

COUNTY LEA FIELD Vacuum STATE N.M. MAP
 OPR TEVACO INC. CO-ORD
 16 State of New Mexico "R" (NCT-3)
 Sec. 1, T-18-S, R-34-E
 1655' fr S Line & 330' fr E Line of Sec.
 Spud 7-25-64
 Comp. 10-9-64

EL 39962

CSG & SX . TUBING	FORMATION	CLASS	DATUM	FORMATION	DATUM
11 3/4" 402' 350	LOG:				
8 5/8" 3250' 1650	SA 4437				
2 7/8" 8800' 700	Glor 6020				
	Abo 8072				
	AboRf 8464				

LOGS EL GR RA IND HC A

TD 8800', PB 8590'

IP Abo Perfs. 8472-8572', Swbd. 29 BOPD Pot. Based on 24 hr test, Gravity 39.4, GOR 148.

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CONT.
 DATE

PROP DEPTH 8800' TYPE

7-27-64 F.R. 7-2-64.
 8-3-64 PD 8800' - Abo.
 8-10-64 Drlg. 1400'.
 8-17-64 Drlg. 4000' 1m.
 8-24-64 Drlg. 6084'.
 8-31-64 Drlg. 7505'.
 Set Whipstock @ 6984' & 7487'.
 TD 8800', prep to run csg.
 TD 8800', PB 8790', swbg.
 Perf. @ 8490', 8508', 8525', 8544', 8572',
 8619', 8636', 8648', 8665' w/2 SPI.
 Ac. 400 gals. Re-Ac. 1000 gals.
 Swbd. load oil.
 Re-Ac. 8000 gals.
 Swbd. & Flwd. 83 BLO + 41 BLW/16 hrs.

LEA
TEXACO INC. Vacuum

N.M.
#16 State of New Mexico "R" (NCT-3)
Sec. 1-18S-34E
Page #2

9-8-64

TD 8800', PB 8790', prep to Ac.
Swbd. 11 BLW/4 hrs.
Sq. perfs. 8490-8665' w/50 sx.
Perf. @ 8594', 8605', 8612', 8619', 8630',
8639', 8648', 8674' w/2 SPI.
TD 8800', PB 8590', prep to perf.
Ac. 500 gals. 8594-8674'.
Swbd. 52 BL & AW/3 hrs.
Dolo Frac. 6000 gals.
Swbd. dry.

9-14-64

9-21-64

Sq. Perfs. 8594-8674', w/50 sx.
TD 8800', PB 8590', swbg.
Perf. @ 8472', 8484', 8495', 8507', 8527',
8552', 8572', w/2 SPI.

9-28-64

10-5-64

10-12-64

Ac. 500 gals.
Swbd. 12 BLW/8½ hrs.
Dolo Frac. w/6000 gals.
Swbd. 12 BLW/7 hrs. & swbd. dry.
TD 8800', PB 8590', SI.
TD 8800', PB 8590', swbg.
Dolo Frac. 15,000 gals. 8472-8572',
Swbd. 121 BLW/28 hrs.
TD 8800', PB 8590', Completed.



"Symbol of Service"

REPORT of SUB-SURFACE DIRECTIONAL SURVEY

TEXACO, INC.

COMPANY

STATE "R" WELL NO. 16

WELL NAME

VACUUM FIELD

LEA COUNTY, NEW MEXICO

LOCATION

JOB NUMBER

WT-85364 - A-B-C-D

TYPE OF SURVEY

MAGNETIC MULTIPLE SHOT

DATE

7/30/64, 8/5/64,
8/9/64, 8/12/64 &
8/14/64

SURVEY BY

JACK B. JONES, R. B. VICKERS & CECIL R. STRASNER

OFFICE

ODESSA, TEXAS



RECORD OF SURVEY

JOB NO. WT-85364 - 85364A DATE 7/30/64, 8/5/64, 8/9/64.
85364B - 85364C & 85364D 8/12/64 & 8/14/64

CHECKED BY ASSUMED VERTICAL TO 400'

