

**April 2012**

# **Air Quality Monitoring Dashboard Report**

**P.O. Box 8237  
Bonnyville, AB, Canada T9N 2J5  
Phone: (780) 812-2182  
Fax: (780) 812-2186  
Toll Free: 1 (877) 737-2181  
[www.lica.ca](http://www.lica.ca)**

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# Continuous Monitoring Stations

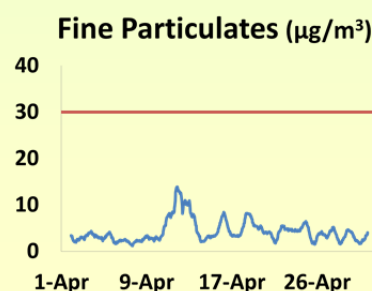
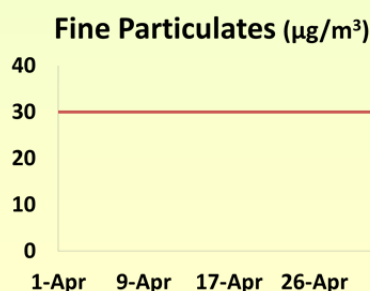
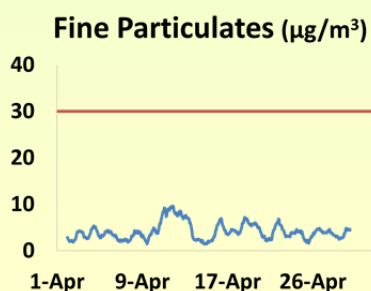
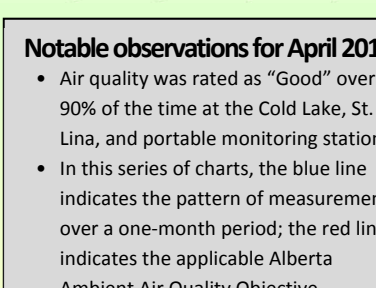
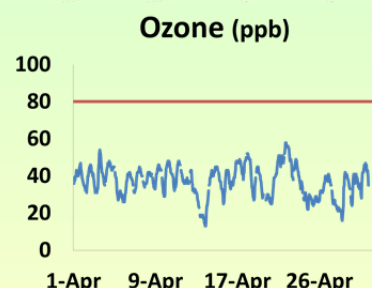
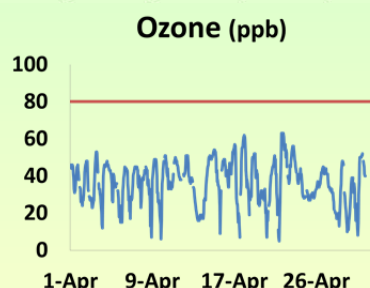
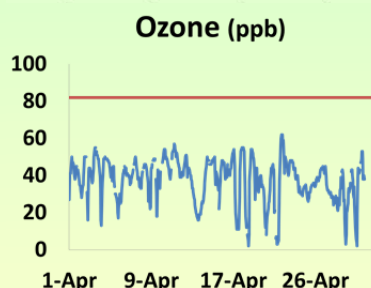
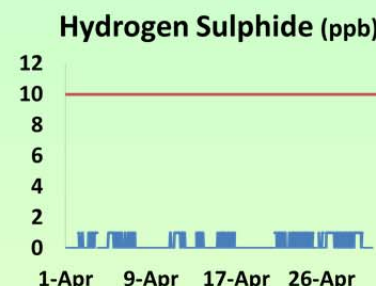
