Updated NI 43-101 TECHNICAL REPORT

ON THE

LAC AUX BOULEAUX GRAPHITE PROPERTY

NTS MAP 31J05

Quebec, Canada

ON BEHALF OF

Manganese X Energy Corp.
145 Rue Graveline, Saint-Laurent
QC H4T 1R3

Report for NI 43-101

BY:

Martin Ethier, P.Geo.
Consulting Geologist
Hinterland Geoscience and Geomatics
620 Brewster Street.
Haileybury, Ontario
P0J 1K0

February 18, 2020

Table of Contents

List of Figures

List of Tables

1.0 SUMMARY

Martin Ethier of Hinterland Geoscience & Geomatics ("the principal author") was retained by Manganese X Energy Corp. ("the Company" or "MN") to complete an updated Technical Report on the Lac Aux Bouleaux Graphite Property ("the LAB Project"). The report was prepared to update the Property status by including exploration work carried out in 2019 and to secure future financing.

The LAB Property is comprised of 14 mineral claims in one contiguous block totalling 738.12 hectares' land on NTS 31J05, near the town of Mont-Laurier in southern Québec. The Company acquired the LAB Property under an agreement dated June 24, 2019, where it earned a 100% interest (subject to a $CDN 2.00 Tonnage Royalty to the Vendor) by paying $10,000 cash and issuing $40,000 worth of shares.

The LAB Graphite property is underlain by Precambrian age rocks of the Grenville Series comprised of quartzofeldspathic, garnetiferous paragneiss and limestone / marble beds. Quartzites are the least abundant of rocks in this Series. The igneous rocks which have invaded the metasedimentary sequence consist of gabbros, monzonites, anorthosites and diabase. Paragneiss is generally fine to medium grained with a variety of compositions such as, quartzo-feldspathic gneiss, biotite gneiss, biotite-garnet gneiss, biotite-garnet-silliminite gneiss and biotite-hornblende gneiss. All compositional varieties contain some graphite. Narrow (30 cm) beds of quartzite are found interbedded with biotite-garnet gneiss at places. Quartzite found as thin beds contains impurities such as feldspar/ microcline, biotite, hornblende, garnet, graphite, and define its color which can be white, grey, blue-grey, or pink-grey. Marble is also found as thin beds up to 1.5-metre-thick and is generally medium grained crystalline limestone. Like quartzite, it also contains impurities such as phlogopite, graphite or serpentine. Gneissic bands of amphibolite are also found in paragneiss which are mainly composed of black or green hornblende, biotite and plagioclase. These are mostly medium grained rocks and exhibit a "salt and pepper" texture. Gabbroic rocks are found in the southern parts of the Property and are mainly comprised of feldspar and hornblende. Post Grenville lithologies on the Property are mainly east-west trending diabase dykes which are dark grey to dark greenish grey intruding into paragneiss rocks. The unconsolidated surficial deposits of glacial, fluvial, and lacustrine origin cover a large area of the property and surrounding region.

The LAB Graphite Property lies adjacent to the south of TIMCAL's Lac des Iles graphite mine in Quebec which is a world class deposit and was producing 25,000 tonnes of graphite annually. There are several graphite showings and past producing mines in its vicinity. Graphite is commonly found in the Grenville Province rocks throughout this region and has been commercially mined from a number of deposits located between Mount Laurier in the north to the Ottawa River in the south.

Cautionary Statement: Investors are cautioned that the above information has been taken from the following websites: https://www.mern.gouv.qc.ca Energie et Ressources naturelles Quebec and http://www.imerys-graphite-and-carbon.com/ The author is unable to verify the information and the information is not necessarily indicative of the mineralization on the Lac Aux Bouleaux Graphite property.

Large flake graphite mineralization on the property is commonly associated with paragneiss in a regular banding, conforming to the beds. The paragneisses strike N10°E and dip about 70° to the east, with thickening and thinning of beds, drag-folding, minor faulting as common structural features. The mineralization exposed to the surface is quite rusty in appearance due to weathered decomposition of pyrite which occurs associated with graphite. Graphite is also located in shear zones at the contact of gneisses and marble where the graphite content usually ranges from 2% to

13% Cg exhibiting flakes up to 3 millimetres (mm) in diameter. Large flake graphite is generally considered as 0.2 mm and above.

The graphite is considered to be introduced into these rocks by quartz-graphite injection from a deeper source and redistributed through fractured incompetent beds of limestone creating graphite mineralization channels. Alternatively, another theory believes graphite mineralization was derived from algae or through decomposition of calcium carbonate molecules liberating the carbon atom through metamorphic reactions. Slow cooling of the mineralized material has produced crystalline large flake graphite.

The LAB graphite mineralization was discovered in 1957 by two prospectors, Mr. Phraz Arbic and Dr. L.J. LaRue. Subsequently, a mining company was formed and was named Italia Copper which carried out some stripping, diamond drilling, bulk sampling and identified a certain tonnage of large flake graphite within a deposit. Metallurgical test work was conducted at that time on bulk samples of the graphite material by three laboratories with favorable results. Due to financial problems, the property lapsed and was eventually acquired by the M.H.M. Syndicate which carried out more testing and arranged marketing outlets with firms in the United Kingdom. Historical notes indicate that potential end users were impressed with the grade and quality of the flakes which surpassed other sources then on the market. The property was allowed to lapse again due to financial problems; and in 1981 was staked by C. Gordon Awde and purchased by Orrwell Energy Corporation Ltd. The property claims were held by TIMCAL until November 2014, at which time they were allowed to lapse and immediately staked by Afzaal Pirzada of Geomap Exploration Inc., and later in 2019 was acquired by Manganese X Energy Corp.

Orrwell Energy Corp. acquired 539 hectares of ground in 12 surveyed parcels (within the current claim block) and completed an exploration work program consisting of a ground electromagnetic geophysical survey, 79 diamond core drill holes totalling 19,550 feet (5,958 metres) drilling, and resource estimation work. *The resource estimation resulted in a historical resource of 1,320,847 tons at 9% Cg, or 1,452,932 tons at 8% Cg* (Source: Douglas Parent 1982, MRNF report GM46736).

(Note: A Qualified Person has not done sufficient work to classify the historical estimate as current mineral resources. The Company is not treating the historical estimate as a current mineral resource or reserve. The historical resources were calculated by block models using different cut-off grades, and a specific gravity of 2.76. The Company believes that the historic estimate is relevant to an appraisal of the merits of the property and forms a reliable basis upon which to develop future exploration programs. The Company will need to conduct further exploration which will include drill testing the project, and there is no guarantee that the results obtained will reflect the historical estimate. The historical estimates should not be relied on.)

The following metallurgical test work was conducted on the Lac Aux Bouleaux graphite deposit between the periods from 1958 to 1963.

a. Department of Mines and Technical Surveys, Ottawa, in 1958. The grade of graphite tested contained 22.7% Cg. Overall recovery of graphite was reported as follows:

Mesh	Screen Analysis	L.O.I Heads	L.O.I Concentrate	Carbon Recovery on Individual Fractions
-14 +200	66.0	27.6	91.21	93.8%
-200	34.0	13.3	90.08	83.5%

Overall recovery of 92.5% with a grade of 90% Cg.

b. In 1961, T. Salmon, Mineral Dressing Consultant, conducted mill tests and reported a recovery of 93.0% at 83.7% Cg or 96.0% recovery at 78.5% Cg in test No. 5 from mill heads of 20.26% Cg.
c. In 1963, the Department of Natural Resources, Quebec, conducted a series of tests on 1,693 lbs of graphite material with the following results:

Concentrate	% Weight	% Graphite Carbon
+48 mesh	52.56	92.44
-48 mesh	47.44	86.25

In 2015, Goldport Resources completed a 281 line-kilometers airborne magnetic (MAG) and electromagnetic (EM) survey on the Property. The survey was flown at an average altitude above ground of 90 meters with traverses every 50 meters oriented N115 and perpendicular control lines every 500 meters. Final contoured cell size for the data was 10 meters. MAG survey identified several east-west running structures and lineaments which are bounding potential EM target areas. A total of seven potential target areas were identified through interpretation of EM survey.

During 2017-18, Graphite Energy Corp. carried out exploration work on the property which included prospecting, trenching, channel sampling and diamond core drilling on historicall identified targets. Surface sampling work indicated graphite carbon in the range of 2.20% to 22.30% Cg. The results of channel sampling from trenching areas did not show any promising graphite mineralization on airborne and ground geophysical survey target area 1. Graphite Energy Corp. also completed four NQ size diamond core drill hole in 2018. These holes were drilled around historical graphite pit. Highlights of these results include:

- Drill Hole LAB18-01 intersected 11 graphite mineralization zones from 10.25 m to 68.55 m below surface, ranging in thickness from 0.3 metres to 3.15 metres (m) with grades of 1.7% graphite (Cg) to 16.70% Cg. Two prominent zones, first with 11.70% Cg over 1.55 m from 23.55 m, and the second 9.24% Cg over 3.15 m from 86.40 m.
- Drill Hole LAB18-02 intersected two graphite mineralization zones, the first with 8.45% Cg over 6 m from 28.3 m, and the second with 7.89% Cg over 4.08 m from 39.42 m below surface.
- Drill Hole LAB18-03 intersected 6.77 m wide zone grading 9.26% Cg from 80.13 m below surface.
- Drill Hole LAB18-04 intersected 9.33 m zone grading 7.14% Cg from 97.57 m below surface.

*Note: * All widths reported are drill core widths and have not been converted into true width.*

In November 2019, the Dynamic Discovery Geoscience Ltd., a company based in Ottawa, was contracted by Manganese X Energy Corp. to conduct a ground time-domain electromagnetic (TDEM) PhiSpy survey on the Lac Aux Bouleaux Property. Another ground PhiSpy surveys was conducted in 2016 at the Lac Aux Bouleaux Property therefore data from 2016 was also compared to the data collected in the recent survey in 2019. Every survey grid was made of lines spaced every 50 m and oriented perpendicular to the strike of airborne anomalies. In order for transport of the PhiSpy system, the ends of each line were tied with tie lines from one line to the next. Grids 4, 5, 6 and D consisted of 4.60, 3.58, 4.85 and 3.06 km of line cutting, respectively, for a total of 16.09 km. In addition to the grid lines, the PhiSpy TDEM also surveyed nearby trails for a cumulative 18.275

km survey. A total of 35.875 km of PhiSpy data collected in both 2016 and 2019 surveys. Six high priority, in terms of potential for a large volume of mineralization, is given to the following defined conductors: 1A, 1B, 4C, 4D, 6A and 6B, as they display the widest apparent thickness, EM anomaly intensity, and significant longitudinal extensions. Recommendations based on PhiSpy survey include stripping and prospecting to perform ground investigations which should be followed by shallow drill holes on anomalies of interest. There are 19 locations in total that are proposed for follow-up work: 4 locations to test the targets 1A and 1B, 6 locations on targets 4A, 4B, 4C, 4D and 4E, 4 locations on targets 5B, 5C, 5D, 5E and 5F, and 5 on targets 6A, 6B and 6D.

The Author visited the property on May 1st, May 27-29, 2015, August 19th, 2016, July 05th and November 05-08, 2019 to confirm the historical exploration work locations, rock outcrops, geological setting, graphite mineralization, and ground geophysical data. During May 2015 visit, a total of 10 grab rock samples were collected, out of which six samples were from potential graphite mineralized boulders and outcrops and four samples were from the country rock to check background graphite content. Results from six mineralized samples returned high carbon graphite (% Cg) values of 23.8%, 18.4%, 16.6%, 16.0%, 15.9%, and 13% Cg with an average grade of 17.2% Cg. The four Country rock samples assayed 1.53%, 0.55%, 0.26% and .02 % for an average of 0.59% Cg.

Six mineralized surface grab rock samples each weighing about 10 kilograms were selected for metallurgical testing. These samples were blended to a single feed composite to produce a graphite concentrate by a series of flash and cleaner flotation. Each as-received sample was crushed to minus 6 mesh and submitted for graphite head assay. A single composite was formed by blending the samples, and subsequently submitted for mineralogical analysis and metallurgical testing. Metallurgical testing included a series of flash flotation, light grinding and cleaning to produce a graphite concentrate. The graphite concentrate was screened to assess the size and purity of the graphite flakes on a size by size basis.

Test F1 produced the three sized concentrates with grades of 94.7% C(g) in the +48-mesh concentrate (jumbo flake), 95.3% C(g) (large flake) in the +100-mesh concentrate and 86% C(g) in the -100-mesh concentrate (small flake). The combined concentrate had an overall graphite recovery of 89.6% at a grade of 91.0% C(g). Test F2 was performed to improve the graphite grade by increasing the regrind times in all three regrind stages. The three sized concentrates had grades of 95.3% C(g) (jumbo flake) in the +48-mesh concentrate, 94% C(g) in the +100-mesh concentrate (large flake) and 81.2% C(g) in the -100-mesh concentrate. The combined concentrate had an overall graphite recovery of 96.2% at grade of 88.3% C(g). In both tests, 30% of the total graphite was recovered in the +48-mesh concentrate (jumbo flake) and 21 to 24% recovered in the +100 mesh concentrates (large flake) with combined over 50% of jumbo and large flake concentrate. Both large and jumbo flake graphite is targeted for a premium market price.

A mineralogical study was conducted by SGS on a master composite sample with optical microscopy and quantitative X-ray diffraction (XRD) to determine the occurrence and liberation of graphite and associated gangue minerals. The sample was examined at -6 mesh. Graphite particles range in size from ~ 5 µm to ~2 mm generally most of the graphite grains are comprised of coarse grained (> 400 µm) particles. The particles occur mainly as polycrystalline, tabular, platy and prismatic grains. The graphite occurs as liberated (~33%) and exposed particles (~61%) with minor amounts of locked grains (~6%). These results show high recovery potential of graphite (94%) through floatation which was confirmed in the metallurgical testwork.

Keeping in view that the past exploration results intersected graphite mineralization in drill holes, presence of multiple geophysical survey targets, preliminary metallurgical results indicating presence of flake graphite, favourable infrastructure support, and the results of this present study, it is concluded that the Property is a property of merit and possesses a good potential for further graphite exploration. It has good road access, water and electricity are available on site; and most of the exploration and mining services are available in the vicinity. Except for geological mapping and surface sampling, the exploration and mining work can be carried out round the year.

The author is of the opinion that the present study has met its original objectives.

Recommendations
In the Authors' opinion the character of the Lac Aux Bouleaux Graphite Property is sufficient to merit a follow-up work program. This can be accomplished through a two-phase exploration, where each phase is contingent upon the results of the previous phase.

Phase 1 – Trenching and Channel Sampling

Although, 2017 trenching work on geophysical target area 1 failed to discover significant graphite mineralization, however 2016 and 2019 PhiSpy geophysical survey identified 19 locations for follow-up stripping, trenching and channel sampling work: 4 locations to test the targets 1A and 1B, 6 locations on targets 4A, 4B, 4C, 4D and 4E, 4 locations on targets 5B, 5C, 5D, 5E and 5F, and 5 on targets 6A, 6B and 6D. Additionally, surface sampling results indicated presence of graphite outcrops and boulders in other areas of the Property. It is therefore recommended to continue stripping and trenching work on other target areas identified in airborne and ground geophysical surveys. The estimated budget for this phase is $211,155, it will take three months' time to complete.

Phase 2 – Exploratory Drilling

This work will include 1,500 meters' diamond core drilling on the historical graphite resource potential area and geophysical survey targets identified in 2019. Total estimated budget for this phase is $283,500 and will take approximately six months' time to complete.

2.0 INTRODUCTION

2.1 Purpose of the Report

This report was commissioned by Manganese X Energy Corp. ("MN" or the "Company"), a Public Listed Company in Toronto Stock Exchange (TSXV-MN), having offices at 145 Rue Graveline, Saint-Laurent, Quebec, Canada, Canada H4T 1R3, and was prepared by Martin Ethier, P. Geo. As a Qualified Person, Ethier, the Principal Author, was asked to undertake a review of the available data and recommend, if warranted, specific areas for further work on the Lac Aux Bouleaux (LAB) Graphite Property (the "Property"). The technical report was prepared to update the previous technical report to include 2019 PhiSpy ground survey work.

2.2 Sources of Information

In the preparation of this report, the Author utilized Quebec and Federal Government geological maps, geological reports, and claim maps. Information was also obtained from Quebec government websites such as the Maps and files of Québec mining (https://gestim.mines.gouv.qc.ca/ftp//cartes/carte_quebec.asp), the GESTIM Plus a Mining Title Management System (http://www.mrnf.gouv.qc.ca/english/mines/rights/rights-gestim.jsp) as well as mineral assessment work reports from the Lac Aux Bouleaux Graphite Property filed with MRNF and SEDAR (www.sedar.com). A list of reports, maps and other information examined is provided in the Section 27 of this report. The history of exploration on the Lac Aux Bouleaux Graphite property is discussed in detail in Section 6.0 of this report.

The author was retained to complete this report in compliance with National Instrument 43-101 of the Canadian Securities Administrators ("NI 43-101") and the guidelines in Form 43-101 F1. The author is a "qualified person" within the meaning of National Instrument 43-101. This report is intended to be filed with the Toronto Stock Exchange Venture Exchange (TSXV) and securities commissions in all the provinces of Canada.

This technical report is based on the following sources of information:

- Discussions with Manganese X Energy Corp.;
- Several inspections of the LAB Graphite Property; and,
- Additional information obtained from public domain sources.

As of the date of this report, the author is not aware of any material fact or material change with respect to the subject matter of this technical report that is not presented in this report, which the omission to disclose would make this report misleading.

In accordance with the NI 43-101 guidelines, the Author visited the LAB Graphite on May 1st, May 27-29, 2015, August 19th, 2016, July 05th and November 05-08, 2019. The geological work performed in order to verify the existing data consisted of geological observations and measurements, confirming graphite surface mineralization and rock outcrops, checking historical drill holes locations, viewing drill core, checking geophysical survey areas, and developing exploration work program scope of work.

The author reserves the right but will not be obliged to revise the report and conclusions if additional information becomes known subsequent to the date of this report.

3.0 RELIANCE ON OTHER EXPERTS

The information, opinions, and conclusions contained herein are based on:

- Information available to the writer at the time of preparation of this report;
- Assumptions, conditions, and qualifications as set forth in this report;
- Data, reports, and other information supplied by Manganese X Energy Corp., and other third-party sources.

For the purpose of the report, the Author has reviewed and relied on ownership information provided by Manganese X Energy Corp. which to the author's knowledge is correct. A limited search of tenure data on the Quebec government's GESTIM and the Mining Title Management System web site confirms the data supplied by the Company. However, the limited research by the Author does not constitute a legal opinion as to the ownership status of the Lac Aux Bouleaux Graphite property. This disclaimer applies to Section 4 of this report. The Author is responsible for all items of this report.

4.0 PROPERTY DESCRIPTION AND LOCATION

The Lac Aux Bouleaux Graphite Property (the "LAB Graphite Property") consists of 14 mineral claims in a contiguous block totalling 738.12 hectares land, on NTS sheet 31J05, near the town of Mont-Laurier in southern Québec. A small new claim covering 4.86 hectares area (Application number 1738877, dated June 30,2017) was staked to cover the gap between claims 2420591 and 2506091 Figure 2). The claim will be part of the Property as soon as granted.

The Company has acquired the LAB Property under an agreement dated June 24, 2019, where it can earn a 100% interest by making cash payment of $10,000 and issuing $40,000 worth of shares. There is 2% NSR on the property to the vendor. The claims are still in the name of Afzaal Pirzada who is holding these claims in trust.

The property location is shown on Figure 1 and the claim location is shown on Figure 2. A list of claims is provided in Table 1.

Figure 1: Regional Property Location

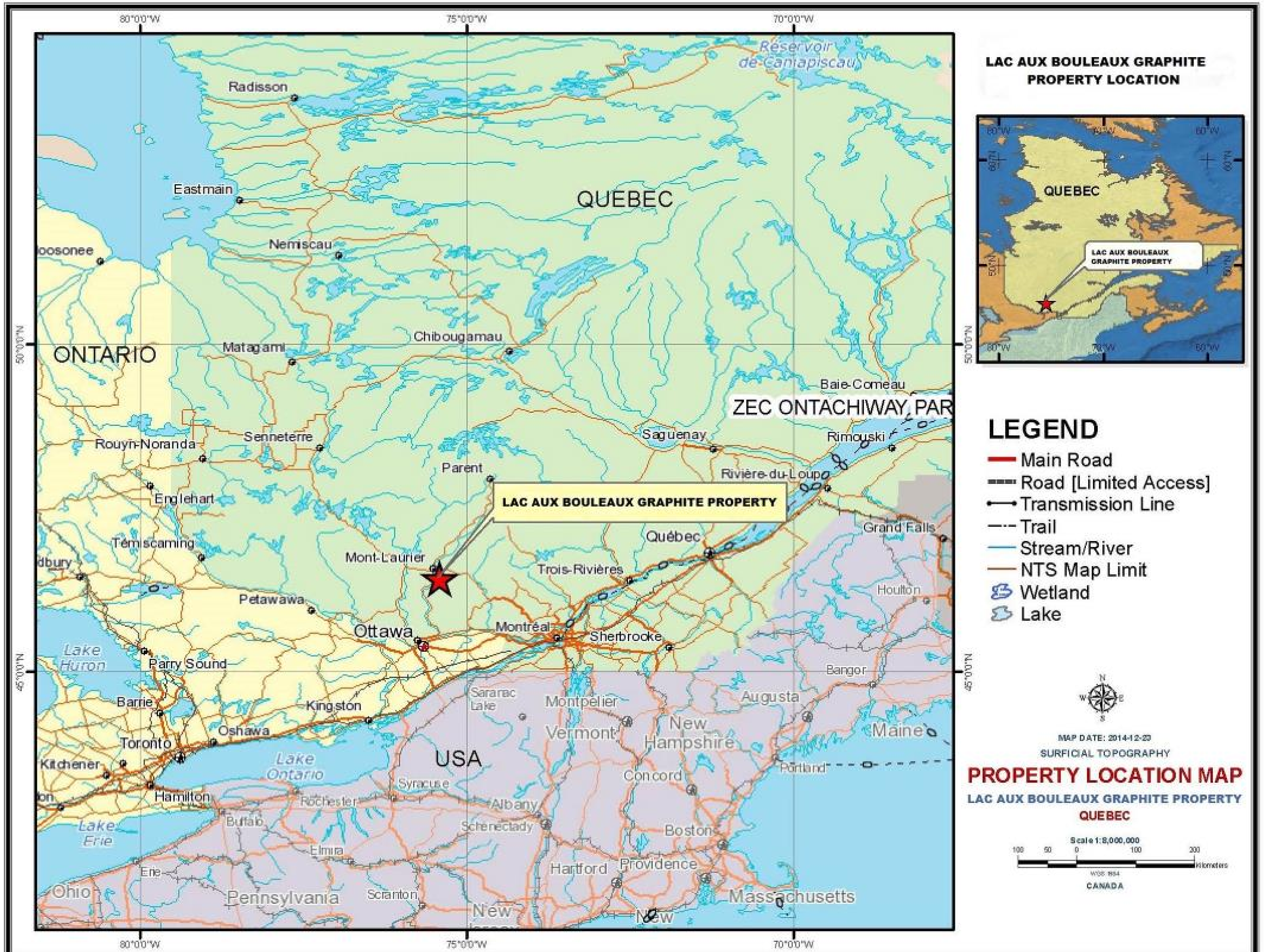


Figure 2: Claim Location and Physiographic Map

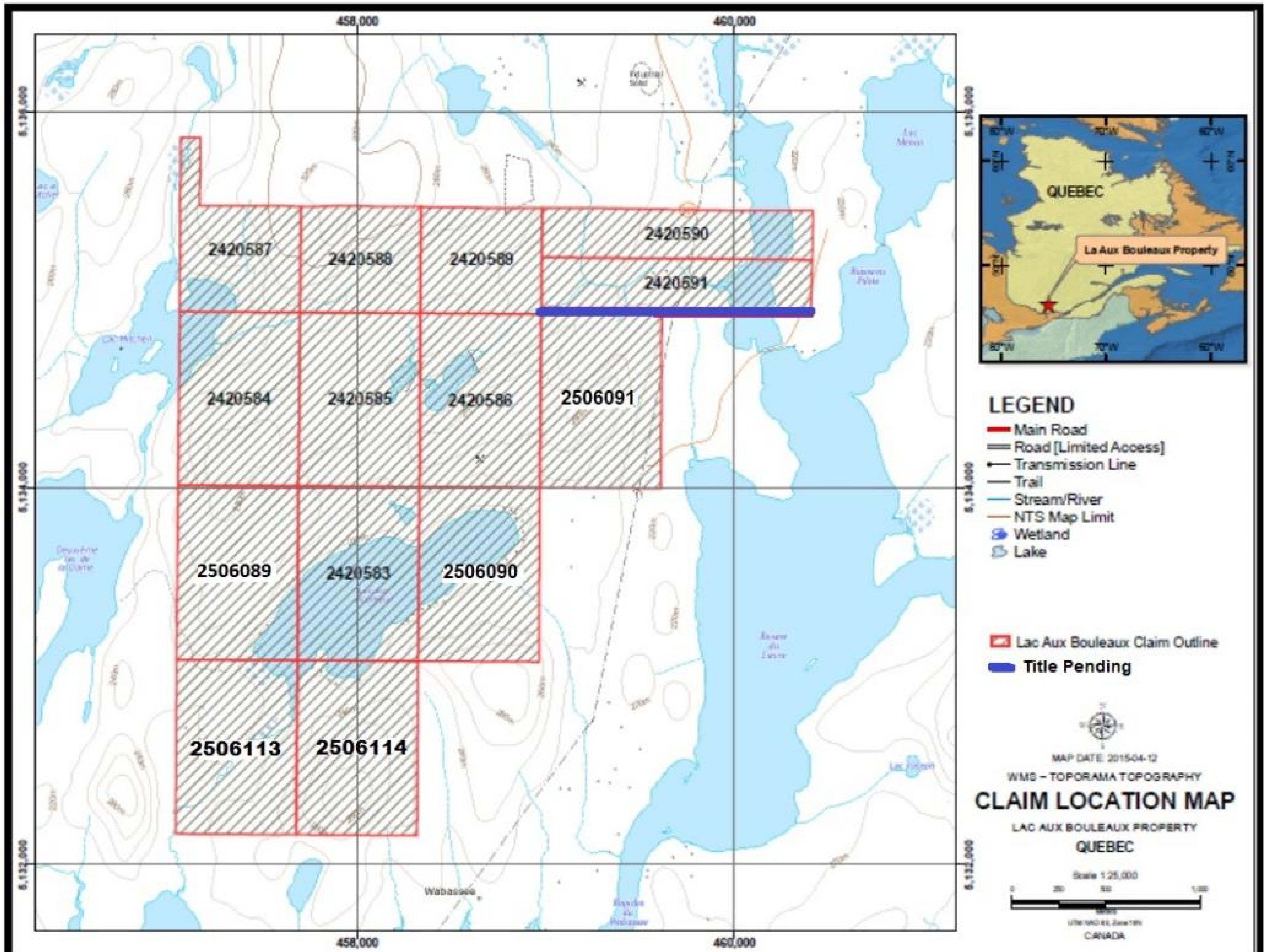


Table 1: Claim List

NTS Sheet	Type of Title	Title No	Status	Date of Registration	Expiry Date	Area (Ha)	Required Work	Required Fees	Titleholder(s) (Name, Number and Percentage)
NTS 31J05	CDC	2420583	Active	12/29/2014 0:00	12/28/2022 23:59	59.37	$1,200	$65.25	Afzaal Pirzada (90960) 100 % (responsible)
NTS 31J05	CDC	2420584	Active	12/29/2014 0:00	12/28/2022 23:59	59.36	$1,200	$65.25	Afzaal Pirzada (90960) 100 % (responsible)
NTS 31J05	CDC	2420585	Active	12/29/2014 0:00	12/28/2022 23:59	59.36	$1,200	$65.25	Afzaal Pirzada (90960) 100 % (responsible)
NTS 31J05	CDC	2420586	Active	12/29/2014 0:00	12/28/2022 23:59	59.36	$1,200	$65.25	Afzaal Pirzada (90960) 100 % (responsible)
NTS 31J05	CDC	2420587	Active	12/29/2014 0:00	12/28/2022 23:59	39.93	$1,200	$65.25	Afzaal Pirzada (90960) 100 % (responsible)
NTS 31J05	CDC	2420588	Active	12/29/2014 0:00	12/28/2022 23:59	36.22	$1,200	$65.25	Afzaal Pirzada (90960) 100 % (responsible)
NTS 31J05	CDC	2420589	Active	12/29/2014 0:00	12/28/2022 23:59	36.04	$1,200	$65.25	Afzaal Pirzada (90960) 100 % (responsible)
NTS 31J05	CDC	2420590	Active	12/29/2014 0:00	12/28/2022 23:59	37.7	$1,200	$65.25	Afzaal Pirzada (90960) 100 % (responsible)
NTS 31J05	CDC	2420591	Active	12/29/2014 0:00	12/28/2022 23:59	37.78	$1,200	$65.25	Afzaal Pirzada (90960) 100 % (responsible)
NTS 31J05	CDC	2506089	Active	11/22/2017 0:00	11/21/2023 23:59	59.37	$1,200	$65.25	Afzaal Pirzada (90960) 100 % (responsible)
NTS 31J05	CDC	2506090	Active	11/22/2017 0:00	11/21/2023 23:59	59.37	$1,200	$65.25	Afzaal Pirzada (90960) 100 % (responsible)
NTS 31J05	CDC	2506091	Active	11/22/2017 0:00	11/21/2023 23:59	59.36	$1,200	$65.25	Afzaal Pirzada (90960) 100 % (responsible)
NTS 31J05	CDC	2506113	Active	11/22/2017 0:00	11/21/2023 23:59	59.38	$1,200	$65.25	Afzaal Pirzada (90960) 100 % (responsible)
NTS 31J05	CDC	2506114	Active	11/22/2017 0:00	11/21/2023 23:59	59.38	$1,200	$65.25	Afzaal Pirzada (90960) 100 % (responsible)
TOTAL						721.98	$16,800		

