

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

57
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yale
RECEIVED
Form C-122
Revised 9-1-65

Type Test ☒ Initial ☐ Annual ☐ Special					Test Date 11-27-79		JAN - 8 1980	
Company Yates Petroleum Corp.				Connection El Paso Natural Gas Company			O. C. D.	
Pool Angell Ranch Atoka - <i>Marathon</i>				Formation Atoka			Unit ARTESIA, OFFICE	
Completion Date 10-31-79		Total Depth 11500' KB		Plug Back TD 10650' KB		Elevation 3433' KB		Farm or Lease Name Reddy Triqq "JV" Red
Csg. Size 4-1/2"	Wt. 11.6#	d 4.000	Set At 11001' KB	Perforations: From 10282 To 10585' KB		Well No. 1		
Tbg. Size 2-3/8"	Wt. 4.7#	d 1.995	Set At 10240 KB	Perforations: From To		Unit Sec. Twp. Rye. H 35 19S 27E		
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single				Packer Set At 10240' KB		County Eddy		
Producing Thru Tubing		Reservoir Temp. °F 161 @ 10434		Mean Annual Temp. °F 62		Baro. Press. - P _a 13.2		State New Mexico
L 10434	H 10434	Gg 0.634	% CO ₂ .35	% N ₂ 1.40	% H ₂ S 0	Prover	Meter Run 4"	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							2728	32			Days
1.	4.026 x 0.250			477	10	60	2366	36			1 hour
2.				477	21	60	1898	40			1 hour
3.				477	42	60	1327	44			1 hour
4.				477	79	60	650	48			1 hour
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	0.2984	70.00	490	1.000	1.256	1.047	27
2	0.2984	101.44	490	1.000	1.256	1.047	40
3	0.2984	143.46	490	1.000	1.256	1.047	56
4	0.2984	196.75	490	1.000	1.256	1.047	77
5.							

NO.	P _t	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.
1.	0.73	520	1.425	.9125	A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.
2.	0.73	520	1.425	.9125	Specific Gravity Separator Gas .634 X X X X X X X X
3.	0.73	520	1.425	.9125	Specific Gravity Flowing Fluid X X X X X
4.	0.73	520	1.425	.9125	Critical Pressure 670 P.S.I.A. P.S.I.A.
5.					Critical Temperature 365 R R

NO.	P _t ²	P _w	P _w ²	P _c ² - P _w ²
1			17042	3255
2			13377	6920
3			9852	10445
4			7302	12995
5				

P_c 4492 P_c² 20297

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.5619$

(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.5619$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 120$

