

MEMORANDUM

CITY OF SAN LEANDRO

DATE: April 9, 1996

TO: Scott Seery
Alameda County Health Dept.
1131 Harbor Bay Parkway,
Alameda, CA 94502

FROM: Karl Busche,
City of San Leandro
Hazardous Materials Inspector
835 E. 14th Street
San Leandro, CA 94577

SUBJECT: UST monitoring at 111 E. 14th St.

Attached are recent tank tightness tests for East 14th Street Beacon station. The monitoring documentation that is on file show the station to be currently in-compliance with ust regs. The monitoring method at this site is SIR. A tank tightness test was performed in 12-94, a piping test in 12-95, so a tank tightness test will be required before 12-96.

If there are any questions about the underground storage tank monitoring requirements at this station I may be reached at (510) 577-3341.

Attachment

ENVIRONMENTAL
PROTECTION
96 APR 10 PM 1:41

Petro-Tite
1041031

1 LOCATION: EAST '4 GAS + 90 SA. Leandro 12-6-75
Street No. & Corner City State Telephone No.

2 OWNER: EAST '4 GAS SAN LEANDRO
Name Address Representative Telephone No.

3 OPERATOR: _____
District, Mgr. or Other Address (if different than location) Telephone No.

4 REASON FOR TEST: Requested By ARCO

5 TEST REQUESTED BY: ARCO
Name City State Position Order No. Billing Address Telephone No.

6 SPECIAL INSTRUCTIONS: TEST all PRODUCT LINES

7 CONTRACTOR OR COMPANY MAKING TEST: SCOTT COMPANY William A McLAUGHLIN
MECHANIC(S) NAME

8 IS A TANK TEST TO BE MADE WITH THIS LINE TEST? YES NO
 9 MAKE AND TYPE OF PUMP OR DISPENSER: Red JAC
62°

10 WEATHER: COOL TEMPERATURE IN TANKS _____ °F _____ °C COVER OVER LINES: CONCRETE APPROXIMATE BURIAL DEPTH: 3'
Concrete, Steel Top, etc.

NAME: SAN LEANDRO
 CITY: EAST '4 GAS
 STATE: _____
 DATE OF TEST: _____

IDENTIFY EACH LINE TESTED	12 TIME (MILITARY)	13 LOG OF TEST PROCEDURES, AMBIENT TEMPERATURE, WEATHER, ETC.	14 PRESSURE		15 VOLUME		16 TEST RESULTS	
			psi OR kPa		READING			NET CHANGE
			BEFORE	AFTER	BEFORE	AFTER		
	8:30	Reg tank		45		.0300	Bleedback +.024	
	8:45		44		.0320	.0310		-.0010
	9:00		44		.0310	.0305		-.0005
	9:15		44		.0305	.0300		-.0005
	9:30		45		.0300	.0300		±.0000
	8:35	Plus		45		.0280	Bleedback +.022	
	8:50		42		.0280	.0255		-.0025
	9:05		43		.0255	.0240		-.0015
	9:20		43		.0240	.0225		-.0015
	9:35		43		.0225	.0210		-.0015
	10:00			45		.0190	Bleedback +.023	
	10:15	43		.0190	.0175	-.0015		
	10:30	43		.0175	.0160	-.0015		
	10:45	43		.0160	.0145	-.0015		
	11:00	43		.0145	.0130	-.0015		

-.0020 GPH

-.0070 GPH

-.0060 GPH

Data Chart for Tank System Tightness Test

PLEASE PRINT STATION#: _____

DATE 12-6-94

1. OWNER <input type="checkbox"/> Property <input type="checkbox"/> Tank (s)	2. OPERATOR	3. REASON FOR TEST (Specify faulty)	4. WHO REQUESTED TEST AND WHEN	5. TANK INVOLVED Use additional lines for multisealed tanks	6. INSTALLATION DATA	7. UNDERGROUND WATER	8. FILL-UP ARRANGEMENTS	9. CONTRACTOR, MECHANICS, or other contractor (Indicate)	10. OTHER INFORMATION OR REMARKS	11. TEST METHOD <input checked="" type="checkbox"/> PETRO TITE <input type="checkbox"/> PETRO COMP <input type="checkbox"/> QUICK CHECK 2000	11a. TEST RESULTS	12. SENSOR CERTIFICATION
Name of Supplier, Owner or Dealer: <u>777th GAS</u> Address: <u>114th ST SAN LEANDRO CA</u> City: <u>SAN LEANDRO</u> State: <u>CA</u> Zip: <u>94589</u> Telephone: _____ Name: <u>DELLI AGENCY</u> Address: <u>114th ST GAS</u> City: <u>SAN LEANDRO</u> State: <u>CA</u> Zip: <u>94589</u> Telephone: _____ Name: _____ Address: _____ City: _____ State: _____ Zip: _____ Telephone: _____ Title: _____ Company or Affiliation: _____ Telephone: _____ Capacity: <u>12000</u> Brand/Model: <u>EAST-14 GAS</u> Gross Weight: <u>41/2</u> Apprais. Age: <u>11/14</u> Shipper: <u>SYZEL</u> # of Tanks: <u>3</u> # of Tanks Involved: <u>12000</u> # of Tanks to be Tested: <u>12000</u> # of Tanks to be Tested: <u>12000</u> # of Tanks to be Tested: _____ Location: <u>Rear STATION</u> Fills: <u>4"</u> Vents: <u>2"</u> Site, Multisealed: _____ Site, Multisealed: _____ Depth to the water table from grade: <u>UNDER TANK</u> Is the water level tank? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Tanks to be filled: <u>8000</u> No. of Tanks: <u>12-6-94</u> Date: _____ Arranged by: <u>EAST 14th ST GAS</u> Name: _____ Telephone: _____ Extra product to "top off" and air tank tester: <u>THANK TESTERS provide top off</u> Name: _____ Telephone: _____ Terminal or other contact for notes or inquiry: <u>SCOTT CO. OF CALIFORNIA Paul Ferreira (510) 834-2333</u> Name: _____ Telephone: _____ Additional information on any limits states, OSHA or others to be included when testing in a program of compliance, failures or otherwise present during test, etc. _____ Using DTS-2000 and Petro-Tite Self Levelers Additional information on any limits states, OSHA or others to be included when testing in a program of compliance, failures or otherwise present during test, etc. _____ Tank Identification: <u>SAFFRONE 705</u> <u>PLUS 705</u> <u>R9 4th 705</u> Tank Volume Change Per Hour: <u>0.035 GPH</u> <u>0.035 GPH</u> <u>0.035 GPH</u> Tank No. of Thermal Sensor: <u>488</u> Tank No. of Thermal Sensor: _____ Tank No. of Thermal Sensor: _____ Contractor Certification: <u>William M. Mackay</u> Transcriber: <u>SCOTT COMPANY</u> Name: _____ Telephone: _____ Station No.: <u>91-151</u> Address: <u>1919 MARKET ST. OAKLAND CA 94607</u> City: <u>OAKLAND</u> State: <u>CA</u> Zip: <u>94607</u>												

14. EAST 14th Gas Address No. and Street: EAST 14th St San Leandro CA City: SAN LEANDRO State: CA Zip: 94589

15. TANK TO TEST # <u>1-OF-3</u> Identify by position: <u>SUPPER 4/1/2</u> Brand and Grade	15a. BRIEF DIAGRAM OF TANK FIELD # <u>3</u> <input type="checkbox"/> # <u>2</u> <input type="checkbox"/> <u>STATION #1</u> <input type="checkbox"/>	16. CAPACITY Nominal Capacity: <u>12000</u> Gallons By most accurate capacity chart available: <u>12000</u> Gallons
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17. FILL-UP FOR TEST 5 Gall Water Before Fill-up: <u>0</u> 16" <u>0</u> Gallons Tank Diameter: <u>126"</u>	Total Gallons ex. Heating: <u>12000</u> Inventory in Tank: _____ Water Bottom: <u>0</u> Top off equipment: <u>25</u> Total Quantity: <u>12025</u>
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18. SPECIAL CONDITIONS AND PROCEDURES TO TEST THIS TANK
 Water in tank Lines being tested with LVLTT
 High water table in tank excavation

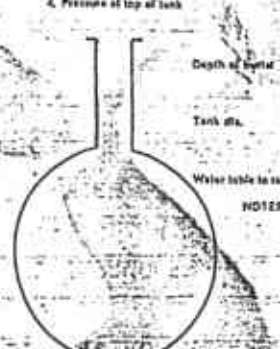
19. TANK MEASUREMENTS FOR TSTT ASSEMBLY
 Bottom of tank to grade: 173 in.
 Add 30" for "T" probe exp.: 30 in.
 Total tubing to assemble - approximate: 203 in.
 20. EXTENSION HOSE SETTING
 Tank top to grade: 47 in.
 Ground hose on suction tube 4" or more below tank top: _____ in.
 "If 2 1/2" plus extends above grade, use top of bit."
 USE WITH THERMAL SENSOR PN5039 (Blue Box)
 22. Thermal Sensor reading after circulation: N/A Digit: _____ Extension: _____
 23. Digits per °F in range of expected change: _____ Digit: _____

24a. IF USING THERMAL SENSOR DTS-2000 OR DC-2000 WHICH READ 1000 DIGITS PER °F TRANSFER 1000 TO LINE 26, DIGITS PER °F IN TEST RANGE.
N/A

21. VAPOR RECOVERY SYSTEM Stage 1 Stage 2

24b. COEFFICIENT OF EXPANSION RECIPROCAL METHOD
 Type of Product: SUPPER 4/1/2
 Hydrometer Employed: 6 H
 Temperature In Tank After Circulation: 62.262
 Temperature of Sample: 61
 Difference (°F): -1
 Observed A.P.L. Gravity: 56
 Reciprocal: 1512 Page: 60
12025 1512 7.9530423
 Total quantity in full tank (1): _____ 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 Loop Thermal Sensor: _____
 Coefficient of Water Table D: N/A
 Add Antifoam? Yes No Transfer COE in Line 26a.



25. (a) N/A Total quantity in full tank (1): _____ (b) N/A Coefficient of expansion for involved product: 1000 (c) N/A Volume change in this tank per °F: _____

Data Chart for Tank System Tightness I

See # of 3

PLEASE PRINT STATION # _____ DATE _____

1. OWNER Property Tank(s)

2. OPERATOR _____

3. REASON FOR TEST (Repeatable Form)

4. WHO REQUESTED TEST AND WHEN

5. TANK INVOLVED
Use additional lines for multisection tanks

6. INSTALLATION DATA

7. UNDERGROUND WATER

8. FILL-UP ARRANGEMENTS

9. CONTRACTOR, MECHANICS, etc. (Include name of contractor)

10. OTHER INFORMATION OR REMARKS

11. TEST METHOD
 PETRO TITE PETRO COMP QUICK CHECK 200

11a. TEST RESULTS

12. SENSOR CERTIFICATION

13. CONTRACTOR CERTIFICATION

Company of Attribution: _____
Name: _____ Title: _____
Address: _____ City: _____ State: _____ Zip: _____
Brand/Supplier: _____ Capacity: _____
Identify by Division: _____
File: _____
Date: _____
Accepted by: _____
Name: _____
Title: _____
Address: _____ City: _____ State: _____ Zip: _____
Company: _____
Name: _____ Title: _____
Address: _____ City: _____ State: _____ Zip: _____
Company: _____

Using DTS-2000 and Petro-Tite Self Levelers

Additional information on any items above, officials or others to be advised when testing is in progress or completed. Volume of observations presented below:

Tank Identification: _____
Top: _____
Bottom: _____
Date Tested: _____

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:

For Volume Change Per Hour

SCOTT-SERVICE

SCOTT COMPANY
Training Contractor or Company, P.O. Signature
1919 MARKET ST., OAKLAND, CA 94612

14. EAST 14th GAS SAN Leandro CA 12-6-94

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

15. TANK TO TEST # 30F3
LEFT TANK
Identify by position
UNL Regular TANK
Brand and Grade

15a. BRIEF DIAGRAM OF TANK FIELD
SAME AS #10F3

16. CAPACITY
Nominal Capacity 12000
Gallons
By most accurate capacity chart available 12000
Gallons

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

17. FILL-UP FOR TEST

Blank Water Bottom before Fill-up 0 to "1"
Gallons 0 Tank Diameter 126

Total Gallons as Reading
Inventory in Tank 12000
Water Bottom 0
Top off equipment 15
Total Quantity 12015

18. SPECIAL CONDITIONS AND PROCEDURES TO TEST THIS TANK Water in tank Line(s) being tested with LVLT
 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 double-bottom tanks.
Complete section below:

1. Is four pound rule required? Yes No
2. Height to 12" mark from grade 13 in.
3. Pressure at bottom of tank 4.758 p.s.i.
4. Pressure at top of tank 1.482 p.s.i.

