

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

OCD-ARTESIA

FORM APPROVED
OMB NO. 1004-0137
Expires March 31, 2007

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.

5. Lease Serial No.

LC 064391 B

6. If Indian, Allottee or Tribe Name

SUBMIT IN TRIPLICATE - Other instructions on reverse side

7. If Unit or CA/Agreement, Name and/or No.
NM 70964

1. Type of Well

☐ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator

Marathon Oil Company

8. Well Name and No.

Indian Hills Unit No. 30

3a. Address

P.O. Box 3487 Houston, TX 77253-3487

3b. Phone No. (include area code)

9. API Well No.

30-015-31655

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

10. Field and Pool, or Exploratory Area

Indian Basin

Mississippian

11. County or Parish, State

Eddy

NM

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

TYPE OF SUBMISSION

☒ Notice of Intent

☐ Subsequent Report

☐ Final Abandonment Notice

TYPE OF ACTION

☐ Acidize

☐ Alter Casing

☐ Casing Repair

☐ Change Plans

☐ Convert to Injection

☐ Deepen

☐ Fracture Treat

☐ New Construction

☐ Plug and Abandon

☐ Plug Back

☐ Production (Start/Resume)

☐ Reclamation

☒ Recomplete

☐ Temporarily Abandon

☐ Water Disposal

☐ Water Shut-Off

☐ Well Integrity

☐ Other

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 recompleate 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 shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleation in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the final site is ready for final inspection.)

Marathon Oil Company intends to re-complete the Indian Hills Unit No. 30 to the Mississippian formation. The well is currently. Please see attachment for details of proposed completion work.

Marathon requests that this information be held confidential for as long as possible.

CONFIDENTIAL

RECEIVED

APR 21 2006

OCD-ARTESIA

APPROVED

DEC 27 2005
(ORIG. SGD.) ALEXIS C. SWOBODA
ALEXIS C. SWOBODA
PETROLEUM ENGINEER

14. I hereby certify that the foregoing is true and correct
Name (Printed/Typed)

Charles E. Kendrick

Title

Engineering Technician

Date

12/09/2005

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

Title

Date

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

Title 18 U.S.C. Section 1001, and Title 43 U.S.C. Section 1212, makes 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.

Procedure to Perforate and Acid Frac Mississippian Lime Formation

INDIAN HILLS UNIT #30 Former Devonian Formation SWD

Surface Location: 1,494' FSL & 688' FWL, Section 20, T-21-S, R-24-E
Devonian Bottom Hole Location: 1,050' FNL & 1,930' FWL, Sec. 20, T-21-S, R-24-E
Indian Basin Field, Eddy Co, NM

Date: December 07, 2005

Purpose: Perforate and acid frac Mississippian Lime Formation for production test

Current Status: Inactive. Devonian formation SWD cement squeezed on 11/5/05 and 11/29/05.

Elevation/Depths: GL: 3,791' KB: 3,817' TD: 11,443' PBTD: 10,600'

Perforations: Morrow Perforations (Squeezed 8/22/02 with 40 sks cement):
9866-9887', 9958-9966', 9969-9982'

Devonian SWD Open Hole
(Squeezed 11/5/05 and 11/29/05 with 285 sks cement): 10,748-11,443'

Pressure Information: Mississippian Lime – ~4,900 psi BHP

General Procedure:

1. Check well for pressure. ND wellhead tree. NU Frac Valve and flow cross. RU pump truck.
2. MIRU flow testers with 10,000# manifold with hardlines going to flow-back tank and production equipment.
3. RU Baker Atlas Logging Truck and Mast Truck. RU frac valve, equalizing line, and 5K lubricator w/ grease injection, pump-in sub, WL BOPs, and blowdown sub. Pressure test the frac valve and lubricator to 5,000 psi. Check wellhead for stray current and voltage. Gamma ray correlate the first run to the Schlumberger Open Hole Litho-Density Compensated Neutron log dated 7/13/2001. POOH.

Note: Pump truck should be rigged up so the 5K lubricator can be isolated while testing the 7" production liner.

4. Perforate the following intervals using 4.5" Predator XP Hollow Carrier system firing 39 gram Predator 4539 charges @ 2JSPF at 120 degree phasing.

<u>INTERVAL</u>	<u>FEET</u>	<u>Gun Number</u>	<u># of Holes</u>
10351'-10371'	20'	1	40

Indian Hills Unit #30 – 12/2005 Perforate and Acid Frac Mississippian Lime Formation

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10406'-10416'	10'	2	20
10514'-10540'	26'	3	52
TOTALS:	56'	3 Guns	112 Holes

Note: The well is loaded with fresh water (8.33 ppg) and the reservoir pressure is estimated at 4,900 psig, so perforations will be shot ~400 psig under-balanced assuming mid-perforation interval of 10,445'.

