Elk Exploration Ltd

Debert River/Little Snare Lake Project

Debert Lake Area

Colchester County Nova Scotia

11E/11B

Assessment Report

Exploration License No. 54566

By

Daniel Thomas Allen & Lindsay John Allen

November 30th, 2023

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DEDICATION:

This report is authored by Dan and Lindsay Allen. Lindsay Allen, born in Lutterworth England, immigrated to Nova Scotia in 1976. He would eventually become interested in mineral prospecting and become a professional prospector. He was president of the Nova Scotia Prospector's Association for many years, won the Nova Scotia Prospector of the Year Award several times and worked many properties in Nova Scotia. His name graces many reports filed with the government for assessment on those properties.

Lindsay's health declined during 2023 and he lost his life shortly after a diagnosis of cancer late in the year. The work described in this report was partially done by Lindsay and the text is taken from a report template he used. This is Lindsay Allen's last report.

This report is dedicated to the enduring memory of Lindsay Allen, a husband, a father, a friend, a professional and a truly great Nova Scotian Prospector.

1.0 Summary

Exploration License 54566 is being evaluated for mineralization of Rare Earth Elements (REEs). This was accomplished by using a scintillometer to search for boulders and outcrop with elevated CPS (counts per second) scintillometer readings.

To date, basic prospecting has revealed several locations of boulders and outcrop showing elevated readings which were sampled and assayed. Assay results for REE's have been poor, however the presence of REE's has been confirmed. This data has been combined with our current efforts to further evaluate the property.

Some additional work has been done with a handheld XRF (X-ray fluorescence) analyzer (InnovX Delta Handheld). XRF results were captured by traversing the existing logging roads and access points to the property. While cataloging XRF results, we also developed a cohesive cartographic representation of the property.

Recording and plotting all information was done utilizing the NAD83 UTM projection grid with a handheld GPS unit.

2.0 Location and Access

Exploration License 54566 is in Colchester County, Nova Scotia. The property is located northeast of Folly Lake, close to the Cumberland/Colchester County line. (Fig. 1.).

The block of claims lies south of Debert Lake, straddling the Debert River in close proximity to Little Snare Lake. All coordinates are UTM NAD83. (Fig. 2.).

Currently, the best access to the property is from Highway 246, north of the claim block. From Highway 4 (Old Trans Canada Hwy), turn east onto Hwy 246 and travel 4.7 km to E461204 N5052542.

Turn south onto a decent logging road and travel in a generally southerly direction.

At E462925 N5050429 a road joins from the northeast. However, continue in a southerly direction.

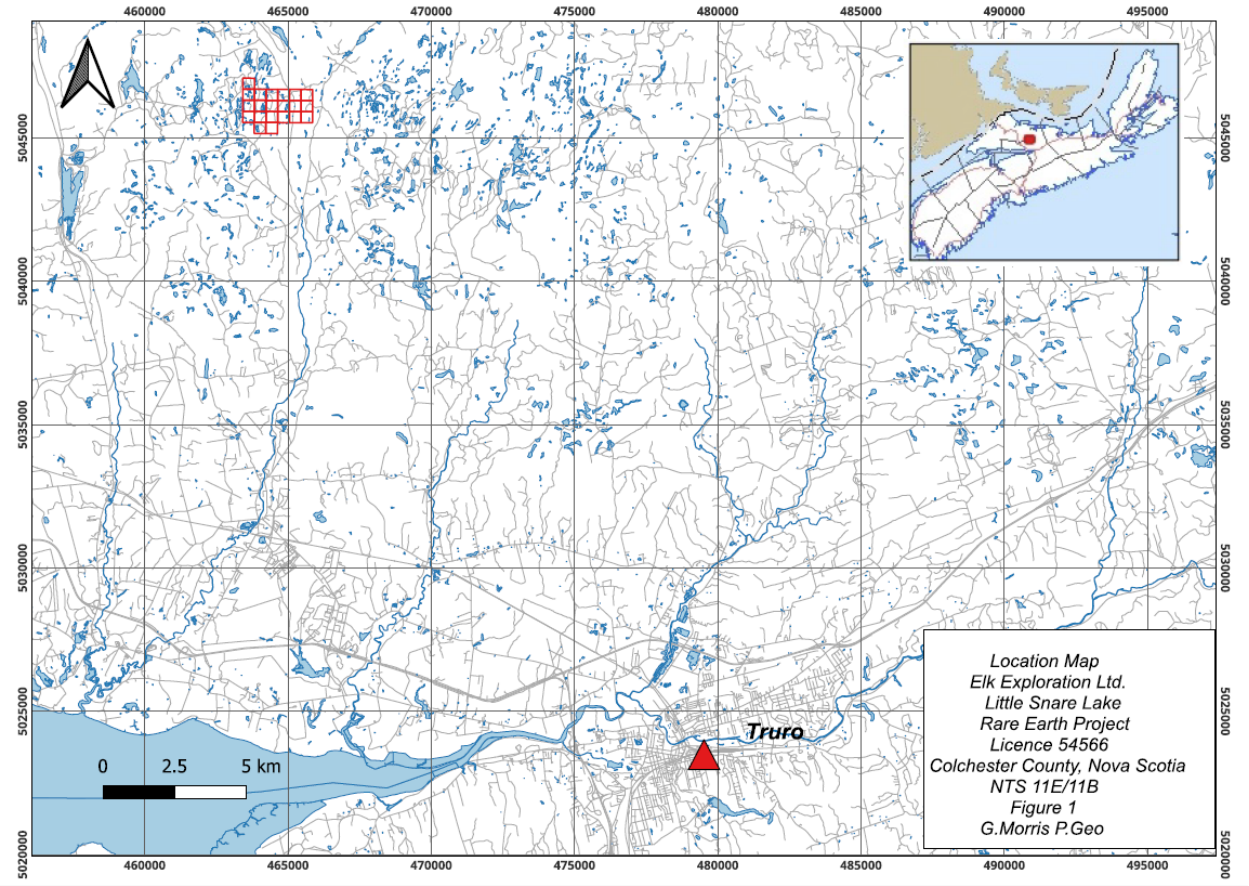
At E463409E N5049909 a road joins from the east, and the main road continues generally south.

The east road gives access to lands to the north and east side of Debert Lake.

Follow this south road in a generally south/southeast direction at any road junctions. The road runs between Big Snare Lake and Debert Lake. Several good westerly trending side roads give access to Big Snare Lake and the Snare Lake Bog area.

Follow this road to E0465124 N5046586, where a road joins from the east (Byers Pond Road).

This easterly road provides access to the claims.



3.0 License Tabulation EL 54566

Exploration License 54566 consists of 21claims held by Elk Exploration Ltd. Anniversary date December 30th, 2023.

