BURRO CANYON FEDERAL UNIT

T20-20½ & 21S, R20E
Otero & Chaves Counties, New Mexico

PROPOSED TEST LOCATION: Section 2-21S-20E, Otero County, New Mexico

Geological Report

The Burro Canyon Federal Unit outlines an area that is prospective for gas production from the Middle Morrow Sand (Morrow Zone Six Sand of this report).

Electric log correlation and sub-surface mapping indicate the Morrow Zone Six Sands are deposited as strike bars along the shoreline of Morrow Unit Six. The shoreline of Zone Six is shown on the Morrow Zone Six Sand Isoporosity Map.

The Burro Canyon Unit is located in an re-entrant of the Morrow Zone Six Shoreline. A porous development of Zone Six Sand is expected in the unit area trapped by pinch-out of the sand to the northeast and west and by the Huapache Fault to the south. Further enhancement of the unit area's producing potential is provided by a northwest plunging anticline through the unit area. (See attached Chester Structure Map).

The Morrow Six Sand produces gas at the Little Box Canyon Field 21S-21 & 22E, six miles east. The Burro Canyon prospect is expected to have similar sand conditions to Little Box Canyon but being 1,500 feet higher in structure should have a larger productive area.

Key wells to the prospect include Cities Service #1 Loafer Draw, Section 17-21S-22E, with excellent porosity development (40 feet) of Zone Six Sand; Yates Petroleum #1 Box Canyon, Section 13-21S-21E, with 12 feet of gas productive Zone Six Sand; Pennzoil #1 Federal "28", Section 28-21S-21E, as control well for the area with no Morrow Six unit, providing control for Zone Six Shoreline; and, Texas Oil & Gas #1 Federal "B", Section 15-20S-20E, providing control for re-entrant of Morrow Zone Six Sand through the Burro Canyon Unit Area.

A test well located in Section 2-21S-20E could expect the following formations at these estimated depths:

Expect a minimum of 94% WI participation
USGS & Lnd Comm have both given tentative approval.

Upper Permian Carbonates-Surface to 3200' - no expected shows of oil or gas,

ABO Dolomite 3300-4100' - possible gas zone,

Wolfcamp 4100-5800' - possible gas zone,

Canyon Carbonates 5800-6500' - possible gas zone,

Strawn Carbonates & Sands 6500-7000' - possible gas zone,

Atoka 7000-7200' - possible gas zone,

Morrow 7200-7600'

Upper Morrow Sands 7300-7500'.- possible gas zone,

Morrow Zone Six Sand 7500-7600' - primary objective, possible gas,

Chester Limestone 7500-7800'