

GM 66648

2011 EXPLORATION PROGRAM ON THE GREVET A PROPERTY

Documents complémentaires

Additional Files



Licence



License

Cette première page a été ajoutée
au document et ne fait pas partie du
rapport tel que soumis par les auteurs.

Énergie et Ressources
naturelles

Québec 

**InnovExplo – Consulting Firm
Mines & Exploration**

560-B, 3^e Avenue,
Val-d'Or, Québec, Canada, J9P 1S4
Telephone: (819) 874-0447
Facsimile: (819) 874-0379
Toll-free: 1-866-749-8140
Email: info@innovexplo.com
Web site: www.innovexplo.com



InnovExplo

nyrstar

**2011 EXPLORATION PROGRAM ON THE GREVET A PROPERTY
(ABITIBI, QUÉBEC)**

Project Location

Latitude: 49°16'6" North ; Longitude: 76°44'35" West
Grevet Township
Province of Québec, Canada

Prepared for

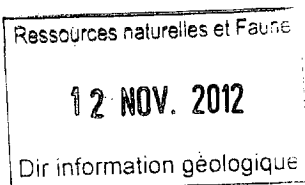
Nyrstar
Route 1000, Km 42, C.P. 6000
Lebel-sur-Quévillon
J0Y 1X0

GM 66648

Prepared by:

Cédric de Marneffe, G.I.T. (OGQ #1484)
InnovExplo Inc – Consulting Firm
Val-d'Or (Québec)
Email: cedric.demarneffe@innovexplo.com

Vincent Jourdain, Ph.D., P.Eng.
InnovExplo Inc – Consulting Firm
Val-d'Or (Québec)
Email: vincent.jourdain@innovexplo.com



January 13, 2012

1217804

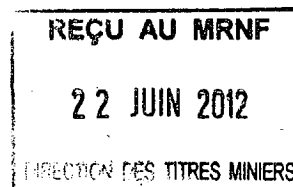


TABLE OF CONTENTS

1.0	SUMMARY	4
2.0	INTRODUCTION	5
3.0	PROPERTY DESCRIPTION AND LOCATION	6
3.1	Location	6
3.2	Mining titles status	7
4.0	ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY	8
4.1	Accessibility	8
4.2	Climate.....	8
4.3	Local Resources	8
4.4	Physiography	8
5.0	HISTORY	10
6.0	GEOLOGICAL SETTING AND MINERALIZATION	12
6.1	Regional Geological Setting	12
6.2	Local Geological Setting	14
6.3	Mineralization.....	16
7.0	DEPOSIT TYPES	17
7.1	Volcanic Massive Sulphide Deposits	17
7.2	Greenstone-Hosted Quartz-Carbonate Vein Deposits	18
8.0	EXPLORATION	19
8.1	Compilation.....	19
8.1.1	Eastern Area.....	20
8.1.2	Central Area.....	21
8.1.3	Western Area	24
8.2	Prospecting.....	25
9.0	ADJACENT PROPERTIES	29
10.0	INTERPRETATION AND CONCLUSIONS	30
11.0	RECOMMENDATIONS	31
12.0	REFERENCES	32
13.0	SIGNATURE PAGE	35
14.0	CERTIFICATE OF AUTHOR.....	36

LIST OF FIGURES

Figure 3.1 – Location map of the Grevet A Project	6
Figure 3.2 – Claim map of the Grevet A property.....	7
Figure 4.1 – Topography and accessibility of the Grevet A property and its vicinity	9
Figure 6.1 – Regional geology of the Abitibi Subprovince.....	13
Figure 6.2 – Local geology of the Grevet A area.....	15
Figure 8.1 – Compilation map	19
Figure 8.2 – Rock classification diagram for samples collected in 2011 on the Grevet A property (n=4).....	27
Figure 8.3 – Compilation of the exploration work conducted in 2011 on the Grevet A property .	28

LIST OF TABLES

Table 5.1 – List of historical work conducted on the Grevet A property	11
Table 8.1 – Sample locations and brief description.....	27

LIST OF APPENDICES

APPENDIX I – UNITS, CONVERSION FACTORS, ABBREVIATIONS	38
APPENDIX II – LIST OF CLAIMS.....	40
APPENDIX III – CERTIFICATE OF ANALYSIS	43
APPENDIX IV – BEEP MAT SURVEY INTERPOLATIONS AND SAMPLE LOCATIONS.....	49

1.0 SUMMARY

This report presents the compilation and exploration work performed by InnovExplo during the 2011 exploration program conducted on the Grevet A property belonging to Breakwater Ressources Ltd ("Breakwater", now Nyrstar). It also contains the information used to formulate the recommended exploration program. The author, Cédric de Marneffe, M.Sc., G.I.T., wrote this report under the supervision of Vincent Jourdain, Ph.D., P.Eng., after reviewing all available data from earlier surveys and any other information judged relevant, suitable and reliable.

The Grevet A property is located 30 km northeast of the town of Lebel-sur-Quévillon in the western part of Québec. The Lebel-sur-Quévillon area lies within the east-central portion of the Abitibi Subprovince, which consists of a large Archean belt of volcano-plutonic rocks. The area hosts many projects that reached an advanced exploration or even production stage, as demonstrated by the Langlois zinc-copper-silver mine less than 3 km southeast of the Grevet A property.

The Grevet A property is dominated by volcanic rocks, mainly andesitic and basaltic, with some intrusive and sedimentary (graphitic) occurrences. This property is crossed by two major structures: the Cameron Deformation Zone (CDZ) and the Wedding Fault. The Wedding Fault cuts the CDZ (3-5 km wide) with a sinistral displacement of about 4 km.

Several HEM and IP axes were identified on the property by historical work and most were drill-tested. Graphitic layers grading up to 2% Zn were typically intersected, as well as thin barren massive sulphide occurrences. Differences in position and orientation were noted for holes 07-GRA-09 to -11 when Metco Resources' original logs were compared to their maps. These differences make it difficult to determine whether the holes effectively tested the IP axes.

Several high-grade assays were obtained from the Blondeau showing, one of several known gold occurrences on the property. The best grades were 103 g/t Au in a grab sample and 8.47 g/t Au over 1.36 m in a channel sample; all samples were collected from a quartz-calcite-pyrite vein within a shear zone. Two (2) diamond drill holes tested the depth extension of the showing but failed to intersect the vein and did not yield any significant gold results. In 1981, a core sample in mafic volcanic rocks graded 2 g/t Au over 1 m in DDH 78-5-2. Another hole, 07-GRA-02, was drilled very close to the latter but did not return significant gold values. In 1984, soil samples returned maximum gold values of 1,992 and 1,983 ppb Au, but those assays were not duplicated by a second, larger soil survey conducted in 2004. Nevertheless, several alteration zones were delineated and drill-tested in 2007, although these did not yield any significant results.

Several rare earth element (REE) occurrences were identified by SOQUEM in the southwest corner of the property. Total Rare Earth Element Oxide (TREO) contents reached up to 0.6% for trench samples (with one exception of 4.7%) and up to 0.9% in drill holes.

InnovExplo spent two (2) days prospecting the eastern and western parts of the Grevet A property. The main objectives were to perform a quick field reconnaissance of newly added claim extensions in the western part and basic follow-up surface work in the eastern part to determine whether the area would be suitable for summertime drilling.

Based on the results of the compilation work, InnovExplo recommends locating the casings of holes 07-GRA-09 to -11 in order to verify their orientations and thereby determine whether they effectively tested the IP anomalies. If they did not, then these anomalies should be drilled. It is also recommended that the REE potential of the western part of the property be assessed.

2.0 INTRODUCTION

InnovExplo Inc (“InnovExplo”) was contracted by Mr. Mario Doucet (mine Manager, Langlois mine) and Mr. Torben Jensen (Vice President, Engineering), both of Breakwater Resources Ltd (“Breakwater”), to plan, supervise and execute an exploration work program on the Grevet A property. During the summer of 2011, Nyrstar acquired Breakwater, thereby also acquiring all the rights and obligations related to the Grevet A property.

This report presents the compilation and exploration work performed by InnovExplo during the 2011 exploration program on the Grevet A property belonging to Breakwater Resources Ltd (now Nyrstar). The report also contains all the information used to formulate the recommended exploration program herein.

The authors, Cédric de Marneffe, M.Sc., G.I.T., wrote this report under the supervision of Vincent Jourdain, PhD, P.Eng., after reviewing all available data from earlier surveys and any other information judged relevant, suitable and reliable. Technical support was provided by Denis Lebreux and Marcel Naud of InnovExplo. Venetia Bodycomb of Vee Geoservices provided the linguistic editing.

The authors have a good understanding of mineral exploration models for gold and base metal deposits by virtue of having worked in such environments. The exploration work presented in this report was carried out under the supervision of Karine Brousseau and Alain Carrier of InnovExplo.

InnovExplo conducted a review and appraisal of the information used in the preparation of the present report and is of the opinion that the conclusions and recommendations herein are valid and appropriate considering the status of the project. The author has fully researched and documented the conclusions and recommendations submitted in this report.

3.0 PROPERTY DESCRIPTION AND LOCATION

3.1 Location

The Grevet A property is located 30 km northeast of the town of Lebel-sur-Quévillon, Québec, on NTS map sheet 32F/07 (Fig. 3.1). The project is located in the township of Grevet. The approximate UTM coordinates for the geographic centre of the property are 373188E and 5458757N (Zone 18, NAD 83).

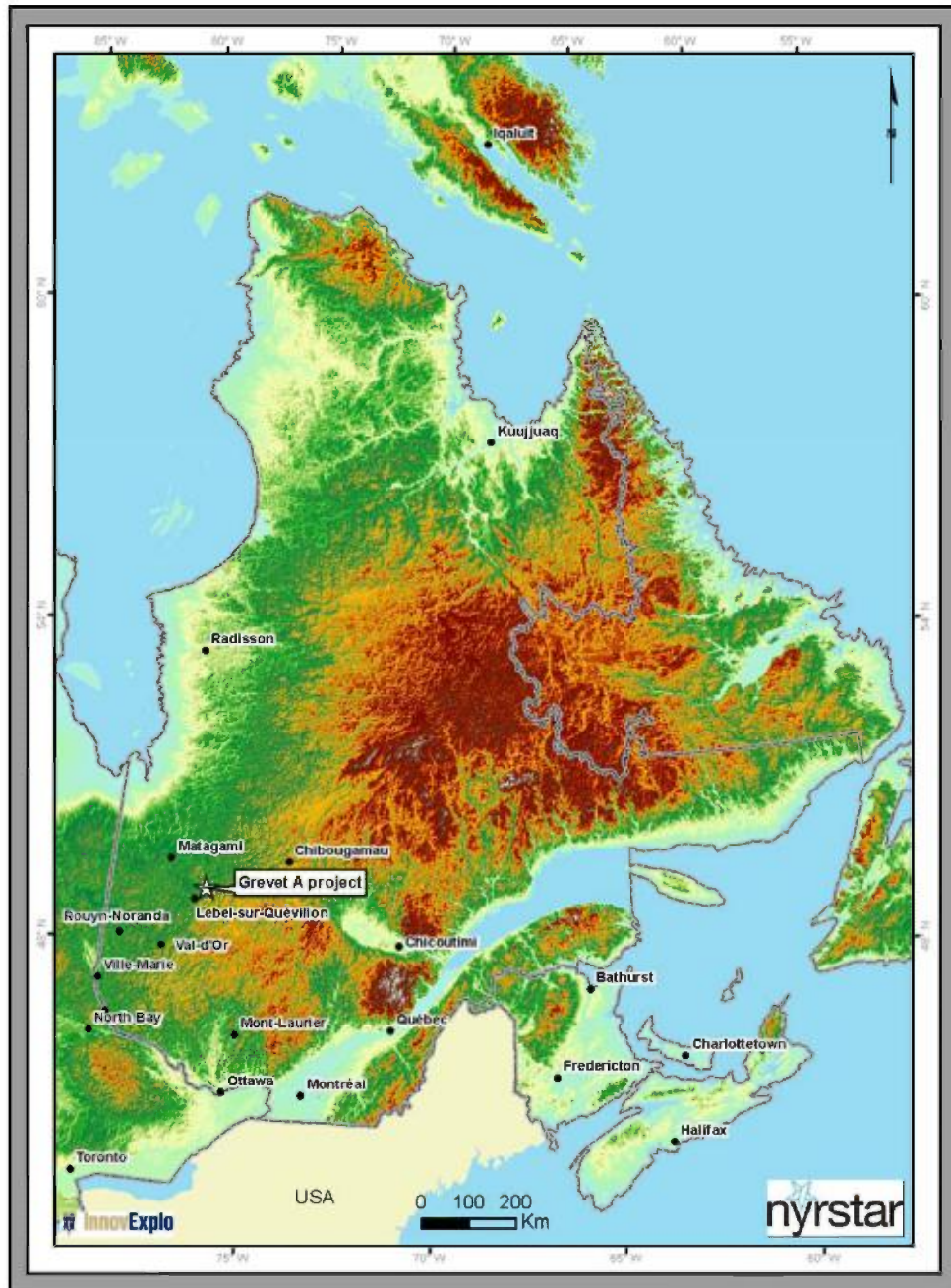


Figure 3.1 – Location map of the Grevet A Project

3.2 Mining titles status

The Grevet A property comprises 53 active mining titles for a total of 876.9 ha in the Grevet Township in the province of Québec (Fig. 3.2 and Appendix II).

Except for the usual government conditions and limitations regarding activities in forested areas, InnovExplo has not uncovered any particular environmental or legal liabilities related to the property. The claims are all in good standing, with 52 registered 100% in the name of Breakwater Resources Ltd (now Nyrstar) and one (1) registered 30% to Nextair Inc and 70% to Breakwater Ressources Ltd (now Nyrstar).

