

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-101  
Revised February 10, 1994  
Instructions on back  
Submit to Appropriate District Office  
State Lease - 6 Copies  
Fee Lease - 5 Copies

☒ AMENDED REPORT

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

<sup>1</sup> Operator Name and Address. Mitchell Energy Corporation P.O. Box 4000 The Woodlands, Texas 77387-4000		<sup>2</sup> OGRID Number 015025
<sup>4</sup> Property Code 13328	<sup>3</sup> Property Name Scharbauer "4"	<sup>5</sup> API Number 30-025-32012
		<sup>6</sup> Well No. 3

<sup>7</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
P	4	20S	33E		660	South	660	East	Lea

<sup>8</sup> Proposed 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>9</sup> Proposed Pool 1 Teas West (Yates / Seven Rivers)					<sup>10</sup> Proposed Pool 2				

<sup>11</sup> Work Type Code N	<sup>12</sup> Well Type Code O	<sup>13</sup> Cable/Rotary R	<sup>14</sup> Lease Type Code S	<sup>15</sup> Ground Level Elevation 3551
<sup>16</sup> Multiple No	<sup>17</sup> Proposed Depth 3,600	<sup>18</sup> Formation Yates/Seven Rivers	<sup>19</sup> Contractor	<sup>20</sup> Spud Date

<sup>21</sup> Proposed Casing and Cement Program

Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
12-1/4"	8-5/8"	24#	1350'	860 sx Prem.	Surface
7-7/8"	4-1/2"	10.5#	TD	1st Stage- 150	Surface
				sx Prem.	
				2nd Stage- 720	sx lead
				80	sx tail

<sup>22</sup> Describe the proposed program. If this application is to DEEPEN or PLUG BACK give the data on the present productive zone and proposed new productive zone. Describe the blowout prevention program, if any. Use additional sheets if necessary.

POTASH AREA

Drilling, casing, and cementing program amended to conform to proposal submitted in NMOCD hearing docket no. 10,858 on April 28, 1994. Proposal includes the setting of a combination tool (DV Tool w/ External Casing Packer) at approximately 2950' (140' below the base of the salt), as shown on attached "Well Plan" and wellbore schematics. If the well is non-productive, it will be plugged and abandoned in a manner consistent with NMOCD regulations.

Permit Expires 6 Months From Approval  
Date Unless Drilling Underway.

<sup>23</sup> I hereby certify that the information given above is true and complete to the best of my knowledge and belief.

Signature: *George Mullen*  
Printed name: George Mullen

Title: Regulatory Affairs Specialist

Date: 5-05-94 Phone: (713)377-5855

OIL CONSERVATION DIVISION

Approved by: *Paul Krutz*  
Title: Geologist

Approval Date: JUN 29 1994 Expiration Date:

Conditions of Approval:  
Attached ☐

10/10/10

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10/10/10



MITCHELL ENERGY CORP.

Well Plan

ANASAZI / SCHARBAUER AREA

Lea County. New Mexico

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## **WELL DATA**

**Company:** Mitchell Energy Corporation  
**Field:** West Teas  
**Objective:** Yates  
**Total Depth:** 3600'

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## DRILLING PROGNOSIS

FIELD: West Teas

WELL: Anasoz 1/Scharbauer Area

OBJECTIVE: Yates

ELEVATION:

## GEOLOGICAL

## MECHANICAL

Ditch Cuttings	Logging Program	Formation Tops	Well Depth	Hole Size	Casing & Cement	Mud Program	Hole Dvtn
NONE	NONE	GR/CNL			8-5/8" 24# K-55	Fresh Water Spud Mud	2 Deg. Maximum Allowed
		RUSTLER 1340'	1350'	12-1/4"	Cement to Surface		
	Run #1 GR/DLL/MSFL GR/CNL/LDT					Saturated Brine Water	
				7-7/8"	4-1/2" 10.5# K-55 W/ Combination Tool (OV tool + External Casing Packer) @ 2950'		3 Deg. Maximum Allowed
		Base of Salt 2810'			Cemented in Two Stages 1st Stage TOC = 2950' 2nd Stage TOC = Surface		
2 Man Unit Samples Every 10'		YATES 3170'	3600'				
2900'							

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## **DRILLING PROGRAM**

- 1.0 Set conductor at +/- 40' with rat hole machine.
- 2.0 Move in drilling rig and rig up same.
- 3.0 Drill 12-1/4" hole to +/- 1350'.
- 4.0 At 1350' circulate and condition hole for casing.
- 5.0 Run 8-5/8" casing as shown on the appropriate attachment, "Casing String Design".
  - 5.1 Once casing string is made up, circulate a minimum of one entire circulation while reciprocating casing.
- 6.0 Cement 8-5/8" casing as per attached cement program.
- 7.0 Cut off conductor and 8-5/8" casing and install 11" x 3MWP head as shown on attachment.
- 8.0 Nipple up 11" x 3MWP - BOP stack as shown on attachment.
- 9.0 Test annular BOP to 1000 psi. Test rams, choke manifold and all associated equipment to 1000 psi.
- 10.0 Drill 7-7/8" hole to +/- 3600'.
  - 10.1 Prior to drilling the float collar, pressure test the casing to 600 psi by closing the annular preventer and pressuring up to 600psi. Hold this pressure for a minimum of 30 minutes and record any pressure fluctuations. Report the results of this test on the morning report.
- 11.0 At 3600', condition hole for logs and log well as per attached "Geological Prognosis".
- 12.0 Following logging operations, trip back in hole and circulate a minimum of one complete circulation. Have the mud engineer perform a full check during this circulation and verify mud is in condition to run casing.
- 13.0 Once the order has been given to run pipe and the above conditions have been met, begin the trip out of the hole laying down the drill string to run casing.

