

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

Form C-122
Rev. 1-65

RECEIVED

NOV 13 1978

Type Test ☒ Initial ☐ Annual ☐ Special		Test Date 11/2/78		NOV 13 1978	
Company Delta Drilling Company			Connection El Paso Natural Gas Co.		
Pool Undesignated <i>Atoka</i>			Formation Atoka		
Completion Date 10/19/78		Total Depth 13138'		Plug Back TD 13130'	
Elevation 3007'KB		Form or Lease Name So. Culebra Bluff Unit			
Casing Size 7 1/8"		Wt. 33.70		Set At 9192	
Casing Size 4 1/2"		Wt. 12.70		Set At 13130	
Casing Size 2 7/8"		Wt. 6.5		Set At 9150	
Casing Size 2 3/8"		Wt. 4.7		Set At 9150	
Type Well - Single - Broadhead - G.G. or G.O. Multiple Single			Packer Set At 9150'		
Producing Thru Tubing		Reservoir Temp. °F 189° 11490		Mean Annual Temp. °F 60°	
L 11490		H 11490		Gg .609	
%		CO ₂ .462		% N ₂ 1.184	
%		H ₂ S -		Prover 4"	
Meter Run 4"		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. DWT	Temp. °F	Press. p.s.i.g.		Temp. °F
SI							4210		PACKER		38.5 hrs.
1.	4 X 4/64	1.500	580	1.0	74	4025					1.0 hr
2.	4 X 6/64	1.500	583	7.84	84	3732					1.0 hr
3.	4 X 8/64	1.500	602	20.25	88	3370					1.0 hr
4.	4 X 10/64	1.500	604	37.21	90	2942					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 Fpv	Rate of Flow Q, Mgd
1	10.84	24.36	593.2	.9868	1.281	1.047	349
2	10.84	68.37	596.2	.9777	1.281	1.044	969
3	10.84	111.61	615.2	.9741	1.281	1.044	1576
4	10.84	151.55	617.2	.9723	1.281	1.043	2134
5							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	12.620	Mcf/cbl.
1	.89	534	1.50	.912	A.P.I. Gravity of Liquid Hydrocarbons	56.7 @ 60	Den.
2	.89	544	1.53	.918	Specific Gravity Separator Gas	.609	XXXXXXX
3	.92	548	1.54	.917	Specific Gravity Flowing Fluid	XXXXXX	G Mix .831
4	.92	550	1.55	.919	Critical Pressure	670	P.S.I.A. 665
5					Critical Temperature	355	R 434

NO.	P _g	P _w	P _w ²	P _c ² - P _w ²	(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 2.049$	(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.898$
1	5380.2	4287.5	18382.7	1671.6	ADP = $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 4050$	
2	5047.2	4000.2	16001.6	4052.7		
3	4637.2	3651.4	13332.7	6721.6		
4	4104.2	3204.2	10266.9	9787.4		
5						

Absolute Open Flow	4050	Mgd @ 15.025	Angle of Slope	48.25	Slope, n	.893
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Remarks: Bottom Hole Shut in 5599.2. Made 16.6 BBLS of Condensate during Test.
Bottom Hole Pressure measured with Kuster Gauge

Approved by Commission:	Conducted By: JARREL SERVICES, INC.	Calculated By: R. Reston	Checked By: <i>Joe A. Coleman</i>
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