In Quebec, map designation is the main method of acquiring a mineral claim. To acquire a claim (or cell) by map designation, the applicant must complete the form “Notice of map designation” and pay the required fees. The title is granted on a first come, first served basis. Once the map designation notice is accepted, the Registrar makes an entry in the registry and issues a registration certificate for the claim. The holder is required to carry out assessment work prior to the 60th day preceding the second annual anniversary of the registration (Table 2). The LAB Graphite property claims were staked online using the above-mentioned procedure outlined by the Quebec Ministry of Energy and Mines. Claims expiry dates are shown in Table 1 and the company is required to spend $1,800.00 per claim in assessment work credits to maintain the claims in good standing for another term of two years as shown in Table 2.

Several property claims are located on private lands and the Company is required to negotiate with the surface right owner to gain access for mineral exploration work. Claims covering the historical deposit are on Crown Lands. The Company will require an exploration work permit on Crown Lands with respect to the following work:

1. Setting-up a temporary or permanent camp;
2. Water access, stream crossing or any wetland disturbance requires a permit from the Ministères des Resources Naturelles et de la Faune;
3. Any logging activity on crown land requires a logging permit; and,
4. Trenching in excess of 10,000 square meters requires stripping permits and submittal of a reclamation plan.

Table 2: Minimum cost of exploration work required in Quebec

Validity	**Area of claim**		
	Less than 25 ha	**25 to 100 ha**	**Over 100 ha**
1 to 3 years	$500	$1,200	$1,800
4 to 6 years	$750	$1,800	$2,700
7 years and over	$1,000	$2,500	$3,600

To the best of the Author’s information and belief, other than as described in this report, there are no other significant factors and risks that may affect access, title, or the right or ability to perform the recommended work on the Property. There are historical mine workings, open pits and rock piles left by the past operators which need to be secured through proper fencing and warning signs. A graphite mill was established on the Property during the early 1980s which was taken off in 2002 but the building is still present and is owned by a carpenter. A tailing dam facility constructed during the same time period is also present on the Property and is in good condition.

Environmental Liabilities

The Company is not aware of any existing environmental liabilities related to the Lac Aux Bouleaux Graphite Property area. No obvious environmental liabilities were observed during Property visits.

5.0 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE PHYSIOGRAPHY

5.1 Access

The Property is road accessible through a provincial highway (Route 117) from Montréal, and then following secondary roads 309 and 311. Various tertiary / forest roads provide access to different claims on the Property. The town of Mont-Laurier is located about 20 kilometres to the north, Montréal 150 kilometres to the southeast, and Ottawa 125 kilometres to the south of the Property. Mon-Laurier is also connected to Montreal via rail. The access has to be negotiated with the surface land owners before starting any exploration work on mineral claims located on private lands. The exploration programs on private lands in Quebec are generally run through negotiations and payment of standard reclamation costs for cutting trees, making access roads and movement of a drill rig. It must be noted that only a small portion of the LAB graphite property is under private lands, the majority of the claims, including the historical deposits are located within Crown lands.

5.2 Climate

The Mont-Laurier area has a continental temperate climate with warm humid summers, cold and snowy winters, particularly in January. There are wide temperature variations in each season. The average winter temperature in the area ranges from -4Cº to -17Cº, and the average summer temperature varies between 10Cº to 27Cº (Figure 3) Except for geological mapping and surface sampling which is only possible when there is no snow cover on the ground, the exploration work can be carried out throughout the year.

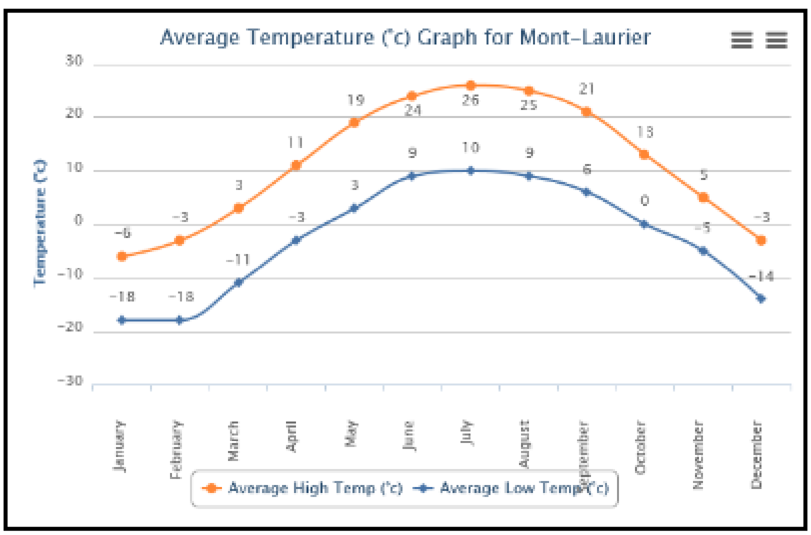


Figure 3: Average temperature graph for Mont-Laurier

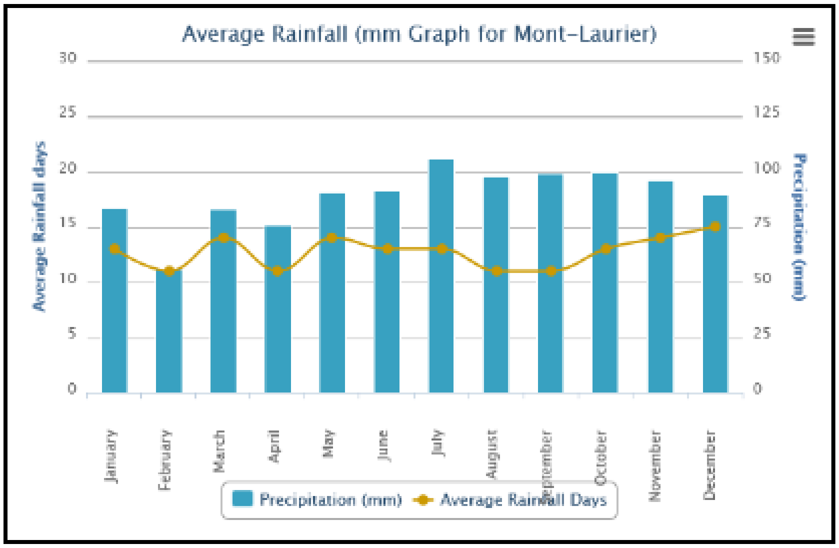


Figure 4: Average rainfall graph for Mount Laurier

5.3 Local Resources and Infrastructure

Mont-Laurier is the nearest town from the property, located 20 kilometres to the north on the banks of the Rivière du Lièvre, a tributary of the Ottawa River. According to the Canada 2006 Census, the population of Mont-Laurier is 13,405. It is one of the largest municipalities in Quebec in terms of area. The local economy is based on agriculture, farming, mining, forestry and tourism. Various industries and related service providers are present in the area. Specialized exploration services such as drilling and airborne geophysical survey companies provide their own personnel. Several lakes located on the property are a good source of water for exploration and mining work. Hydro Quebec power lines are located near the Property. The Property size is sufficient for future exploration and mining work. It is within 20 kilometres of the nearest railhead and Ottawa and Montreal international airports are located 125 and 150 kilometres away respectively. TIMCAL's Lac des Iles graphite open pit mine and onsite plant which is in operation since 1989 is located adjacent to the north of the Property.

5.4 Physiography

Regionally the topography of the area is typical of "the Laurentian", representing an eroded plateau dissected into numerous ranges of hills that follow no apparent pattern. Between the hills are lakes of irregular shape and size, as well as alluvial plains which are generally narrow, long, and in many cases very sinuous. These plains are filled in with glacial, fluviatile, or muskeg deposits. The property area is mostly covered by these quaternary glacio-fluvial deposits with few rock outcrops some of which have been exposed through exploratory trenching. General topographic elevation is in the range of 150 to 215 metres above sea level. There are several lakes which can be a source of water for exploration activities, out of which Lac Aux Bouleaux is prominent. The Lièvre River (Rivière du Lièvre in French) is the main drainage in the area. The river flows south from the Mitchinamécus reservoir and empties into the Ottawa River at Masson-Angers. It is 330 km in length and drains an area of 10,400 km². There are a number of hydroelectric plants on the river. The majority of the Property area is forested, with some farmlands near lakes and the river. The forests are mainly comprised of hard wood (white and yellow birch, ash, elm, beech, etc.) and fine groves of hemlock. At places, the hard wood is replaced by balsam, spruce, and cedar.

Large mammals include moose, caribou, and black bear. Small fur bearing animals include wolf, fox, lynx, mink, marten, and beaver, among others. The numerous lakes have abundant trout populations.

6.0 HISTORY

The LAB graphite mineralization was discovered in 1957 by two prospectors, a Mr. Phraz Arbic and Dr. L.J. LaRue. Subsequently, a mining company was formed and was named Italia Copper which carried out some stripping, diamond drilling, bulk sampling and identified a certain tonnage of large flake graphite within a deposit. Metallurgical test work was conducted at that time on bulk samples of the graphite material by three laboratories with favorable results. Due to financial problems, the property lapsed and was eventually acquired by the M.H.M. Syndicate which carried out more testing and arranged marketing outlets with firms in the United Kingdom. The firms were much impressed with the grade and quality of the flakes which surpassed other sources then on the market. The property was allowed to lapse again due to financial problems; and in 1981 was staked by C. Gordon Awde and purchased by Orrwell Energy Corporation Ltd. The property claims were held by TIMCAL until November 2014, were allowed to lapse and immediately staked by Geomap Exploration Inc., and in 2019 was acquired by Manganese X Energy Corp, the current property owner.

The Quebec Ministry of Energy and Mines (MRNF) maintains records of past exploration and development work carried out on mineral claims. A review of the historical exploration work on the property is summarized below.

6.1 Orrwell Energy Corporation Ltd. (1981-82)

Orrwell Energy Corp. acquired 539 hectares ground in 12 surveyed parcels (within the current claim block) and completed an exploration work program consisting of a ground electromagnetic geophysical survey, 79 diamond core drill holes totalling 19,550 feet (5,958 metres) drilling, and resource estimation work. *The resource estimation resulted in a historical resource of 1,320,847 tons at 9% graphitic carbon (Cg), or 1,452,932 tons at 8% Cg* (Source: Douglas Parent 1982, MRNF report GM46736).

(Note: A Qualified Person has not done sufficient work to classify the historical estimate as current mineral resources. The Company is not treating the historical estimate as a current mineral resource or reserve. The historical resources were calculated by block models using different cut-off grades, and a specific gravity of 2.76. The Company believes that the historic estimate is relevant to an appraisal of the merits of the property and forms a reliable basis upon which to develop future exploration programs. The Company will need to conduct further exploration which will include drill testing the project, and there is no guarantee that the results obtained will reflect the historical estimate. The historical estimates should not be relied on.)

A summary of drill holes is provided in the following table.

Table 3: Historical drill holes summary

Hole ID	Length (Feet)	Angle (Degrees)	Intersection From (Feet)	Intersection To (Feet)	Width (Feet)	Graphite Grade (%Cg)	Azimuth (Degrees)	Start Date	End Date
81-1	218	30	147	176	29	4.25	270	11/11/1981	11/11/1981
			176	185	9	7.04			
81-1A	112	45	78	88	10	7.26	290	01/12/1981	01/12/1981
			88	104	16	3			
81-1B	150	65	80.5	131	50.5	6.7	270	01/12/1981	01/12/1981
81-1C	268	45	114	131	17	10.3	270	12/12/1981	12/12/1981
81-1D	142	30	98.7	122	23.3	8.87	270	09/01/1982	09/01/1982
81-2	280	45	164	178	14	1.15	270	13/11/1981	13/11/1981
			193	198	5	2.61			
81-2-1	162	45	Exploratory hole on Range Line				270	09/12/1981	10/12/1981
81-2-2	314	45	Exploratory hole on Range Line				270	10/12/1981	14/12/1981
81-3	360	65	NIL				270	15/11/1981	17/11/1981
81-4	334	45	Low Values				270	19/11/1981	24/11/1981
81-5	375	65	Low Values				270	24/11/1981	26/11/1981
81-6	294	45	234.5	257	22.5	7.98	270	26/11/1981	29/11/1981
81-7	233	30	208	216	8	10	270	30/11/1981	02/12/1981
81-8	265	45	230	253.5	23.5	2.53	270	04/12/1981	08/12/1981
81-9A	255	45	24	34	10	4.86	290	09/12/1981	10/12/1981
			197.5	207.5	10	9.35			
81-9B	368	37	18.5	24	5.5	5.37	290	16/12/1981	18/12/1981
			194	218	24	7.03			
81-9C	265	65	210	232	22	9.16	290	18/12/1981	19/12/1981
81-10A	205	45	Short hole				290	14/12/1981	15/12/1981
81-10B	76	30	Low Values				290	15/12/1981	15/12/1981
81-10C	57	65	Low Values				290	15/12/1981	15/12/1981
81-11	83	45	Short hole				290	16/12/1981	16/12/1981
81-12A	302	45	137	147	10	6.13	290	18/12/1981	20/12/1981
			269	289	20	9.03	290	18/12/1981	20/12/1981
81-12B	183	33	Short hole				290	05/01/1982	06/01/1982
81-12C	363	65	187	195	8	7.44	290	06/01/1982	06/01/1982
			329	342.6	13.6	4.85			
81-14	284	45	188.6	194	5.4	13.6	290	06/01/1982	08/01/1982
82-15	96	45	70.5	89.5	19	6.4	270	15/02/1982	15/02/1982
82-16	102	45	27	37	10	2.96	270	16/02/1982	16/02/1982
82-17	96	30	68	73.6	5.6	7.94	290	11/01/1982	12/01/1982
82-18	360	45	270	333	63	6.79	290	10/01/1982	13/01/1982
82-19	150	45	Narrow				290	12/01/1982	13/01/1982
82-20	450	65	81	91	10	10.02	290	14/01/1982	28/01/1982

Hole ID	Length (Feet)	Angle (Degrees)	Intersection From (Feet)	Intersection To (Feet)	Width (Feet)	Graphite Grade (%Cg)	Azimuth (Degrees)	Start Date	End Date
			256.5	261.5	5	11.68			
			312	325	13	14.15			
			363	375	12	8.89			
82-21	356	45	Missed zone				290	14/01/1982	19/01/1982
82-22	326	45	38.6	43.7	5.1	7.32	290	20/01/1982	21/01/1982
82-23	278	45	219	224.4	5.4	4.19	290	20/01/1982	21/01/1982
82-24	365	45	347.5	358	10.5	9.88	290	24/01/1982	26/01/1982
82-25	140	45	71.6	125.4	53.8	11.37	290	24/01/1982	25/01/1982
82-26	170	30	NIL				270	25/01/1982	25/01/1982
82-27	229	45	187.5	196.5	9	5.7	270	24/01/1982	25/01/1982
82-28	300	45	FAULT ZONE				270	27/01/1982	28/01/1982
82-29	140	45	119	132	13	12.32	270	11/02/1982	11/02/1982
82-30	246	65	186	200	14	3.93	270	08/02/1982	09/02/1982
			214.4	226	11.6	2.84			
82-31	175	45	115.8	125.2	9.4	13.03	270	09/02/1982	10/02/1982
82-32	105	45	44.2	95	50.8	8.91	270	17/02/1982	17/02/1982
82-33	196	65	31.8	38.5	6.7	10.85	270	18/02/1982	19/02/1982
			110.5	122.3	11.8	13.01			
82-34	256	65	13.7	20.1	6.4	7.49	270	17/02/1982	18/02/1982
			208	213.5	5.5	2.97			
			233.7	236.7	3	13.86			
82-35	345	65	322	338.6	16.6	8.75	270	18/02/1982	19/02/1982
82-36	323	65	252.3	258.4	6.1	9.43	270	19/02/1982	20/02/1982
82-37	206	65	143	168	25	12.1	270	20/02/1982	21/02/1982
82-38	199	45	153	197	44	11.03	270	21/02/1982	22/02/1982
82-39	81	30	66.3	70.5	4.2	13.66	27	22/02/1982	23/02/1982
82-41	113	30	14	91	77	7.42	27	24/02/1982	25/02/1982
82-42	250	65	223	234	11	4.4	270	23/02/1982	24/02/1982
82-43	273	65	225	256	31	9.56	270	04/03/1982	05/03/1982
82-44	386	65	306	353.2	47.2	7.61	270	26/01/1982	02/02/1982
82-45	358	90	323	341	18	8.46		15/03/1982	17/03/1982
82-46	389	90	25	35	10	6.3		07/03/1982	09/03/1982
			326	371	45	9.1			
82-47	465	90	419	443	24	6		09/03/1982	11/03/1982
82-48	350	90	317.8	332.5	14.7	6.43		18/03/1982	20/03/1982
82-49	176	90	128	161	33	9.62		10/03/1982	11/03/1982
82-50	266	90	231	254.2	23.2	8.21		15/03/1982	16/03/1982
82-55	77	90	12	43	31	12.12		23/03/1982	24/03/1982
			43	51	8	4.67			

Hole ID	Length (Feet)	Angle (Degrees)	Intersection From (Feet)	Intersection To (Feet)	Width (Feet)	Graphite Grade (%Cg)	Azimuth (Degrees)	Start Date	End Date
82-56	111	90	82.8	97	14.2	6.67		20/03/1982	22/03/1982
82-57	269	90	FAULT ZONE					20/03/1982	23/03/1982
82-58	150	90	NO ZONE					25/03/1982	25/03/1982
82-60	200	55	EXPLORATORY EASTERLY					17/03/1982	18/03/1982
82-61	125	90	99	119	20	5.26		25/03/1982	25/03/1982
82-62	300	90	33.3	56	22.7	4.05		21/11/1982	23/11/1982
82-63	100	45	44	62.8	18.8	6.41	180	24/11/1982	25/11/1982
82-64	150	45					180	26/11/1982	27/11/1982
82-65	150	45	21.2	59.3	38.1	4.21	180	25/11/1982	25/11/1982
82-66	250	45					180		
82-67	150	45					270	29/11/1982	30/11/1982
82-68	107	45	40.5	53.5	13	6.15	180	30/11/1982	30/11/1982
82-69	101	60	41.7	55.6	13.9	5.07	180	01/12/1982	01/12/1982
82-70	100	45	52.3	100	47.7	9.73	185	02/12/1982	03/12/1982
82-71	136	45					180	03/12/1982	04/12/1982
82-72	100	45	68.4	84.5	16.1	7.93	211	04/12/1982	04/12/1982
82-73	176	90						05/12/1982	05/12/1982
82-74	221	90	134	172	38	9.55			
			187.5	191	3.5	6.65			
82-75	500	45	50.5	52	1.5	5.17	141	10/12/1982	11/12/1982
			102	131.9	29.9	6.76			
			166.2	202	35.8	2.79			
			207	212	5	2.59			
			247	252	5	2.11			
			272	275	3	5.62			
83-76	250	45	162.5	187	24.5	5.15	180	09/03/1983	10/03/1983
83-77	586	45	98.7	112	13.3	5.38	180	11/03/1983	13/03/1983
			337	339.3	2.3	7.8			
			357.8	363.7	5.9	9.22			
83-78	300	45					180	13/03/1983	15/03/1983
83-79	277	45	113.8	116.5	2.7	5.23	180	15/03/1983	16/03/1983
	19550	5958.54922	131.2	134.8	3.6	8.7			
Total Drilling	19,550 feet	5,958 metres							

An open pit mine plan down to a depth of 65 feet, and underground mining below this depth was proposed in this work.

6.1.1 Ground Geophysical Surveys

Orrwell Energy Corporation Ltd. completed three types of ground geophysical surveys on the property; the first was electromagnetic 16 (EM 16), the second a Max Min horizontal loop electromagnetic survey (HLEM), and the third a magnetic survey.

The EM 16 survey was made over the central and northern part of the claim group and indicated 11 major trends and 14 minor anomalies. This survey was not considered very useful for generating drill targets. The magnetometer survey was performed with a geometric Proton Magnetometer G-816 having one gamma sensitivity with readings taken at 50 feet intervals along the east-west grid lines. This survey was also not very effective for exploratory drill planning. Horizontal Loop Electromagnetic (HLEM) was conducted at 50 feet intervals. This survey not only proved very productive for the 1981-82 drill campaign but also identified five other potential graphite exploration zones.

6.1.2 Metallurgical Test Work

The following metallurgical test work was conducted on the Lac Aux Bouleaux graphite deposit between the periods from 1958 to 1963.

a. Department of Mines and Technical Surveys, Ottawa, in 1958. The grade of graphite tested contained 22.7% Cg. Overall recovery of graphite was reported as follows:

Mesh	Screen Analysis	L.O.I Heads	L.O.I Concentrate	Carbon Recovery on Individual Fractions
-14 +200	66.0	27.6	91.21	93.8%
-200	34.0	13.3	90.08	83.5%
Overall recovery of 92.5% with a grade of 90% Cg.				

b. In 1961, T. Salmon, Mineral Dressing Consultant, conducted mill tests and reported a recovery of 93.0% at 83.7% Cg or 96.0% recovery at 78.5% Cg in test No. 5 from mill heads of 20.26% Cg.
c. In 1963, the Department of Natural Resources, Quebec, conducted a series of tests on 1,693 lbs of graphite material with the following results:

Concentrate	% Weight	% Graphite Carbon
+48 mesh	52.56	92.44
-48 mesh	47.44	86.25

The conclusions to these tests were that the method of crushing, grinding and floatation poses no problems and produces coarse flake of high purity graphite at low reagent cost (Douglas Parent 1982).

6.2 NRG Metals / Gold Port Resources Ltd. (2015 - 16)

6.2.1 Heliborne Geophysical Surveys

In November 2015, PROSPECTAIR / Dynamic Discovery Geoscience Ltd. was contracted by NRG Metals Inc. to complete a high-resolution heliborne magnetic (MAG) and time-domain electromagnetic (TDEM) survey on the Property. The survey was flown on November 19th and 20th, 2015. A total of 281 kilometer were flown at an average altitude above ground of 90 meters with traverses every 50 meters oriented N115 and perpendicular control lines every 500 meters. Final contoured cell size for the data was 10 meters.

The survey was flown with a Eurocopter EC120B helicopter towing a ProspecTEM time-domain electromagnetic transmitter and receiver and a Geometrics G-822A airborne magnetometer. An Omnistar DGPTS navigation system gave the pilot position data accurate to -5 meters. A Pico-Envirotec AGIS-XP system recorded and integrated all inflight data from positioning, altimeter, magnetic and electromagnetic measurements. The earth's magnetic field varies thru the day. A GEM GSM-19 Overhauser magnetometer was established at a site with low magnetic noise to measure the variations so the magnetic data could be corrected for that variation. Inflight measurements were made every 0.1 second and the base station was measured every 1 second. Data was processed using Geosoft Oasis Motaj version 8.4 and Matlab 7 R20098B software.

