



Canada: Uranium Mining

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Summary

Canada is one of the main countries able to expand production as required to meet increases in world demand for uranium. The world supply and demand of uranium, and consequently its price, have changed considerably over the last few decades as well as drastically during the last few years. Recent price rises are largely driven by an international shortage of uranium supply. This is due to a chronic lack of investment in the nuclear sector and associated uranium mining industry over the past two decades. The rising demand from developing countries such as India and China only act to increase the depletion rate of world inventories. Recent governmental concerns about pollution and the potential scarcity of oil and gas have also increased demand for nuclear power. Given that new supplies will come at a higher cost, upward pressure will continue to increase uranium prices. Furthermore, according to a 2007 Lehman Brothers Holdings forecast, uranium prices will rise through 2009 and won't stabilize until after 2015 because demand is expanding faster than supplyⁱ.

Canadian Uranium Market

As the world's largest producer of uranium, Canada accounts for roughly 30% of world productionⁱⁱ. In 2004, total Canadian production was valued at approximately \$760 million. Of the 49,000 tonnes produced worldwide in 2005, Canada supplied 11,628 tonnesⁱⁱⁱ. Canada is home to the world's largest mining producer, Cameco, which alone accounts for 20 percent of world production. Canada's other principal producer, Areva, is the world's third largest, at 12 percent of world production. While most of Canada's uranium comes from its two newer high-grade mines, McArthur River and Rabbit Lake, there are presently three operating mines in total (see table below), with four additional mines in various stages of development. Once the next two scheduled mines begin production (Cameco's Cigar lake* and Areva's Midwest), Canada is projected to account for about half of the expected world uranium production. The other two uranium mines under development are the Cameco/Areva's Dawn Lake deposit and Areva's Shea Creek project.

*Note: Due to a massive water flood in the mine last fall, it is unclear how long the start-up, originally scheduled for 2008, will be delayed.

Canadian Uranium Mine Production^{iv}
(tonnes Uranium annual production)

	2000	2001	2002	2003	2004	2005	2006
McArthur River	3739	6640	7199	5831	7200	7200	7200
Key Lake	402	299	-	-	-	-	-
McClellan Lake	2308	2539	2342	2318	2310	2112	690
Rabbit Lake	2790	1755	440	2281	2087	2316	1972
Cluff Lake	1443	1269	1626	27	-	-	-
TOTAL	10 682	12 501	11 607	10 458	11 597	11 628	9863

Uranium Exploration

While 2004 exploration expenditures of \$41^v million were mostly targeted at established projects, over \$24 million of this was spent on exploration in the province of Saskatchewan. Not only was this double the 2003 level, but it also represented a major proportion of world uranium exploration. According to a 2006 survey by Natural Resources Canada, junior companies (those who are spearheading most exploration projects) increased their expenditures on the search for uranium Canada-wide by more than 400% to \$54 million^{vi}. In recent years, there has been an increase in the numbers of permits and uranium exploration companies throughout Canada. Although all uranium supply presently originates from the Saskatchewan's Athabasca Basin, further uranium exploration is concentrated in northern Saskatchewan. In the last few years, exploration activities have also increased in Quebec, Northwest Territories, Nunavut, Yukon Territories and Labrador. What were once seen as marginally economic prospects look promising given the historically high spot price.

Uranium Deposits in Quebec

Uranium mining in the province of Quebec, between the 1960s through 1980s was uneconomical. The surge in the price of uranium has revitalized exploration to a point unparalleled since the mid-1980s. Since that time several types of uranium deposits have been found^{vii}. Beginning in the fall of 2004, known uranium deposits sparked the interest of several junior and senior companies. Several favorable areas recently identified or thought to be highly prospective include the Wakeham Basin, Grenville Belt, Lac Cambrien, Sakami Basins, and the Otish Basin^{viii}.

Uranium in the Northwest, Nunavut and Yukon Territories and Labrador

A renewed major thrust of uranium exploration is occurring in the Thelon Basin area, Eldorado Belt, and Port Radium areas of the Northwest Territories; various properties in the Hornby Bay Basin in Nunavut and several properties in the Wernecke Mountains of the Yukon. In Labrador, uranium was the biggest part of a renewed mining boom fueled by exploration in the Central Mineral Belt^x and the Seal Lake Group, near the Quebec border.

Opportunities for US firms

This increase in investment and exploration in the mining industry in Canada presents an excellent opportunity for U.S. mining equipment manufacturers. U.S. companies should take advantage of the expected growing need for equipment dealing with exploration, drilling, production and excavation. Furthermore, as new mining companies come into Canada they will be seeking long-term equipment suppliers, which will give U.S. mining equipment manufacturers a chance at establishing solid supply relationships.

For More Information

The U.S. Commercial Service in Vancouver, Canada can be contacted via e-mail at: judy.simonite@mail.doc.gov; Phone: +1-604-642-6678; Fax: +1-604-687-6095; or visit our website: www.buyusa.gov/canada.

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following telephone numbers: Vancouver (604) 685-3382; Calgary (403) 265-2116; Ottawa (613) 688-5222; Toronto (416) 595-5412; Montreal (514) 398-9695; and Halifax (902) 429-2482.

The Canadian market, in particular, represents a good "first step" for small to medium sized U.S. firms interested in exporting, and we welcome the chance to assist you. Think "Canada First!" If this report has alerted you to a commercial opportunity in Canada, and you subsequently pursue it with successful results, please let us know. We track U.S. success in Canada and want to know how our market services and reports are being used.

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ⁱ "Uranium Will Peak in 2009, Lehman says", June 11, 2007,

<http://www.moneyweb.co.za/mw/view/mw/en/page1329?oid=140197&sn=Detail>

ⁱⁱ "Canada's Uranium Production and Nuclear Power", June 2007, <http://www.uic.com.au/nip03.htm>

ⁱⁱⁱ Uraniumletter, Oct 2006 update

^{iv} "Canada's Uranium Production and Nuclear Power", June 2007, <http://www.uic.com.au/nip03.htm>

^v Converted to USD using the June 20th, 2007 rate of .9320 C\$/ US\$

^{vi} Whitely, Don, "Canadian Uranium Exploration Overview", April, 2, 2007,

<http://www.stockhouse.com/featuredsector/index.asp?page=editorials&edtid=2>

^{vii} Clark and Wares, 2004; Sidex 2004; SIGEOM-Gites; Boily and Gosselin, 2004; Gosselin et al, 2003; masses, 1974

^{viii} Houle, Patrick, "High Mineral Potential in the Nord-du-Quebec Region: a Promising Future", Oct 2006;

Sidex, "Exploring for Uranium in Quebec", Nov 2004

^{ix} Whitely, Don, "Canadian Uranium Exploration Overview", April, 2, 2007,

<http://www.stockhouse.com/featuredsector/index.asp?page=editorials&edtid=2>