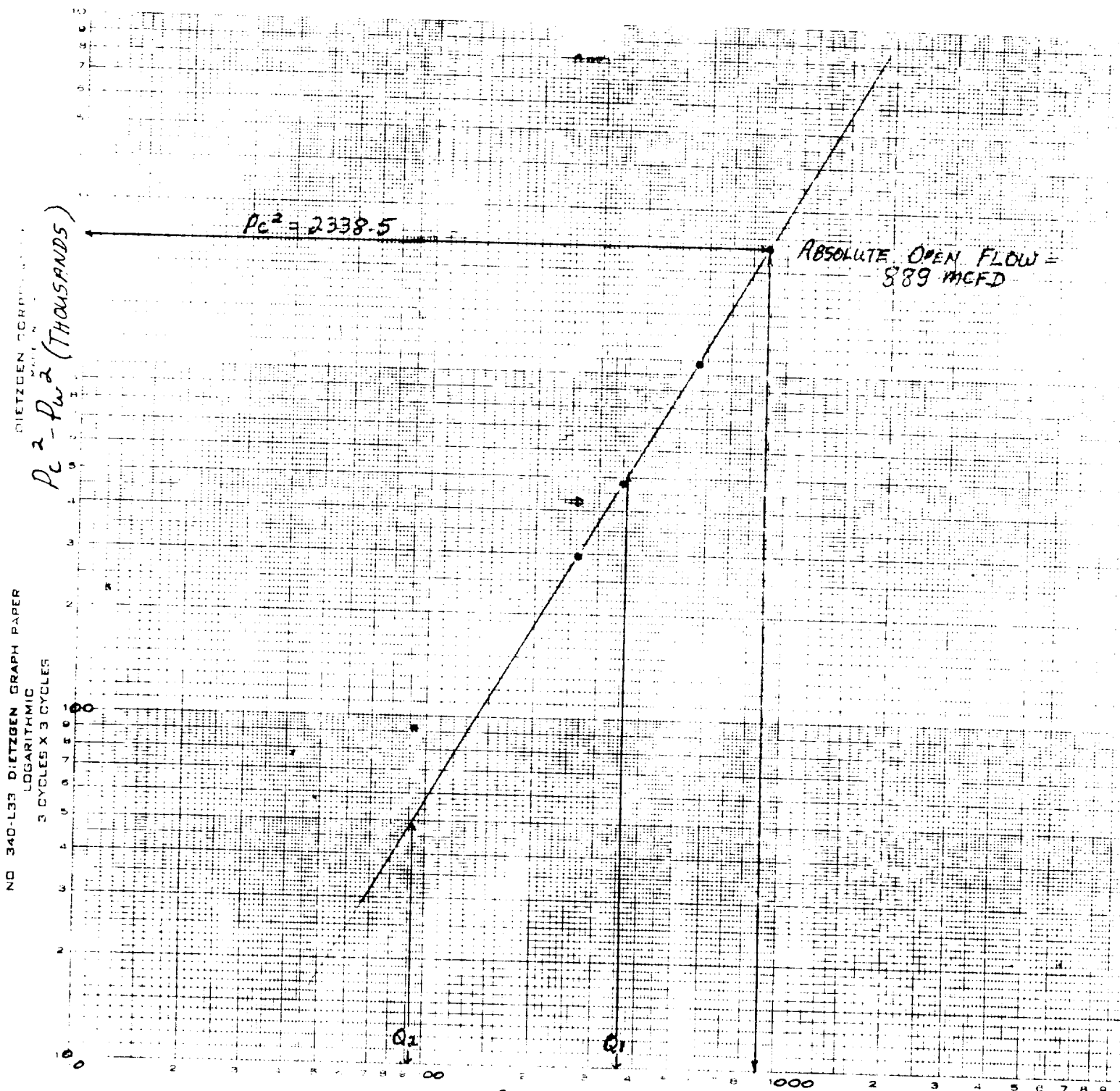


MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

RECEIVED

Type Test ☒ Initial ☐ Annual ☐ Special					Test Date 4/1/82		APR 19 1982																																																																																														
Company Harvey E. Yates Company			Location Transwestern			Unit O. C. D.																																																																																															
Field Undesignated Atoka Penn			Formation Atoka & Morrow			Part of Lease Name Dayton Com		ARTESIA, OFFICE																																																																																													
Completion Date 9/7/81		Total Depth 9100'		Flag back TD 9041'		Perforation 3365'																																																																																															
Well Size 5 1/2"	WT. 17#, 15.5	d 4.767"	Set At 9100'	Perforations: From 8620' To 8876'		Well No. #1																																																																																															
Well Size 2 3/8"	WT. 4.7#	d 1.995"	Set At 8567'	Perforations: Open Ended		Unit Sec. Twp. Range F 16 18s 26e																																																																																															
Type Well - Single - Prodenhead - G.O. or G.O. Multiple Single				Packer Set At 8567'		County Eddy																																																																																															
Producing thru Tubing		Reservoir Temp. °F 140° @ 8748'		Mean Annual Temp. °F 60°		State New Mexico																																																																																															
L 8748'	H -	Gg 0.626	% CO ₂ 0.487	% N ₂ 1.171	% H ₂ S -	Prover -	Meter Run 2.067																																																																																														
<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th colspan="6">FLOW DATA</th> <th colspan="2">TUBING DATA</th> <th colspan="2">CASING DATA</th> <th rowspan="2">Duration of Flow</th> </tr> <tr> <th>NO</th> <th>Prover Line Size</th> <th>X</th> <th>Orifice Size</th> <th>Press. p.s.i.g.</th> <th>Diff. h_w</th> <th>Temp. °F</th> <th>Press. p.s.i.g. W.T.</th> <th>Temp. °F</th> <th>Press. p.s.i.g.</th> <th>Temp. °F</th> </tr> <tr> <td>51</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>1206</td> <td>60</td> <td colspan="2">PACKER</td> <td>38.0 hrs</td> </tr> <tr> <td>1</td> <td>2.067</td> <td>2/64</td> <td>1.000</td> <td>200</td> <td>1</td> <td>66</td> <td>1182</td> <td>60</td> <td></td> <td></td> <td>0.5 hr</td> </tr> <tr> <td>2</td> <td>2.067</td> <td>6/64</td> <td>1.000</td> <td>200</td> <td>8</td> <td>63</td> <td>1125</td> <td>60</td> <td></td> <td></td> <td>1.0 hr</td> </tr> <tr> <td>3</td> <td>2.067</td> <td>8/64</td> <td>1.000</td> <td>200</td> <td>14</td> <td>60</td> <td>1076</td> <td>60</td> <td></td> <td></td> <td>1.0 hr</td> </tr> <tr> <td>4</td> <td>2.067</td> <td>10/64</td> <td>1.000</td> <td>210</td> <td>35</td> <td>59</td> <td>875</td> <td>60</td> <td></td> <td></td> <td>1.0 hr</td> </tr> <tr> <td>5</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>								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. W.T.	Temp. °F	Press. p.s.i.g.	Temp. °F	51							1206	60	PACKER		38.0 hrs	1	2.067	2/64	1.000	200	1	66	1182	60			0.5 hr	2	2.067	6/64	1.000	200	8	63	1125	60			1.0 hr	3	2.067	8/64	1.000	200	14	60	1076	60			1.0 hr	4	2.067	10/64	1.000	210	35	59	875	60			1.0 hr	5											
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NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor Ft.	Gravity Factor Fg	Super Compress. Factor, F _{sp}	Rate of Flow Q, Mscf/d																																																																																														
