

Update and correction (2014-05-16)**Current knowledge, impacts and mitigation measures related to the exploration and mining of uranium deposits in Quebec: a summary**

This summary was prepared for Quebec's *ministère du Développement durable, de l'Environnement, de la Faune et des Parcs* and *ministère des Ressources naturelles*

Authors (in alphabetical order):

Georges Beaudoin, P.Geo., Ph.D. (Geology and Geological Engineering), Université Laval

Kristina Maud Bergeron, Ph.D., Chair in Mining Entrepreneurship UQAT-UQAM, UQAM

Michel Jébrak, P.Geo., D.Sc. (Atmospheric and Earth Sciences), UQAM

Julia King, M.Sc. (Geology and Geological Engineering), Université Laval

Dominic Larivière, Ph.D. (Chemistry), Université Laval

Annie Michaud, M.Sc. (Chemistry), Université Laval

Pierre-Alain Wülser, Ph.D. (Atmospheric and Earth Sciences), UQAM

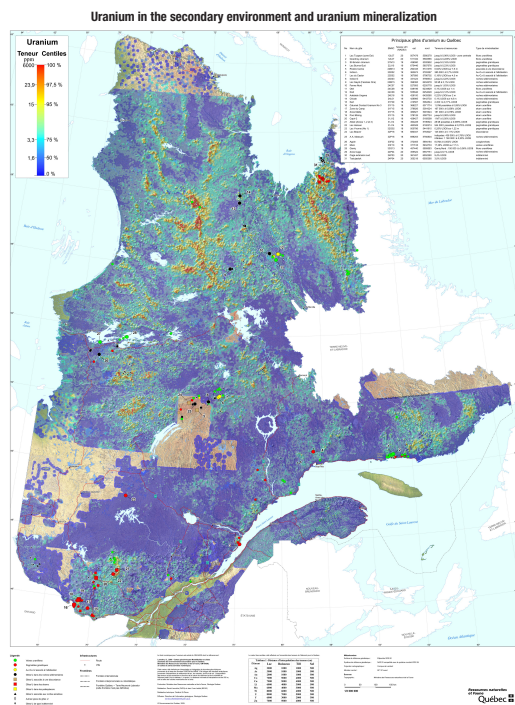
Date: 08/04/2014



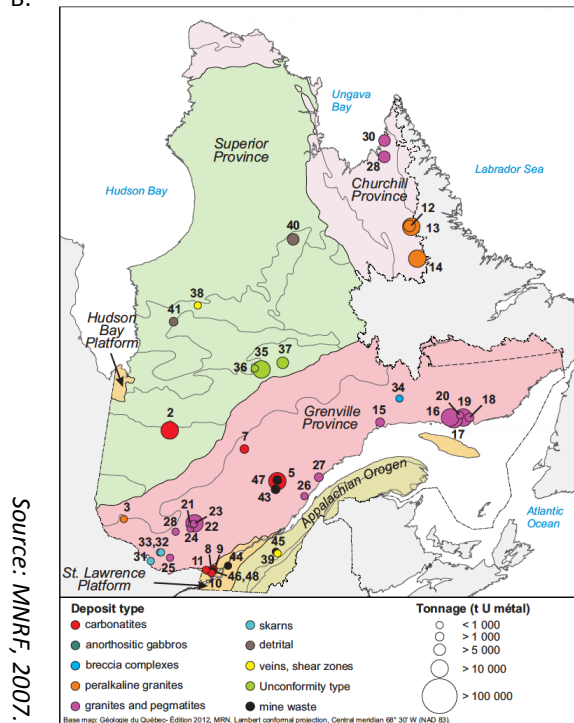
UNIVERSITÉ
LAVAL

UQÀM

A.



B.



Source: MNRF, 2007.

Legend (Figure 2.1B): 2: Montviel, 3: Kipawa (Zeus, Lac Sheffield-2), 5: Niobec, Nb Mine, 7: Crevier, 8: Manoka (Oka), 9: Oka, (Zone Bond, Wayfair), 10: St-Lawrence Colomblum Mine (SLC), 11: St-André-2, 12: Strange Lake B Zone, 13: Strange Lake Main Zone (Lac Brisson), 14: Misery Lake, 15: Lac Kachiviss, 16: North Shore / Turgeon, 17: Baie Quetachou, 18: Doran (Lacana), 19: Johann Beetz (Drucourt Est), 20: Lac Caron, 21: Tom Dick (Zone Nord 1), 22: Nova (or Renard or Allied (1-3), 23: Mekoos (or Bear, 3-3D), 24: Lac Hanson, 25: Lac Indien, Bain, 26: Lac Fafard, 27: Anomalie C11r4, 28: Capri-2, 29: Secteur North Rae, 30: Secteur Cage, 31: Grand Calumet / Calumet Contact N°3, 32: Zone Matte, 33: Zone de Camp, 34: Knyjibo, 35: Matoush, 36: Lac Beaver / Zoran, 37: Lavoie / Indice L, 38: Ganiq, 39: Harvey Hill Cu mine, 40: Dieter Lake / Lac Gayot, 41: Apple, 43: Boues Rouges Usine Vaudreuil - Jonquière, 44: Phosphogypses, Varennes, 45: Harvey Hill, residues, 46: Mine SLC, residues, 47: Mine Niobec, slag, 48: Mine SLC, slag. Uranium showings without an estimate of prospective resources are not shown.

Figure 2.1: The Location of uranium resources in Quebec. A. A map of calculated Uranium concentration around the province using lake sediment samples and known uranium showings. B. A geological map of the province showing the various geologic domains, types of deposits and approximate size. See Table 5.2.

Globally, Quebec possesses significant uranium resources. These resources are low and medium-grade uranium deposits. There is potential for high-grade deposits comparable to those mined in Saskatchewan but at present, these potential uranium resources are not being developed.

2.2 URANIUM EXPLORATION IN QUEBEC

Uranium exploration is carried out by two types of companies: (1) uranium mining companies, which are often vertically structured as to complete the full nuclear fuel cycle, from mining to reprocessing; (2) junior companies, small companies whose goal is to discover new resources; they can subsequently sell them to bigger companies or attempt to start production themselves.