

RCVD MAR22'07

OIL CONS. DIV.

DIST. 3

Form 3160-3  
April 2004

UNITED STATES 2006 OCT 19 PM 2 59  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
OMB No. 1004-0137  
Expires March 31, 2007

## APPLICATION FOR PERMIT TO DRILL OR REENTER

|  |   |  |
|--|---|--|
| 1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER   |   | 5. Lease Serial No.<br>NM-21741  |
| 1b. Type of Well: <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone |   | 6. If Indian, Allottee or Tribe Name   |
| 2. Name of Operator<br>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.<br>Dinger #90-S   |
| 3b. Phone No. (include area code)<br>505-325-1821  |   | 9. API Well No.<br>30-045-34019  |
| 4. Location of Well (Report location clearly and in accordance with any State requirements.)<br>At surface 1950' FSL & 1290' FWL, Lat. 36.28255 N.<br>At proposed prod. zone Same as above Long. 107.90592 W.          |   | 10. Field and Pool, or Exploratory<br>Basin Fruitland Coal   |
| 11. Sec., T. R. M. or Blk. and Survey or Area<br>Sec. 28, T24N, R10W NMPM  |   | 12. Country or Parish<br>San Juan  |
| 13. State<br>NM  |   | 14. Distance in miles and direction from nearest town or post office*<br>Approx. 35-miles SE of Bloomfield, NM |
| 15. Distance from proposed* location to nearest property or lease line, ft.<br>(Also to nearest drig. unit line, if any)<br>1290 Feet  | 16. No. of acres in lease<br>800.0 Acres      | 17. Spacing Unit dedicated to this well<br>S/2-320.0 Acres   |
| 18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.<br>Approx. 2,300'   | 19. Proposed Depth<br>1230 Feet               | 20. BLM/BIA Bond No. on file<br>On File  |
| 21. Elevations (Show whether DF, KDB, RT, GL, etc.)<br>GL-6592'  | 22. Approximate date work will start*<br>ASAP | 23. Estimated duration<br>7-Days   |

## 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 *Kurt Fagrellius* Name (Printed/Typed) Kurt Fagrellius Date 10-19-2006

Title  
Geology

Approved by (Signature) *[Signature]* Name (Printed/Typed) Date 3/19/07

Title *AFM* Office *FFO*

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, 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.

\*(Instructions on page 2)

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 1055' - 1075'. The interval will be fracture stimulated.

NMOC

NOTIFY AZTEC OGD 24hrs  
TO WITNESS C&G Cementing  
DRILLING OPERATIONS AUTHORIZED ARE  
SUBJECT TO COMPLIANCE WITH ATTACHED  
"GENERAL REQUIREMENTS".

3/27/07

to

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

State of New Mexico  
Energy, Minerals & Natural Resources Department

Form C-102  
Revised February 21, 1994

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

OIL CONSERVATION DIVISION

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

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

PO Box 2088  
Santa Fe, NM 87504-2088

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

☐ AMENDED REPORT

RECEIVED

RCVD MAR22'07

WELL LOCATION AND ACREAGE DEDICATION PLAT OIL CONS. DIV.

|                                    |  |                     |                                    |                     |
|------------------------------------|--|---------------------|------------------------------------|---------------------|
| *API Number<br><b>30-045-34019</b> |  | *Pool Code<br>71629 | *Pool Name<br>BASIN FRUITLAND COAL | <b>DIST. 3</b>      |
| *Property Code<br><b>36398</b>     | *Property Name<br>DINGER                       |                     |                                    | *Well Number<br>90S |
| *OGRID No<br>006515                | *Operator Name<br>DUGAN PRODUCTION CORPORATION |                     |                                    | *Elevation<br>6592  |

<sup>10</sup> 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             | 28      | 24N      | 10W   |         | 1950          | SOUTH            | 1290          | WEST           | SAN JUAN |

