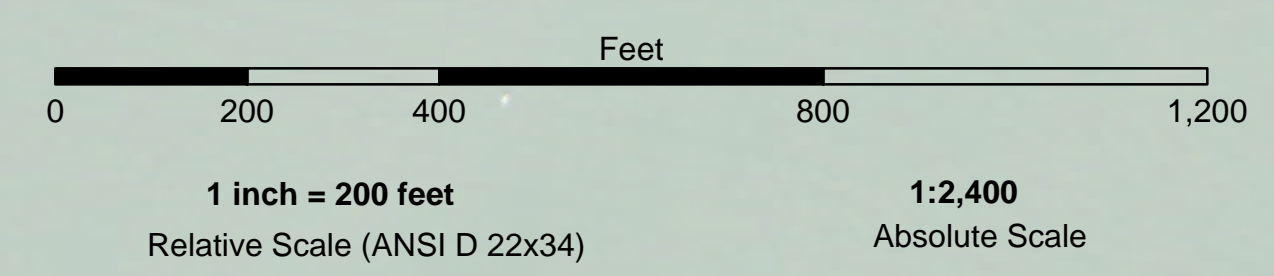
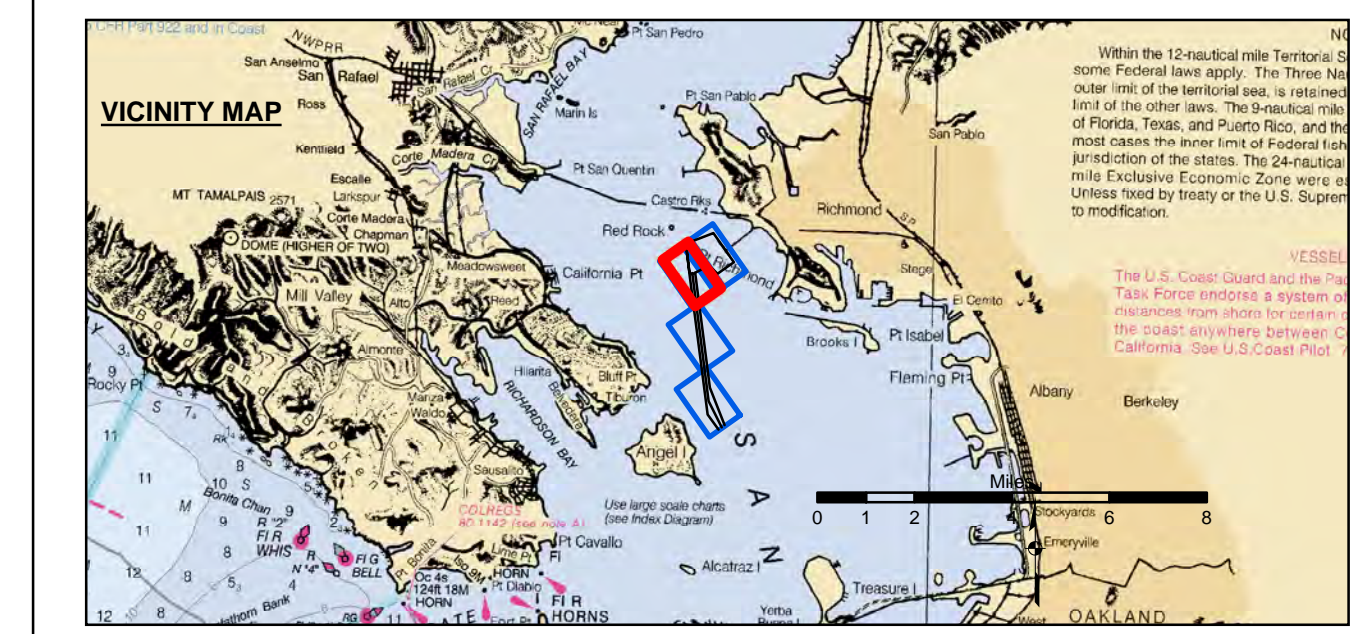


**PRELIMINARY ISSUE**  
THIS PLAN ISSUED FOR  
ADVANCE INFORMATION ONLY



FLOOD  
EBB



	Federal Navigation Channel		Beacon, General		Contours
	Shoaling Area		Obstruction Point		-45
	Placement Area		Navigation Buoy		-44
	Anchorage Area		Navigation Buoy		-43
	Wreck Area		Shoalest Sounding*		-42
	Submerged Wreck				-41
	Angle Point				

