



3896

C. & G. SURVEY
L. & A.
AUG 31 1916
Acc. No.

Diag. Cht. No. 1239-2

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

State: *South Carolina*

11-5613

DESCRIPTIVE REPORT.

Hydrographic Sheet No. *3896*

LOCALITY:

Charleston

Town Creek

1916

CHIEF OF PARTY:

G. T. Rude

3896

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

LIBRARY
Place with descriptive report
of hydrographic sheet No. 3896
Drawing Section.

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.

Register No. 3896

State South Carolina

General locality Vicinity of Charleston

Locality . . . Town Creek, off Southern R.R. coal dock; and off Battery

Chief of party G.T.Ruda, Ass't.

Surveyed by R.P.Strough, Ass't., L.G.Howes, Mate

Date of survey March 22, 1916 & April 19, 1916

Scale 1 : 10,000

Soundings in feet

Plane of reference Mean low water

Protracted by T.J.Shack . Soundings in pencil by T.J.Shack

Inked by Verified by

Records accompanying sheet (check those forwarded):

Des. report, 1 Tide books, Marigrams, 2 Boat sheets,

2 Sounding books, Wire-drag books, Photographs.

Data from other sources affecting sheet

1 blue print, furnished by Southern R. R. Co. of vicinity of coal dock, showing soundings.

Remarks:

DESCRIPTIVE REPORT

to Accompany

HYDROGRAPHIC SHEET No. 3896

U S C & G S Steamer ISIS

March - April

1916

Gilbert J. Rude
Assistant, Chief of Party,
U S C & G Survey.

Extent of Work:

No formal instructions were received relative to this work. The field work consists of two detached parts, the first being located on Town Creek, off the Southern Railway Coal Dock, the second off the Battery. The control for this work was furnished by old triangulation, supplemented with stations located by plane/able.

Southern Railway Coal Dock:

This work was performed in accordance with instructions contained in a letter received from the Superintendent, which has since been mislaid in the files of this vessel. Eight lines, with a spacing of from fifteen to forty meters, were run on March 22d with the port launch, in order to check up the depths shown on a blueprint furnished by the Southern R.R. Co. The approaches to this dock were recently dredged to accommodate a draft of thirty feet. Half a dozen lines, with average spacing of eight meters, were also run off the Standard Oil dock just south of the coal dock.

Battery:

This work was performed at the request of Inspector Beck of the Lighthouse Service, to facilitate him in placing a buoy off the Battery for the use of small boats. On April 19th twenty-six lines were run with the starboard launch, approximately perpendicular to the depth curves, with an average spacing of forty meters.

Tides:

A tide staff was located at the Custom House dock adjacent to the staff of the Army Engineers, and set so that the readings on the two staffs were in agreement.

Respectfully submitted,

Gilbert J. Rude
Assistant, U S C & G S.

Date, 1916	Letter	Vol- ume	Posi- tions	Soundings	Miles statute	Vessel
March 22	a	1	43	146	3.7	Port launch
April 19	b	2	<u>105</u>	<u>717</u>	<u>7.2</u>	Stbd launch
Total			148	863	10.9	

Unit of soundings ----- feet

Plane of reference ----- mean low water

Location of gauge ----- Custom House wharf

Plane of reference,
reading on gauge - 0.02 feet

Hyd. Sheet. 3896.

Protracted and plotted by Field Party, Verified and inked by S.L.R.

Soundings plotted in feet.

S.L. Rosenberg - April 5, 1917.

(ADDITIONAL WORK)
3896

G. & G. SURVEY
L. & A.

OCT 3 - 1921

Acc. No.

3896

(ADDITIONAL WORK)

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

State: *South Carolina*

11-5613

DESCRIPTIVE REPORT.

Hyd. Sheet No. **3896**

LOCALITY:

*Charleston Harbor -
Cooper River*

1921

CHIEF OF PARTY:

R. F. Luce.

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.

Register No. **3896** (Additional work -1921)

State **South Carolina.**

General locality **Charleston Harbor.**

Locality **Cooper River.**

Chief of party **R. F. Luce,**

Surveyed by **Launch "MIKAWA"**

Date of survey **July 28, 1921.**

Scale **1 : 10,000.**

Soundings in **Fathoms and feet in record book.**

Plane of reference

Protracted by **W.F. Malnate** Soundings in pencil by

Inked by Verified by

Records accompanying sheet (check those forwarded):

Des. report, 0 Tide books, 0 Marigrams, 2 Boat sheets,

1 Sounding books, 0 Wire-drag books, 0 Photographs.

Data from other sources affecting sheet

Tabulations of Army Engineers automatic gauge at Fort Sumter, Charleston, S.C., from June 1 to September 7, 1921, transmitted herewith.

Remarks: **Tide books of Folly Island staff, to be used for the reduction of soundings, have already been transmitted.**

Descriptive Report to Accompany Hydrographic Sheet "E"
Charleston Harbor, S. C.

