Form 3160-5
(August 2007)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

OCD-ARTESIA

FORM APPROVED
OMB No. 1004-0137
Expires: July 31, 2010

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE – *Other instructions on page 2.*

5. Lease Serial No.: NM-07260

6 If Indian, Allottee or Tribe Name:

7. If Unit of CA/Agreement, Name and/or No: Indian Hills Unit

1 Type of Well
☐ Oil Well ☑ Gas Well ☐ Other

NOV 12 2008

8 Well Name and No.: Indian Hills Unit #26

2 Name of Operator: Marathon Oil Company

OCD-ARTESIA

9. API Well No.: 30-015-31274

3a. Address: 5555 San Felipe (Mail Stop 3308), Houston, Texas 77056

3b. Phone No. *(include area code)*: 713-296-3412

10. Field and Pool or Exploratory Area: Indian Basin Morrow Gas

4. Location of Well *(Footage, Sec., T.,R.,M., or Survey Description)*
Surface 1069' FNL & 685' FEL, Section 20, T 21-S, R 24-E
Bottom Hole 729' FNL & 1723' FWL, Section 21, T 21-S, R 24-E

11 Country or Parish, State: Eddy, New Mexico

12 CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☑ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Subsequent Report	☐ Casing Repair	☐ New Construction	☑ Recomplete	☑ Other Perforate Existing Morrow
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
☐ Final Abandonment Notice	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13 Describe Proposed or Completed Operation. Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.)

*** Marathon Oil Company request approval to add perforations, to the Indian Hills Unit #26 'Morrow' formation per attached Re-Completion procedure, which includes existing and proposed wellbores, with pipe calculations and data. The lower and middle 'Morrow' are currently being produced by means of a foamer string. Marathon plans to keep producing these zones up the tubing, and are going to produce the new 'Upper Morrow' perforations up the tubing casing annulus. Surface facilities have an additional stack pack in place to accomodate this dual-completion. Once perforated, determination will be made as to the need for frac stimulation, at that time Marathon will supply further details and submittals to all appropriate agencies as required, and schedule frac job accordingly.

ACCEPTED FOR RECORD

Existing Perfs: 10,125-136', 10,142-158', 10,168-178', 10,222-226', 10,257-268', and 10,276-284' at 6-Shots Per Foot.

Proposed: 10,018' - 10,034' at 6-Shots Per Foot.

SEE ATTACHED FOR CONDITIONS OF APPROVAL

NOV 13 2008
Gerry Guye, Deputy Field Inspector
NMOCD-District II ARTESIA

14 I hereby certify that the foregoing is true and correct. Name *(Printed/Typed)*: Rick R. Schell

Title: Regulatory Compliance Representative

Signature: Rick R. Schell

Date: 10/28/2008

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

APPROVED
2008
OCT 29
Date

Approved by

Title

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office

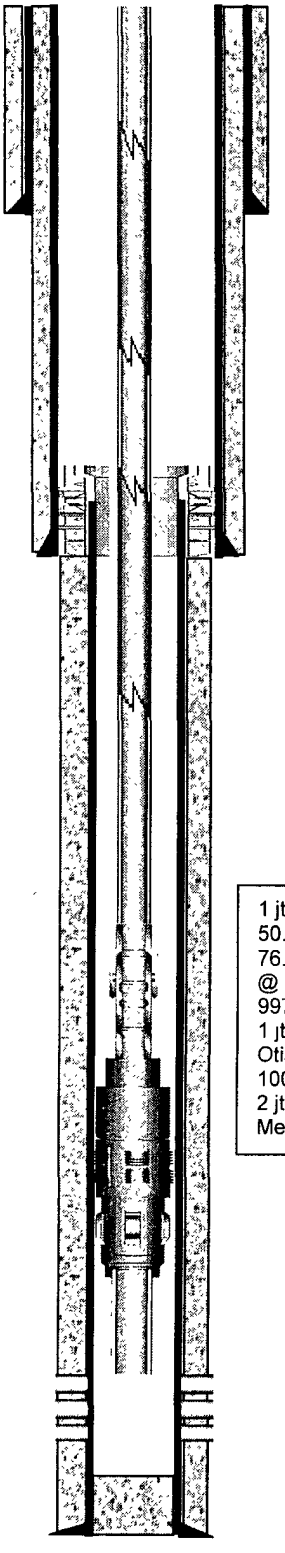
WESLEY W. INGRAM
PETROLEUM ENGINEER

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

Indian Hills Unit No. 26

KB Elevation 4168'
GL Elevation 4149'



