

6820

6820

Form 504

U. S. COAST AND GEODETIC SURVEY  
DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey WIRE DRAG

Field No. 2242 Office No. 6820  
WIRE DRAG

LOCALITY

State WASHINGTON

General locality STR. JUAN DE FUCA

Locality OFF CATTLE POINT  
SALMON BANK  
MC ARTHUR BANK

194 2-43

CHIEF OF PARTY  
STR. EXPLORER,  
J. H. PETERS, COMMANDING

LIBRARY & ARCHIVES

DATE

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

HYDROGRAPHIC TITLE SHEET

REG. NO. H6820

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. 2242

REGISTER NO. H-6820

State WASHINGTON

General locality STRAIT OF JUAN DE FUCA

Locality MC ARTHUR BANK AND SALMON BANK

Scale 1:20,000 Date of survey Dec. 1942 to Feb, 19 43

Vessel EXPLORER

Chief of Party J. H. Peters

Surveyed by S. B. Grenell E. B. Brown

Protracted by Roy M. Sylar

Soundings penciled by Roy M. Sylar

Soundings in ~~fathoms~~ feet Feet

Plane of reference MLLW

Subdivision of wire dragged areas by Roy M. Sylar

Inked by R. D. Goodrich

Verified by R. D. Goodrich

Instructions dated Sept. 22, 1939 - August 29, 1942.  
*Proj C.S. 241*

Remarks: Smooth Sheet and Plotting by the

Seattle Processing Office.



HB820  
WIRE DRAG

DESCRIPTIVE REPORT

WIRE DRAG SHEET - 2242

SALMON BANK:

This bank was well dragged from outside the 20 fathom curve in the five fathom area surrounding the buoy. The drag was taken in to the edge of thick kelp which prevented further progress. There were various groundings in approximately the charted depths, and soundings were taken on these groundings to supplement the launch hydrographic development of the area.

There are no special features of note which are not fully covered by the records.

MC ARTHUR BANK:

The single strip across this bank did not ground. The plotted strip will be self explanatory.

S. B. Grenell, Lieut. Comdr.,  
U.S. Coast and Geodetic Survey.

Approved:

  
J. H. Peters, Comdg.,  
U.S.C. & G.S.S. EXPLORER.

H-6820

H6820  
WIRE

Seattle Processing Office Notes

CONTROL:

Except for signal Trap all triangulation is on the NA 1927 datum. Iceberg, San Juan, and Smith Id. L. H. are adjusted points, and the other G.P.'s are from triangulation surveys made in connection with this project.

DATUM CORRECTION - Trap 1897.

Old 1897	48° 27	1736.5	122° 56	772.8
1942		<u>1745.3</u>		<u>797.1</u>
Datum correction		8.8		24.3
Avenue 1897	48 27	1622.9	122 57	625.3
1942		<u>1631.8</u>		<u>649.5</u>
		8.9		24.2
Trap 1897	48 27	904.7	122 57	404.0
Datum Correction		<u>8.8</u>		<u>24.2</u>
NA 1927		913.5		428.2

SHOALS:

At Latitude 48° 26.85 Longitude 122° 57.88 the drag touched, 17 ft. effective depth. A second sweep at the same depth did not indicate a grounding. A third sweep at 22 ft. grounded. A sounding of 17 ft. was obtained. On H-6746 a sounding of 15 ft. was found at this spot.

*Chart the 15 ft. See Review*

At Latitude 48° 26.2 Longitude 122° 57.11 and at Latitude 48 26.9 Longitude 122 57.2, both on sheet H-6746 occur two soundings of 22 feet. These were swept with effective depths of 19 feet and 21 feet respectively.

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H6820  
WIRE DRAG

DISCARDED DRAG STRIP:

"B" Day - The drag first went aground in section #2 at position 13 B<sub>k</sub> but was pulled ahead over a smooth sand bottom to a point about 1/4 mile north, where the drag grounded throughout its entire length at Pos. 20B. Since the lift of the drag was questionable as it was being pulled over this shoaler area, the strip was ended on Pos. 13B, and the positions from 14B to 20B were not used in plotting of smooth sheet.

