

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

Form C-122D
Revised 10-64

RECEIVED

Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 1-2-81		MAR 12 1981	
Company Yates Petroleum Corporation				Connection Transwestern Pipeline Co.				O. C. O.	
Pool Richard Knob Atoka Morrow				Formation Atoka				Unit L-4495	
Completion Date 7-9-81		Total Depth 8370 KB		Plug Back TD 8165		Elevation 3670 KB		Farm or Lease Name Pubco "NO" State	
Casing Size 4 1/2	Wt. 11.6#	d 4.000	Set At 8353	Perforations: From 7858 To 7872 KB				Well No. 1	
Tubg. Size 2 3/8	Wt. 4.7#	d 1.995"	Set At 7825	Perforations: From To				Unit Sec. Twp. Range J 36 17s 24e	
Type Well - Single - Draddenhead - G.C. or G.O. Multiple single						Packer Set At 7825		County Eddy	
Producing Thru Tubing		Reservoir Temp. °F 138 • 7865 KB		Mean Annual Temp. °F 62		Baro. Press. - P _g 13.2		State N. Mex.	
L 7856	H 7856	C _g 0.643	% CO ₂ 0.36	% N ₂ 0.70	% H ₂ S N.1	Prover --	Meter Run 2"	Taps Flange	

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.	Temp. °F	Press. p.s.i.g.		Temp. °F
SI							2097	49			Days
1.	2.067	X	0.500	370	10	50	1970	56			20 hours
2.	2.067	X	0.500	368	19	50	1796	59			24 hours
3.	2.067	X	0.500	362	32	50	1498	61			24 hours
4.	2.067	X	0.500	370	61	45	665	62			24 hours
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	1.189	61.90	383.2	1.010	1.255	1.040	97
2	1.189	85.10	381.2	1.010	1.255	1.040	133
3	1.189	109.57	375.2	1.010	1.255	1.039	172
4	1.189	152.89	383.2	1.015	1.255	1.042	240
5							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio 381.14 Mcf/24Hr
1	0.571	510	1.388	.924	A.P.I. Gravity of Liquid Hydrocarbons 56.3
2	0.568	510	1.388	.925	Specific Gravity Separator Gas 0.635
3	0.559	510	1.388	.926	Specific Gravity Flowing Fluid XXXXX
4	0.571	505	1.374	.921	Critical Pressure 671.5 P.S.I.A. 702 P.S.I.A.
5					Critical Temperature 367.5 °R 382

F _c 2661	P _c ² 7080					
NO	P _r ²	P _w	R _w ²	P _c ² - R _w ²	(1) $\frac{P_c^2}{P_r^2 - R_w^2} = 1.1057$	(2) $\left[\frac{P_c^2}{P_r^2 - R_w^2} \right]^n = 1.0519$
1			6209	871		
2			5139	1941		
3			3538	3542		
4			677	6403		
5						

