

GM 57399

GEOLOGICAL REPORT ON THE EASTMAIN RIVER PROPERTY

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JM99335 003

GEOLOGICAL REPORT
ON THE
EASTMAIN RIVER PROPERTY
QUEBEC
FOR
WINDY MOUNTAIN EXPLORATIONS LTD.

REÇU
BUREAU DU
MAY 30 13:22

MRN-GÉOINFORMATION 1999

GM 57399

L.D.S. Winter

May 20, 1999

REÇU AU MRN
1999-12-02
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1. Introduction

In 1988, Windy Mountain Explorations Ltd. acquired the Macleod Lake claim group in northwestern Quebec (Figure 1), for its potential for copper-molybdenum (gold-silver) porphyry-type mineralization. Follow-up work consisted of geological mapping, ground and airborne geophysical surveys, geochemical surveys and diamond drilling which outlined an indicated mineral resource of approximately 37,000,000 tonnes grading 0.44% Cu and 0.05% Mo (Winter, 1990a). This work was done in the period 1988 through 1995.

As part of the 1990 program, ground follow-up of an airborne magnetometer and EM survey was carried out in the greenstone belt 20 km east of the Macleod Lake property and adjacent to the Eastmain River. A total of 59 conductive zones were identified by this work of which 45 were field checked. From those checked, five (5) areas containing ten (10) anomalies appeared to be of high potential for volcanogenic massive sulphide (VMS) mineralization. Four (4) targets immediately east of the Eastmain River were considered to be VMS-type mineralization showing anomalous values in zinc and copper (Prior, 1991b).

Follow-up work on this VMS-type mineralization was undertaken by Windy Mountain Explorations in 1996 and 1997 with several massive sulphide boulders being discovered carrying zinc values up to 5.5% zinc. To cover this area 160 claims were staked in October, 1997.

The writer was requested by Mr. Stanley Mourin, President, Windy Mountain Explorations Ltd. to review the results of the earlier work and the 1996 and 1997 exploration. The following report presents this review and a recommended program of exploration to further evaluate the potential of the mineralization.

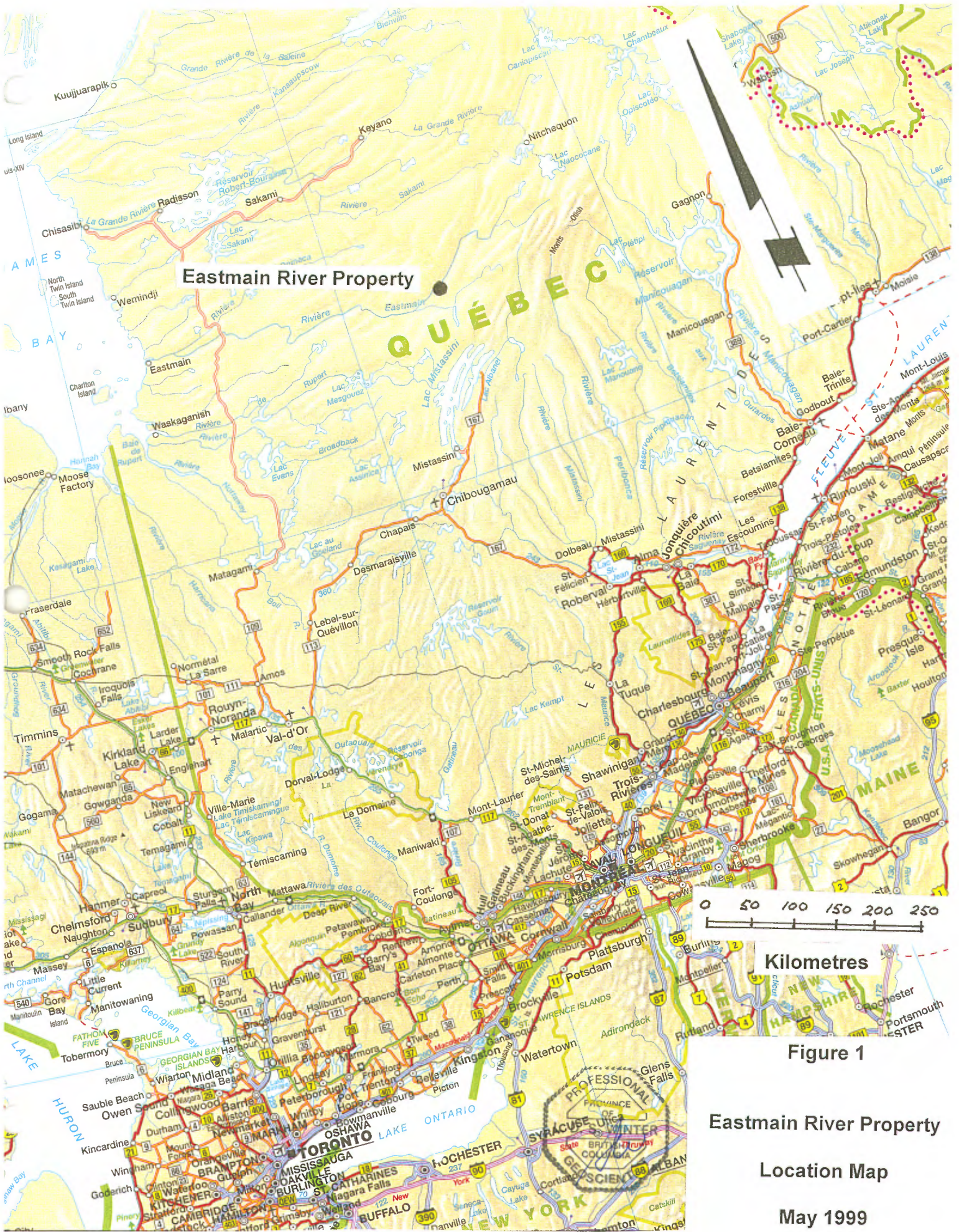


Figure 1
 Eastmain River Property
 Location Map
 May 1999

2. SUMMARY AND RECOMMENDATIONS

The Eastmain River property is underlain by a gently northeast plunging synformal structure which hosts three main lithologic units. From southwest to northeast they are:


1. a granodiorite fels,
2. amphibolites which are metamorphosed volcanic flows and,
3. granitoid units and the Lac Cadieux granite.

The central amphibolite unit contains sulphide-bearing horizons that are considered to be volcanogenic massive sulphide (VMS)-type mineralization. Work in 1990 identified four (4) areas that contained clusters of airborne EM anomalies within larger resistivity lows. Sulphide mineralization, in some cases carrying anomalous values in copper and zinc, was identified in these four (4) areas during the 1990 ground follow-up program.

In 1997 additional follow-up prospecting located sulphide-bearing to massive sulphide mineralization with zinc values up to 5.5% Zn. This mineralization is approximately 300 metres down-ice from one of the clusters of airborne EM anomalies (site 2-9).

It is considered that the Eastmain River property has the potential to host volcanogenic massive sulphide mineralization of economic significance. To evaluate this potential a two phase program of exploration is recommended. The first phase has a recommended expenditure of \$151,400 and the second phase recommended expenditure is \$99,000. If both phases are implemented, the total expenditure would be \$250,400.

LDS Winter

A circular professional seal for L.D.S. Winter, a geoscientist in the Province of British Columbia. The seal features the text "PROFESSIONAL PROVINCE OF BRITISH COLUMBIA GEOSCIENTIST" around the perimeter and "L.D.S. WINTER" in the center.

L.D.S. Winter, P.Geo. (B.C.)
May 20, 1999

3. PROPERTY

3.1 CLAIM DESCRIPTION

The Eastmain River property consists of 160 staked mining claims that were recorded in the Chibougamau Mining Recorder's Office on November 4, 1997. The claims cover an area of approximately 2,560 hectares as shown in Figure 2 after the claim map prepared by the Ministère de l'Énergie et des Ressources, Services des Titres Minières, Government of Quebec. The claims are as listed below.