STATION	MEASURED DEPTH	DRIFT ANGLE	TRUE VERTICAL DEPTH	VERTICAL SECTION	COURSE DEVIATION	DRIFT DIRECTION	RECTANGULAR COORDINATES		
							NORTH	SOUTH	EAST WEST
1	501 00	0° 00'			1 77	N 22 E	1 64		0 66
2	595 00	1° 30'			0 82	N 35 E	2 31		1 13
3	690 00	0° 30'			0 83	N 41 E	2 94		1 67
4	785 00	0° 30'			0 83	N 30 E	3 66		2 09
5	878 00	0° 30'	877 98		0 81	N 36 E	4 32		2 57
6	973 00	0° 30'			0 83	N 45 E	4 91		3 16
7	1067 00	1° 00'			1 64	N 75 E	5 33		4 74
8	1162 00	0° 30'			0 83	N 67 E	5 65		5 50
9	1256 00	0° 45'			1 23	N 62 E	6 23		6 59
10	1350 00	0° 30'	1349 96		0 82	N 58 E	6 66		7 29
11	1444 00	0° 30'			0 82	N 55 E	7 13		7 96
12	1339 00	0° 45'			1 24	N 10 E	8 35		8 18
13	1634 00	1° 00'			1 66	N 45 E	9 52		9 35
14	1728 00	1° 00'			1 64	N 37 E	10 83		10 34
15	1822 00	1° 15'	1821 91		2 05	N 30 E	12 61		11 37
16	1915 00	1° 15'			2 03	N 45 E	14 05		12 81
17	2009 00	1° 15'			2 05	N 38 E	15 67		14 07
18	2103 00	1° 30'			2 46	N 14 E	18 06		14 67
19	2196 00	1° 45'			2 84	N 09 W	20 87		14 23
20	2289 00	2° 00'	2288 74		3 25	N 02 W	24 12		14 12
21	2383 00	2° 00'			3 28	NORTH	27 40		14 12
22	2476 00	2° 30'			4 10	N 16 E	31 34		15 25
23	2570 00	2° 45'			4 51	N 28 E	35 32		17 37
24	2663 00	3° 30'			5 68	N 20 E	40 66		19 31
25	2758 00	2° 45'	2757 20		4 56	N 20 E	44 95		20 87



RECORD OF SURVEY

JOB NO. WT-85364 - 85364A DATE 7/30/64, 8/5/64, 8/9/64,
85364B - 85364C & 85364D 8/12/64, & 8/14/64

CHECKED BY _____

STATION	MEASURED DEPTH	DRIFT ANGLE	TRUE VERTICAL DEPTH	VERTICAL SECTION	COURSE DEVIATION	DRIFT DIRECTION	RECTANGULAR COORDINATES			
							NORTH	SOUTH	EAST	WEST
26	2851 00	2° 45'			4 46	N 20 E	49 14		22 40	
27	2945 00	2° 15'			3 69	N 31 E	52 30		24 30	
28	3040 00	2° 15'			3 73	N 26 E	55 65		25 94	
29	3135 00	2° 00'			3 32	N 05 E	58 96		26 33	
30	3230 00	2° 15'	3228 82		3 73	NORTH	62 69		26 23	
31	3250 00	2° 15'			79	NORTH	63 48		26 23	
32	3325 00	2° 15'			2 94	NORTH	66 42		26 23	
33	3419 00	2° 00'			3 28	N 02 W	69 70		26 12	
34	3513 00	2° 00'			3 28	N 07 W	72 96		25 72	
35	3607 00	2° 30'	3605 53		4 10	N 15 W	76 92		24 66	
36	3701 00	2° 00'			3 28	N 17 W	80 06		23 70	
37	3796 00	2° 00'			4 14	N 17 W	84 02		22 49	
38	3891 00	2° 15'			3 73	N 17 W	87 59		21 40	
39	3984 00	2° 00'			3 25	N 16 W	90 71		20 50	
40	4078 00	2° 15'	4076 18		3 69	N 18 W	94 22		19 36	
41	4172 00	2° 00'			3 28	N 17 W	97 36		18 40	
42	4265 00	2° 00'			3 25	N 22 W	100 37		17 18	
43	4359 00	2° 00'			3 28	N 25 W	103 34		15 79	
44	4453 00	2° 00'			3 28	N 42 W	105 78		13 60	
45	4548 00	2° 15'	4545 67		3 77	N 48 W	108 30		10 80	
46	4642 00	2° 00'			3 28	N 61 W	109 89		7 93	
47	4736 00	2° 30'			4 10	N 64 W	111 69		4 24	
48	4829 00	2° 30'			4 06	N 63 W	113 53		0 62	
49	4923 00	2° 15'			3 69	N 69 W	114 85			2 82
50	5017 00	2° 15'	5014 49		3 69	N 74 W	115 87			6 37



