GM 51803

COMPILATION REPORT ON THE DUNLOP BAY PROPERTY

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DATE: 22 JUIN 1993 OPÉRATEUR(TRICE): J.S.

COMPILATION REPORT ON THE

HARRY FERDERBER

DUNLOP BAY PROPERTY, ISLE-DIEU TOWNSHIP

ABITIBI, QUEBEC

January 6, 1993

Peter J. Hawley
Geologist
B.Eng. B.Sc, APGGQ.

32.5.56(2)

Compléter les sections pertinentes des pages 4, 5, 6. Pour ne pas avoir à répéter les mêmes renseignements annexer les pages 3 à 6 aux rapports techniques.
Complete pertinent sections of pages 4, 5, 6. Spare the need to repeat same information by annexing pages 3 to 6 to technical reports.

RENSEIGNEMENTS GÉNÉRAUX – *GENERAL INFORMATION*
(Copie carbone de page 1) – (*Carbone copy of page 1*)

		Adresse – *Address*
Levé(s) fait(s) par / *Survey(s) done by*	P.H. GEOLOGICAL CONSULTANTS.	855 A HOSPITAL BLVD. VAL D'OR, PQ, J9P-2N4
Responsable qualifié / *Qualified supervisor*	PETER J. HAWLEY	AS ABOVE
Detenteur enregistré ou agent / *Recorded holder or agent*	HARRY FERDERBER	169 PERREAULT, VAL D'OR, PQ, J9P-2H7

CLAIMS PARCOURUS – *CLAIMS TRAVERSED*
4443911
4443921 - 4443925 INCLUSIVE
4647283 - 4647285 INCLUSIVE
5023350 - 5023352 INCLUSIVE
5023358
5023361 - 5023363 INCLUSIVE
5023365 - 5023369 INCLUSIVE
5023925

Canton(s) ou seigneurie(s) / *Township(s) or seignory(es)*: ISLE-DIEU TOWNSHIP

Superficie totale des claims précités / *Total area of claims listed*: 304 Hectares

LIGNES SUR CES CLAIMS – *LINES ON THESE CLAIMS*			
SORTE – *KIND*	MILLES *MILES*	ESPACEMENTS *SPACINGS*	COÛT *COST*
Coupées, chaînées, piquetées *Cut, chained, picketed*			$
Recoupées, chaînées, piquetées *Recut, chained, picketed*			
Indiquées, chaînées, piquetées *Marked, chained, picketed*			
Chaînées, piquetées *Chained, picketed*			
Coupées *Cut*			
Recoupées *Recut*			
Indiquées *Marked out*			
TOTAL			$ *

Période d'accomplissement des travaux – *Covering dates of work*

'93 JAN 22 10 24

GENRE DE LEVES – *TYPE OF SURVEYS*	MILLES *MILES*	Lectures, prélèvements – *Readings, samplings*		COÛT *COST*
		Espacements – *Spacings*	Nombre – *Number*	

ÉNERGIE ET RESSOURCES
SECTEUR MINES
21 JAN. 1993
Bureau régional Val d'Or

TOTAL: $ ______ *

93021055

DONNÉES TECHNIQUES GÉOPHYSIQUES ET GÉOLOGIQUES – *GEOPHYSICAL AND GEOLOGICAL TECHNICAL DATA*

LEVÉS MAGNÉTOMÉTRIQUES – *MAGNETIC SURVEYS*

Instrument _____ Précision-Constante de l'échelle / *Accuracy-Scale constant* _____

Correction diurne: effectuée ☐ non effectuée ☐ / *Diurnal correction: made ☐ not made ☐* Lieu(x) de la station de base / *Base station location(s)* _____

LEVÉS ÉLECTROMAGNÉTIQUES – *ELECTROMAGNETIC SURVEYS*

Instrument(s) _____

Précision / *Accuracy* _____

Méthodes: émetteur fixe ☐ avant-arrière ☐ en ligne ☐ lignes parallèles ☐
Methods: fixed transmitter ☐ shoot-back ☐ in line ☐ parallel lines ☐

Configuration des bobines / *Coil configuration* _____

Eloignement des bobines / *Coil separation* _____

Paramètres mesurés / *Parameters measured* _____

Fréquences / *Frequencies* _____
Spécifier Station V.L.F. ( ) *Specify V.L.F Station*

LEVÉS DE POLARISATION PROVOQUÉE – *INDUCED POLARIZATION SURVEYS*

Instrument _____ Puissance / *Power* _____

Domaine des temps ☐ ou des fréquences ☐ / *Time ☐ or frequency ☐ domain* Fréquences / *Frequencies* _____

Configuration des électrodes / *Electrode array* _____

Eloignement des électrodes / *Electrode spacing* _____

Espacements multiples: n= / *Multiple separations:* _____

Paramètres mesurés / *Parameters measured* _____

LEVÉS POTENTIOMÉTRIQUES – *SELF POTENTIAL SURVEYS*

Instrument _____

Méthode / *Method* _____

Corrections _____

LEVÉS RADIOMÉTRIQUES – *RADIOMETRIC SURVEYS*

Insirument(s) _____

Valeurs mesurées / *Values measured* _____

Niveaux d'énergie / *Energy windows (levels)* _____

Hauteur de l'instrument / *Height of instrument* _____ Dimension du détecteur / *Size of detector* _____

LEVÉS GRAVIMÉTRIQUES – *GRAVITY SURVEYS*

Instrument _____ Constante de l'échelle / *Scale constant* _____

Corrections effectuées / *Corrections made* _____

Valeur(s) et localisation(s) de la station de base / *Base station value(s) and location(s)* _____

Précision de l'élévation / *Elevation accuracy* _____ Méthode employée / *Method used* _____

LEVÉS GÉOLOGIQUES – *GEOLOGICAL SURVEYS*

Methode de cheminement, espacement, contrôle / *Traverses method, spacings, control* _____

Photographies aériennes, cartes de base utilisées / *Aerial photos, base maps used* _____

Cartographie de tous les affleurements ☐ ou seulement de ceux situés le long des cheminements ☐
Mapping of all outcrops *or of only those located along traverse lines*

AUTRES LEVÉS – *OTHER SURVEYS*

Genre de levés et brève description de la méthode / *Type of surveys and brief description of method* COMPILATION AND EVALUATION OF THE 22 CLAIM ISLE-DIEU PROPERTY

Instrument, valeurs mesurées, précision / *Instrument, values measured, accuracy* _____

'93 JAN 22 10

DONNÉES SUPPLÉMENTAIRES, EXPLICATIONS, REMARQUES – *ADDITIONAL DATA, EXPLANATIONS, REMARKS*

RESEARCH ALL PREVIOUS WORK PERFOREMED ON AND NEAR THE PROPERTY, AT THE M.E.R BUREAU AND PRIVATE PUBLISHED DOCUMENTS, COMPILE ALL RELEVENT DATA IN CHRONOLOGICAL ORDER, THE WRITING OF THE REPORT DRAFTING OF MAPS AND TYPING OF THE REPORT.

93021055

DONNÉES TECHNIQUES GÉOCHIMIQUES – *GEOCHEMICAL TECHNICAL DATA*

COMPLÉTER UNE FORMULE POUR CHAQUE GENRE DE LEVÉ – *COMPLETE A FORM FOR EACH TYPE OF SURVEY*

Type et nombre d'échantillons – *Type and number of samples*

☐ sol / *soil*
☐ plante / *plant*
☐ autres / *others* → ______
☐ sédiment de ruisseau / *stream sediment*
☐ sédiment de lac / *lake sediment*
☐ minéraux lourds / *heavy minerals*
☐ eau / *water*
☐ volatil / *volatile*
☐ roche (socle) / *bedrock*

Description détaillée de l'échantillonnage (méthode, matériel prélevé, profondeur moyenne, etc.):
Detailed description of sampling method *(including material sampled, mean depth, etc.):*

Description du terrain échantillonné (topographie, drainage, mort-terrain, affleurements, etc.):
Description of field area sampled *(topography, drainage, overburden, outcrops, etc.):*

Préparation de l'échantillon – *Sample preparation*

☐ séchage à l'air / *air drying*
☐ tamisage; maille / *screening; mesh* ______
☐ filtration
☐ séchage au four / *oven-drying* : Temp. ______ °C
☐ calcination : Temp. ______ °C
☐ séparation / *separation*
☐ broyage / *crushing*
☐ acidification de l'eau / *acidification of water*
☐ concentration

☐ autres – *others*: ______

Elements déterminés / *Elements determined*											
Nombre d'analyses / *Number of analysis*											

Décrire, sur une autre feuille, la méthode d'analyse détaillée et donner la précision, la fiabilité des résultats et les unités de teneur de chaque élément déterminé. Indiquer le lieu de l'analyse ainsi que le nom et l'adresse de tout laboratoire commercial.

