

Oct. 17. Cat River. Camp 16-17	S. 70° W.
Oct. 17. Cat River. 75th portage	S. 65° W.
Oct. 17. Cat River. 3 m. above Blackstone Lake.....	S. 47° W.
Oct. 18. Lake St. Joseph	S. 55° W.
Oct. 18. Lake St. Joseph	S. 45° W.
Oct. 19. Root River	S. 40° W.
Oct. 21. Lac Seul. Old H. B. Warehouse	1st S. 65° W.
	2nd. S. 50° W.
Lac Seul. Lunch	1st. S. 70° W.
	2nd. S. 50° W.
Oct. 22. Lac Seul. Lunch	S. 45° W.
Oct. 23. River	S. 45° W.

Striae Observed on the Hayes River in Manitoba

Hayes River:—	
June 24. The Rock	1st. S. 65° W.
	2nd. S. 85° W.
	3rd. S. 20° E.
June 24. 1 mile above The Rock	S. 25° W.
June 24. Rocky Rapid, 4½ miles above "The Rock" (grooves)	S. 20° W.
	(grooves) S. 60° W.
	(grooves) N. 75° W.
	(striae) S. 40° W.
June 23. 2 miles below Nisotania Rapids	East or West.
June 19. Oxford Lake	S. 50° W.
June 17. Pot-hole point, Pine Lake	S. 50° W.
June 17. Jackpine Rapid	S. 50° W.
June 14. Near upper end Robinson portage	S. 45° W.
June 13. Echimaish River	S. 42° W.
June 12. Nelson River	S. 50° W.

Recent Deposits

On the maritime plain in the northern part of the district of Patricia the recent deposits are represented chiefly by clays and sands which have been laid down in the receding waters of Hudson Bay on top of the previously formed beds of glacial till. In most cases these deposits are rather thin, for the supply of sediment appears not to have been abundant.

On the lower portion of the Hayes river, however, the stratified clays and sands are very much thicker than usual, for there would appear to have been a deep embayment in the Post-glacial shore line at this point, into which a mud-laden stream probably emptied and deposited its load of mud and sand as it reached quiet water. The lower beds in this old embayment were probably deposited close to the receding face of the Labradoran glacier, for though they are of soft dark gray clay, they contain a considerable number of glaciated boulders, most of which are lying at a definite horizon near the top of a well defined clay bed, associated with marine shell in considerable abundance. The higher overlying beds are chiefly of fine or coarse sand and they also contain many well preserved marine shells.

The embayment or valley was not of very great width, for the west banks of the Hayes river to the west of it and the banks of the Machichi river to the east are both composed almost entirely of till.

The causes which led to the formation of this embayment or depression in an otherwise evenly till-covered country are not quite clear. It can hardly have been caused by subaerial erosion in Post-glacial times, for no other evidence of elevation of the land and subsequent subsidence and re-elevation such as would be necessary to permit of the erosion of such a valley were observed, and all other evidence at hand indicates clearly that there has been only one elevation of the land since the retirement of the Labradoran glacier from the country. It seems possible however, that this valley or embayment marked the western limit of the Labradoran glacier, and of the till formed under it, on Hudson Bay, and that the till on Nelson river, west of this old valley, was formed entirely either by the Keewatin or Patrician glacier or by both.