WHITE BELLY WASH
(Gas)
T. 43 S., R. 23 E., SLPM
San Juan County, Utah

GEOLOGY
Regional Setting: Southwest shelf of Paradox Basin
Surface Formations: Jurassic, Navajo Sandstone
Exploration Method Leading to Discovery: Surface and subsurface geology
Type of Trap: Stratigraphic with some structural implications
Producing Formation: Permian, Organ Rock Tongue of Cutler Formation
Gross Thickness and Lithology of Reservoir Rocks: 20 feet of sandstone in two benches
Geometry of Reservoir Rock: Lenticular
Other Significant Shows: None reported
Oldest Stratigraphic Horizon Penetrated: Pennsylvanian, Akah Zone of the Paradox Formation
Plugged and Abandoned: June, 1975

DISCOVERY WELL
Name: Merriion and Bayless No. 34-1 White Belly Wash
Location: CNE SW (1980' FSL and 1980' FWL) sec. 34, T. 43 S., R. 23 E.
Elevation (KB): 5,346 feet
Date of Completion: January 7, 1973
Total Depth: 2,526 feet
Production Casing: 4½" at 2,525 feet with 80 sacks of cement
Perforations: 2,406 to 2,476 feet with two holes per foot
Stimulation: Sand-water fracture using 15,750 gallons of water and 25,000 lbs sand
Initial Potential: 944 MCFPD
Bottom Hole Pressure: Unknown

DRILLING AND COMPLETION PRACTICES
Surface casing is 7" set at approximately 60 feet and cemented. Depth of surface casing varies in the area because of the thickness of the Glenn Canyon group (Navajo Sandstone, Kayenta Formation, and Wingate Sandstone). Problems such as water flows and lost circulation occur in these formations. The mud system is generally weighted gel which is adequate to keep the hole in shape. Production casing is 4½" which is run through the pay zone. The pay zone consists of thin sandstone stringers located approximately 450 feet into the Organ Rock Tongue. Two wells have been completed in the Organ Rock in this field. The second well was the Southland Royalty Navajo 33-1. The wells were stimulated differently. The discovery well was sand-water fractured. The second well, a re-entry, was acidized with 500 gallons of 15 percent hydrochloric acid.

RESERVOIR DATA
Productive Area:
Proved: 480 acres
Unproved: Unknown
Approved Spacing: None
No. of Producing Wells: 0
No. of Abandoned Wells: 2
No. of Dry Holes: 1
Average Net Pay: 8 feet
Porosity: Average sonic porosity 16 percent, average density porosity 10 percent
Permeability: Unknown
Water Saturation: Unknown
Initial Field Pressure: Unknown
Type of Drive: Solution gas
Gas Characteristics and Analysis: Btu 948; specific gravity 0.709 at 60°F; (in molecular percent) carbon dioxide .14, hydrogen sulfide nil, nitrogen 18.09, methane 73.11, ethane 4.18, propane 2.43, iso-butane 4.3, normal butane .87, iso-pentane .25, normal pentane .28, hexane .15, heptanes .07, helium, less than .01
Associated Water Characteristics and Analysis: Unknown
Original Gas, Oil, and Water Contact Datums: Unknown
Market Outlet: El Paso Natural Gas Co.

FIELD COMMENTARY
The White Belly Wash field is located between Boundary Butte field and East Boundary Butte field approximately ¼ mile from the Arizona-Utah state line.
The Navajo 34-1, designated as the discovery well, was spudded in November 1972; the Navajo 33-1 was a re-entry by Merrion and Bayless in 1972. The original Navajo 33-1 was drilled by Southland Royalty in 1970. This well is carried by Petroleum Information as the Merrion and Bayless No. 1 Southland Royalty. The State of Utah production records carry this well as the Merrion and Bayless Navajo 33-1.
The Navajo 33-1 was originally completed in the upper Ismay (4,746 to 4,760 feet) for 6 BOD and 1 BWD on a 40/64' choke. State of Utah records show that this well produced 89 BO before it was completed in the Organ Rock Tongue. Merrion and Bayless re-entered the well and perforated from 2,348 to 2,358 feet with 40 holes and acidized with 500 gallons of hydrochloric acid. The well was completed for 906 MCFPD.
It should be noted that the sandstones of the Organ Rock Tongue are very thin and lenticular. The productive sandstones consist of one to two benches. On the accompanying cross section note the stratigraphic position of the producing sandstones.

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