14.0 Make up and run 4 1/2" casing as per the following:

- A. Clean exposed threads on the guide shoe, first joint of 4 1/2" casing, float collar, and second joint of casing.
  - B. Apply thread lock to the above listed connections prior to make-up.
  - C. The bottom assembly of the casing assembly must be made up as follows with the first listed being the first in the hole:
    - 1. Guide shoe
    - 2. First joint of 4 1/2" casing
    - 3. Float collar
    - 4. 4 1/2" casing back to setting depth of 2950' (140' below the salt).
    - 5. Combination Tool (DV Tool with External Casing Packer)
    - 6. 4-1/2" casing back to surface.
  - D. Install centralizers as follows on the 4-1/2" casing:
    - 1. 10' above the guide shoe by means of a stop collar.
    - 2. Around the first coupling above the float collar.
    - 3. Every third coupling back to the combination tool.
    - 4. Around the coupling immediately below the combination tool.
    - 5. Around the coupling immediately above the combination tool.
    - 6. Every third coupling back to surface.
15. With casing on bottom, circulate mud a minimum of one circulation. Monitor returns to ensure hole is "clean".
16. Cement the 4 1/2" casing string as follows:
- A. Reciprocate the casing during the first stage circulation and cementation.
  - B. Once the first stage cement is in place (Figure 1), drop the **EXTERNAL CASING PACKER / DV TOOL ACTUATION DEVICE** (a.k.a. Ball, Bomb, Plug, Dart (Figure 2)).
  - C. With guidance from the tool manufacturers representative, set the external casing packer and open the DV tool.
  - D. Circulate one complete circulation through the DV tool to ensure any residual cement from the first stage is removed from the annulus above the combination tool.
  - E. Pump the second stage cement into position followed by the **SECOND STAGE FOLLOWING PLUG**. Displace cement and plug with drilling fluid. The **SECOND STAGE FOLLOWING PLUG** will close the DV tool ports when the cement is in place (Figure 3).

17. Set the slips on the 4 1/2" casing in the as cemented condition.
18. Install the "Bell Nipple" tubing head, and associated equipment comprising the B" section.
19. Once all contractual obligations are met, release the rig.
20. **!!!!!!!!!!!! -- NET THE PITS -- !!!!!!!!!!!!!!!**

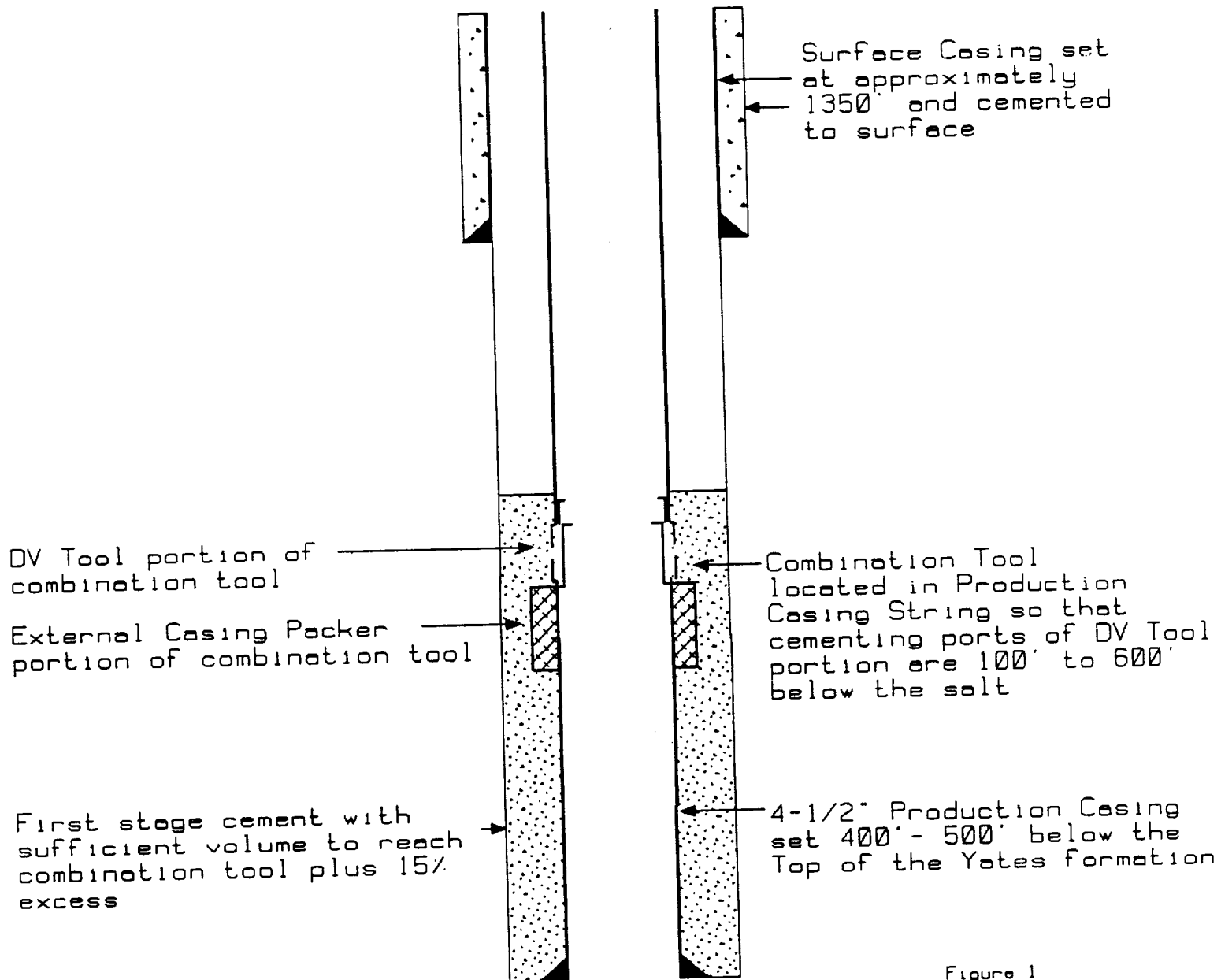
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# Wellbore Schematic

