



BARGE "HFL 411"

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 | 00-0/8 | - 00-0/8 | 00-1/8 | - 00-1/8 | 00-1/8 | - 00-1/8 | 00-1/8 | - 00-1/8 | 00-1/8 | - 00-1/8 | 00-1/4 | - 00-1/4 |
| 1 STBD | 00-0/8 | - 00-0/8 | 00-1/8 | - 00-1/8 | 00-1/8 | - 00-1/8 | 00-1/8 | - 00-1/8 | 00-1/8 | - 00-1/8 | 00-1/4 | - 00-1/4 |
| 2 PORT | 00-0/8 | - 00-0/8 | 00-0/8 | - 00-0/8 | 00-0/8 | - 00-0/8 | 00-0/8 | - 00-0/8 | 00-0/8 | - 00-0/8 | 00-1/8 | - 00-1/8 |
| 2 STBD | 00-0/8 | - 00-0/8 | 00-0/8 | - 00-0/8 | 00-0/8 | - 00-0/8 | 00-0/8 | - 00-0/8 | 00-0/8 | - 00-0/8 | 00-1/8 | - 00-1/8 |
| 3 PORT | 00-0/8 | - 00-0/8 | 00-0/8 | - 00-0/8 | 00-0/8 | - 00-0/8 | 00-0/8 | - 00-0/8 | 00-0/8 | - 00-0/8 | 00-0/8 | - 00-0/8 |
| 3 STBD | 00-0/8 | - 00-0/8 | 00-0/8 | - 00-0/8 | 00-0/8 | - 00-0/8 | 00-0/8 | - 00-0/8 | 00-0/8 | - 00-0/8 | 00-0/8 | - 00-0/8 |

(ALL MEASUREMENTS ABOVE ARE IN INCHES)

EXAMPLE FOR ABOVE TRIM CORRECTIONS:

FWD. DRAFT = 1'-00"
 AFT DRAFT = 4'-00"
 DIFF. = 3'-00" (DOWN BY STERN)

THE CORRECTION FOR 3'-00" TRIM DOWN BY STERN FOR 1 PORT IS - 00-1/8"
 FOR A MEASURED ULLAGE GAUGE OF 4'-00" ON 1 PORT, THE TRIM CORRECTED ULLAGE IS 3'-11 7/8"

LENGTH BETWEEN DRAFT MARKS: 238'-06"

February 10, 2012

**PRECISION MEASUREMENT
& ANALYSIS, INC.**

P.O. Box 2092
 Pearland, Texas 77588

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BARGE "HFL 411"

1 PORT ULLAGE TABLE

CAPACITIES GIVEN IN WHOLE GALLONS

GAUGE HEIGHT 15'-10"

| 0 FT. | | 1 FT. | | 2 FT. | | 3 FT. | | 4 FT. | | 5 FT. | | 6 FT. | | 7 FT. | | 8 FT. | | 9 FT. | |
|-------|-----|-------|---------|-------|---------|-------|---------|-------|---------|-------|---------|-------|---------|-------|---------|-------|---------|-------|---------|
| IN | | IN | | IN | | IN | | IN | | IN | | IN | | IN | | IN | | IN | |
| 0 | | 0 | | 0 | 205,369 | 0 | 190,437 | 0 | 175,468 | 0 | 160,457 | 0 | 145,444 | 0 | 130,430 | 0 | 115,417 | 0 | 100,401 |
| 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 205,059 | 1/4 | 190,125 | 1/4 | 175,155 | 1/4 | 160,144 | 1/4 | 145,131 | 1/4 | 130,118 | 1/4 | 115,105 | 1/4 | 100,088 |
| 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 204,749 | 1/2 | 189,813 | 1/2 | 174,843 | 1/2 | 159,831 | 1/2 | 144,818 | 1/2 | 129,805 | 1/2 | 114,792 | 1/2 | 99,776 |
| 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 204,439 | 3/4 | 189,501 | 3/4 | 174,531 | 3/4 | 159,518 | 3/4 | 144,505 | 3/4 | 129,492 | 3/4 | 114,479 | 3/4 | 99,463 |
| 1 | | 1 | | 1 | 204,130 | 1 | 189,190 | 1 | 174,219 | 1 | 159,205 | 1 | 144,192 | 1 | 129,179 | 1 | 114,166 | 1 | 99,150 |
| 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 203,820 | 1/4 | 188,878 | 1/4 | 173,906 | 1/4 | 158,893 | 1/4 | 143,880 | 1/4 | 128,867 | 1/4 | 113,854 | 1/4 | 98,837 |
| 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 203,510 | 1/2 | 188,566 | 1/2 | 173,593 | 1/2 | 158,580 | 1/2 | 143,567 | 1/2 | 128,554 | 1/2 | 113,541 | 1/2 | 98,524 |
| 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 203,200 | 3/4 | 188,254 | 3/4 | 173,280 | 3/4 | 158,267 | 3/4 | 143,254 | 3/4 | 128,241 | 3/4 | 113,228 | 3/4 | 98,211 |
| 2 | | 2 | | 2 | 202,890 | 2 | 187,942 | 2 | 172,967 | 2 | 157,954 | 2 | 142,941 | 2 | 127,928 | 2 | 112,915 | 2 | 97,898 |
| 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 202,580 | 1/4 | 187,630 | 1/4 | 172,655 | 1/4 | 157,642 | 1/4 | 142,629 | 1/4 | 127,616 | 1/4 | 112,602 | 1/4 | 97,585 |
| 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 202,271 | 1/2 | 187,318 | 1/2 | 172,342 | 1/2 | 157,329 | 1/2 | 142,316 | 1/2 | 127,303 | 1/2 | 112,290 | 1/2 | 97,272 |
| 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 201,961 | 3/4 | 187,007 | 3/4 | 172,029 | 3/4 | 157,016 | 3/4 | 142,003 | 3/4 | 126,990 | 3/4 | 111,977 | 3/4 | 96,959 |
| 3 | | 3 | | 3 | 201,651 | 3 | 186,695 | 3 | 171,716 | 3 | 156,703 | 3 | 141,690 | 3 | 126,677 | 3 | 111,664 | 3 | 96,646 |
| 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 201,341 | 1/4 | 186,383 | 1/4 | 171,404 | 1/4 | 156,391 | 1/4 | 141,377 | 1/4 | 126,364 | 1/4 | 111,351 | 1/4 | 96,334 |
| 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 201,032 | 1/2 | 186,071 | 1/2 | 171,091 | 1/2 | 156,078 | 1/2 | 141,065 | 1/2 | 126,052 | 1/2 | 111,039 | 1/2 | 96,021 |
| 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 200,722 | 3/4 | 185,759 | 3/4 | 170,778 | 3/4 | 155,765 | 3/4 | 140,752 | 3/4 | 125,739 | 3/4 | 110,726 | 3/4 | 95,708 |
| 4 | | 4 | | 4 | 200,412 | 4 | 185,447 | 4 | 170,465 | 4 | 155,452 | 4 | 140,439 | 4 | 125,426 | 4 | 110,413 | 4 | 95,395 |
| 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 200,101 | 1/4 | 185,135 | 1/4 | 170,152 | 1/4 | 155,139 | 1/4 | 140,126 | 1/4 | 125,113 | 1/4 | 110,100 | 1/4 | 95,082 |
| 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 199,791 | 1/2 | 184,824 | 1/2 | 169,840 | 1/2 | 154,827 | 1/2 | 139,814 | 1/2 | 124,801 | 1/2 | 109,788 | 1/2 | 94,769 |
| 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 199,480 | 3/4 | 184,512 | 3/4 | 169,527 | 3/4 | 154,514 | 3/4 | 139,501 | 3/4 | 124,488 | 3/4 | 109,475 | 3/4 | 94,456 |
| 5 | | 5 | | 5 | 199,169 | 5 | 184,200 | 5 | 169,214 | 5 | 154,201 | 5 | 139,188 | 5 | 124,175 | 5 | 109,162 | 5 | 94,143 |
| 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 198,857 | 1/4 | 183,888 | 1/4 | 168,901 | 1/4 | 153,888 | 1/4 | 138,875 | 1/4 | 123,862 | 1/4 | 108,849 | 1/4 | 93,830 |
| 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 198,545 | 1/2 | 183,576 | 1/2 | 168,589 | 1/2 | 153,576 | 1/2 | 138,563 | 1/2 | 123,549 | 1/2 | 108,536 | 1/2 | 93,517 |
| 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 198,234 | 3/4 | 183,264 | 3/4 | 168,276 | 3/4 | 153,263 | 3/4 | 138,250 | 3/4 | 123,237 | 3/4 | 108,224 | 3/4 | 93,204 |
| 6 | | 6 | | 6 | 197,922 | 6 | 182,952 | 6 | 167,963 | 6 | 152,950 | 6 | 137,937 | 6 | 122,924 | 6 | 107,911 | 6 | 92,892 |
| 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 197,610 | 1/4 | 182,641 | 1/4 | 167,650 | 1/4 | 152,637 | 1/4 | 137,624 | 1/4 | 122,611 | 1/4 | 107,598 | 1/4 | 92,579 |
| 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 197,298 | 1/2 | 182,329 | 1/2 | 167,338 | 1/2 | 152,324 | 1/2 | 137,311 | 1/2 | 122,298 | 1/2 | 107,285 | 1/2 | 92,266 |
| 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 196,986 | 3/4 | 182,017 | 3/4 | 167,025 | 3/4 | 152,012 | 3/4 | 136,999 | 3/4 | 121,986 | 3/4 | 106,972 | 3/4 | 91,953 |
| 7 | | 7 | 210,593 | 7 | 196,674 | 7 | 181,705 | 7 | 166,712 | 7 | 151,699 | 7 | 136,686 | 7 | 121,673 | 7 | 106,660 | 7 | 91,640 |
| 1/4 | 1/4 | 1/4 | 210,414 | 1/4 | 196,362 | 1/4 | 181,393 | 1/4 | 166,399 | 1/4 | 151,386 | 1/4 | 136,373 | 1/4 | 121,360 | 1/4 | 106,347 | 1/4 | 91,327 |
| 1/2 | 1/2 | 1/2 | 210,234 | 1/2 | 196,050 | 1/2 | 181,081 | 1/2 | 166,086 | 1/2 | 151,073 | 1/2 | 136,060 | 1/2 | 121,047 | 1/2 | 106,034 | 1/2 | 91,014 |
| 3/4 | 3/4 | 3/4 | 210,055 | 3/4 | 195,739 | 3/4 | 180,769 | 3/4 | 165,774 | 3/4 | 150,761 | 3/4 | 135,748 | 3/4 | 120,735 | 3/4 | 105,721 | 3/4 | 90,701 |
| 8 | | 8 | 209,875 | 8 | 195,427 | 8 | 180,458 | 8 | 165,461 | 8 | 150,448 | 8 | 135,435 | 8 | 120,422 | 8 | 105,408 | 8 | 90,388 |
| 1/4 | 1/4 | 1/4 | 209,644 | 1/4 | 195,115 | 1/4 | 180,146 | 1/4 | 165,148 | 1/4 | 150,135 | 1/4 | 135,122 | 1/4 | 120,109 | 1/4 | 105,095 | 1/4 | 90,075 |
| 1/2 | 1/2 | 1/2 | 209,412 | 1/2 | 194,803 | 1/2 | 179,834 | 1/2 | 164,835 | 1/2 | 149,822 | 1/2 | 134,809 | 1/2 | 119,796 | 1/2 | 104,782 | 1/2 | 89,763 |
| 3/4 | 3/4 | 3/4 | 209,180 | 3/4 | 194,491 | 3/4 | 179,522 | 3/4 | 164,523 | 3/4 | 149,510 | 3/4 | 134,496 | 3/4 | 119,483 | 3/4 | 104,469 | 3/4 | 89,450 |
| 9 | | 9 | 208,949 | 9 | 194,179 | 9 | 179,210 | 9 | 164,210 | 9 | 149,197 | 9 | 134,184 | 9 | 119,171 | 9 | 104,156 | 9 | 89,137 |
| 1/4 | 1/4 | 1/4 | 208,669 | 1/4 | 193,867 | 1/4 | 178,898 | 1/4 | 163,897 | 1/4 | 148,884 | 1/4 | 133,871 | 1/4 | 118,858 | 1/4 | 103,843 | 1/4 | 88,824 |
| 1/2 | 1/2 | 1/2 | 208,389 | 1/2 | 193,556 | 1/2 | 178,586 | 1/2 | 163,584 | 1/2 | 148,571 | 1/2 | 133,558 | 1/2 | 118,545 | 1/2 | 103,530 | 1/2 | 88,511 |
| 3/4 | 3/4 | 3/4 | 208,109 | 3/4 | 193,244 | 3/4 | 178,275 | 3/4 | 163,271 | 3/4 | 148,258 | 3/4 | 133,245 | 3/4 | 118,232 | 3/4 | 103,218 | 3/4 | 88,198 |
| 10 | | 10 | 207,829 | 10 | 192,932 | 10 | 177,963 | 10 | 162,959 | 10 | 147,946 | 10 | 132,933 | 10 | 117,920 | 10 | 102,905 | 10 | 87,885 |
| 1/4 | 1/4 | 1/4 | 207,523 | 1/4 | 192,620 | 1/4 | 177,651 | 1/4 | 162,646 | 1/4 | 147,633 | 1/4 | 132,620 | 1/4 | 117,607 | 1/4 | 102,592 | 1/4 | 87,572 |
| 1/2 | 1/2 | 1/2 | 207,217 | 1/2 | 192,308 | 1/2 | 177,339 | 1/2 | 162,333 | 1/2 | 147,320 | 1/2 | 132,307 | 1/2 | 117,294 | 1/2 | 102,279 | 1/2 | 87,259 |
| 3/4 | 3/4 | 3/4 | 206,912 | 3/4 | 191,996 | 3/4 | 177,027 | 3/4 | 162,020 | 3/4 | 147,007 | 3/4 | 131,994 | 3/4 | 116,981 | 3/4 | 101,966 | 3/4 | 86,946 |
| 11 | | 11 | 206,606 | 11 | 191,684 | 11 | 176,715 | 11 | 161,708 | 11 | 146,695 | 11 | 131,682 | 11 | 116,668 | 11 | 101,653 | 11 | 86,633 |
| 1/4 | 1/4 | 1/4 | 206,297 | 1/4 | 191,373 | 1/4 | 176,403 | 1/4 | 161,395 | 1/4 | 146,382 | 1/4 | 131,369 | 1/4 | 116,356 | 1/4 | 101,340 | 1/4 | 86,321 |
| 1/2 | 1/2 | 1/2 | 205,987 | 1/2 | 191,061 | 1/2 | 176,091 | 1/2 | 161,082 | 1/2 | 146,069 | 1/2 | 131,056 | 1/2 | 116,043 | 1/2 | 101,027 | 1/2 | 86,008 |
| 3/4 | 3/4 | 3/4 | 205,678 | 3/4 | 190,749 | 3/4 | 175,780 | 3/4 | 160,769 | 3/4 | 145,756 | 3/4 | 130,743 | 3/4 | 115,730 | 3/4 | 100,714 | 3/4 | 85,695 |

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY.

BARGE STRAPPED AND COMPUTED IN ACCORDANCE WITH 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 TAKEN TO THREADS ON "MMC" VALVE.
 GAUGE POINT: (MMC) LOCATED 12'-09" OFF CENTERLINE AND 43'-06" FORWARD OF AFT BULKHEAD.

