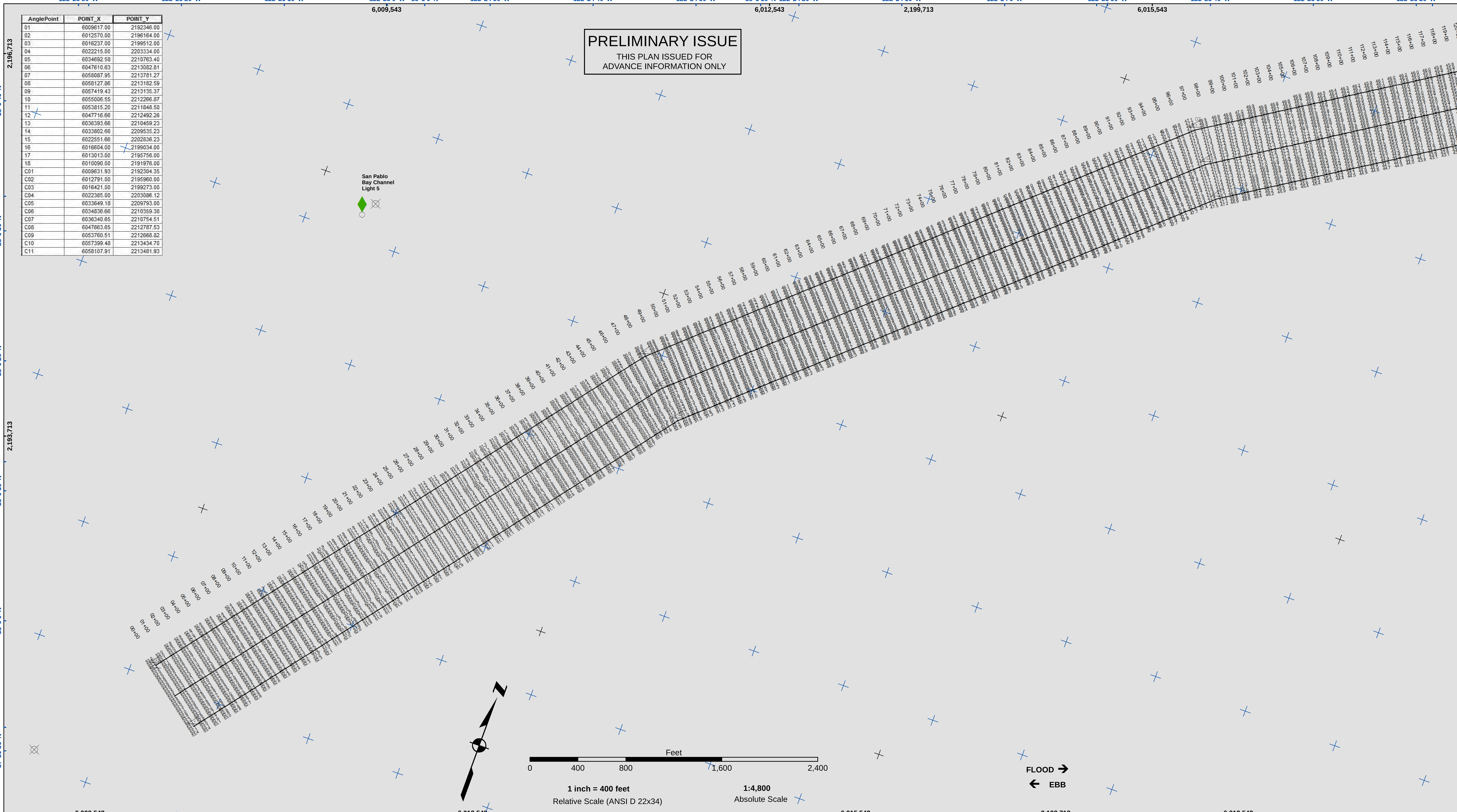
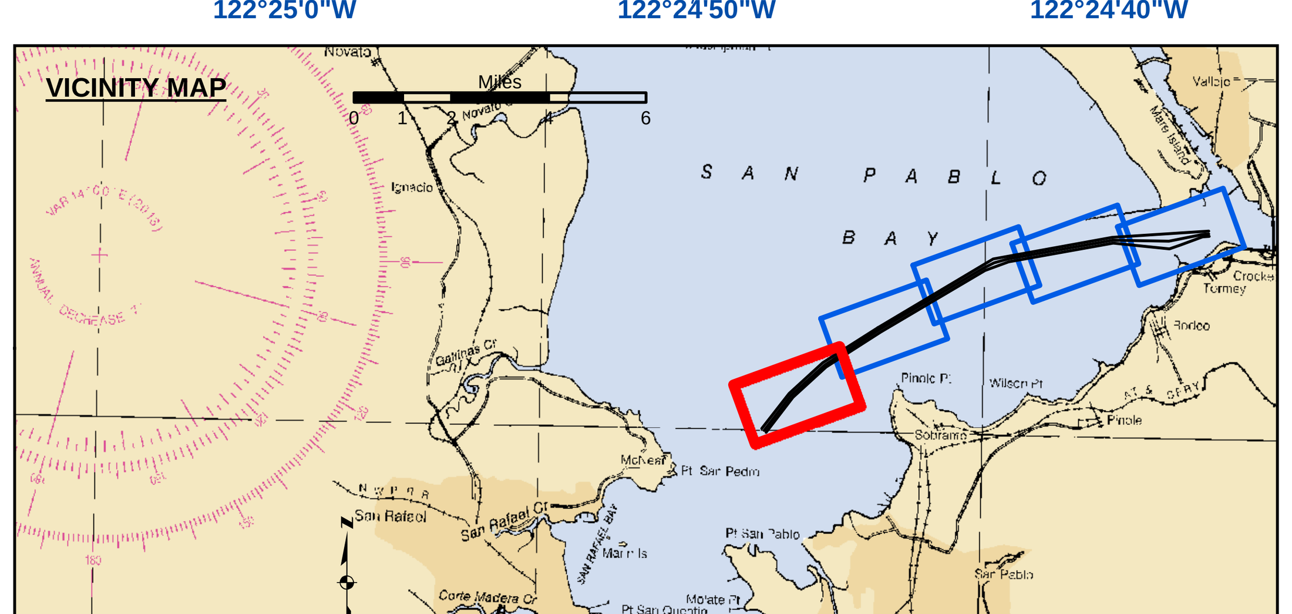


