

4595

4595

Form 504

U. S. COAST AND GEODETIC SURVEY  
DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey *Hydrographic*  
Field No. .... Office No. *4595*

LOCALITY

State *S. E. Alaska*  
General locality *Baranof I.*  
Locality *Chatham Strait*  
*Warm Spring Bay*  
*1946*

CHIEF OF PARTY

*F. B. J. Seem*

LIBRARY & ARCHIVES

DATE .....

DESCRIPTIVE REPORT  
to accompany  
HYDROGRAPHIC AND WIRE DRAG SHEET  
of  
WARM SPRING BAY

- 1926 -

-o-

DESCRIPTIVE REPORT

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HYDROGRAPHIC AND WIRE DRAG SHEET

of

WARM SPRING BAY

- 1926 -

**EXTENT:** The hydrography covers Warm Spring Bay from deep water in Chatham Straits to the head of the bay including inlets. The wire drag covers the approaches, channel and main part of the Bay. Various drags were carried close to the dock at the reduction plant in Warm Spring Bay and to the opposite shore.

**SURVEY METHODS:** Regular drag methods with a 3/16" ground wire and wooden toggles were used in this work. Bridled toelines were used in towing drag. Frequent test were made of the depths of the drag. The two boat control method was used throughout. In the absence of test and notes as to speed, one foot correction was arbitrarily applied.

A regular system of north and south sounding lines was used about 100 meters apart except in the shoaler areas at the head of the bay where the lines were about 60 meters apart.

**PLOTTING AND RECORDS:** The wire drag launch positions were pricked through the protective covering of tracing cloth on the smooth sheet and the toeline connecting launch positions and large buoy positions is indicated by a light pencil line. This method aids in the plotting and is useful in shaping the drag curves. The end launch positions were copied into the guide launch record. The numbers corresponding to the guide launch positions are indicated on the sheet. Results of tests of drag depth are copied on page 28 guide launch record. Soundings taken by the drag launches at grounds are indicated in the records by a red circle surrounding them.

**DANGERS:** A reef about 150 meters off the high water rock just east of the southwest bight was investigated by the hydrographic party and a rock having over it a reduced depth of one foot was found at the northeast edge of it. The bottom was

plainly visible. Numerous soundings were taken and only the least recorded. Soundings northeast of the rock were considerably deeper. No kelp was observed. The rock was observed to be bare one or two feet during minus tides on the mornings of May 28 and 29. Only a single small area showed.

Another rock about 40 meters from the above high water rock bares at half tide.

There is a six fathom shoal area with possibly less water 260 yards,  $90^{\circ}$  true from the first point east of the light on the south entrance.

There is a 3 fathom spot about 80 yards west of the salt-ery wharf and 30 yards from the shore.

LIST OF GROUNDS.

1. Position 7A. 230 meters N.E. from signal ROCK. Effective depth of drag 48 feet. No soundings. Not dragged over since it is a known shoal in unimportant area. Both launches reversed and pulled drag clear. *J/V*

2. Position 17A. Drag aground at N buoy 250 meters east from signal FISH. Effective depth of drag 46 feet. Sounding 79 feet. Still aground in nearly same place at position 20A. Depth by sounding 38 feet. Not dragged over. Guide launch reversed, cleared shoal and continued line. In reversing to clear and in resuming line a rather deep bight of undragged area along the limit of the work was occasioned. Unfavorable weather prevented further work here and the party left this locality to resume work elsewhere. It appears desirable to cover the area and also to drag over the 38 foot sounding at some future time. *J*

3. Position 25A. Drag aground at F buoy, 110 meters south from signal ROCK. Effective depth of drag 46 feet. No soundings as it was close to shore. End launch reversed and cleared. *J*

4. Positions 49 & 50A. Drag aground 105 meters east of signal FALLS and close to shore at the point east of the cannery. Effective depth of drag 47 feet. No soundings. *J*

5. Position 53A. Drag grounded momentarily at N buoy, 130 meters north of Signal MON. Effective depth of drag 47 feet. Depth by sounding 48 feet. *J*

6. Position 69A. Drag aground at F, 100 meters west from Signal BAY. Effective depth of drag 50 feet. No soundings. Not dragged over as drag ran aground close inshore. *J*