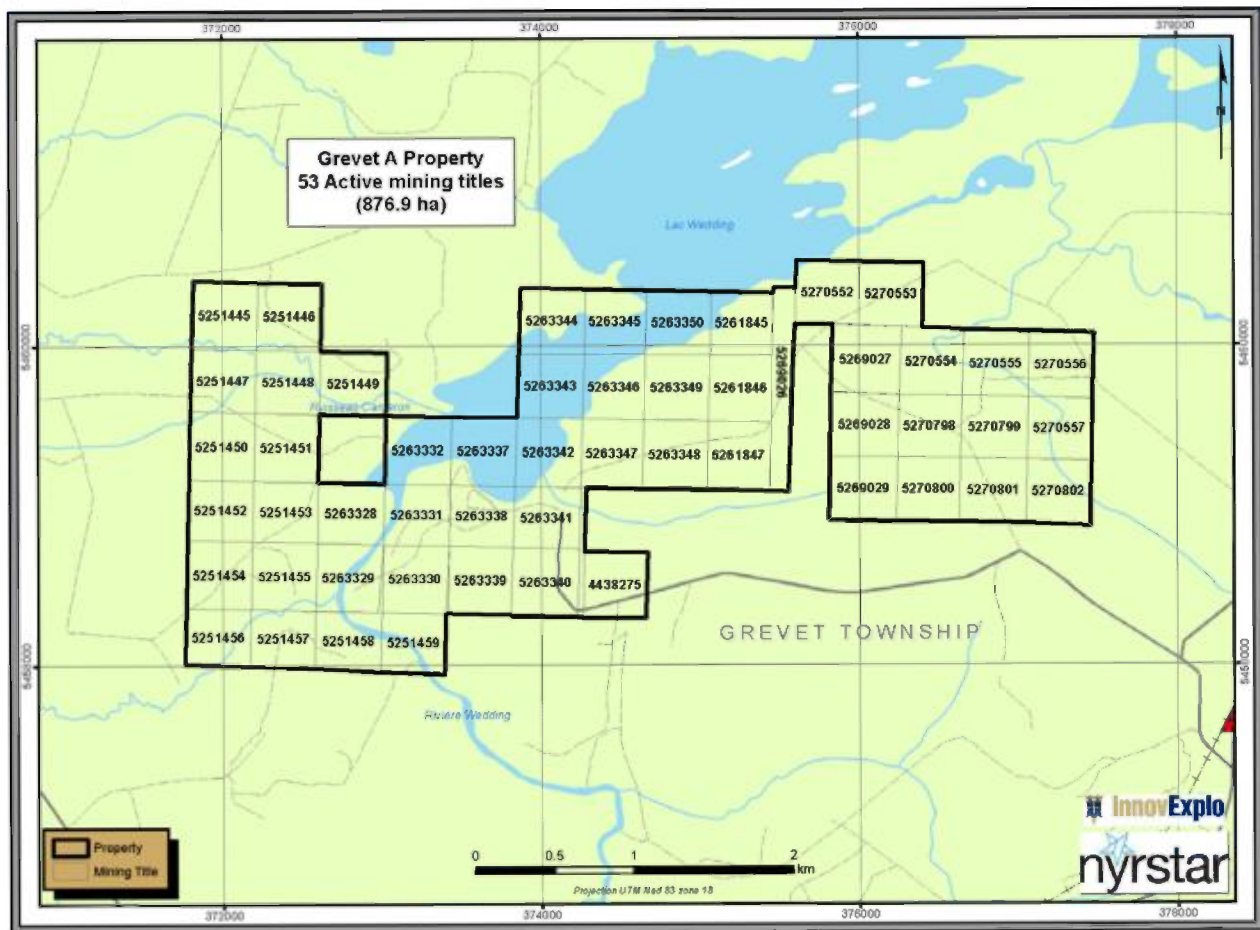


Figure 3.2 – Claim map of the Grevet A property

4.0 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

4.1 Accessibility

The Wedding River crosses the Grevet A property and divides it into two parts in terms of access. Both parts are accessible from Lebel-sur-Quévillon by driving along road 1000, a gravel road owned by Domtar (Fig. 4.1). To reach the area west of the river, turn west onto a gravel road about 34 km north of Lebel-sur-Quévillon, turn right onto gravel road 2000 after 1.7 km, and drive north for 10 km at which point 1.5 km of overgrown gravel roads lead into this part of the property. To reach the area east of the river, turn west about 41 km north of Lebel-sur-Quévillon and continue for 2 km along a single gravel road that splits into three roads leading into the property.

4.2 Climate

The climate for the Grevet A property region is continental, marked by cold, dry winters and hot, humid summers, with mean temperatures ranging from -17°C in January to +17°C in July. The historical recorded low was -43.9°C and the high 36.1°C. There are, on average, 209 days of frost. Historical records indicate a mean annual precipitation of 954 mm. The most abundant rainfall occurs in September with an average of 101.5 mm. Snow accumulates from October to May, with a peak from December to March.

4.3 Local Resources

Lebel-sur-Quévillon is a small town with a population of approximately 2,000. The forestry and mining industries constitute the cornerstones of Lebel-sur-Quévillon's local economy. Until recently, the main businesses were the Comtois sawmill (Resolute Forest Products, formerly AbitibiBowater Inc) and the Langlois mine (now owned by Nyrstar following its recent acquisition of Breakwater Resources Ltd), both of which ceased operating in November 2008. A development program is currently underway at the Langlois mine and production should start up again in the first half of 2012. The town has motels, restaurants, a gas station and a grocery store. Full infrastructure and an experienced mining workforce are also available in a number of well-established mining towns nearby, such as Val d'Or, Rouyn-Noranda, La Sarre, Matagami and Chibougamau. A railway track (connecting Lebel-sur-Quévillon to Matagami and Chibougamau) and a power line are present only at a few kilometres of the property. Several exploration and mining contractors are located around Lebel-sur-Quévillon. Although Lebel-sur-Quévillon has its own small airport, Val-d'Or has the closest commercial airport with regularly scheduled direct flights to Montreal.

4.4 Physiography

The landscape of the Grevet A property is relatively flat, between 300 and 320 metres above sea level. Wedding River adjoins Wedding Lake in the central-west part of the property, which is mainly covered by spruce and jack pine forests. Several swampy areas are also present. Bedrock is generally covered by quaternary glaciolacustrine deposits up to 25 metres thick.

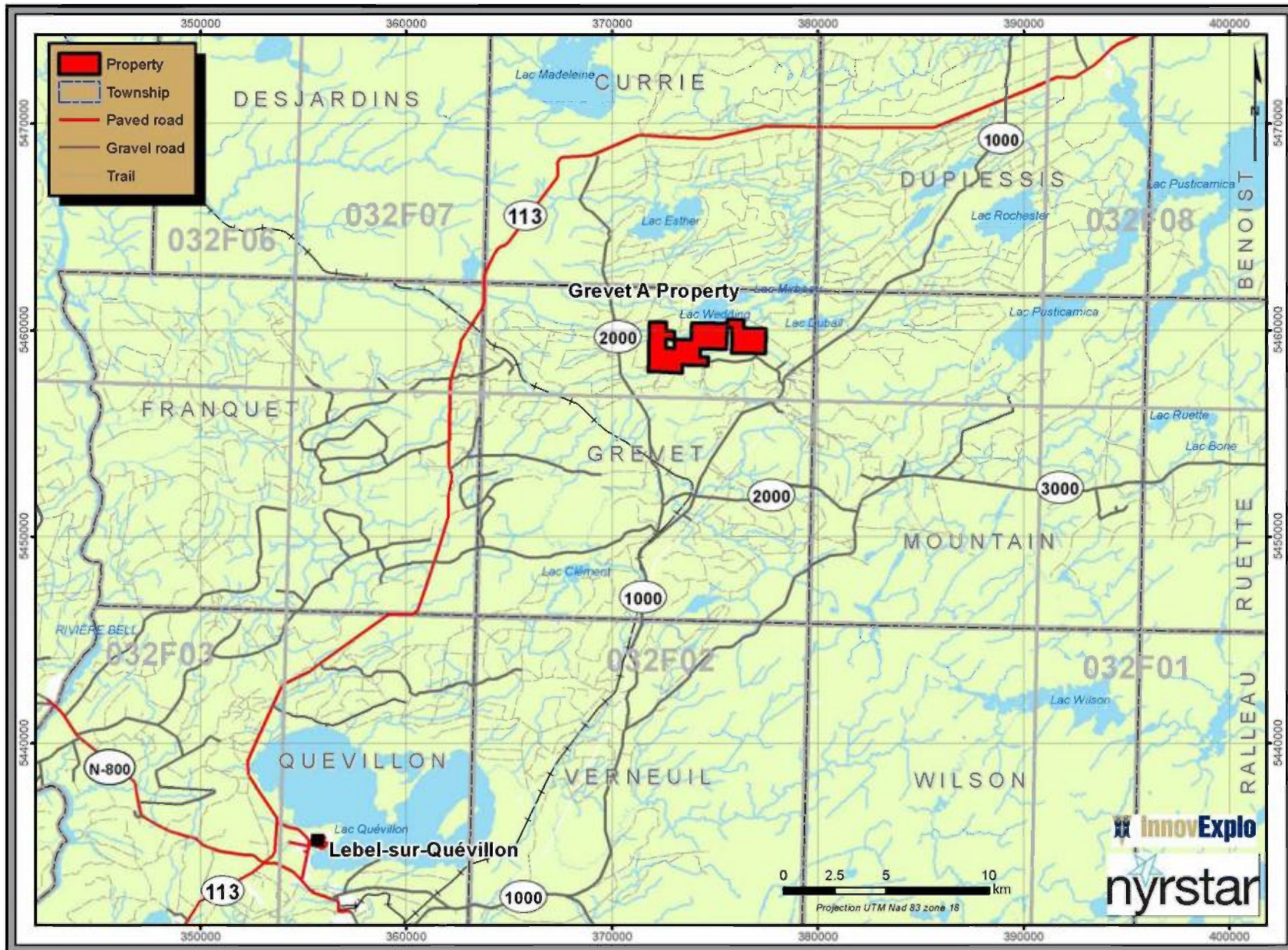


Figure 4.1 – Topography and accessibility of the Grevet A property and its vicinity

5.0 HISTORY

This brief historical review covers the succession of companies that were active on and around the current Grevet A property. Exploration work carried out by these companies and their results are described in the Exploration section. Table 5.1 provides a list of the companies.

According to the SIGEOM database (“metallic deposits” category), the first work registered for the Grevet A property dates back to 1950 when Mr. L.B. Blondeau discovered a gold showing. Located approximately 400 m east of Wedding Lake, the Blondeau showing is characterized by a pyrite-bearing quartz vein that reportedly graded 103 g/t Au in a grab sample.

From 1977 to 1986, both Falconbridge and SOQUEM were active in the western (Grid #3) and eastern parts (Grid #5) of the current property.

In 1982, Mr. L.P. Dionne staked 33 claims in what is now the central part of the current Grevet A property; these claims included the Blondeau showing. In 1984, Nufort Resources Inc took out a working option on the property comprising, at the time, 28 claims owned 50% by Mr. Dionne and 50% by Alta Copper & Metals Corporation. Nufort eventually allowed the option to lapse. Exploration Minière Ligneris Ltée took out an option in late 1986 and the property was extended to the north, west and south for a total of 48 claims.

In 1982, SOQUEM staked its vast Cameron property (Project 100949). The eastern end of this former property overlapped what is now the western end of the current Grevet A property. SOQUEM’s exploration activities within the current Grevet A boundaries took place between 1988 and 1998.

In 1979, the southern part of the current property corresponded to the northern extremity of the Grevet J property owned by SEREM as part of their North-West Québécois Project. SEREM eventually lost the claims now included in the current Grevet A property. In 1997, Cambior Inc acquired the Ligneris property and other claims immediately south of the current property.

In 2002, Metco Resources Inc staked 28 claims in the central part of the current Grevet A property. In 2004, the Grevet A property consisted of 33 claims after being extended further east and west. In 2005, the Grevet A property consisted of 45 claims after another eastward extension involving the staking of new claims.

In November 2006, an agreement was reached between Metco and Breakwater. The Grevet A, Fancamp, Mountain B and Orphée-Mountain A properties were grouped into a single entity called Grevet-Mountain, with interest shared 50/50 between Breakwater and Metco. Metco was project manager. Breakwater and Metco equally shared the exploration expenses for this large, unified project. At the time of the agreement, the part comprising the Grevet A property only comprised 38 claims because some of the earlier claims in the western part had been abandoned.

In April 2008, Breakwater bought Metco who owned the other 50% of the Grevet A property. At the time of writing this report, the Grevet A property consisted of 53 claims after Breakwater extended the property, mainly to the west.

