Form 3 160-5 (June 1990)

UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

FORM APPROVED

Budget Bureau No. 1004-0135

N.M. Oil Cons. Divis pires: March 3 1,1993

| BUREAU OF LAND | 1625 N. French | Dr. LC -031695B |
|--|---|--|
| SUNDRY NOTICES AND Do not use this form for proposals to drill or Use "APPLICATION FOR PE | | 2.46 If Indian, Allottee or Tribe Name |
| SUBMIT IN T | TRIPLICATE | 7. If Unit or CA, Agreement Designation |
| 1. Type of Well Oil Gas Other Well Other | | 8. Well Name and No. |
| 2. Name of Operator CONOCO INC. | | Warren Unit # 22 9. API Well No. |
| 3. Address and Telephone No. 10 DESTA DR. STE. 100W, MIDLAND, TX. | 79705-4500 (915) 686-5424 | 30-025-07854 10. Field and Pool, or Exploratory Area |
| 4. Location of Well (Footage, Sec., T. R. M. or Survey Description Section 29, T-20 2090 FSL & |)-S, R-38-E, K | North Hardy Strawn 11. County or Parish, State |
| CHECK APPROPRIATE BOY(s) TO | D INDICATE NATURE OF NOTICE, REPO | Lea Co., NM |
| TYPE OF SUBMISSION | TYPE OF ACTION | |
| Notice of Intent | Abandonment Recompletion | Change of Plans New Construction |
| Subsequent Report | Plugging Back Casing Repair | Non-Routine Fracturing Water Shut-Off |
| Final Abandonment Notice | Altering Casing Other | Conversion to Injection Dispose Water (Note: Report results of multiple compilion on Well |
| 13. Describe Proposed or Completed Operations (Clearly state ail pertinen give subsurface locations and measured and true vertical depth | nt details, and give pertinent dates, including estimated date of startings for all markers and zones pertinent to this work.)* | Completion or Recompletion Report and Log form.) ag any proposed work. If well is directionally drilled |
| Conoco proposes to recomplete this well to the Stra | * | |
| | | |
| | | |
| | | |
| | - | |
| | | |
| 14. I hereby certify that the foregoing it true and correct Signed | Title Regulatory Agent | October 18, 2001 |
| (This space for Federal or State office use) (ORIG. SGD.) ALEXIS C. SWOBO Approved by Conditions of approval if any: | DDA PETROLEUM ENGINEER | OCT 3 0 2001 |
| | | |

BLM-MEEKER(4), COGCC(3), BRK, PONCA, TJK, FILE ROOM

or representations as to any matter within its jurisdiction.

Title 18 U.S.C. Section 1001, 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

BUSINESS TO 1838

Warren McKee No. 22 Strawn Test Procedure October 1, 2001

WELL INFORMATION:

(Refer to Wellview for Schematic)

AFE #:

(No AFE...Will Generate AFE if Test is Successful)

Spud Date:

09/03/1957

Last Action To Well:

02/28/94 Ran 289 jts. Of newly coated IPC tubing. Flange up wellhead and circulated 210 bbls of packer fluid. Set packer, loaded backside and ran 30

minute pressure chart. Held 500 PSIG for 30 minutes...no bleed off.

API Number:

30025078540000

Location:

2090' FSL & 2090' FWL, Sec 29, T20S, R38E, Unit "K", Lea County, NM

Zone (Pool):

Warren McKee Simpson

Battery Destination:

Expected Production:

50 BOPD, 100 BWPD, 50 MCFD ????

TD:

9,206' (Original TD)

9,161' (Float collar)

PBTD: DV Tool:

none

GLE:

3,518'

KBE:

AGL:

3,532' 14'

TOC:

5450' (Noted in Reports but no Temp Survey or CBL)

