



**DG RESOURCE
MANAGEMENT**

Ross Lake Project, NWT
LCT Pegmatite

January 16, 2022

Summary

DGRM

- DG Resource Management Ltd. (DGRM) is a Canadian based, private, project generator, with a head office in Edmonton, AB.
- DGRM has a successful track record of exploration discovery across multiple commodities: Lithium, Uranium, REE's and Rare Metals, Industrial Commodities, Gold.
- DGRM holds 100% interest in the Ross Lake Lithium Project, NWT.

Ross Lake

- Single claim encompasses 394 ha (~974 acres) near Yellowknife, NWT
- Directly south of a past producing tantalum mine and situated in an area with 100's of mapped lithium-, tantalum- and/or niobium-bearing pegmatites
- Despite confirmed spodumene- and lithiophilite-bearing pegmatites, the property has not been fully sampled for rare-element geochemistry

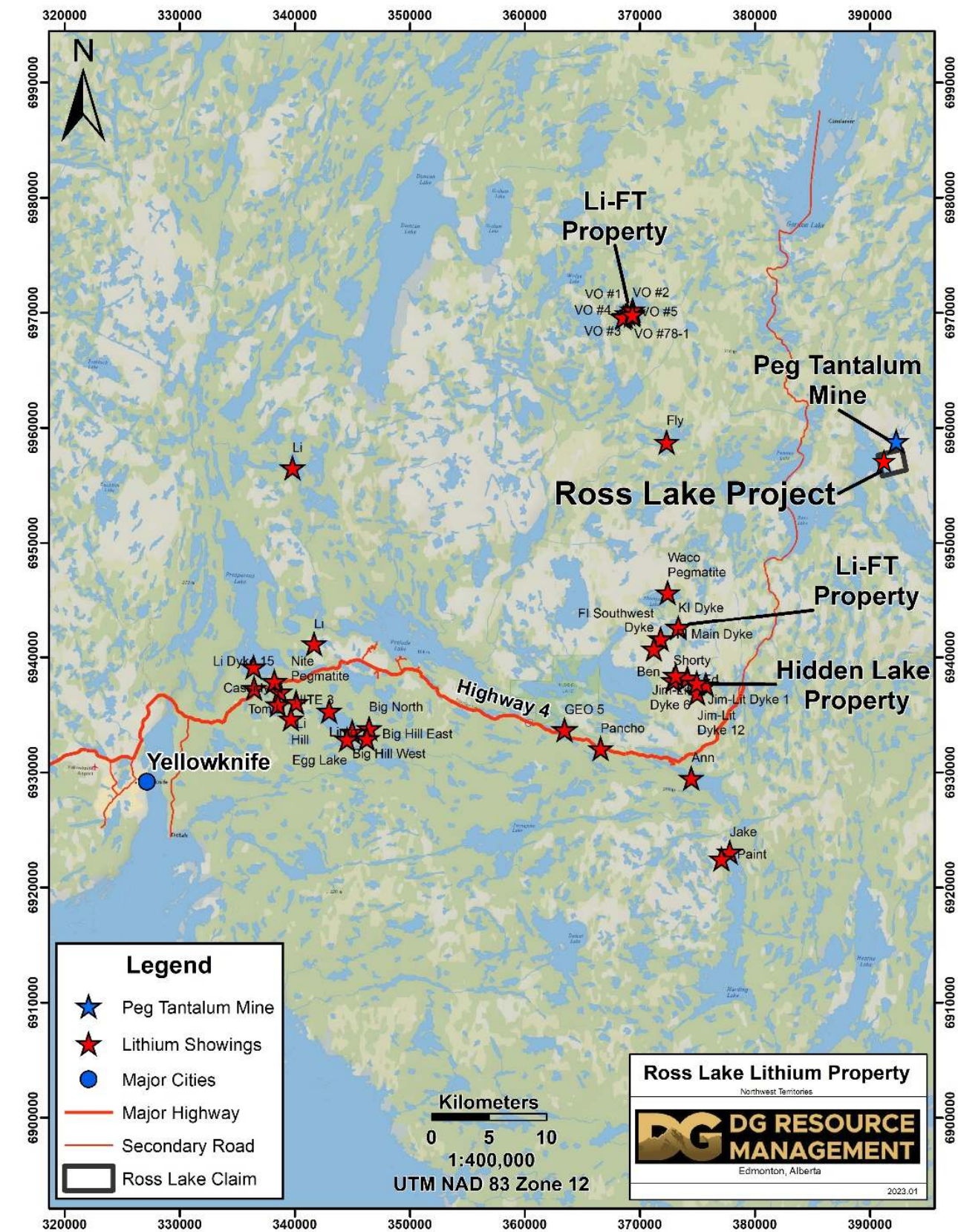
Strategy

- Summer 2023 complete drone assisted property wide outcrop mapping
- Concurrent with mapping complete a property scale geochemical sampling and channeling program targeting spodumene pegmatites
- **Given the paucity of historical exploration data**, a regional geochemical database will be developed from public and private data where available



