

MERIT ENERGY COMPANY

Sundance Federal Well #5  
1980' FWL and 660' FNL  
Unit C Section 5-T24S-R31E  
Eddy County, New Mexico

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

Delaware Lime 4060'  
Cherry Canyon 5175'  
Brushy Canyon 6325'  
Bone Springs 7900'

2. The estimated depth at which anticipated water, oil and gas are expected to be encountered:

Water Surface to 500'  
Oil and Gas Delaware Lime 4060' to Bone Springs 8200'

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 & B-1.

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 drill pipe and collars will be available on rig floor in 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: 650' Casing Size: 13 3/8"  
Setting Depth: 650' Mud Weight: 8.8 ppg

Casing Design:

O.D.	Weight	Grade	Thread	Coupling	Interval	Length
13 3/8"	54.50#	J-55	8R	ST & C	0-650'	650'

Minimum Casing Design Factors:

Collapse 11.30, Burst 27.30, Tensile Strength 8.53

Cement Program:

Lead Slurry: 280 sacks-3565 posC with 6% Bentonite 2% CaCl<sub>2</sub>  
1/8 lb per sack Cellophane Flake  
Expected Linear Fill: True Hole Volume-554 feet  
Slurry Properties: Weight-12.8 ppg Yeild-1.98 cu.ft./sack

Tail Slurry: 290 sacks Class "C" with 2% CaCl<sub>2</sub>  
Expected Linear Fill: True Hole Volume-552.94 feet  
Slurry Properties: Weight-12.8 ppg Yeild-1.32 cu.ft./sack

Hole Size: 12 1/4" Total Depth: 4200' Casing Size: 8 5/8"  
Setting Depth: 4200' Mud Weight: 10.0