

# GM 66245

TECHNICAL EVALUATION REPORT, RIVIERE LOIS CENTRAL PROSPECT

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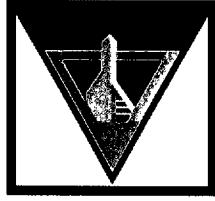


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Énergie et Ressources  
naturelles

Québec 



**Golden Valley Mines Ltd.**  
**Mines de la Vallée de l'Or ltée**

**RIVIÈRE LOIS CENTRAL PROSPECT**

**Technical Evaluation Report on Lots 59 and 60, Range VI**

**Pouliaries Township, Québec**

**NTS 32D/10**

**Prepared for:  
Golden Valley Mines Ltd.**

**Ressources Naturelles  
Secteur mines**

**16 FEV. 2012**

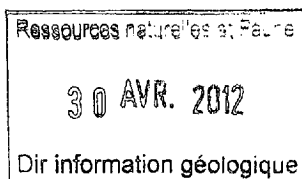
**GM 66245**

**Bureau Régional Val-d'Or**

**Prepared By:**

**Albert Ali, ing  
Langis Plante, ing**

**February 15, 2012**



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## MAP

Compilation de la propriété / Property Compilation

## 1.0 INTRODUCTION

The Rivière Lois Central Prospect consists of two claim lots, lots 59 and 60, located in Poularies Township, Québec (NTS map sheet 32D/10). The two claims are located between two other claim blocks, the Rivière Lois West Prospect and the Rivière Lois East Prospect, and are directly north of three lots in range V referred to as the Rivière Lois South Prospect. Golden Valley Mines Ltd. has 100% interest in all of the claims.

The following report describes the historical geological and geophysical work completed on the Rivière Lois Central Prospect.

A brief discussion of the regional and local geology, deposit types and mineralization, as well as a detailed description of the previous exploration work completed on the property, is provided in the report. References to all relevant geological and geophysical maps are provided in the report, and data obtained from previous work has been interpreted and compiled.

## 2.0 LOCATION, ACCESS AND PROPERTY DESCRIPTION

The Rivière Lois Central Prospect is located in northwestern Québec, approximately 70 kilometres north of Rouyn-Noranda and 15 kilometres southeast of the town of Macamic. The property consists of two claim lots (lots 59 and 60) totalling 84.82 hectares, in range VI, Poularies Township (**Table 1**), as illustrated on **Figures 1, 2, and 3**.

As shown on the claim map (**Figure 3**), the Rivière Lois West Prospect consists of four claims in lots 55 to 58, range VI, Poularies Township; the Rivière Lois East prospect consists of three claims including lots 61 and 62, range VI, Poularies Township, and lot 1, range VI in Privat Township; and the Rivière Lois South Prospect consists of three claims in lots 59 to 61, range V, Poularies Township.

Access to the property was gained from the paved Noranda-Macamic and Duparquet-La Sarre highways by a network of roads along range lines and lot lines. From Rouyn-Noranda, the route is along highway 101 north up to the village of Poularies, and then east along the Chemin des Pionniers (highway 390) for 8 kilometres to the north boundary of the property.

The topography in general is flat to gently rolling forested terrain with the occasional steep-sided hill, except where there are farms, some of which are abandoned. A thick mantle of glacial lake clays covers most of the bedrock except for a few areas where outcrops are more abundant. Several broad and low irregular ridges of sand and gravel trend across the area. Rivière Lois is located approximately one kilometre south of the property, flowing northwest-southeast. Swamp and several small creeks are found in the area. Supplies and manpower are readily available in the general area.

A detailed description of the Rivière Lois Central property is presented in **Table 1**, listing the claim numbers, specific claim location (lots 59 and 60, range VI, Poularies Township) (**Figure 3**), claim size, claim recording and claim expiry dates.

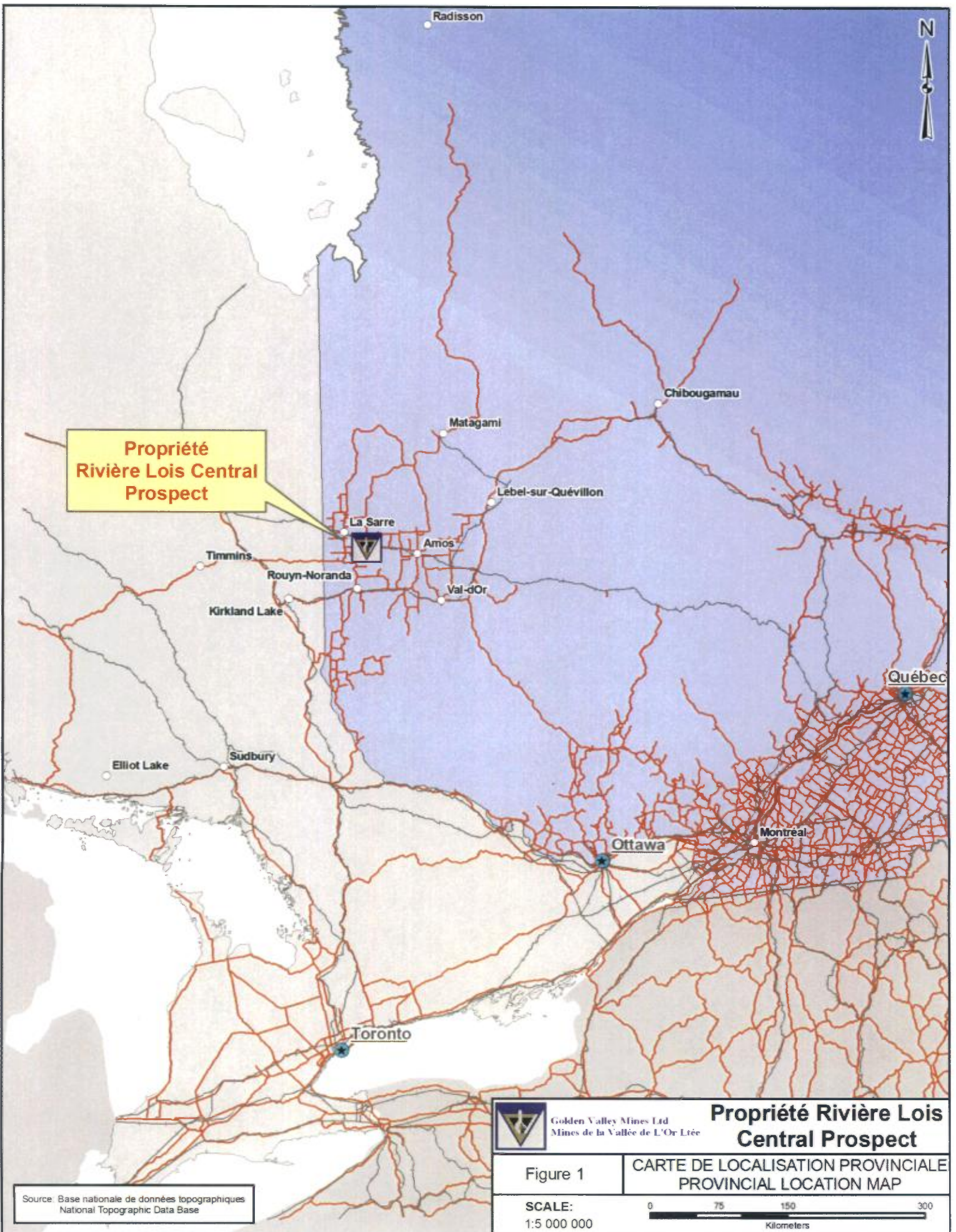
**Table 1: List of Claims - Rivière Lois Central Prospect**

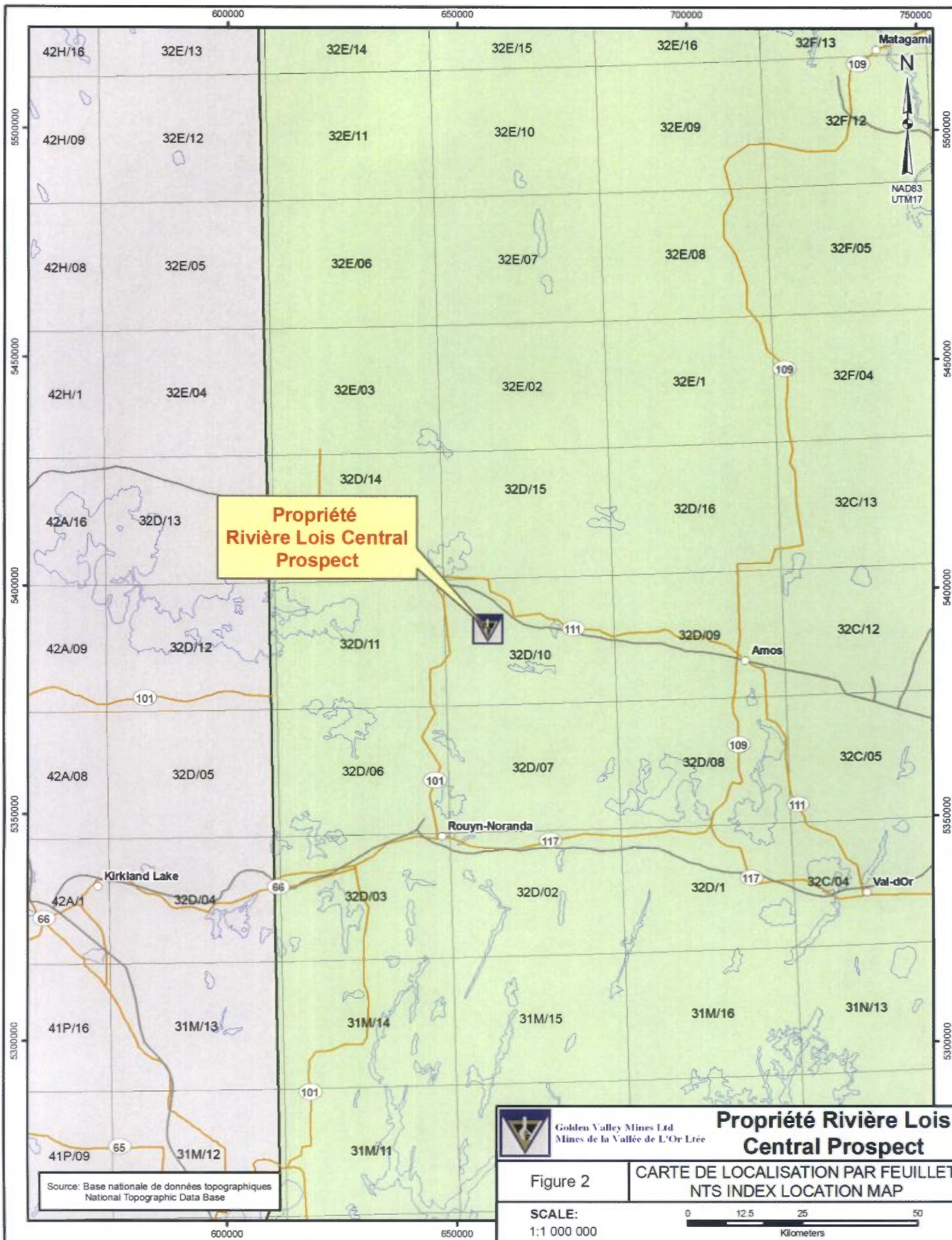
<b>Claim</b>	<b>Recording Date</b>	<b>Expiry Date</b>	<b>TWP</b>	<b>Range</b>	<b>Lot</b>	<b>Ha</b>
2215880	2010-04-19	2012-04-18	Pouliaries	6	59	42.41
2215881	2010-04-19	2012-04-18	Pouliaries	6	60	42.41

The property has not been surveyed since the recording date. The boundaries of the two claims are defined by Nad 83, UTM Zone 17 as shown on **Table 2**.