Of the manipulations of the magnetic data, the simplest to understand and most straight forward is the total magnetic intensity derived by subtracting the regional component of the earth's magnetic field as described by the International Geomagnetic Reference Field (IGRF) to derive the magnetic variations caused by the local geology. That is shown in Figure 5 where the magnetic patterns caused by the varying magnetic susceptibility of limestones and sandstones and the points of their abrupt terminations, interpreted to be faults, are obvious.

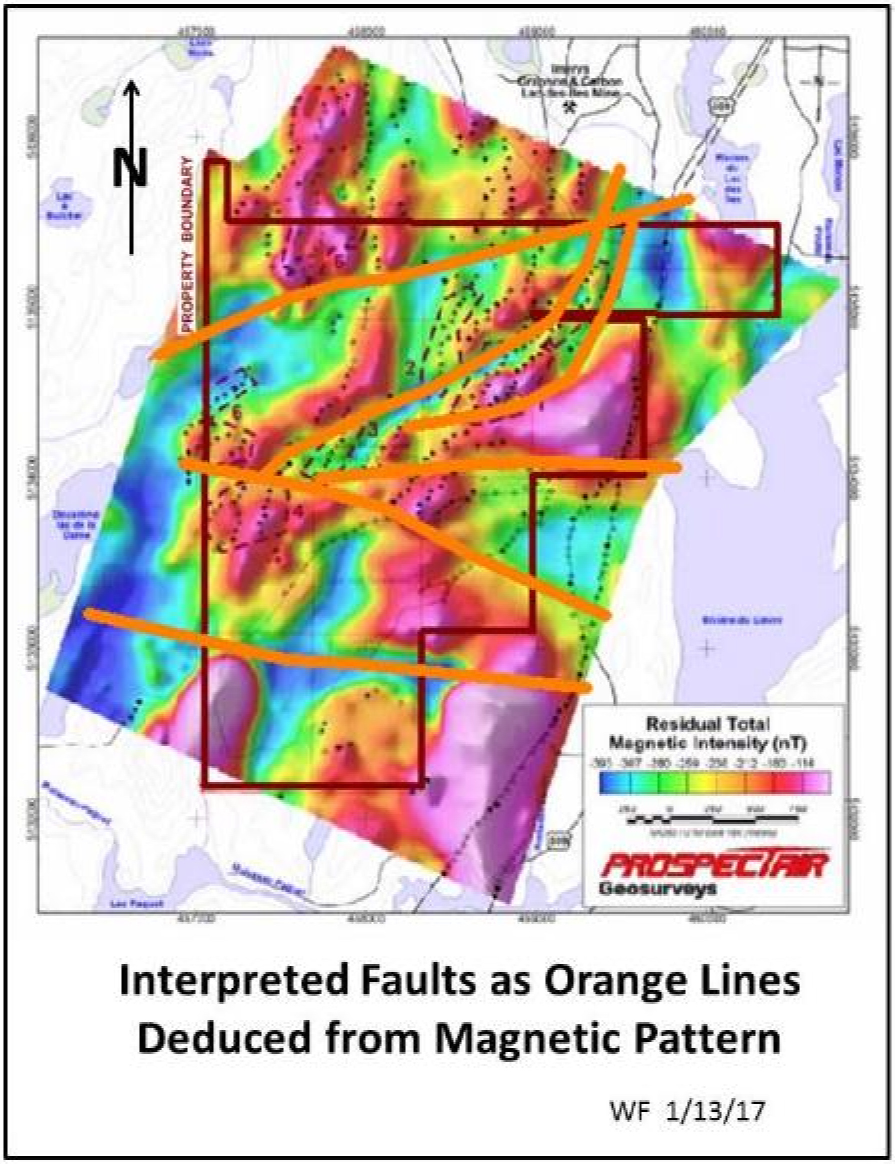


Figure 5: Magnetic Patterns and Interpreted Faults.

The explanation of and interpretation of the electromagnetic survey is much more complicated because in detail it involves the interdependence of electrical currents and magnetic fields and the details of the cause of the anomaly, such as size, orientation and depth. A current generated on the helicopter causes a magnetic field from the towed coil which generates an electrical current in the rocks which generates a secondary magnetic field. When the helicopter's electrical current is terminated, the secondary magnetic field deteriorates. Measuring it in millisecond intervals gives the data to be analyzed. The current is not instantly terminated, but is "ramped down" in micro-intervals. Measurements during the ramp down provide useful information to interpret what is caused by surface lake and glacial sediments vs rock characteristics and especially the presence of conductors such as graphite and sulfides. A reasonable presentation of the EM survey is shown on Figure 6. The EM survey identified seven potential target areas out of which areas 1 to 4 and number 7 are considered as priority one targets.

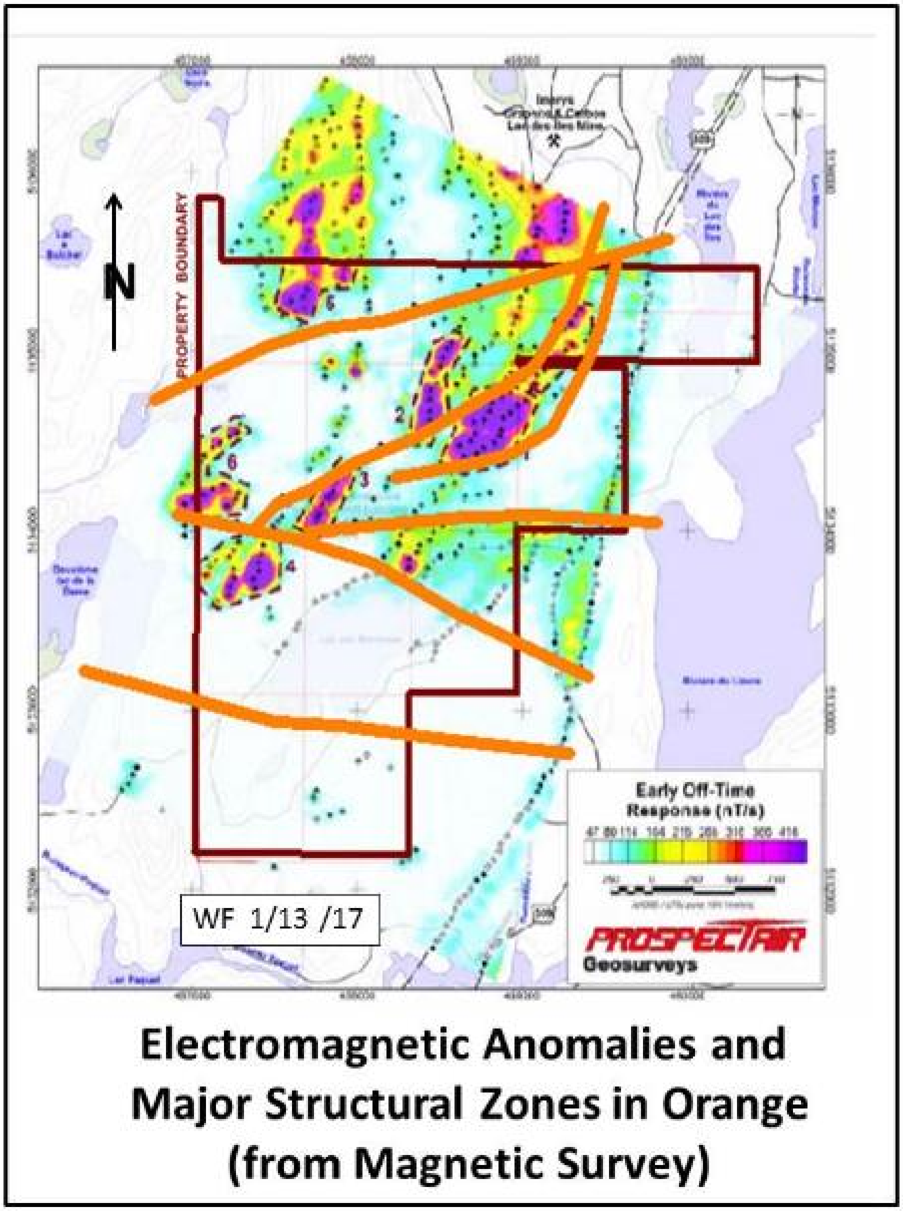


Figure 6: Electromagnetic Anomalies and Interpreted Faults.

The pattern of electromagnetic anomalies fitting the pattern found from the magnetic survey gives confidence that the cause of those anomalies can be found within the local geology and the most logical cause is graphite.

6.2.2 Ground Geophysical Surveys

As a follow up of the airborne survey, Dynamic Discovery Geoscience Ltd., was contracted to conduct a ground time-domain electromagnetic (TDEM) PhiSpy survey on the Lac Aux Bouleaux Property The same methods were then used on a ground survey for detailed information than can be obtained from the air (Figure 7). Clearly the results focus attention on the anomalies generally 500 – 1000 meters northeast of the Lac Aux Bouleaux mill.

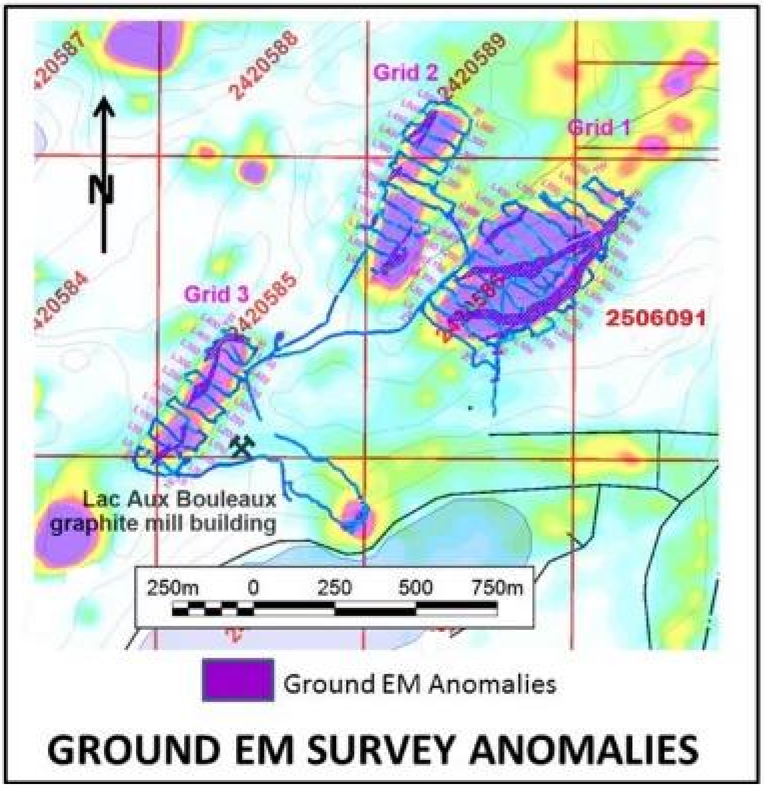


Figure 7: Ground Traverses Plotted on Heliborne EM Anomalies.

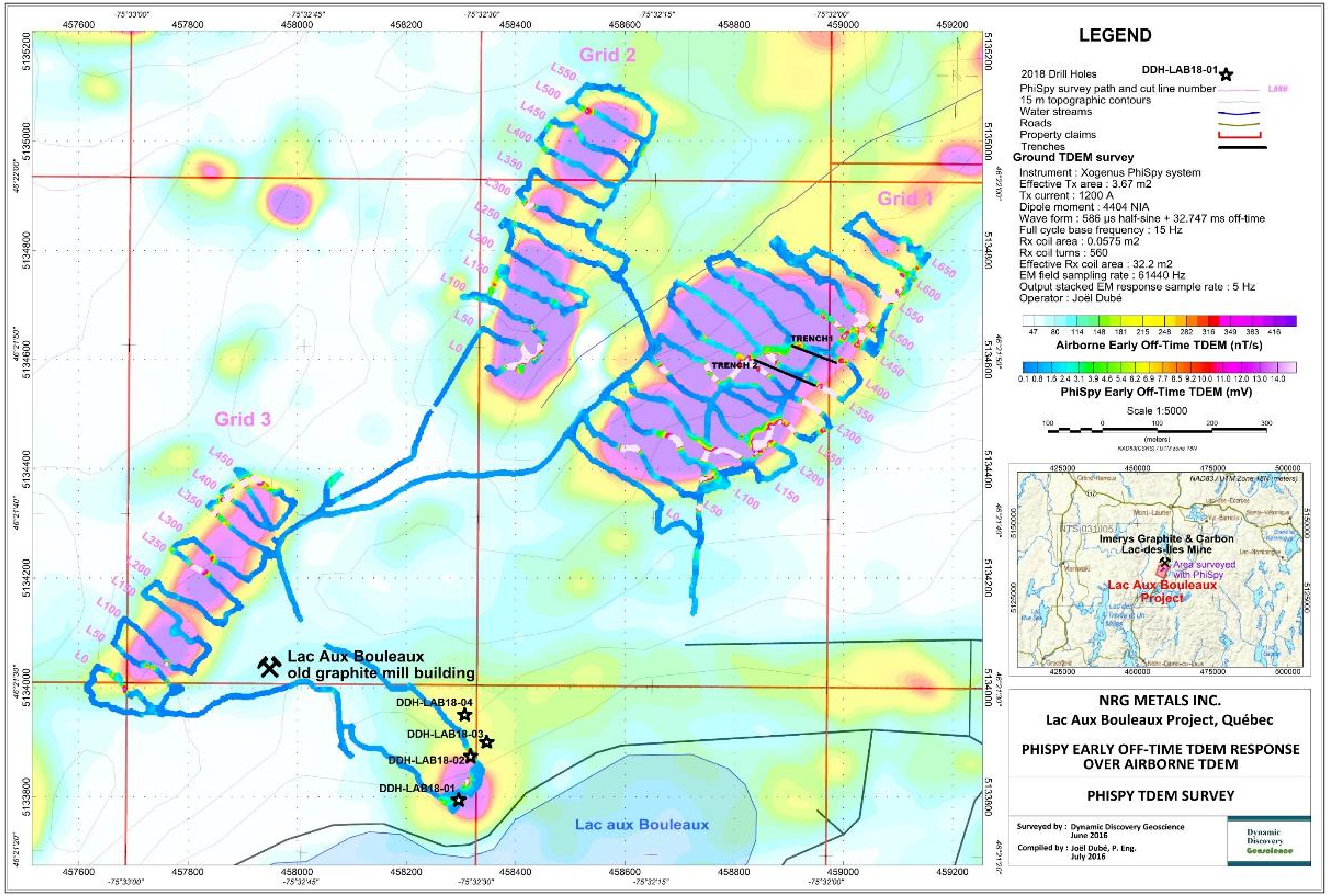


Figure 8: Ground EM Survey Anomalies with 2017-18 Trenches and Drill Hole Locations.

6.2.3 Metallurgical Testing

Metallurgical testing was done on samples collected during the field examination. This in detail is covered in 13.0 Mineral Processing and Metallurgical Testing.

6.3 Graphite Energy Work 2017-18

6.3.1 Trenching and Sampling

Graphite Energy Corp. acquired the Property in 2017 and conducted exploration work from November 1 -20, 2017 which included prospecting, trenching and channel sampling, limited geological mapping of the area of historical exploration work, and sample assays. Graphite mineralization and rock outcrops were also exposed by digging two east west trenches over geophysical survey conductors identified during 2015 survey by previous operators. In order to understand local geology and mineralization trends, a total of 82 samples including 7 field duplicates were collected from rock outcrops, mineralized areas and historical graphite pits.

The results of 10 mineralized samples obtained during exploration work indicate graphite carbon (Cg) in the range of 2.20% to 22.30% with average 10.50% Cg (Table 4).

Highlights of the results are:

- Confirmed presence of high-grade large flake graphite at several locations with up to 22.3% Cg.
- Located a graphite pit with approximate dimensions 50 m x 30 m x 10 m indicating historical extraction of graphite from the Property.
- Located historical tailing dam and an old mill building on the Property; and,
- Several historical drill holes were found on the Property which will provide the basis of further exploration work.

The assay work was completed by SGS Canada Inc. laboratories in Burnaby, BC, which is an independent ISO certified laboratory and has its own quality assurance and quality control protocols (QA/QC). The analytical methods that were used to determine the results included double loss on ignition analysis (double LOI) and total carbon analysis by Leco using IR.

The results of two trenches (Tables 5, 6, and 7) failed to discover significant graphite mineralization on geophysical conductors.

Table 4: 2017 Grab rock sample description and results

Sample Number	Location NAD 83 Zone 18		Date Sampled	Sample Type	Description	Graphite (Cg) %
	Easting	Northing				
LAB-17-01	458279	5133723	2-Nov-17	Grab rock sample from an outcrop on Lac au Bouleaux road south of the old pit.	Quartzo Feldspathic Gneiss: brownish grey, coarse to very coarse grained, shear zone, brecciated with pegmatitic texture, disseminated and flaky graphite 5-7 %, graphite flakes < 1mm to 4mm, graphite associated with sulphides. N-S orientation.	18.20
LAB-17-02	458284	5133808	2-Nov-17	Grab rock sample from an outcrop south of the old pit.	Quartzo Feldspathic Gneiss: Yellowish brown, coarse to very coarse grained, sheared, brecciated with pegmatitic texture, disseminated and flaky graphite 7-10 %, graphite flakes < 1mm to 4mm, calcareous at places, graphite associated with sulphides. N-S orientation.	2.43
LAB-17-04	457247	5133961	4-Nov-17	Grab rock sample from a float.	Quartzo Feldspathic Gneiss: Grey, weathers brown, coarse grained, porphyritic texture, 2-3 % disseminated and flaky graphite along the lineation, flake size< 1mm.	19.70
LAB-17-05	458750	5134386	5-Nov-17	Grab rock sample from an outcrop	Quartzo Feldspathic Rock: Grey, weathers brown, iron stained, medium to thick bedded, graphite mineralization along the bedding planes and fractures.	19.70

Sample Number	Location NAD 83 Zone 18		Date Sampled	Sample Type	Description	Graphite (Cg) %
LAB-17-06	458955	5134629	5-Nov-17	Grab rock sample from an outcrop	Quartzo Feldspathic Rock: Grey, weathers brown, coarse grained, thick bedded to massive, graphite mineralization along lineation & bedding planes.	12.70
LAB-17-07	458998	5134595	5-Nov-17	Grab rock sample from an outcrop	Quartzo Feldspathic Rock: Grey, weathers brown, coarse grained, thin to medium bedded, thin qtz veins, graphite disseminated in the rock and concentrations along the bedding planes, joints surfaces and fractures.	2.42
LAB-17-10	458955	5134553	15-Nov-17	Channel sample cut in an outcrop east of Trench 2 start point.	0.75m: Quartzo Feldspathic Rock; Grey, greenish grey, coarse grained, thin to medium bedded, micaceous, iron stained, ferruginous material along the bedding planes, qtz veins, graphite disseminated in the rock and concentrations along the bedding planes.	2.20
LAB-17-12	458750	5134386	17-Nov-17	Grab rock sample from an outcrop	Quartzo Feldspathic Rock: Grey, weathers brown, iron stained, medium to thick bedded, graphite mineralization along the bedding planes and fractures, 3-4 cm thick graphite accumulation with at least 15 % graphite along the bedding with flakes < 1mm to 4mm.	22.30

Sample Number	Location NAD 83 Zone 18		Date Sampled	Sample Type	Description	Graphite (Cg) %
LABAB-TR1-17-02			16-Nov-17	Trench LAB-TR1 sample, apparent width 1.19 m and true width one meter	Rock Unit 1: Quartzo-Feldspathic Rock; grey with greenish tinge, weathers rusty brown, micaceous, med to coarse grained, very coarse grained at places, thin to med bedded, occasionally thick bedded to massive, iron stained, 1-2 % graphite disseminated in the rock, sulphide deposition along the bedding planes with 2-3 % graphite flakes, flakes < 1mm to 3mm, rare qtz veins at places.	2.30
LABAB-TR2-17-20			16-Nov-17	Trench LAB-TR2 sample cut across one-meter width	Quartzo-Feldspathic Rock; grey, thick bedded to massive, hard, iron stained, 2-3% graphite	3.01
Average graphite percentage						***10.50***

Table 5: Location of Trenches (NOTE: GPS locations can be off by few meters).

Trench #	Starting Coordinates			Ending Coordinates			Azimuth (Deg)	Length (m)
	x	y	z	x	y			
1	458995	5134597	271	458911	5134631	266	300 to 310	84
2	458956	5134541	277	458842	5134599	273	300 to 310	114

Table 6: Trench 1 log and assays

SAMPLE ID	TRENCH #	Measured (m)		THICKNESS (m)		DESCRIPTION	SAMPLE TYPE	Assays % Graphite (Cg)
		FROM	TO	TRUE	APPARENT			
LABAB TR1 - 17-01	1	0	1	1	1.19	Quartzo-Feldspathic Rock; grey with greenish tinge, med to coarse grained, thick bedded, iron stained, ~1 % graphite, rare qtz veins.	Channel	0.99
LABAB TR1 -17-02	1	1	2	1	1.19	Rock Unit 1: Quartzo-Feldspathic Rock; grey with greenish tinge, weathers rusty brown, micaceous, med to coarse grained, very coarse grained at places, thin to med bedded, occasionally thick bedded to massive, iron stained, 1-2 % graphite disseminated in the rock, sulphide deposition along the bedding planes with 1-2 % graphite flakes, flakes < 1mm to 3mm, rare qtz veins at places.	Channel	2.03
LABAB TR1 - 17-03	1	2	3	1	1.19	Same as above.	Channel	1.82
LABAB TR1 - 17-04	1	3	4	1	1.19	Same as above.	Channel	1.54

SAMPLE ID	TRENCH #	Measured (m)		THICKNESS (m)		DESCRIPTION	SAMPLE TYPE	% Graphit
LABAB TR1 - 17-05	1	4	5	1	1.19	Same as above.	Channel	1.23
LABAB TR1 - 17-06	1	5	6	1	1.19	Same as above.	Channel	1.7
LABAB TR1 - 17-07	1	6	7	1	1.19	Same as above.	Channel	1.17
LABAB TR1 - 17-08	1	7	8	1	1.19	Same as above.	Channel	1.03
LABAB TR1 - 17-09	1	8	9	1	1.19	Same as above.	Channel	1.27
LABAB TR1 - 17-10	1	9	10	1	1.19	Same as above.	Channel	1.25
LABAB TR1 - 17-11	1	10	11	1	1.19	Same as above.	Channel	1.1

SAMPLE ID	TRENCH #	Measured (m)		THICKNESS (m)		DESCRIPTION	SAMPLE TYPE	% Graphit
LABAB TR1 -17-12	1	11	12	1	1.19	Quartzo-Feldspathic Rock; grey, predominantly quart, coarse grained, thin to med bedded, fractured, sheared? poorly cemented to occasionally uncemented, friable, iron stained, <1 % graphite both disseminated and along the bedding planes, sulphide deposition along the bedding planes, commonly 2mm graphite flakes size.	Channel	0.74
LABAB TR1 - 17-13	1	12	13	1	1.19	Same as above.	Channel	0.71
LABAB TR1 - 17-14	1	13	14	1	1.19	Same as above.	Channel	0.78
LABAB TR1 - 17-15	1	14	15	1	1.19	Same as above.	Channel	0.71
LABAB TR1 - 17-16	1	15	16	1	1.19	Same as above.	Channel	0.48
LABAB TR1 - 17-17	1	16	17	1	1.19	Same as above.	Channel	0.5

SAMPLE ID	TRENCH #	Measured (m)		THICKNESS (m)		DESCRIPTION	SAMPLE TYPE	% Graphit
LABAB TR1 -17-18	1	17	18	1	1.19	Quartzo-Feldspathic Rock; grey, weathers brown, micaceous, med to coarse grained, thin to med bedded, occasionally thick bedded, iron stained, 1-2 % graphite disseminated in the rock, sulphide deposition along the bedding planes with 1-2 % graphite flakes, flakes < 1mm to 3mm, rare qtz veins at places.	Channel	0.44
LABAB TR1 - 17-19	1	18	19	1	1.19	Same as above.	Channel	0.45
LABAB TR1 - 17-20	1	19	20	1	1.19	Same as above.	Channel	0.47
LABAB TR1 -17-21	1	20	21	1	1.19	Quartzo-Felspathic Rock; grey, predominantly quartz, coarse grained, rock looks like quartzose sandstone, thin to med bedded, fractured, sheared? poorly cemented to uncemented, friable, iron stained, 1-2 % graphite both disseminated and along the bedding planes, sulphide deposition along the bedding planes.	Channel	1.32
LABAB TR1 - 17-22	1	21	22	1	1.19	Alternating unit 1 and soft quartzose unit.	Channel	0.54
LABAB TR1 - 17-23	1	22	23	1	1.19	Same as above.	Channel	0.54

SAMPLE ID	TRENCH #	Measured (m)		THICKNESS (m)		DESCRIPTION	SAMPLE TYPE	% Graphit
LABAB TR1 -17-24	1	23	24	1	1.19	Rock Unit 1 with loose quartzose, coarse grained rock from 23.0 to 23.15m.	Channel	0.87
LABAB TR1 -17-25	1	24	25	1	1.19	Quartzo-Felspathic Rock; grey, weathers brown, micaceous, med to coarse grained, thick bedded to massive, iron stained, 1-2 % graphite disseminated in the rock, sulphide deposition along the bedding planes with 2-3 % graphite flakes, flakes < 1mm to 3mm, rare qtz veins at places.	Channel	0.27
LABAB TR1 - 17-26	1	25	26	1	1.19	Same as above.	Channel	0.54
LABAB TR1 - 17-27	1	26	27	1	1.19	Same as above.	Channel	1
LABAB TR1 - 17-28	1	27	28	1	1.19	Same as above.	Channel	1.91
LABAB TR1 - 17-29	1	28	29	1	1.19	Same as above.	Channel	1.48

SAMPLE ID	TRENCH #	Measured (m)		THICKNESS (m)		DESCRIPTION	SAMPLE TYPE	% Graphit
LABAB TR1 -17-30	1	29	30	1	1.19	Quartzo-Felspathic Rock; grey, weathers brown, micaceous, med to coarse grained, thin to medium bedded, iron stained, 1-2 % graphite disseminated in the rock, soft foreignized parts along the bedding planes having graphite. graphite flakes, flakes < 1mm to 2mm, occasional qtz veins at places.	Channel	1.33
LABAB TR1 - 17-31	1	30	31	1	1.19	Same as above.	Channel	1.12
LABAB TR1 - 17-32	1	31	32	1	1.19	Same as above.	Channel	1.54
LABAB TR1 - 17-33	1	32	33	1	1.19	Same as above.	Channel	0.97
LABAB TR1 - 17-34	1	33	34	1	1.19	Same as above.	Channel	1.37
LABAB TR1 - 17-35	1	34	35	1	1.19	Same as above.	Channel	1.49

SAMPLE ID	TRENCH #	Measured (m)		THICKNESS (m)		DESCRIPTION	SAMPLE TYPE	% Graphit
LABAB TR1 -17-36	1	35	36	1	1.19	Same as above.	Channel	1.59
LABAB TR1 -17-37	1	36	37	1	1.19	Same as above.	Channel	1.64
LABAB TR1 -17-38	1	37	37.5	1	1.19	Same as above.	Channel	0.53
	1	37.5	44	6.5	7.7	Quartzo-Felspathic Rock; grey, weathers brown, more micaceous, med to coarse grained, medium to thick bedded and massive, iron stained, trace graphite, occasional qtz veins at places.	Channel	
LAB TR1 -17-39	1	44	45	1	1.14	Quartzo-Felspathic Rock; light brownish grey, less micaceous, very fine to coarse grained, medium to thick bedded and massive, **hard**, calcareous? iron stained, up to 3% graphite, distorted qtz veins.	Channel	0.42
LAB TR1 -17-40	1	45	46	1	1.14	Same as above.	Channel	0.95
LAB TR1 -17-41	1	45	46			Duplicate of **LABAB TR1 -17-40**		0.92

SAM PLE ID	TREN CH #	Measured (m)		THICKNESS (m)		DESCRIPTION	SAM PLE TYPE	% Gra phit
LAB TR1 -17-42	1	46	47	1	1.14	Same as above.	Channel	0.8
LAB TR1 -17-43		47	48	1	1.14	Same as above.	Channel	0.93
LAB TR1 -17-44		48	49	1	1.14	Same as above.	Channel	0.9
LAB TR1 -17-45		49	50	1	1.14	Same as above.	Channel	0.66
LAB TR1 -17-46						Duplicate of **LABAB TR1 -17-10**		1.08
LAB TR1 -17-47						Duplicate of LABAB **TR1 -17-20**		0.53
LAB TR1 -17-48						Duplicate of LABAB **TR1 -17-30**		1.12

SAMPLE ID	TRENCH #	Measured (m)		THICKNESS (m)		DESCRIPTION	SAMPLE TYPE	% Graphit
	1	50	61.5	11.5	13	Quartzitic rock; Greyish and white, very hard, coarse grained, no graphite, alternating with thin to medium bedded quartzo-feldspathic calcareous? rock.		
						NOTE: The **From-To** columns use **TRUE** thickness.		

