



STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

TONEY ANAYA
GOVERNOR

October 24, 1986

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501
(505) 827-5800

HNG Oil Company
P. O. Box 2267
Midland, Texas 79702

Attention: Betty Gildon

Administrative Order TX-167

Gentlemen:

Reference is made to your request for an exception to the tubing setting requirements as contained in Division Rule 107(d)(3) for the below-named well.

Pursuant to the authority granted me by Rule 107(d)(4), you are hereby authorized to set tubing at 13,071 feet in the following well:

Well Name and Number: Diamond 5 Federal, Well No. 3

Location: Unit C, Sec. 5, T-25-S, R-34-E, NMPM,
Lea County, New Mexico

The Division reserves the right to rescind this authority in the event that waste appears to be resulting therefrom.

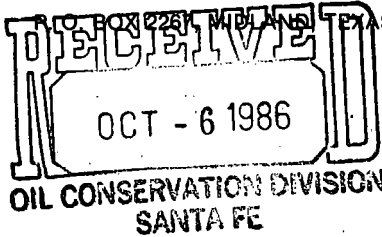
Very truly yours,


R. L. STAMETS,
Division Director

RLS/MES/h

cc: Oil Conservation Division - Hobbs

PVZV2005137171



TEXAS 79702 (915) 686-3600

October 2, 1986

Oil Conservation Division
P. O. Box 2088
State Land Office Bldg.
Santa Fe, NM 87501

Attn: Mr. R. L. Stamets
Division Director

In Re: Diamond 5 Federal, Well No. 3
660' FNL & 2230' FWL of Section 5, T25S, R34E (c)
Lea County, New Mexico
NM 14497

Dear Mr. Stamets:

Tubing for the above-named well has been set at 13,071 feet,
and casing perforated from 13,961 to 13,969 feet.

This office requests administrative exception to Rule 107d.

Very truly yours,

HNG OIL COMPANY

Betty Gildon
Regulatory Analyst

bg

enclosures



P. O. BOX 2267, MIDLAND, TEXAS 79702 (915) 686-3600

October 2, 1986

Oil Conservation Division
P. O. Box 2088
State Land Office Bldg.
Santa Fe, New Mexico 87501

Attn: Mr. R. L. Stamets
Division Director

Re: Diamond 5 Federal, Well No. 3

Dear Mr. Stamets:

There are several reasons why we feel that completions utilizing a TIW Polish Bore Receptacle or Insert Seal Assembly is the most advantageous method to complete a well.

1. The inside diameter of the seal assembly is the same as the diameter of the tubing. Therefore, there is no restriction that would reduce the size of wireline tools that could be run in the hole.
2. The Polish Bore Receptacle has a full bore opening to the liner below it. This allows us to run bridge plugs, retainers, or bits into the liner if necessary.
3. The seal assembly - PBR hook-up allows for tubing movement while treating the well. It will withstand higher treating pressures during stimulation than would be possible with most other production packers.
4. In most of the wells drilled in this area there are several zones of interest. By having the seal assembly stung into the PBR, the lowest zone can be tested and if non-productive, squeezed. The next zone of interest can then be perforated, acidized and tested. All this can be accomplished without pulling the tubing. This can save a considerable amount of time and money.

The Polish Bore Receptacle is run on the top of the liner. The Insert Seal Assembly sets in the tie back sleeve at the top of the liner.

We feel that this Packer system not only saves us a considerable amount of time and money, but also is the most reliable Packer system available. Of the several hundred wells in which HNG Oil Company has utilized this system over the past years, we have had very few failures. If you have any questions, please feel free to give me a call.

Very truly yours,

George M. Hover

George M. Hover
Petroleum Engineer III

GMH/bg

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN DUPLICATE*

(See other instructions on reverse side)

Form approved.
Budget Bureau No. 1004-0137
Expires August 31, 1985

5. LEASE DESIGNATION AND SERIAL NO.

NM 14497

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

Diamond 5 Federal

9. WELL NO.

3

10. FIELD AND POOL, OR WILDCAT

Pitchfork Ranch /Atoka/

11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA

Sec. 5, T25S, R34E

12. COUNTY OR PARISH

Lea

13. STATE

NM

WELL COMPLETION OR RECOMPLETION REPORT AND LOG *

1a. TYPE OF WELL: OIL WELL ☐ GAS WELL ☒ DRY ☐ Other _____

b. TYPE OF COMPLETION: NEW WELL ☒ WORK OVER ☐ DEEP-EN ☐ PLUG BACK ☐ DIFF. RENVR. ☐ Other _____

2. NAME OF OPERATOR
HNG OIL COMPANY

3. ADDRESS OF OPERATOR
P. O. Box 2267, Midland, Texas 79702

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)*
At surface
660' FNL & 2230' FWL of Sec. 5

c. At top prod. interval reported below
Same

At total depth
Same

14. PERMIT NO.

DATE ISSUED

7/28/86

15. DATE SPUDDED 8/7/86 16. DATE T.D. REACHED 9/16/86 17. DATE COMPL. (Ready to prod.) 9/23/86 18. ELEVATIONS (DF, RKB, RT, GR, ETC.)* 3412.4' GR 19. ELEV. CASINGHEAD 3412.4'

