

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

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-122
Revised 4-1-91

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Operator SANTA FE ENERGY					Lease or Unit Name HARDON TRUST 19				
Type Test ☒ Initial ☐ Annual ☐ Special					Test Date 1-21-95		Well No. 7		
Completion Date		Total Depth 12200		Plug Back TD 12090		Elevation		Unit Ltr. - Sec. - TWP - Rge. N 19-23-29	
Csg. Size	Wt.	d	Set At	Perforations:			County Eddy		
4 1/2	13.5		12197	From: 11845 To: 11849					
Tbg. Size	Wt.	d	Set At	Perforations:			Pool Laguna Salada Ato.		
2-3/8	4.7	1.995	11744	From: To:			Formation ATORA		
Type Well - Single - Bradenhead - G.G. or G.O. Multiple single					Packer Set At 11719'		Connection ATMOSPHERE		
Producing Thru TBG.		Reservoir Temp. °F 183 @ 11719'		Mean Annual Temp. °F		Baro. Press - P _a 13.2			
L *11719	H *11719	Gg .581	% CO ₂ .59	% N ₂ .62	% H ₂ S	Prover	Meter Run 6.065	Taps FLG.	

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							5800				
1.	6.065	X	2.500	300	2	71	4000		PKR.		1 hr.
2.	6.065	X	2.500	300	2	76	2730				1 hr.
3.	6.065	X	2.500	300	1.5	80	2100				1 hr.
4.	6.065	X	2.500	300	2	80	1600				1 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, F _{pv} .	Rate of Flow Q, Mcfd	
1.	30.31	25.03	313.2	.9896	1.312	1.025	1010	
2.	30.31	25.03	313.2	.9850	1.312	1.025	1005	
3.	30.31	21.67	313.2	.9813	1.312	1.025	867	
4.	30.31	25.03	313.2	.9813	1.312	1.025	1001	
5.								

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	Mcf/bbl.
1.	.47	531	1.52	.952	DRY GAS	
2.	.47	536	1.53	.952	A.P. I. Gravity of Liquid Hydrocarbons DRY	Deg.
3.	.47	540	1.54	.952	Specific Gravity Separator Gas .581	XXXXXXXXXX
4.	.47	540	1.54	.952	Specific Gravity Flowing Fluid DRY	XXXXXX
5.					Critical Pressure 672	P.S.I.A. P.S.I.A.
					Critical Temperature 350	R R

P _c 5824.2		P _c ² 33921.3		1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.93969$	(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.39273$
NO.	P _i ²	P _w	P _w ²	P _c ² - P _w ²	
1.	4053.8	16433.3	17488.0		
2.	2804.8	7866.9	26054.4		
3.	2186.7	4781.7	29139.6		
4.	1739.2	3024.8	30896.5		
5.					

AOF = Q

$$\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.407$$

Absolute Open Flow **1,407** Mcfd @ 15.025 Angle of Slope θ **3.5°** Slope, n **.500**

Remarks: **CALCULATED FORM KNOWN BHP'S**

* BHP INSTS. SET @ 11719'

Approved By Division

Conducted By:
PRO WELL TESTERS

Calculated By:
KS

Checked By:
BM