



KIRBY 28031



Barge Strapping Tables





BARGE "KIRBY 28031"

ULLAGE TRIM TABLE

| | 1 FT. | | 2 FT. | | 3 FT. | | 4 FT. | | 5 FT. | | 6 FT. | |
|--------|------------|--------------|------------|--------------|------------|--------------|------------|--------------|------------|--------------|------------|--------------|
| | <u>BOW</u> | <u>STERN</u> | <u>BOW</u> | <u>STERN</u> | <u>BOW</u> | <u>STERN</u> | <u>BOW</u> | <u>STERN</u> | <u>BOW</u> | <u>STERN</u> | <u>BOW</u> | <u>STERN</u> |
| 1 PORT | -00-1/8 | 00-1/8 | -00-1/4 | 00-1/4 | -00-1/2 | 00-1/2 | -00-5/8 | 00-5/8 | -00-3/4 | 00-3/4 | -00-7/8 | 00-7/8 |
| 1 STBD | -00-1/8 | 00-1/8 | -00-1/4 | 00-1/4 | -00-1/2 | 00-1/2 | -00-5/8 | 00-5/8 | -00-3/4 | 00-3/4 | -00-7/8 | 00-7/8 |
| 2 PORT | -00-1/8 | 00-1/8 | -00-1/4 | 00-1/4 | -00-1/2 | 00-1/2 | -00-5/8 | 00-5/8 | -00-3/4 | 00-3/4 | -00-7/8 | 00-7/8 |
| 2 STBD | -00-1/8 | 00-1/8 | -00-1/4 | 00-1/4 | -00-1/2 | 00-1/2 | -00-5/8 | 00-5/8 | -00-3/4 | 00-3/4 | -00-7/8 | 00-7/8 |
| 3 PORT | -00-1/4 | 00-1/4 | -00-5/8 | 00-5/8 | -00-7/8 | 00-7/8 | -01-1/4 | 01-1/4 | -01-1/2 | 01-1/2 | -01-7/8 | 01-7/8 |
| 3 STBD | -00-1/4 | 00-1/4 | -00-5/8 | 00-5/8 | -00-7/8 | 00-7/8 | -01-1/4 | 01-1/4 | -01-1/2 | 01-1/2 | -01-7/8 | 01-7/8 |

(ALL MEASUREMENTS ABOVE ARE IN INCHES)

EXAMPLE FOR ABOVE TRIM CORRECTIONS:

$$\begin{aligned}
 \text{FWD. DRAFT} &= 2'-00" \\
 \text{AFT DRAFT} &= \frac{4'-00"}{2} \\
 \text{DIFF.} &= 2'-00" \quad (\text{DOWN BY STERN})
 \end{aligned}$$

THE CORRECTION FOR 2'-00" TRIM DOWN BY STERN FOR 1 PORT IS 00-1/4"
 FOR A MEASURED ULLAGE GAUGE OF 4'-00" ON 1 PORT, THE TRIM CORRECTED ULLAGE IS 4'-00 1/4"

LENGTH BETWEEN DRAFT MARKS: 236'-03"

June 2, 2004

PRECISION MEASUREMENT
 & ANALYSIS, INC.
 P.O. Box 2092
 Pearland, Texas 77588

<http://www.pmacorp.net>



BARGE "KIRBY 28031"