Describe, *on a separate sheet, the detailed analytical method and give the unit, precision and accuracy of results for each* ***element determined.*** *Indicate the place of analysis as well as the name and address of any commercial laboratory.*

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S U M M A R Y

The Dunlop Bay property consists of a block of 22 contiguous claims covering an area of approximately 304 hectares in Isle-Dieu Township, Abitibi, Quebec. It is located in the Matagami mining camp some 10 kilometres northeast of the town of Matagami.

The property is underlain by Bell River mafic volcanics into which has been emplaced the Dunlop Bay pluton. The volcanic-pluton contact runs generally east-west, except for a small embayment north of Mont-Laurier which contains a variety of felsic volcanics, tuffs, cherts and massive sulphides. A major NW-SE fault strikes across the southwestern portion of the property, along with a dextral north-south fault aligned along an arm of Dunlop Bay which bisects the claim block.

The Dunlop Bay property and its surroundings, has revealed its excellent geological context and favourable potential for economic gold and potential base metal mineralization. The limited work to date indicates that gold in the area is found in three different structural and lithological settings: a) quart carbonate veins in shear/fracture zones related to a major NW-SE fault zone which passes through the southern part of the property; b) an auriferous massive sulphide deposit of seemingly exhalative origin with a volcanic embayment seen east and south of the Dunlop Bay pluton; c) quart veins with disseminated to semi-massive sulphides in a system of conjugate fracture/joint planes along the southern contact of the Dunlop Bay pluton. The particularly interesting context of these two types of occurrences, coupled with the limited amount of previous work, rank these exploration targets as high priority.

An exploration program is recommended in order to fully evaluate the economic potential of this property. This program includes geophysical surveys, geological mapping, overburden stripping and diamond drilling of all interesting targets.

1- INTRODUCTION

The Harry Ferderber Dunlop Bay property is located near the town of Matagami, Abitibi, Quebec (Figure 1). It is favourable situated proximal to three base metal deposits (Caron Lake Mine, Radiore No. 2 and Bell Channel No. 4) and several gold showing (Edith, Marcel and Rolland veins). The property hosts numerous gold showings of its own.

This report represents a compilation and interpretation of all available and published geoscientific data on the property, as well as recommendations for a systematic exploration program to test its economic potential.

2- PROPERTY, LOCATION AND ACCESS

The Dunlop Bay property consists of 22 contiguous claims covering 304 hectares in Isle-Dieu Township. A list of the mining claims and their locations is given in Appendix 3 and Figure 2 respectively.

The property is located 10 kilometres northeast of Matagami, at the southern tip of Dunlop Bay from which it derives it's name. The Matagami-James Bay road #19000 passes close to the southern limit of the property and access is gained through a well developed network of gravel roads.

The topography of the area is comprised of steep ridges, valleys and hills surrounded by flat swampy low lands. The dominant feature is Mont Laurier to the east, which rises some 200 metres above the low lands and forms an exposure of almost 90% outcrop. Overburden on the property is relatively thin, generally

1 to 4 metres in most places. It is composed of both glacio-fluvial and glacio-lacustrine deposits, with clay components increasing towards the east.

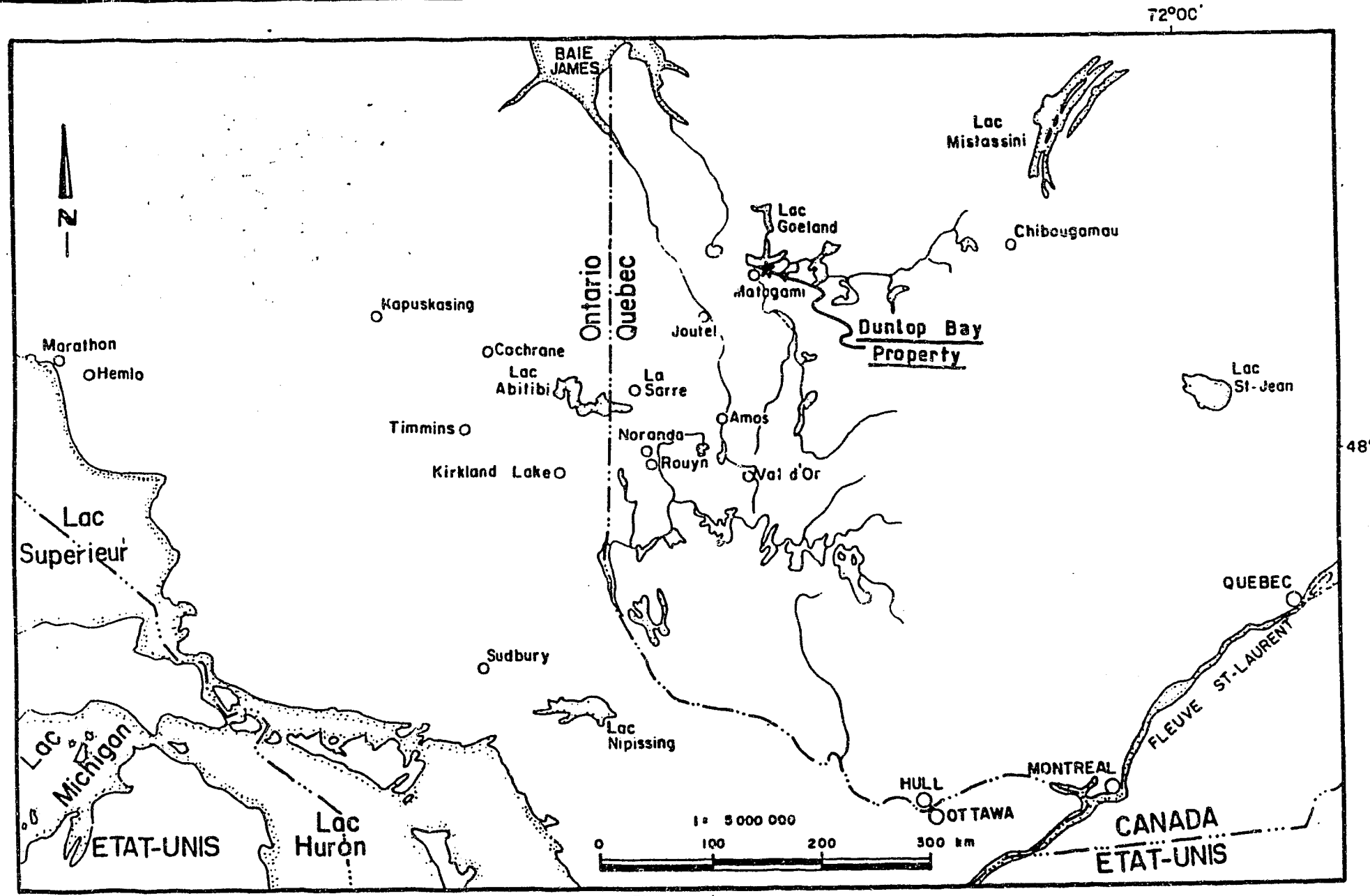
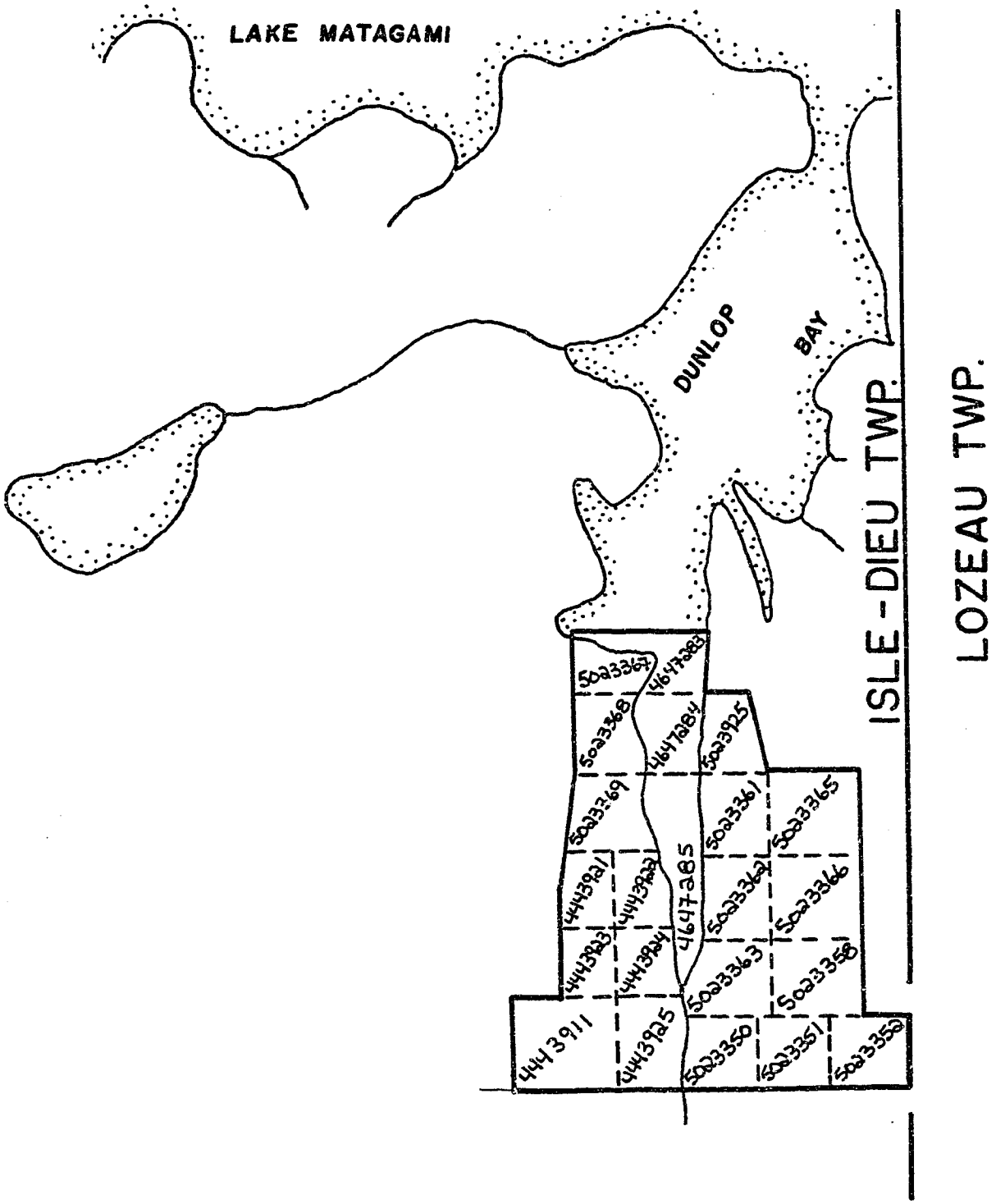