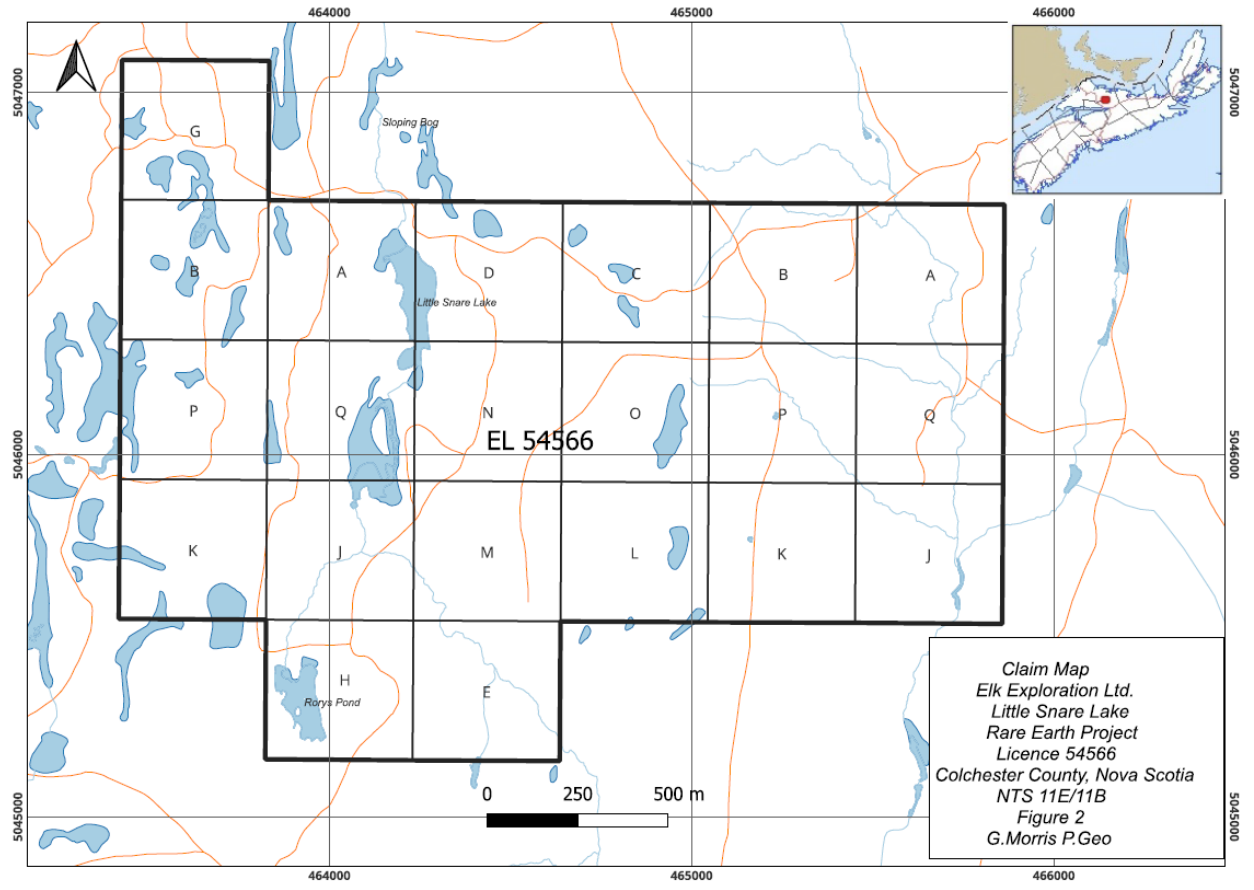
Claims Tract

MAP 11E11B TRACTS 59 CLAIMS H, J, K, P, Q

MAP 11E11B TRACTS 58 CLAIMS E, J, K, L, M, N, O, P, Q

MAP 11E11B TRACTS 62 CLAIMS A, B, G

MAP 11E11B TRACTS 63 CLAIMS A, B, C, D



4.0 Previous Work

1981-84: GSC/NSDME Stream sediment survey (OFM 86-10). Shows anomalous metals in stream sediments.

1976-81: Gulf Minerals Ltd carried out extensive exploration work for uranium in the property and surrounding terrains in the eastern Cobequid Mountains. This work consisted of geological mapping, multi-element soil sampling, airborne gamma ray spectrometer surveys, ground gamma ray spectrometer work, VLF-EM magnetometer surveys, trenching and drilling.

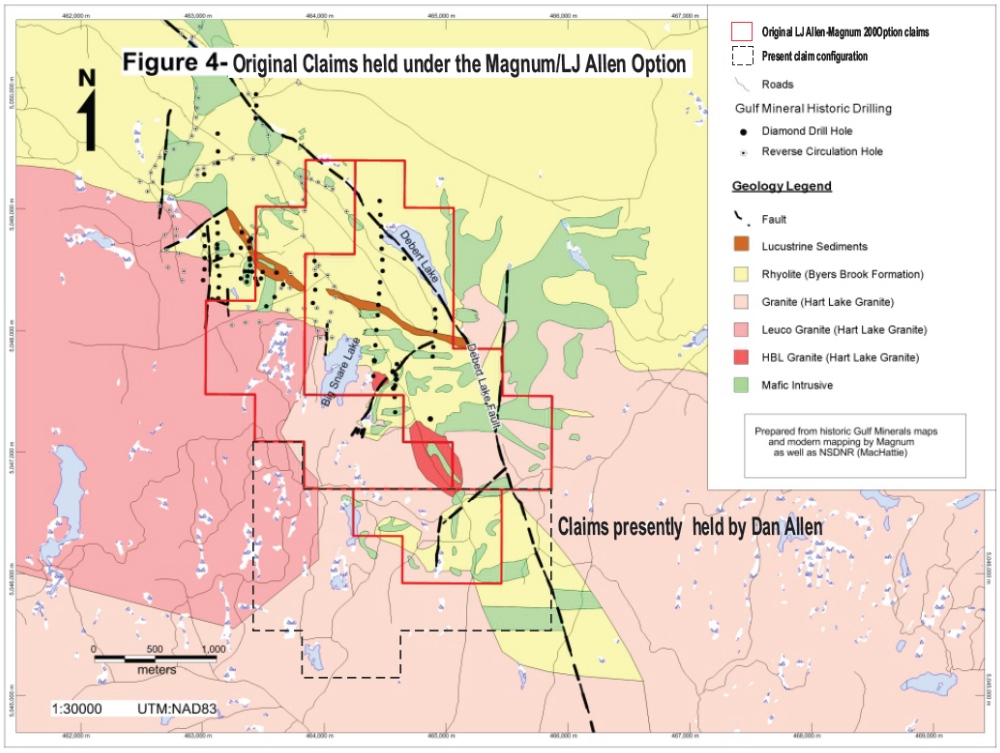
2004: Cobequid Gold Corporation Ltd sampled stream sediment and reviewed existing drill core, looking for potential epithermal gold-silver deposits.

2011-2012: Trevor MacHattie, a geochemist with the Nova Scotia Geological Survey, on re-examining core from Gulf Minerals drilling in the late 1970's and analyzing it with an XRF unit, discovered anomalous REE values coincident with high thorium values in highly altered potassium rich core (Fig 3.) for which the Debert Lake core had never been analyzed and realized the potential of the area as a potential REE prospect. This information was presented at the 2011 Nova Scotia Geological Survey's Geology

Matters Conference in November of that year. Lindsay John Allen, a prominent local prospector, took interest in the Debert Lake presentation and immediately staked the area within minutes of Trevor MacHattie's Geology Matters presentation.

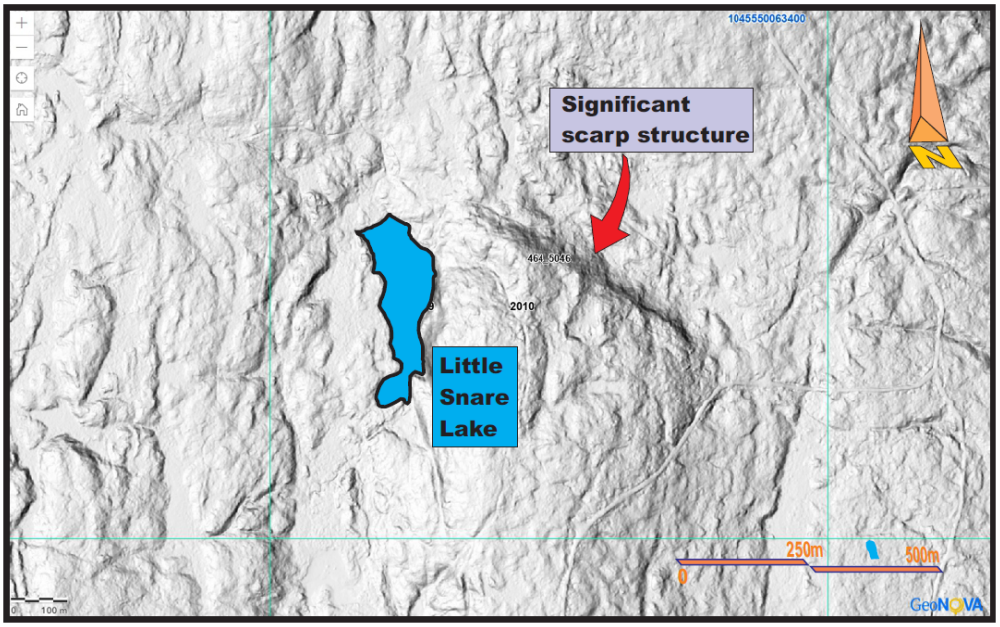
2012: Lindsay Allen discovered an extensive number of boulder outcroppings containing significant amounts of REEs. These were subsequently trenched by Lindsay Allen utilizing a government funded mineral exploration assistance project available to provide seed funding to Nova Scotian prospectors..

