

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

SE
File
6122
Form C-122
Revised 5-1-65

RECEIVED

Type Test ☒ Initial ☐ Annual ☐ Special					Test Date 6-15-79		JUL 18 1979	
Company Southland Royalty				Connection Undesignated				B.B.C. ARTESIA, OFFICE
Pool Angel Ranch				Formation Morrow				
Completion Date 6-11-79		Total Depth 11400		Plug Back TD 10960		Elevation 3465		Farm or Lease Name State Comm. 30
Csg. Size 4.500	Wt. 11.6	d 3.920	Set At 11203	Perforations: From 10906 To 10910			Well No. /	
Tbg. Size 2.375	Wt. 4.7	d 1.995	Set At 10736	Perforations: From 0 To 0			Unit Sec. Twp. Rge. J 30 19 28	
Type Well - Single - Braderhead - G.G. or G.O. Multiple Single				Packer Set At 10736		County Eddy		
Producing Thru Morrow		Reservoir Temp. °F 162 @ 10908		Mean Annual Temp. °F 60.0		Baro. Press. - P _a 13.2		State New Mexico
L 10908	H 10908	G _g 0.599	% CO ₂ 0.37	% N ₂ 0.78	% H ₂ S 0	Prover 0	Meter Run 2.1	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
SI							2835	75			48.0
1.	2.07 x 1.000			390	2.0	76	2150	75	0	0	1.0
2.	2.07 x 1.000			390	3.0	93	1630	78	0	0	1.0
3.	2.07 x 1.000			400	8.0	100	1360	84	0	0	1.0
4.	2.07 x 1.000			400	10.0	100	1090	85	0	0	1.0
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	4.95	28.40	403.2	0.9850	1.2921	1.0310	184
2	4.95	34.78	403.2	0.9697	1.2921	1.0276	221
3	4.95	57.49	413.2	0.9636	1.2921	1.0268	364
4	4.95	64.28	413.2	0.9636	1.2921	1.0268	406
5.							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio _____ 0 _____ Mcf/bbl.
1.	0.60	536	1.51	0.941	A.P.I. Gravity of Liquid Hydrocarbons _____ 0 _____ Deg.
2.	0.60	553	1.56	0.947	Specific Gravity Separator Gas _____ 0.599 _____ XXXXXXXXXX
3.	0.61	560	1.58	0.948	Specific Gravity Flowing Fluid _____ XXXXX _____ 0.599
4.	0.61	560	1.58	0.948	Critical Pressure _____ 673 _____ P.S.I.A. _____ 673 _____ P.S.I.A.
5.					Critical Temperature _____ 355 _____ R _____ 355 _____ R

P _c 2831.5 P _c ² 8018				
NO.	P _i ²	P _w	P _w ²	P _c ² - P _w ²
1	4679	2150	4623	3394
2	2700	1631	2659	5359
3	1886	1362	1854	6163
4	1217	1096	1200	6817
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = \frac{1.1761}{1.1761 - 1.1761} = \dots$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = \frac{478}{1.1761 - 1.1761} = \dots$

(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = \frac{1.176}{1.1761 - 1.1761} = \dots$

Absolute Open Flow _____ 478 _____ Mcfd @ 15.025	Angle of Slope θ _____ 45.0 _____	Slope, n _____ 1.000 _____
Remarks: _____		
Approved By Commission:	Conducted By: BJ WELL TESTING	Calculated By: D. CRAIG
		Checked By: D. CRAIG <i>etc</i>