SF File

NEW MEXICO OIL CONSERVATION COMMISSION — Form C-122 Revised 9-1-65

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL 122

RECEIVED
DEC 17 1979
O. C. C.
ARTESIA, OFFICE

Type Test: [X] Initial [ ] Annual [ ] Special	Test Date: 12-3-79			
Company: Southland Royalty Company	Connection: Air			
Pool: Winchester Morrow	Formation: Morrow			
Completion Date: 11-25-79	Total Depth: 11136	Plug Back TD: 11030	Elevation: 3366.9 GL	Farm or Lease Name: State 32 Com
Csg. Size: 4 1/2 / Wt. / d / Set At: 11135	Perforations: From 10618 To 10930			Well No.: 1
Tbg. Size: 2 3/8 / Wt. / d / Set At: 10098	Perforations: From To			Unit: B Sec.: 32 Twp.: 19 Rge.: 28
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: Single	Packer Set At: 10098			County: Eddy
Producing Thru: Tbg.	Reservoir Temp. °F: 175 @ 10116	Mean Annual Temp. °F: 60	Baro. Press. – P_a: 13.2	State: New Mexico

L	H	Gg	% CO_2	% N_2	% H_2S	Prover	Meter Run	Taps
*10116	10116	.601	.28	.67			2"	Flange

	FLOW DATA				TUBING DATA		CASING DATA		
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	Duration of Flow
SI					3310				72 hrs.
1.	2 x 1.000	390	3.0	120	2737				1 hr.
2.	2 x 1.000	420	6.0	104	2500				1 hr.
3.	2 x 1.000	400	16.0	72	2170				1 hr.
4.	2 x 1.000	390	25.0	78	1715				1 hr.
5.									

RATE OF FLOW CALCULATIONS

NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P_m	Flow Temp. Factor Ft.	Gravity Factor Fg	Super Compress. Factor, Fpv	Rate of Flow Q, Mcfd
1	4.946	34.78	403.2	.9469	1.290	1.024	215
2	4.946	50.98	433.2	.9602	1.290	1.028	321
3	4.946	81.31	413.2	.9887	1.290	1.034	530
4	4.946	100.40	403.2	.9831	1.290	1.032	650
5							

NO.	P_t	Temp. °R	T_f	Z
1.	.60	580	1.62	.954
2.	.65	564	1.58	.946
3.	.62	532	1.49	.935
4.	.60	538	1.50	.939
5.				

Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.
Specific Gravity Separator Gas .601 XXXXXXXXX
Specific Gravity Flowing Fluid XXXXX
Critical Pressure 671 P.S.I.A. _____ P.S.I.A.
Critical Temperature 358 R _____ R

P_c 3323.2 P_c^2 11043.7

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1		2750.2	7563.6	3480.1
2		2513.3	6316.7	4727.0
3		2184.6	4772.5	6271.2
4		1731.2	2997.1	8046.6
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.372$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.372$

Posted Book ID 2 x 12-21-79 SI

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = .892$

Absolute Open Flow 892 Mcfd @ 15.025 Angle of Slope @ 45° Slope, n 1.000

Remarks: * Equiv. length calculated.

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
	Rick Pagan	Rick Pagan	D.R. CRAIG