Casing Specifications:

| Pipe | Depth (ft) | Drift ID (inches) | Collapse (psi) | Burst (psi) | Capacity (bbl/ft) | | | | |
|---|---------------|-------------------|-------------------|----------------|----------------------|--|--|--|--|
| Surface: 10-3/4", 32.75#, H-40 | 256 | - | - | - | - | | | | |
| Cemented with 250 bbls of neat cement. Cement circulated. | | | | | | | | | |
| Intermediate: 7 5/8", 24 & 26.4#, H-40 & N-80 | 4000 | 6.900 | 2040 | 2750 | .0471 | | | | |
| Cemented with 700 sks incor plus 40% Dioc | cel "D". Plu | g down 07/2 | 3/57. Top of | cement at 13 | 375'. | | | | |
| Production: 5-1/2", 15.5 & 17#, J-55 & N-80 LT&C | 9206 | 4.767 | 4040 | 4810 | .0232 | | | | |
| Cement in one stage: Pump 230 sks Incore 09/04/57. Top of cement at 5,450'. | plus 40% I | Diocal "D" , 4 | 120 gals. Late | ex around sho | pe. Plug down | | | | |

Proposed Tubing Specifications:

| Pipe | Depth | Drift ID (in) | Collapse (psi) | Burst (psi) | Capacity (bbl/ft) |
|-----------------------------|--------|------------------|-------------------|----------------|----------------------|
| 2-7/8", 6.5#, N-80, EUE 8rd | 6,850' | 2.347 | 11,160 | 10,570 | .00579 |

ESTIMATED RESERVOIR INFORMATION:

Strawn Wellbore Fluids:

±42° API oil with sour

 $(20,000 \text{ ppm H}_2\text{S})$

115°F / 2900 PSI

(assuming 0.38 psi/ft gradient)

CEVEDER ALIENTES DE 199 1993 ALIENTES DE 199 1993

Perforations:

Existing McKee

8954-60, 8963-76, 8985-9020, 9024-9035, 9038-48', 9052-9099, 9108, 9123

| | Interval | NEP | Perfs |
|-------------------------------|--------------|-----|-------|
| Prop. Strawn (2 SPF, 120°) | 7646'- 7670' | 24' | 49 |

ARTIFICAL LIFT:

(Evaluate After Swab Testing)

NOTES AND SAFETY PRECAUTIONS

Notes:

1. All depths in this procedure are referenced from KB unless noted otherwise.

2. Please give service companies 48 hours advance notice prior to performing work on the well.

3. Hold prejob safety meetings prior to beginning any new work.

Safety Precautions:

1. Smoking will not be allowed within 100' of the wellhead and only in designated areas.

2. All on-site personnel are to wear safety glasses with side-shields, steel-toed boots, plastic hardhats, and 100% cotton outerwear at all times.

3. Eye protection and hand protection should be worn when handling acid/chemicals. Eye protection should be worn when there is the potential for acid/chemicals to blow or splash into the eyes.

4. While the perforating guns are in the open, radio's will not be used within 500' of the location. Signs indicating this will be placed on all access roads (signs will be provided by the perforating company).

5. The service company should bring communication devices for each individual operating pumps/valves and for the field engineer.

6. Fresh water will be on location in case of accidental discharge or an emergency (water to be provided by the treating company). Emergency shower trailer will be available and ready for use (and tested) when acidizing.

7. Eye wash bottles should be available and ready for use. All on-site personnel should be aware of the location of these bottles.

8. Only personnel needed for the job will be allowed on location. Only perforating company personnel will be allowed to handle the perforating guns.

9. Hold tailgate safety meetings daily prior to any work being performed. Determine safe location where all personnel will meet in the event of an emergency.

10. See attached Pre-Job Safety Assessment sheet.

Kill Fluids:

8.6 ppg brine w/magnacide biocide (completion fluid)

Frac Fluids/Breakdown Fluids:

As per BJ Services specs/procedure



100 mg 10

\$251 007 52 TO 9:48

CEVEDER

PRODEDURE:

- 1. Insure deadman anchors have been properly tested prior to RU.
- 2. RU workover rig. Remove the wellhead and install a 3,000 PSIG BOP stack. Test as per SOP's to 3,000 PSIG. Release the 5 ½" Loc-Set injection packer and TOOH with 289 joints of 2 3/8" IPC tubing.
- 3. PU 5 ½" CIBP and TIH on 2 3/8" to set at 8900'.
- 4. RU pump truck, close the pipe rams and pressure test casing to 2,000 PSIG for 30 minutes. If the casing holds pressure continue with the procedure, if the casing does not test, TOOH with the tubing and PU a PIPE casing inspection log and RIH to log from 8800' back to surface. Re-evaluate recompletion and generate AFE to repair the casing if required.
- 5. If the casing test held pressure, spot a 30 bbl, 9 ppg brine pill from PETD to the 7600'. PU to the bottom perf at 7660' and spot 500 gals of 15% HCL across the proposed Strawn perforation interval. TOOH laying down the tubing. Send the tubing in to ICO for inspection
- 6. RU Baker Atlas. Install lubricator and TIH with 4" hollow carrier perforating guns with Gamma Ray loaded 2 JSPF in 120 degree phasing with the HSC 4000 317 T charges to perforate the following Strawn interval: (Correlation from Welex GR-Neurton log dated 9/10/57)

Safety Note: All 2-way radios and phones are to be turned off while perforating for a distance of 500'. Warning signs are to be posted on all incoming roads.

| | <u>Interval</u> | <u>NEP</u> | <u>Shots</u> | |
|-------------------------------------|-----------------|------------|--------------|--|
| Strawn (2 SPF, 120° phasing) | 7646'- 7670' | 24' | 49 | |

- 7. Change the pipe rams for 2 7/8" tubing and test the BOP to 3,000 PSIG as per SOP.
- 8. TIH with 2 7/8", N-80 workstring with 5 ½" CS-1 treating packer, wireline re-entry guide with a 2.19" ID "R" nipple. Set the packer at 7,600'. Pressure test the annulus to 2,000 PSIG.
- RU BJ. Install a staked treating line with a nitrogen actuated relief valve on the tubing/casing annulus and a second nitrogen actuated valve on the treating line with a remote automated ball injector. Pressure test treating lines to the frac valve to 5,000 PSIG. Set relief valve at 4300 PSIG. Close the casing valve and pressure up on the casing to set the backside relief valve at 2000 PSIG. Bleed off casing pressure to 1500 PSIG and maintain backside pressure throughout the treatment.

- a. Load the tubing and establish breakdown with treated brine water. As soon as a rate is established pump breakdown across Strawn interval by pumping 2000 gals of 20% NEFE containing 75, 7/8" 1.3 SG ball sealers at a rate of 4 BPM.
- b. Displace acid to bottom perforation and shut down to record 5, 10 and 15 minute ISIP pressures.
- b. Surge balls off perforations.

| | كالتبريب بتنتصصيات تتكلت | |
|--|--------------------------|------|
| TREATING LINE TEST PRESSURE: A minimum 1000 psig over MATP | 5000 | PSIG |
| MAXIMUM ALLOWABLE WORKING PRESSURE: Based on weakest component in system. (100% of Rated Burst Pressure) | 4800 | PSIG |
| NITROGEN POP OFF SET PRESSURE: Relief pressure set at the lesser of : | | |
| 300 psig less than 90% MAWP or, | 4300 | PSIG |
| 300 psig over MATP (90% of Rated Burst Pressure) | | |
| MAXIMUM ALLOWABLE TREATING PRESSURE: If reached, human action required. (83% of Rated Burst Pressure) | 4000 | PSIG |
| MAXIMUM ANTICIPATED TREATING PRESSURE: Based on frac design | 3600 | PSIG |

- 10. RD BJ. Swab test well into a modified (with downcomer) temporary test tank to determine productivity.
 - a. If the well is considered to be commercial, load the tubing to kill the well. Release the packer, TOOH and lay down the packer and tubing. ND the BOP stack. Reinstall adapter flange on the tubing head. RDMO. An AFE to finish the completion and to purchase and install artificial lift equipment and surface facilities will be required prior to completing the remainder of the procedure.

BLM (505)393 -3612_ **b. If the well is considered non-commercial,** load the tubing to kill the well. Notify the NMOCD 24 hours prior to the abandonment. Release the packer, TOOH with the packer and tubing. RU electrical line company. PU wireline dump bailer and RIH to dump 35' of cement on top of the CIBP set at 8900'. If required, pressure test plug to 500 PSIG for 30 minutes. PU 5 ½" wireline set CIBP and RIH to set at 7600'. PU dump bailer and RIH to dump 35' of cement on top of the CIBP at 7600'. TIH with 2 7/8" tubing and circulate packer fluid from PBTD to surface. TOOH laying down tubing. Reinstall adapter flange. Perform casing integrity pressure test as per NMOCD regulations for permanent shut-in status. RDMO.

