Datums Page 1 of 5

Station ID: 9418723 PUBLICATION DATE: 03/09/2004

Name: FIELDS LANDING, HUMBOLDT BAY

CALIFORNIA

NOAA Chart: 18622 Latitude: 40° 43.4' N USGS Quad: FIELDS LANDING Longitude: 124° 13.3' W

To reach the tidal bench marks from U.S. Highway 101, proceed 11.3 km (7.0 mi) south of Eureka exit at Fields Landing Road south, west of South Depot Road before freeway on ramp, and continue until road deadends at a private road at a wooden wharf. The tide gage and staff were located on the inside of the north corner of the wharf adjacent to channel mark 11.

TIDAL BENCH MARKS

Searched for Not Found

PRIMARY BENCH MARK STAMPING: 8723 A 1978

DESIGNATION: 941 8723 A TIDAL

MONUMENTATION: Tidal Station disk VM#: 8710
AGENCY: National Ocean Survey (NOS) PID#: LV0656

SETTING CLASSIFICATION: Galvanized steel rod

The primary bench mark is a disk located 31.70 m (104.0 ft) south of the centerline of Railroad Avenue, 4.57 m (15.0 ft) east of the curb of the parking lot, and 3.96 m (13.0 ft) SW from the SW corner of the bathroom at the launching ramp. The bench mark is crimped to the top of a galvanized steel rod driven 15.85 m (52.0 ft) to refusal, encased in concrete and a PVC pipe.

BENCH MARK STAMPING: 1929 5

Found, but Mon lid could not be opened

DESIGNATION: 941 8723 TIDAL 5

MONUMENTATION: Survey disk VM#: 8711

AGENCY: US Coast and Geodetic Survey (USC&GS) PID:

SETTING CLASSIFICATION: Concrete sidewalk

The bench mark is a disk set in a concrete sidewalk than runs north—south through Charlie Peterson Place in NE corner lot at Railroad and Second Streets, 29.69 m (97.4 ft) east of the centerline of Second Street, 2.13 m (7.0 ft) north of the outer edge of the sidewalk along Railroad Street, and 18 cm (0.6 ft) west of the east edge of Peterson walk just inside at the gate.

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FOUND

Searched for Not Found

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TIDAL BENCH MARKS

BENCH MARK STAMPING: NO 7 RESET 1961

DESIGNATION: 941 8723 TIDAL 7 RESET

MONUMENTATION: Tidal Station disk VM#: 8712
AGENCY: US Coast and Geodetic Survey (USC&GS) PID#: LV0655

SETTING CLASSIFICATION: Curb

The bench mark is a disk set in top of the curb around a flower box at the Silver Side Motel, 22.86 m (75.0 ft) west of the centerline of U.S. Highway 101, 1.07 m (3.5 ft) south of the centerline of Central Avenue, and 0.91 m (3.0 ft)

south of the NE corner of the motel buildings.

BENCH MARK STAMPING: NO 8 RESET 1961

DESIGNATION: 941 8723 TIDAL 8 RESET

MONUMENTATION: Tidal Station disk VM#: 8713

AGENCY: US Coast and Geodetic Survey (USC&GS) PID:

SETTING CLASSIFICATION: Curb

The bench mark is a disk set in top of the curb at the north side of the post office, 24.38 m (80.0 ft) west of the centerline of U.S. Highway 101, 7.62 m (25.0 ft) south of the centerline of Railroad Avenue, and 1.83 m (6.0 ft) west of the NE corner of the post office.

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CALIFORNIA

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TIDAL BENCH MARKS

BENCH MARK STAMPING: P 1087 1967

DESIGNATION: P 1087

FOUND

MONUMENTATION: Bench Mark disk VM#: 8714
AGENCY: US Coast and Geodetic Survey (USC&GS) PID#: LV0263

SETTING CLASSIFICATION: Concrete guardrail

The bench mark is a disk set in top of the east concrete guardrail of the Orchard Avenue overpass 4.122 at highway mileage post 72.03, 5.49 m (18.0 ft) east of the centerline of the east lanes of the highway, 0.3 m (1.0 ft) north of the south end of the east guardrail of Orchard Avenue overpass 4.122, and 1.07 m (3.5 ft) above the highway.

