

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

## APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1 a. TYPE OF WORK

DRILL ☒DEEPEEN ☐

b. TYPE OF WELL

Oil ☐Gas ☐Well ☐Well ☒Other ☐SINGLE ☐ZONE ☒MULTIPLE ☐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 1960' FSL &amp; 830' FEL (NE/4 SE/4)

At proposed prod. zone

same

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

Approx. 7 miles SW 44-Store. N.M.

15 DISTANCE FROM PROPOSED\*

LOCATION TO NEAREST

PROPERTY OR LEASE LINE, FT.

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

830'

16 NO. OF ACRES IN LEASE

1,640.00

17 NO. OF ACRES ASSIGNED

TO THIS WELL

160 (SE/4)

18 DISTANCE FROM PROPOSED LOCATION\*

TO NEAREST WELL, DRILLING, COMPLETED,

OR APPLIED FOR, ON THIS LEASE, FT.

19 PROPOSED DEPTH

1200'

20 ROTARY OR CABLE TOOLS

Rotary

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

6645' 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
8-3/4"	7"	20#	120	70 cu.ft. circ. to surf.
6-1/4"	4 1/2"	10.5#	1200	185 cu.ft. circ. to surf.

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".

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 Chacra will be completed from approximately 955' - 1100'.  
The interval will be fractured.

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 measurements and true vertical depths. Give blowout preventer program, if any.

24.

SIGNED

Kurt Fagrelus  
Kurt Fagrelus

Title Geologist

Date 5/3/2002

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

Applicant approves and certifies 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

Mark Kelly  
Mark Kelly

Title

AFM (Acting)  
AFM (Acting)

Date

JUN - 5 2002

\*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.

NMOC

District I  
PO Box 1980, Hobbs, NM 88241-1980

District II  
PO Drawer 00, Artesia, NM 88211-0719

District III  
1000 Rio Brazos Rd., Aztec, NM 87410

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

State of New Mexico  
Energy, Minerals & Natural Resources Department

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

Form C-102  
Revised February 21, 1994  
Instructions on back  
Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number <b>30-045-31087</b>		*Pool Code <b>96166</b>	*Pool Name <b>Bist: Chacra</b>
*Property Code <b>29844</b>	*Property Name <b>HARRISON</b>		*Well Number <b>1</b>
*GRID No. <b>006515</b>	*Operator Name <b>DUGAN PRODUCTION CORPORATION</b>		*Elevation <b>6645'</b>

<sup>10</sup> Surface Location

UL or lot no.	Section	Township	Range	Lot 10	Feet from the	North/South line	Feet from the	East/West line	County
I	24	22N	9W		1960	SOUTH	830	EAST	SAN JUAN

