



**Technical Report on the
Riley Brook Property
Northeastern New Brunswick**

Report for NI 43-101

**Prepared for:
Fancamp Exploration Ltd. and Goldera Exploration Ltd.**

Effective date: April 6, 2026

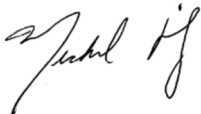
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DATE AND SIGNATURE PAGE

The effective date of this technical report, titled “Technical report – Riley Brook Property, Northeastern New Brunswick” prepared for Goldera Exploration Ltd. and Fancamp Exploration Ltd. is April 6, 2026.

This Technical Report is signed on the 6th day of April, 2026

[Signed and Sealed] Michel Boily



Michel Boily, PhD, P.Geo.



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1. SUMMARY

1.1. Terms of Reference

Fancamp Exploration Ltd. (“Fancamp”) and Lode Gold Resources partnered under a new Joint Venture in 2024, named Acadian Gold Corp., to explore for gold and copper in New Brunswick. The joint venture focuses its exploration efforts on the McIntyre Brook Property and the Riley Brook Property (“Riley Brook” or the “Property”).

In December 2025, Fancamp announced a spin out of its exploration projects, joint venture agreements, and options, into a new company, Goldera Exploration Ltd. (“Goldera”) (refer to Fancamp press release Dec. 1, 2025). The Acadian Gold Joint Venture will be transferred to Goldera as part of that spin-out.

Fancamp and Goldera have engaged the report author Michel Boily, PhD, P. Geo and considered a Qualified Person (“QP”) to complete a Technical Report (the “Report”) in accordance with National Instrument 43-101 (“NI 43-101”) for the Riley Brook Property.

1.2. Property Description and Ownership

The Riley Brook Property is located in northwestern New Brunswick, Canada and largely comprised within NTS sheet 21O3, with small areas to the south and west encroaching NTS sheets 21O2 and 21J14, in the Victoria County. The Property now consists of 7 contiguous claims (1522 units) covering an area of 33,449 ha or 334.5 km². Fancamp is the operator of the mineral exploration programs, and the McIntyre Brook Property is discussed in a separate technical report.

1.3. Geology and Mineralization

The western and central area of New Brunswick consists of NNE to SSW-oriented subparallel tectonostratigraphic belts defined based on their age, rock type, and tectonic history. The Riley Brook area is underlain by rocks of the Tobique Group, part of the Tobique–Chaleur Zone, which extends from the south shore of the Gaspé Peninsula in Québec for approximately 250 km southwest, to the middle Paleozoic Matapedia Cover sequence. The Tobique Group is divided into the Costigan Mountain and Wapske formations. The Wapske Formation incorporates the bulk of the lithologies and within the confines of the Riley Brook property consists of bimodal volcanic rocks interlayered with sediments, predominantly deposited in a subaqueous environment. These sedimentary rocks comprise sandstone, slaty siltstone, minor volcanoclastic sediments and quartz-pebble conglomerate.

The Siluro-Devonian volcanic rocks of northern New Brunswick display a wide range of SiO₂ contents varying from 45% to >76%, with rocks of intermediate composition (62 to 68% SiO₂) forming only a

minor part of the sequence. The mafic rocks are predominantly basalts and basic andesites and their composition resembles that of continental tholeiites. The REE (Rare Earth Element) patterns of basaltic rocks exhibit distinct Light REE (LREE) enrichment and a gradual depletion of heavy REE (HREE). Based on the relationship between High-Field-Strength elements (HFSE; ex: Zr, Ta, Nb HFSE), the basalts in all suites are within-plate or MORB type. Felsic rocks are mostly rhyolites with >68% SiO₂. The distribution of immobile incompatible elements such as Zr, Nb, and Y in the peralkaline rhyolites are comparable to that of modern peralkaline felsic volcanic suites. The REE patterns of the Wapske rhyolites display enriched LREE (Light Rare Earth Elements), negative Eu anomalies and flat but elevated HREE (Heavy Rare Earth Elements) According to the distribution of Y, Nb, and Rb, the rhyolites and of the Wapske Formation were emplaced in a within-plate environment.

Historical mineralization on the Riley Brook property occurred as disseminated, veins and veinlets rich in chalcopyrite (Cu), sphalerite (Zn), galena (Pb) ± Au spatially associated with altered (silicified, sericitized and epidotized) felsic rocks. The mineralization is most likely classified as a low to intermediate epithermal type based on its sulphide mineral assemblage and alteration. The most important mineralized sites are the Riley Lake and Riley Brook showings. In Riley Brook, base metal sulphides (chalcopyrite, sphalerite, galena and pyrite) occur in rhyolite and rhyolite tuff associated with basalt and siltstone, shale and calcareous slate. Samples collected on the Riley Brook Road carried anomalous values of Au (up to 38 ppb) and Pb (up to 770 ppm).

The Riley Lake showing exposes veins cutting felsic agglomerates and greywackes. One DDH intersected felsic volcanic rocks and greywacke containing disseminated and stringers of pyrite (1%) with specks of sphalerite, galena and chalcopyrite. One zone shows pyrite mineralization with minor sphalerite and galena in rhyolite blocks providing a best analytical result of 180 ppm Pb and 13100 ppm Zn. A grab sample represented a silicified, brecciated pyrite-rich dark grey rhyolite with minor galena and assayed 40 ppb Au and 2300 ppm As.

1.4. Exploration

In 2024, Fancamp implemented an initial prospecting program completed during the period of August 7 to 18, 2024; with a more comprehensive survey taking place from May 28 to June 4, 2025. 436 grab rock samples were collected from boulders and outcrops. Grab samples taken for their potential mineralization represent all major volcanic and intrusive lithologies occurring on the property, principally basalt, dacite-rhyolite and minor andesite with gabbroic, intermediate and felsic compositions stemming from plutonic rocks. Collection of grab samples was concentrated in three main areas: west and southwest of Bald Peak within basaltic flow, tuff, epiclastic and sedimentary rocks of the Wapske formation, east and north of Haystack formation mafic lithologies and rhyolite flow, hyaloclastic and epiclastic rocks of the Wapske formation and west of the Craig Mountain formation mafic units of the Wapske Formation. The

prospecting program led to the discovery south of Bald Peak Mountain of a gold bearing float yielding a gold concentration of 1.17g/t. The gabbroic sample (J023561) displays decimetric-thick vuggy and rusty quartz veins. Three other samples in the general vicinity of Bald Peak reveal returned gold values > 30ppb Au (0.34-0.12 g/t). Samples collected west of Bald Peak are also anomalous in Cu (412-530 ppm), Zn (455-591) and As (1200 ppm). East of Haystack Mountain, 2 rhyolites samples from the Wapske Formation yielded Cu concentrations of 463 and 1270 ppm, 2 other samples gave Zn values of 458 and 650 ppm, whereas one sample provided 378 ppm As. Finally, one volcanic float west of Craig Mountain returned 7850 ppm Cu.

Fancamp also completed a soil sampling program (B Horizon) to detect potential geochemical anomalies characteristic of an underlying mineralized bedrock. Three different grids were established across the property based on Fancamp's historical work compilation. In total, 1121 soil samples covering an area of 27km² were collected. Since chemical parameters strongly influence the metal adsorption soil capacity, the raw assay results were corrected according to a procedure developed by Réjean Girard from IOS Services Géoscientifiques. Results of the corrected soil sampling survey led to the recognition of two areas of interest; the first located in the southern part of the property south of Craig Mountain revealing a 2 km long x 1.5 km-wide zone defined by W, As, Au, and Sb anomalies. A second 300 m x 300 m zone near Haystack Mountain is characterized by Au, As, Bi, Sb, and Te anomalies. The two anomalous areas are in the vicinity of felsic plutons and near 2nd-order faults.

Xcalibur Multiphysics performed an heliborne HeliTEM² electromagnetic, magnetic and radiometric survey on the Riley Brook property. The survey helped accurately map the property geology and generate exploration targets. In the northern part of the property, 2.4 km southwest of Bald Peak, the FVD contour map displays a “C- shaped” high magnetic anomaly. The entire area appears anomalous in terms of historical and current base and precious metals concentrations, As-Cu-Sb concentrations in soil and a flat altered zone characterized by pyritization and argillitization. The C-shaped magnetic anomaly possibly indicates an alteration halo around an intrusion at depth. Prospecting undertaken by VenCan Gold Corp. in 2001 confirmed the presence of highly mineralized Pb-Zn samples in a silicified breccia zone. A mineralized zone yielding 12.5 % Pb-Zn along a rhyolite/sediment contact was found accompanied by another zone (5.8% Pb-Zn) 400 meters to the northwest. The observed property EM anomalies are mostly of low amplitude (i.e. < 5 Siemens) and indicative of weak, to very weak conductors. A broad area is highlighted to the southwest of the Riley Brook property which is characterized by a high density of EM anomalies. A direct relationship between the MAG/RADIO and EM anomalies is probable for some of the conductors. Overall, 25 conductor axes derived from 234 conductors were identified. These conductive areas are associated with low magnetic signature and elevated radiometric signature, possibly linked to intrusive-related mineralization.

Historical diamond drilling and prospecting west of Bald Peak confirmed the presence of highly mineralized Pb-Zn samples in a silicified breccia zone. There, a mineralized zone yielding 12.5 % Pb-Zn along a rhyolite/sediment contact was found accompanied by another area with 5.8% Pb-Zn, 400 meters northwest. Drilling showed stockworks of Qtz-Cb with 5% pyrite.

1.5. Conclusions and Recommendations

The Riley Brook Property holds a significant potential for discovering important Cu, Zn, Pb±Au mineralization of Reduced Intrusion-Related Gold Systems (RIRGS) or epithermal types. Historically, the paucity of outcrops necessitated the implementation of secondary environment techniques (soil, till, streams or bottom lake sampling) as well as geophysical surveys (e.g. IP, MAG, VLF surveys) to find base metal and gold targets. Notwithstanding this problem, the report author encourages pursuing the exploration of the property aiming to unearth and sample mineralized outcrops.

The report author also recommends a 20-day exploration campaign involving overburden stripping and trenching with the use of an excavator considering the thick overburden characterizing the entire property. Soil surveys may be contemplated in zones of thick overburden or characterized by anomalous soil or grab rock concentrations in precious or base metals such as south and northeast of Bald Peak. Furthermore, the previous grid established in the southwestern corner of the property warrants an expansion owing to the significant Au, As, Sb and W anomalies previously detected. A total budget of \$352,050 is suggested for this phase of exploration. Contingent to a positive outcome of the first exploration phase, the author suggests carrying out a drilling campaign at a cost of \$567,300.

2. INTRODUCTION

This Report on the Riley Brook Property located in the northeastern New Brunswick, Canada, has been prepared by Michel Boily, PhD, P.Geo. for Fancamp and Goldera (“Report Author” or “Author”) and considered a Qualified Person (QP) under NI 43-101. **This Report is required as a result of a Listing Application with the TSXV that involves the spinout of Fancamp Exploration Ltd. (“Fancamp”) assets into Goldera Exploration Inc.** The Report has been completed in compliance with NI 43-101 and Form 43-101-F1. The Report summarizes the geological, structural and mineralogical characteristics of the Property and describes recent exploration work completed by Fancamp in 2024 and 2025.

Goldera was established by a plan of arrangement under the Business Corporation Act of British Columbia complying with the TSXV policies (see Fancamp press release of Dec. 1, 2025). The plan of arrangement must be approved by the Supreme Court of British Columbia, and by 66.67% of Fancamp Exploration Inc. shareholders. Goldera Exploration Inc. constitutes a spin-out entity including all exploration assets (except for titanium), option agreements and exploration joint ventures of Fancamp Exploration Inc. Goldera Exploration portfolio comprises the Riley Brook and McIntyre Brook properties currently owned by Acadian Gold Joint Venture. The latter forms a 50%/50% partnership between Lode Gold Resources/Gold Orogen (a subsidiary of Lode Gold Resources) and Fancamp Exploration Inc. (see Fancamp press release Oct. 9, 2024), in which Fancamp is the operator.

The Joint Venture Agreement, for which Fancamp and Gold Orogen each own 50% of the outstanding shares, required the transfer by Lode Gold of all its interests in the McIntyre Brook Property and Fancamp transfer of all its interests in the Riley Brook Property. Lode Gold will also transfer to Gold Orogen its Golden Culvert and Win properties, situated in the Tombstone geologic belt of southeastern Yukon.

Fancamp invested \$2,500,000 in Gold Orogen in exchange for several common shares equal to 19.9% of those of Gold Orogen. A portion of Fancamp Investment was completed through a flow through offering by Gold Orogen designed to obtain proceeds of approximately \$3,000,000. Golden Orogen would raise \$1,500,000 by way of equity private placement in addition to the Fancamp Investment. Furthermore, on August 26, 2024, Lode Gold Resources Inc. announced a definitive agreement with Fancamp Exploration Ltd. for a \$3.5 million investment into the Company and the Company’s wholly owned subsidiary, Gold Orogen.

The Report is based on in-house reports, maps and documents (assessment reports and geological publications) obtained by the report author and from Fancamp. Several documents were also extracted from the New Brunswick Natural Resources and Energy Development website. Most of these reports were prepared after the implementation of NI 43-101 standards and follow the accepted rules and procedures. The author believes the information provided in these reports is verifiable in the field and

portrays a reasonable representation of the mineralization. The author also reviewed the claim tenures forming the Riley Brook Property. All claims are in good standing. The author does not accept any responsibility for errors pertaining to this information. The author visited the property on August 16, 2024.

Units adopted in this report adhere to the metric system. Precious metal concentrations are given in grams of metal per metric ton (g/t), in parts per million metal (ppm) or in weight percent (wt. %). Tonnage figures are given in dry metric tons unless otherwise stated. Currency units used are the Canadian Dollar (\$CAD). The weight and the measurements which are implemented during this study are in conformity with the nomenclature of the International System (IS).

3. RELIANCE ON OTHER EXPERTS

The report author has relied upon Fancamp and Goldera management and the Government of New Brunswick online e-CLAIMS website for information regarding mineral claims location and status discussed in Section 4 of this Report. Mineral claims information is provided based on the best information available to NB e-CLAIMS. NB e-CLAIMS makes ongoing efforts to provide accurate and complete claims information. However, mineral claims information is subject to change without notice and NB e-CLAIMS should be reviewed on a regular basis.

The QP author has also relied upon Fancamp and Goldera management and legal counsel to provide the joint venture agreement pertaining to the acquisition of the Property claims to disclose their legal status as referenced in Section 4. The report author has not independently verified legal ownership of surface title and mining claims beyond information that is publicly available or been provided by the Company. The property description presented in this Report is not intended to represent a legal, or any other opinion as to title ownership.

4. PROPERTY DESCRIPTION AND LOCATION

The Riley Brook Property is located in northwestern New Brunswick and largely comprised within NTS sheet 21O/03, with small areas to the south and west encroaching NTS sheets 21O/02 and 21J/14, respectively (Figures 4.1, 4.2). Initially staked electronically by Fancamp in 2024, the Company added 24 km² of claims (tenure no. 11609) at the beginning of December 2025 to extend the property to the south. The Property now consists of 7 contiguous claims (1522 units) covering an area of 33,449 ha or 334.5 km² within the Victoria County (Figure 4.2 and Table 4.1).

The claim center is located approximately at UTM Coordinates 641,652mE and 5,220,627mN (NAD83; Zone 19N) or Lat. N47.123° and Long. W67.132°. The western and northern edges of the property are limited by Tobique River and Provincial Road 385 whereas the southern boundary is 8 km directly north of Provincial Road 108. The class II (Low impact) provincial Blue Mountain protected natural area (2347 ha) lies outside the claim area between the Tobique River and the western claims boundary (Figure 4.3). Plaster Rock (pop. 1,002) is the nearest village situated 15 km from the property to the WSW. Grand Falls (pop. 5,220) and Edmundston (pop. 16,437) are the nearest significant center of population located 48 and 95 km respectively as crows fly.

The Riley Brook property was staked by Fancamp Exploration through the NB e-CLAIMS website of the New Brunswick Natural Resources and Energy Development. UTM coordinates and grid contours on the geological maps are extracted from the information given on the NB e-CLAIMS website.

Pursuant to the New Brunswick Mining Act, Fancamp Exploration is required as a mineral claim holder to provide all landowners with notification of the registration of a mineral claim. There are currently 27 landowners who received notification and gave their written permission to carry exploration work. Acadian Timber Corp., who owns the land to harvest timber on nearly 88% of the property was also duly informed. There is a confidential agreement between Fancamp Exploration and Acadian Timber Corp. giving the right to the Company to perform all necessary work related to exploration activities. As such the Company is not required to obtain work authorisation from the New Brunswick ministry of Energy and Mines. Crownland occupies nearly 12% of the property area (36.7 km²) and occurs on the western edge of the staked terrain. There are no aboriginal rights on the property. The description of claims now owned by Acadian Gold is given in Table 4.1.

In New Brunswick, open mineral claims are acquired by map staking through the NB e-CLAIMS website. Exploration licenses require annual renewal and require work to be conducted on the claims, and reporting of results and expenditures. The minimum work requirement ("assessment work") is between \$100 and \$250 per year during the first 4 years of the license, increasing to \$300 per year for

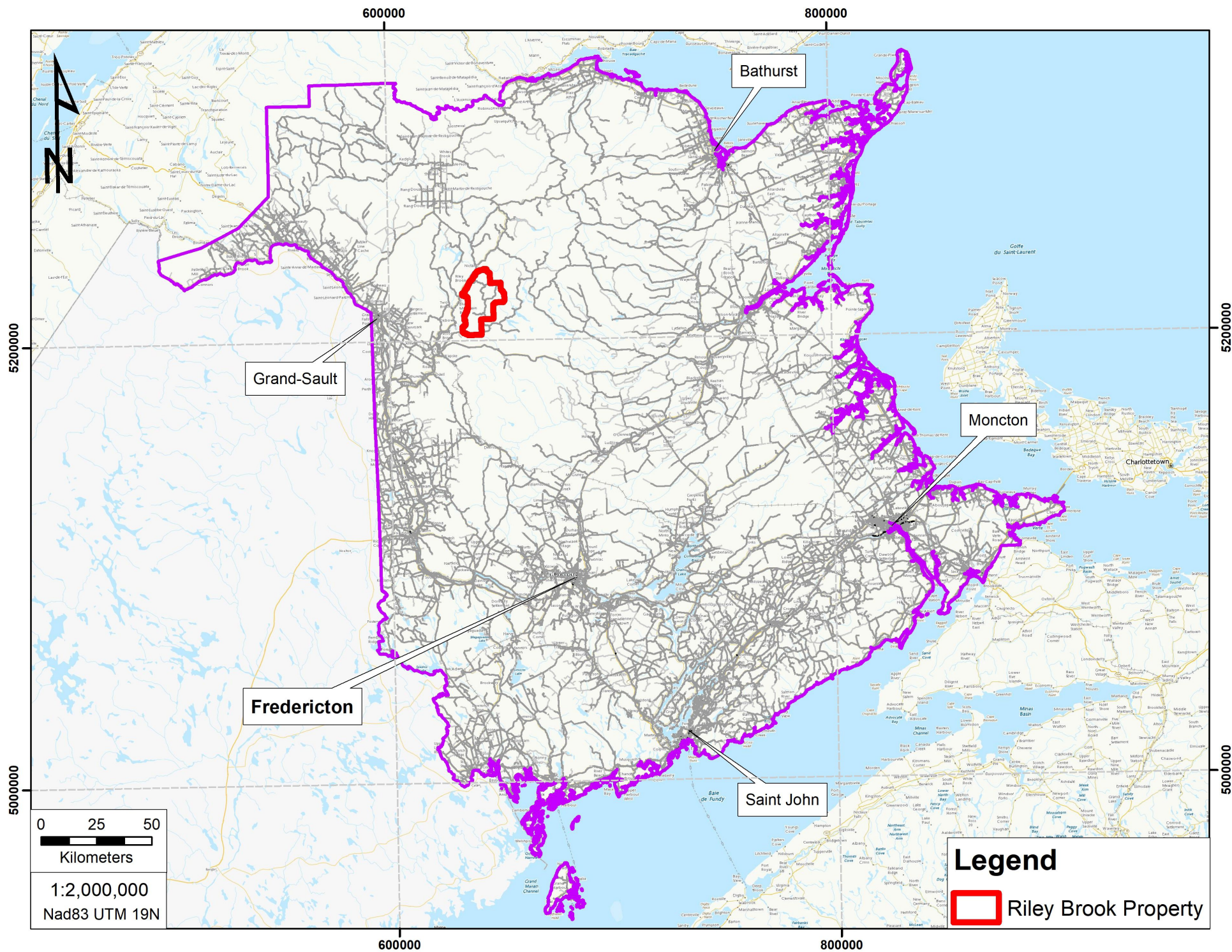


Figure 4.1- Localization of the Riley Brook property within the New Brunswick province of Canada.

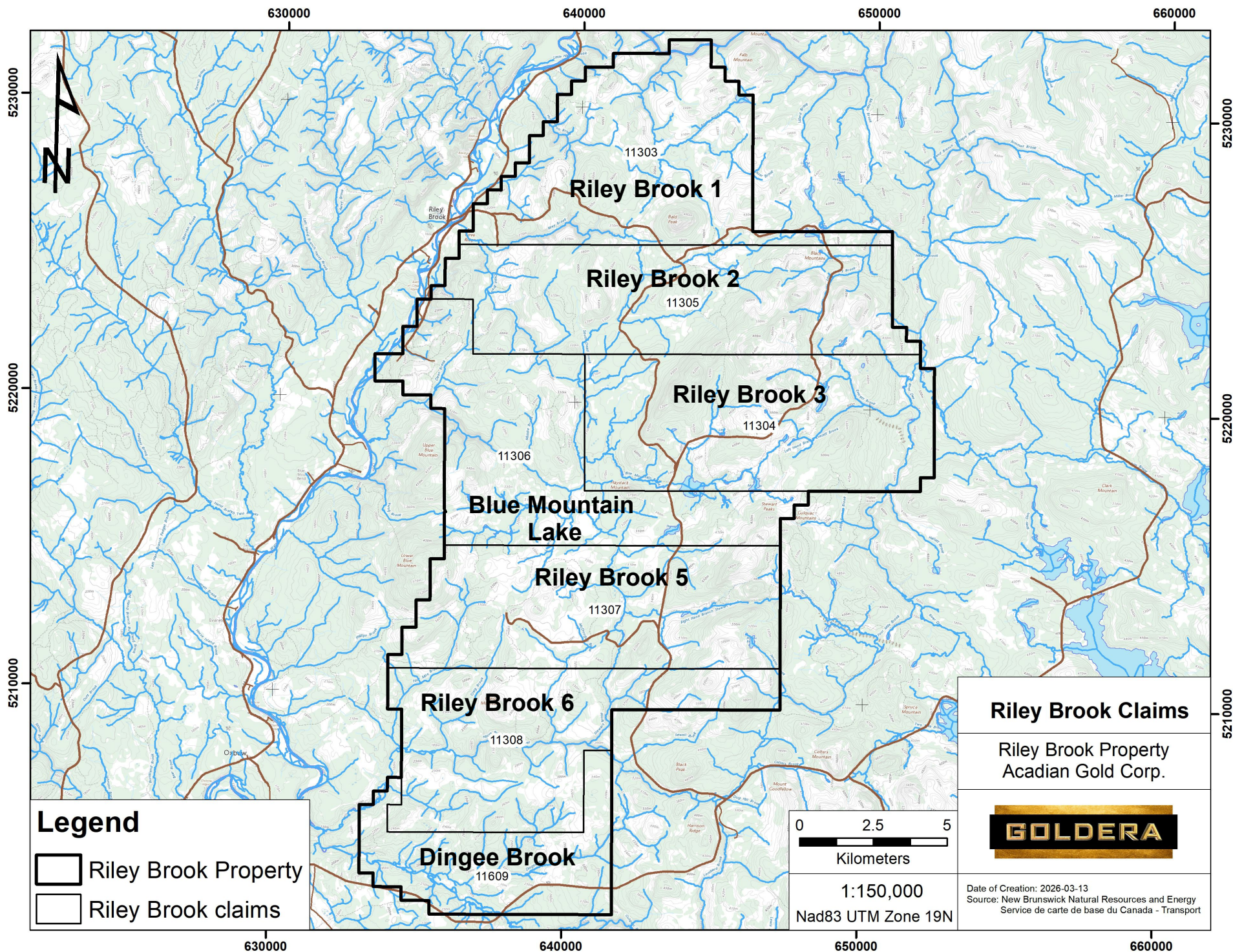


Figure 4.2. Claim map of the Riley Brook property under Joint Venture with GoldEra and Acadian Gold as of April 2026. The localization of the historical showings are reported on the map.

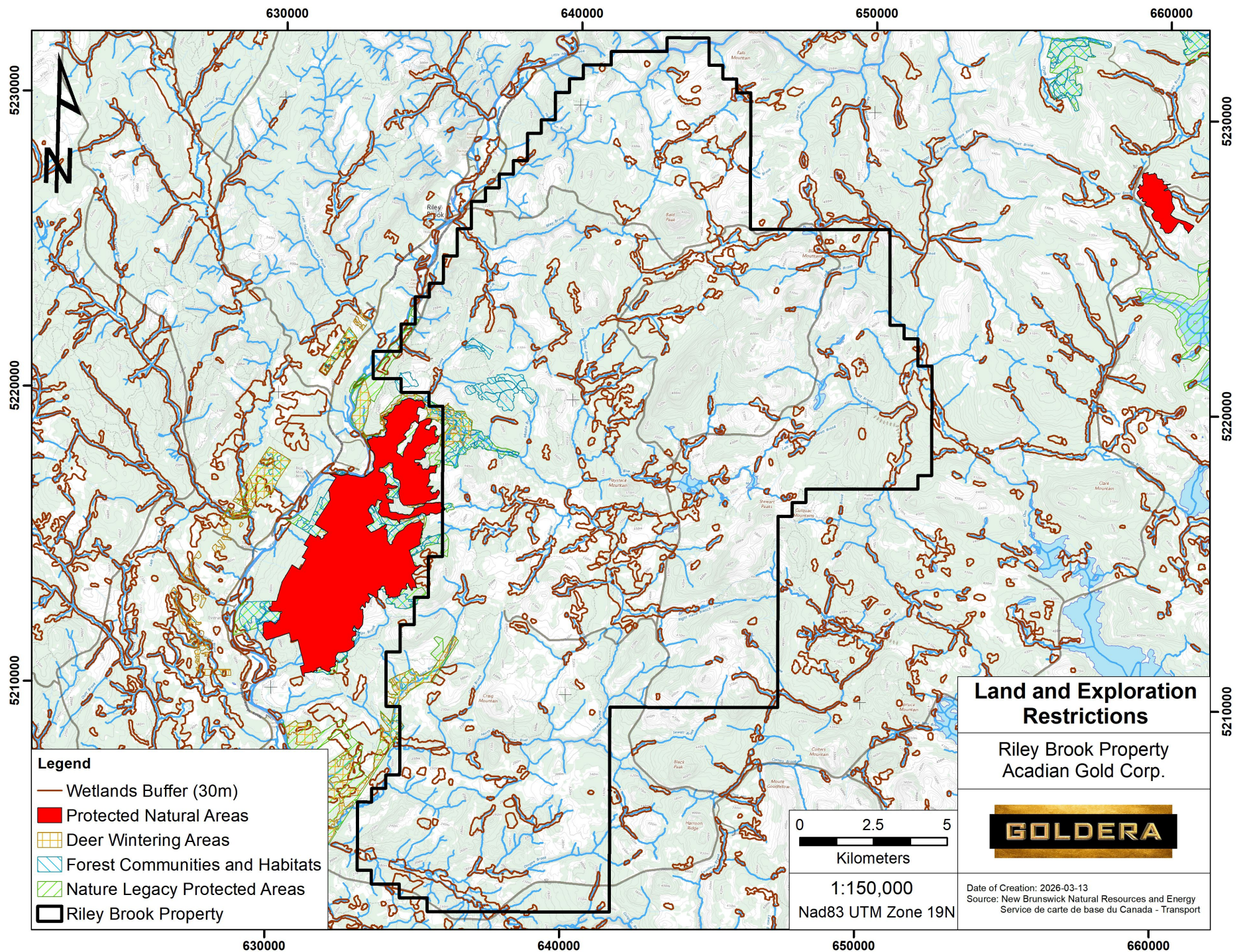


Figure 4.3 - Land and exploration restrictions within and in the vicinity of the Riley Brook property, New Brunswick

years 5 to 10 to a maximum of \$800 per claim after year 26 and beyond. Claims optioned to the Acadian Gold Joint Venture are required to be maintained in good standing by the operator, with costs divided between the Joint Venture partners based on their proportional ownership in the Joint Venture.

