# GM 47266

REPORT ON THE 1986 EXPLORATION PROGRAM, RECHER PROPERTY



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# ABITIBI RESOURCES LIMITED

# REPORT ON THE 1986 EXPLORATION CAMPAIGN

RECHER PROPERTY , RECHER TOWNSHIP

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#### SUMMARY

The Recher property owned by Abitibi Resources Ltd is located in the Casa Berardi district in the central part of the Abitibi greenstone belt.

This district is actually a major target for gold and base metal deposits.

Following a grass root campaign in 1985, consisting of line cutting, geophysical and geochemical surveys and 3 diamond drill holes which gave a basic idea of the possible potential of the property, it was decided, due to the proximity of the Inco Golden Pond discovery to go ahead with more diamond drilling in 1986 in order to increase our knowledge of the Recher property and the potential in mineralization.

Five holes totalling 1158,2 metres (3800 feet) revealed the presence of coarse sediments in addition to the already known granite and some values of 0.01 oz/t Au were assayed in quartz veins and pyrite rich sections.

We recommend that four additional holes be drilled to confirm some hint at north south structures which bear a resemblance with the Golden Pond structures, and the rest of the geophysical conductors which were not tested during 1986.

#### INTRODUCTION

Being a geologist for the Abitibi Resources Ltd company, I was given the mandate to carry out the 1986 drilling program on the Recher property.

This report gives an account of the previous work and the available knowledge of the property and describes the work done during the 1986 campaign. The results obtained are exposed and the opportunity of doing further work on the property is being considered.

# DESCRIPTION OF THE PROPERTY

#### Location and Access

The Recher property is located in Recher township, approximately 90 kilometres (56 miles) north of La Sarre and 14 kilometres (9 miles) east of the Quebec - Ontario border (Figure 1) and is bordered to the south by the Inco Golden Knight property on which the development of the Golden Pond discovery took place.



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Access to the property can be easily gained by an all weather logging road heading north from La Sarre and running at less than 1,5 kilometres (1 mile) east of the claim group (Figure 3). The road will improve due to the development of the Golden Pond property.

Topography in the area is flat and no outcrops are known on the property. Swampy low ground is common and overburden thickness may be locally important.

Qualified manpower, services and electricity are easily available in North Western Quebec.

## Claim Description

The property consists of 30 contiguous claims totalling approximately 480 hectares (1200 acres) or 4,8 square kilometres (1.6 square miles). The claims are listed on Table I and located on figure 2.



## TABLE I

LIST OF CLAIMS

Expiry dates, March 24 - 28, 1988

These 30 contiguous claims are located in Recher Township, Abitibi district, Northwestern Quebec.

Total of 480 hectares (1200 acres) or 4,8 square kilometres (1.8 square miles).

#### PREVIOUS WORK

The assessment work files at the resident geologist office of the Quebec Department of Energy and Resources in Rouyn indicate nothing was done on the claim group prior to 1984, when a grass root program was carried out by Abitibi Resources Ltd.

In 1960, the geological survey of Canada issued an aeromagnetic map of the area at a scale of 1/63,360.

In 1969, a report issued by the QDNR and covering the Harricana - Turgeon area discusses the geology of the region (J.H. Remick).

In 1974, the QDNR published airborne geophysical maps of the whole region showing input anomalies and magnetic contours. No input anomaly exists on the claim block.

Some geochemical surveys were carried out by the MERQ. These include a soil geochemistry study by M. Beaumier in 1982 and 1983 which covers the Turgeon River and Brouillan regions. Another study by Lasalle and Lalonde in 1982 concerned basal till geochemistry in the Abitibi in 1985, Sauerbrei and Patisson reported on till sampling study in the Casa Berardi area. Since the Golden Pond discovery, numerous companies have been working in the immediate area of the claim group (Casa Berardi district) and the MERQ started a program of detailed mapping and compilation of the area (S. Lacroix).

The area is covered by geoscientific compilation map 32E/11 issued by the MERQ.

