

## NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

Revised 12-1-55

## MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Jalmat Formation Yates County Lea  
Initial                      Annual                      Special X Date of Test 5-15-58  
Company SOUTHERN CAL. PET. CORP. Lease Dabbs Well No. 2  
Unit E Sec. 34 Twp. 25 Rge. 37 Purchaser El Paso Nat'l Gas Co.  
Casing 7 Wt. 24 I.D. 6.366 Set at 2920 Perf. 2742 To 2828  
Tubing 2 Wt. 4.7 I.D. 1.995 Set at 2868 Perf.                      To                       
Gas Pay: From 2742 To 2828 L 2868 xG .665 -GL 1907 Bar.Press. 13.2  
Producing Thru: Casing                      Tubing X Type Well Single  
Date of Completion:                      Packer none Single-Bradenhead-G. G. or G.O. Dual  
Reservoir Temp.                     

## OBSERVED DATA

Tested Through (Prover) (Choke) (Meter) Type Taps                     

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	(Prover) (Line) Size	(Choke) (Orifice) Size	Press. psig	Diff. h <sub>w</sub>	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI	<u>4</u>	<u>.550</u>	<u>127.2</u>	<u>22.09</u>	<u>80</u>	<u>478*</u> <u>129.2</u>				<u>24</u>
1.										
2.										
3.										
4.										
5.										

## FLOW CALCULATIONS

No.	Coefficient (24-Hour)	$\sqrt{h_{wpf}}$	Pressure psia	Flow Temp. Factor F <sub>t</sub>	Gravity Factor F <sub>g</sub>	Compress. Factor F <sub>pv</sub>	Rate of Flow Q-MCFPD @ 15.025 psia
1.	<u>1.525</u>	<u>52.96</u>		<u>.9813</u>	<u>.9498</u>	<u>1.011</u>	<u>76</u>
2.							
3.							
4.							
5.							

## PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio                      cf/bbl.  
Gravity of Liquid Hydrocarbons                      deg.  
P<sub>c</sub> 9.936 (1-e<sup>-s</sup>) .123

Specific Gravity Separator Gas 665  
Specific Gravity Flowing Fluid                       
P<sub>c</sub> 478.2 P<sub>c</sub><sup>2</sup> 228.7

No.	P <sub>w</sub> P <sub>t</sub> (psia)	P <sub>t</sub> <sup>2</sup>	F <sub>c</sub> Q	(F <sub>c</sub> Q) <sup>2</sup>	(F <sub>c</sub> Q) <sup>2</sup> (1-e <sup>-s</sup> )	P <sub>w</sub> <sup>2</sup>	P <sub>c</sub> <sup>2</sup> -P <sub>w</sub> <sup>2</sup>	Cal. P <sub>w</sub>	P <sub>w</sub> P <sub>c</sub>
1.	<u>129.2</u>	<u>16.7</u>				<u>16.2</u>	<u>212.5</u>		
2.									
3.									
4.									
5.									

Absolute Potential: 80 MCFPD: n .771  
COMPANY SOUTHERN CALIFORNIA PETROLEUM CORPORATION  
ADDRESS P. O. Box 1071, Midland, Texas  
AGENT and TITLE Division Engineer 5-20-58  
WITNESSED H. H. Kerby  
COMPANY El Paso Nat'l Gas Co.

## REMARKS

\*Unable to shut in well for shut-in pressure. Shut-in pressure for this test taken from the Deliverability test on the John M. Kelly, Shahan #3 dated 4-18-58.  
\*\* Average Jalmat slope of .771.

## INSTRUCTIONS

This form is to be used for reporting multi-point back pressure tests on gas wells in the State, except those on which special orders are applicable. Three copies of this form and the back pressure curve shall be filed with the Commission at Box 871, Santa Fe.

The log log paper used for plotting the back pressure curve shall be of at least three inch cycles.

## NOMENCLATURE

- $Q$  = Actual rate of flow at end of flow period at W. H. working pressure ( $P_w$ ).  
MCF/da. @ 15.025 psia and 60° F.
- $P_c$  = 72 hour wellhead shut-in casing (or tubing) pressure whichever is greater.  
psia
- $P_w$  = Static wellhead working pressure as determined at the end of flow period.  
(Casing if flowing thru tubing, tubing if flowing thru casing.) psia
- $P_t$  = Flowing wellhead pressure (tubing if flowing through tubing, casing if flowing through casing.) psia
- $P_f$  = Meter pressure, psia.
- $h_w$  = Differential meter pressure, inches water.
- $F_g$  = Gravity correction factor.
- $F_t$  = Flowing temperature correction factor.
- $F_{pv}$  = Supercompressability factor.
- $n$  = Slope of back pressure curve.

Note: If  $P_w$  cannot be taken because of manner of completion or condition of well, then  $P_w$  must be calculated by adding the pressure drop due to friction within the flow string to  $P_t$ .