"C" Day - The drag first went aground at "N" Buoy at Pos. 14.6B<sup>c</sup> and remained aground throughout the maneuvering until Pos. 18B<sup>c</sup>, when it pulled free and grounded again at "Buoy #1 to "F" Buoy on Pos. 19B<sup>c</sup>. It was believed fair to end the strip on a line drawn from 16B<sup>c</sup> (on which Pos. a sounding was taken on first grounding) through Buoy #1, on Pos. 19B<sup>c</sup>, then through line of soundings at each buoy to grounding of "F" buoy on Pos. 19B<sup>c</sup>.

MISCALLED SIGNAL:

"H" Day - It was necessary to change the right object from "ICE" to "LIGHT" in the End Launch record for all positions in order to check time and the boat sheet plotting of strip.

STATISTICS:

Statute Miles Drag Strip -----	13.7
Number of Positions -----	205
Area - Sq. Stat. Mi. -----	4.15

*Edgar E. Smith*  
Edgar E. Smith  
Assoc. Cart. Engineer  
Seattle Processing Office

Approved and Forwarded:

*F. H. Hardy*  
F. H. Hardy  
Officer in Charge,  
Seattle Processing Office.

HB 820  
PAGE 12/13

LIST OF SIGNALS

TOPOGRAPHIC

Hum	-	T-6906 (1942-43)	Ivy	-	"A-41" T-6900 (1941)
Led	-	"	Big	-	"
North	-	"	Row	-	"
Cloth	-	"			
Tree	-	"			

TRIANGULATION

San Juan 1867  
Trap 1897  
Cattle Pt. Lt. 1940  
Iceberg Pt. Lt. 1940  
Swirl 1897 - 1939  
Davidson Rk. Lt. - 1939  
Smith Id. L. H. 1867

C O P Y

H6820

FIELD NOTES ON TIDE REDUCTIONS

Tide observations in conjunction with the winter season's work (1942-43) of the Ship EXPLORER were made at Richardson, Lopez Island, and Kanaka Bay, San Juan Island. A portable type tide gage was operated at Richardson from December 4, 1942 to February 27, 1943. At Kanaka Bay a tide staff was established on December 10, 1942 and was observed only while work was being done in the area in which the station was considered needed. The staff at Kanaka Bay was destroyed by storm during the period January 12 to February 3, 1943, and was not replaced.

Wire drag work done on sheet 2142 at the 8 fathom bank off Pile Point, Middle Bank, and all ship and launch work development on this same sheet will be reduced according to the staff at Kanaka Bay up to the time the staff was destroyed January 12, 1943. Work done at these places after February 12, 1943 to February 27, 1943 is to be reduced to the Richardson gage, the difference between Richardson and Kanaka Bay being so small that the results did not warrant re-establishment of the staff at Kanaka Bay. A comparison of the two stations shows a difference of time of approximately 10 minutes and little or no difference in the range.

Other work on this project not listed above as being reduced to Kanaka Bay tides are reduced to Richardson tides.

Richardson staff reading of M.L.L.W. . . . . 0.24 feet  
Latitude, approximate . . . . . 48° 27'  
Longitude, approximate . . . . . 122° 54'

(Signed) J. H. Peters, Comdg.,  
U.S.C. & G.S.S. EXPLORER

POST-OFFICE ADDRESS:

TELEGRAPH ADDRESS:

C O P Y

EXPRESS ADDRESS:

Reference 36-mlh

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY  
WASHINGTON

April 27, 1943

To: Officer in Charge  
Seattle Processing Office  
1500 Westlake Avenue No.,  
Seattle, Washington

From: The Director  
U. S. Coast and Geodetic Survey

Subject: Tide Reducers - Project CS 241.

Reference is made to your letter of April 21, 1943, requesting verification of tide reducers from field tabulations of tide records for Richardson, Washington for 1942 and 1943.

An examination of the original tide records for Richardson shows that due to the relatively high elevation of the zero of the tide staff, the field party found it necessary to increase staff readings by two feet to accommodate them to the height scale of the marigrams. In subsequent field tabulations of hourly heights two different datums were used, accounting for the difference of two feet in the planes of reference for different dates.

