

GEOLOGICAL SURVEY

OF THE

SHAKESPEARE TOWNSHIP PROPERTY

FOR

RODNEY GOLD MINES LIMITED

SUITE 1800, RICHMOND-ADELAIDE CENTRE

120 ADELAIDE STREET WEST

TORONTO M5H 1S8

by

Michael Ogden, B.A.Sc., P.Eng.
Toronto, Ontario

December, 1973

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INTRODUCTION

The recent increase in the price of gold from \$42 to \$100 an ounce, plus the possibility of strata-bound mineralization, required a new study to be made of the old property. Hence, a geological mapping survey was done of the shaft area and nearby claims. The report is based on that survey plus the old maps, assay plans and reports of the company files.

CONCLUSIONS

- 1. The gold mineralization tends to occur in a quartzite environment, near or at the contact with greywacke. The old level plans show this.
- 2. The gold occurs, with or without sulphides, in minor quartz veins, seemingly parallel to the bedding which is northeast. But the mineralized zones trend northerly for 40 to 70 feet from an east-west fault, e.g., the two zones on the 50-foot level, the 2 or 3 on the 88-foot level, one of two on the 128th and one of two on the 175th level.
- 3. The mineralization is found on either side of the east-west fault, and close to it (within 70 feet). The ones mentioned in 2 above are all north of the fault, whereas south of the fault there is gold mineralization on the 175-foot level and in surface hole #3.
- 4. The area north of the fault has been well explored by drilling and underground work, whereas to the south, it has only been partly explored.

- 5. There is another east-west fault, 500 feet to the south which has never been seriously tested for gold zones. Holes 7 and 8 nibbled nearby and encountered minor gold over good lengths. This fault has a lot of parallel quartz veining nearby as it cuts through the gabbro, to the east.
- 6. There is no evidence to support the idea of gold-bearing quartz-, pebble-conglomerates in the sediments. This concept looked reasonable during a short visit last summer, but not after a long look now.

RECOMMENDATIONS

Bulldoze three trenches down to bedrock alongside the east-west faults. Wash them down with water from the nearby lake, prospect, geological map, and sample them for gold mineralization.

Each trench should be between 400 and 500 feet in length. One would lie just to the south of the northerly east-west fault, and the other two, about 80 to 100 feet apart, should straddle the southerly fault.

PROPERTY, LOCATION AND ACCESS

The property, of one leased claim No. S-110445 and four recently-staked claims numbered S-373462, -463, -464, and -465, lies two miles north of Highway 17, just east of Webbwood, Ontario. This location is 50 miles west of Sudbury and 10 miles west of Espanola. Access is simple by car, along Highway 17, north at the western edge of Webbwood for about 1½ miles and then east to the property until the road is under the big power line, a distance of two miles more.

BRIEF HISTORY

During the initial period of exploration and development from 1903 to 1907, a shaft was sunk to 315 feet, 6 levels established at 50-foot

intervals, 2,600 feet of drifting and crosscutting were done and some 7,000 tons of rock were mined, which is reported in government files to have averaged 0.30 ounces of gold per ton.

After a long dormant period, it was worked again in 1945-46 by a Mr. Oreck who hand cobbed some 9 tons of high grade during the two years, averaging between 22 and 30 ounces per ton.

The last active period of exploration was 1950 to 1961, during which various companies tried to ascertain the key to ore deposition and to find enough of it to go into production. An adit was driven into the 3rd level from the north, which drained the workings down to 128 feet. A four-ton bulk sample of 10-ounce rock was removed. Seventeen drill holes were put down from both surface and underground for a total of 3,481 lineal feet of drilling. A magnetometer survey was completed over the area. Numerous check assays were taken from both surface and underground in the course of various examinations.

REFERENCES

- 1. O.D.M. 1929 Vol. 38 Pt. 7, E.S. Moore.
- 2. Ensign Gold Mines, Colin Campbell, 1936.
- 3. Greenray Mines Ltd., H.R. Kempthorne, 1950.
- 4. Magnetometer Survey, R.A. Poutanen, 1959.
- 5. Shakespeare Property, P.S. Broadhurst, 1960.
- 6. Vermont Mines, R.S. Stronach, 1961.
- 7. Shakespeare Property, Broadhurst & Ogden, 1961.
- 8. Rodney Gold Mines, Michael Ogden, 1971.

