District I
PO Box 1980, Hobbs, NM 88241-1980
District II
811 S. 1st Street, Artesia, NM 88210-2834
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe, NM 87505

Form C-101
Revised October 18, 1994
Instructions on back
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	2 OGRID Number
Marathon Oil Company P.O. Box 552 Midland, TX 79702	14021
	3 API Number 30-0 25-29469

4 Property Code	5 Property Name	6 Well No.
6488	LOU WORTHAN	19

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
D	11	22-S	37-E		680	NORTH	880	WEST	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	10 Proposed Pool 2
BLINEBRY OIL, GAS	

11 Work Type Code	12 Well Type Code	13 Cable/Rotary	14 Lease Type Code	15 Ground Level Elevation
P	O	N/A	S	3368' G.L.
16 Multiple	**17 Proposed Depth**	**18 Formation**	**19 Contractor**	**20 Spud Date**
NO		BLINEBRY	POOL	N/A

21 Proposed Casing and Cement Program

Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
12.25"	9.625"	32	1200'	700	CIRCULATED
8.75"	7"	26	7400'	1900	CIRCULATED

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

PROPOSE TO ABANDON EXISTING ABO PERFS AND PLUG BACK TO RECOMPLETE IN BLINEBRY.
WELL IS A PROPOSED BLINEBRY OIL WELL.

Plug-Back

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

Signature: W. J. Dugan Jr./dc

Printed name: R. J. LONGMIRE

Title: DRILLING SUPERINTENDENT

OIL CONSERVATION DIVISION

Approved by:

Title:

Approval Date: Expiration Date:

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Instructions on back
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State Lease - 4 Copies
Fee Lease - 3 Copies

[X] AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number	2 Pool Code	3 Pool Name
30-025-29469	6660	BLINEBRY OIL, GAS

4 Property Code	5 Property Name	6 Well Number
6488	LOU WORTHAN	19

7 OGRID No.	8 Operator Name	9 Elevation
14021	Marathon Oil Company	3368' G.L.

10 Surface Location

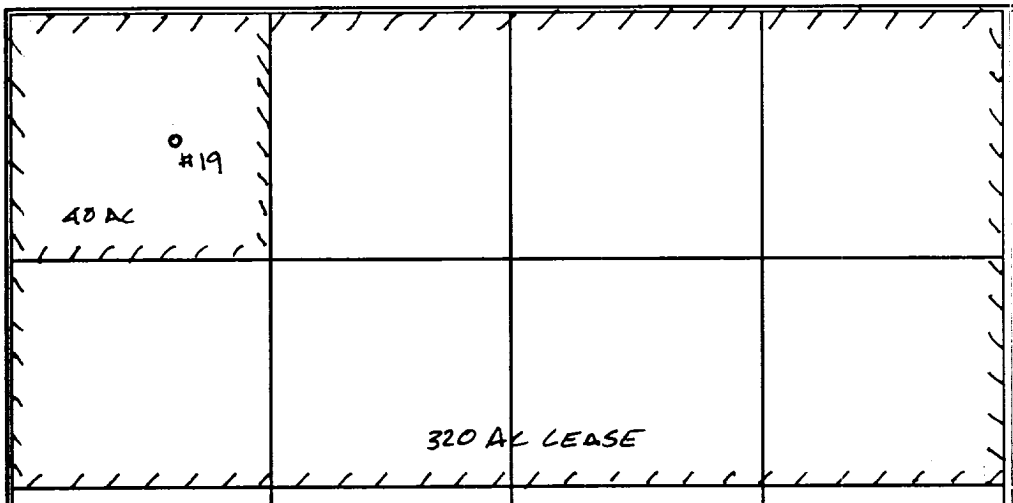
UL or lot no.	Section	Township	Range	Lot. Idn	Feet from the	North/South Line	Feet from the	East/West line	County
D	11	22-S	37-E		680	NORTH	880	WEST	LEA

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	13 Joint or Infill	14 Consolidation Code	15 Order No.
40-NW/4, NW/4			

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



17 OPERATOR CERTIFICATION

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

R. J. Longmire

Signature
R. J. LONGMIRE
Printed Name
DRILLING SUPERINTENDENT
Title
2/8/99
Date

18 SURVEYOR CERTIFICATION

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.

