



411055W0134 0013B1 HALLAM

010

63A.198

DOMINION GULF COMPANY

GEOLOGICAL REPORTS

HALLAM I

CLAIMS 8-72570 to 8-72573 incl.

SUDBURY MINING DIVISION - ONTARIO

J. A. LaRocque.

Sept. 17, 1954.

DOMINION GULF COMPANY

GEOLOGICAL REPORTS

HALLAM I

CLAIMS S-72570 to S-72573 incl.

SUDBURY MINING DIVISION - ONTARIO

J. A. LaRocque

Sept. 17, 1954

INTRODUCTION

This report covers the detail geological investigation of four Dominion Gulf Company claims S-72570 to S-72573 in the north half of Lot 12, Concession VI of Hallam Township, in the Sudbury Mining Division Ontario.

A good gravel road, running in a westerly direction passes through the centre of the property, and connects it with the Sudbury-Sault Ste. Marie highway and C.P.R. branch line both located about two miles to the south, at the town of Webwood.

A twin wood pole high tension power line crosses the southern end of the property. Geological investigations consisted of line cutting at 200-foot intervals, geological mapping, scintillometer and geiger counter prospecting, and warsop plugger rock trenching at two locations, during the period of November 2 to December 8, 1953 by C.McAuley, Geologist, and R. Boulanger, Assistant.

TOPOGRAPHY

The main topographical feature of the area is a large flat-topped ridge running close to north seventy degrees east through the northern half of the property paralleling the strike of the formations. The overburden over much of it is thin, and there are very large completely bare exposures of schist in the centre with quartzite exposures on the flanks. The north slope is steep and largely covered with overburden. Many of the exposures in this area are moss-covered.

The south slope is very steep, with numerous cliffs in many places in excess of fifty feet high and close to vertical.

Most of the south half of the group is covered with a flat sandy clay area, largely cleared for farming but otherwise overgrown with alder or small poplar.

It is thought to be a remnant of a lake bed of late glacial times. Along the south boundary, there are lower ridges of bare rock. Many of the slopes are quite steep, but cliffs are not numerous.

On the whole, rock exposures are plentiful, forming about twenty percent of the surface area. Most of them are completely bare of moss and overburden.

GEOLOGY

The claim block is underlain by schists and quartzites which have been intruded by diabase. These schists and quartzites in the area have been assigned to the Sudbury series sub-division by

Government geologists (Map 291A, Canada, Department of Mines). There are, however, reasons to believe the whole series is of Huronian age, parts of which have been subjected to severe folding and metamorphism.

TABLE OF FORMATIONS

Diabase dykes
Quartzite
Schist

DESCRIPTION OF FORMATIONS

SCHIST

The schists are more abundantly exposed and probably occupy the greater part of the area. They are well exposed along the wide flat topped ridge in the northern half of the property.

Evidence pointing to their origin and rock types is conflicting. In some places, they appear to truncate the quartzites indicating an intrusive origin, and in others, seem to conform, like a thick band of altered slate or greywacke interbedded with the quartzites. Near the east end of schist band, several exposures were noted in which quartzite fragments formed a large percentage of the rock. The matrix was similar to the schist. The contact between this material and the schist strikes close to east-west and dips seventy-five degrees to the north. A second band of schist outcrops intermittently along the south boundary of the claims. No banding or pillows or like structures were noted anywhere.

QUARTZITE

The quartzite forms two bands. The northernmost one runs across the property at least from the northeast corner to the centre, west of which there are no exposures. It is a fine grained, very light buff coloured rock that usually weathers white, although dark grey on a few exposures. No quartz pebbles were noted in this quartzite band.

The second band is only partially exposed along the southern flank of the wide northern band of schist. These quartzites dip at seventy-five degrees to the north and strike about north seventy degrees east i.e. parallel in all respects to the north band. The southern contact of the quartzite is not exposed. It could be as much as five hundred feet thick.

DIABASE

Only one exposure of diabase was found, and this occurring in the northeast corner of the claim block, where it banded intrudes and cuts white weathering banded quartzite.

