

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

Form C-122
Revised 9-1-65

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 9/16/81	
Company Gulf Oil Corporation				Connection Air	
Pool Undesignated				Formation Morrow	
Completion Date 9/12/81		Total Depth 14529		Flag Hole TD 14484	
				Elevation 3772 GL	
Well No. 1		East Hat Mesa			
Casing Size 5 1/2		Set At 14529		Perforations: From 14382 To 14406	
Tub. Size 2 3/8		Set At 14362		Perforations: From To	
Type Well - Single - Protthead - G.G. or G.O. Multiple Single Gas				Packer Set At 14350	
Producing Thru Tbg.				State NM	
Reservoir Temp. °F 218 @ 14394		Mean Annual Temp. °F 60°		Baro. Press. - P _g 13.2	
L 14394	H 14394	Gg .633	% CO ₂ .82	% N ₂ .27	% H ₂ S .06gr.
Prover				Meter Run 4"	Tag Flg.

FLOW DATA						TUBING DATA		CASING DATA		Duration of Flow	
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. hw	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.		Temp. °F
SI							4920				72 hrs.
1.	4 X 2.000			480	3.0	104	4710				1 hr.
2.	4 X 2.000			480	11.0	102	4490				1 hr.
3.	4 X 2.000			490	36.0	86	3980				1 hr.
4.	4 X 2.000			490	76.0	76	3300				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 Fg	Super. Compress. Factor, Fpv	Rate of Flow Q, Mscf
1	19.81	38.47	493.2	.9602	1.257	1.036	953
2	19.81	73.66	493.2	.9619	1.257	1.036	1828
3	19.81	134.59	503.2	.9759	1.257	1.042	3408
4	19.81	195.56	503.2	.9850	1.257	1.044	5008
5							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	93.308	Mcf/bbl.
1.	.74	564	1.53	.931	A.P.I. Gravity of Liquid Hydrocarbons	52.5 @ 60	Deg.
2.	.74	562	1.53	.931	Specific Gravity Separator Gas	.633	XXXXXXX
3.	.75	546	1.48	.921	Specific Gravity Flowing Fluid	XXXXX	.666
4.	.75	536	1.46	.918	Critical Pressure	670	P.S.I.A. 669
5.					Critical Temperature	368	R 382 R

NO.	BHP, P	P _w	P _w ²	P _c ² - P _w ²	(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 2.080$	(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.880$
1	6601.2	4972.82	24728.4	1788.9		
2	6355.2	4758.42	22642.1	3875.2		
3	5802.2	4285.71	18366.9	8150.4		
4	5113.2	3710.61	13768.2	12749.1		
5	6803.2	S.I.P.				

Absolute Open Flow		9,415	Mcf/D 15.625	Angle of Slope	49.25°	Slope, n	.862
Remarks: Produced 5 bbls. distillate and 4 bbls. H ₂ O during the test.							
* Calculated from bottom hole shut-in pressure							
Approved By Commission:		Conducted By:		Calculated By:		Checked By:	
		Davis Services, Inc.		Rick Pagan			