

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

REVISED 9-1-01

RECEIVED

c/s F. file

Type Test ☒ Initial FOUR POINT ☐ Annual ☐ Special				Test Date 4-12-82		1980 MAY 12 1982 FSL	
Company JACK GRYNBERG & ASSOC.				Connection AIR NEW WELL		1980 O. C. D. FEL ARTESIA, OFFICE	
Well Pecos Slope UNDESIGNATED also				Formation ABO		Unit J	
Completion Date 4-9-82 4-12-82		Total Depth 4244		Plug Back TD 4142		Elevation 3957' KB	
Well No. 1		Perforations: From 3666 To 3966		Farm or Lease Name GRYNBERG, FEDERAL Com		17	
Well Size 4.50	Wt. 10.5	d 4.052	Set At 4142 4234	Perforations: From OPEN To ENDED		Unit J	Sec. 17
Well Size 2.375	Wt. 4.7	d 1.995	Set At 3610			Twp. 6S	Rge. 25E
Type Well - Single - Bradenhead - G.G. or G.O. Multiple SINGLE				Packer Set At NONE		County CHAVES	
Producing thru TUBING		Reservoir Temp. °F 116 3816		Mean Annual Temp. °F 60°		Baro. Press. - P _a 13.2	
State NEW MEXICO							
L 3816	H 3816	G _g .6794	% CO ₂ 1.858	% N ₂ 7.099	% H ₂ S	Prover 2.00	Meter Run Taps

FLOW DATA						TUBING DATA		B.H.P. 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.	CHOKE	Duration of Flow
SI						74	909	74	1010		72 HRS.
1	2.00	X	.500	100	0	65	877	72	979	10/64	1
2	2.00	X	.500	175	0	64	830	70	937	16/64	1
3	2.00	X	.500	255	0	64	768	70	879	19/64	1
4	2.00	X	.500	345	0	62	730	69	794	21.5/64	1
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 _{sp}	Rate of Flow Q, Mcfd
1	4.3880	.00	113.2	.9952	1.2136	1.0091	605
2	4.3880	.00	188.2	.9962	1.2136	1.0159	1014
3	4.3880	.00	268.2	.9962	1.2136	1.0238	1457
4	4.3880	.00	358.2	.9981	1.2136	1.0325	1966
5							

NO	P ₁	Temp. °F	T _r	Z	Gas Liquid Hydrocarbon Ratio Mcf/Lbl.	A.P.I. Gravity of Liquid Hydrocarbons Deg.
1	.17	525	1.46	.982	Specific Gravity Separator Gas .6790	X X X X X X X X
2	.28	524	1.46	.969	Specific Gravity Flowing Fluid X X X X X	
3	.40	524	1.46	.954	Critical Pressure 6605	P.S.I.A. P.S.I.A.
4	.54	522	1.45	.938	Critical Temperature 359	R R
5						

NO	P ₁	P _w	P _w ²	P _c ² - P _w ²
1		992.2	984.5	62.0
2		950.2	902.9	144.0
3		892.2	796.0	251.0
4		807.2	651.6	395.0
5				

$(1) \frac{P_c^2}{P_c^2 - P_w^2} = 2.6505$ $(2) \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.8591$			
$AQF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 3,655.0$			

Absolute Open Flow 3,655.0 Mcfd @ 15.025		Angle of Slope θ 57.5	Slope, n .6362
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Remarks: BOTTOM HOLE PRESSURES MEASURED WITH AMERADA PRESSURE ELEMENTS.

Approved By Commission:	Conducted By: RICARD TOWNLEY	Calculated By: BENNETT-CATHEY	Checked By:
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