2012: L.J. Allen staked and incorporated the mineral claims in partnership with Magnum Resources, however the company has since dropped many of the original claims (Fig. 4).



2017: Assessment Report for Exploration License 50621, L.J. Allen outlines evidence that the highest concentration of REEs occurred to the south, specifically surrounding Little Snare Lake.

2021: First assessment of local LIDAR imagery is used to help target areas for further follow-up (Fig. 5.).



5.0 General Geology and Minerology (Fig. 6)

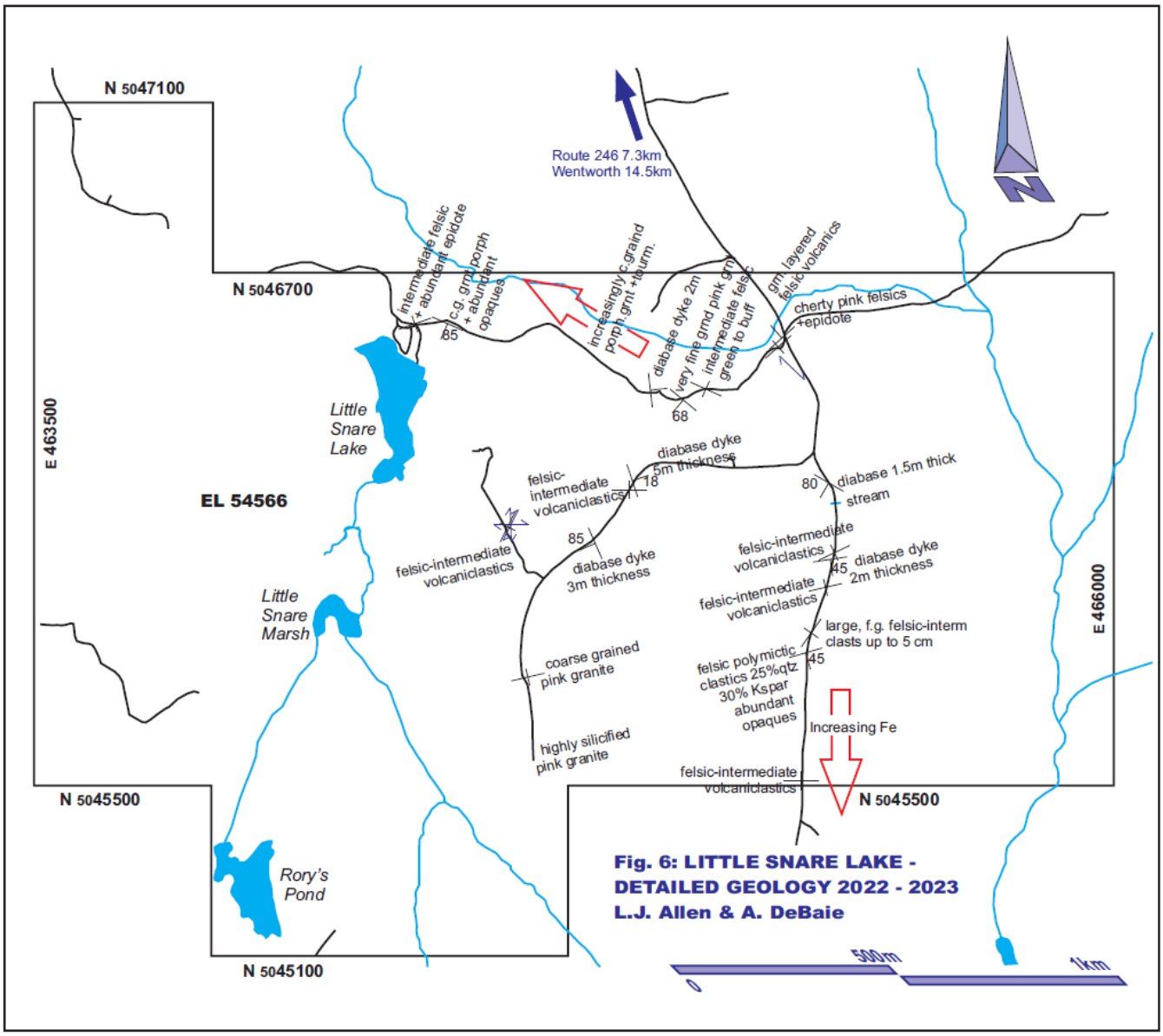
The claim block is mainly underlain by rocks of the Middle Devonian age Byers Brook Formation (Fountain Lake Group) which consists of flow-layered felsic volcanics, coarse to fine grained intermediate felsic-mafic units, fine grained rhyolitic to intermediate granites, porphyritic felsic plutonic rocks, cherty mesothermal-invasion felsic volcanic emplacements, minor tuffaceous rocks, a wide range of cataclastic units, varying in size and modal composition and late stage mafic units from basalt to diorite which cut across all units.

The base of this formation is defined as the contact with the Hart Lake-Byers Lake granite, which is also found on the claim block. Also, granodiorite/diorite mafic intrusions are present.

Any units may be highly silicified. Some units display a distinct lack of quartz invasion.

There is a distinct phase of epidote alteration that appears to exist between the evolution from intermediate felsic-mafic rocks to primarily felsic compositional rocks of rhyolitic composition. An area of epidote alteration is noted on Donohoe's 1982 Geology Map (Donohoe, 1982).

The intermediate felsic-mafic rocks are interpreted as evolving from a wedge of thermally underplated terrane in close proximity to a continental suture. The Cobequid Highlands are bordered on their southern boundary by a series of east-west oriented deep faults described as the Cobequid-Chedabucto Fault Zone (CCFZ). This formerly active but now structurally stable mega structure is interpreted to be such a continental suture zone.



6.0 Purpose of Work

A multifaceted approach focused on identification of zones containing mineralization anomalies, while also developing an extensive survey of the property's accessibility.

Little Snare Lake is a semi-isolated area with limited access. To properly assess the exploration potential of these claims, an extensive survey needed to be completed of the current road system.

We identified potential anomalous REE zones in the Little Snare Lake area, using a radiometric survey with a scintillometer to use as a REE indicator. We also felt a

detailed map of the local geology was warranted so this work was performed on much of the existing road grid. (Fig. 6.).

Additional work was done with a handheld XRF (X-ray fluorescence) analyzer on the remaining pulps/powders from the assays and whole rock sample duplicates to see how the XRF machine results compared to actual assay results.

Data from previous assessment reports and assay results, combined with data that we have accumulated from April 2022 until late November 2023 will be used to help promote the property to allow interested parties the ability to efficiently assess potential exploration efforts.