## First Stage Cement In Place

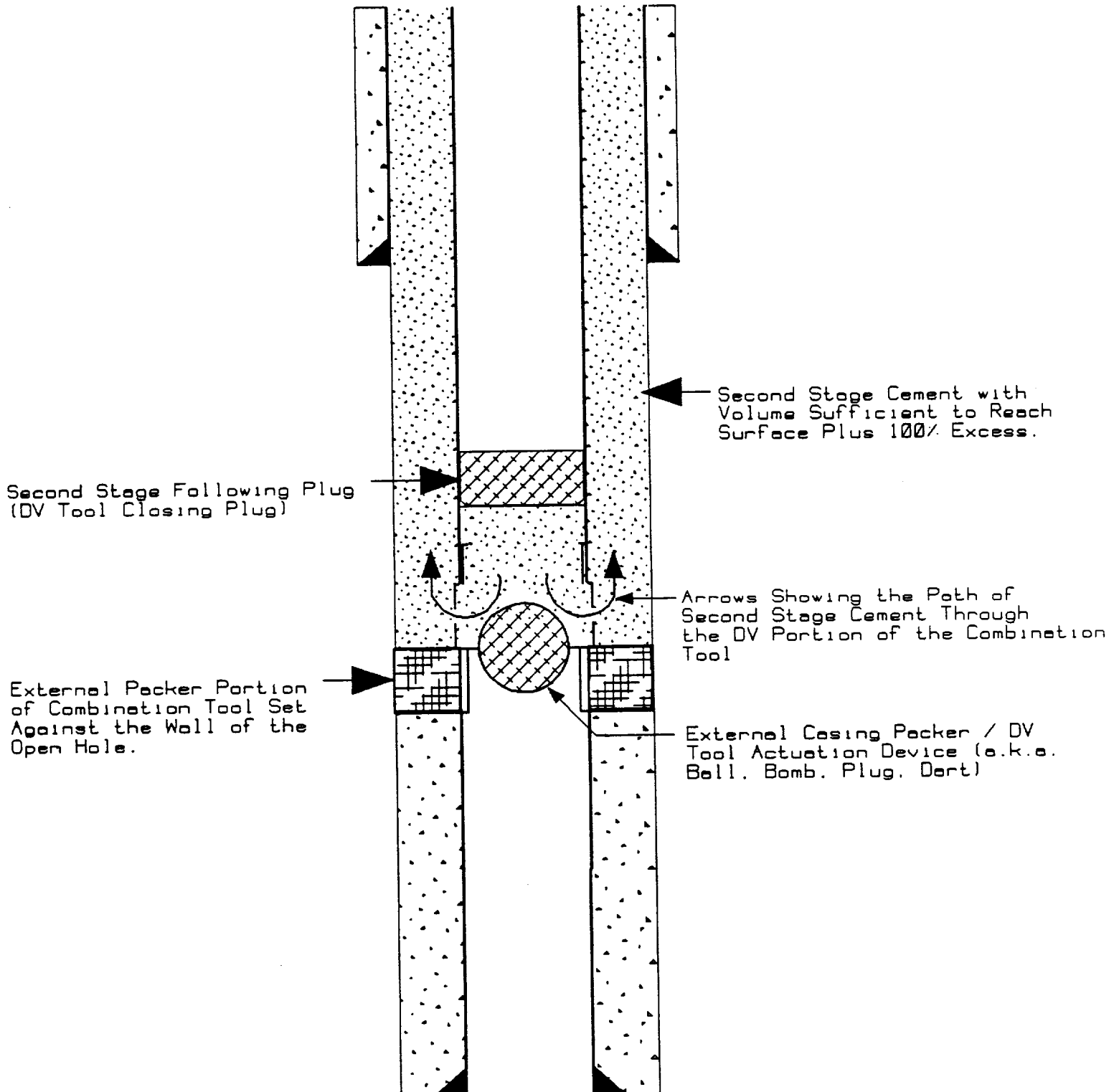


WCT

Figure 1

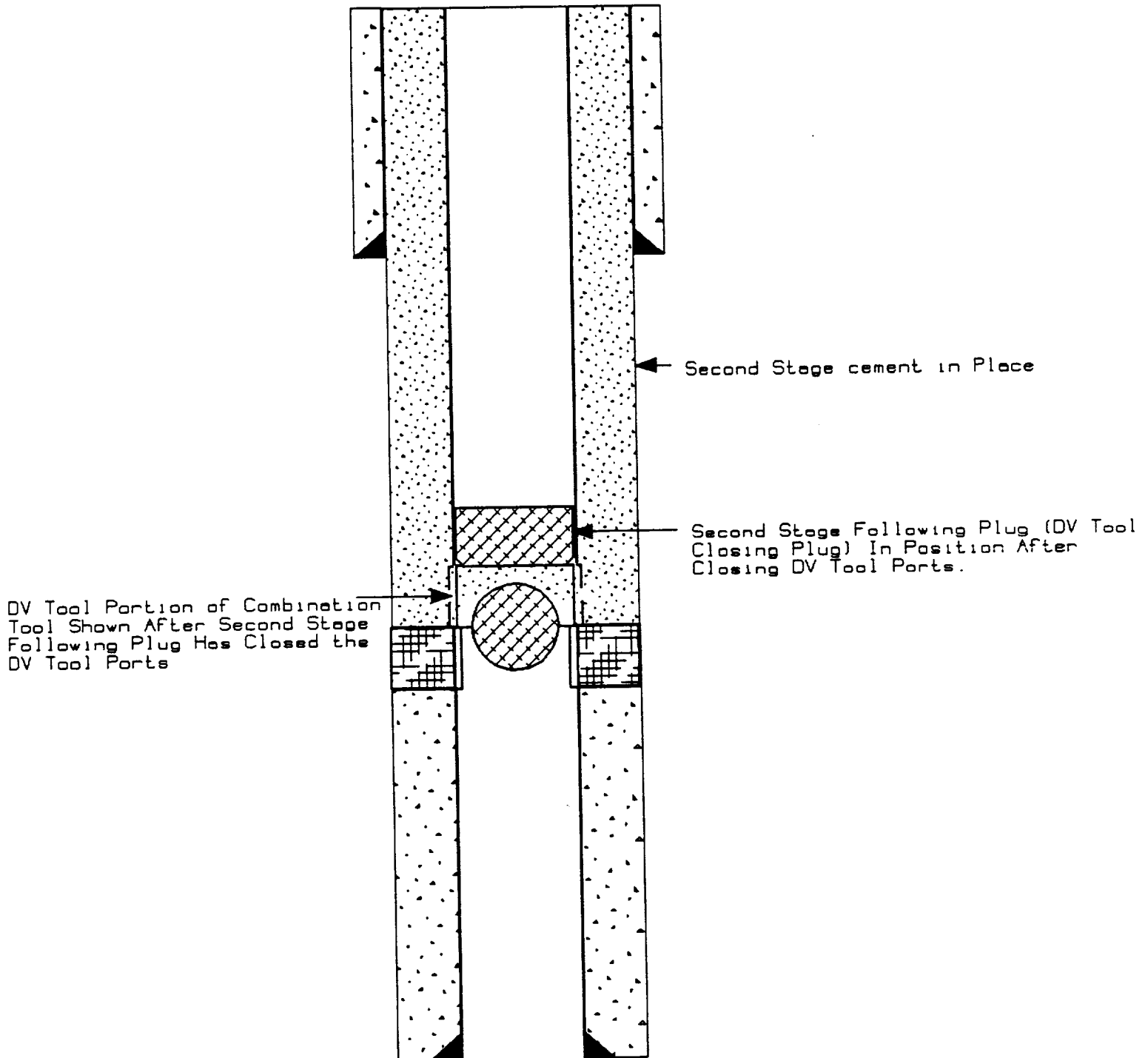
# Wellbore Schematic

## DISPLACING SECOND STAGE CEMENT



# Wellbore Schematic

## SECOND STAGE CEMENT IN PLACE



## **MUD PROGRAM**

<b><i>Depth Interval (feet)</i></b>	<b><i>Density PPG)</i></b>	<b><i>Funnel Viscosity (Seconds)</i></b>	<b><i>Type Mud</i></b>	<b><i>Filtrate (cc)</i></b>
0-1350'	8.5	40-45	Spud Mud	NC
1350'-3600'	10.0	28	Saturated Brine Water	NC



