

Air Quality Monitoring DASHBOARD REPORT

August -
September
2015



Continuous Monitoring Stations

August
2015

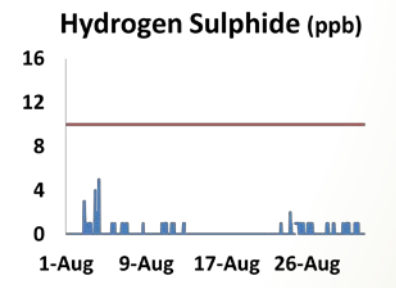
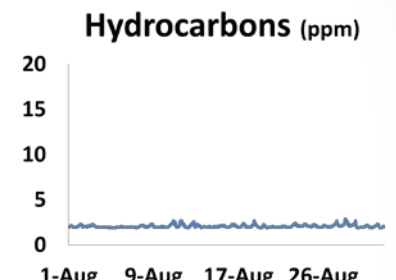
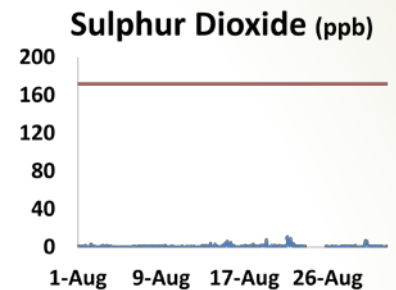
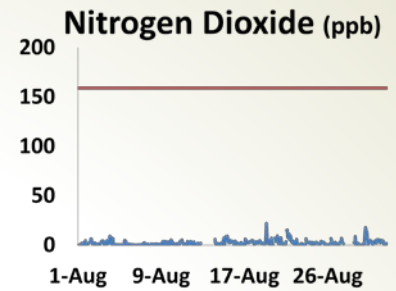
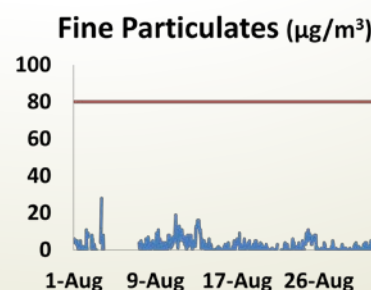
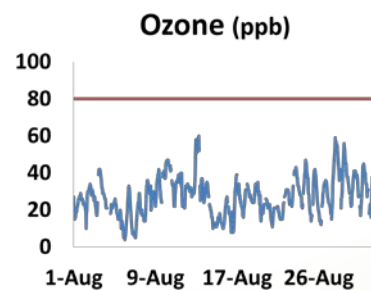
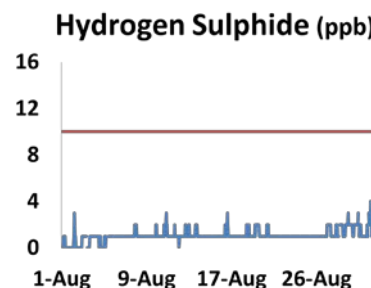
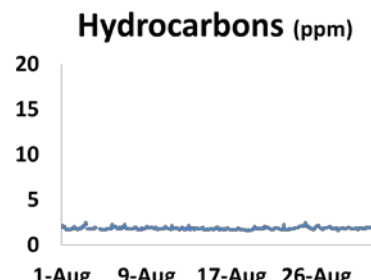
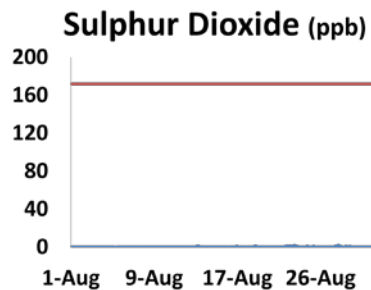
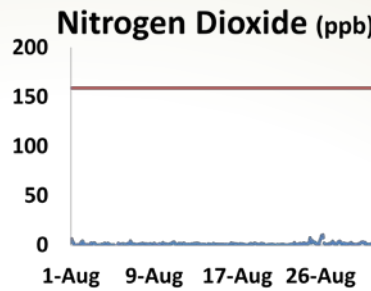
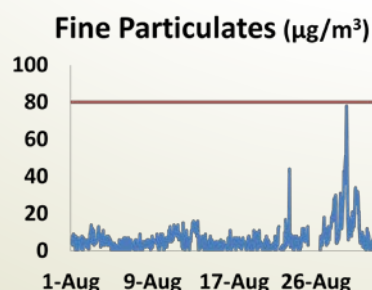
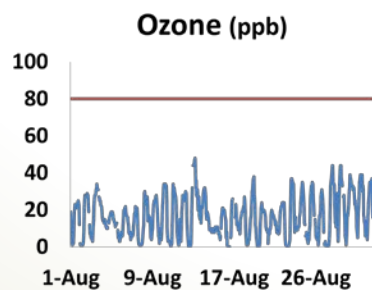
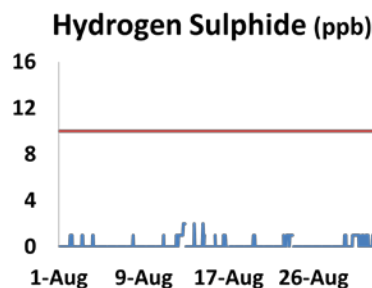
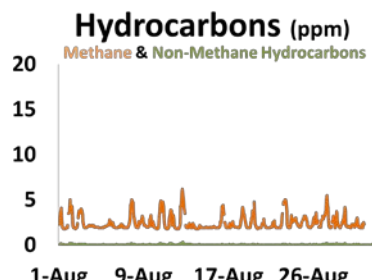
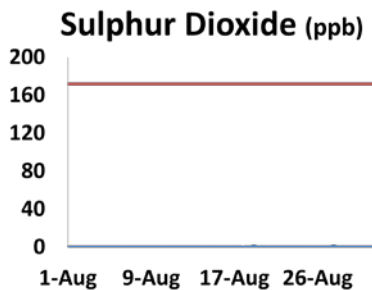
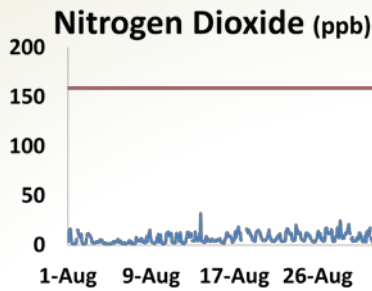
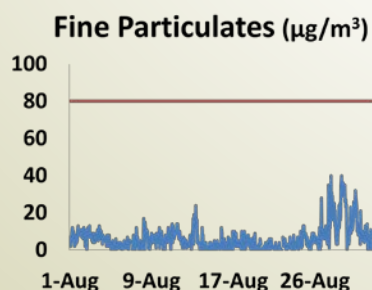
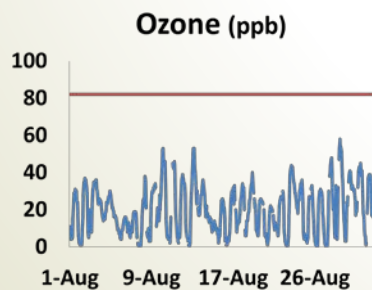
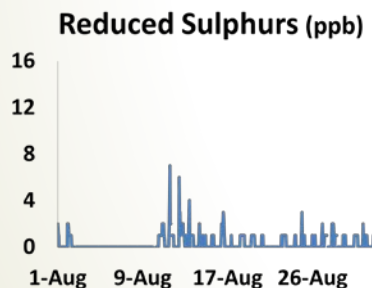
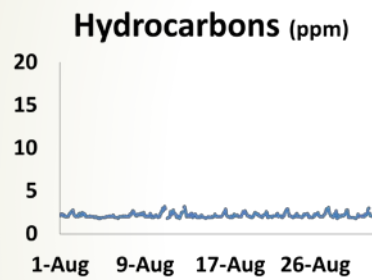
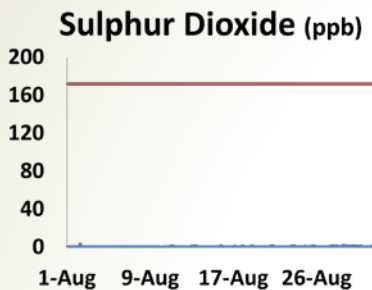
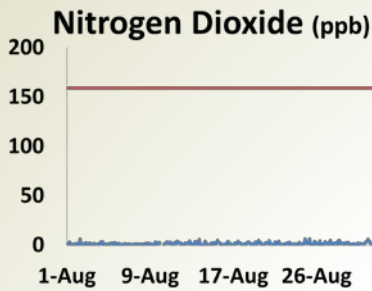


