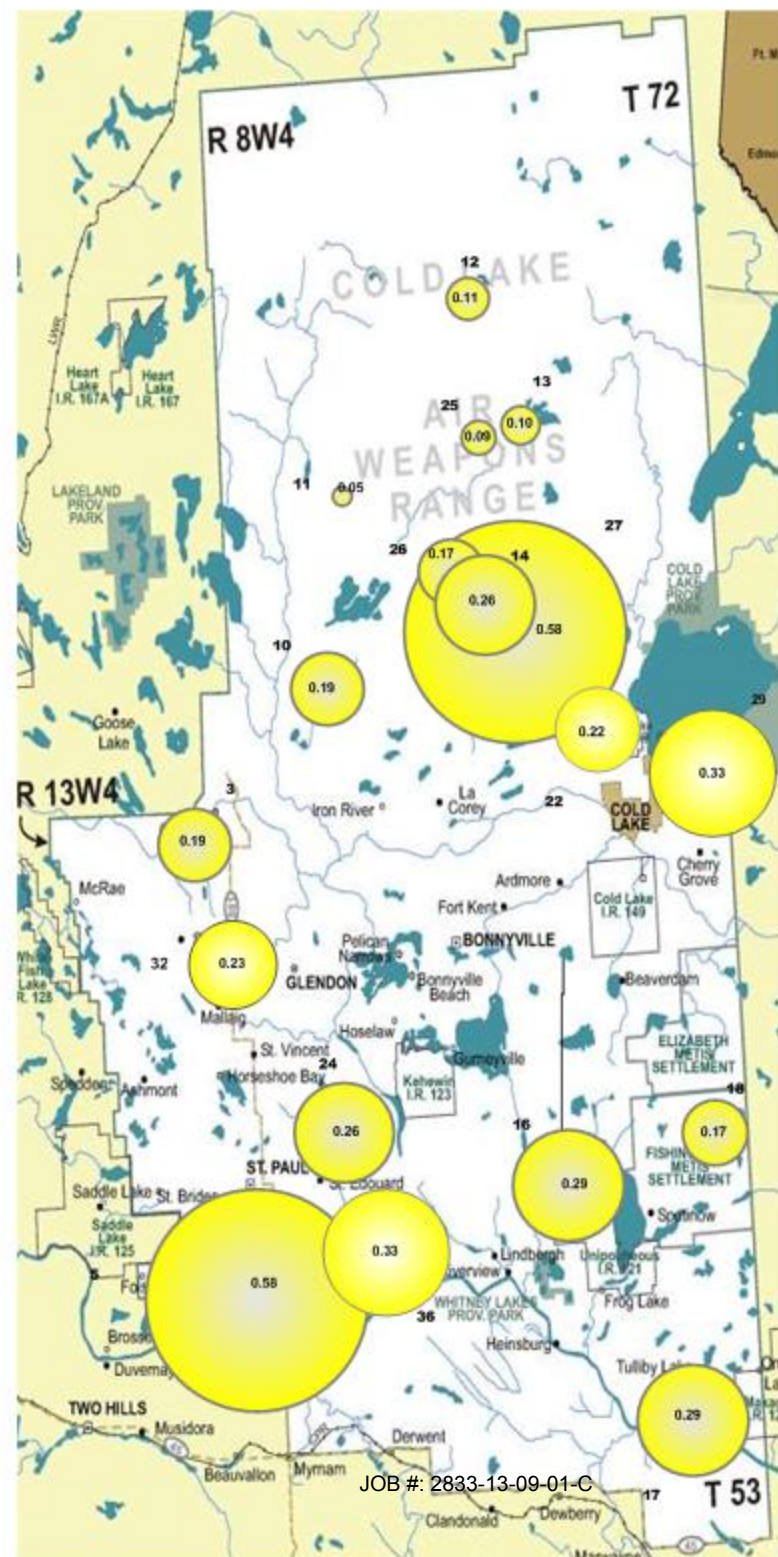
PASSIVE STATIONS

Station Name	Reading (PPB)	Duplicate
3 – Therien	0.19 PPB	NA
5 – Lake Eliza	0.58 PPB	NA
10 – La Corey	0.19 PPB	NA
11 – Wolf Lake	0.05 PPB	NA
12 – Foster Creek	0.11 PPB	NA
13 – Primrose	0.10 PPB	NA
14 – Maskwa	0.26 PPB	NA
16 – Frog Lake	0.29 PPB	NA
17 – Clear Range	0.29 PPB	0.28 PPB
18 – Fishing Lake	0.18 PPB	0.16 PPB
22 – Cold Lake South	0.22 PPB	NA
24 – Fort George	0.26 PPB	NA
25 – Burnt Lake	0.09 PPB	NA
26 – Mahihkan	0.17 PPB	NA
27 – Mahkeses	0.58 PPB	NA
29 – Cold Lake South 2	0.33 PPB	NA
32 – St. Lina	0.23 PPB	NA
36 – Elk Point	0.33 PPB	NA



Summary

Minimum : 0.05 PPB – Wolf Lake
 Maximum: 0.58 PPB – Mahkeses
 Average: 0.25 PPB (Includes Duplicates)



Lakeland Industry & Community Association NO₂ Passive Bubble Map

SEPTEMBER 2013

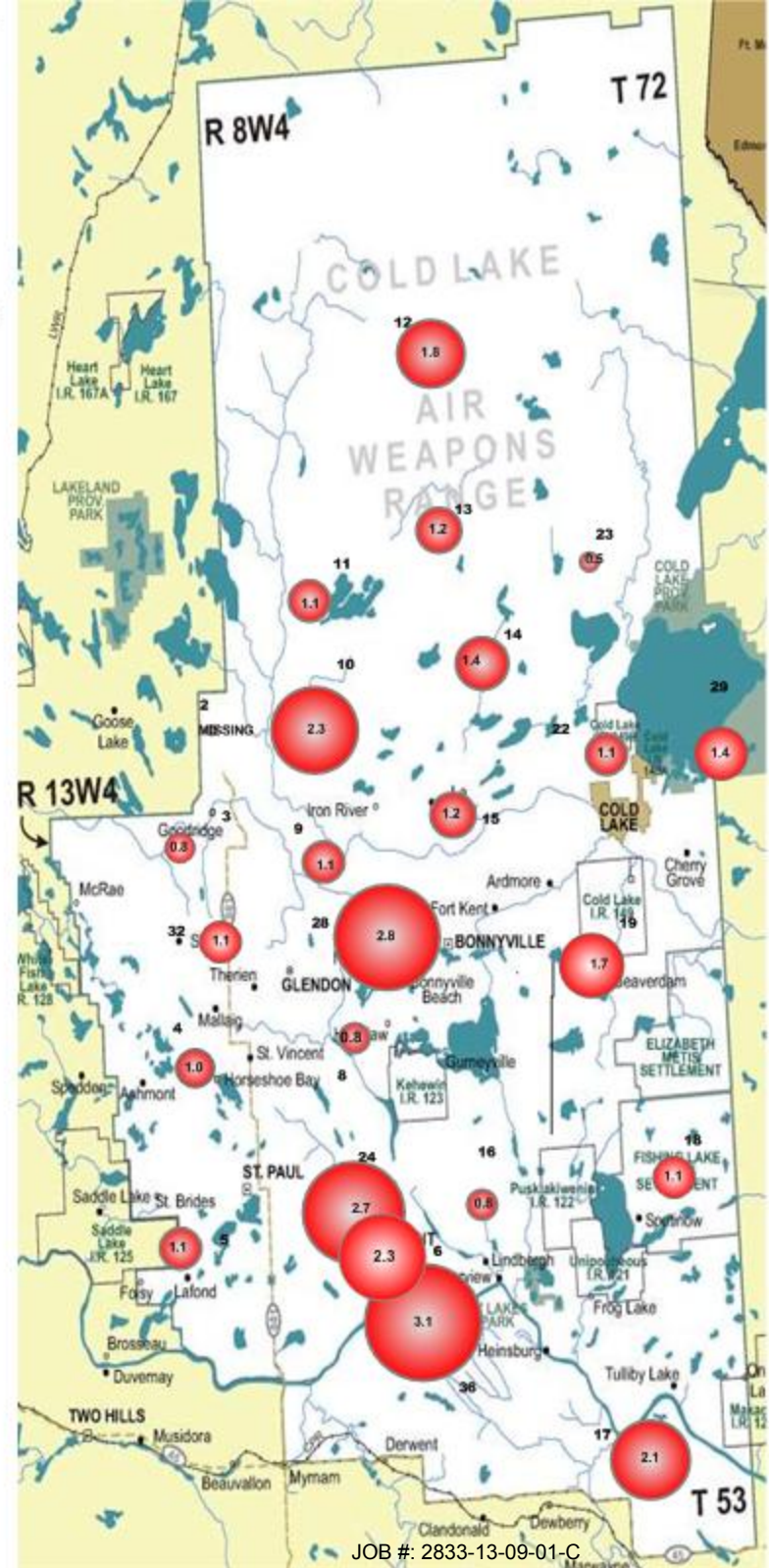
PASSIVE STATIONS

		DUPLICATE
2 – Sand River	MISSING	NA
3 – Therien	0.8 PPB	NA
4 – Flat Lake	1.0 PPB	NA
5 – Lake Eliza	1.1 PPB	NA
6 – Telegraph Creek	2.3 PPB	NA
8 – Muriel-Kehewin	0.8 PPB	NA
9 – Dupre	1.1 PPB	NA
10 – La Corey	2.3 PPB	NA
11 – Wolf Lake	1.1 PPB	NA
12 – Foster Creek	1.8 PPB	NA
13 – Primrose	1.2 PPB	NA
14 – Maskwa	1.4 PPB	NA
15 – Ardmore	1.2 PPB	NA
16 – Frog Lake	0.8 PPB	NA
17 – Clear Range	2.1 PPB	NA
18 – Fishing Lake	1.1 PPB	NA
19 – Beaverdam	1.7 PPB	NA
22 – Cold Lake South	1.1 PPB	NA
23 – Medley-Martineau	0.5 PPB	NA
24 – Fort George	2.0 PPB	3.3 PPB
28 – Town of Bonnyville	2.4 PPB	3.1 PPB
29 – Cold Lake South 2	1.4 PPB	NA
32 – St. Lina	1.1 PPB	NA
36 – Elk Point	3.1 PPB	NA



Summary

Minimum : 0.5 PPB – Medley-Martineau
Maximum: 3.1PPB – Elk Point
Average: 1.5 PPB *Includes Duplicates

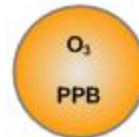


Lakeland Industry & Community Association O₃ Passive Bubble Map

SEPTEMBER 2013

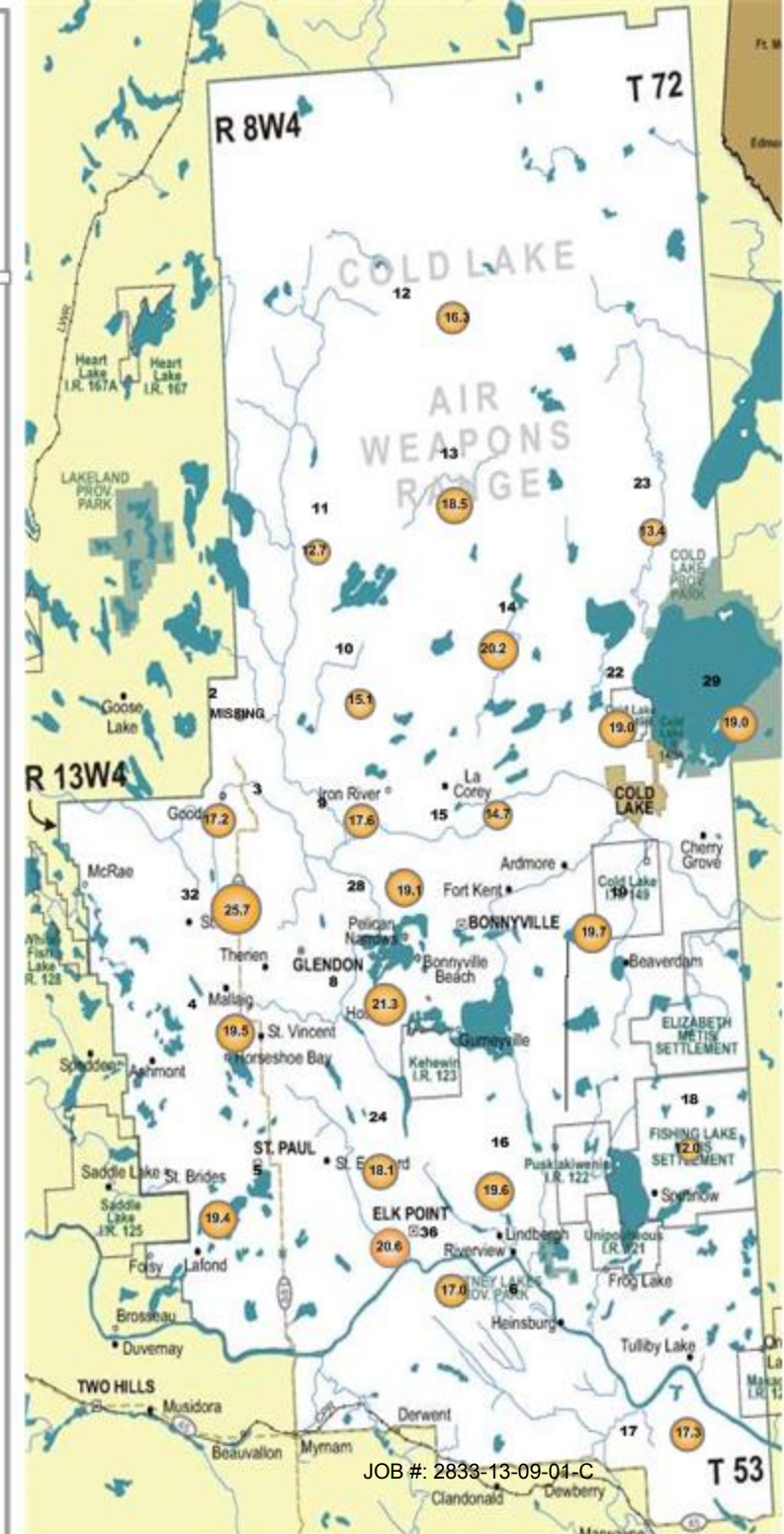
PASSIVE STATIONS

		DUPLICATE
2 – Sand River	MISSING	NA
3 – Therien	17.2 PPB	NA
4 – Flat Lake	19.5 PPB	NA
5 – Lake Eliza	19.4 PPB	NA
6 – Telegraph Creek	17.0 PPB	NA
8 – Muriel-Kehewin	21.3 PPB	NA
9 – Dupre	17.6 PPB	NA
10 – La Corey	15.1 PPB	NA
11 – Wolf Lake	12.7 PPB	NA
12 – Foster Creek	16.3 PPB	NA
13 – Primrose	18.5 PPB	NA
14 – Maskwa	20.2 PPB	NA
15 – Ardmore	14.7 PPB	NA
16 – Frog Lake	19.6 PPB	NA
17 – Clear Range	17.3 PPB	NA
18 – Fishing Lake	12.0 PPB	NA
19 – Beaverdam	19.7 PPB	NA
22 – Cold Lake South	19.0 PPB	NA
23 – Medley-Martineau	13.4 PPB	17.3 PPB
24 – Fort George	18.8 PPB	18.7 PPB
28 – Town of Bonnyville	19.5 PPB	NA
29 – Cold Lake South 2	19.0 PPB	NA
32 – St. Lina	25.7 PPB	NA
36 – Elk Point	20.6 PPB	NA



Summary

Minimum : 12.0 PPB – Fishing Lake
 Maximum: 25.7 PPB – St. Lina
 Average: 18.0 PPB *Includes Duplicates



Lakeland Industry & Community Association SO₂ Passive Bubble Map

SEPTEMBER 2013

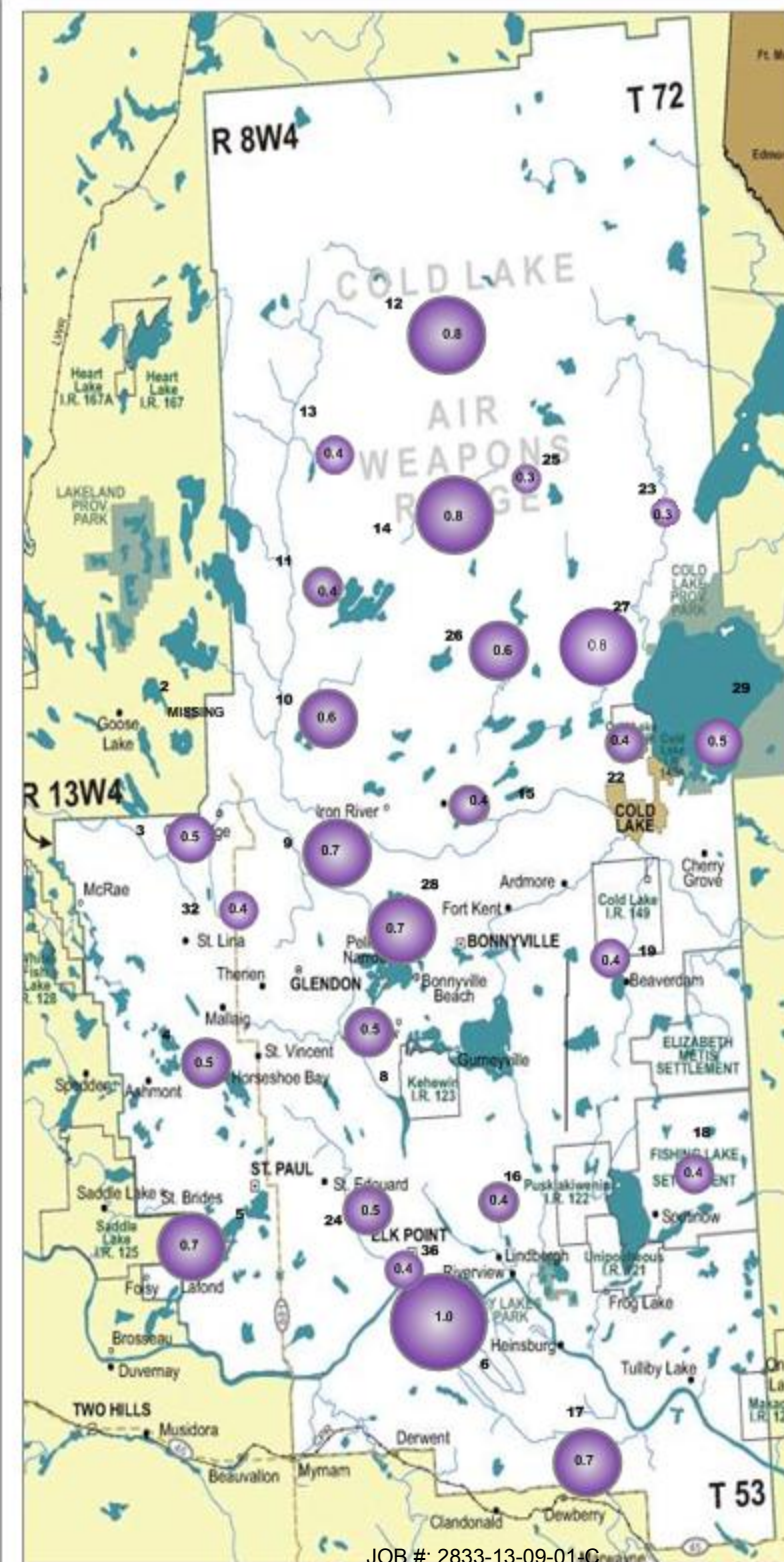
PASSIVE STATIONS

		DUPLICATE
2 – Sand River	MISSING	NA
3 – Therien	0.5 PPB	NA
4 – Flat Lake	0.6 PPB	NA
5 – Lake Eliza	0.7 PPB	NA
6 – Telegraph Creek	1.0 PPB	NA
8 – Muriel-Kehewin	0.5 PPB	NA
9 – Dupre	0.7 PPB	NA
10 – La Corey	0.6 PPB	NA
11 – Wolf Lake	0.3 PPB	0.4 PPB
12 – Foster Creek	1.2 PPB	0.4 PPB
13 – Primrose	0.3 PPB	0.4 PPB
14 – Maskwa	0.8 PPB	NA
15 – Ardmore	0.4 PPB	NA
16 – Frog Lake	0.4 PPB	NA
17 – Clear Range	0.7 PPB	NA
18 – Fishing Lake	0.4 PPB	NA
19 – Beaverdam	0.4 PPB	NA
22 – Cold Lake South	0.4 PPB	NA
23 – Medley-Martineau	0.3 PPB	NA
24 – Fort George	0.5 PPB	NA
25 – Burnt Lake	0.3 PPB	NA
26 – Mahikan	0.6 PPB	NA
27 – Mahkeses	1.2 PPB	NA
28 – Town of Bonnyville	0.7 PPB	NA
29 – Cold Lake South 2	0.5 PPB	NA
32 – St. Lina	0.4 PPB	NA
36 – Elk Point	0.4 PPB	NA



Summary

Minimum : 0.3 PPB –Various stations
 Maximum: 1.2 PPB –Foster Creek and Mahkeses
 Average: 0.56 PPB *Includes Duplicates



Passive Field Data

Field Notes

ID	SAMPLER	START		END		NOTES
		DATE	TIME	DATE	TIME	
2	SO ₂ /NO ₂ /O ₃	NA	NA	NA	NA	All samplers had been removed and samples are missing.
3	H ₂ S/SO ₂ /NO ₂ /O ₃	08/29/2013	16:55	09/26/2013	16:40	
4	SO ₂ /NO ₂ /O ₃	08/29/2013	15:30	09/26/2013	15:20	
5	H ₂ S/SO ₂ /NO ₂ /O ₃	08/29/2013	14:24	09/26/2013	14:10	
6	SO ₂ /NO ₂ /O ₃	08/29/2013	12:55	09/26/2013	12:20	
8	SO ₂ /NO ₂ /O ₃	08/29/2013	18:20	09/26/2013	18:05	
9	SO ₂ /NO ₂ /O ₃	08/29/2013	17:35	09/26/2013	17:15	
10	H ₂ S/SO ₂ /NO ₂ /O ₃	08/28/2013	11:38	09/27/2013	09:00	
11	H ₂ S/SO ₂ /NO ₂ /O ₃	08/28/2013	12:14	09/27/2013	09:40	
12	H ₂ S/SO ₂ /NO ₂ /O ₃	08/28/2013	13:40	09/27/2013	11:00	
13	H ₂ S/SO ₂ /NO ₂ /O ₃	08/28/2013	09:38	09/27/2013	13:55	
14	H ₂ S/SO ₂ /NO ₂ /O ₃	08/28/2013	10:25	09/27/2013	14:50	
15	SO ₂ /NO ₂ /O ₃	08/30/2013	15:40	09/27/2013	15:33	
16	H ₂ S/SO ₂ /NO ₂ /O ₃	08/29/2013	10:10	09/26/2013	09:35	
17	H ₂ S/SO ₂ /NO ₂ /O ₃	08/29/2013	12:05	09/26/2013	11:30	
18	H ₂ S/SO ₂ /NO ₂ /O ₃	08/29/2013	10:55	09/26/2013	10:15	
19	SO ₂ /NO ₂ /O ₃	08/29/2013	09:20	09/26/2013	08:55	
22	H ₂ S/SO ₂ /NO ₂ /O ₃	08/30/2013	13:25	09/26/2013	19:15	
23	SO ₂ /NO ₂ /O ₃	08/28/2013	19:14	09/27/2013	16:20	
24	H ₂ S/SO ₂ /NO ₂ /O ₃	08/29/2013	13:38	09/26/2013	12:54	
25	H ₂ S/SO ₂	08/28/2013	14:45	09/27/2013	12:15	
26	H ₂ S/SO ₂	08/28/2013	10:12	09/27/2013	14:30	
27	H ₂ S/SO ₂	08/28/2013	10:55	09/27/2013	15:03	
28	SO ₂ /NO ₂ /O ₃	08/29/2013	17:50	09/26/2013	17:30	
29	H ₂ S/SO ₂ /NO ₂ /O ₃	08/30/2013	13:10	09/26/2013	19:20	
32	H ₂ S/SO ₂ /NO ₂ /O ₃	08/29/2013	16:10	09/26/2013	16:00	
36	H ₂ S/SO ₂ /NO ₂ /O ₃	08/29/2013	13:40	09/26/2013	13:10	

ID	SAMPLER	START		END		NOTES
		DATE	TIME	DATE	TIME	
Duplicate # 11	SO ₂	08/28/2013	12:14	09/27/2013	09:40	
Duplicate # 12	SO ₂	08/28/2013	13:40	09/27/2013	11:00	
Duplicate # 13	SO ₂	08/28/2013	09:38	09/27/2013	13:55	
Duplicate # 17	H ₂ S	08/29/2013	12:05	09/26/2013	11:30	
Duplicate # 18	H ₂ S	08/29/2013	10:55	09/26/2013	10:15	
Duplicate # 24	NO ₂	08/29/2013	13:38	09/26/2013	12:54	
Duplicate # 28	NO ₂	08/29/2013	17:50	09/26/2013	17:30	
Duplicate # 24	O ₃	08/29/2013	13:38	09/26/2013	12:54	
Duplicate # 28	O ₃	08/29/2013	17:50	09/26/2013	17:30	

Passive Network Laboratory Analysis



Your Project #: 2013/08/29 - 2013/09/26
Site Location: LICA

Attention: MICHAEL BISAGA

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

Report Date: 2013/10/07

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B389433

Received: 2013/10/01, 09:22

Sample Matrix: Air
Samples Received: 33

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
H2S Passive Analysis (1)	20	2013/10/07	2013/10/07	EINDSOP-00150	Tang.Passive H2S in
NO2 Passive Analysis (1)	25	2013/10/03	2013/10/07	EINDSOP-00148	Tang Passive NO2 in
O3 Passive Analysis (1)	25	2013/10/04	2013/10/07	EINDSOP-00197	EPA 300 R2.1
SO2 Passive Analysis (1)	9	2013/10/02	2013/10/07	EINDSOP-00149	Tang Passive SO2 in
SO2 Passive Analysis (1)	20	2013/10/03	2013/10/07	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, Customer Service
Email: LManchak@maxxam.ca
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. For Service Group specific validation please refer to the Validation Signature Page.

Total cover pages: 1

Maxxam Analytics International Corporation o/a Maxxam Analytics Edmonton: 6744 - 50th Street T6B 3M9 Telephone(780) 378-8500 FAX(780) 378-8699



Maxxam Job #: B389433
 Report Date: 2013/10/07

LAKELAND INDUSTRY AND COMMUNITY ASSOCIATION
 Client Project #: 2013/08/29 - 2013/09/26
 Site Location: LICA
 Sampler Initials: SB

RESULTS OF CHEMICAL ANALYSES OF AIR

Maxxam ID		HR2953	HR2954	HR2955	HR2956	HR2957		
Sampling Date		2013/08/29 16:55	2013/08/29 15:30	2013/08/29 14:24	2013/08/29 12:55	2013/08/29 18:20		
	UNITS	3	4	5	6	8	RDL	QC Batch

Passive Monitoring								
Calculated H2S	ppb	0.19		0.58			0.02	7211947
Calculated NO2	ppb	0.8	1.0	1.1	2.3	0.8	0.1	7205140
Calculated O3	ppb	17.2	19.5	19.4	17.0	21.3	0.1	7207100
Calculated SO2	ppb	0.5	0.6	0.7	1.0	0.5	0.1	7202677

RDL = Reportable Detection Limit

Maxxam ID		HR2958	HR2959	HR2960		HR2961		
Sampling Date		2013/08/29 17:35	2013/08/28 11:38	2013/08/28 12:14		2013/08/28 13:40		
	UNITS	9	10	11	QC Batch	12	RDL	QC Batch

Passive Monitoring								
Calculated H2S	ppb		0.19	0.05	7211947	0.11	0.02	7211947
Calculated NO2	ppb	1.1	2.3	1.1	7205140	1.8	0.1	7205140
Calculated O3	ppb	17.6	15.1	12.7	7207100	16.3	0.1	7207100
Calculated SO2	ppb	0.7	0.6	0.3	7202677	1.2	0.1	7205211

RDL = Reportable Detection Limit

Maxxam ID		HR2967	HR2968	HR2969	HR2970	HR2971		
Sampling Date		2013/08/28 09:38	2013/08/28 10:25	2013/08/30 15:40	2013/08/29 10:10	2013/08/29 12:05		
	UNITS	13	14	15	16	17	RDL	QC Batch

Passive Monitoring								
Calculated H2S	ppb	0.10	0.26		0.29	0.29	0.02	7211947
Calculated NO2	ppb	1.2	1.4	1.2	0.8	2.1	0.1	7205140
Calculated O3	ppb	18.5	20.2	14.7	19.6	17.3	0.1	7207100
Calculated SO2	ppb	0.3	0.8	0.4	0.4	0.7	0.1	7205211

RDL = Reportable Detection Limit



Maxxam Job #: B389433
Report Date: 2013/10/07

LAKELAND INDUSTRY AND COMMUNITY ASSOCIATION
Client Project #: 2013/08/29 - 2013/09/26
Site Location: LICA
Sampler Initials: SB

RESULTS OF CHEMICAL ANALYSES OF AIR

Maxxam ID		HR2972		HR2973		HR2974	HR2975		
Sampling Date		2013/08/29 10:55		2013/08/29 09:20		2013/08/30 13:25	2013/08/28 19:14		
	UNITS	18	QC Batch	19	QC Batch	22	23	RDL	QC Batch

Passive Monitoring									
Calculated H2S	ppb	0.18	7211947			0.22		0.02	7211947
Calculated NO2	ppb	1.1	7205140	1.7	7205144	1.1	0.5	0.1	7205144
Calculated O3	ppb	12.0	7207100	19.7	7207100	19.0	13.4	0.1	7207113
Calculated SO2	ppb	0.4	7205211	0.4	7205211	0.4	0.3	0.1	7205211

RDL = Reportable Detection Limit

Maxxam ID		HR2976	HR2977	HR2978	HR2979	HR2980		
Sampling Date		2013/08/29 13:38	2013/08/28 14:45	2013/08/28 10:12	2013/08/28 10:55	2013/08/29 17:50		
	UNITS	24	25	26	27	28	RDL	QC Batch

Passive Monitoring								
Calculated H2S	ppb	0.26	0.09	0.17	0.58		0.02	7211947
Calculated NO2	ppb	2.0				2.4	0.1	7205144
Calculated O3	ppb	18.8				19.5	0.1	7207113
Calculated SO2	ppb	0.5	0.3	0.6	1.2	0.7	0.1	7205211

RDL = Reportable Detection Limit

Maxxam ID		HR2981	HR2982	HR2983	HR2986	HR2987		
Sampling Date		2013/08/30 13:10	2013/08/29 16:10	2013/08/29 13:40	2013/08/29 13:38	2013/08/29 17:50		
	UNITS	29	32	36	24 DUP	28 DUP	RDL	QC Batch

Passive Monitoring								
Calculated H2S	ppb	0.33	0.23	0.33			0.02	7211947
Calculated NO2	ppb	1.4	1.1	3.1	3.3	3.1	0.1	7205144
Calculated O3	ppb	19.0	25.7	20.6	17.3	18.7	0.1	7207113
Calculated SO2	ppb	0.5	0.4	0.4			0.1	7205211

RDL = Reportable Detection Limit



Maxxam Job #: B389433
 Report Date: 2013/10/07

LAKELAND INDUSTRY AND COMMUNITY ASSOCIATION
 Client Project #: 2013/08/29 - 2013/09/26
 Site Location: LICA
 Sampler Initials: SB

RESULTS OF CHEMICAL ANALYSES OF AIR

Maxxam ID		HR2988		HR2989	HR2990	HR2991		
Sampling Date		2013/08/28 12:14		2013/08/28 13:40	2013/08/28 09:38	2013/08/29 16:55		
	UNITS	11 DUP	QC Batch	12 DUP	13 DUP	17 DUP	RDL	QC Batch

Passive Monitoring								
Calculated H2S	ppb					0.28	0.02	7211947
Calculated SO2	ppb	0.4	7202677	0.4	0.4		0.1	7205211

RDL = Reportable Detection Limit

Maxxam ID		HR2992		
Sampling Date		2013/08/29 16:55		
	UNITS	18 DUP	RDL	QC Batch

Passive Monitoring				
Calculated H2S	ppb	0.16	0.02	7211947

RDL = Reportable Detection Limit



Maxxam Job #: B389433
Report Date: 2013/10/07

LAKELAND INDUSTRY AND COMMUNITY ASSOCIATION
Client Project #: 2013/08/29 - 2013/09/26
Site Location: LICA
Sampler Initials: SB

General Comments

Results relate only to the items tested.



LAKELAND INDUSTRY AND COMMUNITY ASSOCIATION
 Attention: MICHAEL BISAGA
 Client Project #: 2013/08/29 - 2013/09/26
 P.O. #:
 Site Location: LICA

Quality Assurance Report
 Maxxam Job Number: PB389433

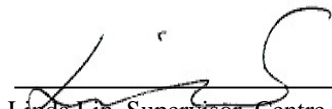
QA/QC Batch Num Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	UNITS	QC Limits
7202677 DF4	Calibration Check	Calculated SO2	2013/10/02		99	%	95 - 105
	Spiked Blank	Calculated SO2	2013/10/02		101	%	90 - 110
	Method Blank	Calculated SO2	2013/10/02	<0.1		ppb	
7205140 DF4	Calibration Check	Calculated NO2	2013/10/03		100	%	76 - 118
	Spiked Blank	Calculated NO2	2013/10/03		99	%	93 - 105
	Method Blank	Calculated NO2	2013/10/03	<0.1		ppb	
7205144 DF4	Calibration Check	Calculated NO2	2013/10/03		98	%	76 - 118
	Spiked Blank	Calculated NO2	2013/10/03		101	%	93 - 105
	Method Blank	Calculated NO2	2013/10/03	<0.1		ppb	
7205211 DF4	Calibration Check	Calculated SO2	2013/10/03		100	%	95 - 105
	Spiked Blank	Calculated SO2	2013/10/03		101	%	90 - 110
	Method Blank	Calculated SO2	2013/10/03	<0.1		ppb	
7207100 OZ	Calibration Check	Calculated O3	2013/10/04		98	%	91 - 107
	Spiked Blank	Calculated O3	2013/10/04		100	%	96 - 103
	Method Blank	Calculated O3	2013/10/04	<0.1		ppb	
7207113 OZ	Calibration Check	Calculated O3	2013/10/04		98	%	91 - 107
	Spiked Blank	Calculated O3	2013/10/04		100	%	96 - 103
	Method Blank	Calculated O3	2013/10/04	<0.1		ppb	
7211947 WC6	Calibration Check	Calculated H2S	2013/10/07		101	%	80 - 120
	Spiked Blank	Calculated H2S	2013/10/07		98	%	N/A

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

Validation Signature Page

Maxxam Job #: B389433

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

A handwritten signature in black ink, appearing to read "Linda Lin". The signature is written over a horizontal line.

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

Lakeland Industry & Community Association

Maskwa Monitoring Site
Ambient Air Monitoring
Data Report
For
September 2013

Prepared By:



October 17, 2013

Lakeland Industry & Community Association Ambient Air Monitoring Maskwa

Table of Contents

	Page		Page
Introduction	3	Calibration Reports	84
Calibration Procedure	4	• Sulphur Dioxide	85
Monthly Continuous Summary	5	• Hydrogen Sulphide	88
General Monthly Summary	6	• Total Hydrocarbons	92
Continuous Monitoring	10	• Nitrogen Dioxide	96
• Monthly Summaries, Graphs & Wind Roses	11		
• Sulphur Dioxide	12		
• Hydrogen Sulphide	20		
• Total Hydrocarbons	28		
• Nitrogen Dioxide	36		
• Nitric Oxide	44		
• Oxides of Nitrogen	51		
• Temperature	59		
• Precipitation	62		
• Relative Humidity	65		
• Barometric Pressure	68		
• Vector Wind Speed	71		
• Vector Wind Direction	78		
• Standard Deviation Wind Direction	81		

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: September 2013

The monthly ambient data report:

- Prepared by Lili Zhou
- Reviewed by Lily Lin

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 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 – September 2013

LICA MASKWA SITE						MAXIMUM VALUES							OPERATIONAL TIME (PERCENT)
						1-HOUR					24-HOUR		
PARAMETER	OBJECTIVES		EXCEEDENCES		MONTHLY AVERAGE	READING	DAY	HOUR	WIND SPEED (KPH)	WIND DIRECTION (DEGREES)	READING	DAY	
	1-HR	24-HR	1-HR	24-HR									
SO2 (PPB)	172	48	0	0	0.32	5	VAR	VAR	VAR	VAR	2.0	18	100.0
H2S (PPB)	10	3	0	0	0.40	6	16	17, 18	7, 6.7	123(ESE), 123(ESE)	1.6	16	100.0
THC (PPM)	-	-	-	-	2.22	3.6	5	3	1.6	167(SSE)	2.5	5	100.0
NOx (PPB)	-	-	-	-	3.03	28.3	25	8	3.1	296(WNW)	6.2	25	100.0
NO (PPB)	-	-	-	-	0.70	16.4	25	8	3.1	296(WNW)	2.7	18	100.0
NO ₂ (PPB)	159	-	0	-	2.33	14.6	29	16	8.1	297(WNW)	4.5	25	100.0
VECTOR WS (KPH)	-	-	-	-	4.70	12.1	12	14	-	196(SSW)	7.2	17	100.0
VECTOR WD (DEGREES)	-	-	-	-	213(SSW)	-	-	-	-	-	-	-	100.0
RELATIVE HUMIDITY (%)	-	-	-	-	67.01	94	5, 9	VAR	VAR	VAR	82.3	30	100.0
TEMPERATURE (DEG C)	-	-	-	-	13.05	29.3	12	15, 16	11.1, 9.9	197(SSW), 197(SSW)	19.6	2	100.0
BAROMETRIC PRESSURE (MILIBAR)	-	-	-	-	938	955	11	10	2.8	291(WNW)	951.8	11	100.0
PRECIPITATION (MM)	-	-	-	-	0.01	2.0	29	18	6.7	277(W)	3.3	29	100.0

NA-NOT AVAILABLE VAR-VARIOUS

General Monthly Summary

Equipment Operation

The following summary outlines the analyzer performance. Any non-conformances, problems encountered 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 issues were observed during the month. The monthly calibration was performed on September 11th. 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: 511

No operational issues were observed during the month. The monthly calibration was performed on September 11th. The inlet filter was changed before the monthly calibration was started. Data was corrected using daily zero information.

Total Hydrocarbon (PPM)

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

No operational issues were observed during the month. The monthly calibration was performed on September 11th. The inlet filter was changed before the monthly calibration was started. The span gas was changed on the same day. The H2 gas cylinder was replaced on September 30th. 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 issues were observed during the month. The monthly calibration was performed on September 11th. 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 - MetOne 50.5H Sonic, S/N: H10703

The wind system is reported as vector wind speed and vector wind direction. The last wind system calibration was performed by manufacturer on December 20th, 2011.

No operational issues were observed this month.

Relative Humidity (PERCENT)

- System make / model - Met One 083

No operational issues were observed during the month.

Precipitation (MM)

- System make / model - Met One 387

No operational issues were observed during the month.

General Monthly Summary

AQM STATION – LICA – Maskwa

Barometric Pressure (MILLIBAR)

- System make / model - Met One 092

No operation issues were observed during the month.

Ambient Temperature (DEGC)

- System make / model - Met One 060

No operational issues were observed during the month.

Trailer Temperature (DEG C)

- System make / model – R&R 61

No operational issues were observed during the month.

Standard Deviation Wind Direction (DEG)

- System make / model –Met One 50.5H

No operational issues were observed during the month.

General Monthly Summary

AQM STATION – LICA – Maskwa

Datalogger

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

No operational issues were observed during the month.

Trailer

The manifold was cleaned on September 11th. The manifold was cleaned again on September 30th as it was dirty.

Continuous Monitoring

Monthly Summaries, Graphs & Wind Roses

Sulphur Dioxide

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - MASKWA
SEPTEMBER 2013
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	23:00	DAILY	24-HOUR	
HOUR END	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	MAX.	AVG.	RDGS.	
DAY 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0.0	24
2	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	S	0	0	1	0	0	0	0	0	1	0.1	24
3	0	0	0	0	0	0	0	0	0	0	1	3	1	0	0	S	0	0	0	0	0	0	0	0	0	3	0.2	24
4	1	0	0	0	0	0	0	1	0	0	1	1	2	3	S	0	0	0	0	0	0	0	0	0	0	3	0.4	24
5	0	0	0	0	0	0	0	0	2	1	1	0	2	S	0	0	1	0	1	0	0	0	0	0	0	2	0.3	24
6	0	0	0	0	0	0	0	0	0	0	0	0	S	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	1	2	S	0	1	0	0	0	0	0	0	0	0	0	0	2	0.2	24
8	0	0	0	0	0	0	0	0	0	0	1	S	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.0	24
9	0	0	0	0	0	0	0	0	0	0	S	0	0	2	3	1	1	4	0	0	1	0	0	0	0	4	0.5	24
10	0	0	0	0	0	0	0	2	S	3	2	0	0	0	0	0	1	1	0	0	0	0	0	0	0	3	0.4	24
11	0	0	0	0	0	0	0	S	C	C	C	C	C	0	1	0	0	0	0	0	0	0	0	0	0	1	0.1	24
12	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0.0	24
13	0	0	0	0	0	S	0	0	3	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	3	0.3	24
14	0	0	0	0	S	0	0	0	0	0	0	1	2	1	0	1	0	0	0	0	0	0	0	0	0	2	0.2	24
15	0	0	0	S	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	S	0	0	1	1	0	1	1	3	1	1	1	1	1	1	2	2	1	1	1	1	1	1	3	1.0	24
17	1	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	2	4	0.3	24
18	S	1	3	5	2	1	1	2	2	2	1	1	2	4	4	2	2	2	0	1	1	5	1	S	5	5	2.0	24
19	1	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	S	0	1	0	0.1	24
20	0	0	0	0	0	0	0	0	1	1	1	0	2	0	0	0	1	1	1	0	1	S	0	0	2	2	0.4	24
21	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	0	0	1	1	S	0	0	0	1	1	0.2	24
22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0.0	24
23	0	0	0	0	0	0	0	0	1	0	1	1	0	0	0	0	0	0	0	S	0	0	0	0	0	1	0.1	24
24	0	0	0	0	0	0	0	0	3	5	2	3	0	0	0	0	0	S	0	0	0	0	0	0	5	5	0.6	24
25	0	0	0	0	0	0	0	0	5	1	0	0	0	0	0	0	S	0	0	0	0	1	0	2	5	5	0.4	24
26	0	0	0	1	0	0	1	3	3	1	1	1	1	1	1	S	0	0	0	0	0	0	3	1	3	3	0.8	24
27	1	0	0	0	0	0	0	0	0	0	0	0	0	1	S	0	0	0	0	0	0	0	0	0	1	1	0.1	24
28	0	0	0	0	0	0	0	0	0	1	0	1	0	S	0	0	0	0	0	0	0	0	0	0	1	1	0.1	24
29	0	3	2	1	0	0	1	3	1	0	1	0	S	0	0	0	3	0	0	0	0	0	0	0	3	3	0.7	24
30	0	0	0	0	0	0	S	0	0	0	0	0	S	0	0	0	0	0	0	1	0	0	0	0	1	1	0.0	24
HOURLY MAX	1	3	3	5	2	1	1	3	5	5	3	3	2	4	4	2	4	2	2	1	1	5	4	2				
HOURLY AVG	0.1	0.1	0.2	0.2	0.1	0.1	0.2	0.4	0.8	0.7	0.6	0.6	0.6	0.5	0.3	0.2	0.5	0.3	0.2	0.2	0.1	0.2	0.3	0.2				

STATUS FLAG CODES

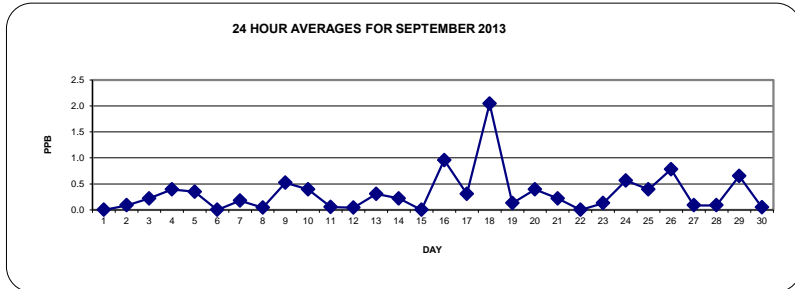
C	- CALIBRATION	Q	- QUALITY ASSURANCE
Y	- MAINTENANCE	R	- RECOVERY
S	- DAILY ZERO/SPAN CHECK	X	- MACHINE MALFUNCTION
P	- POWER FAILURE	O	- OPERATOR ERROR
G	- OUT FOR REPAIR	K	- COLLECTION ERROR

OBJECTIVE LIMIT:

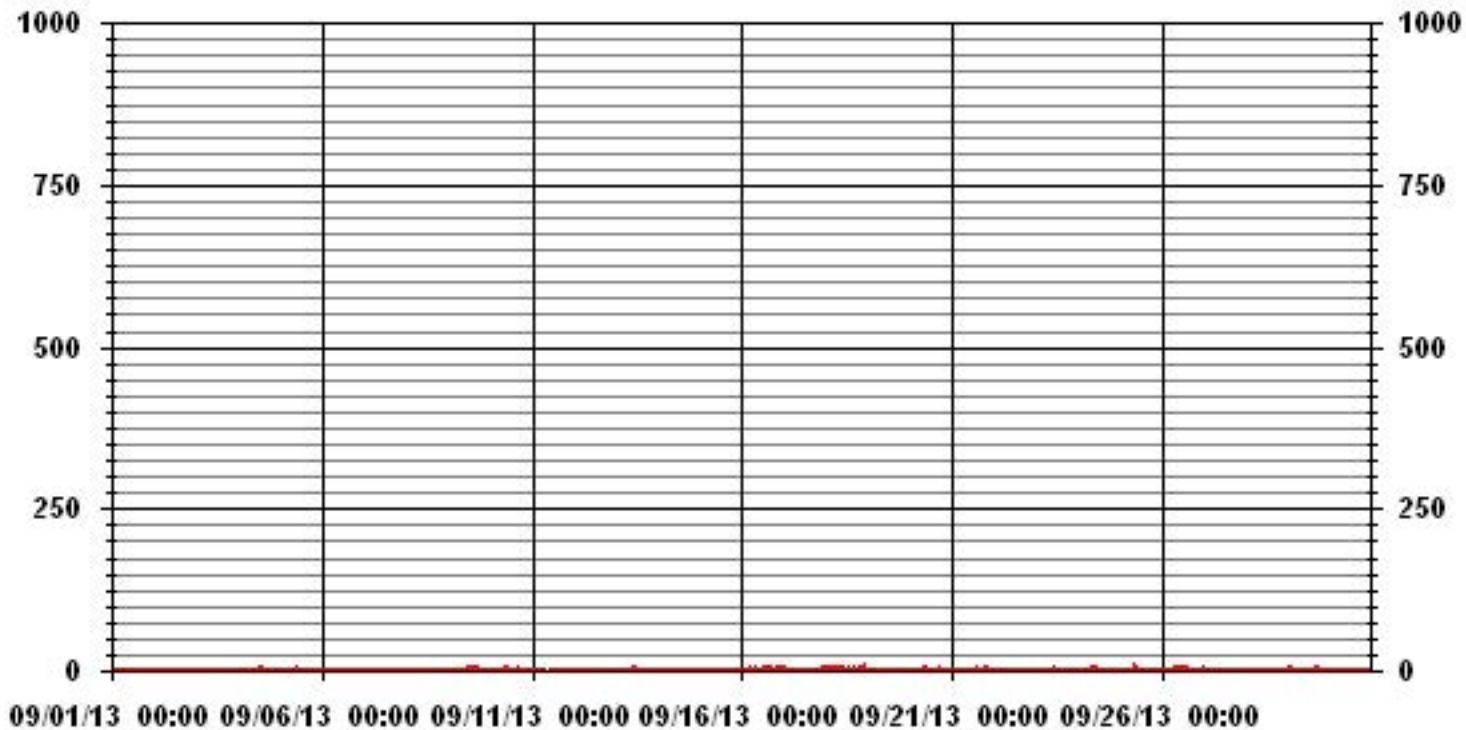
ALBERTA ENVIRONMENT: 1-HR 172 PPB | 24-HR 48 PPB

MONTHLY SUMMARY

NUMBER OF 1-HR EXCEEDENCES:	0
NUMBER OF 24-HR EXCEEDENCES:	0
NUMBER OF NON-ZERO READINGS:	137
MAXIMUM 1-HR AVERAGE:	5 PPB @ HOUR(S) VAR ON DAY(S) VAR
MAXIMUM 24-HR AVERAGE:	2.0 PPB ON DAY(S) 18
IZS CALIBRATION TIME:	32 HRS
MONTHLY CALIBRATION TIME:	5 HRS
STANDARD DEVIATION:	0.78
OPERATIONAL TIME:	720 HRS
AMD OPERATION UPTIME:	100.0 %
MONTHLY AVERAGE:	0.32 PPB



01 Hour Averages



LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - MASKWA

SEPTEMBER 2013

SULPHUR 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	
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		0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	S	1	0	0	1	1	0	1	0.7	24
2		0	0	0	0	0	0	1	1	1	0	0	0	0	1	S	0	0	3	0	0	0	0	0	0	3	0.3	24
3		0	0	0	0	0	0	0	0	0	2	5	6	4	1	0	S	1	1	1	0	1	0	1	1	6	1.0	24
4		2	1	1	1	1	1	1	1	1	1	1	2	3	S	1	0	0	0	0	0	0	0	0	0	3	0.8	24
5		0	0	0	0	0	0	0	0	5	6	11	3	6	S	3	3	15	2	3	0	0	0	0	0	15	2.5	24
6		0	0	0	0	0	0	0	0	0	0	0	0	S	3	4	1	1	1	1	1	0	0	0	0	4	0.5	24
7		0	0	0	0	0	0	0	0	0	4	5	S	1	3	1	1	1	1	1	0	1	1	0	1	5	0.9	24
8		1	1	1	1	1	1	1	1	1	1	S	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0.5	24
9		0	1	0	1	1	1	1	1	2	S	1	1	8	8	3	13	4	1	4	3	1	1	1	1	13	2.8	24
10		0	0	0	0	0	0	0	5	S	5	6	1	0	1	0	0	8	6	0	1	1	0	2	1	8	1.6	24
11		0	0	0	0	0	0	0	S	C	C	C	C	C	C	4	1	1	1	1	1	1	1	1	1	4	0.8	24
12		1	1	1	1	1	1	S	0	0	0	0	1	0	0	1	1	1	1	1	0	0	0	0	1	1	0.6	24
13		1	1	1	1	1	S	1	1	7	4	2	2	2	1	0	1	1	1	0	0	0	0	0	0	7	1.2	24
14		0	0	0	0	S	0	0	0	0	0	2	3	5	2	1	3	4	0	0	0	0	0	0	0	5	0.9	24
15		0	0	0	S	0	0	0	1	1	1	1	1	0	0	0	1	0	0	0	0	0	0	1	1	1	0.4	24
16		1	1	S	1	1	1	1	1	1	4	7	3	1	1	2	2	2	3	3	2	1	1	1	2	7	1.9	24
17		2	S	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	5	8	6	8	1.1	24
18		S	2	9	10	3	2	3	3	9	10	3	4	5	13	10	6	6	7	2	7	5	9	2	S	13	5.9	24
19		2	1	0	0	1	1	4	2	1	5	5	1	1	0	1	1	0	1	1	1	1	0	S	1	5	1.3	24
20		1	1	1	0	0	1	0	1	1	1	1	1	6	1	1	1	1	2	2	1	1	S	0	0	6	1.1	24
21		0	0	0	0	0	0	0	0	0	1	2	1	1	1	1	1	1	1	3	2	S	1	0	0	3	0.7	24
22		0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	1	1	1	1	1	0.2	24
23		1	1	1	1	1	1	1	1	1	1	2	3	1	1	1	1	1	S	1	1	1	1	1	0	3	1.1	24
24		1	0	1	1	1	1	0	3	4	14	6	11	3	0	0	1	0	S	0	0	0	0	0	0	14	2.0	24
25		0	0	0	0	0	0	0	0	10	3	1	0	0	0	0	0	S	0	1	1	1	3	2	8	10	1.3	24
26		2	1	1	2	2	1	5	5	7	2	2	1	1	1	1	S	0	0	0	3	0	4	7	2	7	2.2	24
27		2	1	0	0	0	0	0	0	0	0	1	1	1	1	S	1	1	1	1	0	0	0	0	0	2	0.5	24
28		0	0	0	0	1	1	0	0	1	2	1	1	1	S	0	0	0	0	0	0	0	0	0	0	2	0.3	24
29		3	5	4	3	2	0	5	7	3	1	2	2	S	2	0	0	8	4	0	0	0	0	0	0	8	2.2	24
30		0	0	0	0	0	0	S	1	1	1	1	S	0	1	1	1	1	1	2	1	1	1	0	2	0.7	24	
HOURLY MAX		3	5	9	10	3	2	5	7	10	14	11	11	8	13	10	6	15	7	3	7	5	9	8	8			
HOURLY AVG		0.7	0.7	0.7	0.8	0.6	0.5	0.9	1.3	2.1	2.5	2.5	1.8	1.9	1.7	1.5	1.2	2.4	1.4	0.8	1.0	0.7	1.1	1.0	1.0			

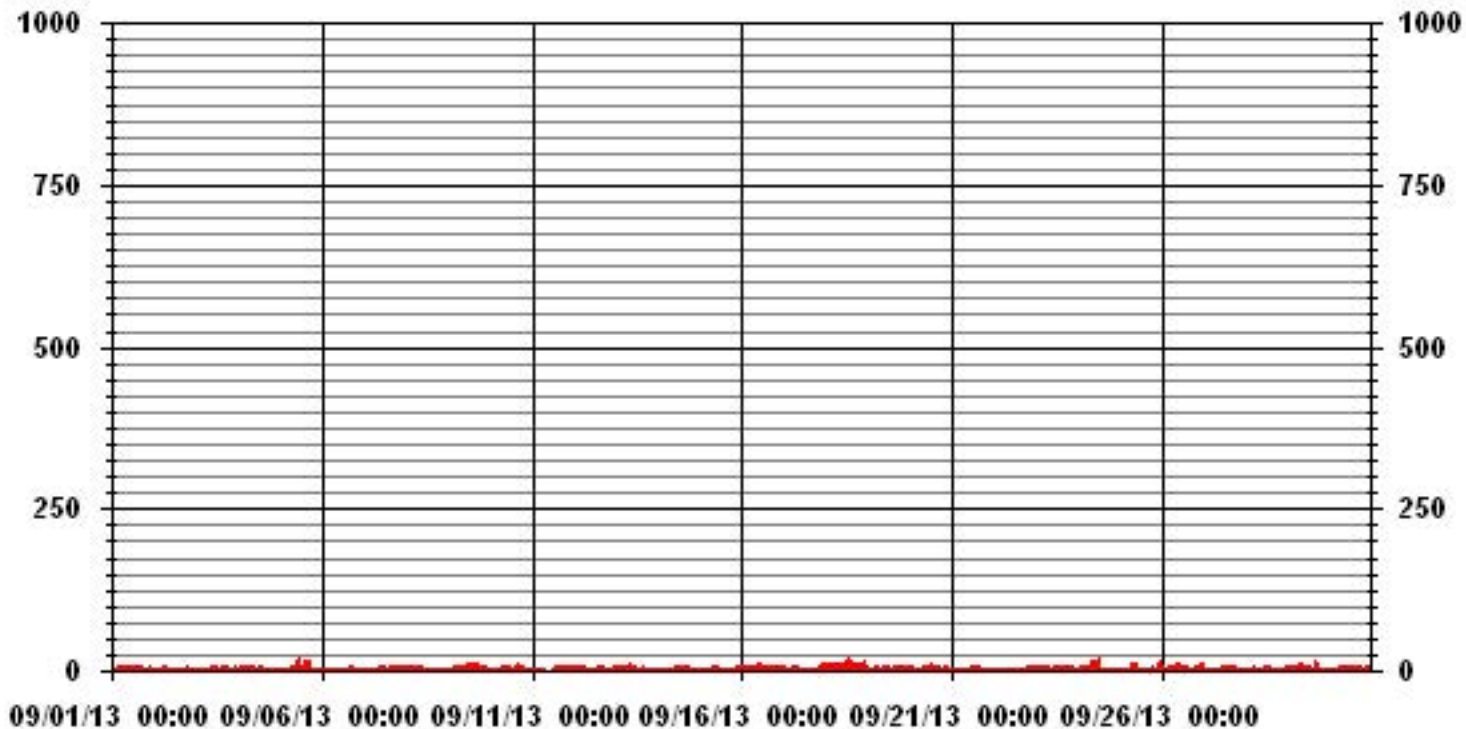
STATUS FLAG CODES

C - CALIBRATION	Q - QUALITY ASSURANCE
Y - MAINTENANCE	R - RECOVERY
S - DAILY ZERO/SPAN CHECK	X - MACHINE MALFUNCTION
P - POWER FAILURE	O - OPERATOR ERROR
G - OUT FOR REPAIR	K - COLLECTION ERROR

MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	387					
MAXIMUM INSTANTANEOUS VALUE:	15	PPB	@ HOUR(S)	16	ON DAY(S)	5
IZS CALIBRATION TIME:	32	HRS		OPERATIONAL TIME:	720	HRS
MONTHLY CALIBRATION TIME:	6	HRS				
STANDARD DEVIATION:	2.10					

01 Hour Averages



LICA30
 SO2_ / WDR Joint Frequency Distribution (Percent)

September 2013

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	3.66	2.63	5.27	2.34	3.66	3.51	9.66	6.14	7.46	15.66	10.10	5.56	8.34	9.37	3.80	2.78	100.00
< 60	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
< 110	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
< 170	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
< 340	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
>= 340	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
Totals	3.66	2.63	5.27	2.34	3.66	3.51	9.66	6.14	7.46	15.66	10.10	5.56	8.34	9.37	3.80	2.78	

Calm : .00 %

Total # Operational Hours : 683

Distribution By Samples

Limit	Direction																Freq
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
< 20	25	18	36	16	25	24	66	42	51	107	69	38	57	64	26	19	683
< 60																	
< 110																	
< 170																	
< 340																	
>= 340																	
Totals	25	18	36	16	25	24	66	42	51	107	69	38	57	64	26	19	

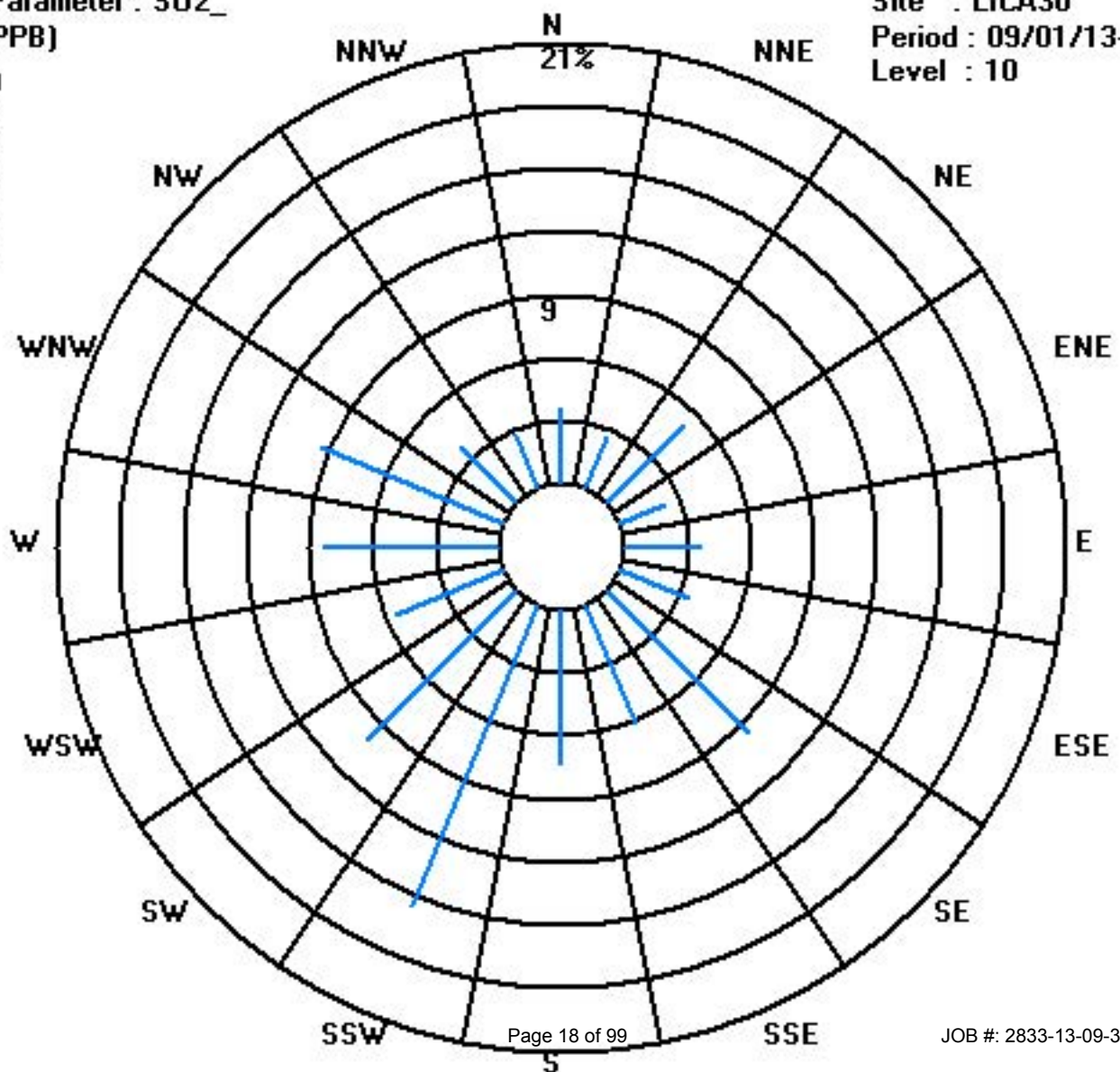
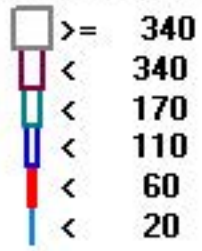
Calm : .00 %

Total # Operational Hours : 683

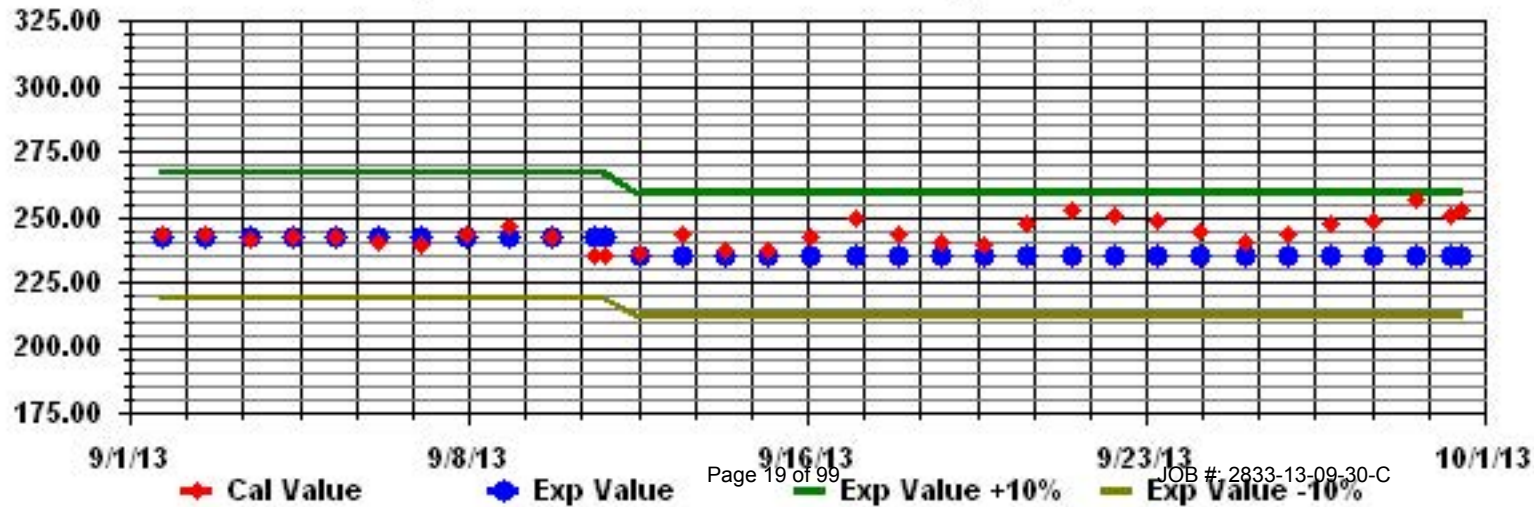
Class Limits (PPB)

Period : 09/01/13-09/30/13

Level : 10



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



Hydrogen Sulphide

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - MASKWA

SEPTEMBER 2013

HYDROGEN SULPHIDE (H₂S) hourly averages in ppb

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

STATUS FLAG CODES

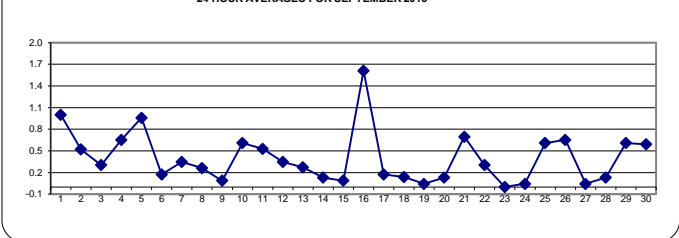
C	- CALIBRATION	Q	- QUALITY ASSURANCE
Y	- MAINTENANCE	R	- RECOVERY
S	- DAILY ZERO/SPAN CHECK	X	- MACHINE MALFUNCTION
P	- POWER FAILURE	O	- OPERATOR ERROR
G	- OUT FOR REPAIR	K	- COLLECTION ERROR

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

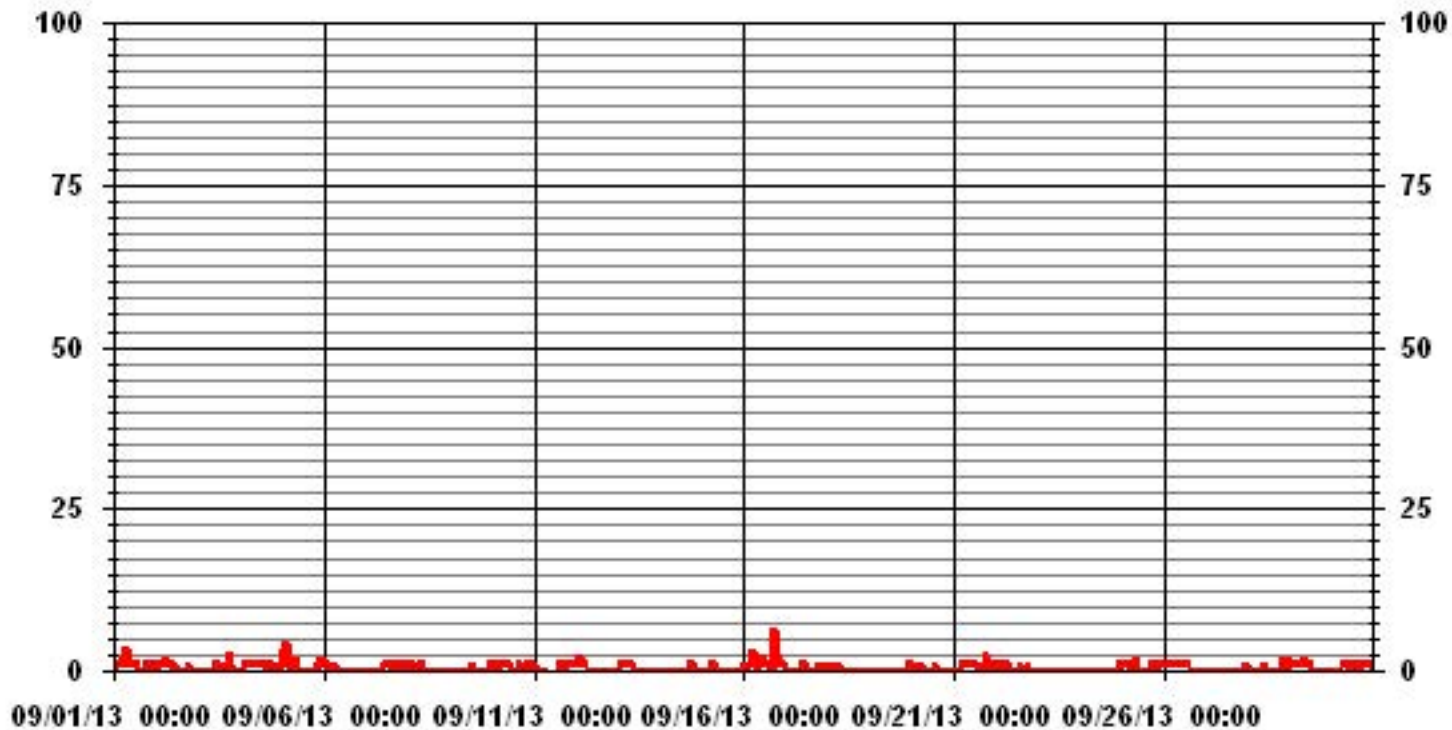
MONTHLY SUMMARY

NUMBER OF 1-HR EXCEEDENCES:	0
NUMBER OF 24-HR EXCEEDENCES:	0
NUMBER OF NON-ZERO READINGS:	226
MAXIMUM 1-HR AVERAGE:	6 PPB @ HOUR(S) 17, 18 ON DAY(S) 16
MAXIMUM 24-HR AVERAGE:	1.6 PPB ON DAY(S) 16
VAR-VARIOUS	
IZS CALIBRATION TIME:	33 HRS
MONTHLY CALIBRATION TIME:	6 HRS
OPERATIONAL TIME:	720 HRS
AMD OPERATION UPTIME:	100.0 %
STANDARD DEVIATION:	0.69
MONTHLY AVERAGE:	0.40 PPB

24 HOUR AVERAGES FOR SEPTEMBER 2013



01 Hour Averages



LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - MASKWA

SEPTEMBER 2013

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	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	2	2	2	3	3	3	1	2	1	1	1	1	1	1	S	1	1	1	1	1	1	1	3	1.4	24
2		1	1	2	2	1	2	2	2	2	1	1	1	1	1	0	S	1	1	1	1	1	1	1	0	2	1.2	24	
3		0	0	1	1	1	1	1	1	0	1	1	1	1	0	1	S	1	4	6	3	1	1	1	1	1	6	1.3	24
4		1	1	1	1	2	2	2	1	2	2	1	1	1	2	S	0	1	1	1	1	1	1	1	1	1	2	1.2	24
5		4	5	8	6	2	1	1	2	2	1	1	1	1	S	1	1	1	1	1	0	1	2	3	2	8	2.1	24	
6		2	2	1	0	1	1	2	2	0	0	0	0	S	1	0	3	1	1	1	0	0	0	0	0	3	0.8	24	
7		0	0	0	1	0	0	1	0	0	1	3	S	1	1	1	1	1	1	1	1	1	1	1	1	3	0.8	24	
8		1	1	1	1	1	1	1	1	2	1	S	0	0	0	0	0	0	0	1	0	0	0	0	0	2	0.5	24	
9		0	1	1	0	0	0	0	0	0	S	1	1	1	2	1	1	1	1	0	1	1	1	1	2	2	0.7	24	
10		2	2	1	1	1	2	1	2	S	2	1	1	0	1	1	1	1	1	1	1	1	1	1	2	2	1.2	24	
11		1	1	1	1	1	1	2	S	C	C	C	C	C	C	1	29	1	1	1	2	2	1	1	1	29	2.8	24	
12		2	2	3	2	2	2	S	1	1	1	1	1	1	0	0	0	0	0	1	1	0	1	1	1	3	1.1	24	
13		1	1	2	2	2	S	S	2	2	1	1	1	0	0	0	0	0	1	1	1	1	0	1	0	2	0.9	24	
14		0	0	0	1	S	0	1	1	0	0	3	0	1	0	0	0	1	3	3	2	0	1	0	0	3	0.7	24	
15		0	0	0	S	1	0	1	1	1	1	1	1	0	1	1	0	0	1	1	0	0	1	1	1	1	0.6	24	
16		1	1	S	1	3	5	4	1	1	3	4	4	3	1	1	1	1	8	9	6	1	1	1	1	9	2.7	24	
17		1	S	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	2	2	2	1.0	24	
18		S	1	1	1	2	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	S	2	1.0	24	
19		1	1	0	1	1	1	1	0	0	1	1	0	0	1	1	0	0	0	0	0	1	0	S	2	2	0.6	24	
20		1	0	0	1	1	2	1	0	2	1	1	1	1	1	1	1	1	1	1	1	0	S	1	1	2	0.9	24	
21		1	1	0	1	1	1	2	3	1	2	2	2	1	1	1	1	0	1	5	2	S	2	1	1	5	1.4	24	
22		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	S	0	0	0	0	1	0.8	24	
23		0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	S	0	0	0	0	0	1	0.1	24	
24		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	1	0	1	0	1	1	1	0.2	24	
25		1	2	1	2	1	0	1	1	3	2	0	1	1	0	0	0	S	4	2	1	1	2	2	2	4	1.3	24	
26		1	1	1	2	2	2	2	2	2	1	1	2	2	2	1	S	0	0	0	0	0	0	1	1	2	1.1	24	
27		1	1	0	1	1	0	0	1	1	1	1	1	1	0	S	1	1	1	1	0	0	1	1	2	2	0.8	24	
28		1	0	1	1	1	1	1	1	1	1	1	1	1	S	1	1	1	1	0	1	5	4	1	1	5	1.2	24	
29		7	4	1	1	1	1	1	2	3	2	2	1	S	1	1	1	1	1	1	0	0	0	0	0	7	1.3	24	
30		0	0	0	0	0	0	S	1	1	1	1	S	1	1	1	1	1	1	2	2	1	1	1	2	0.9	24		
HOURLY MAX		7	5	8	6	3	5	4	3	3	3	4	4	3	2	1	29	1	8	9	6	5	4	3	2				
HOURLY AVG		1.1	1.1	1.0	1.2	1.1	1.1	1.3	1.2	1.2	1.1	1.3	1.0	0.9	0.8	0.7	1.8	0.7	1.4	1.5	1.1	0.8	0.9	0.9	1.0				

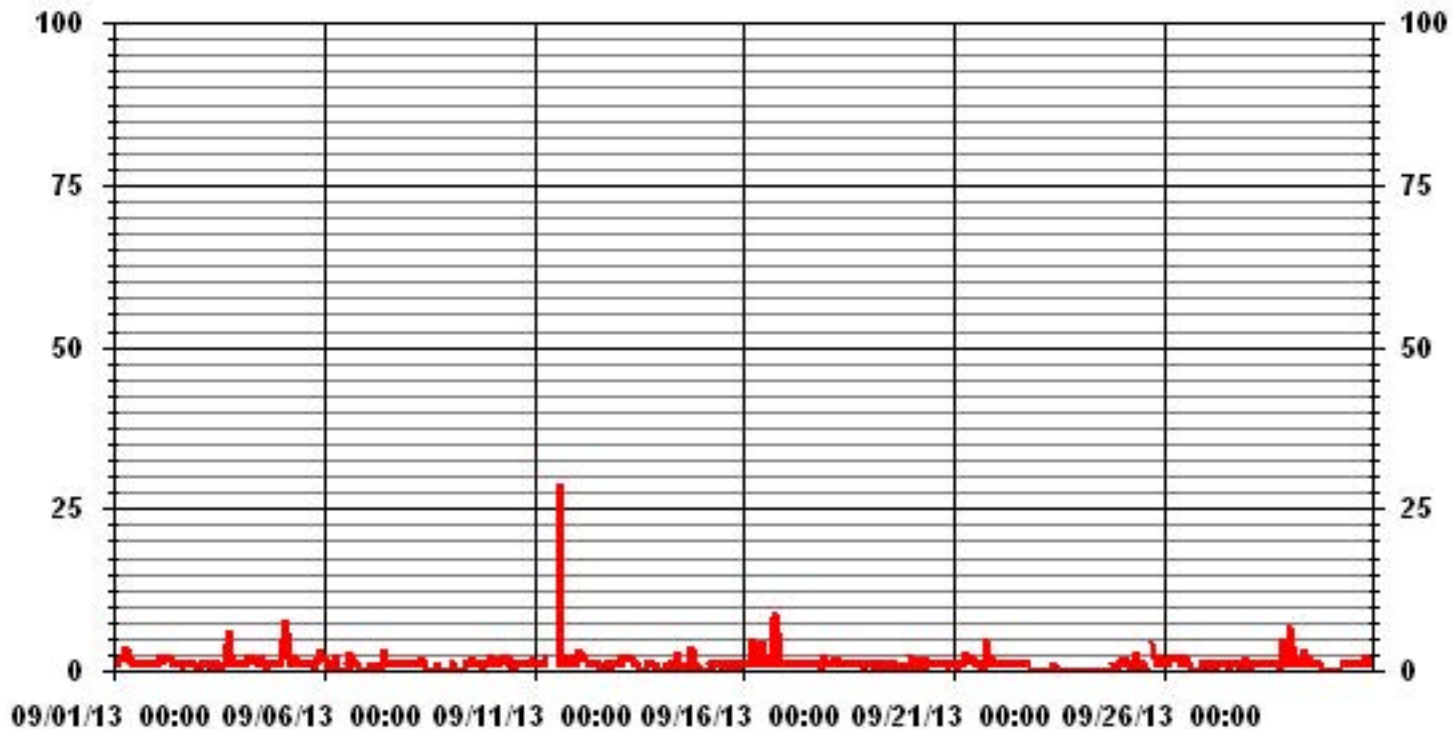
STATUS FLAG CODES

C - CALIBRATION	Q - QUALITY ASSURANCE
Y - MAINTENANCE	R - RECOVERY
S - DAILY ZERO/SPAN CHECK	X - MACHINE MALFUNCTION
P - POWER FAILURE	O - OPERATOR ERROR
G - OUT FOR REPAIR	K - COLLECTION ERROR

MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	507					
MAXIMUM INSTANTANEOUS VALUE:	29	PPB	@ HOUR(S)	15	ON DAY(S)	11
IZS CALIBRATION TIME:	33	HRS	OPERATIONAL TIME:	720 HRS		
MONTHLY CALIBRATION TIME:	6 HRS					
STANDARD DEVIATION:	1.49					

01 Hour Averages



LICA30
H2S_ / WDR Joint Frequency Distribution (Percent)

September 2013

Distribution By % Of Samples

Logger Id : 30
Site Name : LICA30
Parameter : H2S_
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
< 3	3.67	2.64	5.28	2.34	3.52	3.08	9.39	6.02	7.34	15.27	9.98	5.58	8.22	9.39	3.81	2.79	98.38
< 10	.00	.00	.00	.00	.14	.44	.29	.14	.14	.44	.00	.00	.00	.00	.00	.00	1.61
< 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	3.67	2.64	5.28	2.34	3.67	3.52	9.69	6.16	7.48	15.71	9.98	5.58	8.22	9.39	3.81	2.79	

Calm : .00 %

Total # Operational Hours : 681

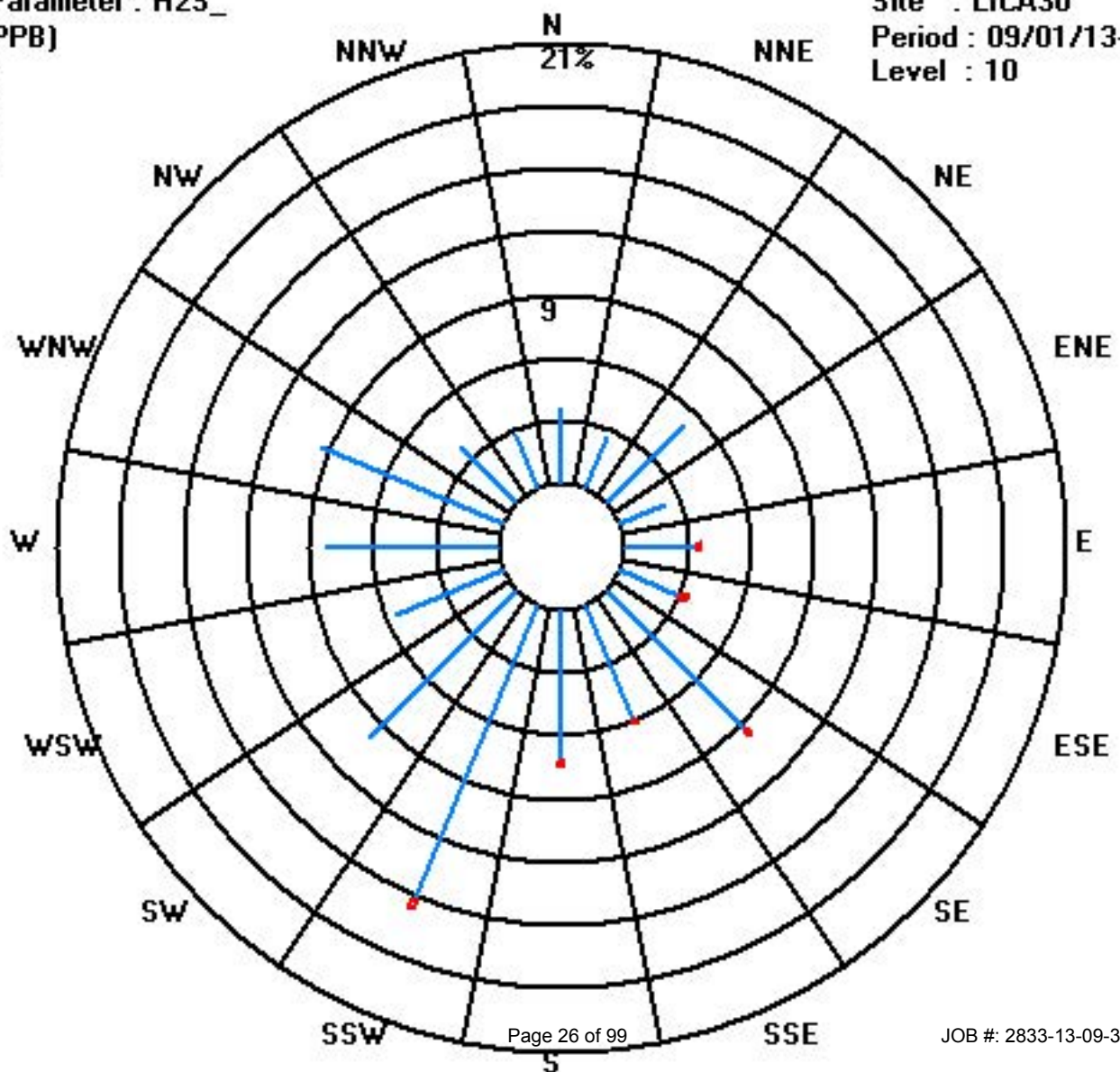
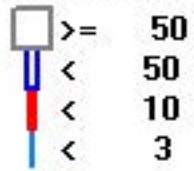
Distribution By Samples

Limit	Direction															Freq	
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW		NNW
< 3	25	18	36	16	24	21	64	41	50	104	68	38	56	64	26	19	670
< 10					1	3	2	1	1	3							11
< 50																	
>= 50																	
Totals	25	18	36	16	25	24	66	42	51	107	68	38	56	64	26	19	

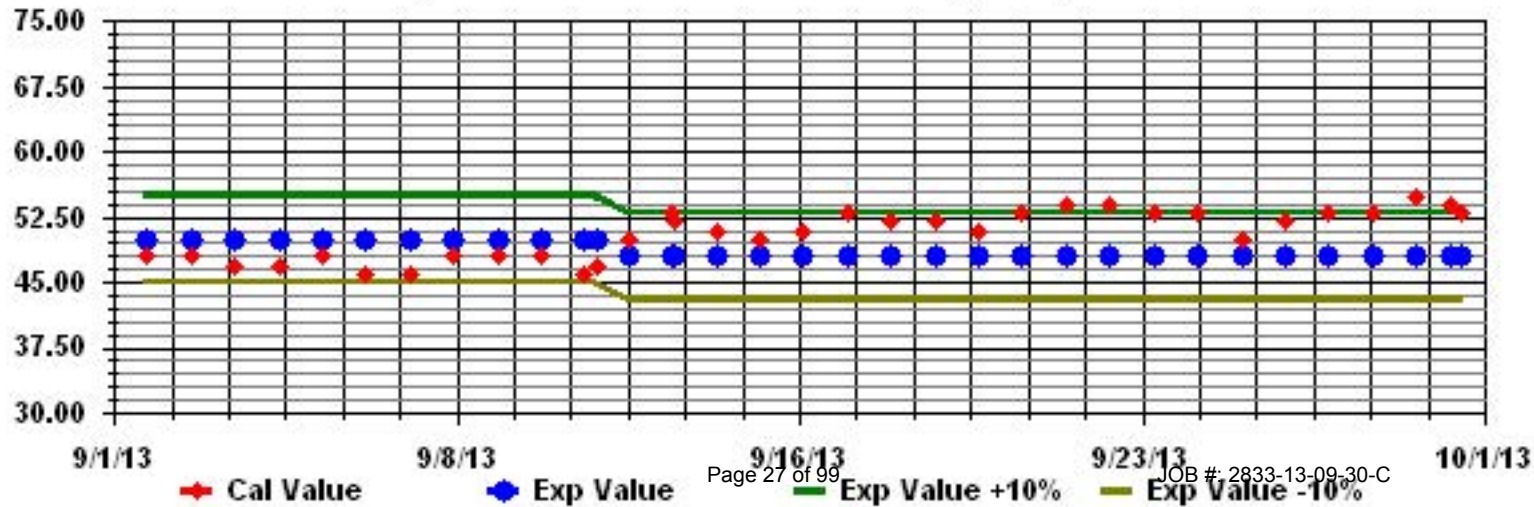
Calm : .00 %

Total # Operational Hours : 681

Class Limits (PPB)



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



Total Hydrocarbons

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION -MASKWA

SEPTEMBER 2013

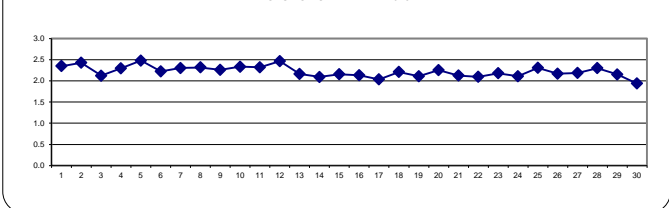
TOTAL HYDROCARBONS hourly averages in ppm

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		2.3	2.3	2.4	2.5	2.5	2.7	2.8	2.7	2.6	2.6	2.5	2.2	2.2	2.2	2.1	2.1	2.1	S	2.1	2.1	2.1	2.2	2.3	2.4	2.8	2.3	24		
2		2.5	2.6	2.6	2.7	2.8	2.9	3.1	3.3	3.1	2.4	2.5	2.3	2.1	2.1	2.1	2.1	S	2	2	2.3	2.1	2.1	2.1	2.1	2.1	2.1	3.3	2.4	24
3		2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.3	2.2	2.2	2.1	2.1	2.1	S	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.3	2.1	24
4		2.3	2.3	2.4	2.5	2.5	2.4	2.5	2.4	2.4	2.4	2.3	2.2	2.2	S	2.2	2.2	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.5	2.3	24	
5		2.5	3	3.1	3.6	3	2.8	2.7	2.7	2.6	2.1	2.1	2.1	2.1	S	2.1	2.1	2.1	2.1	2.2	2.1	2.2	2.4	2.8	2.5	3.6	2.5	24		
6		2.5	2.5	2.3	2.2	2.2	2.3	2.9	2.5	2.2	2.1	2.1	2.1	S	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.9	2.2	24		
7		2.2	2.2	2.2	2.2	2.3	2.3	2.2	2.3	2.2	2.2	2.2	S	2.1	2.1	2.1	2.1	2.3	2.7	2.5	2.5	2.5	2.5	2.6	2.5	2.7	2.3	24		
8		2.4	2.4	2.4	2.4	2.5	2.5	2.6	2.7	2.7	2.5	S	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.3	2.4	2.7	2.3	24		
9		2.6	2.7	2.6	2.4	2.4	2.4	2.4	2.3	2.1	S	2	2.1	2.1	2.3	2.1	2	2.1	2	2	2.2	2.2	2.2	2.4	2.4	2.7	2.3	24		
10		2.5	2.5	2.4	2.5	2.5	2.9	2.6	2.5	S	2.3	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.3	2.3	2.3	2.5	2.6	2.9	2.3	24		
11		2.4	2.4	2.4	2.5	2.6	2.6	2.6	S	S	2.3	2.1	2	C	C	C	C	C	2	2.1	2.1	2.2	2.3	2.3	2.5	2.6	2.3	24		
12		2.9	3.4	3.1	3	2.7	2.6	S	2.7	2.6	2.6	2.5	2.4	2.5	2.4	2.3	2.1	2	2	2	2.1	2.1	2.2	2.3	3.4	2.5	2.4	24		
13		2.3	2.3	2.2	2.3	2.3	S	2.3	2.4	2.4	2.2	2.2	2.1	2.1	2	2	2	2	2	2	2.1	2	2.1	2.2	2.2	2.4	2.2	24		
14		2.2	2.2	2.3	2.4	S	2.3	2.2	2.1	2	2	2.2	2.1	2.1	2	2	2	2	2	2	2	2	2	2	2	2.4	2.1	24		
15		2.1	2.1	2.1	S	2.3	2.4	2.5	2.3	2.3	2.3	2.3	2.2	2.1	2.2	2.2	2.1	2.1	2.1	2	2	2	2	2	2	2.5	2.2	24		
16		2.1	2.2	S	2.5	2.5	2.3	2.2	2.2	2.1	2.2	2.1	2.2	2.1	2	2	2.1	2	2	2	2	2	2.1	2.1	2.1	2.5	2.1	24		
17		2.1	S	2	1.9	1.9	2	2.1	2.1	2	2	2	2	2	2	2	2	2	2	2	2	2	2.2	2.3	2.2	2.3	2.0	24		
18		S	2.1	2.3	2.3	2.4	2.1	2.5	2.2	2.2	2.2	2.1	2.1	2.2	2.2	2.2	2.1	2.1	2.2	2.1	2.2	2.1	2.5	2.2	S	2.5	2.2	24		
19		2.2	2.1	2.1	2.1	2.2	2.3	2.2	2.1	2	2.1	2	2	2	2	2	2	2	2	2	2	2.1	2.1	2.2	S	2.7	2.7	2.1	24	
20		2.6	2.7	2.6	2.5	2.5	2.5	2.6	2.5	2.4	2.3	2.3	2.2	2.1	2	2	2	2	2	2	2	1.9	S	2	2.1	2.7	2.3	24		
21		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	2.2	2.1	S	2.1	2.2	2.3	2.3	2.1	24		
22		2.3	2.4	2.2	2.1	2.1	2	2	2.1	2.2	2.2	2.1	2	2	2	2	2	2	2	2	2	S	2.1	2.2	2.1	2.1	2.4	2.1	24	
23		2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.2	2.2	2.1	2.1	2.1	2.2	2.2	2.5	2.3	2.1	S	2	2	2	2.1	2.3	2.3	2.5	2.2	24		
24		2.2	2.1	2.1	2	2.1	2.1	2.1	2.1	2.2	2.1	2.1	2	2	2	2	2	S	2.1	2.1	2.2	2.1	2.2	2.5	2.5	2.1	2.1	24		
25		2.5	2.5	2.5	2.7	2.6	2.5	2.4	2.5	2.9	2.2	2.1	2.1	2.1	2.1	2.1	2.1	S	2.1	2.1	2.1	2.2	2.2	2.2	2.3	2.9	2.3	24		
26		2.2	2.2	2.2	2.4	2.3	2.2	2.2	2.3	2.3	2.1	2.1	2.1	2.1	2.1	2.1	2.1	S	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.4	2.2	24		
27		2.1	2.1	2.1	2.2	2.2	2.2	2.4	2.7	2.4	2.2	2.2	2.1	2.1	2.1	S	2	2.1	2	2.1	2.1	2.1	2.2	2.3	2.3	2.7	2.2	24		
28		2.4	2.3	2.3	2.4	2.5	2.9	2.9	2.7	2.8	2.5	2.2	2.2	2.1	S	2	2	2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.9	2.3	24		
29		2.1	2.3	2.2	2.2	2.1	2	2.1	2.2	2.1	2	2	2	S	2.1	2.2	2.2	2.4	2.3	2.2	2.3	2.2	2.1	2.1	2.1	2.4	2.2	24		
30		2.1	2.1	2.1	2.1	2.2	2.1	2.2	2.2	2.1	2.1	2.1	S	1.6	1.7	1.7	1.8	1.7	1.7	1.7	2	1.9	1.9	1.8	1.7	2.2	1.9	24		
HOURLY MAX		2.9	3.4	3.1	3.6	3.0	2.9	3.1	3.3	3.1	2.6	2.5	2.4	2.5	2.4	2.3	2.5	2.4	2.7	2.5	2.5	2.5	2.5	2.8	2.7					
HOURLY AVG		2.3	2.4	2.3	2.4	2.4	2.4	2.4	2.4	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	2.2	2.2	2.3				

STATUS FLAG CODES

C	- CALIBRATION	Q	- QUALITY ASSURANCE
Y	- MAINTENANCE	R	- RECOVERY
S	- DAILY ZERO/SPAN CHECK	X	- MACHINE MALFUNCTION
P	- POWER FAILURE	O	- OPERATOR ERROR
G	- OUT FOR REPAIR	K	- COLLECTION ERROR

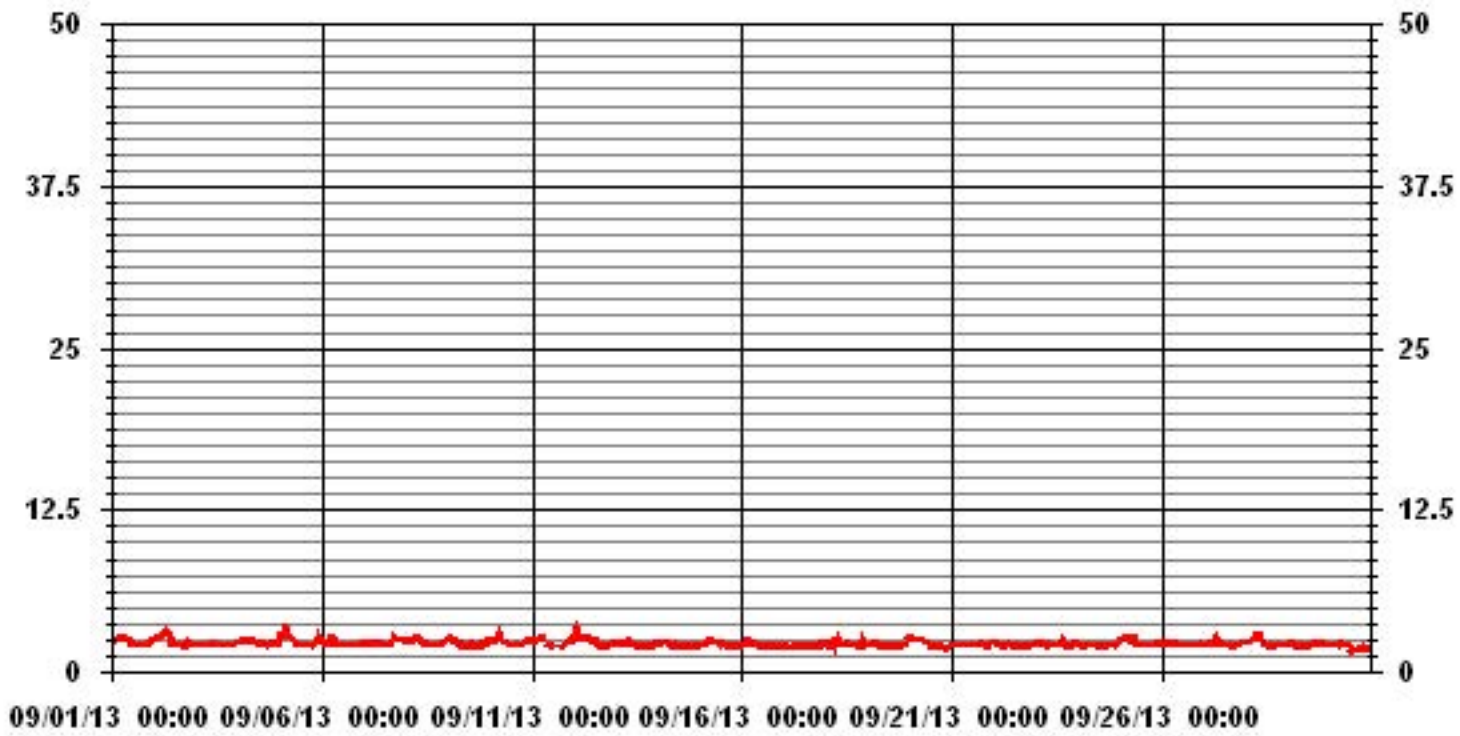
24 AVERAGES FOR SEPTEMBER 2013



MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	682					
MAXIMUM 1-HR AVERAGE:	3.6	PPM	@ HOUR(S)	3	ON DAY(S)	5
MAXIMUM 24-HR AVERAGE:	2.5	PPM			ON DAY(S)	5
					VAR- VARIOUS	
IZS CALIBRATION TIME:	33	HRS	OPERATIONAL TIME:	720	HRS	
MONTHLY CALIBRATION TIME:	5	HRS	AMD OPERATION UPTIME:	100.0	%	
STANDARD DEVIATION:	0.24		MONTHLY AVERAGE:	2.22	PPM	

01 Hour Averages



LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - MASKWA

SEPTEMBER 2013

TOTAL HYDROCARBONS MAX instantaneous maximum in ppm

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	2.3	2.3	2.5	2.6	2.6	2.8	2.9	2.8	2.7	2.6	2.6	2.3	2.2	2.2	2.2	2.1	2.1	S	2.2	2.2	2.2	2.2	2.4	2.5	2.9	2.4	24		
2	2.5	2.6	2.7	2.7	2.9	3	3.2	3.5	3.5	2.7	2.7	2.6	2.2	2.1	2.1	2.3	S	2.1	2.1	2.6	2.1	2.1	2.1	2.1	2.1	3.5	2.5	24	
3	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.4	2.4	2.6	2.7	2.4	2.2	2.1	2.1	S	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.7	2.2	24	
4	2.3	2.4	2.4	2.5	2.5	2.5	2.6	2.6	2.4	2.4	2.3	2.2	2.2	S	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.2	2.2	2.5	2.6	2.3	24		
5	3	3.1	4	4.1	3.5	3	2.9	2.8	3.4	2.4	2.2	2.2	2.3	S	2.6	2.4	2.3	2.3	2.6	2.1	2.5	2.9	3.6	2.6	4.1	2.8	24		
6	2.7	2.8	2.4	2.3	2.3	2.5	3.5	3.2	2.3	2.2	2.2	2.2	S	2.3	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	3.5	2.4	24		
7	2.2	2.3	2.3	2.3	2.3	2.3	2.8	2.5	2.6	2.8	S	2.2	2.2	2.2	2.2	2.7	2.7	2.6	2.5	2.5	2.6	2.6	2.6	2.6	2.8	2.4	24		
8	2.5	2.4	2.4	2.4	2.7	2.6	2.6	2.8	2.8	2.6	S	2.3	2.3	2.2	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.4	2.5	2.8	2.4	24		
9	2.7	2.8	2.7	2.6	2.4	2.5	2.5	2.5	2.1	S	2.2	2.2	2.4	3.1	2.7	2.1	2.2	2.1	2.1	2.6	2.4	2.2	2.8	2.7	3.1	2.5	24		
10	2.5	2.9	2.5	2.7	3.1	3.2	2.9	2.7	S	2.6	2.4	2.3	2.2	2.4	2.1	2.2	2.4	2.5	2.1	3	2.6	2.4	2.7	3	3.2	2.6	24		
11	2.7	2.7	2.5	2.5	2.7	2.7	2.9	S	S	S	2.2	2.1	C	C	C	C	C	2.1	2.1	2.2	2.2	2.3	2.4	2.6	2.9	2.4	24		
12	3.3	3.5	3.3	3.1	3	2.6	S	2.8	2.6	2.6	2.6	2.5	2.5	2.4	2.3	2.2	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.3	3.5	2.5	24		
13	2.3	2.3	2.3	2.4	2.4	S	2.4	2.5	3	2.3	2.2	2.2	2.1	2.1	2.1	2	2.1	2	2.1	2.3	2.1	2.3	2.3	2.3	3	2.3	24		
14	2.2	2.3	2.5	2.5	S	2.5	2.4	2.3	2.1	2	3.3	2.2	2.2	2.1	2	2.2	2.1	2	2	2.1	2.1	2	2	3.3	2.2	2.4	24		
15	2.1	2.1	2.1	S	2.5	2.5	2.6	2.5	2.3	2.3	2.3	2.3	2.2	2.2	2.2	2.1	2.1	2	2	2	2	2	2	2.1	2.6	2.2	24		
16	2.3	2.2	S	2.7	2.8	2.5	2.2	2.2	2.2	2.2	2.5	2.1	2	2	2.1	2.1	2.1	2.1	2	2	2	2.4	2.2	2.1	2.8	2.2	24		
17	2.2	S	2	2	2	2.1	2.1	2.1	2.1	2	2	2	2	2	2	2	2	2	2.1	2	2	2.5	2.6	2.5	2.6	2.1	24		
18	S	2.4	2.8	2.8	2.9	2.4	3.1	2.6	2.7	2.6	2.4	2.2	2.7	2.3	2.4	2.3	2.3	2.3	2.4	2.6	2.2	3	2.4	S	3.1	2.5	24		
19	2.4	2.2	2.1	2.2	2.4	2.6	2.6	2.4	2.2	2.3	2.1	2.2	2.1	2	2	2	2	2.2	2.1	2.1	2.2	2.4	S	3.8	3.8	2.3	24		
20	2.8	3.3	3	2.7	2.6	2.7	2.7	2.7	2.4	2.4	2.3	2.3	2.4	2	2.1	2.1	2	2	2	2	1.9	S	2	2.1	3.3	2.4	24		
21	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.4	2.3	S	2.4	2.2	2.3	2.4	2.2	24		
22	2.4	2.5	2.3	2.1	2.2	2.1	2	2.1	2.2	2.2	2.1	2.1	2	2	2	2	2	2	2	S	2.2	2.6	2.2	2.4	2.6	2.2	24		
23	2.5	2.4	2.5	2.9	2.7	2.4	2.3	2.3	2.3	2.2	2.2	2.1	2.2	2.2	2.5	2.5	2.5	2.1	S	2	2.1	2.2	2.5	2.4	2.9	2.3	24		
24	2.7	2.1	2.1	2.1	2.4	2.5	2.1	2.3	2.2	2.4	2.5	2.3	2.1	2.2	2.1	2.2	2	S	2.2	2.1	2.9	2.2	2.5	2.5	2.9	2.3	24		
25	2.6	2.6	2.6	2.9	2.8	2.6	2.5	2.6	3.2	2.9	2.1	2.1	2.1	2.1	2.1	2.1	S	2.1	2.1	2.2	2.2	2.3	2.2	2.6	3.2	2.4	24		
26	2.2	2.2	2.3	2.8	2.8	2.3	2.6	2.6	2.6	2.1	2.1	2.1	2.1	2.1	2.1	S	2.1	2.1	2.1	2.1	2.1	2.1	2.4	2.2	2.8	2.3	24		
27	2.2	2.2	2.2	2.3	2.2	2.3	2.6	2.8	2.6	2.2	2.2	2.2	2.1	2.1	S	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.3	2.5	2.8	2.3	24		
28	2.4	2.4	2.4	2.5	2.6	3.1	3	2.9	3.1	2.7	2.2	2.2	2.2	S	2	2	2	2.1	2.1	2.1	2.1	2.1	2.1	3.1	2.4	2.4	24		
29	2.4	2.4	2.4	2.4	2.2	2	2.3	2.5	2.3	2.1	2.1	2.1	S	2.4	2.6	2.6	2.6	2.6	2.2	2.5	2.5	2.1	2.1	2.1	2.6	2.3	24		
30	2.1	2.1	2.1	2.4	2.5	2.2	2.3	2.2	2.2	2.3	2.2	S	1.8	1.7	1.9	2	1.9	1.9	2.1	2.2	2.1	2	2	1.8	2.5	2.1	24		
HOURLY MAX	3.3	3.5	4.0	4.1	3.5	3.2	3.5	3.5	3.5	2.9	3.3	2.6	2.7	3.1	2.7	2.6	2.7	2.7	2.6	3.0	2.9	3.0	3.6	3.8					
HOURLY AVG	2.4	2.5	2.5	2.5	2.6	2.5	2.6	2.6	2.5	2.4	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.4					

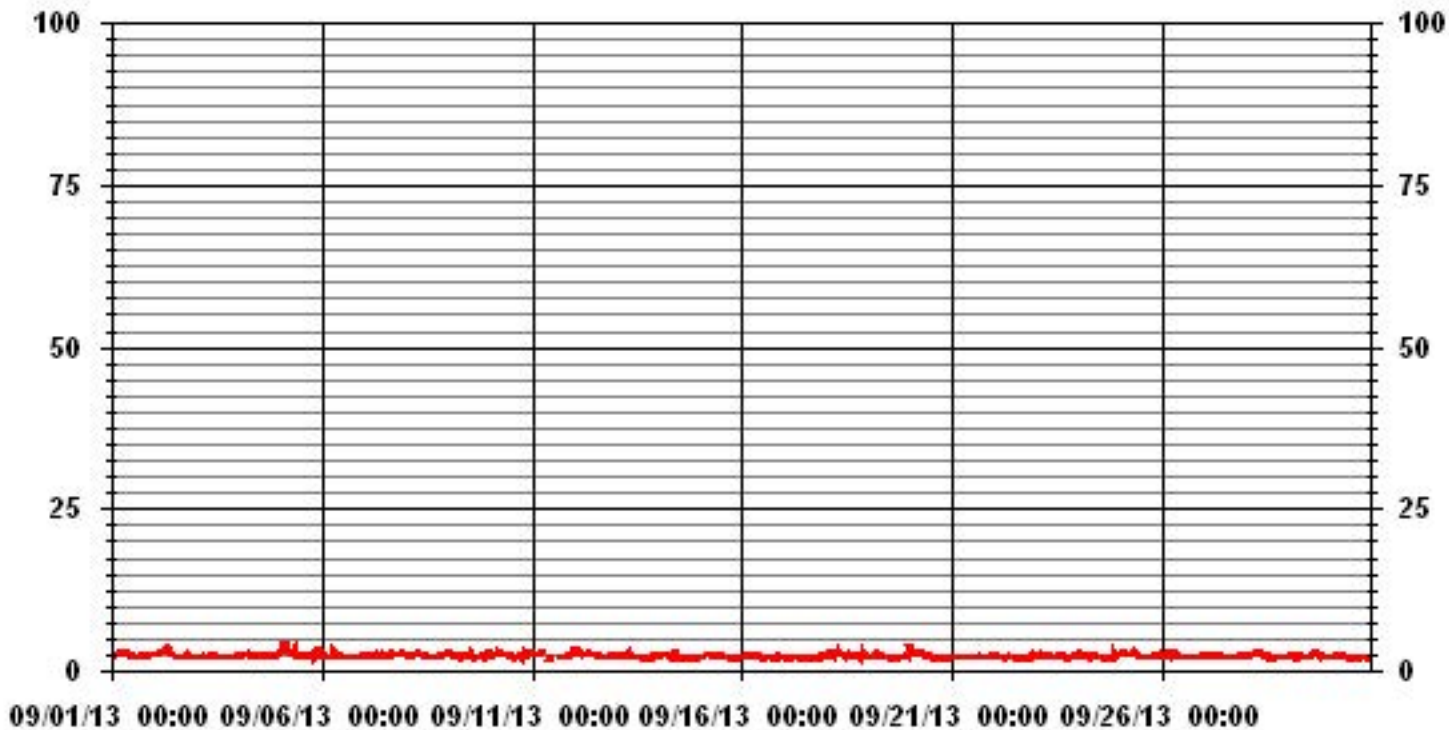
STATUS FLAG CODES

C - CALIBRATION	Q - QUALITY ASSURANCE
Y - MAINTENANCE	R - RECOVERY
S - DAILY ZERO/SPAN CHECK	X - MACHINE MALFUNCTION
P - POWER FAILURE	O - OPERATOR ERROR
G - OUT FOR REPAIR	K - COLLECTION ERROR

MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	682					
MAXIMUM INSTANTANEOUS VALUE:	4.1	PPM	@ HOUR(S)	3	ON DAY(S)	5
IZS CALIBRATION TIME:	33	HRS	OPERATIONAL TIME:	720 HRS		
MONTHLY CALIBRATION TIME:	5	HRS				
STANDARD DEVIATION:	0.32					

01 Hour Averages



— LICA30 THCMAX PPM

LICA30
 THC / WDR Joint Frequency Distribution (Percent)

September 2013

Distribution By % Of Samples

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

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
< 3.0	3.66	2.63	5.27	2.34	3.66	3.51	9.67	5.86	7.33	14.80	10.11	5.57	7.62	9.82	3.81	2.78	98.53
< 10.0	.00	.00	.00	.00	.00	.00	.00	.29	.14	.87	.00	.00	.14	.00	.00	.00	1.46
< 50.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
>= 50.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
Totals	3.66	2.63	5.27	2.34	3.66	3.51	9.67	6.15	7.47	15.68	10.11	5.57	7.77	9.82	3.81	2.78	

Calm : .00 %

Total # Operational Hours : 682

Distribution By Samples

Limit	Direction															Freq	
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW		NNW
< 3.0	25	18	36	16	25	24	66	40	50	101	69	38	52	67	26	19	672
< 10.0								2	1	6			1				10
< 50.0																	
>= 50.0																	
Totals	25	18	36	16	25	24	66	42	51	107	69	38	53	67	26	19	

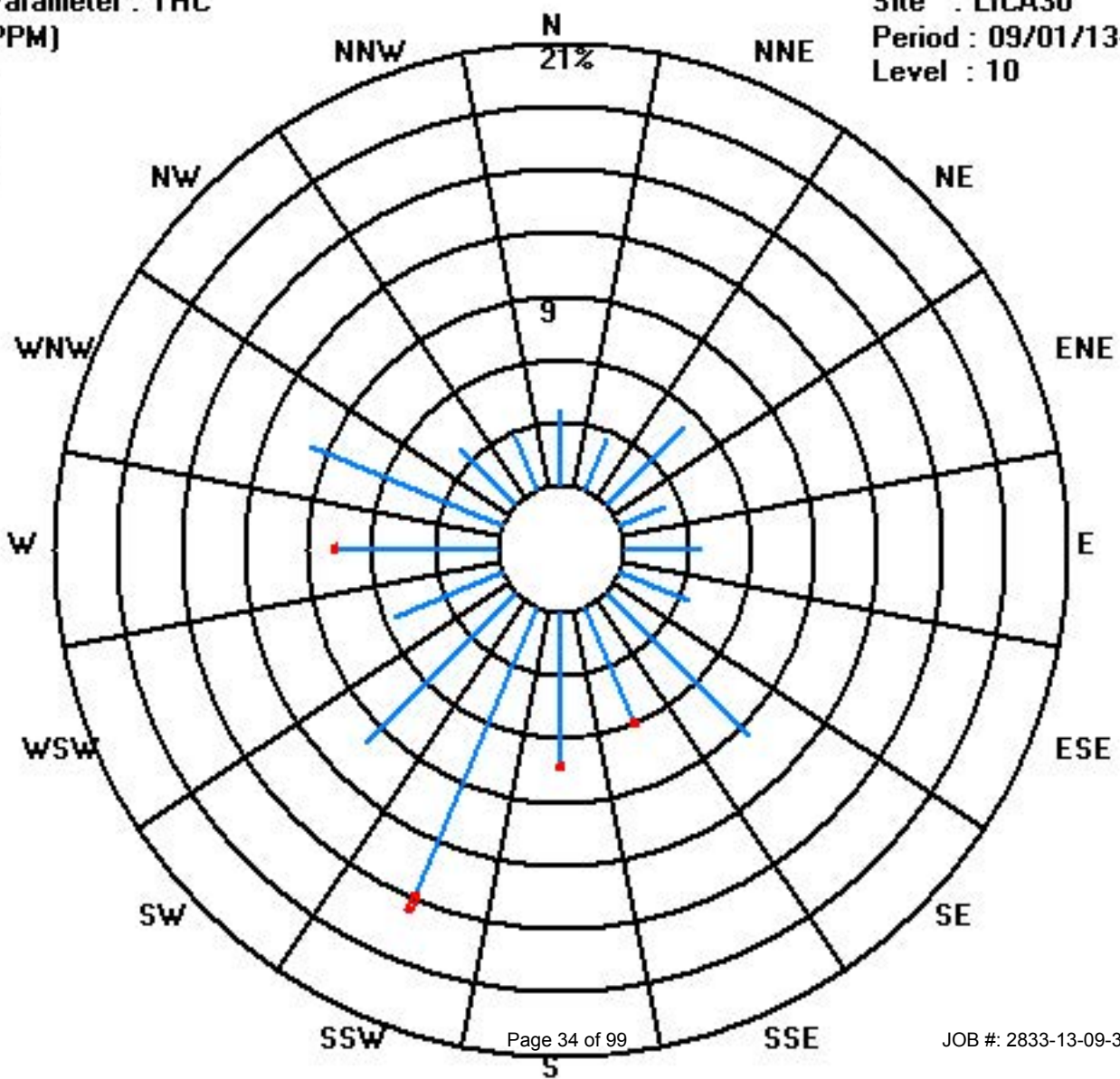
Calm : .00 %

Total # Operational Hours : 682

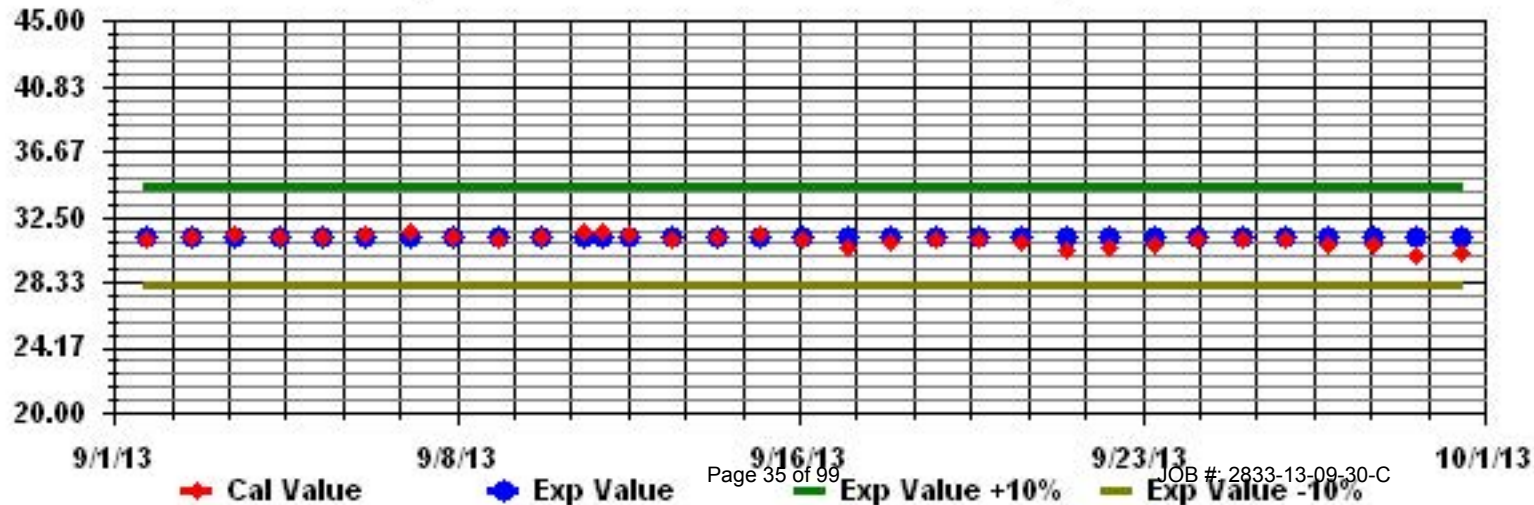
Class Limits (PPM)

Period : 09/01/13-09/30/13

Level : 10



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



Nitrogen Dioxide

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - MASKWA

SEPTEMBER 2013

NITROGEN DIOXIDE hourly averages in ppb

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	DAILY MAX.	24-HOUR AVG.	RDGS.
1	2.4	1.6	2.2	2.4	2.4	3.8	3.8	2.5	2.2	2.1	1.9	1.1	1	0.9	0.6	0.6	0.6	S	1.4	1.2	1.2	1.4	1.6	1.8	3.8	1.8	24
2	2.2	2.5	2.8	4.7	4.6	6.1	6.7	9.1	6.8	2.8	2.5	2.5	0.7	0.5	0.7	0.7	S	0.4	0.3	5	0.8	0.7	0.1	0	9.1	2.7	24
3	0	0	0	0	0.1	0	0	0.8	0.9	2.6	4.1	5.5	4	0.5	0.8	S	0.2	0	0.1	0.1	0.8	0.2	0	0.5	5.5	0.9	24
4	1.9	1.2	1.1	1.4	0.9	0.7	2.1	2.9	1.7	1.7	1.7	2.1	2.7	3.4	S	2.8	1.9	2	1.9	2.5	1.4	1.1	1.5	1.5	3.4	1.8	24
5	1.9	3.6	3.8	4.3	3.9	3	1.9	4.9	8.2	3.4	2.6	1.7	3.3	S	1.2	0.8	3.2	1.4	5.6	2.7	3.7	4	4.4	7.1	8.2	3.5	24
6	7.6	6.4	3.2	1.5	1.7	5	3.8	3.4	4.1	1.7	0.5	0.6	S	0.5	0.8	0.3	0	0	0	0	0.3	0.9	0.6	0.1	7.6	1.9	24
7	0	0.1	0.3	1.6	1.4	0.3	0.6	1.5	0.7	2.9	4.3	S	1.1	1.2	0.5	0.6	1.2	3	2.1	1.9	1.7	1.8	2.3	1.9	4.3	1.4	24
8	1.4	1.8	1.5	2.6	1.3	1.4	2.4	2.2	1.6	1.5	S	0.9	0.9	0.6	0.6	0.7	0.8	0.8	0.9	1	1.7	2.1	1.4	2.4	2.6	1.4	24
9	5.1	5	4.7	3	3.4	3.3	2.7	2.7	1.7	S	0.1	0.9	2.8	3.8	1	0.5	5.5	0.3	0	3.2	5.6	5.2	11.8	6.5	11.8	3.4	24
10	8	9.3	3.6	3.1	3.1	6.8	8	10.2	S	9	4.6	0.3	0.3	0.4	0.2	0.1	2.6	2.7	0.2	4.1	4.8	4.3	9.7	8.7	10.2	4.5	24
11	7.1	9.6	6.5	6.1	4.3	2.5	3.4	S	C	C	C	C	C	C	C	1.2	0	0	0	0	0.5	0.8	1.1	0.3	9.6	2.7	24
12	0.6	0.7	1	1	1.4	1.3	S	1.6	2.3	2.8	2	1.5	1.1	1	0.7	0.5	0	0	0	0.3	0.9	1.3	1.3	1.2	2.8	1.1	24
13	1.3	1.9	1.6	1.1	1.3	S	5.4	4.8	8.5	3.5	2.2	1.6	0.8	0.1	0.1	0	0	0	0	0	0.2	0.5	1.4	0.9	8.5	1.6	24
14	0.5	0.4	0.3	0.5	S	0.7	0.1	0.3	0.1	0	1.5	3.3	5.1	3	0.5	1.6	0.9	0	0	0	0	0	0	0	5.1	0.8	24
15	0	0	0.5	S	1.3	1.2	1.7	1.8	1.4	1.4	1.4	0.3	0	0	0.1	0.2	0.4	0	0	0	0.1	0	0	0	1.8	0.5	24
16	1.9	1	S	3	3.7	2.5	1.5	1.3	1.2	1.9	5.6	2.3	0.5	0.6	0.5	0.8	0.8	3.7	4	1.6	0.5	1	1.5	2.5	5.6	1.9	24
17	1.8	S	0.7	0.2	0.5	4.1	4.1	2.1	1.5	0.4	0.4	0.1	0.1	0.2	0	0.3	0	0.1	0	0.2	0	2.9	5.1	7.4	7.4	1.4	24
18	S	4.6	8.1	5.5	4.8	4.3	4.6	5.2	2.3	1.8	1.5	1.4	2.4	3.7	3.4	2.5	2.2	2.8	0	2	1.1	6.6	4.7	S	8.1	3.4	24
19	5.9	5.3	5.5	3.3	2.9	4.8	3.2	3.7	2	1.9	0.6	0.6	0.5	0	0.2	0.5	0.1	0.6	0.6	0.6	1.8	1.6	S	0.9	5.9	2.0	24
20	0.9	0.5	1.1	1.3	1.3	1.4	2.3	1.7	1.7	1.8	1.6	0.9	3	0	0	0	0.2	0.7	0.5	0	S	0.5	0.6	3.0	1.0	24	
21	0.7	0.7	0.8	0.9	0.7	0.8	1.1	1.1	0.9	1.1	1.2	1.2	1.1	1	1	1	1.4	1.3	2	1.8	S	2.9	1.6	2.2	2.9	1.2	24
22	3.3	6.2	2	1.3	5.1	2.9	4.4	2.6	3.1	2.3	1.3	1.5	0.8	0.7	0.6	0.5	0.3	0.3	0.4	S	0.9	0.9	0.8	0.4	6.2	1.9	24
23	0.8	1	0.5	0.4	0.5	3.6	1.2	2.1	2.4	0.9	2.2	2	1.6	2.2	2.4	3.4	2.2	1.4	S	0.8	2	5.6	5.9	6	6.0	2.2	24
24	3.4	1.6	2	1.1	1.5	6.1	4.8	5	7.4	8.5	4	5.2	1.3	0.1	0	0.3	0	S	2.2	0.9	1.6	1.8	2.8	3.6	8.5	2.8	24
25	4.8	6	4.6	4.5	9.1	7.2	7.4	7.6	11.9	5.1	1.1	0.6	0.6	0.6	0.5	0.7	S	0.9	1.8	2.7	3.4	5	4.7	11.6	11.9	4.5	24
26	4.3	4.2	6	8.9	7	8.1	7.6	9.8	7.3	1.7	1.5	1.6	1.3	1.5	0.5	S	0.7	0.2	1.6	2.8	1.3	2.8	8.8	9.4	9.8	4.3	24
27	8.7	5.2	1.3	1.7	0.8	1.8	4.7	4.3	1.9	1	1.5	1.9	1.3	1.4	S	1.4	1.4	1.6	1.3	2.3	2	2.2	2.4	3.8	8.7	2.4	24
28	5.2	4.5	3.3	4.5	9.9	12.2	9.4	7.4	6	5.5	2.2	2.5	1.8	S	0.6	0.4	0.6	1	1.6	0.9	0.7	0.7	0.6	0.7	12.2	3.6	24
29	1.3	12.1	5.4	4.4	2.4	1.4	4.3	6.4	1.9	0.5	1.6	1.2	S	4.4	3.3	1.6	14.6	7	2.9	5.8	10.7	0.8	0.5	0.4	14.6	4.1	24
30	0.7	0.6	1.1	1	2.4	4	5.2	4.2	3.7	2.7	1.8	S	1.4	3.1	3.1	2.7	2.6	3.3	4.3	5.8	5.4	7.6	5.9	2.1	7.6	3.2	24
HOURLY MAX	8.7	12.1	8.1	8.9	9.9	12.2	9.4	10.2	11.9	9.0	5.6	5.5	5.1	4.4	3.4	3.4	14.6	7.0	5.6	5.8	10.7	7.6	11.8	11.6			
HOURLY AVG	2.9	3.4	2.6	2.6	2.9	3.5	3.7	3.9	3.4	2.6	2.1	1.7	1.5	1.3	0.9	1.0	1.6	1.3	1.2	1.7	1.9	2.3	2.9	2.9			

STATUS FLAG CODES

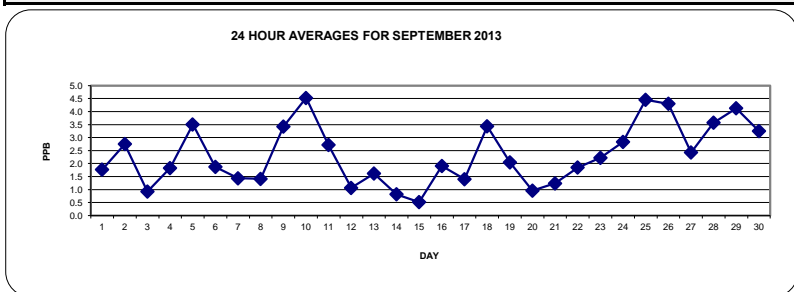
C	- CALIBRATION	Q	- QUALITY ASSURANCE
Y	- MAINTENANCE	R	- RECOVERY
S	- DAILY ZERO/SPAN CHECK	X	- MACHINE MALFUNCTION
P	- POWER FAILURE	O	- OPERATOR ERROR
G	- OUT FOR REPAIR	K	- COLLECTION ERROR

OBJECTIVE LIMIT:

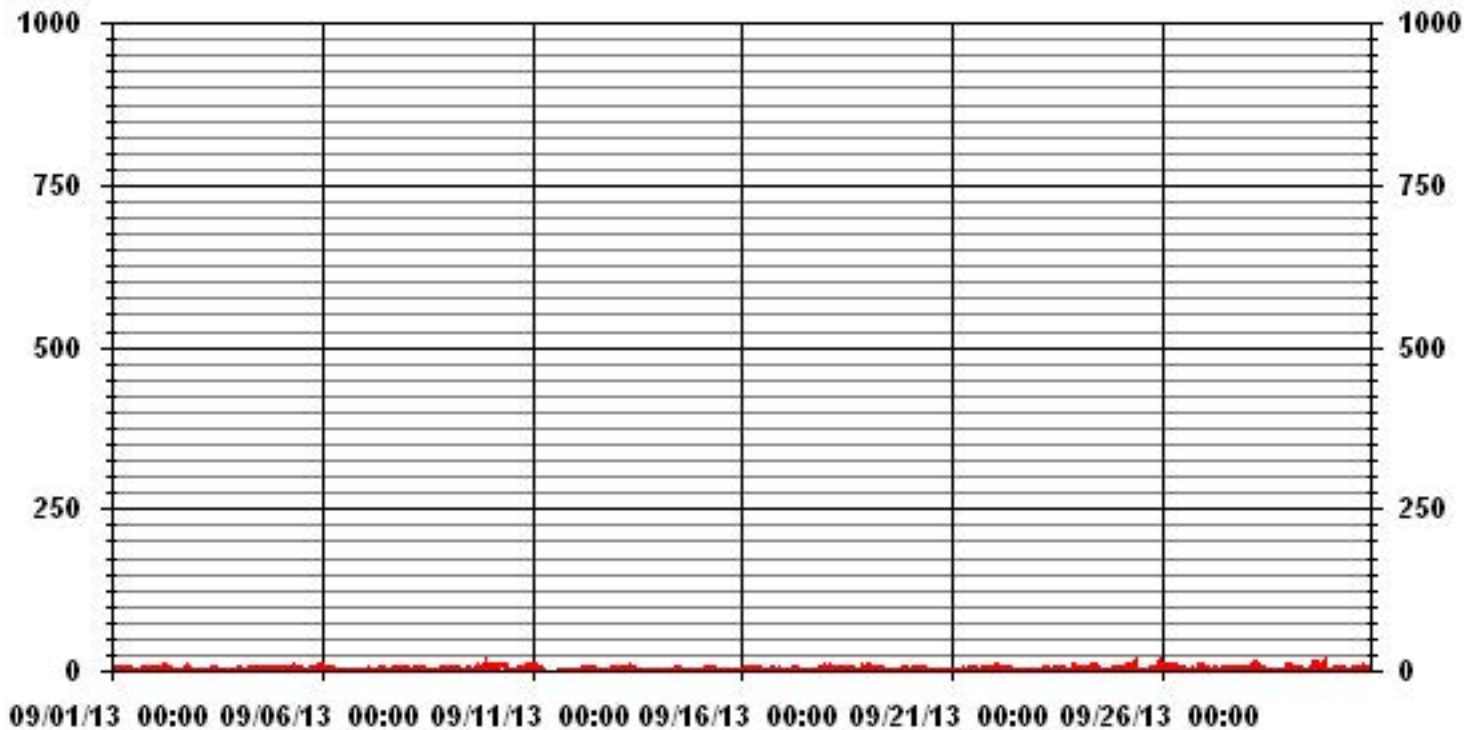
ALBERTA ENVIRONMENT: 1-HR 159 PPB

MONTHLY SUMMARY

NUMBER OF 1-HR EXCEEDENCES:	0			
NUMBER OF NON-ZERO READINGS:	624			
MAXIMUM 1-HR AVERAGE:	14.6	PPB	@ HOUR(S)	16
MAXIMUM 24-HR AVERAGE:	4.5	PPB	ON DAY(S)	29
IZS CALIBRATION TIME:	31	HRS	OPERATIONAL TIME:	720
MONTHLY CALIBRATION TIME:	7	HRS	AMD OPERATION UPTIME:	100.0
STANDARD DEVIATION:	2.39		MONTHLY AVERAGE:	2.33
			PPB	



01 Hour Averages



— LICA30 NO2_ PPB

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - MASKWA

SEPTEMBER 2013

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	23:00	DAILY	24-HOUR	
HOUR END	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	MAX.	AVG.	RDGS.	
DAY																												
1	3	2.1	2.9	2.8	2.8	4.5	4.4	3.3	2.7	2.6	2.3	2	1.5	1.5	1.3	1.4	1	S	2.9	2.8	2.3	2.4	2.4	2.6	4.5	2.5	24	
2	3.2	3.4	4.4	6.5	5.9	7.3	9.9	10	9.6	5.3	4.5	15.1	1.6	1.2	2	3.3	S	1.2	1.1	1.3	2.8	1.3	1	0.9	15.1	5.0	24	
3	0.6	0.7	0.8	0.7	0.8	1	1	4.5	3.6	5.3	6.8	8.3	6.7	1.4	9.7	S	1.1	1	1.1	1.4	2.2	1.4	0.8	1.8	9.7	2.7	24	
4	2.9	2.2	2	2.4	2	1.8	3.5	13	2.7	2.4	2.6	2.8	3.5	4.4	S	3.6	2.7	2.9	4.4	4.5	2.4	2.2	3.6	2.8	13	3.4	24	
5	2.9	6.6	6.2	8.4	5.9	4.4	3	8.7	12.3	9.2	10.6	4.2	8.4	S	3.3	3.3	18.8	4.7	7.9	4.1	4.9	5.4	7.1	10.4	18.8	7.0	24	
6	9.6	9.8	5.6	2.5	3	14.2	5.9	6	6.8	2.8	1.8	2.1	S	5	6.2	1.9	0.8	0.6	0.6	0.7	1.8	2	2	0.9	14.2	4.0	24	
7	0.9	1.2	1.3	3.1	2.8	1.2	5.4	4.1	2.2	7.3	8	S	2.9	3.5	1.4	1.7	3.8	4.4	3.2	4.6	4.6	3.1	3.1	2.9	8	3.3	24	
8	3	3	3	5.4	2.6	3.4	5.4	3.1	2.9	3.5	S	1.8	1.7	1.6	1.4	2.3	1.6	1.6	2.9	2	6.4	5.6	2.4	3.7	6.4	3.1	24	
9	6.8	6.9	5.8	4.3	4.8	4.2	4.4	5.2	3.7	S	1.4	3.1	8.7	8.4	8.9	4	15.8	6	1.1	15.8	14.5	9	16.8	12	16.8	7.5	24	
10	10.3	11.6	7.1	5.8	7.5	14.5	10.8	14.9	S	13.6	9.5	2	1.3	2.9	1.1	1.1	16.9	11.9	1.8	7.3	6.7	6.8	14.9	14.4	16.9	8.5	24	
11	11	12.6	9.4	7.8	6.8	4.1	6	S	C	C	C	C	C	C	C	5.6	1.1	0.3	0.6	1.4	2.3	2.2	2.8	1.4	12.6	4.7	24	
12	2.1	1.8	2.2	2.4	3	2.4	S	3.1	3.4	11.8	2.8	2.5	2.3	2.3	1.9	2.2	1.3	1.4	1.6	1.6	2.3	2.5	2.6	2.6	11.8	2.7	24	
13	2.8	3.2	3	2.5	2.5	S	10.1	6.5	15.7	6.9	2.7	2.1	1.5	0.7	0.5	0.2	0.3	0.4	0.5	0.4	1.1	1.8	2.2	2	15.7	3.0	24	
14	1.2	1.4	1.2	1.8	S	1.8	1.4	1.2	1.1	0.6	4.7	5	7.4	4.2	1.8	5.2	7.4	0.6	0.9	1.4	1.3	1.2	0.8	0.8	7.4	2.4	24	
15	0.8	1.5	1.8	S	2.9	2.3	2.6	2.7	2.2	2.3	2.3	1.5	0.9	1	1	1.2	1.6	1.2	1.2	0.8	1.1	0.9	1.1	2	2.9	1.6	24	
16	4.9	2	S	4.6	4.8	4.2	2.3	2.4	1.7	7.6	8.9	4.4	1.5	1.3	1.4	1.6	1.7	6.1	7.8	5.3	1.4	1.6	2.5	4.1	8.9	3.7	24	
17	2.9	S	1.4	0.9	1.2	7.8	6.4	3.7	3.4	1.2	0.8	0.5	0.6	0.7	0.6	1.1	1.3	0.9	0.6	0.6	0.6	9	9.3	10.5	10.5	2.9	24	
18	S	9.8	10.6	10.5	9.4	9.8	7.2	8.5	6	5	4.5	12.1	6.4	8.9	8.4	5.9	5.6	5.8	2.1	9.7	6.4	8.6	6.5	S	12.1	7.6	24	
19	7.1	7.4	6.7	5.2	4.7	11	10.8	5.8	4.9	5.6	5.2	1.5	1.6	0.8	1.2	1.8	1	2.2	1.5	2	2.8	3.4	S	1.9	11	4.2	24	
20	2	1.6	2.6	2.9	2.8	2.6	5.5	3.4	2.8	3	2.4	1.9	6.3	1.1	1.4	1.2	1.4	2.5	2.3	1.1	1	S	1	1	6.3	2.3	24	
21	1.3	1.3	1.4	1.7	1.8	1.8	2.2	2.3	1.8	2	2.8	2.2	1.5	1.4	1.4	1.6	2	1.8	6.1	4.9	S	6.6	2.4	3.7	6.6	2.4	24	
22	4.2	11.6	3.3	2.1	8.8	4.9	7.2	4.4	5.2	3.6	2.3	16.1	1.6	1.6	1.6	2.1	1.3	0.9	1.5	S	1.6	1.7	1.8	1.2	16.1	3.9	24	
23	1.7	2.1	1.4	1.5	1.6	11.8	4.5	5	4.9	3.1	5.1	5.3	2.3	3.3	3.5	3.9	3.5	4.7	S	1.2	6.8	8.3	7.8	7.2	11.8	4.4	24	
24	9.2	3.2	5.5	3.5	11.6	14.9	7.7	10.6	11.2	21.4	7.8	12.4	4.7	0.7	1.4	1.9	0.6	S	5.4	1.7	2.7	2.6	3.7	4.9	21.4	6.5	24	
25	7.7	7.4	6.4	7	11.3	9.3	11.6	11.6	16.1	9.6	3.7	1.4	0.9	1.8	1.5	2.1	S	2.4	2.8	3.3	6.1	11.6	7.6	21.4	21.4	7.2	24	
26	8.7	5.4	12	11.3	11	11.9	14.1	14.3	10.3	3.6	2.3	2.2	1.9	2	1.1	S	1.8	1.5	3.9	8.9	3	10.4	16.9	12.8	16.9	7.4	24	
27	12.3	10.8	2.8	3.3	2.9	4.1	7.8	7.5	8.9	2.5	3.2	3.7	2.8	2.5	S	1.8	1.9	5.9	2.4	3.7	3.1	3.2	3.4	8	12.3	4.7	24	
28	7.6	7.5	6.2	11.1	17.2	18.3	12.4	9.6	9	7.4	3.1	3.4	2.7	S	1.5	1.4	3.5	2.5	2.6	1.8	1.8	1.8	1.2	1.3	18.3	5.9	24	
29	11.3	15.3	10.4	12.4	7.6	2.5	13.2	14	5.6	1.3	3.4	3.2	S	6.6	4.9	3.2	24.1	15.7	5.6	14.7	16.1	4.3	1.1	1.3	24.1	8.6	24	
30	1.6	1.6	2	1.7	5.7	6.2	9.4	10.8	8.3	9.7	3.5	S	3.1	6.2	8.6	9.2	7.9	9	8.9	10	9.6	9.8	9	6.1	10.8	6.9	24	
HOURLY MAX	12.3	15.3	12.0	12.4	17.2	18.3	14.1	14.9	16.1	21.4	10.6	16.1	8.7	8.9	9.7	9.2	24.1	15.7	8.9	15.8	16.1	11.6	16.9	21.4				
HOURLY AVG	5.0	5.3	4.5	4.7	5.4	6.5	6.8	6.9	6.0	5.7	4.3	4.5	3.2	2.9	2.9	2.7	4.7	3.6	2.9	4.5	4.1	4.5	4.8	5.1				

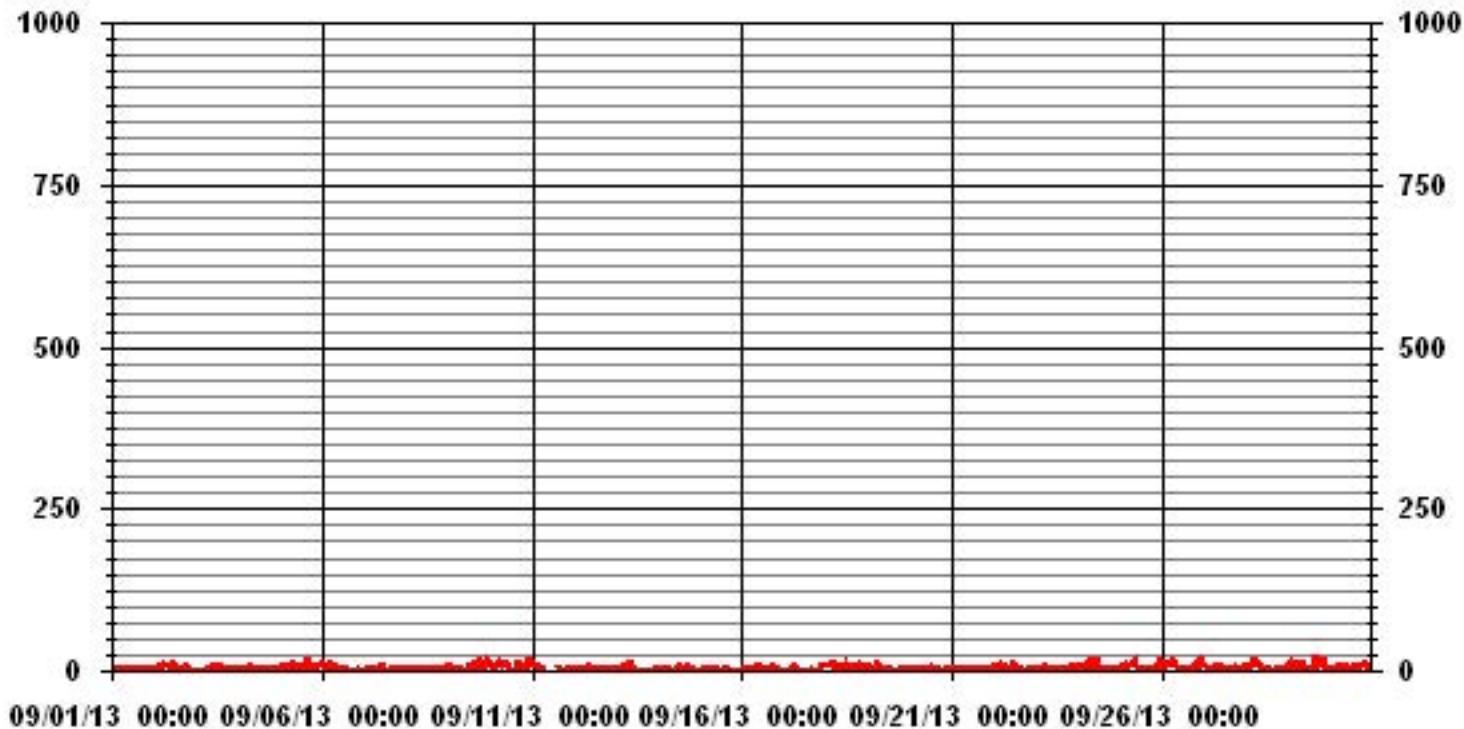
STATUS FLAG CODES

C	- CALIBRATION	Q	- QUALITY ASSURANCE
Y	- MAINTENANCE	R	- RECOVERY
S	- DAILY ZERO/SPAN CHECK	X	- MACHINE MALFUNCTION
P	- POWER FAILURE	O	- OPERATOR ERROR
G	- OUT FOR REPAIR	K	- COLLECTION ERROR

MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	682					
MAXIMUM INSTANTANEOUS VALUE:	24.1	PPB	@ HOUR(S)	16	ON DAY(S)	29
IZS CALIBRATION TIME:	31	HRS	OPERATIONAL TIME:	720	HRS	
MONTHLY CALIBRATION TIME:	7	HRS				
STANDARD DEVIATION:	4.00					

01 Hour Averages



— LICA30 NO2MAX PPB

LICA30
 NO2_ / WDR Joint Frequency Distribution (Percent)

September 2013

Distribution By % Of Samples

Logger Id : 30
 Site Name : LICA30
 Parameter : NO2_
 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
< 50.0	3.66	2.63	5.27	2.34	3.66	3.51	9.67	6.15	7.47	15.68	10.11	5.57	8.06	9.53	3.81	2.78	100.00
< 110.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
< 210.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
>= 210.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
Totals	3.66	2.63	5.27	2.34	3.66	3.51	9.67	6.15	7.47	15.68	10.11	5.57	8.06	9.53	3.81	2.78	

Calm : .00 %

Total # Operational Hours : 682

Distribution By Samples

Limit	Direction															Freq	
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW		NNW
< 50.0	25	18	36	16	25	24	66	42	51	107	69	38	55	65	26	19	682
< 110.0																	
< 210.0																	
>= 210.0																	
Totals	25	18	36	16	25	24	66	42	51	107	69	38	55	65	26	19	

