

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Basin Dakota Formation Dakota County San Juan
Initial X Annual _____ Special _____ Date of Test 5-10-61
Company Sunray Mid-Continent Oil Co. Lease N.M. State "2" Well No. 1
Unit J Sec. 2 Twp. 29N Rge. 14W Purchaser _____
Casing 4 1/2 Wt. 11.6 I.D. 4.000 Set at 5924 Perf. 5772 To 5792
Tubing 2-3/8 Wt. 4.7 I.D. 1.995 Set at 5748 Perf. OK To _____
Gas Pay: From 5772 To 5792 L 5748 xG 0.65 -GL 4029 Bar.Press. 12
Producing Thru: Casing _____ Tubing X Type Well single
Single-Bradenhead-G. G. or G.O. Dual
Date of Completion: 4-11-61 Packer no Reservoir Temp. 142 deg. F

OBSERVED DATA

Tested Through (Bumper) (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 _w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI						1687		1691		
1.		1/4	155		0.75	155		35.5		3 hrs.
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.	12.365		167	0.9859	0.9608	1.015	1985
2.							
3.							
4.							
5.							

PRESSURE CALCULATIONS

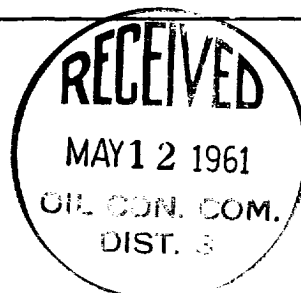
Gas Liquid Hydrocarbon Ratio _____ cf/bbl.
Gravity of Liquid Hydrocarbons _____ deg.
F_c _____ (1-e^{-s})

Specific Gravity Separator Gas _____
Specific Gravity Flowing Fluid 0.65
P_c 1703 P_c 2900

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.	367					135	2766		
2.									
3.									
4.									
5.									

Absolute Potential: 2060 MCFPD; n 0.75
COMPANY Sunray Mid-Continent Oil Company
ADDRESS 166 Petroleum Center Building
AGENT and TITLE Hal M. Shaw 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 .