Data Chart for Tank System Tightness Test

PLEASE PRINT

1. OWNER Property ☒ Tank(s) ☒

Name	Address	Representative	Telephone
ALAMEDA	901 LINCOLN AVE	ALAMEDA RICK ZURAS	(415) 865-32
SAME AS ABOVE			

2. OPERATOR

Name	Address	Telephone
SAME AS ABOVE		

3. REASON FOR TEST (Explain Fully)

OWNER SATISFACTION

4. WHO REQUESTED TEST AND WHEN

Name	Title	Company or Affiliation	Date
RICK ZURAS			

Address _____ Telephone _____

5. TANK INVOLVED Use additional lines for manifolded tanks

Identify by Direction	Capacity	Brand/Supplier	Grade	Approx Age	Steel/Fiberglass
SOUTH EAST	10126	ACE	REGULAR	10 YRS	STEEL

6. INSTALLATION DATA

Location	Cover	Fills	Vents	Siphones	Pumps
SOUTH SIDE FRONT OF BUILDING	CONCRETE	4" W/DROP TUBES	2"	NONE	OLD TOKHEIM SUB PUMP
North inside driveway, Rear of station, etc.	Concrete, Black Top, Earth, etc	Size, Titefill make, Drop tubes, Remote Fills	Size, Manifolded	Which tanks?	Suction, Remote, Make if known

7. UNDERGROUND WATER

Depth to the Water table Ø" Is the water over the tank? ☐ Yes ☐ No

8. FILL-UP ARRANGEMENTS

Tanks to be filled _____ hr. _____ Date Arranged by _____ Name _____ Telephone

Extra product to "top off" and run tank tester How and who to provide? Consider NO Lead.

Terminal or other contact for notice or inquiry _____ Company _____ Name _____ Telephone

9. CONTRACTOR, MECHANICS, any other contractor involved

BAY COUNTIES SERVICE STATION MAINTENANCE

10. OTHER INFORMATION OR REMARKS

Additional information on any items above Officials or others to be advised when testing is in progress or completed Visitors or observers present during test, etc

11. TEST RESULTS

Tests were made on the above tank systems in accordance with test procedures prescribed for as detailed on attached test charts with results as follows:

Tank Identification	Tight	Leakage Indicated	Date Tested
REGULAR			

12. SENSOR CERTIFICATION

5-22-88
Date

1679
Serial No. of Thermal Sensor

13. This is to certify that these tank systems were tested on the date(s) shown. Those indicated as "Tight" meet the criteria established by the National Fire Protection Association Pamphlet 329.

Technicians

1 ROBERT RIVERA

Certification # 914813131

2 _____

Certification # _____

Robert Rivera BAY COUNTIES SERV. STA MAINT.
Testing Contractor or Company. By Signature

1096 VERBA BUENA AVE EMERYVILLE CA. 94608
Address

PN6

Name of Supplier, Owner or Dealer | Address No. and Street(s) | City | State | Date of Test

15. TANK TO TEST

SOUTH EAST
Identify by position

REGULAR
Brand and Grade

15a. BRIEF DIAGRAM OF TANK FIELD

REGULAR | SUPREME

HEATED

STORE

16. CAPACITY

Nominal Capacity 10000 Gallons

By most accurate capacity chart available 10126 Gallons

From
- ☐ Station Chart
- ☒ Tank Manufacturer's Chart
- ☐ Company Engineering Data
- ☐ Charts supplied with
- ☐ Other

17. FILL-UP FOR TEST

Stick Water Bottom before Fill-up ____ in to ¼" | ____ Gallons | 95 Tank Diameter in

	Gallons	Total Gallons ea Reading
Inventory	10126	10126
	TOP OFF	20
	H2O	0
		10146

Transfer total to line 25a

18. SPECIAL CONDITIONS AND PROCEDURES TO TEST THIS TANK

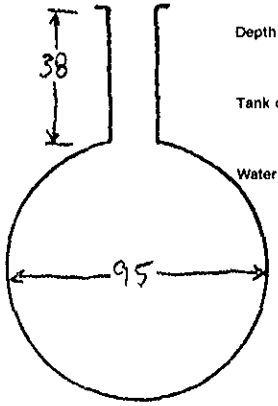
☐ Water in tank ☐ Line(s) being tested with LVLLT ☐ High water table in tank excavation

See manual sections applicable Check below and record procedure in log (27)

Use maximum allowable test pressure for all tests
Four pound rule does not apply to doublewalled tanks

Complete section below.

1. Is four pound rule required? Yes ☐ No ☒
2. Height to 12" mark from bottom of tank ____ in.
3. Pressure at bottom of tank ____ P.S.I.
4. Pressure at top of tank ____ P.S.I.



Depth of burial 38 in.

Tank dia 95 in.

Water table 0 in.

NOTES.

The above calculations are to be used for dry soil conditions to establish a positive pressure advantage, or when using the four pound rule to compensate for the presence of subsurface water in the tank area.

Refer to N.F.P.A. 30, Sections 2-3.2.4 and 2-7.2 and the tank manufacturer regarding allowable system test pressures.

19. TANK MEASUREMENTS FOR TSTT ASSEMBLY

Bottom of tank to grade* 133 in.
Add 30" for "T" probe assy 30 in.
Total tubing to assemble — approximate 163 in.

20. EXTENSION HOSE SETTING

Tank top to grade* 38 in.
Extend hose on suction tube 6" or more below tank top 44 in.

*If Fill pipe extends above grade, use top of fill.

22. Thermal-Sensor reading after circulation 15324 digits
68/69 °F Between

23. Digits per °F in range of expected change 326 digits

COEFFICIENT OF EXPANSION (Complete after circulation)

24a. Corrected A.P.I. Gravity

Observed A.P.I. Gravity 59.5
Hydrometer employed 7 H
Observed Sample Temperature 70 °F
Corrected A.P.I. Gravity @ 60°F. From Table A 58.2
Coefficient of Expansion for Involved Product From Table B .00060082

Transfer COE to Line 25b

21. VAPOR RECOVERY SYSTEM ☐ Stage I ☐ Stage II

24b. COEFFICIENT OF EXPANSION RECIPROCAL METHOD

Type of Product ____
Hydrometer Employed ____ H
Temperature in Tank After Circulation ____ °F
Temperature of Sample ____ °F
Difference (+/-) ____ °F
Observed A.P.I. Gravity ____
Reciprocal ____ Page # ____

Total quantity in full tank (16 or 17) * Reciprocal = Volume change in this tank per °F

Transfer to Line 26a

24c. FOR TESTING WITH WATER see Table C & D

Water Temperature after Circulation Table C ____ °F
Coefficient of Water Table D ____
Added Surfactant? ☐ Yes ☐ No Transfer COE to Line 25b.

25. (a) 10146 Total quantity in full tank (16 or 17) × (b) .00060082 Coefficient of expansion for involved product = (c) 6.0959197 Volume change in this tank per °F gallons

26. (a) 6.0959197 Volume change per °F (25 or 24b) * 326 Digits per °F in test Range (23) = .0186991 Volume change per digit Compute to 4 decimal places

This is test factor (s) .0187

27. Sensor Calibration 8-22 / 1630

LOG OF TEST PROCEDURES

28. DATE / TIME (24 hr)	Record details of setting up and running test (Use full length of line if needed)	29 Reading No	30. HYDROSTATIC PRESSURE CONTROL: Standpipe Level in Inches — Beginning of Reading	Level to which Restored	31. VOLUME MEASUREMENTS (V) RECORD TO .001 GAL: 32 Product in Graduate — Before Reading	After Reading	33. Product Replaced (-) — Product Recovered (+)	34 TEMPERATURE COMPENSATION USE FACTOR (a) .0187: 35. Thermal Sensor Reading	36 Change Higher + Lower - (c)	37 Computation (c) × (a) = Expansion + Contraction -	38. NET VOLUME CHANGING EACH READING: Temperature Adjustment — Volume Minus Expansion (+) or Contraction (-) #33(V) - #37(T)	39. ACCUMULATED CHANGE: At Low Level compute Change per Hour (NFPA criteria)
								15				
1630	FIRST SENSOR READING	1		42				324				
1645	START HIGH LEVEL TEST	2	43	42	.740	.820	+.080	324	+0	+.00	+.080	
1700	HIGH LEVEL TEST CONTINUE	3	43	42	.820	.880	+.060	329	+5	+.094	-.034	+.046
1715	" " " "	4	43.1	42	.360	.430	+.070	334	+5	+.094	-.024	+.022
1730	" " " "	5	43.1	42	.430	.510	+.080	339	+5	+.094	-.014	+.008
1745	" " " "	6	43.2	42	.510	.585	+.075	344	+5	+.094	-.019	-.008
1800	" " " "	7	43.1	42	.585	.655	+.070	350	+6	+.112	-.042	-.050
1815	" " " "	8	43.2	42	.655	.730	+.075	352	+2	+.037	+.038	-.012
1816	DROPPED TO LOW LEVEL TEST			12				352				
1830	START LOW LEVEL TEST	1	13.5	12	.700	.800	+.100	358	+6	+.112	-.012	
1845	LOW LEVEL TEST	2	13.5	12	.220	.315	+.095	362	+4	+.075	+.020	+.008
1900	" " "	3	13.4	12	.315	.395	+.080	364	+2	+.037	+.043	+.051
1915	" " "	4	13.4	12	.395	.485	+.090	369	+5	+.094	-.004	+.047
1930	" " "	5	13.0	12	.485	.550	+.065	372	+3	+.056	+.009	+.056
1945	" " "	6	13.2	12	.550	.620	+.070	376	+4	+.075	-.005	+.051
2000	" " "	7	13.2	12	.620	.710	+.90	381	+5	+.094	-.004	+.047