72°00'
BAIE JAMES
Lac Mistassini
N
Lac Goeland
Chibougamau
Matagami
Ontario
Quebec
Kapuskasing
Joutel
Dunlop Bay Property
Marathon
Hemlo
Cochrane
Lac Abitibi
La Sarre
Lac St-Jean
Timmins
Amos
Noranda
Rouyn
Val d'Or
48°00'
Kirkland Lake
Lac Superieur
QUEBEC
Sudbury
Lac Nipissing
FLEUVE ST-LAURENT
Lac Michigan
MONTREAL
HULL
OTTAWA
Lac Huron
1 = 5 000 000
0 100 200 300 km
CANADA
ETAT-UNIS
ETAT-UNIS

Figure: 1

CLAIM GROUP LOCATION



SCALE 1:3000

FIGURE – 2

3-- REGIONAL GEOLOGY

The region is situated at the northern limit of the Abitibi volcano-sedimentary belt, near the contact with the Quetico gneisses, in the Superior Province of Canadian Shield (Dimroth et al. 1982). The rocks in the area are all of Archean age, except for the post-orogenic Proterozoic gabbro-diabase dykes.

The lithologies surrounding the property form part of a typical volcaniclastic sequence (Figure 3), and lie on the southern flank of the Matagami syncline. The units, unless disturbed by intrusions, strike east-west with steep dips and tops generally to the north. Greenschist facies metamorphism predominates, except near intrusive contact zones where it may reach upper amphibolite facies.

The volcanic rocks of the property belong to the Bell River unit and form part of the Wabasee River group (Beaudry, 1985). They consist predominantly of pillowed, massive and brecciated basalt flows with tuffaceous horizons that increase in frequency towards the top of the unit. Syn-volcanic gabbroic sills which are often magnetic and rarely porphyritic intrude the basalts. Rhyolites are rare in the Bell River unit, although some have been described just to the north of Mont Laurier, to the east of the property.

Between Mont Laurier and lake Matagami is the Dunlop Bay pluton, a composite stock emplaced in or near the catazone and clearly post-kinematic. It is generally massive, shows no banding and varies greatly in composition from the border towards the centre. To the south lies an apophysis of the large Olga lake batholith, a compositionally diverse post kinematic intrusion. Diorite, hornblende-rich quartz diorite, granodiorite and granite

phases are noted (Beaudry, 1985).

To the north of the property, a thin band of Matagami group sediments underlie lake Matagami. They are composed of arkoses, siltstones, argillites and mono to polymictic conglomerates which stratigraphically overlie the Bell river volcanics and occupy the Matagami syncline (see Figure 3).

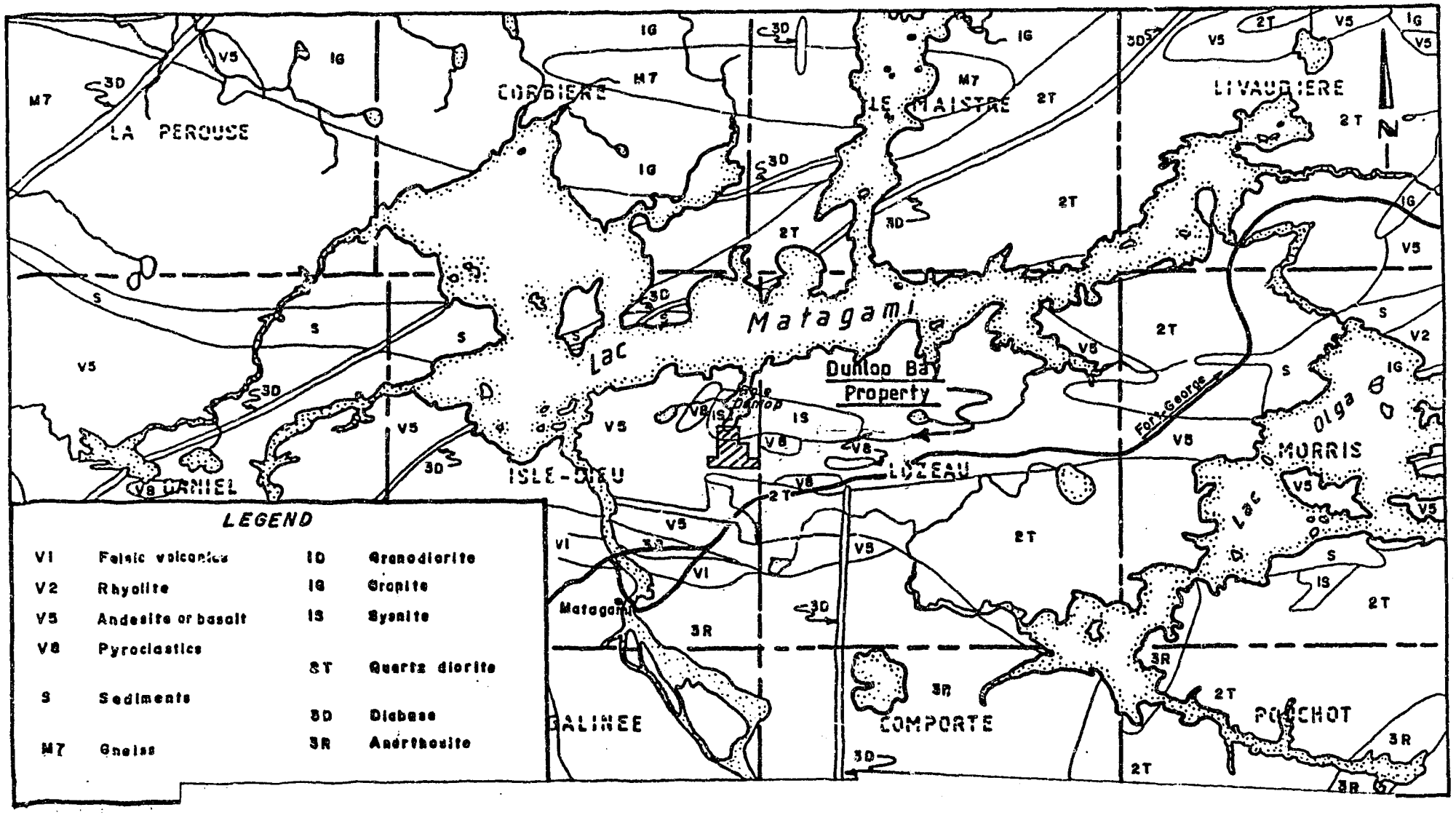
4- PROPERTY GEOLOGY

A compilation and geological map of the property based on previous work and published reports is presented in Figure 4.

