



Tungsten-W

Investment Opportunities

NORTHWEST TERRITORIES

Government of
Northwest Territories

November 2017

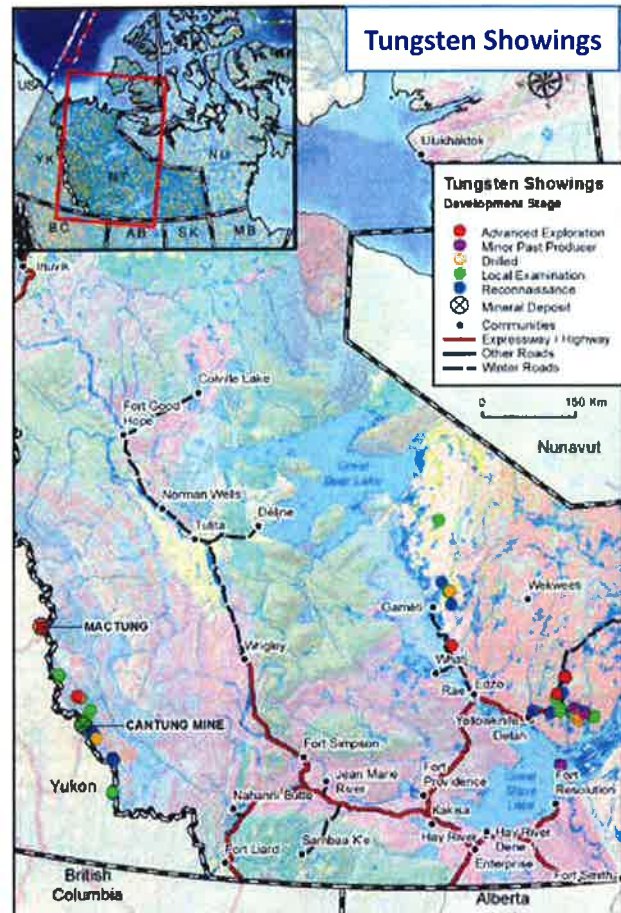
Tungsten is a metal with a unique set of chemical properties that contributes significantly to products manufactured and used globally. With qualities that include a high melting point ($3,422\pm 15^\circ\text{C}$), high density, high tensile strength, exceptional hardness and corrosion-resistance, tungsten has many uses.

Known world-class NWT Tungsten Resources

The Northwest Territories (NWT) hosts globally significant tungsten resources and is home to one of the world's largest tungsten deposits outside of China. Two substantial tungsten deposits overlap the NWT/Yukon border, the past-producing Cantung Mine and the Mactung deposit.

The Cantung Mine is road-accessible via Watson Lake, Yukon, which lies about 300 kilometres southwest of the mine. Discovered in 1954 and mined since 1962, the Cantung Mine produced tungsten, off and on, until October 2015. The price of tungsten has been cyclical. Between 2011 and 2014, the mine profited from prices that were sporadically almost double of what they had been (and later would become).

The undeveloped Mactung is one of the world's highest grade deposits. It lies 160 kilometres northwest of Cantung and is currently accessible via road from Ross River, Yukon. Mactung has an indicated mineral resource that totals 33 million tonnes with an average grade of 0.88% WO₃ and an additional inferred resource of 11.9 million tonnes at 0.78% WO₃ (as of April, 2009). In 2009, a feasibility study was completed for Mactung; an underground mine was envisioned with a mining rate of 2,000 tonnes/day. Mine life for the underground development was predicted to be 11 years, while an open pit had the potential to expand the mine life by 17 years.



In November 2015, the leases covering the Mactung mineral resource were purchased by the Government of the Northwest Territories. The government bought the leases from the previous owner that ran the Cantung mine in a court-approved process. The GNWT is working on a process for the sale of Mactung.



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Uses

- Cemented carbides used by the metalworking, mining and construction industries
- Hardened steel manufacturing
- Wires and electrodes in modern lamp systems
- X-Ray tubes (as both filament and target)
- Windings and heating elements for electrical furnaces
- Electrodes in TIG welding, superalloys and radiation shielding
- Military applications
- Vehicle window heating
- Industrial catalysts

Future Role of NWT Tungsten

The NWT was once the largest producer of tungsten in the western world and it is poised to become a future producer. The 2009 Mactung feasibility study concluded the mine would result in a recovery of invested capital in less than three years. Other small mines in the NWT have historically produced tungsten, and with more exploration there is potential for future discoveries.



Tungsten is used in the development of wires and electrodes.

Prospects

Name	Project Owner / Manager	Resource Category	Total Resource:	Grade:	Resource Calculated
Mactung	Government of the NWT	Indicated	33 million tonnes	0.88% WO ₃	April 2009
Cantung Mine	North American Tungsten Corp. / Government of Canada	Indicated	3.45 million tonnes	0.97% WO ₃	Sept. 2014

This publication is produced by the Department of Industry Tourism and Investment (ITI). The Northwest Territories has one of the most diverse geological environments of any jurisdiction in Canada, one that includes the oldest rocks in the world and geological features that have resulted from modern and ongoing processes. The Northwest Territories Geological Survey (NTGS) surveys, collects, analyzes and makes available public geoscience information gathered from a variety of sources, including information on mineral deposits and geology. NTGS, ITI and the NWT and Nunavut Chamber of Mines host the Yellowknife Geoscience Forum each year in November: www.geoscienceforum.com

For more information about these deposits, please refer to Guide to Selected Mineral Deposits of the Northwest Territories

www.iti.gov.nt.ca/en/files/guide-mineral-deposits-northwest-territories

www.nwtgeoscience.ca

www.iti.gov.nt.ca

Please visit company websites for latest information.

Note: Discrepancies in the numbers may differ from published reports due to rounding.