9 5/8" 36#/ft k-55 Surface Casing @ 1794' Cemented with 528 sxs. Did not circulate. 1" top job 435 sxs + 11 yards.

7" 23 & 26#/ft k-55 @ 8915'. DV tool @7221'. 1st stage cemented with 450 sxs foamed premium, second stage cemented with 900 sacks Both stages circulated.

5" Liner Hanger

5" 15#/ft L80 liner set 8777'-10573'. Float collar at 10,523'. Cemented with 220 sacks of Premium Plus. Reversed out 45 sxs.

1 jts 2 3/8"4.7#/ft EUE 8rd L-80 8rd Tubing 18' to 50.28', 4 pup joints 2 3/8", 4.7#/ft EUE 8r L80 @ 76.38', 307 jts 2 3/8" 4 7#/ft EUE 8rd L80 Tubing @ 9975.27', 4.5" On-off tool with 1.875" profile @ 9977 23', 5" -10K PLS packer @ 9982.34', 1 jt 2 3/8" L-80 8rd Tubing @ 10013.78', Otis 1.875" x 1.625" X-N Profile nipple @ 10015.09', 2 jts 2 3/8" L-80 8rd Tubing @ 10076.84', Mechanical tubing release @ 10078.46'

Morrow Perfs :
10,125' - 136',
10,142' - 158',
10,168' - 178',
10,222' - 226',
10,257' - 268',
10,276' - 284'
with 6 SPF

Indian Hills Unit No. 26

Morrow Re-Completion Procedure

SHL: 1069' FNL & 685' FWL, Section 20
BHL: 700' FNL & 1450' FWL, Section 21
T-21S, R-24E
Indian Basin Field
Eddy Co, NM

Date: February 22, 2008

Purpose: Re-complete into the Upper Morrow

Current Status: The well is currently flowing with the aid of a foamer string at: 0 BOPD, 10 BWPD, and 160 MCFPD.

WBS#: RW.08.17773.CAP.CMP & EQP

AFE Cost: $331,000

WI: 99.54% **NRI:** 83.07%

Elevation/Depths: GL: 4,149' KB: 4,168' TD: 10,573' PBTD: 10,292' (top of dropped guns)

Surface Casing: 9-5/8", 36#, K-55 set @ 1,794'. Cemented w/ 528 sacks. Did not circulate. Topped off casing with 1" and 435 sxs + 11 yards of cement.

Intermediate Casing: 7", 23 & 26#, K-55 set @ 8,915'. DV tool @ 7,221'. Cemented first stage w/ 450 sacks N_2 foamed premium cement, circulated 20 sacks. Cemented 2nd stage with 900 sacks, Circulated 113 sacks. Float collar at 8,867'.

Production Liner: 5", 15#, L-80 (8,777'-10,573'). Cemented with 220 sacks Premium Plus w/ 0.4% CTR-3, 5# Gilsonite, 0.2% HR-7, & 1% salt. Reversed out 45 sacks. Float collar at 10,523'

Tubing & BHA: 1 jts 2 3/8"4.7#/ft EUE 8rd L-80 8rd Tubing 18' to 50.28', 4 pup joints 2 3/8", 4.7#/ft EUE 8r L80 @ 76.38', 307 jts 2 3/8" 4.7#/ft EUE 8rd L80 Tubing @ 9975.27', 4.5" On-off tool with 1.875" profile @ 9977.23', 5" -10K PLS packer @ 9982.34', 1 jt 2 3/8" L-80 8rd Tubing @ 10013.78', Otis 1.875" x 1.625" X-N Profile nipple @ 10015.09', 2 jts 2 3/8" L-80 8rd Tubing @ 10076.84', Mechanical tubing release @ 10078.46'

Existing Perfs: 10,125-136', 10,142-158', 10,168-178', 10,222-226', 10,257-268', and 10,276-284'. 6 SPF.