The work was done by the party from the Launch "MIKAWF", R. F. Luce, Hydrographic and Geodetic Engineer, Chief of Party, under Supplemental Instructions of the Director, Coast and Geodetic Survey, dated April 30, 1921.

The hydrography was done by means of hand lead soundings from the 24-foot motor sailing launch of the Launch "MIKAWF", while running at a speed of about 4 knots or less. Locations were obtained by simultaneous sextant angles taken from the boat on points in the vicinity of Charleston, which were located by former triangulation and concerning the identity of which there was no question. Sounding lines, spaced on an average of about 45 meters apart, were run in an East and West direction, and crossed by lines spaced an equal distance apart in a North and South direction. In addition, a careful examination was made of the entire area and a thorough development was made. Soundings were spaced at 20 second intervals.

Soundings were recorded in the record book in fathoms and feet. Positions were pretracted on the fair sheet, but soundings were not reduced for tide or plotted on the fair sheet, as, for reasons given below, it was believed that the tide reducers had best be obtained in the office. Soundings were plotted on the boat sheet, the reducers used being obtained from tidal predictions.

The tide gauge to be used for the reduction of soundings taken was intended to be the Army Engineers automatic gauge at Fort Sumter, and arrangements were made with them to maintain the gauge in operation and to have it attended at the proper intervals. However, the gauge was out of order on the day on which the survey work was done, so the staff gauge at Pelly Island should be used. This latter staff has had a long series of simultaneous observations with the Fort Sumter automatic gauge, and should excellent figures for the work, as the weather at the time and for several days previously had been quite normal. The records of the gauge at Pelly Island are on file in the office, and the tabulations of the Fort Sumter gauge are being transmitted herewith.

In regard to the use of the area for a dumping grounds, as mentioned in Paragraph 2 of the Instructions, there seems to be no question but that the area is so used, even though illegally, as one scow dumped on the inner edge of the area while the survey was in progress. Captain Beck, the Light-house Superintendent, and the Acting Assistant Engineer in Charge of the Army Engineers, both informed me that, although the proper dumping grounds was supposed to be close inshore in shoal water, numerous scows undoubtedly dumped before they got to the proper spot.

STATISTICS.

Date, 1921.	Letter.	Volume.	Positions.	Soundings.	Stat. miles.	Boat used.
July 28.	a	1	57	261	6.0	Motor sailer.

R. F. Luce
R. F. Luce,
Chief of Party.

Oct. 7, 1921.

Division of Hydrography and Topography:

Division of Charts:

Tidal reductions are approved in
1 volume~~s~~ of sounding records for

HYDROGRAPHIC SHEET 3896 X

Locality: Cooper River, Charleston Harbor, S. C.

Chief of Party: R. F. Luce in 1921

Plane of reference is mean low water, reading

Army Engineers'

0.0 ft. on/tide staff at Fort Sumter, Charleston Harbor.

Condition of records: Satisfactory.



Chief, Division of Tides and Currents.

Report on Hyd 3896 (add'l work)

1921

Chief of Party - R. F. Luce Stanch "Mikawi"
Protracted by - Office Sdgs plotted - Office.
Verified & linked - H. MacEwan

The records conform to the requirements
of the general instructions

The plan and character of the development
fulfills the requirements of the general instructions

with one exception the sounding in crossing
are adequate - Lines 36a - 37a sounding
14' ~~note~~ close to sound 7' on line 7a to
8a.

Due to the limit of development the usual
depth curves cannot be completely drawn.

Protracting and plotting was completed to
the extent prescribed in the general instructions

The field draftsman did not in every case
follow closely the rule for numbering positions
the number and letter being placed in some few
instances so far from the position as to make it
difficult to locate.

Character of work - Excellent

H. MacEwan

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

SECTION OF FIELD RECORDS.

REPORT ON HYDROGRAPHIC SHEET No. 3896.

Surveyed in 1921.

Chief of Party: R. F. Luce.

Surveyed by R. D. Horn.

Protracted and soundings plotted by A. W. Skilling.

Verified and inked by H. E. MacEwen.

1. The records conform to the requirements of the General Instructions, except that boats' courses and descriptions of beginnings and endings of sounding lines were omitted.
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. The sounding lines, however, do not extend to the southwestward sufficiently to completely cover the shoal on chart No. 470. There is some doubt therefore as to the present depths and extent of the old shoal.
4. The sounding line crossings are adequate.
5. The information is sufficient to permit the usual depth curves to be drawn.
6. The work was protracted on a separate sheet by the field party, but was re-plotted in the office on H. 3896 for the sake of convenience.
7. No further surveying is required, unless additional development of the shoal is desired.
8. The character and scope of the surveying are excellent.
9. Reviewed by E. P. Ellis, November, 1921.