

N. W. 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 7-29-80			
Company ARCO Oil & Gas Company				Connection El Paso Natural Gas Company					
Pool Undesignated				Formation Ellenburger				Unit	
Completion Date 7-29-80		Total Depth 15656		Plug Back TD 15540		Elevation 3488 G.L.		Farm or Lease Name Langley Griffin Com.	
Csg. Size 7	Wt. 29	d 6.184	Set At 15638	Perforations: From 15322 To 15515		Well No. 1			
Tbg. Size 2.375	Wt. 4.7	d 1.995	Set At 15223	Perforations: From Open To Ended		Unit Sec. Twp. Rge. J 28 22S 36E			
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Dual Tbg. - Tbg.						Packer Set At 15180		County Lea	
Producing Thru Tbg.		Reservoir Temp. °F 201 @ 15418.5		Mean Annual Temp. °F 60°		Baro. Press. - P _a 13.2		State New Mexico	
L 15223	H 15223	Gg 0.680	% CO ₂ 0.2	% N ₂ 1.43	% H ₂ S Tr.	Provor -	Meter Run 4"	Taps Flg.	

FLOW DATA						TUBING DATA		CASING DATA		Duration of Flow	
NO.	Provor 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							1990		Pkr.		
1.	4" x 1.75"			311	2.25	93	1881	78			2 Hrs.
2.	4" x 1.75"			317	5.76	82	1787	80			2 Hrs.
3.	4" x 1.75"			320	13.69	93	1729	80			2 Hrs.
4.	4" x 1.75"			321	25.50	92	1647	80			2 Hrs.
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	14.93	27.01	324.2	0.9697	1.213	1.029	488
2	14.93	43.61	330.2	0.9795	1.213	1.031	798
3	14.93	67.54	333.2	0.9697	1.213	1.030	1221
4	14.93	92.32	334.2	0.9706	1.213	1.030	1670
5							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	21.755	Mcft/bbl.
1	0.48	553	1.46	0.945	A.P.I. Gravity of Liquid Hydrocarbons	65.3	Deg.
2	0.49	542	1.43	0.941	Specific Gravity Separator Gas	0.680	X X X X X X X X
3	0.50	553	1.46	0.943	Specific Gravity Flowing Fluid	X X X X X	0.800
4	0.50	552	1.46	0.943	Critical Pressure	670	P.S.I.A. 666 P.S.I.A.
5					Critical Temperature	378	R 417 R

NO.	P _r ²	P _w ²	P _w ²	P _r ² - P _w ²	(1) $\frac{P_r^2}{P_r^2 - P_w^2} = 4.2121$	(2) $\left[\frac{P_r^2}{P_r^2 - P_w^2} \right]^n = 3.2375$
1	3290.2	10825.4				
2	3219.2	10363.2	462.2			
3	3128.2	9785.6	1039.8			
4	3008.2	9049.3	1776.1			
5	2873.2	8255.3	2570.1			

Absolute Open Flow		5407	Mcft @ 15.025	Angle of Slope @	50.75	Slope, n	0.817
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Remarks: BHP measured at mid point of perforations 15418.5. Well produced 16 B.O. (65.3 API @ 60°) & 0 B.W. during test. Devonian Gas and Ellenburger Gas Dual Completion. Pkrs. @ 12312 and 15180.

Approved: <u>Jerry Sexton</u>	Conducted By: <u>C. Johnson</u>	Calculated By: <u>J. Cogburn</u>	Checked By: <u>L.C. Hudry</u>
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