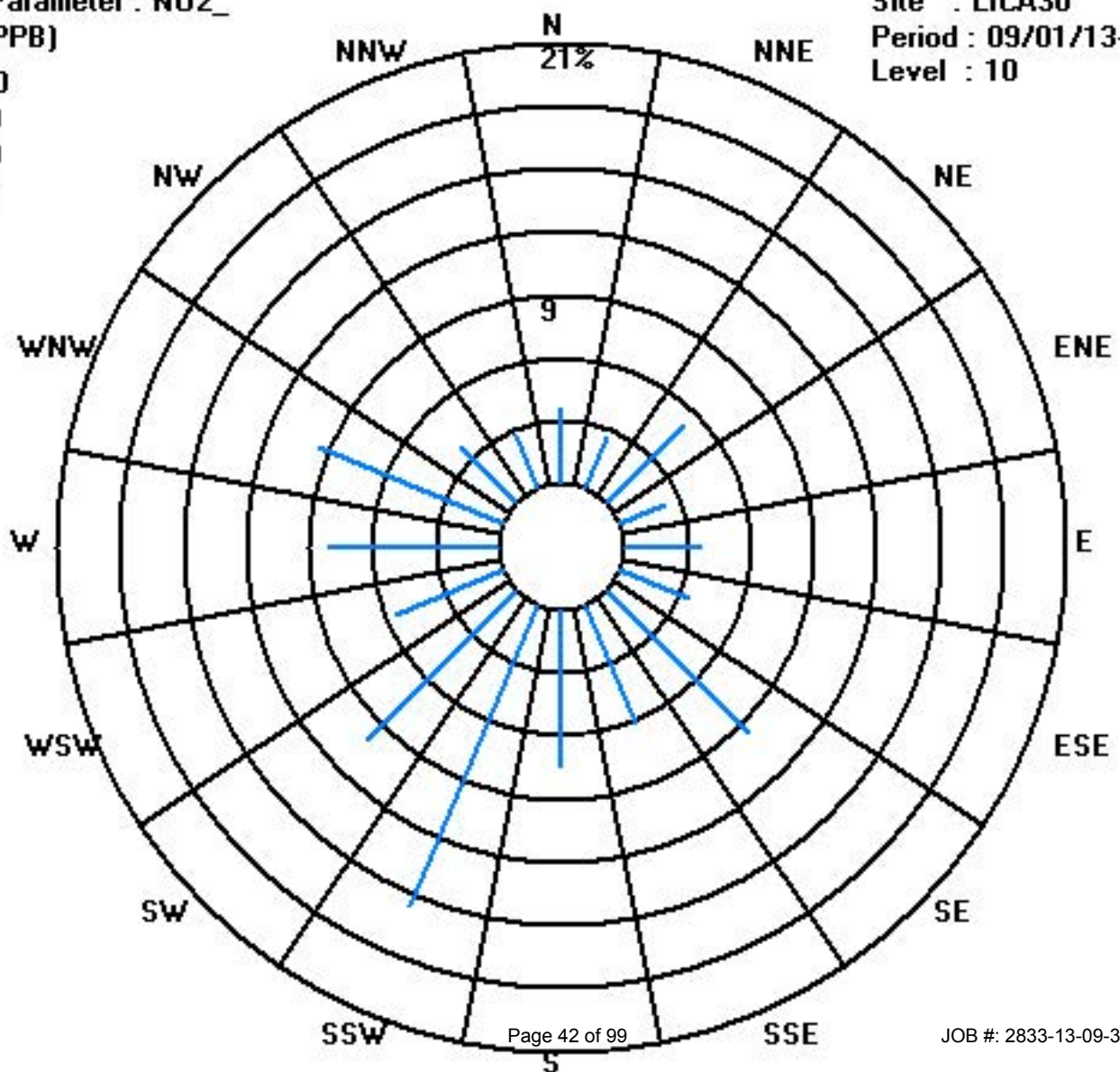
Calm : .00 %

Total # Operational Hours : 682

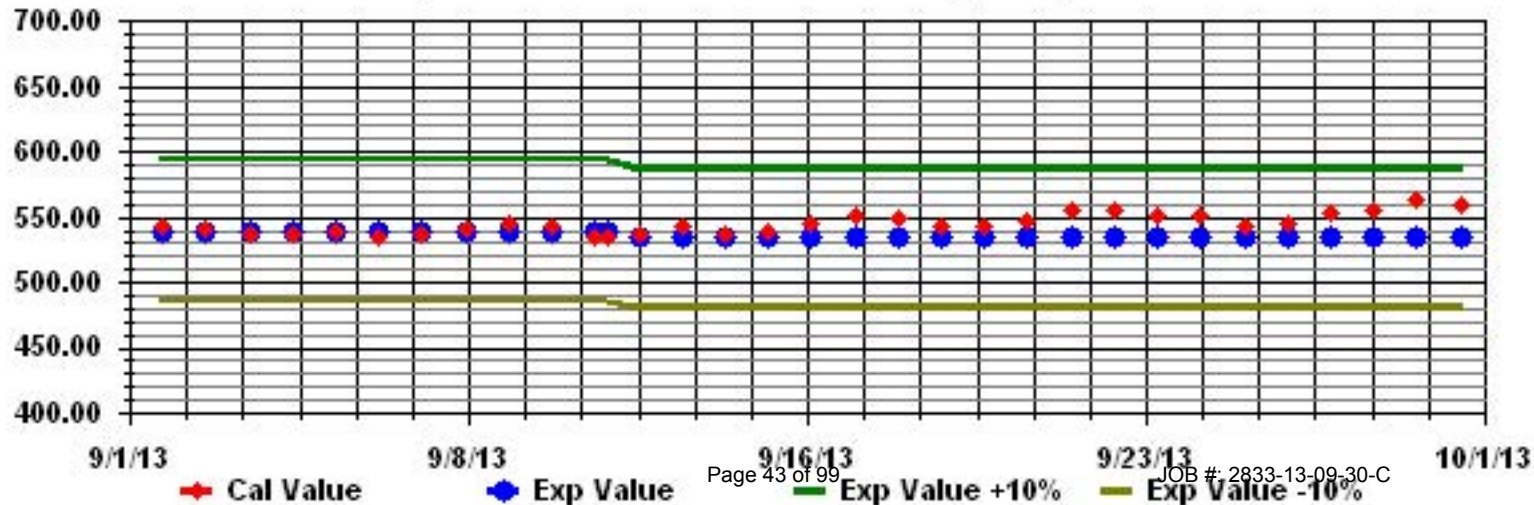
Class Limits (PPB)

Period : 09/01/13-09/30/13

Level : 10



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



Nitric Oxide

LAKELAND INDUSTRY & COMMUNITY ASSOICATION - MASKWA

SEPTEMBER 2013

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	0.4	0.7	0.6	0.5	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0.7	0.1	24
2	0	0	0	0	0	0.5	2.3	6.6	4.1	0.7	0.4	0.3	0	0	0	S	0	0.1	0	0	0	0	0	0	0	6.6	0.7	24
3	0	0	0	0	0	0.1	0	0.6	0.8	2.7	4	5.3	2.9	0.1	0.2	S	0	0	0	0	0	0	0	0	0	5.3	0.7	24
4	0	0	0	0	0	0	0.2	3	0.4	0.1	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	3.0	0.2	24
5	0	0	0	0	0	0.3	0.7	2.4	4.1	1.1	1.1	0.4	1.2	S	0.1	0	0.6	0	0	0	0	0	0	0	0	4.1	0.5	24
6	0	0	0	0	0	1.3	2.5	1.5	2.3	0	0	0	S	0.4	0.4	0.2	0.1	0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	2.5	0.4	24
7	0	0.1	0.2	0.2	0.2	0.4	1	1.1	0.6	1.5	1.9	S	0.1	0.1	0	0	0	0	0	0	0	0	0	0	0	1.9	0.3	24
8	0	0	0	0	0	0.2	2.9	1	0.4	0.2	S	0.2	0.3	0.4	0.1	0.2	0.1	0	0.2	0.1	0.2	0.1	0.2	0	0	2.9	0.3	24
9	0.3	0.2	0.3	0.3	0	0.3	0.5	1.9	1.6	S	0.2	0.4	2.6	3.4	0.9	0.1	3	0	0	0.1	0.3	0.1	0.3	0.1	0.3	3.4	0.7	24
10	0.1	0.1	0.2	0.1	0.4	5.2	5	15.2	S	5.9	2.9	0.2	0.3	0.2	0.2	0	1.2	0.8	0.1	0.2	0.1	0.1	0.4	0.5	15.2	1.7	24	
11	0.5	0.5	0.4	0.5	0.4	0.4	1.9	S	C	C	C	C	C	C	C	0.2	0	0	0	0	0	0	0	0	0	1.9	0.3	24
12	0	0	0	0	0	0	S	0.5	0.4	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.6	0.1	24
13	0	0	0	0	0	0	S	0.6	0.6	3.5	0.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	3.5	0.2	24
14	0.3	0.6	0.5	0.4	S	0	0	0	0	0	0	0.3	0.7	1.4	0	0	0	0	0	0	0	0	0	0	0	1.4	0.2	24
15	0	0	0	S	0	0.1	0	0.4	0.4	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.5	0.1	24
16	0	0	S	0	0.2	0.3	0.1	0.4	0.3	0.4	2.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2.5	0.2	24
17	0	S	0	0	0	0	0.3	0.5	0.5	0.1	0	0	0	0	0	0	0	0	0	0	0	0	1.1	4.5	2.6	4.5	0.4	24
18	S	0.4	4.7	6.4	2.1	1	3.3	5.5	3.9	3.1	1.9	1	2.1	5.8	4.5	1.9	1.3	1.6	0	1.7	0.2	5.1	0.9	S	6.4	2.7	24	
19	1.9	1.1	0.9	1	1.2	3.4	2.3	1.5	1.1	1.9	0.5	0.2	0	0	0	0	0	0	0	0	0	0	S	0	3.4	0.7	24	
20	0	0	0	0.1	0.3	0.3	0.7	0.6	0.6	0.7	0.1	0	0.2	0	0	0	0	0	0	0	0	0	S	0	0.1	0.7	0.2	24
21	0	0.3	0.2	0.2	0.5	0.4	0.6	0.7	0.7	0.7	0.5	0.4	0	0	0	0	0	0	0	0	0	S	0	0	0	0.7	0.2	24
22	0	0	0	0	0	0.6	0.5	1.1	2	1.6	0.8	0.6	0	0	0	0	0	0	0	0	S	0.2	0.3	0.2	0.2	2.0	0.4	24
23	0.3	0.3	0.4	0.3	0.6	2.6	0.9	1.2	1.2	0.4	0.8	0.2	0.2	0.2	0.1	0.2	0	0	S	0	0	0	0	0	0	2.6	0.4	24
24	0.1	0.2	0.1	0.1	0.4	1.3	1.2	2.5	5	8.2	2.5	3	0.1	0	0	0	0	S	0	0.1	0.2	0.3	0.4	0.6	0.6	8.2	1.1	24
25	0.8	0.8	0.8	0.8	1	1.2	2.6	5.5	16.4	4.2	1	0.2	0	0.2	0.3	0.4	S	0.2	0	0.1	0.1	0.5	0.2	4	16.4	1.8	24	
26	0.2	0.1	0.5	1.5	1.1	1.8	4.9	12.7	10.8	0.9	0.7	0.5	0.1	0.2	0	S	0.4	0.3	0.3	0.6	0.2	0.8	2.8	0.7	12.7	1.8	24	
27	0.6	0.6	0.6	0.7	0.9	1.9	2.6	4.2	3.1	1.5	1.6	1.7	1	0.6	S	0	0	0	0	0	0.3	0.6	0.5	0.7	4.2	1.0	24	
28	0.7	0.9	0.8	0.8	4.9	7.9	2.8	4.8	5.8	5.2	1.3	1.5	0.9	S	0	0	0	0	0	0	0	0.1	0.2	0.2	7.9	1.7	24	
29	0.1	0.6	0.4	0.5	0.4	0.4	0.9	2	1.2	0.4	0.8	0.4	S	1.4	0.2	0	10	1.1	0.3	0.4	0.6	0.1	0.3	0.3	10.0	1.0	24	
30	0.3	0.4	0.2	0.3	0.2	0.7	0.9	1.4	1	0.9	0.7	S	0.2	0.8	0.6	0	0	0.4	2.3	5.4	1.5	1.3	0.4	0	5.4	0.9	24	
HOURLY MAX	1.9	1.1	4.7	6.4	4.9	7.9	5.0	15.2	16.4	8.2	4.0	5.3	2.9	5.8	4.5	1.9	10.0	1.6	2.3	5.4	1.5	5.1	4.5	4.0				
HOURLY AVG	0.2	0.2	0.4	0.5	0.5	1.1	1.5	2.8	2.6	1.6	0.9	0.6	0.5	0.5	0.3	0.1	0.6	0.2	0.1	0.3	0.1	0.4	0.4	0.4				

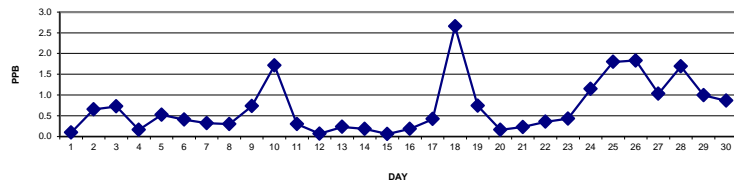
STATUS FLAG CODES

C	- CALIBRATION	Q	- QUALITY ASSURANCE
Y	- MAINTENANCE	R	- RECOVERY
S	- DAILY ZERO/SPAN CHECK	X	- MACHINE MALFUNCTION
P	- POWER FAILURE	O	- OPERATOR ERROR
G	- OUT FOR REPAIR	K	- COLLECTION ERROR

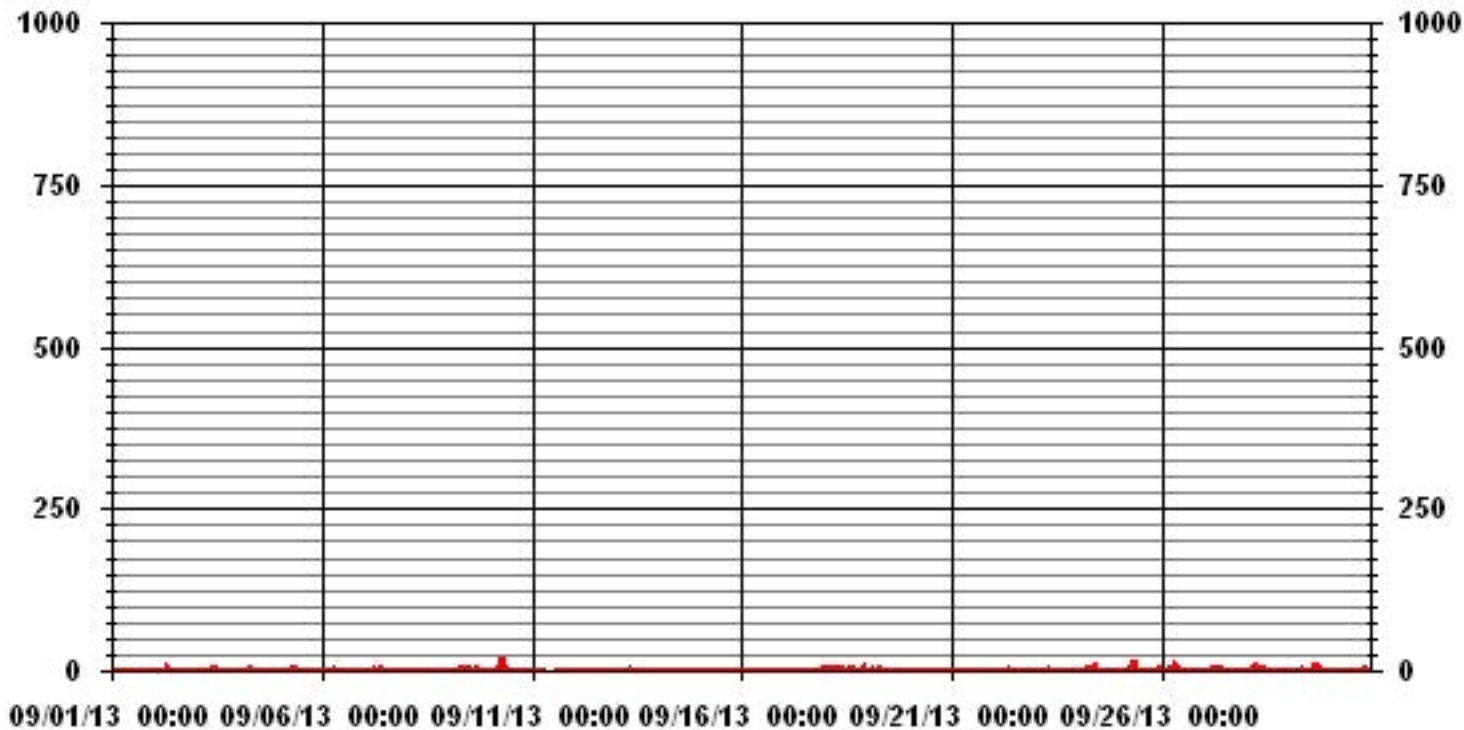
MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	378					
MAXIMUM 1-HR AVERAGE:	16.4	PPB	@ HOUR(S)	8	ON DAY(S)	25
MAXIMUM 24-HR AVERAGE:	2.7	PPB			ON DAY(S)	18
IZS CALIBRATION TIME:	31	HRS	OPERATIONAL TIME:	720	HRS	
MONTHLY CALIBRATION TIME:	7	HRS	AMD OPERATION UPTIME:	100.0	%	
STANDARD DEVIATION:	1.61		MONTHLY AVERAGE:	0.70	PPB	

24 HOUR AVERAGES FOR SEPTEMBER 2013



01 Hour Averages



LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - MASKWA

SEPTEMBER 2013

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	0.3	0.3	0.5	0.4	0.3	1	1	1.4	1.3	1.3	0.7	0.3	0.4	0.3	0.2	0.2	0.4	S	0.5	0.4	0.5	0.4	0.3	0.4	1.4	0.6	24	
2	0.3	0.4	0.2	0.4	0.4	3.7	7.9	8	7.5	2.3	1.2	10.5	0.5	0.5	1.1	0.5	S	0.4	0.5	0.8	0.6	0.4	0.5	0.5	10.5	2.1	24	
3	0.5	0.6	0.3	0.6	0.5	0.6	0.7	2.1	3.8	5	7	8.6	5.8	1.2	11.6	S	0.3	0.4	0.1	0.2	0.2	0.2	0.2	0.3	11.6	2.2	24	
4	0.2	0.2	0.3	0.3	0.3	0.2	0.8	42.5	1.2	0.7	1	0.6	0.8	0.4	S	0.8	0.3	0.3	0.4	0.3	0.3	0.3	0.4	0.4	42.5	2.3	24	
5	0.6	0.3	0.3	0.3	0.7	1	1.5	5.4	7.5	4.4	6.6	1.6	4.5	S	1.2	1.2	7.9	1.2	0.7	0.4	0.5	0.3	0.3	0.3	7.9	2.1	24	
6	0.3	0.6	0.6	0.2	0.3	10.6	7.8	4.8	4.8	0.8	0.4	1	S	2.4	2.7	1.1	0.6	0.5	0.6	0.7	0.7	0.7	0.6	0.6	10.6	1.9	24	
7	0.6	0.6	0.7	0.7	0.7	1	8.2	3.1	1.7	4.3	3.8	S	1	1.5	0.4	0.3	0.3	0.4	0.6	0.3	0.3	0.3	0.3	0.5	8.2	1.4	24	
8	0.3	0.3	0.3	1.1	0.6	1.7	13.6	1.9	1.3	2.2	S	1	0.9	0.9	0.6	0.8	0.6	0.6	0.8	0.7	0.7	0.9	0.6	0.6	13.6	1.4	24	
9	0.8	0.7	0.9	0.6	0.6	1.1	1.2	3.8	3.6	S	1.4	2	9.9	8.4	8	1.2	10.4	1.9	0.4	0.8	0.8	0.6	0.8	0.7	10.4	2.6	24	
10	1	0.7	0.6	0.8	3.1	39.6	25.1	29.4	S	10.5	7.4	0.8	1.5	1.6	0.7	0.8	8.8	4.4	0.8	0.7	0.6	0.6	1.2	1.7	39.6	6.2	24	
11	1	1.2	1.1	1.1	1.1	0.9	4.7	S	C	C	C	C	C	C	C	8	1.8	0	0	0	0	0	0	0	8.0	1.3	24	
12	0.4	0.2	0.2	0.2	0.2	0.3	S	1.2	1.1	12.4	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0	12.4	0.7	24	
13	0	0	0	0	0	S	3.8	1.7	9.2	2.9	0.5	0.4	0.2	0.1	0.3	0.4	0.2	0.3	0.3	0.4	0.2	0.4	0.5	0.8	9.2	1.0	24	
14	1	1.2	1.1	1.1	S	0.3	0.4	0.4	0.4	0	3.6	2.5	4.7	0.7	0	1.4	2.2	0	0	0	0	0	0	0	4.7	0.9	24	
15	0	0	0	S	0.4	0.7	0.8	0.9	1.1	1.1	0.8	0	0	0	0	0	0	0	0	0	0	0	0	0	1.1	0.3	24	
16	0	0	S	0.5	0.6	0.9	0.7	0.9	0.8	4.5	6.3	1.6	0.2	0.2	0	0	0	0.3	0	0	0	0.1	0	0.6	6.3	0.8	24	
17	0	S	0.2	0.3	0.3	1.1	1.4	1.7	1.7	1.2	0.8	0.3	0.3	0.6	0.3	1.3	1.3	1.4	0.3	0.5	0.5	7.3	9.9	8.9	9.9	1.8	24	
18	S	2.8	16.9	16.2	5.2	3.7	8.1	14.8	17.1	14.9	5.9	3.8	8.4	18.5	14.7	6.8	6.4	7.2	0.3	11.2	5.5	10.1	3.4	S	18.5	9.2	24	
19	5.4	2.1	1.7	3.3	2.1	28.8	13.1	3.8	3.3	9.6	9	1.2	1.5	0.2	0	0.6	0	0	0	0	0.2	0.2	S	0.6	28.8	3.8	24	
20	0.4	0.4	0.6	0.6	1.2	1	4.3	1.2	1.2	1.5	0.7	0.3	2.4	0	0	0	0	0	0	0	0	S	0.7	0.6	4.3	0.7	24	
21	0.6	0.6	0.7	0.8	1	1	1.4	1.2	1.3	1.3	1.6	1.2	0.6	0.6	0.3	0.2	0.4	0.4	0.5	0.5	S	0.5	0.3	0.6	1.6	0.8	24	
22	0.5	0.5	0.5	0.4	0.5	2.7	1.4	2.1	3.3	2.4	1.6	16.2	0.5	0.5	1.4	0.4	0.3	0.3	S	0.8	0.9	0.8	0.8	0.8	16.2	1.7	24	
23	0.8	1	0.9	0.7	1.1	20	2.3	3.1	2.5	1.6	2.4	2.1	0.8	1.1	0.6	0.7	0.5	0.8	S	0.3	0.1	0.3	0.5	0.5	20.0	1.9	24	
24	0.7	0.7	0.6	0.8	3.1	4.6	4.9	6.6	8.3	30.8	6.5	10.3	2.9	0.2	0.1	0.4	0	S	0.4	0.6	0.7	0.9	1.1	1.1	30.8	3.8	24	
25	1.3	1.5	1.3	1.3	1.6	1.9	7.1	10.5	26.3	9.8	3	0.8	0.7	0.9	0.9	1	S	0.7	0.7	0.6	0.5	3.5	1.1	16.9	26.3	4.1	24	
26	0.7	0.6	1.8	3.3	3.5	5.7	32.2	33.4	22.4	3.2	1.6	1.1	0.7	1.2	0.3	S	1.1	1	0.8	3.9	0.7	4.5	8	1.4	33.4	5.8	24	
27	1.4	1.3	1.1	1.2	1.5	7.7	6.9	6.6	18.4	2.3	2.7	2.6	1.8	1.3	S	0.4	0.4	0.9	0.4	0.6	0.8	1.2	1	1.3	18.4	2.8	24	
28	1.2	1.4	1.3	1.4	32	57.6	5.1	7.5	8.6	7.2	2.2	2.1	2.2	S	0.5	0.4	1.7	0.3	0.5	0.4	0.5	0.6	0.7	0.9	57.6	5.9	24	
29	0.6	1.5	1.3	1.2	1.1	1	3	4.2	2.7	1	1.8	2.1	S	4	0.9	0.6	32.4	7.7	3.3	1.8	1.7	0.7	0.8	0.8	32.4	3.3	24	
30	0.9	0.8	0.7	0.8	0.8	1.7	4.3	5.1	4.7	5	1.8	S	1.9	2.2	2.9	1.9	0.2	3	6.7	14	8.9	3.9	1.3	1	14.0	3.2	24	
HOURLY MAX	5.4	2.8	16.9	16.2	32.0	57.6	32.2	42.5	26.3	30.8	9.0	16.2	9.9	18.5	14.7	8.0	32.4	7.7	6.7	14.0	8.9	10.1	9.9	16.9				
HOURLY AVG	0.8	0.8	1.3	1.4	2.2	7.0	6.0	7.2	6.0	5.2	3.0	2.8	2.0	1.8	1.8	1.2	2.8	1.2	0.7	1.4	0.9	1.4	1.2	1.5				

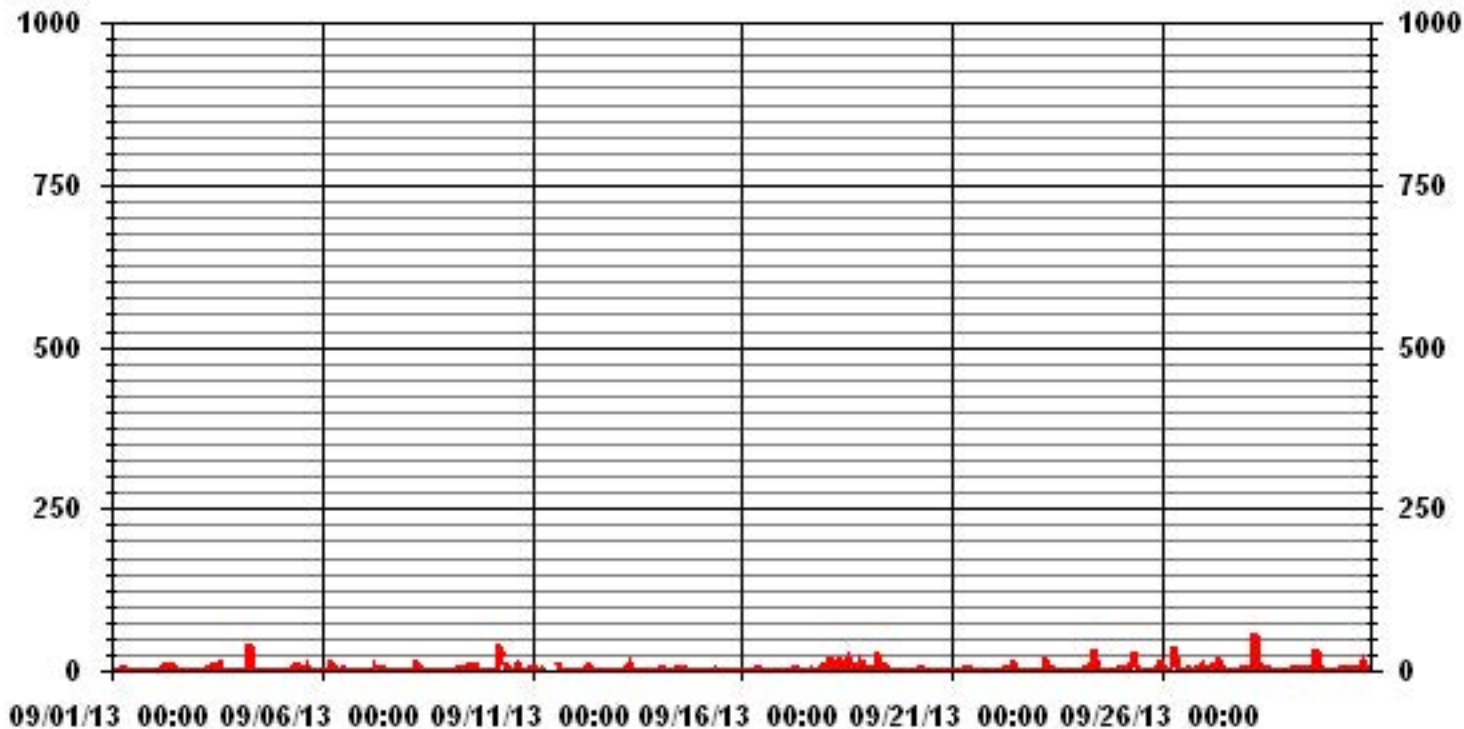
STATUS FLAG CODES

C	- CALIBRATION	Q	- QUALITY ASSURANCE
Y	- MAINTENANCE	R	- RECOVERY
S	- DAILY ZERO/SPAN CHECK	X	- MACHINE MALFUNCTION
P	- POWER FAILURE	O	- OPERATOR ERROR
G	- OUT FOR REPAIR	K	- COLLECTION ERROR

MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	608				
MAXIMUM INSTANTANEOUS VALUE:	57.6	PPB	@ HOUR(S)	5	ON DAY(S) 28
IZS CALIBRATION TIME:	31	HRS	OPERATIONAL TIME:	720	HRS
MONTHLY CALIBRATION TIME:	7	HRS			
STANDARD DEVIATION:	5.42				

01 Hour Averages



LICA30
 NO_ / WDR Joint Frequency Distribution (Percent)

September 2013

Distribution By % Of Samples

Logger Id : 30
 Site Name : LICA30
 Parameter : NO_
 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
< 50.0	3.66	2.63	5.27	2.34	3.66	3.51	9.67	6.15	7.47	15.68	10.11	5.57	8.06	9.53	3.81	2.78	100.00
< 110.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
< 210.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
>= 210.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
Totals	3.66	2.63	5.27	2.34	3.66	3.51	9.67	6.15	7.47	15.68	10.11	5.57	8.06	9.53	3.81	2.78	

Calm : .00 %

Total # Operational Hours : 682

Distribution By Samples

Limit	Direction															Freq	
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW		NNW
< 50.0	25	18	36	16	25	24	66	42	51	107	69	38	55	65	26	19	682
< 110.0																	
< 210.0																	
>= 210.0																	
Totals	25	18	36	16	25	24	66	42	51	107	69	38	55	65	26	19	

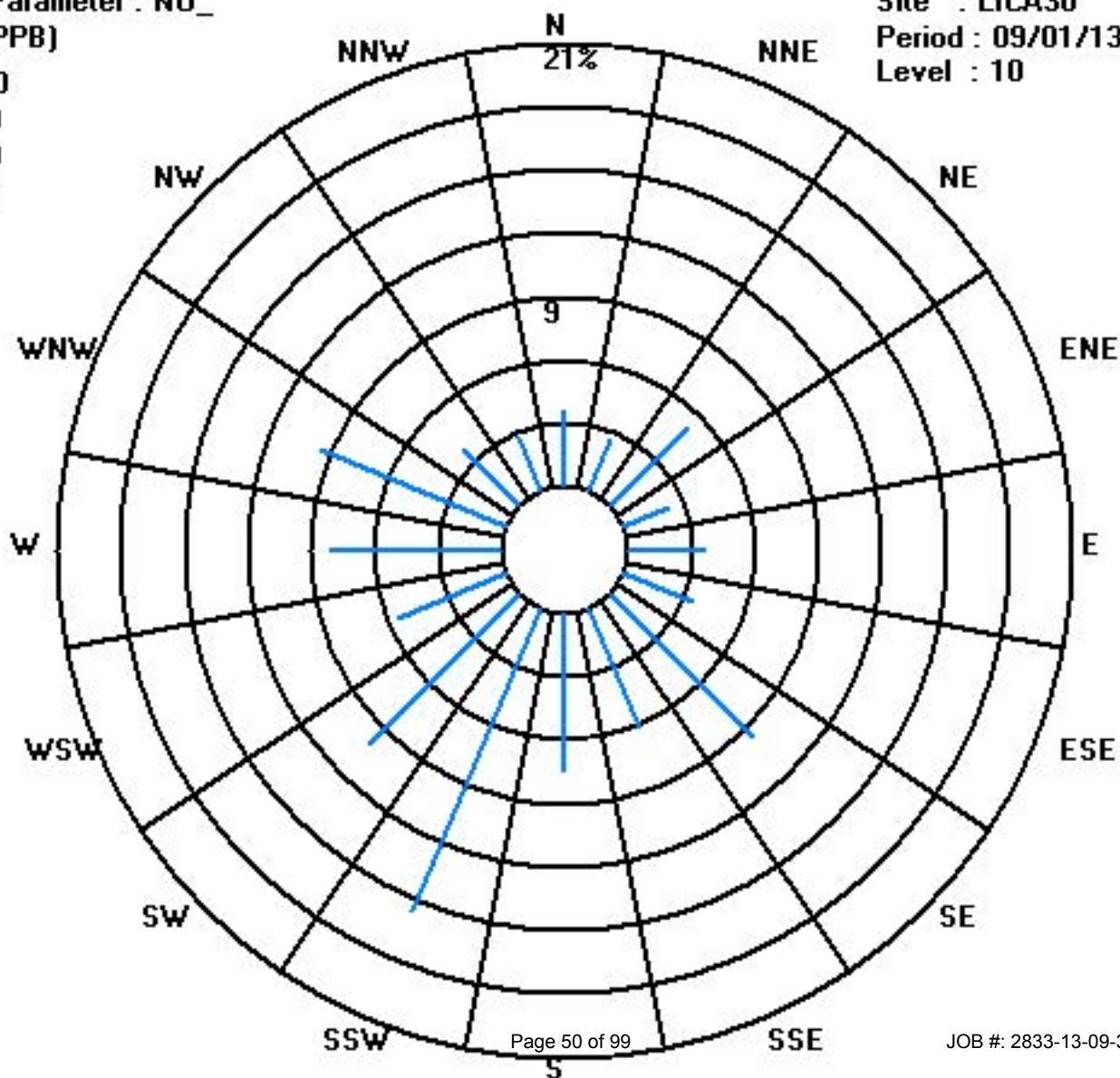
Calm : .00 %

Total # Operational Hours : 682

Class Limits (PPB)

Period : 09/01/13-09/30/13

Level : 10



Oxides of Nitrogen

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - MASKWA

SEPTEMBER 2013

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	2.4	1.6	2.2	2.4	2.4	3.8	4.2	3.2	2.8	2.6	1.9	1.1	1	0.9	0.6	0.6	0.6	S	1.4	1.2	1.2	1.4	1.6	1.8	4.2	1.9	24
2	2.2	2.5	2.8	4.7	4.6	6.6	9	15.7	10.9	3.5	2.9	2.8	0.7	0.5	0.7	0.7	S	0.4	0.4	5	0.8	0.7	0.1	0	15.7	3.4	24
3	0	0	0	0	0.1	0.1	0	1.4	1.7	5.3	8.1	10.8	6.9	0.6	1	S	0.2	0	0.1	0.1	0.8	0.2	0	0.5	10.8	1.6	24
4	1.9	1.2	1.1	1.4	0.9	0.7	2.3	5.9	2.1	1.8	1.7	2.1	2.7	3.4	S	2.8	1.9	2	1.9	2.5	1.4	1.1	1.5	1.5	5.9	2.0	24
5	1.9	3.6	3.8	4.3	3.9	3.3	2.6	7.3	12.3	4.5	3.7	2.1	4.5	S	1.3	0.8	3.8	1.4	5.6	2.7	3.7	4	4.4	7.1	12.3	4.0	24
6	7.6	6.4	3.2	1.5	1.7	6.3	6.3	4.9	6.4	1.7	0.5	0.6	S	0.9	1.2	0.5	0.1	0	0.1	0.1	0.4	1	0.7	0.2	7.6	2.3	24
7	0	0.2	0.5	1.8	1.6	0.7	1.6	2.6	1.3	4.4	6.2	S	1.2	1.3	0.5	0.6	1.2	3	2.1	1.9	1.7	1.8	2.3	1.9	6.2	1.8	24
8	1.4	1.8	1.5	2.6	1.3	1.6	5.3	3.2	2	1.7	S	1.1	1.2	1	0.7	0.9	0.9	0.8	1.1	1.1	1.9	2.2	1.6	2.4	5.3	1.7	24
9	5.4	5.2	5	3.3	3.4	3.6	3.2	4.6	3.3	S	0.3	1.3	5.4	7.2	1.9	0.6	8.5	0.3	0	3.3	5.9	5.3	12.1	6.6	12.1	4.2	24
10	8.1	9.4	3.8	3.2	3.5	12	13	25.4	S	14.9	7.5	0.5	0.6	0.6	0.4	0.1	3.8	3.5	0.3	4.3	4.9	4.4	10.1	9.2	25.4	6.2	24
11	7.6	10.1	6.9	6.6	4.7	2.9	5.3	S	C	C	C	C	C	C	C	1.4	0	0	0	0	0.5	0.8	1.1	0.3	10.1	3.0	24
12	0.6	0.7	1	1	1.4	1.3	S	2.1	2.7	3.4	2	1.5	1.1	1	0.7	0.5	0	0	0	0.3	0.9	1.3	1.3	1.2	3.4	1.1	24
13	1.3	1.9	1.6	1.1	1.3	S	6	5.4	12	3.9	2.2	1.6	0.8	0.1	0.1	0	0	0	0	0	0.2	0.5	1.4	1.1	12	1.8	24
14	0.8	1	0.8	0.9	S	0.7	0.1	0.3	0.1	0	1.8	4	6.5	3	0.5	1.6	0.9	0	0	0	0	0	0	0	6.5	1.0	24
15	0	0	0.5	S	1.3	1.3	1.7	2.2	1.8	1.9	1.4	0.3	0	0	0.1	0.2	0.4	0	0	0	0.1	0	0	0	2.2	0.6	24
16	1.9	1	S	3	3.9	2.8	1.6	1.7	1.5	2.3	8.1	2.3	0.5	0.6	0.5	0.8	0.8	3.7	4	1.6	0.5	1	1.5	2.5	8.1	2.1	24
17	1.8	S	0.7	0.2	0.5	4.1	4.4	2.6	2	0.5	0.4	0.1	0.1	0.2	0	0.3	0	0.1	0	0.2	0	4	9.6	10	10	1.8	24
18	S	5	12.8	11.9	6.9	5.3	7.9	10.7	6.2	4.9	3.4	2.4	4.5	9.5	7.9	4.4	3.5	4.4	0	3.7	1.3	11.7	5.6	S	12.8	6.1	24
19	7.8	6.4	6.4	4.3	4.1	8.2	5.5	5.2	3.1	3.8	1.1	0.8	0.5	0	0.2	0.5	0.1	0.6	0.6	0.6	1.8	1.6	S	0.9	8.2	2.8	24
20	0.9	0.5	1.1	1.4	1.6	1.7	3	2.3	2.3	2.5	1.7	0.9	3.2	0	0	0	0.2	0.7	0.5	0	S	0.5	0.7	3.2	1.1	24	
21	0.7	1	1	1.1	1.2	1.2	1.7	1.8	1.6	1.8	1.7	1.6	1.1	1	1	1	1.4	1.3	2	1.8	S	2.9	1.6	2.2	2.9	1.5	24
22	3.3	6.2	2	1.3	5.1	3.5	4.9	3.7	5.1	3.9	2.1	2.1	0.8	0.7	0.6	0.5	0.3	0.3	0.4	S	1.1	1.2	1	0.6	6.2	2.2	24
23	1.1	1.3	0.9	0.7	1.1	6.2	2.1	3.3	3.6	1.3	3	2.2	1.8	2.4	2.5	3.6	2.2	1.4	S	0.8	2	5.6	5.9	6	6.2	2.7	24
24	3.5	1.8	2.1	1.2	1.9	7.4	6	7.5	12.4	16.7	6.5	8.2	1.4	0.1	0	0.3	0	S	2.2	1	1.8	2.1	3.2	4.2	16.7	4.0	24
25	5.6	6.8	5.4	5.3	10.1	8.4	10	13.1	28.3	9.3	2.1	0.8	0.6	0.8	0.8	1.1	S	1.1	1.8	2.8	3.5	5.5	4.9	15.6	28.3	6.2	24
26	4.5	4.3	6.5	10.4	8.1	9.9	12.5	22.5	18.1	2.6	2.2	2.1	1.4	1.7	0.5	S	1.1	0.5	1.9	3.4	1.5	3.6	11.6	10.1	22.5	6.1	24
27	9.3	5.8	1.9	2.4	1.7	3.7	7.3	8.5	5	2.5	3.1	3.6	2.3	2	S	1.4	1.4	1.6	1.3	2.3	2.3	2.8	2.9	4.5	9.3	3.5	24
28	5.9	5.4	4.1	5.3	14.8	20.1	12.2	12.2	11.8	10.7	3.5	4	2.7	S	0.6	0.4	0.6	1	1.6	0.9	0.7	0.8	0.8	0.9	20.1	5.3	24
29	1.4	12.7	5.8	4.9	2.8	1.8	5.2	8.4	3.1	0.9	2.4	1.6	S	5.8	3.5	1.6	24.6	8.1	3.2	6.2	11.3	0.9	0.8	0.7	24.6	5.1	24
30	1	1	1.3	1.3	2.6	4.7	6.1	5.6	4.7	3.6	2.5	S	1.6	3.9	3.7	2.7	2.6	3.7	6.6	11.2	6.9	8.9	6.3	2.1	11.2	4.1	24
HOURLY MAX	9.3	12.7	12.8	11.9	14.8	20.1	13.0	25.4	28.3	16.7	8.1	10.8	6.9	9.5	7.9	4.4	24.6	8.1	6.6	11.2	11.3	11.7	12.1	15.6			
HOURLY AVG	3.1	3.6	3.0	3.1	3.4	4.6	5.2	6.7	6.0	4.2	3.0	2.3	2.0	1.8	1.2	1.1	2.2	1.4	1.3	2.0	2.0	2.7	3.3	3.3			

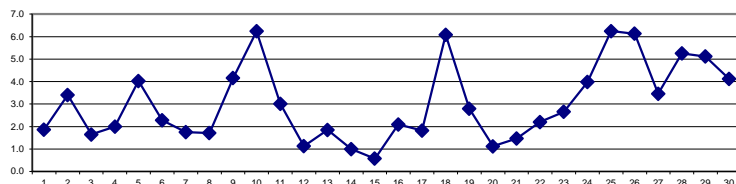
STATUS FLAG CODES

C	- CALIBRATION	Q	- QUALITY ASSURANCE
Y	- MAINTENANCE	R	- RECOVERY
S	- DAILY ZERO/SPAN CHECK	X	- MACHINE MALFUNCTION
P	- POWER FAILURE	O	- OPERATOR ERROR
G	- OUT FOR REPAIR	K	- COLLECTION ERROR

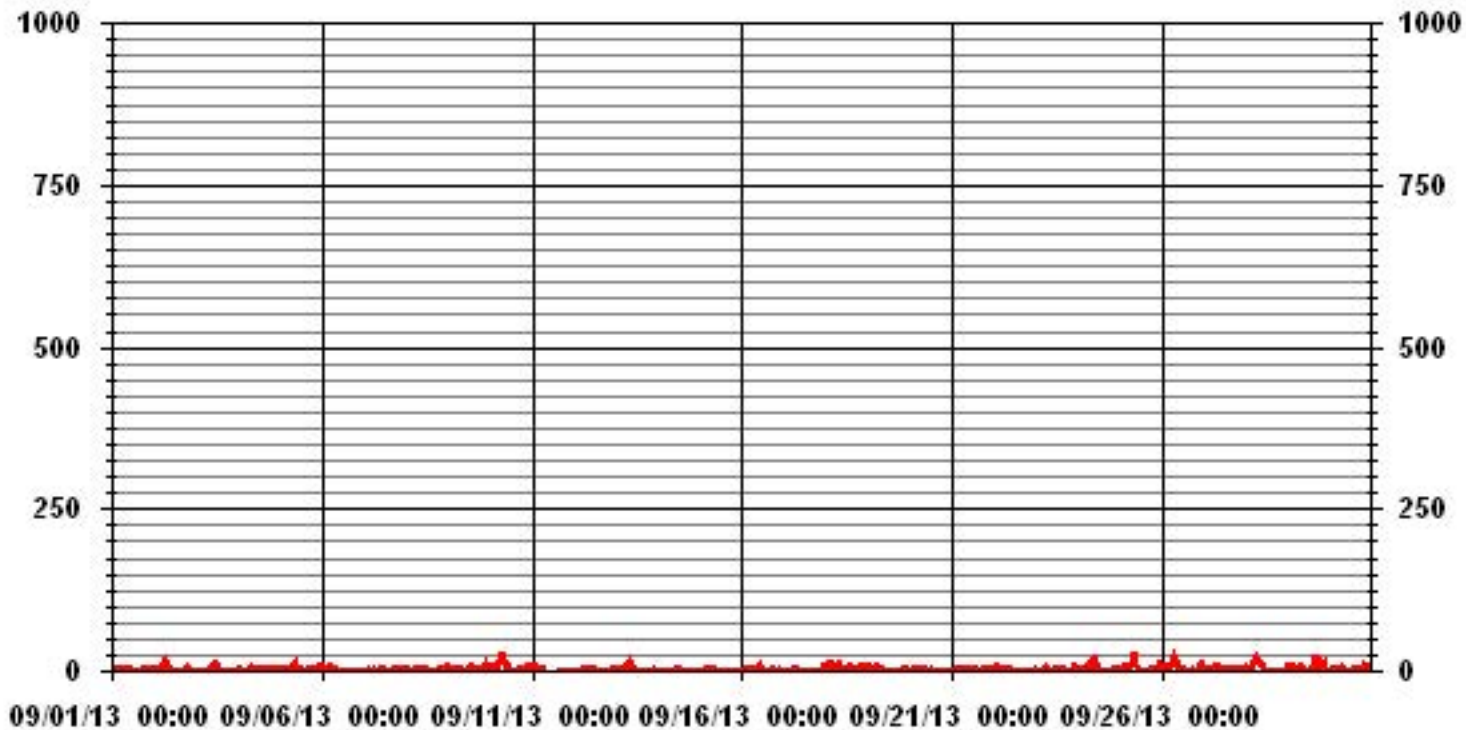
MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	628					
MAXIMUM 1-HR AVERAGE:	28.3	PPB	@ HOUR(S)	8	ON DAY(S)	25
MAXIMUM 24-HR AVERAGE:	6.2	PPB			ON DAY(S)	25
IZS CALIBRATION TIME:	31	HRS	OPERATIONAL TIME:	720	HRS	
MONTHLY CALIBRATION TIME:	7	HRS	AMD OPERATION UPTIME:	100.0	%	
STANDARD DEVIATION:	3.60		MONTHLY AVERAGE:	3.03	PPB	

24 HOUR AVERAGES FOR SEPTEMBER 2013



01 Hour Averages



LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - MASKWA

SEPTEMBER 2013

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	3.3	2.2	3.1	2.9	3.1	5.3	5.1	4.1	3.6	3.3	2.7	2.5	1.8	1.5	1.3	1.2	S	2.8	2.7	2	2.1	2.2	2.4	5.3	2.7	24		
2	2.8	3.2	4.2	6.4	5.7	10.9	17.7	17.7	16.8	7.2	5.4	19.7	1.8	1	2.6	3.6	S	1.1	0.9	13.3	2.8	1.3	0.9	0.6	19.7	6.4	24	
3	0.4	0.4	0.4	0.3	0.9	0.7	0.8	6.1	7.2	10.1	13.8	16.8	12.3	2.2	20.8	S	0.8	0.6	0.7	1.1	1.9	1	0.6	1.5	20.8	4.4	24	
4	2.7	1.9	1.6	2.1	1.9	1.4	3.3	53.1	2.8	2.5	3.2	3	3.8	4.2	S	4	2.7	3	4.6	4.3	2.2	1.9	3.4	2.6	53.1	5.1	24	
5	3	6.8	6.3	8.5	6.3	5.1	4.1	13.9	19.5	13.3	17	5.8	12.7	S	4.4	4.5	26.7	5	8	4.2	5	5.4	6.9	10.2	26.7	8.8	24	
6	9	9.4	5.4	2.3	2.6	23.7	13.4	10.4	11.2	3.2	2	2.7	S	6.8	8.3	2.4	0.5	0.5	0.4	0.5	1.9	1.9	1.8	1	23.7	5.3	24	
7	0.7	0.9	1.1	2.8	2.5	1.3	13.1	6.2	3	11.2	11.5	S	3.6	4.8	1.1	1.3	3.7	4.3	2.9	4	4.2	2.6	3	2.7	13.1	4.0	24	
8	2.4	2.7	2.8	6.3	2.3	4.5	18.4	4.5	3.7	5.3	S	2.3	1.9	1.9	1.3	2.5	1.5	1.5	3.2	1.9	6.4	5.7	2.4	3.3	18.4	3.9	24	
9	6.8	7	5.8	4.5	4.6	4.7	4.5	8.5	7	S	1.8	4.3	18	16	16.1	4.5	25.3	7.3	0.7	15.6	14.4	8.8	16.8	11.5	25.3	9.3	24	
10	9.9	11.3	6.2	5.5	9.8	50.1	32.1	43.2	S	23.6	16.1	2.2	2.3	4	1.3	1.1	25.2	15.5	1.7	7.5	6.6	6.6	15.3	15.4	50.1	13.6	24	
11	11	12.8	9.4	7.8	6.8	4	9.4	S	C	C	C	C	C	C	C	10.6	2.4	0	0	0.9	1.7	1.7	2.1	0.9	12.8	5.1	24	
12	1.8	1.5	1.6	1.9	2.4	1.9	S	3.3	3.6	2.4	3.2	2.6	1.9	1.7	1.4	2	0.6	0.9	0.8	0.8	1.7	2	1.9	2	24.0	2.8	24	
13	2.2	2.5	2.4	1.6	1.8	S	14	8	25	10	3	2.3	1.6	0.7	0.6	0.5	0.4	0.4	0.6	0.3	1.1	2	2.3	2.1	25.0	3.7	24	
14	1.3	1.6	1.4	2	S	1.4	1	0.8	0.7	0	8.2	7.9	12.3	5	1.3	7.3	10.2	0	0.3	0.6	0.5	0.5	0	0	12.3	2.8	24	
15	0.3	0.7	1.3	S	2.7	2.3	2.4	2.9	2.5	2.6	2.5	1.3	0.5	0.6	0.6	0.7	1.1	0.9	0.7	0.4	0.7	0.6	0.7	1.5	2.9	1.3	24	
16	4.3	1.6	S	4.9	4.9	4.2	2.3	2.6	2.2	12.4	15.6	6.6	1.7	1.2	1.2	1.7	1.6	6.3	7.8	5.2	1.2	1.5	2.7	4.9	15.6	4.3	24	
17	3.1	S	1.6	0.8	1.4	8.8	7.1	4.8	4.5	2	1.2	0.6	0.8	1.2	0.8	2.5	2.4	1.5	0.6	0.7	0.7	15	18.4	16	18.4	4.2	24	
18	S	12.3	27.2	25.9	13	12.5	13.9	22.9	22.5	19.5	10.2	14.8	14.3	27.2	22.7	12.4	12.2	12.9	2.3	20.4	12.1	18.1	9	S	27.2	16.3	24	
19	12.1	8.9	7.6	6.8	5.7	36.5	23	8.9	7.5	14.6	14	2.5	3.1	0.7	1.6	2.3	0.8	2.2	1.3	1.6	2.6	3.3	S	1.6	36.5	7.4	24	
20	1.6	1.1	2	2.2	2.9	2.7	9.2	3.7	2.9	3.3	2.4	1.7	8.9	0.4	1	0.7	0.8	2.2	1.6	0.3	0.3	S	0.9	1.1	9.2	2.3	24	
21	1.3	1.6	1.7	1.7	1.8	1.7	2.5	2.5	2.5	4	3.2	1.7	1.9	1.6	1.6	2.2	1.9	6.4	4.9	S	6.6	2.4	4	6.6	2.7	24		
22	4.2	11.6	3.3	2	8.9	7.2	7.9	5.7	7.9	5.6	3.2	30.2	1.8	1.8	1.8	3.4	0.9	0.8	1.4	S	1.7	1.8	1.7	1.2	30.2	5.0	24	
23	1.7	1.9	1.4	1.4	1.7	30	5.8	7	6.7	3.7	7.6	7	2.6	4	3.8	4.3	3.6	5.4	S	1.4	6.8	8.8	7.7	7.2	30.0	5.7	24	
24	9.4	3.1	5.6	3.6	14.5	16.6	12.1	16.7	19	50.4	14.2	22.8	7.6	0.9	1.7	2.5	0.4	S	5.7	1.6	2.8	2.9	4	5.1	50.4	9.7	24	
25	8.3	7.8	6.6	7.6	12	10.4	17.7	20.5	41.3	18.5	6.1	1.7	1.4	2.6	1.9	2.6	S	2.9	3.1	3.2	6.2	14.6	8.4	37.5	41.3	10.6	24	
26	9.4	5.6	13.1	13.6	13.9	17.2	45.8	46.8	32.2	6.2	3.6	3	2.3	3.2	1.4	S	2	1.6	3.6	12	2.7	14	23.3	12.9	46.8	12.6	24	
27	12.6	10.8	2.7	3.2	2.9	10.3	13.3	12.9	19.9	3	4.9	4.9	3.6	2.8	S	2.2	2.6	7.1	2.3	3.8	3.2	3.6	3.6	7.8	19.9	6.3	24	
28	7.8	8	6.6	11.7	47.4	72.4	16	15.6	16.6	13.7	4.4	4.9	4.5	S	1.8	1.7	5.2	2.3	2.3	1.8	1.4	1.4	1.4	1.5	72.4	10.9	24	
29	11.7	16	11.2	12.9	7.9	2.5	15.5	17.4	7.7	1.7	4.7	5.1	S	10.3	5.7	4.1	55.8	23.2	8.3	16.5	16.5	4.3	1.3	1.6	55.8	11.4	24	
30	1.7	1.9	2.1	1.8	6	6.6	13.5	15.3	12.3	14.3	4.8	S	3.8	8.1	10.9	11	7.6	11.8	15.4	23.7	16.5	13	10	6.6	23.7	9.5	24	
HOURLY MAX	12.6	16.0	27.2	25.9	47.4	72.4	45.8	53.1	41.3	50.4	17.0	30.2	18.0	27.2	22.7	12.4	55.8	23.2	15.4	23.7	16.5	18.1	23.3	37.5				
HOURLY AVG	5.1	5.4	5.0	5.3	6.8	12.3	11.9	13.3	11.1	10.3	6.8	6.8	4.9	4.3	4.4	3.5	7.2	4.4	3.1	5.4	4.4	5.3	5.3	5.7				

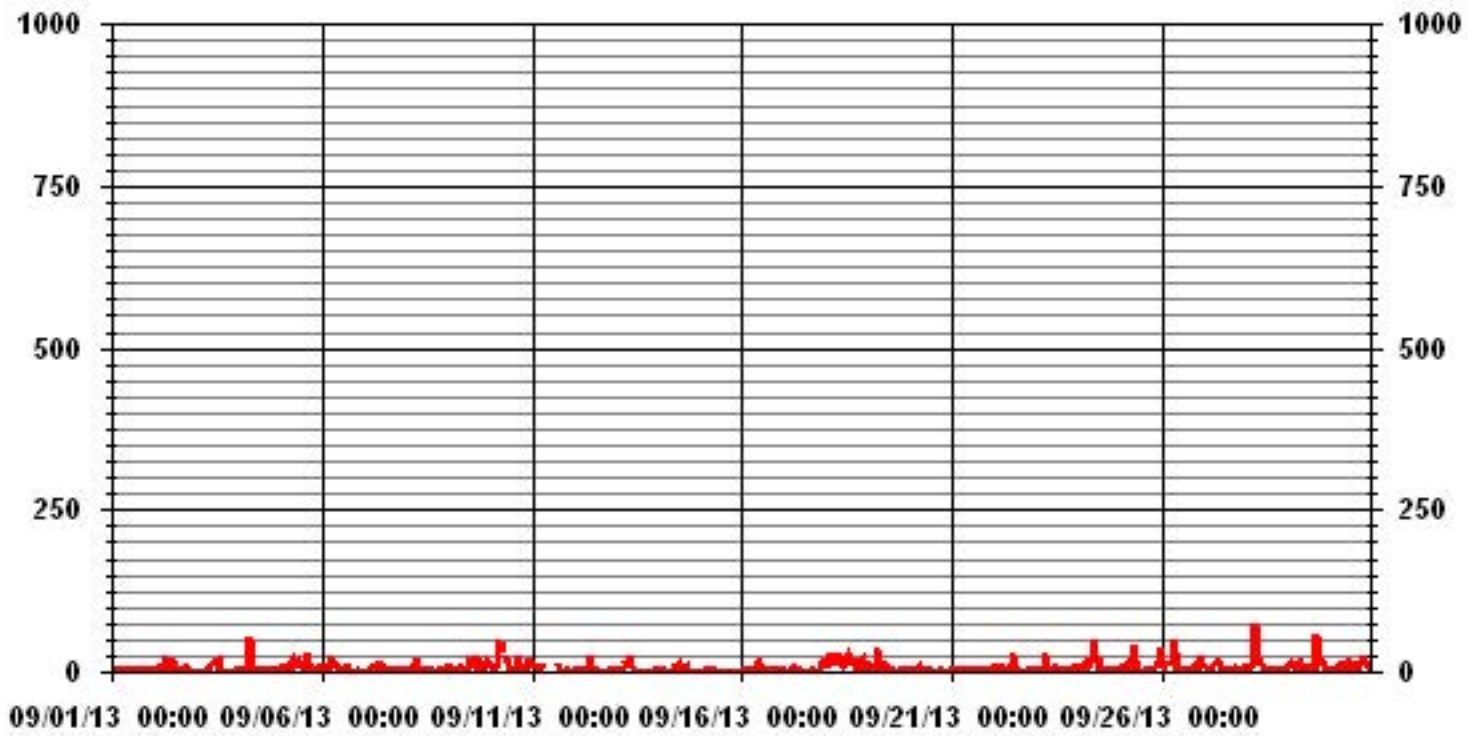
STATUS FLAG CODES

C	- CALIBRATION	Q	- QUALITY ASSURANCE
Y	- MAINTENANCE	R	- RECOVERY
S	- DAILY ZERO/SPAN CHECK	X	- MACHINE MALFUNCTION
P	- POWER FAILURE	O	- OPERATOR ERROR
G	- OUT FOR REPAIR	K	- COLLECTION ERROR

MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	676				
MAXIMUM INSTANTANEOUS VALUE:	72.4	PPB	@ HOUR(S)	5	ON DAY(S) 28
IZS CALIBRATION TIME:	31	HRS	OPERATIONAL TIME:	720	HRS
MONTHLY CALIBRATION TIME:	7	HRS			
STANDARD DEVIATION:	8.27				

01 Hour Averages



LICA30
NOX_ / WDR Joint Frequency Distribution (Percent)

September 2013

Distribution By % Of Samples

Logger Id : 30
Site Name : LICA30
Parameter : NOX_
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
< 50.0	3.66	2.63	5.27	2.34	3.66	3.51	9.67	6.15	7.47	15.68	10.11	5.57	8.06	9.53	3.81	2.78	100.00
< 110.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
< 210.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
>= 210.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
Totals	3.66	2.63	5.27	2.34	3.66	3.51	9.67	6.15	7.47	15.68	10.11	5.57	8.06	9.53	3.81	2.78	

Calm : .00 %

Total # Operational Hours : 682

Distribution By Samples

Limit	Direction															Freq	
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW		NNW
< 50.0	25	18	36	16	25	24	66	42	51	107	69	38	55	65	26	19	682
< 110.0																	
< 210.0																	
>= 210.0																	
Totals	25	18	36	16	25	24	66	42	51	107	69	38	55	65	26	19	

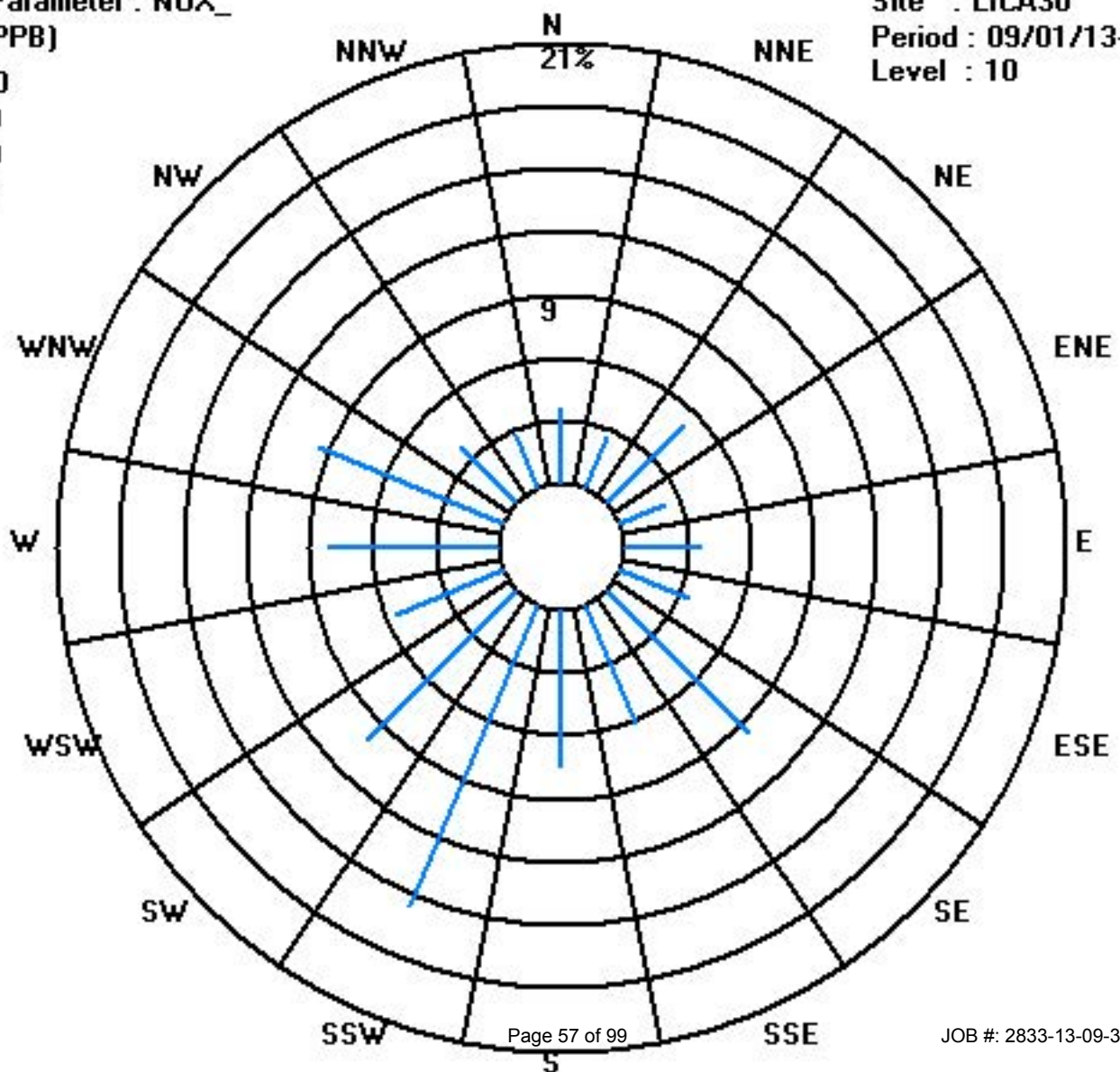
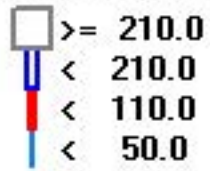
Calm : .00 %

Total # Operational Hours : 682

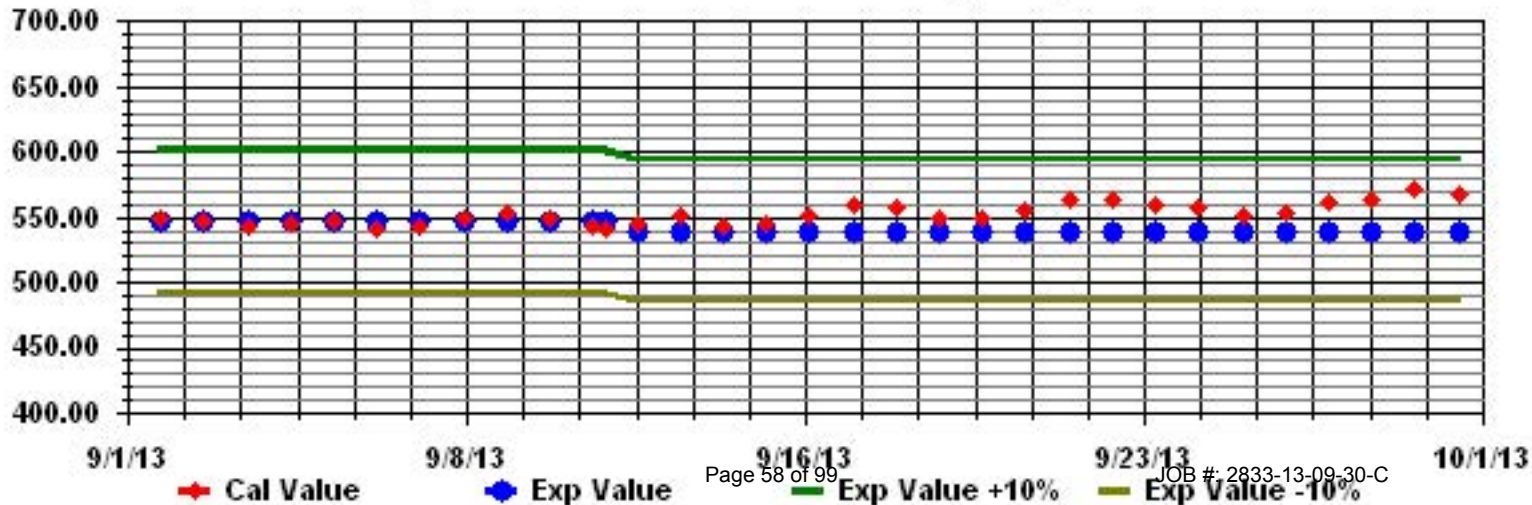
Class Limits (PPB)

Period : 09/01/13-09/30/13

Level : 10



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



Temperature

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - MASKWA

SEPTEMBER 2013

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	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	13.3	13	12.8	12.6	12.4	12.1	12.8	14.8	17	19.3	21.6	23.2	24.5	25.4	25.9	26.1	25.3	25.1	21.3	18.6	18.3	19	17.9	16.2	26.1	18.7	24
2	2	15.2	14.6	13.3	12.2	11.8	11.3	12.2	15.5	20	24	24.7	26.5	27.9	28.2	28.5	28.2	27.3	25.8	22	18.1	17.9	16.1	14.9	13.5	28.5	19.6	24
3	3	11.9	10.5	9	8	6.5	5.6	7.3	9	10.6	14.1	16.7	18.1	20.4	20.6	21.7	22.2	22.4	21.4	17.7	15	15.4	15.3	15.9	15.9	22.4	14.6	24
4	4	15.8	15.8	15.2	11.6	10	9.9	11.5	16.7	19.2	21.4	22.7	23.7	25.7	26.8	28	28.3	28.3	26.3	22.2	18.8	16.3	15.3	14.3	13.5	28.3	19.1	24
5	5	12.8	12.4	12.3	11.9	11.7	11.5	12.3	15.2	20.9	22.9	24.2	24.3	26.6	26.6	27.3	27.4	26.5	24.5	20.1	16	13.7	12.8	11.2	11	27.4	18.2	24
6	6	11.7	11.1	10.7	10.9	9.5	9.2	9.8	13.4	18.4	21.9	22.1	23.6	24.2	23.6	24.6	24.5	23.5	21.8	18.2	14.8	12.3	11.9	10.8	9.7	24.6	16.3	24
7	7	9	7.9	7.6	8.1	7.6	7.4	7.8	10.8	14.4	18.4	19.5	19.9	20	21.2	21.9	20.8	19.1	17.3	15.2	13.1	13.2	14.3	14.4	14.2	21.9	14.3	24
8	8	14.7	14.4	13.7	13.7	11	10.2	11.5	15.2	17.4	19.3	20.3	21.6	22.9	23.4	24	24.1	24	22.5	19.7	16.5	15.2	13.6	12.4	11.6	24.1	17.2	24
9	9	11.9	13.3	13.4	13.1	12.6	12.2	12.3	15.4	18.6	21.2	23.3	23.7	24.6	24.8	25	24.4	23.6	21.6	19.1	15.2	12	10.9	10.3	9.4	25.0	17.2	24
10	10	8.3	7.2	6.9	6.7	7.2	7.1	7.4	11.3	15.9	19.4	20.5	21.6	21.9	21.3	21	22.5	22.2	20.3	17.2	12.2	9.5	7.8	7.2	6.8	22.5	13.7	24
11	11	5.9	5	4.3	4	3.6	3.2	3.6	8.7	14.3	17.7	19.9	21.1	21.6	22.5	22.8	22.7	22.6	19.7	14.4	11.1	10.5	8.5	7.4	6.8	22.8	12.6	24
12	12	6.8	5.8	5.5	5.6	4.3	3.2	3.9	10.5	15.9	18.5	21.4	24.3	25.7	27	28.2	29.3	29.3	27.3	23.6	22.3	21.2	20	19.2	17.6	29.3	17.4	24
13	13	17.4	16.1	15.1	11.9	12.4	13.9	13.2	16	19.5	21.8	23.9	26	26.8	27.5	26.6	24.8	23.7	21.6	18	13.7	10.8	9.3	8	7	27.5	17.7	24
14	14	6.1	5.2	5	5	4.5	5.3	6.2	9.1	12.2	13.9	16.2	18.4	19.8	20.5	20.7	20	19.9	17	13.2	10.3	11.8	11.3	11.2	9.9	20.7	12.2	24
15	15	9.5	9.8	8.4	6.3	5.2	4.7	5	10.4	14.6	16.5	19.2	21.3	22.5	23.2	23.1	22.4	21.7	20.2	17.6	16.9	16.1	14.8	13.2	10.9	23.2	14.7	24
16	16	9	11.4	8.4	7.5	7.7	9.8	11.4	13.7	16	18.4	20.3	22.4	24.2	25.9	26.7	26.1	26.3	23.5	21.1	19.5	19.3	16.3	15.2	15.6	26.7	17.3	24
17	17	15.9	14.9	14.5	13.4	12.5	11.8	11.6	13	15	16.7	16.1	15.5	15.6	15.2	14.8	14.5	13.8	13.1	12.1	11.5	10.6	10.4	9.8	8.1	16.7	13.4	24
18	18	7.3	7	5.6	5.2	4.4	4.8	4.5	5.2	6.2	7.9	8.9	9.1	9.4	9.5	9.5	9.3	9.1	8.2	6.9	5.8	5.4	4.8	3.3	2.6	9.5	6.7	24
19	19	1.8	0.5	-0.2	-0.7	0.7	1.7	3.2	4.1	4.9	6.6	9.7	12	14	14.8	15.6	16.2	16.1	13.3	8.9	6.2	4.1	3.4	3.3	2.8	16.2	6.8	24
20	20	2.1	1.8	2.3	1.1	-0.2	0.3	1.1	5.9	11.5	14.5	17	19.2	20.8	21.5	21.6	21.6	20.9	18.5	14.6	14.4	14.2	13.3	12.3	11.4	21.6	11.7	24
21	21	11.2	10.3	9.1	7.6	7.2	6.6	6.5	9.3	11.9	14.5	16.9	19	21.1	22.2	23.3	22.4	20.1	18.1	16.4	14.4	11.8	13.8	16.3	15	23.3	14.4	24
22	22	13.1	12.5	11.7	11	10.7	9.9	8.6	10	12.3	13.8	15.7	18	19.5	20	20.2	20.2	19.1	16	12.1	10.7	7.6	7.4	7.6	9.1	20.2	13.2	24
23	23	9	7.6	8.1	5.4	4.6	4.1	5.4	8.9	12.5	15	17	16.5	16	17	17.4	18.4	18.4	16.5	14.2	11.9	8.5	7.4	6.5	5.4	18.4	11.3	24
24	24	6.1	5.1	6.2	6	5.3	5.2	4.9	7.3	10.8	13.6	15.3	16.4	17.3	17.5	16.9	17.1	15.5	12.6	8.6	5.7	4.5	2.7	1.6	0.8	17.5	9.3	24
25	25	0.2	-0.5	-1	-1.5	-1.6	-2	-1.9	1	7.2	12.5	14.7	15.3	16	16.5	15.7	13.8	13.7	11.4	8.1	4.5	5.2	4.4	4.6	3.4	16.5	6.7	24
26	26	2.1	0.5	0.2	0.1	0.9	1.6	3.1	4.7	6	7.6	9.2	9.7	10.1	10.4	11.3	10.9	10.5	9.3	8.8	8.5	7.7	7.6	7.3	7	11.3	6.5	24
27	27	6.2	4.2	2.2	1.4	0.3	0.9	0.9	1.8	4.9	8.4	11.1	12.9	14.3	15	15.2	15.9	15	12	6.5	2.9	1.8	0.1	-0.5	-1.2	15.9	6.3	24
28	28	-1.5	-1.6	-1.9	-1.4	-1.6	-1.8	-1	1.9	6.3	9.5	12.6	14.5	15.5	15.7	16	14.9	14.3	12.1	9.9	9.2	9.4	9.3	9.8	9.6	16.0	7.5	24
29	29	8.4	7	6.9	6.3	6.2	5.8	5.4	7.7	9.9	11.2	12.6	15.1	15	15.9	14.4	13	11.5	10.1	7.8	7.3	7.2	7.2	7	15.9	9.4	24	
30	30	6.9	6.7	6.5	6.3	6.1	6.2	6.4	6.8	7.4	8	8.4	9.7	10.2	11	10.5	9.6	8.6	7.7	7.3	7	6.8	6.7	6.6	6.1	11.0	7.6	24
HOURLY MAX		17.4	16.1	15.2	13.7	12.6	13.9	13.2	16.7	20.9	24.0	24.7	26.5	27.9	28.2	28.5	29.3	29.3	27.3	23.6	22.3	21.2	20.0	19.2	17.6			
HOURLY AVG		8.9	8.3	7.7	7.0	6.5	6.4	6.9	9.8	13.1	15.6	17.4	18.8	19.8	20.4	20.6	20.4	19.7	17.8	14.8	12.4	11.3	10.5	10.0	9.2			

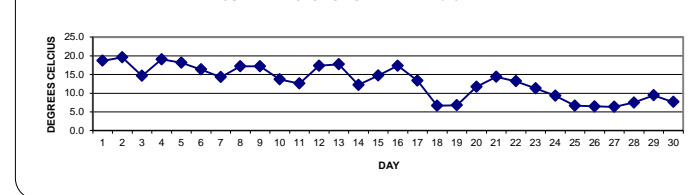
STATUS FLAG CODES

C	- CALIBRATION	Q	- QUALITY ASSURANCE
Y	- MAINTENANCE	R	- RECOVERY
S	- DAILY ZERO/SPAN CHECK	X	- MACHINE MALFUNCTION
P	- POWER FAILURE	O	- OPERATOR ERROR
G	- OUT FOR REPAIR	K	- COLLECTION ERROR

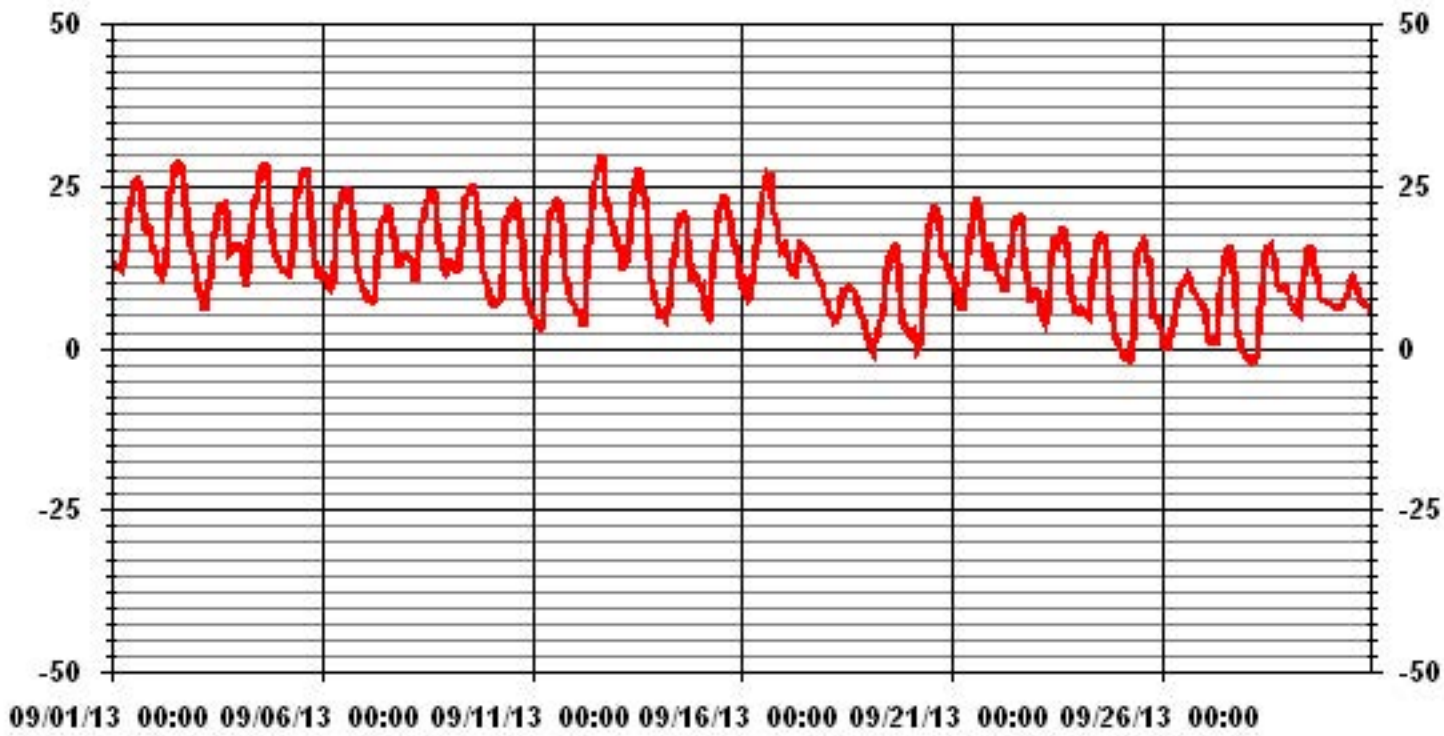
MONTHLY SUMMARY

MINIMUM 1-HR AVERAGE:	-2 °C	@ HOUR(S)	5	ON DAY(S)	25
MAXIMUM 1-HR AVERAGE:	29.3 °C	@ HOUR(S)	15, 16	ON DAY(S)	12
MAXIMUM 24-HR AVERAGE:	19.6 °C			ON DAY(S)	2
CALIBRATION TIME:	0	HRS	OPERATIONAL TIME:	720	HRS
STANDARD DEVIATION:	7.07		AMD OPERATION UPTIME:	100.0	%
			MONTHLY AVERAGE:	13.05	°C

24 HOUR AVERAGES FOR SEPTEMBER 2013



01 Hour Averages



Precipitation

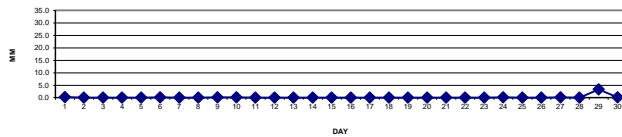
LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - MASKWA
SEPTEMBER 2013
PRECIPITATION hourly averages (mm)

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.	DAILY TOTAL	RDGS.
DAY	1	0.1	0	0	0	0	0	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.2	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	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	0.0	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	0.0	24
	6	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	0	0.1	0.1	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	0.0	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	0.0	24
	9	0	0	0	0.1	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
	10	0	0	0	0	0	0	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.1	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	0.0	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	0.0	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	0.0	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	0.0	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	0.0	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	0.0	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	0.0	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	0.0	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	0.0	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	0.0	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	0.0	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	0.0	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	0.0	24
	24	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	0	0.1	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	0.0	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	0.0	24
	27	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	0	0.1	0.1	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	0.2	2	1	0.1	0	0	0	2.0	3.3	24
	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0	0	0	0	0	0	0.1	0.1	24
HOURLY MAX		0.1	0.0	0.0	0.1	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	2.0	1.0	0.1	0.0	0.0	0.0			

STATUS FLAG CODES

C	- CALIBRATION	Q	- QUALITY ASSURANCE
Y	- MAINTENANCE	R	- RECOVERY
S	- DAILY ZERO/SPAN CHECK	X	- MACHINE MALFUNCTION
P	- POWER FAILURE	O	- OPERATOR ERROR
G	- OUT FOR REPAIR	K	- COLLECTION ERROR

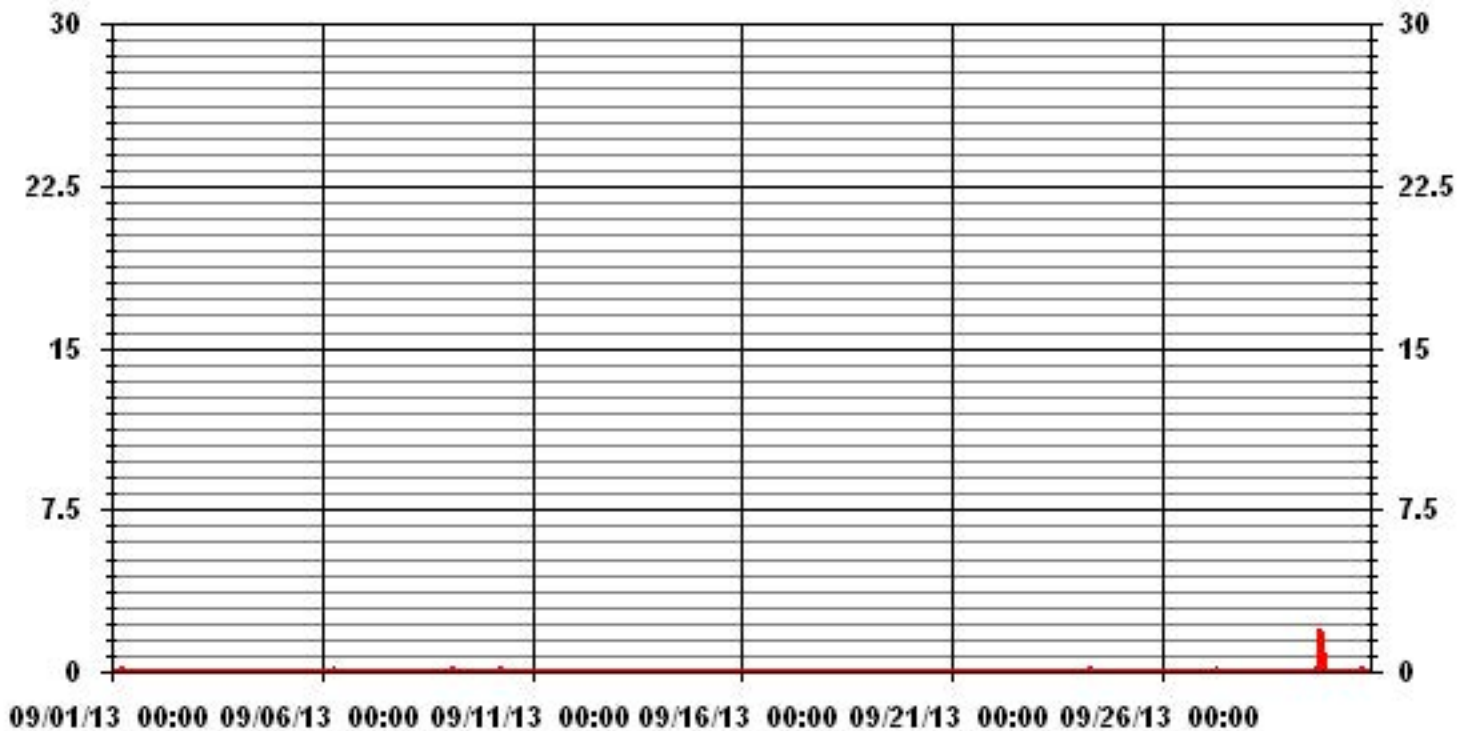
DAILY TOTALS FOR SEPTEMBER 2013



MONTHLY SUMMARY

MAXIMUM 1-HR AVERAGE:	2.0	MM	18	HOUR(S)	ON DAY(S)	29
MAXIMUM DAILY TOTAL	3.3	MM			ON DAY(S)	29
MONTHLY TOTAL	4.1	MM				
CALIBRATION TIME:	0	HRS	OPERATIONAL TIME:	720	HRS	
STANDARD DEVIATION:	0.08		AMD OPERATION UPTIME:	100.0	%	
			MONTHLY AVERAGE:	0.01	MM	

01 Hour Averages



Relative Humidity

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - MASKWA

SEPTEMBER 2013

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	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		92	92	92	92	92	90	82	74	67	60	54	48	45	43	41	43	46	59	68	69	65	68	75	92	68.7	24	
1		92	92	92	92	92	90	82	74	67	60	54	48	45	43	41	43	46	59	68	69	65	68	75	92	68.7	24	
2		79	82	87	91	92	92	91	81	68	56	55	44	37	33	33	35	35	39	51	63	67	73	73	92	63.8	24	
3		77	76	79	82	86	90	86	83	77	63	54	52	48	49	49	48	49	55	71	81	79	77	72	91	90	68.9	24
4		70	69	71	86	90	92	89	70	61	56	53	52	49	48	46	44	44	50	65	78	87	89	92	93	93	68.5	24
5		93	93	93	93	94	94	94	92	62	48	45	43	37	32	31	32	34	37	52	66	77	80	87	94	94	66.6	24
6		86	87	87	85	90	92	92	81	62	52	48	44	42	42	37	36	37	42	55	64	73	72	76	80	92	65.1	24
7		84	89	88	85	87	88	89	80	71	58	52	51	50	49	48	56	61	67	80	89	88	83	83	83	89	73.3	24
8		78	79	83	84	92	93	93	84	73	68	64	61	57	54	53	53	53	57	69	82	86	91	93	93	93	74.7	24
9		93	94	93	93	92	93	92	83	70	60	56	55	53	50	46	39	44	45	50	63	75	77	79	83	94	69.9	24
10		87	91	91	92	92	92	92	79	63	42	37	33	31	32	33	30	30	32	42	59	70	78	81	84	92	62.2	24
11		86	89	91	91	92	92	92	83	62	51	41	37	36	32	31	31	30	39	60	75	76	84	90	91	92	65.9	24
12		90	88	88	85	89	90	91	72	52	48	44	38	36	34	33	30	29	34	43	48	49	51	53	59	91	57.3	24
13		57	60	64	77	75	69	72	64	55	52	49	46	43	38	38	37	35	37	45	56	69	76	82	85	85	57.5	24
14		89	91	90	90	91	88	82	73	67	61	53	47	44	42	43	46	47	56	70	81	76	78	75	79	91	69.1	24
15		80	77	81	87	91	92	92	76	59	53	48	40	39	37	35	34	34	39	46	47	49	53	58	67	92	58.9	24
16		74	67	78	82	84	79	75	69	63	59	56	52	49	45	43	44	44	53	60	66	66	78	81	78	84	64.4	24
17		75	77	76	74	75	75	73	66	58	53	56	58	57	58	59	58	58	60	62	63	65	67	70	72	77	65.2	24
18		76	76	79	81	83	83	84	81	77	71	66	65	64	63	64	66	66	69	75	80	80	81	85	87	87	75.1	24
19		89	90	91	91	91	91	85	81	79	73	63	57	52	49	47	46	46	55	73	84	88	88	89	90	91	74.5	24
20		90	90	88	88	89	91	92	82	59	51	45	41	37	32	33	33	31	37	50	51	51	53	55	56	92	59.4	24
21		56	59	64	70	73	76	77	69	61	54	49	45	41	37	34	35	43	50	56	66	74	65	52	56	77	56.8	24
22		64	73	82	85	86	87	90	85	76	69	58	45	37	34	33	32	34	42	58	63	75	75	80	71	90	63.9	24
23		73	79	73	88	90	91	92	83	69	59	54	54	55	52	50	49	48	54	60	65	79	84	87	90	92	69.9	24
24		87	88	85	85	87	88	88	81	68	54	45	39	36	32	33	33	36	43	57	69	74	81	85	88	88	65.1	24
25		89	90	91	91	91	91	91	89	68	52	43	37	32	32	33	36	36	44	54	67	65	71	74	79	91	64.4	24
26		85	89	91	91	92	91	92	92	88	78	74	73	71	72	65	64	65	68	73	75	78	78	80	80	92	79.4	24
27		83	88	91	91	91	92	92	92	88	65	51	45	39	36	34	31	28	33	51	65	71	79	82	85	92	66.8	24
28		88	89	90	90	90	90	91	90	76	66	54	48	42	37	35	37	37	44	52	53	55	55	51	52	91	63.0	24
29		56	64	69	71	71	72	75	70	65	63	59	52	54	51	56	58	61	69	88	90	90	90	89	88	90	69.6	24
30		87	88	88	88	88	89	89	88	85	81	80	75	71	66	67	70	79	85	86	85	85	84	84	87	89	82.3	24
HOURLY MAX		93	94	93	93	94	94	94	92	88	81	80	75	71	72	67	70	79	85	88	90	90	91	93	93			
HOURLY AVG		80.4	82.1	83.8	86.0	87.5	87.8	87.4	80.0	68.5	59.4	53.7	49.4	46.2	43.8	42.8	42.8	43.9	49.4	60.4	68.7	72.9	75.2	76.9	78.9			

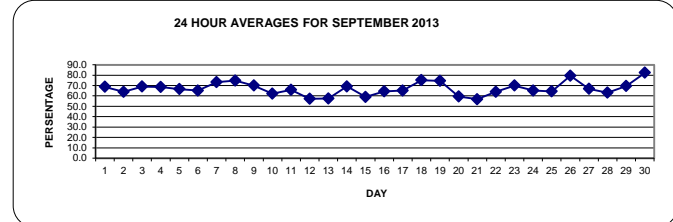
STATUS FLAG CODES

C	- CALIBRATION	Q	- QUALITY ASSURANCE
Y	- MAINTENANCE	R	- RECOVERY
S	- DAILY ZERO/SPAN CHECK	X	- MACHINE MALFUNCTION
P	- POWER FAILURE	O	- OPERATOR ERROR
G	- OUT FOR REPAIR	K	- COLLECTION ERROR

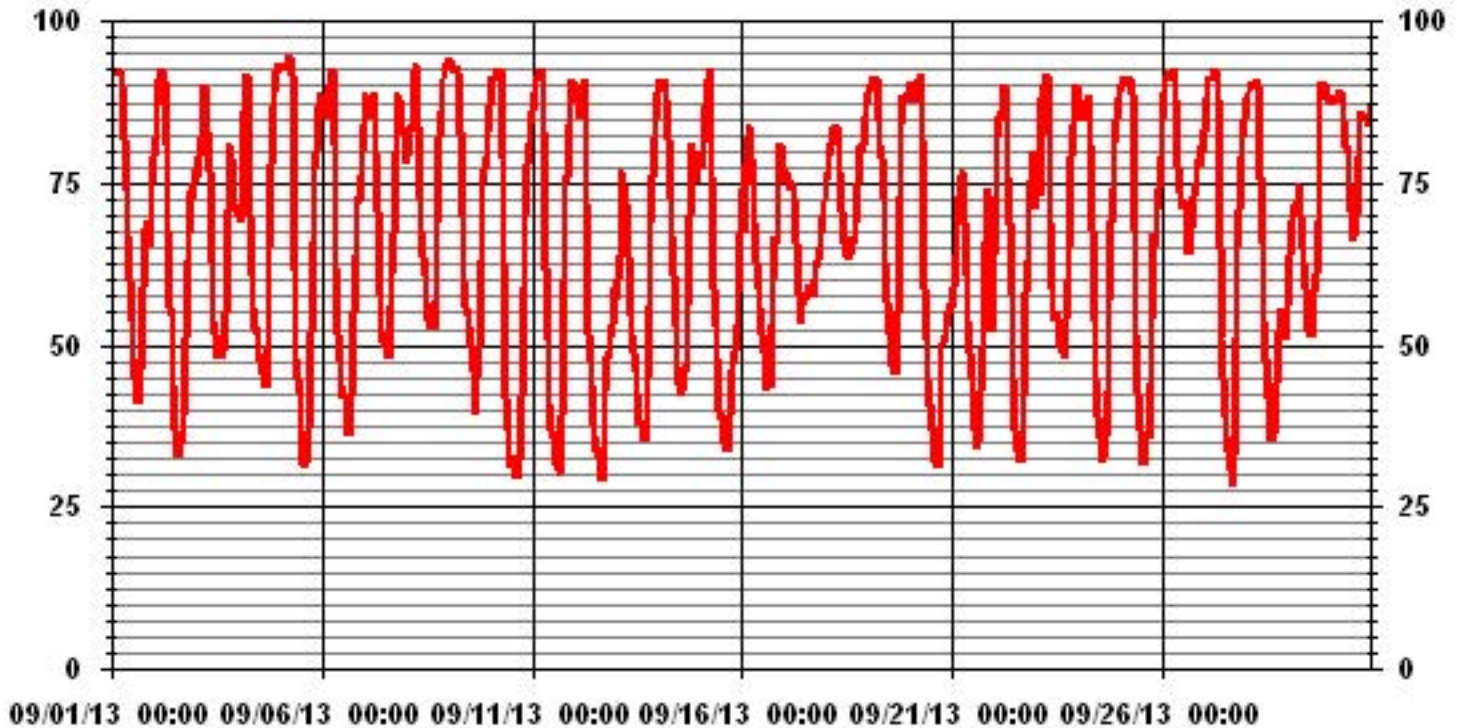
MONTHLY SUMMARY

MAXIMUM 1-HR AVERAGE:	94	%	@ HOUR(S)	VAR	ON DAY(S)	5,9
MAXIMUM 24-HR AVERAGE:	82.3	%			ON DAY(S)	30
					VAR-VARIOUS	
CALIBRATION TIME:	0	HRS	OPERATIONAL TIME:	720	HRS	
STANDARD DEVIATION:	19.22		AMD OPERATION UPTIME:	100.0	%	
			MONTHLY AVERAGE:	67.01	%	

24 HOUR AVERAGES FOR SEPTEMBER 2013



01 Hour Averages



Barometric Pressure

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - MASKWA
 SEPTEMBER 2013

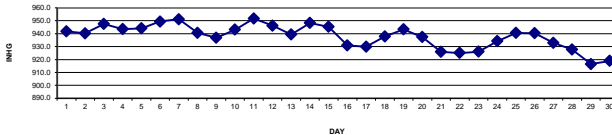
BAROMETRIC PRESSURE hourly averages (millibar)

DAY	MST																								DAILY MAX.	24-HOUR		
	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	AVG.	RDGS.
1	944	944	944	943	943	943	943	943	943	944	944	943	943	942	942	941	941	940	940	939	939	939	939	938	944	941.8	24	
2	938	938	938	938	938	938	939	940	940	940	941	941	940	940	940	940	940	941	941	941	942	943	944	945	945	940.3	24	
3	945	946	946	947	947	947	947	948	949	949	950	950	949	949	949	948	948	947	947	946	946	946	946	946	950	947.4	24	
4	945	945	944	944	944	943	943	944	944	944	944	944	944	944	943	943	943	943	943	943	943	943	943	945	943.6	24		
5	943	943	943	943	943	943	944	944	945	945	946	945	945	945	945	944	944	944	944	944	944	944	944	944	945	946	944.1	24
6	945	945	946	946	947	947	947	948	949	950	951	951	951	951	951	951	951	950	951	951	951	951	951	952	952	949.4	24	
7	953	953	953	953	952	952	952	953	953	954	953	953	952	952	951	951	951	950	949	948	948	948	947	947	954	951.2	24	
8	946	946	945	944	944	943	942	942	942	942	942	941	941	940	939	939	938	938	937	937	937	936	936	935	946	940.5	24	
9	935	935	935	935	935	935	935	935	936	936	937	937	937	937	937	937	938	938	938	939	939	939	939	939	939	936.8	24	
10	939	940	940	940	940	941	941	942	943	943	944	944	944	944	944	944	944	944	945	945	945	946	946	947	947	943.1	24	
11	947	948	949	949	950	950	951	952	953	954	955	954	954	954	954	954	953	953	952	952	951	951	951	951	955	951.8	24	
12	950	950	950	950	950	949	949	949	949	949	949	948	947	946	945	945	944	943	942	942	941	941	940	940	950	946.2	24	
13	939	939	939	938	937	937	937	938	938	938	938	938	938	938	939	939	940	941	941	941	942	942	943	943	943	939.3	24	
14	944	945	945	946	947	947	948	949	950	950	950	950	950	950	950	949	949	949	949	948	948	949	949	949	950	948.3	24	
15	949	948	948	947	947	947	947	947	948	948	948	947	947	946	946	945	944	943	942	942	941	941	940	939	949	945.3	24	
16	938	938	937	936	935	935	934	934	934	933	932	931	930	929	929	928	927	926	925	925	925	925	926	938	930.8	24		
17	926	927	927	927	928	927	927	928	928	928	929	929	929	929	930	931	931	932	932	933	933	933	933	934	934	929.8	24	
18	934	934	935	935	935	936	936	936	936	937	938	938	938	938	939	939	940	940	941	941	941	941	941	941	941	937.8	24	
19	941	941	942	942	943	943	944	944	945	945	945	945	945	945	944	944	944	943	942	942	941	941	942	941	945	943.3	24	
20	941	941	940	940	940	939	939	939	940	940	940	939	938	938	937	937	936	935	934	934	934	933	932	932	941	937.4	24	
21	931	931	930	929	929	929	928	928	928	927	927	927	926	926	926	925	924	924	923	923	921	921	920	920	931	926.0	24	
22	920	921	922	923	924	925	925	925	926	927	927	927	927	927	927	926	926	926	926	925	925	925	924	924	927	925.0	24	
23	925	924	924	923	924	924	924	924	925	925	926	926	926	926	927	927	927	927	928	928	928	929	929	929	929	926.0	24	
24	930	930	930	931	931	932	932	933	934	934	935	935	935	936	936	936	936	936	936	936	936	936	937	937	937	934.2	24	
25	937	937	938	938	938	938	938	940	941	941	942	942	941	941	942	942	942	942	942	942	942	942	942	943	943	940.5	24	
26	942	942	942	942	942	942	942	942	942	942	941	941	941	940	940	939	939	939	938	938	938	938	938	937	942	940.3	24	
27	937	936	935	935	934	935	935	935	935	934	935	934	933	933	932	932	931	931	931	930	930	929	929	937	932.9	24		
28	929	929	929	929	929	929	930	929	930	930	930	930	929	929	928	927	926	925	925	924	923	922	921	920	930	927.6	24	
29	920	919	918	918	917	916	915	915	915	914	915	915	915	915	915	916	916	917	916	917	917	918	918	918	920	916.5	24	
30	918	918	918	918	918	918	918	918	918	917	917	918	918	918	918	919	919	920	920	921	921	921	922	922	922	918.9	24	
HOURLY MAX	953	953	953	953	952	952	952	953	953	954	955	954	954	954	954	954	953	953	952	952	951	951	952	952				
HOURLY AVG	938	938	938	938	938	938	938	938	939	939	939	939	938	938	938	938	938	938	937	937	937	937	937	937				

STATUS FLAG CODES

C	- CALIBRATION	Q	- QUALITY ASSURANCE
Y	- MAINTENANCE	R	- RECOVERY
S	- DAILY ZERO/SPAN CHECK	X	- MACHINE MALFUNCTION
P	- POWER FAILURE	O	- OPERATOR ERROR
G	- OUT FOR REPAIR	K	- COLLECTION ERROR

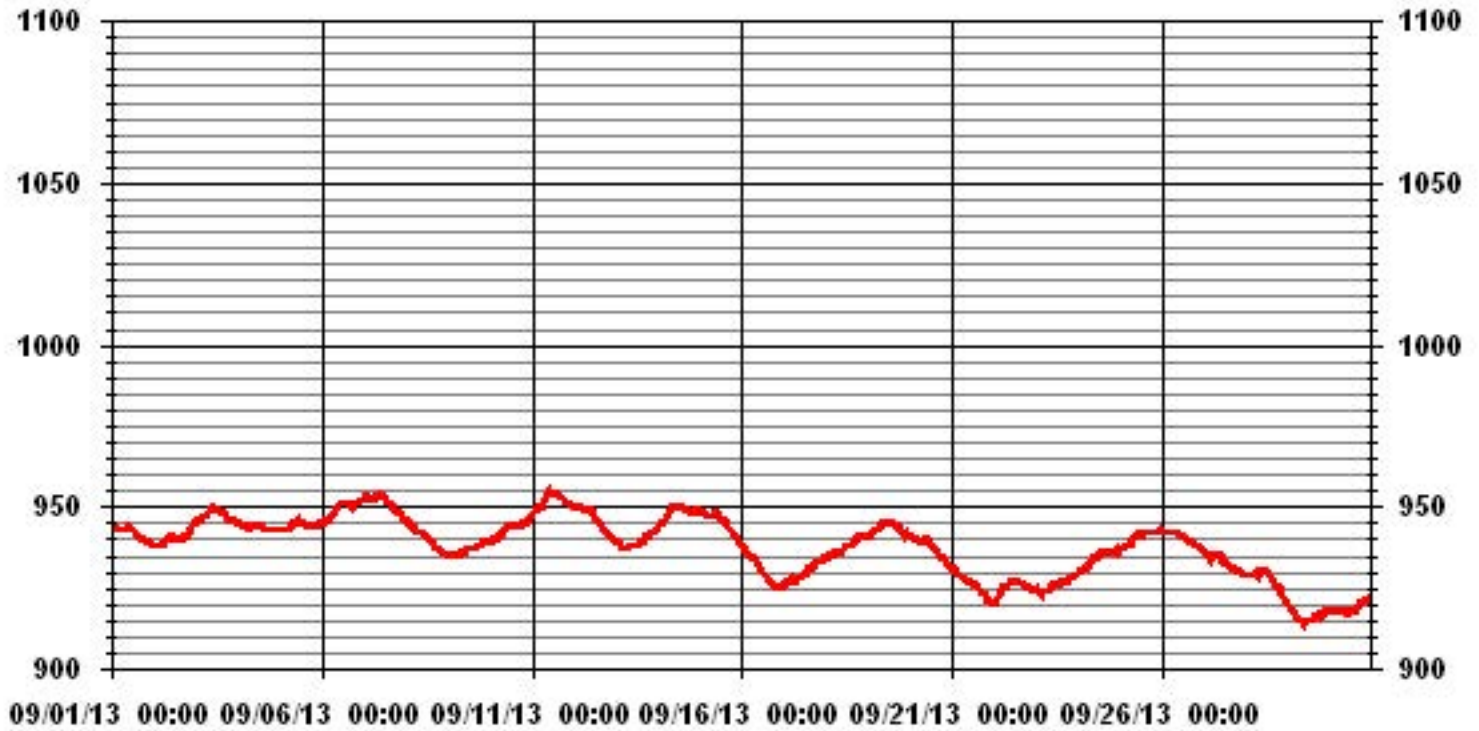
24 HOUR AVERAGES FOR SEPTEMBER 2013



MONTHLY SUMMARY

MAXIMUM 1-HR AVERAGE:	955 MB	@ HOUR(S)	10	ON DAY(S)	11
MAXIMUM 24-HR AVERAGE:	951.8 MB			ON DAY(S)	11
				VAR-VARIOUS	
CALIBRATION TIME:	0 HRS	OPERATIONAL TIME:	720 HRS		
		AMD OPERATION UPTIME:	100.0 %		
STANDARD DEVIATION:	9.46	MONTHLY AVERAGE:	938 MB		

01 Hour Averages



Vector Wind Speed

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - MASKWA

SEPTEMBER 2013

WIND SPEED hourly averages (km/hr)

MST

HOUR START	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY	24-HOUR		
HOUR END	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	MAX.	AVG.	RDGS.	
DAY																												
1	5.2	4.4	5.1	4.4	5.2	5.8	6.2	6.5	7.2	7.6	6.9	7.7	8.9	9.1	8.2	9	7.8	5.7	4.7	4.8	6.7	8.1	6.8	7	9.1	6.2	24	
2	7.4	7.6	4.4	3.8	3.8	3.6	5.1	3.5	1.3	2.3	6.3	4.4	4.7	6.3	6.4	7.1	7.9	5.2	3	1.5	6.4	7.4	9.9	8.7	9.9	2.3	24	
3	8.8	6.7	7.9	6.7	2.8	3	3.5	4.1	4.7	2.3	2.5	0.6	2.1	5.3	3.8	5.4	5.5	4.7	3.8	4.2	5.8	5	7.1	6	8.8	2.3	24	
4	6.2	6.4	3.1	1.8	3.3	1.7	3.2	3	8.8	6.8	7.7	8.9	6.2	7.1	5.1	4.2	4.2	2.9	2.6	2.5	2.6	2.9	2	1.3	8.9	3.4	24	
5	1.6	1.5	2	1.6	1.8	2	1.9	1.5	3	3.2	5.3	4.7	5.1	5	3.7	5.8	5.7	4	1.8	1	0.4	1.9	1.2	2	5.8	1.6	24	
6	1.5	0.7	1	1.3	1.3	0.6	1	1.1	3.3	1.2	2.9	2.8	1.4	2.9	5.3	5.8	9.2	7.9	3.1	2.6	2.3	3.2	2.9	3.3	9.2	2.2	24	
7	0.3	0.7	2.1	2.9	2.8	1.9	1.6	3.8	5.1	3.2	2.4	3.7	3.6	2.6	4.4	3.9	8.1	5.3	2	1.5	3.5	3.6	2.3	2	8.1	1.5	24	
8	4.7	1.6	2.1	2.2	1.8	1.6	2.5	5.1	5.8	4	6.7	8.3	6.5	8.4	6.8	7.7	5.9	5.4	3	3.7	3.9	2	1.7	2.4	8.4	4.1	24	
9	2.7	6.4	6.3	5	3.4	3.8	3	4	4.5	4.9	6.6	7.5	8.2	8.5	8	6.9	6.8	6.1	3.5	1.9	2.3	2	1.6	2.2	8.5	3.4	24	
10	2.5	1.7	1.7	2.5	1.5	2.1	1.9	2.5	3.9	7.5	8.8	9.7	8.2	8.8	6.3	7.6	7.5	5.3	2.9	1.7	1.7	2.9	1.6	1.8	9.7	3.5	24	
11	2.2	1.8	3.1	3.4	2	3.8	2.5	0.9	1	1.8	2.8	3.7	4.2	4.6	3.5	2.9	2.8	0.9	2	3	3.6	0.2	0.6	0.4	4.6	1.5	24	
12	2.6	1.1	3.3	0.4	1.3	1.1	1.1	3.2	6.7	6.5	6.8	7.4	9.7	11.4	12.1	11.1	9.9	7.6	5.3	7.4	8.1	8	8.6	5.1	12.1	5.8	24	
13	6.8	4.8	4.7	1.3	4.9	4.8	2.3	2.1	2.6	3.5	5.1	4.3	6.4	7.3	10.7	11.4	9.8	8.7	5.6	1.5	0.9	1.5	0.3	0.4	11.4	1.8	24	
14	0.5	1.5	2.4	1.2	0.3	4.1	4.4	3.8	4.7	7.2	3.9	2.5	3.2	3.3	2	3.1	5.4	4.9	2.7	3	4.3	5.7	6	4.2	7.2	2	24	
15	5	4.4	2.9	2.3	2.2	2.3	2.5	4.7	5.5	7.2	7.6	11.1	11.5	11.6	11.7	9.9	9.3	6.9	7.2	9.5	9.6	8.1	4.8	2.5	11.7	6.3	24	
16	2.8	4.8	2.9	3.4	2.9	4.3	5.4	6.4	7.4	7.9	7.8	8	11.1	9.1	10.2	11.4	8.8	7	6.7	6	5.6	2.1	2.8	3.8	11.4	5.3	24	
17	5.7	3.7	5.8	4.9	4.9	6.5	7.5	8.7	8.8	8.9	9.5	9.2	9	8.7	9	9.6	9.2	10	10.6	7.6	7.9	7.6	6.4	5.5	10.6	7.2	24	
18	5.7	4.4	5.3	5.3	5.3	4.8	4.3	3.7	7.2	6.5	5.5	6.9	6.6	8.2	7.3	6.7	6.1	5.8	5.7	3.7	5.6	5	4.5	5	8.2	5.3	24	
19	3.9	4.1	4	2.3	1.8	2.7	5.6	2.8	3.6	3.9	3.9	4.7	2.8	3.7	4.6	2.7	2.6	3.1	2.6	3.1	1.6	2	0.6	1.2	5.6	2.1	24	
20	1.5	2.2	2.6	1.2	2	2	2	3.6	6.9	7.4	8.6	8.3	8.5	10.4	10.1	8.9	8.8	5.9	4.2	7.4	7.9	7.4	7.4	7.1	10.4	5.3	24	
21	7.8	6	3.5	3.4	4.1	3.8	3.3	5.2	6.8	5.6	5.8	5.6	7.7	7.8	7.3	6.2	3.7	2.8	3.1	4	4	4.9	8.1	7	8.1	4.6	24	
22	5	5.6	4.5	4.4	5.5	5	4.9	5.6	5.8	8.3	7.7	5.9	5.9	5.2	6.1	5.4	6.6	3.3	4	4	2.9	2.6	3	4.5	8.3	4	24	
23	3.2	2.9	2.6	4.1	2.4	1.1	3	0.6	2.8	6.1	3.7	4.2	5.2	4.6	3.8	4	3.7	3.8	3.4	3.2	1.2	1.9	2	2.5	6.1	0.1	24	
24	3.1	3.2	4.4	3.6	3.4	3.7	3.3	4	5.7	5.9	6.4	6.6	6.1	6.6	6.3	5.4	5.7	3.6	1.6	1.6	1.7	2.4	2.5	2.7	6.6	3.6	24	
25	2.2	2.9	2.6	1.7	2.3	2.3	3	1.3	3.1	4.2	7.2	7.8	7.7	6.9	6.7	6.3	6.7	3.6	3.1	2	2.8	3.3	3	1.7	7.8	2.4	24	
26	1.6	0.6	1.3	1.9	2.9	2.5	3.7	3.8	6	5	6.7	7.4	7.8	7.8	8	8.1	7.5	5.7	4.2	4.5	3.9	4.3	3.7	3.7	8.1	4.1	24	
27	2.9	2.1	2	1.8	2.4	4.4	5.7	4.1	5.2	6	6.7	7.7	7.6	8.1	8.8	5.3	5.6	3	2.8	3.3	1.9	1.3	1.1	1.1	8.8	3.9	24	
28	0.7	2.4	1.1	2.5	1.5	1.6	2	4.3	4.3	4.9	5.8	6	6.8	5.9	7.6	5.6	5.2	3.8	4.3	5.4	6.8	7.3	9.7	10.3	10.3	3.9	24	
29	6.5	3.6	4.6	4.6	4.8	4.2	4.4	5.8	6.8	7.6	4.4	1.6	2.8	4.5	7.1	9.9	8.1	7.3	6.7	7.8	7.4	6.9	6.9	6.4	9.9	1.2	24	
30	5.8	5.8	5.6	6	5.2	2.9	4	2.6	2.7	2.5	1.2	3.5	3	3.6	4.2	4.7	4.9	4.7	5	7	7.3	7.2	7.6	7.1	7.6	4.4	24	
HOURLY MAX	8.8	7.6	7.9	6.7	5.5	6.5	7.5	8.7	8.8	8.9	9.5	11.1	11.5	11.6	12.1	11.4	9.9	10.0	10.6	9.5	9.6	8.1	9.9	10.3				
HOURLY AVG	3.9	3.5	3.5	3.1	3.0	3.1	3.5	3.7	5.0	5.3	5.8	6.0	6.3	6.8	6.8	6.7	6.6	5.2	4.0	4.0	4.4	4.3	4.2	4.0				

STATUS FLAG CODES

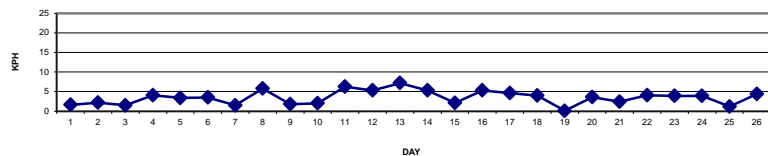
C	- CALIBRATION	Q	- QUALITY ASSURANCE
Y	- MAINTENANCE	R	- RECOVERY
S	- DAILY ZERO/SPAN CHECK	X	- MACHINE MALFUNCTION
P	- POWER FAILURE	O	- OPERATOR ERROR
G	- OUT FOR REPAIR	K	- COLLECTION ERROR

LAST CALIBRATION: December 20, 2011

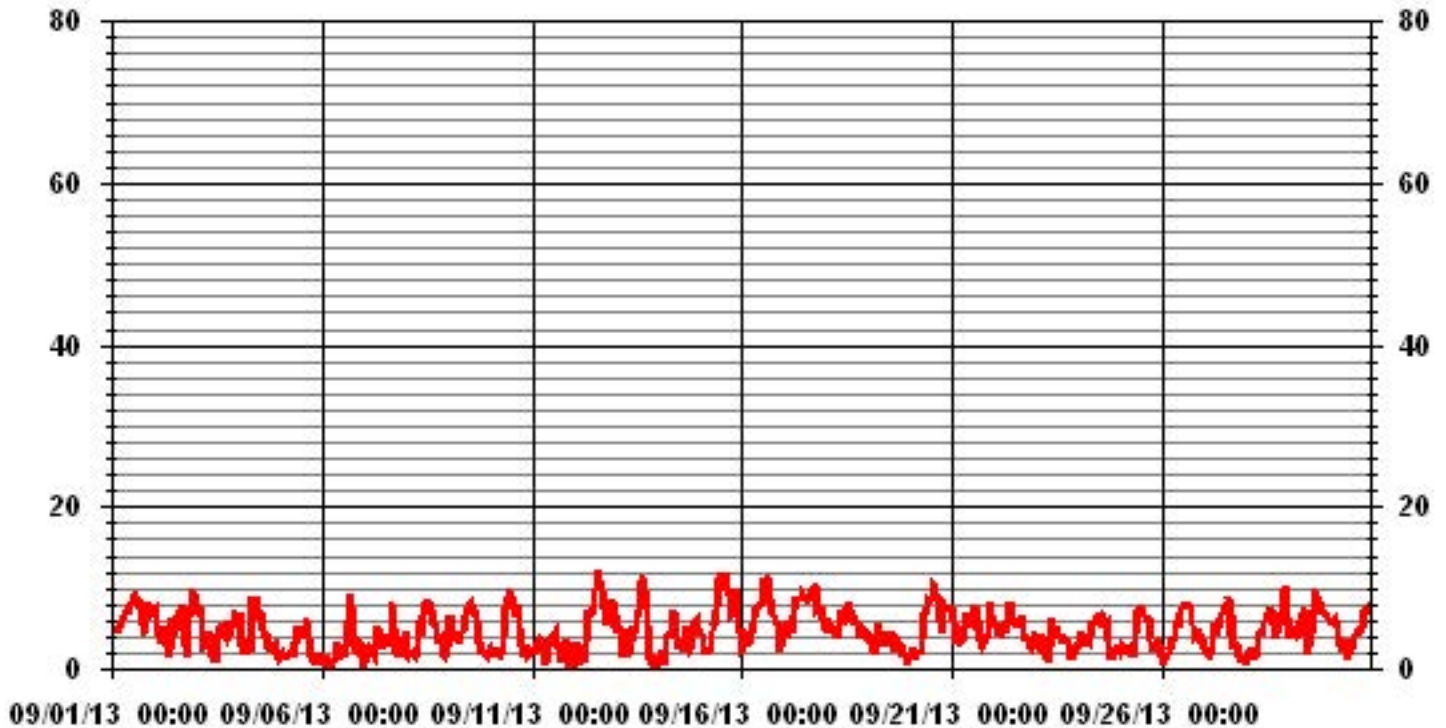
MONTHLY SUMMARY

MAXIMUM 1-HR AVERAGE:	12.1 KPH	@ HOUR(S)	14	ON DAY(S)	12
MAXIMUM 24-HR AVERAGE:	7.2 KPH			ON DAY(S)	17
CALMS (≤ 1 KPH)	2.42 %	OPERATIONAL TIME:		720	HRS
MONTHLY CALIBRATION TIME:	0 HRS	AMD OPERATION UPTIME:		100.0	%
STANDARD DEVIATION:	2.51	MONTHLY AVERAGE:		4.70	KPH

24 HOUR AVERAGES FOR SEPTEMBER 2013



01 Hour Averages



— LICA30 WSP KPH

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - MASKWA

SEPTEMBER 2013

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	11.8	10.7	10.7	11	12.3	13.6	19.3	15.1	18.1	21.4	18.5	20.1	24.2	27.3	25.5	24.9	22.7	17.9	13.5	12.6	17	22.7	20.5	17.7	27.3
2	14.6	15.7	14.6	8.7	11.1	10.7	14.6	10.2	8.2	10.2	18.3	19	25.7	27.7	30.3	34.7	27.5	25.5	15.4	18.1	20.1	20.1	23.8	19.6	34.7	
3	20.7	19.3	16.4	14.9	13.2	8.9	9.6	20.7	13.7	13.7	12.8	15.2	13.5	17	16.8	18.1	17.2	16.1	10.9	10.6	14.6	14.4	18.3	18.3	20.7	
4	20.7	18.5	13.7	5.8	9.3	6.1	8.5	20.9	26.6	29	21.8	23.8	20.9	20.7	16.8	21	19	11.8	8.3	6.4	9	5.9	4.8	3.2	29	
5	3.9	5.2	4.7	4.3	4.3	3.4	4.7	6.1	15.2	13.9	25.7	17	22.7	25.1	19.2	27.9	24	22.5	9.8	6.5	5.2	7.4	6.3	5.8	27.9	
6	7.8	4.3	6.9	5.4	4.1	3	5.8	4.3	9.1	11.8	14.9	15.5	18.2	18.4	21	23.6	22.8	23.4	13.1	10.2	7.6	9.1	8.5	9.3	23.6	
7	4.5	3.9	9.1	8.7	8	5.2	5.8	8.5	12.8	11.5	9.3	12	11.8	15.5	13.9	12.4	28.6	16.8	6.7	3.9	9.6	10.7	8.5	7	28.6	
8	16.4	13.4	8.6	7.7	4.6	4.7	9.8	13.9	14.1	16.1	22.5	23.8	24.4	25.1	20.1	23.8	20.9	17	12.4	7.1	6.9	6.7	6.3	6.3	25.1	
9	7.1	14.6	14.1	14.6	10.2	13.5	14.4	16.3	17.9	21.8	26.8	31.2	30.1	35.8	31.9	28.6	25.7	24.6	15.7	11.5	8	7.4	9.9	8.3	35.8	
10	6.4	4.5	5	8.3	6.3	18.8	6.9	11.1	18.5	29.7	40.9	36.5	45.2	32.8	30.1	38.2	26.2	24	18.1	6.5	7.6	6.5	7.1	8.9	45.2	
11	5.6	5.8	6.4	6.2	8	6.4	5	5.2	6.5	9.1	12.8	19.4	21.1	22.9	17.4	19.8	12.4	5.8	3.9	8.3	10.9	5.4	3	8.7	22.9	
12	8.9	7.1	9.3	12	4.1	3.9	5.1	17.5	16.9	19.7	19.4	22.9	29.2	29.5	40.2	33.8	26.4	22.9	15.7	21.6	20.3	18.8	23.1	15	40.2	
13	17.2	11.1	13.9	9.3	18.1	16.1	11.5	7.1	8	17	15.9	22.5	22.2	30.3	34.5	31.6	30.1	23.8	15.9	7.8	3	4.1	8.9	3.6	34.5	
14	2.3	5.6	7.1	6.7	4.6	10.2	10.4	11.1	13.9	16.1	13.7	12.2	11.3	17.9	12.4	14.4	22	14.6	10	9.8	14.6	18.3	19.6	12.4	22	
15	15.9	15	12.6	9.3	5.2	6.1	6.9	14.4	19.1	20.8	24.1	33.5	36.1	36.1	36.6	31.5	31.2	20.7	20.7	28.6	30.8	25.5	15.3	10	36.6	
16	11.1	15	9.8	10.2	13.5	16.4	28.6	27.3	27.1	27.7	31.7	37.1	35.1	30.3	32.1	36.5	27.3	25.5	24.4	28.4	22.3	7.4	9.1	16.8	37.1	
17	29.9	18.1	27.3	26.6	17.9	19.9	21.9	32.4	35.3	54.7	44	38.7	48.3	51.2	44.4	44.8	38.9	41.1	46.1	30.8	42.8	31	24.9	24.4	54.7	
18	21.4	26.9	21.2	23.1	17.2	17.9	15.3	15.1	28.9	25.6	21.4	21.8	21.4	31.4	29.1	26.9	22.3	22.7	19.4	13.3	19.4	21	13.8	16.2	31.4	
19	14.9	8.2	11.8	10.4	10.7	13.1	17.3	13.7	15.5	15.5	18.3	18.5	14.8	18.8	17.7	13.1	12.6	9.3	5.4	7.8	8.1	9	7	4.7	18.8	
20	10.9	8.3	13.7	5.4	5.6	6.7	5.4	18.1	21.8	27.5	28.6	30.1	31	32.8	30.1	30.6	28.1	20.5	11.8	22.3	24.5	21.7	23.7	22.6	32.8	
21	26.2	20.1	14.4	10.9	13.1	11.3	10.2	18.6	20.1	20.9	21.8	20.3	32.3	26	26	22	11.5	9.8	11.5	9.1	10.4	22	24.2	20.3	32.3	
22	21.8	23.8	18.8	21.6	18.8	14.2	17.3	16.2	16.1	20.9	22.5	21.4	30.1	24.4	20.9	20.1	19.8	10.6	8.7	9.8	9.8	12	12.2	16.1	30.1	
23	15.5	15.9	12.6	8.5	8	5.6	9.3	6.1	11.8	20.5	19.2	14.4	14.4	14.7	14.9	17.5	21.7	22.4	26	13.5	5.6	7.1	6.5	12	26	
24	19	15	18.1	15.5	15.5	15.9	11.3	16.4	20.3	29.7	19	30.8	25.3	27.6	31.1	27.8	21.5	14.2	11	6.3	5	6.1	5.4	5.8	31.1	
25	5	6.1	4.8	10	6.3	4.8	5.3	4.5	8.5	15.2	26.4	26	25.5	34.1	27.3	21.4	21.6	14.6	11.3	8.2	9.3	15.5	12.2	12	34.1	
26	8.9	4.6	10.5	10.3	10	10.4	18.6	14.4	28.8	18.6	29.5	26.4	38.3	27.7	25.8	28.8	27.7	20.5	16.4	17.4	17.5	15.8	16.4	12.4	38.3	
27	14.8	8.5	6.5	5	5.6	14.2	12.4	9.8	17	18.1	19.2	24.3	23.4	22.4	30.2	18	26	17.2	6.1	6.6	6.1	9.6	9.8	9.3	30.2	
28	9.6	5.4	10.2	10.7	11	7	11.1	13.5	12.2	15.5	16.3	22.3	20.3	20.1	26.6	15.5	21.4	9.3	10.2	14.2	19	26.2	29.1	34.1	34.1	
29	24.2	21.2	19.3	15.4	15	13.1	17	26	27.5	28.6	24.2	12.4	15	25.3	32.3	34.1	30.2	29.3	29.9	23.4	27.3	26.6	29.7	24.9	34.1	
30	21.7	21.9	23.2	29.7	20.3	15.9	15.9	13.3	12.6	11.1	12	12.6	10.9	17.7	16.1	15.3	20.1	19.9	22.9	32.1	27.1	29.2	29.5	29.7	32.1	
PEAK		29.9	26.9	27.3	29.7	20.3	19.9	28.6	32.4	35.3	54.7	44.0	38.7	48.3	51.2	44.4	44.8	38.9	41.1	46.1	32.1	42.8	31.0	29.7	34.1	

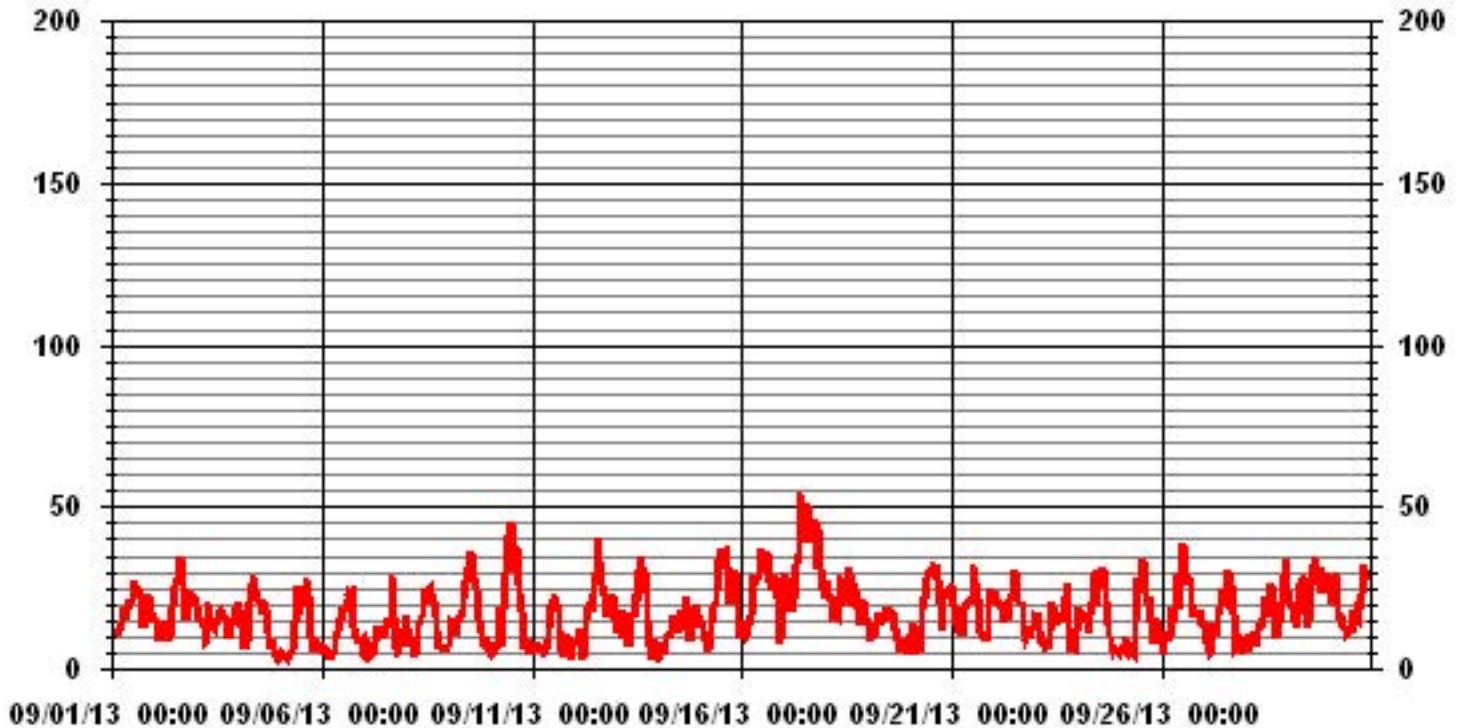
STATUS FLAG CODES

C - CALIBRATION	Q - QUALITY ASSURANCE
Y - MAINTENANCE	R - RECOVERY
S - DAILY ZERO/SPAN CHECK	X - MACHINE MALFUNCTION
P - POWER FAILURE	O - OPERATOR ERROR
G - OUT FOR REPAIR	K - COLLECTION ERROR

MONTHLY SUMMARY

MAXIMUM INSTANTANEOUS READING	54.7	KPH	@ HOUR(S)	9
			ON DAY(S)	17

01 Hour Averages



LICA30
WSP / WDR Joint Frequency Distribution (Percent)

September 2013

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	1.94	1.52	4.30	2.22	3.19	3.05	5.41	2.63	4.16	10.55	8.88	4.72	6.25	4.86	3.05	2.36	69.16
< 12.0	1.80	.97	1.38	.13	.27	.55	4.02	3.33	2.91	4.86	1.25	.69	2.22	4.86	.83	.55	30.69
< 20.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.13	.00	.00	.00	.00	.00	.00	.13
< 29.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
< 39.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
>= 39.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
Totals	3.75	2.50	5.69	2.36	3.47	3.61	9.44	5.97	7.08	15.55	10.13	5.41	8.47	9.72	3.88	2.91	

Calm : .00 %

Total # Operational Hours : 720

Distribution By Samples

	Direction																
Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq
< 6.0	14	11	31	16	23	22	39	19	30	76	64	34	45	35	22	17	498
< 12.0	13	7	10	1	2	4	29	24	21	35	9	5	16	35	6	4	221
< 20.0										1							1
< 29.0																	
< 39.0																	
>= 39.0																	
Totals	27	18	41	17	25	26	68	43	51	112	73	39	61	70	28	21	

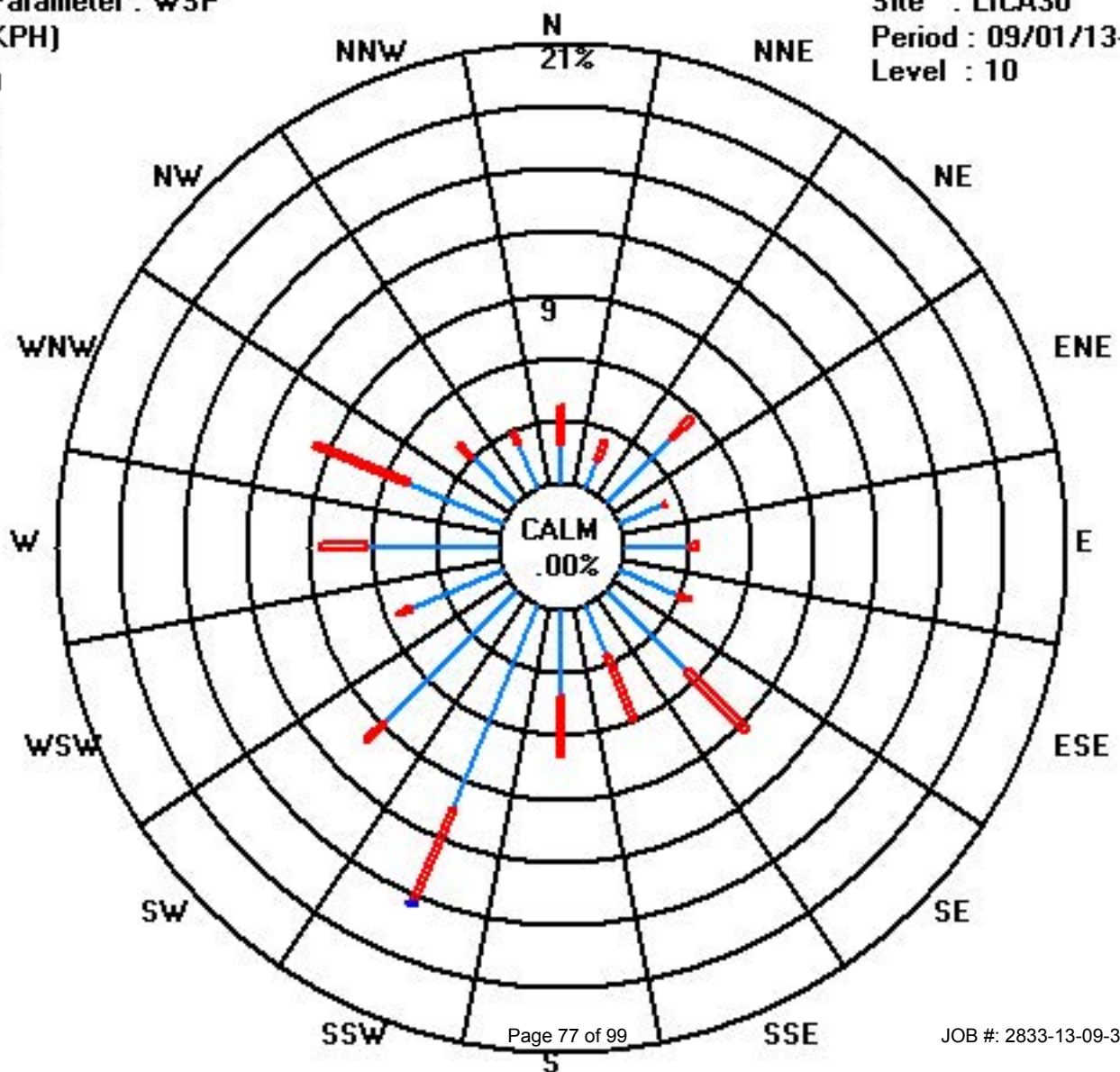
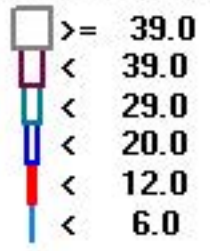
Calm : .00 %

Total # Operational Hours : 720

Class Limits (KPH)

Period : 09/01/13-09/30/13

Level : 10



Vector Wind Direction

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - MASKWA

SEPTEMBER 2013

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	24:00	24-HOUR	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	AVG.	QUADRANT	RDGS.	
DAY																												
1	196	201	202	212	206	199	200	198	201	193	190	188	186	192	203	199	191	163	145	138	144	153	171	183	186	186	S	24
2	190	203	210	213	217	206	210	211	264	267	203	243	262	252	260	279	283	279	262	306	19	27	28	32	255	WSW	24	
3	34	45	29	32	41	34	31	84	55	87	136	159	92	204	188	196	180	148	124	133	149	141	151	165	106	ESE	24	
4	171	179	169	87	59	72	124	170	196	196	198	198	211	215	233	248	279	257	231	220	214	206	210	172	200	SSW	24	
5	176	201	170	167	195	171	188	226	297	349	327	321	329	315	325	292	291	287	263	262	172	235	128	194	286	WNW	24	
6	239	108	61	187	208	233	298	41	32	87	60	43	52	3	6	357	21	36	41	40	75	76	50	59	34	NE	24	
7	247	33	58	66	49	80	64	36	36	97	114	123	115	140	187	144	195	207	219	191	182	185	188	185	139	SE	24	
8	153	124	196	212	193	199	184	193	212	227	213	206	223	211	214	207	225	220	219	203	205	219	201	192	207	SSW	24	
9	215	201	206	211	219	233	245	254	268	278	287	283	293	317	332	334	323	334	332	303	212	237	243	248	279	W	24	
10	199	188	165	206	205	211	237	250	264	295	293	291	285	287	269	284	288	325	333	250	226	208	282	268	274	W	24	
11	217	221	197	201	212	173	169	248	342	341	291	295	261	275	272	276	276	233	163	146	166	213	329	228	237	SW	24	
12	202	205	195	157	81	127	64	175	182	193	177	184	191	195	196	197	197	191	172	177	190	195	197	194	190	S	24	
13	204	200	194	233	209	213	227	303	306	32	36	10	43	48	59	50	46	36	33	56	185	139	70	39	50	NE	24	
14	143	46	45	58	102	37	31	33	50	34	42	360	343	217	253	116	123	124	102	109	127	130	134	132	82	E	24	
15	139	148	129	52	94	82	92	133	159	167	154	170	165	151	153	149	149	145	144	143	144	137	128	91	147	SE	24	
16	115	141	51	48	67	102	117	128	134	127	112	124	140	140	155	153	141	123	123	130	143	244	219	261	133	SE	24	
17	275	235	245	249	232	226	217	219	240	250	261	256	254	269	267	271	272	280	282	276	284	290	303	283	262	W	24	
18	283	277	290	290	281	270	291	275	294	292	293	291	302	305	305	306	302	357	330	331	294	284	273	297	297	WNW	24	
19	269	218	218	235	250	274	290	291	277	305	289	313	300	245	212	241	238	211	164	153	153	141	221	14	252	WSW	24	
20	194	206	175	3	24	42	28	111	148	152	149	136	140	158	163	154	157	150	125	134	135	137	138	135	144	SE	24	
21	136	134	116	111	114	117	116	131	141	131	135	146	149	167	163	154	139	111	95	46	46	131	162	196	138	SE	24	
22	217	230	232	240	224	219	224	220	219	205	208	234	250	228	205	208	191	167	136	134	109	87	97	126	206	SSW	24	
23	114	97	92	34	40	32	52	358	49	48	90	165	202	220	238	269	270	270	305	354	235	237	228	217	225	SW	24	
24	235	250	271	256	249	244	233	263	278	295	303	301	287	286	284	282	280	285	231	218	188	189	194	201	268	W	24	
25	196	201	194	219	206	202	195	230	296	334	355	359	358	351	5	353	2	354	5	348	351	324	324	265	340	NNW	24	
26	331	333	263	263	311	246	316	300	309	324	345	358	358	359	7	358	2	357	325	326	332	321	296	288	335	NNW	24	
27	286	226	226	218	207	205	206	208	214	219	221	190	187	194	199	222	232	245	198	195	185	158	226	258	209	SSW	24	
28	203	192	229	216	240	198	217	201	217	210	207	215	210	192	189	191	174	137	132	128	125	131	134	134	174	S	24	
29	116	78	83	95	89	70	98	97	82	89	122	323	42	294	289	286	297	283	277	284	287	277	277	281	319	NW	24	
30	275	276	271	280	277	259	286	278	320	313	270	219	271	323	332	292	282	328	318	301	289	287	284	279	288	WNW	24	
HOURLY AVG	331	333	290	290	311	274	316	358	342	349	355	360	358	359	332	358	323	357	357	354	351	324	329	288				

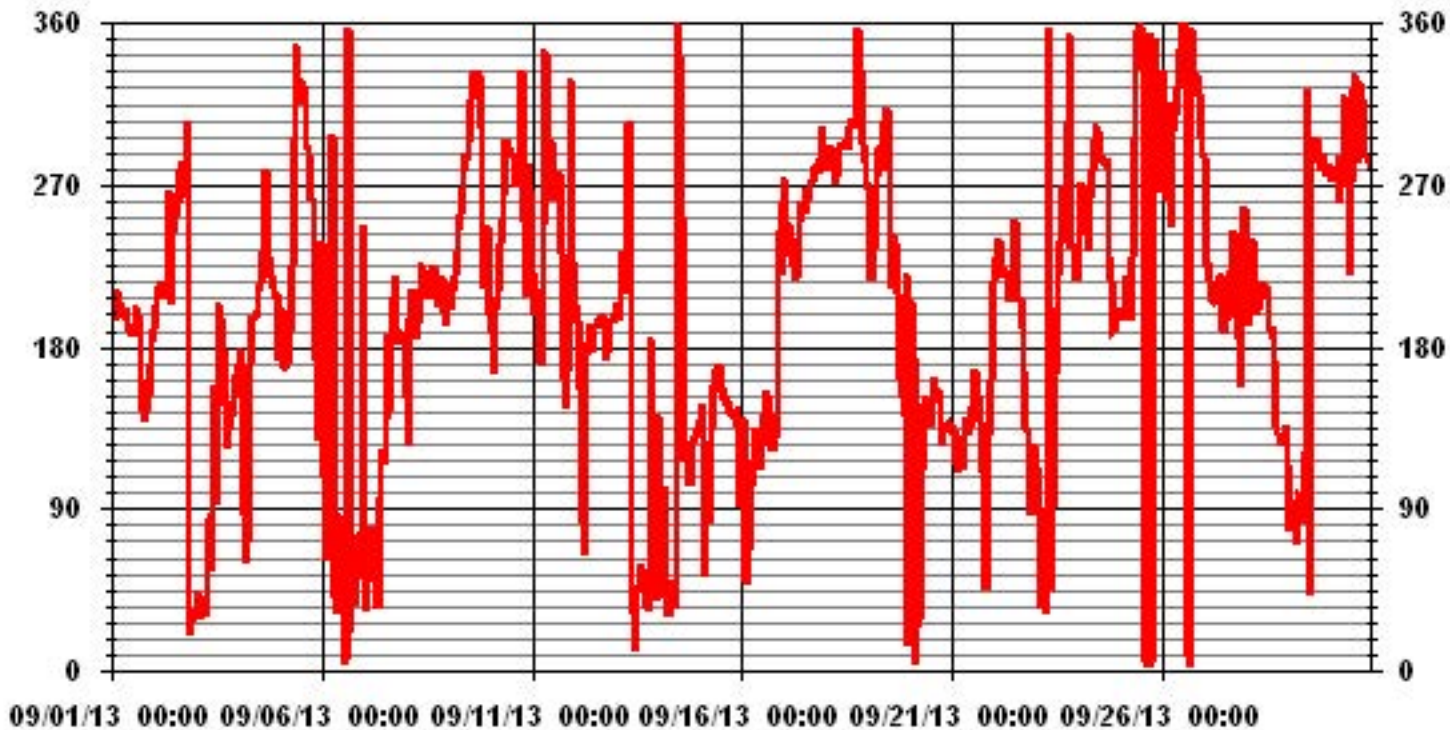
STATUS FLAG CODES

C	- CALIBRATION	Q	- QUALITY ASSURANCE
Y	- MAINTENANCE	R	- RECOVERY
S	- DAILY ZERO/SPAN CHECK	X	- MACHINE MALFUNCTION
P	- POWER FAILURE	O	- OPERATOR ERROR
G	- OUT FOR REPAIR	K	- COLLECTION ERROR

LAST CALIBRATION:	December 20, 2011
DECLINATION:	19 DEGREES FROM MAGNETIC NORTH

MONTHLY CALIBRATION TIME:	0 HRS	OPERATIONAL TIME:	720 HRS
STANDARD DEVIATION:	85.72	AMD OPERATION UPTIME:	100.0 %
		MONTHLY AVERAGE:	213 DEG

01 Hour Averages



Standard Deviation Wind Direction

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - MASKWA

SEPTEMBER 2013

STANDARD DEVIATION WIND DIRECTION (STDWDIR) hourly averages in degrees

MST

HOUR START	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00
HOUR END	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00
DAY																								
1	13	14	14	18	14	14	19	20	22	24	27	28	27	26	27	25	24	26	16	16	18	19	21	17
2	15	13	19	18	18	27	17	24	53	45	27	44	50	42	46	41	35	39	42	50	17	13	12	14
3	17	20	12	15	27	21	30	37	39	65	67	77	57	38	52	35	31	24	19	14	17	18	19	21
4	23	22	31	25	19	26	21	34	22	29	27	25	35	32	40	41	43	47	30	25	21	17	33	34
5	16	36	17	41	21	18	20	40	42	45	41	46	43	48	54	42	41	42	56	56	49	34	48	46
6	42	45	44	44	45	56	48	56	28	63	40	59	71	56	44	37	23	21	31	24	28	23	23	21
7	51	59	27	23	28	24	30	16	21	39	50	39	42	51	37	34	23	26	33	24	10	19	36	26
8	20	51	31	38	51	31	33	21	27	42	33	28	35	29	32	29	33	33	27	11	10	19	32	11
9	18	14	18	19	25	26	36	37	44	43	42	39	39	41	41	41	42	37	39	42	25	38	42	35
10	17	40	38	21	48	49	43	44	34	36	38	39	39	39	45	44	40	43	43	40	35	18	37	31
11	29	29	13	13	29	14	30	48	70	54	55	54	52	45	53	60	50	59	18	17	16	59	59	53
12	31	66	30	47	32	58	45	41	26	24	29	32	26	24	23	23	21	19	17	20	18	18	18	19
13	18	17	15	52	35	30	50	53	36	43	40	42	36	33	28	25	24	21	17	28	35	33	74	58
14	50	27	20	43	32	16	12	26	30	21	53	54	49	58	64	51	33	28	23	22	20	25	26	25
15	24	26	24	25	20	20	21	24	31	31	31	28	29	29	28	27	25	27	23	23	23	25	29	29
16	31	25	26	22	29	32	41	38	32	35	37	38	32	34	30	27	26	32	29	28	36	38	29	40
17	36	38	41	44	36	30	24	28	40	45	45	44	45	44	41	43	41	38	32	41	38	40	41	38
18	37	41	41	35	37	38	36	42	35	39	46	39	37	37	39	35	39	39	37	46	40	41	39	35
19	38	24	25	36	49	50	38	57	48	49	52	52	58	56	41	61	62	23	10	11	39	44	65	42
20	59	36	51	44	26	37	32	27	30	31	33	34	40	30	30	31	27	20	13	22	25	25	23	25
21	24	30	41	28	28	27	27	30	31	39	41	42	35	37	34	28	28	33	29	15	19	31	24	19
22	39	33	36	38	29	25	31	28	30	24	26	42	44	41	35	32	25	15	10	16	21	29	30	24
23	34	33	32	13	29	54	29	75	48	29	47	39	29	38	41	47	48	42	42	37	52	39	41	31
24	38	34	36	39	36	34	30	34	34	40	34	39	41	42	42	45	37	37	64	38	26	17	16	15
25	26	13	11	33	22	14	11	37	23	42	37	38	33	40	36	33	28	28	23	31	30	34	38	49
26	50	60	38	40	35	35	46	45	38	43	40	34	32	33	30	31	31	31	40	38	43	39	41	36
27	41	36	34	30	17	15	16	23	24	28	33	31	38	32	29	35	41	44	14	9	40	33	26	34
28	59	16	38	34	35	26	33	20	30	33	28	39	37	35	29	29	23	16	15	20	24	24	25	25
29	30	33	24	25	26	23	28	28	27	31	49	70	64	46	35	31	37	34	35	31	28	33	31	35
30	33	32	37	37	36	45	37	46	39	43	55	40	41	45	43	36	33	37	40	31	33	36	33	31

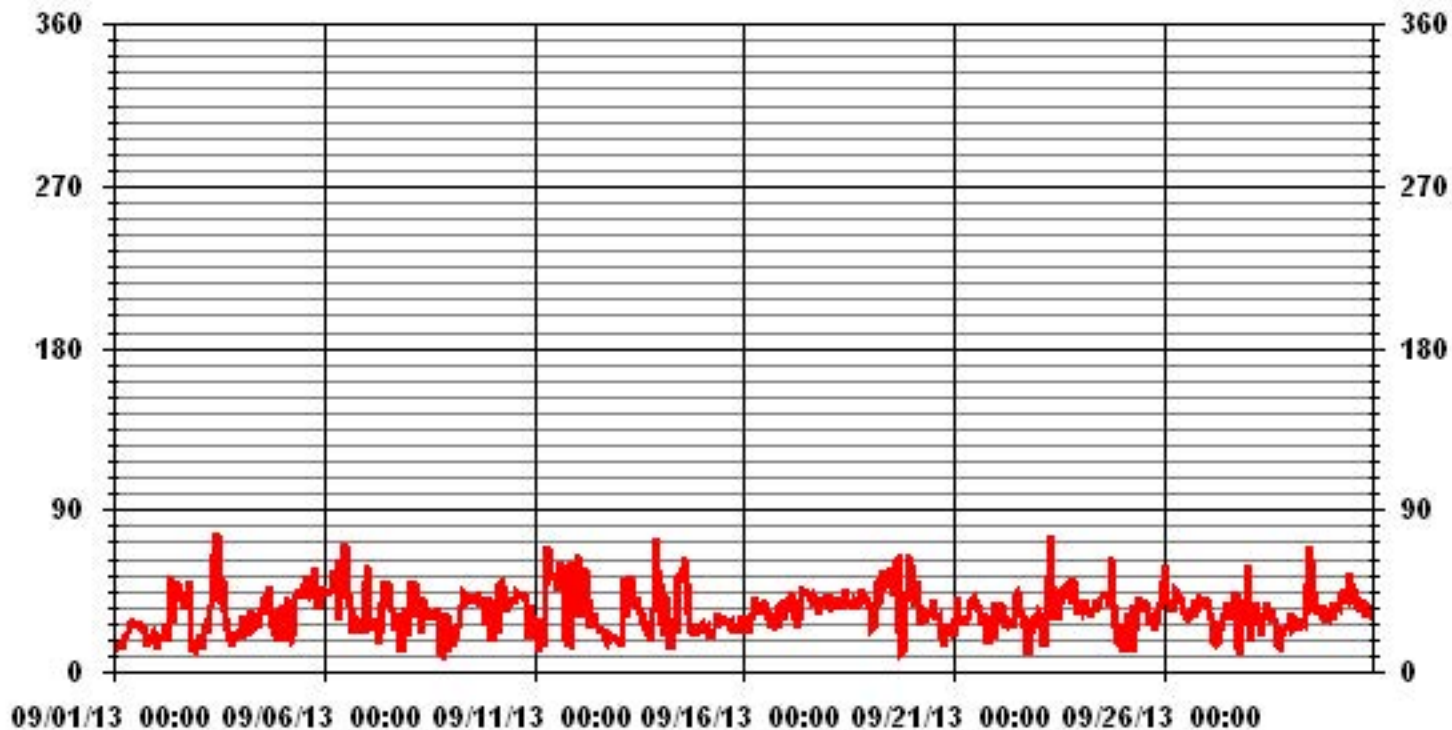
STATUS FLAG CODES

C	- CALIBRATION	Q	- QUALITY ASSURANCE
Y	- MAINTENANCE	R	- RECOVERY
S	- DAILY ZERO/SPAN CHECK	X	- MACHINE MALFUNCTION
P	- POWER FAILURE	O	- OPERATOR ERROR
G	- OUT FOR REPAIR	K	- COLLECTION ERROR

LAST CALIBRATION: December 20, 2011

CALIBRATION TIME: 0 HRS OPERATIONAL TIME: 720 HRS

01 Hour Averages



Calibration Reports

Sulphur Dioxide

SO2 Calibration Report

Station Information

Calibration Date	September 11, 2013	Previous Calibration	August 23, 2013
Company	Lakeland Industry & Community Association		
Plant / Location	LICA Maskwa		
Start Time (MST)	9:34	End Time (MST)	12:15
Reason:	Monthly calibration		
Barometric Pressure	28.16 in HG	Station Temperature	22 Deg C
Cal Gas	49.6 ppm	Gas Cyl. #	BAL3031
DAS Output Voltage	0-1 Volts	Cal Gas Expiry date	December 29, 2016
		Chart Rec. Output	N/A Volts

Equipment Information

Analyzer Make / Model:	API 100E	S/N :	508	Method:	Fluorescent
Converter Make / Model:	N/A	S/N :	N/A		
Calibrator Make / Model:	EnviroNics 6100	S/N :	4760	Method:	Dilution
DAS Make / Model:	ESC 8832	S/N :	AO791		
Chart Recorder Make / Model:	N/A	S/N:	N/A		
Flow Meter:	EnviroNics 6100	S/N :	4760		

Analyzer Settings

Before Calibration			After Calibration		
Concentration Range	0-1000 ppb				
Sample Flow / Box Temp	603 ccm	28.8 Deg C	600 ccm	28.4 Deg C	
HVPS / Lamp Setting	491	3202	491	3200	
PMT / RxCell Temp	7.7 Deg C	50 Deg C	7.7 Deg C	50 Deg C	
Converter / IZS Temp	N/A Deg C	45 Deg C	N/A Deg C	45.0 Deg C	
Offset / Slope	77.5	1.108	77.5	1.1	

Calibration Data

Dilution Flow Rate	Source Gas Flow Rate	Calculated Concentration	Indicated Conc. (DAS)	Correction Factor
4994	0	0	0	N/A
	No zero adj.			
4920	80.3	796	799	0.9967
4920	80.3	796	797	0.9992
4960	40.3	400	398	1.0039
4978	20.1	199	199	1.0000
4994	0	0	0	N/A
Sum of Least Squares				1.0001
New Correction Factor				0.9992

IZS Calibration Data

Before Calibration		After Calibration	
Auto Zero	0.0	Auto Zero	0.0
Auto Span	243.0	Auto Span	235.0
Sample Lines Connected		Sample Lines Connected	Yes

Percent Change

Previous Month's Calibration Correction Factor:	1.0000
Current Correction Factor Before Span Adjust:	0.9967
Percent Change:	0.3%

Notes:

N/A : Not applicable

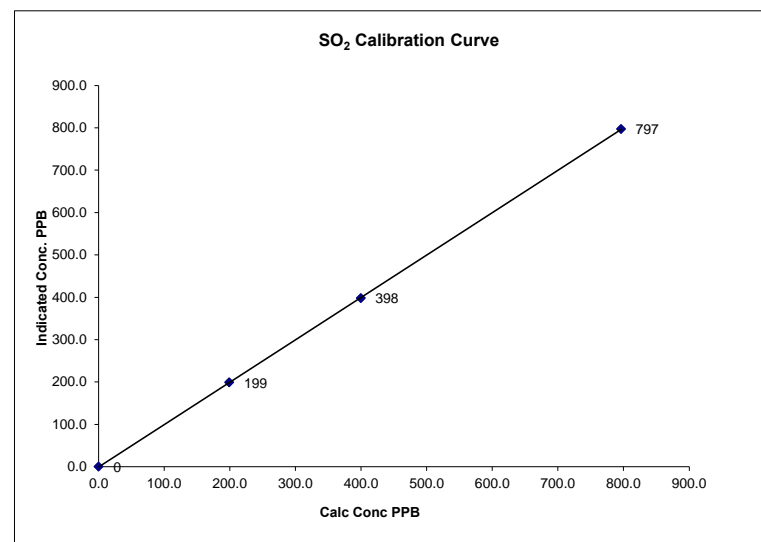
Change sample filter

Extra time was given on the mid-span point as the trailer door was accidentally locked, so could not entra the trailer to adjust the point.

