CANADA
DEPARTMENT OF MINES AND RESOURCES
MINES AND GEOLOGY BRANCH
BUREAU OF GEOLOGY AND TOPOGRAPHY

GEOLOGICAL SURVEY

LEGEND

PROTEROZOIC

Diabase, gabbro

POST-TIMISKAMING

Granodiorite, some diorite; 10a, diorite; 10b, diorite, hornblendite, and allied rocks; 10c, feldspar porphyry (granodiorite porphyry ?)

Coarse porphyritic syenite and allied rocks; 9a, feldspar porphyry (coarse syenite and quartz syenite porphyry ?)

Sodic granodiorite and allied rocks; 8a, diorite

Diorite porphyry; 7a, includes andesite porphyry and/or volcanic rocks

ARCHAEAN

Peridotite; some talcose schist; 6a, talcose amphibolite, talc-chlorite schist (includes diorite, feldspar porphyry and/or granodiorite dykes in places); 6b, peridotite; some volcanic rocks; 6c, peridotite and altered gabbro

Diorite, quartz diorite; 5a, granophyre, micropegmatite; 5b, diorite and some volcanic rocks

KEEWATIN AND TIMISKAMING

Greywacke, some biotite schist, 4a, mainly conglomerate; 4b, amphibolitized greywacke and conglomerate

KEEWATIN

Agglomerate, some tuff; 3a, includes andesitic, trachitic, and spherulitic lavas; 3b, tuff; 3c, tuff, rhyolitic tuff; some andesite; may include some greywacke; 3d, graphitic tuff

Mainly andesitic to trachytic lavas; some agglomerate and tuff; 2a, includes spherulitic lavas; 2b, mainly spherulitic lava; 2c, trachyte, porphyritic trachyte

Mainly andesite; 1a, andesite, some tuff, some diorite; in part younger than 2 and 3; 1b, coarse amphibolite and partly amphibolitized andesite; 1c, andesite and some peridotite

Chlorite-sericite schist, with sericite schist zones and some carbonatized zones; includes, in places, strongly sheared volcanic rocks and/or diorite and andesite porphyry

Sand and gravel

Bedding (inclined, vertical, overturned, dip unknown)

Bedding (direction of dip known, upper side of bed unknown)

Bedding (upper side of bed faces as indicated, direction of dip unknown)

Bedding (upper side of bed faces as indicated by grain size gradations of diamond drill core, strike indeterminate)

Schistosity (inclined, vertical, dip unknown)

Foliation (inclined)

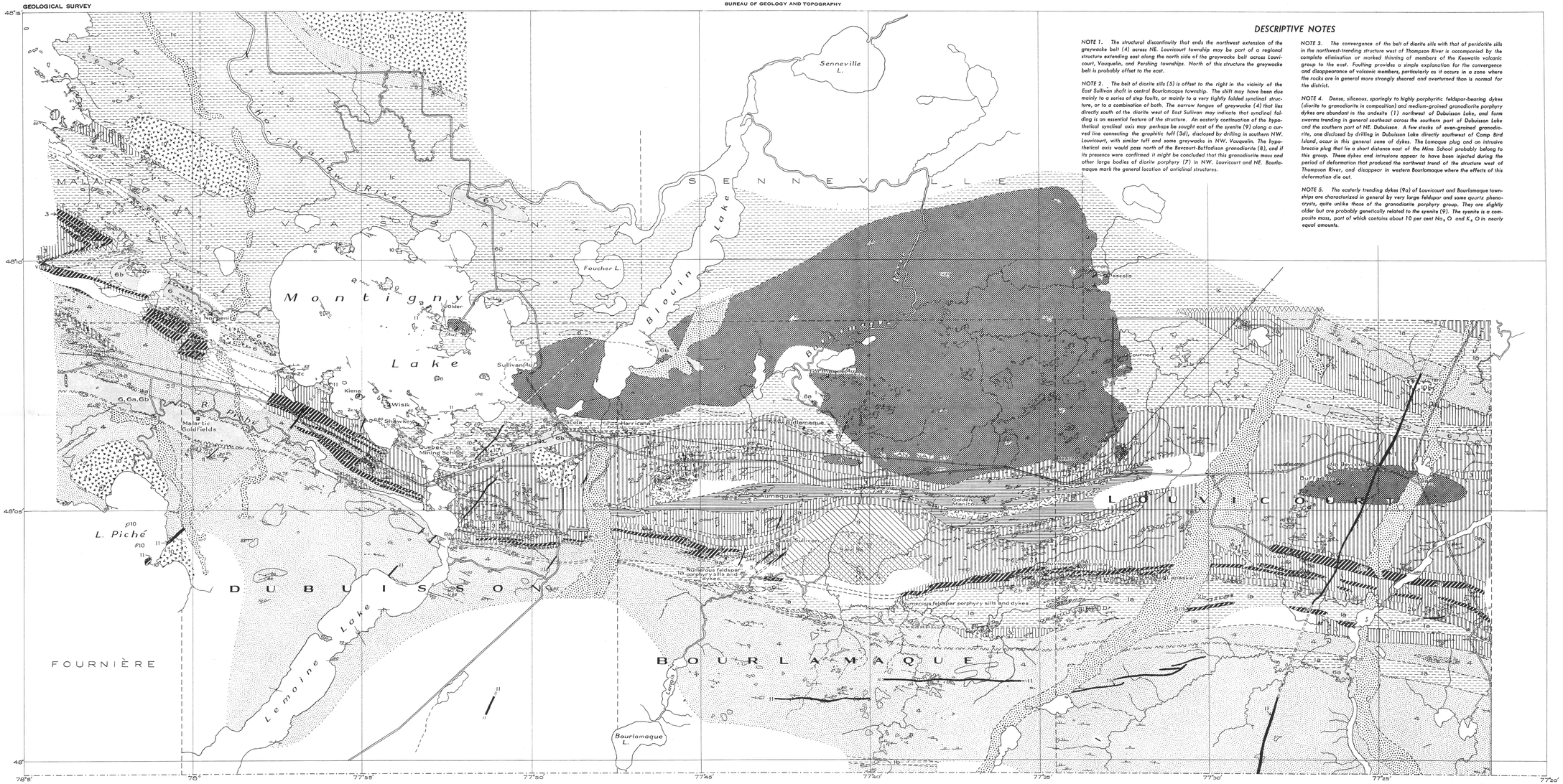
Fault (mainly inferred)