## CASING STRING DESIGN

DEPTH: 1350'  
 TYPE: Surface  
 SIZE: 8-5/8"  
 MUD WEIGHT: 8.5

<i>Description</i>	<i>Interval</i>	<i>Length Per Section</i>	<i>Weight Per Section</i>	<i>Cumm. Weight</i>	<i>Min. Strength</i>	<i>Tens. S.F.</i>
24#,ST&C,K-55	0-1350'	1350'	32400#	32400#	263,000	8.12

<i>Collapse Force</i>	<i>*Resist</i>	<i>S.F.</i>	<i>Burst Force</i>	<i>Resist.</i>	<i>S.F.</i>	<i>Minimum Torque</i>	<i>Optimum Torque</i>	<i>Maximum Torque</i>
596	1370	2.29	624	2950	4.72	1970	2630	3290

\* Tension effect on collapse resistance included

### Procedure:

1. Clean threads on shoe joint , float collar, and guide shoe to bare shiny metal. Apply Thread Lock to connections prior to make-up.
2. The casing assembly will be made up as follows:

**Note: Best-o-Life 2000 will be applied to all connections not receiving Thread Lock.**

- a. Guide shoe
  - b. Shoe Joint
  - c. Float collar
  - d. Remainder of casing string
3. Centralizers should be applied 10 feet above the guide shoe by means of a stop collar, around the first coupling above the float collar, and every fourth coupling back to surface.

## CASING STRING DESIGN

**DEPTH:** 3600'  
**TYPE:** Production  
**SIZE:** 4-1/2"  
**MUD WEIGHT:** 10.0

<i>Description</i>	<i>Interval</i>	<i>Length Per Section</i>	<i>Weight Per Section</i>	<i>Cumm. Weight</i>	<i>Min. Strength</i>	<i>Tens. S.F.</i>
10.5#,LT&C,K-55	0-3600'	3600'	37,800#	37,800#	146K	3.86

<i>Collapse Force</i>	<i>Resist</i>	<i>S.F.</i>	<i>Burst Force</i>	<i>Resist.</i>	<i>S.F.</i>	<i>Minimum Torque</i>	<i>Optimum Torque</i>	<i>Maximum Torque</i>
1872	4010	2.14	1740	4790	2.75	1100	1460	1825

### Procedure:

Make up and run 4 1/2" casing as per the following:

- A. Clean exposed threads on the guide shoe, first joint of 4 1/2" casing, float collar, and second joint of casing. Apply Thread Lock to these connections prior to make-up.
- B. The bottom assembly of the casing assembly must be made up as follows with the first listed being the first in the hole:

**Note: Seal Lube will be applied to all connections not receiving Thread Lock.**

1. Guide shoe
  2. First joint of 4 1/2" casing
  3. Float collar
  4. 4 1/2" casing back to setting depth of 2950' (140' below the salt).
  5. Combination Tool (DV Tool with External Casing Packer)
  6. 4-1/2" casing back to surface.
- 
- C. Install centralizers as follows on the 4-1/2" casing:
    1. 10' above the guide shoe by means of a stop collar.
    2. Around the first coupling above the float collar.
    3. Every third coupling back to the combination tool.
    4. Around the coupling immediately below the combination tool.
    5. Around the coupling immediately above the combination tool.
    6. Every third coupling back to surface.

## **Cementing Program**

### **8-5/8" Surface Casing**

Depth:	1350'
Casing Size:	8-5/8"
Hole Size:	12.25"
Calculated Cement Fill:	1350'
Excess Calculated:	100%
Cementing Company:	Halliburton

#### **Cement Recommendation:**

*Spacer:* 20 Bbls Fresh Water

*Slurry:* 860 sacks Premium Plus + 2% CaCl<sub>2</sub>

Slurry Weight:	14.8 ppg
Slurry Yield:	1.34 cu.ft./sack

#### **Procedure:**

1. Utilize the two-plug system.
2. Wait on cement a minimum of 8 hours.

**NOTE: VOLUME ADJUSTMENTS BASED ON THE CALIPER WILL BE UNATTAINABLE. THE STANDARD PRACTICE FOR SURFACE CASING CEMENT VOLUME DETERMINATION HAS BEEN CALCULATED (GAUGE HOLE PLUS 100% EXCESS). NO FURTHER CALCULATIONS WILL BE MADE FOR CEMENT VOLUME.**

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## **Cementing Program**

### **4-1/2" Production Casing**

Depth:	3600'
Casing Size:	4-1/2"
Hole Size:	7-7/8"
Calculated Cement Fill:	3600' (In Two Stages)
Excess Calculated	
1st Stage:	15% over caliper
2nd Stage:	100%
Cementing Company:	Halliburton

#### **Cement Recommendation:**

##### **1st Stage:**

*Slurry:* 150 sacks Premium Plus + 2.5 #/sk Salt (Accelerator) + 0.4% HALAD-322 (Fluid Loss)

Slurry Weight:	14.8 ppg
Slurry Yield:	1.36 cu.ft./sack

##### **2nd Stage:**

*Lead Slurry:* 720 sacks Premium Plus + 1% CaCl<sub>2</sub> + 15 #/sk Salt

Slurry Weight:	14.0 ppg
Slurry Yield:	1.75 cu.ft./sack

*Tail Slurry:* 80 sacks Premium Plus

Slurry Weight:	14.8 ppg
Slurry Yield:	1.32 cu.ft./sack

#### **Procedure:**

Cement the 4 1/2" casing string as follows:

- A. Reciprocate the casing during the first stage circulation and cementation.