According to Beaudry (1985), the property is underlain by basaltic volcanics of the Bell River group to the south, and by the Dunlop Bay pluton to the north. The contact zone, which is poorly exposed, trends roughly east-west and lies just to the north of Mont Laurier which is east of the property.

The Dunlop Bay pluton underlies the entire northern half of the property. Elongated along an east-west axis, it is a compositionally heterogeneous intrusive comprising several phases. From the border towards the centre these are: granodiorite, monzonite, granite, syenitic diorite, and finally tonalite. The contact is marked by a zone of high magnetic relief due to magnetite concentrations caused by contact metamorphic effects (GM-15721). Intrusive breccias are common within this zone. A dextral north-south fault aligned along an arm of Dunlop Bay offsets the contact by 400 metres.

Within the property, at least two phases of deformation are evident (Beaudry, 1985). The first, produced near isoclinal folds with steeply dipping axial planes and a near parallel schistosity,



DUNLOP BAY PROPERTY

REGIONAL GEOLOGY

1= 250 000

5 0 5 10 15 km

S_1, oriented east-west and subvertical. The second schistosity, S_2, is related to small S and Z structures which S_1 and whose axial planes are subvertical and oriented NE-SW. Late to post-kinematic emplacement of the Dunlop Bay pluton has caused the schistosities to be re-oriented subparallel to the volcanics-pluton contact.

A major NW-SE fault strikes across the southern portion of the property. This fault, interpreted from an aeromagnetic survey using a process developed by Urquhart (1985), may be genetically related to the gold mineralization as seen by the veins, names Dora, Bella, Maria, Omala, Venus, Galena, Tonice, Gina and Mora located within the property. The veins Bella, Omala and Dora consist of a series of closed spaced quartz-carbonate healed fractures which are stacked to form a mineralized zone up to 1.5 metres (5 feet) wide (GM-15721). Their orientation varies between 300 and 285 degrees with a subvertical dip and strike lengths of up to 1220 metres (400 feet) (eg. Edith vein in GM-16102).

5- PREVIOUS WORK

5.1 PREVIOUS WORK NEAR THE PROPERTY

A list of references and published assessment reports near and on the property are included in Appendices 1 and 2 respectively. A location map of the assessment work is presented in Figure 4.

The first recorded work near the property was done by Dunlop Consolidated Mines in 1928. Four holes totalling 488 metres (1600 feet) were drilled through a gossan zone located northwest of Mont Laurier (GM-8419). Lun-Echo Mines (GM-6090) and the Matagami Syndicate completed various geophysical and

geological surveys in 1957. The Matagami Syndicate used an airborne E.M. survey followed by ground magnetometer and detailed geological mapping to delineate some anomalies which were then drilled (GM's 5225-B, C, D, E, F). Later trenching and geological mapping in 1959 uncovered more sulphide showings (GM-9495).

There followed an increase in activity from 1958 through to 1960. From 1958 to 1959 D'Aragon Mines carried out ground geophysical surveys, geological mapping, some trenching and diamond drilling on the northern side of Mont Laurier (GM-8791-A, 9495). Drilling, beneath a silver and copper showing discovered during the course of this work, intersected some massive to semi-massive sulphide veinlets (GM-8791-B). Kennco Exploration flew an E.M. survey of the entire area around the property but apparently did not continue with any ground follow-up (GM-5441).

South of Mont Laurier, Pennbec Mining Corporation did some unsuccessful ground E.M. and magnetometer follow-up surveys of an airborne E.M. anomaly (GM-8897). A similar E.M. survey by Ormsloy Mines in 1959 on their property south of the claim group failed to locate any conductors (GM-8519).

Reports and compilation of the regional geology include Longley and Auger (1939), Longley (1943), Claveau (1948), Imbeault (1952) and Remick (1964). Recent detailed geological studies of both the mines and the area include Hendriguez (1974), McGeehan (1979), and Beaudry (1985). The region has been covered by airborne magnetic and electromagnetic surveys contracted by the Ministere de l'Energie et des Ressources Naturelles du Quebec (DP-85-07).

The company report by Northern Mining Explorations for the 1988-1989 period reports that work carried out on the Marcelle vein zone and within the Dunlop granite consisted of 31 diamond drill holes totalling 4,250 metres (14,000 feet).

5.2 PREVIOUS WORK ON THE PROPERTY

During 1964 and 1965, the J.R. Beauchemin Mining Corporation and Consolidated Virginia Mining Corporation carried out extensive geological mapping, stripping, geophysical surveys and limited diamond drilling in the areas near Dunlop Bay and Mont Laurier respectively (GM-16179, 17184, 17188). High grade gold values across narrow widths were found in quartz healed fractured shear zones. Consolidated Virginia drilled a total of 603.5 metres (1980 feet) distributed in seven holes (GM-17070). J.R. Beauchemin drilled 1038 metres (3405 feet) distributed in four holes; three underneath the vein system and one across the north-south fault which offsets the Dunlop Bay granite (GM-16839).

Exploration activity subsequently dropped off after 1966 with the withdrawal of the land from staking by the James Bay Development Corporation.

In 1986 the area was re-opened to public staking and Harry Ferderber staked the claim group immediately after.

In 1988, H. Ferderber Geophysics Ltd. performed two separate airborne geophysical surveys over the property. Magnetic and V.L.F. electromagnetic data was collected by the airborne division. The surveys outlined the property geology and delineated two conductive zones. The magnetic survey outline the Dunlop Bay fault bisecting the property north-