Water under Tanks

19. TANK MEASUREMENTS FOR TSTT ASSEMBLY
Bottom of tank to grade" 170 in.
Add 30" for "T" probe assembly +30 30 in.
Total tubing to assembly - approximate 200 in.

20. EXTENSION HOSE SETTING
Tank top to grade" 44 in.
Extend hose on suction tube 4" or more below tank top +6 in.
*If fill pipe extends above grade, use top of RL

USE WITH THERMAL SENSOR PN5039 (Blue Box)
22. Thermal-Sensor reading after circulation N/A
Between _____

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

21. VAPOR RECOVERY SYSTEM Stage 1 Stage II

24b. COEFFICIENT OF EXPANSION RECIPROCAL METHOD
Type of Product Regular
Hydrometer Employed 7 H
Temperature in Tank After Circulation 57.50 °F
Temperature of Sample 59 °F
Difference (H-F) +1 °F
Observed A.P.I. Gravity 59.8
Reciprocal 1467 Page 63
12015 1467 8.190184
Total quantity in full tank (17) Reciprocal Volume change in 10% tank per °F
Transfer to Line 26c.



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.

24a. IF USING THERMAL SENSOR DTS-2000 OR QC-2000 WHICH READ 1000 DIGITS PER °F TRANSFER 1000 TO LINE 26, DIGITS PER °F IN TEST RANGE.

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

Water Temperature after Circulation Table C from Thermal Sensor N/A
Coefficient of Water Table D N/A
Added Barometer Yes No Transfer COE to Line 25b.

25. (a) Total quantity in full tank (17) 8.190184
(b) Coefficient of expansion for involved product 1000
(c) Volume change in this tank per °F 8.190184

7082

DATE TIME ON WJ	Record details of setting up and running test (Use full length of box if needed) PRODUCT: <i>Plus</i>	29. Reading No.	Standpipe Level in Inches		32. Product in Graduated		33. Product Replaced (+)	35. Normal Sensor Reading	36. Change (Higher + Lower -)	37. Compensation (D + [d] + Expansion - Contraction -)	Temperature Adjustment	At Low Level compute Change per Hour (GPH) (initial)
			Beginning of Reading	Level in which Restored	Before Reading	After Reading	Product Recovered (+)				Volume Shows Expansion (+) or Contraction (-) (XXV - XXVI)	
2:45	ARRIVED AT SITE, REMOVED DROP-TUBE, VAPOR RECOVERY LINES, BLEED REMOTE PUMPS, ETC.											
1:00	SET-UP EQUIPMENT											
0:30	START CIRCULATION									FACTOR "A" (.0081)		
1:30	1ST THERMO READING		42'					57.942				
1:45	START 42' HIGH LEVEL TEST					890		949				
2:00	1ST HIGH LEVEL READING	1	42			620	-270	954	+5	+041	-311	
2:15	CONT'D HIGH LEVEL READING	2	42			390	-230	960	+6	+049	-279	
2:30	"	3	42			190	-200	965	+5	+041	-241	
2:45	"	4	42			030	-160	969	+4	+032	-192	
3:00	" Restore Graduate	5	42	Restore	.500	390	-110	974	+5	+041	-151	
3:15	"	6	42			330	-060	977	+4	+032	-092	
3:30	"	7	42			300	-030	982	+5	+041	-071	
3:45	"	8	42			285	-015	986	+4	+032	-047	
2:15	DROP TO LOW LEVEL, WAIT 1/2 HOUR											
2:45	START LOW LEVEL TEST					170		001				
2:50	1ST LOW LEVEL READING	1	12	12'		180	+010	003	+2	+016	-006	
3:05	CONT'D LOW LEVEL READING	2	12			185	+005	004	+1	+008	-003	-009
3:20	"	3	12			195	+010	005	+1	+008	+002	-007
3:35	"	4	12			200	+005	007	+2	+016	-011	-018
3:50	"	5	12			205	+005	008	+1	+008	-003	-021
4:05	"	6	12			215	+010	009	+1	+008	+002	-019
4:20	"	7	12			225	+010	011	+2	+016	-006	-025
4:35	"	8	12			235	+010	012	+1	+008	+002	-023
4:50	"	9	12			245	+010	013	+1	+008	+002	-021
5:05	"	10	12			255	+010	015	+2	+016	-006	-027
5:20	"	11	12			265	+010	016	+1	+008	+002	-025
5:35	"	12	12			275	+010	018	+2	+016	-006	-031
3:50	"	13	12			285	+005	019	+1	+008	-003	-034
4:05	"	14	12			290	+010	020	+1	+008	+002	-032
4:20	"	15	12			300	+010	022	+2	+016	-006	-038
4:35	"	16	12			310	+010	023	+1	+008	+002	-036
4:50	"	17	12			315	+005	024	+1	+008	-003	-039
5:05	"	18	12			325	+010	026	+2	+016	-006	-045
5:20	"	19	12			335	+010	027	+1	+008	+002	-043
5:35	"	20	12			345	+010	029	+2	+016	-006	-049
5:50	"	21	12			350	+005	030	+1	+008	-003	-052
6:05	"	22	12			360	+010	032	+2	+016	-006	-058
6:20	"	23	12			370	+010	034	+2	+016	-006	-064
6:35	"	24	12			380	+010	035	+1	+008	+002	-062
	STOP TEST											
										(D62) ÷ 2 = (D31) GPH		
7:00			9			280	-005	989	+3	+024		
7:15			10			280	+000	993	+4	+032		

P-T Tank Test Data Chart
Additional Info

Net Volume Change at Conclusion of Precision Test: *(.031) GPH*
Signature of Tester: *Quillen A. [Signature]*
Date: _____

2. Statement
- Tank and product handling system has been tested tight according to the Precision Test Criteria as established by regulatory agency. 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 regulatory agency.
- OR
- Test invalid due to environmental or mechanical factors beyond control of the testing equipment.

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. The manufacturer of this test method does not assume any responsibility or liability for any loss of product to the environment.

Tank Owner/Operator: *EAST 14 GAS*
Date: _____

Data Chart for Tank System Tightness Test

DATE

PLEASE PRINT STATION#

1. OWNER <input type="checkbox"/> Property <input type="checkbox"/> Tank(s)	Name Address City State Zip Telephone	Representative Address City State Zip Telephone
2. OPERATOR	Name Address City State Zip Telephone	Representative Address City State Zip Telephone
3. REASON FOR TEST (Specify if any)	Name Address City State Zip Telephone	Representative Address City State Zip Telephone
4. WHO REQUESTED TEST AND WHEN	Name Address City State Zip Telephone	Representative Address City State Zip Telephone
5. TANK INVOLVED <small>Use additional lines for multisection tanks</small>	Capacity Quantity Material Location Height above floor of station, etc. Floor of station, etc.	Graves Year Site, including lot, block, permit file, etc. Which tank?
6. INSTALLATION DATA	Clear Concrete, block, brick, etc. Earth, etc.	Spillways Sigsbee Pumps Surveys, etc.
7. UNDERGROUND WATER	Depth to free water table from grade Is the water under the tank? <input type="checkbox"/> Yes <input type="checkbox"/> No	
8. FILL-UP ARRANGEMENTS	Tanks to be filled Date Arranged by Extra provided to "top off" and run tank test, flow and when to provide? Consider HO tank.	
9. CONTRACTOR, MECHANICS, any other contractor involved	Company Name Address City State Zip Telephone	
10. OTHER INFORMATION OR REMARKS	Using DTS-2000 and Petro-tite Self Levelers	
11. TEST METHOD	<input type="checkbox"/> PETRO TITE <input type="checkbox"/> PETRO COMP <input type="checkbox"/> QUICK CHECK 2000	
11a. 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 Type No. Volume Change Per Hour Date Tested	
12. SENSOR CERTIFICATION	13. CONTRACTOR CERTIFICATION Technician Signature SCOTT COMPANY 1919 MARKET ST., OAKLAND, CA 94607	

14. EAST 14 GAS SAN LEANDRO CA 12-6-94

15. TANK TO TEST #2 OF 3
Middle Tank
Identify by position
Plus unit
Brand and Grade

15a. BRIEF DIAGRAM OF TANK FIELD
SAME AS #1 OF 3

16. CAPACITY
Nominal Capacity 12,000 Gallons
By most accurate capacity chart available 12,000 Gallons
From:
 Station Chart
 Tank Manufacturer's Chart
 Company Engineering Data
 Charts supplied with Tank Tester
 Other

17. FILL-UP FOR TEST
Stick Water Station before fill-up 0 Gallons
Tank Diameter 126"
Inventory in Tank 12,000
Water Station 0
Top off equipment 15
Total Quantity 12,015

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 (17).
The maximum allowable test pressure for all tests. Four pound rule does not apply to double-walled tanks.
Complete section below:
1. If four pound rule required? Yes No
2. Height to 17" mark from grade 13 in.
3. Pressure at bottom of tank 4.81 P.S.I.
4. Pressure at top of tank 1.534 P.S.I.

19. TANK MEASUREMENTS FOR TSTT ASSEMBLY
Bottom of tank to grade 172
Add 30" for "T" probe ext. 130 30
Total tubing to assembly - approximate 202

20. EXTENSION HOSE SETTING
Tank top to grade 46
Extend hose on suction tube 6" or more below tank top +6
If fill pipe extends above grade, use top of fill

USE WITH THERMAL SENSOR PN5039 (Blue Box)
22. Thermal Sensor reading after circulation N/A digits
Between " " digits
23. Digits per °F in range of expected change N/A digits

21. VAPOR RECOVERY SYSTEM Stage I Stage II

24b. COEFFICIENT OF EXPANSION RECIPROCAL METHOD
Type of Product Plus
Hydrometer Employed 7
Temperature in Tank After Circulation 59.942
Temperature of Sample 61
Difference (°F) +1
Observed A.P.I. Gravity 59.1
Reciprocal 1475 Page # 63
12015 1475 8.1457627
Total quantity in full tank (17) Reciprocal Volume change in one tank per °F Transfer to Line 24c.



24a. IF USING THERMAL SENSOR DTS-2000 OR OC-2000 WHICH READ 1000 DIGITS PER °F TRANSFER 1000 TO LINE 26, DIGITS PER °F IN TEST RANGE.

24c. FOR TESTING WITH WATER see Table C & D
Water Temperature after Circulation Table C from Thermal Sensor N/A
Coefficient of Water Table D N/A
Added Surfactant Yes No Transfer COE to Line 25c.