Structural discontinuity (may indicate one or more faults and/or sheared drag-folds)

Glacial striae

Shaft

Geology compiled by G. W. H. Norman, 1947



DESCRIPTIVE NOTES

NOTE 1. The structural discontinuity that ends the northwest extension of the greywacke belt (4) across NE. Louvicourt township may be part of a regional structure extending east along the north side of the greywacke belt across Louvicourt, Vauquelin, and Pershing townships. North of this structure the greywacke belt is probably offset to the east.

NOTE 2. The belt of diorite sills (5) is offset to the right in the vicinity of the East Sullivan shaft in central Bourlamaque township. The shift may have been due mainly to a series of step faults, or mainly to a very tightly folded synclinal structure, or to a combination of both. The narrow tongue of greywacke (4) that lies directly south of the diorite west of East Sullivan may indicate that synclinal folding is an essential feature of the structure. An easterly continuation of the hypothetical synclinal axis may perhaps be sought east of the syenite (9) along a curved line connecting the graphitic tuff (3d), disclosed by drilling in southern NW. Louvicourt, with similar tuff and some greywacke in NW. Vauquelin. The hypothetical axis would pass north of the Bevcourt-Buffadison granodiorite (8), and if its presence were confirmed it might be concluded that this granodiorite mass and other large bodies of diorite porphyry (7) in NW. Louvicourt and NE. Bourlamaque mark the general location of anticlinal structures.

NOTE 3. The convergence of the belt of diorite sills with that of peridotite sills in the northwest-trending structure west of Thompson River is accompanied by the complete elimination or marked thinning of members of the Keewatin volcanic group to the east. Faulting provides a simple explanation for the convergence and disappearance of volcanic members, particularly as it occurs in a zone where the rocks are in general more strongly sheared and overturned than is normal for the district.

NOTE 4. Dense, siliceous, sparingly to highly porphyritic feldspar-bearing dykes (diorite to granodiorite in composition) and medium-grained granodiorite porphyry dykes are abundant in the andesite (1) northwest of Dubuisson Lake, and form swarms trending in general southeast across the southern part of Dubuisson Lake and the southern part of NE. Dubuisson. A few stocks of even-grained granodiorite, one disclosed by drilling in Dubuisson Lake directly southwest of Camp Bird Island, occur in this general zone of dykes. The Lamaque plug and an intrusive breccia plug that lie a short distance east of the Mine School probably belong to this group. These dykes and intrusions appear to have been injected during the period of deformation that produced the northwest trend of the structure west of Thompson River, and disappear in western Bourlamaque where the effects of this deformation die out.

NOTE 5. The easterly trending dykes (9a) of Louvicourt and Bourlamaque townships are characterized in general by very large feldspar and some quartz phenocrysts, quite unlike those of the granodiorite porphyry group. They are slightly older but are probably genetically related to the syenite (9). The syenite is a composite mass, part of which contains about 10 per cent Na_2O and K_2O in nearly equal amounts.

PRELIMINARY MAP 47-20

DUBUISSON-BOURLAMAQUE-LOUVICOURT

ABITIBI COUNTY
QUEBEC

Scale 1 inch to 1 mile

1 ½ 0 1 2 3

Surveyed by the Topographical Survey.
Cartography by the
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