

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

Form C-122
Revised 9-1-85

RECEIVED

JUN 3 1982

Type Test ☒ Initial ☐ Annual ☐ Special					Test Date 4-5-82		O. C. D. ARTESIA, OFFICE		
Company YATES PETROLEUM CORPORATION					Connection TRANSWESTERN PIPELINE CO.				
Pool WEST ATOKA MORROW					Formation MORROW				
Completion Date 12-17-81		Total Depth 9034KB		Plug back TD 8987KB		Elevation 3504KB		Farm or Lease Name Connor RR Com	
Coq. Size 4-1/2	Wt. 11.6	d 4.000	Set At 9034KB	Perforations: From 8787 To 8818			Well No. 1		
Tiq. Size 2-3/8"	Wt. 4.7	d 1.995	Set At 8680KB	Perforations: From To			Unit Sec. Twp. Rge. K 23 18S 25E		
Type Well - Single - Dranehead - G.G. or G.O. Multiple SINGLE					Packer Set At 8680KB		County Eddy		
Producing Thru Tbng		Reservoir Temp. °F 147 ° 8800		Mean Annual Temp. °F 62		Baro. Press. - P _a 13.2		State NM	
L 8795	H 8795	Gg 0.620	% CO ₂ 0.47	% N ₂ 1.46	% H ₂ S NIL	Provor -	Meter Run 2"	Type flanged	

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
51							2550	60			wks
1.	2.067 x 0.750			222	11	65	1850	68			22 hrs
2.	2.067 x 0.750			239	25	65	1005	70			24 hrs
3.	2.067 x 0.750			248	48	70	928	71			24 hrs
4.	2.067 x 0.750			256	62	74	280	71			24 hrs

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, Mscf
1	2.709	50.86	235.2	0.9952	1.270	1.021	178
2	2.709	79.40	252.2	0.9952	1.270	1.022	200
3	2.709	111.97	261.2	0.9905	1.270	1.023	282
4	2.709	129.19	269.2	0.9868	1.270	1.023	325
5.							

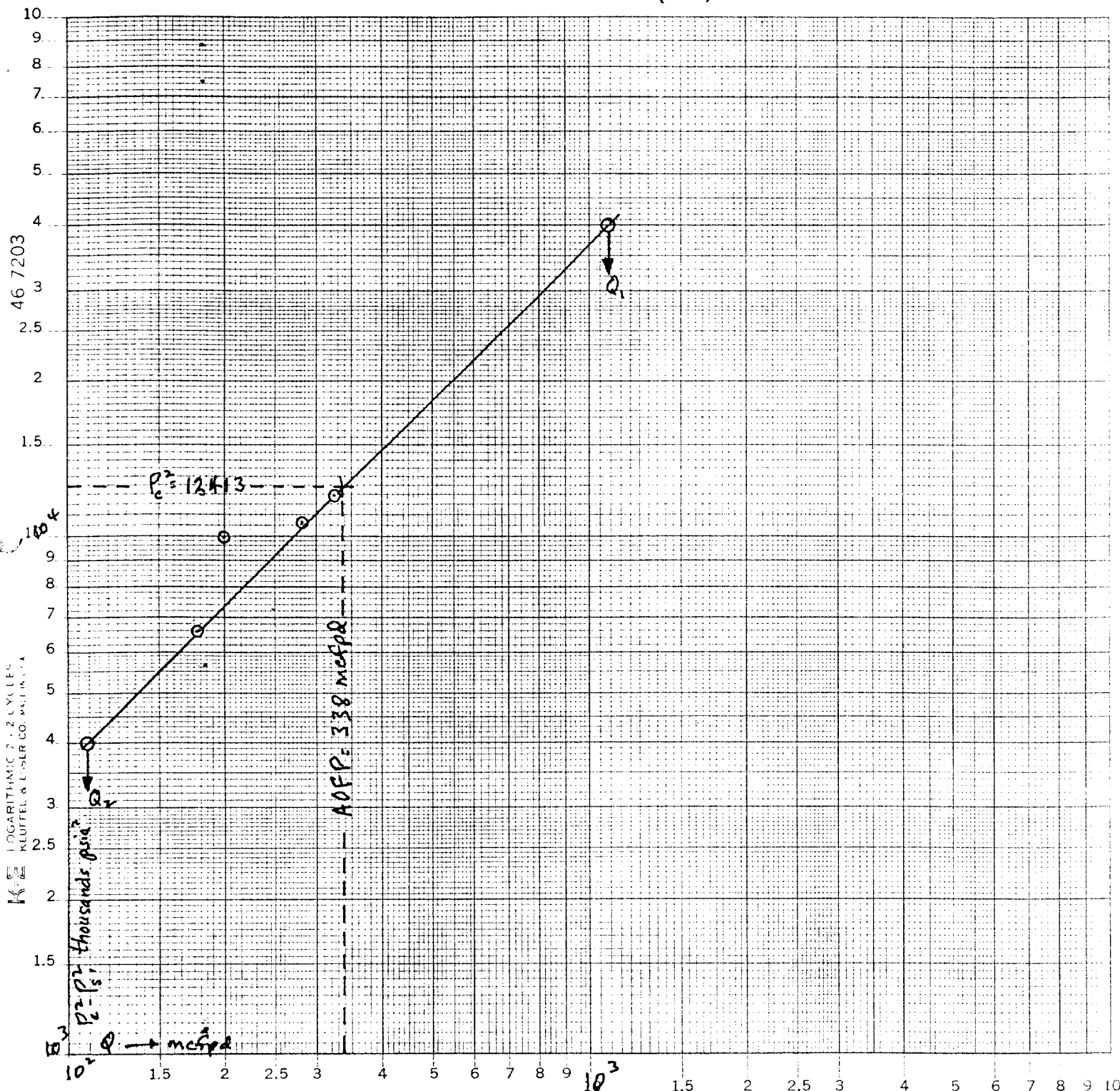
NO.	P _i	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio _____ Mscf/bbl.	A.P.L. Gravity of Liquid Hydrocarbons _____ Deg.
1.	0.345	525	1.446	0.9593	Specific Gravity Separator Gas 0.620	XXXXXXXXXX
2.	0.370	525	1.446	0.9566	Specific Gravity Flowing Fluid XXXXX	0.620
3.	0.384	530	1.460	0.9558	Critical Pressure 681	736 P.S.I.A.
4.	0.395	534	1.471	0.9560	Critical Temperature 363	383 R
5.						

