

OIL CONSERVATION DIVISION

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

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Operator Mewbourne Oil Co.				(OGRID NO. 14744)				Lease or Unit Name Baldrige Canyon '1' State			
Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 4-24-98				Well No. 1			
Completion Date 3-31-98		Total Depth 10720		Plug Back TD 10660		Elevation 3970		Unit Ltr. - Sec. - TWP - Rge. E 1 24S 24E			
Csg. Size 5 1/2	Wt. 17	d 4.892	Set At 10720	Perforations: From: 10460 To: 10572				County Eddy			
Tbg. Size 2 7/8	Wt. 6.5	d 2.441	Set At 10,422	Perforations: From: To:				Pool Baldrige Canyon Morrow			
Type Well - Single - Bradenhead - G.G. or G.C. Multiple Single				Packer Set At 10434				Formation Morrow			
Producing Thru TBG		Reservoir Temp. °F 182.4		Mean Annual Temp. °F 60.0		Baro. Press. - P _a 13.2		Connection sales			
L 10422	II 10422	G _g .576	% CO ₂ .794	% N ₂ .272	% H ₂ S 0	Prover 0	Meter Run 4.028		Taps Flg		

FLOW DATA						TUBING DATA		CASING DATA		Duration of Flow
NO.	Prover Line Size	Orifice X 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						1412		pkh		
1.	4.026 X 2.000		440	2	80°	1400		pkh		60 min
2.	4.026 X 2.000		455	6	80°	1368		pkh		60 min
3.	4.026 X 2.000		460	18	82°	1302		pkh		60 min
4.	4.026 X 2.000		480	38	80°	1220		pkh		60 min
5.										

RATE OF FLOW CALCULATIONS

NO.	COEFFICIENT (24 HOUR)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor F _t	Gravity Factor F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1.	19.81	30.10	453.2	.9813	1.318	1.036	798
2.	19.81	53.0	468.2	.9813	1.318	1.036	1403
3.	19.81	92.29	473.2	.9795	1.318	1.035	2442
4.	19.81	137.59	498.2	.9813	1.318	1.036	3652
5.							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	N/A	Mcf/bbl
1.	.80	540	1.57	.932	A.P. I. Gravity of Liquid Hydrocarbons	N/A	Deg
2.	.80	540	1.57	.932	Specific Gravity Separator Gas	.576	XXXXXXXXXX
3.	.80	542	1.58	.933	Specific Gravity Flowing Fluid	N/A	XXXXXX
4.	.80	540	1.57	.932	Critical Pressure	675	P.S.I.A.
5.					Critical Temperature	342	R

P_c 2282.9 P_c² 5211.6

NO.	P _i ²	P _w	P _w ²	P _c ² - P _w ²
1.		2259.3	5104.4	107.2
2.		2228.5	4966.2	245.4
3.		2161.2	4670.7	540.9
4.		2085.6	4349.7	861.9
5.				

$$1) \frac{P_c^2}{P_c^2 - P_w^2} = 6.04 \quad (2) \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 3.70$$

$$AOF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 13512.4$$

Absolute Open Flow 13512.4 Mcfd @ 15.025 Angle of Slope θ 53.9 Slope, n .728

Remarks: *Calculated from known bottom hole pressure
*No liquid made during test

Approved By Division	Conducted By: Prowell Testing	Calculated By: MB	Checked By: BM
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