

GM 47661

EVALUATION REPORT ON THE LAC MINA PROJECT

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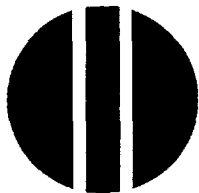


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Énergie et Ressources
naturelles

Québec 



Christian Derosier Géologue-Conseil inc.

FIRSTAKE CAPITAL CORPORATION

**EVALUATION REPORT
ON THE
LAC MINA PROJECT**

**GUERCHEVILLE TOWNSHIP
ABITIBI, QUEBEC**

NTS 32G/11

1988 SEP 27
BUREAU REGIONAL
MONTRÉAL

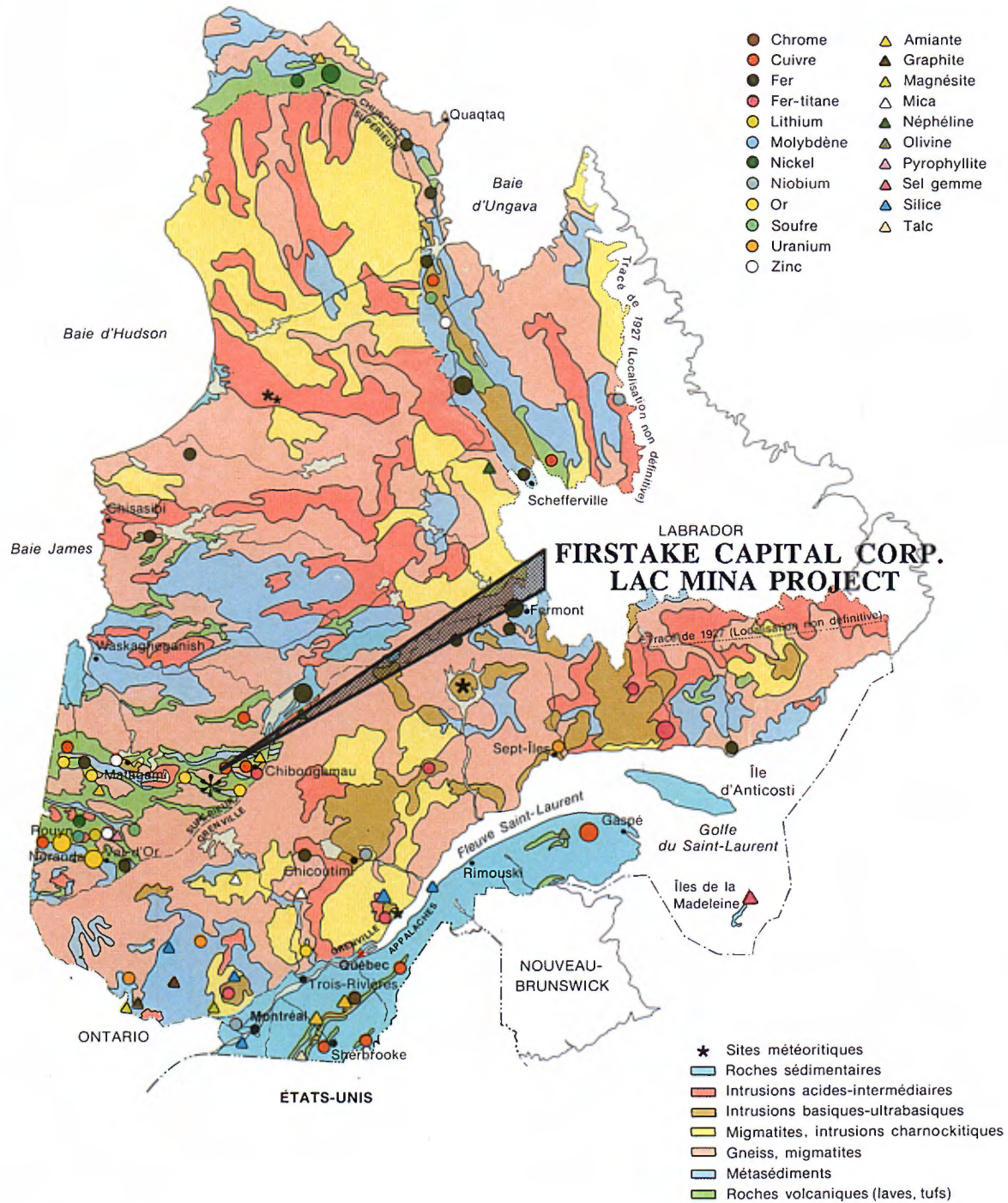
Ministère de l'Énergie et des Ressources
Service de la Géoinformation
Date: 23 JAN 1989
No G.M.: 47661



May 1988

By Christian Derosier
Geologist, MSc, DSc

CARTE MINÉRALE DU QUÉBEC, CANADA MINERAL MAP OF QUÉBEC, CANADA



0 100 200
 Kilomètres

Représentation simplifiée de la carte
 originale à l'échelle de 1: 1 500 000

Centre de diffusion de la géoinformation
 1620, boul. de l'Entente
 Québec, Canada
 G1S 4N6

FIGURE No 1

Québec

SUMMARY

FIRSTAKE CAPITAL CORPORATION, from Montreal, Quebec, owns 13 claims covering a total area of 200 hectares and located in Guercheville township, Abitibi, Quebec. The property is known as the Lac Mina Project.

The property is situated at some 70 km South-East from the nearest town, Chapais and is accessible by cars in Summer and for the last part by snowmobile in Winter.

The volcano-sedimentary rocks of the area belong to a portion of the Abitibi Greenstones Belt and are Precambrian in age. They represent the internal zone, and consist mostly of mafic and felsic flows, volcanoclastic rocks, volcanogenic sediments and epiclastic sediments. The Rohault- Guercheville sector is characterized by a thick sequence of porphyric basalts belonging to the Obatogamau Formation which formed an extensive submarine lava plain. During that period, evidence of isolated felsic volcanism is provided by the development of felsic lava flows, pyroclastic flows and volcanoclastic rocks, assigned to the Lac des Vents Member, a subdivision of the Obatogamau Formation. Sediments of the Caopatina Formation deposited after the volcanic phase, occupy the core of an E-W trending major syncline.

