

4453

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

State: Cal.

11-6613

DESCRIPTIVE REPORT.

Hydrographic Sheet No. (2) 4453

LOCALITY:

Monterey Bay

Offshore

1924-25

CHIEF OF PARTY:

C. L. Garner

D E S C R I P T I V E R E P O R T

to accompany

SHEET NO. 2 SCALE 1:80,000

MONTEREY BAY

CALIFORNIA

1924-25

Str. DISCOVERER

CLEM L. GARNER, N. & G. E.

Chief of Party.

DESCRIPTIVE REPORT

to accompany

SHEET NO. 2 SCALE 1:80,000 MONTEREY BAY, CALIF.

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The work on this sheet was done under instructions dated October 6, 1924.

In area, it covers the submarine valleys which exist in the central part of Monterey Bay. The eastern and southern boundary is approximately the 50-fathom curve and extends close to the shore near Moss Landing. The northern boundary joins the work done by this ship on sheet No. 1 near the 100-fathom curve. The western limit joins work done on Sheet No. 3, all of which is in deep water.

There are no shoals nor dangers within the limits of this sheet. Aside from lighthouses, there are no landmarks easily recognized by the mariner. There are no anchorages nor channels to be described.

In general the depths found agree with previous work in this area. The ancient valley of the Salinas River is shown clearly to be on the south side of the general depression. In lat. $36^{\circ} 50'$ Long. $121^{\circ} 58'$ it is seen that a distinct valley from the vicinity of the San Lorenzo River leads southwest and joins the Salinas valley in Long. $122^{\circ} 00'$. This confirms the sounding of 270 (no bottom) previously shown in Lat. $36^{\circ} 50'$ Long. $121^{\circ} 59'$. On the chart a sounding of 71 fathoms was shown in lat. $36^{\circ} 46'$ Long. $121^{\circ} 58'$. This does not exist in the locations shown and should no longer appear on the chart.

In lat. $30^{\circ} 51'$ Long. $122^{\circ} 14'$ there are traces of the head of another submarine valley. This depression, together with the supposed existence of the 71-fathom sounding mentioned above led to the belief that the Salinas River formerly occupied the northern edge of the general depression. The work this year shows its true position as mentioned above.

All soundings except a few on the eastern side (portions of D & E days) were made with up and down casts, using piano wire. In the deeper water a cast iron detachable sinker was used. In less than 700 fathoms a 35-lb. lead was used and was hauled back with each cast. The exceptions mentioned in D & E days were tube soundings run along the upper edge of the valleys slope. In a few places where an uneven slope was noted, additional soundings were taken to confirm the depths.

Numerous samples of bottom material and sea water were taken and have been shipped to Scripps Institute, La Jolla, California.

The control used was mainly mountain tops and objects which had been previously located by triangulation. A few signals north of Santa Cruz were transferred from Sheet No. 1. Hydrographic signals Sand and Woods were taken from old topographic sheets and checked by cuts. All soundings were located by fixed positions.

Close to Point ^{Cypress} ~~Woods~~, considerable current was noted. The general trend of it follows the direction of the shore line and is due to ebb and flood of tide out of and into Monterey Bay.

A table of statistics is attached herewith. Soundings plotted in pencil by the field party.

Respectfully submitted,



R. L. SCHOPPE,
H. & G. Engineer.

Approved and forwarded.



Clem L. Garner, H. & G. Engr.,
Chief of Party.

Note: Discrepancies between previous work and this sheet are evidently due to the use of dead reckoning positions in the old work. This is the only way it can be accounted for.

STATISTICS TO ACCOMPANY SHEET No.2

Date	Letter	Volume	Positions	Soundings	Miles (Stat.)	Vessel
1924 Dec. 13	A	1	8	8	8.0	Ship
" 23	B	1	40	41	28.6	"
" 26	C	1	49	49	28.6	"
" 29	D	1	52	159	28.0	"
1925 Jan. 2	E	1	33	43	28.6	"
" 5	F	1	6	6	3.0	"
" 12	G	1	18	18	15.0	"
" 13	H	1	16	16	18.3	"
" 15	J	1 & 2	32	32	33.3	"
" 20	K	2	30	30	26.4	"
" 21	L	2	30	30	32.2	"
" 22	M	2	43	44	31.6	"
" 23	N	2	33	33	18.5	"
" 24	P	2	5	5	4.6	"
" 29	Q	2	7	7	7.2	"
Feb. 2	R	2	3	3	2.5	"
TOTALS			405	524	314.4	

Soundings in fathoms
Plane of reference M. L. L. W.

Tide gauge located at Santa Cruz, Calif. on Municipal wharf
M. L. L. W. equals 6.9 feet above the zero of the staff
Lowest tide observed, reading on gauge, 5.0 feet
Highest tide observed, reading on gauge, 14.2 feet

June 5, 1925.

~~Division of Hydrography and Topography.~~

Division of Charts:

Tide reducers are approved in
volumes of sounding records for

HYDROGRAPHIC SHEET 4455

Locality: Monterey Bay, Calif.

Chief of Party: Glenn L. Garner in 1925

Plane of reference is Mean lower low water and is
6.7 ft. on tide staff at Santa Cruz, Calif.
6.5 " " " " " Monterey, Calif.

For reduction of soundings, condition of records satisfactory
except as checked below:

1. Locality and sublocality of survey omitted.
2. Month and day of month omitted.
3. Time meridian not given at beginning of day's work.
4. Time (whether A.M. or P.M.) not given at beginning of day's work.
5. Soundings (whether in feet or fathoms) not clearly shown in record.
6. Leadline correction entered wrong column.
7. Field reductions entered in "Office" column.
8. Location of tide gauge not given at beginning of each day's work.
9. Leadline corrections not clearly stated.
10. Kind of sounding tube used not stated.
11. Sounding tube No. entered in column of "Soundings" instead of "Remarks".
12. Legibility of record could be improved.
13. Remarks

G. L. Garner

Chief, Division of Tides and Currents.

Report on Hyd. 4453.

CO The character and completeness of the records,
protracting and plotting of soundings were
done very satisfactorily.

The sheet was clean, legible and in
general satisfactory as to draftsmanship.

Respectfully submitted,

E. Piegari

July 10, 1925

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

WASHINGTON August 12, 1925.

SECTION OF FIELD RECORDS

Report on Hydrographic Sheet No. 4453

Monterey Bay, Offshore, California

Surveyed in 1925.

Instructions dated Oct. 6, 1924 and Dec. 20, 1924

Chief of Party, C. L. Garner.

Surveyed by M. O. Witherbee.

Protracted and soundings plotted by G. Risegari.

1. The records conform to the requirements of the General Instructions except that the curves for tubes 470 and 714 were not drawn, and corrections amounting to as much as 2% were not applied to the soundings.
2. The plan and character of the survey conform to the requirements of the General Instructions.
3. The plan and extent of development satisfy the written specific instructions except that cross lines called for at 2 mile intervals were not run. The development is so complete that they do not seem necessary. The instructions direct the extension of the survey out to the 1000 fathom curve. This is being done on a sheet not yet received in the office.
4. The sounding line crossings are adequate.
5. The information is sufficient for drawing the usual depth curves.
6. The usual field plotting was done by the field party.
7. The junction with the adjoining sheet 4455 will be considered when it is plotted.
8. No further surveying is required within the area covered by the sheet. *Additional work required on northwest part of sheet - M.B.*
9. The character and scope of the surveying and field drafting are ~~excellent~~. *good -*
10. Reviewed by E. P. Ellis, August, 1925.

Approved -
M.B.

*Reviewed by
Ellis
8/12/25*

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. (2) 4453

State . . . California

General locality . . . Monterey Bay
~~Central Part~~

Locality . . . Monterey Bay Offshore

Chief of party . . . Clem L. Garner

Surveyed by . . . Clem L. Garner

Date of survey . . . December, 1924 and January, 1925

Scale . . . 1:80,000

Soundings in . . . fathoms

Plane of reference . . . M. L. L. W.

Protracted by M. O. Wetherbee field party Soundings in pencil by M. O. W. field party

Inked by Verified by

Records accompanying sheet (check those forwarded):

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

1 Sounding books, 3 Wire-drag books, _____ Photographs.

Data from other sources affecting sheet

Remarks:

