District I
PO Box 1980, Hobbs, NM 88241-1980
District II
PO Drawer DD, Artesia, NM 88211-0719
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
PO Box 2088, Santa Fe, NM 87504-2088

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
P.O. Box 2088
Santa Fe, NM 87504-2088

JUN 21 '94
O. C. D.
ARTESIA, OFFICE

Form C-101
Revised February 10, 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, Texas 79702	014021
	3 API Number 30-015-27433

4 Property Code	5 Property Name	6 Well Number
6408	INDIAN HILLS ST COMM	5

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
L	36	20S	24E		1980	SOUTH	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
L	36	20S	24E		1980	SOUTH	660	WEST	EDDY

9 Proposed Pool 1	10 Proposed Pool 2
SOUTH DAGGER DRAW UPPER PENN ASSOC	

11 Work Type Code	12 Well Type Code	13 Cable/Rotary	14 Lease Type Code	15 Ground Level Elevation
A&P	O		S	3637
16 Multiple	**17 Proposed Depth**	**18 Formations**	**19 Contractor**	**20 Spud Date**
	9200	CANYON/CISCO		ASAP

21 Proposed Casing and Cement Program

Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
NO CHANGE	SEE ORIGINAL	COMP REPORT			

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 INTENDS TO PLUG BACK THE MORROW IN THIS WELL & RECOMPLETE TO THE S. DAGGER DRAW UPPER PENN. THE PROCEDURE IS ATTACHED.

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

Signature: Thomas M Price

Printed name: THOMAS M. PRICE

Title: ADVANCED ENGINEERING TECHNICIAN

Date: 6-20-94

Phone: 915/682-1626

OIL CONSERVATION DIVISION

Approved by: SUPERVISOR, DISTRICT II

Title:

Approval Date: JUL 11 1994

Expiration Date:

Conditions of Approval:

Attached ☐

RECOMPLETION PROCEDURE

INDIAN HILLS STATE COMM WELL NO. 5
Indian Basin (South Dagger Draw)
1,980' FSL & 660' FWL
Section 36, T-20-S, R-24-E
Eddy County, New Mexico

Date: May 23, 1994

AFE No: 657194

Purpose: Recomplete as dual Cisco and Canyon producer.

Elevation: 3,637' GL 3,653' KB

TD: 9,580' GL PBTD: 9,558' (Top of Guns)

Current Completion Interval: Morrow

Surface Casing: 10-3/4", 40.5 lb/ft, K-55, ST&C @ 1,202' cemented w/1,240 sx Howco Lite and additives. Tailed in w/300 sx Class "C" and additives. Circulated 400 sx to surface.

Production Casing: 7-5/8", 29.7 lb/ft//26.4 lb/ft, L-80, LT&C @ 9,560' w/DV tool @ 5,975'. Cemented w/2,753 sx in two stages: circ. cement to surface on both stages.

Drilling Mud Weight: 9.5 ppg

Estimated SBHP: 3,000 psig

Safety Considerations:
- Hold daily safety meeting explaining the proposed procedure.
- H_2S from both Cisco and Canyon

1. Test safety anchors to 22,500 psig.

2. MIRU pulling unit. Kill well w/2% KCl water. Install backpressure valve in hanger. Nipple down wellhead. Nipple up 5,000 psig hydraulic BOPs with 2-7/8" pipe rams on top and blind rams on bottom. Test BOPs to 2,000 psi.

3. Release Otis Permalatch packer and POOH with 2-7/8" tubing, RA sub, on/off tool, Otis Permalatch packer, 1 joint of 2-3/8" tubing and differential bar vent sub.

4. RU wireline company with full lubricator and test to 1,500 psi. RIH w/7-5/8" CIBP to ± 9,200'. Set CIBP. Dump bail 35' (9.03 ft^3) of cement on top of CIBP. *Current BHP in the Morrow formation ± 470 psi.