AnglePoint	POINT_X	POINT_Y
01	6009617.00	2192346.00
02	6012570.00	2196164.00
03	6016237.00	2199512.00
04	6022215.00	2203334.00
05	6034692.58	2210763.40
06	6047610.63	2213082.81
07	6058087.95	2213781.27
08	6058127.86	2213182.59
09	6057419.43	2213135.37
10	6055006.55	2212266.87
11	6053815.20	2211848.50
12	6047716.66	2212492.26
13	6036393.66	2210459.23
14	6033802.66	2209535.23
15	6022551.66	2202836.23
16	6016604.00	2199034.00
17	6013013.00	2195756.00
18	6010090.00	2191976.00
C01	6009631.93	2192304.35
C02	6012791.00	2195960.00
C03	6016421.00	2199273.00
C04	6022385.00	2203086.12
C05	6033649.18	2209793.00
C06	6034836.66	2210359.38
C07	6036340.65	2210754.51
C08	6047663.65	2212787.53
C09	6053760.51	2212668.82
C10	6057399.48	2213434.70
C11	6058107.91	2213481.93



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*

Countours
-35
-34
-33
-32
-31

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.

BASE MAPS ARE USDA NAIP 2010.

*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 LOCATIONS REPRESENT THE POSITION OF THE SINKER ONLY.

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.

SURVEYED BY THE CORPS OF ENGINEERS.

THE PROJECT DEPTH IS -35 FEET AT MLLW.

PLANE GRID AND COORDINATES ARE BASED ON LAMBERT PROJECTION, NAD 83, ZONE III CALIFORNIA AS DESCRIBED IN SPECIAL PUBLICATION NO. 235, PUBLISHED BY THE NATIONAL OCEAN SURVEY.

