

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

N. OIL CONS. COMMISSION
P.O. BOX 1980
HOBBS, NEW MEXICO 88240

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

5. Lease Designation and Serial No. **NR**
NM-02127B NM 053434

6. If Indian, Allottee or Tribe Name

7. If Unit or CA, Agreement Designation
LEA UNIT

8. Well Name and No.
LEA UNIT 11

9. API Well No.
30-025-20338

10. Field and Pool, or Exploratory Area
LEA UNIT, BONE SPRING

11. County or Parish, State
LEA COUNTY, N. M.

SUBMIT IN TRIPLICATE

1. Type of Well
☒ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator
Marathon Oil Company

3. Address and Telephone No.
P.O. Box 552 Midland, Tx. 79702 915/682-1626

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
**UNIT N, 660' FSL & 1980' FWL
S 13, T-20-S, R-34-E**

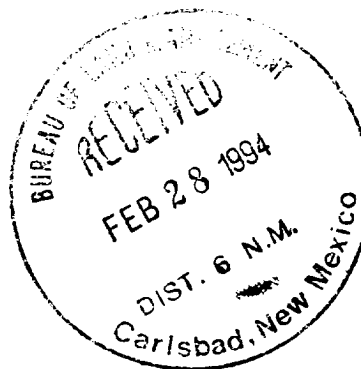
12. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION	
☒ Notice of Intent	☐ Abandonment	☐ Change of Plans
☐ Subsequent Report	☒ Recompletion	☐ New Construction
☐ Final Abandonment Notice	☒ Plugging Back	☐ Non-Routine Fracturing
	☐ Casing Repair	☐ Water Shut-Off
	☐ Alarming Casing	☐ Conversion to Injection
	☐ Other	☐ Dispose Water

(Note: Report results of multiple completion on Well Completion or Recommendation Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

MARATHON OIL COMPANY IS PROPOSING TO PLUG BACK THIS WELL FROM THE PRESENT MORROW COMPLETION AND TEST THE BONE SPRING "Q" SAND, "R" DOLOMITE, AND "S" DOLOMITE. THE PROPOSED PROCEDURE IS ATTACHED.



14. I hereby certify that the foregoing is true and correct

Signed S. P. GUIDRY

Title ACTING OPERATIONS SUPERINTENDENT

Date 2-25-94

(This space for Federal or State office use)

Approved by (ORIG. SGD.) JOE G. LARA
Conditions of approval, if any:

Title PETROLEUM ENGINEER

Date 3/11/94

SEA UNIT WELL NO. 1
860' FSL AND 1" FTL
Section 13, T-10-S, R-34-E
Lea County, New Mexico

AFE No. 662294

Date: February 10, 1994

Purpose: Recomplete from the Morrow to the Bone Spring.

ID: 11.454' PBTD: 14.081' SL: 3.676' KB: 3.679'

Surface Casing: 13-3/8", 48#, set @ 1,354'. Cemented w/1,170 sx. Cement circulated.

Intermediate Casing: 9-5/8", 36#/40# set @ 5,508'. Cemented w/3,520 sx. Cement circulated.

Production Casing: 7", 26#/29#, S-95/P-110/N-80 set @ 14,371'. Cemented w/1,250 sx. 80% Burst Pressure - 6,523 psi.

Tubing: 2-3/8", 4.7#, 8rd. EUE, P-105/N-80 @ 13,000'.

Current Perforations: 13,024'-29' and 13,047'-50' (SBHP - 139 psi).

Open Perforation Above Packer: 12,324'-419' and 12,387'-496'
est. SBHP - 150 psi)

(Note: This is est. SBHP without a fluid level.)

Maximum Surface Treating Pressure: 4,000 psi

Maximum Theoretical Surface Pressure: 4,000 psi (Bone Spring)

(Note: This pressure is the reservoir pressure (+ 157 psi) minus the gas gradient (0.02 psi/ft) times the depth (9,600').)

1. Test anchors to 12,500 lbs. MIRU PU.
2. Blow down well if necessary. If possible well should be allowed to flow for a couple days. Pump 10# brine down tubing. Pump 10# brine down backside. Allow for trapped air to be displace and load backside.
3. SD wellhead. Nipple up 6" Series 1500 hydraulic BOPs.
4. Release Baker LOK-Set packer and POOH.
5. RIH w/RBP to 1200' and set RBP.
6. RU on tubing spool gate valve (refer to Figure 1). Close the BOP pipe rams. Hydro test to 4,000 psi.
7. Open pipe rams. POH w/2-3/8" tubing.
8. RU 7" WKM valve. RU to tubing spool. Close BOP blind rams and Hydro test to 4,000 psi. Open blind rams.
9. Close WKM 7" valve and Hydro test to 4,000 psi. Open 7" valve.
10. RU wireline company. Close 7" valve. RU lubricator w/CIBP and Hydro test to 4,000 psi. RIH w/7" CIBP to 12,750'. Set CIBP and POOH. Run CBL from 12,600' to 8,600'.
11. RIH w/dump bailer and dump 50' of cement on top of CIBP. POOH.
12. Pressure test CIBP to state requirements.

1. Close 7" valve. RU lubricator w/casing guns and Hydro test to 4,000 psi. Open 7" valve and RIH w/4" casing guns. Perforate Bone Spring Second Carbonate at 9,808'-9,830', 9,756'-9,770' and 9,712'-9,722' w/4 SPF. RD wireline company.
2. RIH w/RTTS on 2-7/8" workstring to ±9,835'. Drop SV and test tubing to 1,000 psi. Retrieve SV. Spot 250 gals 15% NEFE HCl acid. PU to ±9,600'. Reverse 5 bbis and set RTTS.
3. Load backside w/2% KCl and pressure up to 500 psi. Hold pressure.
4. RU service company. Test pump lines to 5,000 psi. Acidize perforation 9,712'-9,830' w/5,000 gal 15% HCl NEFE acid (maximum treating pressure 5,000 psi) using 150 1.3 SG balls for divert. Surge balls off perforations and RD service company.
5. Swab back 150% of load.
6. Release packer and POOH w/2-7/8" tubing.
7. RU wireline company. RU lubricator w/casing guns and perforate the First Bone Spring Sand at 9,532'-9,560' w/4 SPF. RD wireline company.
8. RIH w/ballcatcher, RBP, RTTS and 2-7/8" tubing to 9,650'. Set RBP and PU 10'. Set RTTS and test RBP to 1,000 psi. PU to ±9,560'. Spot 250 gals 15% NEFE acid. PU to 9,420' and set RTTS. Set RTTS.
9. Load backside and pressure up to 500 psi. Hold pressure on backside.
10. RU service company. Test pump lines to 5,000 psi. Acidize perforations 9,532'-9,560' w/3,000 gallons 7-1/2 HCL NEFE acid using 50 1.3 SG ball for divert. Surge balls off perforations and RD service company.
11. Swab back 200% of load. Swab test and determine if First Bone Spring Sand should be fracture stimulated.
12. Retrieve ballcatcher and RBP and POOH w/2-7/8" tubing.
13. RIH w/RTTS, retrieving head RBP and 2-7/8" tubing. Set RBP @ ±9,650. Dump 10' of sand of top of RBP. PU and set RTTS at 9,400'.
14. RU service company. Fracture First Bone Spring Sand w/22,000 gallons delayed borate and 75,000# of precured resin coated sand as follows:

STAGE	GALLONS	LBS/GAL	RATE
PAD	8,000	0	15
1	3,000	2	15
2	5,000	4	15
3	6,000	6	15
FLUSH	-----	0	7

TAG pad and 2-6# stages w/separate radioactive isotopes for after frac survey.

Out back rate on flush. Use force closure method after fracture treatment. Shut-in for 8 hours.

15. Swab back 200% of load. (Note: Formation damage may occur if all load water is not recovered.)
16. Release RTTS and wash down to RBP. Circulate top of RBP clean. Retrieve RBP @ 9,630' and POOH.
17. RU wireline company. Run after frac survey from 9,750' to 9,400'.
18. Close 7" valve. RU lubricator w/casing guns and test to 4,000 psi. Open 7" valve and RIH w/4" casing guns. Perforate the First Bone Spring Carbonates' "R" dolomite from 9,580'-9,596' and 9,604'-9,630' w/4 SPF. POOH and RD wireline company.

