APPLICATION FOR PERMIT TO DRILL SAHARA OPERATING COMPANY BOYLE FEDERAL "8" #1 563' FNL & 651' FWL Sec. 8, T25S, R32E

DRILLING PLAN

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

- 1. The geologic surface formation is Quarternary Alluvium.
- 2. Estimated tops of geologic markers are as follows:

Ogallala	100'	Base Salt	4270'
Dewey Lake	350'	Lamar Lime	4480'
Top Anhydrite	680'	Delaware Sand	4510'

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

* - Water: 100' & 355' (Ogallala & Dewey Lake)

** - Oil and/or gas: 4530' (Delaware Sand)

* - Groundwater to be protected by 8-5/8" surface casing set into the Rustler Anhydrite with cement circulated to the surface of the ground.

** - Potentially productive horizons to be protected by 5-1/2" production casing with the top of cement brought to at least 3000'.

4. Proposed Casing Program: As Below, Also see Summary for running and cementing detail.

Hole Size	Casing Size	Weight/ft	Grade	Thread	Setting Depth	Cement	Est TOC
12-1/4"	8-5/8"	24.0	K-55	ST&C			
7-7/8"	5-1/2"	15.50 or	K-55	LT&C			Surface
		17.0	K-55	LT&C			

Note: If acceptable to the BLM, it is proposed to utilize used, electronically inspected casing for the 5-1/2" string. Any used pipe so utilized will be either Yellow Band (0-15% wall loss) or White Band (0-12½% wall loss). As a point of reference, API spec for new pipe allows for $12\frac{1}{2}$ % reduction in wall thickness, meaning White Band is electronically indistinguishable from new pipe.

- 5. Pressure Control Equipment (Blowout Preventer): Please see Exhibit F To be installed and tested after Surface Pipe is set at or below 750'
- 6. Mud Program: Please see Exhibit D.