

# 5110

Diag. Cht. No. 6102-1

5110

Form 504  
Ed. June, 1928

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY  
R. S. Patton, Director

State: Washington

DESCRIPTIVE REPORT

~~Topographic~~ } Sheet No. 5110  
Hydrographic } Field #42

LOCALITY

Pacific Coast

Offshore - Perkins Reef to Hand Rk

1930

CHIEF OF PARTY

K. T. Adams

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DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

REG. NO. 5110

HYDROGRAPHIC TITLE SHEET

The Hydrographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

Field No. 42.

REGISTER NO. 5110

State Washington  
General locality ~~Olympic Peninsula~~ Pacific Coast  
Locality ~~Off La Push~~ Offshore - Perkins Reef to Hand Rk.  
Scale 1:40,000 Date of survey July - Oct., 19 30  
Vessel U.S.C. & G.S.S. GUIDE.  
Chief of Party K. T. Adams  
Surveyed by K. T. Adams  
Protracted by John C. Mathisson  
Soundings penciled by John C. Mathisson  
Soundings in fathoms feet  
Plane of reference M. L. L. W.  
Subdivision of wire dragged areas by \_\_\_\_\_  
Inked by G. H. Streeter  
Verified by G. H. S.  
Instructions dated April 16., 19 30  
Remarks: \_\_\_\_\_  
\_\_\_\_\_

DESCRIPTIVE REPORT  
to accompany

HYDROGRAPHIC SHEET NO. 42  
Washington Coast

INSTRUCTIONS: The hydrography executed on this sheet was done in compliance with your instructions for project NO. 59. dated April 16, 1930.

SURVEY METHODS: The usual survey methods were employed in this area. All hydrography was controlled by good three point fixed positions; taken on shore objects. The lines were run parallel to the shoreline, with the exception of a small area near the northern limit of the sheet.

Soundings in depths less than 15 fathoms were taken by the hand lead. Those soundings in greater depths were taken by the Fathometer, read by an officer, the vessel running standard speed.

All work on this sheet was done by the Steamer GUIDE.

Work on this sheet was supplemented inshore by work done by launches on a 1:20,000 scale, and offshore by work done on a 1:120,000 scale.

DISCREPANCIES: O Bite is the same hill as Peak 19 but inasmuch as the position for Peak 19 did not seem to give correct positions, a new location was obtained for O Bite. This was obtained by a combination of triangulation, topographic and hydrographic cuts. It was first plotted on Sheet 43 and was transferred from that sheet to this sheet.

Some discrepancy exists in the hand lead soundings, due to a strong southerly current which, when the vessel was running against the current the soundings in general were too deep. You are advised to use for charting purposes only those soundings obtained on lines run toward the south.

DANGERS: No dangers were discovered within the limits of this sheet, but some dangers exist close inshore from this sheet for which you are referred to the 1:20,000 sheets.

SHOALS: On the 24 fathom shoal 7 miles S W of Carroll Island a close system of Fathometer lines was run. Unfortunately during this work the Fathometer was not operating well and several shoal soundings were obtained by the officer at the Fathometer. There is no doubt in my mind but that these were strays but it is believed that enough additional work was done to prove them strays.

One and one-half miles N x W of Carroll Island exists an  $8\frac{1}{2}$  fathom spot. This was searched over by the ship with hand lead and Fathometer for one and one-half hours and the soundings given were the least obtained.

Two miles S S E of Quillayute Needle exists a <sup>10.6</sup>~~11~~ fathom spot. This was searched over as above by the ship for two-thirds of an hour and the least depths found are given.

ANCHORAGES: No protected anchorages exist within the limits of this sheet. Vessels can find reasonably good holding ground anywhere along the coast but must keep a sharp lookout for traffic, as this comes very close to the shore off James and Jagged Islands.

COMPARISON WITH PREVIOUS SURVEYS: The present work compares very closely with previous surveys.

BOAT SHEET: Soundings on the boat sheet are reduced for predicted tide, to the nearest half fathom.

Hand lead soundings are shown in green, Fathometer soundings are shown in black, and vertical casts, whether hand lead or wire, are shown in green ink within a circle.