NOTES:  
HORIZONTAL COORDINATE SYSTEM:  
NORTH AMERICAN DATUM OF 1983 (NAD83), PROJECTED TO THE STATE PLANE COORDINATE SYSTEM (SPCS), CALIFORNIA ZONE III. DISTANCE UNITS IN U.S. SURVEY FEET.  
VERTICAL DATUM:  
SOUNDINGS ARE SHOWN IN FEET AND INDICATE DEPTHS BELOW MEAN LOWER LOW WATER.  
DRAWING NOT TO BE USED FOR NAVIGATION.  
ONLY CHANNEL CONDITION AT DATE OF SURVEY.  
THE LOCATION OF ALL NAVIGATION AIDS ARE BASED ON INFORMATION PROVIDED BY THE U.S. COAST GUARD. BUOY LOCATION REPRESENT THE POSITION OF THE SINKER ONLY.  
SURVEYED BY THE CORPS OF ENGINEERS.

SOUNDINGS WERE TAKEN BY FATHOMETER AND ARE SHOWN TO THE NEAREST TENTH OF A FOOT.  
SOUNDINGS ARE BASED ON THE DATUM OF MEAN LOWER LOW WATER AT THE LOCALITY.  
BASE MAPS ARE USDA NAIP 2010.  
THE PROJECT DEPTHS ARE AS FOLLOWS:  
SOUTHAMPTON SHOALS CHANNEL -45 FEET.  
LONG WHARF MANEUVERING AREA -45 FEET.  
1:00 INDICATED THE NUMBER AND BEGINNING OF A LINE OF SOUNDINGS.  
HORIZONTAL CONTROL:  
HORIZONTAL POSITIONING: COAST GUARD DGPS  
VERTICAL TIDES: INTERPOLATED FROM NOAA ONLINE TIDE STATIONS:  
941 4290 - RICHMOND, CA  
941 4290 - SAN FRANCISCO, CA  
VERTICAL CONTROL:  
(SOUTHAMPTON SHOALS & LONG WHARF MANEUVERING) BENCHMARK \*11\* 1937 ELEV 15.86 FT. MLLW.  
AND BENCHMARK \*11\* 1946 ELEV 15.47 FT. MLLW.  
TIDE GAUGE LOCATED AT TIBURON NET DEPOT.