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 H.F.P.A. 30, Sections 2-3.2.4 and 2-3.2 and the tank manufacturer regarding allowable system test pressures.
25. (a) N/A (b) N/A (c) N/A
Total quantity in full tank (17) 8.1457627 Coefficient of expansion for involved product 1000 Volume change in one tank per °F 0081457627 0081

28. DATE Time of Day	Product	29. Reading No.	30. Storage Level in Inches		32. Product in Graduated		33. Product Replaced (-)	35. Thermal Sensor Reading	36. Change Higher/Lower/Id	37. Computation: (C + (E) + Expansion + Contraction)	Temperature Adjustment: Volume (V) or Expansion (+) or Contraction (-) (C)(V) - (E)(T)	At Low Level compute Change per Hour (GPH) (initial)
			Beginning of Reading	Level to which Restored	Before Reading	After Reading	Product Replaced (-)	Thermal Sensor Reading	Change Higher/Lower/Id	Computation: (C + (E) + Expansion + Contraction)	Temperature Adjustment: Volume (V) or Expansion (+) or Contraction (-) (C)(V) - (E)(T)	
7:55	ARRIVED AT SITE, REMOVED DROP-TUBE, VAPOR RECOVERY LINES, BLEED REMOTE PUMPS, ETC.											
10:30	SET-UP EQUIPMENT											
11:15	START CIRCULATION									FACTOR "A" (.0080)		
12:15	1ST THERMO READING			42'				62.22				
12:30	START 42' HIGH LEVEL TEST						810	62.67				
12:45	1ST HIGH LEVEL READING	1	42'			690	-207	270	+3	+0.24	-224	
1:00	CONT'D HIGH LEVEL READING	2	42'			510	-180	274	+4	+0.32	-212	
1:15	"	3	42'			355	-155	278	+4	+0.32	-187	
1:30	"	4	42'			970	-235	283	+5	+0.40	-160	
1:45	"	5	42'				-155	288	+5	+0.40	-160	
2:00	"	6	42'				-095	291	+3	+0.24	-084	
2:15	"	7	42'				-065	294	+3	+0.24	-084	
2:30	"	8	42'			730	-055	298	+4	+0.32	-092	
3:00	DROP TO LOW LEVEL, WAIT 1/2 HOUR					730						
3:30	START LOW LEVEL TEST						150	311.1				
3:35	1ST LOW LEVEL READING	1	12'	12'		160	+0.00	313	+2	+0.16	-006	
4:00	CONT'D LOW LEVEL READING	2	12'			165	+0.05	314	+1	+0.08	-003	-009
4:15	"	3	12'			170	+0.05	316	+2	+0.16	-011	-020
4:30	"	4	12'			180	+0.10	317	+1	+0.08	-002	-018
4:45	"	5	12'			185	+0.05	318	+1	+0.08	-003	-021
5:00	"	6	12'			190	+0.05	319	+1	+0.08	-003	-024
5:15	"	7	12'			200	+0.10	321	+2	+0.16	-006	-030
5:30	"	8	12'			205	+0.05	322	+1	+0.08	-003	-033
5:45	"	9	12'			210	+0.05	324	+2	+0.16	-011	-044
6:00	"	10	12'			220	+0.10	325	+1	+0.08	-002	-042
6:15	"	11	12'			230	+0.10	326	+1	+0.08	-002	-040
6:30	"	12	12'			235	+0.05	327	+1	+0.08	-003	-043
6:45	"	13	12'			240	+0.05	328	+1	+0.08	-003	-046
7:00	"	14	12'			250	+0.10	329	+1	+0.08	-002	-044
7:15	"	15	12'			260	+0.10	330	+1	+0.08	-002	-042
7:30	"	16	12'			270	+0.10	332	+2	+0.16	-006	-048
7:45	"	17	12'			275	+0.05	333	+1	+0.08	-003	-051
8:00	"	18	12'			280	+0.05	334	+1	+0.08	-003	-054
8:15	"	19	12'			290	+0.10	336	+2	+0.16	-006	-060
8:30	"	20	12'			295	+0.05	337	+1	+0.08	-003	-063
8:45	"	21	12'			305	+0.10	338	+1	+0.08	-002	-061
9:00	"	22	12'			310	+0.05	339	+1	+0.08	-003	-064
9:15	"	23	12'			315	+0.05	340	+1	+0.08	-003	-067
9:30	"	24	12'			320	+0.05	341	+1	+0.08	-003	-070
	STOP TEST											
												(-070) ÷ 2 = (-035) GPH
2:45		9	42'			055	+0.00	301	+3	+0.24	-024	
3:00		10	42'			055	+0.00	305	+4	+0.32	-032	

P-T Tank Test Data Chart
Additional Info

Net Volume Change at Conclusion of Precision Test (GPH)

Signature of Tester: William A. Smith

Date: 12-6-94

2. Statement:

Tank and product handling system has been tested tight according to the Precision Test Criteria as established by regulatory agency. This is not intended to indicate permission of a leak.

Tank and product handling system has failed the tank tightness test according to the Precision Test Criteria as established by regulatory agency.

Test invalid due to environmental or mechanical factors beyond control of the testing equipment.

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. The manufacturer of this test method does not assume any responsibility or liability for any loss of product to the environment.

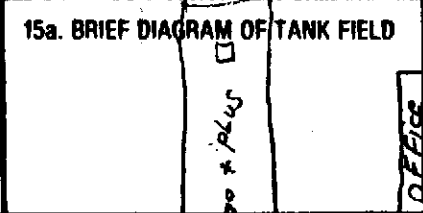
Tank Owner/Operator: EAST 1414 605

Date: 12-6-94

3) 562
4289

14. Beacon Service MI E 147A ST San Leandro CA 94577
 Name of Supplier, Owner or Dealer Address No. and Street(s) City State Date of Test

15. TANK TO TEST
 Middle
 Identify by position
 + PLUS
 Brand and Grade



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

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

17. FILL-UP FOR TEST

Black Water Bottom before Fill-up _____ to _____ in. _____ Gallons

Tank Diameter _____ in. Inventory _____

Middle
126

Gallons	Total Gallons as Reading
	12,230
	20
	12,250
Transfer total to line 23b	

18. SPECIAL CONDITIONS AND PROCEDURES TO TEST THIS TANK

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:

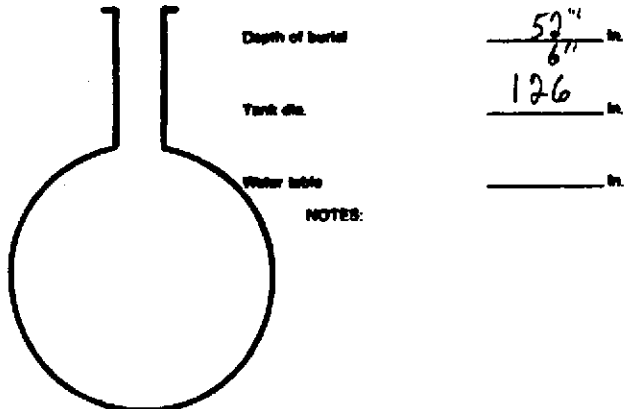
Water in tank (Line(s)) being tested with LVLLT
 High water table in tank excavation

CERTIFIED TANK-TESTS (415) 222-9271

TRIPLE T COMPANY

Larry Zimmerman 4430 Dam Road
Richmond, CA 94803

1. Is four pound rule required? Yes No
2. Height to 12" mark from bottom of tank 196 in.
3. Pressure at bottom of tank 5.1 P.S.I.
4. Pressure at top of tank 2 P.S.I.



The above calculations are to be used for dry cell 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 3-3.2.4 and 3-7.2 and the tank manufacturer regarding allowable system test pressures.

22. Thermal-Sensor reading after circulation 17280
 Digits 75-76 °F

23. Digits per °F in range of expected change 319
 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 PLUS

Hydrometer Employed 6 H

Temperature in Tank After Circulation 75 °F

Temperature of Sample 78 °F

Difference (+/-) +3 °F

Observed A.P.I. Gravity 57°

Reciprocal 1503 Page # 61

12,250 / 1503 = 8.150366

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 Barfooter? Yes No Transfer COE to Line 25b.

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

26. (a) 8,150366 · (b) 319 = (c) .0255 This is test factor (a)

Volume change per °F (25 or 24b) Digits per °F in test Range (23) Volume change per digit Compute to 4 decimal places.

3.

AM
9:00
AM.

ub-6r

sub-02 - sub

27. <u>Time Collection</u> /		28. <u>STANDARD PRESSURE CONTROL</u>		31. <u>VOLUME MEASUREMENTS (g) REFERRED TO 20°C</u>			34. <u>TEMPERATURE COMPENSATION USE FACTOR ON</u>			35. <u>NET VOLUME CHANGE PER READER</u>	38. <u>ACCUMULATED CHANGE</u>
12,000 LOG OF TEST PROCEDURES + PLUS		29. <u>Standard Level in Tank</u>		32. <u>Product in Products</u>		33. <u>Product Reported (+)</u>	36. <u>Product Tank Reading</u>	36. <u>Change Higher Level - 0</u>	37. <u>Correction 00 - 01 - Expansion - Contraction -</u>	38. <u>Temperature Adjustment Volume Mass Expansion (+) or Contraction (-) (0.0001 - 0.0007)</u>	38. <u>At Low Level compare Change per Hour (0.0001 - 0.0002)</u>
28. <u>Time</u>	28. <u>Record details of setting up and running test. (Also fill length of line if needed)</u>	29. <u>Reading in</u>	<u>Beginning of Reading</u>	<u>Level to which Reduced</u>	<u>Before Reading</u>	<u>After Reading</u>	<u>Product Reported (+)</u>				
	ARRIVED on site										
10:00	Get-up + running	Base	-	48"							
10:30	circulation	Base	-	48"							
11:30	High-Level-Test	1.	-	42"	1.00	.90	-.10	17289			
11:45	" " "	2.	-	42"	1.00	.94	-.06	290	+8	.20	-.26
12:00	" " "	3.	-	42"	1.00	.96	-.04	296	+6	.15	-.19
12:15	" " "	4.	-	42"	1.00	.96	-.04	302	+6	.15	-.19
12:30	'Drop To-Low' Level	5.	-	42"	1.00	.97	-.03	306	+4	.10	-.13
12:45	spring Back	6.	-	12"	1.00	.98	-.02	310	+4	.10	-.12
1:00	Low-Level-Test	7.	-	12"	1.00	.98	-.02	314	+4	.10	-.12
1:10	" " "	8.	11.8	12"	.50	.49	-.01	316	+2	.05	-.06
1:20	" " "	9.	11.9	12"	.50	.49	-.01	318	+2	.05	-.06
1:30	" " "	10.	11.9	12"	.50	.49.5	-.005	320	+2	.05	-.055
1:40	" " "	11.	11.9	12"	.50	.49.5	-.005	321	+1	.025	-.030
1:50	" " "	12.	11.9	12"	.50	.49.5	-.005	322	+1	.025	-.030
2:00	" " "	13.	12"	12"	.50	.50	+0.00	323	+1	.025	-.025
2:10	" " "	14.	12"	12"	.50	.50	+0.00	324	+1	.025	-.025
2:20	" " "	15.	12"	12"	.50	.50	+0.00	325	+1	.025	-.025
2:30	" " "	16.	12"	12"	.50	.50	+0.00	326	+1	.025	-.025
2:40	" " "	17.	12"	12"	.50	.50	+0.00	327	+1	.025	-.025
2:50	" " "	18.	12"	12"	.50	.50	+0.00	328	+1	.025	-.025
3:00	" " "	19.	12"	12"	.50	.50	+0.00	329	+1	.025	-.025
	END - TEST	20.	12"	12"	.50	.50	+0.00	330	+1	.025	-.025

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 308.

Tank and product handling system has been tested tight according to the Precision Test Criteria as established by N.F.P.A. publication 308. This is not intended to indicate permission of a test.

1. Net Volume Change at Completion of Precision Test -.19 gph
 Signature of Tester: Larry Zimmerman
 Date: 7-10-92

p.h.