7. Position 6B. Drag aground at No. 3 buoy, 105 meters east from Signal FALLS. Effective depth of drag 42 feet. No shoaler soundings were obtained. *J*  
*N.P. - shoaler depths obtained*

8. Position 11B. Drag aground at No. 1 buoy, 90 meters north from Signal MON. Effective depth of drag 39 feet. At buoy No. 2, 70 meters E. by N. from Signal MON, depth by sounding 38 feet. 55 meters N.E. from Signal MON, depth by sounding 22 feet. *J*

9. Position 16B. Drag aground at buoys Nos. N, 2, and 3. Effective depth 23 feet. Depth by sounding at buoy No. 3, 18 feet, at No. 4, 35 feet. *J*

**SPECIAL NOTES:** Two rocks were indicated on the smooth sheet in pencil according to notes at positions 89b and 90b, sounding record ✓

On position 20A, guide launch and position 16B, end launch, the signs of the buoy angles were changed because the the signs recorded showed the buoy in improbable positions. ✓

Positions 96A and 97A, end launch, were plotted using the check angles on the left instead of the left angles first taken. The positions so plotted agreed with the guide launch notes and with the distances between buoys. ✓

**COAST PILOT NOTES:** The bay is surrounded by high bare peaks, but they have no distinctive features by which anyone not familiar with them could distinguish them from the many other peaks on the island. A waterfall at the head of the bay is visible from Chatham Strait through a narrow opening between a point on the south side of the entrance and a peninsular projecting from the north shore just inside the entrance. A high narrow, white slide on the west side of the south entrance point shows from within the bay. ✓

A bare, flat topped rock about six feet high at high water lies in the middle of the entrance, one quarter mile east from the eastern point of the peninsula. It is surrounded by kelp. ✓

There is a six fathom shoal area with possibly less water, 260 yards, 90° true, from the south entrance point which has not been covered by the drag. There is ample room, however, outside of the shoal in dragged area for entering the bay. ✓

The point on the south side of the entrance is marked by a light. ✓

Two bights in the southern shore afford anchorage for small boats. The southwestern one is preferable because it is larger and has shoaler water, 12 to 15 fathoms. The small cove in the west side of the peninsula is sometimes used as an anchorage for small fishing boats. ✓

There is a detached high water rock 20 yards off the south shore 300 yards east from the southwest bight. It is connected with the shore by a low water reef and a narrow, low water reef extends ✓

north westerly from it for 40 yards to a small rock which bares at half tide. The detached high water rock is about 4 feet high, dark colored, and has a rough broken appearance.

A rock with 1 foot of water over it lies 175 yards off the south shore or 160 yards,  $352^{\circ}$  true from the detached rock just east of the southwest bight. The rock is well to the southward of any course leading to the head of the bay, but several small boats are said to have struck it, presumably when bound for or leaving the southwest bight.

The statement in the present coast pilot that there are no dangers in the bay if the shores are given a berth of about 100 yards should be omitted on account of the rock mentioned above as being 175 yards offshore.

The anchorage for large vessels in mid-bay abreast the southwest bight is indifferent. It is of poor holding bottom and entirely unprotected in stormy weather; a vessel is obliged to lay to or go alongside the saltery wharf. The bights have not sufficient swinging room for anchorages for large vessels.

A three fathom sounding lies 80 yards west magnetic from the saltery wharf and 30 yards from shore. It is in line with face of the wharf and should be avoided when approaching or leaving the wharf.

A float at Baranof at the head of the bay furnishes sheltered mooring for small boats.

At Baranof are a local post office, store, sawmill and a number of cabins.

Approach to the entrance can conveniently be made on the range formed by the south tangent of the peninsula extending from the north shore and the water fall at the head of the bay, the course of which is  $279^{\circ}$  true. When abeam of the south entrance point (first point east of the light) distant 350 yards leave the range and steer  $266^{\circ}$  true for 0.7 mile. When abreast of the middle part of the peninsula distant 300 yards head for the waterfall at the head of the bay on course  $285^{\circ}$  True until abreast of the point just east of the

Saltery. Ships generally make port landing at the present Saltery dock which has 30 feet at its face. Care should be taken in coming along side or leaving to avoid the 3 fathoms spot 80 yards west of the wharf and in line with the face of it.

