NEW MEXICO OIL CONSERVATION COMMISSION

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELLS

Form C-122
Revised 9-1-65

102 file 2

RECEIVED
JUN 1 1977
O. C. C.
ARTESIA, OFFICE

Type Test: ☒ Initial ☐ Annual ☐ Special			Test Date: 6-6-77	
Company: READ & STEVENS, INC.	Connection: TO AIR			
Pool: Wildcat	Formation: Atoka			Unit: O. C. C.
Completion Date: 6-6-77	Total Depth: 11,470'	Plug Back TD: 11,305'	Elevation: 3207	Farm or Lease Name: W.R. STATE COM
Csg. Size: 5½" / Wt.: 17# / d: 4.892" / Set At: 11,470'		Perforations: From 10,382' To 10,390'		Well No.: 1
Tbg. Size: 2 7/8" / Wt.: 6.5# / d: 2.441" / Set At: 10,324'		Perforations: From OPEN ENDED		Unit: P / Sec.: 6 / Twp.: 21S / Rge.: 27E
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: SINGLE		Packer Set At: 10,324'		County: EDDY
Producing Thru: TUBING	Reservoir Temp. °F: 179 @ 10,450'	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
10,450	10,450	0.630	0.37	0.68	-0-		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							4070		PACKER	CHOKE	24 HRS.
1.	4"	x	1.500"	500	14	71	3990	76		8/64	60 MIN
2.	4"	x	1.500"	470	44	66	3860	72		10/64	60 MIN
3.	4"	x	1.500"	480	70	68	3759	72		11/64	60 MIN
4.	4"	x	1.500"	480	98	66	3592	72		12/64	60 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	10.84	84.76	513.2	.9896	1.260	1.047	1199
2.	10.84	145.81	483.2	.9943	1.260	1.045	2069
3	10.84	185.81	493.2	.9924	1.260	1.047	2637
4.	10.84	219.85	493.2	.9943	1.260	1.047	3126
5							

NO.	P_t	Temp. °R	T_r	Z
1	77	531	1.44	.912
2.	72	526	1.43	.915
3.	74	528	1.43	.913
4.	74	526	1.43	.913
5				

Gas Liquid Hydrocarbon Ratio: 75,258 Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons: 54.5 @ 60 Deg.
Specific Gravity Separator Gas: 0.630 XXXXXXXXX
Specific Gravity Flowing Fluid: XXXXX G. Mix .670
Critical Pressure: 670 P.S.I.A. 669 P.S.I.A.
Critical Temperature: 368 R 388 R

P_f 5246.2 P_f^2 27,522.6

NO	P_t^2	P_s	P_s^2	$P_f^2 - P_s^2$
1		5157.2	26596.7	925.9
2		5016.2	25162.3	2360.3
3		4913.2	24139.5	3383.1
4		4728.2	22355.9	5166.7
5				

(1) $\frac{P_f^2}{P_f^2 - P_s^2} = 5.327$ (2) $\left[\frac{P_f^2}{P_f^2 - P_s^2}\right]^n = 2.552$

Absolute Open Flow: $\left[\frac{P_f^2}{P_f^2 - P_s^2}\right]^n = 7976$

Absolute Open Flow: 7976 Mcfd @ 15.025 | Angle of Slope θ: 60.75 | Slope, n: .560

Remarks: BOTTOM HOLE PRESSURES MEASURED WITH AMERADA GAUGE @ 10,450 FEET.
WELL MADE 5 BBLS OF COND. DURING TEST.

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
	G.J.P.	R.E.R.	J.W.W.