PETROLEUM
EQUIPMENT
COMPANY

TANK TEST REPORT

CUSTOMER E 14th Beacon TEST DATE 11/11/11
 ADDRESS 111 E 14th CITY San Leandro, CA
 CONTACT Kwon PHONE # _____
 PRODUCT TYPE Reg TANK SIZE 12,000 GALLONS
 TANK DIAMETER 120 LENGTH _____ FILL PIPE DIAMETER 4" HEIGHT 47"
 PUMPS: [] SUCTION [] SUBMERGED [] NONE VAPOR RECOVERY: [] YES [] NO
 WEATHER: [] SUNNY [] CLOUDY [] RAINY APPROX OUTSIDE TEMPERATURE 45
 API GRAVITY ON HYDROMETER 58.5 API GRAVITY (960 F) 59.4
 TEMPERATURE OF SAMPLE 53.0
 COEFFICIENT OF EXPANSION (COE) 0.00068021 FACTOR (COE X GALLONS) 8.16252
 WATER IN TANK: BEFORE TEST 0 AFTER TEST 0

HIGH TEST (COMPLETE SYSTEM) [] LOW TEST (TANK ONLY)

TIME	0300	0310	0320	0330	0340	0350	0400
#1 TOP	5596	5599	5603	5606	5608	5609	5610
#2 MIDDLE	5608	5609	5610	5611	5611	5612	5612
#3 BOTTOM	5575	5578	5581	5584	5583	5584	5585

TIME	0400	0410	0420	0430	0440	0450	0500
#1 TOP	5610	5611	5612	5612	5612	5613	5613
#2 MIDDLE	5612	5613	5613	5613	5614	5614	5614
#3 BOTTOM	5585	5585	5585	5585	5586	5587	5586

+0.32 E S T 0.30 A E S U L T S .025 .025 .025 .025

TEMP PROBE	START TIME	END TIME	TEMP SHIFT + OR -		
#1 TOP	0400	0500	0.03	x .25	0.0075
#2 MIDDLE	5612	5614	0.02	x .50	0.005
#3 BOTTOM	5585	5586	0.01	x .25	0.0025

TEMPERATURE SHIFT (TS) 0.015

VOLUME CHANGE (VC) DUE TO TEMPERATURE SHIFT (TS x FACTOR - VC) 0.1224378 (+.122)

AMOUNT OF PRODUCT ADDED (-) OR REMOVED (+) TO MOVE SLOPE TUBE INDICATOR BACK TO STARTING POINT 0.160

NET GAIN (+) OR LOSS (-) +0.038

This system [] tank [] is NOT tight today based on test methods and procedures defined by Steel Tank Institute Services for the Ainlay Tester.

Certified Technician(s) Clinton Denman
Clinton Denman
 #02-1323



PETROLEUM
EQUIPMENT
COMPANY

TANK TEST REPORT

CUSTOMER E 14TH St. Beacon TEST DATE 1-16-91

ADDRESS 111 E 14TH Street CITY San Leandro ZIP _____

CONTACT Rwon PHONE # _____

PRODUCT TYPE Prem TANK SIZE 12,000 GALLONS

TANK DIAMETER 23 LENGTH _____ FILL PIPE DIAMETER 4" HEIGHT 50"

PUMPS: [] SUCTION [] SUBMERGED [] NONE VAPOR RECOVERY: [] YES [] NO

WEATHER: [] SUNNY [] CLOUDY [] RAINY APPROX OUTSIDE TEMPERATURE 50

API GRAVITY ON HYDROMETER 62.8 ; API GRAVITY (60 F) 63.5

TEMPERATURE OF SAMPLE 56.0 ;

COEFFICIENT OF EXPANSION (COE) 0.00070252 FACTOR (COE X GALLONS) 8.3024

WATER IN TANK: BEFORE TEST 2 AFTER TEST 2

HIGH TEST (COMPLETE SYSTEM)

[] LOW TEST (TANK ONLY)

TIME	0730	0740	0750	0800	0810	0820	0830
#1 TOP	5759	5759	5760	5760	5761	5759	5761
#2 MIDDLE	5790	5789	5790	5790	5791	5790	5791
#3 BOTTOM	5773	5773	5774	5773	5774	5774	5774

TIME	0830	0840	0850	0900	0910	0920	0930
#1 TOP	5761	5760	5761	5761	5761	5760	5760
#2 MIDDLE	5791	5791	5792	5791	5792	5792	5793
#3 BOTTOM	5774	5774	5774	5775	5775	5776	5776

+025 +025 +025 +020 +020 +025
RESULTS

TEMP PROBE 1.	START TIME	END TIME	TEMP SHIFT + OR -		
	0830	0930			
#1 TOP	5761	5760	+0.01	x .25	+0.0025
#2 MIDDLE	5791	5793	+0.02	x .50	+0.01
#3 BOTTOM	5774	5776	+0.02	x .25	+0.005

TEMPERATURE SHIFT (TS) +0.0125

VOLUME CHANGE (VC) DUE TO TEMPERATURE SHIFT (TS x FACTOR = VC) +0.105378 (+.105)

AMOUNT OF PRODUCT ADDED (-) OR REMOVED (+) TO MOVE SLOPE TUBE INDICATOR BACK TO STARTING POINT +0.140

NET GAIN (+) OR LOSS (-) +0.035

This system tank is NOT tight today based on test methods and procedures defined by Steel Tank Institute Services for the Ainlay Tester.

Certified Technician(s) Clinton Denman
Clinton Denman



PETROLEUM
EQUIPMENT
COMPANY

TANK TEST REPORT

CUSTOMER E. 14th Beacon TEST DATE 1-16-91
 ADDRESS 111 E 14th Street CITY San Leandro ZIP _____
 CONTACT Ruon PHONE # _____
 PRODUCT TYPE UNLEAD TANK SIZE 12,000 GALLONS
 TANK DIAMETER 122" LENGTH _____ FILL PIPE DIAMETER 4" HEIGHT 49"
 PUMPS: [] SUCTION [] SUBMERGED [] NONE VAPOR RECOVERY: [] YES [] NO
 WEATHER: [] SUNNY [] CLOUDY [] RAINY APPROX OUTSIDE TEMPERATURE 45
 API GRAVITY ON HYDROMETER 62.1 API GRAVITY (@60 F) 62.7
 TEMPERATURE OF SAMPLE 55.0
 COEFFICIENT OF EXPANSION (COE) 0.00069814 FACTOR (COE X GALLONS) 8.37768
 WATER IN TANK: BEFORE TEST 1/4 AFTER TEST 1/4

[] HIGH TEST (COMPLETE SYSTEM)

[] LOW TEST (TANK ONLY)

TIME	0500	0510	0520	0530	0540	0550	0600
#1 TOP	60.01	60.03	60.03	60.06	60.05	60.07	60.08
#2 MIDDLE	59.80	59.81	59.81	59.80	59.81	59.82	59.81
#3 BOTTOM	59.95	59.96	59.97	59.98	59.98	59.99	59.99

TIME	0600	0610	0620	0630	0640	0650	0700
#1 TOP	60.08	60.07	60.08	60.08	60.09	60.09	60.10
#2 MIDDLE	59.81	59.81	59.82	59.81	59.82	59.83	59.83
#3 BOTTOM	59.99	59.99	59.98	60.00	60.00	59.99	60.00

+0.35_T +0.30_E +0.30_S +0.30_T +0.30_R +0.30_E +0.30_S +0.30_T +0.30_R +0.30_E +0.30_S +

TEMP PROBE	START TIME	END TIME	TEMP SHIFT + OR -		
	0600	0700			
#1 TOP	60.08	60.10	-0.02	x .25	-0.005
#2 MIDDLE	59.81	59.83	-0.02	x .50	-0.01
#3 BOTTOM	59.99	60.00	-0.01	x .25	-0.0025

TEMPERATURE SHIFT (TS) 0.0175

VOLUME CHANGE (VC) DUE TO TEMPERATURE SHIFT (TS X FACTOR = VC) 0.1466094 (+.147)

AMOUNT OF PRODUCT ADDED (-) OR REMOVED (+)
TO MOVE SLOPE TUBE INDICATOR BACK TO STARTING POINT 0.185

NET GAIN (+) OR LOSS (-) (+.038)

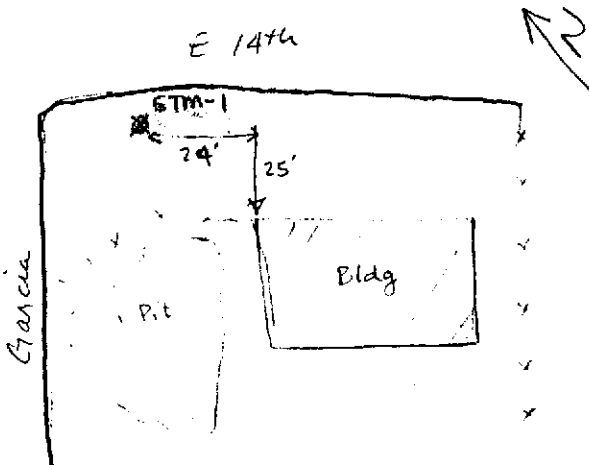
This [] system [] tank [] is NOT [] tight today based on test methods and procedures defined by Steel Tank Institute Services for the Ainlay Tester.

Certified Technician(s) Clinton Denman
Clinton Denman
 92-1373

FIELD LOG OF BORING

SHEET 1 OF 3

LOCATION OF BORING:



PROJECT: German Aircraft
 BORING NO. STM-1
 TOTAL DEPTH: 37.0

JOB NO.:
 LOGGED BY: TAS

PROJ. MGR: Tom Price
 EDITED BY: TAS

DRILLING CONTRACTOR: E CA

DRILL RIG TYPE: Geoprobe

DRILLERS NAME: Jeff

SAMPLING METHODS: Geoprobe

HAMMER WT.: -
 DROP:

STARTED, TIME: 0800
 DATE: 1/15

COMPLETED, TIME:
 DATE:

BORING DEPTH (ft.)

CASING DEPTH (ft.)

WATER DEPTH (ft.)

TIME:

DATE:

BACKFILLED, TIME: DATE: BY:

SURFACE ELEV.: DATUM:

CONDITIONS:

SAMPLE DEPTH	SAMPLER TYPE	BLOWS / 6-IN.	INCHES DRIVEN	INCHES RECOVERED	SAMPLE CONDITION	DRILLING RATE (min/ft)	P/D	TIME	Sample No.	DEPTH IN FEET	GRAPHIC LOG
										0	0-4" AC 4"-12" Bore rock
										1	Very dark grayish brown LEAN CLAY (CL)
										2	10YR 3/2, stiff, slightly moist (70% clay, 20% sand, 10% sand)
										3	CL
										4	
			6	6						5	
			6	6						6	
			6	6			0	0815	0	6	Very dark gray FAT CLAY (CH) 10YR 3/1,
			6	6						7	80% clay, 20% silt, stiff, slightly moist
										8	
										9	Dark yellowish brown LEAN FAT CLAY with sand (CL)
										10	10YR 4/4, 70% clay 20% silt 10% fine grained sand, very stiff, slightly moist.

FIELD LOG OF BORING (CONTINUED)

SHEET 2 OF 3

DEPTH	TYPE	BLOWS	DRIVEN	REC'V'D.	COND.	D.RATE	PID	TIME	SAMPLE NO.	DEPTH	GRAPHIC LOG	PROJECT:	NO.	BORING NO. 06-4
										11				
							0	0829		12	CL			
										13				
										14				
										15	CH			
										16				
							7	0845	ETM-16	17				
										18				
										19				
										20				
										21				
							25	0855	ETM-22	22				
										23				
							300		ETM-23	24				
										25				
										26				
										27				
										28				
										29				
										30				

with 5% fine grained subangular chert derived gravel at 11.5-12'

Brown FAT CLAY (CH) 10YR 4/3, 90% clay, 10% silt, very stiff moist

Brown mottled dark greyish brown FAT CLAY with silt (CH) 10YR 2 4/5 to 2.5Y 4/2, stiff, moist, 90% clay, 10% silt, slight to moderate petroleum odor

Dark greenish gray Poorly GRADED SAND with clay (SC) 5GY 4/1, stiff, moist, 60% sand, 40% clay.

