

YATES PETROLEUM CORPORATION

Anita "ALD" Federal #6
660' FSL and 1980' FEL
Section 17-T21S-R32E
Lea County, New Mexico

1. The estimated tops of geologic markers are as follows:

Rustler	956'
Top of Salt	1,332'
Bottom of Salt	3,157'
Bell Canyon	4,486'
Cherry Canyon	5,436'
Brushy Canyon	7,227'
Bone Spring	8,404'
TD	8,500'

2. The estimated depths at which anticipated water, oil or gas formations are expected to be encountered:

Water: 150'
Oil or Gas: [^] Canyon 5436' and Bone Springs 8404'
Brushy *SJS*

3. Pressure Control Equipment: BOPE will be installed on the 13 3/8" casing and rated for 3000#. BOP systems will be consistent with API RP 53. Pressure tests will be conducted before drilling out from under all casing strings which are set and cemented in place. Blowout preventer controls will be installed prior to drilling the surface plug and will remain in use until the well is completed or abandoned. Preventors will be inspected and operated at least daily to ensure good mechanical working order, and this inspection recorded on the daily drilling report. See Exhibit B.

4. Auxiliary Equipment and Proposed Casing Program:

- A. Auxiliary Equipment: Kelly cock, pit level indicators, flow sensor equipment, and a sub with full opening valve to fit the drill pipe and collars will be available on the rig floor in the open position at all times for use when kelly is not in use.
- B. Casing and Cementing Program:

Hole Size: 17 1/2" Total Depth: 1000' Casing Size: 13 3/8"
Setting Depth: 1000' Mud Weight: 8.8 ppg

Casing Design:

<u>O.D.</u>	<u>Weight</u>	<u>Grade</u>	<u>Thread</u>	<u>Coupling</u>	<u>Interval</u>	<u>Length</u>
13 3/8	54.50#	J-55	8R	ST & C	0 - 1000'	1000'

Minimum Casing Design Factors: Collapse 1.125, Burst 1.0, Tensile Strength 1.8

Cement Program: Lead Slurry: 500 sacks "Lite C" with 1/4# sack Cellocel, 2% Cacl₂
Slurry Properties: Weight: 12.4 ppg Yield 1.98 cu.ft./sack

Tail Slurry 250 sacks "Class C" with 2% Cacl₂
Expected Linear Fill: Circulate to surface.
Slurry Properties: Weight: 14.8 ppg Yield 1.32 cu.ft./sack

Hole Size: 11" Total Depth: 4500' Casing Size: 8 5/8"
Setting Depth: 4500' Mud Weight: 10.0 ppg

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Casing Design:

<u>O.D.</u>	<u>Weight</u>	<u>Grade</u>	<u>Thread</u>	<u>Coupling</u>	<u>Interval</u>	<u>Length</u>
8 5/8"	32#	J-55	8R	ST & C	0 - 4500'	4500'

Minimum Casing Design Factors: Collapse 1.125, Burst 1.0, Tensile Strength 1.8

Cement Program: Lead Slurry: 1200 sacks "Lite C" with 10# sack salt, 5# Gilsonte
Slurry Properties: Weight: 12.7 ppg Yield 1.98 cu.ft./sack

Tail Slurry 250 sacks "Class C" with 2% Cacl2
Calculated Linear Fill: Circulate to surface.
Slurry Properties: Weight: 14.8 ppg Yield 1.32 cu.ft/sack

Hole Size: 7 7/8" Total Depth: 8500' Casing Size: 5 1/2"
Setting Depth: 8500' Mud Weight: 8.7 ppg

Casing Design:

<u>O.D.</u>	<u>Weight</u>	<u>Grade</u>	<u>Thread</u>	<u>Coupling</u>	<u>Interval</u>	<u>Length</u>
5 1/2"	17#	J-55	8R	LT & C	0 - 2050'	2050'
5 1/2"	15.50#	J-55	8R	LT & C	2050' - 7250'	5200'
5 1/2"	17#	J-55	8R	LT & C	7250' - 8500'	1250'

Minimum Casing Design Factors: Collapse 1.125, Burst 1.0, Tensile Strength 1.8

Cement Program: First Stage: 175 sacks "Class H" + 8# sack CSE + 0.6% CF-14 + 5# sack Gilsonte + 0.35% Thiflylite. DV Tool set at approximately 7400'.

Cement calculated to 7400'.
Slurry Properties Weight: 13.6 ppg Yield: 1.32 cu.ft/sack

2nd Stage: 425 sacks "Class C" with 10# sack CSE, 1/4# sack cellocel. Weight: 11.5 ppg, Yield 2.25 cu.ft/sack + 300 sacks- "H", 8# sack CSE, 0.5% CF-14 + 0.35% Thrifty lite. Weight 13.3 ppg, yield 1.82 cu.ft/sack.
Calculated to tie back to intermediate casing.

Slurry Properties: Weight: 13.6 ppg Yield: 1.75 cu.ft/sack

5. Mud Program and Auxiliary Equipment:

From 0 to 1000' (Minimum Properties)

Mud Weight: 9.1 ppg, Viscosity: 32 sec./1000 cc, Water Loss: N/C cc, Mud Type: FW Gel/LCM

Mud will be checked tourly by rig personnel. Sufficient quantities of mud will be kept on location to maintain minimum properties.

From 1000' to 4500' (Minimim Properties)

Mud Weight: 10.0 ppg, Viscosity: 28 sec./1000cc, Water Loss: N/C cc, Mud Type: Brine, use salt water gel for hole sweeps.

Mud will be checked tourly by rig personnel. Sufficient quantities of mud will be kept on location to maintain minimum properties

From 4500' to 8500' (Minimum Properties)

Mud Weight: 8.7 ppg, Viscosity: 28 sec.1000cc, Water Loss: N/C cc, Mud Type: Cut Brine.

Use salt water gel for hole sweeps.

Mud will be checked tourly by rig personnel. Sufficient quantities of mud will be kept on location to maintain minimum properties

6.. Testing, Logging and Coring Program:

Samples: Every 10' from surface casing to TD.

DST's: Any tests will be based on the recommendation of the well site Geologist as warranted by drilling breaks and shows.

Coring: None anticipated.

Logging: CNL-FCD from TD to casing, with GR-CNL up to surface; DLL from TD to casing.

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7. Abnormal Conditions, Bottom hole pressure and potential hazards:

Anticipated BHP:

From: <u>-0-</u>	TO <u>1000'</u>	Anticipated Max. BHP: <u>430</u> PSI
From: <u>1100'</u>	TO <u>4500'</u>	Anticipated Max. BHP: <u>1800</u> PSI
From: <u>3150'</u>	TO <u>8500'</u>	Anticipated Max. BHP: <u>3740</u> PSI

Abnormal Pressures Anticipated: None

Lost Circulation zones anticipated: None.

H2S Zones Anticipated: None.

Maximum Bottom Hole Temperature: 125 F

8. Anticipated starting date: As soon as possible after approval with the drilling time being approximately 15 days and the completion time being another 15 days.