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DOMINION GULF COMPANY
GEOLOGICAL REPORT
CAIRO-FLAVELLE TWPS. CLAIMS, GROUP I
MONTREAL RIVER MINING DIVISION
PROVINCE OF ONTARIO

H. B. Vos
June, 1952

Dominion Gulf Company
Geological Report
Cairo-Flavelle Twp. Claims, Group I
Montreal River Mining Division
Province of Ontario

LOCATION, ACCESS

The 5 claims covered by this report are all readily accessible from a good gravel road that runs through the property in a northeasterly direction. This road branches easterly from highway No. 65, connecting Matachewan and Elk Lake, at mileage 21. These 5 claims are situated in two separate groups. The first claim group consists of 3 claims numbered - MR-19744, MR-19745 and MR-19746. The north boundary of the 2 claims MR-19744 and MR-19745 runs in an east-westerly direction through the centerpart of St. Paul's Lake and the 3rd. claim MR-19746 is the adjacent claim to the east of MR-19745.

The second claim group consists of 2 claims numbered MR-19743 and MR-19742. They are situated directly half a mile east of St. Paul's Lake and are bordered to the west by a Beaver pond which covers the greatest part of claim MR-18758.

All 5 claims mentioned above are in Cairo Township.

OWNERS

The claims are held by Dominion Gulf Company, 203 Bay Street, Toronto, Ontario.

SURVEY, ORGANIZATION, DATES

The survey was made by employees of the Dominion Gulf Company. Work in the field was under the direction of H. B. Vos, Larder Lake, Ontario who also did the picketline surveys and the mapping. The linecutting was done by P. Veinot and N. Radocaj, both from Larder Lake, Ontario.

The section lines were turned off from baselines with a surveyor's cross and were located at the end by tielines. All lines were measured with a 100 foot steel tape and marked pickets were placed at 100 foot intervals. Topographical features are based on aerial photographs, scale 1" = 400' and are tied to the picket lines wherever possible.

The mapping was done in June, 1952. The linecutting in May, 1952.

TABLE OF FORMATIONS

1. Matachewan
Diabase
2. Algoman
Granite
Syenite Porphyry
3. Halleyburian
Gabbro
4. Timiskamian
Conglomerate
Tuff
5. Keewatin
Rhyolite
Andesite, Basalt.

DESCRIPTION OF FORMATIONS1. Matachewan

Several diabase dikes running in a northerly direction and cutting all the other formations could be found on the claims. The dykes are massive, fairly fresh in appearance with a smooth, light brownish weathered surface.

One of the dykes in the center part of claim MR-19742 is probably offset by a fault striking in a northeasterly direction.

2. Granite

The granite outcrops occurring on the claim group are parts of a large granite massive lying approximately 0.25 miles south of the property. From this body, numerous dykes and irregular tongues are crosscutting the Keewatin lavas and are also intruding the Haileyburian gabbro, but are again cut off by the still younger Matachewan dykes.

Two types of granites were noticed. One type appears as small dikelets south of St. Paul's Lake and consists of red feldspar (Orthoclase), little Quartz and is rich in a dark green Hornblende, whereas the second type which occurs in bigger outcrops east of the Beaverpond carries no hornblende, but is richer in Quartz. Inclusions of coarse grained gabbro have been found in the latter.

3. Syenite Porphyry

None.

4. Gabbro

Appears in small dykes and narrow sills, varies little in composition and texture. It has finer grained phases which might be confused with a diabase dyke and the coarser grained ones on line 76W, claim MR-19746, dragfolding was found between the coarse grained gabbro and an acidic brecciated possible flowtop.

5. Keewatin Lavas

Rhyolite: One small outcrop on line 76W, 8N, on claim MR-19746, of a very fine-grained siliceous rock was found in contact (Strike E-W) with a coarse-grained gabbro. The brecciated light coloured lava indicated a possible flowtop.

Andesite, Basalt: Though altered, they are for the greatest part massive and good pillow outlines are occasionally apparent. They are abundant over all five claims. The pillow outlines indicate that the flow strikes approximately east-west and are facing north. The flows are dark green or greyish green in colour.

STRUCTURE

Owing to the lack of sediments and partly heavy alteration and schistosity the structure could not be determined with certainty. Following the strike of the pillows of the lavas from claim MR-19744 in the west to claim MR-19745 in the east, a sudden change in the direction of the strike from east-west to northeast in claim MR-19745 on line 80W, which is again changing to southeast on line 76W, indicates a minor fold. Again based on the strike change of the pillows a weak indication of a possible continuation of the same fold through the northern part of claim MR-19745 could be noticed. In this folded area heavy shearing and alteration of the lavas could be noticed in several places. A possible fault runs through the muskeg swamp in north-easterly direction over the east border of claim MR-19746. Another minor fault on claim MR-19742 is indicated by a slight displacement of a diabase dyke.

EXPLORATION

Considerable surface work has been done on the property by former owners of the claims. This work included stripping and numerous rock trenches.

Work by the present owners was initiated on June 1, 1952 and finished on July 1, 1952. This work included linecutting, geological mapping, stripping and sampling.

MINERALIZATION

Most of the old trenches occur in the shear zone which follows approximately the south border of the claims MR-19744 to MR-19746. From the quartz veins which are of a milky white colour and which width differs from a few inches up to 2 feet, grab samples were taken. The only mineral noticed in the quartz veins was pyrite, fine disseminated and in other cases crystallising in small cubes. Also the sheared and schisted wallrocks (basalt) contained pyrite and in some places traces of chalcopyrite could be seen.

In one small trench, 87W, 7N, claim MR-19745 chalcopyrite, malachite, hematite and calcite was noticed. The trench was dug in the sheared basic lava, probably following a mineralized quartz vein. The sample assayed 2.18% in copper but nil in gold. The assay results from all the other grab samples were negative.

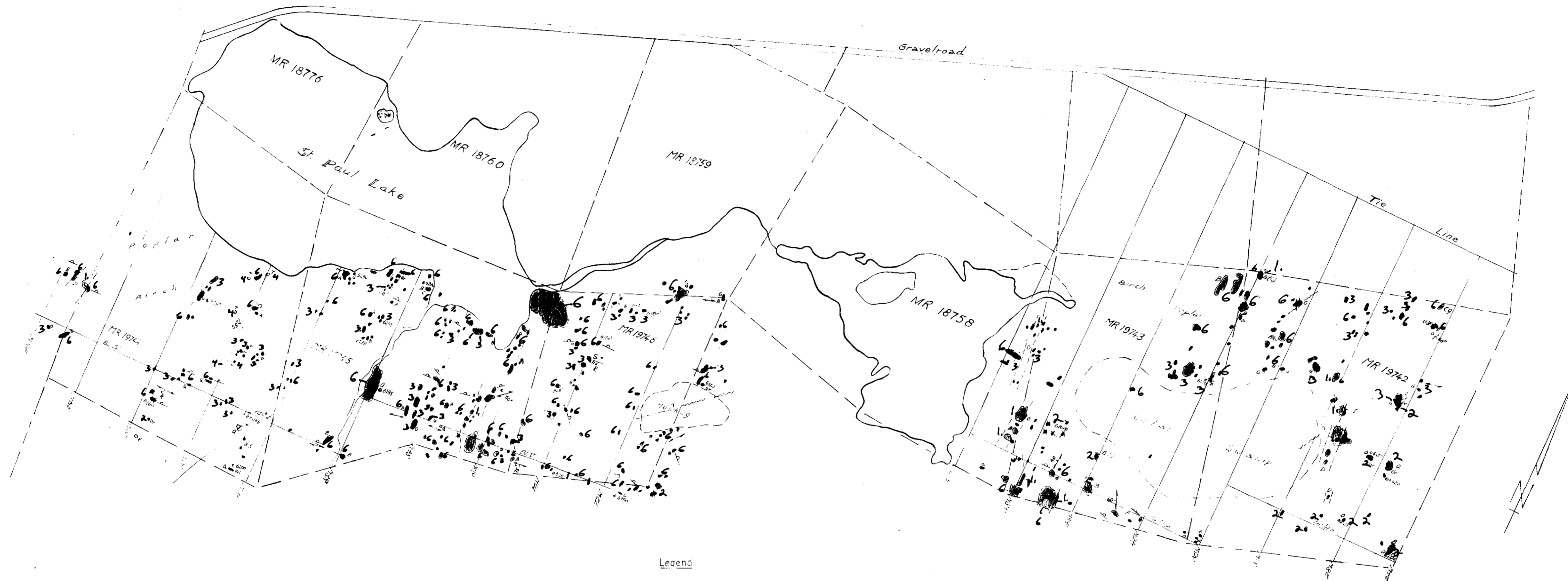
Some minor mineralization occurs in the white quartz veins of the granite dykes in the southeast part of claim MR-19742. (pyrite). But also here no values of any importance could be obtained.