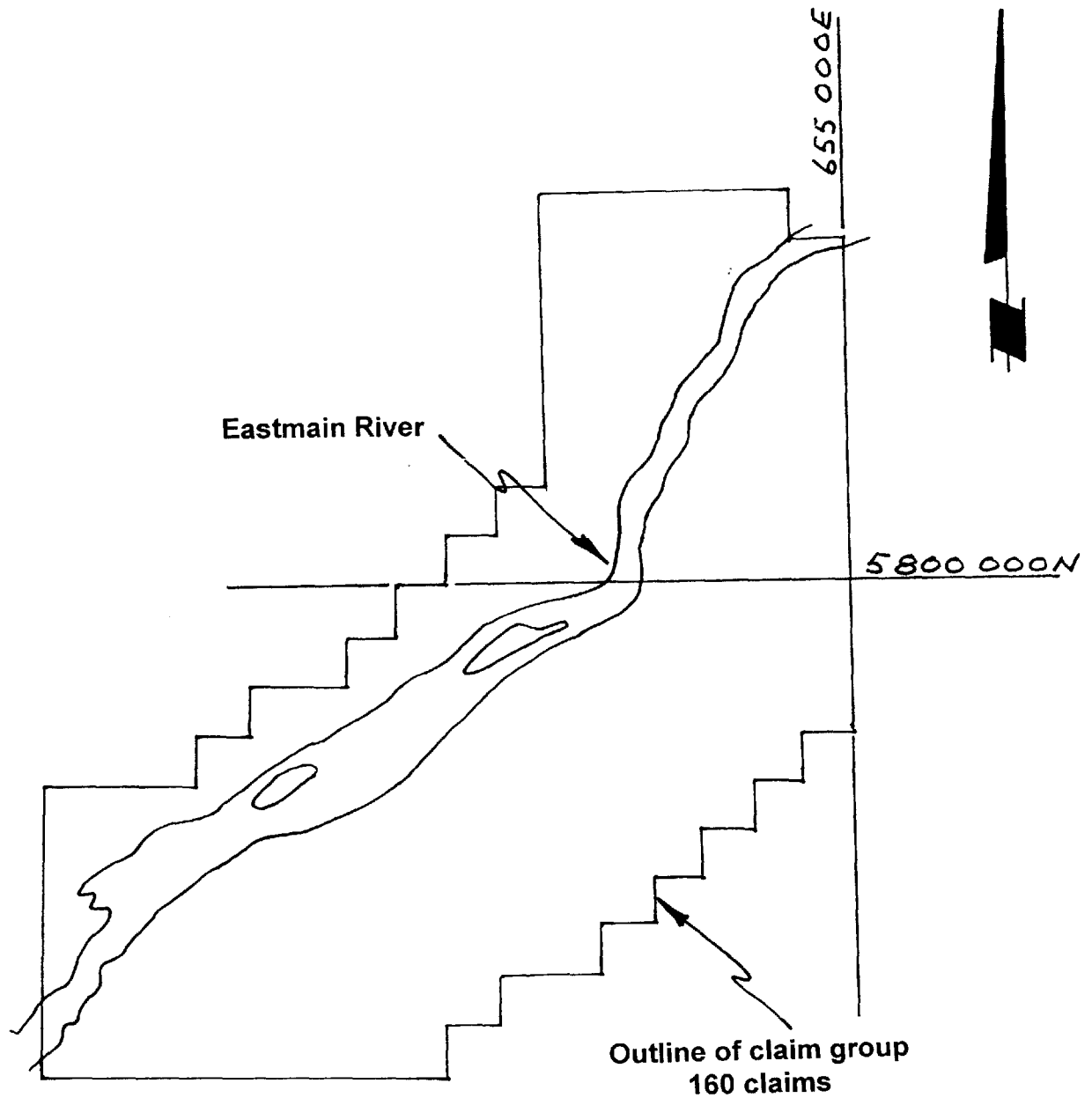
<u>Claims</u>	<u>Number</u>	<u>Area</u>
5202267 to 5202426 inclusive	160	2560 ha

The claims are currently in good standing but require the filing of assessment expenditures before November 4, 1999 to retain this status.

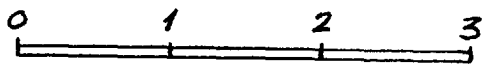
3.2 LOCATION AND ACCESS

The Eastmain River property is centered at 52°-19'N latitude, 72°-46'W longitude approximately 200 km north-northeast of Mistassini, (Baie du Poste) and 300 km north-northeast of Chibougamau, Quebec (Figure 1).

The area is accessible only by air, either from Chibougamau, Temiscamie or the Waasheshkun Airways base in Baie du Poste, Mistassini, Quebec at the south end of Lake Mistassini. The Eastmain River and numerous lakes within the general area provide landing sites for both Beaver and Otter aircraft.



Scale: 1: 50 000



Kilometres



Figure 2

Eastmain River Property
Claim Map

May 1999

3.3 TOPOGRAPHY AND VEGETATION

The major topographic feature in the area is the Eastmain River which flows southwesterly along the northwestern edge of the claim group. For the most part, the area is relatively flat with minor depressions and ridges controlled by the bedrock geology and the surficial deposits. In the central part of the claim group is an east-west ridge just to the east of the Eastmain River.

The property is beyond the limits of commercial timber and for the most part the forest cover consists of birch, poplar, jack pine and spruce with a maximum height of 8 to 10 meters.

3.4 SERVICES

There is no infrastructure in the area with the closest community being Baie du Poste, Mistassini, approximately 200 km south-southwest of the claim group. The closest road to the area is at the northeast end of Lake Albanel at the Temiscamie River which is approximately 120 km south of the area. A winter road to the MSV gold-copper deposit is about 30 km east of the property.

4. PREVIOUS WORK IN THE AREA

There is little work reported in the assessment files of the Ministère de l'Énergie et des Ressources (MER) for the general area apart from that submitted by Windy Mountain Explorations Ltd. for their claim group. Some exploration work has been carried out east of the subject property as a result of the discovery in 1970 of the gold-copper deposit of MSV Resources. This property has been evaluated as an on-going project since 1969. (Boldy et al, 1984).

The general area is covered by airborne magnetic maps at a scale of 1:250 000 and 1:63 360 published by the Ministère de l'Énergie et des Ressources, Quebec. The general area is covered by map 7115G Lac Rossignal (NTS 33A) and maps 2007G, 2008G, 2019G and 2020G covering NTS areas 33A/3, 33A/6, 33A/7 and 33A/2 respectively.

Geological mapping in the area has been carried out by Eade (1966), Chown (1971) and Hocq (1976). The mapping was of a broad reconnaissance nature and has been summarized in a series of maps showing the area geology and known mineral occurrences (Avramtchev, 1983). A more detailed geological study by Hocq (1985) covers the eastern part of the area. The results of the mapping are summarized below in Section 5, Regional Geology.

Previous exploration work is generally east of the property in the greenstone belt and is summarized in the following paragraphs. This information is abstracted from information in the Ministère de l'Énergie et des Ressources, Assessment Files, Montreal in GM's 19033, 19035, 19564, 41184, 41186, 41527 and 48784.

The earliest prospecting and exploration work in the area appears to have taken place within the metavolcanics in area K (Figure 3). Gossaneous, siliceous, chrome-mica-rich felsic metavolcanics were extensively trenched, probably in the 1930's or late 1940's based on field evidence.

The Lac Leran copper showing lies approximately 25 km northeast of the MSV deposit (Figure 3). It is associated with mafic metavolcanics in the northeastern arm of the metavolcanic belt and the limited available information indicates it was evaluated in the 1950's and early 1960's for its potential for copper.