STRUCTURE

The formations cross the area with a fairly uniform strike of north seventy degrees east and have been folded so that they now dip around seventy-five degrees to the north.

No top determinations were made on the claims. However, cross-bedding on the adjoining ground to the north showed that the beds are erect.

With no evidence to the contrary, we have no reason for assuming that the formations do other than form a regular series, one upon the other, with the younger members progressively closer to the top or north side of the claims.

There are some suggestions of the schists truncating the bedding of the quartzites locally but more detailed work may outline faults that have the direction and amount of movement to account for this.

MINERALIZATION

The presence of radioactive minerals in certain quartzite bands were detected with a scintillometer. In all cases the radioactive bands were quite narrow and lengths were not great.

No samples were sent for assay, however, scintillometer comparison of specimens with known assayed samples, indicated that a probably assay in the range of 0.05% to 0.10%, U³°8 equivalent might be obtained.

GEOPHYSICS

Most of the exposures were examined in part, at least, in a program of reconnaissance scintillometer surveying with the instrument held only an inch or two above the rock surface. However, no systematic survey tied into the picket lines were attempted.

J. A. LaRocque

JALaR:BJ

cc.- R.D.Wyckoff

Attachments:

**DUPLICATE CO
POOR QUALITY ORIGI.
TO FOLLOW**

D.G.C.Geological Map-Hallam I-Scale 1"-200' dated Sept.27, 1954

J. A. LaRocque.

INTRODUCTION

This report covers the detail geological investigation of four Dominion Gulf Company claims S-72570 to S-72573 in the north half of Lot 12, Concession VI, of Hallam Township, in the Sudbury Mining Division, Ontario.

A good gravel road, running in a westerly direction passes through the centre of the property, and connects it with the Sudbury - Sault Ste. Marie highway and C.P.R. branch line both located about two miles to the south, at the town of Webbwood.

A twin wood pole high tension power line crosses the southern end of the property. Geological investigations consisted of line cutting at 200-foot intervals, geological mapping, scintillometer and geiger counter prospecting, and Warsaw plugger rock trenching at two locations, during the period of November 2 to December 8, 1953 by C. McAulay, geologist, and R. Boulanger, assistant.

TOPOGRAPHY

The main topographical feature of the area is a large flat-topped ridge running close to north seventy degrees east through the northern half of the property paralleling the strike of the formations. The overburden over much of it is thin, and there are very large completely bare exposures of schist in the centre with quartzite exposures on the flanks. The north slope is steep and largely covered with overburden. Many of the exposures in this area are moss-covered.

The south slope is very steep, with numerous cliffs in many places in excess of fifty feet high and close to vertical.

Most of the south half of the group is covered with a flat sandy clay area, largely cleared for farming but otherwise overgrown with alders or small poplar.

Topography (Con't)

It is thought to be a remnant of a lake bed of late glacial times.

Along the south boundary, there are lower ridges of bare rock. Many of the slopes are quite steep, but cliffs are not numerous.

On the whole, rock exposures are plentiful, forming about twenty percent of the surface area. Most of them are completely bare of moss and overburden.

GEOLOGY

The claim block is underlain by schists and quartzites which have been intruded by diabase. These schists and quartzites in the area have been assigned to the Sudbury Series subdivision by Government geologists (Map 291A Canada, Department of Mines). There are, however, reasons to believe the whole series is of Huronian age, parts of which have been subjected to severe folding and metamorphism.

TABLE OF FORMATIONS

Diabase Dykes

Quartzite

Schist

DESCRIPTION OF FORMATIONS

Schist

The schists are more abundantly exposed and probably occupy the greater part of the area. They are well exposed along the wide flat topped

ridge in the northern half of the property.

Evidence pointing to their origin and rock types is conflicting. In some places, they appear to truncate the quartzites indicating an intrusive origin, and in others, seem to conform, like a thick band of altered slate of greywacke interbedded with the quartzites. Near the east end of the schist band, several exposures were noted in which quartzite fragments formed a large percentage of the rock. The matrix was similar to the schist. The contact between this material and the schist strikes close to east-west and dips seventy-five degrees to the north. A second band of schist outcrops intermittently along the south boundary of the claims. No banding or pillows or like structures were noted anywhere.

