



Compilation Report of the Schefferville Property:

PROVINCE OF QUEBEC
(NTS MAP-SHEETS 230/03, 230/04, 230/05, 230/06,
230/12)

Prepared for:

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by

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of

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G e o l o g i c a l C o n s u l t a n t s

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1 EXECUTIVE SUMMARY

This Report was prepared at the request of Mr. Stephane Leblanc, President of 9248-7792 Quebec Inc. (the "Company"), a Canadian based, privately-held company. The purpose of this report is to provide a geological compilation of the Company's so called Schefferville Property, based on all available historic data. The Schefferville Property comprises two-hundred and thirty-three (233) non-contiguous claims in the Regional Municipality of Nord-du-Québec, Quebec, Canada.

The Schefferville Property (the "Property") is located in the northern part of the Schefferville Iron Ore District of east-central Quebec, which is serviced by the municipality of Schefferville, Quebec, located 525 km north of the Gulf of St. Lawrence port town of Sept-Îles and 400 km south of Ungava Bay.

The Property itself is centred about 75 kilometres northwest of Schefferville and comprises 5 separate blocks of claims (the Purdy Lake Block, Rainy Lake Block, Helluva Lake Block, Lac le Fer Block and Lac Thérèse Block) over a 65 km, northwest-southeast stretch of ground between Lac Purdy and Lac Thérèse. The area of the Property is remote and not easily accessible overland.

The Property covers parts of National Topographic System (NTS) Map Sheets 230/03, 230/04, 230/05, 230/06, 230/12, and is part of the unorganized territory of Rivière-Koksoak in the Kativik Regional Government territory in the Nord-du-Québec region of Quebec. The 233 mineral claims that comprise the Property are all in good standing and cover a combined surface area of 11,428.71 hectares or 114.43 km². The approximate centre of Property is located at Universal Transverse Mercator (UTM) coordinates 590000 East, 6131000 North in Zone 19 of the 1983 North American Datum (NAD 83) coordinate system.

The Schefferville Iron Ore District (SIOD) lies within a Paleo-Proterozoic fold and thrust belt known as the Labrador Trough, which hosts extensive Lake Superior-type iron formations. The Labrador Trough is divided into the North, Central and South geological domains. The Central Domain hosts the SIOD.

The Property lies in the western, miogeosynclinal part of the Labrador Trough within the Churchill Province of the Canadian Shield, and is underlain by Archean clastic and chemical sedimentary rocks and iron formation of the Knob Lake Group. The Labrador Trough marks the collision between the Rae Province (to the northeast) and the Superior Province (to the southwest). Rocks of the Rae Province were transported westward over Superior basement rocks in a foreland fold and thrust belt marked by a series of imbricate thrusts.

Archean granitic and granodioritic gneiss and migmatite of the Ashuanipi Metamorphic Complex form the basement to most of the SIOD. Unconformably overlying these basement gneisses are the slightly metamorphosed equivalents of the Lower Proterozoic Knob Lake Group that include the iron formations of the SIOD. The Knob Lake Group comprises six formations including the Sokoman Formation, which extends for more than 1000 km along the length of the Labrador Trough and is the principal ore-bearing formation within the Knob Lake Group. The Sokoman Formation is subdivided into Lower ("LIF"), Middle ("MIF") and Upper ("UIF") members.

The iron formations on the Property consist of banded sedimentary rocks composed principally of bands of iron oxides (magnetite and hematite) within quartz (chert)-rich rock with variable amounts of silicate, carbonate and sulphide lithofacies. Exposed thicknesses of iron formation along fold limbs are generally from 25 m to 250 m, and from 0.5 km to 2 km in fold-hinge areas. Some of the iron formations in the SIOD are enriched to some degree by a process that involves the migration of meteoric and synorogenic heated fluids. The fluids circulate through the sediments oxidizing the banded iron formation, recrystallizing iron minerals to hematite, and

leaching silica and carbonate. Low-Fe Superior-type iron formations have been locally brought to ore-grade through this process of enrichment, hence the term "enriched ore".

On the Property, Knob Lake Group sediments have been folded into a series of open- to tight, linear, shallowly plunging anticlines and synclines with axial planes dipping steeply to the east. Fold plunges are generally less than 20° and toward the south, but reversals in plunge are common. Rocks underlying the Property have been metamorphosed at subgreenschist to greenschist grade. Although all of the rocks underlying the Property have been metamorphosed to some degree, the "meta" prefix has generally been omitted for simplicity from the following rock descriptions.

The iron formations underlying the Property were discovered and initially mapped in the late 1930's as part of a broad mapping program that recognized the massive iron resources throughout the Schefferville area. In the intervening 90 years, relatively little work has been done on the Property, as most of the exploration was focused on the significant deposits in the immediate vicinity of what would become the community of Schefferville. Detailed bedrock geological maps of the SIOD were produced by the provincial government in the 1950's with the aid of airborne gravimetric and electromagnetic/magnetic geophysical surveys, and were enhanced or expanded by work carried out by the Iron Ore Company of Canada in the 1960's and 1970's. These are still the best geological reference maps of the overall Property area. Dimroth (1978) produced a comprehensive geological compilation map of the Central Domain area.

Corroborative results of ground mapping and geophysical surveys that have outlined the distribution of the local iron formation horizons and deposits, show that geophysical magnetic and gravimetric surveys continue to be the best primary iron-exploration tool in the Labrador Trough.

The Property hosts numerous catalogued mineral showings, none of which contain "resources" that meet National Instrument (NI) 43-101 regulations and standards. The grade and tonnage of any so-called resources on the Property are considered uncertain at best, as there has been insufficient exploration to categorize them as a Mineral Resource as defined by the Canadian Institute of Mining, Metallurgy and Petroleum (CIM) Standards on Mineral Resources and Reserves. Furthermore, it is uncertain whether further exploration will result in classification of such resources to Inferred, Indicated or Measured Mineral Resource categories.

Careful perusal of all available data on the area of the Property reveals that the Sokoman Formation that underlies the Property constitutes a potential iron resource of significant proportion. Data from the previous exploration work on the Property needs to be assessed to better determine the areas most favourable for further exploration. The true grade of the iron formation in the areas most amenable to mining have yet to be determined, but there exists the possibility of sizeable lenses of economic grade.

Additional work is recommended for the Property, in the form of airborne geophysical survey(s), and systematic detailed geological investigations of those areas where the greatest potential exists. Subsequent diamond-drilling to test the most prospective areas is also recommended.

This report is being submitted to the Ministère de l'Énergie et des Ressources naturelles (MERN) Quebec, for assessment work credits.

2 INTRODUCTION

This Report was prepared at the request of Mr. Stephane Leblanc, President of 9248-7792 Quebec Inc., a Canadian based, privately-held company (the "Company"). The purpose of this report is to provide a comprehensive compilation of available information on the Schefferville Property (the "Property") in preparation for an exploration program. The Property comprises 233 mineral claims, and is one of the Company's holdings in the Labrador Trough.

This Report was prepared by John Langton, M.Sc., P.Geo., (the "Author"), of MRB & Associates, a geological and geotechnical consulting firm in Val-d'Or, Quebec. Lysa Fréchette and Kandi Gallagher (P.Geo.) of MRB & Associates prepared the figures and maps and participated in the document searches for this report.

The bulk of the historical geological information was distilled from the SIGEOM/EXAMINE database of MERN Quebec, and incorporates all known assessment work data filed by exploration companies, as well as geological work performed or commissioned by the Quebec government.

As per the requirements of the Professional Code of Quebec, the Geologists Act of Quebec, and the Mining Act of Quebec, the Author hereby discloses that although completely independent of 9248-7792 Quebec Inc., he holds a nominal amount of shares in a number of Canadian junior mining companies, and is currently on the board of directors of Cartier Iron Corp., a junior mining company with iron resources and claims in the southern Labrador Trough area of Quebec.

The Author made use of publicly available Assessment Reports, on-line resources, publications of the Geological Survey of Canada, scientific papers from various earth science Journals and from internal company documents from various companies that have carried out previous work in the area. A list of the principal material reviewed and used in the preparation of this document is included in the References section of this document, and a complete review of historical work is included in **Section 5**.

3 PROPERTY LOCATION AND DESCRIPTION

The Company's Schefferville Property is located in the Central Domain of the Labrador Trough (**Figure 3.1**) within the Schefferville Iron Ore District (SIOD) of north-eastern Quebec, and centred some 75 km northwest of Schefferville Airport. This area is delineated as part of the Regional Municipality of Kativik (**Figure 3.2**).

The Property currently comprises a non-contiguous grouping of 233 claims and cover a combined surface area of 11,428.71 hectares or 114.43 km² (**Appendix I**), within National Topographic System (NTS) Map Sheets 230/03, 230/04, 230/05, 230/06, 230/12 (**Figure 3.3**).

The approximate centre of Property is located at Universal Transverse Mercator (UTM) coordinates 590000 East, 6131000 North in Zone 19 of the 1983 North American Datum (NAD 83) coordinate system (55°19'02" north Latitude / 67°34'55" west Longitude).

The Property has not been legally surveyed. The boundary of each claim block was defined using spatial information downloaded from the Ministère de l'Énergie et des Ressources naturelles (MERN) Quebec website at <http://mern.gouv.qc.ca/mines/index.jsp>, and the GESTIM claim management system <http://gestim.mines.gouv.qc.ca/>.

All claims comprising the Property are in good standing. The renewal dates, as of September 30, 2017, and the rental fees, required minimum work and excess credits are included in **Appendix I**. Details on claims renewals, work credits, claim access rights, allowable exploration, development, mining works, and site rehabilitation are summarized in the Mining Act of Quebec available at <https://www2.publicationsduquebec.gouv.qc.ca>.

3.1 Environmental Liabilities

No environmental permits are currently assigned to the Property for exploitation purposes. Environmental permit(s) may be required at a later date to fulfil environmental requirements with the goal of returning the land to a use whose value is at least equal to its previous value, and to ensure the long term ecological and environmental stability of the land and its watershed.

No environmental liabilities were inherited with any of the claims on the Property, and there are no environmental requirements that need to be fulfilled in order to maintain any of the claims in good standing at this time. Neither are there any apparent environmental issues related to the exploration and/or development of the Property, with the possible exception that there are numerous prominent streams and lakes that may require precautions be taken during certain types of exploration activity, such as diamond-drilling or stripping.

3.2 Permits

Exploration work permits may be required for future work on the Property. The appropriate Permit Applications for potential forthcoming work on the Property would be required to be submitted by the Company to MERN Quebec. As operator, the Company should ensure that all exploration programmes on the Property be conducted in an environmentally sound manner and should follow, to the best of their abilities, the principles and guidelines outlined in the E3 Framework Document for Responsible Exploration, as according to industry best practices (<http://www.pdac.ca/e3plus/index.aspx>).

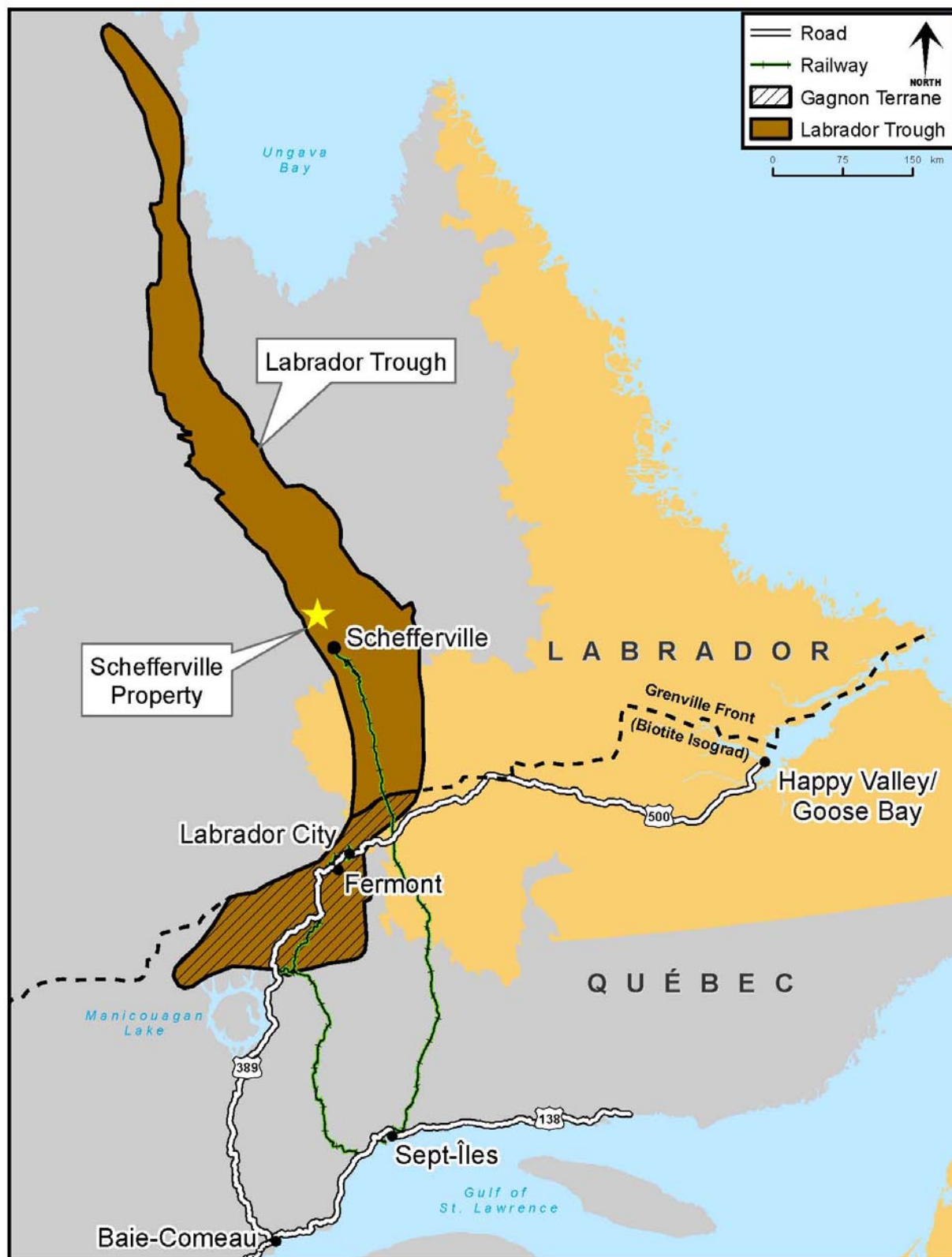


Figure 3.1: Regional location map for Schefferville Property

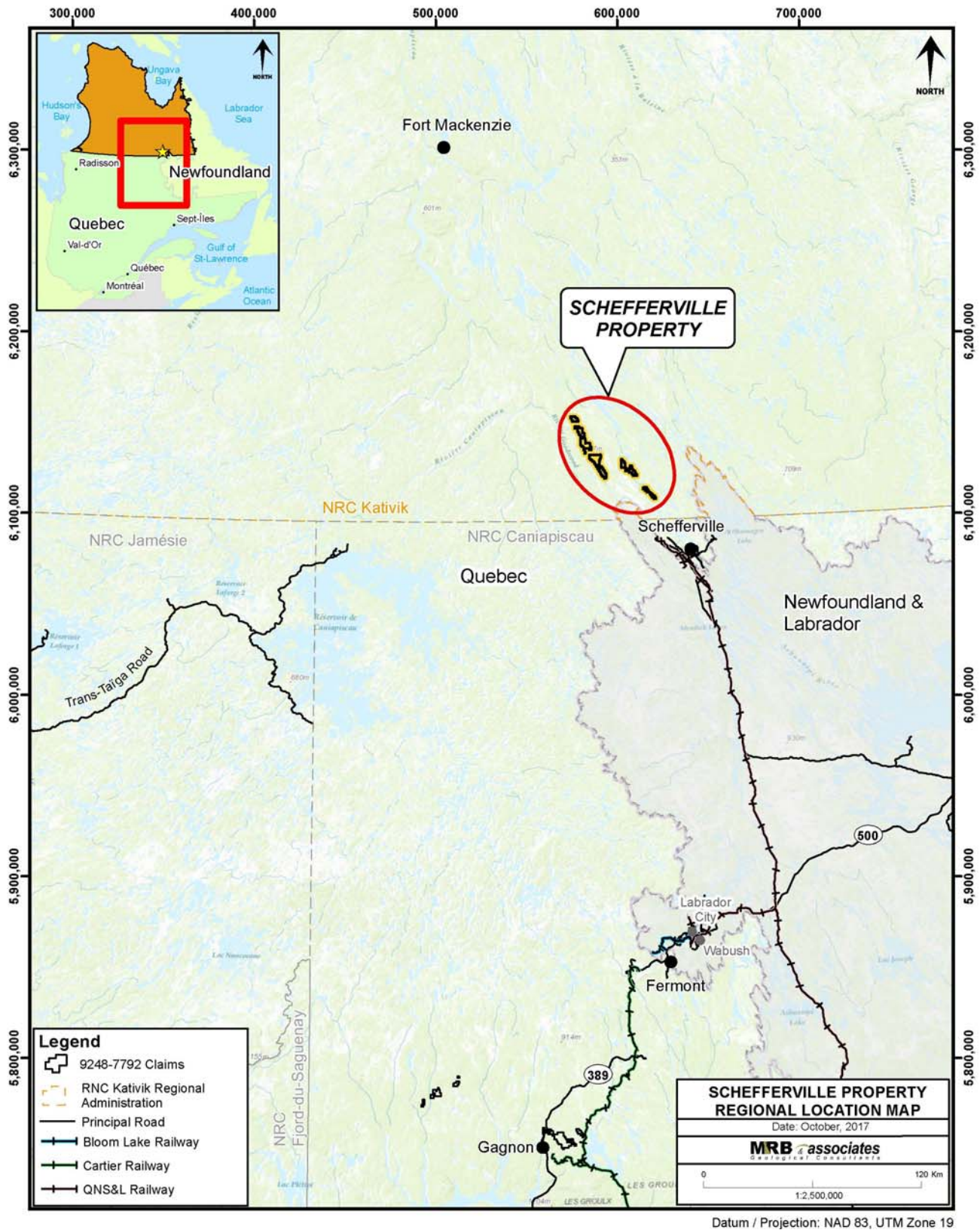


Figure 3.2: Base map showing location of Schefferville Property, northeastern Quebec.

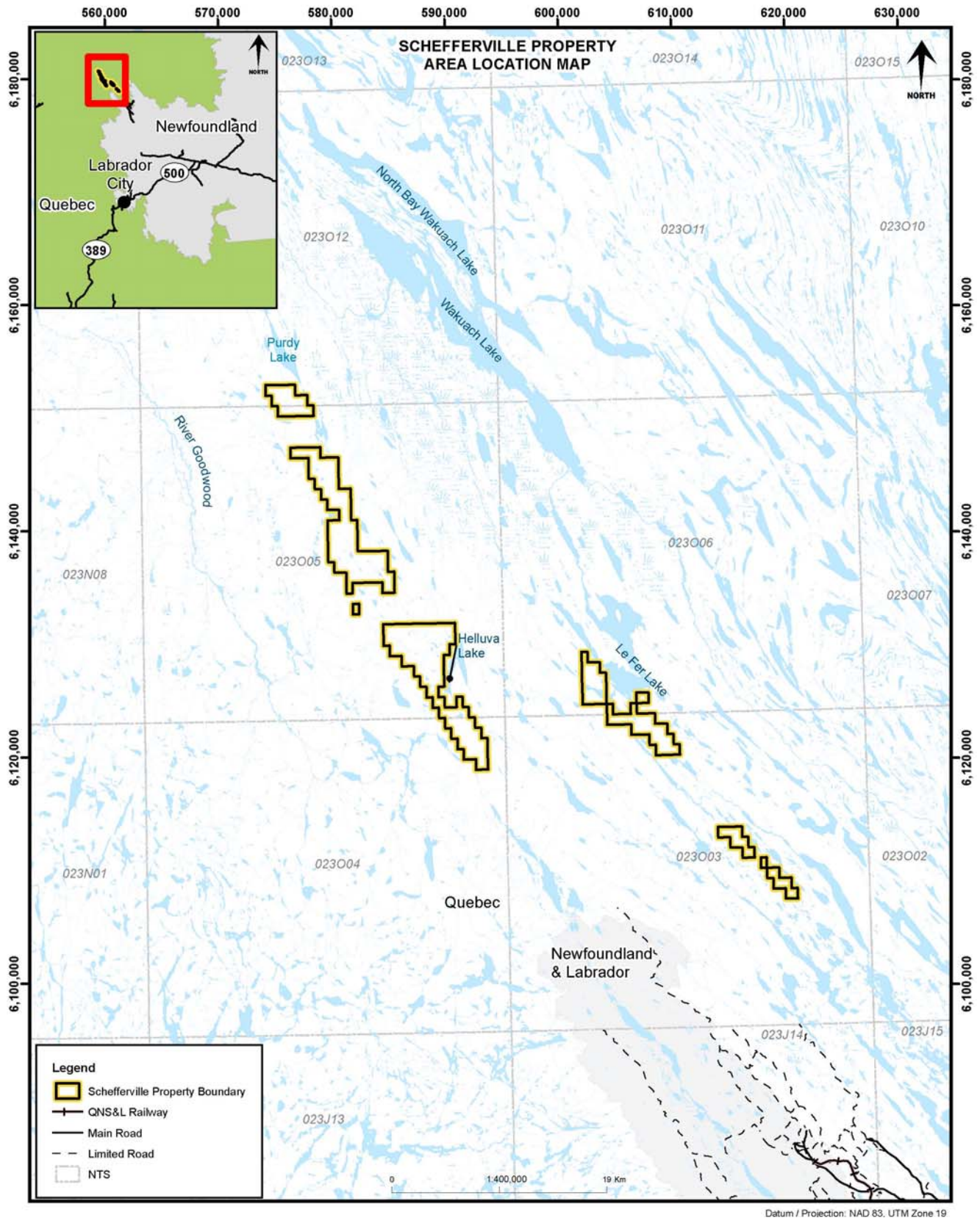


Figure 3.3: Schefferville Property boundary in relation to NTS Map Sheet outlines

3.3 Other Relevant Factors

Each mining claim provides access rights to a parcel of land on which exploration work may be performed; however, the claim holder cannot access land that has been granted, alienated or leased by the Province for non-mining purposes, or land that is the subject of an exclusive lease to mine surface mineral substances, without first having obtained the permission of the current holder of these rights. The current Property does not overlap any areas that are restricted to exploration.

