

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

Form C-122
 Revised 9-1-65

Type of Test ☒ Initial ☐ Annual ☐ Special				Date 11-29-79	
Company Natomas North America, Inc.				Location	
Well Morrow				Name Antelope Ridge	
Completion Date 11/14/79		Total Length 13,600'		Elevation 3389.1	
Casing Size 5"		Set At 13,598'		Well No. 2	
Tubing Size 2 7/8"		Set At 12,402'		Unit Sec. Twp. Rge.	
Tubing Size 2 3/8"		Set At 13,006'		County Lea	
Type Well - Single - Provenhead - G.G. or G.O. Multiple G.G.				Packer Set At 13,006'	
Producing thru Tubing		Reservoir Temp. °F 8		Mean Annual Temp. °F 53	
L 13265		H 13265		Gg .591	
% CO ₂ .12		% N ₂ .23		% H ₂ S Prover	
Meter Run 4.026		Taps flange			

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
51							5841	60			24
1.	4.026	x	2.750	383	9	80	5529	86			1
2.	4.026	x	2.750	460	26	58	4815	85			1
3.	4.026	x	2.750	533	48	68	4556	91			1
4.	4.026	x	2.750	553	94	62	4239	82			1
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	41.10	59.71	396.2	.9813	1.3003	1.0296	3224
2	41.10	110.92	473.2	1.0019	1.3003	1.0416	6186
3	41.10	161.92	546.2	.9924	1.3003	1.0443	8968
4	41.10	230.70	566.2	.9981	1.3003	1.0482	12898
5							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	Mcf/Sbl.
1	.59	540	1.52	.943	36.7	
2	.70	518	1.46	.922	48.6	
3	.81	528	1.49	.917	.591	X X X X X X X X
4	.84	522	1.47	.910		.669
5					673	P.S.I.A. 669 P.S.I.A.
					355	R 379 H

NO.	P _c ²	P _w ²	P _c ² - P _w ²	(1) $\frac{P_c^2}{P_c^2 - P_w^2} =$	(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n =$
1	30716	5526	30535	2.5078	2.5078
2	23312	4862	23640		
3	20878	4674	21845		
4	18081	4539	20606		
5					

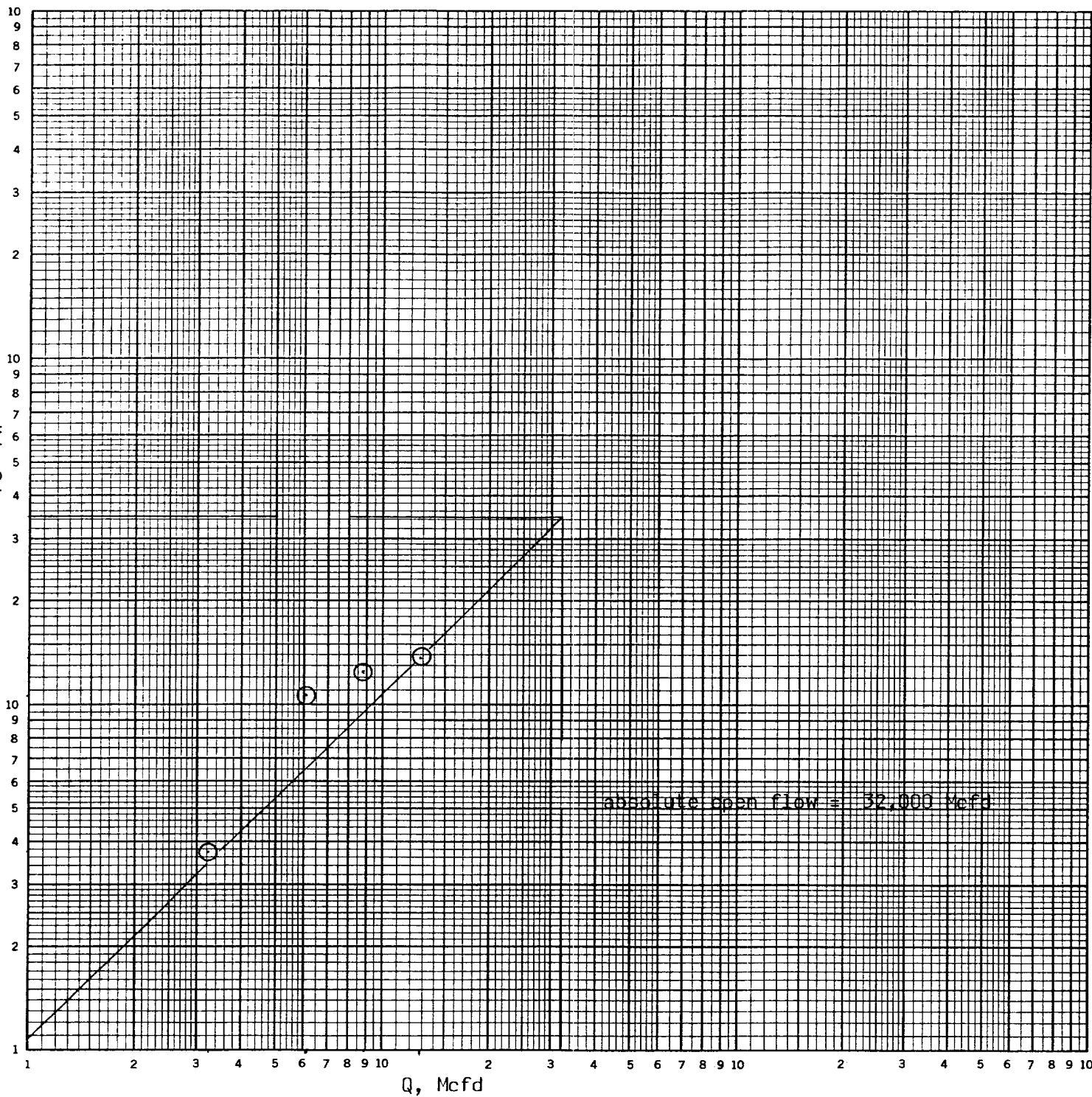
Absolute Open Flow 32,000 Mcfd @ 15.025		Angle of Slope 45		Slope, n 1.000	
Remarks:					
Approved By Commission:		Wireline Service Co. Box 1263 Monahans, TX 79756		Calculated By: WSC	
				Checked By: WSC	

943-2556 or 563-3932

Company Natomas North America, Inc.
 Well State Comm. 2-23
 Location _____
 County Lea
 Date 11/30/79

46 7403

K-E LOGARITHMIC 3 X 3 CYCLES
 KEUFFEL & ESSER CO. MADE IN U.S.A.



$Q = 45$
 $n = 1.000$

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Type Test ☒ Initial ☐ Annual ☐ Special		Test Date 11-29-79																																																																																															
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Pool		Formation Atoka																																																																																															
Completion Date 11-14-79		Total Length 13,600'																																																																																															
Plug Back To 13,483'		Elevation 3389.1																																																																																															
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Perforations: From 12,033' To 12,052'		Well No. 2																																																																																															
Tubing Size 2 7/8"		Set At 11,250'																																																																																															
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