SO₂ Calibration Curve

Calibration Date	September 11, 2013		
Company	Lakeland Industry & Community Association		
Plant / Location	LICA Maskwa		
Start Time (MST)	9:34	End Time (MST)	12:15

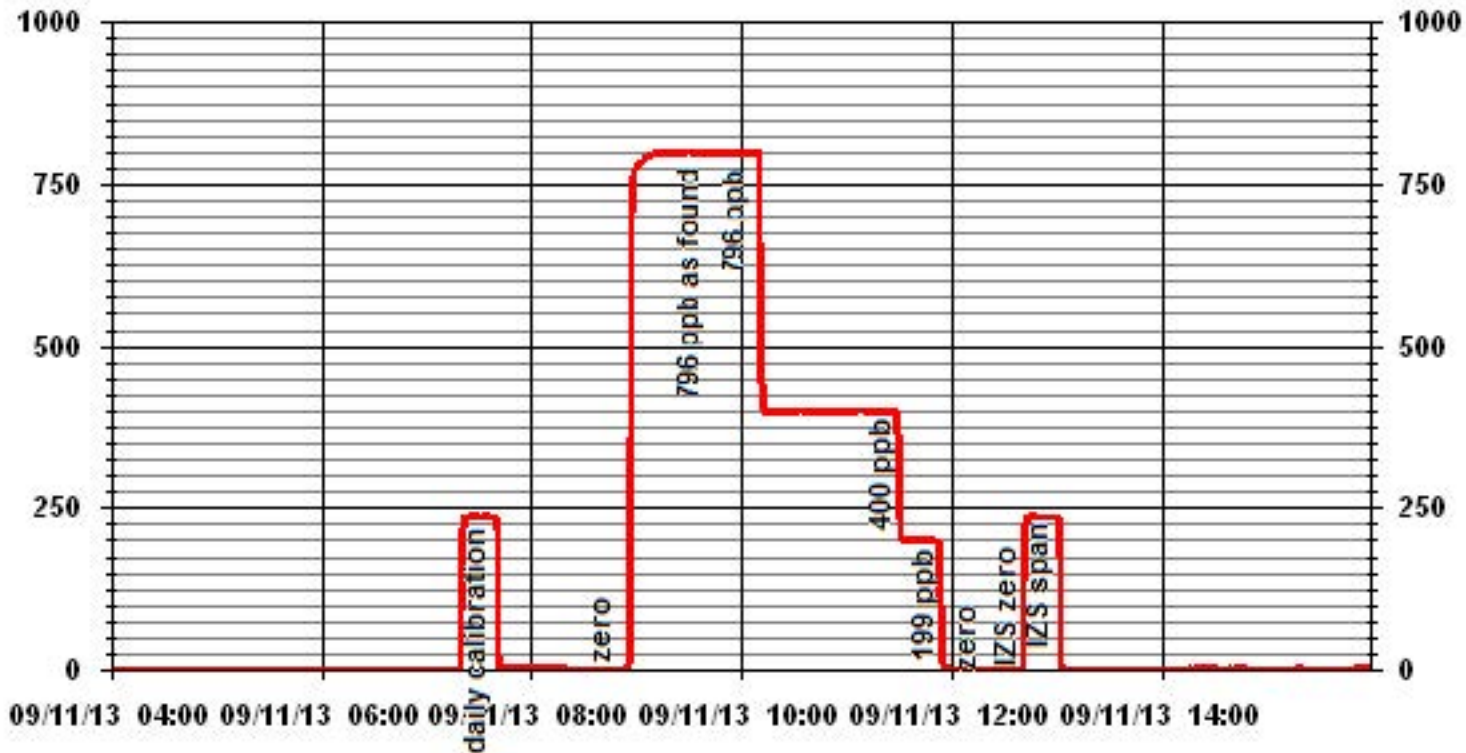
Calculated Conc. ppb	Indicated Response ppb	Correction Factor	Correlation Coefficient Slope Intercept	(≥ 0.995) (0.85 to 1.15) (± 3% F.S.)
0	0	N/A		0.999993
199	199	1.0000		1.000664
400	398	1.0039		-0.471717
796	797	0.9992		



Notes:

Calibration Performed by: Waseem Ahmed

01 Minute Averages



Hydrogen Sulphide

H2S Calibration Report

Station Information

Calibration Date	September 11, 2013		Previous Calibration	August 23, 2013	
Company	Lakeland Industry & Community Association				
Plant / Location	LICA Maskwa				
Start Time (MST)	8:20	End Time (MST)	9:10		
Reason:	As Found				
Barometric Pressure	28.16	in HG	Station Temperature	22	Deg C
Cal Gas	10.1	ppm	Gas Cyl. #	BLM00504	Cal Gas Expiry date
DAS Output Voltage	0-1	Volts	Chart Rec. Output	N/A	

Equipment Information

Analyzer Make / Model:	API 101E	S/N :	511	Method:	Fluorescent
Converter Make / Model:	N/A	S/N :	N/A		
Calibrator Make / Model:	API 700	S/N :	690	Method:	Dilution
DAS Make / Model:	ESC 8832	S/N :	AO791		
Chart Recorder Make / Model:		N/A	S/N:	N/A	
Flow Meter:	API 700	S/N :	690		

Analyzer Settings

Before Calibration		After Calibration	
Concentration Range	0-100 ppb	0-100 ppb	
Sample Flow / Box Temp	694 ccm 29.4 Deg C	693 ccm 29.8 Deg C	
HVPS / Lamp Setting	584 3625	584 3625	
PMT / RxCell Temp	7.9 Deg C 50 Deg C	7.9 Deg C 50 Deg C	
Converter / IZS Temp	314.5 Deg C 45 Deg C	314.5 Deg C 45.0 Deg C	
Offset / Slope	32.2 1.168	32.2 1.168	

Calibration Data

Dilution Flow Rate	Source Gas Flow Rate	Calculated Concentration	Indicated Conc. (DAS)	Correction Factor
5000	0	0	-1	NA
	No zero adj.			
4955	40.0	81	79	1.0238
Sum of Least Squares New Correction Factor				1.0238

IZS Calibration Data

Before Calibration		After Calibration	
Auto Zero	0.0		0.0
Auto Span	50.0		50.0
Sample Lines Connected			Yes

Percent Change

Previous Month's Calibration Correction Factor:	1.0000
Current Correction Factor Before Span Adjust:	1.0238
Percent Change:	-2.3%

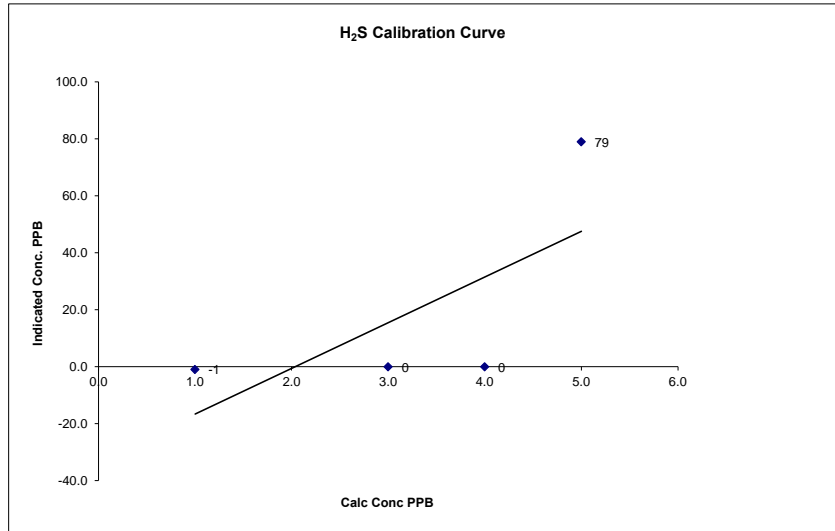
Notes:	NA : Not Applicable

Calibration Performed by: Waseem Ahmed

H₂S Calibration Curve

Calibration Date	September 11, 2013		
Company	Lakeland Industry & Community Association		
Plant / Location	LICA Maskwa		
Start Time (MST)	8:20	End Time (MST)	9:10

Calculated Conc. ppb	Indicated Response ppb	Correction Factor	Correlation Coefficient Slope Intercept	(≥ 0.995) (0.85 to 1.15) (± 3% F.S.)
0	-1	NA		
81	79	1.0238		



Notes:

H2S Calibration Report

Station Information

Calibration Date	September 11, 2013	Previous Calibration	August 23, 2013
Company	Lakeland Industry & Community Association		
Plant / Location	LICA Maskwa		
Start Time (MST)	9:15	End Time (MST)	12:41
Reason:	Monthly cal		
Barometric Pressure	28.16 in HG	Station Temperature	22 Deg C
Cal Gas	10.1 ppm	Gas Cyl. #	BLM00504 Cal Gas Expiry date
DAS Output Voltage	0-1 Volts	Chart Rec. Output	N/A Volts
December 25, 2015			

Equipment Information

Analyzer Make / Model:	API 101E	S/N :	511	Method:	Fluorescent
Converter Make / Model:	N/A	S/N :	N/A		
Calibrator Make / Model:	API 700	S/N :	690	Method:	Dilution
DAS Make / Model:	ESC 8832	S/N :	AO791		
Chart Recorder Make / Model:	N/A	S/N:	S/N:	N/A	
Flow Meter:	API 700	S/N :	690		

Analyzer Settings

		Before Calibration		After Calibration	
Concentration Range		0-100 ppb			
Sample Flow / Box Temp	693 ccm	29.8 Deg C	679 ccm	30.6 Deg C	
HVPS / Lamp Setting	584	3625	584	3620	
PMT / RxCell Temp	7.9 Deg C	50 Deg C	7.9 Deg C	50 Deg C	
Converter / IZS Temp	314.5 Deg C	45 Deg C	315.1 Deg C	45.0 Deg C	
Offset / Slope	32.2	1.168	29.4	1.188	

Calibration Data

Dilution Flow Rate	Source Gas Flow Rate	Calculated Concentration	Indicated Conc. (DAS)	Correction Factor
5000	0	0	0	NA
	No zero adj.			
4962	40.0	81	83	0.9731
	No span adj.			
4976	20.1	41	42	0.9675
4985	12.0	24	25	0.9702
5000	0	0	0	NA
Sum of Least Squares				0.9718
New Correction Factor				0.9731

IZS Calibration Data

		Before Calibration	After Calibration
Auto Zero		0.0	0.0
Auto Span		50.0	48.0
Sample Lines Connected			Yes

Percent Change

Previous Month's Calibration Correction Factor:	1.0000
Current Correction Factor Before Span Adjust:	0.9731
Percent Change:	2.8%

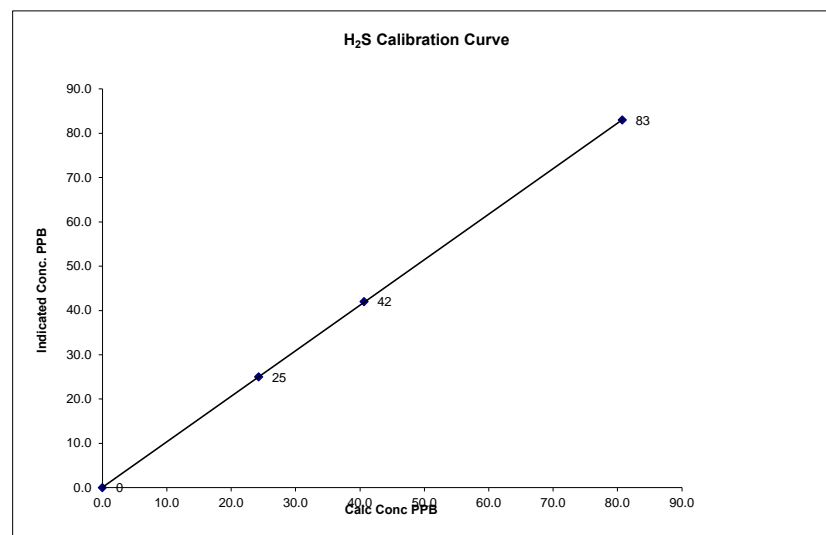
Notes: **NA : Not Applicable**
 Extra time was given on the first-span point as the trailer door was accidentally locked, so could not entra the trailer to adjust the point.

Calibration Performed by: Waseem Ahmed

H₂S Calibration Curve

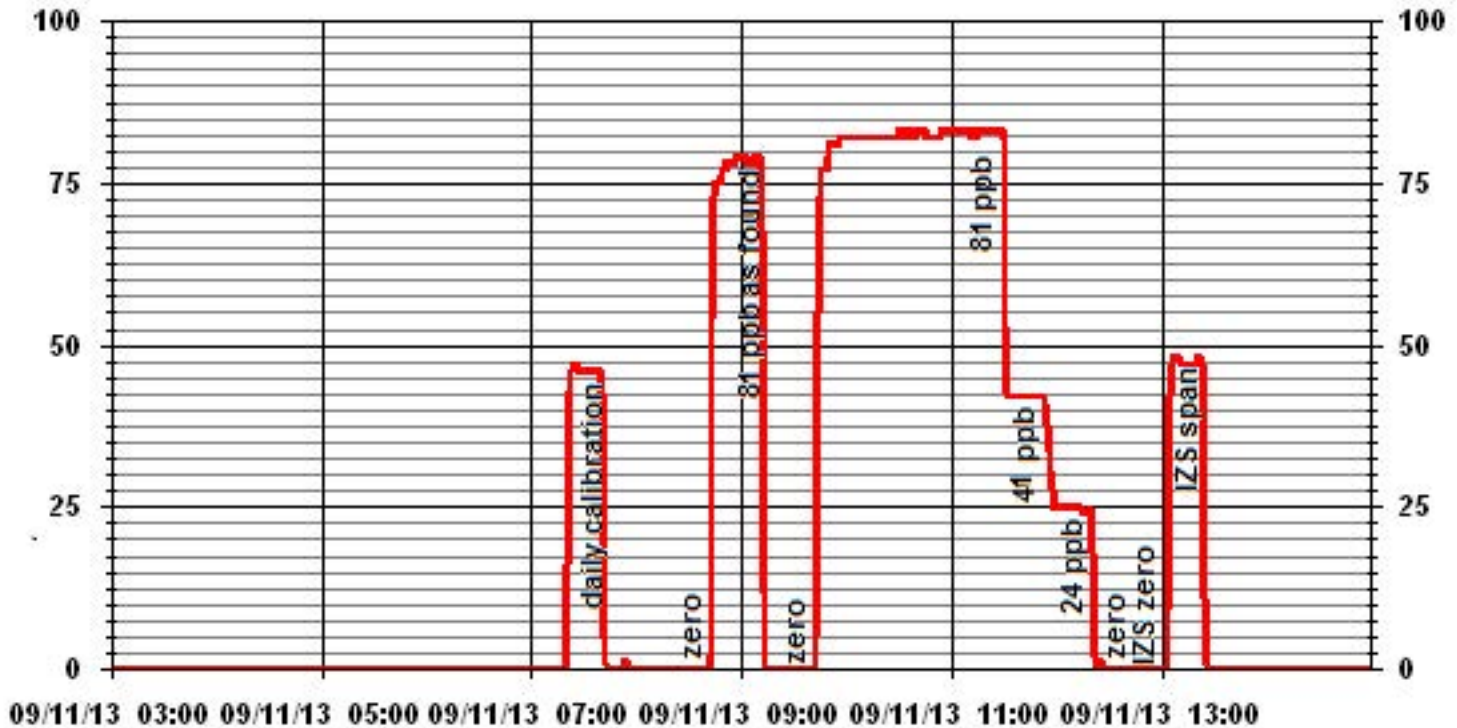
Calibration Date	September 11, 2013		
Company	Lakeland Industry & Community Association		
Plant / Location	LICA Maskwa		
Start Time (MST)	9:15	End Time (MST)	12:41

Calculated Conc. ppb	Indicated Response ppb	Correction Factor	Correlation Coefficient Slope	(≥ 0.995) (0.85 to 1.15)	0.999989
0	0	NA	Intercept	(± 3% F.S.)	0.078389
24	25	0.9702			
41	42	0.9675			
81	83	0.9731			



Notes:

01 Minute Averages



Total Hydrocarbons

THC Calibration Report

Station Information			
Calibration Date:	September 11, 2013	Previous Calibration	August 23, 2013
Company:	Lakeland Industry & Community Association		
Plant / Location:	LICA Maskwa		
Start Time (MST)	12:48	End Time (MST)	13:42
Reason:	As Found		
Barometric Pressure:	28.17 in HG	Station Temperature:	22 Deg C
Calibrator:	API 700	S/N:	690
Cal Gas Concentration:	CH4 600 PPM	C3H8 204 PPM	
	TOTAL CH4 1161.0 PPM	Gas Cyl. # LL155310	Cal Gas Expiry Date: September 9, 2013
DAS make & Model:	ESC 8832	S/N :	AO791
Chart Recorder:	N/A	S/N:	N/A
Output Voltage Range:	0-10 VDC	Chart Speed:	N/A mm/hr

Analyzer Information

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

Analyzer Settings

	Before Calibration		After Calibration	
	Concentration Range			
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
2000	0.0	0.0	0.1	N/A
	No zero adj.			
2000	74.0	41.4	41.5	0.9982
New Correction Factor:				0.9982

Percent Change

Previous Calibration Correction Factor:	1.0000
Current Correction Factor Before Span Adjust:	0.9982
Percent Change:	0.2%

IZS Calibration Data

	Before Calibration		After Calibration	
	Auto Zero			
Auto Span	31.27		31.27	
Sample Lines Connected	Yes			

Cylinder Pressures

Span	2000 psi	Hydrogen	475 psi	Zero Air	32 psi
------	----------	----------	---------	----------	--------

Notes: N/A : Not Applicable

Change sample filter

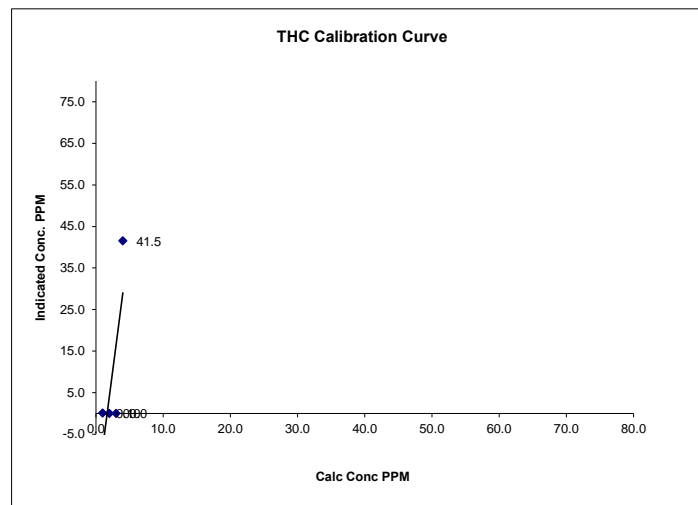
Spare H2=02, Span =00

Calibration Performed by: Waseem Ahmed

THC Calibration Curve

Calibration Date	September 11, 2013		
Company	Lakeland Industry & Community Association		
Plant / Location	LICA Maskwa		
Start Time (MST)	12:48	End Time (MST)	13:42

Calculated Conc. ppm	Indicated Response ppm	Correction Factor	Correlation Coefficient (≥ 0.995)	Slope (0.85 to 1.15)	Intercept (± 3% F.S.)
0.0	0.1	N/A			
41.4	41.5	0.9982			



Notes:

THC Calibration Report

Station Information			
Calibration Date:	September 11, 2013	Previous Calibration	August 23, 2013
Company:	Lakeland Industry & Community Association		
Plant / Location:	LICA Maskwa		
Start Time (MST)	13:46	End Time (MST)	15:35
Reason:	Monthly calibration		
Barometric Pressure:	28.17 in HG	Station Temperature:	22 Deg C
Calibrator:	API 700	S/N:	690
Cal Gas Concentration:	CH4 600 PPM TOTAL CH4 1161.0 PPM	C3H8 204 PPM Gas Cyl. # LL155310	Cal Gas Expiry Date: September 9, 2013
DAS make & Model:	ESC 8832	S/N :	AO791
Chart Recorder:	N/A	S/N:	N/A
Output Voltage Range:	0-10 VDC	Chart Speed:	N/A mm/hr

Analyzer Information

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

Analyzer Settings

	Before Calibration		After Calibration	
Concentration Range	0-50 ppm		0-50 ppm	
Sample Pressure	7.5 psi		7.5 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
1995	0.0	0.0	0.0	N/A
	No zero adj.			
1995	74.0	41.5	41.5	1.0000
	No span adj.			
1995	37.0	21.1	21.2	0.9972
1995	20.0	11.5	11.3	1.0198
1995	0.0	0.0	0.0	N/A
New Correction Factor:				1.0000

Percent Change

Previous Calibration Correction Factor:	1.0000
Current Correction Factor Before Span Adjust:	1.0000
Percent Change:	0.0%

IZS Calibration Data

	Before Calibration	After Calibration
Auto Zero	0.0	0.0
Auto Span	31.27	31.27
Sample Lines Connected		Yes

Cylinder Pressures			
Span	2000 psi	Hydrogen	475 psi
		Zero Air	32 psi

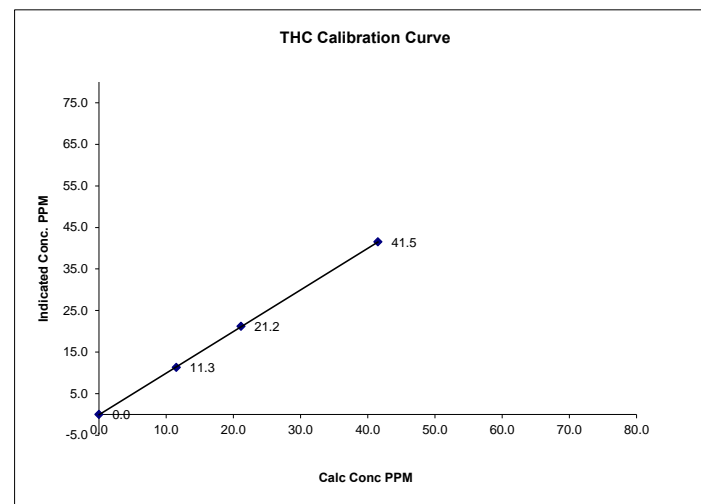
Notes:	N/A : Not Applicable
	Change sample filter
	Spare H2=02, Span =00

Calibration Performed by: Waseem Ahmed

THC Calibration Curve

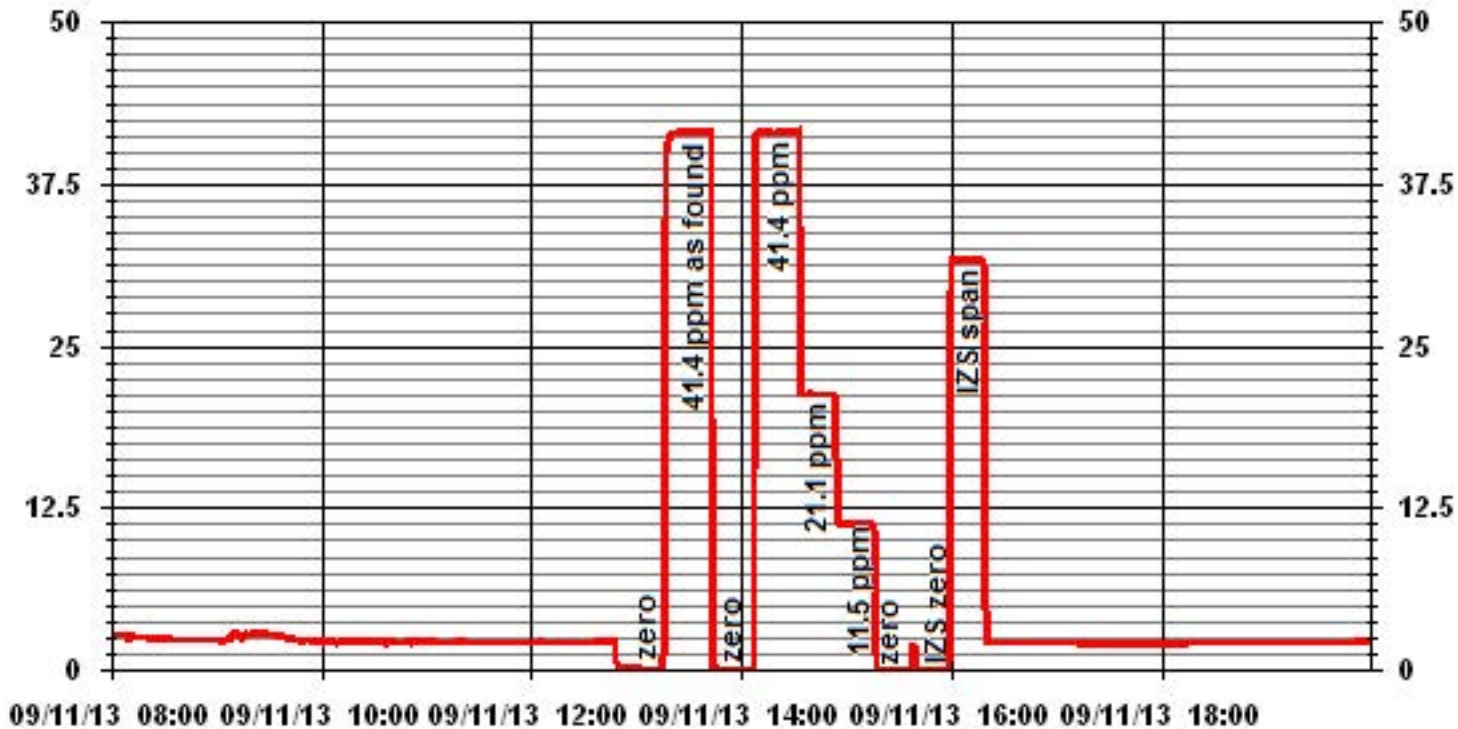
Calibration Date	September 11, 2013		
Company	Lakeland Industry & Community Association		
Plant / Location	LICA Maskwa		
Start Time (MST)	13:46	End Time (MST)	15:35

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	N/A	0.999953	1.001255	-0.07033
11.5	11.3	1.0198			
21.1	21.2	0.9972			
41.5	41.5	1.0000			



Notes:

01 Minute Averages



Nitrogen Dioxide

NOx - NO- NO2 Calibration Report
Station Information

Calibration Date	September 11, 2013	Previous Calibration	August 23, 2013
Company	LICA	Plant/Location	LICA Maskwa
Start Time (MST)	9:34	End Time (MST)	13:59
Reason:	Monthly calibration		
Barometric Pressure	28.16 in HG	Station Temperature	22 Deg C
Cal Gas Concentration	NOx 49.3 ppm	NO	49.2 ppm
Cal Gas Cylinder #	BAL 3031	Cal Gas Expiry date	December 29, 2016
DAS Output Voltage	0-1 Volts	Chart Rec. Output	N/A Volts

Equipment Information

Analyzer Make / Model:	API 200E	S/N :	594	Method:	Chemiluminescent
Calibrator Make / Model:	EnviroNics 6100	S/N:	4760		
DAS Make / Model:	ESC 8832	S/N :	AO791		
Chart Recorder Make / Model:	N/A	S/N:	N/A		
Flow Meter:	EnviroNics 6100	S/N :	4760		

Analyzer Settings

Before Calibration				After Calibration			
Concentration Range	0-1000			ppb			
Sample Flow/Conv. Temp	471 ccm	316.6 Deg C		462 ccm	316.6 Deg C		
Ozone Flow / Vacuum	80 ccm	4.9 °Hg-A		80 ccm	4.9 °Hg-A		
HVPS / A ZERO	751 Volts	14.9 MV		751 Volts	15.8 MV		
Rx/ Temp / PMT Temp	50.0 Deg C	6.6 Deg C		50.0 Deg C	6.6 Deg C		
Box Temp / IZS Temp	29.3 Deg C	42.4 Deg C		29.0 Deg C	42.3 Deg C		
Offset	0.4 NOx	0.0 NO		0.4 NOx	0.0 NO		
Slope	1.109 NOx	1.100 NO		1.104 NOx	1.096 NO		
NO2 COEF / Conv Efficiency	N/A NO2	0.994		N/A NO2	0.994		

Dilution Calibration Data

Dilution Air Flow Rate	Source Flow Rate	O3 Set Point	Calculated Concentration			Indicated Concentration			Correction Factor	
			NOx	NO	NO2	NOx	NO	NO2	NOx	NO
4994	0.0	NA	0	0	NA	0	0	0	NA	NA
	No zero adj.									
4920	80.3	NA	792	790	NA	796	791	4	0.9944	0.9986
4920	80.3	NA	792	790	NA	794	790	3	0.9969	1.0000
4960	40.3	NA	397	396	NA	397	395	2	1.0000	1.0034
4978	20.1	NA	198	197	NA	200	197	1	0.9893	1.0000
4994	0.0	NA	0	0	NA	0	-1	-1	NA	NA

Gas Phase Titration Calibration Data

Dilution Air Flow Rate	Source Flow Rate	O3 Set Point	Calculated Concentration			Indicated Concentration			NO2 Correction Factor	NO2 Conv Efficiency
			NOx	NO	NO2	NOx	NO	NO2		
4920	80.3	NA	792	790	NA	794	788	5	NA	NA
4920	80.3	600	792	NA	513	794	280	514	0.9981	100.20%
	No adj.									
4920	80.3	300	792	NA	262	795	531	264	0.9924	100.78%
4920	80.3	120	792	NA	107	796	686	109	0.9817	101.96%

Linearity	Sum of Least Squares		NOx= 0.997	NO= 1.001	NO2= 0.996
OK?	Yes	No	Correction Factors: NOx= 0.9969	NO= 1.0000	NO2= 0.9981
			Average Converter Efficiency= 100.98%		

IZS Calibration Data

Before Calibration				After Calibration			
Auto Zero	0.0 NOx	0.0 NO2		0.0 NOx	0.0 NO2		
Auto Span	547 NOx	540 NO2		541 NOx	534 NO2		
	Sample Lines Connected:			YES			

Percent Change

	NOx	NO	NO2
Previous Month's Calibration Correction Factor	0.998	0.999	1.004
Current Correction Factor Before Span Adjust	0.994	0.999	0.998
Percent Change	0.4%	0.0%	0.6%

Notes **NA : Not Applicable**

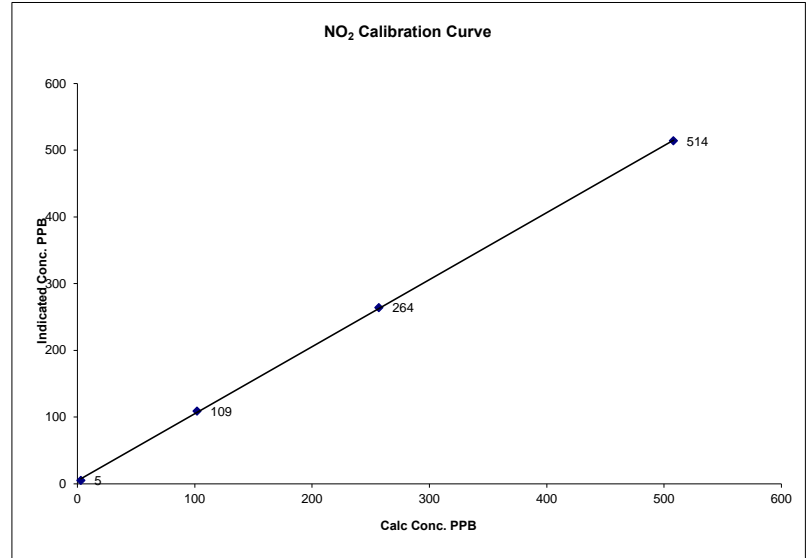
- change sample filter.
- Extra time was given on the mid-span point as the trailer door was accidentally locked, so could not enter the trailer to adjust the point.

Calibration Performed by: Waseem Ahmed

NO2 Calibration Curve

Calibration Date	September 11, 2013
Company	LICA
Plant / Location	LICA Maskwa
Start Time (MST)	9:34
End Time (MST)	13:59

Calculated Conc. ppb	Indicated Response ppb	Correction Factor	Correlation Coefficient Slope	(≥ 0.995) (0.85 to 1.15)	0.999913
3	5	NA	Intercept	(± 3% F.S.)	4.32943
102	109	0.9358			
257	264	0.9735			
508	514	0.9883			

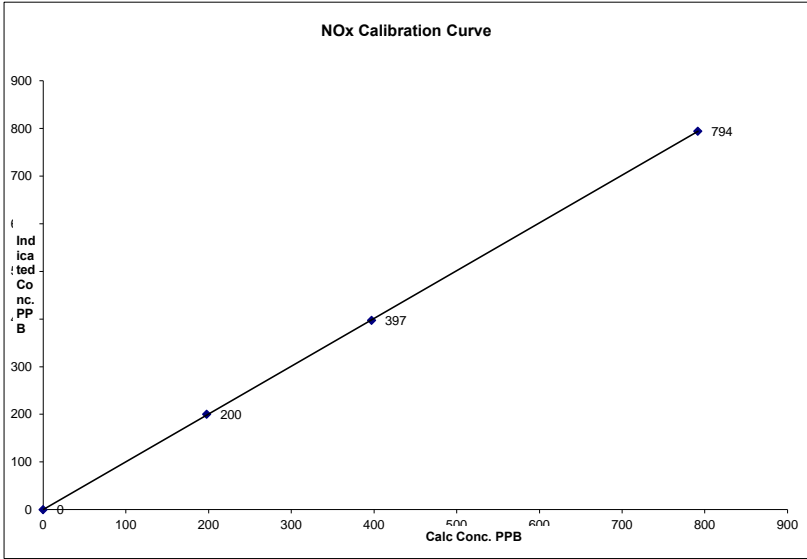


Notes:

NOx Calibration Curve

Calibration Date	September 11, 2013	
Company	LICA	
Plant / Location	LICA Maskwa	
Start Time (MST)	9:34	End Time (MST) 13:59

Calculated Conc. ppb	Indicated Response ppb	Correction Factor	Correlation Coefficient (≥ 0.995)	0.999989
0	0	NA	Slope (0.85 to 1.15)	1.002278
198	200	0.9893	Intercept (± 3% F.S.)	0.32954
397	397	1.0000		
792	794	0.9969		

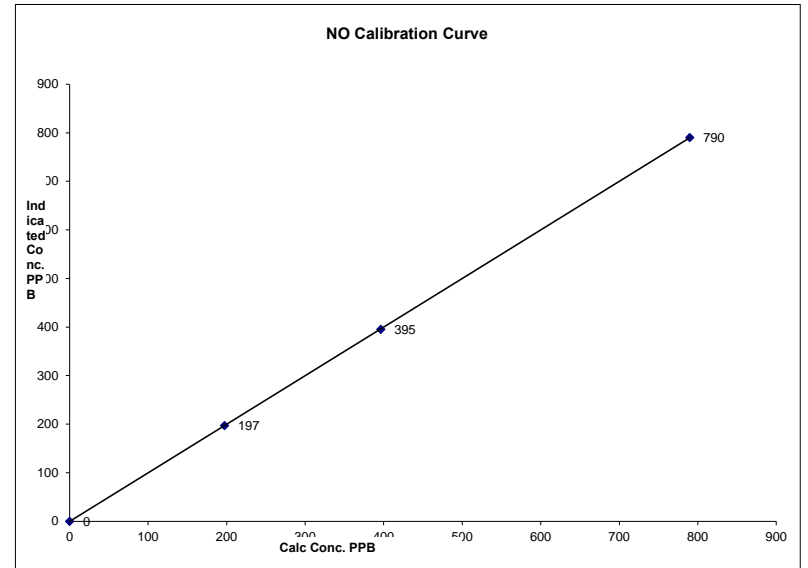


Notes:

NO Calibration Curve

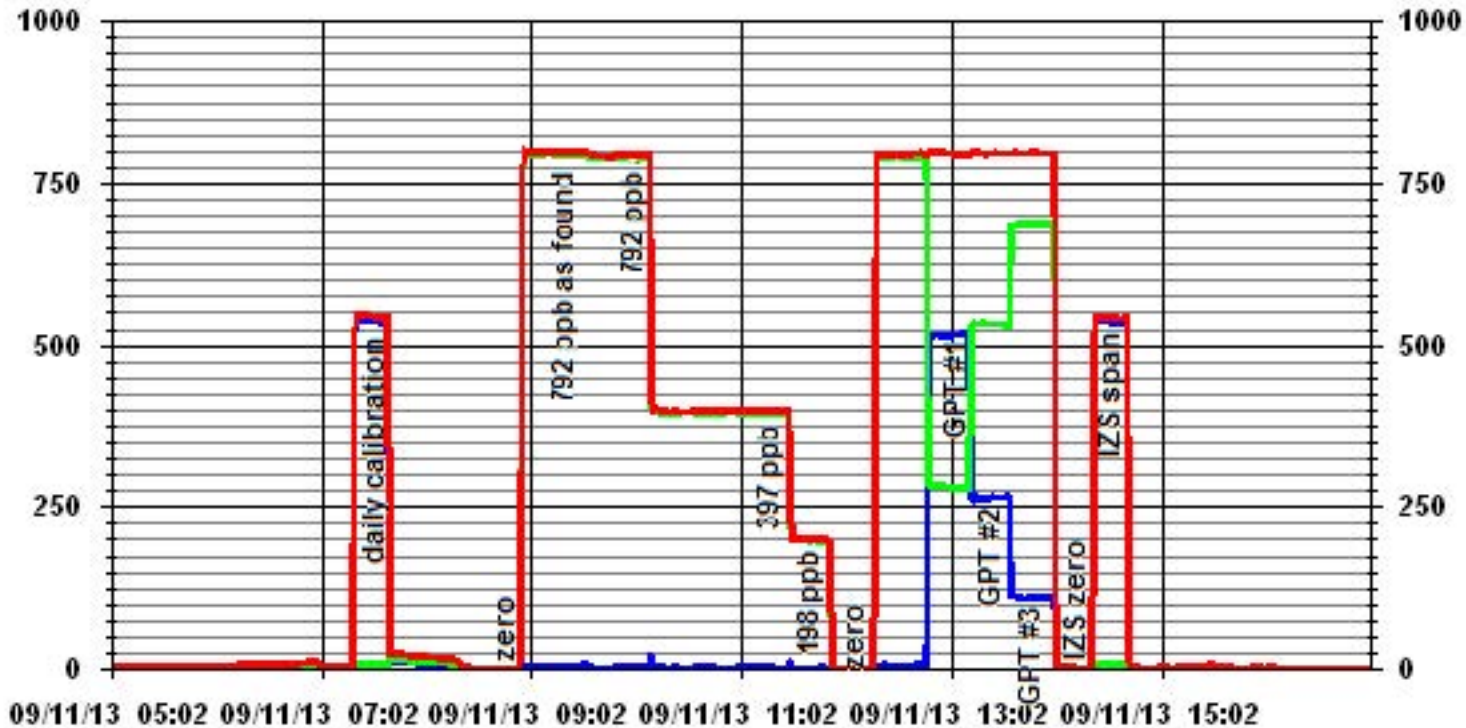
Calibration Date	September 11, 2013	
Company	LICA	
Plant / Location	LICA Maskwa	
Start Time (MST)	9:34	End Time (MST) 13:59

Calculated Conc. ppb	Indicated Response ppb	Correction Factor	Correlation Coefficient (≥ 0.995)	0.999996
0	0	NA	Slope (0.85 to 1.15)	1.000122
197	197	1.0000	Intercept (± 3% F.S.)	-0.46998
396	395	1.0034		
790	790	1.0000		



Notes:

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
September 2013

Prepared By:



October 18, 2013

Lakeland Industry & Community Association

St. Lina

Ambient Air Monitoring

Table of Contents	Page		Page
Introduction	3	Calibration Reports	97
Calibration Procedure	4	<ul style="list-style-type: none"> • Sulphur Dioxide • Hydrogen Sulphide • Total Hydrocarbons • Nitrogen Dioxide • Ozone • Particulate Matter 2.5 	98 10) 1%&# 1% 1& 1&*
Monthly Continuous Summary	5		
General Monthly Summary	6		
Continuous Monitoring	10		
<ul style="list-style-type: none"> • Monthly Summaries, Graphs & Wind Roses 	11		
<ul style="list-style-type: none"> • Sulphur Dioxide • Hydrogen Sulphide • Total Hydrocarbons • Ozone • Nitrogen Dioxide • Nitric Oxide • Oxides of Nitrogen • Particulate Matter 2.5 • Temperature • Barometric Pressure • Relative Humidity • Precipitation • Vector Wind Speed • Vector Wind Direction • Standard Deviation Wind Direction 	12 20 28 36 44 52 59 67 72 75 78 81 84 91 94		

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: September 2013

The monthly ambient data report:

- Prepared by Lili Zhou
- Reviewed by Lily Lin

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 Standard Operation Procedures:

- CAL SOP-00211
- CAL SOP-00209
- CAL SOP-00213
- CAL SOP-00214
- CAL SOP-00208
- CAL SOP-00215

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 – September 2013

LICA ST. LINA 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		
SO2 (PPB)	172	48	0	0	0.99	83	11	6	4.9	27(NNE)	4.2	11	95.4	
H2S (PPB)	10	3	0	0	0.78	3	VAR	VAR	VAR	VAR	2.0	21	99.0	
THC (PPM)	-	-	-	-	2.06	2.8	8	5	3.5	208(SSW)	2.3	21	98.8	
OZONE (PPB)	82	-	0	-	27.9	59	2, 4	14, 14	15.2, 6.9	268(W), 285(WNW)	37.5	5	99.0	
NOx (PPB)	-	-	-	-	1.52	8.5	27	18	6.4	244(WSW)	3.4	27	99.0	
NO (PPB)	-	-	-	-	0.23	3.4	27	18	6.4	244(WSW)	0.9	27	99.0	
NO ₂ (PPB)	159	-	0	-	1.30	7.0	13	23	7.9	63(ENE)	2.5	27	99.0	
PM2.5 (ug/m3)	-	30	-	0	3.22	33	23	11	7.8	298(WNW)	7.0	16	99.2	
TEMPERATURE (DEGREE C)	-	-	-	-	14.35	30.8	12	15	14.1	216(SW)	21.7	4	99.4	
BP (MILLIBAR)	-	-	-	-	923	939	11	VAR	VAR	VAR	936.9	11	99.4	
RH (%)	-	-	-	-	60.34	91	22	6	6.8	231(SW)	83.9	30	99.4	
PRECIPITATION (MM)	-	-	-	-	0.00	0.7	7	16	3.5	265(W)	0.7	7	99.7	
VECTOR WS (KPH)	-	-	-	-	9.68	31.2	17	12	-	273(W)	18.5	17	99.4	
VECTOR WD (DEGREES)	-	-	-	-	248(WSW)	-	-	-	-	-	-	-	99.4	

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 – St. Lina

Sulphur Dioxide (PPB)

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

The analyzer spanned high on September 4th due to the UV lamp failure. The UV lamp setting was adjusted on September 4th. After the troubleshooting, a post-repair calibration was performed. Due to this event, a total of 26 hours of data was invalidated. The inlet filter was changed before the calibration was started. An as found points check was performed on September 10th to verify the analyzer's functionality. The result was within the acceptable range. The analyzer did not span on September 17th. The IZS system was reset on September 17th and the daily zero span check was ran. The result was within the acceptable range. Hourly data for September 23rd between hour 7 and hour 10 are missing due to a power failure event. The hourly data for September 23rd at hour 11 was invalidated as the analyzer was recovering from the power failure. The hourly maximum reading collected on September 3rd at hour 3 was also invalidated due to a small power outage. Data was corrected using daily zero information.

Hydrogen Sulphide (PPB)

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

The analyzer was working well throughout the month. The monthly calibration was performed on September 10th. The inlet filter was changed before the calibration was started. An as found points check was performed to verify the analyzer's functionality on September 17th. The result was within the acceptable range. Hourly data for September 23rd between hour 7 and hour 10 are missing due to a power failure event. The hourly data for September 23rd at hour 11 was invalidated as the analyzer was recovering from the power failure. The hourly maximum reading collected on September 3rd at hour 3 was also invalidated due to a small power outage. Data was corrected using daily zero information.

General Monthly Summary

AQM STATION – LICA – St. Lina

Total Hydrocarbon (PPM)

Analyzer make / model – Thermo 51C-LT, S/N: 04366-09739

No operational issue was observed this month. Following the as found points check on September 10th, the sample pump was rebuilt. A 3-point calibration was performed after the pump maintenance. The inlet filter was changed before the monthly calibration was started. The H2 gas cylinder was replaced on September 12th. As the hourly data were lower than the historical readings, the analyzer was re-calibrated on September 17th. Hourly data for September 23rd between hour 7 and hour 10 are missing due to a power failure event. The hourly data for September 23rd at hour 11 was invalidated as the analyzer was recovering from the power failure. The hourly maximum reading collected on September 3rd at hour 3 was also invalidated due to a small power outage. Data was corrected using daily zero information.

Nitrogen Dioxide (PPB)

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

The analyzer was working well throughout the month. The monthly calibration was performed on September 10th. The inlet filter was changed before the calibration was started. Hourly data for September 23rd between hour 7 and hour 10 are missing due to a power failure event. The hourly data for September 23rd at hour 11 was invalidated as the analyzer was recovering from the power failure. The hourly maximum reading collected on September 3rd at hour 3 was also invalidated due to a small power outage. Data was corrected using daily zero information.

Ozone (PPB)

Analyzer make / model - Thermo 49i, S/N: 1002240371

The analyzer was working well throughout the month. The monthly calibration was performed on September 10th. The inlet filter was changed before the calibration was started. Hourly data for September 23rd between hour 7 and hour 10 are missing due to a power failure event. The hourly data for September 23rd at hour 11 was invalidated as the analyzer was recovering from the power failure. The hourly maximum reading collected on September 3rd at hour 3 was also invalidated due to a small power outage. Data was corrected using daily zero information.

General Monthly Summary

AQM STATION – LICA – St. Lina

Particulate Matter 2.5 (UG/M3)

Analyzer make / model –R&P Teom 1400a, S/N: 20001

Two Teom audits were performed in September: one was on September 12th and the other one was on September 24th. Both audits passed the manufacturer requirements. The sample inlet was cleaned on September 4th. Hourly data for September 23rd between hour 7 and hour 10 are missing due to a power failure event. Data was corrected using Alberta air quality guideline. 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 the data was below –3 ug/m3.

Temperature (Degree C)

Analyzer make / model – Met One 060

The temperature sensor was working well throughout the month. Hourly data for September 23rd between hour 7 and hour 10 are missing due to a power failure event.

Barometric Pressure (Millibar)

Analyzer make / model - Met One 092

The BP sensor was working well throughout the month. Hourly data for September 23rd between hour 7 and hour 10 are missing due to a power failure event.

Relative Humidity (%)

Analyzer make / model - Met One 083

The RH sensor was working well throughout the month. Hourly data for September 23rd between hour 7 and hour 10 are missing due to a power failure event.

General Monthly Summary

AQM STATION – LICA – St. Lina

Precipitation (MM)

Analyzer make / model - Met One 387

No issues were recorded this month. Hourly data for September 23rd between hour 8 and hour 9 are missing due to a power failure event.

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

System make / model –MetOne 50.5H Sonic, S/N: H12635

The wind system is reported as vector wind speed and vector wind direction. The last wind system calibration was performed on September 12th, 2012 by the manufacturer.

No issues were recorded this month. Hourly data for September 23rd between hour 7 and hour 10 are missing due to a power failure event.

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

The sample lines and fan filters for all analyzers were cleaned on September 4th.

The glass manifold was cleaned on September 10th. The glass manifold was cleaned again on September 24th.

Continuous Monitoring

Monthly Summaries, Graphs & Wind Roses

Sulphur Dioxide

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION -ST. LINA
SEPTEMBER 2013
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	0	0	0	0	0	0	0	0	1	1	1	1	1	S	1	1	1	1	1	1	0.4	24
2	1	1	1	1	1	1	1	1	1	1	1	1	1	2	3	1	1	0	S	0	0	0	0	0	0	3	0.9	24
3	0	0	0	0	0	0	0	0	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	0	0.0	8
4	X	X	X	X	X	X	X	X	X	X	C	C	C	C	C	C	C	C	C	0	0	0	0	0	1	1	0.2	14
5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	S	1	2	1	2	1	1	1	1	1	2	1.1	24
6	1	1	1	1	0	0	0	0	0	1	2	2	1	1	0	S	1	1	1	1	1	1	1	1	1	2	0.9	24
7	1	1	1	1	0	1	1	1	0	0	0	0	0	S	0	0	0	0	1	1	1	1	1	1	1	1	0.6	24
8	1	1	1	1	1	1	1	1	1	1	1	1	1	S	1	1	1	2	2	2	2	2	2	2	1	2	1.3	24
9	2	2	2	2	2	2	2	2	2	2	2	2	S	0	1	1	0	0	0	0	0	0	0	0	0	2	1.0	24
10	0	0	0	0	0	0	0	0	0	C	C	1	0	0	1	1	1	1	Y	1	0	0	0	0	0	1	0.2	23
11	0	0	0	0	0	0	83	0	0	0	S	1	1	1	1	1	1	1	1	1	1	1	1	1	1	83	4.2	24
12	1	1	1	1	1	1	1	1	2	S	1	1	2	2	2	2	2	2	2	3	2	2	2	2	2	3	1.6	24
13	2	3	3	2	2	2	2	2	2	S	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	3	1.1	24
14	0	0	0	0	0	0	0	S	1	0	0	0	0	1	1	1	0	1	1	1	1	0	0	0	1	0.3	24	
15	0	0	1	1	1	1	S	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	1.0	24	
16	2	2	2	2	2	S	1	1	1	1	1	1	1	1	1	2	2	2	2	3	2	2	2	1	3	1.6	24	
17	1	1	1	1	S	0	0	0	0	0	0	0	0	0	S	S	S	0	0	0	0	0	0	0	1	0.2	24	
18	0	0	0	S	1	1	S	1	1	1	1	1	0	1	1	0	0	0	0	0	0	0	0	0	1	0.4	24	
19	0	0	S	1	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
20	1	S	1	1	1	1	1	1	1	2	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1.6	24
21	S	1	1	1	1	1	1	1	1	1	2	2	2	2	2	3	2	2	3	3	2	2	2	S	3	1.7	24	
22	1	1	1	1	0	0	0	0	0	0	0	1	1	1	1	0	1	1	1	1	1	1	S	1	1	0.7	24	
23	1	1	1	1	1	1	1	P	P	P	P	X	1	1	0	0	0	0	0	S	1	1	1	1	1	0.6	19	
24	1	1	1	1	1	1	1	1	1	1	1	Y	1	1	1	1	0	0	0	S	0	0	0	1	0.7	23		
25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	1	1	1	1	1	0.2	24	
26	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	S	0	0	0	0	0	1	0.8	24	
27	0	0	0	1	0	0	0	0	1	1	1	1	1	1	1	1	1	S	1	1	1	1	1	1	1	0.7	24	
28	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	S	0	1	1	1	1	1	1	2	1.0	24	
29	1	1	1	1	2	1	2	2	2	2	2	2	2	2	2	1	S	1	1	1	1	1	1	1	2	1.4	24	
30	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	S	1	1	1	1	1	1	1	1	1	1.0	24	
HOURLY MAX	2	3	3	2	2	2	83	2	2	2	2	2	2	2	3	3	2	2	3	3	3	3	2	2	2			
HOURLY AVG	0.8	0.8	0.9	0.9	0.8	0.7	3.8	0.7	0.8	0.9	1.0	0.9	0.9	1.0	1.1	1.0	0.9	0.8	0.9	0.9	0.9	0.9	0.8	0.9	0.8			

STATUS FLAG CODES

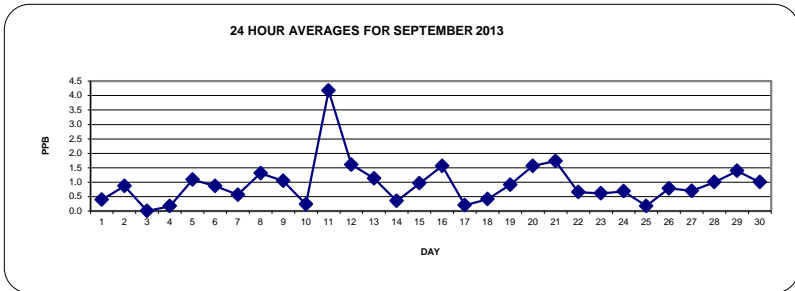
C	- CALIBRATION	Q	- QUALITY ASSURANCE
Y	- MAINTENANCE	R	- RECOVERY
S	- DAILY ZERO/SPAN CHECK	X	- MACHINE MALFUNCTION
P	- POWER FAILURE	O	- OPERATOR ERROR
G	- OUT FOR REPAIR	K	- COLLECTION ERROR

OBJECTIVE LIMIT:

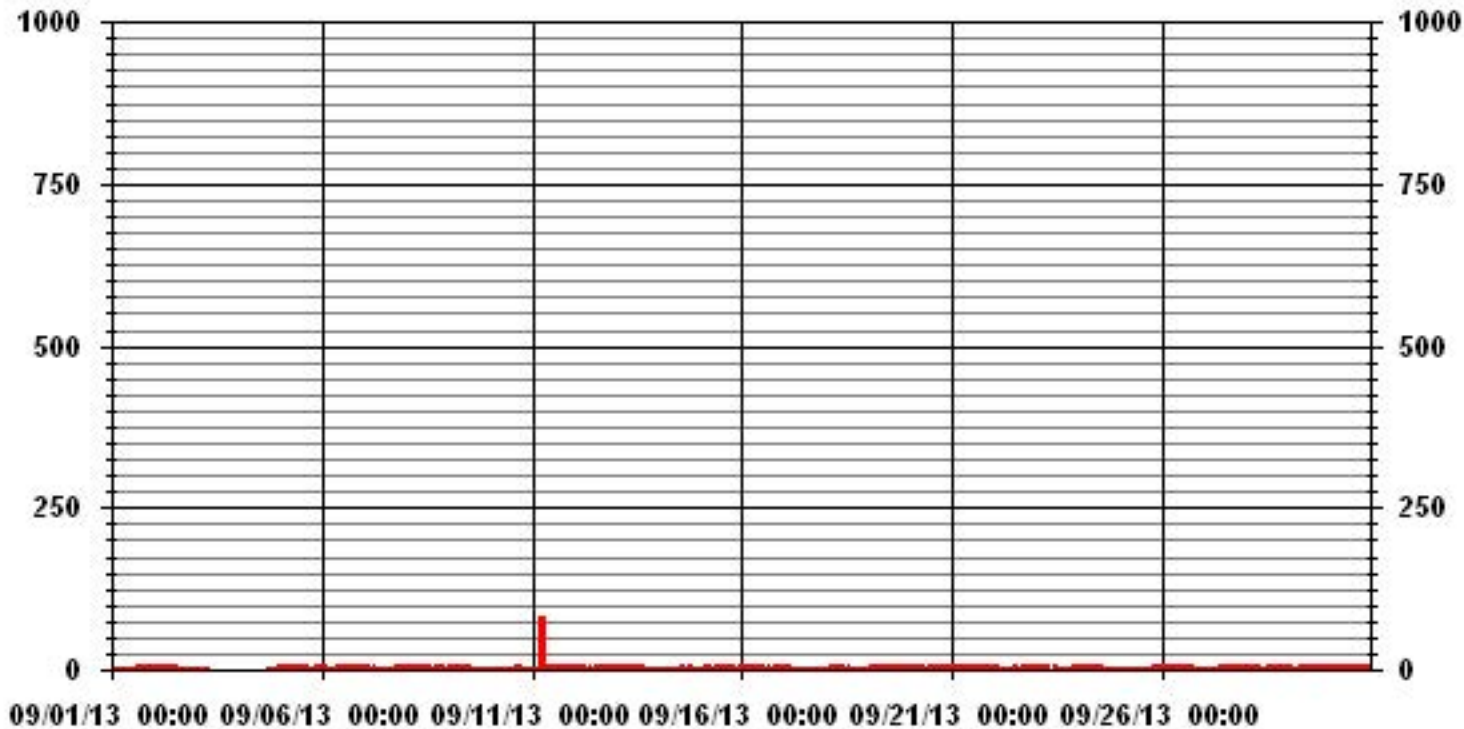
ALBERTA ENVIRONMENT: 1-HR 172 PPB | 24-HR 48 PPB

MONTHLY SUMMARY

NUMBER OF 1-HR EXCEEDENCES:	0					
NUMBER OF 24-HR EXCEEDENCES:	0					
NUMBER OF NON-ZERO READINGS:	452					
MAXIMUM 1-HR AVERAGE:	83	PPB	@ HOUR(S)	6	ON DAY(S)	11
MAXIMUM 24-HR AVERAGE:	4.2	PPB			ON DAY(S)	11
IZS CALIBRATION TIME:	32	HRS	OPERATIONAL TIME:	687	HRS	
MONTHLY CALIBRATION TIME:	10	HRS	AMD OPERATION UPTIME:	95.4	%	
STANDARD DEVIATION:	3.30		MONTHLY AVERAGE:	0.99	PPB	



01 Hour Averages



LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - ST. LINA

SEPTEMBER 2013

SULPHUR 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		
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	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	S	2	2	2	2	2	2	1.4	24
2		2	2	2	2	2	2	2	2	2	2	2	2	2	4	4	3	2	1	S	1	1	1	1	1	1	4	2.0	24
3		1	1	1	1	1	1	1	0	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	1	0.9	8
4		X	X	X	X	X	X	X	X	X	C	C	C	C	C	C	C	C	C	0	1	1	1	1	1	2	2	1.0	14
5		2	2	2	2	2	2	2	2	2	2	2	2	2	2	S	2	2	2	2	2	4	3	2	2	2	4	2.1	24
6		2	2	2	2	1	1	1	2	2	3	3	2	2	2	S	2	2	2	2	2	2	2	2	2	2	3	2.0	24
7		2	2	2	2	2	2	2	2	2	1	0	0	0	S	1	1	1	1	1	2	2	2	2	2	2	2	1.5	24
8		2	2	2	2	2	2	2	2	2	2	2	2	S	2	2	2	2	3	3	3	3	3	3	3	3	3	2.3	24
9		3	3	3	3	3	3	3	3	3	3	3	S	1	2	2	2	1	1	1	1	1	1	1	1	1	3	2.1	24
10		1	1	1	0	0	0	1	1	C	C	S	2	2	2	2	2	2	Y	2	2	1	1	1	1	1	2	1.3	23
11		1	1	1	1	1	1	247	1	1	1	S	2	2	2	2	2	2	2	2	2	2	2	2	2	2	247	12.3	24
12		2	2	2	2	2	2	4	3	S	2	2	3	3	3	3	3	3	3	4	4	4	3	3	3	3	4	2.8	24
13		4	4	4	3	3	3	3	3	S	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1	4	2.2	24
14		2	2	1	1	1	1	1	S	2	2	1	1	2	2	2	2	2	2	2	2	2	2	2	2	1	2	1.7	24
15		1	2	2	2	2	2	S	1	2	2	2	2	2	2	2	2	2	2	2	3	3	2	3	3	3	3	2.1	24
16		3	3	3	3	3	S	2	2	2	2	2	3	3	2	2	3	3	2	3	4	4	4	3	2	4	2.7	24	
17		2	2	2	2	S	1	1	1	1	1	1	1	S	S	S	S	1	1	1	1	1	1	1	1	2	1.2	24	
18		1	1	1	S	2	2	S	2	2	2	2	2	1	2	2	1	1	1	1	1	1	1	1	1	1	2	1.4	24
19		1	1	S	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1.9	24
20		2	S	2	2	2	3	2	2	2	3	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	2.7	24
21		S	2	2	3	2	2	2	3	2	2	4	3	3	3	3	4	4	3	3	3	3	3	3	3	S	4	2.8	24
22		2	2	2	2	2	1	1	1	1	2	1	1	2	2	2	2	2	2	2	2	2	2	2	S	2	2	1.7	24
23		2	2	2	2	2	2	2	P	P	P	P	X	2	2	1	1	1	1	1	1	1	S	2	2	2	1.6	19	
24		2	2	2	2	2	2	2	2	2	2	2	Y	2	2	2	2	2	1	1	1	S	1	1	1	2	1.7	23	
25		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	S	2	2	2	2	2	2	1.2	24
26		2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	S	1	1	1	1	1	2	1.8	24	
27		1	2	2	2	1	2	1	2	2	2	2	2	2	3	2	2	S	2	2	2	2	2	2	2	3	1.9	24	
28		2	2	2	2	2	2	2	2	2	3	5	2	2	3	2	2	S	2	1	2	2	2	2	2	2	5	2.2	24
29		2	2	2	2	3	2	3	2	3	3	2	3	3	2	2	S	2	2	2	2	2	2	2	2	3	2.3	24	
30		2	2	2	2	2	2	2	2	2	2	2	2	2	2	S	2	2	2	2	2	2	2	2	2	2	2	2.0	24
HOURLY MAX		4	4	4	3	3	3	247	4	3	3	5	3	3	4	4	4	4	4	3	4	4	4	4	3	3			
HOURLY AVG		1.8	1.9	1.9	1.9	1.8	1.8	10.9	1.9	1.9	2.0	1.9	1.9	2.2	2.1	2.1	2.0	1.8	1.9	2.0	2.0	1.9	1.9	1.9	1.8				

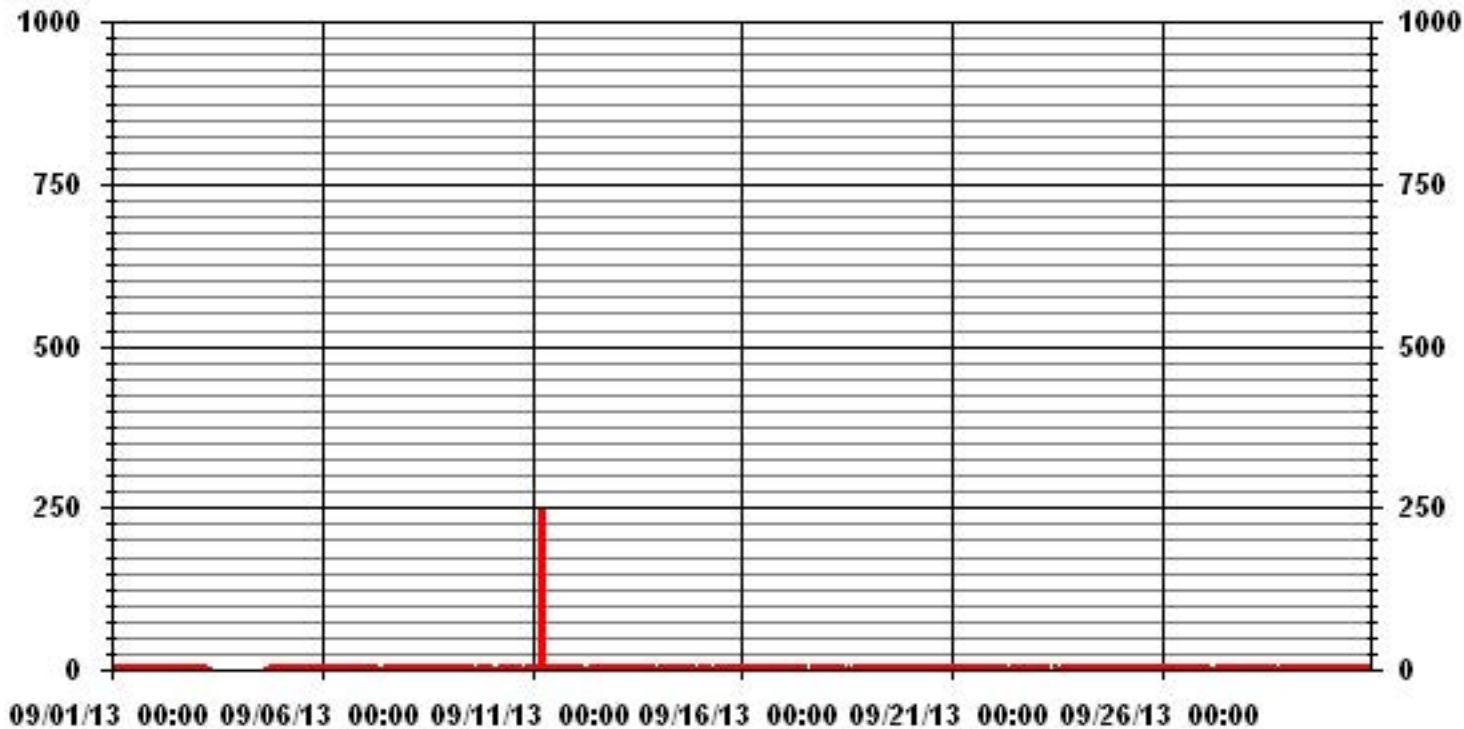
STATUS FLAG CODES

C	- CALIBRATION	Q	- QUALITY ASSURANCE
Y	- MAINTENANCE	R	- RECOVERY
S	- DAILY ZERO/SPAN CHECK	X	- MACHINE MALFUNCTION
P	- POWER FAILURE	O	- OPERATOR ERROR
G	- OUT FOR REPAIR	K	- COLLECTION ERROR

MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	635					
MAXIMUM INSTANTANEOUS VALUE:	247	PPB	@ HOUR(S)	6	ON DAY(S)	11
IZS CALIBRATION TIME:	34	HRS	OPERATIONAL TIME:	687	HRS	
MONTHLY CALIBRATION TIME:	10	HRS				
STANDARD DEVIATION:	9.69					

01 Hour Averages



LICA31
SO2_ / WDR Joint Frequency Distribution (Percent)

September 2013

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	4.03	2.79	4.03	3.56	2.63	3.72	4.80	7.44	9.45	7.59	4.96	7.59	9.30	10.23	12.86	4.80	99.84
< 60	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
< 110	.00	.15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.15
< 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	4.03	2.94	4.03	3.56	2.63	3.72	4.80	7.44	9.45	7.59	4.96	7.59	9.30	10.23	12.86	4.80	

Calm : .00 %

Total # Operational Hours : 645

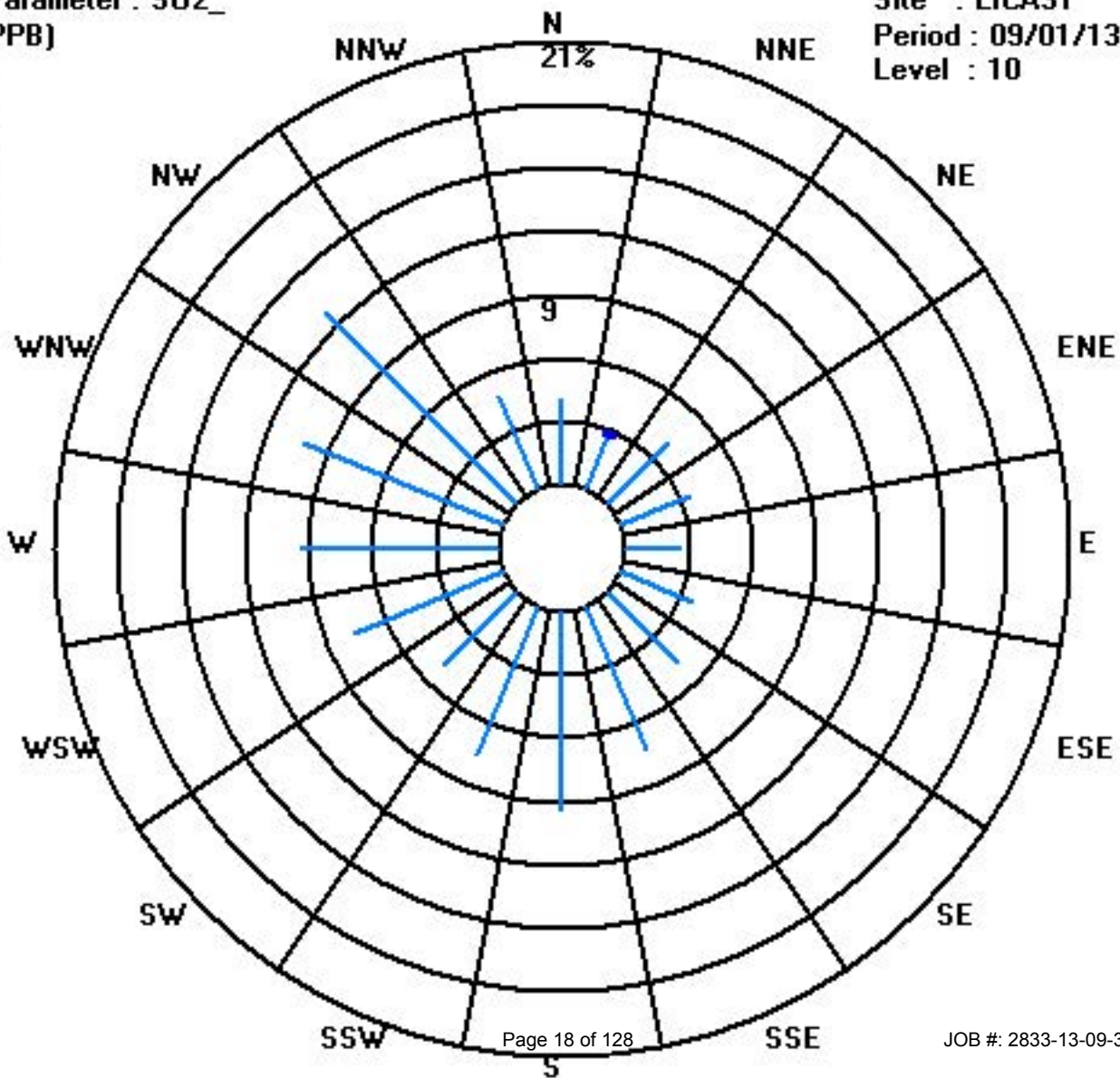
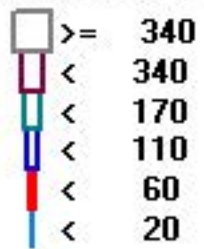
Distribution By Samples

Limit	Direction																Freq
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
< 20	26	18	26	23	17	24	31	48	61	49	32	49	60	66	83	31	644
< 60																	
< 110		1															1
< 170																	
< 340																	
>= 340																	
Totals	26	19	26	23	17	24	31	48	61	49	32	49	60	66	83	31	

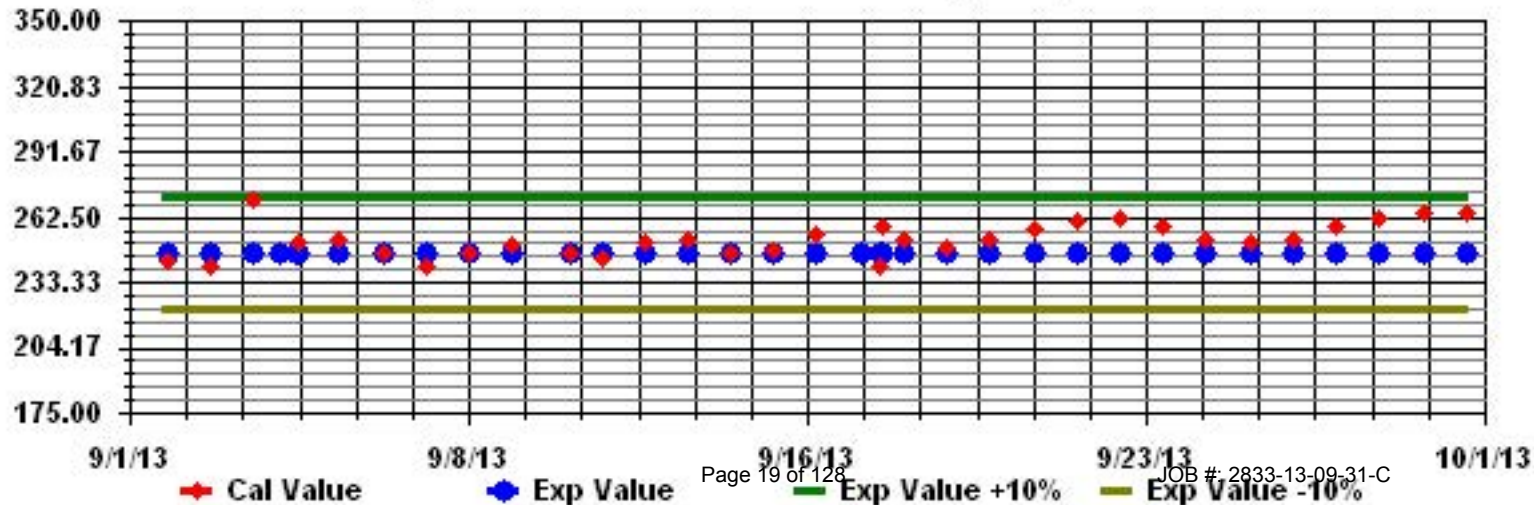
Calm : .00 %

Total # Operational Hours : 645

Class Limits (PPB)



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



Hydrogen Sulphide

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - ST. LINA

SEPTEMBER 2013

HYDROGEN SULPHIDE (H₂S) hourly averages in ppb

MST																										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	1	1	1	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1	S	1	1	1	1	2	1.2	24																					
2		1	1	1	2	2	2	2	2	1	1	1	1	1	1	1	0	1	S	0	0	1	1	0	2	1.0	24																						
3		0	0	0	1	0	1	1	1	1	0	0	0	0	0	0	0	S	0	0	0	0	1	1	1	0.3	24																						
4		1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	S	Y	0	0	0	0	0	0	2	0.8	23																						
5		0	0	0	0	0	0	S	0	0	0	0	0	0	0	S	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	S	0	0	0	0	1	1	0	0	0	1	0.1	24																						
7		0	0	1	1	1	1	0	1	1	1	1	1	S	1	1	1	1	1	1	1	1	1	1	1	0.9	24																						
8		1	1	2	2	3	2	2	2	3	2	2	2	S	2	1	2	2	2	2	2	2	2	2	3	1.9	24																						
9		2	2	2	3	2	2	3	2	2	2	2	S	1	1	1	1	1	1	1	1	1	1	0	3	1.5	24																						
10		0	1	1	1	1	0	0	1	1	C	C	C	C	1	0	1	1	1	1	1	1	1	1	1	0.8	24																						
11		2	1	1	1	1	1	1	1	1	1	S	0	0	0	0	1	1	1	1	1	1	1	1	2	0.9	24																						
12		1	1	1	1	1	2	2	2	2	S	1	1	1	1	1	1	1	1	1	1	2	2	2	2	1.3	24																						
13		2	2	2	2	2	2	2	2	S	1	1	1	1	1	1	0	0	0	0	1	0	0	0	2	1.0	24																						
14		0	0	0	0	0	0	0	S	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.7	24																						
15		1	1	2	1	1	2	S	1	1	0	0	0	0	0	0	0	0	1	0	1	1	1	1	2	0.7	24																						
16		1	1	1	2	2	S	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1.9	24																						
17		2	2	2	2	S	1	S	1	0	1	0	S	0	0	C	C	C	0	0	0	0	0	0	2	0.6	24																						
18		0	0	0	S	1	1	1	1	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1	0.3	24																						
19		0	0	S	1	1	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1.0	24																						
20		1	S	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																						
21		S	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	2	2	2	3	2.0	24																						
22		1	1	1	1	1	1	1	1	1	1	1	0	0	0	1	0	1	1	1	1	1	S	1	1	0.8	24																						
23		1	1	1	1	1	1	1	P	P	P	P	X	0	0	0	0	0	0	0	0	S	0	0	1	0.4	19																						
24		0	0	0	0	1	0	0	0	0	0	0	Y	0	0	0	0	0	0	0	S	1	0	1	1	0.1	23																						
25		1	0	1	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	S	0	0	0	1	0.2	24																						
26		0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	S	0	0	0	0	0	1	0.0	24																						
27		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0.0	24																						
28		0	0	1	0	0	1	1	1	1	1	1	1	1	1	1	S	0	0	0	0	0	0	0	1	0.5	24																						
29		0	1	1	1	1	1	2	0	1	1	1	1	1	1	1	S	0	0	0	0	0	0	0	2	0.6	24																						
30		0	0	0	0	1	1	S	1	1	1	0	1	0	0	S	1	0	1	0	0	0	0	0	1	0.4	24																						
HOURLY MAX		2	2	2	3	3	2	3	2	3	2	2	2	2	2	2	2	2	2	2	2	3	2	2	2																								
HOURLY AVG		0.7	0.7	0.9	1.0	1.0	1.0	1.1	1.1	1.0	0.9	0.7	0.8	0.6	0.6	0.6	0.8	0.6	0.7	0.6	0.6	0.7	0.7	0.7																									

STATUS FLAG CODES

C	- CALIBRATION	Q	- QUALITY ASSURANCE
Y	- MAINTENANCE	R	- RECOVERY
S	- DAILY ZERO/SPAN CHECK	X	- MACHINE MALFUNCTION
P	- POWER FAILURE	O	- OPERATOR ERROR
G	- OUT FOR REPAIR	K	- COLLECTION ERROR

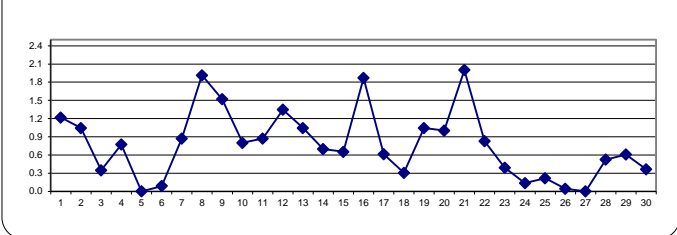
OBJECTIVE LIMIT:

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

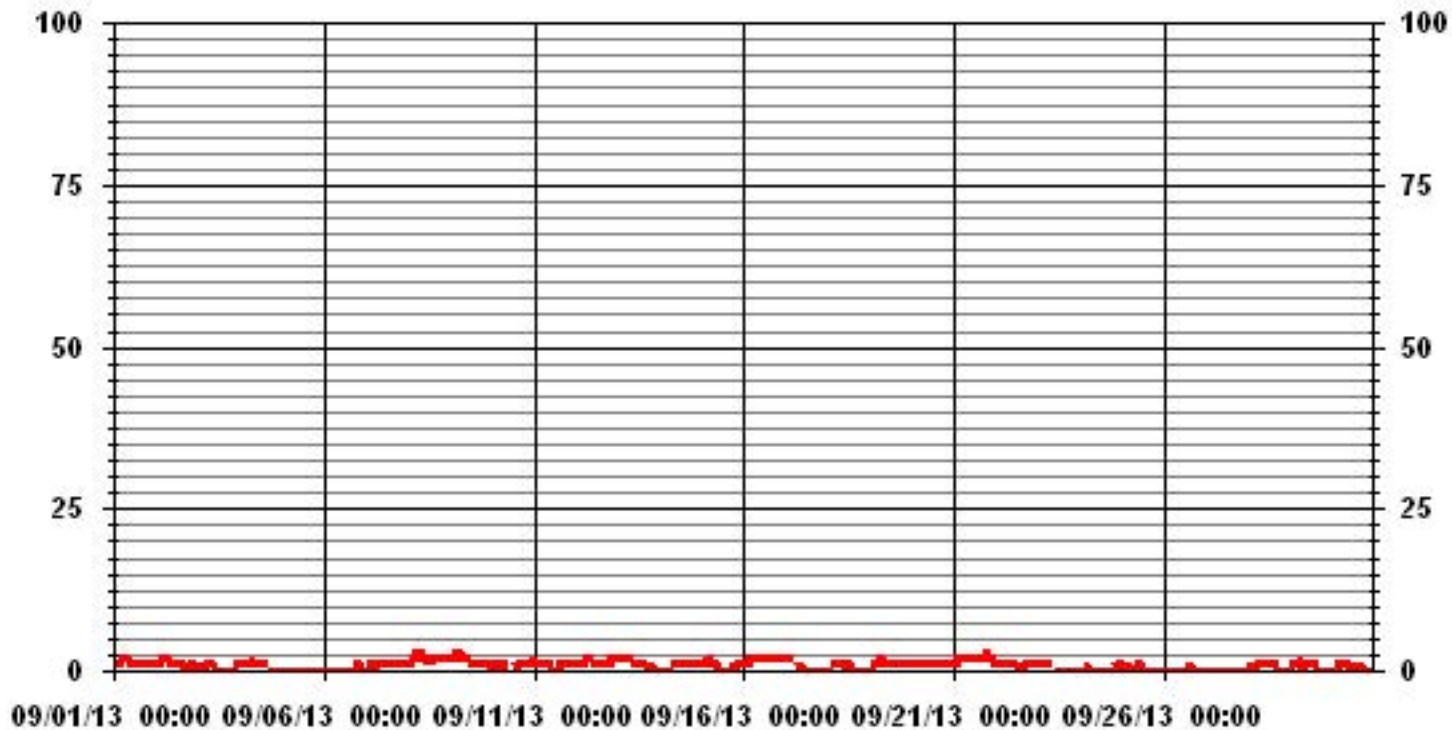
MONTHLY SUMMARY

NUMBER OF 1-HR EXCEEDENCES:	0					
NUMBER OF 24-HR EXCEEDENCES:	0					
NUMBER OF NON-ZERO READINGS:	407					
MAXIMUM 1-HR AVERAGE:	3	PPB	@ HOUR(S)	VAR	ON DAY(S)	VAR
MAXIMUM 24-HR AVERAGE:	2.0	PPB			ON DAY(S)	21
					VAR-VARIOUS	
IZS CALIBRATION TIME:	34	HRS	OPERATIONAL TIME:	713 HRS		
MONTHLY CALIBRATION TIME:	7	HRS	AMD OPERATION UPTIME:	99.0 %		
STANDARD DEVIATION:	0.73		MONTHLY AVERAGE:	0.78 PPB		

24 HOUR AVERAGES FOR SEPTEMBER 2013



01 Hour Averages



— LICA31 H2S_ PPB

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - ST. LINA

SEPTEMBER 2013

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	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	MAX.	AVG.			
DAY																														
1		1	1	1	1	2	2	2	3	2	2	1	1	1	1	1	1	1	1	1	S	1	1	1	1	1	3	1.3	24	
2		1	2	2	2	2	3	3	3	2	1	1	1	1	1	1	1	1	1	S	1	1	1	1	1	2	3	1.5	24	
3		1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	S	1	1	1	1	1	1	X	1	1.0	23
4		1	1	1	2	2	2	2	2	2	1	1	2	1	1	1	1	S	Y	0	0	0	0	0	0	1	2	1.1	23	
5		1	0	0	0	1	1	S	1	1	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	1	0.2	23		
6		0	1	0	1	0	0	0	0	0	0	0	0	0	S	1	1	1	1	1	1	1	1	1	1	1	1	0.5	24	
7		1	1	1	1	2	2	1	1	1	1	1	1	S	1	2	1	1	1	1	1	1	1	1	1	1	2	1.1	24	
8		2	2	2	3	3	4	3	3	4	3	2	2	S	2	2	2	2	2	2	2	3	3	3	3	3	4	2.6	24	
9		3	3	3	4	2	2	4	3	2	2	2	S	1	1	1	1	1	1	1	1	1	1	1	1	1	4	1.8	24	
10		1	1	1	1	2	1	1	1	C	C	C	C	C	1	1	2	2	2	2	2	1	1	1	3	2	3	1.4	24	
11		2	2	1	1	1	1	1	1	1	1	S	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1.1	24	
12		2	1	1	2	2	2	2	3	2	S	2	1	1	1	2	2	2	2	2	2	2	2	2	3	2	3	1.9	24	
13		2	2	2	2	2	3	3	3	S	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	1.5	24	
14		0	0	0	0	0	0	0	S	1	1	2	2	1	1	1	1	1	1	2	2	1	1	2	2	2	2	1.0	24	
15		2	2	2	2	2	2	S	1	1	1	1	1	0	1	0	1	1	1	1	1	1	1	1	1	1	2	1.2	24	
16		1	1	2	2	2	S	2	2	2	2	3	3	2	2	2	2	2	2	2	2	3	2	2	2	2	3	2.0	24	
17		2	2	2	2	S	1	S	1	1	1	0	S	1	C	C	C	C	C	0	0	0	0	0	0	0	2	0.8	24	
18		0	0	0	S	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	0	0	0	1	0.7	24		
19		1	1	S	1	1	3	3	3	1	1	1	1	1	1	2	2	1	2	1	1	1	1	2	2	3	1.5	24		
20		2	S	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	1.2	24	
21		S	2	2	2	3	2	2	2	2	2	2	2	2	2	2	2	2	3	3	3	3	3	3	3	S	3	2.3	24	
22		2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	S	1	2	1.0	24	
23		1	2	1	1	2	2	2	P	P	P	P	X	0	1	1	1	1	1	1	1	1	1	S	1	1	2	1.2	19	
24		1	0	0	1	2	2	2	0	0	0	0	Y	0	0	0	0	0	0	0	0	0	S	1	1	1	2	0.5	23	
25		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	S	1	1	1	0	1	1.0	24		
26		0	1	0	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	S	0	3	0	0	0	3	0.8	24		
27		0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	S	1	1	1	1	1	1	1	1	0.7	24	
28		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	S	0	0	0	0	0	0	1	1	1	0.8	24	
29		1	1	1	1	2	2	3	1	2	3	2	1	2	2	1	S	1	1	0	1	1	1	1	0	3	1.3	24		
30		1	1	1	1	2	2	S	2	1	1	1	1	1	1	S	1	1	1	1	1	1	1	0	0	2	1.0	25		
HOURLY MAX		3	3	3	4	3	4	4	3	4	3	3	3	2	2	2	2	2	3	3	3	3	3	3	3	3				
HOURLY AVG		1.2	1.2	1.1	1.3	1.5	1.6	1.7	1.5	1.3	1.2	1.1	1.2	0.9	1.0	1.0	1.2	1.1	1.1	1.1	1.1	1.1	1.1	1.0	1.2	1.1				

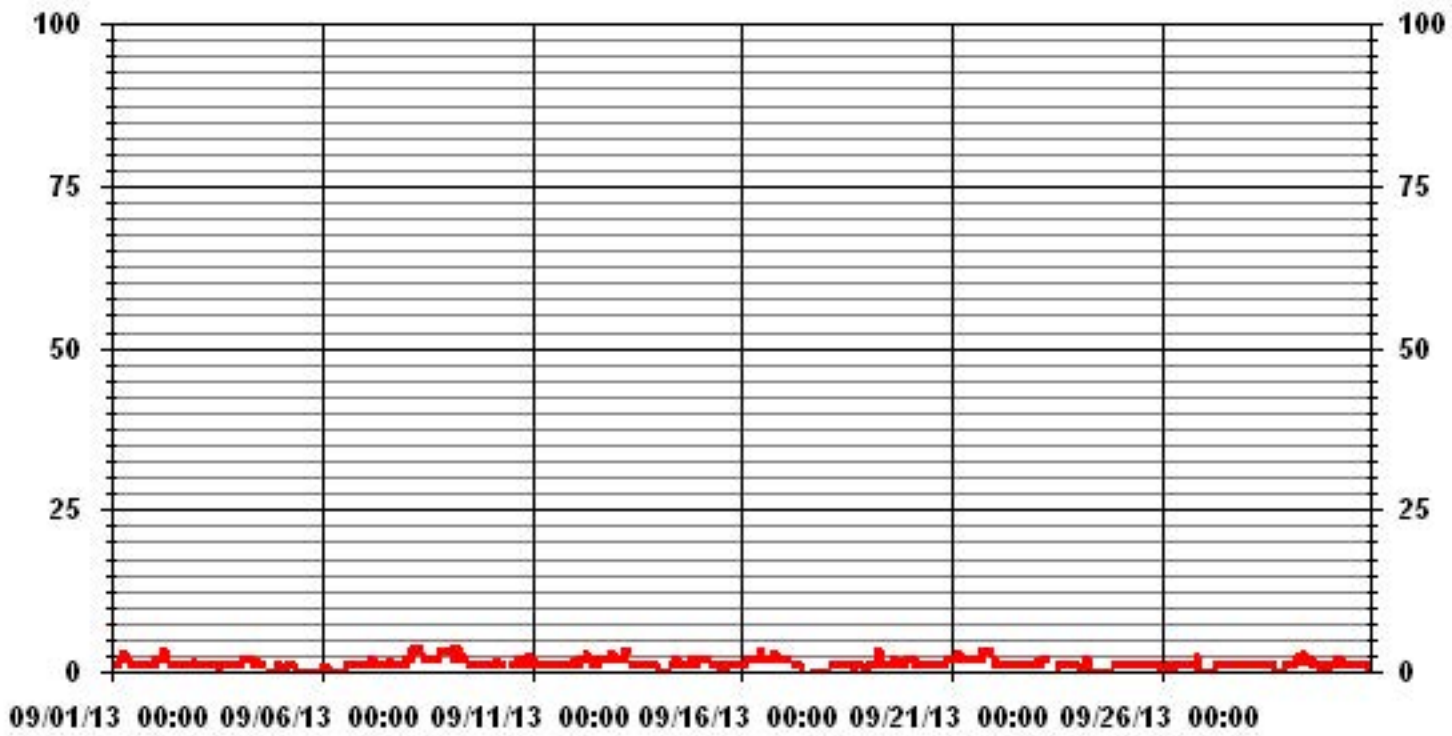
STATUS FLAG CODES

C - CALIBRATION	Q - QUALITY ASSURANCE
Y - MAINTENANCE	R - RECOVERY
S - DAILY ZERO/SPAN CHECK	X - MACHINE MALFUNCTION
P - POWER FAILURE	O - OPERATOR ERROR
G - OUT FOR REPAIR	K - COLLECTION ERROR

MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	571					
MAXIMUM INSTANTANEOUS VALUE:	4	PPB	@ HOUR(S)	VAR	ON DAY(S)	8, 9
IZS CALIBRATION TIME:	34	HRS	OPERATIONAL TIME:	712 HRS		
MONTHLY CALIBRATION TIME:	9 HRS					
STANDARD DEVIATION:	0.78					

01 Hour Averages



— LICA31 H2S MAX PPB

LICA31
H2S_ / WDR Joint Frequency Distribution (Percent)

September 2013

Distribution By % Of Samples

Logger Id : 31
Site Name : LICA31
Parameter : H2S_
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	
< 3	3.86	2.82	3.86	3.42	2.38	3.86	5.50	7.73	10.26	7.44	5.05	7.44	8.63	9.67	12.79	4.46	99.25
< 10	.00	.00	.00	.00	.14	.00	.00	.00	.14	.00	.14	.00	.29	.00	.00	.00	.74
< 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	3.86	2.82	3.86	3.42	2.52	3.86	5.50	7.73	10.41	7.44	5.20	7.44	8.92	9.67	12.79	4.46	

Calm : .00 %

Total # Operational Hours : 672

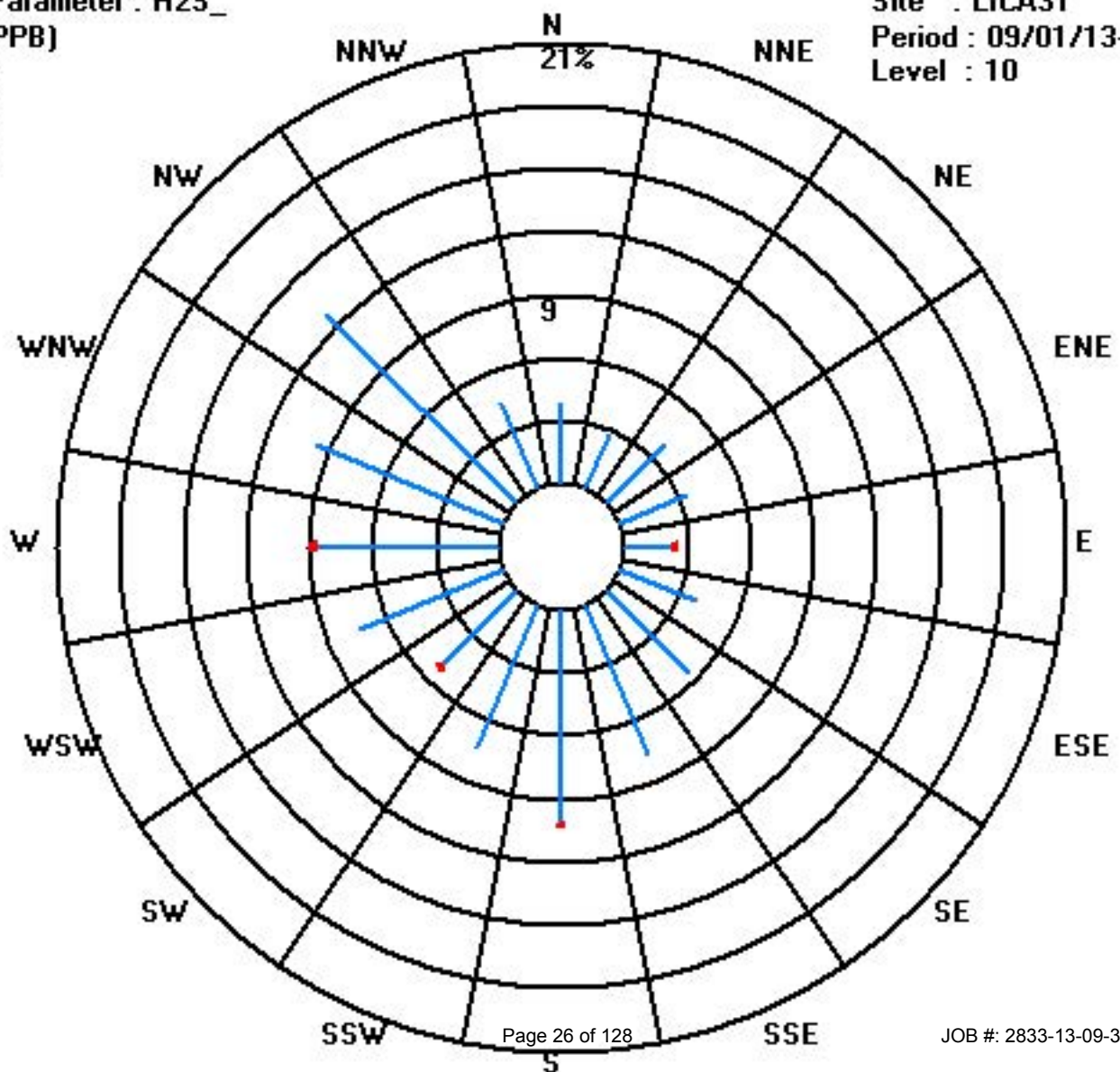
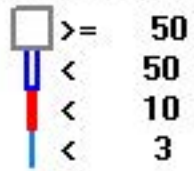
Distribution By Samples

Limit	Direction																Freq
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
< 3	26	19	26	23	16	26	37	52	69	50	34	50	58	65	86	30	667
< 10					1				1		1		2				5
< 50																	
>= 50																	
Totals	26	19	26	23	17	26	37	52	70	50	35	50	60	65	86	30	

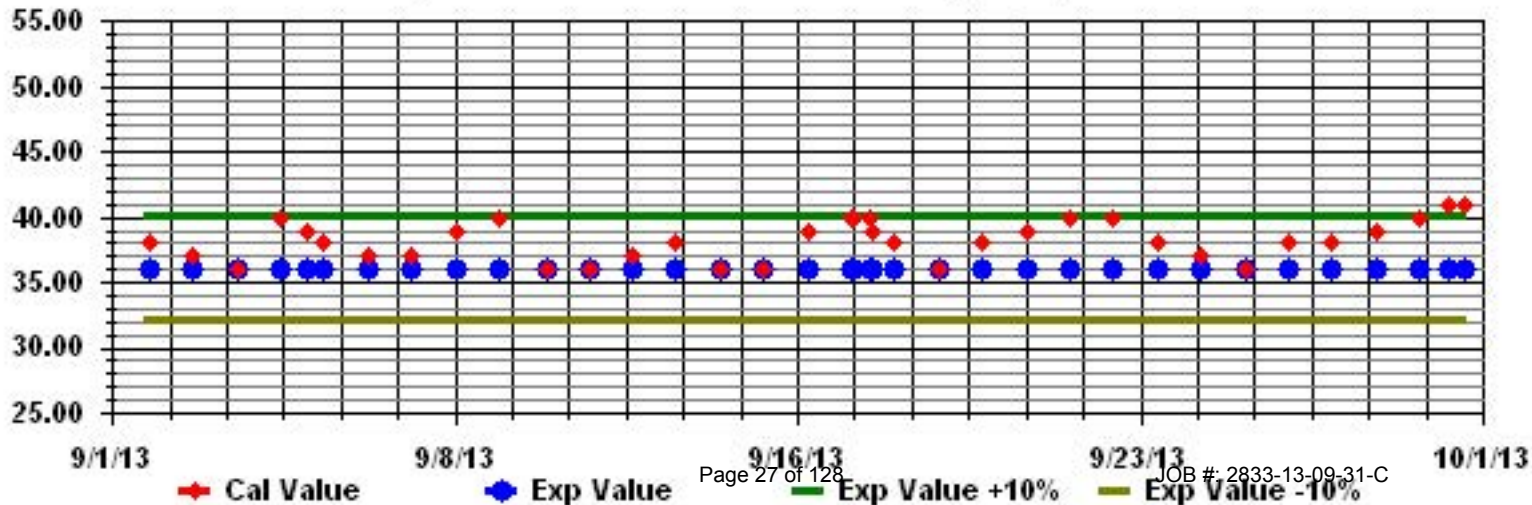
Calm : .00 %

Total # Operational Hours : 672

Class Limits (PPB)



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



Total Hydrocarbons

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - ST. LINA

SEPTEMBER 2013

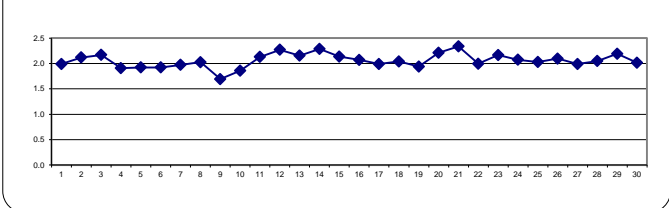
TOTAL HYDROCARBONS hourly averages in ppm

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	RDGS.		
DAY	HR	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.	
1	1	2	2.1	2.1	2.1	2.1	2.1	2.1	2	2	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	S	2	2	2.1	2.1	2.1	2.0	24	
2	2	2.1	2.2	2.2	2.2	2.3	2.3	2.2	2.2	2.1	2	2	2	2	2	2	2	2	2	2	S	2.5	2	2	2.1	2.3	2.5	2.1	24
3	3	2.3	2.3	2.3	2.3	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	S	2.1	2.1	2.2	2.2	2.2	2.2	2.3	2.2	24
4	4	2.1	2.1	2	2	2.1	2	2	1.9	1.9	1.9	1.9	1.8	1.7	1.7	1.6	1.6	S	Y	2.2	1.9	1.9	1.9	1.9	1.9	2.2	1.9	23	
5	5	1.9	1.9	1.9	1.9	2	1.9	2	2.2	2	1.9	1.9	1.9	1.9	1.9	1.9	S	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.2	1.9	24	
6	6	2.1	1.9	1.9	2	1.9	1.8	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	S	1.8	1.8	1.8	1.9	2.1	2	2.1	2.2	2.3	2.3	1.9	24	
7	7	2.3	2.1	2	2	2.1	2.1	2	2.1	2	1.9	1.9	1.8	1.8	S	1.8	2	2.2	1.9	1.9	2	1.9	1.8	1.8	2	2.3	2.0	24	
8	8	2.3	2.4	2.4	2.6	2.6	2.8	2.6	2.5	2.1	1.7	1.6	1.6	S	1.7	1.7	1.7	1.7	1.8	1.8	1.9	1.8	1.8	1.8	1.8	2.8	2.0	24	
9	9	1.9	1.9	1.9	1.8	1.7	1.7	1.7	1.7	1.6	1.6	1.6	S	1.6	1.6	1.6	1.6	1.6	1.6	1.7	1.8	1.7	1.7	1.6	1.6	1.9	1.7	24	
10	10	1.7	1.7	1.7	1.7	1.7	1.8	S	1.6	1.6	1.7	1.7	S	C	C	Y	Y	C	C	C	2	2.1	2	2.2	2.7	2.7	1.9	22	
11	11	2.3	2.2	2.6	2.6	2.4	2.1	2.1	2.1	2.1	S	2	2	2	2	2	2	2	2	2	2	2	2	2.1	2.3	2.6	2.1	24	
12	12	2.5	2.4	2.3	2.3	2.3	2.5	2.5	2.4	2.2	S	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	2.2	2.5	2.3	24
13	13	2.2	2.2	2.2	2.1	2.1	2.2	2.2	2.2	S	2.2	2.2	2.1	2.1	2.2	2.1	2.1	2	2	2	2	2.1	2	2.2	2.5	2.4	2.5	2.2	24
14	14	2.4	2.6	2.5	2.5	2.5	2.8	2.7	S	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.1	2.2	2.3	2.3	2.8	2.3	24
15	15	2.3	2.4	2.4	2.4	2.2	2.2	S	2.3	2.2	2	2.1	2	2	2	2	2	2	2	2	2	2.1	2.1	2.2	2.1	2.4	2.1	24	
16	16	2.2	2.3	2.2	2.2	2.2	S	2.5	2.4	2.4	2.3	2.2	2	2	2	1.9	1.8	1.8	1.8	1.8	1.9	1.9	1.9	2	1.9	2.5	2.1	24	
17	17	1.9	1.8	1.8	1.8	S	2	S	2	2	2	2	C	C	C	C	C	2	2	2	2.1	2.1	2.1	2.1	2.1	2.1	2.0	24	
18	18	2.1	2.1	2.1	S	2	2	2	2	2	2	2	2	1.9	2	1.9	2	2	2	2	2.1	2	2.1	2.3	2.2	2.1	2.3	2.0	24
19	19	2.1	2.1	S	1.9	1.9	2	2	2	2	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.9	1.9	1.9	2	2.2	2.2	1.9	24	
20	20	2.2	S	2.3	2.3	2.3	2.4	2.5	2.5	2.4	2.3	2.3	2.1	2.1	2	2.1	2.1	2	2	2	1.9	2	2.2	2.4	2.4	2.5	2.2	24	
21	21	S	2.4	2.4	2.5	2.5	2.6	2.6	2.5	2.5	2.4	2.3	2.4	2.3	2.2	2.2	2.2	2.2	2.2	2.3	2.2	2.3	2.2	2.1	2.1	S	2.6	2.3	24
22	22	1.9	1.9	1.9	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1.9	1.9	2	2.1	2.2	S	2.1	2.2	2.0	24	
23	23	2.2	2.2	2.3	2.4	2.4	2.5	2.7	P	P	P	P	X	2.1	2	2	2	2	2	2	2	2.1	2.1	S	2	2	2.7	2.2	19
24	24	2	2	2	2	2.1	2	2.1	2.1	2.1	2.1	2	Y	2.1	2.1	2.1	2	2.1	2.1	2.1	2.2	S	2.2	2	2.1	2.2	2.1	23	
25	25	2	2	2	2	2	2	2	2	2.1	2.1	2.1	2	2	2	2	2	2	2	2	2	S	2	2	2.1	2.3	2.3	2.0	24
26	26	2.1	2.3	2.2	2.2	2.2	2.1	2.2	2.4	2.1	2	2	2.1	2	2	2	2	2	2	2	S	2	2.1	2.2	2	2	2.4	2.1	24
27	27	2	2	2	2	2.1	2.1	2.1	2.1	2.1	2	1.9	2	1.9	1.9	1.8	1.9	1.9	S	2	2.1	2	2	2	1.9	2.1	2.0	24	
28	28	1.9	2.1	2.1	2	2	2.1	2.1	2.2	2.1	2.1	2	1.9	1.9	1.8	1.8	1.8	S	1.9	2.1	2.1	2.1	2.3	2.3	2.4	2.4	2.0	24	
29	29	2.5	2.6	2.6	2.6	2.5	2.4	2.3	2.3	2.2	2.3	2.3	2.2	2.1	2	2	S	1.9	1.9	1.9	2	1.9	1.9	2	2	2.6	2.2	24	
30	30	2	2	2	2	2.1	2	2.1	2.2	2.1	2	2	2	1.9	1.9	S	1.9	1.9	2	2	2	2	2	2.1	2.1	2.2	2.0	24	
	HOURLY MAX	2.5	2.6	2.6	2.6	2.6	2.8	2.7	2.5	2.5	2.4	2.3	2.4	2.3	2.2	2.2	2.2	2.2	2.3	2.2	2.5	2.2	2.3	2.5	2.7				
	HOURLY AVG	2.1	2.1	2.1	2.2	2.2	2.2	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1				

STATUS FLAG CODES

C - CALIBRATION	Q - QUALITY ASSURANCE
Y - MAINTENANCE	R - RECOVERY
S - DAILY ZERO/SPAN CHECK	X - MACHINE MALFUNCTION
P - POWER FAILURE	O - OPERATOR ERROR
G - OUT FOR REPAIR	K - COLLECTION ERROR

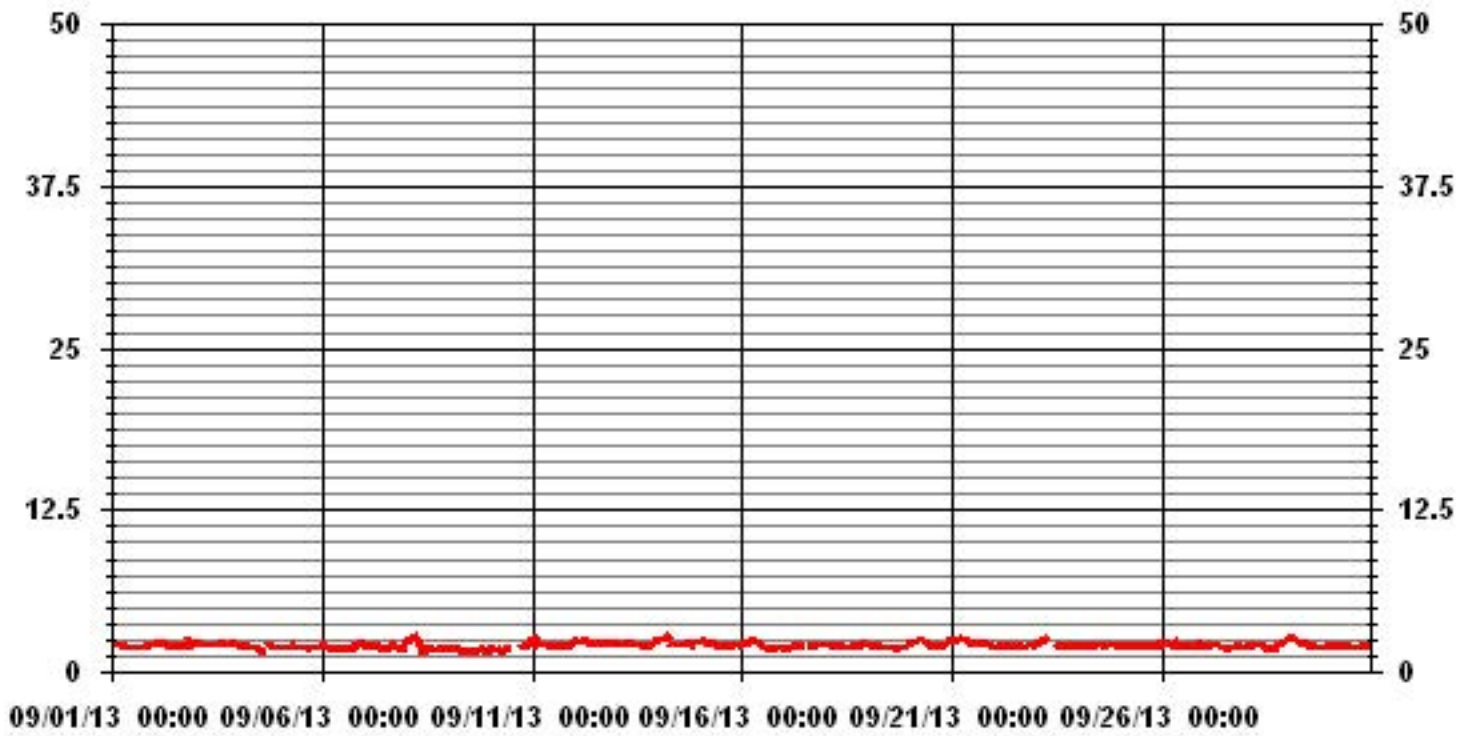
24 AVERAGES FOR SEPTEMBER 2013



MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	668
MAXIMUM 1-HR AVERAGE:	2.8 PPM @ HOUR(S) 5 ON DAY(S) 8
MAXIMUM 24-HR AVERAGE:	2.3 PPM ON DAY(S) 21
	VAR- VARIOUS
IZS CALIBRATION TIME:	33 HRS
MONTHLY CALIBRATION TIME:	10 HRS
OPERATIONAL TIME:	711 HRS
AMOD OPERATION UPTIME:	98.8 %
STANDARD DEVIATION:	0.21
MONTHLY AVERAGE:	2.06 PPM

01 Hour Averages



— LICA31 THC PPM

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - ST. LINA

SEPTEMBER 2013

TOTAL HYDROCARBONS MAX instantaneous maximum in ppm

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	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2	2	2	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	S	2	2	2.1	2.1	2.1	2.1	2.0	24
2	2.1	2.3	2.5	2.4	2.4	2.3	2.3	2.3	2.1	2.1	2.5	2.1	2	2.1	2.1	2.4	2.5	2.1	S	5.3	2.2	2.3	2.2	2.4	5.3	2.4	24	
3	2.4	2.4	2.4	2.4	2.2	2.2	2.2	2.2	2.1	2.3	2.2	2.2	2.2	2.3	2.2	2.3	S	2.1	2.2	2.2	2.3	2.3	X	2.4	2.3	23		
4	2.2	2.1	2.1	2.1	2.1	2.1	2	2	2	2	2	1.9	1.8	1.8	1.8	S	Y	5	2	2	1.9	1.9	1.9	1.9	5	2.1	23	
5	1.9	2	2	2	2.1	2	3	7.6	2.5	1.9	1.9	2	2	1.9	2.2	S	2.1	2.7	2.5	1.9	2	2	1.9	2.3	7.6	2.4	24	
6	4.3	2	2.7	4.4	2.3	1.9	2.1	2.1	1.9	1.9	1.9	1.9	1.9	S	1.8	2	2.1	2.5	2.6	2.3	2.3	2.5	2.3	4.4	2.3	24		
7	2.6	2.4	2.2	2.2	2.5	2.2	2.1	2.1	2.1	2	2	2	1.9	S	2	2.1	3.9	2.4	2.4	2.2	2	1.8	1.9	2.2	3.9	2.2	24	
8	2.4	2.4	2.5	2.7	2.7	6	2.8	2.7	2.5	1.8	1.7	1.6	S	1.8	1.8	1.8	1.8	1.8	1.8	1.9	3	1.9	1.9	1.9	6	2.3	24	
9	1.9	1.9	1.9	1.9	1.8	1.8	1.8	1.7	1.8	1.7	2	S	1.7	1.7	1.8	1.8	2	1.8	2.2	2	1.9	2	1.7	1.7	2.2	1.8	24	
10	1.8	1.7	1.7	1.7	1.8	1.8	S	S	1.8	1.8	C	C	C	Y	Y	C	C	C	C	2.3	2.4	2.4	2.7	6.5	6.5	2.3	22	
11	3.1	4.6	5.1	5.3	4.1	2.1	2.1	2.3	2.2	2.1	S	2.1	2.2	2.1	2.4	2.2	2.8	2.4	2.1	2	2	2.1	2.1	2.6	5.3	2.7	24	
12	2.6	2.5	2.3	2.3	2.4	2.6	2.6	2.5	2.3	S	2.3	2.3	2.4	2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.6	2.3	24
13	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	S	2.3	2.7	2.3	2.7	2.6	2.2	2.1	2.1	2	2.1	2.1	2.1	2.5	2.5	2.5	2.7	2.3	24	
14	2.5	2.7	2.7	2.6	2.6	2.8	2.8	S	2.4	2.3	2.2	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.6	2.5	2.2	2.3	2.3	2.3	2.8	2.4	24
15	2.4	2.5	2.5	2.4	2.3	2.3	S	2.3	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.5	2.2	24
16	2.3	2.3	2.2	2.2	2.3	S	2.5	2.5	2.4	2.4	2.3	2.1	2	2	2	1.9	1.9	1.9	1.9	2	2.1	2	2.1	2.1	2.5	2.1	24	
17	1.9	1.9	1.8	1.8	S	2	S	2.1	2.1	2.1	2.1	2.1	C	C	C	C	C	2.1	2.1	2.1	2.2	2.3	2.3	2.1	2.3	2.1	24	
18	2.3	2.2	2.3	S	2.2	2.2	2.1	2.1	2.1	2.1	2	2	2.3	2	2.8	2.9	2.1	2.1	3.4	3.8	3.1	3.3	3.7	2.3	3.8	2.5	24	
19	2.2	2.7	S	2.1	2	2	2.1	2	2	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.8	1.9	1.9	1.9	2	2.2	2.3	2.7	2.0	24	
20	2.3	S	2.3	2.3	2.4	2.4	2.5	2.5	2.5	2.4	2.3	2.2	2.2	2.1	2.1	2	2.1	2	2.1	2	2.2	2.3	2.5	2.4	2.5	2.3	24	
21	S	2.4	2.5	2.6	2.7	2.7	2.7	2.6	2.5	2.5	2.4	2.4	2.4	2.3	2.2	2.2	2.3	2.6	2.4	2.4	2.4	2.2	2.3	S	2.7	2.4	24	
22	2.4	2.3	2	2	2.2	2	2	2.1	2	2	2	2	2	2	2	2	2	2	2	2.2	2.2	2.1	2.3	S	2.2	2.4	2.1	24
23	2.2	2.3	2.3	2.4	2.6	2.6	3.8	P	P	P	P	X	2.2	2.2	2.1	2	2.2	2.4	2.2	2.6	2.3	S	2	5.6	5.6	2.6	19	
24	2.1	2.2	2	2.1	2.1	2.1	2.3	2.1	2.2	2.4	2.2	Y	2.2	2.4	2.2	2.3	4.6	2.6	2.1	3.4	S	5.4	2.7	3.7	5.4	2.6	23	
25	2	2	2	2.1	2.1	2	2	2.2	2.2	2.4	3.1	2.1	2.1	2.3	2.3	2.2	2.3	2	2.1	S	2.1	2.1	2.3	4.2	4.2	2.3	24	
26	2.7	2.9	2.5	2.4	2.3	2.2	3.3	3.3	2.4	2.2	2.3	2.4	2.2	2.1	2.4	2.1	2.1	2.2	S	2.2	3	3	2.3	2.7	3.3	2.5	24	
27	2	2.1	2	2.1	2.1	2.1	2.1	2.1	2.1	2	2	2	1.9	1.9	1.9	1.9	1.9	S	2.4	3	2.2	2	2	3	2.1	24		
28	2	2.2	2.1	2	2.1	2.2	2.2	2.2	2.2	2.1	2	2	1.9	1.9	1.9	1.9	S	2	2.2	2.2	2.3	2.3	2.4	2.4	2.1	24		
29	2.7	2.9	2.8	3	2.7	2.6	2.5	2.4	2.3	2.6	2.4	2.3	2.5	2.1	2	S	2	2.4	2.3	2.2	2	2	2	2	3	2.4	24	
30	2	2.5	2.2	2.7	2.1	2.5	2.3	2.2	2.3	2.1	2.4	2	2	2.1	S	2.1	2	2	2.1	2.1	2.1	2.1	2.4	2.2	2.7	2.2	24	
HOURLY MAX	4.3	4.6	5.1	5.3	4.1	6.0	3.8	7.6	2.5	2.6	3.1	2.4	2.7	2.6	2.8	2.9	4.6	2.7	5.0	5.3	3.1	5.4	3.7	6.5				
HOURLY AVG	2.3	2.4	2.3	2.4	2.3	2.3	2.4	2.5	2.2	2.1	2.2	2.1	2.1	2.1	2.1	2.1	2.3	2.2	2.3	2.4	2.2	2.3	2.3	2.6				

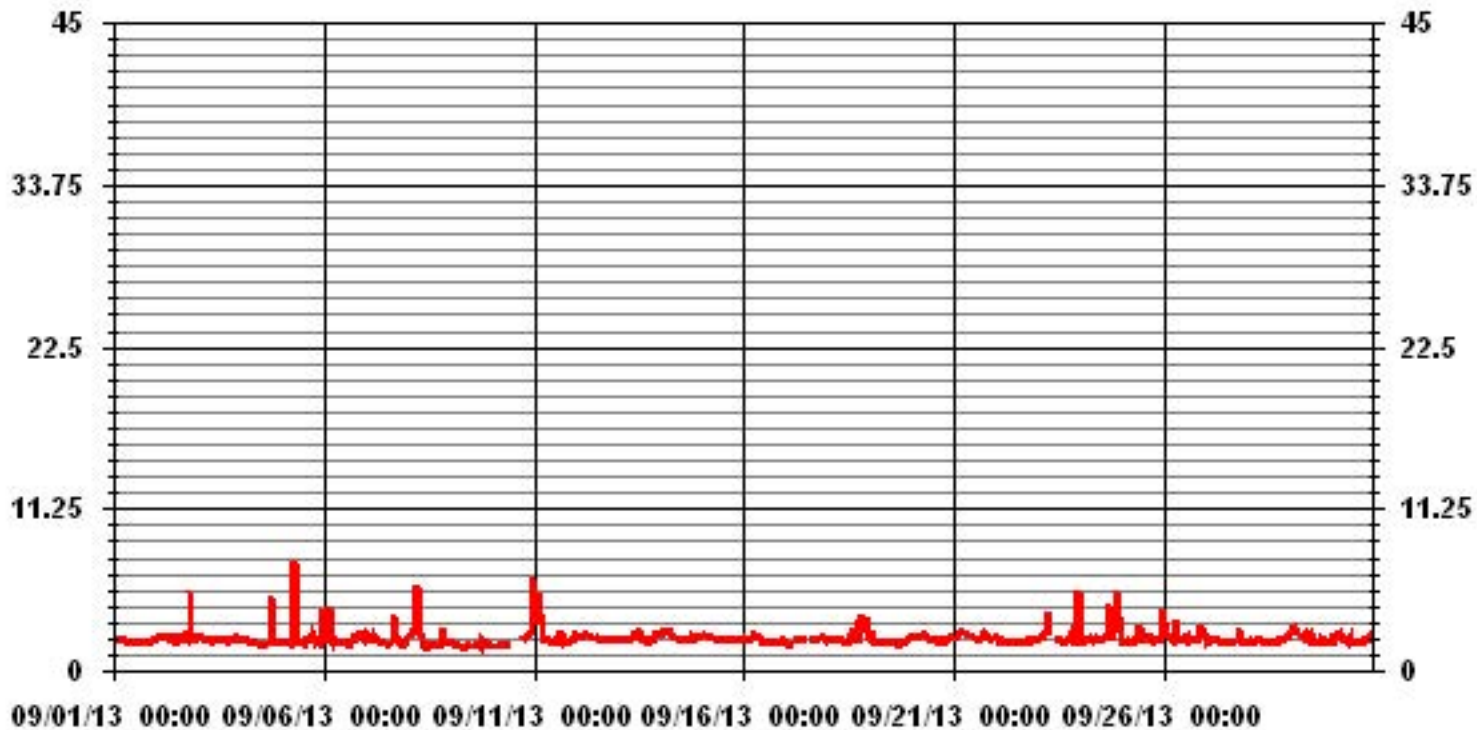
STATUS FLAG CODES

C - CALIBRATION	Q - QUALITY ASSURANCE
Y - MAINTENANCE	R - RECOVERY
S - DAILY ZERO/SPAN CHECK	X - MACHINE MALFUNCTION
P - POWER FAILURE	O - OPERATOR ERROR
G - OUT FOR REPAIR	K - COLLECTION ERROR

MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	665					
MAXIMUM INSTANTANEOUS VALUE:	7.6	PPM	@ HOUR(S)	7	ON DAY(S)	5
IZS CALIBRATION TIME:	33	HRS	OPERATIONAL TIME:	710 HRS		
MONTHLY CALIBRATION TIME:	12 HRS					
STANDARD DEVIATION:	0.56					

01 Hour Averages



LICA31
 THC / WDR Joint Frequency Distribution (Percent)

September 2013

Distribution By % Of Samples

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

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	
< 3.0	3.89	2.84	3.89	3.44	2.54	3.89	5.53	7.78	10.47	7.48	5.23	7.63	8.53	9.88	12.27	4.64	100.00
< 10.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
< 50.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
>= 50.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
Totals	3.89	2.84	3.89	3.44	2.54	3.89	5.53	7.78	10.47	7.48	5.23	7.63	8.53	9.88	12.27	4.64	

Calm : .00 %

Total # Operational Hours : 668

Distribution By Samples

Limit	Direction																Freq
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
< 3.0	26	19	26	23	17	26	37	52	70	50	35	51	57	66	82	31	668
< 10.0																	
< 50.0																	
>= 50.0																	
Totals	26	19	26	23	17	26	37	52	70	50	35	51	57	66	82	31	

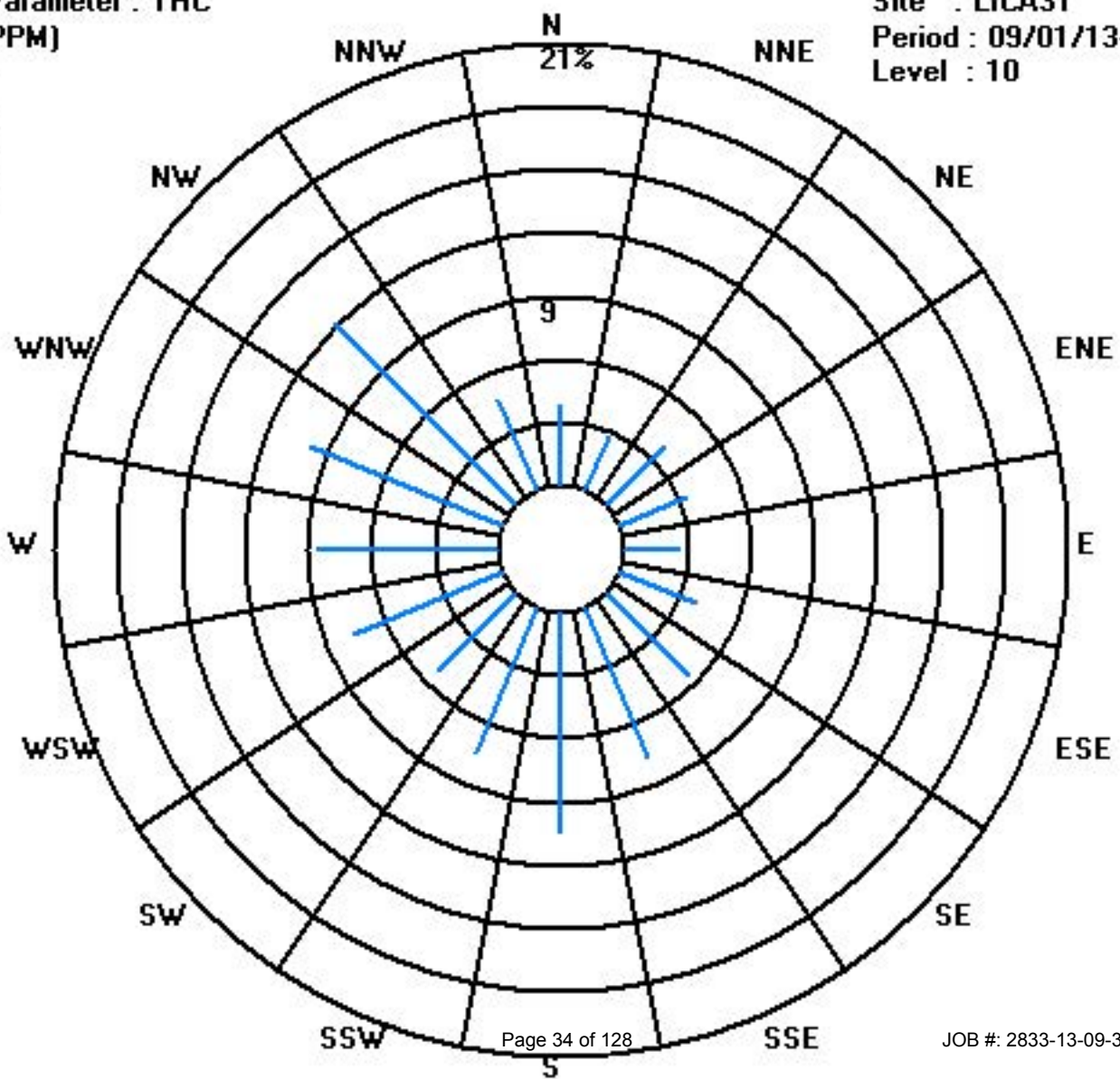
Calm : .00 %

Total # Operational Hours : 668

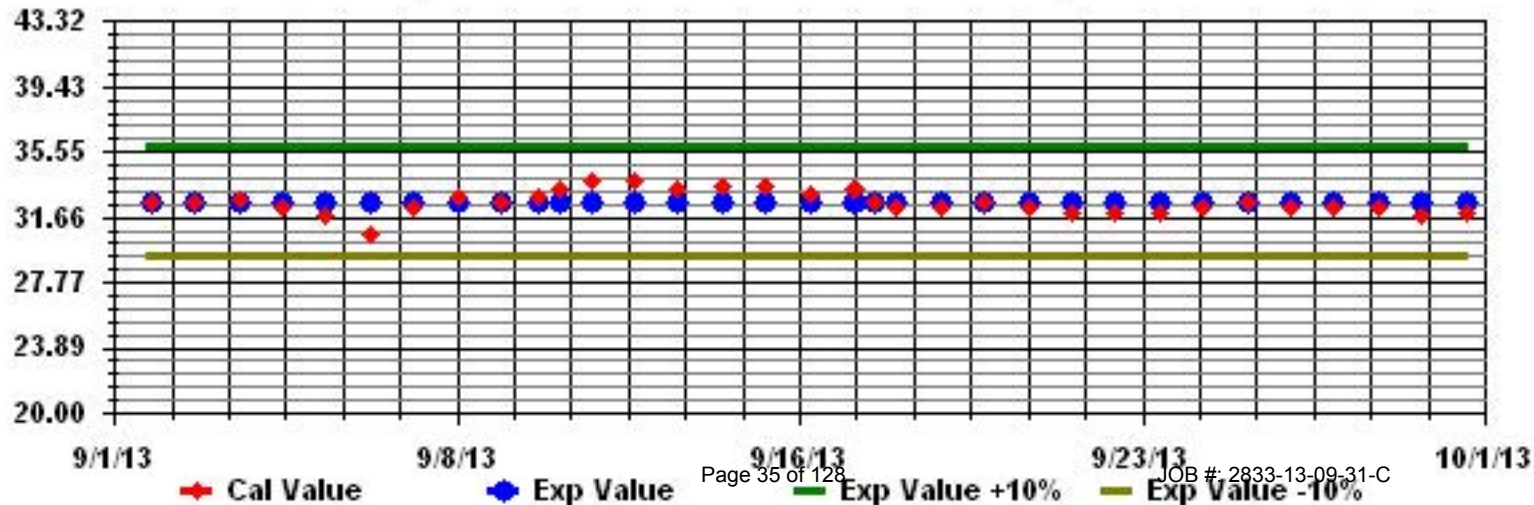
Class Limits (PPM)

Period : 09/01/13-09/30/13

Level : 10



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



Ozone

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - ST. LINA

SEPTEMBER 2013

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	
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	19	17	18	18	17	17	18	18	20	25	30	36	39	42	43	42	42	40	37	S	31	29	27	29	43	28.4	24
2	28	24	29	20	20	21	21	24	31	33	36	39	45	54	59	50	48	39	S	31	29	25	22	20	59	32.5	24
3	17	14	11	11	13	13	13	15	17	18	19	21	23	29	31	29	29	S	28	28	27	26	24	22	31	20.8	24
4	22	23	24	23	22	21	22	15	22	25	32	43	52	58	59	57	S	Y	47	48	45	49	49	49	59	36.7	23
5	49	45	39	42	42	42	38	35	29	34	36	37	39	39	40	S	41	39	35	33	32	33	31	32	49	37.5	24
6	30	27	28	21	22	23	20	20	21	23	28	32	34	34	S	31	31	30	28	26	25	24	21	19	34	26.0	24
7	18	18	18	18	16	17	17	17	22	23	22	25	25	S	25	21	18	17	14	12	15	15	15	16	25	18.4	24
8	13	10	9	9	10	12	11	11	14	20	22	26	S	32	34	35	35	34	32	31	30	26	24	26	35	22.0	24
9	21	20	18	18	18	16	12	15	18	21	23	S	27	28	27	27	30	35	33	32	33	32	30	29	35	24.5	24
10	28	27	26	26	26	26	26	26	25	28	32	35	36	37	38	C	C	C	35	33	33	32	30	30	38	30.2	24
11	28	28	27	26	25	25	S	19	19	21	S	29	32	36	37	39	40	40	38	37	36	34	32	31	40	30.9	24
12	28	29	28	27	27	25	24	24	28	S	37	42	45	47	48	48	48	47	45	45	44	42	39	37	48	37.1	24
13	36	36	35	34	31	29	26	26	S	34	43	52	53	52	49	36	27	25	26	26	28	27	25	26	53	34.0	24
14	27	23	24	24	22	18	19	S	21	24	27	29	34	37	37	38	38	37	33	29	31	29	26	25	38	28.3	24
15	26	27	27	27	26	25	S	23	26	30	33	35	36	38	40	41	41	39	37	36	36	36	34	34	41	32.7	24
16	31	28	28	27	26	S	23	24	26	28	31	35	38	40	42	44	49	52	51	51	48	44	39	37	52	36.6	24
17	36	35	35	36	S	31	30	29	30	32	32	31	27	24	S	S	S	19	19	18	17	16	15	15	36	26.4	24
18	15	14	13	S	12	12	S	12	11	12	12	14	14	15	15	15	15	14	14	14	13	13	12	12	15	13.3	24
19	11	10	S	8	8	7	6	8	12	15	17	19	22	25	28	30	32	32	31	29	28	27	27	26	32	19.9	24
20	25	S	25	24	24	24	23	22	24	26	29	34	36	38	40	41	42	40	40	39	36	33	28	27	42	31.3	24
21	S	26	25	24	22	18	20	21	23	24	28	31	37	41	46	47	45	42	41	39	37	38	41	S	47	32.5	24
22	36	34	33	30	29	23	18	17	20	25	31	33	38	40	43	44	44	42	39	38	37	38	S	38	44	33.5	24
23	37	36	36	34	32	28	25	P	P	P	P	X	39	42	41	37	38	38	37	36	36	S	33	41	42	35.9	19
24	37	34	32	29	25	25	24	22	24	27	29	Y	31	32	32	32	32	31	32	32	S	32	31	33	37	29.9	23
25	31	30	30	30	28	27	26	23	20	18	23	30	32	33	33	34	34	32	30	S	26	24	23	21	34	27.7	24
26	20	20	19	18	17	15	14	14	14	16	19	21	21	23	22	25	23	23	S	20	20	20	20	20	25	19.3	24
27	18	17	21	14	15	15	13	15	17	21	23	25	29	31	32	33	31	S	29	29	30	27	27	26	33	23.4	24
28	26	20	20	20	19	17	15	15	17	20	27	30	32	34	34	35	S	34	31	31	30	29	27	27	35	25.7	24
29	25	23	23	22	22	21	20	20	19	19	20	23	27	30	33	S	32	27	25	22	21	22	21	22	33	23.4	24
30	23	24	25	27	19	24	15	13	14	18	16	18	23	26	S	25	24	24	22	23	23	19	16	17	27	20.8	24
HOURLY MAX	49	45	39	42	42	42	38	35	31	34	43	52	53	58	59	57	49	52	51	51	48	49	49	49			
HOURLY AVG	26.2	24.8	25.0	23.7	21.9	21.3	20.0	19.4	20.9	23.6	27.0	30.6	33.3	35.8	37.3	36.0	35.0	33.5	32.5	31.0	30.2	29.0	27.2	27.1			

STATUS FLAG CODES

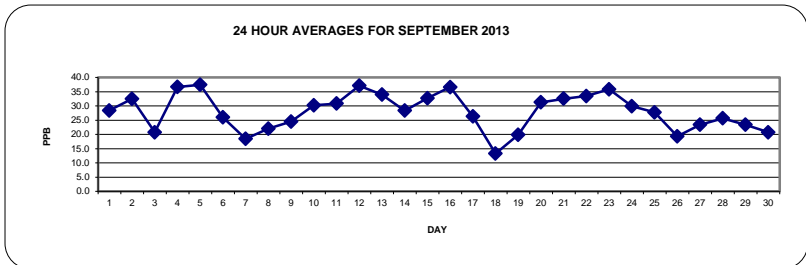
C	- CALIBRATION	Q	- QUALITY ASSURANCE
Y	- MAINTENANCE	R	- RECOVERY
S	- DAILY ZERO/SPAN CHECK	X	- MACHINE MALFUNCTION
P	- POWER FAILURE	O	- OPERATOR ERROR
G	- OUT FOR REPAIR	K	- COLLECTION ERROR

OBJECTIVE LIMIT:

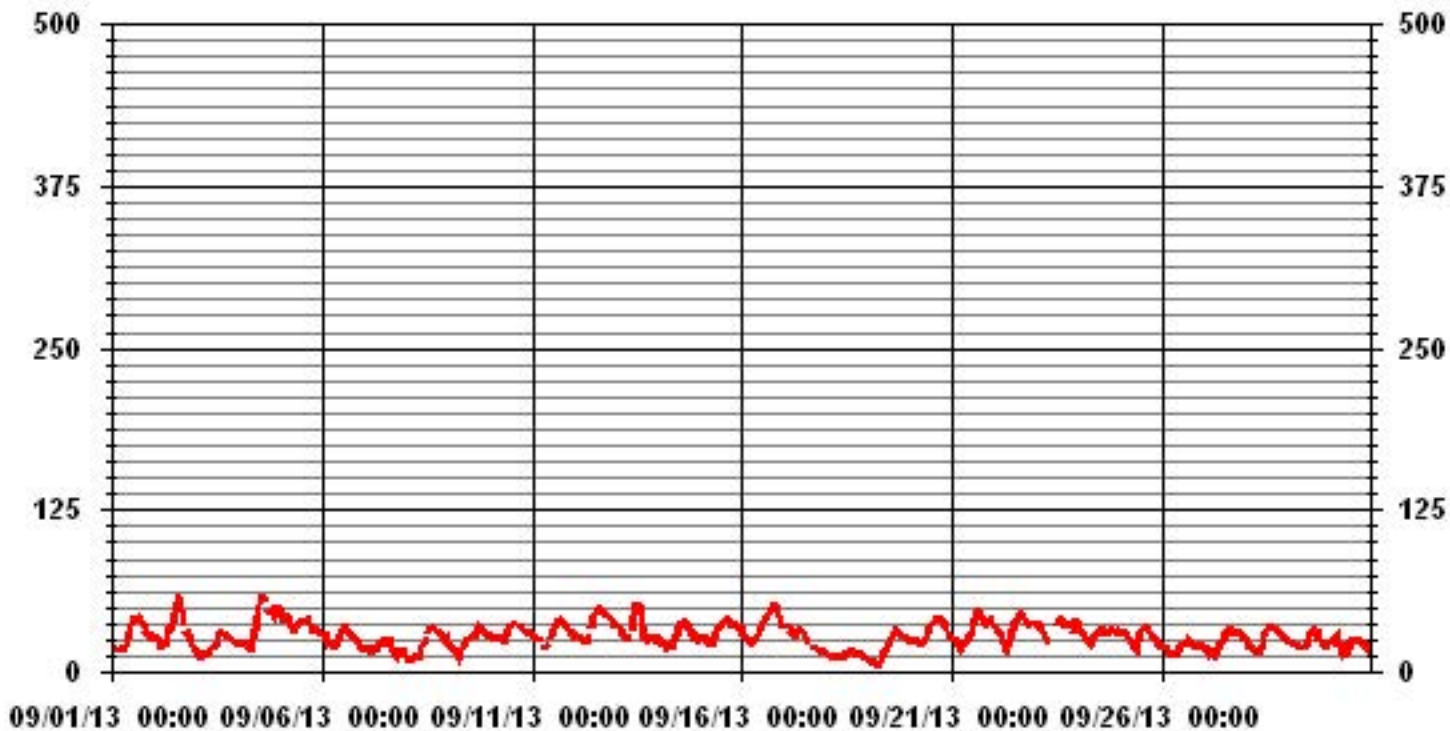
ALBERTA ENVIRONMENT: 1-HR 82 PPB

MONTHLY SUMMARY

NUMBER OF 1-HR EXCEEDENCES:	0					
NUMBER OF NON-ZERO READINGS:	675					
MAXIMUM 1-HR AVERAGE:	59	PPB	@ HOUR(S)	14, 14	ON DAY(S)	2, 4
MAXIMUM 24-HR AVERAGE:	37.5	PPB			ON DAY(S)	5
					VAR-VARIOUS	
IZS CALIBRATION TIME:	35	HRS	OPERATIONAL TIME:	713	HRS	
MONTHLY CALIBRATION TIME:	3	HRS	AMD OPERATION UPTIME:	99.0	%	
STANDARD DEVIATION:	9.63		MONTHLY AVERAGE:	27.9	PPB	



01 Hour Averages



LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - ST. LINA

SEPTEMBER 2013

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	21	18	19	19	18	18	19	20	23	30	35	40	43	46	47	43	44	43	39	S	33	31	30	31	47	30.9	24	
2	29	27	36	29	21	24	27	30	34	38	40	43	51	62	65	58	53	44	S	32	31	29	24	21	65	36.9	24	
3	19	16	13	13	14	14	14	17	18	19	21	24	26	32	33	31	31	S	29	29	28	27	25	X	33	22.4	23	
4	23	24	25	23	23	22	23	25	24	29	38	48	57	60	62	61	S	Y	49	50	48	49	50	50	62	39.2	23	
5	49	48	43	44	44	43	42	41	32	36	37	39	40	40	41	S	42	41	37	35	34	35	32	33	49	39.5	24	
6	32	28	29	26	25	25	23	22	24	26	31	34	36	37	S	33	32	32	32	27	27	25	23	19	37	28.2	24	
7	19	19	19	19	17	19	19	20	26	25	25	26	26	S	27	25	20	20	17	14	17	17	17	17	27	20.4	24	
8	15	12	10	10	11	13	13	12	17	22	26	31	S	35	37	37	37	37	33	33	32	31	28	28	37	24.3	24	
9	24	22	20	19	18	17	15	16	21	22	24	S	28	31	31	28	34	35	34	34	34	34	33	31	31	35	26.2	24
10	29	27	28	28	27	27	27	27	26	31	S	37	37	38	39	C	C	C	C	35	34	32	32	30	39	31.1	24	
11	30	28	28	27	26	25	S	23	21	23	S	31	34	37	39	40	42	41	40	39	36	35	32	32	42	32.2	24	
12	29	29	29	28	27	26	24	24	32	S	40	43	48	49	50	49	49	48	47	46	45	43	42	38	50	38.5	24	
13	37	36	36	35	33	32	28	27	S	40	49	54	55	54	53	44	30	26	27	28	31	30	27	27	55	36.5	24	
14	28	25	26	24	24	20	20	S	23	26	29	31	37	38	38	39	39	39	37	31	32	32	27	26	39	30.0	24	
15	27	28	28	27	27	26	S	24	29	32	34	36	38	39	42	42	42	40	38	36	37	37	35	35	42	33.9	24	
16	33	29	28	28	27	S	23	26	27	29	34	37	40	42	43	47	54	54	53	52	51	46	42	38	54	38.4	24	
17	37	36	36	36	S	32	31	30	32	33	34	33	30	S	S	S	S	19	20	18	17	17	16	15	37	27.5	24	
18	15	15	13	S	12	12	S	12	12	13	13	14	15	16	16	16	16	15	15	14	13	13	13	12	16	13.9	24	
19	11	11	S	10	10	9	8	10	15	16	19	21	24	27	31	32	33	33	32	31	29	28	27	26	33	21.4	24	
20	26	S	27	25	24	24	23	23	26	27	31	36	38	39	41	42	42	42	40	39	39	36	30	28	42	32.5	24	
21	S	27	26	25	24	19	21	22	24	26	29	34	39	45	48	49	46	45	42	41	38	38	43	S	49	34.1	24	
22	37	35	34	31	30	27	20	19	24	29	35	36	40	42	45	45	46	44	42	39	38	39	S	38	46	35.4	24	
23	38	37	38	38	34	31	28	P	P	P	P	X	41	44	44	39	39	39	38	37	36	S	38	43	44	37.9	19	
24	43	35	32	31	26	27	25	23	26	29	30	Y	32	33	33	33	33	33	33	33	S	33	33	33	43	31.3	23	
25	33	31	30	31	30	28	28	25	22	20	27	32	33	34	34	35	35	34	31	S	27	26	23	22	35	29.2	24	
26	21	21	20	18	18	16	15	14	16	18	20	22	22	24	24	29	26	24	S	20	20	21	21	23	29	20.6	24	
27	19	20	23	15	18	17	15	17	19	22	24	27	31	32	33	34	32	S	32	32	32	29	27	27	34	25.1	24	
28	26	25	21	21	20	19	17	18	18	23	31	31	34	36	35	36	S	35	32	31	31	30	28	27	36	27.2	24	
29	26	24	24	23	23	22	20	21	20	21	22	24	29	32	37	S	35	29	26	24	22	23	22	23	37	24.9	24	
30	24	25	27	29	26	26	27	18	20	21	17	20	25	29	S	27	26	26	24	23	24	21	17	18	29	23.5	24	
HOURLY MAX	49	48	43	44	44	43	42	41	34	40	49	54	57	62	65	61	54	54	53	52	51	49	50	50				
HOURLY AVG	27.6	26.1	26.5	25.2	23.3	22.8	22.0	21.6	23.3	25.9	29.4	32.7	35.5	38.3	39.6	38.2	36.8	35.3	34.0	32.3	31.6	30.6	28.8	28.3				