Cold Lake

PAMS (Elk Point)

St. Lina

Maskwa



Notable observations for Aug 2015:

- Air quality was rated as "Low Risk" over 80% of the time at the Cold Lake, St. Lina, and portable monitoring stations.
- In this series of charts, the blue line indicates the pattern of measurements over a one-month period; the red line indicates the applicable Alberta Ambient Air Quality Objective (AAAQO) established for the respective parameter; in the case of Fine Particulates, the red line indicates the Alberta Ambient Air Quality Guideline.
- The St. Lina monitoring station had less than 90% operational time for particulate matter during the month of August 2015 (Reference #303701). Under the Oil Sands Monitoring Plan, LICA will systematically replace the TEOM-FDMS particulate matter monitoring units with beta attenuation - light scattering technology starting in 2015; by 2017, all units will be phased over to the newer, more reliable method.

Continuous Monitoring Stations

September
2015

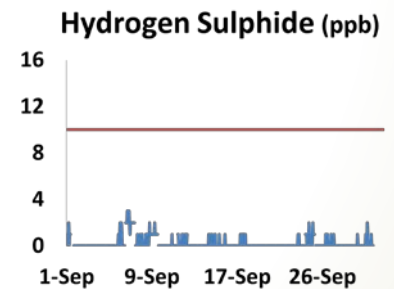
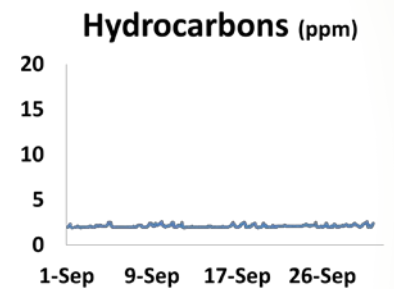
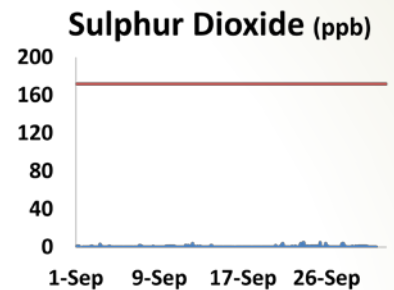
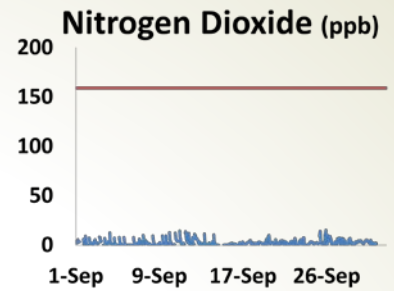
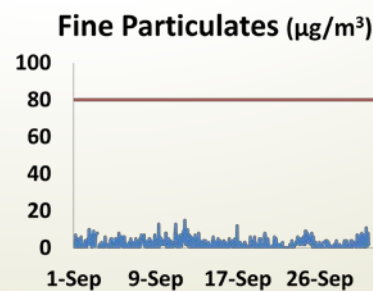
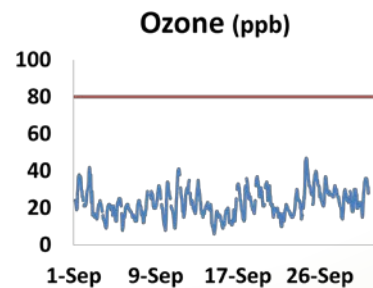
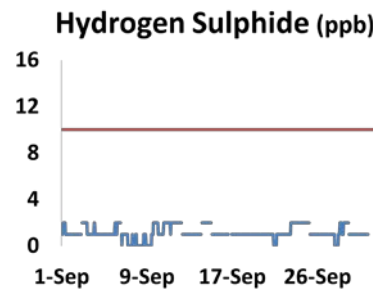
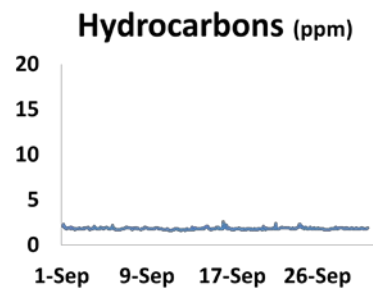
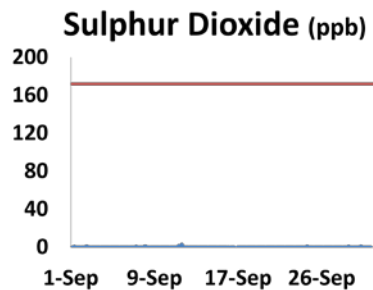
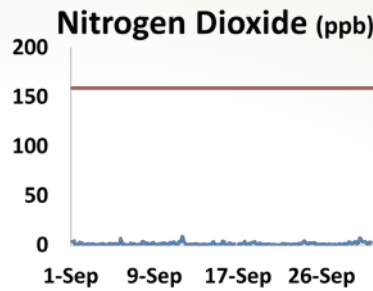
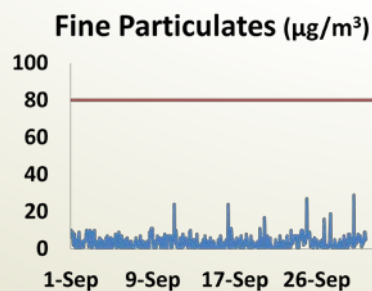
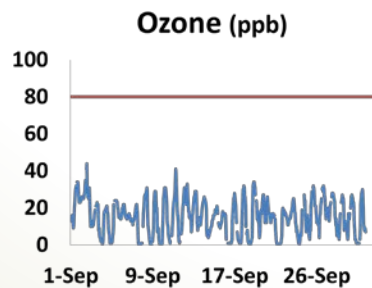
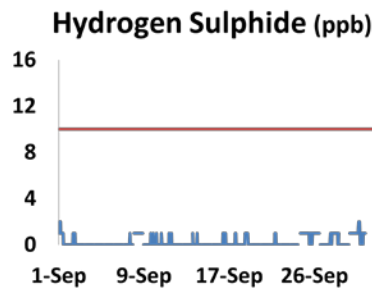
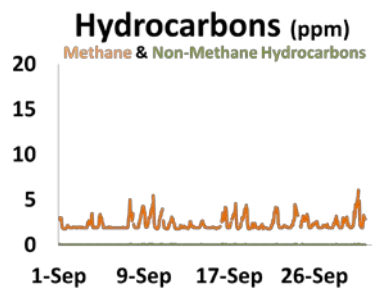
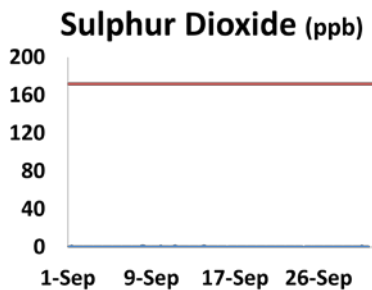
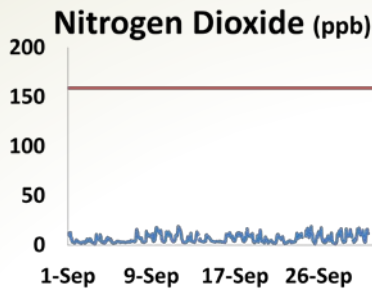
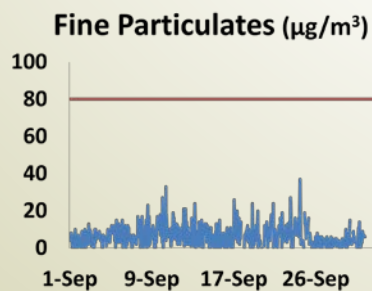
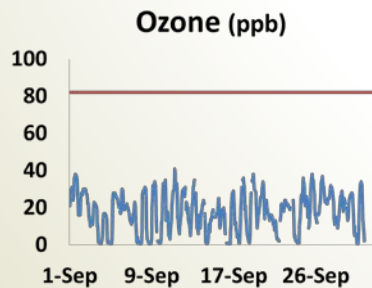
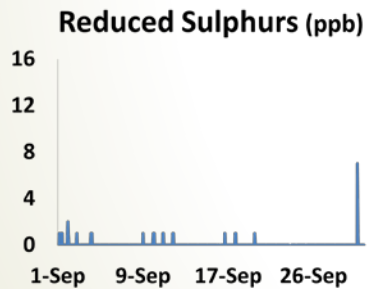
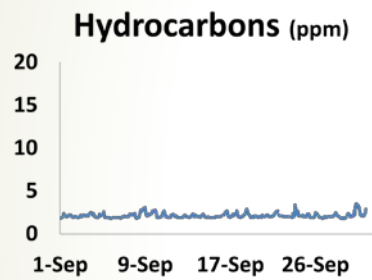
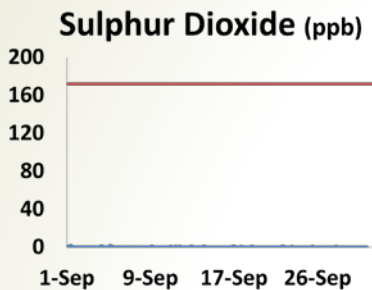
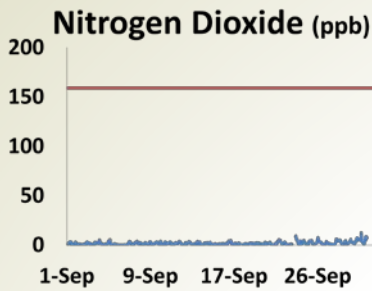