A gold occurrence was found in 1957 at about 30m north of Lac Mina. The showing returned gold values up to 0.5oz/t. The property was optioned to Steerola Exploration Ltd in 1959, which trenched the showing and bored seven short holes. These holes returned gold values up to 0.05oz gold/t. Since that time, only geophysical and geological surveys were carried out. Gold is found associated with sulphides like pyrrhotite, chalcopyrite, arsenopyrite and minor pyrite, in quartz-carbonate veins and stringers.

The economic potential of the Rohault- Guercheville band is excellent. It includes two, Shortt Lake and Joe Mann gold producers and a potential one, the Fenton Lake gold deposit owned by the Société de Développement de la Baie de James and Serem-Quebec, in Guercheville township.

The region presents many similarities with the Casa-Berardi area where the presence of regional EM conductors at the top of the volcanic sequence and the presence of local sedimentary basins appear to be important metallogenic elements. The Guercheville-Rohault band is also characterized by the presence of several E-W trending regional INPUT conductors. One such conductor, present near the northern contact between the basalts and the sediments extends westward from Joe Mann mine to at least Shortt Lake.

INPUT anomalies remain untested and the favourable geological and structural contexts added to the interesting gold and base metals grades obtained lead us to conclude that a serious exploration effort is warranted to fully evaluate the economic potential of this property.

The recommended programme includes line cutting, Max-min II survey, geology prospection and in a second phase, diamond drilling. The total cost of the two phases is estimated at \$ 182 000.00.

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1.0 INTRODUCTION



1.0 INTRODUCTION

FIRSTAKE CAPITAL CORPORATION owns 13 claim blocks located in Guercheville township, Ungava county, Abitibi, Quebec. The property was acquired by staking by Frederic Exploration and were transferred later to the Company. Most recent claims were staked directly by the Company.

The mining property was acquired on the basis of the area's favourable geophysical and geological contexts, of two gold and base metals occurrences reported on the claims and a gold deposit discovered and partially delineated at less than 2000m on the SW.

In may 1988, the Company retained the services of Christian Derosier Géologue-Conseil Inc. to carry out an evaluation of the property.

This report is based on the writer's experience in the Desmaraiville and Chibougamau areas. The author has visited the property and the surrounding claims blocks during the Summer of 1986.

2.0 LOCATION AND ACCESS



2.0 LOCATION AND ACCESS

The FIRSTAKE' s property is located in the SE quadrant of Guercheville township, Ungava county, Abitibi, Quebec.

The nearest town is Chapais at about 70 km by road. The property is accessible by car and truck in summer and fall and partially reachable by car in winter, with the last 10 km by snowmobile. Naturally it is always possible to use a helicopter. From Chapais, we use the Highway 113 linking this town to Lebel sur Quevillon and Senneterre over a distance of 30 km. Then, a gravel road, known as the Kruger's road goes south . A secondary gravel road used by Quebec Hydro and M.E.R. continues to the south and crosses the Opawica river. At about 30 km from the paved road, an other secondary road built by the Quebec Ministry of Energy and Resources for mining exploration, follows the Guercheville- Druillettes Greenstones Belt and cuts the north-east corner of the property at about 2.5 km East of the intersection.

Recent exploration programmes in the area by Esso Minerals, Bay Resources and Services, Aster Exploration, Argentex and Noramco permitted to keep the access road in good condition.

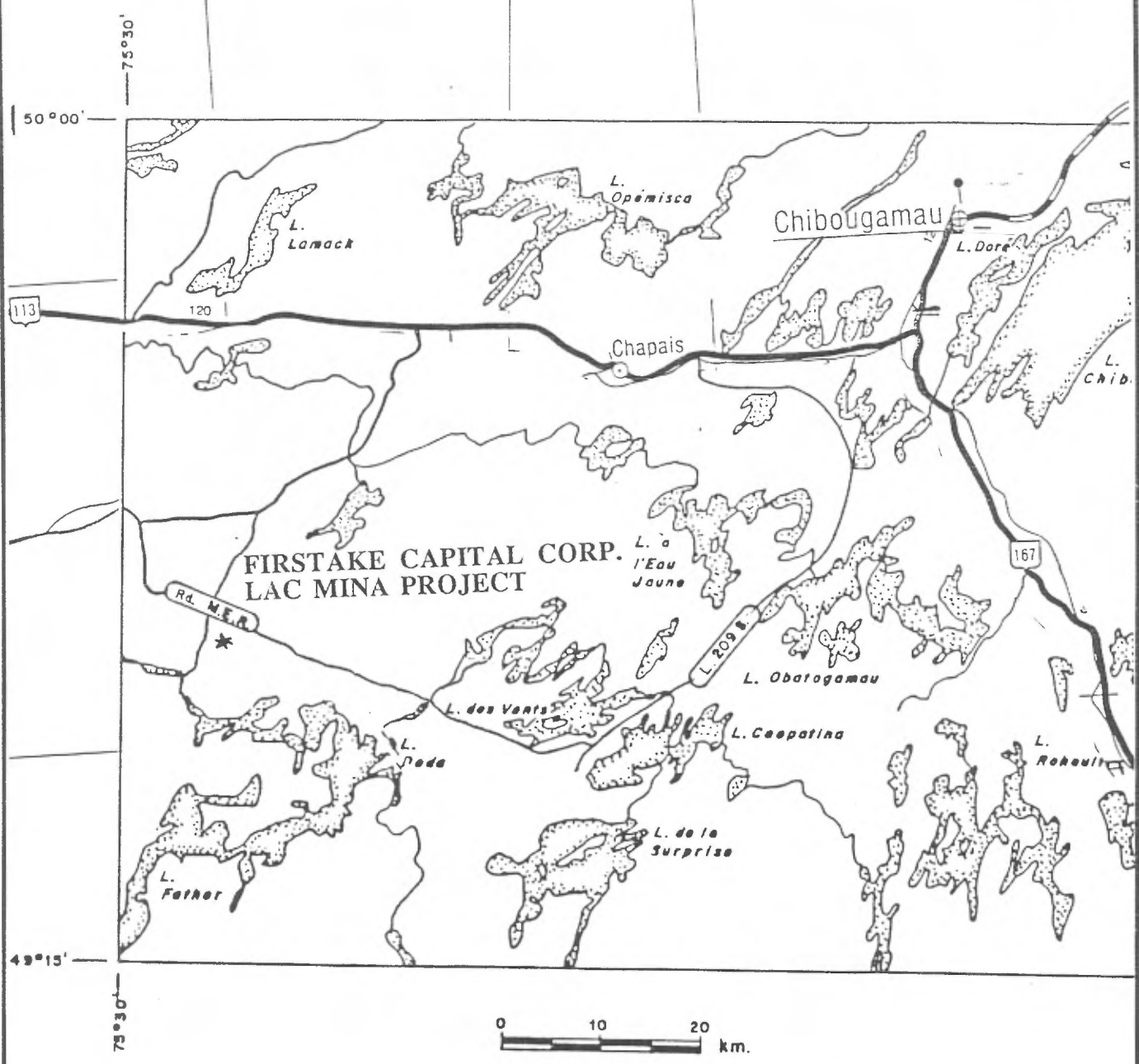
Geographic coordinates of the center of the property are as follows:


- L 79° 19' 00" W

- l 49° 32' 30" E

The National Topographic System 's coordinates are 32G/ 11- 200- 0101.

There is plenty of water in the area for a mining operation and an high voltage powerline stands at a short distance. Manpower with mining specialities is available in the Chibougamau-Chapais area.



CLIENT	FIRSTAKE CAPITAL CORPORATION		FAIT/ MADE	DATE
	PROJET/ PROJECT LAC MINA, GUERCHEVILLE, Qc.		C. DEROSIER	MAY 1988
 LOCATION AND ACCESS	APPR.		SCALE/ ECHELLE	
			1 : 250 000	
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26	000	2		

3.0 MINING PROPERTY



3.0 MINING PROPERTY

The Firstake Capital Corporation 's property is located in the south-east quadrant of Guercheville township, Ungava county, Abitibi, Quebec. The property consists of 13 contiguous claims covering a total area of 200 hectares. The claims, known as the " lac Mina project ", have the following prospector's licences:

Licence No	Claims	Area	Expiry date
458398	1 @ 3	48	October 15, 1988
458398	4 & 5	24	October 16, 1988
437767	1 @ 4	64	March 25, 1989
437764	1 & 2	32	March 25, 1989
441403	3	16	October 12, 1988
441403	4	16	October 13, 1988
Total	13 claims	200 ha	

Except for claims 458398- 1 to 5 which were recently staked, there are sufficient credits accumulated for several years.

4.0 GEOLOGY



4.0 GEOLOGY

4.1 Regional geology

The Guercheville area was first mapped by J.H. Remick in 1956-57, for the Quebec Ministry of Mines. Results are contained in the Preliminary Report No 343. Thanks to the timber operations, the construction of James Bay power lines and new development in mining exploration, the geology of the Guercheville area was recently reviewed and remapped with an interval spacing of 300m. Roads, lakeshores and navigable creeks and rivers were also visited. A new map at a scale of 1 : 20 000 is now published (DP 87-12).

The Guercheville area is underlain by volcanic rocks that form a great part of the Obatogamau Formation, and are related to the south band of the Chibougamau-Matagami Belt. They are mainly made of massive mafic lavas, pillowed and generally porphyric lavas and sills of gabbro. These volcanics are overlain by felsic volcanoclastics, sandstones, turbidites and volcanogenic conglomerates, which now appear in the core of a major geosyncline (Caopatina syncline). The syncline crosses the region in a NW-SE direction.

