

NEW MEXICO OIL CONSERVATION COMMISSION BY MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

JUN 29 1987

45F
File

Type Test ☒ Initial ☐ Annual ☐ Special		Test Date ARTESIAN OFFICE 3-5-87	
Company BETTIS BOYLE & STOVALL		Connection AIR	
Field WILDCAT - ATOKA BANK		Formation ATOKA BANK	
Completion Date 2-28-87		Total Depth 15620'	Plug back To 14210'
Elevation 3557.5 K.B.		Form of Lease Deed SOTOL FEDERAL	
Gr. Size 5 1/2" & 8"	Wt. 23# & 20.6#	Set At 44,210'	Perforations: From 13997 To 14070
Tr. Size 2 7/8	Wt. 6.5	Set At 13880	Perforations: From To
Type Well - Single - Prodenhead - G.G. or G.O. Multiple		Packer Set At 13880	Well No. #1
SINGLE		County EDDY	Unit F 12 24s 31e
Producing Thru TBG.		Reservoir Temp. °F 213 @ 13880	Mean Annual Temp. °F 60
Buro. Press. - P _a 13.2		State New Mexico	
L 13.880	R 13.880	G _g .642	% CO ₂ 1.028
% N ₂ .609		% H ₂ S	Prover 4.026
Meter Run FLANGE		Temp.	

FLOW DATA						TUBING DATA		CASING DATA		Duration of Flow
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. h _w	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.	
SI							4980			
1.	4	X	1.00	710	4	84	4500	---	---	---
2.	4	X	1.00	720	9	84	4000	---	---	---
3.	4	X	1.00	750	16	85	3500	---	---	---
4.	4	X	1.00	840	22	85	2750	---	---	---
5.										

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor Ft.	Gravity Factor F _g	Super. Compens. Factor, F _{pv}	Rate of Flow O. Field
1	4.753	53.78	723.2	.9777	1.248	1.603	332
2	4.753	81.23	733.2	.9777	1.248	1.064	501
3	4.753	110.50	763.2	.9768	1.248	1.067	681
4	4.753	137.01	853.2	.9768	1.248	1.075	853
5							

NO.	η	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	DRY	Meq/100l.
1	1.07	544	1.47	.885	A.P.I. Gravity of Liquid Hydrocarbons		Deg.
2	1.09	544	1.47	.883	Specific Gravity Separator Gas	.642	X X X X X X X X
3	1.13	545	1.47	.879	Specific Gravity Flowing Fluid	X X X X X	
4	1.27	545	1.47	.865	Critical Pressure	674	P.S.I.A.
5					Critical Temperature	371	°R

NO.	P ₁	P ₂	P ₃	P ₄	P ₅
1	20368	4513.1	20368	4564	
2	16106	4014.4	16115	8817	
3	12343	3517.9	12376	12556	
4	7635	2764.7	7644	17288	
5					

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.442$

ADP = 0 $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.133$

(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.328$

Absolute Open Flow	1,133	Md @ 15.025	Angle of Slope @	52.25	Slope, n	774
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Remarks:

Approved by Commission:	Conducted by: JOHN DAVIS	Calculated by: LARRY DAVIS	Checked by:
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