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C-122

NEW MEXICO OIL CONSERVATION COMMSSION

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

RECEIVED
SEP 11 1973
O. C. C.
ARTESIA, OFFICE

Type Test: ☐ Initial ☒ Annual ☐ Special				Test Date: 7-4-73	
Company: CORINNE GRACE		Connection: EL PASO NATURAL GAS COMPANY			
Pool: SOUTH CARLSBAD		Formation: MORROW		Unit:	
Completion Date:	Total Depth: 11,875'		Plug Back TD: 11,761'	Elevation: 3208	Farm or Lease Name: CARLSBAD GRACE
Csg. Size: 4½"	Wt.: 11.50, 10.50	d	Set At: 11,875'	Perforations: From 11,486' To 11,526'	Well No.: 1
Tbg. Size: 2- 3/8"	Wt.: 4.5	d	Set At: 11,380'	Perforations: From To	Unit: I Sec.: 36 Twp.: 22S Rge.: 26E
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: GAS GAS DUAL			Packer Set At: 11,380'		County: EDDY
Producing Thru: TUBING	Reservoir Temp. °F: 207° @ 11,506'	Mean Annual Temp. °F: 60	Baro. Press. – P_a: 13.2		State: NEW MEXICO

L	H	Gg	% CO_2	% N_2	% H_2S	Prover	Meter Run	Taps
11,380	11,380	0.582 EST.	1.01 EST.	0.28 EST.	-0- EST.		4"	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					2314		PKR.	CHOKE	
1.	4 x 3.00"		2.3	86	2225.0	78		12/64"	45 MIN.
2.	4 x 3.00"		6.8	85	1990.0	79		18/64"	45 MIN.
3.	4 x 3.00"		13.7	78	1552.0	79		24/64"	45 MIN.
4.	4 x 3.00"		19.4	74	1149.0	79		30/64"	45 MIN.
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	51.64	29.49	378.2	0.9759	1.311	1.026	1999
2.	51.64	51.13	384.4	0.9768	1.311	1.027	3472
3.	51.64	73.74	396.9	0.9837	1.311	1.029	5050
4.	51.64	87.75	396.9	0.9868	1.311	1.029	6032
5.							

NO.	P_r	Temp. °R	T_r	Z
1.	0.56	546	1.56	0.950
2.	0.57	545	1.56	0.949
3.	0.59	538	1.54	0.945
4.	0.59	534	1.53	0.944
5.				

Gas Liquid Hydrocarbon Ratio: T.S.T.M. Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons: Deg.
Specific Gravity Separator Gas: 0.582 XXXXXXXXXX
Specific Gravity Flowing Fluid: XXXXX
Critical Pressure: 676 P.S.I.A. P.S.I.A.
Critical Temperature: 349 R R

P_c 2996.2 P_c^2 8977.2

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1	5009.5	2813.2	7914.1	1063.1
2	4012.8	2723.2	7415.8	1561.4
3	2449.9	2445.2	5979.0	2998.2
4	1350.7	2233.2	4987.2	3990.0
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 2.2499$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.6188$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 9,765$

Absolute Open Flow: 9,765 Mcfd @ 15.025 Angle of Slope θ: 59.3° Slope, n: 0.594

Remarks: BOTTOM HOLE PRESSURES MEASURED WITH AMERADA GUAGE @ 11,506 FEET

L-10 CHART READINGS CONVERTED TO CONVENTIONAL READINGS BASED ON 100"-1000# METE

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
	D. TYSON	R. WEST	