1	4.946	14.60	213.2	0.9943	1.264	1.018	92.39																																																																																														
2	4.946	41.30	213.2	0.9971	1.264	1.019	262.34																																																																																														
3	4.946	54.63	213.2	1.000	1.264	1.019	348.02																																																																																														
4	4.946	88.39	223.2	1.001	1.264	1.020	564.21																																																																																														
5																																																																																																					
NO.	P ₁	Temp. °R	T ₁	Z	Gas Liquid Hydrocarbon Ratio _____ Dry Gas _____ Mcf/bbl.																																																																																																
1	0.32	526	1.47	0.965	A.P.L. Gravity of Liquid Hydrocarbons _____ Deg.																																																																																																
2	0.32	523	1.46	0.964	Specific Gravity Separator Gas _____ 0.626 _____ X X X X X X X X																																																																																																
3	0.32	520	1.45	0.963	Specific Gravity Flowing Fluid _____ X X X X X																																																																																																
4	0.33	519	1.45	0.961	Critical Pressure _____ 672 _____ P.S.I.A _____ = _____ P.S.I.A																																																																																																
5					Critical Temperature _____ 358 _____ R _____ = _____ R																																																																																																
1	1529.2	P _c ²	2338.5																																																																																																		
NO.	P ₁	P _w *	P _w ²	P _c ² - P _w ²	(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 2.154$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.576$																																																																																																
1		1499.2	2247.6	90.9																																																																																																	
2		1430.2	2045.5	293.0																																																																																																	
3		1363.2	1858.3	480.2																																																																																																	
4		1119.2	1252.6	1085.9																																																																																																	
5																																																																																																					
Absolute Open Flow _____ 889 _____ Mcf/d @ 15.025					Angle of Slope @ _____ 59° 21'		Slope, n _____ 0.593																																																																																														
Remarks: * BOTTOM HOLE PRESSURE @ (-5383) 8748' USED FOR PRESSURE CALCULATIONS																																																																																																					
WELL PRODUCED NO FLUID DURING TEST																																																																																																					
Approved By Division		Conducted By		Calculated By		Checked By																																																																																															
		JARREL WELL TESTING, INC		D. Dickerson		PE #2208 Joe A. Coleman																																																																																															

COMPANY: Harvey E. Yz Company
 WELL: Dayton Com, No. 1
 LOCATION: F 16 18s 26e
 COUNTY: Eddy
 DATE: April 1, 1982



$Q = \text{MCFD}$
 $Q_1 = 360 \text{ MCFD}; \text{LOG } Q_1 = 2.55630$
 $Q_2 = 92 \text{ MCFD}; \text{LOG } Q_2 = 1.96379$

$n = 0.59251 = 0.593$