Date of Survey

Signature and Seal of Professional Surveyer:

Certificate Number

Lou Worthan #19
Drinkard Field
680' FNL and 880' FWL
Section 11, T-22-S, R-37-E

AFE Number: 303299

Date: January 29, 1999

Purpose: Recomplete to the Blinebry formation

Elevation: 3382'KB 3368'GL

Estimated Cost: $129,000

Estimated Recompletion Duration: 9 days

WI: 100% NRI: 87.5%

Drillers TD: 7400' PBTD: 7050' CIBP

Surface Casing: 9-5/8", 32# H-40 casing @ 1200'. Cemented w/ 400 sacks of "Lite" & 300 sacks of Class "C" w/ 2% $CaCl_2$.

Production Casing: 7", 26# K-55 casing @ 7400' with float collar @ 7361' to a DV tool @ 3998'. 7", 23# K-55 casing from 3997' to surface. TOC approximately 2300' from CBL.

Tubing Head: (most likely) 11" 3M psi x 7 1/16" 3M psi Dual

Tubing String: 207 jts of 2-3/8" 4.7# J-55 tubing, 7"x2-3/8" tubing anchor @ 6505', 16 jts of 2-3/8" 4.7# J-55 tubing, 2-3/8" API seating nipple @ 7009', and a 16' 2-3/8" slotted mud anchor to a depth of 7027'.

Rod String: 1-2' 7/8" rod sub, 1-8' 7/8" rod sub, 86-7/8" steel rods, 193-3/4" steel rods, and a 2" x 1-1/2" x 20' RHBC.

Existing Perforations: Abo (2 JSPF, 1997): 6546-56', 6574-94', 6611-16', 6615-28', 6631-34', 6650-64', 6675-82', 6692-95', 6698-6702', 6710-16', 6726-38', 6744-46', 6754-57', 6762-68', 6772-78', 6782-85', 6794-97', 6802-12', 6818-24', 6834-40' (264 holes)
Abo (1 JSPF, 1986): 6549', 75', 82', 88', 6605', 13', 26', 32', 63', 76', 6711', 65', 73', 95', 6808', 19', 35', 89', 6941', 58', 77', 98', 7010', 24' (24 holes)

Abandoned Perfs: Granite Wash (2 JSPF, 1986): 7069', 72', 74', 76', 82', 89', 7107', 10' (18 holes), perfs open, CIBP @ 7050'.

Tubular Capacities: 7", 23# K-55 casing – (80% Burst = 3488 psi)
3-1/2", 9.3# L-80 workstring – (80% Burst = 8128 psi)

Anticipated Bottom Hole Pressure: Blinebry - 1500 psi

Safety Considerations: Run a sufficient amount of killstring during any extended shut-in period.

PROCEDURE:

1.) Notify Hobbs personnel of impending workover.

2.) MIRUPU. Kill well as necessary. Disconnect surface equipment. Lay down polish rod. POOH with rods and pump.

3.) ND tree. NU 7-1/16" 5M Hydraulic BOPE with 2-3/8" pipe rams and two valves below blind rams & DSA (Note: Check tubing spool and tubing hanger to insure hanger will pass through BOP's). Release tubing anchor. POOH and visually inspect tubing. RIH with packer-type RBP. Set RBP at ± 100'. Pressure test casing and pipe rams to 1500 psi. POOH with 2-3/8" tubing. Pressure test casing and blind rams to 1500 psi. RIH and latch onto RBP. Release RBP and POOH.

4.) RU electric line company with pack-off and RIH to ~6500' with gauge ring for 7", 26# casing. Wireline dump bail 35' of cement on CIBP at 7050'. RIH with 2-3/8" tubing set CIBP below a 7" packer. Set CIBP at ± 6500'. PUH one stand and set packer. Pressure test plug to 1500 psi. Spot 35' of cement down tubing onto CIBP. POOH.

