Stevens & Tull Inc.

Well Plan

West Teas Field

Lea County, New Mexico

Prepared By:

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BEFORE THE OIL CONSERVATION DIVISION
Santa Fe, New Mexico
Case No. 12506 Exhibit No. 10
Submitted by:
Sapient Energy Corporation
Hearing Date: October 19, 2000

DRILLING PROGNOSIS & PROCEDURE

West Teas Field

1 MIRU Drilling Rig

2. Drill 12-1/4" hole to a depth of approximately 1350' with fresh water mud

3 Run 8-5/8" -24#, K55 Casing to surface TD

4. Cement with adequate amounts of class "C" cement with 2% $CaCl_2$ to circulate cement to surface

5. Wait on cement for 12 hrs while pressure is being held on casing

6 Start Nipple up of 3000 PSIG Blow out Preventer, Install H_2S monitoring equipment

7 Start drilling operations after cement has set for a total 24 hrs

8. Drill 7-7/8" hole to Total Depth estimated to be 3500' utilizing saturated 10 ppg brine water

9. Once Total Depth is obtained condition the hole for open hole logging by raising the viscosity of the mud system

10. Run open hole logs to determine the productivity of the well

11. If not productive plug and abandon as per NMOCD or BLM recommendations

12 If productive run 5-1/2" 15.5#,K55, LT&C casing to Total Depth

13 Cement with adequate amounts of class "C" cement with flocelle and fluid loss additives to circulate the cement to surface.

14 Allow cement to set for 12 hrs before commencing rig down operations

15. Complete well as required

16. Place well into production by installing a sucker rod pumping system

O - Circled #'s R-111P requirements

#10 - Do not run open hole logs. Rather set casing right away.

Same procedure utilized for BLM accepted wells

MUD PROGRAM

WEST TEAS FIELD

Depth Interval (feet)	Density (PPG)	Funnel Viscosity (Seconds)	Type Mud	Filtrate (cc)
0-1350'	8.5	40-45	Spud Mud	NC
1350'-3500'	10.0	28	Saturated Brine Water	NC
3500'	10.0	35	Saturated Brine Water	10-15

WEST TEAS FIELD

CASING STRING DESIGN

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

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

Collapse Force	**Resist*	*S.F.*	*Burst Force*	*Resist*	*S.F.*	*Minimum Torque*	*Optimum Torque*	*Maximum Torque*
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.

WEST TEAS FIELD

CASING STRING DESIGN

DEPTH:	3500'
TYPE:	Production
SIZE:	5-1/2"
MUD WEIGHT:	10.0

Description	*Interval*	*Length Per Section*	*Weight Per Section*	*Cumm. Weight*	*Min. Strength*	*Tens. S.F.*
15.50#,ST&C,K-55	0-3500	3500'	54,250#	54,250#	222,000	4.09

Collapse Force	*Resist*	*S.F.*	*Burst Force*	*Resist*	*S.F.*	*Minimum Torque*	*Optimum Torque*	*Maximum Torque*
1820	4040	2.22	1691	5320	3.14	1500	2000	2500

Procedure:

Make up and run 5 1/2" casing as per the following:

A. Clean exposed threads on the guide shoe, first joint of 5 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 5 1/2" casing
3. Float collar
4. 5 1/2" casing back to 2950" with a rough coat bonding
5. 5 1/2" casing back to surface (sandblasted)
6. Rotate casing while cementing

C. Install centralizers as follows on the 5 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 surface

WEST TEAS FIELD

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:	Haliburton

Cement Recommendation:

Spacer: 20 Bbls Fresh Water

Slurry: 860 sack Premium Plus + 2% CaCl2

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

Procedure:

1. Utilize the two-plug system
2. Wait on cement a minimum of 12 hours (with pressure)
3. Wait on cement a minimum of 24 hours total before drill out

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.

WEST TEAS FIELD

CEMENTING PROGRAM

5-1/2" Production Casing

Depth:	3500
Casing Size:	5-1/2"
Hole Size:	7-7/8"
Calculated Cement Fill:	3500
Excess Calculated :	100%

Cement Recommendation:

Lead Slurry: 650 sacks Premium Plus + 1% CaCl2 + 15 #/sk Salt

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

Tail Slurry: 230 sacks Premium Plus + .4% HALAD - 322 (fluid loss) + 2% CaCl2

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

Procedure:

Cement the 5-1/2" casing string as follows:

1. Rotate casing during cementation
2. Wait on cement 12 hours before commencing rig operations

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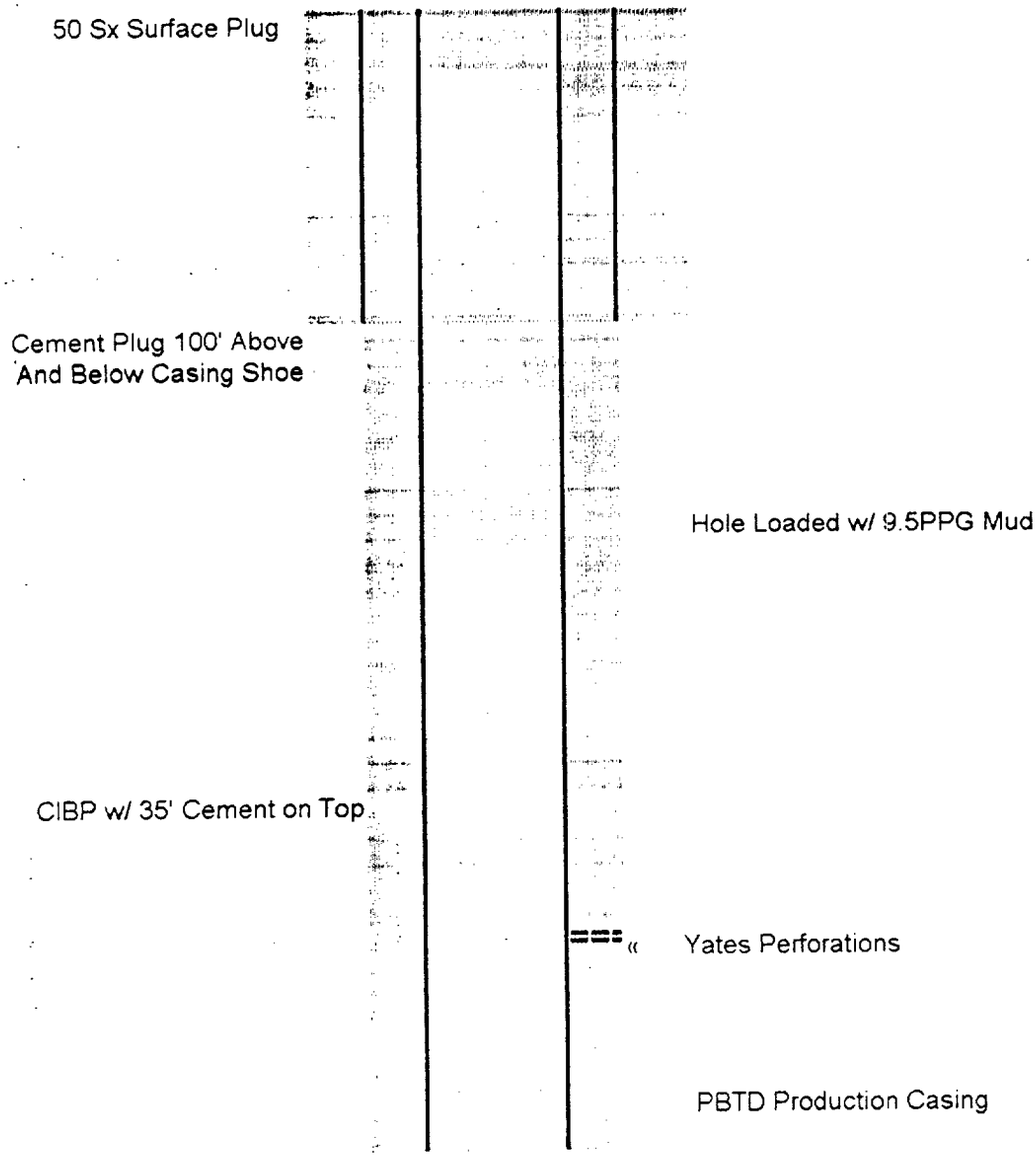
R-111-P Hearing

