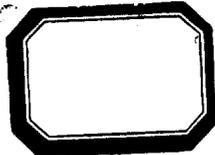


4098



E. & G. S. CO.
& A.
JAN 23 1920
Acc. No.

Form 504

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

State: *R. I.*

11-5613

DESCRIPTIVE REPORT.

Hyd. Sheet No. *4098*

LOCALITY:

Block Island Sound

Rocky Pt. to Charleston

Inlet.

1919

CHIEF OF PARTY:

F. B. J. Siems

4098

4098

4098

Descriptive Report to accompany

Hydrographic Sheet 4098 field letter E.

Wire Drag Party No. 1. -- 1919.

Locality of Survey. The work execute on this sheet executed in 1919 covers the area along the Rhode Island Shore just westward of Pt Judith. Some of the intervening areas of the work shown on the sheet are covered and the work is shown on sheets 4005 and 4042

Instructions from the Superintendent dated June 18, 1919.

Tidal Observations for the reductions of soundings and drag depths were made at the automatic tide station at Pt. Judith, R. I. In case of doubt as to the accuracy of these observations, those at Block Island were used.

Control Nearly all of the objects used for signals were located by triangulation.

Methods In all of the work a short drag was used, and the method of the one beat control in obtaining positions was used.

Results of Survey. The survey covers only a small part of the area comprised by this sheet, the indications are that this region is generally free of obstructions and shoals, except quite close in along the Rhode island shore where a few boulders were found. The hydrographic information in this locality is very meager, and this has caused the loss of time in going ashore in unimportant places.

Respectfully submitted



Chief, Wire Drag Party No, 1

AND REFER TO NO.

41-~~EMK~~

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

March 23, 1920.



Division of Hydrography and Topography:

Division of Charts: ✓

Tidal reductions have been approved in
3 volumes of Wire Drag and Sounding records for

HYDROGRAPHIC SHEET 4098

Block Island Sound, Rhode Island.
F.B.T. Siems in 1919

Plane of reference is
Mean low water, reading

1.2 ft. on tide staff at Point Judith, R.I.
2.7 ft. on tide staff at New Harbor (Great Salt
Pond), Block Island, R.I.

Condition of records; satisfactory.

A handwritten signature in cursive script, appearing to read "G. T. Rudd".

Chief, Section of Tides
and Currents.

A handwritten signature in cursive script, appearing to read "W. D. Parker".

Chief, Division of Hyd'y & Top'y

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

WASHINGTON.

December 1, 1920.

Verification Report of Hydrographic

Sheet # 4098.

Both the field and drafting work on this sheet are open to several criticisms. The faults in the field work may be only apparent and due to a lack of sufficient notes in the records; nevertheless, they prevent an intelligent interpretation of the work. But the drafting was of a poor nature.

The plotting of positions as a whole was good. The depth diagrams however, which play an important part in drag work were in all but two or three instances plotted incorrectly. It is not assumed necessary to go into all the details, but the manner in which they were laid down showed carelessness or a lack of knowledge of same. In almost all the cases in which they were incorrect, they differed from the plotting on the boat sheet which should have served as a guide. Omissions of change of depth ^{from} original depths to which drag was set covering considerable area were also found.

In vol. I p. 21 for "E" day note reads "drag ineffective from #7 to "F". The writer inked in dotted lines the line of the F buoy and the positions along the line of this buoy assuming it would clarify the area actually covered by drag.

In about twenty-four instances, the computed length of the drag -- the distance OF ---- exceeded by varying amounts the possible maximum for this distance. The greatest excess was a little over 100 meters. Naturally such a result could only be obtained by erroneous distance angles. In such cases the only alternative was to plot "full-length". This in itself is objectionable, for as a great many other of the computed distances approached closely the maximum it makes it appear that the drag was stretched full length for the entire day. Such is the case on A, B, D, F and G days. Past data shows such a course to be unlikely.

The lack of sufficient notes is accountable for the failure to interpret the following:

At position 24, "A" day the drag is aground at Buoys N and 2. There is a sounding at N, whose position is obtained by a single

angle from the guide launch. At buoy 2 no fix nor sounding are obtained; see vol.1.,p.8.

The 18 ft. as plotted at buoy #1 pos. 6 "D" day is where the drag was hauled in and not where it first went aground. The record shows that it first went aground between positions 4 and 5 and not as shown on sheet. No fixes however were taken in either case for location.

At pos. 6 "F" day note reads: "aground in several places." There are no soundings nor fixes recorded. Charts 1211 and 113 show depths in this area greater, or as great as the depths to which the drag was set. Also the drag was not raised nor re-set as records show until pos. 7.4. Was the area between pos. 6 and 7 dragged and if so at what depths? And what were the depths at which drag grounded?

At pos. 8 "F" day the plotting of field party shows some obstruction at buoy #2. No sounding nor fix is recorded. At one hour and seven minutes later a three point fix is taken at a position 500 meters from pos. 8 at which a cut is taken to where it appears the drag grounded. The only data are in vol. 1. p.46 which gives an angle apparently for a cut to some obstruction. It is unable to determine exactly whether the drag was set between 26 and 29 ft. or 28 to 42 ft. Even though conditions prevented a fix at the obstruction they did not prevent a sounding being taken. The area between 5 F and 1 H should be re-dragged taking supplemental soundings.