Table 5.1 – List of historical work conducted on the Grevet A property

Company	Year	Report	Work
FALCONBRIDGE	1977	GM 33499	MAG and HEM surveys on grids # 3 and #5
FALCONBRIDGE and SOQUEM	1978	GM 34534	New MAG and HEM surveys on grid #3
FALCONBRIDGE	1981	GM 37212	MAG, HEM survey; diamond drilling (78-5-1 and 78-5-2)
FALCONBRIDGE	1982	GM 38522	MAG and HEM surveys
FALCONBRIDGE	1982	GM 39879	Humus sampling for gold analysis
FALCONBRIDGE	1986	GM 42789	IP survey
FALCONBRIDGE	1986	GM 43713	Diamond drilling (078-5-3 and 078-5-4)
SEREM	1980	GM 36301	Mag survey
SEREM	1981	GM 37365	MAG, HEM and IP surveys
DIONNE	1982	GM 39468	Compilation work
DIONNE	1984	GM 41226	Stripping
DIONNE and ALTA	1984	GM 41743	Magnetometer and VLF surveys; geochemical soil survey
LIGNERIS	1987	GM 45508	Lateral-IP, EM-VLF and magnetometric surveys
LIGNERIS	1988	GM 47466	Stripping; geological mapping; diamond drilling (WD8701 to WD8704)
SOQUEM	1988	GM 48200	ELM-TBF and Mag surveys
SOQUEM	1988	GM 49671	Prospecting, mapping (many trenches); drilling (DDH 88-06 to -10, 88-12)
SOQUEM	1990	GM 49644	MAG and IP surveys
SOQUEM	1990	GM 50830	Compilation work for western part only
SOQUEM	1991	GM 51379	Compilation work for western part only
SOQUEM	1998	GM 58261	Compilation work for western part only
CAMBIOR	1996	GM 54650	Compilation work
METCO	2003	GM 60890	Compilation work
METCO	2004	GM 61218	Deep-EM survey
METCO	2004	GM 61219	IP survey
METCO, BREAKWATER	2004	GM 61830	DDH 04-GRA-01; geochemical soil survey
METCO, BREAKWATER	2007	GM 63526	IP and magnetometer surveys
METCO, BREAKWATER	2007	GM 63523	Geological survey
METCO, BREAKWATER	2007	GM 63519	Soil sampling; DDH 07-GRA-07, -08, -09, -10/10A, -11; down-hole Pulse EM
METCO, BREAKWATER	2008	GM 63517	Compilation work

6.0 GEOLOGICAL SETTING AND MINERALIZATION

Most of this section was modified from Card and Poulsen (1998), which describes the Archean Superior Province in detail, and from Daigneault et al. (2004), which describes the Abitibi Greenstone Belt in detail. Other sources, such as assessment reports and the professional expertise and knowledge of the author, were also used to complete the description of the geological setting.

6.1 Regional Geological Setting

The Lebel-sur-Quévillon area lies within the east-central portion of the Abitibi Subprovince in the Superior Province of the Canadian Shield (Fig. 6.1). This subprovince consists of a large Archean belt of volcano-plutonic rocks that extends more than 600 kilometres from Timmins in Ontario to Chibougamau in Québec. The belt is bordered to the north by granitic rocks of the Opatoca Subprovince and to the south by sedimentary rocks of the Pontiac Subprovince. The southern limit of the Abitibi Subprovince is roughly marked by the Larder Lake–Cadillac Fault. It also happens to be one of the richest mining regions in the world and has produced large amounts of gold, copper, zinc, silver and iron from the Timmins, Kirkland Lake, Rouyn-Noranda, Val-d'Or, Matagami and Chibougamau mining districts.

The Grevet A area is underlain by the Monocyclic Volcanic Segment of the Northern Volcanic Zone (Chown et al., 1992). This sequence is characterized by mafic volcanism (oceanic plain-type) with superimposed felsic volcanic edifices. The volcanic sequence is dominated by massive, pillowed and brecciated basalts of tholeiitic composition in an extensive subaqueous basalt plain 1 to 3 km thick, mainly composed of mafic to intermediate flows. Mafic volcanic rocks are intercalated with sedimentary and felsic volcanic rocks. The vast majority of volcanic episodes took place from 2.75 to 2.70 Ga and these were closely followed by deformation, regional metamorphism and an episode of plutonism during the period from 2.70 to 2.65 Ga (Card and Poulsen, 1998). Sedimentary assemblages occur as thin, discontinuous, east-trending belts more than 100 km in length. These are primarily Bouma-cycled turbidites intercalated with volcanogenic conglomerates, banded iron formations, shale and chert. According to Mueller and Donaldson (1992), these sedimentary units were deposited from 2730 to 2720 Ma in the northern Abitibi, and from 2700 to 2687 Ma in the south. Felsic volcanic rocks—mostly massive, tuffaceous or brecciated rhyolitic to rhyodacitic lava flows—are dispersed throughout the Northern Volcanic Zone in edifices ranging from 0.2 to 5 km thick. The volcanic rocks were affected by the Kenorean north-south regional compression (Chown et al., 1992; Daigneault et al., 2004). This compression resulted in a well-developed E-W schistosity flowing around regional plutons.

The Lebel-sur-Quévillon areas host many projects that reached an advanced exploration stage or even production. The gold and base metal potential of the region is notably illustrated by the Sleeping Giant gold mine located 90 km west of the Grevet A property (formerly owned by IAMGOLD Corporation and then Cadiscor Resources, which was recently acquired by North American Palladium), and by the Langlois zinc-copper-silver mine 5 km southeast of Grevet A property (Breakwater Resources Ltd, recently acquired by Nyrstar).

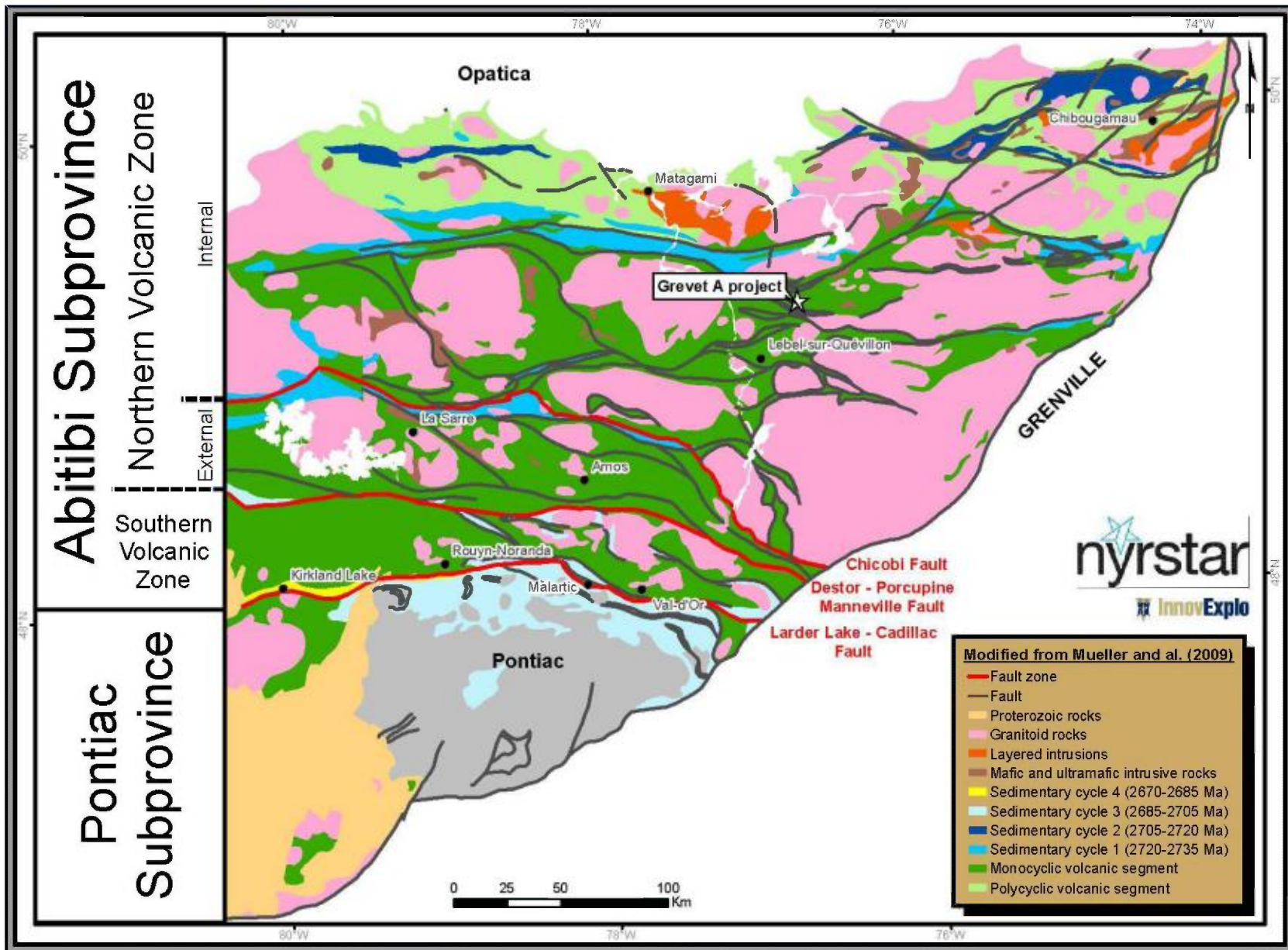


Figure 6.1 – Regional geology of the Abitibi Subprovince

6.2 Local Geological Setting

The Grevet A area is dominated by volcanic rocks, mainly andesitic and basaltic, with some intrusive and sedimentary rocks (Fig. 6.2). The two main intrusive bodies are elongated in a NE direction in the southwest part of the property. One is gabbroic and the other is an undifferentiated felsic-intrusive with locally identified feldspar porphyry. A single, thin, NE-trending Proterozoic diabase dyke is also present in the eastern part of the property. All other rocks are Archean. Drilling results demonstrate the presence of graphitic horizons near the western and northern property boundaries.

Regional metamorphism generally attained the greenschist facies, locally reaching amphibolite facies around intrusive bodies.

The Grevet A property area is affected by two major structures (Fig. 6.2): the Cameron Deformation Zone (CDZ) and the Wedding Fault. The CDZ is oriented WNW-ESE and crosscuts the regional structural grain. This major deformation zone extends for 80 km and probably connects to the Casa-Berardi Deformation Zone to the west. The CDZ is about 3 to 5 km wide in the Grevet A property area. The Wedding Fault is oriented NE-SW and cuts the CDZ with a sinistral displacement of around 4 km.

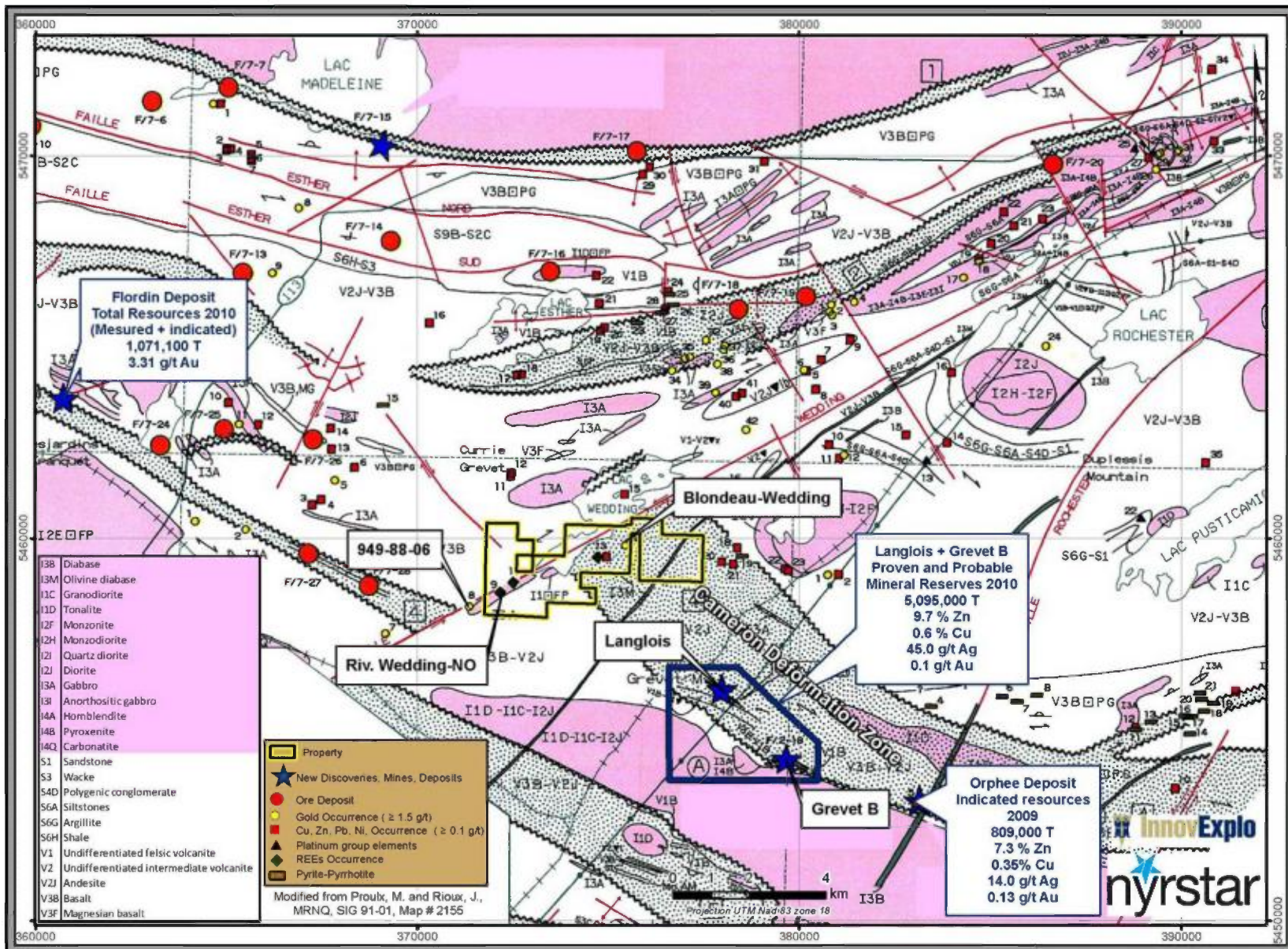


Figure 6.2 – Local geology of the Grevet A area

6.3 Mineralization

According to MRNF documentation (SIGEOM database: “metallic deposits” category), there are three (3) mineralized occurrences on or near the Grevet A property (Fig. 6.2):

- The Blondeau gold showing is located in the northeast part of the property. It was first discovered in 1950 by Mr. L.B. Blondeau and re-discovered in 1982 by Mr. L.P. Dionne. Several surface samples were collected along a shear zone with gold-bearing mineralized quartz veins and the best results were: 103 g/t Au (grab, 1953); 1.71 g/t Au (grab, 1982); 6.5 g/t Au (grab, 1984); 8.47 g/t Au over 1.36 m (channel, 1988).
- The Rivière Wedding Northwest rare earth (REE) showing occurs in the southwest part of the property, near the Wedding Fault (the showing is listed as “Riv. Wedding-NO” in SIGEOM). In 1988, SOQUEM collected several field samples from trenches with results up to 2.22% La, 1.80% Ce, 318 ppm Sm, and 133 ppm Th. The samples were from massive magnetite, magnetite-rich quartz veins, and granodioritic dykes. Several DDH returned REE anomalies for altered (carbonatized, chloritized and silicified) metabasalts mineralized with magnetite, hematite and pyrite, although their REE contents were not as high as for the field samples.
- The DDH 949-88-06 gold showing is located about 400 m west of the western property limit, close to the Wedding Fault. SOQUEM drilled the showing in 1988, yielding 3.5 g/t Au over 1 m in a silicified and sheared basalt containing 5-7% disseminated fine-grained pyrite.