In 1984, a magnetic survey and an electromagnetic survey using very low frequency (V.L.F.) were carried out over the property for Abitibi Resources Ltd. Several anomalous areas were outlined and further exploration work was recommended. (I. Park).

In 1985, a grass root program was started including Horizontal Loop Electromangetic (H.E.M.) and Induced Polarization (IP) ground geophysics (E. Gaucher), soil geochemistry and 3 diamond drill holes (Geologica). The results were not as encouraging as previously thought and it was recommended to consider the exploration activity in the area before deciding to go any further.

#### REGIONAL GEOLOGY

is made of volcanic, bedrock of the area The sedimentary and intrusive rocks belonging to the Abitibi-Wawa subprovince of the Superior Province of the Canadian A11 of them archean in age except for Shield. are proterozolc diabase dykes. (Figure 3)

The volcanic rocks are the oldest and their composition from ultra-mafic to felsic. varies They are found in effusive. intrusive and pyroclastic facies. Detritic sediments; argilites, grauwackes, conglomerates and chemical iron formation, exhalites are often found sediments: interbedded in the volcanic pile. Large granitord stocks, syn - or late - tectonic, cross cut and separate the supracrustal "greenstone belts". Proterozofc diabase dykes crosscut all the archean rocks.

Almost all the rocks except for diabase dykes are metamorphised at the greenschist facies and somewhat higher around intrusives. The regional foliation strikes east-west roughly parallel to the strike of the bedding which dips generally close to the vertical. Mineralization occurs in two major different settings; as syngenetic polymetallic sulphides generally associated with chemical sediments on top of felsic volcanic series or as epigenetic vein deposits, often gold bearing, controlled by major east west



faults (Cadillac type); the Casa Berardi structure would be one of these major faults (S. Lacroix).

A thick overburden layer of quaternary glacial deposits recovers more than 95% of the bedrock.

#### GEOLOGY OF THE PROPERTY

There is no outcrop on the property and the overburden depth varies from 8,0m (26 feet) to 35,0m (115 feet).(Compilation map in back cover)

According to the drill holes, we find two main lithologies.

1) A granite intrusive which is pink in its mass and seems to grade into a granodiorite or a diorite on its borders (hole 86-5). It is composed mainly of quartz, potassic feldspar and few mafic minerals.

2) Sediments of the grauwacke type, mostly medium grained and usually rich in micas around the intrusive.

With the few informations we have, it is difficult to trace accurately the contact between these two lithologies but with the help of the airborne geophysical map of the MERQ, we can see that the granitic mass occupies the east part of the property to around line 10W and that the sediments underly the west part.

These sediments strike probably in various directions around and close to the intrusive and according to the angle of interception in the core they must dip steeply to the south.

The core was sampled, extensively at an average of 1 sample every 6 metres (20 feet) or more and four values of .01 oz/t of gold were found. They are located in:

- Hole 86-1: 187,0m 187,9m. In slightly fractured granite with trace pyrite.
- Hole 86-2: 85,2m 86,2m. In slightly fractured granite with a 1cm quartz vein at 15°/C.A. and <1% pyrite.
- Hole 86-3: 58,9m 59,7m. In grauwacke with 1% quartz veins and trace pyrite. 81,1m - 82,3m. In granodiorite with <1% quartz veins and 1-2% pyrite.

The reinterpretation of the geophysical maps (see compilation map) seems to indicate that the sedimentary horizons are striking east-west in the extreme west of the property and turn to the north east and east south east as they approach the granite at the east.

A magnetic high is well defined in the north west and might be interpreted as a folded iron formation. A major structure striking north-northwest (fault or fracture) in the north east seems to cross cut the granitic mass and is in strike with the Golden Pond deposit 3 miles to the south.

The IP anomalies drilled are not explained readily in the core and they might be due to small concentrations of disseminated pyrite or overburden effects.

