

## Supplement to Drilling Plan

BTA Oil Producers  
Pitchfork, 8703 JV-P, Well No. 1

1. Surface Formation: Quaternary
2. Estimated Tops of Geological Markers:

Rustler	976'
Delaware Bell Canyon	5,291'
Cherry Canyon	6,279'
Cherry Canyon Marker	6,523'
"Leonard" Shale	9,054'
1st Bone Spring LS	9,476'
1st Bone Spring Sand	10,116'
2nd Bone Spring LS	10,676'
2nd Bone Spring Sand	10,768'
Strawn	13,657'
Atoka	13,834'
Morrow Clastics	14,329'
Sinatra Sand	14,793'
Morrow "C" Sand	15,162'

3. Anticipated possible hydrocarbon bearing zones:

Atoka                  Sinatra                  Morrow

4. Proposed Casing and Cementing program:

<u>Casing Size</u>	<u>Setting From</u>	<u>Depth to</u>	<u>Weight</u>	<u>Grade</u>	<u>Joint</u>
16"	0	600'	65#	H40	STC
10-3/4"	0	3,000'	45.5#	K55	STC
10-3/4"	3,000'	5,200'	51#	S-80	STC
7-5/8"	0	8,000'	29.7#	P-110	LTC
7-5/8"	8,000'	13,200'	33.7#	S95	LTC
5" Liner	12,800'	15,500'	23.2#	L80	SFJP

Depending upon availability at the time the casing is run, equivalent or adequate weights and grades may be substituted.

16" casing will be cemented with Class "C" cement containing 2% CaCl. Approximately 800 sacks will be sufficient to circulate.

10-3/4" casing will be cemented with sufficient light cement, tailed-in with 400 sacks of Class "C" cement, to circulate to the surface.

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7-5/8" casing will be cemented back up above the bottom of the 10-3/4" casing in two stages using stage tool @ +7,000'.

5" liner will be cemented with sufficient volume to circulate.

5. Pressure Control Equipment:

BOP sketch is attached

6. Mud Program:

Surface to 600': Fresh water spud mud with 35 to 45 sec/1000 cc viscosity. Will keep mud weight as low as possible using solids separation equipment and water. Will maintain fresh gel in system.

600' to 5,200': 10.0 ppg saturated brine water. Circulate reserve pit. Will use lime for pH control in range 10 to 11. Will sweep hole with salt gel slugs as required for hole cleaning.

5,200' to 13,200': 9.2 to 9.5 ppg controlled brine water. Will use lime for pH control in range 10 to 11. Will sweep hole with salt gel slugs as required for hole cleaning. Will use paper for seepage losses. Will adjust fluid weight as required using brine water.

13,200' to TD: Drill out below 9-5/8" casing with premix mud. Mud weight will be adjusted as required by hole conditions.

7. Auxiliary Equipment: Drill string safety valves will be maintained on the rig floor while drilling operations are in progress.

8. Testing, Logging and Coring:

Drill stem tests will be made when samples, drilling time and other data indicate a test is warranted.

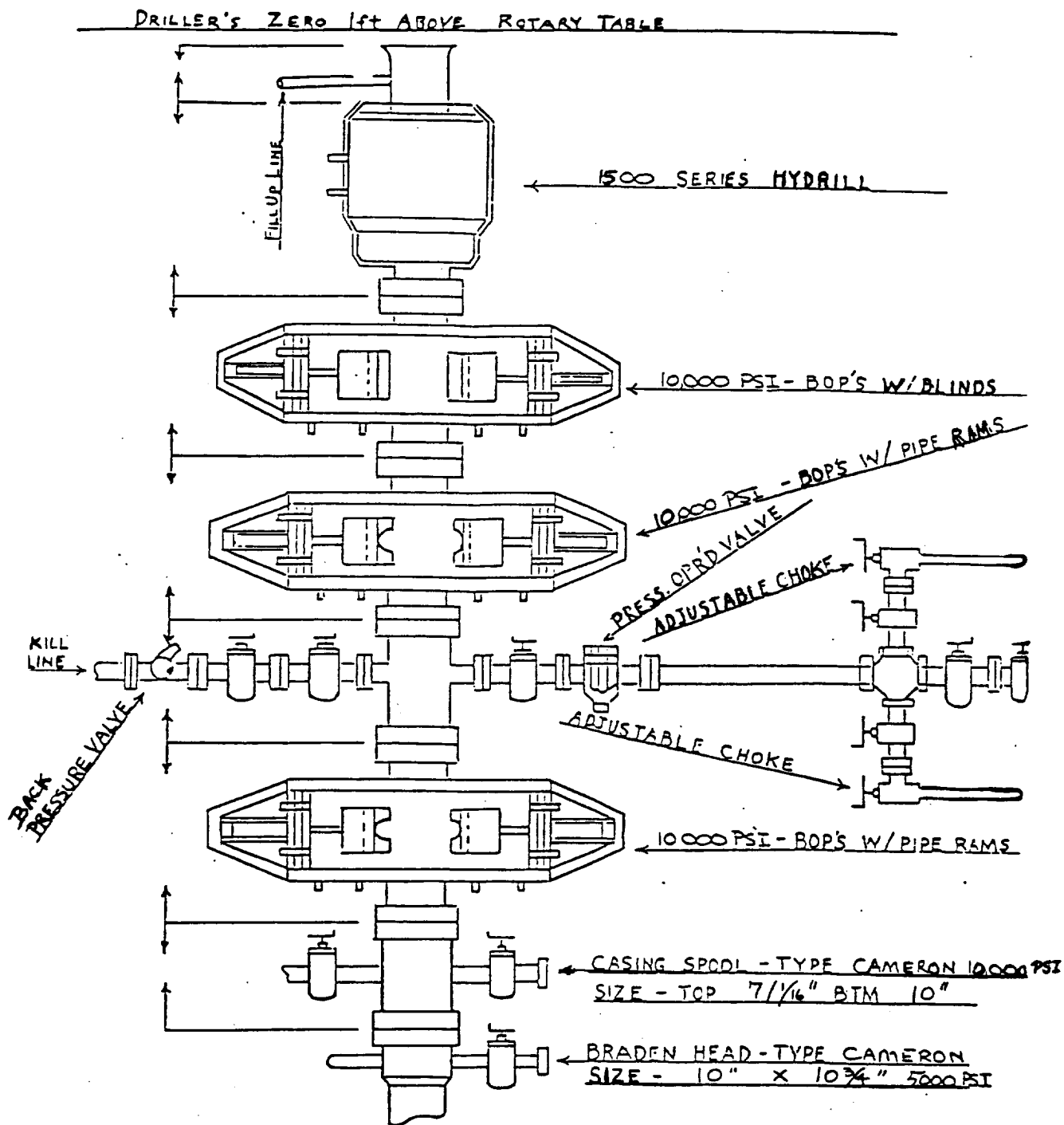
It is planned that electric logs will include Gamma Ray-CNL, FDC logs and dual laterologs.

No coring is planned.

9. Anticipated abnormal pressure in Atoka and Morrow.

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10. Anticipated Starting Date: It is planned to commence drilling operations on or before April 15, 1987, to last a period of 75 days.



BOP Hook Up AFTER SETTING SURFACE ( $10\frac{3}{4}$ " ) + INTERMEDIATE ( $7\frac{5}{8}$ " )  
STRINGS. ALL CONNECTIONS FROM THE SPOOL UP WILL BE TESTED TO 10,000

BTA OIL PRODUCERS

Pitchfork, 8703 JV-P, No. 1

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