

December 7, 1988

Rafat Shahid
Alameda County
Environmental Health
470 - 27th St., Room 324
Oakland, CA 94612

RE: TANK TEST RESULTS
VARIOUS LOCATIONS
ALAMEDA COUNTY, CA

Dear Mr. Shahid:

As required by California state law in regards to underground storage tanks, attached are precision tank test results for the following service stations located within Alameda County:

<u>S/S ID</u>	<u>LOCATION</u>	<u>CITY</u>	<u>ZIP</u>
10-E6A	100 Mc Arthur Blvd.	Oakland	94610
10-G6A	3519 Castro Valley Blvd.	Castro Valley	94546
10-H69	4280 Foothill Blvd.	Oakland	94601
10-KNK	7197 Village Parkway	Dublin	94566
10-LED	3103 - 98th Ave.	Oakland	94605
10-LTV	1700 Powell Ave.	Emeryville	94608
10-L9M	6400 Dublin	Dublin	94566
10-870	7022 Santa Teresa	San Jose	95139

Should you have any questions or need additional information, you may contact Chris Mitchell at (818) 953-2519.

Sincerely,

RAM:
Attachments
(DOC-ALAMEDA)

R. J. Edwards
Region Environmental
Manager

bcc: Admin. Center - Fairfax
S. Pao - Richmond (w/o att)
G. A. Englebart - (w/o att)
D. L. Green - (w/o att)
R. E. Kolberg - (w/o att)
J. T. Sekel - (w/o att)
S/S Files - As Listed

Mobil Dealers - Per Above

(Dealers: Please ensure that the attached tank test results are retained at the facility and made available for review upon request.)

COPY TO BP

Data Chart for Tank System Tightness Test

PLEASE PRINT

10-H69

(10-464)