<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                  |
|--|---------|----------|-------|---------|-------------------------------|------------------|----------------------------------|----------------|-------------------------|
|  |         |          |       |         |                               |                  |                                  |                |                         |
| <sup>12</sup> Dedicated Acres<br>320.0 Acres - (S/2) |         |          |       |         | <sup>13</sup> Joint or Infill |                  | <sup>14</sup> Consolidation Code |                | <sup>15</sup> 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><p><sup>16</sup></p><p>5227.86'</p><p>5231.16'</p><p>1290'</p><p>1950'</p><p>28</p><p>DUGAN<br/>NM-21741</p><p>LAT: 36.28255°N<br/>LONG: 107.90592°W<br/>DATUM: NAD1983</p></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><i>Kurt Fagrelus</i><br/>Signature<br/>Kurt Fagrelus<br/>Printed Name<br/>Geology<br/>Title<br/>10-19-2006<br/>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>Date of Survey: MAY 8, 2006</p><p>Signature and Seal of Professional Surveyor</p><div><p>JASON C. EDWARDS<br/>NEW MEXICO<br/>REGISTERED PROFESSIONAL SURVEYOR<br/>15269</p></div><p><i>JASON C. EDWARDS</i><br/>Certificate Number 15269</p></div> |
|--|---|

Submit to: Office of the Governor  
Office of the Secretary of Energy, Mineral and Natural Resources  
1000 Rm. Bldg. 100, Santa Fe, NM 87502  
1000 Rm. Bldg. 100, Santa Fe, NM 87502  
1000 Rm. Bldg. 100, Santa Fe, NM 87502  
1000 Rm. Bldg. 100, Santa Fe, NM 87502  
1000 Rm. Bldg. 100, Santa Fe, NM 87502

State of New Mexico  
Energy, Mineral and Natural Resources  
OIL CONSERVATION DIVISION  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form O-100  
May 27, 2004

WELL APPLICANT: 30-045-34019  
Lease Type: ☒ Federal XX  
STATE: ☐ FEDERAL: ☐  
Lease Name or Unit Agreement Name: Federal NM-21741

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 O-100) 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, 1950 feet from the south line and 1290 feet from the west line. Section 28, Township 24N, Range 10W, NMPM, County San Juan.  
11. Elevation (Show whether DR, RKB, RT, GR, etc.): GL-6592  
Pit or Below-grade Tank Application ☒ or Closure ☐  
Pit type: Drilling. Depth to Groundwater: +100'. Distance from nearest fresh water well: +1000'. Distance from nearest surface water: +200'.  
Pit Liner Thickness: 12 mil. Below-Grade Tank: Volume bbls; Construction Material: Synthetic

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 COMPL ☐  
OTHER: Reserve pit for drilling (lined) ☒  
SUBSEQUENT REPORT OF:  
REMEDIAL WORK ☐ ALTERING CASING ☐  
COMMENCE DRILLING OPNS. ☐ P AND A ☐  
CASING/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.

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. The interval will be fracture stimulated.

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: 10-19-2006  
Type or print name: Kurt Fagrelus E-mail address: kfagrelus@duganproduction.com Telephone No.

