

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

2005 SEP 22 AM 10 29

| | | | |
|--|--|---|--|
| 1a. Type of Work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER | | 5. Lease Serial No. NM-36952 | |
| 1b. Type of Well: <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other | | 6. If Indian, Allottee or Tribe Name | |
| 2. Name of Operator DUGAN PRODUCTION CORP. | | 7. If Unit or CA Agreement, Name and No. | |
| 3a. Address 709 EAST MURRAY DRIVE FARMINGTON, NM 87401 | | 8. Lease Name and Well No. Flo Jo #91 | |
| 3b. Phone No. (include area code) Ph: 505.325.1821 Fx: 505.327.4613 | | 9. API Well No. 30-045-33344 | |
| 4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface 1660' FSL and 1300' FWL, Lat. 36.1326, Long. 107.5736 At proposed prod. zone Same as above | | 10. Field and Pool, or Exploratory Basin Fruitland Coal | |
| 14. Distance in miles and direction from nearest town or post office* Approx. 13 miles SW of Blanco Trading Post, NM | | 11. Sec., T., R., M., or Blk. and Survey or Area Sec. 13, T23N, R11W | |
| 15. Distance from proposed location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 1300 Feet | | 12. County or Parish San Juan | |
| 16. No. of Acres in Lease 1760.0 Acres | | 13. State NM | |
| 18. Distance from proposed location to nearest well, drilling, completed, applied for, on this lease, ft. Approx. 2100 Feet | | 17. Spacing Unit dedicated to this well W/2-320 acres | |
| 19. Proposed Depth 760 Feet | | 20. BLM/BIA Bond No. on file On file | |
| 21. Elevations (Show whether DF, KB, RT, GL, etc.) GL-6396 Feet | | 23. Estimated duration 3-days | |
| 22. Approximate date work will start ASAP | | | |

24. Attachments

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

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

| | | |
|---|--|-----------------|
| 25. Signature <i>Kurt Fagrelus</i> | Name (Printed/Typed) KURT FAGRELIUS | Date 9-21-05 |
| Title GEOLOGIST | | |
| Approved by (Signature) <i>[Signature]</i> | Name (Printed/Typed) | Date 1/12/06 |
| Title AFM | | |
| Office FFO | | |

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.

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 Coal will be completed from approximately 545' - 606'. The interval will be fractured.

This action is subject to technical and procedural review pursuant to 43 CFR 3160.4 and appeal pursuant to 43 CFR 3165.4



NMOCOD

DRILLING 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

Form C-102

Revised February 21, 1994

Instructions on back
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

2005 SEP 22 AM 10 29

☐ AMENDED REPORT

RECEIVED

WELL LOCATION AND ACREAGE DEDICATION PLAT

| | | | |
|------------------------------------|---|----------------------------|---|
| *API Number 30-045-33344 | | *Pool Code 71629 | *Pool Name BASIN FRUITLAND COAL |
| *Property Code 3684 | *Property Name FLO JO | | *Well Number 91 |
| *GRID No. 006515 | *Operator Name DUGAN PRODUCTION CORPORATION | | *Elevation 6396' |

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 |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|----------|
| L | 13 | 23N | 11W | | 1660 | SOUTH | 1300 | WEST | 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 |
|---|---------|----------|-------|---------|-------------------------------|----------------------------------|-------------------------|----------------|--------|
| | | | | | | | | | |
| ¹² Dedicated Acres 320.0 Acres - (W/2) | | | | | ¹³ Joint or Infill | ¹⁴ Consolidation Code | ¹⁵ Order No. | | |

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><div><div><div><div>16</div><div>DUGAN</div><div>NM-36952</div></div><div>5297.16'</div></div><div>5266.14'</div><div>1300'</div><div>1660'</div><div>5359.20'</div><div>13</div></div></div> | <div><div><div><div>¹⁷ OPERATOR CERTIFICATION</div><div>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief</div><div><i>Kurt Fagrelus</i></div><div>Signature</div><div>Kurt Fagrelus</div><div>Printed Name</div><div>Geology</div><div>Title</div><div>9-21-05</div><div>Date</div></div><div><div><div><div>¹⁸ SURVEYOR CERTIFICATION</div><div>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.</div><div>Date of Survey: JULY 18, 2005</div><div>Signature and Seal of Professional Surveyor</div><div><div><div><div>JASON C. EDWARDS</div><div>NEW MEXICO</div><div>15269</div><div>REGISTERED PROFESSIONAL SURVEYOR</div></div></div><div><i>JASON C. EDWARDS</i></div><div>Certificate Number 15269</div></div></div></div></div></div></div> |
|--|---|

Submit 3 Copies To Appropriate District Office
District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Ave., Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources

Form C-103
March 4, 2004

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

WELL API NO. 30-045-33344

5. Indicate Type of Lease Federal
STATE ☐ FEE ☐

6. State Oil & Gas Lease No.
Federal NM-36952

7. Lease Name or Unit Agreement Name
Flo Jo

8. Well Number
91

9. OGRID Number
006515

10. Pool name or Wildcat
Basin Fruitland Coal

SUNDRY NOTICES AND REPORTS ON WELLS
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

1. Type of Well:
Oil Well ☐ Gas Well ☒ Other ☐

2. Name of Operator
Dugan Production Corp.

3. Address of Operator
709 East Murray Drive, Farmington, NM

4. Well Location
Unit Letter L : 1660 feet from the south line and 1300 feet from the west line
Section 13 Township 23N Range 10W NMPM County San Juan

11. Elevation (Show whether DR, RKB, RT, GR, etc.)
G.L. 6396'

Pit or Below-grade Tank Application (For pit or below-grade tank closures, a form C-144 must be attached)

Pit Location: UL L Sect 13 Twp 23N Rng 10W Pit type Drilling Depth to Groundwater 545' Distance from nearest fresh water well 4100'

Distance from nearest surface water 2100' Below-grade Tank Location UL Sect Twp Rng ;
feet from the line and feet from the line

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐ PLUG AND ABANDON ☐

TEMPORARILY ABANDON ☐ CHANGE PLANS ☐

PULL OR ALTER CASING ☐ MULTIPLE COMPLETION ☐

OTHER: Reserve pit for drilling (lined) ☒

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTERING CASING ☐

COMMENCE DRILLING OPNS. ☐ PLUG AND ABANDONMENT ☐

CASING TEST AND CEMENT JOB ☐

OTHER: ☐

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

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 Coal will be completed from approximately 545' - 605'. The interval will be fractured.

Federal lease, pits will be constructed and abandoned as per BLM and NMOCD guidelines.

I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that any pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines ☒ a general permit ☐ or an (attached) alternative OCD-approved plan ☐.

SIGNATURE Kurt Fagrelus TITLE Geology DATE 9-21-05

Type or print name Kurt Fagrelus E-mail address: Telephone No 325-1821

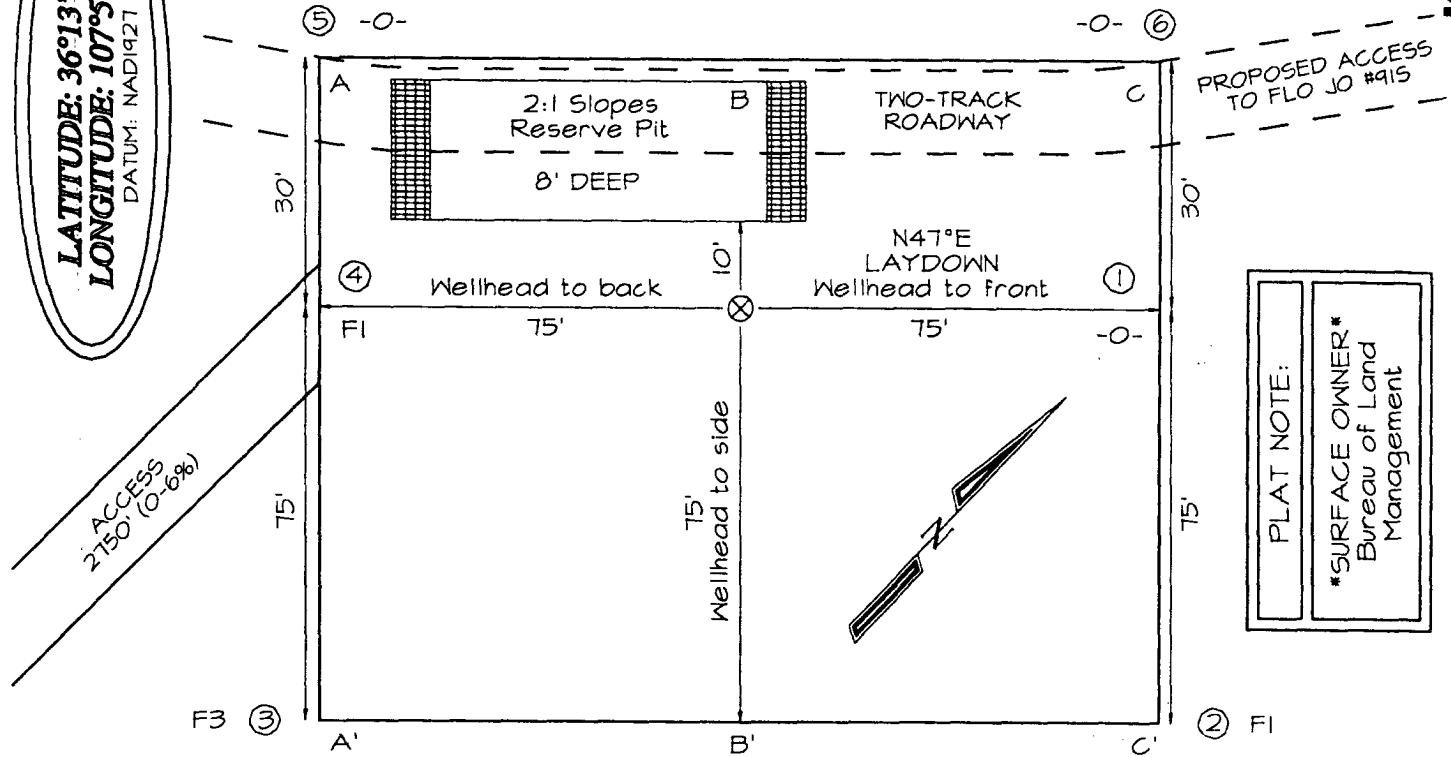
(This space for State use)