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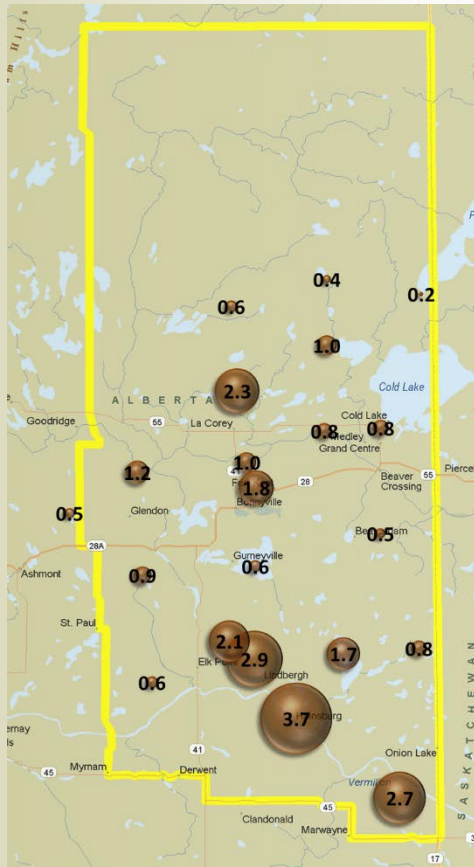
Passive Monitoring Stations

August -
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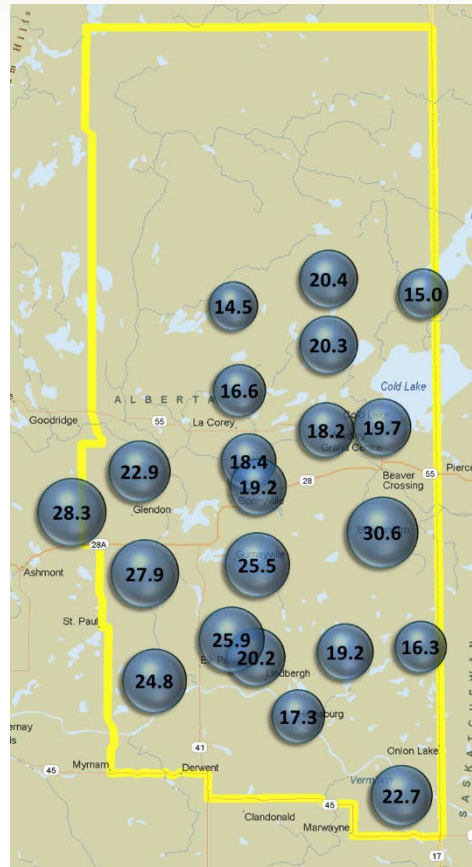


This series of bubble maps present monthly average concentrations in parts per billion (ppb) over a two-month period.
Displaying data this way illustrates the spatial patterns of the parameters monitored in the LICA passive monitoring network.

