

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Revised 12-1-55

Pool Basin Dakota Formation Dakota County Rio Arriba
Initial X Annual _____ Special _____ Date of Test 1-21-64
Company Caulkins Oil Company Lease Breech "A" Well No. D-136
Unit A Sec. 10 Twp. 26N Rge. 6W Purchaser Southern Union Gas Company
Casing 4 1/2" Wt. 10.5 I.D. 4.000 Set at 7604 Perf. 7305 To 7590
Tubing 2 3/8 Wt. 4.7 I.D. 1.995 Set at 7309 Perf. 7309 To _____
Gas Pay: From 7305 To 7590 L 7309 xg .660 -GL 4824 Bar.Press. 12
Producing Thru: Casing No Tubing Yes Type Well Single Gas
Date of Completion: 12-30-63 Packer None Reservoir Temp. 180°
Single-Bradenhead-G. G. or G.O. Dual

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_w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI										
1.		3/4"				2317		2286		7 day SI
2.						538		1166		3 hours
3.										
4.										
5.										

FLOW CALCULATIONS

No.	Coefficient (24-Hour)	$\sqrt{h_{wpf}}$	Pressure psia	Flow Temp. Factor F_t	Gravity Factor F_g	Compress. Factor F_{pv}	Rate of Flow Q-MCFPD @ 15.025 psia
1.	14.1605		550	.9905	.9535	1.055	7760
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 .660
Specific Gravity Flowing Fluid _____
 P_c 2298 P_c^2 5,280,804

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.						1,357,684	3,893,120		.513
2.									
3.									
4.									
5.									

Absolute Potential: 9772 MCFPD; n (1.36)n 1.2593

COMPANY Caulkins Oil Company
ADDRESS P.O. Box 780, Farmington, New Mexico
AGENT and TITLE Frank Bray Production Superintendent
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} = Supercompressibility 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 .