CRITERIA OF ±.050 GALLON/HOUR

The criteria established of ±.050 gallon/hour is a mathematical calculation based on actual liquid volume change and temperature change, and is not intended as a permission of a leak.

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P-T Tank Test Data Chart
Additional Info

1. Net Volume Change at Conclusion of Precision Test -.004 gph

Signature of Tester. [signature]

Date 8-22-95

2 Statement·

☐ Tank and product handling system has been tested tight according to the Precision Test Criteria as established by N.F.P.A. publication 329. This is not intended to indicate permission of a leak.

OR

☐ Tank and product handling system has failed the tank tightness test according to the Precision Test Criteria as established by N.F.P.A. publication 329

It is the responsibility of the owner and/or operator of this system to immediately advise state and local authorities of any implied hazard and the possibility of any reportable pollution to the environment as a result of the indicated failure of this system. Heath Consultants Incorporated does not assume any responsibility or liability for any loss of product to the environment.

Tank Owner/Operator _____

Date _____

Data Chart for Tank System Tightness Test

521-3100

PLEASE PRINT

1. OWNER Property ☒ Tank(s) ☒

Name	Address	Representative	Telephone
ALAMEDA CELLARS	901 LINCOLN AVE ALAMEDA 94501	RICK ZURAS	(415) 865-3200
SAME AS ABOVE			

RECEIVED
AUG 26 1988
HAZARDOUS MATERIALS/

2. OPERATOR

Name	Address	Representative	Telephone
SAME AS ABOVE			

3. REASON FOR TEST (Explain Fully)
OWNER SATISFACTION

4. WHO REQUESTED TEST AND WHEN

Name	Title	Company or Affiliation	Date
RICK ZURAS			8-16-88

Address / Telephone

5. TANK INVOLVED (Use additional lines for manifolded tanks)

Identify by Direction	Capacity	Brand/Supplier	Grade	Approx Age	Steel/Fiberglass
SOUTHEAST	10126	ACE	REGULAR	10 YRS.	STEEL TANK
SOUTH WEST	10126	ACE	SUPREME UL	10 YRS	STEEL TANK

6. INSTALLATION DATA

Location	Cover	Fills	Vents	Siphones	Pumps
SOUTH SIDE FRONT OF BUILDING BOTH TANKS	CONCRETE BOTH TANKS	4" W/DROP TUBES BOTH TANKS	2" BOTH TANKS	NONE	OLO TOKHEIM SUB PUMP BOTH TANKS
North inside driveway, Rear of station, etc	Concrete, Black Top, Earth, etc.	Size, Titefill make, Drop tubes, Remote Fills	Size, Manifolded	Which tanks?	Suction, Remote, Make if known

7. UNDERGROUND WATER
Depth to the Water table ∅ "
Is the water over the tank? ☐ Yes ☒ No

8. FILL-UP ARRANGEMENTS
Tanks to be filled ____ hr. ____ Date Arranged by ____ Name Telephone
Extra product to "top off" and run tank tester. How and who to provide? Consider NO Lead.
Terminal or other contact for notice or inquiry ____ Company Name Telephone

9. CONTRACTOR, MECHANICS, any other contractor involved
BAY COUNTIES SERVICE STATION MAINTENANCE

10. OTHER INFORMATION OR REMARKS
Additional information on any items above. Officials or others to be advised when testing is in progress or completed. Visitors or observers present during test, etc.