<p>1. OWNER <input checked="" type="checkbox"/> Property <input type="checkbox"/> Tank(s)</p>	<p><u>MOBIL</u> <u>4220 Foothill Blvd.</u> <u>Oakland, 94601</u></p> <p>Name Address Representative Telephone</p>																		
<p>2. OPERATOR</p>	<p><u>Same</u></p> <p>Name Address Telephone</p>																		
<p>3. REASON FOR TEST (Explain Fully)</p>	<p><u>State Requirement</u></p>																		
<p>4. WHO REQUESTED TEST AND WHEN</p>	<p><u>Moody Younger</u> <u>Eng.</u> <u>MOBIL</u> <u>10/6/88</u></p> <p>Name Title Company or Affiliation Date</p> <p style="text-align: center;">Address Telephone</p>																		
<p>5. TANK INVOLVED <small>Use additional lines for manifolded tanks</small></p>	<p>Identify by Direction</p> <p><u>#1 NORTH</u> <u>#2 EAST</u> <u>#3 WEST</u></p>	<p>Capacity</p> <p><u>1000</u> <u>3000</u> <u>6000</u></p>	<p>Brand/Supplier</p> <p><u>MOBIL</u></p>	<p>Grade</p> <p><u>UNLEAD</u> <u>SUPER</u> <u>REGULAR</u></p>	<p>Approx. Age</p> <p><u>10 yr</u> <u>"</u> <u>"</u></p>	<p>Steel/Fiberglass</p> <p><u>Fiberglass</u> <u>"</u> <u>"</u></p>													
<p>6. INSTALLATION DATA</p>	<p>Location</p> <p><u>South of Building</u></p> <p><small>North inside driveway, Rear of station, etc.</small></p>	<p>Cover</p> <p><u>Concrete</u></p> <p><small>Concrete, Black Top, Earth, etc.</small></p>	<p>Fills</p> <p><u>4"</u></p> <p><small>Size, Thread make, Drop tubes, Remote Fills</small></p>	<p>Vents</p> <p><u>2"</u></p> <p><small>Size, Manifolded</small></p>	<p>Siphones</p> <p><u>Ø</u></p> <p><small>Which tanks?</small></p>	<p>Pumps</p> <p><u>R.J. Turbine</u></p> <p><small>Suction, Remote, Make if known</small></p>													
<p>7. UNDERGROUND WATER</p>	<p>Depth to the Water table <u>UNKNOWN.</u></p> <p style="text-align: right;">Is the water over the tank? <input type="checkbox"/> Yes <input type="checkbox"/> No</p>																		
<p>8. FILL-UP ARRANGEMENTS</p>	<p>Tanks to be filled _____ fr. _____ Date _____ Arranged by _____ Name _____ Telephone _____</p> <p>Extra product to "top off" and run tank tester. How and who to provide? Consider NO Lead.</p> <p>Terminal or other contact for notice or inquiry _____ Company _____ Name _____ Telephone _____</p>																		
<p>9. CONTRACTOR, MECHANICS, any other contractor involved</p>	<p><u>Paradiso Construction Company</u></p> <p><u>Dave Mordide</u></p>																		
<p>10. OTHER INFORMATION OR REMARKS</p>	<p><u>Test entire system.</u></p> <p><small>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.</small></p>																		
<p>11. TEST RESULTS</p>	<p>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:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Tank Identification</th> <th>Tight</th> <th>Leakage Indicated</th> <th>Date Tested</th> </tr> </thead> <tbody> <tr> <td><u>#1 NORTH</u></td> <td><u>YES</u></td> <td><u>-1009 GPH</u></td> <td><u>10/6/88</u></td> </tr> <tr> <td><u>#2 EAST</u></td> <td><u>YES</u></td> <td><u>+1003 GPH</u></td> <td><u>10/6/88</u></td> </tr> <tr> <td><u>#3 WEST</u></td> <td><u>YES</u></td> <td><u>-1004 GPH</u></td> <td><u>10/6/88</u></td> </tr> </tbody> </table>			Tank Identification	Tight	Leakage Indicated	Date Tested	<u>#1 NORTH</u>	<u>YES</u>	<u>-1009 GPH</u>	<u>10/6/88</u>	<u>#2 EAST</u>	<u>YES</u>	<u>+1003 GPH</u>	<u>10/6/88</u>	<u>#3 WEST</u>	<u>YES</u>	<u>-1004 GPH</u>	<u>10/6/88</u>
Tank Identification	Tight	Leakage Indicated	Date Tested																
<u>#1 NORTH</u>	<u>YES</u>	<u>-1009 GPH</u>	<u>10/6/88</u>																
<u>#2 EAST</u>	<u>YES</u>	<u>+1003 GPH</u>	<u>10/6/88</u>																
<u>#3 WEST</u>	<u>YES</u>	<u>-1004 GPH</u>	<u>10/6/88</u>																
<p>12. SENSOR CERTIFICATION</p> <p><u>10/6/88</u> Date <u>1310/1623</u> Serial No. of Thermal Sensor</p>	<p>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 328.</p> <p>Technicians <u>Dave M</u></p> <p>Certification # <u>41481137</u></p> <p style="text-align: right;">Paradiso Construction Co. <u>Dave Mordide</u> Testing Contractor or Company. By: Signature <u>9220 G Street, Oakland, CA 94603</u> Address</p>																		

COPY TO BP

COPY TO BP

14. Mobil 4280 Foot Hill Blvd. Oakland CA 10/16/88
 Name of Supplier, Owner or Dealer Address No. and Street(s) City State Date of Test

15. TANK TO TEST
#1 worth
 Identity by position
UNLmod
 Brand and Grade

15a. BRIEF DIAGRAM OF TANK FIELD

 #1
 #2 #3

16. CAPACITY
 Nominal Capacity 10000 Gallons
 By most accurate capacity chart available 10000 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 <u>0</u> in	<u>0</u> Gallons	<u>92</u> Tank Diameter in.	Inventory	Total Gallons as Reading <u>10000</u>
---	------------------	-----------------------------	-----------	---------------------------------------

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 251 in.
3. Pressure at bottom of tank 6.526 P.S.I.
4. Pressure at top of tank 4.134 P.S.I.

19. TANK MEASUREMENTS FOR TSTT ASSEMBLY
 Bottom of tank to grade* 146 in.
 Add 30" for "T" probe easy. 30 in.
 Total tubing to assemble - approximate 192 in.

20. EXTENSION HOSE SETTING
 Tank top to grade* 54 in.
 Extend hose on suction tube 8" or more below tank top 10 in.
 *If Fill pipe extends above grade, use top of fill.

