

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS

Type Test ☒ Initial ☐ Annual ☐ Special		Test Date 9/15/86		O. C. D. ARTESIA, OFFICE	
Company Exxon Co. U.S.A.		Connection None			
Pool Hager Valley		Formation Upper Morrow		Unit	
Completion Date 8/8/86		Total Depth 11,751		Plug Back TD 11,460	
Elevation 3248		Farm or Lease Name J.A. Tomanio Fed Com.		Well No. 1	
Csg. Size 5	Wt. 20.3	d 4.184	Set At 11,751	Perforations: 349 From 11,347 To 11,409	
Tbg. Size 2 7/8	Wt. 6.5	d 2.441	Set At 11,280	Perforations: From Open To End	
Type Well - Single - Broadhead - G.C. or G.O. Multiple Single				Packer Set At 11,280	
Producing Thru Tbg.		Reservoir Temp. °F 186 @ 11,280		Mean Annual Temp. °F 60	
Baro. Press. - P _a 13.2		State New Mexico			
L 11,280	H 11,280	Gg .595	% CO ₂ 2.255	% N ₂ .211	% H ₂ S -
Prover -		Meter Run 4.026		Taps Flg.	
FLOW DATA					
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. h _w
SI					Temp. °F
1.	4.026 X 1.250		325	5	90
2.	4.026 X 1.250		330	11	90
3.	4.026 X 1.250		340	28	77
4.	4.026 X 1.250		330	60	75
5.	4.026 X 1.250		345	61	72
TUBING DATA					
					Press. p.s.i.g.
					Temp. °F
					3475
					3380
					3295
					3137
					2920
					2570
CASING DATA					
					Press. p.s.i.g.
					Temp. °F
					72 hrs.
					1 hr.
					1 hr.
					1 hr.
					1 hr.
					1 hr.
RATE OF FLOW CALCULATIONS					
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor Ft.	Gravity Factor Fg
1	7.469	41.12	338.2	.9723	1.296
2	7.469	61.44	343.2	.9723	1.296
3	7.469	99.45	353.2	.9840	1.296
4	7.469	143.50	343.2	.9859	1.296
5	10.84	145.11	345.2	.9887	1.296
Super Compress. Factor, Fpv					
					1.022
					1.022
					1.026
					1.025
					1.026
Rate of Flow Q, Mcld					
					396
					591
					972
					1404
					2068
NO.	R	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio
1	.50	.550	1.57	.957	Dry
2	.50	.550	1.57	.957	A.P.I. Gravity of Liquid Hydrocarbons
3	.52	.537	1.53	.950	-0-
4	.50	.535	1.52	.951	Specific Gravity Separator Gas
5	.51	.532	1.52	.950	.595
Specific Gravity Flowing Fluid					
					XXXXXX
Critical Pressure					
					680
Critical Temperature					
					351
P.S.I.A.					
					P.S.I.A.
R					
					R
P _c 3488.2 P _c ² 12167.5					
NO.	P _i ²	P _w	P _w ²	P _c ² - P _w ²	(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 2.2357$
1		3394.2	11520.6	646.9	(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.953$
2		3310.3	10958.1	1209.4	
3		3153.6	9945.2	2222.3	
4		2938.1	8632.4	3535.1	
5		2593.3	6725.2	5442.3	
AOF = 0 $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 4.039$					
Absolute Open Flow 4,039 Mcld @ 15.025					
Angle of Slope 50.25					
Slope, n .832					
Remarks:					
Approved By Division		Conducted By:		Calculated By:	
		Duke Services, Inc.		R. Reston	
Checked By:					

Best ID-2
11-21-86
comp & BK