In the mid-1960's, Fort George Mines Ltd. drilled two (2) X-ray diamond drill holes for a total of 550 feet (167.7 m) on gossaneous ultramafic metavolcanics in the area (Area K, Figure 3). Pyrrhotite, pyrite and minor chalcopyrite are reported from the drill holes.

In 1969, Canex Placer, a wholly-owned subsidiary of a predecessor company to Placer Dome Inc. flew an airborne magnetic-electromagnetic survey over mafic metavolcanics in the general area of the present MSV deposit (Figure 3). A single line-magnetic-electromagnetic airborne anomaly in an overburden covered area was located on the ground and drilled in 1970 resulting in an intersection of 1.5 meters of sulphide grading 13.71 grams/tonne gold, 20.22 grams/tonne silver and 0.33% copper. This became the A zone of the MSV deposit. At that time, the intersection was not considered to be economically significant and no further work was done.

In 1974, the ground previously tested by Canex Placer was acquired by Nordore Mining Co. Ltd. who carried out airborne and ground geophysical surveys along with a limited amount of drilling. One (1) of the Nordore holes intersected 6 meters of low grade gold mineralization on the shoulder of what is now the B zone of the MSV deposit. Since this was the best intersection obtained during the project, the ground was allowed to lapse.

In 1974, Inco Ltd. flew their airborne magnetic-electromagnetic system over the entire Eastmain River greenstone belt in a joint venture with Uranerz. Selected combined magnetic-electromagnetic anomalies were followed up on the ground by trenching and X-ray diamond drilling and areas were prospected for uranium. Although no public record of this work exists, activity appears to have been centered mainly in the area K (Figure 3).

Placer Dome Inc. returned to the area in 1981 (due to the increased price of gold) and restaked the area of the A zone. Ground geophysics produced anomalies over the A, B and C zones and in 1982, the B zone was intersected at a depth of 100 meters by hole 82-1 which intersected a 3 meter wide sulphide zone grading 8.34 grams/tonne gold, 10.16 grams/tonne silver and 0.21% copper. By the end of 1982, reserves of 750,000 tonnes had been indicated in the A and B zones and a land holding of about 1,000 claims had been established.

In 1982, Placer established seven (7) grids several kilometers to the south of the MSV deposit. Magnetic and electromagnetic surveys were conducted and the areas were geologically mapped and rock sampled. No anomalous gold results are reported.

In 1983, Eldore Resources Ltd. entered into a joint venture with Placer Dome on the MSV property and followed up by conducting comprehensive airborne geophysical and ground geological mapping, prospecting and sampling surveys over a 30 km long strip centered at 72°E longitude, 52°N latitude. Gold assay results from rock sampling from this program were generally low and the work was discontinued.

Airborne magnetic and electromagnetic surveys were flown by Aerodat Limited for Placer Dome in 1983 over the areas immediately west of the MSV deposit (Figure 3). Ground reconnaissance, geologic mapping, prospecting and sampling were carried out. Anomalous gold (310 ppb) and copper (720 ppm) results were obtained from separate locations and the acquisition of this ground was recommended by Placer geologists. In 1984 ground magnetic and electromagnetic surveys were run over grids in this same area south and west of the MSV deposit. No follow-up work is reported.

In 1987, Placer Dome announced initial results from an underground sampling program from a decline sunk on the B zone of the MSV deposit. Channel samples from each blast face in a drift assayed an average of 0.57 ounces/tonne gold across a 7 foot (2.13 m) wide zone and along a 344.5 foot (105 m) strike length.

Also in 1987, seven (7) grids were established to guide ground geophysical follow-up of airborne anomalies in the Placer Dome claim block on the north contact of the granodiorite 13 km north of the MSV deposit. Single follow-up diamond drill holes were sunk on four (4) of these grids. In each case the drill holes intersected uniform mafic metavolcanics containing apparently barren pyrrhotite and pyrite.

In May, 1988 the Eastmain Syndicate, comprised equally of Battle Mountain (Canada) Inc., Mingold Resources Inc. and Quill Resources Ltd. staked a total of 352 mineral claims in three (3) blocks in the Eastmain River, Archean, volcano-sedimentary belt which hosts the Placer Dome - MSV gold deposit (Locations L, M and N, Figure 3). Preliminary reconnaissance and detailed follow-up exploration was carried out by a five (5) man party between June 28 and September 14, 1988. The properties were geologically mapped, prospected and sampled and covered with a reconnaissance VLF-EM survey. A helicopter reconnaissance exploration program of a 300 square km area covering the northeast end of the Eastmain River greenstone belt was also carried out over a five (5) day period in early September. In addition, the area was covered by an airborne survey carried out by Aerodat Ltd.

In July and August of 1988, Watts Mining Ltd. staked 100 claims and Corona Corporation staked 500 mineral claims to cover the Archean metavolcanic rocks south and east of the MSV-Placer Dome main claim group. Corona conducted limited helicopter supported reconnaissance exploration in late August of 1988 and subsequently staked an additional 400 claims east of the MSV claim group in September of 1988.

Also in 1988, Placer Dome and MSV carried out a detailed diamond drilling program in the B zone area of the MSV property over a four (4) week period in May and June. Following that a feasibility study on the deposit was carried out and in October, 1988, MSV announced the purchase of the 51% interest in the Eastmain deposit owned by Placer Dome. In late December, Northgate Exploration agreed to provide MSV Resources with a financing package worth \$6,500,000 including \$5.2 million bridge financing to allow MSV to complete the purchase of the Placer Dome interest.

North of the MSV ground and northeast of the Eastmain Syndicate property, Kingswood Explorations (1985) Limited carried out exploration for gold mineralization. During the winter of 1990, geophysical surveys were carried out which identified conductors associated with felsic and ultramafic units.

The surface exploration program of geological mapping, trenching and glacial till sampling located several anomalous areas coincident with airborne EM conductors. To protect the favourable ground indicated by the airborne survey and the prospecting program, Kingswood staked a total of 350 claims over 7 kilometres of strike length along the favourable horizon north of the MSV gold-copper deposit.

During the summer work, prospecting identified disseminated arsenopyrite in silicified, sheared and altered felsic and ultramafics in subangular boulders down-ice from a conductive horizon. These boulders assayed 0.15 and 0.46 oz/t gold. A 12-hole diamond drilling program was started however, after five (5) holes with generally negative results, the program was terminated in September, 1990. (Kingswood Explorations Press Release, September, 1990).

In the Macleod Lake area approximately 20 km southeast of the subject property, Windy Mountain Explorations Ltd. holds an additional block of 423 mining claims covering two areas of copper-molybdenum (gold, silver) porphyry-type mineralization. The initial work in this area was done in 1988 with several additional programs being carried out through 1995. Exploration consisted of geophysical surveys, both ground and airborne, geological mapping, soil and lithochemical surveys and five phases of diamond drilling. This work identified two zones of mineralization, the Main Zone and the South Zone. Drilling of the Main Zone indicated a total inferred mineral resource of approximately 37,000,000 tonnes grading 0.44% Cu, 0.05% Mo, 0.04 g/t Au and 3.68 g/t Ag. No tonnage has been calculated for the South Zone which is a gently, northeast dipping zone of copper, molybdenum (gold, silver) mineralization about 5 m thick.

As part of their regional exploration program, four (4) licences of exploration covering a total of 1325 km² were acquired surrounding the Macleod Lake claim block. In 1990, a helicopterborne combined magnetometer, VLF and electromagnetic (EM) survey was completed over approximately 900 km² of the exploration licences and claims. This survey identified 59 combined EM-magnetometer targets in the greenstone belt east of the Eastmain River (site of the present claims) that could be representative of volcanogenic massive sulphide (VMS) mineralization. A ground follow-up program in August and September, 1990 investigated 45 of these "conductors" and identified five (5) areas containing ten (10) targets of moderate to high potential for VMS-type mineralization. Four (4) of these conductors lie within the area now covered by the subject property. The four (4) anomalies were labelled 2-4, 2-5, 2-8 and 2-9 (Prior, 1991b). More details are presented in Section 5.3, Economic Geology.