*K. T. Adams*

K. T. Adams,  
Chief of Party,  
Steamer GUIDE.

VERIFICATION REPORT.  
to accompany  
Hydrographic Sheet # 42.

This will certify that I have examined the completed smooth sheet and records and hereby approve same.

All of the hydrography on the sheet was done under my very close supervision. I was on board the vessel at all times and did a considerable part of the ship hydrography myself.

*K. T. Adams*

K. T. Adams,  
Commanding Officer,  
Steamer GUIDE.

Refer to:  
Oll-KTA/s

## TEMPERATURE DATA

The temperature data for the 1930 season has already been forwarded to the Washington Office.

## SALINITY DATA

The salinity data for the 1930 season has already been forwarded to Washington Office. The mean salinity for Sheet No. 42 was computed from a curve of temperature determinations taking values from 13 to 60 fathoms. Salinity for use on 42 was in this way taken as 33.45.

## VELOCITY FACTOR CORRECTIONS: Sheet No.42.

Depth	Reducer-
0-13 fms	-0.0 fms
13-26 "	-0.1 "
26-36 "	-0.2 "
36-44 "	-0.3 "
44-52 "	-0.4 "
52-60 "	-0.5 "

INDEX CORRECTIONS  
Sheet No. 42

June 3 to 15th	0.2 fms.
" 17 to 27th	0.3 fms.
" 27 to July 9th	0.0 fms.
July 9 to 16th	-0.1 fms.
July 17 to 30th	0.1 fms.
July 31 to Aug. 27	0.2 fms.
Sept 2 to 4th	-0.2 fms.
Sept 5 to 9th	0.1 fms.
Sept 10 to 29th	-0.2 fms.
Oct. 4 to 11th	0.0 fms.

STATISTICS SHEET NO. 42

Day	Sta. Mi.	H. L.	R. L.	V. C.	Positions	Volume
A	98.0		544	5	171	1
B	15.1		86	2	24	1
C $\frac{1}{2}$	55.4		326	3	84	1
D	23.0		113	1	35	1
E	75.3	459	101		166	1 & 2
F	52.6		269	1	72	2
G	24.7		130	1	38	2
H	83.5		363		106	2
J	36.5		196		53	2
K	72.4		338	4	125	2 & 3
L	21.0		118		30	3
M	72.5	9	621	6	147	3
N	14.2		84	2	23	3
P	70.2		443	8	118	3
Q	14.6	168		1	49	3 & 4
R	10.9		64	2	15	4
S	14.9		75	1	21	4
T	19.7	54	122	2	52	4
<b>TOTALS</b>	<b>774.5</b>	<b>690</b>	<b>3993</b>	<b>39</b>	<b>1329</b>	

LIST OF SIGNALS  
Sheet No.42.

Hydrographic Name	Location
Ozette	Ozette 1913
White	White Rock 1930
Sand	Sand 1929
Face	Face 1929
Hand	Hand 1930
Foot	Foot 1930
Hid	Hid 1929
Bite	Hydro. Location Peak 19, 1913
Carro	Carroll 1913
Hump	Topo Sheet T4450
Star	Topo Sheet T4450
Cake	Topo Sheet T4450
Tank	Topo Sheet T4449
Gull	Topo Sheet T4449
Lo	Topo Sheet T4449
Lar	Topo Sheet T4448
Quill	Quillayute Needle, Topo Sheet T4448
Yard	Topo Sheet T4448
Cul	Topo Sheet T4448
Round	Topo Sheet T4448
Blat	Topo Sheet T4448
Forty	Forty 1929
Tree	Topo Sheet T4447
Park	Topo Sheet T4447
Head	Head 1929
North	North Rock 1914
South	South Rock 1914
Truc	Destruction Id. L.H. 1914



80  
14

June 12, 1931

Division of Hydrography and Topography:

✓ Division of Charts:

Tide Reducers are approved in  
4 volumes of sounding records for

HYDROGRAPHIC SHEET 5110

Locality Offshore - Perkins Reef to Hand Rock, Washington Coast

Chief of Party: K. T. Adams in 1930

Plane of reference is mean lower low water, reading

3.8 ft. on tide staff at La Push

17.2 ft. below B. M. 4

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 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.

*Paul Whitney*  
 Chief, Division of Tides and Currents.