5. Install 7" frac valve and test to 1,500 psi. RIH w/4" HSC perforating guns loaded with 23 gm Tungsten liner charges at 2 JSPF (120° phasing) and perforate the Canyon from 7,645'-55' and 7,716'-36'. POOH and RD wireline company.

6. PU and RIH w/7-5/8" RBP w/ball catcher and packer for 29.7 lb/ft casing, tubing ball tester, one 2-7/8" seating nipple and 2-7/8" tubing to ± 7,800'. Set RBP. Circulate 2% KCl water and set packer. Pressure test tubing and RBP to 2,500 psi. Release packer and PUH to ± 7,690'. Set packer.

7. RU service company. Test all surface lines, connections and ball injector to 5,000 psi. Open by-pass on packer. Spot 1 barrel of 20% NEFE acid to top of packer. Close by-pass. Load backside w/2% KCl water but do not apply pressure (perforations 7,645'-55' on backside). Breakdown and establish a rate with 2% KCl water. Treat perforations (7,716' to 7,736' - 41 holes) with 2,000 gallons of 20% NEFE acid dropping a total of 80 balls for divert. Estimated Treating Pressure - 4,000 psi at 2.5 BPM. Displace with 2% KCl water.

8. Release packer. RIH to ± 7,800' and retrieve RBP.

9. PUH to ± 7,700'. Set RBP. Circulate 2% KCl water and set packer. Pressure test tubing and RBP to 2,500 psi. Release packer and PUH to ± 7,620'. Set packer.

10. Open by-pass on packer. Spot 1 barrel of 20% NEFE acid to top of packer. Close by-pass. Load backside w/2% KCl water and apply 1,000 psi. Breakdown and establish a rate w/2% KCl water. Treat perforations (7,645' to 7,655' - 21 holes) with 1,000 gallons of 20% NEFE acid dropping a total of 40 balls for divert. Estimated treating pressure - 4,000 psi at 2.5 BPM. Displace with 2% KCl water.

11. Release packer. RIH to ± 7,700' and retrieve RBP. Continue in the hole to ± 7,800' and set RBP. PUH to ± 7,620'. Set packer.

12. Swab test perforated interval (7,645'-7,736') until chlorides are below 10,000 ppm in the produced water. Test results will be monitored and evaluated by Midland Engineering on whether individual zone testing will be needed or if additional potential pay intervals need to be perforated.

13. Release packer. RIH to ± 7,800' and retrieve RBP. POOH w/2-7/8" tubing, tubing ball tester, 7-5/8" packer and 7-5/8" RBP w/ball catcher, standing 2-7/8" tubing back.

14. RU wireline company and 7" frac valve. Install full lubricator and test to 1,500 psi. RIH w/4" HSC perforating guns loaded with 23 gm Tungsten liner charges at 2 JSPF (120° phasing) and perforate the Cisco from 7,560'-68'. POOH and RD wireline company.

15. PU and RIH w/7-5/8" RBP w/ball catcher and packer for 29.6 lb/ft casing, tubing ball tester, one 2-7/8" seating nipple and 2-7/8" tubing to ± 7,620'. Set RBP. Circulate 2% KCl water and set packer. Pressure test tubing and RBP to 2,500 psi. Release packer and PUH to ± 7,530'. Set packer.

16. RU service company. Test all surface lines, connections and ball injector to 5,000 psi. Open by-pass on packer. Spot 1 barrel of 20% NEFE acid to top of packer. Close by-pass. Load backside w/2% KCl water and apply 1,000 psi. Breakdown and establish a rate w/2% KCl water. Treat perforations (7,560' to 68' - 17 holes) with 800 gallons of 20% NEFE acid dropping a total of 35 balls for divert. Estimated treating pressure - 4,000 psi at 2.5 BPM. Displace w/2% KCl water.

17. Release packer. RIH to ± 7,590' to knock balls off perforations. PUH and reset packer.

18. Swab test perforated interval (7,560'-68') until chlorides are below 10,000 ppm in the produced water. Test results will be monitored and evaluated by Midland Engineering on whether individual zone testing will be needed or if additional potential pay intervals need to be perforated.

