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62.2414

R E P O R T

on the property of

MELVILLE MINES & INDUSTRIES LIMITED

Baden Township, Ontario

Timmins, Ontario,

April 28, 1973.

R. J. Bradshaw, P. Eng.,

Consulting Geologist.

S U M M A R Y

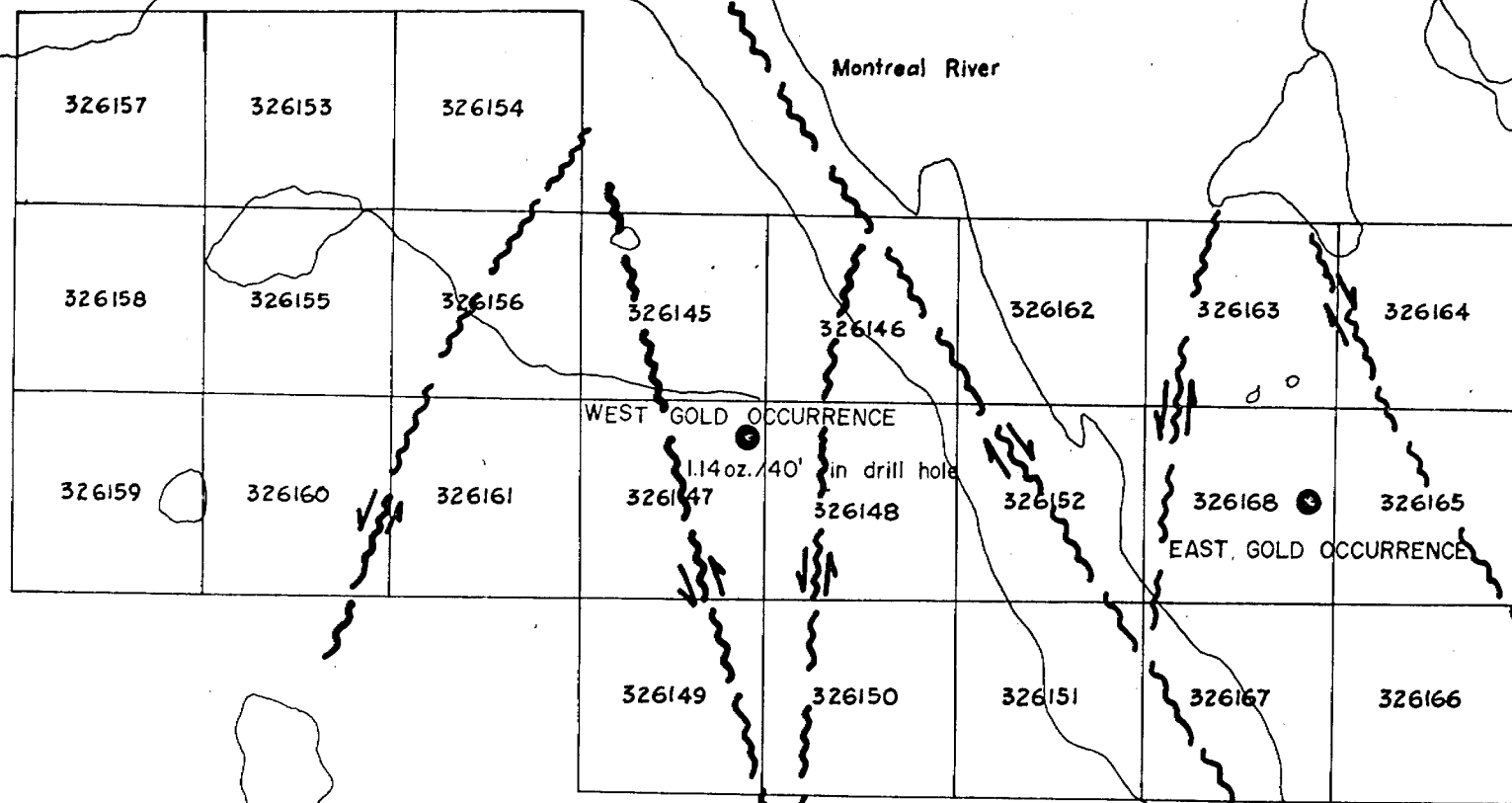
Melville Mines & Industries Limited holds 24 unpatented mining claims in Baden Township, 42 miles southwest of Timmins, Ontario. Designated 326145 to 326168 inclusive, the claims are in good standing until May, 1974, with the exception of claims 326146, 326151, 326152, and 326167 which require an extension for performance of work if no assessment work is filed by May, 1973. Float or ski-equipped aircraft is the most convenient means of access to the Montreal River on the property. Alternatively bush roads from highway No. 566 several miles to the south may also be utilized.

