

5482

U. S. COAST & GEODETIC SURVEY
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5482

Form 504
Ed. June, 1923

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

R S Patton, Director

State: Louisiana

DESCRIPTIVE REPORT

Topographic } Sheet No. 5 5482
Hydrographic }

LOCALITY

Lake Felicity

Lake Raccourci

and vicinity.

1934

CHIEF OF PARTY

Lieut. Wm. D. Patterson

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

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REG. NO.

Acc. No. _____

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.

5482

Field No. 5 5482

83

REGISTER NO.

State Louisiana

General locality Gulf of Mexico

Locality ~~Lake Follieity and Vicinity~~ and vicinity.

Scale 1:20,000 Date of survey April - May, 19 34

~~XXXXX~~ Field Party No. 5

Chief of Party Wm. D. Patterson

Surveyed by D. S. Ling and V. A. Bishop

Protracted by Wm. D. Patterson and J. C. McIlwaine

Soundings penciled by C. R. Smith

Soundings in ~~fathoms~~ feet

Plane of reference M.L.W.

Subdivision of wire dragged areas by _____

Inked by H. L. Flower

Verified by " "

Instructions dated October 27, 19 33

Remarks: _____

DESCRIPTIVE REPORT TO ACCOMPANY
HYDROGRAPHIC SHEET No. 5 (Field Number)
LAKES FELICITY & CHIEN, UPPER END LAKE RACCOURCI
AND BAYOUS TO EASTWARD, LOUISIANA

1934

Project HT-157, Lieut. Wm. D. Patterson, Chief of Party.

DATE OF INSTRUCTIONS

Instructions for this survey are dated October 27, 1933.

SURVEY METHODS

The method employed on this survey was by visual fixes using signals located by triangulation of 1934 and by topography of 1934 as shown on topographic Sheets E & G. All stations to the east of Longitude $90^{\circ} 20'$, except triangulation stations, were located by sextant fixes. A few positions in Bayou Lafourche were obtained by bearings as only one signal was visible. See Volume 1, Page 1, of the sounding records, for list of signals used.

The soundings were taken with sounding poles marked in feet and with hand lead and line marked in fathoms and feet.

DANGERS

This territory is all quite shallow and in the main is navigable only for boats of 3 foot draft or less. Most of the bayous and the eastern portion of Lake Chien are used as oyster bedding grounds. Anyone not familiar with the channel in such places is apt to hit an oyster reef. It was also noticed that where bayous suddenly widened out into small ponds or lakes the water became very shallow and unless the channel was known the boat would be very likely to go aground. None of these locally known channels are marked. Lake Felicity is free from oyster reefs.

CHANNELS

The Texas Oil Company has marked the main channel used by boats from Lake Barre and westerly points to Lake Raccourci and easterly points by four white-slatted day beacons (hydrographic signals Mus, Hooy, Patch and Felt). This route crosses the extreme

CHANNELS (continued)

southern end of Lake Felicity. It has not been dredged and the controlling depth is 4.0 feet. This route is used by Texas Oil Company boats and barges and by local oyster and fishing boats.

BAYOUS

Bayou Lafourche is by far the most frequently used bayou covered by this sheet. Boats of 6 to 7 foot draft are using this bayou up as far as Golden Meadow.

Bayou Blue is another large bayou covered by this sheet but since it is filled with bars it is not generally used by large craft.

Numerous other smaller bayous in this section are used by local fishermen but as they are generally shallow in spots only small draft boats can be used to any advantage.

COMPARISON WITH PREVIOUS SURVEYS

This territory had not been previously surveyed.

GEOGRAPHICAL NAMES

The geographical names as established by local usage are shown on topographic Sheets E & G and are listed in topographic descriptive reports.

T 5297 and T 5301

Respectfully submitted,

Daniel S. Ling

Daniel S. Ling, Surveyor.

Victor A. Bishop

Victor A. Bishop, Surveyor.

NOTES BY CHIEF OF PARTY

SHEET 5

SHORELINE

The shoreline has been transferred from photostats of the air-photo sheets as compiled by Lieut. Reese. The photostats were made by a concern in New Orleans and were not properly enlarged to 1:20,000 scale from 1:24,000 scale as used by Lieut. Reese. However, by transferring square by square it is believed that the shoreline as shown on the smooth sheet is fairly accurate.

