

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 Marathon Oil Company P.O. Box 552 Midland Tx. 79702		² OGRID Number 14021
⁴ Property Code		³ API Number 30-0 30-025-34067
⁵ Property Name LAUGHLIN		⁶ Well No. #2

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"	9	20-S	37-E		2310'	NORTH	2310'	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 MONUMENT PADDOCK					¹⁰ Proposed Pool 2				

¹¹ Work Type Code A	¹² Well Type Code O	¹³ Cable/Rotary N/A	¹⁴ Lease Type Code F	¹⁵ Ground Level Elevation 3541 G.L.
¹⁶ Multiple NO	¹⁷ Proposed Depth 6700'	¹⁸ Formation PADDOCK	¹⁹ Contractor NO	²⁰ Spud Date NO

²¹ Proposed Casing and Cement Program

Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
11" SURFACE	8-5/8"	24#	1268'	650	SURFACE
7-7/8"	5-1/2"	15.50#	7050'	1405	SURFACE

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 ISOLATE TUBB PERFS, FROM 6408' TO 6589' W/ RBP SET @ 6350'.
PERFORATE PADDOCK PERFS. 5166' TO 5206' 2-JSPF AND STIMULATE AS PER ATTACHED RECOMPLETION PROCEDURE.
PLAN TO ZONE TEST PADDOCK PERFS. AND POSSIBLY COMMINGLE TUBB AND PADDOCK .

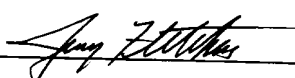
Permit Expires 1 Year From Approval Date Unless Drilling Underway

Adding

* SURFACE AND PRODUCTION CSG. CEMENTED IN PLACE.

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

Signature:



Printed name:

JERRY FLETCHER

Title:

ENGINEER TECH.

OIL CONSERVATION DIVISION

Approved by:

Title:

Approval Date:

Expiration Date:

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OIL CONSERVATION DIVISION
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Form C-102
Revised October 18, 1994
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State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

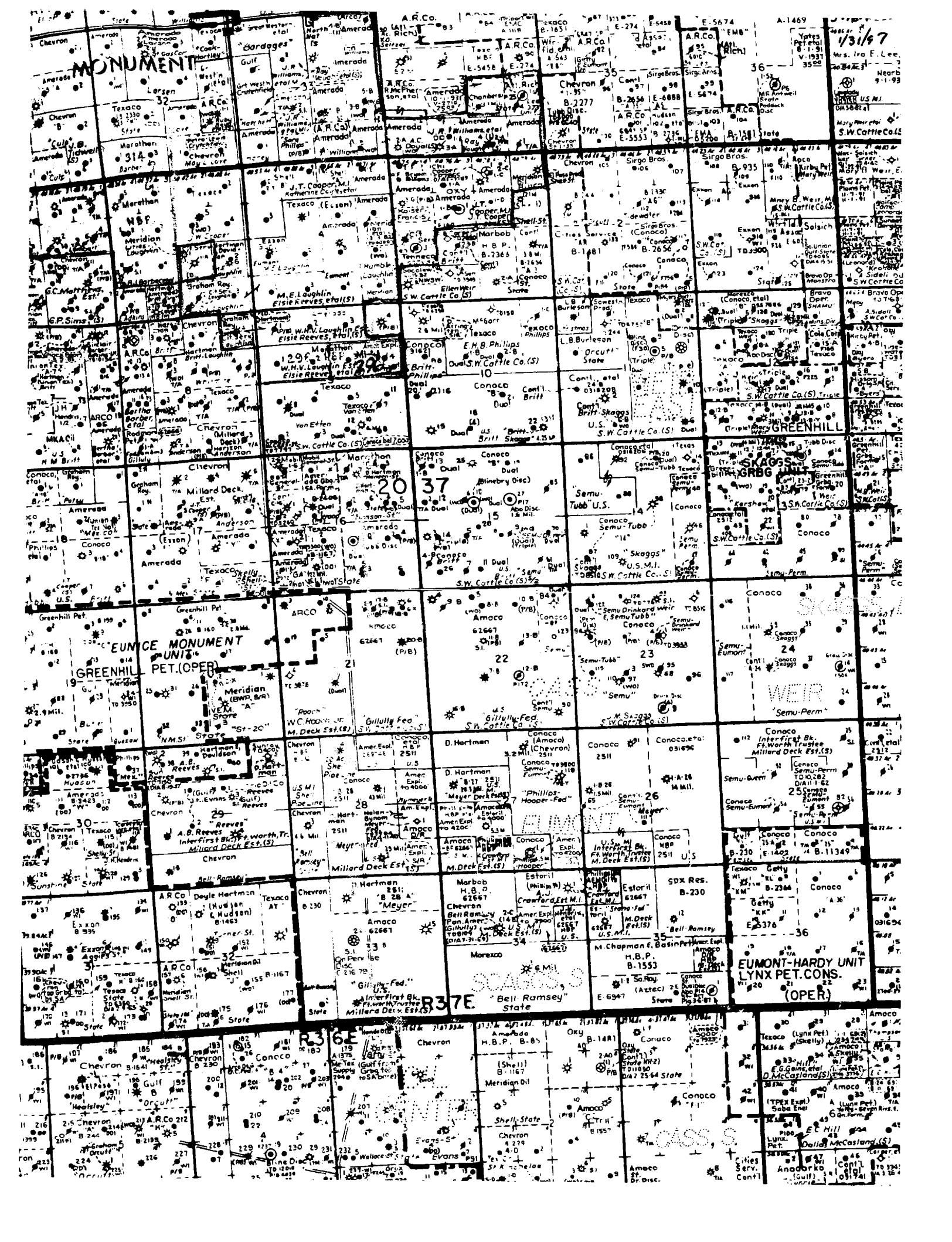
¹ API Number 30-025-34067		² Pool Code 47080	³ Pool Name MONUMENT Paddock
⁴ Property Code	⁵ Property Name LAUGHLIN		⁶ Well Number # 2
⁷ OGRID No. 14021	⁸ Operator Name Marathon Oil Company		⁹ Elevation 3541 G.L.