Table 7: Trench 2 log and assays

SAMPLE ID	TRENCH #	Measured (m)		THICKNESS (m)		DESCRIPTION	SAMPLE TYPE	Assays Graphite (Cg) %
		FROM	TO	TRUE	APPARENT			
	2	0	2	2	2	Quartzo-Feldspathic Rock; grey with greenish tinge, weathers rusty brown, fine to coarse grained, thin to thick bedded, iron stained, occasional qtz veins.		
	2	2	9	7	7	Calc-Silicate Rock; light brown, coarse to very coarse grained, and microcrystalline, thick bedded to massive, very hard.		
LABAB TR2 -17-01	2	9	10	1	1.14	Quartzo-Feldspathic Rock; grey with greenish tinge, weathers rusty brown, fine to coarse grained, thick bedded, iron stained, ≈ 1 % graphite disseminated in the rock, ferruginous material along the bedding planes with graphite grains and flakes, 2-3% graphite, occasional qtz veins.	Channel	1.14
LABAB TR2 -17-02	2	10	11	1	1.14	Same as above.	Channel	1.59
LABAB TR2 -17-03	2	11	12	1	1.14	Quartzo-Feldspathic Rock; grey with greenish tinge, weathers rusty brown, fine to coarse grained, thin to medium bedded, iron stained, ≈ 1-2 % graphite disseminated in the rock, more ferruginous material along the bedding planes with graphite grains and flakes, 3-4% graphite, flakes < 1mm to 2mm, occasional qtz veins.	Channel	1.52

SAMPLE ID	TRENCH #	Measured (m)		THICKNESS (m)		DESCRIPTION	SAMPLE TYPE	Graphite
LABAB TR2 -17-04	2	12	13	1	1.14	Quartzo-Feldspathic Rock; grey with greenish tinge, weathers rusty brown, fine to coarse grained, medium to thick bedded, iron stained, ≈ 1-2 % graphite disseminated in the rock, ferruginous material along the bedding planes with graphite grains and flakes, 2-3% graphite, occasional qtz veins..	Channel	1.09
LABAB TR2 -17-05	2	13	14	1	1.14	Quartzo-Feldspathic Rock; grey with greenish tinge, weathers rusty brown, fine to coarse grained, thin to medium bedded, iron stained, ≈ 1-2 % graphite disseminated in the rock, more ferruginous material along the bedding planes with graphite grains and flakes, 3-4% graphite, flakes < 1mm to 3mm, occasional qtz veins..	Channel	0.33
LABAB TR2 -17-06	2	14	15	1	1.14	Same as above.	Channel	0.42
LABAB TR2 -17-07	2	15	16	1	1.14	Same as above.	Channel	0.36
LABAB TR2 -17-08	2	16	17	1	1.14	Same as above.	Channel	0.33
LABAB TR2 -17-09	2	17	18	1	1.14	Quartzo-Feldspathic Rock; grey with greenish tinge, weathers rusty brown, fine to coarse grained, thick bedded to massive, iron stained, ≈ 1-2 % graphite disseminated in the rock, ferruginous material along the bedding planes with graphite grains and flakes, 2-3% graphite,	Channel	0.39
LABAB TR2 -17-10	2	18	19	1	1.14	Same as above.	Channel	0.27

SA MP LE ID	TR EN CH #	Measured (m)		THICKNESS (m)		DESCRIPTION	SA MP LE TY PE	ap hit e
LABAB TR2 -17-11	2	18	19			Duplicate of LAB TR2 -17-10		0.31
LABAB TR2 -17-12	2	19	20	1	1.14	Same as above; thin bedded, 3-4% graphite.	Channel	0.33
	2	21.5	31.5		10	Quartzo-Feldspathic Rock; grey with greenish tinge, fine to coarse grained, thick bedded to massive, iron stained, trace graphite at places.		
	2	31.5	35		3.5	Same as above; more micaceous		
	2	35	66		31	Quartzo-Feldspathic Rock; grey, coarse grained, massive, iron stained, calcareous? distorted qtz veins, very hard.		
LABAB TR2 -17-13	2	66	67		1	Quartzo-Feldspathic Rock; grey with greenish tinge, fine to coarse grained, thick bedded to massive, iron stained, 2-3% graphite.	Channel	1.13
LABAB TR2 -17-14	2	67	68		1	Same as above.	Channel	1.24
LABAB TR2 -17-15	2	68	69		1	Quartzo-Feldspathic Rock; grey with greenish tinge, fine to coarse grained, thin to medium bedded, hard, iron stained, 3-4% graphite.	Channel	0.96

SAMPLE ID	TRENCH #	Measured (m)		THICKNESS (m)		DESCRIPTION	SAMPLE TYPE	Graphite
LABAB TR2 -17-16	2	69	70		1	Same as above.	Channel	0.81
LABAB TR2 -17-17	2	70	71		1	Same as above.	Channel	0.22
LABAB TR2 -17-18	2	71	72		1	Same as above.	Channel	0.78
	2	72	86		14	Quartzo-Feldspathic Rock; grey with greenish tinge, fine to coarse grained, thick bedded to massive, hard, iron stained.		
	2	86	89		3	Calc-Silicate Rock; grey, light brown, massive, very hard.		
	2	89	95		6	Quartzo-Feldspathic Rock; grey, medium to thick bedded, iron stained.		
	2	95	97		2	Calc-Silicate Rock; grey, light brown, massive, granular to micro crystalline, iron stained, very hard.		
LABAB TR2 -17-19	2	97	98		1	Quartzo-Feldspathic Rock; grey, thick bedded to massive, hard, iron stained, 2-3% graphite.		1.81

SAMPLE ID	TRENCH #	Measured (m)		THICKNESS (m)		DESCRIPTION	SAMPLE TYPE	Graphite
	2	98	101		3	Same as above; trace graphite.		
LABAB TR2 -17-20	2	101	102		1	Quartzo-Feldspathic Rock; grey, thick bedded to massive, hard, iron stained, 2-3% graphite	Channel	3.01
LABAB TR2 -17-21	2	102	103		1	Same as above.	Channel	1.3
LABAB TR2 -17-22	2	103	103			Duplicate of **LABAB TR2 -17-21**.		1.4
	2	103	119		16	Migmatite; grey to light brown, coarse grained to micro-crystalline, massive, hard, distorted qtz veins, iron stained, quartzite at intervals.		
						NOTE: The **From-To** columns use True thickness up to 20m and Apparent thickness after that.		

6.3.2 Drilling

In March 2018, Graphite Energy Corp. carried out drilling at the Property. George Downing Estate Drilling Ltd. of Abitibi, Quebec, was contracted to commence core drilling. In addition to other geophysical targets, drilling was focused around the old graphite pit area which was the centre of historical exploration work in the late 1950s and early 1980s. A total of four NQ size core drill holes were completed during this program with total 385 metres (m) drilling. The drill program commenced during March 11-23, 2018 period and was contracted to George Downing Estate Drilling Ltd. of Abitibi, Quebec. Drill hole coordinates are provided in the following table and location is shown on Figure 8.

Table 8: Drill hole coordinates

Hole #	Easting	Northing	Elev (m)	Historical DDH	Azimuth	Dip	Date started	Date completed	Depth (m)
DDH-LAB18-01	458298	5133792	239		300	-65	3/11/2018	3/14/2018	102
DDH-LAB18-02	458335	5133870	242	82-15	270	-65	3/15/2018	3/16/2018	51
DDH-LAB18-03	458355	5133899	236	82-18	290	-45	3/17/2018	3/20/2018	106
DDH-LAB18-04	458312	5133949	258	82-44 82-60	270	-65	3/21/2018	3/23/2018	126
Total									**385**

Highlights of these results include (see Table 9 for details):

- **Drill Hole LAB18-01 intersected 11 graphite mineralization zones from 10.25 m to 68.55 m below surface, ranging in thickness from 0.3 metres to 3.15 metres (m) with grades of 1.7% graphite (Cg) to 16.70% Cg. Two prominent zones, first with 11.70% Cg over 1.55 m from 23.55 m, and the second 9.24% Cg over 3.15 m from 86.40 m.**
- **Drill Hole LAB18-02 intersected two graphite mineralization zones, the first with 8.45% Cg over 6 m from 28.3 m, and the second with 7.89% Cg over 4.08 m from 39.42 m below surface.**
- **Drill Hole LAB18-03 intersected 6.77 m wide zone grading 9.26% Cg from 80.13 m below surface.**
- **Drill Hole LAB18-04 intersected 9.33 m zone grading 7.14% Cg from 97.57 m below surface.**

*Note: * All widths reported are drill core widths and have not been converted into true width.*

Table 9: Assay results of drill holes

Sample ID	Hole ID	From (m)	To (m)	Total (m)	Graph (%)
1387551	DDH-LAB18-01	10.25	11.45	1.2	1.7
1387552	DDH-LAB18-01	15.85	16.75	0.9	3.3
1387553	DDH-LAB18-01	18.95	19.45	0.5	2.25
1387554	DDH-LAB18-01	23.55	24.55	1	13.5
1387555	DDH-LAB18-01	24.55	25.1	0.55	8.44
	TOTAL WIDTH	***23.55***	***25.1***	***1.55***	***11.7***
1387556	DDH-LAB18-01	29.6	30	0.4	13.2
1387557	DDH-LAB18-01	63.25	63.75	0.5	11.2
1387558	DDH-LAB18-01	74.58	75.15	0.57	6.35
1387559	DDH-LAB18-01	75.54	76.04	0.5	1.53
	TOTAL WIDTH	***74.58***	***76.04***	***1.46***	***3***
1387560	DDH-LAB18-01	76.6	76.94	0.34	13.6
1387561	DDH-LAB18-01	80.6	80.9	0.3	9.55
1387562	DDH-LAB18-01	81.15	82.3	1.15	16.7
1387563	DDH-LAB18-01	86.4	87.33	0.93	11.3
1387564	DDH-LAB18-01	87.33	88.33	1	11.4
1387565	DDH-LAB18-01	88.33	89.14	0.81	4.74
1387566	DDH-LAB18-01	89.14	89.55	0.41	8.22
	TOTAL WIDTH	***86.4***	***89.55***	***3.15***	***9.24***
1387567	DDH-LAB18-02	28.3	28.8	0.5	16
1387568	DDH-LAB18-02	28.8	29.5	0.7	6.18
1387569	DDH-LAB18-02	29.82	30.67	0.85	4.88
1387570	DDH-LAB18-02	30.67	31.36	0.69	17.4
1387571	DDH-LAB18-02	31.36	32.4	1.04	7.07
1387572	DDH-LAB18-02	32.4	33.4	1	9.99
1387573	DDH-LAB18-02	33.4	33.7	0.3	10.2
1387574	DDH-LAB18-02	33.7	34.3	0.6	3.03
	TOTAL WIDTH	***28.3***	***34.3***	***6***	***8.45***
1387575	DDH-LAB18-02	39.42	40.1	0.68	11.1
1387576	DDH-LAB18-02	40.1	40.9	0.8	7.39
1387577	DDH-LAB18-02	40.9	41.82	0.92	7.58
1387578	DDH-LAB18-02	41.82	42.53	0.71	4.18
1387579	DDH-LAB18-02	42.53	43.23	0.7	4.82
1387580	DDH-LAB18-02	42.53	43.5	0.97	5.58
	TOTAL WIDTH	***39.42***	***43.5***	***4.08***	***7.89***

Sample ID	Hole ID	From (m)	To (m)	Total (m)	Graph (%)
1387581	DDH-LAB18-03	9.57	9.79	0.22	22.6
1387586	DDH-LAB18-03	46.4	47.56	1.16	4.04
1387587	DDH-LAB18-03	50.84	51.62	0.78	7.18
1387588	DDH-LAB18-03	51.62	52.02	0.40	5.4
1387589	DDH-LAB18-03	79.13	80.13	1.00	<0.05
1387590	DDH-LAB18-03	80.13	81	0.87	10.80
1387591	DDH-LAB18-03	81.00	82	1.00	9.63
1387592	DDH-LAB18-03	82.00	83	1.00	7.12
1387593	DDH-LAB18-03	83.00	84	1.00	11.70
1387594	DDH-LAB18-03	84.00	85	1.00	9.67
1387595	DDH-LAB18-03	85.00	86	1.00	8.50
1387596	DDH-LAB18-03	86.00	86.9	0.90	7.41
	TOTAL WIDTH	***80.13***	***86.9***	***6.77***	***9.26***
1387597	DDH-LAB18-03	86.90	87.9	1.00	0.24
1387598	DDH-LAB18-04	96.57	97.57	1.00	**0.07**
1387599	DDH-LAB18-04	97.57	98.07	0.50	**11.4**
1387600	DDH-LAB18-04	98.07	98.57	0.50	**4.71**
1387851	DDH-LAB18-04	98.57	99.46	0.89	**4.89**
1387852	DDH-LAB18-04	99.46	100.06	0.60	**7.12**
1387853	DDH-LAB18-04	100.06	100.7	0.64	**6.33**
1387854	DDH-LAB18-04	100.70	101.2	0.50	**11.2**
1387855	DDH-LAB18-04	101.20	101.5	0.30	**7.03**
1387856	DDH-LAB18-04	101.50	102.5	1.00	**10.9**
1387857	DDH-LAB18-04	102.50	103.5	1.00	**8.59**
1387858	DDH-LAB18-04	103.50	104	0.50	**7.56**
1387859	DDH-LAB18-04	104.00	104.5	0.50	**4.68**
1387860	DDH-LAB18-04	104.50	105.5	1.00	**3.61**
1387861	DDH-LAB18-04	105.50	106.1	0.60	**9.37**
1387862	DDH-LAB18-04	106.10	106.9	0.80	**4.2**
	TOTAL WIDTH	***97.57***	***106.9***	***9.33***	***7.14***
1387863	DDH-LAB18-04	106.90	107.2	0.30	**1.11**
1387864	DDH-LAB18-04	107.20	108.2	1.00	**<0.05**

*Note: * All widths reported are drill core widths and have not been converted into true width.*

7.0 GEOLOGICAL SETTING AND MINERALIZATION

7.1 Regional Geology

Regionally, the area is underlain by Precambrian metamorphic and intrusive rocks. The oldest rocks belong to the Grenville series and are metasedimentary rocks including quartzite, biotite gneiss, quartzofeldspathic rocks, limestone/marble, and locally pegmatitic quartzofeldspathic rocks. These are cut by intrusive rocks, chiefly granites and syenites, more rarely diorites, and in places gabbro and ultrabasic dykes. The youngest rocks of Pleistocene age are represented by unconsolidated superficial deposits that are especially widespread in the region. In general, their thickness is in the range of 15-18 metres but is thicker locally in some of the old lake basins.

7.1.1 Grenville Province

The ***crystalline limestone / marble*** of the Grenville Province is a light-coloured rock, generally white to pale grey when freshly broken but invariable grey on the weathered surface. Pink or reddish varieties are occasionally found, and rarely the rock has a blue colour. Stratification is no longer visible due to recrystallization during metamorphism where rock acquired such a degree of plasticity that, in some instances, lenses of limestone were squeezed between gneisses. The marble varies in appearance from one place to another due to variation in grain size, and amount and type of accessary minerals. The most common accessary minerals are graphite, quartz, feldspar, phlogopite, and calc silicates.

The ***quartzites*** are grey, glossy-looking rocks which only rarely consist of quartz alone. Generally, they contain feldspar – which may be kaolinized – and mica, and in many occurrences graphite or garnet, or both these minerals, are present. Feldspathic quartzite, at places is found and resembles to fine-grained, light-coloured granite.

The ***amphibolites*** are massive rocks without schistosity, mainly consisting of green amphibole with plagioclase, biotite, sphene, apatite, and epidote. They are commonly associated with marbles.

The ***metamorphic pyroxenites***, composed essentially of diopside but often of very heterogeneous appearance, and contain fairly large amount of pyrite and pyrrhotite which oxidizes and gives outcrops a rusty appearance.

The ***paragneisses*** are widely developed in the Grenville series in majority of the Property area. The most common type is garnet-sillimanite gneiss, and rare are a paragneiss very rich in mica or amphibolite, and gneiss which contains an abundance of calcic silicates derived from calcareous rocks and which is usually found in the major belts of crystalline limestone / marble.

The ***migmatites*** are highly feldspathic and granitized gneisses, widely distributed in the Property and surrounding areas. These were formed due to intrusions which, in general, did not ascend sufficiently high to outcrop at the present surface, and caused the granitization of the gneiss to a very limited extent as witnessed by the nearby presence of paragneiss that have remained almost unchanged. At places, the migmatite is intersected by large numbers of veinlets of aplitic material. Some of them are parallel to the banding; others cut the rock in all directions. The rock commonly contains some garnet, but only in small amount and in grains of smaller size than those in the gneisses from which the migmatites were derived.

7.1.2 Intrusive Rocks

The rocks of the Grenville series have been intruded by igneous bodies which range from acidic to basic. As these rocks are seldom found cutting one another, their exact age relationship is not clear.

The ***Granitic Intrusives*** are numerous in the area but the majority are smaller in size. Gneissic biotite granites of a pink, pinkish-grey, or pale grey colour are the most common, some varieties of these are low in mica and can grade into aplites. The predominant feldspar is commonly microcline. The limestones in the area have many small irregular masses of a coarse grained, or pegmatitic, whitish granite low in mica. They are especially well exposed around most of the lakes that have limestone shores. Presence of so many bodies of granite in limestone, and of many crumpled inclusions of limestone in the granite, bears witness to the intensity of the deformation of the Grenville rocks. In many places, pegmatitic dykes, composed chiefly of microcline with more or less quartz and little biotite, accompany the granitic intrusives. In general, they are irregular in form and of very limited extent.

Gabbro – Numerous bodies of gabbro are present in the Property area and adjoining terrain to the east. These rocks are massive and possibly stemming from a single mass at depth. Gabbros are generally resistant to erosion and form rugged hills and escarpments. The grain size is variable and, in some outcrops, so coarse that the rock is almost pegmatitic. At places, some gabbros are showing alteration to pyroxene orthogneiss. Petrographic studies indicate that the rock is severely crushed, contain hypersthene, biotite and hornblende in addition to essential augite and plagioclase. A small amount of quartz is also present. Based on these characteristics, the rock was classified as quartzose micaceous hypersthene-bearing gabbro.

Basic Dykes – are basaltic in composition, mostly smaller in size, trending northeast-southwest, and found in crystalline limestone / marble. These are, for the most part tightly folded, stretched out, and broken, and ordinarily they occur only as segments measuring a few metres.

7.1.3 Pleistocene and Recent

The unconsolidated surficial deposits of glacial, fluvial, and lacustrine origin cover a large part of the property and surrounding area. The glacial deposits are well developed on hills which are symmetrically aligned. Glacial striations indicate S10°E direction of movement. Morainic accumulation of rounded boulders accumulated in areas with gentle slopes. Groups of eskers are generally aligned in north-northeast direction. Post glacial fluviatile and lacustrine deposits are generally consisting of grey clays, commonly varied, yellow quartzose sands, gravels and boulders. Sand mixed with gravel is found over large flat or gently rolling area.

7.2 Property Geology

The Property area is underlain by Precambrian age rocks of the Grenville Series comprised of quartzofeldspathic, garnetiferous paragneiss and limestone / marble beds. Quartzites are the least abundant of rocks in this Series. The igneous rocks which have invaded the metasedimentary sequence consist of gabbros, monzonites, anorthosites and diabase.

The majority of the property area is covered by limestone / marble and paragneiss. Marble is found as thin beds up to 1.5-meter-thick and is generally medium grained crystalline limestone. It contains impurities such as phologopite, graphite or serpentine.

Paragneiss is generally fine to medium grained with a variety of compositions such as, quartzo-feldspathic gneiss, biotite gneiss, biotite-garnet gneiss, biotite-garnet-sillimanite gneiss and biotite-hornblende gneiss. All compositional varieties contain some graphite. Narrow (30 cm) beds of quartzite are found interbedded with biotite-garnet gneiss at places.

Quartzite found as thin beds contains impurities such as feldspar/ microcline, biotite, hornblende, garnet, graphite), which define its color which can be white, grey, blue-grey, or pink-grey.

Gneissic bands of amphibolite are also found in paragneiss which are mainly composed of black or green hornblende, biotite and plagioclase. These are mostly medium grained rocks and exhibit a “salt and pepper” texture.

Gabbroic rocks are found in the southern parts of the Property and are mainly comprised of feldspar and hornblende.

Post Grenville lithologies on the Property are mainly east-west trending diabase dykes which are dark grey to dark greenish grey intruding into paragneiss rocks.

7.3 Mineralization

The LAB Graphite Property lies within the same geological environment as TIMCAL’s Lac des Iles mine. Graphite is commonly found in the Grenville Province rocks throughout this region and has been commercially mined from a number of deposits located between Mont-Laurier in the north to the Ottawa River in the south.

Large flake graphite mineralization on the property is commonly associated with paragneiss in a regular banding, conforming to the beds. The paragneisses strike N10°E and dip about 70° to the east, with thickening and thinning of beds, drag-folding, minor faulting as common structural features. The mineralization exposed to the surface is quite rusty in appearance due to weathered decomposition of pyrite which occurs associated with graphite. Graphite is also located in shear zones at the contact of gneisses and marble where the graphite content usually ranges from 2% to 13% Cg exhibiting flakes up to 3 millimetres (mm) in diameter. Large flake graphite is generally considered as 0.2 mm and above.

The graphite is considered to be introduced into these rocks by quartz-graphite injection from a deeper source and redistributed through fractured incompetent beds of limestone creating graphite mineralization channels. Alternatively, another theory believes graphite mineralization was derived from algae or through decomposition of the calcium carbonate molecule liberating the carbon atom through metamorphic reactions. Slow cooling of the mineralized material has produced crystalline large flake graphite.

Photo 1: Graphite mineralization outcrops on the Property (Source: May 2015 property visit photo).