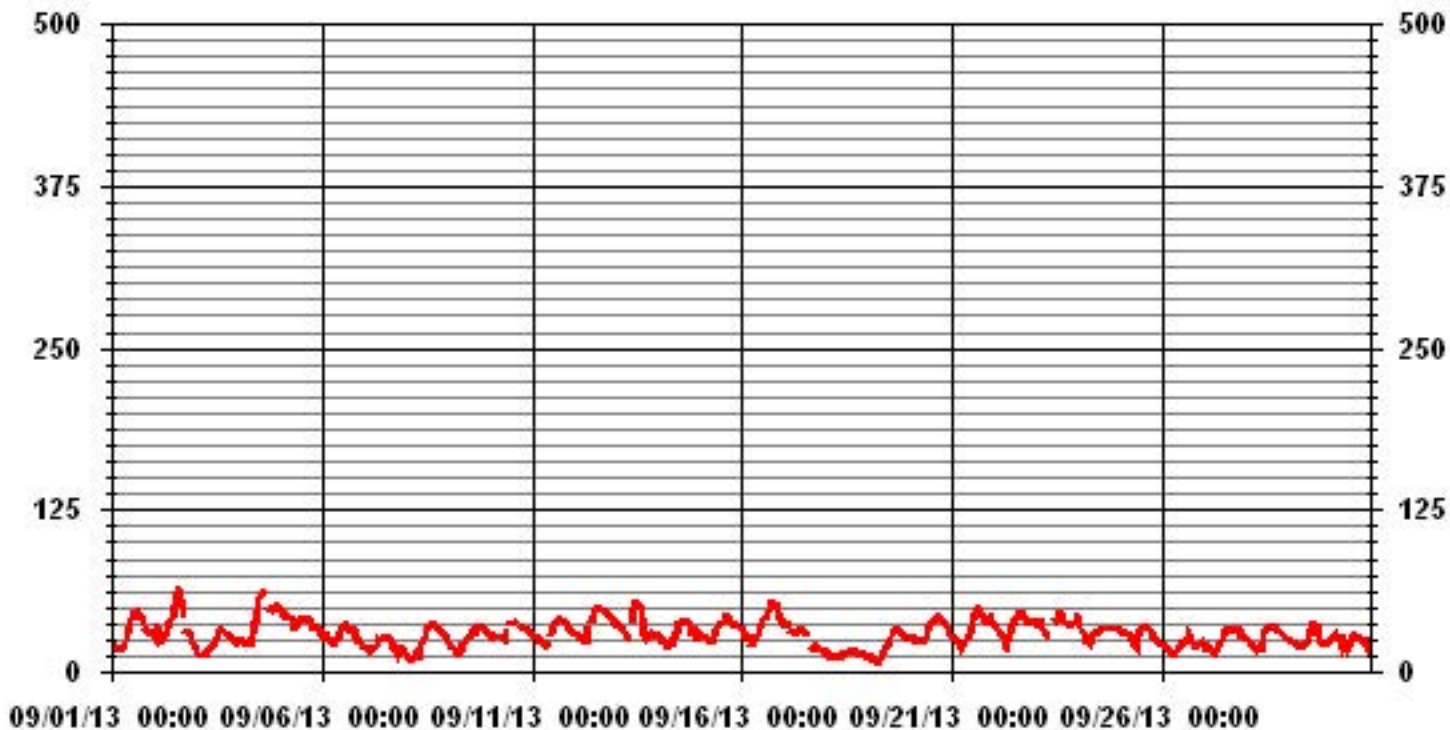
STATUS FLAG CODES

C	- CALIBRATION	Q	- QUALITY ASSURANCE
Y	- MAINTENANCE	R	- RECOVERY
S	- DAILY ZERO/SPAN CHECK	X	- MACHINE MALFUNCTION
P	- POWER FAILURE	O	- OPERATOR ERROR
G	- OUT FOR REPAIR	K	- COLLECTION ERROR

MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	671					
MAXIMUM INSTANTANEOUS VALUE:	65	PPB	@ HOUR(S)	14	ON DAY(S)	2
IZS CALIBRATION TIME:	37	HRS	OPERATIONAL TIME:	712	HRS	
MONTHLY CALIBRATION TIME:	4	HRS				
STANDARD DEVIATION:	9.94					

01 Hour Averages



— LICA31 O3MAX PPB

LICA31
O3_ / WDR Joint Frequency Distribution (Percent)

September 2013

Distribution By % Of Samples

Logger Id : 31
Site Name : LICA31
Parameter : O3_
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	
< 50	3.85	2.66	3.85	3.40	2.51	3.85	5.48	7.70	10.37	7.40	5.18	7.25	8.44	9.92	12.00	4.14	98.07
< 110	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.44	.59	.29	.14	.44	1.92
< 210	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
>= 210	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
Totals	3.85	2.66	3.85	3.40	2.51	3.85	5.48	7.70	10.37	7.40	5.18	7.70	9.03	10.22	12.14	4.59	

Calm : .00 %

Total # Operational Hours : 675

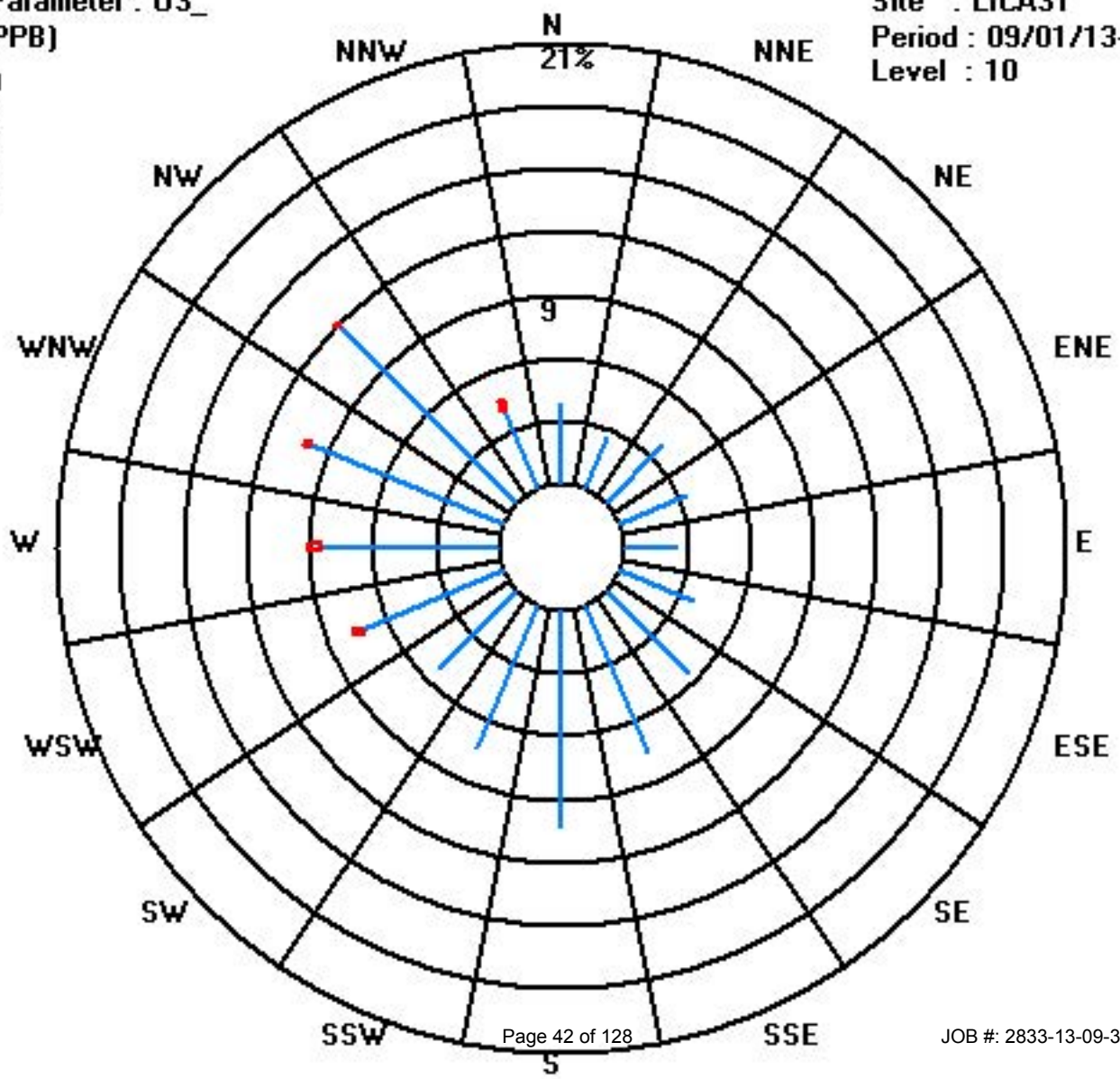
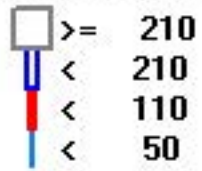
Distribution By Samples

Limit	Direction																Freq
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
< 50	26	18	26	23	17	26	37	52	70	50	35	49	57	67	81	28	662
< 110												3	4	2	1	3	13
< 210																	
>= 210																	
Totals	26	18	26	23	17	26	37	52	70	50	35	52	61	69	82	31	

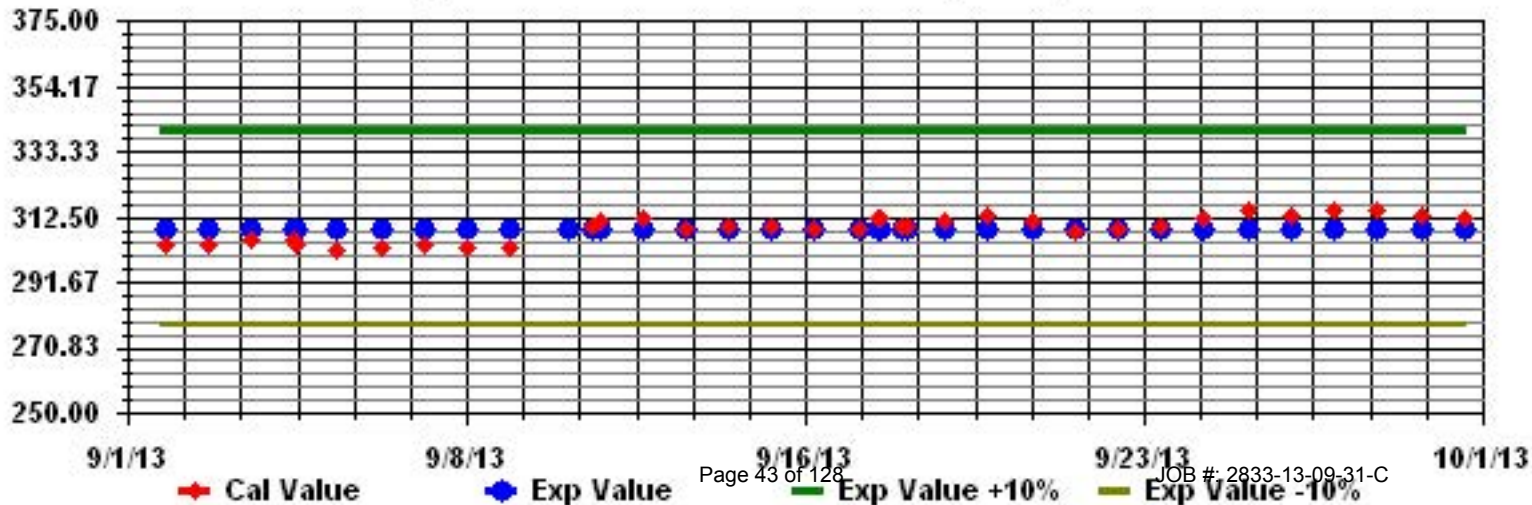
Calm : .00 %

Total # Operational Hours : 675

Class Limits (PPB)



Calibration Graph for Site: LICA31 Parameter: 03_ Sequence: 03 Phase: SPAN



Nitrogen Dioxide

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - ST. LINA

SEPTEMBER 2013

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 MAX.	24-HOUR AVG.	RDGS.
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			
1	1.7	1.4	1.2	1.1	1.5	2.1	1.3	1.0	1.0	0.8	0.7	0.4	0.5	0.4	0.3	0.3	0.3	0.2	0.3	S	1.4	1.9	2.4	2.3	2.4	2.4	1.1	24
2	2.0	2.3	1.9	2.1	2.1	3.0	3.4	2.8	1.6	1.2	0.9	0.9	0.9	1.6	1.8	0.8	0.8	0.6	S	0.2	1.4	0.3	1.0	2.4	3.4	3.4	1.6	24
3	2.8	3.2	3.5	2.8	1.7	2.0	1.8	1.0	0.6	0.2	0.2	0.3	0.2	0.5	0.8	0.4	0.4	S	0.9	1.2	1.9	2.1	1.7	1.5	3.5	1.4	24	
4	1.4	1.3	1.1	1.2	1.0	1.3	1.5	1.0	1.3	2.2	3.2	3.8	2.9	2.5	2.5	1.9	S	Y	1.5	1.0	1.3	1.1	0.9	1.0	3.8	1.7	23	
5	0.8	0.9	1.2	1.0	0.4	0.6	1.4	2.1	1.2	0.7	0.6	0.3	0.2	0.4	0.4	S	0.3	0.6	1.4	2.1	1.1	0.9	0.6	0.4	2.1	0.9	24	
6	0.5	0.9	0.6	0.9	1.0	1.0	1.4	1.2	1.6	2.4	1.6	0.6	0.7	0.7	S	0.1	0.1	0.2	1.1	2.1	2.4	3.2	5.0	5.7	5.7	1.5	24	
7	5.0	4.0	3.2	2.6	3.1	2.7	3.0	2.9	1.6	1.2	1.2	0.8	0.7	S	0.7	1.9	1.9	2.0	1.9	1.4	1.6	1.5	1.3	2.4	5.0	2.1	24	
8	3.8	4.5	4.8	4.4	3.9	3.7	3.1	2.2	1.7	1.0	0.9	0.6	S	0.5	0.4	0.4	0.5	0.6	1.1	1.1	1.3	2.2	2.5	1.8	4.8	2.0	24	
9	1.8	1.7	2.0	2.0	1.4	0.9	0.5	0.4	0.3	0.2	0.4	S	0.0	0.1	0.1	0.6	0.2	0.3	0.2	1.0	0.4	0.3	0.1	0.2	2.0	0.7	24	
10	0.2	0.2	0.0	0.1	0.2	0.4	0.4	0.5	0.6	C	C	C	C	C	C	C	C	0.3	0.6	0.3	0.6	0.3	0.1	0.3	0.0	0.6	0.3	24
11	0.8	0.6	0.6	0.6	0.7	0.7	0.8	0.8	1.2	0.2	S	0.0	0.0	0.1	0.0	0.0	0.2	0.3	0.1	0.6	0.9	1.1	1.5	1.5	1.5	1.5	0.6	24
12	2.5	2.1	1.8	1.7	1.8	1.9	2.3	1.9	1.7	S	2.2	1.4	1.6	1.5	1.2	0.8	0.8	1.3	1.7	1.6	1.5	1.5	1.8	2.3	2.5	1.5	1.7	24
13	2.5	2.6	2.2	1.9	1.8	2.3	S	1.6	S	2.6	3.0	2.4	2.0	2.2	1.9	0.9	0.5	0.5	0.9	0.8	1.2	2.5	6.3	7.0	7.0	2.3	24	
14	5.9	6.9	5.9	4.8	4.1	6.1	5.7	S	1.5	1.0	0.7	0.0	0.0	0.0	0.0	0.2	0.2	0.1	0.4	1.6	1.1	1.3	1.6	1.9	6.9	2.2	24	
15	1.2	1.3	1.4	1.4	0.9	1.1	S	1.0	0.7	0.7	0.7	0.5	0.4	0.5	0.5	0.6	0.6	0.6	0.8	1.2	1.1	1.4	1.6	1.5	1.6	0.9	24	
16	1.9	1.8	1.6	1.7	2.0	S	2.2	2.1	1.6	1.4	1.4	1.2	1.1	1.1	0.9	0.7	1.0	1.0	1.9	1.9	3.0	2.5	1.9	1.3	3.0	1.6	24	
17	0.5	0.3	0.0	0.0	S	0.0	0.1	0.4	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	0.0	0.0	0.0	0.5	0.1	24
18	0.0	0.1	0.4	S	0.4	0.5	0.2	0.2	0.3	0.0	0.1	0.0	0.4	0.7	0.0	0.1	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.2	24
19	0.0	0.4	S	0.5	0.4	0.4	0.7	0.4	0.2	0.2	0.4	0.4	0.5	0.4	0.5	0.4	0.3	0.7	0.5	1.1	1.5	1.6	2.1	2.4	2.4	0.7	24	
20	2.2	S	1.3	1.1	1.2	1.3	2.0	2.4	2.1	1.6	1.3	0.7	0.9	0.4	0.3	0.3	0.3	0.2	0.7	0.7	1.7	2.8	4.3	3.3	4.3	1.4	24	
21	S	2.5	2.2	2.3	2.3	3.2	3.0	2.6	2.4	2.2	2.3	2.8	2.3	2.2	2.1	2.1	1.9	2.6	2.8	2.8	3.1	2.7	2.2	S	3.2	2.5	24	
22	0.8	0.4	0.5	0.7	0.5	0.6	0.9	1.0	1.1	0.9	1.0	1.3	0.7	0.6	0.6	0.5	0.4	0.3	0.9	1.5	2.0	2.1	S	1.7	2.1	0.9	24	
23	1.6	1.9	1.8	2.2	2.6	2.8	3.4	P	P	P	P	X	2.8	1.8	1.0	0.6	0.5	0.6	0.7	1.1	0.6	S	0.6	0.3	3.4	1.5	19	
24	0.5	0.5	0.4	0.4	1.0	1.0	1.0	1.1	1.0	0.6	0.5	Y	0.3	0.2	0.3	0.5	0.6	1.0	0.7	0.7	S	0.3	0.5	0.1	1.1	0.6	23	
25	0.4	0.3	0.3	0.5	0.8	0.7	0.6	1.0	0.9	0.7	0.7	0.5	0.3	0.3	0.2	0.4	0.3	0.2	0.2	S	1.1	0.4	0.8	0.7	1.1	0.5	24	
26	0.3	0.3	0.6	0.6	0.7	1.0	0.9	0.6	0.8	0.6	1.1	0.3	0.0	0.0	0.5	0.1	0.2	0.2	S	0.5	0.4	0.3	0.5	0.7	1.1	0.5	24	
27	0.6	1.2	1.4	2.4	2.4	2.7	2.7	3.2	3.0	2.2	2.8	3.6	2.4	1.8	2.5	2.0	3.3	S	5.1	3.8	3.8	2.6	0.9	0.8	5.1	2.5	24	
28	0.6	2.0	1.8	1.7	1.9	2.6	2.6	3.6	3.3	4.0	3.1	0.9	0.8	0.9	0.5	0.6	S	0.9	1.6	2.1	2.5	3.3	3.4	3.2	4.0	2.1	24	
29	3.5	3.5	2.9	2.8	2.7	3.0	3.2	2.7	2.4	2.3	2.1	1.9	1.9	1.8	1.6	S	0.6	0.6	0.8	0.9	0.8	0.6	0.8	0.7	3.5	1.9	24	
30	0.8	0.6	0.5	0.3	1.1	0.9	2.3	1.9	1.8	0.9	0.8	0.5	0.5	0.4	S	0.8	1.0	1.1	1.0	0.9	0.9	1.1	1.3	0.8	2.3	1.0	24	
HOURLY MAX	5.9	6.9	5.9	4.8	4.1	6.1	5.7	3.6	3.3	4.0	3.2	3.8	2.9	2.5	2.5	2.1	3.3	2.6	5.1	3.8	3.8	3.3	6.3	7.0				
HOURLY AVG	1.6	1.7	1.6	1.6	1.6	1.7	1.9	1.6	1.3	1.2	1.3	1.0	0.9	0.8	0.8	0.7	0.6	0.6	1.1	1.2	1.4	1.4	1.7	1.7				

STATUS FLAG CODES

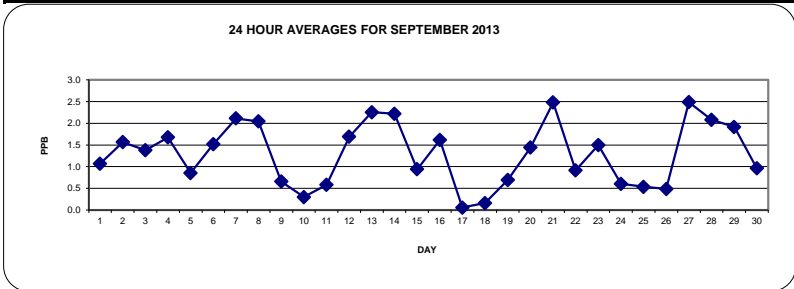
C	- CALIBRATION	Q	- QUALITY ASSURANCE
Y	- MAINTENANCE	R	- RECOVERY
S	- DAILY ZERO/SPAN CHECK	X	- MACHINE MALFUNCTION
P	- POWER FAILURE	O	- OPERATOR ERROR
G	- OUT FOR REPAIR	K	- COLLECTION ERROR

OBJECTIVE LIMIT:

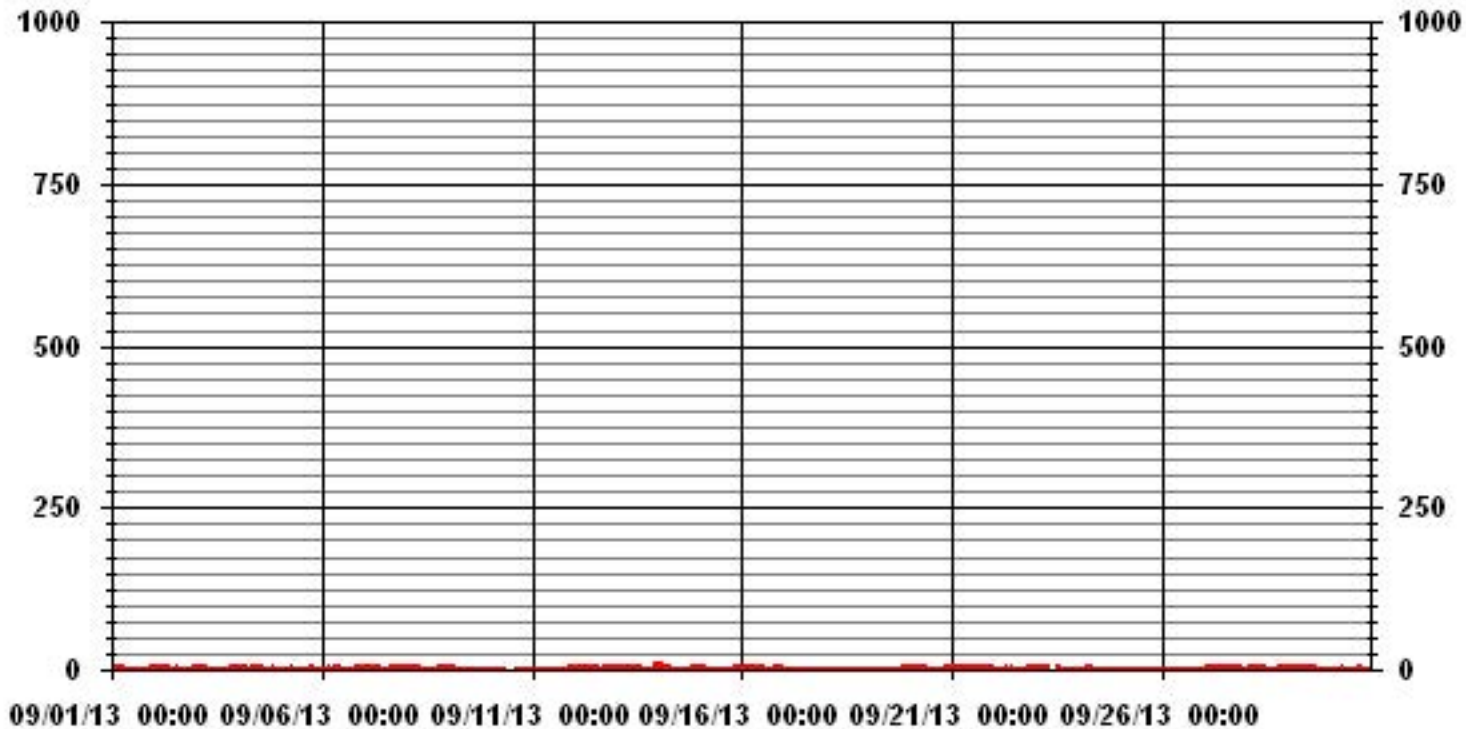
ALBERTA ENVIRONMENT: 1-HR 159 PPB

MONTHLY SUMMARY

NUMBER OF 1-HR EXCEEDENCES:	0					
NUMBER OF NON-ZERO READINGS:	632					
MAXIMUM 1-HR AVERAGE:	7.0	PPB	@ HOUR(S)	23	ON DAY(S)	13
MAXIMUM 24-HR AVERAGE:	2.5	PPB			ON DAY(S)	27
IZS CALIBRATION TIME:	31	HRS	OPERATIONAL TIME:	713 HRS		
MONTHLY CALIBRATION TIME:	7	HRS	AMD OPERATION UPTIME:	99.0 %		
STANDARD DEVIATION:	1.14		MONTHLY AVERAGE:	1.30 PPB		



01 Hour Averages



— LICA31 NO2_ PPB

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - ST. LINA

SEPTEMBER 2013

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	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	22.7	3.0	1.9	1.9	2.9	3.1	2.8	2.0	1.8	2.0	1.4	1.4	1.3	1.3	1.3	1.2	1.0	1.0	1.3	S	3.4	4.1	6.4	3.8	22.7	3.2	24	
2	4.1	3.9	3.9	3.9	4.0	6.0	6.0	5.2	3.5	3.3	3.2	3.0	3.0	3.9	3.8	2.7	3.2	3.3	S	2.4	21.5	2.3	3.2	4.3	21.5	4.5	24	
3	4.6	5.4	5.4	5.1	3.7	3.8	3.5	3.0	2.5	2.1	1.9	2.2	2.1	2.5	2.5	2.2	2.1	S	2.7	3.0	3.8	3.9	3.4	X	5.4	3.2	23	
4	3.1	3.0	2.8	3.0	2.8	3.6	4.0	3.1	3.7	4.5	5.2	5.7	4.7	4.3	4.9	4.2	S	Y	6.6	2.9	2.8	2.5	2.4	2.4	6.6	3.7	23	
5	2.2	2.6	2.7	2.5	2.2	2.3	5.4	4.9	4.0	3.0	2.3	2.1	1.8	2.0	2.5	S	1.9	2.4	5.5	6.9	4.5	2.9	2.3	2.3	6.9	3.1	24	
6	2.5	3.0	2.5	2.8	2.8	2.5	2.8	2.8	3.4	4.0	4.0	2.7	2.4	2.5	S	2.0	1.9	2.1	3.2	4.1	4.5	5.3	8.1	8.0	8.1	3.5	24	
7	7.5	6.1	5.2	4.7	5.4	4.6	4.9	4.7	3.3	3.0	3.1	2.8	2.7	S	3.2	4.2	6.6	7.6	5.8	3.3	3.3	3.6	3.6	4.7	7.6	4.5	24	
8	6.2	6.4	6.6	6.6	6.0	5.8	4.9	4.3	4.1	2.9	3.4	3.3	S	2.5	2.3	2.3	2.3	2.6	4.1	3.4	7.1	7.0	4.4	3.5	7.1	4.4	24	
9	4.1	3.6	3.6	3.9	3.6	3.1	2.2	1.9	2.4	1.9	2.2	S	1.7	2.3	2.1	2.8	2.4	2.5	2.0	4.2	2.7	2.7	1.9	1.9	4.2	2.7	24	
10	2.0	1.9	2.2	2.2	2.1	2.1	2.4	2.2	C	C	C	C	C	C	C	C	1.6	2.5	2.0	2.1	1.7	1.8	1.9	1.9	2.5	2.0	24	
11	2.4	2.1	2.1	2.5	2.6	2.4	2.5	2.6	4.7	1.8	S	1.6	1.7	1.9	1.8	2.3	2.2	1.9	2.0	2.3	2.6	3.1	3.3	4.4	4.7	2.5	24	
12	4.4	3.9	3.7	3.6	3.5	3.7	4.0	3.6	3.5	S	4.2	2.6	3.3	4.1	2.9	2.1	2.2	2.9	3.5	3.1	3.3	3.1	3.1	3.7	4.4	3.4	24	
13	3.7	4.0	3.7	3.8	2.9	4.8	S	4.7	S	4.3	5.1	4.2	3.4	5.1	5.0	2.4	2.1	1.9	2.4	2.3	2.4	6.5	8.8	9.0	9.0	4.2	24	
14	8.2	9.0	7.9	7.0	5.8	8.2	7.9	S	3.5	2.9	2.5	2.0	1.9	2.1	2.1	1.9	2.1	2.1	2.4	4.2	3.1	3.4	4.0	4.0	9.0	4.3	24	
15	3.1	3.1	3.3	3.1	3.0	3.1	S	2.5	2.4	2.3	2.2	2.0	2.1	2.1	1.9	2.2	2.2	2.4	2.5	2.9	2.7	2.9	3.2	2.9	3.3	2.6	24	
16	3.5	3.6	3.2	3.5	3.5	S	3.7	3.7	3.1	3.0	3.0	2.7	2.5	2.5	2.4	2.3	2.5	3.2	8.0	4.4	4.8	4.0	3.8	3.2	8.0	3.5	24	
17	2.3	2.1	1.6	1.6	S	1.7	1.9	2.6	1.9	1.9	3.5	1.6	2.1	8.5	1.8	1.6	1.6	1.7	2.5	1.6	1.8	1.7	1.9	1.9	8.5	2.2	24	
18	1.9	2.1	2.3	S	1.9	2.5	2.0	2.2	2.3	1.7	1.7	1.7	10.6	7.5	1.7	1.9	1.7	1.9	1.9	2.1	2.2	2.0	1.9	1.9	10.6	2.6	24	
19	2.1	2.4	S	2.4	2.2	4.4	10.0	2.7	2.1	2.0	2.9	2.1	2.1	2.1	2.3	2.1	2.1	3.3	2.6	3.2	3.5	3.6	4.1	4.1	10.0	3.1	24	
20	4.1	S	3.2	3.2	3.3	3.5	3.9	3.9	3.6	3.0	2.8	2.6	3.2	2.5	2.4	2.2	2.1	2.2	2.7	2.7	3.8	5.4	6.4	5.7	6.4	3.4	24	
21	S	4.1	3.9	4.1	4.3	4.7	4.6	4.3	3.9	3.7	4.0	4.4	4.0	3.7	4.5	3.9	3.5	4.6	4.7	4.6	4.8	4.8	4.2	S	4.8	4.2	24	
22	2.3	2.5	2.3	2.7	2.5	2.2	2.7	3.1	3.0	2.8	2.7	3.5	2.7	2.5	2.5	2.5	2.1	2.1	3.1	3.4	3.9	3.7	S	3.3	3.9	2.8	24	
23	3.2	3.4	3.6	3.7	6.0	4.3	8.4	P	P	P	P	X	4.9	3.9	3.7	2.5	2.3	2.3	3.0	3.8	2.5	S	2.3	2.2	8.4	3.7	19	
24	2.2	2.2	2.1	2.1	2.7	2.5	2.7	2.8	3.0	2.2	2.2	Y	2.1	2.1	2.3	2.4	10.8	6.5	6.2	3.3	S	23.0	3.3	2.0	23.0	4.1	23	
25	2.3	2.2	2.0	2.1	2.5	2.4	2.9	3.3	2.5	3.0	2.4	2.8	1.8	2.1	1.9	2.4	2.1	2.2	2.8	S	5.7	2.5	3.3	2.5	5.7	2.6	24	
26	2.2	2.2	2.2	2.3	2.5	2.6	2.6	2.3	2.6	2.3	3.4	2.3	1.9	2.1	2.5	1.8	2.5	2.5	S	2.1	2.2	1.9	2.1	3.7	3.7	2.4	24	
27	2.2	2.9	3.3	4.7	5.1	5.2	4.9	4.9	5.5	4.0	5.0	5.2	4.3	3.1	17.4	11.6	25.9	S	33.4	12.0	30.3	14.0	4.2	4.2	33.4	9.3	24	
28	2.4	4.7	3.9	3.6	3.7	4.8	5.7	7.8	7.5	5.9	6.5	2.9	3.0	18.9	2.9	2.6	S	2.3	3.2	3.5	4.4	4.8	5.0	4.6	18.9	5.0	24	
29	5.1	5.2	4.6	4.3	4.3	4.6	5.2	5.0	4.1	4.1	3.9	3.3	3.2	3.1	3.2	S	2.3	2.3	2.4	2.3	2.7	2.1	2.3	2.3	5.2	3.6	24	
30	2.4	2.2	2.4	2.1	3.3	3.1	17.3	4.5	4.2	3.0	2.9	3.1	2.3	2.5	S	2.5	2.4	2.6	2.8	2.2	2.4	2.4	2.9	2.1	17.3	3.4	24	
HOURLY MAX	22.7	9.0	7.9	7.0	6.0	8.2	17.3	7.8	7.5	5.9	6.5	5.7	10.6	18.9	17.4	11.6	25.9	7.6	33.4	12.0	30.3	23.0	8.8	9.0				
HOURLY AVG	4.1	3.5	3.4	3.4	3.5	3.7	4.7	3.6	3.4	3.0	3.2	2.8	3.0	3.7	3.3	2.8	3.5	2.8	4.5	3.5	5.0	4.5	3.7	3.6				

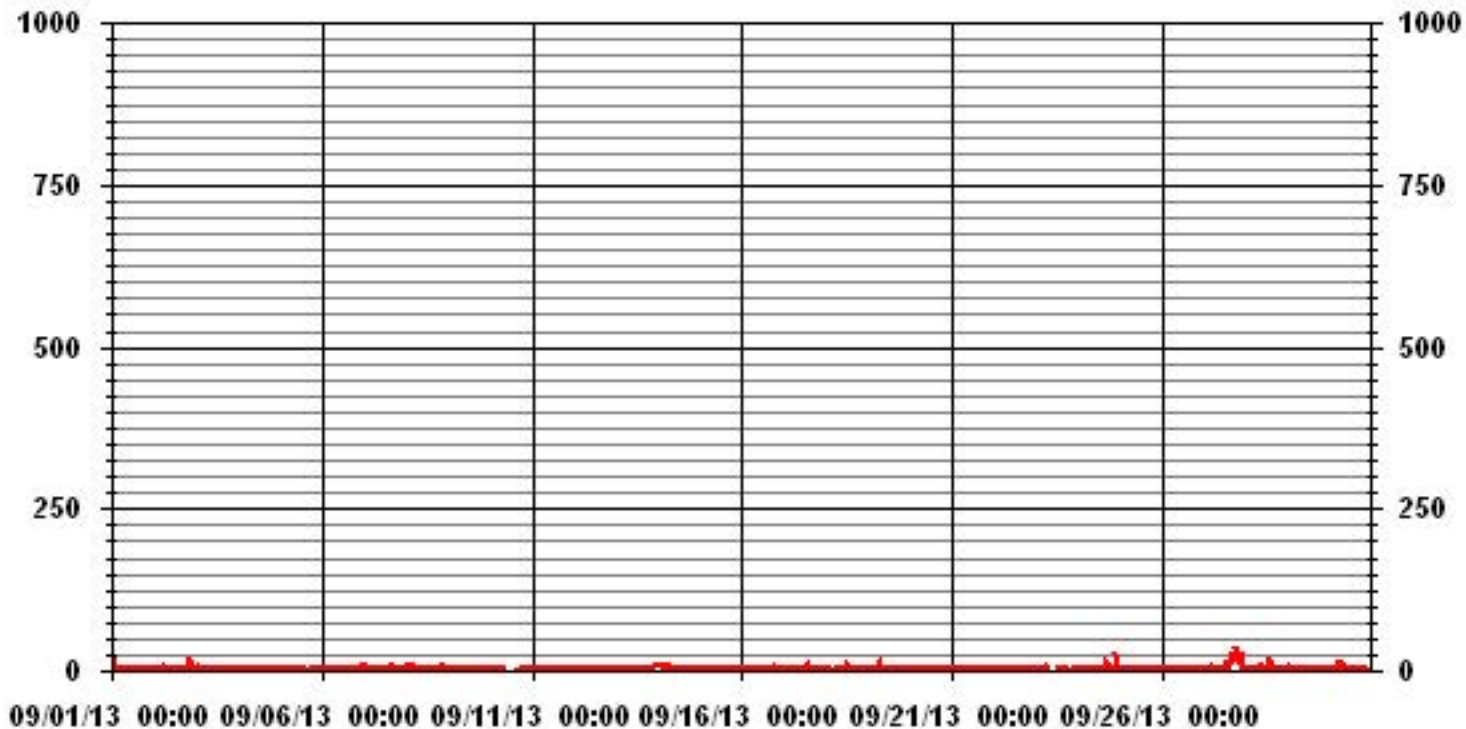
STATUS FLAG CODES

C	- CALIBRATION	Q	- QUALITY ASSURANCE
Y	- MAINTENANCE	R	- RECOVERY
S	- DAILY ZERO/SPAN CHECK	X	- MACHINE MALFUNCTION
P	- POWER FAILURE	O	- OPERATOR ERROR
G	- OUT FOR REPAIR	K	- COLLECTION ERROR

MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	673
MAXIMUM INSTANTANEOUS VALUE:	33.4 PPB @ HOUR(S) 18 ON DAY(S) 27
IZS CALIBRATION TIME:	31 HRS
MONTHLY CALIBRATION TIME:	8 HRS
STANDARD DEVIATION:	2.86
OPERATIONAL TIME:	712 HRS

01 Hour Averages



— LICA31 NO2MAX PPB

LICA31
NO2_ / WDR Joint Frequency Distribution (Percent)

September 2013

Distribution By % Of Samples

Logger Id : 31
Site Name : LICA31
Parameter : NO2_
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	
< 50.0	3.85	2.81	3.85	3.40	2.51	3.85	5.48	7.70	10.37	7.40	5.18	7.55	8.88	10.07	12.44	4.59	100.00
< 110.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
< 210.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
>= 210.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
Totals	3.85	2.81	3.85	3.40	2.51	3.85	5.48	7.70	10.37	7.40	5.18	7.55	8.88	10.07	12.44	4.59	

Calm : .00 %

Total # Operational Hours : 675

Distribution By Samples

Limit	Direction																Freq
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
< 50.0	26	19	26	23	17	26	37	52	70	50	35	51	60	68	84	31	675
< 110.0																	
< 210.0																	
>= 210.0																	
Totals	26	19	26	23	17	26	37	52	70	50	35	51	60	68	84	31	

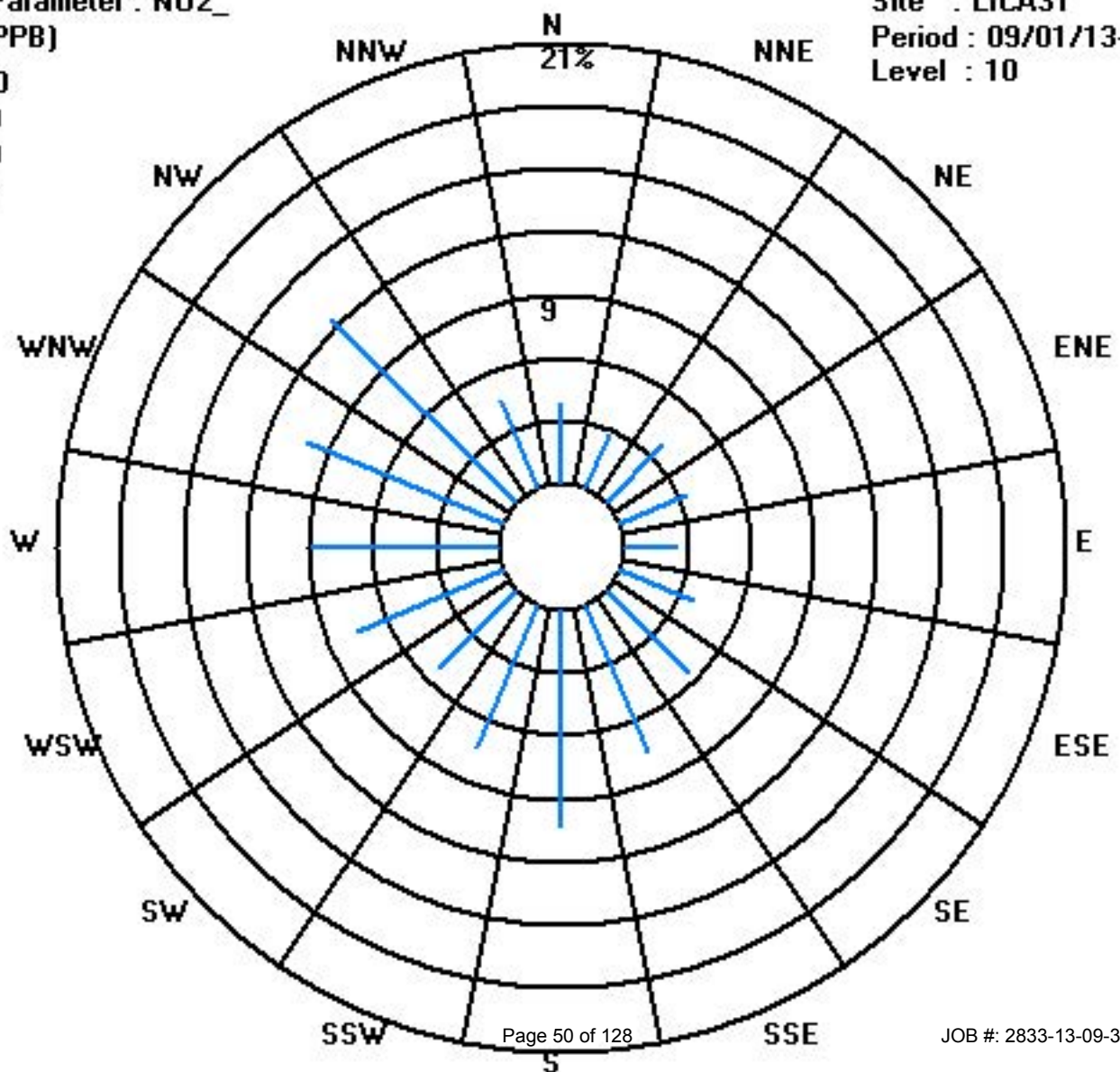
Calm : .00 %

Total # Operational Hours : 675

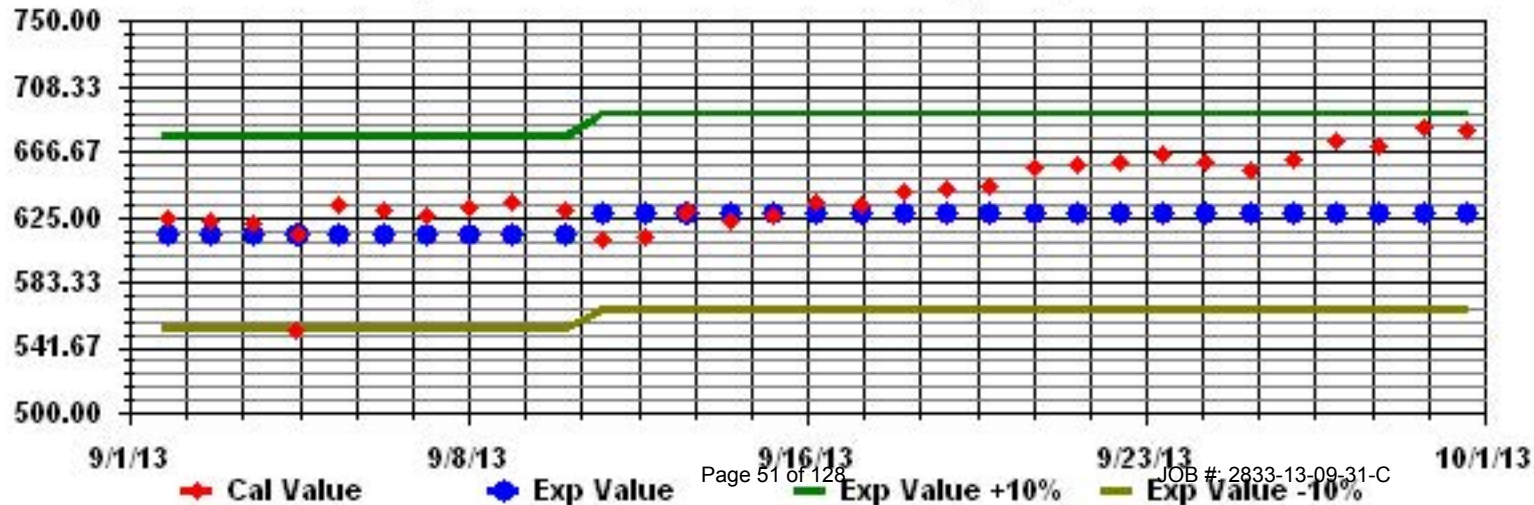
Class Limits (PPB)

Period : 09/01/13-09/30/13

Level : 10



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



Nitric Oxide

LAKELAND INDUSTRY & COMMUNICATY ASSOCIATION - ST. LINA

SEPTEMBER 2013

NITRIC OXIDE hourly averages in ppb

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	0.4	0.0	0.0	0.1	0.0	0.3	0.3	0.6	0.6	0.5	0.2	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	S	0.0	0.0	0.0	0.0	0.0	0.6	0.1	24
2	0.0	0.0	0.1	0.0	0.0	0.2	0.5	0.4	0.2	0.1	0.2	0.1	0.0	0.1	0.1	0.0	0.0	0.1	S	0.1	0.4	0.0	0.0	0.0	0.0	0.5	0.1	24
3	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	S	0.2	0.0	0.0	0.0	0.1	0.1	0.1	0.3	0.0	24
4	0.0	0.0	0.1	0.0	0.1	0.1	0.4	0.6	0.7	0.9	0.7	0.2	0.0	0.0	0.0	0.0	S	Y	0.6	0.0	0.3	0.1	0.1	0.2	0.9	0.2	23	
5	0.2	0.1	0.3	0.1	0.4	0.3	0.4	0.7	0.6	0.5	0.4	0.5	0.4	0.3	0.4	S	0.2	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.3	24
6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.5	0.4	0.0	0.0	0.0	S	0.3	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.5	0.1	24
7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.0	0.0	0.0	0.0	S	0.4	0.6	0.7	0.6	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.1	24
8	0.0	0.0	0.1	0.0	0.0	0.0	0.5	1.2	0.9	0.0	0.1	0.0	S	0.6	0.2	0.3	0.2	0.1	0.4	0.1	0.2	0.2	0.2	0.2	1.2	0.2	24	
9	0.0	0.1	0.3	0.2	0.2	0.2	0.4	0.5	0.3	0.2	0.2	S	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.1	24
10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C	C	C	C	C	C	C	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	0.1	0.0	S	0.4	0.2	0.3	0.3	0.2	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.4	0.1	24	
12	0.1	0.1	0.2	0.1	0.0	0.1	0.1	0.5	0.6	S	0.8	0.2	0.6	0.6	0.5	0.5	0.5	0.3	0.5	0.5	0.5	0.4	0.5	0.5	0.8	0.4	24	
13	0.6	0.4	0.4	0.3	0.2	0.6	S	1.4	S	0.6	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	1.4	0.2	24	
14	0.0	0.2	0.0	0.1	0.0	0.0	0.3	S	0.8	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.1	24	
15	0.0	0.0	0.0	0.0	0.0	0.0	S	0.7	0.4	0.2	0.1	0.2	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.1	24	
16	0.0	0.0	0.0	0.0	0.0	S	0.4	0.5	0.5	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.5	0.1	24	
17	0.0	0.0	0.0	0.0	S	0.6	0.4	0.7	0.6	0.7	0.4	0.4	0.8	0.6	0.3	0.1	0.3	0.3	0.6	0.5	0.5	0.5	0.6	0.5	0.8	0.4	24	
18	0.6	0.7	0.5	S	0.2	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.1	24	
19	0.0	0.0	S	0.5	0.2	0.5	0.6	0.5	0.4	0.4	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.6	0.2	24		
20	0.0	S	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	24	
21	S	0.3	0.0	0.2	0.0	0.0	0.1	0.4	0.8	0.8	0.7	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	S	0.8	0.2	24	
22	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.7	0.4	0.3	0.6	0.1	0.2	0.2	0.2	0.0	0.0	0.0	0.0	0.1	0.0	S	0.4	0.7	0.2	24	
23	0.2	0.1	0.3	0.2	0.4	0.3	0.6	P	P	P	P	X	0.6	0.4	0.4	0.3	0.3	0.4	0.2	0.4	0.1	S	0.6	0.6	0.6	0.4	19	
24	0.6	0.4	0.6	0.4	0.3	0.4	0.5	0.7	0.9	0.6	0.7	Y	0.9	0.8	0.9	0.8	0.8	0.8	0.4	0.4	S	0.9	0.1	0.0	0.9	0.6	23	
25	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.1	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	S	0.6	0.0	0.0	0.0	0.0	0.6	0.1	24	
26	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	S	0.5	0.0	0.0	0.0	0.0	0.1	0.5	0.0	24	
27	0.0	0.0	0.0	0.0	0.0	0.1	0.4	1.1	2.1	1.3	1.5	1.5	0.6	0.5	0.7	0.3	0.9	S	3.4	1.9	2.6	1.3	0.1	0.5	3.4	0.9	24	
28	0.1	0.2	0.1	0.2	0.1	0.4	0.7	3.2	2.0	2.5	1.6	0.6	0.5	0.3	0.1	0.0	S	0.9	0.6	0.4	0.5	0.4	0.5	0.2	3.2	0.7	24	
29	0.3	0.5	0.4	0.4	0.5	0.4	0.4	1.0	0.8	0.9	1.0	0.8	0.5	0.3	0.4	S	0.7	0.1	0.1	0.1	0.2	0.0	0.0	0.2	1.0	0.4	24	
30	0.2	0.2	0.3	0.3	0.4	0.2	1.1	1.0	1.2	0.4	0.4	0.7	0.4	0.4	S	0.8	0.2	0.0	0.1	0.2	0.2	0.0	0.1	0.0	1.2	0.4	24	
HOURLY MAX	0.6	0.7	0.6	0.5	0.5	0.6	1.1	3.2	2.1	2.5	1.6	1.5	0.9	0.8	0.9	0.8	0.9	0.9	3.4	1.9	2.6	1.3	0.6	0.6				
HOURLY AVG	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.6	0.6	0.5	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.1	0.3	0.2	0.2	0.1	0.1	0.1				

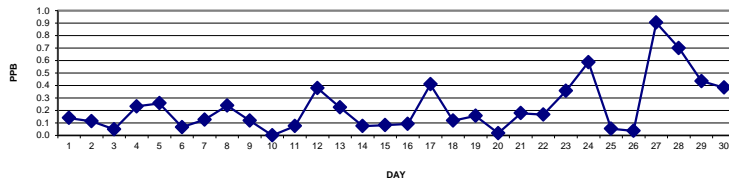
STATUS FLAG CODES

C	- CALIBRATION	Q	- QUALITY ASSURANCE
Y	- MAINTENANCE	R	- RECOVERY
S	- DAILY ZERO/SPAN CHECK	X	- MACHINE MALFUNCTION
P	- POWER FAILURE	O	- OPERATOR ERROR
G	- OUT FOR REPAIR	K	- COLLECTION ERROR

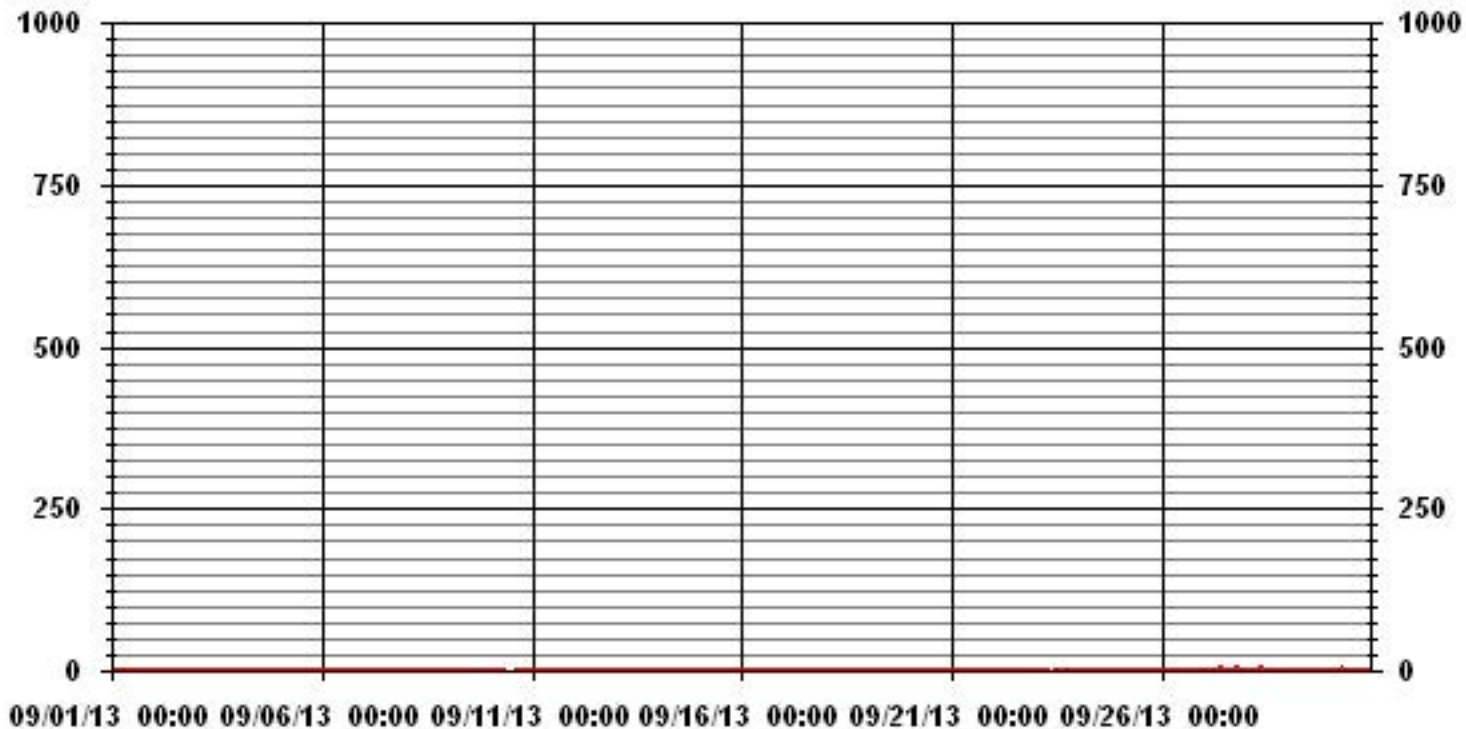
MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	347					
MAXIMUM 1-HR AVERAGE:	3.4	PPB	@ HOUR(S)	18	ON DAY(S)	27
MAXIMUM 24-HR AVERAGE:	0.9	PPB			ON DAY(S)	27
IZS CALIBRATION TIME:	31	HRS	OPERATIONAL TIME:	713	HRS	
MONTHLY CALIBRATION TIME:	7	HRS	AMD OPERATION UPTIME:	99.0	%	
STANDARD DEVIATION:	0.37		MONTHLY AVERAGE:	0.23	PPB	

24 HOUR AVERAGES FOR SEPTEMBER 2013



01 Hour Averages



LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - ST. LINA

SEPTEMBER 2013

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	12.2	0.8	0.8	0.7	0.6	1.1	0.9	1.2	1.1	1.3	1.1	0.7	0.7	0.5	0.7	0.5	0.6	0.5	0.5	S	0.9	0.7	0.9	0.5	12.2	1.3	24	
2	0.5	0.7	0.7	0.6	0.5	1.8	1.5	1.4	1.0	0.9	0.8	1.0	0.6	1.2	0.7	0.7	0.7	1.8	S	0.9	9.3	0.3	0.5	0.3	9.3	1.2	24	
3	0.5	0.7	0.4	0.4	0.2	0.5	0.8	0.9	0.8	0.4	0.6	0.7	0.4	0.5	0.6	0.5	0.6	S	0.8	0.6	0.6	0.7	0.7	X	0.9	0.6	23	
4	0.7	0.8	0.8	0.5	0.6	0.8	1.2	1.5	1.8	3.4	1.8	1.4	4.4	0.3	0.5	0.8	S	Y	2.0	0.6	0.9	0.7	0.6	0.9	4.4	1.2	23	
5	0.9	0.8	0.9	0.7	0.9	1.0	1.5	2.0	2.0	1.3	1.0	1.1	1.1	0.9	1.4	S	1.0	0.6	1.1	0.6	0.7	0.5	0.4	0.3	2.0	1.0	24	
6	0.3	0.3	0.3	0.3	0.5	0.5	0.5	0.6	0.9	1.2	1.2	0.7	0.5	0.4	S	1.1	0.5	0.6	0.5	0.6	0.4	0.2	0.4	0.6	1.2	0.6	24	
7	0.4	0.4	0.4	0.4	0.1	0.2	0.6	0.9	0.9	0.6	0.4	0.3	0.4	S	1.2	4.7	4.2	2.9	1.5	0.4	0.4	0.5	0.4	0.5	4.7	1.0	24	
8	0.7	0.7	0.7	0.7	0.4	0.7	1.5	1.8	2.8	0.7	1.2	0.3	S	1.4	0.8	1.0	1.0	0.7	1.0	0.8	2.9	2.8	0.7	0.8	2.9	1.1	24	
9	0.7	0.7	1.0	0.9	0.9	0.9	1.2	1.4	1.4	0.9	1.6	S	0.9	0.2	0.8	1.4	1.1	0.9	0.6	1.5	0.6	0.4	0.1	0.3	1.6	0.9	24	
10	0.3	0.3	0.0	0.0	0.3	0.3	0.6	0.3	C	C	C	C	C	C	C	C	0.8	1.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	1.1	0.3	24
11	0.1	0.2	0.2	0.2	0.1	0.3	0.2	0.2	4.3	0.4	S	1.6	1.1	1.1	0.9	0.9	0.6	0.7	0.7	0.6	0.8	0.7	0.7	0.7	4.3	0.8	24	
12	0.7	0.7	0.8	0.8	0.7	0.7	0.7	1.3	1.4	S	3.1	0.8	1.5	2.4	1.7	1.2	1.0	1.0	1.2	1.0	1.2	1.0	1.1	3.1	1.2	24		
13	1.3	1.0	1.1	0.8	0.8	1.9	S	4.8	S	1.6	1.6	0.5	0.5	0.8	0.4	0.7	0.0	0.3	0.6	0.3	0.5	0.5	0.8	0.5	4.8	1.0	24	
14	0.4	0.8	0.6	0.6	0.6	0.6	0.9	S	1.9	1.3	0.8	0.2	0.5	0.4	0.4	0.4	0.5	0.5	0.2	0.1	0.2	0.2	0.3	0.3	1.9	0.6	24	
15	0.2	0.1	0.2	0.6	0.6	0.5	S	1.6	1.0	0.8	0.9	0.8	0.7	0.5	0.7	0.7	0.8	0.5	0.5	0.7	0.5	0.8	0.8	0.6	1.6	0.7	24	
16	0.7	0.6	0.4	0.4	0.4	S	1.1	1.2	1.1	1.2	0.7	0.6	0.6	0.5	0.5	0.3	0.3	0.8	1.4	0.5	0.2	0.5	0.2	0.2	1.4	0.6	24	
17	0.3	0.2	0.1	0.2	S	1.1	1.2	1.9	1.2	1.9	5.7	1.1	2.4	5.6	1.9	0.9	0.9	1.2	1.9	1.0	1.3	1.2	1.2	1.3	5.7	1.6	24	
18	1.2	1.4	1.2	S	1.4	1.1	0.8	0.8	1.6	0.7	1.0	0.1	16.1	14.7	0.3	1.0	1.5	0.6	0.4	0.5	0.3	0.3	0.4	0.1	16.1	2.1	24	
19	0.3	0.3	S	1.4	1.3	26.9	20.8	1.7	1.5	1.4	0.8	1.1	0.8	0.6	0.7	0.6	0.5	0.6	0.5	0.4	0.6	0.7	0.8	0.6	26.9	2.8	24	
20	0.8	S	1.2	0.4	0.2	0.2	0.4	0.7	1.0	0.6	0.7	0.3	0.9	0.3	0.3	0.3	0.3	0.4	0.6	0.3	0.3	0.3	0.4	0.3	1.2	0.5	24	
21	S	1.2	0.7	0.7	0.4	0.6	0.9	1.1	1.7	1.3	1.3	1.1	0.8	0.9	0.8	0.5	0.6	0.4	0.5	0.5	0.5	0.4	0.4	S	1.7	0.8	24	
22	1.0	0.5	0.5	0.5	0.8	0.5	0.7	1.0	1.6	1.0	1.3	1.3	0.8	0.8	0.8	0.8	0.5	0.5	0.6	0.3	0.7	0.6	S	1.7	1.7	0.8	24	
23	0.9	0.9	1.2	0.9	1.1	0.9	3.4	P	P	P	P	X	1.8	1.1	2.4	1.2	1.0	1.1	1.1	1.6	0.8	S	2.1	1.2	3.4	1.4	19	
24	1.2	1.0	1.0	1.0	1.0	1.3	1.1	1.3	1.9	1.8	1.7	Y	3.6	1.8	1.8	1.8	8.9	1.8	1.7	1.3	S	20.1	1.1	0.6	20.1	2.7	23	
25	0.6	0.5	0.6	0.6	0.9	0.6	0.6	0.9	0.9	1.7	0.7	1.3	0.7	0.6	0.7	0.9	0.6	0.2	0.7	S	5.0	0.4	0.5	0.4	5.0	0.9	24	
26	0.1	0.1	0.4	0.4	0.5	1.1	1.3	0.7	1.1	0.9	2.3	0.5	0.0	0.0	1.5	0.5	0.5	1.6	S	2.2	0.8	0.6	0.6	2.3	2.3	0.9	24	
27	0.6	0.4	0.6	1.4	0.6	0.9	1.2	2.0	3.7	2.8	2.4	2.5	1.3	1.7	12.0	12.0	22.8	S	39.7	7.2	25.2	30.2	1.1	4.3	39.7	7.7	24	
28	0.8	0.8	0.8	0.9	0.9	1.6	4.4	17.1	5.2	3.4	4.2	1.3	2.9	14.4	1.2	0.6	S	2.3	1.3	1.0	1.2	1.1	1.2	0.8	17.1	3.0	24	
29	1.3	1.2	1.1	1.1	1.2	1.1	1.1	1.9	1.5	2.0	2.1	1.5	1.3	1.2	1.7	S	1.8	0.7	0.9	0.9	2.2	0.6	0.6	0.7	2.2	1.3	24	
30	1.0	1.0	1.1	1.0	0.9	0.9	24.8	2.2	1.9	1.1	1.3	2.1	1.2	1.5	S	2.0	1.1	0.8	0.8	2.1	2.2	0.6	0.7	0.8	24.8	2.3	24	
HOURLY MAX	12.2	1.4	1.2	1.4	1.4	26.9	24.8	17.1	5.2	3.4	5.7	2.5	16.1	14.7	12.0	12.0	22.8	2.9	39.7	7.2	25.2	30.2	2.1	4.3				
HOURLY AVG	1.1	0.7	0.7	0.7	0.7	1.7	2.7	1.9	1.7	1.4	1.6	1.0	1.7	2.0	1.4	1.4	2.0	0.9	2.3	1.0	2.1	2.3	0.7	0.8				

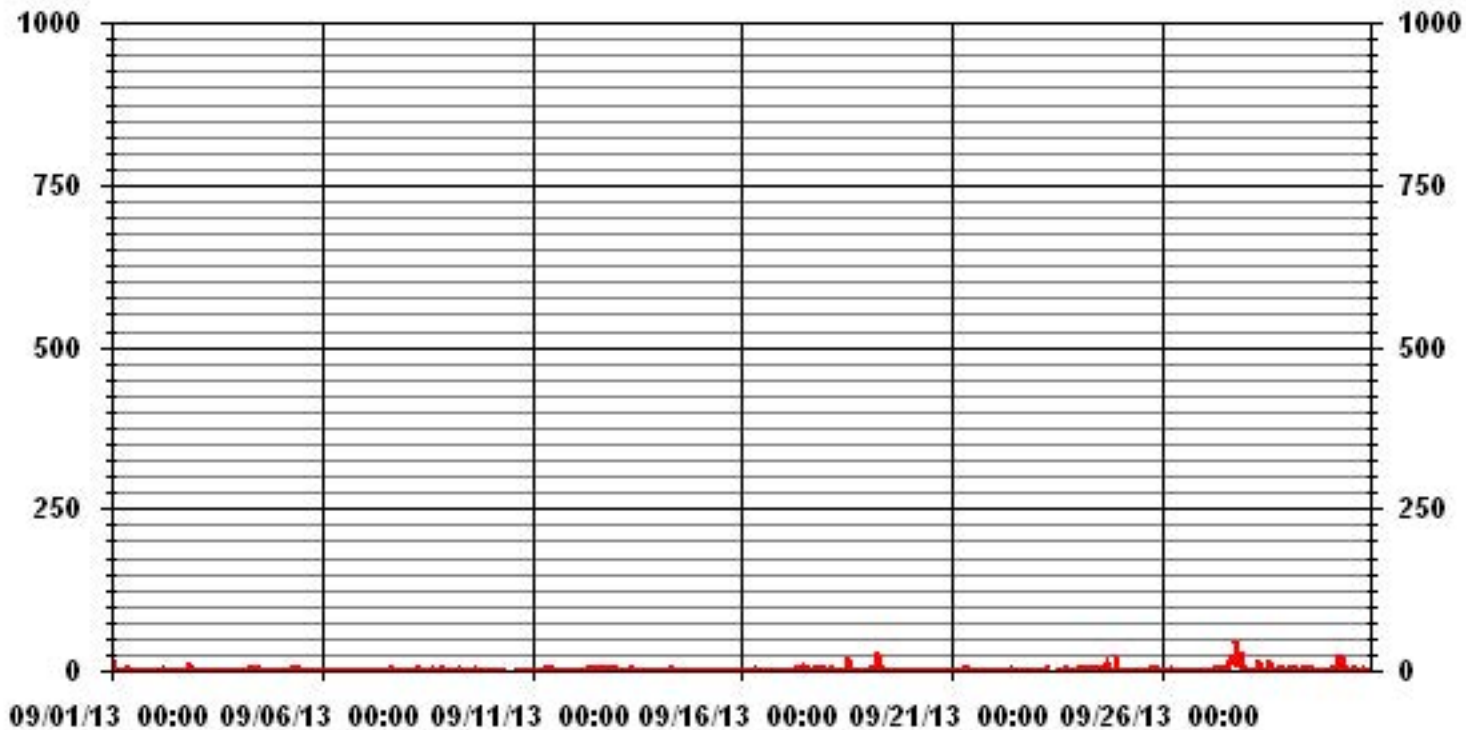
STATUS FLAG CODES

C	- CALIBRATION	Q	- QUALITY ASSURANCE
Y	- MAINTENANCE	R	- RECOVERY
S	- DAILY ZERO/SPAN CHECK	X	- MACHINE MALFUNCTION
P	- POWER FAILURE	O	- OPERATOR ERROR
G	- OUT FOR REPAIR	K	- COLLECTION ERROR

MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	665				
MAXIMUM INSTANTANEOUS VALUE:	39.7	PPB	@ HOUR(S)	18	ON DAY(S) 27
IZS CALIBRATION TIME:	31	HRS	OPERATIONAL TIME:	712	HRS
MONTHLY CALIBRATION TIME:	8	HRS			
STANDARD DEVIATION:	3.24				

01 Hour Averages



LICA31
NO_ / WDR Joint Frequency Distribution (Percent)

September 2013

Distribution By % Of Samples

Logger Id : 31
Site Name : LICA31
Parameter : NO_
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	
< 50.0	3.85	2.81	3.85	3.40	2.51	3.85	5.48	7.70	10.37	7.40	5.18	7.55	8.88	10.07	12.44	4.59	100.00
< 110.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
< 210.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
>= 210.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
Totals	3.85	2.81	3.85	3.40	2.51	3.85	5.48	7.70	10.37	7.40	5.18	7.55	8.88	10.07	12.44	4.59	

Calm : .00 %

Total # Operational Hours : 675

Distribution By Samples

Limit	Direction																Freq
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
< 50.0	26	19	26	23	17	26	37	52	70	50	35	51	60	68	84	31	675
< 110.0																	
< 210.0																	
>= 210.0																	
Totals	26	19	26	23	17	26	37	52	70	50	35	51	60	68	84	31	

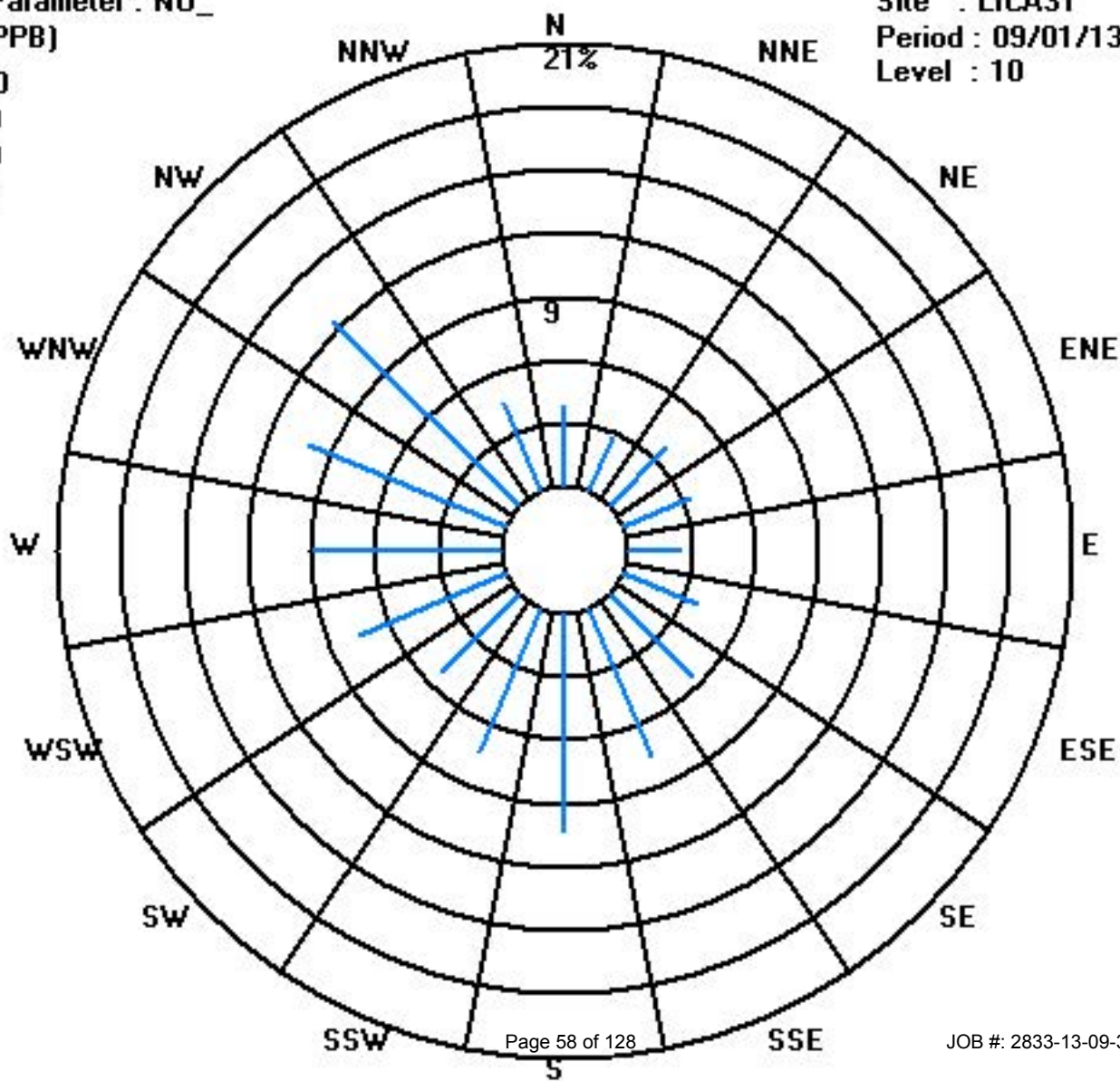
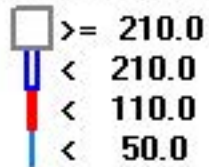
Calm : .00 %

Total # Operational Hours : 675

Class Limits (PPB)

Period : 09/01/13-09/30/13

Level : 10



Oxides of Nitrogen

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - ST. LINA

SEPTEMBER 2013

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	2.1	1.4	1.2	1.2	1.5	2.4	1.6	1.6	1.6	1.3	0.9	0.4	0.6	0.4	0.4	0.3	0.3	0.2	0.3	S	1.4	1.9	2.4	2.3	2.4	1.2	24	
2	2.0	2.3	2.0	2.1	2.1	3.2	3.9	3.2	1.8	1.3	1.1	1.0	0.9	1.7	1.9	0.8	0.8	0.7	S	0.3	1.8	0.3	1.0	2.4	3.9	1.7	24	
3	2.8	3.2	3.5	2.8	1.7	2.0	1.9	1.3	0.9	0.2	0.2	0.3	0.2	0.5	0.8	0.4	0.4	S	1.1	1.2	1.9	2.1	1.8	1.6	3.5	1.4	24	
4	1.4	1.3	1.2	1.2	1.1	1.4	1.9	1.6	2.0	3.1	3.9	4.0	2.9	2.5	2.5	1.9	S	Y	2.1	1.0	1.6	1.2	1.0	1.2	4.0	1.9	23	
5	1.0	1.0	1.5	1.1	0.8	0.9	1.8	2.8	1.8	1.2	1.0	0.8	0.6	0.7	0.8	S	0.5	0.6	1.5	2.1	1.1	0.9	0.6	0.4	2.8	1.1	24	
6	0.5	0.9	0.6	0.9	1.0	1.0	1.4	1.2	1.8	2.9	2.0	0.6	0.7	0.7	S	0.4	0.1	0.2	1.1	2.2	2.4	3.2	5.0	5.7	5.7	1.6	24	
7	5.0	4.0	3.2	2.6	3.1	2.7	3.0	3.0	1.9	1.2	1.2	0.8	0.7	S	1.1	2.5	2.6	2.6	2.1	1.4	1.6	1.5	1.3	2.4	5.0	2.2	24	
8	3.8	4.5	4.9	4.4	3.9	3.7	3.6	3.4	2.6	1.0	1.0	0.6	S	1.1	0.6	0.7	0.7	0.7	1.5	1.2	1.5	2.4	2.7	2.0	4.9	2.3	24	
9	1.8	1.8	2.3	2.2	1.6	1.1	0.9	0.9	0.6	0.4	0.6	S	0.1	0.1	0.1	0.6	0.2	0.3	0.2	1.0	0.4	0.3	0.1	0.2	2.3	0.8	24	
10	0.2	0.2	0.0	0.1	0.2	0.4	0.4	0.5	0.6	C	C	C	C	C	C	C	C	0.3	0.6	0.3	0.6	0.3	0.1	0.3	0.0	0.6	0.3	24
11	0.8	0.6	0.6	0.6	0.7	0.7	0.8	0.8	1.3	0.2	S	0.4	0.2	0.4	0.3	0.2	0.2	0.3	0.1	0.6	1.0	1.1	1.6	1.5	1.6	0.7	24	
12	2.6	2.2	2.0	1.8	1.8	2.0	2.4	2.4	2.3	S	3.0	1.6	2.2	2.1	1.7	1.3	1.3	1.6	2.2	2.1	2.0	1.9	2.3	2.8	3.0	2.1	24	
13	3.1	3.0	2.6	2.2	2.0	2.9	S	3.0	S	3.2	3.3	2.4	2.0	2.2	1.9	0.9	0.5	0.5	0.9	0.8	1.2	2.5	6.3	7.1	7.1	2.5	24	
14	5.9	7.1	5.9	4.9	4.1	6.1	6.0	S	2.3	1.2	0.8	0.0	0.0	0.0	0.0	0.2	0.2	0.1	0.4	1.6	1.1	1.3	1.6	1.9	7.1	2.3	24	
15	1.2	1.3	1.4	1.4	0.9	1.1	S	1.7	1.1	0.9	0.8	0.7	0.5	0.5	0.6	0.6	0.6	0.6	0.8	1.2	1.1	1.4	1.6	1.5	1.7	1.0	24	
16	1.9	1.8	1.6	1.7	2.0	S	2.6	2.6	2.1	1.9	1.5	1.2	1.1	1.1	0.9	0.7	1.0	1.0	2.0	1.9	3.0	2.5	1.9	1.3	3.0	1.7	24	
17	0.5	0.3	0.0	0.0	S	0.6	0.5	1.1	0.6	0.7	0.4	0.4	0.8	0.6	0.3	0.1	0.3	0.3	0.6	0.5	0.5	0.5	0.6	0.5	1.1	0.5	24	
18	0.6	0.8	0.9	S	0.6	0.5	0.2	0.2	0.4	0.0	0.1	0.0	0.7	1.0	0.0	0.1	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.3	24	
19	0.0	0.4	S	1.0	0.6	0.9	1.3	0.9	0.6	0.6	0.7	0.4	0.5	0.4	0.5	0.4	0.3	0.8	0.5	1.1	1.5	1.7	2.1	2.4	2.4	0.9	24	
20	2.2	S	1.3	1.1	1.2	1.3	2.0	2.6	2.2	1.7	1.3	0.7	0.9	0.4	0.3	0.3	0.3	0.2	0.7	0.7	1.7	2.8	4.3	3.3	4.3	1.5	24	
21	S	2.8	2.2	2.5	2.3	3.2	3.1	3.0	3.2	3.0	3.0	3.3	2.4	2.2	2.1	2.1	1.9	2.6	2.8	2.8	3.1	2.7	2.2	S	3.3	2.7	24	
22	1.0	0.4	0.5	0.7	0.5	0.6	0.9	1.4	1.8	1.3	1.3	1.9	0.8	0.8	0.8	0.7	0.4	0.3	0.9	1.5	2.1	2.1	S	2.1	2.1	1.1	24	
23	1.8	2.0	2.1	2.4	3.0	3.1	4.0	P	P	P	P	X	3.4	2.2	1.4	0.9	0.8	1.0	0.9	1.5	0.7	S	1.2	0.9	4.0	1.9	19	
24	1.1	0.9	1.0	0.8	1.3	1.4	1.5	1.8	1.9	1.2	1.2	Y	1.2	1.0	1.2	1.3	1.4	1.8	1.1	1.1	S	1.2	0.6	0.1	1.9	1.2	23	
25	0.4	0.3	0.3	0.5	0.9	0.7	0.6	1.1	1.0	1.0	0.7	0.5	0.3	0.3	0.2	0.4	0.3	0.2	0.2	S	1.7	0.4	0.8	0.7	1.7	0.6	24	
26	0.3	0.3	0.6	0.6	0.7	1.0	0.9	0.6	1.0	0.6	1.1	0.3	0.0	0.0	0.5	0.1	0.2	0.2	S	1.0	0.4	0.3	0.5	0.8	1.1	0.5	24	
27	0.6	1.2	1.4	2.4	2.4	2.8	3.1	4.3	5.1	3.5	4.3	5.1	3.0	2.3	3.2	2.3	4.2	S	8.5	5.7	6.4	3.9	1.0	1.3	8.5	3.4	24	
28	0.7	2.2	1.9	1.9	2.0	3.0	3.3	6.8	5.3	6.5	4.7	1.5	1.3	1.2	0.6	0.6	S	1.8	2.2	2.5	3.0	3.7	3.9	3.4	6.8	2.8	24	
29	3.8	4.0	3.3	3.2	3.2	3.4	3.6	3.7	3.2	3.2	3.1	2.7	2.4	2.1	2.0	S	1.3	0.7	0.9	1.0	1.0	0.6	0.8	0.9	4.0	2.4	24	
30	1.0	0.8	0.8	0.6	1.5	1.1	3.4	2.9	3.0	1.3	1.2	1.2	0.9	0.8	S	1.6	1.2	1.1	1.1	1.1	1.1	1.1	1.4	0.8	3.4	1.3	24	
HOURLY MAX	5.9	7.1	5.9	4.9	4.1	6.1	6.0	6.8	5.3	6.5	4.7	5.1	3.4	2.5	3.2	2.5	4.2	2.6	8.5	5.7	6.4	3.9	6.3	7.1				
HOURLY AVG	1.7	1.8	1.8	1.7	1.7	1.9	2.2	2.2	1.9	1.7	1.6	1.3	1.1	1.0	1.0	0.8	0.8	0.8	1.3	1.4	1.6	1.6	1.8	1.8				

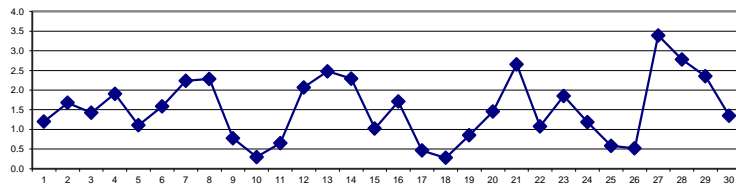
STATUS FLAG CODES

C	- CALIBRATION	Q	- QUALITY ASSURANCE
Y	- MAINTENANCE	R	- RECOVERY
S	- DAILY ZERO/SPAN CHECK	X	- MACHINE MALFUNCTION
P	- POWER FAILURE	O	- OPERATOR ERROR
G	- OUT FOR REPAIR	K	- COLLECTION ERROR

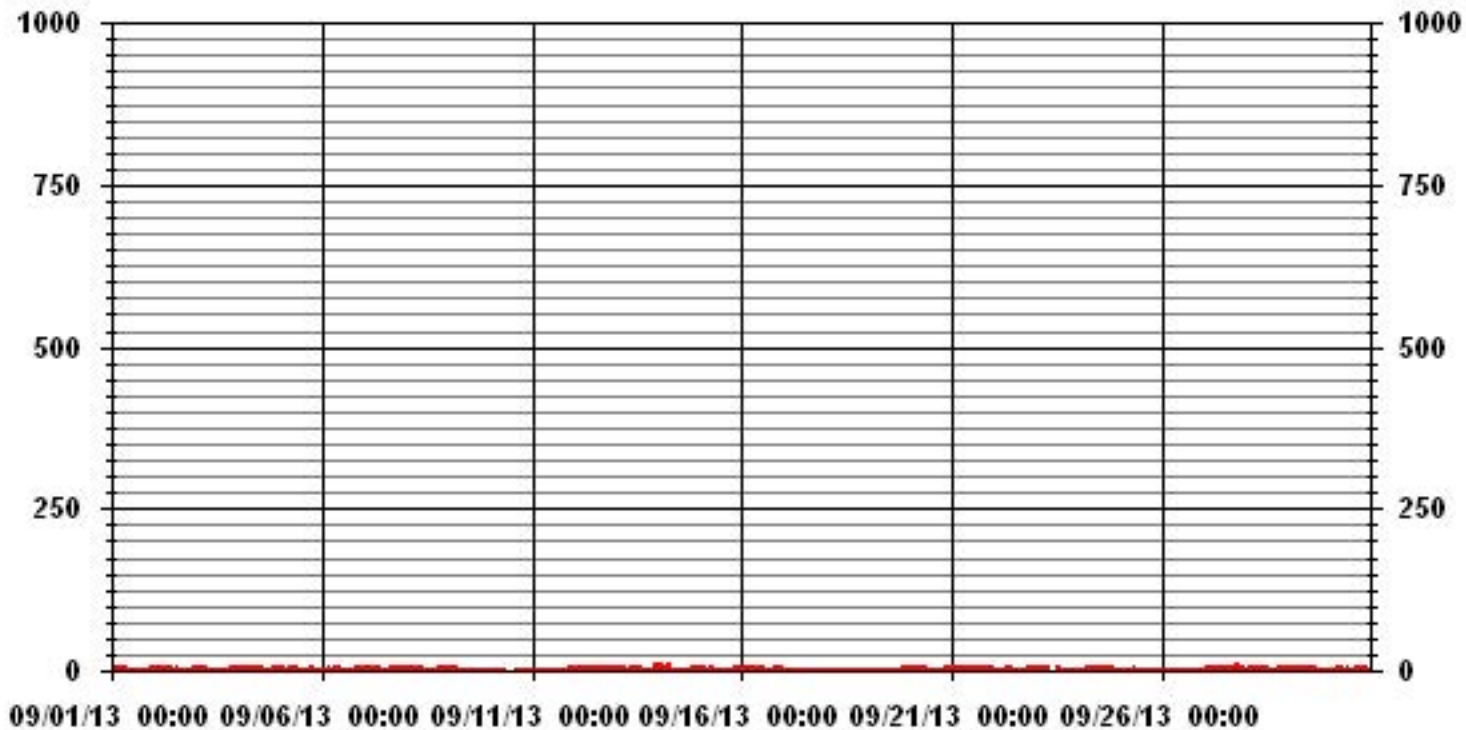
MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	655					
MAXIMUM 1-HR AVERAGE:	8.5	PPB	@ HOUR(S)	18	ON DAY(S)	27
MAXIMUM 24-HR AVERAGE:	3.4	PPB			ON DAY(S)	27
IZS CALIBRATION TIME:	31	HRS	OPERATIONAL TIME:	713	HRS	
MONTHLY CALIBRATION TIME:	7	HRS	AMD OPERATION UPTIME:	99.0	%	
STANDARD DEVIATION:	1.28		MONTHLY AVERAGE:	1.52	PPB	

24 HOUR AVERAGES FOR SEPTEMBER 2013



01 Hour Averages



— LICA31 NOX_ PPB

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - ST. LINA

SEPTEMBER 2013

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	31.8	3.0	1.9	2.0	2.8	3.1	2.7	2.2	2.5	2.6	1.8	1.0	1.4	1.1	1.2	1.0	1.0	0.8	1.1	S	2.3	3.4	5.7	2.9	31.8	3.4	24	
2	2.7	2.9	3.2	2.8	2.7	6.4	6.1	4.9	2.7	2.3	2.5	2.3	2.1	3.7	3.0	1.9	2.5	3.4	S	1.1	27.8	1.2	2.1	3.3	27.8	4.1	24	
3	3.5	3.9	4.1	3.8	2.4	2.7	2.6	2.4	1.6	1.0	1.1	1.1	0.8	1.6	1.4	1.0	1.1	S	1.7	2.0	2.8	2.9	2.3	X	4.1	2.2	23	
4	2.1	2.1	1.8	1.8	1.5	2.5	3.8	2.9	3.8	5.9	5.5	5.7	4.6	3.5	4.6	3.9	S	Y	7.2	2.1	2.2	1.9	1.7	1.8	7.2	3.3	23	
5	1.7	1.9	2.2	1.7	1.4	1.5	5.4	5.5	4.5	2.9	1.8	1.6	1.4	1.4	2.4	S	1.3	1.6	5.7	5.7	3.4	1.9	1.3	1.1	5.7	2.6	24	
6	1.3	1.9	1.4	1.6	1.7	2.0	2.2	1.9	2.9	3.9	3.4	2.0	1.4	1.4	S	1.0	0.7	1.0	2.0	2.9	3.1	3.9	6.9	6.9	6.9	2.5	24	
7	6.2	4.8	4.0	3.5	4.0	3.5	4.0	4.0	2.8	1.9	2.1	1.3	1.3	S	2.5	7.2	9.2	8.3	5.4	2.0	2.3	2.1	2.3	3.3	9.2	3.8	24	
8	4.9	5.3	5.5	5.3	4.6	4.5	4.4	4.2	5.2	1.7	2.8	2.1	S	1.9	1.2	1.4	1.5	1.5	3.6	2.7	8.5	8.3	3.6	2.7	8.5	3.8	24	
9	2.9	2.5	3.1	3.0	2.8	2.2	1.6	1.7	2.1	1.2	2.4	S	0.9	0.8	1.1	2.9	2.3	2.2	1.1	4.4	1.7	1.3	0.8	0.8	4.4	2.0	24	
10	0.9	0.8	0.7	0.9	1.0	1.0	1.5	1.2	C	C	C	C	C	C	C	C	1.0	2.7	1.5	1.6	0.9	0.9	0.9	0.7	2.7	1.1	24	
11	1.5	1.5	1.5	1.3	1.4	1.4	1.7	1.8	7.8	1.1	S	1.2	1.1	1.4	1.1	1.5	1.3	1.0	0.8	1.5	1.7	1.9	2.2	3.1	7.8	1.8	24	
12	3.5	3.0	2.7	2.8	2.5	2.6	3.0	2.9	3.4	S	6.6	2.4	3.9	5.7	3.3	1.9	2.1	2.7	3.2	2.7	2.7	2.9	3.5	6.6	3.2	24		
13	3.8	3.7	3.5	3.7	2.6	5.5	S	7.5	S	5.2	5.9	3.5	2.6	4.8	4.4	1.8	1.0	1.0	1.5	1.6	1.8	5.5	8.6	8.8	8.8	4.0	24	
14	7.7	8.2	7.3	6.5	5.2	7.6	7.5	S	3.8	2.4	1.5	0.7	0.8	0.7	0.7	0.7	0.9	0.7	1.2	2.6	1.6	1.9	2.8	3.0	8.2	3.3	24	
15	2.0	1.8	2.0	2.0	1.6	1.8	S	2.4	1.9	1.6	1.4	1.2	1.2	1.1	1.2	1.2	1.3	1.4	1.9	1.9	2.2	2.2	2.2	2.4	1.7	24		
16	2.7	2.6	2.4	2.4	2.6	S	3.1	3.3	3.0	2.6	2.1	1.9	1.7	1.8	1.4	1.3	1.8	3.0	8.0	3.2	3.9	3.3	2.5	2.5	8.0	2.7	24	
17	1.7	0.9	0.8	0.6	S	1.2	1.3	3.0	1.2	2.0	3.0	1.0	2.2	9.9	1.5	0.6	0.7	0.9	2.3	0.8	0.9	0.8	0.9	0.9	9.9	1.7	24	
18	1.1	1.7	1.5	S	1.6	1.7	1.2	1.4	2.5	0.9	1.2	0.3	25.4	18.8	0.5	1.6	1.8	1.0	1.0	1.2	1.0	1.1	0.7	0.6	25.4	3.0	24	
19	0.7	1.2	S	1.8	2.1	27.0	29.0	2.9	1.9	1.8	2.1	1.3	1.3	0.9	1.4	0.9	1.1	2.5	1.5	2.1	2.6	2.8	2.7	3.0	29.0	4.1	24	
20	3.0	S	2.1	1.9	1.7	2.0	2.7	3.3	3.3	2.4	2.1	1.5	2.5	1.1	0.9	1.0	0.9	0.7	1.7	1.4	2.5	4.3	4.9	4.4	4.9	2.3	24	
21	S	3.5	3.1	3.1	3.2	3.9	4.1	3.7	4.0	3.5	3.9	4.3	3.4	3.1	4.3	2.9	2.7	3.5	3.7	3.5	3.9	3.9	3.4	S	4.3	3.6	24	
22	1.6	1.2	1.2	1.3	1.2	1.2	1.8	2.3	3.0	2.1	2.6	3.1	1.5	1.8	1.5	1.7	1.2	1.0	1.6	2.2	3.0	2.7	S	3.7	3.7	1.9	24	
23	2.5	2.8	3.1	3.1	5.9	3.9	10.5	P	P	P	P	X	4.9	3.3	4.3	2.1	1.5	1.6	2.6	4.0	1.6	S	2.6	1.6	10.5	3.4	19	
24	1.6	1.6	1.6	1.5	2.2	2.2	2.3	2.6	3.4	2.6	2.4	Y	3.4	2.4	2.5	2.2	17.4	7.1	6.7	2.9	S	40.4	3.1	0.7	40.4	5.1	23	
25	1.0	0.9	1.0	1.0	1.7	1.3	1.8	2.6	1.8	3.1	1.4	3.1	1.3	1.4	0.9	1.9	1.3	1.1	2.1	S	9.6	1.1	2.6	1.2	9.6	2.0	24	
26	0.9	1.0	1.2	1.3	1.5	2.3	2.5	1.5	2.4	2.0	4.2	1.5	0.6	0.9	2.9	0.9	1.7	3.0	S	2.5	1.7	0.7	1.1	4.6	4.6	1.9	24	
27	1.3	1.9	2.5	4.8	4.3	4.3	4.8	5.5	7.9	5.5	6.1	6.1	4.4	3.4	28.1	17.6	47.8	S	66.6	18.0	54.1	40.3	4.1	6.8	66.6	15.1	24	
28	1.4	3.8	2.7	2.5	3.0	4.7	8.0	23.1	10.7	7.7	9.2	2.4	4.4	30.6	2.4	1.8	S	2.9	3.2	3.2	4.2	4.6	4.5	4.2	30.6	6.3	24	
29	4.6	4.8	3.9	3.7	4.0	4.0	5.1	4.9	4.0	4.1	3.9	3.6	3.1	2.8	3.6	S	2.3	1.4	1.7	1.8	3.6	1.3	1.4	1.5	5.1	3.3	24	
30	1.7	1.4	1.5	1.2	2.6	2.3	38.9	3.8	4.2	2.6	2.2	3.4	1.7	2.2	S	3.0	2.1	2.5	2.5	3.0	3.5	1.7	2.0	1.7	38.9	4.0	24	
HOURLY MAX	31.8	8.2	7.3	6.5	5.9	27.0	38.9	23.1	10.7	7.7	9.2	6.1	25.4	30.6	28.1	17.6	47.8	8.3	66.6	18.0	54.1	40.4	8.6	8.8				
HOURLY AVG	3.5	2.6	2.5	2.5	2.6	3.8	5.8	3.9	3.6	2.8	3.2	2.3	3.0	4.1	3.1	2.5	4.0	2.2	5.1	3.0	5.5	5.2	2.9	2.9				

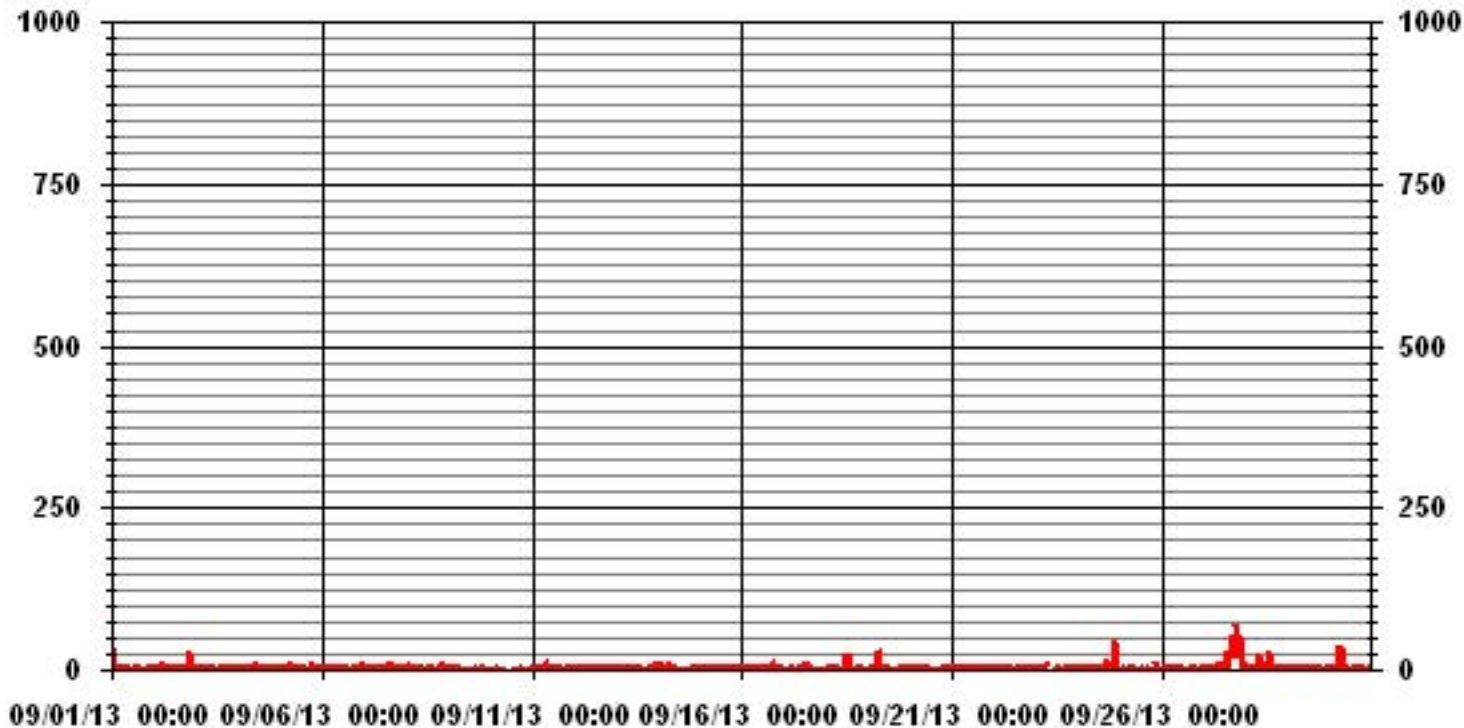
STATUS FLAG CODES

C	- CALIBRATION	Q	- QUALITY ASSURANCE
Y	- MAINTENANCE	R	- RECOVERY
S	- DAILY ZERO/SPAN CHECK	X	- MACHINE MALFUNCTION
P	- POWER FAILURE	O	- OPERATOR ERROR
G	- OUT FOR REPAIR	K	- COLLECTION ERROR

MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	673
MAXIMUM INSTANTANEOUS VALUE:	66.6 PPB @ HOUR(S) 18 ON DAY(S) 27
IZS CALIBRATION TIME:	31 HRS
MONTHLY CALIBRATION TIME:	8 HRS
STANDARD DEVIATION:	5.52
OPERATIONAL TIME:	712 HRS

01 Hour Averages



LICA31
NOX_ / WDR Joint Frequency Distribution (Percent)

September 2013

Distribution By % Of Samples

Logger Id : 31
Site Name : LICA31
Parameter : NOX_
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	
< 50.0	3.85	2.81	3.85	3.40	2.51	3.85	5.48	7.70	10.37	7.40	5.18	7.55	8.88	10.07	12.44	4.59	100.00
< 110.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
< 210.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
>= 210.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
Totals	3.85	2.81	3.85	3.40	2.51	3.85	5.48	7.70	10.37	7.40	5.18	7.55	8.88	10.07	12.44	4.59	

Calm : .00 %

Total # Operational Hours : 675

Distribution By Samples

Limit	Direction																Freq
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
< 50.0	26	19	26	23	17	26	37	52	70	50	35	51	60	68	84	31	675
< 110.0																	
< 210.0																	
>= 210.0																	
Totals	26	19	26	23	17	26	37	52	70	50	35	51	60	68	84	31	

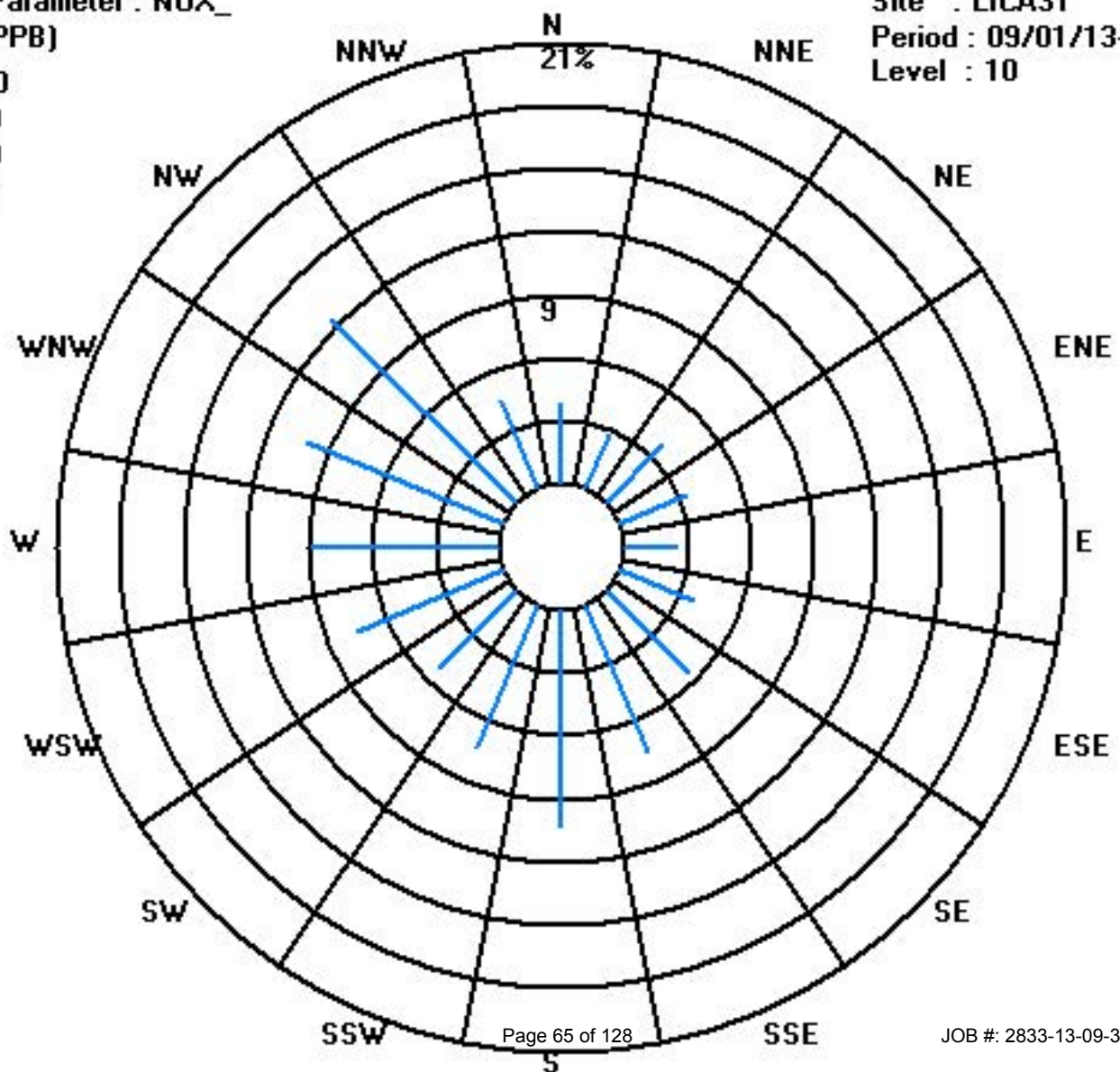
Calm : .00 %

Total # Operational Hours : 675

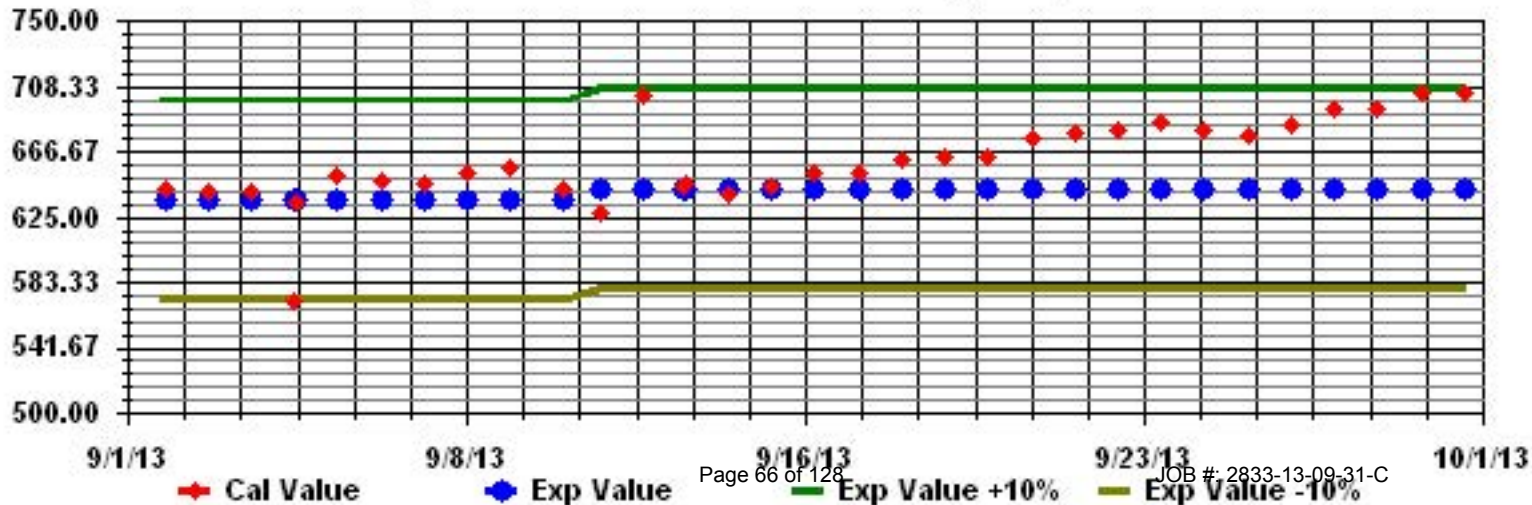
Class Limits (PPB)

Period : 09/01/13-09/30/13

Level : 10



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



Particulate Matter 2.5

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - ST. LINA

SEPTEMBER 2013

PARTICULATE MATTER 2.5 (PM2.5) hourly averages 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		6	6	6	6	5	5	6	5	5	5	4	0	2	1	0	2	3	3	3	5	4	5	5	4	6	4.0	24	
2		5	4	4	3	4	5	8	7	7	4	5	2	2	5	6	2	4	3	4	3	4	6	6	6	8	4.5	24	
3		5	3	0	0	0	0	1	1	1	3	2	0	1	2	3	2	1	2	3	2	4	3	3	2	5	1.8	24	
4		1	2	3	4	3	3	4	6	7	10	10	9	8	Y	10	10	7	3	4	7	5	5	5	5	10	5.7	23	
5		6	6	6	3	3	2	8	7	0	0	1	0	0	1	2	1	3	4	5	8	3	2	3	2	8	3.2	24	
6		3	1	1	7	0	4	3	4	3	5	2	0	4	0	2	0	0	3	4	3	1	3	3	2	7	0.0	24	
7		2	2	1	1	1	0	2	1	3	5	6	6	7	6	5	5	5	3	3	3	2	2	2	4	7	3.2	24	
8		4	3	4	4	3	3	7	4	4	5	7	6	6	5	4	4	4	7	5	4	3	3	6	3	7	4.5	24	
9		5	5	5	8	7	3	2	3	3	2	3	1	3	3	4	1	0	1	3	2	2	3	1	1	8	3.0	24	
10		2	3	2	2	2	2	2	5	6	0	4	0	1	1	1	0	3	6	4	5	3	3	2	2	6	2.5	24	
11		4	3	4	3	4	2	3	5	3	0	2	0	0	1	0	3	1	5	6	5	1	3	5	4	6	2.8	24	
12		4	4	4	3	3	4	4	5	5	5	C	C	C	4	3	3	4	4	5	7	5	5	5	5	7	4.3	24	
13		5	7	5	4	3	4	6	5	9	9	12	11	11	12	12	7	5	5	5	5	6	5	6	6	12	6.9	24	
14		6	6	6	4	3	3	3	3	2	1	1	0	0	1	1	2	3	3	3	7	4	4	4	4	7	3.1	24	
15		4	5	5	5	4	4	4	4	4	4	4	3	3	3	1	1	3	5	4	4	4	4	4	5	5	3.8	24	
16		6	6	5	5	5	5	6	4	5	5	5	6	6	7	6	7	5	4	6	12	14	15	13	11	15	7.0	24	
17		4	3	0	0	1	1	2	3	4	3	2	2	0	2	2	2	0	0	0	1	0	0	1	0	4	1.4	24	
18		1	2	2	2	2	0	0	0	0	1	0	0	0	0	0	1	2	2	2	2	1	1	1	1	0	2	0.9	24
19		0	1	1	2	1	1	1	3	0	1	0	1	1	0	2	1	2	4	4	5	3	3	3	4	5	1.8	24	
20		3	3	2	2	3	3	3	3	5	5	2	4	3	3	3	3	3	4	3	5	3	5	7	7	7	3.6	24	
21		5	5	5	4	4	4	4	4	4	4	3	4	5	4	5	6	7	9	8	9	9	10	11	12	12	6.0	24	
22		7	5	2	2	1	1	3	5	3	1	0	0	0	0	0	0	2	3	5	5	5	3	3	3	7	2.5	24	
23		3	3	3	4	4	5	5	P	P	P	P	33	12	6	4	2	3	3	4	3	3	4	3	X	33	5.6	19	
24		4	2	1	0	0	0	2	1	2	1	0	C	14	0	0	0	0	0	1	2	3	1	1	0	14	1.5	24	
25		1	1	1	0	1	1	2	3	3	3	2	0	0	0	2	0	2	3	2	2	1	1	2	2	3	1.5	24	
26		0	0	0	1	0	0	0	1	1	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	0.3	24	
27		0	0	0	0	0	2	1	4	0	2	2	4	3	3	0	2	3	5	4	2	3	4	3	2	5	2.0	24	
28		2	5	2	2	3	2	5	8	8	6	1	0	0	0	0	0	1	3	2	3	2	2	3	8	2.5	24		
29		3	3	3	2	2	3	3	3	2	7	2	4	5	6	4	4	4	2	1	1	1	0	0	0	7	2.7	24	
30		0	0	1	0	0	1	0	1	2	2	5	3	1	4	5	7	4	4	2	2	2	1	2	1	7	2.1	24	

STATUS FLAG CODES

C	- CALIBRATION	Q	- QUALITY ASSURANCE
Y	- MAINTENANCE	R	- RECOVERY
S	- DAILY ZERO/SPAN CHECK	X	- MACHINE MALFUNCTION
P	- POWER FAILURE	O	- OPERATOR ERROR
G	- OUT FOR REPAIR	K	- COLLECTION ERROR

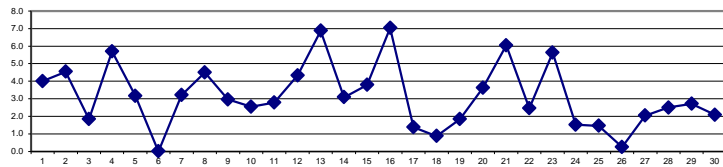
OBJECTIVE LIMIT:

ALBERTA ENVIRONMENT: 1-HR - ug/m³ 24-HR 30 ug/m³

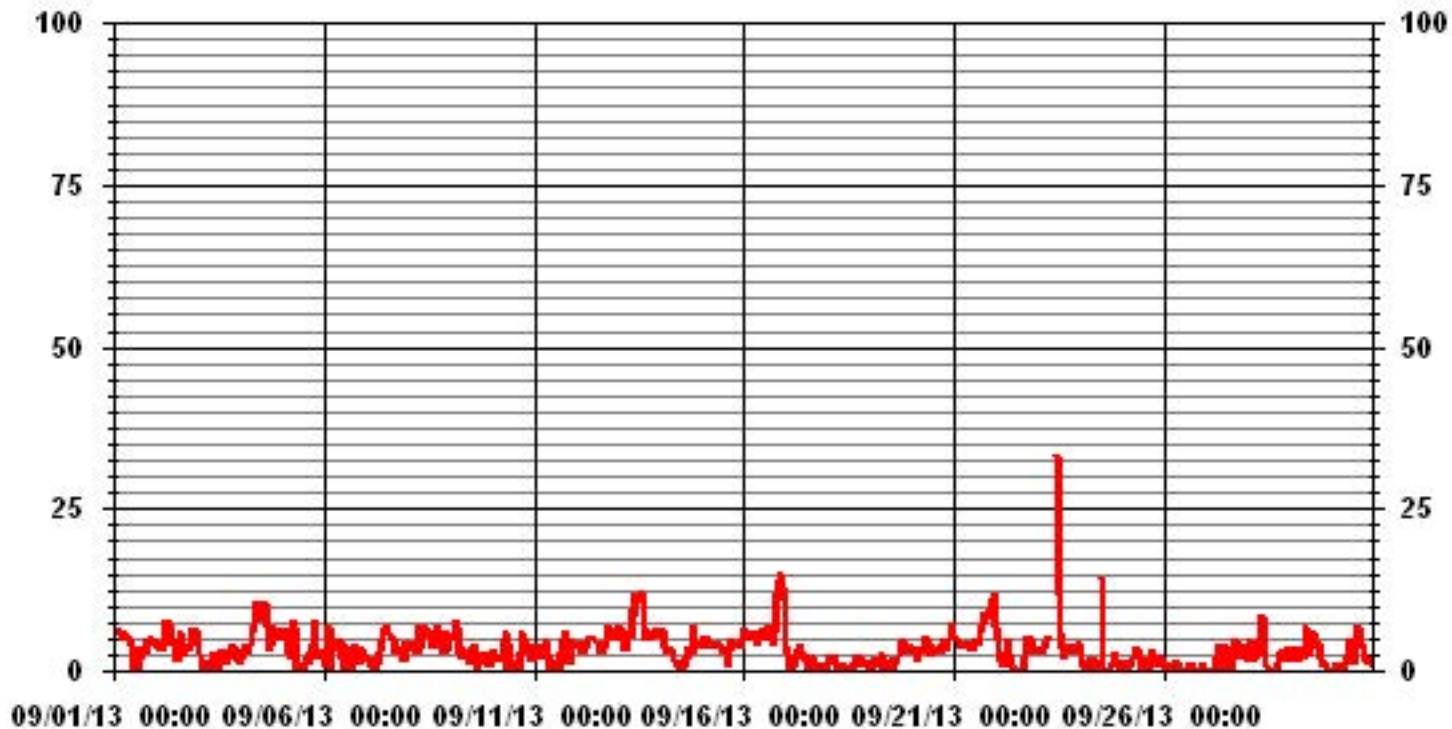
MONTHLY SUMMARY

NUMBER OF 1-HR EXCEEDENCES:	-
NUMBER OF 24-HR EXCEEDENCES:	0
NUMBER OF NON-ZERO READINGS:	600
MAXIMUM 1-HR AVERAGE:	33 UG/M ³ @ HOUR(S) 11 ON DAY(S) 23
MAXIMUM 24-HR AVERAGE:	7.0 UG/M ³ ON DAY(S) 16
MONTHLY CALIBRATION TIME:	4 HRS
MONTHLY OPERATIONAL TIME:	714 HRS
STANDARD DEVIATION:	2.75
AMD OPERATION UPTIME:	99.2 %
MONTHLY AVERAGE:	3.22 UG/M ³

24 HOUR AVERAGES FOR SEPTEMBER 2013



01 Hour Averages



— LICA31 PM2 UG/M3

LICA31
PM2 / WDR Joint Frequency Distribution (Percent)

September 2013

Distribution By % Of Samples

Logger Id : 31
Site Name : LICA31
Parameter : PM2
Units : UG/M3

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	
< 30	3.80	2.81	3.66	3.23	2.53	3.80	5.35	7.74	10.00	7.18	5.07	7.32	8.87	11.12	12.81	4.50	99.85
< 60	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.14	.00	.00	.14
< 80	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
< 120	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
< 240	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
>= 240	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
Totals	3.80	2.81	3.66	3.23	2.53	3.80	5.35	7.74	10.00	7.18	5.07	7.32	8.87	11.26	12.81	4.50	

Calm : .00 %

Total # Operational Hours : 710

Distribution By Samples

Limit	Direction																Freq
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
< 30	27	20	26	23	18	27	38	55	71	51	36	52	63	79	91	32	709
< 60														1			1
< 80																	
< 120																	
< 240																	
>= 240																	
Totals	27	20	26	23	18	27	38	55	71	51	36	52	63	80	91	32	

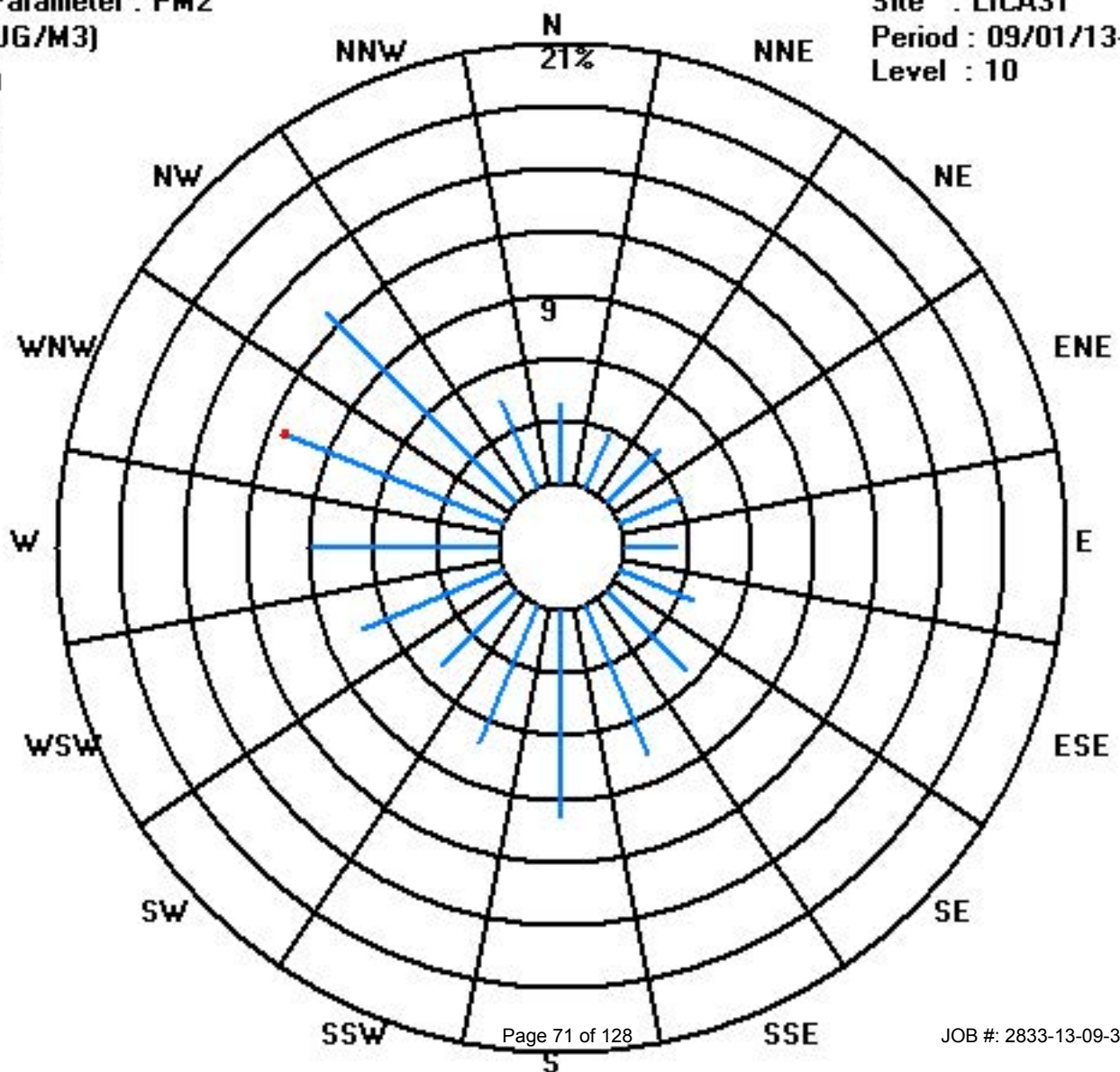
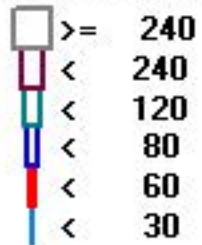
Calm : .00 %

Total # Operational Hours : 710

Class Limits (UG/M3)

Period : 09/01/13-09/30/13

Level : 10



Temperature

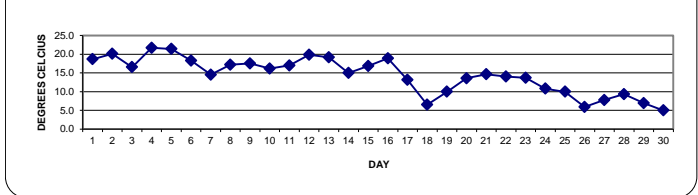
LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - ST. LINA
SEPTEMBER 2013
AMBIENT TEMPERATURE hourly averages (Degrees C)

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		
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	13.5	12.9	12.7	12.3	12	11.7	12.9	15.3	17.6	20.2	22.5	23.7	24.9	25.3	25.8	25.8	25.6	24.5	22	20.3	18.7	16.9	16	15.1	25.8	18.7	24
2	14.1	13.1	13.8	12.2	11.6	11.4	14.2	18.3	21.3	24	25.5	27.1	28	28.2	28.1	28	27.4	25.7	22.6	20.5	19.6	17.7	16	14.7	28.2	20.1	24	
3	13.5	12.3	11	10.1	9.6	8.5	9.8	12.2	14	16.3	18.5	19.6	20.9	21.8	22.4	22.7	22.7	21.7	19.9	18.7	18.1	17.8	17.9	17.4	22.7	16.6	24	
4	16.9	16.6	16.6	15.6	15.1	14.5	15.5	18	20.4	22.3	24.7	26.4	27.6	28	29.1	29	29.1	27.6	24.2	21.9	20	20.8	21.1	20.5	29.1	21.7	24	
5	19.9	19.2	16.3	17.1	17.2	17.2	19.3	21.4	22.2	24.3	24.6	25.8	26.4	26.8	27.4	27.4	27.2	25.7	21.6	18.2	17.7	17.4	17.2	17	27.4	21.4	24	
6	16.5	15.6	15.7	13.9	14.1	13.2	14.4	16.9	18.5	19.7	22.8	24.4	24.3	24.8	24.2	23	23.3	22.5	18.7	16	15.1	14.2	13.7	13.2	24.8	18.3	24	
7	12.7	12.4	12.4	12.2	11.4	11.2	11.2	12.3	16.9	16.1	17.3	17.7	18.3	18.5	17.8	16.3	14.9	15.1	14.3	13.8	13.8	13.9	13.9	14	18.5	14.5	24	
8	13.3	12.5	12.4	12	12	12	12.5	14.5	17.1	18.3	20.4	21.5	22.4	23.4	23.9	24.4	24	22.3	19	16.9	15.7	14.6	14.2	14.1	24.4	17.2	24	
9	13.6	13.1	12.3	12.4	14	13.7	13.6	15.9	18.3	20	21.5	22.4	23.1	24.4	23.7	23.3	22.5	21.3	18.3	15.8	15.3	15	14.1	13.8	24.4	17.6	24	
10	13.2	12.5	11.7	11.3	10.1	9.9	10.3	12.3	15.3	19.3	20.3	21.9	23.2	23.2	23.4	23.1	22.2	20.6	17.7	15.6	14.2	12.8	12.3	12	23.4	16.2	24	
11	11.2	10.6	10.1	9.9	9.6	9.7	12	16.4	18.2	18.4	20.4	22.4	23.5	24.2	24.2	24.2	24.3	22.6	18.8	17.2	16.3	15.3	14.6	14	24.3	17.0	24	
12	12.9	12.5	11.9	11.5	11.7	11.1	11.3	13.2	17	19.2	21.5	23.7	26.1	28.9	30.2	30.8	29.9	28.2	25.2	22.6	21.2	20	18.3	17.1	30.8	19.8	24	
13	16.3	15.7	14.7	13.8	12.7	12.3	12.9	16.7	19.8	22.8	24.8	26.6	27.6	28.1	27.6	27.4	26.3	23.1	19.3	16.7	15	13.8	13.5	13	28.1	19.2	24	
14	12.4	11.3	10.5	9.8	8.8	8	9.1	10.8	13.9	15.7	17.3	19.1	20.7	21.7	22.2	22.7	22	19.9	16.4	14.5	13.8	13.7	13	12.8	22.7	15.0	24	
15	12.3	11.9	11.5	10.8	10.4	10	10.4	12.4	15.3	18	20	21.7	22.6	23.2	23.4	23.3	23.2	21.7	19.3	17.9	17.1	16.3	15.6	15.5	23.4	16.8	24	
16	14.2	13	12.8	13	12.9	11	12	14.3	16.3	18.7	20.7	22.6	24.4	25.5	26.5	27.8	28.1	26.5	22.3	20.4	19.4	17.9	16.8	16.2	28.1	18.9	24	
17	15.8	14.4	13.4	13	12.3	10.9	11.3	13.7	15.1	16.5	16.7	16.8	17	15.9	15	14.8	14.3	13.3	12.5	11.2	9.8	8.5	7.2	5.8	17.0	13.1	24	
18	5.8	5.1	4.5	3.5	3.8	4.2	4	4.6	5.4	6.9	8.2	10.1	10.7	10.3	9.7	8.9	8.6	8	7.2	6.6	6.1	5.5	4.7	3.8	10.7	6.5	24	
19	3.2	2.7	2.6	2.9	3.1	2.8	2.9	5.5	9.5	11.1	12.6	13.9	15	16.5	17.9	18.2	17.9	16	12.9	11.7	11	10.4	9.9	9.1	18.2	10.0	24	
20	8.4	8.4	8	7.3	6.7	6.4	6.8	8.8	11.7	14.3	16.6	18	19.5	20.6	21.2	20.9	20.5	19.1	16.5	15.5	14	13.2	12.5	11.3	21.2	13.6	24	
21	10.3	9.4	8.7	7.6	6.9	4.7	6.3	10.2	12.6	13.8	16.4	18.6	21.1	22.5	23.5	22.3	21.7	19.8	17.8	15.8	15	15.8	16.2	14.2	23.5	14.6	24	
22	12.6	11.5	10.2	9.1	8.5	6.7	6.7	9.9	13.5	16.5	17.9	17.9	19.2	20.7	20.3	20	19.5	16.2	14.9	14	12.8	13	12.9	12.4	20.7	14.0	24	
23	11.9	11.1	10.8	9.9	9.2	8.7	8.5	P	P	P	P	18.5	18.2	19.4	20.4	19.4	19.2	17.3	14.3	12.7	11.8	11.1	10	11.2	20.4	13.7	20	
24	10.6	9	7.7	6.3	4.4	4.7	4.8	7.6	10.3	12.8	14.9	16.5	17	17.1	17.2	16.6	15.7	12.9	10.3	9.3	8.5	8.4	8	8.5	17.2	10.8	24	
25	7.6	6.7	6.4	6.1	5.5	4.7	5	8.6	11.3	12.6	14.9	16.1	16.3	16.6	16	15.4	14.8	13	10	8.9	7.4	6.3	5.2	4	16.6	10.0	24	
26	3.1	2.7	1.9	1.4	1.2	1.2	1.7	3.1	5.2	6.4	7.2	9.2	10.7	11.3	10.6	10.7	11.4	10.1	7.5	6.2	5.6	5.1	4.4	4.4	11.4	5.9	24	
27	2.3	1.5	2.5	0.7	0.4	0.4	-0.4	1.9	4.6	8.3	10.9	13	14.8	17.2	17	16.7	15.6	12.9	8.9	8.1	7.5	7.2	7.1	7.3	17.2	7.8	24	
28	6	3.5	3.4	3.1	1.9	1.1	1.6	6.6	8.9	11.6	13.6	14.8	15.6	16.5	15.8	15.8	15.4	13.2	10.9	10	9.5	9.2	8.1	7.2	16.5	9.3	24	
29	6.2	5.2	4.9	4.9	4.9	4.4	2.9	5	5.7	7.1	9.8	11	12.1	11.3	10	9.2	8.6	8.6	8.3	7.4	6.5	5.4	3.8	3.3	12.1	6.9	24	
30	2.8	2.6	3.3	4	0.9	1.7	0.1	2.2	3	4.3	4.8	6.3	6.7	8.6	10.8	8.6	7	6.5	6.4	6.2	6.1	5.9	5.4	5.3	10.8	5.0	24	
HOURLY MAX		19.9	19.2	16.6	17.1	17.2	17.2	19.3	21.4	22.2	24.3	25.5	27.1	28.0	28.9	30.2	30.8	29.9	28.2	25.2	22.6	21.2	20.8	21.1	20.5			
HOURLY AVG		11.1	10.3	9.8	9.3	8.8	8.3	8.8	11.3	13.8	15.7	17.5	18.9	19.9	20.7	20.8	20.6	20.1	18.5	15.9	14.4	13.4	12.8	12.1	11.6			

STATUS FLAG CODES

C	- CALIBRATION	Q	- QUALITY ASSURANCE
Y	- MAINTENANCE	R	- RECOVERY
S	- DAILY ZERO/SPAN CHECK	X	- MACHINE MALFUNCTION
P	- POWER FAILURE	O	- OPERATOR ERROR
G	- OUT FOR REPAIR	K	- COLLECTION ERROR

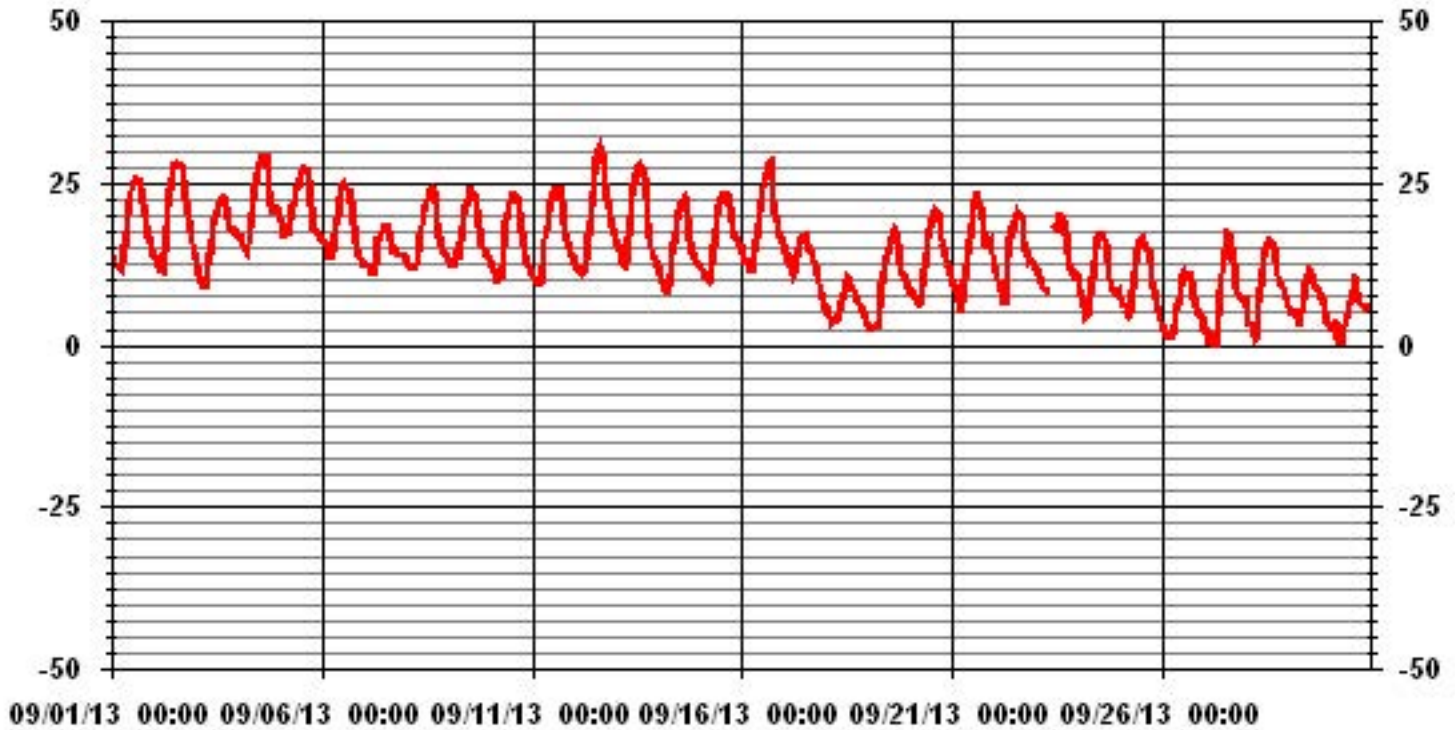
24 HOUR AVERAGES FOR SEPTEMBER 2013



MONTHLY SUMMARY

MINIMUM 1-HR AVERAGE:	-0.4 °C	@ HOUR(S)	6	ON DAY(S)	27
MAXIMUM 1-HR AVERAGE:	30.8 °C	@ HOUR(S)	15	ON DAY(S)	12
MAXIMUM 24-HR AVERAGE:	21.7 °C			ON DAY(S)	4
CALIBRATION TIME:	0	HRS	OPERATIONAL TIME:	716	HRS
STANDARD DEVIATION:	6.65		AMD OPERATION UPTIME:	99.4	%
			MONTHLY AVERAGE:	14.35	°C

01 Hour Averages



Barometric Pressure

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - ST. LINA

SEPTEMBER 2013

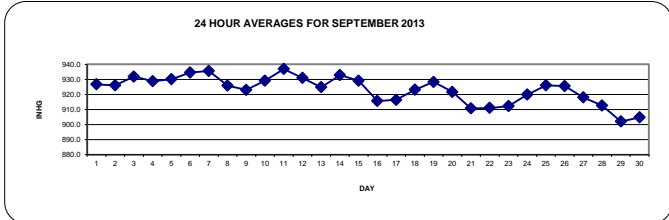
BAROMETRIC PRESSURE hourly averages (millibar)

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		
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	929	929	929	929	928	928	928	928	928	928	928	927	927	926	926	926	925	925	924	924	924	924	924	924	929	926.8	24	
2	924	924	924	924	924	924	924	924	925	925	926	926	926	926	926	927	927	927	928	928	928	928	929	929	929	929	929	926.0	24
3	930	930	931	931	931	931	931	932	933	933	933	934	934	934	934	933	933	933	932	931	931	931	931	930	930	934	931.9	24	
4	930	929	929	929	928	928	928	928	928	929	929	929	929	929	929	929	929	929	929	929	929	929	929	929	929	930	928.8	24	
5	929	929	929	929	929	930	930	930	931	931	931	931	931	931	931	930	930	930	930	930	930	930	930	930	931	931	930.1	24	
6	931	931	931	932	932	933	933	933	934	935	935	935	936	936	936	936	935	936	936	936	936	936	936	936	937	937	934.5	24	
7	938	937	937	937	937	937	937	937	937	937	937	937	937	937	936	936	936	935	934	933	933	933	932	932	931	938	935.5	24	
8	931	930	929	929	928	928	928	927	927	927	927	927	927	926	926	925	925	924	924	923	923	922	922	922	921	931	925.9	24	
9	921	921	921	921	921	921	921	921	922	922	922	923	923	923	924	924	924	925	925	925	925	925	925	926	926	926	923.0	24	
10	926	926	926	926	927	927	927	928	928	929	929	930	930	930	929	930	930	931	931	931	931	932	932	932	933	933	929.2	24	
11	933	934	934	935	935	936	936	937	938	938	939	939	939	939	939	938	938	938	938	937	937	937	936	936	936	939	936.9	24	
12	936	935	935	935	934	934	933	933	933	933	933	933	932	932	931	930	929	929	928	928	927	927	926	926	925	936	931.0	24	
13	925	924	924	923	923	922	922	923	923	923	924	924	924	925	925	926	926	927	927	927	928	928	929	929	929	929	924.8	24	
14	929	930	931	931	931	932	932	933	934	934	935	935	935	934	934	934	934	933	933	933	933	933	933	933	935	935	932.9	24	
15	933	932	932	932	932	931	931	931	931	931	931	931	931	930	930	929	928	927	926	926	925	925	924	923	933	929.2	24		
16	923	922	921	920	919	919	918	917	917	916	916	915	915	914	913	913	912	912	912	912	912	913	913	913	923	915.7	24		
17	914	914	914	914	914	914	914	914	915	915	915	916	916	917	917	918	919	919	919	919	919	919	919	920	920	920	916.5	24	
18	920	920	920	920	921	921	922	922	923	923	923	924	924	924	924	924	925	925	926	926	926	926	926	926	926	926	923.1	24	
19	927	927	927	927	928	928	929	929	929	930	930	930	930	930	929	929	929	929	928	927	927	927	927	927	927	926	926	928.3	24
20	926	925	925	924	924	924	923	923	923	923	923	923	923	922	922	921	921	920	919	919	918	917	917	916	926	921.7	24		
21	915	915	914	913	913	912	912	912	912	912	912	912	911	911	910	910	909	908	907	906	906	906	906	907	915	910.8	24		
22	908	909	910	910	910	911	911	911	912	913	913	913	913	912	912	912	911	911	910	910	910	910	910	910	910	913	911.0	24	
23	909	909	909	909	909	909	909	P	P	P	P	912	912	913	913	914	914	914	914	915	915	915	916	916	916	916	912.3	20	
24	916	917	917	918	918	918	918	919	919	920	921	921	921	921	921	921	922	921	922	922	922	922	922	923	923	923	920.0	24	
25	923	923	923	923	924	924	924	925	926	926	927	927	927	927	927	927	927	927	928	928	928	928	928	928	928	928	926.1	24	
26	928	927	927	927	927	927	927	927	927	927	927	927	926	926	926	925	925	925	925	924	923	923	923	923	922	928	925.6	24	
27	921	921	920	920	919	920	919	919	919	919	919	919	918	918	918	917	917	917	916	916	916	916	916	916	916	921	918.1	24	
28	915	915	915	915	915	915	915	915	915	915	915	915	914	914	913	913	912	911	910	909	908	907	906	905	915	912.6	24		
29	904	903	902	901	900	900	899	899	898	899	900	900	901	902	903	904	904	905	905	905	905	905	904	904	904	905	902.1	24	
30	904	904	904	904	903	903	903	902	902	903	903	904	903	904	905	905	906	906	907	907	908	908	909	909	909	909	904.8	24	
HOURLY MAX		938	937	937	937	937	937	937	937	938	938	939	939	939	939	938	938	938	938	938	937	937	936	937	937				
HOURLY AVG		923	923	923	923	923	923	923	923	924	924	924	924	924	923	923	923	923	923	923	923	923	923	923	923				

STATUS FLAG CODES

C	- CALIBRATION	Q	- QUALITY ASSURANCE
Y	- MAINTENANCE	R	- RECOVERY
S	- DAILY ZERO/SPAN CHECK	X	- MACHINE MALFUNCTION
P	- POWER FAILURE	O	- OPERATOR ERROR
G	- OUT FOR REPAIR	K	- COLLECTION ERROR

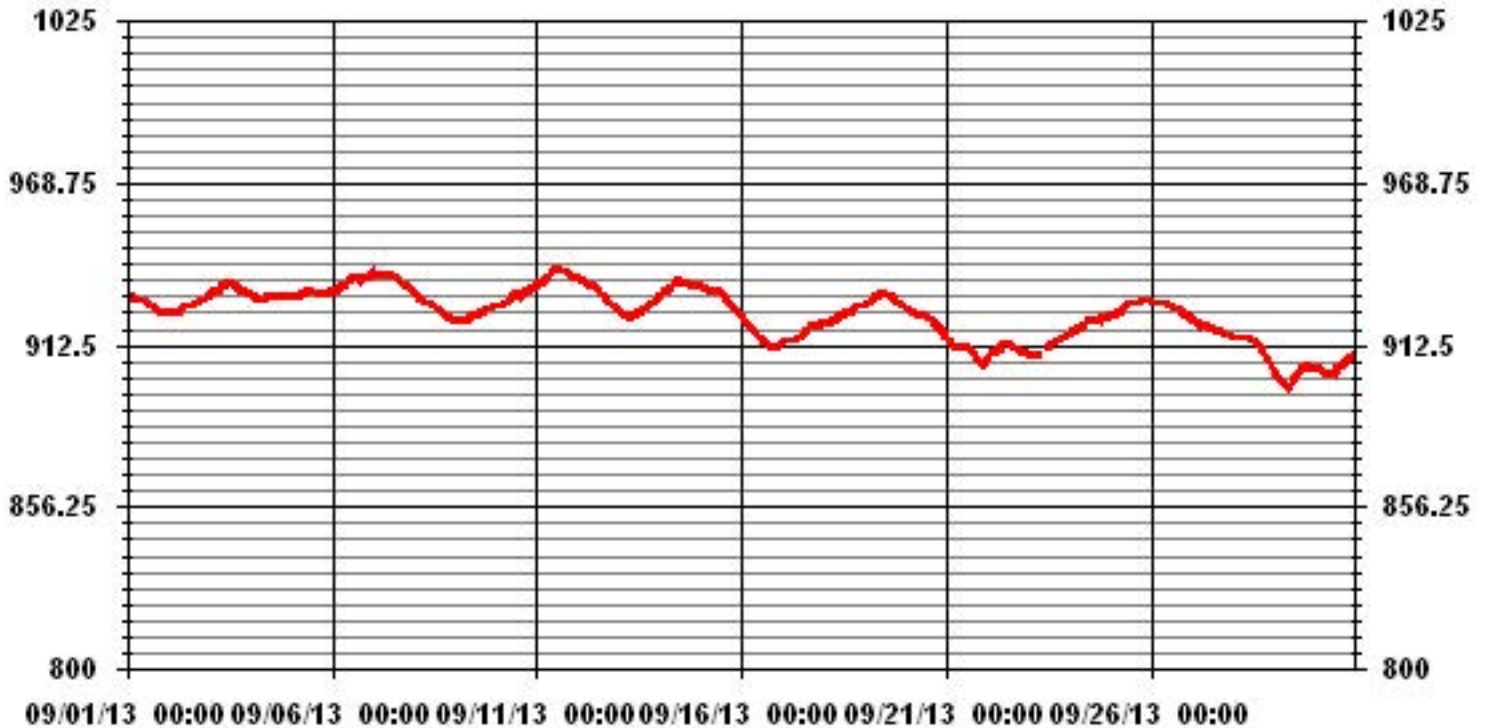
24 HOUR AVERAGES FOR SEPTEMBER 2013



MONTHLY SUMMARY

MAXIMUM 1-HR AVERAGE:	939 MB	@ HOUR(S)	VAR	ON DAY(S)	11
MAXIMUM 24-HR AVERAGE:	936.9 MB			ON DAY(S)	11
				VAR-VARIOUS	
CALIBRATION TIME:	0 HRS	OPERATIONAL TIME:	716 HRS		
		AMD OPERATION UPTIME:	99.4 %		
STANDARD DEVIATION:	9.15	MONTHLY AVERAGE:	923 MB		

01 Hour Averages



Relative Humidity

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - ST. LINA

SEPTEMBER 2013

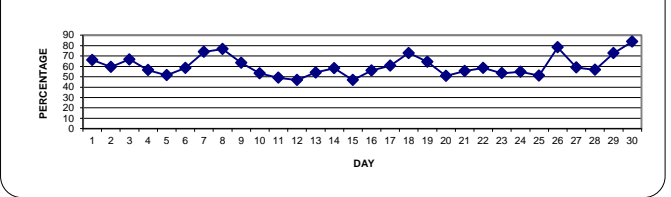
RELATIVE HUMIDITY hourly averages (%)

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	24-HOUR		
DAY	HR	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	MAX.	AVG.	RDGS.
1		88	89	89	89	88	87	82	75	69	62	56	50	46	42	38	39	41	46	54	60	67	74	77	78	89	66.1	24	
2		82	87	82	87	90	89	78	67	58	53	47	41	37	35	34	31	31	38	44	51	54	63	72	76	90	59.5	24	
3		79	83	86	87	82	84	80	74	68	64	59	56	53	52	52	52	52	55	62	64	65	64	63	64	87	66.7	24	
4		65	65	64	68	70	71	66	61	57	56	53	51	46	44	42	41	41	44	52	57	65	59	58	59	71	56.5	24	
5		60	63	76	69	67	64	60	58	53	41	39	35	32	33	31	31	33	37	50	61	59	60	62	61	76	51.5	24	
6		64	69	66	78	75	77	74	67	62	57	48	39	41	38	39	41	42	45	56	63	62	65	67	68	78	58.5	24	
7		71	74	74	75	78	76	76	74	60	62	62	61	59	59	63	70	81	82	86	89	87	87	85	84	89	74.0	24	
8		87	89	91	91	91	91	90	82	77	74	68	65	62	58	55	54	55	60	71	79	83	87	90	89	91	76.6	24	
9		90	90	90	90	81	80	78	68	61	55	52	49	48	45	46	47	46	42	51	58	59	62	67	66	90	63.4	24	
10		67	70	73	73	76	75	72	65	60	47	40	32	30	32	31	30	32	34	45	53	57	62	62	61	76	53.3	24	
11		66	69	71	72	75	75	64	56	50	45	42	35	30	28	27	26	27	30	41	44	46	49	53	55	75	49.0	24	
12		59	59	61	62	61	63	63	60	52	47	44	41	37	30	26	24	25	28	36	43	46	48	52	56	63	46.8	24	
13		57	58	61	65	69	71	70	59	53	49	47	44	41	40	42	40	40	44	53	58	59	61	59	58	71	54.1	24	
14		58	64	68	71	75	78	76	73	64	58	53	47	41	38	36	35	39	45	57	62	63	64	68	66	78	58.3	24	
15		66	66	67	68	68	67	65	59	51	44	40	37	34	31	27	25	26	31	37	40	41	42	44	46	68	46.8	24	
16		52	59	63	66	70	76	74	68	64	58	54	50	47	44	42	40	35	31	42	51	57	62	68	71	76	56.0	24	
17		66	67	67	64	65	69	66	57	53	51	50	48	47	50	53	53	57	60	59	62	67	71	75	80	80	60.7	24	
18		79	82	84	86	86	84	83	80	76	70	65	57	55	56	59	61	62	65	68	70	74	78	82	86	86	72.8	24	
19		88	89	90	90	89	89	89	81	64	58	54	51	49	45	41	39	39	44	53	57	60	61	61	63	90	64.3	24	
20		65	64	65	68	70	70	68	62	56	50	46	41	37	34	33	33	32	36	41	43	47	50	53	58	70	50.9	24	
21		61	65	67	71	74	82	78	66	60	57	50	45	40	36	33	37	38	43	47	54	56	49	56	66	82	55.5	24	
22		74	80	83	87	87	89	91	80	66	54	46	45	38	33	32	32	34	43	48	50	54	52	52	91	58.4	24		
23		52	55	57	61	64	67	70	P	P	P	P	41	43	40	35	36	36	42	53	59	63	66	70	58	70	53.4	20	
24		62	72	76	78	83	82	80	70	60	51	43	38	35	32	32	33	34	41	47	50	55	55	55	49	83	54.7	24	
25		54	57	58	59	64	68	66	59	54	52	45	34	30	28	29	28	30	36	45	52	61	67	73	78	78	51.1	24	
26		83	84	86	88	89	89	90	89	86	83	79	70	63	59	66	64	64	65	71	76	81	84	86	85	90	78.3	24	
27		89	90	90	89	90	90	89	78	69	59	52	45	37	29	25	24	25	33	43	45	47	52	60	64	90	58.9	24	
28		70	80	81	81	85	87	86	69	63	56	48	43	38	33	33	32	32	39	45	49	50	50	53	56	87	56.6	24	
29		60	65	67	69	70	74	80	74	75	71	62	58	54	59	66	75	80	80	81	83	85	85	85	85	85	85	72.6	24
30		87	87	85	81	87	89	88	80	84	85	87	83	82	74	66	76	87	88	88	87	88	86	84	84	89	83.9	24	
HOURLY MAX		90	90	91	91	91	91	91	89	86	85	87	83	82	74	66	76	87	88	88	89	88	87	90	89				
HOURLY AVG		70.0	73.0	74.6	76.1	77.3	78.4	76.4	69.3	62.9	57.6	52.8	47.7	44.4	41.9	41.1	41.6	43.2	46.9	54.2	59.0	61.9	63.8	66.4	67.4				

STATUS FLAG CODES

C	- CALIBRATION	Q	- QUALITY ASSURANCE
Y	- MAINTENANCE	R	- RECOVERY
S	- DAILY ZERO/SPAN CHECK	X	- MACHINE MALFUNCTION
P	- POWER FAILURE	O	- OPERATOR ERROR
G	- OUT FOR REPAIR	K	- COLLECTION ERROR

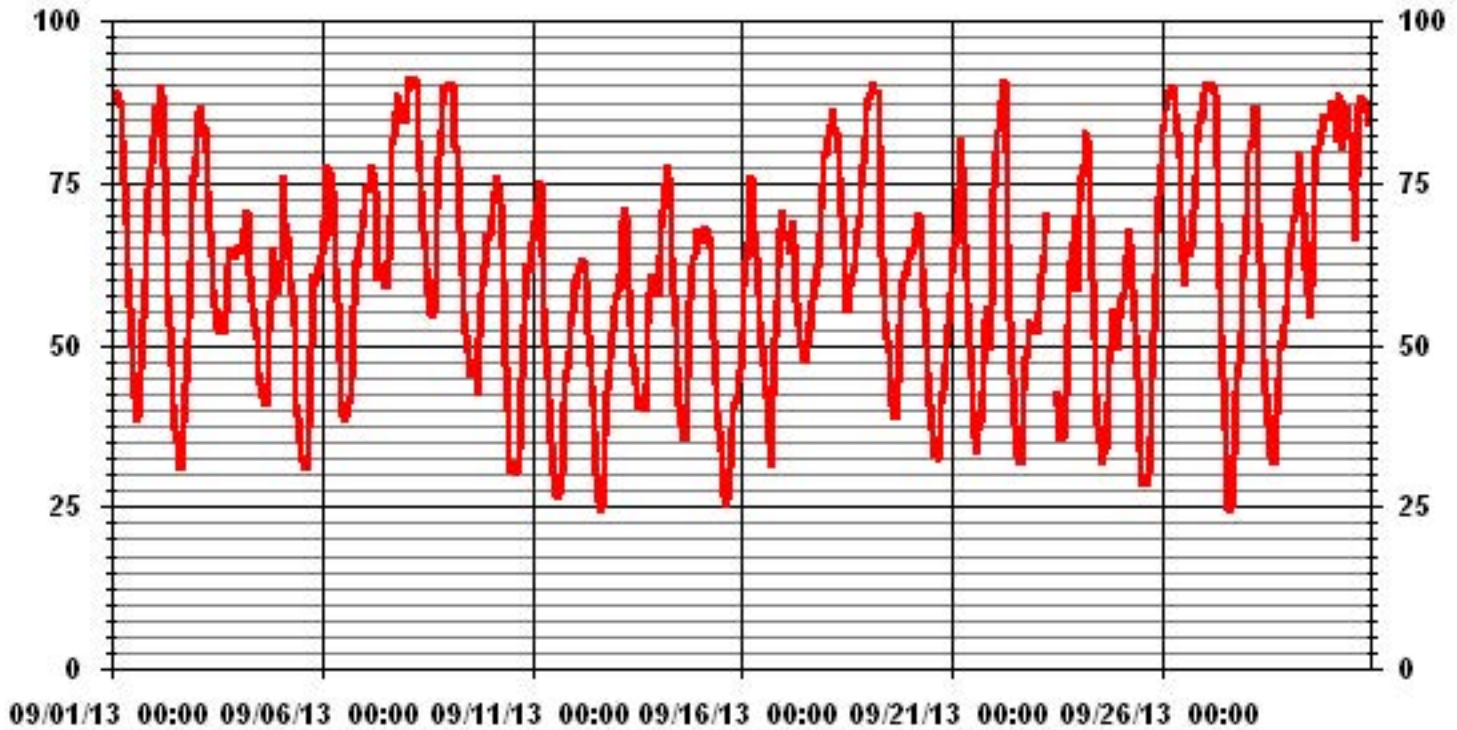
24 HOUR AVERAGES FOR SEPTEMBER 2013



MONTHLY SUMMARY

MAXIMUM 1-HR AVERAGE:	91	%	@ HOUR(S)	6	ON DAY(S)	22
MAXIMUM 24-HR AVERAGE:	83.9	%			ON DAY(S)	30
					VAR-VARIOUS	
CALIBRATION TIME:	0	HRS	OPERATIONAL TIME:	716	HRS	
			AMD OPERATION UPTIME:	99.4	%	
STANDARD DEVIATION:	17.34		MONTHLY AVERAGE:	60.34	%	

01 Hour Averages



Precipitation

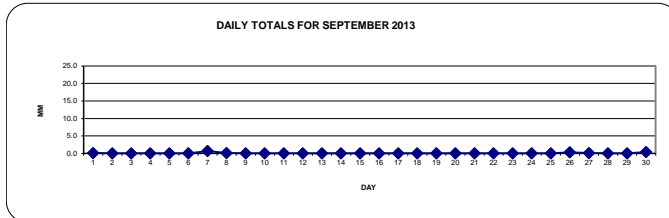
LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - ST. LINA
SEPTEMBER 2013
PRECIPITATION hourly averages (mm)

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.	DAILY TOTAL	RDGS.
DAY	1	0	0	0	0.1	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
	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	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	0.0	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	0.0	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	0.0	24
	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.7	0	0	0	0	0	0	0	0	0.7	0.7	24
	8	0	0	0	0	0	0	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.1	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	0.0	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	0.0	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	0.0	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	0.0	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	0.0	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	0.0	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	0.0	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	0.0	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	0.0	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	0.0	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	0.0	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	0.0	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	0.0	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	0.0	24
	23	0	0	0	0	0	0	0	0	P	P	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0	22
	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	0	0	0	0	0	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	0.1	0	0.2	0	0	0	0	0	0	0	0.2	0.3	24
	27	0	0	0	0	0	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0.1	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	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	0.2	0	0.1	0	0.1	0	0	0	0	0.2	0.4	24
HOURLY MAX		0.0	0.0	0.0	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.7	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0			

STATUS FLAG CODES

C	- CALIBRATION	Q	- QUALITY ASSURANCE
Y	- MAINTENANCE	R	- RECOVERY
S	- DAILY ZERO/SPAN CHECK	X	- MACHINE MALFUNCTION
P	- POWER FAILURE	O	- OPERATOR ERROR
G	- OUT FOR REPAIR	K	- COLLECTION ERROR

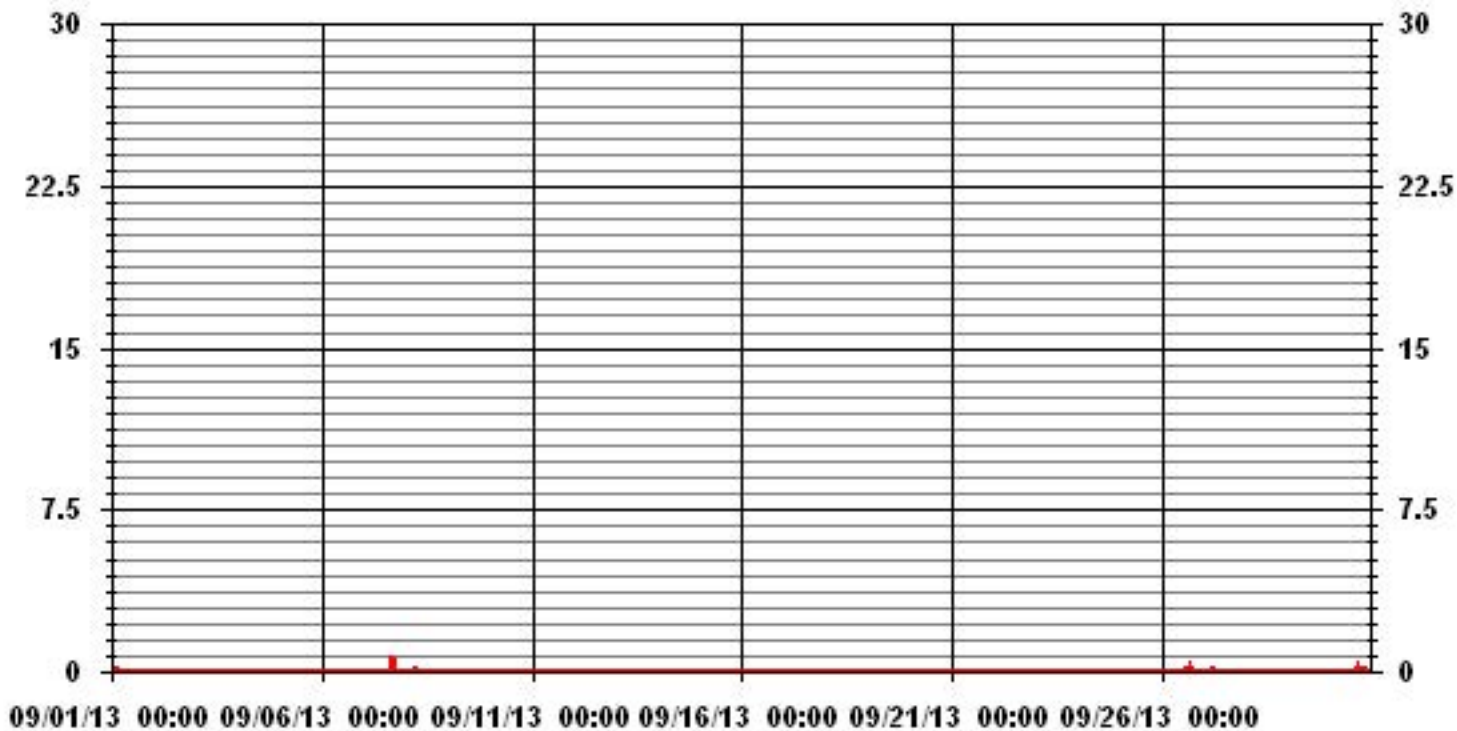
DAILY TOTALS FOR SEPTEMBER 2013



MONTHLY SUMMARY

MAXIMUM 1-HR AVERAGE:	0.7	MM	16	HOUR(S)	ON DAY(S)	7
MAXIMUM DAILY TOTAL	0.7	MM			ON DAY(S)	7
MONTHLY TOTAL	1.7	MM				
CALIBRATION TIME:	0	HRS	OPERATIONAL TIME:	718	HRS	
STANDARD DEVIATION:	0.03		AMD OPERATION UPTIME:	99.7	%	
			MONTHLY AVERAGE:	0.00	MM	

01 Hour Averages



Vector Wind Speed

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION -ST. LINA

SEPTEMBER 2013

WIND SPEED hourly averages (km/hr)

MST

HOUR START	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DAILY	24-HOUR	
HOUR END	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	MAX.	AVG.	RDGS.
DAY																											
1	5.9	6.5	6.9	6.4	7.5	8.4	8.6	7.4	8.5	8	8.8	9	10	11.5	13.5	14.1	12.9	9.6	8.4	7	6.1	6.2	5.4	5.9	14.1	8	24
2	6.3	7.7	7.6	6.8	7.5	7.6	8.3	8.4	8.1	8.7	8.4	10.8	12.1	15.1	15.2	13.2	12.6	9.5	7.7	8.2	8.8	8.1	9.4	10.7	15.2	6.8	24
3	11.7	12	11.6	11.1	12	9.4	8	8.6	9	6.9	6	6.7	5.4	6.9	7.5	8.3	9.3	7.6	8.4	11.1	11	10	10.8	11.4	12	6.9	24
4	11.8	12.6	12.7	12	12.9	13.1	13.1	11.4	10.7	10	10.5	11.1	11.7	10	6.9	7.4	4.8	4.5	4.9	5.2	5.6	3.6	5.8	7.1	13.1	5.3	24
5	7.1	5.2	6.6	4.2	2.4	4.5	6	7.3	10	8.2	10.9	10.8	10.7	7.4	7.7	6.5	4.1	4	3.1	5	7.4	7.6	7.2	5.3	10.9	5.5	24
6	6.3	8.4	6.1	5.3	6.9	5.5	5.6	5.6	5.5	4.8	4	4.6	5.1	5.6	6.7	8.4	6.8	5.7	4.8	6.3	8.1	8.2	8.4	9	9	5.6	24
7	9.1	9.1	9.4	10	8.5	8.9	7.8	9	6.1	4.2	4.7	5	2.9	4.2	6.2	8.9	3.5	3.7	2.2	4.4	6.2	7	5	4.7	10	4.2	24
8	5.8	8	5.2	4.1	4.9	3.5	5.4	5.4	6.2	7.9	8	9.7	10.3	11	11.5	11.4	12.1	8	6.7	6.3	5.2	6.5	7.8	6.4	12.1	6.5	24
9	6.8	7.8	10	11.2	11.1	11.1	11.7	13.2	14.3	15.4	14.1	15.5	15.9	13.3	12.5	11.5	12.4	11.2	8.1	8.2	8.3	8.9	8.4	9.6	15.9	10	24
10	10.4	10.5	10.7	10.4	10.6	11.1	11.6	11.1	9.5	8.1	9.9	11.5	13	14.4	13.4	13.4	13.1	9.8	8.4	8.8	8.2	8.1	7.6	7.1	14.4	10.2	24
11	7.6	7.9	6.8	7	6.5	6.3	4.9	1.2	2.2	5.3	5.5	6.9	5.9	6.3	7.8	4.9	2.8	1.7	5.1	7	8.3	8.4	9.6	10.3	10.3	2.2	24
12	10.5	12.3	11.7	11.7	12.5	13	11.6	11.6	9.6	10.9	11.3	13.6	12.7	13.4	15.4	14.1	14.1	10.7	9.2	11	11.2	11.9	12.4	12.3	15.4	11.8	24
13	10.7	10.5	8.7	7.9	8.2	9	10	8.1	6.3	6	6.8	5.9	9.6	10.5	11.3	11.7	11.6	10.1	7.4	8.2	7.2	7.6	7.5	7.9	11.7	2.4	24
14	8.4	6.5	6.7	7.6	9	9.8	10.3	10.1	9.5	9.5	8.8	5.2	4.6	4.2	4.5	2.5	4.7	7	7.5	10.4	11.6	12.7	11.5	12	12.7	6.1	24
15	12.1	12.9	12.4	12.5	12.6	12.8	12	12.9	14	16	18.3	18.4	20.4	18.9	19.7	18	16.3	13.7	12.1	13.3	13.3	12.9	12.3	13	20.4	14.3	24
16	11.3	10.7	10.8	11.1	11	7.9	9.2	14.8	15.3	14.3	16.1	17.2	15	17.6	17.4	15.2	11.8	12.5	7.8	10.4	10	10.8	13	12	17.6	8.2	24
17	17	16	15.8	18	18.2	15.8	17.8	26.9	27	28.3	27.7	29.3	31.2	26.4	22.1	19.3	16.7	16.2	15.1	14.6	12.1	10.3	9.1	9.7	31.2	18.5	24
18	12.3	10.8	9.7	6.9	8.3	9.1	10.2	10.7	12.7	10.8	12.8	13.7	15.6	13.1	12	10.9	11	10	10.3	8.9	7.3	6.8	7.1	8.1	15.6	10.2	24
19	7.8	7.2	6.5	5.3	4.7	5.4	4.9	4.8	4.9	6.5	6.5	7.1	6.3	5.6	6.5	6.4	5.3	4.6	8	10.2	11.6	10.6	11.3	10.7	11.6	3.8	24
20	10.3	10.7	11.1	10.7	9.8	9.1	10.5	11.3	11.2	10	11.8	15.1	12.5	14.5	14.1	15.1	12	8.5	9	10	10.4	11.4	12	9	15.1	10.7	24
21	10.7	9.8	11.1	8.8	7.2	7.2	8.7	9	10.3	7.4	9.4	11	7.9	7.8	8.2	8.3	9.6	7.9	11	11.4	9.1	11.5	18	16.3	18	5.8	24
22	17.5	14.2	12.6	13.4	8.8	7.4	6.8	8.2	10.3	9.1	11	10.5	9.2	5.6	8.4	8.6	8.6	8.3	10.3	11.1	10.9	10.7	12.7	10.9	17.5	5.3	24
23	11.3	9.6	10.7	7.5	4.9	5.3	3	P	P	P	P	7.8	10	10.3	12.9	11.8	13.1	10	8.4	8.8	8.9	9.3	16.5	15.2	16.5	5.9	20
24	12	10.7	10.5	11.4	10.6	9.4	9.6	11.5	10.5	10.7	9.6	7.6	9.1	10.6	5.3	5.2	4.2	5.3	5.5	4.9	5.2	4.7	5.8	6.8	12	7.6	24
25	8.1	7.4	7.4	7.7	7.5	7.1	7.1	6.3	4.7	6.5	7	8.2	10.8	11.7	11.9	10.6	9.4	9	8.7	8.8	7.9	9	8.5	9.5	11.9	8.1	24
26	8.3	11	9.7	9.4	10.2	10.6	9.9	10	8.8	10.3	13	14.2	12.7	10.2	10	8.1	10.4	8.9	8.3	8.3	8.8	8.4	8.3	6.4	14.2	9.5	24
27	6.7	7.3	7.9	7.9	6.3	7.4	7.1	8.3	9.2	10	10.1	9.9	12.3	15.4	17.9	15.3	13.9	9.5	6.4	6.5	7.3	9.3	8.7	8.6	17.9	8.4	24
28	6.2	7.6	10.3	9.2	7.9	7.9	6.4	4.2	5.6	6.1	8.5	9.5	11.7	11	11.6	11.3	10.4	9.8	12	14.1	14.2	14.6	13.6	11.7	14.6	5.9	24
29	11.1	10.5	8.8	8.8	12.5	9.6	9.7	9.9	9.2	5.2	8	12.7	16.8	18.4	16.4	15.9	16.4	15.3	12.6	10.3	9.7	11.7	12.9	10.7	18.4	4.6	24
30	9	8.2	8.3	7.3	3.5	5.4	3.5	1.4	1.2	5.4	3.8	5.8	8.6	8.5	11.3	11	11.7	12.4	10.6	12.4	11.7	14.5	14.5	15.7	15.7	7.5	24
HOURLY MAX	17.5	16.0	15.8	18.0	18.2	15.8	17.8	26.9	27.0	28.3	27.7	29.3	31.2	26.4	22.1	19.3	16.7	16.2	15.1	14.6	14.2	14.6	18.0	16.3			
HOURLY AVG	9.7	9.7	9.5	9.1	8.8	8.6	8.6	9.3	9.3	9.3	10.0	10.8	11.3	11.3	11.5	10.9	10.2	8.8	8.3	9.0	9.1	9.4	10.0	9.8			

STATUS FLAG CODES

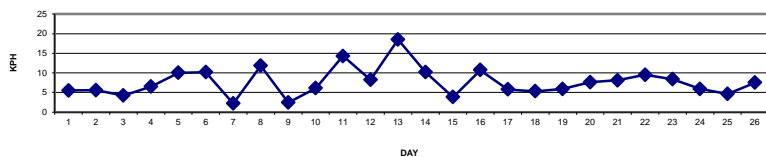
C	- CALIBRATION	Q	- QUALITY ASSURANCE
Y	- MAINTENANCE	R	- RECOVERY
S	- DAILY ZERO/SPAN CHECK	X	- MACHINE MALFUNCTION
P	- POWER FAILURE	O	- OPERATOR ERROR
G	- OUT FOR REPAIR	K	- COLLECTION ERROR

LAST CALIBRATION: June 12, 2012

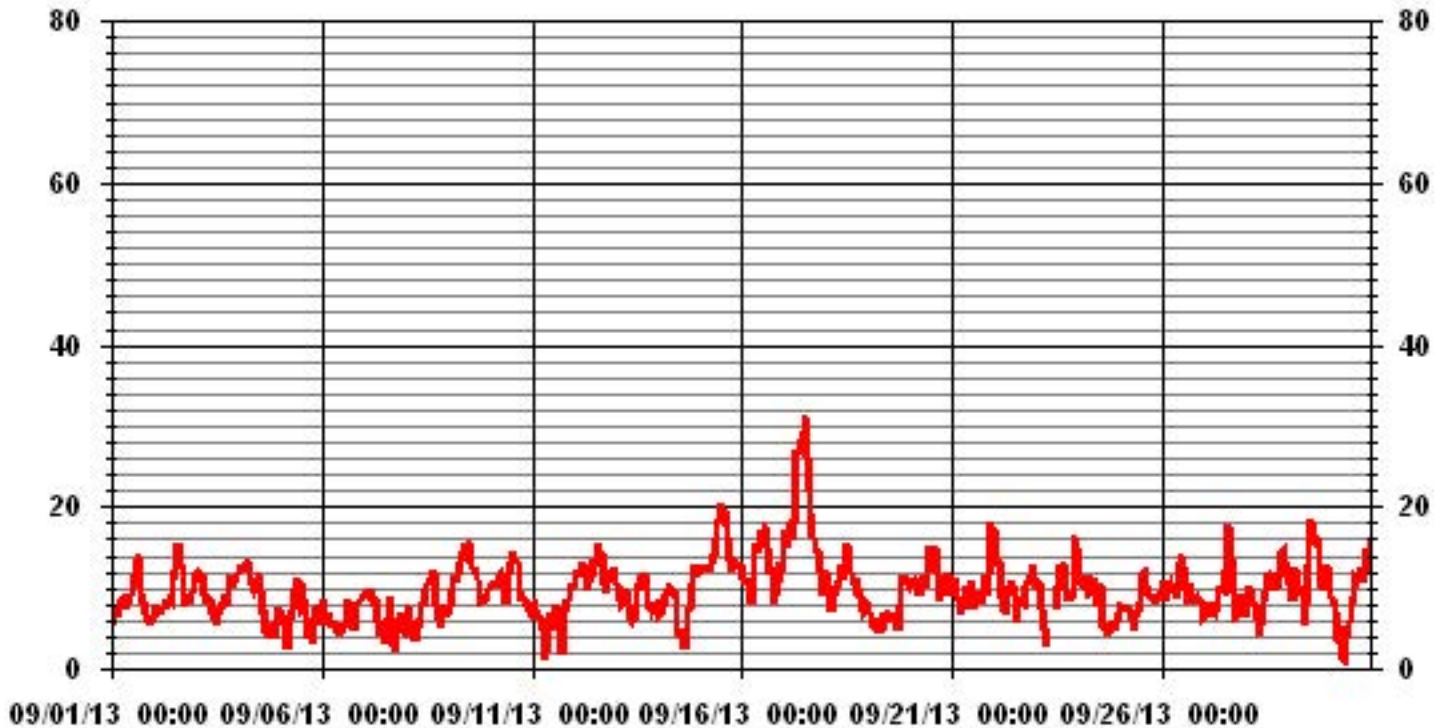
MONTHLY SUMMARY

MAXIMUM 1-HR AVERAGE:	31.2	KPH	@ HOUR(S)	12	ON DAY(S)	17
MAXIMUM 24-HR AVERAGE:	18.5	KPH			ON DAY(S)	17
CALMS (≤ 0 KPH)	0.00	%	OPERATIONAL TIME:	716	HRS	
MONTHLY CALIBRATION TIME:	0	HRS	AMD OPERATION UPTIME:	99.4	%	
STANDARD DEVIATION:	3.80		MONTHLY AVERAGE:	9.68	KPH	

24 HOUR AVERAGES FOR SEPTEMBER 2013



01 Hour Averages



LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - ST. LINA

SEPTEMBER 2013

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		1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	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.	
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		11.2	13.2	14.2	12.3	13.4	14.7	22.1	19.5	23.7	25	24.7	26.3	36.3	33.5	39.2	35.5	36.4	28.7	17.7	14.2	9.2	8.8	11.8	11	39.2	
2		10.1	11.4	15.3	11	11.4	11.6	12.1	13.6	15.1	15.8	18	23.4	24.3	31.3	33.8	29.2	32.2	21.7	18.8	17.5	17.3	23.4	25.7	29.8	33.8	
3		26.3	28	25.2	30	29.4	24.1	18.4	25.4	20.2	17.7	18.2	18.6	24.5	27.4	26.7	29.6	31.8	22.6	17.1	20.8	23.3	24.6	30	X	31.8	
4		31.1	29.4	32	28.7	30.2	31.8	31.6	32	25.6	25.6	23	25.8	23.9	20.4	19.7	20.6	14.7	12.1	8.8	7.9	8.6	6.8	9	8.6	32	
5		9.4	15.6	15.6	10.1	5.1	9.7	11.7	17.3	30.7	30.2	36.3	33.5	38.5	26.5	22.3	19.7	13.6	11.2	7.5	12.5	14.5	16.9	15.1	12.1	38.5	
6		12.7	17.5	14.9	12.3	15.3	13.2	14	15.6	16.4	13.8	15.3	19.3	17.4	20.4	26.5	27.4	23.6	18.2	15.1	13.9	18	16.4	15.6	18	27.4	
7		17.5	20.8	20	18.7	19.3	17.8	17.5	20.2	15.8	10.1	12.1	13.4	9.4	12.3	17.1	22.3	13.8	10.5	5.5	7.3	13.8	13.4	11.6	9.4	22.3	
8		11	13.4	11.2	7.5	9.4	7	14	16.5	18.7	20.8	21.5	23.9	25.6	26.9	26.3	26.5	26	20.2	13.4	10.1	7.3	10.3	10.7	9.5	26.9	
9		13.6	14.9	16.2	19.9	23.9	24.7	21.1	26.5	30.7	33.9	32.8	36.1	38.1	35.7	33.8	32.8	33.7	30.9	19.1	18.8	16.4	14.5	13.6	18.2	38.1	
10		23.4	17.3	16.2	17.7	19.3	19.9	22.8	25.2	19.7	19.5	22.8	28.9	31.4	39	38.5	31.5	37.4	27.1	16.6	16.5	19.3	13.4	15.6	13.8	39	
11		12.9	13.8	12.5	13.2	12.3	11.2	7.9	6.8	11.4	13.2	15.8	20.8	19.9	23.2	21	16.9	10.5	5.8	12.3	12.5	14	13.4	16.4	16.4	23.2	
12		18	24.6	21.5	25.8	27.1	29.6	24.3	26	24.1	26	32	36.6	31.5	40.7	39.2	37.7	36.4	31.1	25.2	20.6	25.8	25.6	26.7	24.8	40.7	
13		22.6	22.1	19.7	15.6	17.1	17.3	16.2	12.3	19.3	17.5	23.4	25.2	28.5	28.9	34.4	35.5	34.6	29.4	23.4	23.2	17.1	13.2	11	11.8	35.5	
14		15.8	14.5	17.1	16.9	19.7	20.4	21.2	22.6	25.8	21.2	20.1	18	20.2	16.9	19.7	15.8	14.5	17.1	16.4	20.9	23.9	27.8	23.2	29.4	29.4	
15		33.7	31.5	28.3	26.8	27.4	29.1	29.4	31.3	36.8	43.8	46.3	49.4	50.5	45.1	51.6	42.9	39.4	38.3	26.3	29.4	35.5	32.6	34	31.5	51.6	
16		29.6	28.3	27.1	29.1	31.8	16.2	20.8	38.8	33.9	41.6	39.2	40.9	39.6	44.9	44.4	42.9	41.4	29.1	16.6	23.2	21.2	30	29.6	28.3	44.9	
17		47.5	42	47.1	49.9	43.3	33.7	35.5	55.2	68.5	58	68.3	62.4	76.8	74.8	59.5	49.7	40.7	37.4	37.9	33.3	30	19.5	19.5	76.8	76.8	
18		33.7	24.8	23.2	15.8	20.4	24.5	26.3	33.3	30	29.6	36.3	32.9	36.8	36.1	29.6	32	27.2	23.4	24.3	18.6	23	16.2	15	18	36.8	
19		17.1	14.2	12.7	12.1	10.1	11.8	8.8	8.6	14.9	16	19.1	24.1	20.4	18.6	20.4	19.3	16.9	12.3	15.6	20.6	23	25.4	31.5	22.8	31.5	
20		25.2	22.6	28.9	24.5	22.6	18.4	23.2	29.8	35.3	27.1	29.4	37.9	37.4	40.3	37.9	35.9	31.8	26.3	16.2	19.1	19.7	23.3	27.2	20.8	40.3	
21		23.4	22.8	22.6	19.5	18	13.2	26.5	20.6	25.6	20.4	28.1	28.8	25.8	24.3	25.4	18.4	21.9	16.9	21.9	22.8	23.7	43.6	45.5	48.4	48.4	
22		35.7	34.6	25.2	30.9	19.7	14	14	19.7	21.3	20.8	25.2	31.1	26.7	26.7	26.3	29.8	23.5	14.2	22.1	21.5	21.7	25	31.5	23.3	35.7	
23		27.8	25.6	24.3	16	13.2	12.9	9	P	P	P	P	23.9	20.9	27.4	46.8	32.2	35.2	26.9	16.4	17.8	16.1	21.9	44.2	44.2	46.8	
24		24.3	18.8	19.1	18	19.5	15.1	20.6	18.6	25.9	26.1	21.5	23	26.1	26	18.2	18.6	19.8	12.5	9.9	9.2	7.9	7.3	8.3	11.9	26.1	
25		14.9	16.4	12.5	12.7	14	14.5	15.8	14.5	12.3	14.2	21	33.3	34.9	33.1	38.5	37.2	24.7	25	20.8	26.1	20.6	20.4	18.6	19.7	38.5	
26		17.1	23.7	21.3	19.5	21.5	22.8	22.8	21.5	22.6	26.5	38.1	36.1	39.4	32.3	34.4	31.1	33.5	22.3	21	17.5	17.4	17.5	15.1	13.8	39.4	
27		8.8	11.4	11.9	11.9	9.9	13.8	12.5	17.5	20.8	28.5	26.7	28.2	33.1	34.4	34.8	30.9	28.2	21.2	9	8.8	12.3	16	14.9	17.1	34.8	
28		10.1	11.4	15.6	13.2	10.3	11.6	12.1	11.2	15.8	15.6	23	26.9	33.7	33.5	33.3	35.7	30.9	24.1	22.3	26.7	28.5	32.4	28.5	27.2	35.7	
29		24.5	27.8	16.2	17.1	32.2	19.6	21.5	24.5	21.3	22.6	25	36.8	42.7	61.1	38.3	42	39.9	46.4	32.3	27.2	20.2	19.5	21.3	18.4	61.1	
30		14.3	12.5	15.6	13.8	11.6	12.3	11.6	17.5	5.7	16.9	14.9	21.3	29.4	28	28.7	29.4	28.5	31.3	25.2	34.2	30.2	34.8	33.5	36.4	36.4	
PEAK		47.5	42.0	47.1	49.9	43.3	33.7	35.5	55.2	68.5	58.0	68.3	62.4	76.8	74.8	59.5	49.7	41.4	46.4	37.4	37.9	35.5	43.6	45.5	48.4		

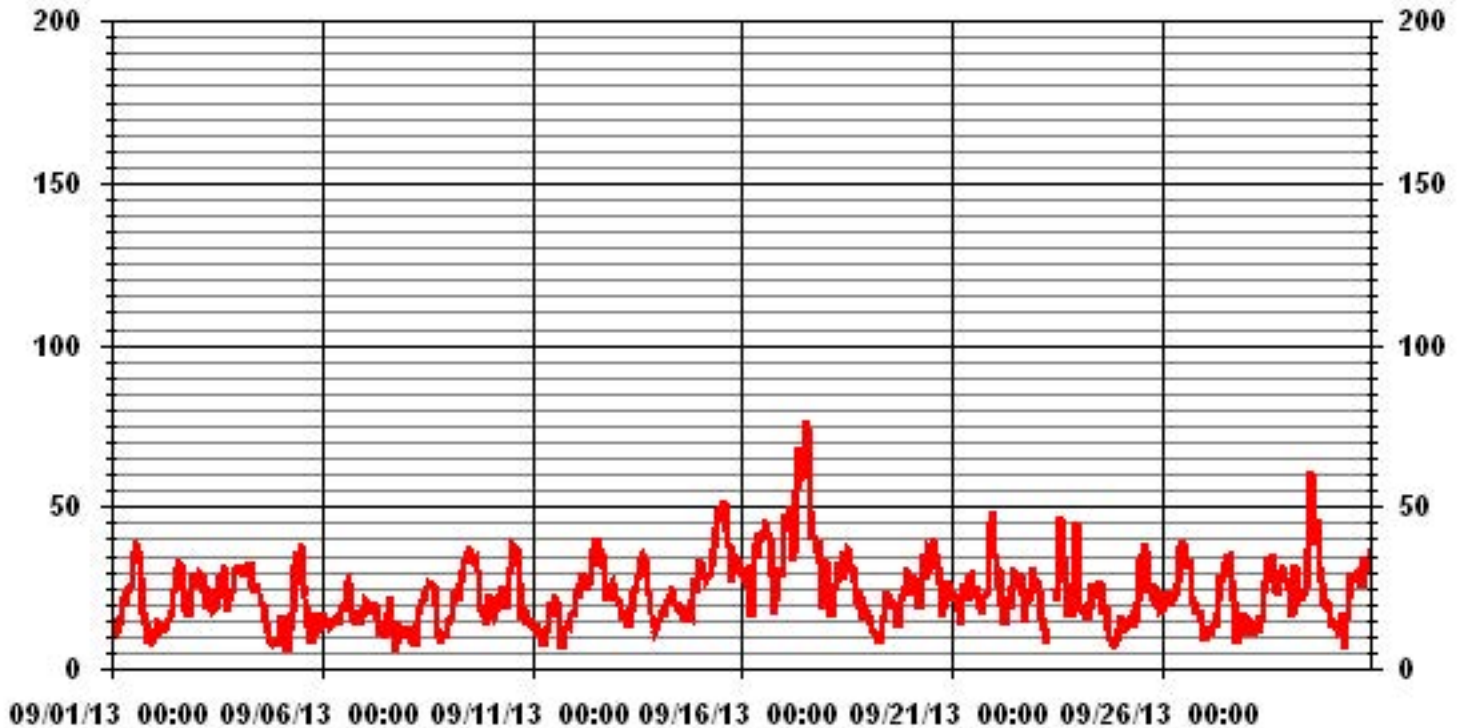
STATUS FLAG CODES

C - CALIBRATION	Q - QUALITY ASSURANCE
Y - MAINTENANCE	R - RECOVERY
S - DAILY ZERO/SPAN CHECK	X - MACHINE MALFUNCTION
P - POWER FAILURE	O - OPERATOR ERROR
G - OUT FOR REPAIR	K - COLLECTION ERROR

MONTHLY SUMMARY

MAXIMUM INSTANTANEOUS READING	76.8	KPH	@ HOUR(S) ON DAY(S)	12 17
-------------------------------	------	-----	------------------------	----------

01 Hour Averages



LICA31
WSP / WDR Joint Frequency Distribution (Percent)

September 2013

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	.83	1.25	1.39	.27	.55	.55	.83	.27	1.11	1.39	.97	.97	.83	.97	.97	.97	14.24	
< 12.0	2.93	1.53	2.09	2.79	1.81	2.65	3.91	3.91	5.30	4.88	3.77	5.02	5.30	6.42	8.65	3.07	64.10	
< 20.0	.00	.00	.13	.13	.13	.55	.55	3.35	3.77	.97	.27	1.25	1.95	3.63	3.21	.41	20.39	
< 29.0	.00	.00	.00	.00	.00	.00	.00	.13	.00	.00	.00	.13	.55	.13	.00	.00	.97	
< 39.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.27	.00	.00	.00	.27	
>= 39.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	
Totals	3.77	2.79	3.63	3.21	2.51	3.77	5.30	7.68	10.19	7.26	5.02	7.40	8.93	11.17	12.84	4.46		

Calm : .00 %

Total # Operational Hours : 716

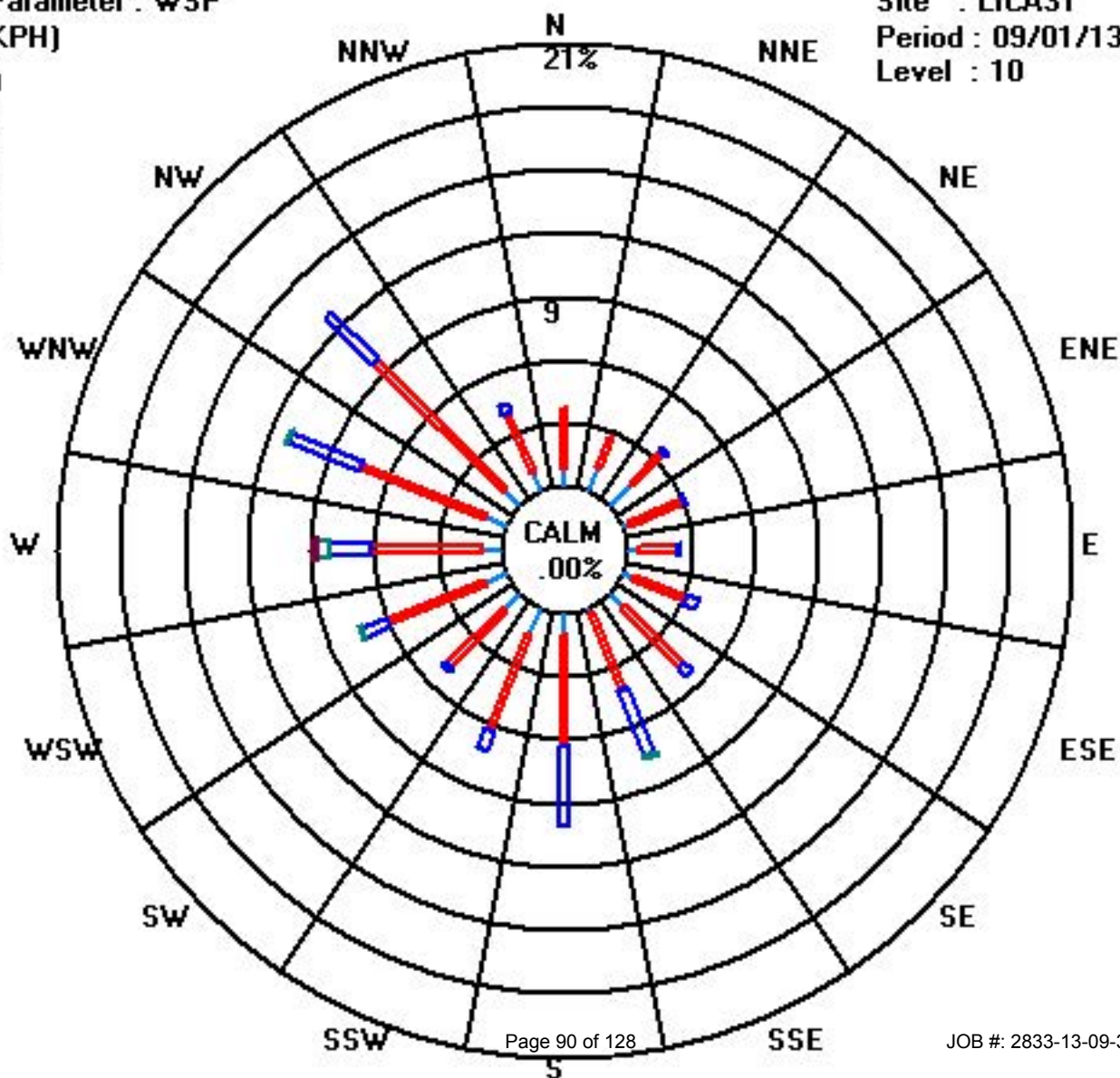
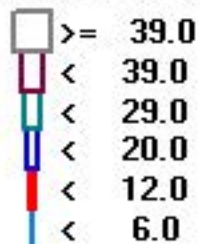
Distribution By Samples

		Direction																
Limit	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Freq	
< 6.0	6	9	10	2	4	4	6	2	8	10	7	7	6	7	7	7	102	
< 12.0	21	11	15	20	13	19	28	28	38	35	27	36	38	46	62	22	459	
< 20.0			1	1	1	4	4	24	27	7	2	9	14	26	23	3	146	
< 29.0								1				1	4	1			7	
< 39.0													2				2	
>= 39.0																		
Totals	27	20	26	23	18	27	38	55	73	52	36	53	64	80	92	32		

Calm : .00 %

Total # Operational Hours : 716

Class Limits (KPH)



Vector Wind Direction

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - ST.LINA

SEPTEMBER 2013

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	24:00	24-HOUR	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	AVG.	QUADRANT	RDGS.	
DAY																												
1	212	210	210	205	190	189	194	206	211	215	220	202	197	189	189	184	178	162	149	184	198	225	217	224	196	SSW	24	
2	228	242	272	229	235	239	244	253	272	262	272	261	259	263	268	293	309	305	305	315	310	7	50	54	278	W	24	
3	58	56	61	69	73	75	85	110	125	135	111	112	132	165	167	168	172	159	133	129	141	157	170	175	120	ESE	24	
4	179	188	188	173	182	189	196	218	231	232	239	237	255	279	285	309	285	288	322	0	34	68	103	116	217	SW	24	
5	132	89	37	37	10	4	331	328	343	3	356	13	7	8	327	334	318	323	11	28	21	16	17	350	4	N	24	
6	323	2	359	312	15	18	29	40	49	40	48	82	54	36	26	14	22	35	35	37	45	56	63	66	32	NNE	24	
7	74	77	84	84	73	78	74	85	110	123	92	113	144	199	205	206	265	334	108	129	134	142	150	170	108	ESE	24	
8	167	182	177	135	169	208	198	200	215	212	238	248	250	239	252	255	244	241	242	256	239	233	249	234	229	SW	24	
9	210	214	240	269	298	286	265	285	299	296	293	289	295	320	324	326	321	319	323	324	321	303	287	291	295	WNW	24	
10	294	286	276	276	277	285	287	300	294	286	293	284	289	281	309	304	309	310	286	298	315	293	323	323	294	WNW	24	
11	306	302	317	317	326	351	27	30	192	198	227	251	292	263	272	251	267	74	90	141	169	173	173	177	251	WSW	24	
12	180	185	183	184	179	181	184	190	206	204	189	185	198	211	217	216	209	205	200	197	195	193	197	209	196	SSW	24	
13	211	193	210	216	229	232	243	258	303	313	324	331	328	327	11	16	38	34	36	36	38	67	59	63	338	NNW	24	
14	59	46	47	48	56	66	74	80	96	110	124	140	181	203	189	192	138	121	101	108	119	131	146	163	107	ESE	24	
15	175	179	185	189	189	184	181	182	185	184	177	173	162	159	164	162	161	156	151	147	155	161	166	164	170	SSE	24	
16	176	172	161	154	148	115	140	149	148	155	152	157	155	160	171	162	208	241	243	268	291	288	297	291	177	S	24	
17	282	278	278	279	265	251	249	255	266	265	272	275	273	280	288	295	299	299	300	301	306	317	278	276	278	W	24	
18	287	292	291	301	316	323	320	321	317	310	312	305	314	320	316	319	313	313	300	297	314	315	302	306	310	NW	24	
19	306	299	292	289	289	267	251	257	262	256	252	260	229	230	245	238	232	186	143	133	134	149	161	166	221	SW	24	
20	175	175	179	182	181	173	168	173	173	164	159	171	191	166	156	153	161	154	140	135	127	124	139	150	162	SSE	24	
21	153	150	153	141	123	93	142	145	146	172	178	171	177	185	172	124	127	102	89	93	110	235	304	276	152	SSE	24	
22	277	292	274	277	278	236	231	242	253	248	234	215	223	214	188	181	154	122	115	109	129	143	144	158	213	SSW	24	
23	166	158	155	161	171	183	241	P	P	P	P	298	281	288	294	300	290	301	296	302	314	316	267	258	269	W	20	
24	288	288	284	270	265	273	272	272	302	314	316	307	281	294	304	336	307	330	344	325	282	276	295	329	294	WNW	24	
25	10	16	12	4	350	357	354	344	351	327	310	342	358	348	8	356	347	349	347	352	339	340	334	315	349	NNW	24	
26	326	316	316	313	315	318	316	312	321	336	328	328	341	346	353	340	334	325	326	315	310	310	298	315	324	NW	24	
27	259	262	271	250	225	193	194	193	202	211	205	205	213	251	257	254	258	260	244	243	250	280	282	291	242	WSW	24	
28	278	248	261	265	254	239	222	211	222	216	217	202	205	208	198	186	164	126	113	112	121	127	121	122	181	S	24	
29	117	107	101	96	90	82	77	78	74	330	318	307	310	307	301	304	283	291	294	291	275	269	265	271	311	NW	24	
30	273	268	287	292	258	346	243	268	17	28	22	12	9	335	316	319	315	316	309	302	307	315	306	307	313	NW	24	
HOURLY AVG	326	316	359	317	350	357	354	344	351	336	356	342	358	348	353	356	347	349	347	352	339	340	334	350				

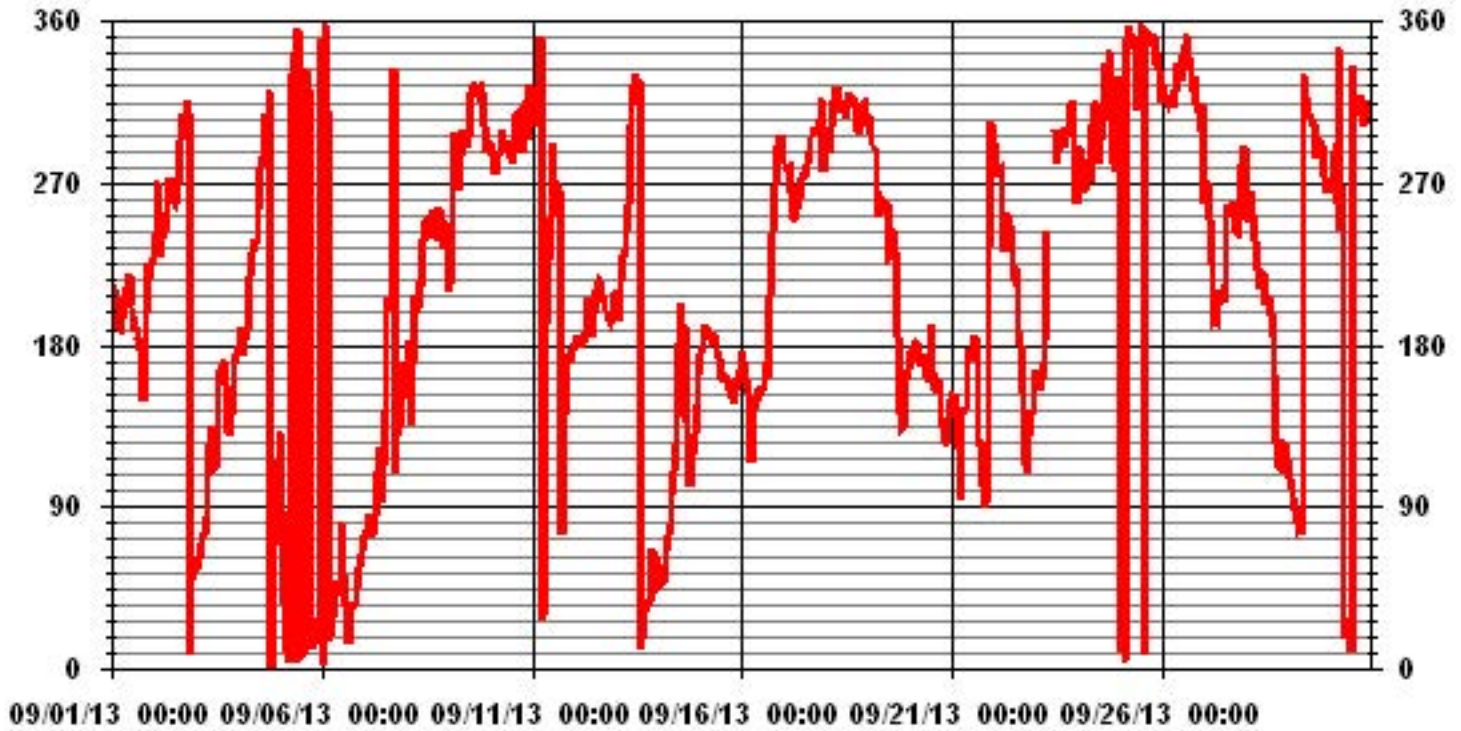
STATUS FLAG CODES

C	- CALIBRATION	Q	- QUALITY ASSURANCE
Y	- MAINTENANCE	R	- RECOVERY
S	- DAILY ZERO/SPAN CHECK	X	- MACHINE MALFUNCTION
P	- POWER FAILURE	O	- OPERATOR ERROR
G	- OUT FOR REPAIR	K	- COLLECTION ERROR

LAST CALIBRATION:	June 12, 2012
DECLINATION:	19 DEGREES FROM MAGNETIC NORTH

MONTHLY CALIBRATION TIME:	0 HRS	OPERATIONAL TIME:	716 HRS
STANDARD DEVIATION:	92.27	AMD OPERATION UPTIME:	99.4 %
		MONTHLY AVERAGE:	248 DEG

01 Hour Averages



— LICA31 WDR DEG

Standard Deviation Wind Direction

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - ST.LINA

SEPTEMBER 2013

STANDARD DEVIATION WIND DIRECTION (STDWDIR) hourly averages in degrees

MST

HOUR START	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00
HOUR END	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00
DAY																								
1	12	13	14	12	10	9	14	19	21	27	25	23	28	25	21	18	18	16	12	16	9	9	9	8
2	7	5	15	9	5	5	7	8	14	16	20	18	17	16	17	18	17	17	12	11	12	16	16	15
3	16	17	17	16	16	17	21	21	19	26	31	31	39	34	30	24	20	15	11	11	14	15	15	14
4	13	13	13	14	12	13	14	23	23	21	21	21	21	23	31	27	31	16	9	8	9	11	5	3
5	5	20	11	14	27	14	12	14	17	22	23	25	26	33	26	27	34	26	19	12	15	17	14	14
6	15	14	19	18	16	13	16	19	22	24	34	40	36	33	30	23	24	22	17	15	15	13	12	12
7	13	13	14	14	15	15	14	16	22	20	25	24	31	29	24	21	19	26	39	11	9	12	14	13
8	9	9	14	11	10	14	15	19	28	25	24	23	22	25	20	20	16	18	10	4	6	7	5	8
9	12	14	10	7	14	11	8	14	17	16	19	19	20	22	25	21	19	18	16	13	12	10	8	11
10	12	10	7	7	8	12	12	16	17	18	21	23	26	23	23	22	21	18	13	13	13	9	12	12
11	10	10	11	11	12	11	9	49	37	26	35	29	38	39	30	39	47	46	9	7	8	9	8	9
12	9	9	9	10	11	11	11	14	21	20	19	19	21	25	22	23	21	18	14	12	11	11	11	14
13	15	11	15	14	14	14	8	13	23	27	28	33	24	23	27	23	23	21	18	17	15	10	7	6
14	9	12	12	13	13	13	15	16	21	21	23	38	43	45	45	58	26	14	14	13	12	15	16	16
15	14	13	12	11	11	11	13	15	16	17	18	20	18	20	19	19	18	17	14	16	17	17	16	17
16	15	13	15	16	15	14	14	17	18	20	20	19	22	21	20	19	24	15	7	9	14	13	15	16
17	15	15	14	16	12	11	11	13	13	15	15	14	15	18	19	18	17	18	18	17	18	13	11	11
18	15	16	16	14	16	19	18	23	18	22	20	23	20	23	21	22	20	19	16	17	17	16	14	13
19	14	12	13	15	15	12	7	11	26	27	27	31	36	35	31	35	29	19	9	10	12	15	15	15
20	14	14	13	12	12	13	13	15	17	21	20	19	24	21	20	19	19	15	9	10	10	12	14	16
21	13	12	13	14	15	10	15	18	18	23	24	22	30	28	25	20	15	17	14	14	16	16	18	14
22	15	17	12	13	13	11	15	15	15	19	20	27	27	41	30	26	19	10	11	13	14	13	15	17
23	16	15	14	18	17	21	23	P	P	P	P	29	20	22	21	20	19	17	12	13	12	14	10	12
24	13	12	10	8	6	10	25	11	18	20	22	31	31	26	36	34	33	14	9	11	5	6	7	9
25	10	12	10	10	13	20	15	17	23	19	25	30	33	27	25	24	23	19	16	23	16	16	14	14
26	15	13	14	12	13	14	15	15	20	20	20	20	23	28	23	24	21	18	15	14	14	13	12	17
27	3	5	5	5	8	11	10	13	14	23	23	27	24	19	16	15	13	9	4	5	5	10	11	13
28	6	9	4	4	3	6	12	19	23	25	23	26	24	27	23	21	19	13	11	12	14	14	14	14
29	12	14	13	13	13	12	12	15	17	32	22	21	20	17	18	17	16	16	17	16	12	9	7	8
30	5	6	10	19	27	20	36	50	53	24	41	32	23	23	22	20	17	19	16	16	18	16	17	16

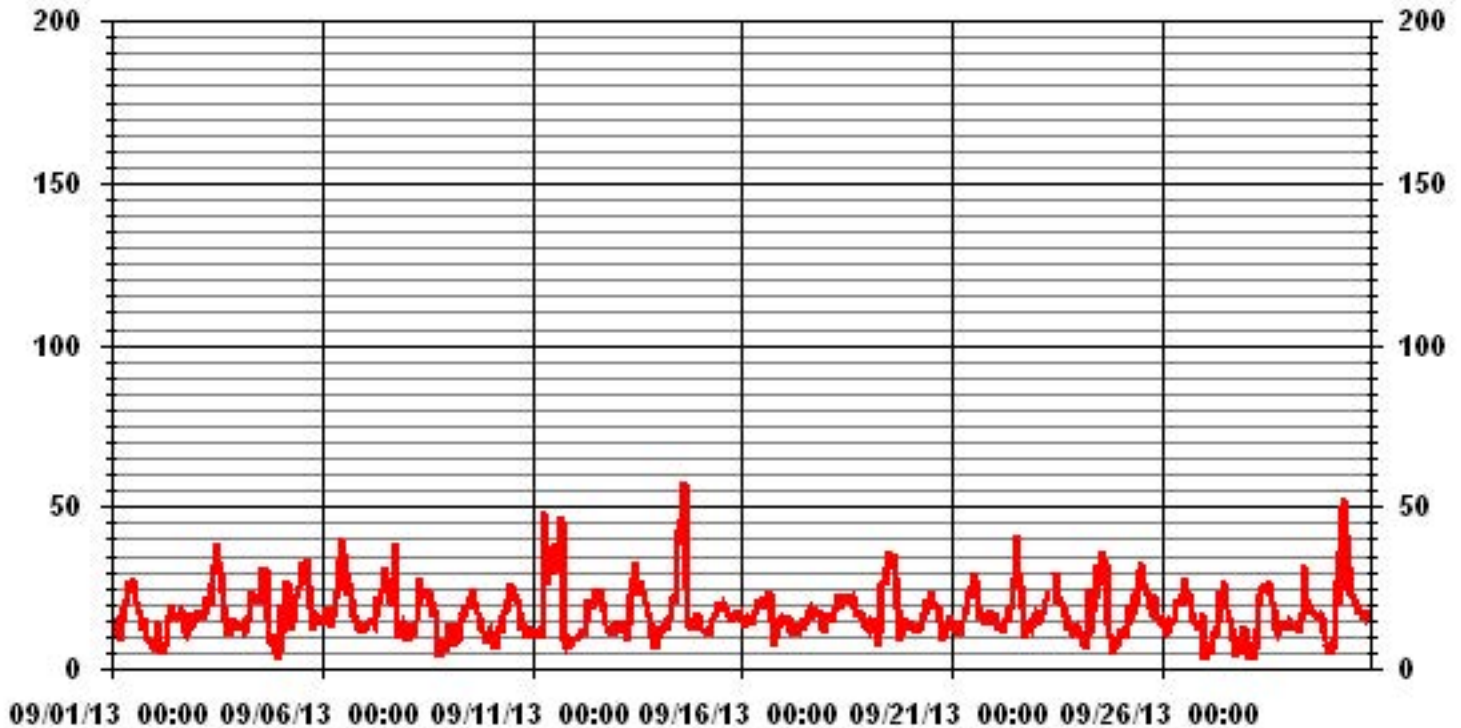
STATUS FLAG CODES

C	- CALIBRATION	Q	- QUALITY ASSURANCE
Y	- MAINTENANCE	R	- RECOVERY
S	- DAILY ZERO/SPAN CHECK	X	- MACHINE MALFUNCTION
P	- POWER FAILURE	O	- OPERATOR ERROR
G	- OUT FOR REPAIR	K	- COLLECTION ERROR

LAST CALIBRATION: June 12, 2012

CALIBRATION TIME: 0 HRS OPERATIONAL TIME: 716 HRS

01 Hour Averages



Calibration Reports

Sulphur Dioxide

SO2 Calibration Report

Station Information

Calibration Date	September 4, 2013	Previous Calibration	N/A
Company	LAKELAND INDUSTRY & COMMUNITY ASSOCIATION		
Plant / Location	ST. LINA		
Start Time (MST)	14:30	End Time (MST)	17:04
Reason:	Post repair calibration		
Barometric Pressure	27.6	in HG	Station Temperature 24 Deg C
Cal Gas	49.6 ppm	Gas Cyl. #	BAL3031 Cal Gas Expiry date December 29, 2016
DAS Output Voltage	0-1	Volts	Chart Rec. Output N/A Volts

Equipment Information

Analyzer Make / Model:	API 100E	S/N :	468	Method:	Fluorescent
Converter Make / Model:	N/A	S/N :	N/A		
Calibrator Make / Model:	API 700	S/N :	690	Method:	Dilution
DAS Make / Model:	ESC 8832	S/N :	AO717		
Chart Recorder Make / Model:	N/A	S/N :	N/A		
Flow Meter:	API 700	S/N :	690		

Analyzer Settings

Before Calibration			After Calibration		
Concentration Range	0 - 1000 ppb				
Sample Flow / Box Temp	576 ccm	33.3 Deg C	573 ccm	32.9 Deg C	
HVPS / Lamp Setting	540	1422	580	1432	
PMT / RxCell Temp	7.9 Deg C	50 Deg C	7.8 Deg C	50 Deg C	
Converter / IZS Temp	N/A Deg C	40 Deg C	N/A Deg C	40 Deg C	
Offset / Slope	127.9	1.074	127.9	1.074	

Calibration Data

Dilution Flow Rate	Source Gas Flow Rate	Calculated Concentration	Indicated Conc. (DAS)	Correction Factor
4995	0	0	1	N/A
	No zero adj.			
4914	80.6	800	800	1.0000
	No span adj.			
4962	40.3	400	400	1.0000
4983	20.2	200	199	1.0063
4995	0	0	0	N/A
Sum of Least Squares				1.0005
New Correction Factor				1.0000

IZS Calibration Data

Before Calibration		After Calibration	
Auto Zero	0.0	Auto Zero	0.0
Auto Span	246.0	Auto Span	246.0
Sample Lines Connected		Sample Lines Connected	Yes

Percent Change

Previous Month's Calibration Correction Factor:	N/A
Current Correction Factor Before Span Adjust:	1.0000
Percent Change:	#VALUE!

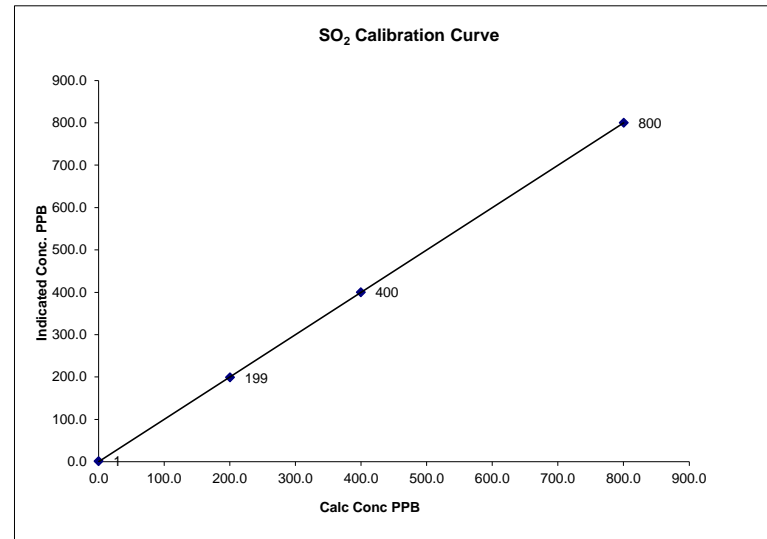
Notes: **N/A : Not applicable**

Calibration Performed by: Waseem Ahmed

SO2 Calibration Curve

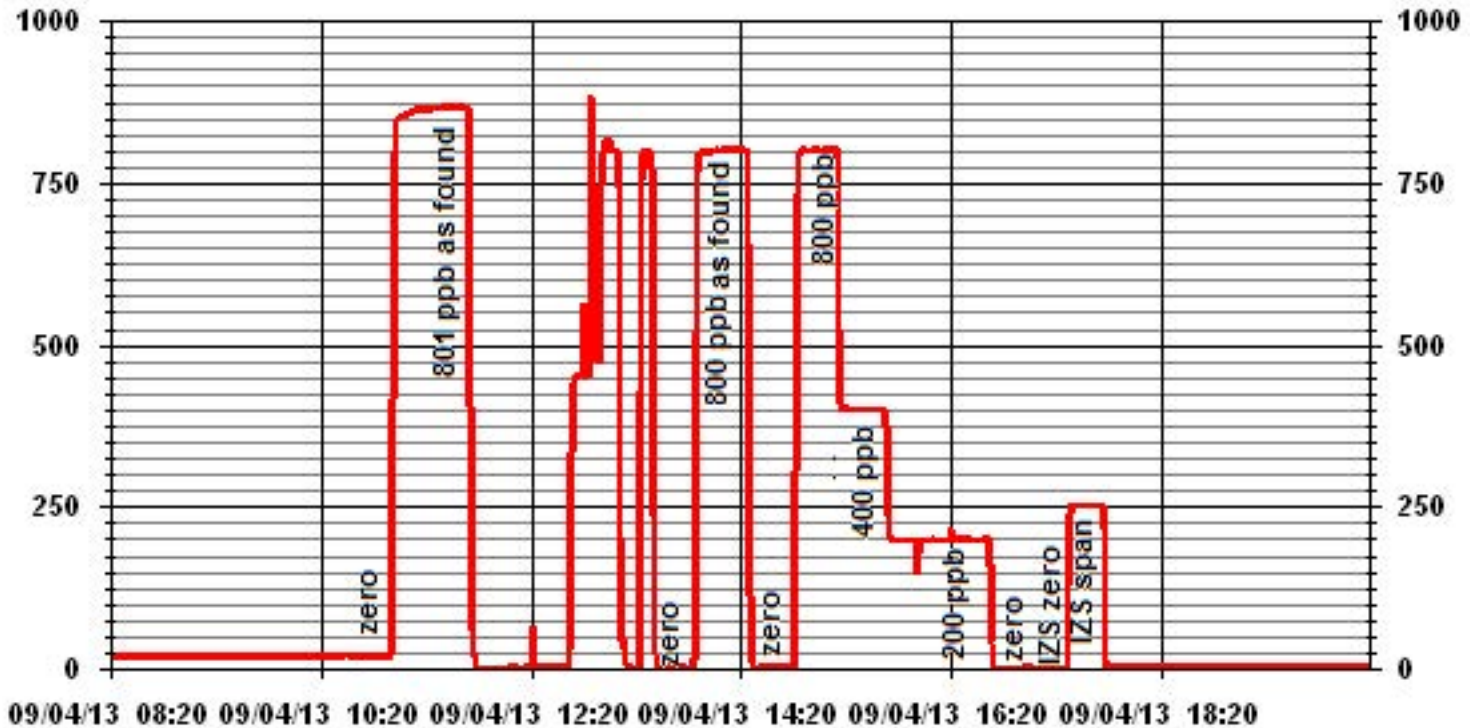
Calibration Date	September 4, 2013
Company	LAKELAND INDUSTRY & COMMUNITY ASSOCIATION
Plant / Location	ST. LINA
Start Time (MST)	14:30
End Time (MST)	17:04

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		0.999993
200	199	1.0063		0.999060
400	400	1.0000		0.262981
800	800	1.0000		

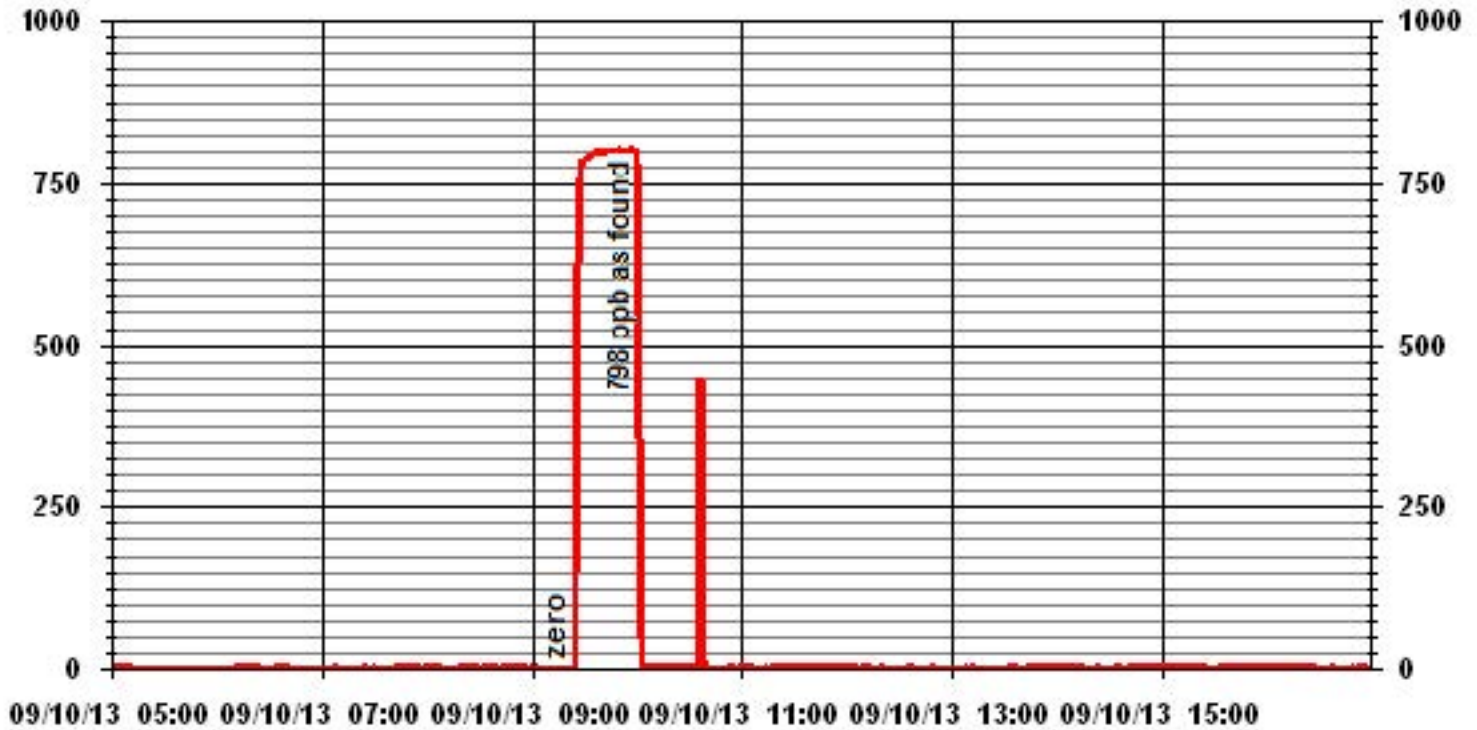


Notes:

01 Minute Averages



01 Minute Averages



Hydrogen Sulphide

H2S Calibration Report

Station Information

Calibration Date	September 10, 2013	Previous Calibration	August 2, 2013
Company	LAKELAND INDUSTRY & COMMUNITY ASSOCIATION		
Plant / Location	ST. LINA		
Start Time (MST)	9:00	End Time (MST)	9:47
Reason:	AF		
Barometric Pressure	27.64 in HG	Station Temperature	22 Deg C
Cal Gas	10.1 ppm	Gas Cyl. #	BLM00504
DAS Output Voltage	0-1 Volts	Cal Gas Expiry date	December 25, 2015
		Chart Rec. Output	N/A Volts

Equipment Information

Analyzer Make / Model:	API 101E	S/N :	510	Method:	Fluorescent
Converter Make / Model:	N/A	S/N :	N/A		
Calibrator Make / Model:	API 700	S/N :	690	Method:	Dilution
DAS Make / Model:	ESC 8832	S/N :	AO717		
Chart Recorder Make / Model:	N/A	S/N:	S/N:	N/A	
Flow Meter:	API 700	S/N :	690		

Analyzer Settings

Before Calibration		After Calibration	
Concentration Range	0 - 100 ppb		
Sample Flow / Box Temp	563 ccm, 32.4 Deg C	564 ccm, 32 Deg C	
HVPS / Lamp Setting	530, 1804	530, 1804	
PMT / RxCell Temp	8.4 Deg C, 50 Deg C	8.4 Deg C, 50 Deg C	
Converter / IZS Temp	314.4 Deg C, 45 Deg C	315.1 Deg C, 45.0 Deg C	
Offset / Slope	113.3, 1.044	113.3, 1.044	

Calibration Data

Dilution Flow Rate	Source Gas Flow Rate	Calculated Concentration	Indicated Conc. (DAS)	Correction Factor
5000	0	0	2	NA
	No zero adj.			
4955	40.0	81	83	0.9745
Sum of Least Squares New Correction Factor				0.9745

IZS Calibration Data

Before Calibration		After Calibration	
Auto Zero	0.0	0.0	
Auto Span	36.0	36.0	
Sample Lines Connected		YES	

Percent Change

Previous Month's Calibration Correction Factor:	0.9854
Current Correction Factor Before Span Adjust:	0.9745
Percent Change:	1.1%

Notes:

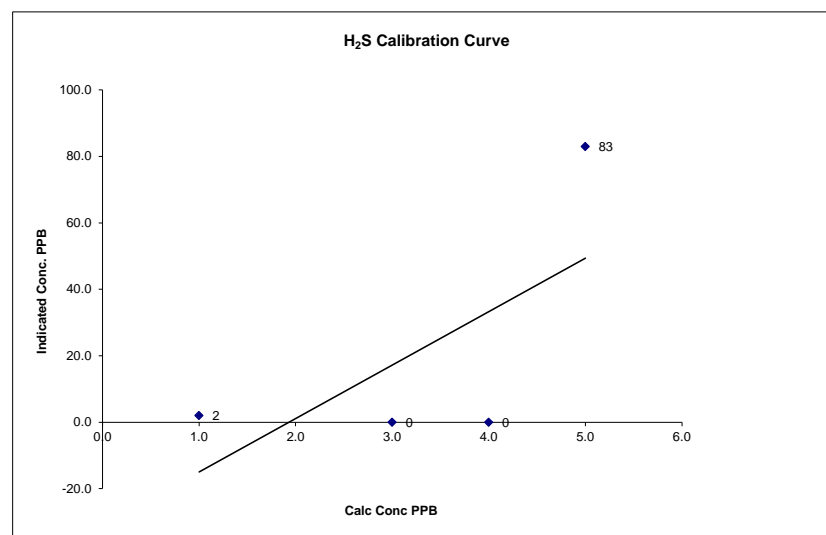
NA : Not Applicable
Change sample filter

Calibration Performed by: Waseem Ahmed

H₂S Calibration Curve

Calibration Date	September 10, 2013		
Company	LAKELAND INDUSTRY & COMMUNITY ASSOCIATION		
Plant / Location	ST. LINA		
Start Time (MST)	9:00	End Time (MST)	9:47

Calculated Conc. ppb	Indicated Response ppb	Correction Factor	Correlation Coefficient Slope	(≥ 0.995 (0.85 to 1.15) Intercept ($\pm 3\%$ F.S.))
0	2	NA		
81	83	0.9745		



Notes:

H2S Calibration Report

Station Information

Calibration Date	September 10, 2013	Previous Calibration	August 2, 2013
Company	LAKELAND INDUSTRY & COMMUNITY ASSOCIATION		
Plant / Location	ST. LINA		
Start Time (MST)	9:53	End Time (MST)	11:58
Reason:	Monthly calibration		
Barometric Pressure	27.64 in HG	Station Temperature	22 Deg C
Cal Gas	10.1 ppm	Gas Cyl. #	BLM00504 Cal Gas Expiry date
DAS Output Voltage	0-1 Volts	Chart Rec. Output	N/A Volts
		December 25, 2015	

Equipment Information

Analyzer Make / Model:	API 101E	S/N :	510	Method:	Fluorescent
Converter Make / Model:	N/A	S/N :	N/A		
Calibrator Make / Model:	API 700	S/N :	690	Method:	Dilution
DAS Make / Model:	ESC 8832	S/N :	AO717		
Chart Recorder Make / Model:	N/A	S/N:	S/N:	N/A	
Flow Meter:	API 700	S/N :	690		

Analyzer Settings

Before Calibration		After Calibration	
Concentration Range	0 - 100 ppb		
Sample Flow / Box Temp	563 ccm 32 Deg C	564 ccm 31.5 Deg C	
HVPS / Lamp Setting	530 1804	530 1804	
PMT / RxCell Temp	8.4 Deg C 50 Deg C	8.3 Deg C 50 Deg C	
Converter / IZS Temp	315 Deg C 45 Deg C	314.5 Deg C 45.0 Deg C	
Offset / Slope	113.3 1.044	117.1 1.046	

Calibration Data

Dilution Flow Rate	Source Gas Flow Rate	Calculated Concentration	Indicated Conc. (DAS)	Correction Factor
5000	0	0	0	NA
	No zero adj.			
4958	40.0	81	81	1.0000
	No span adj.			
4980	20.0	40	41	0.9854
4990	12.0	24	24	1.0000
5000	0	0	-1	NA
Sum of Least Squares				0.9963
New Correction Factor				1.0000

IZS Calibration Data

Before Calibration		After Calibration	
Auto Zero	0.0		0.0
Auto Span	36.0		36.0
Sample Lines Connected			YES

Percent Change

Previous Month's Calibration Correction Factor:	0.9854
Current Correction Factor Before Span Adjust:	1.0000
Percent Change:	-1.5%

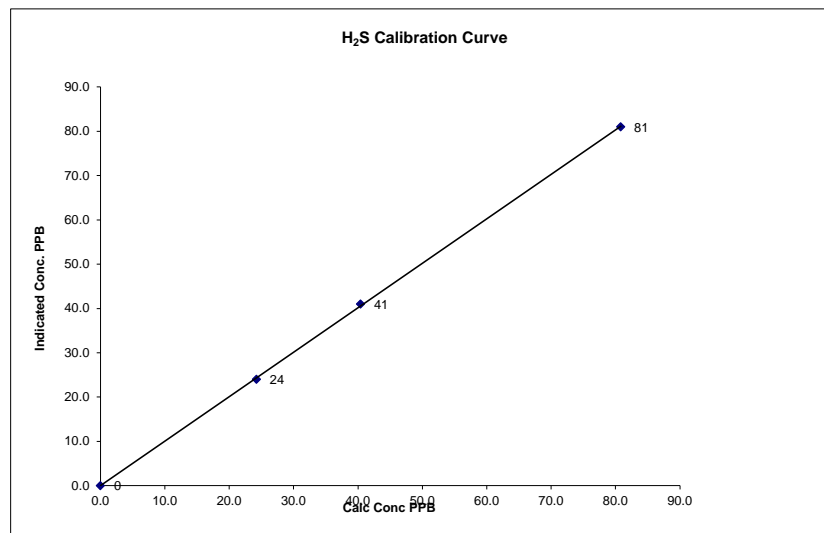
Notes: **NA : Not Applicable**

Calibration Performed by: Waseem Ahmed

H₂S Calibration Curve

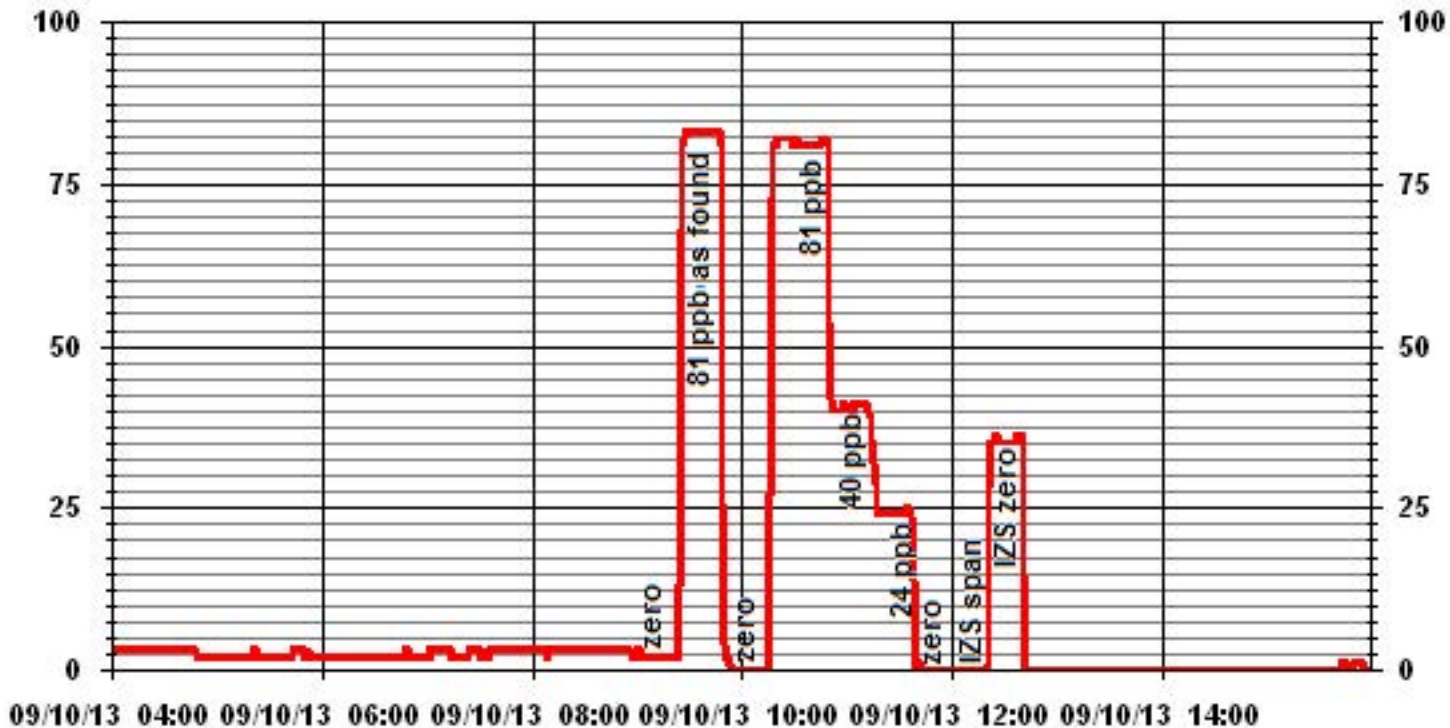
Calibration Date	September 10, 2013
Company	LAKELAND INDUSTRY & COMMUNITY ASSOCIATION
Plant / Location	ST. LINA
Start Time (MST)	9:53
End Time (MST)	11:58

Calculated Conc. ppb	Indicated Response ppb	Correction Factor	Correlation Coefficient Slope	(≥ 0.995)	0.999908
0	0	NA	Intercept	(0.85 to 1.15)	1.003659
24	24	1.0096		(± 3% F.S.)	0.001289
40	41	0.9854			
81	81	0.9979			



Notes:

01 Minute Averages



**H2S Calibration Report
Station Information**

Calibration Date	September 17, 2013	Previous Calibration	September 10, 2013
Company	LAKELAND INDUSTRY & COMMUNITY ASSOCIATION		
Plant / Location	ST. LINA		
Start Time (MST)	11:10	End Time (MST)	11:52
Reason:	AF		
Barometric Pressure	27.22 in HG	Station Temperature	24 Deg C
Cal Gas	10.1 ppm	Gas Cyl. #	BLM00504 Cal Gas Expiry date
DAS Output Voltage	0-1 Volts	Chart Rec. Output	N/A Volts
December 25, 2015			

Equipment Information

Analyzer Make / Model:	API 101E	S/N :	510	Method:	Fluorescent
Converter Make / Model:	N/A	S/N :	N/A		
Calibrator Make / Model:	API 700	S/N :	690	Method:	Dilution
DAS Make / Model:	ESC 8832	S/N :	AO717		
Chart Recorder Make / Model:		N/A	S/N:		N/A
Flow Meter:	API 700	S/N :	690		

Analyzer Settings

Before Calibration		After Calibration	
Concentration Range	0 - 100 ppb	564	34.6 Deg C
Sample Flow / Box Temp	550 ccm 36.1 Deg C	530 ccm	1804 Deg C
HVPS / Lamp Setting	530	1805	50 Deg C
PMT / RxCell Temp	8.4 Deg C	50 Deg C	50 Deg C
Converter / IZS Temp	314.6 Deg C	45 Deg C	315.1 Deg C
Offset / Slope	117.1	1.046	117.1
			45.0 Deg C
			1.046

Calibration Data

Dilution Flow Rate	Source Gas Flow Rate	Calculated Concentration	Indicated Conc. (DAS)	Correction Factor
5000	0	0	1	NA
	No zero adj.			
4956	40.0	81	83	0.9743
Sum of Least Squares New Correction Factor				0.9743

IZS Calibration Data

Before Calibration		After Calibration	
Auto Zero	0.0	0.0	
Auto Span	36.0	36.0	
Sample Lines Connected		YES	
Percent Change			
Previous Month's Calibration Correction Factor:			1.0000
Current Correction Factor Before Span Adjust:			0.9743
Percent Change:			2.6%

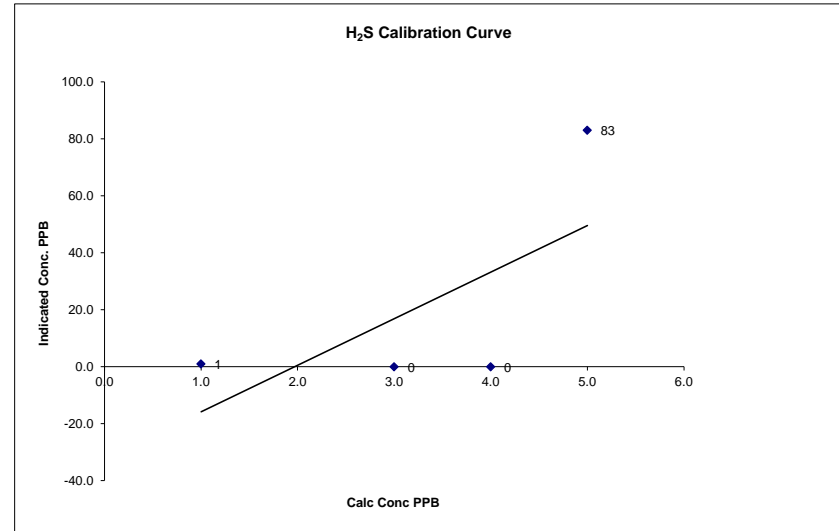
Notes: **NA : Not Applicable**

Calibration Performed by: Waseem Ahmed

H₂S Calibration Curve

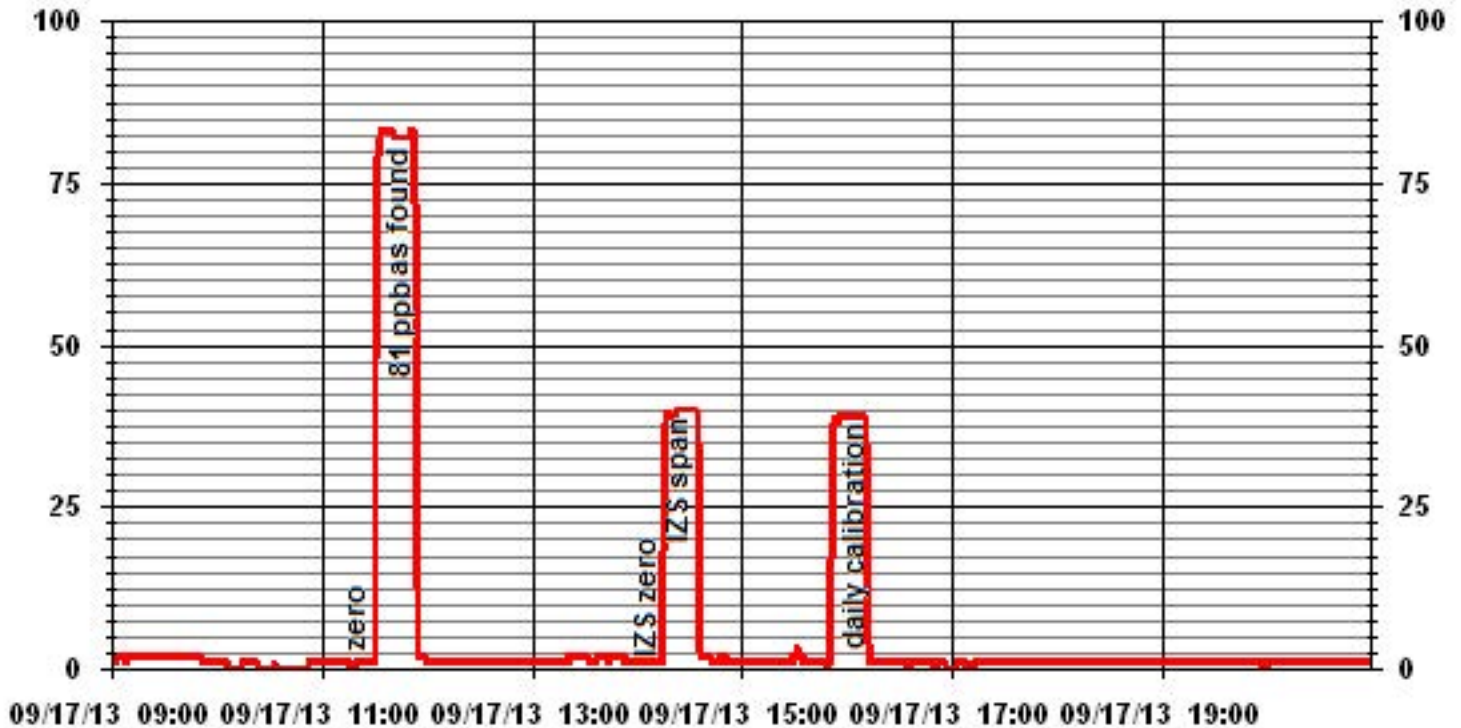
Calibration Date	September 17, 2013		
Company	LAKELAND INDUSTRY & COMMUNITY ASSOCIATION		
Plant / Location	ST. LINA		
Start Time (MST)	11:10	End Time (MST)	11:52

Calculated Conc. ppb	Indicated Response ppb	Correction Factor	Correlation Coefficient Slope Intercept	(≥ 0.995) (0.85 to 1.15) (± 3% F.S.)
0	1	NA		
81	83	0.9743		



Notes:

01 Minute Averages



Total Hydrocarbons

THC Calibration Report

Station Information					
Calibration Date:	September 10, 2013		Previous Calibration:	August 2, 2013	
Company:	LAKELAND INDUSTRY & COMMUNITY ASSOCIATION				
Plant / Location:	ST. LINA				
Start Time (MST):	12:47	End Time (MST):	13:30		
Reason:	AF				
Barometric Pressure:	27.62	in HG	Station Temperature:	22	Deg C
Calibrator:	API 700		S/N:	690	
Cal Gas Concentration:	CH4	600	PPM	C3H8	204
	TOTAL CH4	1161.0	PPM	Gas Cyl. #	LL155310
				Cal Gas Expiry Date:	September 9, 2013
DAS make & Model:	ESC 8832		S/N :	AO717	
Chart Recorder:	N/A		S/N:	N/A	
Output Voltage Range:	0-10	VDC	Chart Speed:	N/A mm/hr	

Analyzer Information

Make / Model	Thermo 51C-LT	S/N :	043669739	Method	Flame Ionization
--------------	---------------	-------	-----------	--------	------------------

Analyzer Settings

	Before Calibration		After Calibration	
	Concentration Range	0-50	ppm	0-50
Sample Pressure	6.8	psi	6.8	psi
Hydrogen Pressure	9	psi	9	psi
Air Pressure	21	psi	21	psi

Calibration Data

Dilution Flow	Source Gas Flow	Calculated Concentration	Indicated Concentration	Correction Factor
2000	0.0	0.0	0.1	N/A
1997	No zero adj.	40.4	34.9	1.1577
	72.0			
			New Correction Factor:	1.1577

Percent Change

Previous Calibration Correction Factor:	1.0000
Current Correction Factor Before Span Adjust:	1.1577
Percent Change:	-13.6%

IZS Calibration Data

	Before Calibration		After Calibration	
	Auto Zero	0.0		0.0
Auto Span	32.5		32.5	
Sample Lines Connected			Yes	

Cylinder Pressures				
Span	800	psi	Hydrogen	450
			Zero Air	32
				psi

Notes: **N/A : Not Applicable**

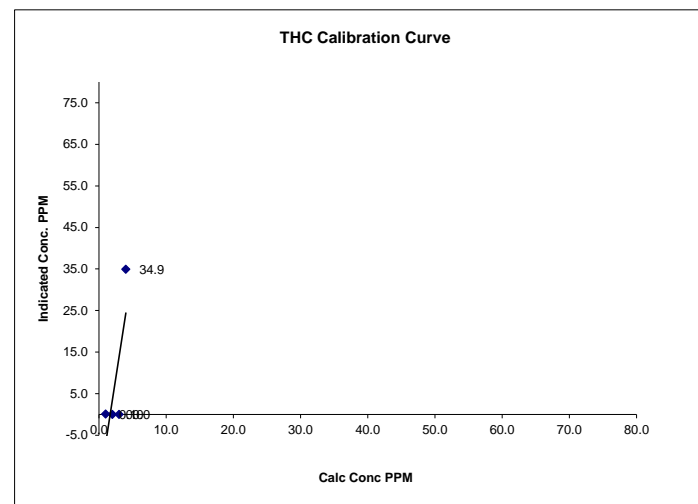
Change sample filter.
Spare H2=00, span =01

Calibration Performed by: Waseem Ahmed

THC Calibration Curve

Calibration Date	September 10, 2013		
Company	LAKELAND INDUSTRY & COMMUNITY ASSOCIATION		
Plant / Location	ST. LINA		
Start Time (MST)	12:47	End Time (MST)	13:30

Calculated Conc. ppm	Indicated Response ppm	Correction Factor	Correlation Coefficient	Slope	Intercept
0.0	0.1	N/A	(≥ 0.995)	(0.85 to 1.15)	(± 3% F.S.)
40.4	34.9	1.1577			



Notes:

THC Calibration Report

Station Information			
Calibration Date:	September 10, 2013	Previous Calibration:	N/A
Company:	LAKELAND INDUSTRY & COMMUNITY ASSOCIATION		
Plant / Location:	ST. LINA		
Start Time (MST)	16:13	End Time (MST)	18:06
Reason:	Post repair cal		
Barometric Pressure:	27.64 in HG	Station Temperature:	19 Deg C
Calibrator:	API 700	S/N:	690
Cal Gas Concentration:	CH4 600 PPM	C3H8 204 PPM	
	TOTAL CH4 1161.0 PPM	Gas Cyl. #	LL155310
		Cal Gas Expiry Date:	September 9, 2013
DAS make & Model:	ESC 8832	S/N :	AO717
Chart Recorder:	N/A	S/N:	N/A
Output Voltage Range:	0-10 VDC	Chart Speed:	N/A mm/hr

Analyzer Information

Make / Model	Thermo 51C-LT	S/N :	043669739	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	9 psi		9 psi	
Air Pressure	21 psi		21 psi	

Calibration Data

Dilution Flow	Source Gas Flow	Calculated Concentration	Indicated Concentration	Correction Factor
1995	0.0	0.0	0.0	N/A
	No zero adj.			
1997	72.0	40.4	40.5	0.9976
	No span adj.			
1950	34.1	20.0	19.9	1.0027
1955	17.0	10.0	9.7	1.0318
1995	0.0	0.0	-0.3	N/A
New Correction Factor:				0.9976

Percent Change

Previous Calibration Correction Factor:	N/A
Current Correction Factor Before Span Adjust:	0.9976
Percent Change:	#VALUE!

IZS Calibration Data

	Before Calibration	After Calibration
Auto Zero	0.0	0.0
Auto Span	32.5	32.5
Sample Lines Connected	Yes	

Cylinder Pressures			
Span	800 psi	Hydrogen 450 psi	Zero Air 32 psi

Notes: **N/A : Not Applicable**

Change sample filter.

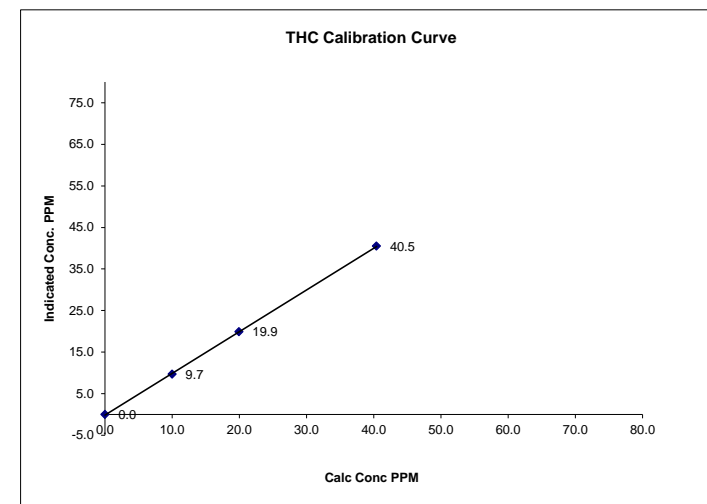
Spare H2=01, span =01

Calibration Performed by: Waseem Ahmed

THC Calibration Curve

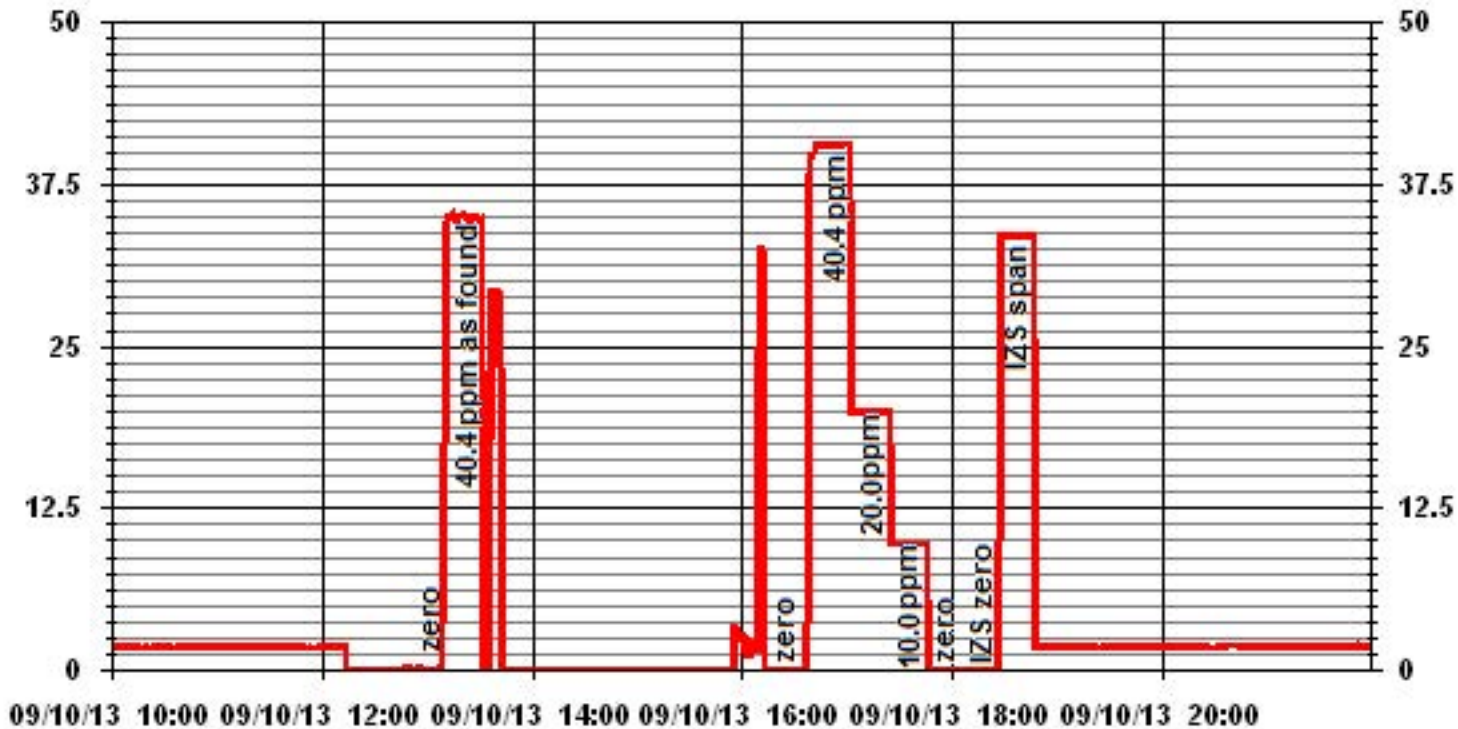
Calibration Date	September 10, 2013		
Company	LAKELAND INDUSTRY & COMMUNITY ASSOCIATION		
Plant / Location	ST. LINA		
Start Time (MST)	16:13	End Time (MST)	18:06

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	N/A	0.999925	1.004979	-0.15370
10.0	9.7	1.0318			
20.0	19.9	1.0027			
40.4	40.5	0.9976			



Notes:

01 Minute Averages



THC Calibration Report

Station Information			
Calibration Date:	September 17, 2013	Previous Calibration	September 10, 2013
Company:	LAKELAND INDUSTRY & COMMUNITY ASSOCIATION		
Plant / Location:	ST. LINA		
Start Time (MST)	11:36	End Time (MST)	12:22
Reason:	AF		
Barometric Pressure:	27.24 in HG	Station Temperature:	22 Deg C
Calibrator:	Envionics 6100	S/N:	4760
Cal Gas Concentration:	CH4 593 PPM TOTAL CH4 1156.8 PPM	C3H8 205 PPM Gas Cyl. # LL84567	Cal Gas Expiry Date: June 7, 2014
DAS make & Model:	ESC 8832	S/N :	AO717
Chart Recorder:	N/A	S/N:	N/A
Output Voltage Range:	0-10 VDC	Chart Speed:	N/A mm/hr

Analyzer Information

Make / Model	Thermo 51C-LT	S/N :	043669739	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	9	psi	9	psi
Air Pressure	21	psi	21	psi

Calibration Data

Dilution Flow	Source Gas Flow	Calculated Concentration	Indicated Concentration	Correction Factor
2001	0.0	0.0	-0.5	N/A
2002	No zero adj. 73.8	41.1	42.4	0.9701
New Correction Factor:				0.9701

Percent Change

Previous Calibration Correction Factor:	0.9976
Current Correction Factor Before Span Adjust:	0.9701
Percent Change:	2.8%

IZS Calibration Data

	Before Calibration	After Calibration
Auto Zero	0.0	0.0
Auto Span	32.5	32.5
Sample Lines Connected	Yes	

Cylinder Pressures
 Span 700 psi Hydrogen 1950 psi Zero Air 32 psi

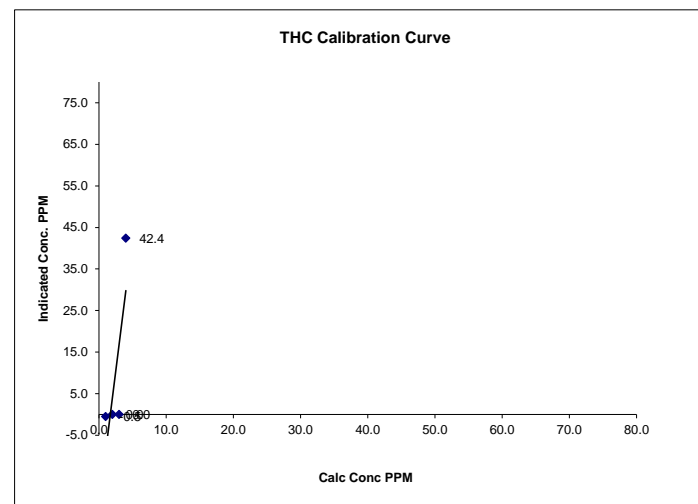
Notes: **N/A : Not Applicable**
 Change sample filter.
 Spare H2=01, span =01

Calibration Performed by: Waseem Ahmed

THC Calibration Curve

Calibration Date	September 17, 2013		
Company	LAKELAND INDUSTRY & COMMUNITY ASSOCIATION		
Plant / Location	ST. LINA		
Start Time (MST)	11:36	End Time (MST)	12:22

Calculated Conc. ppm	Indicated Response ppm	Correction Factor	Correlation Coefficient (≥ 0.995)
0.0	-0.5	N/A	Slope (0.85 to 1.15) Intercept (± 3% F.S.)
41.1	42.4	0.9701	



Notes:

THC Calibration Report

Station Information			
Calibration Date:	September 17, 2013	Previous Calibration	September 10, 2013
Company:	LAKELAND INDUSTRY & COMMUNITY ASSOCIATION		
Plant / Location:	ST. LINA		
Start Time (MST)	12:31	End Time (MST)	14:31
Reason:	Redo calibration		
Barometric Pressure:	27.24 in HG	Station Temperature:	22 Deg C
Calibrator:	Enviroics 6100	S/N:	4760
Cal Gas Concentration:	CH4 593 PPM	C3H8 205 PPM	
	TOTAL CH4 1156.8 PPM	Gas Cyl. # LL84567	Cal Gas Expiry Date: June 7, 2014
DAS make & Model:	ESC 8832	S/N :	AO717
Chart Recorder:	N/A	S/N:	N/A
Output Voltage Range:	0-10 VDC	Chart Speed:	N/A mm/hr

Analyzer Information

Make / Model	Thermo 51C-LT	S/N :	043669739	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	9 psi		9 psi	
Air Pressure	21 psi		21 psi	

Calibration Data

Dilution Flow	Source Gas Flow	Calculated Concentration	Indicated Concentration	Correction Factor
2001	0.0	0.0	0.0	N/A
2002	No zero adj.			
	73.8	41.1	41.1	1.0000
2002	No span adj.			
	36.9	20.9	20.6	1.0157
2002	19.9	11.4	11.2	1.0185
2002	0.0	0.0	-0.1	N/A
New Correction Factor:				1.0000

Percent Change

Previous Calibration Correction Factor:	0.9976
Current Correction Factor Before Span Adjust:	1.0000
Percent Change:	-0.2%

IZS Calibration Data

	Before Calibration	After Calibration
Auto Zero	0.0	0.0
Auto Span	32.5	32.5
Sample Lines Connected		Yes

Cylinder Pressures			
Span	700 psi	Hydrogen 1950 psi	Zero Air 32 psi

Notes: **N/A : Not Applicable**

Change sample filter.

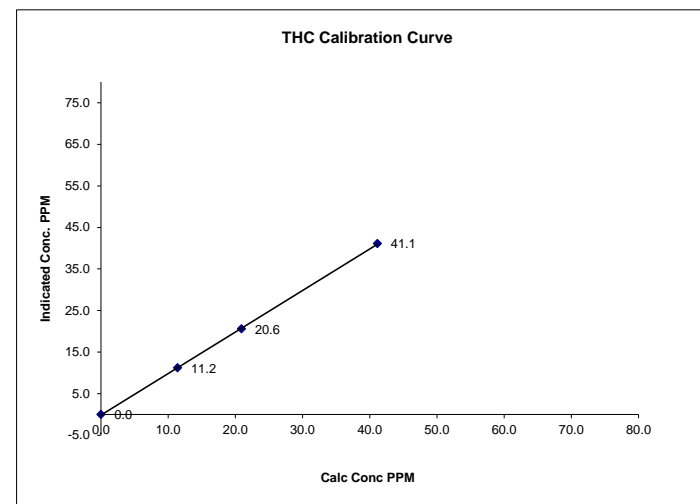
Spare H2=01, span =01

Calibration Performed by: Waseem Ahmed

THC Calibration Curve

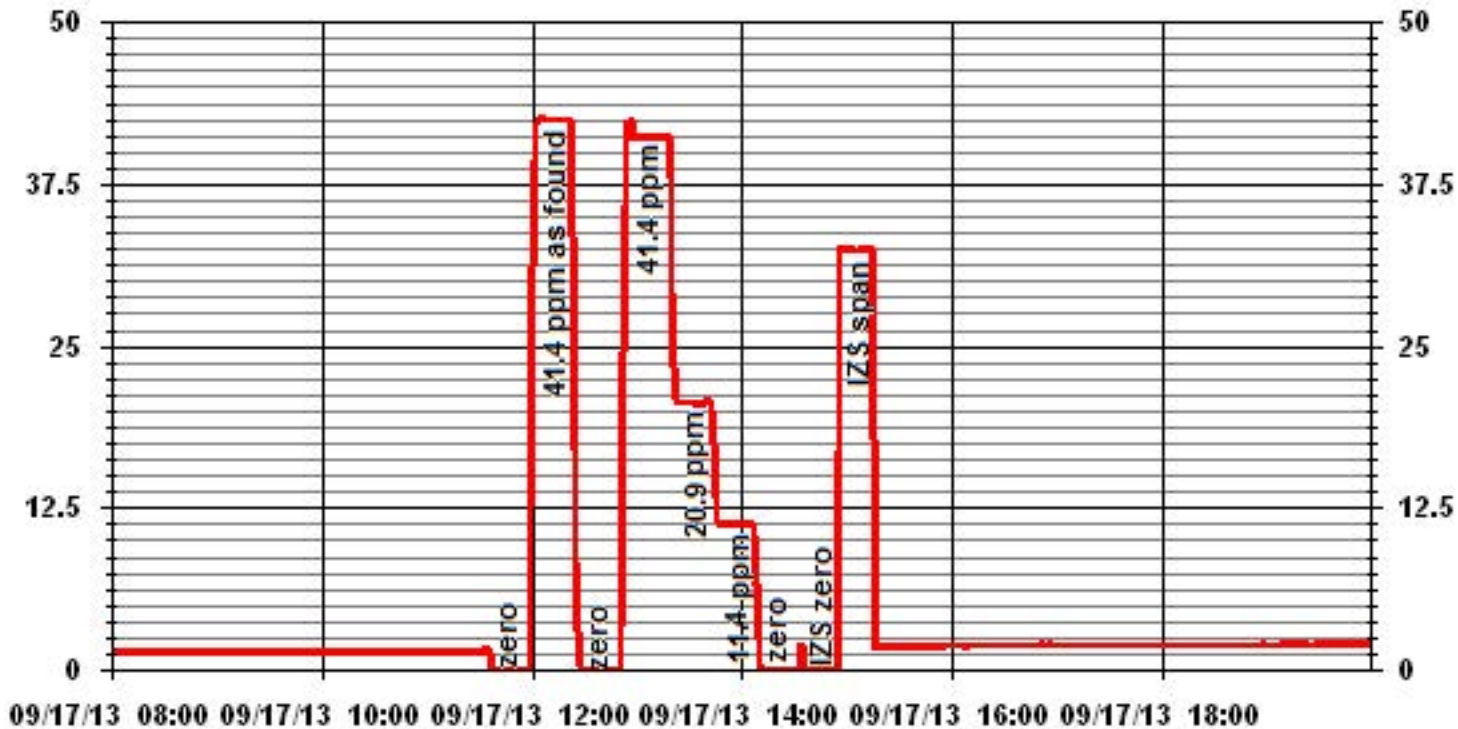
Calibration Date	September 17, 2013		
Company	LAKELAND INDUSTRY & COMMUNITY ASSOCIATION		
Plant / Location	ST. LINA		
Start Time (MST)	12:31	End Time (MST)	14:31

Calculated Conc.	Indicated Response	Correction Factor	Correlation Coefficient	Slope	Intercept
ppm	ppm		(≥ 0.995)	(0.85 to 1.15)	(± 3% F.S.)
0.0	0.0	N/A	0.999922	1.000041	-0.13995
11.4	11.2	1.0185			
20.9	20.6	1.0157			
41.1	41.1	1.0000			



Notes:

01 Minute Averages



Nitrogen Dioxide

NOx - NO- NO2 Calibration Report

Station Information

Calibration Date	September 10, 2013	Previous Calibration	August 1, 2013
Company	LICA	Plant/Location	St. Lina
Start Time (MST)	9:00	End Time (MST)	9:59
Reason:	AF		
Barometric Pressure	27.63 in HG	Station Temperature	22 Deg C
Cal Gas Concentration	NOx 49.3 ppm	NO	49.2 ppm
Cal Gas Cylinder #	BAL3031	Cal Gas Expiry date	December 29, 2013
DAS Output Voltage	0-1 Volts	Chart Rec. Output	N/A Volts

Equipment Information

Analyzer Make / Model:	API 200E	S/N :	592	Method:	Chemiluminescent
Calibrator Make / Model:	EnviroNics 6100	S/N:	4760		
DAS Make / Model:	ESC 8832	S/N :	AO717		
Chart Recorder Make / Model:	N/A	S/N:	N/A		
Flow Meter:	EnviroNics 6100	S/N :	4760		

Analyzer Settings

Before Calibration				After Calibration			
Concentration Range	0 - 1000			ppb			
Sample Flow/Conv. Temp	474 ccm	316.2 Deg C		474 ccm	316.1 Deg C		
Ozone Flow / Vacuum	74 ccm	4.4 *Hg-A		74 ccm	4.3 *Hg-A		
HVPS / A ZERO	670 Volts	23.0 MV		670 Volts	23.0 MV		
Rx/ Temp / PMT Temp	50.0 Deg C	6.8 Deg C		50.0 Deg C	6.8 Deg C		
Box Temp / IZS Temp	28.9 Deg C	45.2 Deg C		29.2 Deg C	45.2 Deg C		
Offset	-0.9 NOx	-1.3 NO		-0.9 NOx	-1.3 NO		
Slope	1.010 NOx	1.005 NO		1.010 NOx	1.005 NO		
NO2 COEF / Conv Efficiency	N/A NO2	0.993		N/A NO2	0.993		

Dilution Calibration Data

Dilution Air Flow Rate	Source Flow Rate	O3 Set Point	Calculated Concentration			Indicated Concentration			Correction Factor	
			NOx	NO	NO2	NOx	NO	NO2	NOx	NO
4995	0.0	NA	0	0	NA	1	1	1	NA	NA
	No zero adj.									
4920	80.5	NA	793	792	NA	803	804	-1	0.9890	0.9857

Gas Phase Titration Calibration Data

Dilution Air Flow Rate	Source Flow Rate	O3 Set Point	Calculated Concentration			Indicated Concentration			NO2 Correction Factor	NO2 Conv Efficiency
			NOx	NO	NO2	NOx	NO	NO2		

Linearity OK?	Yes	No	Sum of Least Squares Correction Factors:	NOx= 0.9890	NO= 0.9857	NO2=
				Average Converter Efficiency=		

IZS Calibration Data

Before Calibration				After Calibration			
Auto Zero	0.0 NOx	0.0 NO2		0.0 NOx	0.0 NO2		
Auto Span	636 NOx	615 NO2		636 NOx	615 NO2		
Sample Lines Connected:				YES			

Percent Change

	NOx	NO	NO2
Previous Month's Calibration Correction Factor	0.996	0.998	
Current Correction Factor Before Span Adjust	0.989	0.986	
Percent Change	0.7%	1.2%	

Notes

NA : Not Applicable

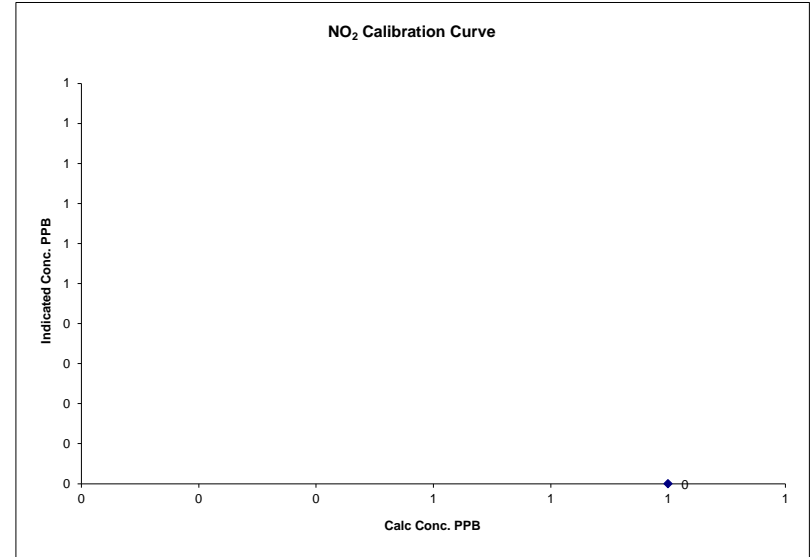
Change sample filter.

Calibration Performed by: Waseem Ahmed

NO2 Calibration Curve

Calibration Date	September 10, 2013
Company	LICA
Plant / Location	St. Lina
Start Time (MST)	9:00
End Time (MST)	9:59

Calculated Conc. ppb	Indicated Response ppb	Correction Factor	Correlation Coefficient (≥ 0.995)
-1			Slope (0.85 to 1.15)
			Intercept (± 3% F.S.)



Notes:

NOx - NO- NO2 Calibration Report

Station Information

Calibration Date	September 10, 2013	Previous Calibration	August 1, 2013
Company	LICA	Plant/Location	St. Lina
Start Time (MST)	10:05	End Time (MST)	15:00
Reason:	Monthly calibration		
Barometric Pressure	27.63 in HG	Station Temperature	22 Deg C
Cal Gas Concentration	NOx 49.3 ppm	NO	49.2 ppm
Cal Gas Cylinder #	BAL3031	Cal Gas Expiry date	December 29, 2013
DAS Output Voltage	0-1 Volts	Chart Rec. Output	N/A Volts

Equipment Information

Analyzer Make / Model:	API 200E	S/N :	592	Method:	Chemiluminescent
Calibrator Make / Model:	EnviroNics 6100	S/N:	4760		
DAS Make / Model:	ESC 8832	S/N :	AO717		
Chart Recorder Make / Model:	N/A	S/N:	N/A		
Flow Meter:	EnviroNics 6100	S/N :	4760		

Analyzer Settings

		Before Calibration		0 - 1000		After Calibration	
Concentration Range							
Sample Flow/Conv. Temp	474 ccm	316.2	Deg C	479	ccm	315.5	Deg C
Ozone Flow / Vacuum	74 ccm	4.4	"Hg-A	74	ccm	4.3	"Hg-A
HVPS / A ZERO	670 Volts	23.0	MV	670	Volts	24.0	MV
Rx/ Temp / PMT Temp	50.0 Deg C	6.8	Deg C	50.0	Deg C	6.8	Deg C
Box Temp / IZS Temp	28.9 Deg C	45.2	Deg C	27.2	Deg C	45.0	Deg C
Offset	-0.9 NOx	-1.3	NO	0	NOx	-0.1	NO
Slope	1.010 NOx	1.005	NO	0.997	NOx	0.994	NO
NO2 COEF / Conv Efficiency	N/A NO2	0.993		N/A	NO2	0.993	

Dilution Calibration Data

Dilution Air Flow Rate	Source Flow Rate	O3 Set Point	Calculated Concentration			Indicated Concentration			Correction Factor	
			NOx	NO	NO2	NOx	NO	NO2	NOx	NO
4995	0.0	NA	0	0	NA	0	0	1	NA	NA
	No zero adj.									
4920	80.5	NA	794	792	NA	795	794	1	0.9988	0.9980
	No span adj.									
4961	40.4	NA	398	398	NA	397	398	-1	1.0034	1.0000
4980	20.3	NA	200	199	NA	202	201	1	0.9884	0.9913
4995	0.0	NA	0	0	NA	0	0	1	NA	NA

Gas Phase Titration Calibration Data

Dilution Air Flow Rate	Source Flow Rate	O3 Set Point	Calculated Concentration			Indicated Concentration			NO2 Correction Factor	NO2 Conv Efficiency
			NOx	NO	NO2	NOx	NO	NO2		
4920	80.6	NA	794	793	NA	796	795	1	NA	
4920	80.6	600	794	NA	514	796	282	514	1.0019	100.00%
	No adj.									
4920	80.5	300	794	NA	261	797	535	262	1.0000	100.38%
4920	80.5	120	794	NA	104	796	692	105	1.0000	100.97%

Linearity	Sum of Least Squares	NOx= 0.999	NO= 0.998	NO2= 0.999
OK?	Correction Factors:	NOx= 0.9988	NO= 0.9980	NO2= 1.0019
	Average Converter Efficiency=	100.45%		

IZS Calibration Data

		Before Calibration			After Calibration		
Auto Zero	0.0 NOx	0.0	NO2	0.0	NOx	0.0	NO2
Auto Span	636 NOx	615	NO2	643	NOx	628	NO2
	Sample Lines Connected:	YES					

Percent Change

	NOx	NO	NO2
Previous Month's Calibration Correction Factor	0.996	0.998	1.000
Current Correction Factor Before Span Adjust	0.999	0.998	1.002
Percent Change	-0.3%	-0.1%	-0.2%

Notes: **NA : Not Applicable**

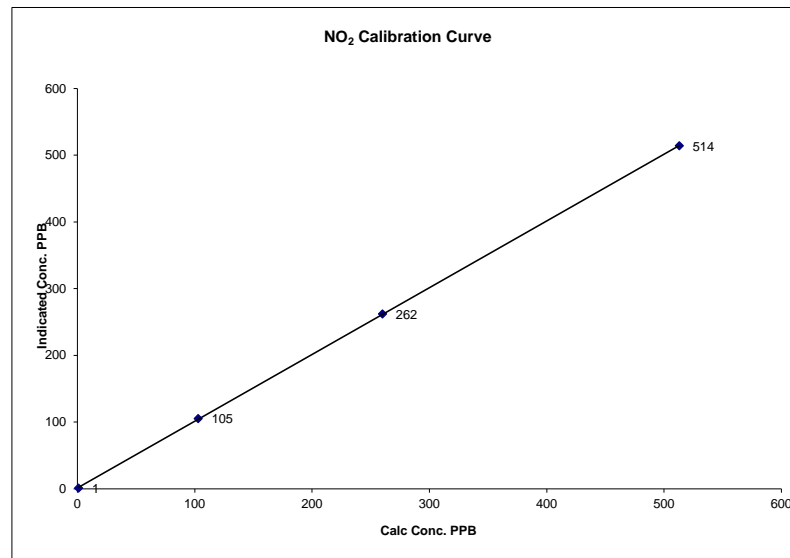
O3= 450 FLOW=4920 SOURCE FLOW 80.5
NOX 794 NO 405 NO2= 389

Calibration Performed by: Waseem Ahmed

NO2 Calibration Curve

Calibration Date	September 10, 2013
Company	LICA
Plant / Location	St. Lina
Start Time (MST)	10:05
End Time (MST)	15:00

Calculated Conc. ppb	Indicated Response ppb	Correction Factor	Correlation Coefficient Slope	(≥ 0.995) Intercept	0.999983
1	1	NA			1.000957
103	105	0.9810			1.04008
260	262	0.9924			
513	514	0.9981			

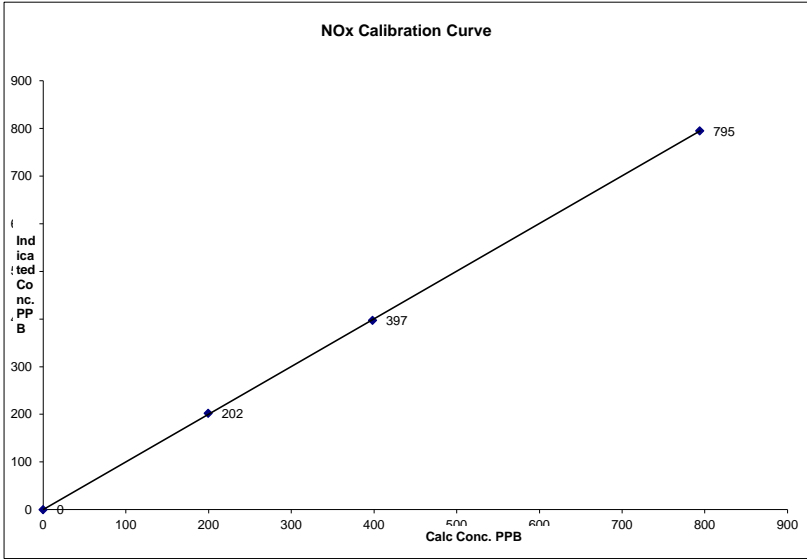


Notes:

NOx Calibration Curve

Calibration Date	September 10, 2013	
Company	LICA	
Plant / Location	St. Lina	
Start Time (MST)	10:05	End Time (MST) 15:00

Calculated Conc. ppb	Indicated Response ppb	Correction Factor	Correlation Coefficient (≥ 0.995)	0.999979
0	0	NA	Slope (0.85 to 1.15)	1.000041
200	202	0.9884	Intercept (± 3% F.S.)	0.47991
398	397	1.0034		
794	795	0.9988		

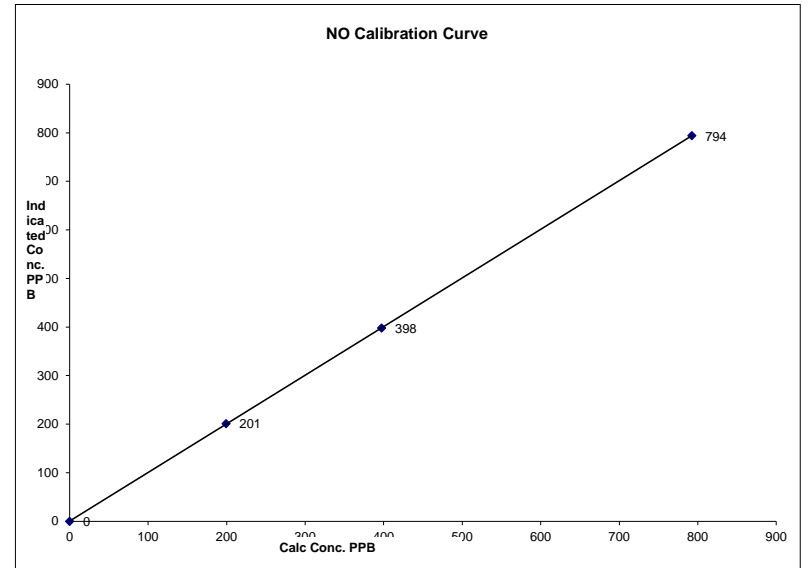


Notes:

NO Calibration Curve

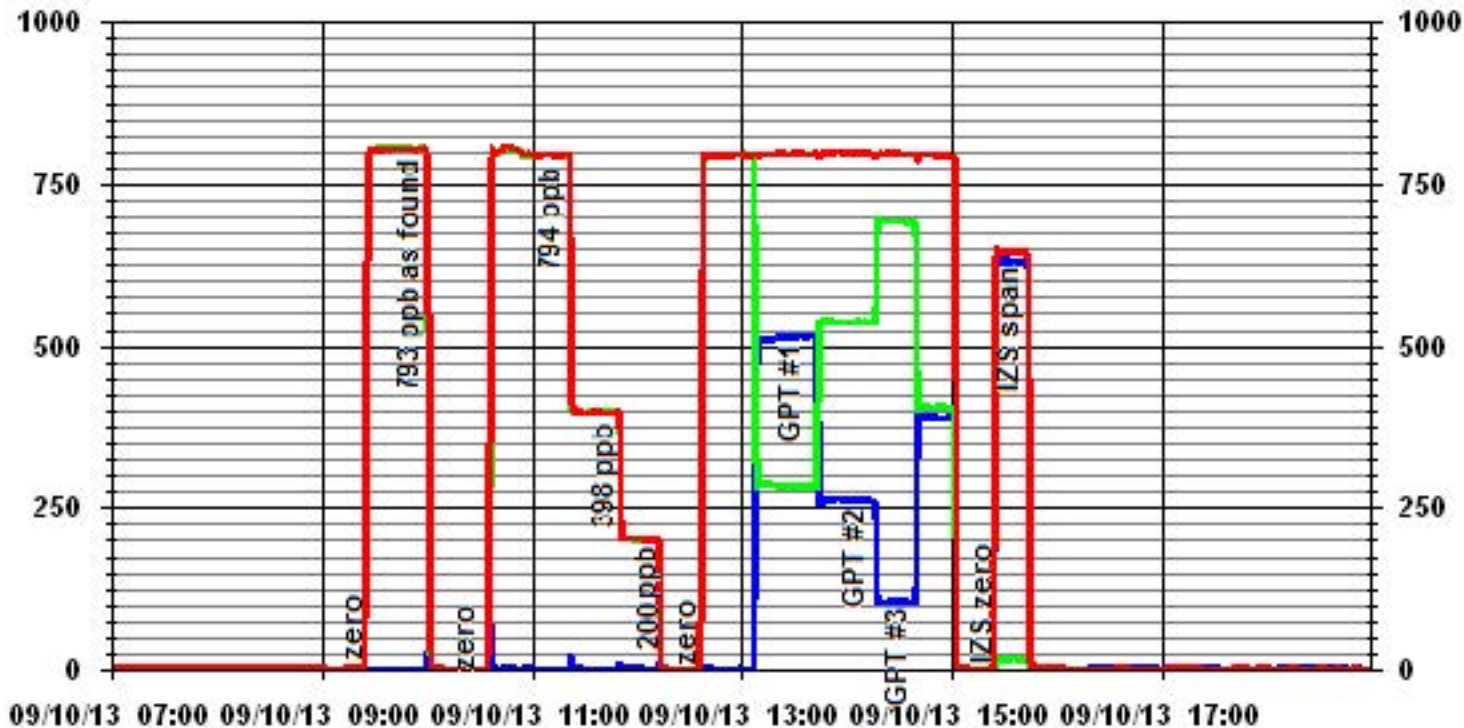
Calibration Date	September 10, 2013	
Company	LICA	
Plant / Location	St. Lina	
Start Time (MST)	10:05	End Time (MST) 15:00

Calculated Conc. ppb	Indicated Response ppb	Correction Factor	Correlation Coefficient (≥ 0.995)	0.999996
0	0	NA	Slope (0.85 to 1.15)	1.001354
199	201	0.9913	Intercept (± 3% F.S.)	0.47971
398	398	1.0000		
792	794	0.9980		



Notes:

01 Minute Averages



Ozone

O₃ Calibration Report

Station Information

Calibration Date	September 10, 2013	Previous Calibration	August 19, 2013
Company	LAKELAND INDUSTRY & COMMUNITY ASSOCIATION		
Plant / Location	ST. LINA		
Start Time (MST)	15:10	End Time (MST)	17:10
Reason:	Monthly calibration		
Barometric Pressure	27.64 in HG	Station Temperature	20 Deg C
DAS Output Voltage	0-10 Volts		

Equipment Information

Analyzer Make / Model:	Thermo 49i	S/N :	1002240371	Method:	Photometric
Calibrator Make / Model:	Enviroics 6100	S/N :	4760	Method:	GPT
DAS Make / Model:	ESC 8832	S/N :	AO717		

Analyzer Settings

	Before Calibration				After Calibration			
Concentration Range	0-500 ppb							
Cell A Flow / Cell B Flow	735 LPM	726 LPM	744 LPM	735 LPM				
O ₃ Set Level	673 mmHg		687 mmHg					
Bench Lamp	53.5 Deg C		53.6 Deg C					
O ₃ Lamp / Box Temp	67.7 Deg	24.2 Deg C	67.8 Deg C	24.8 Deg C				
Offset / Slope	-0.2	0.985	-0.2	0.985				

Calibration Data

Dilution Flow Rate	Ozone Set Point	Calculated Concentration	Indicated Conc. (DAS)	Correction Factor
4994	0	0	0	N/A
	No zero adj.			
4995	450	391	390	1.0026
	No span adj.			
4995	300	260	262	0.9924
4995	120	103	104	0.9904
4995	0	0	0	N/A
Sum of Least Squares				0.9990
New Correction Factor				1.0026

IZS Calibration Data

	Before Calibration	After Calibration
Auto Zero	0.0	0
Auto Span	309	309
Sample Lines Connected		Yes
Previous Calibration Correction Factor:		0.9948
Current Correctio Factor Before Span Adjust:		1.0026
Percent Change:		-0.8%

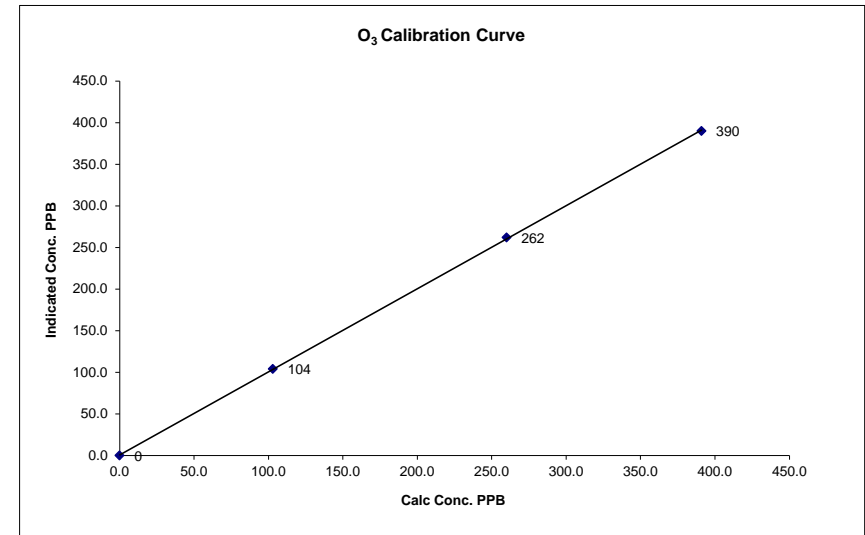
Note: N/A : Not Applicable
Change sample filter

Calibration Performed by: Waseem Ahmed

O₃ Calibration Curve

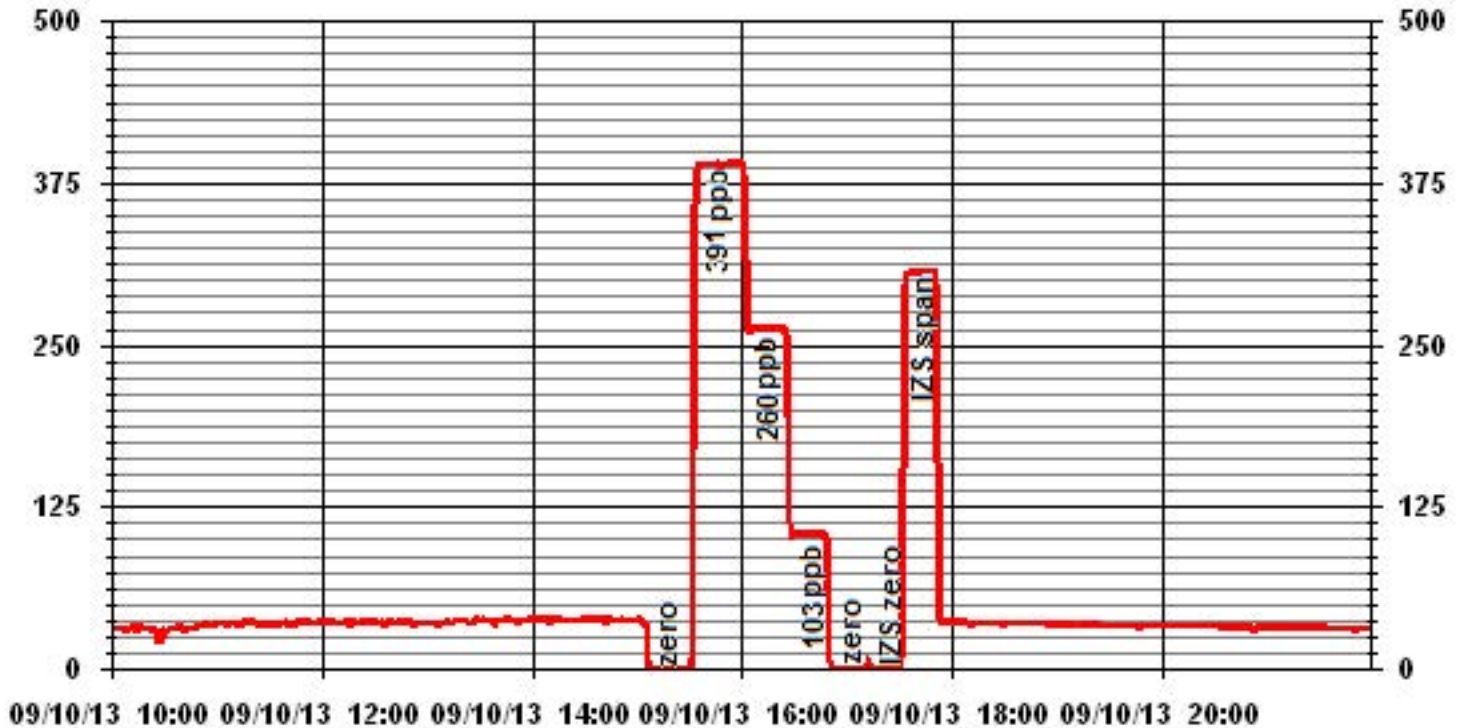
Calibration Date	September 10, 2013		
Company	LAKELAND INDUSTRY & COMMUNITY ASSOCIATION		
Plant / Location	ST. LINA		
Start Time (MST)	15:10	End Time (MST)	17:10

Calculated Conc. ppb	Indicated Response ppb	Correction Factor	Correlation Coefficient (≥ 0.995)	
0	0	N/A	Slope (0.85 to 1.15)	0.999946
103	104	0.9904	Intercept (± 3% F.S.)	0.998370
260	262	0.9924		0.807241
391	390	1.0026		



Notes:

01 Minute Averages



Particulate Matter 2.5

TEOM® Calibration

	<u>Station</u>		<u>Transfer Standard</u>
Date:	September 12, 2013	Make/Model:	Streamline FTA
Station Name:	LICA St.Lina (CASA#31)	Serial Number:	Hi 091001, Lo 091099
Location:	St. Lina Station	Cell s/n:	N/A
Operator:	LICA	Thermometer:	Station Temp. & pres. Sensor

	<u>Sampler</u>		<u>Set-up and current Sampler readings</u>
Make/Model	R&P Teom 1400a	F-Main Set Pt (l/min)	3.00
Unit #	20001	F-Aux Set Pt (l/min)	13.67
Control unit s/n	140AB228720001	Filter Load (%)	28%
Transducer s/n	1200C153540001	K _o Factor	15003
Parameter	PM2.5	Temp (°C)	22.1
		Press (ATM)	0.920

Conversion from mmHg or "Hg to ATM (Atmospheres)

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

Note: Tolerances are noted as BOLD in Brackets

Calibration

Zero flow				
	Pump Off		Pump On (Time to reach set points)	
F-Main (l/min)	0.05		(45-60 Sec) 45	
F-Aux (l/min)	0.17		(45-60 Sec) 45	
Temperature/Pressure				
Measured Temp (± 1 °C)	22.3	Δ °C	0.2	
Measured Press (± 1.5% ATM)	0.926	Δ % ATM	0.6%	
Flow Audit				
Indicated Main/Aux Flow (l/min)	2.98	/	13.61	Δ % from Set-pt
Total Flow = Main + Aux (l/min)	16.59			(± 2%) 0.7% / 0.4%
Measured Total Flow (l/min)	16.66			(± 2%) 0.5%
Measured Main Flow (l/min)	3.010			(± 1.0 l/min. (5.65%)) -0.4%
				(± 0.2 l/min. (6.25%)) -1.0%
Leak Check				
Main (< 0.15 l/min)	0.14	Actual leakage = Pump On - Pump Off		
Aux (< 0.15 l/min)	0.20		0.09	
			0.03	
K_o Factor				
Measured	na			
K _o Difference (± 2.5%)	na			

Start Time: 11:20 Finish Time: 13:00:00 PM
 Sample Inlet Cleaned: NA Sample Inlet Connected: Yes
 Comments: _____

 Calibrator/s: Waseem Ahmed

TEOM® Calibration

	<u>Station</u>		<u>Transfer Standard</u>
Date:	September 24, 2013	Make/Model:	Streamline FTA
Station Name:	LICA St.Lina (CASA#31)	Serial Number:	Hi 091001, Lo 091099
Location:	St. Lina Station	Cell s/n:	N/A
Operator:	LICA	Thermometer:	Station Temp. & pres. Sensor

	<u>Sampler</u>		<u>Set-up and current Sampler readings</u>
Make/Model	R&P Teom 1400a	F-Main Set Pt (l/min)	3.00
Unit #	20001	F-Aux Set Pt (l/min)	13.67
Control unit s/n	140AB228720001	Filter Load (%)	22%
Transducer s/n	1200C153540001	K _o Factor	15003
Parameter	PM2.5	Temp (°C)	16.4
		Press (ATM)	0.909

Conversion from mmHg or "Hg to ATM (Atmospheres)

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

Note: Tolerances are noted as BOLD in Brackets

Calibration

Zero flow				
	Pump Off		Pump On (Time to reach set points)	
F-Main (l/min)	0.06		(45-60 Sec) 55	
F-Aux (l/min)	0.15		(45-60 Sec) 55	
Temperature/Pressure				
Measured Temp (± 1 °C)	16.3	Δ °C	-0.1	
Measured Press (± 1.5% ATM)	0.917	Δ % ATM	0.9%	
Flow Audit				
Indicated Main/Aux Flow (l/min)	2.98	/	13.61	Δ % from Set-pt
Total Flow = Main + Aux (l/min)	16.59			(± 2%) 0.7% / 0.4%
Measured Total Flow (l/min)	16.65			(± 2%) 0.5%
Measured Main Flow (l/min)	2.960			(± 1.0 l/min. (5.65%)) -0.4%
				(± 0.2 l/min. (6.25%)) 0.7%
Leak Check				
Main (< 0.15 l/min)	0.13	Actual leakage = Pump On - Pump Off		
Aux (< 0.15 l/min)	0.17	0.07		
		0.02		
K_o Factor				
Measured	na			
K _o Difference (± 2.5%)	na			

Start Time: 11:00 Finish Time: 12:00
 Sample Inlet Cleaned: NA Sample Inlet Connected: Yes

Comments: _____

Calibrator/s: Waseem Ahmed

Lakeland Industry & Community Association

Portable / Elk Point Airport Monitoring Site

Ambient Air Monitoring Data Report

For

September 2013

Prepared By:



October 18, 2013

Lakeland Industry & Community Association Portable / Elk Point Airport Ambient Air Monitoring

Table of Contents

	Page		Page
Introduction	3		
Calibration Procedure	4		
Monthly Continuous Summary	5	Calibration Reports	99
General Monthly Summary	6	• Sulphur Dioxide	10(
Continuous Monitoring	9	• Hydrogen Sulphide	10,
• Monthly Summaries, Graphs & Wind Roses	10	• Total Hydrocarbons (55i)	11%
○ Sulphur Dioxide	11	• Particulate Matter 2.5	11)
○ Hydrogen Sulphide	19	• Nitrogen Dioxide	11,
○ Particulate Matter 2.5	27	• Ozone	1&)
○ Nitrogen Dioxide	32		
○ Nitric Oxide	40		
○ Oxides of Nitrogen	47		
○ Ozone	55		
○ Total Hydrocarbons (55i)	63		
○ Methane	70		
○ Non-Methane Hydrocarbons	78		
○ Vector Wind Speed	86		
○ Vector Wind Direction	93		
○ Standard Deviation Wind Direction	96		

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 / Elk Point Airport
Data Period: September 2013

The monthly ambient data report:

- Prepared by Lily Lin
- Reviewed by Lili Zhou

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 – ELK POINT AIRPORT –

Continuous Ambient Monitoring – September 2013

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION PORTABLE / ELK POINT AIRPORT SITE						MAXIMUM VALUES							OPERATIONAL TIME (PERCENT)
						OBJECTIVES				MONTHLY AVERAGE	1-HOUR		
PARAMETER	1-HR	24-HR	1-HR	24-HR	READING	DAY	HOUR	WIND SPEED (KPH)	WIND DIRECTION (DEGREES)		READING	DAY	
SO ₂ (PPB)	172	48	0	0	0.03	1	VAR	VAR	VAR	VAR	0.3	4	99.7
H ₂ S (PPB)	10	3	0	0	0.25	5	23	8	0.8	52(NE)	1.3	9	99.7
THC (55i) (PPM)	-	-	-	-	2.81	16.9	16	15	20	159(SSE)	3.7	25	99.4
Methane (PPM)	-	-	-	-	2.74	8.8	25	0	4.4	283(W)	3.6	25	99.4
NMHC (PPM)	-	-	-	-	0.07	15.0	16	15	20	159(SSE)	0.9	16	99.4
NO ₂ (PPB)	159	-	0	-	5.74	28.7	27	21	3.5	294(WNW)	12.1	23	93.3
NO (PPB)	-	-	-	-	2.91	77.3	3	15	9.8	156(SSE)	13.4	28	93.3
NO _x (PPB)	-	-	-	-	8.65	82.5	3	15	9.8	156(SSE)	23.5	28	93.3
O ₃ (PPB)	82	-	0	-	21.42	65	13	14	16.7	347(NNW)	31.0	13	99.7
PM 2.5 (UG/M ³)	-	30	-	0	5.56	22	12	6	8.2	96(E)	8.5	21	99.7
VECTOR WS (KPH)	-	-	-	-	10.86	39.7	17	14	-	288(WNW)	24.4	17	100.0
VECTOR WD (DEGREES)	-	-	-	-	267(W)	-	-	-	-	-	-	-	100.0

VAR-VARIOUS

General Monthly Summary

Equipment Operation

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

AQM STATION – LICA – PORTABLE

Sulphur Dioxide (PPB)

- Analyzer make / model – API 100E, S/N: 467

The analyzer was working well throughout the month. The monthly calibration was performed on September 5th. The inlet filter was changed before the calibration was started. Data was corrected using daily zero information.

Hydrogen Sulphide (PPB)

- Analyzer make / model –API 101E, S/N: 509
- Converter - Internal

The monthly calibration was performed on September 5th. The inlet filter was changed before the calibration was started. The analyzer was recalibrated on September 23rd as it did not show a good stability on the daily span check. No issue was noticed on the second calibration. Data was corrected using daily zero information.

THC 55i (PPM)

- Analyzer make / model –Thermo 55i, S/N: (12)36656107

The analyzer flamed out on September 3rd during hour 12. The H2 gas cylinder was replaced on September 3rd. Four hours of data were invalidated due to this event. The monthly calibration was performed after the N2 gas cylinder and the inlet filter were replaced on September 13th. Data was corrected using daily zero information.

No canister was collected this month as per client request.

General Monthly Summary

AQM STATION – LICA – PORTABLE

Ozone (PPB)

- Analyzer make / model – Thermo 49i, S/N: 1002240372

The analyzer was working well throughout the month. The monthly calibration was performed on September 5th. The inlet filter was changed before the calibration was started. Data was corrected using daily zero information.

Nitrogen Dioxide (PPB)

- Analyzer make / model – API 200E, S/N: 593

The monthly calibration was performed on September 5th. The inlet filter was changed before the month calibration was started. The analyzer did not span on September 24th. On September 25th, it was found that the exhaust sample line had broken. The sample line was replaced on September 25th. The analyzer was allowed time to stabilize. An as found points check was then performed. As we are not sure when the issue occurred, we invalidated the data back to the last good calibration, which was September 23rd. A total of 23 hours of data was invalidated. Data was corrected using daily zero information.

Particulate Matter 2.5 (ug/m³)

- Analyzer make / model – TEOM 1405F, S/N: 1405A208301003

Two Teom audits were performed in September: one was on September 3rd and the other one was on September 23rd. Both audits passed the manufacturer requirements. The sample inlet was cleaned on September 27th. Upon arrival on September 9th, a TEMP/RH warning appeared on the screen of the Teom unit. Reset the unit to ease the message. Data was corrected using Alberta air quality guideline. 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 hours of data were invalidated as the data were below -3 ug/m³.

General Monthly Summary

AQM STATION – LICA – PORTABLE

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

- System make / model –RM Young 5103VK, S/N: 43708

The wind system is reported as vector wind speed and vector wind direction. The most recent wind system calibration was done on November 24, 2011.

No operational issues were observed during the month.

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 manifold system was cleaned on September 23rd.