HORIZONTAL GPS CONTROL:
COAST GUARD D-BEACON

VERTICAL CONTROL:
BENCHMARK "5056 C" (1976) USC&GS DISK, ELEV. 34.75 MLLW, NAVD 88 DATUM
TIDE GAUGE LOCATED AT POINT PINOLE PIER.

BENCHMARK "5218 L" (1976) USC&GS DISK, ELEV. 11.00 MLLW, NAVD 88 DATUM
TIDE GAUGE LOCATED AT MARE ISLAND PIER 35.

US Army Corps of Engineers®
San Francisco District
1455 Market Street
San Francisco, CA 94103

Chart Date: Apr 17, 2018	Surveyed By:
Designed by:	Plotted By: PDT
Drawn by: PDT	Checked By: PDT

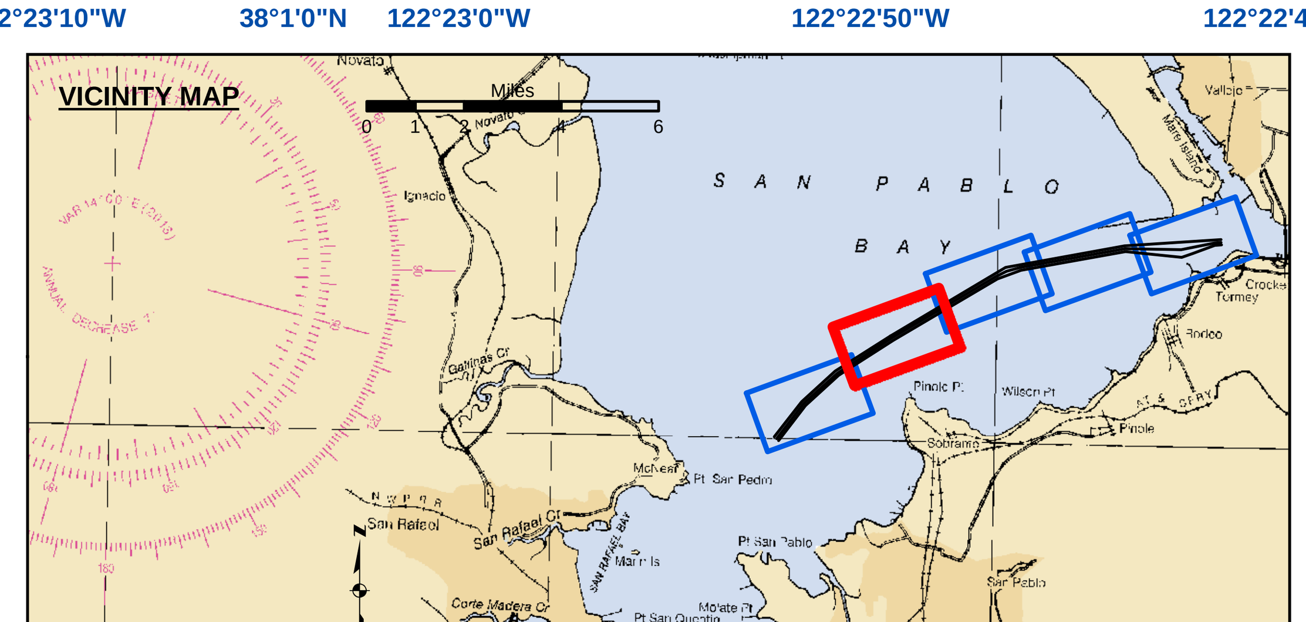
PREPARED UNDER THE DIRECTION OF
TRAVIS J. RAYFIELD
LT. COLONEL, C.E., DISTRICT ENGINEER

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

CALIFORNIA
SAN PABLO BAY

PINOLE SHOALS
CONDITION SURVEY
04-10 APRIL 2018

Sheet Reference Number



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

Countours
-35
-34
-33
-32
-31

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.

BASE MAPS ARE USDA NAIP 2010.

*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 LOCATIONS REPRESENT THE POSITION OF THE SINKER ONLY.