1 PORT ULLAGE TABLE

CAPACITIES GIVEN IN WHOLE BARRELS OF 42 U.S. GALLONS

| 10 FT. | | 11 FT. | | 12 FT. | | 13 FT. | | 14 FT. | | 15 FT. | | 16 FT. | | 17 FT. | | 18 FT. | | 19 FT. | |
|--------|----------|--------|----------|--------|----------|--------|----------|--------|--------|--------|--------|--------|--------|--------|--|--------|--|--------|--|
| 0 | 2,130.69 | 0 | 1,799.23 | 0 | 1,467.76 | 0 | 1,136.30 | 0 | 810.56 | 0 | 506.71 | 0 | 226.29 | 0 | | 0 | | 0 | |
| 1/4 | 2,123.79 | 1/4 | 1,792.32 | 1/4 | 1,460.86 | 1/4 | 1,129.39 | 1/4 | 804.00 | 1/4 | 500.62 | 1/4 | 220.70 | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | 2,116.88 | 1/2 | 1,785.42 | 1/2 | 1,453.95 | 1/2 | 1,122.49 | 1/2 | 797.43 | 1/2 | 494.53 | 1/2 | 215.10 | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | 2,109.97 | 3/4 | 1,778.51 | 3/4 | 1,447.05 | 3/4 | 1,115.58 | 3/4 | 790.91 | 3/4 | 488.48 | 3/4 | 209.54 | 3/4 | | 3/4 | | 3/4 | |
| 1 | 2,103.07 | 1 | 1,771.60 | 1 | 1,440.14 | 1 | 1,108.68 | 1 | 784.39 | 1 | 482.44 | 1 | 203.99 | 1 | | 1 | | 1 | |
| 1 1/4 | 2,096.16 | 1 1/4 | 1,764.70 | 1 1/4 | 1,433.24 | 1 1/4 | 1,101.77 | 1 1/4 | 777.87 | 1 1/4 | 476.39 | 1 1/4 | 198.44 | 1 1/4 | | 1 1/4 | | 1 1/4 | |
| 1 1/2 | 2,089.26 | 1 1/2 | 1,757.79 | 1 1/2 | 1,426.33 | 1 1/2 | 1,094.87 | 1 1/2 | 771.34 | 1 1/2 | 470.35 | 1 1/2 | 192.88 | 1 1/2 | | 1 1/2 | | 1 1/2 | |
| 3/4 | 2,082.35 | 3/4 | 1,750.89 | 3/4 | 1,419.42 | 3/4 | 1,087.96 | 3/4 | 764.86 | 3/4 | 464.34 | 3/4 | 187.37 | 3/4 | | 3/4 | | 3/4 | |
| 2 | 2,075.45 | 2 | 1,743.98 | 2 | 1,412.52 | 2 | 1,081.05 | 2 | 758.38 | 2 | 458.33 | 2 | 181.85 | 2 | | 2 | | 2 | |
| 1 1/4 | 2,068.54 | 1 1/4 | 1,737.08 | 1 1/4 | 1,405.61 | 1 1/4 | 1,074.15 | 1 1/4 | 751.90 | 1 1/4 | 452.33 | 1 1/4 | 176.33 | 1 1/4 | | 1 1/4 | | 1 1/4 | |
| 1 1/2 | 2,061.64 | 1 1/2 | 1,730.17 | 1 1/2 | 1,398.71 | 1 1/2 | 1,067.25 | 1 1/2 | 745.42 | 1 1/2 | 446.32 | 1 1/2 | 170.82 | 1 1/2 | | 1 1/2 | | 1 1/2 | |
| 3/4 | 2,054.74 | 3/4 | 1,723.27 | 3/4 | 1,391.80 | 3/4 | 1,060.35 | 3/4 | 738.96 | 3/4 | 440.36 | 3/4 | 165.35 | 3/4 | | 3/4 | | 3/4 | |
| 3 | 2,047.82 | 3 | 1,716.36 | 3 | 1,384.90 | 3 | 1,053.46 | 3 | 732.50 | 3 | 434.39 | 3 | 159.87 | 3 | | 3 | | 3 | |
| 1 1/4 | 2,040.92 | 1 1/4 | 1,709.46 | 1 1/4 | 1,377.99 | 1 1/4 | 1,046.56 | 1 1/4 | 726.05 | 1 1/4 | 428.43 | 1 1/4 | 154.40 | 1 1/4 | | 1 1/4 | | 1 1/4 | |
| 1 1/2 | 2,034.01 | 1 1/2 | 1,702.55 | 1 1/2 | 1,371.09 | 1 1/2 | 1,039.66 | 1 1/2 | 719.59 | 1 1/2 | 422.46 | 1 1/2 | 148.93 | 1 1/2 | | 1 1/2 | | 1 1/2 | |
| 3/4 | 2,027.11 | 3/4 | 1,695.64 | 3/4 | 1,364.18 | 3/4 | 1,032.78 | 3/4 | 713.18 | 3/4 | 416.54 | 3/4 | 143.50 | 3/4 | | 3/4 | | 3/4 | |
| 4 | 2,020.20 | 4 | 1,688.74 | 4 | 1,357.27 | 4 | 1,025.90 | 4 | 706.76 | 4 | 410.61 | 4 | 138.06 | 4 | | 4 | | 4 | |
| 1 1/4 | 2,013.30 | 1 1/4 | 1,681.83 | 1 1/4 | 1,350.37 | 1 1/4 | 1,019.02 | 1 1/4 | 700.34 | 1 1/4 | 404.69 | 1 1/4 | 132.63 | 1 1/4 | | 1 1/4 | | 1 1/4 | |
| 1 1/2 | 2,006.39 | 1 1/2 | 1,674.93 | 1 1/2 | 1,343.46 | 1 1/2 | 1,012.14 | 1 1/2 | 693.93 | 1 1/2 | 398.76 | 1 1/2 | 127.19 | 1 1/2 | | 1 1/2 | | 1 1/2 | |
| 3/4 | 1,999.49 | 3/4 | 1,668.02 | 3/4 | 1,336.56 | 3/4 | 1,005.28 | 3/4 | 687.55 | 3/4 | 392.88 | 3/4 | 121.90 | 3/4 | | 3/4 | | 3/4 | |
| 5 | 1,992.58 | 5 | 1,661.12 | 5 | 1,329.65 | 5 | 998.43 | 5 | 681.18 | 5 | 387.00 | 5 | 116.41 | 5 | | 5 | | 5 | |
| 1 1/4 | 1,985.68 | 1 1/4 | 1,654.21 | 1 1/4 | 1,322.75 | 1 1/4 | 991.57 | 1 1/4 | 674.80 | 1 1/4 | 381.12 | 1 1/4 | 111.03 | 1 1/4 | | 1 1/4 | | 1 1/4 | |
| 1 1/2 | 1,978.77 | 1 1/2 | 1,647.31 | 1 1/2 | 1,315.84 | 1 1/2 | 984.71 | 1 1/2 | 668.43 | 1 1/2 | 375.24 | 1 1/2 | 105.64 | 1 1/2 | | 1 1/2 | | 1 1/2 | |
| 3/4 | 1,971.86 | 3/4 | 1,640.40 | 3/4 | 1,308.94 | 3/4 | 977.89 | 3/4 | 662.10 | 3/4 | 369.39 | 3/4 | 100.29 | 3/4 | | 3/4 | | 3/4 | |
| 6 | 1,964.96 | 6 | 1,633.49 | 6 | 1,302.03 | 6 | 971.06 | 6 | 655.76 | 6 | 363.55 | 6 | 94.94 | 6 | | 6 | | 6 | |
| 1 1/4 | 1,958.05 | 1 1/4 | 1,626.59 | 1 1/4 | 1,295.13 | 1 1/4 | 964.24 | 1 1/4 | 649.43 | 1 1/4 | 357.71 | 1 1/4 | 89.59 | 1 1/4 | | 1 1/4 | | 1 1/4 | |
| 1 1/2 | 1,951.15 | 1 1/2 | 1,619.68 | 1 1/2 | 1,288.22 | 1 1/2 | 957.42 | 1 1/2 | 643.09 | 1 1/2 | 351.86 | 1 1/2 | 84.24 | 1 1/2 | | 1 1/2 | | 1 1/2 | |
| 3/4 | 1,944.24 | 3/4 | 1,612.78 | 3/4 | 1,281.31 | 3/4 | 950.65 | 3/4 | 636.80 | 3/4 | 346.06 | 3/4 | 78.93 | 3/4 | | 3/4 | | 3/4 | |
| 7 | 1,937.34 | 7 | 1,605.87 | 7 | 1,274.41 | 7 | 943.88 | 7 | 630.51 | 7 | 340.27 | 7 | 73.63 | 7 | | 7 | | 7 | |
| 1 1/4 | 1,930.43 | 1 1/4 | 1,598.97 | 1 1/4 | 1,267.50 | 1 1/4 | 937.11 | 1 1/4 | 624.22 | 1 1/4 | 334.47 | 1 1/4 | 68.32 | 1 1/4 | | 1 1/4 | | 1 1/4 | |
| 1 1/2 | 1,923.53 | 1 1/2 | 1,592.06 | 1 1/2 | 1,260.60 | 1 1/2 | 930.34 | 1 1/2 | 617.93 | 1 1/2 | 328.67 | 1 1/2 | 63.02 | 1 1/2 | | 1 1/2 | | 1 1/2 | |
| 3/4 | 1,916.62 | 3/4 | 1,585.16 | 3/4 | 1,253.69 | 3/4 | 923.62 | 3/4 | 611.67 | 3/4 | 322.90 | 3/4 | 57.75 | 3/4 | | 3/4 | | 3/4 | |
| 8 | 1,909.71 | 8 | 1,578.25 | 8 | 1,246.79 | 8 | 916.89 | 8 | 605.42 | 8 | 317.14 | 8 | 52.48 | 8 | | 8 | | 8 | |
| 1 1/4 | 1,902.81 | 1 1/4 | 1,571.35 | 1 1/4 | 1,239.88 | 1 1/4 | 910.16 | 1 1/4 | 599.17 | 1 1/4 | 311.38 | 1 1/4 | 47.22 | 1 1/4 | | 1 1/4 | | 1 1/4 | |
| 1 1/2 | 1,895.90 | 1 1/2 | 1,564.44 | 1 1/2 | 1,232.98 | 1 1/2 | 903.43 | 1 1/2 | 592.92 | 1 1/2 | 305.62 | 1 1/2 | 41.95 | 1 1/2 | | 1 1/2 | | 1 1/2 | |
| 3/4 | 1,889.00 | 3/4 | 1,557.53 | 3/4 | 1,226.07 | 3/4 | 896.75 | 3/4 | 586.71 | 3/4 | 299.90 | 3/4 | 37.59 | 3/4 | | 3/4 | | 3/4 | |
| 9 | 1,882.09 | 9 | 1,550.63 | 9 | 1,219.16 | 9 | 890.06 | 9 | 580.50 | 9 | 294.19 | 9 | 33.23 | 9 | | 9 | | 9 | |
| 1 1/4 | 1,875.19 | 1 1/4 | 1,543.72 | 1 1/4 | 1,212.26 | 1 1/4 | 883.37 | 1 1/4 | 574.29 | 1 1/4 | 288.47 | 1 1/4 | 28.87 | 1 1/4 | | 1 1/4 | | 1 1/4 | |
| 1 1/2 | 1,868.28 | 1 1/2 | 1,536.82 | 1 1/2 | 1,205.35 | 1 1/2 | 876.69 | 1 1/2 | 568.08 | 1 1/2 | 282.75 | 1 1/2 | 24.51 | 1 1/2 | | 1 1/2 | | 1 1/2 | |
| 3/4 | 1,861.38 | 3/4 | 1,529.91 | 3/4 | 1,198.45 | 3/4 | 870.04 | 3/4 | 561.91 | 3/4 | 277.07 | 3/4 | 21.92 | 3/4 | | 3/4 | | 3/4 | |
| 10 | 1,854.47 | 10 | 1,523.01 | 10 | 1,191.54 | 10 | 863.40 | 10 | 555.74 | 10 | 271.39 | 10 | 19.32 | 10 | | 10 | | 10 | |
| 1 1/4 | 1,847.57 | 1 1/4 | 1,516.10 | 1 1/4 | 1,184.64 | 1 1/4 | 856.75 | 1 1/4 | 549.57 | 1 1/4 | 265.71 | 1 1/4 | 16.73 | 1 1/4 | | 1 1/4 | | 1 1/4 | |
| 1 1/2 | 1,840.66 | 1 1/2 | 1,509.20 | 1 1/2 | 1,177.73 | 1 1/2 | 850.10 | 1 1/2 | 543.40 | 1 1/2 | 260.03 | 1 1/2 | 14.13 | 1 1/2 | | 1 1/2 | | 1 1/2 | |
| 3/4 | 1,833.75 | 3/4 | 1,502.29 | 3/4 | 1,170.83 | 3/4 | 843.50 | 3/4 | 537.27 | 3/4 | 254.40 | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 11 | 1,826.85 | 11 | 1,495.38 | 11 | 1,163.92 | 11 | 836.90 | 11 | 531.14 | 11 | 248.76 | 11 | | 11 | | 11 | | 11 | |
| 1 1/4 | 1,819.94 | 1 1/4 | 1,488.48 | 1 1/4 | 1,157.02 | 1 1/4 | 830.29 | 1 1/4 | 525.01 | 1 1/4 | 243.13 | 1 1/4 | | 1 1/4 | | 1 1/4 | | 1 1/4 | |
| 1 1/2 | 1,813.04 | 1 1/2 | 1,481.57 | 1 1/2 | 1,150.11 | 1 1/2 | 823.69 | 1 1/2 | 518.88 | 1 1/2 | 237.49 | 1 1/2 | | 1 1/2 | | 1 1/2 | | 1 1/2 | |
| 3/4 | 1,806.13 | 3/4 | 1,474.67 | 3/4 | 1,143.20 | 3/4 | 817.12 | 3/4 | 512.80 | 3/4 | 231.89 | 3/4 | | 3/4 | | 3/4 | | 3/4 | |

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY

STRAPPED: 06/02/2004 CL - SW
CALCULATED: 06/02/2004 CL
PRINTED: 06/02/2004 CL

CANCELS AND SUPERCEDES
ALL PRIOR TO 06/2004

PRECISION MEASUREMENT
& ANALYSIS, INC.
P.O. Box 2092
Pasadena, Texas 77588
http://www.pma.com.net



BARGE "KIRBY 28031"