Continuous Monitoring

Monthly Summaries, Graphs & Wind Roses

Sulphur Dioxide

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - PORTABLE SITE

SEPTEMBER 2013

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	0	0	0	0	0	S	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	S	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	S	0	0	0	Y	Y	0	0	0	0	0	0	0	0	0	0	0.0	22
4	0	1	0	0	0	0	0	1	S	0	0	0	1	1	1	0	1	1	1	0	0	0	0	0	1	0.3	24	
5	0	0	0	0	0	0	0	S	C	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	S	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	S	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	S	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	S	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	S	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	S	0	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	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	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	S	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	S	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	S	0	0	0	0.0	24	
16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	S	0	0	0	1	0.2	24	
17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	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	S	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	S	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	S	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	1	S	0	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	S	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	S	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	S	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	S	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	S	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	S	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	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0.0	24	
29	1	0	1	1	1	1	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.2	24	
30	0	0	0	0	0	S	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	0	1	0	0	0	0	1	1	1	1	1	1	1	0	0	0	0	1				
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	0.1	0.1	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0				

STATUS FLAG CODES

C - CALIBRATION	Q - QUALITY ASSURANCE
Y - MAINTENANCE	R - RECOVERY
S - DAILY ZERO/SPAN CHECK	X - MACHINE MALFUNCTION
P - POWER FAILURE	O - OPERATOR ERROR
G - OUT FOR REPAIR	K - COLLECTION ERROR

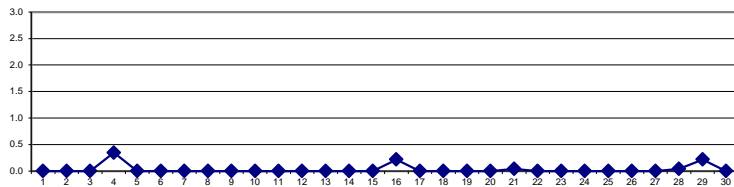
OBJECTIVE LIMIT:

ALBERTA ENVIRONMENT:	1-HR 172 PPB	24-HR 48 PPB
----------------------	--------------	--------------

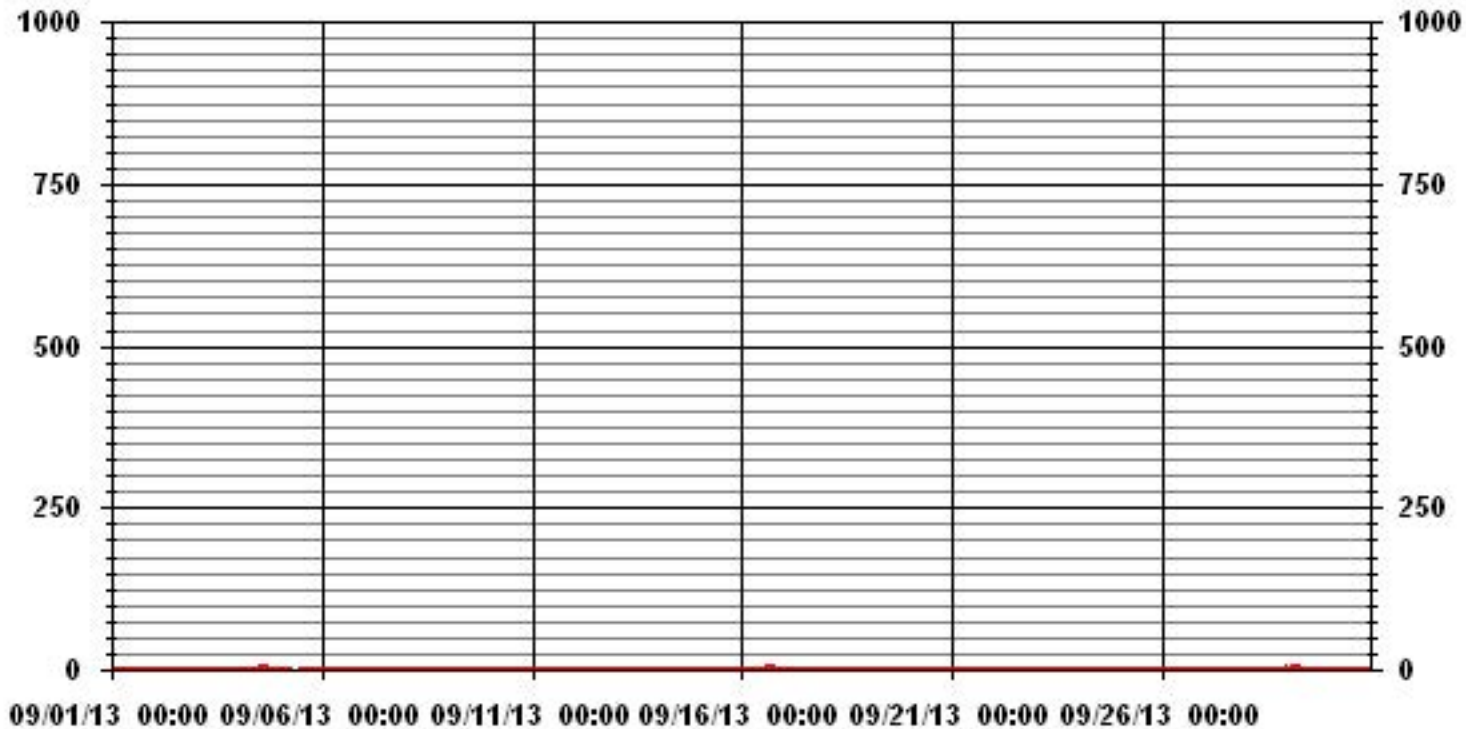
MONTHLY SUMMARY

NUMBER OF 1-HR EXCEEDENCES:	0				
NUMBER OF 24-HR EXCEEDENCES:	0				
NUMBER OF NON-ZERO READINGS:	20				
MAXIMUM 1-HR AVERAGE:	1	PPB	@ HOUR(S)	VAR	ON DAY(S)
MAXIMUM 24-HR AVERAGE:	0.3	PPB			ON DAY(S) 4
IZS CALIBRATION TIME:	31	HRS	OPERATIONAL TIME:	718	HRS
MONTHLY CALIBRATION TIME:	5	HRS	AMD OPERATION UPTIME:	99.7	%
STANDARD DEVIATION:	0.17		MONTHLY AVERAGE:	0.03	PPB

24 HOUR AVERAGES FOR SEPTEMBER 2013



01 Hour Averages



LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - PORTABLE SITE - Elk Point Airport

SEPTEMBER 2013

SULPHUR 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	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	MAX.	AVG.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
DAY																														1		0	0	1	0	1	1	1	1	1	1	2	S	0	1	1	0	0	0	0	0	0	0	0	0	0	2	0.5	24	2		0	0	1	0	0	0	1	1	1	0	S	1	1	0	1	2	1	1	6	1	0	0	0	0	6	0.8	24	3		0	0	0	0	0	0	0	0	0	0	S	0	4	4	Y	Y	1	1	1	2	2	2	1	1	2	4	1.0	22	4		2	2	2	2	2	2	2	2	S	2	1	2	2	3	2	1	2	2	2	1	1	1	1	1	1	3	1.7	24	5		1	1	1	1	1	1	1	S	C	C	C	C	C	0	0	0	1	0	0	0	0	0	0	0	1	0.4	24	6		0	0	0	0	0	0	S	1	1	1	1	0	0	0	0	1	0	0	1	1	1	0	0	0	1	0.3	24	7		0	0	1	0	0	S	0	1	0	0	0	0	0	0	0	1	0	0	0	1	1	1	1	1	1	0.3	24	8		1	1	1	1	S	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	24	9		1	1	2	S	1	2	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	0	1	2	1.1	24	10		1	1	S	1	1	1	1	0	1	0	1	1	0	0	1	0	0	0	0	0	0	0	0	1	1	0.5	24	11		1	S	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	12		S	0	0	1	0	1	0	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	S	1	0.7	24	13		0	0	0	0	0	1	1	0	1	1	2	1	1	1	1	1	1	0	0	0	0	0	S	0	2	0.5	24	14		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	1	1	0.1	24	15		1	1	0	1	1	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	S	1	0	1	0.8	24	16		1	1	0	1	1	1	1	1	1	2	1	1	2	1	2	2	2	2	2	S	0	0	1	0	2	1.1	24	17		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	1	0	0	0	0	1	0.0	24	18		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	1	0	0	0	1	0.0	24	19		0	1	1	0	0	0	1	0	0	0	0	0	0	0	1	0	S	0	1	0	1	1	1	1	1	0.4	24	20		0	1	1	1	1	1	1	2	1	1	1	1	1	1	1	S	0	0	0	0	0	0	1	1	0	2	0.7	24	21		1	1	1	1	1	1	1	0	1	1	1	1	2	2	S	1	1	1	1	1	1	1	1	1	1	2	1.0	24	22		0	1	1	0	1	0	0	0	1	0	0	0	1	S	0	0	0	0	0	0	0	1	1	1	1	0.4	24	23		1	1	1	1	1	1	0	3	0	1	1	1	S	1	1	1	0	1	1	0	0	0	0	2	3	0.8	24	24		0	2	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	1	1	1	0	0	1	2	0.3	24	25		1	1	1	0	1	0	1	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.2	24	26		0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	1	1	1	1	1	1	0	1	0	1	0.3	24	27		1	0	1	0	0	1	1	2	S	0	1	2	1	0	0	0	0	0	1	1	2	1	1	1	2	0.7	24	28		1	1	1	1	0	0	0	S	0	0	0	1	1	0	1	1	1	1	1	1	1	2	2	2	3	3	0.9	24	29		2	1	2	2	2	2	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.5	24	30		0	0	0	1	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.0	24	HOURLY MAX		2	2	2	2	2	2	3	1	2	2	4	4	3	2	2	2	2	2	6	2	2	2	2	3				HOURLY AVG		0.6	0.6	0.7	0.5	0.5	0.6	0.6	0.5	0.4	0.5	0.6	0.7	0.7	0.5	0.6	0.6	0.5	0.5	0.8	0.6	0.6	0.5	0.5	0.7			
1		0	0	1	0	1	1	1	1	1	1	2	S	0	1	1	0	0	0	0	0	0	0	0	0	0	2	0.5	24	2		0	0	1	0	0	0	1	1	1	0	S	1	1	0	1	2	1	1	6	1	0	0	0	0	6	0.8	24	3		0	0	0	0	0	0	0	0	0	0	S	0	4	4	Y	Y	1	1	1	2	2	2	1	1	2	4	1.0	22	4		2	2	2	2	2	2	2	2	S	2	1	2	2	3	2	1	2	2	2	1	1	1	1	1	1	3	1.7	24	5		1	1	1	1	1	1	1	S	C	C	C	C	C	0	0	0	1	0	0	0	0	0	0	0	1	0.4	24	6		0	0	0	0	0	0	S	1	1	1	1	0	0	0	0	1	0	0	1	1	1	0	0	0	1	0.3	24	7		0	0	1	0	0	S	0	1	0	0	0	0	0	0	0	1	0	0	0	1	1	1	1	1	1	0.3	24	8		1	1	1	1	S	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	24	9		1	1	2	S	1	2	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	0	1	2	1.1	24	10		1	1	S	1	1	1	1	0	1	0	1	1	0	0	1	0	0	0	0	0	0	0	0	1	1	0.5	24	11		1	S	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	12		S	0	0	1	0	1	0	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	S	1	0.7	24	13		0	0	0	0	0	1	1	0	1	1	2	1	1	1	1	1	1	0	0	0	0	0	S	0	2	0.5	24	14		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	1	1	0.1	24	15		1	1	0	1	1	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	S	1	0	1	0.8	24	16		1	1	0	1	1	1	1	1	1	2	1	1	2	1	2	2	2	2	2	S	0	0	1	0	2	1.1	24	17		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	1	0	0	0	0	1	0.0	24	18		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	1	0	0	0	1	0.0	24	19		0	1	1	0	0	0	1	0	0	0	0	0	0	0	1	0	S	0	1	0	1	1	1	1	1	0.4	24	20		0	1	1	1	1	1	1	2	1	1	1	1	1	1	1	S	0	0	0	0	0	0	1	1	0	2	0.7	24	21		1	1	1	1	1	1	1	0	1	1	1	1	2	2	S	1	1	1	1	1	1	1	1	1	1	2	1.0	24	22		0	1	1	0	1	0	0	0	1	0	0	0	1	S	0	0	0	0	0	0	0	1	1	1	1	0.4	24	23		1	1	1	1	1	1	0	3	0	1	1	1	S	1	1	1	0	1	1	0	0	0	0	2	3	0.8	24	24		0	2	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	1	1	1	0	0	1	2	0.3	24	25		1	1	1	0	1	0	1	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.2	24	26		0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	1	1	1	1	1	1	0	1	0	1	0.3	24	27		1	0	1	0	0	1	1	2	S	0	1	2	1	0	0	0	0	0	1	1	2	1	1	1	2	0.7	24	28		1	1	1	1	0	0	0	S	0	0	0	1	1	0	1	1	1	1	1	1	1	2	2	2	3	3	0.9	24	29		2	1	2	2	2	2	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.5	24	30		0	0	0	1	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.0	24	HOURLY MAX		2	2	2	2	2	2	3	1	2	2	4	4	3	2	2	2	2	2	6	2	2	2	2	3				HOURLY AVG		0.6	0.6	0.7	0.5	0.5	0.6	0.6	0.5	0.4	0.5	0.6	0.7	0.7	0.5	0.6	0.6	0.5	0.5	0.8	0.6	0.6	0.5	0.5	0.7																																	
2		0	0	1	0	0	0	1	1	1	0	S	1	1	0	1	2	1	1	6	1	0	0	0	0	6	0.8	24	3		0	0	0	0	0	0	0	0	0	0	S	0	4	4	Y	Y	1	1	1	2	2	2	1	1	2	4	1.0	22	4		2	2	2	2	2	2	2	2	S	2	1	2	2	3	2	1	2	2	2	1	1	1	1	1	1	3	1.7	24	5		1	1	1	1	1	1	1	S	C	C	C	C	C	0	0	0	1	0	0	0	0	0	0	0	1	0.4	24	6		0	0	0	0	0	0	S	1	1	1	1	0	0	0	0	1	0	0	1	1	1	0	0	0	1	0.3	24	7		0	0	1	0	0	S	0	1	0	0	0	0	0	0	0	1	0	0	0	1	1	1	1	1	1	0.3	24	8		1	1	1	1	S	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	24	9		1	1	2	S	1	2	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	0	1	2	1.1	24	10		1	1	S	1	1	1	1	0	1	0	1	1	0	0	1	0	0	0	0	0	0	0	0	1	1	0.5	24	11		1	S	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	12		S	0	0	1	0	1	0	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	S	1	0.7	24	13		0	0	0	0	0	1	1	0	1	1	2	1	1	1	1	1	1	0	0	0	0	0	S	0	2	0.5	24	14		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	1	1	0.1	24	15		1	1	0	1	1	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	S	1	0	1	0.8	24	16		1	1	0	1	1	1	1	1	1	2	1	1	2	1	2	2	2	2	2	S	0	0	1	0	2	1.1	24	17		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	1	0	0	0	0	1	0.0	24	18		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	1	0	0	0	1	0.0	24	19		0	1	1	0	0	0	1	0	0	0	0	0	0	0	1	0	S	0	1	0	1	1	1	1	1	0.4	24	20		0	1	1	1	1	1	1	2	1	1	1	1	1	1	1	S	0	0	0	0	0	0	1	1	0	2	0.7	24	21		1	1	1	1	1	1	1	0	1	1	1	1	2	2	S	1	1	1	1	1	1	1	1	1	1	2	1.0	24	22		0	1	1	0	1	0	0	0	1	0	0	0	1	S	0	0	0	0	0	0	0	1	1	1	1	0.4	24	23		1	1	1	1	1	1	0	3	0	1	1	1	S	1	1	1	0	1	1	0	0	0	0	2	3	0.8	24	24		0	2	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	1	1	1	0	0	1	2	0.3	24	25		1	1	1	0	1	0	1	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.2	24	26		0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	1	1	1	1	1	1	0	1	0	1	0.3	24	27		1	0	1	0	0	1	1	2	S	0	1	2	1	0	0	0	0	0	1	1	2	1	1	1	2	0.7	24	28		1	1	1	1	0	0	0	S	0	0	0	1	1	0	1	1	1	1	1	1	1	2	2	2	3	3	0.9	24	29		2	1	2	2	2	2	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.5	24	30		0	0	0	1	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.0	24	HOURLY MAX		2	2	2	2	2	2	3	1	2	2	4	4	3	2	2	2	2	2	6	2	2	2	2	3				HOURLY AVG		0.6	0.6	0.7	0.5	0.5	0.6	0.6	0.5	0.4	0.5	0.6	0.7	0.7	0.5	0.6	0.6	0.5	0.5	0.8	0.6	0.6	0.5	0.5	0.7																																																															
3		0	0	0	0	0	0	0	0	0	0	S	0	4	4	Y	Y	1	1	1	2	2	2	1	1	2	4	1.0	22	4		2	2	2	2	2	2	2	2	S	2	1	2	2	3	2	1	2	2	2	1	1	1	1	1	1	3	1.7	24	5		1	1	1	1	1	1	1	S	C	C	C	C	C	0	0	0	1	0	0	0	0	0	0	0	1	0.4	24	6		0	0	0	0	0	0	S	1	1	1	1	0	0	0	0	1	0	0	1	1	1	0	0	0	1	0.3	24	7		0	0	1	0	0	S	0	1	0	0	0	0	0	0	0	1	0	0	0	1	1	1	1	1	1	0.3	24	8		1	1	1	1	S	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	24	9		1	1	2	S	1	2	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	0	1	2	1.1	24	10		1	1	S	1	1	1	1	0	1	0	1	1	0	0	1	0	0	0	0	0	0	0	0	1	1	0.5	24	11		1	S	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	12		S	0	0	1	0	1	0	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	S	1	0.7	24	13		0	0	0	0	0	1	1	0	1	1	2	1	1	1	1	1	1	0	0	0	0	0	S	0	2	0.5	24	14		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	1	1	0.1	24	15		1	1	0	1	1	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	S	1	0	1	0.8	24	16		1	1	0	1	1	1	1	1	1	2	1	1	2	1	2	2	2	2	2	S	0	0	1	0	2	1.1	24	17		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	1	0	0	0	0	1	0.0	24	18		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	1	0	0	0	1	0.0	24	19		0	1	1	0	0	0	1	0	0	0	0	0	0	0	1	0	S	0	1	0	1	1	1	1	1	0.4	24	20		0	1	1	1	1	1	1	2	1	1	1	1	1	1	1	S	0	0	0	0	0	0	1	1	0	2	0.7	24	21		1	1	1	1	1	1	1	0	1	1	1	1	2	2	S	1	1	1	1	1	1	1	1	1	1	2	1.0	24	22		0	1	1	0	1	0	0	0	1	0	0	0	1	S	0	0	0	0	0	0	0	1	1	1	1	0.4	24	23		1	1	1	1	1	1	0	3	0	1	1	1	S	1	1	1	0	1	1	0	0	0	0	2	3	0.8	24	24		0	2	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	1	1	1	0	0	1	2	0.3	24	25		1	1	1	0	1	0	1	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.2	24	26		0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	1	1	1	1	1	1	0	1	0	1	0.3	24	27		1	0	1	0	0	1	1	2	S	0	1	2	1	0	0	0	0	0	1	1	2	1	1	1	2	0.7	24	28		1	1	1	1	0	0	0	S	0	0	0	1	1	0	1	1	1	1	1	1	1	2	2	2	3	3	0.9	24	29		2	1	2	2	2	2	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.5	24	30		0	0	0	1	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.0	24	HOURLY MAX		2	2	2	2	2	2	3	1	2	2	4	4	3	2	2	2	2	2	6	2	2	2	2	3				HOURLY AVG		0.6	0.6	0.7	0.5	0.5	0.6	0.6	0.5	0.4	0.5	0.6	0.7	0.7	0.5	0.6	0.6	0.5	0.5	0.8	0.6	0.6	0.5	0.5	0.7																																																																																												
4		2	2	2	2	2	2	2	2	S	2	1	2	2	3	2	1	2	2	2	1	1	1	1	1	1	3	1.7	24	5		1	1	1	1	1	1	1	S	C	C	C	C	C	0	0	0	1	0	0	0	0	0	0	0	1	0.4	24	6		0	0	0	0	0	0	S	1	1	1	1	0	0	0	0	1	0	0	1	1	1	0	0	0	1	0.3	24	7		0	0	1	0	0	S	0	1	0	0	0	0	0	0	0	1	0	0	0	1	1	1	1	1	1	0.3	24	8		1	1	1	1	S	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	24	9		1	1	2	S	1	2	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	0	1	2	1.1	24	10		1	1	S	1	1	1	1	0	1	0	1	1	0	0	1	0	0	0	0	0	0	0	0	1	1	0.5	24	11		1	S	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	12		S	0	0	1	0	1	0	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	S	1	0.7	24	13		0	0	0	0	0	1	1	0	1	1	2	1	1	1	1	1	1	0	0	0	0	0	S	0	2	0.5	24	14		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	1	1	0.1	24	15		1	1	0	1	1	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	S	1	0	1	0.8	24	16		1	1	0	1	1	1	1	1	1	2	1	1	2	1	2	2	2	2	2	S	0	0	1	0	2	1.1	24	17		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	1	0	0	0	0	1	0.0	24	18		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	1	0	0	0	1	0.0	24	19		0	1	1	0	0	0	1	0	0	0	0	0	0	0	1	0	S	0	1	0	1	1	1	1	1	0.4	24	20		0	1	1	1	1	1	1	2	1	1	1	1	1	1	1	S	0	0	0	0	0	0	1	1	0	2	0.7	24	21		1	1	1	1	1	1	1	0	1	1	1	1	2	2	S	1	1	1	1	1	1	1	1	1	1	2	1.0	24	22		0	1	1	0	1	0	0	0	1	0	0	0	1	S	0	0	0	0	0	0	0	1	1	1	1	0.4	24	23		1	1	1	1	1	1	0	3	0	1	1	1	S	1	1	1	0	1	1	0	0	0	0	2	3	0.8	24	24		0	2	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	1	1	1	0	0	1	2	0.3	24	25		1	1	1	0	1	0	1	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.2	24	26		0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	1	1	1	1	1	1	0	1	0	1	0.3	24	27		1	0	1	0	0	1	1	2	S	0	1	2	1	0	0	0	0	0	1	1	2	1	1	1	2	0.7	24	28		1	1	1	1	0	0	0	S	0	0	0	1	1	0	1	1	1	1	1	1	1	2	2	2	3	3	0.9	24	29		2	1	2	2	2	2	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.5	24	30		0	0	0	1	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.0	24	HOURLY MAX		2	2	2	2	2	2	3	1	2	2	4	4	3	2	2	2	2	2	6	2	2	2	2	3				HOURLY AVG		0.6	0.6	0.7	0.5	0.5	0.6	0.6	0.5	0.4	0.5	0.6	0.7	0.7	0.5	0.6	0.6	0.5	0.5	0.8	0.6	0.6	0.5	0.5	0.7																																																																																																																										
5		1	1	1	1	1	1	1	S	C	C	C	C	C	0	0	0	1	0	0	0	0	0	0	0	1	0.4	24	6		0	0	0	0	0	0	S	1	1	1	1	0	0	0	0	1	0	0	1	1	1	0	0	0	1	0.3	24	7		0	0	1	0	0	S	0	1	0	0	0	0	0	0	0	1	0	0	0	1	1	1	1	1	1	0.3	24	8		1	1	1	1	S	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	24	9		1	1	2	S	1	2	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	0	1	2	1.1	24	10		1	1	S	1	1	1	1	0	1	0	1	1	0	0	1	0	0	0	0	0	0	0	0	1	1	0.5	24	11		1	S	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	12		S	0	0	1	0	1	0	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	S	1	0.7	24	13		0	0	0	0	0	1	1	0	1	1	2	1	1	1	1	1	1	0	0	0	0	0	S	0	2	0.5	24	14		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	1	1	0.1	24	15		1	1	0	1	1	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	S	1	0	1	0.8	24	16		1	1	0	1	1	1	1	1	1	2	1	1	2	1	2	2	2	2	2	S	0	0	1	0	2	1.1	24	17		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	1	0	0	0	0	1	0.0	24	18		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	1	0	0	0	1	0.0	24	19		0	1	1	0	0	0	1	0	0	0	0	0	0	0	1	0	S	0	1	0	1	1	1	1	1	0.4	24	20		0	1	1	1	1	1	1	2	1	1	1	1	1	1	1	S	0	0	0	0	0	0	1	1	0	2	0.7	24	21		1	1	1	1	1	1	1	0	1	1	1	1	2	2	S	1	1	1	1	1	1	1	1	1	1	2	1.0	24	22		0	1	1	0	1	0	0	0	1	0	0	0	1	S	0	0	0	0	0	0	0	1	1	1	1	0.4	24	23		1	1	1	1	1	1	0	3	0	1	1	1	S	1	1	1	0	1	1	0	0	0	0	2	3	0.8	24	24		0	2	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	1	1	1	0	0	1	2	0.3	24	25		1	1	1	0	1	0	1	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.2	24	26		0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	1	1	1	1	1	1	0	1	0	1	0.3	24	27		1	0	1	0	0	1	1	2	S	0	1	2	1	0	0	0	0	0	1	1	2	1	1	1	2	0.7	24	28		1	1	1	1	0	0	0	S	0	0	0	1	1	0	1	1	1	1	1	1	1	2	2	2	3	3	0.9	24	29		2	1	2	2	2	2	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.5	24	30		0	0	0	1	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.0	24	HOURLY MAX		2	2	2	2	2	2	3	1	2	2	4	4	3	2	2	2	2	2	6	2	2	2	2	3				HOURLY AVG		0.6	0.6	0.7	0.5	0.5	0.6	0.6	0.5	0.4	0.5	0.6	0.7	0.7	0.5	0.6	0.6	0.5	0.5	0.8	0.6	0.6	0.5	0.5	0.7																																																																																																																																																								
6		0	0	0	0	0	0	S	1	1	1	1	0	0	0	0	1	0	0	1	1	1	0	0	0	1	0.3	24	7		0	0	1	0	0	S	0	1	0	0	0	0	0	0	0	1	0	0	0	1	1	1	1	1	1	0.3	24	8		1	1	1	1	S	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	24	9		1	1	2	S	1	2	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	0	1	2	1.1	24	10		1	1	S	1	1	1	1	0	1	0	1	1	0	0	1	0	0	0	0	0	0	0	0	1	1	0.5	24	11		1	S	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	12		S	0	0	1	0	1	0	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	S	1	0.7	24	13		0	0	0	0	0	1	1	0	1	1	2	1	1	1	1	1	1	0	0	0	0	0	S	0	2	0.5	24	14		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	1	1	0.1	24	15		1	1	0	1	1	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	S	1	0	1	0.8	24	16		1	1	0	1	1	1	1	1	1	2	1	1	2	1	2	2	2	2	2	S	0	0	1	0	2	1.1	24	17		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	1	0	0	0	0	1	0.0	24	18		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	1	0	0	0	1	0.0	24	19		0	1	1	0	0	0	1	0	0	0	0	0	0	0	1	0	S	0	1	0	1	1	1	1	1	0.4	24	20		0	1	1	1	1	1	1	2	1	1	1	1	1	1	1	S	0	0	0	0	0	0	1	1	0	2	0.7	24	21		1	1	1	1	1	1	1	0	1	1	1	1	2	2	S	1	1	1	1	1	1	1	1	1	1	2	1.0	24	22		0	1	1	0	1	0	0	0	1	0	0	0	1	S	0	0	0	0	0	0	0	1	1	1	1	0.4	24	23		1	1	1	1	1	1	0	3	0	1	1	1	S	1	1	1	0	1	1	0	0	0	0	2	3	0.8	24	24		0	2	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	1	1	1	0	0	1	2	0.3	24	25		1	1	1	0	1	0	1	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.2	24	26		0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	1	1	1	1	1	1	0	1	0	1	0.3	24	27		1	0	1	0	0	1	1	2	S	0	1	2	1	0	0	0	0	0	1	1	2	1	1	1	2	0.7	24	28		1	1	1	1	0	0	0	S	0	0	0	1	1	0	1	1	1	1	1	1	1	2	2	2	3	3	0.9	24	29		2	1	2	2	2	2	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.5	24	30		0	0	0	1	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.0	24	HOURLY MAX		2	2	2	2	2	2	3	1	2	2	4	4	3	2	2	2	2	2	6	2	2	2	2	3				HOURLY AVG		0.6	0.6	0.7	0.5	0.5	0.6	0.6	0.5	0.4	0.5	0.6	0.7	0.7	0.5	0.6	0.6	0.5	0.5	0.8	0.6	0.6	0.5	0.5	0.7																																																																																																																																																																																					
7		0	0	1	0	0	S	0	1	0	0	0	0	0	0	0	1	0	0	0	1	1	1	1	1	1	0.3	24	8		1	1	1	1	S	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	24	9		1	1	2	S	1	2	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	0	1	2	1.1	24	10		1	1	S	1	1	1	1	0	1	0	1	1	0	0	1	0	0	0	0	0	0	0	0	1	1	0.5	24	11		1	S	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	12		S	0	0	1	0	1	0	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	S	1	0.7	24	13		0	0	0	0	0	1	1	0	1	1	2	1	1	1	1	1	1	0	0	0	0	0	S	0	2	0.5	24	14		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	1	1	0.1	24	15		1	1	0	1	1	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	S	1	0	1	0.8	24	16		1	1	0	1	1	1	1	1	1	2	1	1	2	1	2	2	2	2	2	S	0	0	1	0	2	1.1	24	17		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	1	0	0	0	0	1	0.0	24	18		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	1	0	0	0	1	0.0	24	19		0	1	1	0	0	0	1	0	0	0	0	0	0	0	1	0	S	0	1	0	1	1	1	1	1	0.4	24	20		0	1	1	1	1	1	1	2	1	1	1	1	1	1	1	S	0	0	0	0	0	0	1	1	0	2	0.7	24	21		1	1	1	1	1	1	1	0	1	1	1	1	2	2	S	1	1	1	1	1	1	1	1	1	1	2	1.0	24	22		0	1	1	0	1	0	0	0	1	0	0	0	1	S	0	0	0	0	0	0	0	1	1	1	1	0.4	24	23		1	1	1	1	1	1	0	3	0	1	1	1	S	1	1	1	0	1	1	0	0	0	0	2	3	0.8	24	24		0	2	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	1	1	1	0	0	1	2	0.3	24	25		1	1	1	0	1	0	1	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.2	24	26		0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	1	1	1	1	1	1	0	1	0	1	0.3	24	27		1	0	1	0	0	1	1	2	S	0	1	2	1	0	0	0	0	0	1	1	2	1	1	1	2	0.7	24	28		1	1	1	1	0	0	0	S	0	0	0	1	1	0	1	1	1	1	1	1	1	2	2	2	3	3	0.9	24	29		2	1	2	2	2	2	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.5	24	30		0	0	0	1	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.0	24	HOURLY MAX		2	2	2	2	2	2	3	1	2	2	4	4	3	2	2	2	2	2	6	2	2	2	2	3				HOURLY AVG		0.6	0.6	0.7	0.5	0.5	0.6	0.6	0.5	0.4	0.5	0.6	0.7	0.7	0.5	0.6	0.6	0.5	0.5	0.8	0.6	0.6	0.5	0.5	0.7																																																																																																																																																																																																																		
8		1	1	1	1	S	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.9	24	9		1	1	2	S	1	2	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	0	1	2	1.1	24	10		1	1	S	1	1	1	1	0	1	0	1	1	0	0	1	0	0	0	0	0	0	0	0	1	1	0.5	24	11		1	S	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	12		S	0	0	1	0	1	0	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	S	1	0.7	24	13		0	0	0	0	0	1	1	0	1	1	2	1	1	1	1	1	1	0	0	0	0	0	S	0	2	0.5	24	14		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	1	1	0.1	24	15		1	1	0	1	1	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	S	1	0	1	0.8	24	16		1	1	0	1	1	1	1	1	1	2	1	1	2	1	2	2	2	2	2	S	0	0	1	0	2	1.1	24	17		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	1	0	0	0	0	1	0.0	24	18		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	1	0	0	0	1	0.0	24	19		0	1	1	0	0	0	1	0	0	0	0	0	0	0	1	0	S	0	1	0	1	1	1	1	1	0.4	24	20		0	1	1	1	1	1	1	2	1	1	1	1	1	1	1	S	0	0	0	0	0	0	1	1	0	2	0.7	24	21		1	1	1	1	1	1	1	0	1	1	1	1	2	2	S	1	1	1	1	1	1	1	1	1	1	2	1.0	24	22		0	1	1	0	1	0	0	0	1	0	0	0	1	S	0	0	0	0	0	0	0	1	1	1	1	0.4	24	23		1	1	1	1	1	1	0	3	0	1	1	1	S	1	1	1	0	1	1	0	0	0	0	2	3	0.8	24	24		0	2	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	1	1	1	0	0	1	2	0.3	24	25		1	1	1	0	1	0	1	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.2	24	26		0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	1	1	1	1	1	1	0	1	0	1	0.3	24	27		1	0	1	0	0	1	1	2	S	0	1	2	1	0	0	0	0	0	1	1	2	1	1	1	2	0.7	24	28		1	1	1	1	0	0	0	S	0	0	0	1	1	0	1	1	1	1	1	1	1	2	2	2	3	3	0.9	24	29		2	1	2	2	2	2	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.5	24	30		0	0	0	1	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.0	24	HOURLY MAX		2	2	2	2	2	2	3	1	2	2	4	4	3	2	2	2	2	2	6	2	2	2	2	3				HOURLY AVG		0.6	0.6	0.7	0.5	0.5	0.6	0.6	0.5	0.4	0.5	0.6	0.7	0.7	0.5	0.6	0.6	0.5	0.5	0.8	0.6	0.6	0.5	0.5	0.7																																																																																																																																																																																																																																															
9		1	1	2	S	1	2	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	0	1	2	1.1	24	10		1	1	S	1	1	1	1	0	1	0	1	1	0	0	1	0	0	0	0	0	0	0	0	1	1	0.5	24	11		1	S	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	12		S	0	0	1	0	1	0	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	S	1	0.7	24	13		0	0	0	0	0	1	1	0	1	1	2	1	1	1	1	1	1	0	0	0	0	0	S	0	2	0.5	24	14		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	1	1	0.1	24	15		1	1	0	1	1	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	S	1	0	1	0.8	24	16		1	1	0	1	1	1	1	1	1	2	1	1	2	1	2	2	2	2	2	S	0	0	1	0	2	1.1	24	17		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	1	0	0	0	0	1	0.0	24	18		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	1	0	0	0	1	0.0	24	19		0	1	1	0	0	0	1	0	0	0	0	0	0	0	1	0	S	0	1	0	1	1	1	1	1	0.4	24	20		0	1	1	1	1	1	1	2	1	1	1	1	1	1	1	S	0	0	0	0	0	0	1	1	0	2	0.7	24	21		1	1	1	1	1	1	1	0	1	1	1	1	2	2	S	1	1	1	1	1	1	1	1	1	1	2	1.0	24	22		0	1	1	0	1	0	0	0	1	0	0	0	1	S	0	0	0	0	0	0	0	1	1	1	1	0.4	24	23		1	1	1	1	1	1	0	3	0	1	1	1	S	1	1	1	0	1	1	0	0	0	0	2	3	0.8	24	24		0	2	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	1	1	1	0	0	1	2	0.3	24	25		1	1	1	0	1	0	1	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.2	24	26		0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	1	1	1	1	1	1	0	1	0	1	0.3	24	27		1	0	1	0	0	1	1	2	S	0	1	2	1	0	0	0	0	0	1	1	2	1	1	1	2	0.7	24	28		1	1	1	1	0	0	0	S	0	0	0	1	1	0	1	1	1	1	1	1	1	2	2	2	3	3	0.9	24	29		2	1	2	2	2	2	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.5	24	30		0	0	0	1	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.0	24	HOURLY MAX		2	2	2	2	2	2	3	1	2	2	4	4	3	2	2	2	2	2	6	2	2	2	2	3				HOURLY AVG		0.6	0.6	0.7	0.5	0.5	0.6	0.6	0.5	0.4	0.5	0.6	0.7	0.7	0.5	0.6	0.6	0.5	0.5	0.8	0.6	0.6	0.5	0.5	0.7																																																																																																																																																																																																																																																																												
10		1	1	S	1	1	1	1	0	1	0	1	1	0	0	1	0	0	0	0	0	0	0	0	1	1	0.5	24	11		1	S	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	12		S	0	0	1	0	1	0	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	S	1	0.7	24	13		0	0	0	0	0	1	1	0	1	1	2	1	1	1	1	1	1	0	0	0	0	0	S	0	2	0.5	24	14		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	1	1	0.1	24	15		1	1	0	1	1	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	S	1	0	1	0.8	24	16		1	1	0	1	1	1	1	1	1	2	1	1	2	1	2	2	2	2	2	S	0	0	1	0	2	1.1	24	17		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	1	0	0	0	0	1	0.0	24	18		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	1	0	0	0	1	0.0	24	19		0	1	1	0	0	0	1	0	0	0	0	0	0	0	1	0	S	0	1	0	1	1	1	1	1	0.4	24	20		0	1	1	1	1	1	1	2	1	1	1	1	1	1	1	S	0	0	0	0	0	0	1	1	0	2	0.7	24	21		1	1	1	1	1	1	1	0	1	1	1	1	2	2	S	1	1	1	1	1	1	1	1	1	1	2	1.0	24	22		0	1	1	0	1	0	0	0	1	0	0	0	1	S	0	0	0	0	0	0	0	1	1	1	1	0.4	24	23		1	1	1	1	1	1	0	3	0	1	1	1	S	1	1	1	0	1	1	0	0	0	0	2	3	0.8	24	24		0	2	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	1	1	1	0	0	1	2	0.3	24	25		1	1	1	0	1	0	1	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.2	24	26		0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	1	1	1	1	1	1	0	1	0	1	0.3	24	27		1	0	1	0	0	1	1	2	S	0	1	2	1	0	0	0	0	0	1	1	2	1	1	1	2	0.7	24	28		1	1	1	1	0	0	0	S	0	0	0	1	1	0	1	1	1	1	1	1	1	2	2	2	3	3	0.9	24	29		2	1	2	2	2	2	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.5	24	30		0	0	0	1	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.0	24	HOURLY MAX		2	2	2	2	2	2	3	1	2	2	4	4	3	2	2	2	2	2	6	2	2	2	2	3				HOURLY AVG		0.6	0.6	0.7	0.5	0.5	0.6	0.6	0.5	0.4	0.5	0.6	0.7	0.7	0.5	0.6	0.6	0.5	0.5	0.8	0.6	0.6	0.5	0.5	0.7																																																																																																																																																																																																																																																																																																									
11		1	S	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	12		S	0	0	1	0	1	0	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	S	1	0.7	24	13		0	0	0	0	0	1	1	0	1	1	2	1	1	1	1	1	1	0	0	0	0	0	S	0	2	0.5	24	14		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	1	1	0.1	24	15		1	1	0	1	1	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	S	1	0	1	0.8	24	16		1	1	0	1	1	1	1	1	1	2	1	1	2	1	2	2	2	2	2	S	0	0	1	0	2	1.1	24	17		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	1	0	0	0	0	1	0.0	24	18		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	1	0	0	0	1	0.0	24	19		0	1	1	0	0	0	1	0	0	0	0	0	0	0	1	0	S	0	1	0	1	1	1	1	1	0.4	24	20		0	1	1	1	1	1	1	2	1	1	1	1	1	1	1	S	0	0	0	0	0	0	1	1	0	2	0.7	24	21		1	1	1	1	1	1	1	0	1	1	1	1	2	2	S	1	1	1	1	1	1	1	1	1	1	2	1.0	24	22		0	1	1	0	1	0	0	0	1	0	0	0	1	S	0	0	0	0	0	0	0	1	1	1	1	0.4	24	23		1	1	1	1	1	1	0	3	0	1	1	1	S	1	1	1	0	1	1	0	0	0	0	2	3	0.8	24	24		0	2	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	1	1	1	0	0	1	2	0.3	24	25		1	1	1	0	1	0	1	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.2	24	26		0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	1	1	1	1	1	1	0	1	0	1	0.3	24	27		1	0	1	0	0	1	1	2	S	0	1	2	1	0	0	0	0	0	1	1	2	1	1	1	2	0.7	24	28		1	1	1	1	0	0	0	S	0	0	0	1	1	0	1	1	1	1	1	1	1	2	2	2	3	3	0.9	24	29		2	1	2	2	2	2	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.5	24	30		0	0	0	1	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.0	24	HOURLY MAX		2	2	2	2	2	2	3	1	2	2	4	4	3	2	2	2	2	2	6	2	2	2	2	3				HOURLY AVG		0.6	0.6	0.7	0.5	0.5	0.6	0.6	0.5	0.4	0.5	0.6	0.7	0.7	0.5	0.6	0.6	0.5	0.5	0.8	0.6	0.6	0.5	0.5	0.7																																																																																																																																																																																																																																																																																																																																						
12		S	0	0	1	0	1	0	0	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	S	1	0.7	24	13		0	0	0	0	0	1	1	0	1	1	2	1	1	1	1	1	1	0	0	0	0	0	S	0	2	0.5	24	14		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	1	1	0.1	24	15		1	1	0	1	1	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	S	1	0	1	0.8	24	16		1	1	0	1	1	1	1	1	1	2	1	1	2	1	2	2	2	2	2	S	0	0	1	0	2	1.1	24	17		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	1	0	0	0	0	1	0.0	24	18		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	1	0	0	0	1	0.0	24	19		0	1	1	0	0	0	1	0	0	0	0	0	0	0	1	0	S	0	1	0	1	1	1	1	1	0.4	24	20		0	1	1	1	1	1	1	2	1	1	1	1	1	1	1	S	0	0	0	0	0	0	1	1	0	2	0.7	24	21		1	1	1	1	1	1	1	0	1	1	1	1	2	2	S	1	1	1	1	1	1	1	1	1	1	2	1.0	24	22		0	1	1	0	1	0	0	0	1	0	0	0	1	S	0	0	0	0	0	0	0	1	1	1	1	0.4	24	23		1	1	1	1	1	1	0	3	0	1	1	1	S	1	1	1	0	1	1	0	0	0	0	2	3	0.8	24	24		0	2	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	1	1	1	0	0	1	2	0.3	24	25		1	1	1	0	1	0	1	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.2	24	26		0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	1	1	1	1	1	1	0	1	0	1	0.3	24	27		1	0	1	0	0	1	1	2	S	0	1	2	1	0	0	0	0	0	1	1	2	1	1	1	2	0.7	24	28		1	1	1	1	0	0	0	S	0	0	0	1	1	0	1	1	1	1	1	1	1	2	2	2	3	3	0.9	24	29		2	1	2	2	2	2	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.5	24	30		0	0	0	1	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.0	24	HOURLY MAX		2	2	2	2	2	2	3	1	2	2	4	4	3	2	2	2	2	2	6	2	2	2	2	3				HOURLY AVG		0.6	0.6	0.7	0.5	0.5	0.6	0.6	0.5	0.4	0.5	0.6	0.7	0.7	0.5	0.6	0.6	0.5	0.5	0.8	0.6	0.6	0.5	0.5	0.7																																																																																																																																																																																																																																																																																																																																																																			
13		0	0	0	0	0	1	1	0	1	1	2	1	1	1	1	1	1	0	0	0	0	0	S	0	2	0.5	24	14		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	1	1	0.1	24	15		1	1	0	1	1	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	S	1	0	1	0.8	24	16		1	1	0	1	1	1	1	1	1	2	1	1	2	1	2	2	2	2	2	S	0	0	1	0	2	1.1	24	17		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	1	0	0	0	0	1	0.0	24	18		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	1	0	0	0	1	0.0	24	19		0	1	1	0	0	0	1	0	0	0	0	0	0	0	1	0	S	0	1	0	1	1	1	1	1	0.4	24	20		0	1	1	1	1	1	1	2	1	1	1	1	1	1	1	S	0	0	0	0	0	0	1	1	0	2	0.7	24	21		1	1	1	1	1	1	1	0	1	1	1	1	2	2	S	1	1	1	1	1	1	1	1	1	1	2	1.0	24	22		0	1	1	0	1	0	0	0	1	0	0	0	1	S	0	0	0	0	0	0	0	1	1	1	1	0.4	24	23		1	1	1	1	1	1	0	3	0	1	1	1	S	1	1	1	0	1	1	0	0	0	0	2	3	0.8	24	24		0	2	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	1	1	1	0	0	1	2	0.3	24	25		1	1	1	0	1	0	1	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.2	24	26		0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	1	1	1	1	1	1	0	1	0	1	0.3	24	27		1	0	1	0	0	1	1	2	S	0	1	2	1	0	0	0	0	0	1	1	2	1	1	1	2	0.7	24	28		1	1	1	1	0	0	0	S	0	0	0	1	1	0	1	1	1	1	1	1	1	2	2	2	3	3	0.9	24	29		2	1	2	2	2	2	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.5	24	30		0	0	0	1	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.0	24	HOURLY MAX		2	2	2	2	2	2	3	1	2	2	4	4	3	2	2	2	2	2	6	2	2	2	2	3				HOURLY AVG		0.6	0.6	0.7	0.5	0.5	0.6	0.6	0.5	0.4	0.5	0.6	0.7	0.7	0.5	0.6	0.6	0.5	0.5	0.8	0.6	0.6	0.5	0.5	0.7																																																																																																																																																																																																																																																																																																																																																																																																
14		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	1	1	0.1	24	15		1	1	0	1	1	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	S	1	0	1	0.8	24	16		1	1	0	1	1	1	1	1	1	2	1	1	2	1	2	2	2	2	2	S	0	0	1	0	2	1.1	24	17		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	1	0	0	0	0	1	0.0	24	18		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	1	0	0	0	1	0.0	24	19		0	1	1	0	0	0	1	0	0	0	0	0	0	0	1	0	S	0	1	0	1	1	1	1	1	0.4	24	20		0	1	1	1	1	1	1	2	1	1	1	1	1	1	1	S	0	0	0	0	0	0	1	1	0	2	0.7	24	21		1	1	1	1	1	1	1	0	1	1	1	1	2	2	S	1	1	1	1	1	1	1	1	1	1	2	1.0	24	22		0	1	1	0	1	0	0	0	1	0	0	0	1	S	0	0	0	0	0	0	0	1	1	1	1	0.4	24	23		1	1	1	1	1	1	0	3	0	1	1	1	S	1	1	1	0	1	1	0	0	0	0	2	3	0.8	24	24		0	2	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	1	1	1	0	0	1	2	0.3	24	25		1	1	1	0	1	0	1	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.2	24	26		0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	1	1	1	1	1	1	0	1	0	1	0.3	24	27		1	0	1	0	0	1	1	2	S	0	1	2	1	0	0	0	0	0	1	1	2	1	1	1	2	0.7	24	28		1	1	1	1	0	0	0	S	0	0	0	1	1	0	1	1	1	1	1	1	1	2	2	2	3	3	0.9	24	29		2	1	2	2	2	2	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.5	24	30		0	0	0	1	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.0	24	HOURLY MAX		2	2	2	2	2	2	3	1	2	2	4	4	3	2	2	2	2	2	6	2	2	2	2	3				HOURLY AVG		0.6	0.6	0.7	0.5	0.5	0.6	0.6	0.5	0.4	0.5	0.6	0.7	0.7	0.5	0.6	0.6	0.5	0.5	0.8	0.6	0.6	0.5	0.5	0.7																																																																																																																																																																																																																																																																																																																																																																																																																													
15		1	1	0	1	1	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	S	1	0	1	0.8	24	16		1	1	0	1	1	1	1	1	1	2	1	1	2	1	2	2	2	2	2	S	0	0	1	0	2	1.1	24	17		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	1	0	0	0	0	1	0.0	24	18		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	1	0	0	0	1	0.0	24	19		0	1	1	0	0	0	1	0	0	0	0	0	0	0	1	0	S	0	1	0	1	1	1	1	1	0.4	24	20		0	1	1	1	1	1	1	2	1	1	1	1	1	1	1	S	0	0	0	0	0	0	1	1	0	2	0.7	24	21		1	1	1	1	1	1	1	0	1	1	1	1	2	2	S	1	1	1	1	1	1	1	1	1	1	2	1.0	24	22		0	1	1	0	1	0	0	0	1	0	0	0	1	S	0	0	0	0	0	0	0	1	1	1	1	0.4	24	23		1	1	1	1	1	1	0	3	0	1	1	1	S	1	1	1	0	1	1	0	0	0	0	2	3	0.8	24	24		0	2	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	1	1	1	0	0	1	2	0.3	24	25		1	1	1	0	1	0	1	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.2	24	26		0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	1	1	1	1	1	1	0	1	0	1	0.3	24	27		1	0	1	0	0	1	1	2	S	0	1	2	1	0	0	0	0	0	1	1	2	1	1	1	2	0.7	24	28		1	1	1	1	0	0	0	S	0	0	0	1	1	0	1	1	1	1	1	1	1	2	2	2	3	3	0.9	24	29		2	1	2	2	2	2	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.5	24	30		0	0	0	1	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.0	24	HOURLY MAX		2	2	2	2	2	2	3	1	2	2	4	4	3	2	2	2	2	2	6	2	2	2	2	3				HOURLY AVG		0.6	0.6	0.7	0.5	0.5	0.6	0.6	0.5	0.4	0.5	0.6	0.7	0.7	0.5	0.6	0.6	0.5	0.5	0.8	0.6	0.6	0.5	0.5	0.7																																																																																																																																																																																																																																																																																																																																																																																																																																																										
16		1	1	0	1	1	1	1	1	1	2	1	1	2	1	2	2	2	2	2	S	0	0	1	0	2	1.1	24	17		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	1	0	0	0	0	1	0.0	24	18		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	1	0	0	0	1	0.0	24	19		0	1	1	0	0	0	1	0	0	0	0	0	0	0	1	0	S	0	1	0	1	1	1	1	1	0.4	24	20		0	1	1	1	1	1	1	2	1	1	1	1	1	1	1	S	0	0	0	0	0	0	1	1	0	2	0.7	24	21		1	1	1	1	1	1	1	0	1	1	1	1	2	2	S	1	1	1	1	1	1	1	1	1	1	2	1.0	24	22		0	1	1	0	1	0	0	0	1	0	0	0	1	S	0	0	0	0	0	0	0	1	1	1	1	0.4	24	23		1	1	1	1	1	1	0	3	0	1	1	1	S	1	1	1	0	1	1	0	0	0	0	2	3	0.8	24	24		0	2	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	1	1	1	0	0	1	2	0.3	24	25		1	1	1	0	1	0	1	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.2	24	26		0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	1	1	1	1	1	1	0	1	0	1	0.3	24	27		1	0	1	0	0	1	1	2	S	0	1	2	1	0	0	0	0	0	1	1	2	1	1	1	2	0.7	24	28		1	1	1	1	0	0	0	S	0	0	0	1	1	0	1	1	1	1	1	1	1	2	2	2	3	3	0.9	24	29		2	1	2	2	2	2	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.5	24	30		0	0	0	1	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.0	24	HOURLY MAX		2	2	2	2	2	2	3	1	2	2	4	4	3	2	2	2	2	2	6	2	2	2	2	3				HOURLY AVG		0.6	0.6	0.7	0.5	0.5	0.6	0.6	0.5	0.4	0.5	0.6	0.7	0.7	0.5	0.6	0.6	0.5	0.5	0.8	0.6	0.6	0.5	0.5	0.7																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
17		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	1	0	0	0	0	1	0.0	24	18		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	1	0	0	0	1	0.0	24	19		0	1	1	0	0	0	1	0	0	0	0	0	0	0	1	0	S	0	1	0	1	1	1	1	1	0.4	24	20		0	1	1	1	1	1	1	2	1	1	1	1	1	1	1	S	0	0	0	0	0	0	1	1	0	2	0.7	24	21		1	1	1	1	1	1	1	0	1	1	1	1	2	2	S	1	1	1	1	1	1	1	1	1	1	2	1.0	24	22		0	1	1	0	1	0	0	0	1	0	0	0	1	S	0	0	0	0	0	0	0	1	1	1	1	0.4	24	23		1	1	1	1	1	1	0	3	0	1	1	1	S	1	1	1	0	1	1	0	0	0	0	2	3	0.8	24	24		0	2	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	1	1	1	0	0	1	2	0.3	24	25		1	1	1	0	1	0	1	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.2	24	26		0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	1	1	1	1	1	1	0	1	0	1	0.3	24	27		1	0	1	0	0	1	1	2	S	0	1	2	1	0	0	0	0	0	1	1	2	1	1	1	2	0.7	24	28		1	1	1	1	0	0	0	S	0	0	0	1	1	0	1	1	1	1	1	1	1	2	2	2	3	3	0.9	24	29		2	1	2	2	2	2	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.5	24	30		0	0	0	1	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.0	24	HOURLY MAX		2	2	2	2	2	2	3	1	2	2	4	4	3	2	2	2	2	2	6	2	2	2	2	3				HOURLY AVG		0.6	0.6	0.7	0.5	0.5	0.6	0.6	0.5	0.4	0.5	0.6	0.7	0.7	0.5	0.6	0.6	0.5	0.5	0.8	0.6	0.6	0.5	0.5	0.7																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
18		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	1	0	0	0	1	0.0	24	19		0	1	1	0	0	0	1	0	0	0	0	0	0	0	1	0	S	0	1	0	1	1	1	1	1	0.4	24	20		0	1	1	1	1	1	1	2	1	1	1	1	1	1	1	S	0	0	0	0	0	0	1	1	0	2	0.7	24	21		1	1	1	1	1	1	1	0	1	1	1	1	2	2	S	1	1	1	1	1	1	1	1	1	1	2	1.0	24	22		0	1	1	0	1	0	0	0	1	0	0	0	1	S	0	0	0	0	0	0	0	1	1	1	1	0.4	24	23		1	1	1	1	1	1	0	3	0	1	1	1	S	1	1	1	0	1	1	0	0	0	0	2	3	0.8	24	24		0	2	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	1	1	1	0	0	1	2	0.3	24	25		1	1	1	0	1	0	1	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.2	24	26		0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	1	1	1	1	1	1	0	1	0	1	0.3	24	27		1	0	1	0	0	1	1	2	S	0	1	2	1	0	0	0	0	0	1	1	2	1	1	1	2	0.7	24	28		1	1	1	1	0	0	0	S	0	0	0	1	1	0	1	1	1	1	1	1	1	2	2	2	3	3	0.9	24	29		2	1	2	2	2	2	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.5	24	30		0	0	0	1	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.0	24	HOURLY MAX		2	2	2	2	2	2	3	1	2	2	4	4	3	2	2	2	2	2	6	2	2	2	2	3				HOURLY AVG		0.6	0.6	0.7	0.5	0.5	0.6	0.6	0.5	0.4	0.5	0.6	0.7	0.7	0.5	0.6	0.6	0.5	0.5	0.8	0.6	0.6	0.5	0.5	0.7																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
19		0	1	1	0	0	0	1	0	0	0	0	0	0	0	1	0	S	0	1	0	1	1	1	1	1	0.4	24	20		0	1	1	1	1	1	1	2	1	1	1	1	1	1	1	S	0	0	0	0	0	0	1	1	0	2	0.7	24	21		1	1	1	1	1	1	1	0	1	1	1	1	2	2	S	1	1	1	1	1	1	1	1	1	1	2	1.0	24	22		0	1	1	0	1	0	0	0	1	0	0	0	1	S	0	0	0	0	0	0	0	1	1	1	1	0.4	24	23		1	1	1	1	1	1	0	3	0	1	1	1	S	1	1	1	0	1	1	0	0	0	0	2	3	0.8	24	24		0	2	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	1	1	1	0	0	1	2	0.3	24	25		1	1	1	0	1	0	1	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.2	24	26		0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	1	1	1	1	1	1	0	1	0	1	0.3	24	27		1	0	1	0	0	1	1	2	S	0	1	2	1	0	0	0	0	0	1	1	2	1	1	1	2	0.7	24	28		1	1	1	1	0	0	0	S	0	0	0	1	1	0	1	1	1	1	1	1	1	2	2	2	3	3	0.9	24	29		2	1	2	2	2	2	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.5	24	30		0	0	0	1	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.0	24	HOURLY MAX		2	2	2	2	2	2	3	1	2	2	4	4	3	2	2	2	2	2	6	2	2	2	2	3				HOURLY AVG		0.6	0.6	0.7	0.5	0.5	0.6	0.6	0.5	0.4	0.5	0.6	0.7	0.7	0.5	0.6	0.6	0.5	0.5	0.8	0.6	0.6	0.5	0.5	0.7																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
20		0	1	1	1	1	1	1	2	1	1	1	1	1	1	1	S	0	0	0	0	0	0	1	1	0	2	0.7	24	21		1	1	1	1	1	1	1	0	1	1	1	1	2	2	S	1	1	1	1	1	1	1	1	1	1	2	1.0	24	22		0	1	1	0	1	0	0	0	1	0	0	0	1	S	0	0	0	0	0	0	0	1	1	1	1	0.4	24	23		1	1	1	1	1	1	0	3	0	1	1	1	S	1	1	1	0	1	1	0	0	0	0	2	3	0.8	24	24		0	2	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	1	1	1	0	0	1	2	0.3	24	25		1	1	1	0	1	0	1	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.2	24	26		0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	1	1	1	1	1	1	0	1	0	1	0.3	24	27		1	0	1	0	0	1	1	2	S	0	1	2	1	0	0	0	0	0	1	1	2	1	1	1	2	0.7	24	28		1	1	1	1	0	0	0	S	0	0	0	1	1	0	1	1	1	1	1	1	1	2	2	2	3	3	0.9	24	29		2	1	2	2	2	2	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.5	24	30		0	0	0	1	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.0	24	HOURLY MAX		2	2	2	2	2	2	3	1	2	2	4	4	3	2	2	2	2	2	6	2	2	2	2	3				HOURLY AVG		0.6	0.6	0.7	0.5	0.5	0.6	0.6	0.5	0.4	0.5	0.6	0.7	0.7	0.5	0.6	0.6	0.5	0.5	0.8	0.6	0.6	0.5	0.5	0.7																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
21		1	1	1	1	1	1	1	0	1	1	1	1	2	2	S	1	1	1	1	1	1	1	1	1	1	2	1.0	24	22		0	1	1	0	1	0	0	0	1	0	0	0	1	S	0	0	0	0	0	0	0	1	1	1	1	0.4	24	23		1	1	1	1	1	1	0	3	0	1	1	1	S	1	1	1	0	1	1	0	0	0	0	2	3	0.8	24	24		0	2	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	1	1	1	0	0	1	2	0.3	24	25		1	1	1	0	1	0	1	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.2	24	26		0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	1	1	1	1	1	1	0	1	0	1	0.3	24	27		1	0	1	0	0	1	1	2	S	0	1	2	1	0	0	0	0	0	1	1	2	1	1	1	2	0.7	24	28		1	1	1	1	0	0	0	S	0	0	0	1	1	0	1	1	1	1	1	1	1	2	2	2	3	3	0.9	24	29		2	1	2	2	2	2	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.5	24	30		0	0	0	1	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.0	24	HOURLY MAX		2	2	2	2	2	2	3	1	2	2	4	4	3	2	2	2	2	2	6	2	2	2	2	3				HOURLY AVG		0.6	0.6	0.7	0.5	0.5	0.6	0.6	0.5	0.4	0.5	0.6	0.7	0.7	0.5	0.6	0.6	0.5	0.5	0.8	0.6	0.6	0.5	0.5	0.7																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
22		0	1	1	0	1	0	0	0	1	0	0	0	1	S	0	0	0	0	0	0	0	1	1	1	1	0.4	24	23		1	1	1	1	1	1	0	3	0	1	1	1	S	1	1	1	0	1	1	0	0	0	0	2	3	0.8	24	24		0	2	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	1	1	1	0	0	1	2	0.3	24	25		1	1	1	0	1	0	1	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.2	24	26		0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	1	1	1	1	1	1	0	1	0	1	0.3	24	27		1	0	1	0	0	1	1	2	S	0	1	2	1	0	0	0	0	0	1	1	2	1	1	1	2	0.7	24	28		1	1	1	1	0	0	0	S	0	0	0	1	1	0	1	1	1	1	1	1	1	2	2	2	3	3	0.9	24	29		2	1	2	2	2	2	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.5	24	30		0	0	0	1	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.0	24	HOURLY MAX		2	2	2	2	2	2	3	1	2	2	4	4	3	2	2	2	2	2	6	2	2	2	2	3				HOURLY AVG		0.6	0.6	0.7	0.5	0.5	0.6	0.6	0.5	0.4	0.5	0.6	0.7	0.7	0.5	0.6	0.6	0.5	0.5	0.8	0.6	0.6	0.5	0.5	0.7																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
23		1	1	1	1	1	1	0	3	0	1	1	1	S	1	1	1	0	1	1	0	0	0	0	2	3	0.8	24	24		0	2	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	1	1	1	0	0	1	2	0.3	24	25		1	1	1	0	1	0	1	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.2	24	26		0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	1	1	1	1	1	1	0	1	0	1	0.3	24	27		1	0	1	0	0	1	1	2	S	0	1	2	1	0	0	0	0	0	1	1	2	1	1	1	2	0.7	24	28		1	1	1	1	0	0	0	S	0	0	0	1	1	0	1	1	1	1	1	1	1	2	2	2	3	3	0.9	24	29		2	1	2	2	2	2	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.5	24	30		0	0	0	1	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.0	24	HOURLY MAX		2	2	2	2	2	2	3	1	2	2	4	4	3	2	2	2	2	2	6	2	2	2	2	3				HOURLY AVG		0.6	0.6	0.7	0.5	0.5	0.6	0.6	0.5	0.4	0.5	0.6	0.7	0.7	0.5	0.6	0.6	0.5	0.5	0.8	0.6	0.6	0.5	0.5	0.7																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
24		0	2	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	1	1	1	0	0	1	2	0.3	24	25		1	1	1	0	1	0	1	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.2	24	26		0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	1	1	1	1	1	1	0	1	0	1	0.3	24	27		1	0	1	0	0	1	1	2	S	0	1	2	1	0	0	0	0	0	1	1	2	1	1	1	2	0.7	24	28		1	1	1	1	0	0	0	S	0	0	0	1	1	0	1	1	1	1	1	1	1	2	2	2	3	3	0.9	24	29		2	1	2	2	2	2	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.5	24	30		0	0	0	1	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.0	24	HOURLY MAX		2	2	2	2	2	2	3	1	2	2	4	4	3	2	2	2	2	2	6	2	2	2	2	3				HOURLY AVG		0.6	0.6	0.7	0.5	0.5	0.6	0.6	0.5	0.4	0.5	0.6	0.7	0.7	0.5	0.6	0.6	0.5	0.5	0.8	0.6	0.6	0.5	0.5	0.7																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
25		1	1	1	0	1	0	1	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.2	24	26		0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	1	1	1	1	1	1	0	1	0	1	0.3	24	27		1	0	1	0	0	1	1	2	S	0	1	2	1	0	0	0	0	0	1	1	2	1	1	1	2	0.7	24	28		1	1	1	1	0	0	0	S	0	0	0	1	1	0	1	1	1	1	1	1	1	2	2	2	3	3	0.9	24	29		2	1	2	2	2	2	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.5	24	30		0	0	0	1	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.0	24	HOURLY MAX		2	2	2	2	2	2	3	1	2	2	4	4	3	2	2	2	2	2	6	2	2	2	2	3				HOURLY AVG		0.6	0.6	0.7	0.5	0.5	0.6	0.6	0.5	0.4	0.5	0.6	0.7	0.7	0.5	0.6	0.6	0.5	0.5	0.8	0.6	0.6	0.5	0.5	0.7																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
26		0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	1	1	1	1	1	1	0	1	0	1	0.3	24	27		1	0	1	0	0	1	1	2	S	0	1	2	1	0	0	0	0	0	1	1	2	1	1	1	2	0.7	24	28		1	1	1	1	0	0	0	S	0	0	0	1	1	0	1	1	1	1	1	1	1	2	2	2	3	3	0.9	24	29		2	1	2	2	2	2	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.5	24	30		0	0	0	1	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.0	24	HOURLY MAX		2	2	2	2	2	2	3	1	2	2	4	4	3	2	2	2	2	2	6	2	2	2	2	3				HOURLY AVG		0.6	0.6	0.7	0.5	0.5	0.6	0.6	0.5	0.4	0.5	0.6	0.7	0.7	0.5	0.6	0.6	0.5	0.5	0.8	0.6	0.6	0.5	0.5	0.7																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
27		1	0	1	0	0	1	1	2	S	0	1	2	1	0	0	0	0	0	1	1	2	1	1	1	2	0.7	24	28		1	1	1	1	0	0	0	S	0	0	0	1	1	0	1	1	1	1	1	1	1	2	2	2	3	3	0.9	24	29		2	1	2	2	2	2	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.5	24	30		0	0	0	1	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.0	24	HOURLY MAX		2	2	2	2	2	2	3	1	2	2	4	4	3	2	2	2	2	2	6	2	2	2	2	3				HOURLY AVG		0.6	0.6	0.7	0.5	0.5	0.6	0.6	0.5	0.4	0.5	0.6	0.7	0.7	0.5	0.6	0.6	0.5	0.5	0.8	0.6	0.6	0.5	0.5	0.7																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
28		1	1	1	1	0	0	0	S	0	0	0	1	1	0	1	1	1	1	1	1	1	2	2	2	3	3	0.9	24	29		2	1	2	2	2	2	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.5	24	30		0	0	0	1	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.0	24	HOURLY MAX		2	2	2	2	2	2	3	1	2	2	4	4	3	2	2	2	2	2	6	2	2	2	2	3				HOURLY AVG		0.6	0.6	0.7	0.5	0.5	0.6	0.6	0.5	0.4	0.5	0.6	0.7	0.7	0.5	0.6	0.6	0.5	0.5	0.8	0.6	0.6	0.5	0.5	0.7																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
29		2	1	2	2	2	2	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.5	24	30		0	0	0	1	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.0	24	HOURLY MAX		2	2	2	2	2	2	3	1	2	2	4	4	3	2	2	2	2	2	6	2	2	2	2	3				HOURLY AVG		0.6	0.6	0.7	0.5	0.5	0.6	0.6	0.5	0.4	0.5	0.6	0.7	0.7	0.5	0.6	0.6	0.5	0.5	0.8	0.6	0.6	0.5	0.5	0.7																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
30		0	0	0	1	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.0	24	HOURLY MAX		2	2	2	2	2	2	3	1	2	2	4	4	3	2	2	2	2	2	6	2	2	2	2	3				HOURLY AVG		0.6	0.6	0.7	0.5	0.5	0.6	0.6	0.5	0.4	0.5	0.6	0.7	0.7	0.5	0.6	0.6	0.5	0.5	0.8	0.6	0.6	0.5	0.5	0.7																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
HOURLY MAX		2	2	2	2	2	2	3	1	2	2	4	4	3	2	2	2	2	2	6	2	2	2	2	3				HOURLY AVG		0.6	0.6	0.7	0.5	0.5	0.6	0.6	0.5	0.4	0.5	0.6	0.7	0.7	0.5	0.6	0.6	0.5	0.5	0.8	0.6	0.6	0.5	0.5	0.7																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
HOURLY AVG		0.6	0.6	0.7	0.5	0.5	0.6	0.6	0.5	0.4	0.5	0.6	0.7	0.7	0.5	0.6	0.6	0.5	0.5	0.8	0.6	0.6	0.5	0.5	0.7																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										

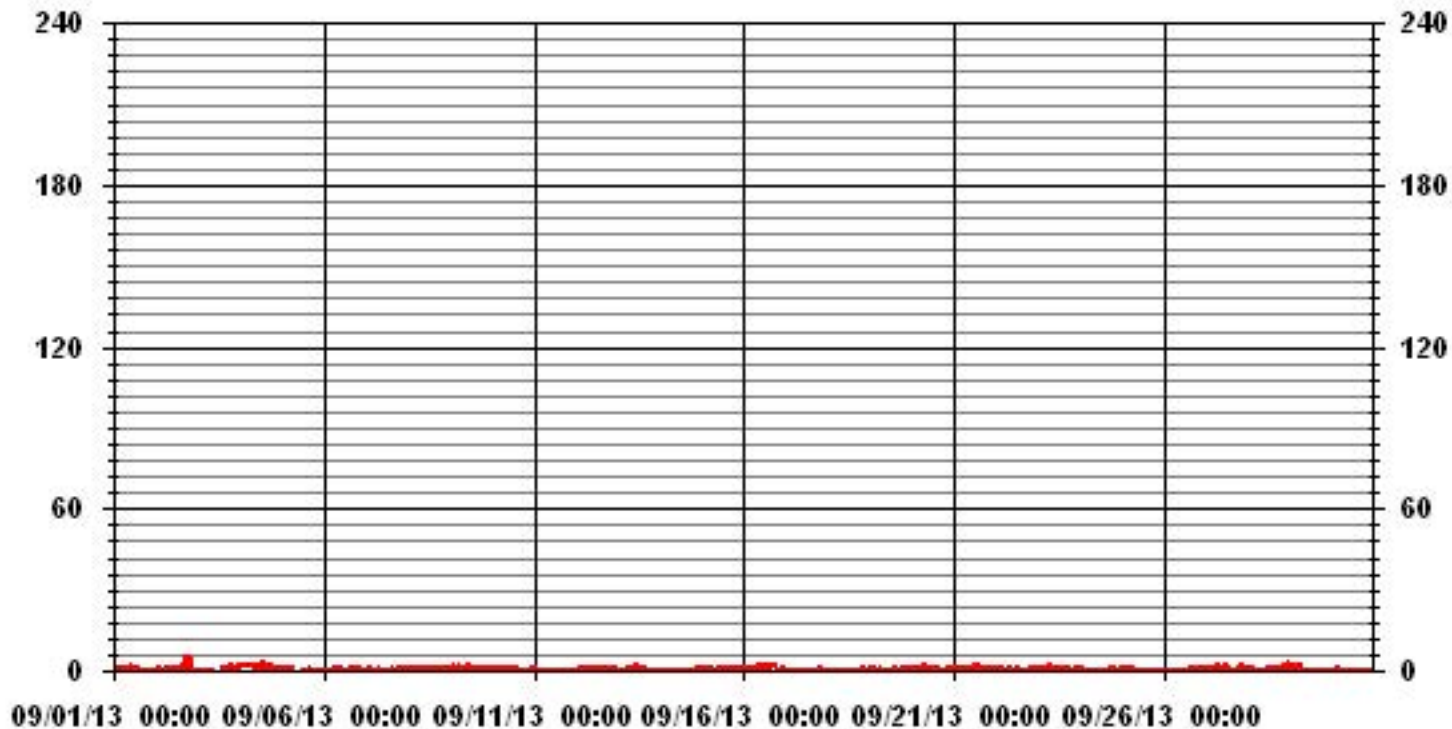
STATUS FLAG CODES

C	- CALIBRATION	Q	- QUALITY ASSURANCE
Y	- MAINTENANCE	R	- RECOVERY
S	- DAILY ZERO/SPAN CHECK	X	- MACHINE MALFUNCTION
P	- POWER FAILURE	O	- OPERATOR ERROR
G	- OUT FOR REPAIR	K	- COLLECTION ERROR

MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	330
MAXIMUM INSTANTANEOUS VALUE:	6 PPB @ HOUR(S) 18 ON DAY(S) 2
IZS CALIBRATION TIME:	31 HRS
MONTHLY CALIBRATION TIME:	5 HRS
OPERATIONAL TIME:	718 HRS
STANDARD DEVIATION:	0.70

01 Hour Averages



LICA-ELK
 SO2_ / WDR Joint Frequency Distribution (Percent)

September 2013

Distribution By % Of Samples

Logger Id : 35
 Site Name : LICA-ELK
 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	1.75	1.17	3.81	2.78	5.71	12.46	8.50	4.39	3.07	3.07	2.63	6.15	14.07	14.95	13.48	1.90	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	1.75	1.17	3.81	2.78	5.71	12.46	8.50	4.39	3.07	3.07	2.63	6.15	14.07	14.95	13.48	1.90	

Calm : .00 %

Total # Operational Hours : 682

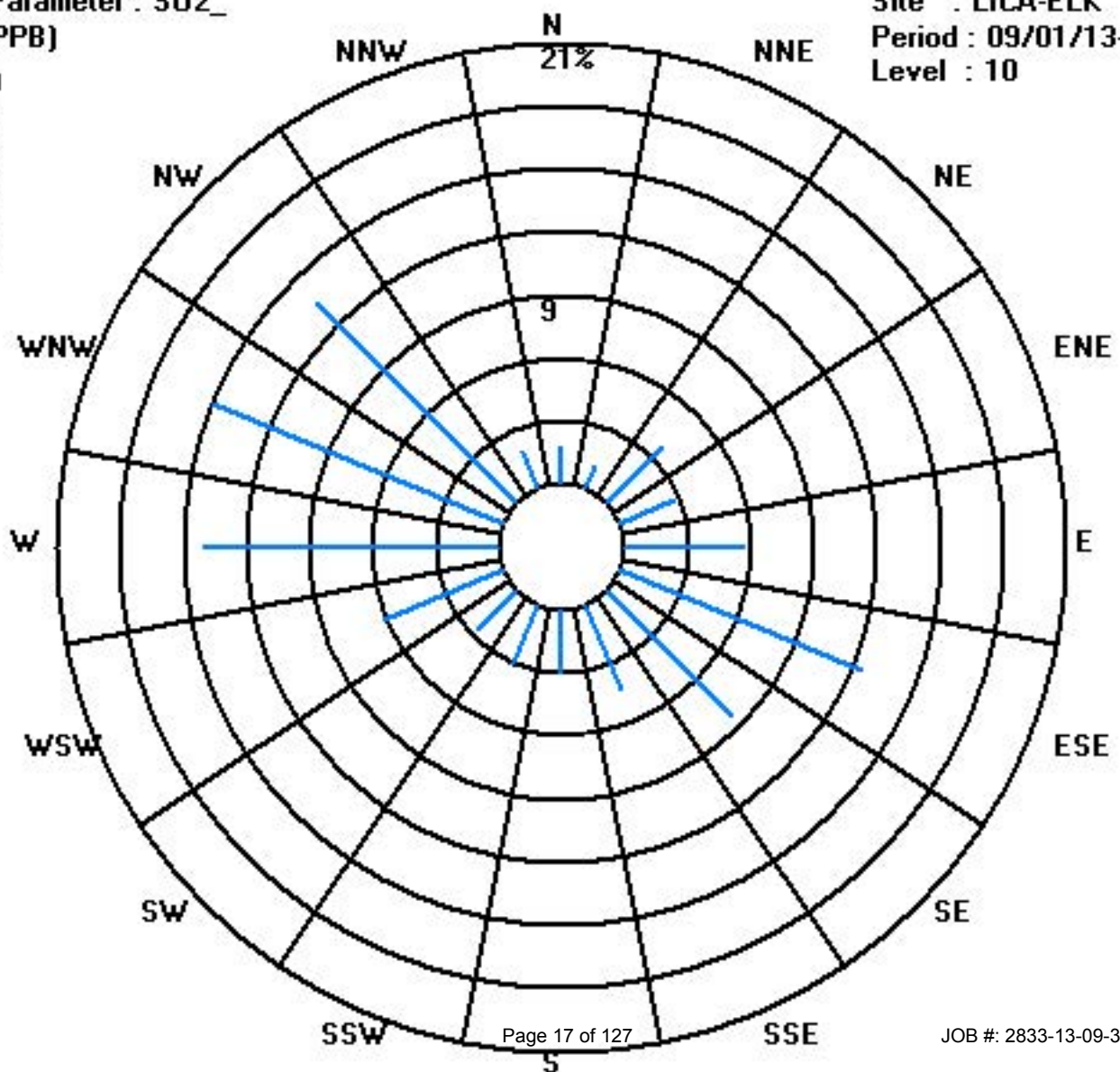
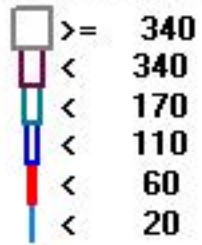
Distribution By Samples

Limit	Direction																Freq
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
< 20	12	8	26	19	39	85	58	30	21	21	18	42	96	102	92	13	682
< 60																	
< 110																	
< 170																	
< 340																	
>= 340																	
Totals	12	8	26	19	39	85	58	30	21	21	18	42	96	102	92	13	

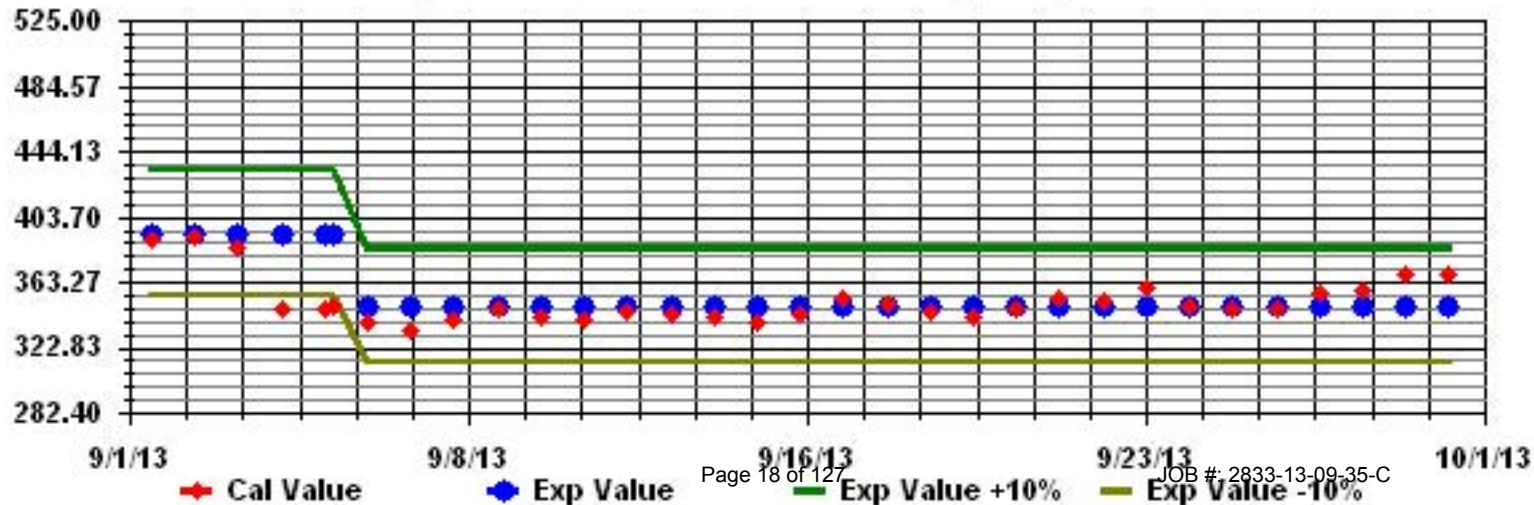
Calm : .00 %

Total # Operational Hours : 682

Class Limits (PPB)



Calibration Graph for Site: LICA35 Parameter: S02_ Sequence: S02 Phase: SPAN



Hydrogen Sulphide

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - PORTABLE - Elk Point Airport

SEPTEMBER 2013

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	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	MAX.	AVG.	RDGS.	
1	0	0.2	0	0	1	1	1	2	2	3	3	1	1	S	0	0	0	0	0	0	0	0	0	0	0	0	3	0.7	24
2	0	0.3	0	0	1	1	1	2	2	2	1	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.4	24
3	0	0.3	0	0	0	0	0	0	0	0	0	S	0	0	0	Y	Y	0	0	0	0	0	0	0	0	0	0	0.0	22
4	0	0.3	0	0	0	1	1	1	1	2	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.3	24
5	0	0.3	0	0	0	0	0	0	S	C	C	C	C	C	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24	
6	0	0.3	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
7	0	0.3	0	0	0	0	S	0	0	0	0	0	0	0	0	0	1	1	0	0	1	1	1	1	1	0	1	0.3	24
8	1	0.3	1	1	1	S	0	0	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.3	24
9	0	0.3	1	1	S	3	2	2	2	2	2	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	3	1.3	24
10	2	0.3	1	S	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.3	24
11	0	0.3	S	0	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.2	24
12	S	0.3	0	0	0	0	1	1	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	2	0.3	24
13	0	0.3	0	0	0	1	1	1	1	1	1	1	0	0	0	1	0	0	0	0	0	0	0	0	S	0	1	0.3	24
14	0	0.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0.0	24
15	0	0.3	0	0	0	0	1	1	1	2	1	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	2	0.3	24
16	0	0.3	0	0	0	1	0	1	1	1	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	1	0.2	24
17	0	0.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0.0	24
18	0	0.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0.0	24
19	0	0.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	1	0	0	0	0	1	0.0	24
20	1	0.3	1	1	1	1	1	1	2	1	1	1	1	1	1	1	S	0	0	0	0	0	0	0	0	0	2	0.7	24
21	0	0.3	1	1	1	1	1	1	1	1	1	1	1	1	1	S	0	0	0	0	0	0	0	0	0	0	1	0.6	24
22	0	0.3	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
23	0	0.3	0	0	0	0	0	0	0	5	C	C	C	C	1	0	0	0	0	0	0	0	0	0	0	0	5	0.3	24
24	0	0.3	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
25	0	0.3	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
26	0	0.3	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	24
27	0	0.3	1	1	1	1	1	1	1	S	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	0.5	24
28	1	0.3	1	1	1	0	0	1	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0.3	24
29	0	0.3	1	1	1	1	1	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.2	24
30	0	0.3	0	0	0	0	S	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	1	1	1	3	2	2	3	5	2	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1			
HOURLY AVG	0.2	0.3	0.3	0.3	0.5	0.6	0.6	0.7	0.8	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1			

STATUS FLAG CODES

C	- CALIBRATION	Q	- QUALITY ASSURANCE
Y	- MAINTENANCE	R	- RECOVERY
S	- DAILY ZERO/SPAN CHECK	X	- MACHINE MALFUNCTION
P	- POWER FAILURE	O	- OPERATOR ERROR
G	- OUT FOR REPAIR	K	- COLLECTION ERROR

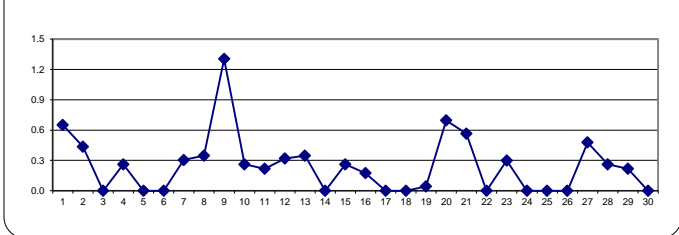
OBJECTIVE LIMIT:

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

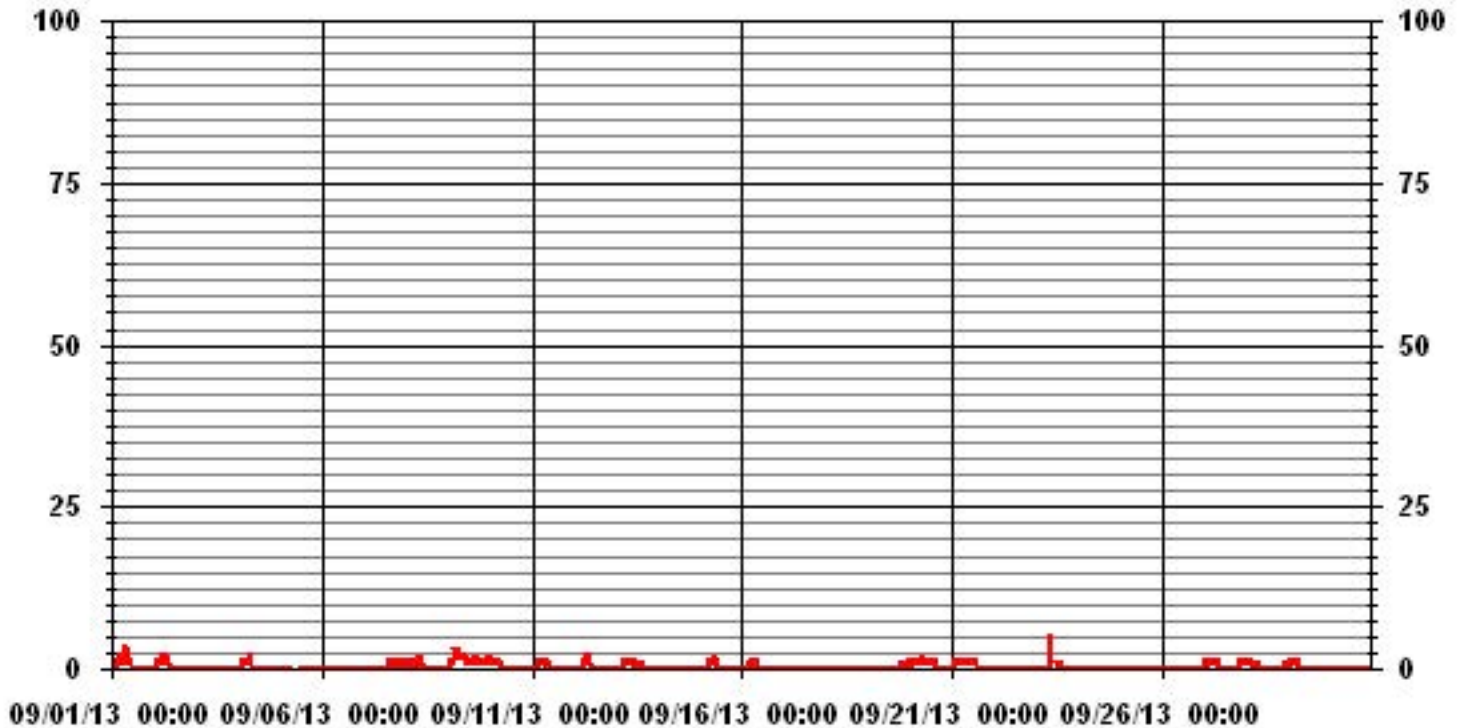
MONTHLY SUMMARY

NUMBER OF 1-HR EXCEEDENCES:	0					
NUMBER OF 24-HR EXCEEDENCES:	0					
NUMBER OF NON-ZERO READINGS:	142					
MAXIMUM 1-HR AVERAGE:	5	PPB	@ HOUR(S)	8	ON DAY(S)	23
MAXIMUM 24-HR AVERAGE:	1.3	PPB			ON DAY(S)	9
					VAR-VARIOUS	
IZS CALIBRATION TIME:	30	HRS	OPERATIONAL TIME:	718 HRS		
MONTHLY CALIBRATION TIME:	9	HRS	AMD OPERATION UPTIME:	99.7 %		
STANDARD DEVIATION:	0.54		MONTHLY AVERAGE:	0.25 PPB		

24 HOUR AVERAGES FOR SEPTEMBER 2013



01 Hour Averages



LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - PORTABLE SITE - Elk Point Airport

SEPTEMBER 2013

HYDROGEN SULPHIDE 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.
DAY																											
1	1	0	2	2	2	2	3	4	4	3	2	S	0	0	0	0	0	0	0	0	0	1	1	0	4	1.2	24
2	1	1	2	1	2	2	3	3	2	1	S	0	0	0	0	1	1	0	0	0	0	0	0	0	3	0.9	24
3	0	0	0	0	0	0	0	0	0	S	1	1	0	Y	Y	0	0	1	1	0	0	1	1	1	1	0.3	22
4	0	0	1	2	2	2	2	3	S	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	3	0.6	24
5	0	1	1	1	1	1	1	S	C	C	C	C	C	1	0	0	0	0	0	0	0	0	0	0	1	0.4	24
6	0	0	0	0	0	0	S	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	S	0	0	0	1	0	1	1	1	1	1	1	1	2	1	1	1	1	1	2	0.7	24
8	2	2	2	2	S	1	1	2	2	2	2	1	0	1	1	0	0	0	0	1	1	1	1	1	2	1.1	24
9	1	2	2	S	4	2	3	3	3	3	2	2	2	2	2	2	2	2	1	1	1	1	1	1	4	2.0	24
10	2	2	S	2	2	2	1	1	1	1	0	0	1	0	0	0	0	1	1	1	0	0	0	0	2	0.8	24
11	0	S	1	1	1	1	2	4	1	1	1	1	0	0	0	0	0	0	0	1	0	0	1	1	4	0.7	24
12	S	0	0	0	1	2	2	2	2	2	2	1	0	0	0	0	0	0	0	0	0	0	0	S	2	0.5	24
13	0	1	1	1	1	2	2	2	2	2	1	1	1	1	1	1	1	0	0	0	0	0	S	0	2	0.9	24
14	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0.1	24
15	0	1	0	1	1	1	1	2	3	2	1	0	0	0	0	0	0	0	0	1	S	0	0	1	3	0.7	24
16	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	S	0	0	0	0	1	0.8	24
17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	1	1	0.0	24
18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	1	0	0	0	0	1	0.0	24
19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	1	1	1	1	1	1	1	1	0.3	24
20	1	1	1	2	2	2	2	2	2	2	1	1	1	1	1	S	0	0	0	1	1	1	1	1	2	1.2	24
21	1	1	2	1	1	1	2	1	2	2	2	1	1	1	S	0	0	0	0	0	0	0	0	0	2	0.8	24
22	0	0	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	1	0	0	1	0.0	24
23	0	0	0	0	0	0	0	1	C	C	C	C	C	C	C	1	1	0	1	1	1	0	0	1	0	0.4	24
24	0	0	0	0	0	0	0	0	0	0	0	S	0	0	0	0	0	0	0	1	1	0	0	0	1	0.1	24
25	1	1	1	0	0	0	1	1	0	0	S	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.2	24
26	0	0	0	0	0	0	0	0	0	S	0	0	0	0	1	1	0	1	3	1	1	1	1	1	3	0.5	24
27	1	1	1	1	1	1	2	3	S	0	0	0	0	0	0	0	0	0	1	1	2	2	2	1	3	0.9	24
28	1	2	2	2	1	1	1	S	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	3	3	0.7	24
29	1	1	1	1	1	2	S	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.3	24
30	0	0	0	0	0	S	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1	24
HOURLY MAX	2	2	2	2	4	2	3	4	4	3	2	2	2	2	2	2	2	2	3	1	2	2	2	3			
HOURLY AVG	0.5	0.6	0.8	0.7	0.9	0.9	1.1	1.3	1.0	0.9	0.6	0.4	0.3	0.3	0.3	0.3	0.2	0.3	0.4	0.5	0.3	0.4	0.4	0.5			

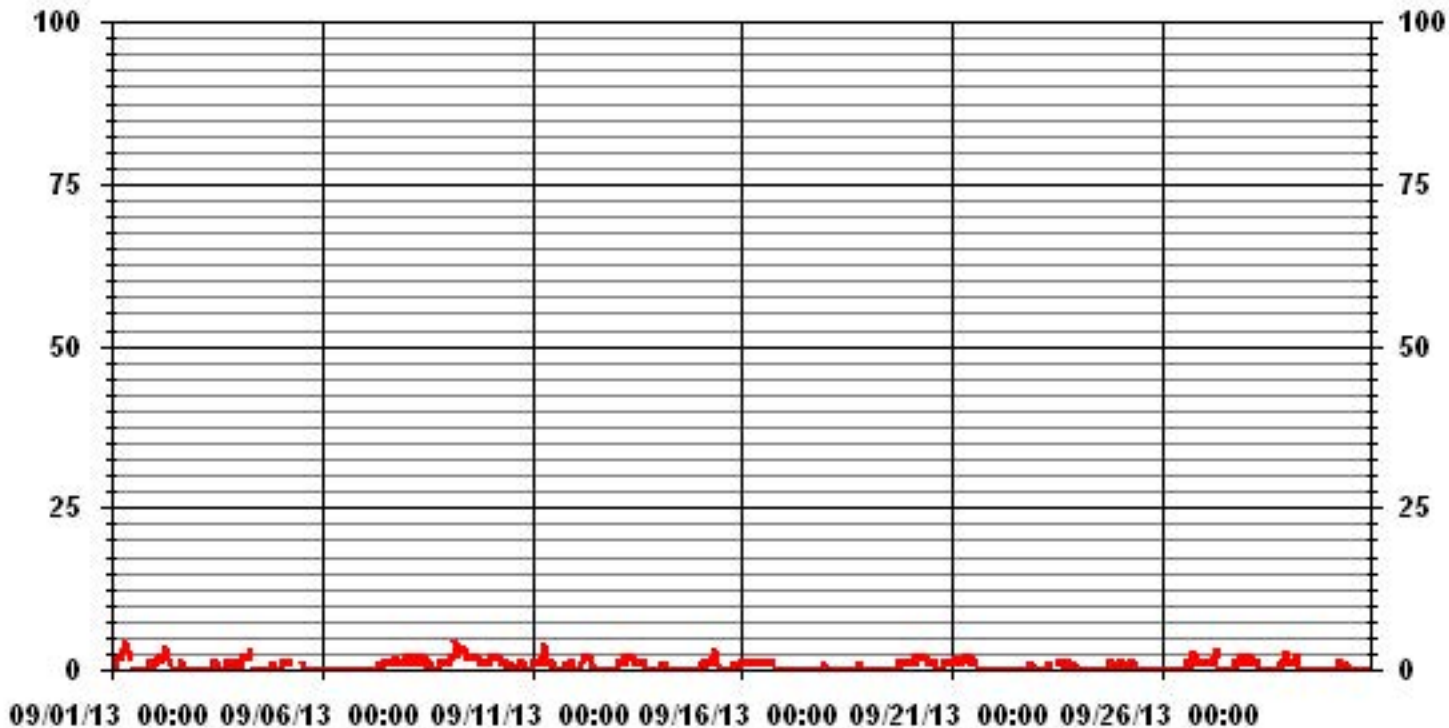
STATUS FLAG CODES

C	- CALIBRATION	Q	- QUALITY ASSURANCE
Y	- MAINTENANCE	R	- RECOVERY
S	- DAILY ZERO/SPAN CHECK	X	- MACHINE MALFUNCTION
P	- POWER FAILURE	O	- OPERATOR ERROR
G	- OUT FOR REPAIR	K	- COLLECTION ERROR

MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	281					
MAXIMUM INSTANTANEOUS VALUE:	4	PPB	@ HOUR(S)	VAR	ON DAY(S)	VAR
				VAR - VARIOUS		
IZS CALIBRATION TIME:	30	HRS	OPERATIONAL TIME:	718	HRS	
MONTHLY CALIBRATION TIME:	11	HRS				
STANDARD DEVIATION:	0.80					

01 Hour Averages



— LICA35 H2S MAX PPB

LICA-ELK
H2S_ / WDR Joint Frequency Distribution (Percent)

September 2013

Distribution By % Of Samples

Logger Id : 35
Site Name : LICA-ELK
Parameter : H2S_
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
< 3	1.76	1.17	3.53	2.79	5.74	12.07	8.54	4.41	3.09	3.09	2.50	6.03	14.13	15.02	13.54	1.91	99.41
< 10	.00	.00	.14	.00	.00	.29	.00	.00	.00	.00	.00	.14	.00	.00	.00	.00	.58
< 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	1.76	1.17	3.68	2.79	5.74	12.37	8.54	4.41	3.09	3.09	2.50	6.18	14.13	15.02	13.54	1.91	

Calm : .00 %

Total # Operational Hours : 679

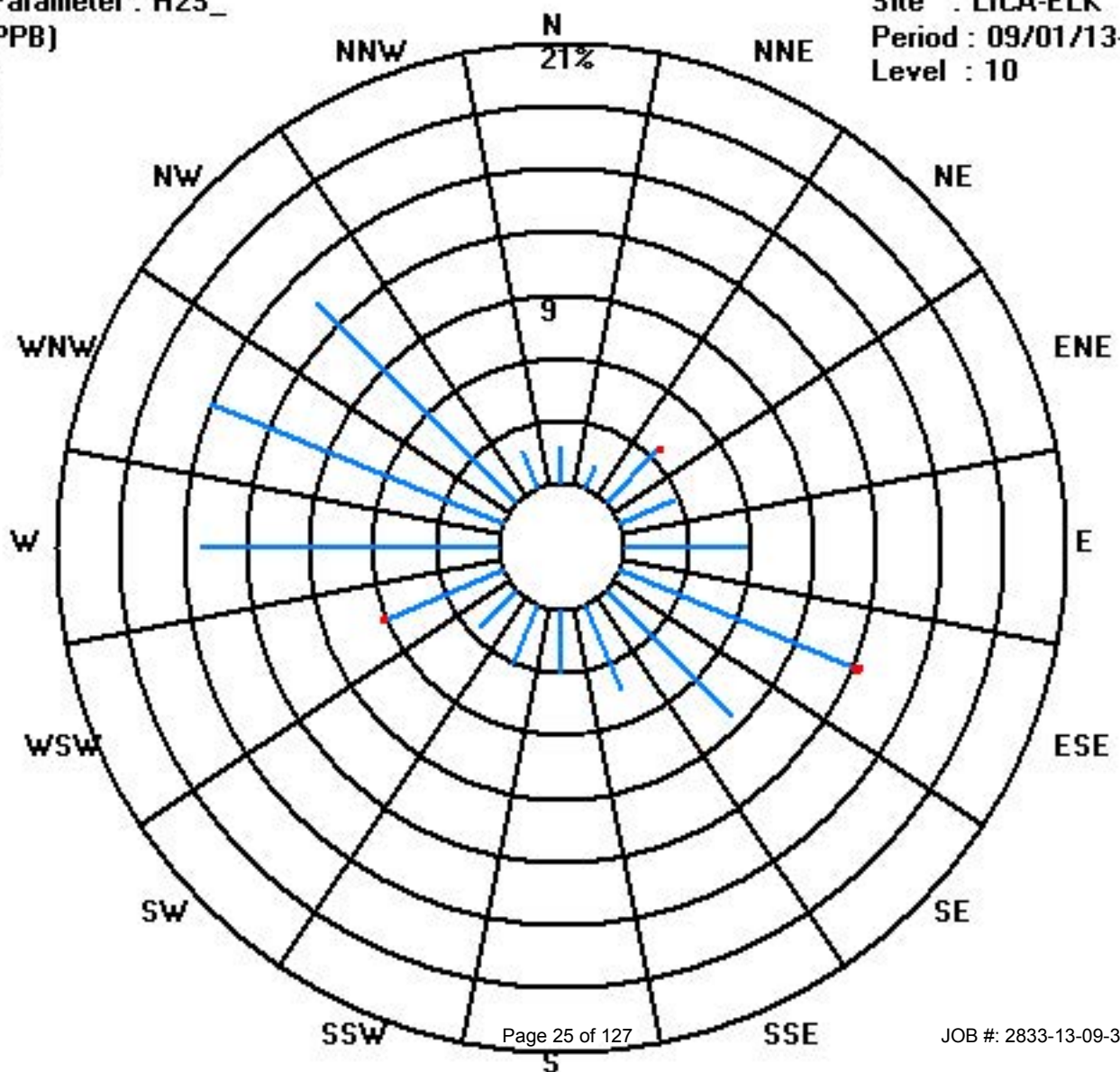
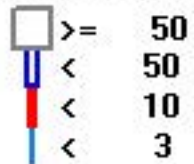
Distribution By Samples

Limit	Direction															Freq	
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW		NNW
< 3	12	8	24	19	39	82	58	30	21	21	17	41	96	102	92	13	675
< 10			1			2						1					4
< 50																	
>= 50																	
Totals	12	8	25	19	39	84	58	30	21	21	17	42	96	102	92	13	

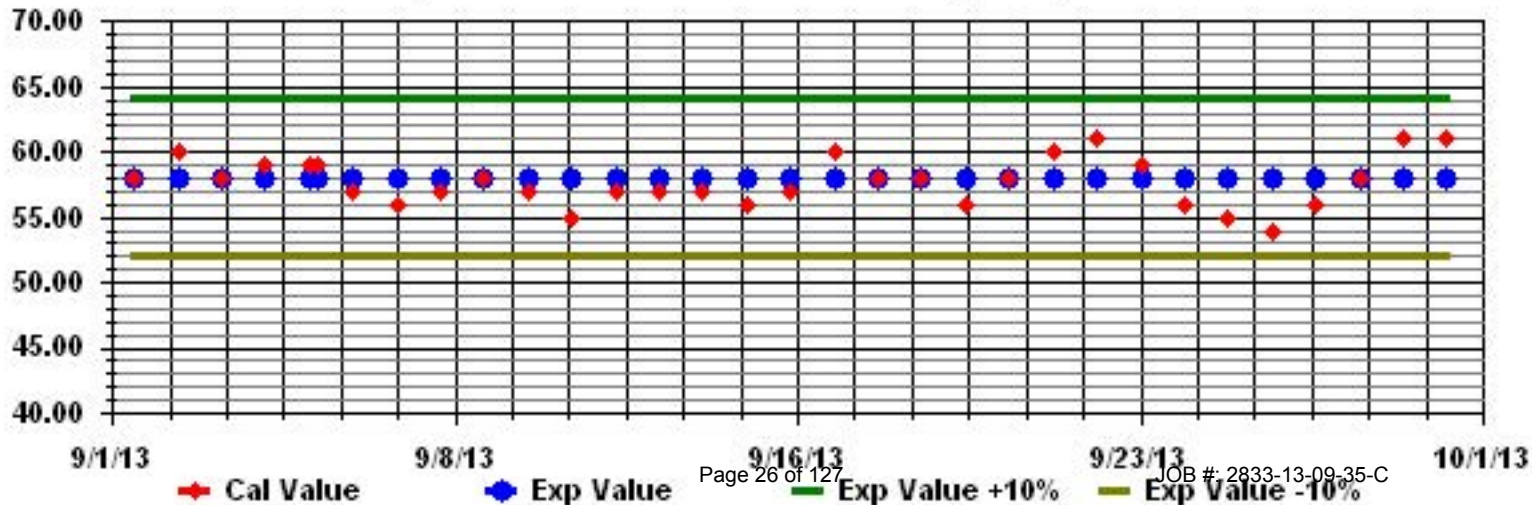
Calm : .00 %

Total # Operational Hours : 679

Class Limits (PPB)



Calibration Graph for Site: LICA35 Parameter: H2S_ Sequence: H2S Phase: SPAll



Particulate Matter 2.5

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - PORTABLE SITE - Elk Point Airport

SEPTEMBER 2013

PARTICULATE MATTER 2.5 (PM2.5) hourly averages 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 MAX.	24-HOUR AVG.	RDGS.
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				
1	9	8	5	4	8	6	3	11	9	6	8	4	0	3	0	0	5	2	7	9	5	8	7	5	11	5.5	24	
2	3	4	4	3	4	6	2	1	5	8	5	2	0	0	0	5	2	4	4	8	4	1	6	2	8	3.5	24	
3	7	13	7	0	0	3	0	0	0	5	1	C	C	C	10	5	3	3	4	5	3	6	4	10	13	4.2	24	
4	3	3	9	0	0	8	5	8	9	5	8	5	5	10	16	12	11	13	15	12	11	11	12	11	16	8.4	24	
5	8	8	10	4	11	7	9	14	10	5	1	0	6	4	2	2	10	7	3	6	5	3	0	3	14	5.8	24	
6	6	2	8	9	3	8	6	5	6	4	2	5	4	1	1	3	3	0	3	5	3	1	2	5	9	0.0	24	
7	1	0	3	6	0	0	6	0	3	6	6	3	10	6	9	9	7	8	7	11	6	10	8	6	11	5.5	24	
8	6	12	6	7	12	5	8	7	4	4	7	6	6	6	7	5	6	6	6	9	3	11	5	7	12	6.7	24	
9	8	6	5	7	7	11	9	13	8	6	5	0	3	2	3	1	3	4	6	3	6	5	3	0	13	5.2	24	
10	2	2	10	4	1	2	3	6	5	3	0	3	1	0	2	0	3	5	1	X	2	3	2	3	10	2.7	23	
11	3	5	4	2	3	12	12	7	8	3	0	7	1	0	6	4	2	4	3	9	5	11	6	10	12	5.3	24	
12	16	10	12	8	5	10	22	9	7	7	8	6	9	8	5	8	4	3	7	6	8	6	11	6	22	8.4	24	
13	7	5	7	8	14	4	10	17	11	8	6	9	11	9	9	13	9	9	6	5	1	8	3	7	17	8.2	24	
14	4	8	6	5	6	8	13	4	0	2	0	2	0	5	4	7	7	4	2	0	4	6	6	8	13	4.6	24	
15	7	8	3	10	6	10	0	10	8	3	3	6	8	3	6	3	6	5	6	8	10	10	7	8	10	6.4	24	
16	7	7	8	11	4	10	7	5	4	6	4	10	6	12	8	4	10	10	7	7	7	8	12	13	13	7.8	24	
17	14	6	3	1	3	1	2	8	7	8	5	4	7	3	0	4	0	1	2	0	0	8	5	6	14	4.1	24	
18	2	1	6	5	7	4	1	0	0	0	7	0	2	2	0	2	4	0	2	0	1	1	6	3	7	2.3	24	
19	5	0	1	1	0	1	6	5	X	5	3	1	1	1	7	2	4	3	4	10	9	6	9	10	10	4.1	23	
20	15	9	8	4	4	5	4	8	5	4	8	6	9	6	7	2	8	6	1	9	7	7	9	10	15	6.7	24	
21	8	5	4	8	14	10	9	9	4	5	9	8	10	7	7	8	9	7	9	9	13	9	10	12	14	8.5	24	
22	9	8	7	4	3	7	7	2	8	3	3	0	3	0	3	5	1	4	9	5	7	3	7	8	9	4.8	24	
23	13	12	7	6	7	11	7	4	7	3	10	12	C	6	8	4	2	2	0	8	0	6	2	6	13	6.2	24	
24	10	7	11	2	8	6	9	7	4	1	1	1	4	1	2	2	2	0	2	5	3	10	9	9	11	4.8	24	
25	15	11	10	9	7	11	12	12	7	4	0	3	0	4	0	0	0	0	5	2	1	2	0	3	15	4.9	24	
26	2	1	1	2	5	3	5	6	1	0	1	4	5	3	2	0	5	1	4	9	6	5	5	5	9	3.4	24	
27	10	2	6	0	7	5	3	2	7	6	6	6	5	4	4	5	4	0	5	2	10	10	8	10	10	5.3	24	
28	15	12	17	11	12	6	16	15	8	11	4	0	4	1	6	6	2	3	9	9	7	8	10	10	17	8.4	24	
29	12	12	8	10	10	6	11	6	17	5	7	5	0	4	1	4	8	0	1	5	7	5	12	7	17	6.8	24	
30	8	6	6	4	6	0	11	4	6	3	0	2	4	3	4	2	7	6	4	2	0	3	0	7	11	4.1	24	
HOURLY MAX	16	13	17	11	14	12	22	17	17	11	10	12	11	12	16	13	11	13	15	12	13	11	12	13				
HOURLY AVG	7.8	6.4	6.7	5.2	5.9	6.2	7.3	6.8	6.1	4.6	4.3	4.1	4.4	3.9	4.6	4.2	4.9	4.0	4.8	6.1	5.1	6.4	6.2	7.0				

STATUS FLAG CODES

C	- CALIBRATION	Q	- QUALITY ASSURANCE
Y	- MAINTENANCE	R	- RECOVERY
S	- DAILY ZERO/SPAN CHECK	X	- MACHINE MALFUNCTION
P	- POWER FAILURE	O	- OPERATOR ERROR
G	- OUT FOR REPAIR	K	- COLLECTION ERROR

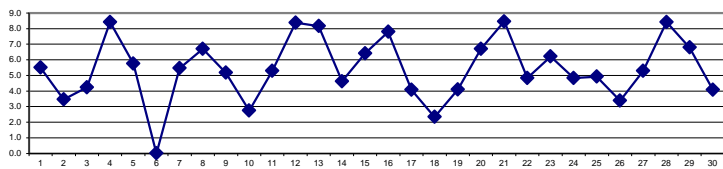
OBJECTIVE LIMIT:

ALBERTA ENVIRONMENT:	1-HR	-	PPB	24-HR	30	PPB
----------------------	------	---	-----	-------	----	-----

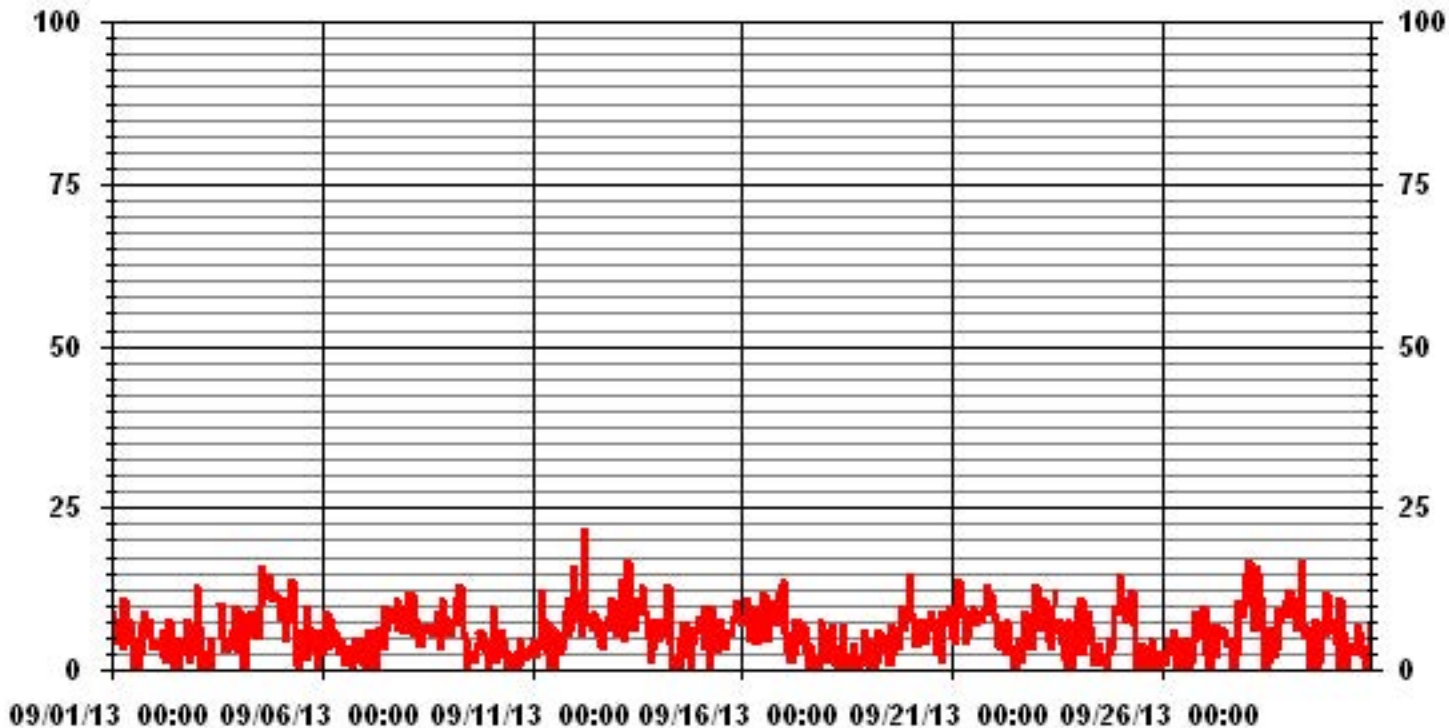
MONTHLY SUMMARY

NUMBER OF 1-HR EXCEEDENCES:	-
NUMBER OF 24-HR EXCEEDENCES:	0
NUMBER OF NON-ZERO READINGS:	646
MAXIMUM 1-HR AVERAGE:	22 UG/M ³ @ HOUR(S) 6 ON DAY(S) 12
MAXIMUM 24-HR AVERAGE:	8.5 UG/M ³ ON DAY(S) 21
IZS CALIBRATION TIME:	0 HRS
MONTHLY CALIBRATION TIME:	4 HRS
STANDARD DEVIATION:	3.68
OPERATIONAL TIME:	718 HRS
AMD OPERATION UPTIME:	99.7 %
MONTHLY AVERAGE:	5.56 UG/M ³

24 HOUR AVERAGES FOR SEPTEMBER 2013



01 Hour Averages



LICA-ELK
 PM2 / WDR Joint Frequency Distribution (Percent)

September 2013

Distribution By % Of Samples

Logger Id : 35
 Site Name : LICA-ELK
 Parameter : PM2
 Units : UG/M3

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	
< 30	1.96	1.26	3.78	2.52	5.74	12.18	8.68	4.48	3.22	3.22	2.66	6.30	13.72	14.70	13.02	2.52	100.00
< 60	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
< 80	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
< 120	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
< 240	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
>= 240	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
Totals	1.96	1.26	3.78	2.52	5.74	12.18	8.68	4.48	3.22	3.22	2.66	6.30	13.72	14.70	13.02	2.52	

Calm : .00 %

Total # Operational Hours : 714

Distribution By Samples

Limit	Direction																Freq
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
< 30	14	9	27	18	41	87	62	32	23	23	19	45	98	105	93	18	714
< 60																	
< 80																	
< 120																	
< 240																	
>= 240																	
Totals	14	9	27	18	41	87	62	32	23	23	19	45	98	105	93	18	

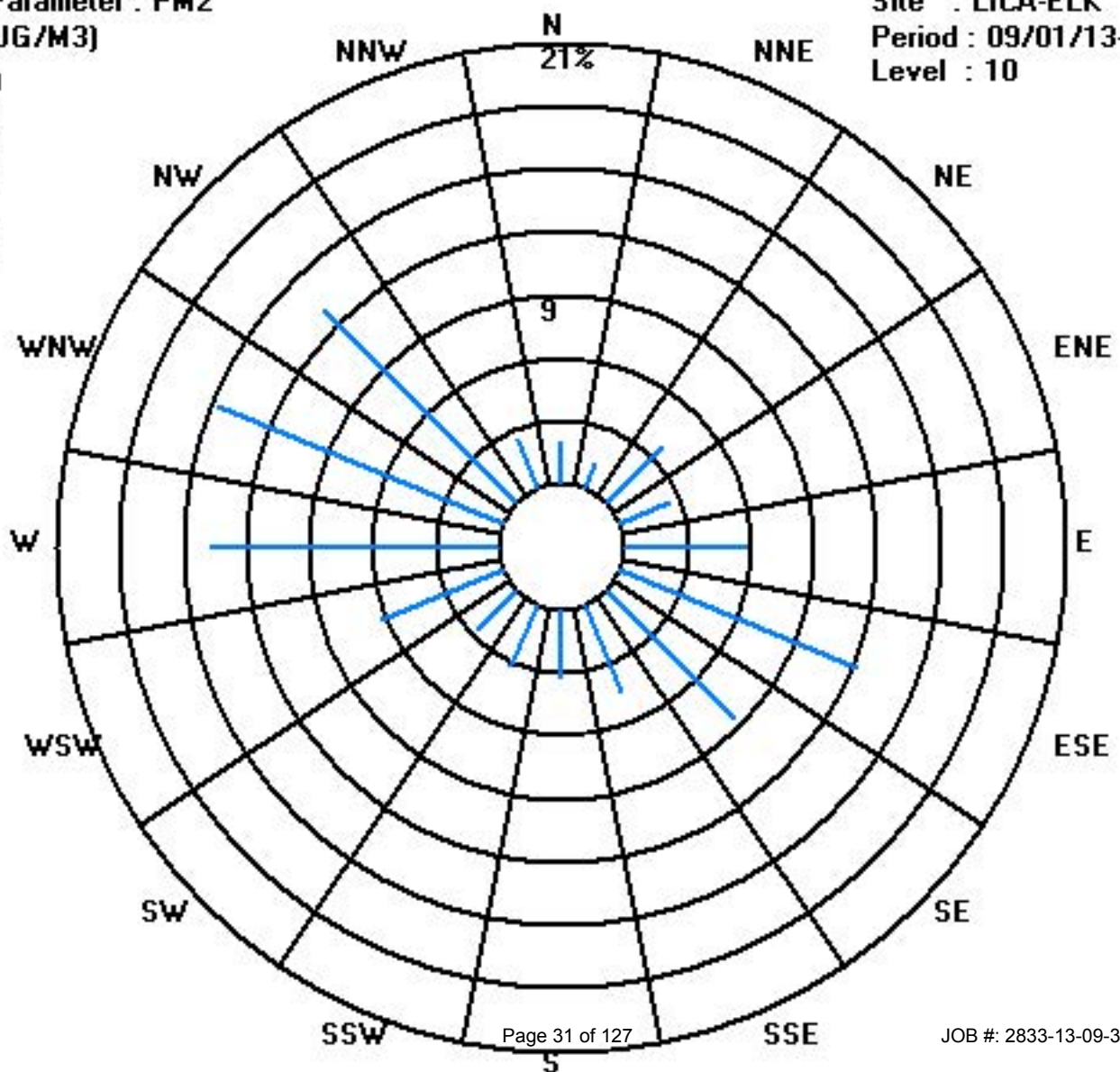
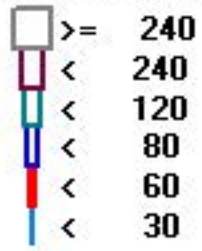
Calm : .00 %

Total # Operational Hours : 714

Class Limits (UG/M3)

Period : 09/01/13-09/30/13

Level : 10



Nitrogen Dioxide

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - PORTABLE SITE - Elk Point Airport

SEPTEMBER 2013

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 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	11.0	10.2	8.5	7.8	7.7	9.6	7.0	5.1	4.3	3.4	2.3	S	1.8	1.8	1.6	2.2	3.0	2.2	3.3	5.3	7.9	8.5	9.6	13.5	13.5	6.0	24	
2	10.2	12.1	16.5	18.2	15.1	12.2	10.2	10.8	8.4	9.9	S	0.8	1.0	0.6	0.5	0.9	1.5	2.0	1.0	1.4	5.9	9.0	1.1	1.5	18.2	6.6	24	
3	1.4	0.7	0.3	0.2	0.0	0.1	0.6	S	1.6	S	1.7	1.4	1.7	Y	Y	5.2	0.2	2.9	8.7	13.8	12.8	9.9	13.3	9.8	13.8	4.3	22	
4	9.7	8.3	9.9	9.5	11.9	10.6	9.0	5.6	S	1.7	1.9	1.9	2.7	3.1	2.4	1.3	1.7	1.7	1.5	2.3	2.7	5.2	17.9	21.6	21.6	6.3	24	
5	25.9	23.5	15.7	12.9	5.5	5.7	14.2	S	C	C	C	C	C	C	C	1.0	6.0	1.3	0.8	2.5	2.7	2.8	2.3	5.0	25.9	8.0	24	
6	9.4	6.7	18.7	19.4	5.9	4.5	S	8.7	3.2	1.9	1.5	1.1	0.5	0.4	0.6	0.8	0.4	1.2	1.1	1.4	4.3	3.5	1.3	1.4	19.4	4.3	24	
7	1.4	1.6	1.2	3.4	1.0	S	6.5	2.5	2.2	3.2	3.0	2.3	3.0	3.1	4.6	5.7	4.4	5.0	3.7	5.1	5.0	7.6	6.3	5.3	7.6	3.8	24	
8	8.2	11.1	11.6	11.7	S	10.0	9.2	7.7	5.2	3.6	1.7	1.2	1.0	1.2	1.2	0.9	1.0	1.2	6.2	4.1	6.8	10.4	14.4	16.2	16.2	6.3	24	
9	17.5	15.1	19.9	S	13.1	7.2	5.4	2.4	2.1	1.1	0.7	0.7	0.6	0.2	0.3	0.3	0.3	0.3	0.5	4.4	3.0	1.2	2.6	9.6	19.9	4.7	24	
10	13.4	8.9	S	8.3	6.7	9.1	7.1	3.7	3.7	1.7	0.4	0.2	0.4	0.9	0.2	0.1	0.2	0.3	1.0	3.7	12.1	1.9	9.8	9.3	13.4	4.5	24	
11	13.3	S	16.5	11.5	15.9	12.4	9.8	7.6	9.5	3.6	2.7	1.2	0.3	0.1	0.1	0.5	0.6	0.6	10.5	15.9	20.1	19.9	15.6	17.6	20.1	8.9	24	
12	S	14.0	13.2	14.0	14.6	14.8	11.1	7.5	5.7	4.3	3.2	3.0	2.8	1.6	1.2	2.1	1.5	7.2	4.5	5.9	4.9	7.7	7.3	S	14.8	6.9	24	
13	2.9	5.4	20.2	17.0	15.8	20.0	14.2	12.8	10.9	8.1	4.0	3.0	2.4	1.9	2.5	2.1	0.8	0.3	1.0	1.8	2.3	3.3	S	3.9	20.2	6.8	24	
14	4.5	9.4	12.8	2.2	2.5	3.0	3.6	2.4	2.1	0.8	1.1	0.8	1.3	1.4	1.2	1.2	1.5	1.4	3.7	10.0	10.4	S	8.2	7.7	12.8	4.1	24	
15	8.8	11.0	10.5	12.5	11.3	13.3	13.3	5.4	3.3	2.2	1.3	1.0	0.9	1.1	1.6	1.1	1.2	2.7	6.4	7.9	S	15.0	12.7	16.3	16.3	7.0	24	
16	7.3	7.5	9.6	8.2	8.1	4.8	5.9	4.3	2.6	2.3	2.2	2.6	2.3	1.4	1.3	4.6	1.9	10.5	12.5	S	12.1	10.1	7.8	5.0	12.5	5.9	24	
17	5.1	1.7	2.7	2.3	1.3	3.8	3.5	1.6	1.5	0.6	0.4	0.4	0.3	0.5	0.3	0.3	0.5	0.7	S	1.0	3.9	1.8	9.6	10.7	10.7	2.4	24	
18	6.0	4.9	1.0	3.4	8.6	4.4	0.6	0.7	0.4	0.2	0.1	0.2	0.2	0.1	0.1	0.2	0.2	S	0.4	0.2	2.2	0.3	0.2	0.1	8.6	1.5	24	
19	2.5	7.5	8.2	8.4	7.8	7.3	7.9	6.9	0.4	0.2	0.4	0.5	0.5	0.7	1.0	0.9	S	1.4	9.3	20.1	18.1	13.2	12.9	10.8	20.1	6.4	24	
20	9.9	7.6	10.0	11.2	12.6	13.5	9.7	6.6	4.2	3.8	3.3	2.8	2.0	1.3	0.8	S	1.6	2.0	7.4	14.5	19.1	10.1	3.4	7.9	19.1	7.2	24	
21	9.7	11.6	8.7	4.3	6.0	7.2	7.7	3.2	2.7	2.6	2.9	2.6	2.5	2.5	S	4.0	7.4	8.5	9.0	14.5	15.9	9.1	4.3	7.2	15.9	6.7	24	
22	3.4	3.0	2.7	1.9	3.9	4.4	3.6	4.6	3.0	1.7	1.3	0.8	0.5	S	0.7	1.5	1.5	6.4	17.4	20.1	11.0	16.4	23.7	19.3	23.7	6.6	24	
23	14.7	10.2	9.6	14.3	19.5	23.2	18.6	9.6	8.9	3.0	5.7	8.1	S	X	X	X	X	X	X	X	X	X	X	X	X	23.2	12.1	13
24	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	0
25	X	X	X	X	X	X	X	X	X	X	X	C	C	C	2.8	1.6	1.2	1.0	1.3	2.7	2.9	2.6	1.9	1.9	2.9	2.0	13	
26	1.7	1.4	1.0	1.0	1.2	1.5	4.7	4.1	1.0	S	2.1	0.7	0.0	0.0	0.0	0.1	0.3	0.5	2.3	9.7	7.9	6.9	3.2	8.6	9.7	2.6	24	
27	7.1	3.4	4.9	9.6	11.0	10.5	9.2	S	S	8.6	4.0	1.4	0.4	0.0	0.0	0.0	0.0	4.1	12.5	24.7	27.8	28.7	27.1	25.8	28.7	10.0	26	
28	24.8	19.6	18.7	16.8	9.4	11.4	16.7	S	16.8	11.4	2.2	0.0	0.0	0.0	0.0	0.2	3.8	3.9	19.5	16.4	11.1	17.7	11.8	24.8	10.1	24		
29	5.9	6.8	5.5	4.1	2.6	4.5	S	8.6	3.8	1.8	1.1	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.6	0.1	8.6	2.0	24	
30	0.3	1.5	6.7	11.2	9.5	S	21.7	15.0	12.8	9.4	4.3	1.2	0.2	0.0	0.4	0.0	0.0	0.0	0.5	0.4	0.5	0.6	0.0	0.0	21.7	4.2	24	
HOURLY MAX	25.9	23.5	20.2	19.4	19.5	23.2	21.7	15.0	16.8	11.4	5.7	8.1	3.0	3.1	4.6	5.7	7.4	10.5	17.4	24.7	27.8	28.7	27.1	25.8				
HOURLY AVG	8.7	8.3	9.8	9.1	8.5	8.8	8.9	6.1	4.8	3.6	2.1	1.5	1.1	1.0	1.0	1.4	1.4	2.6	4.8	7.9	8.9	8.0	8.7	9.2				

STATUS FLAG CODES

C	- CALIBRATION	Q	- QUALITY ASSURANCE
Y	- MAINTENANCE	R	- RECOVERY
S	- DAILY ZERO/SPAN CHECK	X	- MACHINE MALFUNCTION
P	- POWER FAILURE	O	- OPERATOR ERROR
G	- OUT FOR REPAIR	K	- COLLECTION ERROR

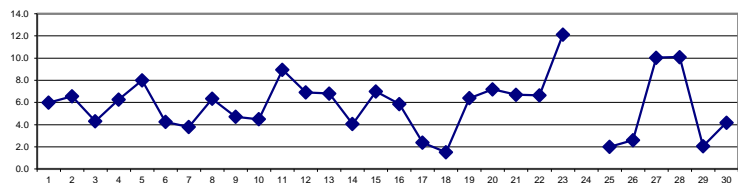
OBJECTIVE LIMIT:

ALBERTA ENVIRONMENT: 1-HR 159 PPB

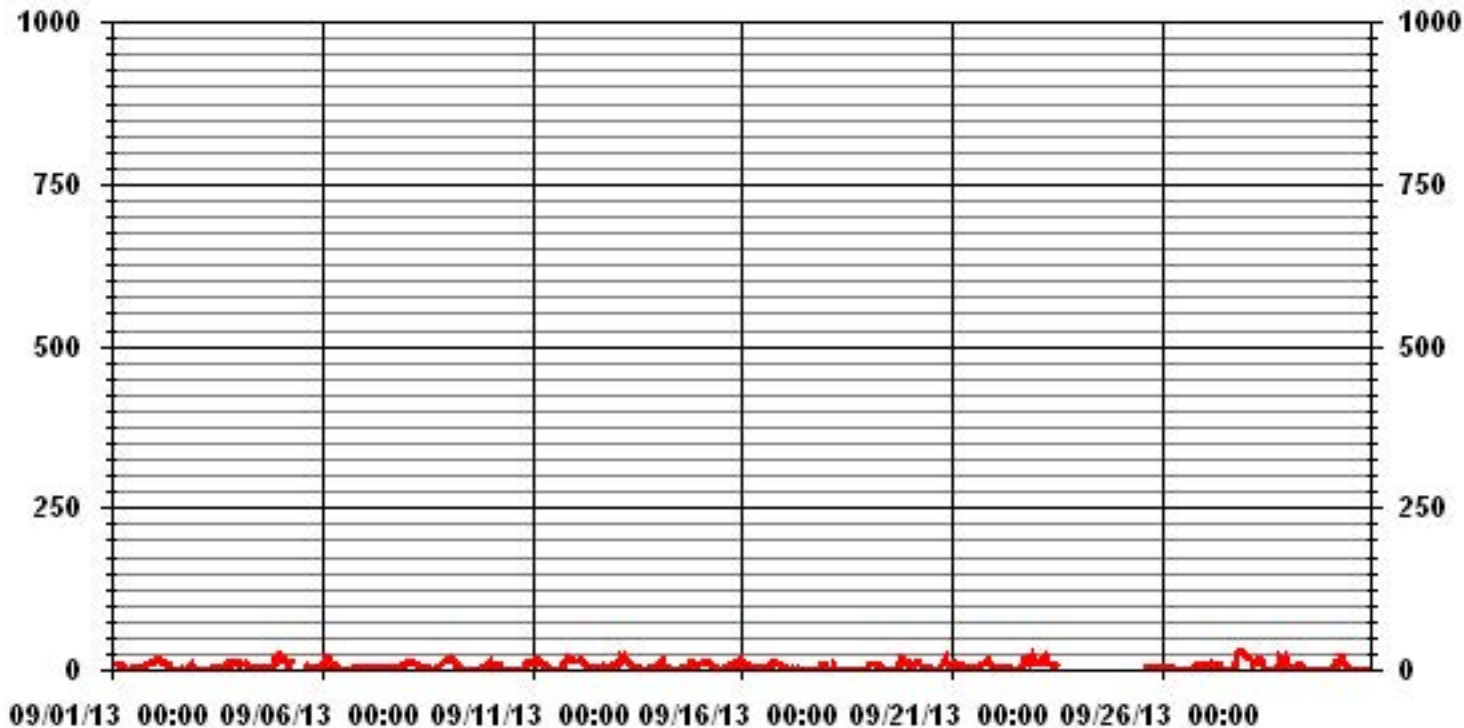
MONTHLY SUMMARY

NUMBER OF 1-HR EXCEEDENCES:	0		
NUMBER OF NON-ZERO READINGS:	603		
MAXIMUM 1-HR AVERAGE:	28.7	PPB	@ HOUR(S) 21 ON DAY(S) 27
MAXIMUM 24-HR AVERAGE:	12.1	PPB	ON DAY(S) 23
IZS CALIBRATION TIME:	31	HRS	OPERATIONAL TIME: 674 HRS
MONTHLY CALIBRATION TIME:	10	HRS	AMD OPERATION UPTIME: 93.5 %
STANDARD DEVIATION:	5.80		MONTHLY AVERAGE: 5.74 PPB

24 HOUR AVERAGES FOR SEPTEMBER 2013



01 Hour Averages



— LICA35 NO2_ PPB

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - PORTABLE SITE - Elk Point Airport

SEPTEMBER 2013

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	23:00	DAILY	24-HOUR			
HOUR END	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	MAX.	AVG.	RDGS.			
DAY																														
1	11.5	10.7	9.9	8.7	8.1	10.4	8.8	6.7	4.7	4.2	3.6	S	3.5	3.3	3.6	4.7	5.2	5.4	7.5	10.4	11.9	16.8	17.6	18.2	18.2	8.5	24			
2	15.3	20.4	20.5	21.4	18.2	15.2	12.9	15.8	11.9	13.9	S	2.1	2.1	1.5	1.5	2.3	2.8	5.0	3.3	4.6	16.9	18.0	2.3	2.5	21.4	10.0	24			
3	2.7	2.4	1.5	1.8	1.0	1.3	2.1	S	3.0	S	2.5	2.4	2.8	X	X	87.9	2.4	5.1	16.8	19.2	16.5	17.2	18.6	18.0	87.9	11.3	22			
4	11.6	11.3	13.3	20.7	15.7	15.5	13.2	12.1	S	3.3	3.7	3.2	3.7	4.0	3.7	2.6	2.7	2.8	2.5	3.6	4.5	11.8	28.8	25.5	28.8	28.8	9.6	24		
5	29.7	26.8	22.3	14.6	12.9	8.8	17.3	S	C	C	C	C	C	C	C	C	76.0	11.7	2.2	5.7	6.0	4.3	3.3	9.0	76.0	16.7	24			
6	13.1	11.9	21.0	20.8	15.8	11.3	S	12.2	7.3	4.1	2.5	2.2	1.4	1.4	1.5	1.8	1.3	2.9	2.6	3.3	7.7	7.6	3.3	2.4	21.0	6.9	24			
7	2.4	3.5	2.5	8.9	2.4	S	11.7	5.4	3.3	24.2	4.6	3.2	4.7	6.7	7.4	12.2	5.4	7.5	7.2	10.5	10.3	9.3	8.0	7.3	24.2	7.3	24			
8	10.1	13.5	14.1	14.8	S	12.0	10.9	9.7	7.9	6.2	3.8	2.0	1.9	2.7	2.3	1.7	1.8	2.7	13.0	9.5	13.3	18.3	30.1	23.3	30.1	9.8	24			
9	20.3	18.9	30.6	S	16.6	9.1	8.6	5.9	4.1	3.1	1.5	1.5	1.9	1.0	1.2	1.1	1.1	1.1	1.6	12.0	4.9	3.2	5.6	13.7	30.6	7.3	24			
10	19.8	16.3	S	14.0	10.9	11.3	9.8	5.7	7.2	2.9	2.3	1.1	1.6	4.1	1.7	1.4	1.6	1.9	5.2	6.7	22.0	5.9	21.6	13.5	22.0	8.2	24			
11	19.6	S	20.6	15.8	18.9	14.6	12.5	25.3	11.9	6.5	6.0	2.4	1.8	1.3	1.5	1.5	2.3	1.7	24.5	27.1	28.7	32.4	20.0	20.8	32.4	13.8	24			
12	S	19.4	17.5	16.5	16.8	18.4	14.9	10.4	7.4	6.4	5.7	4.9	5.7	3.9	2.9	4.3	4.5	11.3	8.2	9.4	9.2	10.9	13.4	S	19.4	10.1	24			
13	4.0	15.5	29.6	38.8	20.9	22.1	20.8	17.1	14.0	10.3	9.6	4.7	4.1	2.9	3.7	3.1	3.3	1.5	2.2	3.2	3.8	4.4	S	5.8	38.8	10.7	24			
14	9.5	21.3	21.2	4.2	3.5	4.9	5.1	3.4	3.1	1.6	1.9	1.8	2.5	3.1	2.3	2.0	2.8	2.8	8.2	34.5	17.2	S	11.8	9.9	34.5	7.8	24			
15	12.3	14.5	12.5	15.6	13.3	14.9	15.1	11.5	4.5	3.7	2.4	1.8	2.0	2.5	3.8	3.1	2.2	6.1	11.5	12.3	S	25.2	27.2	30.6	30.6	10.8	24			
16	28.0	12.6	13.0	9.9	11.4	7.3	8.2	7.4	4.0	3.6	4.3	4.2	4.3	3.4	2.6	110.4	4.5	32.2	32.5	S	21.4	13.5	9.6	8.0	110.4	15.5	24			
17	15.1	4.1	4.5	5.9	5.8	5.8	6.5	3.5	2.7	1.6	1.4	1.4	1.6	1.7	1.2	1.4	1.7	1.9	S	2.7	10.7	5.6	13.5	13.8	15.1	5.0	24			
18	8.8	10.5	2.5	6.6	10.7	10.3	1.6	3.2	9.2	1.2	1.0	1.0	1.0	0.8	0.8	1.0	1.2	S	1.5	1.5	4.7	1.2	1.2	1.3	10.7	3.6	24			
19	4.8	10.2	9.5	9.2	8.8	8.1	9.7	9.3	7.7	1.2	1.3	1.6	1.7	1.7	1.9	2.1	S	2.5	23.4	33.8	36.0	19.6	23.0	12.9	36.0	10.4	24			
20	12.5	11.8	12.9	13.3	14.7	16.9	14.4	8.9	5.6	4.9	4.7	4.3	4.1	2.7	2.2	S	6.8	5.0	18.1	40.1	29.6	25.9	6.4	21.4	40.1	12.5	24			
21	23.6	20.0	20.0	5.9	9.9	13.6	13.8	5.3	4.5	4.6	5.2	4.1	3.7	4.5	S	9.1	15.8	19.2	16.1	36.2	32.9	16.5	8.6	12.9	36.2	13.3	24			
22	6.3	4.8	4.5	3.9	19.8	8.2	4.6	8.4	4.2	2.7	2.5	1.7	1.3	S	2.9	3.3	3.9	15.9	34.8	32.9	18.0	28.3	39.5	34.9	39.5	12.5	24			
23	26.6	13.2	22.2	23.7	26.7	28.6	23.3	11.9	10.9	8.2	9.7	12.7	S	X	X	X	X	X	X	X	X	X	X	X	X	X	X	28.6	18.1	13
24	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	0	
25	X	X	X	X	X	X	X	X	X	X	X	C	C	C	4.6	2.7	2.0	2.1	2.6	3.6	4.1	3.7	2.9	3.0	4.6	3.1	13			
26	2.5	2.4	1.8	1.9	2.1	7.2	11.5	7.6	1.8	S	5.5	2.9	2.3	2.0	2.2	1.9	2.6	2.9	6.9	19.4	11.5	10.8	8.1	13.1	19.4	5.7	24			
27	9.1	8.0	9.2	12.7	13.2	14.1	12.0	S	S	25.4	9.6	5.6	4.4	4.1	3.1	3.5	3.8	10.9	40.5	32.9	39.5	35.1	38.3	31.6	40.5	16.7	26			
28	30.6	26.5	23.3	22.7	16.8	21.8	21.0	S	24.2	16.8	10.1	4.1	3.0	3.6	6.8	4.8	6.2	11.6	18.4	26.5	26.1	28.1	30.6	36.7	36.7	18.3	24			
29	13.7	12.6	11.3	9.4	7.0	10.3	S	16.2	8.0	6.2	6.1	5.3	3.3	3.0	2.6	2.9	4.0	3.1	3.2	3.3	8.0	5.8	4.3	5.3	16.2	6.7	24			
30	4.4	6.9	19.0	21.2	14.6	S	27.1	19.1	17.4	12.5	11.5	4.5	3.0	2.6	3.1	3.1	2.8	3.6	3.6	3.6	4.4	3.9	4.9	1.9	27.1	8.6	24			
HOURLY MAX	30.6	26.8	30.6	38.8	26.7	28.6	27.1	25.3	24.2	25.4	11.5	12.7	5.7	6.7	7.4	110.4	76.0	32.2	40.5	40.1	39.5	35.1	39.5	36.7						
HOURLY AVG	13.6	13.0	14.5	13.4	12.5	12.4	12.2	10.1	7.6	7.2	4.7	3.3	2.8	2.9	2.8	10.6	6.3	6.7	11.8	15.1	15.5	14.2	14.9	14.7						

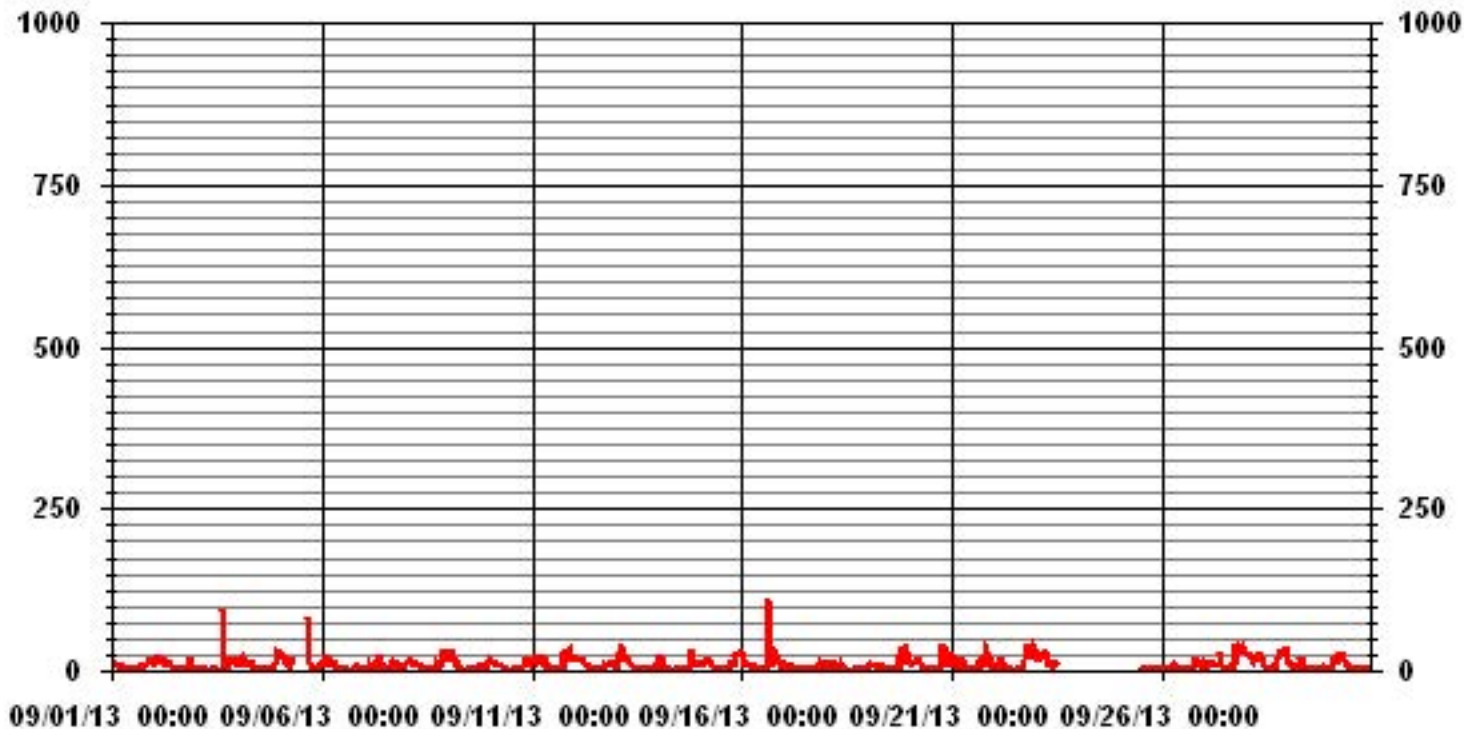
STATUS FLAG CODES

C - CALIBRATION	Q - QUALITY ASSURANCE
Y - MAINTENANCE	R - RECOVERY
S - DAILY ZERO/SPAN CHECK	X - MACHINE MALFUNCTION
P - POWER FAILURE	O - OPERATOR ERROR
G - OUT FOR REPAIR	K - COLLECTION ERROR

MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	630					
MAXIMUM INSTANTANEOUS VALUE:	110.4	PPB	@ HOUR(S)	15	ON DAY(S)	16
IZS CALIBRATION TIME:	31	HRS	OPERATIONAL TIME:	674	HRS	
MONTHLY CALIBRATION TIME:	11	HRS				
STANDARD DEVIATION:	10.36					

01 Hour Averages



— LICA35 NO2MAX PPB

LICA-ELK
 NO2_ / WDR Joint Frequency Distribution (Percent)

September 2013

Distribution By % Of Samples

Logger Id : 35
 Site Name : LICA-ELK
 Parameter : NO2_
 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	
< 50.0	1.42	1.26	4.12	2.85	6.02	13.47	9.19	4.75	3.32	3.32	2.85	6.49	12.20	13.47	13.47	1.74	100.00
< 110.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
< 210.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
>= 210.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
Totals	1.42	1.26	4.12	2.85	6.02	13.47	9.19	4.75	3.32	3.32	2.85	6.49	12.20	13.47	13.47	1.74	

Calm : .00 %

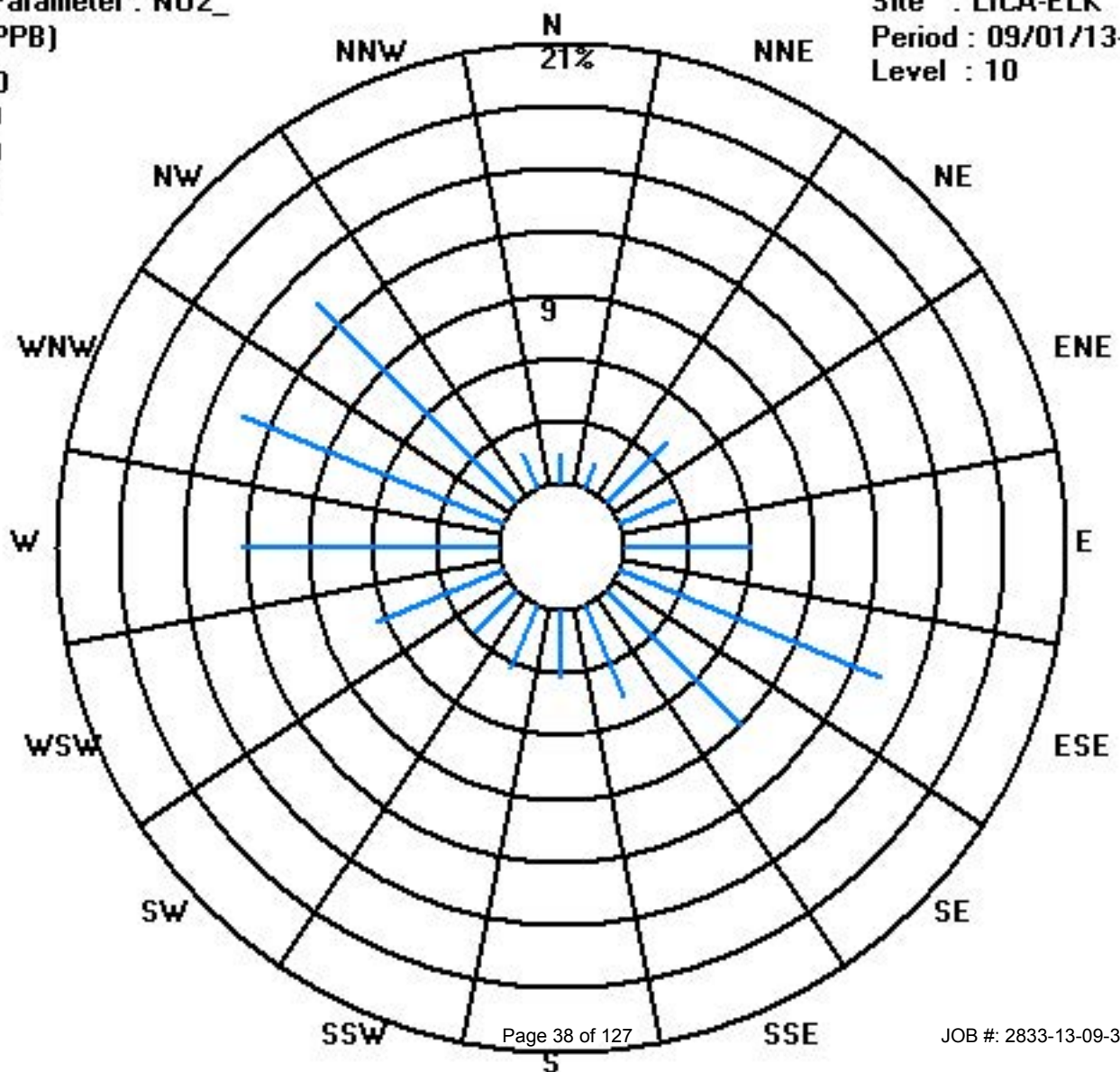
Total # Operational Hours : 631

Distribution By Samples

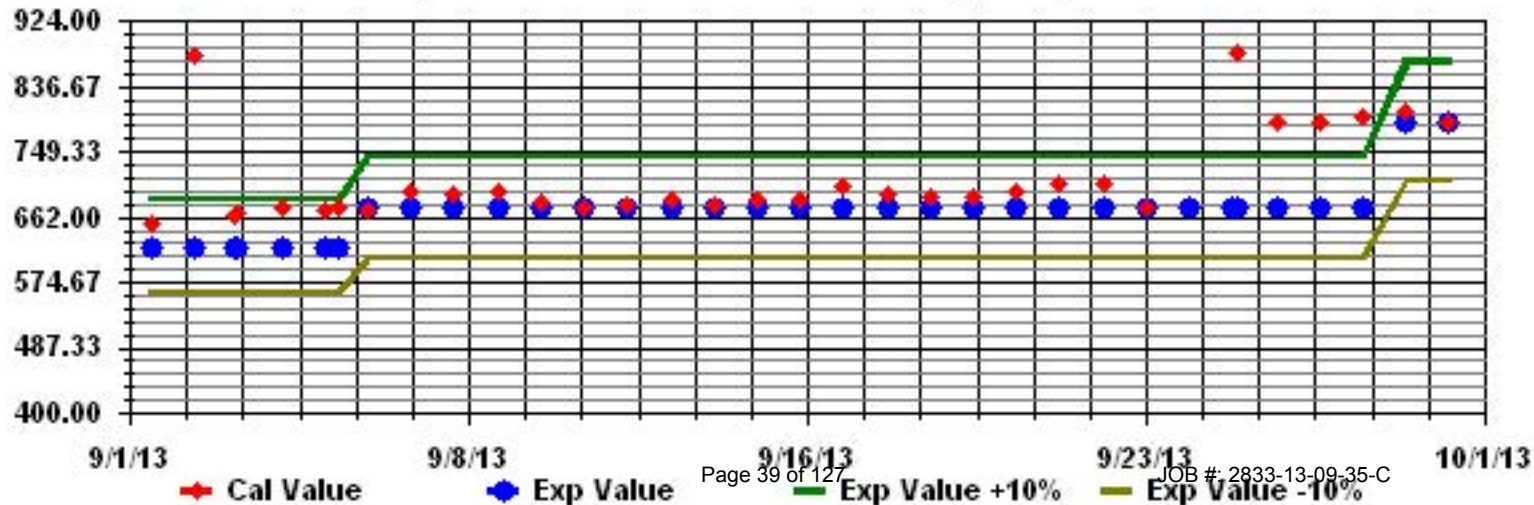
Limit	Direction																Freq
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
< 50.0	9	8	26	18	38	85	58	30	21	21	18	41	77	85	85	11	631
< 110.0																	
< 210.0																	
>= 210.0																	
Totals	9	8	26	18	38	85	58	30	21	21	18	41	77	85	85	11	