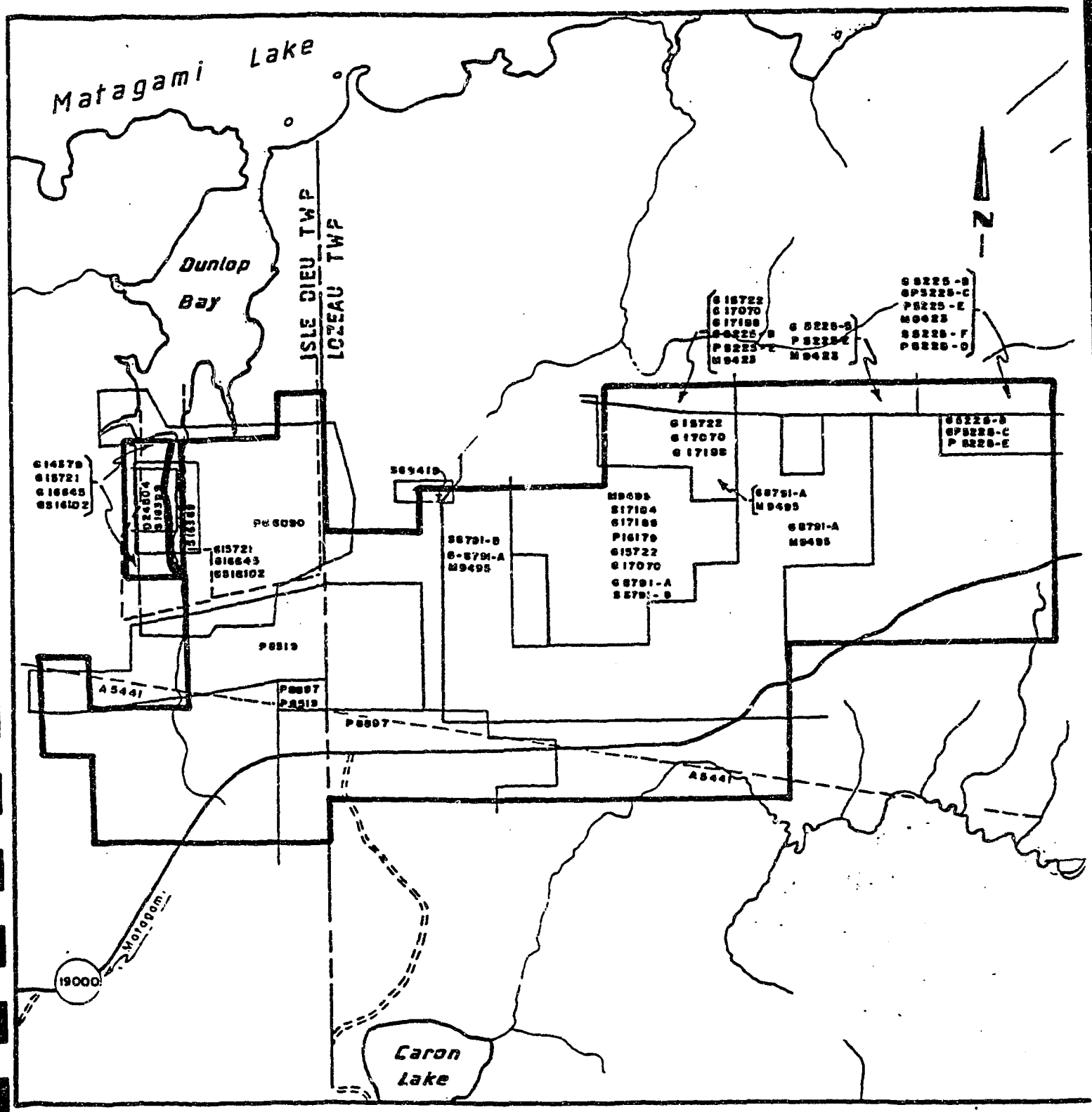


Figure · 4

LOCATION OF ASSESSMENT WORK

Scale: 1 = 50000

south and the VLF survey shows a conductor which represents a shear associated with the geological contact with the granitic pluton and the volcanics.

In 1991, H. Ferderber Geophysics Ltd. performed a total field magnetic and horizontal loop-electromagnetic surveys on 12 claims of the present 22 claim block. The surveys outlined numerous NW-SE anomaly trends which correspond to known veins and structures.

Later in 1991, Harry Ferderber purchased an additional 10 claims from Daniel St. Pierre which are adjacent to the east of the claim block and which now complete the block of 22 claims.

6- ECONOMIC GEOLOGY

6.1 ECONOMIC GEOLOGY NEAR THE PROPERTY

The nearby property hosts both gold and base-metal showings each related to different structural and lithological controls. Gold is reported as occurring in two environments, to the east and west: a) in quartz carbonate veins within shear or fracture zones; b) associated with massive and semi-massive sulphides. To the west base metals, chiefly copper and zinc occur as fracture controlled massive to semi-massive veins and pods, random in nature and localized proximal to the volcanic-pluton contact.

To the east, the Northern Quebec Explorers vein system which contains the veins named Marcella (1,566 tons, 4.87 g/ton Au proven), Rollande (1,682 tons, 4.87 oz Au proven) and

Edith (4,607 tons, 4.42 g/ton Au proven), consist of a series of close spaced quart-carbonate healed fractures each from 1 cm to 8 cm (0.25 to 3 inches wide which are stacked to form a mineralized zone up to 1.5 metres (5 feet) wide (GM-15721). Their orientation varies between 300 and 285 degrees Az. with a subvertical dip and strike lengths of up to 1220 metres (4,000 feet) eg. Edith vein (GM-16102).

A 1988-1989 company report published by Northern Mining Explorations Ltd. reports that values as high as 3.6 OPT Au over 2.3 feet were intersected in the drilling of the Marcelle vein zone. The Marcelle vein mineralized sector is shared by three grouped veins and these gross 135,524 metric tons grading 0.082 OPT Au (0.03 OPT Au cut off grade). The Edith vein contains 32,100 evaluated tons of 0.122 OPT Au and is open on strike and depth. A study carried out in 1983 by David B. Daan, consultant geologist for Northern Quebec Explorers, suggests that within a one mile by 1800 foot sector surrounding the Marcelle and Edith vein structures there is an indicated potential zone of 15 million tons grading between 0.03 and 0.05 OPT Au for each 50 feet of depth, that could become economic.

On the north side of Mont-Laurier, trenching by Consolidated Virginia Mining uncovered pyrite, chalcopyrite and pyrrhotite mineralization nearby the old D'Aragon Mines showings. The mineralization, which may be massive stringer or disseminated in type, is confined to a series of intense fracture zones within tuffaceous host rocks. Three principle fracture systems oriented 300-320 degrees, 345-355 degrees and 035-060 degrees Az each having variable dips, were defined (GM-161879). Grab samples from a 20 centimetre (8 inch) section of massive chalcopyrite and pyrite yielded assays of 10.97 g/T (0.32 oz/ton) gold, 37.71 g/T (1.10 oz/ton) silver

and 17.74% copper. Other assays for the same area list 6.85 g/T (0.20 oz/ton) gold, 41.14 g/T (1.20 oz/ton) silver, (0.13% copper and 9.59 g/T (0.28 oz/ton) gold, 1234 g/T (0.36 oz/ton) silver, 1.35% copper (GM-15722). The best value from drilling in the vicinity of these showings was from a quartz-carbonate veinlet mineralized with massive chalcopyrite and galena which assayed 43.2 g/T silver, 22.35 % lead and 2.75% copper over 13 centimetres (5 inches), (GM-17184).

Still on the north of Mont Laurier, another auriferous sulphide horizon lies to the south of the volcanic embayment, nearby a large rhyolite outcrop (see Figure 5). Striking roughly east-west, and dips towards the property at approximately 70-75 degrees Az south. Four holes drilled by Dunlop Consolidated Mines to test this gossan zone at depth, intersected basalts followed by rhyolites with massive, semi-massive and disseminated sulphides. Only one hole, D.B.-2 was assayed and it returned 6.85 g/T (0.20 oz/ton) gold over 2.40, 2.13, 1.50, 1.50 and 1.20 metres (8,7,5,5 and 4 feet) respectively and one spectacular assay of 28.11 g/T (0.82 oz/ton) gold over 1.5 metres (5 feet).

It should be noted that this horizon forms part of three separate gossan zones within the embayment all of which contain anomalous values in gold, zinc and copper (Beaudry, 1985, GM-8419, 9188). The host rocks of these sulphide zones include rhyolites, cherts and tuffs and are located near the eastern extension of the stratigraphic horizon which contains the Phelps Dodge and several other smaller base-metal deposits. The favourable host lithologies and the close similarities with classic exhalative environments strongly suggest a volcanogenic origin for the sulphides.

