

APPLICATION FOR PERMIT TO DRILL

MATADOR OPERATING COMPANY

Vaca Draw 15 Federal #1

660' FNL; 660' FWL

Sec 15, T25S, R33E

Lea County, New Mexico

In conjunction with Form 3160-3, Application for Permit to Drill, Matador Operating Company submits the following items of pertinent information in accordance with Onshore Oil and Gas Order Nos. 1 & 2, and with all other applicable federal and state regulations.

1. Geological Name of Surface Formation: Permian
2. Estimated Tops of Important Geological Markers:

	Subsea	Measured Depth	
Upper Permian Delaware Fm	-1545'	4925'	+
Lower Permian Bone spring Fm	-5555'	8935'	
1 st Bone Spring SS Mbr	-6395'	9775'	
2 nd Bone Spring SS Mbr	-7275'	10655'	
3 rd Bone Spring SS Mbr	-8420'	11800'	+
Lower Permian Wolfcamp Fm	-8985'	12365'	
Lower Wolfcamp	-10115'	13495'	*
PTD	-10420'	13800'	

* Primary Reservoir Target

+ Secondary Reservoir Target

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

Upper Permian Sands	0-300'	Fresh Water	*
Delaware	4925'	oil	
3 rd Bone Spring SS Mbr	11800'	oil	**
Lower Wolfcamp	13495'	gas	***

* Ground water will be protected by 13-3/8" surface casing with cement circulated to surface.

** Potentially productive horizons in the 8-3/4" hole section to be protected by the 7" casing with cement at least 500' above upper most zone.

*** The productive Lower Wolfcamp horizon to be protected by setting a 4-1/2" production liner at TD with cement tied back inside the 7" casing.