¹⁰ Surface Location									
UL or lot no. "G"	Section 9	Township 20-S	Range 37-E	Lot. Idn	Feet from the 2310'	North/South Line NORTH	Feet from the 2310'	East/West line EAST	County 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 40	¹³ Joint or Infill	¹⁴ Consolidation Code		¹⁵ Order No.					

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

160 Acre Lease Boundary 2310' Laughlin # 2 2310' 40 Acre Proration Unit	¹⁷ OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.	
	Signature <u><i>Jerry Fletcher</i></u> Printed Name JERRY FLETCHER Title DRILLING ENGINEER TECH Date 05-8-00	
	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 _____	



Workover Procedure

Laughlin No. 2

2310' FNL, 2310' FEL
Section 9, T20S & R37E, U/L "G"
Monument Field, Lea County, New Mexico

AFE NO.: 302400

Date: May 8, 2000

Purpose: Re-complete well in the Paddock formation, and down-hole commingle with Tubb

Elevation: **KB:** 3557' **PBTD:** 6700'
GL: 3541' **TD:** 7050'

Estimated Cost: \$63,000

Estimated Re-completion Duration: 8 days

WI: 100% **NRI:** 83%

Surface Casing: 8-5/8", 24#, J-55, 8rd ST&C, casing set to 1268'. Cemented w/ 450 sx. Class "C" w/ 4% gel, 2% CaCl₂ mixed at 13.5 PPG and 1.74 yield, tailed in w/ 200 sx. Class "C" w/ 2% CaCl₂. Circulated 100 sx. to pit.

Production Casing: 5-1/2", 15.5#, J-55, 8rd LT&C, casing set to 7050'. Cemented in two stages w/ DV tool at 4530'. 1st stage w/ 575 sx. Class "C" w/ 3% KCL, 0.2% Defoamer, 0.2% Dispersant, 0.2% FLA mixed at 14.8 PPG and 1.35 yield. Circulated 130 sx. to pit.

2nd stage w/ 630 sx. Class "H" w/ 16% gel, 3% salt, 0.2% Defoamer, 0.3% Dispersant, 0.3% FWC, ¼ #/sx. Celloflake mixed at 12 PPG and 2.77 yield. Tailed in w/ 200 sx. Class "C" w/ 3% KCL, 0.2% Defoamer, 0.2% Dispersant, 0.2% FLA, mixed at 14.8 PPG and 1.35 yield. Circulated 80 sx. to pit.
ID = 4.950" Drift = 4.825" Burst = (80% = 3848 psi)

Production Tubing: 194 jts. of 2-3/8", 4.7#, J-55 tubing with a 5-1/2" TAC at 6176', 12 jts. of 2-3/8", 4.7#, J-55 tubing, 2 jts. of 2-3/8", J-55 ceramic tubing, a seating nipple at 6554', a 4' perf sub at 6558', and an OE mud joint at 6590'

Rod String / Pump: 1-4', and 1-6' 7/8 pony rods, 97-7/8" grade "D" rods, 153-3/4" grade "D" rods, 12-3/4" guided grade "D" rods, 2"x1-1/2"x16'x4' RWBC Pump, and 1-8' Gas Anchor

Perforations: Existing (Tubb) 6408', 6425', 6441', 6448', 6450', 6452', 6458', 6462'-63', 6473', 6475', 6484', 6493'-95', 6502', 6513', 6524', 6530', 6532', 6540', 6565'-67', 6575', 6578', 6584', and 6589' w/ 1 SPF.