**Table 2: Boundaries of claims – UTM coordinates, Zone 17; NAD 83**

<b>Claim number</b>	<b>NE corner</b>	<b>SE corner</b>	<b>SW corner</b>	<b>NW corner</b>
2215880	656728 N 5391986 E	656772 N 5390363 E	656511 N 5390356 E	656467 N 5391979 E
2215881	656989 N 5391993 E	657033 N 5390370 E	656772 N 5390363 E	656728 N 5391986 E





**Propriété  
Rivière Lois Central  
Prospect**



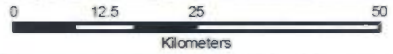
Golden Valley Mines Ltd  
Mines de la Vallée de L'Or Ltée

**Propriété Rivière Lois  
Central Prospect**

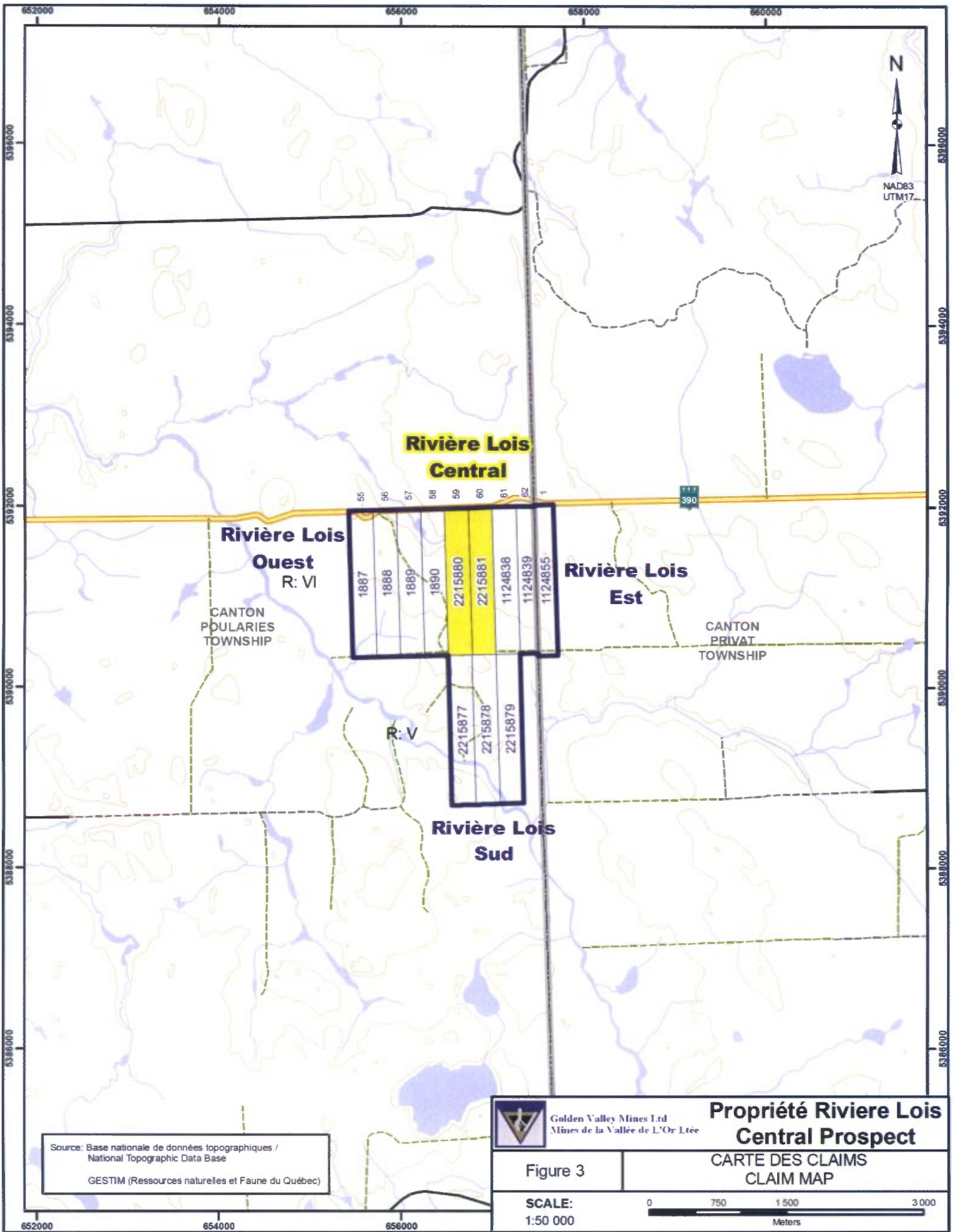
Figure 2

CARTE DE LOCALISATION PAR FEUILLET  
NTS INDEX LOCATION MAP

SCALE:  
1:1 000 000



Source: Base nationale de données topographiques  
National Topographic Data Base



### 3.0 REGIONAL AND LOCAL GEOLOGY

#### 3.1 Regional Geology

The Rivière Lois Central Prospect is located in the south-central part of the Abitibi Greenstone Belt. This geological terrane lies within the Eastern Superior Province of the Precambrian Canadian Shield. The Abitibi Greenstone Belt is characterized by numerous Archean volcano-sedimentary belts and igneous intrusive complexes that are cross-cut by NNE to ENE striking Proterozoic diabase Dikes. The general metamorphism degree is greenschist facies (Figure 4).

The Abitibi Greenstone Belt extends in a northeasterly direction for about 700 kilometres between the Kapuskasing gneiss belt in the west and the Grenville Province in the east. The belt is approximately 300 kilometres in width, and averages about 500 kilometres in length in an east-west direction, making it the largest recognized greenstone belt in the world. There are many fault zones and deformation corridors within the Abitibi Greenstone Belt. The Cadillac-Larder Lake and the Destor-Porcupine Fault Zones are the major tectonic gold deposition structures.

The Abitibi Greenstone Belt is subdivided into the Northern Volcanic Zone and the Southern Volcanic Zone along the Destor-Porcupine-Manneville Fault Zone (Chown, Daigneault, Mueller and Mortensen, 1992). The Destor-Porcupine-Manneville Fault Zone is interpreted to be the locus of Archean terrane docking between the older diffuse volcanic arc of the Northern Volcanic Zone, aged 2730-2710 Ma, and the younger arc segments of the Southern Volcanic Zone, aged 2705-2698 Ma (Mueller, Daigneault, Mortensen and Chown, 1996). The Rivière Lois Central Prospect is located within the Northern Volcanic Zone of the Abitibi Greenstone Belt.

The rocks of the Hunter Mine Group (HMG) make up the underlying geology of the Rivière Lois Prospect. This 6 to 7 kilometre-thick south-facing volcanic sequence is located on the southern limb of the west-closing Lac Abitibi anticline. The HMG is a complex amalgamation of volcano-sedimentary strata that are locally displaced along north-trending faults, or are intruded by Dikes. Subtle small-scale faults and syn-sedimentary folds are common. An extensive north-trending felsic Dike swarm cuts the 100° to 120°-striking felsic flows, iron-formations and pyroclastic stratigraphy at high angles (60°-90°). In addition, gabbroic-dioritic intrusions such as the Roquemaure Sill intrude the HMG (Mueller and Mortensen, 2001).

The HMG is made up of five felsic dominated, calc-alkaline volcanic units and one sedimentary unit. These are, from bottom to top, the Rhyolite Lac Morin (RLM), the Andesite Rivière Lois (ARL), the Rhyolite Lac Séguin-Lyndhurst (RSL), The Breccia Chemin Laferté (BCL), The Andesite Laferté (AL) and the sediments of the Formation Lois (FL) (Verpaelst and Hocq, 1989).

The quartz-diorite Palmarolle Pluton separates the granodiorite Poularies Batholith, to the east, from the granodiorite Palmarolle Batholith to the west within the HMG (Rive, 1994). These syn- to late-tectonic intrusions separate the HMG into an eastern part and a western part (Verpaelst and Hocq, 1989) that is connected by a 1 to 2 kilometre-wide corridor of HMG rocks to the south of the Palmarolle/Poularies massif. These batholiths are considered to represent the syn-volcanic magma chamber of the Hunter Mine Group. The Rivière Lois Central Prospect is located in the eastern part of the HMG.

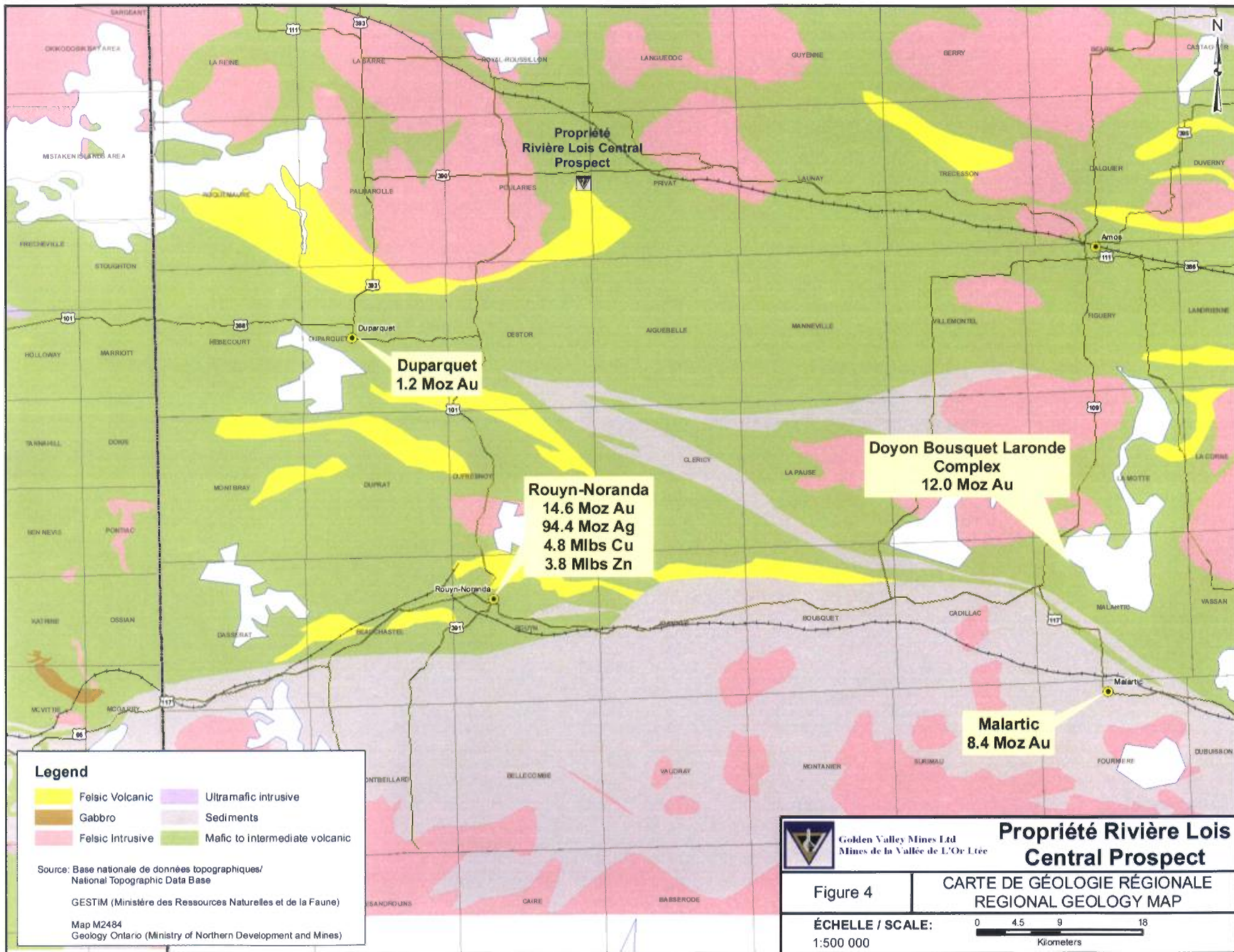
The 0.2 to 2 kilometre-thick mafic-ultramafic volcanic cycle of the Stoughton Roquemaure Group (SRG) conformably overlies parts of the HMG. This sequence flooded the deep water Hunter Mine Caldera so that segments may well represent deep-water oceanic plateaus. These mafic and ultramafic rocks are made up of pillowed, brecciated and massive columnar-jointed flows. The SRG is composed of tholeiitic basalt, komatiitic basalt and komatiite (Dorstal and Mueller, 1997).

The tholeiitic basalt flows of the Kinojevis Group form the southern boundary of the HMG along the Lyndhurst Fault. This structure has been interpreted as a reactivated normal fault contemporaneous with the eruption of the Kinojevis Group and is associated with a sedimentary prism of the Lois Group along the margins of the fault (Labbé, 1994).

The past-producing Lyndhurst Mine is located within the HMG in the immediate area of the Lyndhurst Fault. Mineralization consists of pyrite, pyrrhotite, chalcopyrite, sphalerite and some galena. Past production was 156,362 tonnes of 1.93% Cu. Past assessment work reports indicate that 61,238 ounces of gold and 152,165 ounces of silver were extracted, but no grade has been assigned to these metals in the deposit (Verpaelst and Hocq, 1989).

In 1998, Globex Mining Enterprises Inc. carried out a diamond drilling program in an area approximately one kilometre southwest of the Lyndhurst Mine shaft. Three of the boreholes intersected massive pyrite, chalcopyrite, sphalerite and pyrrhotite. DDH-LY-98-06 intersected 3.14% Cu and 28.8 g/t Ag over a length of 8.37 metres, including a 6.43 metre section between 1444.15 metres and 1450.58 metres that averaged 3.92% Cu and 34.97 g/t Ag. A second massive-sulphide zone was intersected 24.7 metres below this zone averaging 11.27 metres of 0.10% Cu, 2.04% Zn and 15.8 g/t Ag (globex mining.com).

The VMS gold-rich Noranda Caldera is strikingly similar to the Hunter Mine Caldera. Both formed over a 6-million year time span from 2703Ma to 2697Ma, and both have comparable stratigraphic thicknesses that display similar volcanic lithofacies and syn-volcanic structures.



Propriété  
Rivière Lois  
Prospect

Duparquet  
1.2 Moz Au

Rouyn-Noranda  
14.6 Moz Au  
94.4 Moz Ag  
4.8 Mlbs Cu  
3.8 Mlbs Zn

Doyon Bousquet Laronde  
Complex  
12.0 Moz Au

Malartic  
8.4 Moz Au

**Legend**

- Felsic Volcanic
- Gabbro
- Felsic Intrusive
- Ultramafic intrusive
- Sediments
- Mafic to intermediate volcanic

Source: Base nationale de données topographiques/  
National Topographic Data Base

GESTIM (Ministère des Ressources Naturelles et de la Faune)

Map M2484  
Geology Ontario (Ministry of Northern Development and Mines)



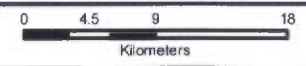
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**Propriété Rivière Lois  
Central Prospect**

Figure 4

CARTE DE GÉOLOGIE RÉGIONALE  
REGIONAL GEOLOGY MAP

ÉCHELLE / SCALE:  
1:500 000



### 3.2 Local Geology

Based on the Ministère des Ressources Naturelles et de la Faune (MRNF) geological reports DP 87-06 and ET 89-01 by Pierre Verpaelst and Michel Hocq (1986 and 1989) covering the HMG, the Rivière Lois Central Prospect lies approximately four kilometres to the north of the Lake Abitibi Anticline. The geological map accompanying ET 89-01 shows that the Laferté Andesite (AL) underlies the northeast part of the property, and is separated from the Rivière Lois Andesite (ARL) to the southwest by a band of gabbro and diorite. The geological map shows that this "Sill" hosts "rafted inclusions of Rhyolite" (?), presumed to originate from the Lac Seguin-Lyndhurst Rhyolite. This intrusive unit is inferred to represent the Roquemaure Sill (Mueller and Mortensen, 2001).

The geology of the Rivière Lois Prospect, as presented on MRNF Map 32D/10 "Regroupement des données géoscientifiques", shows essentially the same geology as that mapped by Verpaelst and Hocq, except for the area in the northwest part of the property which now includes a unit of rhyolite in contact with the Roquemaure Sill, the Laferté Andesite unit, and the Rivière Lois Andesite unit. The presence of rhyolite at this location is confirmed in assessment work reports submitted to the MRNF by mining exploration companies previously operating within the confines of the Rivière Lois Prospect (Logan, 1967; Chartré, 1982; and Beauregard, 1992).

Previous diamond drilling within and immediately proximate to the Rivière Lois Central Prospect has intersected diversified assemblages of andesite, rhyolite, dacite, diorite, tuff and agglomerate as well as graphitic and chert horizons and the occasional diorite intrusion.

Within this northeastern segment of the HMG, including the Rivière Lois Central Prospect, the dominant structural grain is north-northwest along the northern limb of the Lac Abitibi antiform.

## **4.0 PREVIOUS WORK**

### **4.1 Regional Geology**

#### **MRNF**

In 1972, P.R. Eakins mapped an area of approximately 200 square miles in Palmarolle and Poularies Townships at a scale of 1: 12000. The detailed mapping project included the adjoining lots 54-58 to the west, south lots 54-58, and south of lots 59 and 60 in range V, but there is scant data to the east and the north, probably due to swamps around small creeks. The project included lots 59 and 60, range VI, Poularies Township, the subject of this report (Eakins, 1972). The relevant data are discussed in the section on the Property Geology.

Also, in 1972, Eakins mapped Privat Township, adjacent to Poularies Township. That mapping programme was covered in M.E.R.'s publication, DP 222, and did not include lots 59 and 60, range VI, Poularies Township (Eakins, 1972).

In 1987, Pierre Verpaelst and Michael Hocq (Verpaelst and Hocq, 1987) mapped Poularies and Privat Townships in detail, including lots 59 and 60, range VI, Poularies Township. In 1987, the geological report DP87-06 on the Geology of the Hunter Mine Group, Poularies and Privat Townships was included on a single map sheet. A subsequent report, ET 89-01 issued in 1991, was a more complete publication including excellent photographs showing various lithological units, including various occurrences of rhyolite in the area. The observations of Verpaelst and Hocq are discussed in detail in the section on Property Geology.

### **4.2 Local Geology**

#### **Cossette Claims**

In 1953, a magnetometer survey was carried out over lots 55 and 56, range VII, and a small part of lot 55, range VI in Poularies Township. This small part of the northwest corner of lot 55, range VI falls within the present boundaries of the Rivière Lois West Prospect. The magnetic data collected is presented on a blueprint map at a scale of 1 inch to 100 feet. A magnetic anomaly is plotted onto the north and south sides of range line VI and VII, and is interpreted to be a probable mineralized zone (Germain, 1953).

#### **Southern Union Oils**

Southern Union Oils carried out a geological survey, and electromagnetic and magnetic surveys over lots 55 to 60, range V, Poularies Townships in 1957 (Sherwood, 1957). Geologically, the rocks underlying the property were regarded to be part of the Keewatin series of lavas and associated pyroclastics, intruded by "porphyritic diorite, and syenite porphyry, and possibly by a large sill of diorite." The general strike of formations were found to be northwest to north-northwest, with steep dips to the north." The mineralized

zones were very small and did not indicate the presence of any massive or disseminated mineralization.