5.) Install a 7-1/16" 3M valve. RU lubricator and test to 1000 psi. Using a Gamma gun to correlate depth w[illegible] Welex open hole log dated 12/20/85, perforate [illegible] Blinebry formation with 4 JSPF 90 degree [illegible]sing 4" port guns with 23 gram tungsten-lined [illegible]rges between: 5664-74', 5684-98', 5727-31', 5735-41', 5744-66', 5769-75' (248 shots). RD Electric Line Company, lubricator and frac valve.

6.) Change 2-3/8" pipe rams to 3-1/2" and test (while RIH with workstring, set packer at ± 100'). RU Hydrotesters. Pick up and RIH with a 7" treating packer and seating nipple on 3-1/2" 9.3# L-80 workstring to ± 5500' hydrotesting to 8200 psi. RD Hydrotesters. Set packer at ± 5500'. Load and test annulus to 1000 psi.

7.) RU acid company. Pressure test surface lines to 7500 psi and pressure annulus to 500 psi. Acidize with 2000 gals of 15% Ferchek SC with 100 1.3 SG ball sealers at 3 - 5 BPM. Flush to bottom perf with 2% KCl water. Surge the balls after acid job. Anticipated treating pressure = 2500 psi. RD acid company.

8.) RU swab equipment. Notify Midland New Mexico Engineering Department with results. RD swab equipment.

9.) RU flowback manifold. RU stimulation company and Protechnics. Install treating lines and frac valve. Pressure test lines to 9000 psi. Install pop off valves set at 1500 psi on casing valves and pressure annulus to ± 500 psi. Sand fracture stimulate the Blinebry as per attached recommendation. Anticipated treating pressure = 3850 psi. Maximum treating pressure limit = 8200 psi. Flush to top perf with linear gel. Flow back frac at 2-3 BPM. RD stimulation company and Protechnics.

10.) Flow well back to frac tank to recover load or until well dies.

11.) Install a 7-1/16" 3M valve. RU lubricator and RIH with sinker bar on sand line to check for fill. If sand is encountered in the workstring, RU coiled tubing and nitrogen unit and clean out to PBTD. Unset packer. POOH with 3-1/2" workstring and lay down. Kill well as necessary, minimizing load. Change out pipe rams to 2-3/8" and test. RIH with 7" packer and on/off tool with profile nipple on 2-3/8" tubing. Set packer at ± 5500'.

12.) RU swab equipment. Notify Midland New Mexico Engineering Department with results. RD swab equipment.

13.) RU Slickline Company. Install a 7-1/16" 3M valve. RU lubricator and pressure test to 1000 psi. RIH with sinker bar on wireline to check for fill. If necessary, release packer, TIH and circulate wellbore clean. Run Protechnics SpectraScan Imager log from 6100' to 5400'.

14.) If during swabbing the well kicks off flowing (if not, go to step 16), set blanking plug in On/Off tool. Release On/Off tool and space out tubing string. Displace casing with packer fluid and engage On/Off tool. Pressure test tubing and packer to 1000 psi.

15.) ND BOPE, NU flowing wellhead and test. RU lubricator and swab down tubing. Pull blanking plug. RD lubricator. Proceed to step 18.

16.) If well does not kick off flowing, unset packer and POOH with tubing. RIH with slotted mud anchor, seating nipple, 2-3/8" tubing, 7" x 2-3/8" TAC, and 2-3/8" production tubing. Set TAC at ± 5300'.

17.) ND BOPE. NU pumping wellhead and test. RIH with pump and rod string. Space out plunger and hang well on. Reconnect surface equipment.

18.) RDMOPU.

19.) Monitor production and producing fluid levels.

