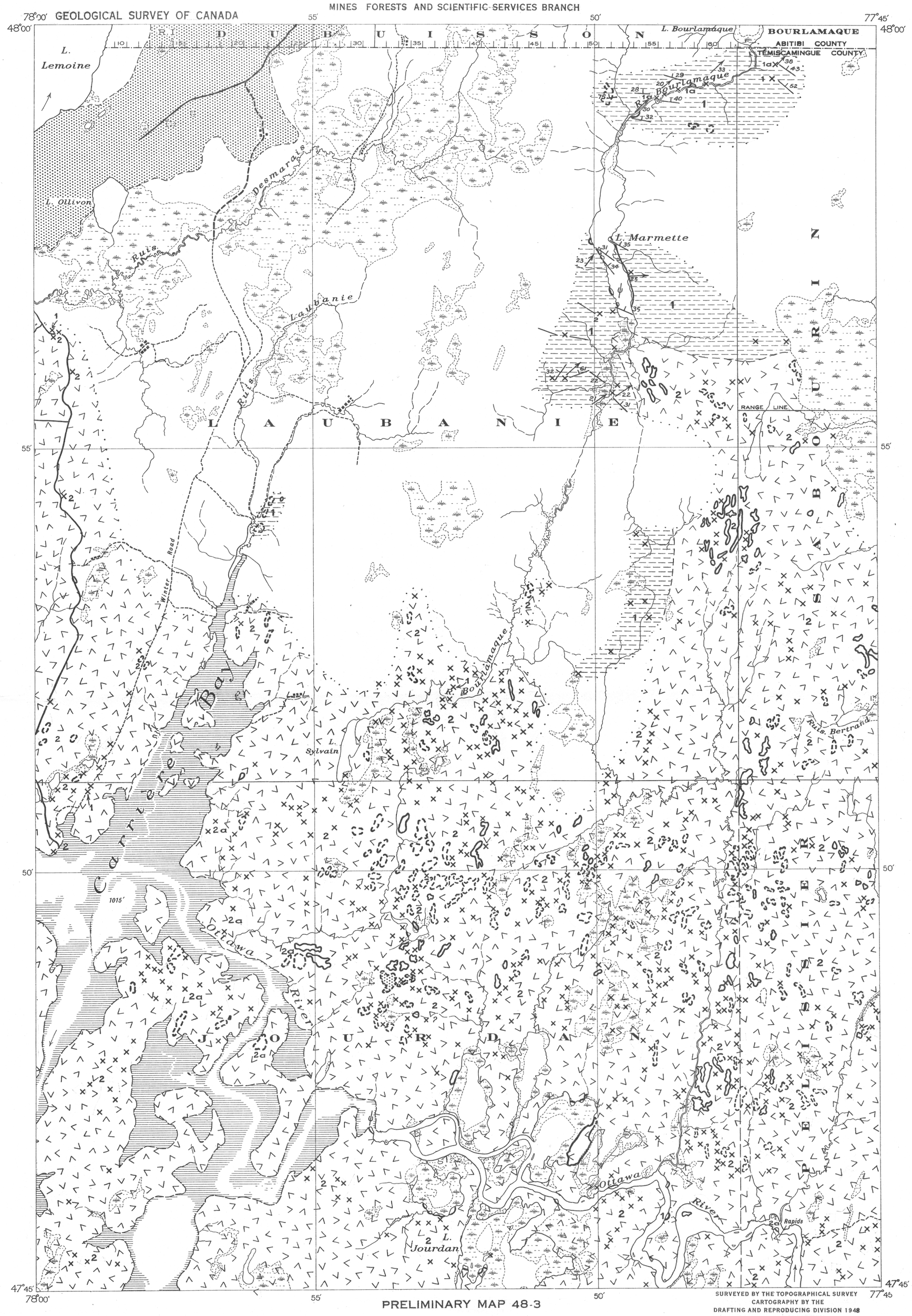
CANADA

DEPARTMENT OF MINES AND RESOURCES

MINES FORESTS AND SCIENTIFIC SERVICES BRANCH

GEOLOGICAL SURVEY OF CANADA



SURVEYED BY THE TOPOGRAPHICAL SURVEY
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LEGEND

ARCHAEAN

POST-TIMISKAMING

2 — Muscovite pegmatite; 2a, biotite-muscovite granite

KEEWATIN AND TIMISKAMING

1 — Biotite schist with minor greywacke; 1a, staurolite-biotite schist

Sand and gravel

Rock outcrop, area of outcrop (observed on ground)

Outcrop area (sketched from air photographs)

Bedding (inclined, dip unknown)

Lineation (plunge known, plunge unknown)

Glacial striae

Drowned land

Road

Trail

Marsh

Geology by K. R. Dawson, 1947

DESCRIPTIVE NOTES

It is probable that much of the map-area north of the batholithic rocks (2, 2a) is underlain by biotite schist (1), though large areas contain few or no outcrops. The biotite schist (1) is unquestionably of sedimentary origin. Neither crossbedding nor conglomeratic bands were observed. The most characteristic feature, a uniform bedding suggesting varves, is typically displayed in outcrops along Bourlamaque River and on the shores of Lac Marmette. The beds range in thickness from a few inches to a foot, and are commonly separable into two parts, a relatively wide siliceous base topped by a narrower, more argillaceous band. Generally, both parts contain mica flakes, which increase rapidly in size in the argillaceous material The latter also commonly contain staurolite crystals, and from numerous observations it has been concluded that the staurolite is confined to the upper parts of the beds Locally, where the staurolite is common in the schist, it has been mapped as staurolite-biotite schist(1a).

The northern contact of the batholithic intrusions (2) extends west from the east side of the map-area to the south end of Lac Marmette, and thence south, west, and finally northwest to where Ruisseau Desmarais crosses the western boundary of the map-area. The relief in this batholithic region, which extends beyond the southern boundary of the map-area, is higher than that in those areas underlain by the biotite schist, and generally the hills are outcrops of pegmatite (2). Moreover, the pegmatite is the predominant rock type of the map-unit. Both it and the granite (2a) contain a plagioclase feldspar (usually andesine), microcline, quartz, and either the normal type or the plumose variety of muscovite as the major constituents. Sericite, biotite, garnet, and zircon have a wide distribution as accessory minerals; in addition, tourmaline and beryl occur locally. In the marginal zone of the batholith the size of the biotite schist inclusions increases, and such minerals as the plumose muscovite and biotite become more prevalent. The granite carries a very low content of ferromagnesian minerals.

A single, small outcrop of rock resembling gabbro is exposed at the outlet of Lac Marmette, The rock is in chilled contact with biotite schist, and is probably part of a gabbro dyke.

Claims lying between Lac Marmette and Lac Bourlamaque have been prospected at the surface and by several diamond drill-holes. Trenches were also dug in the biotite schist near the forks of Spruce Creek, a small stream that enters the extreme tip of Carrière Bay. Nothing of economic value was found at either place.

PRELIMINARY MAP 48-3

LAC MARMETTE

TEMISCAMINGUE COUNTY

QUEBEC

Scale: 1 inch to 1 mile

1 0 1 2 3

Approximate Magnetic Declination 14°30′ West

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