RECORD OF SURVEY

JOB NO. WT-85364 - 85364A DATE 7/30/64, 8/5/64, 8/9/64,
85364B - 85364C & 85364D 8/12/64 & 8/14/64

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STATION	MEASURED DEPTH	DRIFT ANGLE	TRUE VERTICAL DEPTH	VERTICAL SECTION	COURSE DEVIATION	DRIFT DIRECTION	RECTANGULAR COORDINATES			
							NORTH	SOUTH	EAST	WEST
51	5032 00	2° 15'			0 59	N 68 W	116 09			6 92
52	5060 00	2° 30'			1 22	N 73 W	116 45			8 09
53	5154 00	2° 30'			4 10	N 76 W	117 44			12 07
54	5248 00	2° 45'			4 51	N 83 W	117 99			16 55
55	5342 00	2° 30'	5339 16		4 10	N 84 W	118 42			20 63
56	5436 00	2° 15'			3 59	N 85 W	118 74			24 31
57	5530 00	1° 45'			2 37	N 83 W	119 09			27 16
58	5624 00	2° 00'			3 28	WEST	119 09			30 44
59	5718 00	2° 00'			3 28	S 87 W	118 92			33 71
60	5812 00	2° 30'	5808 84		4 10	S 78 W	118 07			37 72
61	5906 00	2° 30'			4 10	S 79 W	117 29			41 74
62	6000 00	2° 30'			4 10	S 76 W	116 30			45 72
63	6020 81	2° 45'			99	S 75 W	116 04			46 68
64	6114 36	3° 15'			5 30	S 68 W	115 06			51 60
65	6207 00	3° 00'	6204 12		4 89	S 68 W	113 23			56 14
66	6302 01	3° 45'			6 15	S 60 W	110 15			61 47
67	6396 11	4° 00'			6 57	S 57 W	106 57			66 98
68	6490 21	4° 00'			6 57	S 67 W	104 01			73 02
69	6584 64	4° 00'			6 59	S 63 W	101 02			78 90
70	6679 18	3° 45'	6674 45		6 19	S 62 W	98 11			84 37
71	6772 48	3° 30'			5 70	S 67 W	95 89			89 61
72	6866 43	3° 30'			5 74	S 63 W	93 28			94 73
73	6961 00	3° 30'			5 78	S 62 W	90 57			99 81
74	6984 00	3° 30'			1 40	S 62 E	89 91			101 04
75	7006 00	4° 00'	7000 68		1 53	S 05 W	88 38			101 14