Xc: D.K. Barker
R.L. Kleiv
T.P. Kacir
W.S. Landon
S.F. Millican

Wellfile

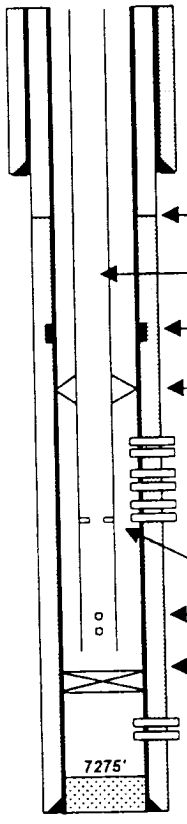
MARATHON OIL COMPANY
MID-CONTINENT REGION
MIDLAND OPERATIONS NORTHWEST NEW MEXICO

DATE: 01/29/99
BY: TL CHASE
WELL: 19
STATE: NEW MEXICO

FIELD: DRINKARD
LEASE: LOU WORTHAN
COUNTY: LEA

GL = 3368'
KB = 3382'

STATUS: Rod Pumping From The ABO Formation
COMPLETED: Feb-86
LOCATION: 680' FNL & 880' FWL, SECTION 11, TOWNSHIP 22S. RANGE 37E



9-5/8" 32# H-40 @ 1200' w/700 Sx (Circ'd)
(400 Sx Lite & 300 Sx "C" w/2% CaCl2)

Appx TOC @ 2300' By CBL 1/86

223 Total Jts 2-3/8" 4.7# J-55 EUE 8rd Tubing @ 7207'

DV Tool @ 3998'

7" TAC @ 6505'

(Upper Abo 8/97) **(2 JSPF/120 Degrees):** 6546-56 74-94 6611-16 15-28 31-34 50-64 75-82 92-95 6698-6702 10-16 26-38 44-46 54-57 62-63 72-78 82-85 94-97 6802-12 18-24 34-40' **(264 Holes)**

(Lower Abo 1 & 2/86) **(1 JSPF):** 6549 75 82 88 6605 13 26 32 63 76 6711 65 73 95 6808 19 35 89 6941 58 77 98 7010 24' (24 Holes)

2-3/8" SN @ 7009'

2-3/8" Slotted MA @ 7027'

7" CIBP @ 7050'

(Granite Wash 1/86) **(2 JSPF):** 7069 72 74 76 82 89 95 7107 10' (18 Holes)

7" 26# K-55 @ 7400' w/1995 Sx (Circ'd 150 Sx) - *Float Collar @ 7361'*
(1st Stage: 585 Sx DLW 50/50 "C" w/2.9# Salt & 25# Flocele Per Sack)
(2nd Stage: 1410 Sx DLW-5 "C" w/4% Gel & 6# Salt Per Sack)

PBTD: 7050'
TD: 7400'

Tubing Detail
207 Jts 2-3/8" Tbg
2-3/8" TAC @ 6505'
16 Jts 2-3/8" Tbg
2-3/8" SN @ 7009'
2-3/8" Slotted MA @ 7027'

Rod Detail
1 - 2' 7/8" Rod Sub
1 - 8' 7/8" Rod Sub
86 - 7/8" Steel Rods
193 - 3/4" Steel Rods
2" x 1-1/2" x 20' RHBC Pump

Well History

Jan 86' Perf'd Granite Wash. Treated w/900 Gal NARS 201 w/27 BS's. Frac'd w/20,328 Gal YFGO II w/17,500# 20/40 sand. Formation unproductive. C/O to 7275'. Set CIBP @ 7050'. Perf'd Lower Abo 6765-7024'. Acdzd w/3000 Gal 15% Hcl. Frac'd w/18,200 Gal XLA 5-20% Hcl w/7800 Gal CO2. AIR-14.5 BPM, AIP=6700#.

Feb 86' Perf'd Lower Abo 6549-6711'. Acdzd same w/3000 Gal 15% Hcl w/16 BS's. AIR=3.5 BPM, AIP=2550#. Ret to prod flwg w/ compression pkr set @ 17,000# @ 6387'. Open perfs 6549-7024'.

Feb 93' POOH LD pkr. RIH w/plunger lift equipment w/SN @ 6794' & slotted MA @ 6810'. Ret to prod.

Aug 97' Perf'd Upper Abo 6546-6840'. Acdzd same w/10,000 Gal 15% Ferchek w/400 BS's. AIR=7.6 BPM, AIP=4400#. Set 2-3/8" slotted MA @ 7027' on 223 jts tbg. Ran rods. Ret to prod.