20. TOTAL DEPTH, MD & TVD 14,100' 21. PLUG, BACK T.D., MD & TVD 14,029' 22. IF MULTIPLE COMPL., HOW MANY* 23. INTERVALS DRILLED BY → ROTARY TOOLS X CABLE TOOLS

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)* 25. WAS DIRECTIONAL SURVEY MADE

13961 - 13969 (Atoka)

No

26. TYPE ELECTRIC AND OTHER LOGS RUN
Comp. Neutron-Litho Density 27. WAS WELL CORED
No

28. CASING RECORD (Report all strings set in well)

CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
11-3/4"	42#	637'	15-1/4"	250 DLW & 165 C1 C	Circulated
8-5/8"	28 & 24#	5170'	10-5/8"	1350 DLW & 275 C1 C	Circulated
5-1/2"	17 & 20#	13350'	7-7/8"	950 DLW & 450 C1 H	-

29. LINER RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)
3-1/2"	13024'	14100'	110 C1 H	-	2-7/8"	13071	PBR 13071

31. PERFORATION RECORD (Interval, size and number)

13961 - 13969 (.41" 16) 2 spf

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
13961-13969	250 gal spot acid

33.* PRODUCTION

DATE FIRST PRODUCTION		PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump)				WELL STATUS (Producing or shut-in)	
9/22/86		Flowing				SI	
DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N. FOR TEST PERIOD	OIL—BBL.	GAS—MCF.	WATER—BBL.	GAS-OIL RATIO
9/23/86	24	12/64"	→	48	2300	0	47,917
FLOW. TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE	OIL—BBL.	GAS—MCF.	WATER—BBL.	OIL GRAVITY-API (CORR.)	
4000	sealed	→				49.0	

34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.) TEST WITNESSED BY
vented

35. LIST OF ATTACHMENTS
log

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records

SIGNED Betty Gildon Betty Gildon

TITLE Regulatory Analyst

DATE 10/2/86

*(See Instructions and Spaces for Additional Data on Reverse Side)

37. SUMMARY OF POROUS ZONES: (Show all important zones of porosity and contents thereof; cored intervals; and all drill-stem, tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures, and recoveries):

FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.
	0	637	Red Beds
	637	2430	Anhy
Delaware	2430	5500	Salt, Anhy
Delaware, Cherry Can	5500	6545	Anhy, Sand
Cherry Canyon	6545	8050	Lime, Sand
CC & Bone Springs	8050	9985	Lime, Shale, Sand
Bone Spgs, Wlfcamp	9985	13010	Lime, Shale
Wolfcamp	13010	13537	Shale
Wlfcamp, Strawn, Atoka	13537	13825	Lime, Shale
Atoka	13825	13962	Lime, Shale, Chert
Atoka & Morrow	13962	14100	Lime, Shale

38. GEOLOGIC MARKERS

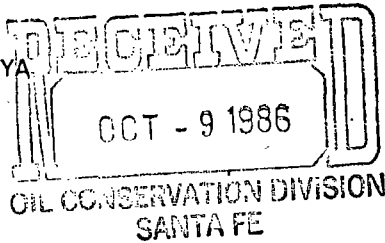
NAME	TOP	
	MEAS. DEPTH	TRUE VERT. DEPTH
Delaware	5254	
Cherry Canyon	6244	
Bone Springs	9207	
Wolfcamp	12320	
Strawn	13670	
Atoka	13818	
Morrow Lime	14200	
Morrow Clastics	14464	

RECEIVED
 U.S. GEOLOGICAL SURVEY
 WASHINGTON, D.C.
 JAN 10 1961



STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
HOBBS DISTRICT OFFICE

TONY ANAYA
GOVERNOR



October 8, 1986

POST OFFICE BOX 1980
HOBBS, NEW MEXICO 88240
(505) 393-6161

OIL CONSERVATION DIVISION
P. O. BOX 2088
SANTA FE, NEW MEXICO 87501

RE: Proposed:

MC _____
DHC _____
NSL _____
NSP _____
SWD _____
WFX _____
PMX _____

TX X

Gentlemen:

I have examined the application for the:

HNG Oil Company	Diamond 5 Federal #3-F	5-25-34
Operator	Lease & Well No.	Unit S-T-R

and my recommendations are as follows:

OK -- Jerry Sexton

Yours very truly,

Jerry Sexton
Supervisor, District 1

/mc