



- Federal Navigation Channel
- Shoaling Area
- Placement Area
- Anchorage Area
- Wreck Area
- Submerged Wreck
- Angle Point
- Beacon, General
- Obstruction Point
- Navigation Buoy
- Navigation Buoy
- Shoalest Sounding\*

**Contour Lines**

- 51
- 52
- 53
- 54
- 55

DRAWINGS NOT TO BE USED AS 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 LOCATIONS REPRESENT THE POSITION OF THE SINKER ONLY.

SURVEYED BY THE CORPS OF ENGINEERS.

SOUNDINGS ARE TAKEN BY FATHOMETER AND ARE SHOWN TO THE NEAREST FOOT AND TENTHS OF A FOOT.

SOUNDINGS ARE BASED ON THE DATUM OF MEAN LOWER LOW WATER AT THE LOCALITY.

PLANE GRID AND COORDINATES ARE BASED ON LAMBERT PROJECTION, ZONE II NAD83, CALIFORNIA, AS DESCRIBED IN SPECIAL PUBLICATION NO. 235, PUBLISHED BY THE NATIONAL OCEAN SURVEY.

THE PROJECT DEPTH IS 55 FEET AT M.L.L.W.

SOUNDINGS ARE BASED TIDE GAUGE LOCATED AT THE HYDE STREET PIER, SAN FRANCISCO, CALIFORNIA.

**CONTROL:**  
Bonita 01 201337 49 10.915N, 122 31 51.344W  
MLLW: 258.42 ft (VDatum)  
WGS84: 46.188m

941 4290 N TIDAL  
37 48 20.200N, 122 28 00.811W  
MLLW: 11.92 ft  
WGS84: -28.901m  
NOAA ONLINE TIDE STATION 941 4290

**POSITIONING:**  
HORIZONTAL: RTK  
VERTICAL: RTK Tides  
BASE STATION AT BONITA 01 2013  
TIDE VERIFIED AT "TG 1" - NAIL SET AT 10.0 ft MLLW ON NOAA TIDE STATION PIER

**Chart Date:** Jul 03, 2014  
**Designed by:** [Name]  
**Plotted by:** PDT  
**Checked by:** PDT  
**Drawn by:** PDT

PREPARED UNDER THE DIRECTION OF  
**JOHN C. MORROW**  
LT COLONEL, C.E., DISTRICT ENGINEER

Submitted: Hydro Survey Team Leader  
Recommended: Chief, Hydro Survey Section  
Approved: Chief, Construction Branch

**SAN FRANCISCO CALIFORNIA**  
**SAN FRANCISCO BAY CALIFORNIA**  
**MAINSHIP CHANNEL**  
**POSTDRUDGE SURVEY**  
20-25 June 2014

**Sheet Reference Number**  
**3 of 5**

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