4 ACCESSIBILITY, INFRASTRUCTURE, CLIMATE AND PHYSIOGRAPHY

4.1 Accessibility

Overland access is generally not feasible, as there are no roads in the vicinity of the Property. Neither is there road access to Schefferville from the population centres of Québec or Labrador. (see **Figure 3.3**).

The Property is most conveniently accessed by helicopter or float plane from Schefferville Airport (YKL), which has a 2,000 m runway capable of handling Boeing 737 aircraft. Air Labrador and Air Inuit offer service to Sept-Îles, Quebec City and Montreal.

There are numerous lakes throughout the immediate vicinity of the Property that are accessible to from fixed-wing float or ski-equipped aircraft. These types of aircraft can be chartered through various companies in Schefferville. There are no helicopter companies permanently based in Schefferville, so rotary-wing aircraft must be ferried in from Sept-Îles or Goose Bay.

An alternative access route, particularly for mobilization and demobilization of large amounts of equipment, is the village of Caniapiscau, situated some 160 km west of the property, at the headwaters of the James Bay Hydro-electric power project. Seasonal float-equipped air charter service is available from Caniapiscau, which is accessible by road via Radisson, Matagami and Val d'Or. Large amounts of equipment could be shipped by truck to Caniapiscau, and thence transported onward to the Property or Schefferville itself, as air-freight, for less cost than via rail and air through Schefferville. This option is not available prior to Spring break-up, which would be the ideal time to mobilize equipment into the site.

4.2 Infrastructure

Schefferville maintains a well established infrastructure, much of which was left intact after the Iron Ore Company of Canada closed their mining operations there in 1982. An incorporated municipality in Quebec with a population of about 1,000 people, Schefferville is a well serviced community with rail links from Sept-Îles and scheduled flights from Montreal, Quebec and Sept-Îles. The iron ore resources in the vicinity of Schefferville are being actively evaluated by several exploration and development companies. In the last 15 years, a number of new buildings, including medical clinics, a recreation centre, churches, and houses have been constructed, both in the town and on the contiguous Matimekosh Indian Reserve, largely to serve an expanding First Nations presence. The present population includes about 250 non-native residents, most of whom work directly or indirectly for the First Nations. Some 700 members of the Nation Innu Matimekosh-Lac John live in the nearby Matimekosh community.

Kawawachikamach (Kawawa), a community located some 20km north of the town of Schefferville, is the home of the Naskapi First Nations of Canada. The community was established in this location following the signing in 1978 of the Northeastern Quebec Agreement between the Government of Quebec and the Naskapi Band of Quebec. Since 1982, some 130 housing units have been built for the Naskapi people and there are now about 750 Naskapis living in the modern community that has its own school, medical clinic, recreational complex and swimming pool.

The economy of Schefferville is based on mining, hunting and fishing, tourism and public service administration. Several fishing and hunting camp operators are based in Schefferville and thousands of hunters and fishermen visit the area annually, chiefly for trout fishing and hunting for caribou and black bear. In addition to the hunting and fishing outfitters, the population of the town consists mainly of motel, store and flying service operators, teachers, retired families and support staff for the town services. While there is a potential labour force in the vicinity, training

programs will be required before it can be effectively utilized. It is assumed that government resources would be made available for such programs.

Until the end of November 2005, the Quebec North Shore and Labrador Railway (QNS&L), owned by IOCC, ran between Sept-Îles and Schefferville and offered weekly passenger and freight services. On December 1, 2005, that part of the rail line that runs from Emeril to the northern terminus at Schefferville was acquired from QNS&L by Tshiuetin Rail Transportation Inc. (TRT), which is owned in equal parts by the Naskapi Nation of Kawawachikamach, the Nation Innu Matimekossh-Lac John and Innu Takuaitkan Uashat mak Mani. Today, TRT operates two trains per week between Schefferville and Sept-Îles for passengers and community freight.

Schefferville, is supplied by a 69kV power line from the hydro-electric generating station at Menihek Lake, Labrador, about 40km south of Schefferville. The electricity supply is sufficient for local needs only.

4.3 Climate

The Schefferville area has a sub-arctic continental taiga climate with very severe winters. Daily average temperatures exceed 0°C for only five months a year. Daily mean temperatures for Schefferville average -24.1° and -22.6°C in January and February, respectively. Snowfall in November, December, and January generally exceeds 50 cm per month and the wettest summer month is July with an average rainfall of 106.8 mm. Mean daily average temperatures in July and August are respectively, 12.4° and 11.2°C. Because of its relatively high Latitude, extended day-light enhances the summer work-day period. Early and late winter conditions are acceptable for ground geophysical surveys and drilling operations.

4.4 Physiography

The topographic features on the Property are largely attributed to the lithology and structure of the underlying rocks. The Property covers numerous hills, knolls and generally northwest trending elongate ridges of resistant rock (quartzite and iron formation). High points along these ridges range from 470 m around Lac Le Fer to 850 m on the Rainy Lake Block. The height of land in the area is represented by the Quebec-Labrador border. Streams in Quebec flow into the Kaniapiskau watershed which flows north into Ungava Bay. The area around the Property drains to the north through the Swampy Bay River and Goodwood/Caniapiscaw River systems, leading eventually to Ungava Bay. Small lakes, ponds, and areas of wetland are common throughout the region. Vegetation is boreal forest and may be sparse or thick within the Property. The boreal forest consists mainly of black spruce with local poplar and alder stands. Elevated ridges and broad knolls on the Property have excellent bedrock exposure. The lower flanks of the ridges and flat lying areas are typically covered by sparse to thick boreal forest, stunted trees, bush, and ground cover generally in the form of grasses, caribou moss, and shrubs; the latter typically comprising willow, arctic birch, alders and Labrador tea. Much of the exposed rock is lichen covered. Glacial deposits are present throughout the Property except along the ridge lines and are typically thickest in depressions.

5 EXPLORATION HISTORY

*Note: The GESTIM and E-Sigeom sites allow on-line searching of the Province of Quebec's database of Provincial Assessment Reports or "Gestimes Minières" (GM's). The data are accessible online at <https://gestim.mines.gouv.qc.ca/> and <http://sigeom.mrnf.gouv.qc.ca/>.

Father Pierre Babel, O.M.I., who made several trips to the interior of Quebec-Labrador between 1866 and 1870, compiled a remarkably accurate map, and noted the occurrence of iron formation south of the Schefferville area.

A.P. Low, of the Geological Survey of Canada, carried out geological and topographical investigations within the region in 1893 and 1894. His maps and reports on the iron-bearing series were incorporated in a general report on the area published in 1897.

In 1929, a party led by J.E. Gill and W.F. James carried out prospecting operations in what is now the Schefferville area and named the area Ferrimango Hills. In the course of their field work, they discovered enriched iron-ore, or "direct-shipping ore" deposits west of Schefferville, which they named Ferrimango Hills #1, #2 and #3. These were later renamed the Ruth Lake #1, #2 and #3 deposits by J.A. Retty.

Starting in 1936, J.A. Retty supervised prospecting work to the south of the Schefferville area for the Labrador Mining and Exploration Company Limited. In 1939, concessions were obtained and the exploration of this sector was begun by Hollinger North Shore Exploration Company and by Noranco Exploration Company. The intense search for iron ore and heavy metals deposits continued through the 1940's. Most of the area south of latitude 55° 50' was mapped before 1955 by Hollinger North Shore Exploration Company, Labrador Mining and Exploration Company, and the Iron Ore Company of Canada, who sponsored a great number of Ph.D. and M.Sc. theses that focused on the stratigraphy, mineralogy, petrography and structure of parts of the iron formation zones in the western part of the Labrador Trough. Geologists of these companies also established the stratigraphic sequence in the Schefferville region.

The Geological Survey of Canada started work in the central part of the Labrador Trough in the late 1940's. Harrison (1952) mapped a detailed traverse across the western part of the Trough close to Schefferville and outlined the stratigraphy (Harrison 1952; Harrison et al., 1972). Frarey (1967) and Baragar (1967) mapped in detail four 30" (minute) x 15" sheets in the east of the area. Maps at 4-miles-to-one-inch scale were published by the Geological Survey of Canada (Fahrig, 1955, 1956a, 1956b; Roscoe, 1957; Baragar, 1967; Stevenson, 1963, and; Frarey, 1961).

Geologists of the Geological Survey of Canada formalized and refined the stratigraphy of the Schefferville area (Harrison, 1952; Harrison et al., 1972) and extended it to the eastern Labrador Trough and north to latitude 56° 00' (Frarey and Duffell, 1964; Baragar, 1967). Much work on the petrology of the mafic and ultramafic rocks of the eastern Labrador Trough was done by Fahrig (1962) and Baragar (1960, 1967), whereas sedimentological work on dolomites was carried out by Donaldson (1963, 1966). The geological setting and economic geology of the iron ore deposits were studied by Gross (1962, 1968). Articles synthesizing the geology of large parts of, or of the entire Trough were published by Bergeron (1957a, 1965), Fahrig (1957), Gastil et al. (1960), Baragar (1967), Gross (1968) and Donaldson (1970).

5.1 Historic exploration and development work

GM08394A - Hollinger North Shore Exploration Company Ltd. (1945)

Prospecting and drilling was carried out on several of the company's claims in 1944. Near Leroy Lake, northwest of the current Lac Thérèse Block and southwest of the current Lac Le Fer Block, a deposit 500 feet (152 m) long by 150 feet (46 m) wide, with an average grade of 61.9% iron was delineated. At nearby Partington Lake, three occurrences were outlined. The largest measured 3,900 feet (1,189 m) by 100 feet (30 m), with an average grade of 61.3% iron. The three occurrences could potentially be developed as a single deposit. A summary of known iron deposits is included in the report with an index map. None of the drilling was completed on the area covered by the current Property.

GM08395C – Bernard J. Keating (1946)

Report on Harris-Ritchie Lake area summarizing work conducted in 1946. Prospecting led to the discovery of the Eclipse Lake occurrence, which was subsequently investigated by trenching and pitting. Four (4) geology maps are included in the report with one map showing sample locations and analytical results. Assays returned average grades of 51.7% iron, 9.42% manganese, 0.02% phosphorus, 0.19% sulphur and 1.92% silica. The Eclipse Lake occurrence is located between Sunspot Lake and Rainy Lake, east of the current Rainy Lake Block. Part of the current Property was covered by the 1946 campaign.

GM08396C – A. T. Griffis (1946)

Surface exploration work conducted in 1946 included detailed mapping, trenching and sampling in the Goodwood, Partington, Leroy and Eclipse lakes areas. The Goodwood area was mapped in detail and considerable new iron formations were exposed by a pitting program resulting in an expansion of the mineralized zone. An extensive pitting program was completed on the Eclipse Lake occurrence (GM08395C) to further define its potential. A summary of preliminary estimates and grades for the investigated occurrences is included along with analytical results. Geology maps with sample location for Eclipse Lake, Partington Lake and Leroy Lake occurrences are included in the report.

GM08396E – W. G. Johnston (1947)

Prospecting and survey report for work completed in 1946 on the Woollet, Tait, Annabel, Cormier and Rouge lakes areas, which are east of the current Lac Le Fer and Lac Thérèse blocks. A geology map of the area is included in the report.

GM08190 – Iron Ore Company of Canada, Ltd. (1950)

Final report on investigations of the Sunny Lake-Walsh area. A detailed mapping and pitting program took place from June to September 1950 on the Sunny Lake-Walsh area to outline potential iron occurrences. Thirteen (13) outcrops of iron formation were mapped and excavated, with ten (10) outcrops giving significant analytical results. A dip needle survey over the area produced no notable anomalies. Four maps showing potential iron deposit locations and pit locations are included in the report. Part of the investigation covers the current Lac Thérèse Block.

GM08194 – Iron Ore Company of Canada (1950)

Report on detailed geological mapping in the Partington and Leroy lakes area. Mapping was conducted in the summer of 1950 to obtain a better understanding of the local iron occurrences, and possibly discover new occurrences. Four (4) geology maps are included in this report, which covers the current Lac Le Fer Block.

GM08230 - M. Tremblay (1952)

Report on geological mapping around the Hook Lake / Lac Le Fer area in 1951. Six (6) geology maps and a legend are included in the report, which covers the current Lac Le Fer Block. Sixty-seven (67) grab samples were collected - analytical results are included in the report.

GM08231 – Peter A. Peach (1952)

Report on the geology of the Moonbeam Lake area based on the work conducted from June to September 1951. Two (2) chip samples and one grab sample were collected and analysed with assay results included in the report, along with four (4) geology maps. The area of exploration covers the current Purdy Lake Block.

GM12269 - Canadian Johns-Manville Company, Ltd. (1955)

Preliminary report on prospecting in the Lac Le Fer area conducted in September 1954. A map showing the traversed area is included in this report.

GM12329 - Canadian Johns-Manville Company, Ltd. (1955)

Summary of the exploration program carried out from June to September 1954. Areas covered by the prospect were Trough, Walthier, Leroy, Gates, Hook, Wye and Al lakes, as well as the area around Lac Le Fer. A six-hundred (600) pound sample was collected from the Trough Lake occurrence and was milled and tested for crocidolite (asbestos). Assay results are included in the report as well as one map that shows the prospected locations and iron formations. The explored areas cover the current Lac Le Fer Block and northwest and southeast of the current Lac Thérèse Block.

GM12278 - Canadian Johns-Manville Company, Ltd. (1956)

Report on geological reconnaissance and prospecting in the south and the southwest areas of Eclipse Lake conducted in October 1955. Two maps with the location of iron formations accompany this report, which covered the current Rainy Lake Block.

GM12264 – Canadian Johns-Manville Company, Ltd. (1956)

Report on geological reconnaissance and prospecting completed in 1955 on the Helluva Lake / Olga Lake area. Areas covered by prospecting were Helluva Lake to Eclipse Lake, Eclipse Lake to Sunspot Lake, Olga Lake to Helluva Lake, and Olga Lake to Lac Le Fer. A map showing the distribution of mapped iron formations is included in the report.

GM12268 - Canadian Johns-Manville Company, Ltd. (1956)

Report summarizing work completed in 1955 in the Partington Lake area. A map showing the iron formation is included in the report, which covers part of the current Lac Le Fer Block.

GM12330 - Canadian Johns-Manville Company, Ltd. (1956)

Summary report on work conducted from June to September 1955. Geological reconnaissance and prospecting was carried out in the Eclipse-Sunspot, Helluva, Olga, Kirk, Hook, Partington, Ritchie-Greaves lakes areas, as well as Lac Le Fer and Swampy Bay River areas. Eight (8) trenches on the east side of the Trough Lake area were excavated and mapped. Two (2) maps of the iron formation occurrences are included in the report, which covers the Lac Le Fer and Lac Thérèse blocks, and part of the Rainy Lake Block.

GM12188 - Hollinger North Shore Exploration Company Ltd. (1957)

Summary report on operations that completed in 1956, including geological and geophysical mapping, trenching and pitting, and drilling and mining operations (Ferriman Mine). Geological mapping, and magnetic and electromagnetic surveys were completed between Annabel and Leroy Lakes. Approximately two-thousand (2,000) feet (610 m) of trenching was conducted between Annabel and Leroy Lakes and five-hundred (500) pits were excavated. Drilling

occurred in Annabel-Leroy Lake area with one-hundred-eighty-eight (188) drill-holes totalling 10,178 feet (3,102 m). The DDH logs are included in GM12250. A revised geology map indicating pit and trench sampling locations is included in the report, which covers the western part of the current Lac Thérèse Block.

GM09854 – G. M. Hogg and J. M. Grant (1960)

A gravity survey was completed over several areas of interest in 1959, including parts of the current Lac Le Fer Block and northwest of the current Lac Thérèse Block. Gravity survey contour maps are included.

GM12380 - Hollinger North Shore Exploration Company Ltd. (1961)

Drill logs and sample assay results for a drill program conducted in 1960. Eight (8) holes (5-17 to 5-24) were drilled totalling 242 feet (74 m). This report covers the current Lac Le Fer Block and has the drill-hole location map attached. For the full report, refer to GM10984.

GM10984 and 10986– Hollinger North Shore Exploration Company Ltd. (1961)

Summary report on operations during 1960, including geophysical survey, drilling, surface evaluation of iron formation and soil sampling. The areas covered are Annabel, Thérèse, Leroy, Ardua, Bras de Fer, Baie de Fer, Lac le Fer, Eclipse, Wye, Nancy, Appendix, Scott, Hayot, Snow, Gillard, Walthier, Sunny, Octave, Roymart, Rucelai, Gates and Helluva lakes. Sixteen-hundred (1600) soil samples were collected and analysed. Fifteen-hundred (1500) were re-analysed due to errors in the assay results.

GM62848 – New Millennium Capital Corp. (2007)

Simplified work report for two (2) representative rock samples collected for work conducted from August to September 2005. A claim map with outcrop locations is included in the report and covers the current Lac Thérèse Block.

GM64362 – New Millennium Capital Corp. (2008)

Assessment report of exploration includes geophysical surveys, mapping, sampling and analytical testing for magnetic taconite for work performed between October 2007 to November 2008. Geophysical report includes the results of the magnetic and gravity surveys. Of the 167 samples that were collected and analysed for multi-element concentrations, twelve (12) were selected for Davis Tube testing. Five (5) of the twelve selected samples are on the current Helluva Lake and Rainy Lake blocks. The report includes five claim work maps with selected rock sample locations, as well as all analytical results.

GM64344 – New Millennium Capital Corp. (2009)

Simplified exploration work report for Lac Thérèse Taconite Project conducted in July 2007. A total of four (4) rock samples were taken and sent to the lab for analyses with analytical results included. A claim map with surface geology and rock sample locations is attached to the report.

GM64896 - Beaufield Resources Inc. (2010)

Final technical report for helicopter-borne magnetic and gamma-ray spectrometric survey performed in October 2009 and includes eight geophysical maps related to the survey. The report covers part of the current Lac Le Fer and Lac Thérèse blocks and the area in between.

GM65265 – 0849873 BC Ltd. (2010)

Report on a helicopter-borne magnetic survey performed in January 2010 to delineate favourable areas using high resolution magnetics in search of iron-bearing mineralization. The report includes twelve(12) maps related to the survey and covers part of the current Lac Le Fer Block and Lac Thérèse Block.

GM65585 – New Millennium Capital Corp. (2011)

Report of analysis of an airborne high sensitivity magnetic survey performed in autumn 2010 to assist in geological mapping as well as taconite mineral exploration targets. The report includes five claim maps and covers the current Helluva Lake, Rainy Lake, Purdy Lake, and Lac Thérèse blocks and the area between Lac Thérèse and Lac Le Fer blocks.

GM65600 - New Millennium Capital Corp. (2011)

Simplified exploration work report performed between June and September 2010. A total of sixty-four (64) rock and chip samples were collected and analysed with analytical results included. Three (3) claim maps and two (2) sample location maps are attached to the report and covers the current Helluva Lake, Rainy Lake and Purdy Lake blocks.

GM65586 - New Millennium Capital Corp. (2011)

Logistics and processing report on airborne high resolution magnetic survey performed from October to November 2010. Area 1 covers the current Helluva Lake, Rainy Lake and Purdy Lake blocks and Area 2 covers the current Lac Thérèse Block and south/southeast of Lac Le Fer Block. Two (2) maps include total magnetic intensity and first vertical derivative and identifies the survey locations.

GM65959 – 0849873 BC Ltd. - Century Iron Ore Group (2011)

Geological mapping and sampling on the Lac Le Fer and Rainy Lake Iron Properties performed from July to September 2010 to verify the iron potential in the taconite and for DSO (Direct Shipping Ore) targets. Included are surface geology maps with outcrop locations and assay sample locations for the current Lac Le Fer and Rainy Lake blocks and covers part of the Helluva Lake Block. A total of five-hundred-thirty-three (533) rock samples were collected for these areas and analysed with the analytical results given in the report.

GM66387 – New Millennium Iron Corp. (2012)

Assessment report of work performed from Helluva Lake to Purdy Lake conducted from June to September 2011. The exploration program was designed to map and sample magnetic taconite and DSO anomalous areas. The results from mapping and sampling was then used to select drilling targets. During the exploration period, a total of one-hundred-seven (107) samples were collected from the magnetic taconite belt and sent for chemical analysis and physical testing (Davis Tube Concentrate). A total of eight (8) samples were collected for DSO. The report covers the current Helluva Lake, Rainy Lake and Purdy Lake blocks and includes six (6) claim maps as well as sample descriptions and certificates of analyses.

GM66598 – Beaufield Resources Inc. (2012)

A high sensitivity aeromagnetic and FALCON™ airborne gravity gradiometer survey conducted in September 2010. The report covers the current Lac Thérèse Block and includes fourteen (14) maps related to the survey.

GM66399 - Beaufield Resources Inc. (2012)

Report of analysis of an airborne gravity survey performed in September 2010. The survey was analysed to extract pertinent information for the exploration programs of SEDEX (Sedimentary Exhalative), DSO and taconite as well as aid in the geological mapping and selection of mineral exploration targets. The explored area covers the current Lac Thérèse and Lac Le Fer blocks.