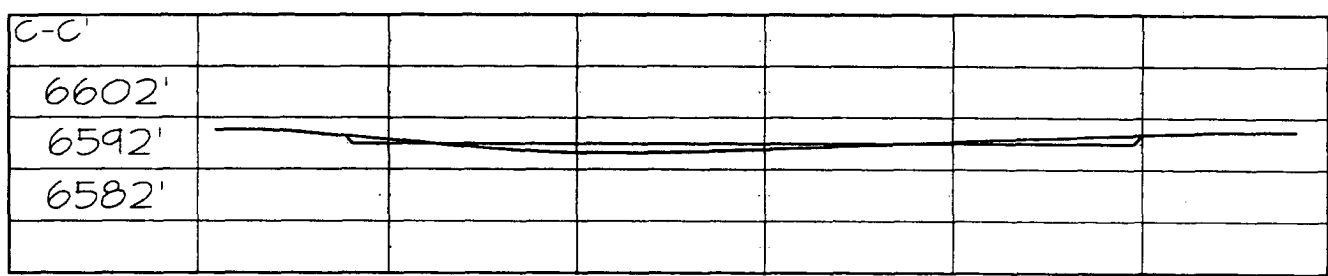
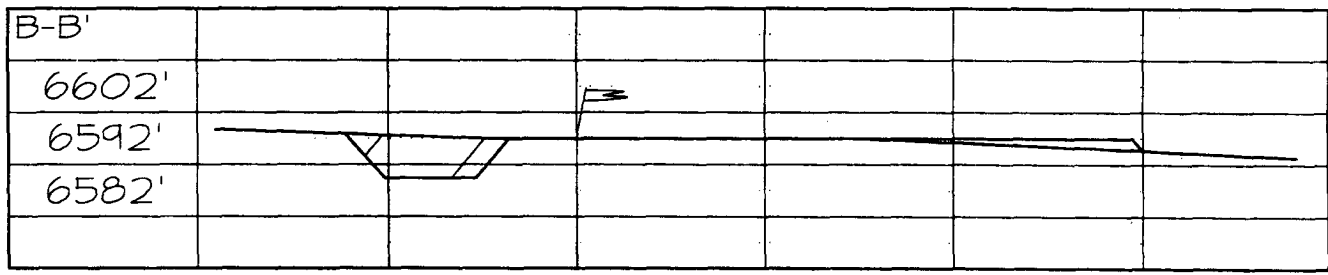
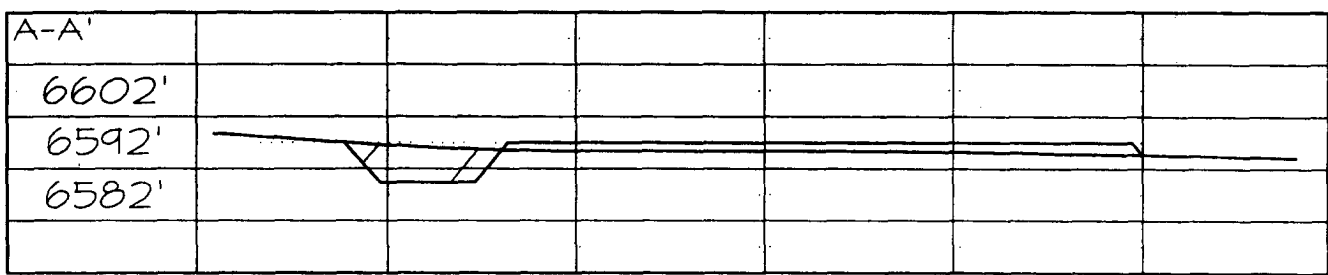
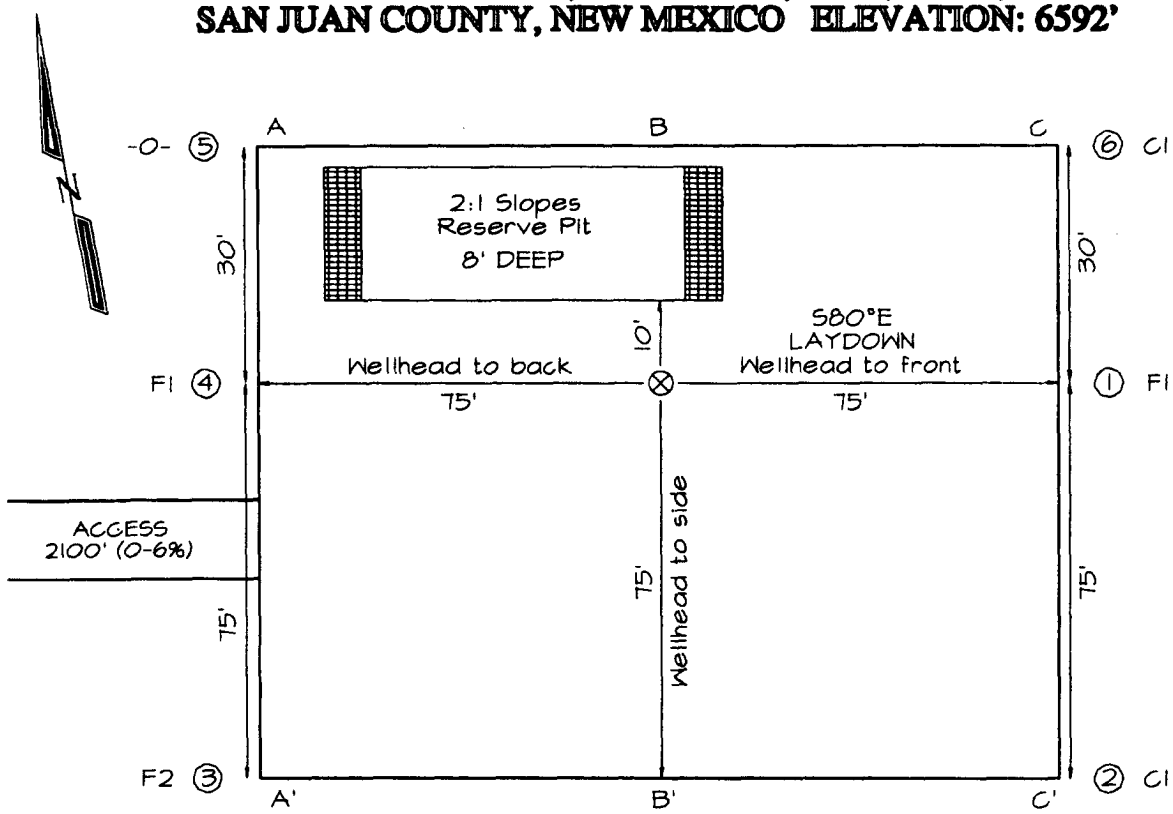
For State Use Only

