

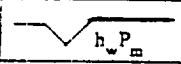
OIL CONSERVATION DIVISION

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

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Operator <u>H.L. Brown, Jr.</u>				Lease or Unit Name <u>Feather, North State Unit</u>			
Type Test ☒ Initial ☐ Annual ☐ Special				Test Date <u>8-27-97</u>		Well No. <u>2</u>	
Completion Date <u>5-23-97</u>		Total Depth <u>12506</u>		Plug Back TD <u>12477</u>		Elevation	
Csg. Size <u>5 1/2</u>		WL <u>17/20</u>	d <u>4.892</u>	Set At <u>12506</u>	Perforations: <u>6</u>		Unit Ltr. - Sec. - TWP - Rge. <u>I - 9 - 155 - 320</u>
Tbg. Size <u>2 7/8</u>		WL <u>2.441</u>	d <u>2.441</u>	Set At <u>12298</u>	From: <u>12392</u> To: <u>12392</u>		Country <u>Lea</u>
Type Well - Single - Bradenhead - G.G. or G.O. Multiple <u>Single</u>				Packer Set At <u>12298</u>		Formation <u>Morrow</u>	
Producing Thru <u>Tbg</u>		Reservoir Temp. °F <u>60°</u>		Baro. Press - P _a <u>13.2</u>		Connection <u>Sale</u>	
L <u>12298</u>	H <u>12298</u>	Gg <u>.738</u>	% CO ₂ <u>.85</u>	% N ₂ <u>1.35</u>	% H ₂ S <u>0</u>	Prover <u>0</u>	Meter Run <u>4.026</u>
						Taps <u>F/G</u>	

FLOW DATA						TUBING DATA		CASING DATA		Duration of Flow	
NO.	Prover Line Size	X	Orifices 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							840		PKR		72 hrs
1.	4.026	X	2.250	38.1	3.1	95°	780	90°			
2.	4.026	X	2.250	45.8	11.1	92°	725	92°			
3.	4.026	X	2.250	53.3	30.3	81°	560	92°			
4.	4.026	X	2.250	75.6	68.7	72°	490	95°			
5.											

RATE OF FLOW CALCULATIONS							
NO.	COEFFICIENT (24 HOUR)		Pressure P _m	Flow Temp. Factor F _t	Gravity Factor F _g	Super Compress. Factor, F _{sp}	Rate of Flow Q, Mcfd
1.							320
2.		Readings	Take	From Total	Flow Meter		657
3.							1173
4.							2155
5.							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	A.P.I. Gravity of Liquid Hydrocarbons	Specific Gravity Separator Gas	Specific Gravity Flowing Fluid	Critical Pressure	Critical Temperature
1.					32.614	58.6	.738	N/A	664	401
2.								XXXXXX		
3.								XXXXXX		
4.										
5.										

P _c	853.2	P _w	123.0
NO.	P _c ²	P _w ²	P _c ² - P _w ²
1.	629.2	794.7	630.6
2.	544.9	742.4	551.2
3.	328.6	591.0	349.2
4.	253.2	569.0	323.8
5.			

1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.801$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.801$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 3.881$

Absolute Open Flow 3.881 Mcfd @ 15.025 Angle of Slope θ 45.0 Slope, n 1.000

Remarks: *Well made 5.5 BBLS of 58.6 API Gravity Condensate

Approved By Division	Conducted By: <u>Pro Well Testing</u>	Calculated By: <u>M.B.</u>	Checked By: <u>B.M.</u>
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