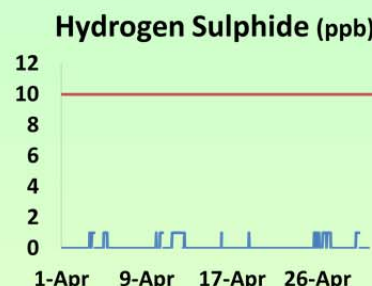
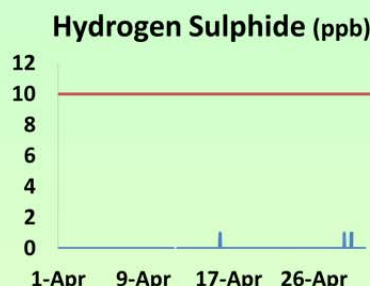
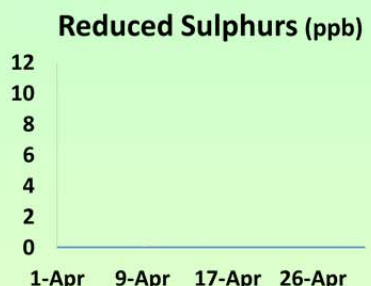
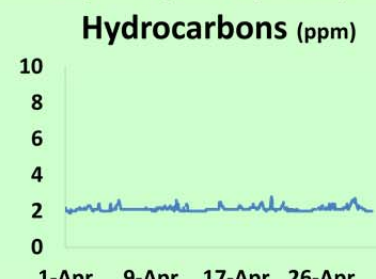
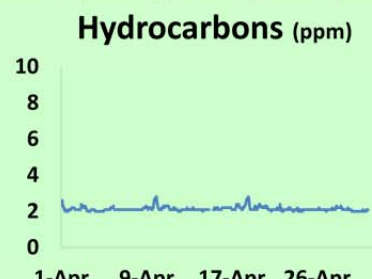
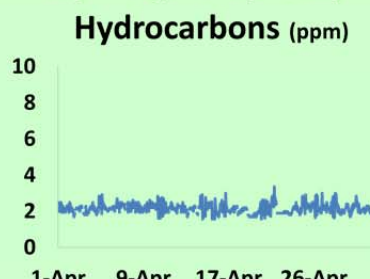
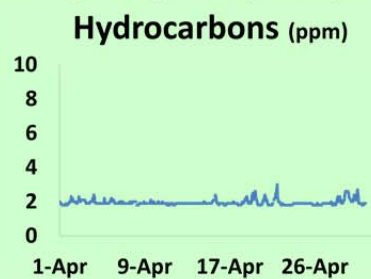
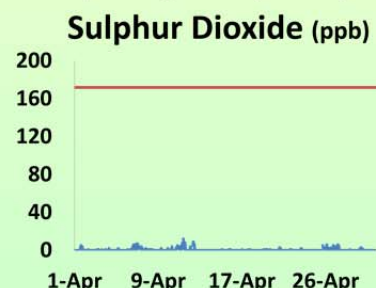
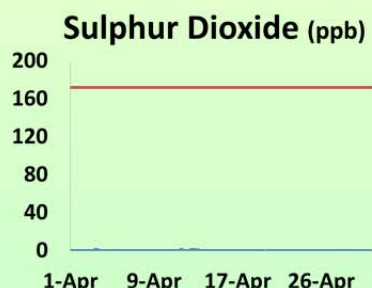
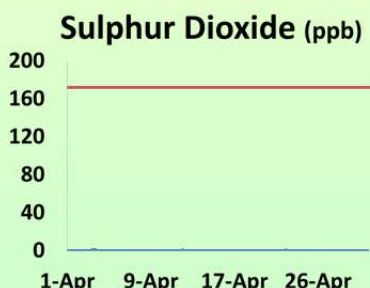
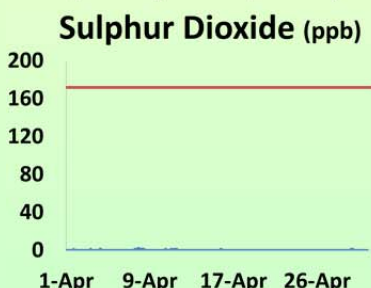
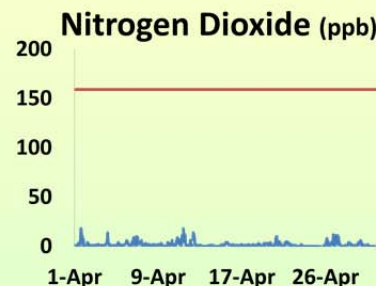
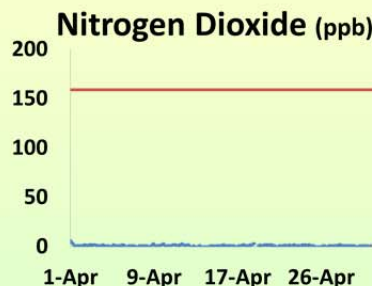
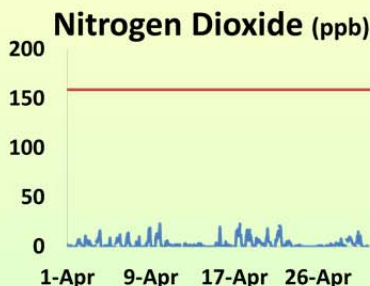
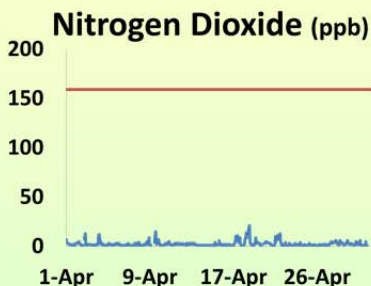
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## Cold Lake

## Portable\*

## St. Lina

## Maskwa



### Notable observations for April 2012:

- Air quality was rated as "Good" 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 established for the respective
- The particulate matter analyzer was removed from the Portable Station for major repairs in March; it will be operational in May 2012

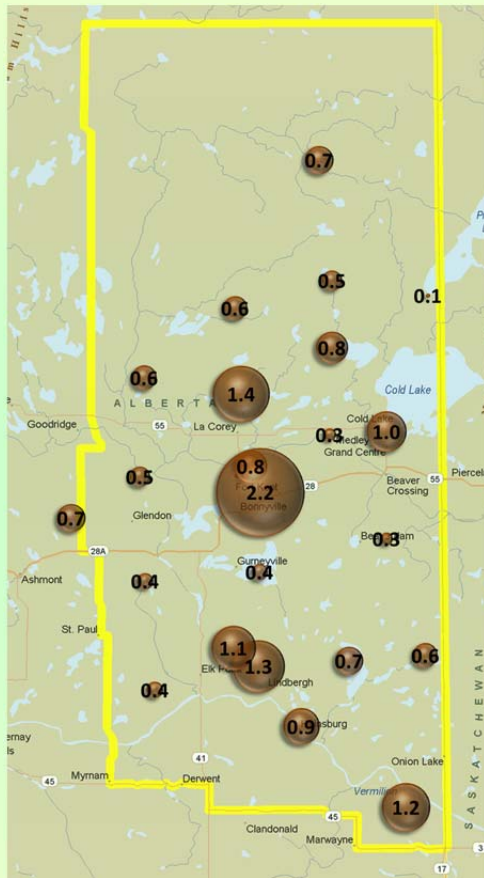
\* Located at the Elk Point Airport.

