

without apparent dip. This exposure seems to mark the western edge of the Pre-Cambrian on the Tobique, as just above, where the stream bends to the west, are seen hard felspathic sandstones and blue slates, belonging apparently to the overlying Cambro-Silurian; these extend for about a mile beyond, or until they again are overlaid by the soft, calcareous beds of the Oriskany basin, elsewhere described. Above these last named beds, for some distance, no exposures are met with; the soil is, however, filled with angular blocks of a coarse amygdaloidal diorite, which occurs in place about two miles above the mouth of the Don. Hard, crystalline, red and greenish-grey felsites follow, and, with occasional ledges of fine-grained syenite with specks of clear quartz and red felspar—the grains of quartz sometimes circled with felspar—and of amygdaloidal diorite, continue to the foot of Tobique Lake. Although obscure, the strike, where recognized, seemed to be about east and west. Along Tobique Lake no exposures are seen, but the shores are plentifully strewn with blocks and boulders of fine red syenite and greenish-grey chloritic syenite. The immediate shores of the lake are low and densely wooded with black spruce to the water's edge, giving the lake a dark and gloomy appearance. A ledge of felspathic schist, with a strike N.E., is mentioned by Mr. Hind as occurring on the shore of Milpagus Lake, which lies about a mile to the south-east of the head of Tobique Lake. About two miles east of this lake is Long Lake, a fine sheet of water five miles and a half in length, with an average width of about half a mile; although showing no ledges *in situ*, the same boulders are common along its shores to a point about midway up the lake, beyond which granite only is seen. Ledges of coarse, green, chloritic diabase and hard, green chloritic quartzite, with veins of quartz and quite micaceous and schistose in certain layers, occur on the portage to Serpentine Lake, which lies four miles to the north-east, and form the hills separating Portage from Adder Lake. The immediate shores of Serpentine Lake are quite low and flat, and but one exposure was seen; this occurs on a tongue of land jutting out into the lake from its western side, and is a hard, felspathic schist, striking about N. 70° E., and dipping to the north at an angle of 65°. On Serpentine River, between the lake and the stillwater, boulders of pale reddish crystalline felsite and syenite are common, and the former is present in place at the head of the dead water. From this point down to the edge of the Cambro-Silurian belt, the rocks are hard, grey quartzites and schists, highly chloritic, and often with many thin veins of quartz running parallel with the planes of cleavage. About eight miles above the forks there is a ridge of coarse gneissic granite, which seems to cut these beds—possibly a spur from the main granitic mass to the

Tobique Lake.

Milpagus Lake.

Long Lake.

Serpentine Lake.

Serpentine River.