In 1996, a program of ground VLF-EM surveying and Beep Mat prospecting was carried out in the Long Lake and Eastmain River greenstone belt in the area of the subject property. This was followed up by the drilling of five (5) short drill holes totalling 249.8 m. Further discussion of the results of this work are presented in Section 5.3 Economic Geology.

Windy Mountain Explorations Ltd. did additional work in this area in 1997. A small budget, helicopter-supported prospecting program further evaluated the VMS potential of the greenstone belt. The 1997 program resulted in the discovery of five, large (1-2 m) angular boulders mineralized with pyrrhotite, sphalerite and minor chalcopyrite, bornite and pyrite. Zinc assays ranged from trace to 5.5% Zn. Approximately 500 m to the northeast, outcropping mafic metavolcanics carry zinc mineralization averaging 1% Zn. As a result of this discovery 160 claims (2560 ha) were staked to cover the mineralized boulders and about 7 km up-ice.

5. GEOLOGY

5.1 REGIONAL GEOLOGY

All of the rocks in the area are considered to be of Precambrian age and lie within the Superior Province of the Canadian Shield. Avramtchev (1983) compiled the results of all of the regional geological work that had been done in the area. This work was of a broad reconnaissance nature and has been presented in reports by Eade (1966), Chown (1971) and Hocq (1976 and 1985). The regional geology is shown in Figure 3 after Hocq (1985) with modifications by the writer based on the airborne magnetic patterns, broad reconnaissance helicopter work by the writer in 1982 and work reported by Fougues and Schumacher (1979).

Multistage deformation accompanied by amphibolite grade metamorphism has affected all units in the area. In the western part of the area, the general structural trend is east-west and is considered to represent Archean basement rocks with an age greater than 2400 Ma years. (Fougues and Schumacher, 1979). In the north-central part of the region the structural and magnetic trends are northwesterly and this area was considered by Fougues and Schumacher (1979) to be a sedimentary basin which had been filled with metasediments and metavolcanics and then metamorphosed. This trend truncates the east-west trend and these units are considered to lie disconformably on the Archean units to the west. This basin, referred

LEGEND

- 5 GRANITE-GRANODIORITE
- 4 GNEISS; BIOTITE
- 3 GNEISS; HORNBLLENDE - BIOTITE
- 2 METAVOLCANICS; FELSIC
- 1 METAVOLCANICS; INTERMEDIATE TO MAFIC
- 1 METAVOLCANICS; AMPHIBOLITES
- ANTIFORM
- SYNFORM
- DIABASE DYKE

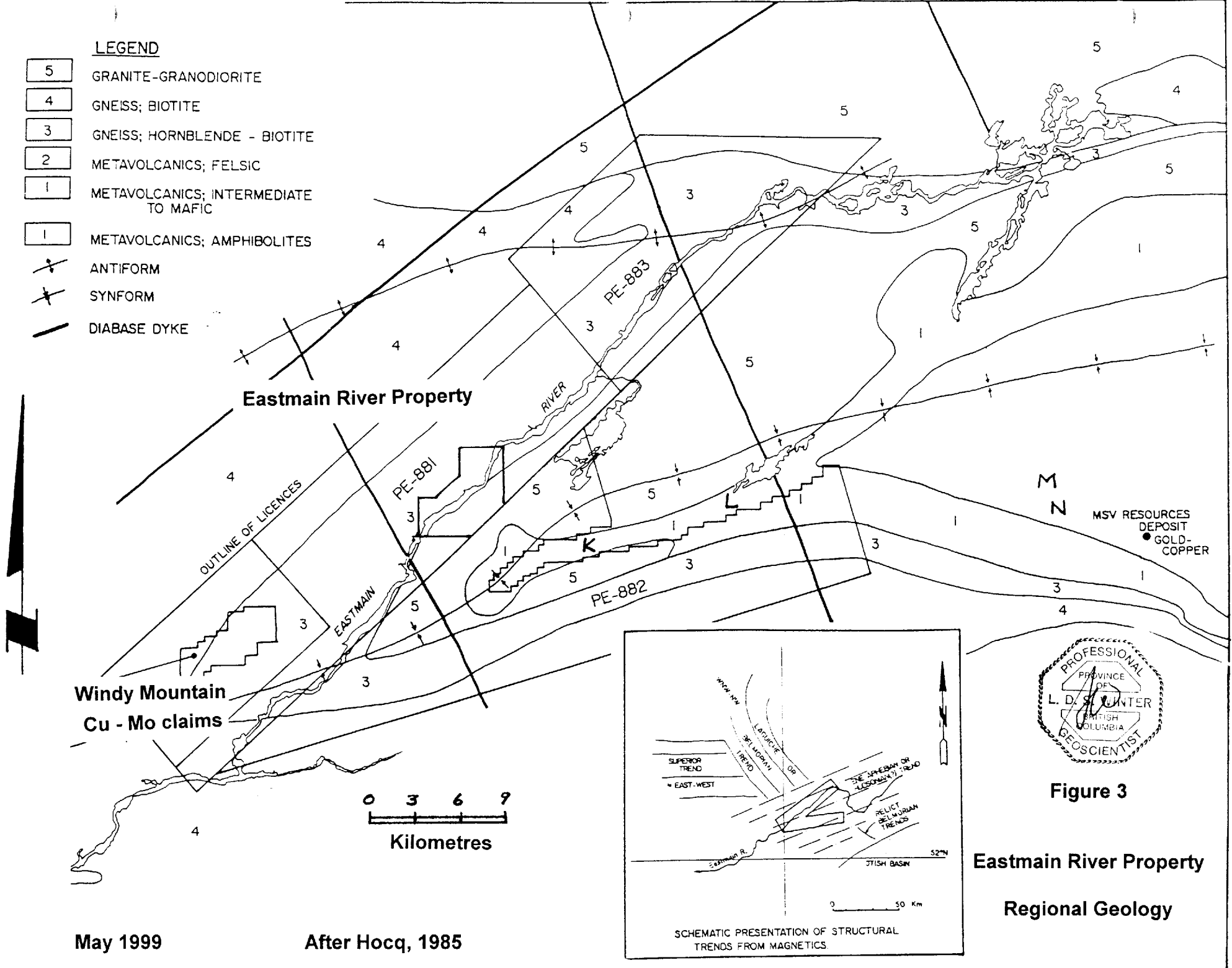
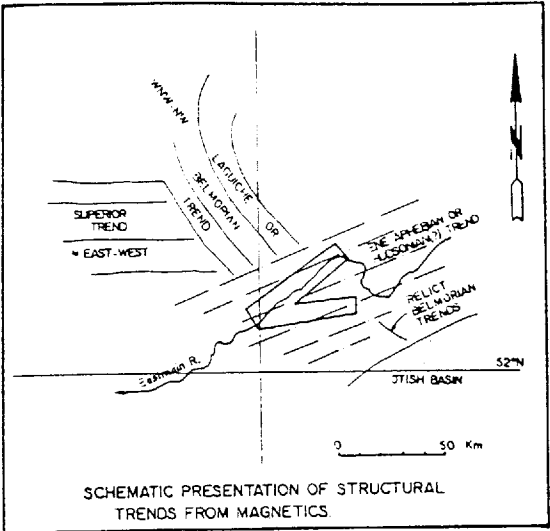


Figure 3

**Eastmain River Property
Regional Geology**

May 1999

After Hocq, 1985



SCHMATIC PRESENTATION OF STRUCTURAL TRENDS FROM MAGNETICS

to as the Laguiche basin was deformed by the Belmorian orogeny (Fougues and Schumacher, 1979). The age of the sediments and the deformation would probably be Aphebian based on this interpretation.