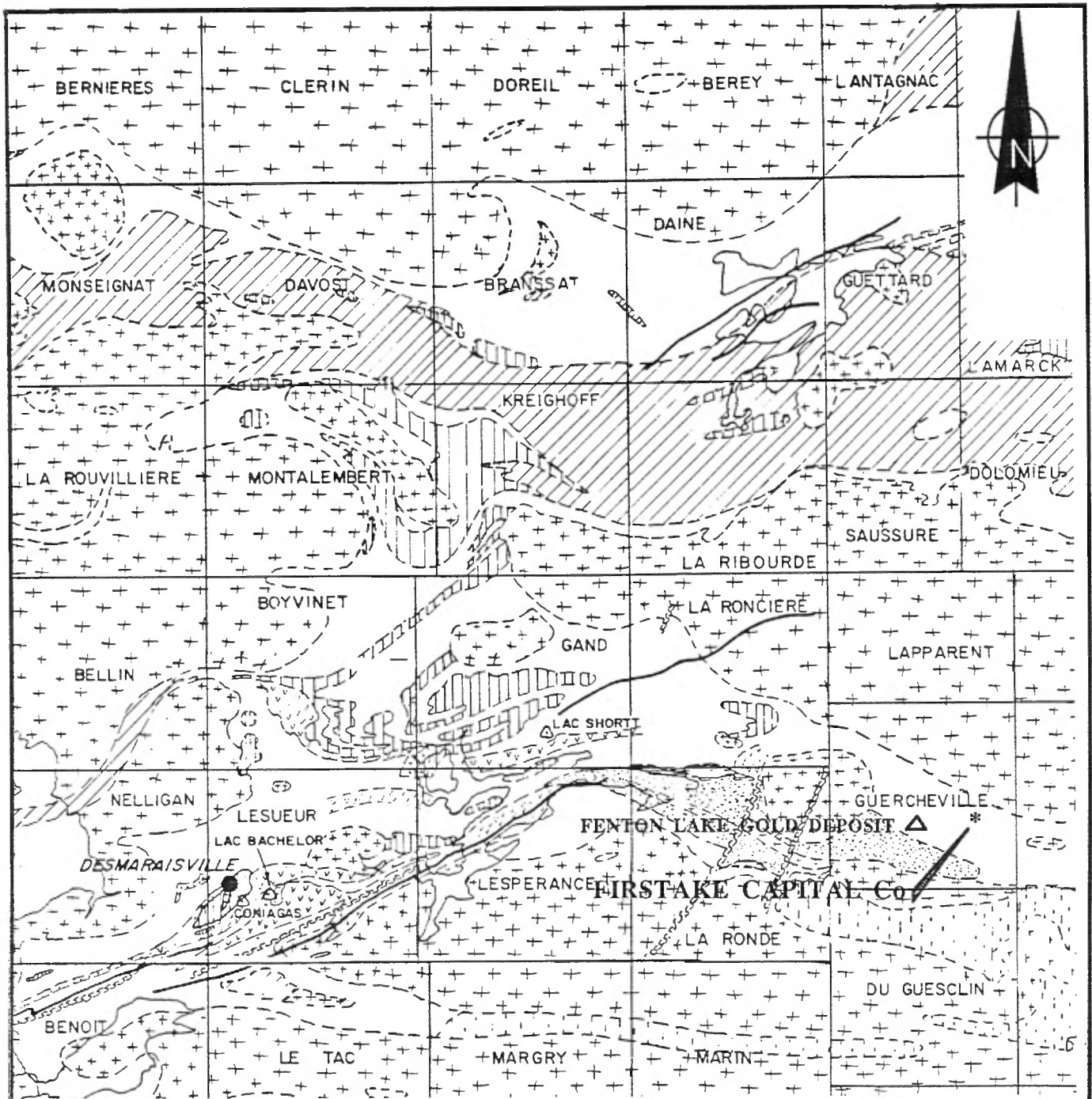
Volcanic and sedimentary rocks are injected by tonalitic and granodioritic intrusions. Those last are pre-, syn- or post-tectonic. The greenstones and sedimentary belt is bordered by large older elliptical tonalite plutons: the Lichen Lake Pluton and the Opawica Pluton. The longest axis of these plutons is parallel to the regional structures. They show a metamorphism in the greenschists facies and are very probably pre-tectonic. The tonalitic Rachel Pluton is surrounded by mafic lavas which have been metamorphosed in amphibolite along the contact. This pluton is probably syn-tectonic while the La Tour and La Ronde granodioritic intrusions are post-tectonic. Tonalitic gneisses of the Lapparent Pluton are found in the NW corner of Guercheville township and to the west of Father Lake. They form enclaves into the tonalitic pluton of Lichen Lake.

The oldest rocks of the area are the tonalitic gneisses. These rocks are highly deformed in the Guercheville Twp. and they look like the neighbouring tonalites (11D). The main difference are the foliation and banding. They show a strong deformation and are highly folded. Several dykes of amphibolite with "M" structures have been observed. The tonalites are syn-tectonic and contemporary to the Lichen Lake tonalite. They cut the tonalitic gneisses (M1). The latter have a faulted contact with the basalts in Guercheville Twp..

Syn-tectonic tonalites (11D) have suffered the same metamorphism than the basalts which are intruded. These plutons are elongated in a WNW-ESE direction. These rocks are often porphyric with biotite and hornblende. They can be highly deformed and chloritized, coarse grained and light grey in colour.

The Rachel Pluton is syn-tectonic, light grey in colour and slightly porphyric in plagioclases. It is weakly altered. At some places, the tonalite is dark grey to black with pink plagioclases.

Post-tectonic granodiorites are pink in colour, slightly to highly foliated, coarse



LEGEND

- VOLCANIC ROCKS**
- Un differentiated volcanites and pyroclastites
 - Felsic volcanics and pyroclastics
 - Metamorphosed volcanics

- SEDIMENTARY ROCKS**
- Undifferentiated sedimentary rocks
- INTRUSIVE ROCKS**
- Felsics
 - Ultramafics
 - Mafics
 - Anorthosite

CLIENT **FIRSTAKE CAPITAL CORPORATION**

FAIT/ MADE

DATE

PROJET/ PROJECT **LAC MINA, GUERCHEVILLE, Qc.**

C. DEROSIER

MAY 1988

APPR.

SCALE/ ECHELLE
1 : 500 000 APPR.



REGIONAL GEOLOGY

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4.0 GEOLOGY (cont'd.)

grained and surrounded by a thin aureole of metamorphism with hosting rocks.

Basalts of the Obatogamau Formation are metamorphosed in the greenschists facies and are sometimes also found as amphibolitized enclaves in the plutons. Basalts are fine grained, pale to dark green in colour, massive and hard. Pillow lavas are restricted to tops of flows. Breccia of pillows and hyaloclastites can also be present in variable amount. The basalts are made of up to 80 % bleached phenocrystal of feldspar, 0,1 to 15mm long. In some lava flows, they can reach 20cm in diameter. Porphyritic flows are more abundant and thicker to the West, near the Opawica Complex.

Felsic volcanoclastites and closely associated sedimentary rocks are very abundant in the hinge of the ESE trending major synclinal structure. These rocks are interbedded with basalts of the Obatogamau Formation. They comprise silstones (S4A), very thinly bedded grey to black mudstones (S4B), feldspathic arenites (S1B), black shales (S4D) and white conglomerats (S3B). Their origin seems to be tied to the Lac des Vents's felsic volcanic complex found in Druillettes township, some 20 km East. Sandstones, mudstones and silstones are probably pyroclastic in origin but were subsequently altered and resedimented. They form a marked layer, 10 to 20m thicknes, followed over a distance of more than 10 km. Turbidites are present. Conglomerats are composed of fragments and pebbles of pyritized basalts, rounded dacite and quartz- feldspar porphyries blocks, with a diameter ranging from 1 cm to 60cm. The sandy matrix consists of quartz and feldspar. The conglomeratic layers have an apparent thickness of 2km and probably result from the erosion of the Lac des Vents Volcanic Complex.

The major structure observed in the area is a syncline axis oriented at 115°. The structure is defined by the observation of polarities in the pillowed lavas and bedding in the metagreywackes. The main schistosity (S2) is parallel to axial plan and varies in direction from 115° to 090°. A later schistosity (S3?) cuts (S2) at an angle of 10 to 30°. Three sets of faults have been recognized. The oldest are East-West oriented and dip abruptly. They are associated with the metamorphosed facies. Shear zones and longitudinal faults affecting the Caopatina syncline range in the second category while N-S trending faults are more recent and produce cataclastic deformations with a left handed displacement of about 2000m.

4.2 Local geology

The FIRSTAKE CAPITAL CORPORATION's property straddles the axis of the Caopatina syncline which crosses the claims following a WNW-ESE direction. From North to South, the stratigraphy is as follows:

- Metabasalts, sheared, silicified and carbonated,
- Gabbro sill, massive and coarse grained,
- Metabasalts, same as above, just North of the syncline axis,
- Felsic tuffs and Lapilli tuffs, often altered in sericite- carbonate schists,

Microfilm

PAGE DE DIMENSION HORS STANDARD

**MICROFILMÉE SUR 35 MM ET
POSITIONNÉE À LA SUITE DES
PRÉSENTES PAGES STANDARDS**

Numérique

PAGE DE DIMENSION HORS STANDARD

**NUMÉRISÉE ET POSITIONNÉE À LA
SUITE DES PRÉSENTES PAGES STANDARDS**

4.0 GEOLOGY (cont'd.)

- Felsic tuffs interbedded with metagreywackes and silstones.

The lower part of the Obatogamau Formation is repeated several times by folding. The gabbro sill observed in the northern part is certainly the same as the one mapped in the central part. The compilation map joined in appendix shows the outcrops visited recently during a prospection campaign. They must be replaced in the local and regional context as shown on figure No 5.

Schistosity observed are mostly oriented at 110-115° and dip from 60° to the North at subvertical. Several "S" shaped dragfolds have also been reported south of the syncline axis.

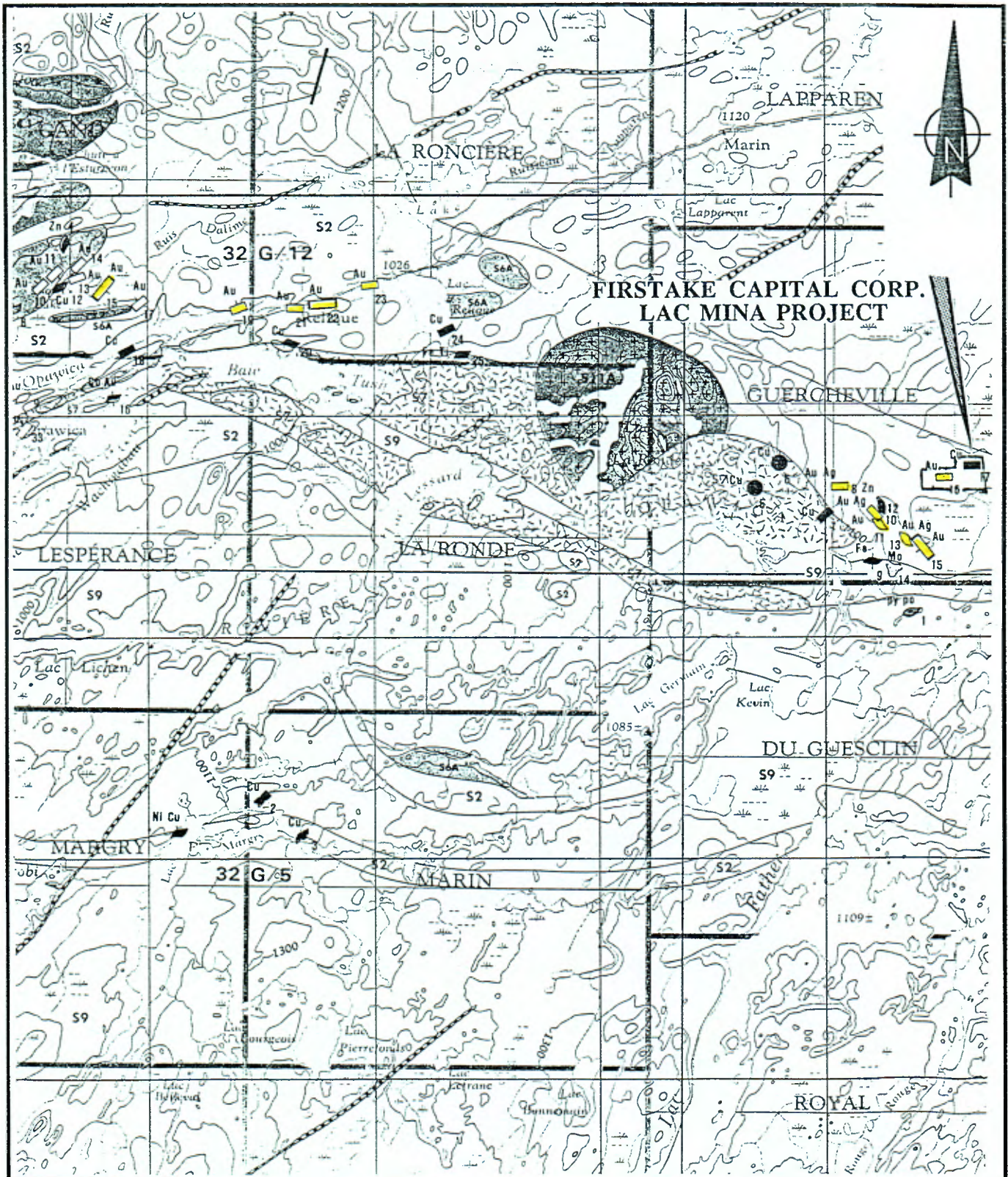
4.3 Mineralization

Two mineral occurrences are known on the property. The first occurrence is located in the NE part of the claims. The mineralization is found at some distance north of the gravel road and consists of chalcopyrite- sphalerite-pyrrhotite and arsenopyrite emplaced in a shear zone injected by carbonate. The shear is oriented E-W and dips vertically. It follows the contact between a gabbro sill and narrow horizons of felsic tuffs. It was discovered by prospection by Beach Gold Mines Ltd. in 1975. Assay results reported in the Government Mineral Inventory index are as follows:

Cu	.15%;	Ni	.02%;	Zn	.01%;	Ag	.62g/t
Cu	.01 to .06%						
Ag	.41 to .83g/t						

The second occurrence is located at 30m North of Lac Mina and was discovered in 1957 by Lucien Demers, a prospector from Chapais. Gold mineralization is found in a shear zone cutting laminated tuffs and fine grained metagreywackes interbedded with more massive beds of pyroclastics. Two steeply dipping east-west shear zones, 1.5m to 2.1m wide occurs within the foliated and laminated rocks. The shears contain up to 65 % quartz and carbonate as veinlets and stringers. Also associated with the shears are sulphides, mainly pyrrhotite and some pyrite. Specks and traces of chalcopyrite and arsenopyrite are also observed. Grab samples of the zones returned up to .5oz gold per ton. Seven short diamond drill holes by Steerola Explorations Ltd. intersected gold values up to 0.05 oz/t but the length of the intersections is not given. Some grab samples taken by the James Bay Dev. Co.'s geologists in an old trench returned a grade of 0.02oz/t.

On an adjacent property, The joint venture constituted by the James Bay Development Corporation and Serem-Quebec Inc. have to date delineated a gold deposit with geological reserves of about 300 000 tonnes averaging 7g gold per tonne. The mineralization is found in five lenses associated with silicified and carbonatized shear zones. These lenses have been followed to a depth of 125m and are still open. No exploration work has been executed on the property since 1983 because of the partners 's financial problems.



CLIENT **FIRSTAKE CAPITAL CORPORATION**

FAIT/ MADE

DATE

C. DEROSIER

MAY 1988

PROJET/ PROJECT **LAC MINA, GUERCHEVILLE, Qc.**

APPR.

SCALE/ ECHELLE

1 : 250 000



METALLOGENIC COMPILATION

(Source, MERQ ; DPV-744; 1981)

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6

5.0 PREVIOUS WORK



5.0 PREVIOUS WORK

The first mineral occurrence was discovered in 1957 by M. Lucien Demers, a prospector from Chapais, Quebec. With his partners, he stripped a long east-west trending sheared zone located at 30m north of north-central shore of Lac Mina. Grab samples taken in the stripped area reportedly assayed up to 0.5oz gold per ton.

In 1959, the gold occurrence was held in 30 claims by G.D. Watson who optioned the property to Steerola Explorations Limited. This company continued the stripping and dug a trench across the shear zone. Following that work, seven short holes for a total length of 457m were bored along a 225m strike length of the zone. Partial results were recently released. Gold values up to 0.05oz gold per ton are reported without however the lengths of intersection. We have to mention that in the 1950's, gold price was fixed at US \$35.00 and due to high production costs, was no longer interesting. Most of the companies were involved in search for massive base metals deposits.

In 1975, Beach Gold Mines Ltd carried out a Max-min II survey (GM 31797). No more work has been submitted by this company.

In 1979, the property was acquired by the James Bay Development Corporation who at the same time signed a joint-venture agreement with the french government 's exploration arm in Canada, Serem Inc. Little work was undertaken on the Lac Mina property. The joint-venture carried out VLF and mag surveys and executed a detailed mapping of the claims. Some grab samples were taken in the old trench and returned a gold value of 0.02oz gold per ton. After the arrival of the socialist government in France and the decision of the Quebec government to eliminate the JBDC, no follow-up was done and the claims were allowed to lapse progressively. The property was acquired by Frederic Exploration from 1986 to 1988 and then transferred to FIRSTAKE CAPITAL CORPORATION.

6.0 ECONOMIC POTENTIAL



6.0 ECONOMIC POTENTIAL

Gold mineralization associated with pyrrhotite, arsenopyrite and minor pyrite has been found on the FIRSTAKE's property, on the Serem-Quebec's Fenton property where a good tonnage is calculated, on the Aster Exploration's property where samples recently taken in a trench returned values up to 0.08oz/t and three holes intersected values of 0.23oz/t over 1,2ft, 0.11oz/t over 2,5ft, 0.12oz/t over 1ft and 0.09 and 0.15oz/t over 2,8ft. The property is adjacent to the Serem's one. Gold mineralizations are also said to occur on the Esso Minerals's property which is in turn practically adjacent to the FIRSTAKE's property and on the Argentex's claims. Gold and sulphides are found in shear zones affecting the rocks of the Obatogamau Formation. Quartz carbonate and sulphides were injected in fractures and shearings during and immediately after a tectonic phase. The sulphides contained in the shear zone give good geophysical signatures. Geophysics are consequently an excellent tool for finding gold and base metals mineralizations.

To date, only two programmes of geophysical surveys have been conducted on part or on the whole property. The first campaign was executed by Beach Gold Mines Ltd in 1976 and consisted of a HEM Max-min II survey over the whole property. The second campaign was carried out by the JBDC and comprised a magnetometer and a VLF surveys. Those two campaigns added to the INPUT survey flown by the Quebec Government in 1981, delineated several conductors and magnetic anomalies. VLF and Max-min II anomalies have a good coincidence and they also correspond to the INPUT conductors. Some of the anomalies are up to 30m wide and have a mag coincidence (pyrrhotite and magnetite).

