

Attached to Form 3160-3  
Mack Energy Corporation  
Navaho Federal #4  
2141 FSL & 2188 FEL  
NW/4 SE/4, Sec 30 T17S R29E  
Eddy County, NM

DRILLING PROGRAM

1. Geologic Name of Surface Formation

Quaternary

2. Estimated Tops of Important Geologic Markers:

Quaternary	Surface
Top of Salt	330'
Base of Salt	670'
Yates	900'
Queen	1770'
San Andres	2500'
Glorietta	4000'

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

Water Sand	150'	Fresh Water
Grayburg	3500'	Oil/Gas
San Andres	3800'	Oil/Gas
Paddock	5330'	Oil/Gas

No other formations are expected to give up oil, gas or fresh water in measurable quantities. Setting 13 3/8" casing to 325' and circulating cement back to surface will protect the surface fresh water sand. Salt Section will be protect by setting 8 5/8" casing to 950' and circulating cement back to surface. Any shallower zones above TD which contain commercial quantities of oil and/or gas will have cement circulated across them by cementing 5 1/2" production casing which will be run at TD.

4. Casing Program:

Hole Size	Interval	OD Casing	Weight, Grade, Jt, Cond., Type
17 1/2"	0-325'	13 3/8"	48#, K-55, ST&C, New, R-3
12 1/4"	0-950'	8 5/8"	24#, K-55, ST&C, New, R-3
7 7/8"	0-TD	5 1/2"	17#, J-55, LT&C, New, R-3