APPROVED BY: [Signature] TITLE: DEPUTY OIL & GAS INSPECTOR, DIST. 4 DATE: MAR 27 2007  
Conditions of Approval (if any):

**DUGAN PRODUCTION CORPORATION DINGER #90S**  
**1950' FSL & 1290' FWL, SECTION 28, T24N, R10W, NMPM**  
**SAN JUAN COUNTY, NEW MEXICO ELEVATION: 6592'**

**LATITUDE: 36.28255° N**  
**LONGITUDE: 107.90592° W**  
 DATUM: NAD1983

**PLAT NOTE:**  
 \*SURFACE OWNER\*  
 Bureau of Land  
 Management



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**  
Dinger #90-S

**APPROXIMATE FORMATION TOPS:**

|                    |              |
|--------------------|--------------|
| Ojo Alamo          | 290'         |
| Kirtland           | 375'         |
| Fruitland          | 780'         |
| Pictured Cliffs    | 1080'        |
| <b>Total Depth</b> | <b>1230'</b> |

Catch samples every 10 feet from 1100 feet to total depth.

**LOGGING PROGRAM:**

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

**CASING PROGRAM:**

| Hole<br>Size | Casing<br>Size | Wt./ft. | Setting<br>Depth | Grade and<br>Condition |
|--------------|----------------|---------|------------------|------------------------|
| 12-1/4"      | 8-5/8"         | 24#     | 120'             | J-55                   |
| 7"           | 5-1/2"         | 14#     | 1230'            | 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% CaCl<sub>2</sub>.  
Circulate to surface.

Production Stage-Cement with 120 cf 2% lodense with  
1/4# celloflake/sx followed by 80 cf Class "B" with  
1/4# celloflake/sx.  
Total cement slurry for production stage is 200 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