GM67605 - New Millennium Iron Corp. (2013)

Geological and drilling report for Lac Thérèse performed from June to July 2012. One hole was drilled (12TL1002) totalling 102 m. The drill-core was logged, but not sent for analyses and

was said to be tested at a later date. A claim map and a drill-hole location map are included in the report as well as the drill-core log. After the completion of the drilling, the hole was re-surveyed and the report is appended.

GM67588 – New Millennium Iron Corp. (2013)

Assessment report for Eclipse Lake region conducted from July to August 2012. The exploration program was designed to map and sample magnetite taconite and DSO anomalous areas for potential drilling. Field mapping was carried out as well as the collection of twenty-nine (29) samples from the magnetic taconite belt and sent to the lab for chemical analyses and physical testing (Davis Tube Concentrate). A claim map, sample location map and surficial geology map are included in the report and covers the area between the current Helluva Lake and Rainy Lake blocks. Iron sample logs and surface sample test results are listed at the end of the report.

GM67980 - New Millennium Iron Corp. (2013)

Assessment report of exploration work conducted from June to July 2013. Exploration work involved field mapping and twenty-three (23) grab samples collected from the magnetic taconite exposures and sent for chemical analyses and physical testing (Davis Tube Concentrate). In addition, twelve (12) DSO-type samples were collected and one sample with visible sulphide mineralization was assayed for gold. A claim map and sample location maps are included with the report and covers the area between the current Helluva Lake and Rainy Lake blocks.

GM67739 – Century Iron Mines (Century Global Commodities) (2014)

Assessment report for the Sunny Lake Project conducted from March to September 2012. Drilling program consisted of one-hundred-seventeen (117) vertical drill-holes with a total length of 24,553.8 m. Collected samples (n=4,372) were sent for assay analyses, 125 samples for re-analyses, and 465 samples for quality control and assurance. Of the 117 holes drilled, four (4) holes were HQ and the rest were NQ. Davis Tube testing was conducted and a mineral resource estimate was calculated. The drill-core logs as well as certificate for analyses for 2012 drilling are included at the end of the report. A list of thirty-one (31) vertical holes were drilled in 2011, with a total length of 6,386.7 m. Collected samples (n=1,786) were submitted for assay. In October 2012, Century commissioned SRK Consulting (Canada) to prepare a mineral resource estimate (GM67740).

GM68939 – New Millennium Iron Corp. (2015)

Assessment report of work conducted from June to September 2014. The report contains a claim map and sample location maps and covers the current Helluva Lake, Rainy Lake and Purdy Lake blocks. The goal of this exploration program was to identify possible mineralization by using past data and to implement an auger drill-hole program to sample glacial till in areas that have DSO potential. Several auger drill-holes were sampled, tested and analysed. The auger drill-hole logs, sample analyses, assay results and certificates of analyses are included in the report.

GM69040 – WISCO Century Sunny Lake Iron Mines Limited (2015)

Assessment report on exploration performed in August 2014. The aim for the field program was to verify the iron ore potential of Helluva Lake to Lac Le Fer (western claim Block) for enriched iron (DSO) potential. Geological mapping, surface sampling and a ground magnetic survey was carried out. No significant mineralization was encountered in the field, so no samples were collected for assay. Raw magnetic data, outcrop locations and descriptions are included at the end of the report. Field work, geophysics and local geology maps are also contained in the report, which covers the area between the current Helluva Lake and Lac Le Fer blocks.

GM69205 - WISCO Century Sunny Lake Iron Mines Limited (2015)

Assessment report on exploration performed from July to October 2014. The report describes the exploration program on the Lac Le Fer East, Blackbird, Lac Saint-Martin and Hayot North areas and consisted of a diamond drilling program, ground gravity, ground magnetic survey, prospecting and geological mapping. The report covers part of the current Lac Le Fer Block and east of the current Lac Thérèse Block. The drill program was based on the geophysical data interpretation, prospecting and 2011 drill results as well as historical work review and analyses in the area. The objective for the 2014 program was to pursue the high-grade mineralization zone delineated from the 2011 drill program to gain a better understanding of the local geology. In 2011, four (4) holes were drilled for a total length of four-hundred-ninety (490 m) and two (2) reverse circulation (RC) holes were drilled at a total length of one-hundred-ninety-eight (198 m). In 2014, thirty-one (31) holes were drilled for a total length of 3,083.1 m and include twenty-eight (28) holes (BB-14-001 to BB-14-021 and BB-14-023 to BB-14-029) in the Blackbird area, two (2) holes (BB-14-22 and BB-14-22A) at Saint-Martin showing, and one hole (BR-14-01) at Bruin Lake area. Drill-hole length ranges from thirty-six (36 m) to one-hundred-eighty (180 m). A total of eight-hundred-seventy-four (874) samples were collected from the drill-core and submitted for chemical analyses. A mineral resource statement was prepared and is included on page 50 of the report. Also included are geology and drill-hole location maps.

GM69208 - WISCO Century Sunny Lake Iron Mines Limited (2015)

Consulting (Canada) Inc. (SRK) was commissioned by WISCO Century Sunny Lake Iron Mines Limited to conduct a mineral resource evaluation for the Sunny Lake Property. This report covers the exploration work conducted by the company between 2011 and 2014 and covers the current Lac Le Fer Block and east of Lac Thérèse Block.

DP 2002-02 – Ministère des Ressources naturelles du Québec (2002)

Digital data from an inventory of heavy mineral from the Ashuanipi region's till. The data is from **GM 59085** and **GM 59086**. This data comprises stream sediment samples located on the current Schefferville Property.

DP2006-07

This report presents a total residual magnetic map of Quebec.

DP2013-02

This report present results of an airborne magnetic and spectrometric survey completed in the Lac Romanet region, Churchill province in northern Quebec. A series of maps that cover the current Property are included.

MB 89-33 – Ministère des Ressources naturelles du Québec (1989)

Report on the geochemistry of lake sediments from the Fermont region. Report includes 41 maps and digital data on lake sediment geochemical results; some of which are located on the current Schefferville Property.

RG193 – Dimroth, E., 1978

This report is a compilation of geological information on the Central Domain of the Labrador Trough, and includes a series of regional geological maps.

6 GEOLOGICAL SETTING & MINERALIZATION

6.1 Regional Geology

The Property is north-northwest of Schefferville, Quebec, and is underlain by rocks of the Labrador Trough, which hosts some of the most extensive iron-formations in the world. The area is underlain chiefly by rocks that form the western, miogeosynclinal part of the Labrador Trough in the Churchill Province of the Canadian Shield. The Labrador Trough, also known as the "New Quebec Orogen" and the "Labrador-Quebec Fold Belt", extends for more than 1,000 km along the eastern margin of the Superior craton from Ungava Bay to Lake Pletipi, Quebec. The belt is about 100 km wide in its central part and narrows considerably to the north and south (**Figure 6.1**). This Paleoproterozoic fold and thrust belt marks the collision between the Rae Province to the northeast and the Archean Superior Province to the southwest; defined as the Hudsonian Orogeny (1.82 – 1.79 Ga). Rocks in the east were transported westward over Archean Superior basement (Ashuanipi metamorphic complex) creating a foreland fold and thrust belt marked by a series of imbricate thrusts (**Figure 6.2**). Based on stratigraphic juxtapositions, these thrust faults may have stratigraphic throw of several kilometres.

Metamorphic grade increases from subgreenschist facies in the west to upper amphibolite-granulite facies in the eastern part of the Orogen (Dimroth and Dressler, 1978; Hoffman, 1988). Thrusting and metamorphism in the Labrador Trough occurred between 1840–1829 Ma (Machado, 1990). Rocks underlying the Property are subgreenschist to greenschist grade, implying temperatures of <200° C (Zajac, 1974).

Rocks in the Trough consist of a sequence of Proterozoic (Archean) mainly sedimentary rocks, including iron formations, volcanic rocks and mafic intrusions known as the Kaniapiskau Supergroup. The Kaniapiskau Supergroup consists of the Knob Lake Group in the western part of the Trough and the Doublet Group, which is primarily volcanic, in the eastern part. Knob Lake Group rocks underlie the Property. Approximately 15 km west of Schefferville, rocks of the Knob Lake Group lie unconformably on Archean gneisses of the basement complex and to the east they pass into the eugeosynclinal facies of the Labrador Trough. The Kaniapiskau Supergroup has been intruded by diabase dykes known as the Montagnais Intrusive Suite. These dykes along with the Nimish volcanics (greenstones) are the only rock types representing igneous activity in the western part of the central Labrador Trough.

The reader is referred to geological publications by G.A. Gross (1968), E. Dimroth (1970), O.R. Eckstrand (1984), J.M. Harrison (1952), J.M. Harrison et al. (1972), I.S. Zajac (1974) and R.J. Wardle (1982) and Dimroth (1978) among others, for more comprehensive geological descriptions and maps of the Labrador Trough and the Schefferville area.

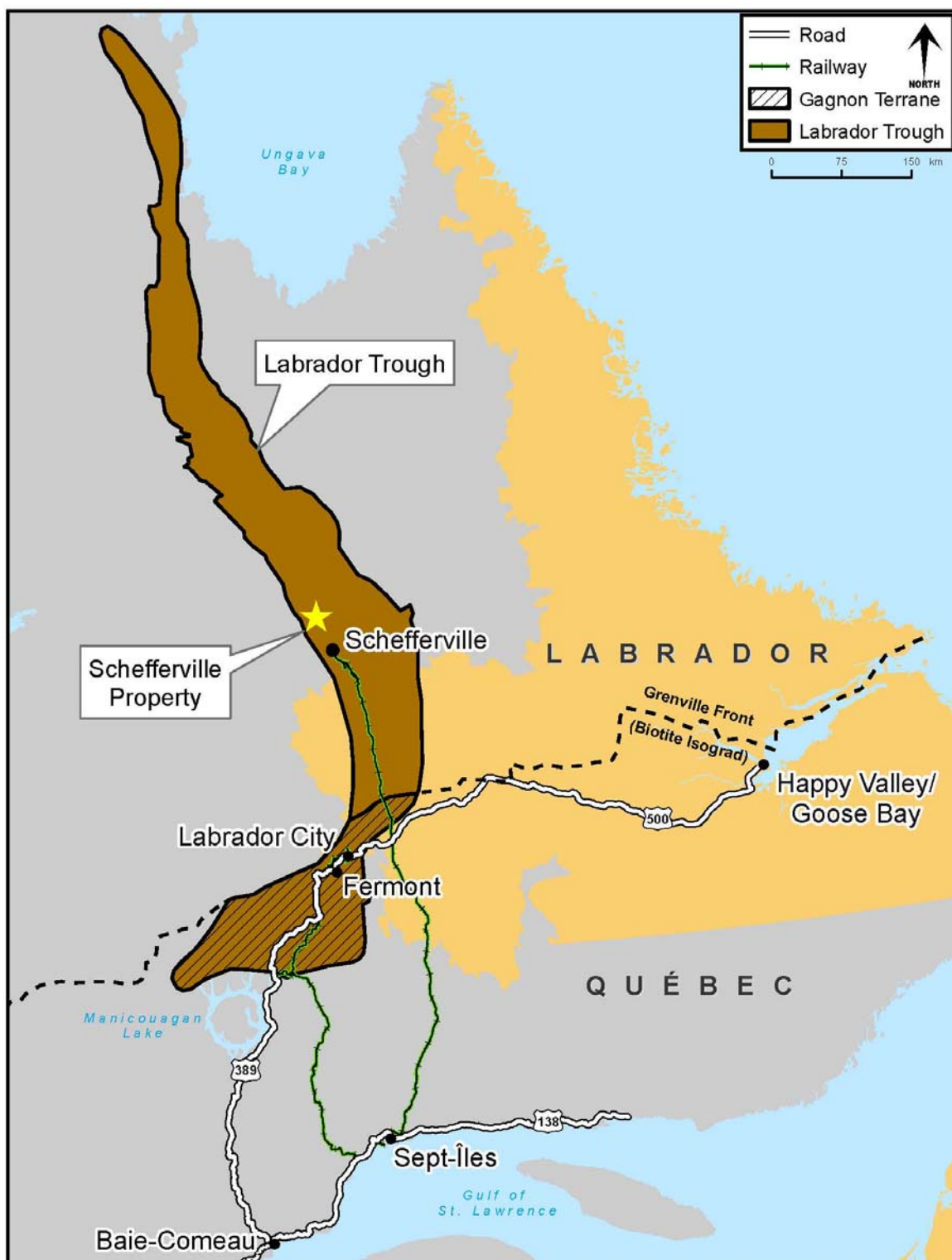


Figure 6.1: Map showing location of Labrador Trough.

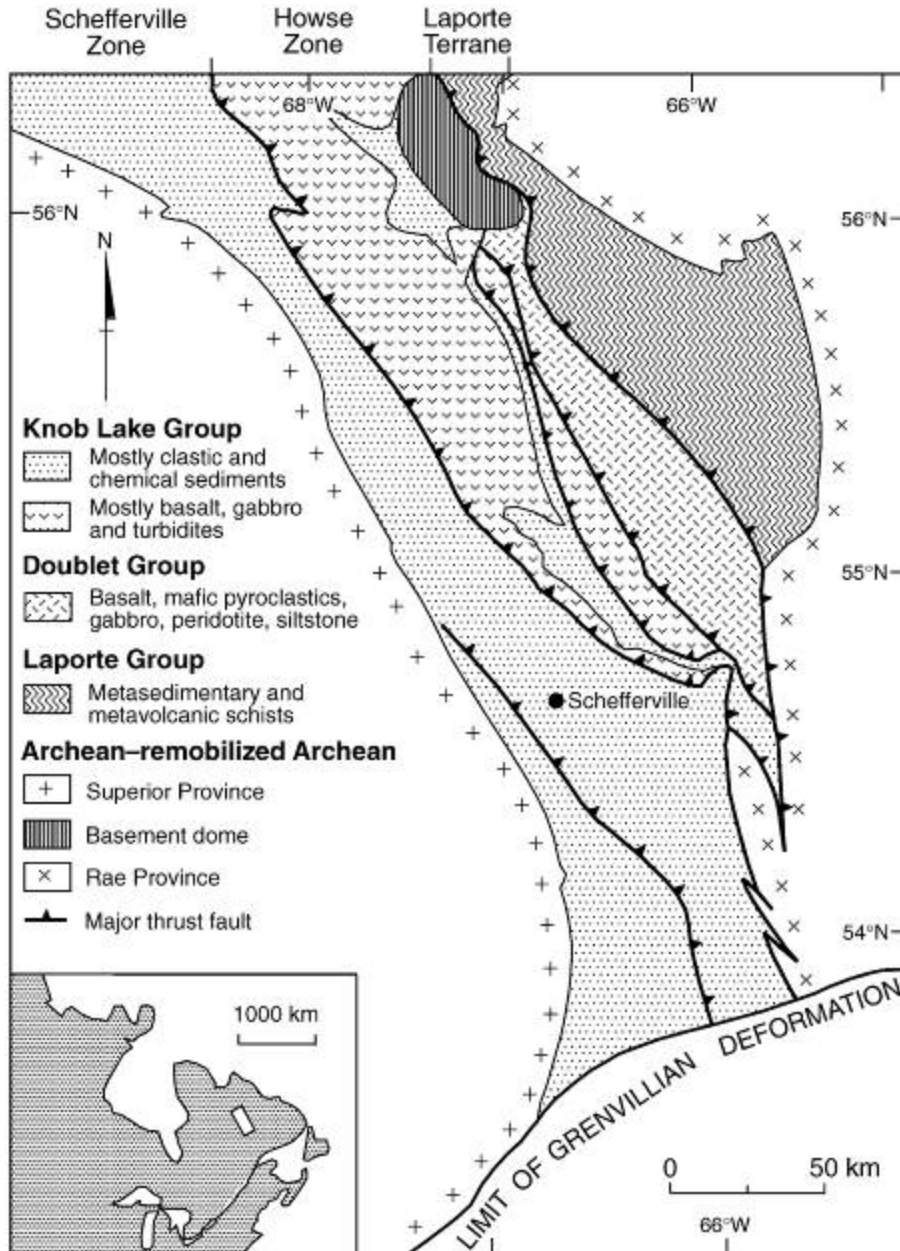


Figure 6.2: Lithotectonic Subdivisions of the Central Labrador Trough (taken from Williams and Schmidt, 2004)

6.2 Local Geology

The Property lies north-northwest of Schefferville in the thrust-imbricated toe of the foreland thrust belt, near the exposed unconformity with Archean basement complex (**Figure 6.3**).

The corrugated topographic appearance and geometric distribution of bedrock in the area is related to the lithology and structure of the underlying rock. This is reflected by the low-lying, water covered areas, which are underlain by relatively soft sediments (shale, slate, greywacke) and residually enriched iron ore, and the topographically higher, parallel ridges like those throughout the Property, that are composed of chert, quartzite and iron formation.

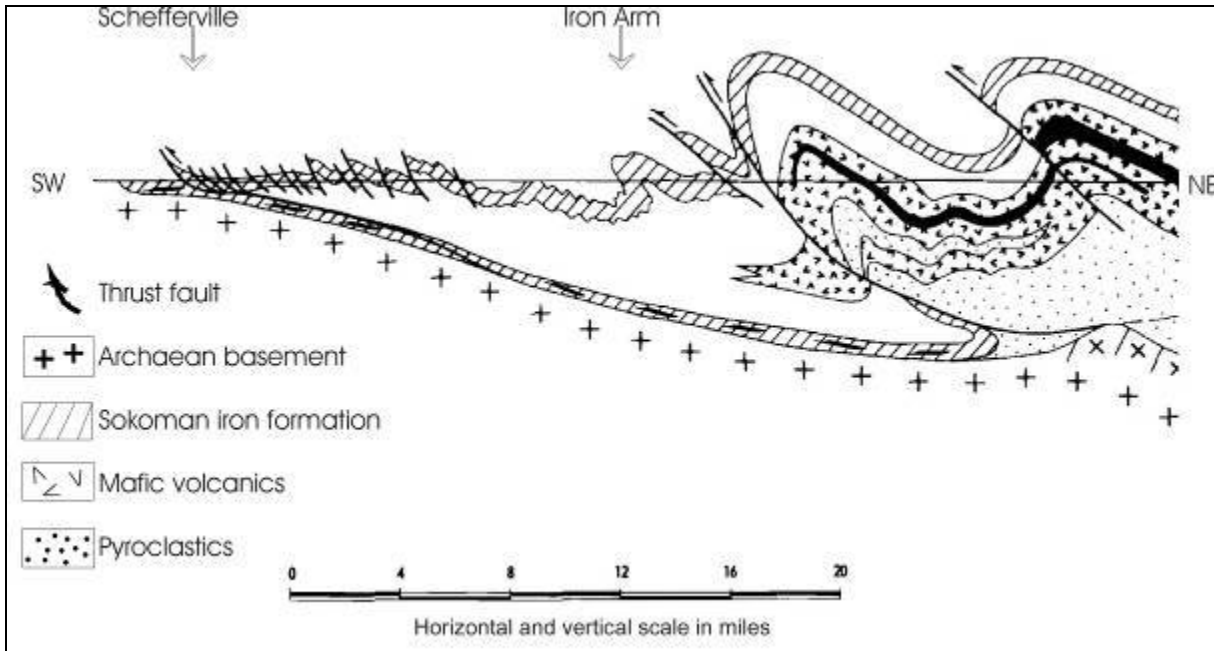


Figure 6.3: Schematic cross-section of the western part of the Labrador Trough (after Dimroth, 1970)

Perfunctory structural observations, surface distribution patterns, and consideration of historical geological maps reveal that the Knob Lake Group rocks underlying the area are folded into a series of open- to tight, linear, shallowly plunging anticlines and synclines with axial planes dipping steeply to the northeast. Fold plunges are generally less than 20° and toward the southeast, but reversals occur locally. Steep reverse (thrust) faults, associated with the east-over-west orogenic movement, commonly truncate the western limbs of large-scale folds. Westward directed thrust faults, with stratigraphic throws of hundreds of feet, affect Knob Lake Group rocks in the area. As a result of the folding and faulting, the knob Lake Group rocks are repeated 15 to 20 times between Schefferville and the Archean basement rocks to the west. A number of straight lineaments in the area between these major faults have been interpreted as smaller-scale, imbricate thrust faults, and steep reverse faults with throws of a few hundreds of feet have been defined throughout the area (Gross 1968, Harrison et al. 1972, Wardle 1982). Crustal shortening of 35% to 45% have been estimated in the area of the Property (Zajac, 1974). Later sets of brittle, north- and northeast-trending, strike-slip faults, with offsets commonly in the range of a hundred to a few hundreds of feet have also been mapped in the area and can be inferred from geophysical offsets. The intersection of the current erosional surface with the tightly folded, resistant iron formation results in a surface pattern of seemingly very long, thin, steeply dipping fold limbs and extended, thickened hinge areas, distinctively displayed on area geological maps (**Figure 6.4**).

