

Submit in duplicate to
appropriate district office
See Rule 401 & Rule 1122

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-122
Revised 4-1-91

OIL CONSERVATION DIVISION

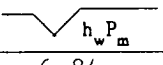
P.O. Box 2088
Santa Fe, New Mexico 87504-2088

c/sf
30-015-30300

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Operator Phillips Petroleum Company					Lease or Unit Name Grayburg Deep Unit				
Type Test ☒ Initial ☐ Annual ☐ Special					Test Date 12/03/98		Well No. 15		
Completion Date 11/05/98		Total Depth 11400		Plug Back TD 11397		Elevation 3610' GL		Unit Lr. - Sec. - TWP - Rge. F 30-17s-30e	
Csg. Size 5 1/2	Wt. 17#	d 4.892	Set At 11400	Perforations: From: 11167 To: 11200			County Eddy		
Tbg. Size 2 7/8	Wt. 6.5#	d 2.441	Set At 11103	Perforations: From: Open To: Ended			Pool Sand Tanks Grayburg MORROW		
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single				Packer Set At 11103			Formation Morrow		
Producing Thru Tubing		Reservoir Temp. °F 173.9@11103		Mean Annual Temp. °F 60		Baro, Press - P _a 13.2		Connection GPM	
L 11103	H 11103	Gg 0.683	% CO ₂ 0.476	% N ₂ 0.811	% H ₂ S	Prover	Meter Run 6.066	Taps FLG	

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
SI							474		PACKER		24 Hrs
1.	6.066	x	1.750	16	1.6	63	444		"		1 Hr
2.	6.066	x	1.750	15	4.9	67	413		"		1 Hr
3.	6.066	x	1.750	13.5	9.9	68	377		"		1 Hr
4.	6.066	x	1.750	13.5	17.3	70	330		"		1 Hr
5.											

RATE OF FLOW CALCULATIONS							
NO.	COEFFICIENT (24 HOUR)		Pressure P _m	Flow Temp. Factor Ft.	Gravity Factor Fg.	Super Compress. Factor, F _{pv} .	Rate of Flow Q, Mcfd
1.	14.61	6.84	29.2	.9971	1.210	1.004	121
2.	14.61	11.75	28.2	.9933	1.210	1.004	207
3.	14.61	16.26	26.7	.9924	1.210	1.004	286
4.	14.61	21.49	26.7	.9905	1.210	1.004	378
5.							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio Dry Gas Mcf/bbl.		
1.	.04	523	1.35	.992	A.P. I. Gravity of Liquid Hydrocarbons Dry Deg.		
2.	.04	527	1.36	.992	Specific Gravity Separator Gas .683 XXXXXXXXXX		
3.	.03	528	1.37	.992	Specific Gravity Flowing Fluid XXXXX		
4.	.03	530	1.37	.992	Critical Pressure 669 P.S.I.A. P.S.I.A.		
5.					Critical Temperature 385 R R		

P _c 487.2		P _c ² 237.4		1) $\frac{P_c^2}{P_c^2 - P_w^2} = 2.018$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.747$			
NO.	P _t ²	P _w	P _w ²	P _c ² - P _w ²	AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = .660$		
1.		457.4	209.2	28.1			
2.		426.9	182.2	55.1			
3.		391.6	153.4	84.0			
4.		346.1	119.8	117.6			
5.							

Absolute Open Flow 660 Mcfd @ 15.025	Angle of Slope Θ 51.5	Slope, n .7943
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Remarks: Well produced no fluid during test

Approved By Division	Conducted By: Jarrel Services, Inc.	Calculated By: Bob Murray	Checked By: Bob Murray
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