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## **Cementing Program**

### **4-1/2" Production Casing Continued**

- B. Once the first stage cement is in place (Figure 1), drop the **EXTERNAL CASING PACKER / DV TOOL ACTUATION DEVICE** (a.k.a. Ball, Bomb, Plug, Dart) .
- C. With guidance from the tool manufacturers representative, set the external casing packer and open the DV tool.
- D. Circulate one complete circulation through the DV tool to ensure any residual cement from the first stage is removed from the annulus above the combination tool.
- E. Pump the second stage cement into position followed by the **SECOND STAGE FOLLOWING PLUG**. Displace cement and plug with drilling fluid. The **SECOND STAGE FOLLOWING PLUG** will close the DV tool ports when the cement is in place

# MINIMUM BLOWOUT PREVENTER REQUIREMENTS

3,000 psi Working Pressure

3 MWP

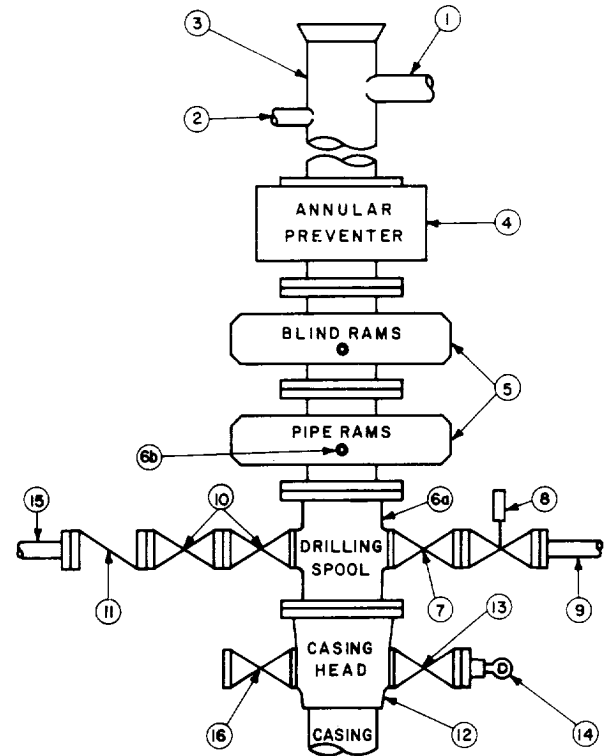
## STACK REQUIREMENTS

No.	Item	Min. I.D.	Min. Nominal
1	Flowline		
2	Fill up line		2"
3	Drilling nipple		
4	Annular preventer		
5	Two single or one dual hydraulically operated rams		
6a	Drilling spool with 2" min. kill line and 3" min choke line outlets		
6b	2" min. kill line and 3" min. choke line outlets in ram. (Alternate to 6a above.)		
7	Valve <span style="float:right">Gate <input type="checkbox"/> Plug <input type="checkbox"/></span>	3-1/8"	
8	Gate valve—power operated	3-1/8"	
9	Line to choke manifold		3"
10	Valves <span style="float:right">Gate <input type="checkbox"/> Plug <input type="checkbox"/></span>	2-1/16"	
11	Check valve	2-1/16"	
12	Casing head		
13	Valve <span style="float:right">Gate <input type="checkbox"/> Plug <input type="checkbox"/></span>	1-13/16"	
14	Pressure gauge with needle valve		
15	Kill line to rig mud pump manifold		2"

## OPTIONAL

16	Flanged valve	1-13/16"	
----	---------------	----------	--

CONFIGURATION A



## CONTRACTOR'S OPTION TO FURNISH:

1. All equipment and connections above bradenhead or casinghead. Working pressure of preventers to be 3,000 psi, minimum.
2. Automatic accumulator (80 gallon, minimum) capable of closing BOP in 30 seconds or less and, holding them closed against full rated working pressure.
3. BOP controls, to be located near drillers position.
4. Kelly equipped with Kelly cock.
5. Inside blowout preventer or its equivalent on derrick floor at all times with proper threads to fit pipe being used.
6. Kelly saver-sub equipped with rubber casing protector at all times.
7. Plug type blowout preventer tester.
8. Extra set pipe rams to fit drill pipe in use on location at all times.
9. Type RX ring gaskets in place of Type R.

## MEC TO FURNISH:

1. Bradenhead or casinghead and side valves.
2. Wear bushing, if required.

## GENERAL NOTES:

1. Deviations from this drawing may be made only with the express permission of MEC's Drilling Manager.
2. All connections, valves, fittings, piping, etc., subject to well or pump pressure must be flanged (suitable clamp connections acceptable) and have minimum working pressure equal to rated working pressure of preventers up through choke. Valves must be full opening and suitable for high pressure mud service.
3. Controls to be of standard design and each marked, showing opening and closing position.
4. Chokes will be positioned so as not to hamper or delay changing of choke beans. Replaceable parts for adjustable choke, other bean sizes, retainers, and choke wrenches to be conveniently located for immediate use.
5. All valves to be equipped with handwheels or handles ready for immediate use.
6. Choke lines must be suitably anchored.

7. Handwheels and extensions to be connected and ready for use.
8. Valves adjacent to drilling spool to be kept open. Use outside valves except for emergency.
9. All seamless steel control piping (3000 psi working pressure) to have flexible joints to avoid stress. Hoses will be permitted.
10. Casinghead connections shall not be used except in case of emergency.
11. Do not use kill line for routine fill-up operations.



Submit to Appropriate  
District Office  
State Lease - 4 copies  
Fee Lease - 3 copies