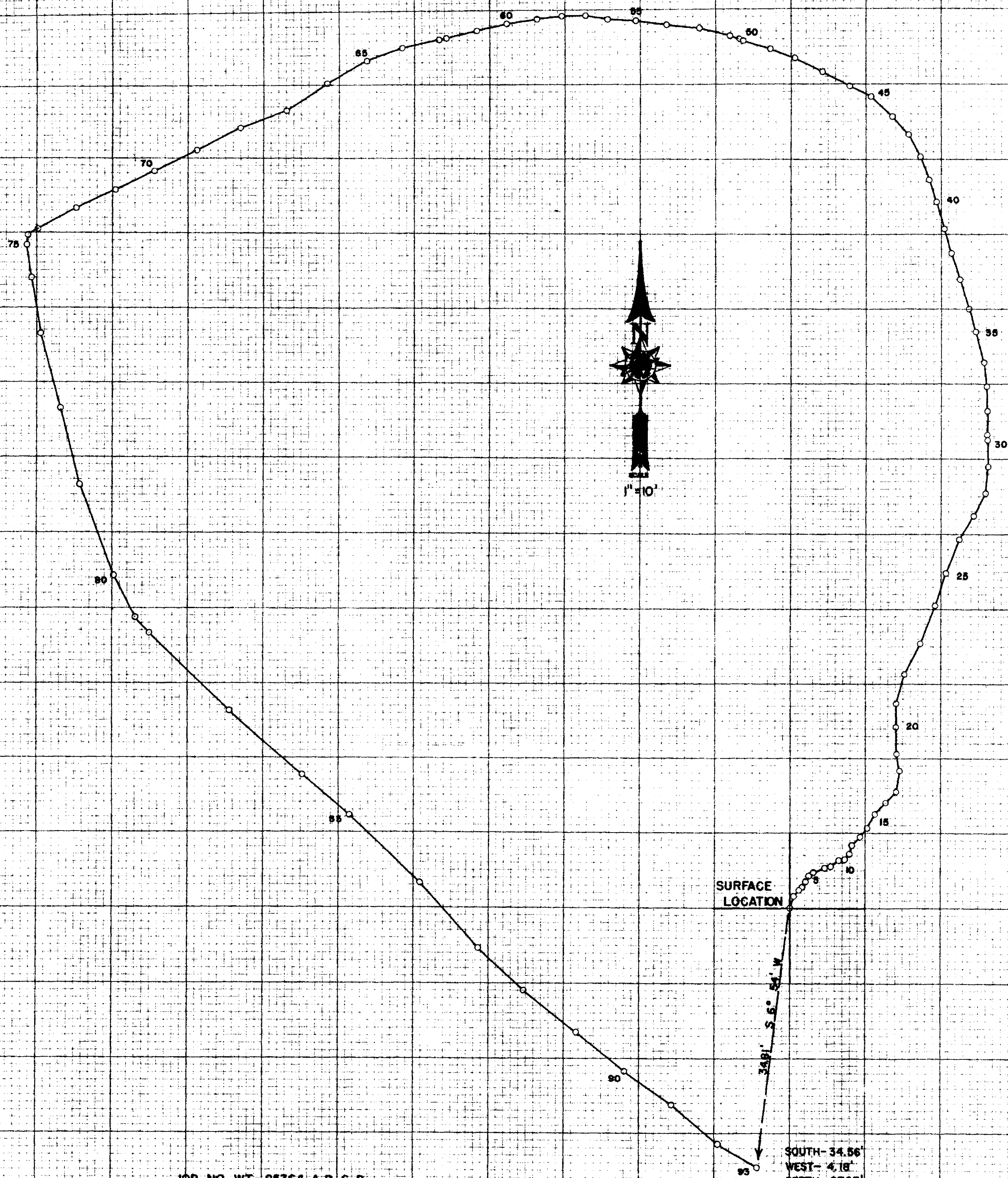


RECORD OF SURVEY

JOB NO. WT-85364 - 85364A DATE 7/30/64, 8/5/64, 8/9/64
85364B - 85364C & 85364D 8/12/64, & 8/14/64

CHECKED BY _____

STATION	MEASURED DEPTH	DRIFT ANGLE	TRUE VERTICAL DEPTH	VERTICAL SECTION	COURSE DEVIATION	DRIFT DIRECTION	RECTANGULAR COORDINATES			
							NORTH	SOUTH	EAST	WEST
76	7062 00	4° 30'			4 39	S 05 E	84 01			100 76
77	7152 00	4° 45'			7 45	S 10 E	76 68			99 46
78	7252 00	6° 00'			10 45	S 14 E	66 54			96 93
79	7346 00	6° 30'			10 64	S 15 E	56 28			94 17
80	7443 00	7° 30'	7435 22		12 66	S 20 E	44 36			89 84
81	7487 00	8° 00'			6 12	S 23 E	38 73			86 95
82	7505 00	8° 30'			2 66	S 46 E	36 88			85 04
83	7606 00	8° 30'			14 78	S 46 E	26 21			74 41
84	7701 00	7° 45'			12 68	S 49 E	17 62			64 84
85	7765 00	7° 30'	7754 07		8 35	S 50 E	12 25			58 44
86	7890 00	6° 00'			13 06	S 46 E	3 18			49 05
87	8016 00	5° 30'			12 07	S 46 E				41 37
88	8109 00	5° 15'			8 51	S 47 E		5 21		35 15
89	8227 00	4° 15'			8 74	S 51 E		11 02		28 36
90	8353 00	3° 45'	8339 83		8 24	S 51 E		16 52		21 96
91	8479 00	3° 30'			7 69	S 55 E		21 71		15 66
92	8636 00	3° 00'			8 21	S 49 E		26 12		9 46
93	8763 00	2° 45'	8749 22		6 10	S 60 E		31 51		4 18
CLOSURE							34.81'	SOUTH 6° 54'	WEST	