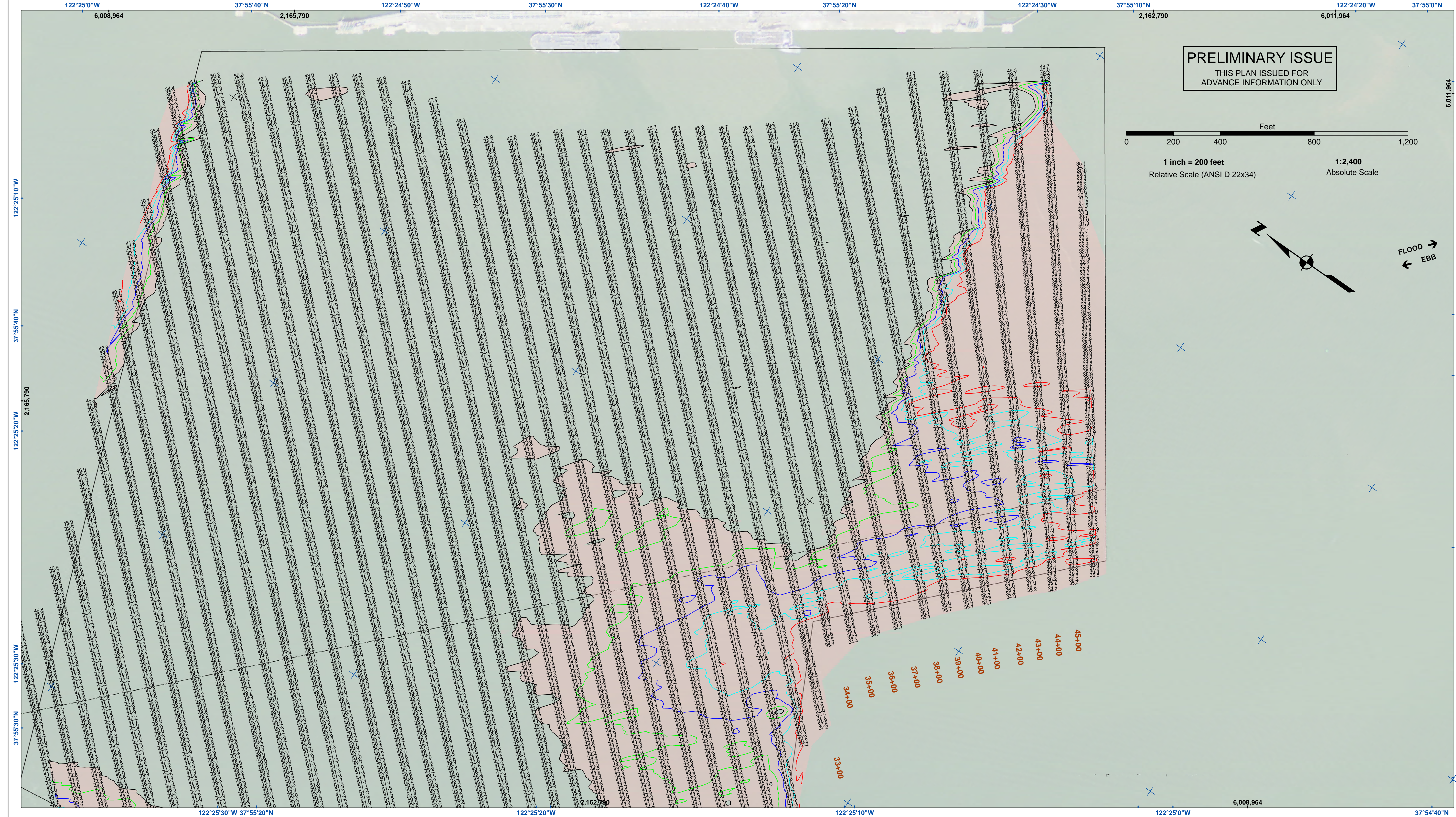


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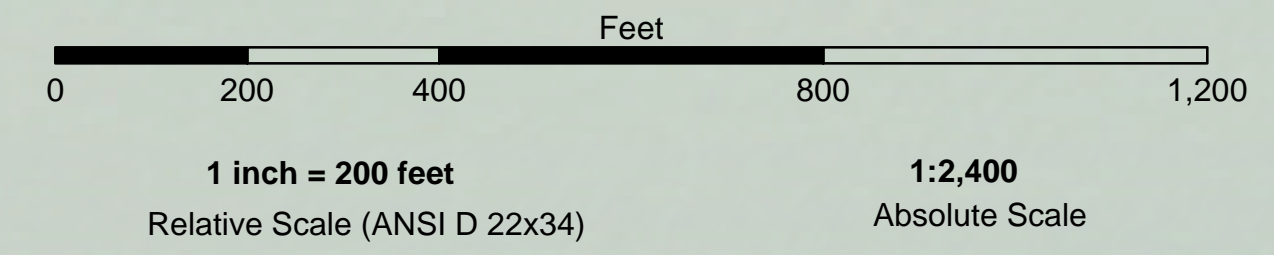
PREPARED UNDER THE DIRECTION OF <b>TRAVIS J. RAYFIELD</b> LT. COLONEL, C.E., DISTRICT ENGINEER	Surveyed By:	Chart Date:
Submitted: Hydro Survey Team Leader	Plotted By: PDT	Jun 25, 2019
Recommended: Chief, Hydro Survey Section	Checked By: PDT	Designed by:
Approved: Chief, Construction Branch	Drawn by: PDT	

