

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

Form C-127
Revised 9-7-65

RECEIVED

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0-122 file

Type Test ☒ Initial ☐ Annual ☐ Special		Test Date 03/03/78		MAR 20 1980							
Company Amoco Production Company			Connection El Paso Natural Gas		O. C. D.						
Pool Happy Valley			Formation Morrow		ARTESIA OFFICE						
Completion Date 09/10/79		Total Depth 12050.		Plug Back TD 12004.1/320	Elevation 3651.						
Csg. Size 5.500	Wt. 10.0	d 4.778	Set At 12050.	Perforations: From 11156. To 11168.							
Tbg. Size 2.875	Wt. 6.5	d 2.441	Set At 11050.	Perforations: From 11284. To 11290.							
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single				Packer Set At 10976.	Farm or Lease Name Federal "AA"						
Producing Thru Tubing		Reservoir Temp. °F 184 @ 11290		Mean Annual Temp. °F 60.0	Baro. Press. - P _a 13.2						
L 11290.		H 11290.	Gg 0.595	% CO ₂ 0.85	% N ₂ 1.97						
				% H ₂ S 0	Prover 0						
				Meter Run 4.0	Taps Flange						
FLOW 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							3606.	65.			46.0
1.	4.03 x 1.500			377.	1.0	67.	3537.	64.	0.	0.	0.5
2.	4.03 x 1.500			380.	3.2	35.	3382.	68.	0.	0.	1.0
3.	4.03 x 1.500			385.	17.6	7.	2842.	70.	0.	0.	1.0
4.	4.03 x 1.500			385.	28.1	10.	2377.	71.	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	10.84	19.75	390.2	0.9933	1.2964	1.0302	284.				
2	10.84	35.69	393.2	1.0249	1.2964	1.0383	534.				
3	10.84	83.81	398.2	1.0552	1.2964	1.0483	1303.				
4	10.84	105.76	398.2	1.0518	1.2964	1.0473	1638.				
5											
NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.						
1	0.58	527	1.51	0.942	A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.						
2	0.58	495	1.41	0.928	Specific Gravity Separator Gas _____ 0.595						
3	0.59	467	1.33	0.910	Specific Gravity Flowing Fluid _____ X X X X X						
4	0.59	470	1.34	0.912	Critical Pressure _____ 673. _____ P.S.I.A.						
5					Critical Temperature _____ 358. _____ R						
P _r 3615.0 P _w 13068					(1) $\frac{P_r^2}{P_r^2 - P_w^2} = 1.7724$						
NO.	P _r ²	P _w	P _w ²	P _r ² - P _w ²	(2) $\left[\frac{P_r^2}{P_r^2 - P_w^2} \right]^n = 1.4467$						
1	12604.	3547.	12585.	484.	AOF = Q $\left[\frac{P_r^2}{P_r^2 - P_w^2} \right]^n = 2369.$						
2	11527.	3387.	11475.	1593.							
3	8152.	2848.	8114.	4955.							
4	5713.	2386.	5695.	7373.							
5											
Absolute Open Flow _____ 2369. _____ Mcfd @ 15.025					Angle of Slope θ _____ 57.2		Slope, n _____ 0.645				
Remarks: _____											
Approved By Commission:		Conducted By: John West Engr.		Calculated By: R Whitten		Checked By: W.D. Magness					

3-NMOC-D-A 1-Hou 1-Susp 1-WDM 1-DLB