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Bepartment of Commerce and Labor COAST AND GEODETIC SURVEY						
Superintendent.						
State: Alaska						
DESCRIPTIVE REPORT.						
Sheet No.						
Port Moller						
190						
W.C. Librell						

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Coast and Geodetic Survey
O. H. Tittmann, Sup't.

C. & G. SURVEY, LIBRARY AND ARCHIVES OCT 2 1 1910 Act No.

LABOR

a. J.m -11-11-10

Hydrographic Sheet No......

PORT MOLLER, ALASKA

Steamer EXPLORER

Walter C. Dibrell, Assistant, Chief of Party

Begun : May 26

Completed: June 4

1910

SCALE 1 - 20 000

Hydrography in charge of John W. Maupin, Ass't.

Secretary flotter & made of HXS

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Hydrographic Sheet No......

C. & G. SURVEY, LIBRARY AND ABCHIVER OCT 2 11910 Add No.

OBSERVERS

John W. Maupin, Assistant

A. R. Hunter, Watch Officer

R. R. Lukens, Aid

RECORDERS

H. Olsen, Wr. 2 cl.

LEADSMEN

Emil Moen, Q'mr. 1 cl.

William Duker, Q'mr. 2 cl.

DEGCRIPTIVE REPORT TO ACCOMPANY HYDROGRAPHIC SHEET NO. 3/89 , PORT MOLLER, ALASKA, SCALE 1 - 20 000

The hydrography to be shown on this sheet was executed during May and June 1910 while the party was waiting for the opening of navigation in Nushagak Bay. The surveys made here, although reliable as far as they go, are very incomplete for the reason that the field work was greatly retarded by bad weather and it was very undesirable that operations in Port Moller should interfere with the regular work of the season in Bristol Bay. Furthermore the supply of fuel for launch and ship was limited and after the supply had been reduced to the minimum the party was unable to tarry for the addition of any further details however important.

- 2. A very superficial examination of Port Moller showed that the existing charts of this locality are greatly in error and a menace to navigation rather than an aid. A report dated June 10,1910 was forwarded immediately after the work in that locality was suspended. Information contained in that report will not herein be repeated. Next to last sentence of paragraph two of that report should read, "Very shoal water exists for a long distance off shore on eastern (instead of western) side of the channel".
- 3. The area covered by soundings is 4 miles long (north and south) and 2 miles wide, excepting that a space one mile square in south-eastern corner of this area was not developed. Eastern limit is a line joining Harbor and entrance Points; southern limit is abreast of Harbor Point, and northern limit is a little to

southward of Entrance Point. A line of ship soundings, run while going out extends to edge of sheet and even further. The smooth sheet has not been plotted at the time this report is written. Positions and characteristic soundings have been plotted on the boat sheet without reduction for tide.

- 4. Positions of hydrographic signals are furnished by the topographic sheet. The latter is controlled by stadia readings and plane table triangulation. A solar azimuth was observed for prie reading. All of the hydrographic work was done with the launch excepting the one line of ship sounding above referred to. The lines are spaced 200 to 300 meters apart.
- 5. Much of the area developed is cut up by shoals, portions of which are almost awash at low water. The lines terminate at the eastern end in the main channel, which lies between Entrance and Harbor Points. It is regretted now that the lines were not extended to the shore. It was intended at the time to fill in along the shore with the whaleboat in order to make the fuel supply of launch hold out as long as possible, but bad weather and other causes prevented any work with the pulling boat.
- 6. A reconnoissance line showed that the deep channel continues past Harbor Point, lying fairly close thereto, and for some distance farther exists about as shown on the chart. The two shoals shown to south-eastward of the point were observed to exist about as indicated. The area on eastern side of Harbor Point spit was examined with launch and was found to be shoal. The bight on south side of Entrance Point also is shoal.
- 7. Tides were observed day and night at Harbor Point Spit from May 24th to June 3rd. During the greater part of this time

a staff was maintained on each side of the spit and readings were made on the lee side. On May 31st the staff were carried away and on account of a south-east gale they could not be restored until June 2nd. During this interval the highs and lows were marked by stakes which were afterward determined by levels. One high and three lows are missing from the record.

- 8. The tidal currents in Port Moller have some strenghth. Strong tide rips occur off Harbor Point. An officer of the Fish Commission who was on the Albatross at the time that vessel was stationed in this locality gives account of a flood current in Hague Channel that measured eight knots, the tide entering on that occasion as a bore.
- 9. Good anchorage is found on outer side of Harbor Point Spit about 1 1/4 miles from the end and 3/4 mile off shore. In south-east gales the shelter here is excellent from the sea but the wind draws down the bay with great force. The shoals apparently would afford some protection in off shore weather. Vessels may anchor above Harbor Point but the protection would be less in south-east gales and apparently no better from other directions unless it be from west or north-west.
- ward by a valley receding into the mountain range. The land about the entrance is low and the chart indicates extensive shoal areas in the approach. Some difficulty would therefore be encountered by vessels entering in bad weather, even though accurate charts were available.
- 11. The only channel of which we have any knowledge of present, lies on eastern side of the mouth of bay and Entrance Point

is therefore the leading mark for entering. It is a low grass covered spit peculiarly marked, especially near the end, by a number of irregular little sand knolls. One or two of these are noticeably eroded on offshore side. There is deep water close to end of spit, but on offshore side beach is flat and shoal water extends some distance from shore.

- 12. The Knudobine Islands are low and afford no definite features on which a bearing can be taken. Point Doe and Point Divide are bluffs and are readily distinguished from some distance outside of Entrance Point.
- 13. Harbor Point Spit is low, narrow, grasscovered, and composed of sand and shingle. As seen from off shore it is regular in outline and on outer side shows a low bare sand bluff along high water line. On outer side a narrow boulder strewn lidge bares at low water; on inner side a broad sand and pebble beach is exposed when the tide is out. Harbor Point cannot be made out distinctly until nearly abreast of Entrance Point.

Port Moller is surrounded by high mountains, and the shore line excepting at the spits is steep and rocky. A high ridge lies across the head of bay.

Respectfully submitted,

Ass't., C. & G. Survey,

Nushagak, Alaska,

Chief of Party.

September 14,1910.

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Hydrographic Sheet No

C. & G. SURVEY,

OCT 2 11910

STATISTICS

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Date 1910	Vol.	Let.	Miles (Stat)	Sdgs.	Angles	Remarks
May 26 27 28 June 4	1 1 1&2 2	a k c	24.3 22.2 24.5 16.0	555 645 913 196	192 184 216 128	Launch # 38 " " " Str. EXPLORER
4	2		87.0	2309	720	

Area ./.Q..sq. stat. miles.

HYDROGRAPHIC SHEET 3189.

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Port Moler, Alaska, by Assistant W. C. Dibrell, in 1910.

Ϋ́Э	IDES	5.	
			Port Moler Staff No.1 ft.
Mean lower low water, plane of reference	2.3		
Lowest tide observed	Ħ	Ħ	1.9
Highest " "	n	n	14.2
Mean range of tide			7.5

NOV 17191!

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The area correctly this surrey is not profuely

the wellful:

The results are clear and well keft.

Afflicance