5. RDMO Baker Atlas.

Stage 1 – Lower Mississippian Lime

6. Marathon Rig Supervisor & Workover Rig Supervisor will inspect the well & location prior to rigging up. Perform all necessary Lock-out/Tag-out to properly secure well. Make sure all associated personnel have proper PPE for the proposed job. Isolate pressure shutdowns. If warranted, test safety anchors to 22,500 lbs.
7. MIRU Workover Rig. Remove all well-control equipment & store properly. Install 11", 3M hydraulic BOPs w/ 3-1/2" pipe rams & blind rams (equipped w/ valved outlets below blinds). Test pipe rams & blind rams to 250 & 1,000 psig.
8. Close blind rams to isolate lubricator from the well. Pressure test casing and BOPs to 5,000 psig.
9. Make sure Geronimo line is staked securely, H₂S monitors are in place, guardrails are in place, & the unit is properly grounded to the wellhead.
10. Spot five 500 bbl frac tanks and fill tanks with treated fresh water.
11. PU 6-1/8" bit and scraper and 3-1/2", 9.3#, 8rd EUE workstring, strapping in hole to tag TOC at 10,600'. POOH with 3-1/2" workstring and lay down 6-1/8" bit and scraper.
12. PU 7" RBP on 7" x 3-1/2" RTTS packer and profile nipple and RIH on 3-1/2", 9.3#, 8rd EUE workstring to tag TOC at 10,600'. PU to 10,590' and set RBP. PU 10' and set RTTS packer at 10,580'. Test RBP to 6,000 psig surface pressure. Release RTTS packer, strap out of hole to 10,450'.
13. RU Halliburton and pump 1,000 gallons of 15% HCL pickling acid. Reverse out spent acid. Set RTTS packer at 10,450'.
14. MIRU Halliburton and ProTechnics (for completion diagnostics tracer). Conduct onsite fluid tests. Hold pre-frac safety meeting. Pressure test surface lines to >10,000 psig. Set pump trips to 7,500 psig. Hydrotest tubing to 9,000 psig surface pressure while going in the hole. Retrieve standing valve. Test casing annulus to 500 psig (Note: Do not exceed 500 psig surface pressure on casing annulus at any time during the job). After pumping 5,000 gallons of Treated Water pad, acid frac the perforated interval 10514' – 10,540' with 6,000 gallons of 15% Zonal Coverage Acid 15/II and 6,000 gallons of 15% Carbonate Completion Acid Sour in alternating stages. Flush acid with 3,000 gallons of treated water. (Note 1: See attached Halliburton stimulation recommendation dated 12/5/05; Note 2: See attached ProTechnics Completion Diagnostics Proposal dated 12/7/05.)

Stage 2 – Upper Mississippian Lime

15. Release RTTS packer. RIH and release RBP at 10,590'. Strap out of hole to 10,450' and set RBP. PU 10' and set RTTS packer at 10,440'. Test RBP to 6,000 psig surface pressure. Release RTTS packer,

strap out of hole to 10,300' and set RTTS packer at 10,300'.

16. RU Halliburton and ProTechnics (for completion diagnostics tracer). Pump 5,000 gallon pad of Treated Water, then acid frac the perforated intervals 10351'-10371' and 10406'-10416' with 9,000 gallons of 15% Zonal Coverage Acid 15/II and 9,000 gallons of 15% CCA Sour in alternating stages. Flush acid with 3,000 gallons of treated water. (Note: See attached Halliburton stimulation recommendation dated 12/5/05; Note 2: See attached ProTechnics Completion Diagnostics Proposal dated 12/7/05.)
17. Release RTTS packer and RIH to RBP at 10,450'. Release RBP. POOH and lay down RBP and RTTS packer.
18. RIH with 7" x 3 1/2" production packer and set packer at 10,440'.
19. Land tubing in seaboard head. Remove BOP's and NU wellhead.
20. RU swab lubricator and run swab line to frac tank. Swab frac fluids back to frac tank and kick well off to production. RD swab lubricator.
21. RDMO Pulling Unit. Record types & volumes of fluids pumped for well control throughout job.
22. Allow up to six weeks for well to clean up and recover all frac fluids. MIRU slickline unit. MIRU ProTechnics. Gamma ray correlate the first run to the Schlumberger Open Hole Litho-Density Compensated Neutron log dated 7/13/2001. Run Frac Tracer Profile to determine frac height. Depending on productivity of the well, a production profile log may also be run simultaneously.