

State of New Mexico
Energy, Minerals & Natural Resources

Form C-101
March 4, 2004

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

Oil Conservation Division
1220 S. St. Francis Dr.
Santa Fe, NM 87505

Submit to appropriate District Office
State Lease - 6 Copies
Fee Lease - 5 Copies

AMENDED REPORT

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

¹ Operator Name and Address Marathon Oil Company P.O. Box 3487, Houston Texas 77253-3487		² OGRID Number 14021
		³ API Number 30- 025-25304
⁴ Property Code 006488	⁵ Property Name Lou Worthan	⁶ Well No. 15

⁷ Surface Location									
UL or lot no.	Section	Township	Range	Lot. Idn	Feet from the	North/South Line	Feet from the	East/West line	County
G	11	22-S	37-E		1980	North	1860	East	Lea

⁸ Proposed Bottom Hole Location If Different From Surface									
UL or lot no.	Section	Township	Range	Lot. Idn	Feet from the	North/South Line	Feet from the	East/West line	County
⁹ Proposed Pool 1 Tubb Oil & Gas					¹⁰ Proposed Pool 2				

Drilling Pit Location and Other Information									
UL or lot no.	Section	Township	Range	Lot. Idn	Feet from the	North/South Line	Feet from the	East/West line	County
Depth to ground water			Distance from nearest fresh water well			Distance from nearest surface water			
¹¹ Work Type Code A		¹² Well Type Code G		¹³ Cable/Rotary		¹⁴ Lease Type Code P		¹⁵ Ground Level Elevation 3353'	
¹⁶ Multiple		¹⁷ Proposed Depth		¹⁸ Formation		¹⁹ Contractor		²⁰ Spud Date	

²¹ Proposed Casing and Cement Program						
Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC	
<p><i>Permit Expires Date Unless Year From Approval Drilling Underway Adding</i></p>						

²² Describe the proposed program. If this application is to DEEPEN or PLUG BACK, give the data on the present productive zone and proposed new productive zone. Describe the blowout prevention program, if any. Use additional sheets if necessary.

Marathon Oil Company requests permission to to recomplete the Lou Worthan No. 15 to the Tubb Oil & Gas reservoir. The Lou Worthan No. 15 is currently a producing pumping well, which is downhole commingled under DHC # 1015 in the Drinkard and Wantz Abo reservoirs. Marathon plans to isolate those two zones under a retrievable bridge plug until the Tubb reservoir is drawn down. Marathon will then be seeking permission to downhole commingle the well in all three zones. Please see the attached documentation for workover plans and a well bore diagram as it is currently producing.

²³ I hereby certify that the information given above is true and complete to the best of my knowledge and belief. I further certify that the drilling pit will be constructed according to NMOCD guidelines a general permit , or an (attached) alternative OCD-approved plan

Signature: *Charles E. Kendrick*

Printed name: **Charles E. Kendrick**

Title: **Engineering Technician**

E-mail Address: **cekendrix@MarathonOil.com**

Date: **07/07/2004**

Phone: **713-296-2096**

OIL CONSERVATION DIVISION	
Approved by:	<i>Paul J. Kendrick</i>
Title:	PETROLEUM ENGINEER
Approval Date:	NOV 24 2004
Expiration Date:	
Conditions of Approval:	
Attached	<input type="checkbox"/>

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State of New Mexico
Energy, Minerals & Natural Resources

Form C-102
Revised June 10, 2003

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-025-25304		² Pool Code 86440		³ Pool Name Tubb Oil & Gas (Gas)	
⁴ Property Code 006488		⁵ Property Name Lou Worthan			⁶ Well Number 15
⁷ OGRID No. 14021		⁸ Operator Name Marathon Oil Company			⁹ Elevation 3353'

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot. Idn	Feet from the	North/South line	Feet from the	East/West line	County
G	11	22-S	37-E		1980	North	1860	East	Lea

¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot. Idn	Feet from the	North/South line	Feet from the	East/West line	County

¹² Dedicated Acres 160.40	¹³ Joint or Infill N	¹⁴ Consolidation Code	¹⁵ Order No. NSP-1870
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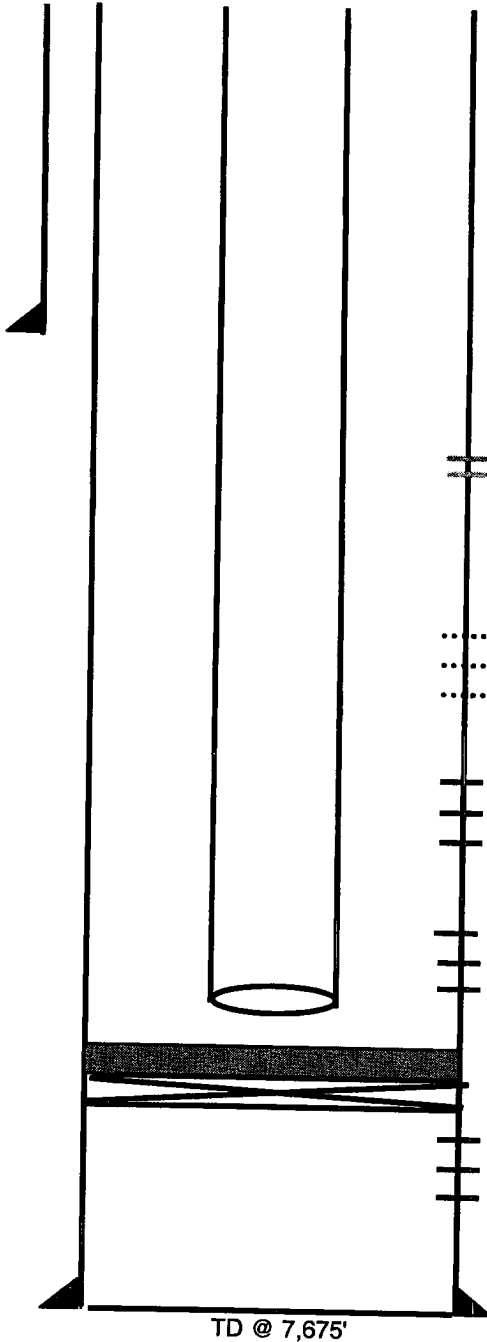
NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