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BARGE "HFL 411"

1 PORT ULLAGE TABLE

CAPACITIES GIVEN IN WHOLE GALLONS

GAUGE HEIGHT 15'-10"

| IN | 10 FT. | IN | 11 FT. | IN | 12 FT. | IN | 13 FT. | IN | 14 FT. | IN | 15 FT. | IN | 16 FT. | IN | 17 FT. | IN | 18 FT. | IN | 19 FT. |
|-----|--------|-----|--------|-----|--------|-----|--------|-----|--------|-----|--------|-----|--------|-----|--------|-----|--------|-----|--------|
| 0 | 85,382 | 0 | 70,374 | 0 | 55,416 | 0 | 40,439 | 0 | 25,420 | 0 | 10,637 | 0 | | 0 | | 0 | | 0 | |
| 1/4 | 85,069 | 1/4 | 70,061 | 1/4 | 55,106 | 1/4 | 40,126 | 1/4 | 25,107 | 1/4 | 10,347 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 |
| 1/2 | 84,757 | 1/2 | 69,749 | 1/2 | 54,795 | 1/2 | 39,813 | 1/2 | 24,794 | 1/2 | 10,058 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 |
| 3/4 | 84,444 | 3/4 | 69,436 | 3/4 | 54,484 | 3/4 | 39,500 | 3/4 | 24,481 | 3/4 | 9,769 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 |
| 1 | 84,132 | 1 | 69,123 | 1 | 54,174 | 1 | 39,188 | 1 | 24,168 | 1 | 9,479 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 1/4 | 83,820 | 1/4 | 68,810 | 1/4 | 53,863 | 1/4 | 38,875 | 1/4 | 23,855 | 1/4 | 9,196 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 |
| 1/2 | 83,507 | 1/2 | 68,497 | 1/2 | 53,553 | 1/2 | 38,562 | 1/2 | 23,542 | 1/2 | 8,913 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 |
| 3/4 | 83,195 | 3/4 | 68,184 | 3/4 | 53,242 | 3/4 | 38,249 | 3/4 | 23,229 | 3/4 | 8,630 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 |
| 2 | 82,883 | 2 | 67,871 | 2 | 52,932 | 2 | 37,936 | 2 | 22,916 | 2 | 8,347 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| 1/4 | 82,571 | 1/4 | 67,558 | 1/4 | 52,621 | 1/4 | 37,623 | 1/4 | 22,603 | 1/4 | 8,073 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 |
| 1/2 | 82,259 | 1/2 | 67,245 | 1/2 | 52,310 | 1/2 | 37,310 | 1/2 | 22,291 | 1/2 | 7,799 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 |
| 3/4 | 81,947 | 3/4 | 66,932 | 3/4 | 51,999 | 3/4 | 36,997 | 3/4 | 21,978 | 3/4 | 7,524 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 |
| 3 | 81,635 | 3 | 66,619 | 3 | 51,689 | 3 | 36,684 | 3 | 21,665 | 3 | 7,250 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| 1/4 | 81,323 | 1/4 | 66,306 | 1/4 | 51,377 | 1/4 | 36,371 | 1/4 | 21,352 | 1/4 | 6,982 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 |
| 1/2 | 81,010 | 1/2 | 65,994 | 1/2 | 51,066 | 1/2 | 36,059 | 1/2 | 21,039 | 1/2 | 6,714 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 |
| 3/4 | 80,698 | 3/4 | 65,681 | 3/4 | 50,755 | 3/4 | 35,746 | 3/4 | 20,726 | 3/4 | 6,446 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 |
| 4 | 80,386 | 4 | 65,368 | 4 | 50,444 | 4 | 35,433 | 4 | 20,413 | 4 | 6,178 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| 1/4 | 80,074 | 1/4 | 65,055 | 1/4 | 50,132 | 1/4 | 35,120 | 1/4 | 20,100 | 1/4 | 5,914 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 |
| 1/2 | 79,761 | 1/2 | 64,742 | 1/2 | 49,821 | 1/2 | 34,807 | 1/2 | 19,787 | 1/2 | 5,650 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 |
| 3/4 | 79,449 | 3/4 | 64,429 | 3/4 | 49,509 | 3/4 | 34,494 | 3/4 | 19,474 | 3/4 | 5,386 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 |
| 5 | 79,136 | 5 | 64,117 | 5 | 49,198 | 5 | 34,181 | 5 | 19,162 | 5 | 5,122 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| 1/4 | 78,823 | 1/4 | 63,805 | 1/4 | 48,886 | 1/4 | 33,868 | 1/4 | 18,849 | 1/4 | 4,862 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 |
| 1/2 | 78,510 | 1/2 | 63,493 | 1/2 | 48,573 | 1/2 | 33,555 | 1/2 | 18,536 | 1/2 | 4,602 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 |
| 3/4 | 78,197 | 3/4 | 63,182 | 3/4 | 48,261 | 3/4 | 33,242 | 3/4 | 18,223 | 3/4 | 4,341 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 |
| 6 | 77,884 | 6 | 62,870 | 6 | 47,949 | 6 | 32,929 | 6 | 17,910 | 6 | 4,081 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| 1/4 | 77,571 | 1/4 | 62,559 | 1/4 | 47,636 | 1/4 | 32,617 | 1/4 | 17,598 | 1/4 | 3,825 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 |
| 1/2 | 77,259 | 1/2 | 62,249 | 1/2 | 47,323 | 1/2 | 32,304 | 1/2 | 17,286 | 1/2 | 3,568 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 |
| 3/4 | 76,946 | 3/4 | 61,938 | 3/4 | 47,010 | 3/4 | 31,991 | 3/4 | 16,974 | 3/4 | 3,312 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 |
| 7 | 76,633 | 7 | 61,627 | 7 | 46,697 | 7 | 31,678 | 7 | 16,662 | 7 | 3,055 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| 1/4 | 76,320 | 1/4 | 61,317 | 1/4 | 46,384 | 1/4 | 31,365 | 1/4 | 16,353 | 1/4 | 2,801 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 |
| 1/2 | 76,007 | 1/2 | 61,006 | 1/2 | 46,072 | 1/2 | 31,052 | 1/2 | 16,044 | 1/2 | 2,546 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 |
| 3/4 | 75,694 | 3/4 | 60,695 | 3/4 | 45,759 | 3/4 | 30,739 | 3/4 | 15,735 | 3/4 | 2,292 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 |
| 8 | 75,381 | 8 | 60,385 | 8 | 45,446 | 8 | 30,426 | 8 | 15,426 | 8 | 2,037 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| 1/4 | 75,068 | 1/4 | 60,074 | 1/4 | 45,133 | 1/4 | 30,113 | 1/4 | 15,121 | 1/4 | 1,801 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 |
| 1/2 | 74,755 | 1/2 | 59,764 | 1/2 | 44,820 | 1/2 | 29,800 | 1/2 | 14,815 | 1/2 | 1,565 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 |
| 3/4 | 74,442 | 3/4 | 59,453 | 3/4 | 44,507 | 3/4 | 29,487 | 3/4 | 14,510 | 3/4 | 1,329 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 |
| 9 | 74,129 | 9 | 59,143 | 9 | 44,194 | 9 | 29,175 | 9 | 14,205 | 9 | 1,093 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 |
| 1/4 | 73,816 | 1/4 | 58,832 | 1/4 | 43,881 | 1/4 | 28,862 | 1/4 | 13,904 | 1/4 | 916 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 |
| 1/2 | 73,504 | 1/2 | 58,522 | 1/2 | 43,568 | 1/2 | 28,549 | 1/2 | 13,602 | 1/2 | 739 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 |
| 3/4 | 73,191 | 3/4 | 58,211 | 3/4 | 43,255 | 3/4 | 28,236 | 3/4 | 13,301 | 3/4 | 562 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 |
| 10 | 72,878 | 10 | 57,900 | 10 | 42,942 | 10 | 27,923 | 10 | 13,000 | 10 | 385 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| 1/4 | 72,565 | 1/4 | 57,590 | 1/4 | 42,630 | 1/4 | 27,610 | 1/4 | 12,702 | 1/4 | | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 |
| 1/2 | 72,252 | 1/2 | 57,279 | 1/2 | 42,317 | 1/2 | 27,297 | 1/2 | 12,405 | 1/2 | | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 |
| 3/4 | 71,939 | 3/4 | 56,969 | 3/4 | 42,004 | 3/4 | 26,984 | 3/4 | 12,107 | 3/4 | | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 |
| 11 | 71,626 | 11 | 56,658 | 11 | 41,691 | 11 | 26,671 | 11 | 11,810 | 11 | | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 |
| 1/4 | 71,313 | 1/4 | 56,348 | 1/4 | 41,378 | 1/4 | 26,358 | 1/4 | 11,517 | 1/4 | | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 |
| 1/2 | 71,000 | 1/2 | 56,037 | 1/2 | 41,065 | 1/2 | 26,045 | 1/2 | 11,223 | 1/2 | | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 |
| 3/4 | 70,687 | 3/4 | 55,727 | 3/4 | 40,752 | 3/4 | 25,733 | 3/4 | 10,930 | 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.

STRAPPED: 02/09/2012 CL - SW
CALCULATED: 02/10/2012 CL
PRINTED: 02/10/2012 CL

CANCELS AND SUPERCEDES
ALL PRIOR TO 02/2012

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



BARGE "HFL 411"

1 STBD ULLAGE TABLE

CAPACITIES GIVEN IN WHOLE GALLONS

GAUGE HEIGHT 15'-10 1/4"

| 0 FT. | | 1 FT. | | 2 FT. | | 3 FT. | | 4 FT. | | 5 FT. | | 6 FT. | | 7 FT. | | 8 FT. | | 9 FT. | |
|-------|-----|---------|-----|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|--------|---------|
| IN | | IN | | IN | | IN | | IN | | IN | | IN | | IN | | IN | | IN | |
| 0 | | 0 | | 0 | 205,770 | 0 | 190,859 | 0 | 175,889 | 0 | 160,879 | 0 | 145,865 | 0 | 130,852 | 0 | 115,839 | 0 | 100,823 |
| 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 205,462 | 1/4 | 190,547 | 1/4 | 175,578 | 1/4 | 160,566 | 1/4 | 145,552 | 1/4 | 130,539 | 1/4 | 115,526 | 1/4 | 100,510 |
| 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 205,153 | 1/2 | 190,235 | 1/2 | 175,265 | 1/2 | 160,253 | 1/2 | 145,240 | 1/2 | 130,226 | 1/2 | 115,213 | 1/2 | 100,197 |
| 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 204,844 | 3/4 | 189,923 | 3/4 | 174,953 | 3/4 | 159,940 | 3/4 | 144,927 | 3/4 | 129,914 | 3/4 | 114,900 | 3/4 | 99,884 |
| 1 | | 1 | | 1 | 204,536 | 1 | 189,612 | 1 | 174,641 | 1 | 159,628 | 1 | 144,614 | 1 | 129,601 | 1 | 114,588 | 1 | 99,571 |
| 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 204,227 | 1/4 | 189,300 | 1/4 | 174,328 | 1/4 | 159,315 | 1/4 | 144,301 | 1/4 | 129,288 | 1/4 | 114,275 | 1/4 | 99,258 |
| 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 203,918 | 1/2 | 188,988 | 1/2 | 174,015 | 1/2 | 159,002 | 1/2 | 143,989 | 1/2 | 128,975 | 1/2 | 113,962 | 1/2 | 98,945 |
| 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 203,609 | 3/4 | 188,676 | 3/4 | 173,703 | 3/4 | 158,689 | 3/4 | 143,676 | 3/4 | 128,662 | 3/4 | 113,649 | 3/4 | 98,632 |
| 2 | | 2 | | 2 | 203,300 | 2 | 188,364 | 2 | 173,390 | 2 | 158,376 | 2 | 143,363 | 2 | 128,350 | 2 | 113,336 | 2 | 98,319 |
| 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 202,991 | 1/4 | 188,052 | 1/4 | 173,077 | 1/4 | 158,064 | 1/4 | 143,050 | 1/4 | 128,037 | 1/4 | 113,024 | 1/4 | 98,006 |
| 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 202,682 | 1/2 | 187,740 | 1/2 | 172,764 | 1/2 | 157,751 | 1/2 | 142,737 | 1/2 | 127,724 | 1/2 | 112,711 | 1/2 | 97,693 |
| 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 202,374 | 3/4 | 187,428 | 3/4 | 172,452 | 3/4 | 157,438 | 3/4 | 142,425 | 3/4 | 127,411 | 3/4 | 112,398 | 3/4 | 97,381 |
| 3 | | 3 | | 3 | 202,065 | 3 | 187,117 | 3 | 172,139 | 3 | 157,125 | 3 | 142,112 | 3 | 127,099 | 3 | 112,085 | 3 | 97,068 |
| 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 201,756 | 1/4 | 186,805 | 1/4 | 171,826 | 1/4 | 156,813 | 1/4 | 141,799 | 1/4 | 126,786 | 1/4 | 111,773 | 1/4 | 96,755 |
| 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 201,447 | 1/2 | 186,493 | 1/2 | 171,513 | 1/2 | 156,500 | 1/2 | 141,486 | 1/2 | 126,473 | 1/2 | 111,460 | 1/2 | 96,442 |
| 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 201,138 | 3/4 | 186,181 | 3/4 | 171,200 | 3/4 | 156,187 | 3/4 | 141,173 | 3/4 | 126,160 | 3/4 | 111,147 | 3/4 | 96,129 |
| 4 | | 4 | | 4 | 200,830 | 4 | 185,869 | 4 | 170,888 | 4 | 155,874 | 4 | 140,861 | 4 | 125,847 | 4 | 110,834 | 4 | 95,816 |
| 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 200,521 | 1/4 | 185,557 | 1/4 | 170,575 | 1/4 | 155,561 | 1/4 | 140,548 | 1/4 | 125,535 | 1/4 | 110,521 | 1/4 | 95,503 |
| 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 200,210 | 1/2 | 185,245 | 1/2 | 170,262 | 1/2 | 155,249 | 1/2 | 140,235 | 1/2 | 125,222 | 1/2 | 110,209 | 1/2 | 95,190 |
| 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 199,900 | 3/4 | 184,934 | 3/4 | 169,949 | 3/4 | 154,936 | 3/4 | 139,922 | 3/4 | 124,909 | 3/4 | 109,896 | 3/4 | 94,877 |
| 5 | | 5 | | 5 | 199,590 | 5 | 184,622 | 5 | 169,637 | 5 | 154,623 | 5 | 139,610 | 5 | 124,596 | 5 | 109,583 | 5 | 94,564 |
| 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 199,279 | 1/4 | 184,310 | 1/4 | 169,324 | 1/4 | 154,310 | 1/4 | 139,297 | 1/4 | 124,284 | 1/4 | 109,270 | 1/4 | 94,251 |
| 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 198,968 | 1/2 | 183,998 | 1/2 | 169,011 | 1/2 | 153,997 | 1/2 | 138,984 | 1/2 | 123,971 | 1/2 | 108,958 | 1/2 | 93,939 |
| 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 198,656 | 3/4 | 183,686 | 3/4 | 168,698 | 3/4 | 153,685 | 3/4 | 138,671 | 3/4 | 123,658 | 3/4 | 108,645 | 3/4 | 93,626 |
| 6 | | 6 | | 6 | 198,344 | 6 | 183,374 | 6 | 168,385 | 6 | 153,372 | 6 | 138,358 | 6 | 123,345 | 6 | 108,332 | 6 | 93,313 |
| 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 198,032 | 1/4 | 183,062 | 1/4 | 168,073 | 1/4 | 153,059 | 1/4 | 138,046 | 1/4 | 123,032 | 1/4 | 108,019 | 1/4 | 93,000 |
| 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 197,720 | 1/2 | 182,750 | 1/2 | 167,760 | 1/2 | 152,746 | 1/2 | 137,733 | 1/2 | 122,720 | 1/2 | 107,706 | 1/2 | 92,687 |
| 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 197,408 | 3/4 | 182,439 | 3/4 | 167,447 | 3/4 | 152,434 | 3/4 | 137,420 | 3/4 | 122,407 | 3/4 | 107,394 | 3/4 | 92,374 |
| 7 | | 7 | | 7 | 197,096 | 7 | 182,127 | 7 | 167,134 | 7 | 152,121 | 7 | 137,107 | 7 | 122,094 | 7 | 107,081 | 7 | 92,061 |
| 1/4 | 1/4 | 210,668 | 1/4 | 196,785 | 1/4 | 181,815 | 1/4 | 166,821 | 1/4 | 151,808 | 1/4 | 136,795 | 1/4 | 121,781 | 1/4 | 106,768 | 1/4 | 91,748 | |
| 1/2 | 1/2 | 210,489 | 1/2 | 196,473 | 1/2 | 181,503 | 1/2 | 166,509 | 1/2 | 151,495 | 1/2 | 136,482 | 1/2 | 121,469 | 1/2 | 106,455 | 1/2 | 91,435 | |
| 3/4 | 3/4 | 210,311 | 3/4 | 196,161 | 3/4 | 181,191 | 3/4 | 166,196 | 3/4 | 151,182 | 3/4 | 136,169 | 3/4 | 121,156 | 3/4 | 106,142 | 3/4 | 91,122 | |
| 8 | | 210,132 | 8 | 195,849 | 8 | 180,879 | 8 | 165,883 | 8 | 150,870 | 8 | 135,856 | 8 | 120,843 | 8 | 105,829 | 8 | 90,809 | |
| 1/4 | 1/4 | 209,954 | 1/4 | 195,537 | 1/4 | 180,567 | 1/4 | 165,570 | 1/4 | 150,557 | 1/4 | 135,543 | 1/4 | 120,530 | 1/4 | 105,516 | 1/4 | 90,497 | |
| 1/2 | 1/2 | 209,723 | 1/2 | 195,225 | 1/2 | 180,256 | 1/2 | 165,258 | 1/2 | 150,244 | 1/2 | 135,231 | 1/2 | 120,217 | 1/2 | 105,203 | 1/2 | 90,184 | |
| 3/4 | 3/4 | 209,492 | 3/4 | 194,913 | 3/4 | 179,944 | 3/4 | 164,945 | 3/4 | 149,931 | 3/4 | 134,918 | 3/4 | 119,905 | 3/4 | 104,890 | 3/4 | 89,871 | |
| 9 | | 209,261 | 9 | 194,601 | 9 | 179,632 | 9 | 164,632 | 9 | 149,619 | 9 | 134,605 | 9 | 119,592 | 9 | 104,577 | 9 | 89,558 | |
| 1/4 | 1/4 | 209,031 | 1/4 | 194,290 | 1/4 | 179,320 | 1/4 | 164,319 | 1/4 | 149,306 | 1/4 | 134,292 | 1/4 | 119,279 | 1/4 | 104,265 | 1/4 | 89,245 | |
| 1/2 | 1/2 | 208,752 | 1/2 | 193,978 | 1/2 | 179,008 | 1/2 | 164,006 | 1/2 | 148,993 | 1/2 | 133,980 | 1/2 | 118,966 | 1/2 | 103,952 | 1/2 | 88,932 | |
| 3/4 | 3/4 | 208,473 | 3/4 | 193,666 | 3/4 | 178,696 | 3/4 | 163,694 | 3/4 | 148,680 | 3/4 | 133,667 | 3/4 | 118,654 | 3/4 | 103,639 | 3/4 | 88,619 | |
| 10 | | 208,194 | 10 | 193,354 | 10 | 178,384 | 10 | 163,381 | 10 | 148,367 | 10 | 133,354 | 10 | 118,341 | 10 | 103,326 | 10 | 88,306 | |
| 1/4 | 1/4 | 207,915 | 1/4 | 193,042 | 1/4 | 178,072 | 1/4 | 163,068 | 1/4 | 148,055 | 1/4 | 133,041 | 1/4 | 118,028 | 1/4 | 103,013 | 1/4 | 87,993 | |
| 1/2 | 1/2 | 207,610 | 1/2 | 192,730 | 1/2 | 177,761 | 1/2 | 162,755 | 1/2 | 147,742 | 1/2 | 132,728 | 1/2 | 117,715 | 1/2 | 102,700 | 1/2 | 87,680 | |
| 3/4 | 3/4 | 207,305 | 3/4 | 192,418 | 3/4 | 177,449 | 3/4 | 162,443 | 3/4 | 147,429 | 3/4 | 132,416 | 3/4 | 117,402 | 3/4 | 102,387 | 3/4 | 87,367 | |
| 11 | | 207,000 | 11 | 192,107 | 11 | 177,137 | 11 | 162,130 | 11 | 147,116 | 11 | 132,103 | 11 | 117,090 | 11 | 102,074 | 11 | 87,054 | |
| 1/4 | 1/4 | 206,696 | 1/4 | 191,795 | 1/4 | 176,825 | 1/4 | 161,817 | 1/4 | 146,804 | 1/4 | 131,790 | 1/4 | 116,777 | 1/4 | 101,761 | 1/4 | 86,742 | |
| 1/2 | 1/2 | 206,387 | 1/2 | 191,483 | 1/2 | 176,513 | 1/2 | 161,504 | 1/2 | 146,491 | 1/2 | 131,477 | 1/2 | 116,464 | 1/2 | 101,448 | 1/2 | 86,429 | |
| 3/4 | 3/4 | 206,079 | 3/4 | 191,171 | 3/4 | 176,201 | 3/4 | 161,191 | 3/4 | 146,178 | 3/4 | 131,165 | 3/4 | 116,151 | 3/4 | 101,135 | 3/4 | 86,116 | |

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY.

