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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 Ballard P.C. Ext. Formation Pictured Cliffs County San Juan
Initial X Annual _____ Special _____ Date of Test 12/29/61
Company Southwest Production Company Lease Bond Federal Well No. 2
Unit D Sec. 13 Twp. 26 Rge. 8 Purchaser El Paso Natural Gas Company
Casing 5 1/2 Wt. 15.5 I.D. 4.990 Set at 6740 Perf. 2202 To 2214
Tubing 1" Wt. 1.315 I.D. 1.049 Set at 2218 Perf. Open To End
Gas Pay: From 2202 To 2214 L 2202 xG .67 -GL 1475.3 Bar.Press. 12.0
Producing Thru: Casing X Tubing _____ Type Well G.G. Dual
Single-Bradenhead-G. G. or G.O. Dual
Date of Completion: 12/22/61 Packer 6476 Reservoir Temp. _____

OBSERVED DATA

Tested Through (Provers) (Choke) (Meters) Type Taps _____

Flow Data						Tubing Data		Casing Data		Duration of Flow Hr.
No.	(Prover) (Line) Size	(Choke) (Orifices) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI						753		753		7 day
1.		3/4	39			41		39	56	3 hr.
2.										
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.	12,3650		51	1.0039	.9463	1.011	606
2.							
3.							
4.							
5.							

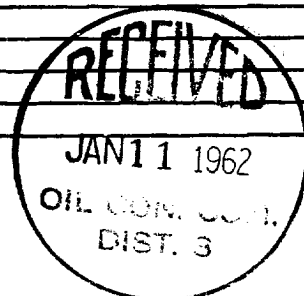
PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio _____ cf/bbl.
Gravity of Liquid Hydrocarbons _____ deg.
F_c _____ (1-e^{-s})
Specific Gravity Separator Gas _____
Specific Gravity Flowing Fluid _____
P_c 765 P_c² 585.2
P_w 41 P_w² 16.8

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.						16.81	568.4		.535
2.									
3.									
4.									
5.									

Absolute Potential: 618 MCFPD; n .85
COMPANY Southwest Production Company
ADDRESS 207 Petr. Club Plaza, Farmington, New Mexico
AGENT and TITLE George L. Hoffman, Production 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} = 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 .