BLACK RIVER CORPORATION MILLER #1

Location: 760' FNL and 2080' FWL, Section 10, T-23-S, R-27-E, Eddy County, New Mexico

September 22, 1978

Swabbing well. Upon opening well, tubing pressure was 500 PSI and bleed off in 5 minutes to zero. Swabbing began at 9:00 A.M., Fluid level on first swab run, 9800', Swab depth - 11,000'. Made 7 swab runs in 6 hrs. 4 barrels recovered. Tubing dry the last four runs. Shut down at 3:00 P.M., 23rd and 24th shut down and probably for next 3 or 4 days due to weather.

September 25, 1978

Had 500# on tubing and bled off immediately, made swab run and found fluid level at 10,000. Swabbed from 11,000'. Recovered 2 bbls. load water. Made 1 more swab run from 11,000' and did not recover anything - dry. So, shut-in and closed down at 10:00 A.M.

October 2, 1978

Before acidizing made 1 run with swab and found fluid level at 10,500'. Pulled swab from 11,000 and rigged up Western Company. Acidizing with 3,000 gal. of 15% NE acid. Average treating pressure - 6200#, average injection rate - 3.1bbls. per minute on acid and 2 bbls per minute on nitrogen. Average injection rate on flush was 3.3 bbls and 2 bbls on nitrogen. Used 1,000 standard cubic feet of nitrogen per bbl of treatment. At end of acidizing, Initial shut-in pressure -4100 P.S.I., 5 minute shut-in pressure - 3900, 10 minute shut-in pressure - 3850, 15 minute shut-in pressure - 3800. Total load to recovery was 102 bbls. Opened well to pit to flow back acid water. Recovered 5 bbls of fluid and well died. Rigged up swab. Made 11 swab runs in 7 hrs. and pulled swab from 11,000', fluid level was 9800' and started coming up in hole to 9200' before shut down at 6:30pm. Recovered estimated 30 bbls. of load water.

<u>October 3, 1978</u>

At 6:00 A.M., pressure - 1750 P.S.I., Casing pressure - 500#, Made 2 swab runs, on first, fluid level was 9200', swab depth - 11,000', recovered 4 bbls. of load water, on second run, fluid level down to 10,500', recovered 2 bbls. Made swab run every hour until 5:00 P.M. Well was swabbed dry. No fluid recovered. Made small amount of gas on each swab run. Shut down at 6:00 P.M.

<u>October 4, 1978</u>

Swabbed 8 hrs. made 1 run per hr., First two runs swabbed well dry, recovered 6 bbls in the 1st two runs, fluid level - 9800', swabbed the hole dry, no fluid after 1st 2 runs and very little gas. Shut down at 3:00 P.M.

<u>October 5, 1978</u>

5 hr. swab test ended at 12:00 Noon, Fluid level 1st run was 10,000', swabbed well dry in 2 runs, pulled from 11,000', made 7 runs in 5 hrs., recovered 2 bbls. fluid making little gas on first 2 runs and very little on last 5. Pulled tubing and perforated at a higher zone. Rigged up BOP, set on well head, loaded tubing with 40 bbls. water, released Baker Packer and shut down at 6:00 P.M. (Load yet to be recovered from acid job is 54 bbls.)