19. Release packer. RIH to ± 7,620' and retrieve RBP. POOH w/2-7/8" tubing, tubing ball tester, 7-5/8" packer and 7-5/8" RBP w/ball catcher.

    ** Steps 21 - 37 Assume a dual completion in the Cisco and Canyon with the Canyon being produced via rod pump up the 2-7/8" long string while the Cisco will be produced as a flowing completion up the 2-1/16" short string. A diagram of the downhole equipment is attached.

20. RIH w/Otis 7-5/8", 29.7 lb/ft PLS packer with 2-3/8" pup joint and nipple, 2-3/8" on/off tool, "X" profile with plug in place, and RTTS packer on 2-7/8" tubing to 7,600'. Long stroke on/off tool and set PLS packer at 7,600'.

21. PUH ± 5' and set RTTS packer. Circulate 2% KCl water to packer. Close by-pass and test PLS packer to 2,000 psi.

22. Release RTTS packer. POOH w/2-7/8" tubing, RTTS packer and overshot for on/off tool, laying down 2-7/8" tubing.

23. Change 2-7/8" pipe rams to 2-1/16" pipe rams.

24. RIH w/overshot for 2-3/8" on/off tool (with lugs removed), 2-3/8" L-80 tubing, 20' of 2-3/8" blast joint, 2-3/8" L-80 tubing (longstring) and 2-3/8" nipple with plug in place and 2-3/8" pup joint (shortstring); on 7-5/8", 29.7 lb/ft, RDH hydraulic dual packer on 2-1/16" IJ L-80 tubing. RIH to 7,600' and latch onto bottom packer with dual packer at ± 7,520'.

25. Pick up and land 2-1/16" IJ L-80 tubing in the wellhead.

26. Load 2-1/16" IJ L-80 tubing w/2% KCl water. Pressure up tubing to 2,500 psi differential to set dual packer. Hook up to casing valve and load casing. Test dual packer to 500 psi.

27. RU slickline company w/lubricator. Pressure test lubricator to 1,500 psi. RIH and latch onto plug in nipple in shortstring side. POOH w/plug and RD slickline company.

28. Install BPV. Change 2-1/16" pipe rams to 2-7/8".

29. RIH w/J latch, 2-3/8" pup joint, 2-3/8" "XO" sliding sleeve, 2-3/8" pup joint, 2-3/8" "XO" sliding sleeve, X-over sub, 2-7/8" API seating nipple on 2-7/8", 6.5 lb/ft, DSS-HTC, L-80 tubing.

30. Land J-latch and space out for 15,000 lbs tension.

31. Test 2-7/8" tubing to 1,000 psi.

32. Break BOPs. Install dual hanger. ND BOP. NU dual wellhead.

33. RU slickline company w/full lubricator. Pressure test lubricator to 1,500 psi. RIH and latch onto plug in on/off tool on longstring side. RIH and open sliding sleeves.

34. RIH w/blanking plug and set in profile above lower sliding sleeve. RD slickline company.

35. Install rod stripper. RIH w/fiberglass and steel rods, space out pump.

36. Remove BPV from 2-1/16" and begin production from Cisco gas zone.

37. Install pumping unit and begin production from Canyon oil zone.

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☐ **AMENDED REPORT**

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number	2 Pool Code	3 Pool Name
30-015-27433	15475	SOUTH DAGGER DRAW UPPER PENN

