

your patience in listening to that theme again and again. Now I shall try to throw as much new light upon this subject as is at my disposal at present.

Although the Seine river, the principal scene of the present gold excitement in the Rainy river district, is not a new acquaintance of mine from only a week ago when I visited it last. I trusted its waters at different times, in different seasons, to carry me to its various borders, but this time, although not the most favorable season for exploration and examination, I looked over some places along its shores which were partly new to me. The most interesting spot was again the lower, but northerly part of Shoal lake and Bad Vermillion lake, not only on account of the frequent occurrence of the precious metal gold, in the veins of the different rocks, but also on account of the geological condition prevailing there. Dr. Lawson, in his excellent report on the Rainy river district, dwelt repeatedly on the possible forming of these rocks and, in a very sagacious deduction, came to the conclusion that they constituted the products of a highly active volcano of Keewatin age. Undoubtedly they are, and I might add, of perhaps "post" Keewatin age, for the reason that these rocks are massive and compact and that the green schists, made up of the tuffs and ash-beds, are seen overlapping the Keewatin highly tinted and foliated slates. These rocks must have been produced therefore in a comparatively quiet period. The granite at Bad Vermillion lake forms the remainder of the lava in the former vent of the volcano, while the gabbro surrounding the granite its first extravasation. Next overlying the former, as the second ejectamenta, an altered granite (?) called protogin, and on top of this rock the above-mentioned chloritic rock which, at the shore of Shoal lake, is mixed with pebbles and boulders, now called conglomerates. The protogin forms on location A. L. 104, the highest point on the north side of Shoal lake, with the exception of the graniteboss on the south side of Bad Vermillion lake, about two miles farther west. Dr. Lawson could not have seen very well the exposure of this rock unless he had penetrated the dense pine forest for half a mile on one side and one and a half miles on the other side from the shore. It is therefore excusable when he thought the green schists formed the contact with the gabbro, as we cannot expect that a geologist should explore every square foot of the region he is going over.