JOB NO. WT-85364-A-B-C-D

OIL CONSERVATION COMMISSION

P. O. BOX 871

SANTA FE, NEW MEXICO

HOBBS OFFICE O. C. C.

SEP 10 11 18 AM '64

September 4, 1964

C
Texaco Inc.
Drawer 728
Hobbs, New Mexico

Attention: Mr. H. D. Raymond

O
Gentlemen:

Reference is made to your letter dated August 26, 1964, wherein you request authority to complete your State of New Mexico "R" (NCT-3) Well No. 16, located 1655 feet from the South line and 330 feet from the East line of Section 1, Township 18 South, Range 34 East, Lea County, New Mexico, as a tubingless completion in the Vacuum Abo Reef Pool.

P
It is our understanding that 2-7/8 inch casing will be set at approximately 8800 feet and perforated from 8490 to 8666 feet in the Abo Reef formation. Sufficient cement will be used to come back into the intermediate casing string.

Y
Texaco Inc. is hereby authorized to complete the subject well in the afore-said manner.

Very truly yours,

A. L. Porter, Jr.
Secretary-Director

ALP:DSN:sg

cc: ✓ Oil Conservation Commission (with enclosure) Hobbs
Oil & Gas Engineering Committee - Hobbs

1964 AUG 13 PM 1 19

August 26, 1964

New Mexico Oil Conservation Commission
P. O. Box 2088
Santa Fe, New Mexico

Re: Application for Single Tubing-
less Completion, State of New
Mexico "R" (NCT-3) Well No. 16,
Vacuum (Abo Reef) Pool, Lea
County, New Mexico.

Attention: Mr. A. L. Porter, Jr.

Gentlemen:

TEXACO Inc. respectfully requests administrative approval of an exception to New Mexico Oil Conservation Commission Rule 107(e) for State of New Mexico "R" (NCT-3) Well No. 16. This well is a proposed single tubingless completion in the Vacuum (Abo Reef) Pool, and is located 330 feet from the east line and 1655 feet from the south line of Section 1, T-18-S, R-34-E, Lea County, New Mexico.

The production string consists of 2-7/8 inch O.D. casing set at 8800 feet in a 7-5/8 inch hole. Completion is through perforations from 8490 feet to 8666 feet in the Abo Reef formation. No corrosion has been encountered in other wells producing from this formation. Minor paraffin deposition has occurred for which the top 2000 feet of casing has been plastic coated to resist paraffin deposits.

This zone has been approved by the New Mexico Oil Conservation Commission as a tubingless completion in other single completions in this area. An instance is TEXACO Inc. State of New Mexico "R" (NCT-3) Well No. 15.

Attached is a diagrammatic sketch of the proposed tubingless completion and a plat showing the location of all wells on the State of New Mexico "R" (NCT-3) Lease and all

NMOCC

- 2 -

August 26, 1964

offset wells along with the name and addresses of all offset operators. A copy of this request is being sent this date to all offset operators by registered mail.

Your early consideration of this request would be greatly appreciated.