Project Overview

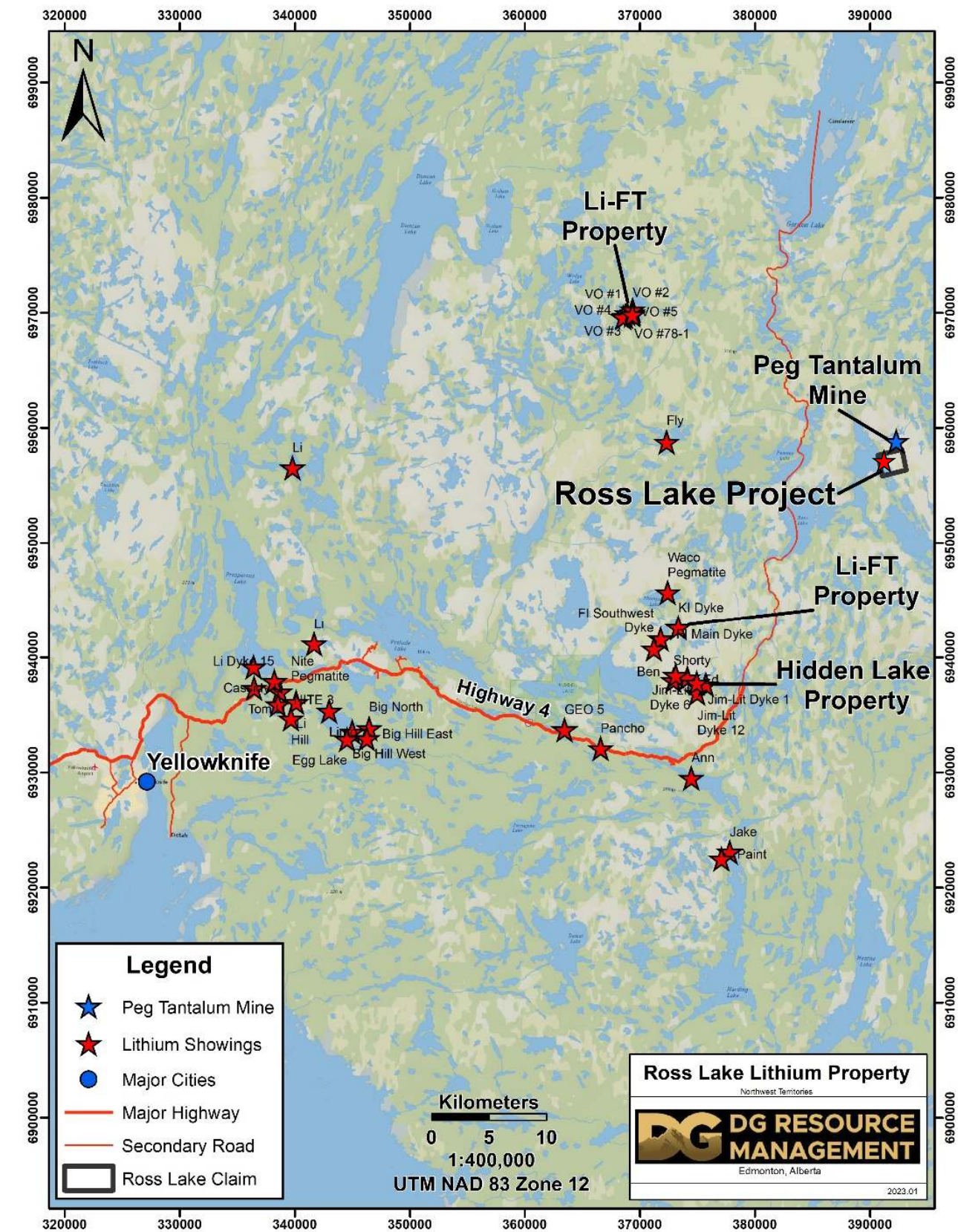
- The Ross Lake Lithium Project consists of a single claim encompassing 394 ha (~974 acres), within the South Slave/North Slave Land withdrawal.
- The Project is 70 km east-northeast from Yellowknife, NWT, approximately 10 km from the winter road which services the area Diamond Mines, and less than 25 km from the end of all weather Highway 4.
- It is easily accessible by helicopter, float plane and from the nearby (10 km) Tibbitt - Contwoyto Winter Rd, that crosses Ross Lake.