ROCK TYPES

Intrusive Rocks

Gabbro:

A medium to coarse grain almost black rock of about half and half hornblende and dark plagioclase. The O.D.M. map No. P-614 made by K.D. Card et al in 1970, shows this rock as a "meta-gabbro".

Interbedded Rocks

Greywacke:

The most common sediment. A micaceous, sheared, medium to fine grain hard rock, usually with clearly defined bedding of magazine-like thickness. K.D. Card used the name "muscovite chlorite pelite".

Quartzite:

A very fine grain, grey, very hard, conchoidal fracturing rock with magazine thick bedding, often undulating. This was termed "feldspathic sandstone or protoquartzite" by K. D. Card.

Arkose:

A coarse grain clastic sediment of pieces of very fine light grey rock in a darker medium grain matrix. Card also called it arkose.

Basalt:

A fine grain, dark green to almost black rock, that looks like a volcanic. This was called metagabbro by Card.

Amygdaloidal

Basalt: A variety of basalt, possibly a flow top.

All the consolidated rocks are of precambrian age. The sediments are mapped as archaean but the presence of minor radioactivity along strike plus

small amounts of quartz pebble conglomerate is suggestive that they may be lower Huronian.

Bedrock is overlain by a light layer of glacial deposits up to 20 or 25 feet thick in the shallow valleys.

GEOLOGICAL SURVEY

The ground survey was done by the author, during the period October 30 to November 10. The map and report were completed in November and December. The survey was done on north-south, pace and compass lines, at 300-foot separations, using a carefully paced control line along the wagon road through the property.

All the old maps, surveys, assay plans, drill plans and magnetometer survey were studied again in the light of the geological survey results.

Although these plans are not included with this peport, it is clear that many of the conclusions have been derived from a study of them.

Respectfully submitted.

Michael Ogden

GEOPHYSICAL - GEOLOGICAL - GEOCHEMICAL TECHNICAL DATA STATEMENT

RECEIVED DEC 1 4 1973

TO BE ATTACHED AS AN APPENDIX TO TECHNICAL REPORT FACTS SHOWN HERE NEED NOT BE REPEATED IN REPORT. TECHNICAL REPORT MUST CONTAIN INTERPRETATION, CONCLUSIONS ETC