1 STBD

ULLAGE TABLE

CAPACITIES GIVEN IN WHOLE BARRELS OF 42 U.S. GALLONS

| 0 FT. | | 1 FT. | | 2 FT. | | 3 FT. | | 4 FT. | | 5 FT. | | 6 FT. | | 7 FT. | | 8 FT. | | 9 FT. | |
|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|
| H | D | H | D | H | D | H | D | H | D | H | D | H | D | H | D | H | D | H | D |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 |
| 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 |
| 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 |
| 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 |
| 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 |
| 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 |
| 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 |
| 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 |
| 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 |
| 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 |
| 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 |
| 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 |
| 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 |
| 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 |
| 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 |
| 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 |
| 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 |
| 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 |
| 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 |
| 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 |
| 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 |
| 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 |
| 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 |
| 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 |
| 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 |
| 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 |
| 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 |
| 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 |
| 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 |
| 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 |
| 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 |
| 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 |
| 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 |
| 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 |
| 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 |
| 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 |
| 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 |
| 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 |
| 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 |
| 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 |

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY

BARGE STRAPPED AND COMPUTED IN ACCORDANCE WITH API MPMS CHAPTER 2.7.
 CAPACITY TABLE ONLY APPLIES WHEN BARGE IS ON EVEN KEEL.
 CAPACITY TABLE ONLY APPLIES TO ULLAGE GAUGER OBSERVED WITH "HERMETIC" CLOSED GAUGING DEVICE
 GAUGE POINT: (HERMETIC) LOCATED 12-09" OFF CENTERLINE AND 36-05" FORWARD OF AFT BULKHEAD.

PRECISION MEASUREMENT
 & ANALYSIS, INC.
 P O Box 2092
 Pasadena, Texas 77588
<http://www.pma-inc.com>



BARGE "KIRBY 28031"

1 STBD

ULLAGE TABLE

CAPACITIES GIVEN IN WHOLE BARRELS OF 42 U.S. GALLONS

Table with columns for height (30 FT. to 19 FT.) and capacity (0 to 1,465.79). Each height column includes a height in feet and inches, and a corresponding capacity value.

STRAPPED 06032004 CL - SW
CALCULATED 06032004 CL
PRINTED 06032004 CL

CANCELS AND SUPERCEDES
ALL PRIOR TO 06/2004

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY

PRECISION MEASUREMENT
& ANALYSIS, INC.
P.O. Box 2022
Pearland, Texas 77588
http://www.dnmacord.net

Signature of PMA representative



BARGE "KIRBY 28031"

2 PORT ULLAGE TABLE

GAUGE HEIGHT 16'-10 1/4"

CAPACITIES GIVEN IN WHOLE BARRELS OF 42 U.S. GALLONS

| 10 FT. | | 11 FT. | | 12 FT. | | 13 FT. | | 14 FT. | | 15 FT. | | 16 FT. | | 17 FT. | | 18 FT. | | 19 FT. | | | |
|--------|----------|--------|----------|--------|----------|--------|----------|--------|----------|--------|--------|--------|--------|--------|--------|--------|---|--------|---|---|---|
| M | N | M | N | M | N | M | N | M | N | M | N | M | N | M | N | M | N | M | N | M | N |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| 0 | 2,668.48 | 0 | 2,270.39 | 0 | 1,882.31 | 0 | 1,494.22 | 0 | 1,106.14 | 0 | 718.05 | 0 | 331.07 | 0 | | 0 | | 0 | | | |
| 1/4 | 2,850.39 | 1/4 | 2,452.31 | 1/4 | 2,064.22 | 1/4 | 1,676.14 | 1/4 | 1,288.05 | 1/4 | 899.97 | 1/4 | 511.88 | 1/4 | 123.80 | 1/4 | | 1/4 | | | |
| 1/2 | 2,842.31 | 1/2 | 2,444.22 | 1/2 | 2,056.14 | 1/2 | 1,668.05 | 1/2 | 1,280.05 | 1/2 | 891.88 | 1/2 | 503.79 | 1/2 | 115.71 | 1/2 | | 1/2 | | | |
| 3/4 | 2,634.22 | 3/4 | 2,236.14 | 3/4 | 1,848.05 | 3/4 | 1,460.05 | 3/4 | 1,072.05 | 3/4 | 684.38 | 3/4 | 296.84 | 3/4 | | 3/4 | | 3/4 | | | |
| 1 | 2,626.14 | 1 | 2,228.05 | 1 | 1,840.05 | 1 | 1,452.05 | 1 | 1,064.05 | 1 | 676.29 | 1 | 288.75 | 1 | | 1 | | 1 | | | |
| 1/4 | 2,618.05 | 1/4 | 2,220.05 | 1/4 | 1,832.05 | 1/4 | 1,444.05 | 1/4 | 1,056.05 | 1/4 | 668.20 | 1/4 | 280.66 | 1/4 | | 1/4 | | 1/4 | | | |
| 1/2 | 2,609.97 | 1/2 | 2,211.97 | 1/2 | 1,824.05 | 1/2 | 1,436.05 | 1/2 | 1,048.05 | 1/2 | 660.11 | 1/2 | 272.57 | 1/2 | | 1/2 | | 1/2 | | | |
| 3/4 | 2,601.88 | 3/4 | 2,203.88 | 3/4 | 1,816.05 | 3/4 | 1,428.05 | 3/4 | 1,040.05 | 3/4 | 652.02 | 3/4 | 264.48 | 3/4 | | 3/4 | | 3/4 | | | |
| 2 | 2,593.80 | 2 | 2,195.71 | 2 | 1,808.05 | 2 | 1,420.05 | 2 | 1,032.05 | 2 | 643.93 | 2 | 256.39 | 2 | | 2 | | 2 | | | |
| 1/4 | 2,585.71 | 1/4 | 2,187.63 | 1/4 | 1,800.05 | 1/4 | 1,412.05 | 1/4 | 1,024.05 | 1/4 | 635.84 | 1/4 | 248.30 | 1/4 | | 1/4 | | 1/4 | | | |
| 1/2 | 2,577.63 | 1/2 | 2,179.54 | 1/2 | 1,792.05 | 1/2 | 1,404.05 | 1/2 | 1,016.05 | 1/2 | 627.75 | 1/2 | 240.21 | 1/2 | | 1/2 | | 1/2 | | | |
| 3/4 | 2,569.54 | 3/4 | 2,171.46 | 3/4 | 1,784.05 | 3/4 | 1,396.05 | 3/4 | 1,008.05 | 3/4 | 619.66 | 3/4 | 232.12 | 3/4 | | 3/4 | | 3/4 | | | |
| 3 | 2,561.46 | 3 | 2,163.37 | 3 | 1,776.05 | 3 | 1,388.05 | 3 | 1,000.05 | 3 | 611.57 | 3 | 224.03 | 3 | | 3 | | 3 | | | |
| 1/4 | 2,553.37 | 1/4 | 2,155.29 | 1/4 | 1,768.05 | 1/4 | 1,380.05 | 1/4 | 992.05 | 1/4 | 603.48 | 1/4 | 215.94 | 1/4 | | 1/4 | | 1/4 | | | |
| 1/2 | 2,545.29 | 1/2 | 2,147.20 | 1/2 | 1,760.05 | 1/2 | 1,372.05 | 1/2 | 984.05 | 1/2 | 595.39 | 1/2 | 207.85 | 1/2 | | 1/2 | | 1/2 | | | |
| 3/4 | 2,537.20 | 3/4 | 2,139.12 | 3/4 | 1,752.05 | 3/4 | 1,364.05 | 3/4 | 976.05 | 3/4 | 587.30 | 3/4 | 199.76 | 3/4 | | 3/4 | | 3/4 | | | |
| 4 | 2,529.12 | 4 | 2,131.03 | 4 | 1,744.05 | 4 | 1,356.05 | 4 | 968.05 | 4 | 579.21 | 4 | 191.67 | 4 | | 4 | | 4 | | | |
| 1/4 | 2,521.03 | 1/4 | 2,122.95 | 1/4 | 1,736.05 | 1/4 | 1,348.05 | 1/4 | 960.05 | 1/4 | 571.12 | 1/4 | 183.58 | 1/4 | | 1/4 | | 1/4 | | | |
| 1/2 | 2,512.95 | 1/2 | 2,114.86 | 1/2 | 1,728.05 | 1/2 | 1,340.05 | 1/2 | 952.05 | 1/2 | 563.03 | 1/2 | 175.49 | 1/2 | | 1/2 | | 1/2 | | | |
| 3/4 | 2,504.86 | 3/4 | 2,106.78 | 3/4 | 1,720.05 | 3/4 | 1,332.05 | 3/4 | 944.05 | 3/4 | 554.94 | 3/4 | 167.40 | 3/4 | | 3/4 | | 3/4 | | | |
| 5 | 2,496.78 | 5 | 2,108.69 | 5 | 1,712.05 | 5 | 1,324.05 | 5 | 936.05 | 5 | 546.85 | 5 | 159.31 | 5 | | 5 | | 5 | | | |
| 1/4 | 2,488.69 | 1/4 | 2,100.61 | 1/4 | 1,704.05 | 1/4 | 1,316.05 | 1/4 | 928.05 | 1/4 | 538.76 | 1/4 | 151.22 | 1/4 | | 1/4 | | 1/4 | | | |
| 1/2 | 2,480.61 | 1/2 | 2,092.52 | 1/2 | 1,704.05 | 1/2 | 1,316.05 | 1/2 | 928.05 | 1/2 | 538.76 | 1/2 | 151.22 | 1/2 | | 1/2 | | 1/2 | | | |
| 3/4 | 2,472.52 | 3/4 | 2,084.44 | 3/4 | 1,696.05 | 3/4 | 1,308.05 | 3/4 | 920.05 | 3/4 | 530.67 | 3/4 | 143.13 | 3/4 | | 3/4 | | 3/4 | | | |
| 6 | 2,464.44 | 6 | 2,076.35 | 6 | 1,688.05 | 6 | 1,300.05 | 6 | 912.05 | 6 | 522.58 | 6 | 135.04 | 6 | | 6 | | 6 | | | |
| 1/4 | 2,456.35 | 1/4 | 2,068.27 | 1/4 | 1,680.05 | 1/4 | 1,292.05 | 1/4 | 904.05 | 1/4 | 514.49 | 1/4 | 126.95 | 1/4 | | 1/4 | | 1/4 | | | |
| 1/2 | 2,448.27 | 1/2 | 2,060.18 | 1/2 | 1,672.05 | 1/2 | 1,284.05 | 1/2 | 896.05 | 1/2 | 506.40 | 1/2 | 118.86 | 1/2 | | 1/2 | | 1/2 | | | |
| 3/4 | 2,440.18 | 3/4 | 2,052.10 | 3/4 | 1,664.05 | 3/4 | 1,276.05 | 3/4 | 888.05 | 3/4 | 498.31 | 3/4 | 110.77 | 3/4 | | 3/4 | | 3/4 | | | |
| 7 | 2,432.10 | 7 | 2,044.01 | 7 | 1,656.05 | 7 | 1,268.05 | 7 | 880.05 | 7 | 490.22 | 7 | 102.68 | 7 | | 7 | | 7 | | | |
| 1/4 | 2,424.01 | 1/4 | 2,035.93 | 1/4 | 1,648.05 | 1/4 | 1,259.96 | 1/4 | 872.05 | 1/4 | 482.13 | 1/4 | 94.59 | 1/4 | | 1/4 | | 1/4 | | | |
| 1/2 | 2,415.93 | 1/2 | 2,027.84 | 1/2 | 1,639.96 | 1/2 | 1,251.87 | 1/2 | 864.05 | 1/2 | 474.04 | 1/2 | 86.50 | 1/2 | | 1/2 | | 1/2 | | | |
| 3/4 | 2,407.84 | 3/4 | 2,019.76 | 3/4 | 1,631.87 | 3/4 | 1,243.78 | 3/4 | 856.05 | 3/4 | 465.95 | 3/4 | 78.41 | 3/4 | | 3/4 | | 3/4 | | | |
| 8 | 2,399.76 | 8 | 2,011.67 | 8 | 1,623.79 | 8 | 1,235.69 | 8 | 848.05 | 8 | 457.86 | 8 | 70.32 | 8 | | 8 | | 8 | | | |
| 1/4 | 2,391.67 | 1/4 | 2,003.59 | 1/4 | 1,615.70 | 1/4 | 1,227.60 | 1/4 | 840.05 | 1/4 | 449.77 | 1/4 | 62.23 | 1/4 | | 1/4 | | 1/4 | | | |
| 1/2 | 2,383.59 | 1/2 | 1,995.50 | 1/2 | 1,607.62 | 1/2 | 1,219.51 | 1/2 | 832.05 | 1/2 | 441.68 | 1/2 | 54.14 | 1/2 | | 1/2 | | 1/2 | | | |
| 3/4 | 2,375.50 | 3/4 | 1,987.42 | 3/4 | 1,599.53 | 3/4 | 1,211.42 | 3/4 | 824.05 | 3/4 | 433.59 | 3/4 | 46.05 | 3/4 | | 3/4 | | 3/4 | | | |
| 9 | 2,367.42 | 9 | 1,979.33 | 9 | 1,591.44 | 9 | 1,203.33 | 9 | 816.05 | 9 | 425.50 | 9 | 37.96 | 9 | | 9 | | 9 | | | |
| 1/4 | 2,359.33 | 1/4 | 1,971.25 | 1/4 | 1,583.35 | 1/4 | 1,195.24 | 1/4 | 808.05 | 1/4 | 417.41 | 1/4 | 29.87 | 1/4 | | 1/4 | | 1/4 | | | |
| 1/2 | 2,351.25 | 1/2 | 1,963.16 | 1/2 | 1,575.26 | 1/2 | 1,187.15 | 1/2 | 800.05 | 1/2 | 409.32 | 1/2 | 21.78 | 1/2 | | 1/2 | | 1/2 | | | |
| 3/4 | 2,343.16 | 3/4 | 1,955.08 | 3/4 | 1,567.17 | 3/4 | 1,179.06 | 3/4 | 792.05 | 3/4 | 401.23 | 3/4 | 13.69 | 3/4 | | 3/4 | | 3/4 | | | |
| 10 | 2,335.07 | 10 | 1,946.99 | 10 | 1,559.09 | 10 | 1,170.97 | 10 | 784.05 | 10 | 393.14 | 10 | 5.60 | 10 | | 10 | | 10 | | | |
| 1/4 | 2,326.99 | 1/4 | 1,938.90 | 1/4 | 1,551.00 | 1/4 | 1,162.88 | 1/4 | 776.05 | 1/4 | 385.05 | 1/4 | 0.00 | 1/4 | | 1/4 | | 1/4 | | | |
| 1/2 | 2,318.90 | 1/2 | 1,930.82 | 1/2 | 1,542.91 | 1/2 | 1,154.79 | 1/2 | 768.05 | 1/2 | 376.96 | 1/2 | 0.00 | 1/2 | | 1/2 | | 1/2 | | | |
| 3/4 | 2,310.82 | 3/4 | 1,922.73 | 3/4 | 1,534.82 | 3/4 | 1,146.70 | 3/4 | 760.05 | 3/4 | 368.87 | 3/4 | 0.00 | 3/4 | | 3/4 | | 3/4 | | | |
| 11 | 2,302.73 | 11 | 1,914.65 | 11 | 1,526.73 | 11 | 1,138.61 | 11 | 752.05 | 11 | 360.78 | 11 | 0.00 | 11 | | 11 | | 11 | | | |
| 1/4 | 2,294.65 | 1/4 | 1,906.56 | 1/4 | 1,518.58 | 1/4 | 1,130.52 | 1/4 | 744.05 | 1/4 | 352.69 | 1/4 | 0.00 | 1/4 | | 1/4 | | 1/4 | | | |
| 1/2 | 2,286.56 | 1/2 | 1,898.48 | 1/2 | 1,510.50 | 1/2 | 1,122.43 | 1/2 | 736.05 | 1/2 | 344.60 | 1/2 | 0.00 | 1/2 | | 1/2 | | 1/2 | | | |
| 3/4 | 2,278.48 | 3/4 | 1,890.39 | 3/4 | 1,502.41 | 3/4 | 1,114.34 | 3/4 | 728.05 | 3/4 | 336.51 | 3/4 | 0.00 | 3/4 | | 3/4 | | 3/4 | | | |

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY

STRAPPED: 06/02/2004 CL - SW
CALCULATED: 06/02/2004 CL
PRINTED: 06/02/2004 CL

CANCELS AND SUPERCEDES
ALL PRIOR TO 06/2004

PRECISION MEASUREMENT
& ANALYSIS, INC.
P.O. Box 2092
Pearland, Texas 77588
http://www.pmaacord.net



BARGE "KIRBY 28031"