Pressure Information: Existing Morrow Perfs @ ±1000 psi. New perfs estimated @ ± 3900 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.

Procedure:

1. Rig Supervisor to inspect the well & location prior to rigging up. Test safety anchors to 22,500 lbs. if needed.

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 Pulling Unit. Make sure Geronimo line is staked securely, H_2S monitors are in place, guardrails are in place and the unit is properly grounded to the wellhead.

4. RU Reverse Unit. ND wellhead. Install 7 1/16", 1500 Series hydraulic BOPs w/ 2-3/8" pipe rams & blind rams & Torus annular.

5. Kill well with 7.5% KCL and 0.2% Clay-Stay; Get off of On/Off tool to equalize; Release 5" PLS packer; Circulate well clean with 7.5% KCl; TOOH with tubing. Send in 5" PLS packer to be re-dressed.

6. TIH with tapered mill to dress off top of liner (Had problems getting into liner last time we were on this well). TOOH with tapered mill.

7. MIRU Baker Atlas wireline. Make sure all personnel have the proper PPE and safety requirements.

8. RIH with 5" composite bridge plug on wire line to 10,100' to isolate existing perforations; Correlate depth using Gamma log dated 10-28-2000; Set bridge plug; POOH with wireline.

9. Load the hole and test composite bridge plug to 500 psi.

10. MIRU blow down tank to backside; for the under balance perforating. Make sure that safety measures are in place for the lines.

11. RIH with tubing open ended with seating nipple to 3700'. Swab fluid level down to 3,644' to give a 1000 psi under-balance pressure on the formation. POOH with tubing.

12. RU 16' perf gun with 60° phasing and 6 spf and RIH on wireline; correlate depth using CCL log dated 10-28-2000. Perforate the Morrow at depth of 10,018' – 10,034'. POOH with guns. RD wire line.

13. TIH with 5" RTTS packer on 2 3/8" tubing. Tag composite Bridge Plug to get on wire line depth – come up to 9940' and set PLS packer.

14. Perform breakdown of perforations with 7 ½% KCl with 0.2% Clay-Stay. Record 5, 10, and 15 minute pressure readings.

15. Swab tubing if necessary. Report swabbing rate to engineers so they can decide if stimulation is necessary.

16. If stimulation is necessary fracture as per Halliburton's recommendation. If no stimulation is necessary proceed to step 17.

17. Kill well with 7.5% KCL with 0.2% Clay-Stay. TOOH with RTTS packer and send in to get redressed.

18. TIH with sand line bailer and knockout composite bridge plug and push to bottom.

19. TIH with PLS packer w/ blanking plug, blast joints, and sliding sleeve in open position (make sure sliding sleeve ID is compatible with the profile of the On/Off tool.) Set Packer at 10,075'. Tree Up.

20. Hold Tailgate Safety Meeting before rigging up Nitrogen pump truck. Rig up nitrogen pump truck. Pump N2 to unload tubing and casing.

