



**KIRBY INLAND MARINE, LP
MAINTENANCE DEPARTMENT
16402 1/2 De Zavala
CHANNELVIEW, TEXAS 77530**

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VAPOR TIGHTNESS TEST

Note: Test Results are Valid for (1) One Year from Date of Test!

Vessel Name: HSC-301 Test Date: 9-13-19
 Testing Location: 225 Fleet Maximum Load Rate: (BPH) 5000
 Tanks Tested: All Pressure Indicator: gauge

TEST RESULTS

Test Duration: 30 Minutes Beginning Pressure: 28 Inches H2O
 Ending Pressure: 27.9 Inches H2O
 Total Pressure Loss: .01 Inches H2O
 Allowable Pressure Loss: 2.25 Inches H2O

Barge is Vapor Tight if "Total Pressure Loss" is LESS than "Allowable Pressure Loss"
 This vessel has been tested in accordance with Section 61.304F and has been found to be vapor tight.

BRAD HAYWARD
 Tester: (Print)

WASH RICHARDS
 Witness: (Print)

[Signature]
 Tester: (Signature)

[Signature]
 Witness: (Signature)

RIO
 Affiliation of Witness:

- (P1) - Beginning Pressure
- (P2) - Ending Pressure
- (Delta P) - Total Pressure Loss
- (Delta PM) - Allowable Pressure Loss
- (TP) - 14.7 plus Barge Test Pressure in PSI
- (L) - Maximum Load Rate in BPH
- (V) - Volume of Tank (s)
- (Delta T) = Test Duration
- .861 - PIA @ (P1)

$$.861 \times \frac{15.7}{(TP)} \times \left(\frac{5000}{(L)} \right) \left(\frac{30,000}{(V)} \right) = \frac{2.25}{(Delta PM)}$$