2 STBD ULLAGE TABLE

CAPACITIES GIVEN IN WHOLE BARRELS OF 42 U.S. GALLONS

GAUGE HEIGHT 16'-10 1/4"

| H | 10 FT. | 11 FT. | 12 FT. | 13 FT. | 14 FT. | 15 FT. | 16 FT. | 17 FT. | 18 FT. | 19 FT. |
|-------|----------|----------|----------|----------|----------|--------|--------|--------|--------|--------|
| 0 | 2,646.28 | 2,257.94 | 1,869.61 | 1,481.27 | 1,092.94 | 714.10 | 331.98 | 0 | 0 | 0 |
| 1/4 | 2,638.18 | 2,249.85 | 1,861.52 | 1,473.18 | 1,084.85 | 706.34 | 323.89 | 1/4 | 1/4 | 1/4 |
| 1/2 | 2,630.09 | 2,241.76 | 1,853.43 | 1,465.09 | 1,076.76 | 698.59 | 315.80 | 1/2 | 1/2 | 1/2 |
| 3/4 | 2,622.00 | 2,233.67 | 1,845.34 | 1,456.90 | 1,068.67 | 690.83 | 307.71 | 3/4 | 3/4 | 3/4 |
| 1 | 2,613.91 | 2,225.58 | 1,837.25 | 1,448.81 | 1,060.58 | 683.08 | 299.63 | 1 | 1 | 1 |
| 1 1/4 | 2,605.82 | 2,217.49 | 1,829.15 | 1,440.72 | 1,052.49 | 675.32 | 291.54 | 1 1/4 | 1 1/4 | 1 1/4 |
| 1 1/2 | 2,597.73 | 2,209.40 | 1,821.06 | 1,432.63 | 1,044.40 | 667.57 | 283.45 | 1 1/2 | 1 1/2 | 1 1/2 |
| 3/4 | 2,589.64 | 2,201.31 | 1,812.97 | 1,424.54 | 1,036.31 | 659.82 | 275.36 | 3/4 | 3/4 | 3/4 |
| 2 | 2,581.55 | 2,193.22 | 1,804.88 | 1,416.45 | 1,028.22 | 652.06 | 267.27 | 2 | 2 | 2 |
| 1 1/4 | 2,573.46 | 2,185.13 | 1,796.79 | 1,408.36 | 1,020.13 | 644.31 | 259.18 | 1 1/4 | 1 1/4 | 1 1/4 |
| 1 1/2 | 2,565.37 | 2,177.04 | 1,788.70 | 1,400.27 | 1,012.03 | 636.54 | 251.09 | 1 1/2 | 1 1/2 | 1 1/2 |
| 3/4 | 2,557.28 | 2,168.95 | 1,780.61 | 1,392.18 | 1,003.94 | 628.78 | 243.00 | 3/4 | 3/4 | 3/4 |
| 3 | 2,549.19 | 2,160.86 | 1,772.52 | 1,384.09 | 995.85 | 621.01 | 234.91 | 3 | 3 | 3 |
| 1 1/4 | 2,541.10 | 2,152.77 | 1,764.43 | 1,376.01 | 987.76 | 613.25 | 226.82 | 1 1/4 | 1 1/4 | 1 1/4 |
| 1 1/2 | 2,533.01 | 2,144.68 | 1,756.34 | 1,367.92 | 979.67 | 605.47 | 218.73 | 1 1/2 | 1 1/2 | 1 1/2 |
| 3/4 | 2,524.92 | 2,136.59 | 1,748.25 | 1,359.83 | 971.58 | 597.69 | 210.64 | 3/4 | 3/4 | 3/4 |
| 4 | 2,516.83 | 2,128.50 | 1,740.16 | 1,351.74 | 963.49 | 589.91 | 202.55 | 4 | 4 | 4 |
| 1 1/4 | 2,508.74 | 2,120.41 | 1,732.07 | 1,343.64 | 955.40 | 582.14 | 194.46 | 1 1/4 | 1 1/4 | 1 1/4 |
| 1 1/2 | 2,500.65 | 2,112.32 | 1,723.98 | 1,335.55 | 947.46 | 574.20 | 186.37 | 1 1/2 | 1 1/2 | 1 1/2 |
| 3/4 | 2,492.56 | 2,104.22 | 1,715.89 | 1,327.46 | 939.53 | 566.27 | 178.28 | 3/4 | 3/4 | 3/4 |
| 5 | 2,484.47 | 2,096.13 | 1,707.80 | 1,319.37 | 931.59 | 558.33 | 170.19 | 5 | 5 | 5 |
| 1 1/4 | 2,476.38 | 2,088.04 | 1,699.71 | 1,311.28 | 923.65 | 550.40 | 162.11 | 1 1/4 | 1 1/4 | 1 1/4 |
| 1 1/2 | 2,468.29 | 2,079.95 | 1,691.62 | 1,303.19 | 915.87 | 542.51 | 154.02 | 1 1/2 | 1 1/2 | 1 1/2 |
| 3/4 | 2,460.20 | 2,071.86 | 1,683.53 | 1,295.10 | 908.09 | 534.22 | 145.93 | 3/4 | 3/4 | 3/4 |
| 6 | 2,452.11 | 2,063.77 | 1,675.44 | 1,287.01 | 900.31 | 526.13 | 137.84 | 6 | 6 | 6 |
| 1 1/4 | 2,444.02 | 2,055.68 | 1,667.35 | 1,278.92 | 892.53 | 518.04 | 129.75 | 1 1/4 | 1 1/4 | 1 1/4 |
| 1 1/2 | 2,435.93 | 2,047.59 | 1,659.26 | 1,270.83 | 884.76 | 509.95 | 121.66 | 1 1/2 | 1 1/2 | 1 1/2 |
| 3/4 | 2,427.84 | 2,039.50 | 1,651.17 | 1,262.74 | 876.99 | 501.86 | 113.57 | 3/4 | 3/4 | 3/4 |
| 7 | 2,419.75 | 2,031.41 | 1,643.08 | 1,254.64 | 869.23 | 493.77 | 105.48 | 7 | 7 | 7 |
| 1 1/4 | 2,411.66 | 2,023.32 | 1,634.99 | 1,246.55 | 861.46 | 485.68 | 97.39 | 1 1/4 | 1 1/4 | 1 1/4 |
| 1 1/2 | 2,403.57 | 2,015.23 | 1,626.90 | 1,238.46 | 853.71 | 477.59 | 89.30 | 1 1/2 | 1 1/2 | 1 1/2 |
| 3/4 | 2,395.48 | 2,007.14 | 1,618.81 | 1,230.37 | 845.95 | 469.50 | 81.21 | 3/4 | 3/4 | 3/4 |
| 8 | 2,387.39 | 1,999.05 | 1,610.72 | 1,222.28 | 838.19 | 461.41 | 73.12 | 8 | 8 | 8 |
| 1 1/4 | 2,379.30 | 1,990.96 | 1,602.63 | 1,214.19 | 830.44 | 453.32 | 65.03 | 1 1/4 | 1 1/4 | 1 1/4 |
| 1 1/2 | 2,371.20 | 1,982.87 | 1,594.54 | 1,206.10 | 822.68 | 445.23 | 57.95 | 1 1/2 | 1 1/2 | 1 1/2 |
| 3/4 | 2,363.11 | 1,974.78 | 1,586.45 | 1,198.01 | 814.92 | 437.15 | 50.87 | 3/4 | 3/4 | 3/4 |
| 9 | 2,355.02 | 1,966.69 | 1,578.36 | 1,190.02 | 807.17 | 429.06 | 43.79 | 9 | 9 | 9 |
| 1 1/4 | 2,346.93 | 1,958.60 | 1,570.27 | 1,181.93 | 799.41 | 420.97 | 36.72 | 1 1/4 | 1 1/4 | 1 1/4 |
| 1 1/2 | 2,338.84 | 1,950.51 | 1,562.17 | 1,173.84 | 791.66 | 412.88 | 31.66 | 1 1/2 | 1 1/2 | 1 1/2 |
| 3/4 | 2,330.75 | 1,942.42 | 1,554.08 | 1,165.75 | 783.90 | 404.79 | 26.60 | 3/4 | 3/4 | 3/4 |
| 10 | 2,322.66 | 1,934.33 | 1,545.99 | 1,157.66 | 776.14 | 396.70 | 21.55 | 10 | 10 | 10 |
| 1 1/4 | 2,314.57 | 1,926.24 | 1,537.90 | 1,149.57 | 768.39 | 388.61 | 16.49 | 1 1/4 | 1 1/4 | 1 1/4 |
| 1 1/2 | 2,306.48 | 1,918.15 | 1,529.81 | 1,141.48 | 760.63 | 380.52 | 11.44 | 1 1/2 | 1 1/2 | 1 1/2 |
| 3/4 | 2,298.39 | 1,910.06 | 1,521.72 | 1,133.39 | 752.88 | 372.43 | 6.38 | 3/4 | 3/4 | 3/4 |
| 11 | 2,290.30 | 1,901.97 | 1,513.63 | 1,125.30 | 745.12 | 364.34 | 1.32 | 11 | 11 | 11 |
| 1 1/4 | 2,282.21 | 1,893.88 | 1,505.54 | 1,117.21 | 737.36 | 356.25 | 0.27 | 1 1/4 | 1 1/4 | 1 1/4 |
| 1 1/2 | 2,274.12 | 1,885.79 | 1,497.45 | 1,109.12 | 729.61 | 348.16 | 0.22 | 1 1/2 | 1 1/2 | 1 1/2 |
| 3/4 | 2,266.03 | 1,877.70 | 1,489.36 | 1,101.03 | 721.85 | 340.07 | 0.17 | 3/4 | 3/4 | 3/4 |

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY.