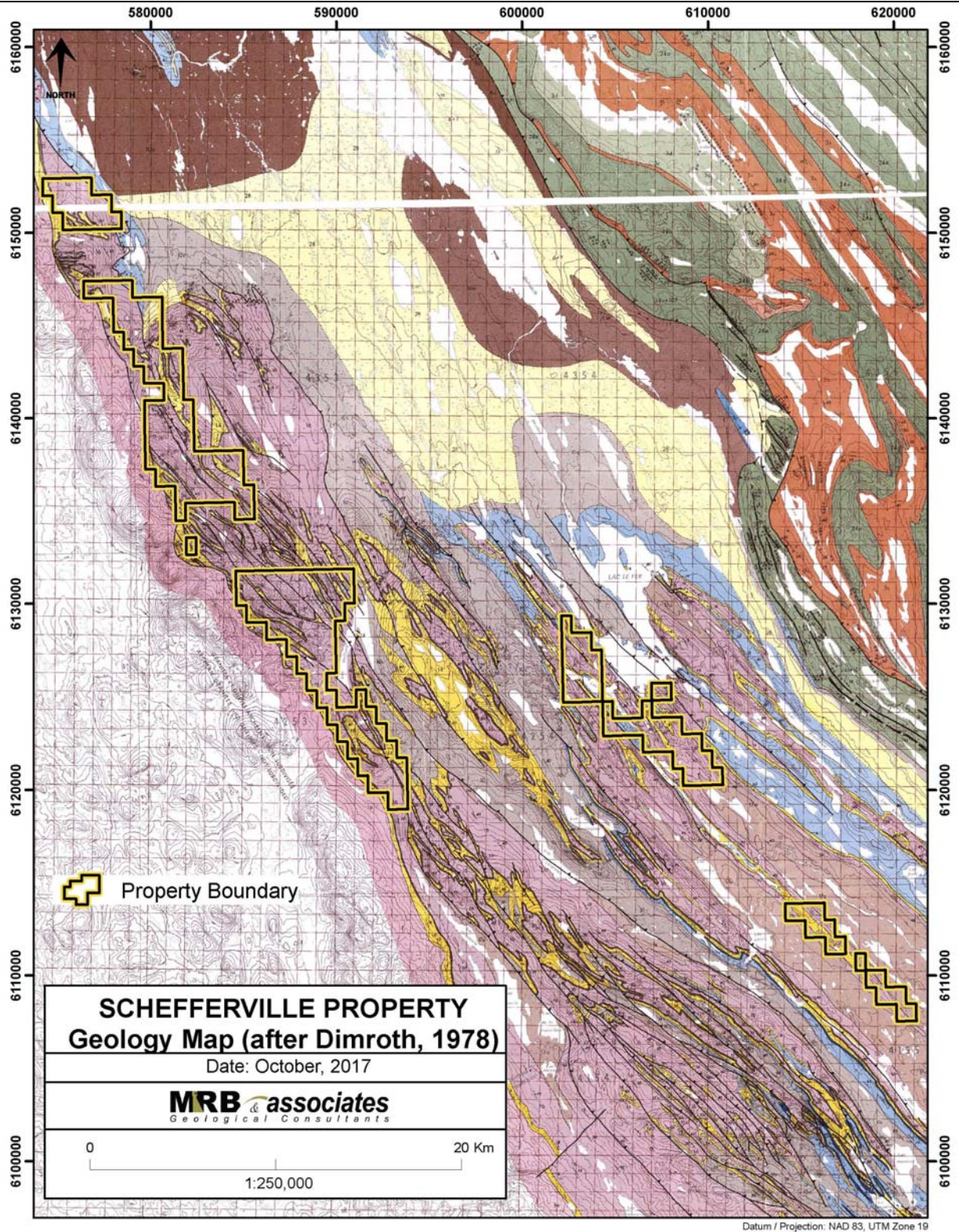


Figure 6.4: Geology of the SIOD in the area of the Property, from Dimroth, 1978 - Legend below;

17a Slate	GROUPE DE KNOB LAKE FORMATION DE MENIHEK <i>Agglomérat</i>	17c	KNOB LAKE GROUP MENIHEK FORMATION <i>Agglomerate</i>
	<i>Basalte</i>	17b	<i>Basalt</i>
	<i>Ardoise et grauwaacke</i>	17a	<i>Slate and greywacke</i>
	SOUS-GROUPE DE FERRIMAN FORMATION DE SOKOMAN <i>Roche ferrifère à silicates et carbonates</i>	16b	FERRIMAN SUBGROUP SOKOMAN FORMATION <i>Silicate-carbonate ironstone</i>
	<i>Roche ferrifère à hématite</i>	16a	<i>Hematite ironstone</i>
	FORMATION DE RUTH <i>Siltite ferrifère</i>	15	RUTH FORMATION <i>Iron siltstone</i>
	FORMATION DE WISHART <i>Roches pyroclastiques</i>	14a	WISHART FORMATION <i>Pyroclastic rocks</i>
	<i>Grès</i>	14	<i>Sandstone</i>
	SOUS-GROUPE D'ATTIKAMAGEN FORMATION DE DOLLY <i>Ardoises grises, vertes ou rouges</i>	13	ATTIKAMAGEN SUBGROUP DOLLY FORMATION <i>Grey, green or red slates</i>
	FORMATION DE FLEMING <i>Brèche chertreuse</i>	12	FLEMING FORMATION <i>Chert breccia</i>
	FORMATION DE DENAULT <i>Dolomie</i>	11	DENAULT FORMATION <i>Dolomite</i>
10c LE FER FORMATION Grey, red or green laminated slate	FORMATION DE BACCHUS <i>Agglomérat et tuf</i>	10h	BACCHUS FORMATION <i>Agglomerate and tuff</i>
	<i>Basalte</i>	10g	<i>Basalt</i>
	<i>Schiste pélitique et grès impur</i>	10f	<i>Pelitic schists and impure sandstone</i>
	<i>Conglomérat de base</i>	10e	<i>Basal conglomerate</i>
	<i>Grès</i>	10d	<i>Sandstone</i>

6.3 Stratigraphy

The Schefferville Iron District (SID) is underlain by Proterozoic sedimentary rocks, divided into 8 formations that comprise the Knob Lake Group, the lowermost part of which lies unconformably on Archean gneisses of the Ashuanipi Complex. From oldest to youngest the formations are the Seward, Le Fer, Denault, Fleming, Dolly, Wishart, Sokoman and Menihek. A synopsis of the regional stratigraphy has been tabulated (**Table 6.1**) and is shown in **Figure 6.5**. The sedimentary sequence of the Knob Lake Group consists of two sedimentary cycles. Cycle 1 (the Attikamagen Subgroup of Wardle, 1982) is a marine-shelf (i.e., shallow water) succession comprising the Le Fer, Denault, Dolly, and Fleming formations. Cycle 2 (the Ferriman Subgroup of Wardle, 1982) represents deposition in a deeper water slope-rise environment. It begins with a transgressive quartz arenite (Wishart Formation), followed by shale and iron-formation of the Sokoman Formation, and conformably overlain by the flyschoid Menihek Formation. Paleomagnetic findings indicate that the 1.88 Ga iron formations of the Sokoman Formation were deposited at approximately 30° south Latitude (Williams and Schmidt, 2004).

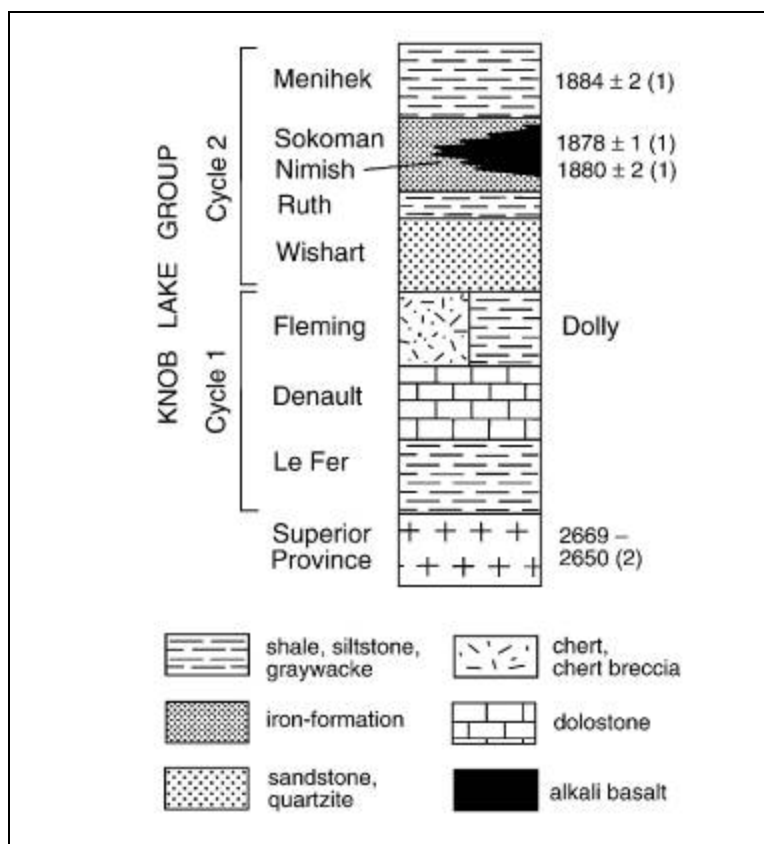


Figure 6.5: Generalized stratigraphy of the Knob Lake Group after Williams and Schmidt, 2004). Age dates are in Ma

Table 6.1: A synopsis of the regional stratigraphy in the west-central Labrador Trough area.

PROTEROZOIC – Helikian

Shabogamo Group

Gabbro, Diabase

—Intrusive Contacts—

PROTEROZOIC – Aphebian

Kaniapiskau Supergroup

Knob Lake Group

Menihok Formation

Carbonaceous slate, shale, quartzite, greywacke, mafic volcanic rocks, minor dolomite and chert.

Sokoman iron formation

Oxide, silicate and carbonate lithofacies; minor sulphide lithofacies: Interbedded mafic volcanic rocks (Nimish Formation) to the west; ferruginous slate and slaty iron formation, slate and carbonaceous shale (Ruth Formation of Zajac, 1974) .

Wishart Formation

Feldspathic quartz arenite, arkose, minor chert, greywacke, slate and mafic volcanic rocks.

Dolly/Fleming Formation

Chert breccia, thin-bedded chert, limestone, minor lenses of shale and slate.

Denault Formation

Dolomite and minor chert.

Le Fer Formation

Green, red, grey and black shale, and argillite intrrbedded with mafic volcanic rocks.

—Unconformity—

ARCHEAN

Ashuanipi Complex

Granitic/granodiorite gneiss, mafic intrusives

The stratigraphic units of the Knob Lake Group from oldest to youngest are as follows:

The **Seward Formation** consists of fine- to coarse-grained quartzites and clastic rocks of unknown thickness and is not exposed in the vicinity of the Property.

The **Le Fer Formation** consists of thin- to thick-bedded, vari-coloured shales and slates and interbedded dolomite. This unit is exposed in the western and southern parts of the Property in the vicinity of the Lac Le Fer and Lac Thérèse blocks.

The **Denault Formation** consists mainly of light grey (buff-weathering), massive to thick-bedded, fine-grained dolomite, with minor beds, nodules, and lenses of chert. The Denault Formation ranges between 200 and 600 ft thick in the Schefferville area. It rests conformably on, and is laterally interbedded with, rocks of the Le Fer Formation. The Denault Formation is generally a recessive unit and exposures are present locally directly northwest and southeast of Lac Le Fer. It is not present under the rest of the Property.

The **Fleming Formation**, known in the literature as the Fleming chert breccia, consists of vari-coloured massive chert, chert breccia, and chert-cemented quartzite. It may be up to 300 ft thick and is a prominent unit in the Schefferville area and on most of the nearby Gravenhurst properties. It rests conformably on, and is laterally interbedded with, rocks of the Dolly Formation. Colour varies from creamy white to grey, pink, brown, red and green. The Fleming Formation is a principle host of manganese mineralization in the Schefferville area.

The **Dolly Formation** consists mainly of vari-coloured slate and siltstone, with minor quartzite and dolomite, and not been noted in the area of the Property. The lower and upper contacts of this formation are gradational with the Denault and Wishart formations respectively.

The **Wishart Formation** consists mainly of light grey, massive to well-bedded, medium- to coarse-grained quartzite, quartz arenite and siltstone with minor arkose, shale, and dolomite. It lies unconformably on all underlying formations and, to the west, on Archean basement. At its western limit, where it unconformably overlies basement gneiss, the Wishart Formation is 80 to 100 ft thick and its thickness increases gradually, in successive thrust slices, to 160 ft just north of Schefferville. The lower part of the formation consists of chert pebble conglomerate, siltstone and greywacke marking the unconformity. Wishart Formation sediments occur throughout the Property.

The **Ruth Formation** is typically exposed alongside exposures of Wishart Formation. It consists mainly of thinly banded, carbonaceous, ferruginous slate with interbeds of dark grey to green chert. The lowermost part (2-10 ft) comprises massive, black, carbonaceous chert.

The Ruth Formation, which is now considered as part of the Sokoman Formation due to its high (17% to 20%) total iron content, is described as a separate formation here as it is a significant marker unit, as well as a frequent host to manganese mineralization in the Schefferville area.

The **Sokoman Formation** is the major iron formation host throughout the Labrador Trough, and along with the other stratigraphically correlative units throughout the length of the Labrador Trough, it constitutes one of the most extensive iron-formations in the world. It varies between 120 and 240 m thick and is a typical cherty, Superior-type iron-formation and consists of banded sedimentary rocks composed principally of bands of iron-oxide, magnetite and hematite within quartz/chert-rich rock with variable amounts of silicate, carbonate and sulphide lithofacies, ferruginous slate and slaty iron formation, slate and carbonaceous shale and commonly displaying thin and irregular bedding and cross-bedding. The formation is divisible

stratigraphically into three regionally extensive sub-units (see Stubbins et al., 1961; Chauvel and Dimroth, 1974; Fink, 1972 and; Klein and Fink, 1976):

- 1) the Lower Iron Formation (LIF) member (10–30 m thick) comprising thin-bedded to laminated chert-siderite with thin interbeds of shale overlain by pink, reddish-grey and green-grey, layered silicate-magnetite-carbonate (siderite) and cherty magnetite/hematite iron-formation. The LIF is divided into the upper “silicate-carbonate iron formation” (SCIF) and the older “lower iron formation” (LIF). Modern interpretations of the Sokoman Formation consider the Ruth Formation as the lowermost unit of the Sokoman Formation; however, since it forms a distinctive marker horizon on the Property it is treated herein as a separate stratigraphic unit. The LIF is gradationally overlain by;
- 2) the Middle Iron Formation (MIF) is 90–150 m thick and consists mainly of arenite oxide facies rocks containing 30–70% iron oxides, with magnetite-chert iron formation more abundant near the bottom and jasper-magnetite-chert iron formation more abundant towards the top. The MIF is divided into the lower red chert (LRC), pink-grey chert (PGC), and the upper red cherty (URC) members. This member grades upward into;
- 3) the Upper Iron Formation (UIF) member (25– 60 m thick) , which consists of green, grey-green and pink-grey magnetite-chert iron formation with local zones of laminated to shaley-bedded siderite-magnetite-chert iron formation. The UIF is divided in ascending order into the grey upper iron formation (GUIF), the red upper iron formation (RUIF) and the lean chert (LC) members.

Numerous studies have been carried out on the Sokoman Formation owing to its economic importance (Harrison 1972, Zajac 1974, Klein and Fink 1976); to wit, it is the source rock for all of the iron and manganese mineralization in the area. A geological synopsis of the Sokoman Formation is presented in **Table 6.2**. All three Sokoman members: Lower Iron Formation (LIF), Middle Iron Formation (MIF) and Upper Iron Formation (UIF) are present, at least in part, underlying most of the Property.

The **Menihek Formation** is composed almost entirely of grey to black, carbonaceous and locally pyritic shales, slates and siltstones, with minor feldspathic greywacke and chert. This formation is over 1000 ft thick and lies conformably on the Sokoman Formation. It underlies only the south-easternmost part of the Property, in the vicinity of the Lac Thérèse Block.

6.4 Property Geology

Rocks underlying the Property belong to the Le Fer, Denault, Wishart, Ruth Sokoman and Menihek formations, and are folded into tight, shallowly-plunging, anticline-syncline pairings. Axial-planar cleavage is best developed in the hinge areas of these folds, which also display more complex deformation features. Due to competency contrasts the shales and slaty rocks on the Property typically exhibit better developed axial-planar cleavage and are more complexly deformed than the coarser grained more competent units. The simple pattern of the folds does not truly reflect the deformational complexity of the area as is evident from small-scale folding and interference patterns within various units that is independent of the Property-scale folds of which they are a part; however, it is the property-scale folds that are the most important factor economically as it is in the hinge areas of these folds that the iron formation is often thickened.

Table 6.2: Regional stratigraphic column of western Labrador Trough.

Unit	Est'd Avg True Thickness & Range (m)	Description
Youngest		
Diabase		
Menihok Formation	>79.2	Dark grey to black shale with minor interbedded greywacke and carbonate lithofacies, carbonaceous pyritic shale.
THRUST FAULT		
Sokoman Formation		
<u>UIF Member</u>		
Lean Chert Sub-member (LC)	25.0	Greenish, green to grey-green and pink-grey magnetite-chert iron formation with local zones of laminated to shaley bedded (siderite-magnetite) chert iron formation. This unit contains a stromatolite-bearing purple-red and green chert band with magnetite less than 3 m thick. Stilpnomelane-bearing magnetite-rich shales occur both above and below the stromatolitic band.
Silicate Facies	(18.4-32.5)	
Jasper Upper Iron Formation (JUIF) Magnetite-Carbonate Facies	26.2 (20.7-30.8)	Layered to laminated, magnetite-chert iron formation. Red-grey-pink in colour, red chert and oolites.
Green Chert (GC)	3.8	Silicate-rich, green chert unit, laterally continuous and an excellent marker horizon.
Magnetite-Carbonate Facies	(1.2-9.4)	
<u>MIF Member</u>		
Upper Red Cherty (URC)	8.1	Massive to layered, jasper-magnetite-chert iron formation. Red-grey to reddish purple.
Hematite-Carbonate Facies	(4.4-16.8)	
Pink-Grey Cherty (PGC)	12.6	Disseminated magnetite-chert iron formation. Grey to pink-grey to green-grey.
Magnetite-Carbonate Facies	(4.0-22.9)	
Lower Red Cherty (LRC)	8.6	Layered magnetite-chert iron formation. Red-grey to reddish purple. Lower contact transitional.
Hematite-Carbonate Facies	(0-18.6)	
<u>LIF Member</u>		
Lower Red Green Cherty (LRGC)	21.2	Layered silicate-magnetite-carbonate, magnetite-chert iron formation. Pink to reddish-grey to green-grey. More silicate in lower part, more oxide in upper part. Lower contact transitional with LIF.
Magnetite-Carbonate Facies	(0-46.0)	
Lower Iron Formation (LIF)	8.2	Massive to layered green to grey-green silicate-carbonate-magnetite-chert iron formation.
Silicate Facies	(1.4-32.8)	
Ruth Formation (RF)	5.2	Thin bedded to laminated chert-siderite, with thin interbeds of shale. Note - Zajac (1974) argues the term Ruth Formation should be abandoned because it is for most part equivalent to LIF.
Sulphide Facies	(2.9-8.7)	
Wishart Formation (Qte)	17.7	Black Chert 1.4 m (0.62-2.4 m)
	(14.6-20.4)	Quartzites and/or re-crystallized cherts.
UNCONFORMITY		
Ashuanipi Complex – Archean		Granitic and Granodioritic gneiss and mafic intrusives. Paleosol on contact between Proterozoic Assemblage and Archean basement.

Adapted after Fink (1972) and Klein and Fink (1976).

Adapted after Fink (1972) and Klein and Fink (1976).

Gross (1996) includes synclinal fold structures in iron formation as a target area for residually enriched iron ore deposits in his Exploration Guidelines section. So called "enriched" outcrops and areas of outcrop have been recognized locally on the Property; however, taconite is by far the most common form of iron deposit.

A few late, brittle faults are denoted on various historic geological maps. They are typically of high angle and small displacement, are later than the main folding events, and have little effect on the overall distribution of the local rock units.

6.5 Mineralization

The iron formations underlying the Property comprise mainly hematite and magnetite bands interbedded with recrystallized chert and jasper blebs and bands. Goethite and limonite are also present in lesser quantities. The main gangue minerals are silicates and iron silicates. This type of mineralization is characteristic of the Sokoman Iron Formation in the area. Iron contents of available historical assays from the Property typically range from 20% to 40%.

According to numerous reports, the units of the Sokoman Formation in the Schefferville area that contain the highest consistent concentration of magnetite are the pink-grey chert (PGC) of the MIF Member, the jasper upper-iron formation (JUIF) of the UIF Member and the lean chert (LC) of the UIF Member. Hematite is most common in the LRC and URC of the MIF Member and the JUIF of the Upper Iron Formation (UIF) Member. Silicate iron minerals are most prevalent in the LC, just beneath the Menihek formation, and in the lower iron formation (LIF) sub-member of the LIF Member. Silicate iron minerals also give the green chert (GC), the lowermost sub-member of UIF, its defining colour. Siderite is also common in LC and LIF sub-members and manganese carbonates are also present.

Both the PGC and LRC are the most consistently magnetic, illustrating their higher concentration of magnetite. The URC is locally magnetic at the base but it is commonly non-magnetic. In general the URC is coarser grained with corresponding thicker beds when compared to the LRC, which is typically finer grained and has corresponding thinner beds, indicating a deeper depositional environment.

Direct Shipping Ore ("DSO") was the focus of mining in the Schefferville area and resulted from intense tropical weathering during the Cretaceous of the iron formations. The DSO term is only used for historical accuracy and is not intended to imply that a positive economic study has been completed.

There is potential for enriched deposits on the Property, and indeed local lenses have been observed and sampled (e.g. south of Helluva Lake); however, the majority of iron formation occurrences on the Property are taconite, which comprise the main focus of current exploration and mining activity in the region (*Figure 6.6*).

