

OIL CONSERVATION DIVISION

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

P. O. BOX 2088

SANTA FE, NEW MEXICO 87501

Form C-122
Revised 10-1-78

SEP 28 1985

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test ☒ Initial		☐ Annual ☐ Special		Test Date 8/26/85	
Company Santa Fe Energy Company		Connection To Air			
Pool Carlsbad Strawn South		Formation Strawn		Unit	
Completion Date 8/23/85		Total Depth 12,180'		Plug Back TD 12,146'	
				Elevation 3112.8 KB	
Farm or Lease Name Ferguson					
Csq. Size 5.0"	Wt. 18	d 4.276	Set At 12,180'	Perforations: From 10,481' To 10,595'	
Thq. Size 2.375	Wt. 4.7	d 1.995	Set At 10,411'	Perforations: From To	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single				Packer Set At 10,249'	
Producing Thru tbq		Reservoir Temp. °F 185@ 10,538'		Mean Annual Temp. °F 60	
				Baro. Press. - P _a 13.20	
State New Mexico					
L 10,538'	H 10,538'	G _g 0.651	% CO ₂ 0.14	% N ₂ 0.41	% H ₂ S 0
Prover 0		Meter Run 4.0		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	BHP Press. p.s.i.g.	
SI							4040		5354	185
1.	4.03		1.50	335	2.1	97	3828		5100	185
2.	4.03		1.50	385	5.0	77	3442		4930	185
3.	4.03		1.50	400	11.0	81	2260		4536	185
4.	4.03		1.50	400	26.0	80	2064		3802	185
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 Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1	10.84	27.04	348.2	.9662	1.2390	1.0282	361
2	10.84	44.62	398.2	.9840	1.2390	1.0371	612
3	10.84	67.42	413.2	.9804	1.2390	1.0376	921
4	10.84	103.65	413.2	.9813	1.2390	1.0378	1418
5							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio 15.224 Mcf/bbl.
1	0.52	557	1.49	0.946	A.P.I. Gravity of Liquid Hydrocarbons 59.0 Deg.
2	0.59	537	1.44	0.930	Specific Gravity Separator Gas 0.651 XXXXXXXXXX
3	0.62	541	1.45	0.929	Specific Gravity Flowing Fluid XXXXX 0.815
4	0.62	540	1.45	0.928	Critical Pressure 670 P.S.I.A. 662 P.S.I.A.
5					Critical Temperature 373 R 424 R

NO.	P _r ²	P _w	P _w ²	P _r ² - P _w ²	$(1) \frac{P_r^2}{P_r^2 - P_w^2} = 1.7877$ $(2) \left[\frac{P_r^2}{P_r^2 - P_w^2} \right]^n = 1.6162$ Post FD-2 9-27-85 Comp + BK
1	14755	3709	13755	1727	
2	11938	3559	12669	2813	
3	5167	3219	10362	5119	
4	4315	2612	6821	8660	

Absolute Open Flow 2292 Mcfd @ 15.025		Angle of Slope 50.4		Slope, n 0.826	
Remarks:					
Approved By Division					
Conducted By: Bennett & Cathey, Inc.		Calculated By: Bennett & Cathey, Inc.		Checked By: P. J. Gaume	