Copy to SF
C-122 file

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

Form C-122
Revised 9-1-65

RECEIVED
JAN 22 1979
O. C. C.
ARTESIA, OFFICE

Type Test: [X] Initial [ ] Annual [ ] Special				Test Date: 11-21-78	
Company: Southland Royalty Co.		Connection: Undesignated			Unit:
Pool: Wildcat (Morrow)		Formation: Morrow			
Completion Date: 11-19-78	Total Depth: 11,785'	Plug Back TD: 11,718'	Elevation: 3319'	Farm or Lease Name: State 23 Comm.	
Csg. Size: 4.500 / Wt.: 11.6 / d: 4.000 / Set At: 11,785'		Perforations: From 11,600' To 11,691'		Well No.: 1	
Tbg. Size: 2.375 / Wt.: 4.7 / d: 1.995 / Set At: 11,316		Perforations: From 0 To 0		Unit: J / Sec.: 23 / Twp.: 19 / Rge.: 29	
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: Single		Packer Set At: 11,316		County: Eddy	
Producing Thru: Tbg	Reservoir Temp. °F: 180 @ 11,645'	Mean Annual Temp. °F: 60.0	Baro. Press. – P_a: 13.2	State: New Mexico	

L	H	Gg	% CO_2	% N_2	% H_2S	Prover	Meter Run	Taps
11,645	11,645	0.643	0	0	0	0	2.1	Flange

FLOW DATA / TUBING DATA / CASING DATA

NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. h_w	Temp. °F	Tubing Press. p.s.i.g.	Tubing Temp. °F	Casing Press. p.s.i.g.	Casing Temp. °F	Duration of Flow
SI							3455	68			72.0
1.	2.07	x	1.250	310	8.6	73	2895	66	0	0	1.0
2.	2.07	x	1.250	310	19.2	94	2700	66	0	0	1.0
3.	2.07	x	1.250	315	32.6	90	2320	67	0	0	1.0
4.	2.07	x	1.250	315	57.6	83	1780	68	0	0	1.0
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	8.12	52.72	323.2	0.9877	1.2471	1.0306	543
2.	8.12	78.77	323.2	0.9688	1.2471	1.0264	793
3.	8.12	103.44	328.2	0.9723	1.2471	1.0277	1047
4.	8.12	137.49	328.2	0.9786	1.2471	1.0294	1403
5.							

NO.	P_t	Temp. °R	T_r	Z
1.	0.48	533	1.43	0.941
2.	0.48	554	1.49	0.949
3.	0.49	550	1.48	0.947
4.	0.49	543	1.46	0.944
5.				

Gas Liquid Hydrocarbon Ratio: 0 Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons: 60.0 Deg.
Specific Gravity Separator Gas: 0.643 (xxxxxxxxx)
Specific Gravity Flowing Fluid: xxxxx (0.643)
Critical Pressure: 670 P.S.I.A. (670 P.S.I.A.)
Critical Temperature: 372 R (372 R)

P_c 3457.9 P_c^2 11957

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1	8458	2903	8427	3530
2	7361	2710	7347	4610
3	5444	2332	5440	6517
4	3216	1801	3245	8713
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.3724$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.3724$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1925$

Absolute Open Flow: 1925 Mcfd @ 15.025 | Angle of Slope θ: 45.0 | Slope, n: 1.000

Remarks:

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
	B-J Testers	Don Craig	Don Craig