Four small isolated magnetic anomalies were outlined on the property and were inferred not to be caused by sulphide mineralization. No important electromagnetic conductors were found.

### **Moore Claims**

In 1965, a large quartz/chalcopyrite vein was discovered by S. G. Moore about 300 feet south of Highway 390, and 500 feet southwest of the northeast corner of Lot 55, Range VI, Poularies Township. This area falls along the projected strike of the magnetic anomaly detected on the Cossette Claims. The vein was uncovered for a length of 150 feet and overburden stripping by a bulldozer exposed an area of about 200 feet by 400 feet. The 20 to 28-foot wide vein is interlaced with schist and altered diorite. Abundant accumulations of chalcopyrite and bornite are associated with the basic inclusions contained in the quartz vein. The quartz vein itself is lightly mineralized with chalcopyrite. The strike of the vein is N30°W, and the dip appears to be vertical. The west-wall is a highly altered diorite containing considerable chalcopyrite and coarse pyrite. The east-wall is rhyolite containing disseminated chalcopyrite. Grab samples taken of the mineralized quartz and basic inclusions returned assay values of 3.61% Cu and 2.46% Cu (Logan, 1967; Moore, 1967).

In 1992, Placer Dome also examined the area around the Moore showing. "Near the limit of range VI and VII of Poularies Township, in lot 55, interesting values were revealed at the contact between gabbro and rhyolite within a quartz-sulfide-carbonate rich zone (1.83 g/t Au; 60 g/t Ag; 6.60% Cu; 260 ppm Zn)" (Beauregard, 1992). The accompanying geological map shows an extensive outcrop complex of porphyritic intermediate rocks as well as granodiorite, rhyolite, dacite and andesite. A northwest-trending, 250 metre wide mineralized zone containing pyrite and pyrrhotite is shown striking into range VII. The high-grade copper sample and southern part of this mineralized zone plot directly over the Moore Showing.

About 400 feet north of Highway 390, and 800 feet directly north of the quartz chalcopyrite vein, in lot 55 of range VII, a zone of fracturing and rhyolite breccia occur that contains chalcopyrite, bornite, pyrite and pyrrhotite. The rhyolite in the local area appears to be porphyritic (Logan, 1967; Moore 1967).

### **Doyon Claims**

In 1982, Services Exploration Enr. carried out geological and geophysical surveys, as well as a diamond drill program, over the A. Doyon claims in Poularies Township that included the north half of the present Rivière Lois West Prospect. The geological survey reports on the quartz/chalcopyrite vein of the Moore Showing, as well as trenches in range VII to the north and northwest of the property. The Total Field Magnetic survey data complimented the geological survey in that it further defined the diorite intrusions,

apparently including the "sill" of gabbro, shown on SIGÉOM's compilation map 32D/10, striking NNW-SSE, from the north part of lots 56-58 into lot 59, range VI, Poularies Township – one of the two lots described in this report. Overburden conductors were traced from the VLF Electromagnetic survey. The dipole-dipole Induced Polarization geophysical survey over selected lines defined four anomalies that merit consideration as diamond drill targets. One of these targets is located at the southern limit of the stripped area that hosts the Moore Showing within the Rivière Lois West Prospect (Chartré, 1982).

IP target D was drill-tested in DDH L-I-82. The drillhole was collared 20 metres east and 160 metres south of the survey pin marking the common boundary of lots 55 and 56 on the range line VI/VII of Poularies Township. DDH L-I-82 was drilled at an azimuth of 225°, at a dip of -45°, over a total length of 125.3 metres, including 3.5 metres of overburden. The drilling intersected units of dacite and diorite which carried inclusions of altered volcanic rock in some intersections. Quartz/carbonate veinlets were logged in some intersections, and narrow quartz veins with inclusions were also intersected. Seven samples were taken from a 9.2 metre intersection in a zone of diorite with altered volcanic inclusions containing disseminated pyrite in quartz veins and veinlets. The highest values reported from assay analyses for gold and silver were 0.005 opt Au and 0.10 opt Ag (Chartré, 1982).

In 1983, an IP survey was carried out on selected lines that were not covered by the 1982 IP survey. The only part of this survey that touched on the Rivière Lois West Prospect was 750 metres of dipole to dipole readings taken on Line 1 South, from the base-line to station 7+50E. No anomalies were obtained from the survey on this section of the property (Chartré, 1983).

#### **Exploration Orbite VSPA Inc.**

In 1990 and 1991, Exploration Orbite carried out a program of geological mapping, prospecting of geophysical and soil geochemistry anomalies, and stripping of a showing (87-10) in Privat Township, adjacent to Poularies Township. This project was started in 1990, completed in 1991, and covered a large area of Privat and Poularies Townships, including the subject of this report, lots 59 and 60, range VI, Poularies Township.

#### **Placer Dome Inc.**

In 1992, Placer Dome carried out a detailed geological mapping program over 150 claim lots (6,000 hectares), in ranges I-IV, Privat Township and ranges II-VII, Poularies Township.

Placer Dome's geological mapping project covered lots 59 and 60, Range VI, Poularies Township, which are the two lots covered in this report. Placer Dome's data and interpretation of the geology over lots 59 and 60, range VI, are discussed in the section on Property Geology (Beauregard, 1992).

## **Golden Valley Mines Ltd.**

In August, 2003, Golden Valley Mines carried out magnetic and IP surveys over lots 61 and 62, range VI, Poularies Township and lot 1, range VI, Privat Township (Rivière Lois East Prospect). In-house geophysical interpretation of the data received from the contractor was completed by Golden Valley's geophysicist. Following a comprehensive geological and historical exploration work compilation, a proposed drill program was completed. In March, 2004, two diamond drillholes, totalling 260 metres, tested two different priority geophysical targets on the original three claims of the Rivière Lois East Prospect.

DDH GRL-04-02 was collared on the northeast corner of lot 60, range VI, Poularies Township, and was drilled to test an IP anomaly of moderate chargeability. The drillhole was oriented at 044° (grid north), at an inclination of -45°, and approximately 40 metres was located on lot 60, range VI. The drillhole penetrated 28 metres of overburden and continued into the northwest corner of lot 61, terminating over a length of 110 metres at the northern boundary of lot 61. The drillhole intersected a well-foliated and altered Intermediate Crystal Tuff. Alteration consisted of an early, weakly developed, mottled sericitization, overprinted by silicification, imparting a cherty texture to the rock. A cherty medium grey altered zone from 33.60-39.22 metres yielded some weakly anomalous, above background gold values. 2-3% disseminated cubic pyrite proximal to the base of the alteration zone possibly reflect the causative source of the IP anomaly. The drillhole also intersected two feldspar porphyry Dikes at 70.55-73.13 metres, and at 95.14-102.12 metres, intruding the Intermediate Crystal Tuff (Rosatelli, 2005).

DDH GRL-04-01 was located in lot 61, range VI, approximately 100 metres east of the boundary line between lots 60 and 61, range VI, Poularies Township. The drillhole was drilled at 044° azimuth (grid north) at an inclination of -45°, totally within lot 61, to test a moderately and well-defined chargeability IP anomaly. After penetrating 29.24 metres of overburden, the drillhole also intersected an Intermediate Crystal Tuff at 29.24-38.20 metres. Pyrrhotite mineralization was well-developed and concentrated along vein margins, and copper values of 372 ppm Cu and 158 ppm Cu were obtained in this intersection.

A cherty exhalite unit was intersected at 38.20-38.72 metres with well-developed pyrrhotite mineralization concentrated along the contacts of calcite/quartz-filled healed fractures. Assay results for zinc and copper from samples within this intersection included 372 ppm Zn and 158 ppm Cu. A narrow Intermediate Lapilli Tuff horizon was intersected at 100.80-101.70 metres and, below 106.50 metres, alteration intensity increased imparting a distinctive cherty grey, fine to granular silicified (cherty) appearance to the groundmass. The Intermediate Crystal Tuff was intersected to the end of the drillhole at 150 metres (Rosatelli, 2005).

In 2005, Golden Valley Mines carried out magnetic and IP surveys over claims 1887, 1888, 1889 and 1890 that make up the Rivière Lois West Prospect (Bérubé, 2005).

In 2008, Golden Valley Mines drilled three holes on lots 56 and 57, range VI, Poularies Township totalling 348 metres to test IP anomalies associated with magnetic signatures (Lacey and Boubakour, 2011).

DDH GRL-08-01 was located in lot 57, 450 metres west of lot 59, and 300 metres north of range line V/VI. The drillhole intersected mainly Intermediate Volcanic throughout its length of 120 metres, except for an Intermediate Intrusion at 79.08-91.06 metres. Traces to minor amounts of pyrite, with traces of chalcopyrite and specularite locally over centimetre-scale sections, were intersected. A gold value of 0.043 g/t Au was obtained over 26 cm. in a pyritiferous section at 26.78 metres. However, other centimetre-scale pyritiferous samples returned values of only 0.006-0.008 g/t Au.

DDH GRL-08-02 was drilled in lot 56, 350 metres north-northwest of GRL-08-01 to test an IP anomaly along the same strike as the lineament targeted in GRL-08-01. The drillhole intersected Intermediate Volcanics intruded by Intermediate Intrusions at 87.11-90.31 metres, and at 92.33-92.99 metres – the same lithological units intersected in DDH GRL-08-01. Gold values of 0.016 g/t Au and 0.013 g/t Au were obtained at 65.46-65.75 metres, and at 85.50-85.80 metres respectively, in strongly albitized and silicified zones.

DDH GRL-08-03 was collared on the northern part of lot 57, range VI, Poularies Township and drilled to the southwest. The drillhole was targeted at an IP anomaly and should have intersected Intermediate Volcanics as shown on SIGÉOM's compilation map 32D/10. The compilation map shows a 250 metre wide northwest-southeast trending "Gabbro sill" displaced by an interpreted fault to the northeast and subsequently trending into lot 59, range VI, towards the southeast corner of lot 59. The drillhole intersected Gabbro throughout its length with only a short (2.78 metres) inclusion of Andesite at 59.70-62.48 metres, and a short Intermediate Intrusive at 112.93-119.67 metres.