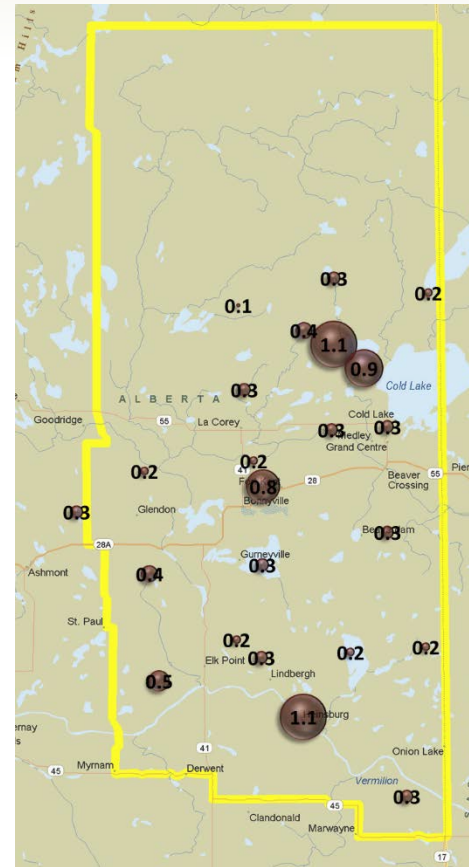
Nitrogen Dioxide



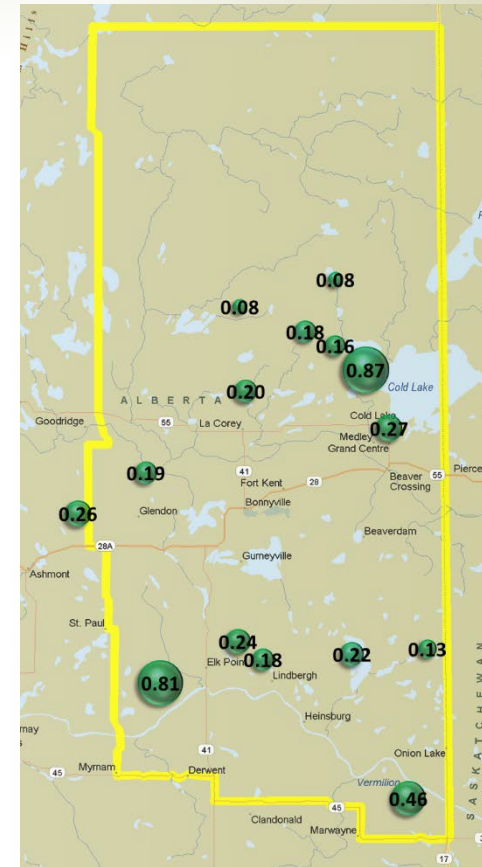
Ozone



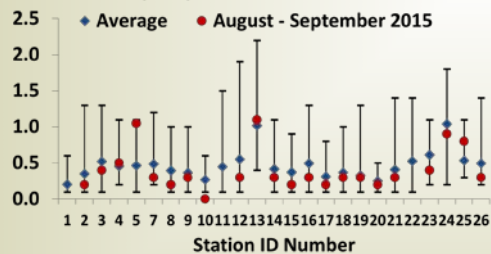
Sulphur Dioxide



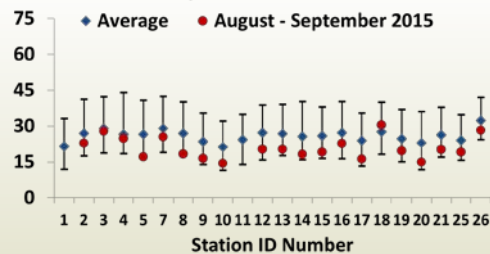
Hydrogen Sulphide



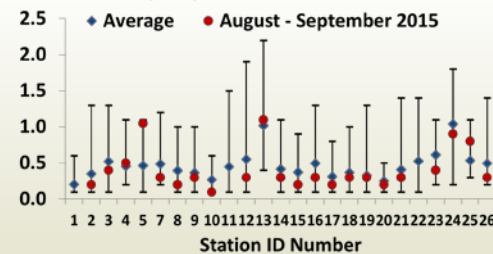
Minimum-Maximum-Average (ppb)
Monthly Sulphur Dioxide: 2011 - 2014



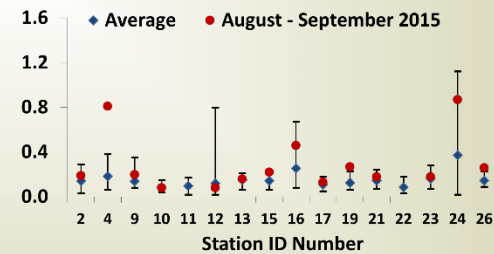
Minimum-Maximum-Average (ppb)
Monthly Ozone: 2011 - 2014



