

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool undesignated Formation Dakota County San Juan
Initial X Annual _____ Special _____ Date of Test 6-23-59
Company Sunray Mid-Continent Oil Co. Lease N. M. Federal "K" Well No. 1
Unit A Sec. 6 Twp. 29N Rge. 14W Purchaser None
Casing 5 1/2" Wt. 14 lbs I.D. _____ Set at 5680 Perf. 5412 To 5522
Tubing 2 3/8 Wt. 4.6 lbs I.D. _____ Set at 5493 Perf. _____ To _____
Gas Pay: From 5412 To 5522 L 5500 xG 0.73 -GL 4015 Bar.Press. 12.0
Producing Thru: Casing _____ Tubing X Type Well Single Gas
Single-Bradenhead-G. G. or G.O. Dual
Date of Completion: 6-17-59 Packer _____ Reservoir Temp. 137

OBSERVED DATA

Tested Through (1 1/2") (Choke) (1 1/2") Type Taps _____

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	(Prover) (Line) Size	(Choke) (Orifice) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI						1070		1190		
1.		3/4	48		82	48	82	240		3 hours
2.										
3.										
4.										
5.										

FLOW CALCULATIONS

No.	Coefficient (24-Hour)	$\sqrt{h_w p_f}$	Pressure psia	Flow Temp. Factor F _t	Gravity Factor F _g	Compress. Factor F _{pv}	Rate of Flow Q-MCFPD @ 15.025 psia
1.	12.3650		60	0.9795	0.9066	1.000	658.83
2.							
3.							
4.							
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio _____ cf/bbl.
Gravity of Liquid Hydrocarbons _____ deg.
P_c _____ (1-e^{-s})

Specific Gravity Separator Gas 0.73
Specific Gravity Flowing Fluid _____
P_c 1502 P_c 2256

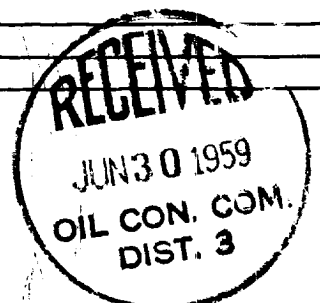
No.	P _w P _t (psia)	P _t ²	F _c Q	(F _c Q) ²	(F _c Q) ² (1-e ^{-s})	P _w ²	P _c ² -P _w ²	Cal. P _w	P _w P _c
1.									
2.						635	1621		0.282
3.									
4.									
5.									

Absolute Potential: 815 MCFPD; n 0.75COMPANY Sunray Mid-Continent Oil CompanyADDRESS Em. 166 Petroleum Center Building Farmington, New MexicoAGENT and TITLE Ed M. Stierwalt - Engineer

WITNESSED _____

COMPANY _____

REMARKS _____



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 .

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