NEW MEXICO OIL CONSERVATION COMMISSION

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

RECEIVED
SEP - 6 1978
O. C. C.
ARTESIA, OFFICE

Type Test: [x] Initial [ ] Annual [ ] Special	Test Date: 8/25/78		
Company: Beard Oil Company ✓	Connection: Air		
Pool: Undesignated Atoka	Formation: Atoka	Unit: M	
Completion Date: 8/4/78	Total Depth: 7220	Plug Back TD: ~~7210~~ 7195	Elevation: 3822 GL
Farm or Lease Name: Hanlad			
Csg. Size: 4½ / Wt.: 10.5 / d: / Set At: 7220	Perforations: From 7100 To 7116	Well No.: 1	
Tbg. Size: 2 3/8 / Wt.: J 55 / d: / Set At: 7026	Perforations: From To	Unit: M / Sec.: 17 / Twp.: 17 / Rge.: 24	
Type Well – Single – Bradenhead – G.G. or G.O. Multiple	Packer Set At: 7026	County: Eddy	
Producing Thru: Tbg.	Reservoir Temp. °F: 146 @ 7108	Mean Annual Temp. °F: 60	Baro. Press. – P_a: 13.2
State: New Mexico			

L	H	Gg	% CO_2	% N_2	% H_2S	Prover	Meter Run	Taps
7026	7026	.617	.53	1.34			3"	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					1712				72 Hr.
1.	3 X 1.625	500	2.0	64	1530				1 Hr.
2.	3 X 1.625	500	4.0	77	1233				1 Hr.
3.	3 X 1.625	500	8.0	85	823				1 Hr.
4.	3 X 1.625	500	13.0	89	620				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	13.24	32.04	513.2	.9962	1.273	1.047	563
2	13.24	45.31	513.2	.9840	1.273	1.044	734
3	13.24	64.07	513.2	.9763	1.273	1.041	1093
4	13.24	81.58	513.2	.9732	1.273	1.040	1393
5							

NO.	P_t	Temp. °R	T_t	Z
1	.76	524	1.46	.913
2.	.76	537	1.47	.918
3.	.76	545	1.49	.922
4.	.76	542	1.50	.924
5				

Gas Liquid Hydrocarbon Ratio: Dry Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons: Deg.
Specific Gravity Separator Gas: .617 XXXXXXXXX
Specific Gravity Flowing Fluid: XXXXX
Critical Pressure: 671 P.S.I.A. P.S.I.A.
Critical Temperature: 365 R R

P_c 1725.2 P_c^2 2976.3

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1		1545.4	2388.4	587.9
2		1251.3	1566.9	1409.4
3		953.1	727.8	2248.5
4		669.5	443.2	2533.1
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.177$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.173$

$AOF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.635$

Pasture book MD-2 page 9 22 78 SI

Absolute Open Flow: 1,635 Mcfd @ 15.025 | Angle of Slope θ: 45.5° | Slope, n: .980

Remarks:

Approved by Commission:	Conducted By:	Calculated By:	Checked By: