

# Air Quality Monitoring DASHBOARD REPORT

September 2013



# Continuous Monitoring Stations

September  
2013

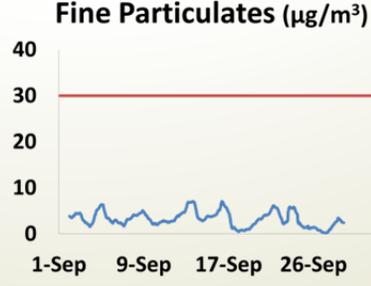
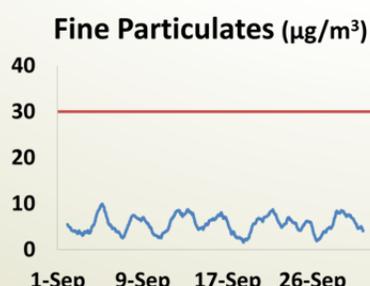
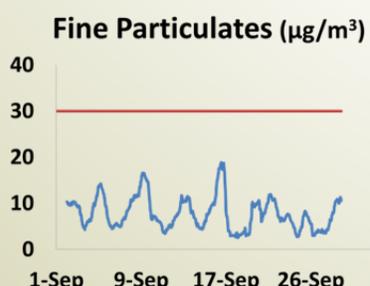
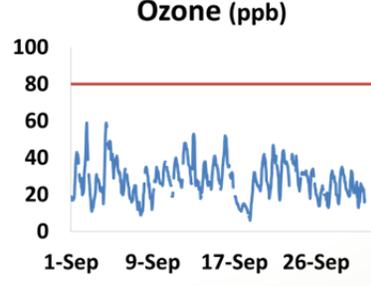
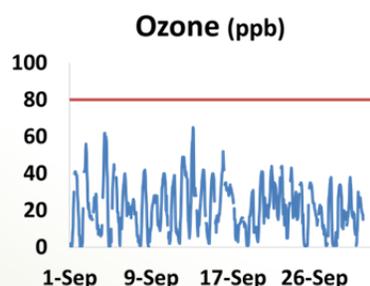
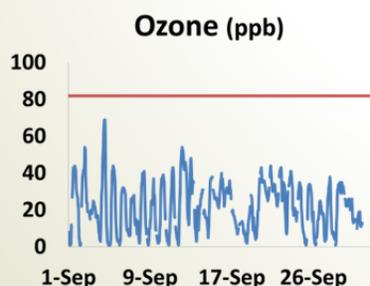
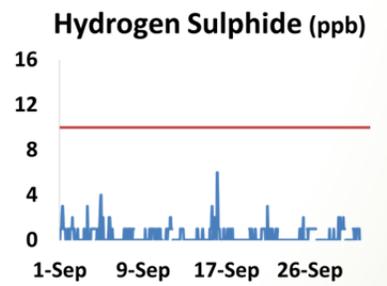
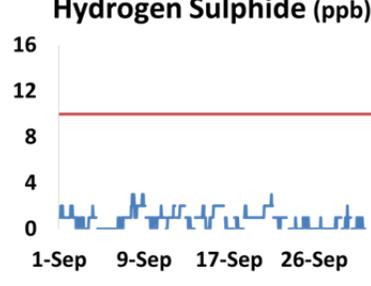
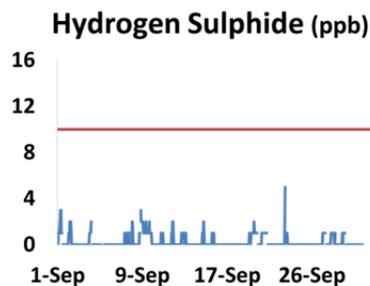
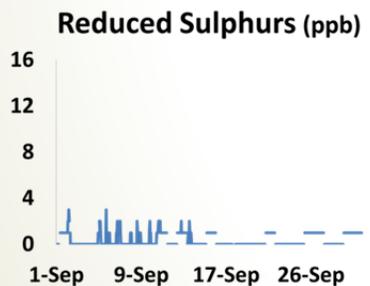
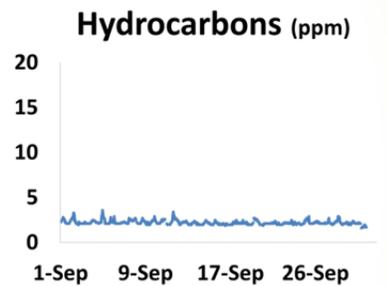
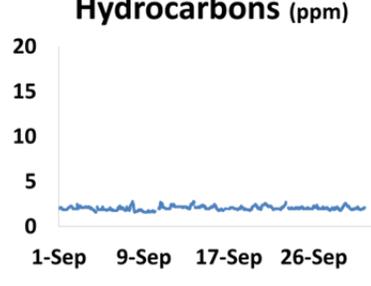
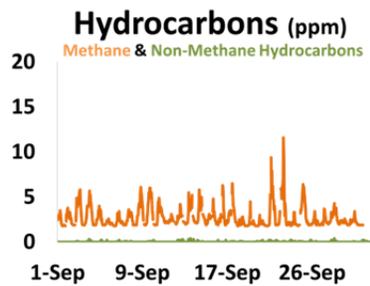
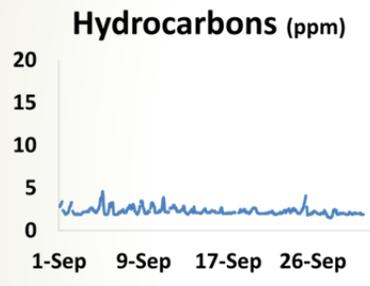
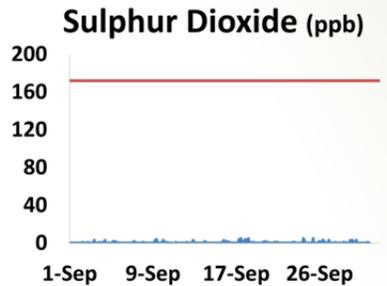
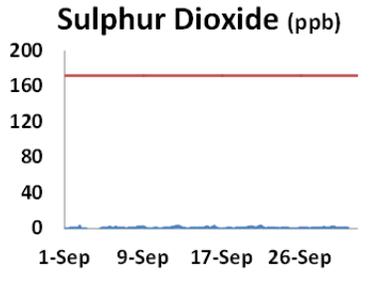
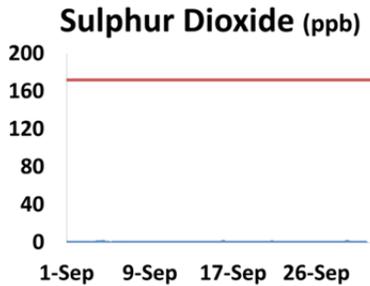
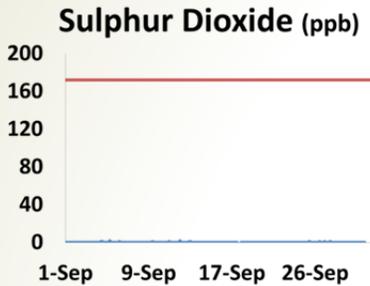
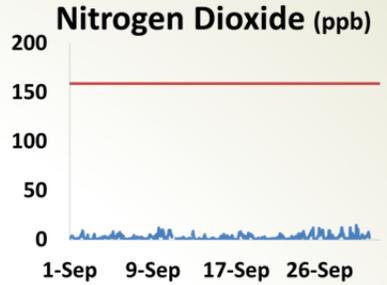
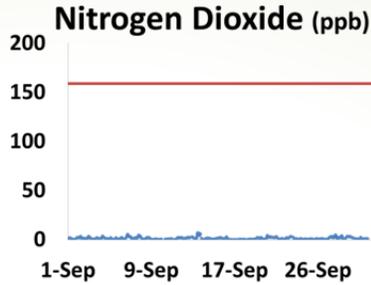
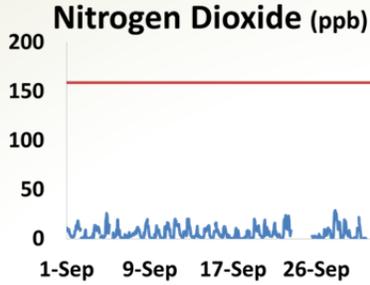
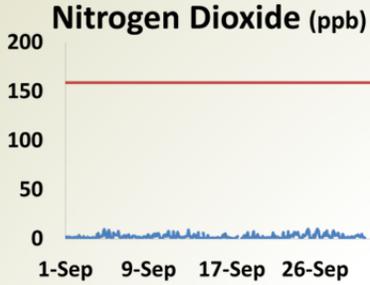


## Cold Lake

## PAMS (Elk Point)

## St. Lina

## Maskwa



**Notable observations for Sept 2013:**

- Air quality was rated as "Low Risk" over 90% 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.

# Passive Monitoring Stations

September  
2013

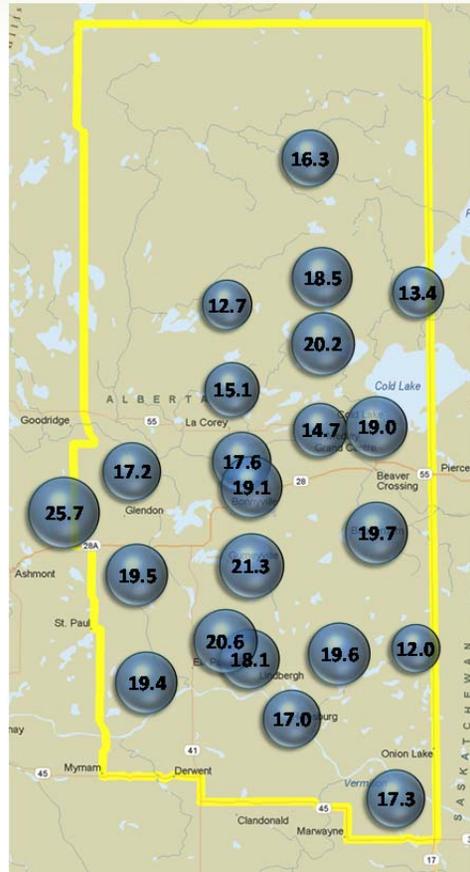


This series of bubble maps present monthly average concentrations in parts per billion (ppb).  
Displaying data this way illustrates the spatial patterns of the parameters monitored in the LICA passive monitoring network.