Calm : .00 %

Total # Operational Hours : 631



Calibration Graph for Site: LICA35 Parameter: NO2_ Sequence: NO2 Phase: SPAN



Nitric Oxide

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - PORTABLE SITE - Elk Point Airport

SEPTEMBER 2013

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	1.6	1.5	3.1	10.6	10.6	13.4	15.0	5.6	4.2	1.9	0.6	S	0.8	0.7	0.5	0.6	0.6	0.1	0.0	0.0	0.3	0.5	0.6	0.8	15.0	3.2	24	
2	1.6	12.5	32.8	26.7	29.5	25.9	48.1	33.4	9.2	7.3	S	0.6	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	48.1	9.9	24	
3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	S	1.6	S	1.4	0.5	0.1	Y	Y	77.3	0.0	0.1	1.0	1.8	1.1	3.2	5.5	4.6	77.3	4.9	22	
4	0.1	0.1	0.5	0.8	1.5	1.2	4.8	4.4	S	1.3	0.6	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	1.9	4.8	0.8	24	
5	7.7	15.5	17.4	4.4	0.1	0.2	12.6	S	C	C	C	C	C	C	C	5.3	23.5	0.0	0.0	0.0	0.0	0.0	0.0	0.1	23.5	5.4	24	
6	0.2	0.0	5.6	9.2	0.7	0.1	S	3.3	1.1	0.3	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	9.2	0.9	24	
7	0.0	0.0	0.0	0.0	0.0	S	1.5	0.6	0.3	1.3	0.8	0.4	0.5	0.6	1.1	1.2	0.4	0.4	0.0	0.0	0.1	0.0	0.0	0.0	1.5	0.4	24	
8	0.5	1.7	0.4	2.3	S	4.0	14.6	12.2	4.8	2.5	0.7	0.2	0.3	0.3	0.1	0.0	0.0	0.0	0.3	0.2	0.3	0.2	2.3	4.1	14.6	2.3	24	
9	4.3	2.1	50.4	S	21.9	1.2	2.6	1.8	1.9	0.7	0.4	0.3	0.1	0.2	0.1	0.0	0.0	0.2	0.2	0.2	0.1	0.0	0.0	0.2	50.4	3.9	24	
10	0.8	0.7	S	0.6	0.3	0.9	1.9	1.6	2.1	0.6	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.3	0.0	2.1	0.5	24	
11	0.0	S	2.6	0.8	5.3	5.2	5.9	8.1	14.3	2.5	1.9	0.5	0.2	0.1	0.1	0.0	0.1	0.1	1.7	3.9	2.6	3.9	0.7	1.5	14.3	2.7	24	
12	S	0.8	1.1	1.5	2.0	8.0	3.7	5.0	4.1	2.6	1.3	1.1	1.1	0.6	0.7	0.6	0.4	1.3	0.2	0.3	0.1	0.8	0.4	S	8.0	1.7	24	
13	0.3	0.2	1.5	1.2	1.9	5.9	6.4	7.5	6.6	4.1	1.1	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	S	0.6	7.5	1.6	24
14	0.4	2.6	7.1	0.0	0.0	0.0	0.1	0.6	1.0	0.2	0.4	0.4	0.3	0.4	0.4	0.4	0.3	0.3	0.2	1.1	1.5	S	0.8	0.3	7.1	0.8	24	
15	0.4	1.4	1.4	4.6	1.9	8.9	14.3	4.5	2.6	1.1	0.5	0.3	0.3	0.3	0.4	0.2	0.3	0.6	0.6	1.1	S	9.2	9.1	13.5	14.3	3.4	24	
16	1.4	0.1	0.2	0.0	0.3	0.5	2.5	3.2	1.7	1.4	1.3	1.3	1.0	0.6	0.3	5.8	0.4	1.3	1.6	S	0.7	0.2	0.1	0.1	5.8	1.1	24	
17	0.1	0.0	0.0	0.0	0.0	0.0	0.4	0.4	0.3	0.1	0.2	0.2	0.3	0.2	0.1	0.2	0.1	0.2	S	0.3	0.6	0.0	0.9	4.7	4.7	0.4	24	
18	0.3	1.0	0.0	0.0	5.1	1.9	0.0	0.1	0.1	0.2	0.1	0.1	0.0	0.0	0.1	0.0	0.1	S	0.2	0.0	0.0	0.0	0.0	0.0	5.1	0.4	24	
19	0.0	3.7	6.7	7.5	8.1	10.5	7.0	4.1	0.0	0.0	0.3	0.3	0.2	0.1	0.3	0.0	S	0.5	2.6	7.0	3.6	1.3	1.2	0.3	10.5	2.8	24	
20	0.3	0.2	0.5	0.7	1.3	6.2	5.9	4.2	3.2	2.7	2.1	1.2	0.6	0.2	0.1	S	0.7	0.3	0.5	2.3	6.0	3.7	0.0	2.1	6.2	2.0	24	
21	3.3	5.1	2.3	0.0	0.0	0.1	1.5	0.9	1.2	1.6	1.5	0.7	0.3	0.2	S	1.0	1.1	0.4	0.0	1.6	2.5	0.5	0.0	0.0	5.1	1.1	24	
22	0.0	0.0	0.0	0.0	0.2	0.0	0.0	1.5	1.3	0.5	0.3	0.0	0.0	S	0.7	0.5	0.3	0.6	2.9	4.0	0.9	5.7	17.0	6.3	17.0	1.9	24	
23	2.8	0.0	0.2	1.0	7.1	8.4	5.5	3.9	5.5	2.7	3.2	2.1	S	X	X	X	X	X	X	X	X	X	X	X	X	8.4	3.5	13
24	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	0
25	X	X	X	X	X	X	X	X	X	X	X	C	C	C	0.5	0.3	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.5	0.1	13	
26	0.0	0.0	0.0	0.0	0.0	0.0	0.8	1.4	0.1	S	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.0	0.0	0.0	0.0	1.4	0.2	24	
27	0.0	0.0	0.3	3.4	5.9	16.6	39.2	S	S	23.4	6.0	2.1	1.0	0.9	0.4	0.3	0.4	0.4	4.2	4.3	31.4	20.1	30.9	32.3	39.2	10.2	26	
28	42.8	40.7	49.7	13.9	0.5	4.0	22.3	S	40.1	19.0	2.5	0.9	0.7	0.8	0.9	0.4	0.4	1.7	0.7	8.0	6.6	4.6	19.2	28.4	49.7	13.4	24	
29	0.2	0.2	0.0	0.0	0.1	0.2	S	3.1	2.4	1.7	1.6	1.2	0.8	0.5	0.1	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.1	0.1	3.1	0.5	24	
30	0.0	0.0	1.4	10.3	0.9	S	19.2	30.9	18.5	11.1	4.1	0.9	0.5	0.3	0.4	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	30.9	4.3	24	
HOURLY MAX	42.8	40.7	50.4	26.7	29.5	25.9	48.1	33.4	40.1	23.4	6.0	2.1	1.1	0.9	1.1	77.3	23.5	1.7	4.2	8.0	31.4	20.1	30.9	32.3				
HOURLY AVG	2.6	3.3	6.9	3.7	3.9	4.7	9.1	5.9	5.1	3.6	1.3	0.6	0.4	0.3	0.3	3.5	1.1	0.3	0.6	1.4	2.2	2.0	3.4	3.8				

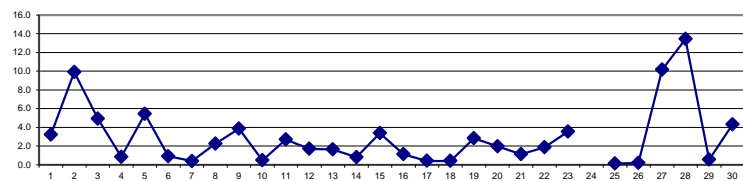
STATUS FLAG CODES

C	- CALIBRATION	Q	- QUALITY ASSURANCE
Y	- MAINTENANCE	R	- RECOVERY
S	- DAILY ZERO/SPAN CHECK	X	- MACHINE MALFUNCTION
P	- POWER FAILURE	O	- OPERATOR ERROR
G	- OUT FOR REPAIR	K	- COLLECTION ERROR

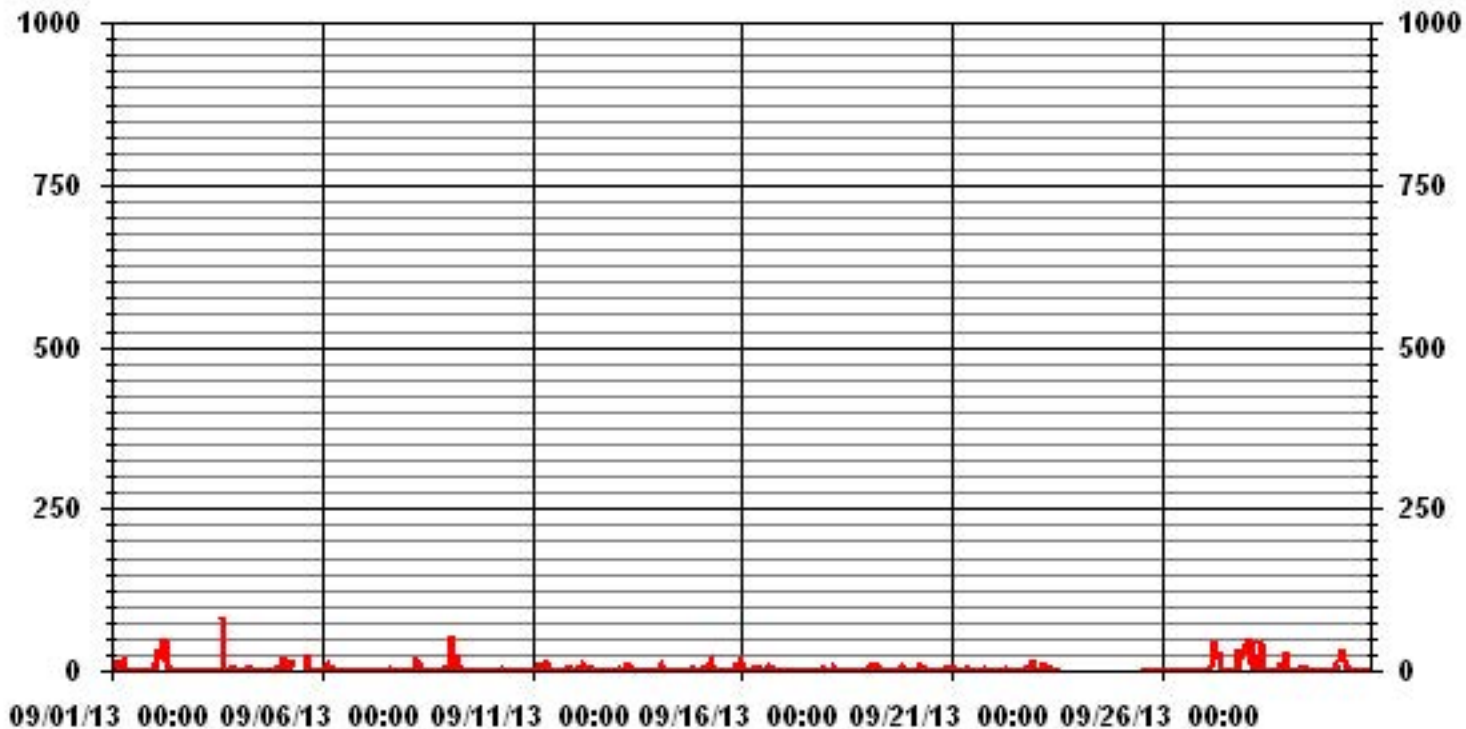
MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	467					
MAXIMUM 1-HR AVERAGE:	77.3	PPB	@ HOUR(S)	15	ON DAY(S)	3
MAXIMUM 24-HR AVERAGE:	13.4	PPB			ON DAY(S)	28
IZS CALIBRATION TIME:	31	HRS	OPERATIONAL TIME:	674	HRS	
MONTHLY CALIBRATION TIME:	10	HRS	AMD OPERATION UPTIME:	93.5	%	
STANDARD DEVIATION:	7.36		MONTHLY AVERAGE:	2.91	PPB	

24 HOUR AVERAGES FOR SEPTEMBER 2013



01 Hour Averages



LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - PORTABLE SITE - Elk Point Airport

SEPTEMBER 2013

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	7.8	3.8	6.5	21.1	15.5	24.2	30.1	10.9	5.5	3.0	2.2	S	1.9	1.4	1.3	1.9	1.9	1.4	0.5	0.5	1.4	3.3	4.5	3.6	30.1	6.7	24		
2	7.5	42.2	48.7	42.1	65.6	37.2	60.2	50.3	17.9	13.3	S	1.3	0.6	0.6	0.8	0.2	0.4	0.2	0.3	0.4	0.7	0.6	0.3	0.3	65.6	17.0	24		
3	0.3	0.4	0.3	0.3	0.3	0.3	0.4	S	2.6	S	2.2	1.3	1.1	Y	Y	559.8	0.4	0.9	4.5	6.6	3.0	11.5	15.5	20.1	559.8	31.6	22		
4	1.1	1.2	3.5	30.9	12.5	12.5	11.0	15.8	S	3.1	2.1	0.6	0.6	0.6	0.2	0.0	0.3	0.2	0.1	0.2	0.3	0.5	7.9	4.0	30.9	4.7	24		
5	10.5	23.9	63.5	11.7	1.0	1.1	25.8	S	C	C	C	C	C	C	C	C	272.2	7.5	0.2	0.2	0.2	0.3	0.3	0.8	272.2	27.9	24		
6	0.6	0.6	13.2	16.1	9.2	0.9	S	5.9	2.4	1.3	1.9	0.6	0.4	0.5	0.4	0.4	0.4	0.7	0.5	0.4	1.4	1.1	0.3	0.6	16.1	2.6	24		
7	0.4	0.4	0.3	0.6	0.3	S	3.3	3.1	1.6	22.9	1.7	1.0	1.0	2.3	2.7	5.6	1.2	1.2	0.8	0.7	0.7	1.9	0.5	1.0	22.9	2.4	24		
8	1.8	7.9	2.8	5.7	S	8.8	23.1	19.1	9.6	5.2	2.0	1.1	1.1	1.1	0.7	0.6	0.6	0.5	0.7	0.8	0.9	0.9	48.4	10.7	48.4	6.7	24		
9	7.5	6.7	144.3	S	42.5	2.5	4.8	4.9	3.5	2.0	1.0	2.1	2.4	0.6	0.6	0.5	0.5	0.8	0.6	0.9	0.6	0.5	0.5	0.8	144.3	10.0	24		
10	2.4	1.7	S	1.2	1.4	2.8	3.6	2.7	5.0	1.3	0.7	0.3	0.4	0.6	0.3	0.5	0.3	0.3	0.3	0.3	0.3	7.5	0.2	2.3	0.3	7.5	1.6	24	
11	0.8	S	5.3	2.2	10.6	17.0	10.5	15.3	21.3	6.3	4.7	1.2	0.6	0.6	0.6	0.5	0.5	0.6	8.2	13.3	25.2	39.9	2.7	3.6	39.9	8.3	24		
12	S	2.2	4.0	4.0	5.1	21.4	5.2	7.9	5.2	4.8	2.8	1.9	2.0	1.3	1.5	1.5	1.3	2.4	1.0	1.1	1.0	1.7	1.8	S	21.4	3.7	24		
13	1.0	1.1	6.2	32.8	6.2	19.9	26.6	14.3	10.4	6.0	4.7	0.8	0.6	0.4	0.6	0.3	0.4	0.4	0.3	0.4	0.3	0.3	S	1.1	32.8	5.9	24		
14	1.5	16.5	22.8	0.4	0.3	0.4	0.8	1.1	1.8	0.8	0.8	0.9	0.9	1.0	0.9	0.9	0.9	0.9	0.6	37.2	7.4	S	2.8	1.4	37.2	4.5	24		
15	1.6	4.4	4.2	15.1	5.2	20.8	25.8	15.0	3.6	2.5	1.6	1.0	1.0	1.3	1.4	1.3	0.7	1.8	2.2	6.0	S	28.1	40.4	80.3	80.3	11.5	24		
16	42.4	1.6	1.0	0.6	0.9	2.0	5.6	6.1	2.9	2.1	2.6	2.2	2.0	1.2	0.8	225.2	1.2	6.6	14.7	S	1.4	0.9	0.6	0.7	225.2	14.1	24		
17	0.6	0.4	0.5	0.6	0.4	0.5	1.3	1.1	0.9	0.7	0.7	0.8	0.8	0.7	0.7	0.7	0.7	0.8	S	1.0	2.5	0.7	2.0	12.9	12.9	1.4	24		
18	1.6	3.8	0.2	1.3	10.6	10.4	0.4	1.4	2.6	0.8	0.6	0.7	0.7	0.4	1.3	2.0	0.5	S	1.1	0.3	0.6	0.3	0.2	0.2	10.6	1.8	24		
19	0.5	7.8	10.6	12.0	12.4	16.9	11.3	7.8	1.2	0.5	0.8	1.0	0.9	0.8	1.3	0.6	S	1.4	76.0	76.1	47.3	8.6	27.4	1.1	76.1	14.1	24		
20	1.2	2.0	2.7	2.5	4.1	19.2	24.3	5.9	4.7	3.9	3.3	2.0	2.0	0.9	0.8	S	2.3	1.0	2.3	38.3	24.5	15.5	0.3	11.7	38.3	7.6	24		
21	16.2	12.6	10.9	0.0	0.8	3.3	6.6	2.6	3.1	2.8	3.9	1.9	1.0	1.1	S	2.1	3.3	1.8	0.6	29.2	13.4	2.1	0.5	0.6	29.2	5.2	24		
22	0.3	0.1	0.1	0.1	20.6	0.8	0.6	4.3	2.2	1.1	0.9	0.6	0.4	S	1.8	1.1	0.9	1.7	23.2	43.2	5.4	18.4	78.5	40.9	78.5	10.7	24		
23	11.7	0.5	2.5	4.4	19.8	34.2	9.9	6.6	7.5	5.1	4.5	4.2	S	X	X	X	X	X	X	X	X	X	X	X	X	X	34.2	9.2	13
24	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	0	
25	X	X	X	X	X	X	X	X	X	X	X	C	C	C	1.3	0.8	0.6	0.8	0.6	0.6	0.2	0.5	0.3	0.5	1.3	0.6	13		
26	0.5	0.3	0.3	0.2	0.4	0.8	5.9	2.7	0.6	S	1.4	0.6	1.3	0.2	0.6	0.3	0.3	0.4	0.2	6.6	0.8	0.9	0.4	1.1	6.6	1.2	24		
27	0.6	0.6	3.6	7.5	8.7	35.8	49.7	S	S	70.1	14.7	3.0	2.2	2.4	1.2	1.1	1.4	1.3	52.0	18.1	114.3	48.3	85.4	52.5	114.3	26.1	26		
28	53.2	73.8	71.3	58.7	1.4	24.1	37.6	S	55.0	28.8	6.9	1.7	1.5	1.9	3.3	1.7	1.4	4.1	3.9	12.5	15.1	36.0	44.7	115.2	115.2	28.4	24		
29	0.8	0.8	0.7	0.6	0.8	1.3	S	6.7	3.8	3.2	2.5	2.5	1.7	1.2	0.6	0.5	0.8	0.6	0.4	0.6	1.0	0.7	1.0	1.6	6.7	1.5	24		
30	0.4	0.9	8.0	40.8	3.5	S	31.2	47.6	32.6	16.2	8.0	2.0	0.9	1.0	1.1	0.9	0.4	0.3	0.3	0.6	0.6	0.6	0.4	0.3	47.6	8.6	24		
HOURLY MAX	53.2	73.8	144.3	58.7	65.6	37.2	60.2	50.3	55.0	70.1	14.7	4.2	2.4	2.4	3.3	559.8	272.2	7.5	76.0	76.1	114.3	48.3	85.4	115.2					
HOURLY AVG	6.5	8.1	16.2	11.6	9.6	12.3	16.0	10.8	8.3	8.3	3.0	1.4	1.2	1.0	1.1	31.2	11.0	1.5	7.3	11.0	10.3	8.3	13.7	13.6					

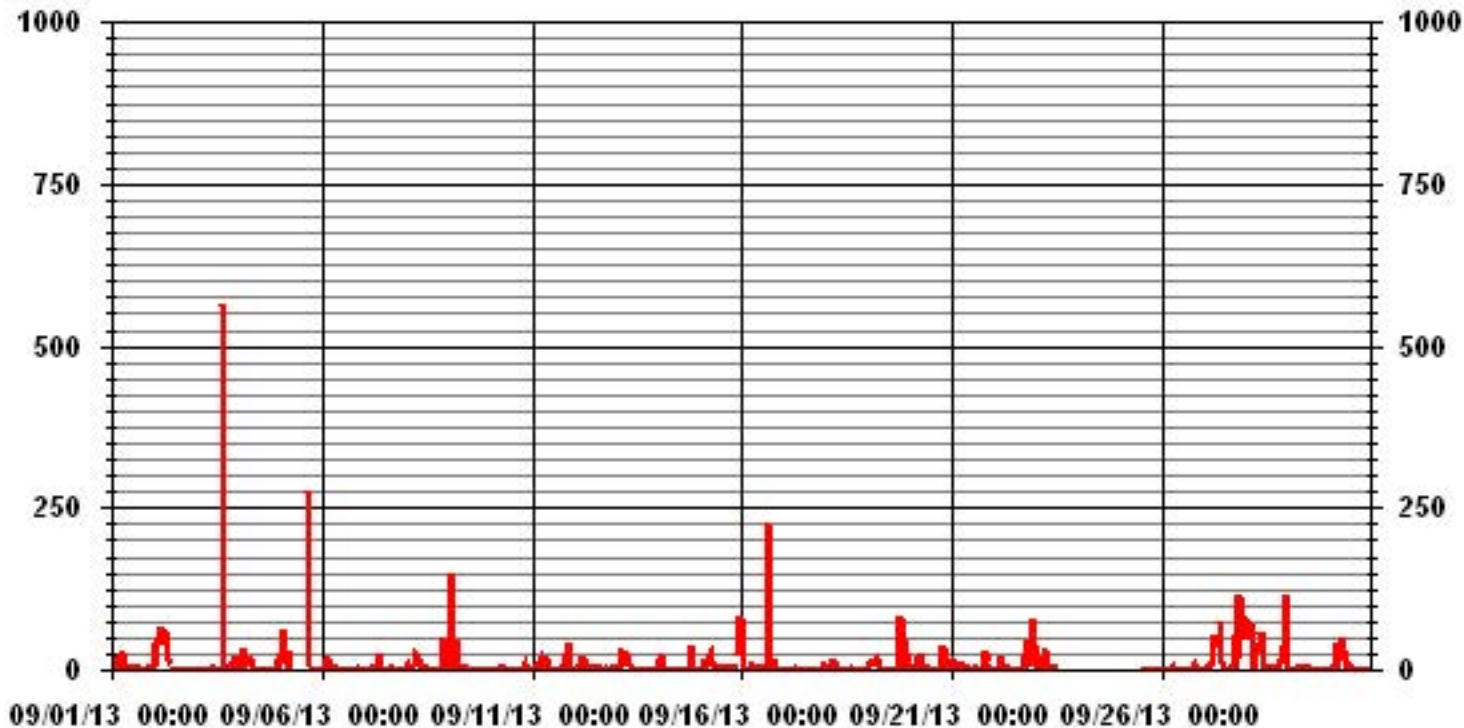
STATUS FLAG CODES

C	- CALIBRATION	Q	- QUALITY ASSURANCE
Y	- MAINTENANCE	R	- RECOVERY
S	- DAILY ZERO/SPAN CHECK	X	- MACHINE MALFUNCTION
P	- POWER FAILURE	O	- OPERATOR ERROR
G	- OUT FOR REPAIR	K	- COLLECTION ERROR

MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	628		
MAXIMUM INSTANTANEOUS VALUE:	559.8	PPB	@ HOUR(S) 15 ON DAY(S) 3
IZS CALIBRATION TIME:	31	HRS	OPERATIONAL TIME: 674 HRS
MONTHLY CALIBRATION TIME:	11	HRS	
STANDARD DEVIATION:	30.35		

01 Hour Averages



LICA-ELK
 NO_ / WDR Joint Frequency Distribution (Percent)

September 2013

Distribution By % Of Samples

Logger Id : 35
 Site Name : LICA-ELK
 Parameter : NO_
 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	
< 50.0	1.42	1.26	4.12	2.85	6.02	13.47	9.19	4.59	3.32	3.32	2.85	6.49	12.20	13.31	13.47	1.74	99.68
< 110.0	.00	.00	.00	.00	.00	.00	.00	.15	.00	.00	.00	.00	.00	.15	.00	.00	.31
< 210.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
>= 210.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
Totals	1.42	1.26	4.12	2.85	6.02	13.47	9.19	4.75	3.32	3.32	2.85	6.49	12.20	13.47	13.47	1.74	

Calm : .00 %

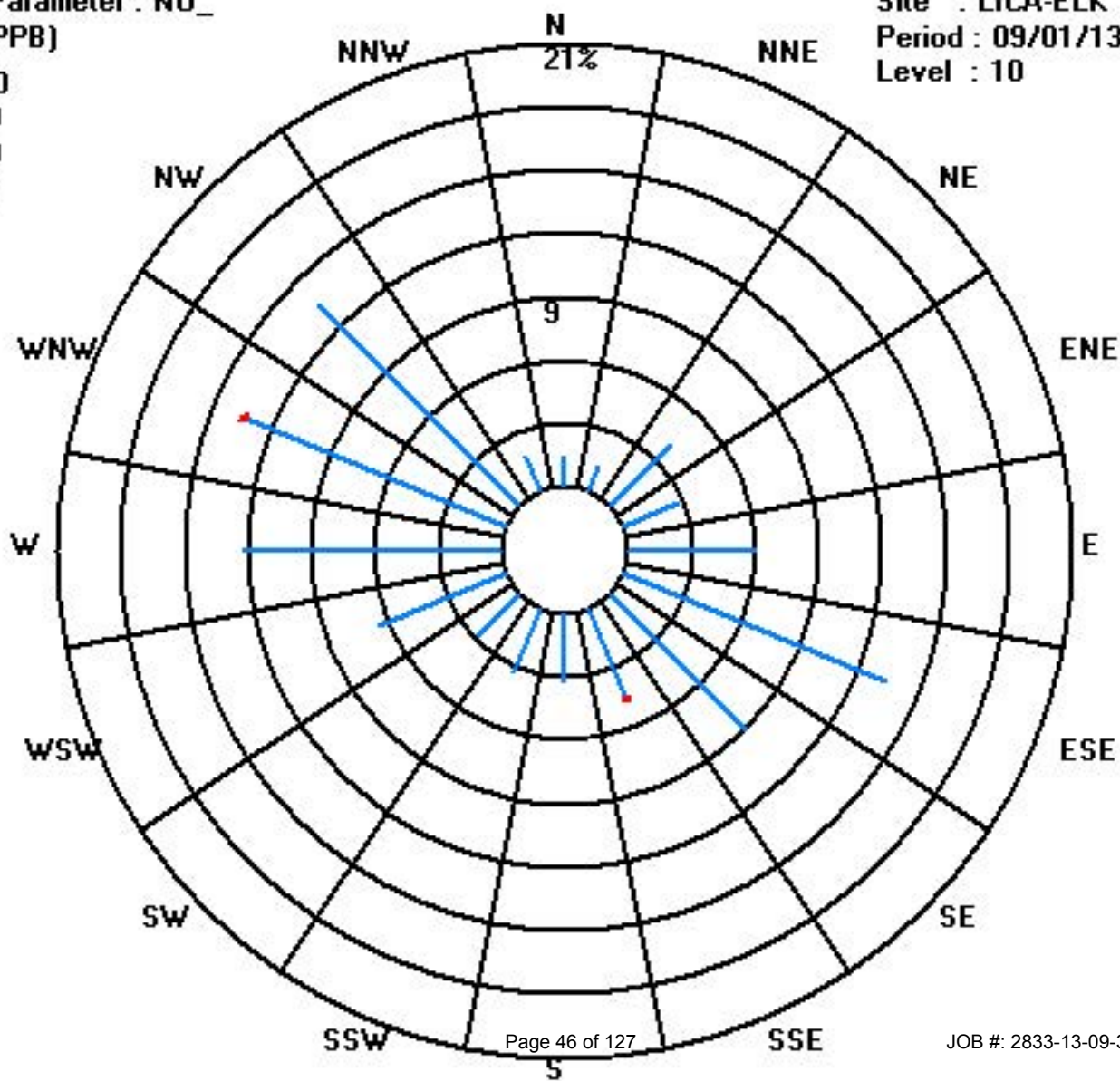
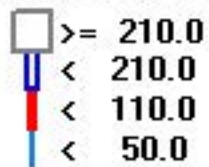
Total # Operational Hours : 631

Distribution By Samples

Limit	Direction																Freq
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
< 50.0	9	8	26	18	38	85	58	29	21	21	18	41	77	84	85	11	629
< 110.0								1						1			2
< 210.0																	
>= 210.0																	
Totals	9	8	26	18	38	85	58	30	21	21	18	41	77	85	85	11	

Calm : .00 %

Total # Operational Hours : 631



Oxides of Nitrogen

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - PORTABLE SITE - Elk Point Airport

SEPTEMBER 2013

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	12.6	11.7	11.6	18.4	18.3	23	22	10.7	8.5	5.3	2.9	S	2.6	2.5	2.1	2.8	3.6	2.3	3.3	5.3	8.2	9	10.2	14.3	23	9.2	24	
2	11.8	24.6	49.3	44.9	44.6	38.1	58.3	44.2	17.6	17.2	S	1.4	1.2	0.7	0.5	0.9	1.5	2	1	1.4	6	9.1	1.1	1.5	58.3	16.5	24	
3	1.4	0.7	0.3	0.2	0	0.1	0.6	S	3.2	S	3.1	1.9	1.8	Y	Y	82.5	0.2	3	9.7	15.6	13.9	13.1	18.8	14.4	82.5	9.2	22	
4	9.8	8.4	10.4	10.3	13.4	11.8	13.8	10	S	3	2.5	2.1	2.8	3.1	2.4	1.3	1.7	1.7	1.5	2.3	2.7	5.2	19.6	23.5	23.5	7.1	24	
5	33.6	39	33.1	17.3	5.6	5.9	26.8	S	C	C	C	C	C	C	C	6.3	29.5	1.3	0.8	2.5	2.7	2.8	2.3	5.1	39	13.4	24	
6	9.6	6.7	24.3	28.6	6.6	4.6	S	12	4.3	2.2	1.8	1.2	0.5	0.4	0.6	0.8	0.4	1.3	1.1	1.4	4.3	3.5	1.3	1.4	28.6	5.2	24	
7	1.4	1.6	1.2	3.4	1	S	8	3.1	2.5	4.5	3.8	2.7	3.5	3.7	5.7	6.9	4.8	5.4	3.7	5.1	5	7.7	6.3	5.3	8	4.2	24	
8	8.7	12.8	12	14	S	14	23.8	19.9	10	6.1	2.4	1.4	1.3	1.5	1.3	0.9	1	1.2	6.5	4.3	7.1	10.6	16.7	20.3	23.8	8.6	24	
9	21.8	17.2	70.3	S	35	8.4	8	4.2	4	1.8	1.1	1	0.7	0.4	0.4	0.3	0.3	0.5	0.7	4.6	3.1	1.2	2.6	9.8	70.3	8.6	24	
10	14.2	9.6	S	8.9	7	10	9	5.3	5.8	2.3	0.4	0.2	0.4	1	0.2	0.1	0.2	0.3	1	3.7	13.1	1.9	10.1	9.3	14.2	5.0	24	
11	13.3	S	19.1	12.3	21.2	17.6	15.7	15.7	23.8	6.1	4.6	1.7	0.5	0.2	0.2	0.5	0.7	0.7	12.2	19.8	22.7	23.8	16.3	19.1	23.8	11.6	24	
12	S	14.8	14.3	15.5	16.6	22.8	14.8	12.5	9.8	6.9	4.5	4.1	3.9	2.2	1.9	2.7	1.9	8.5	4.7	6.2	5	8.5	7.7	S	22.8	8.6	24	
13	3.2	5.6	21.7	18.2	17.7	25.9	20.6	20.3	17.5	12.2	5.1	3.3	2.6	1.9	2.5	2.1	0.8	0.3	1	1.8	2.3	3.3	S	4.5	25.9	8.5	24	
14	4.9	12	19.9	2.2	2.5	3	3.7	3	3.1	1	1.5	1.2	1.6	1.8	1.6	1.6	1.8	1.7	3.9	11.1	11.9	S	9	8	19.9	4.9	24	
15	9.2	12.4	11.9	17.1	13.2	22.2	27.6	9.9	5.9	3.3	1.8	1.3	1.2	1.4	2	1.3	1.5	3.3	7	9	S	24.2	21.8	29.8	29.8	10.4	24	
16	8.7	7.6	9.8	8.2	8.4	5.3	8.4	7.5	4.3	3.7	3.5	3.9	3.3	2	1.6	10.4	2.3	11.8	14.1	S	12.8	10.3	7.9	5.1	14.1	7.0	24	
17	5.2	1.7	2.7	2.3	1.3	3.8	3.9	2	1.8	0.7	0.6	0.6	0.6	0.7	0.4	0.5	0.6	0.9	S	1.3	4.5	1.8	10.5	15.4	15.4	2.8	24	
18	6.3	5.9	1	3.4	13.7	6.3	0.6	0.8	0.5	0.4	0.2	0.3	0.2	0.1	0.2	0.2	0.3	S	0.6	0.2	2.2	0.3	0.2	0.1	13.7	1.9	24	
19	2.5	11.2	14.9	15.9	15.9	17.8	14.9	11	0.4	0.2	0.7	0.8	0.7	0.8	1.3	0.9	S	1.9	11.9	27.1	21.7	14.5	14.1	11.1	27.1	9.2	24	
20	10.2	7.8	10.5	11.9	13.9	19.7	15.6	10.8	7.4	6.5	5.4	4	2.6	1.5	0.9	S	2.3	2.3	7.9	16.8	25.1	13.8	3.4	10	25.1	9.1	24	
21	13	16.7	11	4.3	6	7.3	9.2	4.1	3.9	4.2	4.4	3.3	2.8	2.7	S	5	8.5	8.9	9	16.1	18.4	9.6	4.3	7.2	18.4	7.8	24	
22	3.4	3	2.7	1.9	4.1	4.4	3.6	6.1	4.3	2.2	1.6	0.8	0.5	S	1.4	2	1.8	7	20.3	24.1	11.9	22.1	40.7	25.6	40.7	8.5	24	
23	17.5	10.2	9.8	15.3	26.6	31.6	24.1	13.5	14.4	5.7	8.9	10.2	S	X	X	X	X	X	X	X	X	X	X	X	X	X	X	13
24	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	0
25	X	X	X	X	X	X	X	X	X	X	X	C	C	C	C	3.3	1.9	1.4	1.1	1.4	2.8	2.9	2.6	1.9	1.9	3.3	2.1	13
26	1.7	1.4	1	1	1.2	1.5	5.5	5.5	1.1	S	2.6	0.8	0	0	0	0.1	0.3	0.5	2.3	11	7.9	6.9	3.2	8.6	11	2.8	24	
27	7.1	3.4	5.2	13	16.9	27.1	48.4	S	S	32	10	3.5	1.4	0.9	0.4	0.3	0.4	4.5	16.7	29	59.2	48.8	58	58.1	59.2	20.2	26	
28	67.6	60.3	68.4	30.7	9.9	15.4	39	S	56.9	30.4	4.7	0.9	0.7	0.8	0.9	0.4	0.6	5.5	4.6	27.5	23	15.7	36.9	40.2	68.4	23.5	24	
29	6.1	7	5.5	4.1	2.7	4.7	S	11.7	6.2	3.5	2.7	1.5	0.8	0.5	0.1	0.1	0.2	0	0	0	1.4	0	0.7	0.2	11.7	2.6	24	
30	0.3	1.5	8.1	21.5	10.4	S	40.9	45.9	31.3	20.5	8.4	2.1	0.7	0.3	0.8	0.2	0	0	0.5	0.4	0.5	0.6	0	0	45.9	8.5	24	
HOURLY MAX	67.6	60.3	70.3	44.9	44.6	38.1	58.3	45.9	56.9	32.0	10.0	10.2	3.9	3.7	5.7	82.5	29.5	11.8	20.3	29.0	59.2	48.8	58.0	58.1				
HOURLY AVG	11.3	11.7	16.7	12.8	12.4	13.6	18.0	12.1	9.9	7.3	3.4	2.2	1.5	1.3	1.3	4.9	2.5	2.9	5.5	9.3	11.1	10.0	12.1	13.0				

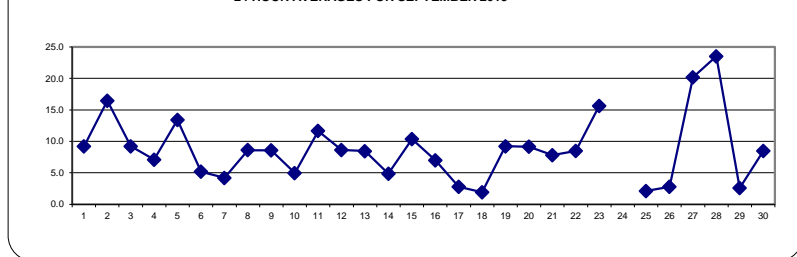
STATUS FLAG CODES

C	- CALIBRATION	Q	- QUALITY ASSURANCE
Y	- MAINTENANCE	R	- RECOVERY
S	- DAILY ZERO/SPAN CHECK	X	- MACHINE MALFUNCTION
P	- POWER FAILURE	O	- OPERATOR ERROR
G	- OUT FOR REPAIR	K	- COLLECTION ERROR

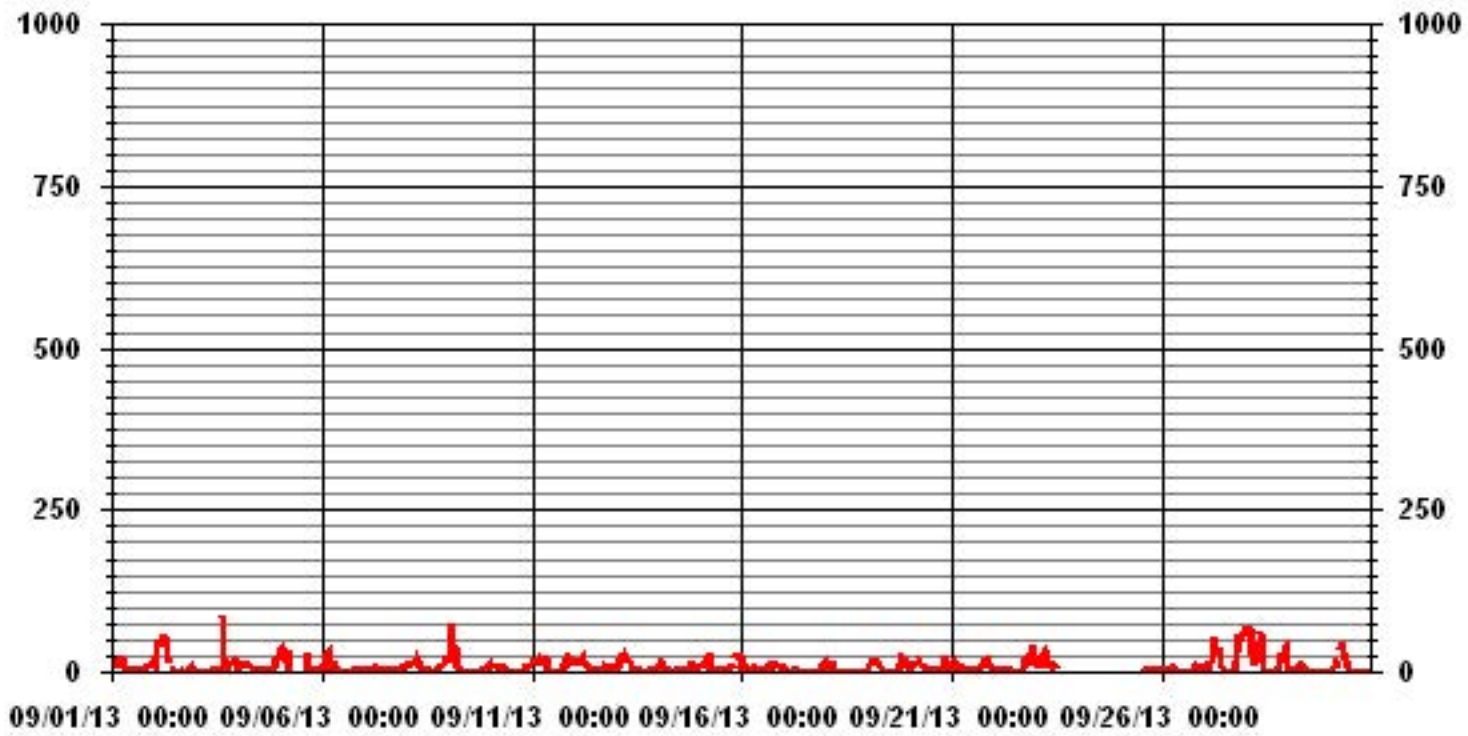
MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	619					
MAXIMUM 1-HR AVERAGE:	82.5	PPB	@ HOUR(S)	15	ON DAY(S)	3
MAXIMUM 24-HR AVERAGE:	23.5	PPB			ON DAY(S)	28
IZS CALIBRATION TIME:	31	HRS	OPERATIONAL TIME:	674	HRS	
MONTHLY CALIBRATION TIME:	10	HRS	AMD OPERATION UPTIME:	93.5	%	
STANDARD DEVIATION:	11.48		MONTHLY AVERAGE:	8.65	PPB	

24 HOUR AVERAGES FOR SEPTEMBER 2013



01 Hour Averages



— LICA35 — NOX_ — PPB

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - PORTABLE SITE - Elk Point Airport

SEPTEMBER 2013

OXIDES OF NITROGEN MAX instantaneous maximum in ppb

MST

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	DAILY MAX.	24-HOUR AVG.	RDGS.	
1	19.4	14.7	15.0	28.6	23.9	35.1	39.0	17.8	10.3	7.3	5.7	S	4.5	3.6	3.8	6.0	6.6	6.3	7.4	10.2	12.5	19.4	21.6	21.0	39.0	14.8	24	
2	22.4	60.4	67.7	60.4	80.0	51.1	72.4	62.2	25.9	26.4	S	2.2	1.8	1.4	1.2	1.8	2.4	4.6	2.6	4.2	16.6	17.8	1.7	2.0	80.0	25.6	24	
3	1.8	1.8	0.7	1.0	0.4	0.7	1.5	S	4.8	S	3.7	3.1	3.4	Y	Y	575.1	2.8	5.8	20.7	25.5	17.8	28.2	33.9	38.3	575.1	38.6	22	
4	12.0	11.8	16.4	49.3	28.2	28.1	24.2	27.7	S	5.9	5.3	3.1	3.6	3.7	3.3	2.0	2.3	2.4	2.2	3.1	4.0	11.5	30.7	28.8	49.3	13.5	24	
5	38.1	47.4	80.0	25.8	13.6	9.2	40.2	S	C	C	C	C	C	C	C	280.2	16.4	2.2	5.7	6.1	4.3	3.2	9.6	280.2	38.8	24		
6	13.5	12.2	31.8	36.5	25.0	12.0	S	17.5	9.0	4.8	3.4	2.1	1.1	1.0	1.1	1.3	1.0	2.4	2.2	2.6	8.6	8.3	2.9	1.9	36.5	8.8	24	
7	2.0	2.7	2.0	8.8	1.7	S	14.3	7.7	3.3	43.2	5.8	3.7	4.7	8.4	9.8	17.3	6.0	8.0	7.3	10.6	10.3	10.1	8.0	7.7	43.2	8.8	24	
8	11.0	20.7	16.2	17.3	S	20.6	33.7	28.1	16.9	10.7	5.2	2.1	2.1	3.2	2.4	1.9	1.6	2.5	12.9	9.4	13.6	18.5	73.9	33.9	73.9	15.6	24	
9	27.1	25.5	166.9	S	55.1	10.4	12.8	10.1	6.7	4.6	1.9	2.9	3.2	1.0	0.9	0.8	0.8	1.1	1.6	12.0	4.9	2.8	5.5	13.8	166.9	16.2	24	
10	21.7	17.4	S	14.4	11.3	13.4	13.0	7.8	11.6	3.4	2.2	0.6	1.1	3.4	1.2	0.9	1.0	1.5	4.6	6.2	29.1	5.5	23.3	13.3	29.1	9.0	24	
11	20.0	S	25.2	17.5	29.0	30.9	20.9	39.5	32.6	12.1	10.0	2.7	1.3	0.9	1.1	1.1	1.9	1.3	32.2	39.5	48.8	68.6	21.1	23.5	68.6	20.9	24	
12	S	21.0	20.9	19.5	19.8	38.1	17.9	17.7	11.9	10.1	8.0	5.8	6.9	4.0	3.4	4.8	5.1	12.9	8.0	8.9	9.2	12.0	14.2	S	38.1	12.7	24	
13	4.0	16.0	34.6	70.7	26.6	41.6	44.2	31.1	24.0	15.6	13.9	4.7	4.3	2.5	3.3	2.9	2.7	0.9	1.7	2.7	3.4	4.0	S	6.4	70.7	15.7	24	
14	10.5	37.6	43.0	4.2	3.6	4.7	5.5	3.7	4.4	1.8	2.0	2.0	2.4	3.0	2.4	2.0	3.0	2.7	8.1	70.9	24.4	S	14.2	10.7	70.9	11.6	24	
15	13.7	18.3	16.2	30.5	18.1	35.3	40.8	26.3	7.7	5.6	3.4	2.1	2.3	2.8	4.5	3.8	2.4	6.6	11.9	17.5	S	52.7	66.0	106.7	106.7	21.5	24	
16	69.5	12.6	13.2	9.8	11.4	7.3	12.8	12.9	6.1	4.9	6.2	5.5	5.4	3.6	2.4	335.0	5.0	38.4	42.2	S	21.7	13.5	9.3	7.9	335.0	28.5	24	
17	15.2	3.7	4.4	5.3	5.4	5.3	6.8	3.6	3.0	1.6	1.2	1.4	1.6	1.6	1.1	1.6	1.5	1.9	S	2.7	12.5	6.1	15.4	26.9	26.9	5.6	24	
18	9.9	13.9	2.3	7.6	21.1	20.4	1.4	4.1	10.8	1.4	0.9	0.8	0.8	0.6	1.2	2.2	1.0	S	1.2	0.9	4.6	0.8	0.6	0.6	21.1	4.7	24	
19	4.8	17.5	19.5	20.9	20.1	24.5	20.7	16.6	8.1	0.8	1.4	1.5	1.4	1.8	2.4	2.0	S	2.5	99.0	101.3	79.3	28.1	45.3	13.8	101.3	23.2	24	
20	13.4	13.6	15.4	15.4	18.5	35.8	38.7	14.2	9.8	8.1	7.3	5.7	5.5	2.8	2.2	S	8.4	5.0	19.7	73.8	53.8	37.7	6.2	32.7	73.8	19.3	24	
21	38.8	32.4	30.2	5.3	10.3	16.2	19.1	6.9	7.0	6.8	8.2	5.2	3.7	4.7	S	10.6	18.3	20.8	16.3	59.3	46.1	18.1	8.2	12.7	59.3	17.6	24	
22	5.8	4.2	4.3	3.7	40.6	8.1	4.7	12.1	6.0	3.2	2.7	1.5	1.0	S	3.2	3.5	4.1	17.0	56.7	73.3	21.0	46.4	113.3	74.7	113.3	22.2	24	
23	38.0	13.5	24.7	26.2	46.6	62.7	33.4	18.4	18.0	12.7	12.2	16.5	S	X	X	X	X	X	X	X	X	X	X	X	X	62.7	26.9	13
24	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	0
25	X	X	X	X	X	X	X	X	X	X	X	C	C	C	5.4	2.6	1.9	2.1	2.5	3.5	3.7	3.5	2.7	2.3	5.4	3.0	13	
26	2.2	1.9	1.3	1.4	1.7	7.7	17.1	9.5	1.6	S	5.3	1.7	1.5	0.5	1.3	0.6	1.3	1.6	5.8	25.1	10.7	10.3	7.1	12.8	25.1	5.7	24	
27	7.9	6.7	11.5	18.3	20.6	44.9	59.8	S	S	88.1	21.3	5.3	3.4	3.2	1.1	1.3	1.9	8.6	88.2	48.4	138.2	79.0	118.6	80.5	138.2	38.9	26	
28	80.1	96.3	89.4	78.5	15.3	42.7	54.9	S	76.6	42.9	14.2	2.5	0.9	1.7	6.6	3.3	4.2	12.5	19.0	36.0	36.1	58.0	71.4	141.5	141.5	42.8	24	
29	11.4	10.2	8.7	6.7	4.6	8.4	S	18.7	8.6	6.4	4.9	3.9	1.3	0.4	0.0	0.0	1.3	0.0	0.0	0.5	5.8	3.2	1.9	3.8	18.7	4.8	24	
30	1.5	4.8	24.1	58.8	14.5	S	56.0	62.9	46.2	26.7	17.4	4.3	1.6	1.1	1.5	1.5	0.8	1.4	1.6	1.6	2.7	1.9	3.1	0.0	62.9	14.6	24	
HOURLY MAX	80.1	96.3	166.9	78.5	80.0	62.7	72.4	62.9	76.6	88.1	21.3	16.5	6.9	8.4	9.8	575.1	280.2	38.4	99.0	101.3	138.2	79.0	118.6	141.5				
HOURLY AVG	19.1	20.0	29.1	23.8	21.0	23.7	27.1	19.9	14.8	14.2	6.7	3.6	2.7	2.5	2.7	37.9	13.7	6.9	17.7	24.3	23.9	21.1	26.8	27.0				

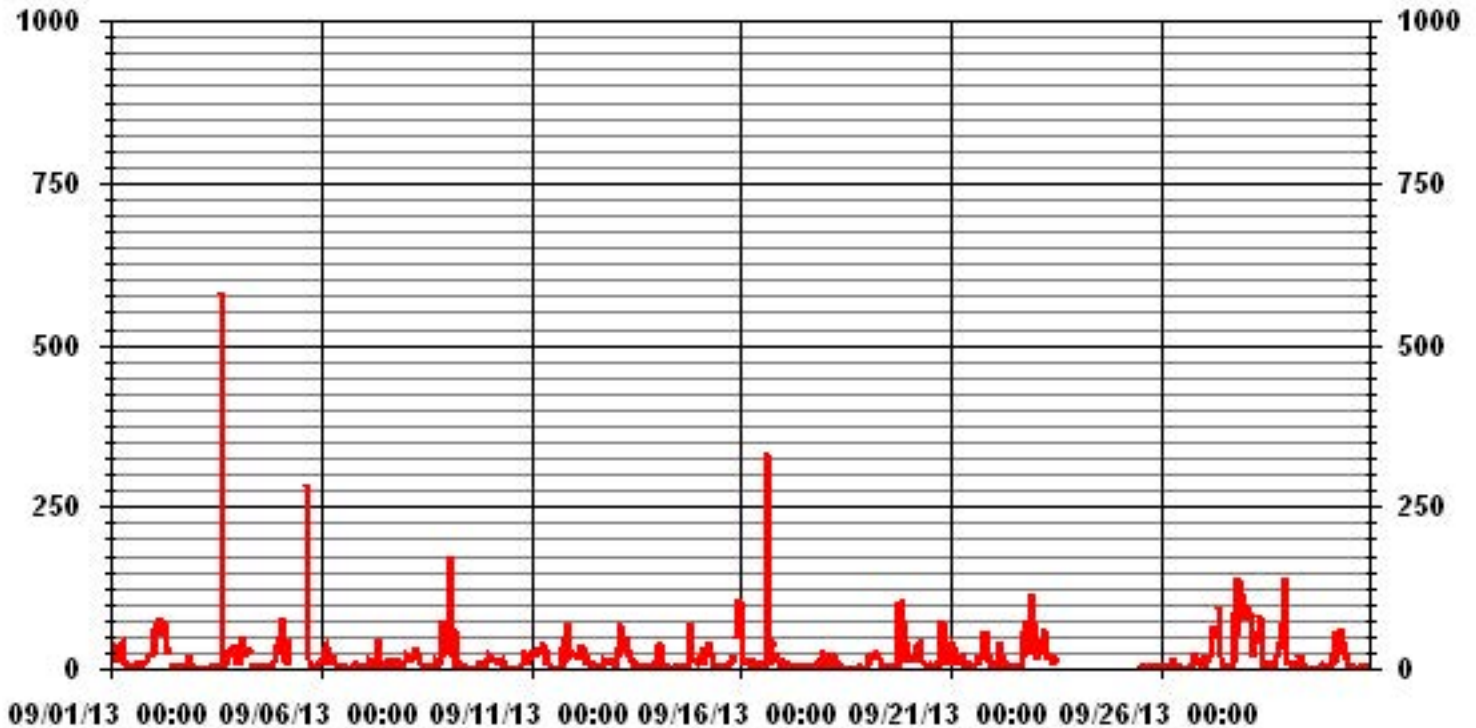
STATUS FLAG CODES

C	- CALIBRATION	Q	- QUALITY ASSURANCE
Y	- MAINTENANCE	R	- RECOVERY
S	- DAILY ZERO/SPAN CHECK	X	- MACHINE MALFUNCTION
P	- POWER FAILURE	O	- OPERATOR ERROR
G	- OUT FOR REPAIR	K	- COLLECTION ERROR

MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	625
MAXIMUM INSTANTANEOUS VALUE:	575.1 PPB @ HOUR(S) 15 ON DAY(S) 3
IZS CALIBRATION TIME:	31 HRS
MONTHLY CALIBRATION TIME:	11 HRS
STANDARD DEVIATION:	35.31
OPERATIONAL TIME:	674 HRS

01 Hour Averages



LICA-ELK
 NOX_ / WDR Joint Frequency Distribution (Percent)

September 2013

Distribution By % Of Samples

Logger Id : 35
 Site Name : LICA-ELK
 Parameter : NOX_
 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
< 50.0	1.26	1.26	4.12	2.85	6.02	13.31	9.19	4.43	3.16	3.16	2.85	6.33	12.04	13.15	13.47	1.74	98.41
< 110.0	.15	.00	.00	.00	.00	.15	.00	.31	.15	.15	.00	.15	.15	.31	.00	.00	1.58
< 210.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
>= 210.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
Totals	1.42	1.26	4.12	2.85	6.02	13.47	9.19	4.75	3.32	3.32	2.85	6.49	12.20	13.47	13.47	1.74	

Calm : .00 %

Total # Operational Hours : 631

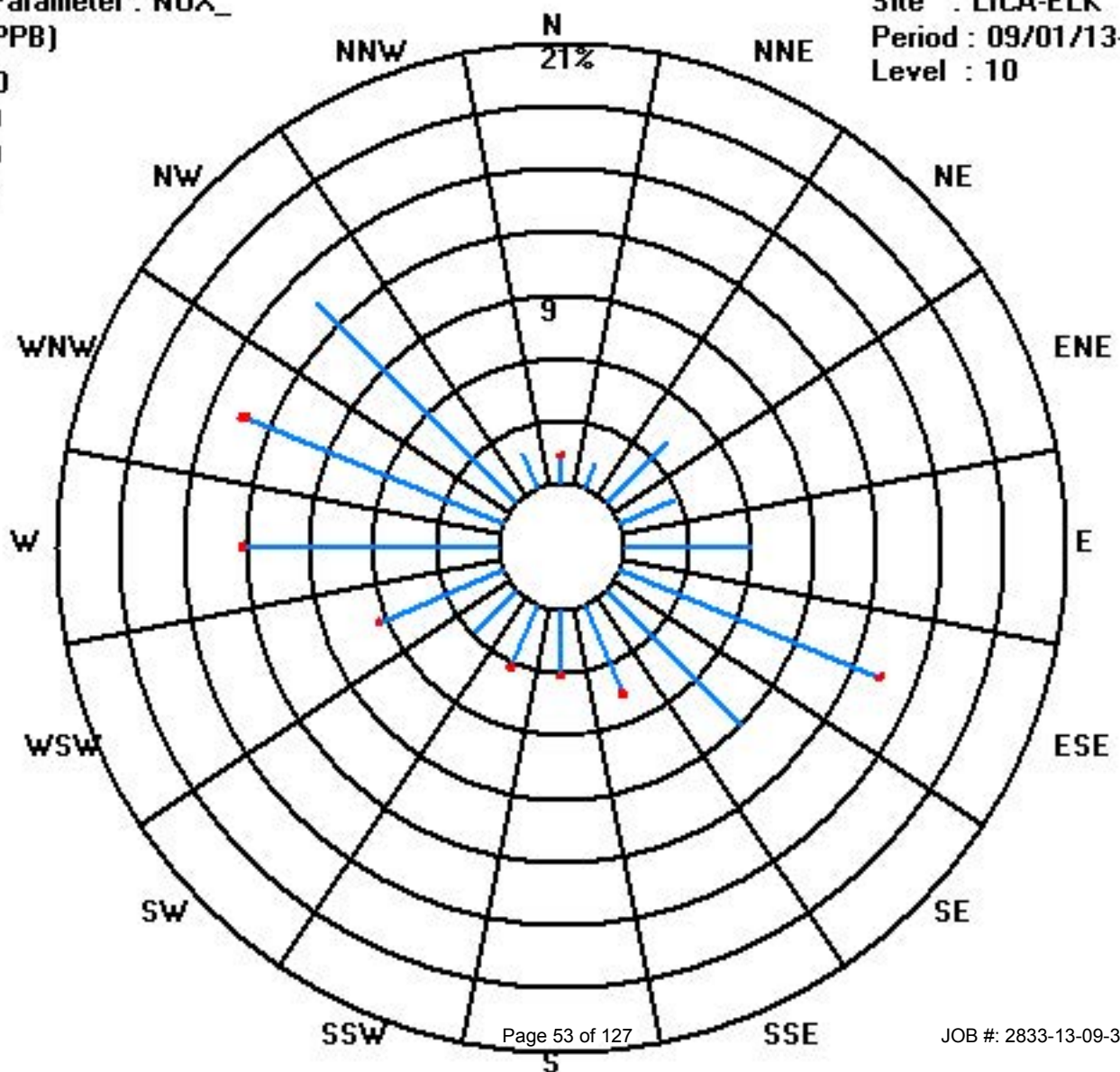
Distribution By Samples

Limit	Direction															Freq	
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW		NNW
< 50.0	8	8	26	18	38	84	58	28	20	20	18	40	76	83	85	11	621
< 110.0	1					1		2	1	1		1	1	2			10
< 210.0																	
>= 210.0																	
Totals	9	8	26	18	38	85	58	30	21	21	18	41	77	85	85	11	

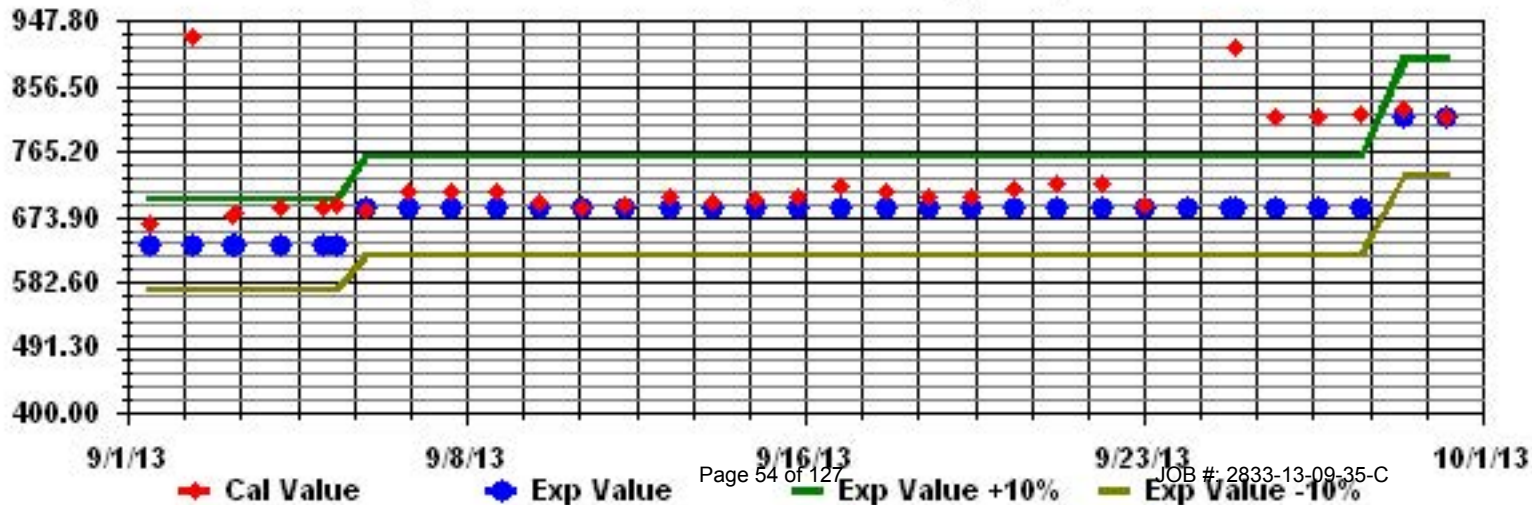
Calm : .00 %

Total # Operational Hours : 631

Class Limits (PPB)



Calibration Graph for Site: LICA35 Parameter: NOX_ Sequence: NO2 Phase: SPAN



Ozone

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - PORTABLE SITE - Elk Point Airport

SEPTEMBER 2013

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		
HOUR END	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	0:00	MAX.	AVG.	RDGS.	
DAY																												
1	1	2	0	0	0	0	2	7	11	21	30	S	40	41	41	40	39	39	36	29	24	20	15	7	41	19.3	24	
2	6	2	0	0	0	0	1	3	15	21	S	41	41	41	45	53	56	51	42	35	26	21	24	21	56	23.7	24	
3	19	17	16	16	17	16	15	15	15	S	19	23	27	Y	Y	27	29	27	17	11	10	12	7	10	29	17.4	22	
4	7	9	8	8	6	7	7	12	S	27	32	40	52	62	62	58	60	60	57	44	38	26	9	4	62	30.2	24	
5	1	0	0	1	8	10	3	S	21	32	37	39	45	42	C	C	C	C	38	31	25	19	19	16	45	20.4	24	
6	13	13	2	1	12	16	S	10	15	24	27	31	34	35	39	40	37	33	29	24	17	20	23	24	40	22.6	24	
7	23	20	22	18	21	S	16	21	21	23	23	25	26	25	21	18	19	18	19	14	11	6	7	6	26	18.4	24	
8	3	3	4	1	S	1	1	5	13	20	28	33	34	38	41	41	42	39	31	29	23	17	9	3	42	20.0	24	
9	1	1	0	S	3	10	9	11	13	19	22	23	24	25	27	28	28	28	28	24	27	28	26	19	28	18.4	24	
10	12	14	S	11	10	9	10	14	20	26	32	34	37	37	40	40	40	38	35	29	20	28	18	17	40	24.8	24	
11	12	S	5	8	2	2	4	8	9	20	24	31	33	34	36	37	39	39	25	16	9	8	10	7	39	18.2	24	
12	S	8	6	3	4	2	6	13	17	25	37	44	49	49	49	49	49	44	44	39	40	41	38	S	49	29.8	24	
13	37	30	14	14	11	5	7	12	19	25	38	50	57	58	65	64	37	28	32	32	29	28	S	20	65	31.0	24	
14	17	11	6	13	13	12	17	20	22	26	28	32	36	39	40	42	42	41	34	24	17	S	13	13	42	24.3	24	
15	9	6	5	4	3	2	2	9	16	23	31	34	37	39	40	40	39	37	28	25	S	13	15	8	40	20.2	24	
16	17	16	14	14	14	18	17	19	21	24	29	33	37	40	42	43	52	44	42	S	34	35	35	35	52	29.3	24	
17	31	32	32	31	32	29	28	30	31	34	32	32	31	30	29	28	26	24	S	21	15	15	6	4	34	26.2	24	
18	7	8	12	9	3	7	12	12	13	13	13	14	15	16	16	16	16	S	14	13	11	13	12	12	16	12.0	24	
19	9	3	1	1	1	1	2	5	16	17	17	19	22	24	27	30	S	31	21	8	8	11	10	8	31	12.7	24	
20	10	11	6	5	4	3	5	11	16	21	26	32	37	39	41	S	41	40	31	21	13	21	27	22	41	21.0	24	
21	21	17	20	23	19	17	16	21	21	23	25	31	36	42	S	44	39	37	34	25	21	30	35	33	44	27.4	24	
22	34	32	30	27	22	17	16	15	19	24	29	35	38	S	43	44	44	36	22	18	26	20	12	14	44	26.8	24	
23	18	23	19	12	5	5	5	14	18	21	23	24	S	36	40	43	41	35	25	16	21	21	20	21	43	22.0	24	
24	17	27	30	26	24	15	15	16	18	26	29	S	34	34	35	35	34	31	13	16	18	6	3	1	35	21.9	24	
25	1	1	0	1	1	1	1	6	13	23	S	32	33	35	35	34	34	33	30	27	24	24	24	23	35	19.0	24	
26	21	20	19	17	17	15	12	13	15	S	18	20	22	23	21	22	22	19	16	11	11	10	12	7	23	16.7	24	
27	7	10	7	4	1	1	1	2	S	6	19	26	29	32	35	37	38	34	21	6	2	1	1	1	38	14.0	24	
28	1	1	1	3	8	5	1	S	5	11	26	30	32	34	34	34	33	30	27	11	13	17	10	15	34	16.6	24	
29	20	19	18	19	19	15	S	12	14	16	17	19	22	26	34	38	35	31	24	21	17	17	16	19	38	21.2	24	
30	17	18	11	8	7	S	1	3	8	9	20	30	25	22	24	27	27	24	22	20	19	18	18	15	30	17.1	24	
HOURLY MAX	37	32	32	31	32	29	28	30	31	34	38	50	57	62	65	64	60	60	57	44	40	41	38	35				
HOURLY AVG	13.5	12.9	10.6	10.3	9.9	8.6	8.3	12.1	16.3	21.4	26.1	30.6	34.0	35.6	37.1	37.6	37.1	34.7	28.9	22.1	19.6	18.8	16.3	14.0				

STATUS FLAG CODES

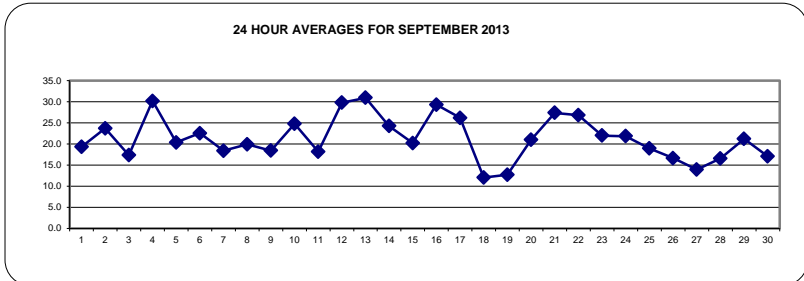
C	- CALIBRATION	Q	- QUALITY ASSURANCE
Y	- MAINTENANCE	R	- RECOVERY
S	- DAILY ZERO/SPAN CHECK	X	- MACHINE MALFUNCTION
P	- POWER FAILURE	O	- OPERATOR ERROR
G	- OUT FOR REPAIR	K	- COLLECTION ERROR

OBJECTIVE LIMIT:

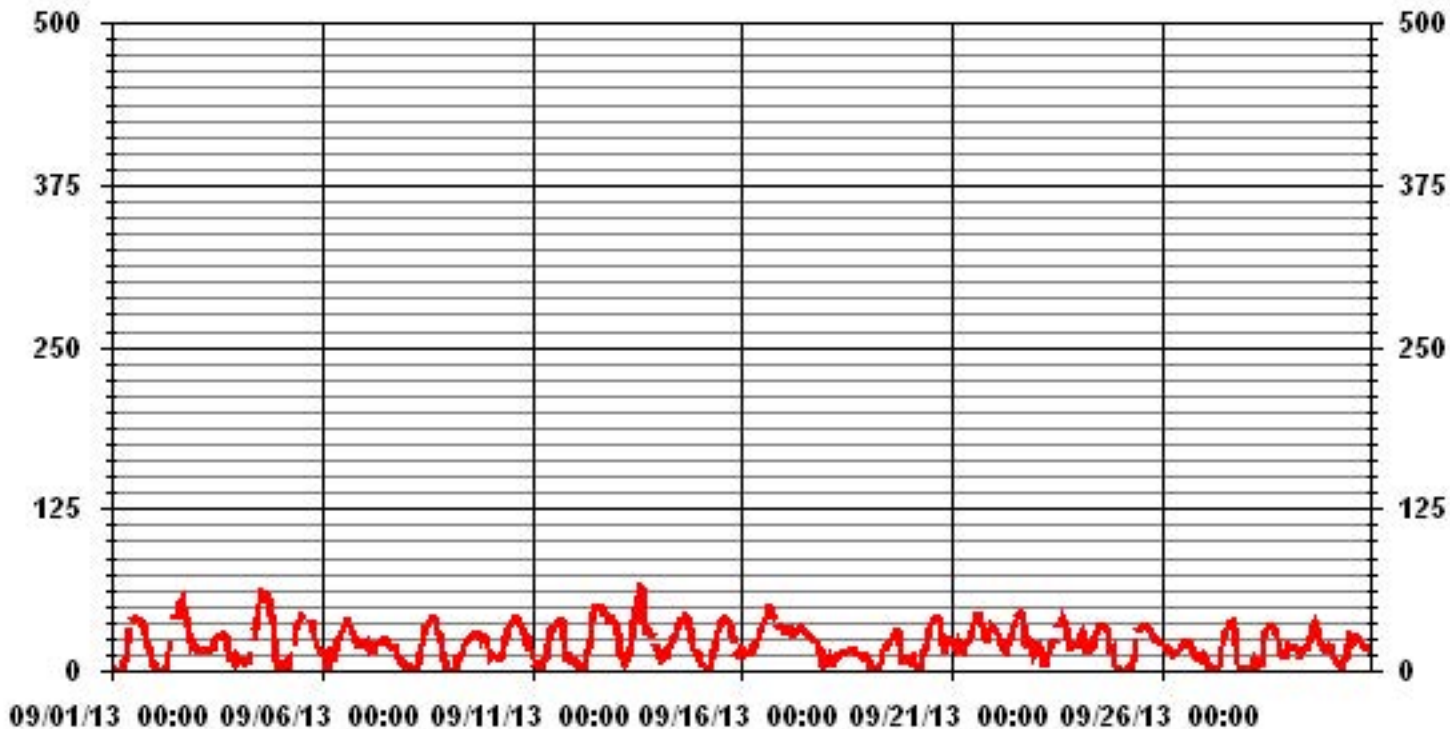
ALBERTA ENVIRONMENT: 1-HR 82 PPB

MONTHLY SUMMARY

NUMBER OF 1-HR EXCEEDENCES:	0					
NUMBER OF NON-ZERO READINGS:	671					
MAXIMUM 1-HR AVERAGE:	65	PPB	@ HOUR(S)	14	ON DAY(S)	13
MAXIMUM 24-HR AVERAGE:	31.0	PPB			ON DAY(S)	13
					VAR-VARIOUS	
IJS CALIBRATION TIME:	31	HRS	OPERATIONAL TIME:	718	HRS	
MONTHLY CALIBRATION TIME:	4	HRS	AMD OPERATION UPTIME:	99.7	%	
STANDARD DEVIATION:	13.41		MONTHLY AVERAGE:	21.42	PPB	



01 Hour Averages



LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - PORTABLE SITE - Elk Point Airport

SEPTEMBER 2013

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	3	3	1	1	1	1	4	10	15	27	34	S	42	44	43	42	42	41	39	33	27	27	24	13	44	22.5	24
2	11	4	1	1	1	1	2	5	31	31	S	42	42	43	48	57	58	55	49	39	33	30	28	23	58	27.6	24
3	21	18	17	17	18	18	17	17	17	S	21	27	31	Y	Y	28	31	31	26	17	14	18	13	14	31	20.5	22
4	11	11	13	11	11	12	12	15	S	31	36	44	59	65	66	59	61	61	61	49	43	34	23	9	66	34.7	24
5	3	1	1	5	10	14	7	S	29	S	38	40	49	48	C	C	C	C	42	35	34	24	24	21	49	23.6	24
6	19	20	8	2	18	19	S	15	17	26	29	33	35	37	41	42	39	35	32	28	20	23	24	25	42	25.5	24
7	24	23	24	23	23	S	25	22	22	24	24	27	27	27	24	21	23	21	20	18	13	8	9	9	27	20.9	24
8	5	5	6	3	S	2	3	9	15	25	31	34	36	41	43	43	42	38	32	30	30	17	10	43	23.6	24	
9	3	1	1	S	10	12	13	12	18	21	24	25	26	27	29	29	28	29	29	29	28	30	28	25	30	20.7	24
10	19	20	S	17	16	11	13	16	26	29	35	37	39	39	41	42	41	39	39	33	27	31	26	22	42	28.6	24
11	17	S	8	12	5	5	7	15	15	27	29	33	34	36	38	39	40	40	39	31	17	17	15	13	40	23.1	24
12	S	12	12	6	7	4	9	18	20	29	42	49	51	51	51	51	49	47	42	42	44	42	S	51	33.1	24	
13	41	39	25	22	18	14	12	15	26	26	44	54	59	59	72	70	70	31	32	33	31	30	S	23	72	36.8	24
14	21	17	12	17	18	18	20	22	25	27	30	34	38	40	42	43	43	43	40	31	25	S	15	14	43	27.6	24
15	13	9	8	7	7	3	4	12	21	26	34	35	40	41	42	42	40	39	35	29	S	26	24	20	42	24.2	24
16	22	19	16	16	20	20	19	21	23	26	32	36	40	42	43	44	57	56	51	S	45	39	37	37	57	33.1	24
17	34	33	34	34	34	30	30	31	33	35	34	33	33	31	30	30	27	26	S	22	20	17	14	7	35	28.3	24
18	8	14	14	11	6	12	13	14	13	14	14	15	15	17	16	17	18	S	15	15	13	13	13	12	18	13.6	24
19	11	10	4	2	1	1	4	13	17	17	18	21	23	26	29	30	S	32	32	14	13	16	16	12	32	15.7	24
20	13	15	10	7	6	6	10	14	20	25	29	37	39	40	42	S	43	42	37	31	22	28	28	28	43	24.9	24
21	27	26	26	24	22	20	21	22	22	25	27	34	40	45	S	47	46	42	41	34	29	37	37	38	47	31.8	24
22	38	35	32	30	25	21	17	18	22	27	33	37	40	S	45	46	45	44	33	24	30	31	25	25	46	31.4	24
23	28	26	25	21	16	10	14	16	20	22	27	28	S	39	42	44	44	40	34	24	26	24	28	27	44	27.2	24
24	27	34	33	29	27	22	19	19	23	28	32	S	36	35	36	36	36	34	23	21	20	15	7	2	36	25.8	24
25	1	4	1	2	2	2	2	15	19	29	S	33	35	35	35	35	35	34	32	29	25	25	25	24	35	20.8	24
26	22	21	20	19	17	16	15	16	16	S	20	21	23	25	22	24	24	20	19	18	12	13	17	10	25	18.7	24
27	8	11	9	6	3	2	1	3	S	10	25	29	31	34	37	39	39	37	31	12	8	3	3	1	39	16.6	24
28	1	1	1	8	11	8	3	S	7	21	30	31	22	36	36	35	35	34	32	18	24	26	26	25	36	20.5	24
29	23	21	21	20	21	18	S	15	16	17	18	21	25	28	38	40	38	34	27	23	20	18	18	21	40	23.5	24
30	20	21	21	17	12	S	3	4	14	13	31	36	34	24	25	31	28	26	23	22	21	20	21	16	36	21.0	24
HOURLY MAX	41	39	34	34	34	30	30	31	33	35	44	54	59	65	72	70	70	61	61	49	45	44	42	38			
HOURLY AVG	17.0	16.3	13.9	13.4	13.3	11.5	11.4	15.1	20.1	24.4	29.3	33.1	36.0	37.7	39.1	39.5	40.2	37.8	34.4	27.1	24.6	24.0	21.6	18.1			

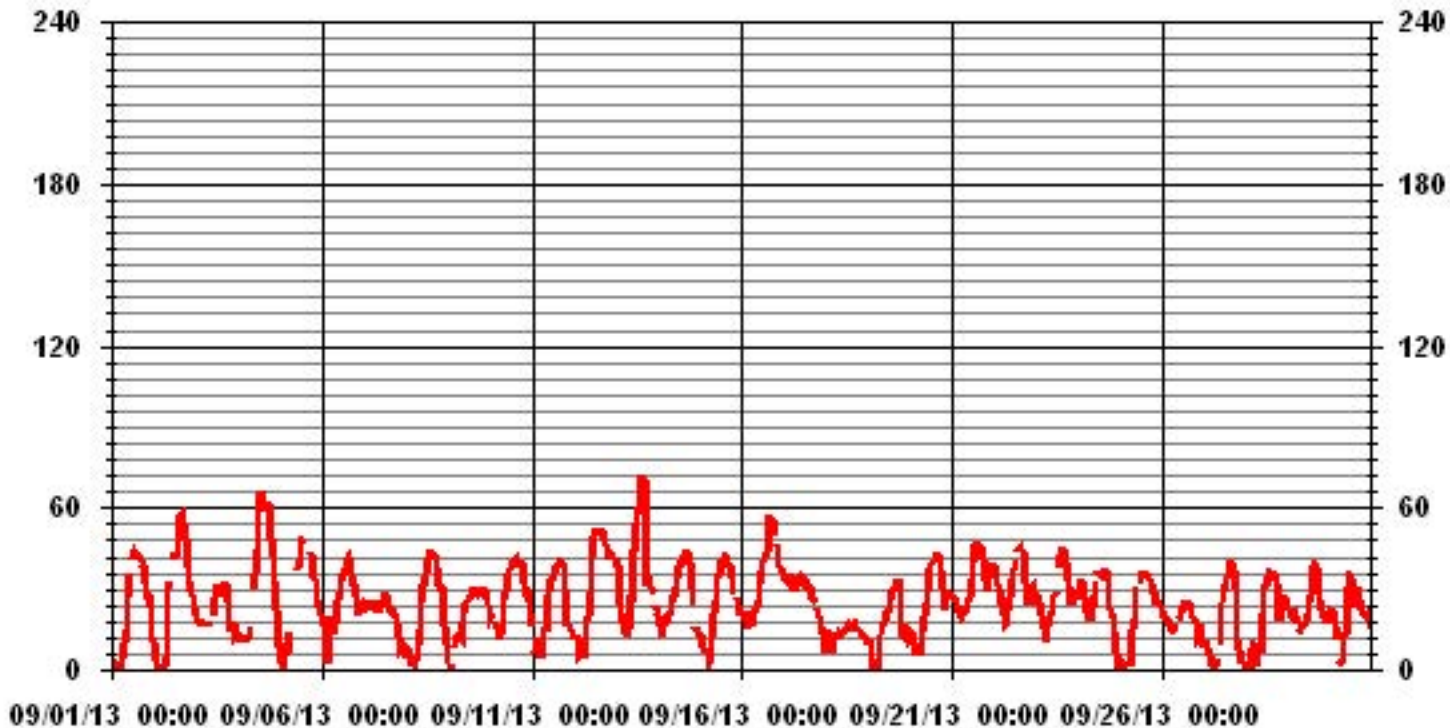
STATUS FLAG CODES

C	- CALIBRATION	Q	- QUALITY ASSURANCE
Y	- MAINTENANCE	R	- RECOVERY
S	- DAILY ZERO/SPAN CHECK	X	- MACHINE MALFUNCTION
P	- POWER FAILURE	O	- OPERATOR ERROR
G	- OUT FOR REPAIR	K	- COLLECTION ERROR

MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	682		
MAXIMUM INSTANTANEOUS VALUE:	72	PPB @ HOUR(S)	14 ON DAY(S) 13
IZS CALIBRATION TIME:	32	HRS	OPERATIONAL TIME: 718 HRS
MONTHLY CALIBRATION TIME:	4	HRS	
STANDARD DEVIATION:	13.48		

01 Hour Averages



LICA-ELK
 O3_ / WDR Joint Frequency Distribution (Percent)

September 2013

Distribution By % Of Samples

Logger Id : 35
 Site Name : LICA-ELK
 Parameter : O3_
 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	
< 50	1.61	1.31	3.80	2.78	5.71	12.44	8.49	4.39	3.07	2.92	2.63	5.85	13.61	14.20	12.88	1.90	97.65
< 110	.14	.00	.00	.00	.00	.00	.00	.00	.00	.14	.00	.29	.43	.73	.43	.14	2.34
< 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	1.75	1.31	3.80	2.78	5.71	12.44	8.49	4.39	3.07	3.07	2.63	6.14	14.05	14.93	13.32	2.04	

Calm : .00 %

Total # Operational Hours : 683

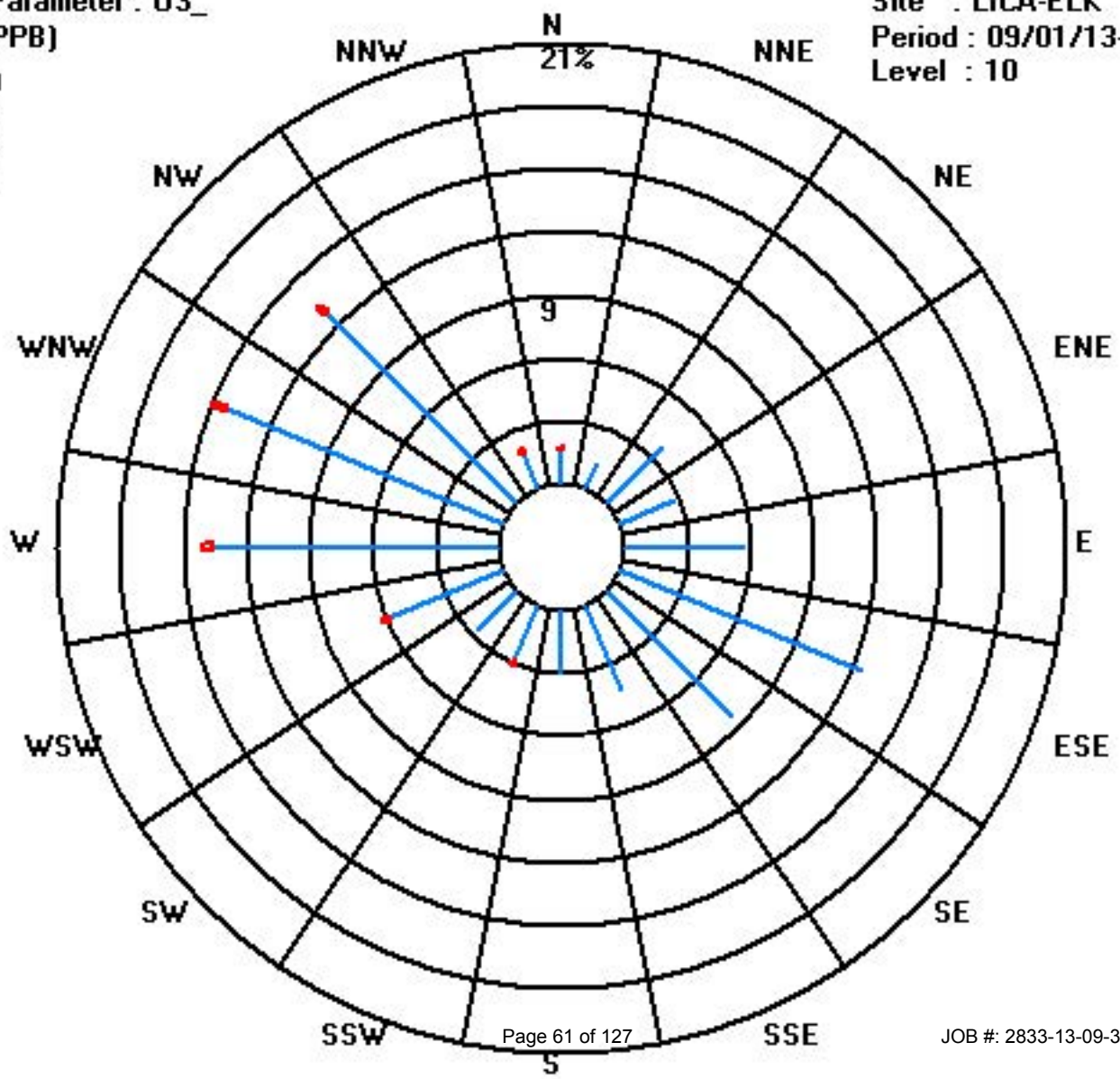
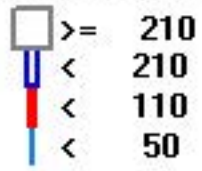
Distribution By Samples

Limit	Direction																Freq
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
< 50	11	9	26	19	39	85	58	30	21	20	18	40	93	97	88	13	667
< 110	1									1		2	3	5	3	1	16
< 210																	
>= 210																	
Totals	12	9	26	19	39	85	58	30	21	21	18	42	96	102	91	14	

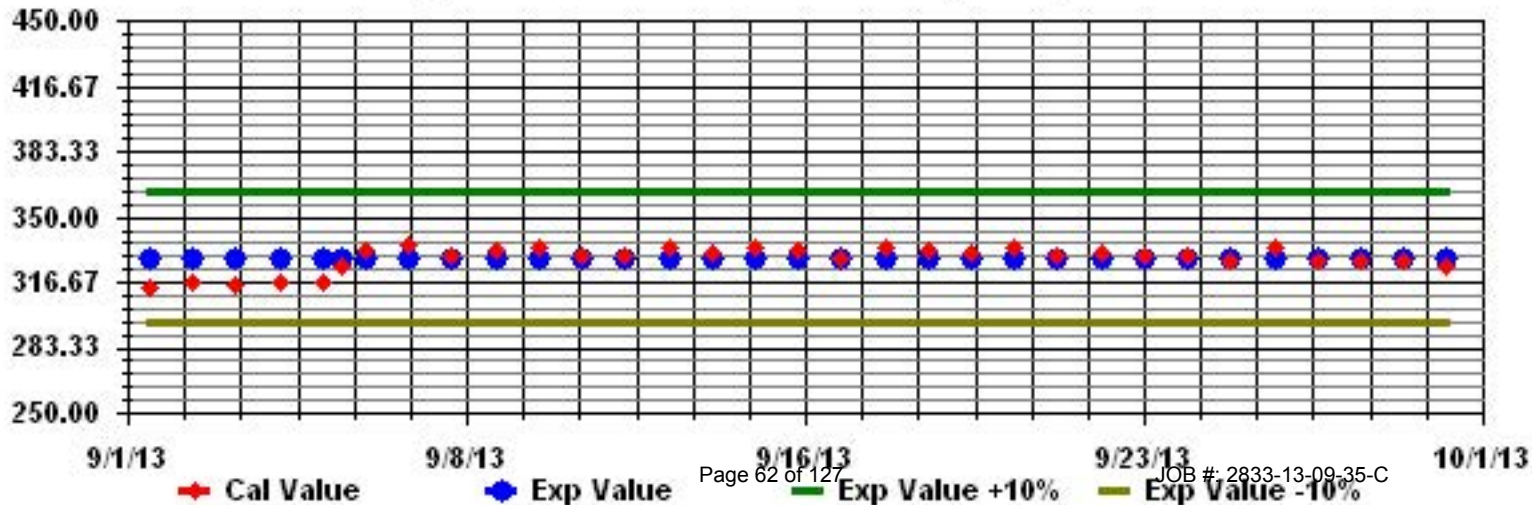
Calm : .00 %

Total # Operational Hours : 683

Class Limits (PPB)



Calibration Graph for Site: LICA35 Parameter: 03_ Sequence: 03 Phase: SPAN



Total Hydrocarbons (55i)

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - PORTABLE SITE

SEPTEMBER 2013

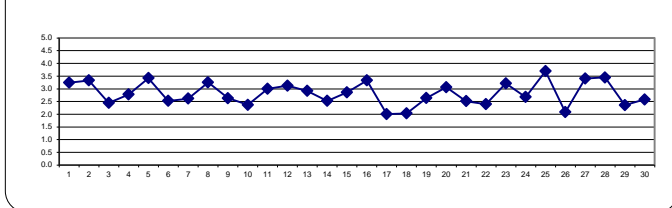
TOTAL HYDROCARBONS (55i) hourly averages in ppm

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	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	4.3	4.5	5.1	5.1	5.6	5.4	4.5	3.9	3.4	2.7	2.1	S	2.0	2.0	1.9	2.0	2.0	1.9	2.0	2.4	2.5	2.6	3.1	3.5	5.6	3.2	24	
2	2	3.3	4.1	5.0	4.8	5.1	5.0	8.8	6.9	3.9	3.2	S	1.9	1.9	1.8	1.8	1.9	1.9	1.9	1.9	2.0	2.3	2.8	2.3	2.1	8.8	3.3	24	
3	3	2.1	2.0	2.0	2.0	1.9	2.0	2.0	2.2	2.1	S	2.2	2.2	X	X	Y	Y	2.0	2.2	3.3	3.2	3.4	3.0	3.3	3.4	3.4	2.4	20	
4	4	3.5	3.4	3.2	3.4	4.1	3.2	3.0	2.8	S	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.3	2.4	3.4	4.2	5.0	5.0	2.8	24	
5	5	6.6	6.8	7.5	6.9	4.2	3.1	5.2	S	3.2	2.0	1.7	1.7	1.9	1.8	1.7	C	C	2.0	2.0	2.2	2.8	2.6	2.5	7.5	3.4	24		
6	6	3.0	3.2	5.6	5.2	3.2	2.3	S	2.4	2.5	2.1	2.1	2.0	1.9	1.9	1.9	2.0	1.9	1.9	2.0	2.1	2.3	2.4	2.1	2.0	5.6	2.5	24	
7	7	2.1	2.1	2.2	2.6	2.3	S	2.9	2.4	2.3	2.3	2.4	2.4	2.5	2.2	2.6	2.7	2.6	2.6	2.6	2.8	3.1	3.5	3.5	3.4	3.5	2.6	24	
8	8	3.9	4.3	4.5	5.6	S	5.5	5.7	5.3	3.8	3.2	2.3	2.0	1.9	1.9	1.8	1.8	1.8	1.8	1.8	2.3	2.2	2.3	2.8	3.7	4.3	5.7	3.3	24
9	9	6.2	5.5	7.2	S	6.3	2.8	2.2	2.0	1.9	1.7	1.7	1.7	1.6	1.6	1.6	1.6	1.6	1.7	1.7	1.8	1.8	1.8	1.8	2.7	7.2	2.6	24	
10	10	3.7	2.8	S	3.3	3.4	3.2	2.8	2.2	2.1	2.0	1.9	1.9	1.9	1.8	1.8	1.8	1.8	1.9	1.9	2.2	2.5	2.1	2.8	2.5	3.7	2.4	24	
11	11	3.1	S	4.1	4.0	4.9	4.2	3.2	3.1	3.3	2.2	2.2	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	3.7	3.4	4.6	3.9	3.7	4.9	3.0	24
12	12	S	4.5	4.6	4.7	5.1	5.0	5.5	4.2	3.5	2.9	2.4	2.2	2.1	1.9	1.9	1.9	1.9	1.9	2.3	2.2	2.4	2.4	2.5	2.6	S	5.5	3.1	24
13	13	2.3	2.7	4.6	5.3	4.0	4.8	4.7	4.5	3.9	2.9	2.3	2.0	2.0	1.9	2.2	2.1	2.0	1.9	2.0	2.1	2.2	2.3	S	2.4	5.3	2.9	24	
14	14	2.5	3.5	4.9	2.6	2.5	2.5	2.5	2.5	2.4	2.1	2.1	2.0	2.0	2.1	2.1	2.1	2.1	2.0	2.3	2.4	3.0	S	2.9	2.9	4.9	2.5	24	
15	15	3.8	3.1	3.5	4.4	4.0	4.2	4.3	3.3	2.6	2.3	2.0	1.9	1.9	2.0	1.9	1.9	1.9	1.9	2.0	2.4	2.4	S	2.9	3.0	4.0	4.4	2.9	24
16	16	3.0	3.4	3.6	3.6	3.1	2.6	2.5	2.4	2.3	2.3	2.1	2.1	2.0	2.0	1.9	16.9	5.1	2.5	2.8	S	2.8	2.8	2.5	2.3	16.9	3.3	24	
17	17	2.2	2.0	2.1	2.1	2.0	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	S	1.9	2.0	2.1	2.5	3.3	3.3	2.0	24		
18	18	2.5	2.5	2.0	2.1	2.8	2.4	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	S	1.9	1.9	2.0	1.9	1.9	1.9	1.9	2.8	2.0	24	
19	19	2.1	2.6	2.7	3.0	3.9	2.9	2.4	2.4	1.9	1.9	1.9	1.9	1.9	1.9	1.9	S	1.9	1.9	2.6	4.3	3.6	3.5	3.9	3.7	4.3	2.6	24	
20	20	3.7	3.8	3.9	4.3	4.7	4.6	4.3	3.7	3.1	2.8	2.6	2.3	2.0	1.9	S	1.9	1.9	2.6	3.3	3.7	2.7	2.3	2.5	4.7	3.1	24		
21	21	2.6	2.6	2.6	2.6	2.6	2.5	2.4	2.3	2.3	2.3	2.3	2.2	2.0	S	2.1	2.3	2.4	2.8	3.4	4.2	2.6	2.2	2.2	4.2	2.5	24		
22	22	2.0	2.0	2.0	2.0	2.3	2.5	2.3	2.3	2.1	1.9	1.9	1.8	1.8	S	1.9	1.9	1.9	2.1	3.3	3.2	2.9	3.3	3.8	3.9	3.9	2.4	24	
23	23	3.6	4.1	3.6	4.1	5.0	4.6	4.7	3.9	3.8	3.6	3.6	3.2	S	2.1	2.0	1.9	1.9	2.2	2.6	3.4	2.6	2.5	2.6	2.2	5.0	3.2	24	
24	24	2.8	2.4	2.1	2.0	2.0	2.5	2.4	2.2	2.1	1.9	1.9	S	1.9	1.9	2.0	1.9	1.8	2.1	2.6	2.7	2.6	5.0	5.1	7.6	7.6	2.7	24	
25	25	9.2	8.3	8.2	5.4	6.2	5.7	6.2	4.8	3.3	2.1	S	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.2	2.1	2.0	2.0	9.2	3.7	24	
26	26	2.0	2.0	1.9	1.9	1.9	2.0	2.1	2.0	1.9	S	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.3	2.8	2.4	2.5	2.2	2.6	2.8	2.1	24	
27	27	2.9	2.7	2.7	3.7	4.2	4.7	4.9	5.5	S	4.6	2.7	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.9	2.2	2.9	4.5	4.5	6.5	6.3	6.5	3.4	24
28	28	6.6	6.8	8.2	4.7	3.2	3.7	5.4	S	5.2	4.0	2.2	2.0	1.8	1.8	1.8	1.8	1.9	1.9	2.0	2.7	2.9	2.6	3.1	3.0	8.2	3.4	24	
29	29	2.7	3.5	3.1	2.8	2.4	2.7	S	3.0	2.6	2.5	2.5	2.3	2.1	2.0	1.9	1.9	1.9	1.9	1.9	2.0	2.1	2.0	2.2	2.1	3.5	2.4	24	
30	30	2.1	2.4	2.9	3.3	3.2	S	4.6	5.8	4.2	3.8	2.6	2.1	1.9	1.9	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.9	1.8	1.9	5.8	2.6	24	
HOURLY MAX		9.2	8.3	8.2	6.9	6.3	5.7	8.8	6.9	5.2	4.6	3.6	3.2	2.5	2.2	2.6	16.9	5.1	2.6	3.3	4.3	4.5	5.0	6.5	7.6				
HOURLY AVG		3.46	3.57	3.99	3.71	3.66	3.52	3.76	3.28	2.84	2.54	2.19	2.04	1.94	1.92	1.91	2.49	2.05	2.01	2.28	2.57	2.70	2.81	2.98	3.17				

STATUS FLAG CODES

C	- CALIBRATION	Q	- QUALITY ASSURANCE
Y	- MAINTENANCE	R	- RECOVERY
S	- DAILY ZERO/SPAN CHECK	X	- MACHINE MALFUNCTION
P	- POWER FAILURE	O	- OPERATOR ERROR
G	- OUT FOR REPAIR	K	- COLLECTION ERROR

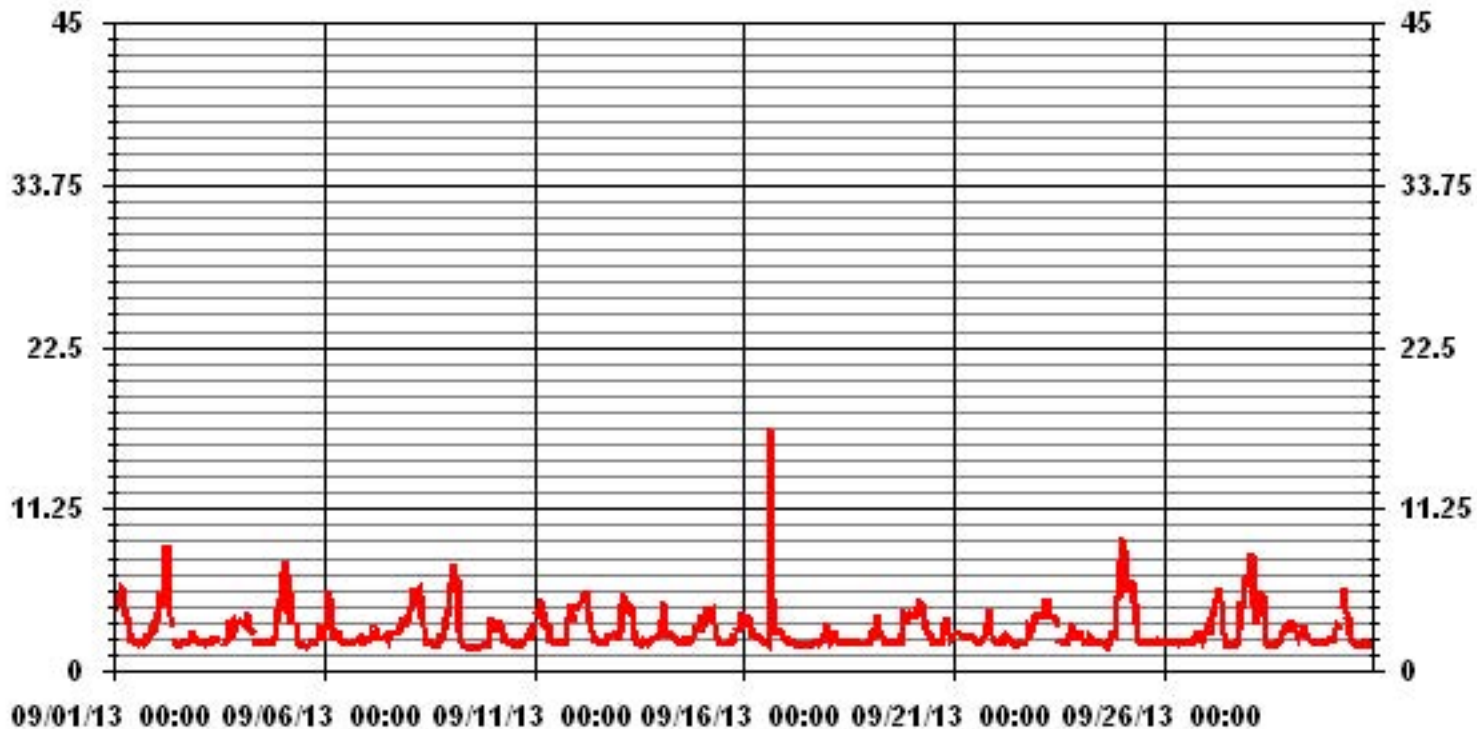
24 AVERAGES FOR SEPTEMBER 2013



MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	682					
MAXIMUM 1-HR AVERAGE:	16.9	PPM	@ HOUR(S)	15	ON DAY(S)	16
MAXIMUM 24-HR AVERAGE:	3.7	PPM			ON DAY(S)	25
IZS CALIBRATION TIME:	31	HRS	OPERATIONAL TIME:	716	HRS	
MONTHLY CALIBRATION TIME:	3	HRS	AMD OPERATION UPTIME:	99.4	%	
STANDARD DEVIATION:	1.34		MONTHLY AVERAGE:	2.81	PPM	

01 Hour Averages



— LICA35 THC55 PPM

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - PORTABLE SITE

SEPTEMBER 2013

TOTAL HYDROCARBONS (THC) 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	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		5.1	5.2	6.1	6.4	7.4	7.3	6.3	4.5	3.9	3.2	2.5	S	2.3	2.2	2.3	2.3	2.5	2.3	2.7	2.8	3.0	4.1	4.7	4.1	7.4	4.0	24	
2		3.9	5.1	5.8	5.6	6.7	5.8	11.4	7.6	5.6	4.3	S	2.1	2.1	2.0	2.0	2.1	2.2	2.2	2.2	2.5	3.4	3.8	2.9	2.4	11.4	4.1	24	
3		2.3	2.2	2.2	2.2	2.2	2.2	2.2	2.4	2.3	S	2.4	2.3	X	X	Y	Y	2.3	2.6	4.6	4.5	4.1	3.9	4.5	6.0	6.0	3.0	20	
4		4.4	5.8	5.1	5.2	5.4	4.1	4.0	4.0	S	2.6	2.3	2.2	2.2	2.2	2.3	2.3	2.3	2.3	2.4	2.6	2.8	4.8	5.5	6.2	6.2	3.6	24	
5		7.3	7.1	8.7	7.7	6.2	3.5	9.2	S	4.4	2.9	1.9	1.9	2.2	2.1	C	C	C	C	2.5	2.2	3.0	3.4	3.3	2.8	9.2	4.3	24	
6		3.6	4.4	7.7	6.6	5.3	2.9	S	2.9	2.9	2.5	2.3	2.1	2.1	2.0	2.0	2.1	2.1	2.1	2.2	2.5	2.5	2.7	2.6	2.2	7.7	3.1	24	
7		2.3	2.3	2.7	3.5	2.5	S	3.5	2.9	2.7	2.6	2.6	2.8	2.7	2.7	3.1	3.1	3.0	3.5	3.1	3.4	3.5	3.9	3.9	5.0	5.0	3.1	24	
8		5.5	5.1	4.9	7.8	S	6.3	7.3	7.2	4.5	3.9	2.9	2.2	2.1	2.2	2.1	2.0	2.2	2.0	2.9	2.4	2.8	6.9	6.3	5.5	7.8	4.2	24	
9		8.2	6.3	9.8	S	8.7	3.5	2.6	2.3	2.2	1.9	1.9	1.8	1.8	1.7	1.9	1.8	1.7	1.9	1.8	2.1	2.2	1.9	2.0	3.3	9.8	3.2	24	
10		4.7	4.0	S	4.3	4.8	3.8	3.3	2.6	2.3	2.3	2.1	2.0	1.9	2.0	2.0	2.1	2.0	1.9	2.2	2.5	2.9	2.4	3.9	2.9	4.8	2.8	24	
11		3.5	S	4.5	5.0	5.5	5.5	3.7	3.7	3.9	2.6	2.7	2.1	2.1	1.9	2.0	1.9	2.0	1.9	2.7	5.5	4.1	6.6	6.7	5.2	6.7	3.7	24	
12		S	7.5	5.4	5.0	6.5	6.4	7.1	5.4	4.0	3.6	2.7	2.7	2.2	2.3	2.3	2.1	2.9	2.7	2.6	2.8	2.9	3.0	S	7.5	3.8	24		
13		2.5	4.4	6.0	9.2	5.0	6.4	6.3	5.1	4.4	3.4	3.1	2.3	2.2	2.1	2.5	2.4	2.2	2.2	2.3	2.4	2.6	2.7	S	2.6	9.2	3.7	24	
14		3.1	7.5	7.5	2.9	2.9	2.8	3.0	2.9	2.8	2.4	2.4	2.0	2.2	2.3	2.2	2.5	2.3	2.2	2.6	3.3	3.7	S	3.2	3.7	7.5	3.1	24	
15		8.0	4.2	6.6	6.4	4.7	5.4	5.7	4.4	3.0	2.6	2.2	2.0	2.0	2.2	2.2	2.1	2.1	2.6	3.1	3.1	S	7.6	5.9	6.7	8.0	4.1	24	
16		4.0	4.6	5.0	4.7	3.5	3.1	2.7	3.1	2.6	2.6	2.5	2.3	2.3	2.2	2.1	40.6	17.2	3.3	4.4	S	3.3	3.3	2.8	2.7	40.6	5.4	24	
17		2.6	3.1	2.5	2.6	2.6	2.1	2.1	2.1	1.9	2.0	1.9	2.0	1.9	2.0	2.1	2.1	2.0	2.1	S	2.1	2.4	2.8	2.8	4.8	4.8	2.4	24	
18		2.9	3.2	2.2	2.5	3.7	3.7	2.0	2.1	1.9	1.9	2.0	1.9	2.0	1.9	1.9	1.9	1.9	S	2.0	2.1	2.3	2.0	1.9	2.1	3.7	2.3	24	
19		2.4	2.9	3.0	3.4	5.9	3.9	2.8	2.7	2.2	2.0	2.0	2.0	2.0	2.0	2.0	2.0	S	2.2	4.5	5.5	5.4	4.4	5.0	5.7	5.9	3.3	24	
20		4.7	7.6	5.3	6.1	5.9	5.8	5.0	4.3	3.5	3.2	3.0	2.6	2.3	2.1	2.1	S	2.2	2.1	7.0	7.9	7.1	4.3	2.9	3.4	7.9	4.4	24	
21		3.2	3.0	3.7	2.9	2.9	2.9	2.6	2.4	2.6	2.5	2.6	2.5	2.4	2.3	S	2.7	4.6	3.0	3.7	4.5	12.1	3.6	2.7	3.0	12.1	3.4	24	
22		2.3	2.2	2.2	2.3	2.9	3.4	2.9	3.1	2.5	2.1	2.0	2.0	2.0	S	2.1	2.5	2.0	3.4	5.5	4.2	3.5	5.4	5.5	9.1	9.1	3.3	24	
23		5.9	5.2	4.6	5.5	6.6	5.4	6.7	4.9	4.1	3.8	4.0	4.0	S	2.7	2.2	2.1	2.1	2.6	3.9	4.8	3.1	2.8	3.5	2.4	6.7	4.0	24	
24		4.9	3.1	2.7	2.3	2.3	3.7	3.4	3.0	2.4	2.2	2.0	S	1.9	2.0	5.2	2.3	1.9	2.8	3.1	3.7	3.2	7.0	6.1	10.5	10.5	3.6	24	
25		12.3	13.6	10.2	7.5	9.4	8.6	8.1	6.3	5.3	2.5	S	1.9	2.1	2.0	1.9	1.9	1.9	1.9	2.1	2.1	2.8	2.8	2.1	2.1	13.6	4.8	24	
26		2.2	2.1	2.2	2.0	2.0	2.1	2.2	2.2	2.0	2.0	S	2.0	2.0	2.1	1.9	2.0	2.1	2.0	2.2	2.9	3.8	2.7	2.9	2.6	3.1	3.8	2.3	24
27		3.6	3.4	4.1	4.5	4.6	5.4	5.9	7.3	S	5.4	4.1	2.1	1.9	2.0	1.7	1.8	1.8	2.0	4.0	3.9	5.9	7.2	9.3	11.8	11.8	4.5	24	
28		7.4	9.1	9.6	7.4	3.6	6.2	6.5	S	5.5	5.0	2.7	2.1	2.0	1.8	2.1	2.1	2.0	2.1	2.4	3.0	3.6	3.0	4.7	4.6	9.6	4.3	24	
29		3.6	5.1	4.8	3.2	2.7	4.2	S	4.7	2.9	2.8	2.8	2.7	2.3	2.1	2.1	2.1	2.2	2.0	2.1	2.1	2.3	2.3	2.6	2.7	5.1	2.9	24	
30		2.6	3.5	4.1	5.2	3.9	S	6.1	6.3	6.1	4.5	3.9	2.2	2.1	2.1	1.9	1.9	1.9	2.0	2.1	2.1	2.3	2.1	2.1	2.1	6.3	3.2	24	
HOURLY MAX		12.3	13.6	10.2	9.2	9.4	8.6	11.4	7.6	6.1	5.4	4.1	4.0	2.7	2.7	5.2	40.6	17.2	3.5	7.0	7.9	12.1	7.6	9.3	11.8				
HOURLY AVG		4.5	4.9	5.1	4.8	4.7	4.5	4.8	4.0	3.4	3.0	2.5	2.2	2.1	2.1	2.2	3.6	2.7	2.4	3.1	3.3	3.6	3.9	4.0	4.4				

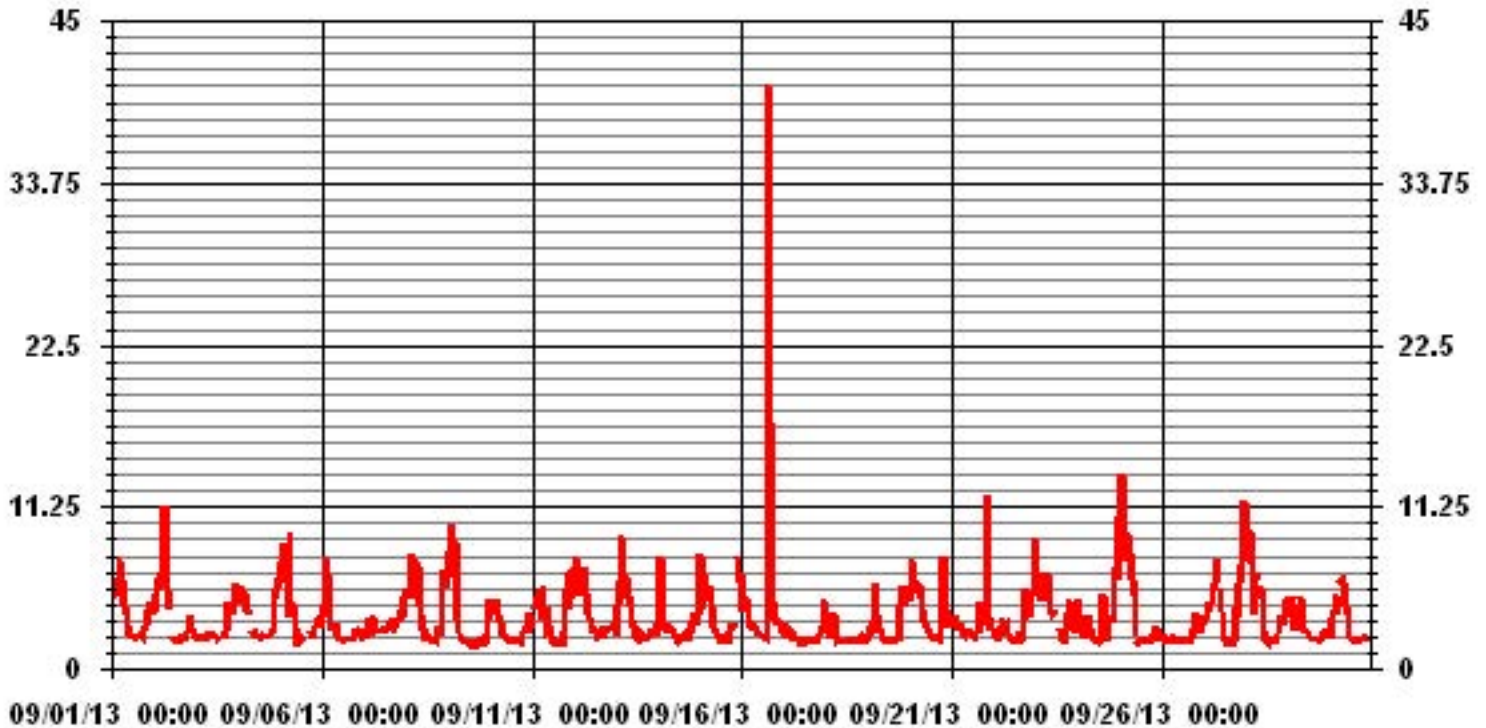
STATUS FLAG CODES

C	- CALIBRATION	Q	- QUALITY ASSURANCE
Y	- MAINTENANCE	R	- RECOVERY
S	- DAILY ZERO/SPAN CHECK	X	- MACHINE MALFUNCTION
P	- POWER FAILURE	O	- OPERATOR ERROR
G	- OUT FOR REPAIR	K	- COLLECTION ERROR

MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	681
MAXIMUM INSTANTANEOUS VALUE:	40.6 PPM @ HOUR(S) 15 ON DAY(S) 16
IZS CALIBRATION TIME:	31 HRS
MONTHLY CALIBRATION TIME:	4 HRS
STANDARD DEVIATION:	2.42
OPERATIONAL TIME:	716 HRS

01 Hour Averages



— LICA35 THC55MAX PPM

LICA35
 THC55 / WDR Joint Frequency Distribution (Percent)

September 2013

Distribution By % Of Samples

Logger Id : 35
 Site Name : LICA35
 Parameter : THC55
 Units : PPM

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	
< 3.0	1.31	1.17	3.22	2.05	1.46	4.98	5.27	3.37	2.93	2.49	2.19	4.83	10.85	10.70	11.58	1.90	70.38
< 10.0	.43	.14	.58	.73	4.25	7.33	3.22	.73	.14	.58	.43	1.31	3.22	4.25	1.75	.29	29.47
< 50.0	.00	.00	.00	.00	.00	.00	.00	.14	.00	.00	.00	.00	.00	.00	.00	.00	.14
>= 50.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
Totals	1.75	1.31	3.81	2.78	5.71	12.31	8.50	4.25	3.07	3.07	2.63	6.15	14.07	14.95	13.34	2.19	

Calm : .00 %

Total # Operational Hours : 682

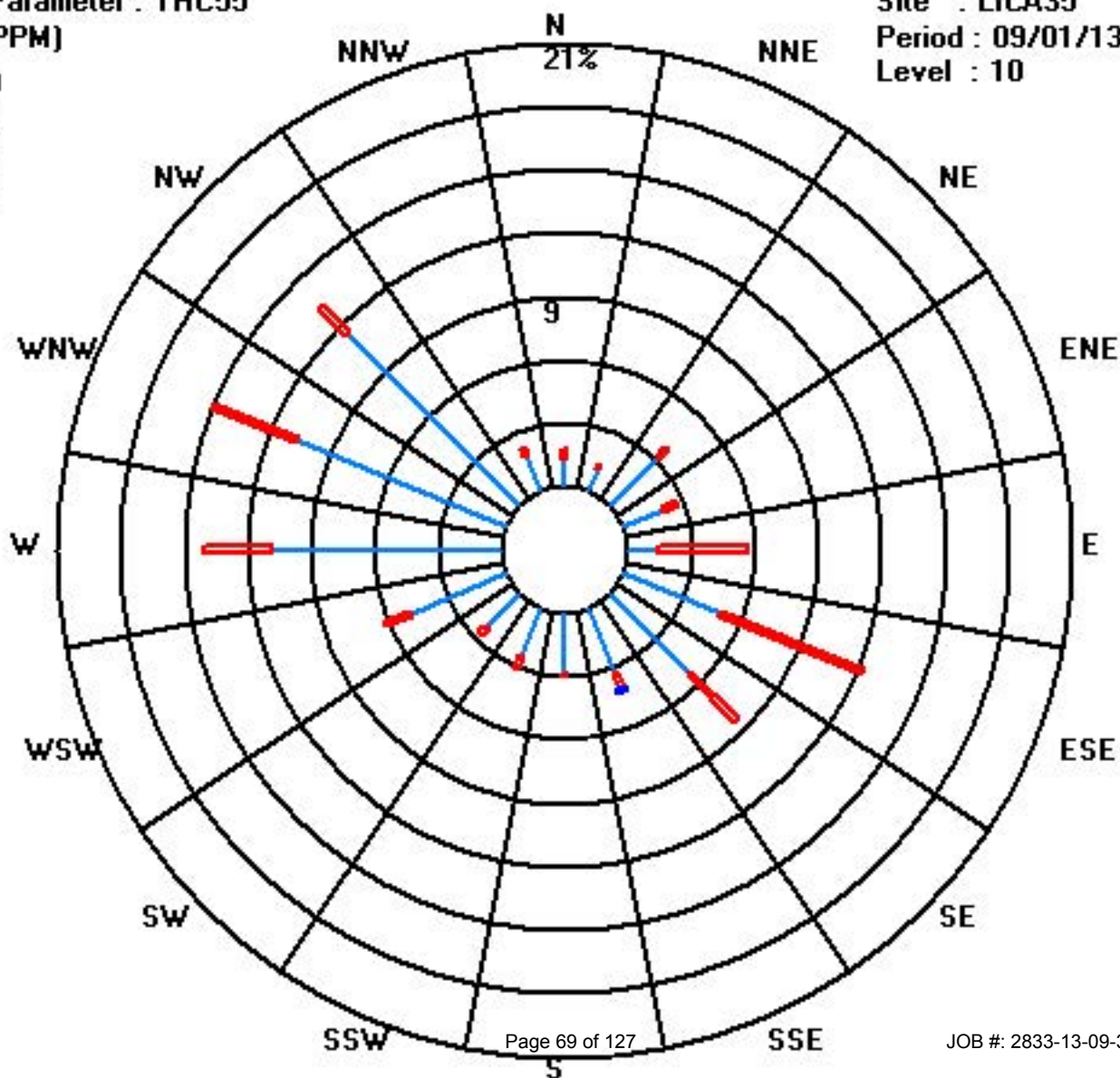
Distribution By Samples

Limit	Direction																Freq
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
< 3.0	9	8	22	14	10	34	36	23	20	17	15	33	74	73	79	13	480
< 10.0	3	1	4	5	29	50	22	5	1	4	3	9	22	29	12	2	201
< 50.0								1									1
>= 50.0																	
Totals	12	9	26	19	39	84	58	29	21	21	18	42	96	102	91	15	

Calm : .00 %

Total # Operational Hours : 682

Class Limits (PPM)



Methane

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - PORTABLE SITE

SEPTEMBER 2013

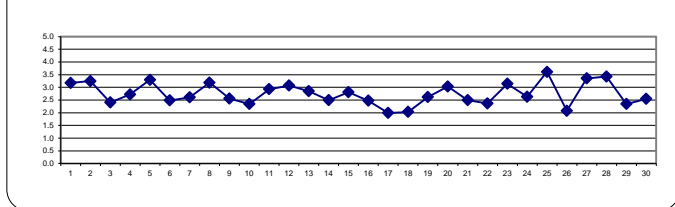
METHANE hourly averages in ppm

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	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		4.1	4.4	5.0	5.0	5.4	5.3	4.4	3.8	3.3	2.7	2.1	S	2.0	2.0	1.9	1.9	2.0	1.9	2.0	2.4	2.4	2.5	3.1	3.4	5.4	3.2	24	
2		3.2	3.9	4.8	4.6	4.9	4.8	8.5	6.6	3.8	3.1	S	1.9	1.9	1.8	1.8	1.9	1.9	1.9	1.9	2.0	2.2	2.8	2.3	2.1	8.5	3.2	24	
3		2.1	2.0	2.0	1.9	1.9	2.0	2.0	2.1	2.1	S	2.2	2.2	X	X	Y	Y	2.0	2.1	3.2	3.1	3.3	3.0	3.2	3.3	3.3	2.4	20	
4		3.4	3.4	3.1	3.4	4.0	3.1	3.0	2.8	S	2.0	2.0	2.0	2.0	2.0	2.0	1.9	2.0	2.0	2.0	2.3	2.3	3.2	4.0	4.7	4.7	2.7	24	
5		6.2	6.5	7.3	6.7	4.0	3.0	5.0	S	3.0	2.0	1.6	1.7	1.8	1.7	1.6	C	C	C	2.0	2.0	2.1	2.7	2.6	2.4	7.3	3.3	24	
6		2.9	3.1	5.4	5.0	3.1	2.3	S	2.4	2.4	2.1	2.1	2.0	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.1	2.3	2.4	2.1	2.0	5.4	2.5	24	
7		2.1	2.1	2.2	2.6	2.3	S	2.9	2.4	2.3	2.3	2.4	2.4	2.5	2.2	2.6	2.7	2.6	2.6	2.6	2.8	3.0	3.5	3.4	3.4	3.5	2.6	24	
8		3.8	4.2	4.3	5.4	S	5.4	5.6	5.2	3.7	3.1	2.3	2.0	1.9	1.9	1.8	1.8	1.8	1.8	2.2	2.2	2.3	2.8	3.5	4.1	5.6	3.2	24	
9		5.9	5.2	6.9	S	6.0	2.7	2.1	2.0	1.9	1.7	1.7	1.6	1.6	1.6	1.6	1.6	1.6	1.7	1.7	1.8	1.8	1.8	1.8	2.6	6.9	2.6	24	
10		3.6	2.8	S	3.2	3.3	3.1	2.8	2.2	2.1	2.0	1.9	1.9	1.9	1.8	1.8	1.8	1.9	1.9	2.2	2.5	2.1	2.7	2.5	3.6	2.3	24		
11		3.0	S	4.0	3.8	4.7	4.1	3.2	3.0	3.2	2.2	2.2	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	3.5	3.3	4.4	3.8	3.6	4.7	2.9	24	
12		S	4.4	4.5	4.5	4.9	4.9	5.4	4.2	3.4	2.9	2.3	2.2	2.1	1.9	1.9	1.9	1.9	2.3	2.2	2.4	2.4	2.5	2.5	S	5.4	3.1	24	
13		2.3	2.7	4.4	5.2	3.8	4.6	4.5	4.4	3.7	2.9	2.3	2.0	2.0	1.9	2.2	2.1	1.9	1.9	1.9	2.0	2.2	2.2	S	2.4	5.2	2.8	24	
14		2.5	3.4	4.7	2.5	2.5	2.5	2.5	2.4	2.4	2.1	2.1	2.0	2.0	2.1	2.1	2.1	2.1	2.0	2.3	2.4	3.0	S	2.9	2.8	4.7	2.5	24	
15		3.7	3.0	3.4	4.3	3.8	4.1	4.2	3.2	2.6	2.3	2.0	1.9	1.9	2.0	1.9	1.9	1.9	2.0	2.4	2.4	S	2.9	3.0	3.9	4.3	2.8	24	
16		2.9	3.3	3.5	3.5	2.9	2.5	2.5	2.4	2.3	2.2	2.1	2.1	2.0	2.0	1.9	1.9	1.9	2.3	2.7	S	2.7	2.7	2.4	2.2	3.5	2.5	24	
17		2.2	2.0	2.1	2.1	2.0	1.9	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	S	1.9	2.0	2.1	2.4	3.2	3.2	2.0	24		
18		2.5	2.5	2.0	2.1	2.8	2.4	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	S	1.9	1.9	2.0	1.9	1.9	1.9	2.8	2.0	24	
19		2.1	2.6	2.7	3.0	3.8	2.8	2.4	2.4	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	S	1.9	2.6	4.2	3.6	3.4	3.8	3.7	4.2	24	
20		3.6	3.8	3.9	4.2	4.6	4.4	4.2	3.6	3.1	2.8	2.6	2.3	2.0	1.9	1.9	S	1.9	1.9	2.6	3.3	3.7	2.7	2.3	2.5	4.6	3.0	24	
21		2.6	2.6	2.6	2.5	2.5	2.5	2.4	2.3	2.3	2.3	2.3	2.2	2.0	S	2.1	2.3	2.4	2.7	3.3	4.1	2.6	2.2	2.2	4.1	2.5	24		
22		2.0	1.9	2.0	2.0	2.3	2.4	2.2	2.2	2.1	1.9	1.9	1.8	1.8	S	1.9	1.9	1.9	2.1	3.3	3.2	2.9	3.2	3.7	3.9	3.9	2.4	24	
23		3.6	4.0	3.5	3.9	4.9	4.4	4.4	3.8	3.7	3.5	3.5	3.1	S	2.1	2.0	1.9	1.9	2.2	2.6	3.3	2.6	2.5	2.6	2.2	4.9	3.1	24	
24		2.7	2.4	2.1	2.0	2.0	2.5	2.4	2.2	2.1	1.9	1.9	S	1.9	1.9	1.9	1.8	1.8	2.1	2.6	2.7	2.6	4.8	4.9	7.2	7.2	2.6	24	
25		8.8	8.0	8.0	5.2	6.0	5.5	6.0	4.7	3.2	2.1	S	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.2	2.1	2.0	2.0	8.8	3.6	24	
26		2.0	2.0	1.9	1.9	1.9	2.0	2.1	2.0	1.9	S	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.0	2.3	2.7	2.4	2.5	2.2	2.6	2.7	2.1	24
27		2.9	2.7	2.7	3.6	4.1	4.5	4.8	5.4	S	4.6	2.7	1.9	1.8	1.8	1.8	1.8	1.8	1.9	2.0	2.2	2.9	4.4	4.4	6.3	6.1	6.3	3.4	24
28		6.5	6.6	8.1	4.7	3.2	3.7	5.3	S	5.1	4.0	2.2	2.0	1.8	1.8	1.8	1.8	1.9	1.9	2.0	2.7	2.9	2.6	3.1	3.0	8.1	3.4	24	
29		2.7	3.5	3.1	2.8	2.4	2.7	S	3.0	2.6	2.4	2.4	2.3	2.1	2.0	1.9	1.9	1.9	1.9	1.9	2.0	2.1	2.0	2.2	2.1	3.5	2.3	24	
30		2.1	2.4	2.9	3.3	3.1	S	4.4	5.6	4.1	3.7	2.6	2.1	1.9	1.9	1.8	1.8	1.8	1.8	1.9	1.9	1.9	1.9	1.8	1.9	5.6	2.5	24	
HOURLY MAX		8.8	8.0	8.1	6.7	6.0	5.5	8.5	6.6	5.1	4.6	3.5	3.1	2.5	2.2	2.6	2.7	2.6	2.6	3.3	4.2	4.4	4.8	6.3	7.2				
HOURLY AVG		3.38	3.50	3.90	3.62	3.56	3.43	3.68	3.21	2.79	2.51	2.18	2.04	1.94	1.91	1.91	1.91	1.93	2.00	2.26	2.54	2.66	2.77	2.92	3.10				

STATUS FLAG CODES

C	- CALIBRATION	Q	- QUALITY ASSURANCE
Y	- MAINTENANCE	R	- RECOVERY
S	- DAILY ZERO/SPAN CHECK	X	- MACHINE MALFUNCTION
P	- POWER FAILURE	O	- OPERATOR ERROR
G	- OUT FOR REPAIR	K	- COLLECTION ERROR

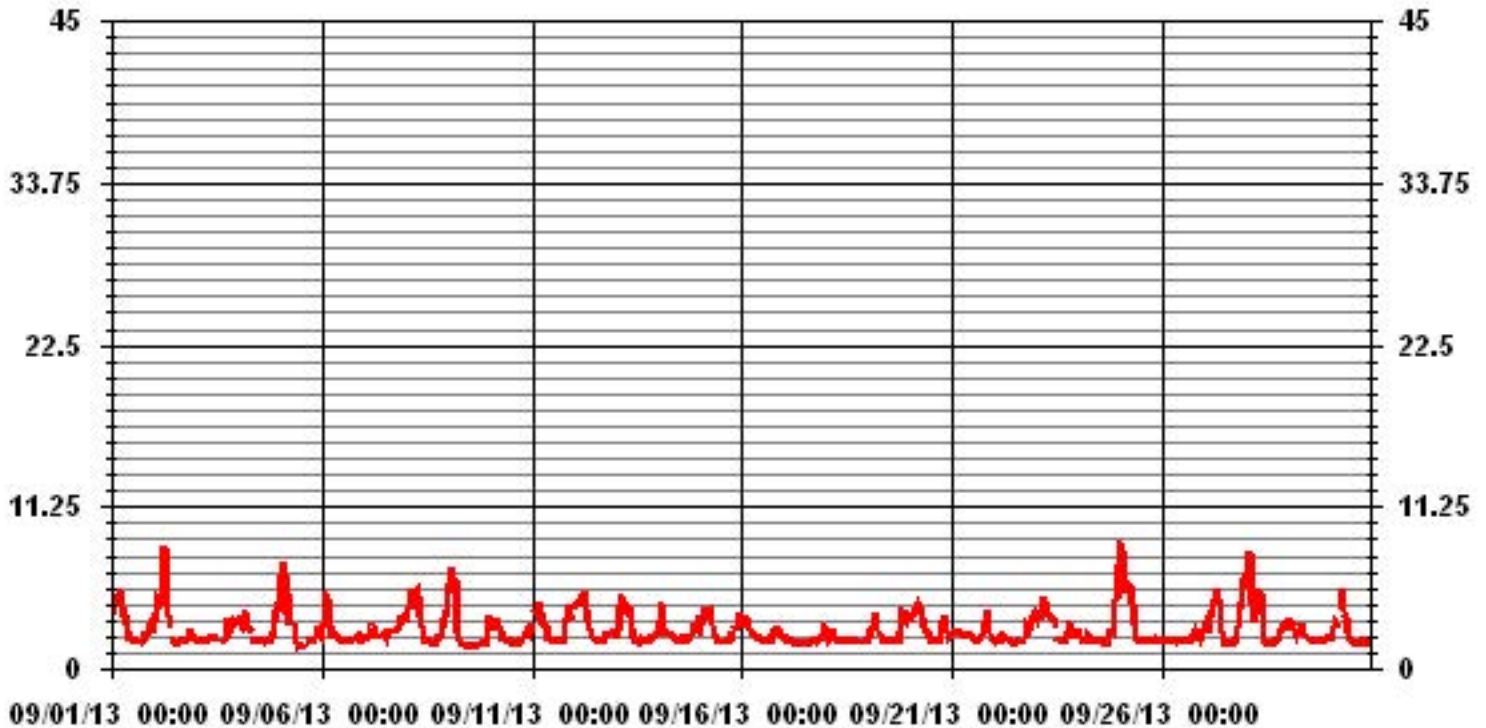
24 AVERAGES FOR SEPTEMBER 2013



MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	682
MAXIMUM 1-HR AVERAGE:	8.8 PPM @ HOUR(S) 0 ON DAY(S) 25
MAXIMUM 24-HR AVERAGE:	3.6 PPM ON DAY(S) 25
IZS CALIBRATION TIME:	31 HRS
MONTHLY CALIBRATION TIME:	3 HRS
OPERATIONAL TIME:	716 HRS
AMD OPERATION UPTIME:	99.4 %
STANDARD DEVIATION:	1.16
MONTHLY AVERAGE:	2.74 PPM

01 Hour Averages



— LICA35 METHANE PPM

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - PORTABLE SITE

SEPTEMBER 2013

METHANE 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	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		4.9	5.0	6.0	6.2	7.3	7.1	6.1	4.3	3.7	3.1	2.3	S	2.3	2.2	2.2	2.3	2.5	2.2	2.5	2.7	2.9	4.0	4.5	4.0	4.0	7.3	3.9	24
2		3.6	4.9	5.5	5.3	6.4	5.6	11.0	7.3	5.4	4.2	S	2.0	1.9	1.9	1.9	2.0	2.1	2.1	2.1	2.5	3.3	3.6	2.9	2.3	11.0	3.9	24	
3		2.2	2.2	2.0	2.0	2.1	2.1	2.1	2.3	2.3	S	2.4	2.3	X	X	Y	Y	2.1	2.5	4.4	4.3	3.9	3.8	4.3	5.9	5.9	2.9	20	
4		4.3	5.6	5.0	5.1	5.3	4.0	3.9	3.8	S	2.3	2.1	2.0	2.1	2.1	2.1	2.0	2.1	2.1	2.1	2.5	2.6	4.5	5.1	5.9	5.9	3.4	24	
5		7.0	6.8	8.4	7.6	6.0	3.4	8.8	S	4.2	2.8	1.7	1.8	2.0	2.0	C	C	C	C	2.4	2.1	2.8	3.3	3.2	2.7	8.8	4.2	24	
6		3.4	4.2	7.4	6.3	5.1	2.7	S	2.7	2.8	2.3	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.2	2.4	2.5	2.7	2.6	2.1	7.4	3.0	24	
7		2.2	2.2	2.6	3.5	2.4	S	3.5	2.8	2.7	2.6	2.6	2.7	2.7	2.7	3.0	3.0	2.9	3.5	3.1	3.4	3.4	3.8	3.8	4.9	4.9	3.0	24	
8		5.3	4.9	4.8	7.7	S	6.1	7.1	7.1	4.3	3.7	2.7	2.2	2.1	2.1	2.0	1.9	2.0	1.9	2.7	2.4	2.7	6.7	6.1	5.3	7.7	4.1	24	
9		7.9	6.0	9.6	S	8.4	3.4	2.4	2.2	2.1	1.9	1.8	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.8	2.0	2.0	1.9	2.0	3.1	9.6	3.1	24	
10		4.5	3.8	S	4.2	4.6	3.6	3.1	2.6	2.3	2.1	2.1	1.9	1.9	1.9	1.9	2.1	1.9	1.9	2.2	2.4	2.9	2.4	3.8	2.7	4.6	2.7	24	
11		3.3	S	4.3	4.8	5.2	5.2	3.7	3.6	3.7	2.6	2.6	2.1	1.9	1.9	1.9	1.9	2.0	1.9	2.6	5.2	4.0	6.6	6.5	5.0	6.6	3.6	24	
12		S	7.4	5.3	4.9	6.3	6.2	6.9	5.3	3.8	3.6	2.7	2.6	2.7	2.2	2.3	2.3	2.1	2.8	2.5	2.5	2.7	2.8	3.0	S	7.4	3.8	24	
13		2.4	4.2	6.0	9.1	4.9	6.2	6.1	4.9	4.2	3.2	3.0	2.1	2.1	2.0	2.4	2.3	2.0	2.0	2.0	2.0	2.2	2.3	2.4	S	2.6	9.1	3.5	24
14		2.8	7.2	7.2	2.9	2.7	2.6	2.6	2.6	2.7	2.4	2.3	2.0	2.1	2.2	2.2	2.2	2.3	2.1	2.5	3.2	3.6	S	3.1	3.6	7.2	3.0	24	
15		8.0	4.1	6.5	6.3	4.6	5.2	5.6	4.2	2.9	2.6	2.3	2.0	2.0	2.1	2.2	2.1	2.0	2.5	3.1	2.9	S	7.4	5.9	6.6	8.0	4.0	24	
16		3.9	4.4	5.0	4.5	3.3	3.0	2.6	3.0	2.6	2.4	2.5	2.2	2.3	2.1	2.0	2.0	2.1	3.2	4.2	S	3.1	3.2	2.6	2.6	5.0	3.0	24	
17		2.4	2.9	2.5	2.6	2.6	2.1	2.1	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	2.1	S	2.1	2.4	2.8	2.7	4.7	4.7	2.3	24	
18		2.9	3.1	2.2	2.5	3.6	3.6	2.0	2.0	1.9	1.9	2.0	1.9	2.0	1.9	1.9	2.0	S	2.0	2.0	2.1	2.0	1.9	2.1	3.6	2.2	2.2	24	
19		2.4	2.9	3.0	3.3	5.7	3.8	2.7	2.7	2.2	2.0	2.0	2.0	2.0	1.9	2.0	2.0	S	2.2	4.3	5.4	5.4	4.4	4.8	5.7	5.7	3.2	24	
20		4.7	7.4	5.1	5.9	5.7	5.6	4.9	4.1	3.4	3.1	2.9	2.6	2.3	1.9	2.0	S	2.2	2.1	6.9	7.9	7.1	4.3	2.8	3.4	7.9	4.3	24	
21		3.2	3.0	3.7	2.7	2.7	2.8	2.5	2.4	2.5	2.5	2.6	2.5	2.3	1.9	S	2.7	4.4	2.9	3.5	4.3	12.0	3.6	2.6	2.9	12.0	3.3	24	
22		2.3	2.1	2.1	2.2	2.7	3.2	2.8	3.0	2.4	2.0	2.0	1.9	2.0	1.9	2.1	2.4	2.0	3.3	5.6	4.2	3.5	5.2	5.5	9.1	9.1	3.1	24	
23		5.8	5.1	4.4	5.2	6.6	5.0	6.5	4.7	4.0	3.7	3.8	3.8	S	1.9	1.9	2.1	2.0	2.1	2.6	3.8	4.6	3.0	2.7	3.3	2.3	6.6	3.9	24
24		4.4	3.0	2.6	2.2	2.2	3.6	3.1	3.0	2.4	2.2	2.0	S	1.9	1.9	1.9	1.9	1.9	2.8	3.1	3.7	3.2	6.7	5.8	9.7	9.7	3.3	24	
25		11.7	13.1	10.1	7.2	9.1	8.0	7.6	6.1	5.1	2.5	S	1.9	2.1	1.9	1.9	1.9	1.9	1.9	2.1	2.1	2.8	2.8	2.1	2.1	13.1	4.7	24	
26		2.1	2.1	2.0	2.0	2.0	2.1	2.2	2.2	2.0	S	1.9	2.0	2.0	1.9	2.0	2.0	2.2	2.8	3.6	2.6	2.9	2.4	2.9	3.6	2.3	2.3	24	
27		3.5	3.4	3.9	4.3	4.4	5.3	5.7	7.3	S	5.5	3.9	2.2	2.0	1.9	1.8	1.8	1.9	2.1	3.8	3.8	5.8	6.7	9.1	11.5	11.5	4.4	24	
28		7.3	8.9	9.6	7.2	3.6	6.0	6.5	S	5.4	4.9	2.8	2.3	2.1	1.9	2.2	2.3	2.1	2.2	2.6	3.0	3.7	3.1	4.8	4.6	9.6	4.3	24	
29		3.7	5.1	4.9	3.2	2.7	4.3	S	4.5	2.7	2.6	2.6	2.6	2.3	1.9	2.1	2.1	2.1	2.0	2.1	2.1	2.3	2.3	2.4	2.6	5.1	2.8	24	
30		2.5	3.3	4.0	5.0	3.3	S	6.0	6.0	5.8	4.3	3.7	2.2	2.1	1.9	1.9	1.9	2.0	2.0	2.1	2.0	2.1	2.1	2.1	2.1	6.0	3.1	24	
HOURLY MAX		11.7	13.1	10.1	9.1	9.1	8.0	11.0	7.3	5.8	5.5	3.9	3.8	2.7	2.7	3.0	3.0	4.4	3.5	6.9	7.9	12.0	7.4	9.1	11.5				
HOURLY AVG		4.30	4.77	5.01	4.69	4.53	4.36	4.64	3.88	3.27	2.88	2.48	2.20	2.10	2.00	2.06	2.09	2.14	2.31	3.00	3.23	3.55	3.82	3.85	4.30				

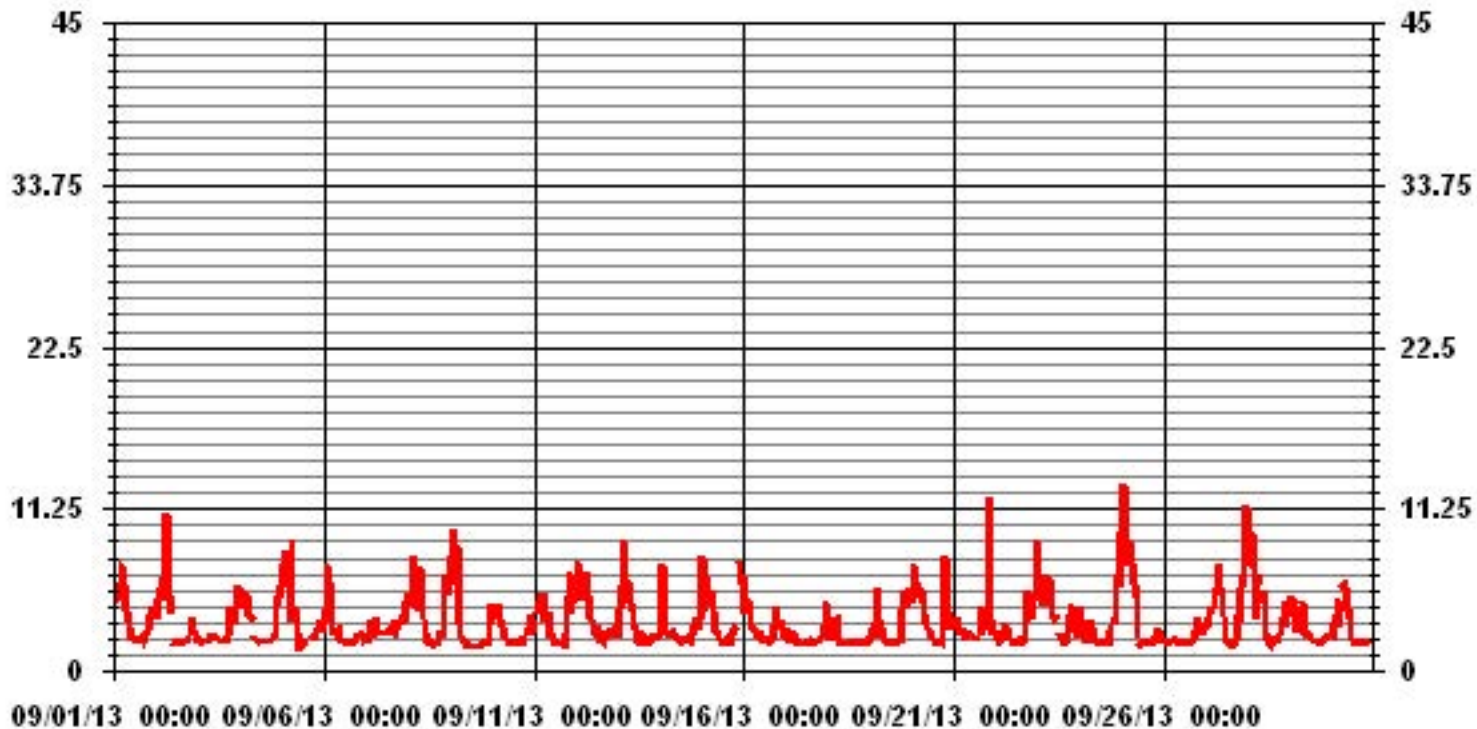
STATUS FLAG CODES

C	- CALIBRATION	Q	- QUALITY ASSURANCE
Y	- MAINTENANCE	R	- RECOVERY
S	- DAILY ZERO/SPAN CHECK	X	- MACHINE MALFUNCTION
P	- POWER FAILURE	O	- OPERATOR ERROR
G	- OUT FOR REPAIR	K	- COLLECTION ERROR

MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	682
MAXIMUM INSTANTANEOUS VALUE:	13.1 PPM @ HOUR(S) 1 ON DAY(S) 25
IZS CALIBRATION TIME:	30 HRS
MONTHLY CALIBRATION TIME:	4 HRS
STANDARD DEVIATION:	1.83
OPERATIONAL TIME:	716 HRS