Abandoned (Drinkard) 6776'-84', 6814', 6817', and 6834'-42' w/ 2 SPF.

Squeezed (Abo) 6975'-82' w/ 2 SPF.

Latest Test: 5 BOPD, 50 MCFPD, and 5 BWPD.

Anticipated Bottom Hole Pressure: Paddock ~ 750 psi

Safety: Run sufficient amount of killstring during any extended shut-in period.
Install H₂S monitoring alarm and rescue equipment.
2-7/8", 6.5#, L-80 tubing – (80% Burst = 8456 psi)

PROCEDURE:

1. Notify Hobbs personnel of impending workover. Test safety anchors on location to 22,500#, if necessary.
2. MIRUPU. Disconnect surface equipment.
3. Hang off pumping unit. Lay down polish rod. POOH with 7/8" rods, 3/4" rods, and 1-1/2" insert pump.
4. ND wellhead. NU 7 1/16" 3M hydraulic BOP stack w/ 2-3/8" pipe rams on top and blind rams on bottom.

WORKOVER PROCEDURE
LAUGHLIN NO. 2
Monument Field
Lea County, New Mexico
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5. Release TAC at $\pm 6176'$. POOH with 2-3/8" production tubing.
6. Change pipe rams on BOPE to 2-7/8".
7. PU and RIH with 2-7/8", L-80 workstring and set a tension set BP at $\pm 100'$. Pressure test pipe rams to 1,000 psi. POOH with tubing and setting tool. Pressure test blind rams to 1,000 psi. RIH with BP retrieving tool, latch onto BP, and release. PCOH with BP.
8. PU and RIH with 5-1/2" RBP and ball catcher on 2-7/8" workstring. Set RBP at $\pm 6,350'$. (Note: casing collars at 6331', and 6374'). Pressure test RBP to 1,500 psi. Circulate hole clean with 2% KCL water. Pickle tubing string with 750 gals. of 15% HCL acid at 1 BPM. Reverse circulate acid out with 2% KCL water. Spot 250 gal. of Double Inhibited Carbonate Completion Acid across perforations at 5,166'-5,206'. POOH with workstring.
9. RU electric line company and lubricator. Pressure test lubricator to 1,000 psi. RIH with a 4" slick gun. Gamma gun correlate on depth with Schlumberger OH log dated 9/21/97. Perforate Paddock formation top down with 2 JSPF, and 120 degree phasing at 5166'-5206' (82 holes). RD electric line company and lubricator.
10. RIH with a 5-1/2" treating packer on 2-7/8", L-80 production tubing. Hydrotest tubing while running in hole to 7000#. Set packer at $\pm 5,100'$.
11. RU acid company. Acidize Paddock formation perforations with 4,000 gals. of 15% Carbonate Completion Acid. Pump treatment at 5-7 bpm, dropping 125 – 1.3 SG ballsealers (anticipated WHTP – 3,000 psi). Flush to bottom perforation with 2% KCL water. RD acid company.
12. RU swab equipment. Swab test perforations. Notify Midland Engineering Department with results. RD swab equipment.
13. Release packer, and POOH laying down packer and workstring. Change out pipe rams from 2-7/8" to 2-3/8", and re-test to 1000 psi.
14. RIH with OE mud joint, perf sub, seating nipple, and a TAC on 2-3/8" J-55 production tubing. Space out tubing. Set TAC at $\pm 4,843'$ with seating nipple at $\pm 5,220'$.
15. ND BOPE. NU wellhead. RIH with rod string and 1-1/2" IP pump. Space out plunger and hang well on.
16. Reconnect surface equipment. Start well pumping to test, and monitor production and fluid levels.
17. RDMOPU.
18. Funds are also included in the AFE to commingle the completed Paddock formation with the existing Tubb formation. Therefore, the well will be in test on the Paddock zone for approximately one month, while the filing for a commingling permit is processed. A commingling procedure will also be written at this time.

Xc: D. Nordt
D. Arnst
M. Wiskofske
J. Lazzari
T. Kacir
B. Longmire
J. Chapman

Well File