

# WIRE DRAG 6822

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

## DESCRIPTIVE REPORT

Type of Survey PIPE DRAG

Field No. 2M 243 Office No. 6822

### LOCALITY

State ALASKA

General locality WRANGELL NARROWS

Locality DANGER POINT, ~~BURNT ISLAND AND~~  
TO GREEN ROCKS

SOUTH LEDGE

194 3

### CHIEF OF PARTY

Charles Pierce--C. D. Meaney

### LIBRARY & ARCHIVES

DATE June 9, 1943

8-1870-1 (1)

WIRE DRAG

6822

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

~~HYDROGRAPHIC~~ TITLE SHEET  
PIPE DRAG

REG. NO. 6822 WIRE DRAG  
H6822

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. 21213

REGISTER NO. 6822 WIRE DRAG

State Alaska

General locality ~~Danger Point~~, Wrangell Narrows

Locality Danger Point to Green Rocks

Scale 1:2,000 Date of survey April 1943, 19

Vessel M.V. PATTON -- M.V. WESTDAHL

Chief of Party C.D. Meaney --- Chas. Pierce

Surveyed by C.D. Meaney -- Chas. Pierce -- Curtis LeFever

Protracted by ~~Chas. Pierce~~ G.F. JORDAN

Soundings penciled by \_\_\_\_\_

Soundings in ~~fathoms~~ feet Effective depths in feet

Plane of reference Mean Lower Low Water

Subdivision of wire dragged areas by G.F. JORDAN

Inked by G.F. Jordan

Verified by R.H. Carstens

Instructions dated September 12, 1942, Febr. 13, 1943, 19

Remarks: Processed in Wash. office

H6822  
WIRE DRAG

DESCRIPTIVE REPORT

TO ACCOMPANY

WIRE DRAG SHEET OF INVESTIGATION OF SHOALING IN WRANGELL  
NARROWS.

Sheet No. Field 2M-243  
WD 6822

April 17 to May 12, 1943

INSTRUCTIONS dated September 12, 1942 (1995 WE 1)--February 13, 1943 (1975 SE 4)--wire dated April 28, 1943.

SURVEY METHODS:

A pipe drag consisting of seven, ea. 20 foot sections of 3/4" galvanized iron pipe for bottom wire and the following equipment: Eight buoys of the intermediate type. Two 35 pound weights one at each end buoy. One hundred feet of ground wire from each end buoy to the towing boat. Two toggles one at each mid length of each tow line. Two 30 foot Navy motor sailers for towing units. One dinghy with outboard for drag tender. One dory with outboard for setting out drag in position and directing traffic around drag.

All dragging accomplished at or close to slack water.

All control used was existing triangulation stations or triangulation control established in 1943. A third angle man was placed in each towing launch to take angles to the end buoys simultaneously with position fixes as a scale of 1-2,000 was used.

Position fixes were taken every minute on the drag work and because of the large number of positions they were not copied into the wire drag volume of the Guide vessel but will be found in the Sounding Record of the End launch. Position numbers, time and day letters are identical for both towing launches.

The tender also kept its own sounding record for all data on effective depths and this data was not copied into the Wire Drag volume of the Guide vessel. It will be found in the Sounding Record marked TENDER with date, sheet number, tide reducers and final effective depths. Position location by sextant angles at high water slack for the buoys between Blind Point and Green Rocks will be found in the End Launch Sounding Record and a few in the Tender Sounding Record. Soundings were also taken at all the dolphin structures in the area of the work and will be found in the Tender Record.

HF 822  
WIRE DRAG

Area in the channel dragged from Vexation Point Light 23 to South Green Rocks Light ~~24~~ and beyond nun buoy N-~~16~~<sup>22</sup>. On the east side of channel, drag reached to within 40 feet of channel edge with effective depths ranging from ~~18.1~~<sup>18.0 to 20.0</sup> to 20 feet except for ~~on~~ one strip. This strip extending from 120 feet south of buoy 20B to 250 feet North of this buoy was dragged only to an effective depth of 16½ feet. On the west side of channel between Vexation Point Light 23 and 25 was dragged to within 30 feet of west edge of channel.

An effective depth of ~~19.3~~<sup>18.0 to 20.0</sup> feet was dragged in the center of the channel from Vexation Point Light 23 northward to buoy 20B.

Where the S. S. Yukon reported striking south of buoy 20 and effective depth of 19.5 feet was dragged in mid channel and a minimum of 18.5 feet for the entire channel width.

As buoy 20B lies about 95 feet east of the 20 foot curve, with depths of 16 feet in the channel from the buoy, it was not practicable to attempt deeper dragging than was carried out. On some of the drags the intermediate buoys were bouncing indicating that the bottom pipes were scrapping bottom.

#### TIDES:

An automatic tide gage was installed on April 18, 1943 in the vicinity of Anchor Point and maintained until the close of field work on May 12, 1943. This gage was installed on a beached barge and with the large range in this area it would not take tides below Mean Lower Low Water. A supplementary tide staff was secured to a piling a few hundred yards distant and connected to the main staff. A tide observer read this staff at all low waters when wire dragging was in progress. As the surface was calm very accurate readings were obtained and the tide reducers for the drag work should be very accurate. All three of the wire drag sheets Nos. ~~2M143~~<sup>2M143</sup>, ~~2M243~~<sup>2M243</sup>, and ~~2M343~~<sup>2M343</sup> have their effective depths based on tidal reducers from this Anchor Point tide station.