APPROVED BY [Signature] TITLE DEPUTY OIL & GAS INSPECTOR, DIST. 9 DATE JAN 17 2006
Conditions of approval, if any:

DUGAN PRODUCTION CORPORATION FLO JO #91
1660' FSL & 1300' FWL, SECTION 13, T23N, R11W, NMPM
SAN JUAN COUNTY, NEW MEXICO ELEVATION: 6396'

PLAT 3.

LATITUDE: 36°13'26"
LONGITUDE: 107°57'36"
 DATUM: NAD1927



| | | | | | | |
|-------|--|--|--|--|--|--|
| A-A' | | | | | | |
| 6406' | | | | | | |
| 6396' | | | | | | |
| 6386' | | | | | | |

| | | | | | | |
|-------|--|--|--|--|--|--|
| B-B' | | | | | | |
| 6406' | | | | | | |
| 6396' | | | | | | |
| 6386' | | | | | | |

| | | | | | | |
|-------|--|--|--|--|--|--|
| C-C' | | | | | | |
| 6406' | | | | | | |
| 6396' | | | | | | |
| 6386' | | | | | | |

Note: Contractor should call One-Call for location of any marked or unmarked buried pipelines or cables on well pad and/or access road at least two (2) working days prior to construction

EXHIBIT B
OPERATIONS PLAN
Flo Jo #91

APPROXIMATE FORMATION TOPS:

| | | | |
|-----------|---------|--------------------|-------------|
| Kirtland | Surface | Pictured Cliffs | 545' |
| Fruitland | 175' | Total Depth | 760' |

Catch samples every 10 feet from 450 feet to TD.

LOGGING PROGRAM:

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

CASING PROGRAM:

| <u>Hole Size</u> | <u>Casing Size</u> | <u>Wt./ft.</u> | <u>Setting Depth</u> | <u>Grade and Condition</u> |
|------------------|--------------------|----------------|----------------------|----------------------------|
| 12-1/4" | 8-5/8" | 24# | 120' | J-55 |
| 7" | 5-1/2" | 14# | 760' | 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 Coal. 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% CaCl₂.
Circulate to surface.

Production Stage-Cement with 60 cf 2%Lodense with
1/4# celloflake/sx followed by 40 cf Class "B" with
1/4# celloflake/sx.
Total cement slurry for production stage is 100 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) |