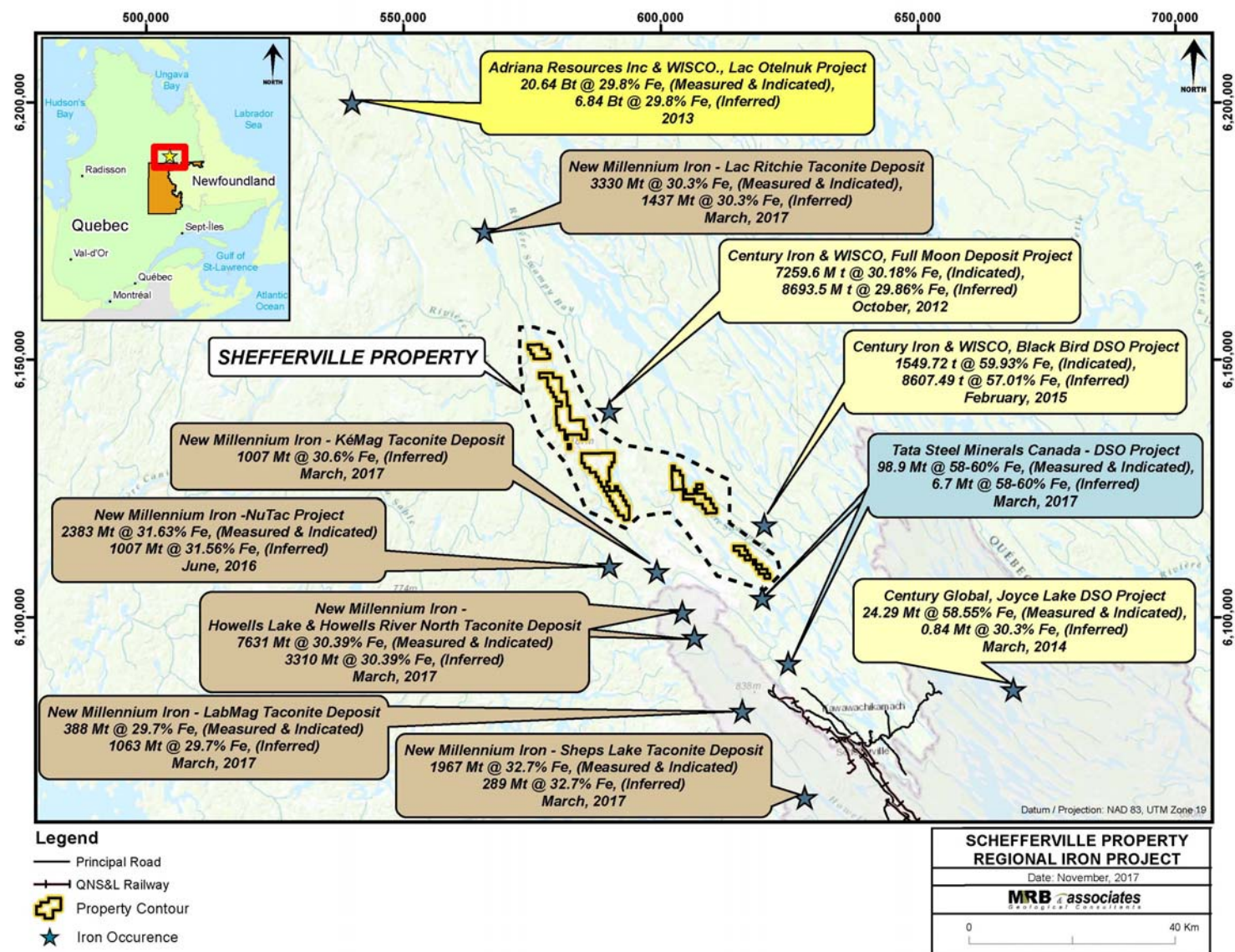


Figure 6.6: Active iron projects - Schefferville Iron Ore District

7 DEPOSIT TYPES

The iron formations hosted by the Sokoman Formations on the Property are classified as Lake Superior-type, which comprise banded sedimentary units composed principally of bands of iron oxides, magnetite and hematite within quartz (chert)-rich rock, with variable amounts of silicate, carbonate and sulphide lithofacies. Such iron formations have been the principal sources of iron throughout the world (Gross, 1996).

In order for the sedimentary rock sequences to be classified as iron formation they must have $\geq 15\%$ Fe content, whereas in order to be classified as ore, the iron content must generally be $\geq 30\%$ Fe. For iron formation to be mined economically, there will be a minimum iron content required at a given market price (generally $\geq 30\%$ Fe), but also the iron oxides must be amenable to concentration (beneficiation) and the concentrates produced must be low in manganese and other deleterious elements such as silica, aluminium, phosphorus, sulphur and alkalis. Beneficiation involves segregating the silicate and carbonate lithofacies and other rock types that are interbedded within the iron formation, from the iron-rich oxides. Beneficiation of taconite ores has resulted in the successful production of many contemporary iron deposits.

Non ore-grade Superior-type iron formations can be brought to "ore-grade" through the geological process of enrichment; hence the term "enriched", or "residual" deposits. In the Schefferville area enriched iron deposits were the focus of all mining operations prior to 1982, and were referred to as Direct Shipping Ore (DSO). The term was applied since iron grades were typically $\geq 50\%$ Fe and the material was mined and transported directly to port facilities, without the need for further processing or beneficiation.

The enrichment process comprises leaching and deep weathering of iron formation protolith (or protore), mainly attributed to intense tropical weathering during the Cretaceous. This process involves the migration of meteoric and synorogenic heated fluids, driven in this case by the Hudsonian Orogeny. Fluids circulating through the sediments oxidized the banded iron formation, recrystallizing iron minerals to hematite, and leaching silica and carbonate. The process may involve more than one stage (e.g., hypogene replacement of chert by carbonate followed by supergene leaching of the carbonate and oxidation of magnetite to hematite). In any case, the result is a residually enriched iron formation. Iron content may be further enhanced by secondary iron enrichment, whereby iron oxides (goethite, limonite), hematite and manganese are redistributed into the pore spaces and other openings left by the removal of material during the primary enrichment phase, and/or deposited along fracture/cleavage surfaces and in veinlets.

Deeper lithofacies that are not highly metamorphosed or enriched by near-surface processes are referred to as taconite. Prospective iron deposits on the Property are almost exclusively taconite, although local enriched-iron targets have been noted.

Enriched or residual material is much less competent and more easily eroded than its iron formation protolith, and therefore tends to be found in areas of negative relief. Prospective areas for discovery of enriched deposits are in vegetation-covered topographic lows, with appropriate magnetic signatures, that may have been protected from recent glacial erosion.

Iron formations that have become thickened by structural repetition, i.e., thrusting or folding, are often economically important exploration targets, as evidenced by mining operations in the Labrador City/Wabush area in the southern part of the Labrador Trough. Similar such targets may be present on the Property, as the underlying rocks have undergone west-directed imbricate thrusting and polyphase deformation.

7.1 Deposit Models

A number of models have been considered for the origin of iron formation and associated lithofacies. According to Gross (1995) the two principal genetic but controversial models are:

1. Volcanogenic and hydrothermal effusive or exhalative; and 2. Hydrogenous-sedimentary with derivation of the iron, silica and other constituents by deep weathering of a landmass. Gross reports that iron-oxidizing micro-organisms might have played a role. Oolites are generally common in iron formation.

Gross (1968) suggested that hot springs along a volcanic arc could have been an adequate source of iron and silica to form the iron formations in the 1,200 km long Labrador Trough in about 50,000 years. Precipitation and deposition of iron minerals in marine sub-basins is controlled largely by pH and eH (redox potential) with different mineral species stable under different conditions. James (1954) used this concept in the study of iron formations in the Lake Superior region and defined four primary facies of iron formation: oxide, silicate, carbonate and sulphide. The different facies of iron formation are, however, rarely found in simple, distinct successive contiguous zones. Commonly, rapidly fluctuating eH and pH environments have resulted in interlaying of different iron mineral species requiring contrasting stability fields and diagenesis has added at least some complication to mineral distribution. Remarkably different facies are often sharply delineated with layers of hematite juxtaposed but in sharp contact with beds of magnetite. Iron silicates are not often as clearly delineated with the silicates as a group precipitating over a wide range of redox potential. As a result silicate facies overlaps substantially with those of oxides and carbonate.

Table 7.1 after Eckstrand (1984) presents the salient characteristics of the Lake Superior-type iron deposit model.

**Table 7.1: Deposit model for Lake Superior-type iron formation
(after Eckstrand, 1984)**

Commodities	Fe (Magnetite)
	Knob Lake, Wabush Lake and Mont-Wright areas, Quebec and Labrador, Mesabi Range, Minnesota; Marquette Range, Michigan; Minas Gerais area, Brazil.
Importance	Canada: the major source of iron. World: the major source of iron.
Typical Grade, Tonnage	Up to billions of tonnes, at grades ranging from 15 to 45% Fe, averaging 30% Fe.
Geological Setting	Continental shelves and slopes possibly contemporaneous with offshore volcanic ridges. Principal development in middle Precambrian shelf sequences marginal to Archean cratons.
Host Rocks or Mineralized Rocks	Iron formations consist mainly of iron- and silica-rich beds; common varieties are taconite, itabirite, banded hematite quartzite, and jaspilite; composed of oxide, silicate and carbonate facies and may also include sulphide facies. Commonly intercalated with other shelf sediments: black
Associated Rocks	Bedded chert and chert breccia, dolomite, stromatolitic dolomite and chert, black shale, argillite, siltstone, quartzite, conglomerate, redbeds, tuff, lava, volcanoclastic rocks; metamorphic equivalents.
Form of Deposit, Distribution of Ore Minerals	Mineable deposits are sedimentary beds with cumulative thickness typically from 30 to 150 m and strike length of several kilometres. In many deposits, repetition of beds caused by isoclinal folding or thrust faulting has produced widths that are economically mineable. Ore mineral distribution is largely determined by primary sedimentary deposition. Granular and oolitic textures common.
Principal Ore Minerals Associated Minerals	Magnetite, hematite, goethite, pyrolusite, manganite, hollandite. Finely laminated chert, quartz, Fe-silicates, Fe-carbonates and Fe-sulphides; primary or metamorphic derivatives
Age, Host Rocks	Precambrian, predominantly early Proterozoic (2.4 to 1.9 Ga).
Age, Ore	Syngenetic, same age as host rocks. In Canada, major deformation during Hudsonian and, in places, Grenvillian orogenies produced mineable thicknesses of iron formation.
Genetic Model	A preferred model invokes chemical, colloidal and possibly biochemical precipitates of iron and silica in euxinic to oxidizing environments, derived from hydrothermal effusive sources related to fracture systems and offshore volcanic activity. Deposition may be distal from effusive centres and hot spring activity. Other models derive silica and iron from deeply weathered land masses, or by leaching from euxinic sediments. Sedimentary reworking of beds is common. The greater development of Lake Superior-type iron formation in early Proterozoic time has been considered by some to be related to increased atmospheric oxygen content, resulting from biological evolution.
Ore Controls, Guides to Exploration	<ol style="list-style-type: none"> 1. Distribution of iron formation is reasonably well known from aeromagnetic surveys. 2. Oxide facies is the most important, economically, of the iron formation facies. 3. Thick primary sections of iron formation are desirable. 4. Repetition of favourable beds by folding or faulting may be an essential factor in generating widths that are mineable (30 to 150 m). 5. Metamorphism increases grain size, improves metallurgical recovery. 6. Metamorphic mineral assemblages reflect the mineralogy of primary sedimentary facies. 7. Basin analysis and sedimentation modelling indicate controls for facies development, and help define location and distribution of different iron formation facies.
Author	G.A. Gross

8 SUMMARY

The Property comprises five (5) distinct blocks of claims that are underlain by prospective Sokoman (iron) Formation rocks of the Knob Lake Group. From north to south, these are: 1) Purdy Lake Block; 2) Rainy Lake Block; 3) Helluva Lake Block; 4) Lac le Fer Block, and ; 5) Lac Thérèse Block.

Purdy Lake Block

This block of claims comprises 17 claims and is host to the Lac Purdy 1, Lac Purdy 2 and Lac Purdy 3 showings, all of which were discovered in 2011 during follow up ground exploration to a 2010 airborne geophysical survey (GM66387).

This area was cursorily mapped by B.J. Keating in 1945 (GM08395), and mapped in detail by Hollinger North Shore in 1951 (GM08231) (**Figure 8.1**). New Millenium Iron Corp. contracted a high-intensity airborne magnetic and gravimetric geophysical survey that included the Purdy Lake Block, in 2010. Follow-up mapping and sampling was carried out in 2011.

Collected samples (GM66387) were assayed for iron content and submitted for metallurgical testing to determine Davis Tube Weight Recovery (DTWR). Concentrate from the Davis Tube tests were then assayed for iron and silica content.

Best results from 2011 sampling and follow-up metallurgical test work are as follows:

- Lac Purdy-1 showing:
41.54% Fe / 61.00% DTWR - concentrate: 67.93% Fe, 5.02% SiO₂;
38.43% Fe / 57.00% DTWR - concentrate 63.32% Fe, 11.60% SiO₂.
- Lac Purdy-2 showing:
42.59% Fe / 39.50% DTWR - concentrate 66.23% Fe, 7.42% SiO₂;
30.56% Fe / 25.00% DTWR - concentrate 60.10% Fe, 14.90% SiO₂.
- Lac Purdy-3 showing:
39.19% Fe / 38.50% DTWR - concentrate 67.66% Fe, 5.56% SiO₂;
6.31% Fe / 44.00% DTWR - concentrate 68.04% Fe, 5.36% SiO₂.

The Purdy Lake Block is underlain by Upper Iron Formation (UIF) and Middle Iron Formation (MIF) of the Sokoman Formation. Much of the Purdy Lake Block is thickly forested, but the central part forms a topographic rise where there is good bedrock exposure (**Figure 8.2**).

Rainy Lake Block

This block of claims comprises 75 contiguous claims and 1 isolated claim, and is host to numerous mineral showings and occurrences, namely: Lac Little 1; Lac Little 2; Lac Little 3; Lac Little 4; Lac Eclipse; Lac Eclipse NW; Lac Eclipse West; Lac Eclipse SW; Lac Sunspot North, and; Lac Sunspot NW, all of which were discovered in 2011-2012 during follow up ground exploration to a 2010 airborne geophysical survey (GM66387).

This area was cursorily mapped by B.J. Keating in 1945 (GM08395), and mapped in detail by Hollinger North Shore in 1951 (GM08231), Iron Ore Co. Ltd. in 1954 (GM12353, GM12363) and Canadian Johns-Manville Company Limited in 1955 (GM12278)(**Figure 8.3**). New Millenium Iron Corp. contracted a high-intensity airborne magnetic and gravimetric geophysical survey that included the Rainy Lake Block, in 2010. Follow-up mapping and sampling was carried out in 2011.

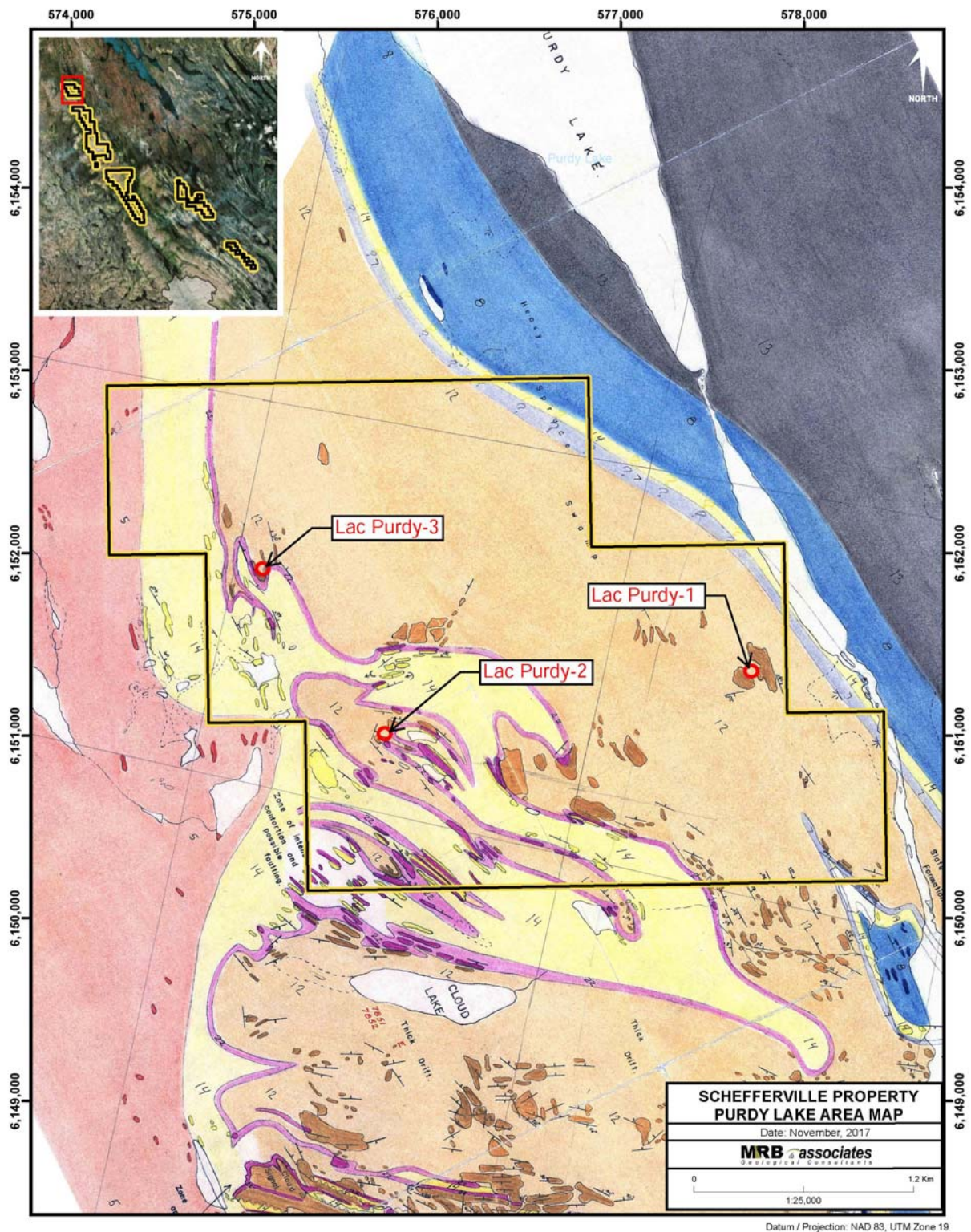


Figure 8.1: Geology of the Purdy Lake Block (from GM08231) showing catalogued iron-showings. Pink (5)=Ashuanipi basement; yellow=Wishart Fm; magenta=Ruth Fm; orange/brown=Sokoman Fm.

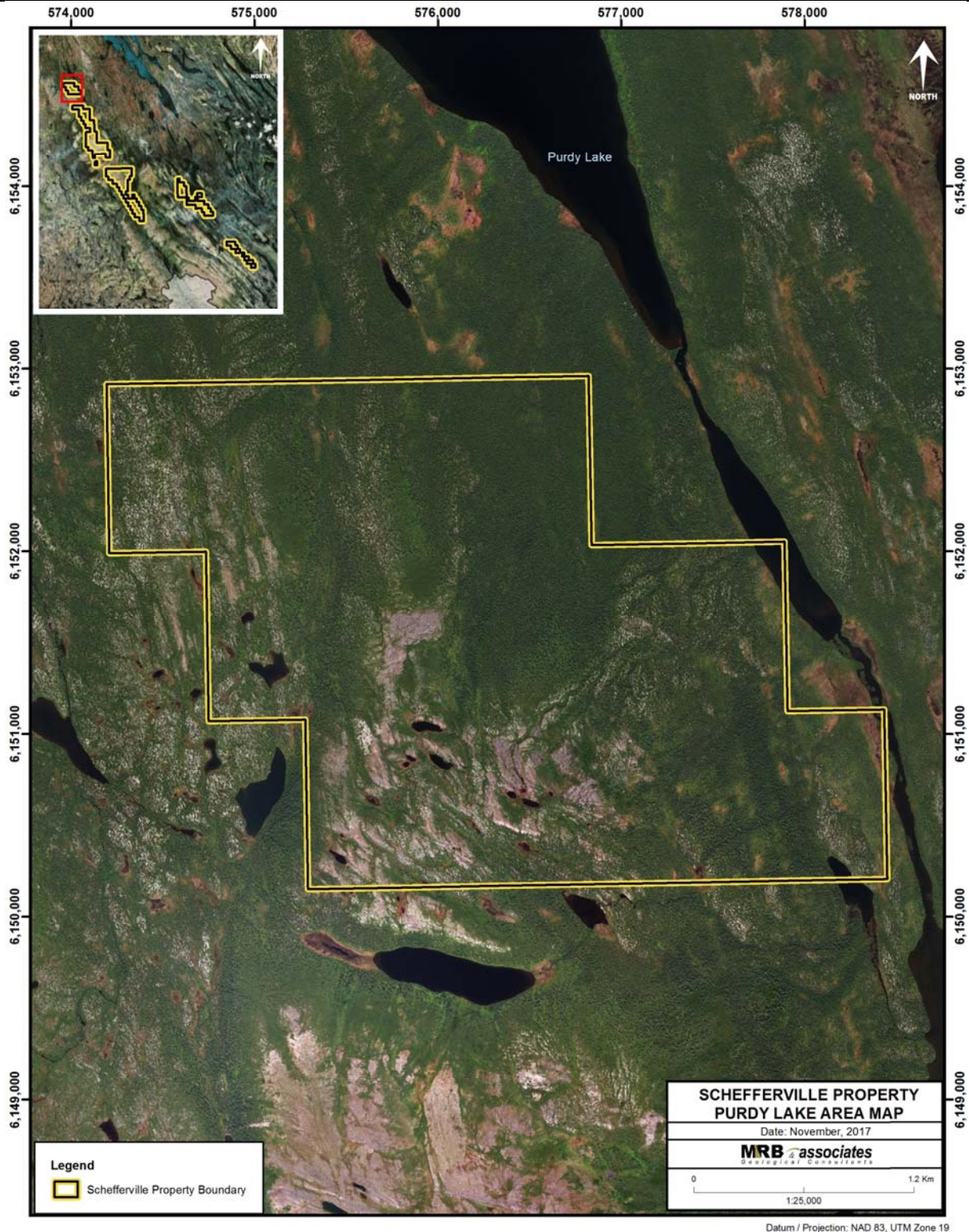


Figure 8.2: Satellite image of Purdy Lake Block

Collected samples (GM66387) were assayed for iron content and submitted for metallurgical testing to determine Davis Tube Weight Recovery (DTWR). Concentrate from the Davis Tube tests were then assayed for iron and silica content.

Best results from 2011 sampling and follow-up metallurgical test work are as follows:

- Lac Little 1 showing:
40.57% Fe / 57.50% DTWR – concentrate 62.81% Fe, 11.50% SiO₂;
40.57% Fe / 57.00% DTWR – concentrate 68.61% Fe, 4.88% SiO₂;
40.11% Fe / 52.50% DTWR – concentrate 68.91% Fe, 4.08% SiO₂;
36.04% Fe / 45.00% DTWR – concentrate 64.98% Fe, 9.04% SiO₂;
35.44% Fe / 47.50% DTWR – concentrate 62.79% Fe, 12.20% SiO₂.
- Lac Little 2 showing:
46.27% Fe / 41.50% DTWR – concentrate 67.59% Fe, 5.66% SiO₂;
39.39% Fe / 23.50% DTWR – concentrate 65.47% Fe, 8.04% SiO₂;
39.32% Fe / 20.50% DTWR – concentrate 6.07% Fe, 7.08% SiO₂;
37.80% Fe / 41.50% DTWR – concentrate 59.72% Fe, 15.50% SiO₂.
- Lac Little 3 showing:
37.88% Fe / 45.00% DTWR – concentrate 68.80% Fe, 5.54% SiO₂;
32.15% Fe / 33.00% DTWR – concentrate 57.95% Fe, 18.50% SiO₂.
- Lac Little 4 showing:
47.02% Fe / 15.50% DTWR – concentrate 66.00% Fe, 6.78% SiO₂;
44.76% Fe / 21.00% DTWR – concentrate 66.60% Fe, 6.52% SiO₂;
40.22% Fe / 49.00% DTWR – concentrate 67.89% Fe, 5.28% SiO₂;
36.44% Fe / 28.00% DTWR – concentrate 66.68% Fe, 6.74% SiO₂;
35.46% Fe / 48.50% DTWR – concentrate 67.44% Fe, 5.84% SiO₂.
- Lac Eclipse showing:
43.97% Fe / 55.00% DTWR – concentrate 70.14% Fe, 2.68% SiO₂;
43.97% Fe / 40.00% DTWR – concentrate 65.73% Fe, 8.26% SiO₂;
35.66% Fe / 41.50% DTWR – concentrate 66.03% Fe, 8.46% SiO₂;
32.49% Fe / 37.50% DTWR – concentrate 69.81% Fe, 3.14% SiO₂.
- Lac Eclipse NW showing:
36.95% Fe / 45.50 % DTWR – concentrate 67.11% Fe, 6.28% SiO₂;
33.63% Fe / 41.00% DTWR – concentrate 62.81% Fe, 11.80% SiO₂.
- Lac Eclipse W showing:
35.53% Fe / 47.50% DTWR – concentrate 68.72% Fe, 4.38% SiO₂.
- Lac Eclipse SW showing:
36.49% Fe / 42.00% DTWR – concentrate 64.40% Fe, 9.58% SiO₂;
30.91% Fe / 23.50% DTWR – concentrate 66.20% Fe, 7.66% SiO₂.
- Lac Sunspot N showing:
40.04% Fe / 24.00% DTWR – concentrate 70.14% Fe, 2.38% SiO₂;
32.21% Fe / 36.00% DTWR – concentrate 66.91% Fe, 7.46% SiO₂.
- Lac Sunspot NW showing:
41.55% Fe / 58.00% DTWR – concentrate 68.75% Fe, 4.34% SiO₂;
36.44% Fe / 21.00% DTWR – concentrate 69.10% Fe, 3.98% SiO₂;
35.99% Fe / 44.50% DTWR – concentrate 66.07% Fe, 7.64% SiO₂;
35.83% Fe / 38.50% DTWR – concentrate 67.89% Fe, 5.70% SiO₂.

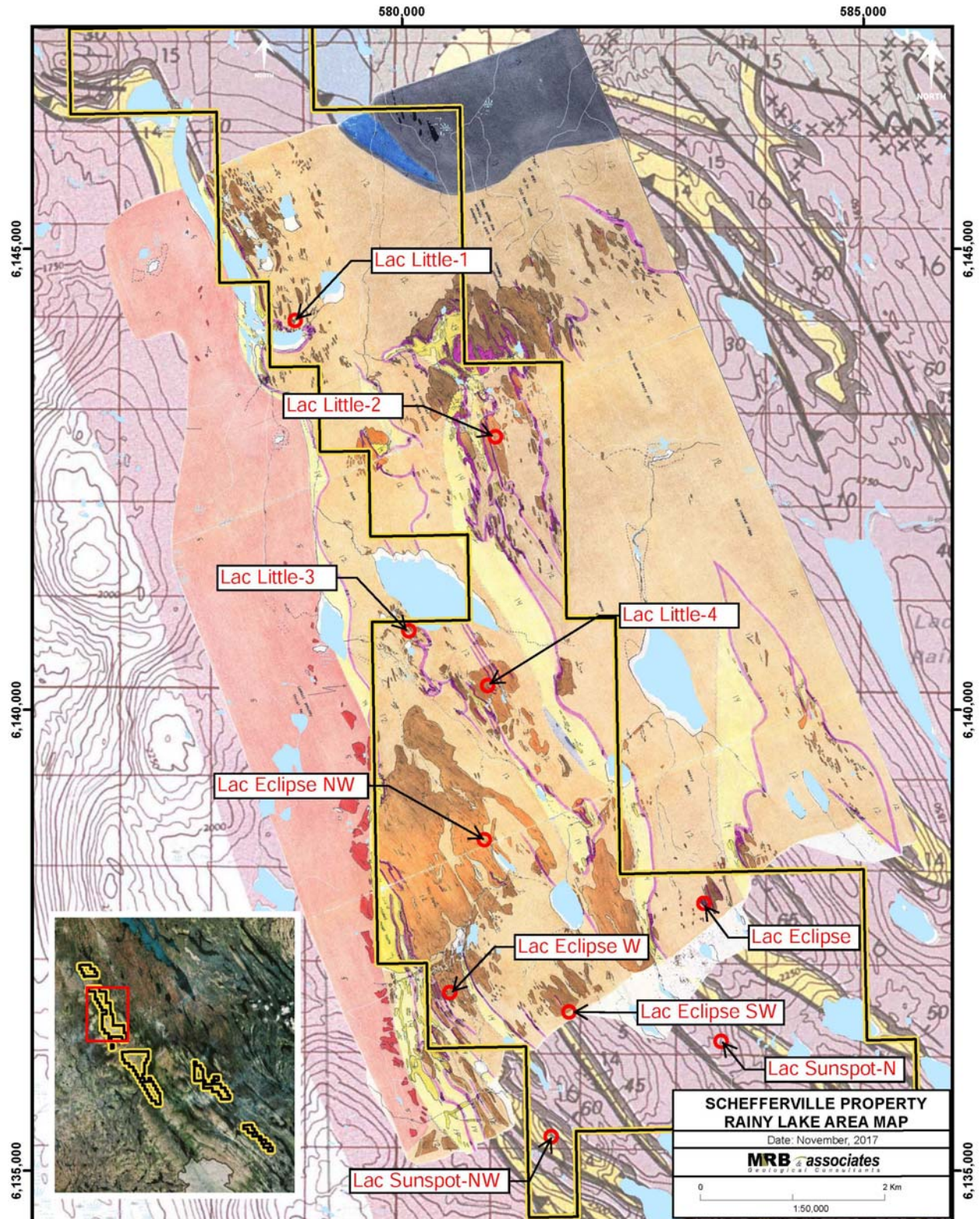


Figure 8.3: Geological map of the Rainy Lake Block (from GM12778 and Dimroth, 1978) showing catalogued iron-showings. Pink (5)=Ashuanipi basement; yellow=Wishart Fm; magenta and dark brown (15)=Ruth Fm; orange and pink (16)=Sokoman Fm.

The Rainy Lake Block is underlain by Upper Iron Formation (UIF), Middle Iron Formation (MIF) and Lower Iron Formation (LIF) of the Sokoman Formation. The northernmost part of the Rainy Lake Block is covered by forest and wetland with scattered outcrop, mainly just east of Ninette Lake. The central and southern parts are dominated by prominent topographic highs with extensive exposed bedrock (*Figure 8.4*).

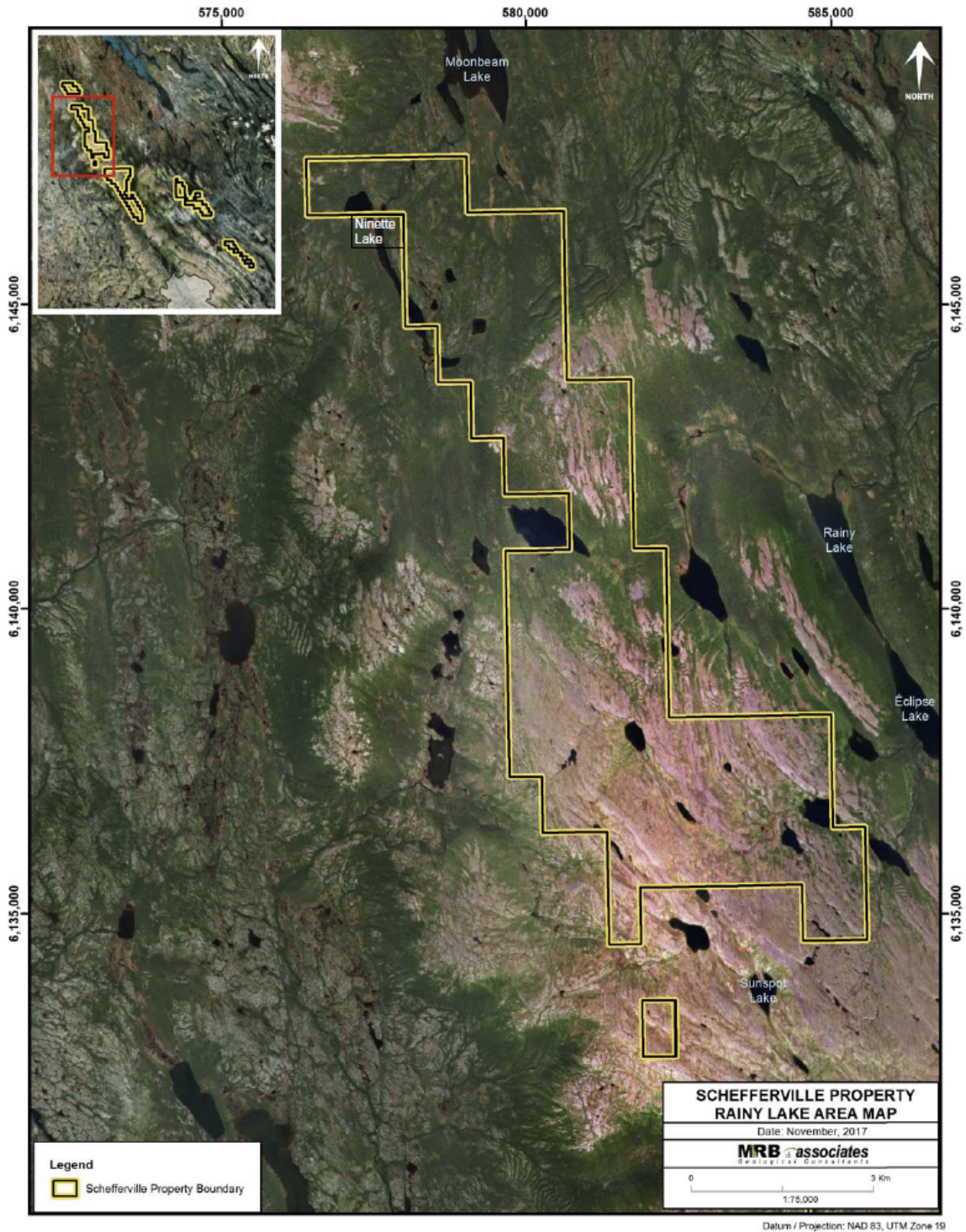


Figure 8.4: Satellite image of Rainy Lake Block

Helluva Lake Block

This block of claims comprises 81 contiguous claims and is host to numerous mineral showings and occurrences, namely: Lac Helluva NW; Lac Helluva West 1; Lac Helluva West 2; Lac Helluva West 3; Lac Helluva West 4; Lac Helluva Southwest; Lac Helluva South 1; Lac Helluva South 2; Goodwood East 1, and Goodwood East 2, all of which were discovered in 2011-2012 during follow up ground exploration to a 2010 airborne geophysical survey (GM66387).

This area was cursorily mapped by B.J. Keating in 1945 (GM08395), and mapped in detail by Hollinger North Shore in 1951 (GM08231), Iron Ore Co. Ltd. in 1954 (GM12352, GM12363) and Canadian Johns-Manville Company Limited in 1955 (GM12278) (**Figure 8.5**). New Millenium Iron Corp. contracted a high-intensity airborne magnetic and gravimetric geophysical survey that included the Rainy Lake Block, in 2010. Follow-up mapping and sampling was carried out in 2011.

Collected samples (GM66387) were assayed for iron content and submitted for metallurgical testing to determine Davis Tube Weight Recovery (DTWR). Concentrate from the Davis Tube tests were then assayed for iron and silica content.

Best results from 2011 sampling and follow-up metallurgical test work are as follows:

- Lac Helluva NW showing:
38.15% Fe / 51.00% DTWR – concentrate 67.11% Fe, 6.00% SiO₂;
36.18% Fe / 30.50% DTWR – concentrate 68.31% Fe, 5.36% SiO₂;
35.66% Fe / 12.00% DTWR – concentrate 68.46% Fe, 5.14% SiO₂.
- Lac Helluva West 1 showing:
43.17% Fe / 7.00% DTWR – concentrate 69.02% Fe, 2.52% SiO₂;
39.06% Fe / 15.00% DTWR – concentrate 67.11% Fe, 5.30% SiO₂;
38.75% Fe / 36.00% DTWR – concentrate 70.16% Fe, 2.30% SiO₂;
37.88% Fe / 10.50% DTWR – concentrate 69.55% Fe, 2.28% SiO₂;
37.25% Fe / 31.50% DTWR – concentrate 66.73% Fe, 5.28% SiO₂.
- Lac Helluva West 2 showing:
34.23% Fe / 42.50% DTWR – concentrate 69.82% Fe, 2.84% SiO₂.
- Lac Helluva West 3 showing:
39.01% Fe / 14.00% DTWR – concentrate 68.64% Fe, 4.24% SiO₂.
- Lac Helluva West 4 showing:
43.17% Fe / 7.00% DTWR – concentrate 69.02% Fe, 2.52% SiO₂;
39.06% Fe / 15.00% DTWR – concentrate 67.11% Fe, 5.30% SiO₂;
38.75% Fe / 36.00% DTWR – concentrate 70.16% Fe, 2.30% SiO₂;
37.88% Fe / 10.50% DTWR – concentrate 69.55% Fe, 2.28% SiO₂;
37.25% Fe / 31.50% DTWR – concentrate 66.73% Fe, 5.28% SiO₂.
- Lac Helluva SW showing: 50.30% Fe₂O₃.
- Lac Helluva South 1 showing:
65.90% Fe₂O₃ (46.09% Fe); 62.40% Fe₂O₃ (43.64% Fe); 55.40% Fe₂O₃ (38.75% Fe);
31.75% Fe / 12.50% DTWR – concentrate 68.34% Fe, 3.40% SiO₂.

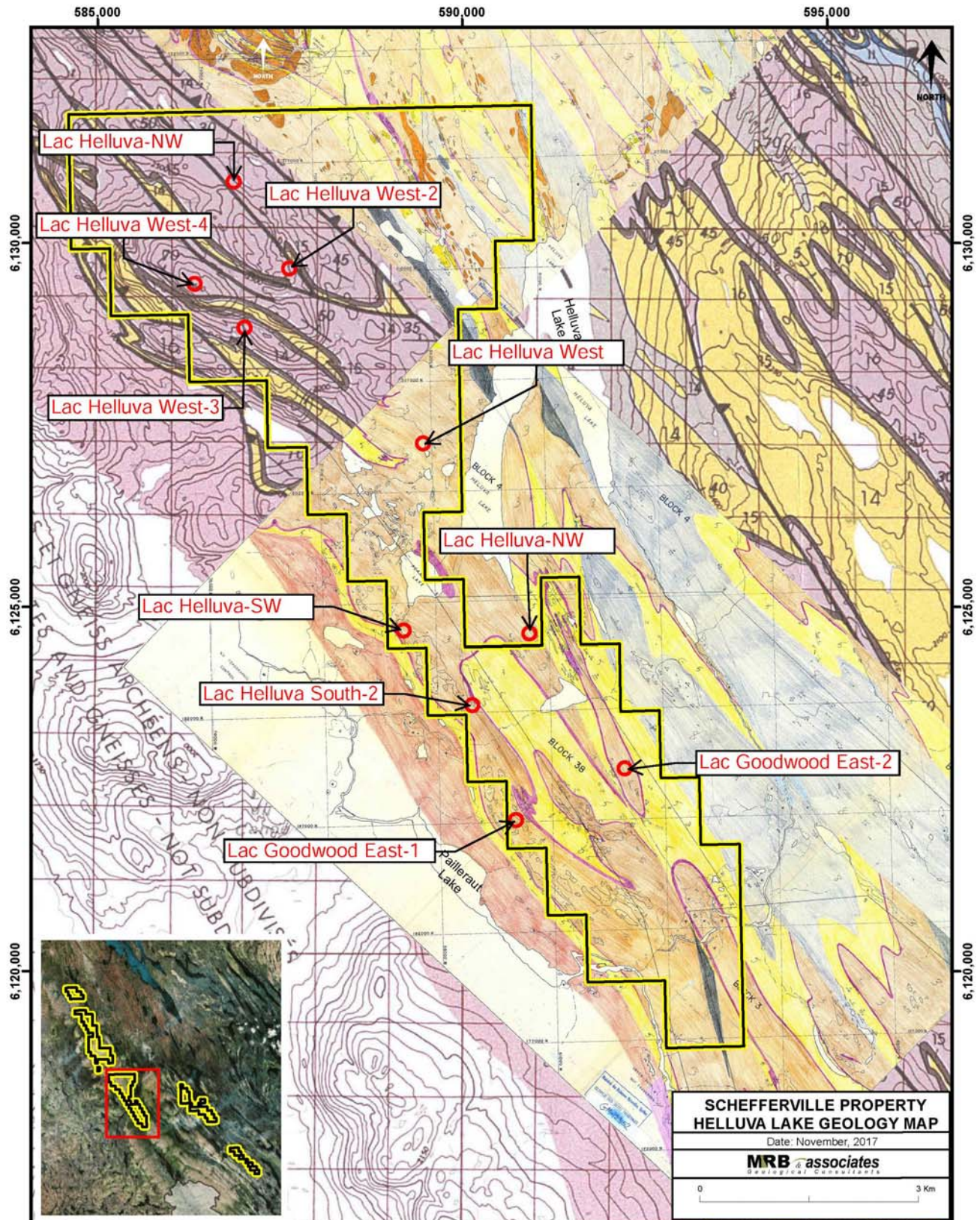


Figure 8.5: Geology of the Helluva Lake Block (from GM12352, GM12353 and Dimroth, 1978) with catalogued showings. Pink (5)=Ashuanipi basement; yellow=Wishart Fm; magenta and dark brown (15)=Ruth Fm; orange and pink (16)=Sokoman Fm.

- Lac Helluva South 2 showing:
39.43% Fe / 54.00% DTWR – concentrate 66.13% Fe, 6.74% SiO₂;
32.42% Fe / 17.50% DTWR – concentrate 65.30% Fe, 7.62% SiO₂.
- Goodwood East 1 showing:
39.61% Fe / 35.00% DTWR – concentrate 61.24% Fe, 8.06% SiO₂;
32.28% Fe / 43.00% DTWR – concentrate 69.85% Fe, 2.95% SiO₂.
- Goodwood East 2 showing:
56.02% Fe / 21.00% DTWR – concentrate 69.59% Fe, 2.46% SiO₂.

The Helluva Lake Block is underlain by Upper Iron Formation (UIF), Middle Iron Formation (MIF) and Lower Iron Formation (LIF) of the Sokoman Formation. Much of the northern part of the Helluva Lake Block is exposed bedrock. The central and southern parts are mainly covered by forest and wetland; however the southern part is dominated by a prominent topographic high whose summit area is mainly exposed bedrock (**Figure 8.6**).

Lac Le Fer Block

This block of claims comprises 42 contiguous claims and is host to the Lac Le Fer 3 catalogued mineral showing, which was discovered in 2010 during ground exploration in the area (GM65959).

The claims are underlain by Upper Iron Formation (UIF), Middle Iron Formation (MIF) and Lower Iron Formation (LIF) of the Sokoman Formation. Much of the Lac Le Fer Block was mapped in detail by Century Iron as part of their Sunny Lake Project (see GM65959)(**Figure 8.7**).

