HOLE PROGNOSIS
FORM 3160-3 APPLICATION FOR PERMIT TO DRILL
ARMSTRONG ENERGY CORPORATION
H.G. MOBERLY "A" FEDERAL #3 WELL
2310' FSL & 660' FEL
SECTION 8-26S-37E
LEA COUNTY, NEW MEXICO

In conjunction with Form 3160-3, Application for Permit to Drill, Armstrong Energy Corporation submits the following items in accordance with Onshore Oil and Gas Order Numbers 1 and 2, and all other applicable federal and state regulations.

1. Geologic Name of Surface Formation:

   Quaternary

2. Estimated Tops of Geologic Markers:

Rustler	990'	Seven Rivers	3140'
Top of Salado	1240'	Queen	3300'
Tansill	2670'	TD	4000'
Yates	2815'		

3. Estimated Depths of Anticipated Fresh Water. Oil or Gas:

Surface	450'	Fresh Water
Yates	2815' - 3140'	Gas
Seven Rivers	3140' - 3300'	Oil and Gas
Queen	3300' - 4000'	Oil and Gas

   No other formations are expected to produce oil, gas or fresh water in measurable quantities. The surface fresh water sands will be protected by setting 8 5/8" casing at 1030' and circulating cement back to surface. Shallower zones above TD which contain commercial quantities of oil and/or gas will have cement circulated across the zone, through the 5 1/2" production casing, which will be run at TD.

4. Casing Program:

Hole Size	Interval	OD Csg	Weight, Grade, Jt., Cond. Type
17 1/2"	0- 40'	13 3/8"	48#, H-40, ST&C, L.S.
11"	0-1030'	8 5/8"	24#, J-55, LT&C, New
7 7/8"	0-TD	5 1/2"	15.5#, J-55, LT&C, New

5. Cementing Program:

Conductor Pipe: 13 3/8" casing will be set at approximately 40' and cemented with approximately 2 cu. yds. of redi-mix to bring cement to the surface.

Surface Casing: 8 5/8" casing will be set at approximately 1030' and cemented with approximately 600 sacks of Premium Plus cement with 2% $CaCl_2$ and additives per sack. The amount may be adjusted depending upon the fluid caliper results, however, cement in sufficient quantities to circulate will be utilized.

Production Casing: If appropriate, 5 1/2" casing will be set at Total Depth. Armstrong proposes to utilize cement in sufficient quantities to circulate cement to surface. The production casing will be cemented with approximately 650 sacks 50/50 Poz "C" with 5# salt and additives per sack.

6. Minimum Specifications for Pressure Control:

The blowout preventer equipment (BOP) shown on Exhibit "A" will consist of a double ram-type (3000 psi WP) preventer. The BOP unit will be hydraulically operated and the ram-type preventer will be equipped with blind rams on top and 4 1/2" drill pipe rams on bottom. The BOP will be nippled up on the 8 5/8" surface casing and used continuously until TD is reached. The BOP and accessory equipment will be tested to 1000 psi before drilling out of surface casing.

Pipe rams will be operationally checked each 24 hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets. A 2" kill line and 2" choke line will be included in the drilling spool located below the ram-type BOP. Other accessories to the BOP equipment will include a kelly cock and floor safety valve (inside BOP) and choke lines and choke manifold with 2000 psi WP rating.

7. Types and Characteristics of the Proposed Mud System:

0' to 1030'	Fresh water with lime and gel with paper and fiber for seepage will be used for drilling purposes.
1030' to 2500'	Saturated brine water purchased from commercial sources with paper and fiber for seepage will be utilized.
2500' to TD	Saturated brine water, caustic for PH control and paper for seepage with starch will be utilized. Anticipated mud properties are as follows: MW 10.5, WL 10 cc, PH 9, Vis 30, CL 180,000.

Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept at the wellsite at all times.

8. Auxiliary Well Control and Monitoring Equipment:

   A. A kelly cock will be kept in the drill string at all times.

   B. A full opening drill pipe stabbing valve (inside BOP) with proper drill pipe connections will be on the rig floor at all times.

   C. H_2S monitoring will be used to detect H_2S gas at the flowline and on the rig floor. Fresh air breathing equipment will be on location in case of an H_2S emergency.

9. Testing. Logging and Coring Program:

   A two (2) man Mudlogging unit will be on location from the top of the base of the Salado Formation, at approximately 2600', to total depth at 4000'.

   If indicated, DLL-MSFL, CNL-Density, Gamma Ray logs and Caliper logs will be run at TD. The Dual Laterolog will be run from TD back to the base of the Salado and the Compensated Neutron/Density Log will be run from TD back to surface. Armstrong may elect to obtain rotary sidewall cores from selected intervals from approximately 3140' to 4000', dependent upon logging results.

10. Abnormal Conditions. Pressures, Temperatures and Potential Hazards:

   No abnormal pressures or temperatures are anticipated. The anticipated bottomhole pressure is 1520 PSI.

   Loss of circulation is possible in the Yates-Seven Rivers section of the hole, however, no major loss circulation zones have been reported in offsetting wells.

   Armstrong has one (1) producing well on the lease. Hydrogen Sulfide is present in the produced fluids from this well. However, if Hydrogen Sulfide is encountered, a Hydrogen Sulfide alarm on the drilling rig would be activated. All personnel have had Hydrogen Sulfide training and appropriate breathing apparatus is located on site. If necessary, the well can be shut in utilizing the blow out preventer and other equipment to prevent the migration of Hydrogen Sulfide to the surface.

11. Anticipated Starting Date and Duration of Operations: Road and location work will not begin until approval has been received from the BLM. The anticipated spud date is October 1, 1997. Once commenced, the drilling operation should be completed in

approximately 15 days. If the well is productive, an additional 15 days will be required for completion and testing before a decision is made to install permanent facilities.