Form 3160-3
(August 1999)

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UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0136
Expires November 30, 2000

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.
NM-628

6. If Indian, Allottee or Tribe Name

1a. Type of Work: ☒ DRILL ☐ REENTER

7. If Unit or CA Agreement, Name and No.

1b. Type of Well: ☐ Oil Well ☐ Gas Well ☒ Other: CBM ☒ Single Zone ☐ Multiple Zone

8. Lease Name and Well No.
MOLLY PITCHER 5

2. Name of Operator
DUGAN PRODUCTION CORP.

Contact: KURT FAGRELIUS
E-Mail: kfagrelius@duganproduction.com

9. API Well No.
30045 32200

3a. Address
709 EAST MURRAY DRIVE
FARMINGTON, NM 87401

3b. Phone No. (include area code)
Ph: 505.325.1821
Fx: 505.327.4613

10. Field and Pool, or Exploratory
HARPER HILL FRUIT. SAND P.C.

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*

At surface NENE 755FNL 940FEL 36.49100 N Lat, 108.16190 W Lon

At proposed prod. zone

11. Sec., T., R., M., or Blk. and Survey or Area
Sec 14 T30N R14W Mer NMP
SME: BLM

14. Distance in miles and direction from nearest town or post office*
APPROX. 5 MILES NORTH OF FARMINGTON, NM

12. County or Parish
SAN JUAN

13. State
NM

15. Distance from proposed location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)
755'

16. No. of Acres in Lease
320.00

17. Spacing Unit dedicated to this well
160.00 NE/4

18. Distance from proposed location to nearest well, drilling, completed, applied for, on this lease, ft.
APPROX. 1,150'

19. Proposed Depth
1855 MD

20. BLM/BIA Bond No. on file

21. Elevations (Show whether DF, KB, RT, GL, etc.
5966 GL

22. Approximate date work will start
03/15/2004

23. Estimated duration
6-DAYS

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DIST. 3

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, shall be attached to this form:

1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification
6. Such other site specific information and/or plans as may be required by the authorized officer.

25. Signature Kurt Fagrelius
Name (Printed/Typed) KURT FAGRELIUS
Date 02/11/2004

Title
GEOLOGIST

Approved by (Signature) /s/ Duane W. Spencer
Name (Printed/Typed)
Date 03-30-04

Title
Office

Application approval does not warrant or certify 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, are attached.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make 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.

Additional Operator Remarks:

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 Fruitland sandstone and Pictured Cliffs Sandstone will be completed from approximately 1520' - 1720'. The interval will be fractured.

NMOCD

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

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

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

District II
PO Drawer DD, 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

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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

¹API Number	²Pool Code	³Pool Name
30-045-32200	78160	HARPER HILL FRUITLAND SAND PICTURED CLIFFS

⁴Property Code	⁵Property Name	⁶Well Number
3771	MOLLY PITCHER	5

⁷OGRID No.	⁸Operator Name	⁹Elevation
006515	DUGAN PRODUCTION CORPORATION	5966'