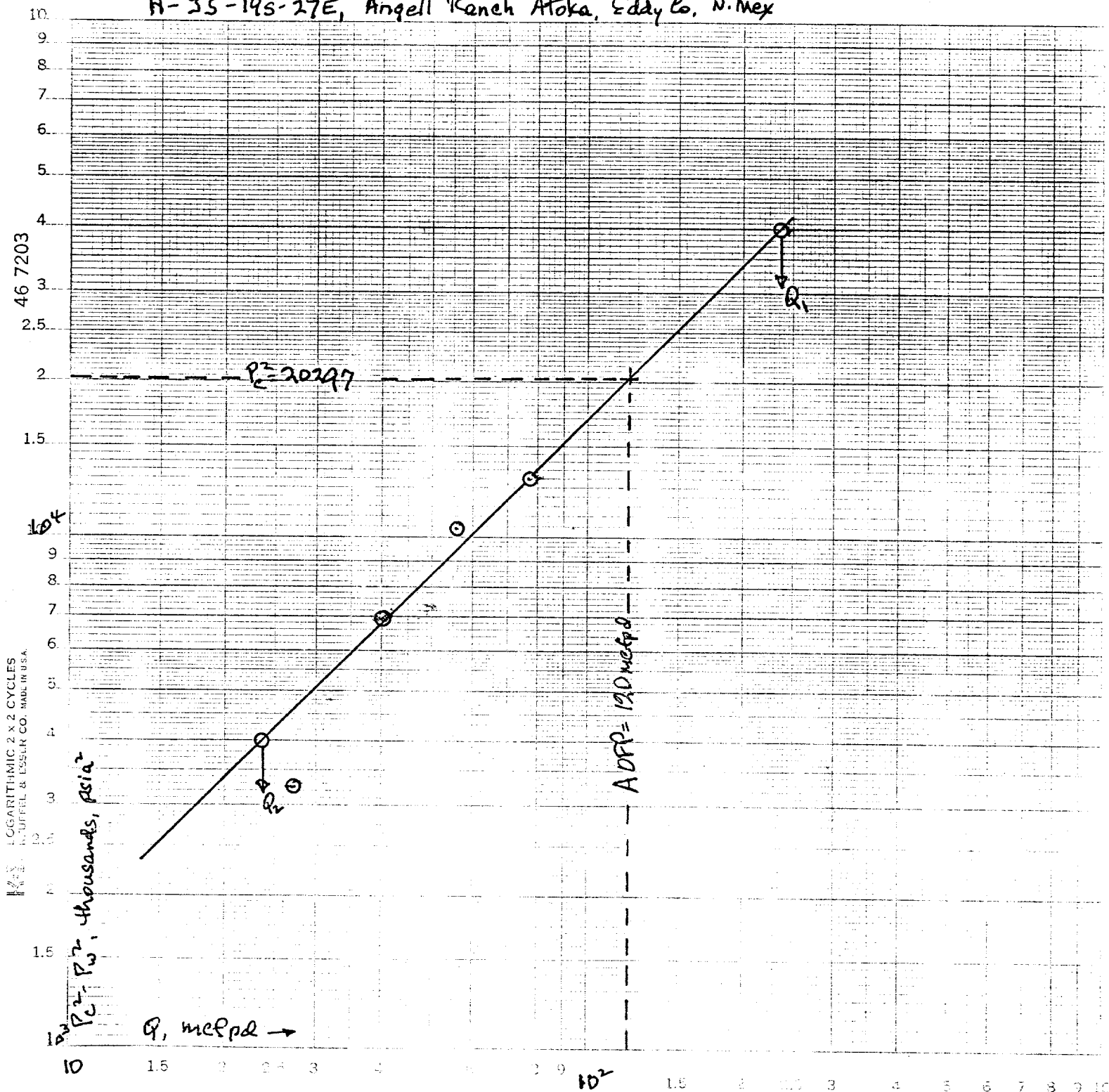
Absolute Open Flow 120 Mcfd @ 15.025		Angle of Slope @ 45 degrees	Slope, n 1.000
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Remarks: Static pressures by Bennett Wireline; Flowing pressures by DWT.
Calculations worksheet C-122D attached. NOTE: Well still has some load water in wellbore.

Approved By Commission:	Conducted By: Don Weaver	Calculated By: Eddie Mahfood	Checked By:
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YPC- Reddy Trigg JV Federal No.1

H-35-195-27E, Angell Ranch Atoka, Eddy Co. N.Mex



$$Q_1 = 235 \text{ mcfpd} \quad \log Q_1 = 2.3711$$

$$Q_2 = 235 \text{ mcfpd} \quad \log Q_2 = 1.3711$$

$$n = 1.0000$$

NEW MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102
Supersedes C-128
Effective 1-1-65

All distances must be from the outer boundaries of the Section.

Operator Yates Petroleum Corporation			Lease Reddy-Trigg Federal		Well No. 1
Unit Letter H	Section 35	Township 19S	Range 27E	County Eddy	
Actual Footage Location of Well: 1980 feet from the North line and 660 feet from the East line					
Ground Level Elev. 3420.0	Producing Formation Atoka		Pool Wildcat		Dedicated Acreage: 320 Acres