Respectfully submitted,

*Philip R. Hathorne*

Philip R. Hathorne,  
Jr. H. & G. E.

*Supplemented* APPROVED:

*Feb 5, 1927*

*F. B. T. Siems*

F. B. T. Siems,  
Commanding Officer,  
U. S. S. EXPLORER.



STATISTICS.

WARM SPRING BAY.

WIRE DRAG

DATE	DAY	LGTH OF DRAG	E.L. POS.	G.L. POS.	STATUTE MILES
June 25	A	2400	T 97	S 72	4.6
June 26	B	700	T 19	S 23	1.0
TOTALS	2		116	95	5.6

HYDROGRAPHY.

DATE	BOAT	DAY	POSITIONS	SOUNDINGS		MILES
				HAND	MACH.	
June 22	Tender	a	99	56	143	7.0
23	Tender	b	112	45	167	11.0
24	Tender	c	118	151	100	9.8
TOTALS		3	329	252	410	27.8

March 2, 1927.

11

Division of Hydrography and Topography:

Division of Charts:

Tide reducers are approved in  
volumes of sounding records for

HYDROGRAPHIC SHEET **4898**

Locality: **S. E. ALASKA.**

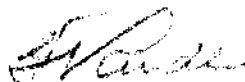
Chief of Party: **F. B. T. Siems**

Plane of reference is **M L L W**

**4.8** ft. on tide staff at **Warm Spring Bay.**

Condition of records satisfactory except as checked below:

1. Locality and sublocality of survey omitted.
2. Month and day of month omitted.
3. Time meridian not given at beginning of day's work.
4. Time (whether A.M. or P.M.) not given at beginning of day's work.
5. Soundings (whether in feet or fathoms) not clearly shown in record.
6. Leadline correction entered in wrong column.
7. Field reductions entered in "Office" column.
8. Location of tide gauge not given at beginning of each day's work.
9. Leadline corrections not clearly stated.
10. Kind of sounding tube used not stated.
11. Sounding tube No. entered in column of "Soundings" instead of "Remarks".
12. Legibility of record could be improved.
13. Remarks.



Chief, Division of Tides and Currents.

U. S. COAST AND GEODETIC SURVEY  
SECTION OF FIELD RECORDS

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

WASHINGTON

November 5, 1927.

SECTION OF FIELD RECORDS

Report on Hydrographic Sheet No. 4595 (Including Wire Drag)

Warm Spring Bay, Southeast Alaska

Surveyed in 1926

Instructions dated March 25, 1926 (EXPLORER)

Chief of Party, F. B. T. Siems.

Surveyed by W. Weidlich, R. D. Horne, F. B. T. S.

Protracted and soundings plotted by P. R. Hathorne.

Soundings verified and inked by J. T. Jarman.

Wire Drag verified and A. & D. Sheet prepared by G. Risegari.

1. The records conform to the requirements of the General Instructions.
2. The plan and character of development conform to the requirements of the General Instructions.
3. The plan and extent of development satisfy the specific instructions with the exception that the shoal off the south entrance point should have been developed with the wire drag.
4. The least depth was found over all important shoals discovered except as mentioned in paragraph 3. There were numerous groundings that occurred which were not investigated with the lead nor were they dragged over. These, however, were either close inshore or were on the extensions of known shoals.
5. The overlaps within the sheet are sufficient.
6. The usual depth curves could be drawn except those close inshore.
7. The usual field plotting was done by the field party and was well executed.
8. There are no contemporary adjacent surveys.

9. Additional work will be required as follows:
  - a. An examination, preferably with the wire drag, of the 6 2/6 fathom shoal in latitude 57° 04' 1390 m., longitude 134° 46' 280 m. A 47 foot drag grounded here and two 38 foot soundings were obtained. The spot was not subsequently cleared on account of unfavorable weather. There appears to be deeper water between these soundings and the shore. While not directly in the fairway this possible shoal would restrict the entrance channel considerably. It should therefore be examined and the least depth determined, and while doing this the drag should be carried as close to the point as safety will permit.
  - b. The area to the west and northwest of  $\Delta$  Rock should, if practicable, be wire dragged as it might afford another safe ingress to the bay from the north.
10. Character and scope of field operations - very good.  
Field drafting - very good.
11. Reviewed by A. L. Shalowitz, November, 1927.