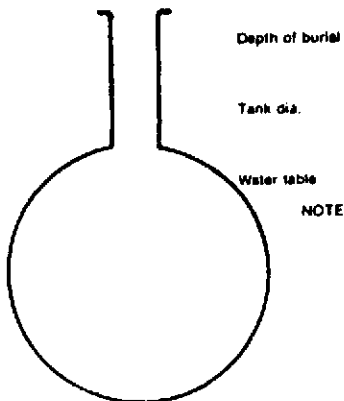
22. Thermal-Sensor reading after circulation 14746 digits
67.68 °F
 23. Digits per °F in range of expected change 326 digits

COEFFICIENT OF EXPANSION (Complete after circulation)
 24a. Corrected A.P.I. Gravity
 Observed A.P.I. Gravity _____
 Hydrometer employed _____ H
 Observed Sample Temperature _____ °F
 Corrected A.P.I. Gravity @ 60°F, From Table A _____
 Coefficient of Expansion for Involved Product From Table B _____
 Transfer COE to Line 25b.

21. VAPOR RECOVERY SYSTEM Stage I Stage II

24b. COEFFICIENT OF EXPANSION RECIPROCAL METHOD
 Type of Product UNLmod
 Hydrometer Employed 6 H
 Temperature in Tank After Circulation 67.2 °F
 Temperature of Sample 63.0 °F
 Difference (+/-) -4.2 °F
 Observed A.P.I. Gravity 56.1
 Reciprocal 1503 Page # 60
10025 1503 6.66999
 Total quantity in full tank (16 or 17) Reciprocal Volume change in this tank per °F
 Transfer to Line 25a.

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.



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.

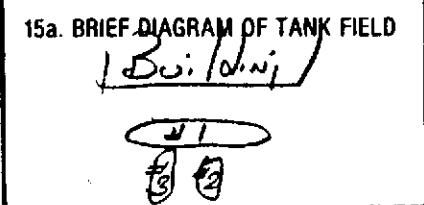
25. (a) _____ × (b) _____ = (c) _____ gallons
 Total quantity in full tank (16 or 17) Coefficient of expansion for Involved product Volume change in this tank per °F

26. (a) 6.669993346 × (b) 326 = (c) 220462122 This is 10025
 Volume change per °F (25 or 24b) Digits per °F in test Volume change per digit This is test

COPY TO BP

14. MOBILE 4280 Foothill Blvd Oakland CA 10/6/88
 Name of Supplier, Owner or Dealer Address No. and Street(s) City State Date of Test

15. TANK TO TEST
#2 EAST
 Identify by position
Super
 Brand and Grade



16. CAPACITY
 Nominal Capacity 8000 Gallons
 By most accurate capacity chart available 8000 Gallons

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

17. FILL-UP FOR TEST

	Gallons	Total Gallons ea. Reading
Slick Water Bottom before Fill-up <u>0</u> in. to <u>12"</u>	<u>0</u>	
Gallons	<u>95</u>	
Tank Diameter		<u>8000</u>
Inventory		

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:

- Is four pound rule required? Yes No
- Height to 12" mark from bottom of tank 256 in.
- Pressure at bottom of tank 6.656 P.S.I.
- Pressure at top of tank 4.186 P.S.I.

19. TANK MEASUREMENTS FOR TSTT ASSEMBLY

Bottom of tank to grade* 154 in.
 Add 30" for "T" probe assy. 30 in.
 Total tubing to assemble - approximate 192 in.

20. EXTENSION HOSE SETTING

Tank top to grade* 59 in.
 Extend hose on suction tube 8" or more below tank top 10 in.

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

22. Thermal-Sensor reading after circulation 15420 digits
69.70 °F
 Between digits

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 _____
 Hydrometer employed _____ H
 Observed Sample Temperature _____ °F
 Corrected A.P.I. Gravity @ 80°F, From Table A _____
 Coefficient of Expansion for Involved Product From Table B _____
 Transfer COE to Line 25b.

