

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

Form C-122
Revised 9-1-65

RECEIVED

JAN 14 1974

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 12-19-73		JAN 14 1974	
Company Skelly Oil Company				Connection Pending		O. C. C.	
Pool Wildcat				Formation Morrow		Unit ARTESIA, G. G. C.	
Completion Date 12-7-73		Total Depth 14,519		Plug Back TD 14,325		Elevation 3197 KB	
Farm or Lease Name Forty Niner Ridge				Well No. 1			
Csg. Size 7-3/4 Liner	Wt. 46.10	d 6.500	Set At 14,507	Perforations: From 13,914 To 14,187		Unit Sec. Twp. Rge. J 16 23S 30E	
Tbg. Size 2-7/8	Wt. 6.5	d 2.441	Set At 13,730	Perforations: From -- To --		County Eddy	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single				Packer Set At 13,730		State New Mexico	
Producing Thru Tubing		Reservoir Temp. °F 190 @ 13,730		Mean Annual Temp. °F 60		Baro. Press. - P _a 13.2	
L 13,730	H 13,730	Gg .586	% CO ₂ 1.23	% N ₂ 0.91	% H ₂ S --	Prover --	Meter Run 4"
				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.	
SI							4989			
1.	4,000		2,000	420	14	83	3712	50	Pkr.	
2.	4,000		2,000	410	14	89	3685	54		
3.	4,000		2,000	565	19	88	2915	53		
4.	4,000		2,000	610	25	95	1603	61		
5.										

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor Ft.	Gravity Factor F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1	19.81	77.877	433.2	.9786	1.306	1.030	2031
2	19.81	76.973	423.2	.9732	1.306	1.028	1992
3	19.81	104.813	578.2	.9741	1.306	1.038	2742
4	19.81	124.820	623.2	.9680	1.306	1.039	3248
5							

NO.	P _t	Temp. °R	T _t	Z	Gas Liquid Hydrocarbon Ratio	A.P.I. Gravity of Liquid Hydrocarbons	Specific Gravity Separator Gas	Specific Gravity Flowing Fluid	Critical Pressure	Critical Temperature
1.	5.65	510	1.46	.827	--	--	.586	X X X X X X X X	675	350
2.	4.56	514	1.47	.776				X X X X X		
3.	3.41	513	1.47	.751						
4.	2.58	521	1.49	.785						
5.										

NO.	P _t ²	P _w	P _w ²	P _c ² - P _w ²
1		3813	14,539	10,483
2		3080	9486	15,536
3		2300	5290	19,732
4		1741	3031	21,991
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.14$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 3703$

(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.14$

Absolute Open Flow	3703	Mcfd @ 15,025	Angle of Slope	45°	Slope, n	1,000
--------------------	------	---------------	----------------	-----	----------	-------

Remarks: BHP's measured with Amerada BHP Gauge.
Slope greater than one; therefore slope = 1 drawn through highest flow rate as per NMCC Back Pressure Manual

Approved By Commission:	Conducted By: Joe Banks	Calculated By: Jim Yancy	Checked By:
-------------------------	----------------------------	-----------------------------	-------------

COMPANY Skelly Oil Company
 WELL Forty Niner Ridge
 LOCATION J 16 - 23S - 30E
 COUNTY Eddy FIELD Wildcat
 DATE 12-19-73

