

NEW MEXICO OIL CONSERVATION COMMISSION
MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

RECEIVED

SEP 15 1980

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 8-25-80	
Company BTA Oil Producers			Connection TRANSWESTERN PIPELINE COMPANY		
Pool North Bell Lake			Formation Devonian		Unit
Completion Date 6/20/80		Total Depth 14,755'	Plug Back TD 14,754'		Elevation 3497' GR
Form or Lease Name Bell Lake, 7909 JV-P			Well No.		
Csq. Size 5"	Wt. 23.2	d 14,755'	Set At 14,755'		Perforations: From 14660 To 14708
Thq. Size 2 7/8	Wt. 6.5	d	Set At		Perforations: From To
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single			Packer Set At 14,300'		County Lea
Producing Thru L H		Reservoir Temp. °F 6129	Mean Annual Temp. °F 1.83		Baro. Press. - P _g 1.94
		% CO ₂ 1.83	% N ₂ 1.94		% H ₂ S .40
		Prover 14660	Meter Run X		Taps Flange

FLOW DATA							TUBING DATA		CASING DATA		Duration of Flow
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. h _w	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.	Temp. °F	
1.	4"	X	1.250	800	2.5	120	3386	76	Packer		75 min.
2.	4"	X	1.250	800	4.2	118	3205	77			90 min.
3.	4"	X	1.250	800	11	116	2375	80			195 min.
4.	4"	X	1.250	800	33	104	2738	80			75 min.
5.											

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor F _t	Gravity Factor F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1.	7.469	45.089	813.2	.9469	1.277	1.044	425
2.	7.469	58.442	813.2	.9485	1.277	1.044	552
3.	7.469	94.579	813.2	.9501	1.277	1.045	896
4.	7.469	163.816	813.2	.9602	1.277	1.049	1574
5.							

NO.	P _i	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	A.P.I. Gravity of Liquid Hydrocarbons	Specific Gravity Separator Gas	Specific Gravity Flowing Fluid	Critical Pressure	Critical Temperature
1.	1.203	580	1.643	.917	259.9	51	.6129	X X X X X	676	353
2.	1.203	578	1.637	.917						
3.	1.203	576	1.631	.915						
4.	1.203	564	1.598	.909						
5.										

NO.	P _i ²	P _w	P _w ²	P _e ² - P _w ²
1.		3401.7	11572	2372
2.		3216.0	10343	3601
3.		2390.8	5716	8228
4.		2756.2	7597	6347
5.				

(1) $\frac{P_e^2}{P_e^2 - P_w^2} = \frac{13944}{6347}$

AOF = Q $\left[\frac{P_e^2}{P_e^2 - P_w^2} \right]^n = 3458$

(2) $\left[\frac{P_e^2}{P_e^2 - P_w^2} \right]^n = 2.1969$

Absolute Open Flow	3,450	Mcfd @ 15.025	Angle of Slope	45°	Slope, n	1.000
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Remarks:

Orig. Signed by

Approved By, Commission: Conducted By: Calculated By: Bob K. Newland Checked By: