

2310

Diag. Cht. No. 5530.-3

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey *Hydrographic*
Field No. Office No. *2310*

LOCALITY

State *California*
General locality *San Fran-*
Locality *Cisco Bay*

1896
~~191~~

CHIEF OF PARTY

J. H. Sears

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DATE

2310

NOV 6 - 1897 23005

Write me at: San Francisco, Cal.

Telegraph me at: do

My Express Office is: do

U. S. Coast and Geodetic Survey, St. M. Austin,

San Francisco, Cal.,

Yours, 1897

Gen. W. W. Duffield,

Superintendent, U. S. Ct & G. Survey,

Washington, D. C.

Sir,

In accordance with par. #209, "General Instructions for Hydrographic Parties," I have the honor to transmit the following Description Report to accompany proj. #6 (Office Number), San Francisco Bay.

This projection comprises Lake Merritt, Sessions Basin, at the head of the Oakland Estuary, San Leandro Bay, and the approach to San Leandro Bay.

Lake Merritt is an inland basin, the amount of water in which is controlled by Sluice-gates opening to the tidal water of Sessions Basin. It has no navigable value whatever, shall be pleasure

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boats being the only ones in use upon the Lake.

Seasons basin at the head of the Salween is navigable, and is well provided with wharves where vessels of considerable size load and discharge lumber, coal, grain and fodder. The basin is also used for the purpose of laying rafts up temporarily or permanently. They are bound on the wind banks at high water bars on and moored with anchors cast on shore. Before entering the basin the railroad bridges of the Southern Pacific Railroad Company have to be passed by dams.

Several bridges cross the basin before the sluice gates of Lake Fremont are reached. These bridges are impeded with dams.

A canal was under construction to connect Jessims basin with the tide water of San Leandro, but work is at present under suspension. San Leandro bay is a shallow bay between Bay Farm Island and Alameda approaching at one point near to the cut in Jessims basin, San Leandro bay is navigable only for vessels of shallow draft, semi-tonnes, in which considerable traffic is carried on. It is crossed by an railroad bridge, and a road bridge.

It was proposed, in connection with cutting the canal (840 yd still remaining uncut,) to control the tide waters by a closed construction at the outer bridge on San Leandro Bay. If this be closed at high water, the falling tide would carry

the current through the canal, would
 flush Sessions basin and the stratum
 of the sewerage, and tend to deepen
 the channel to the commercial center
 of the city on the east side of the
 Bay. The effect might be bad at the
 entrance to San Francisco Bay where
 deposits would be likely to occur.

The sounding in Lake Merit was
 performed by a detached party in charge
 of Ensign M. L. Miller, U. S. N. While the
 vessel was elsewhere engaged. I
 transmit his report with this. By
 assent of the Office, dated Jan. 27th
 1897, the soundings have been reduced
 to the arbitrary plane therein suggested
 and in my letter of Jan. 14th, 1897.
 A note has been placed upon the
 projection to this effect.

This plane is the reading of 4' on the staff inside the sluice gates, and corresponds to a reading of 5.85 above the Coast Survey plane of reference.

In the approach to San Sander Bay there appears little change in the depths and currents outside the outer bridge from those of the published chart. 3' can be carried at low water over the bar to the railroad bridge, the inside bridge over the bay, there being from 10' to 5 fms. in a deep cut extending on both sides of the stern of the outer bridge. The crest of the bar where the 3' soundings are found is about 1 1/2 miles outside the outer bridge. A channel is marked by temporary stakes for the convenience

of yachts and local traffic.

At high water there are channels making to the mouths of the principal sloughs, which are navigated by flats bottomed scows.

In Serrano Basin, 13' can be carried above the upper railroad bridge, across its neck for about .9 mile at low water with a 5' and 6' channel extending further along the western shore, the average depth at low water being much less. Occasional tidal soundings showing more water than indicated by other soundings, are due to the fact that the lead has fallen into the beds made in removing rocks from the mud. Considerable dredging has also been done in the basin, the dredged material being pumped to

reclaim land along the shore.

Yours respectfully
James V. Jones
Lieut. U.S.A.

Mr. W. Arthur

Oakland Calif

21 Oct 1897

Dear

J. W. Nelson

Chf Party -