The southern part of the area where the subject property is located is underlain by units with an east-west to east-northeast trend which appears to be superimposed on the northwest trend of the Laguiche units to the north. The east-northeast trend may be Aphebian in age with the structural features being developed during an early Hudsonian deformation since it overprints the Belmorian trend and in turn is overlain by the Otish sediments to the east. This east-northeast trend is approximately parallel to the Grenville front and there may have been some latter activation during the Grenville orogeny.

The Mistassini dykes which strike northwesterly and crosscut the gneisses underlying the area are bracketed by dates of 1926 and 1960 Ma (Wanless, 1972). The Otish dyke swarm, which cuts the Otish Group sediments, has been dated, although not satisfactorily, at 1465 Ma. The maximum phase of the Hudsonian deformation is placed at approximately 1735 Ma (Douglas, 1970).

At the present time, due to the lack of absolute age determinations, most broad regional maps show poorly defined features to which an Archean age has been assigned (Avramtchev, 1983).

The main geologic feature in the property area is a major regional synformal structure opening and plunging to the northeast as shown in Figure 3. The central core of the syncline consists of mafic metavolcanics which increase in volume to the east and which are overlain by felsic metavolcanics further east of the Eastmain River. Underlying the metavolcanics is an area of granite to granodiorite containing biotite and/or hornblende and zones of migmatite. Muscovite pegmatites have intruded the felsic intrusives. Wide-scale reconnaissance work by the writer in 1982 (Winter, 1982) indicated that there were also areas of felsic to intermediate to mafic metavolcanics enclosed within areas mapped as gneisses.

The units have been folded about east-northeast trending fold axes which form a series of parallel antiforms and synforms which generally plunge to the east-northeast.

A number of topographic lineaments trend east-northeast and southeast-northwest. These are interpreted to represent bedrock structures.

Diabase dykes trend northwesterly and crosscut all gneiss units. In turn, late Abitibi diabase dykes trend northeasterly through the area, cut all rock types and are dated at approximately 1100 Ma.

5.2 PROPERTY GEOLOGY

The subject property has not been geologically mapped however, based on regional mapping by Hocq (1985) and reconnaissance work by Norwin Geological Ltd. (Prior, 1990, 1991b) it is considered that the property is underlain by a northeast plunging synformal structure. From southwest to northeast, the three (3) major units which define the structure are a granodiorite fels followed to the northeast by amphibolites which are the metamorphic equivalents of mafic to intermediate volcanic flows. To the northeast are granitoid units and the Lac Cadieux granite body (Figure 4).

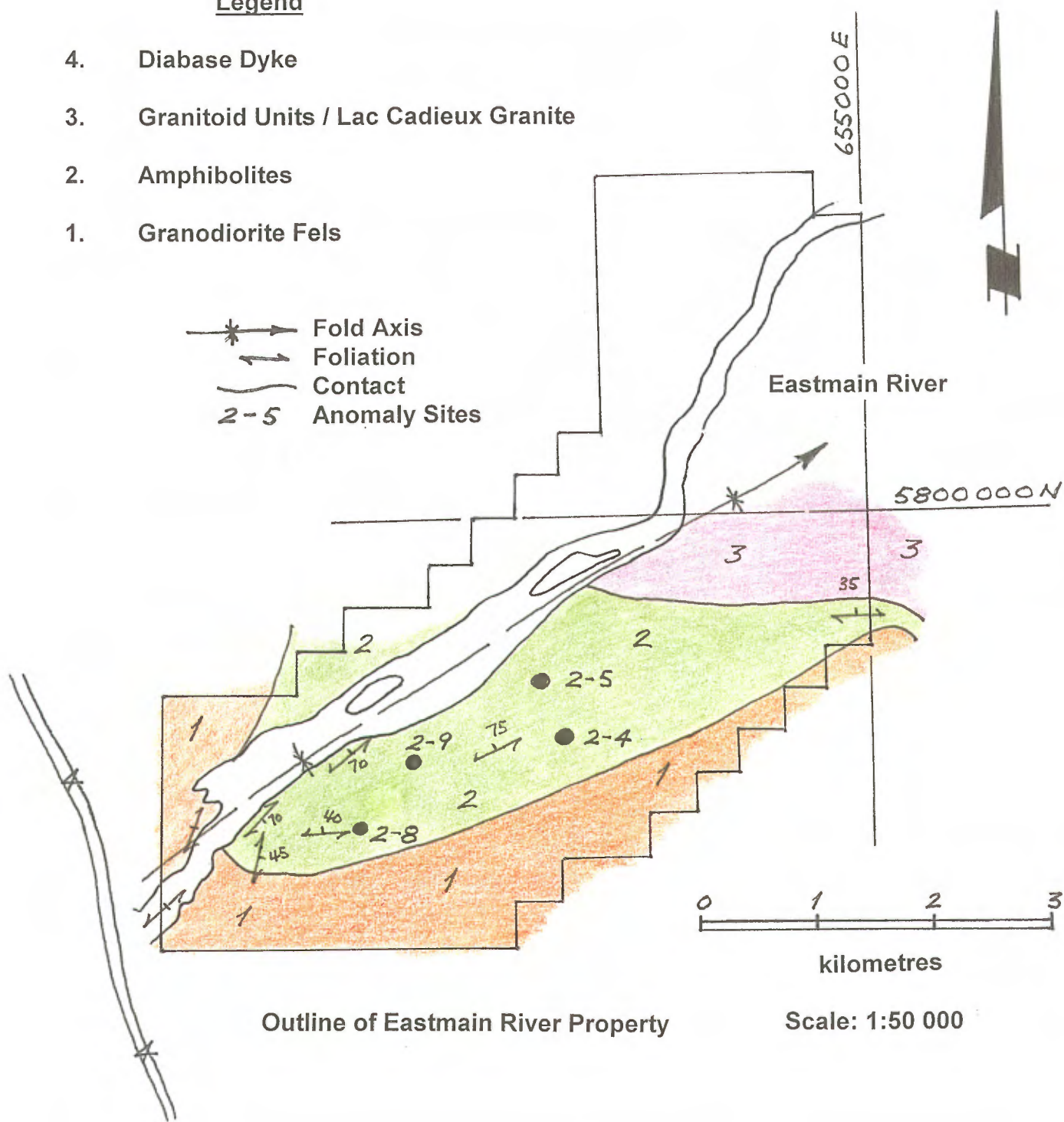
The synform is part of a synform-antiform-synform triplet with the property lying on the northernmost syncline followed by an anticline and a second syncline to the south.

The general structural trends in the area are northeast and northwest. A well developed foliation trending northeast is present throughout the property and as well a foliation which follows the fold structures is present. A series of northwest-trending diabase dykes crosscut the area.

Legend

- 4. Diabase Dyke
- 3. Granitoid Units / Lac Cadieux Granite
- 2. Amphibolites
- 1. Granodiorite Fels

- Fold Axis
- Foliation
- Contact
- 2-5 Anomaly Sites



Outline of Eastmain River Property

Scale: 1:50 000



Figure 4

Eastmain River Property

Property Geology

The granodiorite fels is a subequigranular, medium to coarse grained, light grey to light pink, light grey to light pink weathering non-magnetic rock with a colour index ranging from 15 to 25. The unit is characterized by a weak to moderate hornblende lineation that is subhorizontal and generally trends from 040° to 070°.

The amphibolite consists of subequigranular, fine to medium grained, dark grey to dark greenish-grey, dark grey to dark greenish-grey to medium brown weathering rocks with the colour index in the range from 60 to 90. The dominant mafic phase is hornblende with actinolite being subordinate. The magnetism of the unit varies from nil to moderate. The occurrence of pillows in some outcrops indicates that these rocks represent metamorphosed mafic volcanics.

The Lac Cadieux granite is generally feldspar porphyritic, light grey to light pink, light grey to light pink weathering. The colour index varies from 15 to 20 and the felsic phases consist of white to clear to light pink subhedral to anhedral feldspar and subordinate anhedral clear quartz. Subhedral biotite is the dominant mafic phase. The rock is typically characterized by feldspar phenocrysts up to 2 cm long by 1 cm in width that form from 2 to 10 % of the rock. Outcrops tend to show a weak to very weak foliation with moderately foliated outcrops having appearance of an augen gneiss.