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.

SURVEYED BY THE CORPS OF ENGINEERS.

THE PROJECT DEPTH IS -35 FEET AT MLLW.

PLANE GRID AND COORDINATES ARE BASED ON LAMBERT PROJECTION, NAD 83, ZONE III CALIFORNIA AS DESCRIBED IN SPECIAL PUBLICATION NO. 235, PUBLISHED BY THE NATIONAL OCEAN SURVEY.

HORIZONTAL GPS CONTROL:
COAST GUARD D-BEACON

VERTICAL CONTROL:
BENCHMARK "5056 C" (1976) USC&GS DISK, ELEV. 34.75 MLLW, NAVD 88 DATUM
TIDE GAUGE LOCATED AT POINT PINOLE PIER.

BENCHMARK "5218 L" (1976) USC&GS DISK, ELEV. 11.00 MLLW, NAVD 88 DATUM
TIDE GAUGE LOCATED AT MARE ISLAND PIER 35.

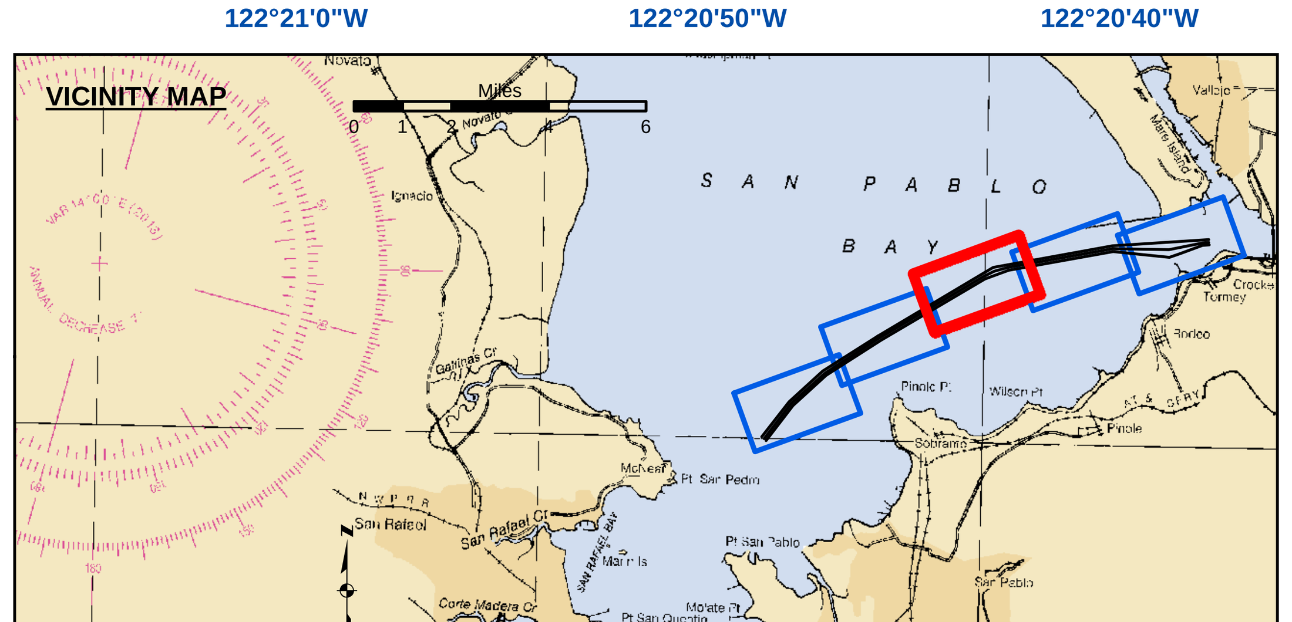
US Army Corps of Engineers
San Francisco District
1455 Market Street
San Francisco, CA 94103

Chart Date: Apr 17, 2018	Designed by:	Drawn by: PDT
Surveyed By:	Plotted By: PDT	Checked By: PDT

PREPARED UNDER THE DIRECTION OF
TRAVIS J. RAYFIELD
LT. COLONEL, C.E., DISTRICT ENGINEER

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

CALIFORNIA
SAN PABLO BAY
PINOLE SHOALS
CONDITION SURVEY
04-10 APRIL 2018



Legend		Legend		Countours
	Federal Navigation Channel		Beacon, General	-35
	Shoaling Area		Obstruction Point	-34
	Placement Area		Navigation Buoy	-33
	Anchorage Area		Navigation Buoy	-32
	Wreck Area		Shoalest Sounding*	-31
	Submerged Wreck			
	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.