7.0 DEPOSIT TYPES

The Grevet A property demonstrates potential for two main deposit types: volcanogenic massive sulphide (VMS) and gold in greenstone-hosted quartz-carbonate veins.

The VMS potential is due primarily to the position of the Grevet A property within the same volcanic sequence hosting, just a few kilometres to the southeast, several massive sulphide lenses forming the Langlois mine (which includes the Grevet M and B orebodies) and the Orphée deposit.

The potential for greenstone-hosted quartz-carbonate vein deposits is due mainly to the fact that the Grevet A property occurs in an area where two major structural zones intersect: the Cameron Deformation Zone (CDZ) and the Wedding Fault. Both structures contain several gold and polymetallic showings. Two examples along the CDZ are the Flordin gold deposit (a few kilometres NW of Grevet A) and the on-property Blondeau gold showing.

7.1 Volcanic Massive Sulphide Deposits

The following section is slightly modified from Galley et al. (2007) and Franklin (1996).

Volcanogenic massive sulphide deposits typically occur as lenses of polymetallic massive sulphides that form at or near the seafloor in submarine volcanic environments, and are classified according to base metal content, gold content, or host-rock lithology. These deposit types are discovered in submarine volcanic terranes that range in age from 3.4 Ga to actively forming deposits in modern seafloor environments. The most common feature among all types of VMS deposits is that they are formed in extensional tectonic settings, including both oceanic seafloor spreading and arc environments.

As a result of large-scale fluid flow, VMS mining districts are commonly characterized by extensive semi-conformable zones of hydrothermal alteration that intensifies into zones of discordant alteration in the immediate footwall and hanging wall of individual deposits. They form from metal-enriched fluids associated with seafloor hydrothermal convection. VMS deposits are major sources of Zn, Cu, Pb, Ag and Au.

Deposits of the copper-zinc group occur within volcanic sequences dominated by mafic volcanic rocks, with locally volumetric felsic rocks. Deposits typified by the Noranda and Matagami Lake districts were formed at depths considerably greater than 500 metres. These deposits are associated with massive to pillowed mafic flows. Felsic ash-flow tuff beds are usually prominent immediately below the deposits, and felsic domes may immediately underlie or enclose the ore.

Alteration occurs in two distinct parts: pipes and a deeper semi-conformable zone. Alteration pipes occur immediately below the massive sulphide zones. The pipes are silicified and sericitized. Chlorite is subordinate and mostly concentrated along the periphery of the pipes. Aluminosilicate minerals are prominent. The semi-conformable alteration zone occurs lower in the sequence, several hundreds of metres or more below the massive sulphide deposit. This zone contains epidote, actinolite and quartz.

Pyrite typically constitutes 50-90% of the massive ore, with sphalerite, chalcopyrite and galena forming about 10%. Deposits formed in deep water contain only sphalerite and chalcopyrite as their principal ore minerals. Those that formed in shallow water contain recoverable galena. Deposits of the copper-zinc group are concordant to semi-concordant

massive iron sulphide bodies, commonly underlain by stringer ore. The Langlois mine (Breakwater Resources Ltd), located less than 5km southeast of the Grevet A property, is the same type of deposit.

7.2 Greenstone-Hosted Quartz-Carbonate Vein Deposits

The following section is slightly modified from Dubé and Gosselin (2007).

Quartz and carbonate veins with valuable amounts of gold and silver are found in faults and shear zones located within deformed terrains of ancient to recent orogenic greenstone belts. Greenstone-hosted quartz-carbonate vein deposits are distributed along major compressional to transtensional crustal-scale fault zones in deformed greenstone terranes commonly marking the convergent margins between major lithological boundaries, such as volcano-plutonic and sedimentary domains. These types of deposit are more abundant and significant, in terms of total gold content, in Archean terranes. However, a significant number of world-class deposits are also found in Proterozoic and Palaeozoic terranes.

Greenstone-hosted quartz-carbonate vein deposits correspond to structurally controlled, complex epigenetic deposits hosted in deformed metamorphosed terranes. They consist of simple to complex networks of gold-bearing, laminated quartz-carbonate fault-fill veins in moderately to steeply dipping, compressional brittle-ductile shear zones and faults with locally associated shallow-dipping extensional veins and hydrothermal breccia. They are hosted by greenschist to locally amphibolite facies metamorphic rocks of dominantly mafic composition and formed at intermediate depth in the crust (5-10 km). The mineralization is syn- to late-deformation and typically post-peak greenschist facies or syn-peak amphibolite facies metamorphism, and typically associated with iron-carbonate alteration. Gold is largely confined to the quartz-carbonate vein network but may also be present in significant amounts within iron-rich sulphidized wall-rock selvages or within silicified and arsenopyrite-rich replacement zones.

The main gangue minerals are quartz and carbonate with variable amounts of white micas, chlorite, scheelite and tourmaline. The sulphide minerals typically constitute less than 10% of the ore. The main ore minerals are native gold with pyrite, pyrrhotite and chalcopyrite without significant vertical zoning.

8.0 EXPLORATION

8.1 Compilation

Several mining companies have performed substantial exploration work on the Grevet A property since the 1950s (refer to Table 5.1). In order to better understand the succession of exploration activities, the Grevet A property and its vicinity has been divided into three (3) areas: eastern, central and western. Figure 8.1 displays these divisions and InnovExplo's compilation of the historical HEM and IP coverage for each area, as well as the locations of all historical diamond drill holes. A more detailed compilation map is available in the pocket of this report.

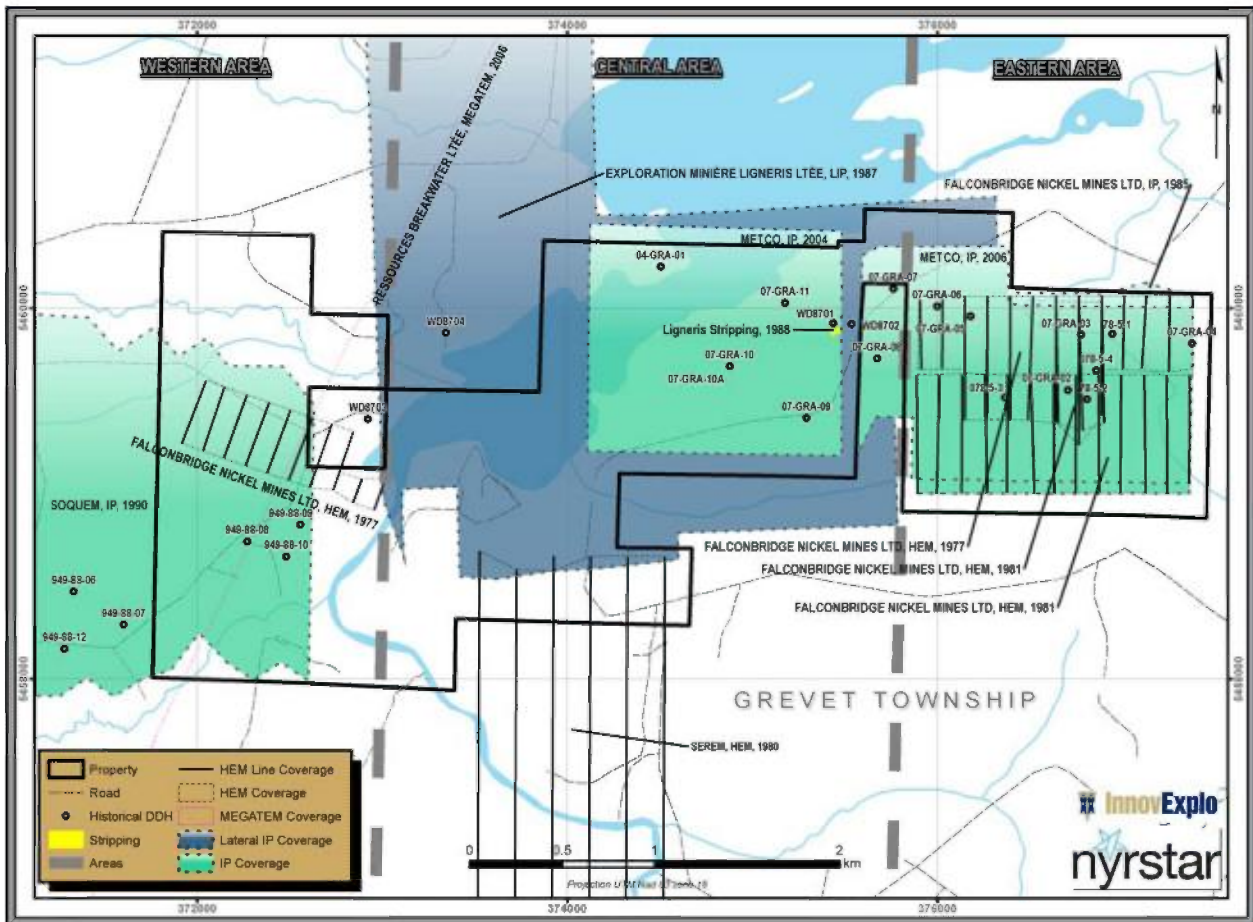


Figure 8.1 – Compilation map

8.1.1 Eastern Area

Falconbridge

The first exploration activities in the eastern area were conducted in the 1970s by Falconbridge Nickel Mines Ltd (sometimes in collaboration with SOQUEM Inc) within the framework of their large Quévillon/Grevet Project. In 1977 (GM 33499), the first Mag and HEM surveys (MaxMin II, 888 Hz) were carried out on Grid 5, which is entirely included in the eastern area, to follow up on the results of an airborne survey. Six (6) HEM anomalies were identified.

In 1981 (GM 37212), Falconbridge completed more detailed Mag and HEM surveys (MaxMin II, 444 and 1777 Hz) on Grid 5 in order to better plan two (2) diamond drill holes. Hole 78-5-1 targeted anomaly 5-4 but did not return any significant results. Hole 78-5-2 tested HEM axis 5-1 and returned an isolated result of 2 g/t Au over 1 metre in mafic volcanic rock.

In 1982 (GM 38522), the southern extension of Grid 5 was covered by HEM (MaxMin II, 3555 Hz) and Mag surveys. Two HEM anomalies were identified and a single DDH was recommended to test the 5-1 anomaly. That same year, 103 humus samples were collected in the central part of this southern extension (GM 39879). Only gold was analyzed. Results were generally <1 ppb Au with a maximum of 5 ppb.

In 1985-1986 (GM 42789), Grid 5 was covered by an IP survey (dipole-dipole configuration; $a=200'$ and $n=1$ to 5). Six (6) polarizable axes were recognized with four (4) identified as first-priority targets (B, C, D, F). That same year (GM 43713), DDH 078-5-3 and DDH 078-5-4 were drilled to respectively test IP axes D and C, which respectively correlate with HEM axes 5-1 and 5-2. Only traces of gold were obtained, with a maximum of 25 ppb Au for 078-5-3 and 8 ppb Au for 078-5-4.

Metco

In 2006 and 2007 (GM 63519, GM 63526, GM 63523, GM 63517), Metco Resources Inc carried out a magnetic survey as well as an IP survey (dipole-dipole configuration; $a=50m$ and $n=1$ to 6) over nearly the same area as Falconbridge's 1985-1986 survey, but extending about 400 m further into the central area. The resulting axis, generally oriented NW-SE and W-E, was similar to the one identified by the 1985-1986 survey. A geological survey along the available lines cut for the geophysics revealed only one outcrop. Five (5) DDH were finally drilled as follow-up to the IP survey. Most were verified by Pulse-EM.

- 07-GRA-02: four (4) graphitic horizons were intersected, the best Zn values being 1,416, 1,740 and 1,852 ppm. In-hole anomalies were encountered between 170 and 260 m, associated with multiple conductors. More investigations were recommended for this sector.
- 07-GRA-03: several interesting layers were intercepted with maximum Zn results of 406 ppm. No significant in-hole anomalies (conductor missed); indication of an off-hole anomaly above and west of the hole at a depth of 70 m. No follow-up work was recommended.
- 07-GRA-04: three (3) graphitic layers 1 to 6 metres thick were intercepted between 186.8 and 197 m. The best results in those layers were 300, 260 and 248 ppm Zn with only traces of Ag and Au. A felsic tuff was intercepted between 100 and 101 m, with

10-60% pyrite-pyrrhotite (semi-massive sulphides) containing 308 ppm Zn. A Pulse-EM survey detected two good off-hole anomalies up-west of the hole at depths of 85 m and 105 m along the hole. A new DDH was recommended 50 m vertically above and 50 m to the west of 07-GRA-04.

- 07-GRA-05: several felsic tuff sequences were intercepted with a maximum content of 504 ppm Zn. Also, two graphitic layers were encountered at 117.2 and 213.8 m, containing 394 and 396 ppm Zn. No Pulse-EM survey.
- 07-GRA-06: a small graphitic layer was intercepted at 212 m with a zinc content of 2,000 ppm over 1.1 m. Two thin massive sulphide bands (without anomalous Zn contents) were intercepted between 25 and 26.6 m. A felsic tuff sequence containing 1070 ppm Zn was intercepted at a depth of 204.4 m. The pulse-EM survey detected 3 weak off-hole conductors (at depths of 105, 140 and 220 m). Further investigations were recommended.

