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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 6/26/61
Company Southwest Production Company Lease Bond Federal Well No. 1
Unit N Sec. 13 Twp. 26N Rge. 8W Purchaser El Paso Natural Gas Company
Casing 5 1/2" Wt. 15.5 I.D. 4.990 Set at 6663 Perf. 6637-45 To 6500-08,6438-48
Tubing 1 1/2" Wt. 2.9 I.D. 1.610 Set at 6631 Perf. _____ To 6631
Gas Pay: From 6500 To 6645 L 6631 xG .67 -GL 4442 Bar.Press. 12.0
Producing Thru: Casing _____ Tubing X Type Well Gas-Gas Dual
Date of Completion: 6/12/61 Packer 6398 Single-Bradenhead-G. G. or G.O. Dual
Reservoir Temp. _____

OBSERVED DATA

Tested Through (~~2000~~) (Choke) (~~2000~~) Type Taps _____

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	(Prover) (Line) Size	(Choke) (2000) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI						2420		2420		7-Days
1.		3/4"	216			216	72	736		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.	12.3650		228	.9887	.9463	1.024	2,700
2.							
3.							
4.							
5.							

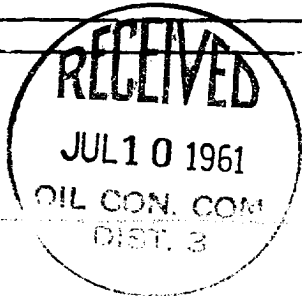
PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio _____ cf/bbl.
Gravity of Liquid Hydrocarbons _____ deg.
P_c _____ (1-e^{-s})
Specific Gravity Separator Gas _____
Specific Gravity Flowing Fluid _____
P_c 2432 P_c² 5914.6
P_w 736 P_w² 543.2

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.	228	51984	44,442	19,750	691,250	543,234	4371.4	736	
2.									
3.									
4.									
5.									

Absolute Potential: 2,889 MCFPD; n .75
COMPANY Southwest Production Company
ADDRESS 162 Petr. Center Bldg., Farmington, New Mexico
AGENT and TITLE George L. Hoffman, Jr., Production Foreman
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 .