



**RigTesters, Inc.**  
**ABILENE - MIDLAND - GRAHAM**  
**UMC PETROLEUM CORP.**



**Well identification**

<b>Well ID</b>	<b>RANIER STATE #1</b>	<b>Well location</b>	<b>E. CROSSROADS</b>
<b>County/District</b>	<b>LEA</b>	<b>State, Country</b>	<b>NEW MEXICO</b>
<b>Company</b>	<b>UMC PETRO. COR</b>	<b>Division</b>	<b>MIDLAND-DENVE</b>

**Fluid properties**

<b>Prod/Inj fluid</b>	<b>OIL</b>	<b>GOR</b>	<b>435:1</b>
<b>Water cut</b>	<b>0%</b>	<b>Condensate yield</b>	<b>UNKNOWN</b>
<b>API gravity</b>	<b>39.0</b>	<b>Gas spec. grav.</b>	<b>0.67</b>
<b>Viscosity</b>	<b>1.1009 cp</b>	<b>Pseudo-critical T</b>	<b>376 deg R</b>
<b>Pseudo-critical P</b>	<b>666.38 psia</b>	<b>H2S mole fraction</b>	<b>UNKNOWN</b>
<b>CO2 mole fraction</b>	<b>UNKNOWN</b>	<b>N2 mole fraction</b>	<b>UNKNOWN</b>
<b>Compressibility(t)</b>	<b>18.286 e-6/psi</b>	<b>Formation vol factor</b>	<b>1.2339 RB/STB</b>

**Reservoir properties**

<b>Porosity</b>	<b>0.1 frac</b>	<b>Formation thickness</b>	<b>39 ft</b>
<b>Wellbore radius</b>	<b>0.32813 ft</b>	<b>Prod-observer distance</b>	<b>N/A</b>
<b>Water-Oil Contact</b>	<b>UNKNOWN</b>	<b>Gas-Oil Contact</b>	<b>N/A</b>
<b>Gas-Water Contact</b>	<b>N/A</b>	<b>Rock compressibility</b>	
<b>Reservoir temperature</b>	<b>111 deg F</b>	<b>Pressure for properties</b>	<b>2023 psia</b>

**Comments**

THE DERIVATIVES INDICATE A MULTIPLE POROSITY RESERVOIR WITH VERY LOW PERMEABILITY AND NO (NEGATIVE) SKIN. ALTHOUGH NEITHER SHUT-IN PERIOD HAD OBTAINED TRUE RADIAL FLOW REGIME AND CALCULATIONS ARE SUBJECT TO QUESTION; THE FINAL SHUT-IN PERIOD WAS IN TRANSITION TOWARD RADIAL FLOW AND ITS CALCULATIONS ARE FAIRLY RELIABLE. THE SECONDARY RESPONSE DURING ITS TRANSITION WOULD INDICATE POSSIBLE SECONDARY POROSITY INSIDE INTERVAL (PROBABLY DUE TO LAYERING EFFECT WITH-IN FORMATION). THE FIXED PARAMETERS USED WERE AN EST. 10% POROSITY, 39 FT. OF NET PAY & AVERAGE PRODUCTION OF 6.7 BOPD FOR THE FINAL FLOW PERIOD. THE WATER RECOVERY WAS OMMITED BASED ON ASSUMPTION OF BEING FILTRATE. THE RATES WERE BASED ON DENSITY OF FLUID RECOVERED VS. FLOWING PRESSURES. THE TOTAL RADIUS OF INVESTIGATION CALCULATED TO ONLY 4.7 FT. FROM WELLBORE.