Minimum-Maximum-Average (ppb)
Monthly Sulphur Dioxide: 2011 - 2014

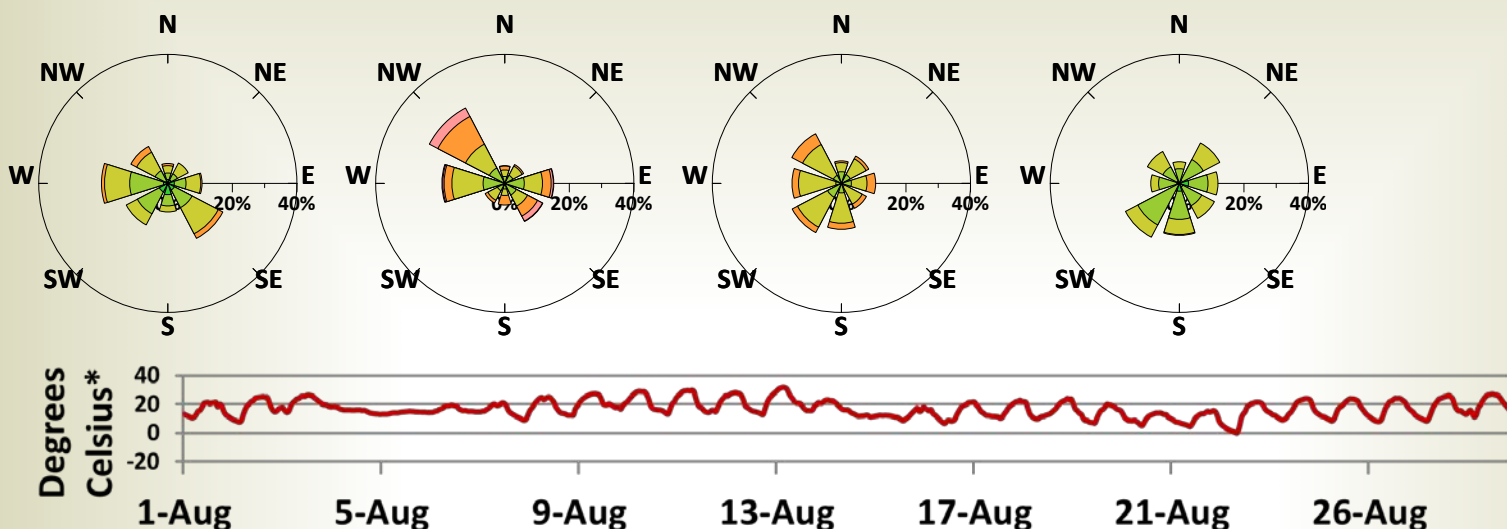


Minimum-Maximum-Average (ppb)
Monthly Hydrogen Sulphide: 2011 - 2014



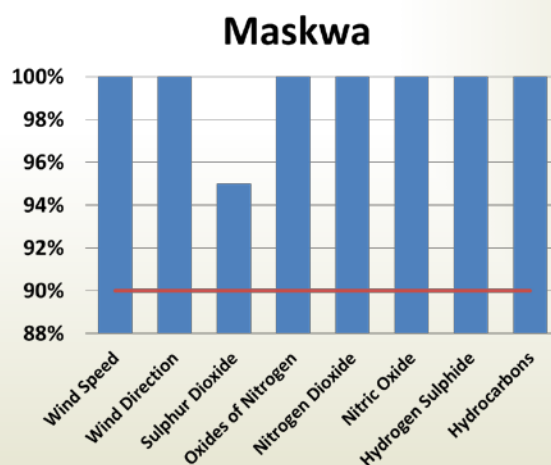
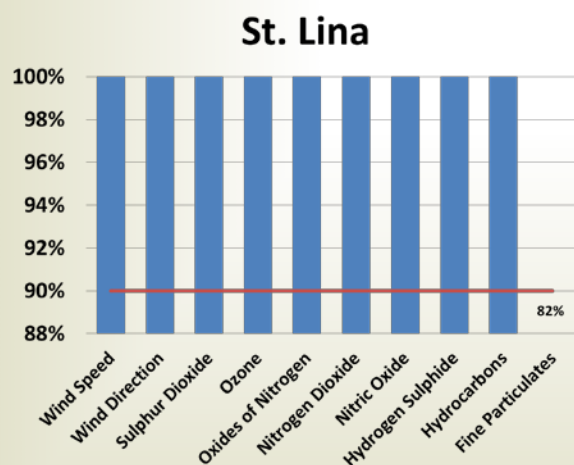
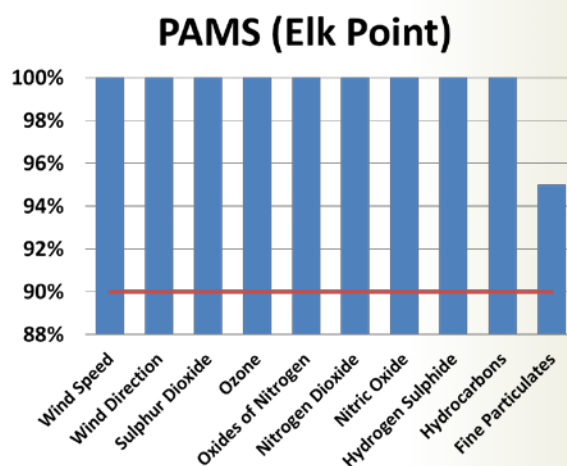
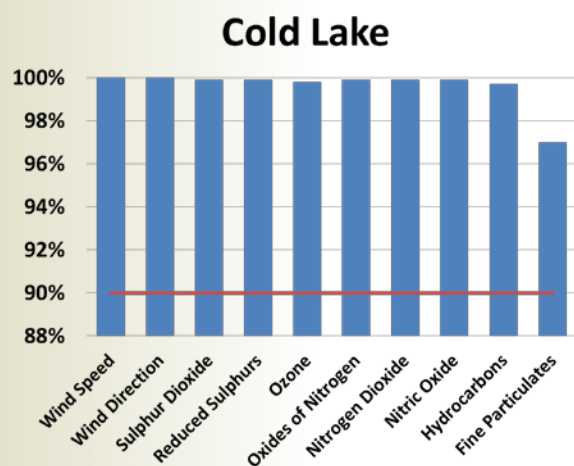
Wind Speed, Wind Direction, Temperature

August
2015



* Temperature in Cold Lake

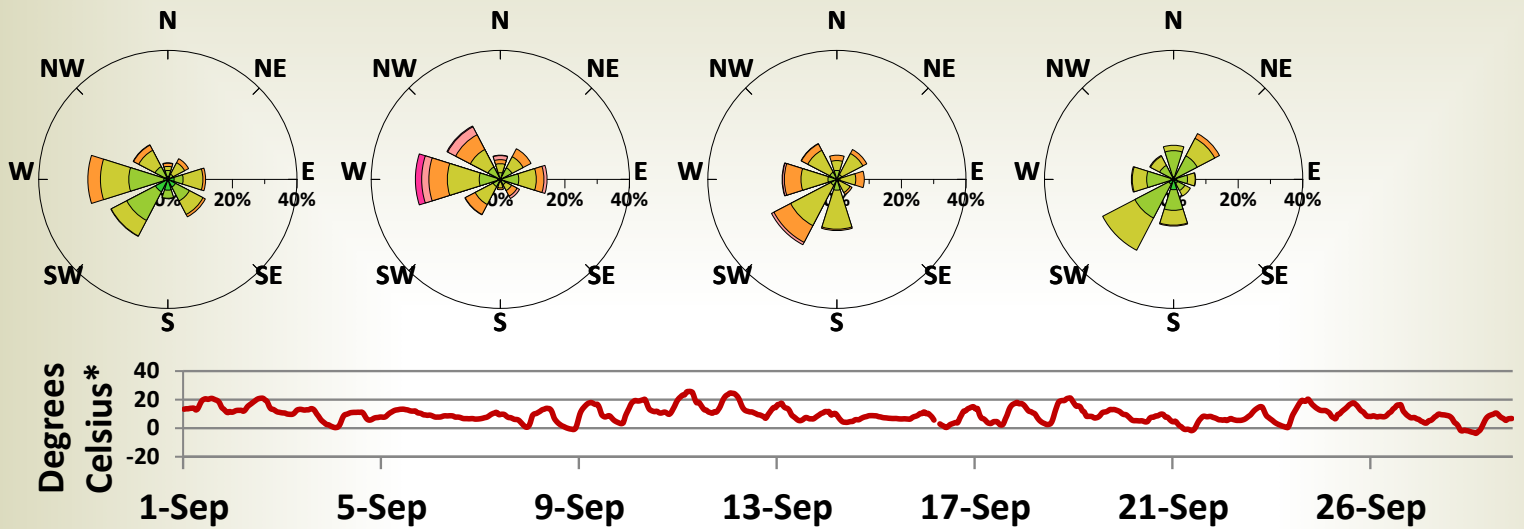
Operational Uptime



Notes on instrument uptime: The Alberta Air Monitoring Directive (1989) requires that real time instrumentation must be operational at least 90% of the time on a monthly basis (indicated by the red line on the above charts). The St. Lina monitoring station had less than 90% operational time for particulate matter during the month of August 2015 (Reference #303701). Under the Oil Sands Monitoring Plan, LICA will systematically replace the TEOM-FDMS particulate matter monitoring units with beta attenuation - light scattering technology starting in 2015; by 2017, all units will be phased over to the newer, more reliable method.