Detailed mapping of seven outcrops over an area of 100 x 150 metres by MRNQ (Eakins, 1972) in lot 58 shows a 100 metre wide Diorite Dike, trending at 145°, 40 metres southwest of the position of the "Gabbro sill" shown on SIGÉOM's compilation map 32D/10. The Diorite Dike is located on a projected continuous trend from DDH GRL-08-03, implying that SIGÉOM's interpretation of the "Gabbro sill" being displaced by a fault to the northeast is incorrect, as shown on compilation map 32D/10.

Anomalous copper and silver values were obtained from two quartz/carbonate veins with 3% pyrite and 5% chalcopyrite. At 111.54-111.72 metres, an 18 cm sample returned assay results of 1.555% Cu, 2.2 g/t Ag, and 0.055 g/t Au. At 111.90-112.09 metres, a 19 cm sample returned assay results of 0.966% Cu and 2.8 g/t Ag. Preceding these intersections at 111.00-111.54 metres, a 54 cm sample of a quartz/carbonate vein with 3% pyrite returned an assay result of 1.1 g/t Ag.

### 4.3 Property Geology

The present section summarizes the previous geological and geophysical work completed on lots 59 and 60, range VI, Poularies Township, referred to as the Rivière Lois Central Prospect, between Golden Valley's Rivière Lois West, East and South Projects.

#### MRNF (North Half of Palmarolle and Poularies Townships)

P.R. Eakins (Eakins, 1972) mapped lots 59 and 60, range VI at a scale of 1:12000 in 1972, as part of a large area in Palmarolle and Poularies Townships.

The northern part of lot 59 and all of lot 60, range VI, Poularies Township, is covered by swamp. A creek flows northeast through the northern part of lot 59 and swings directly north for 150 metres through the middle of lot 60. Another creek originating from 500 metres north of the range line V/VI, just west of the boundary line of lots 59/60 flows southeast across lot 60, and then south-southeast through the corner of lot lines 61/62, and range lines V/VI. This latter creek seems to originate from the central part of lot 59, range VI, Poularies Township, where there is a 350 metre long by 15 metre wide area of outcrops. Twelve 5 to 10 metre outcrops were mapped as Rhyolite on this outcrop area with recorded shearing (schistosity) of 140° azimuth, 65°S. Directly west of this area of outcrop, in lot 58, a 100 metre wide band of a diorite Dike, interpreted from a cluster of seven outcrops, strikes at 144° azimuth (south-east) over 400 metres and is shown as ending close to the boundary line of lots 58/59. Both the northwest and southeast ends of the Diorite Dike are bordered by swamp. SIGÉOM's compilation map 32D/10 shows a "Gabbro Sill" striking south-southeast through lot 58 and curving gently to the south into lot 59 where it appears to be a projection of the Diorite Dike mapped by MRNF(Eakins, 1972) in lot 58. However, the "Gabbro sill" on SIGÉOM's compilation map 32D/10 is shown in lot 59 over a 150 x 60 metre cluster of outcrops mapped by MRNF as Rhyolite in lot 59. The interpretation by SIGÉOM of the Gabbro sill is further contradicted by other mapping carried out in lot 59 by other workers. In fact, Exploration Orbite (see below, Simoneau, 1991) mapped a 34 metre band of Dacite, close to MRNF's cluster of Rhyolite outcrops, in the exact position of SIGÉOM's interpreted "Gabbro Sill".

200 metres south along the lot line, another area of outcrops, 150 metres wide, mapped by MRNF as Rhyolite, trends southeast to the lot-lines 59/60, where they are recorded as Dacite. Outcrops are scattered over 300 x 200 metres immediately south of range line V/VI. At the corner of lot line 58/59 and range line V/VI, outcrops are mapped as Andesite, as Dacite on the southeast corner of lot 59, and as Rhyolite 150 metres south of range line V/VI. There is no interpretation of the lithological boundaries between these units and this is understandable because the Rhyolites and Dacites are difficult to distinguish when sheared and shearing has been recorded at the range line as 100° azimuth, 85°S; and at 250 metres north along lot-line 59/60, shearing has been recorded at 118° azimuth.

### **MRNF (Pouliaries and Privat Townships)**

The northern part of Lots 59 and 60, Range VI, of Pouliaries Township is lacking in outcrop. More than two-thirds of the two lots are covered by a swamp in the north. Geological mapping has been restricted to outcrop exposures in the southwest corner of lot 59.

In 1987, Pierre Verpaelst and Michel Hocq mapped a large area of Privat and Pouliaries Townships at a scale of 1:20,000 (Verpaelst and Hocq, 1991). Lots 59 and 60, Pouliaries Township lie along the northern boundary of the mapped area. The geological map and report are presented on document DP 87-06. Document ET 89-01 presents the same map but a more complete report with excellent photographs, particularly of various Rhyolite outcrops including massive Rhyolite, Rhyolite with columnar jointing, and fragmental Rhyolites.

A 500 metre wide Diorite Dike is shown striking at azimuth 145° from the northern boundary of lots 54 and 55 (also the northern boundary of the mapped area), crossing lots 56, 57, and 58, and across the southwest corners of lots 59 and 60, range VI. The location of the Diorite Dike in lot 58 coincides with the 100 metre wide Diorite Dike mapped by MRNF (Eakins, 1972). The width of the Dike is interpreted from three outcrops located in lot 55, range VI, one outcrop near the boundary line of lots 57 and 58, one outcrop on the boundary line of lots 58 and 59, and one outcrop south of lot line 58/59 in range V. These appear to be outcrop areas and there is no indication of the actual size of the outcrops.

The northeastern margin of the Diorite Dike, as interpreted on DP 87-06, defines a triangle within the southwest corner of lots 59 and 60, range VI, with a north-south dimension of 600 metres along the lot-line 58/59, and an east-west dimension of 400 metres along the range-line V/VI. A 750 metre long, and 100 metre wide canoe-shaped inclusion ("raft") of Rhyolite is interpreted trending within and parallel to the Diorite Dike across the southwest corner of lots 59/60, range VI, Pouliaries Township. The Rhyolite inclusion (xenolith) is interpreted from a 150 metre wide outcrop area on the western boundary line of and partially within lot 59, range VI. Verpaelst and Hocq mapped an area of 500 x 800 metres of swamp over most of the northern part of lots 59 and 60, range VI, Pouliaries Township. A 500 to 650 metre wide band of Dacite has been interpreted through the rest of lots 59 and 60, range VI, along the same 145-degree orientation as the Diorite Dike, but no outcrops are shown to justify this interpretation in the immediate area, except 2,200 metres southeast of the southeast corner of lot 60, range VI. Further east, a band of Rhyolite lavas, breccias, and tuffs also trend diagonally (northwest-southeast) across the map area. These Rhyolite bands are the oldest members of the volcanic sequence identified in the region (Verpaelst and Hocq, 1986).

The NW-SE trending Diorite/Gabbro Dikes are identified as the youngest intrusions which intrude the volcanic rocks and the granitoid rocks of the Palmarolle Pluton. The Rhyolites and Dacites are the major lithological units volumetrically of the volcanic rocks

in the Hunter Mine Group. These two units are difficult to distinguish when they are sheared and schistose, but the Rhyolites are aphanitic, light-coloured on their weathered surfaces and fracture conchoidally. The Rhyolites generally contain quartz or plagioclase phenocrysts. They are present as flows, but more often fragmentary hydroclastic and/or pyroclastic. The geological map shows Tuff as a separate lithology from Rhyolite and Dacite. The massive Rhyolites may be spherulitic or display amygdules filled with quartz, chlorite, epidote or calcite. The Dacites are a bit darker on the weathered surfaces, generally aphyric containing fine feldspar laths (Verpaelst and Hocq, 1986).

#### **Exploration Orbite VSPA Inc.**

From September 29, 1990, to October 29, 1990, Exploration Orbite carried out a program of geological mapping, and prospecting over geophysical and geochemical soil anomalies on freshly cut lines over 5,480 hectares in Privat Township, ranges II to VI. A summary report was written in November, 1990, by Pierre Simoneau which showed that the property and geological mapping covered lots 58-62, range VI, Poularies Township. That report was filed in June, 1991, and discussed anomalies, showings and diamond drillholes mainly in the eastern part of the property. Brief mention was made of the volcanic rocks in the western part of the property, but without any specific locations.

From June 11, 1991 to July 19, 1991, Exploration Orbite carried out a program of geological mapping, prospecting over geophysical and geochemical anomalies, and stripping of the showing 87-10 on the above-mentioned property. A complete, detailed report, including the work carried out in 1990, was filed in November, 1991. The accompanying compilation map shows detailed mapping at a scale of 1:2500 of lots 59 and 60, range VI, Poularies Township, the westernmost part of the area mapped. The compilation map shows the geophysical work carried out, including magnetometer and VLF EM.

More than three-quarters of lots 59 and 60, range VI, Poularies Township is shown as swamp. In the central part of lot 59, eight outcrops were mapped as Tuff and/or Dacite. Rhyolite, Dacite, and Tuff were mapped in detail over an outcrop area from 190 to 450 metres north of range line V/VI. The geological map shows a 30 to 40 metre band of Dacite striking 157° azimuth over a strike length of 230 metres. The southwest side of the Dacite is in contact with a parallel wedge of diorite widening to 20 metres to the southeast. A 50 x 100 metre outcrop of Rhyolite has been mapped immediately adjacent to the Diorite. A small cluster of outcrops 150 metres to the east was mapped as Tuff, sheared at 130° azimuth, dipping 86°NE. Another outcrop of Tuff, 100 metres south along the line, just 30 metres east of the Dacite band is sheared at 118° azimuth, dipping 84°N. In the southwest corner of lot 60, range VI, four outcrops were mapped as Dacite and, 50 metres north of those, five outcrops were mapped as Tuff, sheared at 155° azimuth, dipping 82°NE. In summary, except for the wedge of Diorite mentioned above, Felsic volcanic rocks were identified in the southern part of lots 59/60, range VI, Poularies Township, by Exploration Orbite. The variation in shear direction in the Tuff suggests folding but not enough data is presented to interpret any structures.

## Placer Dome

Placer Dome carried out a geological mapping program over 150 claim lots (6000 hectares) in Poularies and Privat townships in June-July, 1992. Mapping was conducted along pre-existing north-south grid lines spaced at 100 metre intervals, and the project included lots 59 and 60 in range V and VI, Poularies Township.

