

APPLICATION FOR DRILLING

Delta Drilling Company
South Culebra Bluff Unit #4
1980' FSL and 1190' FWL
Section 13, T-23S, R-28E
Eddy County, New Mexico

In conjunction with Form 9-331C, Application for Permit to Drill subject well, Delta Drilling Company submits the following ten items of pertinent information in accordance with USGS requirements:

1. The geologic surface formation is Permian.
2. The estimated tops of geologic markers are as follows:

Delaware Sand	2711'
Bone Springs	6275'
Bone Springs Sand	7400'
Wolfcamp	9745'
Canyon	10300'
Strawn Lime	11445'
Atoka	11505'
Bell Lake	11800'
Morrow	12109'
Barnett	13100'

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

Water	- No fresh water anticipated below 250' as per conversation with Mr. Oral Nichols with Carlsbad Irrigation District on 3/19/79.
Oil or Gas	- Bone Springs 6300-6500'
	Atoka 11500-11700'
	Morrow 12100-12800'

4. Proposed Casing Program: See Form 9-331C and Exhibit F
5. Pressure Control Equipment: See attachments to Form 9-331C and Exhibit E
6. Mud Program: See Exhibit G
7. Auxiliary Equipment: See Exhibit H
8. Testing, Logging, and Coring Programs:

Drill Stem Tests (All DST's to be justified by valid shows of oil and/or gas):
Delaware Sands 2711-6275'
Bone Springs 6275-8000'

Logging: Mud Logging Unit from 2600' to TD

Electric Logging Program:	<u>Fluid</u>	<u>Air</u>
	DLL w/ Micro SFL	DIL-GR
	CNL/FDC	FDC or SWN
	BHC Sonic	Temp
	Cyber Look	FIL

9. Anticipated Starting Date: As soon as possible