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river, but back of it natural prairies cover the greatest part of the land, which at the time of the survey was partially dry and producing good hay. I see no reason why this hay could not be utilized in the future to feed cattle on their way to the Yukon markets. I mention this because cattle were driven this year, for the first time, over the Teslin lake trail, and as the experiment has turned out well it may reasonably be expected that the route will be used again for the same purpose, and should there happen to be at any time a scarcity of feed along the trail the cattle could be brought here. The animals could not only have rest, but recuperate as well before being fowarded to market. This land would then become valuable, as it is situated at the head of the navigable waters of the Yukon.

EXPLORATION OF NISUTLIN RIVER.

On our arrival in Nisutlin bay the smoke, which had been thickening every day, became so dense that it precluded all photographic work for the time being. The season being already so far advanced, I was loath to lose any time waiting for a more suitable condition of the atmosphere, and I decided, as the next best thing under the circumstances, to make a traverse of the river, and if later the atmosphere cleared up, to begin a triangulation of the country. Such an opportunity, however, did not present itself for several days afterwards, and by that time I had completed the survey of 80 miles of the river.

The Nisutlin river empties into Nisutlin bay by three estuaries, the middle one being the principal. The southern one diverges from the main stream at a point two miles above the bay, and flows toward the foothills which limit the valley to the south. On its way it branches off into several channels, which send their ramifications through the meadows mentioned above. The other branch (north of the main stream), though narrow, is deep. The current is slack except at its bifurcation from the river proper, where it is quite swift.

On July 30 we entered the river by its middle branch. A short distance above its mouth it is 200 feet wide, with a depth of 8 feet of water. The channel follows close along the northern bank, which, like the opposite bank, is low and thickly covered with willows. A large sand bur has formed along the southern bank and spread a considerable distance into the bay. It is strewn with a great number of trees, which have been detached from the banks during the season of high water and become imbedded in the sand. Two miles above its mouth the river, which now runs through a single channel, increases its width to 700 feet, with a depth of 10 feet of water, but one mile and a half further up it suddenly contracts again. At this point the channel is obstructed by sharp pointed rocks, the remains of a rocky ledge through which the river has cut its channel. There is deep water close to the right bank. The river soon widens again, and a distance of half a mile more brings us to a large tributary which enters the river from the right. Its width, a short distance above its confluence, is 100 feet between the banks, which are low and well timbered. It has a swift current, and at the time of survey had a depth of 8 feet of water. Its waters are blui-h. The volume discharged by it into the Nisutlin river is equal to about one third of that of the main river. The valley of the stream is wide, and opens towards the east. large gravel bar, which has formed in the Nisutlin river a short distance below the point where it receives this eastern tributary, had been staked as a mining claim. At the time of the survey it was not being worked, but there were unmistakable signs of its having been at some period. A few pans of gravel taken from the surface and washed showed fine gold. Half a mile below the junction of this tributary the right bank of the Nisutlin is formed by cliffs which rise almost perpendicularly from the water's edge. They are part of the ledge encountered a short distance below and which obstructs the passage of the river. The opposite shore, on the other hand, is formed of low banks, on which is a vigorous growth of spruce, poplar and cottonwood, intermixed with thick willows, whose branches trail into the stream and give a fine appearance to its banks.