Wellbore Schematic

Plug and Abandonment Procedure



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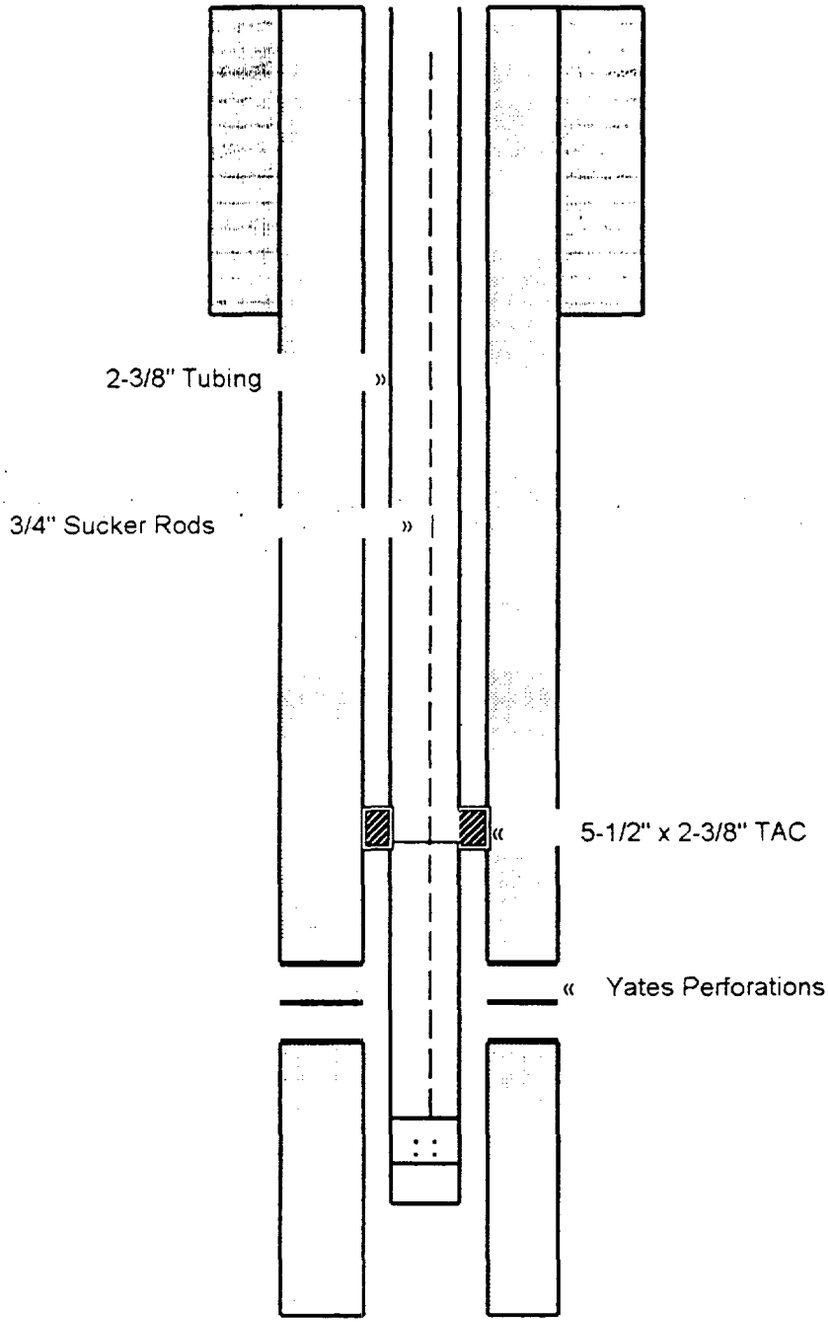


West Teas Rod Pump Setup

MINIMUM BLOWOUT PREVENTER REQUIREMENTS

3,000 psi Working Pressure

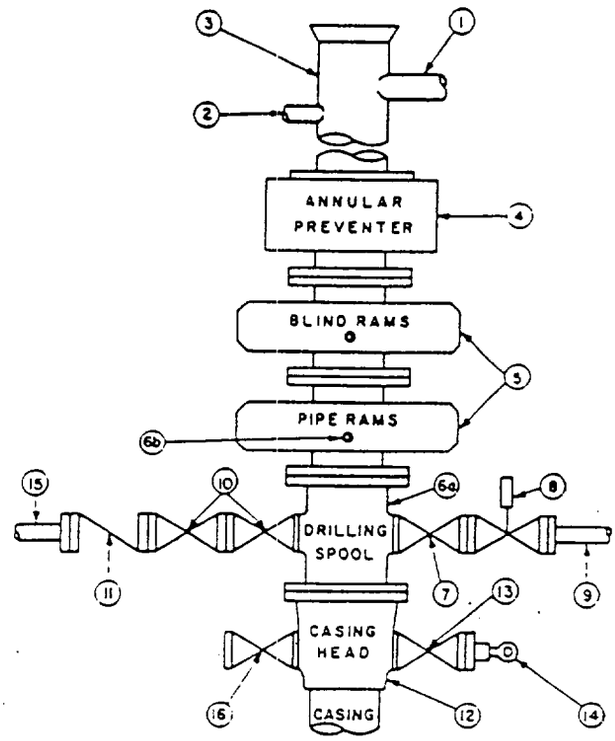
3 MWP

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		
	—or—		
6b	2" min. kill line and 3" min. choke line outlets in ram. (Alternate to 6a above.)		
7	Valve Gate ☐ Plug ☐	3-1/8"	
8	Gate valve—power operated	3-1/8"	
9	Line to choke manifold		3"
10	Valves Gate ☐ Plug ☐	2-1/16"	
11	Check valve	2-1/16"	
12	Casing head		
13	Valve Gate ☐ Plug ☐	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 prevventer 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 connectec 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.