

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 MEWBOURNE OIL CO.				Lease or Unit Name ESPERANZA "15" ST. COM.			
Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 1/3/02	Well No. 1
Completion Date		Total Depth 11835		Plug Back TD 11551		Elevation	Unit Ltr - Sec - TWP - Rge 15 21S 27E
Csg. Size 5 1/2	Wt. 17	d 4.892	Set At 11835	Perforations: From: 11414 To: 11493		County EDDY	
Tbg. Size 2 7/8	Wt. 6.5	d 2.441	Set At 11267	Perforations: From: To:		Pool Burton Flats Morrow	
Type Well-Single-Bradenhead-G.G. or G.O. Multiple SINGLE				Packer Set At 11267		Formation MORROW	
Producing Thru Tubing		Reservoir Temp. °F 186.8	Mean Annual Temp. °F 60	Baro. Press. -P _a 13.2		Connection SALES	
L 11285	H 11285	Gg 0.594	%CO ₂ 0.8904	%N ₂ 0.2625	%H ₂ S N/A	Prover N/A	Meter Run 4.026
						Taps FLG	

FLOW DATA				TUBING DATA				CASING DATA		Duration of Flow
No.	Prover Line Size	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						2450		PKR	N/A	
1	4.026 X 1.500		360	5	55	2375				1 HR
2	4.026 X 1.500		380	12	55	2300				1 HR
3	4.026 X 1.500		400	50	55	2050				1 HR
4	4.026 X 1.500		420	62	55	1850				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 F _g	Super Compress Factor F _{pv}	Rate of Flow Q. Mcfd
1							601
2							958
3	TOTAL	FLOW	METER				2005
4							2288
5							

No.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	113.8	Mcf bbl.
1					A.P. I. Gravity of Liquid Hydrocarbons	52	Deg.
2					Specific Gravity Separator Gas	0.594	XXXXXXX
3	TOTAL	FLOW	METER		Specific Gravity Flowing Fluid	XXXXXX	G MIX= .621
4					Critical Pressure	675	P.S.I.A. 674 P.S.I.A.
5					Critical Temperature	350	R. 358 R

P _c 2463.2		P _{c2} 6067.4		
No.	P _t ²	P _w	P _w ²	P _c ² -P _w ²
1		2389	5707.5	359.8
2		2315.4	5361.1	706.1
3		2073.9	4301.2	1766.1
4		1878.7	3529.5	2537.9
5				

(1)

$$\frac{P_c^2}{P_c^2 - P_w^2} = \frac{2.391}{}$$

AOF = Q

$$\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = \frac{4209}{}$$

(2)

$$\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = \frac{1.84}{}$$

$$AOF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 4209$$

Absolute Open Flow	4209	Mcf/d @ 15.025	Angle of Slope (°):	54.9	Slope n:	0.7021
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Remarks: * WELL MADE 2 BBLs OF 52 API GRAVITY CONDENSATE DURING TEST.

Approved By Division:	Conducted By: MEWBOURNE OIL.	Calculated By: MERV BUECKER	Checked By: BM
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