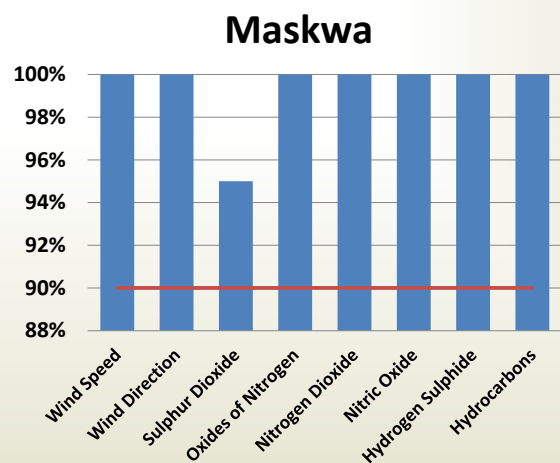
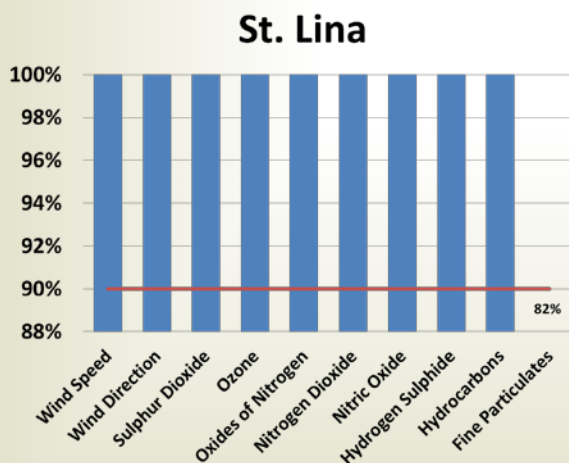
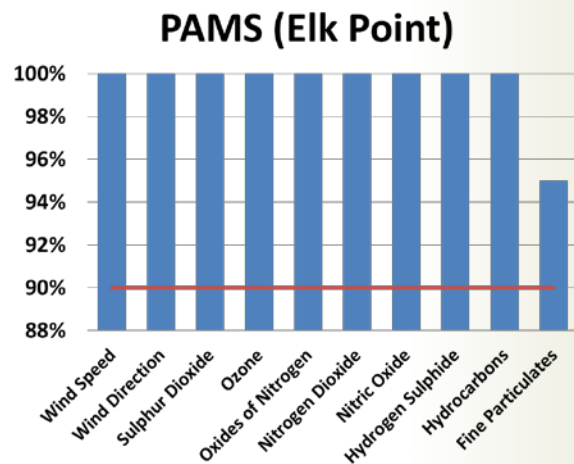
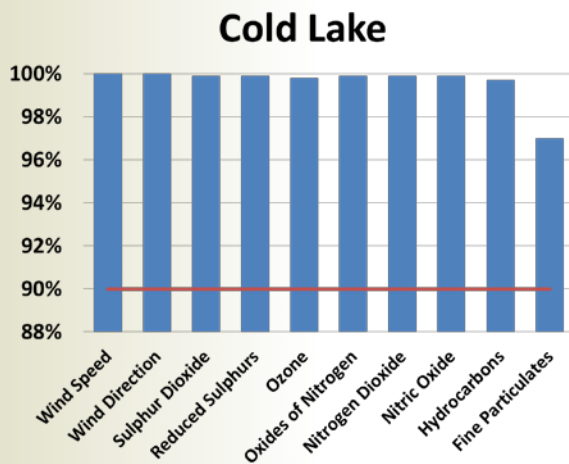
Wind Speed, Wind Direction, Temperature

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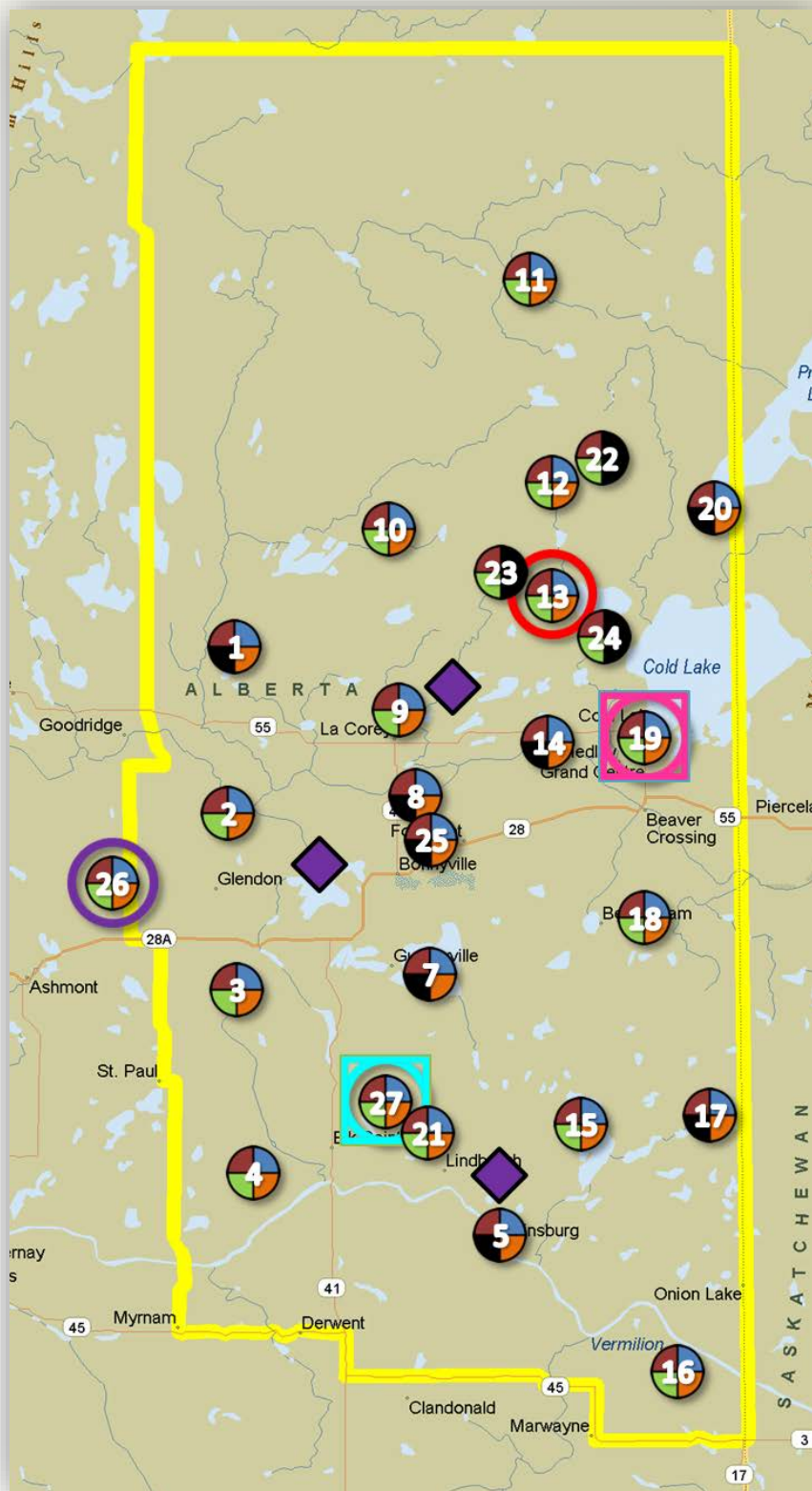
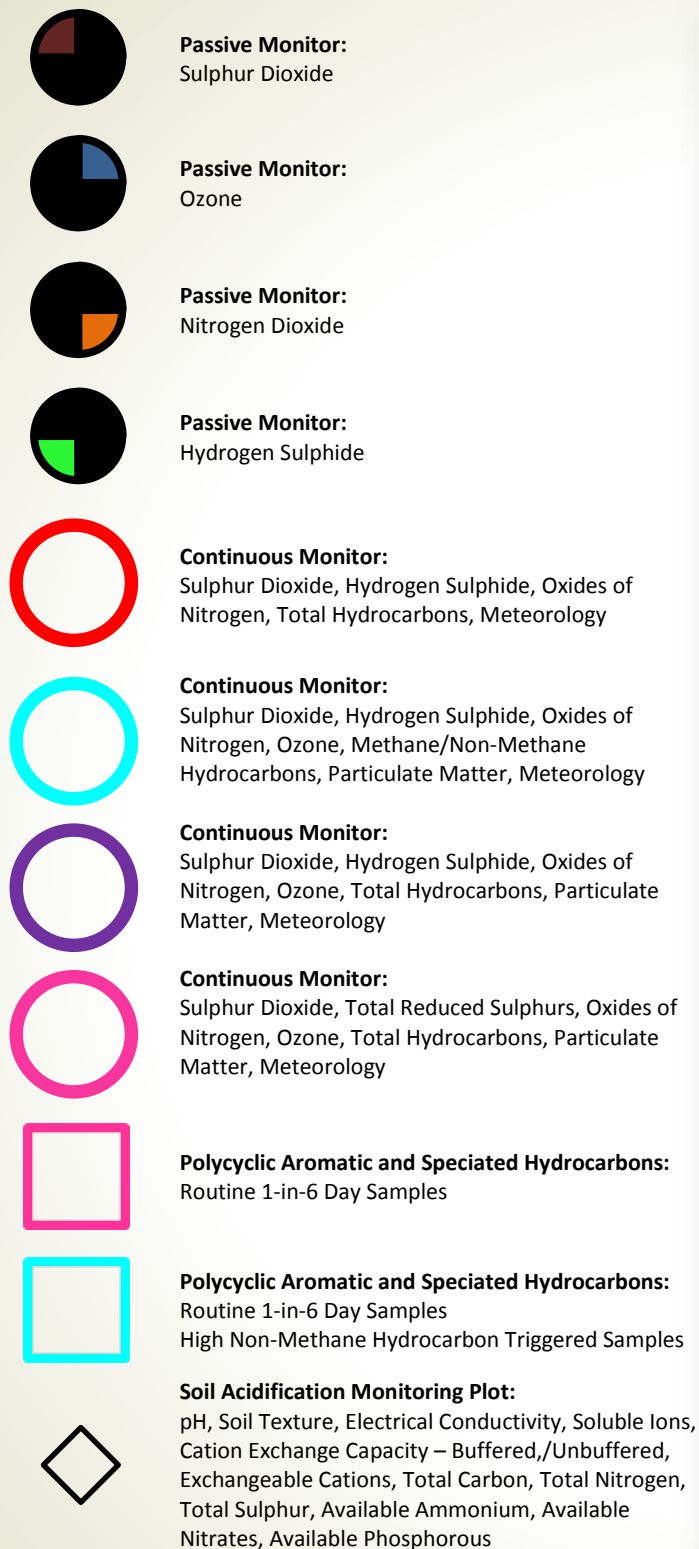
Operational Uptime



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Regional Monitoring Network Map

August -
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2015



Station Identification

1 Sand River	9 La Corey	16 Clear Range	23 Mahihkan
2 Therien	10 Wolf Lake	17 Fishing Lake	24 Hilda Lake
3 Flat Lake	11 Foster Creek	18 Beaverdam	25 Town of Bonnyville
4 Lake Eliza	12 Primrose	19 Cold Lake South	26 St. Lina
5 Telegraph Creek	13 Maskwa	20 Medley-Martineau	27 Portable Station
7 Muriel-Kehewin	14 Ardmore	21 Fort George	
8 Dupre	15 Frog Lake	22 Burnt Lake	