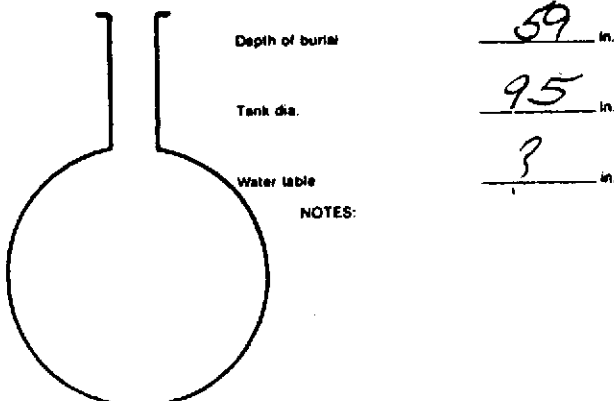
21. VAPOR RECOVERY SYSTEM Stage I Stage II

24b. COEFFICIENT OF EXPANSION RECIPROCAL METHOD

Type of Product Super
 Hydrometer Employed 6 H
 Temperature in Tank After Circulation 69.2 °F
 Temperature of Sample 62.0 °F
 Difference (+/-) -7.2 °F
 Observed A.P.I. Gravity 57.5
 Reciprocal 1485 Page # 61
8030 · 1485 · 5.407407
 Total quantity in full tank (16 or 17) Reciprocal Volume change in this tank per °F
 Transfer to Line 25a.

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.



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.

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

26. (a) 5.407407407 × 326 = .016587137 This is A = .0166
 Volume change per °F (25 or 24b) Digits per °F in test Volume change per digit This is test

											Super		
0845	ARRIVED ON SITE												
0900	Begin Circulation												
0945	1st Sensor Reading												
1000	Begin High Test												
1015	1	44.2	42	.320	.480	+160	15386	-34	-564	+1.724			
1030	2	44.0	42	.480	.620	+140	15442	+56	+930	-.790			
1045	3	43.9	42	.620	.760	+140	15454	+12	+199	-.059			
1100	4	44.0	42	.760	.920	+160	15466	+12	+199	-.039			
1115	5	44.1	42	.0	.160	+160	15479	+13	+216	-.056			
1130	6	43.9	42	.160	.300	+140	15486	+7	+116	+1.024			
1145	7	44.0	42	.300	.440	+140	15496	+10	+166	-.026			
1200	8	44.1	42	.440	.620	+180	15508	+12	+199	-.019			
Drop To Low													
1200	9	16.1	12	.0	.240	+240	15520	+12	+199	+1.041			
1215	10	14.0	12	.240	.380	+140	15528	+8	+133	+1.007	+1.007		
1230	11	14.6	12	.380	.570	+190	15540	+12	+199	-.009	-.002		
1245	12	14.2	12	.570	.730	+160	15550	+10	+166	-.006	-.008		
1300	13	14.2	12	.730	.890	+160	15559	+9	+149	+1.011	+1.003		

COPY TO BP

**P-T Tank Test Data Chart
Additional Info**

Net Volume Change at Conclusion of Precision Test _____ gph

Signature of Tester: [Signature]

Date: 12/6/88

+1.003 GPH

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.

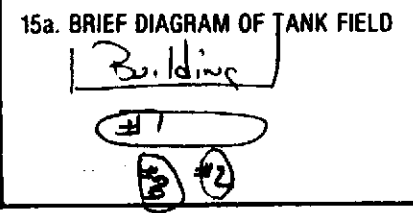
It is the responsibility of the owner and/or operator of this system to immediately advise state and local authorities of any implied hazard and the possibility of any reportable pollution to the environment as a result of the indicated failure of this system. Heath Consultants Incorporated does not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

Tank Owner/Operator _____

Date _____

14. Mobil 480 Foot Hill Blvd Oakland CA 10/6/88
 Name of Supplier, Owner or Dealer Address No. and Street(s) City State Date of Test

15. TANK TO TEST
#3 West
 Identify by position
Regular
 Brand and Grade



16. CAPACITY
 Nominal Capacity 6000 Gallons
 By most accurate capacity chart available 6000 Gallons

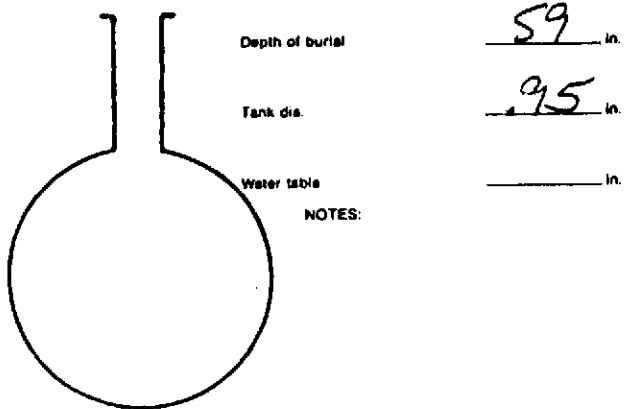
- From
 Station Chart
 Tank Manufacturer's Chart
 Company Engineering Data
 Charts supplied with
 Other _____