No shoreline was received from Lieut. Reese for the area above latitude 29°22.5'.

The shoreline has been inked in where it agrees with the hydrography. In other areas, where the shoreline appeared to be in error, we have shown the shoreline in pencil as we believe it to have existed at the time of survey. The air-photo sheets were not received until the party left the field and consequently it was impossible to check the discrepancies in the field. It is believed that most of the discrepancies are due to actual change which has taken place since the time the photographs were taken. Other discrepancies may be caused by the difficulty of identifying the high water line on the photographs.

Shoreline checked against air photo compilation

SPACING OF LINES

The Instructions did not specify a definite spacing of sounding lines inside the bay. A spacing of two hundred meters was adopted by the Chief of Party. On April 1st the Chief of Division of Hydrography and Topography inspected the party and directed a spacing of 500 meters for inside areas where the bottom appeared to be of uniform depth. This entire sheet was done with the above spacing except in channels and bayous.

Single lines run in the bayous were run in the deepest part of the bayou to show the greatest depth that could be carried through.

CHARACTER OF BOTTOM

The bottom is uniformly soft mud with occasional shells. There are no rocks so that no dangers are to be expected except for oyster reefs. The location of oyster reefs are usually shown by stakes.

Respectfully submitted,

Wm. D. Patterson

Wm. D. Patterson, Lieut.,
Chief of Field Party No. 5

STATISTICS

HYDROGRAPHIC SHEET No. 5 (Field Number)

DATE 1934	LETTER	VOLUME	POSITIONS	SOUNDINGS	STATUTE MILES
Apr. 23	Green A	1	8	300	8.8
May 1	Blue a	2	181	947	30.6
" 2	" b	2 & 3	194	1069	33.6
" 3	" c	3	122	704	25.2
" 4	" d	3	129	709	26.2
" 5	" e	3 & 4	67	316	10.8
May 1	Red A	5	170	1228	46.5
" 2	" B	5 & 6	140	952	33.7
" 3	" C	6	148	1033	41.2
" 4	" D	6	69	466	15.5
" 5	" E	7	98	600	21.5
TOTALS 11 days			1326	8324	293.6

These changes have been taken care of by the air photo section J.S.H.

MEMORANDUM TO ACCOMPANY DESCRIPTIVE REPORT SHEET NO. T-5297

Station Chien was visited by the field inspection party on July 7, 1934. That portion in question is a grass covered island. The shore line as shown by the topographic sheet G is incorrect and it appears as shown on the chart compiled from air photos except for the small island at the very end which has disappeared.

Station Felio was visited by the field inspection party on July 7. The shore line as shown by the topographic sheet G is incorrect and is as shown on the air photo compilation sheet. However, the shore line has changed considerably due to the last storm which washed away the shore so that the station is about 8 meters from the shore.

The bayou running east from triangulation station Blue at latitude $29^{\circ}16'$ to $29^{\circ}17'$ and longitude $90^{\circ}15'$ to $90^{\circ}16'$ was changed. The photographs covering this area were very dim, and so photographs on adjoining flight to east. The shore line could not be accurately determined and due to badly tilted pictures, precise orientation was almost impossible.

The stream running north and south at latitude $29^{\circ}20'$ to $29^{\circ}21'$ and longitude $90^{\circ}22'$ to $90^{\circ}23'$ is correct as to air photo sheet in direction and position. Hydrographic position #68A is rejected as incorrect. This is further proved by inability to check numbers of soundings with time. Seven were taken, and only five plotted, so time could not possibly check.

On Bayou Blue at latitude $29^{\circ}20'$ to $29^{\circ}21'$ and longitude $90^{\circ}19'$ to $90^{\circ}20'$ hydrographic position #74C plotted incorrectly. Using the three point fix position #74C checks in center of channel.

At latitude $29^{\circ}20'$ to $29^{\circ}21'$ and longitude $90^{\circ}19'$ to $90^{\circ}20'$ hydrographic positions 53C and 54C are plotted incorrectly. Correct plot puts them in center of channel.