11. TEST RESULTS
Tests were made on the above tank systems in accordance with test procedures prescribed for as detailed on attached test charts with results as follows:

Tank Identification	Tight	Leakage Indicated	Date Tested
REGULAR	-.009		
SUPER	-.~~[illegible]~~	-.127	
DIESEL			DID NOT TEST

12. SENSOR CERTIFICATION
8-22-86 Date
1679 Serial No. of Thermal Sensor

13. This is to certify that these tank systems were tested on the date(s) shown. Those indicated as "Tight" meet the criteria established by the National Fire Protection Association Pamphlet 329.

Technicians
1 ROBERT RIVERA
Certification # 414813131
2 ____
Certification # ____

Robert Rivera BAY COUNTIES SERV. STA. MAINT
Testing Contractor or Company. By Signature
1096 YERBA BUENA AVE. EMERYVILLE CA.
Address

PN68

Name of Supplier, Owner or Dealer | Address No. and Street(s) | City | State | Date of Test

15. TANK TO TEST

SOUTH EAST | SOUTH WEST
Identity by position

REGULAR | SUPREME OIL
Brand and Grade

15a. BRIEF DIAGRAM OF TANK FIELD

REGULAR | SUPREME

DIESEL

STORE

16. CAPACITY

Nominal Capacity 10,000 Gallons

By most accurate capacity chart available 10126 Gallons

From
- ☐ Station Chart
- ☒ Tank Manufacturer's Chart
- ☐ Company Engineering Data
- ☐ Charts supplied with
- ☐ Other

17. FILL-UP FOR TEST

Stick Water Bottom before Fill-up ____ in to ⅛"

____ Gallons

95 in Tank Diameter

	Gallons	Total Gallons ea Reading
Inventory	10126	10126
	TOP OFF	20
	H2O	0
		10146

Transfer total to line 25a

18 SPECIAL CONDITIONS AND PROCEDURES TO TEST THIS TANK

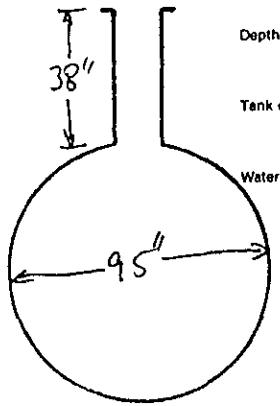
☐ Water in tank ☐ Line(s) being tested with LVLLT ☐ High water table in tank excavation

See manual sections applicable Check below and record procedure in log (27).

Use maximum allowable test pressure for all tests
Four pound rule does not apply to doublewalled tanks.

Complete section below*

1. Is four pound rule required? Yes ☐ No ☒
2. Height to 12" mark from bottom of tank ____ In
3. Pressure at bottom of tank ____ PSI
4. Pressure at top of tank ____ PSI



Depth of burial 38 in.

Tank dia 95 in

Water table 0 in

NOTES:

The above calculations are to be used for dry soil conditions to establish a positive pressure advantage, or when using the four pound rule to compensate for the presence of subsurface water in the tank area.

Refer to N.F.P.A. 30, Sections 2-3.2.4 and 2-7.2 and the tank manufacturer regarding allowable system test pressures

19. TANK MEASUREMENTS FOR TSTT ASSEMBLY

Bottom of tank to grade* 133 in.
Add 30" for "T" probe assy 30 in
Total tubing to assemble — approximate 163 in.

20. EXTENSION HOSE SETTING

Tank top to grade* 38 in.
Extend hose on suction tube 6" or more below tank top 44 in.

*If Fill pipe extends above grade, use top of fill.

