

Submit to Appropriate  
District Office  
State Lease - 6 copies  
Fee Lease - 5 copies

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-101  
Revised 1-1-89

OIL CONSERVATION DIVISION

DISTRICT I  
P.O. Box 1980, Hobbs, NM 88240

DISTRICT II  
P.O. Drawer DD, Artesia, NM 88210

DISTRICT III  
1000 Rio Brazos Rd., Aztec, NM 87410

P.O. Box 2088  
Santa Fe, New Mexico 87504-2088

API NO. (assigned by OCD on New Wells) 30-025-30504
5. Indicate Type of Lease STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>
6. State Oil & Gas Lease No. E - 744 - 15
7. Lease Name or Unit Agreement Name  State E - 744 - 15
8. Well No. 1
9. Pool name or Wildcat Mescalero Escarpe (Bone Spring)

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. Type of Work: DRILL <input type="checkbox"/> RE-ENTER <input type="checkbox"/> DEEPEN <input type="checkbox"/> PLUG BACK <input checked="" type="checkbox"/>		7. Lease Name or Unit Agreement Name  State E - 744 - 15			
b. Type of Well: OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/> SINGLE ZONE <input checked="" type="checkbox"/> MULTIPLE ZONE <input type="checkbox"/>		8. Well No. 1			
2. Name of Operator Marathon Oil Company		9. Pool name or Wildcat Mescalero Escarpe (Bone Spring)			
3. Address of Operator P. O Box 552 Midland, Texas					
4. Well Location Unit Letter <u>I</u> : <u>2086</u> Feet From The <u>South</u> Line and <u>554</u> Feet From The <u>East</u> Line Section <u>15</u> Township <u>18-S</u> Range <u>33-E</u> NMPM <u>Lea</u> County					
10. Proposed Depth 9,537' PBTD		11. Formation Bone Spring			
12. Rotary or C.T. Rotary					
13. Elevations (Show whether DF, RT, GR, etc.) 3912.6 GL		14. Kind & Status Plug. Bond Blanket			
15. Drilling Contractor T.O.T. Drilling Corp.		16. Approx. Date Work will start Completed			
17. EXISTING PROPOSED CASING AND CEMENT PROGRAM					
SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	SACKS OF CEMENT	EST. TOP
17 1/2"	13 3/8"	48#	450'	410	Circ. (Surf.)
12 1/4"	9 5/8"	40 & 36#	3100'	1230	Circ. (Surf.)
8 3/4"	5 1/2"	15.5 & 17#	11,403'	2575	2500' (Est.)

Marathon Oil Company recompleted the above referenced well from the Wolfcamp, which was non-productive, to the Bone Spring on 7-18-89. Following is the recompletion procedure.

1. MIRU Pulling Unit.
2. ND Landing flange. NU BOP's.
3. RU wireline contractors.
4. RIH w/5 1/2" CIBP & set @ 9537'. Rd wireline contractors.
5. RIH w/2 7/8" workstring to 9525'. Circulated hole w/2% KCL. Tested CIBP to 1000 psig. Held OK.
6. POOH. RU wireline contractors.
7. RIH w/3 1/8" CSG. Gun w/full lubricator. Test lubricator to 1000 psig. Held OK.

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: IF PROPOSAL IS TO DEEPEN OR PLUG BACK, GIVE DATA ON PRESENT PRODUCTIVE ZONE AND PROPOSED NEW PRODUCTIVE ZONE. GIVE BLOWOUT PREVENTER PROGRAM, IF ANY.

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE [Signature] TITLE Hobbs Production Superintendent DATE 8-16-89

TYPE OR PRINT NAME J. R. Jenkins TELEPHONE NO. (915) 682-162

(This space for State Use) ORIGINAL SIGNED BY JERRY SEXTON  
DISTRICT I SUPERVISOR

APPROVED BY [Signature] TITLE  DATE

CONDITIONS OF APPROVAL, IF ANY:

AUG 25 1989

RECEIVED

AUG 24 1989

OCD  
HOBBS OFFICE

# ATTACHMENT I

## Item 17 (continued) Recompletion Procedure

8. Perforated Second Bone Spring Sand from 9434'-36', 9439'-43'; 9451'-54'; 9456'-61'; 9469'-76' w/1 JSPF (total 26 holes).
9. RD wireline contractors.
10. RIH w/ 5 1/2" RTTS pkr. & SN on 2 7/8" Tbg. to 9476'. Dropped standing valve.
11. RU Acidizers
12. Tested lines & Tbg. to 6000 psig. Held OK. Retrieved standing valve.
13. Spotted 250 gals. 7 1/2% HCL. PU to 9350'.
14. Reversed 6 BBLs. & set pkr. Pressured backside to 1000 psig.
15. Broke down formation @ 4000 psig @ 3 BPM. Opened bypass & spotted acid to pkr. Closed bypass, holding 1000 psig on backside.
16. Acidized Second Bone Spring Sand perfs from 9434'-9476' w/ 1750 gals. 7 1/2% HCL using 50 frac balls for diversion. AIR 3 1/2 BBL/min @ 3500 psig. Had good ball action. Surged balls off. Flushed to bottom perfs.
17. Released pressure, unset pkr. & RIH to 9490' to clear perfs.
18. PU to 9320' & set pkr. Pressure backside to 1500 psig.
19. Pumped 7000 gals. 2% KCL as prepad. Fractured Second Bone Spring Sand down 2 7/8" workstring w/ 26,746 gals. of 20/40 sand @ concentrations from 1 PPG-3 PPG. Screened out w/ 4746 gals. of 3 PPG in formation.
20. Flushed to top perfs. w/ 2% gelled KCL. AIR 12 1/2 BPM @ 4800 psig. MAX. PRESS. 5000 psig.
21. RD Acidizers.
22. RU wireline contractors w/ full lubricator.
23. Ran temp. survey. Zone of entry 9370'-9470'.
24. POOH & RD wireline contractors.
25. Opened well to frac tank on 12/64" choke. Well flowed 41 BW in 3 hrs. Increased choke to 16/64". Well flowed 26 BW in 1 hr. @ 100 psig. FTP.
26. Opened bypass on pkr. & killed well. Unseated pkr. & POOH.
27. RU wireline contractors w/full lubricator.
28. RIH w/ 3 1/8" casing gun. Tested lubricator to 1000 psig. Held OK.
29. Perforated First Bone Spring Sand from 8626'-33' w/ 2 JSPF. (Total 15 holes.)
30. RD wireline contractors.
31. RIH w/5 1/2" RBP, retrieving head, RTTS pkr. & SN on 2 7/8" Tbg. Set RBP @ 8810'. Tested to 1500 psig. Held OK. Dump bailed 2 sx. sand onto RBP.
32. RU acidizers.
33. RIH to 8635'. Spot 150 gals. 7 1/2% HCL. PU to 8492'. Reversed out 3 BBLs. Set pkr. Pressured backside to 1000 psig.
34. Broke down formation @ 3500 psig. @ 1 1/2 BBL/min. After breakdown formation took 3 BPM @ 3300 psig.
35. Open bypass & spot acid to pkr.
36. Acidized First Bone Spring Sand w/ 850 gals. 7 1/2% HCL using 30 frac balls for diversion. AIR 3 BBL/min @ 3200 psig. Max. rate 3 BBL/min @ 5000 psig. Good ball action. Surged balls off perfs. Flushed to bottom perfs w/ 2% KCL water.
37. Released pressure, unseat pkr. & RIH to 8665' to clear perfs. PU to 8640' & set pkr. Pressured backside to 1500 psig.
38. Pumped 7000 gals. 2% KCL as prepad @ 12 BBL/min @ 4600 psig. Fractured First Bone Spring Sand down 2 7/8" workstring w/ 19,700 gals. of 20/40 sand @ concentrations from 1 PPG - 5 PPG. Flushed to top perfs w/ 2% KCL. AIR 12 BBL/min. @ 4600 psig.
39. Released backside pressure.
40. RD Acidizers.
41. RU wireline contractors w/ full lubricator. Temp. survey tool did not work. POOH.
42. RD wireline contractors.
43. Opened well to frac tank on 12/64" choke. Well flowed 40 BW in 2 hrs. Increased choke to 16/64". Flowed 5 BW in 1 hr. w/ FTP of 50 psig.
44. Opened bypass & unseated pkr. RIH & circ. sand from RBP. RIH w/RBP & set @ 9520'. PU to 8460' & set pkr. Load & test backside to 500 psig. Held OK.
45. RU swab lubricator. FL @ surface. Swabbed 55 BW & 10 BO in 3 hrs.

Attachment I  
Recompletion Procedure  
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46. Opened well to frac tank on 12/64" choke. Flowed 18 BO & 0 BW in 45 min. w/ FTP of 205 psig.
47. Open pkr. Bypass. Released pkr. RIH & latched onto RBP. POOH. Laying down 2 7/8" workstring.
48. Changed rams to 2 3/8" Tbg. RIH w/ 2 3/8" mud anchor (slotted), SN, 31 jts. 2 3/8" Tbg. TAC & remaining production string. Set TAC @ 8518' in 12K# tension.
49. Installed pumping tee & valves.
50. RIH w/ gas anchor, pump & combination steel & fiberglass rod string.
51. Set pumping unit. Hung well on. Spaced out pump.
52. Placed well on test. Pumping to battery. On 8-15-89 well pumped 55 BO, 7 BW & 30 MCFGPD in 24 hrs. (Potential test).