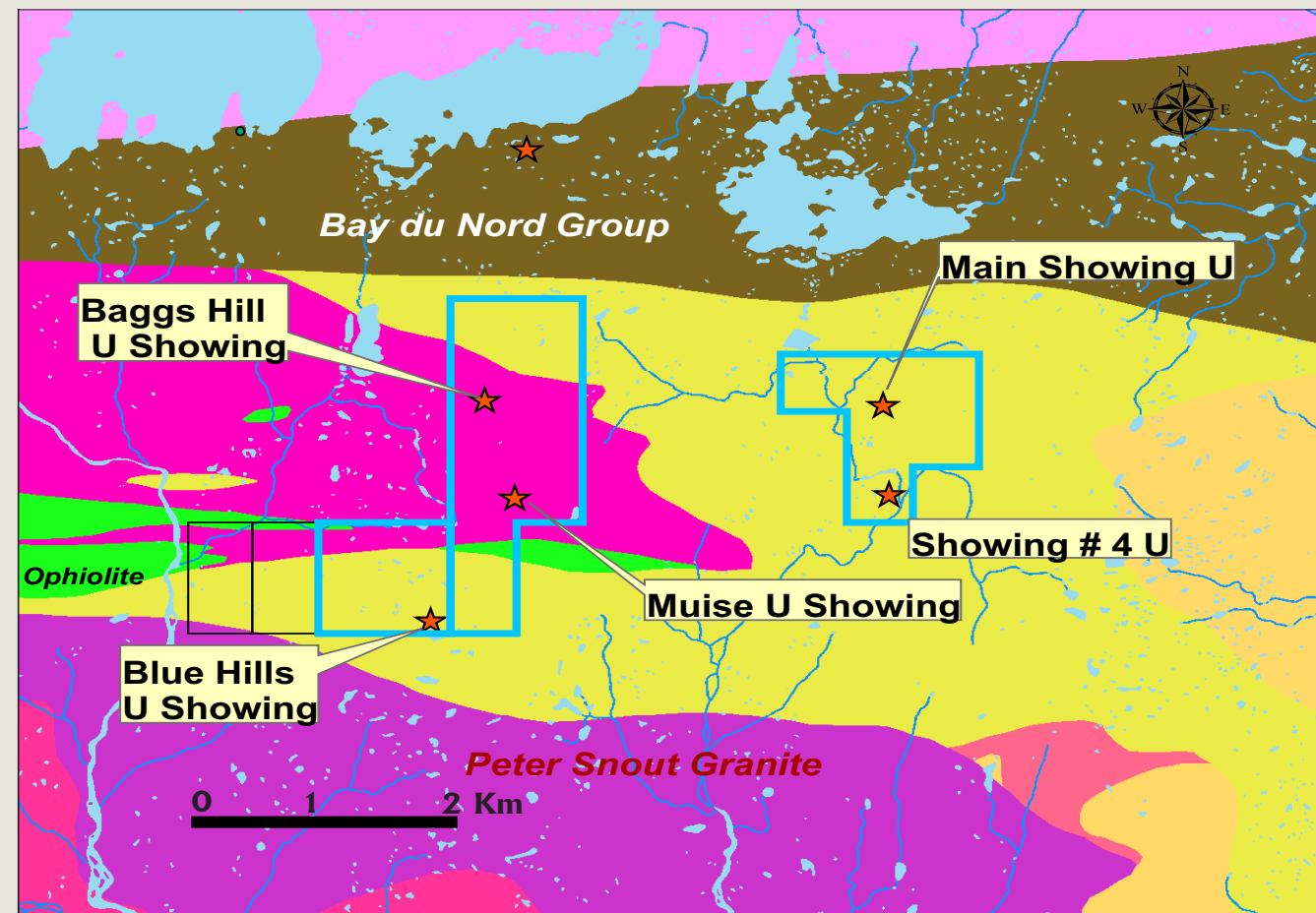


# NEWFOUNDLAND & LABRADOR

## Prospect Discover Develop



### Blue Hills - U



Map 2: Claims Location and Regional Geology

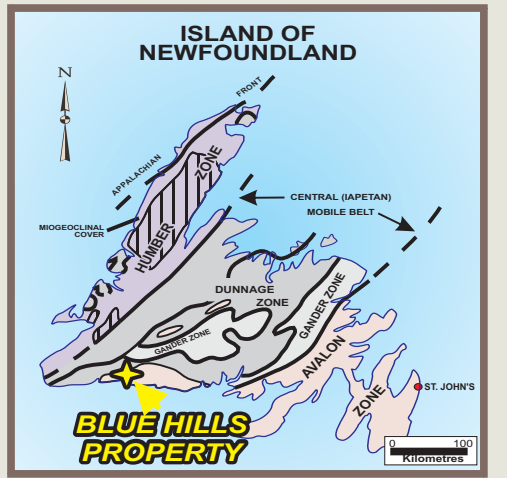
Source: Crisby-Whittle, L. V. J. (compiler) 2012: Partial bedrock geology dataset for the Island of Newfoundland. Newfoundland Department of Mines and Energy, Geological Survey, Open File NFD/2616 version 7.0. Mineral Occurrence Source: Mineral Occurrence Database - Geological Survey, Department of Natural Resources Website: <http://www.gov.nl.ca/mines/en/geosurvey>

The Blue Hills U Property is located in southern Newfoundland, 40 km NW of the town of Burgeo (Maps 1 and 2: NTS 11P/13). A paved road, the only land access route to Burgeo, runs N-S about 13 km east of the Blue Hills project.

**Regional Geology:** The region contains geological elements of the Gander and Dunnage Zones of the Newfoundland Appalachians. The northern segment of the area is underlain mainly by an east to east-southeast trending belt of polydeformed metasedimentary, metavolcanic and ophiolitic meta-igneous rocks, which is continuous westward with, and in part correlative to, the Ordovician La Poile and Bay du Nord groups. These belts are bounded to the north and south by fault zones of regional extent (O'Brien, 1983). The Blue Hills Property lie within a feature known as the Hermitage Flexure, a major regional structural element.