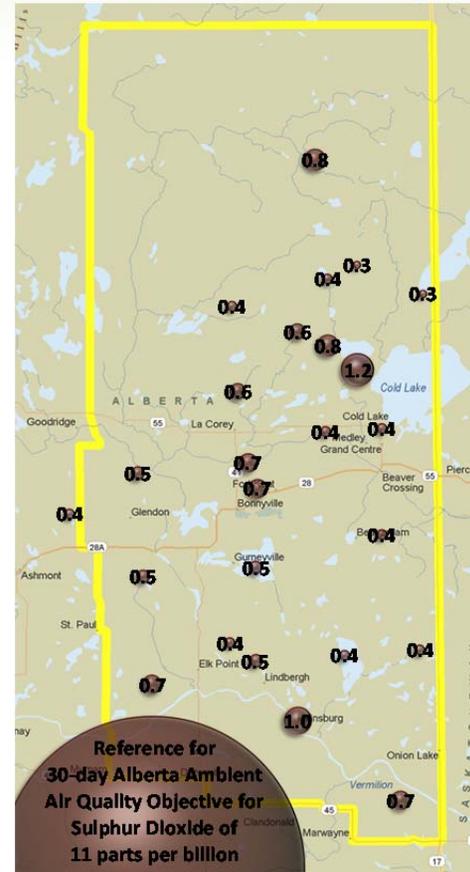
## Nitrogen Dioxide



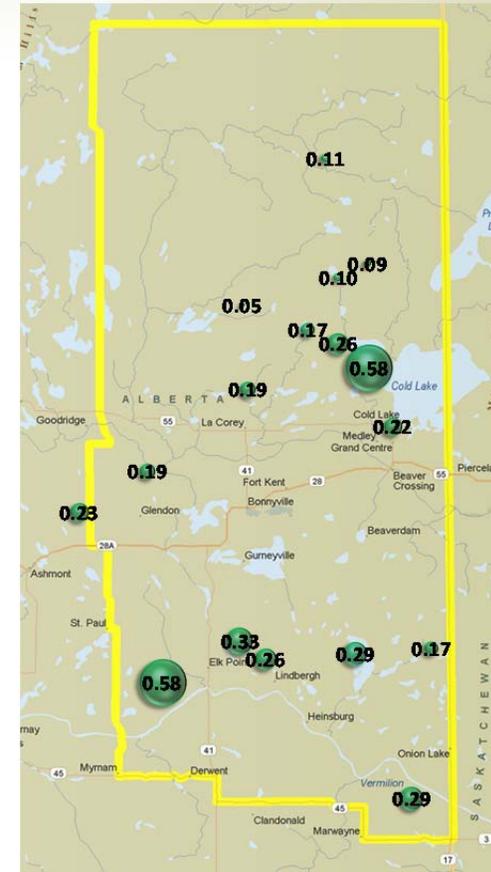
## Ozone



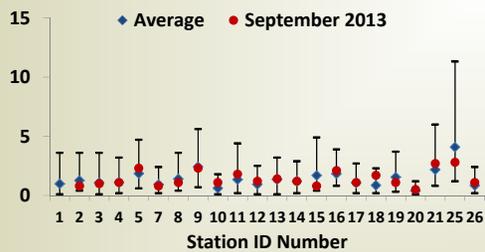
## Sulphur Dioxide



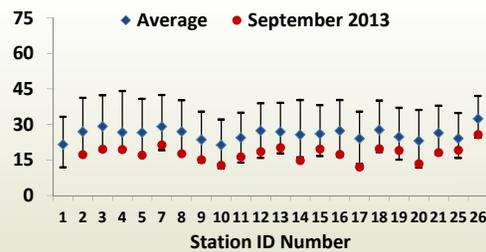
## Hydrogen Sulphide



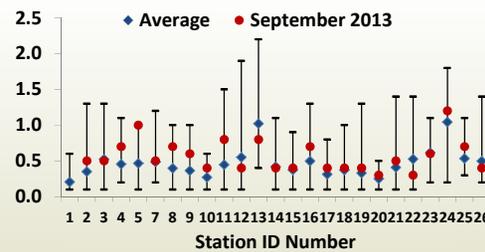
Minimum-Maximum-Average (ppb)  
Monthly Nitrogen Dioxide: 2011 - 2012



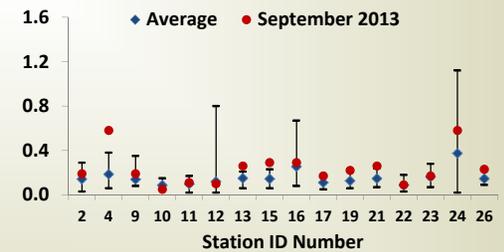
Minimum-Maximum-Average (ppb)  
Monthly Ozone: 2011 - 2012