ALAMEDA COUNTY  
**RICHMOND OUTER HARBOR  
LONG WHARF  
CONDITION SURVEY**  
13 JUNE 2019

**Sheet  
Reference  
Number  
3 of 4**



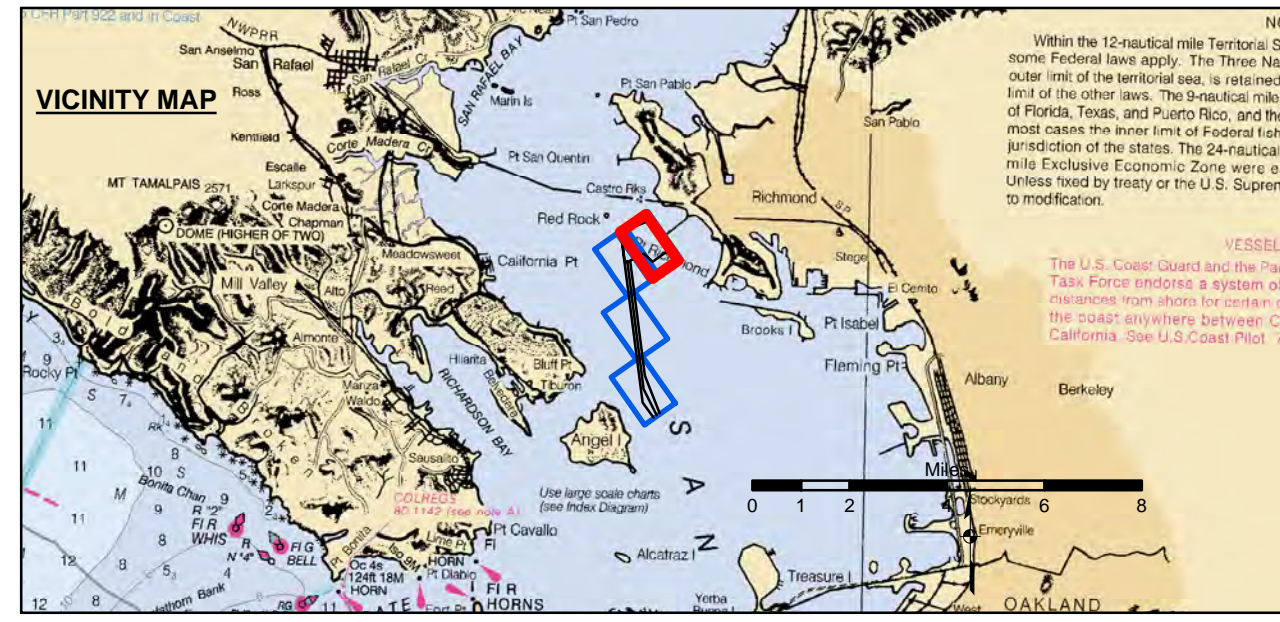
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**US Army Corps of Engineers**  
San Francisco District  
450 Golden Gate Ave  
San Francisco, CA 94102

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Prepared Under the Direction of	Chart Date
LT COLONEL C.E. DISTRICT ENGINEER	Jun 25, 2019
Surveyed By	Designed by
Plotted By	PDT
Checked By	PDT
Drawn by	PDT



Federal Navigation Channel	Beacon, General	<b>Contours</b>
Shoaling Area	Obstruction Point	-45
Placement Area	Navigation Buoy	-44
Anchorage Area	Navigation Buoy	-43
Wreck Area	Shoalest Sounding*	-42
Submerged Wreck		-41
Angle Point		

**NOTES:**  
HORIZONTAL COORDINATE SYSTEM:  
NORTH AMERICAN DATUM OF 1983 (NAD83), PROJECTED TO THE STATE PLANE COORDINATE SYSTEM (SPCS), CALIFORNIA ZONE III. DISTANCE UNITS IN U.S. SURVEY FEET.  
VERTICAL DATUM:  
SOUNDINGS ARE SHOWN IN FEET AND INDICATE DEPTHS BELOW MEAN LOWER LOW WATER.  
THE INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESULTS OF A SURVEY CONDUCTED ON THE DATE INDICATED AND CAN ONLY BE CONSIDERED TO REPRESENT THE GENERAL CONDITION EXISTING AT THAT TIME.  
\*SHOALEST SOUNDING PER QUARTER PER REACH DRAWING NOT TO BE USED FOR NAVIGATION.  
ONLY CHANNEL CONDITION AT DATE OF SURVEY.  
THE LOCATION OF ALL NAVIGATION AIDS ARE BASED ON INFORMATION PROVIDED BY THE U.S. COAST GUARD. BUOY LOCATION REPRESENT THE POSITION OF THE SINKER ONLY.  
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LONG WHARF MANEUVERING AREA -45 FEET.  
1:00 INDICATED THE NUMBER AND BEGINNING OF A LINE OF SOUNDINGS.  
HORIZONTAL CONTROL:  
HORIZONTAL POSITIONING: COAST GUARD DGPS  
VERTICAL TIDES: INTERPOLATED FROM NOAA ONLINE TIDE STATIONS:  
941 8863 - RICHMOND, CA  
941 4290 - SAN FRANCISCO, CA  
VERTICAL CONTROL:  
(SOUTHAMPTON SHOALS & LONG WHARF MANEUVERING) BENCHMARK "10" 1937 ELEV 15.86 FT. MLLW.  
AND BENCHMARK "11" 1946 ELEV 15.47 FT. MLLW.  
TIDE GAUGE LOCATED AT TIBURON NET DEPOT.

CALIFORNIA  
ALAMEDA COUNTY  
RICHMOND OUTER HARBOR  
LONG WHARF  
CONDITION SURVEY  
13 JUNE 2019

**Sheet Reference Number**  
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