According to the New Brunswick government records, no part of the land covered by the property is a park or mineral reserve.

4.1. Royalties, Agreements, and Environmental Liabilities

Fancamp retains a 2% NSR on the Property. Mining exploration is currently permitted on the entire surface. There are no other significant factors and risks that may adversely affect access, title, or the right or ability to perform work on the property. The author is not aware of environmental liabilities, public hazards or other significant factors and risks that may affect access, title or Fancamp and Goldera's right or ability to perform the exploration work required to advance the property.

There are no Indigenous rights on the property so far as the author is aware.

The report author is not aware of any other royalties, back in rights, payments, or other encumbrances.

<u>Right Number</u>	<u>Mineral Claim Name</u>	<u>Right Holder</u>	<u>Right Holder Name</u>	<u>NTS Sheet</u>	<u>Original Effective Date</u>	<u>Expiry Date</u>	<u>Status</u>
11303	Riley Brook 1	17182 100%	ACADIAN GOLD CORP.	21 O/03	2024-03-28	2027-03-28	Active
11304	Big Everett Lake	17182 100%	ACADIAN GOLD CORP.	21 O/03 21 O/02	2024-03-28	2027-03-28	Active
11305	Riley Brook 2	17182 100%	ACADIAN GOLD CORP.	21 O/03	2024-03-28	2027-03-28	Active
11306	Blue Mountain Lake	17182 100%	ACADIAN GOLD CORP.	21 O/03	2024-03-28	2027-03-28	Active
11307	Stewart Brook	17182 100%	ACADIAN GOLD CORP.	21 O/03	2024-03-28	2027-03-28	Active
11308	Craig Mountain	17182 100%	ACADIAN GOLD CORP.	21 O/03 21 J/14	2024-03-28	2027-03-28	Active
11609	Dingee Brook	17182 100%	ACADIAN GOLD CORP.	21 O/03 21 J/14	2024-12-04	2026-12-04	Active

Table 4.1. List of Riley Brook property active claims held by Acadian Gold Corp.

5. ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

5.1. Accessibility

Access to the Riley Brook property from Edmundston, NB is primarily via the Trans Canadian Highway (NB-E) traveling southeast for 66 km to the town of Grand Falls where we connect with provincial road 108 which leads to the village of Plaster Rock, 36 km to the southeast. 2.4 km north of Plaster Rock we arrive at the intersection of roads 108 and 385. One must travel northward for 40 km on provincial road 385 until reaching the bridge crossing the Tobique River at Riley Brook. After the river crossing, a gravel road leads directly east to the center of the property (Figure 5.1). There are numerous forestry roads in good condition leading to all corners of the property including the sites of historical showings.

5.2. Climate

The climate of New Brunswick is continental, with freezing, snowy winters and pleasantly warm summers. Although New Brunswick is a maritime province, facing the sea on two sides (the Gulf of Saint Lawrence to the east and the Bay of Fundy to the south), winter is very cold because air masses generally come from the interior. Moreover, a cold current flows in the sea. Edmundston, a city located 95 km west of the Riley Brook property, experiences relatively short but temperate summers (Late May to Late September) with average maxima and minima of 25.0°C and 11°C (July). Winter is cold and starts in November and lasts until May, with extensive snow precipitations (258 cm) during this period. Average temperatures reach -19.1°C (min) and -6.9°C (max) in January. The optimum length of the operating season ranges from Early May to Early November, when mining companies usually conduct their field work such as geological mapping, drilling, overburden stripping/trenching, soil survey and rock sampling. However, airborne/ground-based geophysical surveys and drilling can be carried out year long, except for radiometric surveys.

5.3. Flora and Fauna

About 5 per cent of the province of New Brunswick is farmland. Most of the remainder of the province is under forest cover. Today less than one per cent of old growth Acadian forest remains and most of the province is forested with secondary or tertiary forest. Spruce and fir are the leading softwoods, followed in importance by cedar and white pine. Jack pine, red pine, hemlock and larch are also present. Important hardwoods include red and sugar maples, poplar, white and yellow birch, and beech. Other hardwoods include ash, elm, hop, hornbeam and red oak.

Forest ecosystems support large carnivores such as the bobcat, Canada lynx, and black bear, and large herbivores symbolized by the moose and white-tailed deer. Other mammals include raccoon, red fox, otter, coyote, muskrat, mink, beaver, snowshoe hare, porcupine, chipmunk and squirrel.

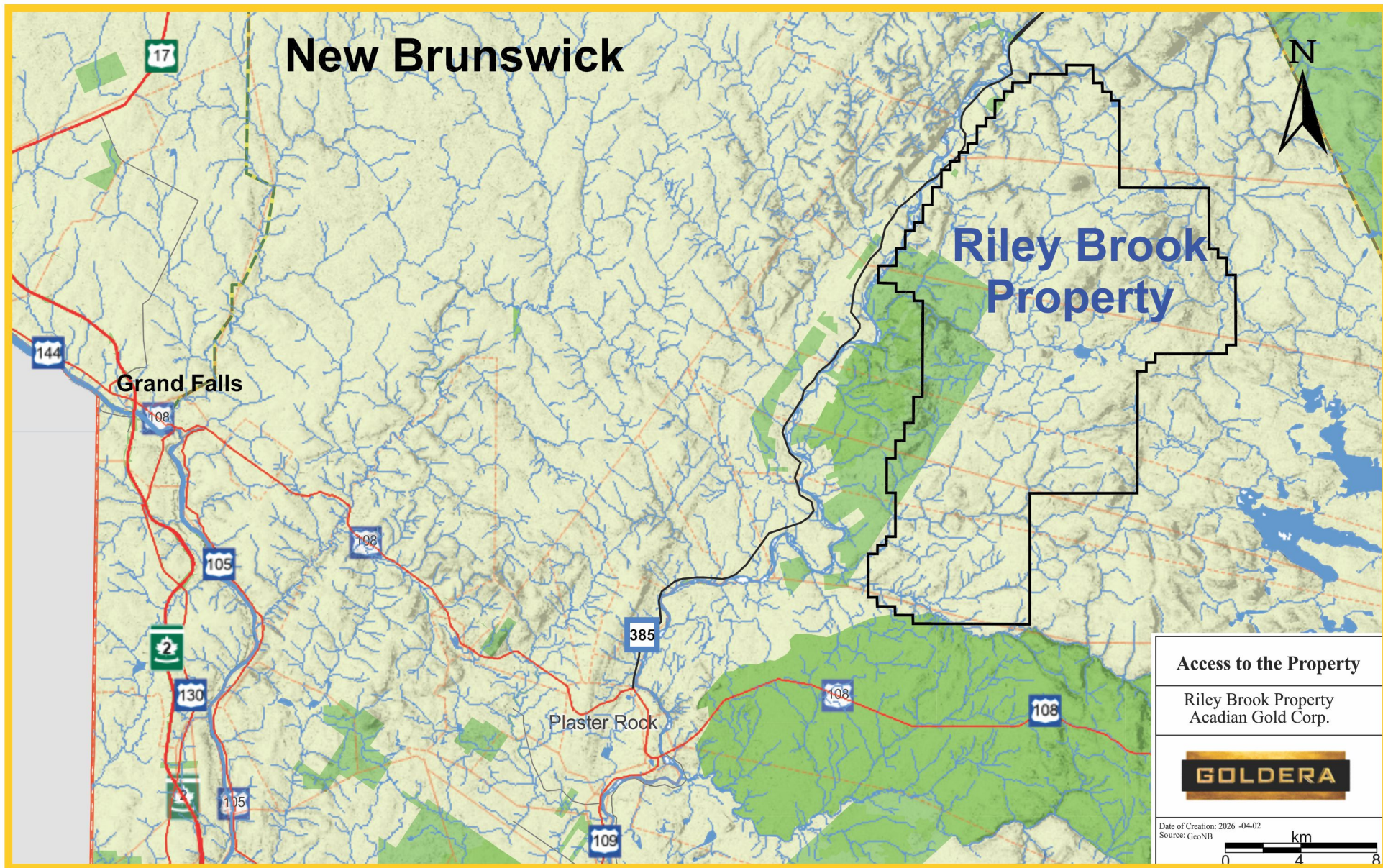


Figure 5.1- Access to the Riley Brook property from Grand falls, New Brunswick

5.4. Local Resources and Infrastructure

Major infrastructures related to the Riley Brook property reside in a network of logging roads which provide access to all parts of the property. Provincial road 385 abuts the property past the Tobique River crossing at Riley Brook village. The local electric grid along the road can provide electricity, however the nearest 3,000 kW transmission line is located 8 km to the northeast on the northern shore of the Sisson Branch Reservoir. The nearest “large” population centers are Grand Falls (pop. 5,220) and Edmundston (pop. 16,437) which can provide manpower and offer several services, including lodging, food, gas, health clinic, car, and truck rental. Edmundston is served by New Brunswick Route 2, a four-lane all weather divided highway and, on the other side of the Saint John River, by U.S. Route 1. There is a municipal airport 17 km north of Edmundston which serves general aviation traffic. Water for drilling can be obtained from numerous streams and lakes scattered throughout the property.

5.5. Physiography

New Brunswick lies within the Appalachian range of northeastern North America. The Riley Brook property belongs to the Chaleur Uplands physiographic divisions. The Uplands extend across central Maine to northern New Brunswick and include most of the drainage area of the Saint John and Restigouche rivers. It is a peneplain ranging in height from 250 m to 300 m cut by valleys and broken by ridges and peaks. Overall, relief throughout the Riley Brook property is moderate, ranging from 250 m to 622 m (A.S.L.) north of Sewell Brook. Topography consists of gentle hills and slopes with more prominent hills scattered throughout the area (which are probably comprised of rhyolitic plugs and/or domes).

New Brunswick rivers drain into the Gulf of St. Lawrence to the east or to the Bay of Fundy in the south. Locally the watershed is controlled by the Tobique River. Formed just outside the small community of Nictau, its two main tributaries are the Little Tobique River and the Campbell River. The Tobique River travels down south through the town of Plaster Rock, where it is joined by the Wapske River flowing west to the Saint John River.

There are no mineral resources or mineral reserves on the Riley Brook property. There are no existing mine workings, tailing ponds, waste deposits and important natural features and improvements relative to the outside property boundaries. However, the property contains mineralized zones manifested by stripped outcrops, small pits and/or trenches. There is sufficient unused land within the Riley Brook claim block for waste and tailing disposal and the construction of a mine and milling installations.

6. HISTORY

The following is summary of historical exploration and drilling programs on the Riley Brook Property, referenced from past assessment reports and other scientific and technical reports for the Property. Assessment report numbers are referenced in the text. . The localization of the domains (ex: Riley Brook) are shown in Figure 4.2, with the historic showings reported in Figure 7.1 and historic DDHs and trenches shown in Figure 6.1.

6.1. Riley Brook 1

1957 - Vi-Nor Exploration Co. Ltd.- Soil samples collected in an area characterized by an electromagnetic anomalous zone. Report 470823.

1989 - Novagold Resources Inc. 122 stream sediment samples and 48 rock samples collected near streams. Report 473710.

1989 - Novagold Resources Inc. Prospecting, geophysical surveys, and soil geochemical surveys covering 32 claims. No Au and Ag values associated with altered rocks. VLF-EM and Total Field Magnetometer geophysical surveys. Report 473770.

1989 - Rio Algom Exploration Inc. Geochemical analysis of stream sediments and prospecting west of Bald Peak. Report 473772.

1993 - Freewest Resources. Geophysical surveys, including magnetic surveys, VLF electromagnetic surveys, and induced polarization surveys west of Bald Peak. 600 soil samples (B horizon) and rock samples were analyzed for Cu, Pb, Zn, and Ag. 3 anomalous Pb-Zn-Ag zones coincided with geophysical anomalies. Report 473316.

1993 - Freewest Resources. Geological mapping and diamond drilling (422.8m) targeting "low mag" areas west of Bald Peak. Intersections of silica/sericite alteration zones, with no economically significant results.

2001 - VenCan Gold Corp. Diamond drilling (70.8m) and prospecting west of Bald Peak. Prospecting confirmed the presence of highly mineralized Pb-Zn samples in a silicified breccia zone. A mineralized zone yielding 12.5 % Pb-Zn along a rhyolite/sediment contact was found accompanied by another zone (5.8% Pb-Zn) 400 meters northwest. Drilling showed stockwork Qtz-Cb zones with 5% pyrite. Report 475404.

2024- Fancamp Exploration Inc., *Site 1*. Mafic boulders with sericite/epidote alteration were encountered

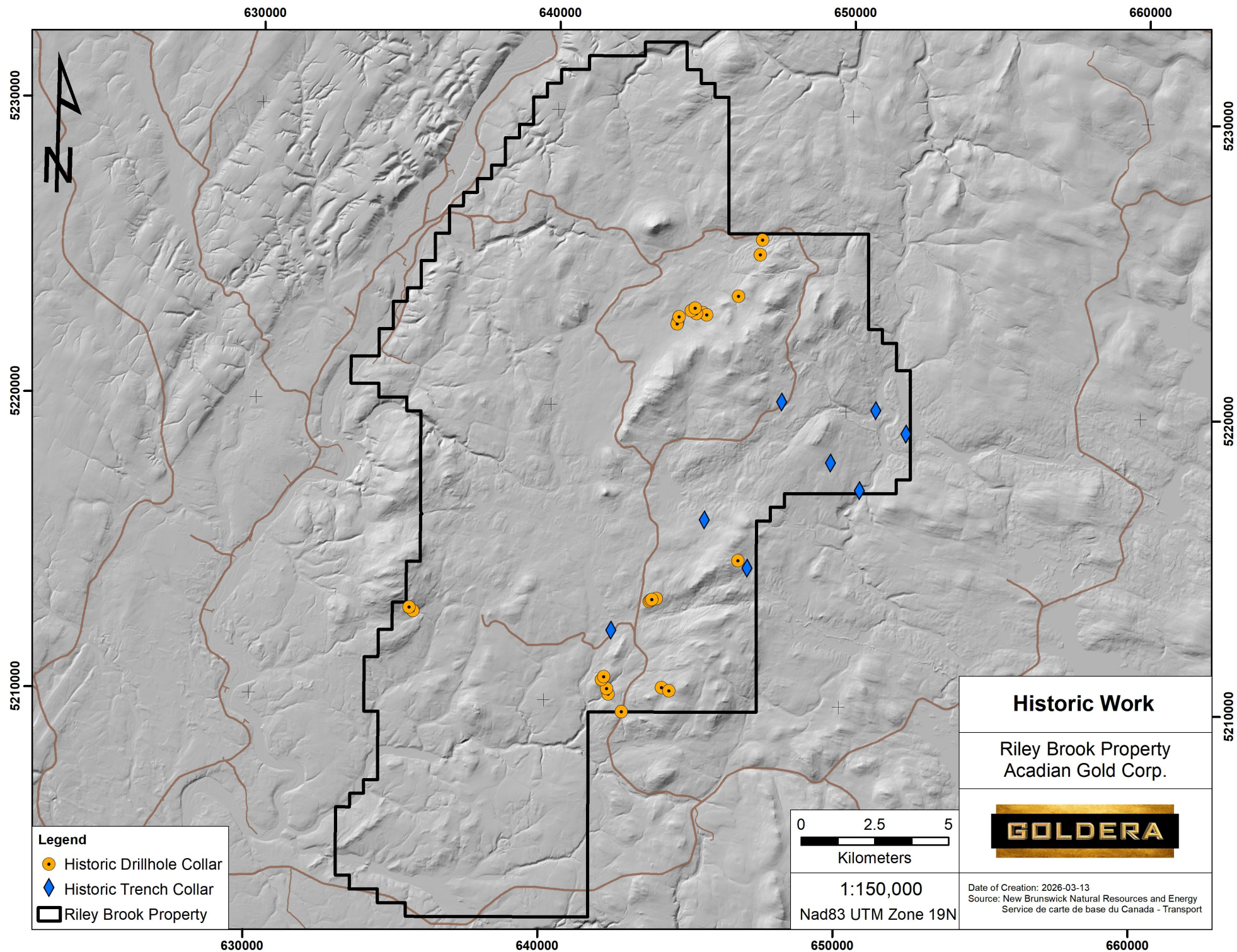


Figure 6.1- Historical drillhole collars and trench localization, Riley Brook property, New Brunswick.

and numerous unmineralized basaltic blocks examined. Mineralization in boulders is expressed by finely disseminated pyrite (1-3%) accompanied by arsenopyrite. Six grab rock samples analyzed. Two samples returned concentration of 1250 and 639 ppm As. *Site 2*. Near the Riley Brook showing, multiple massive metric basaltic silicified boulders mineralized in disseminated or vein pyrite form (1-3%) were observed and sampled. 4 grab samples were analyzed, with one rhyolitic boulder containing 3 % disseminating pyrite giving an Au value of 0.046 g/t, whereas a basaltic boulder with 1% disseminated pyrite provided a concentration of 0.114 g/t Au (Boily, 2024). Details are discussed further in Section 9 of this Report.

6.2. Riley Brook 2

1957 - McIntyre Porcupine Mines Ltd. Geological, stream sediment, and geophysical surveys. Low conductivity geophysical anomalies were identified. Discovering of the Mable Brook showing. Report 470819.

1979 - Mattagami Lake Mines Ltd. IP and resistivity geophysical survey over the Mable Brook area. No chargeability anomalies were detected. Report 472430.

1980 - Mattagami Lake Mines Ltd. Diamond drillings were conducted near the Riley Lake showing. Report 472537.

1980 - Canadian Occidental Petroleum Ltd. 20 claims staked in the Blacks Mountains. Report 472558.

1981 - Canadian Occidental Petroleum Ltd. Soil geochemistry and geological survey. Three anomalous zones were detected. Report 472702.

1981 - Mattagami Lake Mines Ltd. Diamond drilling (821m) in the Maple Brook area. No economically significant mineralized zones were intersected. Report 472733.

1988 - DV Venugopal Venus and Associates. Soil geochemical survey (B samples) showing anomalous zones in Au and Ag near Riley Lake. Magnetometer and VLF surveys. EM-16 and Fraser Filter survey on a 200 x 25m grid. Prospecting, grab rock sampling. E/NE fault/shear zone coinciding with a magnetic anomaly and a VLF conductor identified. Report 474132.

1990 - James G. Burns. Soil geochemical survey (B horizon). Arsenic anomaly at the contact of rock units. Report 473946.

1990 - James Burns. Road prospecting, rock sampling. 15 samples with anomalous Au values (10 to 100 ppb). Report 473947.

1991- James G. Burns. Mable Brook showing. Soil survey (B horizon samples) showing Cu, Pb, and Zn anomalies at shale/rhyolite contact. Report 474082.

1993 - Novagold Resource Inc. Riley Lake showing. 20 of Burns' samples submitted for X-ray analysis. Data and anomalies were confirmed. Report 474383.

1999 - Miramichi Minerals Ltd. Riley Lake area extending to Mable Brook and southward. Prospecting identified three mineralized zones within a large hydrothermal alteration area associated with the western flank of felsic volcanic sequence near a sedimentary contact. Stream sediment survey resulting in a large Pb-Zn anomaly associated with zones B and C. Soil anomalies found near zones B and C. An IP survey indicated chargeability anomalies corresponding to zones A and C mineralization.

Zone A (Riley Lake showing) contains sphalerite, galena, and chalcopyrite mineralization at the eastern end of Riley Lake. Best analytical result: 6180 ppm Pb and 13100 ppm Zn from rhyolitic blocks. Zone A extends westward through a series of mineralized blocks along a recently developed forest road. Pyrite with minor sphalerite and galena is found in rhyolite and amygdaloidal basalt blocks. Zone B (Black Mountain): Large zone of base metal mineralization and hydrothermal alteration at the core of the property. Prospecting revealed many altered and mineralized blocks. Samples from this zone contain up to 1493 ppm Cu, 7460 ppm Pb, and 2560 ppm Zn. Zone C (Mable Brook): Silicified and base metal mineralized zone occurring as debris in several trenches and test pits. Samples collected from the debris surrounding the trenches contain traces of pyrite, sphalerite, and galena, resulting in values up to 3040 ppm Pb and 1102 ppm Zn. Report 474837.

1999 - Miramichi Minerals Ltd. 1649.83 m of diamond drilling distributed across 9 holes testing the IP and geochemical anomalies. Zone B: Hole BM97-9 intersected a 10-meter-wide sulphide mineralization zone with anomalous results up to 4832 ppm Pb and 8225 ppm Zn in mafic tuff. Zone C: Holes BM97-4 to BM97-8 intersected altered felsic volcanic having anomalous lead and zinc values. Best intersection: 0.52% Pb, 0.85% Zn, 11.34 g/t Ag over 3.7 m.

6.3. Riley Brook 3

1957 - McIntyre Porcupine Mines Ltd. Geological, stream sediment, and geophysical surveys were conducted south of Mable Brook. Low conductivity geophysical anomalies were identified. Report 470819.

1967 - Newmont Mining Corporation of Canada. Discovering of a sheared zone mineralized in disseminated chalcopyrite with sporadic small veins of sphalerite northeast of Blue Mountain Lake. Three samples yielded grades of 0.16% Cu. Report 470821.

1980 -- Canadian Occidental Petroleum Ltd. Geological mapping, stream sediments and water sampling. Reports 472551 and 472560.

1991 - Noranda Exploration Co. Ltd. High-resolution airborne geophysical surveys (EM, VLF, MAG) flown over the Riley Brook 3-5-6 and Blue Mountain Lake properties. Three target zones were

Identified. Report 475958.

1993- Noranda Exploration. Airborne and magnetic HEM, VLF-EM survey showing three favorable zones where VLF-EM conductors are crossed by east-west trending faults or magnetic trends. Prospecting and collection of grab samples. One sample returned values of 2.52% copper and 2.20% zinc in a heavily mineralized gossan in contact with a gabbro. Another showing (Moore-Murphy), located northeast of Blue Mountain Lake, returned values of 0.7% copper and 12% zinc in a light greenish gray dacite with mineralized amygdules. Soil samples were collected along the Stewart Peaks produced anomalous base metal values, reaching 1000 ppm Zn and 520 ppm Pb. Report 474094.

1994 - Noranda Exploration. Follow-up to report 474094. The best geophysical and geochemical anomalies were assessed by drilling or stripping and 5 trenches. No significant result was found. Report 474251.

2000 - Scott Mitchell. Follow-up to report 475958. Soil geochemical survey (B-horizon) in the Blue Mountain Lake area analyzed for Cu-Zn-Pb resulting in anomalous values. Re-sampling of a historical trench provided values of 0.48% Cu over 20 m and 1.79% Cu over 1 m. Report 475050. 2001 - Scott Mitchell. Magnetometer survey and prospecting around a historical trench. Report 475194.

6.4. Blue Mountain River

1956 - Conwest Exploration Co. Ltd. Airborne electromagnetic survey also covering Riley Brook 5 and 6. Several anomalies were detected. Report 470802.

1967 - Newmont Mining Corporation of Canada. Discovery of a sheared and disseminated chalcopyrite mineralized zone northeast of Blue Mountain Lake. The zone appears as irregular disseminations with small veins of sphalerite. Report 470821.

1980 - Canadian Occidental Petroleum Ltd. Prospecting and stream sediment survey detecting anomalous U, Zn, Pb, and Au concentrations. Report 472552.

1991- Novagold Resources Inc. Stream sediment sampling. Report 473671.

1991 - Novagold Resources Inc. Grab rock sampling. No geochemical anomaly was detected. Report 474061.

1993 - Noranda Exploration Co. Ltd. Several high-resolution airborne geophysical surveys covering the Riley Brook 3-5-6 and Blue Mountain Lake claims. EM and VLF survey detected three target zones. Report 475958.

1994 - Noranda Exploration Co. Ltd. IP survey and trenching. No significant results were reported. Report 474251.

1998 - PGE Resources Co. Soil geochemical survey (B Horizon) resulting in east-west parallel anomalous Cu, Hg, Ba, Ag, As concentrations at the contact of felsic-mafic volcanics.

1999 -- PGE Resources Co. Blue Mountain showing also extending to Riley Brook 5 claims. Stream sediments and B-horizon soil sampling. Several Ag, As, Sb, Pb, Zn and Hg anomalies detected. Report 474848.

1993 - Noranda Exploration. Airborne and magnetic HEM, VLF-EM surveys. Three favorable zones were selected where VLF-EM conductors are crossed by EW- trending faults or magnetic trends. Sampling of the Moore-Murphy showing, located northeast of Blue Mountain Lake, returned values of up to 0.7% Cu and 12% Zn from an amygdular dacite. B-horizon soil sampling led to. anomalous base metal values, including 1000 ppm Zn and 520 ppm Pb. 5 trenches on the anomalous zones. Report 474094.

2024- Fancamp Exploration Inc., *Site 3*. Near the Blue Mountain Lake showing, several outcrops of silicified mafic to intermediate volcanic rocks, some containing pyrite mineralization along fractures, in quartz veins or disseminated were sampled. 9 grab rock samples were analyzed without generating significant results. Boily (2024). Details are discussed further in Section 9 of this Report.

6.5. Riley Brook 5

1957 - McIntyre Porcupine Mines Ltd. Geochemical survey and airborne magnetic and electromagnetic surveys. No targets were detected. Report 470820.

1976 - Amoco Canada Petroleum Co Ltd. Geochemical soil survey. No significant results. Report 470359.

1980 - Canadian Occidental Petroleum Ltd. Preliminary prospecting. Stream sediments sampling detected U, Zn, Pb, and Au anomalies. Report 472552.

1980 - Canadian Occidental Petroleum Ltd. Prospecting. Soil, stream sediment and water geochemical surveys. Several U, Cu, Pb, and Zn anomalous samples. Report 472557.

1981 - Canadian Occidental Petroleum Ltd. Follow-up of Report 472552. Geochemical soil survey analyses yielded 10 anomalies (Zn, Pb, Ag, and U). Report 472700.

1981 - Canadian Occidental Petroleum Ltd. Follow-up of Report 472557. Soil survey detected 9 anomalous zones (Zn, Pb, Ag, and U). Grab sampling. Best result from rock sample: 5680 ppm Pb, 4640 ppm Zn, 4.2 g/t Ag. Report 472703.

