

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION
P. O. BOX 2088
SANTA FE, NEW MEXICO 87501

Form C-122
Revised 10-1-78

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test 4point ☒ Initial ☐ Annual ☐ Special		Test Date 01-22-88	
Company Read & Stevens		Correction To air new well	
Pool North Lea Federal		Formation Morrow	
Completion Date 01-21-88		Total Depth 13730	Plug Back TD 13730
Elevation 3643		Form or Lease Name North Lea Federal	
Coq. Size 5.500	Wt. 20.0	d 4.778	Set At 13730
Perforations: From 13452 To 13462		Well No. 3	
Thp. Size 2.375	Wt. 4.7	d 1.995	Set At 13397
Perforations: From open To ended		Unit 10 20s 34e	
Type Well - Single - Drindhead - G.C. or G.O. Multiple single		Packer Set At 13397	County Lea
Producing Thru tubing	Reservoir Temp. °F 201 ° 13457	Mean Annual Temp. °F 60	Date. Press. - P ₀ 13.2
State New Mexico			
L 13457	H 13457	G _g 0.673	% CO ₂ 0.52
		% N ₂ 0.42	SiH ₂ S 0
		Prover 0	Meter Run 4.026
			Temp Fling

FLOW DATA						TUBING DATA		BHP DATA		Duration	
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	of Flow
SI							4894	60	6994	201	24 HRS
1.	4.026	2.000	245	5.5	60	4600	61	6731	201	60 min	
2.	4.026	2.000	250	7.0	59	4442	63	6542	201	60 min	
3.	4.026	2.000	260	19.0	70	4150	63	6179	201	60 min	
4.	4.026	2.000	260	34.0	72	3760	62	5791	201	60 min	
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 O. Mcd
1	19.81	37.68	258.2	1.0000	1.2189	1.0280	936
2	19.81	42.92	263.2	1.0010	1.2189	1.0288	1068
3	19.81	72.05	273.2	0.9905	1.2189	1.0274	1771
4	19.81	96.38	273.2	0.9887	1.2189	1.0270	2363
5							

NO.	P ₁	Temp. °R	T ₁	Z	Gas Liquid Hydrocarbon Ratio	A.P.G. Gravity of Liquid Hydrocarbons	Specific Gravity Separator Gas	Specific Gravity Flowing Fluid	Critical Pressure	Critical Temperature
1	0.39	520	1.37	0.946	14.613	57.2	0.673	XXXXXX	670	379
2	0.39	519	1.37	0.945				XXXXXX		
3	0.41	530	1.40	0.947						
4	0.41	532	1.40	0.948						
5										

NO.	P ₁ ²	P _w ²	P _w ²	P ₁ ² - P _w ²
1	4747	22533	2305	
2	4578	20956	3882	
3	4255	18101	6737	
4	3912	15300	9538	
5				

(1) $\frac{P_1^2}{P_2^2 - P_w^2} = 2.6040$

AOR = 0 $\left[\frac{P_1^2}{P_2^2 - P_w^2} \right]^n = 5549.0$

(2) $\left[\frac{P_1^2}{P_2^2 - P_w^2} \right]^n = 2.3483$

Absolute Open Flow	5549.0	Mcd @ 15.025	Angle of Slope @	48.25	Slope, n	0.892
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Remarks: produced 18.69 bbls condensate in 4 hrs.
bottom hole pressures w/ Amarada pressure bombs

Approved By Division	Conducted By Monty Randaugh	Calculated By Richard J. ...	Checked By
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RECEIVED
FEB 10 1988
HOBBS OFFICE