# Passive Monitoring Stations

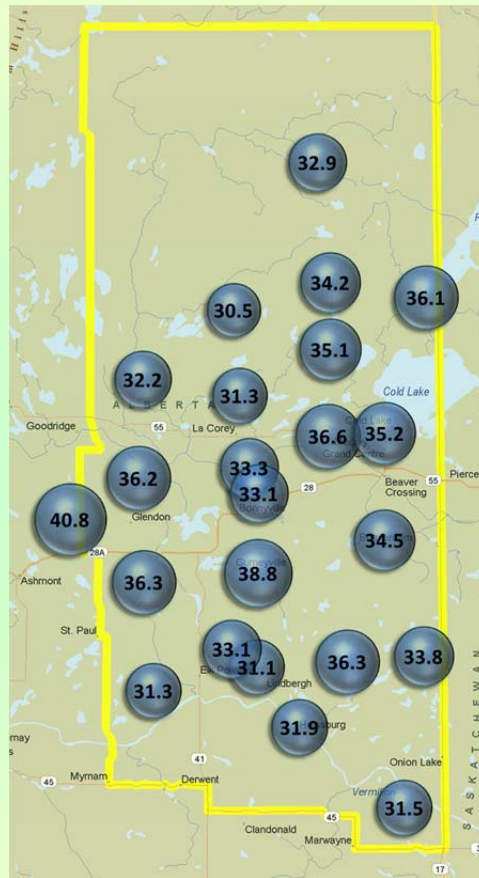
April 2012

To illustrate the spatial patterns of the parameters monitored in the LICA passive monitoring network, this series of bubble maps present monthly average concentrations in parts per billion (ppb).

