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REPORT  
ON  
GEOLOGICAL MAPPING  
OF  
DUREX MINING COMPANY LIMITED  
GILLIES LIMIT *S.P.*  
DISTRICT OF TEMISKAMING

REPORT  
on  
GEOLOGICAL MAPPING  
on the property of  
DUREX MINING COMPANY LIMITED  
GILLIES LIMIT  
DISTRICT OF TEMISKAMING

INTRODUCTION:

The property of Durex Mining Company Ltd., Suite 1010, Central Building, 45 Richmond Street, West, Toronto, Ontario, consisting of four (4) claims numbered as follows: T27089-90, T27081-2, was geologically mapped between the dates July 1st - 12th. A base line was run East-West parallelling the North boundary and approximately 100 feet South of it. North-South profile lines were cut at 600 foot intervals from this base-line except in the vicinity of the diabase-Keewatin contact where closer work was necessary. Pickets were placed at 100 foot intervals on all lines. The ground was ranged east and west from the North-South lines at intervals of 300 feet.

LOCATION AND ACCESSIBILITY:

The property is located in the Cobalt Silver area, Gillies Timber Limit, District of Temiskaming, approximately nine miles South-East of the Town of Cobalt.

A fair motor road passing along the west boundary of claim T27090 continues on to Cobalt a distance of 13½ miles.

## TOPOGRAPHY

The property as a whole has a rugged topography with numerous small hills and narrow valleys. Many of the hills are steep-sided. The greater part of the low ground is dry with many boulders in evidence but several wet swampy sections were located as per map.

The forest cover is second growth and quite heavy, consisting of poplar, birch and moose maple.

## REGIONAL GEOLOGY

The Cobalt silver area is underlain by late pre-cambrian, gently dipping to nearly horizontal sediments (conglomerates, arkose, greywacke, and quartzites) which rest upon older rocks consisting of Timiskaming sediments, Algoman or Laurentian granite and gneiss, and Keewatin lavas and tuffs. They are all cut by a quartz diabase of Keewatin age, called Nipissing diabase. The Nipissing diabase is the youngest pre-cambrian rock of the region with the exception of some post-Keweenawan olivine and quartz diabase dikes.

All the ore occurrences in the Temiskaming area, whether economic or otherwise, show a genetic connection either direct or indirect with the Nipissing diabase. Ore occurrences are definitely related to contacts between the diabase and intruded rocks. A second feature of the utmost importance is the pre-existing faults which limit or control ore disposition.

(Bulletin 134 Dept. of Mines, Ontario).

GEOLOGY OF PROPERTY

The property of Duréx Mining Company Ltd., Gillies Limit, is almost entirely underlain by Nipissing diabase of Keweenawan age, except for a narrow strip of Keewatin lavas and sediments along the East boundary.

The diabase is massive with a medium grained texture except for some erratic splashes of coarser grained material locally referred to as gabbro.

All Keewatin rocks noted on the property were basaltic lavas, but a small pit off the North-East corner of the property was put down in Keewatin sediments. It was impossible to obtain the dip or strike of these rocks because of the small size of the outcrop.

Very little fracturing was noted, the diabase being massive and tight. Several minor fractures were noted as per map on claims T27090 and T27089.

CONCLUSIONS

The larger part of the property is covered with diabase showing little fracturing.

A contact between the diabase and keewatin rocks exists on the extreme Eastern part of the property.