Location Summary

The Ross Lake Lithium Project is located near to the Yellowknife Lithium Pegmatite Field

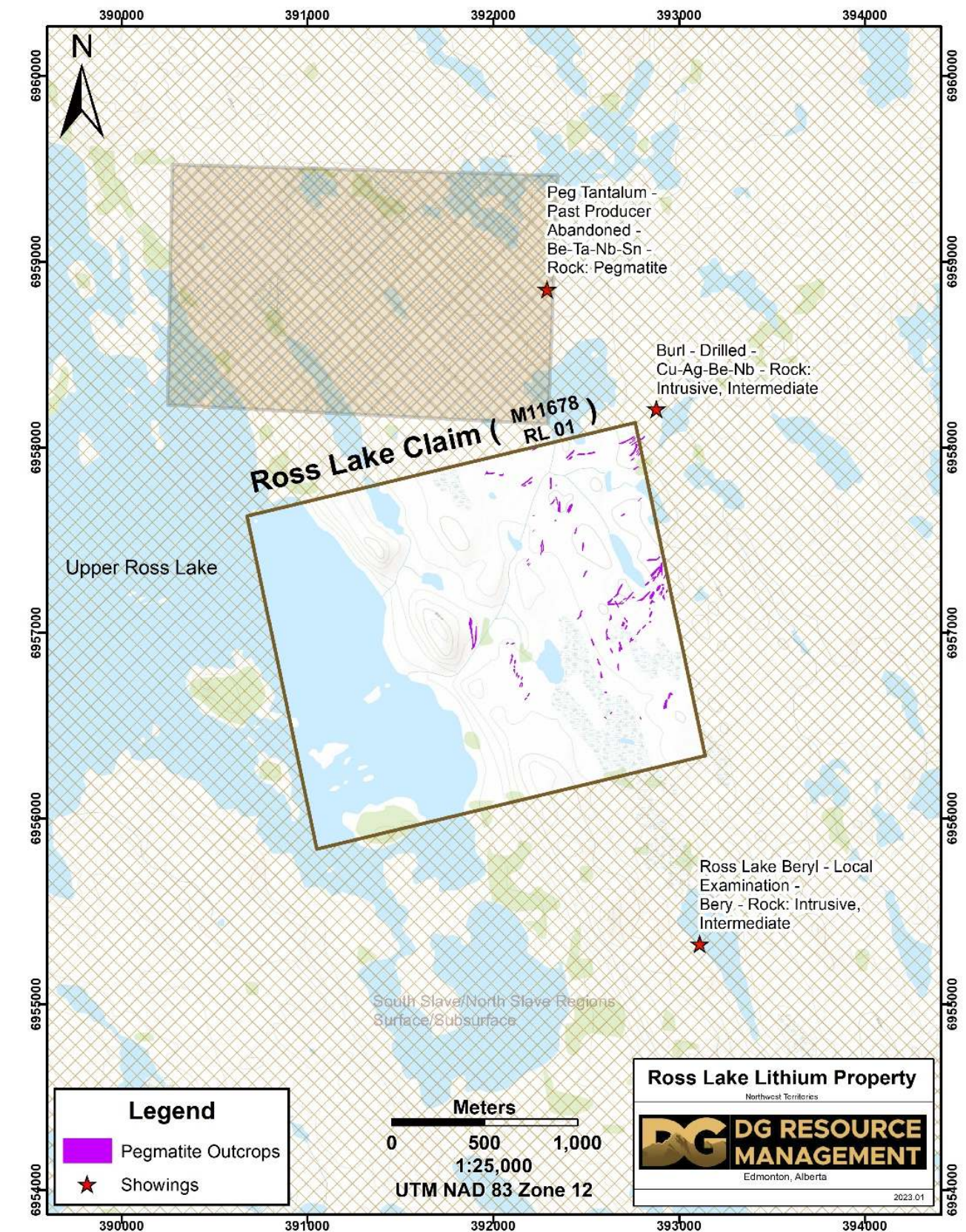
- Near the prolific Yellowknife Lithium Pegmatite Field, the region has undergone significant renewed interest as the demand for lithium increases.
- Less than 25 km from the **Hidden Lake Pegmatites** where Patriot Battery Metals (and partner),
 - identified seven lithium pegmatite dykes at surface, sampled, drilled, with metallurgic test / bulk sample
 - pegmatites range from 275 and 790 m in length
 - samples average 1.03% Li_2O , grading up to 3.3% Li_2O
 - D12 Pegmatite: 1.6% Li_2O over 9.2 m in drill core
 - 40 kg bulk sample produced 6.11% Li_2O mineral concentrate at high recovery (>90%)