BENCH MARK STAMPING: Q 1087 1967

DESIGNATION: Q 1087

FOUND

MONUMENTATION: Bench Mark disk VM#: 8715
AGENCY: US Coast and Geodetic Survey (USC&GS) PID#: LV0264

SETTING CLASSIFICATION: Concrete guardrail

The bench mark is a disk set in top of the SW end of the SE concrete guardrail of King Salmon Avenue underpass 4-67R at highway mileage post 72.88, 6.10 m (20.0 ft) SE of the centerline of the SE lanes of the highway, and 1.07 m (3.5 ft) above the ground.

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Station ID: 9418723 PUBLICATION DATE: 03/09/2004

FIELDS LANDING, HUMBOLDT BAY

CALIFORNIA

NOAA Chart: 18622 Latitude: 40° 43.4' N Longitude: 124° 13.3' W USGS Quad: FIELDS LANDING

TIDAL DATUMS

Tidal datums at FIELDS LANDING, HUMBOLDT BAY based on:

LENGTH OF SERIES: 1 MONTH

TIME PERIOD: January 1979 - January 1979

TIDAL EPOCH: 1983-2001

CONTROL TIDE STATION: 9419750 CRESCENT CITY, PACIFIC OCEAN

Elevations of tidal datums referred to Mean Lower Low Water (MLLW), in METERS:

MEAN HIGHER HIGH WATER (MHHW) = 2.061 MEAN HIGH WATER (MHW) = 1.850 MEAN TIDE LEVEL (MTL) = 1.122 MEAN SEA LEVEL (MSL) = 1.121 MEAN LOW WATER (MLW) = 0.394 NORTH AMERICAN VERTICAL DATUM-1988 (NAVD) = 0.180 MEAN LOWER LOW WATER (MLLW) = 0.000

National Geodetic Vertical Datum (NGVD 29)

Bench Mark Elevation Information In METERS above:

Stamping or Designation	MLLW	MHW
8723 A 1978	3.785	1.935
1929 5	2.507	0.657
NO 7 RESET 1961	3.299	1.449
NO 8 RESET 1961	3.183	1.333
P 1087 1967	10.970	9.120
Q 1087 1967	9.946	8.096

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DEFINITIONS

Mean Sea Level (MSL) is a tidal datum determined over a 19-year National Tidal Datum Epoch. It pertains to local mean sea level and should not be confused with the fixed datums of North American Vertical Datum of 1988 (NAVD 88).

NGVD 29 is a fixed datum adopted as a national standard geodetic reference for heights but is now considered superseded. NGVD 29 is sometimes referred to as Sea Level Datum of 1929 or as Mean Sea Level on some early issues of Geological Survey Topographic Quads. NGVD 29 was originally derived from a general adjustment of the first-order leveling networks of the U.S. and Canada after holding mean sea level observed at 26 long term tide stations as fixed. Numerous local and wide-spread adjustments have been made since establishment in 1929. Bench mark elevations relative to NGVD 29 are available from the National Geodetic Survey (NGS) data base via the World Wide Web at National Geodetic Survey.

NAVD 88 is a fixed datum derived from a simultaneous, least squares, minimum constraint adjustment of Canadian/Mexican/United States leveling observations. Local mean sea level observed at Father Point/Rimouski, Canada was held fixed as the single initial constraint. NAVD 88 replaces NGVD 29 as the national standard geodetic reference for heights. Bench mark elevations relative to NAVD 88 are available from NGS through the World Wide Web at National Geodetic Survey.

NGVD 29 and NAVD 88 are fixed geodetic datums whose elevation relationships to local MSL and other tidal datums may not be consistent from one location to another.

The Vertical Mark Number (VM#) and PID# shown on the bench mark sheet are unique identifiers for bench marks in the tidal and geodetic databases, respectively. Each bench mark in either database has a single, unique VM# and/or PID# assigned. Where both VM# and PID# are indicated, both tidal and geodetic elevations are available for the bench mark listed.

The NAVD 88 elevation is shown on the Elevations of Tidal Datums Table Referred to MLLW only when two or more of the bench marks listed have NAVD 88 elevations. The NAVD 88 elevation relationship shown in the table is derived from an average of several bench mark elevations relative to tide station datum. As a result of this averaging, NAVD 88 bench mark elevations computed indirectly from the tidal datums elevation table may differ slightly from NAVD 88 elevations listed for each bench mark in the NGS database.