

H.S. FICE

April 5, 1990
90-5053

Unocal Corporation
PO Box 3175
Walnut Creek, CA 94596
Attn: Tony Yap

Re: Unocal #2512, 1300 Davis Street, San Leandro, CA.

Dear Sir:

On March 9, 1990, a Petro Tite System Test was performed at the above-referenced location. The test was performed by Matt Raue, LCI Technician. The NFFA Code 329.02 criteria for a tight system is a maximum loss of .05 gallons per hour. Because of the almost infinite variables involved, this is not intended to be a mathematical tolerance and is not the permission of actual leakage.

During the stand-pipe test procedures the internal liquid hydrostatic pressure applied to the underground tank system is generally two to three times greater than normal liquid storage pressures. This increase in hydrostatic pressure will amplify the indicated rate of leak accordingly.

SYSTEM TEST

Tank No. 1 - North

Size - 280 Gallons

Product - Waste Oil

The test showed a minus .011 gallons per hour. Based on the above criteria, we find the tank tested mathematically tight.

This concludes our test findings. If you have any questions regarding the results, please contact me. For your convenience a copy of the test results has been sent to the County.

We have enjoyed working with you on this project. If you need any further information, please feel free to call.

Regards,

Mark Yamamoto RK
Mark Yamamoto
Tank Testing Coordinator

MY/rk
enclosures

Data Chart for Tank System Tightness Test

PLEASE PRINT 90-5053

1. OWNER <input type="checkbox"/> Property <input type="checkbox"/> Tenant	Unocal Corporation 2175 N. California Blvd. Walnut Creek, CA 94596																				
	<small>Name Address Representative Telephone</small> Unocal Corporation 2175 N. California Blvd. Walnut Creek, CA 94596																				
2. OPERATOR	Unocal #2512 1300 Davis St San Leandro 415-568-9800 <small>Name Address Telephone</small>																				
3. REASON FOR TEST (Explain Fully)	To test system for tightness.																				
4. WHO REQUESTED TEST AND WHEN	Tony Yap <small>Name</small> Unocal Corporation 2175 N. California Blvd. Walnut Creek, CA 94596 <small>Address Telephone</small>																				
5. TANK INVOLVED <small>Use additional lines for manifolded tanks</small>	<small>Identify by Direction</small> #1 North	<small>Capacity</small> 280 gal.	<small>Brand/Supplier</small> Waste Oil	<small>Grade</small> Unknown	<small>Approx. Age</small> Unknown	<small>Steel/Fiberglass</small> Steel															
6. INSTALLATION DATA	<small>Location</small> East of Building, in Bay Entrance, at front of station <small>North inside driveway, Rear of station, etc.</small>	<small>Cover</small> Concrete <small>Concrete Black Top, Earth, etc.</small>	<small>Fills</small> 3"=1 (Outside) 2"=1 (Inside) <small>Size, Titehill make, Drop tubes, Remote Fills</small>	<small>Vents</small> 1 1/2" <small>Size, Manifolded</small>	<small>Sightglasses</small> None <small>Which tanks?</small>	<small>Pumps</small> None <small>Suction, Remote, Make if known</small>															
7. UNDERGROUND WATER	Depth to the water table: <u>Below 82"</u> Is the water over the tank? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No																				
8. FILL-UP ARRANGEMENTS	Tanks to be filled _____ hr. _____ Date Arranged by _____ Extra product to "top off" and run tank tester How and who to provide? Consider NO Lead. Name Telephone Terminal or other contact for notice or inquiry _____ Company Name Telephone																				
9. CONTRACTOR, MECHANICS, any other contractor involved	_____ _____ _____																				
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: <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 30%;">Tank Identification</th> <th style="width: 15%;">Tight</th> <th style="width: 35%;">Leakage Indicated</th> <th style="width: 20%;">Date Tested</th> </tr> </thead> <tbody> <tr> <td>#1 North</td> <td>YES</td> <td>7.011 GPH</td> <td>3-9-90</td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>					Tank Identification	Tight	Leakage Indicated	Date Tested	#1 North	YES	7.011 GPH	3-9-90								
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#1 North	YES	7.011 GPH	3-9-90																		
12. SENSOR CERTIFICATION 11-17-89 <small>Date</small> S/N 869 <small>Serial No. of Thermal Sensor</small>	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. <small>Technicians</small> 1. <u>Matthew Rowe</u> Certification # <u>414815083</u> 2. _____ Certification # _____ Liquid Construction, Inc. <u>Matthew Rowe</u> <small>Testing Contractor or Company. By: Signature</small> P.O. Box 1220 Tulare, CA 93275 <small>Address</small>																				