BARGE STRAPPED AND COMPUTED IN ACCORDANCE WITH 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 TAKEN TO THREADS ON "MMC" VALVE.
 GAUGE POINT: (MMC) LOCATED 12'-09" OFF CENTERLINE AND 43'-06" FORWARD OF AFT BULKHEAD.

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



BARGE "HFL 411"

1 STBD ULLAGE TABLE

CAPACITIES GIVEN IN WHOLE GALLONS

GAUGE HEIGHT 15'-10 1/4"

| IN | 10 FT. | IN | 11 FT. | IN | 12 FT. | IN | 13 FT. | IN | 14 FT. | IN | 15 FT. | IN | 16 FT. | IN | 17 FT. | IN | 18 FT. | IN | 19 FT. |
|-----|--------|-----|--------|-----|--------|-----|--------|-----|--------|-----|--------|-----|--------|-----|--------|-----|--------|-----|--------|
| 0 | 85,803 | 0 | 70,783 | 0 | 55,768 | 0 | 40,751 | 0 | 25,732 | 0 | 10,930 | 0 | | 0 | | 0 | | 0 | |
| 1/4 | 85,490 | 1/4 | 70,470 | 1/4 | 55,455 | 1/4 | 40,439 | 1/4 | 25,419 | 1/4 | 10,637 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 |
| 1/2 | 85,177 | 1/2 | 70,157 | 1/2 | 55,142 | 1/2 | 40,126 | 1/2 | 25,106 | 1/2 | 10,347 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 |
| 3/4 | 84,864 | 3/4 | 69,844 | 3/4 | 54,830 | 3/4 | 39,813 | 3/4 | 24,793 | 3/4 | 10,058 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 |
| 1 | 84,551 | 1 | 69,532 | 1 | 54,517 | 1 | 39,500 | 1 | 24,481 | 1 | 9,769 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 1/4 | 84,238 | 1/4 | 69,219 | 1/4 | 54,204 | 1/4 | 39,187 | 1/4 | 24,168 | 1/4 | 9,479 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 |
| 1/2 | 83,925 | 1/2 | 68,906 | 1/2 | 53,892 | 1/2 | 38,874 | 1/2 | 23,855 | 1/2 | 9,196 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 |
| 3/4 | 83,612 | 3/4 | 68,593 | 3/4 | 53,579 | 3/4 | 38,561 | 3/4 | 23,542 | 3/4 | 8,913 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 |
| 2 | 83,300 | 2 | 68,280 | 2 | 53,266 | 2 | 38,248 | 2 | 23,229 | 2 | 8,630 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| 1/4 | 82,987 | 1/4 | 67,967 | 1/4 | 52,954 | 1/4 | 37,935 | 1/4 | 22,916 | 1/4 | 8,347 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 |
| 1/2 | 82,674 | 1/2 | 67,654 | 1/2 | 52,641 | 1/2 | 37,622 | 1/2 | 22,603 | 1/2 | 8,073 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 |
| 3/4 | 82,361 | 3/4 | 67,341 | 3/4 | 52,328 | 3/4 | 37,310 | 3/4 | 22,290 | 3/4 | 7,799 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 |
| 3 | 82,048 | 3 | 67,028 | 3 | 52,015 | 3 | 36,997 | 3 | 21,977 | 3 | 7,524 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| 1/4 | 81,735 | 1/4 | 66,715 | 1/4 | 51,703 | 1/4 | 36,684 | 1/4 | 21,664 | 1/4 | 7,250 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 |
| 1/2 | 81,422 | 1/2 | 66,402 | 1/2 | 51,390 | 1/2 | 36,371 | 1/2 | 21,352 | 1/2 | 6,982 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 |
| 3/4 | 81,109 | 3/4 | 66,089 | 3/4 | 51,077 | 3/4 | 36,058 | 3/4 | 21,039 | 3/4 | 6,714 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 |
| 4 | 80,796 | 4 | 65,777 | 4 | 50,764 | 4 | 35,745 | 4 | 20,726 | 4 | 6,446 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| 1/4 | 80,483 | 1/4 | 65,464 | 1/4 | 50,451 | 1/4 | 35,432 | 1/4 | 20,413 | 1/4 | 6,178 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 |
| 1/2 | 80,170 | 1/2 | 65,151 | 1/2 | 50,138 | 1/2 | 35,119 | 1/2 | 20,100 | 1/2 | 5,914 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 |
| 3/4 | 79,858 | 3/4 | 64,838 | 3/4 | 49,826 | 3/4 | 34,806 | 3/4 | 19,787 | 3/4 | 5,650 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 |
| 5 | 79,545 | 5 | 64,525 | 5 | 49,513 | 5 | 34,493 | 5 | 19,474 | 5 | 5,386 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| 1/4 | 79,232 | 1/4 | 64,212 | 1/4 | 49,200 | 1/4 | 34,180 | 1/4 | 19,161 | 1/4 | 5,122 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 |
| 1/2 | 78,919 | 1/2 | 63,899 | 1/2 | 48,887 | 1/2 | 33,868 | 1/2 | 18,848 | 1/2 | 4,862 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 |
| 3/4 | 78,606 | 3/4 | 63,586 | 3/4 | 48,574 | 3/4 | 33,555 | 3/4 | 18,535 | 3/4 | 4,602 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 |
| 6 | 78,293 | 6 | 63,273 | 6 | 48,261 | 6 | 33,242 | 6 | 18,223 | 6 | 4,341 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| 1/4 | 77,980 | 1/4 | 62,960 | 1/4 | 47,948 | 1/4 | 32,929 | 1/4 | 17,910 | 1/4 | 4,081 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 |
| 1/2 | 77,667 | 1/2 | 62,648 | 1/2 | 47,635 | 1/2 | 32,616 | 1/2 | 17,598 | 1/2 | 3,825 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 |
| 3/4 | 77,354 | 3/4 | 62,335 | 3/4 | 47,322 | 3/4 | 32,303 | 3/4 | 17,286 | 3/4 | 3,568 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 |
| 7 | 77,041 | 7 | 62,022 | 7 | 47,009 | 7 | 31,990 | 7 | 16,974 | 7 | 3,312 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| 1/4 | 76,728 | 1/4 | 61,709 | 1/4 | 46,697 | 1/4 | 31,677 | 1/4 | 16,662 | 1/4 | 3,055 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 |
| 1/2 | 76,416 | 1/2 | 61,396 | 1/2 | 46,384 | 1/2 | 31,364 | 1/2 | 16,353 | 1/2 | 2,801 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 |
| 3/4 | 76,103 | 3/4 | 61,083 | 3/4 | 46,071 | 3/4 | 31,051 | 3/4 | 16,044 | 3/4 | 2,546 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 |
| 8 | 75,790 | 8 | 60,771 | 8 | 45,758 | 8 | 30,739 | 8 | 15,735 | 8 | 2,292 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| 1/4 | 75,477 | 1/4 | 60,458 | 1/4 | 45,445 | 1/4 | 30,426 | 1/4 | 15,426 | 1/4 | 2,037 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 |
| 1/2 | 75,164 | 1/2 | 60,145 | 1/2 | 45,132 | 1/2 | 30,113 | 1/2 | 15,120 | 1/2 | 1,801 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 |
| 3/4 | 74,851 | 3/4 | 59,833 | 3/4 | 44,819 | 3/4 | 29,800 | 3/4 | 14,815 | 3/4 | 1,565 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 |
| 9 | 74,538 | 9 | 59,520 | 9 | 44,506 | 9 | 29,487 | 9 | 14,510 | 9 | 1,329 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 |
| 1/4 | 74,225 | 1/4 | 59,207 | 1/4 | 44,193 | 1/4 | 29,174 | 1/4 | 14,205 | 1/4 | 1,093 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 |
| 1/2 | 73,912 | 1/2 | 58,895 | 1/2 | 43,880 | 1/2 | 28,861 | 1/2 | 13,904 | 1/2 | 916 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 |
| 3/4 | 73,599 | 3/4 | 58,582 | 3/4 | 43,568 | 3/4 | 28,548 | 3/4 | 13,602 | 3/4 | 739 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 |
| 10 | 73,286 | 10 | 58,269 | 10 | 43,255 | 10 | 28,235 | 10 | 13,301 | 10 | 562 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| 1/4 | 72,974 | 1/4 | 57,957 | 1/4 | 42,942 | 1/4 | 27,922 | 1/4 | 13,000 | 1/4 | 385 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 |
| 1/2 | 72,661 | 1/2 | 57,644 | 1/2 | 42,629 | 1/2 | 27,610 | 1/2 | 12,702 | 1/2 | | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 |
| 3/4 | 72,348 | 3/4 | 57,331 | 3/4 | 42,316 | 3/4 | 27,297 | 3/4 | 12,405 | 3/4 | | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 |
| 11 | 72,035 | 11 | 57,019 | 11 | 42,003 | 11 | 26,984 | 11 | 12,107 | 11 | | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 |
| 1/4 | 71,722 | 1/4 | 56,706 | 1/4 | 41,690 | 1/4 | 26,671 | 1/4 | 11,810 | 1/4 | | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 |
| 1/2 | 71,409 | 1/2 | 56,393 | 1/2 | 41,377 | 1/2 | 26,358 | 1/2 | 11,517 | 1/2 | | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 |
| 3/4 | 71,096 | 3/4 | 56,080 | 3/4 | 41,064 | 3/4 | 26,045 | 3/4 | 11,223 | 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.

STRAPPED: 02/09/2012 CL - SW
CALCULATED: 02/10/2012 CL
PRINTED: 02/10/2012 CL

CANCELS AND SUPERCEDES
ALL PRIOR TO 02/2012

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



BARGE "HFL 411"

2 PORT ULLAGE TABLE

CAPACITIES GIVEN IN WHOLE GALLONS

GAUGE HEIGHT 15'-10 1/2"

