

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

## APPLICATION FOR PERMIT TO DRILL OR DEEPEN

## 1a. TYPE OF WORK

DRILL ☒DEEPEN ☐

2001 MAR 13 PM 3:43

## b. TYPE OF WELL

Oil ☐Gas ☐Well ☐Well ☒Other ☐SINGLE ☐MULTIPLE ☐ZONE ☒ZONE ☐

## 2. Name of Operator

Dugan Production Corp.

## 3. 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 1310' FNL &amp; 1654' FWL (NE/4 NW/4)

## At proposed prod. zone

same

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

Approx. 2 miles west of Hwy 170 &amp; Twin Mounds By-Pass

## 15. DISTANCE FROM PROPOSED\*

LOCATION TO NEAREST  
PROPERTY OR LEASE LINE, FT.

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

1200'

## 16. NO. OF ACRES IN LEASE

400

17. NO. OF ACRES ASSIGNED  
TO THIS WELL

160 NW

## 18. DISTANCE FROM PROPOSED LOCATION\*

TO NEAREST WELL, DRILLING, COMPLETED,  
OR APPLIED FOR, ON THIS LEASE, FT.

approx. 2500'

from DPC's

Jacobs #2

## 19. PROPOSED DEPTH

1420' —

## 20. ROTARY OR CABLE TOOLS

Rotary

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

5662' 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
9-7/8"	7"	20#	120'	70 cu.ft. circ. to surf. —
6-1/4"	4 1/2"	10.5#	1420' —	220 cu.ft. circ. to surf. —

A water based gel-mud will be used to drill surface and production casing hole. Standard 2,000 psi BOP will be used to drill production hole. The Pictured Cliffs Sandstone will be completed from approximately 1295'-1305'. The interval will be fractured.

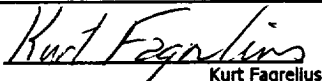
This action is subject to Bureau of Land Management procedural review pursuant to 43 CFR 3160.3 and appeal pursuant to 43 CFR 3165.4.

APPROVED FOR THE BUREAU OF LAND MANAGEMENT  
BY: [Signature]  
DATE: [Date]

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

  
Kurt Fagrellus

Title Geologist

Date 3/12/2001

(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:

APR - 6 2001

Approved by



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

DISTRICT I  
P.O. Box 1980, Hobbs, N.M. 88241-1980

State of New Mexico  
Energy, Minerals & Natural Resources Department

Form C-102

Revised February 21, 1994

Instructions on back

Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

DISTRICT II  
P.O. Drawer DD, Artesia, N.M. 88211-0719

DISTRICT III  
1000 Rio Brazos Rd., Aztec, N.M. 87410

DISTRICT IV  
PO Box 2088, Santa Fe, NM 87504-2088

OIL CONSERVATION DIVISION

P.O. Box 2088  
Santa Fe, NM 87504-2088

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number 30 045 <b>30590</b>	<sup>2</sup> Pool Code 78160	<sup>3</sup> Pool Name Harper Hills Fruitland Sand PC
<sup>4</sup> Property Code <b>3715</b>	<sup>5</sup> Property Name JACOBS	<sup>6</sup> Well Number 3
<sup>7</sup> GRID No. 006515	<sup>8</sup> Operator Name DUGAN PRODUCTION CORPORATION	<sup>9</sup> Elevation 5662