14. Name of Supplier, Owner or Dealer	Address (In and Street)	City	State	Date of Test
15. TANK TO TEST Identify by position: <u>#1 North</u> Brand and Grade: _____	15a. BUILD DIAGRAM OF TANK FIELD	16. CAPACITY Nominal Capacity <u>280</u> Gallons By most accurate capacity chart available <u>278</u> Gallons	From: <input type="checkbox"/> Station Chart <input checked="" type="checkbox"/> Tank Manufacturer's Chart <input type="checkbox"/> Company Engineering Data <input type="checkbox"/> Charts supplied with <input type="checkbox"/> Other _____	

17. FILL-UP FOR TEST		Gallons	Total (Gallons as Reading)
Each Water Bottom before fill up _____ in.	_____ in.	<u>278</u>	<u>278</u>
_____ in.	_____ in.	<u>0</u>	<u>0</u>
_____ in.	_____ in.	<u>12</u>	<u>12</u>
_____ in.	_____ in.	<u>290</u>	<u>290</u>
		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
 manual sections applicable. Check below and record procedure in log (22)

- Use maximum allowable test pressure for all tests. Four pound rule does not apply to double-walled tanks.
 Complete section below:
- Is four pound rule required? Yes No
 - Height to 12" mark from bottom of tank 132 in.
 - Pressure at bottom of tank 4.09 P.S.I.
 - Pressure at top of tank 2.67 P.S.I.

19. TANK MEASUREMENTS FOR ISIT ASSEMBLY

Bottom of tank to grade" 81 in.
 Add 30" for "1" probe Assy. 30 in.
 Total tubing to assembly - approximate 111 in.

20. EXTENSION HOSE SETTING

Tank top to grade" 35 in.
 Extend hose on suction tube 6" or more below tank top 42 in.
 *If all pipe extends above grade, use top of tank.

22. Thermal-Sensor reading after circulation 11786 digits
58.59 °F
23. Digits per °F in range of expected change 318 digits

COEFFICIENT OF EXPANSION (Complete after circulation)

24a. Corrected A.P.I. Gravity
 Observed A.P.I. Gravity _____
 Hydrometer employed _____ °F
 Observed Sample Temperature _____ °F
 Corrected A.P.I. Gravity (p. 147, from Table A) _____
 Coefficient of Expansion for Involved Product from Table D _____
 Transfer COE to Line 25b

Water	0	0	0
Topoff	12	12	12
	290	290	290

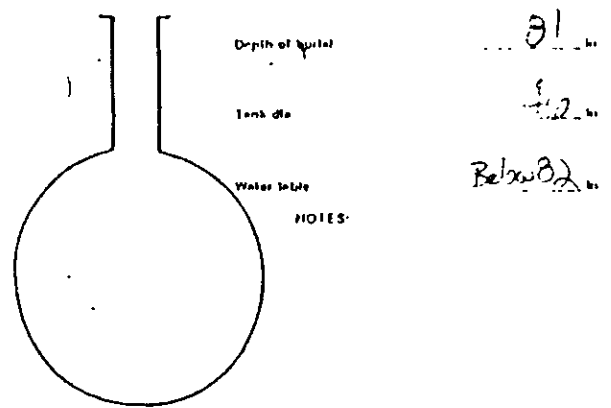
21. VAPOR RECOVERY SYSTEM Stage I Stage II

24b. COEFFICIENT OF EXPANSION RECIPROCAL METHOD

Type of Product Diesel
 Hydrometer Employed 4 °F
 Temperature in Tank After Circulation 11786 58.0 °F
 Temperature of Sample 52.0 °F
 Difference (°F) -6 °F
 Observed A.P.I. Gravity 33.4
 Reciprocal 2.23 Page # 37
 Initial quantity in full tank (15 or 33) 290 Reciprocal 2.23 Volume change in this tank per °F 0.1328447
 Transfer to Line 25b