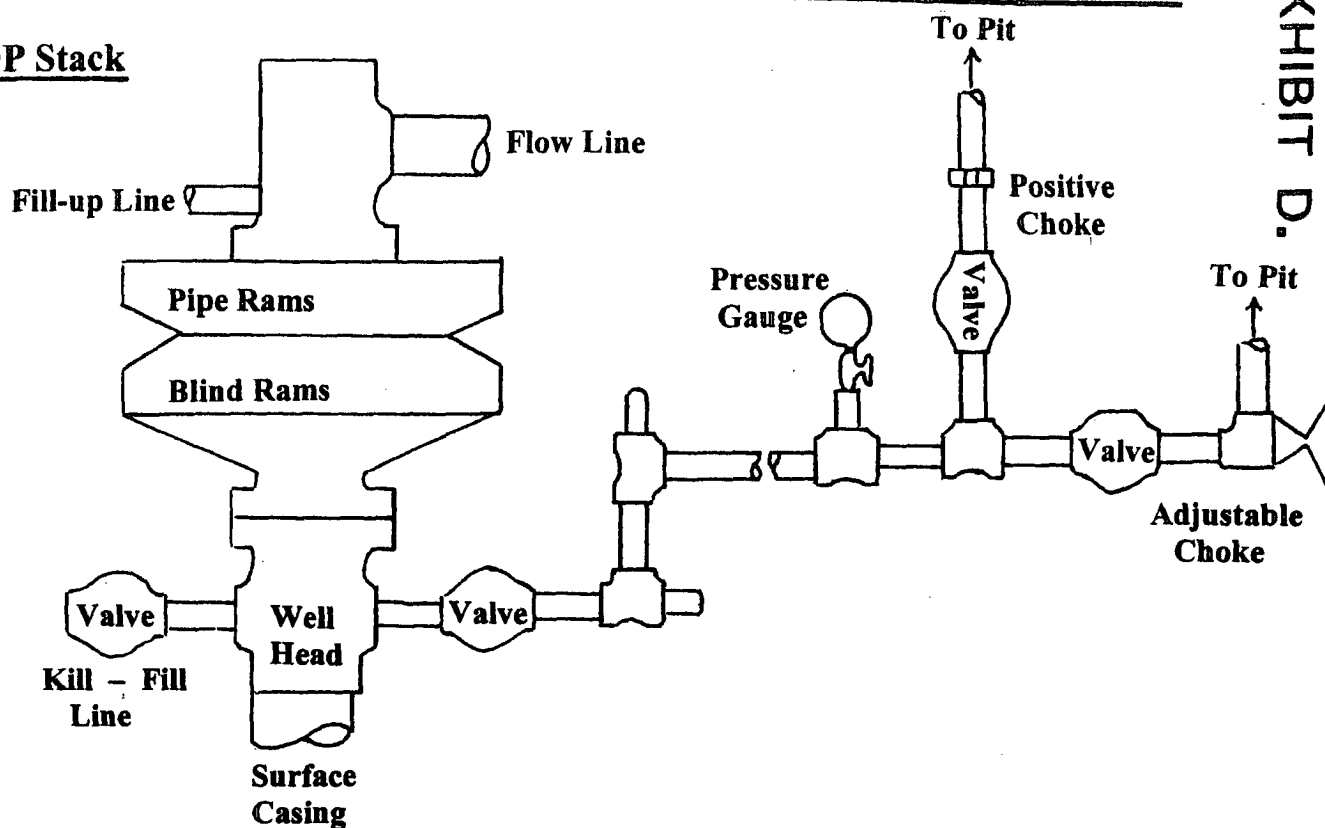
|            |              |
|------------|--------------|
| Mark Brown | 327-3632 (H) |
|            | 320-8247 (M) |

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

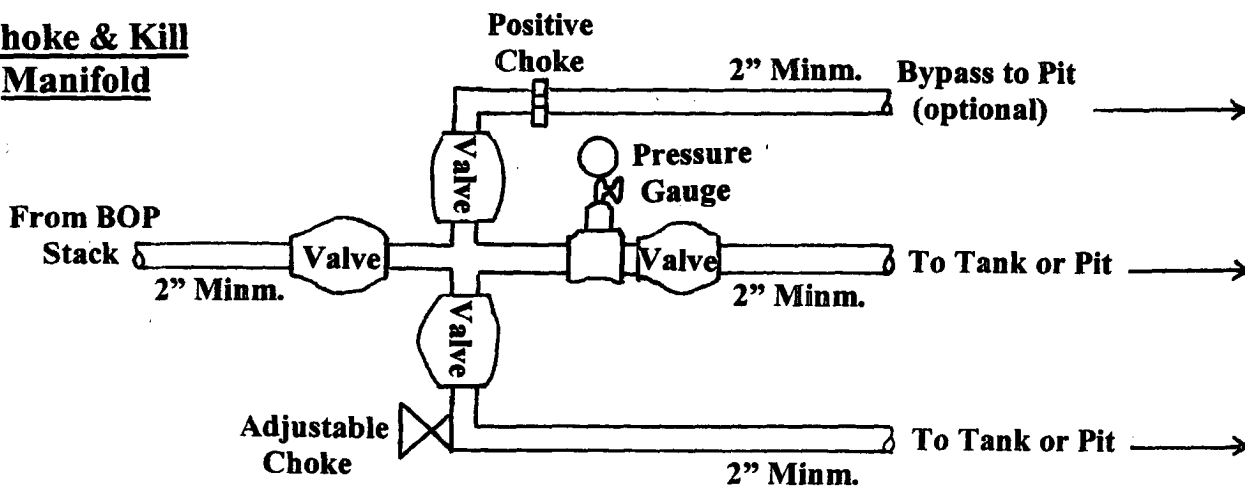
|                |              |
|----------------|--------------|
| John Alexander | 325-6927 (H) |
|                | 320-1935 (M) |

# Well Control Equipment Schematic for 2,000 psi BOP

## BOP Stack



## Choke & Kill Manifold



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

DUGAN PRODUCTION CORP.  
DINGER #90-S