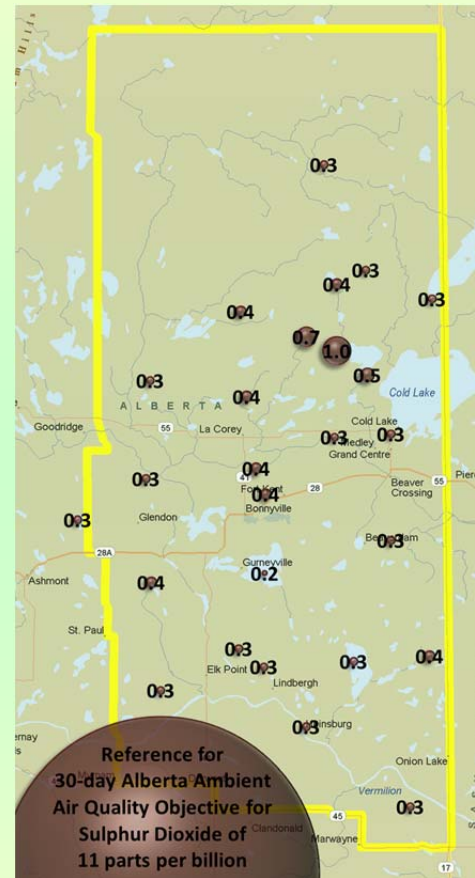
## Nitrogen Dioxide



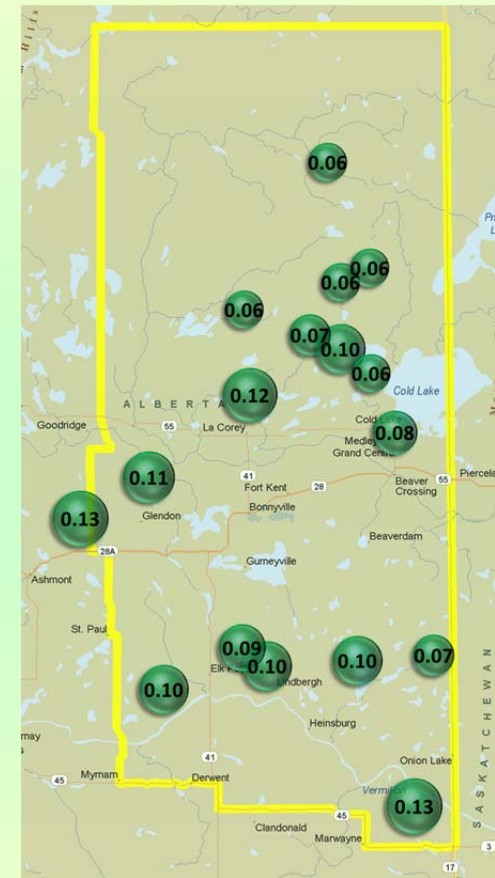
## Ozone



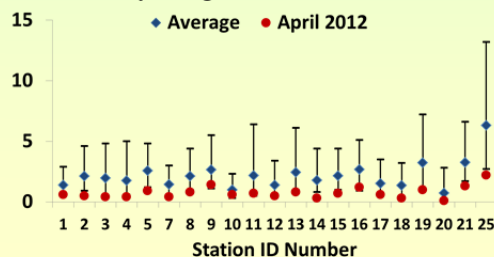
## Sulphur Dioxide



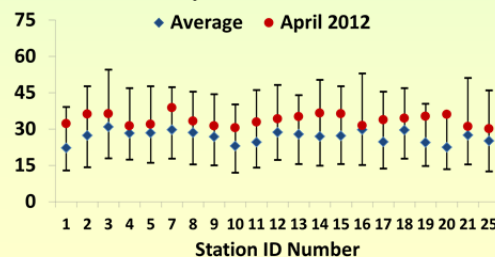
## Hydrogen Sulphide



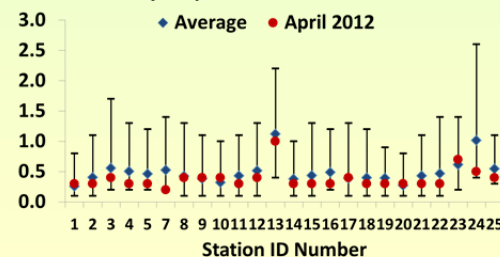
Minimum-Maximum-Average (ppb)  
Monthly Nitrogen Dioxide: 2008 - 2010



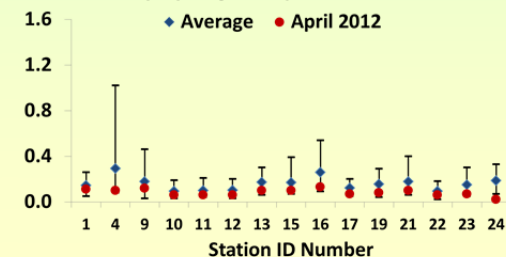
Minimum-Maximum-Average (ppb)  
Monthly Ozone: 2008 - 2010



