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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 HARVEY E. YATES COMPANY				Lease or Unit Name Lynx 19 Fed			
Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 3-30-00			
Completion Date 3-7-00		Total Depth 11200		Plug Back TD 11159		Elevation 3564' GL + 17' KB	
Unit Ltr. - Sec. - TWP - Rge G 19 18s 29e		County Eddy		Well No. 1			
Csg. Size 5 1/2	Wt. 17#	d 4.892	Set At 11200	Perforations: From: 11004 To: 11014			
Tbg. Size 2 3/8	Wt. 4.7#	d 1.995	Set At 11002	Perforations: From: Open To: Ended		Pool North Turkey Track	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single				Packer Set At 10925		Formation Morrow	
Producing Thru Tbg 11002		Reservoir Temp. °F 165.6@11002		Mean Annual Temp. °F 60		Baro. Press - P _a 13.2	
Connection LG&E							
L 11002	H 11002	G _g .623	% CO ₂ .601	% N ₂ .397	% H ₂ S	Prover	Meter 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						2365		PACKER		23 Days
1.	3.068 x 1.250		442	3.6	82	2281		"		1 Hour
2.	3.068 x 1.250		433	15.5	88	2114		"		1 Hour
3.	3.068 x 1.250		422	35.0	89	1905		"		1 Hour
4.	3.068 x 1.250		415	61.2	87	1663		"		1 Hour
5.										

RATE OF FLOW CALCULATIONS

NO.	COEFFICIENT (24 HOUR)	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.	7.577	40.48	455.2	.9795	1.267	1.037	395
2.	7.577	83.16	446.2	.9741	1.267	1.035	805
3.	7.577	123.42	435.2	.9732	1.267	1.034	1192
4.	7.577	161.88	428.2	.9750	1.267	1.034	1567
5.							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	Dry Gas	Mcf/bbl.
1.	.67	542	1.48	.930	A.P. I. Gravity of Liquid Hydrocarbons	Dry	De _g
2.	.66	548	1.50	.934	Specific Gravity Separator Gas	.623	XXXXXXXXXX
3.	.64	549	1.50	.936	Specific Gravity Flowing Fluid	XXXXXX	
4.	.63	547	1.49	.936	Critical Pressure	671	P.S.I.A.
5.					Critical Temperature	365	R

P_c **2378.2** P_c² **5655.8**

NO.	P _t ²	P _w	P _w ²	P _c ² - P _w ²
1.	2245.2	5268.1	387.7	
2.	2131.8	4544.6	1111.2	
3.	1929.4	3722.6	1933.2	
4.	1698.5	2884.8	2771.1	
5.				

1) $\frac{P_c^2}{P_c^2 - P_w^2} = 2.041$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.649$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2.584$

Absolute Open Flow **2,584** Mcfd @ 15.025 Angle of Slope θ **54.99** Slope, n **.7013**

Remarks: **Well produced no fluid**

Approved By Division

Conducted By:

Jarrel Services, Inc.

Calculated By:

Bob Murray

Checked By:

Bob Murray