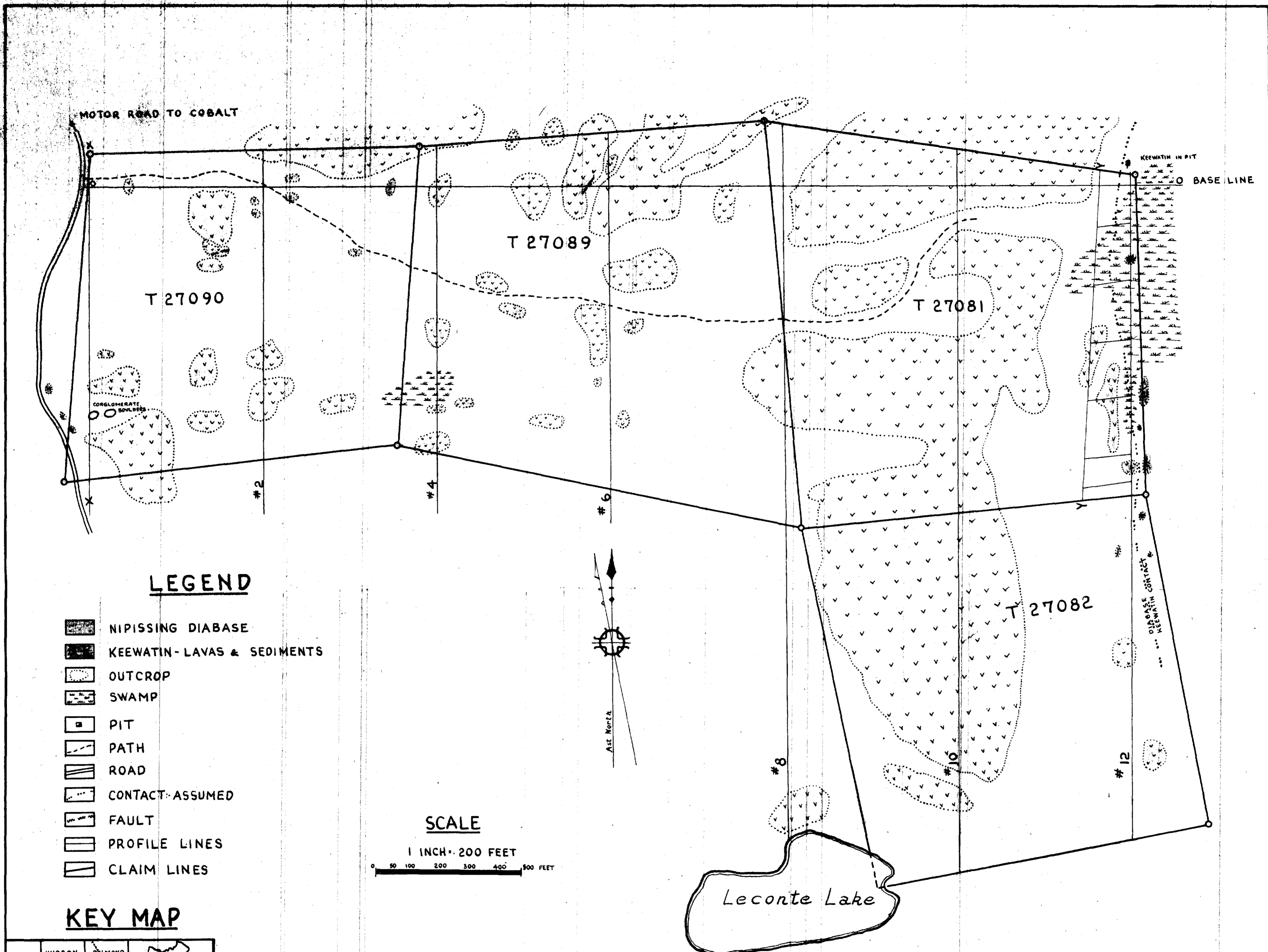
RECOMMENDATIONS

It is recommended that if any future work is contemplated, it be concentrated along the contact between the diabase and Keewatin rocks.

Signed ... *Ralph I. Benner* ...

Ralph I. Benner, B.Sc. Geology.

July 14th, 1947.



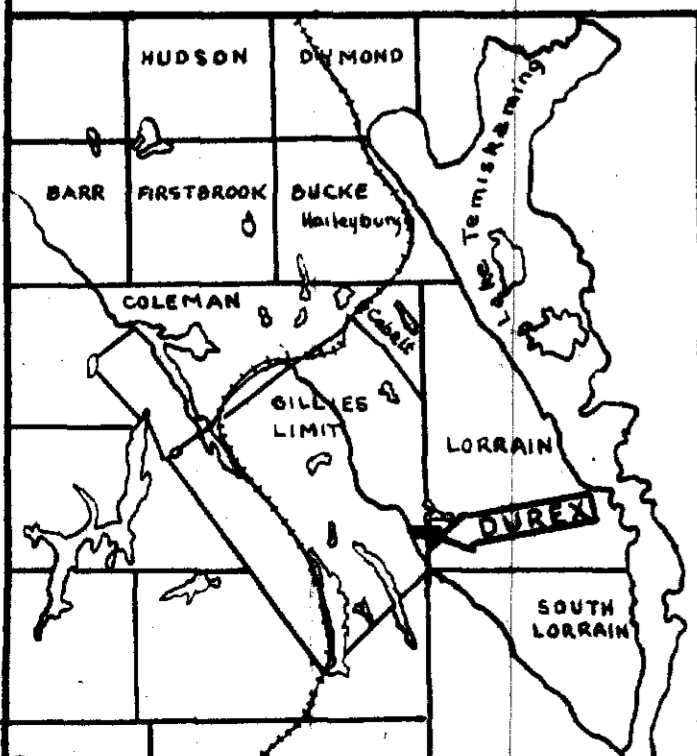
**LEGEND**

- NIPISSING DIABASE
- KEEWATIN-LAVAS & SEDIMENTS
- OUTCROP
- SWAMP
- PIT
- PATH
- ROAD
- CONTACT-ASSUMED
- FAULT
- PROFILE LINES
- CLAIM LINES

**SCALE**

1 INCH = 200 FEET  
 0 50 100 200 300 400 500 FEET

**KEY MAP**



**GEOLOGICAL MAP**  
**OF**  
**DUREX MINES LTD.**  
**SOUTH GROUP**  
**GILLIES LIMIT & LORRAIN TOWNSHIP**  
**IN THE**  
**DISTRICT OF TEMISKAMING**  
**PROVINCE OF ONTARIO**



GEOLOGY BY: *Ralph I. Beaman, B.Sc.*  
 MAP BY: *Dr. de Bastiani*  
 July 14, 1947  
 Cobalt, Ontario