

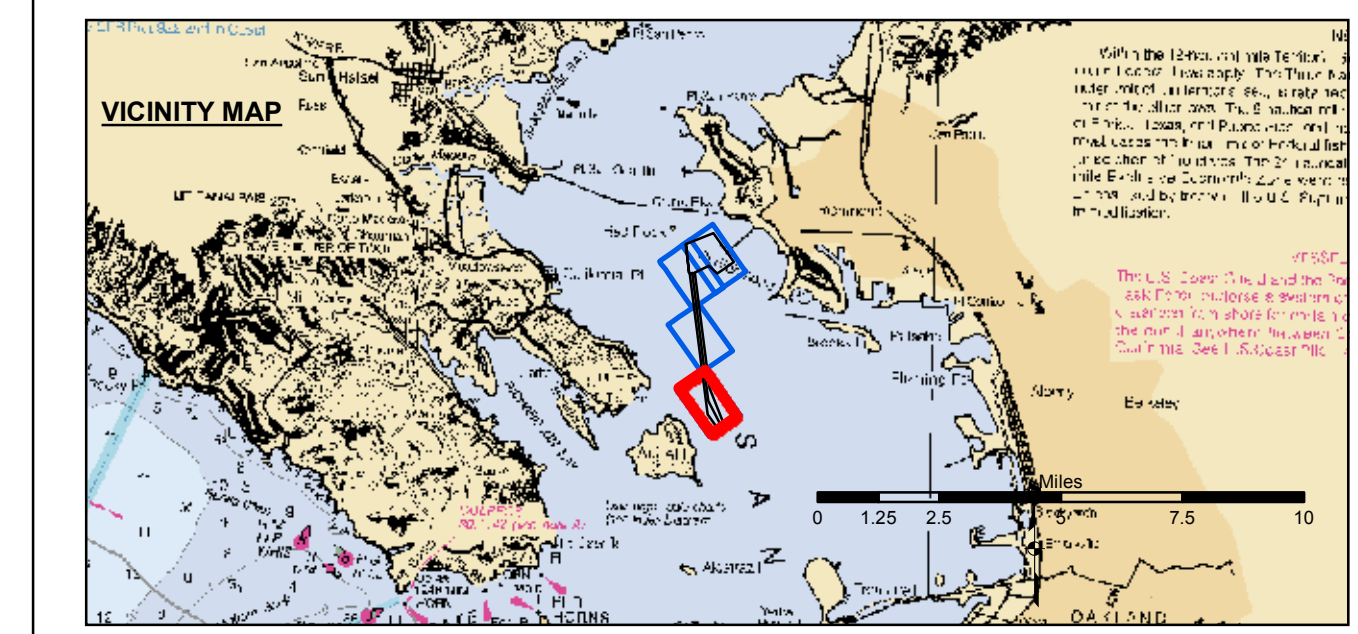
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Chart Date:	Nov 12, 2015
Prepared Under the Direction of:	JOHN C. MORROW LT COLONEL, C.E., DISTRICT ENGINEER
Submittal:	Hydro Survey Team Leader
Recommended:	Chief, Hydro Survey Section
Approved:	Chief, Construction Branch
Surveyed By:	PDT
Plotted By:	PDT
Checked By:	PDT
Drawn by:	PDT

ALAMEDA COUNTY
RICHMOND OUTER HARBOR
POST-DREDGE SURVEY
16 & 26 OCTOBER 2015

Sheet Reference Number
1 of 4



	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.
 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.
 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, NAVD 88. 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 4293 - 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.