Granitoid rocks consist of leucocratic, medium to very coarse grained, subequigranular to weakly porphyritic white to light grey to light pink rocks. The colour index varies from 2 to 15 with most examples being in the 8 to 10 range. The dominant phases are white to clear to light pink, subhedral to anhedral feldspar and subordinate, anhedral, clear quartz. Subhedral biotite is the primary mafic phase. Pegmatites are commonly associated with granitoid contacts with the contacts varying from sharp to gradational. The granitoids are generally non-magnetic.

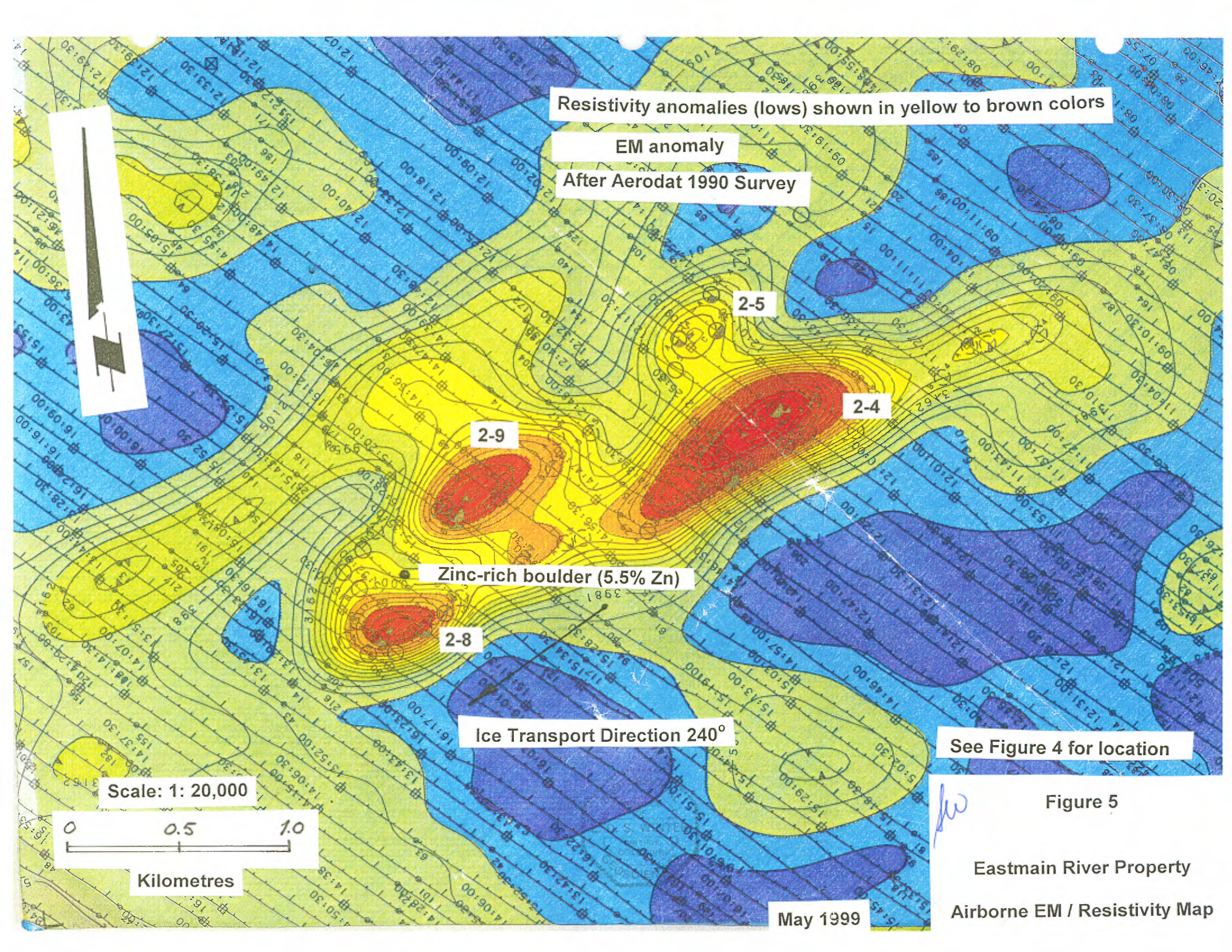
Mineralization within the amphibolites shows up as conductive anomalies, usually with an associated resistivity low. The mineralization in these areas is hosted by amphibolites and felsic to intermediate volcanics which were not identified in the government mapping by Hocq (1985). In several areas, chalcopyrite occurs in association with pyrrhotite and/or pyrite and/or sphalerite. Graphitic, siliceous zones that may be recrystallized (amphibolite facies), sulphide-bearing graphitic and/or cherty horizons are also present.

Boulders heavily mineralized with sulphides and/or massive sulphides were uncovered during the 1990, 1996 and 1997 programs. Some of the boulders consist of massive pyrrhotite with associated pyrite, sphalerite and chalcopyrite. Others are well foliated (bedding?), quartz-sulphide rocks containing chalcopyrite and sphalerite as well as abundant pyrite and pyrrhotite.

5.3 ECONOMIC GEOLOGY

Work by Windy Mountain Explorations Ltd. in 1990 (Prior, 1991b) and more recently in 1996 and 1997 has identified volcanogenic massive sulphide (VMS)-type mineralization on the Eastmain River property. The 1990 work identified four areas; 2-4, 2-5, 2-8 and 2-9 (Figures 4 and 5) that appear to have the potential to host mineralization of economic significance.

Site 2-4 is a cluster of 15 airborne EM anomalies with a coincident resistivity low, sulphide-bearing amphibolite gneisses and quartz veining. Soil geochemical samples gave a high of 24 ppm Cu and 97 ppm Zn (Prior, 1991b). Trench #1 at this site showed sulphide mineralization with felsic rock units. Two rock samples yielded copper values of 179 and 1025 ppm and 26 and 72 ppm Zn respectively. Trench #4, 250 m to the southeast, gave values of 353 ppm Cu and 318 ppm Zn from sulphide-rich mafic rocks and 351 ppm Cu and 1185 ppm Zn from felsic units. A third trench in this area, Trench #8, 300 m north of Trench #1, showed values of 1145 ppm Cu and 202 ppm Zn from a fine-grained, laminated sulphide-bearing amphibolite.



Resistivity anomalies (lows) shown in yellow to brown colors

EM anomaly

After Aerodat 1990 Survey

2-5

2-4

2-9

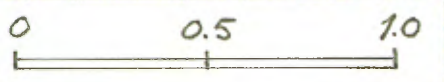
Zinc-rich boulder (5.5% Zn)

2-8

Ice Transport Direction 240°

See Figure 4 for location

Scale: 1: 20,000



Kilometres

Figure 5

Eastmain River Property

Airborne EM / Resistivity Map

May 1999

Trench #10, about 100 m to the east of Trench #4 gave values of 264 ppm Cu and 2730 ppm Zn from a sulphide-bearing, fine-grained, tuffaceous cherty unit.

A short drill hole, 96-2 (71.4 m), adjacent to Trench #8 intersected foliated amphibolites that are silicified, 10-30% sulphide-bearing and contain a 0.6 m interval from 58.5 to 59.1 metres which assayed 2490 ppm Zn.

Approximately 225 m to the east drill hole 96-5 (31.5 m) intersected sulphide-bearing, schistose, silicified, foliated amphibolite. A short interval between 19.8 m and 20.3 m assayed 1800 ppm Zn (0.18% Zn).

Site 2-5, 500 m north of site 2-4, showed four (4) weak airborne EM anomalies within a resistivity low.