Parts of the area were previously mapped by Iron Ore Co. Canada in 1950 (GM08194), M. Tremblay in 1951 (GM08230), Canadian Johns-Manville Co. Ltd. in 1954 (GM12269), Iron Ore Co. Ltd. in 1955 (GM12357) and Century Iron Mines Corp. in 2011. Several recent airborne geophysical surveys have also been flown over parts of the current Property, including surveys in 2009 and 2010 by Beaufield Resources Inc. (GM64896, GM66399 and GM66598), and a 2010 survey by 0849873 BC Ltd. (GM65265).

Although there are no large expanses of exposed bedrock on the Lac Le Fer Block, small areas of outcrop are abundant (**Figure 8.8**).

Best results from 2011 sampling and follow-up metallurgical test work are as follows:

- Lac Le Fer 3 showing: 28.64% Fe and 37.00% Fe.

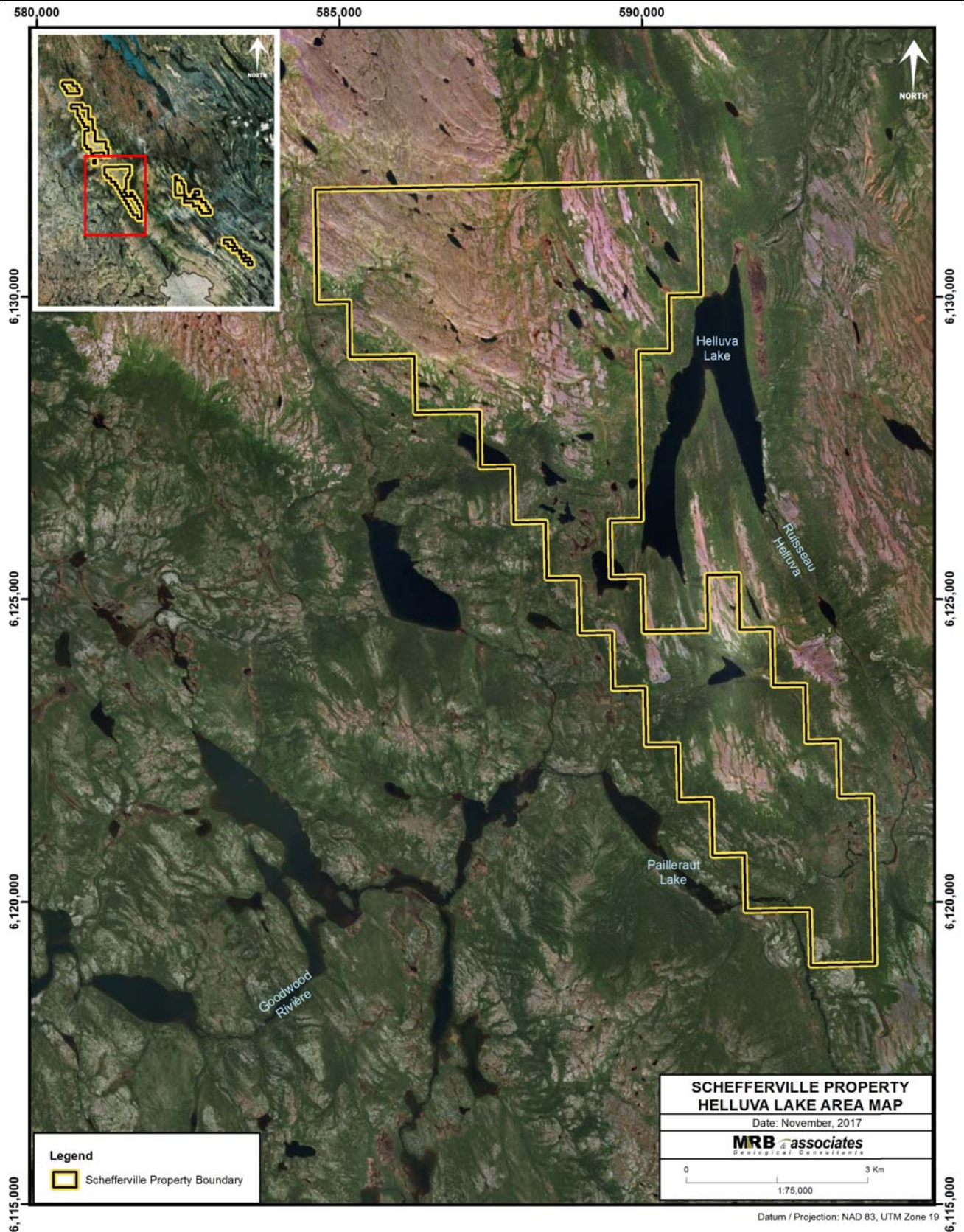


Figure 8.6: Satellite image of Helluva Lake Block

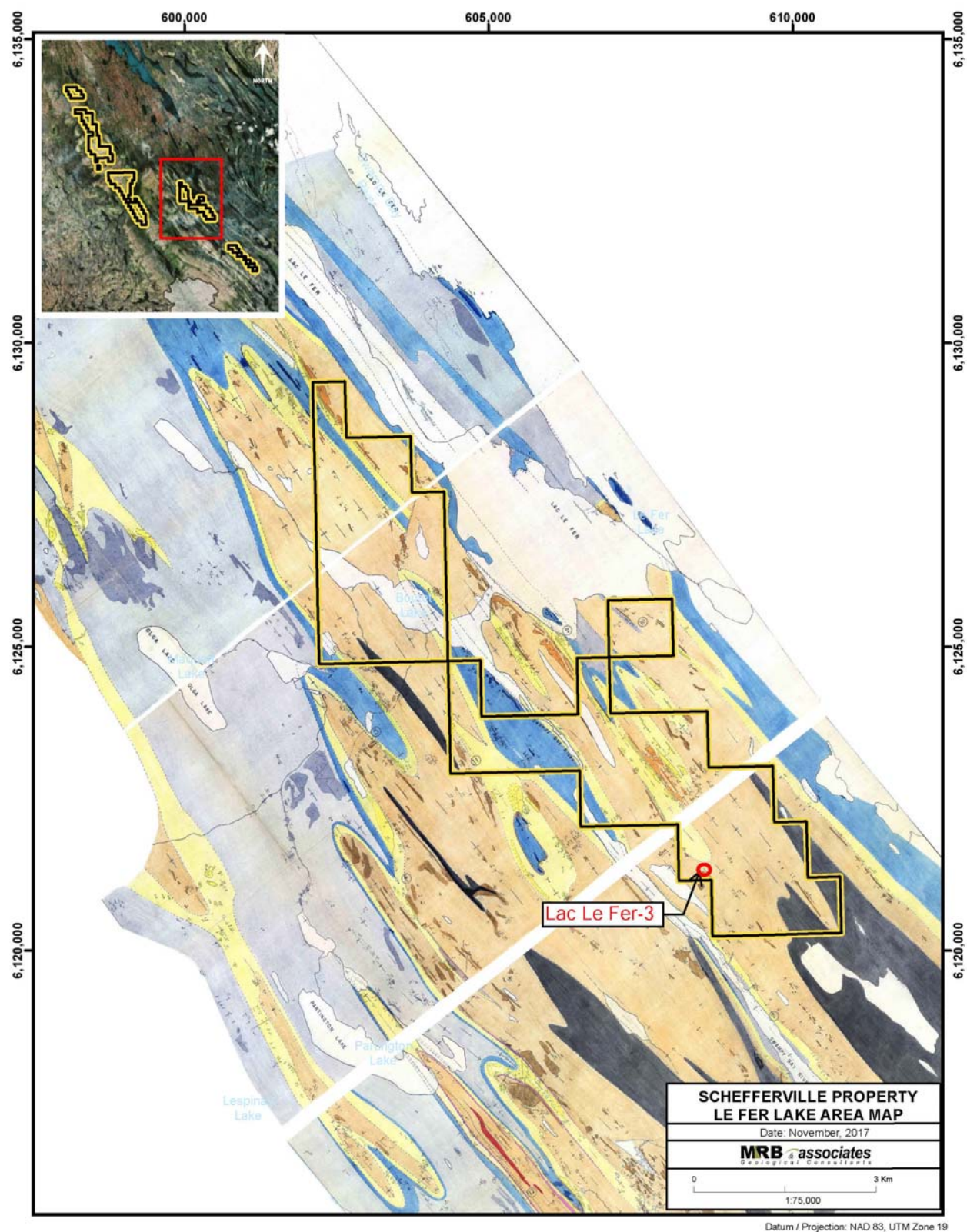


Figure 8.7: Geological map of the Lac Le Fer Block (GM08194) with catalogued showings

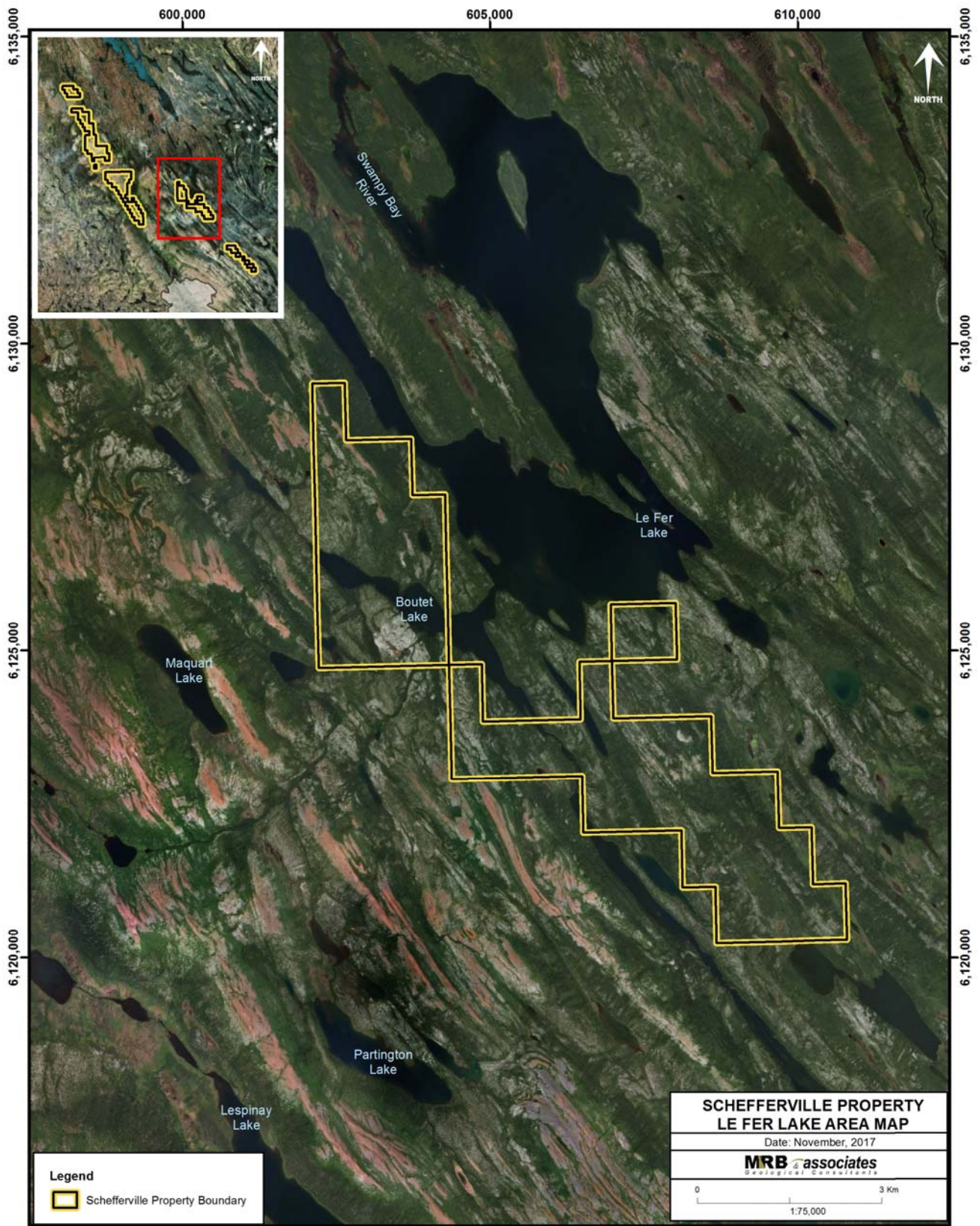


Figure 8.8: Satellite image of Helluva Lake Block

Lac Thérèse Block

This block of claims comprises 17 non-contiguous claims and is host to the Lac Thérèse catalogued mineral showing, which was discovered in 2007 during ground exploration in the area (GM64344).

The claims are underlain by Upper Iron Formation (UIF), Middle Iron Formation (MIF) and Lower Iron Formation (LIF) of the Sokoman Formation. Much of the area around the Lac Le Fer Block was mapped in detail by Beaufield Resources Inc. as part of their Schefferville Area Project from 2009-2011 (GM64896, GM66399 and GM66598). The area was previously mapped by the Iron Ore Company of Canada in 1950 (GM08190 and GM08194) and by Beaufield Resources Inc. in 2009-2011 (GM **(Figure 8.9)**). Although there are no large expanses of exposed bedrock on the Lac Thérèse Block, a prominent ridge runs northwest through the central axis of these claims and small areas of outcrop are abundant (**Figure 8.10**).

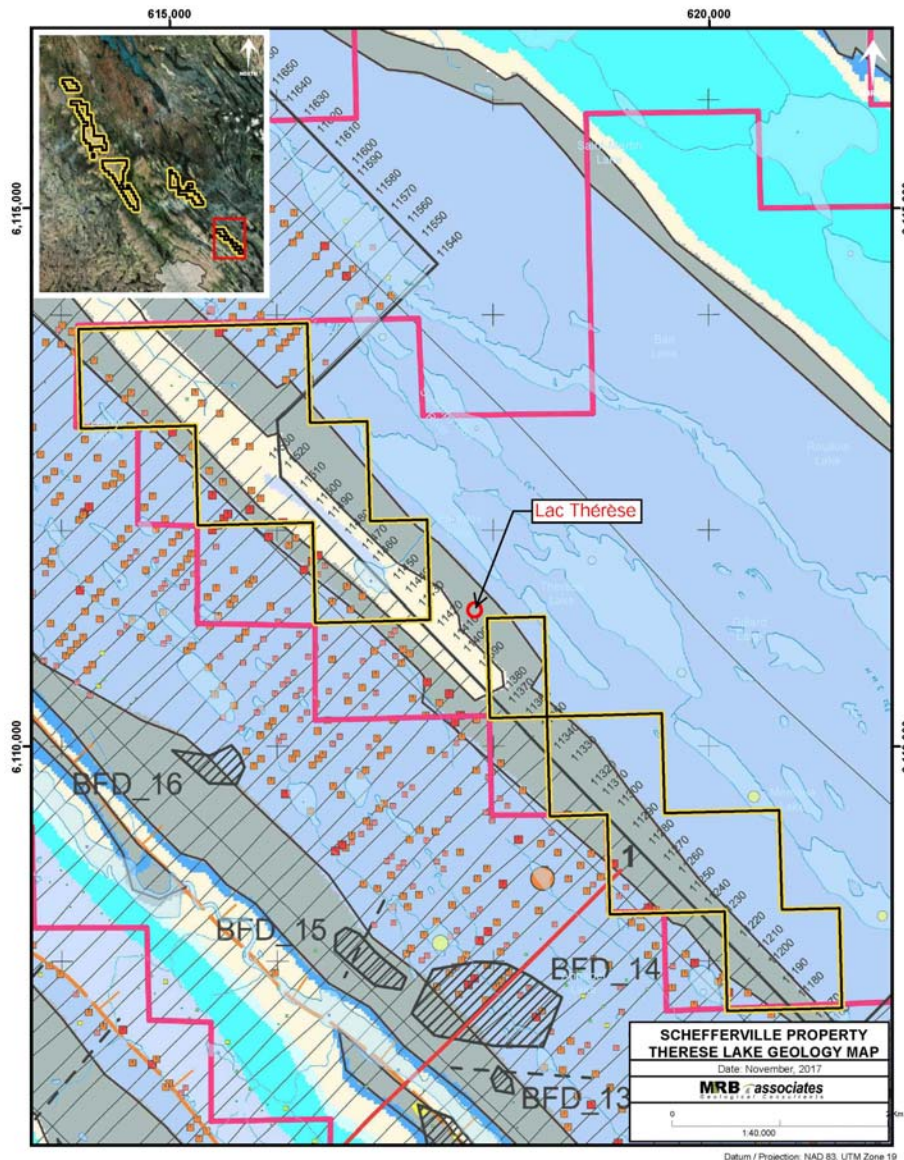


Figure 8.9: Geology of the Lac Thérèse Block (from GM66399) with catalogued showing highlighted. Grey=Sokoman Fm (iron formation); buff=Wishart Fm quartzite, sandstone); mauve=Menihek Fm (mudstone, shale); teal=Denault Fm (dolomite).

Collected samples around the Lac Thérèse showing were assayed for multi-element concentrations at the Midland Research Centre LLC (Minnesota); however, the methods employed are not indicated in the GM64344 report.

Best results from 2007 sampling and follow-up metallurgical test work are as follows:

- Lac Thérèse showing:
41.87% Fe / 29.00% DTWR - concentrate 68.04% Fe;
30.12% Fe / 39.00% DTWR - concentrate 64.10% Fe;
19.43% Fe / 21.00% DTWR - concentrate 66.10% Fe;
25.60% Fe / 34.00% DTWR - concentrate 62.70% Fe.

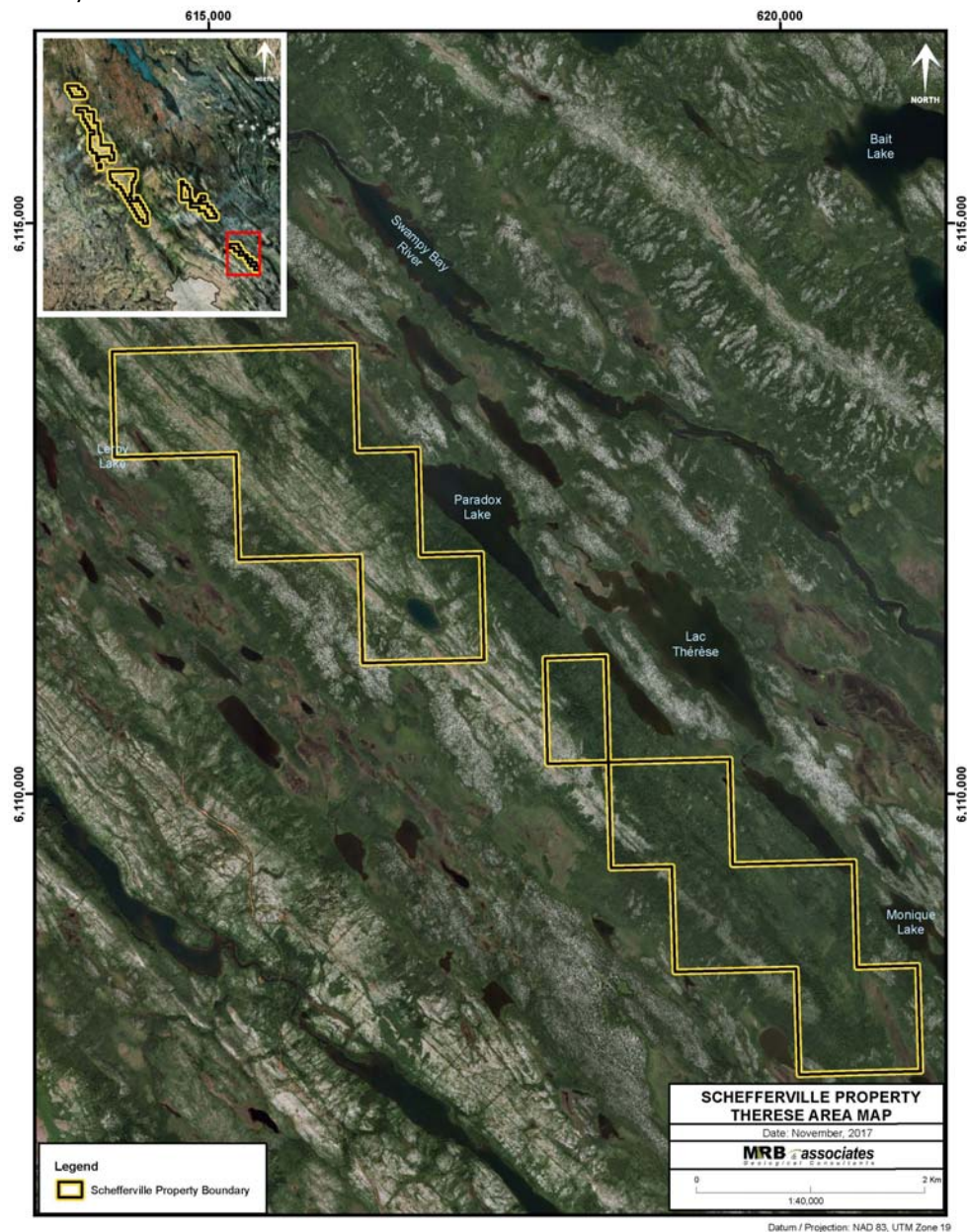


Figure 8.10: Satellite image of Lac Thérèse Block

9 DISCUSSION

The Schefferville region (Central Domain of the Labrador Trough) has been the focus of numerous geological investigations, exploration, and iron mining activity for over 100 years. The stratigraphy and structure of the area are well understood, and the geological mapping and interpretation is well advanced; however, the Sokoman (iron) Formation - the principle exploration target for economic iron deposits - is present over a vast area, and many prospective areas have yet to be mapped in detail.

The region is host to numerous active exploration and development projects (**Figure 9.1**), supporting the potential for the discovery of additional similar-type deposits on the Property.