7.0 Work Performed

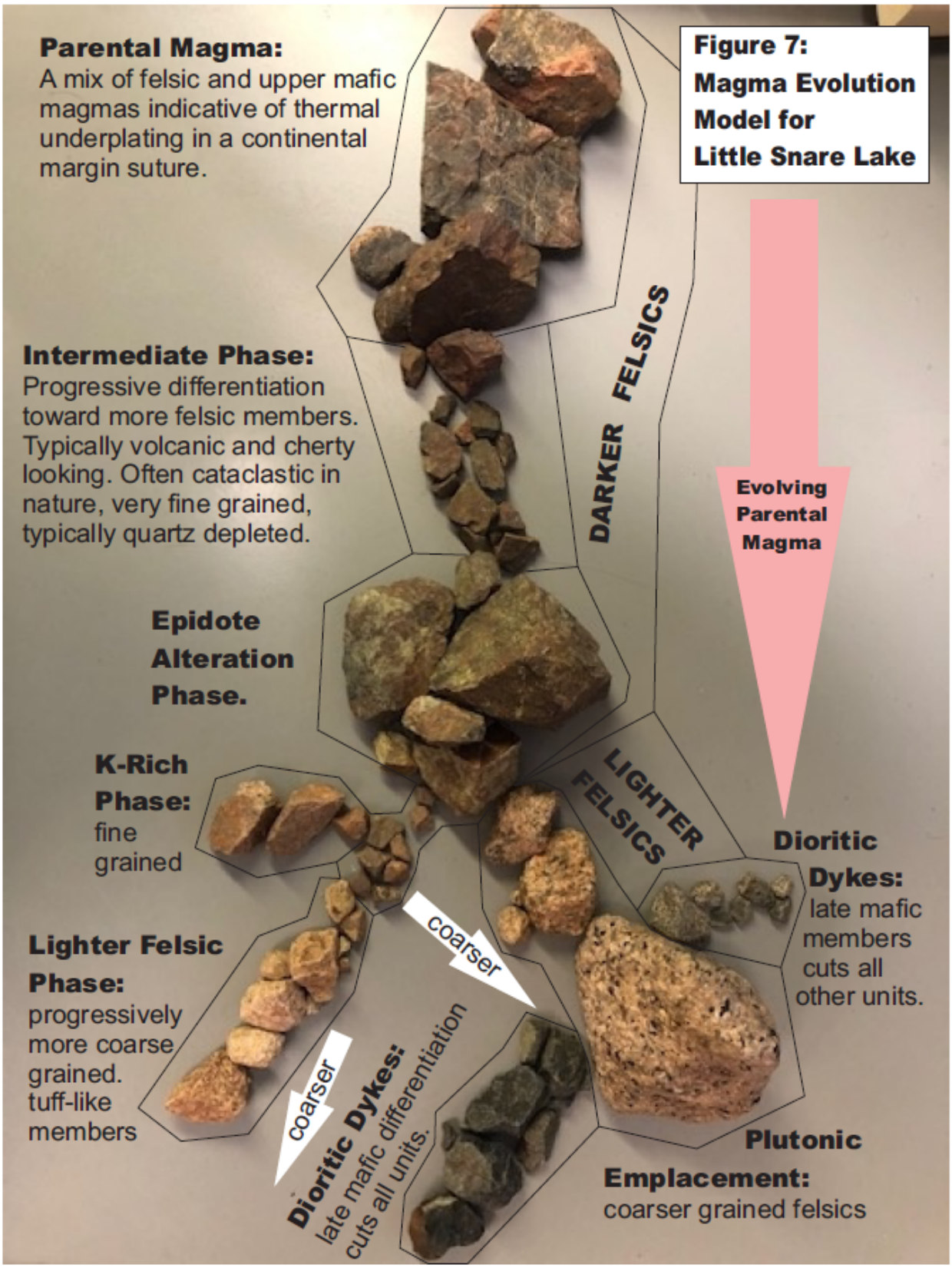
Identification of possible anomalous zones to be checked for REEs was performed as well as detailed geological mapping and prospecting along the existing road system. The main equipment was an XRF & scintillometer, focusing on altered and highly evolved magmatic rocks. Instrument work was conducted on foot. The instruments used were an Urtec UG130 Threshold Gamma Ray Scintillometer using the Total Count (TC) setting. The X-RF used was an InnovX Delta Handheld XRF unit. Shots were taken using a three beam spread to gather as much data as possible. Shots were taken only of insitu bedrock.

8.0 Results of Work

8.1 Mapping

The prospecting and geological mapping reveals a complicated magmatic evolution on the property. Rocks have evolved from a parental magma exhibiting (relatively) deep seated genesis for a predominantly felsic system indicative of thermal underplating at a continental margin in an Island Arc environ (Mills, 2023 pers.com.).

Evolution from the parental magma and different rock types are summarized in a simple evolution model explained by Mills (2023, pers.com.) and presented in Figure 7 (Fig. 7.).


Parental Magma:
A mix of felsic and upper mafic magmas indicative of thermal underplating in a continental margin suture.
Figure 7: Magma Evolution Model for Little Snare Lake
Intermediate Phase:
Progressive differentiation toward more felsic members. Typically volcanic and cherty looking. Often cataclastic in nature, very fine grained, typically quartz depleted.
DARKER FELSICS
Evolving Parental Magma
Epidote Alteration Phase.
K-Rich Phase:
fine grained
LIGHTER FELSICS
Dioritic Dykes:
late mafic members cuts all other units.
Lighter Felsic Phase:
progressively more coarse grained. tuff-like members
coarser
coarser
Dioritic Dykes:
late mafic differentiation cuts all units.
Plutonic Emplacement:
coarser grained felsics

Geology observed seems to generally agree with Donohoe (1982). Minor pyrite mineralization is very common in tuffs, rhyolites, some diorites and granites. There is a distinct phase of epidote alteration that appears to exist between the evolution from intermediate felsic-mafic rocks to primarily felsic compositional rocks of rhyolitic composition. An area of epidote alteration is noted on Donohoe's 1982 Geology Map (Donohoe, 1982). A notable area of epidote alteration was mapped during the 2023 field season in the area of Little Snare Lake. This area of epidote is considered to be a more localized magmatic alteration event, but could be of significant importance.

8.2 X-RF Analysis (All plots are in parts per million [ppm]):

Error of bedrock shots taken when performing XRF analysis in the field is significant. Results are considered indicators only.

Fig 8: XRF Shot locations: The most important shot locations that hosted the most anomalies were found at A6, A8, B13, B14, B17 and D3.

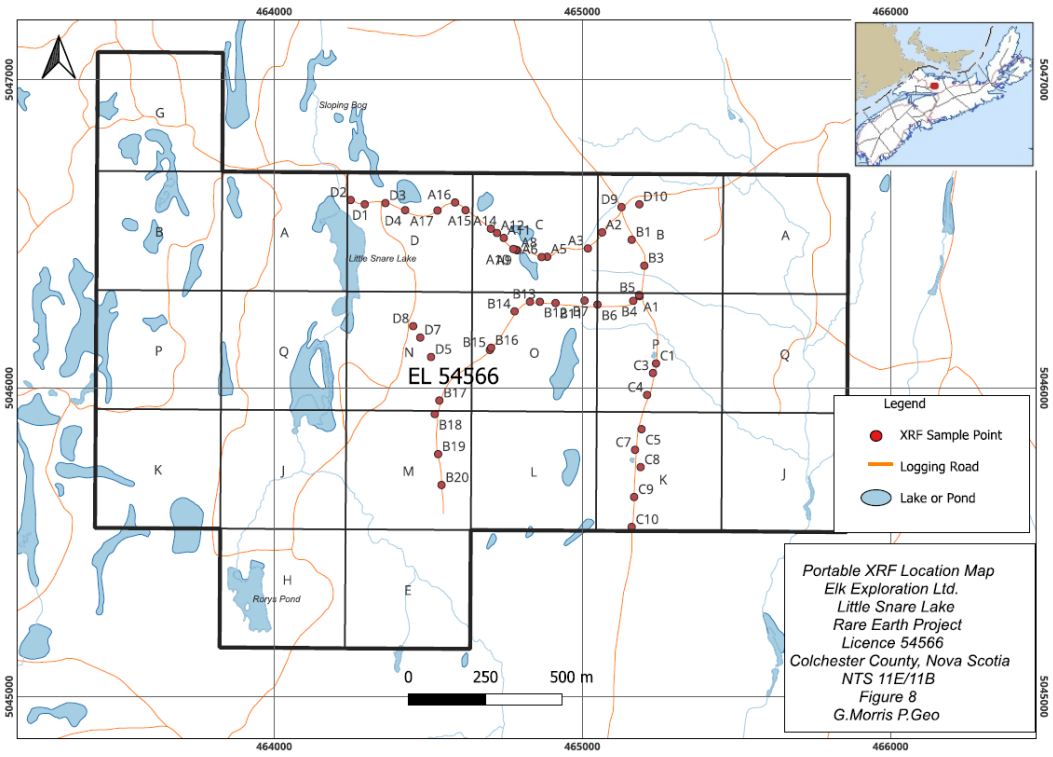


Fig 9: K/Rb Ratio plot: The K/Rb ratio is useful to determine the degree of late stage alteration in the melt. The lower the ratio, the further evolved is the magma forming the basement.

Several numbers <75 are seen ESE of Little Snare Lake. This indicates advanced evolution of the melt in that area.

