Form 9-331 C
(May 1963)

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1425.

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

RECEIVED
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APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

5. LEASE DESIGNATION AND SERIAL NO.: NM-0631

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: -

1a. TYPE OF WORK
DRILL ☐ DEEPEN ☐ PLUG BACK ☒

7. UNIT AGREEMENT NAME: -

b. TYPE OF WELL
OIL WELL ☒ GAS WELL ☐ OTHER SINGLE ZONE ☒ MULTIPLE ZONE ☐

8. FARM OR LEASE NAME: Federal 11-20-34

2. NAME OF OPERATOR: National Coop. Refinery Assoc.

9. WELL NO.: 2

3. ADDRESS OF OPERATOR: 415 W. Wall, Suite 2215, Midland, Texas 79701

10. FIELD AND POOL, OR WILDCAT: Lea Bone Springs

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface: 2080' FWL & 760' FSL
At proposed prod. zone: S/2 SW/4 Section 11

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec 11, T-20-S, R-34-E

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*: 15 miles South of Buckeye, New Mexico

12. COUNTY OR PARISH: Lea

13. STATE: New Mexico

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)	760'	16. NO. OF ACRES IN LEASE	320'
17. NO. OF ACRES ASSIGNED TO THIS WELL	80		
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.	1814.7'	19. PROPOSED DEPTH	10250' PB
20. ROTARY OR CABLE TOOLS	-		

21. ELEVATIONS (Show whether DF, RT, GR, etc.): 3656' DF 3644' GL

22. APPROX. DATE WORK WILL START*: 11-28-88

23. ~~PROPOSED~~ CASING AND CEMENTING ~~PROGRAM~~

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17 1/2"	13 3/8"	48#	832'	800 sx
12 1/4"	8 5/8"	24# & 32#	5105'	1100 sx
7 7/8"	4 1/2"	11.6# & 13.5#	13274'	1010 sx

National Coop. Refinery Assoc. plans to plug back the Federal 11-20-34 Well #2 presently completed in the Lea Penn Field to the Lea Bone Springs.

A bridge plug will be set @ 10,250' w/20# sand on top. Perforations will be @ 10,136'-10,144'; 10121'-10126'; 9846'9858'; and 9556'-9598'.

See attached Workover Procedure for detailed explanation of work planned.

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24.

SIGNED Carrie A. Bays TITLE Production Clerk DATE 10-26-88

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

APPROVED BY _____ TITLE _____ DATE 11-10-88

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions On Reverse Side

OIL CONSERVATION DIVISION

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

P. O. BOX 2088
SANTA FE, NEW MEXICO 87501

Form C-102
Revised 10-1-78

All distances must be from the outer boundaries of the Section.

Operator	Lease	Well No.
National Coop. Refinery Assoc.	Federal 11-20-34	2

Unit Letter	Section	Township	Range	County
N	11	20 South	34 East	Lea

Actual Footage Location of Well:
760 feet from the South line and 2080 feet from the West line

Ground Level Elev.	Producing Formation	Pool	Dedicated Acreage:
3644'	Bone Springs	Lea Bone Springs	S/2, SW/4 80 Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.

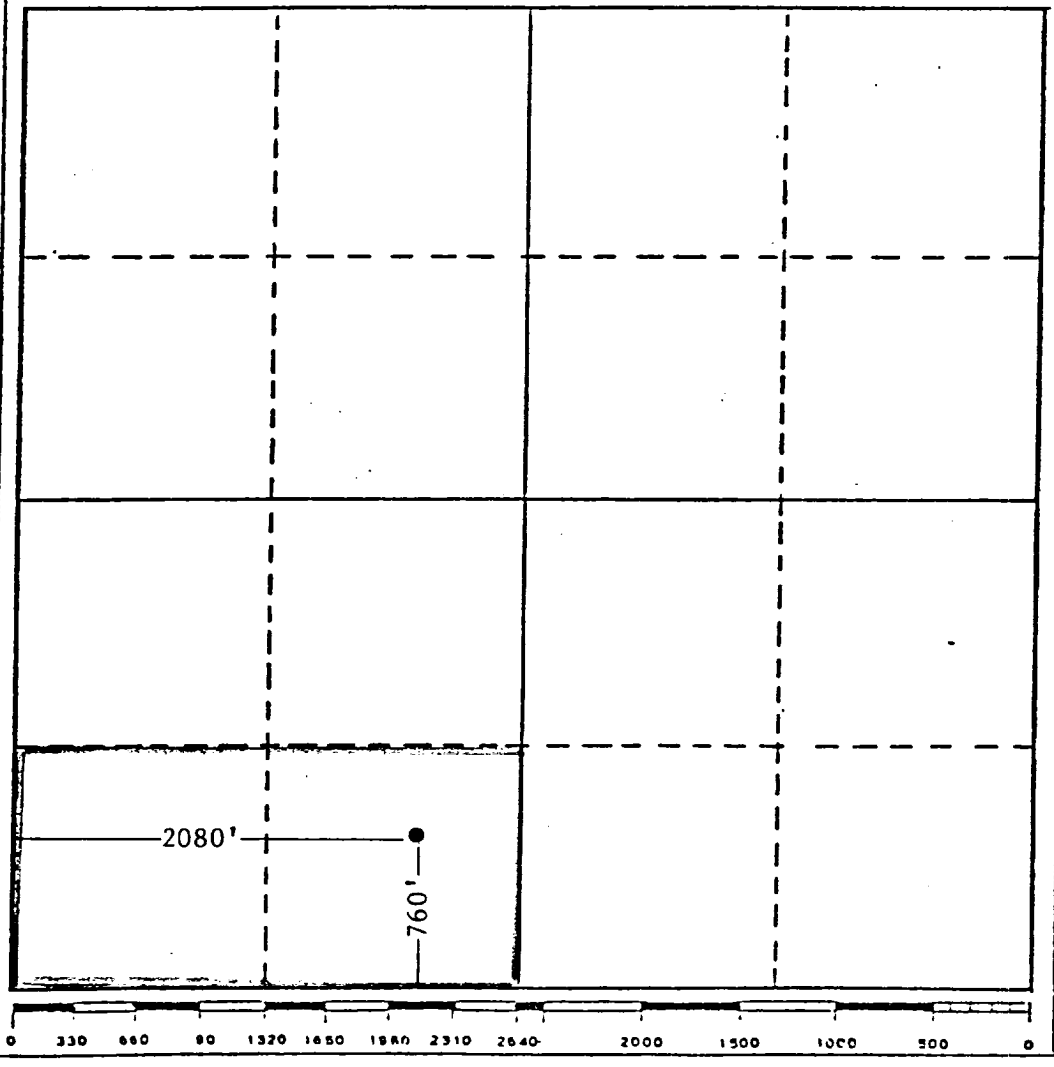
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling. etc?

☐ Yes ☐ No If answer is "yes," type of consolidation _____

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) _____

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Division.



CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Name: Carrie A. Boyd

Position: Production Clerk

Company: National Coop. Refinery Assoc.

Date: 10-26-88

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

(See original plat)

Date Surveyed: 11-16-66

Registered Land Surveyor: John W. West

Certificate No.: N.M.P.E. & L.S. 676

WORKOVER PROCEDURE

FEDERAL 11-20-34 NO. 2

LOCATION: 2080' FWL & 760' FSL
Section 11, Township 20 South, Range 34 East
Lea County, New Mexico

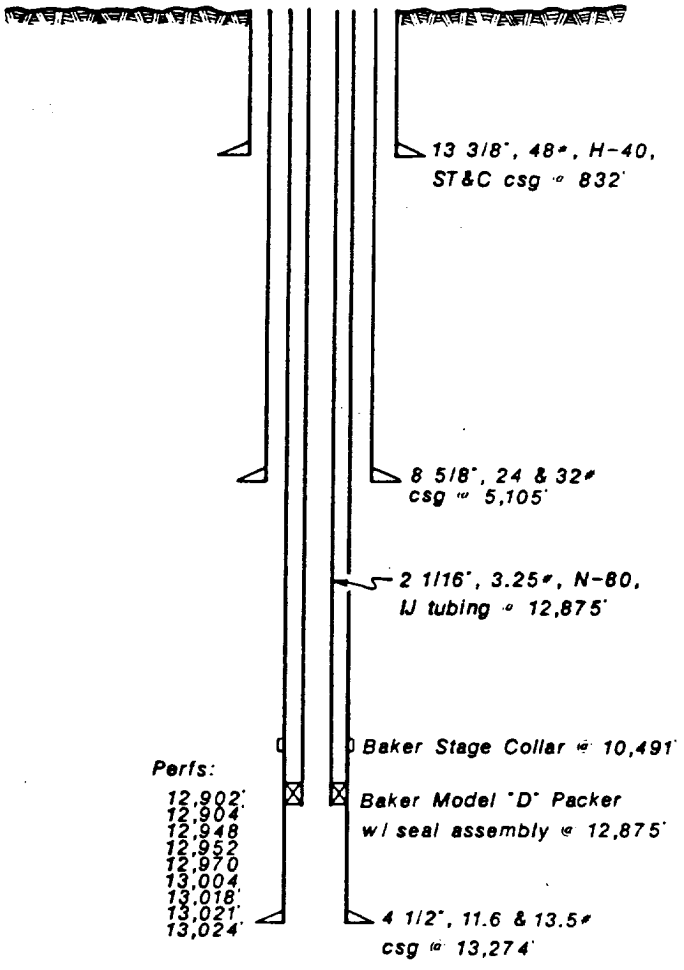
FIELD: Lea Penn

ELEVATIONS: 3644' GL, 3656' DF, TD = 13,275'; PBD = 13,216'

SPUD DATE: November 21, 1966 COMPLETION DATE: February 10, 1967

ORIGINAL COMPLETION: Perforated w/2 SPF at the following depths: 12,902', 12,904', 12,948', 12,952', 12,970', and 13,004'. Perforated w/1 SPF at 13,018', 13,021', and 13,024'. Swab well in.

WORKOVERS: 5/17/67 - Acidized w/1000 gallons mud acid.



1. Move in, rig up service unit.
2. Drop a tubing plug or standing valve.
3. Blow tubing down. Nipple down wellhead and nipple up BOP.
4. Fill tubing with water. Pressure test backside to 1500 psi for 15 minutes.
5. Rig up wireline company and run a slimhole free-point indicator.
6. If free-point indicator shows pipe is free below 10,300 feet, use a string shot to backoff pipe one to two joints above free point. If pipe is not free above this point, consult Denver office before proceeding.
7. Strap out of hole and visually inspect 2-1/16 inch tubing. Lay down bad joints.
8. Trip in hole in 500 to 1000 foot intervals, stopping to reverse hole clean with fresh water at each interval.
9. After cleaning out to top of fish, trip out of hole.

10. Wireline set a retrievable bridge plug at 10,250 feet. Dump 20 pounds sand on top of BP.

11. Run a CBL-Gamma Ray-Collar locator log from the new PBD to 9200 feet. If necessary, pressure up on casing to 1000 psi to eliminate any micro-annulus.

12. Pressure test bridge plug and casing to 2500 psi for 15 minutes.

13. Trip in hole to 4500 feet and swab well dry.

14. Trip out of hole.

15. Perforate below a full lubricator the sonic log intervals 10,136 feet to 10,144 feet and 10,121 feet to 10,126 feet w/4 JSPF using 19 gram charges, 90° phasing and a 3-1/8 inch casing gun.

16. Rig down wireline company.

17. Pick up a retrievable packer and trip in hole to 10,090 feet.

18. Set packer and swab test. Report results to Denver office.

19. Depending on swab results, zone may be acidized.

20. Trip out of hole.

21. Wireline set a retrievable bridge plug at 9900 feet. Pressure test BP to 2500 psi for 15 minutes.

22. Trip in hole to 4500 feet and swab well down, then trip out of hole.

23. Perforate below a full lubricator the sonic log interval from 9846 feet to 9858 feet w/4 JSPF using 19 gram charges, 90° phasing and a 3-1/8 inch casing gun.

24. Rig down wireline company.

25. Pick up a retrieving head and a retrievable packer and trip in hole to 9800 feet.

26. Set packer and swab test. Report results to Denver office.

27. Depending on swab results, zone may be acidized or frac'ed.

28. Release packer, latch onto retrievable bridge plug at 9900 feet. Release bridge plug and pull up to 9650 feet. Reset bridge plug.

29. Pull up to 9600 feet, set packer and pressure test bridge plug to 2500 psi for 15 minutes.

30. Release packer and pull up to 4000 feet.

31. Swab well down.

32. Trip out of hole.

33. Perforate below a full lubricator the sonic log interval 9590 feet to 9598 feet w/4 JSPF and the interval from 9556 feet to 9590 feet w/2 JSPF using 19 gram charges, 90° phasing and a 3-1/8 inch casing gun.

34. Trip in hole with retrieving head and retrievable packer to 9500 feet.

35. Set packer and swab test. Report results to Denver office.

36. Depending on swab results, zone may be acidized or frac'ed.

37. Release packer, latch onto bridge plug at 9650 feet. Release bridge plug and trip out of hole (laying down 2-1/16 inch tubing if it has not been laid down before now).

38. Trip in hole with 2-3/8 inch, 4.7#, N-80, EUE tubing, a seating nipple, and a tubing anchor. Land tubing at 10,150 feet.

39. Pick up a 2" X 1-1/4" X 30' RHBC pump, 3045 feet of 3/4 inch steel rods, 2025 feet of 7/8 inch steel rods, and 5100 feet of 1 inch fiberglass rods. Nipple up polish rod and stuffing box, space out pump and clamp off rod.

40. Install a 320 X 256 X 120 pumping unit.

41. Run flowline to battery install separator, meter run, additional tanks and heater treater.

42. Hang well on, release rig, and start pumping.

43. Report production to Denver office by 9:00 A.M. every day for at least a week.

NOTES: The 2-1/16 inch tubing should be laid down and the 2-3/8 inch tubing picked up prior to performing any kind of stimulation work.

The CBL should be faxed into the Denver office for evaluation prior to any perforating. If necessary, a squeeze procedure will be provided and implemented before perforating any pay zone.

After perforating each pay zone, a production test will be performed. Depending on the results of the production test, a bottom hole pressure build-up test may also be run to determine whether stimulation work is necessary. The procedure for this test will be prepared by the Denver office.

AMO:bjw
10/20/88