

DEPARTMENT OF THE NAVY

Measurement Science Laboratory
Naval Warfare Assessment Center
P.O. Box 2426
Pomona, California 91763-2426

Measurement Science Laboratory Report of Calibration

FOR

Leveling Rod
Wild Herrbrugg Inst. Co.
Model No. 3 Meter
Serial No. 6477A

SUBMITTED BY

Department of Geological Sciences, Santa Barbara, CA
(UNV)

The above leveling rod has been calibrated using a laser measurement system. The lengths reported on page 2 of this report reflect the measurement from the footpiece to the interval indicated.

The measurement points are defined as the center of the indicated graduations nearest the center of the invar strip and the point on the footpiece coincident with the normal projection of a straight line through the ends of the graduations. The coefficient of thermal expansion is assumed to be 1.0 microns per meter per degree Celsius.

The rod constant factor is the average offset distance between terminal points of the right and left scales of the invar strip measured from each 50 centimeter interval to the first graduation below and above the interval.

The length values reported are not in error by more than 0.005 centimeters. This accuracy is based on the limits imposed by the standards used, the length of the measurement intervals, and the quality of the graduations.

AMBIENT TEMP 20 °C
RELATIVE HUMIDITY 40 %
REPORT NO. 4866-930896
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PAGE 1 of 2

PREPARED BY: S. L. Toothaker

APPROVED BY: S. L. Toothaker

RESUBMISSION DATE: October 26, 1994

Leveling Rod
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| Interval | | Interval | |
|--------------------------|-------------------------|--------------------------|-------------------------|
| Nominal (Centimeters) | Actual (Centimeters) | Nominal (Centimeters) | Actual (Centimeters) |
| 10 | 10.020 | 160 | 160.019 |
| 20 | 20.018 | 170 | 170.019 |
| 30 | 30.017 | 180 | 180.019 |
| 40 | 40.018 | 190 | 190.020 |
| 50 | 50.017 | 200 | 200.019 |
| 60 | 60.019 | 210 | 210.019 |
| 70 | 70.019 | 220 | 220.019 |
| 80 | 80.017 | 230 | 230.020 |
| 90 | 90.017 | 240 | 240.020 |
| 100 | 100.017 | 250 | 250.019 |
| 110 | 110.017 | 260 | 260.019 |
| 120 | 120.017 | 270 | 270.019 |
| 130 | 130.018 | 280 | 280.019 |
| 140 | 140.019 | 290 | 290.019 |
| 150 | 150.018 | 300 | 300.019 |

Rod Constant

Average
 Interval Below
 (Centimeters)

0.549

Average
 Interval Above
 (Centimeters)

0.451

The standards used at the Measurement Science Lab / Pomona are traceable to standards maintained by the National Institute of Standards and Technology or the United States Navy.