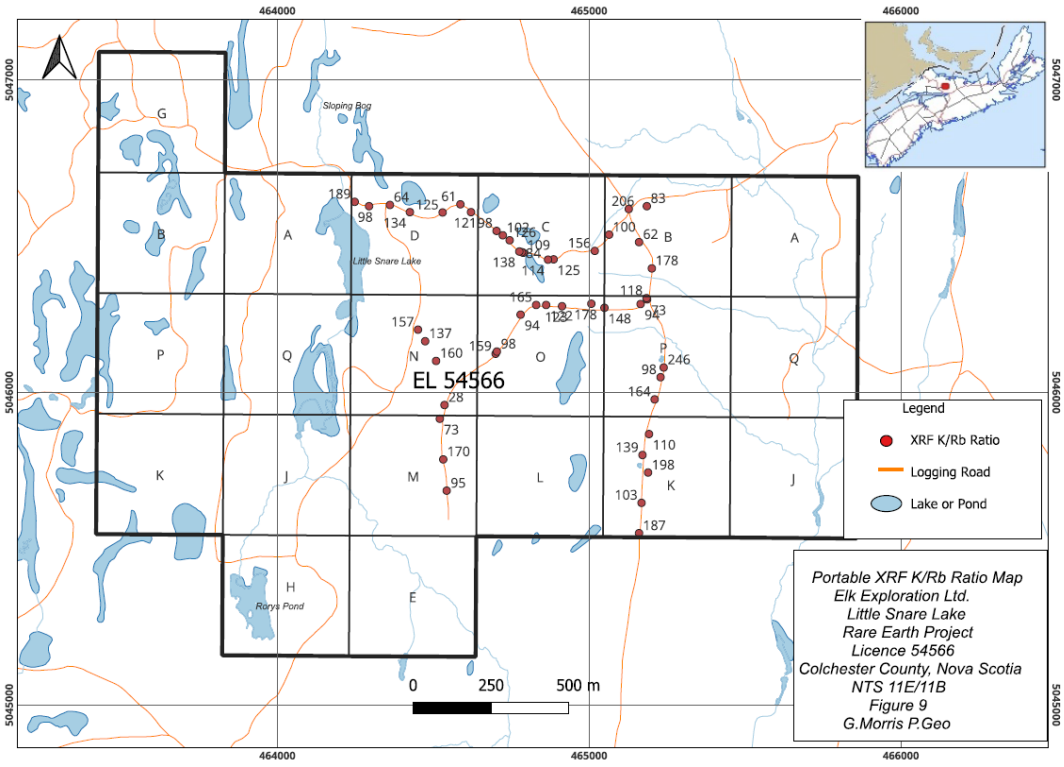


Fig 10: Calcium: MacHattie (2012), noted calcium, along with potassium to be an important element in the assessment of alteration at Debert Lake. Calcium numbers are highest ESE of Little Snare Lake.

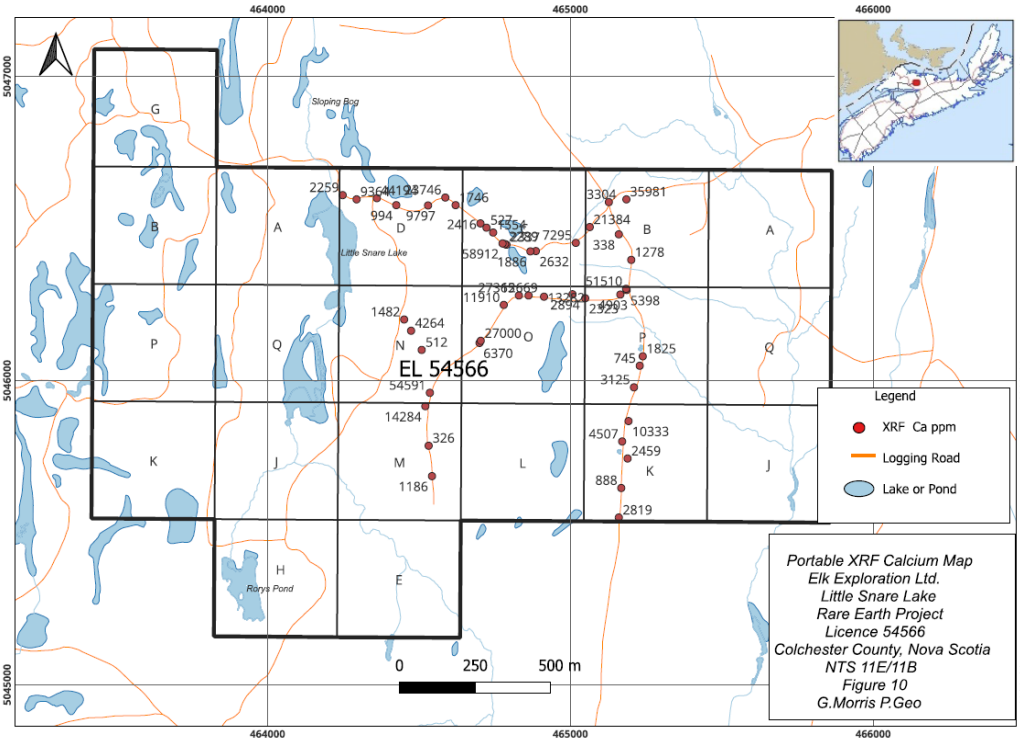


Fig 11: Yttrium: While not technically a rare earth element, Yttrium is considered to be a proxy for rare earths. A single high value of 679 ppm ENE of Little Snare Lake is worthy of follow up.

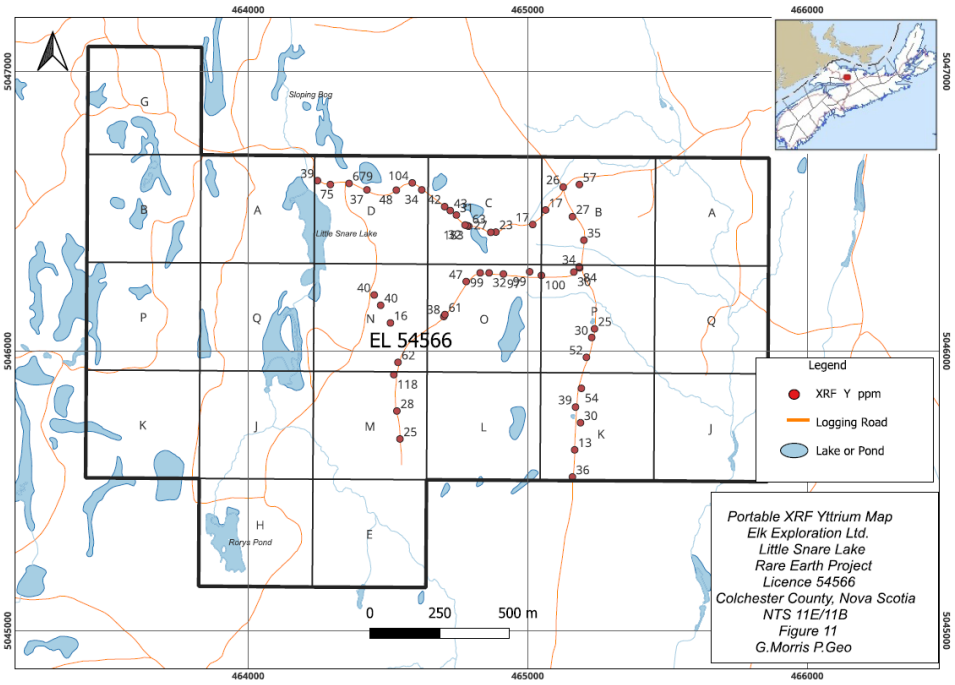


Fig 12: Zirconium: Zirconium is an indicator element for rare earth elements. The highest number of 3417 coincides with high numbers for other elements at shot number D3 and will be followed up.