STRAPPED: 06/02/2004 CL - SW
CALCULATED: 06/02/2004 CL
PRINTED: 06/02/2004 CL

CANCELS AND SUPERCEDES
ALL PRIOR TO 06/2004

PRECISION MEASUREMENT
& ANALYSIS, INC.
P.O. Box 2092
Pearland, Texas 77588
http://www.pmacltd.net



BARGE "KIRBY 28031"

3 PORT ULLAGE TABLE

CAPACITIES GIVEN IN WHOLE BARRELS OF 42 U.S. GALLONS

| 10 FT. | | 11 FT. | | 12 FT. | | 13 FT. | | 14 FT. | | 15 FT. | | 16 FT. | | 17 FT. | | 18 FT. | | 19 FT. | |
|--------|----------|--------|----------|--------|----------|--------|----------|--------|----------|--------|--------|--------|--------|--------|---|--------|---|--------|---|
| N | W | N | W | N | W | N | W | N | W | N | W | N | W | N | W | N | W | N | W |
| 0 | 2,476.14 | 0 | 2,114.82 | 0 | 1,753.51 | 0 | 1,392.19 | 0 | 1,031.15 | 0 | 670.36 | 0 | 309.06 | 0 | | 0 | | 0 | |
| 1/4 | 2,488.61 | 1/4 | 2,107.29 | 1/4 | 1,745.98 | 1/4 | 1,384.66 | 1/4 | 1,023.64 | 1/4 | 662.83 | 1/4 | 301.53 | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | 2,461.08 | 1/2 | 2,099.77 | 1/2 | 1,738.45 | 1/2 | 1,377.14 | 1/2 | 1,016.14 | 1/2 | 655.30 | 1/2 | 294.00 | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | 2,463.58 | 3/4 | 2,092.24 | 3/4 | 1,730.92 | 3/4 | 1,369.61 | 3/4 | 1,008.64 | 3/4 | 647.78 | 3/4 | 286.48 | 3/4 | | 3/4 | | 3/4 | |
| 1 | 2,446.03 | 1 | 2,084.71 | 1 | 1,723.40 | 1 | 1,362.08 | 1 | 1,001.14 | 1 | 640.25 | 1 | 278.95 | 1 | | 1 | | 1 | |
| 1/4 | 2,438.50 | 1/4 | 2,077.18 | 1/4 | 1,715.87 | 1/4 | 1,354.55 | 1/4 | 993.63 | 1/4 | 632.72 | 1/4 | 271.42 | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | 2,430.97 | 1/2 | 2,069.66 | 1/2 | 1,708.34 | 1/2 | 1,347.03 | 1/2 | 986.13 | 1/2 | 625.20 | 1/2 | 263.89 | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | 2,423.44 | 3/4 | 2,062.13 | 3/4 | 1,700.81 | 3/4 | 1,339.50 | 3/4 | 978.63 | 3/4 | 617.67 | 3/4 | 256.37 | 3/4 | | 3/4 | | 3/4 | |
| 1 | 2,415.92 | 1 | 2,054.60 | 1 | 1,693.29 | 1 | 1,331.97 | 1 | 971.13 | 1 | 610.14 | 1 | 248.84 | 1 | | 1 | | 1 | |
| 1/4 | 2,408.39 | 1/4 | 2,047.07 | 1/4 | 1,685.76 | 1/4 | 1,324.44 | 1/4 | 963.62 | 1/4 | 602.61 | 1/4 | 241.31 | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | 2,400.86 | 1/2 | 2,039.55 | 1/2 | 1,678.23 | 1/2 | 1,316.92 | 1/2 | 956.12 | 1/2 | 595.09 | 1/2 | 233.79 | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | 2,393.33 | 3/4 | 2,032.02 | 3/4 | 1,670.70 | 3/4 | 1,309.39 | 3/4 | 948.62 | 3/4 | 587.56 | 3/4 | 226.26 | 3/4 | | 3/4 | | 3/4 | |
| 1 | 2,385.81 | 1 | 2,024.49 | 1 | 1,663.18 | 1 | 1,301.86 | 1 | 941.11 | 1 | 580.03 | 1 | 218.73 | 1 | | 1 | | 1 | |
| 1/4 | 2,378.28 | 1/4 | 2,016.96 | 1/4 | 1,655.65 | 1/4 | 1,294.33 | 1/4 | 933.61 | 1/4 | 572.51 | 1/4 | 211.21 | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | 2,370.75 | 1/2 | 2,009.44 | 1/2 | 1,648.12 | 1/2 | 1,286.81 | 1/2 | 926.11 | 1/2 | 564.98 | 1/2 | 203.68 | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | 2,363.22 | 3/4 | 2,001.91 | 3/4 | 1,640.59 | 3/4 | 1,279.28 | 3/4 | 918.61 | 3/4 | 557.45 | 3/4 | 196.15 | 3/4 | | 3/4 | | 3/4 | |
| 1 | 2,355.70 | 1 | 1,994.38 | 1 | 1,633.07 | 1 | 1,271.75 | 1 | 911.10 | 1 | 549.92 | 1 | 188.62 | 1 | | 1 | | 1 | |
| 1/4 | 2,348.17 | 1/4 | 1,986.85 | 1/4 | 1,625.54 | 1/4 | 1,264.22 | 1/4 | 903.60 | 1/4 | 542.40 | 1/4 | 181.10 | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | 2,340.64 | 1/2 | 1,979.33 | 1/2 | 1,618.01 | 1/2 | 1,256.70 | 1/2 | 896.10 | 1/2 | 534.87 | 1/2 | 173.57 | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | 2,333.12 | 3/4 | 1,971.80 | 3/4 | 1,610.48 | 3/4 | 1,249.17 | 3/4 | 888.60 | 3/4 | 527.34 | 3/4 | 166.04 | 3/4 | | 3/4 | | 3/4 | |
| 1 | 2,325.59 | 1 | 1,964.27 | 1 | 1,602.96 | 1 | 1,241.64 | 1 | 881.09 | 1 | 519.82 | 1 | 158.52 | 1 | | 1 | | 1 | |
| 1/4 | 2,318.06 | 1/4 | 1,956.75 | 1/4 | 1,595.43 | 1/4 | 1,234.11 | 1/4 | 873.59 | 1/4 | 512.29 | 1/4 | 150.99 | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | 2,310.53 | 1/2 | 1,949.22 | 1/2 | 1,587.90 | 1/2 | 1,226.59 | 1/2 | 866.06 | 1/2 | 504.76 | 1/2 | 143.46 | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | 2,303.01 | 3/4 | 1,941.69 | 3/4 | 1,580.38 | 3/4 | 1,219.06 | 3/4 | 858.54 | 3/4 | 497.24 | 3/4 | 135.93 | 3/4 | | 3/4 | | 3/4 | |
| 1 | 2,295.48 | 1 | 1,934.16 | 1 | 1,572.85 | 1 | 1,211.53 | 1 | 851.01 | 1 | 489.71 | 1 | 128.41 | 1 | | 1 | | 1 | |
| 1/4 | 2,287.95 | 1/4 | 1,926.64 | 1/4 | 1,565.32 | 1/4 | 1,204.01 | 1/4 | 843.48 | 1/4 | 482.18 | 1/4 | 120.88 | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | 2,280.42 | 1/2 | 1,919.11 | 1/2 | 1,557.79 | 1/2 | 1,196.48 | 1/2 | 835.95 | 1/2 | 474.65 | 1/2 | 113.35 | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | 2,272.90 | 3/4 | 1,911.58 | 3/4 | 1,550.27 | 3/4 | 1,188.95 | 3/4 | 828.43 | 3/4 | 467.13 | 3/4 | 105.83 | 3/4 | | 3/4 | | 3/4 | |
| 1 | 2,265.37 | 1 | 1,904.05 | 1 | 1,542.74 | 1 | 1,181.42 | 1 | 820.90 | 1 | 459.60 | 1 | 98.30 | 1 | | 1 | | 1 | |
| 1/4 | 2,257.84 | 1/4 | 1,896.53 | 1/4 | 1,535.21 | 1/4 | 1,173.90 | 1/4 | 813.37 | 1/4 | 452.07 | 1/4 | 90.77 | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | 2,250.31 | 1/2 | 1,889.00 | 1/2 | 1,527.68 | 1/2 | 1,166.37 | 1/2 | 805.85 | 1/2 | 444.55 | 1/2 | 83.24 | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | 2,242.79 | 3/4 | 1,881.47 | 3/4 | 1,520.16 | 3/4 | 1,158.84 | 3/4 | 798.32 | 3/4 | 437.02 | 3/4 | 75.72 | 3/4 | | 3/4 | | 3/4 | |
| 1 | 2,235.26 | 1 | 1,873.94 | 1 | 1,512.63 | 1 | 1,151.31 | 1 | 790.79 | 1 | 429.49 | 1 | 68.19 | 1 | | 1 | | 1 | |
| 1/4 | 2,227.73 | 1/4 | 1,866.42 | 1/4 | 1,505.10 | 1/4 | 1,143.79 | 1/4 | 783.26 | 1/4 | 421.96 | 1/4 | 60.66 | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | 2,220.20 | 1/2 | 1,858.89 | 1/2 | 1,497.57 | 1/2 | 1,136.26 | 1/2 | 775.74 | 1/2 | 414.44 | 1/2 | 54.08 | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | 2,212.68 | 3/4 | 1,851.36 | 3/4 | 1,490.05 | 3/4 | 1,128.73 | 3/4 | 768.21 | 3/4 | 406.91 | 3/4 | 47.49 | 3/4 | | 3/4 | | 3/4 | |
| 1 | 2,205.15 | 1 | 1,843.83 | 1 | 1,482.52 | 1 | 1,121.20 | 1 | 760.68 | 1 | 399.38 | 1 | 40.90 | 1 | | 1 | | 1 | |
| 1/4 | 2,197.62 | 1/4 | 1,836.31 | 1/4 | 1,474.99 | 1/4 | 1,113.68 | 1/4 | 753.16 | 1/4 | 391.86 | 1/4 | 34.32 | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | 2,190.09 | 1/2 | 1,828.78 | 1/2 | 1,467.46 | 1/2 | 1,106.17 | 1/2 | 745.63 | 1/2 | 384.33 | 1/2 | 29.61 | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | 2,182.57 | 3/4 | 1,821.25 | 3/4 | 1,459.94 | 3/4 | 1,098.67 | 3/4 | 738.10 | 3/4 | 376.80 | 3/4 | 24.91 | 3/4 | | 3/4 | | 3/4 | |
| 1 | 2,175.04 | 1 | 1,813.72 | 1 | 1,452.41 | 1 | 1,091.17 | 1 | 730.58 | 1 | 369.27 | 1 | 20.20 | 1 | | 1 | | 1 | |
| 1/4 | 2,167.51 | 1/4 | 1,806.20 | 1/4 | 1,444.88 | 1/4 | 1,083.67 | 1/4 | 723.05 | 1/4 | 361.75 | 1/4 | 15.50 | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | 2,159.99 | 1/2 | 1,798.67 | 1/2 | 1,437.35 | 1/2 | 1,076.16 | 1/2 | 715.52 | 1/2 | 354.22 | 1/2 | | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | 2,152.46 | 3/4 | 1,791.14 | 3/4 | 1,429.83 | 3/4 | 1,068.66 | 3/4 | 707.99 | 3/4 | 346.69 | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 1 | 2,144.93 | 1 | 1,783.62 | 1 | 1,422.30 | 1 | 1,061.16 | 1 | 700.47 | 1 | 339.17 | 1 | | 1 | | 1 | | 1 | |
| 1/4 | 2,137.40 | 1/4 | 1,776.09 | 1/4 | 1,414.77 | 1/4 | 1,053.65 | 1/4 | 692.94 | 1/4 | 331.64 | 1/4 | | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | 2,129.88 | 1/2 | 1,768.56 | 1/2 | 1,407.25 | 1/2 | 1,046.15 | 1/2 | 685.41 | 1/2 | 324.11 | 1/2 | | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | 2,122.35 | 3/4 | 1,761.03 | 3/4 | 1,399.72 | 3/4 | 1,038.65 | 3/4 | 677.89 | 3/4 | 316.58 | 3/4 | | 3/4 | | 3/4 | | 3/4 | |