Location (cont)

The Yellowknife region has seen significant gold and kimberlite exploration, with little recent attention to LCT pegmatites. The region shows significant potential for future lithium exploration.

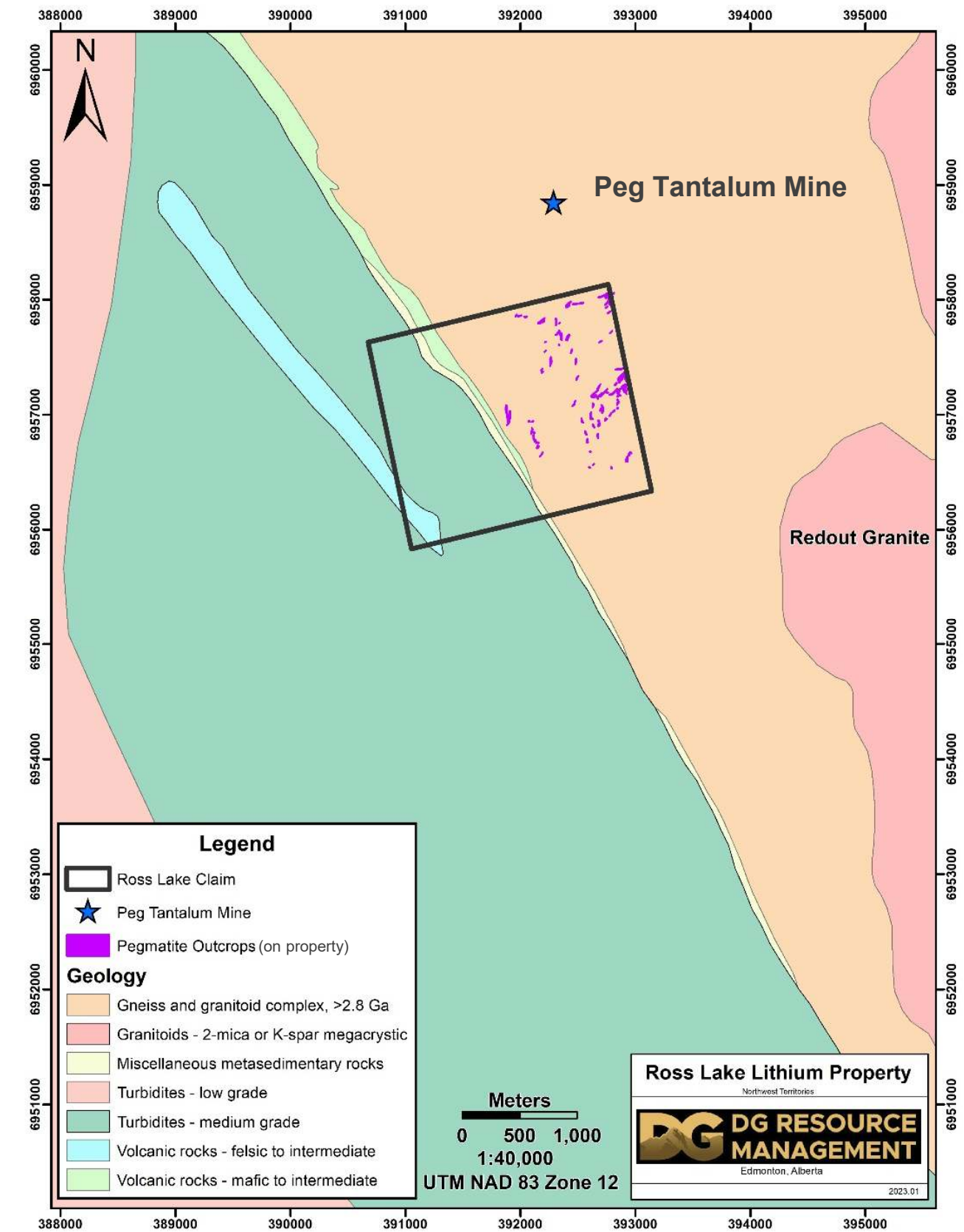
- Located ~25 km away from the 'Lithium Yellowknife Project' (Li-FT)
 - 14 different lithium pegmatite systems exposed as surface, ranging from 100 to 1,800 meters strike length
 - Historical channel sampling produced average grades from 1.10-1.59% Li₂O over widths of 7 to 40 meters
 - Includes the Shorty Dyke: estimated to contain 4.2 million tons of 1.24% Li₂O to a depth of 152 m (non-compliant resource)
- Located 1 km away from the Past-Producing **Peg Tantalum Mine**
 - Small milling operation between 1946-1947. Primarily mined for columbite-tantalite mineralization, reported to also contain spodumene, amblygonite, and lithiophilite
 - #1 dyke is reported as 110 feet long and 7 feet wide at surface, #3 dyke is reported as nearly 200 feet long



Geology

- Ross Lake is underlain by Mesoarchean gneisses and granitoids of the Sleepy Dragon Complex interlayered with amphibolite and Neoproterozoic supracrustal rocks of the Yellowknife Super Group. The Redout Granite, considered the source for the mineralized pegmatites, is about 2 km to the east.