P _c 3523.2 P _c ² 12413				$(1) \frac{P_c^2}{P_c^2 - P_w^2} = 1.0387$		$(2) \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.0387$	
NO.	P _i ²	P _w	P _w ²	P _c ² - P _w ²	$AQF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 338$		
1			5827	6586			
2			2445	9968			
3			1807	10606			
4			462	11951			
5							

Absolute Open Flow 338		Mscf @ 15.025		Angle of Slope θ 45 deg		Slope, n 1.000	
Remarks: Static pressures by Bennett Wireline flowing pressures by DWT Calculations worksheet C122D Attached							
Approved By Commission:		Conducted By: Bob Gary		Calculated By: Eddie Mahfood		Checked By:	

YPC- Connor RR Conn. No. 1

K-23-18s-25E, West Atoka Morrow, Eddy Co, N.M.



$$Q_1 = 1090 \text{ mcfpd}$$

$$\log Q_1 = 3.0374$$

$$Q_2 = 109 \text{ mcfpd}$$

$$\log Q_2 = 2.0374$$

$$h = 1.000$$

WORKSHEET FOR CALCULATION OF STIMULIC COLUMN WELLHEAD PRESSURE (P_w)

G-122D
Adopted 9-1-65

COMPANY YPC LEASE Collier RR Gun WELL NO. 1 DATE 4-5-82

LOCATION: Unit K Section 23 Township 13S Range 25E

L 87783105 H 87783105 L/H 1000 G 0.640 % CO₂ 0.47 % N₂ 1.46 % H₂S NF
2 3/4 8679 (398) 34542
4 1/2 118 (16.0) 12888
3795 (4.142) 36430
2.035 F₁ 0.01584 GH 5453 302.5 1.86 % H₂O P_{CT} 736 T_{CT} 383

LINE	1	2	3	4	1	2	3	4
1 <u>100</u>		0.178	0.200	0.1232	0.325			
2 <u>200</u> (W.H. 200)	520	530	531	531	531			
3 <u>300</u> (W.H. 300)	607	606	606	605	605			
4 <u>400</u> (W.H. 400)	563.5	567	568	562	562			
5 <u>500</u> (W.H. 500)	0.7565	0.769	0.849	0.862	0.953			
6 <u>600</u> (W.H. 600)	426.988	436.023	432.232	443.624	541.304			
7 <u>700</u> (W.H. 700)	117878	115240	104203	101422	9.2831			
8 <u>800</u> (W.H. 800)	1.5559	1.5006	1.4751	1.0.55	1.0104			
9 <u>900</u> (W.H. 900)	0.3504	0.3235	0.3176	0.3176	0.3176			
10 <u>1000</u> (W.H. 1000)	2.5652	1.8632	1.6182	841.12	293.2			
11 <u>1100</u> (W.H. 1100)	6526.2	3471.5	1036.83	700.22	35.17			
12 <u>1200</u> (W.H. 1200)	0.44204	0.43217	0.39070	0.32001	0.54512			
13 <u>1300</u> (W.H. 1300)		6.4166	7.6326	7.8025	2.574			
14 <u>1400</u> (W.H. 1400)		1.224	1.528	2.202	2.7266			
15 <u>1500</u> (W.H. 1500)		1.501	2.334	4.030	7.965			
16 <u>1600</u> (W.H. 1600)		0.53	0.76	1.154	2.28			
17 <u>1700</u> (W.H. 1700)		24.200	10.37144	700.16	80.25			
18 <u>1800</u> (W.H. 1800)	10222.3	1.83430	1.5305	1030.3	125.0			
19 <u>1900</u> (W.H. 1900)	3197.2	2.3120	1232.0	1012.5	353.8			
20 <u>2000</u> (W.H. 2000)	2880.2	2.0071	1120.3	0.303	323.0			
21 <u>2100</u> (W.H. 2100)	3.913	2.557	1.533	1.201	0.434			
22 <u>2200</u> (W.H. 2200)	1.4713	1.086	1.425	1.483	1.483			
23 <u>2300</u> (W.H. 2300)	0.7565	0.769	0.849	0.862	0.953			

TABLE IX & X
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