NEW MEXICO OIL CONSERVATION COMMISSION

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

Type Test: ☒ Initial ☐ Annual ☐ Special				Test Date: 5-18-85	
Company: READ & STEVENS		Connection: TO AIR			
Pool		Formation: MORROW		Unit	
Completion Date	Total Depth: 13830	Plug Back T.D.: 13733	Elevation: 0	Farm or Lease Name: NORTH LEA FEDERAL	
Csg. Size: 7.000 / Wt.: 29.0 / d: 6.184 / Set At: 13830		Perforations: From 12944 To 13246		Well No.: 1-Y	
Tbg. Size: 2.375 / Wt.: 4.7 / d: 1.995 / Set At: 12911		Perforations: From 0 To 0		Unit: I / Sec.: 10 / Twp.: 20S / Rge.: 34E	
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: SINGLE		Packer Set At: 12911		County: LEA	
Producing Thru: TUBING	Reservoir Temp. °F: 208@ 13120	Mean Annual Temp. °F: 60.0	Baro. Press. – P_a	State: NEW MEXICO	
L: 13120 / H: 13120	Gg: 0.681	% CO_2: 0.42	% N_2: 0.59	% H_2S: 0	Prover: 0 / Meter Run: 3.1 / Taps: flange

FLOW DATA / TUBING DATA / B.H.P. DATA

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.	CHOKE	Duration of Flow
SI					3955	208	6229		72.0
1.	3.07 x 1.500	240	2.0	90	3472	208	5662	4/64	1.0
2	3.07 x 1.500	245	5.2	80	3188	208	5222	7/64	1.0
3	3.07 x 1.500	255	24.0	66	2520	208	4122	9.5/64	1.0
4	3.07 x 1.500	260	32.0	75	1752	208	3227	11.5/64	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	11.13	22.50	253.2	0.9723	1.2118	1.0234	302
2	11.13	35.93	258.2	0.9813	1.2118	1.0250	487
3	11.13	80.23	268.2	0.9943	1.2118	1.0285	1106
4	11.13	93.50	273.2	0.9859	1.2118	1.0271	1277
5							

NO.	P_t	Temp. °R	T_g	Z
1	0.38	550	1.44	0.955
2	0.39	540	1.42	0.952
3	0.40	526	1.38	0.945
4	0.41	535	1.40	0.948
5				

Gas Liquid Hydrocarbon Ratio: 9.8 Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons: 56.000 Deg.
Specific Gravity Separator Gas: 0.681 XXXXXXXXXX
Specific Gravity Flowing Fluid: XXXXX 0.936
Critical Pressure: 669 P.S.I.A. 657 P.S.I.A.
Critical Temperature: 382 R 461 R

P_c 4161 P_c^2 17314

NO	P_t^2	P_w	R_w^2	$P_c^2 - R_w^2$
1		3655	13357	3957
2		3270	10692	6622
3		2360	5567	11747
4		1709	2921	14393
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.2029$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.2029$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1536$

Absolute Open Flow: 1536 Mcfd @ 15.025 Angle of Slope θ: 45.0 Slope, n: 1.000

Remarks: B.H.P. MEASURED WITH AMERADA PRESSURE ELEMENT

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
	BENNETT & CATHEY	RICHARD TOWNLEY	