



P. G. LACOMBE & ASSOCIÉS
INGÉNIEURS-CONSEILS

Report on

Richore Gold Mines Limited

Conger Township Property
Ontario

Detailed Ground Radiometric Survey

Introduction:

An airborne radiometric survey has been flown over the 100 claims belonging to Richore Gold Mines Limited and located in Conger Township, Ontario, on the 8th and 9th July 1970.

This survey detected six anomalies ranging between 50 and 66 counts per second in the west section of the property, while nine anomalies ranging from 50 to 122 counts per second have been detected in the east section of the property. In order to detail the exact location and extent of these anomalies, 30 miles of lines have been cut over the radioactive areas and a ground spectrometer survey has been completed over closely spaced traverses. The better anomalies thus located have also been drilled. Most of the results of this survey are given in the present report.

Location and Access:

The claim group lies about 6 miles north and 2 to 6 miles east of the Village of Madoc, on Highway 69, about 115 miles north of Toronto, Ontario.

It is reached by good gravelled roads leading from the main paved highway to general points within the claims.

Property:

The claim group is divided into four blocks identified as A, B, C and D from north to south. The claims in each group are as follows and as appear on the enclosed map:-

Block A: 220328 to 220339 inclusive;
220355 and 220357;
39914 to 39917 inclusive. 18 claims

Block B: 41732 to 41735 inclusive;
220372 to 220376 inclusive;
41940 to 41942 inclusive;
220358 and 39918 14 claims

Block C: 220324 to 220327 inclusive. 4 claims

Block D: 220340 to 220354 inclusive;
220359 to 220363 inclusive;
209240 to 209250 inclusive;
20951 to 20963 inclusive;
41934 to 41939 inclusive;
209262 to 209276 inclusive; 63 claims

Total: 99 claims

These claims are each 1500 feet long by 1320 feet wide, thus totalling 45 acres each or 4,000 acres for the group.

Tie Lines:

Block A:

In order to detail the anomalies located on Block A a baseline has been established running north-south over a distance of 5100 feet, starting 500 feet south of the discharge of Mann Lake, 150 feet west of the C.R.R. Railroad track and extending due north to the northern boundary of Conger Township. This baseline would be located on the lot line separating claim 39914 from claim 220335. East-west lines were cut every 300 feet apart and a tie line was cut on the west border of claim Nos. 220328 to 220331. This line system covers claims 39914 to 39917 inclusive and 220328 to 220331 inclusive. It totals 14.8 miles of lines with stations every 100 feet for 770 stations.

Block B:

On Block B a north-south baseline 5100 feet in length was cut between claims 41942 and 220358 immediately west of Josselin Lake. A second baseline was turned off at a right angle from station 3300 south, extending due east for 4000 feet from that point. A third baseline extends due south for 5100 feet between Payne Lake to the west and the C.P.R. Railroad to the east. This last baseline is located on the eastern boundary of claims 41732 to 41735 and cuts the Railroad at station 4500 south. Lines were cut in an east-west direction, spaced every 300 feet over claims 39918, 220358, 220372 to 220374 inclusive, 41732 to 41735 inclusive. This grid totals 11.2 miles for 534 stations.

Block D:

A line system was established on Block D north of Healey Lake and tied to a baseline running east-west across claims 41937 to 41939 inclusive and part of claim 209256. This baseline is located on either side of the road leading from the Healey Lake Marina to the western part of the Lake and totals 3200 feet in length with a 500 foot off-set to the north at station 1000 west. North-south lines generally 1000 feet in length, have been cut every 200 feet across this baseline covering part of claims Nos. 41935 to 41939 inclusive and part of 209256. This grid totals 5 miles for 220 stations.

These three grids are shown on the three accompanying maps labeled Block A, B and D respectively.

Instrument:

The instrument used was a Sharnpe GIS-C Serial No. 801-128 with four thallium activated crystals feeding an input amplifier. The instrument constant was 16 counts per second. This is a discriminating type of instrument which can eliminate potassium or thorium for the uranium radioactivity count.

