

Submit in duplicate to
appropriate district office.
See Rule 401 & Rule 1122

State of New Mexico
Energy Minerals and Natural Resources
Oil Conservation Division
2040 South Pacheco
Santa Fe, NM 87505

Form C-122
Revised October, 1999

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Operator PHILLIPS PETROLEUM COMPANY				Lease or Unit Name GACH 31 STATE			
Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 1/31/02	Well No. 1
Completion Date 10/25/01		Total Depth 13595		Plug Back TD 13540		Elevation 4100.5 GL	Unit Ltr - Sec - TWP - Rge 31 17 34
Csg. Size 5	Wt. 18#	d 4.276	Set At 13595	Perforations: From: 13482 To: 13487		County LEA	
Tbg. Size 2 7/8	Wt. 6.5	d 2.441	Set At 13120	Perforations: From: OPEN To: ENDED		Pool VACUUM	
Type Well-Single-Bradenhead-G.G. or G.O. Multiple SINGLE				Packer Set At 13100		Formation LOWER MORROW	
Producing Thru Tbg. Size		Reservoir Temp. °F 205.2 @ 13120		Mean Annual Temp. °F 60		Baro. Press. -P _a 13.2	
Connection DUKE ENERGY							
L 13120	H 13120	Gg 0.694	%CO ₂ 0.579	%N ₂ 0.656	%H ₂ S N/A	Prover N/A	Meter Run 4.026
Taps FLG							
FLOW DATA				TUBING DATA		CASING DATA	
No	Prover Line Size	Orifice x Size	Press p.s.i.g.	Diff h _w	Temp °F	Press p.s.i.g.	Temp. °F
SI						2835	PKR
1	4 X	2.250	519	0.7	63	2027	"
2	4 X	2.250	626	2	70	1678	"
3	4 X	2.250	647	4.2	75	1336	"
4	4 X	2.250	656	6	83	827	"
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}
1							
2							
3	MEASURED		BY		TOTAL	FLOW	METER
4							
5							
No	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio 14.696 Mcf bbl.		
1					A.P. 1. Gravity of Liquid Hydrocarbons 56.8 @ 60 Deg.		
2					Specific Gravity Separator Gas 0.694 XXXXXXXX		
3		N/A			Specific Gravity Flowing Fluid XXXXXX Gmix = .882		
4					Critical Pressure P.S.I.A. 663 P.S.I.A.		
5					Critical Temperature R. 451 R		
P _c 2848.2 P _{c2} 8112.2							
No	P _t ²	P _w	P _w ²	P _c ² - P _w ²	(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.104$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.104$		
1		2041.9	4169.5	3942.8			
2		1696.2	2877.2	5235.1			
3		1361.7	1854.4	6257.9			
4		875	765.5	7346.7			
5							
Absolute Open Flow 2.281 Mcfd @ 15.025					Angle of Slope (°) 45		
Slope n: 1							
Remarks WELL PRODUCED 16.3 BBLs CONDENSATE DURING TEST							
Approved By Division:		Conducted By: JARREL SERVICES, INC.		Calculated By: BM		Checked By: BM	

ORIGINAL SIGNED BY
PAUL F. KAUTZ

2002 FEB 2 2 33