

RECEIVED

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

c/sr
File
Form C-1
Revised 12-1-73

SEP-16 '87

Company ARTESIA OFFICE		Connection Phillips Petroleum		Test Date 8-18-87	
Well No. 1		Location Morrow		Unit Wildcat	
Completion Date 2-22-82		Total Depth 9896'		Plug Back TD 9856'	
Elevation 3550.6 (RDB)		Firm or Lease Name Fed. CX Gas Comm			
Csg. Size 5 1/2"	Wt. 17#	Set At 4.892"	Set At 9895	Perforations: From 9325 To 9400	
Tbg. Size 2 3/8"	Wt. 4.7#	Set At 1.995	Set At 9266	Perforations: From VAN To GUN	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single				Packer Set At 9228	
Producing Thru Tubing		Reservoir Temp. °F 153° 9339		Mean Annual Temp. °F 60°	
Baro. Press. - P _a 13.2		State New Mexico			
L 9339.5	H 9339.5	G _g .660	% CO ₂ .344	% N ₂ .324	% H ₂ S Prover
Meter Run 6.065		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							2131		PKR	CHOKE	96 Hrs.
1.	6	X	4.000	27	.72	38	1724			12/64	1 Hr.
2.	6	X	4.000	28	2.65	40	1502			15/64	1 Hr.
3.	6	X	4.000	28	3.65	40	1281			19/64	1 Hr.
4.	6	X	4.000	28	3.38	41	1249			23/64	1 Hr.
5.											

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_{wm}}$	Pressure P _m	Flow Temp. Factor Ft.	Gravity Factor F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1	85.37	5.38	40.2	1.021	1.231	NIL	577
2	85.37	10.45	41.2	1.020	1.231	NIL	1,120
3	85.37	12.31	41.2	1.020	1.231	NIL	1,320
4	85.37	11.80	41.2	1.019	1.231	NIL	1,264
5							

NO.	P _t	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	No. Fluid Produced Mcf/bbl.
1					A.P.I. Gravity of Liquid Hydrocarbons	Deg.
2					Specific Gravity Separator Gas	.660
3	NIL	NIL	NIL	NIL	Specific Gravity Flowing Fluid	X X X X X
4					Critical Pressure	670 P.S.I.A.
5					Critical Temperature	378 °R

NO.	P _c	P _w	P _w ²	P _c ² - P _w ²
1	2144.2	1739.8	3026.8	1570.8
2	2144.2	1526.5	2330.1	2267.5
3	2144.2	1313.0	1723.9	2873.7
4	2144.2	1280.0	1638.3	2959.3
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = \frac{1.600}{1.600 - 1.600} = \frac{1.600}{0}$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = \frac{1.600}{0}$

AOF = $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2.113$

Absolute Open Flow	2,113	Mcf/d @ 15.025	Angle of Slope	45°	Slope, n	1.00
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Remarks: No fluid produced during this test.
Point alignment plotted flat. Slope of 1.000 Drawn through High Rate.

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
	W.S.	B.J.M.	P.E. Ybarbo