

Oil Sands Monitoring (OSM)

Project Name:	A3-1-3 Monitoring to understand atmospheric sources, process and impacts – Oski-ôtin monitoring site
Type of Project:	Focused Study
Delivery Agent:	ECCC
Project Contact:	Jeff Brook, (ECCC)- jeff.brook@canada.ca
Budget:	\$ 960,000

Project Description:

This project involves the utilization of an enhanced monitoring site to conduct detailed surface-based air pollutant measurements and focused studies. The core component of the work is operation of a comprehensive suite of measurements at the Oski-ôtin site in Fort McKay, AB and annual delivery of these data to the oil sands portal. These ‘supersite’ activities will be supplemented with targeted measurements obtained from complementary nearby locations in the region, and from mobile platforms.

Project Objectives:

Improve understanding of:

- The characteristics and changes over time (seasonal and multi-year) of the air pollutant mixtures associated with a wide range of oil sands and related activities
- Local to regional scale 3D atmospheric transport processes
- The application/interpretation of satellite-based vertical column measurements over the region
- The performance of the GEM-MACH numerical air quality prediction model.

Key Outcomes:

- Establishment of an advanced monitoring system for diagnosis of the sources impacting local communities and for providing detailed real-time information on the characteristics of poor air quality events in impacted communities.
- Improvements to the total reduced sulphur measurement method following up on the promising results obtained from the new methods tested to date.

Geographic Scope:

Fort McKay and a ~50 km radius around the community

Associated Data and Reports:

Final quality controlled data are submitted to the oil sands data portal in order to be made publicly accessible. Analysis of the data will be made available through publications in peer-reviewed literature. A short interim report (1-2 pages) will document project progress including implementation of new activities, sample collection, sample and data analysis and submissions to the data portal.