<p>¹⁶</p>	<p>¹⁷ OPERATOR CERTIFICATION</p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</p> <p><i>Charles E. Kendrix</i> Signature</p> <p>Charles E. Kendrix Printed Name</p> <p>Engineering Technician Title and E-mail Address cekendrix@MarathonOil.com</p> <p>07/09/2004 Date</p>
	<p>¹⁸ SURVEYOR CERTIFICATION</p> <p>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.</p> <p>Date of Survey Signature and Seal of Professional Surveyer:</p> <p>Certificate Number</p>

6107-14, 6120-28 (258 holes). [Perforations depths are picked from Schlumberger Compensated Neutron-Formation density log ran on 8/15/76] POOH. RD Baker Atlas.

8. TIH w/ packer on 2-7/8" workstring. Set pkr at 6,036'. MIRU Halliburton. Test lines to 5,000 psi. Acidize lower interval (6,040' - 6,128') w/2,500 gals 15% HCl dropping **110** 1.3 SG ball sealers at a rate of 6-8 BPM. Flush to top perf.
9. Release pkr and TIH and retrieve RBP. PUH and set RBP at 6,036' and pkr at 5,900'. Acidize middle interval (5,920' - 6,028') w/3,500 gals 15% HCl dropping **150** 1.3 SG ball sealers at a rate of 6-8 BPM. Flush to top perf.
10. Release pkr and TIH and retrieve RBP. PUH and set RBP at 5,900' and pkr at 5,720'. Acidize upper interval (5,772' - 5,882') w/3,000 gals 15% HCl dropping **150** 1.3 SG ball sealers at a rate of 6-8 BPM. Flush to top perf. RD Halliburton.
11. Release pkr. TIH and release RBP. TIH and reset RBP at 6,160'. PUH and reset packer 5,720'
12. RU Swab equipment. Swab back acid load. RD swab equipment. Release packer and TOOH w/packer and workstring.
13. Change out pipe rams to 3-1/2". TIH w/7" packer on 3-1/2" frac string, hydrotesting to 8,000 psi. Set packer at 5,720'. Test packer to 1,000 psi.
14. RU Halliburton. Install treating lines and frac valve. Pressure test line to 9,000 psi. Sand fracture stimulate the Tubb as per attached recommendation. Anticipated treating pressure = 6,500 psi. Maximum treating pressure = 8,000 psi. RD Halliburton.
15. Install flowback manifold. Flowback well until well dies.
16. RIH w/sinker bar on sandline and tag sand. Release packer and TOOH w/3-1/2" frac string, laying down.
17. TIH w/overshot for RBP, SN on 2-3/8" production string. Swab back frac load. TIH and release RBP. TOH w/same
18. TIH w/mud anchor, SN on 2-3/8" production tbg. Space out tubing w/SN ~7,040
19. ND BOPE and NU wellhead. TIH w/pump & rods. Space out pump. Hang well on. Connect surface equipment. RD WOR and MOL. Start pumping well to production facilities.

XC: R. S. Bose
W. H. Arnett
B. D. Lockhart
Well File



TD @ 7,675'

Field: Drinkard

Lease & Well: Lou Worthan Well No. 15

Location: Unit G, 1,980' FNL & 1,860' FEL
Section 11, T-22-S, R-37-E

County & State: Lea County, New Mexico

Status: Active pumping well

TD: 7,675' **PBTD:** 7,047' **GL:** 3,353' **KB:** 3,365'

Surface Casing: 9-5/8", 32.3#, H-40 ST&C casing set @ 1,259': Cmt'd w/650 sks.

Production Casing: 7", 23# & 26#, K-55 & N-80 casing set @ 7,675' w/DV tool @ 4,500'. 1st stage - 730 sks. 2nd stage - 1,700 sks.

9-5/8" at 1,259'

DV Tool @ 4,500'

Proposed Tubb
5,772' - 6,128'

Drinkard
6,194' - 6,420'

Abo
6,674' - 7,006'

PBTD at 7,047'

Granite Wash
7,080' - 7,626'

7" at 7,675'

Present Completion:

Drinkard 6,194' - 6,420'

Abo 6,674' - 7,006'

History:

October 1976 - Drilled. Granite Wash completion unsuccessful. Completed as dual producer in Drinkard & Abo
Drinkard - IP'd at 1,934 MCFD. Abo - IP'd at 1,026 MCFD
March 1984 - Added pay in Drinkard & Abo.
June 1994 - Downhole commingled Drinkard & Abo