

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

Form C-122
Revised 9-1-65

Type Test ☐ Initial ☐ Annual ☒ Special		Test Date 10/7/72		RECEIVED	
Company Black River Corporation		Connection El Paso Natural Gas Co.			
Pool Washington Ranch		Formation Upper Morrow		Unit G.G.C.	
Completion Date 4/7/72		Total Depth 7053		Plug Back TD 7012	
Elevation 3743 KB		Form of Pressure Office Cities 3 Federal			
Test Size 5 1/2	14#-5200 15.5#-TD	Set At 5.012 4.950	701.8	Perforations: From 6842 To 6854	
Log Size 2 7/8	6.5#	Set At 2.441	6865	Perforations: From 6913 To 6944	
Type Well - Single - Bradenhead - G.G. or G.C. Multiple G.G. Multiple			Packer Set At 6865		Well No. 1
Producing Thru Casing		Reservoir Temp. °F 146 @ 6890	Mean Annual Temp. °F 60° F	Baro. Press. - P _a 13.2	
County Eddy		State New Mexico			
L 6342	H 6842	G _q 0.657	% CO ₂ -	% N ₂ -	% H ₂ S -
Prover X			Meter Run 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
1	4	X	1.750	7.55	1.2	76			1865		23/40
2	4	X	1.750	7.60	2.4	78			1381	80	1/00
3	4	X	1.750	7.60	3.4	74			1242	82	1/00
4	4	X	1.750	7.60	4.2	70			1033	82	1/00
5	4	X	1.750	7.60	5.5	69			894	84	1/00
									926	85	13/05

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	14.93	35.1	855.2	.9850	1.234	1.083	690
2	14.93	70.6	866.2	.9831	1.234	1.083	1385
3	14.93	100.1	866.2	.9868	1.234	1.086	1976
4	14.93	123.6	866.2	.9905	1.234	1.089	2456
5	14.93	161.9	866.2	.9915	1.234	1.089	3220

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	Dry Gas	Mcf/bbl.
1	1.28	536	1.43	.853	A.P.I. Gravity of Liquid Hydrocarbons		Deg.
2	1.29	538	1.43	.852	Specific Gravity Separator Gas	.657	X X X X X X X X
3	1.29	534	1.42	.848	Specific Gravity Flowing Fluid	X X X X X	
4	1.29	530	1.41	.844	Critical Pressure	670	P.S.I.A.
5	1.29	529	1.41	.844	Critical Temperature	375	R

P _r 1878.2	P _w 3527.6		
NO.	P _r	P _w	P _r ² - P _w ²
1	1943.8		1944.04
2	1575.5		1577.8
3	1094.5		1099.3
4	823.0		830.5
5	882.1		895.0

(1) $\frac{P_r^2}{P_r^2 - P_w^2} = 1.340$

AOF = Q $\left[\frac{P_r^2}{P_r^2 - P_w^2} \right]^n = 4315$

(2) $\left[\frac{P_r^2}{P_r^2 - P_w^2} \right]^n = 1.340$

Absolute Open Flow	4315	Mcf/d @ 15.025	Angle of Slope θ	Slope, n
Remarks: * L-10 chart - 100" 1500# meter				

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