State of New Mexico  
Energy, Minerals and Natural Resources Department

**OIL CONSERVATION DIVISION**  
P.O. Box 2088  
Santa Fe, New Mexico 87504-2088

**DISTRICT I**  
P.O. Box 1980, Hobbs, NM 88240

**DISTRICT II**  
P.O. Drawer DD, Artesia, NM 88210

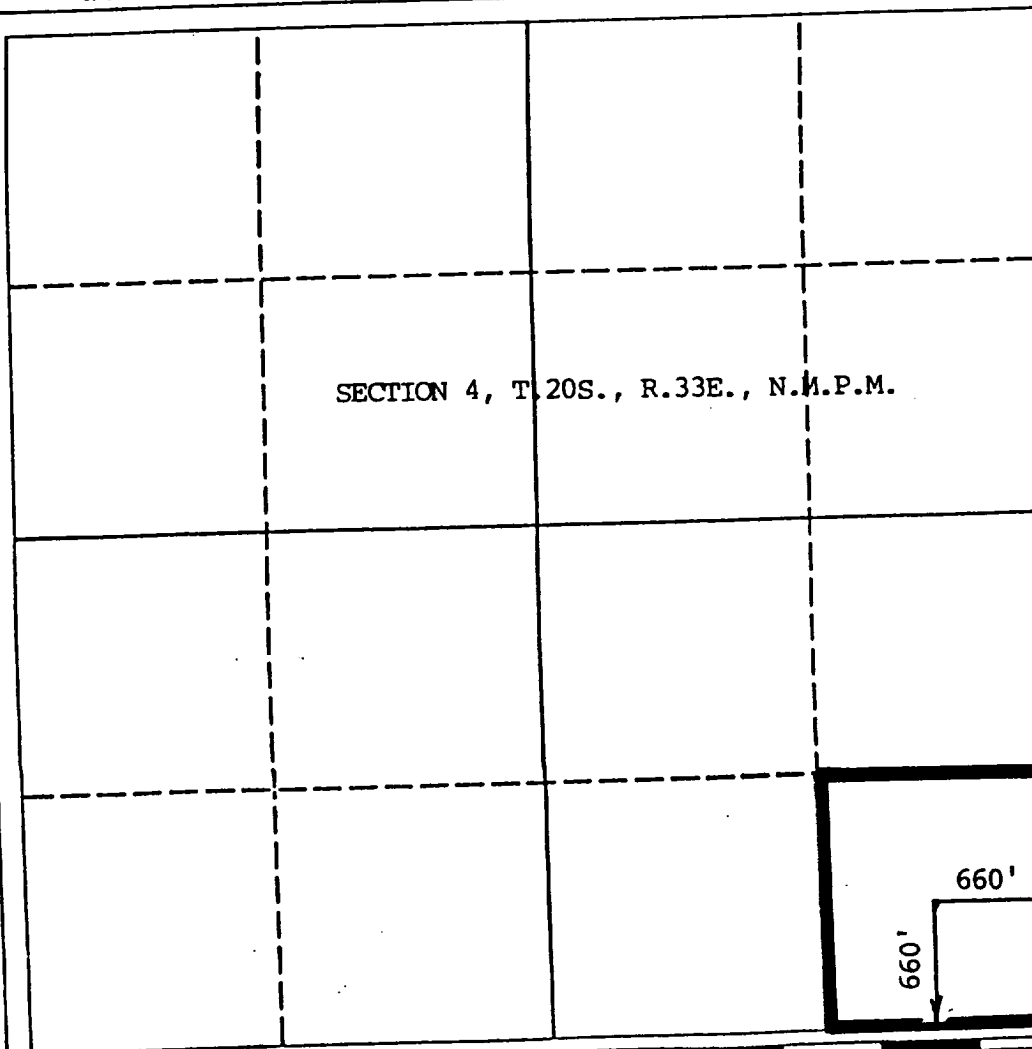
**DISTRICT III**  
1000 Rio Brazos Rd., Aztec, NM 87410

**WELL LOCATION AND ACREAGE DEDICATION PLAT**

All Distances must be from the outer boundaries of the section

Operator <b>MITCHELL ENERGY Corporation</b>			Lease <b>SCHARBAUER 4</b>		Well No. <b>#3</b>
Unit Letter <b>P</b>	Section <b>4</b>	Township <b>20S.</b>	Range <b>33E.</b>	County <b>NMFM</b>	<b>LEA</b>
Actual Footage Location of Well: <b>660</b> feet from the <b>SOUTH</b> line and <b>660</b> feet from the <b>EAST</b> line					
Ground level Elev. <b>3551</b>	Producing Formation <b>Yates/Seven Rivers</b>		Pool <b>West Teas</b>	Dedicated Acreage: <b>40</b> Acres	

- Outline the acreage dedicated to the subject well by colored, pencil or hatchure marks on the plat below.
- If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
- If more than one lease of different ownership is dedicated to the well, have the interest of all owners been consolidated by communalization, unitization, force-pooling, etc.?  
☐ Yes ☐ No If answer is "yes" type of consolidation \_\_\_\_\_  
If answer is "no" list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.)  
No allowable will be assigned to the well until all interests have been consolidated (by communalization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interest, has been approved by the Division.



**OPERATOR CERTIFICATION**

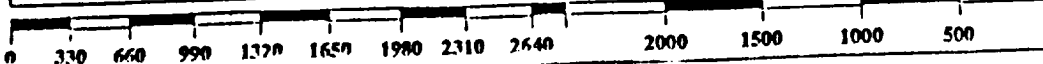
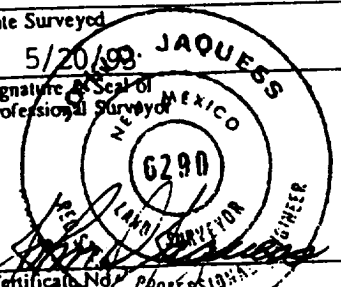
I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

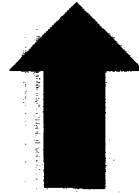
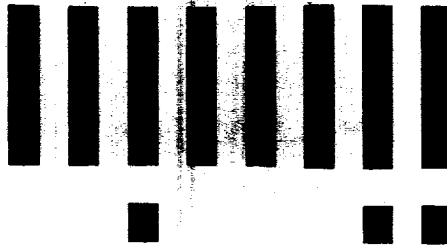
Signature <i>George Mullen</i>
Printed Name <b>George Mullen</b>
Position <b>Reg. Affairs Specialist</b>
Company <b>Mitchell Energy Corp.</b>
Date <b>October 21, 1993</b>

**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 knowledge and belief.

Date Surveyed <b>5/20/93</b>
Signature & Seal of Professional Surveyor <i>Jaques</i>
Certificate No. <b>6290</b>
<b>SCHARBAUR</b>





**LTR**



**Job separation sheet**

Submit to Appropriate  
District Office  
State Lease -- 6 copies  
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State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-101  
Revised 1-1-89

OIL CONSERVATION DIVISION

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

DISTRICT I  
P.O. Box 1980, Hobbs, NM 88240

DISTRICT II  
P.O. Drawer DD, Artesia, NM 88210

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

API NO. (assigned by OCD on New Wells)  
**30-025-32012**

5. Indicate Type of Lease  
STATE ☐ FEE ☒

6. State Oil & Gas Lease No.  
N/A

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. Type of Work:

DRILL ☒ RE-ENTER ☐ DEEPEN ☐ PLUG BACK ☐

b. Type of Well:

OIL WELL ☒ GAS WELL ☐ OTHER ☐  
SINGLE ZONE ☒ MULTIPLE ZONE ☐

2. Name of Operator

Mitchell Energy Corporation

3. Address of Operator

P. O. Box 4000, The Woodlands, Texas 77387-4000

7. Lease Name or Unit Agreement Name

Scharbauer "4"

8. Well No.

3

9. Pool name or Wildcat

Wildcat

4. Well Location

Unit Letter P : 660 Feet From The South Line and 660 Feet From The East Line

Section 4 Township 20S Range 33E NMPM Lea County

10. Proposed Depth

12,000

11. Formation

Wolfcamp

12. Rotary or C.T.

Rotary

13. Elevations (Show whether DF, RT, GR, etc.)

3551 GR

14. Kind & Status Plug. Bond

Blanket on File

15. Drilling Contractor

16. Approx. Date Work will start

17.