6.2 ECONOMIC GEOLOGY OF THE PROPERTY

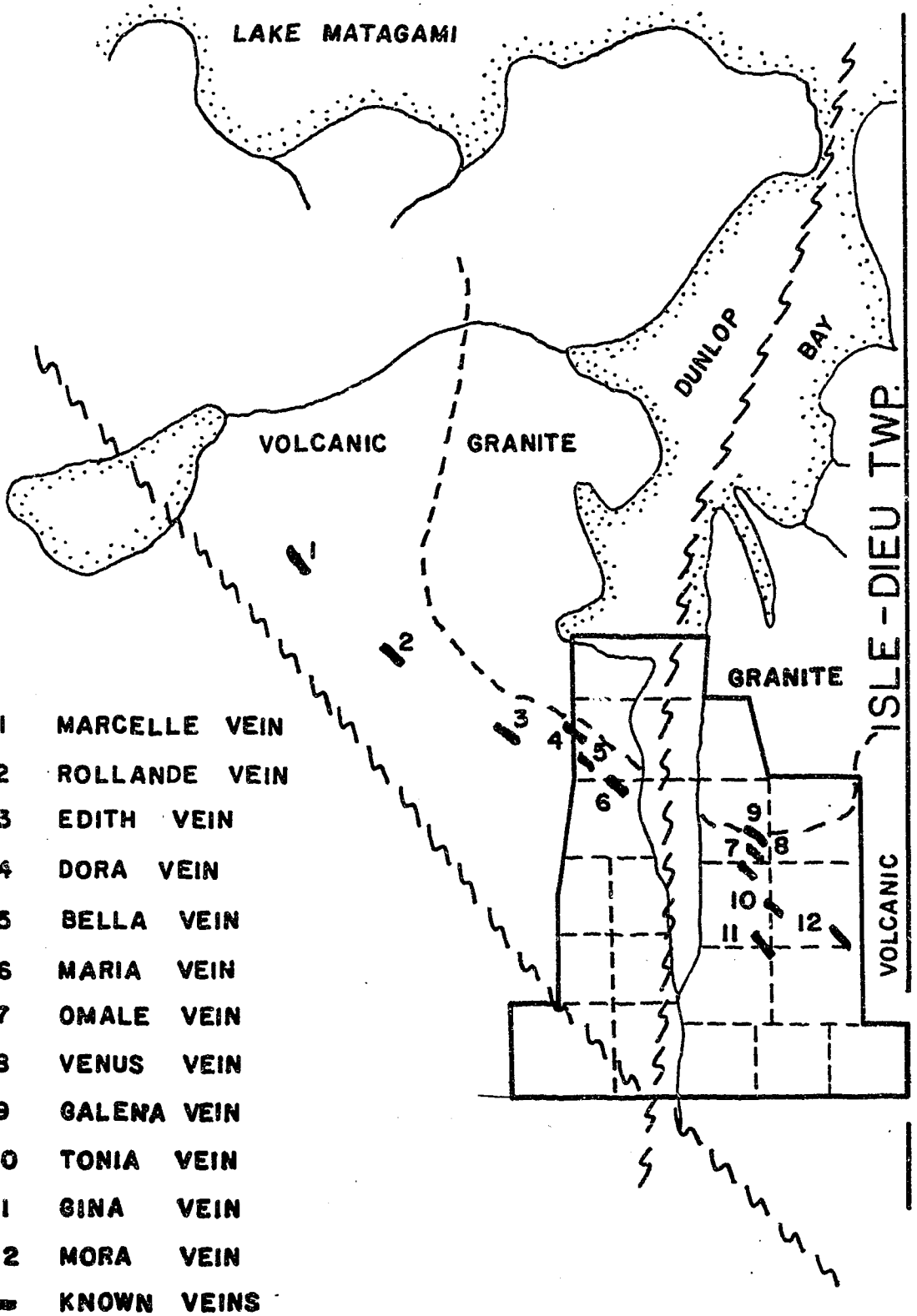
The Dunlop Bay property hosts known gold occurrences in quart carbonate veins within shear or fractures zones similar to those seen nearby towards the west.

Trenching by the J.R. Beauchemin Mining Corp. (GM-1572, 16102) in the area immediately to the south of Dunlop Bay unearthed the southeast extension of the Northern Quebec Explorers vein system. The veins, named, Dora, Bella, Maria, Omala, Venus, Galena, Tonia, Gina and Mora, consist of a series of close spaced quartz-carbonate healed fractures each from 1 cm to 8 cm (0.25 to 3 inches) wide which are stacked to form a mineralized zone up to 1.5 metres (5 feet) wide (GM-15721). Their orientation varies between 300 and 285 degrees Az with a subvertical dip and strike lengths of up to 1,220 metres (4,000 feet) (e.g. Edith vein in GM-16102) (Figures 5, 6).

Visible gold is reported in several of the veins associated with banded massive pyrite, and minor chalcopyrite in a quart-carbonate matrix (GM-15721). Samples of vein material taken from various locations in the trenches assayed up to 302 g/T (8.8 oz/ton Au), with the majority in the range of 4 to 12 g/T (0.12 to 0.35 oz/ton Au) (GM-16102, Table 1). These assays are consistent with those reported for the Edith, Marcel and Rolland veins on the Northern Quebec Explorers property. A hole was drilled beneath each of the Bella, Omala and Dora veins. Assay results for these holes are disappointing, but it appears probable that the holes failed to intersect the depth extensions of these veins. The other veins have yet to be tested.

A large fault having a similar orientations as the Edith, Marcel and Rolland veins passes to the south of the ridge where they are located (Figures 5, 6). This fault, interpreted from an aeromagnetic survey using a process developed by Urquhart (1985) may be genetically related to the gold mineralization. Therefore its strike extension which passes onto the south portion of the property is an important exploration target.

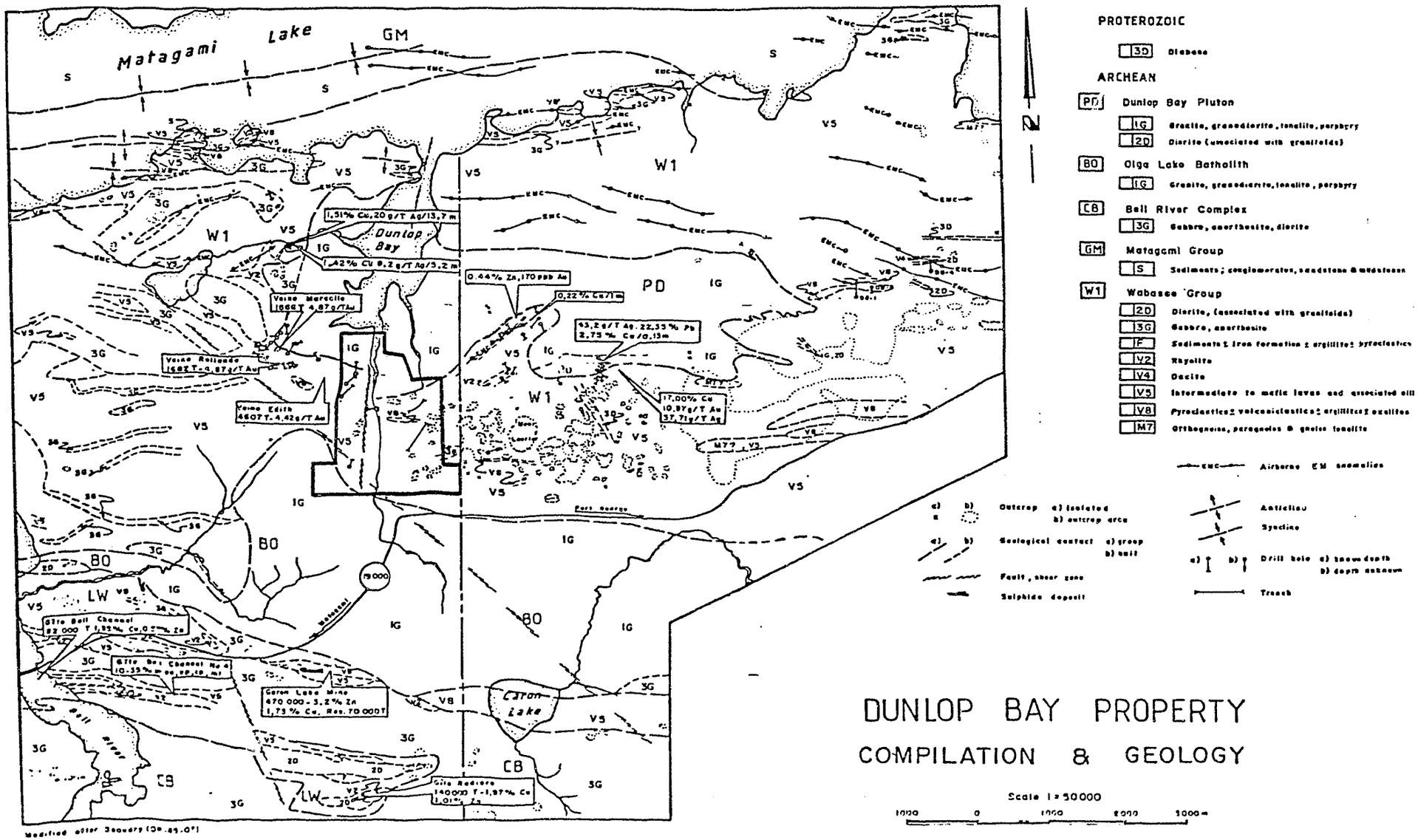
LOCATION OF VEINS



1 MARCELLE VEIN
2 ROLLANDE VEIN
3 EDITH VEIN
4 DORA VEIN
5 BELLA VEIN
6 MARIA VEIN
7 OMALE VEIN
8 VENUS VEIN
9 GALENA VEIN
10 TONIA VEIN
11 GINA VEIN
12 MORA VEIN
▬ KNOWN VEINS
FAULTS
GEOLOGICAL CONTACTS

SCALE 1:3000

FIGURE - 6



Modified after Beaudry (De-85-01)

FIGURE – 5

Figure 6

7- CONCLUSIONS

A geoscientific compilation of the Dunlop Bay property and its surroundings, has revealed its excellent geological context and favourable potential for economic gold and potential base metal mineralization. The limited work to date indicates that gold in the area is found in three different structural and lithological settings: a) quartz-carbonate veins in shear/fracture zones related to a major NW-SE fault zone which passes through the southern part of the property; b) an auriferous massive sulphide deposit of seemingly exhalative origin with a volcanic embayment seen east and south of the Dunlop Bay pluton; c) quartz veins with disseminated to semi-massive sulphides in a system of conjugate fracture/joint planes along the southern contact of the Dunlop Bay pluton.