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY

STRAPPED: 06/02/2004 CL - SW
CALCULATED: 06/02/2004 CL
PRINTED: 06/02/2004 CL

CANCELS AND SUPERCEDES
ALL PRIOR TO 06/2004

PRECISION MEASUREMENT
& ANALYSIS, INC.
P.O. Box 2092
Pasadena, Texas 77548
http://www.pmaacorp.net



BARGE "KIRBY 28031"

3 STBD ULLAGE TABLE

CAPACITIES GIVEN IN WHOLE BARRELS OF 42 U.S. GALLONS

| 0 FT. | | 1 FT. | | 2 FT. | | 3 FT. | | 4 FT. | | 5 FT. | | 6 FT. | | 7 FT. | | 8 FT. | | 9 FT. | |
|---------|----|---------|----|---------|----|---------|----|---------|----|---------|----|---------|----|---------|----|---------|----|---------|----|
| H | W | H | W | H | W | H | W | H | W | H | W | H | W | H | W | H | W | H | W |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 |
| 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 |
| 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 |
| 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 |
| 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 |
| 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 |
| 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 |
| 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 |
| 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 |
| 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 |
| 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 |
| 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 |
| 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 |
| 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 |
| 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 |
| 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 |
| 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 |
| 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 |
| 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 |
| 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 |
| 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 |
| 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 |
| 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 |
| 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 |
| 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 | 14 |
| 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 |
| 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 | 34 |
| 4602.77 | | 4602.77 | | 4602.77 | | 4602.77 | | 4602.77 | | 4602.77 | | 4602.77 | | 4602.77 | | 4602.77 | | 4602.77 | |

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY

BARGE STRAPPED AND COMPUTED IN ACCORDANCE WITH API MPMS CHAPTER 2.7.
CAPACITY TABLE ONLY APPLIES WHEN BARGE IS ON EVEN KEEL.
CAPACITY TABLE EXTENDS TO EXTREME HEIGHT OF TANK.
CAPACITY TABLE ONLY APPLIES TO ULLAGE GAUGES OBSERVED WITH "HERMETIC" CLOSED GAUGING DEVICE.
GAUGE POINT, (HERMETIC) LOCATED 17'-00" OFF CENTERLINE AND 37'-03" FORWARD OF AFT BULKHEAD.

PRECISION MEASUREMENT
& ANALYSIS, INC.
P.O. Box 2092
Pearland, Texas 77584
<http://www.pma-inc.net>



BARGE "KIRBY 28031"

