

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK <b>DRILL</b> <input checked="" type="checkbox"/> <b>DEEPEN</b> <input type="checkbox"/> <b>PLUG BACK</b> <input type="checkbox"/>				5. LEASE DESIGNATION AND SERIAL NO. NM-69369																					
b. TYPE OF WELL OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/> SINGLE ZONE <input checked="" type="checkbox"/> MULTIPLE ZONE <input type="checkbox"/>				6. IF INDIAN, ALLOTTEE OR TRIBE NAME																					
2. NAME OF OPERATOR Sonat Exploration Company - Midland 109487				7. UNIT AGREEMENT NAME																					
3. ADDRESS OF OPERATOR 110 W. Louisiana, Su. 500, Midland, Texas 79701				8. FARM OR LEASE NAME Sotol Federal 16322																					
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.) At surface 660' FSL & 660' FWL of Section 1 At proposed prod. zone Same Unit M				9. WELL NO. 4																					
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE* 20 miles east of Loving, New Mexico				10. FIELD AND POOL, OR WILDCAT* Undes. Mesa Verde; Delaware																					
15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any) 660'		16. NO. OF ACRES IN LEASE 640		11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA 96191																					
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. 1320'		19. PROPOSED DEPTH 9150'		12. COUNTY OR PARISH Eddy Co.																					
21. ELEVATIONS (Show whether DF, RT, GR, etc.) 3517' Ground Level		20. ROTARY OR CABLE TOOLS Rotary		13. STATE N.M.																					
23. PROPOSED CASING AND CEMENTING PROGRAM <table border="1"><thead><tr><th>SIZE OF HOLE</th><th>SIZE OF CASING</th><th>WEIGHT PER FOOT</th><th>SETTING DEPTH</th><th>QUANTITY OF CEMENT</th></tr></thead><tbody><tr><td>14 3/4"</td><td>11 3/4"</td><td>42# WC50</td><td>830'</td><td>Sufficient to circulate</td></tr><tr><td>11"</td><td>8 5/8"</td><td>24 &amp; 32#J-55</td><td>4450'</td><td>Sufficient to circulate</td></tr><tr><td>7 7/8"</td><td>5 1/2"</td><td>17# J-55</td><td>9150'</td><td>2050sx (TIE BACK)</td></tr></tbody></table>				SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT	14 3/4"	11 3/4"	42# WC50	830'	Sufficient to circulate	11"	8 5/8"	24 & 32#J-55	4450'	Sufficient to circulate	7 7/8"	5 1/2"	17# J-55	9150'	2050sx (TIE BACK)	17. NO. OF ACRES ASSIGNED TO THIS WELL 40	
SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT																					
14 3/4"	11 3/4"	42# WC50	830'	Sufficient to circulate																					
11"	8 5/8"	24 & 32#J-55	4450'	Sufficient to circulate																					
7 7/8"	5 1/2"	17# J-55	9150'	2050sx (TIE BACK)																					
				22. APPROX. DATE WORK WILL START* September 30, 1995																					
24. IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, 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.																									

DRILLING PROGRAM  
SURFACE USE AND OPERATING PLAN  
EXHIBIT A - ROAD MAP  
EXHIBIT B - EXISTING WELL MAP  
EXHIBIT B-1 ACCESS ROAD AND FACILITIES MAP  
EXHIBIT C - LOCATION AND ACREAGE DEDICATION PLAT  
EXHIBIT C-1 TOPO MAP  
EXHIBIT D - DRILLING AND RIG LAYOUT  
EXHIBIT E - 3M BOP EQUIPMENT

RECEIVED

SEP 20 1995

OIL CON. DIV.  
DIST. 2

Jul 26 10 56 AM '95

RECEIVED

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, 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.

SIGNED H. Glenn Carter TITLE Sr. Drlg. and Prod. Engr. DATE 7/19/95  
(This space for Federal or State office use)

PERMIT NO. \_\_\_\_\_ APPROVAL DATE \_\_\_\_\_  
APPROVED BY /s/ Gilbert J. Lyons TITLE Acting State Director DATE 9-12-95  
CONDITIONS OF APPROVAL, IF ANY: \_\_\_\_\_

APPROVAL SUBJECT TO  
GENERAL REQUIREMENTS AND  
SPECIAL STIPULATIONS  
ATTACHED

\*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.

