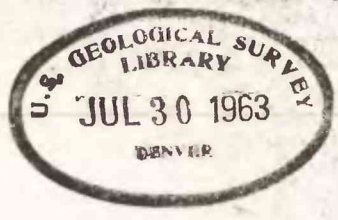




Dike



OPR 63-23

A steeply-dipping dike, fine to medium grained, containing from 3 to 5 percent magnetite, is about 200 feet wide at its only known outcrop, in Dark Cove in the Danforth quadrangle. This occurrence, normally under water but visible, crops out on the east side of the island in Dark Cove and on the west shore of the nearby peninsula to the east when the lake is abnormally low (Laurance and Spencer, 1963). The dike cuts quartzite and metasilstone, and has been traced by aeromagnetic methods for about 1 1/2 miles, chiefly west-northwest. (Allington, 1960; Orison, Andrew, written communication, April 12, 1961). It was traced in the Trout Brook area of the Danforth quadrangle by ground magnetometer in July, 1957 by R. W. Bromery. It is similar to rock in an outcrop about 1/2 mile east of South Dover, and in a quarry near Route 23 about one mile north of Lake Wassonkong, near Dexter (Eggenstedt, G. H., oral communication, April 1961).

Sb

Gray slate and metasilstone

Gray slate and metasilstone, argillaceous quartzite, and thin-bedded metasilstone crop out in a few places in the Danforth quadrangle, chiefly along Baskahegan Stream 0.4 miles southeast of South Bancroft, and along the Maine Central Railroad 1.2 miles east of the western edge of the quadrangle. It has been projected on strike in the syncline extending into the Wypitlock quadrangle on structural and aeromagnetic evidence.

Sd

Magpet Hill Formation

Quartzite, metaconglomerate, metasilstone and slate

The Magpet Hill Formation is named for the ridge on which the rock is best exposed in the Danforth quadrangle, Maine (Laurance and Spencer, 1963); its type locality is along and south of the Maine Central Railroad, north of the ridge. Characteristic argillaceous quartzite, quartzite metaconglomerate with fractured pebbles and cobbles as large as 8 1/2 x 12 inches, gray and gray-green slate and metasilstone, and thin lenses of magnetite-bearing interbedded black slate and metasilstone comprise the formation. The best unit crops out 2 miles northeast of Bancroft, in the eastern part of the Wypitlock quadrangle, where it was traced by ground magnetometer (Bromery, R. W., written communication, July 26, 1957). Following an aeromagnetic survey by the U. S. Geological Survey in 1950; a similar aeromagnetic survey was made in part of the Wypitlock quadrangle in August 1958. It is believed present in parts of the Danforth and nearby quadrangles on aeromagnetic evidence (Orison, Andrew, written communication, April 12, 1961). Thin green cherty lenses of stibnite ore occur along Baskahegan Stream near South Bancroft in the Danforth quadrangle. The metaconglomerate crops out along Mill Falls/Ledge Brook southeast of Wypitlock village, and on Ellen Wood Ridge in the southeastern part of the Wypitlock quadrangle. The formation is exposed over a width of about 2,000 feet in the Danforth quadrangle, where quartzite and metaconglomerate form most of the thickness, which is estimated to be one thousand or more feet. Inadequate exposures and isoclinal folding prevent an accurate determination of thickness of the formation or any of its members. The formation is assigned a Silurian age based upon meager paleontological evidence; a single dorsal valve of an orthoid brachiopod with branching costae and an apparent faint concentric ornamentation was found in the metaconglomerate unit (Newman, R. B., and Cloud, P. E., written communication, December 22, 1957). The formation is indicated on the 1963 map of the Danforth quadrangle (Laurance and Spencer, 1963).

Sk

Kellyland Formation

Gray metasilstone, metasandstone, and slate

The Kellyland Formation of Silurian(?) age, named for the village closest to its largest and most representative outcrop at Grand Falls of the St. Croix River, in the Kellyland quadrangle, Maine, where it was mapped by the author and E. S. Svenson, is interbedded sericitic pale gray metasilstone, arenaceous metasilstone, argillaceous metasandstone and quartzite, and thin beds of darker gray slate. Most beds contain iron carbonates; the metasilstone and darker beds contain more carbonate than does the slate. Some of the coarser beds are buffaceous. Slate commonly occurs in beds from 1 to 6 inches thick and locally from 1/8 inch to 3 or 4 feet thick. In the Wypitlock quadrangle, the dark gray slate in places has poorly developed cleavage or is phyllitic, rarely almost schistose. Iron carbonate-bearing metasilstone and slate are well-exposed along the main road in the northwestern part of the quadrangle, south of Head. Generally, this quadrangle is so covered with glacial overburden and swamp that outcrops are scarce. The metasilstone and metasandstone beds commonly range from 6 inches to 4 feet in thickness, ranging locally to 20 feet. In places, beds of metasilstone contain thin laminae of light and dark metasandstone. Thin beds of quartz granitic metaconglomerate are associated with metasandstone and quartzite in places. The metasilstone beds in many places have good gradation in texture, and cross-bedding. The average content of slate in the formation is about 20 percent, and the thickness of the formation has not been ascertained because of the lack of good key beds, continuous outcrops, and much isoclinal folding; however, it appears to exceed 1,000 feet. The Kellyland Formation is the stratigraphic equivalent of at least part of the Pale Argillite Division of the Charlotte Group in New Brunswick (Alcock, 1946), and is believed to be the stratigraphic equivalent of the Mill Bas in the Danforth and nearby quadrangles in Maine. Many large boulders of igneous rock occur in the sandstone of the road 1/2 mile southwest of Head. The sandstone is a coarse, buffaceous, buff-colored sandstone, the color of which

POST - DEVONIAN

SILURIAN

SILURIAN (?)

Outcrop or group of outcrops

Contact

Long dashed where approximately located, short dashed where inferred

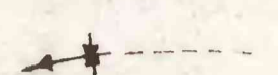
Contact

Located by aeromagnetic survey

Fault

Long dashed where approximately located; short dashed where inferred

Shear zone



Syncline

Showing trace of axial plane and bearing and plunge of axis. Dashed where approximately located

Quaternary rocks

Minor fold

Strike and dip of beds

Dot indicates top of beds known from sedimentary textures or structures

Strike of vertical beds

Dot indicates top of beds known from sedimentary textures or structures

Strike and dip of overturned beds

Dot indicates top of beds known from sedimentary textures or structures

Strike and dip of foliation

Strike of vertical foliation

Strike and dip of foliation and beds where parallel. Dot indicates top of bed known from sedimentary textures or structures

Strike and dip of slaty cleavage

Strike of vertical slaty cleavage

Strike and dip of slaty cleavage and beds where parallel. Dot indicates top of bed known from sedimentary textures or structures

Strike of vertical slaty cleavage and beds where parallel. Dot indicates top of beds known from sedimentary textures or structures

Strike and dip of overturned beds and slaty cleavage where parallel. Dot indicates top of beds known from sedimentary textures or structures

Dike

Located by aeromagnetic survey

Short dashed where inferred between

Glacial striae and grooves

Alcock, F. J., 1946, Preliminary map, Honeydale, New Brunswick; Canada Geol. Survey Paper 46-3, geologic map with descriptive notes, scale 1 in. = 1 mi.

Allington, J. W., 1960, Use of aeromagnetic data to determine geologic structure in northern Maine; U. S. Geol. Survey Bull. 1062, p. 1-10.

Danforth quadrangle, Maine; U. S. Geol. Survey Map 1:62,500 (in press)

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This report is preliminary and has not been edited or reviewed for conformity with Geological Survey standards or nomenclature.