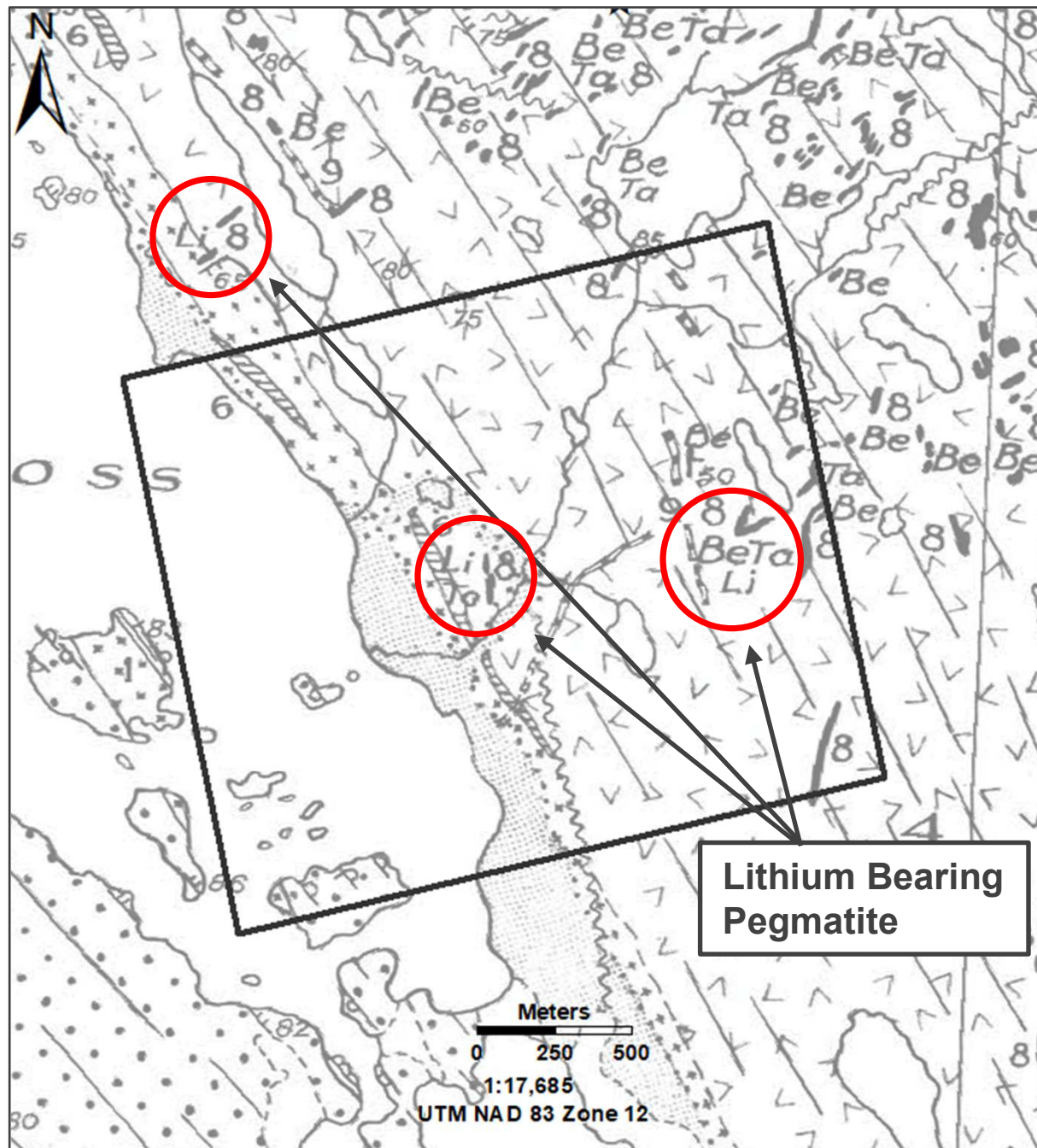
“In the region between Upper Ross and Redout Lakes, several hundred individual pegmatite bodies are exposed in continuous outcrops for a distance of almost 3 miles.”
(Hutchinson, 1955)
- Pegmatites in the Ross Lake area were first examined by the GSC between 1944 and 1955. A study of elemental zonation within the several hundred pegmatites between Upper Ross Lake and Redout Lakes confirmed distinct zones of mineralization related to the Redout Granite. The Property largely falls on the zones noted to contain $\text{Li} + \text{Nb} \pm \text{Ta}$ and $\text{Be} + \text{Nb} \pm \text{Ta}$.
- Pegmatite dykes are well exposed and clearly visible on satellite imagery. Near Upper Ross Lake the pegmatite trends are controlled by fractures; they strike northeasterly with uniform easterly dip direction between 55° to 90° .



