

4815

Diag. Cht. No. 5702-2

Form 504
 DEPARTMENT OF COMMERCE
 U. S. COAST AND GEODETIC SURVEY

State: OREGON

11-5613

DESCRIPTIVE REPORT.

Hydrographic Sheet No. 5 **4815**

LOCALITY:

~~Coast of Oregon~~ Port Orford

~~Orford Reef and Fox Rock~~

The Heads to Orford Reef

1928

CHIEF OF PARTY:

A.P. Ratti

4815

DESCRIPTIVE REPORT TO ACCOMPANY HYDROGRAPHIC

SHEET NO.4 (Field Number), Vicinity of Orford Reef, OREGON.

DATE OF INSTRUCTIONS.

Instructions covering this survey were dated march 19,1928.

LIMIT AND EXTENT.

This survey covers the area in the vicinity of Fox Rock and SE Rock, Orford Reef, Oregon, and supplements the work on Reg. No.H4479. This sheet makes a junction with Sheet 2 (Field No.) and Sheet 3 (Field No.).

SURVEY METHODS.

All signals used on this sheet were located by triangulation in 1922 and 1924, and by topography shown on Sheets D, E. and E. For list of signals used see page 2, Vol.1 of sounding record of this sheet.

All soundings on this sheet were taken with the standard Coast Survey Hand sounding machine, using stranded wire.

Chartered gas launch Rogue was used on this survey.

Soundings were taken from the stern, bringing the launch to a complete stop in each case to insure a true vertical cast.

REDUCTION OF SOUNDINGS.

The reference plane for the reduction of soundings is MLLW and it 4.84 Feet at Port Orford where the gauge was located for this work.

All soundings on the smooth sheet are in fathoms and all soundings on the boat sheet are in fathoms reduced approximately.

COMPARISON WITH PREVIOUS SURVEY.

No indication was found of the ridge in approximate latitude $42^{\circ} 42\frac{1}{2}'$, Longitude $124^{\circ} 35'$ to $124^{\circ} 37'$.

No indication was found of the 35 Fathom sounding in latitude $42^{\circ} 42\frac{1}{2}'$, longitude $124^{\circ} 34'$.

Respectfully submitted,

Augustus P. Ratti

Chief of Party,

U.S.Coast and Geodetic Survey.

STATISTICS SHEET NO.5 (Field Number).
 *****^*****

Date 1928	letter	Volume	Positions	Soundings	Miles Stat.	Vessel.
Sept.4	a	1	11	20	4.0	Rogue
" 5	b	1	92	158	28.7	"
" 13	c	1	8	15	3.0	"
" 21	d	2	113	193	28.0	"
			****	*****	****.***	
		TOTALS	224	386	63.7	

Report on Sheet 4815.

Records were complete.
All protracting checked O.K..
Time intervals in soundings were regular.
Sheet was clean and legible.
General instructions for field work were followed.

As stated in Descriptive report Sheet 4815, no 35 fath.sounding was found in approximate latitude $42 - 42\frac{1}{2}'$; longitude $124 - 34'$. No indication of ridge in approximate latitude $42 - 42\frac{1}{2}'$; longitude $124 - 35'$ to $124 - 37'$. The soundings found in 1920 were plotted on the sheet 4505 but the fathom line was not changed.

Philip C. Doran
Philip C. Doran.

Section of Field work.
Sheet # 4815

4.

Surveyed in 1928.

Chief of Party - A. P. Ratti.

Instructions dated - March 19, 1928.

Surveyed by - A. P. Ratti and T. B. Reed.

Projected by - T. B. Reed.

Soundings plotted by - T. B. Reed.

verified and inked by - P. C. Doran.

1. The records conform to the requirements of the General Instructions.
2. The plan and character of development fulfill the requirements of the General Instructions.
3. The plan and extent of development satisfy the specific instructions, with the possible exception of the junction of H-4815 with H-4813. This junction will be covered in the paragraph below on junctions.

4. No regular system of ~~some~~ cross lines was run on this sheet, but where crossings or junctions of sounding lines occurred they were good.
5. The usual depth curves can be drawn.
6. The field plotting was complete.
7. The office draftsmen did not have to do over any part of the field drafting.
8. The junctions of this sheet with H-4505, H-4813 and H-4814 have not been thoroughly compared as these three sheets have not been completed. From casual inspection the junctions with H-4505 and H-4814 are good, but that with H-4813 is not carried to completion. It appears that in order to make this junction some of the old soundings on H-1300 must be used. It seems that it would have been advisable to run one

or two more lines of soundings when in the field in order to affect a proper junction between H-4813 and H-4815.

The junction with H-1946 is good.

The junction with H-4479 shows a cross line on H-4479 at Lat. 42-46 Long. 124-38-900 m. which is about 2 fathoms deeper than the soundings on H-4815. In this case the soundings on H-4815 should be given preference as this work was done with a hand sounding machine ^{with lead}, while that on H-4479 was done by tube sounding.

The junction with H-1300 is good.

9. Further surveying is not required for full development of important areas within the limits of the sheet.

10 Remarks:

(a) In comparing H-4815 with H-1300 it was noticed that there was a $32\frac{1}{2}$ fm. sounding on H-1300 at Lat. $42-44-1600m$, Long. $124-37-700m$, which does not appear on H-4815 or on chart 5952. This sounding when transferred to H-4815 falls between soundings of 39, 41 and 42 fathoms. Unless this $32\frac{1}{2}$ fathom sounding on H-1300 has been disproven it would ~~appear~~^{seem} that a poor selection of soundings in this vicinity on chart 5952 has been made and that a 34 fathom sounding on the chart should be replaced by it.

(b) The 35 fathom sounding in lat. $42^{\circ}-42\frac{1}{2}'$, long. $124^{\circ}-34'$ was investigated but no indication of it was found. The 35 fm. depth was obtained with a tube while the last rock was done by machine with lead, so it is believed that this

sounding was erroneous.

(c) The apparent ridge in latitude $42^{\circ}-42\frac{1}{2}'$, Long. $124^{\circ}-34'$ was also investigated and no indications of it was found. The development consisted of only one line along the old course and cannot be considered a thorough development, but the latest soundings should replace the original, because the latest were obtained by machine with lead whereas the original were obtained by tube soundings.

Another reason for rejecting the original soundings here, as well as the 35 fathom sounding ^{in paragraph (b)}, is the fact that the original line was run at the beginning of a day. There is always more chance for erroneous soundings at the beginning and end of a day than ~~there is~~ when sounding is in constant operation.

4. (a) character and scope of surveying
is good.
(b) Field drafting excellent.

Reviewed by

Earl O. Henton
Jr. H. & G. E.

Approved: A. M. Sobieralski
Chief Section of Field Records.

J. S. Bodin
Chief, Section of Field Work