At the site of anomaly 2-8, 1.8 km west of site 2-4, there is a cluster of eight (8) airborne EM anomalies coincident with observed massive sulphide mineralization. Observed rock types were amphibolites and hornblende gneisses. In 1996, a well mineralized boulder was found (Kharouba and Holmstead, 1996) proximal to the area of the EM anomalies. This boulder is a sulphide-bearing, fine-grained, laminated tuff or sediment assaying 2500 ppm Cu, 5670 ppm Zn, 2360 ppm Pb and 5.6 ppm Ag.

Anomaly 2-9, 600 metres northwest of site 2-8, is also a cluster of airborne EM anomalies (five) and one rock sample in 1990 (Prior, 1991b) gave a value of 1861 ppm Zn. Sampling of Trench #11, (Kharouba and Holmstead, 1996) gave values of 498 ppm Cu and 5110 ppm Zn from a fine-grained, laminated, sulphide-bearing tuff or sediment. Trench #12, 30 m north of Trench #11, was also sampled in 1996 by Kharouba and Holmstead. A fine-grained, laminated tuffaceous unit gave values of 728 ppm Cu and 8810 ppm Zn (0.88% Zn). A small, well-rounded, sulphide-bearing, felsic boulder proximal to Trenches #11 and #12 assayed 3210 ppm Cu and 272 ppm Zn.

In 1997 a small, helicopter supported prospecting program was carried out in the general area of anomalies 2-4, 2-5, 2-8 and 2-9. Approximately 300 metres southwest from the area of anomaly 2-9 and trenches #11 and #12, seven (7) Beep Mat (EM) conductors indicative of massive sulphides were found (Figure 5). At the site of the most southerly Beep Mat conductor five (5) angular to sub-rounded boulders in the order of 1 m x 1 m x 2 m were located. Visually they are reported to run 3-5% sphalerite and 1-2% chalcopyrite. Zinc assays from the boulders ranged from trace to 5.5% Zn. Due to the limited nature of the program, time did not permit further investigation of the remaining six (6) Beep Mat conductors however, they are considered to represent a boulder train of sulphide-rich boulders from a source to the north. The ice transport direction in this area is about 240° which places anomaly 2-9 as a potential source area for these boulders.

In summary, the work in the area has identified four (4) conductive areas with associated sulphide-bearing to massive sulphide mineralization considered to be of the volcanogenic massive sulphide (VMS)-type over a strike length of greater than 2.5 km. Samples from the four (4) sites as well as mineralized boulders whose source may be within this same area give anomalous zinc, copper and lead values. Values range between 2 ppm and 5.5% Zn and 5 ppm and 3210 ppm Cu (0.32% Cu). The best value of 5.5% Zn comes from a mineralized sulphide boulder which lies down-ice from anomaly 2-9.

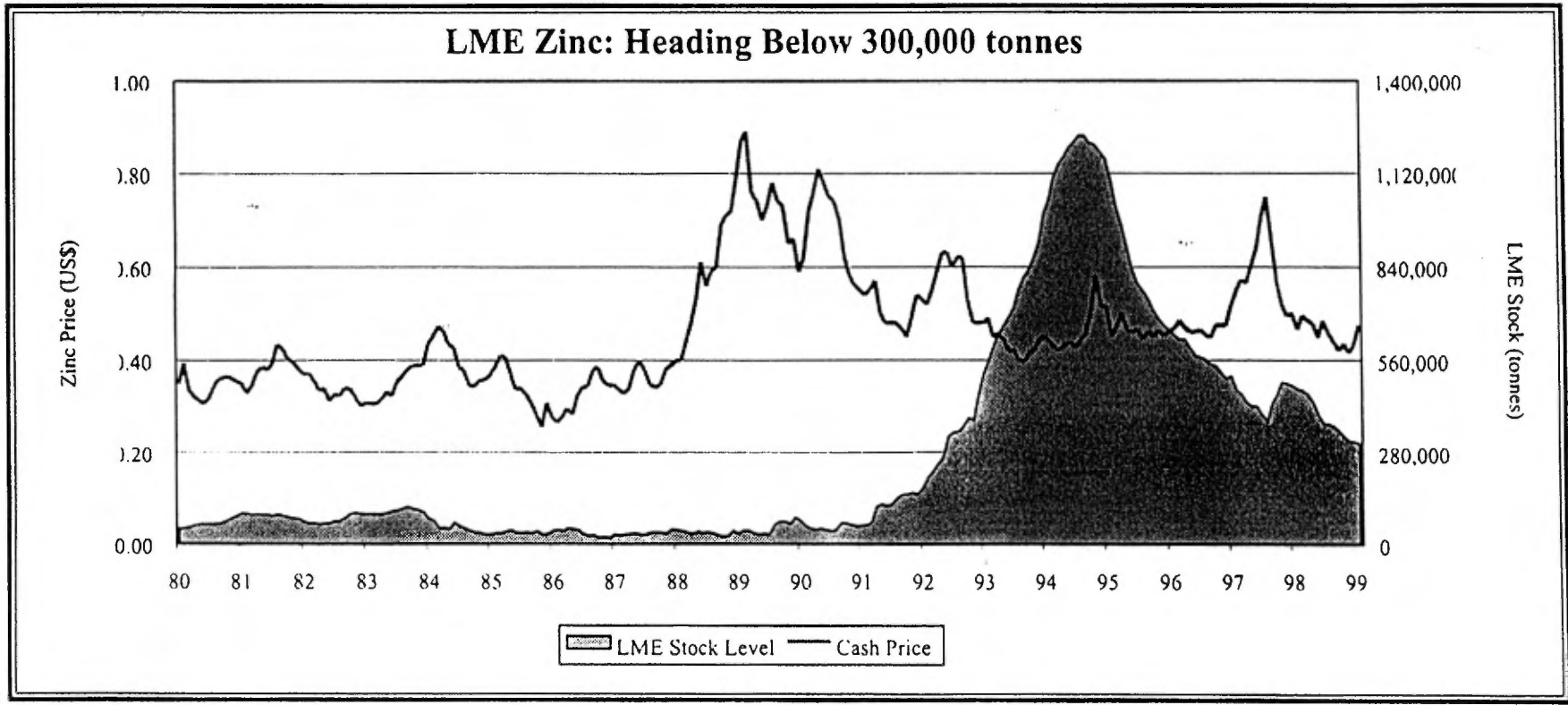
6.0 ECONOMIC POTENTIAL

The property is considered to host stratabound VMS-type mineralization as evidenced by the observed massive sulphide mineralization in metamorphosed volcanics, massive sulphide to sulphide-rich boulders and the associated EM anomalies indicative of conductive zones. Work to date has shown the presence of sulphide-rich to massive sulphide mineralization in outcrop, drill holes and boulders with zinc values ranging from trace to 5.5%, copper values from 5 ppm to 3210 ppm (0.32% Cu) and anomalous values in lead, gold and silver. One interpretation is that the four sites (2-4,

2-5, 2-8 and 2-9) all lie at one stratigraphic horizon which has been folded into a tight, northeast-opening synform. If this is the case, sites 2-5 and 2-9 lie on the northern limb and 2-4 and 2-8 on the southern limb of the synform to give a potential favourable strike length of over 5 km.

Volcanogenic massive sulphide (VMS) deposits on a worldwide basis contribute a significant part of the annual base metal (Cu-Zn-Pb) and precious metal (Au-Ag) production. These deposits range in size from a few thousand tonnes to tens of millions of tonnes and show a consistent suite of elements; copper, zinc, lead, gold and silver. These elements are always associated with pyrite and/or pyrrhotite but show a range of metal compositions which appear to be a function of the environment of formation. As a result deposits range from copper-rich plus zinc (gold, silver) to zinc-rich plus copper (gold, silver) to lead-zinc (gold, silver, copper) rich deposits. Well known examples from Canada are those of the Noranda area (Horne, Quemont, Lake Dufault, etc.), the Kidd Creek mine at Timmins, the Manitouwadge deposit, those of the Mattagami area in Quebec, the Flin Flon area of Manitoba and Saskatchewan and those in the Bathurst area, New Brunswick.