Section of Field Work

Report on H-5110

Chief of Party - K. J. Adams

Protracted by J. C. Mathison

Verified + inked by G. H. Streeter

Surveyed by K. J. A.

Soundings plotted by J. C. M.

1. The records conform to the requirements of the General Instructions except that the pencil soundings were too large.
2. The usual depth curves can be drawn.
3. The field plotting was completed to the extent prescribed in the General Instructions.
4. The office draftsman did not have to do over any part of the drafting done by the Field Party.
5. The junctions with adjacent sheets agree fairly well. A difference of two fathoms existing in a few places and a disagreement of 4 fathoms exists at  
Long.  $124^{\circ} 39' 20''$  - Lat.  $47^{\circ} 43' 30''$ .
6. The quality of field drafting is good.

Respectfully submitted,

G. H. Streeter

Aug. 3, 1931

SECTION OF FIELD RECORDS

Report on Hydrographic Sheet No. 5110.  
Vicinity of Cape Johnson, Off Coast of Washington  
Surveyed in 1930  
Hand lead and fathometer soundings  
Instructions dated April 16, 1930. (Guide)

Chief of Party - K. T. Adams  
Surveyed by - K. T. Adams  
Protracted by - J. C. Mathisson  
Soundings plotted by - J. C. Mathisson  
Verified and inked by - G. H. Streeter.

1. The records conform to the requirements.
2. The plan, character and extent of the survey satisfy the general and specific instructions.
3. Practically no cross lines were run. The agreement of adjacent lines is generally good, but in the southeastern portion of the work the hand lead soundings do not check closely due to a strong southerly current. The chief of party recommends that only the soundings on lines run in a southerly direction be used, but the compiler will select the shoaler soundings in any case.
4. The information is sufficient for completely drawing the usual depth curves.
5. The junction on the north with H. 5111 is satisfactory and the agreement good except in one place near the eastern limits where there is a difference of three fathoms.

The junction with the inshore sheet H. 5069 is satisfactory and the agreement good.

The junctions with the other inshore sheets H. 5070 and H. 5108, and the junction with the off shore sheet, H. 5114, will be reported in the reviews of those sheets when they are completed.

The junction on the south with H. 5068 is satisfactory.

6. Comparison with previous surveys.

The northern portion of this work falls within the limits of the survey of 1891, H. 2096. The general agreement is fair although differences of about two fathoms exist in some places. There are no critical soundings on the old work which need to be carried forward and it is believed that the old survey should be entirely superseded by the recent work as shown on H. 5110.

The southern part of the sheet comes within the survey of 1894, H. 2203. While the general agreement is fair there are about four lines on H. 2203 which show slightly shoaler depths than the new work. However it is thought that with the exception of a few critical soundings, which have been added to H. 5110 in blue, the old work on H. 2203 should be superseded by the present survey, H. 5110.

Report H. 5110.

7. The usual amount of field plotting was well done by field party.

8. Character and scope of surveying.

The ground is well covered and shoal development is thought to be sufficient. The 12 fathom spot shown on H. 2203 in Lat. 47°50.5', Long. 124°-36' and the 10 fathom spot also on H. 2203 in Lat. 47°49.4' <sup>Long. 124°-34.4'</sup> should have been examined.

Only two new shoals were located, an 8 $\frac{1}{2}$  fathom spot about one and one half miles N.W. of Carroll Island and a 10 $\frac{1}{2}$  fathom spot about two miles S.S.E. of Quillayute Needle. The fathometer sounding, which was  $\frac{1}{2}$  fathom shoaler than the lead line sounding, was plotted in each case.

The survey as a whole is considered very good.

9. No additional work is required.

10. Reviewed by R. L. Johnston - Aug. 12, 1931.

Inspected: E. P. Ellis.

Approved: A. M. Sobieralski. *(signed)*

Field Records Section (Charts)

HYDROGRAPHIC SHEET No. 5110

The following statistics will be submitted with the cartographer's report on the sheet:

Number of positions on sheet	1329.
Number of positions checked	346.
Number of positions revised	15.
Number of soundings recorded	4683
Number of soundings revised	18.
Number of signals erroneously plotted or transferred	.....

Date:..... Aug. 3, 1931.....

Cartographer:..... Gaylord H. Streeter.....