1982 - Canadian Occidental Petroleum Ltd. Detailed mapping of the property. Soil geochemical survey (B horizon). Report 472798.

1994 - Brunswick Mining and Smelting Corp. 2 trenches, one DDH and an IP geophysical survey. Silica and sericite alteration zones are present in rhyolite. Pyrite fracture fillings and stringers (5-10% pyrite)

interpreted as the source of the IP anomaly. Report 474251.

1997 - Novagold Resource Inc. VLF-EM and magnetometer survey. Two anomalous zones were detected. Report 474824.

1997 - Connecticut Development Corp. VLF, magnetic, and Max-Min geophysical surveys. Soil sampling. Slight anomalous Cu zone associated with high Pb and Zn anomalies related to a geophysical anomaly. Several Zn-Pb-Cu anomalous zones were identified on the property. Four DDHs (603 m) assessed the geochemical and geophysical anomalies. On hole (SW97-01) revealed a best intersection of 1.6 m @ 2360 ppm Pb, 8740 ppm Zn, 2.18 g/t Ag. DDH SW97-03 intersected 2 mineralized zones: 1) 0.15 m @ 15600 ppm Pb, 62300 ppm Zn, 28.69 g/t Ag, and 20 ppb Au, 2) 0.1 m @ 8490 ppm Pb, 18500 ppm Zn, and 12.77 g/t Ag. Report 474985.

1998 - NovaGold Resources Inc. Soil sampling revealed weak anomalous Zn, Pb, and As zones sub-parallel/parallel to previously identified geophysical anomalies (VLF-EM and magnetic). Report 475027.

1999 - PGE Resources Co. Stream sediments and B-horizon soil surveys. Several Ag, As, Sb, Pb, Zn, Hg anomalies were detected. Report 474848.

1999 - Connecticut Development Corp. Geochemical surveys and VLF survey showing EW- oriented structures and 4 Pb-Zn-Cu anomalies. Report 474841.

1999 - Connecticut Development Corp. B-horizon geochemical soil surveys. Pb, Cu, and Zn were analyzed. One anomaly characterized by concentrations of 14400 ppm Pb, 2000 ppm Zn, and 222 ppm Cu. Report 474840.

1999 - Connecticut Development Corp. Follow-up of report 474840. Geochemical soil surveys (B-Horizon). Pb, Zn, and Cu were analyzed. A VLF and magnetometer survey indicated several small, well-defined anomalies coinciding with soil survey anomalies. Two DDHs (193 m). One hole (LB97-02) intersected a 16 m mineralized zone with the best sample producing a 2 m interval @ 0.11% Pb, 2.24% Zn, 6.32 g/t Ag. Report 474997.

2024 - Fancamp Exploration Inc. *Site 4*. 5 km southeast of Site 3. A rusty sub-rounded quartz boulder with finely disseminated arsenopyrite mineralization (1%) was observed. 2 grab samples were gathered, with one sample producing a Zn concentration of 223 ppm. Boily (2024). Details are discussed further in Section 9 of this Report.

6.6. Riley Brook 6

1956 - Conwest Exploration Co. Ltd. Airborne electromagnetic survey covering part of Riley Brook 5 and 6. Several anomalies were detected. Report 470802.

1959 - East Trinity Mines Limited. Soil geochemical survey. No certificate of analysis. Report 470549.

1991 - Novagold Resources Inc. Prospecting, rock sampling. A strong intense silica alteration zone was found. Report 473683.

1992 - Novagold Resources Inc. Geophysical surveys including IP, VLF-EM, Total Field Magnetic and Gradient Magnetic. Soil sampling, prospecting. **Five areas with IP anomalies coinciding with base metal soil anomalies were identified and tested by diamond drilling.** Several DDHs intersected thick silica and sericite alteration zones and disseminated mineralization. A favourable horizon for sulphide precipitation was identified along the upper contacts of the youngest stratigraphic unit. Report 474186.

1993 - Novagold Resources Inc. Gravimetric and IP surveys discovered some targets in alteration zones. No target corresponding to the massive sulphide anomaly of the Sewell Brook deposit was identified. Report 474322.

2000 - Novagold Resources Inc. Off property work to define the Sewell Brook-type deposit. One diamond drilling (SW-96-26 (170m)) on the property intersected chlorite alteration zones and traces of pyrite. Report 475168.

2024- Fancamp Exploration Inc. *Site 5.* A red rhyolite showing weak carbonate alteration, occurring 5 km south of the Blue Mountain showing was observed.). Numerous metric-sized basalt boulders were observed, some revealing stockworks of massive white quartz veins. The rocks display moderate silicification with local epidotization across the area. Five grab samples were collected and analyzed without revealing any significant value. *Site 6.* 6.5 km to the south, numerous smoky quartz boulders, some containing 2% pyrite were found in a riverbed. 2 grab samples analyzed yielded no interesting concentrations in base or precious metals. Boily (2024). Details are discussed further in Section 9 of this Report.

6.7. Property-wide Exploration

2024- Fancamp Exploration Inc. *All claims.* A second phase of exploration/prospection was undertaken. The work principally consisted of performing traverses in the bush in areas of interest, roaming the different logging and bush roads to find mineralized outcrops, boulders and scree, localizing the historical drillholes collared on the property and finding the site of past trenches dug in the 2000's. A total of 250 grab rock samples were collected.

7. GEOLOGICAL SETTING AND MINERALIZATION

7.1. Regional Geology

The Appalachian Orogen of New Brunswick is divided into northeast-trending tectonostratigraphic zones (Figure 7.1). The Caledonia Zone is underlain by a Middle Proterozoic quartzite-carbonate sequence and a succession of Late Proterozoic volcanic and associated intrusive rocks. The St. Croix, Miramichi, and Elmtree zones contain volcanic assemblages with chemical signatures attributed to supra-subduction zone. The St. Croix Zone is characterized by Late Cambrian to Early Ordovician volcanic rocks and Early to Middle Ordovician shale and wacke. The Miramichi Zone comprises Early to Middle Ordovician volcanic rocks built upon a thick substratum of Cambrian turbidite.

The Elmtree Zone is underlain by a Middle Ordovician ophiolitic suite. The Fredericton and Edmunston-Kedgwick zones contain thick successions of calcareous and siliciclastic turbidite ranging from Late Ordovician to Early Devonian. The Mascarene and Tobique–Chaleur zones are underlain by Silurian to Early Devonian volcanic rocks interbedded with shallow-marine to fluvial sedimentary rocks. The volcanic rocks possess intraplate chemical signatures and probably erupted in transcurrent basins formed as a result of oblique continental convergence. The Maritimes Basin includes Late Devonian to Carboniferous fluvial conglomerate and sandstone sequences, shallow-marine limestone and evaporite, lacustrine oil shale, and subaerial volcanic rocks. Outcrops of Silurian assemblages in the Fredericton area defines the Flume-Digdeguash-Kingston Zone (Fyffe 1995), a coherent tract of turbidites lying between the Miramichi Highlands to the northwest and the St. Croix Highlands to the southeast. This zone straddles the Fredericton Fault and contains the Kingsclear Group clastic debris wedges prograding eastward as the eastern margin of the Miramichi arc overrode the basin and its own debris (Flume Ridge Formation and Digdeguash Formation).

Northern New Brunswick, adjacent Québec, and the state of Maine (USA) are underlain by two Cambrian to Middle Ordovician tectono-stratigraphic zones (Gander and Dunnage zones) and unconformably overly Late Ordovician to Early Devonian cover sequences forming part of the northern Appalachians region. The Ordovician-Devonian cover sequence rocks are divided from the northwest to southeast into three tectono-stratigraphic zones: the Connecticut Valley-Gaspé Synclinorium, the Aroostook-Perceé Anticlinorium, and the Tobique-Chaleur zone (Bourque et al. 1995). The region is characterized by two major regional-scale structural breaks marking the boundaries of these tectono stratigraphic zones: the Restigouche-Grand Pabos and the Rocky Brook-Millstream faults.

The western and central area of New Brunswick consists of NNE to SSW-oriented subparallel tectonostratigraphic belts defined based on their age, rock type, and tectonic history (Fyffe and Fricker 1987; Fyffe et al. 2011). The Riley Brook area is underlain by rocks of the Tobique–Chaleur Zone, which extends from the south shore of the Gaspé Peninsula in Québec for approximately 250 km southwest, to the middle Paleozoic Matapedia Cover sequence (Wilson, 2006). The Tobique–Chaleur Zone is divided into northern and southern parts by the Rocky Brook–Millstream Fault. North of this structure, the

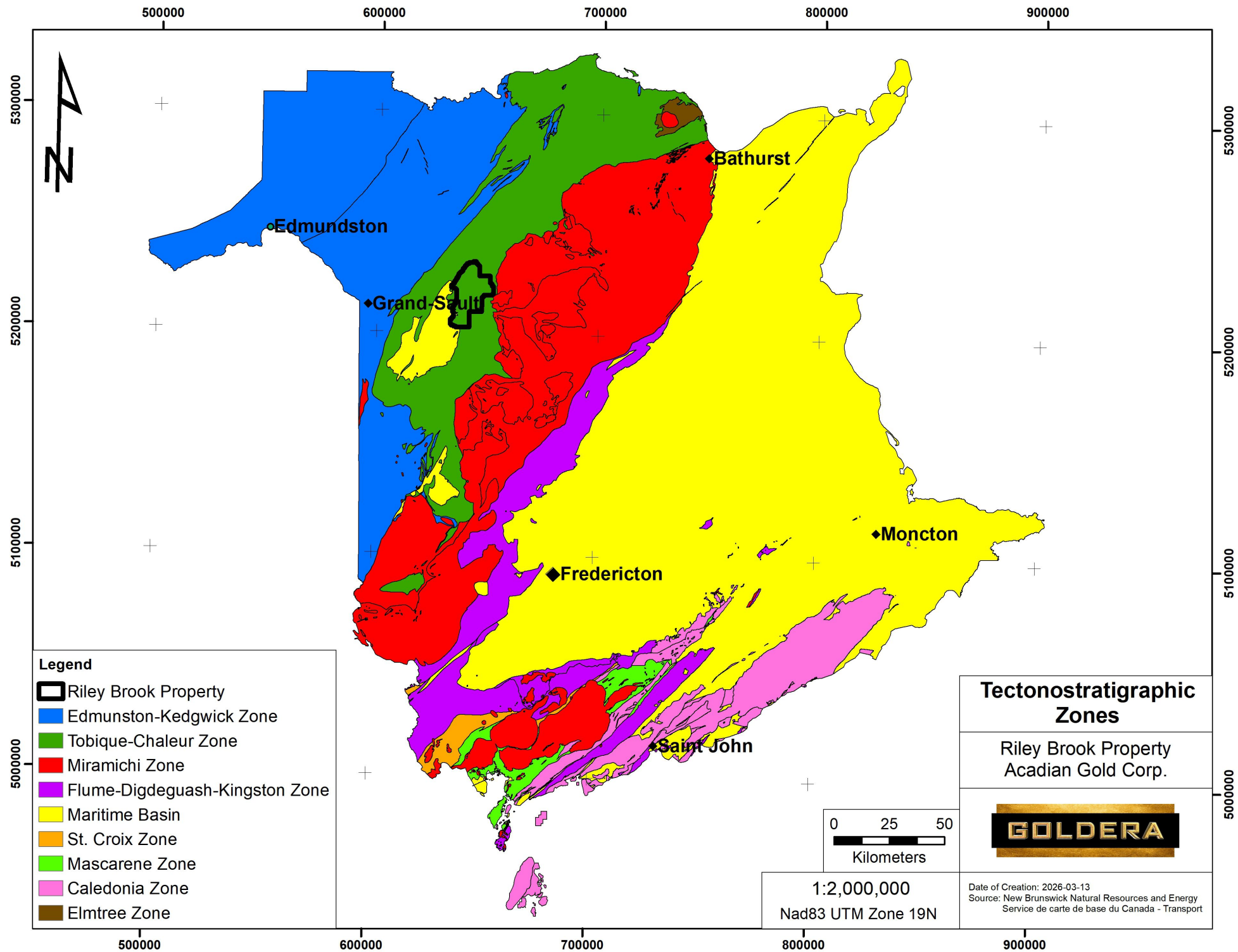


Figure 7.1- Tectonostratigraphic zones of the Appalachian Orogen of New Brunswick.

Chaleur Zone of the Tobique–Chaleur Zone contains sequences of Silurian clastic and carbonate sedimentary rocks, and felsic and mafic volcanic rocks, which are included in the Quinn Point, Dickie Cove, Petit Rocher, and Chaleur groups (Wilson and Kamo, 2012). These sequences are overlain by Early Devonian mafic and felsic volcanic and sedimentary rocks of the Dalhousie Group (Walker and McCutcheon 1995; Wilson and Kamo 2012). Silurian rocks are largely absent south of the Rocky Brook–Millstream Fault, where the Tobique Zone instead is underlain mainly by Early Devonian volcanic and sedimentary rocks of the Tobique Group (Wilson, 1992; Walker and McCutcheon 1995).

The Tobique Group is divided into the basal Costigan Mountain Formation overlain by the Wapske Formation. In the Riley Brook area however, the units forming the Costigan Mountain Formation pinch out and are replaced by interfingering assemblages of felsic and mafic volcanic and sedimentary rocks. The Wapske Formation incorporates the bulk of the lithologies within the confines of the Riley Brook property and consists of bimodal volcanic rocks interlayered with sediments, predominantly deposited in a subaqueous environment.

7.2. Local Geology

7.2.1. Sedimentary Rocks

Sedimentary rocks of the Tobique Group on the Riley Brook property are included in the Wapske Formation and comprise grey to green, thin- to medium-bedded and fine- to medium-grained sandstone, slaty siltstone, and minor volcanoclastic sediments and quartz-pebble conglomerate. Massive layers of thick-bedded sandstone or siltstone are locally present. Bedforms comprise graded, parallel-laminated and local cross-laminated beds. Fossiliferous beds are commonly representing a benthic assemblage deposited at depth < 200 m (Wilson, 1992) (Figure 7.2).

7.2.2. Mafic Volcanic Rocks

Mafic volcanic rocks of the Wapske Formation comprise massive to pillowed, commonly vesicular, or rarely porphyritic flows and local hyaloclastites and basaltic tuff. Textures of massive and pillowed basalts are most commonly intergranular. Basalts display a mineralogy characterized by albitized plagioclase laths (50-80%), chlorite (10-25%) and Fe-Ti oxides (up to 20%) with minor calcite, titanite (sphene) and locally epidote. Clinopyroxene (augite) is present in amounts up to 40% in places, but is rarely preserved, having been altered to chlorite, titanite, oxides and/or epidote. Plagioclase phenocrysts, when present, rarely exceed 15%, and may be up to 1 cm in size. Mafic fragmental rocks consist of lapilli tuff and hyaloclastite. Basaltic tuff typically contains fragments of scoria that are irregular to lenticular in shape. Pillow structures, spilitic mineralogy hyaloclastic textures and local palagonitic alteration are all characteristic of subaqueous deposition (Wilson, 1992).

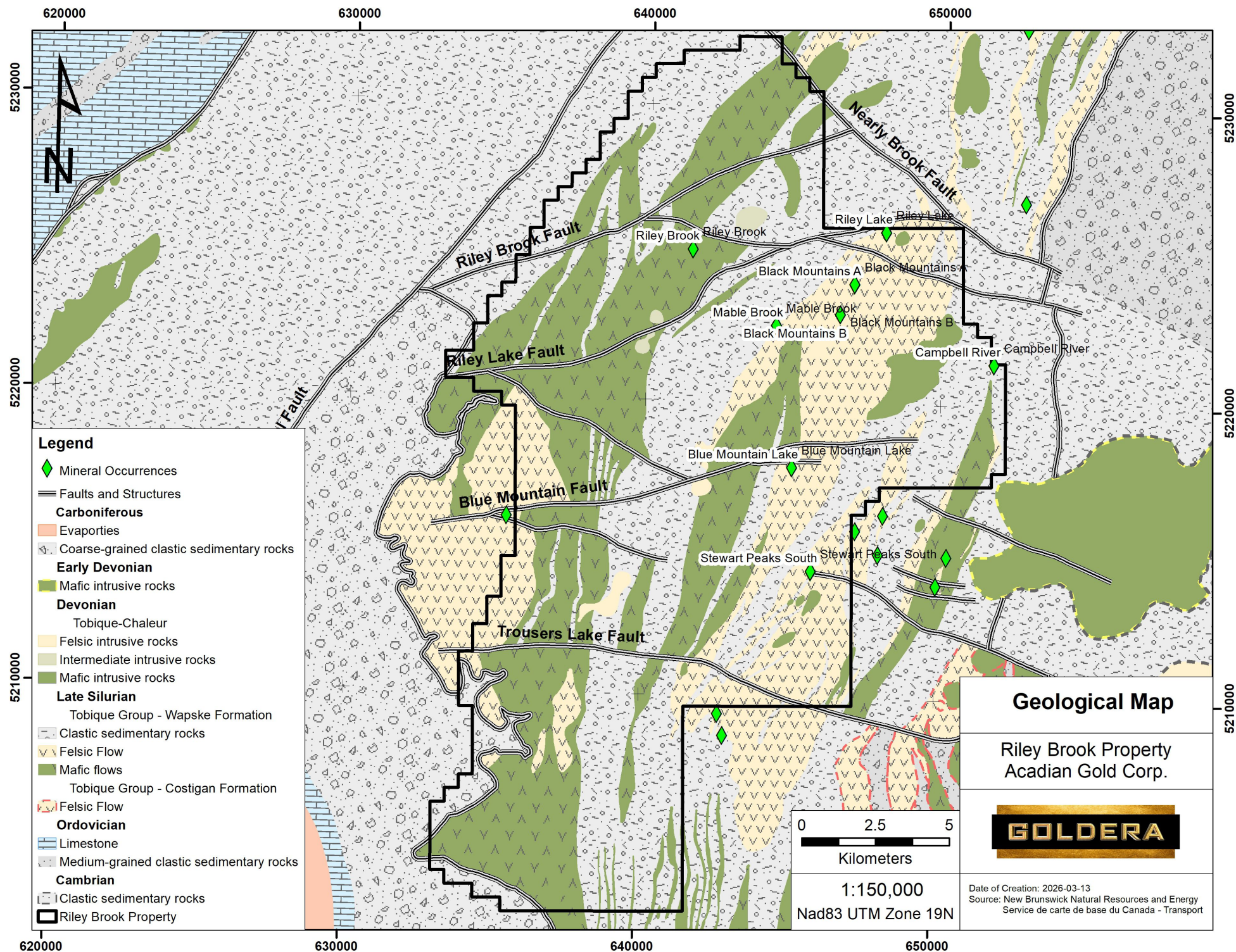


Figure 7.2- Geological and structural map of the Riley Brook property, New Brunswick.

7.2.3. Felsic Volcanic Rocks

Felsic volcanic rocks of the Wapske Formation are rhyolitic (> 70% SiO₂). They are commonly dark grey to green in color, massive to flow-banded, aphyric to feldspar-phyric and locally vesicular. Felsic volcanic rocks display several textures such as glassy, perlitic and spherulitic (Wilson, 1992). Some are devitrified and fragmental. Microbrecciated rhyolites are observed locally and are spatially related to the glassy rhyolite. Perlitic and spherulitic rhyolite commonly displays chloritic or sericitic alteration. The rhyolites contain 15% euhedral to subhedral K-feldspar phenocrysts rarely exceeding 3 mm in size. Sericitization commonly affects the felsic rocks totally replacing potassium feldspar in some cases. Massive to flow-banded, perlitic or devitrified rhyolite locally transitions from a zone of brecciation into a finely brecciated rock showing angular fragments in a vitric matrix of finely granulated felsitic material. The fragments and groundmass are moderately to extensively sericitized or chloritized. Medium- to coarse-grained chloritized volcanoclastic rocks containing clasts of perlitic, spherulitic or banded rhyolite overlie units of microbrecciated rocks. These volcanoclastic rocks are also locally intercalated with siltstone or sandstone beds. Pyroclastic rocks forming vitric-crystal, vitric-lithic, and pumiceous vitric lapilli tuff are found with all felsic suite but are least important volumetrically. Pyroclastic rocks include polymict lithic fragments in a vitric groundmass of bubble-wall shards and spicules. The pyroclasts are pumice lapilli, crystals or crystal fragments. Feldspar crystals are present with rare quartz crystals with accessory lithic clasts including fragments of perlitic, spherulitic, or flow-banded rhyolite derived from underlying lava flows (Figure 7.2).

7.2.4. Intrusive Rocks

Plutonic rocks in northern and central New Brunswick comprise Early Paleozoic (Early– Middle Ordovician) foliated granites and much less abundant gabbro that are co-magmatic with volcanic rocks of the Popelogan Arc and Tetagouche Backarc Basin. Middle Paleozoic generally unfoliated felsic to mafic intrusions range in age from 423 Ma to 364 Ma (Late Silurian–Late Devonian). The inverted-cone-shaped hill of Haystack Mountain and Bald Peak consist of fine-grained porphyritic felsic to intermediate intrusive rock most likely representing subvolcanic feeder pipes for felsic volcanic units. Local outcrops of feldspar-rich rocks may form shallow plutonic equivalents of some felsic extrusive rocks. There are two assemblages of mafic intrusive rocks. One suite may be contemporaneous with volcanic activity and represents feeders for the mafic extrusive rocks, whereas a later suite includes post-Acadian dykes and small stocks.

7.3 Structure and Metamorphism

Volcanic rocks in the Riley Brook area are oriented NE-SW to NNE-SSW parallel to the regional orientation of the Tobique Zone. The volcanic assemblage is younger toward the west and dips to the

west away from the fault contact with the Miramichi Terrane.

Sedimentary rocks locally reveal open to close folds, with the large competent felsic volcanic suites being relatively unaffected. Most sedimentary rocks, and some mafic volcanic rocks, are affected by a penetrative cleavage axial planar to folds parallel to the regional strike. Major faults, such as the Blue Bell fault, also trend NE-SW to NNE-SSW. Late-stage faulting, oriented ENE-WSW and ESE-WNW offset the various volcanosedimentary units in the Riley Brook area.

The Tobique Group is characterized by a sub-greenschist metamorphic grade. The basaltic rocks display an albite → chlorite + calcite + epidote + titanite = pumpellyite + prehnite mineral paragenesis. Sedimentary and felsic volcanic rocks normally contain only sericite and chlorite as secondary minerals (Wilson, 1992).

7.4. Geochemistry of Volcanic Rocks

The Siluro-Devonian volcanic rocks of northern New Brunswick display a wide range of SiO₂ contents varying from 45% to >76% (Figure 7.3 and Table 7.1) (see also Dostal et al., 1989). Intermediate rocks with SiO₂, in the range of 62 to 68% constitute only a minor part of the sequence. The mafic rocks are predominantly basalts and basic andesite with <57% SiO₂ and are usually subalkaline, some being transitional. Their composition resembles that of continental tholeiites. The REE (Rare Earth Element) patterns of basaltic rocks exhibit distinct light REE (LREE) enrichment and a gradual depletion of heavy REE (HREE) (Figure 7.4). The patterns of chondrite-normalized abundances of incompatible elements show an overall progressive increase from the less incompatible elements (Y and Yb) towards highly incompatible LREE and Th, usually accompanied by negative Nb and Ta anomalies, which are typical of volcanic-arc rocks and some continental tholeiites (Pearce 1982; Dostal and Dupuy 1984). However, compared with volcanic-arc rocks, the mafic rocks have higher abundances of High-Field-Strength elements (HFSE; ex: Zr, Ta, Nb) and different ratios of several of these elements. Based on the relationship between HFSE, the basalts in all the suites are of within-plate or MORB type. Felsic rocks are mostly rhyolites with >68% SiO₂ (Figure 7.4). The abundance of Zr in the Wapske Formation rhyolites is highly variable, ranging from 237 to 649 ppm. High-Zr rocks (>500-700 ppm Zr), which occur only in subordinate amounts, were originally peralkaline rhyolites, whereas rhyolites with <350 ppm Zr correspond to subalkaline rhyolites. The distribution of immobile incompatible elements, such as Zr, Nb, and Y, in the peralkaline rhyolites are comparable to that of modern peralkaline felsic volcanic suites. The REE pattern of the Wapske rhyolites sampled for this study display an enriched pattern in LREE (Light Rare Earth Elements), negative Eu anomalies and flat but elevated HREE (Heavy Rare Earth Elements). According to the distribution of Y, Nb, and Rb (Pearce et al. 1984), the rhyolites and of the Wapske Formation were emplaced in a within-plate environment, consistent with the occurrence of peralkaline rhyolites which are usually considered to be emplaced in an extensional modern tectonic environment.

Table 7.1- Major and trace element analyses of unmineralized grab and boulders/floats sample collected from the Riley Brook property, New Brunswick.