Due to the relative isolation of the subject property, any VMS deposit would need to have a reasonable grade and a few tens of millions of tonnes of reserves to justify development. Within the area of the Windy Mountain property, there are four (4) areas of known EM anomalies with associated sulphide mineralization and massive sulphide boulders carrying zinc values up to 5.5% Zn. Copper values are low however, in VMS deposits, higher copper values usually occur in the central areas of the deposits while zinc-rich areas are generally more distal. The very preliminary results to date suggest the mineralization is the more distal zinc-rich type.



After First Marathon Ltd.
 Metals and Mining Digest - March 4, 1999



Figure 6

Eastmain River Property
Graph of LME Zinc Price
and
Inventories

From a mineral economics perspective, the emerging picture for zinc is quite positive. First Marathon Securities Limited in Metals and Mining Digest - March 4, 1999 produced a summary that indicated that the zinc price has been slowly rising and that the LME stockpile and total western world inventories for zinc represent just over six weeks of production. The zinc price and the LME inventories since 1981 are shown in Figure 6. Since late 1994, there has been a reduction of the LME zinc inventory and this trend would appear to project into the foreseeable future which should have a positive effect on the price of zinc.

7.0 PREVIOUS EXPENDITURES

The Eastmain River property lies within the area initially covered by licence of exploration 881. Exploration within this licence in 1990, as part of a regional program covering licences 881, 882 and 883, initially identified the four (4) sites containing clusters of airborne EM anomalies and associated sulphide mineralization. Follow-up work in these areas in 1996 and 1997 subsequently led to the staking of the current, 160 claim Eastmain River property.

Exploration programs on the licences of exploration were such that the incurred expenditures were for the total program (i.e., all three licences). Therefore, to determine the expenditures on licence 881 they have been estimated on a pro-rata basis relative to the total expenditures for the three licences. This has been done for the airborne survey by the area covered/line-kilometres flown and for the ground follow-up by the sites visited, man-days of work done plus additional work done at each site as a proportion of the total. The expenditures for licence 881 and subsequent follow-up work in 1996 and 1997 area presented below. The area of licence 881 was 33.5% of the total licence area in 1990.

Expenditures 1990: Phase 1 Program: Licence 881

1.	Airphoto interpretation	\$ 3,350
2.	Airborne magnetometer/EM survey	<u>147,400</u>
	TOTAL PHASE 1	\$ 150,750

Expenditures 1990: Phase 2: Licence 881

1.	Wages and salaries	\$ 26,210
2.	Meals and accommodation	8,500
3.	Transportation and logistics	3,560
4.	Air transport (fixed wing and helicopter)	17,320
5.	Assaying	7,120
6.	Reports, maps, etc.	<u>3,200</u>
	TOTAL PHASE 2	\$ 65,910

Expenditures 1996 - Eastmain River Claim Block Area

1.	Diamond drilling	\$ 28,500
2.	Geological work	8,800
3.	Trenching, sampling, assaying	13,200
4.	Helicopter and Fixed-Wing costs	20,300
5.	Meals and accommodation	<u>16,900</u>
	TOTAL	\$ 87,700

Expenditures 1997 - Eastmain River Claim Block Area

1.	Helicopter expense	\$ 5,500
2.	Wages and salaries	1,200
3.	Meals and accommodation	550
4.	Explosives	700
5.	Assaying	810
6.	Report	<u>2,000</u>
	TOTAL	\$ 10,760

Acquisition of 160 claims by staking:

160 @ \$150/claim all inclusive	\$ 24,000
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8.0 RECOMMENDED EXPLORATION PROGRAM AND BUDGET

To evaluate the potential of the Eastmain River property for volcanogenic massive sulphide (VMS) deposits, a two phase exploration program is recommended. Phase 1 is a program of geological and geophysical work with Phase 2 being a preliminary drilling program to test targets of high potential.

Phase 1

1.	Line cutting: 115 line-km @ \$300/km	\$ 34,500
2.	Combined magnetometer/VLF survey: 115 line-km @ \$120/km	13,800
3.	Geological mapping	10,000
4.	Prospecting/Beep Mat work	6,500
5.	IP survey all inclusive 18 line-km @ \$1,200/km	21,600
6.	Trenching, pitting and explosives	6,500
7.	Meals and accommodation (field)	9,000
8.	Fixed wing transport: 15 flights @ \$1,500/flight	22,500
9.	Equipment rental	8,000
10.	Analyses: 150 samples @ \$20/sample	3,000
11.	Reports, maps, etc.	4,000
12.	Contingency	<u>12,000</u>
	TOTAL PHASE 1	\$151,400

Phase 2

1.	Diamond drilling: 600 m @ \$165/m all inclusive with helicopter support	\$ 99,000
	TOTAL PHASE 2	\$ 99,000

If both phases are implemented, the total expenditure would be \$250,400. The implementation of Phase 2 would be contingent on the results obtained in the Phase 1 program.

LDS Winter 

The seal is an octagonal stamp with a double-line border. The text inside the seal reads: "PROFESSIONAL" at the top, "PROVINCE OF" in the center, "L. D. S. WINTER" in the middle, "BRITISH COLUMBIA" at the bottom, and "GEOSCIENTIST" at the very bottom.

L.D.S. Winter, P.Ge (B.C.)

May 20, 1999

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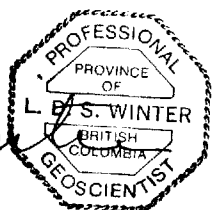
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CERTIFICATE OF QUALIFICATION

I, Lionel Donald Stewart Winter do hereby certify:

1. that I am a geologist residing at 1849 Oriole Drive, Sudbury, Ontario, P3E 2W5,
2. that I graduated from the University of Toronto with a B.A.Sc. (Mining Engineering) in 1957 and from McGill University, Montreal with a M.Sc. (Applied Geology) in 1961,
3. that I am a member of the Canadian Institute of Mining, the Prospectors and Developers Association of Canada, a Fellow of the Geological Association of Canada and a Registered Geoscientist in British Columbia (P.Ge.),
4. that I have practised my profession continuously since 1957,
5. that I visited the Eastmain River Property in September, 1990,
6. that as of the date of this certificate I am not aware of any material fact or material change with regard to the property that would make the report misleading,
7. that my report on the Eastmain River Property of Windy Mountain Explorations Ltd. is based on my general knowledge of the geology of the area, my property visit and a review of published and unpublished information on the property,
8. that I own no direct or indirect interest in Windy Mountain Explorations Ltd., the Eastmain River property or any adjacent properties and I do not expect to acquire any and,
9. I have written this report as a totally independent geologist.

LDS Winter

A circular professional seal for the Province of British Columbia. The outer ring contains the text "PROFESSIONAL" at the top and "GEOSCIENTIST" at the bottom. Inside the ring, the text "PROVINCE OF" is at the top, "L. D. S. WINTER" is in the center, and "BRITISH COLUMBIA" is at the bottom.

May 20, 1999

L.D.S. Winter, P.Ge.

LETTER OF CONSENT

To whom it may concern:

I, Lionel Donald Stewart Winter do hereby consent to Windy Mountain Explorations Ltd. using my report entitled "Geological Report on the Eastmain River Property, Quebec" and dated May 20, 1999 in a Prospectus or Statement of Facts or for filing with regulatory bodies as deemed necessary however, excerpts from this report can only be used with the writers written permission.

LDS Winter

A circular professional seal for a geoscientist in the Province of British Columbia. The seal contains the text: "PROFESSIONAL PROVINCE OF BRITISH COLUMBIA GEOSCIENTIST" around the perimeter and "L.D. S. WINTER" in the center.

May 20, 1999

L.D.S. Winter, P.Geol.