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These volcanics are in turn cut by the Coast Range intrusives, which constitute much the most important and most extensively developed geological terrane in the district. These intrusives range in composition from granite to diorite or may be even more basic in character; they appear to be dominantly, however, of about the composition of granodiorite, and have everywhere a pronounced granitic habit. These rocks were first thought to be all of Jurassic age, and when working in Wheaton district in 1909, boulders of these intrusives were found in the lower conglomerate beds of the Laberge series. The intrusives were considered, therefore, to antedate these sediments in age. Since that time, further work in other portions of Yukon as well as in northern British Columbia, where contacts between the Coast Range intrusives and the members of the Laberge series are better exposed, has shown that the intrusives also cut the Mesozoic beds, and are partly older and partly younger than these sediments.¹ In fact recent studies of the Coast Range batholith in different districts, have shown that this terrane represents several intrusive periods ranging from some time in the Jurassic to well into Cretaceous time. This has given rise to considerable difficulty and complexity in connexion with geological work in the vicinity of the Coast Range batholith. In Wheaton district, it is now known that these rocks are dominantly at least or perhaps entirely, more recent than the Mesozoic sediments, and are probably all of Cretaceous age. In the writer's former work in this district, certain andesitic and related volcanics were known to be older than the Coast Range intrusives, and were consequently believed to be older than the Mesozoic sediments, and were included in the Perkins group. Other similar andesites and related volcanics were known to be more recent than the Laberge members and were grouped separately under the name Chieftain Hill volcanics. All these andesitic and related volcanics are now regarded as belonging to the same formation, as just described, and as shown in the above table of formations.

Cutting the Coast Range intrusives, there occurs an important group of volcanic rocks comprising mainly andesites, basalts, and related volcanics, including various types of dyke rocks, with their associated tuffs and breccias. These rocks are quite extensively developed in the extreme western portion of the district, and are everywhere quite recent in appearance—lava flows in which the flow structure is still very marked, and beds of tuff and ashes, constituting probably the most prominent members. These rocks correspond to the "Newer Volcanics" of Upper White River district,² and other portions of Yukon, and include the Carmack basalts. They are considered to be of Tertiary and probably of late Tertiary age.

Another important group of volcanic rocks, includes mainly rhyolites, granite-porphyrries, and related rocks, which are the most recent consolidated rocks of the district, and are of late Tertiary or possibly even in part of early Pleistocene age. These volcanics do not generally cover any very large individual areas, but occur rather as dykes and similar intrusive bodies. Innumerable dykes occur cutting the Coast Range intrusives and other older rocks, and in certain localities so extensive has been the invasion of these volcanics that they appear to be almost as prominent as the invaded formations. In places these volcanics have quite a marked granitic habit, and might locally be termed porphyritic granites or, possibly, granites. In the writer's previous work on Wheaton district, these rocks were divided into two groups: one including the rhyolitic members which were termed the Wheaton River volcanics, and the other the granite-porphyrries, which were named the Klusha intrusives. This subdivision has since been found to be somewhat impracticable, particularly in adjoining

¹ Cairnes, D. D., "Atlin Mining district, British Columbia"; Geol. Surv., Can., Memoir No. 37, 1913, p. 59.

² Cairnes, D. D., "Upper White River district, Yukon"; Geol. Surv., Can., Memoir 50, 1915, pp. 97-101.