BASE MAPS ARE USDA NAIP 2010.

*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 LOCATIONS REPRESENT THE POSITION OF THE SINKER ONLY.

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.

SURVEYED BY THE CORPS OF ENGINEERS.

THE PROJECT DEPTH IS -35 FEET AT MLLW.

PLANE GRID AND COORDINATES ARE BASED ON LAMBERT PROJECTION, NAD 83, ZONE III CALIFORNIA AS DESCRIBED IN SPECIAL PUBLICATION NO. 235, PUBLISHED BY THE NATIONAL OCEAN SURVEY.

HORIZONTAL GPS CONTROL:
COAST GUARD D-BEACON

VERTICAL CONTROL:
BENCHMARK "5056 C" (1976) USC&GS DISK, ELEV. 34.75 MLLW, NAVD 88 DATUM
TIDE GAUGE LOCATED AT POINT PINOLE PIER.

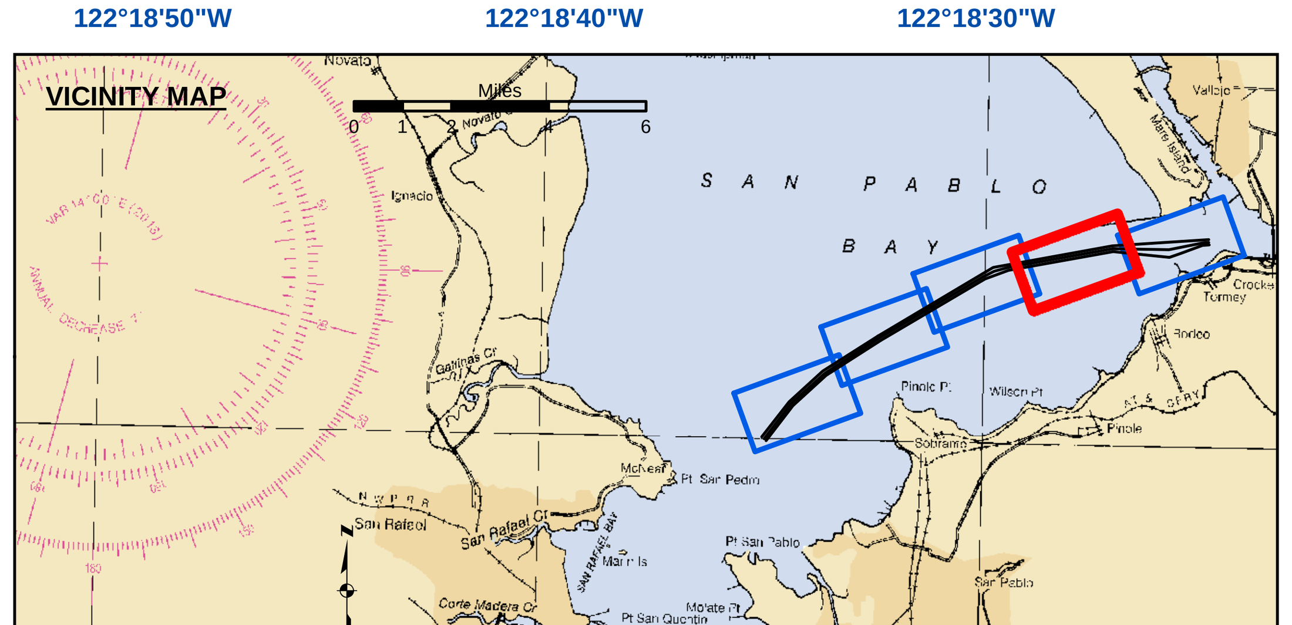
BENCHMARK "5218 L" (1976) USC&GS DISK, ELEV. 11.00 MLLW, NAVD 88 DATUM
TIDE GAUGE LOCATED AT MARE ISLAND PIER 35.

