

LEGEND

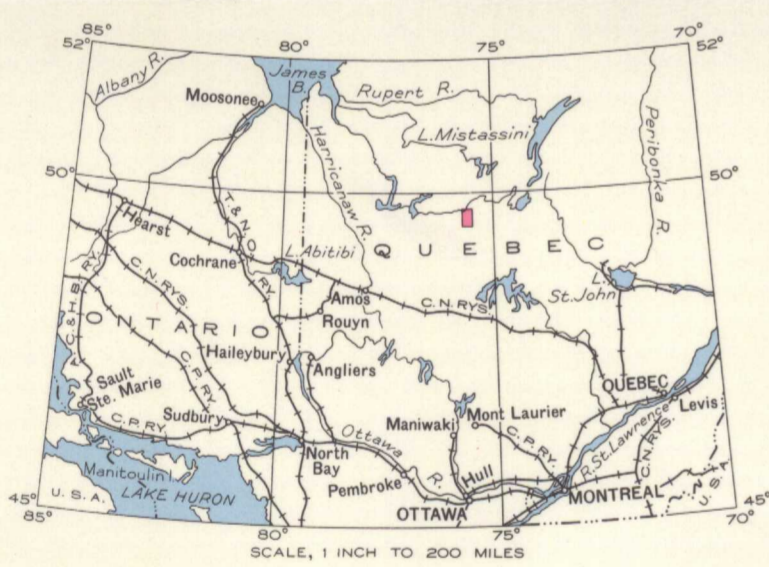
NOTE: -Uncoloured areas are drift covered and in them bedrock outcrops are not known. Coloured areas are in part drift covered, the locations of known areas of outcrop are indicated by crosses 'x', 'x'; small outcrop 'x'.

- PROTEROZOIC (LATE PRECAMBRIAN)
- 5 Quartz diabase
- ARCHEAN (EARLY PRECAMBRIAN)
- 4 Oligoclase granite (tonalite), syenite
  - 3 Anorthosite, gabbro
  - 2 Pyroxenite, gabbro
  - 1 Andesite, trachyte, agglomerate, hornblende schist

- Geological boundary (defined, approximate, assumed) ————
- Fault (approximate, assumed) - - - - -
- Shear zone (inclined, vertical) - - - - -
- Portage ———— P ————
- Township boundary, or surveyed line ————
- Township boundary (unsurveyed) - - - - -
- Rapid ———— R ————
- Marsh ———— M ————
- Height in feet above Mean sea-level: ———— 1000'

Geology by G. Shaw, 1937.

Base map prepared by the Topographical Survey, 1938, from Federal Government map published in 1936. Cartography by the Drafting and Reproducing Division, 1939.



DESCRIPTIVE NOTES

L. Lessard in the southern part of the area is 100 miles northeast of Senneterre which is on the Canadian National Railways where it crosses Bell river. The canoe route to L. Lessard from Senneterre is by way of Bell and Wedding rivers, Wedding and Esther lakes, Duplessis creek and Lakes Puskitamika, Malouin and Lichen. Lewis lake is reached from Opawica lake by Ruisseau Dalime.

The altered volcanic rocks (1) are part of a belt of greenstone extending from Bell river eastward for 100 miles to Surprise lake. In the area they are, on the whole, poorly exposed. In the northwest corner of the area some of the volcanic rocks have been altered to medium grained hornblende schists with a foliation parallel to the granite contact. Elsewhere although the volcanic rocks are greatly altered, several types can be recognized. The andesites are usually rich in chlorite, dark green and commonly schistose. Some are medium grained and are probably coarse phases of rather thick flows. The andesites are best exposed south and southwest of L. Relique. The trachytes are pale green to grey and are more massive than the andesites. They are either fine grained or porphyritic with phenocrysts of altered feldspar. The trachytes in places are agglomeratic.

The long narrow body of altered pyroxenite (2) immediately north of the anorthositic mass is intrusive into the volcanic rocks. The pyroxenite is dark brown to black and quite massive with a grain size commonly less than 1/16 inch. Most of the original pyroxene has been altered to amphibole. A few outcrops of coarse gabbro occur in the pyroxenite area. Their relation to the pyroxenite is not known.

The anorthositic rocks (3) vary from anorthosite on the south side to gabbroic types on the north. It is thought that the anorthositic rocks represent a section across a laccolith that was intruded into relatively flat-lying volcanic rocks and, after differentiation, tilted through about 90 degrees to its present position. The anorthositic rocks are altered particularly in the western portion of the mass. Unaltered feldspar in both anorthosite and gabbro phase has a composition between Ab25An75 and Ab20An80.

Granitic rocks (4) intrude pyroxenite, anorthositic rocks and volcanic rocks. Very coarse hornblende syenite containing microcline and amphibole outcrops west of the fault in the northwest corner of the area, forming a band 1/2 mile wide and 4 miles long immediately north of the volcanic rocks. The rest of the northern mass is oligoclase granite (tonalite). The tonalite contains phenocrysts of oligoclase up to 1/2 inch in diameter; amphibole is the dark mineral and quartz is present up to about 15 per cent. Towards the margin the rock loses its porphyritic aspect, becomes richer in amphibole and poorer in quartz. The stock that cuts off the anorthosite east of L. Lessard is composed of rocks similar to those of the northern mass. The narrow body of granite that divides the anorthositic mass in two, differs in that the feldspar is zoned plagioclase ranging in composition from andesine at the cores to albite at the margins of the crystals. The granitic rocks in the southwest corner of the area are also tonalites but contain biotite rather than amphibole as the dark mineral. The rock is not porphyritic except along the margins where the quartz tends to form 'eyes' up to 1/4 inch in diameter.

The rocks along the north shore and adjacent islands of L. Relique are strongly sheared, contorted and carbonated. These rocks are along the projected strike of similar shearing along the south shore of Opawica lake 5 miles to the southwest. The zone of shearing strikes about north 65 degrees east and possibly indicates a fault extending from Opawica lake to L. Relique and possibly continuing to L. Lapparent. Drag folding indicates a movement eastward of the rocks on the south side of the assumed fault. This is in accordance with the possible displacement of the greenstone-granite contact west of L. Lapparent. Faults trending slightly east of north displace the granite in the northwest and southeast corner of the area.

Up to the present time no mineral deposits have been discovered in the area. Near the west end of Opawica lake in the adjoining map area to the west, several small gold deposits have been found. Prospecting may be hampered considerably in some parts of the area by heavy overburden.

MAP 555A  
**LEWIS LAKE**  
ABITIBI TERRITORY  
QUEBEC

Scale, 63,360 or 1 Inch to 1 Mile

Approximate magnetic declination, 18°30' West.

NOT TO BE TAKEN FROM LIBRARY  
NE PAS SORTIR DE LA BIBLIOTHÈQUE

555A