

NEW MEXICO OIL CONSERVATION COMMISSION
MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

RECEIVED

Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 5-9-81		MAY 22 1981	
Company CITIES SERVICE COMPANY/				Connection TO ATMOSPHERE					
Pool Wildcat 2 Morrow				Formation Morrow				Unit C.C.D. ARTHEMA OFFICE	
Completion Date 5-9-81		Total Depth 11,782		Plug Back TD 11,685		Elevation 3328.7 Gr.		Farm or Lease Name Federal "N" Com.	
Csg. Size 5 1/2	Wt. 20	d 4.892	Set At 11,782	Perforations: From 11408 To 11420				Well No. 1	
Tbg. Size 2 7/8	Wt. 6.5	d 2.441	Set At 11,392	Perforations: From OPEN To ENDED				Unit Sec. Twp. Rge. I 5 23S 26E	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple SINGLE						Packer Set At 11,387		County EDDY	
Producing Thru TUBING		Reservoir Temp. °F 204 @ 11,420		Mean Annual Temp. °F 60°		Baro. Press. - P _a 13.2		State New Mexico	
L 11,420	H 11,420	Gg .5925	% CO ₂ 1.210	% N ₂ 1.283	% H ₂ S	Prover	Meter Run 4"	Taps FLANGE	

FLOW DATA						TUBING DATA		CASING DATA		Duration of Flow	
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.		Temp. °F
SI	S.I.						3480		PKR	CHOKE	24 Hrs.
1.	4	x	1 1/2"	510	5"	44	3180	64°		10/64	1 Hr.
2.	4	x	1 1/2"	520	9"	37	2835	66°		11.5/64	1 Hr.
3.	4	x	1 1/2"	525	17"	32	2250	70°		14/64	1 Hr.
4.	4	x	1 1/2"	527	26"	33	1445	71°		17/64	1 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, Fpv	Rate of Flow Q, Mcfd
1	7.930	51.15	523.2	1.016	1.299	1.052	563
2	7.930	69.27	533.2	1.023	1.299	1.053	769
3	7.930	95.65	538.2	1.028	1.299	1.055	1069
4	7.930	118.72	540.2	1.027	1.299	1.055	1325
5							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	Super Compress. Factor, Fpv	Rate of Flow Q, Mcfd
1.	.774	504	1.44	.903	50.02	1.052	563
2.	.789	497	1.42	.902	50.5 @ 60°	1.053	769
3.	.796	492	1.41	.899		1.055	1069
4.	.796	493	1.41	.899		1.055	1325
5.							

*P _c 3493.2 P _c ² 12202.4				$(1) \frac{P_c^2}{P_c^2 - P_w^2} = 1.1083$ $(2) \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.1083$	
NO.	P ₁ ²	P _w	P _w ²	P _c ² - P _w ²	$AQF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.468$
1		2360	5570	6632	
2		20936	4383	7819	
3		16511	2726	9476	
4		1092	1192	11010	
5					

Absolute Open Flow 1,468 Mcfd @ 15.025		Angle of Slope 45°		Slope, n 1.00	
Remarks: * Calculated from known Bottom Hole Pressures. Made 2 Bbls. of Condensate during test.					
Approved By Commission:		Conducted By: M.R.		Checked By: M.K.	