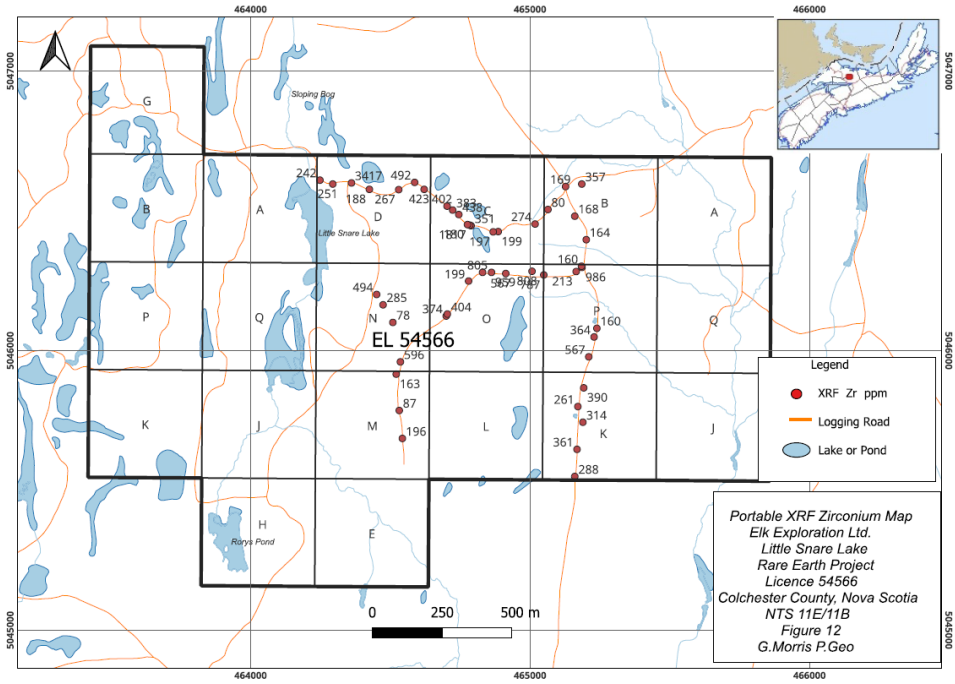


Fig 13: Niobium: Niobium and tantalum are important, sought after, critical minerals that fit within the same ionic radius within the cations for those elements. The most important shot locations that hosted the most anomalies were found at A6, A8, B14 and D3.

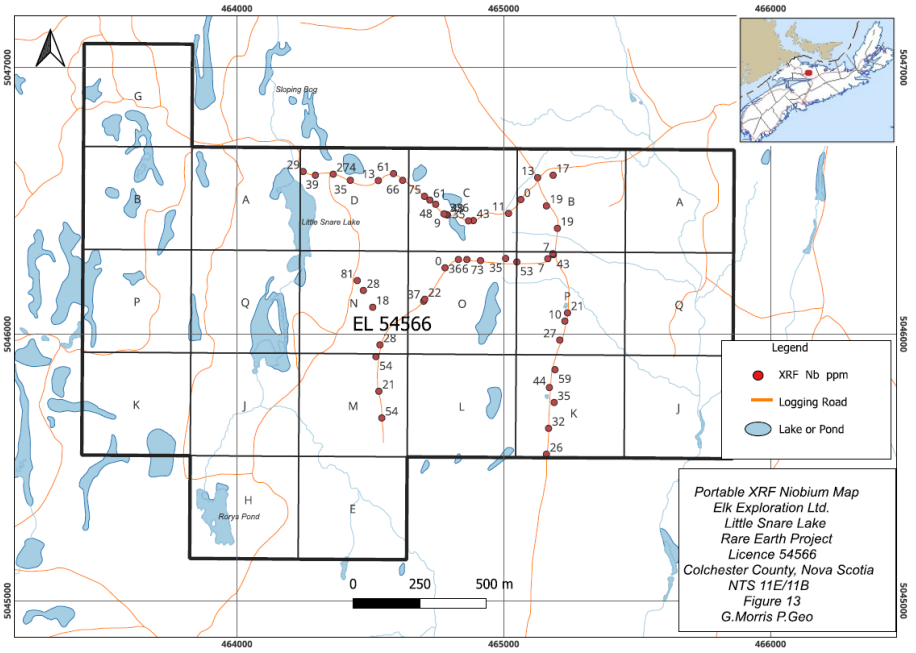


Fig 14: Lanthanum: The lanthanides represent the, “light”, rare earth elements. These elements are sought after critical minerals. The hot spots coincide with those of other elements at D3, B14, B17 and C10.

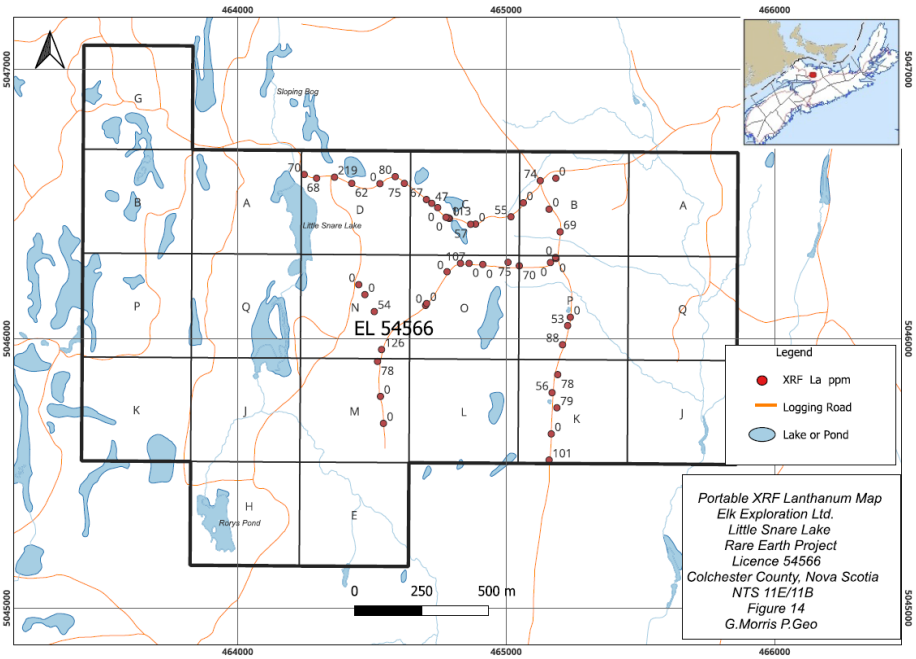


Fig 15: Cerium: An important critical mineral and indicator element of rare earths, anomalies coincide with other high numbers around B17, B14, B13 and D3.

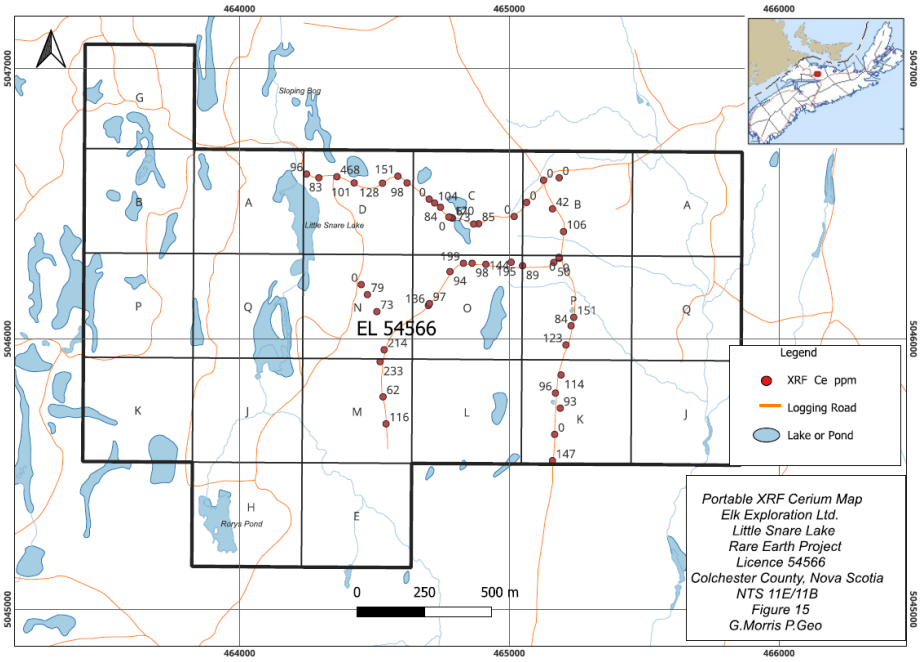


Fig 16: Tin: Shot number D3 is anomalous as well as A2, A6, A7 and A8 which coincides with epidote alteration east of Little Snare Lake.