At F buoy pos 24 "6" day the drag grounds and a sounding of 41 ft. is obtained. The drag is then raised to 40, having been set at 47 (eff. depth), between F and 9; did it clean the obstruction, reverse, or go ahead? The line begins again at 25 G, goes west and then reverses at 27, going east. This was ostensibly to re-drag the 41 ft. spot but all plotting shows that the drag failed to sweep this area. As this spot is assumed to be an isolated boulder there is no strong assurance that the least depth was obtained.

Throughout the entire work there appears in the records no test for upright length and hence no corrections whatever applied to same. This may account for the apparent discrepancies in the soundings, 1D, 1B, and 1E.

There are generous overlaps between this and the work previously done in this locality.

Respectfully submitted

Alois Baer

Draftsman.

2. 0. 5.

ADDRESS THE DIRECTOR
U. S. COAST AND GEODETIC SURVEY

AND REFER TO No. 4-DRM

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

WASHINGTON January 25, 1926.

SECTION OF FIELD RECORDS

Report on Wire Drag Sheet No. H 4098

Eastern End of Block Island Sound

Surveyed in 1919

Instructions dated June 18, 1919

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

Surveyed by F. B. T. S.

Protracted and inked by N. Duckworth.

Verified and Area and Depth sheet by A. Baer.

1. This sheet is but one part of a general project for the dragging of Block Island Sound. It conforms in a general way to the requirements of the specific instructions both as to depth and extent of dragging. Exceptions will be noted below.

With the review of the last sheet of this series (H. 4040) attention will be called to the areas in Block Island Sound that yet remain to be dragged.

2. The records conform to the requirements of the General Instructions except that there was a lack of sufficient notes in the records, thus preventing an intelligent interpretation of portions of the work. Further, no tests for lift are recorded and no corrections entered.
3. The methods and character of operations fulfill the requirements of the General Instructions except that in numerous cases the computed length of drag exceeds the possible maximum length by varying amounts up to 100 meters. The only explanation for this is faulty distance angles.
4. The area south of Green Hill Pt. should have been dragged deeper as well as some of the areas around buoy N "2NS" (Chart 1210.)
5. The least water was found on all shoals discovered except the following:

- a. The 29 ft. sounding in lat. $41^{\circ} 22'$, long. $71^{\circ} 32'$ was not cleared. Although surrounded by slightly deeper water, it lies very close to the 5 fathom curve.
 - b. The 13 ft. sounding in lat. $41^{\circ} 22'$, long. $71^{\circ} 34 \frac{1}{4}'$ lies close to the 3 fathom curve and needs no further dragging.
 - c. The 41 ft. sounding in lat. $41^{\circ} 20'$, long. $71^{\circ} 38 \frac{1}{2}'$ was not cleared. This is not a shoal but should be dragged over when work is extended here.
 - d. The 71 ft. sounding in lat. $41^{\circ} 18 \frac{1}{2}'$, long. $71^{\circ} 35 \frac{3}{4}'$ was not cleared. This should be dragged over when work is extended here.
 - e. The 18 ft. sounding in lat. $41^{\circ} 21 \frac{1}{2}'$, long. $71^{\circ} 36'$ was not cleared. Another 18 ft. sounding about 100 meters to the eastward was cleared by a 15 ft. drag, but with a very small overlap. As these extend for a considerable distance off Green Hill Pt. it might be advisable to drag over them.
 - f. At position 6 F in vicinity of lat. $41^{\circ} 20 \frac{3}{4}'$, long. $71^{\circ} 35 \frac{1}{4}'$ the drag grounded in several places. No soundings nor positions were taken, but about an hour later a cut was taken from a position about 600 meters away to an obstruction - apparently where it was thought the drag had grounded. No sounding will be shown here since the exact position of grounding is uncertain and also since the depth of dragging corresponds approximately to the charted depths. A portion of this area was cleared with 33 ft. on W. D. 3378.
6. The overlaps within the sheet are generally sufficient. There are no splits left within the work, but of course there are areas that have not been dragged.
- The overlap with H. 3778 is sufficient. The overlap with H. 4005 is shown on that sheet. A complete junction with that sheet was not effected and further work will be required.
- The junction with H. 4041 will be taken up in the review for that sheet.
7. The plotting of positions as a whole was good, but the depth diagrams were in all but a few instances incorrectly plotted. This necessitated considerable changes by the office cartographer.
 8. Reviewed by A. L. Shalowitz, January, 1926.

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

HYDROGRAPHIC TITLE 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.

Field Letter "E" **4098**
Register No. _____

State . . . **Rhode Island**

General locality . . . ~~New England Coast~~ *Block Island Sound*

Locality . . . *Rocky Pt. to Charlestown Inlet*
~~Block Island Sound~~

Chief of party . . **F.B.T. Siems, H. & G. Engr.**

Surveyed by . **Wire Drag Party No. 1**

Date of survey . . **Season of 1919**

Scale . . **1 : 20'000**

Soundings in . . . **Feet**

Plane of reference . . **Mean Low Water**

Protracted by **N.D.** Soundings in pencil by **N.D.**

Inked by . . **N.D.** Verified by

Records accompanying sheet (check those forwarded):

Des. report, 2 Tide books, 5 Marigrams, 1 Boat sheets,
1 Sounding books, 2 Wire-drag books, _____ Photographs.

Data from other sources affecting sheet

Remarks:

Applied to Reunite. Ct. 1210 10/27/61 M. Rogers