Dark greenish gray POORLY-GRADED SAND with silt (SP) 5GY 4/1, dense, very moist, 90% sand, 10% silt, strong pet. odor.

same as above
Grab water sample ETM-1 & duplicate ETM-30 TPH-g & BTEX @

FIELD LOG OF BORING (CONTINUED)

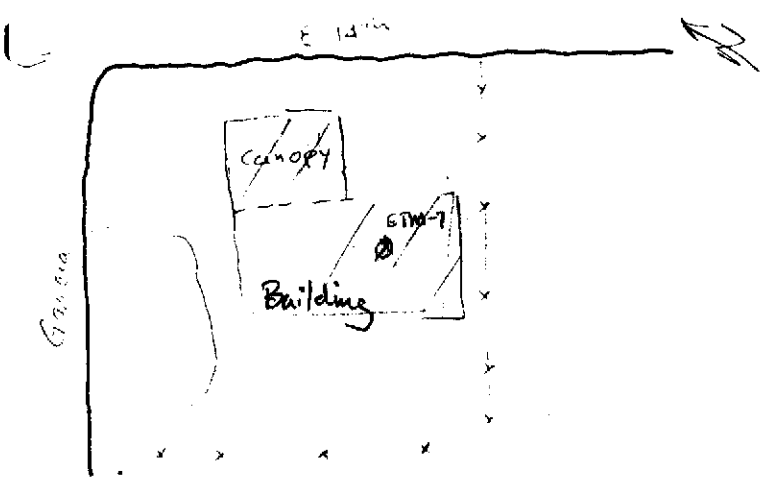
SHEET 3 OF 3

DEPTH	TYPE	BLOWS	DRIVEN	REC'D	COND.	D. RATE	P/D	Time	DEPTH	GRAPHIC LOG	PROJECT:	NO.	BORING NO.
								1025	31				
									32		Dark greenish gray well graded sand (SW) S&Y 4/1, dense, wet, 90% fine to coarse-grained sand, (sub angular to sub rounded), 10% fine grained gravel, strong petroleum odor, clean		
									33				
									34				
									35		Dark yellowish brown LEAN CLAY (CL) 10YR 9/4, firm, very moist, ^{65% clay} 30% fine to med sand, 5% silt, faint petroleum odor.		
							30	1050	36				
									37		Dark yellowish brown FAT CLAY (CH) 10YR 9/4, stiff, moist, 90% clay, 5% silt, 5% fine grained sand, occ carbonate nodules, faint pet. odor.		
									38	Boring Terminated at 37.0' bgs			
									39				
									40				
									41				
									42				
									3				
									4				
									5				
									6				
									7				
									8				
									9				
									0				

FIELD LOG OF BORING

SHEET 1 OF

LOCATION OF BORING:



PROJECT: _____ BORING NO. ETM-7
TOTAL DEPTH: _____

JOB NO.: _____ LOGGED BY: _____

PROJ. MGR.: _____ EDITED BY: _____

DRILLING CONTRACTOR: _____

DRILL RIG TYPE: _____

DRILLERS NAME: _____

SAMPLING METHODS: _____

HAMMER WT.: _____ DROP: _____

STARTED, TIME: 1410 DATE: 11/29/95

COMPLETED, TIME: _____ DATE: _____

BORING DEPTH (ft.) _____

CASING DEPTH (ft.) _____

WATER DEPTH (ft.) _____

TIME: _____

DATE: _____

BACKFILLED, TIME: _____ DATE: _____ BY: _____

SURFACE ELEV.: _____ DATUM: _____

CONDITIONS: _____

SAMPLE DEPTH	SAMPLER TYPE	BLOWS / 6-IN.	INCHES DRIVEN	INCHES RECOVERED	SAMPLE CONDITION	DRILLING RATE (min/ft)	RD	Time	Sample No	DEPTH IN FEET
										1
										2
										3
										4
										5
										6
								1415		7
										8
										9
										10

DEPTH IN FEET	GRAPHIC LOG
0-3"	concrete 0-3"
4	CL
5	very dark grayish brown LEAN CLAY (CL) 10YR 3/2 stiff, moist, 80% clay, 10% silt 10% fine grained sand
6	
7	CH
8	Very dark brown FAT CLAY (CH) 10YR 2/2, stiff firm, moist, 90% clay, 10% silt, trace fine gr sand.
9	
10	CH
	Brown FAT CLAY (CH) 10YR 4/3, very stiff, slightly moist, 90% clay 10% silt

FIELD LOG OF BORING (CONTINUED)

SHEET _____ OF _____

DEPTH	TYPE	BLOWS	DRIVEN	RECV'D	COND.	D.RATE	PID	Time	Sample No	DEPTH	GRAPHIC LOG	PROJECT:	NO.	BORING NO. ETM-7
										11				
							0	1475		12				
										13				
										14				
							0	1440		15				
										16				
										17				
										18				
										19				
										20				
										21				
							1	1450		22				
										23				
							9	1515	ETM-7 23	24				
										25				
							30	1540	ETM-7 26	26				
										27				
							20	1600	ETM-7 28	28				
										29				
										30				

with 5% fine grained ^{considered} gravel at 11 1/2 - 12' bgs

Brown FAT CLAY (same as above)

Dark greenish gray FAT CLAY (CH) SGY4/1, very stiff, moist, 90% clay 10% silt & faint petroleu odor

Brown mottled gray FAT CLAY (CH) 10YR 4/3 10YR 5/1, stiff, moist, 90% clay 10% silt

Dark greenish gray FAT CLAY (CH) SGY4/1, very stiff, moist 90% clay, 10% silt

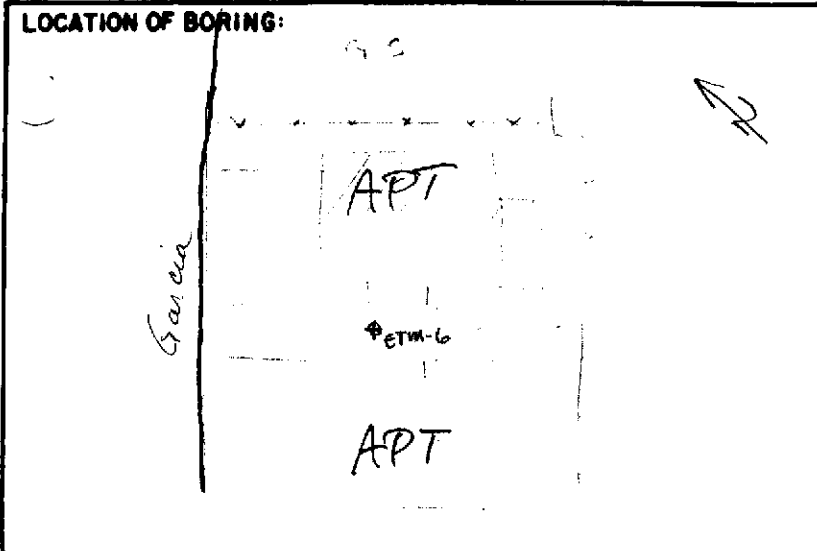
Lean Clay with silt
70% clay 20% ~~sand~~ silt
10% sand.

Water Sample ETM-7 1620 TPHg & BTEA
Boring Terminated at 28.0' bgs

DEPTH	TYPE	BLOWS	DRIVEN	REC'D	COND.	D.RATE				DEPTH	GRAPHIC LOG	PROJECT:	NO.	BORING NO. 10
										11				
										12	CL			
										13				
										14				
										15	CH			
										16		Brown FAT CLAY (CH) (OYR4/2), very stiff, moist, 90% clay, 10% sand.		
										17				
										18				
										19				
										20	CH			
										21		Same as above		
										22				
										23				
						24.3				24	CL	Dark greenish gray LEAN CLAY with ^{silt} sand (CL) 5G4/1, firm, ^{very} moist, 70% clay, 20% silt, 10% fine grained sand		
						1050				25				
										26	SP	Dark greenish gray Poorly graded SAND (SP) with clay 5G4/1, loose, very moist, 80% fine grained sand, 10% clay, 10% silt.		
										27				
										28		Boring Terminated at 27.3' bgs		
										29				
										30				

FIELD LOG OF BORING

SHEET 1 OF 2



PROJECT:		BORING NO. <u>ETM-6</u>
		TOTAL DEPTH: <u>29.0</u>
JOB NO.:	LOGGED BY:	
PROJ. MGR.:	EDITED BY:	
DRILLING CONTRACTOR: <u>ECA</u>		
DRILL RIG TYPE: <u>Geoprobe</u>		
DRILLERS NAME: <u>Jeff</u>		
SAMPLING METHODS: <u>Geoprobe</u>		
HAMMER WT.:	DROP:	
STARTED, TIME: <u>1240</u>	DATE: <u>11/29/95</u>	
COMPLETED, TIME:	DATE:	
BORING DEPTH (ft.)		
CASING DEPTH (ft.)		
WATER DEPTH (ft.)		
TIME:		
DATE:		
BACKFILLED, TIME:	DATE:	BY:
SURFACE ELEV.:	DATUM:	
CONDITIONS:		

SAMPLE DEPTH	SAMPLER TYPE	BLOWS / 6-IN.	INCHES DRIVEN	INCHES RECOVERED	SAMPLE CONDITION	DRILLING RATE (min/ft)			DEPTH IN FEET	GRAPHIC LOG
									1	
									2	
									3	
									4	
									5	
									6	
									7	
									8	
									9	
									10	

Very dark grayish brown ~~lean clay~~ (CL) 10YR 3/2
 fine, moist, 70% clay, 20% silt, 10% f.g. sand.

FIELD LOG OF BORING (CONTINUED)

SHEET 2 OF 2

DEPTH	TYPE	BLOWS	DRIVEN	REC'D	COND.	D.RATE	PID	Time	Sample No.	DEPTH	GRAPHIC LOG	PROJECT:	NO.	BORING NO. ETM-5
										11				
										12				
										13				
										14				
										15				
										16				
										17				
										18				
										19				
										20				
										21				
										22				
										23				
										24				
										25				
										26				
										27				
										28				
										29				
										30				

same as ETM-5

same as ETM-5

0 1300

Light olive brown mottled yellowish brown
FAT CLAY (CH), stiff, moist

CH

0 1325

dark greenish gray POORLY GRADED SAND with
clay (SC) SGY4/1, loose, moist, 60% sand 40% clay.

SC

Dark greenish gray LEAN CLAY with sand (CL)
SGY4/1, firm, very moist, 70% clay 30% sand.

CL

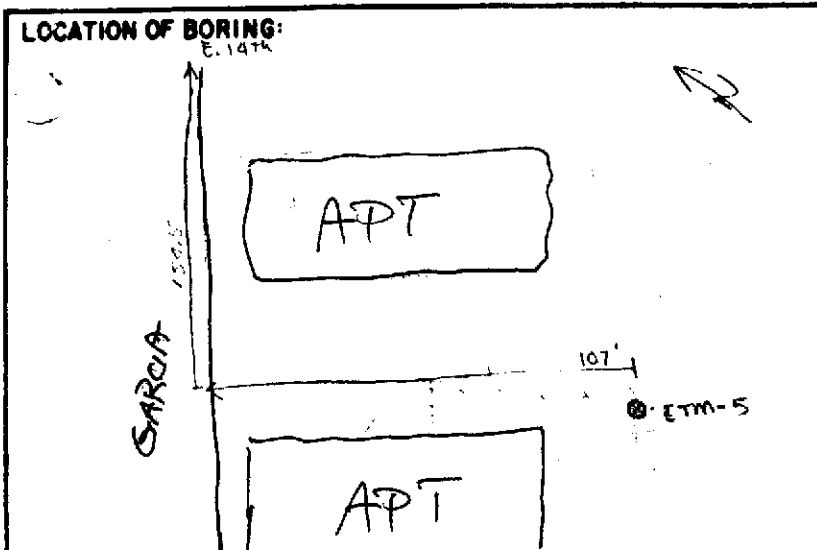
0 1340

Dark yellowish brown FAT CLAY (CH) ^{OR 4/4} very
stiff, slightly moist, 90% clay, 10% silt,

Boring Terminated at 29.0'
Boring left open for water

FIELD LOG OF BORING

SHEET 1 OF 1



PROJECT:		BORING NO. ETM-5 5
		TOTAL DEPTH: 37.0'
JOB NO.:	LOGGED BY: TRS	
PROJ. MGR.:	EDITED BY:	
DRILLING CONTRACTOR:		
DRILL RIG TYPE:		
DRILLERS NAME:		
SAMPLING METHODS:		
HAMMER WT.:	DROP:	
STARTED, TIME: 1530	DATE: 11/28/95	
COMPLETED, TIME: 1145	DATE: 11/29/95	
BORING DEPTH (ft.)		
CASING DEPTH (ft.)		
WATER DEPTH (ft.)		
TIME:		
DATE:		
BACKFILLED, TIME:	DATE:	BY:
SURFACE ELEV.:	DATUM:	
CONDITIONS:		

SAMPLE DEPTH	SAMPLER TYPE	BLOWS/6-IN.	INCHES DRIVEN	INCHES RECOVERED	SAMPLE CONDITION	DRILLING RATE (min/ft)	PID	TIME	SAMPLE No	DEPTH IN FEET	GRAPHIC LOG
										1	
										2	
										3	
										4	
										5	
							0	0905		6	
										7	
										8	
										9	
										10	

Very dark grayish brown LEAN CLAY (CL) 10YR 3/2
 firm, moist, 70% clay, 20% silt, 10% fine
 mixed sand.