DISTRICT I  
P.O. Box 1980, Hobbs, NM 88241-1980

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-102  
Revised February 10, 1994  
Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

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

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

DISTRICT IV  
P.O. BOX 2088, SANTA FE, N.M. 87504-2088

OIL CONSERVATION DIVISION

P.O. Box 2088  
Santa Fe, New Mexico 87504-2088

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number <b>30-015-28652</b>	Pool Code <b>96191</b>	Pool Name <b>Unders. Mesa Verde ; Delaware</b>
Property Code	Property Name <b>SOTOL FEDERAL</b>	Well Number <b>4</b>
OGRID No. <b>109487</b>	Operator Name <b>SONAT EXPLORATION CO.</b>	Elevation <b>3517</b>

Surface Location

UL or lot No. <b>M</b>	Section <b>1</b>	Township <b>24 S</b>	Range <b>31 E</b>	Lot Idn	Feet from the <b>660</b>	North/South line <b>SOUTH</b>	Feet from the <b>660</b>	East/West line <b>WEST</b>	County <b>EDDY</b>
---------------------------	---------------------	-------------------------	----------------------	---------	-----------------------------	----------------------------------	-----------------------------	-------------------------------	-----------------------

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
Dedicated Acres <b>40</b>	Joint or Infill	Consolidation Code	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

LOT 4  <b>39.95 ACRES</b>	LOT 3  <b>39.96 ACRES</b>	LOT 2  <b>39.98 ACRES</b>	LOT 1  <b>39.99 ACRES</b>
<div><p>DETAIL</p><p>3515.6' 3520.4'</p><p>3517.7' 3522.9'</p><p>SEE DETAIL</p><p>660'</p><p>660'</p></div>			
<p>EXHIBIT "C"</p> <p>LOCATION &amp; ACREAGE DEDICATION PLAT</p>			

**OPERATOR CERTIFICATION**

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

*K. Glenn Carter*  
Signature  
**K. Glenn Carter**  
Printed Name  
**Sr. Dirg. & Prod. Engr.**  
Title  
**July 22, 1995**  
Date

**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.

**JUNE 20, 1995**  
Date Surveyed  
**G. EIDSON** DMCC  
Signature & Seal of Professional Surveyor  
**NEW MEXICO**  
**7-20-95**  
Num. **95-11-0998**  
Certificate No. **JOHN W. WEST 676**  
**RONALD J. EIDSON 3239**  
**DAVE EIDSON 12641**