Four major trends have been interpreted. They are as follows:

-A anomaly

This HEM anomaly has a very good conductivity and is about 2000m long. A slight displacement is observed on the property, corresponding probably to a transversal fault (NE-SW). A mag anomaly, 100 gammas above the background, follows the south flank of the conductor on the western part and the northern side on the eastern part of the property. Basalts with pyrite and graphite have been observed along the western part while mafic lavas interbedded with tuffs are outcropping along the eastern branch. The base metals and silver occurrence described in the metallogenic index No 12 is located at less than 60m south of the axis.

-B anomaly

The HEM anomaly is about 1,5km long and gave a weak conductivity. It coincides with a VLF anomaly. The conductor seems to be cut by the transversal fault. Mag anomalies are perturbed, appearing sometimes on the northern flank and sometimes on the south one. Variations are in the range of 100 gammas. These long formational conductors correspond to silicified and carbonatized mafic to felsic tuffs interbedded with mafic lava flows. Sulphides have been observed on some outcrops.

6.0 ECONOMIC POTENTIAL (cont'd.)

- C anomaly

This 2000m long anomaly shows a very good conductivity coinciding with the VLF anomaly and with a slight displacement near the interpreted fault. A magnetic axis follows the conductor. Very few outcrops are mapped along this conductor. They all represent thinly bedded felsic tuffs. The gold occurrence is located on this conductor axis. Known mineralization occurs in two sheared zones respectively 1.5 and 2.1m wide and composed of quartz, carbonates, chlorite and sericite. Pyrrhotite, chalcopyrite and pyrite are associated with those shear zones and can be the cause of the conductivity and the higher magnetism. The felsic tuffs correspond also to the south flank of the Caopatina syncline. Consequently, anomalies B and C concern the same horizon.

-D anomaly

This conductor axis is located in the south-west corner of the property. Although short, the anomaly has a good conductivity and a slight mag coincidence. However, the bedrock seems to be deep. The anomaly could correspond to the transition between the felsic tuffs and the mafic lava flows. If so, it would be the symmetry of the A anomaly.

The FIRSTAKE property has a good potential for gold mineralization. The gold occurrence was checked too quickly and no systematic work, in order to better define the extension of this mineralization, was undergone. New technology and better core recovery will certainly permit to find other occurrences and maybe calculate mineralized volumes.

7.0 CONCLUSIONS



7.0 CONCLUSIONS

FIRSTAKE CAPITAL CORPORATION from Montreal, Quebec, owns 13 claim blocks located in Guercheville township, Abitibi, Quebec.

Several gold occurrences were discovered between the Minnova's Lac Shortt and the Northgate's Joe Mann gold mines, along the greenstones belt of the Obatogamau Formation. A gold deposit owned by the James Bay Development Corporation and Serem- Quebec is partially delineated in Guercheville township, close from the FIRSTAKE CAPITAL CORPORATION 's property.

The 100% owned claims cover two mineral occurrences which have been partially tested in the past. A base and precious metals occurrence occurs in the northern part of the property. The mineralized outcrop correspond to sheared, silicified and carbonatized felsic tuffs. The mineralization is found in the shear zone and returned to date low values in copper, nickel, zinc and silver. This mineralized shear extends at less than 60m south of a long conductor axis which has not been drill tested.

A second gold occurrence is found at 30 m north of Lac Mina. Mineralization is found in two shear zones closely associated with sulphides, mostly pyrrhotite, chalcopyrite and pyrite. Sulphides are disseminated in the quartz-carbonate veins and veinlets which injected the rocks. Values up to 0.5oz gold per ton have been obtained on the outcrop. Low values were obtained from a trench and results of a limited diamond drill programme appear low. Since the discovery, the property has not been systematically worked, of because all the owners have incurred financial problems. This gold occurrence has an excellent geophysical coincidence, and it is thought that conductivity is caused by disseminated sulphides and the presence of graphite. Gold values are often erratic and one has not to be discouraged with low grade intersections. Several mines were found after more than fifty holes were bored. A good exemple is the Lac Shortt gold mine. In this context, the Lac Mina property has an excellent economic potential.

The two mineralized outcrops and the four conductors warrant systematic and detailed exploration work. A two phases exploration programme is recommended.

8.0 RECOMMENDATIONS



8.0 RECOMMENDATIONS

The proposed exploration programme is divided into two phases.

Phase I

The first phase would consist in line cutting and chaining over the entire property. A base line will be cut, picketed and chained along the south boundary. A tie line will follow the northern boundary. Transversal lines will be cut at 100m apart and picketed at 25m spacing. Lines will be oriented at 360°. The grid line will be 24 km long.

Line cutting will be followed by a prospection with stripping and cleaning of the previous work. Detailed mapping of this work will be done as well as channel sampling across the shear zones. A diamond grit saw will be used for this task.

Following the prospection and sampling, a Max-min II survey, using two frequencies and a 100m long cable will be carried out. The anomalous area will be surveyed a second time with a shorter cable (50m) and an additional frequency. Total length of the survey will cover 28 km including detail over conductors.

Phase II

Max-min II anomalies as well as known gold bearing shear zones will be drill tested. BQ core size will be used. There is sufficient water at any period of the year for drilling programmes. Phase II will be undertaken only if results of Phase I are positive and justify the resuming of the exploration work.

Ten holes totaling 1000 metres of drilling are recommended for the testing of the best conductors and the shear zones. If results of those holes are encouraging, more holes will be necessary for delineating the gold bearing structures or zones. These holes will be part of a third phase.

Cost estimate

Cost estimate is listed on the following page.