#### PRESENT WORK

The 1986 campaign consisted of 5 diamond drill holes totalling 1158,2m (3800 feet) intended to test four of the induced polarisation anomalies defined by the geophysical survey, and a reinterpretation of the geophysical data available.

The drilling was carried out in the winter of 1986-87 by:FORAGE FIRSA INC, 34 Ste-Anne, Ville-Marie,Qc (622-0152) and supervised by the author. The core was transported to Val d'Or, logged and sampled, and is stored at Louvicourt on the Bevcon-Buffadison property. A resume of technical data for D.D.H.'s is given in Table II. HOLE NO. LOCATION | AZ. | DIP | LENGHT : OVERBURDEN TARGET \* BEST ASSAYS !!! 1 . (Vert. depth) { 1 | Feet Metres | Feet Metres : 2+00 W | 180 | 800 | 243.8 | 88 | 26.8 | I.P. Anomaly No 1 |0.01 oz/t Au 86-1 50 ¦ : 1 4+50 S ł ! lover 0.9m / 3.0' Magnetic Low K 1% diss. Py 1 700 | 213.4 | 114.2 | 34.8 | I.P. Anomaly No 1 | 0.01 oz/t Au 86-2 1 180 1 1 5+00 W 50 : : 6+00 S 1 : ! ! Magnetic Low lover 1m / 3.3' K 1% diss. Py 1 1 10.01 oz/t Au 86-3 | 11+00 W | 180 | 50 H 800 | 243.8 | 68.9 | 21 | I.P. Anomaly No 3 lover 0.8m / 2.6' 1 3+00 S 1 1 : 1 1 K 1% diss. Pv 1 10.01 oz/t Au 1 1 lover 1.2m / 3.9' 1 - <u>!</u> -1 50 ; 700 ; 213.4 ; 42 ; 12.8 ; I.P. Anomaly No 4 86-4 15+00 W | 180 | ltrace . 6+00 S { : 1 Haonetic High 1 Not explained 86-5 13.3 II.P. Anomaly No 8 | 11+00 W | 180 | 50 1 800 | 243.8 | 43.6 | ltrace 1+80 N 1 ; 1 1 K 1% diss. Py 1 \* : SEE E. GAUCHER GEOPHYSICAL REPORT

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TABLE 11

TECHNICAL DATA FOR DIAMOND DRILL HOLES

RECHER PROPERTY (ABITIBI RESOURCES LTD.)

270 samples covering a lenght of 250,4m (821.5 feet) were assayed by: Laboratoire Minéralurgique 110750 Canada Inc, 146 - 3rd Avenue, Val d'Or, Qc J9P 1R5 (825-5037).

Acid tests were taken at bedrock level and every 61m (200 feet) in each hole.

#### CONCLUSIONS

Knowledge of the property was improved by the 1986 campaign and the potential for mineralization is easier to define.

A sedimentary unit including possible iron formation is defined in the west part of the property.
Assay reports show that gold exists in the system and only needs adequate structures to be concentrated.

- Folding and faulting are present both in the granite and the sediments and might be the locus for structurally controlled vein type gold mineralization.

#### RECOMMENDATIONS

We recommend that four additional holes be drilled to test the north-northwest structure in the granite or the sediment where it is possible to define it and to also test the geophysical anomalies in the west part of the property underlain by sediments.

A total of 914m (3000 feet) would seem to be adequate.

Here is a list of possible locations for these holes:

# L 7+00W, 4+00N, 60°/50° 800 ~

Horizontal loop electromagnetic conductor intersecting north-northwest magnetic high; possible fault.

#### L 8+00W, 7+00N 30°/50° 750°

Induced polarization anomaly No.7 intersecting northnorthwest. Magnetic high.

# L 13+00W, 5+75N 360°/50° 750°

Induced polarization anomaly No.5, magnetic high, horizontal loop electromagnetic conductor.

L 17+00W, 6+50N 360°/50° 700<sup>°</sup>

Magnetic high, Horizontal loop electromagnetic conductor; possible Iron formation.

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