Sample No.	Easting*	Northing	Sampling M	Lithology	Alteration	SiO ₂ (Wt. %)	Al ₂ O ₃ (Wt. %)	Fe ₂ O ₃ (T) (Wt. %)	MnO (Wt. %)	MgO (Wt. %)	CaO (Wt. %)	Na ₂ O (Wt. %)	K ₂ O (Wt. %)	TiO ₂ (Wt. %)	P ₂ O ₅ (Wt. %)	LOI (Wt. %)
J023052	643057	5216810	Boulder	Andesite		48.57	15.11	9.60	0.16	5.70	8.50	4.29	0.53	1.78	0.22	6.15
J023058	641999	5216581	Outcrop	Andesite		48.50	14.87	11.30	0.17	7.65	6.70	1.22	2.43	1.76	0.16	4.99
J023085	647156	5223330	Outcrop	Andesite		74.05	12.19	4.11	0.06	0.43	0.63	3.62	3.74	0.30	0.04	1.31
J023506	640391	5223281	Boulder	Andesite	Silica	61.82	14.20	7.96	0.14	2.23	2.35	3.98	2.35	1.50	0.41	2.34
J023502	642792	5227275	Outcrop	Basalt		46.24	17.00	11.03	0.19	6.27	5.14	3.12	2.23	1.87	0.24	7.55
J023503	642289	5226485	Outcrop	Basalt		50.32	15.64	9.47	0.15	6.99	5.17	4.65	1.00	1.56	0.20	3.61
J023504	642245	5226457	Outcrop	Basalt		54.43	14.60	9.98	0.17	3.38	5.59	5.23	0.67	2.07	0.32	2.36
J023060	642181	5216580	Outcrop	Basalt	Chlorite	51.73	17.37	8.35	0.13	4.86	4.71	5.40	1.41	1.74	0.25	3.90
J023061	642317	5216626	Outcrop	Basalt	Oxydation	64.70	14.13	5.75	0.10	2.96	1.87	2.05	2.83	0.82	0.14	3.96
J023062	642153	5216755	Outcrop	Basalt	Epidotite	47.40	15.24	9.60	0.21	7.14	8.65	4.38	0.42	1.48	0.20	5.96
J023064	642895	5218011	Outcrop	Basalt		47.02	16.07	11.20	0.17	4.87	9.37	3.36	0.92	2.15	0.32	4.96
J023065	643052	5218550	Outcrop	Basalt		47.39	15.96	10.96	0.20	6.56	8.23	3.92	0.60	2.02	0.30	3.95
J023066	643073	5218482	Boulder	Basalt	Epidotite	45.21	15.39	11.43	0.20	6.87	10.04	2.83	0.66	2.04	0.35	5.76
J023067	643087	5218566	Boulder	Basalt	Chlorite	47.78	16.73	10.66	0.19	5.81	9.26	3.78	0.76	1.67	0.20	3.51
J023082	643258	5219409	Outcrop	Basalt	Epidotite	48.65	15.83	9.93	0.19	7.09	9.40	3.51	0.85	1.71	0.16	3.43
J023090	645633	5220987	Outcrop	Basalt		56.51	15.10	9.01	0.16	4.52	4.54	4.53	2.81	1.71	0.26	1.82
J023091	638515	5211468	Outcrop	Basalt		49.10	15.46	10.87	0.18	7.78	6.53	4.74	0.08	2.05	0.27	3.56
J023095	648642	5222343	Outcrop	Basalt		62.34	14.78	6.87	0.12	2.15	1.69	4.42	2.58	1.33	0.27	2.37
J023604	636313	5214132	Sub-Outcrop	Basalt	Epidotite	53.90	17.21	9.74	0.14	2.92	5.10	5.86	1.33	1.87	0.34	2.19
J023654	649463	5224167	Boulder	Basalt		71.36	12.93	4.63	0.05	0.44	0.23	4.00	3.95	0.31	0.02	0.94
J023655	649269	5225178	Boulder	Basalt		72.58	11.97	2.94	0.03	1.34	0.51	2.57	5.29	0.33	0.03	1.75
J023096	648638	5222590	Sub-Outcrop	Foliated basalt		67.11	14.04	5.96	0.13	1.23	1.44	3.89	2.49	0.65	0.16	2.57
J023094	638065	5212686	Boulder	Basalt		71.80	11.62	5.47	0.14	0.07	0.50	4.49	3.42	0.47	0.08	1.48
J023086	646913	5223374	Boulder	Basalt, breccia?		69.12	13.56	2.88	0.14	1.73	0.04	0.39	9.61	0.20	0.02	1.79
J023072	642748	5219335	Sub-Outcrop	Diorite		47.95	16.03	7.70	0.14	6.62	13.55	2.58	0.99	1.53	0.22	3.41
J023509	644931	5217232	Boulder	Felsique	K-felds	73.28	12.35	3.38	0.03	0.29	0.20	3.82	4.42	0.25	0.03	0.85
J023071	642831	5219280	Sub-Outcrop	Gabbro		49.03	15.55	8.58	0.16	7.74	10.04	3.32	0.99	1.51	0.20	3.19
J023602	639488	5228516	Boulder	Gabbro		49.65	15.47	9.44	0.14	6.91	5.73	4.01	1.51	1.70	0.20	4.29
J023603	640456	5228238	Boulder	Gabbro	Chlorite	47.82	15.35	11.10	0.16	7.14	8.76	3.20	0.72	1.50	0.21	4.35
J023607	641980	5210927		Gabbro		49.48	15.14	10.59	0.21	6.54	8.12	3.89	0.73	1.81	0.45	2.63
J023652	649852	5224050	Outcrop	Gabbro		50.18	15.81	9.98	0.16	7.04	10.14	2.53	0.76	1.64	0.21	2.28
J023653	649623	5224156	Boulder	Gabbro		51.02	16.31	9.35	0.16	5.51	9.42	3.98	0.76	1.67	0.21	1.96
J023073	642686	5219359	Outcrop	Granite		71.70	14.16	2.06	0.03	0.32	0.10	3.14	6.62	0.25	0.05	1.38
J023087	645784	5222259	Boulder	Granite		72.50	13.97	2.42	0.05	0.67	0.60	6.39	1.37	0.50	0.13	1.08
J023088	646060	5222161	Boulder	Granite		74.38	12.60	1.86	0.02	0.27	0.15	3.35	5.47	0.21	0.04	0.76
J023089	646005	5221786	Outcrop	Granite		75.28	12.42	1.91	0.02	0.25	0.14	3.23	5.29	0.19	0.04	0.91
J023093	638867	5212964	Boulder	Granite		71.76	11.69	5.03	0.10	0.21	0.17	3.88	4.05	0.46	0.08	1.62
J023608	639849	5222073	Outcrop	Granodiorite		67.72	12.60	5.93	0.10	1.39	2.21	3.57	2.53	1.19	0.33	1.74
J023508	645089	5217446	Boulder	Intermediaire		51.37	14.77	10.06	0.18	6.56	5.91	4.91	0.52	1.81	0.26	3.12
J023059	642038	5216663	Outcrop	Intrusif intermediaire/ felsique?		50.01	15.89	10.28	0.12	6.59	5.46	1.21	3.31	1.87	0.20	4.48
J023601	638882	5228187	Boulder	Others	Silica	70.93	14.34	2.81	0.04	0.50	0.28	3.57	5.68	0.27	0.05	1.47
J023068	642974	5219102	Boulder	Rhyolite	Epidotite	69.98	14.03	2.98	0.05	0.67	0.28	2.67	6.90	0.26	0.03	1.26
J023074	642676	5219361	Outcrop	Rhyolite		63.96	16.22	4.31	0.07	0.80	0.08	0.27	11.60	0.29	0.03	1.78
J023077	642610	5219382	Outcrop	Rhyolite		76.13	11.70	2.89	0.04	0.43	0.03	0.09	6.60	0.24	0.02	1.92
J023081	642653	5219724	Boulder	Rhyolite		67.91	15.65	2.86	0.02	0.23	0.07	0.19	11.64	0.27	0.04	1.58
J023083	637838	5209597	Sub-Outcrop	Rhyolite		76.43	11.07	3.25	0.03	0.08	0.20	3.00	5.43	0.22	0.02	0.67
J023084	643329	5226127	Outcrop	Rhyolite		65.22	14.43	5.54	0.10	1.78	3.86	3.69	3.22	0.94	0.20	1.91
J023092	638065	5212686	Boulder	Rhyolite		72.10	12.46	2.11	0.01	0.10	0.05	0.21	10.54	0.24	0.03	0.60
J023605	647769	5221421	Outcrop	Rhyolite		75.24	12.44	1.83	0.02	0.20	0.11	3.76	4.72	0.24	0.02	0.88
J023606	637757	5207690	Sub-Outcrop	Rhyolite		76.62	11.40	2.58	0.05	0.11	0.43	4.17	3.30	0.22	0.02	0.82
J023651	649496	5223290	Sub-Outcrop	Rhyolite		71.62	12.79	3.08	0.04	0.34	0.73	3.46	5.57	0.27	0.02	0.97
J023080	642836	5220300	Boulder	Red rhyolite	Oxidation	71.81	13.06	2.53	0.06	0.16	0.62	0.16	10.72	0.20	0.02	1.28
J023097	648785	5223540	Boulder	Red rhyolite		71.61	13.31	3.16	0.04	0.22	0.10	2.95	6.37	0.29	0.03	1.02
J023098	648811	5223752	Boulder	Red rhyolite		75.72	12.17	3.26	0.05	0.38	0.18	3.98	3.63	0.32	0.04	1.04
J023099	648854	5223764	Outcrop	Red rhyolite		74.11	11.96	3.90	0.04	0.28	0.15	2.66	5.71	0.27	< 0.01	1.13
J023076	642646	5219393	Boulder	Rhyolite?	Silica	73.38	12.13	3.03	0.06	0.37	0.03	0.23	8.54	0.20	0.03	1.33
J023079	642555	5220211	Sub-Outcrop	Tuff ou basalt/gabbro		47.13	15.93	10.52	0.18	6.76	9.54	3.57	0.41	1.84	0.23	4.45
J023656	648646	5225859	Boulder			70.39	14.63	5.77	0.09	0.74	0.07	6.47	0.59	0.46	0.03	1.32
J023657	649126	5225912	Boulder			68.30	15.35	4.03	0.06	1.09	0.22	3.64	3.97	0.41	0.06	2.40

*NAD83; Zone 19N

Table 7.1- Major and trace element analyses of unmineralized grab and boulders/floats sample collected from the Riley Brook property, New Brunswick.

Sample No.	Total (Wt. %)	Sc (ppm)	Be (ppm)	V (ppm)	Ba (ppm)	Sr (ppm)	Y (ppm)	Zr (ppm)	Cr (ppm)	Co (ppm)	Ni (ppm)	Cu (ppm)	Zn (ppm)	Ga (ppm)	Ge (ppm)	As (ppm)	Rb (ppm)	Nb (ppm)	Mo (ppm)
J023052	100.60	32	< 1	235	76	385	25	107	260	41	80	40	80	14	1	5	13	5	2
J023058	99.75	29	1	257	260	268	22	118	380	43	130	70	100	17	2	< 5	91	6	3
J023085	100.50	8	3	< 5	429	47	82	631	120	1	< 20	< 10	60	23	< 1	< 5	95	25	9
J023506	99.28	18	3	91	385	129	57	407	70	13	< 20	< 10	120	18	1	7	83	27	5
J023502	100.90	32	1	255	154	133	28	127	130	40	80	60	90	19	1	6	83	7	< 2
J023503	98.75	32	< 1	218	303	412	23	120	250	33	50	20	80	16	< 1	9	24	7	2
J023504	98.79	28	2	249	168	243	42	242	60	27	< 20	10	90	19	1	5	26	16	3
J023060	99.85	35	< 1	253	164	231	25	118	230	44	80	40	80	16	1	< 5	36	6	< 2
J023061	99.32	14	2	103	460	102	24	218	140	17	50	30	80	17	1	< 5	99	12	2
J023062	100.70	32	< 1	229	141	285	24	96	260	35	60	30	90	15	1	< 5	13	5	< 2
J023064	100.40	34	< 1	266	191	348	28	162	250	39	80	40	100	18	1	< 5	33	8	< 2
J023065	100.10	35	1	262	138	390	27	159	280	41	100	40	80	16	< 1	< 5	18	8	2
J023066	100.80	35	1	229	123	347	31	161	250	41	70	30	90	17	1	5	15	8	2
J023067	100.40	37	< 1	253	135	392	25	119	230	38	70	50	70	17	< 1	< 5	24	4	< 2
J023082	100.80	36	< 1	254	164	335	24	105	310	36	80	40	70	15	< 1	< 5	22	5	< 2
J023090	101.00	26	3	207	360	185	45	294	130	25	30	20	60	21	2	< 5	90	13	2
J023091	100.60	35	1	283	141	501	29	162	200	34	50	50	80	18	1	7	2	7	< 2
J023095	98.92	20	3	114	526	248	69	678	80	13	< 20	< 10	90	23	1	7	57	22	4
J023604	100.60	31	2	188	173	413	36	222	210	30	50	< 10	60	17	2	15	32	15	3
J023654	98.85	9	5	7	658	67	81	630	70	2	< 20	< 10	90	24	2	< 5	121	24	5
J023655	99.34	8	2	< 5	479	38	88	647	50	1	< 20	< 10	100	23	1	< 5	150	31	4
J023096	99.68	18	3	33	693	126	56	569	80	5	< 20	< 10	110	23	1	5	101	21	5
J023094	99.54	7	4	< 5	342	56	68	625	70	< 1	< 20	< 10	80	28	2	< 5	114	37	8
J023086	99.48	5	2	< 5	1148	56	68	387	80	1	< 20	< 10	110	21	< 1	10	222	27	15
J023072	100.70	36	1	214	117	220	23	122	330	22	40	< 10	50	17	< 1	< 5	41	7	2
J023509	98.90	6	4	< 5	606	74	69	499	130	1	< 20	< 10	< 30	21	1	< 5	98	25	10
J023071	100.30	31	< 1	211	92	276	20	108	280	30	80	< 10	60	14	1	7	29	6	< 2
J023602	99.04	32	1	263	438	121	23	124	240	30	30	20	90	19	1	23	39	8	3
J023603	100.30	35	1	252	122	295	27	128	170	37	50	40	80	19	1	17	21	6	2
J023607	99.59	34	1	258	186	295	34	170	230	29	20	30	90	18	< 1	< 5	22	10	< 2
J023652	100.70	32	1	233	149	217	29	151	270	33	90	< 10	60	18	1	< 5	30	8	2
J023653	100.30	39	1	257	205	256	30	147	210	30	50	40	80	19	2	< 5	17	8	3
J023073	99.82	6	4	< 5	746	63	70	491	70	1	< 20	40	40	21	< 1	20	205	24	5
J023087	99.68	12	3	20	202	88	68	406	110	2	< 20	< 10	50	21	1	< 5	47	20	8
J023088	99.12	9	2	< 5	627	64	37	222	130	1	< 20	< 10	< 30	19	1	< 5	188	15	10
J023089	99.69	9	3	< 5	618	61	42	217	130	1	< 20	< 10	< 30	18	1	< 5	178	17	10
J023093	99.06	7	4	< 5	386	53	82	618	90	1	< 20	< 10	100	27	1	< 5	132	35	10
J023608	99.32	14	2	63	451	117	50	349	100	11	< 20	< 10	70	15	< 1	< 5	84	20	7
J023508	99.47	40	2	254	101	236	29	160	210	22	40	< 10	50	18	2	< 5	20	10	< 2
J023059	99.42	31	1	263	323	189	24	124	390	37	80	80	90	18	1	< 5	140	6	2
J023601	99.92	6	2	10	552	38	85	424	40	2	< 20	< 10	50	25	1	7	208	33	3
J023068	99.11	6	3	9	512	47	66	392	70	3	< 20	< 10	60	19	1	< 5	290	18	4
J023074	99.42	6	3	13	910	79	74	596	30	3	< 20	< 10	70	24	1	10	361	32	2
J023077	100.10	5	3	17	672	22	55	339	90	2	< 20	< 10	70	22	3	8	447	21	6
J023081	100.40	5	4	6	388	34	85	550	50	1	< 20	< 10	70	28	1	< 5	655	30	5
J023083	100.40	1	4	< 5	304	25	74	680	90	< 1	< 20	< 10	100	27	1	< 5	153	32	7
J023084	100.90	13	3	100	311	169	39	266	70	10	< 20	< 10	60	20	1	< 5	123	18	6
J023092	98.45	3	1	13	689	28	30	237	130	1	< 20	< 10	50	16	1	5	309	18	11
J023605	99.47	6	2	< 5	659	47	70	524	80	1	< 20	< 10	< 30	20	1	< 5	121	23	6
J023606	99.73	2	6	< 5	316	57	85	689	140	< 1	< 20	< 10	60	26	1	< 5	106	33	11
J023651	98.90	6	5	10	539	64	79	428	160	1	< 20	< 10	60	23	1	< 5	147	23	11
J023080	100.60	4	5	< 5	667	45	83	485	80	< 1	< 20	< 10	40	24	1	< 5	446	26	5
J023097	99.09	8	2	< 5	1051	70	80	641	90	1	< 20	< 10	60	23	2	< 5	180	24	7
J023098	100.80	8	4	10	651	65	72	578	130	2	< 20	< 10	60	21	2	< 5	106	22	9
J023099	100.20	8	3	< 5	872	58	77	609	150	1	< 20	< 10	70	24	2	< 5	154	24	12
J023076	99.33	5	3	5	737	38	60	366	120	1	< 20	< 10	70	20	2	5	367	17	8
J023079	100.50	36	< 1	262	163	167	28	126	220	35	60	50	80	17	1	8	8	6	2
J023656	100.60	12	7	6	221	133	127	849	70	1	< 20	< 10	70	28	2	< 5	15	40	5
J023657	99.53	10	8	7	578	82	157	822	40	1	< 20	< 10	80	32	2	< 5	152	52	3

*NAD83; Zon

Table 7.1- Major and trace element analyses of unmineralized grab and boulders/floats sample collected from the Riley Brook property, New Brunswick.

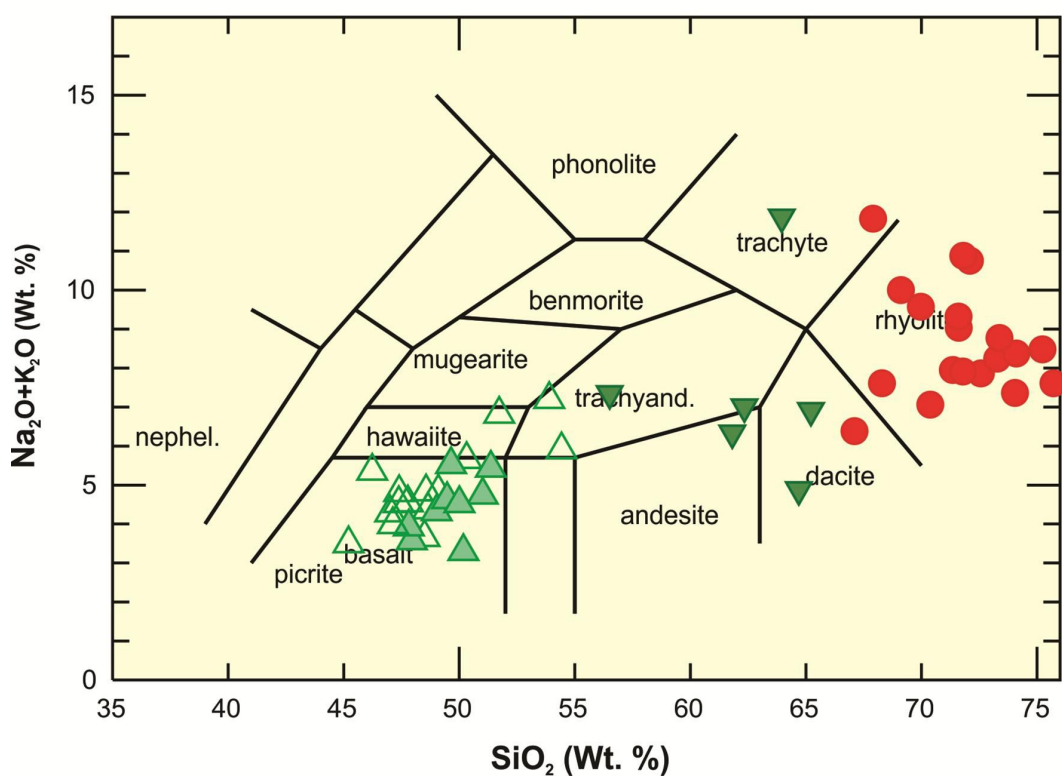
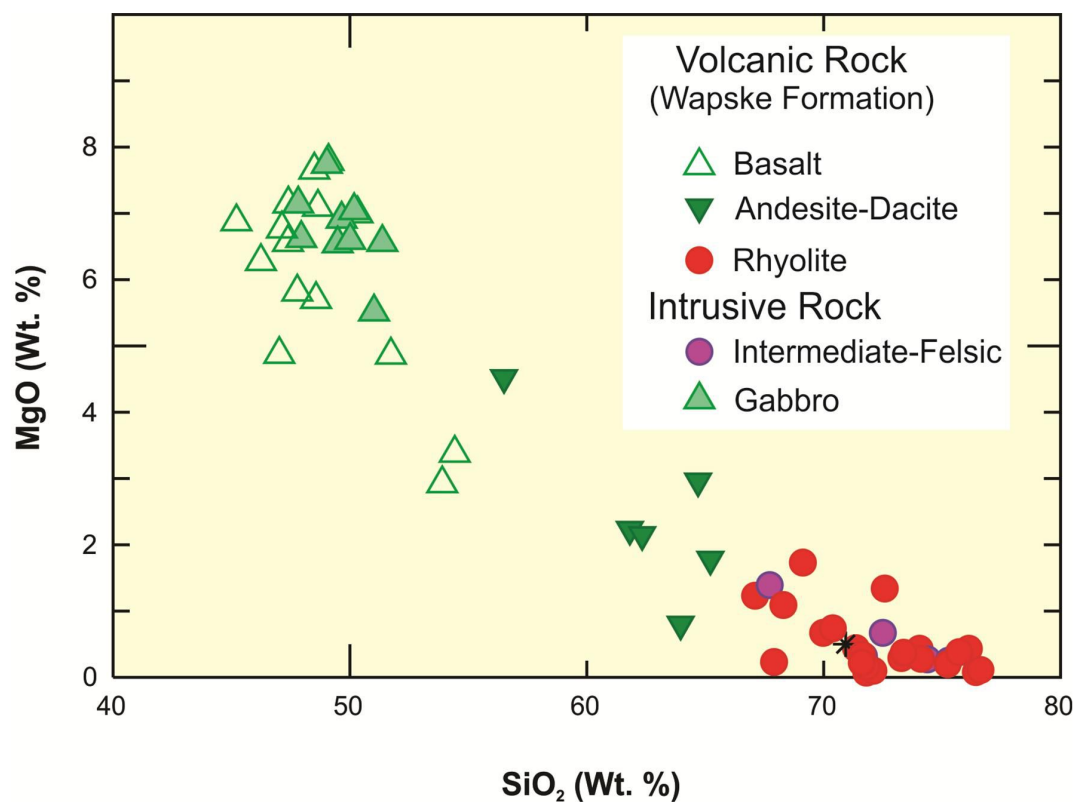
Sample No.	Ag (ppm)	In (ppm)	Sn (ppm)	Sb (ppm)	Cs (ppm)	La (ppm)	Ce (ppm)	Pr (ppm)	Nd (ppm)	Sm (ppm)	Eu (ppm)	Gd (ppm)	Tb (ppm)	Dy (ppm)	Ho (ppm)	Er (ppm)	Tm (ppm)	Yb (ppm)	Lu (ppm)	Hf (ppm)
J023052	< 0.5	< 0.2	1	< 0.5	0.8	8.3	21.3	3.04	15	4.2	1.4	4.8	0.8	4.9	1	2.8	0.42	2.6	0.42	2.8
J023058	< 0.5	< 0.2	1	1.1	4.4	10.4	24.4	3.27	15.4	4.1	1.52	4.5	0.8	4.6	0.9	2.5	0.34	2.2	0.34	2.8
J023085	< 0.5	< 0.2	7	< 0.5	0.6	54.1	117	13.9	54.3	12.2	1.83	12	2.2	14.9	3.2	10	1.5	9.8	1.61	15.3
J023506	< 0.5	< 0.2	5	< 0.5	1.3	49.9	110	13.5	54.8	11.9	2.01	11.8	1.9	11.2	2.3	6.5	0.89	5.8	0.89	9.3
J023502	< 0.5	< 0.2	1	0.5	3.5	11.9	27.8	3.95	18.7	4.9	1.56	5.4	0.9	5.3	1	3.1	0.42	2.9	0.45	3.1
J023503	< 0.5	< 0.2	1	< 0.5	0.8	12.8	28.3	3.67	16.4	4	1.28	4.4	0.8	4.5	0.9	2.5	0.38	2.6	0.4	2.7
J023504	< 0.5	< 0.2	3	< 0.5	1.2	27.1	61	7.81	32.2	7.8	1.9	7.7	1.3	7.9	1.6	4.7	0.65	4.3	0.64	5.5
J023060	< 0.5	< 0.2	1	< 0.5	0.7	11	26	3.57	17	4.3	1.61	4.9	0.8	5	1	2.9	0.38	2.6	0.38	2.7
J023061	< 0.5	< 0.2	2	0.5	3.7	32	66.5	7.49	29	5.9	1.21	4.9	0.8	4.8	0.9	2.8	0.38	2.7	0.41	4.9
J023062	< 0.5	< 0.2	1	0.8	0.6	9.5	21.6	2.98	13.6	3.6	1.27	4.4	0.7	4.4	0.9	2.6	0.35	2.4	0.36	2.4
J023064	< 0.5	< 0.2	2	< 0.5	1.5	13.3	32.5	4.42	20.5	5.1	1.87	5.6	0.9	5.4	1.1	3.2	0.47	3	0.45	3.6
J023065	< 0.5	< 0.2	1	< 0.5	2.5	13.3	32.3	4.29	20.2	4.9	1.82	5.5	0.9	5.4	1.1	3.1	0.45	2.9	0.44	3.3
J023066	< 0.5	< 0.2	1	< 0.5	< 0.5	15.4	34.2	4.84	21.6	5.5	1.91	5.9	1	5.9	1.2	3.5	0.47	3.1	0.46	3.6
J023067	< 0.5	< 0.2	1	< 0.5	2.2	8.9	22.1	3.19	15.2	4	1.6	4.7	0.8	4.9	1	3	0.41	2.6	0.39	2.6
J023082	< 0.5	< 0.2	1	< 0.5	1.8	7.8	19.5	2.74	12.9	3.8	1.29	4.5	0.8	4.7	1	2.8	0.4	2.5	0.39	2.6
J023090	< 0.5	< 0.2	3	< 0.5	0.7	28.4	60.7	7.81	32.1	7.4	1.76	8	1.3	8	1.7	5.1	0.73	4.7	0.75	7.1
J023091	< 0.5	< 0.2	1	1.1	< 0.5	10.4	26.7	3.77	18.3	4.7	1.73	5.7	0.9	5.7	1.2	3.5	0.51	3.1	0.48	3.7
J023095	< 0.5	< 0.2	5	0.5	0.9	51.4	98.6	13.1	52.9	11.6	2.7	12.1	2	12.4	2.5	7.8	1.15	7.3	1.19	14.3
J023604	< 0.5	< 0.2	2	3.1	< 0.5	31.9	64.3	7.96	32	7.1	2.1	7.1	1.1	6.6	1.3	3.9	0.54	3.6	0.54	5
J023654	< 0.5	< 0.2	9	< 0.5	0.9	80.2	120	20.7	78.2	16.3	1.93	14.4	2.5	15.4	3.1	9	1.33	9.3	1.49	14.9
J023655	< 0.5	< 0.2	10	< 0.5	2.1	36.6	106	10.4	41.4	11.9	1.65	12.1	2.3	15.4	3.3	10.2	1.61	10.7	1.67	15.9
J023096	< 0.5	< 0.2	5	< 0.5	2.5	49.2	99.8	12.4	51.3	10.9	3.06	10.6	1.8	10.5	2.1	6.4	0.96	6.4	1	12.2
J023094	< 0.5	< 0.2	8	< 0.5	10	47.5	102	11.9	46	10.3	1.91	10.3	1.9	12.2	2.6	8.4	1.29	8.7	1.41	14.3
J023086	0.5	< 0.2	8	0.9	1.4	59	141	14	51.4	10.1	0.98	9.6	1.9	12.8	2.6	8.5	1.34	8.9	1.38	10.9
J023072	< 0.5	< 0.2	2	< 0.5	1	12.1	29	4	17.7	4.2	1.34	4.7	0.7	4.4	0.9	2.5	0.34	2.3	0.34	2.9
J023509	< 0.5	< 0.2	6	< 0.5	< 0.5	37.1	84.2	10.7	40.6	9.8	1.22	9.7	1.9	12.2	2.7	8.5	1.23	8.9	1.36	12.4
J023071	< 0.5	< 0.2	1	0.9	1	12.1	27.3	3.62	16	4	1.31	4.4	0.7	4	0.8	2.3	0.3	1.9	0.3	2.7
J023602	< 0.5	< 0.2	1	0.9	3.1	12.8	28.8	3.69	16.8	3.8	1.44	4.3	0.7	4.6	1	2.6	0.37	2.5	0.37	3
J023603	< 0.5	< 0.2	1	< 0.5	1.1	10.6	25.4	3.5	15.9	4.3	1.52	4.7	0.8	5.3	1	3	0.42	2.6	0.41	2.8
J023607	< 0.5	1	1	< 0.5	2.7	19.3	43.5	5.62	25.8	6.3	2.04	6.8	1.1	6.6	1.3	3.8	0.5	3.3	0.51	3.8
J023652	< 0.5	< 0.2	2	< 0.5	2.3	13.8	30.9	4.04	17.6	4.6	1.54	5.1	0.9	5.9	1.1	3.3	0.48	3	0.46	3.7
J023653	< 0.5	< 0.2	1	< 0.5	0.7	14.3	33.2	3.98	18.4	4.8	1.57	5.3	0.9	5.7	1.2	3.4	0.49	3.2	0.48	3.6
J023073	< 0.5	< 0.2	5	0.7	3	12.3	96.4	4.31	16.6	5.6	0.76	7.8	1.7	11.9	2.5	8.7	1.26	8.9	1.39	12.4
J023087	< 0.5	< 0.2	9	< 0.5	0.6	50.2	89.6	13.6	56.9	12.3	1.9	11.9	2	12.2	2.5	7.5	1.05	6.6	1.07	9.8
J023088	< 0.5	< 0.2	3	< 0.5	0.9	26.3	56.6	6.51	24.7	5.3	0.75	5.1	0.9	6.4	1.4	4.7	0.73	5.3	0.84	6.2
J023089	< 0.5	< 0.2	3	< 0.5	1.2	32.4	61	7.77	30.6	6.4	0.84	6.2	1.1	7.5	1.6	5.3	0.81	5.4	0.85	6.2
J023093	< 0.5	< 0.2	8	0.6	8.5	41.5	104	11.1	43.5	10.7	1.75	10.9	2.2	14.8	3.1	10.1	1.53	10.5	1.7	14.1
J023608	< 0.5	< 0.2	5	< 0.5	0.9	42.9	93.7	11.5	46.2	10.3	1.71	9.8	1.6	9.6	1.9	5.6	0.76	5.1	0.78	7.6
J023508	< 0.5	0.2	4	< 0.5	< 0.5	17.3	37.7	4.94	21.5	5.3	1.66	5.6	1	6	1.2	3.4	0.47	3.1	0.49	3.8
J023059	< 0.5	< 0.2	1	2.3	6.8	10.5	24.8	3.41	15.9	4.2	1.37	4.7	0.7	4.8	0.9	2.6	0.36	2.2	0.34	2.9
J023601	< 0.5	< 0.2	12	< 0.5	1.3	12.8	75.3	4.45	17.6	5.5	0.48	7.2	1.9	14	3.2	10.3	1.58	11	1.61	12.1
J023068	< 0.5	< 0.2	7	0.8	3.2	56.6	110	13.9	54.5	11.7	1.2	10.3	1.7	11	2.3	7.7	1.14	7.9	1.22	9.8
J023074	< 0.5	< 0.2	24	0.5	7.4	41.1	129	11.5	45	10.4	1.54	10.2	2.1	13.9	2.9	9.4	1.39	9.5	1.47	15.5
J023077	< 0.5	< 0.2	7	1.9	5.7	22.2	98	7.18	26.1	6.8	0.95	6.1	1.4	10.1	2.3	6.9	1.11	7.5	1.18	9.1
J023081	< 0.5	< 0.2	10	2.4	5.9	40.3	104	12.8	47.6	10.8	1.33	10.4	2.2	15.1	3.3	10.4	1.52	10.6	1.62	14.6
J023083	< 0.5	< 0.2	9	< 0.5	1.1	47.8	101	12.6	49	11.5	1.24	11.1	2	13.1	3	9.8	1.53	10.3	1.57	16
J023084	< 0.5	< 0.2	5	< 0.5	2.1	36.1	74	8.72	33.2	6.8	1.45	6.9	1.2	7.2	1.5	4.4	0.66	4.1	0.64	6
J023092	< 0.5	< 0.2	5	2.3	2.3	18.9	62.4	4.73	16.5	4.2	0.3	4.2	0.8	5.7	1.3	4.1	0.62	4.5	0.72	6.1
J023605	< 0.5	< 0.2	6	< 0.5	0.5	42.6	80.8	11	42.1	9.8	1.05	10	1.9	12.3	2.6	8.3	1.24	8.9	1.34	12.7
J023606	< 0.5	< 0.2	8	< 0.5	3.1	64.7	136	16.3	63.2	14.2	1.5	13.8	2.5	15.6	3.2	10	1.5	10.3	1.52	15.8
J023651	< 0.5	< 0.2	9	< 0.5	0.5	68.6	144	15.5	58.3	12.3	0.99	11.4	2.1	13.6	2.7	8.5	1.27	8.9	1.36	11
J023080	< 0.5	< 0.2	9	0.9	4.2	69.4	130	16.5	64.2	13.9	1.66	13.8	2.4	15.1	3.1	9.6	1.42	9.6	1.42	12.3
J023097	< 0.5	< 0.2	8	< 0.5	1	36	98.8	9.31	35.4	8.4	0.98	8.8	1.9	13.2	2.9	9.3	1.38	9.8	1.48	14.5
J023098	< 0.5	< 0.2	8	< 0.5	1	37.9	88.8	9.87	36.9	8.6	1.04	9.1	1.8	12.3	2.5	8.1	1.19	8.1	1.24	13.2
J023099	< 0.5	< 0.2	9	< 0.5	0.8	46.1	91	10.8	40.8	9.3	1.13	9.8	1.9	13.1	2.9	8.6	1.27	9	1.38	14.2
J023076	< 0.5	< 0.2	7	0.8	4.2	29.9	85.8	8.13	31.2	7.1	0.83	7.2	1.5	9.9	2.1	7	1.06	7.3	1.11	9.1
J023079	< 0.5	< 0.2	1	< 0.5	0.5	10	24.4	3.37	16	4.2	1.56	5.2	0.8	5.1	1.1	3.1	0.41	2.7	0.43	2.9
J023656	< 0.5	< 0.2	15	< 0.5	< 0.5	94.6	202	23.4	90.6	20.6	2.38	18.9	3.4	21.5	4.5	13.7	2.03	13.9	2.1	20.1
J023657	< 0.5	0.2	19	< 0.5	2.7	103	225	25.6	97.3	21.5	2.54	22.2	4.2	27.6	5.8	16.8	2.45	16.6	2.49	21.8

