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C. & G. SURVEY,
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NOV 19 1913
Acc. No. _____

Diag. Ch. No. 8201-2 & 8152-1

Department of Commerce and Labor
COAST AND GEODETIC SURVEY

Superintendent.

State: _____

DESCRIPTIVE REPORT.

Hyd. Sheet No. 2732^a

LOCALITY:

Davidson Is. Lt.

Davidson Inlet, Alaska.

1913.

CHIEF OF PARTY:

W. Patton.

11-4845

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VEC
Dec. 16, 1913.

HYDROGRAPHIC SHEET 2732a.

Davidson Inlet, Alaska, by Assistant R. S. Patton
in 1913.

TIDES.

	Marble Passage ft.	Tokeen Bay ft.
Mean lower low water or planes of reference on staff	2.2	1.8
Lowest tide observed " "	1.6	1.8
Highest Tide " " "	13.9	12.1
Mean range of tide	3.7	8.7

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DESCRIPTIVE REPORT

To accompany Hydrographic Sheet No. 2732^a

Supplementary Surveys in Davidson Inlet.

For greater convenience, three separate pieces of work are grouped on this one sheet. They are:

- (1) Location and examination of a rock off White Cliff Island.
- (2) Examination in the vicinity of the Marble Company's wharf at Tokeen.
- (3) Examination in the vicinity of the Holbrook Saltery.

- (1) Rock off White Cliff Island.

This work requires little additional information to supplement the survey itself. The rock was readily found in approximately the position shown on chart 8150.

Beginning at the northward of the supposed position of the rock, the shoal area shown on the original Hydrographic sheet was covered by a series of cross lines until the rock was found. Once located, the bottom could readily be seen, and there is, therefore no doubt that the soundings given show the least depth on the rock. A few additional soundings were then placed in the deeper water adjacent, in the area which had not already been covered.

The signals to control the work were determined by triangulation.

No tidal data was furnished for the work. A gauge was therefore established at the Mission Marble Co's, dock in Marble Passage, and continuous observations taken during the entire

period of work in this vicinity and in Marble Passage. As these observations, however, did not extend over a sufficient period to enable the field party to determine a reliable plane of reference, the soundings have not been reduced.

(2) Examination in the vicinity of the Wharf at Tokeen.

This work is controlled by a plane table survey, starting from the triangulation base Δ Bear- Δ Hole. The plane table work was done on a scale of 1-10000, but as the hydrography was done in greater detail than could readily be shown on that scale it was plotted on a scale of 1-5000.

The sounding was done by two parties, the whaleboat and launch, working simultaneously; the whaleboat working in the immediate vicinity of the wharf, and the launch outside. The whaleboat work was done without a boat sheet.

No tidal data was furnished. A gauge was therefore established on the wharf and readings taken from the time the sounding began until the ship left, next morning, for other work. Owing to this short period of tidal observations, no bench marks were established, nor was any attempt made to deduce a plane of reference and reduce the soundings in the field.

This wharf is, in my opinion, a difficult and dangerous one for vessels to attempt to reach. There are three dangerous rocky patches in its immediate vicinity. The first, which bares at low water, is marked by a beacon (\odot Spin) established by the Marble Co. The second, immediately in front of the wharf, and about 200 meters from it, is quite as dangerous as the first, and should be marked by a small buoy to enable vessels to get away from the wharf in safety.

The third patch lies about 40 meters south (true) from the south (outer) corner of the wharf, and outside the line of its front. In making a landing, therefore, (assuming a port landing) the bow of the vessel should be allowed to project little, if any, beyond the corner of the dock.

(3) Examination in the vicinity of the Holbrook Saltery.

This survey, topographic and hydrographic, was made on a scale of 1-5000. The plane table survey is controlled by the base \odot Fish to \triangle Hole; the position of \triangle Fish, and the azimuth Fish to Hole being taken from the photograph of hydrographic sheet # 2732. (\odot Fish is a small rock, bare at high water, and just large enough to set a plane table up on it. The uncertainty in its position is therefore negligible.)

As no tidal data was furnished, the soundings are referred to the tide gauge in Marble Passage.

The survey developed no indications of dangers to be avoided.

The Tokeen Quarry, Holbrook Saltery, and Marble Passage Quarry comprise all improvements in this vicinity.

A tabular statement of statistics follows.

R. S. Patton,
Chief of Party, U.S.S.

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Statistics Sheet No. _____

Section	Date, 1913.	Letter.	Vol.	posi- tions.	sound- ings.	Miles statute	Vessels
Off Tekeen Quarry	Oct. 15.	a	1	78	278	4.5	w.beat.
	Oct, 15.	D	1	71	173	4.5	Launch
Off White Cliff Island	Oct. 16.	e	1	99	141	7.0	Launch
Off H. Abrook Saltery	Oct. 18.	b	1	45	194	2.0	W.beat.
Total.....				293	786	18.0	

Soundings in fathoms.

Tide gauge at Marble Passage Quarry Dock & Tekeen Quarry Dock. *