Quartzite

The quartzite forms two bands. The northernmost one runs across the property at least from the northeast corner to the centre, west of which there are no exposures. It is a fine grained, very light buff coloured rock that usually weathers white, although dark grey on a few exposures. No quartz pebbles were noted in this quartzite band.

The second band is only partially exposed along the southern flank of the wide northern band of schist. These quartzites dip at seventy-five degrees to the north and strike about north seventy degrees east, i.e., parallel in all respects to the north band. The southern contact of the quartzite is not exposed. It could be as much as five hundred feet thick.

Diabase

Only one exposure of diabase was found, and this occurring in

in the northeast corner of the claim block, where it banded intrudes and cuts white weathering banded quartzite.

STRUCTURE

The formations cross the area with a fairly uniform strike of north seventy degrees east and have been folded so that they now dip around seventy-five degrees to the north.

No top determinations were made on the claims. However, cross-bedding on the adjoining ground to the north showed that the beds are erect.

With no evidence to the contrary, we have no reason for assuming that the formations do other than form a regular series, one upon the other, with the younger members progressively closer to the top or north side of the claims.

There are some suggestions of the schists truncating the bedding of the quartzites locally, but more detailed work may outline faults that have the direction and amount of movement to account for this.

MINERALIZATION

The presence of radioactive minerals in certain quartzite bands was detected with a scintillometer. In all cases the radioactive bands were quite narrow and lengths were not great.

No samples were sent for assay, however, scintillometer comparison of specimens with known assayed samples, indicated that a probable assay in the range of 0.05% to 0.10%, U_3O_8 equivalent might be obtained.

GEOPHYSICS

Most of the exposures were examined in part, at least, in a program of reconnaissance scintillometer surveying with the instrument held only an inch or two above the rock surface. However, no systematic survey tied into the picket lines was attempted.

JALaR:BJ

J.A. LaRoque.

c.c. - R.D. Wyckoff.

Attachments

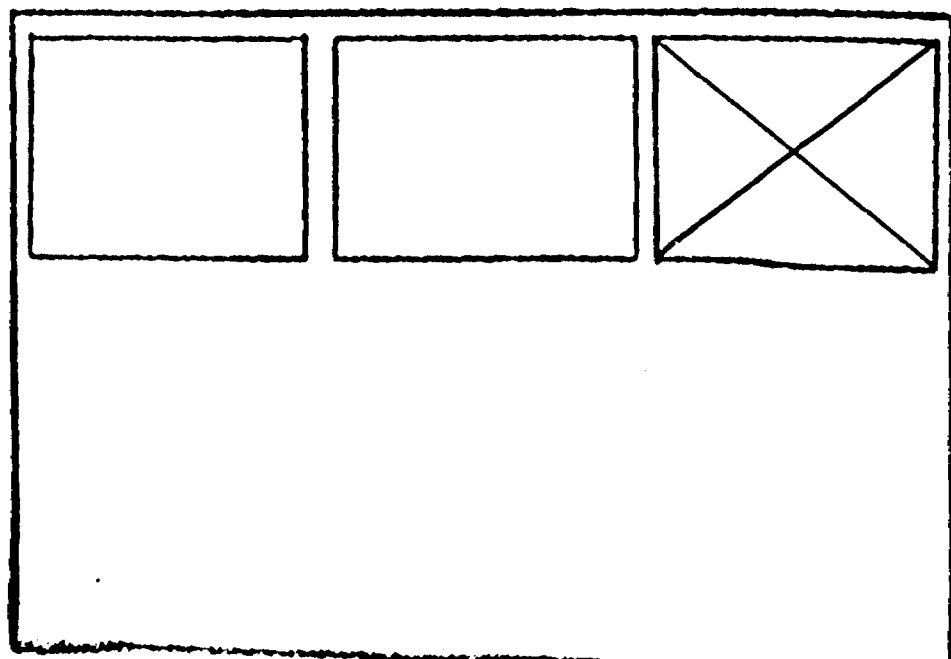
D.G.C. Geological Map - Hallam I - Scale 1" = 200' - dated September 17, 1954 -