US Army Corps of Engineers®
San Francisco District
1455 Market Street
San Francisco, CA 94103

PREPARED UNDER THE DIRECTION OF TRAVIS J. RAYFIELD, LT. COLONEL, C.E., DISTRICT ENGINEER	Surveyed By:	Chart Date: Apr 17, 2018
Submitted: Hydro Survey Team Leader	Plotted By: PDT	Designed by:
Recommended: Chief, Hydro Survey Section	Checked By: PDT	Drawn by: PDT
Approved: Chief, Construction Branch		

SAN PABLO BAY CALIFORNIA

PINOLE SHOALS
CONDITION SURVEY
04-10 APRIL 2018



- 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*

Countours
- -35
- -34
- -33
- -32
- -31

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.

BASE MAPS ARE USDA NAIP 2010.

*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 LOCATIONS REPRESENT THE POSITION OF THE SINKER ONLY.

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.

SURVEYED BY THE CORPS OF ENGINEERS.

THE PROJECT DEPTH IS -35 FEET AT MLLW.

PLANE GRID AND COORDINATES ARE BASED ON LAMBERT PROJECTION, NAD 83, ZONE III CALIFORNIA AS DESCRIBED IN SPECIAL PUBLICATION NO. 235, PUBLISHED BY THE NATIONAL OCEAN SURVEY.

HORIZONTAL GPS CONTROL:
COAST GUARD D-BEACON

VERTICAL CONTROL:
BENCHMARK "5056 C" (1976) USC&GS DISK, ELEV. 34.75 MLLW, NAVD 88 DATUM
TIDE GAUGE LOCATED AT POINT PINOLE PIER.

BENCHMARK "5218 L" (1976) USC&GS DISK, ELEV. 11.00 MLLW, NAVD 88 DATUM
TIDE GAUGE LOCATED AT MARE ISLAND PIER 35.

US Army Corps of Engineers
San Francisco District
1455 Market Street
San Francisco, CA 94103

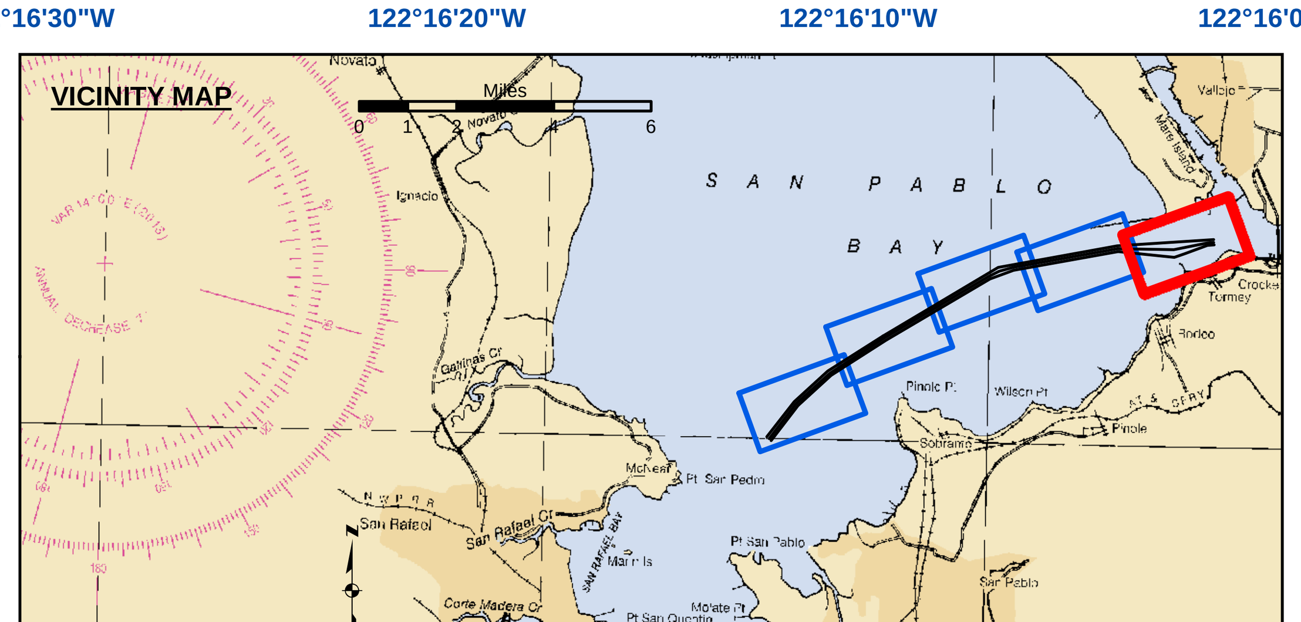
PREPARED UNDER THE DIRECTION OF
TRAVIS J. RAYFIELD
LT. COLONEL, C.E., DISTRICT ENGINEER