Figure 9: Regional Geology

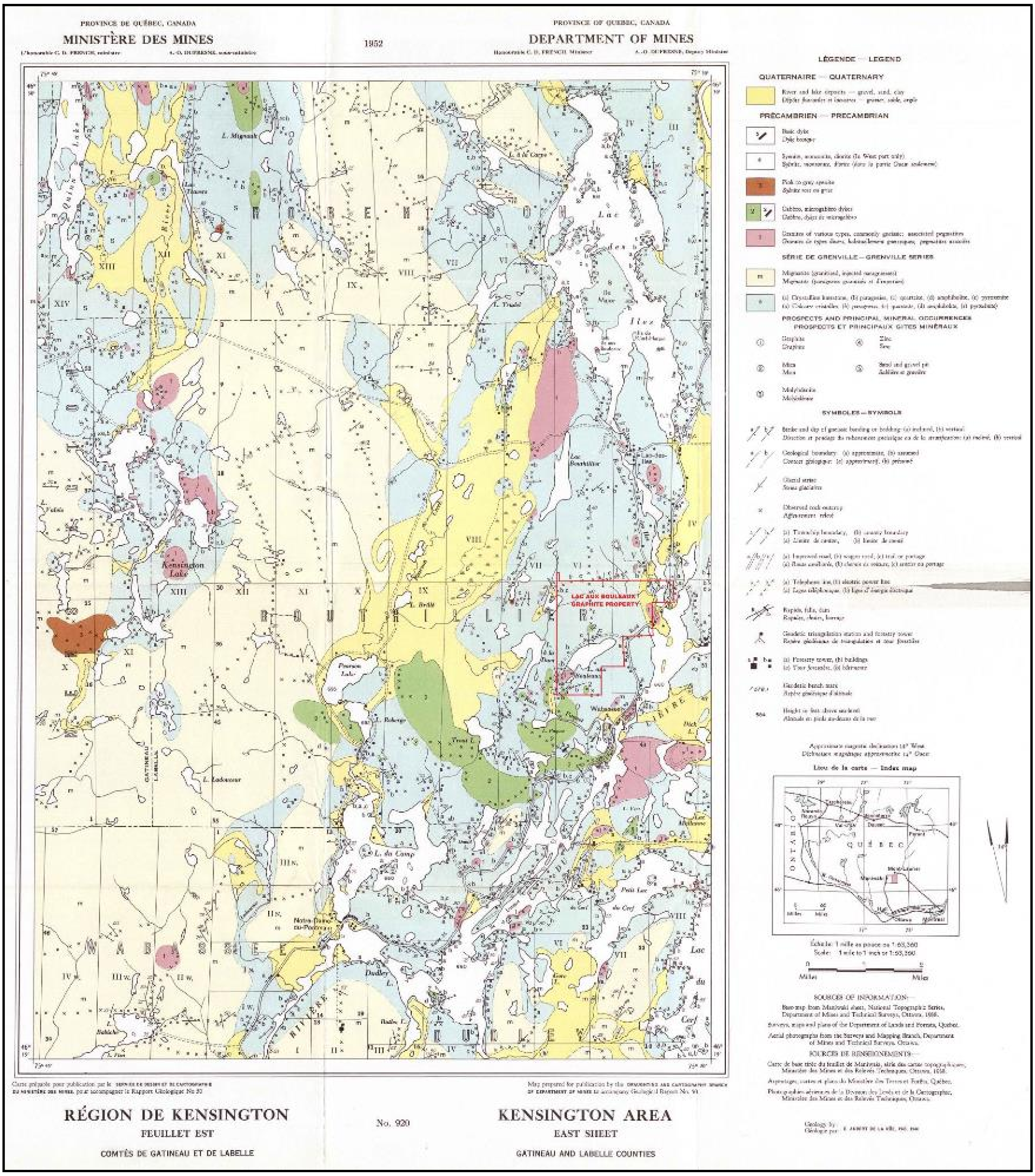
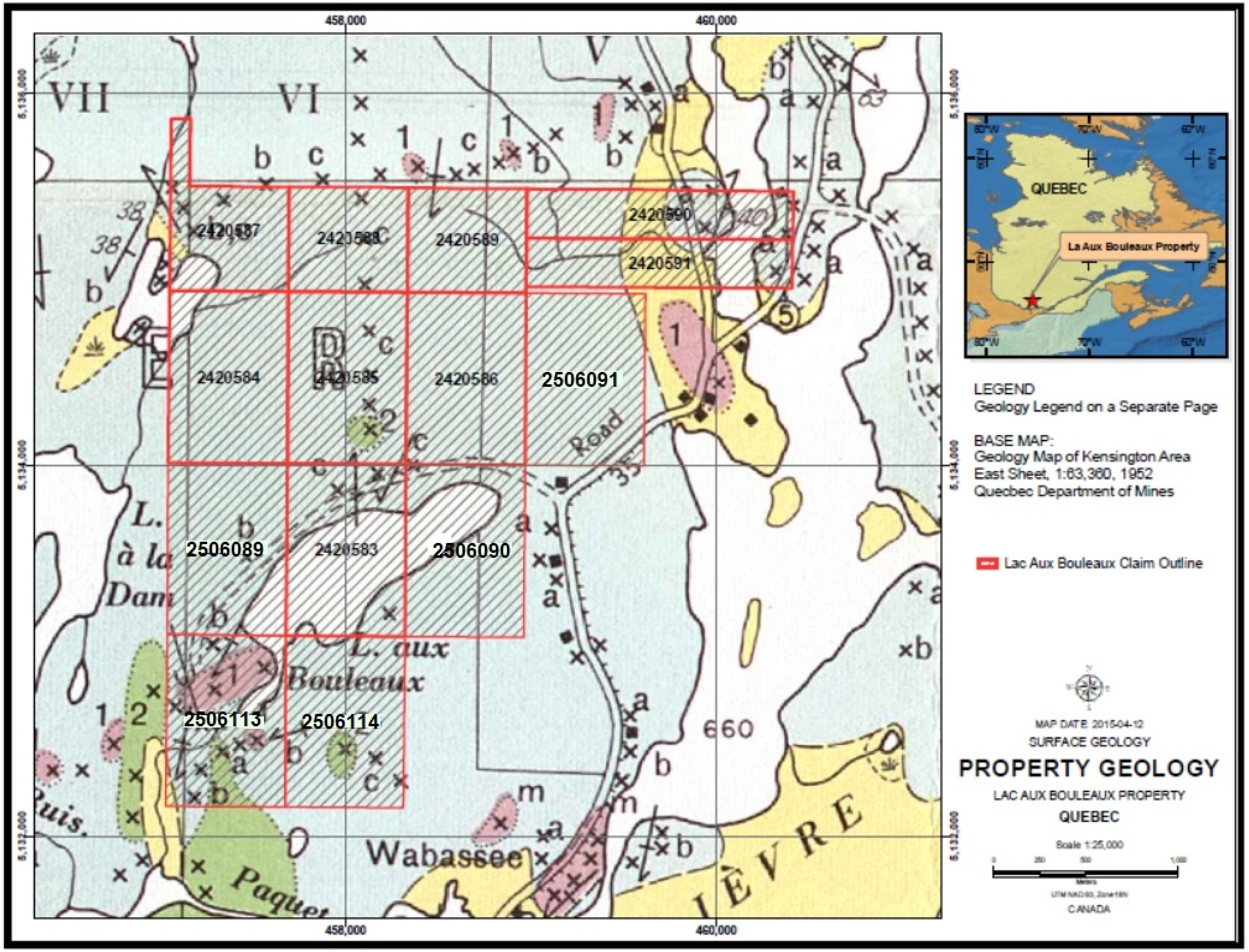


Figure 10: Property Geology



Note: For legend see Figure below

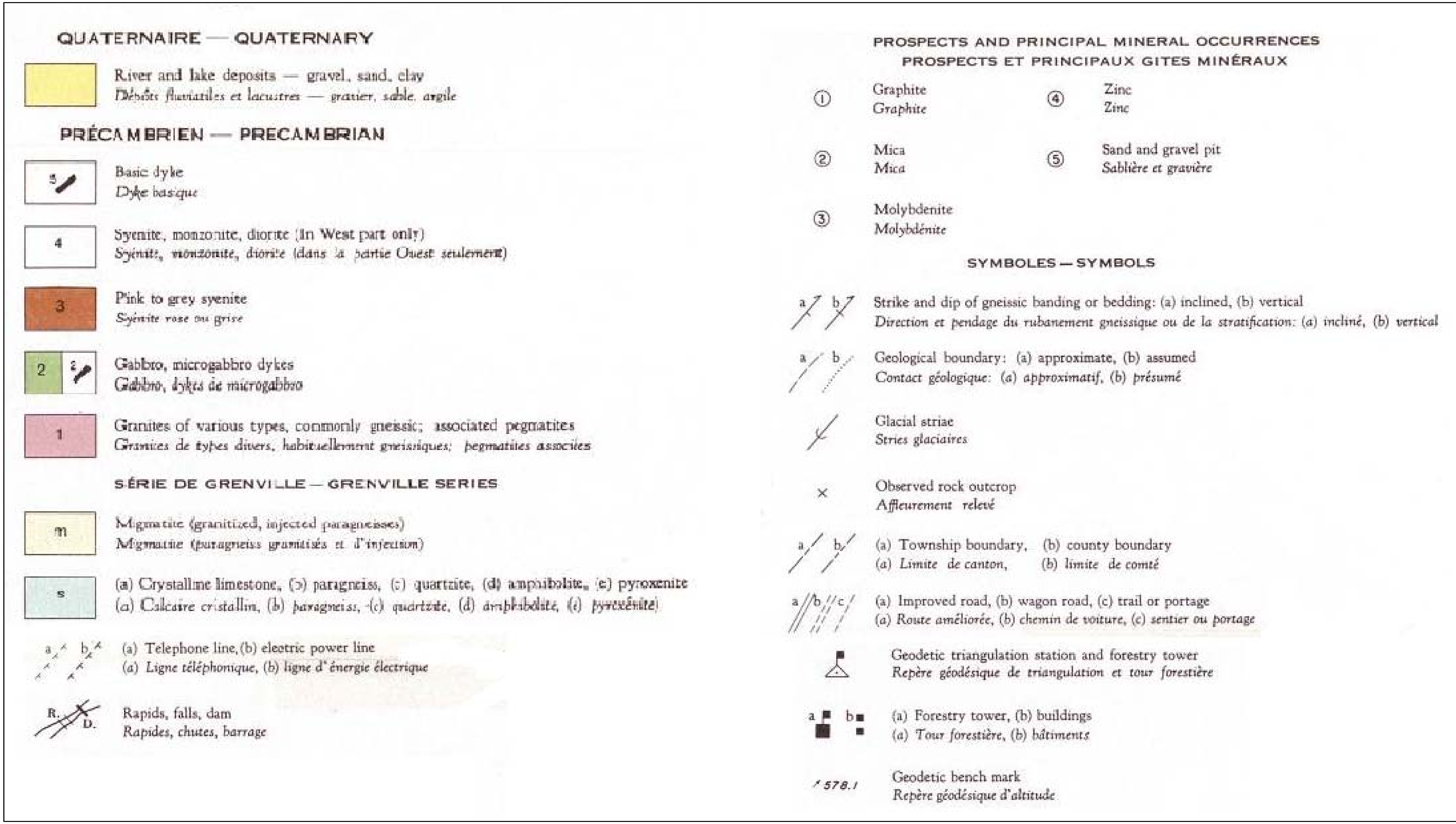


Figure 11: Legend for Geology Map

8.0 DEPOSIT TYPES

Graphite is a soft, crystalline form of carbon under standard conditions and can be considered the highest grade of coal, though it is not normally used as fuel because it is difficult to ignite. It is gray to black, opaque, and has a metallic lustre. Graphite occurs naturally in metamorphic rocks such as marble, schist, and gneiss. It can also be found in veins and pegmatites.

Graphite is a good electrical conductor. There are three principal types of natural graphite each occurring in different types of deposits. These deposit types include crystalline flake graphite, amorphous graphite and lump graphite, also known as vein graphite.

Amorphous graphite is the lowest quality and most abundant. Amorphous refers to its very small crystal size and not to a lack of crystal structure. Amorphous is used for lower value graphite products and is the lowest priced graphite. Large amorphous graphite deposits are found in China, Europe, Mexico, and the United States.

The flake or crystalline form of graphite consists of many graphene sheets stacked together and is less common and higher quality than amorphous. Flake graphite occurs as separate flakes that crystallized in metamorphic rock and can be up to four times the price of amorphous. Good quality flakes can be processed into expandable graphite for many uses, such as flame retardants. The best-known graphite flake deposits are found in Austria, Brazil, Canada, China, Germany, and Madagascar. Vein or lump graphite is the rarest, most valuable, and highest quality type of natural graphite. It occurs in veins along intrusive contacts in solid lumps, and it is only commercially mined in Sri Lanka.

The classification scheme most widely accepted for graphite deposits was introduced by Cameron (1960). It classifies known graphite deposits into five categories reflecting different types of graphite.

The five types of deposits are:

1. Disseminated flake graphite in silica-rich meta-sediments;
2. Disseminated flake graphite in marbles;
3. Metamorphosed coal seams;
4. Vein deposits; and,
5. Contact metasomatic or hydrothermal deposits in metamorphosed calcareous sediments or marble.

The geology of each type is different. Deposits of category 1 or 2 are usually disseminated flake graphite and those of category 3 and 5 consist of micro crystalline or amorphous graphite. The mineralization at Lac Aux Bouleaux is similar to categories 1 and 2. At the Property, graphite mineralization is associated with gneissic rocks in contact with limestone / marble in a shear zone. Other controls of mineralization apparent in the trenches are the presence of diabase dykes and pegmatitic texture of marble and paragneiss. Graphite occurs as crystalline large flaky texture with a shiny metallic luster; flake size ranging from 1 to 3 millimeter (mm) and sometime up to 5 mm.

Exploration Methodology

Due to its conductive nature, airborne and ground electromagnetic (EM) surveying is the most commonly used exploration tool to locate graphite mineralization at an early stage grass root exploration property. The presence of local foliation is another important field prospecting criterion for locating graphite mineralization. The graphite deposits are explored through a systematic exploration methodology including geophysical surveys, geological mapping, trenching, diamond drilling and sampling as listed below:

1. A suitable area for finding potential graphite mineralization is selected based on studying regional geological maps and data available.
2. An airborne electromagnetic survey is conducted for larger property size and properties with limited rock exposures.
3. Ground electromagnetic survey is carried out on smaller size properties, and properties with exposed bedrock and surface graphite mineralization to interpolate continuity of potential mineralized zones. It can also be carried out as a follow up of airborne geophysical survey anomalies.
4. Detailed sampling, prospecting and geological mapping is carried out on identified targets of geophysical surveys to verify the extent of graphite potential mineralization, its grades and quality.
5. Sampling of mineralized areas to do preliminary metallurgical tests to ascertain flake size and purity of graphite mineralization.
6. Drilling, trenching and cross section measurements are carried out to get enough data to delineate a graphite mineralized body and to carry out resource estimation if feasible.
7. A market study to find potential buyers, prices and competitors in terms of upcoming deposits in the future market.

Graphite is mined by both open pit and underground methods. Graphite usually needs beneficiation. This may be carried out by hand-picking the pieces of gangue (rock) and hand-screening the product or by crushing the rock and floating out the graphite. Beneficiation by flotation encounters the difficulty that graphite is very soft and "marks" (coats) the particles of gangue. This makes the "marked" gangue particles float off with the graphite, yielding impure concentrate. There are two ways of obtaining a commercial concentrate or product: repeated regrinding and floating (up to seven times) to purify the concentrate, or by acid leaching (dissolving) the gangue with hydrofluoric acid (for a silicate gangue) or hydrochloric acid (for a carbonate gangue).

In milling, the incoming graphite products and concentrates can be ground before being classified (sized or screened), with the coarser flake size fractions (below 8 mesh, 8–20 mesh, and 20–50 mesh) carefully preserved, and then the carbon contents are determined. Some standard blends can be prepared from different fractions, each with a certain flake size distribution and carbon content. Custom blends can also be made for individual customers who want a certain flake size distribution and carbon content. If flake size is unimportant, the concentrate can be ground more freely. Typical end products include a fine powder for use as a slurry in oil drilling and coatings for foundry molds, carbon raiser in the steel industry (Synthetic graphite powder and powdered petroleum coke can also be used as carbon raiser). Environmental impacts from graphite mills consist of air pollution including fine particulate exposure of workers and also soil contamination from powder spillages leading to heavy metals contaminations of soil.

9.0 EXPLORATION

9.1 Overview

In November 22-24, 2019, the Dynamic Discovery Geoscience Ltd., a company based in Ottawa, was contracted by Manganese X Energy Corp. to conduct a ground time-domain electromagnetic (TDEM) PhiSpy survey on the Lac Aux Bouleaux Property (Figure 12 and 14). Under the supervision of Mr. Joël Dubé, P.Eng., the survey was done along trails and on 4 distinct survey grids.

The purpose of this survey was to improve future trenching and drilling efforts by better defining the location and geometry of conductors originally detected with an airborne TDEM survey performed in 2015 (Dubé, 2015). Due to graphic carbon mineralization, these original conductors gave rise to many airborne conductive anomalies.

Another ground PhiSpy surveys was conducted in 2016 at the Lac Aux Bouleaux Property, therefore, data from 2016 was also compared to the data collected in the recent survey in 2019. The PhiSpy TDEM survey conducted in 2019 was done over four areas, labelled 4, 5, 6 and D. Sites 4, 5, 6 were amongst three of the seven TDEM anomalies that had a higher potential to relate to significant graphite mineralization. The fourth area, D, was surveyed at the request of Manganese X Energy Corp. Sites 1, 2, 3 were surveyed previously in 2016 (Dubé, 2016).

Every survey grid was made of lines spaced every 50 m and oriented perpendicular to the strike of airborne anomalies. In order for transport of the PhiSpy system, the ends of each line were tied with tie lines from one line to the next. Grids 4, 5, 6 and D consisted of 4.60, 3.58, 4.85 and 3.06 km of line cutting, respectively, for a total of 16.09 km. In addition to the grid lines, the PhiSpy TDEM also surveyed nearby trails for a total of 18.275 km. The 2019 PhiSpy survey path is shown in pink in Figure 12 and 14, which also shows the grid names and cut line numbers. The same information is shown in light green for the 2016 PhiSpy survey. The line cutting and survey crews were based in Mont-Laurier.

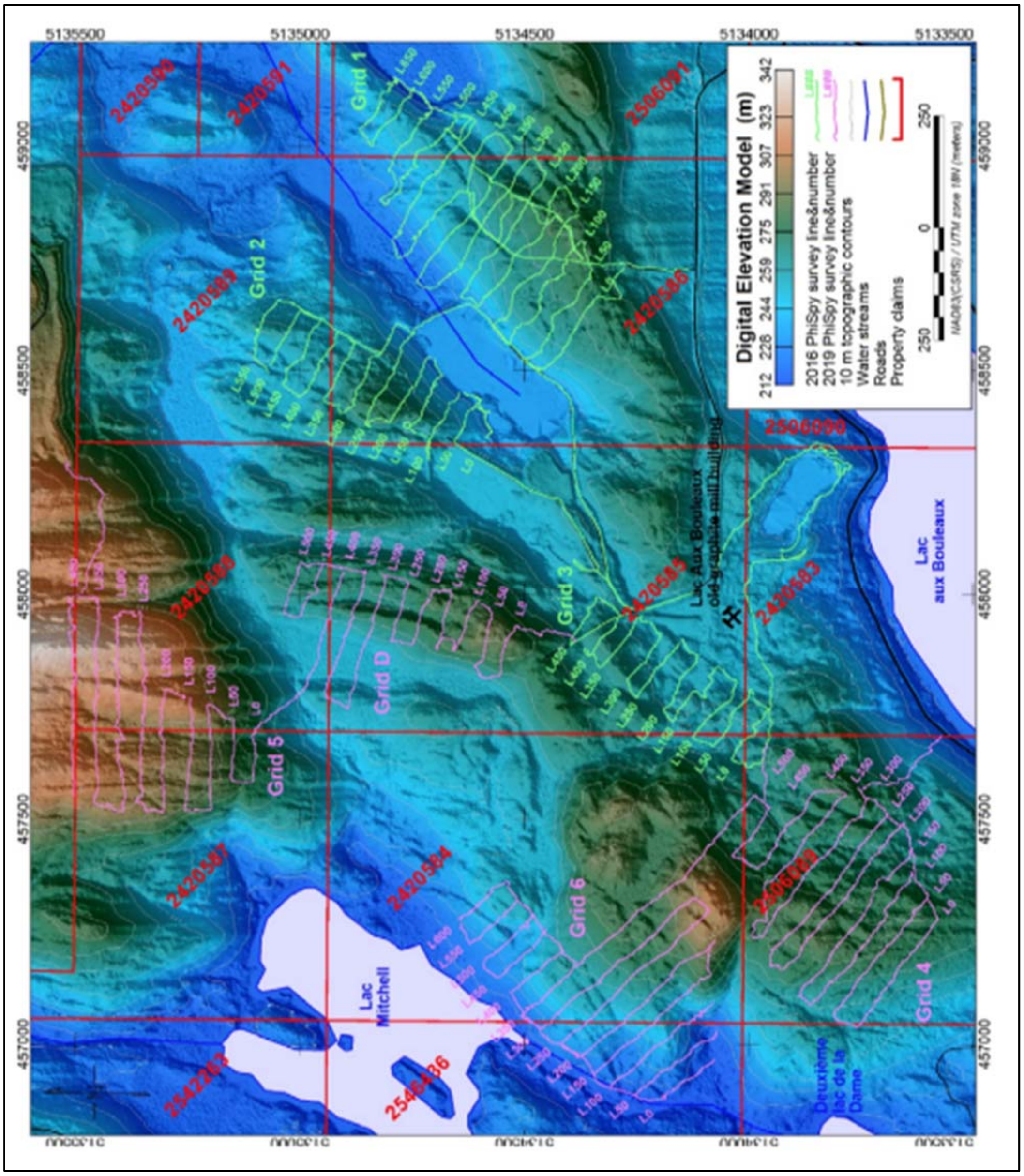


Figure 12. Digital elevation model with comparison of 2016 and 2019 surveyed lines

9.2 Field Operations

A total of 3 days was required for the 2019 portable ground TDEM PhiSpy survey in order to span the entire 18.275 line-km. Joël Dubé, P.Eng. was the supervisor of the survey. The PhiSpy system continuously recorded its location and did not need to be conducted along chained lines. As a result, field obstacles could be avoided, and the lines did not have to be very straight compared to classic methods that used long wires. Therefore, lines were cut and used in a simple manner. The average sample spacing was 0.12 m with a total 158, 330 data points collected at a final sampling rate of 5Hz.

A total of 35.875 km of PhiSpy data and 305, 453 data samples were collected when considering both 2016 and 2019 surveys.

9.3 Survey Equipment

The PhiSpy system, created and employed by Dynamic Discovery Geoscience in partnership with Xogenus, was used to conduct the ground TDEM survey.

The PhiSpy system is an efficient exploration tool as it is rapid, of low cost, and requires minimal material and staff to operate compared to large loop configurations for traditional electromagnetic surveys. It only weighs 40 kg and is operated by two persons. This system is able to continuously record its location as it is coupled with a GPS system thus eliminating the need for lines to be cut. This system is further equipped with a large screen where the current location and additional geoscientific information is displayed. This large screen also displays real-time display of TDEM profiles which permits on the spot anomaly detection. These anomalies can then be investigated immediately. Additionally, the electromagnetic radiation response is of relatively higher resolution due to the size of the loop configuration and continuous sampling of the system.

Due to the fact that the PhiSpy can reach deep conductors and is able to record full TDEM decay curves which can then be post-processed and analyzed to retrieve information about the conductance and geometry of conductors, it has a much broader investigation depth compared to small screen EM devices.

9.4 TDEM method principles

An electromagnetic field is created through the variable currents in the coil. The ramp time is referred to as the period (a few microseconds) it takes for the current flow to stop, as it is not an instantaneous process. The primary electromagnetic field, which has a time-variant nature, propagates downward and outward onto the subsurface inducing Eddy currents. The characteristics of Eddy currents are determined by the rock's conductivity distribution. Strong Eddy currents indicate the presence of good conductors, for instance graphite and sulphide mineralization. Generation of Eddy currents creates a secondary electromagnetic field which decays upon termination of the primary field. Conduction of measurements of the secondary field are restricted to the time-off period by a vertical component receiver which resides in the middle of the transmitter loop. The time interval after the current is terminated influences the depth of investigation. At later times, the receive sense EM field from Eddy currents at progressively greater depths. Profiles (Figure 13) or plan maps (Figure 14) can be used to analyze off-time data.

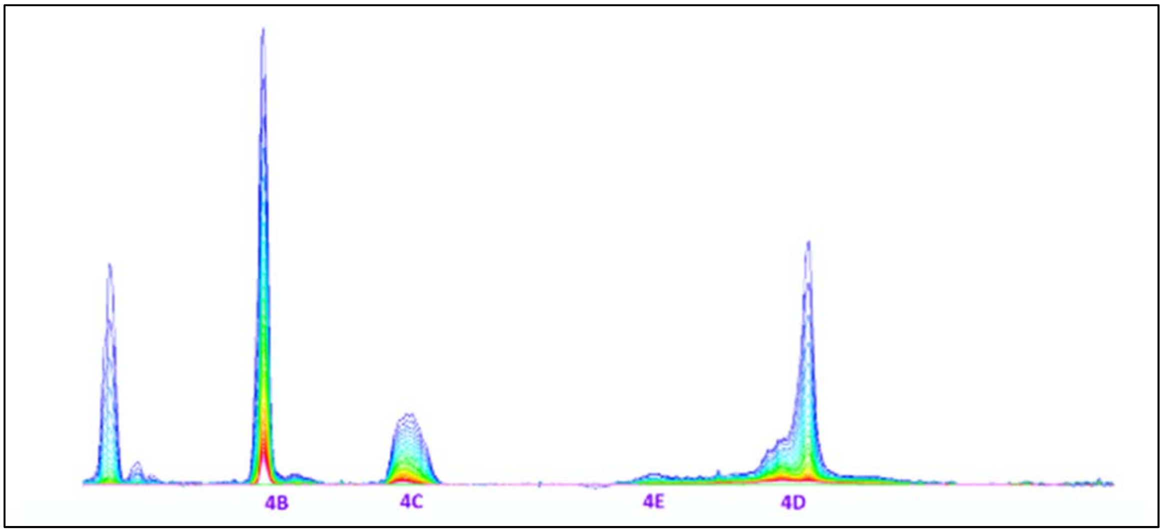


Figure 13: Example of PhiSpy data over 250, Grid 4, with interpreted anomalies

9.5 Data Processing and Presentation

The data from the surveys was compiled, edited, filtered, and underwent quality control (QC). Geosoft software Oasis Montaj version 9.7 was used to process the data as this software system was able to rapidly conduct daily QC's.

The data from the ground TDEM PhiSpy survey are displayed in a grid format of an early off- time channel (Ch. 7), which maps conductor's location. The grids are shown with a very high-resolution size (1m cell size) and at small distances from the reading's location (5 m). This permits the final data user to interpret anomalies interconnection between the lines as local geological information is collected.

In the Figure below, the early off-time TDEM response from the heliborne survey performed over the Property in 2015 (Dubé, 2015) by Prospectair is shown in the background of PhiSpy results (Figure 14).

9.6 PhiSpy Survey Results

9.6.1 Interpretation

Magnetic data was not taken into consideration in the current interpretation process, as graphite is conductive and not magnetic resulting in the PhiSpy TDEM data being the primary targeting tool.

TDEM PhiSpy anomalies of interest were identified and outlined in Table 10 and Figure 14. An ID name, which includes a reference to the grid number, is given to anomalies that are particularly wide, continuous or intense. Figure 14 outlines 25 main conductors from the 2016 survey and 18 from the 2019 one. Additionally, a priority number was given to each PhiSpy axis which was assigned based on the strength of the anomaly, its width, and its continuity over several lines.

The aforementioned information and further comments and information regarding the estimation of the conductor's dip can be found in Table 10. Six of the 25 TDEM conductors identified are of priority and 11 are of second priority.