| 0 FT. | | 1 FT. | | 2 FT. | | 3 FT. | | 4 FT. | | 5 FT. | | 6 FT. | | 7 FT. | | 8 FT. | | 9 FT. | |
|-------|-----|-------|-----|-------|---------|-------|---------|-------|---------|-------|---------|-------|---------|-------|---------|-------|---------|-------|---------|
| IN | OUT | IN | OUT | IN | OUT | IN | OUT | IN | OUT | IN | OUT | IN | OUT | IN | OUT | IN | OUT | IN | OUT |
| 0 | | 0 | | 0 | 208,024 | 0 | 193,074 | 0 | 178,062 | 0 | 163,003 | 0 | 147,940 | 0 | 132,877 | 0 | 117,814 | 0 | 102,748 |
| 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 207,715 | 1/4 | 192,761 | 1/4 | 177,749 | 1/4 | 162,690 | 1/4 | 147,626 | 1/4 | 132,563 | 1/4 | 117,500 | 1/4 | 102,434 |
| 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 207,406 | 1/2 | 192,448 | 1/2 | 177,437 | 1/2 | 162,376 | 1/2 | 147,313 | 1/2 | 132,250 | 1/2 | 117,187 | 1/2 | 102,120 |
| 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 207,096 | 3/4 | 192,136 | 3/4 | 177,123 | 3/4 | 162,062 | 3/4 | 146,999 | 3/4 | 131,936 | 3/4 | 116,873 | 3/4 | 101,806 |
| 1 | | 1 | | 1 | 206,786 | 1 | 191,823 | 1 | 176,810 | 1 | 161,748 | 1 | 146,685 | 1 | 131,622 | 1 | 116,559 | 1 | 101,492 |
| 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 206,477 | 1/4 | 191,510 | 1/4 | 176,497 | 1/4 | 161,434 | 1/4 | 146,371 | 1/4 | 131,308 | 1/4 | 116,245 | 1/4 | 101,178 |
| 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 206,167 | 1/2 | 191,197 | 1/2 | 176,183 | 1/2 | 161,120 | 1/2 | 146,057 | 1/2 | 130,994 | 1/2 | 115,931 | 1/2 | 100,864 |
| 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 205,857 | 3/4 | 190,885 | 3/4 | 175,870 | 3/4 | 160,807 | 3/4 | 145,744 | 3/4 | 130,681 | 3/4 | 115,618 | 3/4 | 100,550 |
| 2 | | 2 | | 2 | 205,547 | 2 | 190,572 | 2 | 175,556 | 2 | 160,493 | 2 | 145,430 | 2 | 130,367 | 2 | 115,304 | 2 | 100,236 |
| 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 205,238 | 1/4 | 190,259 | 1/4 | 175,242 | 1/4 | 160,179 | 1/4 | 145,116 | 1/4 | 130,053 | 1/4 | 114,990 | 1/4 | 99,922 |
| 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 204,928 | 1/2 | 189,947 | 1/2 | 174,928 | 1/2 | 159,865 | 1/2 | 144,802 | 1/2 | 129,739 | 1/2 | 114,676 | 1/2 | 99,608 |
| 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 204,618 | 3/4 | 189,634 | 3/4 | 174,614 | 3/4 | 159,551 | 3/4 | 144,488 | 3/4 | 129,425 | 3/4 | 114,362 | 3/4 | 99,294 |
| 3 | | 3 | | 3 | 204,308 | 3 | 189,321 | 3 | 174,301 | 3 | 159,238 | 3 | 144,175 | 3 | 129,112 | 3 | 114,048 | 3 | 98,980 |
| 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 203,999 | 1/4 | 189,008 | 1/4 | 173,987 | 1/4 | 158,924 | 1/4 | 143,861 | 1/4 | 128,798 | 1/4 | 113,735 | 1/4 | 98,666 |
| 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 203,689 | 1/2 | 188,696 | 1/2 | 173,673 | 1/2 | 158,610 | 1/2 | 143,547 | 1/2 | 128,484 | 1/2 | 113,421 | 1/2 | 98,352 |
| 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 203,379 | 3/4 | 188,383 | 3/4 | 173,359 | 3/4 | 158,296 | 3/4 | 143,233 | 3/4 | 128,170 | 3/4 | 113,107 | 3/4 | 98,038 |
| 4 | | 4 | | 4 | 203,070 | 4 | 188,070 | 4 | 173,045 | 4 | 157,982 | 4 | 142,919 | 4 | 127,856 | 4 | 112,793 | 4 | 97,725 |
| 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 202,760 | 1/4 | 187,757 | 1/4 | 172,732 | 1/4 | 157,668 | 1/4 | 142,605 | 1/4 | 127,542 | 1/4 | 112,479 | 1/4 | 97,411 |
| 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 202,450 | 1/2 | 187,445 | 1/2 | 172,418 | 1/2 | 157,355 | 1/2 | 142,292 | 1/2 | 127,229 | 1/2 | 112,166 | 1/2 | 97,097 |
| 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 202,139 | 3/4 | 187,132 | 3/4 | 172,104 | 3/4 | 157,041 | 3/4 | 141,978 | 3/4 | 126,915 | 3/4 | 111,852 | 3/4 | 96,783 |
| 5 | | 5 | | 5 | 201,828 | 5 | 186,819 | 5 | 171,790 | 5 | 156,727 | 5 | 141,664 | 5 | 126,601 | 5 | 111,538 | 5 | 96,469 |
| 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 201,517 | 1/4 | 186,506 | 1/4 | 171,476 | 1/4 | 156,413 | 1/4 | 141,350 | 1/4 | 126,287 | 1/4 | 111,224 | 1/4 | 96,155 |
| 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 201,205 | 1/2 | 186,194 | 1/2 | 171,162 | 1/2 | 156,099 | 1/2 | 141,036 | 1/2 | 125,973 | 1/2 | 110,910 | 1/2 | 95,841 |
| 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 200,893 | 3/4 | 185,881 | 3/4 | 170,849 | 3/4 | 155,786 | 3/4 | 140,723 | 3/4 | 125,660 | 3/4 | 110,597 | 3/4 | 95,527 |
| 6 | | 6 | | 6 | 200,580 | 6 | 185,568 | 6 | 170,535 | 6 | 155,472 | 6 | 140,409 | 6 | 125,346 | 6 | 110,283 | 6 | 95,213 |
| 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 200,267 | 1/4 | 185,255 | 1/4 | 170,221 | 1/4 | 155,158 | 1/4 | 140,095 | 1/4 | 125,032 | 1/4 | 109,969 | 1/4 | 94,899 |
| 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 199,954 | 1/2 | 184,943 | 1/2 | 169,907 | 1/2 | 154,844 | 1/2 | 139,781 | 1/2 | 124,718 | 1/2 | 109,655 | 1/2 | 94,585 |
| 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 199,642 | 3/4 | 184,630 | 3/4 | 169,593 | 3/4 | 154,530 | 3/4 | 139,467 | 3/4 | 124,404 | 3/4 | 109,341 | 3/4 | 94,271 |
| 7 | | 7 | | 7 | 199,329 | 7 | 184,317 | 7 | 169,280 | 7 | 154,217 | 7 | 139,154 | 7 | 124,090 | 7 | 109,027 | 7 | 93,957 |
| 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 199,016 | 1/4 | 184,004 | 1/4 | 168,966 | 1/4 | 153,903 | 1/4 | 138,840 | 1/4 | 123,777 | 1/4 | 108,713 | 1/4 | 93,643 |
| 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 212,626 | 1/2 | 198,703 | 1/2 | 183,692 | 1/2 | 168,652 | 1/2 | 153,589 | 1/2 | 138,526 | 1/2 | 123,463 | 1/2 | 108,400 |
| 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 212,447 | 3/4 | 198,391 | 3/4 | 183,379 | 3/4 | 168,338 | 3/4 | 153,275 | 3/4 | 138,212 | 3/4 | 123,149 | 3/4 | 108,086 |
| 8 | | 8 | | 8 | 212,268 | 8 | 198,078 | 8 | 183,066 | 8 | 168,024 | 8 | 152,961 | 8 | 137,898 | 8 | 122,835 | 8 | 107,772 |
| 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 212,089 | 1/4 | 197,765 | 1/4 | 182,753 | 1/4 | 167,711 | 1/4 | 152,647 | 1/4 | 137,584 | 1/4 | 122,521 | 1/4 | 107,458 |
| 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 211,910 | 1/2 | 197,452 | 1/2 | 182,441 | 1/2 | 167,397 | 1/2 | 152,334 | 1/2 | 137,271 | 1/2 | 122,208 | 1/2 | 107,144 |
| 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 211,679 | 3/4 | 197,140 | 3/4 | 182,128 | 3/4 | 167,083 | 3/4 | 152,020 | 3/4 | 136,957 | 3/4 | 121,894 | 3/4 | 106,830 |
| 9 | | 9 | | 9 | 211,448 | 9 | 196,827 | 9 | 181,815 | 9 | 166,769 | 9 | 151,706 | 9 | 136,643 | 9 | 121,580 | 9 | 106,516 |
| 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 211,216 | 1/4 | 196,514 | 1/4 | 181,502 | 1/4 | 166,455 | 1/4 | 151,392 | 1/4 | 136,329 | 1/4 | 121,266 | 1/4 | 106,202 |
| 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 210,985 | 1/2 | 196,201 | 1/2 | 181,190 | 1/2 | 166,141 | 1/2 | 151,078 | 1/2 | 136,015 | 1/2 | 120,952 | 1/2 | 105,888 |
| 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 210,705 | 3/4 | 195,889 | 3/4 | 180,877 | 3/4 | 165,828 | 3/4 | 150,765 | 3/4 | 135,702 | 3/4 | 120,639 | 3/4 | 105,574 |
| 10 | | 10 | | 10 | 210,425 | 10 | 195,576 | 10 | 180,564 | 10 | 165,514 | 10 | 150,451 | 10 | 135,388 | 10 | 120,325 | 10 | 105,260 |
| 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 210,145 | 1/4 | 195,263 | 1/4 | 180,251 | 1/4 | 165,200 | 1/4 | 150,137 | 1/4 | 135,074 | 1/4 | 120,011 | 1/4 | 104,946 |
| 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 209,865 | 1/2 | 194,950 | 1/2 | 179,939 | 1/2 | 164,886 | 1/2 | 149,823 | 1/2 | 134,760 | 1/2 | 119,697 | 1/2 | 104,632 |
| 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 209,560 | 3/4 | 194,638 | 3/4 | 179,626 | 3/4 | 164,572 | 3/4 | 149,509 | 3/4 | 134,446 | 3/4 | 119,383 | 3/4 | 104,318 |
| 11 | | 11 | | 11 | 209,254 | 11 | 194,325 | 11 | 179,313 | 11 | 164,259 | 11 | 149,196 | 11 | 134,133 | 11 | 119,069 | 11 | 104,004 |
| 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 208,949 | 1/4 | 194,012 | 1/4 | 179,000 | 1/4 | 163,945 | 1/4 | 148,882 | 1/4 | 133,819 | 1/4 | 118,756 | 1/4 | 103,690 |
| 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 208,643 | 1/2 | 193,699 | 1/2 | 178,688 | 1/2 | 163,631 | 1/2 | 148,568 | 1/2 | 133,505 | 1/2 | 118,442 | 1/2 | 103,376 |
| 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 208,334 | 3/4 | 193,387 | 3/4 | 178,375 | 3/4 | 163,317 | 3/4 | 148,254 | 3/4 | 133,191 | 3/4 | 118,128 | 3/4 | 103,062 |

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY.

BARGE STRAPPED AND COMPUTED IN ACCORDANCE WITH 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 TAKEN TO THREADS ON "MMC" VALVE.

GAUGE POINT: (MMC) LOCATED 12'-09" OFF CENTERLINE AND 43'-03" FORWARD OF AFT BULKHEAD.

PRECISION MEASUREMENT
& ANALYSIS, INC.

P.O. Box 2092

Pearland, Texas 77588

<http://www.pmacorp.net>



BARGE "HFL 411"

2 PORT ULLAGE TABLE

CAPACITIES GIVEN IN WHOLE GALLONS

GAUGE HEIGHT 15'-10 1/2"

| 10 FT. | | 11 FT. | | 12 FT. | | 13 FT. | | 14 FT. | | 15 FT. | | 16 FT. | | 17 FT. | | 18 FT. | | 19 FT. | |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-----|--------|-----|--------|-----|--------|-----|
| IN | | IN | | IN | | IN | | IN | | IN | | IN | | IN | | IN | | IN | |
| 0 | 87,677 | 0 | 72,684 | 0 | 57,896 | 0 | 43,410 | 0 | 28,638 | 0 | 13,570 | 0 | | 0 | | 0 | | 0 | |
| 1/4 | 87,363 | 1/4 | 72,370 | 1/4 | 57,593 | 1/4 | 43,109 | 1/4 | 28,324 | 1/4 | 13,256 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 |
| 1/2 | 87,050 | 1/2 | 72,056 | 1/2 | 57,291 | 1/2 | 42,808 | 1/2 | 28,010 | 1/2 | 12,942 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 |
| 3/4 | 86,738 | 3/4 | 71,742 | 3/4 | 56,989 | 3/4 | 42,506 | 3/4 | 27,696 | 3/4 | 12,629 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 |
| 1 | 86,426 | 1 | 71,428 | 1 | 56,687 | 1 | 42,205 | 1 | 27,383 | 1 | 12,315 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 1/4 | 86,115 | 1/4 | 71,114 | 1/4 | 56,385 | 1/4 | 41,904 | 1/4 | 27,069 | 1/4 | 12,002 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 |
| 1/2 | 85,803 | 1/2 | 70,800 | 1/2 | 56,082 | 1/2 | 41,603 | 1/2 | 26,755 | 1/2 | 11,688 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 |
| 3/4 | 85,494 | 3/4 | 70,486 | 3/4 | 55,780 | 3/4 | 41,301 | 3/4 | 26,441 | 3/4 | 11,377 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 |
| 2 | 85,185 | 2 | 70,172 | 2 | 55,478 | 2 | 41,000 | 2 | 26,127 | 2 | 11,066 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| 1/4 | 84,876 | 1/4 | 69,858 | 1/4 | 55,176 | 1/4 | 40,699 | 1/4 | 25,813 | 1/4 | 10,755 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 |
| 1/2 | 84,567 | 1/2 | 69,544 | 1/2 | 54,874 | 1/2 | 40,398 | 1/2 | 25,500 | 1/2 | 10,444 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 |
| 3/4 | 84,258 | 3/4 | 69,230 | 3/4 | 54,571 | 3/4 | 40,096 | 3/4 | 25,186 | 3/4 | 10,138 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 |
| 3 | 83,949 | 3 | 68,916 | 3 | 54,269 | 3 | 39,795 | 3 | 24,872 | 3 | 9,832 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| 1/4 | 83,639 | 1/4 | 68,602 | 1/4 | 53,967 | 1/4 | 39,494 | 1/4 | 24,558 | 1/4 | 9,526 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 |
| 1/2 | 83,330 | 1/2 | 68,288 | 1/2 | 53,665 | 1/2 | 39,192 | 1/2 | 24,244 | 1/2 | 9,220 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 |
| 3/4 | 83,021 | 3/4 | 67,974 | 3/4 | 53,362 | 3/4 | 38,891 | 3/4 | 23,940 | 3/4 | 8,916 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 |
| 4 | 82,712 | 4 | 67,660 | 4 | 53,060 | 4 | 38,589 | 4 | 23,616 | 4 | 8,612 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| 1/4 | 82,403 | 1/4 | 67,346 | 1/4 | 52,758 | 1/4 | 38,287 | 1/4 | 23,302 | 1/4 | 8,309 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 |
| 1/2 | 82,094 | 1/2 | 67,033 | 1/2 | 52,456 | 1/2 | 37,986 | 1/2 | 22,988 | 1/2 | 8,005 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 |
| 3/4 | 81,782 | 3/4 | 66,719 | 3/4 | 52,154 | 3/4 | 37,683 | 3/4 | 22,674 | 3/4 | 7,701 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 |
| 5 | 81,471 | 5 | 66,405 | 5 | 51,851 | 5 | 37,381 | 5 | 22,360 | 5 | 7,398 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| 1/4 | 81,159 | 1/4 | 66,091 | 1/4 | 51,549 | 1/4 | 37,079 | 1/4 | 22,046 | 1/4 | 7,094 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 |
| 1/2 | 80,848 | 1/2 | 65,777 | 1/2 | 51,247 | 1/2 | 36,777 | 1/2 | 21,732 | 1/2 | 6,790 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 |
| 3/4 | 80,534 | 3/4 | 65,469 | 3/4 | 50,945 | 3/4 | 36,469 | 3/4 | 21,418 | 3/4 | 6,487 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 |
| 6 | 80,220 | 6 | 65,160 | 6 | 50,643 | 6 | 36,161 | 6 | 21,104 | 6 | 6,183 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| 1/4 | 79,906 | 1/4 | 64,852 | 1/4 | 50,341 | 1/4 | 35,852 | 1/4 | 20,790 | 1/4 | 5,879 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 |
| 1/2 | 79,592 | 1/2 | 64,544 | 1/2 | 50,040 | 1/2 | 35,544 | 1/2 | 20,476 | 1/2 | 5,575 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 |
| 3/4 | 79,278 | 3/4 | 64,242 | 3/4 | 49,738 | 3/4 | 35,230 | 3/4 | 20,162 | 3/4 | 5,272 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 |
| 7 | 78,964 | 7 | 63,940 | 7 | 49,437 | 7 | 34,916 | 7 | 19,848 | 7 | 4,968 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| 1/4 | 78,650 | 1/4 | 63,638 | 1/4 | 49,135 | 1/4 | 34,602 | 1/4 | 19,534 | 1/4 | 4,664 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 |
| 1/2 | 78,336 | 1/2 | 63,335 | 1/2 | 48,834 | 1/2 | 34,288 | 1/2 | 19,220 | 1/2 | 4,360 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 |
| 3/4 | 78,022 | 3/4 | 63,033 | 3/4 | 48,532 | 3/4 | 33,975 | 3/4 | 18,906 | 3/4 | 4,055 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 |
| 8 | 77,708 | 8 | 62,731 | 8 | 48,231 | 8 | 33,661 | 8 | 18,592 | 8 | 3,749 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| 1/4 | 77,394 | 1/4 | 62,429 | 1/4 | 47,929 | 1/4 | 33,347 | 1/4 | 18,278 | 1/4 | 3,444 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 |
| 1/2 | 77,080 | 1/2 | 62,127 | 1/2 | 47,628 | 1/2 | 33,033 | 1/2 | 17,964 | 1/2 | 3,138 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 |
| 3/4 | 76,766 | 3/4 | 61,824 | 3/4 | 47,327 | 3/4 | 32,719 | 3/4 | 17,650 | 3/4 | 2,847 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 |
| 9 | 76,452 | 9 | 61,522 | 9 | 47,025 | 9 | 32,405 | 9 | 17,336 | 9 | 2,556 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 |
| 1/4 | 76,138 | 1/4 | 61,220 | 1/4 | 46,724 | 1/4 | 32,091 | 1/4 | 17,022 | 1/4 | 2,265 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 |
| 1/2 | 75,824 | 1/2 | 60,918 | 1/2 | 46,423 | 1/2 | 31,777 | 1/2 | 16,708 | 1/2 | 1,974 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 |
| 3/4 | 75,510 | 3/4 | 60,615 | 3/4 | 46,122 | 3/4 | 31,463 | 3/4 | 16,394 | 3/4 | 1,738 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 |
| 10 | 75,196 | 10 | 60,313 | 10 | 45,820 | 10 | 31,149 | 10 | 16,080 | 10 | 1,503 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| 1/4 | 74,882 | 1/4 | 60,011 | 1/4 | 45,519 | 1/4 | 30,835 | 1/4 | 15,767 | 1/4 | 1,267 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 |
| 1/2 | 74,568 | 1/2 | 59,709 | 1/2 | 45,218 | 1/2 | 30,521 | 1/2 | 15,453 | 1/2 | 1,032 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 |
| 3/4 | 74,254 | 3/4 | 59,407 | 3/4 | 44,917 | 3/4 | 30,207 | 3/4 | 15,139 | 3/4 | | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 |
| 11 | 73,940 | 11 | 59,104 | 11 | 44,615 | 11 | 29,893 | 11 | 14,825 | 11 | | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 |
| 1/4 | 73,626 | 1/4 | 58,802 | 1/4 | 44,314 | 1/4 | 29,579 | 1/4 | 14,511 | 1/4 | | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 |
| 1/2 | 73,312 | 1/2 | 58,500 | 1/2 | 44,013 | 1/2 | 29,265 | 1/2 | 14,197 | 1/2 | | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 |
| 3/4 | 72,998 | 3/4 | 58,198 | 3/4 | 43,712 | 3/4 | 28,951 | 3/4 | 13,883 | 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.