Also in 2007, Metco generated a 3D geological model using GOCAD software to improve visualization and facilitate the geophysical interpretation and new target generation. This modelling work finally did not yield any new exploration targets.

8.1.2 Central Area

According to SIGEOM (“metallic deposits” category), the first recorded work for the Grevet A property took place in the central area where Mr. L.B. Blondeau discovered a gold showing in 1950. Located approximately 400 m east of Wedding Lake, the Blondeau showing is characterized by a main pyrite-bearing quartz vein that reportedly graded 103 g/t Au in a grab sample.

Dionne

In 1982 (GM 39468), a preliminary geological report and resampling of the Blondeau showing was completed on behalf of the claimholder, Mr. L.P. Dionne. Grab samples returned up to 1.71 g/t Au and 32 g/t Ag. The showing was briefly described as a shear zone, oriented about N100°, hosting 5-25% quartz veins and veinlets.

In 1984 (GM 41226), stripping work uncovered the extensions of the quartz-veined shear zone previously exposed in two pits on the Blondeau showing. The stripped area to the east revealed that the shear zone extended for 15 m from the pits, becoming narrower but highly altered and oxidized. On the west side, the work exposed a wide shear zone (9 m across) with quartz veins at a distance of about 9 m from the pits, and this was interpreted to be the same veined shear zone. Grab samples collected later that year (GM 41743) returned 19 g/t Au and 2 g/t Au for the western extension and a maximum value of 0.01 g/t Au for the eastern extension. Samples collected from the two pits returned a maximum of 1.56 g/t Au over 0.3 m (west pit) and a maximum of 6.72 g/t Au over 0.6 m (east pit).

A second area about 50 m southeast of the Blondeau showing was also stripped, revealing a ridge of silicified basaltic rock. Six samples were collected without any significant results. This zone would need more stripping to determine its true extent and the location of the contact zones.

Later the same year (1984, GM 41743), Nufort Resources Inc, under the direction of Mr. Dionne, carried out a magnetometer survey, a VLF survey, and a geochemical survey

comprising 210 soil samples collected at a depth of 0.9 m (3 feet, except in cases where the bedrock was more shallow). The soil samples were analyzed for gold, zinc and iron. Four (4) separate samples, located between 250 and 600 m to the SSW, S and SSE of the Blondeau showing, returned 218 ppb Au, 313 ppb Au, 1,983 ppb Au and 1,992 ppb Au. Several anomalous contours with Zn>70ppm and Fe>3-4% were also reported.

Ligneris

In 1987 (GM 45508), Exploration Minière Ligneris Ltée was active on the former Dionne claims, which the company progressively enlarged. Lateral-IP, EM-VLF and magnetometer surveys were conducted, extending slightly beyond the western and eastern areas as defined in this section of the report (refer to Fig. 8.1). Numerous polarizable axes were identified.

In 1988 (GM 47466), Ligneris stripped a wide area on and around the Blondeau showing to conduct systematic geological mapping and channel sampling. The outcrop was described as a mafic tuff hosting concordant felsic intrusives. The mineralized showing itself consisted of one main quartz-calcite-pyrite vein about 10 m long and up to 1 m wide in a shear zone. Channel samples from the Blondeau showing only returned two significant gold values in successive samples along the same channel: 4.05 g Au/t (0.118 oz/t) over 1.29 m (inside the main quartz vein) and 8.47 g Au/t (0.247 oz/t) over 1.36 m (in the shear zone parallel to the quartz vein). The weighted average is 6.32 g/t Au over 2.65 m.

That same year (GM 47466), Ligneris drilled four (4) DDH:

- WD8701 and WD8702, both with the objective of verifying the Blondeau showing at depth. The main gold-bearing quartz vein observed at surface was not intercepted and the results were inconclusive. The best result was 0.45 g Au/t over 0.96 m in WD8701.
- WD8703 and WD8704, both immediately outside the Grevet A property, near the Wedding Fault on the western shore of Wedding Lake. These holes were drilled to follow up on Lateral-IP anomalies. Both holes intercepted graphitic horizons without any significant results.

SEREM

SEREM Ltée was active in the region mostly during the 1980s and early 1990s, many of their properties constituting the company's North-West Québécois Project. The northern extremity of SEREM's Grevet J property overlapped the current Grevet A property, covering approximately 400 m inside the southern border. In 1980 and 1981 (GM 36301 and GM 37365), Mag and HEM (MaxMin II, 1777 and 444 Hz) surveys were performed over the entire Grevet J property, including this 400-m overlap. No conductors were detected within the latter.

Cambior

In 1997 (GM 54650), Cambior Inc produced a compilation and recommendation report concerning the "Grevet Group Properties", which included the former Ligneris property and many other properties previously owned by SEREM and other companies near the Langlois mine.

Metco

In 2004 (GM 60890, GM 61218, GM 61219, GM 61830), Metco Resources Inc carried out several exploration surveys in the central property area, including DeepEM, IP (dipole-dipole configuration; $a=50\text{m}$ and $n=1$ to 6) and soil geochemistry. A geological survey also covered 12 km and produced nine (9) litho-geochemical samples.

The geophysical work yielded ten (10) IP axes with variable orientations, distributed throughout this part of the central area. The strongest conductors were immediately west of the Wedding Fault and could be correlated to Input-type aero-anomalies (channels 5-6) representing strong EM conductors. The conductors were tested by DDH 04-GRA-01. Two holes that had been drilled a little further southwest by Ligneris in 1988 explained the conductors as graphitic occurrences locally containing pyritic nodules (max. grades of 39 ppb Au / 1.5 m and 35 ppb Au / 3 m).

That same year (GM 61830), Metco collected 283 soil samples in the central area at 50-m intervals along lines spaced 100 m apart. Samples were taken from the B horizon when available (otherwise from the A horizon, humus or till) and analyzed for gold+34 elements, including Cu, Zn and Pb. Only weak values were obtained for all analyzed elements (max. 17 ppb Au). Nevertheless, the geochemical analyses established four (4) anomalous zones potentially associated with auriferous and/or base metal mineralization. The Blondeau showing constitutes one of the two anomalous zones interpreted for gold.

In 2007 (GM 63519, GM 63526, GM 63523), five (5) DDH were drilled in the central area to target IP anomalies and geochemical soil anomalies. Two (2) of these holes were drilled just outside the current Grevet A property, whereas the other three (3) were drilled within its current boundaries. Some were surveyed by down-hole Pulse-EM. The results are summarized below:

- 07-GRA-07: not on the Grevet A property sensu stricto, this hole targeted a long regional IP anomaly. It intercepted a graphitic horizon 4.8 m thick at a depth of 192.6 m, yielding 514 ppm Zn over 1.6 m. The Pulse-EM survey detected two (2) weak off-hole conductors and one (1) weak in-hole conductor, all corresponding to three (3) small graphitic zones. No follow up work was suggested for this hole.
- 07-GRA-08: not on the Grevet A property sensu stricto, this hole targeted a short IP anomaly within the most magnetic sector in the central area. The hole generally intercepted magnetic rocks with only very weak sulphide and Zn contents.
- 07-GRA-09: targeted a Cu-Pb-S-Ni-Cr-V anomaly and a weak IP anomaly. Maximum metal values of 356 and 680 ppm Cu, 156 ppm Zn, 6.4 ppm Ag and 33 ppb Au. No follow up by Pulse-EM.
- 07-GRA-10/10A: targeted a weak IP anomaly coupled with a zone depleted in Ba, Sr, Ca and MgO. Few sulphides were intersected, and the highest metal values were 152 ppm Zn and 5.6 ppm Ag. No follow up by Pulse-EM.
- 07-GRA-11: located near a second zone depleted in Ba, Sr, Ca and MgO, and close to a weak IP anomaly. Few sulphides were intersected, and only traces of Zn and Au were detected. No follow up by Pulse-EM.

That same year (GM 63519, GM 63526, GM 63523), Metco completed a magnetometric survey in the southwest sector of the central area, extending into the western area. No IP or HEM surveys were carried out in this zone. Geological surveying was carried out along 17.2 km of lines cut for the geophysics. Nine (9) outcrops were found, generally without any anomalous assay results.

Also in 2007, Metco generated a 3D geological model using GOCAD software to improve visualization and facilitate the geophysical interpretation and new target generation. This modelling work did not yield any new exploration targets.

8.1.3 Western Area

Falconbridge / SOQUEM

The first exploration activities in the western area were conducted in the 1970s by Falconbridge and SOQUEM (after a partnership arrangement concluded in 1978) within the framework of their large-scale Quévillon/Grevet Project. In 1977 (GM 33499), the first Mag and HEM surveys (MaxMin II, 888 Hz) were carried out on the small #3 Grid as follow-up to an airborne survey. The work identified one long anomaly occupying the entire grid length. In 1978 (GM 34534), Mag and HEM surveys (MaxMin II, 444 and 1777 Hz, 300-ft cable) were again performed over the same area to plan the location of a potential DDH. The same anomalous axis was detected, but the hole was never drilled.

SOQUEM

SOQUEM was active on the Cameron property (Project 100949) between 1982 and 1998. This vast former property occupied nearly all the western area and beyond, its eastern end overlapping what is now the western end of the Grevet A property. A lot of exploration work was conducted on the Cameron property between 1982 and 1998, but only a small part of this work was on claims that are now part of the western Grevet A property or its immediate vicinity, as presented below.

In 1988 (GM 48200 and GM 49671), Mag and VLF-EM surveys were conducted over the eastern part of the Cameron property. Prospecting and mapping work was carried out near the Wedding Fault, including the excavation of 12 trenches, some of which fell within the western area. In all, 307 samples were analyzed (gold+33 elements) and a structural analysis based on field measurements was completed. Significant REE anomalies were obtained in 11 samples (max. 18,000 ppm La with several samples containing up to 1,000 ppm La; max. 22,200 ppm Ce with several up to 2,000 ppm Ce; max. 318 ppm Sm). These surface REE anomalies were higher than the results for later drill core samples (see below). No significant gold anomalies were obtained (max. 572 ppb Au, with several samples up to 100 ppb).

The same year (GM 49671), five (5) DDH were drilled within or close to the western part of the Grevet A property as part of the Cameron Project. Out of these, several holes yielded interesting REE anomalies but only one yielded a significant gold value: 3,500 ppb Au (3.5 ppm) in DDH 88-06 near the Wedding Fault, just outside the Grevet A property. A brief summary of the DDH results is presented below:

- 88-06: located outside but near the Grevet A property boundary; one isolated value of 3,500 ppb Au (3.5 ppm Au) over 1 m at the end of the hole in a thin pyritic layer within a shear zone.

- 88-07 / 88-12: both near DDH 88-06, outside but close to the Grevet A property boundary; a few mineralized intercepts without any significant gold results (max. 200 ppb Au in DDH 88-07); some REE anomalies in DDH 88-07 (3,010 ppm La, 4,490 ppm Ce and 96 ppm Sm).
- 88-08: gold-barren fault interval intersected; maximum REE values of 3,260 ppm La and 3,900 ppm Ce; the hole failed to intersect the targeted Mag axes.
- 88-09: barren fault interval intercepted, as well as weakly auriferous magnetite-rich lenses; maximum REE values of 2,950 ppm La, 3,820 ppm Ce and 102 ppm Sm.
- 88-10: targeted Mag anomaly explained by the presence of a significant magnetite concentration devoid of gold or REE.

In 1990 (GM 49644), SOQUEM completed one more Mag survey and an IP survey. Several ESE-trending IP axes were identified, mostly north of the western Grevet A property. SOQUEM did not carry out any exploration activities in the western area from 1991 to 1998 (GM 50830, GM 51379, GM 58261), although they continued working elsewhere in the region and produced compilation maps that covered parts of the western area.

Metco

In 2007 (GM 63519, GM 63526, GM 63523), Metco completed a magnetometric survey in the south part of the western area. No IP or HEM surveys were carried out. Geological surveying was performed along 17.2 km of lines cut for the geophysical survey. Nine (9) outcrops were found and sampled, without any significant results.

8.2 Prospecting

InnovExplo sent a two-person team to carry out prospecting work on the eastern and western parts of the Grevet A property on July 15 and August 8, 2011 (refer to compilation map in Fig. 8.1 for locations and details).

The main objective in the eastern area was to briefly follow up on Metco Resources' 2006 and 2007 prospecting results. Several holes were drilled in 2007 to target IP anomalies identified in 2006, and further investigation was recommended. The second objective of InnovExplo's field work was to evaluate the possibility of drilling new holes in this part of the property during the summer of 2011.

The main objective in the western area was to quickly examine the northern claim extension that had been added in 2009 after the Grevet A property was acquired from Metco Resources.

The team performed Beep Mat surveys over the two areas (1 day per area), covering a total of 13.9 km. Two Beep Mats (BM8 models) connected to GPS devices (Garmin map 60CSx) were run simultaneously to prospect each study area. Each Beep Mat anomaly was investigated and a grab sample taken when possible.

A total of four (4) rock samples were sent to ALS Chemex (Val-d'Or) and analyzed for whole-rock geochemistry (ME-XRF06), trace elements such as Ba, Nb, Rb, Sr, Y, Zr (ME-XRF05), gold (AA23), and a 35-element suite (ME-ICP41). The complete analytical results are provided in the laboratory certificates in Appendix III. Sample locations are shown on the map in Figure 8.3. Figure 8.2 displays the results obtained on a rock classification diagram

using Zr/Y and TiO₂/Zr ratios. Table 8.1 provides the sample locations and a summary of the lithogeochemical results.