Hydrographic position #145^a located in latitude $29^{\circ}20'$ to $29^{\circ}21'$ and longitude $90^{\circ}21'$ to $90^{\circ}22'$ rejected. The correct plot places it in center of channel.

The shore line located in latitude $29^{\circ}20'$ to $29^{\circ}21'$ and longitude $90^{\circ}19'$ to $90^{\circ}20'$ is correct as to the photos. However, at hydrographic positions #62, 63, 64^c the shore has probably washed away. This is probably true of the east shore line at hydrographic position 146^a at latitude $29^{\circ}21'$ to $29^{\circ}22'$ and longitude $90^{\circ}21'$ to $90^{\circ}22'$; at hydrographic position 153^a at latitude $29^{\circ}20'$ to $29^{\circ}21'$ and longitude $90^{\circ}21'$ to $90^{\circ}22'$; at hydrographic position 26^a at latitude $29^{\circ}18'$ to $29^{\circ}19'$ and longitude $90^{\circ}20'$ to $90^{\circ}21'$.

Hydrographic position #125^a was found in error. This is located in latitude $29^{\circ}20'$ to $29^{\circ}21'$ and longitude $90^{\circ}22'$ to $90^{\circ}23'$. The corrected position was plotted and found to fall in the channel.

No discrepancy can be found in position 190 and 191^b or in the air photo compilation sheet located at latitude $29^{\circ}18'$ to $29^{\circ}19'$ and longitude $90^{\circ}21'$ to $90^{\circ}22'$. The shore line has in all probability washed away, in that area. Position 77B is rejected but the error is

not sufficient to cover the discrepancy.

At latitude $29^{\circ}18'$ to $29^{\circ}19'$ and longitude $90^{\circ}20'$ to $90^{\circ}21'$ the shore line due east of position 171B has apparently washed smooth. The shore along entire channel seems to have been carried away considerably. This is probably true of position 46A located at latitude $29^{\circ}17'$ to $29^{\circ}18'$ and longitude $90^{\circ}22'$ to $90^{\circ}23'$.

Hydrographic station Basin was visited by the field inspection party on July 7. This station was reobserved with theodolite and recomputed from triangulation stations Felic, Chien, Hump and Rack. A new radial plot was made of this particular area and the photos oriented accordingly. The shore line was changed at the entrance of the bayou and south of station Basin. This change checked with the notes of the field inspection party.

At latitude $29^{\circ}20'$ to $29^{\circ}21'$ and longitude $90^{\circ}21'$ to $90^{\circ}23'$ hydrographic station #109A was rejected. The left angle was used at #110A and the right angle was changed from $70^{\circ}50'$ to $69^{\circ}50'$. The left angle was used at #111A and the right angle was changed from $71^{\circ}23'$ to $70^{\circ}23'$. The right angle was used at 114A and the left angle was changed from $43^{\circ}55'$ to $43^{\circ}25'$, as the revised angle readings check in with the topography.

In general the discrepancies between the air photo compilation sheet and the hydrographic sheet are due to the fact that the soundings were put on the hydrographic sheet before the detail was traced. All the soundings did not fall inside of the channel, but in some cases the positions could have been made to fall inside of the channel due to the small variation in positions of the fixes.


M. H. Reese.

82 LAC

August 27, 1934

Division of Hydrography and Topography:

✓ Division of Charts:

Tide Reducers are approved in
7 volumes of sounding records for

HYDROGRAPHIC SHEET 5482

Locality Lake Felicity and Vicinity, Timbalier Bay and Bayou Lafourche, La.

Chief of Party: W. D. Patterson in 1934.
Plane of reference is mean low water reading.
2.8 ft. on tide staff at Leeville
8.1 ft. below B. M. 1
1.3 ft. on tide staff at Bayou John Charles
1.8 ft. below B. M. 1
2.1 ft. on tide staff at Station Felt.
1.7 ft. below B. M. 1

Height of mean high water above plane of reference is 1.3 ft.
at Leeville; 1.1 ft. at Bayou John Charles; 1.2 ft. at Station Felt.