ACF = Q $\left[\frac{R_w^2}{P_c^2 - R_w^2} \right]^n = 252$

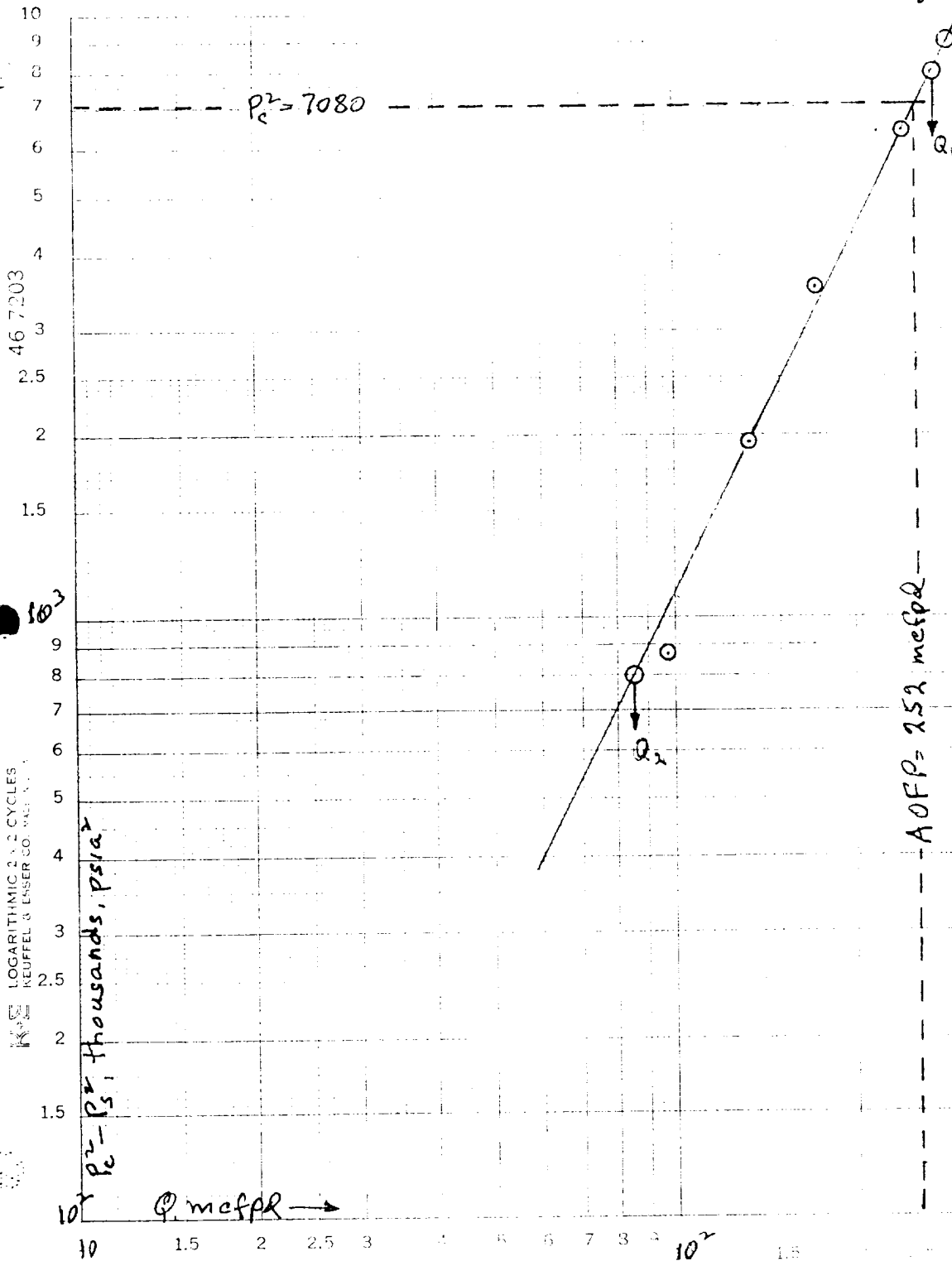
Absolute Open Flow 252 Mcfd @ 15.025	Angle of Slope @	Slope, n 0.503
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Remarks: Surface pressures by DWT. BHP calculations, C-122D attached

Approved By Commission:	Conducted By: Hal Elless	Calculated By: Eddie Mahfood	Checked By:
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YPC - Pulco NO State No. 1

J-36-17s-24E, Richard Knob - Atoka Morrow, Edge Co, N.M.



$$Q_1 = 271 \text{ mcfpd}$$

$$Q_2 = 85 \text{ mcfpd}$$

$$\log Q_1 = 2.4330$$

$$\log Q_2 = 1.9294$$

$$n = 0.5036$$

COMPANY V.R. LEASE Public NW State WELL NO. 1 DATE 1-2-51

LOCATION: Unit J Section 36 Township 10S Range 24E
 L 7056 H 7056 L/H 1.000 G 0.000 % CO₂ 0.36 % N₂ 0.70 % H₂S 0.11
 d 2.0103 F_r 0.01635 GH 1.000 Per 0.000 T_{cr} 322
 TABLE 11-A