Anomaly ID	Priority	Strength	length (m)	Usual anomaly width* (m)	Maximum anomaly width* (m)	Dip	Comments
1A	1	Strong	590	30	50	NorthWest	Possible continuity of anomaly 1B. Fold?
1B	1	Strong	600	25	50	NorthWest	Possible continuity of anomaly 1A. Fold?
1C	3	Marginal	170	13	16	Sub-vertical?	
2A	2	Strong	160	13	40	SouthEast?	Depicts two limbs possibly forming a fold.
2B	3	Weak	130	10	30	SouthEast?	Depicts two limbs possibly forming a fold.
3A	3	Weak	150	15	40	SouthEast?	
3B	2	Moderate	300	12	20	Sub-vertical?	
4A	2	Moderate	70	27	30	Sub-vertical?	Possible continuity of anomaly 4C. Fold?
4B	2	Strong	130	16	70	Sub-vertical?	Possible continuity of anomaly 4C. Fold?
4C	1	Strong	270	20	40	Sub-vertical /SouthEast?	Possibley associated to anomalies 4A and 4B. Folds?
4D	1	Strong	140	30	90	Complex	Possible continuity of anomaly 4E. Depicts two or more limbs possibly forming complex folding.
4E	2	Weak	120	15	45	East?	Possible continuity of anomaly 4D.
5A	2	Moderate	210	13	20	East	
5B	2	Weak	320	20	40	Sub-vertical/East	Possibly associated to 5C.
5C	3	Marginal	120	17	40	East	Possibly associated to 5B.
5D	2	Weak	320	22	40	East mostly	Possibly associated to 5E.
5E	3	Weak	160	20	30	East	Possibly associated to 5D.
5F	2	Weak	170	18	30	East	Depicts two or more limbs possibly forming complex folding.
6A	1	Strong	300	15	45	Complex	Possibly associated to 6B, forming fold? Depicts two or more limbs possibly forming complex folding.
6B	1	Moderate	400	18	55	Complex, maybe SouthEast?	Possibly associated to 6A, forming fold? Depicts two or more limbs possibly forming complex folding.
6C	3	Weak	125	16	35	Complex	Depicts two limbs possibly forming a fold. Possible continuity of anomaly 6D.
6D	2	Moderate	430	12	35	Complex, maybe SouthEast?	Depicts two limbs possibly forming a fold. Possible continuity of anomaly 6C.
DA	3	Weak	110	11	20	Sub-vertical/East	Depicts two limbs possibly forming a fold. Possibly associated to DB.
DB	3	Weak	170	12	25	Sub-vertical/East	Possibly associated to DA.
DC	2	Weak	210	22	25	East on L500	
*** Note: The width os TDEM anomalies is always larger thant the width of the conductive source causing the anomaly.**							

Table 10: Interpreted PhiSpy Anomalies

The estimation of the dip of conductive sources can be partly determined through the sole use of PhiSpy TDEM data. Additionally, in conjunction with airborne TDEM data, dip analysis can be conducted. On a global scale, it is possible to analyze the general dip of conductors. It is important to note that the thickness of the conductive source that generates the anomaly is always less than the anomaly apparent width listed in Table 10.

High priority, in terms of potential for a large volume of mineralization, is given to the following defined conductors: 1A, 1B, 4C, 4D, 6A and 6B, as they display the widest apparent thickness, EM anomaly intensity, and significant longitudinal extensions. An important characteristic that determines the economic potential of the crystalline flake graphite mineralization, is the volumetric potential of the prioritized zones mentioned, however other factors such as grade and graphite flake size distribution and purity can also have an influence.

Furthermore, some cases regarding the interpretation of conductors are subjective even though efforts were made to base the interconnections of conductors, from one line to another, off local geophysical data trends. Therefore, only survey lines should be relied upon for the interpretation of conductors. Areas where many conductive anomalies are found near each other are outlined as anomalous envelopes as opposed to individual conductors. As a result, identified anomalies do not necessarily show the actual width of the conductive sources, but can be used with a high degree of confidence to investigate these sources. These anomalies can be viewed as a reliable image of the sub-outcropping part of the detected conductive mineralization.

As detected by the airborne survey, most of the anomalies are located near the TDEM terminals and thus it can be concluded that the source of the PhiSpy anomalies are caused by the shallowest parts of the conductors. Regions where airborne TDEM anomalies are visible without the presence of ground PhiSpy anomalies, suggest that the conductive sources are located deeper than the penetration depth of the PhiSpy system.

There are three factors that determine the TDEM response amplitude: 1) the volume of the conductive source, 2) the distance between the source and TDEM sensor, and 3) the conductivity of the source. The conductive source also influences the anomaly shape. Furthermore, for the source to be highly conductive the connectivity between the conductive materials is of great importance. Therefore, disseminated graphite occurrences do not always respond to EM techniques. Meanwhile, sulphide-rich zones (in stringer, semi-massive or massive form), whether they are associated to graphite mineralization, tend to respond very strongly to EM. Regardless, with a penetration depth of 15-20m of the PhiSpy system, it was recommended that all strong PhiSpy anomalies be investigated with basic surface stripping and prospecting methods. During ground investigation, anomalies being interpreted between surveys should be done so cautiously and all other anomalies should be investigated where the path is indicated.

Lastly, the PhiSpy system is small and as a result tends to respond to manmade metallic pieces on the surface or buried in the ground. Efforts were made by the crew to identify cultural features and non-geological sources of high frequency anomalies of the PhiSpy system were removed from the data sets. However, it is important to note that: if pieces of metal are found in the location of a high frequency anomaly, chances are that they represent the source of this anomaly.

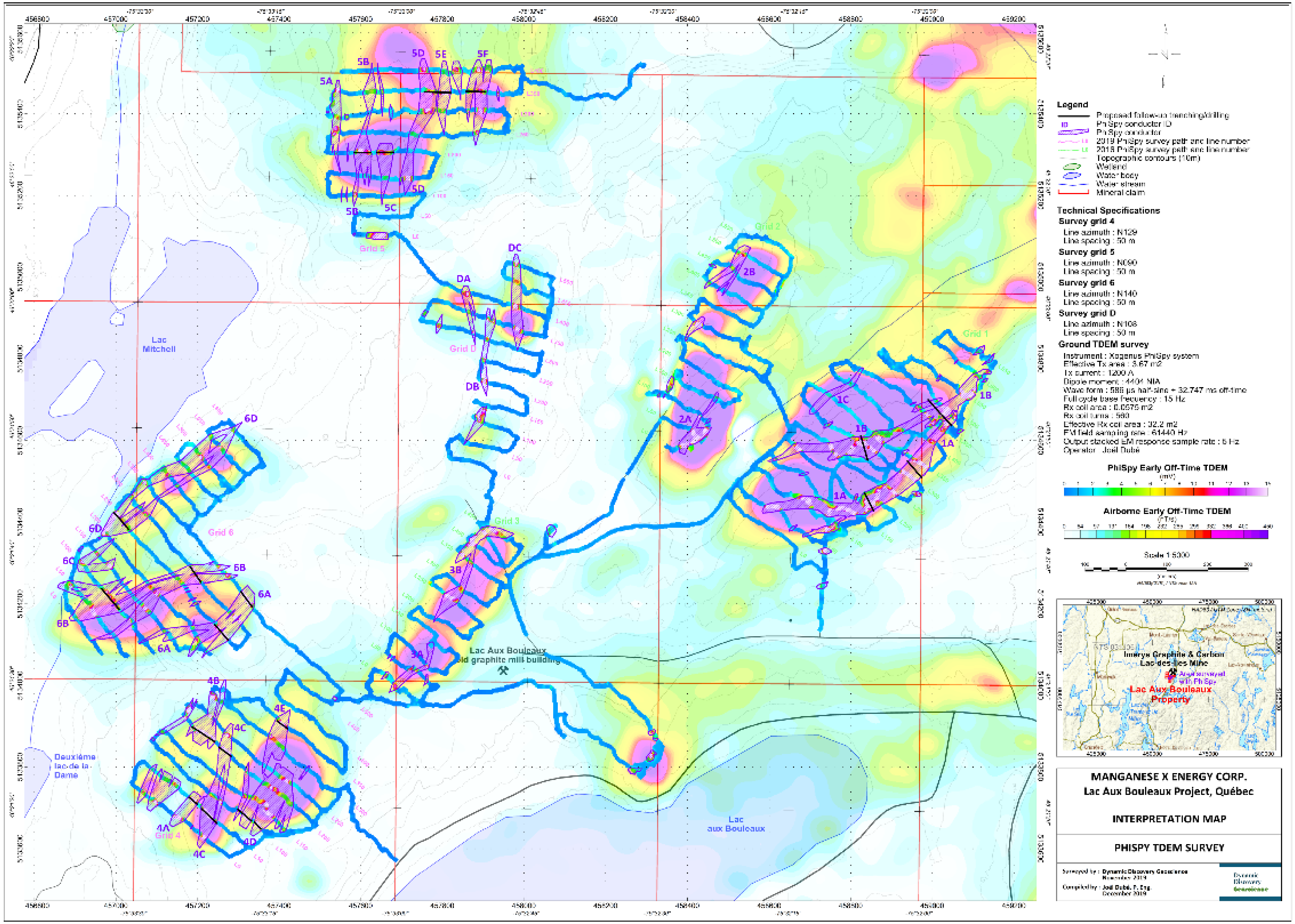


Figure 14: Interpretation of PhiSpy data and airborne TDEM Response

9.6.2 Target Recommendations

Firstly, it was recommended to use basic stripping and prospection methods to perform ground investigation of PhiSpy anomalies. This should be followed by the identification of anomalies that could be of interest or that are unexplained which could then be the object of shallow drill holes investigation. There are 19 locations in total that are proposed for follow-up work: 4 locations to test the targets 1A and 1B, 6 locations on targets 4A, 4B, 4C, 4D and 4E, 4 locations on targets 5B, 5C, 5D, 5E and 5F, and 5 on targets 6A, 6B and 6D. They are indicated as thick black lines on the interpretation map and on Figure 7.

Other conductors identified could eventually be investigated to determine the characteristics of the conductive mineralization, however this process is of less interest. It is important to note that occasionally mineralization of interest yields weaker responses than sources of no interest such as sterile sulphide occurrences.

It is further recommended that during follow-up efforts in the collection of geological information, to proceed with systematic measurements of the physical properties of grab, channel and drill core rock samples, and to compare these results with chemical assays to gain a deeper understanding of the geophysical signature of the mineralization of interest.

Additionally, it is recommended to add in-fills survey lines between the 50 m spaced lines, which would help with refining the definition of conductor's outline and geometry.

10.0 DRILLING

There has been no drilling carried out on the Property by MN.

11.0 SAMPLE PREPARATION, ANALYSIS AND SECURITY

During the May 27-29, 2015 property visit, a total of 10 samples were obtained, out of which six samples were from graphite mineralized boulders and outcrops and four samples were from the country rock to check background graphite content. The samples were bagged and tagged using best practices, and shipped to SGS Canada Inc., laboratory located in Burnaby B.C. Six samples, weighing about 60 kilograms were retained for metallurgical testing.

All assays graphitic carbon were analyzed at SGS Lakefield using the SGS combustion and Infrared detection by LECO instrumentation method; however, during metallurgical testing some of the high grade graphite samples, >90% C(g), were additionally assayed using the total ash content method (ASTM C561, Ash). The samples from 2017-18 trenching, sampling and diamond core drilling were also analyzed at SGS Lakefield using the same methods and procedures.

Results from six mineralized samples returned high carbon graphite (% Cg) values of 23.8%, 18.4%, 16.6%, 16.0%, 15.9%, and 13% Cg with an average grade of 17.2% Cg. The four Country rock samples assayed 1.53%, 0.55%, 0.26% and .02 % for an average of 0.59% Cg.

The assay work was completed by SGS Canada Inc. laboratories, which is an independent ISO certified laboratory and has its own quality assurance and quality control protocols (QA/QC).

The samples from 1980's drill program of Orrwell Energy Corp. was analyzed at Assayers Ontario Limited Laboratories and were tested for total carbon, carbonate carbon and non-carbonate carbon (graphitic carbon). The samples from 1961 metallurgical testing were processed and analyzed at Quebec Department of Mines Laboratories.

2018 Drill Program Quality Assurance/Quality Control

All core samples were logged and split by wet diamond saw with half sent to the lab for analysis and half stored securely in a garage in Mont Laurier. The core sample lengths were selected depending on geological boundaries and visual graphite mineralization. Additional QA/QC procedures include inserting blanks into the core sample stream at industry standard intervals with duplicate core samples taken at intervals of twenty. Total of 74 samples were sent in two batches to SGS Lab for assaying, including 5 duplicates and 4 blanks. Core samples are prepped and analyzed by SGS Laboratories, Lakefield, Ontario using SGS code GE/GO/GC_CS A05V. During analysis, the core samples are dried, pulverized, leached and roasted at 550° Celsius for one hour to remove all organic carbon. Carbonate carbon is then leached/evolved using HCl. The sample is then dried to remove the chlorides. The residue is mixed with metal accelerators and placed in the LECO IR combustion system. The residual carbon is taken as graphitic carbon. With high grade carbon, samples are wetted with methanol prior to acid addition. The results are exported via computer, online, data fed to the Laboratory Information Management System with secure audit trail.

All these laboratories are independent of MN, Graphite Energy Corp. and the property vendors. Sample location for 2015 sampling is shown in Figure 15 and details are provided in Table 11.

Figure 15:May 2015 Sample Location

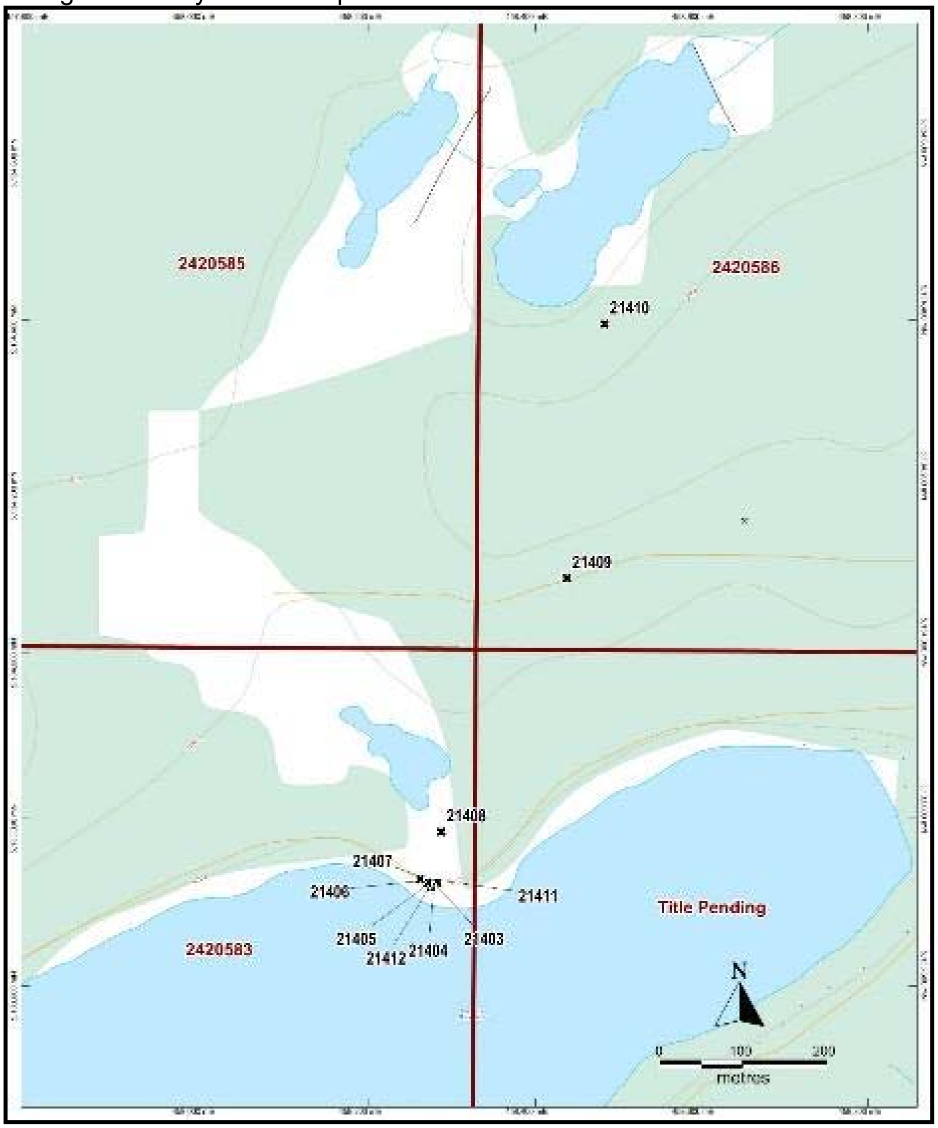


Table 11: May 2015 Sample Details and Assay Results

GRAPHITE MINERALIZED SAMPLES					
SAMPLE ID	LOCATION NAD 83 ZONE 18		DESCRIPTION	GRAPHITIC CARBON (Cg)	SAMPLE TYPE
	Easting	Northing		%	
21403	458279	5133723	Dark grey to brown calcareous gneiss with mica ~ 15-20% flake graphite in shear zone, flake size 1-2 mm	16.60	Outcrop grab sample
21404	458279	5133723	Same as above	23.80	Outcrop grab sample
21405	458275	5133725	Brown weathered gneiss with calcareous material ~ 10 to 15 % flake graphite, some mica and sulphides	16.00	Outcrop grab sample
21409	458438	5134093	Dark grey micaceous gneiss, medium to coarse grained, 10-15% graphite	13.00	Historical drill collar located AZ-200, dip 38, boulder (2mx2m) sample
21411	458283	5133727	Dark grey to grey marble with mica, 15-20% graphite, surrounded by weathered micaceous gneiss	18.40	Outcrop grab sample
21412	458275	5133722	Same as above	15.90	Outcrop grab sample
Average graphite content				***17.28***	
COUNTRY ROCK SAMPLES					
21406	458272	5133727	Reddish brown Semitic gneiss with garnet, medium to coarse grained, trace graphite	0.55	Outcrop grab sample
21407	458262	5133731	Brown calcareous gneiss with mica, trace graphite	0.02	Outcrop grab sample
21408	458288	5133788	Dark grey to brown granitic gneiss, coarse grained with ~ 2% graphite	1.53	Outcrop grab sample
21410	458484	5134399	Dark grey to brownish felsic gneiss, TRACE graphite	0.26	Outcrop grab sample
Average graphite content				0.59	

12.0 DATA VERIFICATION

The Author visited the Property on May 1st, May 27-29, 2015, August 19th, 2016, July 05th and November 05-08, 2019. The 2019 PhiSpy geophysical survey work was performed under the author's supervision. The geological work performed in order to verify the existing data consisted of visiting approachable graphite outcrops, drill hole and trenching locations, and other areas of historical exploration and development work on the Property. Large flake graphite showings located on the property were confirmed with flake size in the range of 0.5 to 2 millimetres, typically present in shear zones at the contact of gneisses and marbles where the graphite content usually ranges from 2% to 20%.

The Timcal mine entrance gate is located on the property, just at the edge of northern claims. An onsite mill structure from the early 1990's, a tailing dam facility, and a historical open mining pit was confirmed during the property visit. Based on the size of the pit it was estimated that over 100,000 tonnes of rock were removed for processing at the mill facility. The existing tailing dam facility was observed to be in good condition. Drill hole casings and drill locations from historical exploration work were also located on the property.

The data quoted from other sources is considered reliable because it was taken from various geological and engineering reports and technical papers published on the area and the work was done by professional engineers or geologists. The Author is unaware of any environmental liabilities associated on the LAB Graphite Property.

Photo 2: Historical graphite mill on the Property (Property visit photo)

Photo 3: TIMCAL Mine entrance gate located on LAB Property (Source: Property visit photo).

Photo 4: Historical mine tailing pond located on the Property (Source: Property visit photo).

Photo 5: Vertical NQ drill hole casing on the Property (Source: Property visit photo).

13.0 MINERAL PROCESSING AND METALLURGICAL TESTING

During 2015 Property visit of the author, a total of 60 kilograms of rock samples were obtained from the project, including graphite grab samples and country rock. The coarse rocks were received as 10 separate samples. Each sample was weighed and crushed to -6 mesh and submitted for head assays. Six of the graphite mineralized samples were blended to make a 42 kg Master Composite for testing. The main objective of this testing was to produce a concentrate with a graphitic carbon grade of 95% or greater. The flotation testing consisted of several stages of grinding, screening and flotation producing three concentrates at +48 mesh, +100 mesh and -100 mesh, with the overall combined concentration a sum of all three.

Test was commissioned by Gold Port Resources Ltd. And its details are described in the following sections.

13.1 Head Assays

The ten samples were assayed for graphitic carbon, C(g), and the Master Composite was assayed for C(g), total carbon, CO2, total sulphur, whole rock analysis (WRA) and ICP. All assays graphitic carbon was analyzed at SGS Lakefield using the SGS combustion and Infrared detection by LECO instrumentation method; however, some of the high graphite samples, >90% C(g), were additionally assayed using the total ash content method (ASTM C561, Ash). A summary of the composite head assays is presented in Table 12. The four country rock samples omitted from metallurgical testing had low graphite head grade of <1.53% C(g); whereas the six graphite mineralized samples blended into the composite had a graphite head grade of of 23.8%, 18.4%, 16.6%, 16.0%, 15.9%, and 13% Cg. The Master Composite had a head grade of 17.5% C(g).

Table 12: Head Assay Summary – Master Composite

	Assay, %									
	S	C(t)	CO_2	C(g)	SiO_2	Al_2O_3	Fe_2O_3	MgO	CaO	Na_2O
	1.73	17.3	0.27	17.5	42.8	8.4	9.14	3.64	11.6	0.53
	Assay, %									
	K_2O	TiO_2	P_2O_5	MnO	Cr_2O_3	V_2O_5	LOI	Sum		
Master Composite	0.61	0.69	0.42	0.05	0.02	0.01	22.1	100		
	Assay, g/t									
	Ag	As	Ba	Be	Bi	Cd	Co	Cu	Li	Mo
	< 2	< 30	111	1.44	< 20	< 2	29	79.9	< 5	< 20
	Assay, g/t									
	Ni	Pb	Sb	Se	Sn	Sr	Tl	U	Y	Zn
	37	< 20	< 10	< 30	< 20	184	< 30	< 20	20.1	33

13.2 Head Mineralogy

13.2.1 Optical Microscopy

The composite sample was examined with an optical microscope at various magnifications (5X to 50X). The investigation was focussed on the evaluation of the graphite (flaky, microcrystalline, veinlets), grain size, textural descriptions, and liberation characteristics. The optical microscopy investigation indicates that:

- The graphite mainly occurs as liberated and exposed grains. Approximately ~33% of the graphite is liberated. The remaining ~61% of the graphite occurs as middling's / exposed grains with non-sulphide gangue (NSG) and ~6% are locked within NSG minerals (Table 13 and Figure 16).
- NSG occurs as both liberated and middling's with graphite. Approximately ~44% of the NSG occurs mainly as liberated grains where ~55% are exposed and ~1% is locked (Table 13).
- Graphite particles range in size from <5 µm to ~2 mm and appear to be liberated at ~500 µm.
- Representative optical photomicrographs of graphite and associated gangue minerals taken in plane polarized reflected light are shown in Figure 17.

Table 13: Graphite Liberation Mass %

Sample ID	Graphite (Mass%)			Non-Sulphide Gangue (Mass%)		
Master Comp Head	Liberated	Exposed	Locked	Liberated	Exposed	Locked
	33	61	6	44	55	1

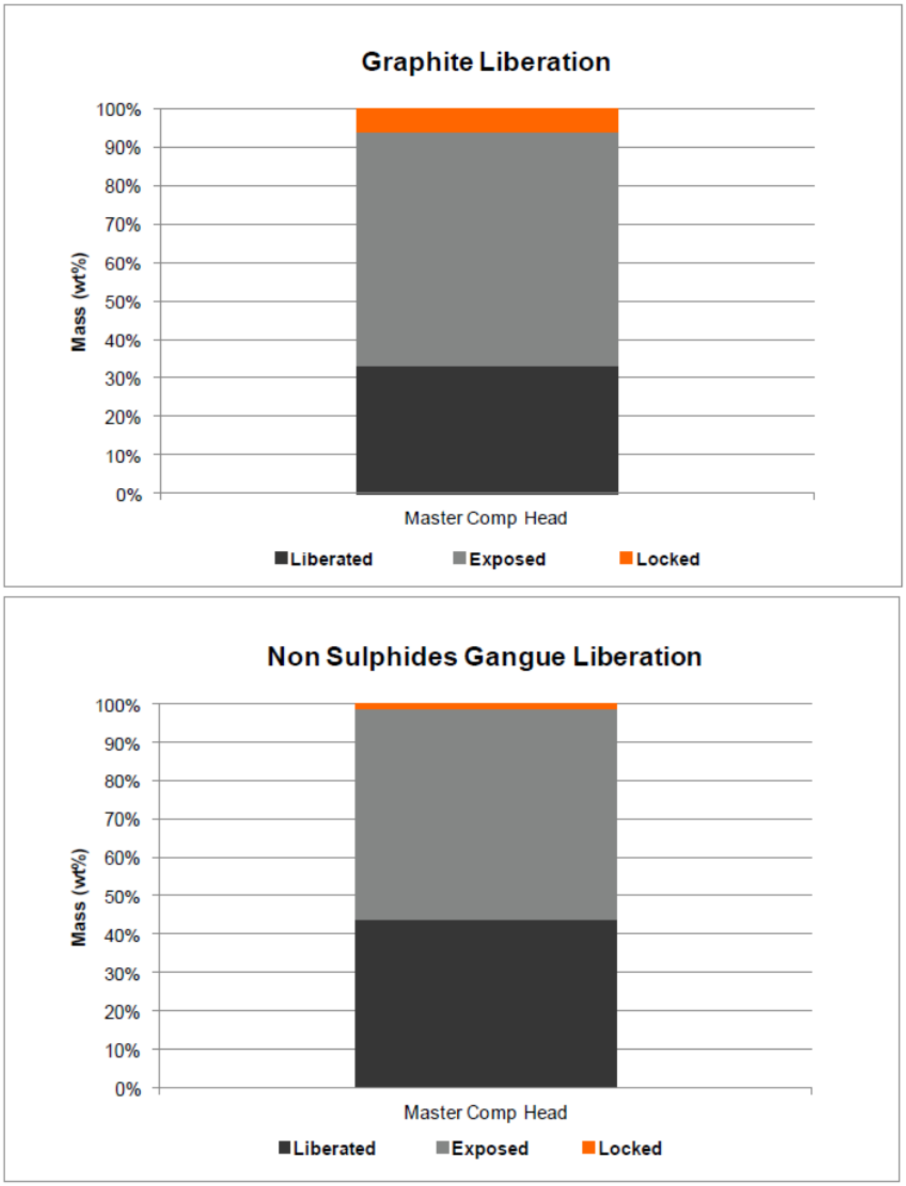


Figure 16: Liberation of graphite and NSG in the Sample

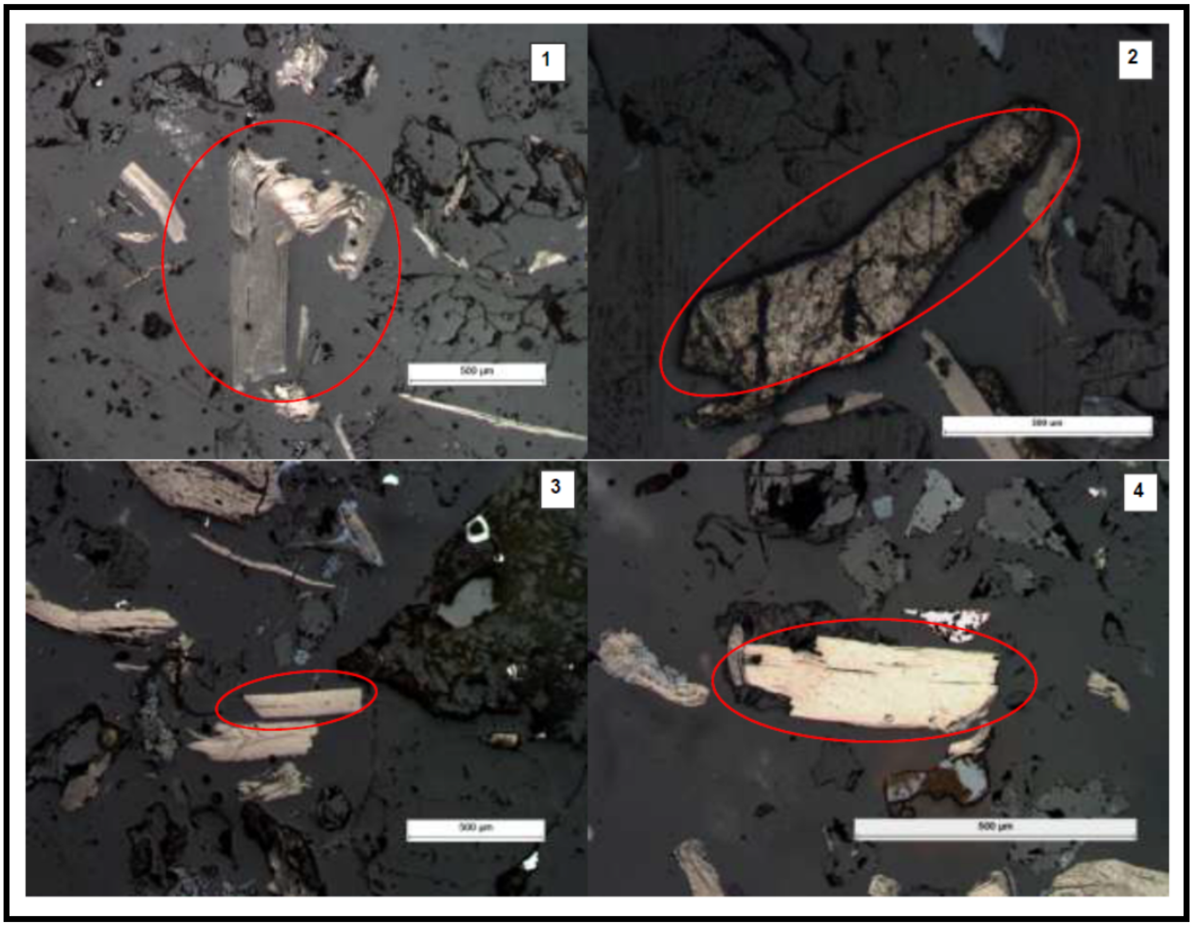


Figure 17: Photomicrographs in Plane Polarized Reflected Light (PPRL) from Master Composite Sample.
*(Image (1) show liberated **polycrystalline graphite; (2) platy graphite; (3) and (4) tabular / prismatic graphite)***

13.2.2 Quantitative XRD Analysis

Mineral abundances generated by Rietveld XRD analysis was determined and reported in weight %. Identification and classification of abundance were based on relative peak heights and mineral crystalline structure (Table 14). The XRD helped to determine the overall modal mineralogy of the composite sample.