¹⁰ Surface Location

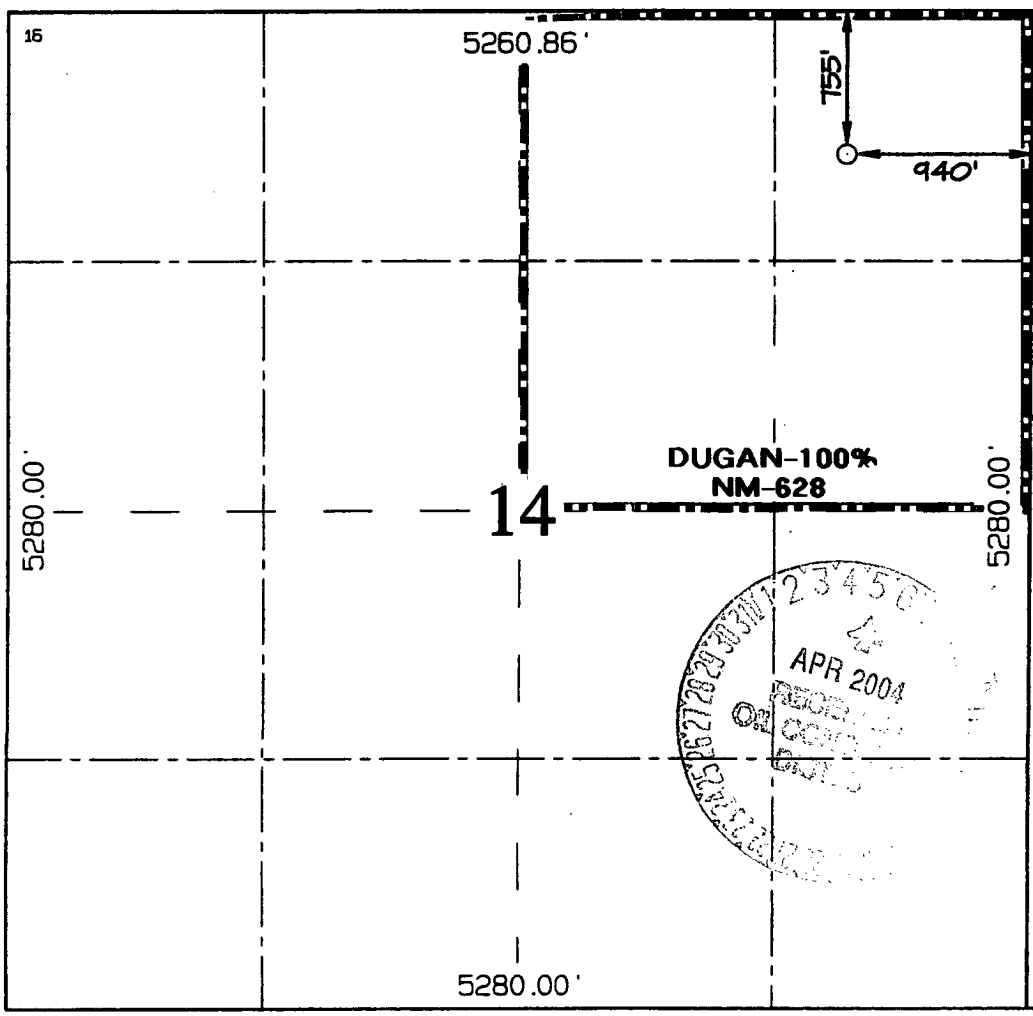
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	14	30N	14W		755	NORTH	940	EAST	SAN JUAN

¹¹ 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

¹²Dedicated Acres	¹³Joint or Infill	¹⁴Consolidation Code	¹⁵Order No.
160.0 Acres - (NE/4)			

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



¹⁷ OPERATOR CERTIFICATION

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

Kurt Fagrelius
Signature

Kurt Fagrelius
Printed Name

Geologist
Title

2/13/2004
Date

¹⁸ SURVEYOR CERTIFICATION

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.

Survey Date: DECEMBER 19, 2003

Signature and Seal of Professional Surveyor

JASON C. EDWARDS
NEW MEXICO
15269
REGISTERED PROFESSIONAL SURVEYOR

JASON C. EDWARDS
Certificate Number 15269

EXHIBIT B
OPERATIONS PLAN
Molly Pitcher #5

APPROXIMATE FORMATION TOPS:

Ojo Alamo	Surface	Pictured Cliffs	1705'
Kirtland	215'	**Total Depth**	**1855'**
Fruitland	1330'		

Catch samples every 10 feet from 1500 feet to total depth.

LOGGING PROGRAM:

Run cased-hole GR-CCL-CNL from total depth to surface.

CASING PROGRAM:

Hole Size	Casing Size	Wt./ft.	Setting Depth	Grade and Condition
12-1/4"	8-5/8"	24#	120'	J-55
7"	5-1/2"	14#	1855'	J-55

Plan to drill a 12-1/4" hole and set 120' of 8-5/8" OD, 24#, J-55 surface casing. Then plan to drill a 7" hole to total depth with gel-water mud program to test the Fruitland sandstone and Pictured Cliffs sandstone. 5-1/2", 14#, J-55 production casing will be run and cemented. Cased hole GR-CCL-CNL 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:

Surface: Cement to surface with 70 cf Class B + 2% $CaCl_2$. Circulate to surface.

Production Stage-Cement with 200 cf 2%Lodense with ¼# celloflake/sx followed by 100 cf Class "B" with ¼# celloflake/sx.
Total cement slurry for production stage is 300 cf.
Circulate cement 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"x5-1/2" casing head, 1000# WP, tested to 2000#.
Huber 5-1/2"x2-7/8" tubing head, 1000# WP, tested to 2000#.

BOP and Related Equipment will include for a 2000 psi system: (Exhibit D)

Annular 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.

Contacts:

Dugan Prod.Corp. Office & Radio Dispatch:		325-1821
	Mark Brown	327-3632 (H)
		320-8247 (M)
	Kurt Fagrelius	325-4327 (H)
		320-8248 (M)
	John Alexander	325-6927 (H)
		320-1935 (M)