In 1936 two gold occurrences on the claim group were investigated with apparently inconclusive results. Four holes were drilled on the west showing. G. L. Holbrooke reported that one hole intersected a section averaging 1.14 oz. gold per ton over 40 feet; the other three holes failed to intersect values. The surface expression of this occurrence was not located during geophysical and geological surveys undertaken by Shield Geophysics Limited in 1971, apparently because of dense new undergrowth.

Samples from the east showing reported by G. L. Holbrooke ranged from 0.81 to 0.46 oz. gold per ton. No drilling was reported. In 1971 grab samples taken by Shield Geophysics staff from quartzose vein material averaged 0.72 oz. gold per ton. Although Holbrooke reported a zone 12 feet wide and 600 feet long a vein 10 inches wide with indeterminate length was observed by the writer. Again, however, new growth considerably obscured rock

exposure in the area. Adjacent to the gold occurrence a parallel conductive zone follows the edge of a magnetic anomaly for about 600 feet.

To evaluate these gold showings, it is proposed that a programme of detailed prospecting, involving stripping, trenching and sampling be undertaken. Based on this work a drill programme of 2000 to 3000 feet will be formulated. Cost of the programme is estimated at \$30,000.



BADEN TWP

POWELL TWP

Faults after 1971 geophysical
and geological surveys.



MELVILLE MINES & INDUSTRIES LIMITED

BADEN TOWNSHIP, ONTARIO

Scale: 1" = 1320'

April

1973

INTRODUCTION

A group of 24 claims is held by Melville Mines & Industries Limited in Baden Township in northeastern Ontario.

It was proposed by the writer in a report dated June 29, 1971, for North Slave Mines Limited that preliminary exploration work be undertaken on this property to assist in the evaluation of gold occurrences on the claim group. Magnetic, electromagnetic and geological surveys were completed by Shield Geophysics Limited in 1971. Based on this work a programme of detailed surface work and diamond drilling is outlined in this report.

PROPERTY, LOCATION AND ACCESS

The property consists of 24 unpatented mining claims designated 326145 to 326168 inclusive. All of the claims are in good standing until May, 1974, with the exception of 326146, 326151, 326152 and 326167, partially underlain by the Montreal River, which will require an extension if no work is undertaken prior to May 31, 1973.

Located in the southeast sector of Baden Township, Ontario, straddling the Montreal River, the property is about 42 miles southeast of Timmins, Ontario.

Access is most convenient by float or ski-equipped aircraft to the Montreal River from South Porcupine Lake. Alternatively a bush road about four miles long, north from highway

No. 566, provides access to the west half of the property.

PREVIOUS WORK:

Work on the property prior to 1971 is outlined in the marginal notes of Map F195 by the C.D.M.

In 1936, under the supervision of G. L. Holbrooke, four holes were drilled under a gold bearing quartz vein, 16 inches wide, on the west shore of the Montreal River. In one hole Holbrooke reports a section of 49 feet which averaged 1.14 oz. gold. No significant values were encountered in the other three holes. Although an old drill hole and several trenches were located during the survey work in 1971 no surface expression of this occurrence was detected.

To the east of the Montreal River, Holbrooke reports that a strong vertical east-west trending shear containing parallel quartz veins yielded assays from grab samples of 0.01 to 0.46 oz. gold per ton over a width of 12 feet and a length of 600 feet. Just prior to the survey work in 1971, sampling by Shield Geophysics staff yielded assays of 1.43, 0.95, 0.06 and 0.46 oz. gold per ton from quartzose grab samples. The highest assay from several grab samples of wallrock was 0.05 oz. gold per ton. Just south of the main pit on the gold zone a weak parallel conductive zone coincides with the edge of an east trending lenticular magnetic high several hundred feet long (See Reports by Bradshaw, October 7, 1971).

In 1957 an electrical resistivity and self potential survey by Geophysical Engineering & Surveys Limited did not reveal any significant anomalies on the property.

The surveys carried out by Shield Geophysics Limited in 1971 were controlled by north trending picket lines at 400 foot intervals. Magnetic, electromagnetic (Ronka EM 16), and geological surveys were completed on the claim group. As a result of these surveys it was recommended by the writer that a programme of detailed prospecting, rock trenching and sampling be undertaken on the property followed by diamond drilling.

GEOLOGY

The geology of Baden Township is outlined on Map No. P195 by the Ontario Department of Mines. This work is supplemented by the survey completed by Shield Geophysics Limited (October 7, 1971).