Dark yellowish brown FAT CLAY (CH) (CH)
 10YR 4/4, stiff, moist, 70% clay, 5% silt, 5% fine sand.

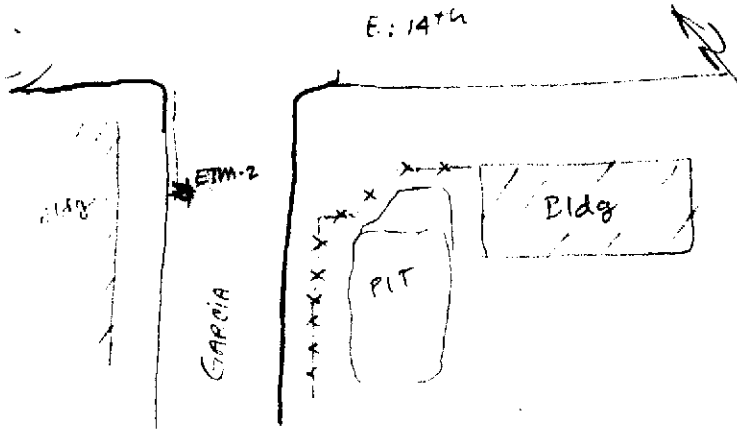
DEPTH	TYPE	BLOWS	DRIVEN	REC'D	COND.	D. RATE	PID	TIME	SAMPLE No.	DEPTH	GRAPHIC LOG	PROJECT:	NO.	BORING NO. ETM-5
										11				
										12				
										13				
										14				
										15				
									1015	16		Brown FAT CLAY (CH) 10YR 5/3, stiff, moist, 90% clay, 10% silt.		
										17				
										18				
										19				
										20				
									1025	21		Dark grayish brown FAT CLAY (CH) 10YR 3/4, stiff, moist, 90% clay, 10% silt.		
										22				
										23				
										24				
										25		olive brown LEAN CLAY with sand (CL) 2.5Y 4/3, soft, very moist to wet, 50% clay 30% fine grained sand 20% silt.		
									26.61' 11/24/85 11/24/85	26		olive brown LEAN CLAY with silt (CL) 2.5Y 5/3 soft, very moist to wet, 70% clay, 20% silt, 10% fine grained sand. 10 water samples ETM-5: ETM-31 (dup)		
									1135	27		CL (as above) wet		
										28		lt olive brown (CL)		
									1145	29				
										30				

DEPTH	TYPE	BLOWS	DRIVEN	REC'D	COND.	D.RATE				DEPTH	GRAPHIC LOG	PROJECT:	NO.	BORING NO. CH-5
										31	X	Yellowish brown FAT CLAY (CH) 10YR 5/4, stiff firm, very moist, 90% clay, 10% silt.		
										32	X			
										33	X			
										34	X			
										35	X	Yellowish brown LEAN CLAY with sand (CL) 10YR 5/4, firm, very moist, 80% clay 20% f. grained sand		
										36	X			
										37	X	Yellowish brown FAT CLAY (CH) 10YR 5/4, 90% clay, 5% silt, 5% sand.		
										38		Boring Terminated at 37.0'		
										39				
										40				
										1				
										2				
										3				
										4				
										5				
										6				
										7				
										8				
										9				
										0				

FIELD LOG OF BORING

SHEET 1 OF 1

LOCATION OF BORING:



PROJECT:		BORING NO. ETM-2
		TOTAL DEPTH:
JOB NO.:	LOGGED BY: TAS	
PROJ. MGR: T Price	EDITED BY: TAS	
DRILLING CONTRACTOR: ECA		
DRILL RIG TYPE:		
DRILLERS NAME:		
SAMPLING METHODS:		
HAMMER WT.:	DROP:	
STARTED, TIME: 1102	DATE: 11/28/95	
COMPLETED, TIME:	DATE:	

SAMPLE DEPTH	SAMPLER TYPE	BLOWS / 6-IN.	INCHES DRIVEN	INCHES RECOVERED	SAMPLE CONDITION	DRILLING RATE (min/ft)	P/D	Time	Sample No	DEPTH IN FEET	GRAPHIC LOG
										1	AC 0-6"
										2	Basaltic 6-12"
										3	
										4	
										5	Very dark brown FAT CLAY (CH) 10YR 2/2, very stiff, moist, 90% clay, 10% silt, trace fine grained sand,
										6	
								1135		7	
										8	
										9	
										10	Dark brownish Brown FAT CLAY (CH) 10YR 4/3, very stiff, slightly moist, 90% clay 10% silt,

DEPTH	TYPE	BLOWS	DRIVEN	REC'D	COND.	D.RATE	PTD	Time	Comp #	DEPTH	GRAPHIC LOG	PROJECT:	NO.	BORING NO. ETM-2	
							0	1145		11					
										12		with 5% fine-grained subangular gravel at 11.5-12' ^{chest derived}			
										13					
										14					
										15					
							0	1158		16					
										17		Dark yellowish brown FAT CLAY (CH) 10YR4/4, very stiff, moist, 90% clay, 10% silt			
										18					
							17	1210	ETM-2 -21	20					
										21		Olive gray FAT CLAY (CL) 5Y 9/2, stiff, moist, 90% clay, 10% silt.			
										22					
										23					
										24					
							1314	1310	ETM-2 1	25					
										26		Dark greenish gray Poorly graded SAND (SP) 5GY4/1, firm, wet, 90% fine grained sand, 10% silt			
										27		Water sample ETM-2 @ 1335 TPTG ^{ETM-2}			
										28		Hydro Punch from 24 to 30'			
										29					
										30					



FIRE DEPARTMENT
SEP 25 1992
CITY OF SAN LEANDRO

Associated Environmental Systems, Inc.

P.O. Box 10487
San Leandro, CA 94680
415-753-2215

AES - SYSTEM II PRECISION TANK & LINE TEST RESULTS SUMMARY

Invoice Address:	Tank Location:	W.O. #:
114TH ST. BEACON	114TH ST. BEACON	17087
11 E. 14TH ST.	11 E. 14TH ST.	I.D. Number:
SAN LEANDRO, CA.	SAN LEANDRO, CA.	Technician: RSC
		Tech. #: 29179 Van #: 2115

Date: 8-10-92	Time Start: 1200	End: 1600	County: AL
Facility Phone#:	Groundwater Depth: 124'		Blue Prints: N/A
Contact: MGR	Date/Time system was filled: 8-10-92		


Tank	Tank Capacity	Product	Tank	Fill/Vent Vapor Lines	Product Line	Type Of Vapor Recovery	Inches of Water/Tank	Pump Type	Tank Material
1	12000	R/UL	PASS	PASS	PASS	PH-2	NONE	TURB	S-W-F
2	12000	S/UL	PASS	PASS	PASS	PH-2	NONE	TURB	S-W-F

Additional Information: None

SITE LOG	TIME
Set Up Equip:	1200
bled Product Lines:	1200
bled Vapor Lines:	1220
bled Vent lines:	1230
bled Turbine:	1250
bled Suction Pump:	N/A
Risers Installed:	1200

- a) ALL PRODUCT LINES WERE TESTED USING THE PLT-100R
- b) This system and method meets the criteria set forth in NFPA #329.
- c) Any failure listed above may require further action, check with all regulatory agencies.

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 California O.T.T.L. Number : 92-1255 MATT W. CROSSON

Certified Technician Signature : 

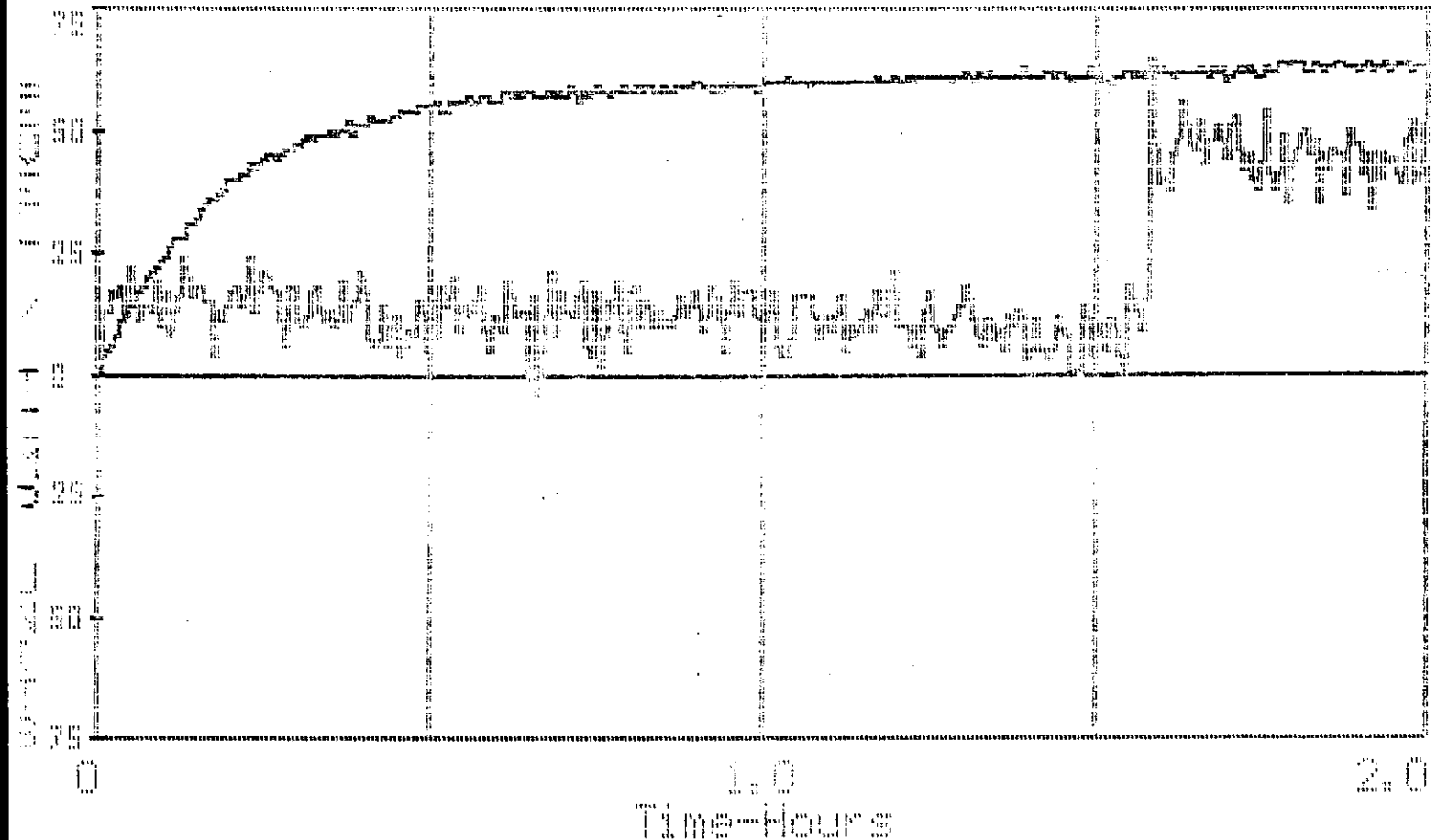
Date : 8-10-92

Associated Environmental Systems, Inc.
 P.O. Box 69927 Bakersfield, CA 93390 (805) 393-8212