*NAD83; Zon

Table 7.1- Major and trace element analyses of unmineralized grab and boulders/floats sample collected from the Riley Brook property, New Brunswick.

Sample No.	Ta (ppm)	W (ppm)	Tl (ppm)	Pb (ppm)	Bi (ppm)	Th (ppm)	U (ppm)
J023052	0.3	1	< 0.1	< 5	< 0.4	0.9	0.2
J023058	0.4	< 1	0.8	< 5	< 0.4	1.5	0.4
J023085	1.9	2	0.3	< 5	< 0.4	21.3	5.9
J023506	1.8	1	0.5	8	< 0.4	15.7	4.3
J023502	0.4	< 1	0.5	< 5	< 0.4	1.6	0.4
J023503	0.5	< 1	0.2	< 5	< 0.4	2.2	0.6
J023504	1	1	0.2	6	< 0.4	6.7	1.9
J023060	0.4	< 1	0.3	< 5	< 0.4	1	0.3
J023061	0.8	< 1	0.3	15	< 0.4	8.9	2.3
J023062	0.3	< 1	0.1	< 5	< 0.4	1.1	0.3
J023064	0.5	< 1	0.2	< 5	< 0.4	1.2	0.3
J023065	0.5	< 1	< 0.1	< 5	< 0.4	1.1	0.3
J023066	0.5	< 1	< 0.1	< 5	< 0.4	1.4	0.3
J023067	0.3	< 1	< 0.1	< 5	< 0.4	0.9	0.2
J023082	0.3	< 1	< 0.1	< 5	< 0.4	1.2	0.3
J023090	0.9	2	0.2	< 5	< 0.4	8.9	1.5
J023091	0.5	< 1	< 0.1	< 5	< 0.4	1.1	0.3
J023095	1.4	3	0.3	9	< 0.4	12.9	3.6
J023604	0.9	< 1	0.2	12	< 0.4	6.2	1.3
J023654	1.9	1	0.6	22	< 0.4	22	5.6
J023655	2.3	< 1	0.7	< 5	< 0.4	24.4	6.4
J023096	1.4	2	0.4	13	< 0.4	15.3	4.8
J023094	2.7	2	0.3	11	< 0.4	20.9	6.1
J023086	2.2	2	1.9	163	< 0.4	28	6.7
J023072	0.4	5	0.3	< 5	< 0.4	2	0.4
J023509	2	< 1	0.3	5	< 0.4	20.9	5.1
J023071	0.3	< 1	0.1	< 5	< 0.4	1.8	0.3
J023602	0.5	< 1	0.3	8	< 0.4	2.2	0.6
J023603	0.4	< 1	0.2	< 5	< 0.4	1.9	0.6
J023607	0.6	< 1	< 0.1	< 5	< 0.4	3	0.8
J023652	0.5	2	0.2	< 5	< 0.4	2.8	0.8
J023653	0.5	< 1	< 0.1	< 5	< 0.4	2.8	0.8
J023073	2	< 1	1	12	< 0.4	24.1	6.1
J023087	1.6	< 1	0.1	14	< 0.4	18.6	3.3
J023088	1.5	2	0.6	12	< 0.4	18.7	4.2
J023089	1.5	1	0.6	9	< 0.4	19.5	4.1
J023093	2.8	2	0.4	12	< 0.4	22	6.7
J023608	1.5	1	0.4	13	< 0.4	13.9	4
J023508	0.6	< 1	< 0.1	< 5	< 0.4	3	0.8
J023059	0.4	< 1	2.1	< 5	< 0.4	1.6	0.4
J023601	2.5	2	1	< 5	< 0.4	28.8	7.7
J023068	1.6	< 1	1.4	11	< 0.4	21	5.1
J023074	2.2	2	2	18	< 0.4	25.3	6.6
J023077	1.6	< 1	2.1	18	< 0.4	17.9	4.3
J023081	2.3	1	3.4	14	< 0.4	26.3	6.5
J023083	2.8	2	0.5	12	0.4	24.7	3.6
J023084	1.5	1	0.4	16	< 0.4	14.4	4.9
J023092	1.6	2	2.1	28	< 0.4	20.2	3.8
J023605	1.8	< 1	0.4	< 5	< 0.4	21.7	5.3
J023606	2.5	< 1	0.5	20	0.4	22.9	6.7
J023651	1.9	< 1	0.5	9	< 0.4	22.3	5.5
J023080	2.1	1	2.3	8	< 0.4	21.9	4.9
J023097	1.9	1	1	10	< 0.4	22.9	5.8
J023098	1.7	< 1	0.5	10	< 0.4	19.9	5.1
J023099	1.9	1	0.8	28	< 0.4	20.7	4.9
J023076	1.5	1	1.7	19	< 0.4	19.3	4.8
J023079	0.3	< 1	< 0.1	< 5	< 0.4	1	0.3
J023656	2.8	2	0.2	10	< 0.4	31	7.9
J023657	3.3	1	0.8	< 5	< 0.4	37.6	9

*NAD83; Zon



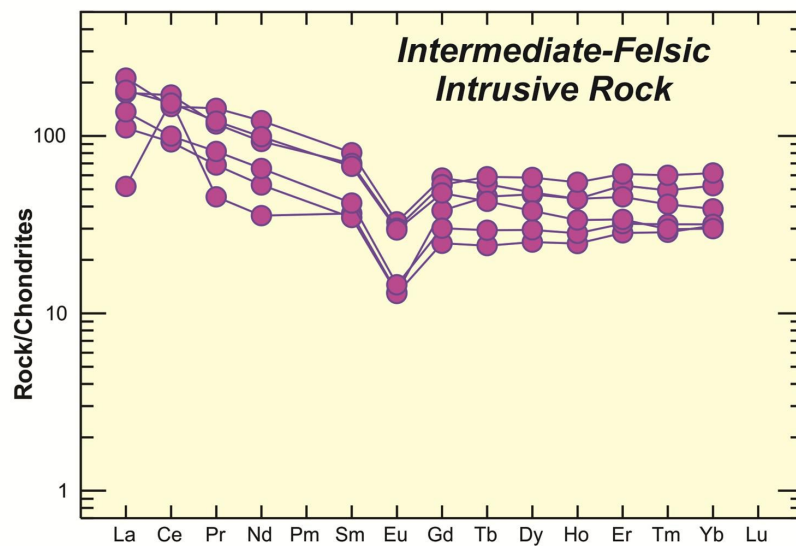
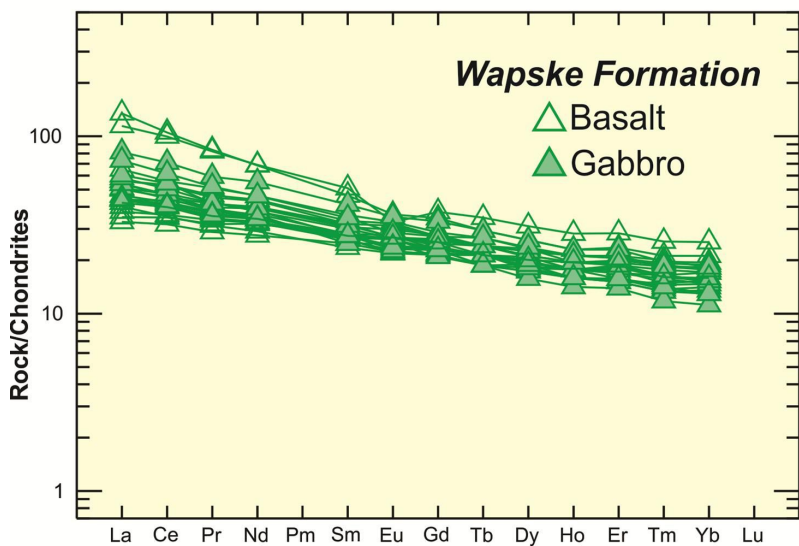
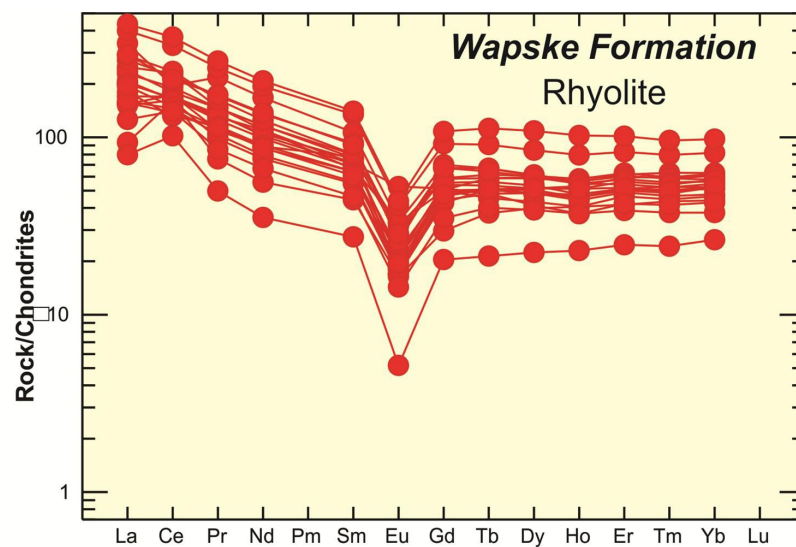
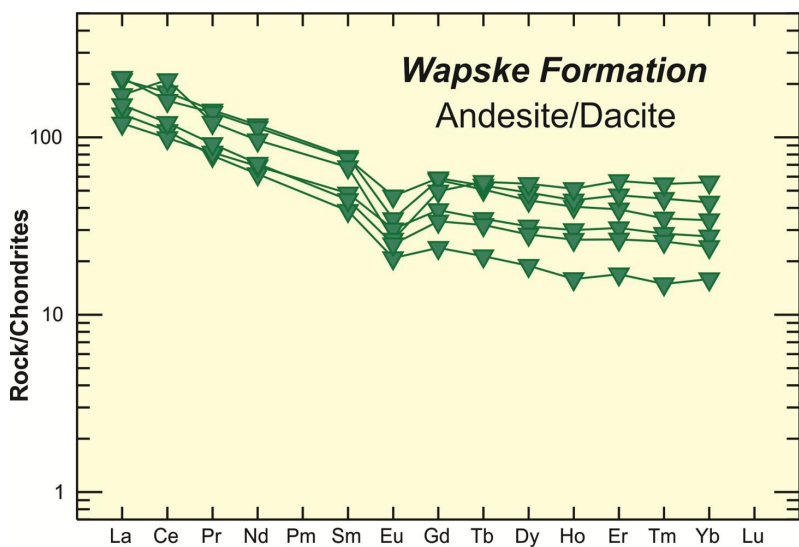
Geochemical Classifications (Whole Rocks)

Riley Brook Property
Acadian Gold Corp.

GOLDERA

Date of Creation: 2026-03-13

Figure 7.3- a) SiO₂ (wt. %) vs Na₂O+K₂O (Wt. %) classification diagrams for grab sample analyses, Riley Brook property.



Whole Rocks Classifications (REE)

Riley Brook Property
Acadian Gold Corp.

GOLDERA

Date of Creation: 2026-03-13

Figure 7.4- Chondrite normalized Rare Earth Element (REE) plot for the mafic and felsic volcanic rocks of the Wapske Formation and the intermediate-felsic intrusive rocks, Riley Brook property, New Brunswick.

7.5. Mineralization

Mineralization occurring on the Riley Brook property is characterized by several altered zones within felsic Late Devonian metavolcanic rocks containing various concentrations of Cu, Zn, Pb and Au in disseminated, veinlets and semi-massive forms. Currently, there are nine known mineralized showings listed in the Natural Resources and Energy Development mineral occurrence database shown in Figure 7.1.

7.5.1. Stewart Peaks South

The mineralization consists primarily of Zn. Sulphides occur as disseminations and coatings along fractures and as disseminations in vugs in felsic volcanic rocks. Minor amounts of pyrite, sphalerite and galena were observed in outcrops and the highest assay values recorded were 108 ppm Cu, 390 ppm Pb and 1180 ppm Zn from a fine- to medium-grained flow banded rhyolite float. The mineralization occurs along fracture surfaces.

7.5.2. Blue Mountain Lake

Chalcopyrite occurs as irregular disseminations and as small grains and blebs accompanied by occasional sphalerite and rare pyrite in a shear zone cutting an amygdaloidal andesite. Carbonatization of the host rocks is locally present. Grab samples across 4.9 m assayed 0.16% Cu. Pyrite and minor chalcopyrite mineralization were observed in rhyolite near a soil anomaly.

7.5.3. Black Mountains A

Sulphides are disseminated in felsic volcanic rocks. Pyrite and minor chalcopyrite and galena mineralization were observed in a rhyolite near a soil anomaly. A rock sample from this location assayed 126 ppm Cu, 1920 ppm Pb, 386 ppm Zn and 1.7 g/t Ag. Another grab rock sample described as pink to white, aphanitic, limonite-stained rhyolite with disseminated pyrite, minor galena and possible sphalerite yielded high K/Na ratios indicating the rock has undergone some alteration although no significant anomalous base metals values were obtained.

7.5.4. Black Mountains B

Sulphides are disseminated in felsic volcanic rocks. Pyrite and minor chalcopyrite mineralization were observed in rhyolite near a soil anomaly. A grab rock sample from this location was only slightly anomalous in Pb (100 ppm) and Zn (199 ppm). 7.3.7.5- Riley Brook. Base metal sulphides are reported to occur in rhyolite and rhyolite tuff associated with basalt and siltstone, shale and calcareous slate. Chalcopyrite, sphalerite, galena and pyrite mineralization were observed. Rock alteration is characteristic of epithermal mineralization. Assay values were generally low. Samples collected on Riley Brook Road

carried anomalous values of Au (up to 38 ppb) and Pb (up to 770 ppm).

7.5.5. Riley Lake

Sulphides occur as veins cutting felsic agglomerates and greywackes. One DDH intersected felsic volcanic rocks and greywacke containing disseminated and stringers of pyrite (1%) with specks of sphalerite, galena and chalcopryrite. The best assay results obtained were 930 ppm Zn, 374 ppm Pb and 133 ppm Cu over 1.5 m (Huska,1981; Report 472537). One grab sample represented a silicified, brecciated, pyrite-rich dark grey rhyolite with minor galena and assayed 40 ppb Au, 2300 ppm As, 63 ppm Sb, 380 ppb Hg, 370 ppm Pb and 300 ppm Zn.

7.5.6. Mable Brook

Sparse base metal sulphides occur in intermediate lava. Diamond drilling revealed disseminated and stringer sulphides occurring at depth in locally chloritized and sericitized rhyolite and siltstone. Sulphides are mainly confined to rhyolite but do occur in the overlying siltstone at the contact and in siltstone beds within the rhyolite unit. The mineralization also consists of sparse pyrite, chalcopryrite, sphalerite and galena disseminated in boulders and outcrop. An assay from one bedrock exposure comprising mineralized intermediate lava gave a value of 0.01% Cu, 0.01% Pb and zero Zn and Ni. A DDH intersected minor stringers and disseminated pyrite with traces of sphalerite and galena in a rhyolite unit. The best assay results gave 0.48 % Pb, 0.02% Cu, 0.81% Zn over 3.7 m (Taylor, 1999b; Report 474958).

7.5.7. Campbell River

Reported washing of alluvial gold from black sand along the river near the mouth of Long Lake Fork, a tributary of the Tobique River.

7.5.8. Upper Blue Mountain Lake

The mineralization consists of traces of finely disseminated pyrite, chalcopryrite, sphalerite and galena in mafic and felsic volcanic rocks. A sample described as a fine- grained massive dark grey rhyolite with abundant Mn stringers, pyrite and possible sphalerite and galena was assayed. Concentrations of 264 ppm Cu, 5680 ppm Pb and 4640 ppm Zn were reported.

8. DEPOSIT TYPES

The Cu, Zn, Pb $\pm$ Au mineralization present on the Riley Brook property may be provisionally classified as epithermal. Epithermal base and precious metal deposits are broadly grouped into high-, intermediate, and low- sulphidation types based on the sulphidation state in the ore-forming fluids and their hypogene sulphide assemblages (White and Hedenquist, 1990, 1995; Hedenquist, 1987).

The Riley Brook mineralization could belong to the polymetallic low- or intermediate- sulphidation deposits class. This deposit style was recognized by Sillitoe (1993). Examples include the Fresnillo, Pachuca and Guanajuato districts (Mexico), Cikotok (Indonesia), El Bronce (Chile), Toyoha (Japan), Zgid (Russia) and Comstock and Creede (USA). They show many of the textural and alteration characteristics of gold-silver deposits but are usually dominated by silver and lead-zinc mineralization. Gold and silver mineralization occurs dominantly as veins and stockworks with minor disseminations. Distinctive minerals present include pyrite, sphalerite, galena, arsenopyrite and sulfosalts (complex Ag, Pb and Cu species with As and Sb as well as sulfur). Gangue minerals are dominated by quartz, adularia (hydrothermal potassium feldspar) and calcite with some illite development. Fluids in this regime generally do not significantly alter surrounding wall rocks at the depth of mineralization but do affect increasingly widespread silicification. Advanced argillic alteration and propylitic alteration occur above the mineralized levels. Low sulphidation epithermal mineralization is controlled by competent or brittle host rocks which develop fractures as vein hosts, although permeability is locally important. Ore metals and gangue ingredients are dissolved in the epithermal ore fluids, which rise from depth along structural pathways at high temperatures ($>200^{\circ}\text{C}$) under enough pressure to preclude boiling. Different types of hydrothermal fluids are involved: a) Meteoric b) Magmatic-meteoric waters and c) Magmatic dominant waters.

In central New-Brunswick gold mineralization often takes place in conjunction with rhyolite domes (Sleeper, Bullfrog, Cecilia). For instance, the Williams Brook project of Puma Exploration Inc. (Oct. 14, 2021 press release) and the Mulligan Gulch project of Gold Terra Resources Corp. (Oct. 05, 2022 press release) may be examples of low sulphidation epithermal systems associated with felsic domes. The project area is also located in the region of the Central Plutonic Belt of New Brunswick in which several intrusions are associated with porphyry Cu $\pm$ Mo and epithermal gold mineralization present in their felsic volcanic equivalents (Yousefi et. al., 2024).

Gold mineralization related to the Riley Brook property could also belong to the lode gold, or orogenic gold type. This type usually occurs in greenstone-hosted quartz- carbonate veins in a wide variety of host rock types; mafic and ultramafic volcanic rocks and competent iron- rich differentiated tholeiitic gabbroic sills and granitoid intrusions (e.g., Tonalite-Trondhjemite-Granodiorite; TTG). Typically, there is a strong structural control of the gold deposits and orebodies at all scales. The morphology can be highly variable, including: 1) brittle faults to ductile shear zones, 2) extensional fractures, stockworks and breccias, and 3)

fold hinges (Hodgson, 1989). The orebodies consist dominantly of altered host rock with disseminated mineralization or of fissure-filled mineralization. The gold-bearing shear zones and faults associated with this deposit type are mainly compressional and they commonly display a complex geometry with anastomosing and/or conjugate arrays (Robert and Poulsen, 2001).

Veins in the orogenic gold deposits are dominated by quartz with subsidiary carbonate and sulphide minerals, and less abundantly, albite, chlorite, white mica, tourmaline, and scheelite. Carbonate minerals consist of calcite, dolomite and ankerite. Gold occurs in the veins and in adjacent wallrocks and is usually intimately associated with sulphide minerals, including pyrite, pyrrhotite, chalcopyrite, galena, sphalerite, and arsenopyrite. In volcano-plutonic settings, pyrite and pyrrhotite are the most common sulphide minerals in greenschist and amphibolite grade host rocks. The main alteration products of the wallrocks include carbonate minerals (calcite, dolomite, ankerite, sulphide minerals (generally pyrite, pyrrhotite or arsenopyrite), sericite, fuchsite, albite, chlorite and quartz. Lode gold deposits are spatially and genetically associated with second- and third-order compressional reverse-oblique to oblique brittle- ductile high-angle shears and high strain zones. The ore-forming fluid is typically a 1.5 ± 0.5 kb, $350^\circ \pm 50^\circ\text{C}$, low-salinity $\text{H}_2\text{O}-\text{CO}_2 \pm \text{CH}_4 \pm \text{N}_2$ fluid that transported gold as a reduced sulphur complex (Mickucki, 1998; Groves et al., 2003).

An alternative model for the Riley Brook mineralization may reside in a process related to Reduced Intrusion-Related Gold Systems (RIRGS) a class of deposits that display a spatial and temporal relation to reduced (low $f\text{O}_2$) granitoids. These are characterized by sheeted auriferous quartz veins that mainly form in the brittle carapace at the top of small plutons (Hart, 2007). They form bulk-tonnage, low-grade Au deposits characterized by an Au-Bi-Te-W metal assemblage. RIRGS also include a wide range of intrusion-related mineral deposit styles (skarns, replacements, veins) that form within the region of hydrothermal influence surrounding the pluton. They are also characterized by proximal Au-W-As and distal Ag-Pb-Zn metal associations, thereby generating a zoned mineral system. Plutons that generate RIRGS form in tectonic settings characterized by continental post-collisional extension. The most common Au systems comprise metaluminous, reduced, fractionated, biotite > hornblende > pyroxene quartz monzonites. The mineralization shows evidence for a series of alteration and mineralization events spanning a significant range of temperatures ($>500^\circ - <300^\circ\text{C}$); a consistent pattern of early feldspathic (albite and/or K feldspar) alteration and younger sericite-carbonate alteration; evidence for change in sulfidation state from well below pyrite-pyrrhotite (early) to pyrite-arsenopyrite (late) (Thompson et al., 2000). Intrusive rocks sampled from outcrops within the Riley Brook property display a geochemical signature compatible with A-type or within plate granitoids, supporting in part the RIRGS model.

9. EXPLORATION

9.1. Prospecting Program and Rock Sampling

In 2024, Fancamp implemented an initial prospecting program completed during the period of August 7 to 18, 2024. An additional survey took place from May 28 to June 4, 2025. The main objectives expected during the planning were a) to locate and sample new and historical mineralization, b) determine the alteration overprint of the volcanosedimentary assemblages and c), better understand the geological make-up of the Riley Brook property. 436 grab rock samples were collected from boulders and outcrops during the 2024 and 2025 exploration programs, of which 377 were analyzed for base and precious metals and other key indicator elements whereas major and trace elements were determined for 59 specimens. The exploration was hampered by poor bedrock exposure across the property. LiDAR maps were used to identify ridges and streams where outcrops and floats could be present. In general, the property bedrock is covered by a 0 to 2 m- thick mix of soil and glacial till. Therefore, the proportion of samples gathered from boulders/floats reaches 77% (337 of 436). Grab samples collected for their potential mineralization represent all major volcanic and intrusive lithologies occurring on the property, principally basalt, dacite-rhyolite and minor andesite with gabbroic, intermediate and felsic compositions stemming from plutonic rocks. Consideration was given to sampling of quartz veins, breccias and apparent faults.

Fancamp geologists identified new intrusive units (felsic to mafic) in areas where none were recognized by the New Brunswick Geological Survey. Collection of grab samples was concentrated in three main areas: west and southwest of Bald Peak in basaltic flow, tuff, epiclastic and sedimentary rocks of the Wapske formation, east and north of Haystack form mafic lithologies and rhyolite flow, hyaloclastic and epiclastic rocks of the Wapske formation and west of Craig Mountain form mafic units of the Wapske Formation (Figures 9.1, 9.2). The prospecting program led to the discovery south of Bald Peak Mountain of a gold bearing float yielding a gold concentration of 1.17g/t. The gabbroic sample (J023561) displays decimetric-thick vuggy and rusty quartz veins. Three other samples in the general vicinity of Bald Peak returned gold values > 30ppb Au (0.34-0.12 ppm). Samples collected west of Bald Peak are also anomalous in Cu (412-530 ppm), Zn (455-591) and As (1200 ppm). East of Haystack Mountain, two rhyolites samples from the Wapske Formation yielded Cu concentrations of 463 and 1270 ppm, 2 other samples gave Zn values of 458 and 650 ppm, whereas one sample provided 378 ppm As. Finally, one volcanic float west of Craig Mountain returned 7850 ppm Cu (Table 9.1).

Several significant alteration footprints were observed during the property exploration. Strongly altered mafic volcanics containing epidote were observed East of Haystack Mountain. One float containing 90% hematite, and 10% epidote was found within the area but returned no significant assay values. West of Bald Peak, strongly argillitized, potassic-rich, and pyritized felsic and intermediate intrusive floats were observed.

Table 9.1. Salient trace element analysis of mineralized or altered grab samples collected from floats/boulders from the Riley Brook property, new Brunswick.

Sample No.	Easting*	Northing	Sampling M	Rock Type	Lithology	Alteration	Alt_Style	Alt_Level	Mineralization	%_Min.	Min_Style	Au (ppm)	Ag (ppm)
J023269	640493	5224535	Boulder	Volcanic	Rhyolite					0		<0.005	2
J022297	641192	5225522	Float	Intrusive	Felsic				Pyrite	1	Disseminated	0.009	1.3
J023149	640234	5225862	Boulder	Volcanic	Rhyolite					1	Disseminated	0.022	0.7
J023256	642702	5224201	Boulder	Structural	Quartz Vein	Oxydation	Vein	Moderate		0		1.176	0.5
J023283	640237	5225859	Boulder	Volcanic	Rhyolite	Oxydation	Fracture	Weak	Pyrite	0.5	Disseminated	0.011	0.4
J023290	640254	5225874	Boulder	Intrusive	Felsique	K-felds	Pervasive	Moderate	Pyrite	0.5	Disseminated	0.008	0.2
J023261	639294	5225502	Boulder	Structural	Quartz Vein	Silica	Pervasive	Moderate		0		0.057	< 0.2
J022357	642285	5224649	Float	Intrusive	Mafic	Chlorite	Patch	Moderate	Pyrite	0.5	Disseminated	<0.005	0.4
J023288	640237	5225859	Boulder	Intrusive	Felsique	K-felds	Patch	Weak	Pyrite	0.5	Disseminated	0.028	0.6
J023278	640234	5225852	Boulder	Intrusive	Granite				Pyrite	1	Disseminated	0.034	0.5
J023916	635739	5208111	Float	Volcanic	Felsic					0		<0.005	2.8
J023113	635427	5214258	Boulder	Volcanic		Bleach	Pervasive	Intense		0		0.053	< 0.2
J023583	644518	5217495	Boulder	Volcanic	Basalt	Epidotite	Pervasive	Moderate	Pyrite	2.5	Disseminated	<0.005	< 0.2
J022345	636250	5209719	Float	Volcanic	Intermediate	Silica	Pervasive	Moderate		0		0.053	1.7
J023038	645195	5217708	Boulder	Volcanic	Rhyolite	Chlorite	Pervasive	Weak	Pyrite	1	Disseminated	<0.005	< 0.2
J023582	644522	5217503	Outcrop	Volcanic	Basalt	Epidotite	Pervasive	Moderate	Pyrite	2	Vein	0.116	0.5
J023282	640237	5225859	Boulder	Intrusive	Intermediaire	Argilisation	Pervasive	Weak	Pyrite	0.5	Disseminated	0.04	< 0.2

*NAD83; Zone 19N

Table 9.1. Salient trace element analysis of mineralized or altered grab samples collected from floats/boulders from the Riley Brook property, new Brunswick.

Sample No.	Cd (ppm)	Cu (ppm)	Mn (ppm)	Mo (ppm)	Ni (ppm)	Pb (ppm)	Zn (ppm)	Al (Wt. %)	As (ppm)	B (ppm)	Ba (ppm)	Be (ppm)	Bi (ppm)	Ca (Wt. %)
J023269	< 0.5	142	551	10	5	1280	500	0.5	187	< 10	31	< 0.5	8	0.01
J022297	0.7	19	715	7	2	855	455	7.01	107		550	< 1	< 2	0.06
J023149	0.6	284	118	13	20	565	113	0.61	62	< 10	41	< 0.5	< 2	0.11
J023256	< 0.5	5	668	21	15	434	7	0.4	2	< 10	14	2	< 2	0.05
J023283	1.4	347	98	14	18	388	169	0.41	42	< 10	29	< 0.5	< 2	0.07
J023290	< 0.5	412	385	11	16	221	99	0.97	27	< 10	21	< 0.5	< 2	0.37
J023261	< 0.5	46	387	8	57	198	211	1.71	40	< 10	26	< 0.5	< 2	0.13
J022357	< 0.3	27	2770	< 1	17	158	591	7.43	< 3		626	1	2	2.92
J023288	< 0.5	530	261	23	19	57	90	0.81	56	< 10	23	< 0.5	< 2	0.34
J023278	< 0.5	124	159	8	45	49	67	0.84	73	< 10	30	0.6	< 2	0.23
J023916	< 0.3	7850	204	1	6	28	45	6.07	8		212	4	4	0.12
J023113	< 0.5	< 1	61	8	4	18	33	0.4	6	< 10	< 10	< 0.5	< 2	< 0.01
J023583	< 0.5	463	1980	4	86	15	157	3.55	47	< 10	< 10	0.6	6	1.26
J022345	< 0.3	5	185	2	2	14	35	5.69	< 3		374	3	< 2	0.13
J023038	1.4	73	1080	10	4	8	458	1.4	10	< 10	77	1.1	< 2	0.72
J023582	< 0.5	1270	1840	11	73	7	189	3.32	10	< 10	10	0.6	3	1.73
J023282	< 0.5	44	759	6	8	7	144	2.01	30	< 10	49	0.6	< 2	0.52

*NAD83; Zon

Table 9.1. Salient trace element analysis of mineralized or altered grab samples collected from floats/boulders from the Riley Brook property, new Brunswick.

Sample No.	Co (ppm)	Cr (ppm)	Fe (Wt. %)	Ga (ppm)	Hg (ppm)	K (Wt. %)	La (ppm)	Mg (Wt. %)	Na (Wt. %)	P (Wt. %)	S (Wt. %)	Sb (ppm)	Sc (ppm)	Sr (ppm)
J023269	11	111	1.47	< 10	< 1	0.21	30	0.05	0.016	0.021	0.01	< 2	2	3
J022297	6	9	3.97	20		6.18		0.74	0.69	0.063	0.1	< 5	11	63
J023149	17	188	2.48	< 10	< 1	0.14	< 10	0.23	0.014	0.075	0.52	10	5	4
J023256	7	264	0.68	< 10	< 1	0.03	< 10	0.12	0.022	0.014	< 0.01	< 2	3	2
J023283	15	197	1.83	< 10	< 1	0.1	< 10	0.13	0.017	0.047	0.42	10	4	3
J023290	30	109	4.51	< 10	< 1	0.12	13	0.37	0.015	0.181	0.9	3	6	7
J023261	30	144	3.74	< 10	< 1	0.27	12	0.87	0.015	0.074	< 0.01	4	9	4
J022357	25	18	7.31	20		2.27		1.7	2.62	0.114	0.71	< 5	28	127
J023288	30	134	3.66	< 10	< 1	0.14	11	0.33	0.017	0.162	1.04	9	5	6
J023278	37	131	3.59	< 10	< 1	0.2	< 10	0.19	0.017	0.126	1.47	17	14	5
J023916	1	20	1.84	23		1.85		0.13	3.36	0.007	0.23	< 5	< 4	43
J023113	< 1	99	2.09	< 10	< 1	0.24	< 10	0.01	0.015	< 0.001	< 0.01	4	< 1	1
J023583	35	147	12.4	10	< 1	0.03	< 10	2.56	0.022	0.153	2.99	5	7	73
J022345	< 1	33	2.12	26		3.12		0.02	1.85	0.003	< 0.01	< 5	< 4	30
J023038	< 1	99	4.03	20	< 1	0.29	43	0.37	0.047	0.022	0.34	2	7	28
J023582	28	130	9.46	< 10	< 1	0.03	< 10	2	0.021	0.159	1.59	4	7	117
J023282	28	63	8.57	20	< 1	0.13	18	1.1	0.019	0.251	0.56	4	11	10

*NAD83; Zon

Table 9.1. Salient trace element analysis of mineralized or altered grab samples collected from floats/boulders from the Riley Brook property, new Brunswick.

Sample No.	Ti (Wt. %)	Th (ppm)	Te (ppm)	Tl (ppm)	U (ppm)	V (ppm)	W (ppm)	Y (ppm)	Zr (ppm)
J023269	< 0.01	< 20	1	< 2	< 10	4	< 10	11	9
J022297	0.45		< 2	< 5	< 10	45	9	39	378
J023149	< 0.01	< 20	1	< 2	< 10	79	< 10	7	4
J023256	0.03	< 20	< 1	< 2	< 10	25	< 10	1	3
J023283	< 0.01	< 20	< 1	< 2	< 10	60	< 10	5	4
J023290	< 0.01	< 20	< 1	< 2	< 10	82	< 10	18	5
J023261	< 0.01	< 20	< 1	< 2	< 10	111	< 10	7	5
J022357	0.58		< 2	< 5	< 10	107	6	46	132
J023288	< 0.01	< 20	< 1	< 2	< 10	69	< 10	15	6
J023278	< 0.01	< 20	< 1	< 2	< 10	166	< 10	15	5
J023916	0.13		< 2	< 5	< 10	41	< 5	94	749
J023113	0.04	< 20	< 1	< 2	< 10	3	< 10	19	47
J023583	0.43	< 20	4	< 2	< 10	87	< 10	8	14
J022345	0.14		< 2	< 5	< 10	37	< 5	106	753
J023038	0.23	< 20	1	< 2	< 10	3	< 10	29	65
J023582	0.42	< 20	4	< 2	< 10	82	< 10	9	16
J023282	0.01	< 20	< 1	< 2	< 10	160	< 10	26	6

*NAD83; Zon

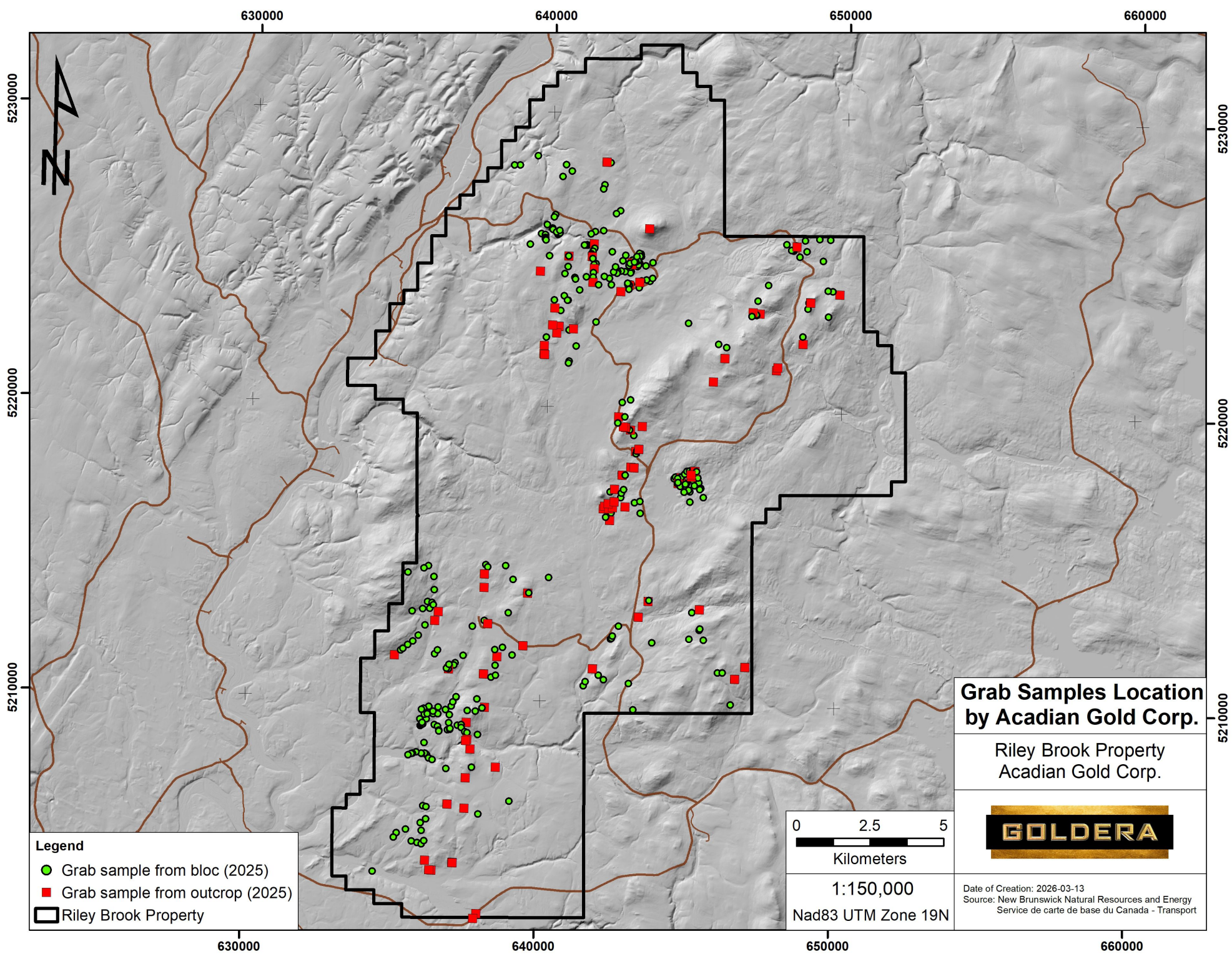


Figure 9.1 - Localization of grab samples from mineralized or altered floats/boulders and outcrops collected from the Riley Brook property, New Brunswick.

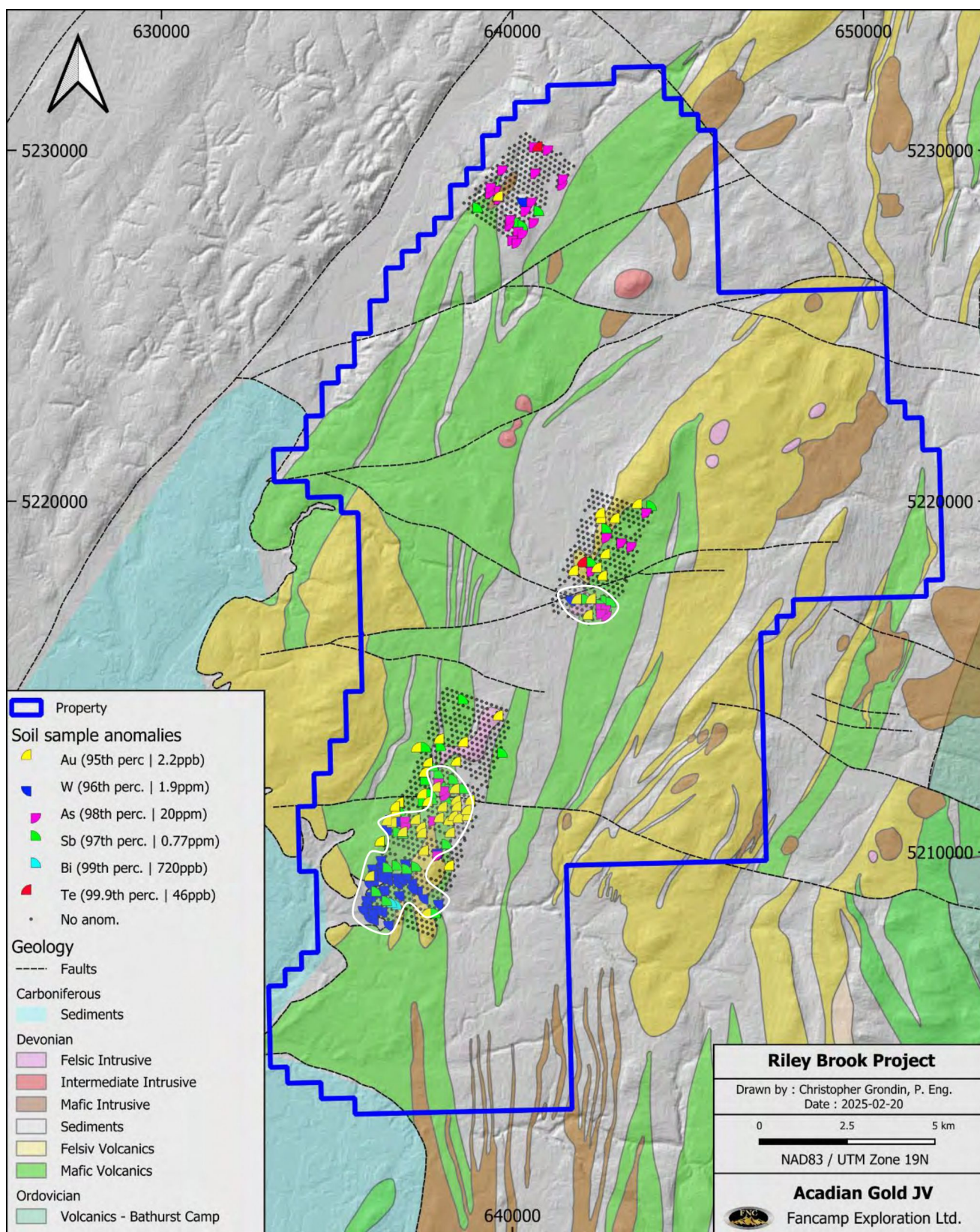


Figure 9.2-Corrected soil sample anomalies(BHorizon)from the 2024 sampling program completed on the Riley Brook property, New Brunswick.

9.2. Soil Sampling Survey (B Horizon)

9.2.1. Logistics

From May 20 to May 31, 2024, Fancamp completed a soil sampling program (B Horizon) to detect potential geochemical anomalies characteristic of an underlying mineralized bedrock. Three different grids were established across the property based on Fancamp's historical work compilation. The first grid was located in the northwest sector of the property (west of Bald Peak), the second at the core of the property (around Haystack Mountain), and the third was placed to the southwest around Craig Mountain. The NW/SE-oriented sampling grids were spaced every 150 meters, whereas soil samples were collected each 150 meters along the lines. In total, 1121 soil samples covering an area of 27km² were collected. Furthermore in 2025, Fancamp expanded the sampling grid across the area where a B Horizon sample yielded a gold value of 150 ppb from the May sampling program. Twelve samples were taken every 50 m from a NW/SE-oriented grid with lines spaced every 50 m.

9.2.2. Data Correction

Since chemical parameters strongly influence the metal adsorption soil capacity, the raw assay results were corrected according to a procedure developed by Réjean Girard from IOS Services Géoscientifiques. The quantity of cations adsorbed by any soil sample depends on its Cation Exchange Capacity (CEC) which varies according to the abundance of H⁺ and metal cations. The Charge Molality (MoC) can be used as an approximation of the CEC measurement. The MoC is calculated by converting the metals concentrations (in ppm or ppb) into molality (moles/kg) and multiplied by the cation charge under prevailing pH-Eh conditions. The procedure was applied to the main cations such as Al, Ca, Fe, K, Mg, Mn and Na. The prevailing soil acidity has a complex and important effect on the quantity of cations that can be adsorbed onto the material. The impact of acidity in the adsorption rate of different cations can reach more than one order of magnitude, thus also requiring data correction. For each method of analysis (i.e., ME-MS41L and AuME-ST44) the correction is performed by normalizing the CEC normalized assay result for each element by the 80th percentile of the assay population for a given acidity range. A probabilistic approach to determine elemental anomalous thresholds for a soil geochemistry survey often generate high values that may not be anomalous. Instead, we used significant deviations from a modelled log-normal distribution in the observed data.

9.2.3. Interpretation

Results of the corrected soil sampling survey led to the recognition of two areas of interest; the first located in the southern part of the property south of Craig Mountain revealing a 2 km long x 1.5 km-wide zone defined by W, As, Au, and Sb anomalies (Figure 9.2). A second 300 m x 300 m zone near Haystack Mountain is characterized by Au, As, Bi, Sb, and Te anomalies. Elements associated with gold anomalies

are considered pathfinders to numerous gold-bearing mineralized systems. The two anomalous areas are in the vicinity of felsic plutons and near second-order faults. These are considered priority targets for the next phase of exploration work.

9.3. HeliTEM² Electromagnetic, Magnetic and Radiometric Survey

Fancamp Exploration and Lode Gold Resources under the Acadian Gold Corp. Joint Venture, commissioned Xcalibur Multiphysics to complete an heliborne HeliTEM² electromagnetic, magnetic and radiometric survey on the Riley Brook property. The survey helped accurately map the property geology and generate exploration targets. An AS350-B3helicopter was used from October 13 to November 4, 2024, to carry over 2322.2 line-km of data acquisition. Fancamp Exploration Ltd requested complementary processing and analysis of the heliborne MAG, RADIO and EM data by Simard (2024). The flight Parameters, equipment used and technical specifications of the HeliTEM² Survey are presented in Table 9.2.

<u>PROPERTY</u>	<u>TYPE OF SURVEY</u>	<u>FLIGHT PARAMETERS</u>
Riley Brook	Type of Survey: Combined HeliTem Mag and Radio Production: 2322.2 line-km	Flight-line direction: N110°/N290° Flight-line spacing: 150 m Tie-line direction: N20°/N200° Tie-line spacing: 1500 m Mean Terrain clearance (Helico): 84 m
<u>TYPE OF SURVEY</u>	<u>TECHNICAL SPECIFICATIONS AND EQUIPMENT USED</u>	
Magnetometry	Magnetometer: Scintrex CS-3 cesium vapor sensor (in-flight inst.) Sensor Elevation above Ground: 56 m (RB), 48 m (MCY) Sampling rate: 10 Hz Base station: CF1 using Scintrex cesium vapour sensor (base station) Sampling rate: 1 Hz	
Electromagnetism	Equipment: Helitem II Loop Elevation above ground: 56 m (RB), 48 m (MCY) Loop Diameter: 35 m Loop Area: 962 m ² Helicopter Loop Separation: 35.4 m Base Frequency: 30 Hz Pulse Width: 8.9030 Off-Time: 7.7637 ms Transmitter Current: 150 A Dipole Moment: 5.77 *10 ⁵ A*m ²	
Radiometry	Equipment: Radiation Solution RS-500 Crystal: 16.8 L downward-looking crystals and 4.2 L upward-looking crystal Sensor Elevation above Ground: 92 m (RB), 84 m (MCY) Sampling Rate: 1.0 Hz	

Table 9.2- Flight parameters of the MAG-Helitem II survey and equipment used and technical specifications.

Spectrometry measurements were performed by sampling 256 channels of the energy spectrum between 0.25 and 3.00 Mev. The peaks K40, Bi214, and Tl208 are used to assess the concentrations of potassium (K), uranium (U), and thorium (Th).

The MAG survey generated specific contour maps such as Residual Total Magnetic Field, Residual Total Magnetic Field Reduced to Pole, First Vertical, Tilt Angle and 3D Analytic Signal. In the northern part of the property, 2.4 km southwest of Bald Peak, the FVD contour map displays a “C- shaped” high magnetic anomaly (Figures 9.3, 9.4). The entire area appears anomalous in terms of historical and current base and precious metals concentrations, As-Cu-Sb concentrations in soil and a flat altered zone characterized by pyritization and argilitization. A strongly argilitized, pyritized and hematized

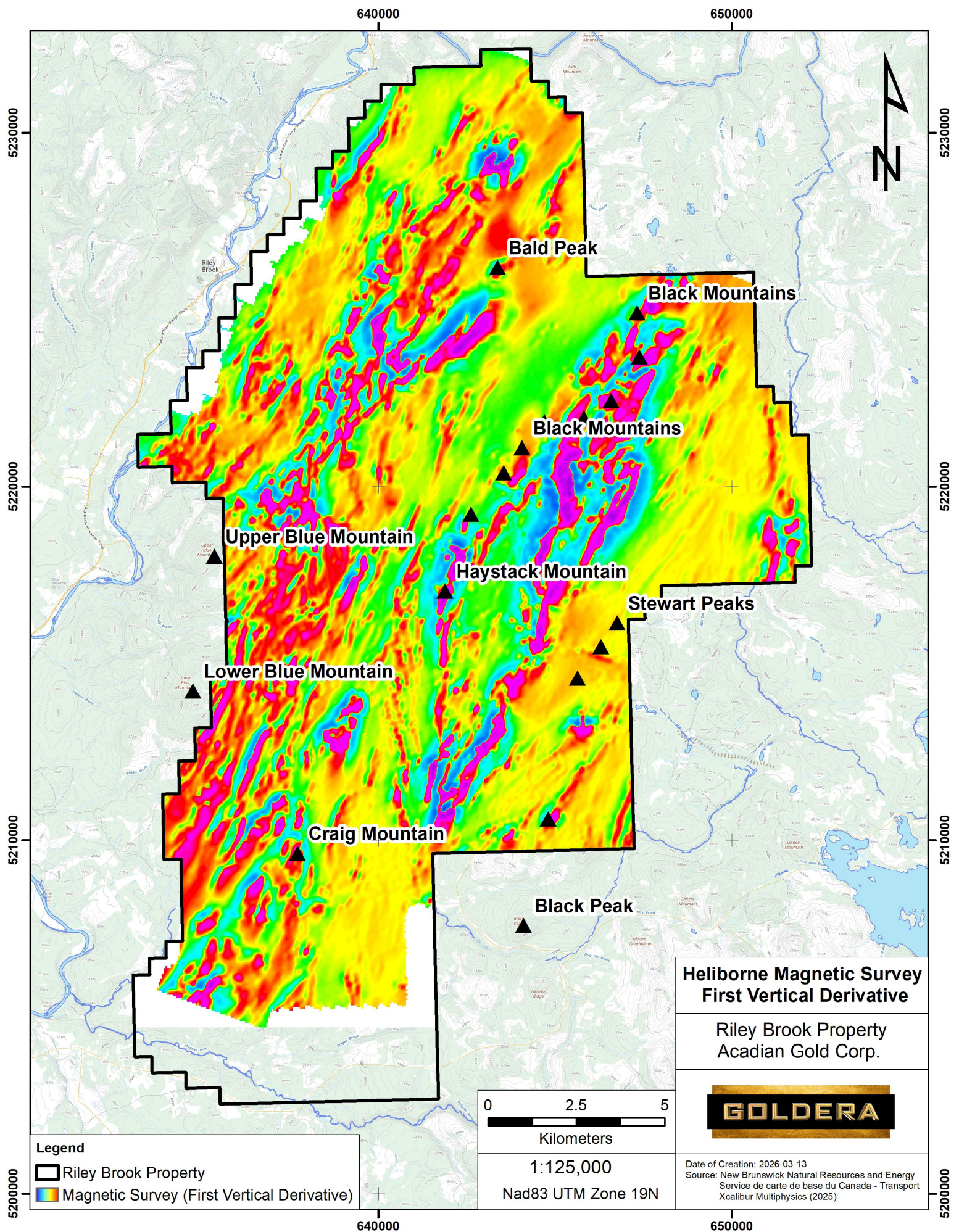


Figure 9.3- Countour map of the First Vertical Derivative of the magnetic data acquired via the heliborne HELITEM survey, Riley Brook property, New Brunswick.

