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June 3, 2011

**RE: Hydrogen sulphide exceedences in the LICA monitoring network, AENV reference 247635 & 247636**

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On Thursday May 26 from 23:00 to 23:59 (concentration – 12ppb, AENV reference – 247635) and Friday May 27 May 27 00:00 to 00:59 (concentration – 12ppb, AENV reference – 247636) the LICA monitoring network detected two exceedences of the 1-hour Alberta Ambient Air Quality Objective (AAAQO) for hydrogen sulphide (H<sub>2</sub>S) of 10ppb at the Maskwa monitoring station.

An investigation of ambient concentrations, meteorological conditions, and local industrial activity, was conducted.

Local operators in the area (Shell, Husky, and Imperial Oil) report normal operating conditions with no unusual maintenance, servicing, flaring, or vapor recovery unit issues during the time of the event.

Imperial Oil did have approximately two hours total venting from its Mahihkan dilbit tankage between 00:09-1:08 and 2:06-2:55 with a total volume of 0.469Km<sup>3</sup> released due to a shipping cut back; this was reported on the following day to the ERCB. Although one of the venting periods occurred at around the same time as one of the H<sub>2</sub>S exceedences, meteorological conditions put the potential source downwind from the monitoring station in the hours leading up to, and at the time that the exceedence was detected.

The investigation into the cause of the exceedences remains inconclusive however if new information becomes available, LICA will update the Department.

Respectfully,

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

Michael Bisaga

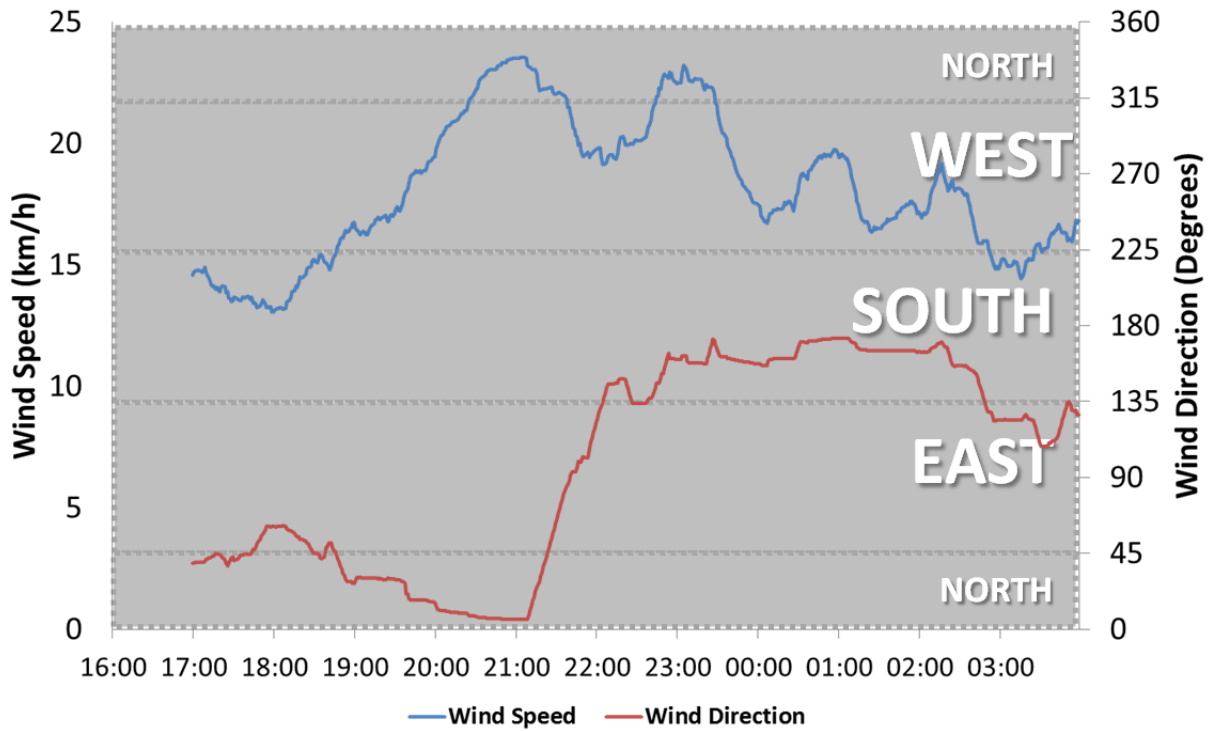
Airshed Program Manager  
Lakeland Industry and Community Association

cc (email): Lili Goncalves (Imperial Oil), Monty Moore (Husky), Kathleen Zellweger (Shell), Roxane Bretzlaff (CNRL), Shannon Makinson (Cenovus), Charmaine Code (LICA).

Attachments: Windspeed/wind direction chart, and hydrogen sulphide chart.

### Maskwa Station, May 26-27, 2011:

60-Minute Moving Average  
Wind Speed and Wind Direction



### Maskwa Station, May 26-27, 2011:

1-Hour Average Hydrogen Sulphide Concentration