IN REPLY ADDRESS THE DIRECTOR  
U. S. COAST AND GEODETIC SURVEY  
AND NOT THE SIGNER OF THIS LETTER

AND REFER TO No. 11-DEM

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

WASHINGTON

September 27, 1927.

SECTION OF FIELD RECORDS

Report on Hydrographic Sheet No. 4595

Warm Spring Bay, Alaska

Surveyed in 1926

• Chief of Party, F. B. T. Siems.

Surveyed by W. Weidlich, R. H. Horne.

Protracted and soundings plotted by P. R. Hathorne.

Verified and inked by J. T. Jarman.

1. The records conform to the requirements of the General Instructions. However, the recorder failed to note under the column of Remarks the numerous changes in time interval. It is recommended that these changes be noted as it is of assistance to the draftsman in checking.
2. The plan and character of the development conform to the requirements of the General Instructions.
3. The information is sufficient for drawing the usual depth curves.
4. The field plotting was completed to the extent prescribed by the General Instructions.

Statistics on the sheet follow:

Number of soundings plotted	662
" " positions	329
" " " checked	135
" " " changed	5

Character of sheet - open with several shoal developments.

5. There are no contemporary surveys adjoining this project.

IN REPLY ADDRESS THE DIRECTOR  
U. S. COAST AND GEODETIC SURVEY  
AND NOT THE SIGNER OF THIS LETTER

AND REFER TO No. 11-DRM

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

WASHINGTON

September 27, 1927.

SECTION OF FIELD RECORDS

Report on Hydrographic Sheet No. 4595

Warm Spring Bay, Alaska

Surveyed in 1926

• Chief of Party, F. B. T. Siems.

Surveyed by W. Weidlich, R. H. Horne.

Protracted and soundings plotted by P. R. Hathorne.

Verified and inked by J. T. Jarman.

1. The records conform to the requirements of the General Instructions. However, the recorder failed to note under the column of Remarks the numerous changes in time interval. It is recommended that these changes be noted as it is of assistance to the draftsman in checking.
2. The plan and character of the development conform to the requirements of the General Instructions.
3. The information is sufficient for drawing the usual depth curves.
4. The field plotting was completed to the extent prescribed by the General Instructions.

Statistics on the sheet follow:

Number of soundings plotted	662
" " positions	329
" " " checked	135
" " " changed	5

Character of sheet - open with several shoal developments.

5. There are no contemporary surveys adjoining this project.

6. Between fixes 100b and 101b there is a 17 fathom sounding which is surrounded by 25 and 30 fathom depths. This area should have been investigated for a possible shoal.

*unnecessary  
as 49 ft.  
drag cleaned  
if without  
sounding.  
A.W.S.*

Fixes 1c, 2c, 6c and 7c are revolvers or weak fixes and the correctness of the immediate area surrounding them is doubtful. The positions in question were plotted to agree with the boat sheet, it being assumed that the field party knew approximately where they were when the fixes were taken. A diagram with the above revolvers indicated and the doubtful area shaded is attached to the ~~smooth sheet~~. *descriptive report.*

7. ~~Reviewed~~ by J. T. Jamman, September, 1927.  
*Report.*

Approved:

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Chief, Section of Field Records (Charts)

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Chief, Section of Field Work (H. & T.)

Diagram indicating revolvers and weak fixes found on H-4595

A circle through the signals Der, Som and Log is shown thus —

Fix 1c whose signals are Der, Som and Log may be plotted anywhere on the green line shown in diagram.