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

Surveyed By:	Chart Date: Apr 17, 2018	
Plotted By: PDT	Designed by:	
Checked By: PDT	Drawn by: PDT	

SAN PABLO BAY — CALIFORNIA

PINOLE SHOALS CONDITION SURVEY 04-10 APRIL 2018



Legend		Legend		Countours	
	Federal Navigation Channel		Beacon, General		-35
	Shoaling Area		Obstruction Point		-34
	Placement Area		Navigation Buoy		-33
	Anchorage Area		Navigation Buoy		-32
	Wreck Area		Shoalest Sounding*		-31
	Submerged Wreck				
	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.

BASE MAPS ARE USDA NAIP 2010.

*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 LOCATIONS REPRESENT THE POSITION OF THE SINKER ONLY.

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.

SURVEYED BY THE CORPS OF ENGINEERS.

THE PROJECT DEPTH IS -35 FEET AT MLLW.

PLANE GRID AND COORDINATES ARE BASED ON LAMBERT PROJECTION, NAD 83, ZONE III CALIFORNIA AS DESCRIBED IN SPECIAL PUBLICATION NO. 235, PUBLISHED BY THE NATIONAL OCEAN SURVEY.

HORIZONTAL GPS CONTROL:
COAST GUARD D-BEACON

VERTICAL CONTROL:
BENCHMARK "5056 C" (1976) USC&GS DISK, ELEV. 34.75 MLLW, NAVD 88 DATUM
TIDE GAUGE LOCATED AT POINT PINOLE PIER.

BENCHMARK "5218 L" (1976) USC&GS DISK, ELEV. 11.00 MLLW, NAVD 88 DATUM
TIDE GAUGE LOCATED AT MARE ISLAND PIER 35.

US Army Corps of Engineers
San Francisco District
1455 Market Street
San Francisco, CA 94103

DISCLAIMER
Access Constraints: The United States Government furnishes these data and the recipient accepts and uses them with the express understanding that the US Government makes no warranties, expressed, or implied concerning the accuracy, completeness, readability, usability or suitability for any particular purpose of the information and the data furnished. The United States shall be under no liability whatsoever to any person by reason of any use made thereof. These data belong to the Government. Therefore the recipient fully agrees not to represent these data to anyone as other than Government provided data. The recipient may not transfer these data to others without also transferring this Disclaimer.

Distribution Liability: The data represents the results of data collection/processing for a specific US Army Corps of Engineers activity and indicates the general existing conditions. As such, it is only valid for its intended use, content, time and accuracy specifications. The user is responsible for the results of any of the application of the data for other than its intended purpose.

Chart Date: Apr 17, 2018	Designed by:	Drawn by: PDT
Surveyed By:	Plotted By: PDT	Checked By: PDT

PREPARED UNDER THE DIRECTION OF
TRAVIS J. RAYFIELD
LT. COLONEL, C.E., DISTRICT ENGINEER

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

SAN PABLO BAY CALIFORNIA

PINOLE SHOALS
CONDITION SURVEY
04-10 APRIL 2018