Minimum-Maximum-Average (ppb)  
Monthly Sulphur Dioxide: 2008 - 2010

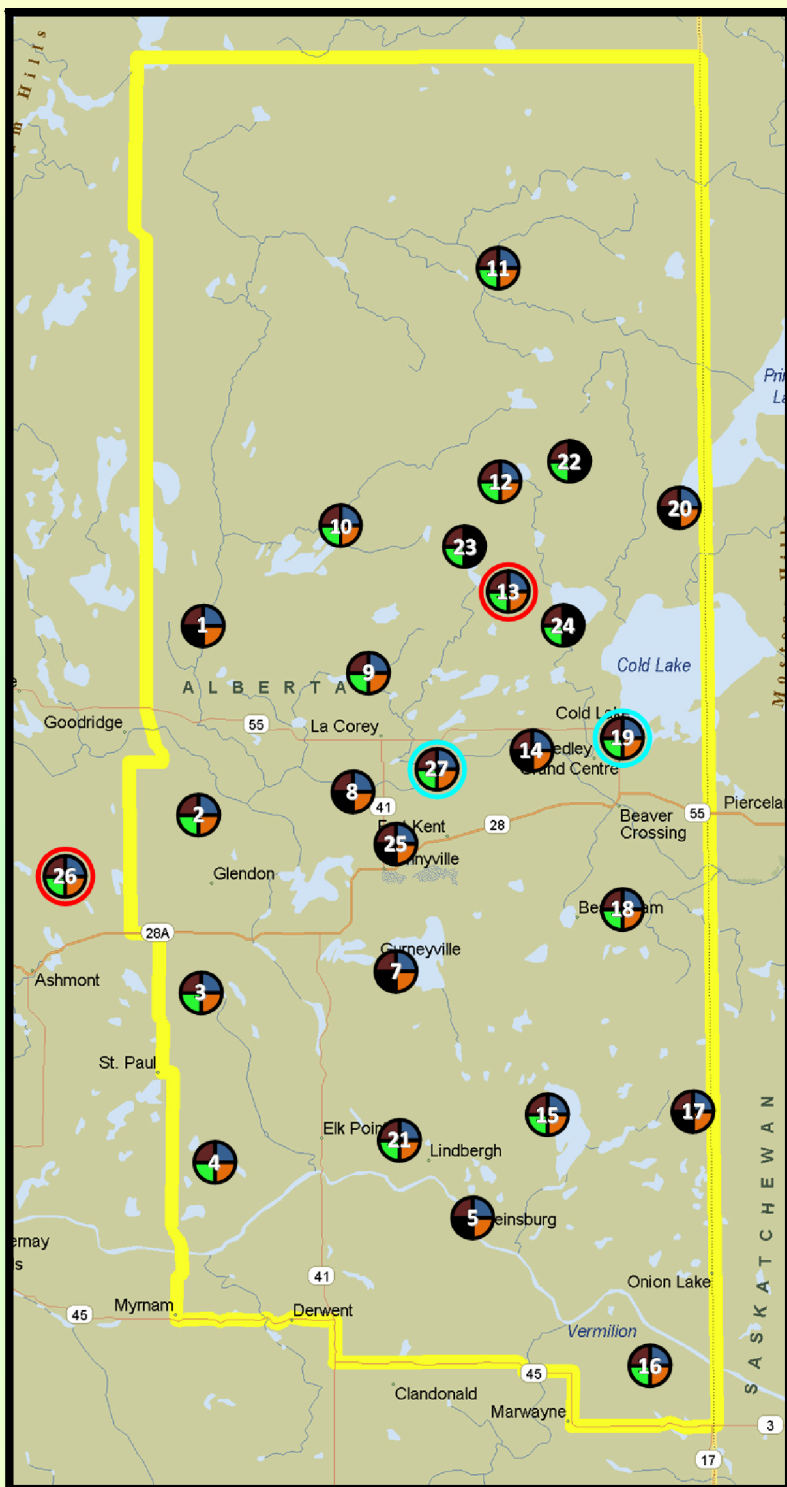


Minimum-Maximum-Average (ppb)  
Monthly Hydrogen Sulphide: 2008 - 2010





# Monitoring Network Map



## Understanding the Monitoring Network

The **passive monitoring stations** generally follow a 3 x 3 township grid pattern throughout the region and samples are analyzed once per month. The data collected from the passive stations are used for regional air quality pattern recognition and long term trend analyses for ozone, nitrogen dioxide, sulphur dioxide, and hydrogen sulphide.

The **continuous monitoring stations** provide up-to-the-minute (nearly instantaneous) measurements of ambient concentrations for several substances. Continuous sampling involves drawing air through an analyzer calibrated to produce an output that is proportional to the ambient concentration.

## Legend



**Passive Monitor:**  
Sulphur Dioxide



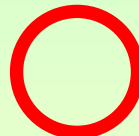
**Passive Monitor:**  
Ozone



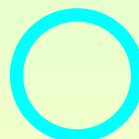
**Passive Monitor:**  
Nitrogen Dioxide



**Passive Monitor:**  
Hydrogen Sulphide



**Continuous Monitor:**  
Sulphur Dioxide, Hydrogen Sulphide, Oxides of Nitrogen, Total Hydrocarbons, Meteorology



**Continuous Monitor:**  
Sulphur Dioxide, Total Reduced Sulphurs, Oxides of Nitrogen, Ozone, Total Hydrocarbons, Particulate Matter, Polycyclic Aromatic Hydrocarbons, Volatile Organic Compounds, Meteorology

## Station Identification (click on station name to view in Google Maps)

1 Sand River

2 Therien

3 Flat Lake

4 Lake Eliza

5 Telegraph Creek

7 Muriel-Kehewin

8 Dupre

9 La Corey

10 Wolf Lake

11 Foster Creek

12 Primrose

13 Maskwa

14 Ardmore

15 Frog Lake

16 Clear Range

17 Fishing Lake

18 Beaverdam

19 Cold Lake South

20 Medley-Martineau

21 Fort George

22 Burnt Lake

23 Mahihkan

24 Hilda Lake

25 Town of Bonnyville

26 St. Lina

27 Portable Station