

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Wildcat Formation Strawn County Lea
Initial I Annual _____ Special _____ Date of Test 7-27-62
Company Skelly Oil Co. Lease West Jal Unit Well No. 1
Unit H Sec. 20 Twp. 25S Rge. 36E Purchaser None
Casing 9-5/8 Wt. 53.5 I.D. 8.535 Set at 11,732 O.H. 11,732' To 12,058'
43.5 8.681 PERF.
Tubing 2 1/2" Wt. 6.4 I.D. 2.441 Set at 11,702 Perf. None To _____
Gas Pay: From 11,732 To 12,058 L 11,895 xG 0.679 -GL 8077 Bar.Press. 13
Producing Thru: Casing _____ Tubing I Type Well Single Gas
Single-Bradenhead-G. G. or G.O. Dual
Date of Completion: _____ Packer 11,625 Reservoir Temp. 150° F

OBSERVED DATA

Tested Through (XXXXX) (XXXXX) (Meter) Type Taps Flange

Flow Data						Tubing Data		Casing Data		Duration of Flow Hr.
No.	(XXXXX) (XXXXX) Size	(XXXXX) (XXXXX) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI						6202	75	Perf.	-	72:00
1.	3"	2"	540	88	80	6095	85	Perf.	-	2:00
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.	27.52	220.6	553	.9813	.9877	1.042	6,339
2.							
3.							
4.							
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio 45.623 cf/bbl.
Gravity of Liquid Hydrocarbons 46.1 deg. .797
F_c 5.866 (1-e^{-s}) .423
Specific Gravity Separator Gas .615
Specific Gravity Flowing Fluid .679
P_c 6215 P_c² 38626

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.	6108	37,308	36.011	1297.0	549	37857	769	6126	9950
2.									
3.									
4.									
5.									

Absolute Potential: 310,000 MCFPD; n 45° = 1
COMPANY Skelly Oil Co.
ADDRESS P. O. Box 36, Hobbs, N. M.
AGENT and TITLE J. I. Morita Dist. Supt.
WITNESSED J. I. Morita
COMPANY Skelly Oil Co.

REMARKS

Due to limited capacity of producing equipment only one point could be obtained. A slope of 1 was drawn through this point to determine absolute potential.

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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HOBBS OFFICE 000