STRAPPED: 02/09/2012 CL - SW
CALCULATED: 02/10/2012 CL
PRINTED: 02/10/2012 CL

CANCELS AND SUPERCEDES
ALL PRIOR TO 02/2012

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



BARGE "HFL 411"

2 STBD ULLAGE TABLE

CAPACITIES GIVEN IN WHOLE GALLONS

GAUGE HEIGHT 15'-10 1/2"

| 0 FT. | | 1 FT. | | 2 FT. | | 3 FT. | | 4 FT. | | 5 FT. | | 6 FT. | | 7 FT. | | 8 FT. | | 9 FT. | |
|-------|-----|-------|-----|-------|---------|-------|---------|-------|---------|-------|---------|-------|---------|-------|---------|-------|---------|-------|---------|
| IN | | IN | | IN | | IN | | IN | | IN | | IN | | IN | | IN | | IN | |
| 0 | | 0 | | 0 | 209,238 | 0 | 194,287 | 0 | 179,274 | 0 | 164,215 | 0 | 149,152 | 0 | 134,088 | 0 | 119,025 | 0 | 103,958 |
| 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 208,928 | 1/4 | 193,974 | 1/4 | 178,962 | 1/4 | 163,901 | 1/4 | 148,838 | 1/4 | 133,774 | 1/4 | 118,711 | 1/4 | 103,644 |
| 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 208,619 | 1/2 | 193,661 | 1/2 | 178,649 | 1/2 | 163,587 | 1/2 | 148,524 | 1/2 | 133,460 | 1/2 | 118,397 | 1/2 | 103,330 |
| 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 208,309 | 3/4 | 193,348 | 3/4 | 178,335 | 3/4 | 163,274 | 3/4 | 148,210 | 3/4 | 133,147 | 3/4 | 118,083 | 3/4 | 103,016 |
| 1 | | 1 | | 1 | 208,000 | 1 | 193,036 | 1 | 178,022 | 1 | 162,960 | 1 | 147,896 | 1 | 132,833 | 1 | 117,769 | 1 | 102,702 |
| 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 207,690 | 1/4 | 192,723 | 1/4 | 177,709 | 1/4 | 162,646 | 1/4 | 147,582 | 1/4 | 132,519 | 1/4 | 117,455 | 1/4 | 102,388 |
| 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 207,380 | 1/2 | 192,410 | 1/2 | 177,396 | 1/2 | 162,332 | 1/2 | 147,269 | 1/2 | 132,205 | 1/2 | 117,142 | 1/2 | 102,074 |
| 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 207,070 | 3/4 | 192,097 | 3/4 | 177,082 | 3/4 | 162,018 | 3/4 | 146,955 | 3/4 | 131,891 | 3/4 | 116,828 | 3/4 | 101,760 |
| 2 | | 2 | | 2 | 206,760 | 2 | 191,785 | 2 | 176,768 | 2 | 161,704 | 2 | 146,641 | 2 | 131,577 | 2 | 116,514 | 2 | 101,446 |
| 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 206,451 | 1/4 | 191,472 | 1/4 | 176,454 | 1/4 | 161,391 | 1/4 | 146,327 | 1/4 | 131,264 | 1/4 | 116,200 | 1/4 | 101,132 |
| 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 206,141 | 1/2 | 191,159 | 1/2 | 176,140 | 1/2 | 161,077 | 1/2 | 146,013 | 1/2 | 130,950 | 1/2 | 115,886 | 1/2 | 100,818 |
| 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 205,831 | 3/4 | 190,846 | 3/4 | 175,826 | 3/4 | 160,763 | 3/4 | 145,699 | 3/4 | 130,636 | 3/4 | 115,573 | 3/4 | 100,504 |
| 3 | | 3 | | 3 | 205,521 | 3 | 190,534 | 3 | 175,513 | 3 | 160,449 | 3 | 145,386 | 3 | 130,322 | 3 | 115,259 | 3 | 100,190 |
| 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 205,212 | 1/4 | 190,221 | 1/4 | 175,199 | 1/4 | 160,135 | 1/4 | 145,072 | 1/4 | 130,008 | 1/4 | 114,945 | 1/4 | 99,876 |
| 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 204,902 | 1/2 | 189,908 | 1/2 | 174,885 | 1/2 | 159,822 | 1/2 | 144,758 | 1/2 | 129,695 | 1/2 | 114,631 | 1/2 | 99,562 |
| 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 204,592 | 3/4 | 189,595 | 3/4 | 174,571 | 3/4 | 159,508 | 3/4 | 144,444 | 3/4 | 129,381 | 3/4 | 114,317 | 3/4 | 99,248 |
| 4 | | 4 | | 4 | 204,283 | 4 | 189,283 | 4 | 174,257 | 4 | 159,194 | 4 | 144,130 | 4 | 129,067 | 4 | 114,003 | 4 | 98,934 |
| 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 203,973 | 1/4 | 188,970 | 1/4 | 173,944 | 1/4 | 158,880 | 1/4 | 143,817 | 1/4 | 128,753 | 1/4 | 113,690 | 1/4 | 98,620 |
| 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 203,663 | 1/2 | 188,657 | 1/2 | 173,630 | 1/2 | 158,566 | 1/2 | 143,503 | 1/2 | 128,439 | 1/2 | 113,376 | 1/2 | 98,306 |
| 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 203,352 | 3/4 | 188,344 | 3/4 | 173,316 | 3/4 | 158,252 | 3/4 | 143,189 | 3/4 | 128,125 | 3/4 | 113,062 | 3/4 | 97,992 |
| 5 | | 5 | | 5 | 203,041 | 5 | 188,031 | 5 | 173,002 | 5 | 157,939 | 5 | 142,875 | 5 | 127,812 | 5 | 112,748 | 5 | 97,678 |
| 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 202,730 | 1/4 | 187,719 | 1/4 | 172,688 | 1/4 | 157,625 | 1/4 | 142,561 | 1/4 | 127,498 | 1/4 | 112,434 | 1/4 | 97,364 |
| 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 202,418 | 1/2 | 187,406 | 1/2 | 172,374 | 1/2 | 157,311 | 1/2 | 142,247 | 1/2 | 127,184 | 1/2 | 112,120 | 1/2 | 97,050 |
| 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 202,106 | 3/4 | 187,093 | 3/4 | 172,061 | 3/4 | 156,997 | 3/4 | 141,934 | 3/4 | 126,870 | 3/4 | 111,807 | 3/4 | 96,736 |
| 6 | | 6 | | 6 | 201,793 | 6 | 186,780 | 6 | 171,747 | 6 | 156,683 | 6 | 141,620 | 6 | 126,556 | 6 | 111,493 | 6 | 96,422 |
| 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 201,480 | 1/4 | 186,468 | 1/4 | 171,433 | 1/4 | 156,369 | 1/4 | 141,306 | 1/4 | 126,242 | 1/4 | 111,179 | 1/4 | 96,108 |
| 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 201,167 | 1/2 | 186,155 | 1/2 | 171,119 | 1/2 | 156,056 | 1/2 | 140,992 | 1/2 | 125,929 | 1/2 | 110,865 | 1/2 | 95,794 |
| 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 200,855 | 3/4 | 185,842 | 3/4 | 170,805 | 3/4 | 155,742 | 3/4 | 140,678 | 3/4 | 125,615 | 3/4 | 110,551 | 3/4 | 95,480 |
| 7 | | 7 | | 7 | 200,542 | 7 | 185,529 | 7 | 170,491 | 7 | 155,428 | 7 | 140,365 | 7 | 125,301 | 7 | 110,237 | 7 | 95,166 |
| 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 200,229 | 1/4 | 185,217 | 1/4 | 170,178 | 1/4 | 155,114 | 1/4 | 140,051 | 1/4 | 124,987 | 1/4 | 109,923 | 1/4 | 94,852 |
| 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 213,839 | 1/2 | 199,916 | 1/2 | 184,904 | 1/2 | 169,864 | 1/2 | 154,800 | 1/2 | 139,737 | 1/2 | 124,673 | 1/2 | 109,610 |
| 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 213,660 | 3/4 | 199,604 | 3/4 | 184,591 | 3/4 | 169,550 | 3/4 | 154,487 | 3/4 | 139,423 | 3/4 | 124,360 | 3/4 | 109,296 |
| 8 | | 8 | | 8 | 213,481 | 8 | 199,291 | 8 | 184,278 | 8 | 169,236 | 8 | 154,173 | 8 | 139,109 | 8 | 124,046 | 8 | 108,982 |
| 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 213,302 | 1/4 | 198,978 | 1/4 | 183,966 | 1/4 | 168,922 | 1/4 | 153,859 | 1/4 | 138,795 | 1/4 | 123,732 | 1/4 | 108,668 |
| 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 213,123 | 1/2 | 198,665 | 1/2 | 183,653 | 1/2 | 168,609 | 1/2 | 153,545 | 1/2 | 138,482 | 1/2 | 123,418 | 1/2 | 108,354 |
| 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 212,892 | 3/4 | 198,353 | 3/4 | 183,340 | 3/4 | 168,295 | 3/4 | 153,231 | 3/4 | 138,168 | 3/4 | 123,104 | 3/4 | 108,040 |
| 9 | | 9 | | 9 | 212,661 | 9 | 198,040 | 9 | 183,027 | 9 | 167,981 | 9 | 152,917 | 9 | 137,854 | 9 | 122,790 | 9 | 107,726 |
| 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 212,430 | 1/4 | 197,727 | 1/4 | 182,715 | 1/4 | 167,667 | 1/4 | 152,604 | 1/4 | 137,540 | 1/4 | 122,477 | 1/4 | 107,412 |
| 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 212,198 | 1/2 | 197,414 | 1/2 | 182,402 | 1/2 | 167,353 | 1/2 | 152,290 | 1/2 | 137,226 | 1/2 | 122,163 | 1/2 | 107,098 |
| 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 211,918 | 3/4 | 197,101 | 3/4 | 182,089 | 3/4 | 167,039 | 3/4 | 151,976 | 3/4 | 136,912 | 3/4 | 121,849 | 3/4 | 106,784 |
| 10 | | 10 | | 10 | 211,638 | 10 | 196,789 | 10 | 181,776 | 10 | 166,726 | 10 | 151,662 | 10 | 136,599 | 10 | 121,535 | 10 | 106,470 |
| 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 211,359 | 1/4 | 196,476 | 1/4 | 181,464 | 1/4 | 166,412 | 1/4 | 151,348 | 1/4 | 136,285 | 1/4 | 121,221 | 1/4 | 106,156 |
| 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 211,079 | 1/2 | 196,163 | 1/2 | 181,151 | 1/2 | 166,098 | 1/2 | 151,034 | 1/2 | 135,971 | 1/2 | 120,907 | 1/2 | 105,842 |
| 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 210,773 | 3/4 | 195,850 | 3/4 | 180,838 | 3/4 | 165,784 | 3/4 | 150,721 | 3/4 | 135,657 | 3/4 | 120,594 | 3/4 | 105,528 |
| 11 | | 11 | | 11 | 210,467 | 11 | 195,538 | 11 | 180,525 | 11 | 165,470 | 11 | 150,407 | 11 | 135,343 | 11 | 120,280 | 11 | 105,214 |
| 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 210,162 | 1/4 | 195,225 | 1/4 | 180,213 | 1/4 | 165,157 | 1/4 | 150,093 | 1/4 | 135,030 | 1/4 | 119,966 | 1/4 | 104,900 |
| 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 209,856 | 1/2 | 194,912 | 1/2 | 179,900 | 1/2 | 164,843 | 1/2 | 149,779 | 1/2 | 134,716 | 1/2 | 119,652 | 1/2 | 104,586 |
| 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 209,547 | 3/4 | 194,599 | 3/4 | 179,587 | 3/4 | 164,529 | 3/4 | 149,465 | 3/4 | 134,402 | 3/4 | 119,338 | 3/4 | 104,272 |

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY.

BARGE STRAPPED AND COMPUTED IN ACCORDANCE WITH 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 TAKEN TO THREADS ON "MMC" VALVE.
 GAUGE POINT: (MMC) LOCATED 12'-09" OFF CENTERLINE AND 43'-03" FORWARD OF AFT BULKHEAD.

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



BARGE "HFL 411"

2 STBD ULLAGE TABLE

CAPACITIES GIVEN IN WHOLE GALLONS

GAUGE HEIGHT 15'-10 1/2"

| IN | 10 FT. | IN | 11 FT. | IN | 12 FT. | IN | 13 FT. | IN | 14 FT. | IN | 15 FT. | IN | 16 FT. | IN | 17 FT. | IN | 18 FT. | IN | 19 FT. |
|-----|--------|-----|--------|-----|--------|-----|--------|-----|--------|-----|--------|-----|--------|-----|--------|-----|--------|-----|--------|
| 0 | 88,887 | 0 | 73,816 | 0 | 58,745 | 0 | 43,694 | 0 | 28,639 | 0 | 13,570 | 0 | | 0 | | 0 | | 0 | |
| 1/4 | 88,573 | 1/4 | 73,502 | 1/4 | 58,431 | 1/4 | 43,381 | 1/4 | 28,325 | 1/4 | 13,257 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 |
| 1/2 | 88,259 | 1/2 | 73,188 | 1/2 | 58,117 | 1/2 | 43,068 | 1/2 | 28,011 | 1/2 | 12,943 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 |
| 3/4 | 87,945 | 3/4 | 72,874 | 3/4 | 57,803 | 3/4 | 42,755 | 3/4 | 27,698 | 3/4 | 12,630 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 |
| 1 | 87,631 | 1 | 72,560 | 1 | 57,489 | 1 | 42,442 | 1 | 27,384 | 1 | 12,316 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 1/4 | 87,317 | 1/4 | 72,246 | 1/4 | 57,175 | 1/4 | 42,129 | 1/4 | 27,070 | 1/4 | 12,003 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 |
| 1/2 | 87,003 | 1/2 | 71,932 | 1/2 | 56,861 | 1/2 | 41,816 | 1/2 | 26,756 | 1/2 | 11,689 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 |
| 3/4 | 86,689 | 3/4 | 71,618 | 3/4 | 56,547 | 3/4 | 41,503 | 3/4 | 26,442 | 3/4 | 11,378 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 |
| 2 | 86,375 | 2 | 71,304 | 2 | 56,233 | 2 | 41,190 | 2 | 26,128 | 2 | 11,067 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| 1/4 | 86,061 | 1/4 | 70,990 | 1/4 | 55,919 | 1/4 | 40,877 | 1/4 | 25,814 | 1/4 | 10,756 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 |
| 1/2 | 85,747 | 1/2 | 70,676 | 1/2 | 55,605 | 1/2 | 40,564 | 1/2 | 25,501 | 1/2 | 10,445 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 |
| 3/4 | 85,433 | 3/4 | 70,362 | 3/4 | 55,291 | 3/4 | 40,251 | 3/4 | 25,187 | 3/4 | 10,139 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 |
| 3 | 85,119 | 3 | 70,048 | 3 | 54,977 | 3 | 39,938 | 3 | 24,873 | 3 | 9,832 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| 1/4 | 84,805 | 1/4 | 69,734 | 1/4 | 54,663 | 1/4 | 39,625 | 1/4 | 24,559 | 1/4 | 9,526 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 |
| 1/2 | 84,491 | 1/2 | 69,420 | 1/2 | 54,349 | 1/2 | 39,312 | 1/2 | 24,245 | 1/2 | 9,220 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 |
| 3/4 | 84,177 | 3/4 | 69,106 | 3/4 | 54,035 | 3/4 | 38,998 | 3/4 | 23,931 | 3/4 | 8,916 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 |
| 4 | 83,863 | 4 | 68,792 | 4 | 53,721 | 4 | 38,684 | 4 | 23,617 | 4 | 8,613 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| 1/4 | 83,549 | 1/4 | 68,478 | 1/4 | 53,407 | 1/4 | 38,371 | 1/4 | 23,303 | 1/4 | 8,309 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 |
| 1/2 | 83,235 | 1/2 | 68,164 | 1/2 | 53,093 | 1/2 | 38,057 | 1/2 | 22,989 | 1/2 | 8,005 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 |
| 3/4 | 82,921 | 3/4 | 67,850 | 3/4 | 52,779 | 3/4 | 37,743 | 3/4 | 22,675 | 3/4 | 7,702 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 |
| 5 | 82,607 | 5 | 67,536 | 5 | 52,465 | 5 | 37,429 | 5 | 22,361 | 5 | 7,398 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| 1/4 | 82,293 | 1/4 | 67,222 | 1/4 | 52,151 | 1/4 | 37,116 | 1/4 | 22,047 | 1/4 | 7,094 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 |
| 1/2 | 81,979 | 1/2 | 66,908 | 1/2 | 51,837 | 1/2 | 36,802 | 1/2 | 21,733 | 1/2 | 6,791 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 |
| 3/4 | 81,665 | 3/4 | 66,594 | 3/4 | 51,524 | 3/4 | 36,488 | 3/4 | 21,419 | 3/4 | 6,487 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 |
| 6 | 81,351 | 6 | 66,280 | 6 | 51,210 | 6 | 36,174 | 6 | 21,105 | 6 | 6,183 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| 1/4 | 81,037 | 1/4 | 65,966 | 1/4 | 50,896 | 1/4 | 35,860 | 1/4 | 20,791 | 1/4 | 5,879 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 |
| 1/2 | 80,723 | 1/2 | 65,652 | 1/2 | 50,583 | 1/2 | 35,546 | 1/2 | 20,477 | 1/2 | 5,576 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 |
| 3/4 | 80,409 | 3/4 | 65,338 | 3/4 | 50,269 | 3/4 | 35,232 | 3/4 | 20,163 | 3/4 | 5,272 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 |
| 7 | 80,095 | 7 | 65,024 | 7 | 49,956 | 7 | 34,918 | 7 | 19,849 | 7 | 4,968 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| 1/4 | 79,781 | 1/4 | 64,710 | 1/4 | 49,643 | 1/4 | 34,604 | 1/4 | 19,535 | 1/4 | 4,664 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 |
| 1/2 | 79,467 | 1/2 | 64,396 | 1/2 | 49,330 | 1/2 | 34,290 | 1/2 | 19,221 | 1/2 | 4,361 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 |
| 3/4 | 79,153 | 3/4 | 64,082 | 3/4 | 49,016 | 3/4 | 33,976 | 3/4 | 18,907 | 3/4 | 4,055 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 |
| 8 | 78,839 | 8 | 63,768 | 8 | 48,703 | 8 | 33,662 | 8 | 18,593 | 8 | 3,750 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| 1/4 | 78,526 | 1/4 | 63,454 | 1/4 | 48,390 | 1/4 | 33,348 | 1/4 | 18,279 | 1/4 | 3,444 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 |
| 1/2 | 78,212 | 1/2 | 63,140 | 1/2 | 48,077 | 1/2 | 33,034 | 1/2 | 17,965 | 1/2 | 3,138 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 |
| 3/4 | 77,898 | 3/4 | 62,826 | 3/4 | 47,764 | 3/4 | 32,720 | 3/4 | 17,651 | 3/4 | 2,847 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 |
| 9 | 77,584 | 9 | 62,513 | 9 | 47,451 | 9 | 32,406 | 9 | 17,337 | 9 | 2,556 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 |
| 1/4 | 77,270 | 1/4 | 62,199 | 1/4 | 47,138 | 1/4 | 32,092 | 1/4 | 17,023 | 1/4 | 2,265 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 |
| 1/2 | 76,956 | 1/2 | 61,885 | 1/2 | 46,825 | 1/2 | 31,778 | 1/2 | 16,709 | 1/2 | 1,974 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 |
| 3/4 | 76,642 | 3/4 | 61,571 | 3/4 | 46,512 | 3/4 | 31,464 | 3/4 | 16,395 | 3/4 | 1,739 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 |
| 10 | 76,328 | 10 | 61,257 | 10 | 46,199 | 10 | 31,150 | 10 | 16,081 | 10 | 1,503 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| 1/4 | 76,014 | 1/4 | 60,943 | 1/4 | 45,886 | 1/4 | 30,836 | 1/4 | 15,767 | 1/4 | 1,268 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 |
| 1/2 | 75,700 | 1/2 | 60,629 | 1/2 | 45,573 | 1/2 | 30,522 | 1/2 | 15,453 | 1/2 | 1,032 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 |
| 3/4 | 75,386 | 3/4 | 60,315 | 3/4 | 45,259 | 3/4 | 30,208 | 3/4 | 15,139 | 3/4 | | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 |
| 11 | 75,072 | 11 | 60,001 | 11 | 44,946 | 11 | 29,894 | 11 | 14,826 | 11 | | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 |
| 1/4 | 74,758 | 1/4 | 59,687 | 1/4 | 44,633 | 1/4 | 29,580 | 1/4 | 14,512 | 1/4 | | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 |
| 1/2 | 74,444 | 1/2 | 59,373 | 1/2 | 44,320 | 1/2 | 29,266 | 1/2 | 14,198 | 1/2 | | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 |
| 3/4 | 74,130 | 3/4 | 59,059 | 3/4 | 44,007 | 3/4 | 28,953 | 3/4 | 13,884 | 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.