No outcrops are shown on the northern part of lots 59 and 60. A circular outcrop of Rhyolite, 45 metres in diameter, was mapped within lot 59, 800 metres south of the range-line VI/VII. Another 200 x 150 metre circular outcrop area was mapped further south with the eastern margin of the outcrop area straddling the lot-line 59/60 where a shear was identified on the lot-line at 142° azimuth. Two <10 metre "porphyritic intrusive Dikes" oriented north-south were mapped across the circular outcrop area, and the rest of the outcrop area was mapped as Andesite with two 20 to 30 metre margins of Rhyolite on the east and the west sides of the circular outcrop area. The large part of the outcrop area is mapped as Andesite but it may have been difficult to distinguish between Intermediate Volcanic and Intermediate Intrusive (possibly Diorite).

Further south, a 400 x 200 metre outcrop area was mapped, 95% of which is in range V. This outcrop area shows a trench at the southern limit of the outcrop area with quartz veins, hematite, pyrite, and carbonate. Joints were measured at 022°, dipping 30°NW. The outcrop area is mapped as Rhyolite with 30-40 metres of diorite on the west side trending 155° azimuth. A northeast-southwest fault is shown bisecting the outcrop area with a 20 metre displacement of the diorite contact to the southwest. This fault seems to be interpreted from SIGÉOM's compilation map 32D/10, but no data has been found to justify the fault on this map or on SIGÉOM's compilation map.

West of lot-line 58/59, and south of range-line V/VI, a 450 metre outcrop area has been mapped showing another trench, identified as a mineralized zone, and lithological symbols indicating Andesite, Rhyolite, Dacite, and several sample numbers listed. The southwest margin of this outcrop area is 200 metres northeast of Rivière Lois. Between the outcrop area and that mentioned above, a 200 metre wide Diorite Dike is interpreted trending northwest-southeast.

#### 4.4 Regional Geophysics (Airborne)

A MegaTEM II airborne survey was conducted by Fugro Airborne Surveys for Noranda Exploration (now Xstrata Zinc), between July and August, 2003 (DP-2008-13). The survey (area "Hunter Sheet K - East") covered about 6,883 line kilometres, including lots 59 and 60, range VI, Poularies Township.

The magnetic data show weak to moderate anomalies, which define a northwest regional structure. According to SIGÉOM, these anomalies are interpreted to be produced by Gabbro Sills (?).

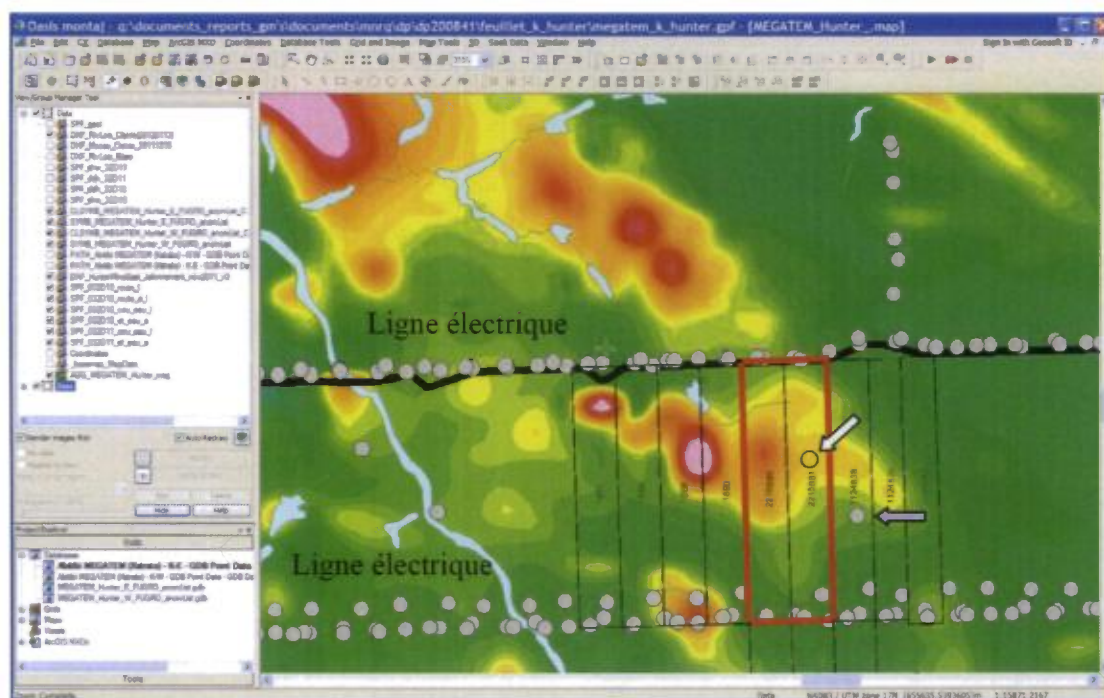
MegaTEM II anomalies are sparse in the area. One anomaly was detected in lot 61, range VI, Poularies Township (see the grey arrow in **Figure 5**). That anomaly (FTL 280301, fiducial 47163) is weak. Its conductance and depth to top are undetermined.

There is no MegaTEM II anomaly identified (Fugro's auto-picks) on the two claims under study, but a weak one may be interpreted over FL 212601, fiducial 53932, on lot 60, range VI, Poularies Township (see the white arrow on **Figure 5**). This may be the product of some overburden effect (?).

Note that these two MegaTEM II anomalies are more or less aligned along the general northwest trend.

**Figure 5: MegaTEM Survey TMI image.**

Image of the Total Magnetic Intensity with auto-picked anomalies as defined by Fugro. The circles indicate the anomalies, classified according to their conductance (see the text for the arrows). The two claims under study (lots 59 and 60, range VI, Poularies Township) are delimited by the red perimeter.



An older INPUT MK V survey carried out by Questor in 1971 (DP-066 and DP-728), does not show any anomalies on the property or in the immediate surroundings.

#### **4.5 Local Geophysics (Ground)**

Ground geophysical surveys were carried out in the area around the two claims under study. The following is a brief description of each of them.

Abbreviations used in this section:

Mag: magnetic survey

HEM: electromagnetic HEM (Maxmin) survey

VEM: electromagnetic VEM (Sharpe) survey

TBF: electromagnetic VLF survey

IP: resistivity and induced polarisation survey

##### **Southern Union Oils Property (GM-05215-A, 1957)**

Geophysical surveys (Mag and VEM) by Simard & Knight - over the lots south of the two claims under study.

##### **Cossette Claims (GM-07136, 1953)**

Ground Magnetometer survey by L. Germain over lots northwest of the two claims under study.

##### **Soquem , Jean-Marie Hubert Project (GM-27947, 1972)**

Mag and VEM surveys by Soquem over the lots northwest of the two claims under study.

##### **Soquem , Jean-Marie Hubert Project (GM-28781, 1972)**

IP survey and tests with Mag and HEM by Soquem over the lots northwest of the two claims under study.

##### **A. Doyon Property (GM-39637, 1982)**

Geophysical surveys (Mag, VLF and IP) by Services Exploration over the lots west of the two claims under study.

##### **A. Doyon Property (GM-40324, 1983)**

Geophysical (IP) by Services Exploration over lots west of the two claims under study.

#### **Golden Valley Mines, Rivière Lois East Project (GM-60241, 2003)**

Magnetic and IP surveys by Géola Ltée - over lots 61 and 62, range VI, Poularies Township, and lot 1, range VI, Privat Township just east of the two claims under study.

Some weak to moderate chargeability anomalies were detected and drill tested (see section 4.2 for details). One of the anomalies is located very close to the MegaTEM II anomaly in lot 61, range VI, Poularies Township. Note that at the time of the drilling, the MegaTEM II data was not available.

#### **Golden Valley Mines, Rivière Lois West Project (GM-61957, 2005)**

Magnetic and IP surveys by Abitibi Géophysique - over lots 55 to 58, just west of the two claims under study.

Some weak to moderate chargeability anomalies were detected and drill tested (see section 4.2 for details).

#### **4.6 Property Geophysics (Ground)**

##### **Orbite VSPA, Privat-4 Project (GM-50112, 1990)**

Magnetic and VLF surveys by Géola Ltée. The surveys covered a group of claims which extends over a long distance in a west-northwest direction. The two claims under study are covered by Orbite VSPA's work. A few magnetic and VLF axes were interpreted. The VLF axes are more probably the result of some overburden effects. Géola recommended resuming the work using the IP method. Note that the line spacing over the Orbite VSPA grid was 200 metres (see Figure 8 for a compilation of the Magnetic data).

##### **Golden Valley Mines, Rivière Lois East Project (Un-published, 2004)**

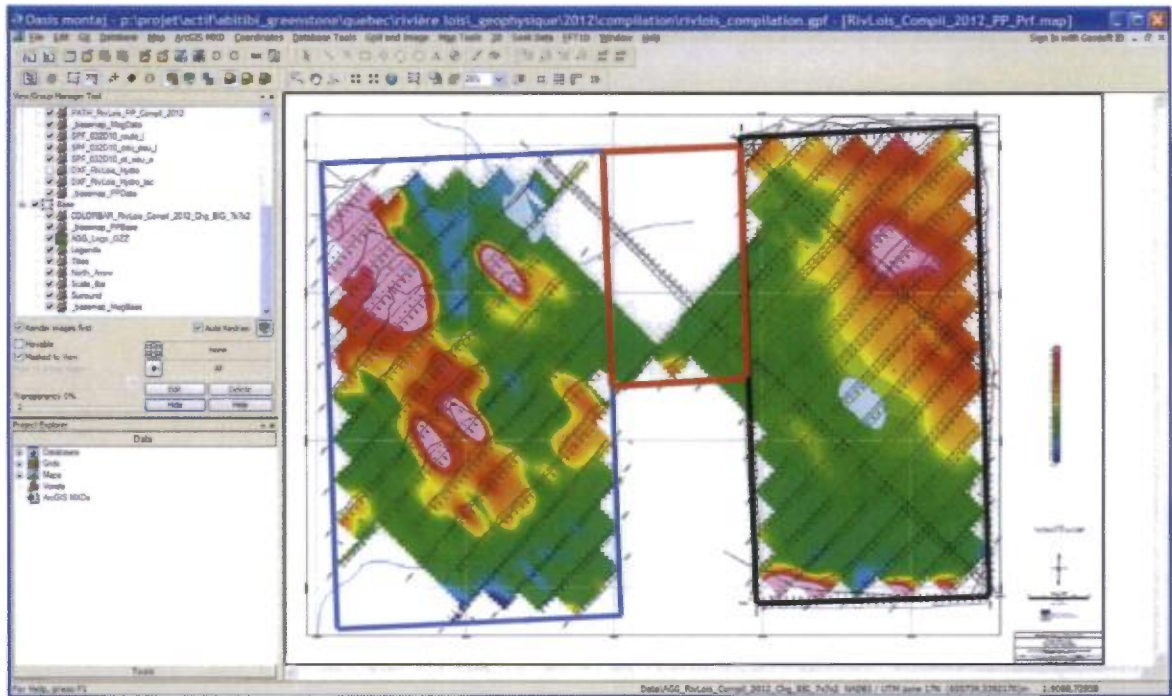
IP survey by Abitibi Géophysique - over the two claims under study (lots 59 and 60, range VI, Poularies Township).