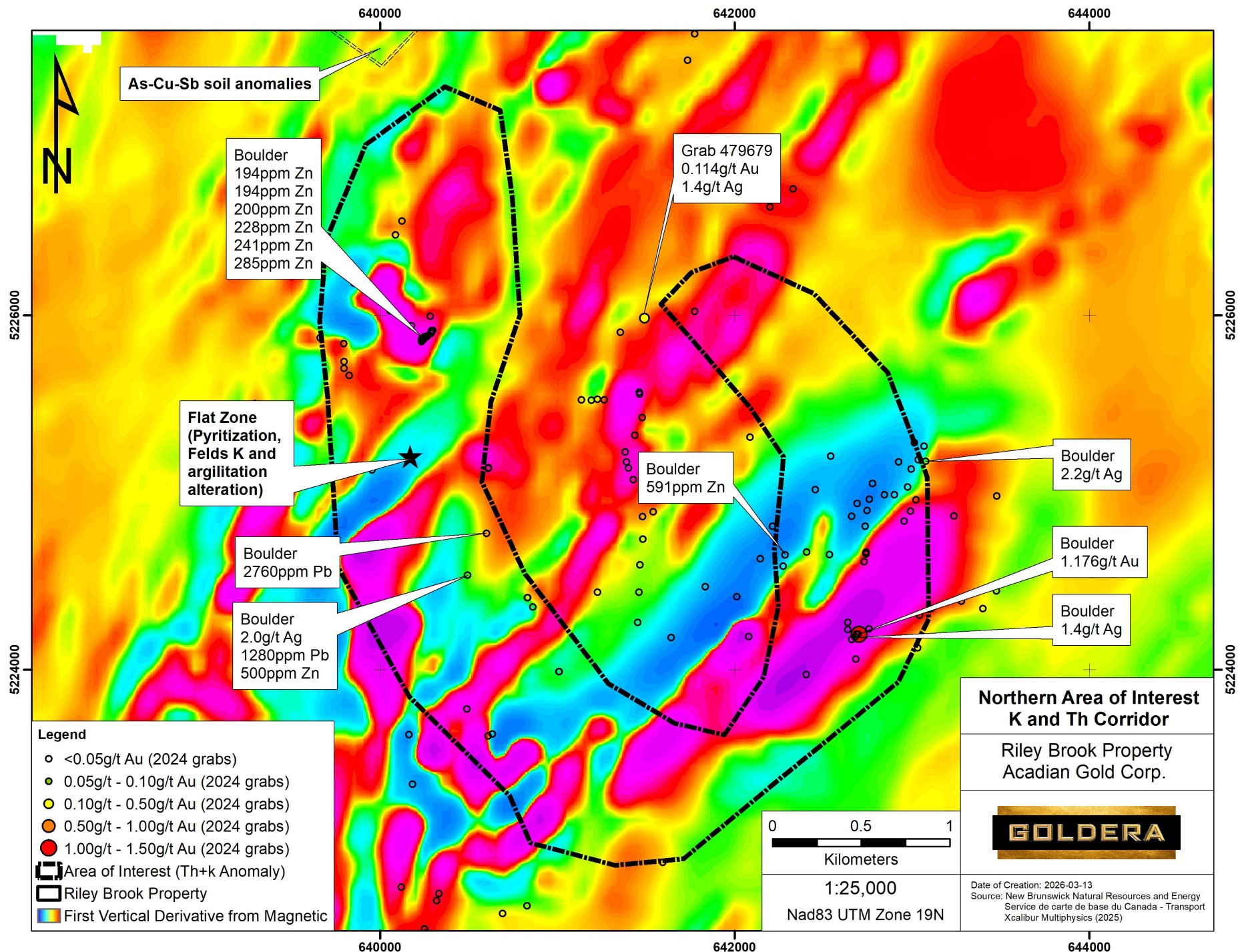


Figure 9.4- Zone of interest located 2.4 km southwest of Bald Peak showing the First Vertical Derivative (FVD) map accompanied by the anomalous area in Th+K. Grabs samples collected by Fancamp in 2024-2025 and historical DDH collars and grab samples are reported on the map.

intermediate-felsic intrusive float sample yielded 1.17 g/t Au from this area. Other collected float samples were obtained from pyritized mafic intrusive rocks showing quartz veins and possible traces of chalcopyrite. The C-shaped magnetic anomaly possibly indicates an alteration halo around a preserved intrusive at depth. Prospecting undertaken by VenCan Gold Corp. in 2001 confirmed the presence of highly mineralized Pb-Zn samples in a silicified breccia zone. A mineralized zone yielding 12.5 % Pb-Zn along a rhyolite/sediment contact was found accompanied by another zone (5.8% Pb-Zn) 400 meters to the northwest. In 2024, Fancamp Exploration found mafic boulders with sericite/epidote alteration. Mineralization in boulders is expressed by finely disseminated pyrite (1-3%) accompanied by arsenopyrite. Two samples returned concentrations of 1250 and 639 ppm As. Near the Riley Brook showing, multiple massive metric basaltic silicified boulders mineralized in disseminated or vein pyrite form (1-3%) were observed. One rhyolitic boulder containing 3 % disseminating pyrite yielded an Au value of 0.046 g/t, whereas a basaltic boulder with 1 % disseminated pyrite provided a concentration of 0.114 g/t Au (Boily, 2024).

The Voxi software program was used to carry out the 3D MAG inversion using the Magnetization Vector. Overall, the high magnetic values registered by the residual TMI and FVD contour maps correspond to the occurrence of felsic and mafic intrusive bodies and to less extent to bands of mafic volcanic rocks and coeval gabbroic sills/bodies of the Wapske Formation (Figure 9.3). The distinction between the felsic intrusive/volcanic rocks and mafic volcanic/gabbroic rocks resides in lower radiometric Th and U and K content of the former lithologies. Consequently, an 8.4 x 4 km NE/SW-oriented band situated in the general area of Bald Peak and characterized by elevated radiometric K and Th concentrations may reflect the occurrence of syenitic or high-K granite outcrops (Figures 9.5, 9.6).

The MVI approach directly inverts the magnetic vector rather than the susceptibility, giving a more powerful interpretation that yields the true target location of the magnetic response as compared to conventional inversion methods. Furthermore, the local textural/structural analysis of the MAG data was done with the Centre for Exploration Targeting (CET) program. The texture analysis-based image developed by CET is useful for highlighting local intensity variations. This method enhances regions of discontinuity within aeromagnetic datasets. Trends are found in the data by identifying regions of textural complexity in the local magnetic response. Regions of magnetic discontinuity usually correspond with, and can reveal, lithological boundaries, faults, and dykes critical to understanding the geology of an area). The output is a set of binary skeletal line segments that belong to each of the regions of discontinuity, clearly showing the changes in orientations and offsets within the structures (Figure 9.7). High potassium and thorium values also characterized the granitoid rocks forming Bald Peak, Haystack and Craig Mountains.

The EM method was applied for the reconnaissance of conductors that may feature sulphide

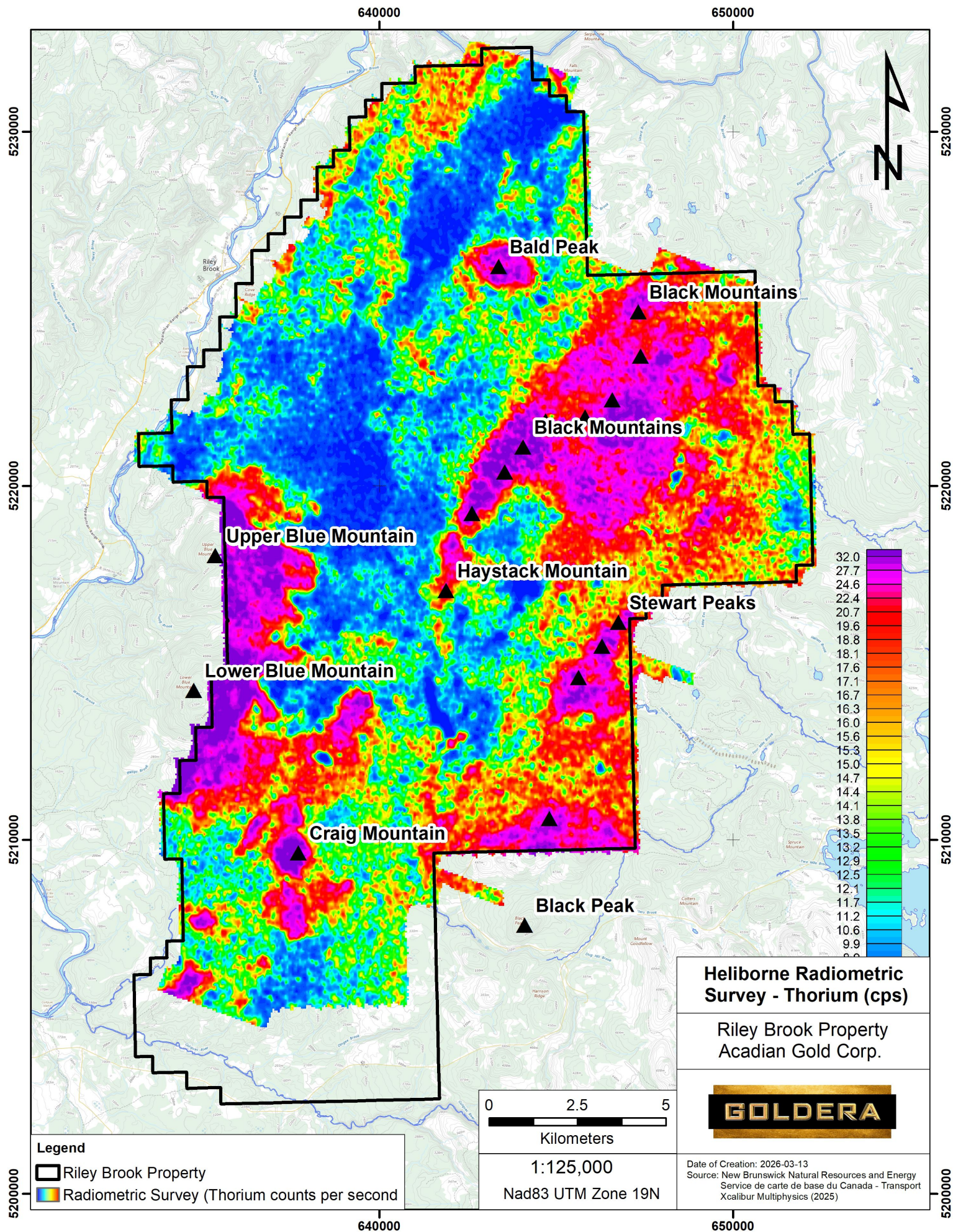


Figure 9.5- Heliborne HELITEM Radiometric survey, Thorium (Th cps), Riley Brook, New Brunswick.

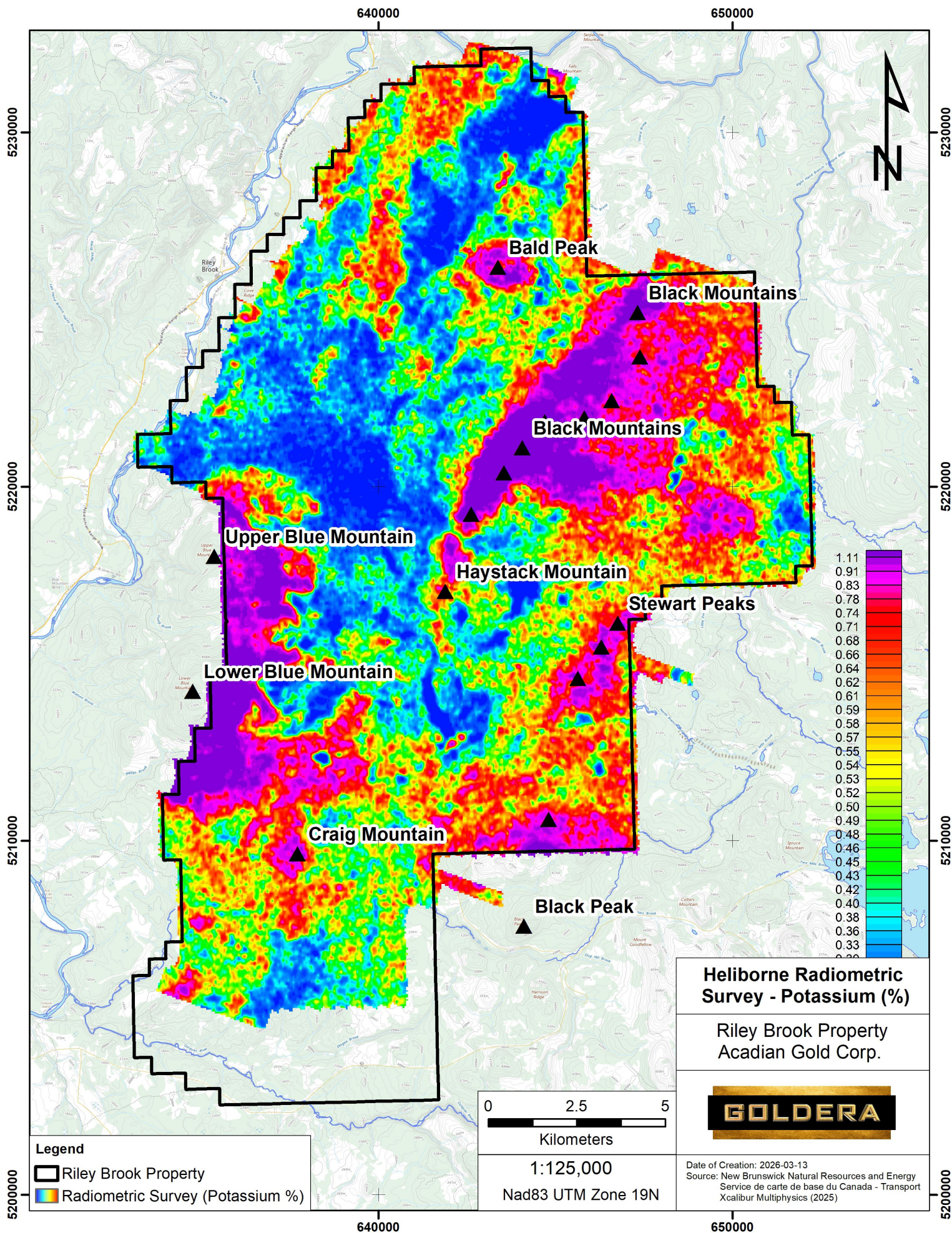


Figure 9.6- Heliborne HELITEM Radiometric survey, Potassium (K %), Riley Brook, New Brunswick.

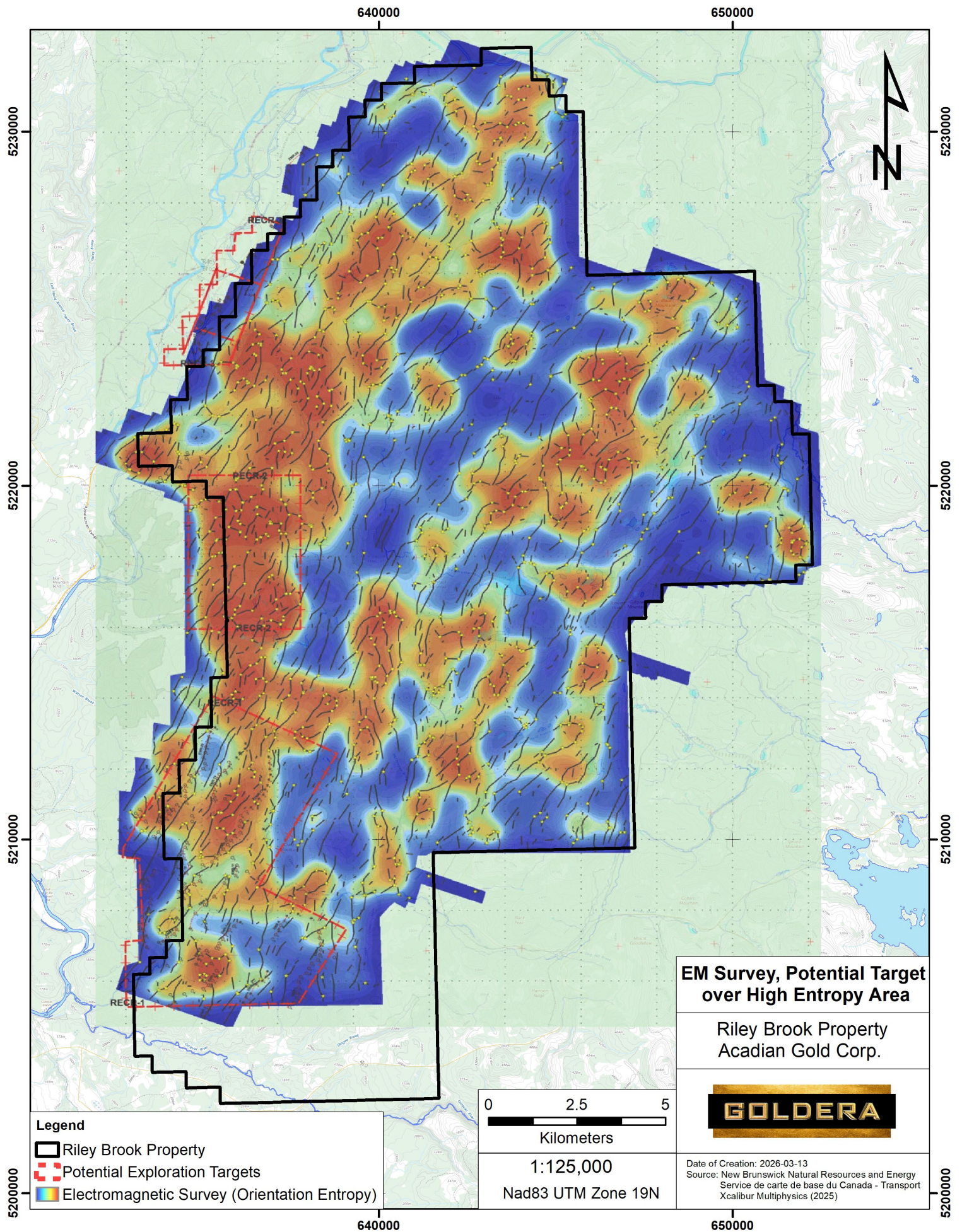


Figure 9.7- CET MAG analysis, high entropy areas and potential exploration targets, HELITEM survey, Riley Brook property, New Brunswick.

disseminated to sulphide-rich bodies or lenses. The observed EM anomalies are mostly low amplitude (i.e. < 5 Siemens) and indicative of weak, to very weak conductors, a large part of which appear to have a shallow origin. A broad area is highlighted to the southwest of the Riley Brook property which is characterized by a high density of EM anomalies (Figure 9.7). A direct relationship between the MAG/RADIO and EM anomalies is probable for some of the conductors. Overall, 25 conductor axes derived from 234 conductors were identified and interpreted as narrow bedrock conductors or bedrock conductors. These areas are associated with low magnetic signature and elevated radiometric signature, possibly linked to intrusive-related mineralization.

10. DRILLING

Fancamp and Goldera have not completed any drilling on the Property. Historical drilling activities are discussed in Section 6 of this Report.

11. SAMPLE PREPARATION, ANALYSES AND SECURITY

11.1. Rock Samples

Fancamp implemented a QA/QC protocol in processing all rock samples collected from the Property. The protocol included the insertion and monitoring of appropriate reference materials, in this case certified gold standard, blanks and duplicates to validate the accuracy and precision of the assay results.

All rock samples were sent to Actlabs Laboratories (Actlabs) for geochemical analysis. Actlabs is independent of Fancamp and Goldera and is accredited to ISO/IEC 17025:2017 and ISO 9001:2015 standards. Samples sent for assay testing underwent fire assay for gold and aqua regia partial digestion for base metals. If the gold content of a given sample was over 5ppm Au, the sample was re-assayed using the fire assay – gravimetric method. If Cu, Zn or Pb were over 10 000 ppm, the sample was re-analyzed using the fire assay – gravimetric method. Samples sent for whole rock analysis underwent lithium metaborate/tetraborate fusion and were assayed by ICP-OES and ICP-MS.

All collected grab samples were put in sturdy plastic bags, tagged and sealed in the field by geological engineers. The rock samples were described in detail with their GPS coordinates before tag a was inserted into polyethylene sample bags with the rock specimen and the corresponding number written in black permanent marker on the bag. For each grab sample, the geological unit, mineralization, alteration, color, size of the outcrop /float were recorded. For soil samples, the descriptions include the material collected, the matrix of the material, its color, wetness, the number of pebbles and their lithologies, the presence of quartz fragments, etc. All samples collected during the exploration program were stored in a locked facility until they were ready for transport to the lab. Samples bags were reviewed a second time to ensure all samples are properly identified prior to transport. They were put in larger LDPE bags at a rate of about ten samples per bag. LDPE bags were labelled with the sample sequences, bag number, destination, owner and then shipped by carriers to selected laboratory for analysis.

The rocks (<8 kg) were dried, crushed to 70% passing 2mm sieve, split to 250 g and pulverized to 85% passing 75 µm sieve. The grab samples were then sent to the Actlabs Laboratories in Ancaster, On to be analyzed for 38 elements (Ag, Al, As, B, Ba, Be, Bi, Ca, Co, Cd, Cr, Cu, Fe, Ga, Hg, K, La, Mg, Mn, Mo, Na, Ni, P, Pb, S, Sb, Sc, Sr, Th, Ti, Tl, U, V, W, Y, Zr, Te and Zn) using the Aqua Regia “partial” digestion method followed by ICP-OES determination (1E3 package). Analyses for gold were performed by Actlabs using the SAA atomic Absorption method TMT-G5B. Given a gold concentration > 5 g/t the sample was re-analyzed using the fire assay – gravimetric method (TMB-G5B) on a 50 g fraction. In case of Cu, Zn or Pb concentrations > 10 000 ppm, the sample will be re-assayed using the fire assay – gravimetric method. Rock samples sent for whole rock analysis underwent a lithium metaborate/tetraborate fusion and were assayed with by ICP-OES and ICP-MS (4 LITHO (11+)).

11.2. Soil Samples

Upon completion of the soil survey, a batch of samples were sent by truck to the ALS laboratory (ALS) in Moncton, NB. ALS is independent of Fancamp and Goldera and is accredited to ISO/IEC 17025:2017 and ISO 9001:2015 standards. Soil samples were dried at <60°C, sieved to < 400 micron (36 mesh). 50 g of the fraction was retained for analysis of 53 elements through the AuME-ST43 package using the aqua regia digestion followed by the super trace gold ICP-MS analytical method at Sudbury, ON, ALS laboratory. The following elements were analyzed: Au, Cu, Nb, Ta, Ag, Fe, Ni, Te, Al, Ga, P, Th, As, Ge, Pb, Ti, B, Hf, Pd, Tl, Ba, Hg, Pt, U, Be, In, Rb, V, Bi, K, Re, W, Ca, La, S, Y, Cd, Li, Sb, Zn, Ce, Mg, Sc, Zr, Co, Mn, Se, Cr, Mo, Sn, Cs, Na and Sr. The soil pH was also determined on a 10g paste sample saturated with water (Code OA-ELE07).

Other soil samples were submitted to the Sudbury ALS laboratories. 1kg of soil were dried, sieved at 180µm and weighed. Major, trace elements and pH value were analyzed for each sample. The pH assaying method procedure consisted of a paste pH test on a 10g sample saturated with water. The major and trace elements assay method includes an Aqua regia digestion of a 50g sample, followed by trace Au and multi-element analysis by ICP-MS and ICP-AES. 53 elements were analyzed by the laboratory: Au, Ag, Al, As, B, Ba, Be, Bi, Ca, Cd, Ce, Co, Cr, Cs, Cu, Fe, Ga, Ge, Hf, Hg, In, K, La, Li, Mg, Mn, Mo, Na, Nb, Ni, P, Pb, Pd, Pt, Rb, Re, S, Sb, Sc, Se, Sn, Sr, Ta, Te, Th, Ti, Tl, U, V, W, Y, Zn and Zr (AuME-ST43). When the 180µm sieved fraction was too low, a 0.5 g sample was digested by Aqua Regia Digestion followed by the analysis via the AuME-ST43 method. The latter method is usually considered semi-quantitative. All soil samples collected during the exploration program were stored in a locked facility until samples were ready for transport to the specific laboratories. Samples bags were reviewed a second time to ensure all samples are properly identified prior to transport. They were put in larger LDPE bags at a rate of about ten samples per bag. LDPE bags were labelled with the sample sequences, bag number, destination, owner and then shipped by carriers to selected laboratory for analysis.

The report author is confident that the size and weight of all rock and soil samples were adequate. The data from the quality control checks did not indicate any significant bias or quality control issues for the Actlabs and ALS Minerals. The author has not visited these two laboratories to see their operations firsthand, nor is he familiar with the general historical performance of the facilities. A geological engineer was constantly involved during the sampling procedures (soil and rocks) and shipping process. Handling and transport all followed a protocol established by the field geological engineer that include a strict chain of custody from sampling to the laboratory. Therefore, the integrity of the samples is indisputable. The above-mentioned laboratories implement standard operating procedures requiring the analysis of quality control samples (reference materials, duplicates, and blanks) with all sample batches. As part of the assessment of every data set, results from the control samples are evaluated to ensure they meet set

standards determined by the precision and accuracy requirements of the method. The analytical laboratories use barren wash material between sample preparation batches. This cleaning material is tested before use to ensure no contaminants are present and results are retained for reference.

