

Molybdenum Mineralization, Exploration and Mining in Ontario

There are over 300 documented molybdenum occurrences in Ontario, including several with identified resources. Ontario has a history of molybdenum production dating to 1907 with the most recent production being in the 1960s. The dramatic rise in the price of molybdenum from less than US \$5 per pound in 2002 to more than US \$45 per pound in mid-2005 caused renewed interest in known molybdenum occurrences across the province. The price has since dropped back to approximately US \$18 per pound.

In northwestern Ontario, **MetalCORP Limited** evaluated the mineral potential of a Mo-Re-Ag bearing quartz vein, located southeast of Marathon and in 2009, NI 43-101 compliant resource results were released. **Linear Metals Corporation** explored a mineralized Mo-Cu-Ag porphyry system on their Kilometre 61 property, located northwest of Armstrong. In 2008, Linear released NI 43-101 compliant resource results. **Roxmark Mines Limited** continues with exploration of the Nortoba–Tyson molybdenum property near Beardmore. In 2005-06 gold and molybdenum ores from bulk sampling were processed at the company's Empire minesite. Surface mapping and sampling to study molybdenum mineralization along existing trenches and a second bulk sample are underway. An assessment completed in 1959 outlined a possible historical reserve of 72,000 T averaging 1.72% MoS₂ over a 3.0 foot mining width to an initial depth of 375 feet.

Numerous molybdenum and uranium occurrences are reported along the Bearhead Fault between the Sachigo and Berens River subprovinces, as well as, molybdenum occurrences in four additional locations. Surface work, including drilling and airborne surveys, was completed by **Shoreham Resources Ltd.** on the Setting Net Lake molybdenum deposit. There is a historical inferred resource of 90 MT grading 0.054% Mo on the property. In the Kenora area, 18 significant molybdenum occurrences have been documented. They are associated with three styles of mineralization related to: porphyry copper deposits; quartz vein-hosted fractures and shears; and brecciated contacts of multiple intrusions. **MPH Ventures Ltd.**, continued exploration work on the Pidgeon property, located northeast of Dryden, to confirm historical intercepts and test depth and lateral extension of mineralization by diamond drilling.

Two programs are underway in northeastern Ontario to evaluate the potential of known deposits. **Pacific Comox Resources Ltd.** is re-evaluating the historical data of the Ryan Lake deposit near Matachewan from the perspective of a large-tonnage open pit copper-molybdenum mine. The underground mine was in production at 150 tons/day from 1950 to 1957. The Jonsmith occurrence in DesRosiers Township west of Timmins is being explored by **Timmins Prospectors**. In 1960, two small bulk samples from the property assayed 2.25% MoS₂ and 1.00% MoS₂.

In southeastern Ontario, deposits have been divided into three groups including: stratabound skarn-hosted; unconformable to conformable pegmatite-hosted and stratiform paragneiss-hosted deposits. In the Bancroft area, 5 deposits in production from 1917 to 1918 produced several thousand pounds of molybdenum from ore grading from 3.85% MoS₂ to 5.8% MoS₂.

There are 45 documented molybdenum occurrences in the Renfrew area, including 10 past producers. Reported grades varied from 0.18% MoS₂ to 18% MoS₂. At least 2 of these deposits have known resources. Additional prospects and occurrences have been documented in these areas and in the Madoc–Sharbot Lake area. **Golden Phoenix Minerals** acquired the past producing Spain Mine near Renfrew and completed ground geophysical surveys, mapping and sampling on the prospect, now known as the Northern Champion, in 2006-07. Extraction of a bulk sample is planned.

* The resource estimates given above do not follow the required disclosure for reserves and resources as outlined in National Instrument 43-101, and are historic resource figures generated by past workers.



Ontario Molybdenum

Molybdenum Exploration Projects

- 1 MetalCORP Limited
- 2 Goldstone Resources Inc.
- 3 Linear Metals Corporation
- 4 Shoreham Resources Ltd.,
RPT Uranium Corp.
- 5 MPH Ventures
- 6 Timmins Prospectors
- 7 Golden Phoenix Minerals, Inc.
- 8 Pacific Comox Resources Ltd.
- 9 George Luculk Prospect
- 10 Gowest Amalgamated Resources Ltd.
- 11 Radisson Mining Resources Inc.

