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NE EXICO OIL CONSERVATION COMMSS

Form C-122
Revised 9-1-65

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

RECEIVED
APR 12 1979
O. C. C.
ARTESIA, OFFICE

Type Test: [X] Initial [ ] Annual [ ] Special				Test Date: 3-14-79
Company: Southland Royalty Company		Connection: Undesignated		
Pool: ~~Undesignated~~ Wildcat		Formation: Morrow		Unit:
Completion Date: 3-14-79	Total Depth: 11566	Plug Back TD: 11355	Elevation: 3319	Farm or Lease Name: STATE 14 COMM.
Csg. Size: 4.500 / Wt.: 11.6 / d: 4.000 / Set At: 11554		Perforations: From 11214 To 11238		Well No.: 1
Tbg. Size: 2.375 / Wt.: 4.7 / d: 1.995 / Set At: 10603		Perforations: From 11266 To 11312		Unit: E / Sec.: 14 / Twp.: 19S / Rge.: 28E
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: Single		Packer Set At: 10603		County: Eddy
Producing Thru: Tubing	Reservoir Temp. °F: 150 @ 11264	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
11264	11264	0.672	0.81	2.04	0.	0.	2.1	Flange

NO.	FLOW DATA: Prover Line Size X Orifice Size	Press. p.s.i.g.	Diff. h_w	Temp. °F	TUBING DATA: Press. p.s.i.g.	Temp. °F	CASING DATA: Press. p.s.i.g.	Temp. °F	Duration of Flow
SI					2735	56.			36.0
1.	2.07 x 1.000	350	10.6	69.	2475	57.	0.	0.	1.0
2.	2.07 x 1.000	355	22.8	72.	2210	60.	0.	0.	1.0
3.	2.07 x 1.000	355	57.2	72.	1850	62.	0.	0.	1.0
4.	2.07 x 1.000	360	74.8	73.	1500	61.	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	4.95	62.05	363.2	0.9915	1.2199	1.0356	384.
2.	4.95	91.62	368.2	0.9887	1.2199	1.0356	566.
3.	4.95	145.12	368.2	0.9887	1.2199	1.0356	897.
4.	4.95	167.08	373.2	0.9877	1.2199	1.0359	1031.
5.							

NO.	P_t	Temp. °R	T_t	Z
1.	0.54	529	1.41	1.932
2.	0.55	532	1.42	1.932
3.	0.55	532	1.42	1.932
4.	0.56	533	1.42	1.932
5.				

Gas Liquid Hydrocarbon Ratio	63.5 Mcf/bbl.	
A.P.I. Gravity of Liquid Hydrocarbons	60.5 Deg.	
Specific Gravity Separator Gas	0.672	XXXXXXXXX
Specific Gravity Flowing Fluid	XXXXX	0.713
Critical Pressure	669 P.S.I.A.	667 P.S.I.A.
Critical Temperature	374 R	387 R

P_c 2759.2 P_c^2 7613

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1	6191	2498	6238	1376
2	4943	2227	4961	2653
3	3472	1863	3470	4143
4	2290	1519	2307	5306
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.4349$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.3015$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1342$

Absolute Open Flow 1342 Mcfd @ 15.025 Angle of Slope θ 53.9 Slope, n 0.730

Remarks:

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
	B. J. Testing	D. R. Craig CRC	D. R. Craig