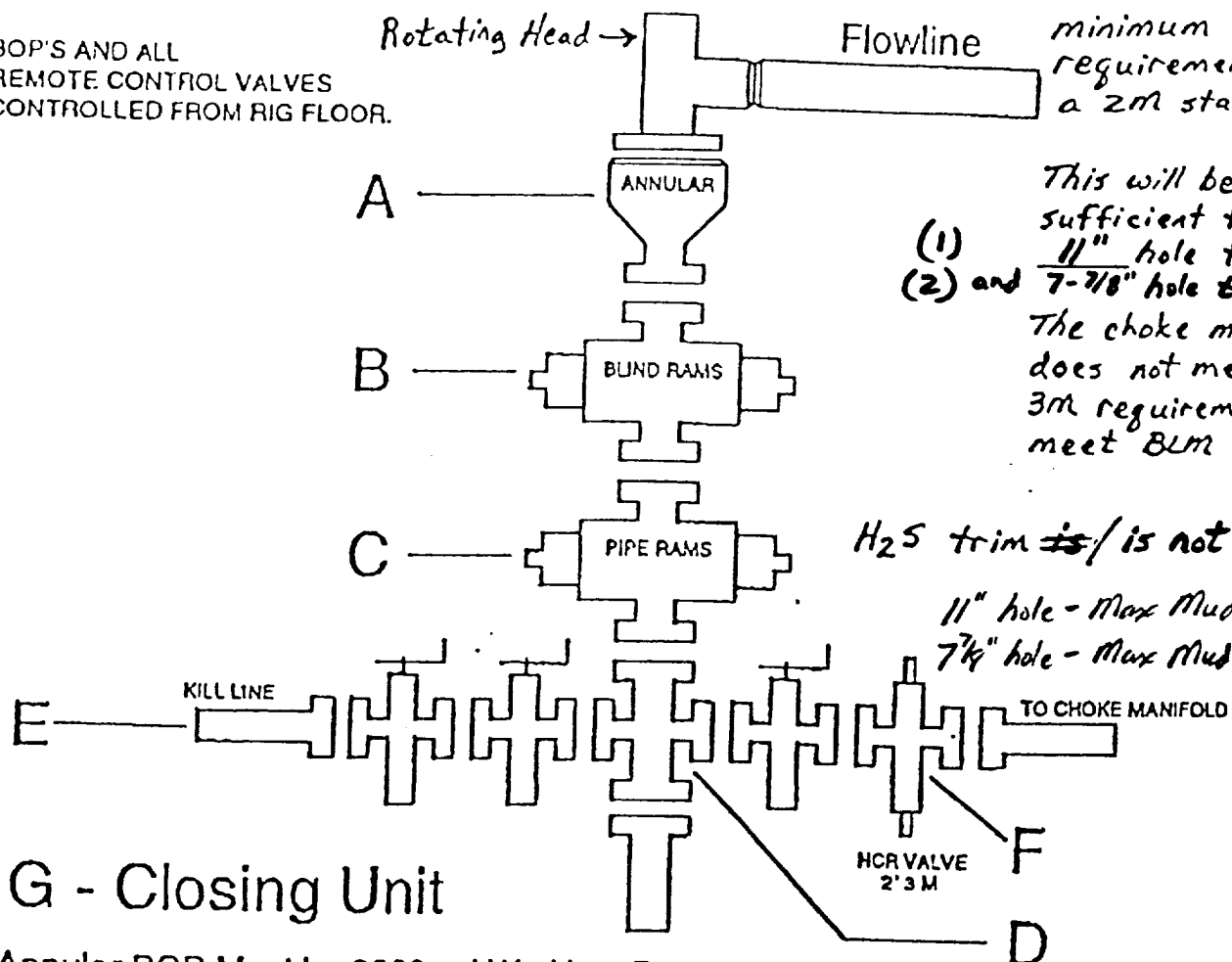
# SOUTH TEXAS BUSINESS UNIT

Minimum Requirements for a 3,000 psi BOP

Stack Manifold & Closing System

- meets the minimum BLM requirements for a 2m stack only.

BOP'S AND ALL  
REMOTE CONTROL VALVES  
CONTROLLED FROM RIG FLOOR.



This will be sufficient for the  
(1) 11" hole to 4300'  
(2) and 7-7/8" hole to TD.

The choke manifold does not meet all 3m requirements to meet BLM specs.

H<sub>2</sub>S trim ~~is~~ is not required.

11" hole - Max Mud Wt 10 pp  
7-7/8" hole - Max Mud Wt 8.5 pp

G - Closing Unit

- A. Annular BOP Must be 3000 psi Working Pressure.
- B. Blind Rams Between Annular & Pipe Rams w/ 3000 psi Working Pressure.
- C. Pipe Rams Below Blind Rams w/ 3000 psi Working Pressure.

Note: All Rams & Spools Must Meet Required I.D. for Hole Size.