STRAPPED: 02/09/2012 CL - SW
CALCULATED: 02/10/2012 CL
PRINTED: 02/10/2012 CL

CANCELS AND SUPERCEDES
ALL PRIOR TO 02/2012

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



BARGE "HFL 411"

3 PORT ULLAGE TABLE

CAPACITIES GIVEN IN WHOLE GALLONS

GAUGE HEIGHT 15'-10 3/4"

| 0 FT. | | 1 FT. | | 2 FT. | | 3 FT. | | 4 FT. | | 5 FT. | | 6 FT. | | 7 FT. | | 8 FT. | | 9 FT. | |
|-------|-----|---------|---------|-------|---------|-------|---------|-------|---------|-------|---------|-------|---------|-------|---------|-------|---------|-------|--|
| 0 | 0 | 0 | 188,737 | 0 | 178,402 | 0 | 168,068 | 0 | 157,700 | 0 | 147,224 | 0 | 132,865 | 0 | 117,896 | 0 | 102,922 | | |
| 1/4 | 1/4 | 1/4 | 188,522 | 1/4 | 178,187 | 1/4 | 167,852 | 1/4 | 157,484 | 1/4 | 146,976 | 1/4 | 132,554 | 1/4 | 117,584 | 1/4 | 102,609 | | |
| 1/2 | 1/2 | 1/2 | 188,307 | 1/2 | 177,971 | 1/2 | 167,637 | 1/2 | 157,268 | 1/2 | 146,729 | 1/2 | 132,242 | 1/2 | 117,273 | 1/2 | 102,297 | | |
| 3/4 | 3/4 | 3/4 | 188,092 | 3/4 | 177,756 | 3/4 | 167,422 | 3/4 | 157,052 | 3/4 | 146,482 | 3/4 | 131,930 | 3/4 | 116,961 | 3/4 | 101,985 | | |
| 1 | 1 | 1 | 187,876 | 1 | 177,541 | 1 | 167,206 | 1 | 156,836 | 1 | 146,219 | 1 | 131,618 | 1 | 116,649 | 1 | 101,673 | | |
| 1/4 | 1/4 | 1/4 | 187,661 | 1/4 | 177,326 | 1/4 | 166,990 | 1/4 | 156,620 | 1/4 | 145,956 | 1/4 | 131,306 | 1/4 | 116,337 | 1/4 | 101,360 | | |
| 1/2 | 1/2 | 1/2 | 187,445 | 1/2 | 177,110 | 1/2 | 166,775 | 1/2 | 156,404 | 1/2 | 145,693 | 1/2 | 130,994 | 1/2 | 116,025 | 1/2 | 101,048 | | |
| 3/4 | 3/4 | 3/4 | 187,230 | 3/4 | 176,895 | 3/4 | 166,559 | 3/4 | 156,188 | 3/4 | 145,430 | 3/4 | 130,682 | 3/4 | 115,713 | 3/4 | 100,736 | | |
| 2 | 2 | 2 | 187,015 | 2 | 176,680 | 2 | 166,343 | 2 | 155,972 | 2 | 145,151 | 2 | 130,371 | 2 | 115,401 | 2 | 100,424 | | |
| 1/4 | 1/4 | 1/4 | 186,799 | 1/4 | 176,464 | 1/4 | 166,127 | 1/4 | 155,756 | 1/4 | 144,873 | 1/4 | 130,059 | 1/4 | 115,090 | 1/4 | 100,111 | | |
| 1/2 | 1/2 | 1/2 | 186,584 | 1/2 | 176,249 | 1/2 | 165,911 | 1/2 | 155,540 | 1/2 | 144,594 | 1/2 | 129,747 | 1/2 | 114,778 | 1/2 | 99,799 | | |
| 3/4 | 3/4 | 3/4 | 186,368 | 3/4 | 176,034 | 3/4 | 165,695 | 3/4 | 155,324 | 3/4 | 144,315 | 3/4 | 129,435 | 3/4 | 114,466 | 3/4 | 99,487 | | |
| 3 | 3 | 3 | 186,153 | 3 | 175,818 | 3 | 165,479 | 3 | 155,108 | 3 | 144,021 | 3 | 129,123 | 3 | 114,154 | 3 | 99,174 | | |
| 1/4 | 1/4 | 1/4 | 185,938 | 1/4 | 175,603 | 1/4 | 165,263 | 1/4 | 154,892 | 1/4 | 143,726 | 1/4 | 128,811 | 1/4 | 113,842 | 1/4 | 98,862 | | |
| 1/2 | 1/2 | 1/2 | 185,722 | 1/2 | 175,388 | 1/2 | 165,047 | 1/2 | 154,676 | 1/2 | 143,431 | 1/2 | 128,499 | 1/2 | 113,530 | 1/2 | 98,550 | | |
| 3/4 | 3/4 | 3/4 | 185,507 | 3/4 | 175,173 | 3/4 | 164,830 | 3/4 | 154,459 | 3/4 | 143,136 | 3/4 | 128,188 | 3/4 | 113,218 | 3/4 | 98,238 | | |
| 4 | 4 | 4 | 185,292 | 4 | 174,957 | 4 | 164,614 | 4 | 154,243 | 4 | 142,829 | 4 | 127,876 | 4 | 112,907 | 4 | 97,926 | | |
| 1/4 | 1/4 | 1/4 | 185,076 | 1/4 | 174,742 | 1/4 | 164,398 | 1/4 | 154,027 | 1/4 | 142,522 | 1/4 | 127,564 | 1/4 | 112,595 | 1/4 | 97,613 | | |
| 1/2 | 1/2 | 1/2 | 184,861 | 1/2 | 174,527 | 1/2 | 164,182 | 1/2 | 153,811 | 1/2 | 142,215 | 1/2 | 127,252 | 1/2 | 112,283 | 1/2 | 97,301 | | |
| 3/4 | 3/4 | 3/4 | 184,646 | 3/4 | 174,311 | 3/4 | 163,966 | 3/4 | 153,595 | 3/4 | 141,908 | 3/4 | 126,940 | 3/4 | 111,971 | 3/4 | 96,989 | | |
| 5 | 5 | 5 | 184,431 | 5 | 174,096 | 5 | 163,750 | 5 | 153,379 | 5 | 141,596 | 5 | 126,628 | 5 | 111,659 | 5 | 96,677 | | |
| 1/4 | 1/4 | 1/4 | 184,215 | 1/4 | 173,881 | 1/4 | 163,534 | 1/4 | 153,163 | 1/4 | 141,285 | 1/4 | 126,316 | 1/4 | 111,347 | 1/4 | 96,365 | | |
| 1/2 | 1/2 | 1/2 | 184,000 | 1/2 | 173,665 | 1/2 | 163,318 | 1/2 | 152,947 | 1/2 | 140,973 | 1/2 | 126,005 | 1/2 | 111,036 | 1/2 | 96,053 | | |
| 3/4 | 3/4 | 3/4 | 183,785 | 3/4 | 173,450 | 3/4 | 163,102 | 3/4 | 152,731 | 3/4 | 140,662 | 3/4 | 125,693 | 3/4 | 110,724 | 3/4 | 95,741 | | |
| 6 | 6 | 6 | 183,569 | 6 | 173,235 | 6 | 162,886 | 6 | 152,515 | 6 | 140,350 | 6 | 125,381 | 6 | 110,412 | 6 | 95,429 | | |
| 1/4 | 1/4 | 1/4 | 183,354 | 1/4 | 173,020 | 1/4 | 162,670 | 1/4 | 152,299 | 1/4 | 140,038 | 1/4 | 125,069 | 1/4 | 110,100 | 1/4 | 95,117 | | |
| 1/2 | 1/2 | 1/2 | 183,139 | 1/2 | 172,804 | 1/2 | 162,454 | 1/2 | 152,083 | 1/2 | 139,726 | 1/2 | 124,757 | 1/2 | 109,788 | 1/2 | 94,805 | | |
| 3/4 | 3/4 | 3/4 | 182,923 | 3/4 | 172,589 | 3/4 | 162,238 | 3/4 | 151,867 | 3/4 | 139,414 | 3/4 | 124,445 | 3/4 | 109,476 | 3/4 | 94,493 | | |
| 7 | 7 | 7 | 182,708 | 7 | 172,374 | 7 | 162,022 | 7 | 151,651 | 7 | 139,103 | 7 | 124,133 | 7 | 109,164 | 7 | 94,181 | | |
| 1/4 | 1/4 | 1/4 | 182,493 | 1/4 | 172,158 | 1/4 | 161,806 | 1/4 | 151,435 | 1/4 | 138,791 | 1/4 | 123,822 | 1/4 | 108,852 | 1/4 | 93,869 | | |
| 1/2 | 1/2 | 1/2 | 182,278 | 1/2 | 171,943 | 1/2 | 161,590 | 1/2 | 151,219 | 1/2 | 138,479 | 1/2 | 123,510 | 1/2 | 108,540 | 1/2 | 93,557 | | |
| 3/4 | 3/4 | 3/4 | 182,062 | 3/4 | 171,728 | 3/4 | 161,373 | 3/4 | 151,002 | 3/4 | 138,167 | 3/4 | 123,198 | 3/4 | 108,229 | 3/4 | 93,245 | | |
| 8 | 8 | 191,704 | 181,847 | 8 | 171,512 | 8 | 161,157 | 8 | 150,786 | 8 | 137,855 | 8 | 122,886 | 8 | 107,917 | 8 | 92,933 | | |
| 1/4 | 1/4 | 191,457 | 181,632 | 1/4 | 171,297 | 1/4 | 160,941 | 1/4 | 150,570 | 1/4 | 137,543 | 1/4 | 122,574 | 1/4 | 107,605 | 1/4 | 92,621 | | |
| 1/2 | 1/2 | 191,333 | 181,416 | 1/2 | 171,082 | 1/2 | 160,725 | 1/2 | 150,354 | 1/2 | 137,231 | 1/2 | 122,262 | 1/2 | 107,293 | 1/2 | 92,309 | | |
| 3/4 | 3/4 | 191,210 | 181,201 | 3/4 | 170,867 | 3/4 | 160,509 | 3/4 | 150,138 | 3/4 | 136,920 | 3/4 | 121,950 | 3/4 | 106,981 | 3/4 | 91,997 | | |
| 9 | 9 | 191,050 | 180,986 | 9 | 170,651 | 9 | 160,293 | 9 | 149,922 | 9 | 136,608 | 9 | 121,639 | 9 | 106,669 | 9 | 91,685 | | |
| 1/4 | 1/4 | 190,890 | 180,770 | 1/4 | 170,436 | 1/4 | 160,077 | 1/4 | 149,706 | 1/4 | 136,296 | 1/4 | 121,327 | 1/4 | 106,356 | 1/4 | 91,373 | | |
| 1/2 | 1/2 | 190,731 | 180,555 | 1/2 | 170,221 | 1/2 | 159,861 | 1/2 | 149,490 | 1/2 | 135,984 | 1/2 | 121,015 | 1/2 | 106,044 | 1/2 | 91,061 | | |
| 3/4 | 3/4 | 190,571 | 180,340 | 3/4 | 170,005 | 3/4 | 159,645 | 3/4 | 149,274 | 3/4 | 135,672 | 3/4 | 120,703 | 3/4 | 105,732 | 3/4 | 90,749 | | |
| 10 | 10 | 190,378 | 180,125 | 10 | 169,790 | 10 | 159,429 | 10 | 149,054 | 10 | 135,360 | 10 | 120,391 | 10 | 105,420 | 10 | 90,437 | | |
| 1/4 | 1/4 | 190,185 | 179,909 | 1/4 | 169,575 | 1/4 | 159,213 | 1/4 | 148,835 | 1/4 | 135,048 | 1/4 | 120,079 | 1/4 | 105,108 | 1/4 | 90,125 | | |
| 1/2 | 1/2 | 189,992 | 179,694 | 1/2 | 169,359 | 1/2 | 158,997 | 1/2 | 148,615 | 1/2 | 134,737 | 1/2 | 119,767 | 1/2 | 104,795 | 1/2 | 89,813 | | |
| 3/4 | 3/4 | 189,799 | 179,479 | 3/4 | 169,144 | 3/4 | 158,781 | 3/4 | 148,396 | 3/4 | 134,425 | 3/4 | 119,456 | 3/4 | 104,483 | 3/4 | 89,501 | | |
| 11 | 11 | 189,587 | 179,263 | 11 | 168,929 | 11 | 158,565 | 11 | 148,165 | 11 | 134,113 | 11 | 119,144 | 11 | 104,171 | 11 | 89,189 | | |
| 1/4 | 1/4 | 189,375 | 179,048 | 1/4 | 168,714 | 1/4 | 158,349 | 1/4 | 147,933 | 1/4 | 133,801 | 1/4 | 118,832 | 1/4 | 103,859 | 1/4 | 88,877 | | |
| 1/2 | 1/2 | 189,163 | 178,833 | 1/2 | 168,498 | 1/2 | 158,133 | 1/2 | 147,702 | 1/2 | 133,489 | 1/2 | 118,520 | 1/2 | 103,546 | 1/2 | 88,565 | | |
| 3/4 | 3/4 | 188,952 | 178,617 | 3/4 | 168,283 | 3/4 | 157,916 | 3/4 | 147,471 | 3/4 | 133,177 | 3/4 | 118,208 | 3/4 | 103,234 | 3/4 | 88,253 | | |

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY.

BARGE STRAPPED AND COMPUTED IN ACCORDANCE WITH 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 TAKEN TO THREADS ON "MMC" VALVE.
 GAUGE POINT: (MMC) LOCATED 12'-09" OFF CENTERLINE AND 43'-00" FORWARD OF AFT BULKHEAD.

