



# Well Test Report

RigTesters, Inc.  
ABILENE - MIDLAND - GRAHAM  
PATTERSON PETROLEUM, INC.

## Well identification

Well ID	TOMAHAWK "19"	Well location	N.W. BUCKEYE
County/District	LEA	State, Country	NEW MEXICO
Company	PATTERSON PET.	Division	SNYDER

## Fluid properties

Prod/Inj fluid	OIL	GOR	450:1
Water cut	0%	Condensate yield	UNKNOWN
API gravity	39.0	Gas spec. grav.	0.7
Viscosity	1.4149 cp	Pseudo-critical T	382.97 deg R
Pseudo-critical P	664.37 psia	H2S mole fraction	UNKNOWN
CO2 mole fraction	UNKNOWN	N2 mole fraction	UNKNOWN
Compressibility(t)	21.901 e-6/psi	Formation vol factor	1.1612 RB/STB

## Reservoir properties

Porosity	0.12 frac	Formation thickness	21 ft
Wellbore radius	0.32813 ft	Prod-observer distance	N/A
Water-Oil Contact	UNKNOWN	Gas-Oil Contact	N/A
Gas-Water Contact		Rock compressibility	
Reservoir temperature	112 deg F	Pressure for properties	1844.5 psia

## Comments

THE DERIVATIVES CONFIRM DOMINATION OF WELLBORE STORAGE EFFECT ON BOTH SHUT-IN PERIODS. THE SHUT-INS WERE IN TRANSITION TOWARD BUT HAD NOT OBTAINED RADIAL FLOW REGIME. ANY CALCULATIONS (EXTRAPOLATIONS, PERMEABILITY, SKIN, ETC.) UNDER THESE CONDITIONS ARE AMBIGUOUS & UNRELIABLE. THE FIXED PARAMETERS USED WERE AN EST. 12% POROSITY, 21 FT. OF NET PAY REPORTED AND AVERAGE PRODUCTION OF 4.3 BBLS. OF FLUID FOR THE FLOW PERIOD. THE RATES WERE BASED ON DENSITY OF FLUID RECOVERED VS. FLOWING PRESSURES. THE OVERALL TEST DATA INDICATES SOME POROSITY IS PRESENT BUT ASSOCIATED WITH VERY LOW PERMEABILITY.