The XRD analysis indicated that graphite accounts for 12.9% of the sample, with 36.6% diopside, 18.8% quartz, 16.4% monzonite, with the remaining minerals <10% in abundance, including pyrite at 1.2%. Note that the total carbon in the sample is 17.3%. Given the fact that the gangue minerals do not contain any carbon, the graphite content is probably underestimated by the XRD analysis. This can be due to sample representability and crystallinity of graphite in the sample. Note that the XRD analysis is based on the crystallinity of the minerals.

Table 14: Rietveld XRD Results

Mineral / Compound	Master Composite (JUN4523-01) (wt.%)
Quartz	18.8
Graphite	12.9
Monzonite	16.4
Diopside	36.6
Albite	5.2
Fluorapatite	1.2
Biotite	0.2
Orthoclase	2.6
Pyrite	1.2
Goethite	2.8
Grossularite	2.0
TOTAL	100

13.3 Metallurgical Testing

13.3.1 Batch Floatation

A grinding/flotation program investigated the amenability to obtain a high-grade coarse flake graphite concentrate and determine a flotation procedure to recover coarse flaked graphite (Figure 18). This process involved a coarse grind to maintain the integrity of coarse graphite and the flotation stage, to recover the flake graphite to a flash flotation concentrate. The flash flotation tails were reground in a rod mill to liberate the remaining graphite and recovered into a rougher flotation concentrate. Both concentrates were combined and reground in a ceramic mill to gently liberate the graphite without crushing the coarse flakes. The reground concentrate was upgraded in three cleaning stages. The cleaner concentrate was screened into three fractions: +48 mesh (300 µm) +100 mesh (150 µm) and -100 mesh. The +100 mesh and -100 mesh fractions were separately reground and upgraded in three cleaning stages. The three sized graphite concentrates, the rougher tail and each cleaner tail product was submitted for assay for Cg.

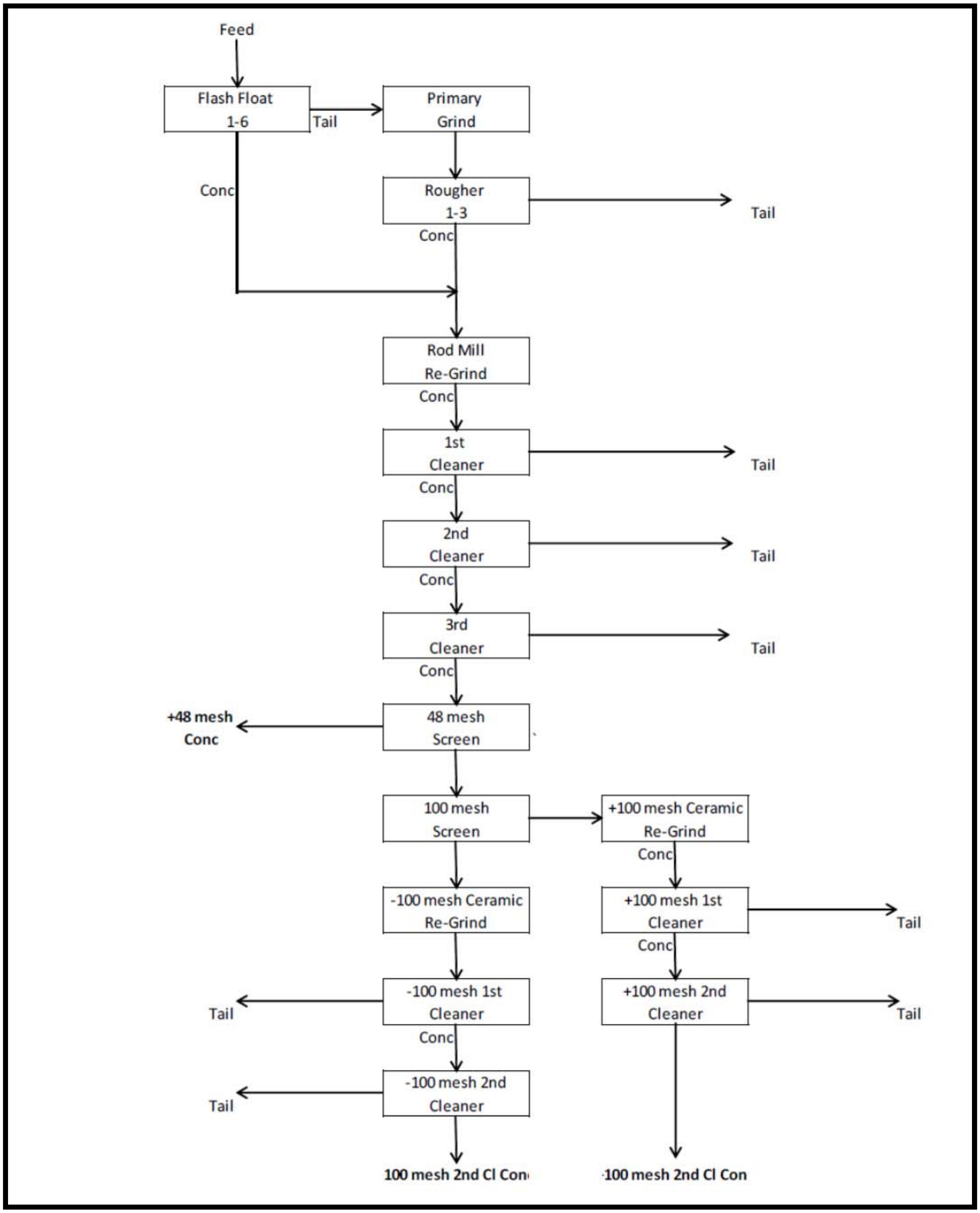


Figure 18: Floatation Flowsheet

In test F1, the flash and rougher concentrate achieved 90.9% graphite recovery at 27.6% mass pull. With cleaning, the combined concentrate achieved 89.6% graphite grade at 17.6% mass pull. The +48 mesh, +100 mesh and -100 mesh cleaners performed well producing concentrates at a grade of 95% C(g) in the +100 mesh fractions and 86% C(g) in the -100 mesh. In test F2 a finer primary grind (Rougher Tails K80 = 401 µm) was used to liberate more of the graphite and lower the rougher tailings graphite grade from 2.3% to 1.1% C(g). This resulted in a higher combined flash and rougher concentrate recovery of 95.8% and a higher combined concentrate recovery of 95.2%. Unfortunately, no improvements in grade were observed. The +48 mesh and +100 mesh concentrates maintained ~95% C(g) and the -100-mesh declined to 81.2% C(g). The improved recovery was a result of higher mass recovery. The +48 mesh, +100 mesh and -100 mesh concentrates had similar particle size distributions, suggesting that the regrind sizes used in the cleaner circuit were the same for both tests. Mineralogical data has suggested that gangue minerals are still attached to the liberated and exposed particles, even at grain sizes greater than 500 µm. The floatation test results are summarized in the following table.

Table 15: Floatation Test Results

Test No.	Product	K_{80} µm	Weight %	Grade C(g) %	Recovery C(g) %
F1	+48 mesh Conc	592	5.8	94.7	30.7
	+100 mesh 2nd Clnr Conc	246	4.1	95.3	21.7
	-100 mesh 2nd Clnr Conc	87	7.7	86.0	37.2
	Combined Concentrate	-	17.6	91.0	89.6
	3rd Clnr Conc	-	19.2	84.0	90.0
	2nd Clnr Conc	-	19.8	81.6	90.2
	1st Clnr Conc	-	21.3	75.9	90.4
	Flash & Rougher Conc	-	27.6	58.9	90.9
	Rougher Tails	534	72.4	2.3	9.1
	Feed (calc.)	-	100.0	17.9	100.0
	Feed (direct)	-	-	17.5	-
F2	+48 mesh Conc	590	5.5	95.3	29.7
	+100 mesh 2nd Clnr Conc	240	4.5	94.0	24.2
	-100 mesh 2nd Clnr Conc	87	8.9	81.2	41.4
	Combined Concentrate	-	18.9	88.3	95.2
	3rd Clnr Conc	-	19.7	85.1	95.4
	2nd Clnr Conc	-	20.5	81.7	95.5
	1st Clnr Conc	-	22.5	74.6	95.6
	Flash & Rougher Conc	-	29.8	56.3	95.8
	Rougher Tails	401	70.2	1.1	4.2
	Feed (calc.)	-	100.0	17.5	100.0
	Feed (direct)	-	-	17.5	-

Figure 19: Photograph of +48 mesh (left), +100 mesh (centre) and -100 mesh concentrates

13.3.2 Size by Size Analysis

A subsample from each of the three sized graphite concentrates was forwarded for screening to determine particle size distribution and size by size assay for C(g). Table 16 displays the size by size assays of each concentrate produced from the tests. In both tests the sized fractions of the +48 mesh and +100 mesh cleaner concentrates had good graphite grades of 92 – 95% C(g), with higher impurities showing up in fractions of insignificant mass. In both tests, the sized fractions of the -100 mesh cleaner concentrate showed a decrease in grade with size reduction, with the +150 mesh particles containing the highest grade and -400 mesh particles containing the lowest grade. Impurities were to be highest in the finest fraction, and appear to be more prominent in test F2, where finer material was collected from the rougher circuit.

It appeared that a finer primary grind size was responsible for recovering more of the fine locked graphite, but that the cleaning circuit was unable to reject impurities, likely because the exposed fine graphite particles are not fully liberated from gangue.

It was recommended by the labs to conduct testing at a finer regrind sizes (cleaner circuit) to improve grade. Mineralogical results reveal that coarse graphite flakes would be generally liberated at K80 ~500 µm, so the combined flash and rougher concentrate should be ground finer to achieve K80 of 450 - 500 µm in +48 mesh concentrate. The +100-mesh concentrate could possibly benefit from a finer grind.

Subsequent to the above test work, a finer grind was employed. The ~141 g feed material was reground several times and wet screened whole to estimate grind size. Final regrind & size was ~74% passing 35 Mesh Screen (500 µm) before flotation. Results of the combined cleaner concentrate returned a grade of 96.2% C(g) at 99.8% graphite recovery. Sized at +48, +65 and +100 mesh. >96.7% C(g) was returned for flakes larger than 65 mesh, and 1.7% of the mass was rejected with a grade of 9.2% C(g).

With the results of the additional testing, hydrometallurgical purification by alkaline leaching followed by acid washing is recommended to achieve high purity. A trade off study evaluating hydrometallurgical processing to target graphite purity vs. market value should be considered for 99.9, 99.99 and 99.999% graphite purity.

Table 16: Concentrate Grade by Size Analysis

Product	F1 Mass %	F1 Grade % C(g)	F2 Mass %	F2 Grade % C(g)
	`+48 Mesh			
+28 mesh	15.7	94.4	14.8	92.7
+35 mesh	28.9	95.0	26.1	94.8
+48 mesh	23.6	94.3	32.1	95.0
+65 mesh	30.6	94.4	25.4	94.1
-65 mesh	1.30	81.8	1.52	92.8
Head (calc.)	*100.0*	*94.4*	*100.0*	*94.3*
Head (direct)		94.7		95.3
	`+100 Mesh			
+48 mesh	0.98	67.7	0.27	81.9
+65 mesh	30.8	96.0	28.1	94.9
+100 mesh	44.2	95.9	50.7	95.5
-100 mesh	24.0	92.9	20.9	94.0
Head (calc.)	*100.0*	*94.9*	*100.0*	*95.0*
Head (direct)		95.3		94.0
	`-100 Mesh			
+150 mesh	11.0	93.8	8.53	90.6
+200 mesh	15.1	93.6	17.9	88.7
+270 mesh	17.9	92.0	31.8	83.2
+400 mesh	27.1	87.3	28.2	78.9
-400 mesh	28.9	74.5	13.6	67.7
Head (calc.)	*100.0*	*86.1*	*100.0*	*81.5*
Head (direct)		86.0		81.2

14.0 MINERAL RESOURCE ESTIMATES

No mineral resource estimates have been carried out on the Lac Aux Bouleaux Graphite Property by the Company.

Items 15 to 18 are not applicable at this time.

19.0 MARKET STUDIES AND CONTRACTS

No market studies have been carried out by MN for the Property. A preliminary assessment of market for demand and supply of graphite is provided in the following sections which can provide a basis for detailed market study.

19.1 General Market Considerations

Graphite being an industrial mineral needs careful market study before making any large investments after a potential graphite resource has been delineated. A few market considerations are listed below:

Customer specifications for industrial mineral products are frequently based solely on physical properties rather than, or in addition to, chemical characteristics. Sample testing should include those tests that will provide the physical characteristics and chemical analyses that relate to the specifications of the end product. The initial testing carried out in the present study indicates that the quality of flake graphite is comparable to generally acceptable market standards.

Markets for industrial mineral resources are significantly affected by location and transportation factors. Having a graphite resource is only one of the considerations. The viability of a project will depend upon the demand in a market where the product can be sold for profit. Volume of the local and global demand is also an important factor to determine the scale of production. Local competing factors should also be evaluated for this project which includes a study of existing graphite deposits in the region, their production timeframe, current stage of development. Usually the prices and specifications are negotiated between producer and consumer.

Published specifications and standards for industrial minerals should be used primarily as a screening mechanism to establish the marketability of an industrial mineral. The suitability of an industrial mineral for use in specific applications can only be determined through detailed market investigations and discussions with potential consumers (Source: CIM 2003).

19.2 Graphite Market Demand and Supply

Graphite is flexible but not elastic and exhibits the properties of a metal and a non-metal, making it suitable for many industrial applications. The metallic properties include thermal and electrical conductivity. The non-metallic properties include inertness, high thermal resistance, and lubricity. Some of the major end-uses of graphite are in high-temperature lubricants, brushes for electrical motors, friction materials, batteries and fuel cells.

According to the USGS, global inferred resources of graphite are estimated to be 800 million tons. World production of natural flake graphite was estimated at approximately 706,000 tonnes in 2018 (Source: Mason Graphite FS 2018). On the production of flake graphite, China is the dominant producer, with an estimated 67% share of production, followed by Africa at 11%, South America (primarily Brazil) at 11%, others in Asia (mainly North Korea and India) at 4%, Europe at 5% and Canada at 1%. Approximately 70% of Chinese production is amorphous graphite with only 30% flake graphite. China does produce some large flake graphite, but most of its flake graphite production is very small (in the +200-mesh range).

According to Roskill report, China imported more than 53,000 metric tons of natural graphite in the first three quarters of 2019 (mainly from Mozambique and Madagascar), compared to just 12,000 metric tons in the same period of 2018. According to BMI, in response to this forecasted price increase, the majority of new supply is expected to come from Canada and Africa. Under its base forecast, BMI expects supply to reach 910,000 tonnes by 2020 for a 29% increase. BMI's long-term supply forecasts to 2030 expect an additional 1,464,000 tonnes of supply, 770,000 tonnes coming from an increase in production of existing mines and 694,000 tonnes from new mines (Source: Mason Graphite FS 2018).

An important area of future demand growth for graphite is expected to be that of lithium-ion battery anodes. Lithium-ion batteries are already the battery of choice in portable consumer electronics. They are also used to power fully-electric vehicles (EVs), but global uptake has been lower than anticipated in recent years. In hybrid-electric vehicles (HEVs), lithium-ion batteries are starting to make inroads, replacing nickel-metal hydride (NiMH) batteries as they offer higher energy density per unit weight. This substitution would potentially mean new demand for both synthetic and flake graphite. Consumption of graphite in batteries is expected to grow at 10% to 12% per year through 2025. With the emerging use of large flake graphite in lithium-ion batteries and fuel cells, along with its many other technology-driven applications such as the use of carbon fibre in the auto and aviation sectors, demand is shifting from amorphous graphite to flake graphite. By weight, graphite is the second largest component of lithium-ion batteries with over 20 times more graphite than lithium in a lithium-ion battery. There are over 10 kilograms of graphite in the average hybrid electric vehicle and over 70 kilograms of graphite in an electric vehicle. By 2020 it is forecasted to produce enough lithium-ion batteries to service 500,000 electric cars.

Primary aluminum represents a major end-use industry for carbon and graphite products. Markets such as electrodes, carburisers and shapes are all forecast to grow through to 2025. Carbon fibre, a high-value market, is also expanding, as producers target the replacement of steel in aerospace and automotive applications. Aluminum demand has been increasing at a healthy pace with per capita steel consumption in China and India the primary catalysts for this. Graphite consumption is growing in North America and in developing Asian countries on account of modernization and technological improvements in iron, steel and automotive industries with the Asian markets expected to emerge as key growth drivers of graphite compensating for slower growth in developed markets. Advances in thermal technology and acid-leaching techniques that enable the production of higher purity graphite powders are likely to lead to the development of new applications for graphite in high-technology fields (USGS). According to the USGS, flexible graphite product lines, such as graphoil, a thin graphite cloth, are likely to be the fastest growing market while large scale fuel cell applications are being developed that could consume as much graphite as all other uses combined.

The crystalline or flake form of graphite consists of many two-dimensional graphene sheets stacked together. Discovered in 2004, these one-atom thick sheets make graphene an ideal candidate for use as a transparent conductor (Wassei & Kaner, 2010). Currently, transparent conductors are made with indium tin oxide which is unlikely to satisfy future needs due to losses in conductivity on bending and the escalating cost of indium which is in limited supply (Wassei & Kaner, 2010). Graphene offers several advantages over indium tin oxide including weight, robustness, flexibility, chemical stability and cost which make it a potential candidate for the rapidly growing markets for flexible transparent conductors being driven by touch screens, flexible displays, printable electronics, solid-state lighting (especially light emitting diodes) and thin film photovoltaics for renewable energy applications. Additional potential applications for graphene include radio frequency identification devices (RFID), smart packaging, super capacitors, composites, sensors, logic and memory with the capacitor segment forecast by some to represent the largest segment experiencing a 67.6% compound annual growth rate (CAGR) through 2022. Carbon based systems that utilize graphene and its cost effectiveness and flexibility are likely to result in a paradigm shift in transparent conductor technology (Wassei & Kaner, 2010).

The two most important parameters of graphite pricing are chemical and physical: Carbon content (measured in percentage) and mesh size (the physical size of the powder or grains). The natural forms of graphite – amorphous, flake and vein – dictate these parameters. Transport, specifically sea freight, as a major cost factor also impacts the end price. The two most common sea freight contracts are FOB (Free on Board) and CIF (Contract, Insurance and Freight). While FOB was historically favored by the industry, CIF has risen to prominence in recent years as the most favored agreement between buyer and seller. Transport can account for up to 30% of the total price.

Outside of China, the price is controlled by the larger mining companies and their negotiations with the major refractory manufacturers. Inside of China, the flake graphite price is set by producers in Shandong and Heilongjiang while amorphous graphite is controlled by one government-run company in Hunan province that produces 92% of the world's supply. In the recent years, consumers have moved from long term contracts to a spot market deals which has caused price volatility.

Graphite prices range from US$1,300 per tonne to as high as $3,000 per tonne for premium graphite for the period 2004 to 2019. In 2019, +100 mesh and +80 mesh material ranging from 90 to 94% Cg has settled at, on average, 46% lower than prices in 2011, the highest the industry has ever seen. Price for large flake graphite have since declined to about $1,000 in the year 2019 (Fig-20) due to the slowdown in China and a lack of growth in the US, Europe and Japan.

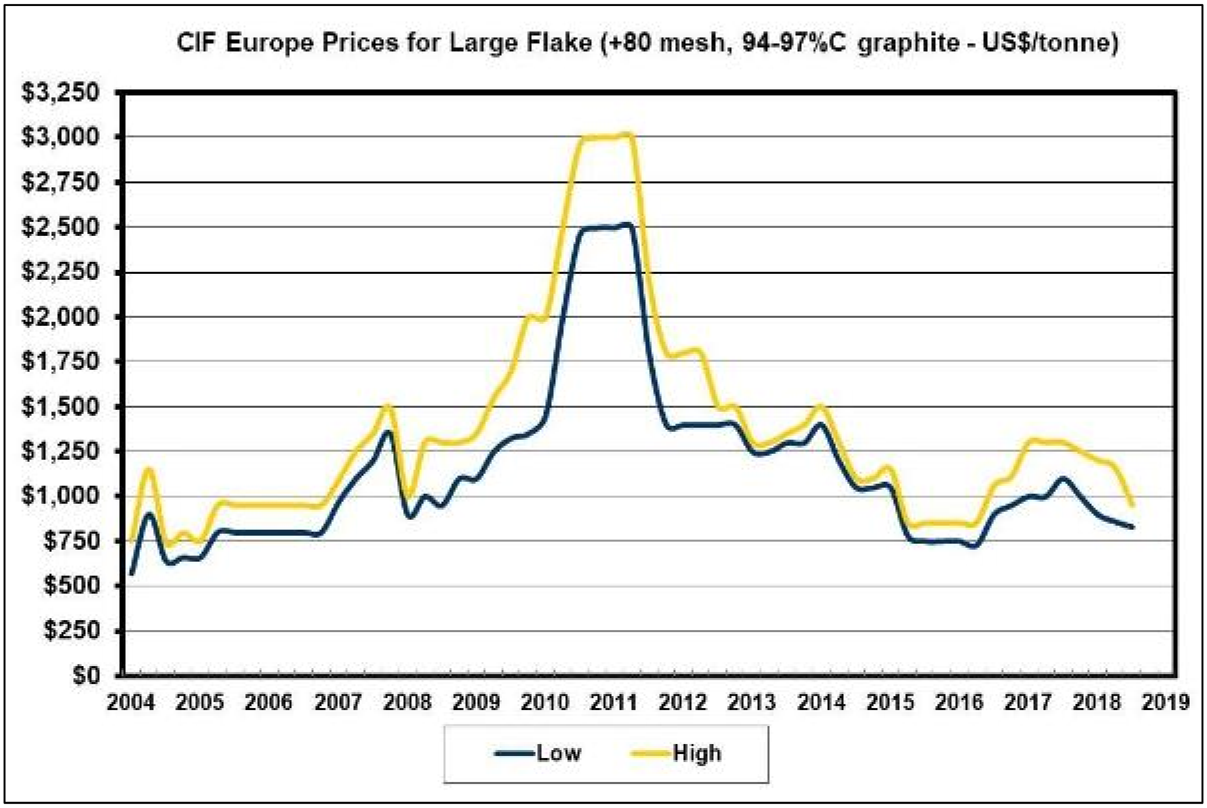


Figure 20: Graphite prices (Source: Northern Graphite)

Items 20 to 22 are not applicable at this time.

23.0 ADJACENT PROPERTIES

The adjacent area to the property is mainly staked to cover historical graphite occurrences by individuals and mining companies. The Property is located adjacent to the south of TIMCAL's Lac des Iles graphite mine in Quebec. There are several graphite showings and past producing mines in its vicinity, including a historic deposit located on the property

Cautionary Statement: Investors are cautioned that the following information has been taken from the following websites: https://www.mern.gouv.qc.ca Energie et Ressources naturelles Quebec and http://www.imerys-graphite-and-carbon.com/ The author is unable to verify the information and the information is not necessarily indicative of the mineralization on the Lac Aux Bouleaux Graphite property.

23.1 TIMCAL Graphite Mine

TIMCAL's Lac des Iles graphite mine in Quebec is a world class deposit producing 25,000 tonnes of graphite annually (Figure 21). The open pit mine in operation since 1989 with an onsite plant ranked 5th in the world production of graphite. The mine is operated by TIMCAL Graphite & Carbon, which is a subsidiary of IMERYS S.A., a French multinational company. The

mine has an average grade of 7.5% Cg (graphite carbon) and has been producing 50 different graphite products for various graphite end users around the globe.
Source: http://www.mern.gouv.qc.ca/mines/industrie/mineraux/mineraux-exploitation-graphite.jsp).

An interpretation map of 2019 ground geophysical survey map show a conductor in the northwestern part of the LAB property extends into Timcal mine area (Figure 22). This conductor should be further explored through trenching, stripping, and prospecting.


Figure 21: A view of TIMCAL Graphite Mine

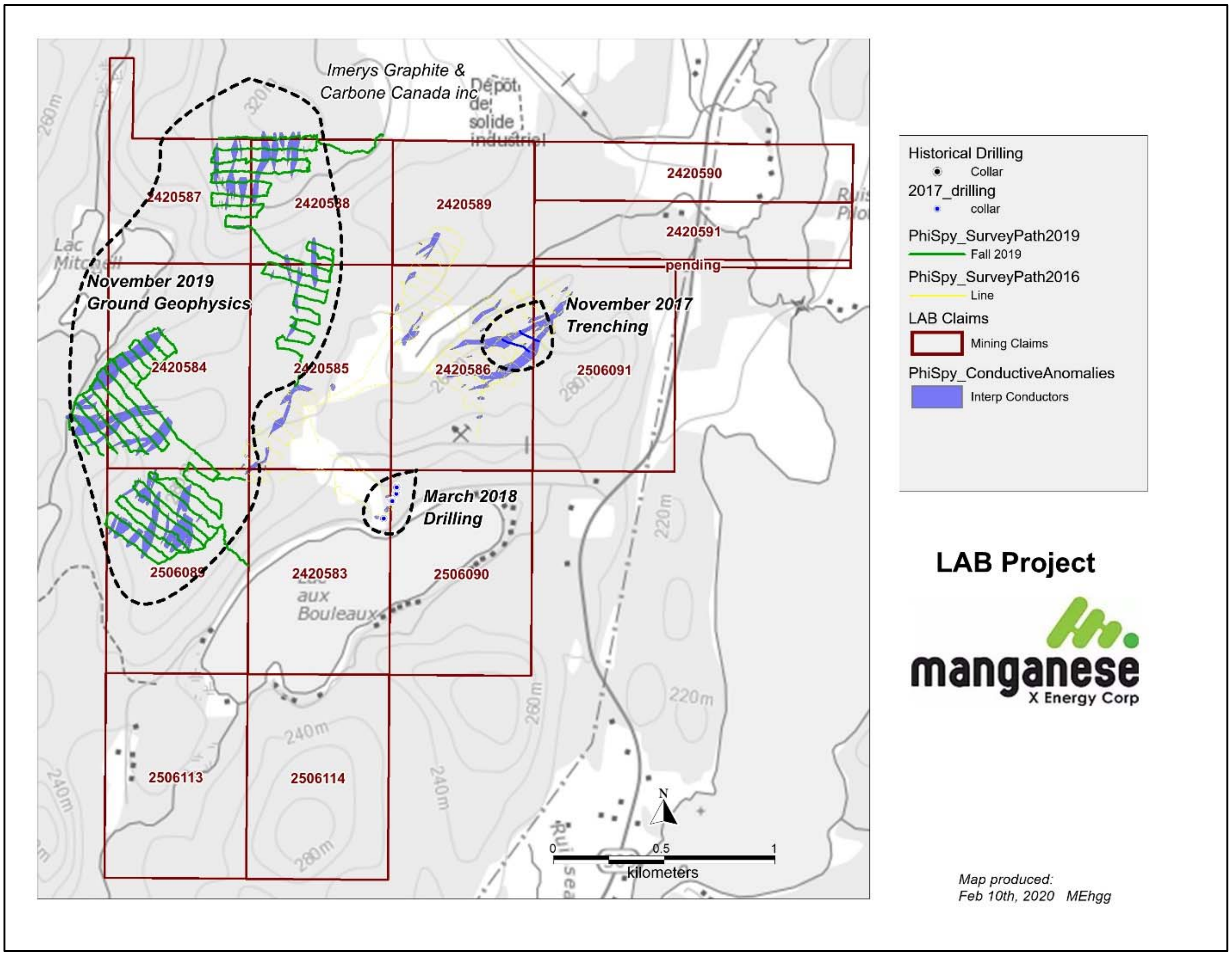


Figure 22: 2019 Geophysical survey map with reference to Timcal Mine

24.0 OTHER RELAVENT DATA AND INFORMATION

As stated earlier, several property claims are located on private lands and the Company is required to negotiate with the surface right owner to gain access for mineral exploration work. The Company will require exploration work permit on Crown lands.

25.0 INTERPRETATION AND CONCLUSIONS

The LAB Graphite property is underlain by Precambrian age rocks of Grenville Series comprised of quartzofeldspathic, garnetiferous paragneiss and limestone / marble beds. Quartzites are the least abundant of rocks in this Series. The igneous rocks which have invaded the metasedimentary sequence consist of gabbros, monzonites, anorthosites and diabase. Paragneiss is generally fine to medium grained with a variety of compositions such as, quartzo-feldspathic gneiss, biotite gneiss, biotite-garnet gneiss, biotite-garnet-sillimanite gneiss and biotite-hornblende gneiss. All compositional varieties contain some graphite. Marble is also found as thin beds up to 1.5-metre-thick and is generally medium grained crystalline limestone. Like quartzite, it also contains impurities such as phologopite, graphite or serpentine. Gneissic bands of amphibolite are also found in paragneiss which are mainly composed of black or green hornblende, biotite and plagioclase. These are mostly medium grained rocks and exhibit a "salt and pepper" texture. Gabbroic rocks are found in the southern parts of the Property and are mainly comprised of feldspar and hornblende. Post Grenville lithologies on the Property are mainly east-west trending diabase dykes which are dark grey to dark greenish grey intruding into paragneiss rocks. The unconsolidated surficial deposits of glacial, fluvial, and lacustrine origin cover a large area of the property and surrounding area.

Large flake graphite mineralization on the property is commonly associated with paragneiss in a regular banding, conforming to the beds. The paragneisses strike N10°E and dip about 70° to the east, with thickening and thinning of beds, drag-folding, minor faulting as common structural features. The mineralization exposed to the surface is quite rusty in appearance due to weathered decomposition of pyrite which occurs associated with graphite. Graphite is also located in shear zones at the contact of gneisses and marble where the graphite content usually ranges from 2% to 13% Cg exhibiting flakes up to 3 millimetres (mm) in diameter. Large flake graphite is generally considered as 0.2 mm and above.

The graphite is considered to be introduced into these rocks by quartz-graphite injection from deeper source and redistributed through fractured incompetent beds of limestone creating graphite mineralization channels. Alternatively, another theory believes graphite mineralization was derived from algae or through decomposition of calcium carbonate molecule liberating the carbon atom through metamorphic reactions. Slow cooling of the mineralized material has produced crystalline large flake graphite.

The LAB graphite mineralization was discovered in 1957 by two prospectors, a Mr. Phraz Arbic and Dr. L.J. LaRue. Subsequently, a mining company was formed and was named Italia Copper which carried out some stripping, diamond drilling, bulk sampling and proved a certain tonnage of large flake graphite deposit.

In the early 1980's, Orrwell Energy Corp. acquired 539 hectares ground in 12 surveyed parcels (within the current claim block) and completed an exploration work program consisting of ground electromagnetic geophysical survey, 79 diamond core drill holes totalling 19,550 feet (5,958 metres) drilling, and resource estimation work. *The resource estimation resulted in a historical resource of 1,320,847 tons at 9% Cg, or 1,452,932 tons at 8% Cg* (Source: Douglas Parent 1982, MRNF report GM46736).

(Note: A Qualified Person has not done sufficient work to classify the historical estimate as current mineral resources. The Company is not treating the historical estimate as a current mineral resource or reserve. The historical resources were calculated by block

models using different cut-off grades, and a specific gravity of 2.76. The Company believes that the historic estimate is relevant to an appraisal of the merits of the property and forms a reliable basis upon which to develop future exploration programs. The Company will need to conduct further exploration which will include drill testing the project, and there is no guarantee that the results obtained will reflect the historical estimate. The historical estimates should not be relied on.)

In 2015, Goldport Resources / NRG Metals completed a 281 line kilometers airborne magnetic (MAG) and electromagnetic (EM) survey on the Property. MAG survey identified several east-west running structures and lineaments which are bounding potential EM target areas. A total of seven potential target areas were identified through interpretation of EM survey.

During 2017-18, Graphite Energy Corp. carried out exploration work on the property which included prospecting, trenching, channel sampling and diamond core drilling on historicall identified targets. Surface sampling work indicated graphite carbon in the range of 2.20% to 22.30% Cg. The results of channel sampling from trenching areas did not show any promising graphite mineralization on the estern part of airborne and ground geophysical survey target area 1. Graphite Energy Corp. also completed four NQ size diamond core drill hole in 2018. These holes were drilled around historical graphite pit. Highlights of these results include:

- Drill Hole LAB18-01 intersected 11 graphite mineralization zones from 10.25 m to 68.55 m below surface, ranging in thickness from 0.3 metres to 3.15 metres (m) with grades of 1.7% graphite (Cg) to 16.70% Cg. Two prominent zones, first with 11.70% Cg over 1.55 m from 23.55 m, and the second 9.24% Cg over 3.15 m from 86.40 m.
- Drill Hole LAB18-02 intersected two graphite mineralization zones, the first with 8.45% Cg over 6 m from 28.3 m, and the second with 7.89% Cg over 4.08 m from 39.42 m below surface.
- Drill Hole LAB18-03 intersected 6.77 m wide zone grading 9.26% Cg from 80.13 m below surface.
- Drill Hole LAB18-04 intersected 9.33 m zone grading 7.14% Cg from 97.57 m below surface.

*Note: * All widths reported are drill core widths and have not been converted into true width.*

In November 2019, the Dynamic Discovery Geoscience Ltd., was contracted by Manganese X Energy Corp. to conduct a ground time-domain electromagnetic (TDEM) PhiSpy survey on the Lac Aux Bouleaux Property. Another ground PhiSpy surveys was conducted in 2016 at the Lac Aux Bouleaux Property therefore data from 2016 was also compared to the data collected in the recent survey in 2019. Every survey grid was made of lines spaced every 50 m and oriented perpendicular to the strike of airborne anomalies. For transport of the PhiSpy system, the ends of each line were tied with tie lines from one line to the next. Grids 4, 5, 6 and D consisted of 4.60, 3.58, 4.85 and 3.06 km of line cutting, respectively, for a total of 16.09 km. In addition to the grid lines, the PhiSpy TDEM also surveyed nearby trails for a cumulative 18.275 km survey. A total of 35.875 km of PhiSpy data collected in both 2016 and 2019 surveys. Six high priority, in terms of potential for a large volume of mineralization, is given to the following defined conductors: 1A, 1B, 4C, 4D, 6A and 6B, as they display the widest apparent thickness, EM anomaly intensity, and significant longitudinal extensions. Recommendations based on PhiSpy survey include stripping and prospecting to perform ground investigations which should be followed by shallow drill holes on anomalies of interest. There are 19 locations in total that are proposed for follow-up work: 4 locations to test the targets 1A and 1B, 6 locations on targets 4A, 4B, 4C, 4D and 4E, 4 locations on targets 5B, 5C, 5D, 5E and 5F, and 5 on targets 6A, 6B and 6D.

The Author visited the property on May 1st, May 27-29, 2015, August 19th, 2016, July 05th and November 05-08, 2019 to confirm the historical exploration work locations, rock outcrops, geological setting, graphite mineralization, ground geophysical data and to develop the exploration plans. During May 2015 visit, a total of 10 grab rock samples were collected, out of which six samples were from potential graphite mineralized boulders and outcrops and four samples were from the country rock to check background graphite content. Results from six mineralized samples returned high carbon graphite (% Cg) values of 23.8%, 18.4%, 16.6%, 16.0%, 15.9%, and 13% Cg with an average grade of 17.2% Cg. The four Country rock samples assayed 1.53%, 0.55%, 0.26% and .02 % for an average of 0.59% Cg.

Six mineralized surface grab rock samples each weighing about 10 kilograms were selected for metallurgical testing. A single composite was formed by blending the samples, and subsequently submitted for mineralogical analysis and metallurgical testing. Metallurgical testing included a series of flash flotation, light grinding and cleaning to produce a graphite concentrate. The graphite concentrate was screened to assess the size and purity of the graphite flakes on a size by size basis.

Test F1 produced the three sized concentrates with grades of 94.7% C(g) in the +48-mesh concentrate (jumbo flake), 95.3% C(g) (large flake) in the +100-mesh concentrate and 86% C(g) in the -100-mesh concentrate (small flake). The combined concentrate had an overall graphite recovery of 89.6% at a grade of 91.0% C(g). Test F2 was performed to improve the graphite grade by increasing the regrind times in all three regrind stages. The three sized concentrates had grades of 95.3% C(g) (jumbo flake) in the +48-mesh concentrate, 94% C(g) in the +100-mesh concentrate (large flake) and 81.2% C(g) in the -100-mesh concentrate. The combined concentrate had an overall graphite recovery of 96.2% at grade of 88.3% C(g). In both tests, 30% of the total graphite was recovered in the +48-mesh concentrate (jumbo flake) and 21 to 24% recovered in the +100 mesh concentrates (large flake) with combined over 50% of jumbo and large flake concentrate. Both large and jumbo flake graphite is targeted for a premium market price.

A mineralogical study was conducted by SGS on a master composite sample with optical microscopy and quantitative X-ray diffraction (XRD) to determine the occurrence and liberation of graphite and associated gangue minerals. The sample was examined at -6 mesh. Graphite particles range in size from ~ 5 µm to ~2 mm generally most of the graphite grains are comprised of coarse grained (> 400 µm) particles. The particles occur mainly as polycrystalline, tabular, platy and prismatic grains. The graphite occurs as liberated (~33%) and exposed particles (~61%) with minor amounts of locked grains (~6%). These results show high recovery potential of graphite (94%) through floatation which was confirmed in the metallurgical testwork.

The Property carries certain risks due to surface land ownership by private individuals and the access for exploration work in these areas need their permission. It is recommended to start communicating early before commencement of exploration work. These negotiations were successful in the past where mutually agreed compensation was paid for cutting trees, making trails and access roads.

Keeping in view that the past exploration results intersected graphite mineralization in drill holes, presence of multiple geophysical survey targets, preliminary metallurgical results indicating presence of flake graphite, favourable infrastructure support, and the results of this present study, it is concluded that the Property is a property of merit and possesses a good potential for further graphite exploration. It has good road access, water and electricity are available on site; and most of the exploration and mining services are available in the vicinity. Except for geological mapping and surface sampling, the exploration and mining work can be carried out round the year.

The Author is of the opinion that the present study has met its original objectives.

26.0 RECOMMENDATIONS

In the Qualified Persons' opinion, the character of the Lac Aux Bouleaux Graphite Property is enough to merit a follow-up work program. This can be accomplished through a two-phase exploration program, where each phase is contingent upon the results of the previous phase.

Phase 1 – Trenching and Channel Sampling

Although, 2017 trenching work on geophysical target area 1 failed to discover significant graphite mineralization, however 2016 and 2019 PhiSpy geophysical survey identified 19 locations for follow-up stripping, trenching and channel sampling work: 4 locations to test the targets 1A and 1B, 6 locations on targets 4A, 4B, 4C, 4D and 4E, 4 locations on targets 5B, 5C, 5D, 5E and 5F, and 5 on targets 6A, 6B and 6D. Additionally, surface sampling results indicated presence of graphite outcrops and boulders in other areas of the Property. It is therefore recommended to continue stripping and trenching work on other target areas identified in airborne and ground geophysical surveys. The estimated budget for this phase is $211,155, it will take three months' time to complete, and the details are provided in Table 17.

Phase 2 – Exploratory Drilling

This work will include 1,500 meters' diamond core drilling on the historical graphite resource areas and new geophysical survey targets. Total estimated budget for this phase is $283,500 (Table 17) and will take approximately six months' time to complete.

Table 17: Budget

Phase 1: Trenching and Channel Sampling				
Item	Unit	Unit Rate ($)	Number of Units	Total
Field Prospecting 2 Person Crew	days	$900	14	$12,600
Geological Mapping	days	$650	14	$9,100
Trenching and Channel Sampling	metres	$700	150	$105,000
Sample Assays	sample	$70	200	$14,000
Surface Owners Negotiation and Compensation	ls	$10,000	1	$10,000
Supplies - Geological	lump sum	$5,000	1	$5,000
Travel road	km	$1.00	5,000	$5,000
Travel air	trip	$700	4	$2,800
boarding and lodging	days	$250	80	$20,000
Data Compilation	days	$700	10	$7,000
Report Writing	days	$650	20	$13,000
Filing fees	claim	$55	21	$1,155
Project Management	days	$650	10	$6,500
Total Phase 1 Budget				**$211,155**
Phase 2: Exploratory Drilling				
Item	Unit	Unit Rate ($)	Number of Units	Total
Exploratory Drilling	m	$90	1,500	$135,000
Core Logging and drill hole management	days	$650	30	$19,500
Surface Owners Negotiation and Compensation	ls	$10,000	1	$10,000
Core Shack	ls	$5,000	1	$5,000
Core Cutting and Packing	m	$30	500	$15,000
Accommodations and Meals	day	$250	90	$22,500
Supplies	ls	$15,000	1	$15,000
Sample Assays	sample	$70	300	$21,000
Transportation Air	Flights	$1,000	4	$4,000
Transportation Road	km	$1	10,000	$10,000
Data Compilation	days	$700	10	$7,000
Report writing	days	$650	15	$9,750
Project Management	days	$650	15	$9,750
Total Phase 2 Budget				**$283,500**

27.0 REFERENCES

1. Anderson, B.A. & Rade, I. (2001), 'Metal Resource Constraints for Electric-Vehicle Batteries', *Transportation Research Part D*, 6, pp. 297-324, PII: S1361-9209.
2. Anthony, John W.; Bideaux, Richard A.; Bladh, Kenneth W. and Nichols, Monte C., ed. (1990). "Graphite" (PDF). *Handbook of Mineralogy*. I (Elements, Sulfides, Sulfosalts). Chantilly, VA, US: Mineralogical Society of America. ISBN 0962209708.
3. Chang, Y., Mao, X., Zhao, Y., Feng, S., Chen, H., & Finlow, D. (2009), 'Lead-acid Battery Use in the Development of Renewable Energy Systems in China', *Journal of Power Sources*, 191, pp. 176-183, doi: 10.1016/j.jpowsour.2009.02.030.
4. CIM Council (2003), Estimation of mineral resources and mineral reserves, best practices guidelines, Canadian Institute of Mining and Metallurgy and Petroleum (CIM), May 30, 2003.
5. Parent, Douglas (GM46736), (1982), Orrwell Energy Corporation – Preliminary up to date report on the geophysical surveys, diamond drill program, and resultant ore reserve calculations conducted on the Bouthillier Township property, Mont Laurier area, Laurentides - Labelle County, South Western Quebec, NTS 31J05, April 1982.
6. GM40134, (1983), Orrwell Energy Corporation – Diamond drill record for hole number 82-62 to 83-79.
7. GM40134, (1982), Orrwell Energy Corporation – Diamond drill record for hole number 81-01 to 82-61.
8. Parent, Douglas (GM38622), (1981), Orrwell Energy Corporation – Technical report on the graphite mining property located in Bouthillier Township property, Mont Laurier area, Laurentides - Labelle County, South Western Quebec, NTS 31J05, June 1981 (revised in August 1981).
9. Mason Graphite (2018), Lac Gueret Graphite project feasibility study, dated December 11, 2018.
10. Morgan, W. A. (1970), Beneficiation tests on Mont Laurier graphite ore, March 06, 1970 (GM26095).
11. Lacombe, G. Pierre, (1965), Report on Italia Copper Ltd., Bouthillier Township, Quebec, March 01, 1965 (GM16329).
12. Salman, T., (1961), Floatation tests on Italian Copper Ltd. graphite from Mount Laurier, November 02, 1961 (GM11929), by T. Salman, Mineral Dressing Consultant.
13. Lacombe, G. Pierre, (1958), Annual report on Italia Copper Ltd., Bouthillier Township, Quebec, 1957-58 (GM06279).
14. Hensley, R., Newman, J., Rogers, M., & Shahinian, M. (2012), 'Battery Technology Charges Ahead', *Mckinsey Quarterly*, 3, pp. 19-22.
15. Knox, J. (2012), 'Graphite is the New Black Gold', *Automotive Industries*, [Online], available from: http://www.ai-online.com/Adv/Previous/show_issue.php?id=4934.
16. Katsnelson, M. I. Graphene: carbon in two dimensions. Materials Today. 2007, 10, 20-27.
17. Leduc Mark, (2013), Preliminary Economic Assessment, NI 43-101 Technical Report Bissett Creek Project, prepared for Northern Graphite Corporation, December 16, 2013.
18. Maurice, O.O., Annotated list of occurrences of industrial minerals and building materials in Quebec, published by Ministry of Natural Resources Quebec (MRNF Quebec), DP 184.

19. Parent Douglas, 1981, Report on graphite bearing mining claims, Lac Aux Bouleaux Township, Papineau County, P.Q., June 22, 1982 (GM 38648).

20. Roskill (2012), 'Changing Market Demand Presents Opportunities for New Flake Graphite Supply', *PR News Wire US*, 29 October, Regional Business News.

21. Sutphin, David M.; James D. Bliss (August 1990). "Disseminated flake graphite and amorphous graphite deposit types; an analysis using grade and tonnage models". *CIM Bulletin* **83** (940): 85–89.

22. Therialt R., 2012, Geological map of Quebec at 1:2,000,000, published by Ministry of Natural Resources Quebec (MRNF Quebec).

23. Wassei, J. K. & Kaner, R.B. (2010), 'Graphene: A Promising Transparent Conductor', *Materials Today*, 13, 3, pp. 52-59, ISSN: 1369-7021.

24. US Department of Energy. Graphene: Amazing Material Found Thanks to Scotch Tape and Persistent Science, Mar 25, 2011. http://science.energy.gov/news/in-focus/2011/03-25-11/ (accessed Apr 5, 2013).

25. MRNF Website: http://www.mrnf.gouv.qc.ca/english/mines/quebec-mines/2005-06/2005-06.asp.

26. USGS Website: http://minerals.usgs.gov/minerals/pubs/commodity/graphite/.

27. Website: http://www.worldweatheronline.com/Mont-Laurier-weather-averages/Quebec/CA.aspx.

28. Website: http://www.marketwatch.com/story/teslas-lithium-ion-plant-a-paradigm-shift-for-graphite-demand-2014-03-07.

29. Website: http://www.kitco.com/ind/MiningReport/2014-01-15-2014-Graphite-Outlook-Price-Rebound-Supply-Shift-and-New-End-Uses.html.

30. Website: http://www.saintjeancarbon.com/graphite/prices/.

SIGNATURE PAGE

Effective date: February 18, 2020

Certificate of Author

I, Martin Ethier, P.Geo., as the author of this report entitled, "Updated NI 43-101 Technical Report on the Lac Aux Bouleaux Graphite Property, NTS Map 31J05, Quebec, Canada", dated February 18, 2020.

1. I have been working since 2000 as a geologist / remote sensing / GIS specialist in the mining industry on a variety of properties. I have been a consulting geologist since 2002 with Hinterland Geoscience & Geomatics – 620 Brewster St. Haileybury Ontario P0J 1K0.
2. I graduated with a Bachelor of Arts, from Mount Alison University of Sackville New Brunswick (1997), majoring in Geography, and minors in Geology as well as Environmental Studies. In addition, I completed an intensive Post Graduate Advanced Diploma in Remote Sensing and Geographic Information systems from the Centre of Geographic Sciences (COGS) in Lawrencetown (1998), Nova Scotia. Furthermore, have obtained a Master of Science in Geology from Acadia University in Wolfville (2001), Nova Scotia.
3. This certificate applies to the report entitled, "Updated Technical Report on the Lac Aux Bouleaux Graphite Property, NTS Map 31J05, Quebec, Canada", dated February 18, 2020.
4. I am professional Geologist and a member of "Ordre de Geologues du Quebec" (Member #: 1520), Canada.
5. I have worked for the last 16 years as a geologist / remote sensing / GIS specialist in the mining industry on a variety of exploration properties such as diamond bearing kimberlites, silver-cobalt deposits, gold and Ni-Cu-PGE. I also have experience in the industrial minerals including graphite and sand/gravel deposits.
6. I have read the definition of "qualified person" set out in National Instrument 43-101 ("NI43-101") and certify that by reason of my education, affiliation with professional associations and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purpose of NI43-101.
7. I visited the Lac Aux Bouleaux Graphite Property on May 1^{st}, May 27-29, 2015, August 19^{th}, 2016, July 05^{th} and November 05-08, 2019..
8. I am responsible for all items of this report.
9. I have no interest, direct or indirect in the Lac Aux Bouleaux Graphite Property, nor do I have any interest in any other properties of Manganese X Energy Corp. or the property vendors.
10. I am independent of Manganese X Energy Corp. and the property vendors as defined in Section 1.5 of NI 43-101.
11. I have no prior involvement with the Lac Aux Bouleaux Graphite Property other than as disclosed in item 7 of this certificate.
12. I have read National Instrument 43-101 ("NI43-101"), and the Technical Report has been prepared in compliance with NI43-101, and Form 43-101F1.

13. I am not aware of any material fact or material change with respect to the Lac Aux Bouleaux Graphite Property the omission of which would make this report misleading.
14. I consent to the filing of the Technical Report with any stock exchange and other regulatory authority and any publication by them, including electronic publication in the public company files on their websites accessible by public.
15. As at the date of this certificate, to the best of my knowledge, information and belief the technical report contains all scientific and technical information that is required to be disclosed to make the technical report not misleading.

Dated: February 18, 2020