Tabulated heights for December 1942, with the exception of December 11th, were referred to the zero of the marigrams which corresponds to an elevation of 2.24 feet below mean lower low water. Tabulated heights for January and February 1943 and for the single date of December 11, 1942 were referred to the zero of the tide staff which corresponds to an elevation of 0.24 foot below mean lower low water. The reducers determined by the field party have been verified from office tabulations and are returned herewith.

(Signed) J. H. Hawley  
Acting Director

Enclosure

C O P Y

H 10620  
WIFE D...



H-6820

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TIDAL NOTE

Strait of Juan de Fuca, Washington

Richardson, Lopez Island

Portable Automatic Gage

Latitude 48° 27'

Longitude 122° 54'

Staff reading of M.L.L.W. . . . 0.24 feet

Note:

See copy of Director's letter, 36-mlh,  
of 4/27/43, attached.

Surveys Section (Chart Division)

HYDROGRAPHIC SURVEY NO. ... **H6820**  
 WIRE DRAG

Records accompanying survey:

Boat sheets 2...; sounding vols. 0...; wire drag vols. 3 (Tender Vol  
 with 6819 additional  
 bomb vols. 0.....; graphic recorder rolls 0...;  
 special reports, etc. A&D Sheet, Two tracings with boat sheet, Tidal record  
 with 6818  
 .....

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

Number of positions on sheet	205.
Number of positions checked	12.
Number of positions revised	0.
Number of soundings recorded	38.
Number of soundings revised (refers to depth only)	0.
Number of soundings erroneously spaced	.....
Number of signals erroneously plotted or transferred	0.
Topographic details	Time .....
Junctions	Time ...1..
Verification of soundings from graphic record	Time .....

Verification by R. D. Goodrich... Total time 7.8 hrs. Date 6/12/46

Review by R. H. Carstens..... Time 7.4r Date 6/13/46

# H6820 WIRE DRAG

	Remarks	Decisions
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GEOGRAPHIC NAMES

Survey No. **H6820**

WIND 12113

Name on Survey

On Chart No. / On previous survey No. / On U. S. Quadrangle Maps / From local information / On local Maps / P. O. Guide or Map / Rand McNally Atlas / U. S. Light List

Name on Survey	A	B	C	D	E	F	G	H	K	
<u>Washington</u>									USG.B	1
<u>Straight of Juan de Fuca</u>									U	2
<u>Cattle Point</u>										3
<u>Salmon Bank</u>										4
<u>Mc Arthur Bank</u>										5
<u>San Juan I.</u>										6
<u>Lopez I</u>										7
										8
										9
										10
										11
										12
<u>Richardson</u>										13
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										27

Names underlined in red approved by L. Heck on 6/14/46

location of tide staff

RAC  
HRC

TIDE NOTE FOR HYDROGRAPHIC SHEET

July 22, 1943.

~~Division of Hydrography and Topography:~~

✓ Division of Charts: Attention: H. R. EDMONSTON

Plane of reference approved in  
3 volumes of sounding <sup>wire drag</sup> records for

HYDROGRAPHIC SHEET 6620

Locality Straight of Juan de Fuca off Cattle Point, Salmon Bank,  
McArthur Bank, Washington

Chief of Party: J. H. Peters in 1942-1943  
Plane of reference is mean lower low water reading  
0.2 ft. on tide staff at Richardson  
15.3 ft. below B. M. 1

Height of mean high water above plane of reference  
is 6.6 feet.

Condition of records satisfactory except as noted below:

*Ham*  
Acting Chief, Division of Tides and Currents.

# MEMORANDUM

## IMMEDIATE ATTENTION

SURVEY DESCRIPTIVE REPORT PHOTOSTAT OF	}	No. H No. T	H5820 WIRE DRAG	{ received July 18, 1943 registered July 19, 1943 verified reviewed approved
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This is forwarded in order that your attention may be directed to the matters as indicated below. Please initial in column 3 as an acknowledgement that your attention has been thus directed. The complete original records are available if desired. If you cannot give this your immediate attention, please initial, note, and forward to the next section marked, calling for the records at your convenience.