Results:

Block A:

On Block A the background was found to vary between 30 and 80 counts per second at a maximum. Two groups of anomalies ranging above 125 counts per second up to 240 counts per second were detailed in the eastern and south-eastern part of the grid. The anomalies in the south-eastern part of the grid cover most of claim No. 39917 and extend over 3000 feet in length and 200 to 500 feet in width.

A second group of anomalies are located in the southern part of claim 39914 and over most of claim 39915. These anomalies are generally 900 feet long by 200 to 500 feet in width. These anomalies seem to correspond to a number of coarsely crystallized pegmatite veins and reflect the outcrop pattern of the said veins. These veins vary in width from 3 to 15 feet and have been the object of trenching and sampling, as described hereafter.

Block B:

The survey on Block B has outlined a complex pattern of high ranging anomalies which run out of the test area in all directions. Background was found to be between 40 and 90 counts per second at the highest points and even this last reading is believed to be a reflection of the halo effect of radioactivity caused by the near-by presence of radioactive minerals. Radiometric readings of anomalous nature were found to vary from 150 to 800 counts per second with long north-south trending zones giving readings better than 300 counts per second over considerable area.

The anomalies can be divided into three groups standing roughly parallel, striking north-south and lying generally south of Lake Josselin. The western anomaly underlies claims Nos. , 220358 and 220374. The anomaly stretches over 5000 feet in length and averages better than 700 feet in width. A high radiation zone in the centre of the anomaly is

3300 feet long and varies from 100 to 500 feet in width. This anomaly is underlain by a massive fine grained intrusive formation rising 30 to 50 feet above the Lake level and devoid of pegmatitic intrusions.

The second anomaly underlies claims Nos. 220372 and 220373 and stretches over 2500 feet in length and 300 to 500 feet in width. It ranges from 200 to 500 counts per second and is seen in places to extend over wide, coarse, pegmatite dykes, although these are by no means the main constituent of the underlying formations.

The third series of anomalies lie east of Payne Lake underlying claims Nos. 41732, 41734 and 41735. The main part of the anomalies is located on the first two mentioned claims and ranges from 150 to 500 counts per second. Its overall length is 3000 feet over a width of 200 to 500 feet. It has the same high radioactivity core as the first group and this core stretches for 1500 feet in length.

The first and last anomalies described are running out of the map area to the east and west of the grid system, additional lines would be required to fully explore the extent of these anomalies. These additional lines should cover especially claims Nos. 41942 and 220375 which likely extend over the high radiation central zone of the first group of anomalies.

Block D:

Background readings on Block D were found to be in the 30 to 80 counts per second range. A central anomaly more than 4000 feet in length and 100 to 200 feet in width occupies the central part of claims Nos. 41937, 41938, 41939 and 209356. This anomaly likely continues under Housley Lake and westward on claims 20955 and 20956. It undoubtedly also continues to the north-east onto claims 220346 and 220363. The anomaly ranges from 150 to 800 counts per second and has the characteristic high radioactivity core noted on other anomalies on the property. A secondary anomaly 1200 feet long and 200 feet wide has been detected in the southern part of claim 41936 ranging from 150 to 320 counts per second.

Here again the anomalies are running out of the grid system which should be extended to cover claims 220346, 220347, 220348 and 220363. Some westward extensions on claims 41934, 41935, 209255 and 209356 would also be recommended.

Rock Trenching and Sampling:

A number of highly radioactive areas have been trenched and sampled on the three blocks of claims as follows:

Block A - 6 areas
Block B - 19 areas
Block D - 10 areas

The sampling procedure consisted of drilling a series of holes by means of a gas driven plugger drill and blasting out trenches across the strike of the radioactive areas. Rock samples were then taken at random from the bottom of the trench without any attempt at selecting high radioactive material.

The 35 large samples thus collected from these rock trenches have been sent to the Treatment Plant of the Ontario Department of Mines in Cobalt, Ontario, for preparation and will later be analyzed by the Laboratory Branch of the Ontario Department of Mines in Toronto.