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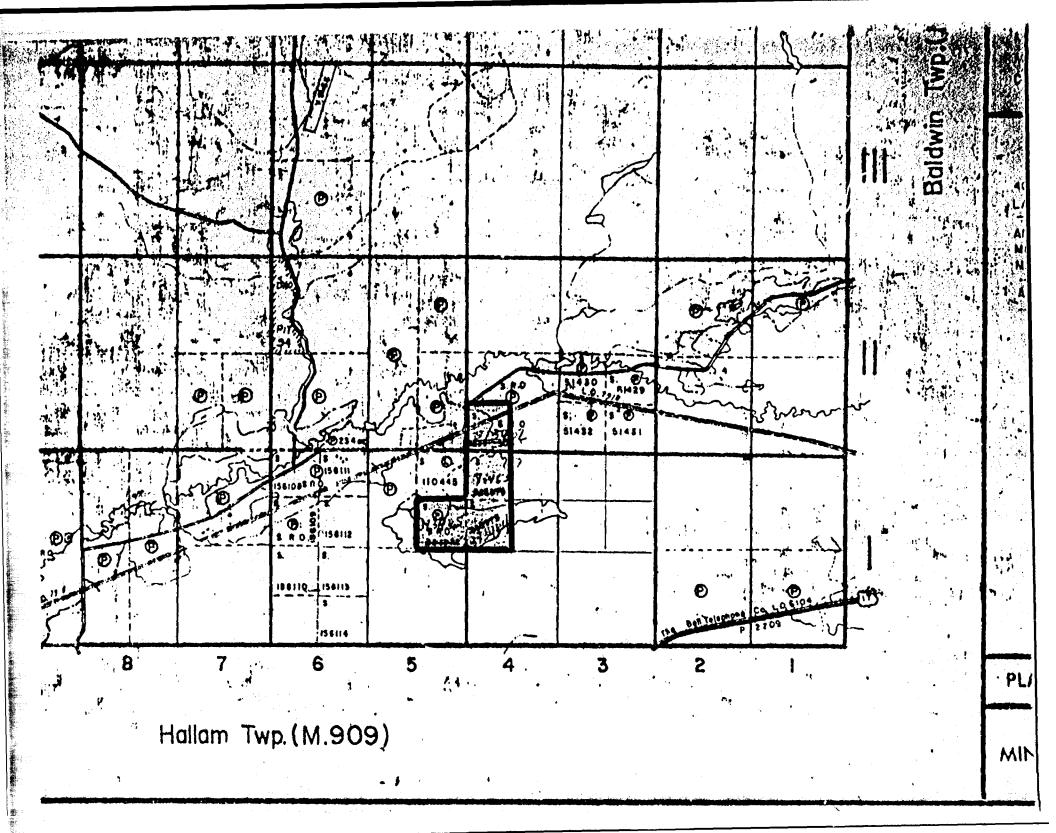
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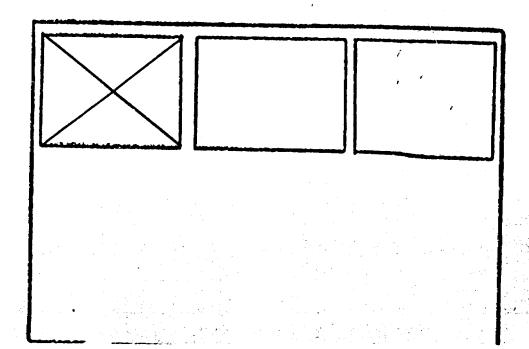
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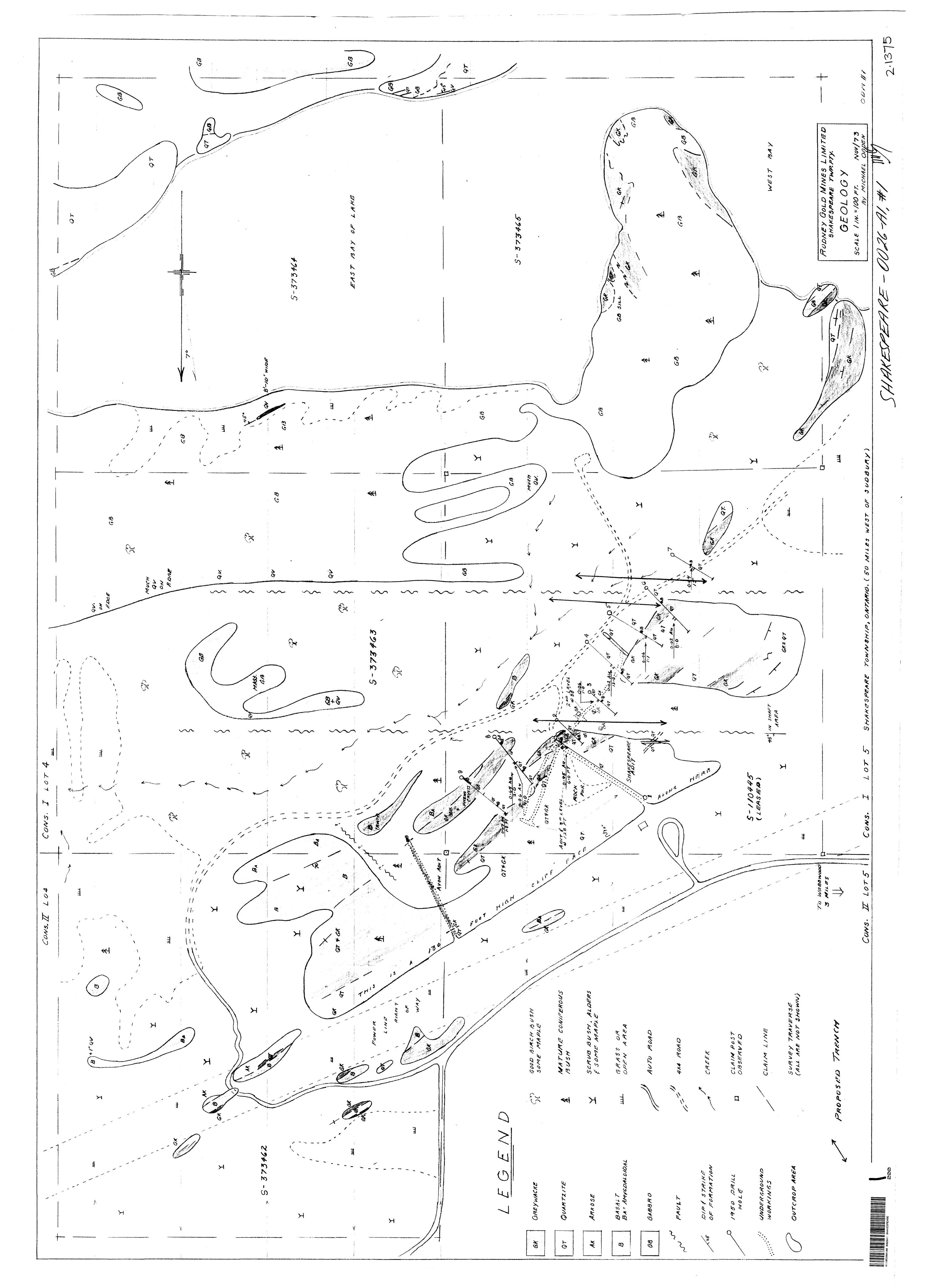
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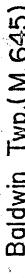


