

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

State of New Mexico
Energy, Minerals & Natural Resources

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

Form C-101
March 4, 2004
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
⁴ Property Code 006408		³ API Number 30- 015-27235
⁵ Property Name Indian Hills State Com		⁶ Well No. 4

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
E	36	20-S	24-E		1880	North	660	West	Eddy

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
E	36	20-S	24-E		1880	North	660	West	Eddy

⁹ Proposed Pool 1

Wolfcamp Wildcat

¹⁰ Proposed Pool 2

Unders. Cemetery - Wolfcamp

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 N/A		¹⁴ Lease Type Code S		¹⁵ Ground Level Elevation 3634	
¹⁶ Multiple No		¹⁷ Proposed Depth		¹⁸ Formation		¹⁹ Contractor		²⁰ Spud Date 12/31/1992	

²¹ Proposed Casing and Cement Program

Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
20"	16"	55#	40'	redi-mix	0'
12 1/4"	9 5/8"	32#	1220'	1100	0'
8 3/4"	7"	23 & 26	7999'	1100	1000' from GL

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 is proposing to recompleate the Indian Hills State Com to the Wolfcamp interval. Please see attached documents for planned completion procedures and well diagram.
This well is currently TA'd after and unsucessful attempt to complete in the Morrow formation.

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:

Phone:

OIL CONSERVATION DIVISION

Approved by:

ORIGINAL SIGNATURE OF THE DISTRICT II SUPERVISOR

Title:

Approval Date:

JUL 14 2004

Expiration Date:

JUL 14 2005

Conditions of Approval:

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State of New Mexico
Energy, Minerals & Natural Resources

Form C-
Revised June 10, 20

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

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-015-27253		² Pool Code		³ Pool Name Wildcat Wolfcamp	
⁴ Property Code 006408		⁵ Property Name Indian Hills State Com			⁶ Well Number 4
⁷ OGRID No. 14021		⁸ Operator Name Marathon Oil Company			⁹ Elevation 3634' GL

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot. Idn	Feet from the	North/South line	Feet from the	East/West line	Corner
E	36	20-S	24-E		1880	North	660	West	Eddy

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	Corner

¹² Dedicated Acres 320	¹³ Joint or Infill N	¹⁴ Consolidation Code C	¹⁵ Order No.
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NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR
NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

				<p>¹⁷ OPERATOR CERTIFICATION 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>06/15/2004 Date</p>	
				<p>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.</p> <p>Date of Survey Signature and Seal of Professional Surveyer:</p>	
<p>Certificate Number</p>					

Indian Hills State Com # 4

Wolfcamp Re-Completion Procedure

Surface Hole Location: 1880' FNL & 660' FWL, Section 36, Township 20 South, Range 24 East
Indian Basin Field, Eddy Co, NM

Date: June 4, 2004

Purpose: Complete well to the Wolfcamp Formation

Current Status: Previous Upper Penn perforations and Morrow tail have been permanently abandoned. Abandonment of these zones consists of 3 cement plugs set from 8,915' – 9,104' (25 sacks), 7,805' – 8,050' (25 sacks), and 7,178' – 7,602' (50 sacks). Well is shut in, with no tubing in the hole.

Elevation/Depths: GL: 3,634' KB: 3,650' TD: 8,000' PBTD: 7,178' (top of 3rd cement plug)

Surface Casing: 9-5/8" 36# K-55 set @ 1,220'. Cemented w/ 900 sacks of Howco Lite cement, tail w/ 200 sacks neat cement. Circulate 150 sacks.

Production Casing: 7", 23 & 26/26# K-55 set @ 8000'. DV tool @ 5,592'. Cemented first stage w/ 300 sacks of Premium Plus cement tailed w/175 sacks Class C. DV tool opened circulated off 90 sacks. Cemented second stage w/ 625 sacks. Circulate 48 sacks.

Abandoned Upper

Penn. Perforations: Upper Penn: 7516'-7540' (24'), 7550'-7566 (16'), 7579'-7587' (8')
7604'-7612' (8'), 7644'-7658' (14'), 7674'-7680' (6'), 7703'-7708 (5')
7714'-7730' (16'), 7742'-7746' (4')
Total feet of perfs covered 230' / 101'(Net)

Pressure Information: Wolfcamp @ 3000 psi

Safety:

- Hold daily tailgate safety meeting reviewing the proposed procedure.
- Keep TIW valve on rig floor at all times.
- Keep kill-string in well at night.
- Follow MOC SOP's throughout job.