The GPS tracking and waypoints, as well as the Beep Mat readings, were entered into an ArcGIS database. An interpolation of the intrinsic conductivity (RT ratio), the High Frequency Response (HFR) and the Low Frequency Response-Mag (LFR-Mag) of the Beep Mat surveys, as well as the field traverses covered by the instruments, are provided in Appendix IV. Note that the red traverse segments on the map in Figure 8.3 correspond to failed portions or incomplete readings caused by connection problems between the GPS and the Beep Mat.

8.2.1 Prospecting results and comments

The geology and prospecting team did not observe any real Beep Mat anomalies in the eastern part of the property, just one uncertain anomaly and two cultural (anthropogenic) anomalies. A cultural anomaly is a false anomaly proved as false in the field. It can be caused, for example, by a piece of metal of human origin. Two (2) high frequency responses (between 100 and 622 Hz) did not correspond to any regional historical IP axes (Appendix IV). The team determined that the eastern Grevet A area was too soft (too much swampy or humid soil) for summer drilling.

Two (2) Beep Mat anomalies were identified in the western part of the property, as well as one cultural anomaly and one uncertain anomaly. The central anomaly corresponds to a magnetic domain visible in blue on the LFR-Mag map (Appendix IV). This magnetic anomaly is confirmed by the strongly magnetic sample L204020 composed of rhyolitic/rhyodacitic rock with calc-alkaline affinity (based on the lithogeochemical classification). No samples were collected at the second (northern) anomaly although a Mag response is present at that location (see LFR-Mag map in Appendix IV). The HFR map (Appendix IV) shows a high-frequency anomalous domain between 101 and 500 Hz. Note that neither the historical HEM nor IP anomalies in the western area can be correlated to the observed isolated Beep Mat anomalies. Also note that none of the four (4) lithogeochemical samples yielded any significant values.

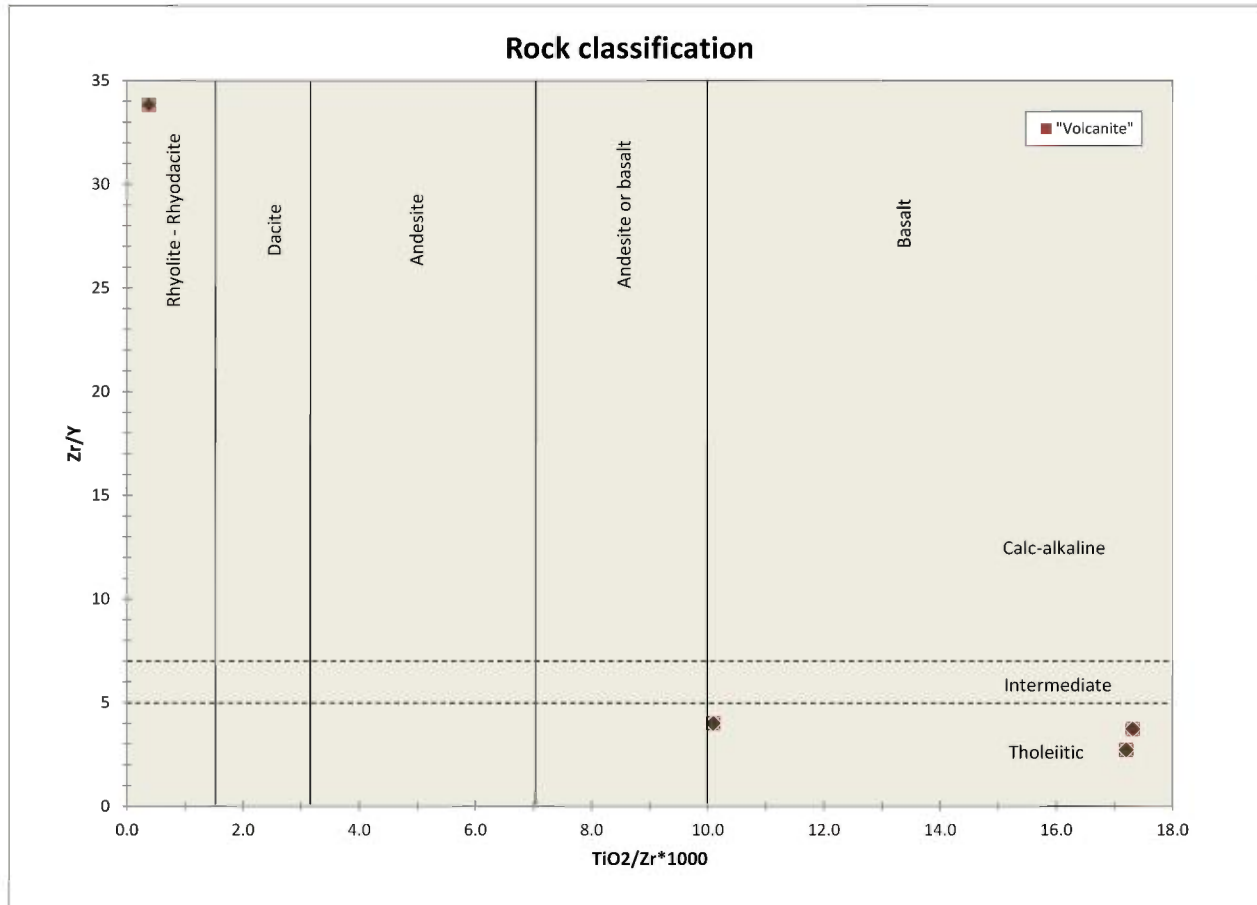


Figure 8.2 – Rock classification diagram for samples collected in 2011 on the Grevet A property (n=4)

Table 8.1 – Sample locations and brief description

SAMPLE	Northing	Easting	Field Name	Geochem Name	Affinity	SiO2%	TiO2%	Zr/Y	TiO2/Zr* 1000
L204020	5458937.1	372188.6	V2	V1B-V1C	Calc-alkaline	61.98	0.6	33.83	0.377358491
L204021	5458896.6	372218.4	V2	V3B	Tholeiitic	48.29	1.68	3.73	17.31958763
L204019	5458859.2	372021.5	V2	V3B	Tholeiitic	50.25	2.1	4.00	10.09615385
L204159	5458993.2	372320.4	V2	V3B	Tholeiitic	36.95	1.17	2.72	17.20588235

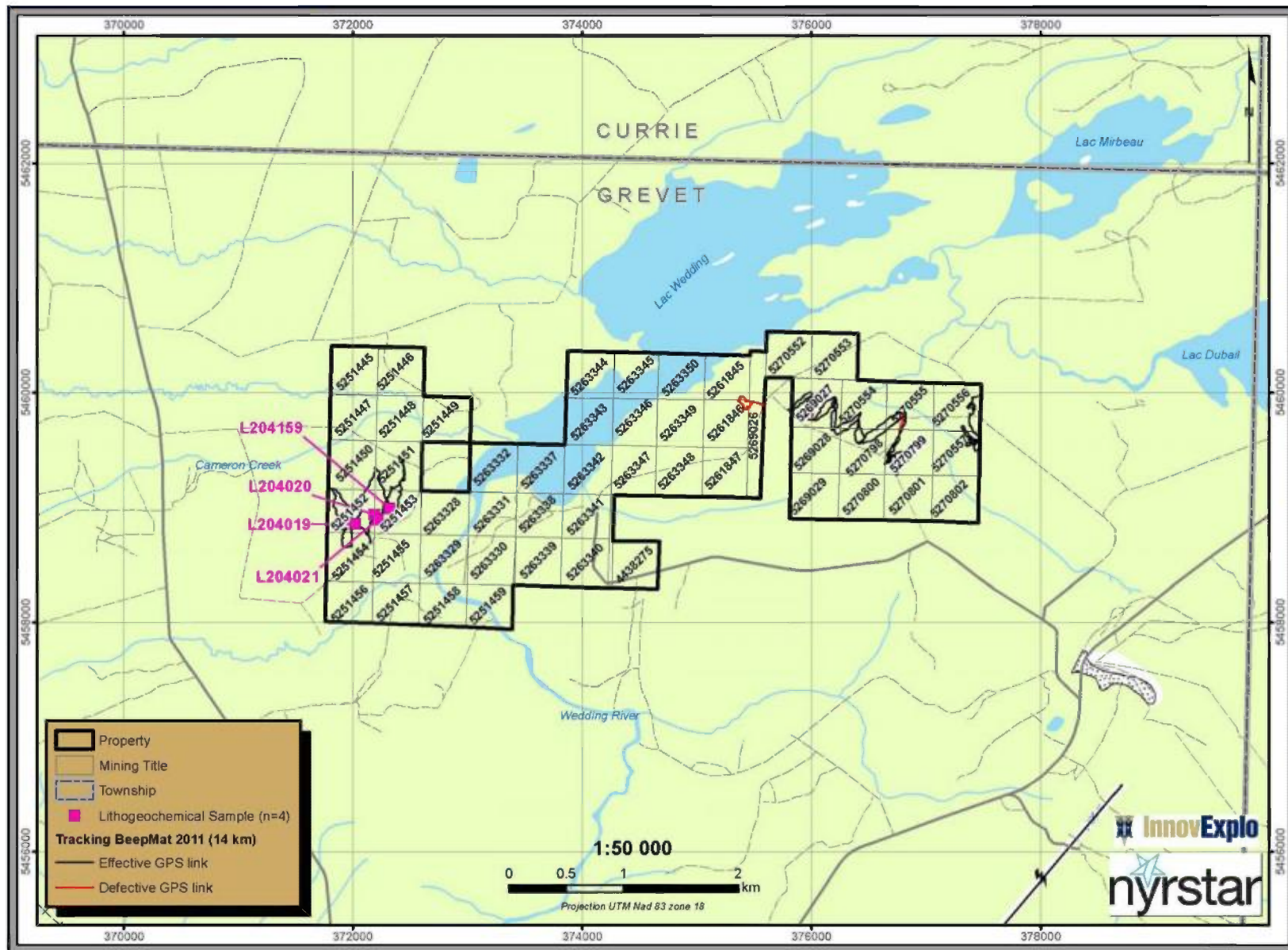


Figure 8.3 – Compilation of the exploration work conducted in 2011 on the Grevet A property

9.0 ADJACENT PROPERTIES

The Grevet A property is adjacent to a block of properties belonging to Breakwater Resources Ltd (now Nyrstar), including the Langlois mine. The mine is less than 3 km southeast of the Grevet A property limits.

The first discovery of the mineralized bodies that later became the Langlois mine was by Selco Mining Corporation Ltd in 1979, when one of their diamond drill holes in grid 53-8 intercepted the main deposit. Between 1982 and 1987, the deposit was called “Grevet M” and was owned by SEREM Ltée. Between 1987 and 1993, SEREM/VSM included the deposit as part of its Grevet B-M-J Project. In 1992, Cambior Inc purchased the SEREM/VSM properties, including the Grevet B-M-J Project. The company started the first commercial production in 1996 and named the mine Gonzague-Langlois.

In 2000, Breakwater purchased the mine (now known as the Langlois mine) and suspended operations in late November due to operating problems associated with the main ore-pass system and low zinc prices. In 2001, SRK Consulting Inc issued a full feasibility study, including the latest drill results and a complete reworking of the mine design and plan. This feasibility study was then updated in 2003. Some development work was carried out based on the revised mine plan.

Production started up again at the end of 2006 with commercial production announced on July 1, 2007. Operations at the mine, now known as the Langlois mine, were temporarily suspended on November 2, 2008 due to declining zinc prices and a lack of development. A development program is currently underway and production should recommence in the first half of 2012.

The most recent mineral resource and reserve estimate was published in a NI 43-101 Technical Report dated December 3, 2010 (Torben, 2010). The proven and probable reserves, including zones 3, 4 and 97 in addition to the adjacent Grevet B deposit, total 5,095,000 tonnes grading 9.66% Zn, 0.65% Cu, 44.9 g/t Ag and 0.07 g/t Au.

10.0 INTERPRETATION AND CONCLUSIONS

At the present time, two main types of deposits should be considered for the Grevet A property: volcanogenic massive sulphide (VMS) and gold in greenstone-hosted quartz-carbonate veins. The VMS potential is due mainly to the position of the Grevet A property within the same volcanic sequence containing—only a few kilometres to the southeast—several massive sulphide lenses forming the Langlois mine (Grevet M and B orebodies) and the Orphée deposit. The gold potential is due mainly to the fact that the Grevet A property is located in a region where two major structural zones intersect: the Cameron Deformation Zone (CDZ) and the Wedding Fault. Both structures contain several gold and polymetallic showings.

Eastern Area

Several HEM and IP axes were identified throughout the eastern area and the majority were tested by drilling. Graphitic layers grading up to 2% Zn were generally intersected, as well as thin barren massive sulphide occurrences.

In terms of gold potential, the only significant value in the eastern area was from an isolated drill core interval in mafic volcanic rocks that graded 2 g/t Au over 1 m (DDH 78-5-2). Hole 07-GRA-02 was drilled very close to the latter but did not yield significant gold values. The humus survey performed in this area in 1982 also failed to return any significant results.

Central area

Several high grade gold assays were obtained from the Blondeau showing: up to 103 g/t Au in grab samples and up to 8.47 g/t Au over 1.36 m in channel samples. All samples were collected from a quartz-calcite-pyrite vein about 10 m long and up to 1 m wide. The vein occurs within a shear zone oriented N100°. Two (2) drill holes tested the depth extension of the showing but failed to intersect the vein and did not return any significant gold results.

Significant gold values were also obtained in soil samples collected by claimholder L.P. Dionne in 1984 (max. values of 1,992 and 1,983 Au ppb), but these were not duplicated in a second, larger soil survey conducted by Metco Resources in 2004. Nevertheless, Metco outlined several alteration zones that were tested by drilling in 2007, but no significant results were obtained.

In terms of massive sulphide potential, several IP (and Lateral-IP) axes were identified in the central area. The vast majority were drilled without returning any significant results. Differences in position and orientation were noted for holes 07-GRA-09 to -11 when Metco's original logs were compared to their maps. These differences make it difficult to determine whether the holes effectively tested the IP axes.