The IP survey was carried out on a part of the two claims under study. This work was started in 2004 by Abitibi Géophysique, but it had to be stopped due to an administrative problem. The planned magnetic survey was not implemented. Only three lines were surveyed using the IP method and no chargeability anomaly has been interpreted. The collected data were not filed for assessment work to the MRNF. Figures 6 and 7 show a compilation of the data completed for Golden Valley Mines using the 2003, 2004 and 2005 data (including the un-published data, and the data from GM-60241 and GM-61957).

It is recommended that the IP survey be resumed and a magnetic survey be carried out over the two claims under study with a 100 metre line spacing, including compilation and interpretation.

**Figure 6: Chargeability Compilation (Fraser filter).**

- Black perimeter: Geophysics done in 2003
- Red perimeter: Geophysics done in 2004 - over the two claims under study
- Blue perimeter: Geophysics done in 2005





**Figure 8** shows a compilation of the ground magnetic data over the two claims under study and in the surroundings. This includes data from GM-60241, GM-61957 and GM-50112. Weak to strong anomalies define the obvious northwest to north-northwest general trend. In general, the anomalies are weak in the eastern part, and stronger (i.e. the sources are closer to surface) in the western part of the compilation. The anomalies may be produced by Gabbro Sills (?).

The magnetic axes appear to be broken up and at least four northwest-oriented magnetic units over lots 59 and 60 can be interpreted, these being tied to the other axes outside the two lots under study. However, this cannot be ascertained with the large line spacing (200 metres) used by Orbite VSPA (see GM-50112). With this wide line spacing, over lots 59 and 60, one could also interpret these magnetic anomalies as being caused by a north-south feature instead (?). This will be verified after a more detailed magnetic survey covering the two lots under study, with a 100 metre line spacing, has been carried out.

A north-south discontinuity, possibly a fault, can be interpreted close to the boundary between lots 58 and 59 (see the black arrow on **Figure 8**).

A deep-seated magnetic feature is located on the boundary between lots 60 and 61 (see the white arrow on **Figure 8**). This feature is close to the possible, but very weak, MegaTEM II anomaly interpreted over FL 212601, fiducial 53932 (lot 60, range VI, Poularies Township; see the white arrow on **Figure 5**). A weak IP anomaly has been located in the vicinity.

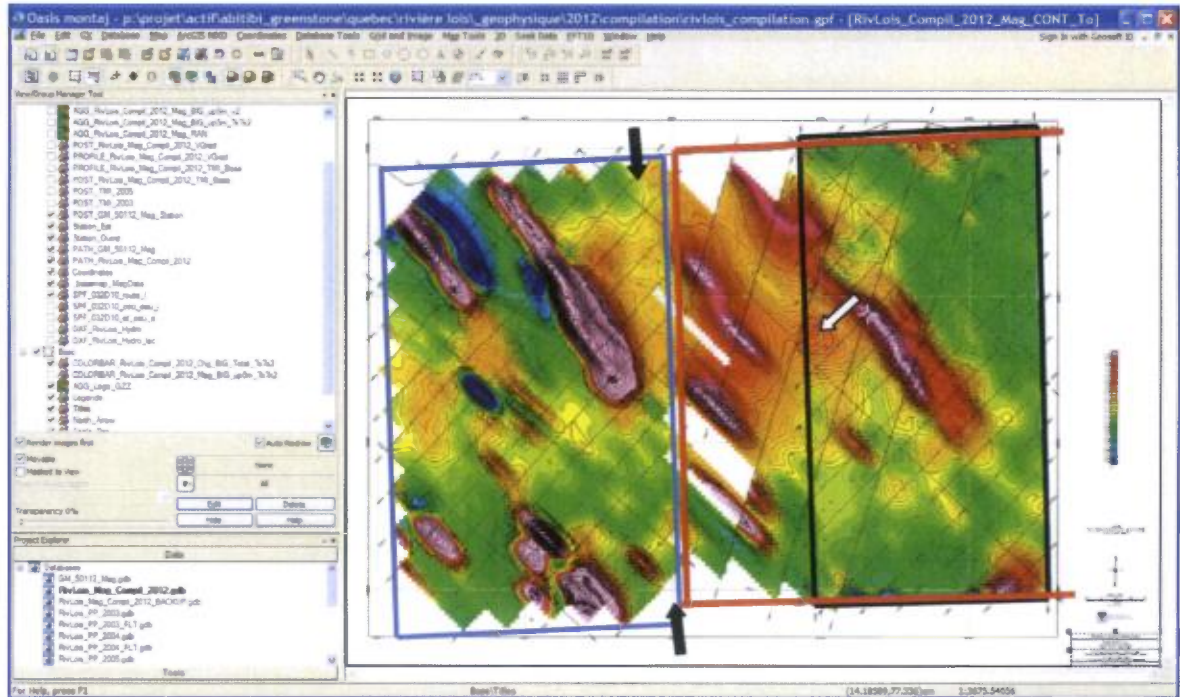
**Figure 8: Magnetic Compilation.**

This compilation was completed using the Golden Valley Mines data (GM-60241 and GM-61957) and Orbite VSPA data (GM-50112; only the lines over the two claims under study were included). See the text for the arrows.

Red perimeter: Mag survey done in 1990 - covers the two claims under study

Black perimeter: Mag survey done in 2003

Blue perimeter: Mag survey done in 2005



## 5.0 CONCLUSIONS AND RECOMMENDATIONS

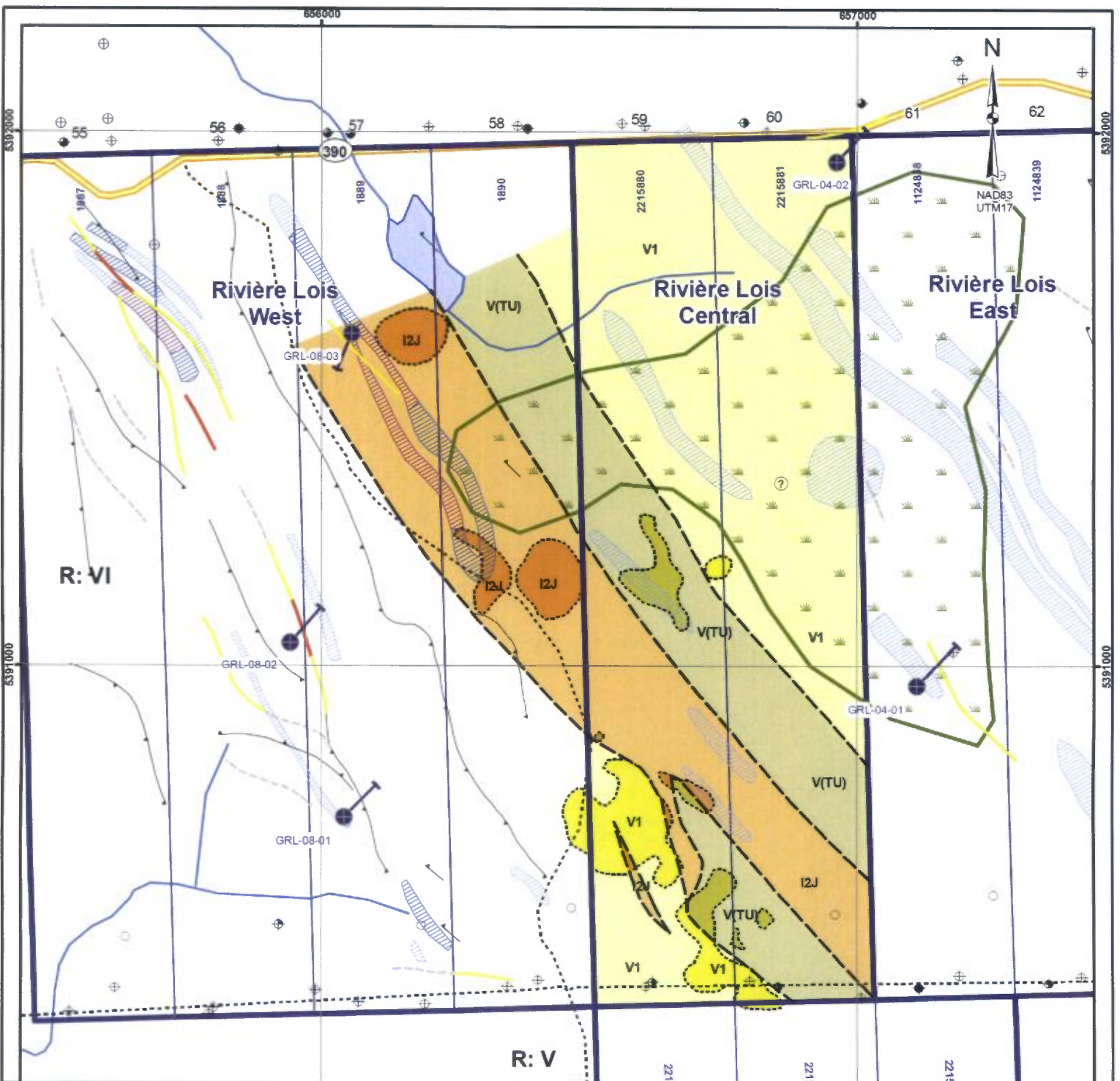
### 5.1 Conclusions

In lots 59 and 60, range VI, Poularies Township, there are two areas of rock outcrops on which geological mapping has been carried out in the past. On the southern part of lots 59 and 60, an area measuring 150 metres wide and 550 metres long, trending at approximately 145° through the corner of lot-line 59/60 and range-line V/VI, has been well mapped. The other area is in the central part of lot 59 and measures 100 metres X 200 metres. Approximately 88% of lots 59 and 60 has not been mapped, most of which is swamp-covered. There are suggested revisions to SIGÉOM's compilation map 32D/10, as shown on **Figure 9**, as follows:

1. SIGÉOM's compilation map 32D/10 shows a 360 metre wide, 350 metre long Gabbro Sill, originating on the northern part of lot 56 and trending at approximately 145° azimuth, being displaced to the northeast by a southwest-northeast trending fault from lot 56 into lots 57, 58, and 59. The intersection of Gabbro in DDH GRL-08-03 implies that the Gabbro Sill has not been displaced, at least not at the point shown on compilation map 32D/10. Furthermore, the 100 metre wide Diorite Dike trending at 145° azimuth, mapped by MRNF (Eakins, 1972) in lot 58, indicates that the Sill has not been displaced to the northeast by a fault. The authors of this report have decided to project the 130 metre wide Diorite Dike, trending at 145° azimuth, through lot 58 and into the southern part of lot 59, because it coincides with the continuous (that is, not displaced by a fault) Dike mapped by Verpaelst and Hocq (1987, 1991).
2. In the southern part of lot 59, the Diorite Dike has been projected to coincide with an outcrop mapped as Andesite by Placer Dome (Beauregard, 1992). Part of the Gabbro Sill is shown in that position on SIGÉOM's compilation map 32D/10. The authors believe that the Andesite mapped by Beauregard is probably a Diorite within the context of its occurrence because thin margins of Rhyolite are shown on the east and west sides of the circular outcrop area, implying that the Rhyolite was intruded. Beauregard points out that it is difficult to distinguish the Andesite in the area from Diorite and Gabbro. In that area, SIGÉOM's compilation map 32D/10 shows a 130 x 230 metre block of the Gabbro Sill displaced to the southwest by a northeast-southwest trending fault. However, in the southern part of lot 59, Felsic Volcanic rocks have been mapped in detail over a large part of the area interpreted by SIGÉOM to be a Gabbro Sill.
3. MRNF (Verpaelst and Hocq, 1987) shows a continuous 400 to 450 metre wide Diorite Dike, trending at 145°, from the north part of lot 54 to the south part of lot 59. The Dike, as shown, is far too wide but its position coincides with MRNQ's previous mapping (Eakins, 1972) of a 100 metre wide Diorite Dike. The canoe-shaped "raft of Rhyolite" shown within the Diorite Dike on the accompanying map across the south part of lot 59 is not an accurate interpretation because the area covered has been mapped in detail by other workers and the main rock type at that

position is mapped as Dacite. It is difficult to distinguish Dacite from Rhyolite, and there may even be Rhyodacites in the area. The authors of this report have decided to use the lithological terminology "Felsic Volcanics" to include both Rhyolites and Dacites mapped by previous workers, and the unit is interpreted to be continuous, conforming to the stratigraphic trend of the units in the immediate area. Mapping by previous workers does not justify the interpretation of the canoe-shaped "Rhyolite raft" within the Diorite Dike shown in lot 59 by Verpaelst and Hocq. Rather, the Diorite Dike has been interpreted in lot 59 to be narrower than that shown by Verpaelst and Hocq, at least in lot 58 as mapped by Eakins (Eakins, 1972), and simply intrudes the Felsic Volcanics.

4. MRNF (Eakins, 1972) mapped two large outcrop areas on the central and south parts of lot 59 as "tuff" but the tuff has not been identified as felsic or intermediate. Golden Valley Mines has identified Intermediate Crystal Tuff in drillholes GRL-04-01 and GRL-04-02 on lots 60 and 61. The authors of this report have decided to show the Volcanic Tuff as a stratigraphic conformable unit in lot 59 (**Figure 9**).
5. In conclusion, the rock units on lots 59 and 60 are Felsic Volcanic units (historically mapped as Rhyolite and Dacite), Tuff (probably Intermediate in composition), and Diorite (**Figure 9**). The compilation in lots 59 and 60, range VI, Poularies Township is based on outcrop areas comprising approximately 12% of the property. One diamond drillhole on the northeast corner of lot 60, and another drillhole near the middle of lot 61, had intersected Intermediate Crystal Tuff with short, metre-scale zones of cherty alteration, pyrrhotite mineralization, and elevated gold, copper, and zinc values. The cherty alteration, by itself, is extremely positive for base-metal and associated gold mineralization. This is more significant because of its association with a magnetic, MegaTEM, and IP anomalies.



**Légende / Legend**

- Lithologies**
- I2J - Diorite
  - V(TU) - Volcanite tufacée / Tuffaceous Volcanic
  - V1 - Volcanite felsique / Felsic Volcanic (Dacite, Rhyolite)
  - Affleurement / Outcrop
  - Forage Golden Valley Mines DDH
  - Forage Historique / Historical DDH

**Géophysique / Geophysics**

- Chargeabilité / Chargeability**
- Forte / Strong
  - Modéré / Moderate
  - Faible ou possible / Weak or Possible
  - Axe de Résistivité / Resistivity Axis

- Unité magnétique / Magnetic Unit**
- Faible / Weak
  - Modérée / Moderate
  - Fort / Strong

**DP2008-41 Fugro MEGATEM**

- ① Possible
- 1-2 Canaux / 1-2 Channels
- ⊕ 3-4 Canaux / 3-4 Channels
- ⊕ 5-6 Canaux / 5-6 Channels
- ⊕ 7-8 Canaux / 7-8 Channels
- ⊕ 9-10 Canaux / 9-10 Channels
- ⊕ 11-12 Canaux / 11-12 Channels

Source : Gestim GM50112, GM51514, GM51706, DP157, DP87-06, DP2008-41

**Canton Poularies Township (32D10)**

**Rivière Lois South**

**Golden Valley Mines Ltd**  
Mines de la Vallée de L'Or Ltée

**Propriété Rivière Lois Central Prospect**

Figure 9      COMPILATION DE LA PROPRIÉTÉ  
PROPERTY COMPILATION

**SCALE:** 1:10 000

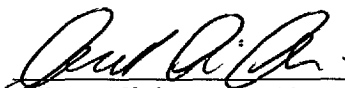
0      150      300      600  
Meters

## 5.2 Recommendations

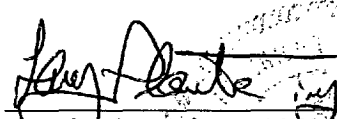
The following recommendations for further geological and geophysical work on the property is based on a technical evaluation resulting from an examination of documents describing previous work filed with the MRNF.

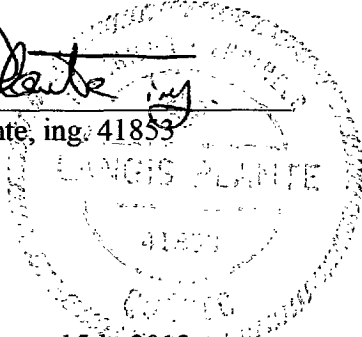
1. The lithological units on the Rivière Lois Central Prospect are extremely favourable volcanic rock types for hosting potential base-metal and gold mineralization. The package of Felsic rock units mapped, including Felsic fragmental rocks, Tuffs and Intermediate Crystal Tuffs, and the cherty alteration with associated sulphide mineralization intersected locally in DDH's GRL-04-01 and GRL-04-02, require further exploration on lots 59 and 60, range VI, Poularies Township.
2. The lack of outcrops on lots 59 and 60, the property must be further examined by geophysical work. The magnetic and IP surveys should be resumed with 100 metre spacing, over lots 59 and 60, range VI, Poularies Township, and all data compiled and reviewed. Also, the 2 possible MegaTEM anomalies on or around the two claims under study should be reviewed.
3. There appears to be some discrepancies in the location of the 2003 and 2005 line grids. A GPS survey should be done to verify this.

Respectfully submitted,

  
Albert Ali, ing. 112212



  
Langis Plante, ing. 41853

A circular professional seal for an engineer. The outer ring contains the text "INGÉNIEUR · ENGINEER" at the top and "QUÉBEC" at the bottom. In the center, there is a fleur-de-lis symbol, the name "LANGIS PLANTE", and the number "41853".

Dated February 15th, 2012.

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## 7.0 Certificates

### Mr. Albert Ali

1. I, the undersigned Albert Ali, residing at 124A avenue Champlain, Val d'Or, QC, graduated with a B.A.Sc degree in geological engineering in 1973 from Queen's University, Kingston, Ontario.
2. I have been a member of the Ordre des Ingénieurs du Québec since August 24, 2011. I have been practising as a member of the Association of Professional Engineers of Ontario since 1976.
3. I am currently employed by *Golden Valley Mines Ltd* and I have interests in the company (stock options).
4. My contribution to this report is restricted to the geological section with some input to the conclusion and recommendations section, this being based on my general knowledge and on my personal experience in geology and mining exploration.
5. I did not visit the property.
6. I authorize the above-mentioned company to use this report for any legal and/or official purposes.

Signed in Val d'Or, this fifteenth day of February of the year two thousand and twelve.



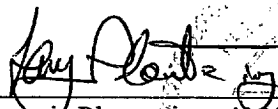
Albert Ali, ing., 112212, B.A.Sc



**Mr. Langis Plante**

1. I, the undersigned Langis Plante, residing at 73, chemin Baie Carrière, Val d'Or, QC, graduated with a B.Sc.A degree in geological engineering in 1983 and with a M.Sc. degree in geology (geophysics) in 1986 from Laval University.
2. I am a member of the Ordre des Ingénieurs du Québec. I am practicing as an engineer since 1986.
3. I am currently employed by *Golden Valley Mines Ltd.* and I have interests in the company (stock options).
4. My contribution to this report is restricted to the geophysical section with some input to the conclusion and recommendations section, this being based on my general knowledge and on my personal experience in geophysics, geology and mining exploration.
5. I did not visit the property.
6. I authorize the above-mentioned company to use this report for any legal and/or official purposes.

Signed in Val d'Or, this fifteenth day of February of the year two thousand and twelve.

  
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Langis Plante, ing. 41853, B.Sc.A., M.Sc.