PROPOSED CASING AND CEMENT PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	SACKS OF CEMENT	EST. TOP
17-1/2"	K, 13-3/8"	54.5#	500'	Premium	Surface
12-1/4"	K, 8-5/8"	32#	3750'	Light + Prem	Surface
7-7/8"	N&S, 5-1/2"	17#	TD	50/50 POZ	8500'

Mitchell proposes to drill to a depth sufficient to test the Wolfcamp formation for oil. If productive, 5½" casing will be cemented at TD. If non-productive, the well will be plugged and abandoned in a manner consistent with State of New Mexico regulations. Blowout preventer schematic attached as Exhibits 1 & 1A.

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. GIVE BLOWOUT PREVENTER PROGRAM, IF ANY.

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

SIGNATURE George Mullen TITLE Reg. Affairs Specialist DATE 06-07-93

TYPE OR PRINT NAME George Mullen

TELEPHONE NO. 713-377-5855

(This space for State Use) ORIGINAL SIGNED BY JERRY SEXTON  
DISTRICT I SUPERVISOR

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_

DATE JUL 06 1993

CONDITIONS OF APPROVAL, IF ANY:

Permit Expires 6 Months From Approval  
Date Unless Drilling Underway.

# MINIMUM BLOWOUT PREVENTER REQUIREMENTS

3,000 psi Working Pressure

3 MWP

EXHIBIT # 1

Scharbauer "4" Well No. 3  
Lea County, New Mexico

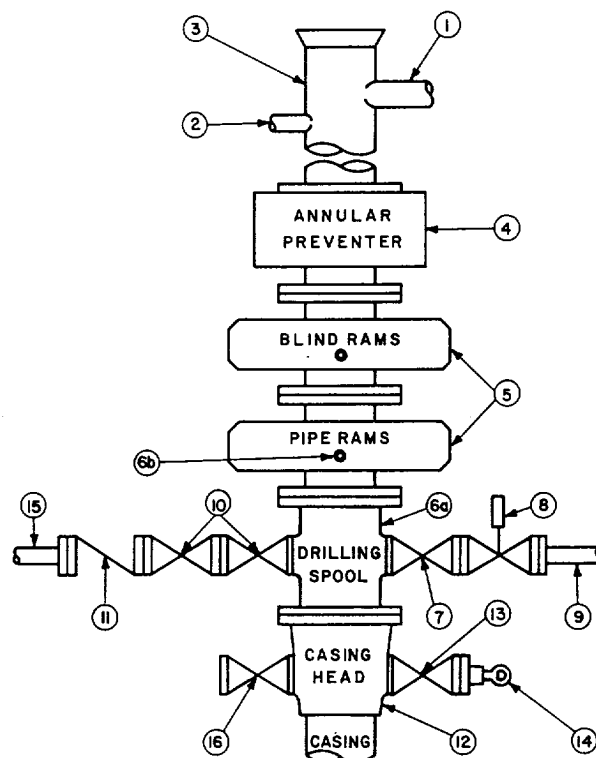
## STACK REQUIREMENTS

No.	Item	Min. I.D.	Min. Nominal
1	Flowline		
2	Fill up line		2"
3	Drilling nipple		
4	Annular preventer		
5	Two single or one dual hydraulically operated rams		
6a	Drilling spool with 2" min. kill line and 3" min choke line outlets		
6b	2" min. kill line and 3" min. choke line outlets in ram. (Alternate to 6a above.)		
7	Valve Gate <input type="checkbox"/> Plug <input type="checkbox"/>	3-1/8"	
8	Gate valve—power operated	3-1/8"	
9	Line to choke manifold		3"
10	Valves Gate <input type="checkbox"/> Plug <input type="checkbox"/>	2-1/16"	
11	Check valve	2-1/16"	
12	Casing head		
13	Valve Gate <input type="checkbox"/> Plug <input type="checkbox"/>	1-13/16"	
14	Pressure gauge with needle valve		
15	Kill line to rig mud pump manifold		2"

## OPTIONAL

16	Flanged valve	1-13/16"	
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CONFIGURATION A



## CONTRACTOR'S OPTION TO FURNISH:

1. All equipment and connections above bradenhead or casinghead. Working pressure of preventers to be 3,000 psi, minimum.
2. Automatic accumulator (80 gallon, minimum) capable of closing BOP in 30 seconds or less and, holding them closed against full rated working pressure.
3. BOP controls, to be located near drillers position.
4. Kelly equipped with Kelly cock.
5. Inside blowout preventer or its equivalent on derrick floor at all times with proper threads to fit pipe being used.
6. Kelly saver-sub equipped with rubber casing protector at all times.
7. Plug type blowout preventer tester.
8. Extra set pipe rams to fit drill pipe in use on location at all times.
9. Type RX ring gaskets in place of Type R.

## MEC TO FURNISH:

1. Bradenhead or casinghead and side valves.
2. Wear bushing, if required.

## GENERAL NOTES:

1. Deviations from this drawing may be made only with the express permission of MEC's Drilling Manager.
2. All connections, valves, fittings, piping, etc., subject to well or pump pressure must be flanged (suitable clamp connections acceptable) and have minimum working pressure equal to rated working pressure of preventers up through choke. Valves must be full opening and suitable for high pressure mud service.
3. Controls to be of standard design and each marked, showing opening and closing position.
4. Chokes will be positioned so as not to hamper or delay changing of choke beans. Replaceable parts for adjustable choke, other bean sizes, retainers, and choke wrenches to be conveniently located for immediate use.
5. All valves to be equipped with handwheels or handles ready for immediate use.
6. Choke lines must be suitably anchored.