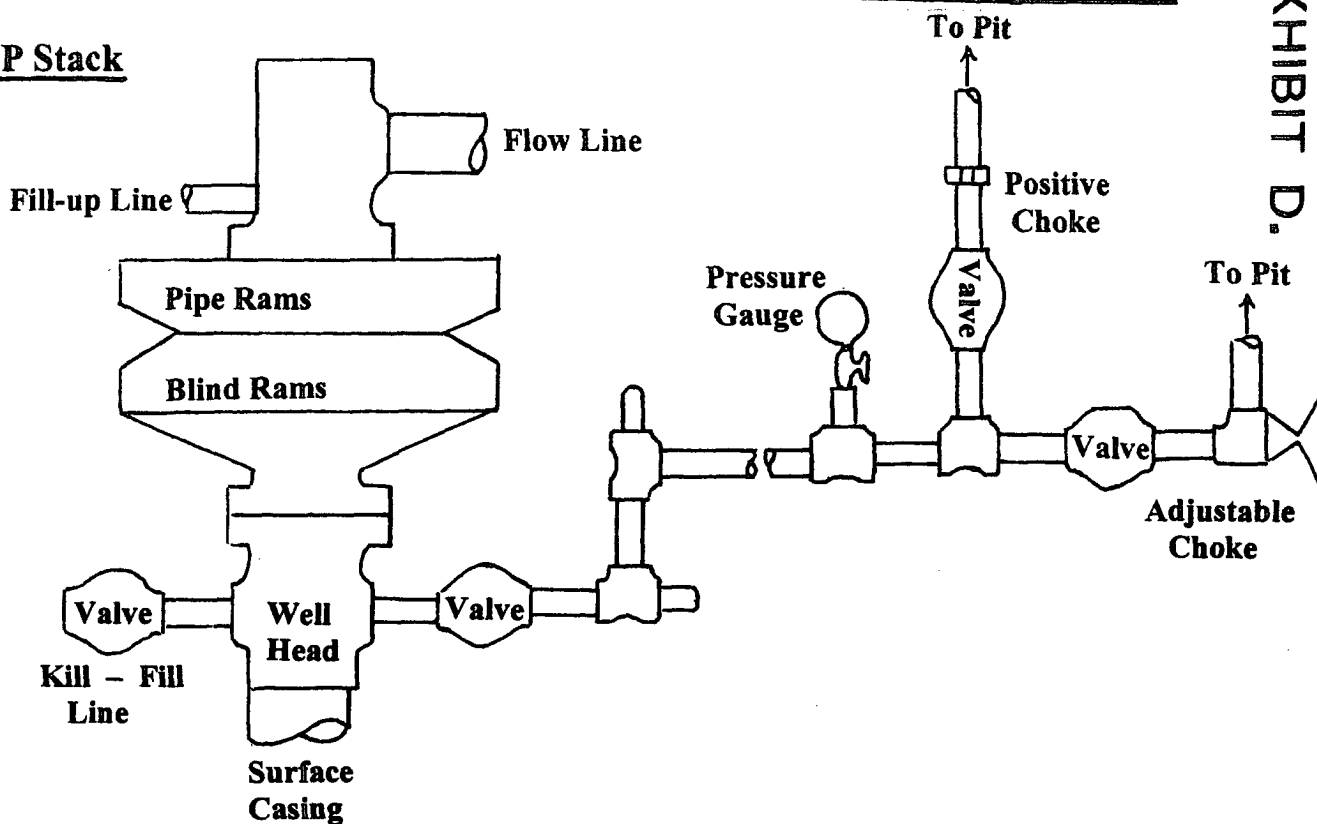
| | |
|---------------|--------------|
| Kurt Fagrelus | 325-4327 (H) |
| | 320-8248 (M) |

| | |
|----------------|--------------|
| John Alexander | 325-6927 (H) |
| | 320-1935 (M) |

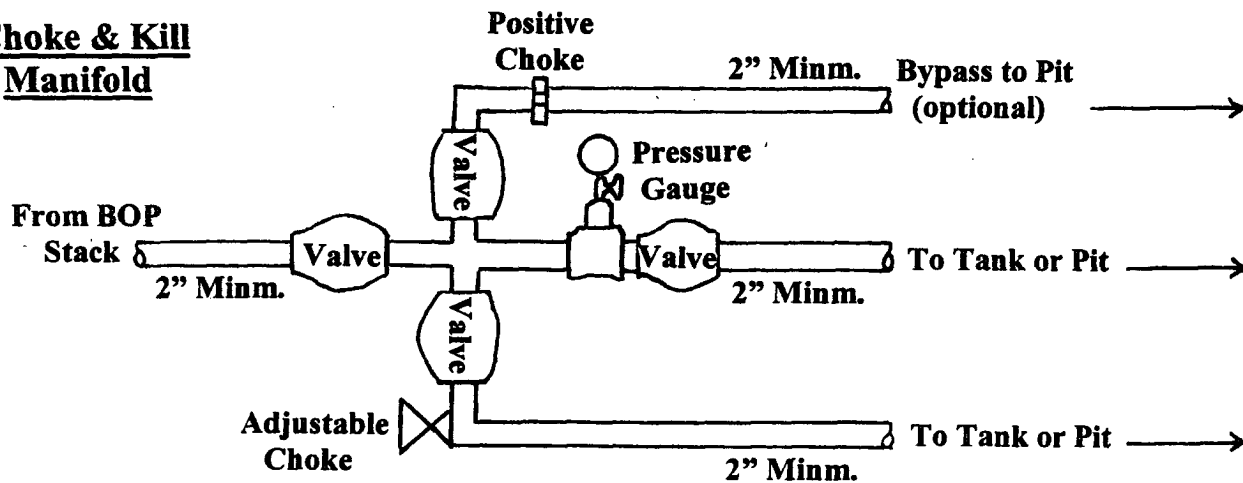
Well Control Equipment Schematic for 2,000 psi BOP

EXHIBIT D.

BOP Stack



Choke & Kill Manifold



Working Pressure for all equipment is 2,000 psi or greater

DUGAN PRODUCTION CORP.
FLO JO #91