

APPLICATION FOR PERMIT TO DRILL

1. The geologic surface formation is Quaternary.
2. The estimated tops of important geologic markers are:
 1. Rustler 1100
 2. Delaware Lime 5360
 3. Delaware Sand 5390
 4. Bone Springs 9300
 5. Wolfcamp 12180
 6. Strawn 13600
 7. Atoka Reef 13800
 8. Atoka Sand 13880
 9. _____
 10. _____
3. Depths at which oil, water, or gas bearing formations are expected to be encountered.

Wolfcamp Limes 12180 - 13600
Strawn Lime 13600 - 13880
Atoka Sand 13880 - 14100
4. Brief description of testing, logging, and coring programs.

Drill Stem test as necessary
Gamma Ray: Surface - TD
Sonic and/or Neutron Density: Top Delaware Sand - TD
Dual Laterolog: Top Delaware Sand - TD
Mud Logger: Top Delaware Sand - TD
No coring anticipated.
5. Any anticipated abnormal pressures or temperatures expected? Any potential hazards - H₂S?

Possible abnormal pressures from Wolfcamp through the Atoka.
No H₂S zones expected.