21. Rig up slick line truck. Close sliding sleeve. Retrieve blanking plug.

22. Re-install foamer string.

23. Place well on production.

PREPARED BY: B. Goeres / B. Williams DATE: March 22, 2008

xc: T. Breninger R. Angel C. Williams R. Bose J. Harrison

Pipe Data and Calculations

Size	Weight (lb/ft)	Grade	Burst (psi)	Collapse (psi)
2 3/8"	4.7	L-80	11,199	11,776
5"	15	L-80	8,290	7,250

Volumes

Size	Capacity (bbl/ft)
2 3/8"	0.00387
5"	0.0189
2 3/8" - 5" Annular	0.0134

Expected Bottom Hole Pressure = 3,900 psi

Hydrostatic pressure required for 1000 psi under-balance = 3,900 – 1,000 = 2,900 psi

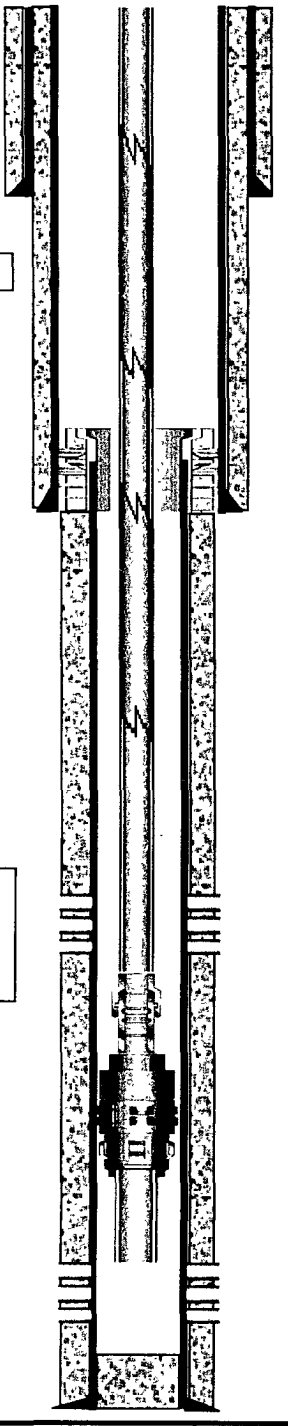
Wieght of 7 ½ % KCl with 3 gal / 1000 Clay-Stay = 0.455 psi/ft

Height of fluid to give 2,900 psi hydrostatic = 2,900 psi / 0.455 psi/ft = 6374 ft

Fluid level required for 1000 psi under-balance = 10,018' – 6,374' = 3,644'

Indian Hills Unit No. 26

***Proposed*: Well Bore Diagram**



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5" Liner Hanger 8777'

5" 15#/ft L80 liner set 8777'-10573' Float collar at 10,523'. Cemented with 220 sacks of Premium Plus. Reversed out 45 sxs.

KB Elevation 4168', GL Elevation 4149'

Proposed Upper Morrow Perfs:10,018' - 10,034'

2 3/8"4.7#/ft EUE 8rd L-80 8rd Tubing from surface to 9,070'
2 3/8" Blast Joints from 9,070' - 10,060'
2 3/8" Sliding Sleeve from 10,060' - 10,070'
4.5" On-off tool with 1.875" profile @ 10,070',
5" -10K PLS packer @ 10,075',
1 jt 2 3/8" L-80 8rd Tubing @ 10,106',

Morrow Perfs :
10,125' - 136',
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10,168' - 178',
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10,257' - 268',
10,276' - 284'
with 6 SPF.

Well Name & Number:		Indian Hills Unit No. 26			**Lease**	**NM-07260**		
County or Parish:		**Eddy County**	**State/Prov.**		**NM**	**Country:**	**USA**	
Perforations:		**(MD)**			**(TVD)**			
Angle/Perfs		**Angle @KOP and Depth**		**0**		**KOP TVD**	**0**	
BHP:	**0**	**BHT:**	**0**	**Completion Fluid:**				
FWHP:		**FBHP:**		**FWHT:**		**FBHT:**	**Other:**	
Date Completed:							**RKB:**	
Prepared By:		**Bryson Goeres**			**Last Revision Date:**	**08/03/05**		

Indian Hills Unit #26
30-015-31274
Marathon Oil Company
October 29, 2008
Conditions of Approval

1. **5M BOP to be installed and tested prior to step 5.**
2. **H2S plan to be onsite due to high readings from Morrow in same section.**
3. **A subsequent sundry is required detailing the work done and including a new well test.**

WWI 102908