

laterally, so that when one becomes familiar with them, the rocks of the formation may invariably be recognized. Here are included hematitic and magnetitic schists, cherts, jaspers, ferruginous carbonates, and other forms. The formation always differs from the limestone in carrying a very considerable amount of iron, and it differs from the quartzite in being largely, and sometimes wholly, a chemical or organic sediment, rather than a mechanical one.

The three members of the Lower Huronian are not often seen in a single section. This may be due to lack of exposures, but in some cases is undoubtedly due to the absence of one or more of the formations themselves.

In the Lower Huronian, basic eruptive rocks are abundant, and locally cover considerable areas. Not infrequently acid eruptives also occur. These eruptives include both contemporaneous volcanics and subsequent intrusives. If the Keewatin of Lawson about Rainy Lake and the Lake of the Woods is Lower Huronian, great granitic masses have been intruded into this series northwest of Lake Superior.

Equivalent to the Lower Huronian series of the north shore of Lake Huron are placed the following iron-bearing districts: Lower Vermillion, Lower Marquette, Felch Mountain, in large part, Lower Menominee, the cherty limestone formation of the Penochee district; and probably the Kaministiquia series of Ontario, and the Black River Falls series of Wisconsin. Whether all of these detached basins were once connected by continuous sediments is unknown, but probably they were.

The fragmental material of the Lower Huronian was derived from the Basement Complex. This fragmental formation is usually thin. This doubtless means that the advance of the sea over the Lake Superior region was comparatively rapid. The directions from which the Lower Huronian sea entered, and the extent of its transgression, is at present unknown. By certain of the Canadian geologists it is held that the structural break which exists between the Basement Complex and the Lower Huronian, south of Lake Superior and north of Lake Huron, does not exist