J. A. LaRoque.

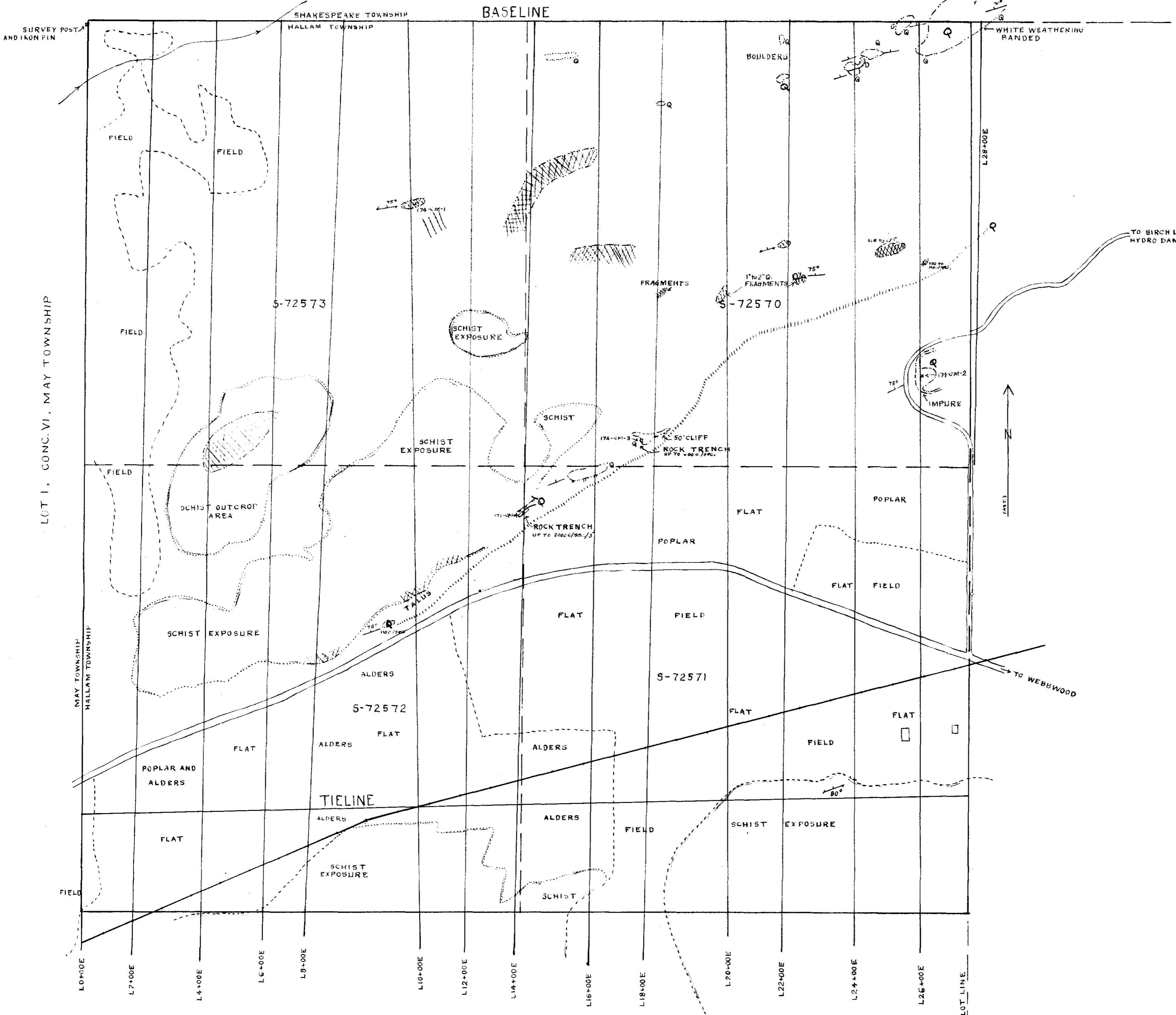
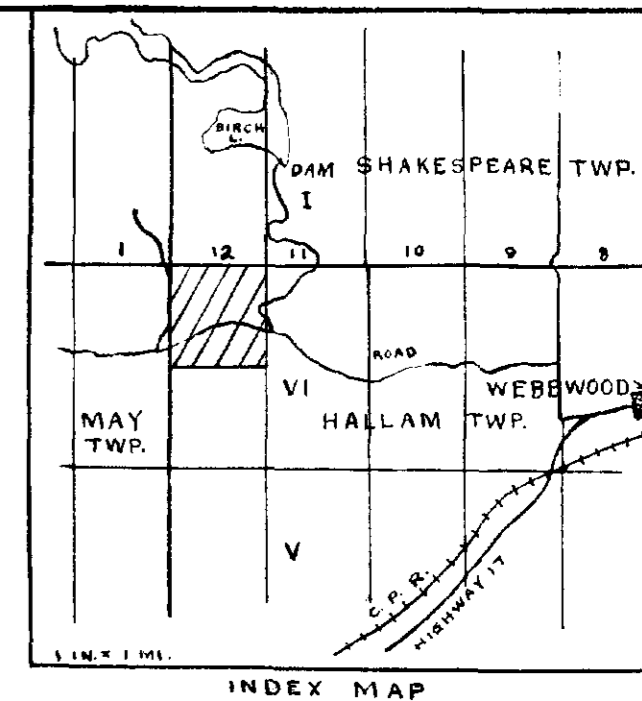
SEE ACCOMPANYING
MAP(S) IDENTIFIED AS