01 Hour Averages



— LICA35 MATHMAX PPM

LICA35
 METHANE / WDR Joint Frequency Distribution (Percent)

September 2013

Distribution By % Of Samples

Logger Id : 35
 Site Name : LICA35
 Parameter : METHANE
 Units : PPM

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	
< 3.0	1.31	1.17	3.22	2.05	1.46	5.13	5.42	3.51	2.93	2.63	2.19	4.83	10.85	10.70	11.73	1.90	71.11
< 10.0	.43	.14	.58	.73	4.25	7.18	3.07	.73	.14	.43	.43	1.31	3.22	4.25	1.61	.29	28.88
< 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	1.75	1.31	3.81	2.78	5.71	12.31	8.50	4.25	3.07	3.07	2.63	6.15	14.07	14.95	13.34	2.19	

Calm : .00 %

Total # Operational Hours : 682

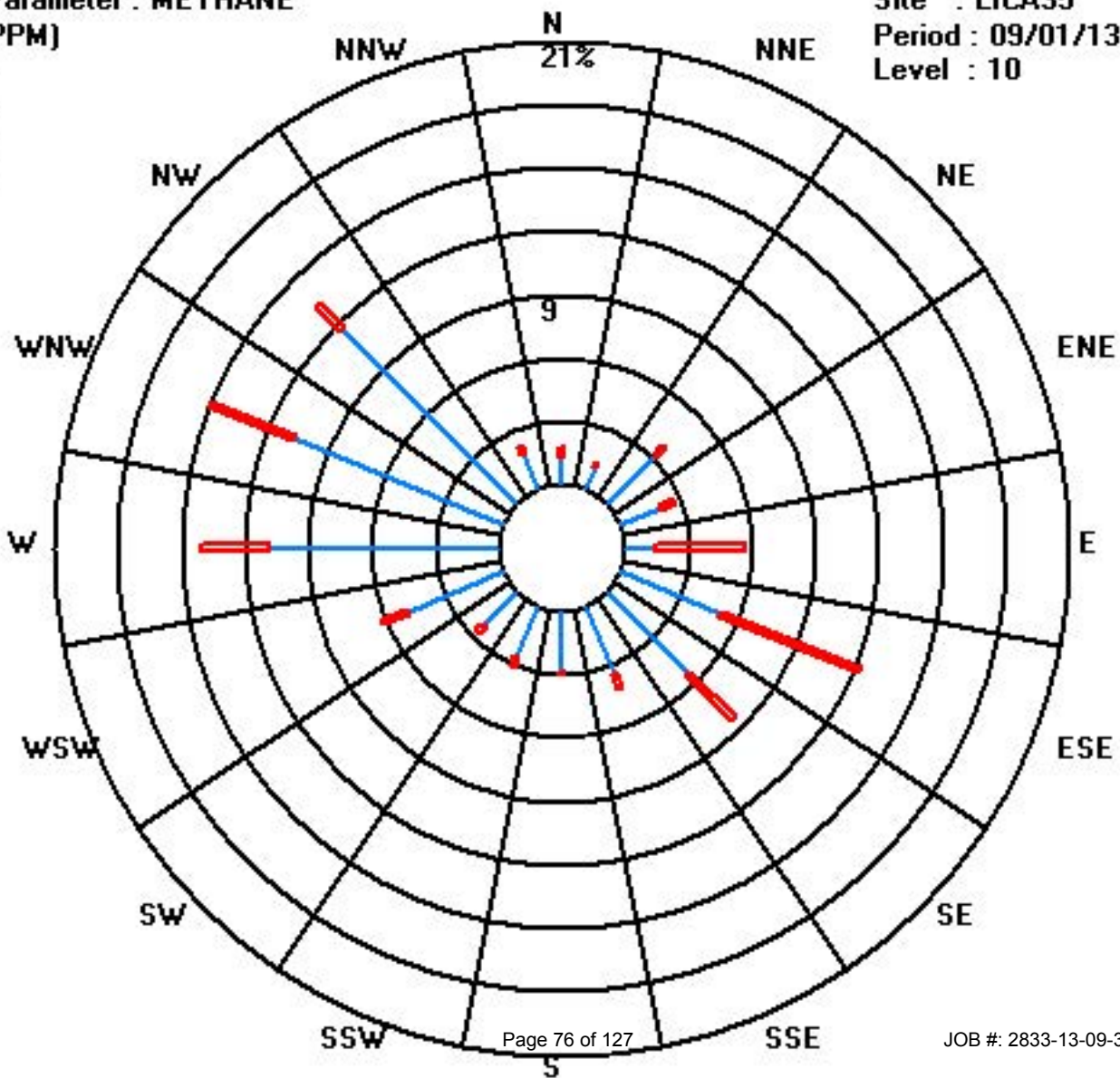
Distribution By Samples

Limit	Direction																Freq
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
< 3.0	9	8	22	14	10	35	37	24	20	18	15	33	74	73	80	13	485
< 10.0	3	1	4	5	29	49	21	5	1	3	3	9	22	29	11	2	197
< 50.0																	
>= 50.0																	
Totals	12	9	26	19	39	84	58	29	21	21	18	42	96	102	91	15	

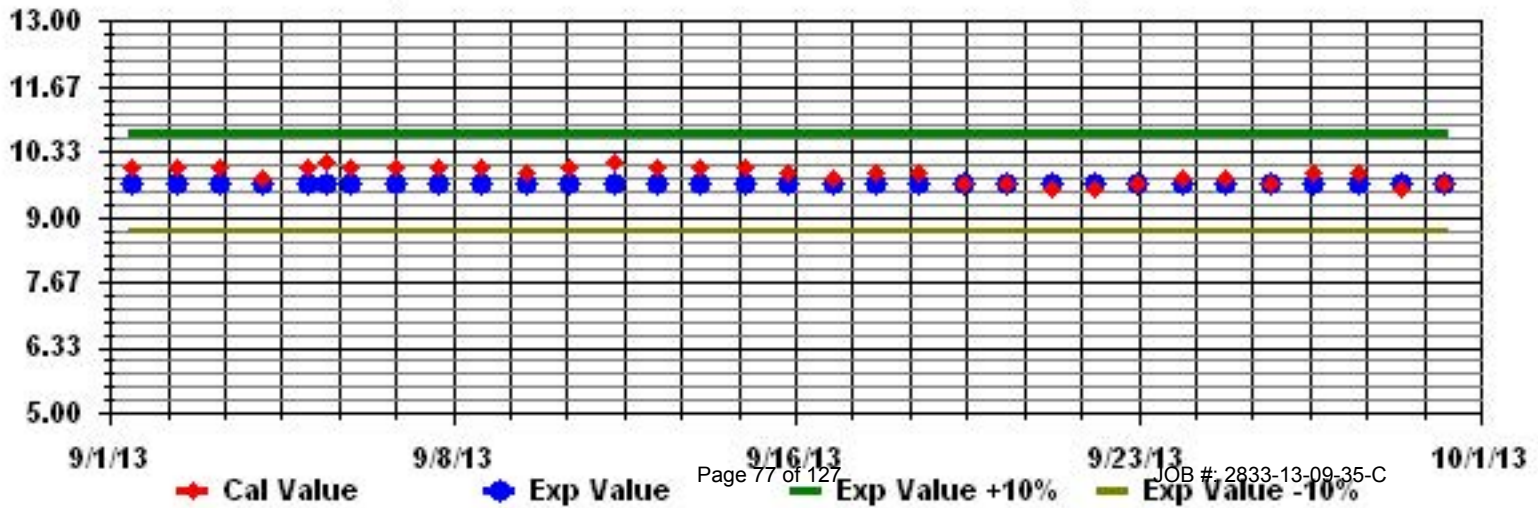
Calm : .00 %

Total # Operational Hours : 682

Class Limits (PPM)



Calibration Graph for Site: LICA35 Parameter: METHANE Sequence: THC55 Phase: SPAN



Non-Methane Hydrocarbons

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - PORTABLE SITE

SEPTEMBER 2013

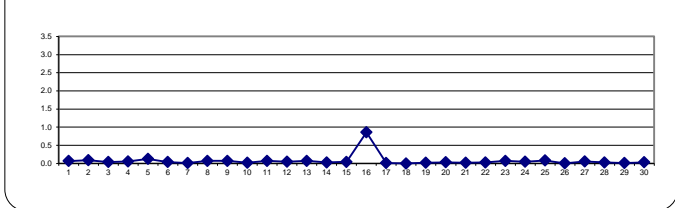
NON-METHANE HYDROCARBONS hourly averages in ppm

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	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		0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.0	0.0	S	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.1	0.2	0.1	24
2		0.1	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.1	0.1	S	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.3	0.1	24
3		0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0	S	0.0	0.0	X	X	Y	Y	0.0	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.0	20
4		0.1	0.0	0.1	0.0	0.1	0.1	0.0	0.0	S	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.2	0.3	0.3	0.1	24
5		0.4	0.3	0.2	0.2	0.2	0.1	0.2	S	0.2	0.0	0.1	0.0	0.1	0.1	0.1	C	C	C	0.0	0.0	0.1	0.1	0.0	0.1	0.4	0.1	24
6		0.1	0.1	0.2	0.2	0.1	0.0	S	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	24
7		0.0	0.0	0.0	0.0	0.0	S	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.1	0.0	24
8		0.1	0.1	0.2	0.2	S	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.2	0.2	0.2	0.1	24
9		0.3	0.3	0.3	S	0.3	0.1	0.1	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	0.0	0.0	0.0	0.1	0.3	0.1	24
10		0.1	0.0	S	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.1	24
11		0.1	S	0.1	0.2	0.2	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.2	0.1	0.1	0.2	0.1	24
12		S	0.1	0.1	0.2	0.2	0.1	0.1	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	S	0.2	0.1	24
13		0.0	0.0	0.2	0.1	0.2	0.2	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.1	0.1	0.0	0.1	S	0.0	0.2	0.1	24
14		0.0	0.1	0.2	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	S	0.0	0.1	0.2	0.0	24
15		0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	S	0.0	0.0	0.1	0.2	0.0	24
16		0.1	0.1	0.1	0.1	0.2	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	15.0	3.2	0.2	0.1	S	0.1	0.1	0.1	0.1	15.0	0.9	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	0.0	0.0	0.0	0.0	S	0.0	0.0	0.0	0.1	0.1	0.1	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	0.0	0.0	0.0	S	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	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	S	0.0	0.0	0.1	0.0	0.1	0.1	0.0	0.1	0.0	24
20		0.1	0.0	0.0	0.1	0.1	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	S	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	24
21		0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	S	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.0	24
22		0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	S	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.1	0.0	24
23		0.0	0.1	0.1	0.2	0.1	0.2	0.3	0.1	0.1	0.1	0.1	0.1	S	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.3	0.1	24
24		0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	S	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.2	0.2	0.4	0.4	0.0	24
25		0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.0	S	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.1	24
26		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	S	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.0	24
27		0.0	0.0	0.0	0.1	0.1	0.2	0.1	0.1	S	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.2	0.2	0.1	24
28		0.1	0.2	0.1	0.0	0.0	0.0	0.1	S	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	24
29		0.0	0.0	0.0	0.0	0.0	0.0	S	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	24
30		0.0	0.0	0.0	0.0	0.1	S	0.2	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	24
HOURLY MAX		0.4	0.3	0.3	0.2	0.3	0.2	0.3	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	15.0	3.2	0.2	0.1	0.2	0.1	0.2	0.2	0.2	0.4		
HOURLY AVG		0.08	0.08	0.09	0.09	0.10	0.09	0.08	0.06	0.05	0.02	0.01	0.01	0.00	0.00	0.01	0.57	0.12	0.01	0.02	0.03	0.03	0.04	0.06	0.07			

STATUS FLAG CODES

C	- CALIBRATION	Q	- QUALITY ASSURANCE
Y	- MAINTENANCE	R	- RECOVERY
S	- DAILY ZERO/SPAN CHECK	X	- MACHINE MALFUNCTION
P	- POWER FAILURE	O	- OPERATOR ERROR
G	- OUT FOR REPAIR	K	- COLLECTION ERROR

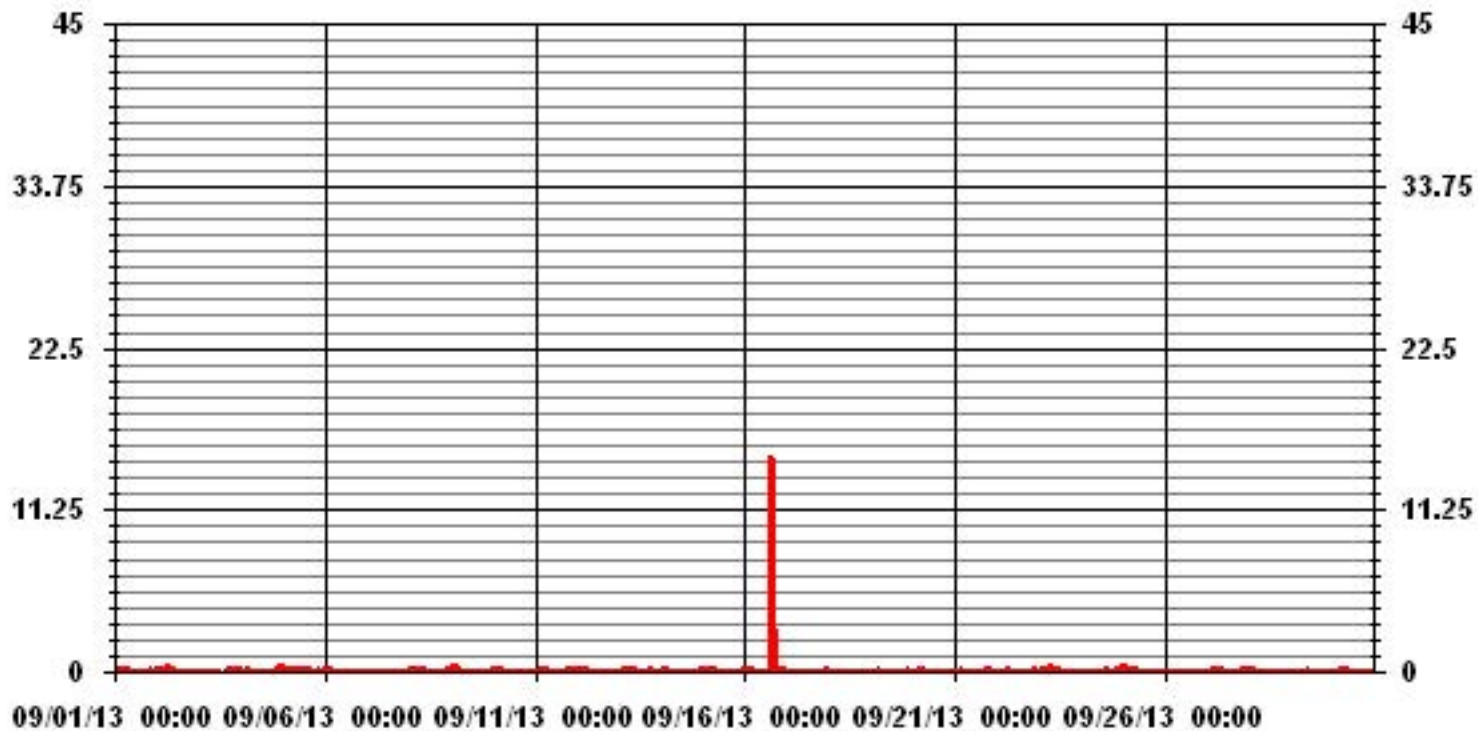
24 AVERAGES FOR SEPTEMBER 2013



MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	224					
MAXIMUM 1-HR AVERAGE:	15.0	PPM	@ HOUR(S)	15	ON DAY(S)	16
MAXIMUM 24-HR AVERAGE:	0.9	PPM			ON DAY(S)	16
IZS CALIBRATION TIME:	31	HRS	OPERATIONAL TIME:	716	HRS	
MONTHLY CALIBRATION TIME:	3	HRS	AMD OPERATION UPTIME:	99.4	%	
STANDARD DEVIATION:	0.59		MONTHLY AVERAGE:	0.07	PPM	

01 Hour Averages



LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - PORTABLE SITE

SEPTEMBER 2013

NON-METHANE 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	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	0.2	0.3	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.2	S	0.2	0.2	0.1	0.2	0.1	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.3	0.2	24
2	2	0.3	0.4	0.3	0.3	0.3	0.3	0.4	0.4	0.3	0.2	S	0.1	0.2	0.1	0.1	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.4	0.2	24
3	3	0.2	0.0	0.2	0.2	0.2	0.2	0.0	0.2	0.0	S	0.1	0.0	X	X	Y	Y	0.3	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.3	0.2	20
4	4	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	S	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.2	0.3	0.3	0.5	0.4	0.5	0.3	0.2	24	
5	5	0.5	0.4	0.4	0.3	0.3	0.2	0.4	S	0.3	0.2	0.2	0.2	0.2	C	C	C	C	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.5	0.3	24
6	6	0.2	0.3	0.3	0.3	0.3	0.2	S	0.2	0.2	0.2	0.2	0.0	0.1	0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.3	0.2	24	
7	7	0.1	0.2	0.1	0.1	0.2	S	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.1	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.2	24	
8	8	0.2	0.3	0.2	0.2	S	0.3	0.3	0.3	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	24	
9	9	0.3	0.3	0.4	S	0.4	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.1	0.0	0.2	0.1	0.0	0.2	0.1	0.2	0.2	0.1	0.0	0.2	0.4	0.2	24	
10	10	0.2	0.2	S	0.2	0.2	0.3	0.3	0.1	0.1	0.2	0.0	0.1	0.0	0.1	0.1	0.1	0.0	0.1	0.3	0.2	0.1	0.2	0.2	0.2	0.3	0.1	24	
11	11	0.3	S	0.2	0.2	0.3	0.3	0.2	0.3	0.2	0.1	0.1	0.0	0.2	0.0	0.1	0.0	0.0	0.1	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	24
12	12	S	0.2	0.3	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.1	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	S	0.3	0.2	24	
13	13	0.1	0.3	0.3	0.3	0.2	0.4	0.3	0.2	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.3	0.3	0.2	0.3	0.4	S	0.2	0.4	0.2	24	
14	14	0.3	0.4	0.4	0.2	0.2	0.2	0.5	0.4	0.2	0.2	0.1	0.0	0.1	0.1	0.1	0.3	0.2	0.1	0.1	0.1	0.2	S	0.2	0.2	0.5	0.2	24	
15	15	0.3	0.3	0.2	0.3	0.2	0.3	0.3	0.2	0.2	0.1	0.0	0.0	0.2	0.1	0.0	0.1	0.1	0.1	0.2	0.2	S	0.1	0.1	0.3	0.3	0.2	24	
16	16	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.3	0.1	0.2	0.2	0.2	20.3	15.3	0.3	0.3	S	0.2	0.2	0.3	0.2	20.3	1.8	24		
17	17	0.2	0.3	0.1	0.1	0.0	0.0	0.0	0.2	0.0	0.2	0.0	0.2	0.0	0.1	0.0	0.2	0.1	0.1	S	0.0	0.0	0.0	0.2	0.2	0.3	0.1	24	
18	18	0.1	0.2	0.1	0.1	0.2	0.1	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	S	0.0	0.1	0.2	0.0	0.0	0.0	0.2	0.1	24	
19	19	0.1	0.0	0.1	0.2	0.2	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	S	0.0	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	24	
20	20	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.1	0.2	S	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.1	0.3	0.2	24	
21	21	0.0	0.1	0.2	0.2	0.3	0.2	0.2	0.0	0.2	0.1	0.2	0.2	0.2	0.1	S	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.3	0.2	24	
22	22	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	S	0.1	0.1	0.0	0.1	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	24	
23	23	0.2	0.5	0.4	0.3	0.3	0.4	0.4	0.2	0.2	0.2	0.2	0.2	S	0.3	0.1	0.2	0.0	0.0	0.1	0.2	0.2	0.2	0.2	0.3	0.5	0.2	24	
24	24	0.5	0.2	0.1	0.2	0.2	0.2	0.3	0.2	0.2	0.0	0.1	S	0.0	0.1	3.3	0.4	0.0	0.1	0.1	0.1	0.1	0.3	0.3	0.9	3.3	0.3	24	
25	25	0.6	0.7	0.5	0.4	0.5	0.6	0.5	0.3	0.2	0.0	S	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.7	0.2	24	
26	26	0.1	0.0	0.2	0.0	0.0	0.1	0.0	0.0	0.0	S	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.2	0.2	0.2	0.3	0.2	0.3	0.1	24		
27	27	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	S	0.2	0.2	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.3	0.4	0.5	0.6	0.5	0.4	0.6	0.2	24	
28	28	0.3	0.4	0.4	0.3	0.2	0.3	0.3	S	0.4	0.3	0.1	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.2	0.1	0.2	0.2	0.2	0.4	0.2	24	
29	29	0.2	0.2	0.2	0.2	0.2	0.2	S	0.2	0.2	0.2	0.2	0.2	0.0	0.0	0.1	0.0	0.2	0.1	0.1	0.2	0.1	0.2	0.2	0.2	0.2	0.1	24	
30	30	0.2	0.2	0.2	0.2	0.6	S	0.5	0.3	0.2	0.3	0.2	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.0	0.0	0.2	0.6	0.2	24	
HOURLY MAX		0.6	0.7	0.5	0.4	0.6	0.6	0.5	0.4	0.4	0.3	0.2	0.2	0.2	0.3	3.3	20.3	15.3	0.3	0.3	0.4	0.5	0.6	0.5	0.9				
HOURLY AVG		0.23	0.25	0.25	0.22	0.24	0.25	0.26	0.20	0.17	0.17	0.13	0.10	0.10	0.10	0.22	0.88	0.65	0.11	0.16	0.18	0.20	0.18	0.20	0.22				

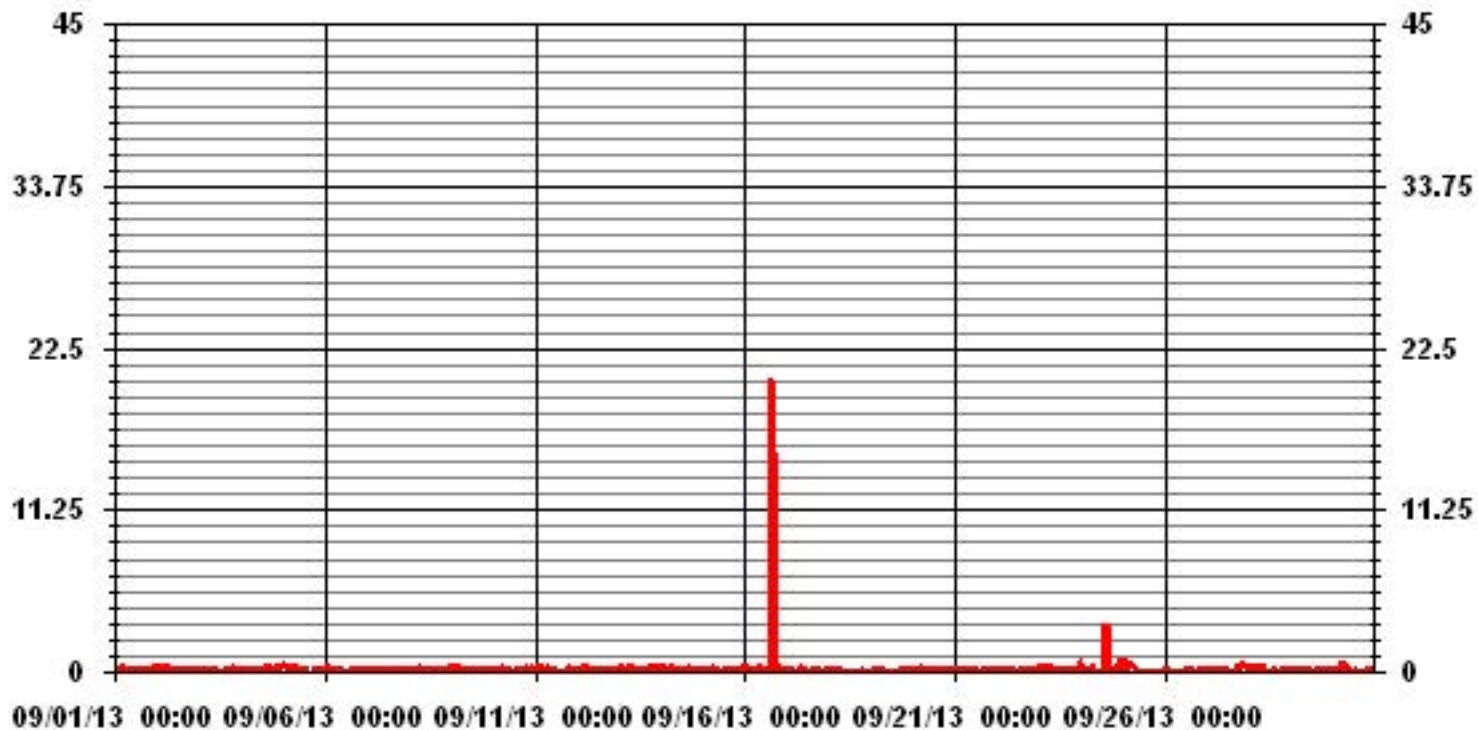
STATUS FLAG CODES

C	- CALIBRATION	Q	- QUALITY ASSURANCE
Y	- MAINTENANCE	R	- RECOVERY
S	- DAILY ZERO/SPAN CHECK	X	- MACHINE MALFUNCTION
P	- POWER FAILURE	O	- OPERATOR ERROR
G	- OUT FOR REPAIR	K	- COLLECTION ERROR

MONTHLY SUMMARY

NUMBER OF NON-ZERO READINGS:	575
MAXIMUM INSTANTANEOUS VALUE:	20.3 PPM @ HOUR(S) 15 ON DAY(S) 16
IZS CALIBRATION TIME:	31 HRS
MONTHLY CALIBRATION TIME:	4 HRS
STANDARD DEVIATION:	0.98
OPERATIONAL TIME:	716 HRS

01 Hour Averages



— LICA35 TMMHCMAX PPM

LICA35
 NMHC / WDR Joint Frequency Distribution (Percent)

September 2013

Distribution By % Of Samples

Logger Id : 35
 Site Name : LICA35
 Parameter : NMHC
 Units : PPM

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	
< .2	1.61	1.31	3.81	2.78	5.57	12.17	8.50	4.10	3.07	2.63	2.49	6.01	14.07	14.22	13.19	2.19	97.80
< .5	.14	.00	.00	.00	.14	.14	.00	.00	.00	.29	.14	.14	.00	.73	.14	.00	1.90
< 1.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
< 2.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
< 4.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.14	.00	.00	.00	.00	.00	.00	.14
>= 4.0	.00	.00	.00	.00	.00	.00	.00	.14	.00	.00	.00	.00	.00	.00	.00	.00	.14
Totals	1.75	1.31	3.81	2.78	5.71	12.31	8.50	4.25	3.07	3.07	2.63	6.15	14.07	14.95	13.34	2.19	

Calm : .00 %

Total # Operational Hours : 682

Distribution By Samples

Limit	Direction																Freq
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
< .2	11	9	26	19	38	83	58	28	21	18	17	41	96	97	90	15	667
< .5	1				1	1				2	1	1		5	1		13
< 1.0																	
< 2.0																	
< 4.0										1							1
>= 4.0								1									1
Totals	12	9	26	19	39	84	58	29	21	21	18	42	96	102	91	15	

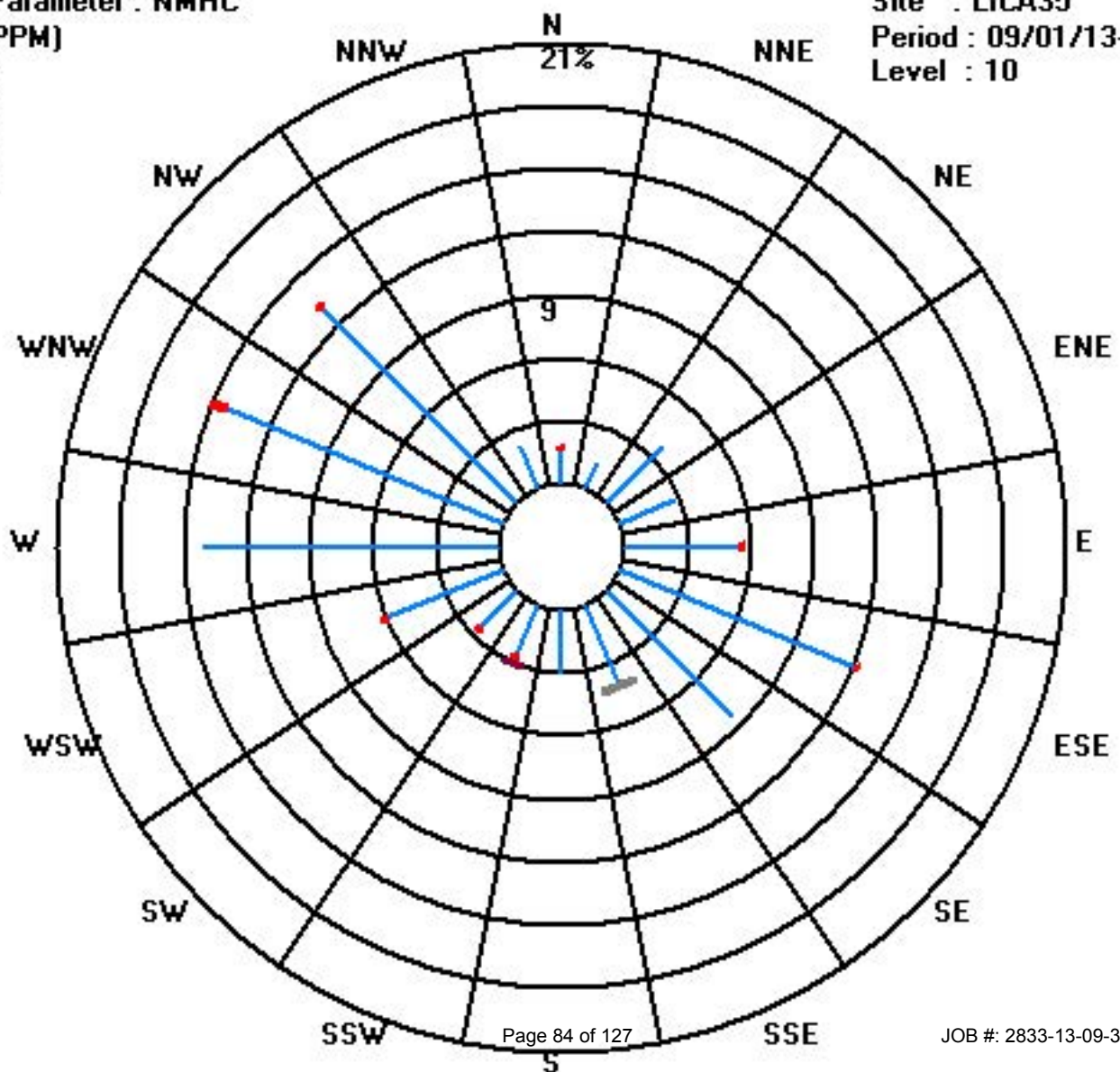
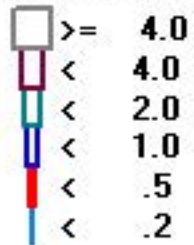
Calm : .00 %

Total # Operational Hours : 682

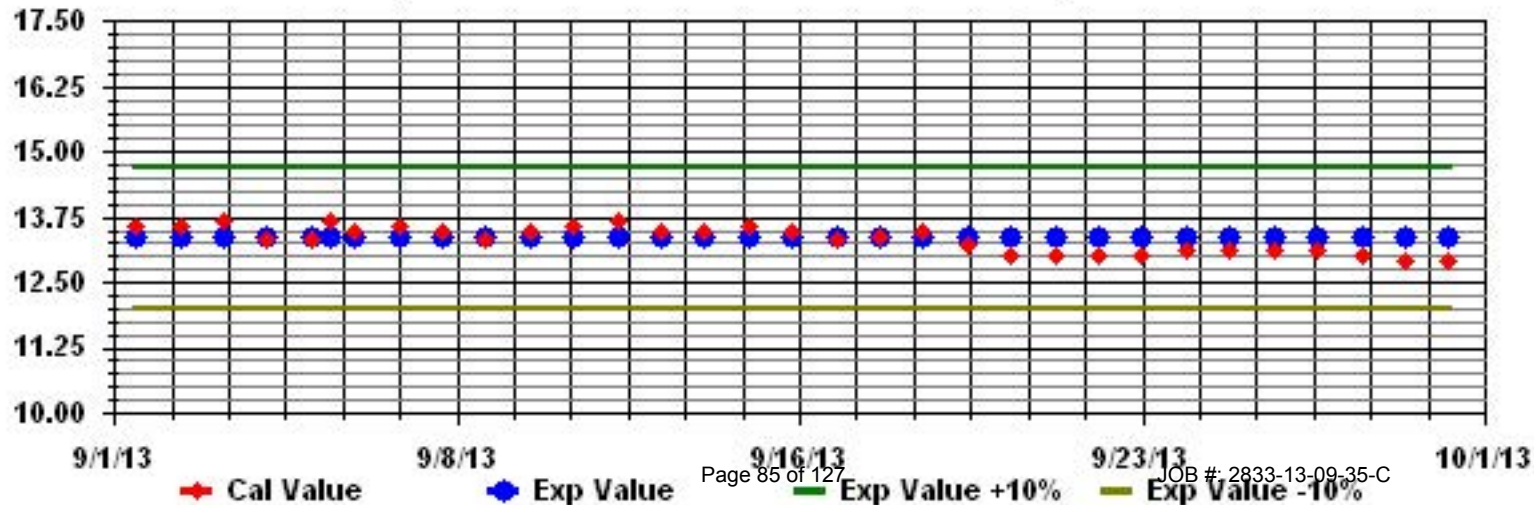
Class Limits (PPM)

Period : 09/01/13-09/30/13

Level : 10



Calibration Graph for Site: LICA35 Parameter: NMHC Sequence: THC55 Phase: SPAN



Vector Wind Speed

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - PORTABLE SITE

SEPTEMBER 2013

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	
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	2.4	2.6	3.8	1.2	4.5	5.5	6.5	8.7	6.1	8.1	13	12.4	18.2	20.1	19.2	18.9	18.6	13.8	10.1	10.3	10.5	3.7	1.1	1.4	20.1	7.9	24
2	2	4.1	4.8	4	5.9	4.2	2.1	1.1	3.8	3.8	7.1	9.5	10.5	12.5	15.5	13.5	10.9	14.8	11.7	10.1	7.1	8.1	8.9	7.5	15.5	6.9	24	
3	3	12.7	13.1	10.3	11.5	8.4	8.7	8.2	8.9	8.4	7.5	8.8	7.2	10.2	8.5	9.8	10.9	12.4	8.6	6.1	6.8	10.6	9.5	10.5	13.1	7.6	24	
4	4	8.6	7.9	8.3	7.6	6.4	5	8.8	10.6	10	15.3	14	12.7	12.4	9.3	12.4	11.4	9.4	5.8	6.5	7.4	7	7.3	5	0.8	15.3	2.6	24
5	5	2.2	0.1	5.4	1.6	8.7	6.5	3.8	4	2.9	13.1	11.1	14.2	16.9	15.1	12.7	13.6	10.8	11.7	7.5	9	8.7	11.2	9	2.9	16.9	8.4	24
6	6	2.7	6.8	6.3	7	8.8	6.9	5.5	4.2	5.7	6.3	6.7	4.1	6.5	7.7	6.8	7.2	9.4	8.9	6.9	2.8	2.1	4.6	7	8.3	9.4	6.2	24
7	7	5.9	2.1	5.9	1.6	5.3	8.7	3	6.3	5.3	8.6	9.1	4.3	6.1	8.7	10.4	4	0.6	1.2	2.4	1.9	1.3	2.3	1.2	2.9	10.4	4.5	24
8	8	5.5	5.9	5	4.9	3.9	2.2	1.8	4.3	3.5	2.1	6.5	9.4	8.2	7.5	11.6	10.5	10.6	10.3	7.4	7.4	4.5	0.6	1.5	2.1	11.6	5.7	24
9	9	0.7	1.6	5.6	3.5	7.4	10.2	12.9	14.4	16.9	19.2	17.2	20.4	22.2	25.1	23.5	23	20.9	19.7	14.2	13	15.2	14.5	12.7	9.5	25.1	14.3	24
10	10	11.3	13.4	13	11.6	9.5	15.8	14	9.2	13.6	10.2	12.3	13.5	18.2	18.2	26.6	24.8	23.6	19.7	13.9	12.9	8.2	9.1	7.1	9.9	26.6	14.2	24
11	11	9.3	5.6	6.8	6.3	4.9	3.8	4	3.8	1.7	0.7	4.2	6.6	6.7	9.8	8.1	8.6	9	4.6	0.4	3.3	4.8	7.4	7.5	5.9	9.8	5.6	24
12	12	5.7	6.3	6.2	5.4	7.6	6.9	8.2	9.4	8.5	10	11	14.5	20.9	22.8	22.6	23	20.7	17.3	10.4	11.3	11.2	17.9	5.8	4.6	23.0	12.0	24
13	13	0.7	2.3	3.9	5	4.3	5.7	2.1	0.2	4.5	7.7	7.6	5.1	11.5	16.9	16.7	17.6	19	17.8	12.8	9.3	3.1	3.8	2.8	6	19.0	7.8	24
14	14	6.1	6.1	7.4	8.1	5.8	3.3	2.4	4.5	9.7	8.6	5.2	5	1.5	3.3	2.4	5	7.7	9.6	10.2	8	9.3	7.6	6.6	8.1	10.2	6.3	24
15	15	9.3	7.9	7.9	5.4	5.3	6.3	7.3	10.6	13.2	17.4	19.1	24.2	25.4	25.1	25	23.7	20.8	18	13.1	10.6	12.3	13.4	14.1	12.4	25.4	14.5	24
16	16	12.6	7.2	7.3	8.8	9.8	16.1	18.9	21.3	20.2	19.9	24.2	25.6	24.5	25	25	20	17.8	10.7	8.7	8.5	11.4	10.3	8.4	15.4	25.6	15.7	24
17	17	16.3	22.9	25.4	22.8	22.6	15.4	15.9	17.9	28.6	33.4	35.1	32.5	35.8	37.9	39.7	38.7	32.9	26.7	18.7	20.4	15.3	14.3	12.1	4.4	39.7	24.4	24
18	18	6.2	9.1	10.9	11	13.3	13.4	19.6	19.5	19.9	19.9	18.4	20.9	22.3	22	20	19.6	17	13.5	12.3	14.1	13.6	15.2	14.2	11.9	22.3	15.7	24
19	19	11	9.6	7.2	6	5.9	6.9	5.8	5.2	9.9	7	7.2	8.2	7	8.7	6.9	5.9	4.6	1.8	5.6	7.8	6.3	8.6	8.2	9.4	11.0	7.1	24
20	20	9.6	9.1	10	8.1	4.2	5.7	9.9	14.6	14.3	15.2	19.1	19.1	19.6	18.9	19	19.6	18	11.8	7.6	7.5	11	13.8	16	13.3	19.6	13.1	24
21	21	13.5	13.4	11.1	11.9	11	12.8	12	15.8	17.1	16.7	13.8	15.3	14.6	14.1	14.5	17.4	13.3	11.7	8.8	12	12.1	11.6	10.4	14.9	17.4	13.3	24
22	22	17.4	14.9	15.8	12.9	13.1	5.4	8.5	6.4	11.6	12.5	14.1	12.6	7.1	6.9	8.3	9.8	9.6	10.3	10	11.3	9.4	13	12.5	9.9	17.4	11.0	24
23	23	7.7	5.7	1.4	2.1	3.7	3.2	4.3	4.1	0.8	1.1	3.4	7.4	11	11.6	14	17.5	21.8	13	11	9.4	9.1	9.6	11.1	13.2	21.8	8.2	24
24	24	10.2	13	12	13.3	10.1	11.2	13.1	11.2	11.9	13.8	16	15.9	15.2	14.1	11.6	13.7	11.2	8.2	4.1	6.8	8.4	8.1	6	3.9	16.0	11.0	24
25	25	4.4	5.8	9.3	6	6.6	4.7	4.7	6.6	9.7	9.6	15.1	21.3	22.3	21.5	22.7	18.2	17.7	15.9	11.4	9.6	12.6	16.1	17.3	22.7	12.8	24	
26	26	16	15.4	9.5	13	16.7	13.6	16.7	18.8	19.1	22.9	21.8	16.4	15.9	17.4	21.5	22.1	17.2	11.9	11	12.4	10.8	10.2	8.7	9.9	22.9	15.4	24
27	27	13.5	10.7	10.2	13.4	3.9	3.3	2	0.5	1.9	5.4	7.6	13.8	12.5	14	14.4	14.5	12.9	7.6	6.5	5.2	1.4	3.5	6.4	2.6	14.5	7.8	24
28	28	2.9	2.6	5.3	4.9	4.6	2.5	2.8	1.5	0.8	1.9	3.7	8.8	10.6	12.1	12.6	12.7	12	15.4	13.9	11.3	11.7	12.6	15	12.8	15.4	8.1	24
29	29	9.9	10.5	10.2	10.9	13.3	12.5	9.3	12.1	11.2	13.1	2	18.1	22.8	24.4	35.5	28.5	24	26.1	24.5	19.4	13.1	15.6	12.5	13.7	35.5	16.4	24
30	30	6.3	9	7.4	8.8	3	7.6	3.8	3.3	0.9	1.5	2.6	3.5	12.9	12.3	11.4	12	15	18.9	20.3	20.4	18.9	18.1	21.0	26.5	26.5	11.1	24
HOURLY MAX		17.4	22.9	25.4	22.8	22.6	16.1	19.6	21.3	28.6	33.4	35.1	32.5	35.8	37.9	39.7	38.7	32.9	26.7	24.5	20.4	18.9	18.1	21.0	26.5			
HOURLY AVG		8.0	8.1	8.5	7.9	8.1	7.8	7.9	8.6	9.7	11.1	11.9	13.5	14.9	15.8	16.6	16.2	14.9	13.0	10.4	10.0	9.2	10.1	9.3	9.1			

STATUS FLAG CODES

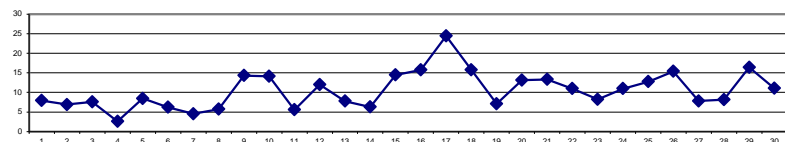
C	- CALIBRATION	Q	- QUALITY ASSURANCE
Y	- MAINTENANCE	R	- RECOVERY
S	- DAILY ZERO/SPAN CHECK	X	- MACHINE MALFUNCTION
P	- POWER FAILURE	O	- OPERATOR ERROR
G	- OUT FOR REPAIR	K	- COLLECTION ERROR

LAST CALIBRATION: November 24, 2011

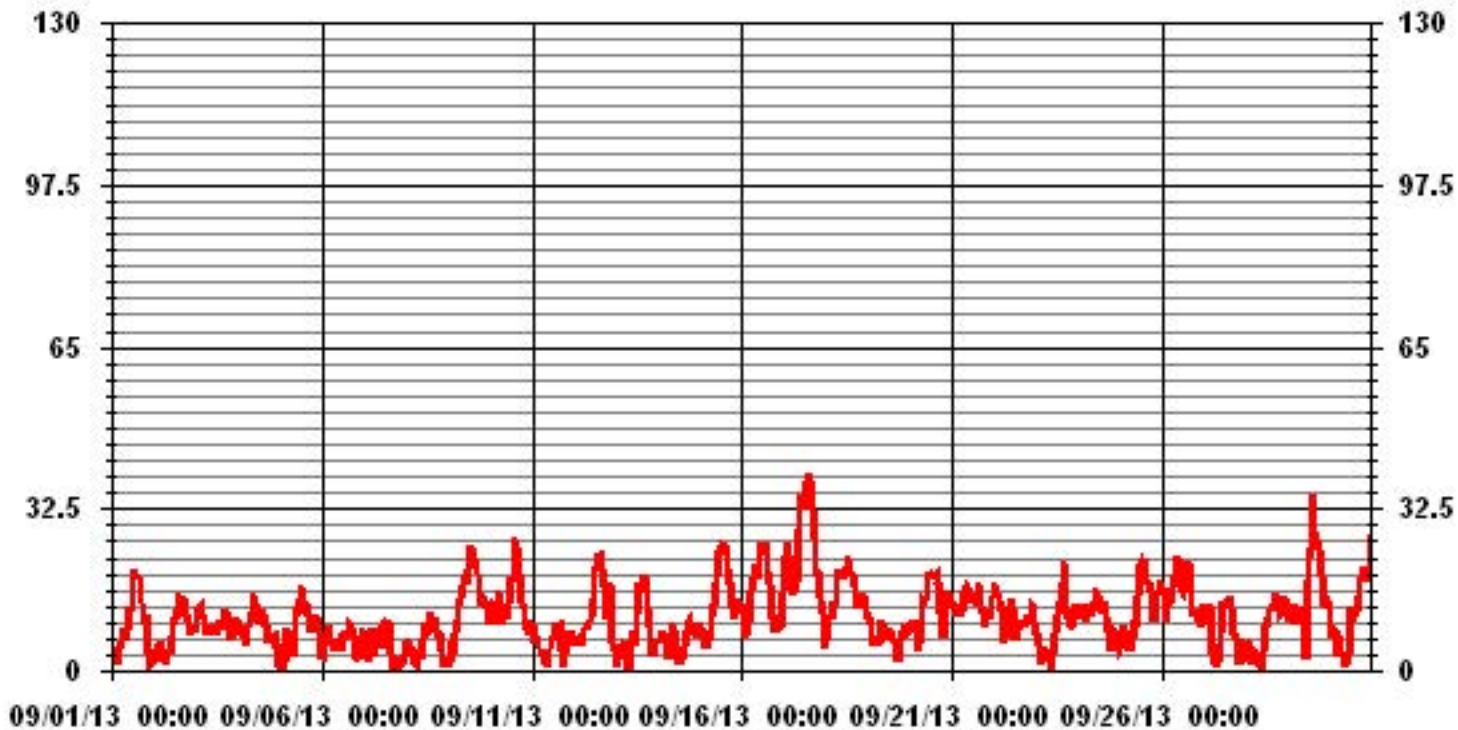
MONTHLY SUMMARY

MAXIMUM 1-HR AVERAGE:	39.7	KPH	@ HOUR(S)	14	ON DAY(S)	17
MAXIMUM 24-HR AVERAGE:	24.4	KPH			ON DAY(S)	17
CALMS (≤ 1 KPH)	0.27	%	OPERATIONAL TIME:	720	HRS	
MONTHLY CALIBRATION TIME:	0	HRS	AMD OPERATION UPTIME:	100.0	%	
STANDARD DEVIATION:	6.58		MONTHLY AVERAGE:	10.86	KPH	

24 HOUR AVERAGES FOR SEPTEMBER 2013



01 Hour Averages



— LICA35 WSP KPH

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - PORTABLE SITE - Elk Point Airport

SEPTEMBER 2013

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		6.1	7.2	6	4.8	7.4	8.7	8.7	12.8	10.8	20.4	22.7	30.5	35.3	34.4	32.3	34.7	35	26.6	19.7	16.1	17.5	17.6	7.1	4.6	35.3	
2		6.4	7.3	7.9	7	8.7	7.7	5.3	5.5	8.8	11.1	17.3	17.8	22.9	28.6	33.2	30.9	20.3	27	18.6	15.8	12.1	10.8	16.4	16.2	33.2	
3		19.7	24.8	21.1	18.1	20.9	16.3	17.2	15.8	17.7	16.6	17.1	18.1	20.8	31.3	25.3	22.1	21.4	25.5	11.8	8.9	9.7	13.7	14.7	17.8	31.3	
4		13.1	10.9	11.8	10	9.9	9.5	14.7	20.9	26.2	26.3	29	25.1	26.3	22.6	23.5	21.5	19.7	10.8	9.4	9.7	8.4	10.9	8.1	9.5	29	
5		10.5	5.4	7.9	13.2	15.1	10.2	9	7.9	7.9	25	24.5	26.4	29.6	25.2	24.1	24.5	20.3	20.4	12.7	13.3	12	19	13.6	7.3	29.6	
6		11.1	12.2	11	11.3	11.9	10.4	8.3	7.7	10.2	13.5	12.2	15.6	17.8	18.4	18.6	20.9	20.1	16.1	14.4	6.8	6.1	12.9	12.1	15.6	20.9	
7		11.3	9.5	10.4	5.2	11.5	13.7	6.7	10.7	10.9	16.4	17.8	11.6	14.1	15.1	21.1	7.6	5.5	5	5.7	5.4	6.2	5.6	5	6.4	21.1	
8		7.8	9.6	13.1	9.4	12.7	6.1	6.6	9.5	10.5	9.6	19.6	20.8	27.3	21.6	26.9	24.3	22	19.1	14.8	13.8	10.1	8.2	5.3	6	27.3	
9		5.5	7.4	7.7	7.7	12.8	20	27	25.5	27.1	28.9	30.6	36.5	34.4	44.4	37.6	36.9	33.4	30.7	23.8	22	23.2	22	16	15.1	44.4	
10		17.5	19	19.1	17.8	16.4	22.5	23.3	16.9	24.2	22.9	24.1	30.2	32.2	34.4	56.2	40.3	36.7	34.8	24.2	15.3	14.1	14.3	11.9	13.2	56.2	
11		11.7	8.2	11.3	9.1	8	9	7.9	7.6	5.6	9.3	17.2	20.1	23.3	32.2	24.3	21.4	19.4	12.4	4	6.6	7.6	9	12	8	32.2	
12		8.4	9.3	9.5	9	10	9.4	10.8	15.7	19.7	17.8	24.1	30.3	34.8	42	40.8	42.2	36.8	32.9	20	21	24.5	31.5	24.2	18.7	42.2	
13		5.6	7.8	7.4	8.7	15.2	13.1	11.8	7.7	11.4	17.9	20	18.4	23.3	29.7	33.8	31.9	35.6	33.7	28.6	21.4	9.3	10.9	8.1	7.9	35.6	
14		9.4	9.6	12.2	13.2	8.5	7.6	11.4	11.9	16	16.4	15.3	16.6	16.5	16.8	19.3	15.7	18.5	13.2	15.1	15	14.6	9.9	12	11.7	19.3	
15		11.3	11.5	11.8	9	8.7	8.7	10.6	17.5	23.9	29.6	39.8	40.7	47.9	49.3	48.3	40.4	39.2	33.6	17.1	15.8	19.4	20	20.7	18.4	49.3	
16		18.7	10.9	11.7	12.3	17.4	26.2	30.5	33.4	33.1	31.3	38.6	40.4	44.8	48	44.2	36.1	38.5	23.5	11.5	11.5	19.2	19.7	16.4	32	48	
17		26.8	36.5	44.6	34.5	35.1	27.3	32.3	38.6	53.9	57.3	56.2	56.9	59.1	60.2	58.8	67.2	56.8	47.7	35.7	34.6	24.7	24.7	19.7	10.7	67.2	
18		15.8	20.9	22.6	16.2	16.8	23.4	34.7	32.7	34.6	31.9	31	33.7	36.1	38.5	34.3	32.4	31.3	23.7	22.2	29.7	22.8	26.7	27.6	22.6	38.5	
19		15.9	14.6	13.2	9.3	13.1	11.8	10.5	17	16.8	16.3	18.2	20.8	19.5	20.4	17.7	18.5	13.4	7.6	8.1	10.3	8.9	11	11.4	12.4	20.8	
20		12.4	12	13.7	10.8	8.8	10	16.9	21.6	23.7	24	33	36.1	44.1	36	37.2	37	37.5	28.2	12.4	10.9	16.3	19.9	21.5	19	44.1	
21		21.8	21.4	16.8	16.8	15.7	17.7	21	23.2	25.6	26.3	25.3	26.8	27.8	31.5	27.9	28.9	24.5	16.9	15.1	15.7	15.9	32.9	26.1	32.1	32.9	
22		36.9	30.4	26	21.8	23.2	16.9	17.7	13.9	20.1	23.4	24.2	25.5	19.5	20.7	21	21.8	20.1	18.8	12.3	15.6	15.7	19	15.9	13	36.9	
23		14.1	7.8	7.8	8.3	9.9	9.6	13.1	12.8	9.6	9.6	15.7	15.8	21.7	21.9	29.9	30.2	36.2	28.3	14.7	12.7	14.6	16	33.3	21.7	36.2	
24		25.8	23.9	21.5	21.5	21.1	17.4	22.7	24.1	18.8	25.3	31.7	27.2	29	29.5	26.5	27.5	19.3	16	7.1	10.5	11.5	11.7	8.3	7.8	31.7	
25		8.3	10.7	12.2	8.7	10.3	8.2	8	10.9	14.5	15	30.6	38.1	38.2	40.7	37.8	38.4	35.5	28.5	17.8	12.3	15.6	19.5	22.6	24.4	40.7	
26		22	23.8	21.4	23.3	23.3	21.8	23.6	27.1	29.8	37.4	35.1	28	28.6	29.1	39.3	35.9	30	17.1	15	16	16.1	16.2	15.6	15.5	39.3	
27		16.6	16.6	17.3	16.6	13.8	6.2	6.6	4.8	7.5	10.9	27.6	25.4	25.6	30.9	35.5	31.3	27.2	20	10.7	9	11.5	8.5	16.6	12.9	35.5	
28		6.5	5.9	16.8	9.7	7.8	8.3	7.2	4.9	5.4	8.6	12.9	20.2	21	26.1	26.9	25	23.2	26	21.8	14.8	18.4	18.2	20.3	18.6	26.9	
29		14	15.4	15.6	19.3	24.3	20.1	13.9	24.6	23.6	22.8	15	33.5	38.1	46.1	54.4	46.5	37.9	41.3	38.8	31.1	23.9	23.5	22.6	21.8	54.4	
30		12.8	19.3	11.7	16.2	13.4	12.6	11.5	8.7	6.8	10.4	12.1	17	26.6	22.7	23.2	26.4	23.1	39.6	35.6	31.3	30.9	30.7	31.4	44	44	
PEAK		36.9	36.5	44.6	34.5	35.1	27.3	34.7	38.6	53.9	57.3	56.2	56.9	59.1	60.2	58.8	67.2	56.8	47.7	38.8	34.6	30.9	32.9	33.3	44.0		

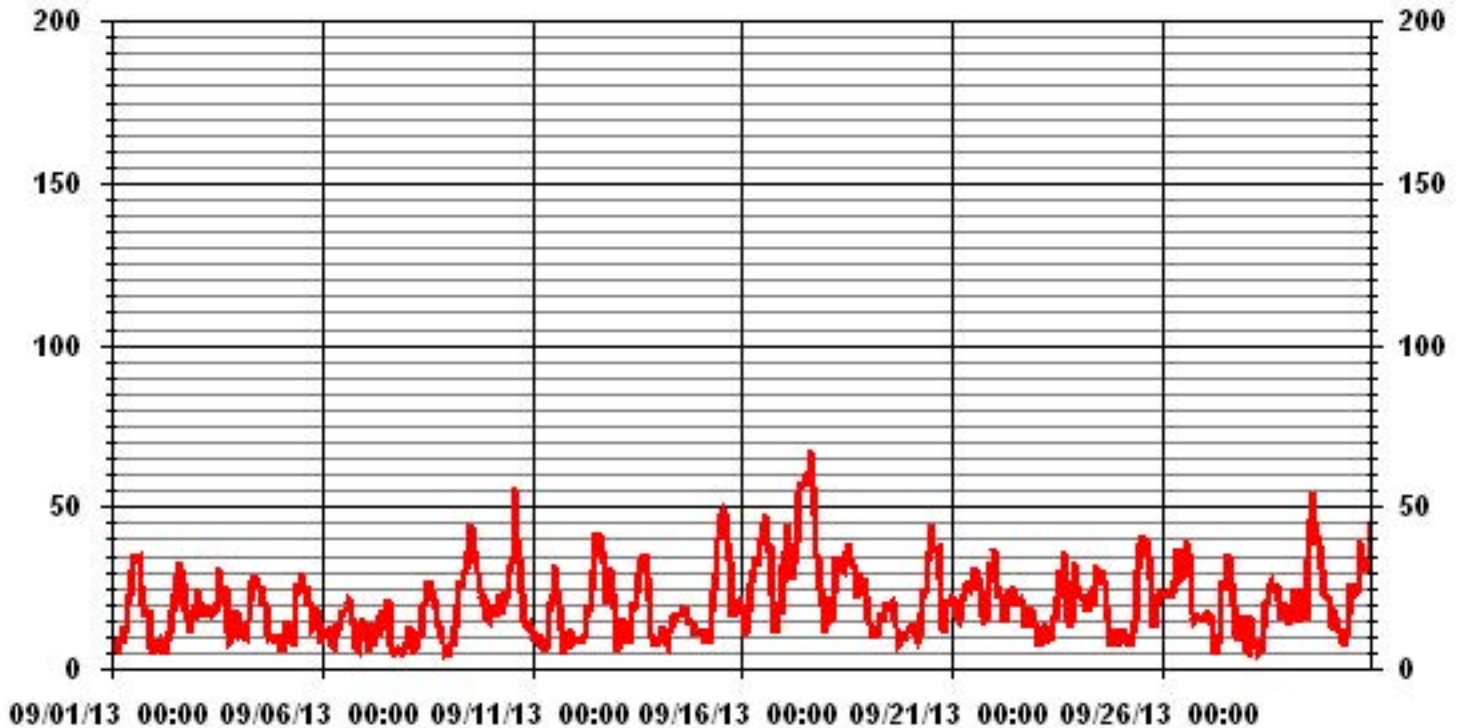
STATUS FLAG CODES

C - CALIBRATION	Q - QUALITY ASSURANCE
Y - MAINTENANCE	R - RECOVERY
S - DAILY ZERO/SPAN CHECK	X - MACHINE MALFUNCTION
P - POWER FAILURE	O - OPERATOR ERROR
G - OUT FOR REPAIR	K - COLLECTION ERROR

MONTHLY SUMMARY

MAXIMUM INSTANTANEOUS READING	67.2	KPH	@ HOUR(S)	15
			ON DAY(S)	17

01 Hour Averages



LICA-ELK
WSP / WDR Joint Frequency Distribution (Percent)

September 2013

Distribution By % Of Samples

Logger Id : 35
Site Name : LICA-ELK
Parameter : WSP
Units : KPH

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	
< 6.0	.83	.55	1.94	1.38	2.50	2.50	1.38	.97	.55	.69	.55	1.11	3.19	3.75	1.52	.41	23.88
< 12.0	.00	.55	1.38	1.11	3.19	6.80	2.50	1.52	1.11	.83	1.25	2.50	5.55	4.86	4.86	.27	38.33
< 20.0	.69	.13	.41	.13	.00	2.91	3.61	1.25	1.25	1.11	.83	2.63	3.47	3.19	5.00	1.66	28.33
< 29.0	.41	.00	.00	.00	.00	.13	1.11	.69	.27	.55	.00	.00	.97	2.22	1.66	.13	8.19
< 39.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.55	.55	.00	.00	1.11
>= 39.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.13	.00	.00	.13
Totals	1.94	1.25	3.75	2.63	5.69	12.36	8.61	4.44	3.19	3.19	2.63	6.25	13.75	14.72	13.05	2.50	

Calm : .00 %

Total # Operational Hours : 720

Distribution By Samples

Limit	Direction																Freq
	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
< 6.0	6	4	14	10	18	18	10	7	4	5	4	8	23	27	11	3	172
< 12.0		4	10	8	23	49	18	11	8	6	9	18	40	35	35	2	276
< 20.0	5	1	3	1		21	26	9	9	8	6	19	25	23	36	12	204
< 29.0	3					1	8	5	2	4			7	16	12	1	59
< 39.0													4	4			8
>= 39.0															1		1
Totals	14	9	27	19	41	89	62	32	23	23	19	45	99	106	94	18	

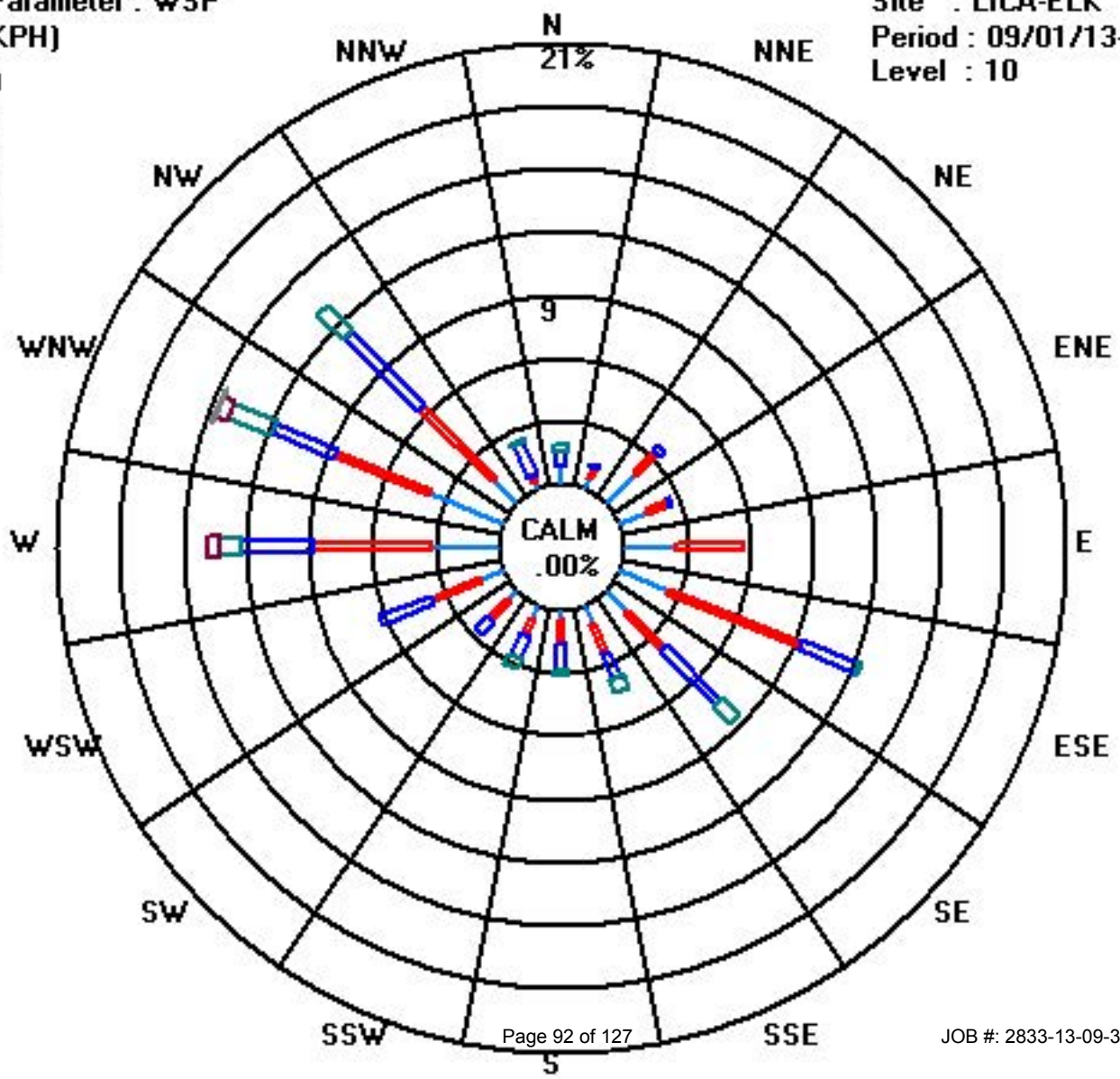
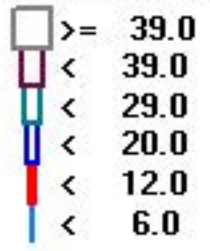
Calm : .00 %

Total # Operational Hours : 720

Class Limits (KPH)

Period : 09/01/13-09/30/13

Level : 10



Vector Wind Direction

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - PORTABLE SITE - Elk Point Airport

SEPTEMBER 2013

VECTOR WIND DIRECTION (WD) hourly averages in degrees

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-HOUR	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	AVG.	QUADRANT	
DAY																												
1		60	84	96	106	118	130	113	115	117	185	194	196	188	182	183	184	185	164	151	146	148	185	72	60	167	SSE	24
2		280	284	284	287	290	277	199	316	265	317	291	275	266	250	274	277	278	299	304	306	296	313	316	19	289	WNW	24
3		41	56	61	53	47	52	74	94	119	120	106	68	119	121	145	156	150	126	121	127	126	130	132	127	103	ESE	24
4		117	101	106	103	107	89	116	134	176	202	210	225	257	255	292	290	276	292	317	322	312	294	284	359	226	SW	24
5		225	195	106	42	312	296	281	298	328	342	21	356	337	330	341	352	334	320	313	321	312	317	314	268	331	NNW	24
6		304	296	271	294	311	297	300	291	307	18	21	48	86	60	54	76	46	66	54	358	311	73	74	61	18	NNE	24
7		53	47	49	36	18	40	92	45	74	117	123	64	140	167	195	288	316	41	46	108	71	97	21	104	89	E	24
8		105	140	161	111	126	320	166	162	237	229	202	226	264	236	206	227	233	255	239	220	221	142	281	284	216	SW	24
9		108	288	291	304	248	260	255	268	278	286	274	281	288	303	307	319	314	314	304	289	298	305	284	265	292	WNW	24
10		254	254	255	256	271	251	252	263	287	287	319	307	279	274	291	295	299	307	309	294	283	308	287	288	284	WNW	24
11		298	276	261	266	264	265	278	283	305	257	256	310	323	312	309	282	285	286	164	147	106	103	81	100	291	WNW	24
12		95	84	89	104	96	104	96	113	114	130	158	177	185	198	200	195	200	183	162	154	168	184	185	206	167	SSE	24
13		303	90	123	84	131	128	95	36	257	276	291	289	325	318	347	351	42	35	26	35	47	38	1	299	2	N	24
14		285	306	305	310	307	334	20	54	82	75	75	145	173	205	149	64	98	96	95	104	115	119	118	109	87	E	24
15		100	109	105	105	106	106	111	119	131	142	151	151	150	146	143	145	146	138	116	116	125	127	127	125	134	SE	24
16		124	111	103	100	107	115	122	127	123	123	128	128	131	147	148	159	197	188	201	218	244	269	258	287	144	SE	24
17		274	276	283	283	278	268	264	257	268	273	275	268	276	282	288	287	289	293	302	293	286	279	265	284	279	W	24
18		286	308	297	279	282	300	306	310	308	309	305	304	305	317	322	330	331	331	317	311	302	311	315	318	310	NW	24
19		298	275	274	273	263	258	259	267	312	302	298	288	276	280	255	269	243	279	115	118	123	111	94	94	273	W	24
20		89	89	89	93	88	90	108	121	122	126	128	126	141	148	156	163	168	160	137	130	129	125	122	122	130	SE	24
21		120	118	114	105	107	108	112	120	117	124	150	147	146	143	148	132	128	107	112	120	124	171	246	236	131	SE	24
22		252	270	268	249	245	270	251	235	261	271	242	238	232	186	185	177	155	119	119	131	142	133	128	124	213	SSW	24
23		114	89	101	95	110	205	91	130	52	46	118	234	263	278	284	293	287	279	281	288	279	275	267	268	275	W	24
24		267	296	281	266	271	274	250	260	280	305	294	277	279	268	264	317	318	291	284	304	301	305	290	287	284	WNW	24
25		283	291	296	292	282	281	279	284	307	315	330	351	350	352	343	348	344	344	324	321	312	312	312	316	326	NW	24
26		316	316	317	312	314	307	300	305	310	322	320	314	321	325	315	315	311	301	291	282	277	279	275	252	308	NW	24
27		250	257	266	254	258	316	143	77	98	91	187	198	207	216	234	229	236	240	256	269	157	294	281	252	235	SW	24
28		114	185	296	279	271	294	297	141	357	9	214	205	208	180	193	170	140	127	120	127	124	130	128	120	154	SSE	24
29		101	97	105	97	107	102	109	106	107	111	251	306	290	309	298	301	274	273	277	274	261	248	250	248	280	W	24
30		262	249	303	267	270	246	264	338	296	122	23	1	354	4	341	310	294	302	296	294	285	279	288	292	297	WNW	24
HOURLY AVG		316	316	317	312	314	334	306	338	357	342	330	356	354	352	347	352	344	344	324	358	312	317	316	359			

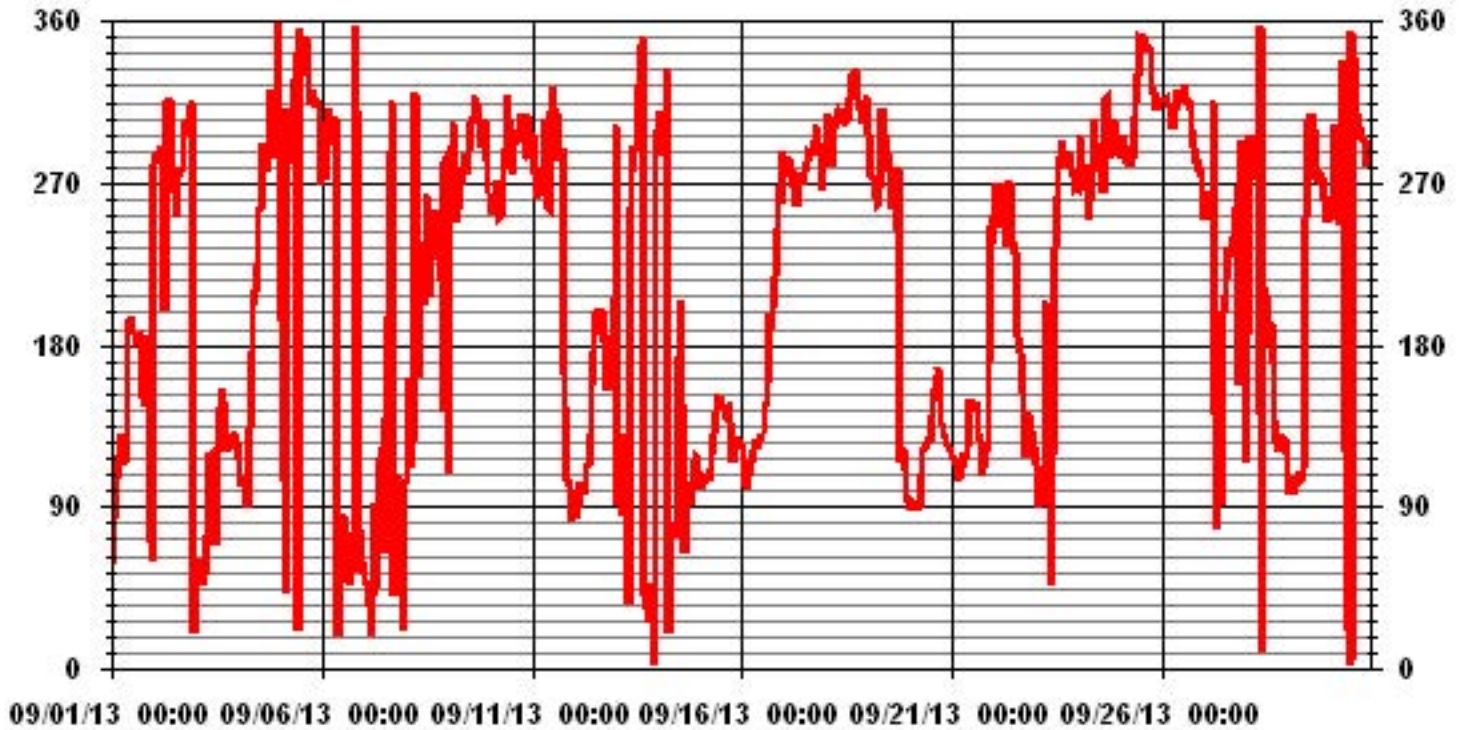
STATUS FLAG CODES

C	- CALIBRATION	Q	- QUALITY ASSURANCE
Y	- MAINTENANCE	R	- RECOVERY
S	- DAILY ZERO/SPAN CHECK	X	- MACHINE MALFUNCTION
P	- POWER FAILURE	O	- OPERATOR ERROR
G	- OUT FOR REPAIR	K	- COLLECTION ERROR

LAST CALIBRATION:	November 24, 2011
DECLINATION :	19 DEGREES FROM MAGNETIC NORTH

MONTHLY CALIBRATION TIME:	0	HRS	OPERATIONAL TIME:	720	HRS
STANDARD DEVIATION:	92.53		AMD OPERATION UPTIME:	100.0	%
			MONTHLY AVERAGE:	267	DEG

01 Hour Averages



Standard Deviation Wind Direction

LAKELAND INDUSTRY & COMMUNITY ASSOCIATION - PORTABLE SITE - Elk Point Airport

SEPTEMBER 2013

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

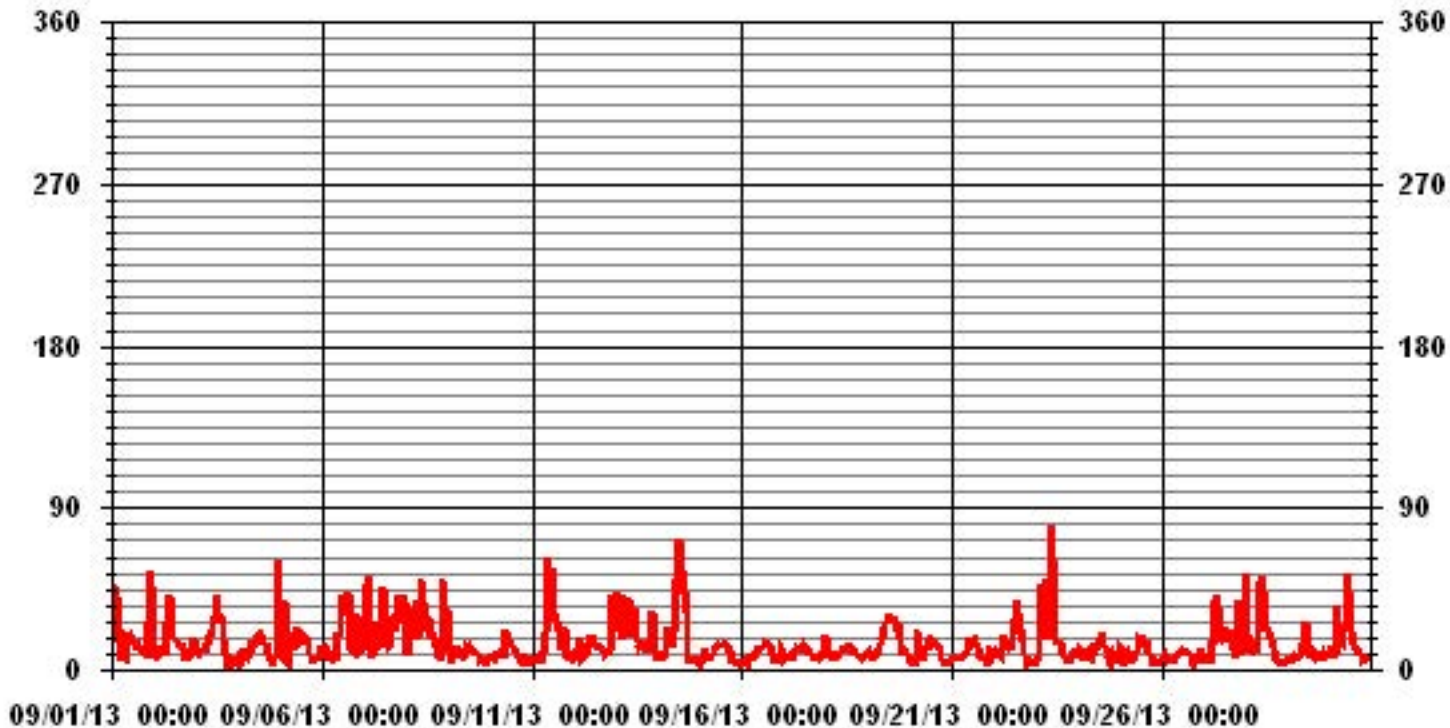
STATUS FLAG CODES

C	- CALIBRATION	Q	- QUALITY ASSURANCE
Y	- MAINTENANCE	R	- RECOVERY
S	- DAILY ZERO/SPAN CHECK	X	- MACHINE MALFUNCTION
P	- POWER FAILURE	O	- OPERATOR ERROR
G	- OUT FOR REPAIR	K	- COLLECTION ERROR

LAST CALIBRATION: November 24, 2011

CALIBRATION TIME: 0 HRS OPERATIONAL TIME: 720 HRS

01 Hour Averages



Calibration Reports

Sulphur Dioxide

SO2 Calibration Report

Station Information

Calibration Date	September 5, 2013	Previous Calibration	August 14, 2013
Company	LAKELAND INDUSTRY & COMMUNITY ASSOCIATION		
Plant / Location	Portable / ELK Point Airport		
Start Time (MST)	10:04	End Time (MST)	13:05
Reason:	Monthly calibration		
Barometric Pressure	27.94 in HG	Station Temperature	24 Deg C
Cal Gas	49.6 ppm	Gas Cyl. #	BAL3031
DAS Output Voltage	0-1 Volts	Cal Gas Expiry date	December 29, 2016
		Chart Rec. Output	N/A Volts

Equipment Information

Analyzer Make / Model:	API 100E	S/N :	467	Method:	Fluorescent
Converter Make / Model:	N/A	S/N :	N/A		
Calibrator Make / Model:	EnviroNics 6100	S/N :	4760	Method:	Dilution
DAS Make / Model:	ESC 8832	S/N :	AO717		
Chart Recorder Make / Model:	N/A	S/N :	N/A		
Flow Meter:	EnviroNics 6100	S/N :	4760		

Analyzer Settings

Before Calibration		After Calibration	
Concentration Range	0-1000 ppb		
Sample Flow / Box Temp	631 ccm 33 Deg C	628 ccm 35 Deg C	
HVPS / Lamp Setting	628 1407	628 1404	
PMT / RxCell Temp	8.1 Deg C 50 Deg C	8.2 Deg C 50 Deg C	
Converter / IZS Temp	N/A Deg C 45 Deg C	N/A Deg C 45.0 Deg C	
Offset / Slope	126.8 1.167	129.8 1.177	

Calibration Data

Dilution Flow Rate	Source Gas Flow Rate	Calculated Concentration	Indicated Conc. (DAS)	Correction Factor
4994	0	0	0	N/A
	No zero adj			
4920	80.2	796	798	0.9969
	No span adj.			
4960	40.1	397	398	0.9985
4978	20.1	199	202	0.9875
4995	0	0	1	N/A
Sum of Least Squares				0.9968
New Correction Factor				0.9969

IZS Calibration Data

Before Calibration		After Calibration	
Auto Zero	0.0		0.0
Auto Span	394.0		349.0
Sample Lines Connected			Yes

Percent Change

Previous Month's Calibration Correction Factor:	0.9991
Current Correction Factor Before Span Adjust:	0.9969
Percent Change:	0.2%

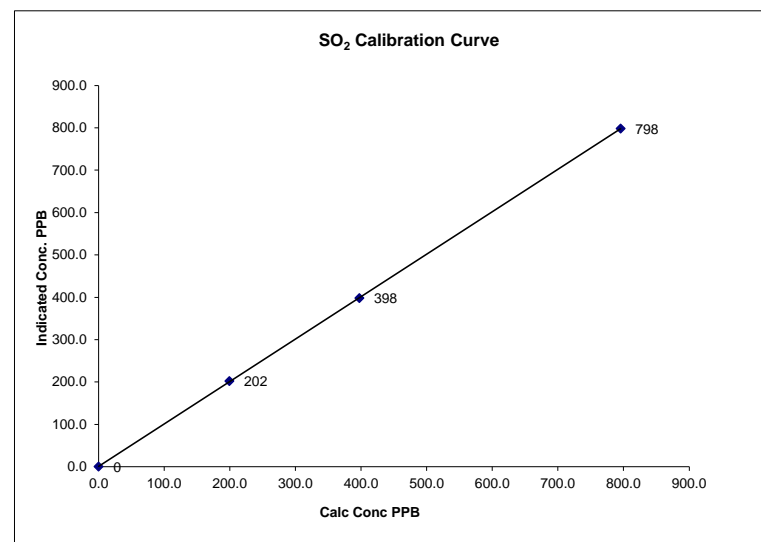
Notes: **N/A : Not applicable**
 Change sample filter.

Calibration Performed by: Waseem Ahmed

SO₂ Calibration Curve

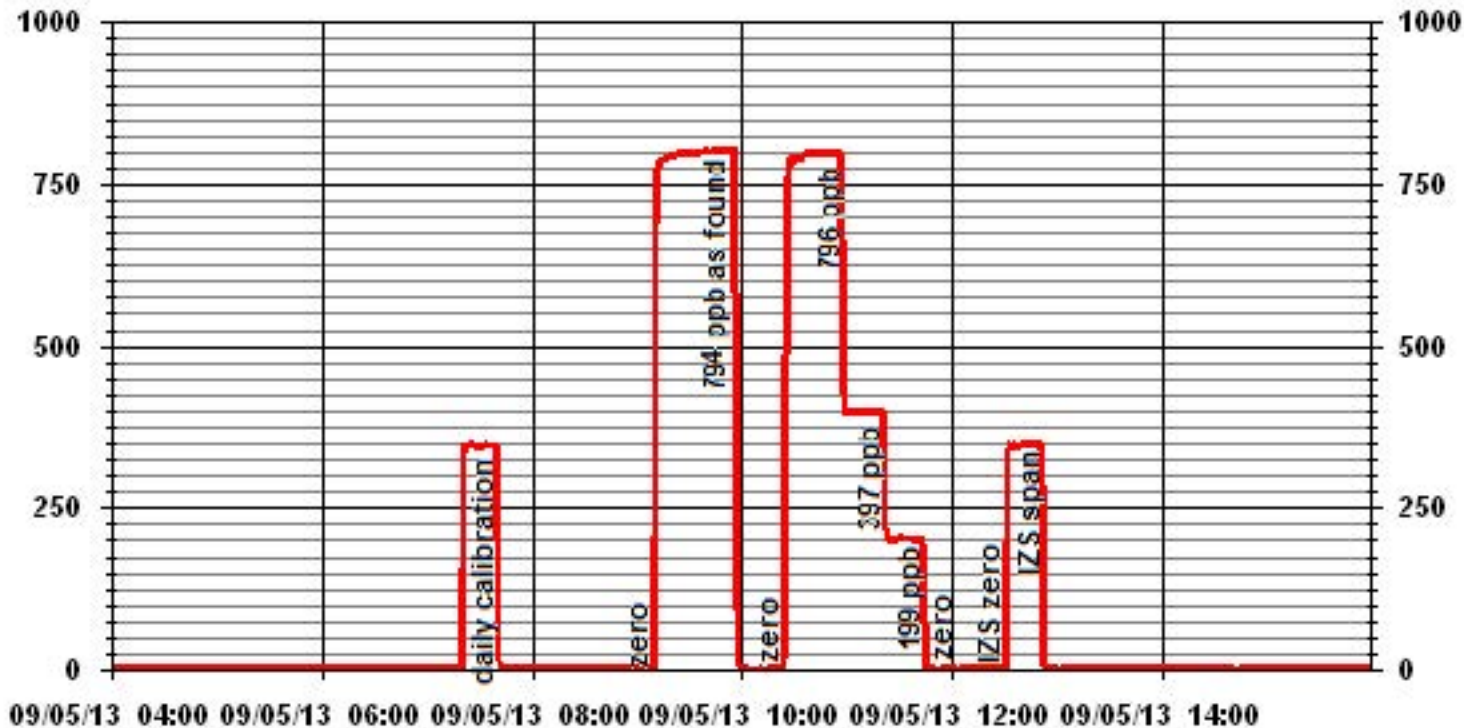
Calibration Date	September 5, 2013
Company	LAKELAND INDUSTRY & COMMUNITY ASSOCIATION
Plant / Location	Portable / ELK Point Airport
Start Time (MST)	10:04
End Time (MST)	13:05

Calculated Conc. ppb	Indicated Response ppb	Correction Factor	Correlation Coefficient Slope Intercept	(≥ 0.995) (0.85 to 1.15) (± 3% F.S.)
0	0	N/A		0.999990
199	202	0.9875		1.002165
397	398	0.9985		0.643699
796	798	0.9969		



Notes:

01 Minute Averages



Hydrogen Sulphide

H2S Calibration Report

Station Information

Calibration Date	September 5, 2013	Previous Calibration	August 13, 2013
Company	LAKELAND INDUSTRY & COMMUNITY ASSOCIATION		
Plant / Location	Portable / ELK Point Airport		
Start Time (MST)	9:53	End Time (MST)	12:03
Reason:	Monthly calibration		
Barometric Pressure	27.95 in HG	Station Temperature	23 Deg C
Cal Gas	10.1 ppm	Gas Cyl. #	BLM0059
DAS Output Voltage	0-1 Volts	Cal Gas Expiry date	December 25, 2015
		Chart Rec. Output	NA 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 :	690	Method:	Dilution
DAS Make / Model:	ESC8832	S/N :	AO717		
Chart Recorder Make / Model:	NA	S/N:	S/N:	NA	
Flow Meter:	API 700	S/N :	690		

Analyzer Settings

		Before Calibration		After Calibration	
Concentration Range		0-100 ppb			
Sample Flow / Box Temp	510 ccm	32.4 Deg C		508 ccm	33.9 Deg C
HVPS / Lamp Setting	540	1651		540	1649
PMT / RxCell Temp	7.9 Deg C	50 Deg C		7.9 Deg C	50 Deg C
Converter / IZS Temp	315.5 Deg C	45 Deg C		315.2 Deg C	45.0 Deg C
Offset / Slope	99	1.153		100.9	1.177

Calibration Data

Dilution Flow Rate	Source Gas Flow Rate	Calculated Concentration	Indicated Conc. (DAS)	Correction Factor
4995	0	0	0	NA
	No zero adj.			
4955	40.0	81	82	0.9864
	No span adj.			
4977	20.0	40	41	0.9860
4988	12.0	24	24	1.0000
4995	0	0	0	NA
Sum of Least Squares				0.9878
New Correction Factor				0.9864

IZS Calibration Data

		Before Calibration	After Calibration
Auto Zero		0.0	0.0
Auto Span		57.97	57.97
Sample Lines Connected			Yes

Percent Change

Previous Month's Calibration Correction Factor:	0.9864
Current Correction Factor Before Span Adjust:	0.9864
Percent Change:	0.0%

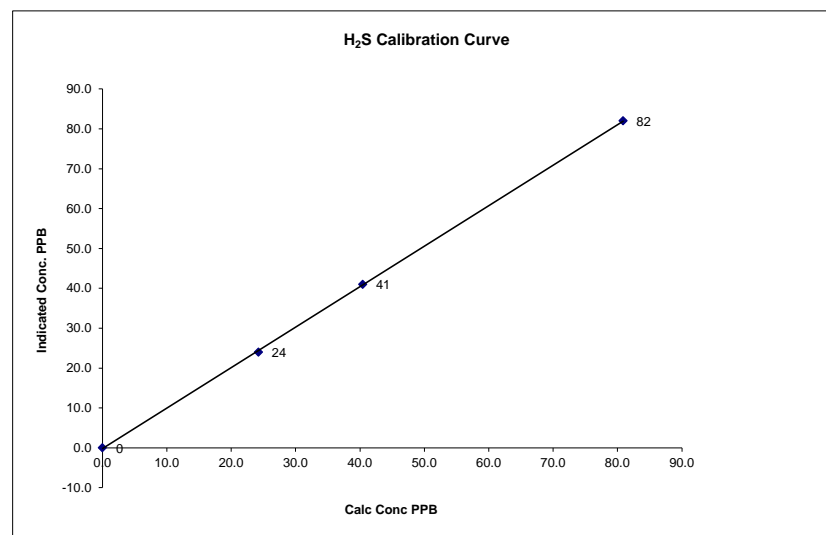
Notes:	NA : Not Applicable
	Change sample filter.

Calibration Performed by: Waseem Ahmed

H₂S Calibration Curve

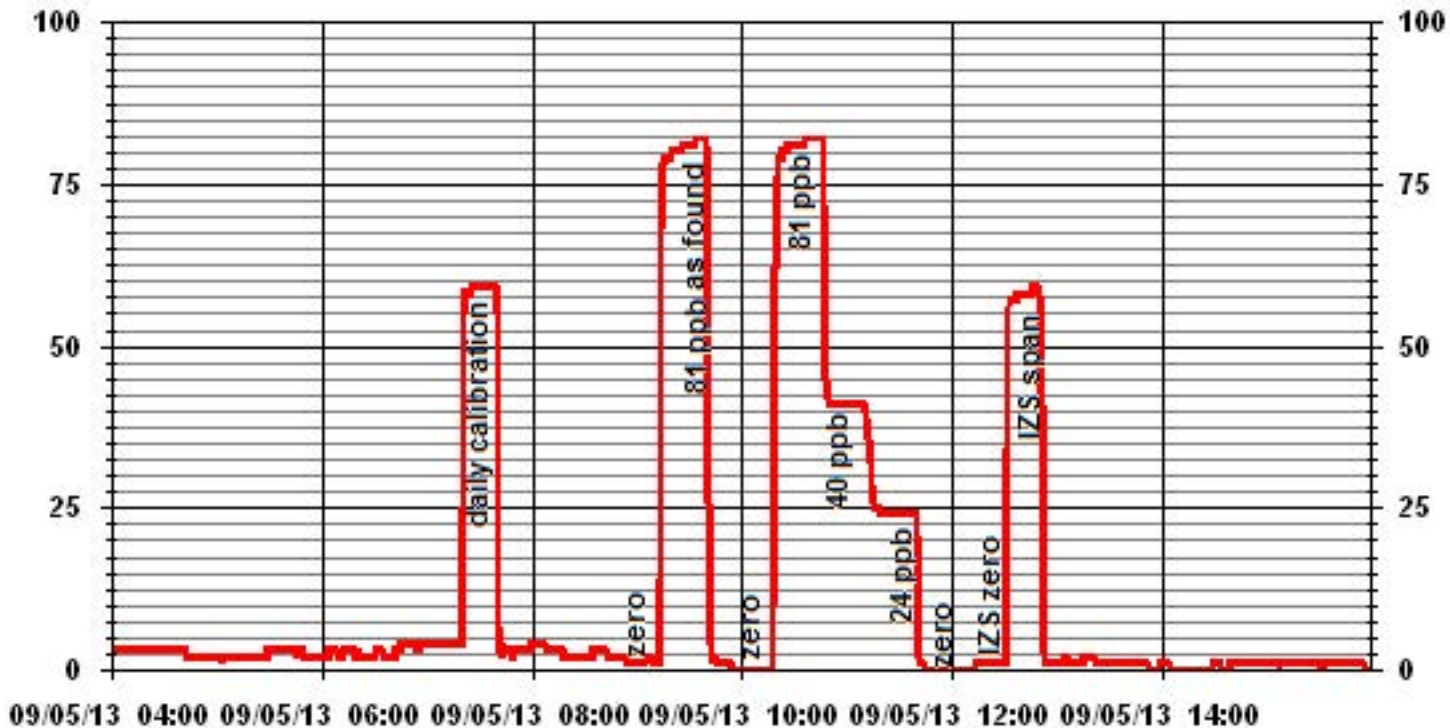
Calibration Date	September 5, 2013		
Company	LAKELAND INDUSTRY & COMMUNITY ASSOCIATION		
Plant / Location	Portable / ELK Point Airport		
Start Time (MST)	9:53	End Time (MST)	12:03

Calculated Conc. ppb	Indicated Response ppb	Correction Factor	Correlation Coefficient Slope	(≥ 0.995) (0.85 to 1.15)	0.999933
0	0	NA	Intercept	(± 3% F.S.)	-0.213780
24	24	1.0100			
40	41	0.9860			
81	82	0.9864			



Notes:

01 Minute Averages



H2S Calibration Report

Station Information

Calibration Date	September 23, 2013	Previous Calibration	September 5, 2013
Company	LAKELAND INDUSTRY & COMMUNITY ASSOCIATION		
Plant / Location	Portable / ELK Point Airport		
Start Time (MST)	10:15	End Time (MST)	12:16
Reason:	2nd Monthly Cal		
Barometric Pressure	0.914 atm	Station Temperature	21 Deg C
Cal Gas	10.1 ppm	Gas Cyl. #	BLM0059
DAS Output Voltage	0-1 Volts	Cal Gas Expiry date	December 25, 2015
		Chart Rec. Output	NA 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 :	690	Method:	Dilution
DAS Make / Model:	ESC8832	S/N :	AO717		
Chart Recorder Make / Model:	NA	S/N:	S/N:	NA	
Flow Meter:	API 700	S/N :	690		

Analyzer Settings

		Before Calibration		After Calibration	
Concentration Range		0-100 ppb			
Sample Flow / Box Temp	500 ccm	28.8 Deg C	492 ccm	34.3 Deg C	
HVPS / Lamp Setting	540	1641	540	1635	
PMT / RxCell Temp	7.9 Deg C	50 Deg C	7.9 Deg C	50 Deg C	
Converter / IZS Temp	313.8 Deg C	45 Deg C	314 Deg C	45.0 Deg C	
Offset / Slope	100.9	1.177	106	1.158	

Calibration Data

Dilution Flow Rate	Source Gas Flow Rate	Calculated Concentration	Indicated Conc. (DAS)	Correction Factor
4995	0	0	0	NA
	No zero adj.			
4955	40.0	81	81	1.0000
	No span adj.			
4978	20.0	40	41	0.9858
4988	12.0	24	24	1.0000
4995	0	0	0	NA
Sum of Least Squares				0.9969
New Correction Factor				1.0000

IZS Calibration Data

		Before Calibration	After Calibration
Auto Zero		0.0	0.0
Auto Span		57.97	57.97
Sample Lines Connected			Yes

Percent Change

Previous Month's Calibration Correction Factor:	0.9864
Current Correction Factor Before Span Adjust:	1.0000
Percent Change:	-1.4%

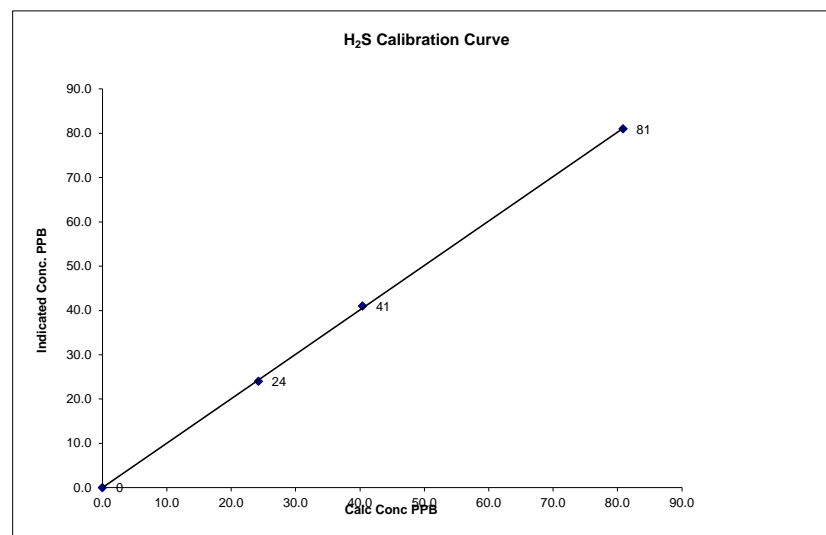
Notes:	NA : Not Applicable

Calibration Performed by: Waseem Ahmed

H₂S Calibration Curve

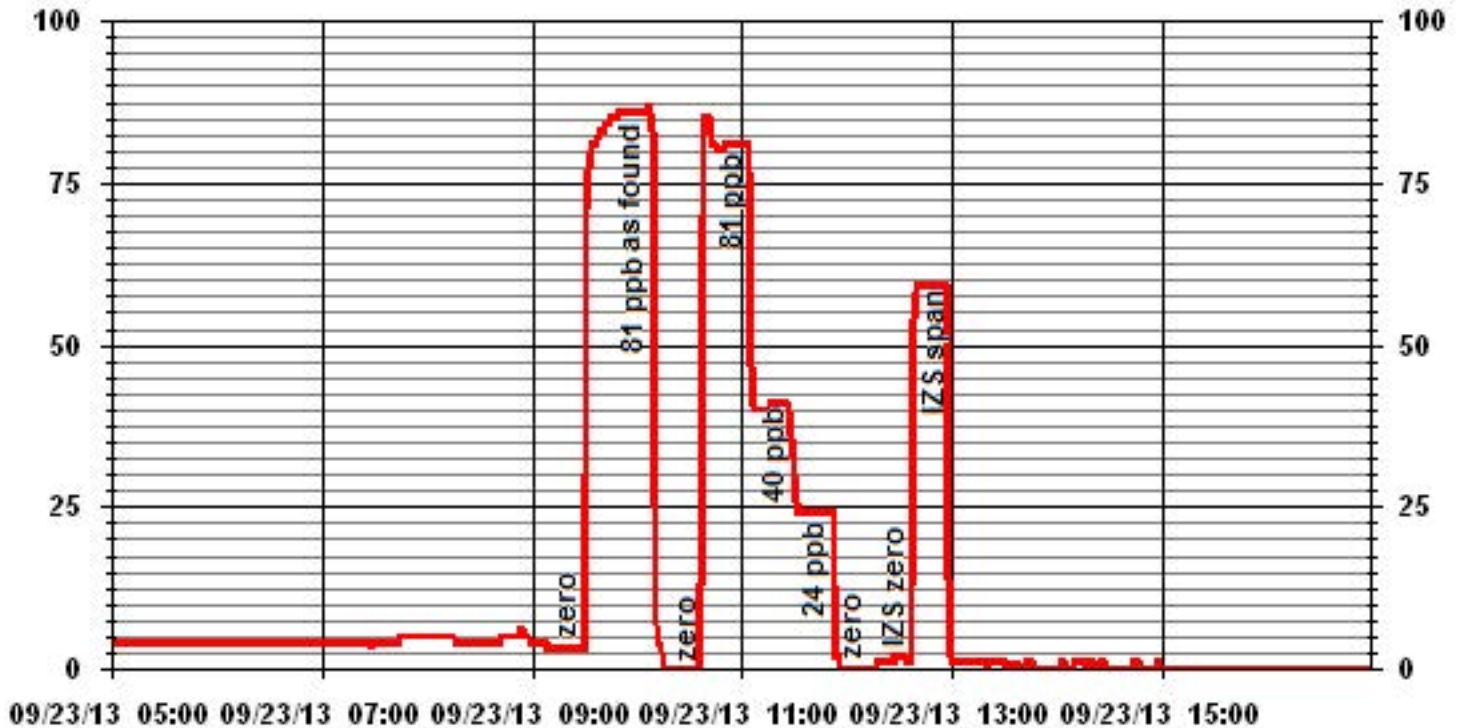
Calibration Date	September 23, 2013		
Company	LAKELAND INDUSTRY & COMMUNITY ASSOCIATION		
Plant / Location	Portable / ELK Point Airport		
Start Time (MST)	10:15	End Time (MST)	12:16

Calculated Conc. ppb	Indicated Response ppb	Correction Factor	Correlation Coefficient Slope	(≥ 0.995)	0.999906
0	0	NA	Intercept	(0.85 to 1.15)	1.003048
24	24	1.0100		(± 3% F.S.)	0.004839
40	41	0.9858			
81	81	0.9985			



Notes:

01 Minute Averages



Total Hydrocarbons (55i)

Methane - Non Methane Hydrocarbon Calibration Report

Station Information

Calibration Date:	September 5, 2013	Previous Calibration	August 12, 2013
Company:	Lakeland Industry and Community Association		
Plant / Location:	ELK Point Airport		
Start Time (MST)	14:55	End Time (MST)	16:00
Reason:	Monthly calibration		
Barometric Pressure:	27.91 inHg	Station Temperature:	28.0 Deg C
Calibrator:	API700	S/N:	690
Cal Gas Concentration:	CH4 600 PPM	C3H8 204 PPM=	561 CH4
	Cyl. # LL155310	Cal Gas Expiry Date:	September 9, 2013
DAS make & Model:	ESC8832	S/N :	AO717
Chart Recorder:	N/A	S/N:	N/A
Output Voltage Range:	0-10	Chart Speed:	N/A cm/hr

Analyzer Information

Make / Model	Thermo 55i	S/N :	1236656107	Method:	GC FID
--------------	------------	-------	------------	---------	--------

Analyzer Settings

Concentration Range (PPM)	CH4= 0-20		NMHC= 0-20		THC = 0-40	
	Befor Calibration		After Calibration			
Hydrogen Pressure	40.3	psi	40.3	psi		
Air Pressure	32.4	psi	32.4	psi		
Carrier Pressure	31.1	psi	31.1	psi		
Detector Oven	175	Deg C	175	Deg C		
Filter Temp	175	Deg C	175	Deg C		
Column Oven Temp	75	Deg C	75	Deg C		
Flame Temp	379	Deg C	378	Deg C		
Box Temp	40.2	Deg C	41.3	Deg C		

Calibration Data

Gas Flows (sccm)		Calculated Concentration		Actual Concentration		Correction factors	
Dilution Flow	Cal Gas Flow	CH4	NMHC	CH4	NMHC	CH4	NMHC
3000	0.00	0.00	0.00	0.00	0.00	0.000	0.000
	No zero adj.						
2982	18.00	3.60	3.37	3.63	3.35	0.9917	1.0048
	No span adj.						
2964	36.00	7.20	6.73	7.31	6.65	0.9850	1.0123
2991	9.00	1.80	1.68	1.82	1.75	0.9890	0.9617
3000	0.00	0.00	0.00	0.00	0.00	0.0000	0.0000
Correction Factors:						0.9917	1.0048

Percent Change from Previous Calibration

Previous Calibration Correction Factor:	CH4	NMHC
	1.0028	0.9959
Current Correction Factor Before Span Adjust:	0.9863	0.9757
Percent Change:	1.7%	2.1%

IZS Calibration Data

		Before Calibration		After Calibration	
Auto Zero (ppm)	CH4	0.00	NMHC 0.00	CH4	0.00 NMHC 0.00
Auto Span (ppm)	CH4	9.70	NMHC 13.43	CH4	9.70 NMHC 13.43
Sample Lines Connected		YES			

Notes: Cylinder Pressures
 Span 600 psi
 Hydrogen 2000 psi
 Zero Air 45 psi
 Nitrogen 2700 psi

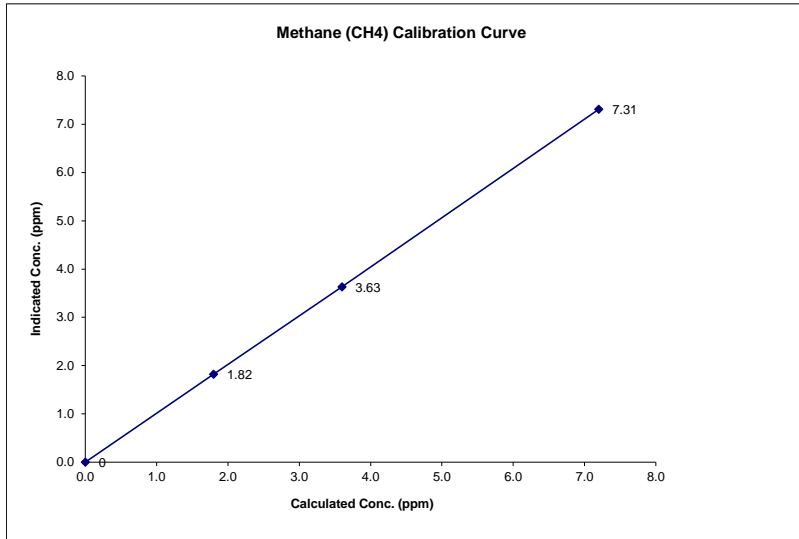
Notes: Change sample filter.
 Spare cylinders: N2=0, H2=2 & Span =1

Calibration Performed by: Waseem ahmed

Methane (CH4) Calibration Curve

Calibration Date	September 5, 2013		
Company	Lakeland Industry and Community Association		
Plant / Location	ELK Point Airport		
Start Time (MST)	14:55	End Time (MST)	16:00

Calculated Conc. ppm	Indicated Response ppm	Correction Factor	Correlation Coefficient Slope (≥ 0.995) (0.85 to 1.15)	Intercept (± 3% F.S.)
0	0	0.0000	0.999986	1.015238
1.80	1.82	0.9890		-0.008000
3.60	3.63	0.9917		
7.20	7.31	0.9850		

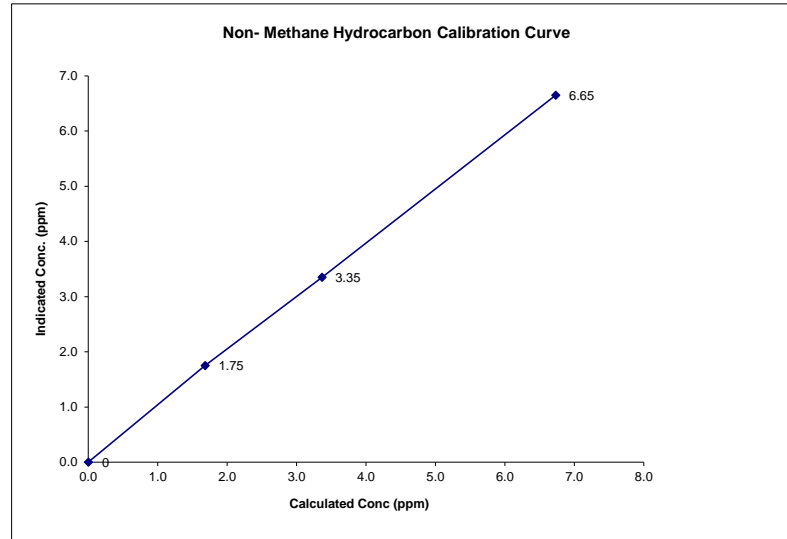


Notes:

Non-Methane Hydrocarbon Calibration Curve

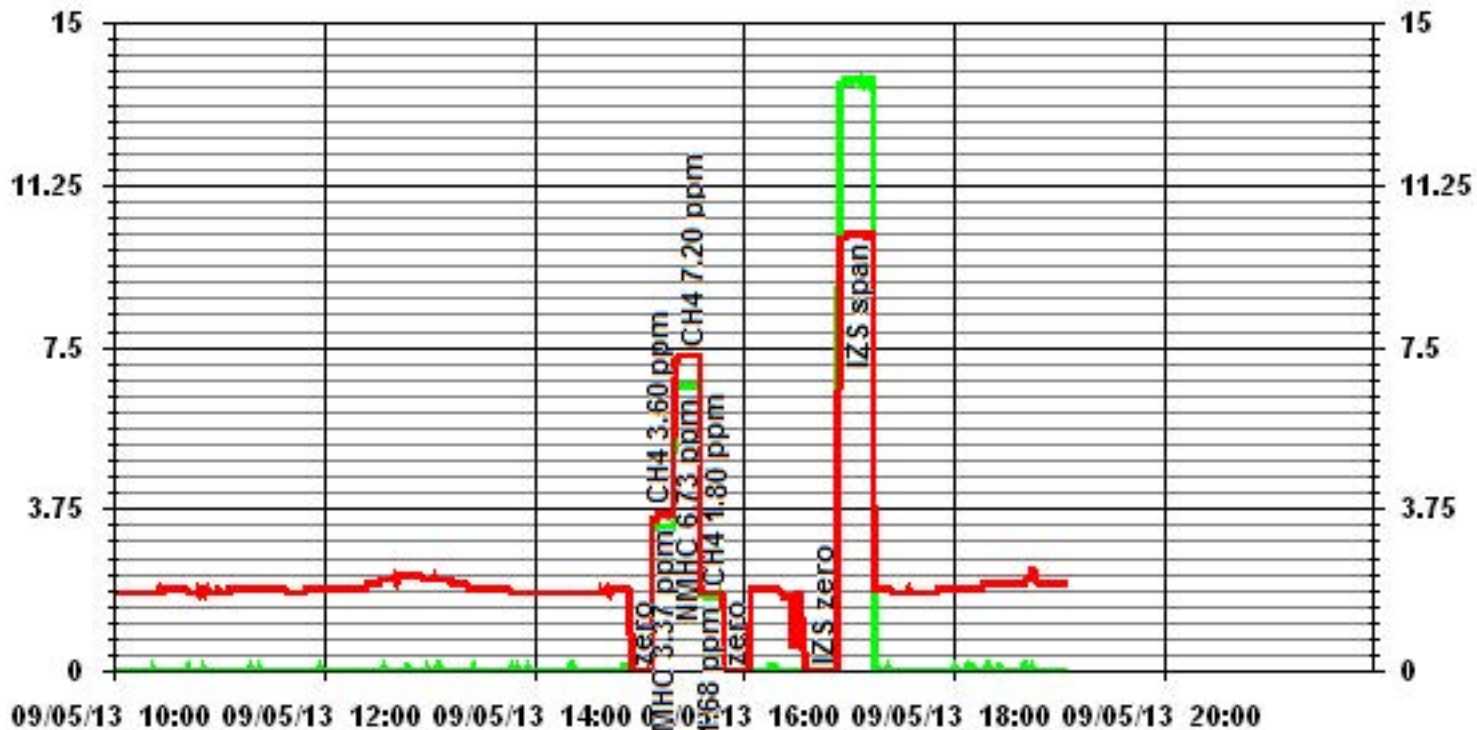
Calibration Date	September 5, 2013		
Company	Lakeland Industry and Community Association		
Plant / Location	ELK Point Airport		
Start Time (MST)	14:55	End Time (MST)	16:00

Calculated Conc. ppm	Indicated Response ppm	Correction Factor	Correlation Coefficient Slope (≥ 0.995) (0.85 to 1.15)	Intercept (± 3% F.S.)
0	0	0.0000	0.999804	0.983787
1.68	1.75	0.9617		0.040000
3.37	3.35	1.0048		
6.73	6.65	1.0123		



Notes:

01 Minute Averages



— LICA35

METHANE PPM

Page 114 of 127

— LICA35

NMHC PPM

JOB #: 2833-13-09-35-C

Particulate Matter 2.5

TEOM 1405F Audit

<u>Station</u>		<u>Audit Transfer Standard</u>	
Date:	<u>September 3, 2013</u>	Make/Model:	<u>Fisher Brand</u>
Station Name:	<u>LICA Portable (CASA # 35)</u>	Serial Number:	<u>15-021B</u>
Location:	<u>ELK Point Air Port</u>	Cell s/n:	<u>N/A</u>
Operator:	<u>LICA</u>	Thermometer s/n:	<u>N/A</u>
<u>Sampler</u>		<u>Set-up and current Sampler readings</u>	
Make/Model	<u>Thermo Scientific Series 1405F</u>	F-Main Set Pt (l/min)	<u>3.00</u>
Unit #	<u>N/A</u>	F-Aux Set Pt (l/min)	<u>13.67</u>
Unit s/n	<u>1405A208301003</u>	Filter Load (%)	<u>21.4%</u>
Firmware Ver.	<u>1.52</u>	K _o Factor	<u>13125.0</u>
Parameter	<u>PM 2.5 (with FDMS)</u>	Temp (°C)	<u>24.0</u>
		Press (ATM)	<u>0.936</u>

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 <0.10µg	<u>0.005</u>	Warnings	<u>None</u>
Pump Vacuum <0.40atm	<u>0.37</u>	Pump Gauge (inHg)	<u>-17</u>
Temperature/Pressure			
Measured Temp (± 2 °C)	<u>22.81</u>	D °C	<u>1.2</u>
Measured Press (± 0.01atm)	<u>0.940</u>	DATM	<u>-0.004</u>
Flow Audit			
Indicated Main Flow (l/min)	<u>3.00</u>	Main Flow Drift (±10.0%)	<u>1.35%</u>
Measured Main Flow (l/min)	<u>2.99</u>	Flow Adjusted to Measured?	<u>Yes</u>
Indicated Bypass Flow (l/min)	<u>13.67</u>	Bypass Flow Drift (±10.0%)	<u>3.21%</u>
Measured Bypass Flow (l/min)	<u>13.66</u>	Flow Adjusted to Measured?	<u>Yes</u>
Leak Check		Instrument Setup	
Main (< 0.15 l/min)	<u>Base=-0.04, Ref.=-0.04</u>	Flow Control = Active	
Aux (< 0.6 l/min)	<u>Base=00.00, Ref.=00.00</u>	Report Condition = Actual	
K_o Factor			
Measured	<u>N/A</u>		
K _o Difference (± 2.5%)	<u>N/A</u>		

Start Time: 12:30 **Finish Time:** 14:15:00 PM

Sample Inlet Cleaned: Yes **New Filters Installed:** NA

New Filter Loading %: NA

Comments:

Auditor/s: Waseem Ahmed

TEOM 1405F Audit

	<u>Station</u>		<u>Audit Transfer Standard</u>
Date:	September 23, 2013	Make/Model:	Fisher Brand
Station Name:	LICA Portable (CASA # 35)	Serial Number:	15-021B
Location:	ELK Point Air Port	Cell s/n:	N/A
Operator:	LICA	Thermometer s/n:	N/A
	<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 #	N/A	F-Aux Set Pt (l/min)	13.67
Unit s/n	1405A208301003	Filter Load (%)	25.7%
Firmware Ver.	1.52	K _o Factor	13125.0
Parameter	PM 2.5 (with FDMS)	Temp (°C)	16.0
		Press (ATM)	0.916

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	0.005	Warnings	None
Pump Vacuum <0.40atm	0.37	Pump Gauge (inHg)	-17
Temperature/Pressure		D °C	
Measured Temp (± 2 °C)	16.72		-0.7
Measured Press (± 0.01atm)	0.920	DATM	-0.004
Flow Audit		Main Flow Drift (±10.0%)	
Indicated Main Flow (l/min)	3.00		0.91%
Measured Main Flow (l/min)	3.02	Flow Adjusted to Measured?	Yes
Indicated Bypass Flow (l/min)	13.66	Bypass Flow Drift (±10.0%)	2.79%
Measured Bypass Flow (l/min)	13.74	Flow Adjusted to Measured?	Yes
Leak Check		Instrument Setup	
Main (< 0.15 l/min)	Base=NA, Ref.=NA	Flow Control = Active	
Aux (< 0.6 l/min)	Base=NA, Ref.=NA	Report Condition = Actual	
K_o Factor			
Measured	N/A		
K _o Difference (± 2.5%)	N/A		

Start Time: 12:00 **Finish Time:** 13:30:00 PM

Sample Inlet Cleaned: N/A **New Filters Installed:** NA
New Filter Loading %: NA

Comments:

Auditor/s: Waseem Ahmed

Nitrogen Dioxide

NOx - NO- NO2 Calibration Report

Station Information

Calibration Date	September 5, 2013	Previous Calibration	August 14, 2013
Company	LICA	Plant/Location	ELK Point Airport
Start Time (MST)	8:48	End Time (MST)	9:54
Reason:	AF		
Barometric Pressure	27.94 in HG	Station Temperature	21 Deg C
Cal Gas Concentration	NOx 49.3 ppm	NO	49.2 ppm
Cal Gas Cylinder #	BAL3031	Cal Gas Expiry date	December 29, 2016
DAS Output Voltage	0-1 Volts	Chart Rec. Output	NA Volts

Equipment Information

Analyzer Make / Model:	API 200E	S/N :	593	Method:	Chemiluminescent
Calibrator Make / Model:	EnviroNics 6100	S/N:	4760		
DAS Make / Model:	ESC 8832	S/N :	AO717		
Chart Recorder Make / Model:	NA	S/N:	NA		
Flow Meter:	EnviroNics 6100	S/N :	4760		

Analyzer Settings

Before Calibration			After Calibration		
Concentration Range	0-1000		ppb		
Sample Flow/Conv. Temp	474 ccm	314 Deg C	478 ccm	315.4	Deg C
Ozone Flow / Vacuum	78 ccm	4.1 *Hg-A	78 ccm	4.1	*Hg-A
HVPS / A ZERO	674 Volts	9.0 MV	674 Volts	8.8	MV
Rx/ Temp / PMT Temp	50.0 Deg C	6.7 Deg C	50.0 Deg C	6.7	Deg C
Box Temp / IZS Temp	30.7 Deg C	45.0 Deg C	31.7 Deg C	45.0	Deg C
Offset	0.4 NOx	0.5 NO	0.4 NOx	0.5	NO
Slope	1.060 NOx	1.043 NO	1.060 NOx	1.043	NO
NO2 COEF / Conv Efficiency	NA NO2	0.997	NA NO2	0.997	

Dilution Calibration Data

Dilution Air Flow Rate	Source Flow Rate	O3 Set Point	Calculated Concentration			Indicated Concentration			Correction Factor	
			NOx	NO	NO2	NOx	NO	NO2	NOx	NO
5000	0.0	NA	0	0	NA	-1	-1	0	NA	NA
	No zero adj.									
4920	80.1	NA	789	788	NA	789	783	6	1.0000	1.0049

Gas Phase Titration Calibration Data

Dilution Air Flow Rate	Source Flow Rate	O3 Set Point	Calculated Concentration			Indicated Concentration			NO2 Correction Factor	NO2 Conv Efficiency
			NOx	NO	NO2	NOx	NO	NO2		

Linearity OK?	Yes	No	Sum of Least Squares Correction Factors:	NOx= 1.0000	NO= 1.0049	NO2=
				Average Converter Efficiency=		

IZS Calibration Data

		Before Calibration			After Calibration		
Auto Zero	0.0 NOx	0.0 NO2		0.0 NOx	0.0 NO2		
Auto Span	635 NOx	623 NO2		635 NOx	623 NO2		
Sample Lines Connected:				YES			

Percent Change

	NOx	NO	NO2
Previous Month's Calibration Correction Factor	1.002	1.001	
Current Correction Factor Before Span Adjust	1.000	1.005	
Percent Change	0.2%	-0.4%	

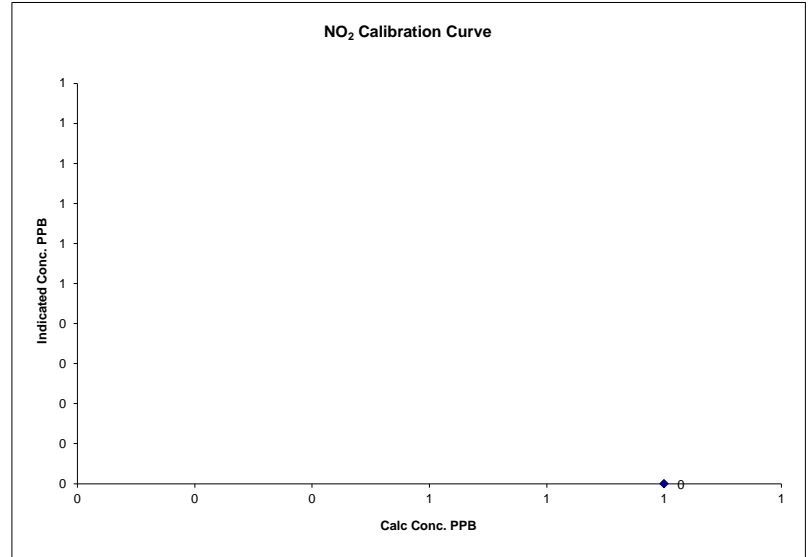
Notes: **NA : Not Applicable**

Calibration Performed by: Waseem Ahmed

NO2 Calibration Curve

Calibration Date	September 5, 2013
Company	LICA
Plant / Location	ELK Point Airport
Start Time (MST)	8:48
End Time (MST)	9:54

Calculated Conc. ppb	Indicated Response ppb	Correction Factor	Correlation Coefficient (≥ 0.995)
6			Slope (0.85 to 1.15)
			Intercept (± 3% F.S.)



Notes:

NOx - NO- NO2 Calibration Report
Station Information

Calibration Date	September 5, 2013	Previous Calibration	August 14, 2013
Company	LICA	Plant/Location	ELK Point Airport
Start Time (MST)	10:04	End Time (MST)	14:16
Reason:	Monthly calibration		
Barometric Pressure	27.94 in Hg	Station Temperature	24 Deg C
Cal Gas Concentration	NOx 49.3 ppm	NO	49.2 ppm
Cal Gas Cylinder #	BAL3031	Cal Gas Expiry date	December 29, 2016
DAS Output Voltage	0-1 Volts	Chart Rec. Output	NA Volts

Equipment Information

Analyzer Make / Model:	API 200E	S/N :	593	Method:	Chemiluminescent
Calibrator Make / Model:	EnviroNics 6100	S/N:	4760		
DAS Make / Model:	ESC 8832	S/N :	AO717		
Chart Recorder Make / Model:	NA	S/N:	NA		
Flow Meter:	EnviroNics 6100	S/N :	4760		

Analyzer Settings

Before Calibration				After Calibration			
Concentration Range	0-1000			ppb			
Sample Flow/Conv. Temp	478 ccm	315.4 Deg C		477 ccm	315.5 Deg C		
Ozone Flow / Vacuum	78 ccm	4.1 *Hg-A		78 ccm	4.2 *Hg-A		
HVPS / A ZERO	674 Volts	8.8 MV		674 Volts	9.1 MV		
Rx/ Temp / PMT Temp	50.0 Deg C	6.7 Deg C		50.0 Deg C	6.7 Deg C		
Box Temp / IZS Temp	31.7 Deg C	45.0 Deg C		35.0 Deg C	45.0 Deg C		
Offset	0.4 NOx	0.5 NO		0.4 NOx	0.5 NO		
Slope	1.060 NOx	1.043 NO		1.064 NOx	1.051 NO		
NO2 COEF / Conv Efficiency	NA NO2	0.997		NA NO2	0.997		

Dilution Calibration Data

Dilution Air Flow Rate	Source Flow Rate	O3 Set Point	Calculated Concentration			Indicated Concentration			Correction Factor	
			NOx	NO	NO2	NOx	NO	NO2	NOx	NO
5000	0.0	NA	0	0	NA	0	0	0	NA	NA
	No zero adj.									
4920	80.2	NA	791	789	NA	793	791	2	0.9972	0.9976
	No span adj.									
4960	40.1	NA	395	394	NA	394	393	1	1.0025	1.0030
4978	20.1	NA	198	198	NA	200	199	0	0.9913	0.9943
4995	0.0	NA	0	0	NA	0	0	0	NA	NA

Gas Phase Titration Calibration Data

Dilution Air Flow Rate	Source Flow Rate	O3 Set Point	Calculated Concentration			Indicated Concentration			NO2 Correction Factor	NO2 Conv Efficiency
			NOx	NO	NO2	NOx	NO	NO2		
4920	80.0	NA	789	787	NA	792	790	2	NA	
4920	80.0	600	789	NA	494	792	298	494	1.0000	
	No adj.									
4920	80.0	300	789	NA	250	794	542	252	0.9921	
4920	80.0	120	789	NA	98	797	694	104	0.9423	

Linearity	Sum of Least Squares		NOx= 0.998	NO= 0.998	NO2= 0.997
OK?	Yes	No	Correction Factors: NOx= 0.9972	NO= 0.9976	NO2= 1.0000
			Average Converter Efficiency= 102.35%		

IZS Calibration Data

Before Calibration				After Calibration			
Auto Zero	0.0 NOx	0.0 NO2		0.0 NOx	0.0 NO2		
Auto Span	635 NOx	623 NO2		689 NOx	675 NO2		
	Sample Lines Connected:			YES			

Percent Change

	NOx	NO	NO2
Previous Month's Calibration Correction Factor	1.002	1.001	1.006
Current Correction Factor Before Span Adjust	0.997	0.998	1.000
Percent Change	0.5%	0.3%	0.6%

Notes

NA : Not Applicable

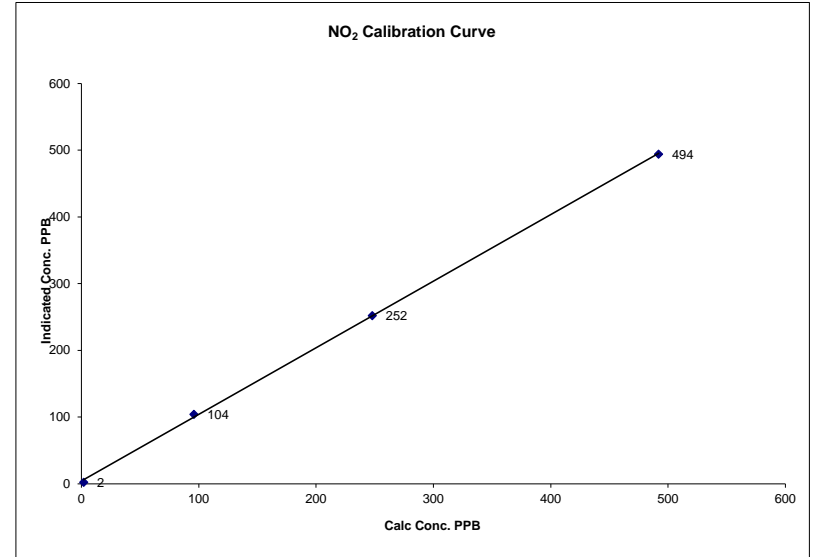
O3=450	Dilution 4920	Source flow 80.0
	Nox 796	NO 416
	NO2 380	
	Change sample filter.	

Calibration Performed by: Waseem Ahmed

NO2 Calibration Curve

Calibration Date	September 5, 2013
Company	LICA
Plant / Location	ELK Point Airport
Start Time (MST)	10:04
End Time (MST)	14:16

Calculated Conc. ppb	Indicated Response ppb	Correction Factor	Correlation Coefficient Slope	(≥ 0.995) (0.85 to 1.15)	0.999746
2	2	NA	Intercept	(± 3% F.S.)	3.78854
96	104	0.9231			
248	252	0.9841			
492	494	0.9960			

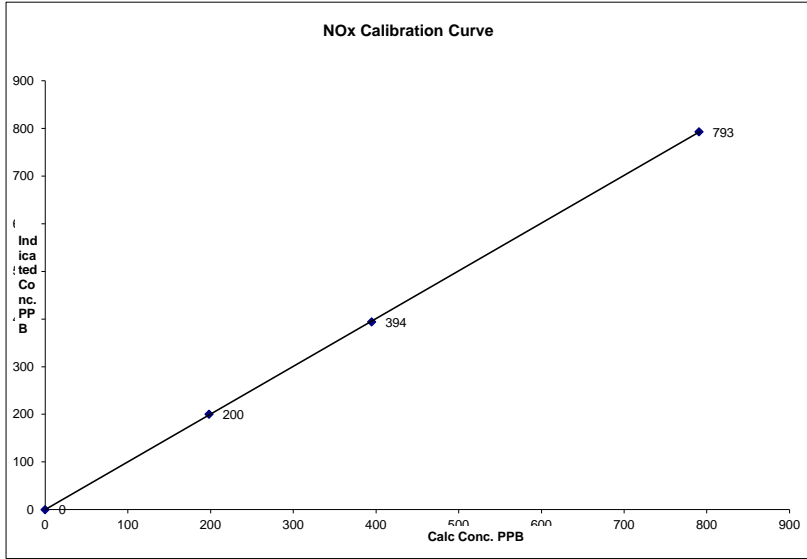


Notes:

NOx Calibration Curve

Calibration Date	September 5, 2013	
Company	LICA	
Plant / Location	ELK Point Airport	
Start Time (MST)	10:04	End Time (MST) 14:16

Calculated Conc. ppb	Indicated Response ppb	Correction Factor	Correlation Coefficient (≥ 0.995)	0.999984
0	0	NA	Slope (0.85 to 1.15)	1.002048
198	200	0.9913	Intercept (± 3% F.S.)	0.04439
395	394	1.0025		
791	793	0.9972		

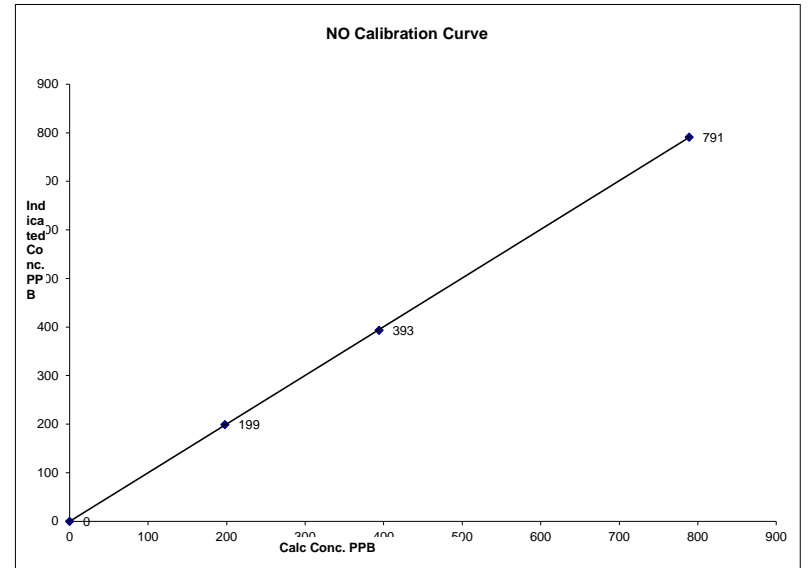


Notes:

NO Calibration Curve

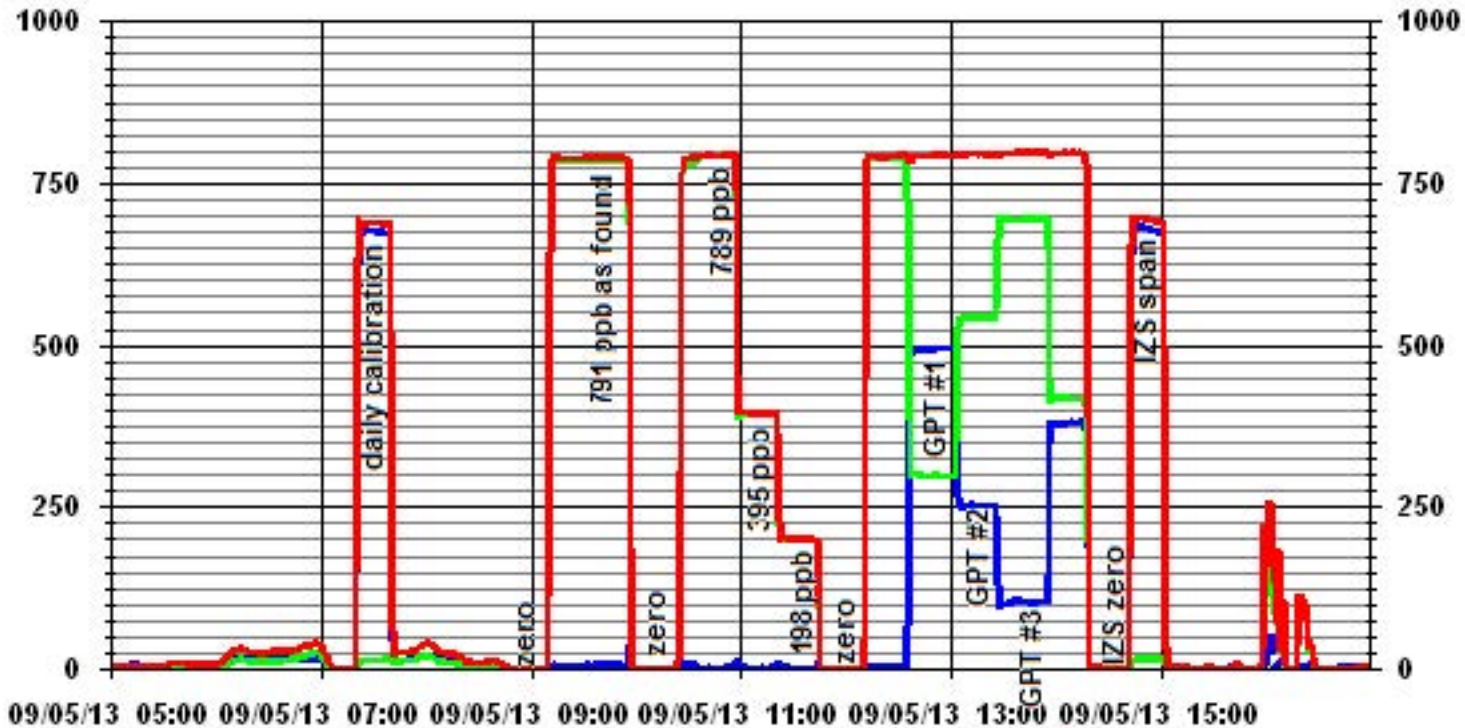
Calibration Date	September 5, 2013	
Company	LICA	
Plant / Location	ELK Point Airport	
Start Time (MST)	10:04	End Time (MST) 14:16

Calculated Conc. ppb	Indicated Response ppb	Correction Factor	Correlation Coefficient (≥ 0.995)	0.999987
0	0	NA	Slope (0.85 to 1.15)	1.001766
198	199	0.9943	Intercept (± 3% F.S.)	-0.15501
394	393	1.0030		
789	791	0.9976		



Notes:

01 Minute Averages



— LICA35 IIOX_ PPB

— LICA35 IIO_ PPB

— LICA35 IIO2_ PPB

NOx - NO- NO2 Calibration Report

Station Information

Calibration Date	September 25, 2013	Previous Calibration	September 5, 2013
Company	LICA	Plant/Location	ELK Point Airport
Start Time (MST)	11:34	End Time (MST)	12:40
Reason:	AF		
Barometric Pressure	0.935 atm	Station Temperature	23 Deg C
Cal Gas Concentration	NOx 49.3 ppm	NO	49.2 ppm
Cal Gas Cylinder #	BAL3031	Cal Gas Expiry date	December 29, 2016
DAS Output Voltage	0-1 Volts	Chart Rec. Output	NA Volts

Equipment Information

Analyzer Make / Model:	API 200E	S/N :	593	Method:	Chemiluminescent
Calibrator Make / Model:	Enviro-nics 6100	S/N:	4760		
DAS Make / Model:	ESC 8832	S/N :	AO717		
Chart Recorder Make / Model:	NA	S/N:	NA		
Flow Meter:	Enviro-nics 6100	S/N :	4760		

Analyzer Settings

Before Calibration				After Calibration			
Concentration Range	0-1000			ppb			
Sample Flow/Conv. Temp	471 ccm	314.4 Deg C		471 ccm	314.4 Deg C		
Ozone Flow / Vacuum	78 ccm	4.8 *Hg-A		78 ccm	4.8 *Hg-A		
HVPS / A ZERO	674 Volts	8.5 MV		674 Volts	8.5 MV		
Rx/ Temp / PMT Temp	50.0 Deg C	6.7 Deg C		50.0 Deg C	6.7 Deg C		
Box Temp / IZS Temp	29.1 Deg C	45.0 Deg C		29.1 Deg C	45.0 Deg C		
Offset	0.4 NOx	0.5 NO		0.4 NOx	0.5 NO		
Slope	1.064 NOx	1.051 NO		1.064 NOx	1.051 NO		
NO2 COEF / Conv Efficiency	NA NO2	0.997		NA NO2	0.997		

Dilution Calibration Data

Dilution Air Flow Rate	Source Flow Rate	O3 Set Point	Calculated Concentration			Indicated Concentration			Correction Factor	
			NOx	NO	NO2	NOx	NO	NO2	NOx	NO
4995	0.0	NA	0	0	NA	2	1	2	NA	NA
	No zero adj.									
4920	80.4	NA	793	791	NA	841	837	4	0.9453	0.9467

Gas Phase Titration Calibration Data

Dilution Air Flow Rate	Source Flow Rate	O3 Set Point	Calculated Concentration			Indicated Concentration			NO2 Correction Factor	NO2 Conv Efficiency
			NOx	NO	NO2	NOx	NO	NO2		

Linearity OK?	Yes	No	Sum of Least Squares Correction Factors:	NOx= 0.9453	NO= 0.9467	NO2=
Average Converter Efficiency=						

IZS Calibration Data

Before Calibration				After Calibration			
Auto Zero	0.0 NOx	0.0 NO2		0.0 NOx	0.0 NO2		
Auto Span	689 NOx	675 NO2		689 NOx	675 NO2		
Sample Lines Connected:				YES			

Percent Change

	NOx	NO	NO2
Previous Month's Calibration Correction Factor	0.997	0.998	
Current Correction Factor Before Span Adjust	0.945	0.947	
Percent Change	5.5%	5.4%	

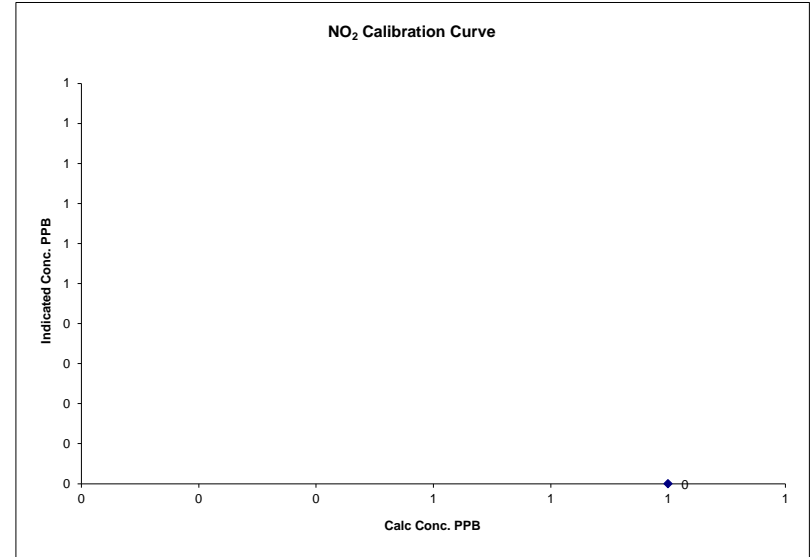
Notes: **NA : Not Applicable**

Calibration Performed by: Waseem Ahmed

NO2 Calibration Curve

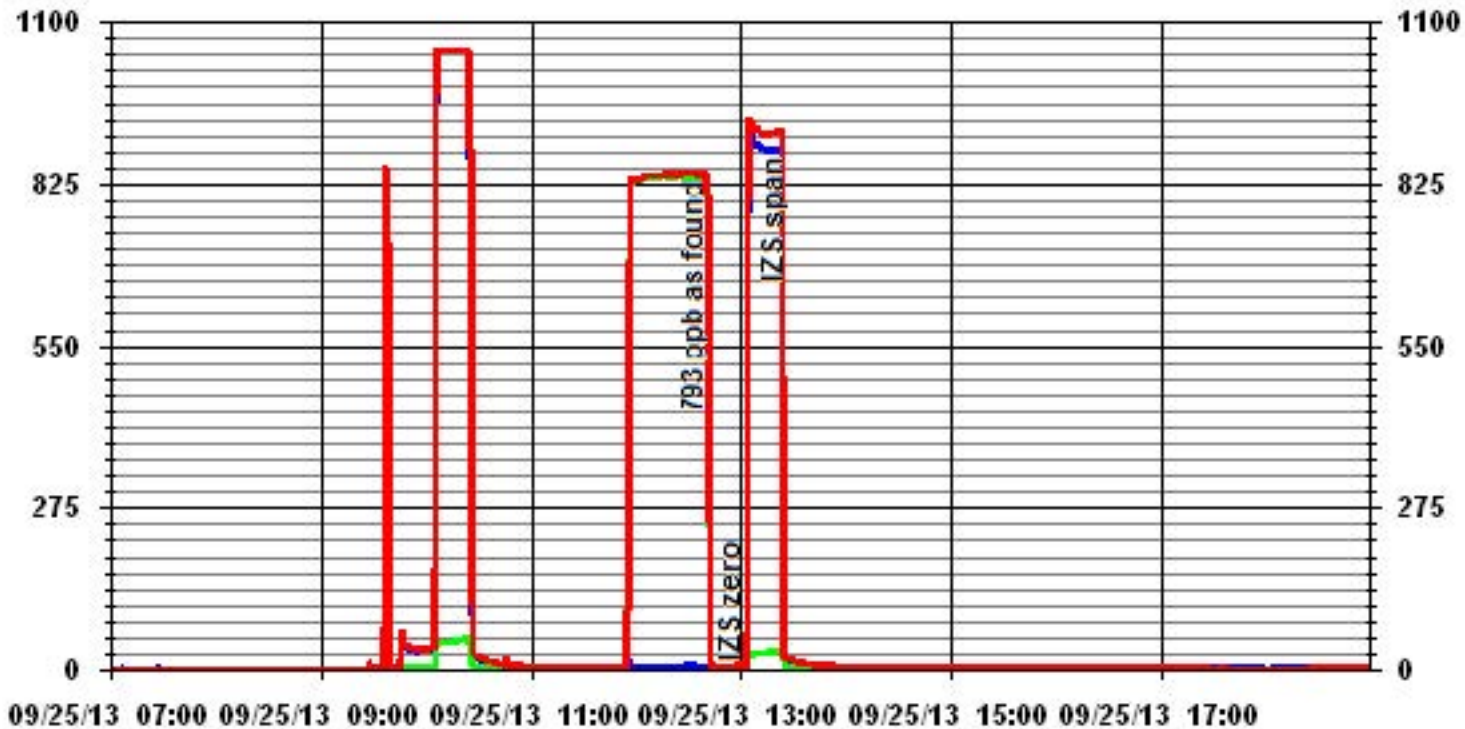
Calibration Date	September 25, 2013
Company	LICA
Plant / Location	ELK Point Airport
Start Time (MST)	11:34
End Time (MST)	12:40

Calculated Conc. ppb	Indicated Response ppb	Correction Factor	Correlation Coefficient (≥ 0.995)
4			Slope (0.85 to 1.15)
			Intercept (± 3% F.S.)



Notes:

01 Minute Averages



— LICA35 IIOX_ PPB

— LICA35 IIO_ PPB

— LICA35 IIO2_ PPB

Ozone

O₃ Calibration Report

Station Information

Calibration Date	September 5, 2013	Previous Calibration	August 27, 2013
Company	Lakeland Industry & Community Association		
Plant / Location	EIK Point Airport		
Start Time (MST)	14:20	End Time (MST)	16:50
Reason:	Monthly calibration		
Barometric Pressure	27.91 in HG	Station Temperature	27 Deg C
DAS Output Voltage	0-10 Volts		

Equipment Information

Analyzer Make / Model:	Thermo 49i	S/N :	1002240372	Method:	Photometric
Calibrator Make / Model:	Enviroics 6100	S/N :	4760	Method:	GPT
DAS Make / Model:	ESC 8832	S/N :	AO717		

Analyzer Settings

	Before Calibration				After Calibration			
Concentration Range	0-500 ppb							
Cell A Flow / Cell B Flow	752 LPM	761 LPM	752 LPM	760 LPM	752 LPM	760 LPM	752 LPM	760 LPM
O ₃ Set Level	699 mmHg	698 mmHg	698 mmHg	698 mmHg	699 mmHg	698 mmHg	698 mmHg	698 mmHg
Bench Lamp	54.1 Deg C	54.1 Deg C	54.1 Deg C	54.1 Deg C	54.1 Deg C	54.1 Deg C	54.1 Deg C	54.1 Deg C
O ₃ Lamp / Box Temp	68.2 Deg	35.5 Deg C	68.2 Deg	36.3 Deg C	68.2 Deg	36.3 Deg	68.2 Deg	36.3 Deg
Offset / Slope	-0.2	0.969	-0.2	1.014	-0.2	0.969	-0.2	1.014

Calibration Data

Dilution Flow Rate	Ozone Set Point	Calculated Concentration	Indicated Conc. (DAS)	Correction Factor
4994	0	0	0	N/A
	No zero adj			
4994	450	374	358	1.0447
4994	450	374	375	0.9973
4994	300	248	250	0.9920
4994	120	96	99	0.9697
4994	0	0	0	N/A
Sum of Least Squares				0.9945
New Correction Factor				0.9973

IZS Calibration Data

	Before Calibration	After Calibration
Auto Zero	0.0	0.0
Auto Span	329	329
Sample Lines Connected		Yes
Previous Calibration Correction Factor:		1.0054
Current Correctio Factor Before Span Adjust:		1.0447
Percent Change:		-3.8%

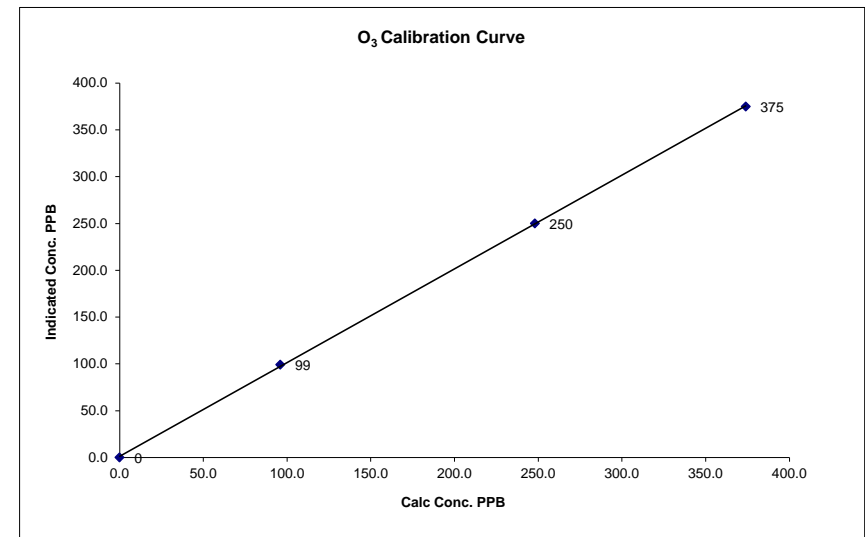
Note: N/A : Not Applicable
Change sample filter.

Calibration Performed by: Waseem Ahmed

O₃ Calibration Curve

Calibration Date	September 5, 2013		
Company	Lakeland Industry & Community Association		
Plant / Location	EIK Point Airport		
Start Time (MST)	14:20	End Time (MST)	16:50

Calculated Conc. ppb	Indicated Response ppb	Correction Factor	Correlation Coefficient (≥ 0.995)	
0	0	N/A	Slope (0.85 to 1.15)	0.999940
96	99	0.9697	Intercept (± 3% F.S.)	1.000991
248	250	0.9920		1.322071
374	375	0.9973		



Notes:

01 Minute Averages