Note: Use proper PPE when working in and around HCl Acid

Wolfcamp Completion Procedure

IHSC No. 4

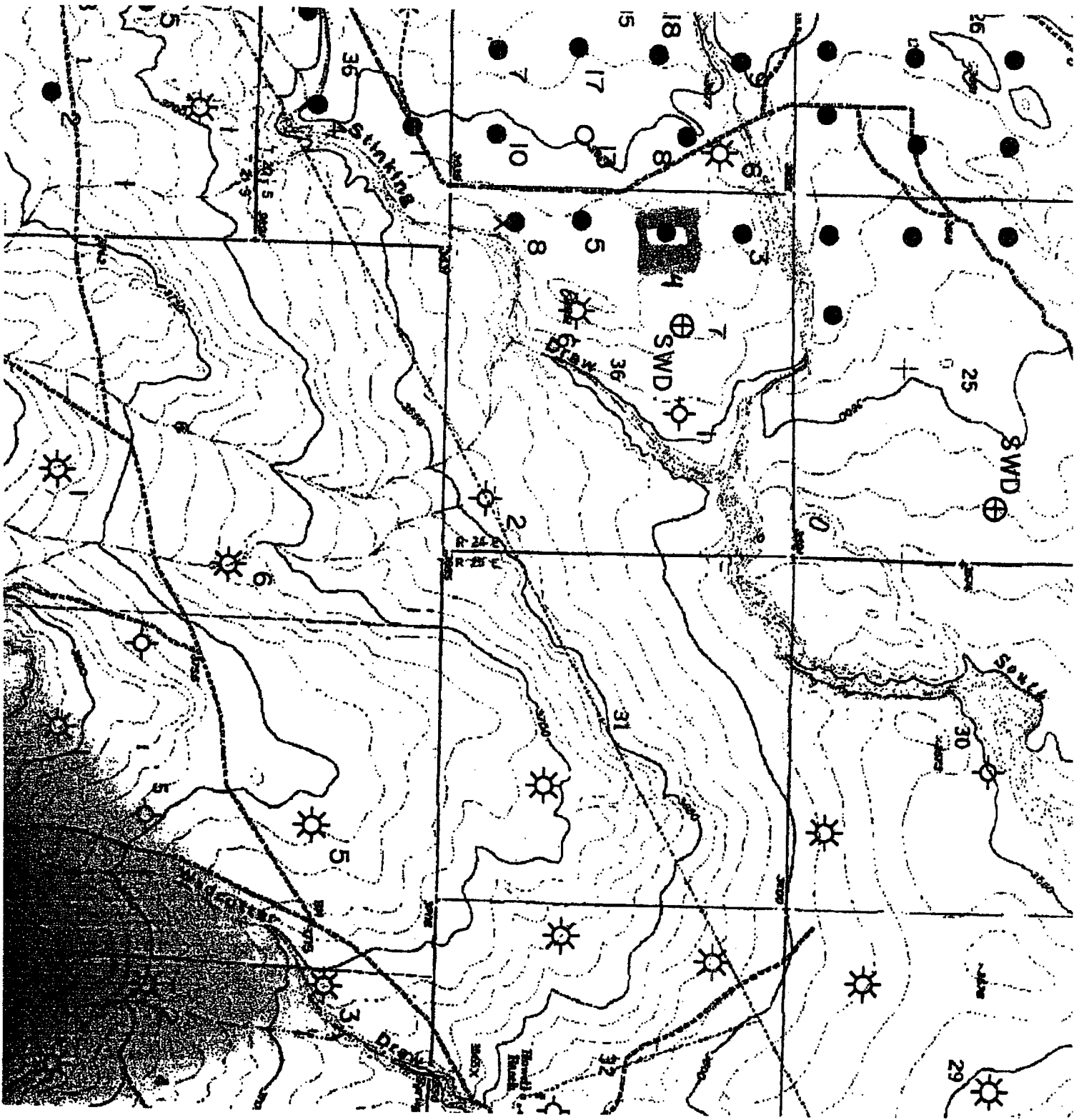
Page 2 of 2

Procedure:

1. Rig Supervisor & pulling unit operator inspect the well & location prior to rigging up. Test safety anchors to 22,500 lbs.
2. Perform all necessary Lock-out / Tag-out to properly secure well. Make sure all associated personnel have proper training and PPE for the proposed job.
3. MIRU conventional daylight pulling unit. Perform rig inspection check list. Rig up reverse unit and associated equipment. Make sure Geronimo line is staked securely, H₂S monitor is in place, guardrails are in place & the unit is properly grounded to the wellhead.
4. ND 7-1/16" 3M flange installed on tubing head. NU 7-1/16" BOPs dressed with 2-3/8" rams. Ensure BOPs have been stump tested to 1000 psi high, 200 psi low prior to NU.
5. Due to recent drilling activity with the deepening to the Morrow, a bit and scraper trip has been deemed unnecessary.
6. RU Baker Atlas. RU frac valve, equalizing line, and 3K lubricator w/ pack-off. Pressure test the lubricator to 1,000 psi against the frac valve.
7. Perforate Wolfcamp formation using 3-3/8" slick guns, 311T 23 gram charges, 4 JSPF as follows:

Single Run: 6,622' – 6,636'

RD Baker Atlas
8. PU and RIH with 2-3/8", 4.6# L-80 production tubing with the following downhole equipment:
 - Wireline re-entry guide set at +/- 6,520'
 - 7" PLS packer set at +/- 6,320'.
 - 2-3/8" tbg. and tbg. subs to surface.
9. RU Halliburton. RU tree saver. Hold tailgate safety meeting. Pressure test surface lines and tubing to 5000 psi.
10. Acidize the Wolfcamp with 3,000 gal of 15% HCl Carbonate Stimulation Acid at 6 BPM, dropping 90 1.1 sg bio-balls evenly throughout the job. Monitor backside pressure while pumping. RD Halliburton.
11. ND BOPs. NU Production Wellhead. RDMOPU.





LEASE ROAD
Entrance

↓ 150'

⊗
WIND
SOCK

• ←
IH State Comm #4

240'
AREA

WIND SOCK
⊗

↑
LEASE ROAD
Entrance

↗ ↖
Prevailing
Wind Direction

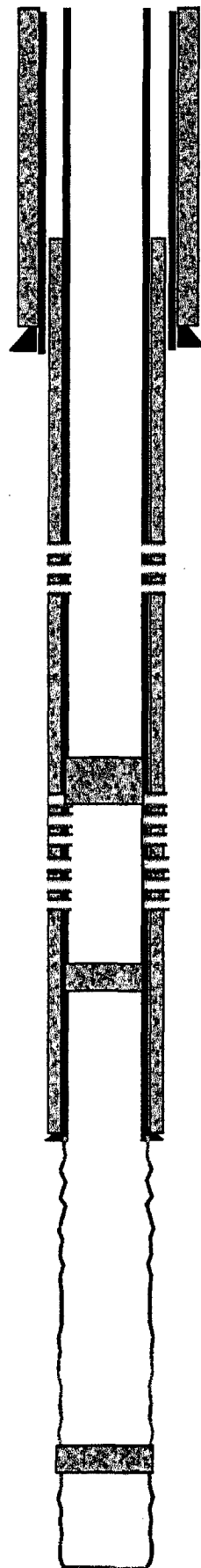
NOT to scale



Marathon Oil Company
Indian Hills State Com # 4
15-Jun-04

Planned Wolfcamp Perfs
6622' to 6636'

Abandoned (squeezed) Upper Penn
perforations 7516' to 7746'



Top of Cement on production
casing @ ~1000' from surface

Surface Casing 9 5/8" set @ 1220'

Cement Plug (50 sks) @ 7178' - 7602'

Cement plug (25 sks) @ 7850'

Production Casing 7" set @ 7999'

Abandoned open hole section
Morrow completion failure.

Cement Plug (25 sks) @ 8915'

TD @ 9600'