

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

Form C-122
Revised 9-1-65

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C-122

RECEIVED

Type Test ☒ Initial ☐ Annual ☐ Special		Test Date 9-30-75		OCT 7 1975	
Company Yates Petroleum Corporation		Connection None		O. C. C.	
Pool Penasco Draw Atoka		Formation Atoka		ARTESIA, OFFICE	
Completion Date 9-9-75		Total Depth 9090		Plug Back TD 8821	
Elevation 3516 KB		Farm or Lease Name Scout EH Fed Com			
Csg. Size 4 1/2	Wt. 11.6	d. 4.000	Set At 8868 KB	Perforations: From 8710 To 8720	
Tbg. Size 2 3/8	Wt. 4.70	d. 1.995	Set At 8660	Perforations: From Open Ended To	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single		Packer Set At 8660		County Eddy	
Producing Thru Tubing		Reservoir Temp. °F 160 @ 8730		Mean Annual Temp. °F 60	
Baro. Press. - P _a 13.2		State New Mexico			
L 8730	H -	G _g 0.618	% CO ₂ 1.500	% N ₂ 0.918	% H ₂ S 0.00
Prover X		Meter Run X		Taps F	

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. DWT	Temp. °F	Press. p.s.i.g.	Temp. °F	
SI							2438		Packer		15 Days
1.	3	19/64	0.750	440	14	84	2330	74			1.0
2.	3	21/64	0.750	430	24	81	2215	73			1.0
3.	3	23/64	0.750	610	76	72	1808	72			1.0
4.	3	24/64	0.750	760	95	82	1405	72			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 F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1	2.672	79.66	453.2	0.9777	1.272	1.033	273.4
2	2.672	103.13	443.2	0.9804	1.272	1.033	355.0
3	2.672	217.64	623.2	0.9887	1.272	1.050	767.9
4	2.672	271.03	773.2	0.9795	1.272	1.057	953.7
5							

NO.	P _t	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio Dry Gas	Mcf/bbl.
1	0.67	544	1.53	0.937	A.P.I. Gravity of Liquid Hydrocarbons	— Deg.
2	0.65	541	1.52	0.937	Specific Gravity Separator Gas 0.618	XXXXXXXXXX
3	0.92	532	1.49	0.907	Specific Gravity Flowing Fluid XXXXXX	
4	1.14	542	1.52	0.895	Critical Pressure 678 P.S.I.A.	— P.S.I.A.
5					Critical Temperature 356 R	— R

$P_c 3132.2$ $P_w^2 9810.7$				
NO.	P _t ²	P _w ²	P _w ²	P _c ² - P _w ²
1		3021.2	9127.6	683.1
2		2951.2	8709.6	1101.1
3		2441.2	5959.5	3851.2
4		2038.2	4154.3	5656.4
5				

$$(1) \frac{P_c^2}{P_t^2 - P_w^2} = 1.734$$

$$AOF = Q \left[\frac{P_c^2}{P_t^2 - P_w^2} \right]^n = 1330$$

$$(2) \left[\frac{P_c^2}{P_t^2 - P_w^2} \right]^n = 1.394$$

Absolute Open Flow 1330 Mcfd @ 15.025	Angle of Slope 58° 52'	Slope, n 0.604
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Remarks: * BHP @ (-5214) 8730° used for pressure calculations

Approved By Commission:	Conducted By: Coleman Petr. Engr. Co.	Calculated By: Joe A. Coleman	Checked By: Joe A. Coleman
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