Mineralization

More than 100 pegmatite dykes have been documented in the area from extensive work by the GSC in 1955

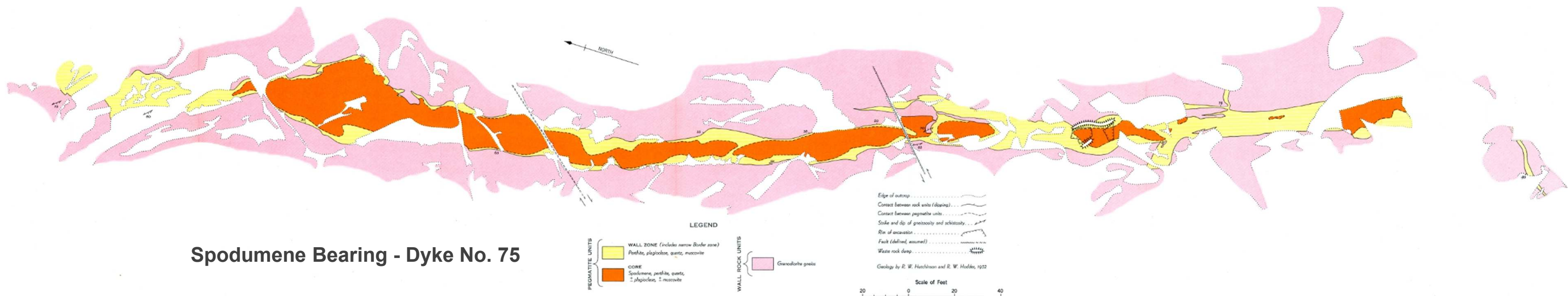
- Despite extensive mapping and sample collection, the pegmatites have never been submitted for multi-element geochemistry. Previous work was based on mineral identification work using thin sections, spectroscopy and X-Ray methods.
- Two significant spodumene pegmatites have been documented on the **Ross Lake Lithium Project**
- The main pegmatite (Dyke No. 75) **contains abundant spodumene, up to 10 m thick exposed over 150 m strike**. A secondary 'spur' pegmatite is observed at this location, but poorly documented.
- Another pegmatite was mapped in 1947 containing lithium, beryllium and tantalum in the eastern part of the property but little information is known
- Outside of the property to the north, a third spodumene pegmatite is mapped



Pegmatite Dyke No. 75

- Dyke No. 75 is located within historically mapped pegmatite zone V, within the western part of the property
- The pegmatite contains a spodumene + perthite + quartz \pm plagioclase \pm muscovite core up to 10 m wide
- The dyke is exposed over approximately 150 m length and is open along strike and at depth
- The host rock of the No.75 Dyke is granodiorite. Potential exists along strike into the adjacent amphibolite
- Internal zonation is apparent within most mapped pegmatites. At surface, Spodumene appears restricted to the quartz core with crystals up to 6 cm and spodumene constituting up to 20% of the zone

Spodumene Bearing - Dyke No. 75



Conclusions

- The Ross Lake Property contains numerous lithium-, tantalum- and/or niobium-bearing pegmatite dykes. Despite extensive studies, the dykes on have never been never been submitted for multi-element geochemistry; nor have been the subject of modern exploration.
- **Given the sheer number of pegmatites, presence of spodumene and favorable indicator mineralogy, there is strong potential for lithium mineralization across the property and at depth.**
- Worldwide exploration for LCT pegmatites has produced a staking rush for in Canada and the NWT, with significant activity around the known lithium and rare element pegmatites of the Yellowstone Pegmatite Field.
- The Property is easily accessible, with the nearby community of Yellowknife providing readily available mining and exploration services.