#### Local Geology

This property is located south of the Cape Ray Fault and about 10 km north of the Bay d'Est Fault. The oldest rocks in the area consist of lenses of Ordovician or older metagabbro and related amphibolite. These are overlain by the Bay du Nord Group, a sequence of felsic volcanics, tuffs, epiclastics and silty pelitic sediments, metamorphosed to amphibolite grade. The Baggs Hill Granite is fine-grained, porphyritic and probably a feeder to the Bay du Nord volcanics. The Bay du Nord Group is intruded by the Peter Snout leucocratic granite and Ironbound Hills biotite granite. These granitic bodies give a strong U response to airborne radiometric surveys.



Map 1: Property Location Map

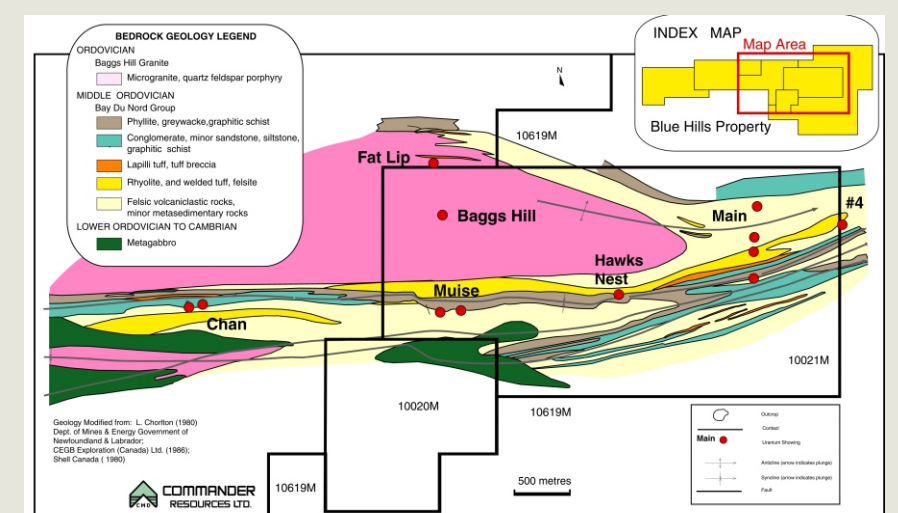
**Mineralization and Previous Work:** The Blue Hills Property has 4 U and 1 U-Mo historic showings (Maps 2, 3). Much of the following description is taken from Hutchings and Kahlert, 2006 and Kahlert and Hitchcock, 2007. Shell Canada Resources discovered six U occurrences in the Blue Hills area in 1980 and in 1981, carried out detailed mapping and prospecting, finding a total of 400 radioactive boulders and 15 radioactive outcrops at an average grade of **0.15% U**.

The main U showing on the Blue Hills Property consists of over 250 angular boulders up to 1.5 m in size concentrated in 7 clusters over a 1.5 km long trend. Shell and government survey geologists considered the boulder clusters to be sourced from local bedrock. U values (boulders) ranged from **0.14 % U to 2.88 % U**. Sampling of local felsic volcanic bedrock with pitchblende in fractures returned **0.60% U**. A number of other bedrock U showings occur in both felsic volcanics and several younger, intrusive granites. Other U occurrences (Map 3) include the # 4 Showing – bedrock and float located 0.5 km east of the Main Showing and several less extensive showings (both float and outcrop) – Hawk's Nest, Muise, and Chan. The three occur on an east-west geological contact termed the Hawk's Nest Trend, traceable over 7.0 km from the Main grid, parallel and in close proximity to the southern margin of the Baggs Hill Granite. Two smaller showings, Baggs Hill and Fat Lip, both subcrop, are situated within the Baggs Hill Granite. Higher assay values from bedrock occurrences ranged from **0.30 % to 1.2 % U**.

In 2005, Commander Resources Ltd entered into an option agreement with several prospectors for the Blue Hills and White Bear U properties. 2005 work: The Blue Hills results are highlighted by results on the main grid, specifically the Main Showing. Two channel samples taken from bedrock assayed **0.18% and 0.14% U<sub>3O8</sub> over 1.4 and 1.3 m** lengths, respectively. A 1.5 m channel sample approximately two m to the west returned a value of **0.11% U<sub>3O8</sub>**. The consistency of the values demonstrates stratigraphic control and continuous extent of the uraniumiferous units. Composite rock chip samples from angular float taken in the vicinity of **Main Grid Extension (0.142% U<sub>3O8</sub>), # 4 Showing (0.361% U<sub>3O8</sub>), Hawk's Nest Trend (0.158% U<sub>3O8</sub>), Baggs Hill (0.486% U<sub>3O8</sub>), Fat Lip (0.313% U<sub>3O8</sub>)** are considered to have local sources. On the Main grid, stratabound uranium mineralization related to felsic volcanics and volcanoclastics occurring on opposite limbs of an east-west trending anticlinal structure may be reflected by three soil anomalies. Two strong anomalies (values 3-13 times background with a maximum value of 13.4 ppm U) having an east-west extent of 200-300 m (one is open to the west) occur down slope from the southern limb. The **0.142% and 0.361% U<sub>3O8</sub>** float values in the same vicinity may be related to the same units.

On the Chan Option, from a total of 13 rock samples analyzed, three composite chip samples returned assays of **0.11% U<sub>3O8</sub>, 0.09% U<sub>3O8</sub> and 0.664% U<sub>3O8</sub>** from two new showings discovered by Commander in float and outcrop approximately 0.4 km apart, the latter situated on Couteau River. The location of historical and recently discovered showings demonstrates preferential stratigraphic positioning of uranium mineralization along a volcanic – sedimentary contact, part of the 7.0 km long Hawk's Nest Trend stretching from the Main grid to Chan. Uranium mineralization along the Trend includes Hawk's Nest, Muise and Chan occurrences. The Trend, at Chan, specifically over a 550 m strike length, is authenticated by a magnetic anomaly coincident with the mineralization bearing units and correlated to uranium values in soil.

2006 work: In the Blue Hills Area, the Baggs Hill Granite plays the main host to localized U mineralization to date with notable grades from this K-spar granite producing a smaller number of target within this, the Chan Option. A number of spot highs, **232.7, 290.5 and 4716 ppm U<sub>3O8</sub>, were found in highly sericitized schist** bedrock; one of these highs is a small raft or roof pendant within the Baggs Hill Porphyry. The Baggs Hill U Showing occurs in a band of Bay du Nord Group metasediments and metavolcanics and the Baggs Hill Granite just north of the Peter Snout Granite (Wells, 1981). The showing was found in quartz-feldspar porphyry assigned to the Ordovician Baggs Hill Granite. The granitoid varies from a foliated hornblende-biotite granite to a quartz-feldspar porphyry and fine-grained granite. The average radioactivity of the granites is 160 cps with several scattered boulders up to 40,000 cps. An analysis for uranium content of a grab sample ran **0.30% U**.



Map 3: Blue Hills Showings and Geology, Hutchings and Kahlert, 2006

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#### Model

The uranium occurrences are considered to be mainly stratabound volcanic-related and show evidence of both syngenetic and epigenetic mineralization, occurring mainly in felsic tuffs and less notably in metasediments where they are in contact with the volcanoclastic units. Minor showings occur in granites.

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