

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

JAN 19 1987

Form C-122
Revised 9-1-65

File
C/SF

Type Test ☒ Initial ☐ Annual ☐ Special		ARTESIA, OFFICE		Test Date 7-Jan-87	
Company Santa Fe Energy		Connection Llano			
Pool Undesignated		Formation Atoka		Unit JG	
Completion Date 6-May-1984		Total Depth 12880		Plug Back TD 12135	
Elevation 3051.4-GL		Farm or Lease Name N.E. Loving "34" Fed		Well No. 1	
Csg. Size 7	Wt. 26	Set At 6.276	Perforations: From 11284 To 11302		
Tbg. Size 2 3/8	Wt. 4.60	Set At 1.995	Perforations: From 11566 To 11574		
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single			Packer Set At 11180		County Eddy
Producing Thru Tubing		Reservoir Temp. °F 186 @ 11159	Mean Annual Temp. °F 60	Baro. Press. - P _a 13.2	State N.M.
L 11173	H 11173	G _g 0.621	% CO ₂ 0.36	% N ₂ 0.86	% H ₂ S Nil
Prover 3"		Meter Run 3"		Taps Flange	

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.	Temp. °F	
SI	-	-	-	-	-	-	2150	50	N/A	N/A	SI 3 hr
1.	3 x 0.750			555	4	74	1992	54	"	"	1 hr
2.	3 x 0.750			551	11.3	76	1775	57	"	"	1 hr
3.	3 x 0.750			550	22	72	1567	59	"	"	1 hr
4.	3 x 0.750			540	47	68	1293	64	"	"	1 hr
5.											

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor F _t	Gravity Factor F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1	2.672	47.67	568.2	.9868	1.269	1.052	167.799
2	2.672	79.85	564.2	.9850	1.269	1.051	280.280
3	2.672	111.31	563.2	.9887	1.269	1.052	392.573
4	2.672	161.25	553.2	.9924	1.269	1.050	569.736
5							

NO.	P _t	Temp. °R	T _f	Z	Gas Liquid Hydrocarbon Ratio <u>N/A</u> Mcf/bbl
1.	Used Simplified				A.P.I. Gravity of Liquid Hydrocarbons <u>Dry Gas</u> Deg
2.	Super Compressibility				Specific Gravity Separator Gas <u>0.621</u> XXXXXXXXXX
3.	Table				Specific Gravity Flowing Fluid <u>XXXXX</u>
4.					Critical Pressure <u>666</u> P.S.I.A. P.S.I.A.
5.					Critical Temperature <u>363</u> R R

P _c 2987 P _c ² 8922.2				
NO.	P _t ²	P _w	P _w ²	P _c ² - P _w ²
1	-	2759	7612.1	1310.1
2	-	2449	5997.6	2924.6
3	-	2167	4695.9	4226.3
4	-	1800	3240.0	5682.2
5				

$$(1) \frac{P_c^2}{P_c^2 - P_w^2} = \frac{8922.2}{5682.2}$$

$$(2) \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.5702$$

$$AOF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 894.599$$

Absolute Open Flow <u>894.599</u> Mcfd @ 15.025	Angle of Slope <u>45.0</u>	Slope, n <u>1.0000</u>
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Remarks: Bottom hole pressures measured with Amerada gauge No. 850423

Approved By Commission:	Conducted By: Charles M. Avery Jr.	Calculated By: Charles M Avery Jr.	Checked By: D.A. Warren Jr.
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