Western Area

SOQUEM's best gold-bearing drill hole intersection along the Wedding Fault returned 3.5 Au g/t over 1 m (DDH 949-88-06). This hole is about 500 m beyond the Grevet A property limit.

SOQUEM also identified REE occurrences. Total Rare Earth Element Oxide (TREO) contents reached up to 0.6% (with one exception of 4.7%) in trench samples and up to 0.9% in drill holes. For comparison, the Montviel Core Zone deposit, located about 65 km to the northeast, contains 183.9 Mt grading 1.45% TREO (NI 43-101 compliant mineral resource estimate, September 2011; Desharnais and Duplessis, 2011).

One HEM and two major IP axes were identified in the northern part of the western area, but these were never tested by drilling. The anomalies are not considered priority targets because they occur within a long (several km) formational conductor where earlier drill holes intercepted graphite horizons.

11.0 RECOMMENDATIONS

It is recommended that the casings of holes 07-GRA-09 to -11 be located to verify their orientations and thereby determine whether they effectively tested the IP anomalies. If they did not, then these IP anomalies should be drilled. It is also recommended that the REE potential of the western area of the property be assessed.

12.0 REFERENCES

- Beaudry, C., 1988. Rapport d'exploration, propriété Wedding. Exploration minière Ligneris Ltée, GM 47466.
- Bérubé, P. and Bélanger, R., 1986. Rapport sur un levé de polarisation provoquée, projet Grevet - grille 5. Falconbridge Nickel Mines Ltd, GM 42789.
- Boileau, P., 1980. Levés géophysiques au sol, propriétés A, C, G, I, J, K et L, projet NW Québécois. SEREM Ltée, GM 36301.
- Bureau, K., 1998. Rapport de la campagne d'exploration, projet Cameron (#949), été 1998. SOQUEM inc, GM 58261.
- Bussieres, Y. and Liboiron, A., 2008. Rapport technique 43-101 concernant la propriété Grevet-Mountain, secteur Lebel-sur-Quévillon. Breakwater Resources Ltd, Ressources Metco inc, GM 63517.
- Bussieres, Y. and Theberge, D., 2007. Rapport technique NI 43-101 concernant la propriété Grevet-Mountain. Breakwater Resources Ltd, Ressources Metco inc, GM 63519.
- Bussieres, Y. and Theberge, Y., 2004. Rapport technique et résultats du programme d'exploration 2004 concernant les propriétés du secteur Lebel-sur Quévillon. Breakwater Resources Ltd, Ressources Metco inc, GM 61830.
- Card, K. D., and Poulsen, K. H., 1998. Geology and mineral deposits of the Superior Province of the Canadian Shield; Chapter 2. *In*: S. Lucas (co-ord.), Geology of the Precambrian Superior and Grenville Provinces and Precambrian Fossils in North America. Geological Survey of Canada, Geology of Canada, no. 7, pp. 13-194.
- Conway, P., 1987. Levés géophysiques au sol, propriété Lac Wedding. Claims Dionne, Société minière ALTA inc, GM 45508.
- Daigneault, R., Mueller, W.U., Chown, E.H., 2004. Abitibi greenstone belt plate tectonics: the diachronous history of arc development, accretion and collision. *In*: Eriksson, P., Altermann, W., Nelson, D., Mueller, W.U., Catuneanu, O. (eds), The Precambrian Earth: Tempos and Events. Developments in Precambrian Geology, vol. 12, Elsevier, pp. 88-103.
- Desharnais, G. and Duplessis, C., 2011. Montviel Core Zone REE Mineral Resource Estimate, Technical Report, Quebec. Geomega Resources Inc.
- Descarreaux, J., 1982. Rapport géologique préliminaire, propriété Dionne. Claims Dionne, GM 39468.
- Dubé, B. and Gosselin, P., 2007. Greenstone-hosted quartz-carbonate vein deposits, Quebec. Mineral Deposits of Canada, No.5, p. 49-73.
- Dumont, P., E., 1984. Report on group of 28 claims, Wedding Lake. Claim Dionne, GM 41226.
- Dumont, P., E., 1984. Report on Wedding Lake claims. Claims Dionne, Société minière Alata inc, GM 41743.

- Franklin, J.M., 1996. Volcanic-associated massive Sulphide base metals; in *Geology of Canadian Mineral Deposit Types*, (ed.) O.R. Eckstrand, W.D. Sinclair, and R.I. Thorpe; Geological Survey of Canada, *Geology of Canada*, no. 8, p. 158-183 (also *Geological Society of America, The Geology of North America*, v. P-1).
- Gagne, S., 2007. Leve geologique, propriété Grevet-Mountain. Breakwater Resources Ltd, Ressources Metco inc, GM 63523.
- Gagnier, B. M., Gauthier, A. and Lavoie, C., 1981. Travaux de sondage, projet Grevet. Falconbridge Nickel Mines Ltd, GM 37212.
- Gagnon, Y. D., 1988. Prospection, cartographie et forage, automne 1998, projet Cameron (100949). SOQUEM inc, GM 49671.
- Galley, A. G., Hannington, M. D., and Jonasson, I. R., 2007. Volcanogenic Massive Sulphide Deposits, *in Geological Provinces, and Exploration Methods: Geological Association of Canada, Mineral Deposits Division, Special Publication No. 5*, p. 141-161.
- Gaudreault, D. and Pearson, N., 1996. Compilation des travaux et recommandations pour les propriétés du groupe Grevet. Cambior Inc, GM 54650.
- Gauthier, A., 1982. Relevé de géochimie d'humus, propriété Falconbridge. Falconbridge Nickel Mines Ltd, GM 39879.
- Houle, P., 1986. Journal de sondage. Falconbridge Nickel Mines Ltd, GM 43713.
- Lambert, G., 2007. Rapport sommaire sur des travaux geophysiques au sol, leves magnetometriques et de polarisation provoquee, propriété Grevet A. Breakwater Resources Ltd, Ressources Metco inc, GM 63526.
- Lambert, G., 2004. Leves "deepem in-loop" de detail, propriété Grevet "A". Ressources Metco inc, GM 61218.
- Lambert, G., 2004. Leves de polarisation provoquee, propriété Grevet "A". Ressources Metco inc, GM 61219.
- Lambert, G. and Turcotte, R., 1990. Levé geophysique, projet Cameron (100949). SOQUEM inc, GM 49644.
- Lavoie, C., 1982. Géophysical surveys, Quévillon project, grid 78-5. Falconbridge Nickel Mines Ltd, GM 38522.
- Lavoie, C., 1977. Report on geophysical surveys, Quévillon project. Falconbridge Nickel Mines Ltd, GM 33499.
- Lebel, A., Nolet, M. A., 1978. Rapport géophysique, 11-471 Grevet, vérification magnétométriques, électromagnétiques et gravimétriques des blocs 1-2-3-4-6-8-11. Falconbridge Nickel Mines Ltd, SOQUEM, GM 34534.
- Mercier D. 1990. Rapport de la campagne de geologie et de prospection, projet Cameron (100949). SOQUEM inc, GM 50830.

- Oswald, R., 1991. Rapport de la campagne de géologie, de prospection et de forage, été - automne 1991, projet Cameron (100949). SOQUEM, GM 51379.
- Pitre, R., 1981. Levés géophysiques au sol sur la propriété. Grevet J, projet NW Québécois, secteur de Quévillon. SEREM Ltée, GM 37365.
- Plante, L., 1988. Levés géophysiques - TBF + Mag, projet 100949, "Cameron". SOQUEM inc, GM 48200.
- Theberge, D., 2003. Rapport de qualification, propriété Grevet A. Ressources Metco inc, GM 60890 –
- Torben, J., 2010. NI 43-101 Technical Report, Langlois mine, Lebel-sur-Quévillon, Québec. Breakwater Resources Ltd.

13.0 SIGNATURE PAGE

2011 EXPLORATION PROGRAM ON THE GREVET A PROPERTY (ABITIBI, QUÉBEC)

Project Location

Latitude: 49°16'6" North ; Longitude: 76°44'35" West
Grevet Township
Province of Québec, Canada

Prepared for

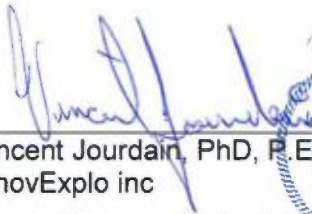
Nyrstar
Route 1000, Km 42 C.P. 6000
Lebel-sur-Quévillon
J0Y 1X0



Cédric de Marneffe, G.I.T. [OGQ #1484]
InnovExplo inc

560-B, 3^e Avenue, Val-d'Or
Québec, Canada, J9P 1S4

Signed at Val-d'Or on January 13, 2012



Vincent Jourdain, PhD, P. Eng
InnovExplo inc

560-B, 3^e Avenue, Val-d'Or
Québec, Canada, J9P 1S4



Signed at Val-d'Or on January 13, 2012

14.0 CERTIFICATE OF AUTHOR

I, Cédric de Marneffe, Geologist-in-training (OGQ, no.1484), do hereby certify that:

1. I am a consulting geologist at InnovExplo (9117-9077 Québec Inc), 560-B 3^e Avenue, Val-d'Or, Québec, Canada, J9P 1S4.
2. I graduated with a Masters of Geology degree from Université de Liège (Liège, Belgium) in 2010.
3. I am a member in good standing of the Ordre des Géologues du Québec (OGQ, no. 1484).
4. I have worked as a geologist for a total of 2 years since graduating from university. I have been a consulting geologist for InnovExplo since May 2010.
5. I am responsible for the preparation of the report titled "2011 Exploration Program on the Grevet A Property, Abitibi, Québec" dated January 13, 2012. I visited the Grevet A property in 2011.
6. I have had no prior involvement with the property that is the subject of the Report.
7. I am not aware of any material fact or material change with respect to the subject matter of the Report that is not reflected in the Report and for which the failure to disclose would make the Report misleading.
8. I am independent of the issuer.

Dated, this 13th day of January 2012 at Val-d'Or.



Cédric de Marneffe, B.Sc., G.I.T.

I, Vincent Jourdain, Ph.D., P. Eng. (OIQ) do hereby certify that:

1. I am Technical Director of Geology at InnovExplo (9117-9077 Québec Inc), 560-B 3^e Avenue, Val-d'Or, Québec, Canada, J9P 1S4.
2. I hold a B.Sc.A. in geological engineering from Université Laval (Québec City), having graduated in 1984.
3. I hold a M.Sc.A. in Earth Sciences from Université du Québec à Chicoutimi, having graduated in 1987.
4. I hold a Ph.D. in Mineral Resources from Université du Québec à Montréal, having graduated in 1993.
5. I am a member of the Quebec Order of Engineers and the Canadian Institute of Mining and Metallurgy and Petroleum.
6. I have been continuously engaged in professional roles in the mineral industry since graduating in 1984.
7. I have read the definition of "qualified person" set out in Regulation 43-101 and certify that by reason of my education, affiliation with a professional association and past relevant work experience, I fulfill the requirements to be a "qualified person".
8. I am responsible for supervising the report titled "2010-2011 Exploration Program on the Duplessis Mountain Property, Abitibi, Quebec" dated December 15, 2011.
9. I never had any prior involvement with the property that is the subject of the Technical Report.
10. I am not aware of any material fact or material change with respect to the subject matter of the Technical Report that is not reflected in the Technical Report, and that the omission to disclose would make the Technical Report misleading.
11. I am independent of the issuer.

Dated, this 15th day of December 2011 at Val-d'Or.


Vincent Jourdain, Ph.D. P. Eng.


**APPENDIX I
UNITS, CONVERSION FACTORS, ABBREVIATIONS**

Units

Units in this report are metric unless otherwise specified. Precious metal content is reported in gram of metal per metric ton (g/t Au or Ag) except otherwise stated. Tonnage figures are dry metric tons unless otherwise stated. The ounces are in Troy ounces.

