

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1. TYPE OF WORK

DRILL ☒

DEEPEN ☐

2. TYPE OF WELL

Oil ☐
Well ☐

Gas ☐
Well ☒

Other

SINGLE ☐
ZONE

MULTIPLE ☐
ZONE

3. Name of Operator

Dugan Production Corp.

4. Address and Telephone No.

P.O. Box 420, Farmington, NM 87499 (505) 325 - 1821

LOCATION OF WELL (Report location clearly and in accordance with any State requirements *)

At surface 2,455' FSL & 1,905' FWL (NE/4SW/4)

At proposed prod. zone

same

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*

5 miles north of Farmington, NM

15. DISTANCE FROM PROPOSED*

LOCATION TO NEAREST

PROPERTY OR LEASE LINE, FT.

(Also to nearest drig. unit line, if any)

1,905'

16. NO. OF ACRES IN LEASE

1,397.16

17. NO. OF ACRES ASSIGNED
TO THIS WELL

319.11 (W/2)

18. DISTANCE FROM PROPOSED LOCATION*

TO NEAREST WELL, DRILLING, COMPLETED,

OR APPLIED FOR, ON THIS LEASE, FT.

2,700'

19. PROPOSED DEPTH

1,900'

20. ROTARY OR CABLE TOOLS

Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)

6,158' GL

22. APPROX. DATE WORK WILL START*

ASAP

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADES, SIZES OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12-1/4"	8-5/8"	23#	375'	340 cu. ft. circ. to surface
7"	5-1/2"	14#	1,900'	450 cu. ft. circ. to surface

The Big Field No. 91Y will be drilled at a location 25' east of the location for the Big Field No. 91, which was P&A'd at 616'. The well pad and drilling pit used for the Big Field No. 91 will also be used for the Big Field No. 91Y. There will not be any new or additional surface disturbance for the Big Field No. 91Y.

A water-based gel-mud will be used to drill surface and production casing hole. Standard 2,000 psi blow out preventer will be used to drill production hole. The Fruitland Coal will be completed from approximately 1,757'-1,773'. The interval will be fracture stimulated.

This action is subject to technical and procedural review pursuant to 43 CFR 3165.3 and appeal pursuant to 43 CFR 3165.4

DRILLING OPERATIONS AUTHORIZED ARE
SUBJECT TO COMPLIANCE WITH ATTACHED
"GENERAL REQUIREMENTS".

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen, 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

John D. Roe
John Roe

Title

Engineering Manager

Date

9/23/2002

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

Application approval 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.
CONDITIONS OF APPROVAL, IF ANY:

Approved by

/s/ David J. Monkiewicz

Title

Date

*See Instructions on Reverse Side

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 or representations as to any matter within its jurisdiction.

NMOCD

Topographic map of San Juan County, New Mexico, showing a proposed road and existing road. The map features contour lines, elevation markers (e.g., 5000, 5500, 6000), and labels for "Proposed Road" and "Existing Road". The terrain is rugged with numerous peaks and valleys.

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EXHIBIT B
OPERATIONS PLAN
Big Field #91Y

APPROXIMATE FORMATION TOPS:

Ojo Alamo/McDermott - surface
Kirtland - 235'
Fruitland - 1440'
Pictured Cliffs - 1773'

Total Depth 1900'

LOGGING PROGRAM: Run cased hole CNL-CDL

Catch samples every 10 feet from 1450 feet to total depth.

CASING PROGRAM:

Hole Size	Casing Size	Wt./ft.	Setting Depth	Grade and Condition
12-1-4"	8-5/8"	23#	±375'	H-40 new
7"	5-1/2"	14#	±1900'	J-55 new

Plan to drill a 12-1/4" hole and set 375' of 8-5/8" OD, 23#, H-40 surface casing; then plan to drill a 7" hole to total depth with gel-water-mud program to test Fruitland Coal Formation. 5½", 14# J-55 casing will be run and cemented. Cased hole CNL-CDL log will be run. Productive zone will be perforated and fractured. After frac the well will be cleaned out and production equipment will be installed.

CEMENTING PROGRAM: All volumes are contingent upon Caliper logs.
Surface: Cement with 340 cu.ft. Class "B" neat with 3# Gilsonite plus 1/4# celloflake/sack. Circulate to surface.

Production Stage - Cement with 350 cu.ft. 3% Lodense with 3# Gilsonite plus 1/4# celloflake/sack followed by 100 cu.ft. Class "B" with 3# Gilsonite plus 1/4# celloflake/sack.
Total cement slurry for production stage is 450 cu.ft.
Circulate to surface.

An adequate spacer will be pumped ahead of the cement slurry to help prevent mud contamination of the cement. An adequate number of casing centralizers will be run through usable water zones to ensure that casing is centralized through these zones. The adequate number of centralizers will be determined based on API standards. Centralizers to impart a swirling action around the casing will be used just below and into the base of the lowest usable water zone. These devices will assist mud displacement, increase cement bonding potential and create an effective hydraulic seal. A chronological log will be kept which records the pump rate, pump pressure, slurry density, and slurry volume for the cement job. The log will be sent to the BLM after completion of the job.

WELLHEAD EQUIPMENT:

Huber 8-5/8" x 5-1/2" casing head, 1000#WP, tested to 2000#
Huber 5-1/2" x 2-7/8" tubing head, 1000# WP, tested to 2000#

BOP and Related Equipment will include for a 2000 psi system:

Annual preventer, double ram, or 2 rams with one being blind and
one being a pipe ram

Kill line (2" minimum)

1 kill line valve (2" minimum)

1 choke line valve

2 chokes

Upper kelly cock valve with handle available

Safety valve and subs to fit all drill string connections in use

Pressure gauge on choke manifold

2" minimum choke line

Fill-up line

Dugan Prod.Corp. Office & Radio Dispatch:	325-1821
Kurt Fagrelus 325-4327	Mark Brown 327-3632
John Alexander 325-6927	John Roe 326-1034