It is recommended that rejects from these samples should be kept for further petrological and mineralogical studies as recommended hereafter. They may also be useful as a source of radioactive material for preliminary extraction tests.

Conclusions:

A spectrometer survey effected on the property of Richore Gold Mines Limited in Conger Township has detected two groups of anomalies on Block A, 3 large groups of anomalies on Block B and 2 anomalies on Block D. These range from 2 to 20 times background and the anomalies on Block B and D have a characteristic high radioactivity core of considerable size.

Except for Block A the underlying formations, although possibly intrusive, are not of a pegmatitic nature.

The exact radioactive minerals causing this radioactivity and the way of occurrence of these minerals in the host rock has not yet been determined. However, the extent and intensity of the radioactivity measured is such as to warrant further detailed radiometric, geological and mineralogical study of these radioactive zones. There is a distinct possibility that a large tonnage of radioactive material underlies these zones over considerable length and widths.

Large samples have been extracted from a number of the most radioactive zones, although all such zones have by no means been exhaustively sampled. These samples should not only be assayed for radioactive minerals, but should also be subjected to a thorough mineralogical and petrological study.

One should not discount the fact that the areas on the map which are not underlain by anomalies might simply reflect the thickness of overburden in these particular circumstances and that anomalies which appear to be detached one from another on the map may actually be continuous should the overburden be removed.

It should also be noted that a background of 70 or 80 counts per second has been used as a base of reference. This high background has been measured in the vicinity of the anomalies and is probably twice as high as the actual background. Radioactivity measurements at the camp site and at locations well outside of the map area have given readings of 24 to 40 counts per second. Such readings can be found at several locations on each block map.

Recommendations:

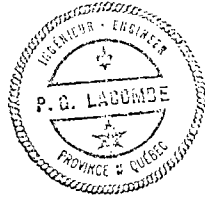
1. The grid system should be extended over a maximum of 25 line miles and the radiometric survey should be completed over this additional system.

2. Complete mineralogical and petrological studies should be made of the samples on hand and of any other samples to be extracted in the near future.

3. All high radioactivity areas not yet trenched should be blasted open and sampled at least 3 feet below the actual surface.

4. A complete geological map should be made of the radioactive areas on the three grid systems.

5. Areas where no radioactivity has been detected either by airborne or ground survey, and which are deemed of no interest after geological survey has been completed, should be abandoned in order to concentrate on the significant radioactive zones outlined.



Respectfully submitted,

A handwritten signature in dark ink, appearing to read "Pierre G. Lacombe".

Pierre G. Lacombe, Eng.,
P.G. Lacombe & Associates,
Consulting Engineers.

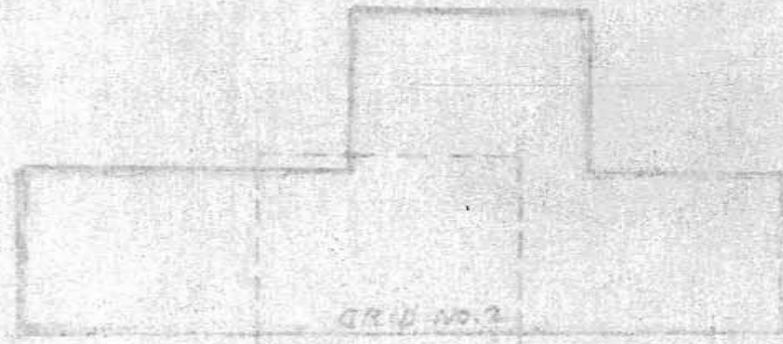
PGI:JA

September 29th 1970.