ROUTE		Initial	Attention called to
20			
22			
24			
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63			
82			
✓ 83	Pg 182	LAB.	
88			
90			

RETURN TO

82	R. W. Knox
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DIVISION OF CHARTS

REVIEW SECTION - NAUTICAL CHART BRANCH

REVIEW OF HYDROGRAPHIC SURVEY

REGISTRY NO. H-6820W.D.

FIELD NO. 2242

Washington, Strait of Juan de Fuca, Salmon Bank and McArthur Bank  
Surveyed in Dec. 1942 - Feb. 1943      Scale 1:20,000  
Project No. CS-241

Soundings:

Control:

Hand lead

Sextant fixes on shore signals

Chief of Party - J. H. Peters  
Surveyed by - S. B. Grenell and E. B. Brown  
Protracted by - R. M. Sylar  
Soundings plotted by - R. M. Sylar  
Verified and inked by - R. D. Goodrich  
Reviewed by - R. H. Carstens, June 13, 1946  
Inspected by - H. W. Murray

1. Shoreline and Signals

The shoreline and signals originate with T-6906 (1942-43), T-6803 (1940) and T-6900 (1941).

2. Adjoining Surveys

No wire drag surveys join the present survey.

3. Comparison with Contemporary Hydrographic Surveys

H-6746 (1941-43) 1:10,000  
H-6747 (1941) 1:20,000  
H-6818 (1942-43) 1:20,000

The effective depths of the present survey are in harmony with depths from these hydrographic surveys except with respect to the effective depth of 17 ft. in lat.  $48^{\circ} 26.8'$ , long.  $122^{\circ} 57.9'$  where a 15 ft. depth was found on H-6746. The drag grounded temporarily while moving in one direction and cleared the rock while moving in the reverse direction. The 15 ft. from H-6746 is judged to be the least depth at this spot and should be used for charting.

4. Comparison with Chart 6380 (Latest print date 9/15/45)

The effective depths from the present survey are in harmony with the charted depths.

5. Condition of Survey

Satisfactory.

6. Compliance with Project Instructions

The survey satisfactorily complies with the Instructions.

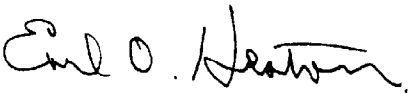
7. Additional Field Work Recommended

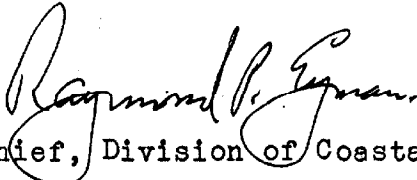
None.

Examined and approved:

  
Chief, Nautical Chart Branch

  
Chief, Chart Division

  
Chief, Section of Hydrography

  
Chief, Division of Coastal Surveys



# NAUTICAL CHARTS BRANCH

SURVEY NO. 6820

## Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
4/5/44	6380 6382	E. Ricciardi	Before <del>After</del> Verification and Review (no corrections made)
4-17-44		J.M. Albert	added 7: and help symbol near San Juan I.
4/10/47	6300	H. MacEwen	<del>Before</del> After Verification and Review No corrections
29 Jan 48	6382	Haven Nichols	Before <u>After</u> Verification and Review No corrections
3/22/48	6380	H. MacEwen	<del>Before</del> After Verification and Review Final application
1-4-78	18429	B. Hamilton <sup>Res</sup>	Full <del>Before</del> After Verification and Review
4-17-80	18434	P. SHUMAR	Fully APPLIED <del>Before</del> After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review

M-2168-1

A basic hydrographic or topographic survey supersedes all information of like nature on the uncorrected chart. Give reasons for deviations, if any, from recommendations made under "Comparison with Charts" in the Review.

Ch. 6380 } Examined for conflicts - no corrections made. (before review) B.R. 4/5/44  
.. 6382 } Added 7 $\frac{1}{2}$  and help symbol near San Juan I. J.M.A. 4-17-44

Noted J.M.A.  
4/16/44