STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION
P. O. BOX 2088
SANTA FE, NEW MEXICO 87501

RECEIVED
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O. C. D.
ARTESIA, OFFICE

Form C-122
Revised 10-1-78

C/SF File

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test: [X] Initial [ ] Annual [ ] Special				Test Date: 08-28-90	
Company: Mewbourne Oil Company		Connection: Transwestern			
Pool: Kennedy Farms Morrow		Formation: Morrow		Unit: M	
Completion Date: 7-2-90	Total Depth: 8638'	Plug Back TD: 8578'	Elevation: 3319 GL	Farm or Lease Name: Vogel	
Csg. Size: 4½ / Wt.: 11.6# / d: / Set At: 8636'		Perforations: From 8444 To 8485		Well No.: 1	
Tbg. Size: 2 3/8 / Wt.: 4.7 / d: 1.995 / Set At: 8313		Perforations: From open To end		Unit: / Sec.: / Twp.: 14-17S / Rge.: -24E	
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: Single		Packer Set At: 8313		County: Eddy	
Producing Thru: Tubing	Reservoir Temp. °F: 159 @ 8465'	Mean Annual Temp. °F: 60°	Baro. Press. – P_a: 13.2	State: New Mexico	

L	H	G_g	% CO_2	% N_2	% H_2S	Prover	Meter Run	Taps
8465	8465	.644	1.28	.29	---		3.068	Flg.

NO.	FLOW DATA: Prover Line Size X Orifice Size	Press. p.s.i.g.	Diff. h_w	Temp. °F	TUBING DATA: Press. p.s.i.g.	Temp. °F	CASING DATA: Press. p.s.i.g.	Temp. °F	Duration of Flow
SI					1325		PKR		72 hrs.
1.	3 X 1.250	375	5.50	88	1305		PKR		30 min.
2.	3 X 1.250	375	17.00	87	1270		PKR		45 min.
3.	3 X 1.250	380	37.00	85	1200		PKR		45 min.
4.	3 X 1.250	395	76.00	87	1065		PKR		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 Fg	Super Compress. Factor, Fpv	Rate of Flow Q, Mcfd
1	7.577	46.21	388.2	.9741	1.246	1.034	439
2.	7.577	81.24	388.2	.9750	1.246	1.034	773
3.	7.577	120.62	393.2	.9768	1.246	1.035	1,151
4.	7.577	176.13	408.2	.9750	1.246	1.036	1,680
5.							

NO.	P_r	Temp. °R	T_r	Z
1.	.57	548	1.47	.935
2.	.57	547	1.47	.935
3.	.58	545	1.46	.933
4.	.60	547	1.47	.931
5.				

Gas Liquid Hydrocarbon Ratio: ALL H_2O Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons: NO CONDENSATE Deg.
Specific Gravity Separator Gas: .644 XXXXXXXXXX
Specific Gravity Flowing Fluid: XXXXX
Critical Pressure: *674 P.S.I.A. P.S.I.A.
Critical Temperature: *371 R R

P_c 1354.0 P_c^2 1833.2

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1		1337.8	1789.7	43.5
2		1310.8	1718.2	115.0
3		1258.9	1584.8	248.4
4		1161.3	1348.2	485.0
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 3.780$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 2.092$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 3,515$

Absolute Open Flow: 3,515 Mcfd @ 15.025 Angle of Slope θ: 61 Slope, n: .555

Remarks: Well produced 4.00 bbls H_2O during test
Well calculated from known BHP's
* = corrected to 1.28% CO_2

Approved By Division	Conducted By:	Calculated By:	Checked By:
	Pro Well Testers	BM	BM