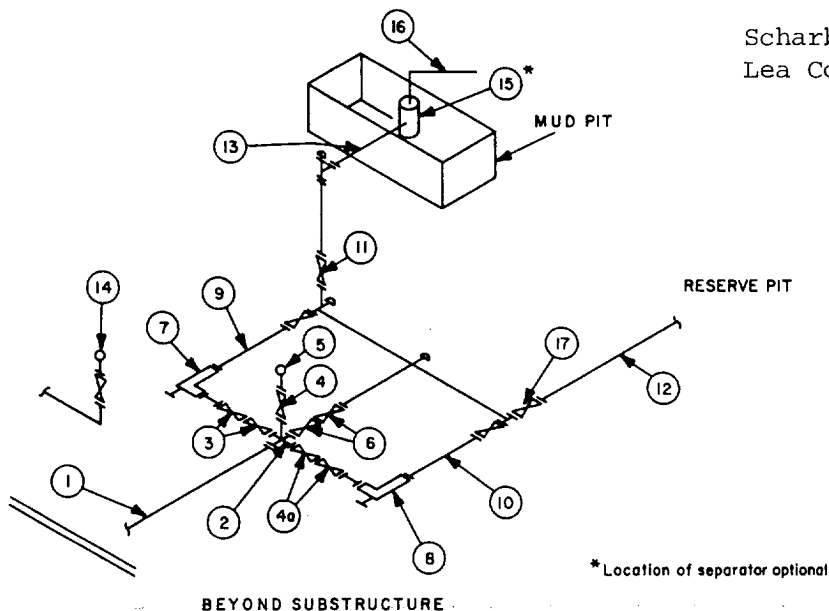
7. Handwheels and extensions to be connected and ready for use.
8. Valves adjacent to drilling spool to be kept open. Use outside valves except for emergency.
9. All seamless steel control piping (3000 psi working pressure) to have flexible joints to avoid stress. Hoses will be permitted.
10. Casinghead connections shall not be used except in case of emergency.
11. Do not use kill line for routine fill-up operations.

**MINIMUM CHOKE MANIFOLD**  
**3,000, 5,000 and 10,000 PSI Working Pressure**

**3 MWP - 5 MWP - 10 MWP**

**EXHIBIT 1-A**

Scharbauer "4" Well No. 3  
 Lea County, New Mexico



MINIMUM REQUIREMENTS										
No.		3,000 MWP			5,000 MWP			10,000 MWP		
		I.D.	NOMINAL	RATING	I.D.	NOMINAL	RATING	I.D.	NOMINAL	RATING
1	Line from drilling spool		3"	3,000		3"	5,000		3"	10,000
2	Cross 3" x 3" x 3" x 2"			3,000			5,000			
	Cross 3" x 3" x 3" x 3"									10,000
3	Valves(1) Gate <input type="checkbox"/> Plug <input type="checkbox"/> (2)	3-1/8"		3,000	3-1/8"		5,000	3-1/8"		10,000
4	Valve Gate <input type="checkbox"/> Plug <input type="checkbox"/> (2)	1-13/16"		3,000	1-13/16"		5,000	1-13/16"		10,000
4a	Valves(1)	2-1/16"		3,000	2-1/16"		5,000	3-1/8"		10,000
5	Pressure Gauge			3,000			5,000			10,000
6	Valves Gate <input type="checkbox"/> Plug <input type="checkbox"/> (2)	3-1/8"		3,000	3-1/8"		5,000	3-1/8"		10,000
7	Adjustable Choke(3)	2"		3,000	2"		5,000	2"		10,000
8	Adjustable Choke	1"		3,000	1"		5,000	2"		10,000
9	Line		3"	3,000		3"	5,000		3"	10,000
10	Line		2"	3,000		2"	5,000		3"	10,000
11	Valves Gate <input type="checkbox"/> Plug <input type="checkbox"/> (2)	3-1/8"		3,000	3-1/8"		5,000	3-1/8"		10,000
12	Lines		3"	1,000		3"	1,000		3"	2,000
13	Lines		3"	1,000		3"	1,000		3"	2,000
14	Remote reading compound standpipe pressure gauge			3,000			5,000			10,000
15	Gas Separator		2'x5'			2'x5'			2'x5'	
16	Line		4"	1,000		4"	1,000		4"	2,000
17	Valves Gate <input type="checkbox"/> Plug <input type="checkbox"/> (2)	3-1/8"		3,000	3-1/8"		5,000	3-1/8"		10,000

(1) Only one required in Class 3M.

(2) Gate valves only shall be used for Class 10M.

(3) Remote operated hydraulic choke required on 5,000 psi and 10,000 psi for drilling.

**EQUIPMENT SPECIFICATIONS AND INSTALLATION INSTRUCTIONS**

1. All connections in choke manifold **shall** be welded, studded, flanged or Cameron clamp of comparable rating.
2. All flanges **shall** be API 6B or 6BX and ring gaskets **shall** be API RX or BX. Use only BX for 10 MWP.
3. All lines **shall** be securely anchored.
4. Chokes **shall** be equipped with tungsten carbide seats and needles, and replacements **shall** be available.
5. Choke manifold pressure and standpipe pressure gauges **shall** be available at the choke manifold to assist in regulating chokes. As an alternate with automatic chokes, a choke manifold pressure gauge **shall** be located on the rig floor in conjunction with the standpipe pressure gauge.
6. Line from drilling spool to choke manifold should be as straight as possible. Lines downstream from chokes **shall** make turns by large bends or 90° bends using bull plugged tees.
7. Discharge lines from chokes, choke bypass and from top of gas separator should vent as far as practical from the well.

Submit to Appropriate  
District Office  
State Lease - 4 copies  
Fee Lease - 3 copies

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-102  
Revised 1-1-89

OIL CONSERVATION DIVISION

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

DISTRICT I  
P.O. Box 1980, Hobbs, NM 88240

DISTRICT II  
P.O. Drawer DD, Artesia, NM 88210

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

All Distances must be from the outer boundaries of the section

Operator MITCHELL ENERGY Corporation		Lease SCHARBAUER 4		Well No. #3
Unit Letter P	Section 4	Township 20S.	Range 33E.	County LEA
Actual Footage Location of Well: 660 feet from the SOUTH line and 660 feet from the EAST line				
Ground level Elev. 3551	Producing Formation Wolfcamp	Pool Wildcat	Dedicated Acreage: 40 Acres	

1. Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
3. If more than one lease of different ownership is dedicated to the well, have the interest of all owners been consolidated by communitization, unitization, force-pooling, etc.?  
☐ Yes ☐ No If answer is "yes" type of consolidation \_\_\_\_\_  
If answer is "no" list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) \_\_\_\_\_  
No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interest, has been approved by the Division.

SECTION 4, T.20S., R.33E., N.M.P.M.

OPERATOR CERTIFICATION

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

Signature George Mullen  
Printed Name  
George Mullen  
Position  
Reg. Affairs Specialist  
Company  
Mitchell Energy Corp.  
Date  
June 7, 1993

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 knowledge and belief.

Date Surveyed  
5/20/93  
Signature & Seal of Professional Surveyor  
JAQUESS  
NEW MEXICO  
6290  
LAND SURVEYOR  
PROFESSIONAL ENGINEER  
Certificate No. 6290  
SCHARBAUR

0 330 660 990 1320 1650 1980 2310 2640 2000 1500 1000 500 0