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appropriate district office
See Rule 401 & Rule 1122

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-122
Revised 4-1-91

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Operator Nearburg Producing Company						Lease or Unit Name Buffalo 2K State Com					
Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 10/26/95		Well No. 1			
Completion Date 10/11/95		Total Depth 13375		Plug Back TD 13127		Elevation 3740' KB		Unit Ltr. - Sec. - TWP - Rge. K 2 19s 33e			
Csg. Size 5 1/2	Wt. 23#	d 4.670	Set At 13375	Perforations: From: 12997 To: 13022				County Lea			
Tbg. Size 2 3/8	Wt. 4.7#	d 1.995	Set At 12899	Perforations: From: Open To: Ended				Pool Quail Ridge North			
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single				Packer Set At 12899				Formation Morrow			
Producing Thru Tbg		Reservoir Temp. °F 178		Mean Annual Temp. °F 60		Baro. Press - P _a 13.2		Connection GPM			
L 12899	H 12899	G _g 0.672	% CO ₂ 0.63	% N ₂ 0.52	% H ₂ S	Prover		Meter Run 3	Taps Flg		

FLOW DATA						TUBING DATA		CASING DATA		Duration of Flow
NO.	Prover Line Size	Orifice Size	Press. p.s.i.g.	Diff. h _w	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.	Temp. °F	
SI						3337	60	PACKER		168 Hrs
1.	3" x	1.625	429	1.00	91	2666	60			1.0 Hr
2.	3" x	1.625	423	1.96	80	2374	60			1.0 Hr
3.	3" x	1.625	423	4.84	80	1977	60			1.0 Hr
4.	3" x	1.625	423	9.00	80	1517	60			1.0 Hr
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, F _{pv}	Rate of Flow Q, Mcfd
1.	13.24	21.03	442.2	0.9715	1.220	1.045	345
2.	13.24	29.24	436.2	0.9813	1.220	1.044	484
3.	13.24	45.95	436.2	0.9813	1.220	1.044	760
4.	13.24	62.66	436.2	0.9813	1.220	1.044	1037
5.							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	21.883	Mcf/bbl.
1.	.66	551	1.44	.916	A.P. I. Gravity of Liquid Hydrocarbons	52.0 @ 60°	Deg.
2.	.65	540	1.41	.917	Specific Gravity Separator Gas	0.672	XXXXXXXXXX
3.	.65	540	1.41	.917	Specific Gravity Flowing Fluid	.7711	XXXXXX GMIX = .807
4.	.65	540	1.41	.917	Critical Pressure	669	P.S.I.A. 665 P.S.I.A.
5.					Critical Temperature	382	R 424 R

P _c 3350.2		P _c ² 11223.8	
NO.	P _t ²	P _w	P _w ²
1.		2680.1	7182.7
2.		2389.2	5707.2
3.		1995.1	3980.3
4.		1541.7	2376.8
5.			

1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.269$

2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.269$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.316$

$\frac{P_c^2}{P_c^2 - P_w^2} = 1.269$

$\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.316$

Absolute Open Flow 1,316 Mcfd @ 15.025		Angle of Slope θ 45	Slope, n 1.000
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Remarks: Well made 5 Bbls 52.0 API condensate during test

Approved By Division <i>[Signature]</i>	Conducted By: Jarrel Services, Inc.	Calculated By: Bob Murray	Checked By: Bob Murray
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