Minimum-Maximum-Average (ppb)  
Monthly Sulphur Dioxide: 2011 - 2012

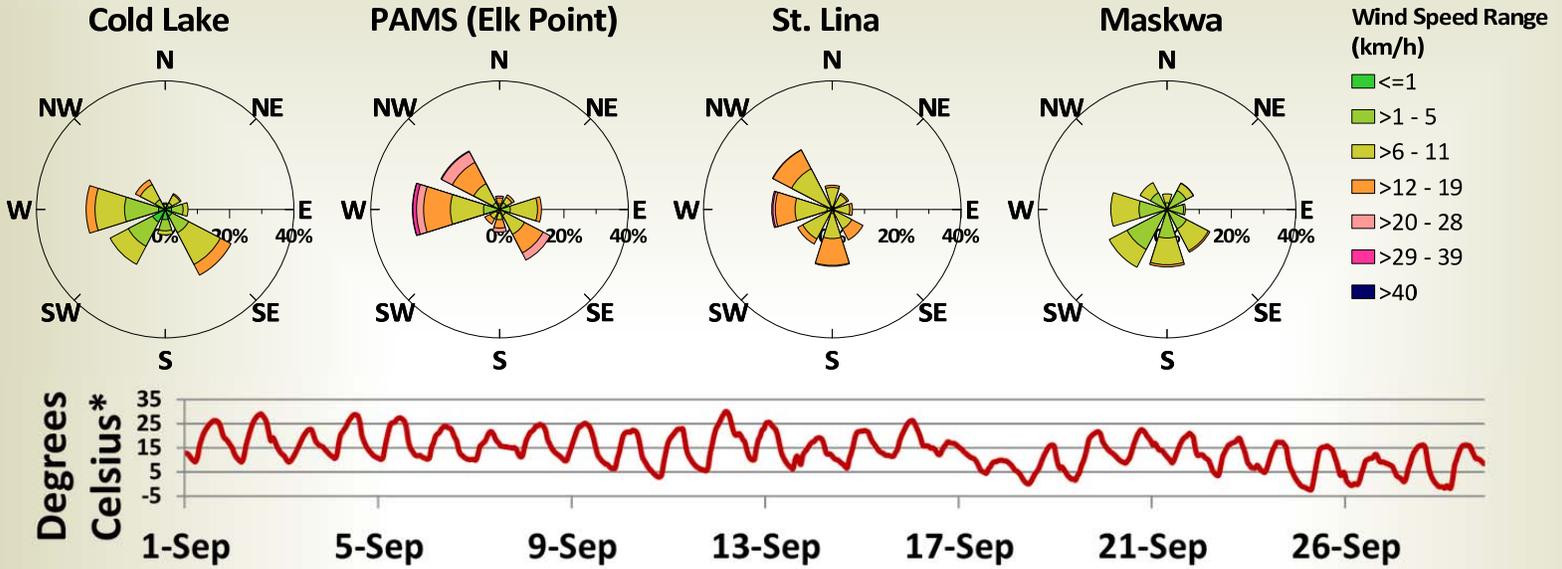


Minimum-Maximum-Average (ppb)  
Monthly Hydrogen Sulphide: 2011 - 2012



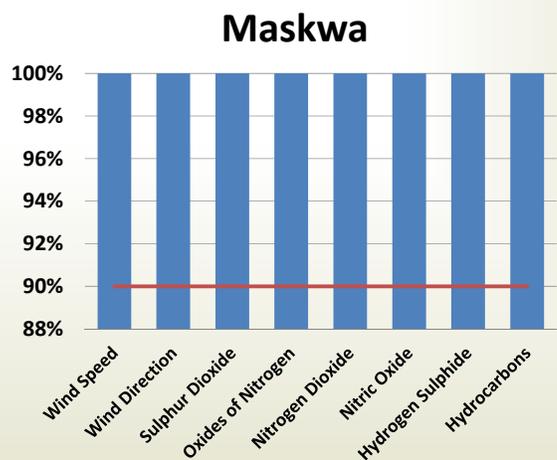
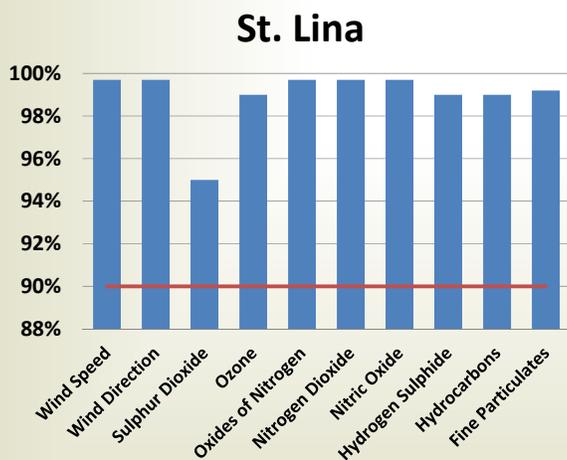
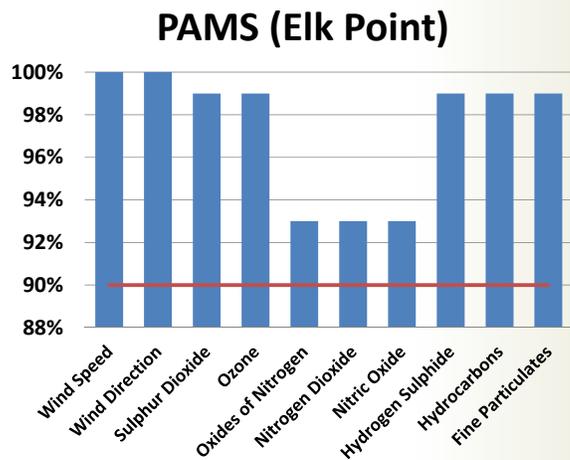
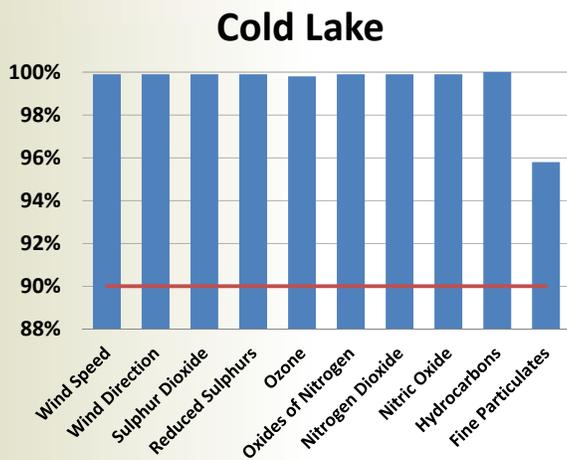
# Wind Speed, Wind Direction, Temperature

September  
2013



\* Temperature in Cold Lake

## Operational Uptime



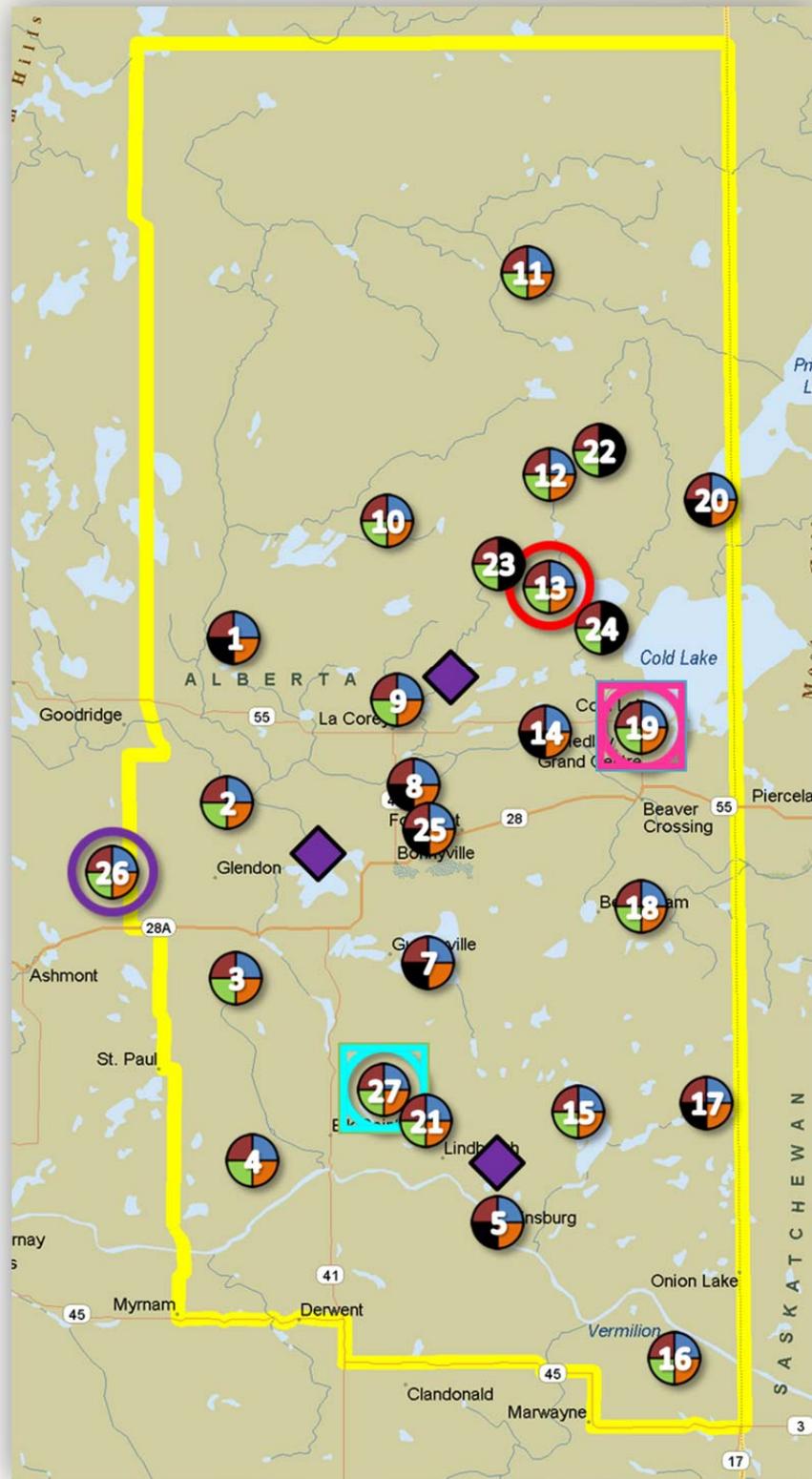
**Notes on instrument uptime:** The Alberta Air Monitoring Directive (1989) requires that real time instrumentation must be operational at least 90% of the time on a monthly basis (indicated by the red line on the above charts).

# Regional Monitoring Network Map

September  
2013



- 
**Passive Monitor:**  
Sulphur Dioxide
- 
**Passive Monitor:**  
Ozone
- 
**Passive Monitor:**  
Nitrogen Dioxide
- 
**Passive Monitor:**  
Hydrogen Sulphide
- 
**Continuous Monitor:**  
Sulphur Dioxide, Hydrogen Sulphide, Oxides of Nitrogen, Total Hydrocarbons, Meteorology
- 
**Continuous Monitor:**  
Sulphur Dioxide, Hydrogen Sulphide, Oxides of Nitrogen, Ozone, Methane/Non-Methane Hydrocarbons, Particulate Matter, Meteorology
- 
**Continuous Monitor:**  
Sulphur Dioxide, Hydrogen Sulphide, Oxides of Nitrogen, Ozone, Total Hydrocarbons, Particulate Matter, Meteorology
- 
**Continuous Monitor:**  
Sulphur Dioxide, Total Reduced Sulphurs, Oxides of Nitrogen, Ozone, Total Hydrocarbons, Particulate Matter, Meteorology
- 
**Polycyclic Aromatic and Speciated Hydrocarbons:**  
Routine 1-in-6 Day Samples
- 
**Polycyclic Aromatic and Speciated Hydrocarbons:**  
Routine 1-in-6 Day Samples  
High Non-Methane Hydrocarbon Triggered Samples
- 
**Soil Acidification Monitoring Plot:**  
pH, Soil Texture, Electrical Conductivity, Soluble Ions, Cation Exchange Capacity – Buffered,/Unbuffered, Exchangeable Cations, Total Carbon, Total Nitrogen, Total Sulphur, Available Ammonium, Available Nitrates, Available Phosphorous



## 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       |                       |