

Uranium Mineralization, Exploration and Mining in Ontario

Uranium valued at more than \$25 billion was mined between 1955 and 1996 in Ontario, primarily in the Elliot Lake area, where Rio Algom Mines Ltd. and Denison Mines Ltd. produced from 12 mines located on the north and south limbs of the Quirke Syncline. Uranium was also produced from one mine in the Algoma Mills area and from the Agnew Lake Mine, west of Sudbury. Uranium mineralization in these areas occurs as brannerite and uraninite as paleoplacer deposits hosted by quartz-pebble conglomerate. Total production to the end of December 1989 was more than 300 million pounds of U₃O₈.

Uranium was also produced in the Bancroft area where the mineralization is hosted by several rock types including pegmatites, marbles, skarns and calcite/pyroxene veins. Total production from the camp is estimated at 14.9 million pounds of U₃O₈.

Since 2003, the spot price of U₃O₈ has fluctuated from US \$10 per pound to US \$132 per pound in July 2007, to US \$44 per pound in December 2009, and to \$69 per pound in February 2011.

In 2010, **Nuinsco Resources Limited** undertook a trenching program on its Prairie Lake property near Marathon, where tantalum, uranium, and rare earth elements are found along with the phosphorous and niobium that are the primary focus of the exploration.

In the Elliot Lake area, numerous junior mining companies and individuals continued exploring uranium prospects **Pele Mountain Resources Inc.** continued work at its Eco Ridge Mine project at Elliot Lake, where both rare earth elements and uranium are found in quartz pebble conglomerate. **International Montoro Resources Inc.** undertook a drilling program on its Serpent River property, and found uranium values in quartz pebble conglomerate, as well aplite dikes and sills, and breccia at the conformity between the Archean basement rocks and overlying Proterozoic sedimentary rocks. Also, **Valencia Ventures Inc.** entered into a sale agreement to purchase 100% of the former Agnew Lake uranium mine from **Nyah Resources Corp.**

A number of other companies also undertook uranium exploration projects in the Bancroft area in southeastern Ontario in 2010.

Recent exploration highlights are summarized in the various reports for the Resident Geologist Districts in the province and are available on-line at: http://www.mndm.gov.on.ca/mines/ogs/resgeol/default_e.asp

Map No.	Status	Name	Million Tons of Ore	U ₃ O ₈ (pounds per ton)	% U ₃ O ₈	U ₃ O ₈ (pounds) Produced
A	PP	Rio Algom: 10 mines, Elliot Lake Area Dennison: 3 mines, Elliot Lake Area	149.30	2.12	0.11	313,530,000
B	PP	Agnew Lake	3.10	0.61	0.03	1,880,000
	R*	Agnew Lake	5.30	0.80	0.04	
C	PP	Greyhawk	0.08	1.40	0.07	111,128
	R*	Greyhawk	0.20	1.40	0.07	
C	PP	Faraday Madawaska	5.00	1.89	0.10	9,492,171
	R*	Faraday Madawaska	1.02	3.00	0.15	
C	PP	Canadian Dyno	0.66	1.23	0.06	813,381
	R*	Canadian Dyno	0.50	1.40	0.07	
C	PP	Bicroft Centre Lake	2.60	1.72	0.09	4,445,973
	R*	Bicroft Centre Lake	0.56	2.00	0.10	
C	DNBM*	Empire B Zone	2.18	0.81	0.04	
C	DNBM*	Rare Earth 1	0.54	2.40	0.12	
C	DNBM*	Croft	0.98	1.20	0.06	
D	DNBM*	New Campbell / Richard Lake	0.65	2.00	0.10	
D	DNBM*	Bear Head Lake	0.98		0.06	

Notes: R – Reserves; PP – Past Producer; DNBM – Deposit Not Being Mined, with > 500, 000 tons reserves.

* Reserves cited are from published sources and may not be NI43-101 compliant.

