Dorchester Enhanced Recovery Company

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Steve Collins Vice-President - Engineering

January 3, 1984

Mr. Les Clements New Mexico Oil Conservation Division P. O. Drawer DD Artesia, N.M. 88210

Re: Dozier Federal Com. No. 1 Unit K, Sec. 14, T19S, R31E Lusk Strawn Pool Eddy County, New Mexico

Dear Mr. Clements,

On Tuesday November 29, 1983 the above named well appears to have experienced a casing leak as evidenced by a dramatic increase in fluid production and surface producing pressures. Total fluid production jumped from 4 barrels per day to 200 barrels per day. The well was shut in temporarily on December 1, 1983, intermediate casing ($85/8" \times 133/8"$) pressure built up from 1150 PSIG to 1350 PSIG and production casing pressure ($41/2" \times 85/8"$) built up from 120 PSIG to 380 PSIG in thirty minutes. Due to rods and pump in the tubing, tubing pressure did not build up rapidly.

The well was put back on production to avoid excessive pressure on the pumping wellhead connections. Initial production contained substantial amounts of water drilling mud, and oil in emulsion. Approximately 450 barrels of this untreatable emulsion will be sold as waste oil.

The well was shut in again Monday December 5th because the produced gas experienced a slug of hydrogen sulfide which knocked Phillips Petroleum Company's Lusk Plant off line. Overnight shut in pressures reached 1500 PSIG on the intermediate casing and 650 PSIG on the production casing and tubing. The well was put back on production Tuesday when the gas tested sweet.

Production tests run December 8th thru 10th averaged 244 BOPD, 14 BWPD and 256 MCFPD. The well is pumping and flowing thru both the casing and tubing. Flowing pressures range from 25 to 65 PSIG on the tubing and production casing with 450 to 480 PSIG production casing pressure upstream of a pinched casing valve. Shut in intermediate casing pressure fluctuates somewhat, but appears to be stabilizing around 1140 PSIG. Production is currently averaging 177 BOPD, 9 BWPD and 370 MCFPD.

We believe the production is coming from the Wolfcamp formation. The oil is green in color, $40-41^{\circ}$ API gravity at 60° F and is slightly sour in odor compared to Strawn production. Gas and water analysis are attached for your information.



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