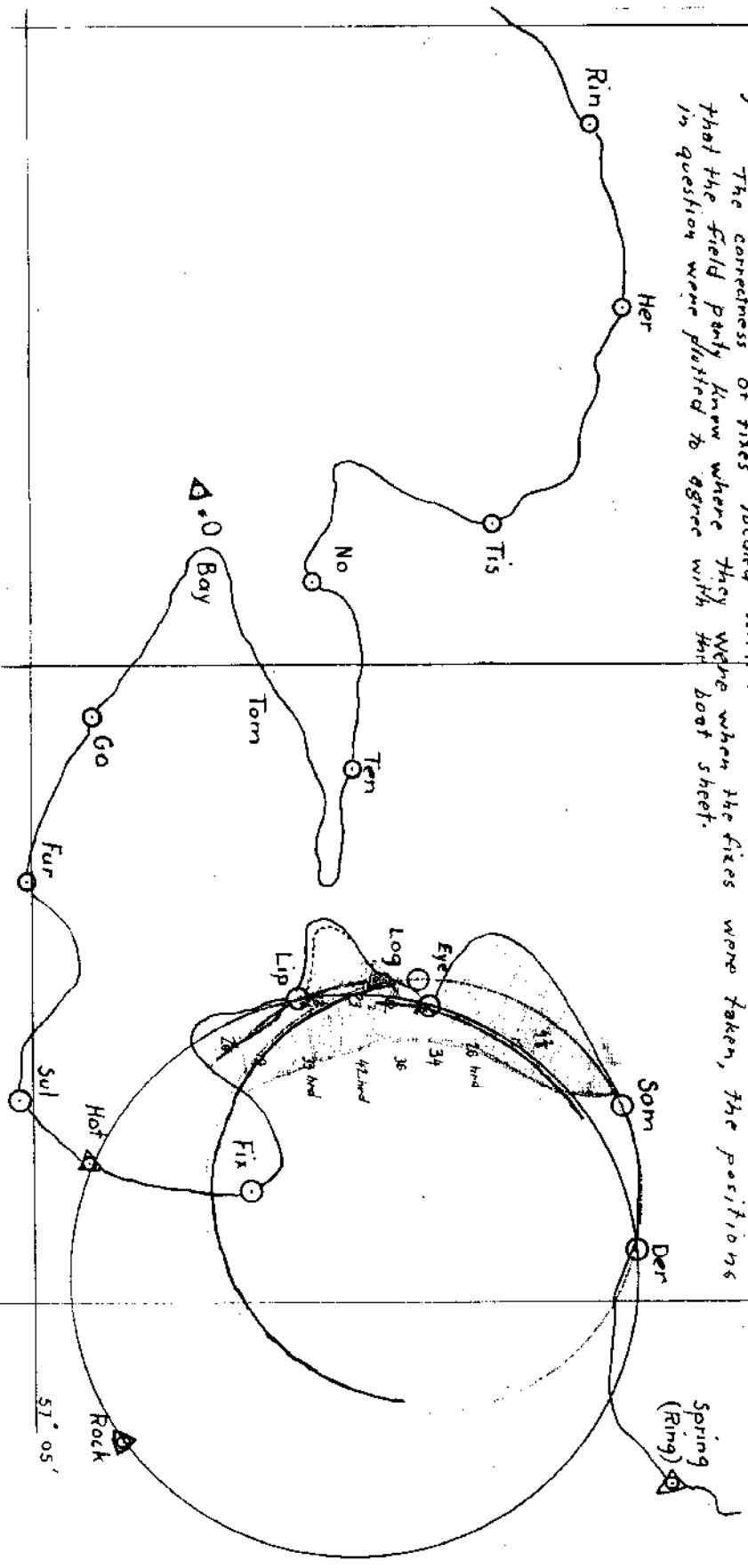
Fix 6c, also with signals Der, Som, & Log may be plotted anywhere on the black line shown in diagram. Like was Fix 7c with same signals may be plotted anywhere on the blue line shown on the diagram.

A circle through signals Der, Lip & Rock is shown in brown.

Fix 2c with signals Der, Lip, & Rock may be plotted anywhere on the red line shown on diagram.

Fix 7c with signals Der, Som & Log may be plotted anywhere on the blue line shown on diagram.

Remarks: Circles were passed through the above signals in order to ascertain just how much of a revolver the fixes in question were. The correctness of fixes located within the shaded area is doubtful. Assuming that the field party knew where they were when the fixes were taken, the positions in question were plotted to agree with the best sheet.



57° 05'



Section of Field Records.

Report on Wire Drag Sheet No. 4595.