LINE	51	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
1 Qm		0.099	0.133	0.172	0.210	0.248	0.286	0.324	0.362	0.400	0.438	0.476	0.514	0.552	0.590	0.628	0.666	0.704	0.742	0.780	0.818	0.856	0.894	0.932	0.970	1.008	1.046	1.084	1.122	1.160	1.198	1.236	1.274	1.312	1.350	1.388	1.426	1.464	1.502	1.540	1.578	1.616	1.654	1.692	1.730	1.768	1.806	1.844	1.882	1.920	1.958	1.996	2.034	2.072	2.110	2.148	2.186	2.224	2.262	2.300	2.338	2.376	2.414	2.452	2.490	2.528	2.566	2.604	2.642	2.680	2.718	2.756	2.794	2.832	2.870	2.908	2.946	2.984	3.022	3.060	3.098	3.136	3.174	3.212	3.250	3.288	3.326	3.364	3.402	3.440	3.478	3.516	3.554	3.592	3.630	3.668	3.706	3.744	3.782	3.820	3.858	3.896	3.934	3.972	4.010	4.048	4.086	4.124	4.162	4.200	4.238	4.276	4.314	4.352	4.390	4.428	4.466	4.504	4.542	4.580	4.618	4.656	4.694	4.732	4.770	4.808	4.846	4.884	4.922	4.960	4.998	5.036	5.074	5.112	5.150	5.188	5.226	5.264	5.302	5.340	5.378	5.416	5.454	5.492	5.530	5.568	5.606	5.644	5.682	5.720	5.758	5.796	5.834	5.872	5.910	5.948	5.986	6.024	6.062	6.100	6.138	6.176	6.214	6.252	6.290	6.328	6.366	6.404	6.442	6.480	6.518	6.556	6.594	6.632	6.670	6.708	6.746	6.784	6.822	6.860	6.898	6.936	6.974	7.012	7.050	7.088	7.126	7.164	7.202	7.240	7.278	7.316	7.354	7.392	7.430	7.468	7.506	7.544	7.582	7.620	7.658	7.696	7.734	7.772	7.810	7.848	7.886	7.924	7.962	8.000	8.038	8.076	8.114	8.152	8.190	8.228	8.266	8.304	8.342	8.380	8.418	8.456	8.494	8.532	8.570	8.608	8.646	8.684	8.722	8.760	8.798	8.836	8.874	8.912	8.950	8.988	9.026	9.064	9.102	9.140	9.178	9.216	9.254	9.292	9.330	9.368	9.406	9.444	9.482	9.520	9.558	9.596	9.634	9.672	9.710	9.748	9.786	9.824	9.862	9.900	9.938	9.976	10.014	10.052	10.090	10.128	10.166	10.204	10.242	10.280	10.318	10.356	10.394	10.432	10.470	10.508	10.546	10.584	10.622	10.660	10.698	10.736	10.774	10.812	10.850	10.888	10.926	10.964	11.002	11.040	11.078	11.116	11.154	11.192	11.230	11.268	11.306	11.344	11.382	11.420	11.458	11.496	11.534	11.572	11.610	11.648	11.686	11.724	11.762	11.800	11.838	11.876	11.914	11.952	11.990	12.028	12.066	12.104	12.142	12.180	12.218	12.256	12.294	12.332	12.370	12.408	12.446	12.484	12.522	12.560	12.598	12.636	12.674	12.712	12.750	12.788	12.826	12.864	12.902	12.940	12.978	13.016	13.054	13.092	13.130	13.168	13.206	13.244	13.282	13.320	13.358	13.396	13.434	13.472	13.510	13.548	13.586	13.624	13.662	13.700	13.738	13.776	13.814	13.852	13.890	13.928	13.966	14.004	14.042	14.080	14.118	14.156	14.194	14.232	14.270	14.308	14.346	14.384	14.422	14.460	14.498	14.536	14.574	14.612	14.650	14.688	14.726	14.764	14.802	14.840	14.878	14.916	14.954	14.992	15.030	15.068	15.106	15.144	15.182	15.220	15.258	15.296	15.334	15.372	15.410	15.448	15.486	15.524	15.562	15.600	15.638	15.676	15.714	15.752	15.790	15.828	15.866	15.904	15.942	15.980	16.018	16.056	16.094	16.132	16.170	16.208	16.246	16.284	16.322	16.360	16.398	16.436	16.474	16.512	16.550	16.588	16.626	16.664	16.702	16.740	16.778	16.816	16.854	16.892	16.930	16.968	17.006	17.044	17.082	17.120	17.158	17.196	17.234	17.272	17.310	17.348	17.386	17.424	17.462	17.500	17.538	17.576	17.614	17.652	17.690	17.728	17.766	17.804	17.842	17.880	17.918	17.956	17.994	18.032	18.070	18.108	18.146	18.184	18.222	18.260	18.298	18.336	18.374	18.412	18.450	18.488	18.526	18.564	18.602	18.640	18.678	18.716	18.754	18.792	18.830	18.868	18.906	18.944	18.982	19.020	19.058	19.096	19.134	19.172	19.210	19.248	19.286	19.324	19.362	19.400	19.438	19.476	19.514	19.552	19.590	19.628	19.666	19.704	19.742	19.780	19.818	19.856	19.894	19.932	19.970	20.008	20.046	20.084	20.122	20.160	20.198	20.236	20.274	20.312	20.350	20.388	20.426	20.464	20.502	20.540	20.578	20.616	20.654	20.692	20.730	20.768	20.806	20.844	20.882	20.920	20.958	20.996	21.034	21.072	21.110	21.148	21.186	21.224	21.262	21.300	21.338	21.376	21.414	21.452	21.490	21.528	21.566	21.604	21.642	21.680	21.718	21.756	21.794	21.832	21.870	21.908	21.946	21.984	22.022	22.060	22.098	22.136	22.174	22.212	22.250	22.288	22.326	22.364	22.402	22.440	22.478	22.516	22.554	22.592	22.630	22.668	22.706	22.744	22.782	22.820	22.858	22.896	22.934	22.972	23.010	23.048	23.086	23.124	23.162	23.200	23.238	23.276	23.314	23.352	23.390	23.428	23.466	23.504	23.542	23.580	23.618	23.656	23.694	23.732	23.770	23.808	23.846	23.884	23.922	23.960	24.000																																																																																																																																																																													
2 TW (H.H. 18)	509	516	519	521	522																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															