The Property is northwest of the municipality of Schefferville and comprises 5 separate blocks of claims that cover parts of a 65 km, northwest-southeast, along-strike stretch of ground, underlain by numerous prospective iron-showings hosted in the Sokoman Formation.

Regional airborne geophysical surveys carried out by Provincial and Federal government agencies (e.g., GM64362, DP2006-07, DP2013-02) provide a broad impression of the distribution of the iron formation in the area (**Figure 9.2**). More recent, detailed airborne geophysical surveys have been completed by exploration companies on their properties in the area. These modern localized geophysical surveys provide precise, high-resolution data to accurately detect and map the magnetite-rich iron formation (taconite) in the area; however, only a few such surveys that have been completed in the area have overlapped parts of the current Property; notably that of 0849873 BC Ltd. (GM65265) that covers the Lac Le Fer Block (**Figure 9.3**). Detailed magnetic response geophysical surveys remain the most cost effective, first-pass exploration tool for outlining potential magnetite iron deposits in the SIOD. Geophysical gravimetric surveys are often used in conjunction with the magnetic surveys to outline hematite/specularite-rich zones of iron formation, which are non- or weakly-magnetic.

Lithochemical sampling (e.g., GM08231, GM12278, GM12352, GM12353, GM65959) and diamond-drilling (e.g., GM10984, GM12380) surveys have been carried out on most parts of the current Property by previous claim owners (**Figure 9.4**); however, these surveys have been perfunctory for the most part, and have provided only a general impression of iron grades, physical and metallurgical characteristics, and prospective iron resources.

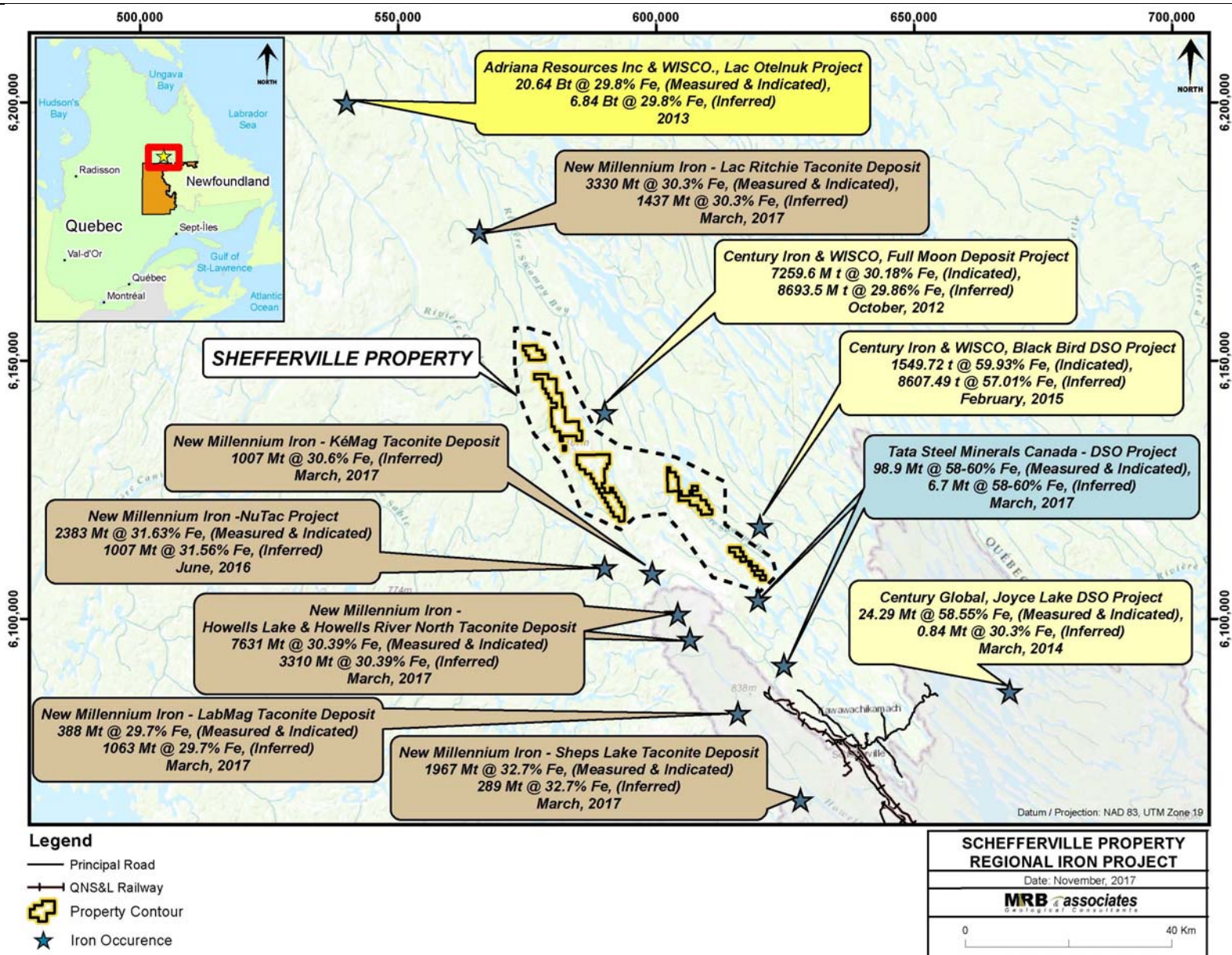


Figure 9.1: Active iron projects under development in the Schefferville Iron Ore District

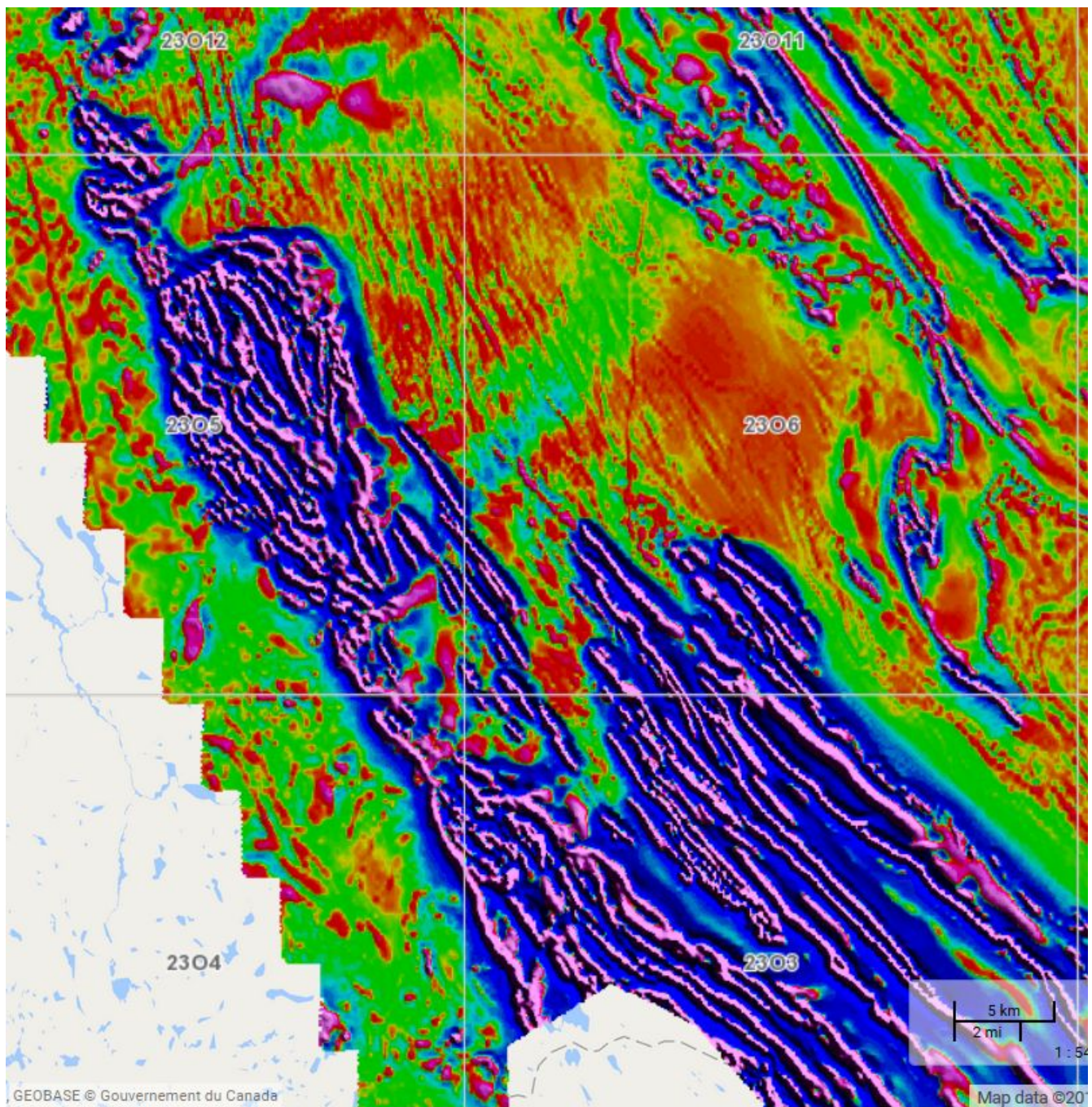


Figure 9.2: Regional first derivative magnetic response map (from online SIGEOM Interactive: http://sigeom.mines.gouv.qc.ca/signet/classes/I1108_afchCarteIntr). NTS Map sheets indicated. Compiled from data in DP2013-02.

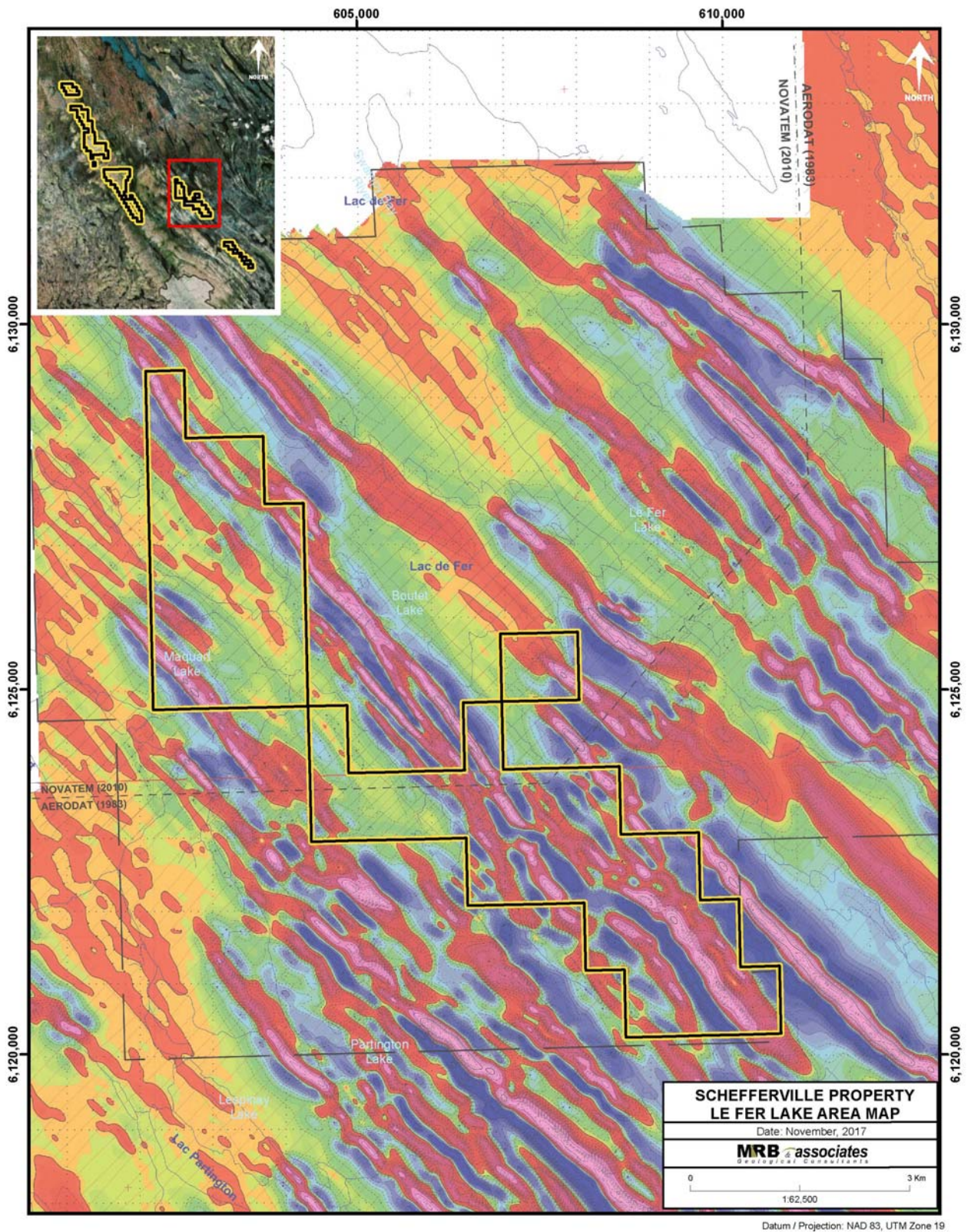


Figure 9.3: Detailed 1st vertical derivative magnetic response map of Lac Le Fer area from 0849873 BC Ltd. (GM65265)

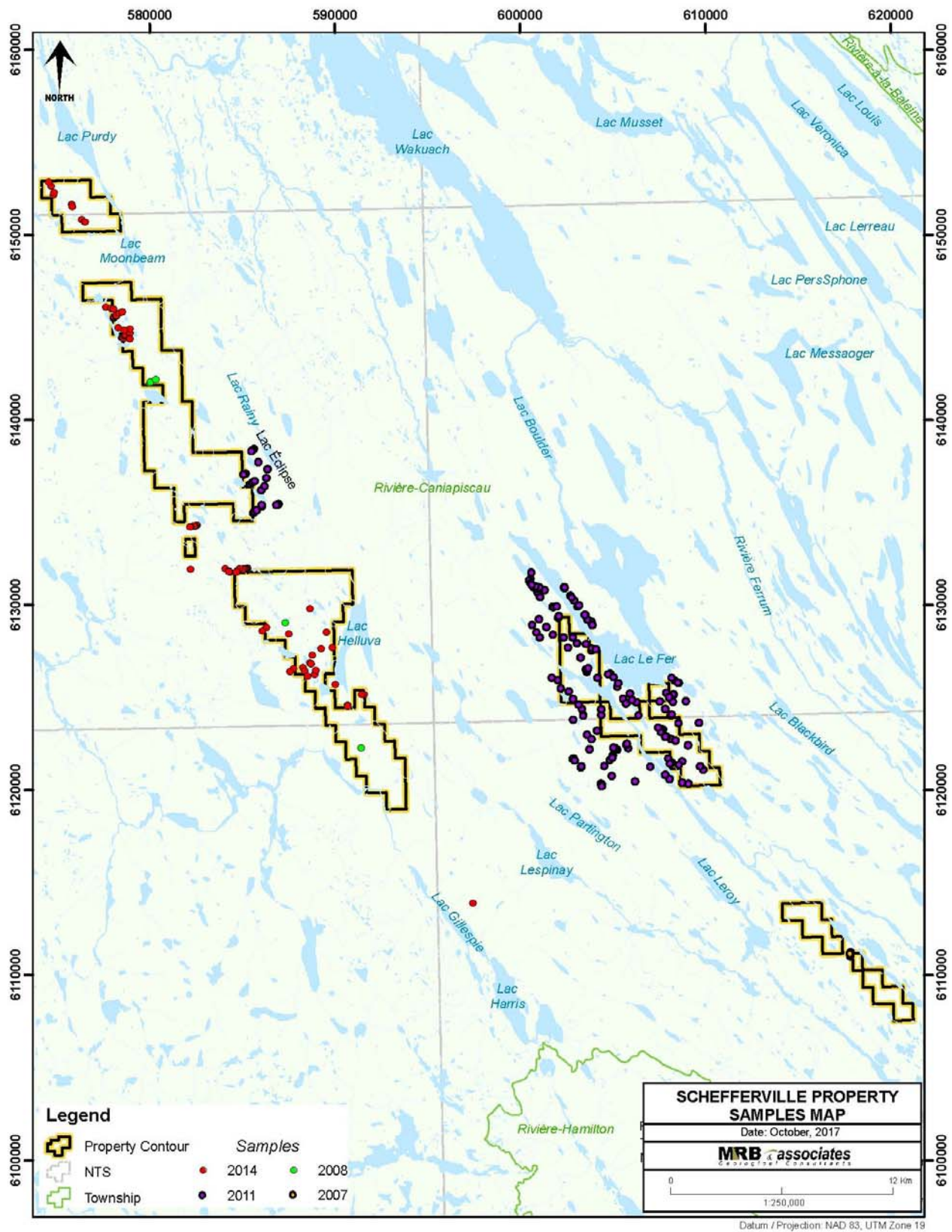


Figure 9.4: Location of historic lithogeochemistry grab-samples from the immediate vicinity of the Property

10 RECOMMENDATIONS

As there has been little systematic exploration carried out on the Property in the past, additional work is recommended for the Property with the objective of delineating iron resources that meet the criteria of National Instrument 43-101 (NI 43-101) standards and regulations.

A high-precision airborne magnetic and gravimetric survey of the Property is recommended as part of a Phase I exploration campaign. This type of survey has been shown to be the best method for delineating the detailed distribution of iron formation(s) in the area.

Phase II exploration should comprise ground-based exploration in the form of systematic sampling, pitting, and trenching, and would be designed to explore those areas targeted by the airborne survey. This surface work should be followed by a diamond-drilling campaign to test the most prospective areas for potential iron resources.

The Author concludes that the Schefferville Property has merit with regard to potential iron resources and should be the subject of continued exploration.

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DATED this 20th Day of November, 2017

MRB & Associates

A handwritten signature in blue ink, appearing to read 'J. Langton', is written over a circular blue professional seal. The seal contains the text 'GEOLOGUE / GEOLOGIST' at the top, a fleur-de-lis in the center, 'JOHN P. LANGTON' and '#1231' below it, and 'QUÉBEC' at the bottom.

(Signed) John P. Langton, M.Sc., P. Geo.,

APPENDIX I

Claim Map and Summary Details of claims comprising the Schefferville Property

[illegible]

[illegible]

[illegible]

[illegible]

Claim #	Expiry Date	Area (ha)	Credits	Work Required	Rent	Owner %
2435109	12/03/17	49.05	\$0.00	\$87.75	\$132.24	9248-7792 Quebec Inc.
2435110	12/03/17	49.05	\$0.00	\$87.75	\$132.24	9248-7792 Quebec Inc.
2435111	12/03/17	49.05	\$0.00	\$87.75	\$132.24	9248-7792 Quebec Inc.
2435112	12/03/17	48.83	\$0.00	\$87.75	\$132.24	9248-7792 Quebec Inc.
2435113	12/03/17	48.83	\$0.00	\$87.75	\$132.24	9248-7792 Quebec Inc.
2435114	12/03/17	48.83	\$0.00	\$87.75	\$132.24	9248-7792 Quebec Inc.
2435115	12/03/17	48.83	\$0.00	\$87.75	\$132.24	9248-7792 Quebec Inc.
2435116	12/03/17	48.83	\$0.00	\$87.75	\$132.24	9248-7792 Quebec Inc.
2435117	12/03/17	48.83	\$0.00	\$87.75	\$132.24	9248-7792 Quebec Inc.
2435118	12/03/17	49.14	\$0.00	\$87.75	\$132.24	9248-7792 Quebec Inc.
2435119	12/03/17	49.14	\$0.00	\$87.75	\$132.24	9248-7792 Quebec Inc.
2435120	12/03/17	49.12	\$0.00	\$87.75	\$132.24	9248-7792 Quebec Inc.
2435121	12/03/17	49.12	\$0.00	\$87.75	\$132.24	9248-7792 Quebec Inc.
2435122	12/03/17	49.12	\$0.00	\$87.75	\$132.24	9248-7792 Quebec Inc.
2435123	12/03/17	49.12	\$0.00	\$87.75	\$132.24	9248-7792 Quebec Inc.
2435124	12/03/17	49.13	\$0.00	\$87.75	\$132.24	9248-7792 Quebec Inc.
2435125	12/03/17	49.13	\$0.00	\$87.75	\$132.24	9248-7792 Quebec Inc.
2435126	12/03/17	49.11	\$0.00	\$87.75	\$132.24	9248-7792 Quebec Inc.
2435127	12/03/17	49.11	\$0.00	\$87.75	\$132.24	9248-7792 Quebec Inc.
2435128	12/03/17	49.11	\$0.00	\$87.75	\$132.24	9248-7792 Quebec Inc.
2435129	12/03/17	49.11	\$0.00	\$87.75	\$132.24	9248-7792 Quebec Inc.
2435130	12/03/17	49.10	\$0.00	\$87.75	\$132.24	9248-7792 Quebec Inc.
2435131	12/03/17	49.10	\$0.00	\$87.75	\$132.24	9248-7792 Quebec Inc.
2435132	12/03/17	49.10	\$0.00	\$87.75	\$132.24	9248-7792 Quebec Inc.
2435133	12/03/17	49.10	\$0.00	\$87.75	\$132.24	9248-7792 Quebec Inc.
2435134	12/03/17	49.09	\$0.00	\$87.75	\$132.24	9248-7792 Quebec Inc.
2435135	12/03/17	49.09	\$0.00	\$87.75	\$132.24	9248-7792 Quebec Inc.
2435136	12/03/17	49.09	\$0.00	\$87.75	\$132.24	9248-7792 Quebec Inc.
2435137	12/03/17	49.08	\$0.00	\$87.75	\$132.24	9248-7792 Quebec Inc.
		11428.71	\$0.00	\$20,445.75	\$30,811.92	