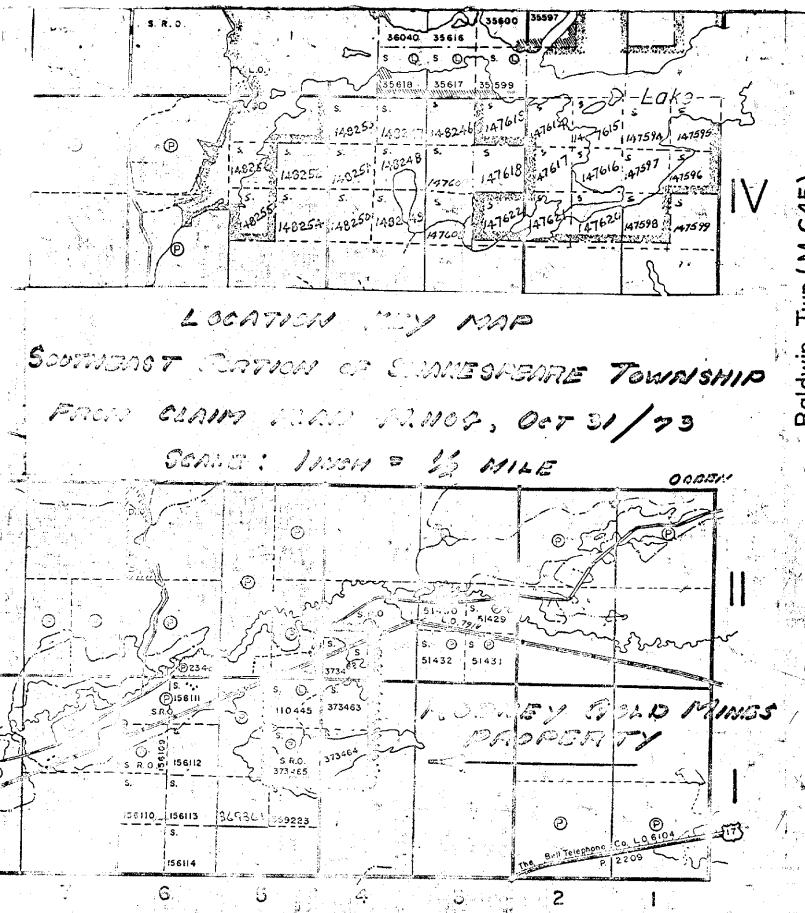
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