Regional Geology

Acid to basic rocks intrude generally east striking metavolcanic rocks in the Township, which include basic to intermediate and variably altered flows, tuffs and agglomerates according to Map P195.

Minor amounts of pink to grey granite, quartz diorite and diorite intrude the volcanics. Diabase dykes forming north trending ridges intrude all earlier rock types.

The Montreal River, Mistinikon Lake and subsidiary faults, strike northwest and north respectively through the Township. The Melville property straddles the Montreal River fault.

Local and Economic Geology

Within the claim group mafic to felsic metavolcanics, striking generally east, are overlain in places by thin diabase sills. Although various volcanic structures in the metavolcanics could be recognized the compositional changes were so imperceptible that specific classifications were not feasible. The geophysical data (October, 1971) indicated a series of north-northwest and north trending faults cutting the volcanics. The Montreal River fault is the dominant structure.

Grey quartz contains the gold at the east gold showing. An arithmetic average of four assays from the vein material is 0.72 oz. gold per ton. Poorly exposed, the east striking vein appears to be only 10 inches wide. Dense undergrowth and moss cover may account for this conflict with Holbrooke's observations. The length could not be determined although just south of the main pit a weak parallel conductive zone coincides with the edge of an east trending lenticular magnetic high several hundred feet long.

Although Holbrooke reported a drill intersection of 40 feet which assayed 1.14 oz. gold per ton no surface expression of the west gold occurrence could be located. Several old pits and trenches in this area are filled with water and covered with moss.

An area along the base line on claims 326160 and 326161 is very similar geologically and geophysically to the area of the east gold showing.

Minor amounts of molybdenite were located in epidotized volcanics in the extreme east-central sector of the property.

CONCLUSIONS

Two gold occurrences are present on the Melville property. A 40 foot drill intersection averaged 1.14 oz. gold per ton below the west occurrence; but three other holes failed to encounter values. No explanation for these inconsistent results was provided by G. L. Holbrooke the geologist in charge of the 1936 programme. In recent surveys a surface expression of this occurrence was not detected apparently because the rock exposures are obscured by moss and thick underbrush.

Although the east gold occurrence was located, it could not be adequately evaluated because of new growth. Grab samples from a vein 10 inches wide averaged 0.72 oz. gold per ton. Alongside and parallel to the vein is a conductor about 600 feet long at the edge of a lenticular magnetic high.

In view of the recent substantial increase in the price of gold the gold occurrences merit a detailed examination.

RECOMMENDATIONS

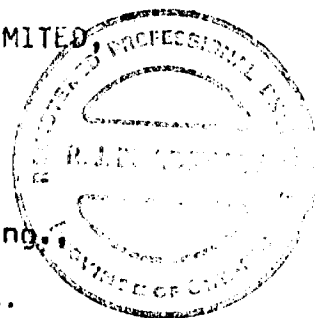
Initially it is recommended that surface work involving prospecting, trenching and sampling be undertaken in the vicinity of the gold occurrences and along the base line on claims 326160 and 326161. Under the supervision of a geologist about a month's work is required, estimated to cost \$5000.

An amount of \$25,000 should be allocated for the drilling of 2000 to 2500 feet of diamond drilling based on the surface work and previously conducted surveys. Because of the Montreal River situated between the two gold occurrences a higher cost than usual is anticipated for the drilling.

Respectfully submitted,
SHIELD GEOPHYSICS LIMITED

R. J. Bradshaw

R. J. Bradshaw, P. Eng.
Consulting Geologist.



Timmins, Ontario,
April 28, 1973.

REFERENCES

- Bradshaw, R. J.; June 29, 1971 Report on North Slave Mines
Limited Property
- Bradshaw, R. J.; Oct. 7, 1971 Magnetic-Electromagnetic Survey
Melville Mines & Industries Ltd.
- Bradshaw, R. J.; Oct. 7, 1971 Geological Survey
Melville Mines & Industries Ltd.

C E R T I F I C A T E

I, Ronald J. Bradshaw, residing at 480 Howard Street, Timmins, Ontario, a consulting geologist with office at 26 Pine Street South, Timmins, Ontario, do hereby certify that:

I attended Queen's University, Kingston, Ontario, and graduated with an Honours B.A. degree in Geological Sciences in 1958.

I am a Fellow of the Geological Association of Canada, a Member of the Canadian Institute of Mining and Metallurgy and of the Association of Professional Engineers of the Province of Ontario.

I have no interest either directly or indirectly in the shares or securities of Melville Mines & Industries Limited.

Timmins, Ontario,

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