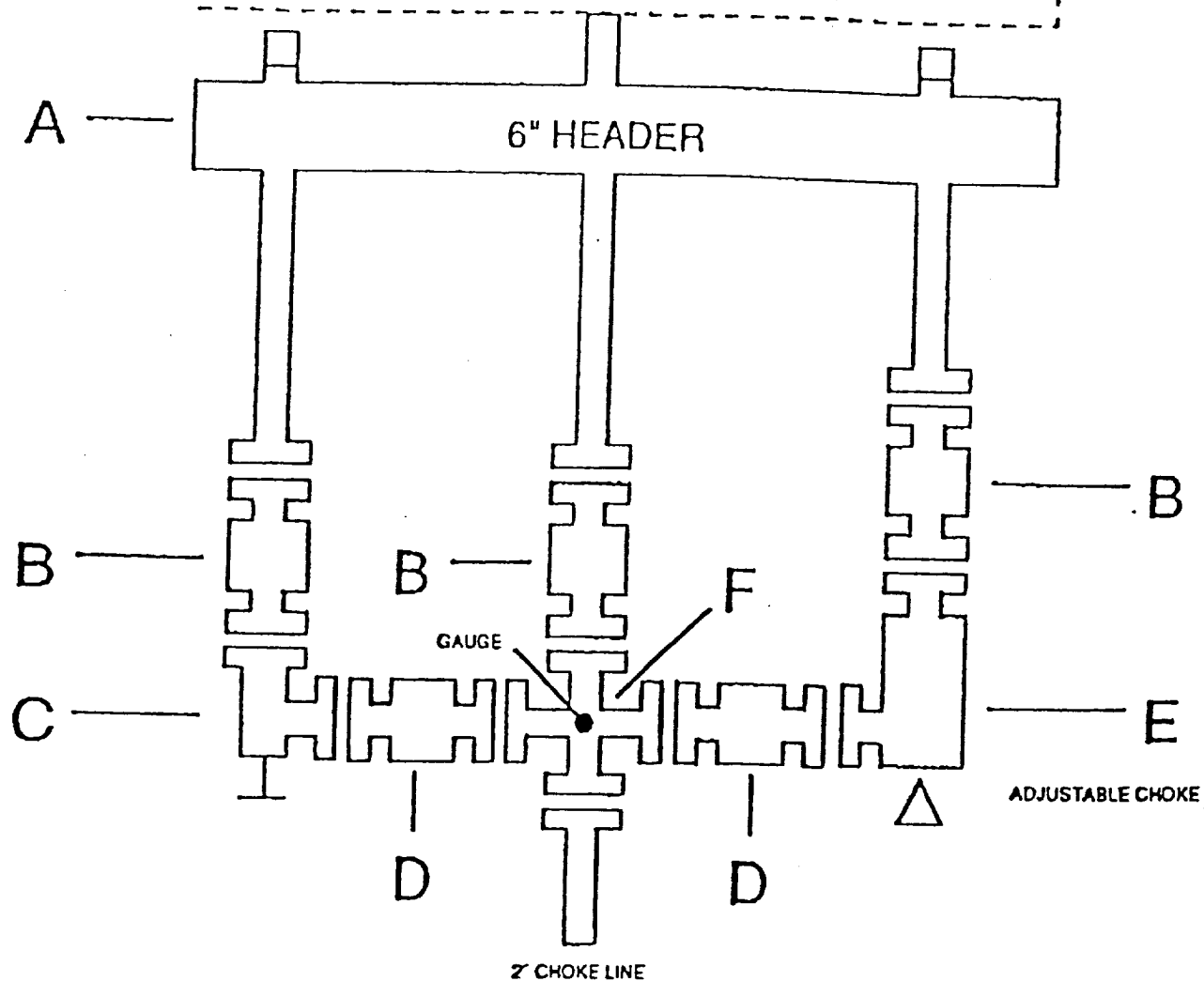
- D. Drilling Spool w/ 2 Outlets for Choke Line & Kill Line
- E. Kill Line 2" 3 M w/ 2 Manual Valves Bolted & Flanged Below Bottom Pipe Rams. Either a Drilling Spool or the Outlet on the BOP Stack can be Used to Accommodate Kill Line and Choke Line.
- F. Choke Line w/ 2" 3 M Valves. Inside Valve can be Manual but the Outside Valve Must be Hydraulic (HCR). Choke Line Must be 2" 3 M.
- G. Closing Unit (Kookey) w/ a Primary & Secondary Pressure Supply to Operate the BOP Stack. Also a N<sub>2</sub> Supply will be Provided as a Final Source of Operation to Close the BOP Stack. This Unit is Required to Contain a minimum of 1 1/2 Times the Needed Volume to Operate the BOP Stack at All Times. The Precharge of N<sub>2</sub> will be Checked Prior to Commencing Work for SONAT.

# SOUTH TEXAS BUSINESS UNIT

Minimum Requirements for a  
3,000 psi BOP Stack Manifold

- meets requirements  
for a 2m stack only  
as per the BLM  
requirements.

A Gas Buster is Preferred but not  
Necessary on a 3,000 psi System



- A. Header for Gas Expansion 6" O.D. Tube.
- B. 2" 3 M Manual Valves on Down Stream Side of Choke.
- C. 2" 3 M Manual Adjustable ~~or Positive~~ Choke.
- D. 2" 3 M Manual Valve SJS
- E. 2" 3 M Adjustable w/ Remote Station
- F. 2" 3 M Tee w/ Gauge in Top Side 2" Choke Line

Note: All Pipe Will be Flanged & Welded. No Screwed Connections.