PRECISION MEASUREMENT
 & ANALYSIS, INC.
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 Pearland, Texas 77588
<http://www.pmacorp.net>



BARGE "HFL 411"

3 PORT ULLAGE TABLE

CAPACITIES GIVEN IN WHOLE GALLONS

GAUGE HEIGHT 15'-10 3/4"

| IN | 10 FT. | IN | 11 FT. | IN | 12 FT. | IN | 13 FT. | IN | 14 FT. | IN | 15 FT. | IN | 16 FT. | IN | 17 FT. | IN | 18 FT. | IN | 19 FT. |
|-----|--------|-----|--------|-----|--------|-----|--------|-----|--------|-----|--------|-----|--------|-----|--------|-----|--------|-----|--------|
| 0 | 87,940 | 0 | 73,059 | 0 | 58,154 | 0 | 43,614 | 0 | 28,809 | 0 | 13,830 | 0 | | 0 | | 0 | | 0 | |
| 1/4 | 87,628 | 1/4 | 72,749 | 1/4 | 57,848 | 1/4 | 43,309 | 1/4 | 28,499 | 1/4 | 13,518 | 1/4 | | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | 87,316 | 1/2 | 72,439 | 1/2 | 57,543 | 1/2 | 43,004 | 1/2 | 28,189 | 1/2 | 13,205 | 1/2 | | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | 87,004 | 3/4 | 72,128 | 3/4 | 57,237 | 3/4 | 42,699 | 3/4 | 27,878 | 3/4 | 12,893 | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 1 | 86,694 | 1 | 71,818 | 1 | 56,933 | 1 | 42,393 | 1 | 27,568 | 1 | 12,581 | 1 | | 1 | | 1 | | 1 | |
| 1/4 | 86,384 | 1/4 | 71,507 | 1/4 | 56,629 | 1/4 | 42,088 | 1/4 | 27,257 | 1/4 | 12,269 | 1/4 | | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | 86,074 | 1/2 | 71,197 | 1/2 | 56,324 | 1/2 | 41,783 | 1/2 | 26,947 | 1/2 | 11,957 | 1/2 | | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | 85,765 | 3/4 | 70,887 | 3/4 | 56,020 | 3/4 | 41,478 | 3/4 | 26,637 | 3/4 | 11,645 | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 2 | 85,458 | 2 | 70,576 | 2 | 55,718 | 2 | 41,173 | 2 | 26,325 | 2 | 11,335 | 2 | | 2 | | 2 | | 2 | |
| 1/4 | 85,150 | 1/4 | 70,266 | 1/4 | 55,415 | 1/4 | 40,868 | 1/4 | 26,013 | 1/4 | 11,026 | 1/4 | | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | 84,843 | 1/2 | 69,955 | 1/2 | 55,113 | 1/2 | 40,563 | 1/2 | 25,701 | 1/2 | 10,716 | 1/2 | | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | 84,536 | 3/4 | 69,645 | 3/4 | 54,810 | 3/4 | 40,258 | 3/4 | 25,390 | 3/4 | 10,406 | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 3 | 84,229 | 3 | 69,335 | 3 | 54,507 | 3 | 39,953 | 3 | 25,077 | 3 | 10,101 | 3 | | 3 | | 3 | | 3 | |
| 1/4 | 83,921 | 1/4 | 69,024 | 1/4 | 54,205 | 1/4 | 39,648 | 1/4 | 24,765 | 1/4 | 9,796 | 1/4 | | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | 83,614 | 1/2 | 68,714 | 1/2 | 53,902 | 1/2 | 39,342 | 1/2 | 24,452 | 1/2 | 9,491 | 1/2 | | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | 83,307 | 3/4 | 68,403 | 3/4 | 53,600 | 3/4 | 39,037 | 3/4 | 24,140 | 3/4 | 9,186 | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 4 | 83,000 | 4 | 68,093 | 4 | 53,297 | 4 | 38,732 | 4 | 23,827 | 4 | 8,883 | 4 | | 4 | | 4 | | 4 | |
| 1/4 | 82,693 | 1/4 | 67,783 | 1/4 | 52,995 | 1/4 | 38,427 | 1/4 | 23,515 | 1/4 | 8,581 | 1/4 | | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | 82,385 | 1/2 | 67,472 | 1/2 | 52,692 | 1/2 | 38,122 | 1/2 | 23,202 | 1/2 | 8,278 | 1/2 | | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | 82,078 | 3/4 | 67,162 | 3/4 | 52,390 | 3/4 | 37,817 | 3/4 | 22,890 | 3/4 | 7,976 | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 5 | 81,768 | 5 | 66,851 | 5 | 52,087 | 5 | 37,512 | 5 | 22,577 | 5 | 7,673 | 5 | | 5 | | 5 | | 5 | |
| 1/4 | 81,459 | 1/4 | 66,541 | 1/4 | 51,784 | 1/4 | 37,207 | 1/4 | 22,265 | 1/4 | 7,371 | 1/4 | | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | 81,149 | 1/2 | 66,231 | 1/2 | 51,482 | 1/2 | 36,902 | 1/2 | 21,953 | 1/2 | 7,068 | 1/2 | | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | 80,839 | 3/4 | 65,920 | 3/4 | 51,179 | 3/4 | 36,597 | 3/4 | 21,640 | 3/4 | 6,766 | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 6 | 80,527 | 6 | 65,610 | 6 | 50,877 | 6 | 36,288 | 6 | 21,328 | 6 | 6,464 | 6 | | 6 | | 6 | | 6 | |
| 1/4 | 80,214 | 1/4 | 65,299 | 1/4 | 50,574 | 1/4 | 35,980 | 1/4 | 21,015 | 1/4 | 6,161 | 1/4 | | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | 79,902 | 1/2 | 64,989 | 1/2 | 50,272 | 1/2 | 35,672 | 1/2 | 20,703 | 1/2 | 5,859 | 1/2 | | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | 79,590 | 3/4 | 64,679 | 3/4 | 49,969 | 3/4 | 35,364 | 3/4 | 20,390 | 3/4 | 5,556 | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 7 | 79,277 | 7 | 64,368 | 7 | 49,666 | 7 | 35,052 | 7 | 20,078 | 7 | 5,254 | 7 | | 7 | | 7 | | 7 | |
| 1/4 | 78,965 | 1/4 | 64,058 | 1/4 | 49,364 | 1/4 | 34,740 | 1/4 | 19,765 | 1/4 | 4,951 | 1/4 | | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | 78,653 | 1/2 | 63,747 | 1/2 | 49,061 | 1/2 | 34,428 | 1/2 | 19,453 | 1/2 | 4,649 | 1/2 | | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | 78,340 | 3/4 | 63,437 | 3/4 | 48,759 | 3/4 | 34,116 | 3/4 | 19,141 | 3/4 | 4,346 | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 8 | 78,029 | 8 | 63,126 | 8 | 48,456 | 8 | 33,803 | 8 | 18,828 | 8 | 4,041 | 8 | | 8 | | 8 | | 8 | |
| 1/4 | 77,717 | 1/4 | 62,814 | 1/4 | 48,154 | 1/4 | 33,491 | 1/4 | 18,516 | 1/4 | 3,737 | 1/4 | | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | 77,406 | 1/2 | 62,503 | 1/2 | 47,851 | 1/2 | 33,179 | 1/2 | 18,203 | 1/2 | 3,432 | 1/2 | | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | 77,095 | 3/4 | 62,192 | 3/4 | 47,549 | 3/4 | 32,866 | 3/4 | 17,891 | 3/4 | 3,128 | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 9 | 76,784 | 9 | 61,880 | 9 | 47,246 | 9 | 32,554 | 9 | 17,578 | 9 | 2,838 | 9 | | 9 | | 9 | | 9 | |
| 1/4 | 76,474 | 1/4 | 61,568 | 1/4 | 46,944 | 1/4 | 32,241 | 1/4 | 17,266 | 1/4 | 2,548 | 1/4 | | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | 76,163 | 1/2 | 61,256 | 1/2 | 46,642 | 1/2 | 31,929 | 1/2 | 16,953 | 1/2 | 2,257 | 1/2 | | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | 75,853 | 3/4 | 60,944 | 3/4 | 46,340 | 3/4 | 31,616 | 3/4 | 16,641 | 3/4 | 1,967 | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 10 | 75,543 | 10 | 60,632 | 10 | 46,038 | 10 | 31,304 | 10 | 16,328 | 10 | 1,733 | 10 | | 10 | | 10 | | 10 | |
| 1/4 | 75,232 | 1/4 | 60,320 | 1/4 | 45,736 | 1/4 | 30,992 | 1/4 | 16,016 | 1/4 | 1,498 | 1/4 | | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | 74,922 | 1/2 | 60,008 | 1/2 | 45,435 | 1/2 | 30,679 | 1/2 | 15,704 | 1/2 | 1,263 | 1/2 | | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | 74,611 | 3/4 | 59,695 | 3/4 | 45,133 | 3/4 | 30,367 | 3/4 | 15,391 | 3/4 | 1,029 | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 11 | 74,301 | 11 | 59,387 | 11 | 44,829 | 11 | 30,055 | 11 | 15,079 | 11 | | 11 | | 11 | | 11 | | 11 | |
| 1/4 | 73,991 | 1/4 | 59,078 | 1/4 | 44,526 | 1/4 | 29,743 | 1/4 | 14,766 | 1/4 | | 1/4 | | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | 73,680 | 1/2 | 58,769 | 1/2 | 44,222 | 1/2 | 29,432 | 1/2 | 14,454 | 1/2 | | 1/2 | | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | 73,370 | 3/4 | 58,460 | 3/4 | 43,919 | 3/4 | 29,120 | 3/4 | 14,142 | 3/4 | | 3/4 | | 3/4 | | 3/4 | | 3/4 | |

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY.

STRAPPED: 02/09/2012 CL - SW
CALCULATED: 02/10/2012 CL
PRINTED: 02/10/2012 CL

CANCELS AND SUPERCEDES
ALL PRIOR TO 02/2012

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



BARGE "HFL 411"

3 STBD ULLAGE TABLE

CAPACITIES GIVEN IN WHOLE GALLONS

GAUGE HEIGHT 15'-10 3/4"

| IN | 10 FT. | IN | 11 FT. | IN | 12 FT. | IN | 13 FT. | IN | 14 FT. | IN | 15 FT. | IN | 16 FT. | IN | 17 FT. | IN | 18 FT. | IN | 19 FT. |
|-----|--------|-----|--------|-----|--------|-----|--------|-----|--------|-----|--------|-----|--------|-----|--------|-----|--------|-----|--------|
| 0 | 88,930 | 0 | 73,919 | 0 | 58,894 | 0 | 43,873 | 0 | 28,863 | 0 | 13,840 | 0 | | 0 | | 0 | | 0 | |
| 1/4 | 88,617 | 1/4 | 73,606 | 1/4 | 58,581 | 1/4 | 43,561 | 1/4 | 28,550 | 1/4 | 13,527 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 |
| 1/2 | 88,304 | 1/2 | 73,293 | 1/2 | 58,268 | 1/2 | 43,248 | 1/2 | 28,237 | 1/2 | 13,215 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 |
| 3/4 | 87,991 | 3/4 | 72,980 | 3/4 | 57,955 | 3/4 | 42,936 | 3/4 | 27,924 | 3/4 | 12,902 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 |
| 1 | 87,679 | 1 | 72,667 | 1 | 57,642 | 1 | 42,623 | 1 | 27,611 | 1 | 12,589 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 1/4 | 87,366 | 1/4 | 72,354 | 1/4 | 57,329 | 1/4 | 42,311 | 1/4 | 27,298 | 1/4 | 12,277 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 |
| 1/2 | 87,054 | 1/2 | 72,041 | 1/2 | 57,016 | 1/2 | 41,998 | 1/2 | 26,985 | 1/2 | 11,964 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 |
| 3/4 | 86,741 | 3/4 | 71,728 | 3/4 | 56,703 | 3/4 | 41,686 | 3/4 | 26,672 | 3/4 | 11,652 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 |
| 2 | 86,429 | 2 | 71,415 | 2 | 56,390 | 2 | 41,373 | 2 | 26,359 | 2 | 11,341 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| 1/4 | 86,117 | 1/4 | 71,102 | 1/4 | 56,077 | 1/4 | 41,061 | 1/4 | 26,046 | 1/4 | 11,031 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 |
| 1/2 | 85,804 | 1/2 | 70,789 | 1/2 | 55,764 | 1/2 | 40,748 | 1/2 | 25,733 | 1/2 | 10,721 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 |
| 3/4 | 85,492 | 3/4 | 70,476 | 3/4 | 55,451 | 3/4 | 40,436 | 3/4 | 25,420 | 3/4 | 10,411 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 |
| 3 | 85,180 | 3 | 70,163 | 3 | 55,138 | 3 | 40,123 | 3 | 25,107 | 3 | 10,106 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| 1/4 | 84,868 | 1/4 | 69,850 | 1/4 | 54,825 | 1/4 | 39,811 | 1/4 | 24,794 | 1/4 | 9,801 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 |
| 1/2 | 84,556 | 1/2 | 69,537 | 1/2 | 54,512 | 1/2 | 39,498 | 1/2 | 24,481 | 1/2 | 9,496 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 |
| 3/4 | 84,243 | 3/4 | 69,224 | 3/4 | 54,199 | 3/4 | 39,186 | 3/4 | 24,168 | 3/4 | 9,191 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 |
| 4 | 83,931 | 4 | 68,911 | 4 | 53,886 | 4 | 38,873 | 4 | 23,855 | 4 | 8,888 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| 1/4 | 83,619 | 1/4 | 68,598 | 1/4 | 53,573 | 1/4 | 38,561 | 1/4 | 23,542 | 1/4 | 8,585 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 |
| 1/2 | 83,307 | 1/2 | 68,285 | 1/2 | 53,260 | 1/2 | 38,248 | 1/2 | 23,229 | 1/2 | 8,283 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 |
| 3/4 | 82,995 | 3/4 | 67,972 | 3/4 | 52,947 | 3/4 | 37,936 | 3/4 | 22,916 | 3/4 | 7,980 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 |
| 5 | 82,682 | 5 | 67,659 | 5 | 52,634 | 5 | 37,623 | 5 | 22,603 | 5 | 7,677 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| 1/4 | 82,369 | 1/4 | 67,346 | 1/4 | 52,321 | 1/4 | 37,310 | 1/4 | 22,290 | 1/4 | 7,374 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 |
| 1/2 | 82,057 | 1/2 | 67,033 | 1/2 | 52,008 | 1/2 | 36,998 | 1/2 | 21,977 | 1/2 | 7,072 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 |
| 3/4 | 81,744 | 3/4 | 66,720 | 3/4 | 51,695 | 3/4 | 36,685 | 3/4 | 21,664 | 3/4 | 6,769 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 |
| 6 | 81,431 | 6 | 66,407 | 6 | 51,382 | 6 | 36,373 | 6 | 21,351 | 6 | 6,466 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| 1/4 | 81,118 | 1/4 | 66,094 | 1/4 | 51,069 | 1/4 | 36,060 | 1/4 | 21,038 | 1/4 | 6,164 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 |
| 1/2 | 80,805 | 1/2 | 65,781 | 1/2 | 50,756 | 1/2 | 35,748 | 1/2 | 20,725 | 1/2 | 5,861 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 |
| 3/4 | 80,492 | 3/4 | 65,468 | 3/4 | 50,443 | 3/4 | 35,435 | 3/4 | 20,412 | 3/4 | 5,558 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 |
| 7 | 80,179 | 7 | 65,155 | 7 | 50,130 | 7 | 35,123 | 7 | 20,099 | 7 | 5,255 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| 1/4 | 79,866 | 1/4 | 64,842 | 1/4 | 49,817 | 1/4 | 34,810 | 1/4 | 19,786 | 1/4 | 4,953 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 |
| 1/2 | 79,553 | 1/2 | 64,529 | 1/2 | 49,504 | 1/2 | 34,497 | 1/2 | 19,473 | 1/2 | 4,650 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 |
| 3/4 | 79,240 | 3/4 | 64,216 | 3/4 | 49,191 | 3/4 | 34,184 | 3/4 | 19,160 | 3/4 | 4,347 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 |
| 8 | 78,927 | 8 | 63,903 | 8 | 48,878 | 8 | 33,871 | 8 | 18,847 | 8 | 4,042 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| 1/4 | 78,614 | 1/4 | 63,590 | 1/4 | 48,565 | 1/4 | 33,558 | 1/4 | 18,534 | 1/4 | 3,738 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 |
| 1/2 | 78,301 | 1/2 | 63,277 | 1/2 | 48,252 | 1/2 | 33,245 | 1/2 | 18,221 | 1/2 | 3,433 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 |
| 3/4 | 77,988 | 3/4 | 62,963 | 3/4 | 47,939 | 3/4 | 32,932 | 3/4 | 17,908 | 3/4 | 3,129 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 |
| 9 | 77,675 | 9 | 62,650 | 9 | 47,626 | 9 | 32,619 | 9 | 17,595 | 9 | 2,838 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 |
| 1/4 | 77,362 | 1/4 | 62,337 | 1/4 | 47,313 | 1/4 | 32,306 | 1/4 | 17,282 | 1/4 | 2,548 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 |
| 1/2 | 77,049 | 1/2 | 62,024 | 1/2 | 47,000 | 1/2 | 31,993 | 1/2 | 16,969 | 1/2 | 2,258 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 |
| 3/4 | 76,736 | 3/4 | 61,711 | 3/4 | 46,687 | 3/4 | 31,680 | 3/4 | 16,656 | 3/4 | 1,968 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 |
| 10 | 76,423 | 10 | 61,398 | 10 | 46,375 | 10 | 31,367 | 10 | 16,343 | 10 | 1,733 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| 1/4 | 76,110 | 1/4 | 61,085 | 1/4 | 46,062 | 1/4 | 31,054 | 1/4 | 16,030 | 1/4 | 1,498 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 |
| 1/2 | 75,797 | 1/2 | 60,772 | 1/2 | 45,749 | 1/2 | 30,741 | 1/2 | 15,717 | 1/2 | 1,264 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 |
| 3/4 | 75,484 | 3/4 | 60,459 | 3/4 | 45,436 | 3/4 | 30,428 | 3/4 | 15,404 | 3/4 | 1,029 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 | 3/4 |
| 11 | 75,171 | 11 | 60,146 | 11 | 45,124 | 11 | 30,115 | 11 | 15,091 | 11 | | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 |
| 1/4 | 74,858 | 1/4 | 59,833 | 1/4 | 44,811 | 1/4 | 29,802 | 1/4 | 14,778 | 1/4 | | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 |
| 1/2 | 74,545 | 1/2 | 59,520 | 1/2 | 44,498 | 1/2 | 29,489 | 1/2 | 14,465 | 1/2 | | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 |
| 3/4 | 74,232 | 3/4 | 59,207 | 3/4 | 44,186 | 3/4 | 29,176 | 3/4 | 14,153 | 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.

