

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 9-4-74		OCT 29 1974	
Company CITIES SERVICE OIL COMPANY					Connection To AIR		O. C. C. ARTESIA, OFFICE	
Pool SOUTH CARLSBAD					Formation MORROW		Unit	
Completion Date 8-30-74		Total Depth 12,460'		Plug Back TD 12,359'		Elevation 3083 GR.		Form or Lease Name WALTERSCHEID
Csg. Size 4 1/2"	Wt. 11.6#	d 4.82	Set At 12,460'	Perforations: From 11,958' To 11,968'		Well No. 1		
Thg. Size 2 3/8"	Wt. 4.7#	d 1.995	Set At 11,894'	Perforations: From To		Unit Sec. Twp. Rge. G 35 22S 27E		
Type Well - Single - Bradenhead - G.G. or G.O. Multiple SINGLE					Packer Set At 11,894'		County EDDY	
Producing Thru TUBING		Reservoir Temp. °F 190°@ 11,850'		Mean Annual Temp. °F 60		Baro. Press. - P _a 13.2		State NEW MEXICO
L 11894	H 11894	G _g 0.5953	% CO ₂ 1.760	% N ₂ 0.556	% H ₂ S -0-	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	L-10 READINGS						3820.0		PACKER	CHOKE	
1.	4" x 1.750"			7.90	1.50	119	3767.0	78		6/64	1.0 Hr
2.	4" x 1.750"			7.90	3.10	110	3645.0	76		9/64	1.0 Hr
3.	4" x 1.750"			8.00	4.60	93	3385.0	74		12/64	1.0 Hr
4.	4" x 1.750"			8.00	6.20	82	3285.0	72		14/64	1.0 Hr
5.											

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	L-10 METER $\sqrt{h_w P_m}$ FACTOR	Pressure P _m	Flow Temp. Factor Ft.	Gravity Factor F _g	Super Compress. Factor, F _{sp}	Rate of Flow Q, Mcfd
1	14.93	2.236	624.1	.9477	1.296	1.034	502
2	14.93	2.236	624.1	.9636	1.296	1.036	1058
3	14.93	2.236	640.0	.9697	1.296	1.042	1609
4	14.93	2.236	640.0	.9795	1.296	1.044	2194
5							

NO.	P _t	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio 13,969 Mcf/bbl.
1.	.92	579	1.64	.936	A.P.I. Gravity of Liquid Hydrocarbons 50.1 Deg.
2.	.92	570	1.61	.931	Specific Gravity Separator Gas 0.5953
3.	.95	553	1.57	.921	Specific Gravity Flowing Fluid
4.	.95	542	1.54	.917	Critical Pressure 676 P.S.I.A.
5.					Critical Temperature 353 °R

P _c 4873.2 P _c ² 23748				
NO.	P _t ²	P _w	P _w ²	P _c ² - P _w ²
1		4839.2	23418	330
2		4737.2	22441	1307
3		4606.2	21217	2531
4		4489.2	20153	3595
5				

$$(1) \frac{P_c^2}{P_c^2 - P_w^2} = 6.6058$$

$$AQF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 9335$$

$$(2) \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 4.2548$$

Absolute Open Flow 9335 Mcfd @ 15.025	Angle of Slope θ 52.5°	Slope, n 0.767
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Remarks: L-10 METER 1000# 50"			
Approved By Commission:	Conducted By: D.A.T.	Calculated By: R.L.W.	Checked By: J.W.W.