Condition of records satisfactory except as noted below:

Chief, Division of Tides and Currents

Field Records Section (Charts)

HYDROGRAPHIC SHEET No. 5482

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

Number of positions on sheet	1326
Number of positions checked	...86...
Number of positions revised	...6...
Number of soundings recorded	8524
Number of soundings revised	..18...
Number of signals erroneously plotted or transferred7...

Date:.....

Cartographer:.....

Verification of plotting
Verification & inking of rocks & shoals

H.L. FLEMER

Time: 14

Verification of inking by

H.L. FLEMER

Time: 64

Review by

John G. Lacey

Time: 5

Report on H 5482

Chief of Party--Wm. D. Patterson.
Protracted by--Wm. D. Patterson and J.C. McIlwaine.
Verified and inked by H.L. Flemer.
Surveyed on April, Map 1934.
Surveyed by D.S. Ling and V.A. Bishop.
Soundings plotted by C.R. Smith.

1. The records conform to the requirements of the General Instructions. ✓
2. The usual depth curves can be completely drawn. ✓
3. The field plotting was complete. ✓
4. The changes in shore lines mentioned in the memorandum accompanying the descriptive report were made both on the smooth sheet and the photo compilation (T5297). ✓
5. No junctions were made as the adjoining sheets were not in the office when this sheet was verified. ✓

6. Remarks.

Serial filed with T-6067. 11/6/35 HLF

(a) Form 524 (Recoverable Stations) and the special chart for Lighthouse Service were not in the files. ~~There are no files in the office.~~

(b) A duplicate of Form 567 (Landmarks for Charts) is on file in the Cartographic Section (Letter 424-1934).

(c) A small island is shown about 110 M. NE of position 17e Long. $90^{\circ}24.2'$ Lat. $29^{\circ}16.2'$ which does not appear on T-5297. *Added*

(d) A small island in Bayou Blue at Latitude $29^{\circ}16.3'$ is shown on T-5297 but does not appear on either the smooth sheet or the records. *Island has been plotted on smooth sheet HLF.*

H.L. Flemer.

Section of Field Records

REVIEW OF HYDROGRAPHIC SURVEY NO. 5482 (1934)

Lake Felicity and Vicinity, Gulf of Mexico, Louisiana
Instructions dated October 27, 1933 (W. D. Patterson)
Surveyed in 1934

Pole and Hand Lead Soundings - Three Point Fixes on Shore Signals.

Chief of Party - W. D. Patterson.
Surveyed by - D. S. Ling, V. A. Bishop.
Protracted by - W. D. Patterson, J. C. McIlwaine.
Soundings penciled by - C. R. Smith.
Verified and Inked by - H. L. Flemer.

1. Condition of Records.

The records are neat and legible and conform to the requirements of the Hydrographic Manual, with the following exceptions:

Evidence that the plotting of the topographic and hydrographic signals had been checked by the field party was lacking since the initials of the checker were omitted. This has been accomplished in the office.

2. Compliance with Instructions for the Project.

The survey satisfies the instructions for the project.

3. Sounding Line Crossings.

The cross lines run are satisfactory and in good agreement.

4. Depth Curves.

The usual depth curves may be satisfactorily drawn.

5. Junctions with Contemporary Surveys.

The junctions with H-5541 (1934) on the west and with H-5480 and H-5481 (1934) on the south will be considered in the reviews of those surveys.

6. Comparison with Prior Surveys.

There are no prior surveys within the limits of H-5482 (1934).

7. Comparison with Chart No. 197.

The chart shows no hydrography within the area covered by H-5482 (1934).

8. Field Plotting.

The field plotting was satisfactory.

9. Additional Field Work Recommended.

No additional field work is recommended.

10. Superseding Old Surveys.

There are no surveys to be superseded.

11. Reviewed by - John G. Ladd, November, 1934.

Inspected by - A. L. Shalowitz.

Examined and approved:

C. K. Green, *C. K. Green*
Chief, Section of Field Records.

L. O. Polbit
Chief, Division of Charts.

B. Borden
Chief, Section of Field Work

G. Glude
Chief, Division of H. & T.

NR 11365B July applied 9/82 TRID
(New Chart (17) 1/1/81)