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C-122 file
MAY 27 1982

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test ☒ Initial ☐ Annual ☐ Special		Test Date 3/27/82		O. C. D. ARTESIA, OFFICE	
Company InterNorth Inc. ✓		Connection El Paso Natural Gas		Unit	
Field West Sand Dunes		Formation Morrow		Unit	
Completion Date 6/24/81		Total Depth 14925'		Flag Rock TD 14369'	
Casing Size 5		Set At 14924'		Elevation 3368' GL	
Trg. Size 2 3/8		Set At 11825'		Perforations: From 14090' To 14441'	
2 7/8		Set At 13972'		Perforations: Open Ended	
Type Well - Single - Production - G.G. or G.O. Multiple		Packer Set At 13972'		Furn. or Lease Name Poker Lake 32 State	
Introducing Thru Tubing		Reservoir Temp. °F 218 @ 14441'		Well No. 1	
Mean Annual Temp. °F 60		Baro. Press. - P _a 13.2		Unit Sec. Twp. Range B 32 23s 31e	
L 14441'		H 14441'		County Eddy	
Cg 0.576		% CO ₂ 0.719		State New Mexico	
% N ₂ 0.456		Prover 3.438		Meter Run F	

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	
SI											
1.	3.438	5/64	1.250	611	1.20	74	6535		PACKER		72.0 hrs
2.	3.438	6/64	1.250	627	7.29	76	5830				1.0 hr
3	3.438	7/64	1.250	627	11.00	78	4850				1.0 hr
4	3.438	8/64	1.250	627	16.00	78	4095				1.0 hr
5							3385				1.0 hr

RATE OF FLOW CALCULATIONS

NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor F _L	Gravity Factor F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mscf/d
1	7.520	27.37	624.2	.9868	1.318	1.045	280.0
2	7.520	68.32	640.2	.9850	1.318	1.045	697.0
3	7.520	83.92	640.2	.9831	1.318	1.045	855.0
4	7.520	101.21	640.2	.9831	1.318	1.045	1031.0
5							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio			Dry Gas	
1	.93	534	1.54	.916	A.P.L. Gravity of Liquid hydrocarbons			Mcf/bbl.	
2	.95	536	1.55	.916	Specific Gravity Separator Gas			Deg.	
3	.95	538	1.55	.916	Specific Gravity Flowing Fluid			X X X X X	
4	.95	538	1.55	.916	Critical Pressure			672	P.S.I.A
5					Critical Temperature			346	R

P_r 6548.2 P_w 42878.9

NO.	P _r	P _w	P _r ²	P _r ² - P _w ²	(1) $\frac{P_r^2}{P_r^2 - P_w^2} = 1.371$	(2) $\left[\frac{P_r^2}{P_r^2 - P_w^2} \right]^n = 1.371$
1		5844.7	34160.5	8718.4		
2		4867.1	23688.7	19190.2		
3		4113.0	16916.8	25962.1		
4		3405.3	11596.1	31282.8		
5						

$$AOF = Q \left[\frac{P_r^2}{P_r^2 - P_w^2} \right]^n = 1.413$$

Absolute Open Flow	1.413	Mscf @ 15.025	Angle of Slope @ 45° 0'	Slope, n 1.00
Remarks:	NO FLUID DURING TEST			

Approved By Division

Conducted By:

Calculated By:

Barrel Well Testing, Inc. R. Reston

Checked By: PE #2208

Joe A. Coleman