, 101110 ;



ax 1980, Hobbs. NM 88241-1980

State of New Mexico Energy, Minerals & Natural Resources Department

Revised February 21, 199 instructions on bac

Submit to Appropriate District Office

pistrict II PO Drawer DD, Artesia, NM 88211-0719 District III 1000 Rio Brazos Rd. Aztec, NM 87410

OIL CONSERVATION DIVISION PO Box 2088 Santa Fe, NM 87504-2088

State Lease - 4 Copie

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| 30 | 0-025-078 | 354 | | 9 | 6893 | 3 | | North Hardy Strawn | | | | | | |
| 4 Property | Code | | | | | 5 Pro | perl | ty Name | | <u></u> | 6 W | ell Number | | |
| 7 OGRID No | _ | | | | | Warren Unit #22 | | | | | | | | |
| 00507 | | Con | oco Inc | 10.0 | t | | S Operator Name 9 Elevat Ste. 100W, Midland, TX 79705-4500 | | | | | 9 Elevation | | |
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Certificate Number



NEW * 1EXICO ENERGY, MT IERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON
Governor
Jennifer A. Salisbury
Cabinet Secretary

Lori Wrotenbery
Director
Oil Conservation Division

August 6, 2001

Conoco, Inc.

Telefax No. (915) 686-5780

10 Desta Drive - Suite 100W Midland, Texas 79705

Attention: Kay Maddox/m-kay.Maddox@USA.Conoco.com

Administrative Order NSL-4623

Dear Ms. Maddox:

Reference is made to the following: (i) your application submitted to the New Mexico Oil Conservation Division ("Division") in Santa Fe on July 16, 2001; and (ii) the Division's records in Santa Fe, including the file in Cases No. 12182 and 12532: all concerning Conoco, Inc.'s request for an exception to Rule 4 of the "Special Pool Rules for the North Hardy-Strawn Pool," as promulgated by Division Order No. R-11221, issued in Case No. 12182 and dated July 12, 1999, as amended by Division Order No. R-11221-A, issued in Cases No. 12182 (Reopened) and 12532 on February 2, 2001, for the existing Warren Unit Well No. 22 (API No. 30-025-07854), located at an unorthodox oil well location 2090 feet from the South and East lines (Unit K) of Section 29, Township 20 South, Range 38 East, NMPM, Lea County, New Mexico.

It is our understanding that the Warren Unit Well No. 22 was originally drilled by Conoco, Inc. (Continental Oil Company) in 1957 to a total depth of 9,200 feet and completed in the Warren-McKee (Simpson) Pool at a standard oil well location within a standard 40-acre oil spacing and proration unit comprising the NE/4 SW/4 of Section 29. It is further understood that, upon issuance of this order, this well will be recompleted up-hole into the Strawn interval.

The SW/4 of Section 29, being a standard 160-acre oil spacing and proration unit within the governing limits of the North Hardy-Strawn Pool, is to be dedicated to this well.

The subject application has been duly filed under the provisions of Division Rule 104.F, revised by Division Order No. R-11231, issued by the New Mexico Oil Conservation Commission in Case No. 12119 on August 12, 1999, and the applicable provisions of the rules governing this pool.

By the authority granted me under the provisions of: (i) Rule 5 of these special pool rules; and (ii) Division Rule 104.F (2), the unorthodox oil well location within the Undesignated North

Administrative Order NSL-4623

Conoco Inc.

August 6, 2001

Page 2

Hardy-Strawn Pool of Conoco, Inc.'s existing Warren Unit Well No. 22 is hereby approved.

Sincerely,,

Lori Wrotenbery

Director

LW/MES/kv

cc: New Mexico Oil Conservation Division - Hobbs

U. S. Bureau of Land Management - Carlsbad

File: Case No. 12182

Case No. 12532

W. Thomas Kellahin, Legal Counsel for Conoco, Inc. - Santa Fe

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