AES/System II Precision Leak Test Graph

Invoice No.: 17067 Date: 08/10/92 Time: 13:37:07
 Technician: MRC Tank: 2 Tank Diameter(in): 125
 Volume(gal): 12000 Grade Level(in): 175 Product Level(in): 2.1
 Water Level On Tank(in): 0
 Specific Gravity: 0.78 Coefficient Of Expansion: 0.0002455
 Calibration Value(ml): 198 Channel: 8
 Level Segment From: 1 To 100 Temp Segment From: 200 To 300

Product 3/UL



Change In Calibration Zone = 42
 Starting Temperature (F): 79.778
 Surface Area(sq. in): 26.1

Calibration Unit(gal/unit) = 0.00118
 Head Pressure(col/in (Btm)): 164.6
 Temp. Change(F/h) : 0.015

Level volume(gph): 0.00
 Temp. volume(gph): 0.04
 Net change(gph) : -0.04

Product Line(gph): ~~0.004~~

Result --> **PASS**

P/L --> **PASS**

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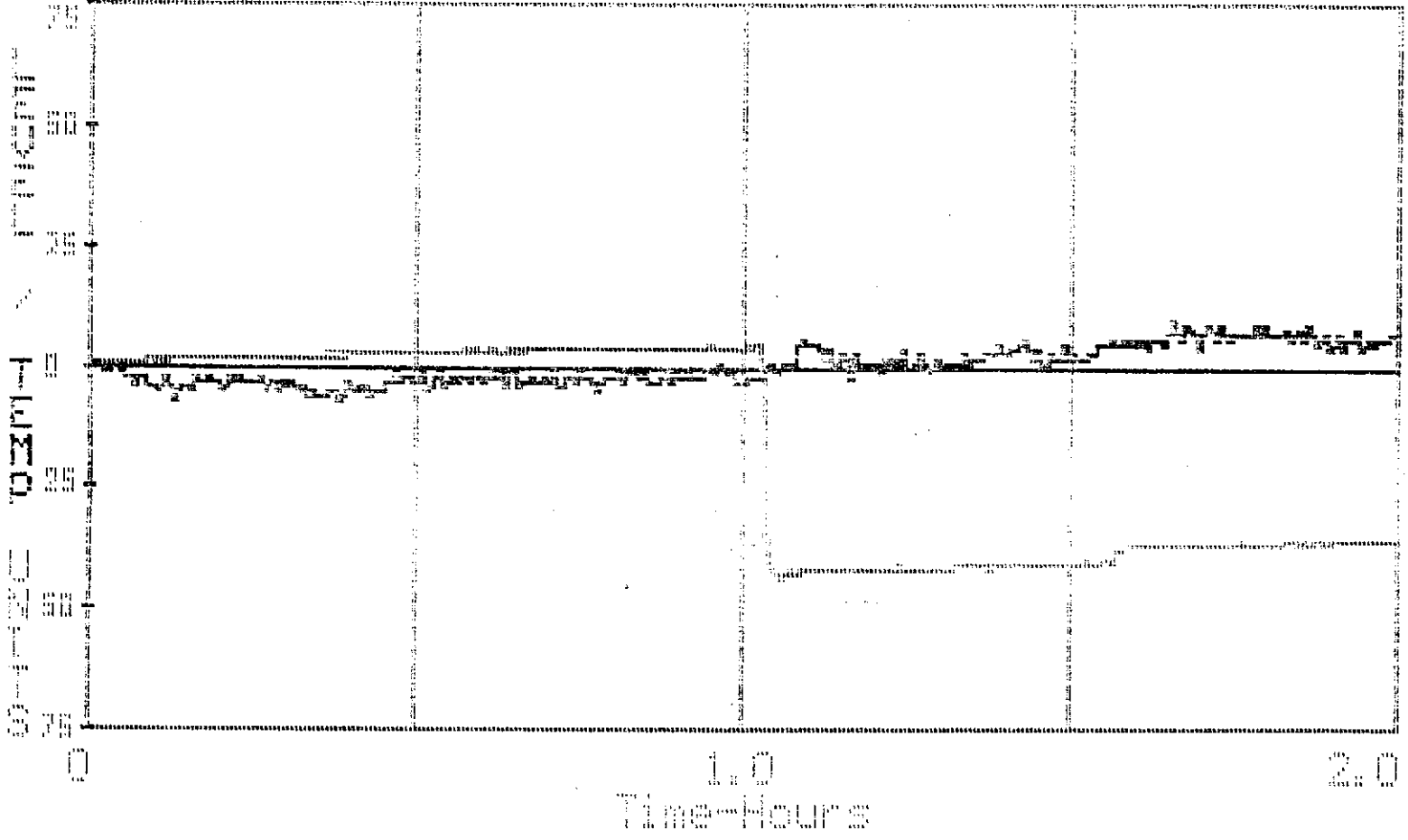
** Notes **

114TH ST. BEACON SAN LEANDRO, CA.
 THIS IS A HIGH LEVEL TEST WITH A 1X-CAL.

AES/System II Precision Leak Test Graph

Invoice No.: 17867 Date: 28/10/92 Time: 13:17:47
 Technician: MRC Tank: 1 Tank Diameter(in): 125
 Volume(gal): 12000 Grade Level(in): 160 Product Level(in): 190
 Water Level On Tank(in): 0
 Specific Gravity: 0.78 Coefficient Of Expansion: 0.0005344
 Calibration Value(ml): 190 Channel: 1
 Level Segment From: 1 To 150 Temp Segment From: 1 To 300

Product A/L



Change In Calibration Zone = 102
 Starting Temperature (F): 76.399
 Surface Area(sq. in): 10.8
 Level volume(gph): 0.06
 Temp. volume(gph): 0.07
 Net change(gph) : 0.01

Calibration Unit(gal/unit) = 0.00048
 Head Pressure(col/in (Btm)): 135.2
 Temp. Change(F/h) : 0.012
 Product Line(gph): 0.002

Result --> PASS

P/L --> PASS

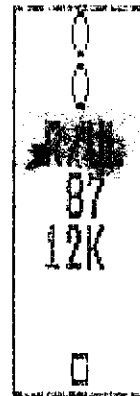
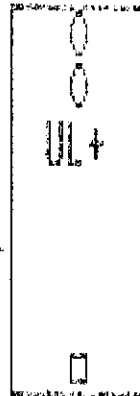
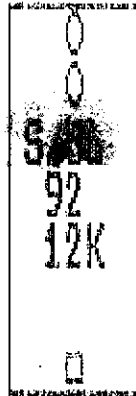
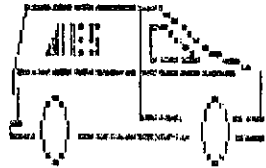
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** Notes **

2. 14TH ST. BEACON SAN LEANDRO, CA.
 THIS IS A HIGH LEVEL TEST WITH A 1X-CAL.

ASSOCIATED ENVIRONMENTAL SYSTEMS

EVENTS



W/H



IBM SJ 446

Site Layout For : E. 14TH ST. BEACON SAN LEANDRO, CA.

Associated Environmental Systems, Inc.
 P.O. Box 30427
 Bakersfield, CA 93380
 (805)-393-2212

BILLING ORDER

Invoice Number 17067

INVOICE ADDRESS:	TANK LOCATION:	Taken by:
	E. 14TH ST BEACON	Date taken:
	SAN LEANDRO, CA	Salesman: Terr:
		Technician:
		County: <u>MC</u>
		County: <u>AL</u>
	Co. Notified:	
	P.O. #:	
Contact:	Contact:	Test Date: <u>5-10-92</u>
Phone:	Phone:	Test Time: <u>1200</u>

EMERGENCY CONTACT:

PHONE:

HYDROSTATIC PRODUCT LINE TEST RESULT SHEET
 AES PLT-100R

PRODUCT	START VOLUME	END VOLUME	TEST PRESSURE	VOLUME LIQ. (CFH)	PASS/FAIL
<u>Accl 87</u>	<u>121</u>	<u>119</u>	<u>50</u>	<u>0.002</u>	<u>PASS</u>
<u>Sul 89</u>	<u>49</u>	<u>45</u>	<u>50</u>	<u>.004</u>	<u>PASS</u>
CONFIRMATION TEST IF FIRST FAILED					

TEST PRESSURE IS 50 PSI WITH LEAK DETECTOR REMOVED & IMPACT CLOSED.

Data Chart for Tank System Tightness Test

petro title

TANK TESTER

408 2 5-5368
ANS Machine

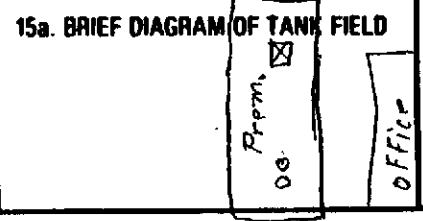
Certified Tank Tester
4430 Dam Road
Richmond, CA 94803
222-9271

PLEASE PRINT

1. OWNER <input type="checkbox"/> Property <input type="checkbox"/> Tank(s)	Beacon Service Station		- JAMES - 562-4289				
	Name	Address	Representative	Telephone			
2. OPERATOR		SAN LEANDRO					
3. REASON FOR TEST (Explain Fully)		ANNUAL - TEST - Certification					
4. WHO REQUESTED TEST AND WHEN		JAMES - (Manager) - KWON SHAIKH (OWNER)					
5. WHO IS PAYING FOR THIS TEST?		11					
6. TANK(S) INVOLVED		Identify by Direction	Capacity	Brand/Supplier	Grade	Approx. Age	Steel/Fiberglass
		Office-End	12,000	Redwood Oil	Premium	10 years	Steel
		Middle	12,000	"	PLUS	10 years	Steel
		Street-End	12,000	"	4M Lead	10 years	Steel
7. INSTALLATION DATA		Location	Cover	Fills	Vents	Siphones	Pumps
		Center	Asphalt & Concrete	4" Vapor O.P.W.	2"	NONE	Subs. Tanks
8. UNDERGROUND WATER		Depth to the Water table	AT - BOTTOM OF TANK - No Well -			Is the water over the tank? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
9. FILL-UP ARRANGEMENTS		Tanks to be filled	hr.	Date	Arranged by	Name	Telephone
		Extra product to "top off" and run TSTT. How and who to provide? Consider NO Lead.					
10. CONTRACTOR, MECHANICS, any other contractor involved		Terminal or other contact for notice or inquiry					
11. OTHER INFORMATION OR REMARKS		10 Feet 6 inch diameter Tanks 126"					
12. TEST RESULTS		Tests were made on the above tank systems in accordance with test procedures prescribed for petro title as detailed on attached test charts with results as follows:					
		Tank Identification	Tight	Leakage Indicated	Date Tested		
		12,000 End-close-Prom	<input checked="" type="checkbox"/>	See - TEST - report	7-10-92		
		12,000 Encl-Far-4M	<input checked="" type="checkbox"/>	See - TEST - report	7-10-92		
		12,000 Middle-Plus+	<input checked="" type="checkbox"/>	See - TEST - report	7-10-92		
13. CERTIFICATION		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 929.					
STATE-Lic. 90-1354		414 811373		Certified Test		Lawrence R. Zimmerman	
Date 652-972		Larry & David		4430 Dam Road		Testing Contractor or Company. By: Signature	
Serial No. of Thermal Sensor		Technicians		Richmond, CA 94803		Address	
				222-9271			

1. 14. Beacon Service Station 111 E. 17th San Leandro July 9, 1992
 Name of Supplier, Owner or Dealer Address No. and Street(s) City State Date of Test

15. TANK TO TEST
office and
 Identify by position
Premium
 Brand and Grade



16. CAPACITY
 Nominal Capacity 12,000 Gallons
 By most accurate capacity chart available _____ Gallons

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

17. FILL-UP FOR TEST

Batch Water Bottom before Fill-up _____ to _____ in.	Gallons _____	Tank Diameter <u>126</u> in.	Inventory _____	Gallons _____	Total Gallons on Reading _____
					<u>12,230</u>
					<u>80</u>
					<u>12,250</u>

Transfer total to line 25a

18. SPECIAL CONDITIONS AND PROCEDURES TO TEST THIS TANK

Water in tank Lines being tested with LVLIT

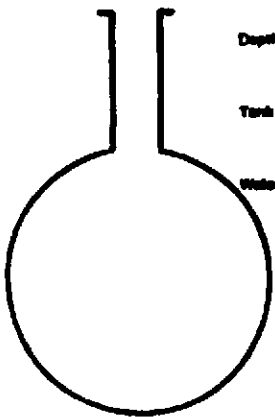
High water table in tank excavation

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 196" in.
- Pressure at bottom of tank 5.1 P.S.I.
- Pressure at top of tank 2 P.S.I.