17. FILL-UP FOR TEST
 Stick Water Bottom before Fill-up 0 in. 0 Gallons 95 in. Tank Diameter
 Inventory _____ Gallons _____ Total Gallons as Reading 6000

18. SPECIAL CONDITIONS AND PROCEDURES TO TEST THIS TANK
 Water in tank Line(s) being tested with LVLTT
 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 256 in.
 3. Pressure at bottom of tank 6.656 p.s.i.
 4. Pressure at top of tank 4.186 p.s.i.



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* 154 in.
 Add 30" for "T" probe assy. 30 in.
 Total tubing to assemble - approximate 192 in.

20. EXTENSION HOSE SETTING
 Tank top to grade* 59 in.
 Extend hose on suction tube 6" or more below tank top 10 in.

*If fill pipe extends above grade, use top of fill.
 22. Thermal-Sensor reading after circulation 15472 digits
6970 °F
 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 _____
 Hydrometer employed _____ H
 Observed Sample Temperature _____ °F
 Corrected A.P.I. Gravity @ 60° F. From Table A _____
 Coefficient of Expansion for Involved Product From Table B _____
 Transfer COE to Line 25b.

Top off 20
6020
 Transfer total to line 25a

21. VAPOR RECOVERY SYSTEM Stage I Stage II

24b. COEFFICIENT OF EXPANSION RECIPROCAL METHOD
 Type of Product Regular
 Hydrometer Employed 6 H
 Temperature in Tank 69.4 °F
 After Circulation 69.0 °F
 Temperature of Sample 69.0 °F
 Difference (+/-) -.4 °F
 Observed A.P.I. Gravity 58.3
 Reciprocal 1483 Page # 62
6000 1483 4.059339 7
 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) _____ x (b) _____ = (c) _____ gallons
 Total quantity in full tank (16 or 17) Coefficient of expansion for involved product Volume change in this tank per °F
 26. (a) 4.059339177 x (b) 326 = (c) .01245196 This is test
 Volume change per °F (25 or 24b) Digits per °F in test Volume change per digit test
A = .0124

COPY TO BP

2:45	ARRIVED ON SITE											
1330	Begin Circulation						$\Delta = .0124$					
1345	1st Sensor Reading							15472				
1400	Begin High Test	1	42.5	42	.620	.650	+0.030	15480	+8	+0.099	-0.069	
1415		2	43.0	42	.650	.720	+0.070	15493	+13	+0.161	-0.091	
1430		3	43.1	42	.720	.800	+0.080	15503	+10	+0.124	-0.044	
1445		4	43.3	42	.800	.890	+0.090	15515	+12	+0.149	-0.059	
1500		5	43.2	42	Δ	.080	+0.080	15527	+12	+0.149	-0.069	
1515		6	43.4	42	.080	.180	+0.100	15538	+11	+0.136	-0.036	
1530		7	43.3	42	.180	.270	+0.090	15549	+11	+0.136	-0.046	
1545		8	43.4	42	.270	.370	+0.100	15561	+12	+0.149	-0.049	
	Drop To Low											
1600	1st Sensor Reading	9	14.9	12	0	.180	+0.180	15568	+7	+0.087	+0.093	
1615	Begin Low Test	10	13.5	12	.180	.300	+0.120	15577	+9	+0.112	+0.008	+1.008
1630		11	13.6	12	.300	.420	+0.120	15587	+10	+0.124	-0.004	+0.004
1645		12	13.5	12	.420	.540	+0.120	15596	+9	+0.112	+0.008	+0.012
1700		13	13.4	12	.540	.660	+0.120	15607	+11	+0.136	-0.016	-0.004

copy

P-T Tank Test Data Chart
Additional Info

-0.004 GPH

Net Volume Change: _____ Conclusion of Precision Test: _____ gph

Signature of Tester: *[Signature]*

Date: 07/16/88

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. Health Consultants Incorporated does not assume any responsibility or liability for any loss of product to the environment.

Tank Owner/Operator _____

Date _____

TO BP