3 STBD ULLAGE TABLE

CAPACITIES GIVEN IN WHOLE BARRELS OF 42 U.S. GALLONS

| 10 FT. | | 11 FT. | | 12 FT. | | 13 FT. | | 14 FT. | | 15 FT. | | 16 FT. | | 17 FT. | | 18 FT. | | 19 FT. | |
|--------|----------|--------|----------|--------|----------|--------|----------|--------|----------|--------|--------|--------|--------|--------|---|--------|---|--------|---|
| W | D | W | D | W | D | W | D | W | D | W | D | W | D | W | D | W | D | W | D |
| 0 | 2,454.33 | 0 | 2,093.95 | 0 | 1,736.37 | 0 | 1,375.86 | 0 | 1,019.06 | 0 | 665.77 | 0 | 308.80 | 0 | | 0 | | 0 | |
| 1/4 | 2,446.82 | 1/4 | 2,086.34 | 1/4 | 1,728.92 | 1/4 | 1,368.35 | 1/4 | 1,011.69 | 1/4 | 658.42 | 1/4 | 301.29 | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | 2,439.31 | 1/2 | 2,078.89 | 1/2 | 1,721.41 | 1/2 | 1,360.84 | 1/2 | 1,004.32 | 1/2 | 651.08 | 1/2 | 293.77 | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | 2,431.81 | 3/4 | 2,071.44 | 3/4 | 1,713.90 | 3/4 | 1,353.33 | 3/4 | 996.95 | 3/4 | 643.73 | 3/4 | 286.26 | 3/4 | | 3/4 | | 3/4 | |
| 1 | 2,424.30 | 1 | 2,064.00 | 1 | 1,706.39 | 1 | 1,345.82 | 1 | 989.58 | 1 | 636.29 | 1 | 278.75 | 1 | | 1 | | 1 | |
| 1/4 | 2,416.79 | 1/4 | 2,056.55 | 1/4 | 1,698.88 | 1/4 | 1,338.31 | 1/4 | 982.21 | 1/4 | 629.05 | 1/4 | 271.24 | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | 2,409.28 | 1/2 | 2,049.11 | 1/2 | 1,691.36 | 1/2 | 1,330.79 | 1/2 | 974.84 | 1/2 | 621.70 | 1/2 | 263.72 | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | 2,401.78 | 3/4 | 2,041.66 | 3/4 | 1,683.85 | 3/4 | 1,323.28 | 3/4 | 967.48 | 3/4 | 614.36 | 3/4 | 256.21 | 3/4 | | 3/4 | | 3/4 | |
| 2 | 2,394.27 | 2 | 2,034.21 | 2 | 1,676.34 | 2 | 1,315.77 | 2 | 960.11 | 2 | 607.01 | 2 | 248.70 | 2 | | 2 | | 2 | |
| 1/4 | 2,386.76 | 1/4 | 2,026.77 | 1/4 | 1,668.83 | 1/4 | 1,308.26 | 1/4 | 952.74 | 1/4 | 599.67 | 1/4 | 241.18 | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | 2,379.25 | 1/2 | 2,019.32 | 1/2 | 1,661.32 | 1/2 | 1,300.75 | 1/2 | 945.37 | 1/2 | 592.33 | 1/2 | 233.67 | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | 2,371.75 | 3/4 | 2,011.88 | 3/4 | 1,653.81 | 3/4 | 1,293.23 | 3/4 | 938.00 | 3/4 | 584.98 | 3/4 | 226.16 | 3/4 | | 3/4 | | 3/4 | |
| 3 | 2,364.24 | 3 | 2,004.43 | 3 | 1,646.29 | 3 | 1,285.72 | 3 | 930.63 | 3 | 577.64 | 3 | 218.65 | 3 | | 3 | | 3 | |
| 1/4 | 2,356.73 | 1/4 | 1,996.98 | 1/4 | 1,638.78 | 1/4 | 1,278.21 | 1/4 | 923.26 | 1/4 | 570.30 | 1/4 | 211.13 | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | 2,349.22 | 1/2 | 1,989.54 | 1/2 | 1,631.27 | 1/2 | 1,270.70 | 1/2 | 915.90 | 1/2 | 562.94 | 1/2 | 203.61 | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | 2,341.72 | 3/4 | 1,982.09 | 3/4 | 1,623.76 | 3/4 | 1,263.19 | 3/4 | 908.53 | 3/4 | 555.58 | 3/4 | 196.08 | 3/4 | | 3/4 | | 3/4 | |
| 4 | 2,334.21 | 4 | 1,974.65 | 4 | 1,616.25 | 4 | 1,255.67 | 4 | 901.16 | 4 | 548.23 | 4 | 188.56 | 4 | | 4 | | 4 | |
| 1/4 | 2,326.70 | 1/4 | 1,967.20 | 1/4 | 1,608.73 | 1/4 | 1,248.16 | 1/4 | 893.79 | 1/4 | 540.87 | 1/4 | 181.03 | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | 2,319.20 | 1/2 | 1,959.75 | 1/2 | 1,601.22 | 1/2 | 1,240.65 | 1/2 | 886.42 | 1/2 | 533.50 | 1/2 | 173.51 | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | 2,311.69 | 3/4 | 1,952.31 | 3/4 | 1,593.71 | 3/4 | 1,233.14 | 3/4 | 879.05 | 3/4 | 526.12 | 3/4 | 165.98 | 3/4 | | 3/4 | | 3/4 | |
| 5 | 2,304.18 | 5 | 1,944.86 | 5 | 1,586.20 | 5 | 1,225.63 | 5 | 871.69 | 5 | 518.75 | 5 | 158.46 | 5 | | 5 | | 5 | |
| 1/4 | 2,296.67 | 1/4 | 1,937.41 | 1/4 | 1,578.69 | 1/4 | 1,218.11 | 1/4 | 864.32 | 1/4 | 511.38 | 1/4 | 150.94 | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | 2,289.16 | 1/2 | 1,929.97 | 1/2 | 1,571.17 | 1/2 | 1,210.74 | 1/2 | 856.94 | 1/2 | 503.93 | 1/2 | 143.41 | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | 2,281.65 | 3/4 | 1,922.52 | 3/4 | 1,563.66 | 3/4 | 1,203.36 | 3/4 | 849.57 | 3/4 | 496.49 | 3/4 | 135.89 | 3/4 | | 3/4 | | 3/4 | |
| 6 | 2,274.14 | 6 | 1,915.08 | 6 | 1,556.15 | 6 | 1,195.99 | 6 | 842.19 | 6 | 489.04 | 6 | 128.36 | 6 | | 6 | | 6 | |
| 1/4 | 2,266.62 | 1/4 | 1,907.63 | 1/4 | 1,548.64 | 1/4 | 1,188.61 | 1/4 | 834.82 | 1/4 | 481.60 | 1/4 | 120.84 | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | 2,259.11 | 1/2 | 1,900.18 | 1/2 | 1,541.13 | 1/2 | 1,181.24 | 1/2 | 827.45 | 1/2 | 474.08 | 1/2 | 113.31 | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | 2,251.60 | 3/4 | 1,892.74 | 3/4 | 1,533.61 | 3/4 | 1,173.86 | 3/4 | 820.07 | 3/4 | 466.57 | 3/4 | 105.79 | 3/4 | | 3/4 | | 3/4 | |
| 7 | 2,244.09 | 7 | 1,885.29 | 7 | 1,526.10 | 7 | 1,166.49 | 7 | 812.70 | 7 | 459.06 | 7 | 98.26 | 7 | | 7 | | 7 | |
| 1/4 | 2,236.58 | 1/4 | 1,877.85 | 1/4 | 1,518.59 | 1/4 | 1,159.11 | 1/4 | 805.33 | 1/4 | 451.54 | 1/4 | 90.74 | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | 2,229.06 | 1/2 | 1,870.40 | 1/2 | 1,511.08 | 1/2 | 1,151.74 | 1/2 | 797.97 | 1/2 | 444.03 | 1/2 | 83.21 | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | 2,221.55 | 3/4 | 1,862.95 | 3/4 | 1,503.57 | 3/4 | 1,144.36 | 3/4 | 790.62 | 3/4 | 436.52 | 3/4 | 75.69 | 3/4 | | 3/4 | | 3/4 | |
| 8 | 2,214.04 | 8 | 1,855.51 | 8 | 1,496.06 | 8 | 1,136.99 | 8 | 783.26 | 8 | 429.01 | 8 | 68.16 | 8 | | 8 | | 8 | |
| 1/4 | 2,206.53 | 1/4 | 1,848.06 | 1/4 | 1,488.54 | 1/4 | 1,129.61 | 1/4 | 775.91 | 1/4 | 421.49 | 1/4 | 60.64 | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | 2,199.02 | 1/2 | 1,840.62 | 1/2 | 1,481.03 | 1/2 | 1,122.23 | 1/2 | 768.57 | 1/2 | 413.98 | 1/2 | 54.06 | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | 2,191.50 | 3/4 | 1,833.17 | 3/4 | 1,473.52 | 3/4 | 1,114.86 | 3/4 | 761.22 | 3/4 | 406.47 | 3/4 | 47.47 | 3/4 | | 3/4 | | 3/4 | |
| 9 | 2,183.99 | 9 | 1,825.72 | 9 | 1,466.01 | 9 | 1,107.48 | 9 | 753.88 | 9 | 398.95 | 9 | 40.89 | 9 | | 9 | | 9 | |
| 1/4 | 2,176.48 | 1/4 | 1,818.28 | 1/4 | 1,458.50 | 1/4 | 1,100.11 | 1/4 | 746.54 | 1/4 | 391.44 | 1/4 | 34.30 | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | 2,168.97 | 1/2 | 1,810.83 | 1/2 | 1,450.98 | 1/2 | 1,092.74 | 1/2 | 739.20 | 1/2 | 383.93 | 1/2 | 29.60 | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | 2,161.46 | 3/4 | 1,803.39 | 3/4 | 1,443.47 | 3/4 | 1,085.37 | 3/4 | 731.96 | 3/4 | 376.42 | 3/4 | 24.90 | 3/4 | | 3/4 | | 3/4 | |
| 10 | 2,153.94 | 10 | 1,795.94 | 10 | 1,435.96 | 10 | 1,078.00 | 10 | 724.51 | 10 | 368.90 | 10 | 20.19 | 10 | | 10 | | 10 | |
| 1/4 | 2,146.43 | 1/4 | 1,788.49 | 1/4 | 1,428.45 | 1/4 | 1,070.63 | 1/4 | 717.17 | 1/4 | 361.39 | 1/4 | 15.49 | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | 2,138.92 | 1/2 | 1,781.05 | 1/2 | 1,420.94 | 1/2 | 1,063.27 | 1/2 | 709.83 | 1/2 | 353.88 | 1/2 | | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | 2,131.41 | 3/4 | 1,773.60 | 3/4 | 1,413.42 | 3/4 | 1,055.90 | 3/4 | 702.48 | 3/4 | 346.36 | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 11 | 2,123.90 | 11 | 1,766.15 | 11 | 1,405.91 | 11 | 1,048.53 | 11 | 695.14 | 11 | 338.85 | 11 | | 11 | | 11 | | 11 | |
| 1/4 | 2,116.38 | 1/4 | 1,758.71 | 1/4 | 1,398.40 | 1/4 | 1,041.16 | 1/4 | 687.80 | 1/4 | 331.34 | 1/4 | | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | 2,108.87 | 1/2 | 1,751.26 | 1/2 | 1,390.89 | 1/2 | 1,033.79 | 1/2 | 680.45 | 1/2 | 323.83 | 1/2 | | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | 2,101.36 | 3/4 | 1,743.82 | 3/4 | 1,383.38 | 3/4 | 1,026.42 | 3/4 | 673.11 | 3/4 | 316.31 | 3/4 | | 3/4 | | 3/4 | | 3/4 | |

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY

STRAPPED: 06/02/2004 CL - SW
CALCULATED: 06/02/2004 CL
PRINTED: 06/02/2004 CL

CANCELS AND SUPERCEDES
ALL PRIOR TO 06/2004

PRECISION MEASUREMENT
& ANALYSIS, INC.
P.O. Box 2092
Pearland, Texas 77648
<http://www.pma.com.net>