<sup>11</sup> Bottom Hole Location If Different From Surface

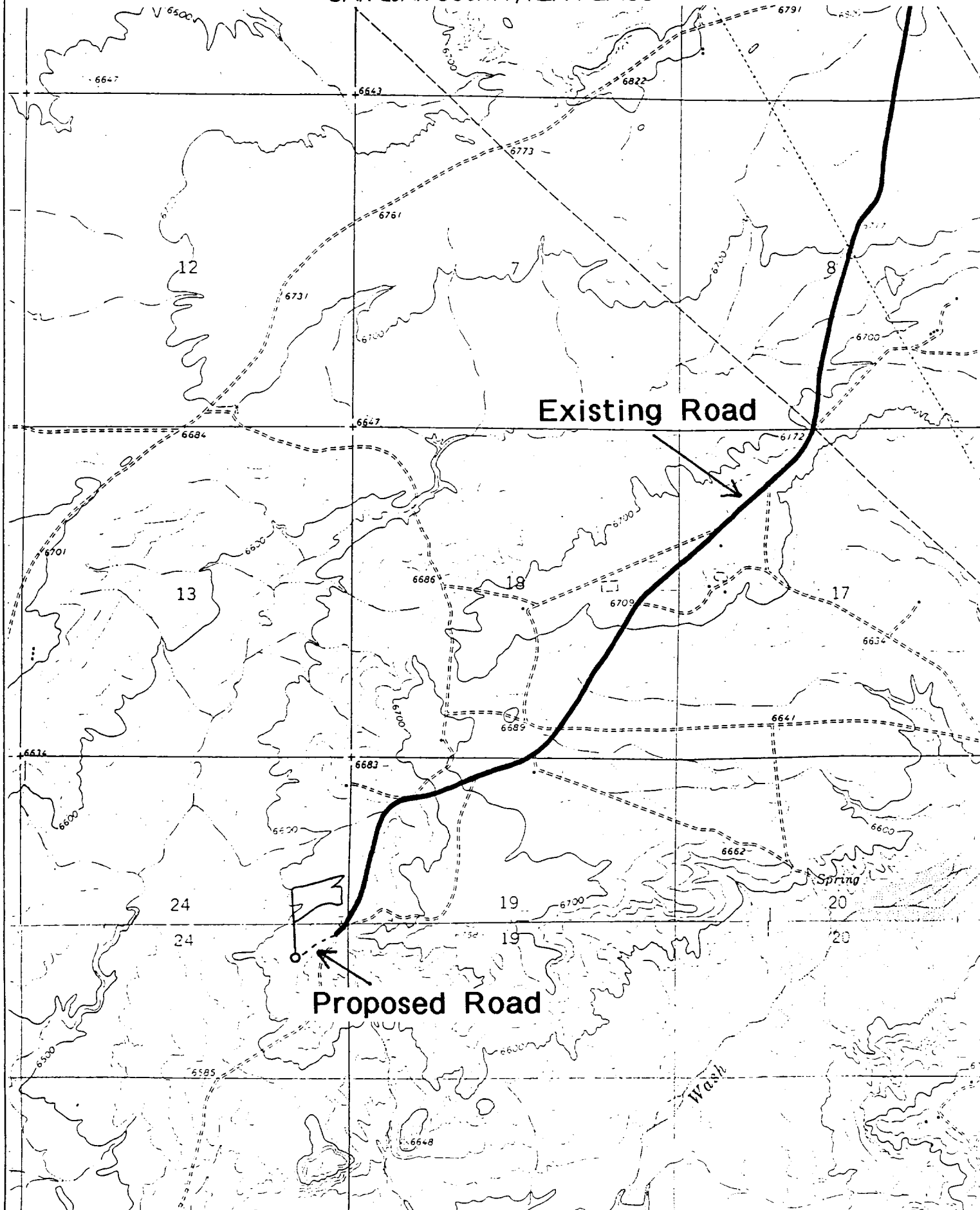
UL or lot no.	Section	Township	Range	Lot 10	Feet from the	North/South line	Feet from the	East/West line	County

<sup>12</sup> Dedicated Acres <b>160.0 Acres - (SE/4)</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><p><sup>16</sup></p><p>NM-89099 DPC-100%</p></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><i>Kurt Fagrelus</i> Signature</p> <p><b>Kurt Fagrelus</b> Printed Name</p> <p><b>Geologist</b> Title</p> <p><b>May 3, 2002</b> Date</p>
	<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><b>APRIL 12, 2002</b> Date of Survey</p> <p>Signature and Seal of Professional Surveyor</p> <div><p><b>JASON C. EDWARDS</b> Certificate Number 15269</p></div>

DUGAN PRODUCTION CORPORATION HARRISON #1  
1960' FSL & 830' FEL, SECTION 24, T22N, R9W, N.M.P.M.  
SAN JUAN COUNTY, NEW MEXICO



**EXHIBIT B**  
**OPERATIONS PLAN**  
Harrison #1

**APPROXIMATE FORMATION TOPS:**

Kirtland	less than 125'	Lewis	790'
Fruitland	255'	Chacra	955'
Pictured Cliffs	615'		
<b>Total Depth</b>	<b>1200'</b>		

**LOGGING PROGRAM:** Run cased hole CNL-CCL

Catch samples every 10 feet from feet to total depth.

**CASING PROGRAM:**

Hole	Casing	Setting	Grade and
<u>Size</u>	<u>Size</u>	<u>Wt./ft.</u> <u>Depth</u>	<u>Condition</u>
8-3/4"	7"	20# ±120'	J-55-new
6-1/4"	4-1/2"	10.5# ±1200'	J-55-new

Plan to drill a 8-3/4" 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 Chacra Formation. 4½", 10.5# J-55 casing will be run and cemented. Cased hole CNL-CCL 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 110 cu.ft. 2% Lodense with 1/4# celloflake/sx followed by 75 cu.ft. Class "B" with 1/4# celloflake/sx.  
Total cement slurry for production stage is 185 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: (Exhibit D).

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

Mark Brown (Home) 327-3632 or (Mobile) 320-8247

Kurt Fagrelus (Home) 325-4327 or (Mobile) 320-8248

John Alexander (Home) 325-6927 or (Mobile) 320-1935