

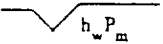
OIL CONSERVATION DIVISION

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

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Operator MURCHISON OIL & GAS					Lease or Unit Name UGDEN ST.				
Type Test ☒ Initial ☐ Annual ☐ Special					Test Date 4-7-97		Well No. 3		
Completion Date 4-7-97		Total Depth 11479		Plug Back TD 11479		Elevation 3379 GL		Unit Loc. - Sec. - TWP - Rge. R 2-25S-26E	
Csg. Size 5 1/2	Wt. 20#	d 4.778	Set At 11479	Perforations: From: 11008 To: 11394			County EDDY		
Tbg. Size 2-7/8	Wt. 6.5	d 2.441	Set At 10879	Perforations: From: To:			Pool White City Penn		
Type Well - Single - Bradenhead - G.G. or G.O. Multiple single				Packer Set At 10879			Formation MORROW		
Producing Thru TBG		Reservoir Temp. °F 60°		Mean Annual Temp. °F 60°		Baro. Press - P _a 13.2		Connection AIR	
L 10877	H 10877	Gg .695	% CO ₂ 1.47	% N ₂ .60	% H ₂ S -0-	Prover -0-	Meas. Run 3.068	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						1540		PKR		
1.	3.068 X 1.125		100	6"	90°	1465		"		60 min
2.	3.068 X 1.250		100	20"	84°	1330		"		60 min
3.	3.068 X 1.250		100	52"	80°	1300		"		60 min
4.	3.068 X 1.250		100	85"	82°	1200		"		60 min
5.										

RATE OF FLOW CALCULATIONS							
NO.	COEFFICIENT (24 HOUR)		Pressure P _m	Flow Temp. Factor Ft	Gravity Factor Fg	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1.	6.095	26.06	113.2	.9723	1.200	1.050	194
2.	6.095	47.58	113.2	.9777	1.200	1.054	358
3.	6.095	76.72	113.2	.9813	1.200	1.055	580
4.	6.095	98.09	113.2	.9795	1.200	1.055	741
5.							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	A.P. L Gravity of Liquid Hydrocarbons	Specific Gravity Separator Gas	Specific Gravity Flowing Fluid	Critical Pressure	Critical Temperature
1.	.87	550	1.43	.907	N/A	N/A	.695	N/A	672	384
2.	.80	544	1.41	.907						
3.	.80	540	1.40	.899						
4.	.80	542	1.40	.899						
5.										

P _c 1817.6 - P _c ² 3303.6					1) $\frac{P_c^2}{P_c^2 - P_w^2} = 3.33$		(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2.70$	
NO.	P _c ²	P _w	P _w ²	P _c ² - P _w ²	AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2000.7$			
1.		1766.6	3120.8	182.8				
2.		1682.4	2830.4	473.4				
3.		1622.8	2633.4	670.2				
4.		1521.1	2313.7	989.9				
5.								

Absolute Open Flow	2000.7	Mcfd @ 15.025	Angle of Slope θ	50.4	Slope, n	.8258
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Remarks: *CALCULATED FROM KNOWN BOTTOM HOLE PRESSURES

Approved By Division	Conducted By: PRO WELL TESTER	Calculated By: MB	Checked By: BM
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