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Department of Commerce and Labor
COAST AND GEODETIC SURVEY

J. N. Littmann
Superintendent.

State: *California*

DESCRIPTIVE REPORT.

Hyd. Sheet No. *35-a*

LOCALITY:

*Colorado Reef,
Pt. Montara*

1907-10

CHIEF OF PARTY:

H. C. Sibrell

8358

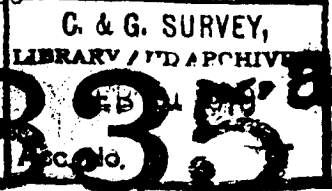
DESCRIPTIVE REPORT TO ACCOMPANY HYDROGRAPHIC

SHEET NO.....(FIELD NO. "B", COLORADO

COAST AND
GEODETIC SURVEY REEF, OFF POINT MONTARA, CALIFORNIA

FEB 10 1910

SCALE 1 - 10 000



REFERRED TO:
Assistant in Charge

As indicated in the title, this sheet shows a survey of Colorado Reef, off Montara Point. The old hydrographic sheet shows only the regular lines of soundings in this locality; ^{abrupt} ~~A~~ brief changes of depth are indicated, but apparently no special examination of the locality was made. The new work, therefore, practically constitutes an original survey.

2. Before beginning the hydrography it was necessary to determine some objects on shore for use as signals. Triangulation station "Hogle" could not be recovered and the lighthouse had not been accurately determined, so a new station "Oak" (see boat sheet) was established and it was determined by observing the three angles in the flat triangle, Oak - ^{(Pillar Pt) 426} Miramontes - Piedra. The last two stations were recovered with sufficient accuracy for purposes of hydrography, but no descriptions were available and no definite center marks were found. The fog signal station at Montara Point and a flag staff about one-half mile to the southward were determined by sextant cuts taken from off shore, Miramontes Δ - Oak Δ - Piedra Δ (or "Rock") being used for position. "Rock" is the pinnacle rock on Point San Pedro, shown as a triangulation point on the old hydrographic tracing. It was used as left object in the hydrographic work, as Piedra Δ is too high.

The lighthouse at Montara Point was determined by measured direction and distance from the fog signal station. It is believed

that the new position of the lighthouse when plotted on a smooth sheet will differ a little from the former determination. This difference will not be ^{of} sufficient magnitude to effect the chart, but probably is too large to permit the use of the old position in plotting the hydrography.

4. This report accompanies the boat sheet. No smooth sheet has been prepared by the field party on account of lack of time and not having the necessary data. No computation of triangulation is forwarded, as the length of the base, Miramontes - Piedra, was scaled from the old tracing in order that the new station Oak might be plotted consistently on our boat sheet, which was taken from the same tracing.

5. The soundings cover a stretch of about two miles along the coast and extend about one mile off shore. At the inshore end the lines were not carried into the kelp or over the foul ground close along the shore. It may be well to remark in passing that the party endeavor^{ed} to confine itself within the limits contemplated in the instructions, although there was a constant temptation to extend the work and fill in between the old lines which are here rather far apart for complete development near an important coast.

6. Soundings were made from the motor launch or the whaleboat, using hand lead. Parallel lines were run quite close together, making an angle of about sixty degrees with the general trend of the adjacent shore line. Where abrupt changesⁿ of depth were found, special examinations were made, more soundings being made in some cases than were recorded.

7. Colorado Reef consists of a few submerged narrow ridges or dykes of rock. Those dangerous to vessels however do not appear to extend much beyond the limits of the kelp showing at low water. At

(3)

high water the kelp shows to a less distance from shore. One mile from shore the depth is regular, and safe for all vessels. The writer is not in a position to furnish details in regard to the results of the survey, as he took no part in its execution, and during part of the time while it was in progress he was on leave. The record is believed to be clear, and the smooth sheet will show essential features. It is suggested that a buoy moored off Montara Point, say outside the ten fathom curve, would be a convenience to coasting vessels hugging the shore.

8. Tides were observed at Half Moon Bay to furnish reductions to the plane of reference. A staff was secured to the upper wharf and readings were made while hydrographic work was in progress. Continuous readings, day and night, were made for a period of six days, and it is assumed that these readings will be sufficient for computing a plane of reference. Three bench marks were established on shore and connected with the staff by levels.

9. The two wharves and the three buoys at Half Moon Bay were determined by triangulation. This work was not plotted, as there was not sufficient data at hand for constructing a sheet suitable for the purpose.

Respectfully submitted,

Walter C. Turner

Assistant, C. & G. Survey,

Chief of Party.

San Francisco, Cal.,

February 4, 1910.

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DEPARTMENT OF COMMERCE AND LABOR

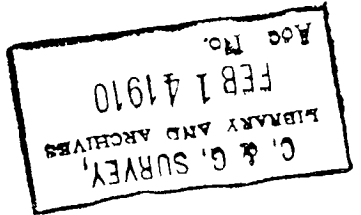
Coast and Geodetic Survey

O. H. Tittmann, Sup't.

Hydrographic Sheet No.....

(Field No. "B")

Colorado Reef, Off Point Montara,
California



Steamer EXPLORER

Assistant, Walter C. Dibrell, Chief of Party

Begun: December 17, 1909.

Completed: January 6, 1910.

Scale 1 - 10 000

Hydrography in charge of F. H. Hardy, Assistant

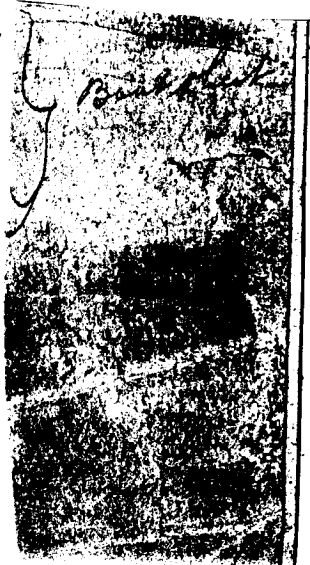
Positions plotted by { F.H.Hardy, Ass't.

{ W.B.Dunning, Aid.

Soundings " "

{ F.H.Hardy, Ass't.

{ W.B.Dunning, Aid.



"B"

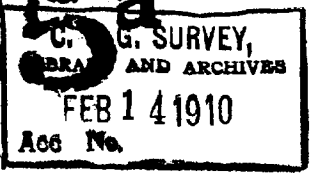
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HYDROGRAPHIC SHEET NO.

COLORADO REEF, OFF POINT MONTARA

OBSERVERS:

8352



- F. H. Hardy, Assistant
- A. R. Hunter, Watch Officer
- W. B. Dunning, Aid.

RECORDERS:

William Duker, Writer 2 class.

LEADSMEN:

Emil Moen, Q. M. 1cl.

TIDE OBSERVERS:

- Ed. Callaway, Seaman
- Lawrence Larsen, "

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Statistics - Ste. Explorer

Date	Vol	Letter	Soundings	Angles	Miles	Boat
1909 Dec 15	1	A	4	16		Explorer
" 17	1	a	100	66	4.5	Lamck
" 18	1	B	234	148	11.2	"
Jan 5	1	c	259	150	8.5	Whaleboat
" 6	1	d	214	138	5.5	"
Total	1		811	518	29.7	

Soundings plotted & inked by A. L. Simons
Verified by R. L. Johnston, Oct. 27th, 1910.

All soundings plotted in feet.

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Field Sheet 135^a

May 2, 1910.

The area within the limits of the survey
is apparently well covered.

The records were kept in a satisfactory
manner.

A. L. Simmons

V.E.C.
April 19, 1910.

HYDROGRAPHIC SHEET NO. 835a.

Colorado Reef, off Point Montara, California,
by party of Asst. W. C. Dibrell in 1909 - 1910.

TIDES.

	Half Moon Bay ft.
Mean lower low water, or plane of reference on staff	0.0
Lowest tide observed " "	-1.7
Highest " " " "	6.5
Mean range of tide	4.1

Coast and Geodetic Survey
APR 19 1910
TIDAL DIVISION

835a

signed to det 5072 direct & thru det 5520 *Carrey* 4/10/64