<sup>10</sup> Surface Location

UL or lot no. <b>C</b>	Section <b>26</b>	Township <b>30N</b>	Range <b>14W</b>	Lot Idn	Feet from the <b>1310</b>	North/South line <b>NORTH</b>	Feet from the <b>1654</b>	East/West line <b>WEST</b>	County <b>SAN JUAN</b>
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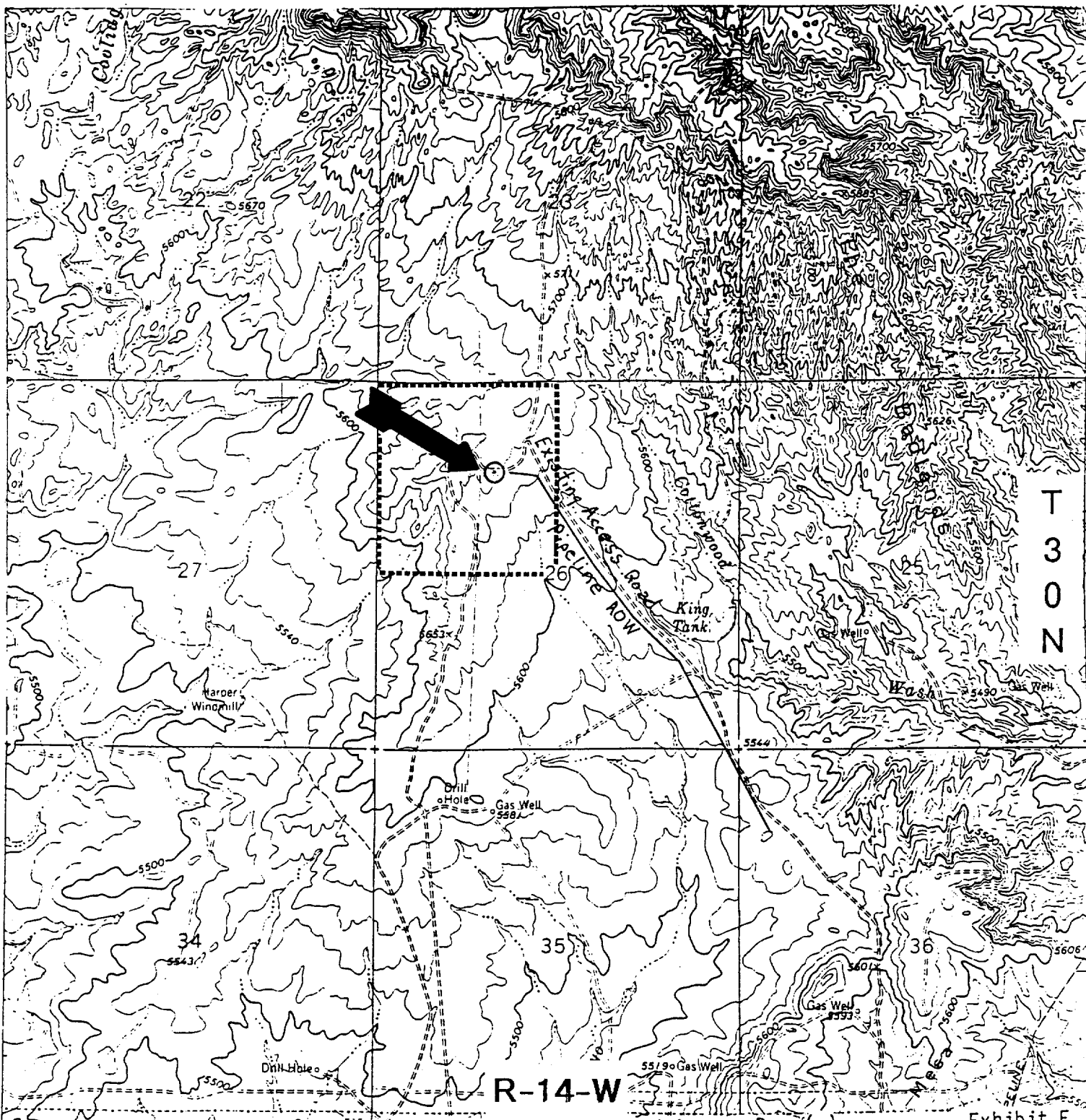
<sup>11</sup> Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
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<sup>12</sup> Dedicated Acres <b>160 NW</b>	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> Order No.
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NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED  
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

<div>Dugan Prod. NM-33050</div> <div></div>	<div><p><sup>17</sup> OPERATOR CERTIFICATION</p><p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief</p><p><u>Kurt Fagrelius</u> Signature Kurt Fagrelius Printed Name Geologist Title March 12, 2001 Date</p></div> <div><p><sup>18</sup> SURVEYOR CERTIFICATION</p><p>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 belief.</p><p>MARCH 9, 2001 Date of Survey</p><p>Signature and _____ Surveyor:</p><div></div><p>Certificate Number <b>N.M. PLS #5979</b></p></div>
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### Existing Roads

Vicinity of nearest town or reference pt.  
Approx. 1½ mi. N & W of Farmington, NM

Type of surface dirt

Conditions good

Other \_\_\_\_\_

Reference map: USGS map - Youngs Lake Quad  
DUGAN PRODUCTION CORP - JACOBS #3

### Exhibit E

### Planned Access Road(s)

### Exhibit E

Width \_\_\_\_\_ Maximum grades \_\_\_\_\_  
Drainage design \_\_\_\_\_ as required  
Cuts & Fills \_\_\_\_\_ as required  
Surfacing material none  
    ↳ Turnouts  
    ↳ Culverts  
    ↳ Gates  
    ↳ Cattleguards  
    ↳ Fence cuts  
    ↳ Waterbars  
    ↳ Access Road & Pipeline

Access road(s) do/do not cross Fed/Ind land.

**EXHIBIT B**  
**OPERATIONS PLAN**

Jacobs #3

**APPROXIMATE FORMATION TOPS:**

Ojo Alamo	surface
Kirtland	surface
Fruitland	950'
Pictured Cliffs	1295'

<b>Total Depth</b>	<b>1420'</b>
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**LOGGING PROGRAM:** Run cased hole CNL-CDL

Catch samples every 10 feet from 900 feet to total depth.

**CASING PROGRAM:**

<u>Hole</u> <u>Size</u>	<u>Casing</u> <u>Size</u>	<u>Wt./ft.</u>	<u>Setting</u> <u>Depth</u>	<u>Grade and</u> <u>Condition</u>
9-7/8"	7"	20#	±120'	J-55
6-1/4"	4-1/2"	10.5#	±1420'	J-55

Plan to drill a 9-7/8" hole and set 120' of 7" OD, 20#, J-55 surface casing; then plan to drill a 6-1/4" hole to total depth with gel-water-mud program to test Fruitland Sand/PC Formation. 4½", 10.5# 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 70 cu.ft. Class "B" neat. Circulate to surface

Production Stage - Cement with 140 cu.ft. 2% Lodense with 1/4# celloflake/sx followed by 80 cu.ft. Class "B" with 1/4# celloflake/sx.  
Total cement slurry for production stage is 220 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 7" x 4-1/2" casing head, 1000#WP, tested to 2000#

Huber 4-1/2" 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
John Alexander 325-6927	Mark Brown 327-3632
Sherman Dugan 327-3121	John Roe 326-1034