4 Property Code	5 Property Name	6 Well Number
6408	INDIAN HILLS ST COMM	5

7 OGRID No.	8 Operator Name	9 Elevation
014021	Marathon Oil Company	GL: 3637

10 Surface Location

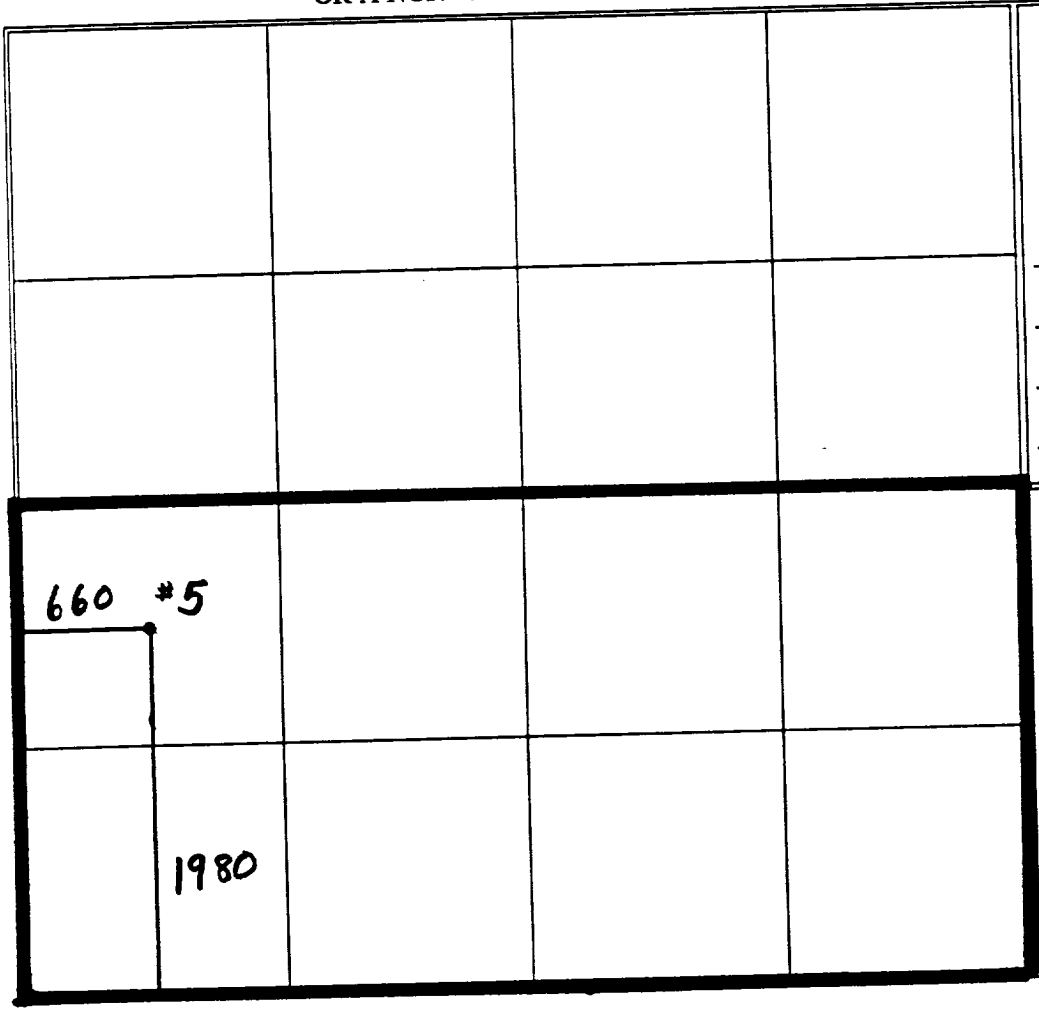
UL or lot no.	Section	Township	Range	Lot. Idn	Feet from the	North/South Line	Feet from the	East/West line	County
L	36	20S	24E		1980	SOUTH	660	WEST	EDDY

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	County
L	36	20S	24E		1980	SOUTH	660	WEST	EDDY

12 Dedicated Acres	13 Joint or Infill	14 Consolidation Code	15 Order No.
320	Y		

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.

Thomas M Price
Signature
THOMAS M. PRICE
Printed Name
ADVANCED ENGINEERING TECH.
Title
6-20-94
Date

18 SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this pl was plotted from field notes of actual surveys made me or under my supervision, and that the same is tr and correct to the best of my belief.

Date of Survey

Signature and Seal of Professional Surveyer:

Certificate Number