8.0 RECOMMENDATIONS (cont'd.)

Phase I


Line cutting		
24 km @ \$ 250.00/ km	\$	6 000.00
Max-min II survey		
28 km @ \$ 275.00/ km	\$	7 700.00
Prospection		
Stripping, mobilisation	\$	2 000.00
1 Bulldozer : 6 days @ \$ 1 000.00	\$	6 000.00
Geologist and supervision		
20 days @ \$ 500.00/ day	\$	10 000.00
Technician		
20 days @ \$ 250.00/ day	\$	5 000.00
Accommodation	\$	4 000.00
Travelling	\$	1 500.00
Diamond grit saw rental	\$	500.00
Supply	\$	1 000.00
Assaying: 100 Samples @ \$12/ samp.	\$	1 200.00
Contingencies 8%	\$	3 600.00
		<hr/>
Total Phase I	\$	48 500.00

Phase II

Diamond drilling		
1 000m @ \$ 95.00/ m including mob and demob	\$	95 000.00
Supervision		
30 days @ \$ 500.00/day	\$	15 000.00
Assaying: 200 samples @ \$ 12.00/ sample	\$	2 400.00
Travelling: 4x4, trailer, motorcycles	\$	2 500.00
Accommodation	\$	3 000.00
Supply	\$	1 500.00
Cutting wood licence	\$	2 000.00
Contingencies 10%	\$	12 100.00
		<hr/>
Total Phase II	\$	133 500.00

GRAND TOTAL \$ 182 000.00

Respectfully submitted,


 Christian Derosier,
 Consulting geologist, MSc, DSc



Montreal, June 1, 1988.

APPENDICES



Certificate of Qualification



CERTIFICATE OF QUALIFICATION

I, Christian Derosier, of the city of Dollard des Ormeaux, Province of Quebec, do hereby certify that:

1. I am a Senior Geologist with a business address at 43, Place Cumberland, Dollard des Ormeaux, H9B 1V2, Quebec.
2. I have graduated and obtained a DSc degree in Geological Sciences at the University of Paris in 1971.
I have practiced my profession since that time and have worked for the SNC Group for ten years, from 1972 to 1982, and for Rio Algom Ltd from 1982 to 1986.
3. I am a member of :
The Canadian Institute Of Mines and Metallurgy since 1976;
Prospectors and Developers Association of Canada; director from 1986 to 1987.
Quebec Geologists and Geophysicists Professional Association;
Quebec Prospectors Association (President from 1985 to 1987)
4. I have no interest, either direct or indirect, in the property described in the present report and I do not expect to receive any interest. I have no share of FIRSTAKE CAPITAL CORPORATION and I do not expect to receive any shares of this Company.
5. That the present report is based on a study of available data on the property, obtained from the Quebec Government's files or from the Company.
6. This report is also based on my familiarization with the area, having worked in the vicinity for Rio Algom and having visited the property during Summer 1986.
7. The writer consents to the use of this report in any filing statement of other documents required by the Regulatory Bodies of Quebec or Canada.

Dollard des Ormeaux

Dated: June 1, 1988



The image shows a handwritten signature in black ink over a circular professional seal. The seal is for the 'Ordre des Géologues du Québec' (Quebec Geologists and Geophysicists Professional Association) and contains the text 'ORDRE DES GÉOLOGUES DU QUÉBEC', 'GÉOLOGUE + GÉOPHYSICISTE', 'CHRISTIAN DEROSIER', and 'N° 336'. The seal also includes the words 'QUÉBEC' and 'CANADA' at the bottom.

CHRISTIAN DEROSIER
Senior Geologist, MSc, DSc

Bibliography



BIBLIOGRAPHY

- R. Pitre
L. Avramtchev
S. Lebel- Drolet
A.N. Deland
A. Maybin
MERQ
D. Racicot, E.H. Chown
T. Hanel
J.H. Remick
L. Tait, P. Pilote,
E.H. Chown
A. Gobeil, K. Sharma
A. Gobeil, D. Racicot
A.M. Goodwin,
R.H. Ridler
GSC
GSC
MRNQ
MMQ
GM 5440
GM 5780
GM 8044
GM 24966
GM31797
GM36679
GM 40469
- Rapport d'évaluation, projet Lac Mina, Ganton Guercheville, février 1987
Catalogue des gîtes minéraux du Québec, MERQ, 1981 DPV- 744
Preliminary report on the Du Guesclin- Royal area, MMQ, RP 318, 1956.
Quart-SO du canton de Guercheville, MRNQ, DP-251, 1974.
Levé INPUT dans la région du lac Doda, District de Chibougamau, MERQ, DP-927, 1982.
Plutons of the Chibougamau- Desmaraisville belt, A preliminary survey in Chibougamau stratigraphy and mineralization, CIMM, Special volume 34, 1984.
Preliminary report on the Guercheville- Lapparent area, MMQ, RP-343, 1957.
Géologie de la région du Lac à l'Eau Jaune, MERQ, Rapport préliminaire, DP 86-09, 1986.
Geology and gold potential of the Caopatina- Quevillon volcano-sedimentary band, South of Chibougamau, MERQ, Document de promotion No 16, February 1987.
Région des lacs Caopatina et des Vents, MERQ, DP 82-18, 1982.
The Abitibi orogenic belt, in A.J. Baer, Symposium on basins and geosynclines of the Canadian Shield, GSC, Paper 70-40, 1970.
National Mineral Inventory, NTS 32g/11-Ref Au 4, 1975
Lac Dickson area, Aeromagnetic map, 1 mile= 1", 1828G, 32g/11
Special study No 2, 1967, p 127, No 1.
Description des terrains miniers, propriété Watson, MMQ, RP-443, 1961.
American Metal Company, Airborne Mag survey, 1957.
Bordulac Mines Ltd, airborneMag and EM surveys, 1957
Steerola Exploration Ltd, Gold prospect, by R. Assad, Quebec resident geologist, 1959
Fiche de gîte, MRNQ, by A. Mathieu, 1969.
Beach Gold Mines Ltd, EM survey, 1975.
Société de Développement de la Baie de James, Levé géologique, 1981
S.D.B.J., Résultats de levés magnétique et VLF, 1982