

caused me a great deal of uneasiness on the way down the river, as it was arranged between us in Victoria that I was to take with me provisions for his party to do them until their return to the coast. The doctor was so much behind the time arranged to meet me that he determined to start for the coast at once. I therefore set about making a short report and plan of my survey to this point; and, as I was not likely to get another opportunity of writing at such length for a year, I applied myself to a correspondence designed to satisfy my friends and acquaintances for the ensuing twelve months. This necessitated three days' hard work.

On the morning of the 17th the doctor left for the outside world, leaving me with a feeling of loneliness that only those who have experienced it can realize. I remained at the mouth of the Pelly during the next day taking magnetic and astronomical observations, and making some measurements of the river. On the 19th I resumed the survey and reached White River on the 25th. Here I spent most of a day trying to ascend this river, but found it impracticable, on account of the swift current and shallow and very muddy water. The water is so muddy that it is impossible to see through one-eighth of an inch of it. The current is very strong, probably eight miles or more per hour, and the numerous bars in the bed are constantly changing place. After trying for several hours, the base men succeeded in doing about half a mile only, and I came to the conclusion that it was useless to try to get up this stream to the boundary with canoes. Had it proved feasible I had intended making a survey of this stream to the boundary, to discover more especially the facilities it offered for the transport of supplies in the event of a survey of the International Boundary being undertaken.

I reached Stewart River on the 26th. Here I remained a day taking magnetic observations, and getting information from a miner, named McDonald, about the country up that river. McDonald had spent the summer up the river prospecting and exploring. His information will be given in detail further on.

Fort Reliance was reached on the 1st of September, and Fortymile River (Cone-Hill River of Schwatka) on the 7th. In the interval between Fort Reliance and Fortymile River there were several days lost by rain.

At Fortymile River I made some arrangements with the traders there (Messrs. Harper & McQuesten) about supplies during the winter, and about getting Indians to assist me in crossing from the Yukon to the head of the Porcupine, or perhaps on to the Peel River. I then made a survey of the Fortymile River up to the cañon. I found the cañon would be difficult of ascent, and dangerous to descend, and, therefore, concluded to defer further operations until the winter, and until after I had determined the longitude of my winter post near the boundary, when I would be in a much better position to locate the intersection of the International Boundary with this river, a point important to determine on account of the number and richness of the mining claims on the river.

I left Fortymile River for the boundary line between Alaska and the Northwest Territories on the 12th September, and finished the survey to that point on the 14th. I then spent two days in examining the valley of the river in the vicinity of the boundary to get the most extensive view of the horizon possible, and to find a tree large enough to serve for a transit stand.

Before leaving Toronto I got Mr. Foster to make large brass plates with V's on them, which could be screwed firmly to a stump, and thus be made to serve as a transit stand. I required a stump at least 22 inches in diameter to make a base large enough for the plates when properly placed for the transit. In a search which covered about four miles of the river bank, on both sides, I found only one tree as large as 18 inches. I mention this fact to give an idea of the size of the trees along the river in this vicinity. I had this stump enlarged by firmly fixing pieces on the sides so as to bring it up to the requisite size. This done, I built around the stump a small transit house of the ordinary form and then mounted and adjusted my transit. Meanwhile, most of the party were busy preparing our winter quarters and building a magnetic observatory. As I had been led to ex-