Yours very truly,


H. D. Raymond
Assistant District Superintendent

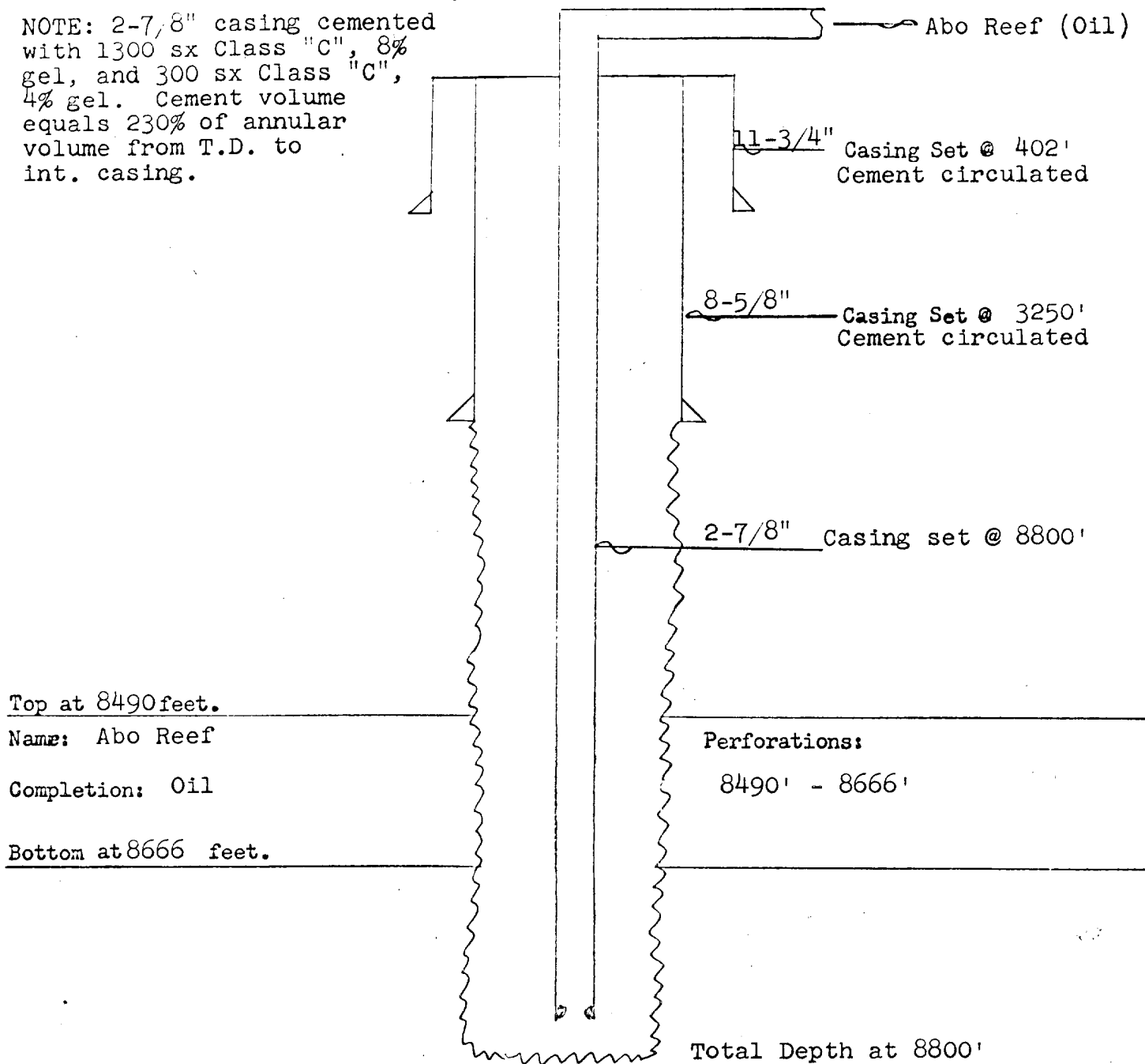
WPY-bh

CC: NMOCC, Hobbs
Offset Operators

Attachments

SKETCH OF TUBINGLESS COMPLETION (SINGLE)