Respectfully Submitted,

Charles Pierce,  
Lieut. Cmdr. USC &GS  
C. O. MV WESTDAHL  
May 20, 1943

H6822

WIRE DRAG

Remarks

Decisions

	Remarks	Decisions
1		
2		565225 U.S.G.B
3		"
4		"
5		"
6		"
7		
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12	location of tide staff.	
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GEOGRAPHIC NAMES

Survey No.

H6822

WIRE BEAC

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		
	A	B	C	D	E	F	G	H	K	
<u>Alaska</u>										1
<u>Wrangell Narrows</u>										2
<u>Burnt Island</u>										3
<u>Danger Point</u>										4
<u>South Ledge</u>										5
<u>Green Rocks</u>										6
										7
										8
										9
										10
										11
<u>Anchor Point</u>										12
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name underlined in red approved  
by Heck on 1/15/44

Surveys Section (Chart Division)

HYDROGRAPHIC SURVEY NO. **H6822** WIRE DRAG

Records accompanying survey:

Boat sheets .1.; sounding vols. ..<sup>0</sup>.; wire drag vols. 1 (parts of  
 bomb vols. ....<sup>0</sup>; graphic recorder rolls .....<sup>none</sup> filed with 68210;  
 special reports, etc. ....<sup>none</sup>  
 .....

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

Number of positions on sheet	.370.
Number of positions checked	.9...
Number of positions revised	.... <sup>0</sup>
Number of soundings recorded	.... <sup>4</sup>
Number of soundings revised (refers to depth only)	.... <sup>0</sup>
Number of soundings erroneously spaced	.... <sup>0</sup>
Number of signals erroneously plotted or transferred	.... <sup>0</sup>
Topographic details	Time .. <sup>0</sup> ..
Junctions	Time .. <sup>0</sup> ..
Verification of soundings from graphic record	Time ... <sup>0</sup> ..

Verification by *R.H. Carstens*..... Total time .3... Date *March 16, 1944*

Review by *R.H. Carstens*..... Time ..7... Date *March 17, 1944*

# MEMORANDUM

## IMMEDIATE ATTENTION

SURVEY  
DESCRIPTIVE REPORT  
PHOTOSTAT OF

} No. H **HC888**  
No. T **WIRE BRAG**

{ received June 9, 1943  
registered June 29, 1943  
verified  
reviewed  
approved

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			
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62			
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82			
83			
88			
90			

RETURN TO

82	R. W. Knox
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*WRMC*



DIVISION OF CHARTS

REVIEW SECTION - SURVEYS BRANCH

REVIEW OF HYDROGRAPHIC SURVEY

REGISTRY NO. 6822 W.D.

Field No. 2M-243

Alaska, Wrangell Narrows, Danger Pt. to Green Rocks  
Surveyed in April 1943, Scale 1:2,000  
Instructions dated September 12, 1942  
and February 13, 1943

Soundings:

Hand lead

Control:

Three-point fix on shore signals  
Dual control

Chief of Party - C. D. Meaney, C. Pierce  
Surveyed by - Ship's Officers  
Protracted by - G. F. Jordan  
Soundings plotted by - G. F. Jordan  
Verified and inked by - G. F. Jordan, R. H. Carstens  
Reviewed by - R. H. Carstens  
Inspected by - H. R. Edmonston, March 29, 1944

1. Control

Signals originate with triangulation of 1929-43.

2. Adjoining Surveys

The present survey adjoins no other wire drag surveys.

3. Comparison with Contemporary Surveys

H-6827 (1943) 1:2,000

Depths of this survey are generally in harmony with effective depths of the present survey. Unimportant discrepancies of 1/2 foot in several places probably result from dropping 1/2 foot in inking soundings.

4. Comparison with Chart 8170 (Latest print date 7-2-43)

The charted 19-ft. channel was dragged to an effective depth of 18-20 feet.

The present survey positions of the aids to navigation are in satisfactory agreement with the charted positions and satisfactorily mark the features intended

except with respect to the following buoys:

- a. N"22" in Lat.  $56^{\circ}40'07''$ , Long.  $132^{\circ}55'49''$  is 40 meters southeast of its charted position.
- b. "20B" in Lat.  $56^{\circ}39'52''$ , Long.  $132^{\circ}55'40''$  is 35 meters southeast of its charted position.

5. Condition of Survey

Satisfactory.

6. Compliance with Instructions for the Project

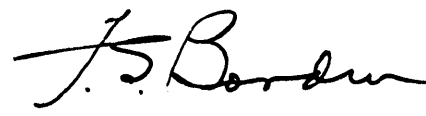
Satisfactory.

7. Additional Field Work Recommended


None. The area of insufficient overlap in Lat.  $56^{\circ}39'53''$ , Long.  $132^{\circ}55'45''$  falls in depths of about 22 feet on H-6825 (1943). Depths shoaler than the effective depth shown are considered unlikely.

Examined and approved:

  
Chief, Surveys Branch

  
Chief, Division of Charts

  
Chief, Section of Hydrography

  
Chief, Division of  
Coastal Surveys

applied to chart 8170 Z.M.A. July 29, 1944