Depth of burial 52" in.

Tank dia. 126" in.

Water table _____ 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 5-3.2.4 and 5-7.2 and the tank manufacturer regarding allowable system test pressures.

CERTIFIED TANK-TESTS (415) 222-9271

TRIPLE T COMPANY

Larry Zimmerman 4430 Dam Road
 Richmond, CA 94803

22. Thermal-Sensor reading after circulation 175.48
76-77 °F

23. Digits per °F in range of expected change 319

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 1 Stage II

24b. COEFFICIENT OF EXPANSION RECIPROCAL METHOD

Type of Product um Premium

Hydrometer Employed 6 H

Temperature in Tank After Circulation 76 °F

Temperature of Sample 79 °F

Difference (+/-) +3 °F

Observed A.P.I. Gravity 57.0

Reciprocal 1563 Page # 61

12,250 / 1503 = 8.150366

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

Transfer to Line 25b.

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

Water Temperature after Circulation _____ °F

Table C _____

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) 8.150366 x (b) 319 = (c) .0255

Volume change per °F (25 or 24c) _____ Digits per °F in test Range (23) _____ Volume change per digit Compute to 4 decimal places. _____ This is test factor (e)

27. Tank Collection			28. INSTRUMENT PRESSION CONTROL		31. VOLUME MEASUREMENTS (g) (ROUND TO 2nd CAL.)			34. TEMPERATURE COMPENSATION USE FACTOR (g)			35. NET VOLUME CHANGE (GALLONS)		36. ACCUMULATED CHANGE	
12,000			LOG OF TEST PROCEDURES		Shut-off Level in Inches		32. Product in Structure		33. Product (Equivalent (-))	35. Normal Tank Reading	36. Change Higher + Lower - (g)	37. Compensation (g) (+) or Expansion - Contraction (-)	Temperature Adjustment Volume Blank Expansion (+) or Contraction (-) (g) (+) or (-)	At Low Level (change per Year (100% volume)
28. TIME	Record details of setting up and running test. (Also tell length of line if needed)		Reading in	Beginning of Reading	Level to which Reduced	Before Reading	After Reading	Product (Equivalent (-))	Normal Tank Reading	Change Higher + Lower - (g)	Compensation (g) (+) or Expansion - Contraction (-)	Temperature Adjustment	At Low Level (change per Year (100% volume)	
	ARRIVED on site				48"									
5:30	Set up + running				48"									
6:00	circulation		Base	-	48"									
7:00	High-Level-Test		Base	-	42"	1.00	.30	-.70	17598				-.90	
7:15	" " "		1.	-	42"	1.00	.30	-.70	606	+8	.20		-.90	
7:30	" " "		2.	-	42"	1.00	.40	-.60	614	+8	.20		-.80	
7:45	" " "		3.	-	42"	1.00	.40	-.60	620	+6	.15		-.75	
8:00	" Drop-To" Low " Level		4.	-	42"	1.00	.50	-.50	626	+6	.15		-.65	
8:15	SPRING Back		5.	-	12"	1.00	.50	-.50	630	+4	.10		-.60	
8:30	Low-Level-Test		6.	-	12"	1.00	.50	-.50	634	+4	.10		-.60	
8:40	" " "		7.	10"	12"	.50	.38	-.12	638	+4	.10		-.22	
8:50	" " "		8	10"	12"	.50	.38	-.12	640	+2	.05		-.17	
9:00	" " "		9	10"	12"	.50	.38	-.12	642	+2	.05		-.17	
9:10	" " "		10	10"	12"	.50	.38	-.12	644	+2	.05		-.17	
9:20	" " "		11	10"	12"	.50	.38	-.12	646	+2	.05		-.17	
9:30	" " "		12	10"	12"	.50	.38	-.12	648	+2	.05		-.17	
9:40	" " "		13	10.2"	12"	.50	.40	-.10	650	+2	.05		-.17	
9:50	" " "		14	10.2"	12"	.50	.40	-.10	651	+1	.02 ⁵		-.12 ⁵	
10:00	" " "		15	10.2"	12"	.50	.40	-.10	652	+1	.02 ⁵		-.12 ⁵	
10:10	" " "		16	10.2"	12"	.50	.40	-.10	653	+1	.02 ⁵		-.12 ⁵	
10:20	" " "		17	10.2"	12"	.50	.46	-.10	654	+1	.02 ⁵		-.12 ⁵	
10:30	" " "		18.	10.2"	12"	.50	.40	-.10	655	+1	.02 ⁵		-.12 ⁵	
	END - TEST		19.											
			20.											

AM
11:00
5:30 P.M.
P.M.

SL

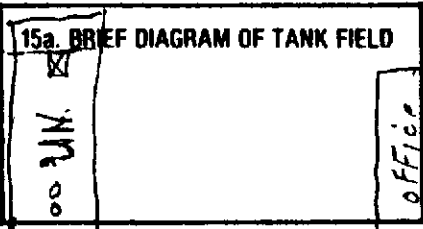
Subson

Tank and product handling system has filled (or been tightened) test according to the Precision Test Criteria as established by N.F.P.A. publication 308.

Tank and product handling system has been tested tight according to the Precision Test Criteria as established by N.F.P.A. publication 308. This is not intended to indicate permission of a test.

1. Net Volume Change at Conclusion of Precision Test 1.00 gals
Signature of Tester: Larry Zimmerman
Date: 7-9-92

15. TANK TO TEST
 Street - END
 Identify by position
 UNLeaded
 Brand and Grade



16. CAPACITY
 Nominal Capacity 12,000 Gallons
 By most accurate capacity chart available _____ Gallons

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

17. FILL-UP FOR TEST

Blank Water Bottom before Fill-up _____ in.	_____ Gallons	_____ Tank Diameter _____ in.	Inventory _____	_____ Gallons	Total Gallons vs. Reading _____
		<u>126</u>			<u>12,230</u>
					<u>20</u>
					<u>12,250</u>

Transfer total to line 25a

18. SPECIAL CONDITIONS AND PROCEDURES TO TEST THIS TANK Water in tank (Lines) 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 196 in.

3. Pressure at bottom of tank 5.1 P.S.I.

4. Pressure at top of tank 2 P.S.I.

CERTIFIED TANK-TESTS (415) 222-9271

TRIPLE T COMPANY

Larry Zimmerman 4430 Dam Road
 Richmond, CA 94803

22. Thermal-Sensor reading after circulation 173.86
75-76 °F

23. Digits per °F in range of expected change 319
 between 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 UNLeaded

Hydrometer Employed 6 H

Temperature in Tank After Circulation 75 °F

Temperature of Sample 79 °F

Difference (+/-) +4 °F

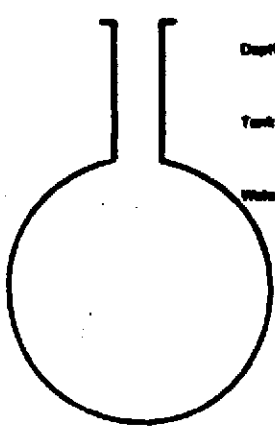
Observed A.P.I. Gravity 57.0

Reciprocal 1505 Page # 61

12,250 , 1505 = 8.139535

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

Transfer to Line 25b.



NOTES:

The above calculations are to be used for dry cell 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.

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) _____ = (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) 8.139535 = (b) 319 = (c) 1.0255
 Volume change per °F (25 or 24b) Digits per °F in test Range (23) Volume change per digit Compute to 4 decimal places. This is test factor (N)

27. Tank Collection _____ / _____		28. OPERATING PRESSURE CHANGE		31. VOLUME MEASUREMENTS (4) RECORD TO 0.01 GAL.			34. TEMPERATURE COMPENSATION USE FACTOR (4) .0255			35. NET VOLUME CHANGE EACH READING		36. ACCUMULATED CHANGE	
12,000		LOG OF TEST PROCEDURES Unleaded		Standard Level in Inches		Product in Cisterns		Product Expended (4)	35. Tapped Barrel Reading	36. Change High - Low - (4)	37. Compensation (4) = (4) × Expansion - Contraction -	Temperature Adjustment Volume Blank Expansion (4) or Contraction (4) (4) × (4) - (4) × (4)	36. Low Level output Change per Hour (4) × (4)
28. TIME	29. Reading No.	30. Reading in Inches	31. Tank Reading	32. Tank Reading	33. Product Expended (4)	34. Product (4)							
11:00 AM.		ARRIVED on site											
P.M.	6:30	SET - up + running	Base	48"									
	7:00	circulation	Base	48"	1.00								
P.M.	8:00	High - Level - TEST	1.	48"	1.00	.50	-.50	17386				-.50	
	8:15	" " "	2.	48"	1.00	.60	-.40	396	+10	.255		-.65	
	8:30	" " "	3.	48"	1.00	.70	-.30	406	+10	.255		-.55	
	8:45	" " "	4.	48"	1.00	.80	-.20	414	+8	.20		-.40	
	9:00	" Drop " To - Low Level	5.	48"	1.00	.85	-.15	422	+8	.20		-.35	
	9:15	SPRING back	6.	12"	1.00	.90	-.10	430	+8	.20		-.30	
	9:30	Low - Level - TEST	7.	12"	1.00	.90	-.10	436	+6	.15		-.45	
	9:40	" " "	8.	11"	.50	.43	-.07	440	+4	.10		-.17	
	9:50	" " "	9.	11"	.50	.44	-.06	442	+2	.05		-.11	
	10:00	" " "	10.	11"	.50	.44	-.06	444	+2	.05		-.11	
	10:10	" " "	11.	11"	.50	.44	-.06	446	+2	.05		-.11	
	10:20	" " "	12.	11.1"	.50	.45	-.05	448	+2	.05		-.10	
	10:30	" " "	13.	11.2"	.50	.45	-.05	450	+2	.05		-.10	
	10:40	" " "	14.	11.4"	.50	.46	-.04	452	+2	.05		-.09	
	10:50	" " "	15.	11.5"	.50	.47	-.03	453	+1	.02		-.05	
	11:00	" " "	16.	11.5"	.50	.47	-.03	454	+1	.02		-.05	
	11:10	" " "	17.	11.5"	.50	.47	-.03	455	+1	.02		-.05	
	11:20	" " "	18.	11.5"	.50	.47	-.03	456	+1	.02		-.05	
	11:30	" " "	19.	11.5"	.50	.47	-.03	457	+1	.02		-.05	
	11:40	END - TEST	20.	11.5"	.50	.47	-.03	458	+1	.02		-.05	90 ± 2

Sub - on - Sub - on - Sub - on

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 208.

Tank and product handling system has been tested tight according to the Precision Test Criteria as established by N.F.P.A. publication 208. This is not intended to indicate completion of a test.

1. Net Volume Change at Conclusion of Precision Test -.45 gal
 Signature of Tester: Ferry Zimmerman
7-9-92

aph.