Of these, the most interesting occurrence is the auriferous massive sulphide deposit seen nearly to the east. The property being on strike and thus a key stratigraphic location, favourable host lithologies and lack of any extensive previous work, rank this as the most promising exploration target on the property.

The nine auriferous quartz-carbonate veins on the central portion of the property, are apparently the SE extensions of those on Northern Mining Explorations property. The high grade gold values related to this vein system on both properties are indicative of good economic potential even though the distribution of the gold values may seem erratic. The limited drilling in this area to date (only three holes) could not have adequately tested the potential of this zone. As shown by Northern Mining Explorations, proven tonnage exist on these genetically related veins and thus the Ferderber claim block has excellent possibility to confirm proven tonnage on the 9 veins contained within.

Mineralization of economic significance may also be dependent on the competency of host rock. Therefore areas where the major NW-SE fault passes through competent lithologies (eg. coarse-grained gabbros, felsic volcanics, intrusives etc.) and specially the intersection point of the NW-SE and N-S fault should be investigated.

Lastly, significant gold and silver concentrations associated with anomalous copper, lead and minor zinc, values are reported from surface trenching and drill holes north of Mont Laurier. These showings are close to the Dunlop Bay pluton, and are structurally controlled within a joint/fracture system which is probably emplacement related. As such, the pluton may have played an important role in the location and concentration of the mineralization, and therefore the entire volcanic-pluton contact zone is potentially favourable.

8- RECOMMENDATIONS

The favourable geological context of the Dunlop Bay property fully justifies the initiation of a complete exploration program. In the first phase, work should consist of geological mapping, surface stripping and geophysical surveys. Overburden stripping in the relatively thin overburden, is strongly recommended in the areas of the veins, the joint/fracture system near the volcanic-pluton contact and any geophysical anomalies. Careful mapping of the stripped areas will be of invaluable aid in the understanding of the control and distribution of the mineralization. A vertical gradient magnetometer survey should confirm and accurately locate the position of the volcanic-pluton contact and a V.L.F. survey should locate any fracture/jointing systems. Therefore these are recommended as part of the geophysical surveys. In the second

phase, it is recommended to test by diamond drill hole all the targets of interest delineated during the first phase.

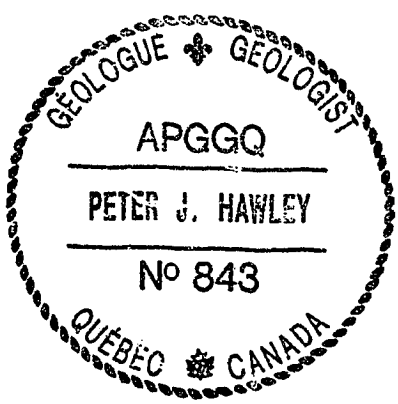
It must be noted that the Bella and Omala Veins present immediate drill targets. The values reported (Table 1) make these interesting drill locations. The area for the drill holes may be found by examination of the strike of the vein and drilled 90 degrees to the strike.

Respectfully submitted by

Peter J. Hawley

January 6, 1993

Peter J. Hawley
B.Eng., B.Sc., APGGQ



APPENDIX -1-

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Aeromagnetic Interpretation in the Matagami area, northern Quebec - Ph.D. Thesis, University of Toronto.

APPENDIX 2

LIST OF PREVIOUS WORK EXECUTED ON THE DUNLOP BAY PROPERTY

GM-5225-B:
Mattagami Syndicate, Lozeau Twp., Quebec, Preliminary Geological Map with DDH Location by J M Johnson, 1957, GM-5225-B, op, 1 map, 1/12000.

GM-5225-C:
Mattagami Syndicate, Lozeau Twp, Quebec, Preliminry Geological and Geophysical map, by J M Johnson, 1957, GM-5225-B, op, 1/2400

GM-5225-D:
Mattagami Syndicate, Lozeau Twp, Quebec, report on magnetometer and electromagnetic surveys, by McPhar Geophysic Ltd, 1957, GM-5225-d, 1 map, 12/2400

GM-5225-F:
Mattagami Syndicate, Lozeau Twp, Quebec, logs of diamond drill holes, by a Hurst, 1957, GM-5225-F, 12p, 2 Sketches, 1/480

GM-5225-E:
Matagami Syndicate, Lozeau Twp, Quebec, Geophysical Survey, By R A Bell and C P Jenny, 1957, GM-5225-E, 18P, 9 maps, 1/2400

GM-5441: Kennco Exploration Ltd, comporte, Galinee, Isle Dieu, le Tardif, Lozeau Twps, Quebec, Geophysical survey by Aeromac Surveys Ltd, 1956, GM-5441, 4 maps, 1/32,000

GM-6090: Lun-Echo Gold Mines Ltd., Isle Dieu and Lozeau Twps, Quebec, Geological Surveys, by G R Cunningham Dunlop, 1957, GM-6090, 9p, 6 maps, 1/2400

GM-8419: Dunlop Consolidated Mines Ltd, Lozeau Township, Quebec, Geological map and DDH Logs, anonymous author 1928, GM-8419, 12p, 2 maps, 1/12000

GM-8519: Ormsby Mines Ltd., Isle Dieu and Lozeau Townships, Quebec, Geophysical survey, by J A Woodard, 1959, GM-8519, 4p, 1 map, 1/4800

GM-8791-A:
D'Aragon Mines Ltd., Lozeau Township, Quebec, Geological map, anonymous author, 1959, GM-8791-A 2 maps, 1/4800

GM-8791-B:
D'Aragon Mines Ltd, Lozeau Township, Quebec, DDH logs, anonymous author, 1958, GM-8791-B, 6p, 7 maps, 1/4800

GM-8897: Pennbec Mining Corporation, Isle Dieu and Lozeau Townships, Quebec, Geophysical Survey, By H J Moreau, 1958, GM-8897, 3p, 1 map, 1/4800

GM-9028: Consolidated Calinana Flin Flon Mines Ltd, Lozeau Twp, Quebec, Report on magnetic and electromagnetic surveys, by L G Phelan, 1959, GM-9028, 6p, 1 map, 1/2400

GM-9188: New Faulkenham Mines Ltd, Lozeau Township, Quebec, Geophysical Survey, Geophysical survey, Geology and DDH Logs, by H G Harper, 1959, GM-1988, 12p, 1 map, 1/2400

GM-9495: D'Aragon Mines Ltd, Lozeau Township, Quebec, Geological Report by J I Sharpe, 1959, GM-9495, 2p, 1 maps, 1/12000

GM-14379: J R Beauchemimn Mining Corporation, Isle Dieu Township, Quebec, Geological Report, by R B Graham, 1964, GM-14379, 6p, 1 sketch, 1/31680

GM-15722: Consolidated Virginia Mining Corporation, Lozeau Township, Quebec, Geological Report, by A C Lee, 1964, GM-15722, 7p, 2 sketches

GM-15721: J R Beauchemin Mining Corporation Isle Dieu Township, Quebec, Geological report by R B Graham, 1964, GM-15721, 1 op, 1 sketch, 1/31680

GM-16102: J R Beauchemin Mining Corporation, Isle-Dieu Township, Quebec, Geological Report with Sampling Results by A C Lee, 1964, GM-16102, 12p, 5 maps, 1/2400

GM-16179: Consolidated Virginia Mining Corporation, Lozeau Township, Quebec, Geophysical survey, by R B Graham, 1965, GM-16179, 15p, 3 maps, 1/2400

GM-16389: Beauchemin Mining Corporation, Isle Dieu Township, Quebec, DDH Logs, By A C Lee, 1965, GM-16389, 16p, 1 map 1/2400

GM-16645: J R Beauchemin Mining Corporation, Isle Dieu Township, Quebec, Geological report by A C Lee, 1965, GM-16645, 13p, 2 sketches, 1/31680

GM-17070: Consolidated Virginia Mining Corporation, Lozeau Township, Quebec, Geological report by A C Lee, 1965, GM-17070, 7p0, 2 sketches.