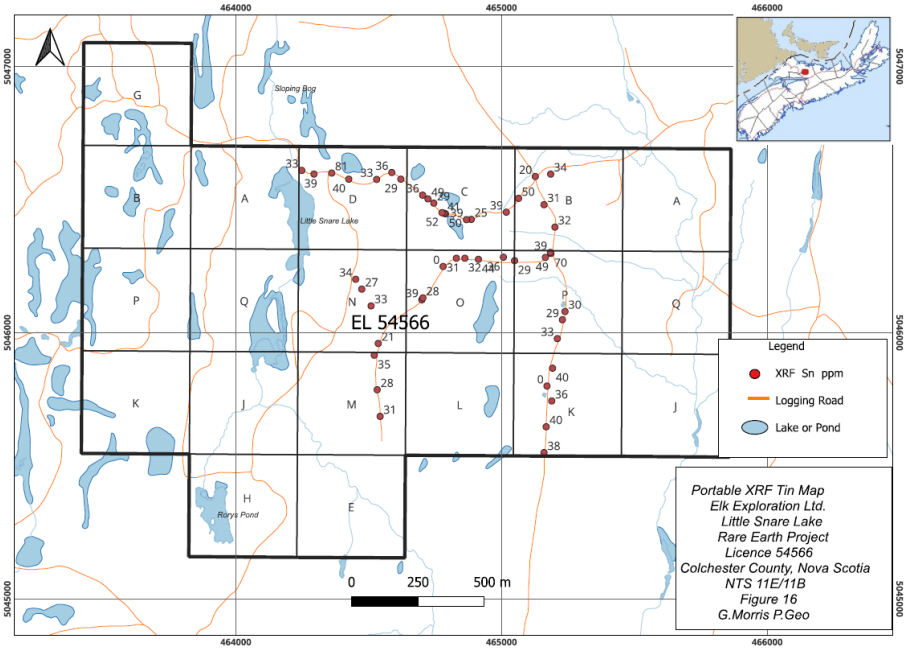


Fig 17: Tungsten: Tungsten is sympathetic to tin. These critical mineral elements are anomalous in the same locations.

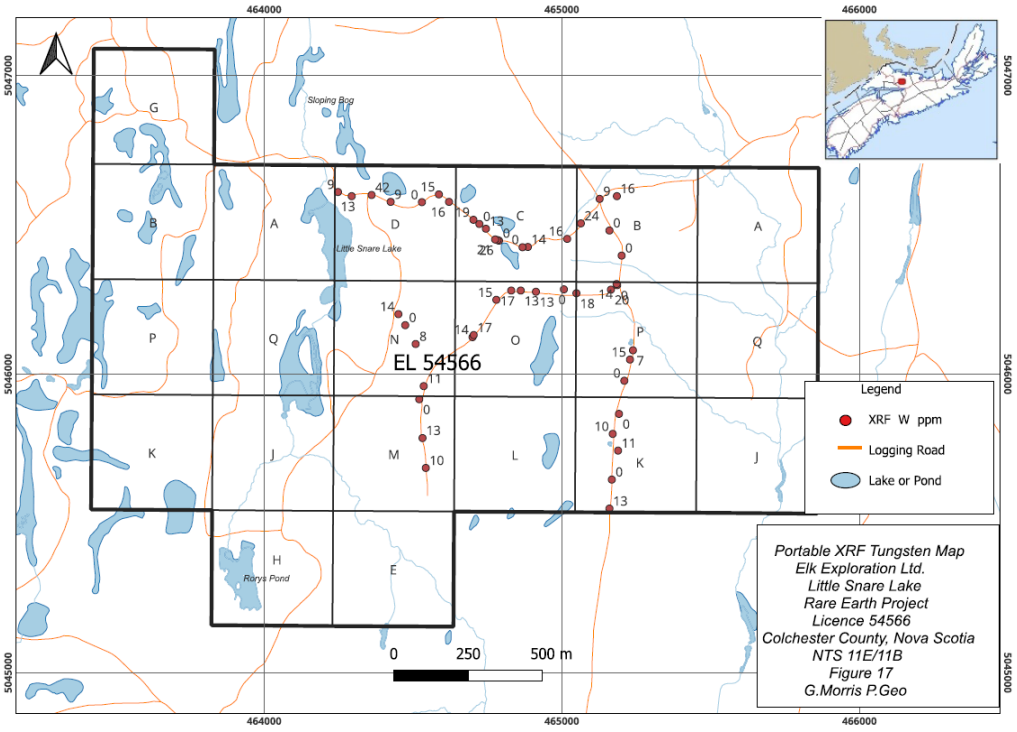


Fig 18: Thorium: This element is one of the most important in the dataset as it was found to be coincident with REE occurrence at Debert Lake by MacHattie (2013). The same shot locations (D3, B12, B17, A2, A6, A7, A8) are anomalous.