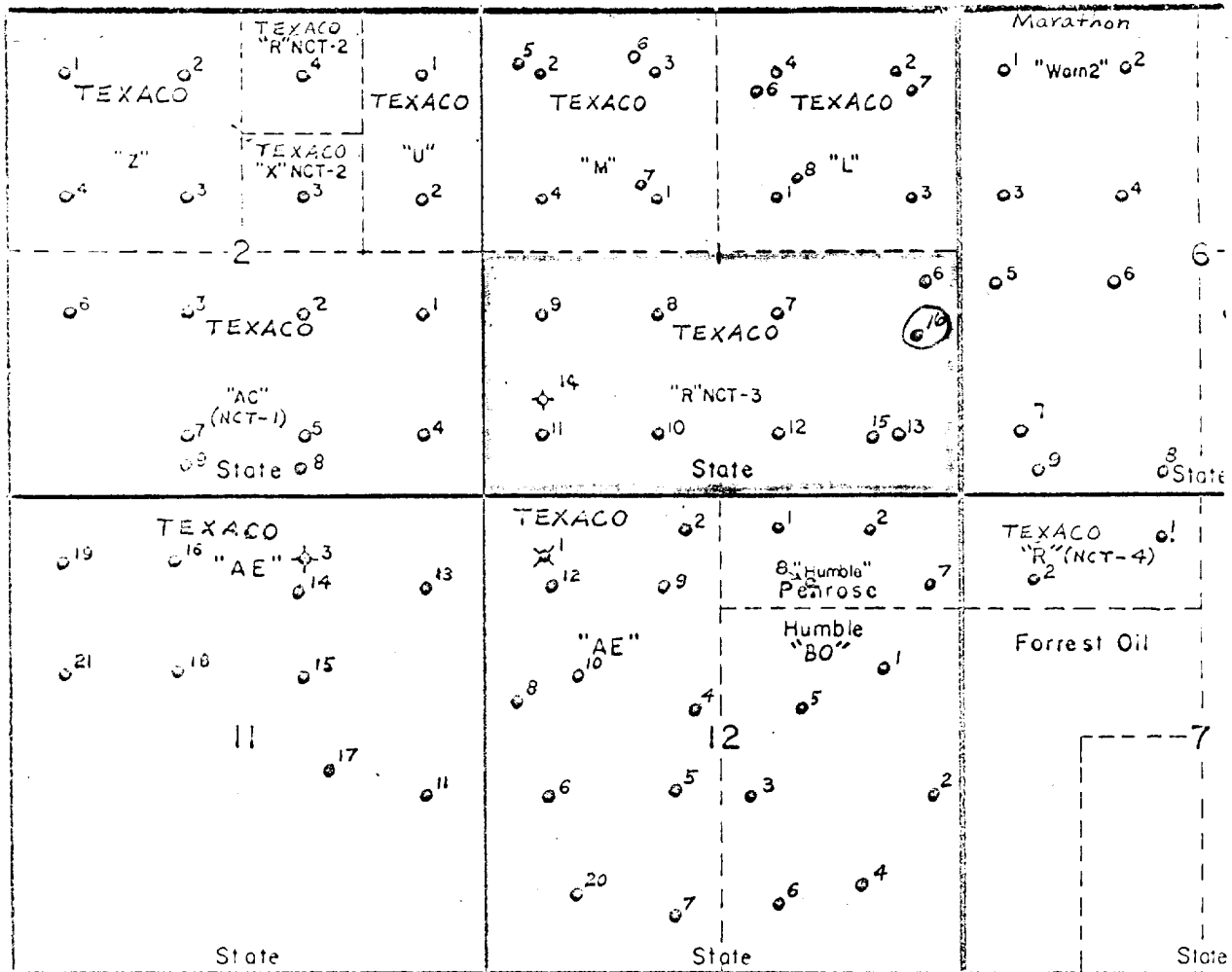
NOTE: 2-7/8" casing cemented with 1300 sx Class "C", 8% gel, and 300 sx Class "C", 4% gel. Cement volume equals 230% of annular volume from T.D. to int. casing.



TEXACO Inc.

LEASE: STATE OF NEW MEXICO "R" (NCT-3) WELL NO. 16
FIELD: VACUUM (ABO REEF)
DATE: AUGUST 26, 1964

R-34-E



TEXACO Inc.
 PLAT OF STATE OF NEW MEXICO "R"
 (NCT-3) LEASE
 Lea County, New Mexico
 Scale 1" = 2000'

OFFSET OPERATORS

Marathon Oil Company, Box 2107, Hobbs, New Mexico
 Humble Oil & Refining Company, Box 2347, Hobbs, New Mexico
 N. G. Penrose, Box 988, Eunice, New Mexico