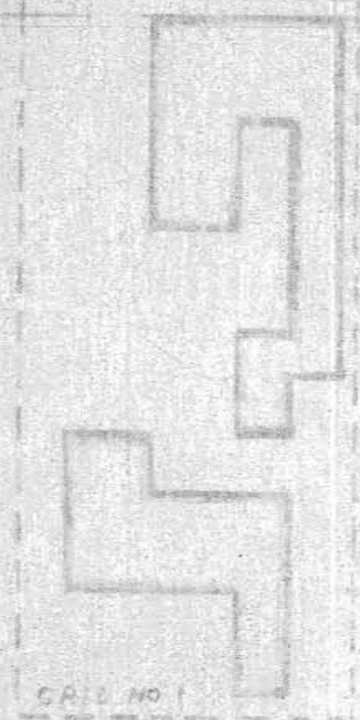
COWPER TWP

CONGER TWP

WATER



GRID NO. 2



GRID NO. 1

CONGER TWP

HUNTER TWP

LOCATION MAP

CONGER TWP

SCALE 1" = 1 MI.

Signature



PIERRE GILLES LACOMBE
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 FOR THE YEAR
 1971

COWPER TWP

CONGER TWP

4. W. 2

COWPER TWP

HUNDRY TWP

GRID NO 1

GRID NO 2

LOCATION MAP

CONGER TWP

SCALE 1" = 1 MI.

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FOR THE YEAR

1971

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SPECIAL PROVIS



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ASSESSMENT WORK DETAILS

NAMES AND ADDRESSES

Chief Line Cutter or Contractor Antonio Bouffard, Cap St-Ignace, Que.

Party Chief Camille Pépin, Valdor, Que.

Consultant P.G.Lacombe & Associates, 544 Copping, Otterburn Park, Que.

COVERING DATES

Line Cutting Sept. 2 to 18, 1970.

Field and Office Sept. 2 to October 27, 1970

INSTRUMENT DATA

Make, Model and Type Sharpe GIS-2 Spectrometer, 4 thallium crystals.

Scale Constant or Sensitivity 4 cps. to 16 cps.
or provide copy of instrument data from Manufacturer's brochure

Total Number of Stations Within Claim Group Block A: 770, Block B: 534. Block D: 220
Total: 1524

Number of Miles of Line cut Within Claim Group A: 14.8 miles; B: 11.2 miles; D: 5.0 miles.
Total: 31.0 miles.

ASSESSMENT WORK CREDITS REQUESTED

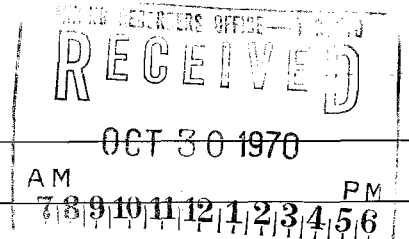
Geological Survey 20 Days per Claim

Geophysical Survey 20 Days per Claim

Line cutting: 20 days per claim.

MINING CLAIMS TRAVERSED

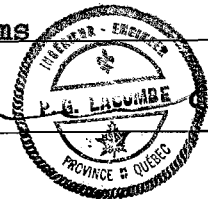
See attached schedule.



TOTAL 21 claims

DATE October 27, 1970.

SIGNED [Signature]



Submission of Geological and Geophysical Surveys
as Assessment Work

SPECIAL PROVISION

If, in the opinion of the Minister, a ground geophysical survey meets the requirements prescribed for such a survey, including:

- (a) coverage
- (b) line spacing not exceeding 400 foot intervals
- (c) stations not exceeding 100 foot intervals or
- (d) the average number of readings per claim not less than 40 readings,

it will qualify for a credit of 40 assessment work days for each claim so covered. It will not be necessary for the applicant to furnish any data or breakdown concerning the persons employed in the survey except for the names and addresses of those in charge of the various phases (linecutting contractor, etc.). It will be assumed that the required number of man days were spent in producing the survey to qualify for the specified credit.

An additional ground geophysical survey using the same grid system and otherwise meeting these requirements will qualify for an assessment work credit of 20 days.

A geological survey using the same grid system, and meeting the requirements for submission of geological surveys for maximum credits will qualify for an assessment work credit of 20 days. If line cutting has not previously been reported with any other survey and is reported in conjunction with the geological survey a credit of 40 days per claim will be allowed for the survey.

Credits for partial coverage or for surveys not meeting requirements for full credit will be granted on a pro-rata basis.