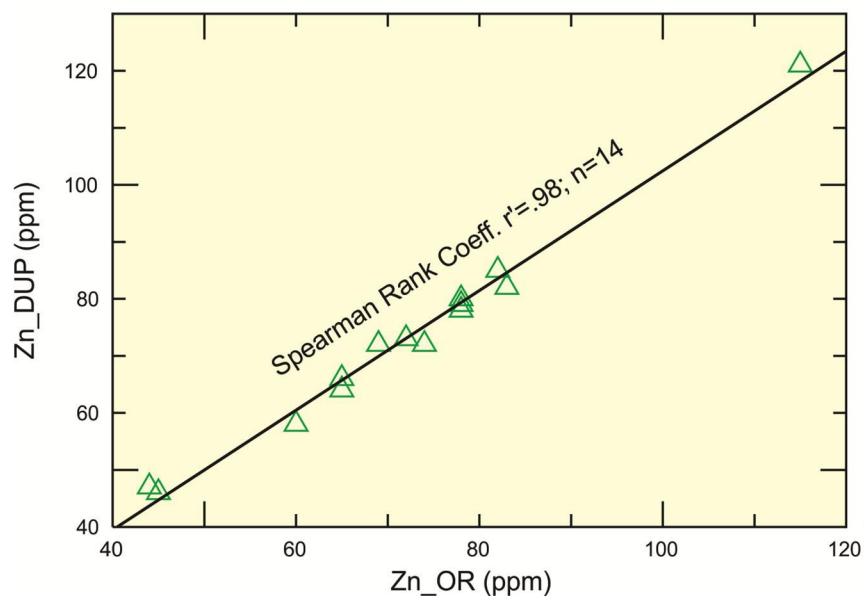
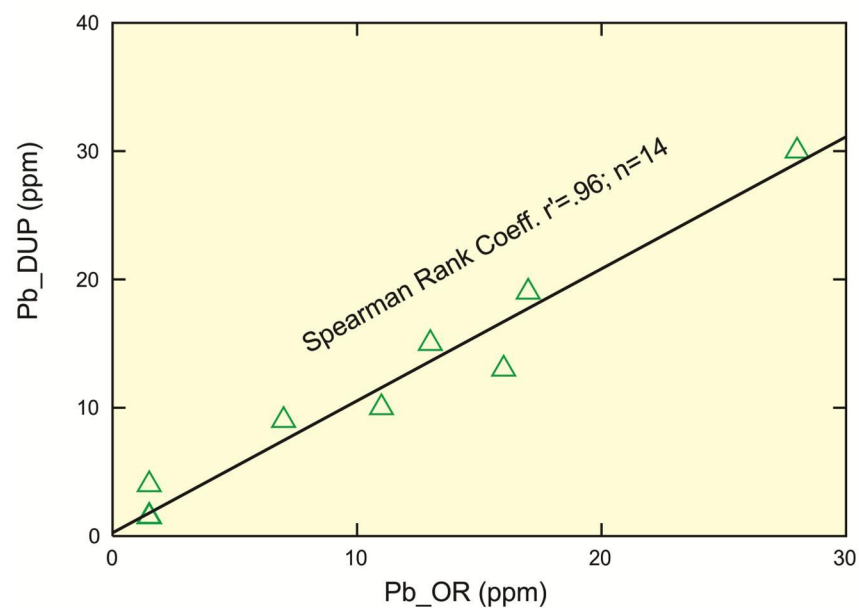
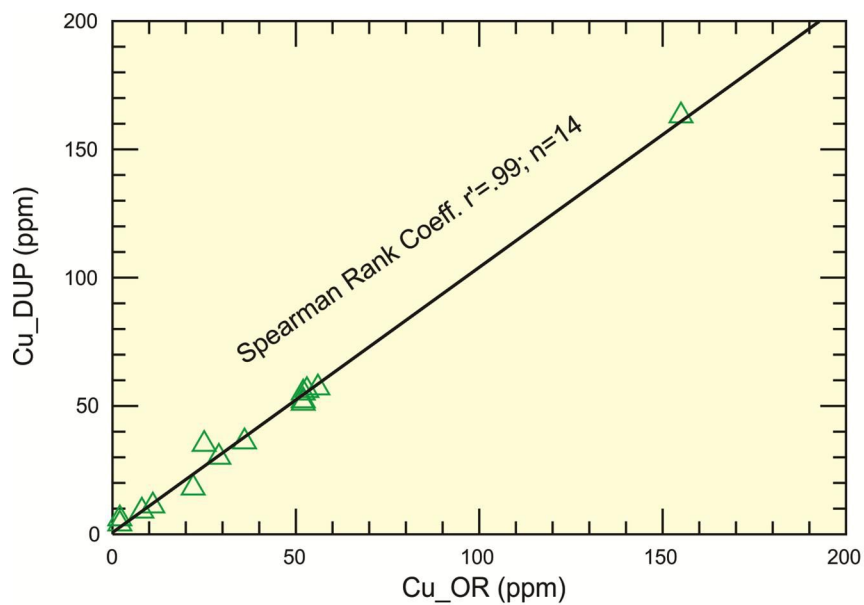
11.3. Sample Security and Chain of Custody

All samples were stored in secured containers at the Fancamp logging facility prior to shipment. Individual samples were placed in sealed and clearly labelled sample bags, with access restricted to authorized personnel. Samples were then transported to Actlabs or ALS by Company personnel or commercial carriers.

The author considers that adequate measures were taken to ensure sample security and to maintain an appropriate chain of custody from collection to laboratory submission.

11.4. Standards, Blanks and Duplicates

Fancamp did not implement QA/QC procedures related to soil sample data but did conduct the process for the grab samples data by introducing blanks and CRM Standard OREAS 233 roughly every 50 samples. Duplicate analyses were performed on 14 samples. The average analyzed concentrations for Au, As, Cu, Pb and Zn are presented in Table 11.1 below. The average analyzed gold content for 4 OREAS 233 (1.09 ± 0.02 g/t Au; 1•) is well within the range of the CRM recommended value (1.05 ± 0.03 g/t Au; 1•). The reported assayed values for blank samples are below the detection limit for Au, As, Cu, Pb and Zn concentrations (Table 11.2). The QA/QC protocol also enabled us to evaluate the reproducibility of the original elemental values through duplicate analyses. Duplicates also evaluate the precision inherent to the analytical method and the homogeneity of the pulps. Data results show good correlations between the original and duplicate analyses for elements such as Cu, Pb and Zn, whereas most of the As and Au concentrations are near or below the detection limit and render the correlations meaningless (Figure 11.1).



Whole Rocks Classifications (Mineralization)

Riley Brook Property
Acadian Gold Corp.

GOLDERA

Date of Creation: 2026-03-13

Figure 11.1- Binary plot showing the linear correlation in binary plots for original vs duplicate samples. a) Cu (ppm), b) Pb (ppm) and c), Zn (ppm), Riley Brook property, New Brunswick.

Element		Au (g/t)	As (ppm)	Cu (ppm)	Pb (ppm)	Zn (ppm)
	OREAS 233 (Analyzed Std.; n=4)					
Concentration		1.09	35	163	18	118
±1σ		0.02	3	5	1	1
	OREAS 233 (Certified Value)					
Concentration		1.05	47	162	21	116
±1σ		0.03	3	7	1	4

Table 11.1- Gold concentration of the OREAS233CRM standard during the analysis of grab samples by the Actlabs laboratory. The certified Au (g/t) concentration of the standard is given in the table.

Number of samples	n=14	n=5			
	Au (ppb)	As (ppm)	Cu (ppm)	Pb (ppm)	Zn (ppm)
Blank samples	< 5	< 3	< 1	< 3	< 1

Table 11.2- Concentrations of blank samples for Au (ppb), Cu, Pb and Zn (ppm).

11.5. QP Opinion

In conclusion, the author believes the sampling preparation, security, and analytical procedures were adequate and consistent with generally accepted industry best practices.

12. DATA VERIFICATION

12.1. Data Review and Verification Procedures

Throughout the course of exploration campaigns, the soil and rock sampling programs were supervised by Christopher Grondin (P. Eng.) The author has validated the geochemical analyses provided by the Actlabs and ALS Laboratories including the elements concentrations of their in-house standards and their blank samples.

The author is of the opinion that the current data set for the analyzed grab rock samples are fully compliant with NI-43-101 and CIM standards and guidelines and are thus satisfactory. The data from the quality control checks did not indicate any significant bias or quality control issues. However, in view of the absence of certified/in house standards and duplicates inserted within the batches of the soil samples, the author cannot fully evaluate the accuracy and precision of the analytical data.

12.2. QP Visit of the Riley Brook Property

The author completed a site visit (personal inspection) of the Riley Brook Property on August 16, 2024. The property being in large part covered by moderately thick overburden, outcrops are sparse and small. The site visit consisted of looking at mineralized boulders and scree forming the talus of small hills. No samples were collected by the author during the visit.

The report author has reviewed the work undertaken on the property since the August 2024 site visit and discussed the results with Fancamp and its exploration team and also validated the data acquired. Exploration work completed in 2024 and 2025 after the QP visit primarily involved extensive grab rock sampling from boulders/floats and outcrops, whereas an airborne HELITEM geophysical survey flown over the entire property. Prior logging operations mostly erased all traces of historical showings so that Fancamp geologists could not track down their location even though they systematically roamed the property. Furthermore, in view of the geochemical analytical data yielding only 17 samples with anomalous Au, Cu, Zn or Pb concentrations (see Table 9.1) out of 377 specimens, all of them except one collected from floats/boulder, the author is of the opinion that no new material scientific or technical information occurred since the time of his inspection and that another site visit to the property is not required currently as no material changes have occurred.

13. MINERAL PROCESSING AND METALLURGICAL TESTING

There has been no mineral processing or metallurgical testing completed on the Property.

14. MINERAL RESOURCES ESTIMATES

This section is not applicable.

23. ADJACENT PROPERTIES

The QP author has been unable to verify the information stated below on adjacent properties, and this information is not necessarily indicative of the mineralization on the Property subject of this Report.

23.1. Atlantic Project

Kenorland Minerals recently staked 1,200km² property in May 2025 (Figure 23.1) adjacent to the Property. The Company has compiled and digitized all available historical data for the project and completed a first-pass regional geochemical sampling program during the 2025 field season (June 13, 2025 – Kenorland Minerals Ltd Press Release).

23.2. The Sewell Brook Zn-Pb-Cu Deposit

The Sewell Brook Zn-Pb-Cu deposit is adjacent to the Riley Brook Property with the tenure claims abutting at the southeastern end. The deposit is a low tonnage, locally very high grade (up to 40% Zn), syn-genetic, stratabound, sub-seafloor replacement-type volcanogenic massive sulphide deposit hosted by the Wapske Formation of the Tobique Group. The deposit overlies a submarine dome complex, near its upper contact with a dominantly sedimentary assemblage. The host rocks are dominated by felsic to intermediate volcanic rocks (rhyodacite-dacite).

The sulphide textures range from disseminated to stockwork veins to semi-massive zones. Mineralization is dominated by sphalerite and subordinate galena, although a small chalcopyrite-rich zone is present. Pyrite is subordinate to sphalerite and galena throughout most of the deposits. The volcanic host rocks are affected by addition of potassium and leaching of Na. The hydrothermal alteration is dominated by chlorite and accessory sericite alteration in proximity to sulphides. The deposit is interpreted as a submarine / subsurface replacement VMS model (Walker, 2015).

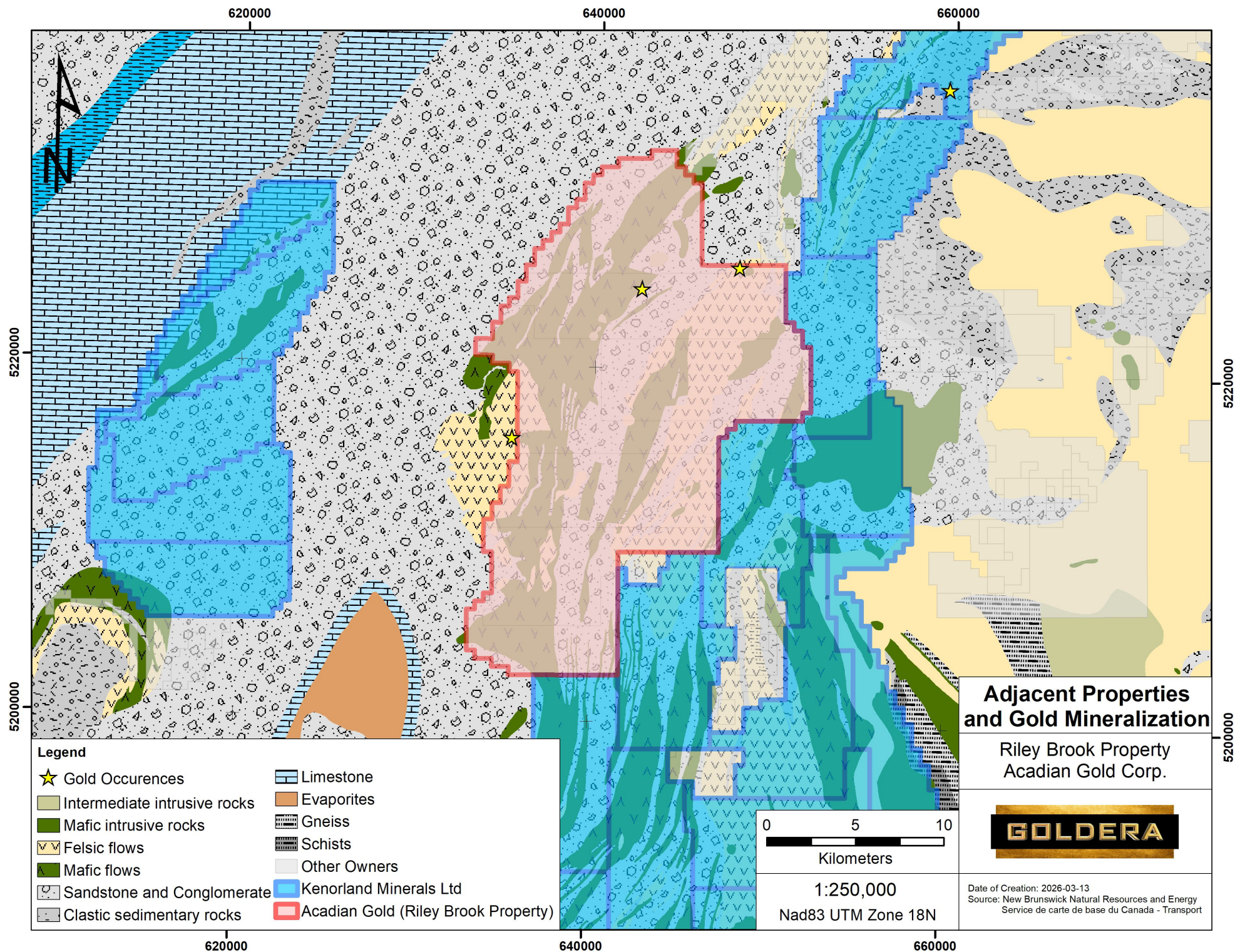


Figure 23.1. Adjacent properties, Riley Brook property, New Brunswick.

24. OTHER RELEVANT DATA AND INFORMATION

There is no additional information necessary to make the technical report understandable and not misleading.

25. INTERPRETATION AND CONCLUSIONS

The Riley Brook property contains a polymetallic nature of mineralization (i.e. Cu, Zn, Pb $\pm$ Au $\pm$ Ag) and the occurrence of stockworks or networks of quartz veins displaying vuggy or comb textures hint at an early (?) epithermal system perhaps related to porphyritic felsic plutons at depth. The paucity of large outcrops on Riley Brook where the relations between mineralization, lithologies and structures can be observed is hampering the classification.

During the 2024 and 2025 field seasons, Fancamp implemented two prospecting programs completed during the period of August 7 to 18, 2024. A more comprehensive survey took place from May 28 to June 4, 2025. 436 grab rock samples were collected from boulders and of which 377 were analyzed for base and precious metals and other key indicator elements whereas major and trace elements were determined for 59 specimens. The exploration was hampered by poor bedrock exposure across the property. Grab samples collected for their potential mineralization represent all major volcanic and intrusive lithologies occurring on the property, principally basalt, rhyolite and minor andesite with gabbroic, intermediate and felsic compositions stemming from plutonic rocks. Consideration was given to sampling of quartz veins, breccias and apparent faults. Note that 77% of the samples were gathered from boulders and floats.

Collection of grab samples was concentrated in three main areas: west and southwest of Bald Peak in basaltic flow, tuff, epiclastic and sedimentary rocks of the Wapske formation, east and north of Haystack formation mafic lithologies and rhyolite flow, hyaloclastic and epiclastic rocks of the Wapske formation and west of Craig Mountain formation mafic units of the Wapske Formation. The prospecting program led to the discovery south of Bald Peak Mountain of a gold bearing float yielding a gold concentration of 1.17g/t. The gabbroic sample (J023561) displays decimetric-thick vuggy and rusty quartz veins. Samples collected west of Bald Peak are also anomalous in Cu (412-530 ppm), Zn (455-591) and As (1200 ppm). East of Haystack Mountain, 2 rhyolites samples from the Wapske Formation yielded Cu concentrations of 463 and 1270 ppm, 2 other samples gave Zn values of 458 and 650 ppm, whereas one sample provided 378 ppm As. Finally, one volcanic float west of Craig Mountain returned 7850 ppm Cu.

In May 2024, Fancamp performed a soil sampling program (B Horizon) to detect potential geochemical anomalies characteristic of an underlying mineralized bedrock. Three different grids were established across the property based on Fancamp's historical work compilation. The first grid was located in the northwest sector of the property (west of Bald Peak), the second at the core of the property (around Haystack Mountain), and the third was placed to the southwest around Craig Mountain. In total, 1121 soil samples covering an area of 27km² were collected. The raw assay results were corrected according to a procedure developed by Réjean Girard from IOS Services Géoscientifiques. A probabilistic approach to determine elemental anomalous thresholds was used to detect significant deviations from a modelled log-

normal distribution in the observed data. Results of the corrected soil sampling survey led to the recognition of two areas of interest; the first located in the southern part of the property south of Craig Mountain revealing a 2 km long x 1.5 km-wide zone defined by W, As, Au, and Sb anomalies. A second 300 m x 300 m zone near Haystack Mountain is characterized by Au, As, Bi, Sb, and Te anomalies.

An heliborne HeliTEM² electromagnetic, magnetic and radiometric survey was carried on the Riley Brook property. The First Vertical Derivative (FVD) contour map displays a “C- shaped” high magnetic anomaly. The entire area appears anomalous in terms of historical and current base and precious metals concentrations, As-Cu-Sb concentrations in soil and a flat altered zone characterized by pyritization and argillitization. A strongly argillitized, pyritized and hematized intermediate-felsic intrusive float sample yielded 1.17 g/t Au from this area. Other collected float samples were obtained from pyritized mafic intrusive rocks showing quartz veins and possible traces of chalcopyrite. The C-shaped magnetic anomaly possibly indicates an alteration halo around a preserved intrusive at depth. Overall, the high magnetic values registered by the residual TMI and FVD contour maps correspond to the occurrence of felsic and mafic intrusive bodies and to less extent to bands of mafic volcanic rocks and coeval gabbroic sills/bodies of the Wapske Formation. The distinction between the felsic intrusive/volcanic rocks and mafic volcanic/gabbroic rocks resides in lower radiometric Th and U and K content of the former lithologies.

The observed EM anomalies are mostly of low amplitude (i.e. < 5 Siemens) and indicative of weak, to very weak conductors, a large part of which appear to have a shallow origin. A broad area is highlighted to the southwest of the Riley Brook property which is characterized by a high density of EM anomalies. A direct relationship between the MAG/RADIO and EM anomalies is probable for some of the conductors. Overall, 25 conductor axes derived from 234 conductors were identified and interpreted as narrow bedrock conductors or bedrock conductors. These conductive areas are associated with low magnetic and elevated radiometric signatures, possibly linked to intrusive-related mineralization.

The Wapske Formation, part of the Tobique Group, incorporates the bulk of the lithologies within the confines of the Riley Brook property. The Wapske formation consists of bimodal volcanic rocks interlayered with sediments, predominantly deposited in a subaqueous environment. Mafic volcanic rocks are composed of massive to pillowed, commonly vesicular, or rarely porphyritic flows and local hyaloclastite and basaltic tuff. Felsic volcanic rocks are rhyolitic and commonly massive to flow-banded, aphyric to feldspar-phyric and locally vesicular. Historical mineralization on the Riley Brook property occurred as disseminated, veins and veinlets rich in chalcopyrite (Cu), sphalerite (Zn), galena (Pb) ±Au spatially associated with altered (silicified, sericitized and epidotized) felsic rocks.

There are important risks and uncertainties that could be expected to affect the reliability or confidence in the project's potential economic viability. Recent political and economic hurdles caused by international conflicts and instabilities characterizing commercial relations between major countries will have a major incidence on deciding whether or not to raise capital to further develop the property. Another risk factor is the ability of the company to successfully apply its expertise and knowledge in defining a viable Au-Cu-Zn-Pb deposit, mainly through successive exploration and drilling campaigns. There is no guarantee of the successful outcome of these future campaigns.

26. RECOMMENDATIONS

The Riley Brook Property holds a significant potential for discovering important Cu, Zn, Pb±Au mineralization of the epithermal or Reduced Intrusion-Related Gold Systems (RIRGS). Historically, the paucity of outcrops necessitated the implementation of secondary environment techniques (soil, till, streams or bottom lake sampling) as well as geophysical surveys (e.g. IP, MAG, VLF surveys) to find base metal and gold targets. Extensive logging followed by tree overgrowth on a large part of the property nearly eradicated all traces of previous showings.

Notwithstanding this problem, the author encourages pursuing the exploration of the property aiming to unearth and sample mineralized outcrops. The author recommends a 20-day exploration campaign to be conducted involving overburden stripping and trenching with the use of an excavator considering the thick overburden characterizing the entire property. Soil surveys may be contemplated in zones of thick overburden or characterized by anomalous soil or grab rock concentrations in precious or base metal such as south and northeast of Bald Peak. Furthermore, the previous grid established in the southwestern corner of the property warrants an expansion owing to the significant Au, As, Sb and W anomalies previously detected. A total budget of \$352,050 is suggested for this first phase (Phase 1) of exploration (Table 26-1).

Contingent to a positive outcome of the first exploration phase, the author suggests carrying out a drilling campaign targeting areas characterized by alteration haloes, soil and radiometric anomalies, preferably in the vicinity of the felsic peraluminous intrusive felsic plugs revealing a within plate geochemical signature (ex: Bald Peak). The drilling campaign cost is estimated at \$567,300 (Table 26.1).

Table 26-1 – Recommended work program and estimated costs

Exploration Budget Riley Brook Property (Phase 1)	
ITEM	COST
SOIL SAMPLING PROGRAM	
Soil Sampling (\$30/sample x 1500 samples)	\$45,000
Assays (\$90/sample x 1500 samples)	\$135,000
<i>Subtotal</i>	\$180,000
PROSPECTING	
Prospecting	
Staff (Geo+Tech) (3 x 20 days x \$1,400/day)	\$28,000
Accommodation (40 days x \$200/day)	\$8,000
Assays for rock samples (\$75/sample x 150 samples)	\$11,250
Others (Truck, Fuel, Tools, etc.) Lump sum	\$10,000
Reporting	\$5,000
<i>Subtotal</i>	\$62,250
STRIPPING AND CHANNEL SAMPLING (500 linear m)	
Access Trails (\$260/hr x 50	\$13,000
Excavator.Stripping (\$190 hr x 200 hrs.)	\$38,000
Assays for rock samples (\$70/sample x 100 samples)	\$7,000
Staff (Geo+Tech) (3 x 20 days x \$1,400/day)	\$28,000
Accommodation (\$200/day x 44 days)	\$8,800
Others (Truck, Fuel, Pump, Saw, etc.) Lump sum	\$10,000
Reporting	\$5,000
<i>Subtotal</i>	\$109,800
TOTAL EXPLORATION	\$352,050

Exploration Budget Riley Brook Property (Phase 2)	
ITEM	COST
DRILLING PROGRAM (2,500 m)	
Mob-Demob	\$10,000
Access Road (\$260/hr x 80 hr.)	\$20,800
Access road (\$190/hr x 100 hrs.)	\$19,000
Base drilling cost \$85/m x 2500)	\$212,500
Drilling Ancillary Cost (Moves, Stand-By, Surveys, Tools, Consumables, etc) (\$50/M x 2500m)	\$125,000
Assays (\$70/sample x 1,000 samples)	\$70,000
Staff (Geo+Tech) (\$1,400/day X 45 days)	\$63,000
Accommodation (\$200/day /person x 85 days)	\$17,000
Others (Truck, Coreshack, tool, etc)	\$20,000
Reporting	\$10,000
<i>TOTAL</i>	\$567,300

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28-CERTIFICATE OF QUALIFIED PERSON

I, Michel Boily, Ph.D., P. Geo. hereby certify that:

- I am an independent professional geologist residing at 2121 de Romagne, Laval, Québec, Canada.
- I am the sole author of the Technical Report titled, "Technical Report on the Riley Brook Property, Northwestern New Brunswick – Report for NI 43-101" with an effective date of April 10, 2026.
- I obtained a PhD. in geology from the Université de Montréal in 1988. I am a registered Professional Geologist in good standing with l'Ordre des Géologues du Québec (OGQ; permit # 1097). I have practiced the profession of geologist for the last 47 years.
- I have over three decades of experience in economic geology, geochemistry, and mineral deposit studies. I began my career as a Research Associate in Cosmochemistry at the University of Chicago (1986–1987), followed by my role as a researcher and coordinator at IREM-MERI/McGill University (1988–1992), where I contributed to high-technology metals research in the Abitibi Greenstone Belt and Labrador. Since 1992, I have worked as a geology consultant with Geon Ltée in Montréal, providing services to a range of mining companies. I have also participated, as a geochemist, in major metallogenic studies conducted by the Ministère des Richesses naturelles du Québec in the James Bay and Far North regions (1998–2005). My areas of specialization include granitoid-hosted precious and rare metal deposits, as well as the stratigraphy and geochemistry of Archean greenstone belts. I have extensive field experience in Canada and internationally, including work in Québec, Labrador, Mexico, Morocco, Argentina, and Nicaragua.
- I have read the definition of "qualified person" set out in NI 43-101 and certify that by reason of my education, affiliation with a professional association and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.
- I completed a site visit (personal inspection) of the Riley Brook Property on August 16, 2024.
- I am responsible for all sections of the Technical Report.
- I am independent of Fancamp Exploration Ltd. and Goldera Exploration Ltd. (the "Issuer") as described in Section 1.5 of NI 43-101.
- I have no prior involvement with the Riley Brook Property that is the subject of this Technical Report.

- I have read NI 43-101 and Form 43-101F1 and the Technical Report has been prepared in compliance with NI 43-101 and Form 43-101F1.
- As of the effective date this Technical Report, to the best of my knowledge, information, and belief, this Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Signed this 10th day of April

2026: *[signed and sealed]* Michel Boily



Michel Boily, PhD, P.Geo.

