

## DRILLING PROGRAM

Attached to Form 3160-3  
Mitchell Energy Corporation  
Apache "13" Federal No. 5  
660' FSL & 330' FEL  
SE/SE, Sec. 13, T22S, R30E  
Eddy Co., N.M.

1. Geologic Name of Surface Formation:

Permian

2. Estimated Tops of Important Geologic Markers:

Permian	Surface
Base of Salt	3640'
Delaware	3895'
Bone Spring	7760'
Total Depth	7860'

3. Estimated Depths of Anticipated Fresh Water, Oil or Gas:

Upper Permian Sands	100'	Fresh Water
Delaware	3895'	Oil
Delaware (Brushy Canyon)	7365'	Oil

No other formations are expected to give up oil, gas, or fresh water in measurable quantities. The surface fresh water sands will be protected by setting 13-3/8" casing at 500' and circulating cement back to surface. The potash will be protected by setting 8-5/8" casing at 3845' and circulating cement back to surface. The 5-1/2" production casing to be run at TD will be cemented back 500' into the 8-5/8" casing (TOC at 3400') in order to cover all productive zones in the Delaware.

4. Casing Program:

<u>Hole Size</u>	<u>Interval</u>	<u>OD csg</u>	<u>Weight, Grade, Jt. Cond. Type</u>
17-1/2"	0-500'	13-3/8"	54.5#, K-55, ST&C, New, R-3
12-1/4"	0-3845'	8-5/8"	32#, K-55, LT&C, New, R-3
7-7/8"	0-TD	5-1/2"	17#, K-55, ST&C, New, R-3

Cement Program:

13-3/8" Surface Casing  
@ 500':

Cemented to surface with 525 sx of Class "C"  
+ 2% CaCl<sub>2</sub> + 1/4 #/sx Flocele.