22. Thermal-Sensor reading after circulation 15231 digits

68/69 °F Between

23. Digits per °F in range of expected change 326 digits

COEFFICIENT OF EXPANSION (Complete after circulation)

24a. Corrected A.P.I. Gravity

Observed A P I Gravity 59.8

Hydrometer employed 7 H

Observed Sample Temperature 71 °F

Corrected A P.I. Gravity @ 60°F. From Table A. 58.4

Coefficient of Expansion for Involved Product From Table B .00060224

Transfer COE to Line 25b

21. VAPOR RECOVERY SYSTEM ☐ Stage I ☐ Stage II

24b. COEFFICIENT OF EXPANSION RECIPROCAL METHOD

Type of Product ____

Hydrometer Employed ____ H

Temperature in Tank After Circulation ____ °F

Temperature of Sample ____ °F

Difference (+/-) ____ °F

Observed A.P.I. Gravity ____

Reciprocal ____ Page # ____

Total quantity in full tank (16 or 17) ____ + Reciprocal ____ = Volume change in this tank per °F ____

Transfer to Line 26a.

24c. FOR TESTING WITH WATER see Table C & D

Water Temperature after Circulation Table C ____ °F

Coefficient of Water Table D. ____

Added Surfactant? ☐ Yes ☐ No Transfer COE to Line 25b.

25. (a) 10146 Total quantity in full tank (16 or 17) × (b) .00060224 Coefficient of expansion for involved product = (c) 6.110327 Volume change in this tank per °F gallons

26. (a) 6.110327 Volume change per °F (25 or 24b) ÷ 326 Digits per °F in test Range (23) = .0187433 Volume change per digit Compute to 4 decimal places

This is test factor (a) 0.0188

27. Sensor Calibration 1679 / 16604

LOG OF TEST PROCEDURES

28. DATE / TIME (24 hr)	Record details of setting up and running test (Use full length of line if needed)	29 Reading No	30. HYDROSTATIC PRESSURE CONTROL: Standpipe Level in Inches — Beginning of Reading	Level to which Restored	31. VOLUME MEASUREMENTS (V) RECORD TO .001 GAL: 32. Product in Graduate — Before Reading	After Reading	33. Product Replaced (-) — Product Recovered (+)	34. TEMPERATURE COMPENSATION USE FACTOR (a): 35. Thermal Sensor Reading	36. Change Higher + Lower - (c)	37 Computation (c) × (a) = Expansion + Contraction -	38. NET VOLUME CHANGING EACH READING: Temperature Adjustment — Volume Minus Expansion (+) or Contraction (-) #33(V) -- #37(T)	39. ACCUMULATED CHANGE: At Low Level compute Change per Hour (NFPA criteria)
0800	ARRIVED AT TEST LOCATION. SET UP EQUIPMENT; PURGED AIR OUT OF LINES											
1015	PUMP PRIMED AND RUNNING									REGULAR FACTOR A = 0.0188		
1145	API SAMPLE REMOVED							15				
1200	FIRST SENSOR READING	1		42				231				
1215	START HIGH LEVEL TEST	2	43.5	42	.305	.415	+.110	237	+6	+.113	-.003	
1230	HIGH LEVEL TEST CONTINUE	3	43.6	42	.415	.535	+.120	245	+8	+.150	-.030	-.033
1245	" " " "	4	43.5	42	.535	.640	+.105	249	+6	+.113	-.008	-.091
1300	" " " "	5	43.5	42	.640	.740	+.100	258	+9	+.169	-.069	-.110
1315	" " " "	6	43.5	42	.740	.845	+.105	263	+5	+.094	+.011	-.099
1320	DROPPED TO LOW LEVEL TEST							15				
1325	FIRST SENSOR READING	1		12				267				
1340	START LOW LEVEL TEST	2	14.7	12	.340	.515	+.175	273	+6	+.113	+.062	
1355	LOW LEVEL TEST CONTINUE	3	14.0	12	.515	.655	+.140	280	+7	+.132	+.008	+.070
1410	" " " "	4	13.6	12	.650	.760	+.110	285	+5	+.094	+.016	+.086
1425	" " " "	5	13.6	12	.760	.870	+.110	289	+4	+.075	+.035	+.121
1490	" " " "	6	13.5	12	.870	.970	+.100	294	+5	+.094	+.006	+.127
1455	" " " "	7	13.5	12	.225	.330	+.105	300	+6	+.113	-.008	+.100
1510	" " " "	8	13.4	12	.330	.930	+.100	303	+3	+.057	+.043	+.143
	TEST INCONCLUSIVE; RETESTED TANK; SEE ATTACHED READINGS											