Abbreviation used

°C	Degrees Celsius	oz	Troy ounces
g	Grams	oz/t	Ounces per short tons
ha	Hectares	g/t	Grams per metric tons
kg	Kilograms	ppb	Part per billion
km	Kilometres	ppm	Part per million
masl	Metres above sea level	st	Short tons
mm	Millimetres	t	Metric tons
'	Feet	\$	Canadian dollars

Conversion factors for measurements

Imperial Unit	Multiplied by	Metric Unit
1 inch	25.4	mm
1 foot	0.305	m
1 acre	0.405	ha
1 ounce (troy)	31.103	g
1 pound (avdp)	0.454	kg
1 ton (short)	0.907	t
1 ounce (troy) / t (short)	34.286	g/t

**APPENDIX II
LIST OF CLAIMS**

Title Number	Township	Status	Area (ha)	Registration date	Expiry date	Registered Owner
4438275	Grevet	Active	16.0	1987-02-23	2013-01-15	Nextair Inc (20958) 30%; Breakwater Resources Ltd (6436) 70%
5251445	Grevet	Active	16.0	2007-02-20	2013-02-19	Breakwater Resources Ltd (6436) 100%
5251446	Grevet	Active	16.0	2007-02-20	2013-02-19	Breakwater Resources Ltd (6436) 100%
5251447	Grevet	Active	16.0	2007-02-20	2013-02-19	Breakwater Resources Ltd (6436) 100%
5251448	Grevet	Active	16.0	2007-02-20	2013-02-19	Breakwater Resources Ltd (6436) 100%
5251449	Grevet	Active	16.0	2007-02-20	2013-02-19	Breakwater Resources Ltd (6436) 100%
5251451	Grevet	Active	16.0	2007-02-20	2013-02-19	Breakwater Resources Ltd (6436) 100%
5251452	Grevet	Active	16.0	2007-02-20	2013-02-19	Breakwater Resources Ltd (6436) 100%
5251453	Grevet	Active	16.0	2007-02-20	2013-02-19	Breakwater Resources Ltd (6436) 100%
5251454	Grevet	Active	16.0	2007-02-20	2013-02-19	Breakwater Resources Ltd (6436) 100%
5251455	Grevet	Active	16.0	2007-02-20	2013-02-19	Breakwater Resources Ltd (6436) 100%
5251456	Grevet	Active	16.0	2007-02-20	2013-02-19	Breakwater Resources Ltd (6436) 100%
5251457	Grevet	Active	16.0	2007-02-20	2013-02-19	Breakwater Resources Ltd (6436) 100%
5251458	Grevet	Active	16.0	2007-02-20	2013-02-19	Breakwater Resources Ltd (6436) 100%
5251459	Grevet	Active	16.0	2007-02-20	2013-02-19	Breakwater Resources Ltd (6436) 100%
5261846	Grevet	Active	16.0	2002-12-16	2012-12-15	Breakwater Resources Ltd (6436) 100%
5261847	Grevet	Active	16.0	2002-12-16	2012-12-15	Breakwater Resources Ltd (6436) 100%
5263328	Grevet	Active	16.0	2002-12-16	2012-12-15	Breakwater Resources Ltd (6436) 100%
5263329	Grevet	Active	16.0	2002-12-16	2012-12-15	Breakwater Resources Ltd (6436) 100%
5263331	Grevet	Active	16.0	2002-12-16	2012-12-15	Breakwater Resources Ltd (6436) 100%
5263332	Grevet	Active	16.0	2002-12-16	2012-12-15	Breakwater Resources Ltd (6436) 100%
5263337	Grevet	Active	16.0	2002-12-16	2012-12-15	Breakwater Resources Ltd (6436) 100%
5263338	Grevet	Active	16.0	2002-12-16	2012-12-15	Breakwater Resources Ltd (6436) 100%
5263339	Grevet	Active	16.0	2002-12-16	2012-12-15	Breakwater Resources Ltd (6436) 100%
5263340	Grevet	Active	16.0	2002-12-16	2012-12-15	Breakwater Resources Ltd (6436) 100%
5263341	Grevet	Active	16.0	2002-12-16	2012-12-15	Breakwater Resources Ltd (6436) 100%
5263342	Grevet	Active	16.0	2002-12-16	2012-12-15	Breakwater Resources Ltd (6436) 100%
5263343	Grevet	Active	16.0	2002-12-16	2012-12-15	Breakwater Resources Ltd (6436) 100%
5263344	Grevet	Active	16.0	2002-12-16	2012-12-15	Breakwater Resources Ltd (6436) 100%
5263345	Grevet	Active	16.0	2002-12-16	2012-12-15	Breakwater Resources Ltd (6436) 100%
5263346	Grevet	Active	16.0	2002-12-16	2012-12-15	Breakwater Resources Ltd (6436) 100%
5263347	Grevet	Active	16.0	2002-12-16	2012-12-15	Breakwater Resources Ltd (6436) 100%
5263348	Grevet	Active	16.0	2002-12-16	2012-12-15	Breakwater Resources Ltd (6436) 100%
5263349	Grevet	Active	16.0	2002-12-16	2012-12-15	Breakwater Resources Ltd (6436) 100%
5263350	Grevet	Active	16.0	2002-12-16	2012-12-15	Breakwater Resources Ltd (6436) 100%
5269026	Grevet	Active	16.0	2004-06-11	2012-06-10	Breakwater Resources Ltd (6436) 100%
5269027	Grevet	Active	16.0	2004-06-11	2012-06-10	Breakwater Resources Ltd (6436) 100%
5269028	Grevet	Active	16.0	2004-06-11	2012-06-10	Breakwater Resources Ltd (6436) 100%
5269029	Grevet	Active	16.0	2004-06-11	2012-06-10	Breakwater Resources Ltd (6436) 100%
5270552	Grevet	Active	16.0	2005-07-19	2013-07-18	Breakwater Resources Ltd (6436) 100%
5270553	Grevet	Active	16.0	2005-07-19	2013-07-18	Breakwater Resources Ltd (6436) 100%
5270555	Grevet	Active	16.0	2005-07-19	2013-07-18	Breakwater Resources Ltd (6436) 100%
5270556	Grevet	Active	16.0	2005-07-19	2013-07-18	Breakwater Resources Ltd (6436) 100%
5270557	Grevet	Active	16.0	2005-07-19	2013-07-18	Breakwater Resources Ltd (6436) 100%
5270800	Grevet	Active	16.0	2005-07-19	2013-07-18	Breakwater Resources Ltd (6436) 100%
5270801	Grevet	Active	16.0	2005-07-19	2013-07-18	Breakwater Resources Ltd (6436) 100%

Title Number	Township	Status	Area (ha)	Registration date	Expiry date	Registered Owner
5270802	Grevet	Active	16.0	2005-07-19	2013-07-18	Breakwater Resources Ltd (6436) 100%
5251450	Grevet	Active	16.0	2007-02-20	2013-02-19	Breakwater Resources Ltd (6436) 100%
5261845	Grevet	Active	16.0	2002-12-16	2012-12-15	Breakwater Resources Ltd (6436) 100%
5263330	Grevet	Active	16.0	2002-12-16	2012-12-15	Breakwater Resources Ltd (6436) 100%
5270554	Grevet	Active	16.0	2005-07-19	2013-07-18	Breakwater Resources Ltd (6436) 100%
5270798	Grevet	Active	16.0	2005-07-19	2013-07-18	Breakwater Resources Ltd (6436) 100%
5270799	Grevet	Active	16.0	2005-07-19	2013-07-18	Breakwater Resources Ltd (6436) 100%

**APPENDIX III
CERTIFICATE OF ANALYSIS**



ALS Canada Ltd.
2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Téléphone: 604 984 0221 Télécopieur: 604 984 0218
www.alsglobal.com

À: RESSOURCES BREAKWATER
MINE LANGLOIS
C.P. 6000
LEBEL-SUR-QUÉVILLON QC JOY 1X0

Page: 1
Finalisée date: 19-SEPT-2011
Compte: SJS

CERTIFICAT SD11159559

Projet: GREVET A

Bon de commande #: GA20110810A

Ce rapport s'applique aux 4 échantillons de roche soumis à notre laboratoire de Val d'Or, QC, Canada le 10- AOUT- 2011.

Les résultats sont transmis à:

DOMINIQUE BOUSQUET
MARIO DOUCET

KARINE BROUSSEAU

CÉDRIC DE MARNEFFE

PRÉPARATION ÉCHANTILLONS

CODE ALS	DESCRIPTION
WEI- 21	Poids échantillon reçu
LOG- 22	Entrée échantillon - Reçu sans code barre
CRU- 31	Granulation - 70 % < 2 mm
SPL- 21	Échant. fractionné - div. riffles
PUL- 31	Pulvérisé à 85 % < 75 um

PROCÉDURES ANALYTIQUES

CODE ALS	DESCRIPTION	INSTRUMENT
ME- XRF05	Analyse XRF de degré trace	XRF
ME- XRF06	Roche totale - XRF	XRF
OA- GRA06	Perte par calcination pour ME- XRF06	WST- SIM
Au- AA23	Au 30 g fini FA- AA	AAS
ME- ICP41	Aqua regia ICP- AES 35 éléments	ICP- AES

À: RESSOURCES BREAKWATER
ATTN: KARINE BROUSSEAU
INNOVEXPLO
560-B, 3E AVENUE
VAL-D OR QC J9P 1S4

Ce rapport est final et remplace tout autre rapport préliminaire portant ce numéro de certificat. Les résultats s'appliquent aux échantillons soumis. Toutes les pages de ce rapport ont été vérifiées et approuvées avant publication.

Signature:



Colin Ramshaw, Vancouver Laboratory Manager



ALS Canada Ltd.
 2103 Dollarton Hwy
 North Vancouver BC V7H 0A7
 Téléphone: 604 984 0221 Télécopieur: 604 984 0218
 www.alsglobal.com

À: RESSOURCES BREAKWATER
 MINE LANGLOIS
 C.P. 6000
 LABEL-SUR-QUÉVILLON QC JOY 1X0

Page: 2 - A
 Nombre total de pages: 2 (A - D)
 Finalisée date: 19-SEPT-2011
 Compte: SJS

Projet: GREVET A

CERTIFICAT D'ANALYSE SD11159559

Description échantillon	Méthode élément unités L.D.	WEI- 21	Au- AA23	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	
		Poids reçu kg	Au ppm	Ag ppm	Al %	As ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %
		0.02	0.005	0.2	0.01	2	10	10	0.5	2	0.01	0.5	1	1	1	0.01
L204019		1.38	<0.005	<0.2	3.43	2	<10	10	<0.5	<2	2.42	<0.5	27	<1	48	10.85
L204020		1.23	0.007	<0.2	1.18	<2	<10	90	<0.5	<2	2.51	<0.5	3	<1	12	5.26
L204021		0.55	<0.005	<0.2	4.10	2	<10	20	<0.5	<2	1.44	<0.5	45	169	6	8.76
L204159		1.55	<0.005	<0.2	4.05	<2	<10	10	<0.5	<2	11.3	<0.5	32	87	48	7.78



ALS Canada Ltd.
 2103 Dollarton Hwy
 North Vancouver BC V7H 0A7
 Téléphone: 604 984 0221 Télécopieur: 604 984 0218
 www.alsglobal.com

À: RESSOURCES BREAKWATER
 MINE LANGLOIS
 C.P. 6000
 LABEL-SUR-QUÉVILLON QC JOY 1X0

Page: 2 - B
 Nombre total de pages: 2 (A - D)
 Finalisée date: 19-SEPT-2011
 Compte: SJS

Projet: GREVET A

CERTIFICAT D'ANALYSE SD11159559

Description échantillon	Méthode élément unités L.D.	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	
		Ga ppm	Hg ppm	K %	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P ppm	Pb ppm	S %	Sb ppm	Sc ppm	Sr ppm
		10	1	0.01	10	0.01	5	1	0.01	1	10	2	0.01	2	1	1
L204019		20	<1	0.01	10	1.52	1310	<1	0.06	<1	2470	<2	0.09	<2	25	75
L204020		10	1	0.17	20	0.30	1010	<1	0.04	<1	450	<2	0.04	<2	3	57
L204021		20	1	<0.01	<10	3.95	1125	<1	0.04	92	640	<2	0.01	<2	30	47
L204159		10	1	0.03	<10	1.53	2340	<1	0.02	54	420	<2	0.09	<2	12	176



ALS Canada Ltd.
 2103 Dollarton Hwy
 North Vancouver BC V7H 0A7
 Téléphone: 604 984 0221 Télécopieur: 604 984 0218
 www.alsglobal.com

À: RESSOURCES BREAKWATER
 MINE LANGLOIS
 C.P. 6000
 LABEL-SUR-QUÉVILLON QC JOY 1X0

Page: 2 - C
 Nombre total de pages: 2 (A - D)
 Finalisée date: 19-SEPT-2011
 Compte: SJS

Projet: GREVET A

CERTIFICAT D'ANALYSE SD11159559

Description échantillon	Méthode élément unités L.D.	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- ICP41	ME- XRF05	ME- XRF05	ME- XRF05	ME- XRF05	ME- XRF05	ME- XRF05	ME- XRF06	ME- XRF06
		Th	Ti	Tl	U	V	W	Zn	Ba	Nb	Rb	Sr	Y	Zr	SiO2	Al2O3
		ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%
		20	0.01	10	10	1	10	2	10	2	2	2	2	2	0.01	0.01
L204019		<20	0.04	<10	<10	67	<10	182	40	11	4	191	52	208	50.25	13.18
L204020		<20	0.01	<10	<10	3	<10	68	1290	22	82	110	47	1590	61.98	12.64
L204021		<20	0.04	<10	<10	227	<10	75	50	6	<2	121	26	97	48.29	15.59
L204159		<20	0.05	<10	<10	119	<10	106	80	4	13	164	25	68	36.95	10.11



ALS Canada Ltd.
 2103 Dollarton Hwy
 North Vancouver BC V7H 0A7
 Téléphone: 604 984 0221 Télécopieur: 604 984 0218
 www.alsglobal.com

À: RESSOURCES BREAKWATER
 MINE LANGLOIS
 C.P. 6000
 LABEL-SUR-QUÉVILLON QC JOY 1X0

Page: 2 - D
 Nombre total de pages: 2 (A - D)
 Finalisée date: 19-SEPT-2011
 Compte: SJS

Projet: GREVET A

CERTIFICAT D'ANALYSE SD11159559

Description échantillon	Méthode élément unités L.D.	ME- XRF06	ME- XRF06	ME- XRF06	ME- XRF06	ME- XRF06	ME- XRF06	ME- XRF06	ME- XRF06	ME- XRF06	ME- XRF06	ME- XRF06	ME- XRF06	
		Fe2O3 %	CaO %	MgO %	Na2O %	K2O %	Cr2O3 %	TiO2 %	MnO %	P2O5 %	SrO %	BaO %	LOI %	Total %
		0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.001	0.01	0.01	0.01	0.01	
L204019		16.96	3.75	2.86	4.10	0.06	<0.01	2.10	0.21	0.550	0.02	0.01	4.41	98.46
L204020		9.80	3.63	0.83	2.27	2.34	<0.01	0.60	0.14	0.098	0.01	0.13	4.23	98.69
L204021		14.36	2.24	7.40	4.43	0.03	0.03	1.68	0.16	0.137	0.01	<0.01	5.28	99.64
L204159		11.73	17.43	2.85	1.28	0.40	0.02	1.17	0.32	0.085	0.01	0.01	16.30	98.67

APPENDIX IV
BEEP MAT SURVEY INTERPOLATIONS AND SAMPLE LOCATIONS

- 1- Beep Mat High Frequency Response Interpolation
- 2- Beep Mat Low Frequency Response – Mag Interpolation
- 3- Beep Mat Ratio Interpolation