

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 8/19/81	
Company HNG OIL COMPANY		Connection None	
Pool East Grama Ridge		Formation Morrow	
Completion Date 8/13/81	Total Depth 13,296'	Plug Back TD 13,211'	Elevation 3641.5'
Farm or Lease Name San Simon 32A State Co		Well No. 1	
Csg. Size 4-1/2"	Wt. 15.1	Set At 13,294'	Perforations: From 12,742' To 12,748'
Tbg. Size 2-7/8"	Wt. 6.50	Set At 10,829'	Perforations: Open Ended
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single		Packer Set At 10,800'	County Lea
Producing Thru Tubing	Reservoir Temp. °F 177 @ 12,745'	Mean Annual Temp. °F 60°	Baro. Press. - P _a 13.2
L 12745	H -	G _g 0.5998	% CO ₂ 0.292
		% N ₂ 0.697	% H ₂ S -
		Prover 6"	Meter Run 6"
		Taps F	

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. DWT	Temp. °F	Press. p.s.i.g.	Temp. °F	
SI							5600		PACKER		139.0 hrs
1.	6	4 1/2/64	1.750	485	5	101	5262	60			1.0 hr.
2.	6	6/64	1.750	495	14	104	5065	60			0.5 hr.
3.	6	7 1/2/64	1.750	495	30	100	4988	60			0.5 hr.
4.	6	9 1/2/64	1.750	450	51	73	4930	60			1.0 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	14.61	49.91	498.2	0.9628	1.291	1.031	934.46
2	14.61	84.35	508.2	0.9602	1.291	1.031	1575.00
3	14.61	123.47	508.2	0.9636	1.291	1.032	2315.87
4	14.61	153.70	463.2	0.9877	1.291	1.035	2963.57
5							

NO.	R _f	Temp. °R	T _f	Z	Gas Liquid Hydrocarbon Ratio	A.P.I. Gravity of Liquid Hydrocarbons	Specific Gravity Separator Gas	Specific Gravity Flowing Fluid	Critical Pressure	Critical Temperature
1	0.74	561	1.58	0.940	121.70 Mcf/bbl.	47.8	0.5998	X X X X X X X X	674 P.S.I.A.	354 °R
2	0.75	564	1.59	0.940				X X X X X		
3	0.75	560	1.58	0.939						
4	0.69	533	1.51	0.933						
5										

NO.	P _c ²	P _w	P _w ²	P _c ² - P _w ²
1	7259.2	6997.2	48960.8	3735.2
2	52696.0	6804.2	46297.1	6398.9
3		6723.2	45201.4	7494.6
4		6360.2	40452.1	12243.9
5				

$$(1) \frac{P_c^2}{P_c^2 - P_w^2} = 14.108$$

$$(2) \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 12.758$$

$$AOF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 11922$$

$$AOF = 11922 \text{ Mcfd @ } 15.025$$

Absolute Open Flow	11922	Angle of Slope θ	46° 6'	Slope, n	0.962
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Remarks: Bottom hole pressure @ (-9104) 12745' used for pressure calculations
 2.0 BO in 3.0 hours - 16.0 BO/D

Approved By: Commission	Conducted By:	Calculated By: Coleman	Checked By: Joe A. Coleman
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