CONCLUSIONS, RECOMMENDATIONS

The 5 claims MR-19744, MR-19745, MR-19746 and MR-19742, MR-19743 covered by this report were originally staked to protect the main shear zone, which strikes in a northeasterly direction through the center of the property, to the south. No mineralization of any importance was expected on these claims. My investigation emphasizes this impression, though it might be interesting to follow the fold-structure to the east and to the south of claim MR-19746.

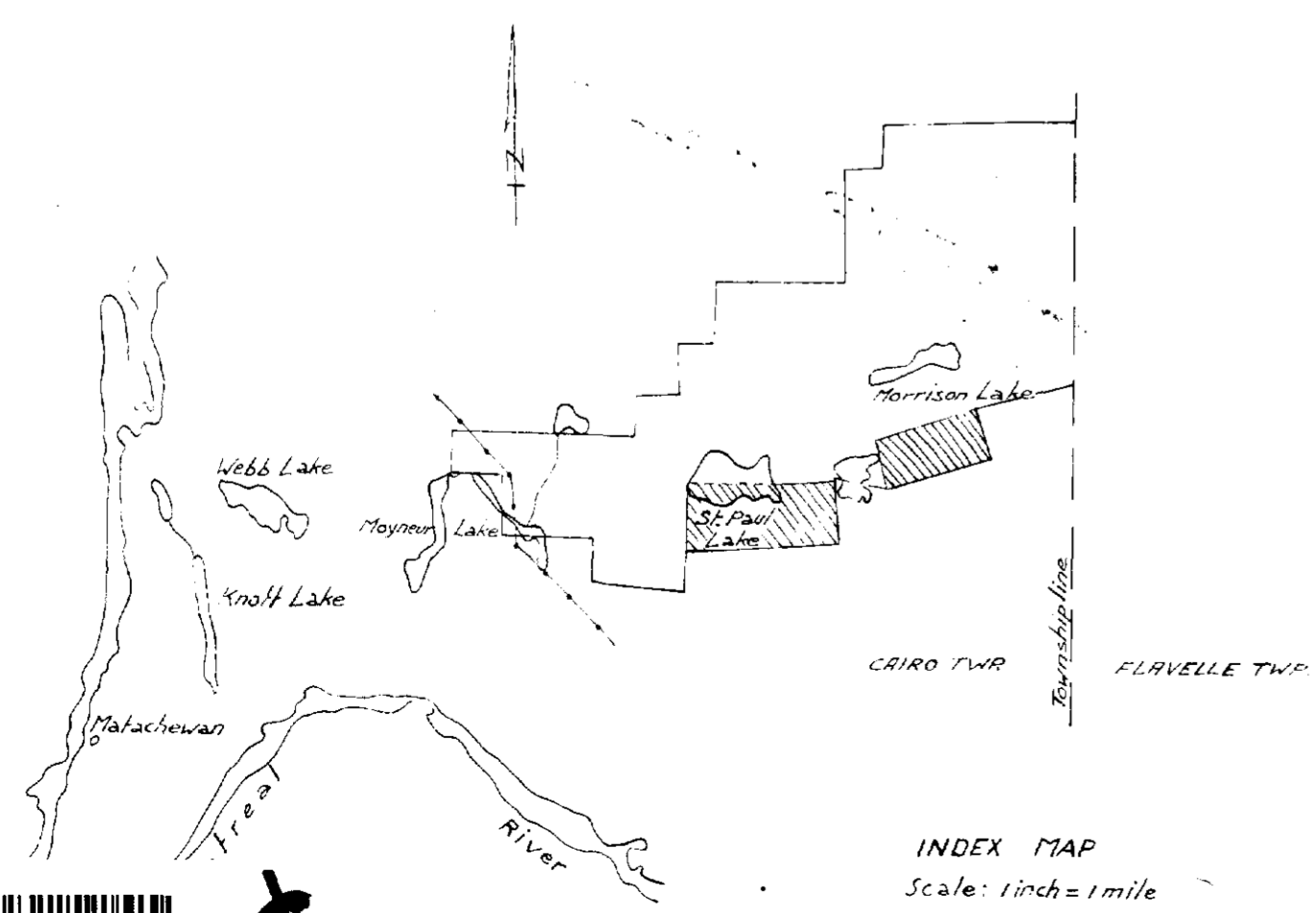
H. B. Vos

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Legend

- 1. *Diabase*
- 2. *Granite*
- 3. *Gabbro*
- 4. *Tuff*
- 5. *Rhyolite*
- 6. *Andesite, Basalt.*



INDEX MAP
Scale: 1 inch = 1 mile

63A.151

Dominion Gulf Company
Cairo-Flavelle Twp. Claims
Group I
Prov. of Ont.
Scale: 1" = 400'
June 1952 H.B. Vos