STRAPPED: 02/09/2012 CL - SW
CALCULATED: 02/10/2012 CL
PRINTED: 02/10/2012 CL

CANCELS AND SUPERCEDES
ALL PRIOR TO 02/2012

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



BARGE "HFL 411"

PORT SLOP ULLAGE TABLE

CAPACITIES GIVEN IN WHOLE GALLONS

GAUGE HEIGHT 6'-00 3/4"

| 0 FT. | | 1 FT. | | 2 FT. | | 3 FT. | | 4 FT. | | 5 FT. | | 6 FT. | | 7 FT. | | 8 FT. | | 9 FT. | |
|-------|--|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-----|-------|--|-------|--|-------|--|
| IN | | IN | | IN | | IN | | IN | | IN | | IN | | IN | | IN | | IN | |
| 0 | | 0 | | 0 | 4,777 | 0 | 3,626 | 0 | 2,473 | 0 | 1,321 | 0 | 168 | 0 | | 0 | | 0 | |
| 1/4 | | 1/4 | | 1/4 | 4,754 | 1/4 | 3,602 | 1/4 | 2,449 | 1/4 | 1,297 | 1/4 | 144 | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | | 1/2 | | 1/2 | 4,730 | 1/2 | 3,578 | 1/2 | 2,426 | 1/2 | 1,273 | 1/2 | 120 | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | | 3/4 | | 3/4 | 4,706 | 3/4 | 3,553 | 3/4 | 2,402 | 3/4 | 1,249 | 3/4 | 96 | 3/4 | | 3/4 | | 3/4 | |
| 1 | | 1 | | 1 | 4,682 | 1 | 3,529 | 1 | 2,378 | 1 | 1,225 | 1 | | 1 | | 1 | | 1 | |
| 1/4 | | 1/4 | | 1/4 | 4,658 | 1/4 | 3,505 | 1/4 | 2,354 | 1/4 | 1,201 | 1/4 | | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | | 1/2 | | 1/2 | 4,634 | 1/2 | 3,481 | 1/2 | 2,330 | 1/2 | 1,177 | 1/2 | | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | | 3/4 | | 3/4 | 4,610 | 3/4 | 3,457 | 3/4 | 2,306 | 3/4 | 1,153 | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 2 | | 2 | | 2 | 4,586 | 2 | 3,433 | 2 | 2,282 | 2 | 1,129 | 2 | | 2 | | 2 | | 2 | |
| 1/4 | | 1/4 | | 1/4 | 4,562 | 1/4 | 3,409 | 1/4 | 2,258 | 1/4 | 1,105 | 1/4 | | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | | 1/2 | | 1/2 | 4,538 | 1/2 | 3,385 | 1/2 | 2,234 | 1/2 | 1,081 | 1/2 | | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | | 3/4 | | 3/4 | 4,514 | 3/4 | 3,361 | 3/4 | 2,210 | 3/4 | 1,057 | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 3 | | 3 | | 3 | 4,490 | 3 | 3,337 | 3 | 2,186 | 3 | 1,033 | 3 | | 3 | | 3 | | 3 | |
| 1/4 | | 1/4 | | 1/4 | 4,466 | 1/4 | 3,313 | 1/4 | 2,162 | 1/4 | 1,009 | 1/4 | | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | | 1/2 | | 1/2 | 4,442 | 1/2 | 3,289 | 1/2 | 2,138 | 1/2 | 985 | 1/2 | | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | | 3/4 | | 3/4 | 4,418 | 3/4 | 3,265 | 3/4 | 2,114 | 3/4 | 961 | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 4 | | 4 | | 4 | 4,394 | 4 | 3,241 | 4 | 2,090 | 4 | 937 | 4 | | 4 | | 4 | | 4 | |
| 1/4 | | 1/4 | | 1/4 | 4,370 | 1/4 | 3,217 | 1/4 | 2,066 | 1/4 | 913 | 1/4 | | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | | 1/2 | | 1/2 | 4,346 | 1/2 | 3,193 | 1/2 | 2,042 | 1/2 | 889 | 1/2 | | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | | 3/4 | | 3/4 | 4,322 | 3/4 | 3,169 | 3/4 | 2,017 | 3/4 | 865 | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 5 | | 5 | | 5 | 4,298 | 5 | 3,145 | 5 | 1,993 | 5 | 841 | 5 | | 5 | | 5 | | 5 | |
| 1/4 | | 1/4 | | 1/4 | 4,274 | 1/4 | 3,121 | 1/4 | 1,969 | 1/4 | 817 | 1/4 | | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | | 1/2 | | 1/2 | 4,250 | 1/2 | 3,097 | 1/2 | 1,945 | 1/2 | 793 | 1/2 | | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | | 3/4 | | 3/4 | 4,226 | 3/4 | 3,073 | 3/4 | 1,921 | 3/4 | 769 | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 6 | | 6 | | 6 | 4,202 | 6 | 3,049 | 6 | 1,897 | 6 | 745 | 6 | | 6 | | 6 | | 6 | |
| 1/4 | | 1/4 | | 1/4 | 4,178 | 1/4 | 3,025 | 1/4 | 1,873 | 1/4 | 721 | 1/4 | | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | | 1/2 | | 1/2 | 4,154 | 1/2 | 3,001 | 1/2 | 1,849 | 1/2 | 697 | 1/2 | | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | | 3/4 | | 3/4 | 4,130 | 3/4 | 2,977 | 3/4 | 1,825 | 3/4 | 673 | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 7 | | 7 | | 7 | 4,106 | 7 | 2,953 | 7 | 1,801 | 7 | 649 | 7 | | 7 | | 7 | | 7 | |
| 1/4 | | 1/4 | | 1/4 | 4,082 | 1/4 | 2,929 | 1/4 | 1,777 | 1/4 | 625 | 1/4 | | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | | 1/2 | | 1/2 | 4,058 | 1/2 | 2,905 | 1/2 | 1,753 | 1/2 | 601 | 1/2 | | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | | 3/4 | | 3/4 | 4,034 | 3/4 | 2,881 | 3/4 | 1,729 | 3/4 | 577 | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 8 | | 8 | 5,131 | 8 | 4,010 | 8 | 2,857 | 8 | 1,705 | 8 | 552 | 8 | | 8 | | 8 | | 8 | |
| 1/4 | | 1/4 | | 1/4 | 5,108 | 1/4 | 3,986 | 1/4 | 2,833 | 1/4 | 1,681 | 1/4 | | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | | 1/2 | | 1/2 | 5,096 | 1/2 | 3,962 | 1/2 | 2,809 | 1/2 | 1,657 | 1/2 | | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | | 3/4 | | 3/4 | 5,084 | 3/4 | 3,938 | 3/4 | 2,785 | 3/4 | 1,633 | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 9 | | 9 | 5,061 | 9 | 3,914 | 9 | 2,761 | 9 | 1,609 | 9 | 456 | 9 | | 9 | | 9 | | 9 | |
| 1/4 | | 1/4 | | 1/4 | 5,037 | 1/4 | 3,890 | 1/4 | 2,737 | 1/4 | 1,585 | 1/4 | | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | | 1/2 | | 1/2 | 5,014 | 1/2 | 3,866 | 1/2 | 2,713 | 1/2 | 1,561 | 1/2 | | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | | 3/4 | | 3/4 | 4,990 | 3/4 | 3,842 | 3/4 | 2,689 | 3/4 | 1,537 | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 10 | | 10 | 4,967 | 10 | 3,818 | 10 | 2,665 | 10 | 1,513 | 10 | 360 | 10 | | 10 | | 10 | | 10 | |
| 1/4 | | 1/4 | | 1/4 | 4,943 | 1/4 | 3,794 | 1/4 | 2,641 | 1/4 | 1,489 | 1/4 | | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | | 1/2 | | 1/2 | 4,919 | 1/2 | 3,770 | 1/2 | 2,617 | 1/2 | 1,465 | 1/2 | | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | | 3/4 | | 3/4 | 4,896 | 3/4 | 3,746 | 3/4 | 2,593 | 3/4 | 1,441 | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 11 | | 11 | 4,872 | 11 | 3,722 | 11 | 2,569 | 11 | 1,417 | 11 | 264 | 11 | | 11 | | 11 | | 11 | |
| 1/4 | | 1/4 | | 1/4 | 4,848 | 1/4 | 3,698 | 1/4 | 2,545 | 1/4 | 1,393 | 1/4 | | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | | 1/2 | | 1/2 | 4,825 | 1/2 | 3,674 | 1/2 | 2,521 | 1/2 | 1,369 | 1/2 | | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | | 3/4 | | 3/4 | 4,801 | 3/4 | 3,650 | 3/4 | 2,497 | 3/4 | 1,345 | 3/4 | | 3/4 | | 3/4 | | 3/4 | |

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY.

BARGE STRAPPED AND COMPUTED IN ACCORDANCE WITH 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 TAKEN TO THREADS ON "MMC" VALVE.

STRAPPED: 02/09/2012 CL - SW
CALCULATED: 02/10/2012 CL
PRINTED: 02/10/2012 CL

CANCELS AND SUPERCEDES
ALL PRIOR TO 02/2012

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



BARGE "HFL 411"

STBD SLOP ULLAGE TABLE

CAPACITIES GIVEN IN WHOLE GALLONS

GAUGE HEIGHT 6'-01"

| 0 FT. | | 1 FT. | | 2 FT. | | 3 FT. | | 4 FT. | | 5 FT. | | 6 FT. | | 7 FT. | | 8 FT. | | 9 FT. | |
|-------|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-----|-------|-----|-------|-----|-------|-----|
| IN | OUT | IN | OUT | IN | OUT | IN | OUT | IN | OUT | IN | OUT | IN | OUT | IN | OUT | IN | OUT | IN | OUT |
| 0 | | 0 | | 0 | 4,801 | 0 | 3,650 | 0 | 2,497 | 0 | 1,345 | 0 | 192 | 0 | | 0 | | 0 | |
| 1/4 | | 1/4 | | 1/4 | 4,777 | 1/4 | 3,626 | 1/4 | 2,473 | 1/4 | 1,321 | 1/4 | 168 | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | | 1/2 | | 1/2 | 4,754 | 1/2 | 3,602 | 1/2 | 2,449 | 1/2 | 1,297 | 1/2 | 144 | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | | 3/4 | | 3/4 | 4,730 | 3/4 | 3,578 | 3/4 | 2,426 | 3/4 | 1,273 | 3/4 | 120 | 3/4 | | 3/4 | | 3/4 | |
| 1 | | 1 | | 1 | 4,706 | 1 | 3,553 | 1 | 2,402 | 1 | 1,249 | 1 | 96 | 1 | | 1 | | 1 | |
| 1/4 | | 1/4 | | 1/4 | 4,682 | 1/4 | 3,529 | 1/4 | 2,378 | 1/4 | 1,225 | 1/4 | | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | | 1/2 | | 1/2 | 4,658 | 1/2 | 3,505 | 1/2 | 2,354 | 1/2 | 1,201 | 1/2 | | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | | 3/4 | | 3/4 | 4,634 | 3/4 | 3,481 | 3/4 | 2,330 | 3/4 | 1,177 | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 2 | | 2 | | 2 | 4,610 | 2 | 3,457 | 2 | 2,306 | 2 | 1,153 | 2 | 2 | 2 | | 2 | | 2 | |
| 1/4 | | 1/4 | | 1/4 | 4,586 | 1/4 | 3,433 | 1/4 | 2,282 | 1/4 | 1,129 | 1/4 | | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | | 1/2 | | 1/2 | 4,562 | 1/2 | 3,409 | 1/2 | 2,258 | 1/2 | 1,105 | 1/2 | | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | | 3/4 | | 3/4 | 4,538 | 3/4 | 3,385 | 3/4 | 2,234 | 3/4 | 1,081 | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 3 | | 3 | | 3 | 4,514 | 3 | 3,361 | 3 | 2,210 | 3 | 1,057 | 3 | 3 | 3 | | 3 | | 3 | |
| 1/4 | | 1/4 | | 1/4 | 4,490 | 1/4 | 3,337 | 1/4 | 2,186 | 1/4 | 1,033 | 1/4 | | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | | 1/2 | | 1/2 | 4,466 | 1/2 | 3,313 | 1/2 | 2,162 | 1/2 | 1,009 | 1/2 | | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | | 3/4 | | 3/4 | 4,442 | 3/4 | 3,289 | 3/4 | 2,138 | 3/4 | 985 | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 4 | | 4 | | 4 | 4,418 | 4 | 3,265 | 4 | 2,114 | 4 | 961 | 4 | 4 | 4 | | 4 | | 4 | |
| 1/4 | | 1/4 | | 1/4 | 4,394 | 1/4 | 3,241 | 1/4 | 2,090 | 1/4 | 937 | 1/4 | | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | | 1/2 | | 1/2 | 4,370 | 1/2 | 3,217 | 1/2 | 2,066 | 1/2 | 913 | 1/2 | | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | | 3/4 | | 3/4 | 4,346 | 3/4 | 3,193 | 3/4 | 2,042 | 3/4 | 889 | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 5 | | 5 | | 5 | 4,322 | 5 | 3,169 | 5 | 2,017 | 5 | 865 | 5 | 5 | 5 | | 5 | | 5 | |
| 1/4 | | 1/4 | | 1/4 | 4,298 | 1/4 | 3,145 | 1/4 | 1,993 | 1/4 | 841 | 1/4 | | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | | 1/2 | | 1/2 | 4,274 | 1/2 | 3,121 | 1/2 | 1,969 | 1/2 | 817 | 1/2 | | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | | 3/4 | | 3/4 | 4,250 | 3/4 | 3,097 | 3/4 | 1,945 | 3/4 | 793 | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 6 | | 6 | | 6 | 4,226 | 6 | 3,073 | 6 | 1,921 | 6 | 769 | 6 | 6 | 6 | | 6 | | 6 | |
| 1/4 | | 1/4 | | 1/4 | 4,202 | 1/4 | 3,049 | 1/4 | 1,897 | 1/4 | 745 | 1/4 | | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | | 1/2 | | 1/2 | 4,178 | 1/2 | 3,025 | 1/2 | 1,873 | 1/2 | 721 | 1/2 | | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | | 3/4 | | 3/4 | 4,154 | 3/4 | 3,001 | 3/4 | 1,849 | 3/4 | 697 | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 7 | | 7 | | 7 | 4,130 | 7 | 2,977 | 7 | 1,825 | 7 | 673 | 7 | 7 | 7 | | 7 | | 7 | |
| 1/4 | | 1/4 | | 1/4 | 4,106 | 1/4 | 2,953 | 1/4 | 1,801 | 1/4 | 649 | 1/4 | | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | | 1/2 | | 1/2 | 4,082 | 1/2 | 2,929 | 1/2 | 1,777 | 1/2 | 625 | 1/2 | | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | | 3/4 | | 3/4 | 4,058 | 3/4 | 2,905 | 3/4 | 1,753 | 3/4 | 601 | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 8 | | 8 | 5,131 | 8 | 4,034 | 8 | 2,881 | 8 | 1,729 | 8 | 577 | 8 | 8 | 8 | | 8 | | 8 | |
| 1/4 | | 1/4 | 5,119 | 1/4 | 4,010 | 1/4 | 2,857 | 1/4 | 1,705 | 1/4 | 552 | 1/4 | | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | | 1/2 | 5,108 | 1/2 | 3,986 | 1/2 | 2,833 | 1/2 | 1,681 | 1/2 | 528 | 1/2 | | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | | 3/4 | 5,096 | 3/4 | 3,962 | 3/4 | 2,809 | 3/4 | 1,657 | 3/4 | 504 | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 9 | | 9 | 5,084 | 9 | 3,938 | 9 | 2,785 | 9 | 1,633 | 9 | 480 | 9 | 9 | 9 | | 9 | | 9 | |
| 1/4 | | 1/4 | 5,061 | 1/4 | 3,914 | 1/4 | 2,761 | 1/4 | 1,609 | 1/4 | 456 | 1/4 | | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | | 1/2 | 5,037 | 1/2 | 3,890 | 1/2 | 2,737 | 1/2 | 1,585 | 1/2 | 432 | 1/2 | | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | | 3/4 | 5,014 | 3/4 | 3,866 | 3/4 | 2,713 | 3/4 | 1,561 | 3/4 | 408 | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 10 | | 10 | 4,990 | 10 | 3,842 | 10 | 2,689 | 10 | 1,537 | 10 | 384 | 10 | 10 | 10 | | 10 | | 10 | |
| 1/4 | | 1/4 | 4,967 | 1/4 | 3,818 | 1/4 | 2,665 | 1/4 | 1,513 | 1/4 | 360 | 1/4 | | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | | 1/2 | 4,943 | 1/2 | 3,794 | 1/2 | 2,641 | 1/2 | 1,489 | 1/2 | 336 | 1/2 | | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | | 3/4 | 4,919 | 3/4 | 3,770 | 3/4 | 2,617 | 3/4 | 1,465 | 3/4 | 312 | 3/4 | | 3/4 | | 3/4 | | 3/4 | |
| 11 | | 11 | 4,896 | 11 | 3,746 | 11 | 2,593 | 11 | 1,441 | 11 | 288 | 11 | 11 | 11 | | 11 | | 11 | |
| 1/4 | | 1/4 | 4,872 | 1/4 | 3,722 | 1/4 | 2,569 | 1/4 | 1,417 | 1/4 | 264 | 1/4 | | 1/4 | | 1/4 | | 1/4 | |
| 1/2 | | 1/2 | 4,848 | 1/2 | 3,698 | 1/2 | 2,545 | 1/2 | 1,393 | 1/2 | 240 | 1/2 | | 1/2 | | 1/2 | | 1/2 | |
| 3/4 | | 3/4 | 4,825 | 3/4 | 3,674 | 3/4 | 2,521 | 3/4 | 1,369 | 3/4 | 216 | 3/4 | | 3/4 | | 3/4 | | 3/4 | |

CERTIFIED CHART FOR THE ABOVE NAMED TANK ONLY.

BARGE STRAPPED AND COMPUTED IN ACCORDANCE WITH 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 TAKEN TO THREADS ON "MMC" VALVE.

STRAPPED: 02/09/2012 CL - SW
CALCULATED: 02/10/2012 CL
PRINTED: 02/10/2012 CL

CANCELS AND SUPERCEDES
ALL PRIOR TO 02/2012

PRECISION MEASUREMENT
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