HALLAM - 0013-B1, #1

LOCATED IN THE MAP
CHANNEL IN THE FOLLOWING
SEQUENCE (X)



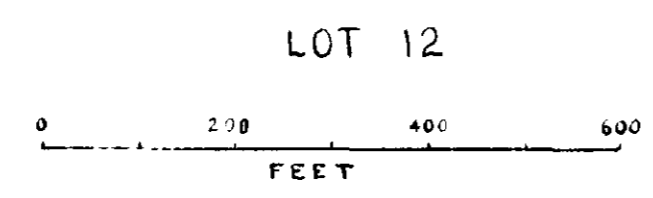
LOT 12, CONC. I, SHAKESPEARE TOWNSHIP



SPECIMENS			ROCK TYPE
NO.	LOCATION		
174-CM-1	L10+00E 15'E OF S+75'S		SCHIST
174-CM-2	L26+00E 10'E OF 11+00'S		QUARTZITE
174-CM-3	L18+00E 35'W OF 13+20'S		QUARTZITE
174-CM-4	L14+00E 15+25'S		QUARTZITE

- LEGEND**
- DIABASE
 - SCHIST
 - QUARTZITE
- SYMBOLS**
- STRIKE AND DIP OF BEDDING
 - DIRECTION OF TOPS OF CROSSBEDDED SEDIMENTS
 - STRIKE AND DIP OF SCHISTOSITY
 - EXPOSURE BOUNDARY
 - OUTLINE OF OUTCROP AREA
 - OUTLINE OF TRENCH
 - ELECTRIC POWER TRANSMISSION LINE
 - GRAVEL ROAD
 - BUILDING
 - CLAIM LINE

DOMINION GULF COMPANY
 PRELIMINARY GEOLOGY HALLAMI
 BASE MAP- 411/55
 NORTH CHANNEL - ONTARIO
 SCALE: 1IN=200FT.
 DRAWN BY C.M. AULAY JAN. 6, 1954
 GEOLOGY BY C.M. AULAY



200

HALLAM-0013-B1, #1

TO ACCOMPANY REPORT BY J.R. LA ROQUE - DATED SEPT. 17, 1954