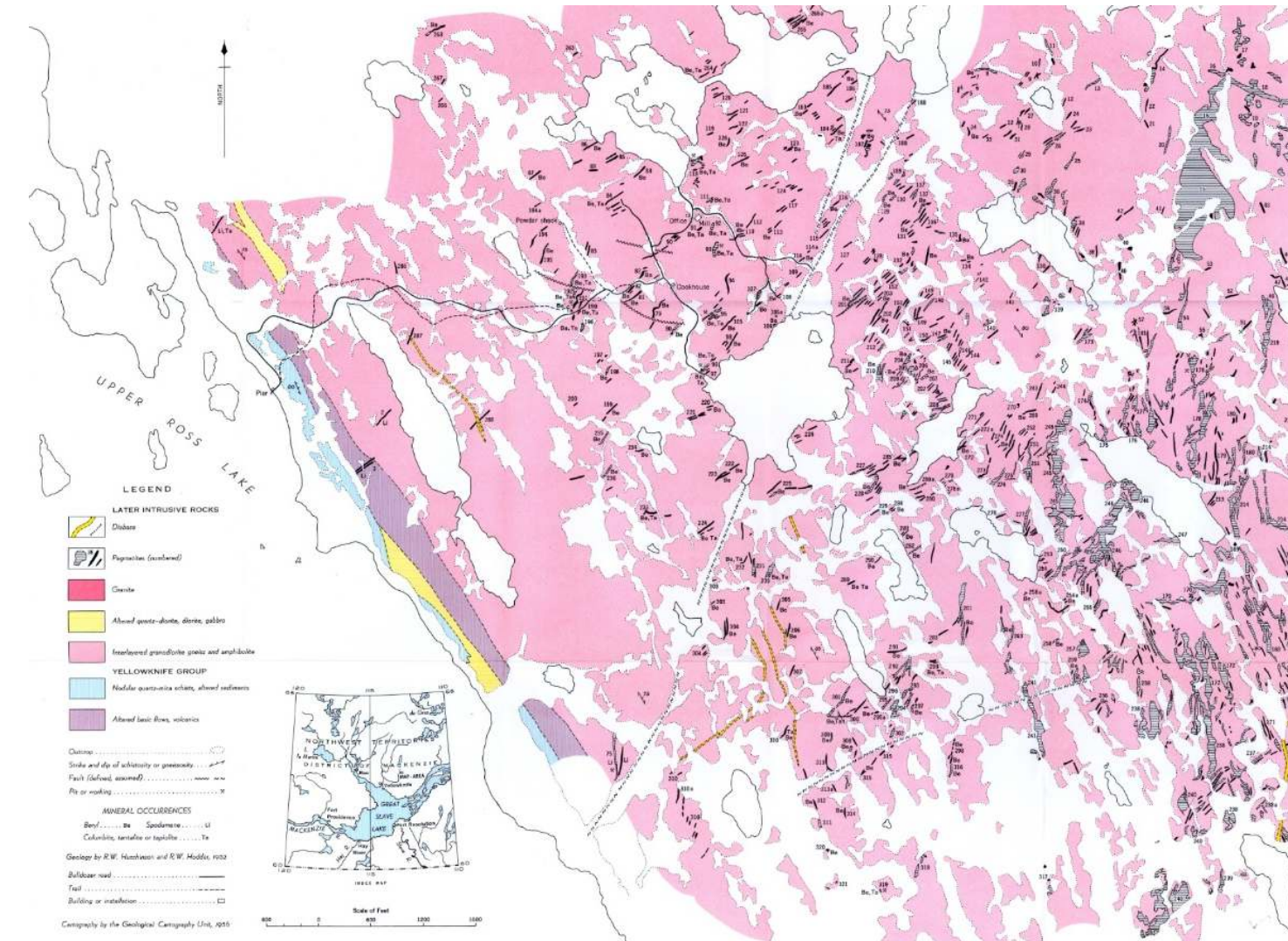


Figure 1. General geology of Ross Lake - Redoubt Lake area, Northwest Territories, with location, size, shape, and rare-element mineralogy of pegmatites



DG RESOURCE MANAGEMENT

Suite 103, 10183 – 112 Street
Edmonton, AB T5K 1M1
Tel: 780-434-9808

www.dgrm.co

Jody Dahrouge
Email: jody@dahrouge.com



Pegmatite dyke at the Peg Tantalum Mine



Columbite and Beryl at the Peg Tantalum Mine