101 County, New Mexico
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11. RIH w/Quiberson Uni-Point Injection packer and 2-7/8" tubing to 9,630'.
Spot acid to set off packer. Treat the 3" Dolomite perforations in 5'
intervals w/the injection packer and 5,000 gallons 15% HCl NEFE acid. RD
service company.
12. Release packer and RIH to 160'. Retrieve mechanical short assembly
and sand line.
13. Swab back load.
14. POOH w/workstring and packer.
15. RIH w/2-3/8", 1-1/2", EUE, 3rd production string, mud jct., and SN.
16. MD BOPs. Set TAC B at 9,400' and NU wellhead.
17. RIH w/pump. Hang well on. Note: Anticipated 120 BFPD production.
18. RD PU. Clean up location.
19. Set Lurkin 456-305-144 pumping unit at 10 SPM w/112" stroke length.
20. Place well on test.

WELL LOG SHEET

FIELD Lea Unit

LEASE & WELL NO. Lea Unit No. 11

LOCATION 1860' ENL & 1980' FWL Sec. 13, T20S, R34E

COUNTY AND STATE Lea County, New Mexico

WELL STATUS Flowing - 45 Mcfd

TD 14545' PBTD 14081' GL 3676' MB 3679'

SURFACE CASING 13-3/8" 48# @ 1254' Cmt'd w/ 1170 sx. circ.

INTERMEDIATE CASING 9-5/8" 38# & 40# @ 5508' Cmt'd w/ 3250 sx. circ.

PRODUCTION CASING 7" 26# & 29# S-95 P-110 N-80 @ 14371' Cmt'd w/ 1250 sx. TOC unknown

TUBING 3-3/8" 47# P-105/N-80 @ 13000'

PRODUCTION METHOD Flowing

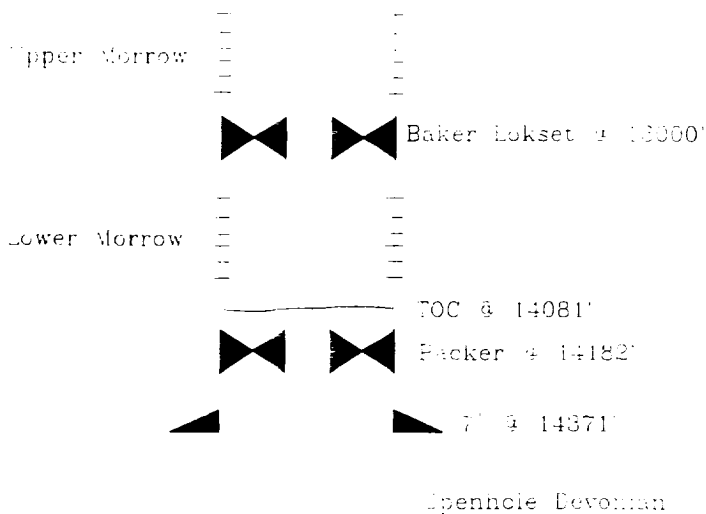
RODS

TOWNHOLE PUMP

PUMPING UNIT

SUBMERSIBLE PUMP

<u>COMPLETION INTERVAL</u>	Lower Morrow	13.024' - 29'
		13.047' - 50'
	Upper Morrow	12.824' - 33'
		12.912' - 19'
		12.987' - 96'



TD 14454'

HISTORY 11/63 Dev. completed the Devonian (openhole 14371' - 454') and the Morrow (Bend) sand 12.987' - 48' ; 65 Abandoned Devonian and set JBP above Morrow perms. Recompleted in additional Morrow zones 12.824' - 33' and 12.912' - 19' with 2 JSPF. 10/83 Recompleted Lower Morrow 12.024' - 20' and 13.047' - 50'. Set packer at 13.000' and flowed Lower Morrow to tubing.