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Department of Commerce and Labor  
COAST AND GEODETIC SURVEY

\_\_\_\_\_  
Superintendent.

State: \_\_\_\_\_

DESCRIPTIVE REPORT.

*Top.* Sheet No. *3404*

LOCALITY:  
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CHIEF OF PARTY:  
\_\_\_\_\_  
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Department of Commerce and Labor

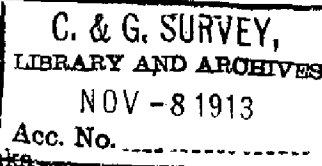
Gilbert T. Rude, 1913

DESCRIPTIVE REPORT.

To Accompany

Topographic Sheet No. ("E"), Passage Canal, Alaska.

3404.



This survey extends from the head five miles to the eastward down the Canal. It is a detached survey on a scale of one to ten thousand with no projection. The season was too far advanced when the topography was completed to extend the triangulation up the Canal <sup>from</sup> ~~to~~ Perry Island. A base line, 674 meters long, for topographic use only, was measured across the gravel flats at the head of the canal with a 50 meter base tape, with ordinary family spring balance and no temperature correction. From this base topographic triangulation was carried five miles down the Canal and all stations marked. They can be easily recovered and tied in when the triangulation is extended to, and up Passage Canal. After the triangulation was completed the shoreline was run with plane table and intermediate signals located for hydrographic use.

The shoreline is rocky but not precipitous. At the head of the Canal, and at Whittier and Billings Delta it is composed of gravel beaches. The shoreline from the head of the Canal on the north shore out to Billings Delta is very straight, scarcely broken by the slightest indentation. It is merely a narrow ledge of loose rocks, rising abruptly from this to 300 to 400 feet in height, then rising not quite so abruptly to a peak about 4700 feet in height. The south shore is more irregular and rises less abruptly. None of this shoreline offered any difficulty for plane table work.

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The lower elevations, from 100 to 500 feet, ~~is~~<sup>are</sup> wooded, from 500 feet up the hills are bare rock. The summits of the hills were determined both as to location and elevation and 100 foot contours sketched.

Howell Glacier is a dead hanging Glacier of small extent. Whittier Glacier is a dead hanging glacier shoved over the ridge toward Passage Canal from a probably large glacial area between Passage Canal and Blackstone Bay. Longfellow Glacier is a dead glacier, forced down into and ending in an narrow gorge near the head of the Canal. It is of unknown extent and is probably a tongue of a large Glacial area back in the mountains.

The latitude of Station South Base is  $60^{\circ} 46' 05''$  and the longitude  $148^{\circ} 43' 30''$ , both scaled from Chart 8550. A magnetic meridian is laid down on the sheet for orienting.

The following names are local: Passage Canal, Billings Delta. The following were supplied by the party: Whittier Glacier, Whittier Delta, Longfellow Glacier and Howell Glacier.

Respectfully submitted,

*Gilbert J. Vande.*

Assistant, C. & G. Survey

Chief of Party.