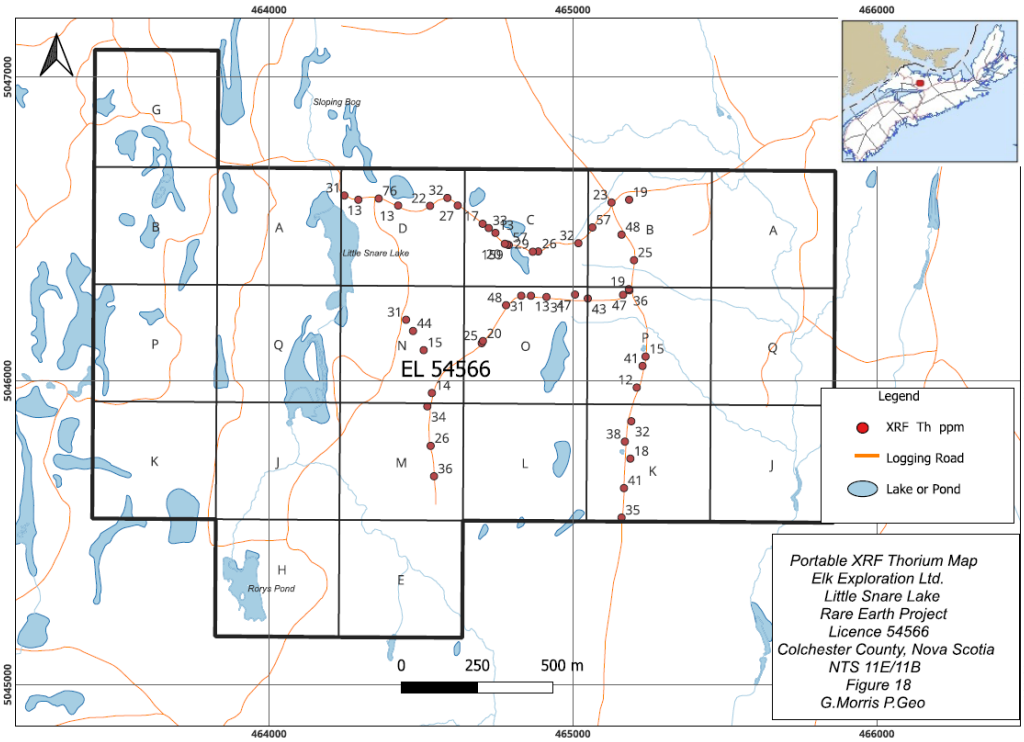
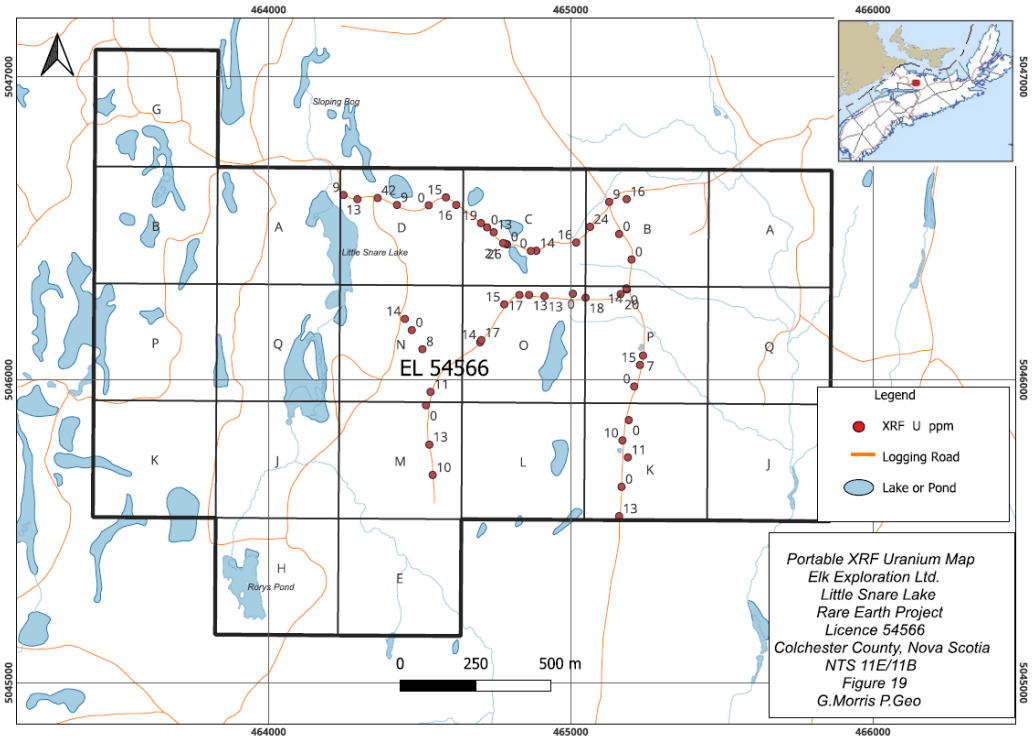
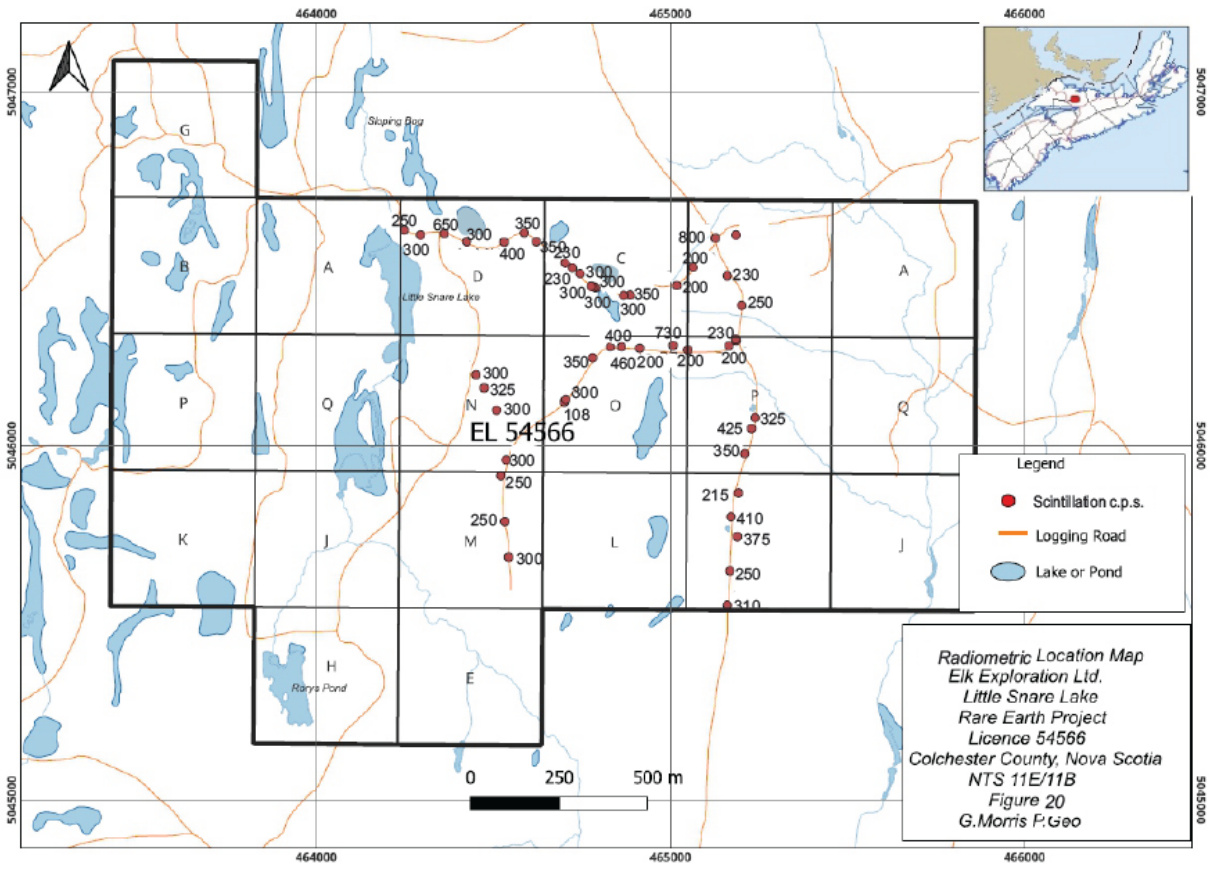


Fig 19: Uranium: D3, A2 and A6 are the most anomalous numbers.



8.3 Radiometrics:

Fig 20 Radiometrics: Radiometrics exhibit localized hotspots in close proximity to contacts of differentiation in the magma as it evolved such as dioritic dyke emplacement contacts and alteration mineralization such as epidote phase development. Local anomalies are seen at D3 and B7.



9.0 Conclusions and Recommendations

As REE interest increases at a global scale, we aspire to showcase the property to a global audience at PDAC in March 2024. Interested parties could begin mineral exploration early as Spring 2024 with our comprehensive mapping of the area and analysis of REE proxies and radiometrics.

Increased prospecting, radiometrics and XRF work is required in the area ENE – ESE of Little Snare Lake in the vicinity of shots D3, close to the stream that crosses the corduroy road running E-W from Little Snare Lake to A2, A6, A7and A8. The road running E-W that includes shots B13, B14 and B17 requires further work as well. These sites may require further trenching and gridwork. Airborne radiomentrics at a close spacing is recommended if possible.

10. Statement of Qualifications

Daniel Thomas Allen
Elk Exploration Ltd
11 River Rd, Terence Bay, NS B3T 1X2

NovaRoc ID 566023 / ElkX

Registered Prospector with 6 years prospecting experience.

Bachelor of Commerce from Saint Mary's University.

Technical analyst in Computer Science.

Red Cross Emergency First Aid/CPR.

11. Acknowledgements

Lindsay and Dan Allen were assisted in the field on various dates by other workers. These included prospectors Alex DeBaie and Ken Mallett. Private industry geologist Alex MacKay conducted much of the fieldwork and oversight. Two student geologists, Ken Wentzell and Bill Murray provided field assistance. Field technical guidance was provided by N.S.G.S. geologists Geoff Baldwin and Ron Mills, who also provided assistance in preparing the report. Greg Morris provided the location and elemental plot maps. Some GIS files were provided by Jeff Poole of the N.S.G.S.

Much of the work done on this prospect has been assisted financially by the Nova Scotian government through the N.S.G.S. MRDF (Mineral Resource Development Fund).

12. References

2019: Allen, L.J.. Debert River Project, Debert Lake, Colchester County, Nova Scotia, 11E/11B : Assessment Report, Exploration License No. 50621, Elk Exploration Limited, Assessment Report ME 1035667, 2019, 61 page(s), 3 map(s). ISN: 24425

2013: Cox, R.A. Textural Analysis, Mineral Chemistry and Rare-Earth Element Distribution in Mineralized Granitic Veins from the Eastern Cobequid Highlands, Nova Scotia, Magnum Resources Incorporated, Open File Report ME 2013-004, 2013, 95 page(s), 0 map(s). ISN: 23725

1982: Donohoe, H.V. Geological Map of the Cobequid Highlands (Map 4 of 4). Nova Scotia Geological Survey Open File Map 82-9 (4).

2012: MacHattie, T.G.: Nature and Setting of Late Devonian-Early Carboniferous Rare Earth Element Mineralization in the Eastern Cobequid Highlands, Nova Scotia. Nova Scotia Geological Survey Report ME 2011-001, 2012, page(s) 75-92, 4 map(s). ISN: 22988

2017: MacKay, A. Channel Sampling and Drilling for Rare Earth Elements, Debert Lake Area, Cobequid Highlands, Nova Scotia. Prepared for: Magnum Resources Inc.

13. Appendix:

A. Excel Dataset