

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

Form C-122
Revised 9-1-65

Type Test <input checked="" type="checkbox"/> Initial <input type="checkbox"/> Annual <input type="checkbox"/> Special				Test Date 5-8-80							
Company CONOCO, INC.			Connection EL PASO NATURAL GAS		660' FSL & 1980' FEL						
Pool LANGLEY ELLENBURGER			Formation ELLENBURGER		Unit 0						
Completion Date 3-11-80		Total Depth 15,599'	Plug Back TD 15,504'	Elevation 3557' GL	Farm or Lease Name STATE E						
Csq. Size 7"	Wt. 32 #	d 6.094	Set At 15,544'	Perforations: From 15,163' To 15,353'							
Tbg. Size 2 3/8"	Wt. 4.6 #	d 1.995	Set At 15,080'	Perforations: From OPEN To ENDED							
Type Well - Single - Bradenhead - G.G. or G.O. Multiple DUAL - G.G.				Packer Set At 15,040'							
Producing Thru TBG.		Reservoir Temp. °F 225 @ 15,075'	Mean Annual Temp. °F 60°	Baro. Press. - P _a 13.2	State NEW MEXICO						
L 15,075'	H 15,075'	G _g .653	% CO ₂ .19	% N ₂ 1.49	% H ₂ S —						
Prover 6"			Meter Run 6"		Taps FLANGE						
FLOW DATA				TUBING DATA							
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	Duration of Flow
SI							2330				64.5 HRS
1.	6" X 2.250"		557	.563	75	2185	68				1 HR
2.	6" X 2.250"		557	4.000	78	2094	71			(STABILIZED)	1 HR
3.	6" X 2.250"		557	9.000	74	2017	74				1 HR
4.	6" X 2.250"		557	14.440	62	1924	78				1 HR
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.	24.38	17.917	570.2	.9859	1.237	1.052	560				
2.	24.38	47.758	570.2	.9831	1.237	1.051	1488				
3.	24.38	71.637	570.2	.9868	1.237	1.052	2243				
4.	24.38	90.740	570.2	.9981	1.237	1.058	2890				
5.											
NO.	P _t	Temp. °R	T _f	Z	Gas Liquid Hydrocarbon Ratio <u>13.600</u> Mcf/bbl.						
1.	0.85	535	1.44	.903	A.P.I. Gravity of Liquid Hydrocarbons <u>66.5 @ 60</u> Deg.						
2.	0.85	538	1.45	.905	Specific Gravity Separator Gas <u>.653</u> X X X X X X X X						
3.	0.85	534	1.44	.902	Specific Gravity Flowing Fluid <u>X X X X X</u>						
4.	0.85	522	1.40	.893	Critical Pressure <u>669</u> P.S.I.A. P.S.I.A.						
5.					Critical Temperature <u>372</u> R R						
P _c <u>2691.8</u> P _c ² <u>7245.8</u>											
NO	* P _t ²	P _w	P _w ²	P _c ² - P _w ²	(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 4.668$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2.731$						
1	3780.2	2650.6	7025.7	220.1	AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 7891.5$						
2	3692.2	2585.7	6685.8	560.0							
3	3585.2	2505.2	6276.0	969.8							
4	3422.2	2386.1	5693.5	1552.3							
5	3241.2	(SIHP)									
Absolute Open Flow <u>7,892</u> Mcfd @ 15.025				Angle of Slope @ <u>56.9</u>				Slope, n <u>.652</u>			
Remarks: * BHP WERE MEASURED @ 15,075'. WELL PRODUCED 22. BBL. CONDENSATE DURING TEST.											
Approved By Commission: Jerry Seaw			Conducted By: Tom C. Adudrell			Calculated By: Tom C. Adudrell			Checked By:		