

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Wildcat Formation Penn-Morrow County Eddy
Initial X Annual _____ Special _____ Date of Test 11/16/64
Company Harvey E. Yates Lease Hondo Singer A Well No. 1
Unit P Sec. 7 Twp. 20S Rge. 27E Purchaser None
Casing 5 1/2 Wt. 17# I.D. 4.892 Set at 10,302 Perf. Open hole To 10,407
Tubing 2 3/8 Wt. 4.70 I.D. 1.995 Set at 10,086 Perf. Open end To _____
Gas Pay: From 10,310 To 10,407 L 10,086 xG .644 -GL 6495 Bar.Press. 13.2
Producing Thru: Casing _____ Tubing X Type Well Dual
Single-Bradenhead-G. G. or G.O. Dual
Date of Completion: 11/16/64 Packer 10,086 Reservoir Temp. 170

OBSERVED DATA

Tested Through (HYDROCARBON) (Meter) Type Taps Flange

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	(Prover) (Line) Size	(Choke) (Orifice) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI						2970		Packer		724 SI
1.	3	.750	187	11	71	2726	86			1
2.	3	.750	200	16	72	2552	86			1
3.	3	.750	210	25	68	2378	85			1
4.	3	.750	291	33	68	2146	84			1
5.										

FLOW CALCULATIONS

No.	Coefficient (24-Hour)	$\sqrt{h_{wpf}}$	Pressure psia	Flow Temp. Factor F _t	Gravity Factor F _g	Compress. Factor F _{pv}	Rate of Flow Q-MCFPD @ 15.025 psia
1.	3.449	46.909	200.2	.9896	.9721	1.018/1.118	158
2.	3.449	57.964	213.2	.9887	.9721	1.019/1.112	196
3.	3.449	74.965	223.2	.9924	.9721	1.020/1.117	254
4.	3.449	100.169	304.2	.9924	.9721	1.028/1.117	343
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio 69,000 cf/bbl.
Gravity of Liquid Hydrocarbons 54 deg.
P_c 9.936 (1-e^{-s}) 0.360

Specific Gravity Separator Gas .63
Specific Gravity Flowing Fluid .61
P_c 2883.2 P_c 8899

No.	P _w P _t (psia)	P _t ²	F _c Q	(F _c Q) ²	(F _c Q) ² (1-e ^{-s})	P _w ²	P _c ² -P _w ²	Cal. P _w	P _w P _c
1.	2739.2	7503	1.60	2.56	.922	7504	1395	2738.94	.9181
2.	2665.2	7103	1.98	3.92	1.411	7104	1795	2665.33	.8987
3.	2391.2	5718	2.45	6.00	2.160	5720	3179	2391.65	.8020
4.	2159.2	4662	3.46	11.97	4.309	4666	4233	2159.91	.7240
5.									

Absolute Potential: 575 MCFPD; n .67

COMPANY Harvey E. Yates

ADDRESS 305 Carper Building, Artesia, New Mexico

AGENT and TITLE Marshall Morris, Lease Supt.

WITNESSED James D. Monroe

COMPANY Harvey E. Yates

REMARKS

OIL CONSERVATION COMMISSION		
ARTESIA DISTRICT OFFICE		
No. Cert. Received	3	
DATE RECEIVED		
	FILED	
OPERATOR		
SANTA FE	/	
PRODUCTION OFFICE		
STATE LAND OFFICE		