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

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

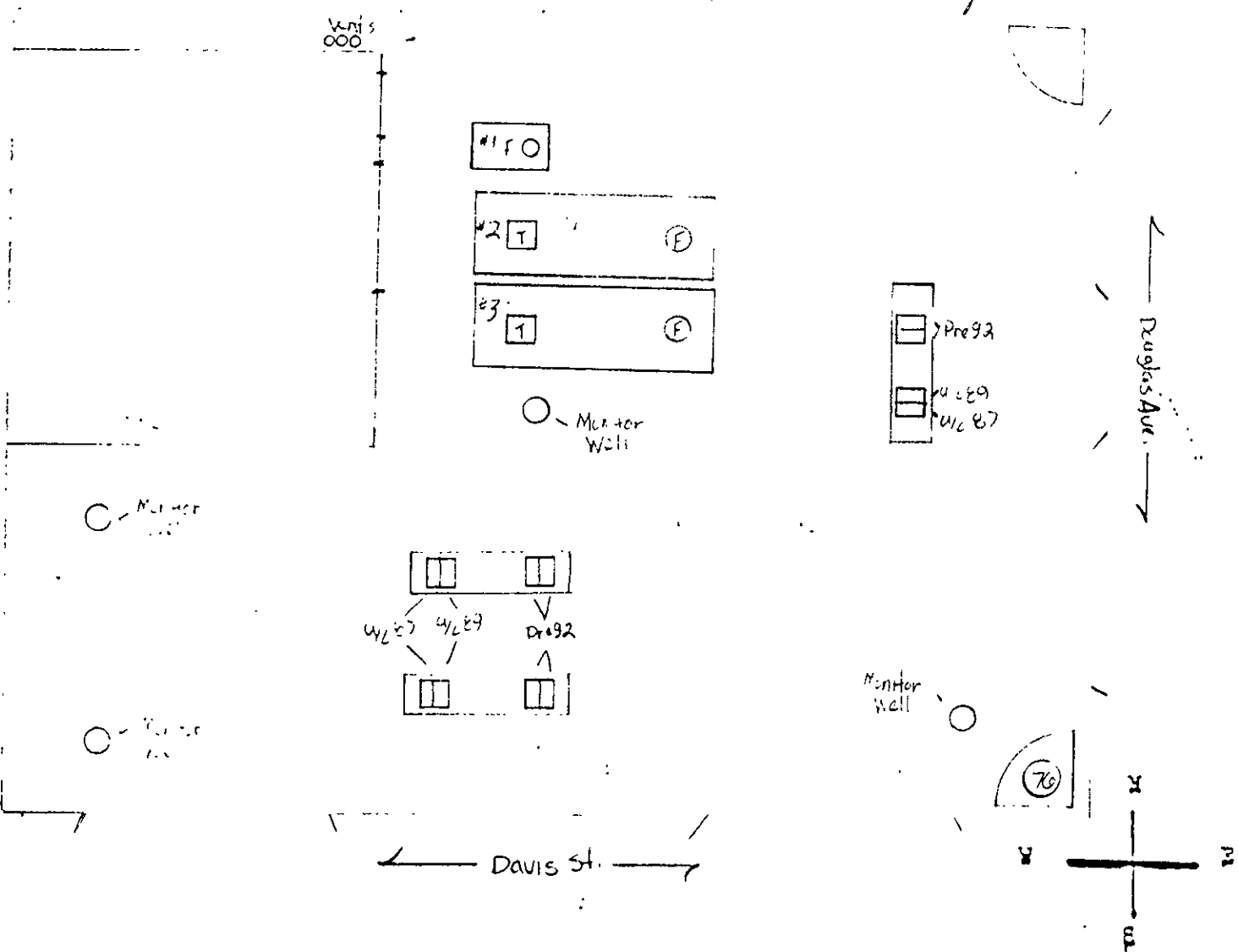


The above calculations are to be used for dry soil conditions to establish a positive pressure advantage, or when using the four pound rule to compensate for the presence of subsurface water in the tank area.
 Refer to N.F.P.A. 30, Sections 2-3.2.4 and 2-3.2 and the tank manufacturer regarding allowable system test pressures.

(a) _____ x (b) _____ = (c) _____ gallons
 Initial quantity in tank (15 or 33) Coefficient of expansion for involved product Volume change in this tank per °F

(a) = 1329.117 (b) = 318 (c) = 0.0004177 0.004

Unocal #251a 90-5053
1300 Davis St.
San Leandro, CA



TANKS	(Jobsite Description)	LEGEND
12 North 280 Gal. Waste Oil	7	7 = PILL V = VAPOR DROP
12 Center 10,000 Premium 92	T	T = TURBINE [] = VENTS
13 South 10,000 Unleaded 87	E	E = OVERSPILL CONTAINER /OV PILL BT
14	E	E = EXTRACTOR VALVE
15	M	M = MONITOR SYSTEM
16	[]	[] = SIPHON SYSTEM
17	V	V = VAPOR DROP W/OVERSPILL CONTAINER

MISC.

MISC.

L C I SITE EVALUATION

TANK	#1	#2	#3	#4	#5	#6
TANK BURIAL DIA & DEPTH	46" 81"					
BRAND & FUEL	Waste Oil					
SIZE OF TANK	280 gal.					
SINGLE WALL OR DOUBLE WALL	Single Wall					
BRAND & SIZE OF TURBINE	None					
BRAND & TYPE OF TANK DETECTOR	None					
BRAND OF TRACTOR	None					
BRAND OF OVERSPILL CONTAINER	None					
BRAND & TYPE OF DISPENSER	None					
SIZE OF SUB BOX	None					
PHASE I.V.R. CO-AXIAL OR 2 - POINT	None					
TYPE & BRAND OF MONITORING	None					
PREPARED FOR MONITORING	No					
SIPHONED SYSTEM	None					

TECHNICIAN'S RECOMMENDATION: _____

JOBSITE LOCATION: 90-5053 Unocal STATION #: 2512
 ADDRESS: 1300 Davis St., San Leandro, CA DATE: 3-9-90
 TECHNICIAN'S SIGNATURE: [Signature]