GM-17184: Consolidated Virginia Mining Corporation, Lozeau Township, Quebec, DDH Logs, by A C Lee, 1965, GM-17184, 17p0, 1 map, 1/2400

GM-17188: Consolidated Virginia Mining Corporation, Lozeau Township, Quebec, Geological report by A C Lee, 1965, GM-17188, 4p, 2 maps, 1/2400

GM-34058: Noranda Exploration Co. Ltd., Isle Dieu and Lozeau Townships, Quebec, 2 reports on Exploration Program, by N MacIsaac, 1973 and 1975, GM-34058, 7p, 44 maps, 1/4800

1988-89: Northern Mining Explorations Ltd., company report.

1988: Report on the Airborne Geophysical Survey on the H. Ferderber Property, Isle-Dieu Twp., Quebec, by D.M. Thai.

1988: Report on the Combined Airborne Geophysical Survey on the H. Ferderber Property, Isle-Dieu, Quebec, by L.L. Ahern.

1991: Report on the Total Field Magnetic and Horizontal Loop-Electromagnetic Surveys on the Dunlop Bay Property of Harry Ferderber, Isle-Dieu Township, Quebec, by R.A. Campbell.

APPENDIX 3

LIST OF CLAIMS - DUNLOP BAY PROPERTY

Licence Number	Area Hectares	Date of Registration	Date of Expiration
4443911	16	June 17, 1987	May 15, 1993
4443921	16	June 17, 1987	May 14, 1993
4443922	16	June 17, 1987	May 14, 1993
4443923	16	June 17, 1987	May 14, 1993
4443924	16	June 17, 1987	May 14, 1993
4443925	16	June 11, 1987	May 11, 1993
4647283	16	December 2, 1987	October 7, 1993
4647284	16	December 2, 1987	October 7, 1993
4647285	16	December 2, 1987	October 7, 1993
5023350	16	December 19, 1989	December 18, 1993
5023351	16	December 19, 1989	December 18, 1993
5023352	16	December 19, 1989	December 18, 1993
5023358	16	July 13, 1989	July 12, 1993
5023361	16	July 13, 1989	July 12, 1993
5023362	16	July 13, 1989	July 12, 1993
5023363	16	July 13, 1989	July 12, 1993
5023365	16	July 13, 1989	July 12, 1993
5023366	16	July 13, 1989	July 12, 1993
5023367	12	July 13, 1989	July 12, 1993
5023368	16	July 13, 1989	July 12, 1993
5023369	16	July 13, 1989	July 12, 1993
5023925	12	December 19, 1989	December 18, 1993

TABLE 1

J.R. BEAUCHEMIN MINING CORP. LTD.
SAMPLE RECORD

SAMPLE NO.	GOLD (OPT)	SILVER (OPT)
29	0.11	0.36
30	1.55	0.55
31	0.20	0.36
32	0.09	0.33
33	1.80	0.40
34	0.95	0.19
35	0.07	0.03
36	0.14	0.94
37	0.04	0.05
38	0.02	0.30
39	Sample taken for thin section.	
40	0.09	0.31
41	0.16	0.25
42	0.14	0.96
43	0.05	0.17
44	0.13	0.17
45	0.22	0.70
46	5.30	1.46
47	1.80	1.50
48	2.17	0.80
49	0.47	0.61
50	0.35	0.25
51	0.15	0.30
52	0.75	0.45
53	0.90	0.30
54	0.40	0.44
55	0.08	0.05
56	0.10	0.15
57	0.05	0.28
58	0.31	0.30
59	0.17	0.43
60	0.15	1.25
61	0.07	0.45

BELLA VEIN

SAMPLE NO.	GOLD (OPT)	SILVER (OPT)
B-1	2.82	1.58
B-2	8.35	3.20
B-3	1.91	0.49
B-4	2.45	1.41
B-5	3.10	2.10
B-6	8.80	3.57
B-7	8.10	3.77
B-8	1.20	0.20
B-9	1.40	0.80
B-10	0.26	
B-11	0.43	0.60
B-12	0.12	0.87
B-13	0.25	0.20
B-14	0.44	0.55
B-15	0.20	0.80
B-16	0.12	0.30
B-17	0.39	0.33
B-18	0.25	0.25
B-19	0.15	0.45
B-20	0.19	1.30
B-21	0.71	0.40
B-22	0.85	0.50
B-23	1.86	0.75

OMALA VEIN

SAMPLE NO.	GOLD (OPT)	SILVER (OPT)
S-01	0.10	0.04
S-02	0.10	0.14
S-03	0.40	0.14
S-04	0.06	0.06
S-05	0.12	0.26
S-06	0.11	0.04
S-07	0.35	0.45
S-08	0.02	0.20
S-09	0.005	0.08
S-10	TR.	TR.
S-11	0.15	0.22
S-12	0.10	0.14
S-13	0.17	0.23
A-1	0.22	0.36
A-2	0.225	0.28

SAMPLE NO.	GOLD (OPT)	SILVER (OPT)
A-3	0.175	0.20
A-4	0.08	0.36
A-5	0.20	0.25
A-6	0.12	0.18

NEW SHOWING

SAMPLE NO.	GOLD (OPT)	SILVER (OPT)
014	0.15	0.40
015	0.02	0.58
016	NIL	NIL
017	NIL	NIL
018	NIL	NIL
019	TR.	0.11
020	NIL	NIL

MARIA VEIN

SAMPLE NO.	GOLD (OPT)	SILVER (OPT)
1	0.035	0.098

OMALA VEIN

SAMPLE NO.	GOLD (OPT)	SILVER (OPT)
2	0.024	0.094
3	0.227	0.295
4	0.400	0.495

TRENCH 2

SAMPLE NO.	GOLD (OPT)	SILVER (OPT)
5	0.115	0.270
6	0.150	0.380
7	0.150	0.220
8	0.130	0.190
9	0.050	0.045
10	0.042	0.38
11	0.246	0.294

TRENCH 3

SAMPLE NO.	GOLD (OPT)	SILVER (OPT)
12	0.074	0.131
13	0.044	0.065

TRENCH 4

SAMPLE NO.	GOLD (OPT)	SILVER (OPT)
14	0.078	0.007
15	0.185	0.277

MARIZ SHOWING

SAMPLE NO.	GOLD (OPT)	SILVER (OPT)
16		0.15

OMALA VEIN

SAMPLE NO.	GOLD (OPT)	SILVER (OPT)
17	0.245	0.370
18	0.465	0.515
19	0.148	0.385
20	0.148	0.345
21	0.130	0.174
22	0.165	0.237
23	0.35	0.095
24	0.015	0.05
25	0.068	0.278
26	0.045	0.77
27	0.014	0.028
28	0.133	0.217

GALENA VEIN

SAMPLE NO.	AU (OPT)	CU (%)	AG (OPT)	PB (%)
S-1	TR.	0.95	1.09	0.48
S-2	0.01	0.79	0.50	0.24

BELLA EXTENSION

SAMPLE NO.	GOLD (OPT)	SILVER (OPT)
EX-1	TR.	0.04
EX-2	0.03	0.10
EX-3	0.05	0.10

MARIA SHEAR

SAMPLE NO.	GOLD (OPT)	SILVER (OPT)
M-1	0.04	0.18
M-2	0.04	0.08
M-3	0.04	0.10
M-4	0.06	0.26

RESAMPLED AREAS

BELLA VEIN

SAMPLE NO.	GOLD (OPT)	SILVER (OPT)
17898	0.29	0.80
17899	0.08	NIL
17900	0.05	0.08

OMALA VEIN

SAMPLE NO.	GOLD (OPT)	SILVER (OPT)
17659	0.26	0.14