Warm Spring Bay, Alaska.

Surveyed in 1926.

Chief of Party. F. B. T. Lewis.

Surveyed by F. B. T., P. D. Horne.

Drag work and soundings plotted by P. R. Hathorne.

Verified and inked by E. Pisegani.

1. The records conform to the requirements of the General Instructions.
2. The plan and character of the development conform to the requirements of the Specific Instruction with the following exception:

Attention might be called to the possibility for further ~~development~~ wire drag development on the west <sup>side</sup> ~~and south sides~~ of Signal Rock (Lat  $57^{\circ}05'$ , Long.  $134^{\circ}47'$ ) and also the unsurveyed ~~area~~ wire drag area adjoining ~~this~~ area in question with the northern extremity of the Bay.

Though there <sup>is</sup> hydrography shown in these areas it remains a question, however, whether or not ~~the~~ <sup>these</sup> bottom are dangers lurking in these waters should vessels <sup>use of</sup> make <sup>the</sup> entrance to the Bay.

A number of soundings at which no soundings were taken are shown encircled in green.

3. There are no adjacent sheets.

4. The character and scope of the field work, - good.

5. Draftsmanship, - good.

6. Reviewed by E. Prigari; Oct. 1927.  
Report

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

HYDROGRAPHIC TITLE SHEET

*Hyd. and Wire Drag shown separately on the same sheet.*

The finished Hydrographic Sheet is to be accompanied by the following title sheet, filled in as completely as possible, when the sheet is forwarded to the Office.

U. S. Coast and Geodetic Survey.

Register No. 4595

4595

State . . . . . S. E. ALASKA.

General locality . . . . . BARANOF ISLAND, CHATHAM STRAITS.

Locality . . . . . WARM SPRING BAY

Chief of party . . . . . F. B. T. SIEMS.

Surveyed by . . . . . W. WEIDLICH - ROLAND D. HORNE.

Date of survey . . . . . JUNE 1926.

Scale . . . . . 1: 10,000.

Soundings in . . . . . Fathoms.

Plane of reference M.L.L.W.

Protracted by P.R.H. . . . . Soundings in pencil by P.R.H.

Inked by . . . . . Verified by . . . . .

Records accompanying sheet (check those forwarded):

1 Des. report, 1 Tide books, \_\_\_\_\_ Marigrams, 2 Boat sheets,

2 Sounding books, \_\_\_\_\_ Wire-drag books, \_\_\_\_\_ Photographs.

Data from other sources affecting sheet . . . . .

Remarks:

The boat sheet also accompany Wire Drag smooth sheet.

*2 sheets  
2 sheets  
2 sheets  
2 sheets  
2 sheets*

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

WIRE DRAG  
HYDROGRAPHIC TITLE SHEET

*Hyd. and Wire Drag shown separately on the same sheet*

The finished Hydrographic Sheet is to be accompanied by the following title sheet, filled in as completely as possible, when the sheet is forwarded to the Office.

U. S. Coast and Geodetic Survey.

Register No. 4595

4595

State . . . . . S. E. ALASKA. . . . .

General locality . . . . . BARANOF ISLAND, CHATHAM STRAIT. . . . .

Locality . . . . . WARM SPRING BAY . . . . .

Chief of party . . . . . F. B. T. SIEMS. . . . .

Surveyed by . . . . . F. B. T. SIEMS . . . . . ROLAND D. HORNE. . . . .

Date of survey . . . . . JUNE 1926. . . . .

Scale . . . . . 1:10,000. . . . .

Soundings in . . . . . Feet. . . . .

Plane of reference M.L.L.W. . . . .

Protracted by P.R.H. . . . . Soundings in pencil by P.R.H. . . . .

Inked by . . . . . P.R.H. . . . . Verified by . . . . .

Records accompanying sheet (check those forwarded):

- 1 Des. report, 1 Tide books, \_\_\_\_\_ Marigrams, 2 Boat sheets,
- 1 Sounding books, 2 Wire-drag books, \_\_\_\_\_ Photographs.
- Data from other sources affecting sheet . . . . .

Remarks:

All records accompanying this sheet are also referred to on the Hydrographic Title Sheet.

Wire Drag Title Sheet