

Statistics to accompany Hydrographic Sheet B.

4276

Date 1922	Letter	Vol	Pos.	Sound	Miles	Vessel
Jan. 9	A	1	41	345	9.5	Natoma
17	B	1	55	408	14.2	
23	C	1	103	717	23.0	
24	D	1 & 2	151	1169	30.9	
25	E	2	135	1046	31.9	
27	F	3	129	1045	32.2	
Feb. 20	G	3	112	783	24.0	
21	H	4	92	728	22.7	
23	J	4	95	870	24.0	
24	K	4 & 5	79	480	16.0	
27	L	5	68	415	16.5	
May 25	M	5	38	129	9.5	
Jan. 27	a	1	93	784	12.9	M.S.
31	b	1	61	557	9.8	
Feb. 1	c	1	71	600	11.2	
2	d	2	137	1381	26.8	
3	e	2 & 3	138	1310	24.9	
7	f	3	65	659	12.0	
8	g	3	54	569	9.0	
13	h	3 & 4	86	708	20.1	
14	i	4	89	584	14	
15	j	4	73	575	13	
16	k	4	28	232	5.3	
17	l	4 & 5	86	657	12	
18	m	5	6	54	1.5	
20	n	5	62	472	9.7	
23	o	5	23	132	2.6	
Mar. 1	p	5	23	230	3.5	
2	q	5	8	78	1.3	

Unit of soundings ft
 Plane of reference
 Tide gauge at
 Plane of reference on gauge
 Lowest tide " "
 Highest " " "

17° 17' 45" N
 122° 17' 45" W
 M L L W

COPY TO FIELD RECORDS.

June 22, 1923.

Division of Hydrography and Topography:

Division of Charts:

Tide reducers are approved in
10 volumes of sounding records for

HYDROGRAPHIC SHEET 4274

C Locality: **San Pablo Bay, Calif.**

Chief of Party: **G. W. Swainson, in 1922**

Plane of reference is **mean lower low water, reading**
3.9 ft. on tide staff at **Sonoma Creek**
3.0 " " auto. gauge " **Refugio.**

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 in 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.



Chief, Division of Tides and Currents.

ADDRESS THE DIRECTOR
U. S. COAST AND GEODETIC SURVEY

AND REFER TO No.

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

October 29, 1923.

Verification Report, H. 4276.

The records for this sheet were in fair condition, and in a general way conformed to the General Instructions. An index of buoys located should have been given at the beginning of Volume 1 instead of having them interspersed through all the volumes. Also the records failed to give a list of signals determined as requested in Paragraph 296 of the General Instructions.

The field work was good except that there seemed to be too close a development in comparatively unimportant areas. Also it is the opinion of the writer that much time could have been saved by running a single system of north and south lines checked by an occasional cross line, instead of the plan adopted.

The crossings were good except in a few places, notably in the channel. Where there was a discrepancy of $\frac{1}{2}$ feet, the deeper sounding was omitted, being attributable to the strong current. 61 K to 79 K inclusive was rejected as this line was invariably too deep wherever it crossed another line. Differences in crossings of 1 foot are due mainly to the dropping of fractions.

The protracting was good and the plotting of the soundings was excellent.

A. L. Shalowitz

A. L. Shalowitz

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

WASHINGTON

October 31, 1923.

SECTION OF FIELD RECORDS

Report on Hydrographic Sheet No. 4276

San Pablo Bay, California

Surveyed in 1922

Instructions dated June 1 and Sept. 6, 1921

Chief of Party, O. W. Swainson.

Surveyed by party of Steamer NATOMA.

Protracted by field party.

Soundings plotted by J. D. Torrey and A. L. Shalowitz.

Verified and inked by A. L. Shalowitz.

1. The records conform to the requirements of the General Instructions except that a list of signals was not given as directed in Paragraph 296 of the General Instructions. Also the buoys should have been listed in the index of volume 1 of the soundings. No descriptive report furnished.
2. The plan and extent of development fulfill the requirements of the General Instructions except as regards the directions of sounding lines. There are 13 distinct systems of sounding lines, not counting cross check lines. Lines normal to the shore would have given a complete development with fewer lines.
3. The plan and extent of development fulfill the requirements of the specific instructions. The development on the shoal areas appears unnecessarily complete, although it conforms to the specifications.
4. The sounding line crossings are adequate.
5. The information is sufficient for drawing the usual depth curves.
6. Only the protracting was done by the field party.
7. The junctions with adjacent sheets that have been plotted are excellent.
8. No further surveying is required within the limits of the sheet.
9. The character and scope of the surveying and field plotting were good.
10. Reviewed by E. P. Ellis, October, 1923.