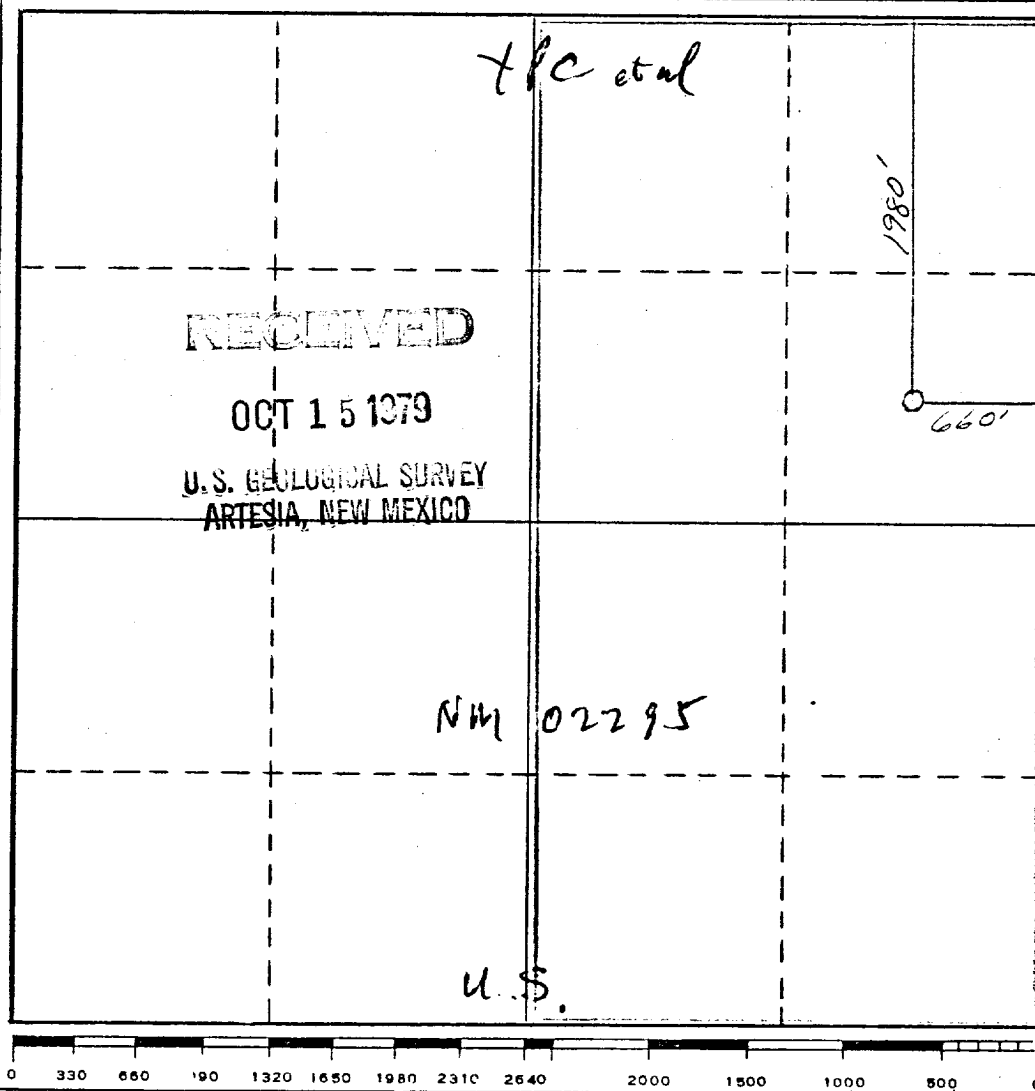
1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling, etc?

☐ Yes ☐ No If answer is "yes," type of consolidation _____

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) _____

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.

RECEIVED
OCT 17 1979
O. C. C.
ARTESIA, OFFICE



CERTIFICATION	
I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.	
Name	Eddie M. Mahfood
Position	Engineer
Company	Yates Petroleum Corporation
Date	October 15, 1979
I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.	
Date Surveyed	Refer to orig plat
Registered Professional Engineer and/or Land Surveyor	
Certificate No.	

WORKSHEET FOR CALCULATION OF S.I. C COLUMN WELLHEAD PRESSURE (P_w)

C-1220
Adopted 9-1-65

COMPANY YPC LEASE Reddy Trigg JV E&L WELL NO. 1 DATE 11-27-79

LOCATION: Unit H Section 25 Township 19S Range 27E

10434 H 10434 LN 1.000 G 0.634 % CO₂ 0.35 % N₂ 1.40 % H₂S 11.1
 $\frac{2348}{10434} = 0.225$ $\frac{194}{10434} = 0.0186$ $\frac{31048}{10434} = 2.975$ $\frac{194}{10434} = 0.0186$ $\frac{43859}{10434} = 4.198$
 * Includes 4.7 mole % H₂O

P_{cr} 783.5 * T_{cr} 401 *
 TABLE IX & X

LINE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
1 Q _m	-	0.027	0.040	0.056	0.077	-	0.027	0.040	0.056	0.077	-	0.027	0.040	0.056	0.077	-	0.027	0.040	0.056	0.077	-	0.027	0.040	0.056
2 T _w (W.H. °R)	492	496	500	504	508																			
3 s (B.H. °R)	621	621	621	620	620																			
4 T = ($\frac{1}{2}T_w + 1$ s)	556.5	558.5	560.5	562	564		558.5	560.5	562	564		558.5	560.5	562	564		558.5	560.5	562	564		558.5	560.5	562
5 Z (Est.)	0.735	0.712	0.701	0.708	0.706		0.716	0.7035	0.713	0.758		0.716	0.7035	0.713	0.758		0.716	0.7035	0.713	0.758		0.716	0.7035	0.713
6 T _Z	409.03	397.65	392.91	397.90	432.02		399.89	394.31	400.71	427.51		399.89	394.31	400.71	427.51		399.89	394.31	400.71	427.51		399.89	394.31	400.71
7 GH/TZ	16.1725	16.635	16.836	16.625	15.312		16.542	16.776	16.508	15.473		16.542	16.776	16.508	15.473		16.542	16.776	16.508	15.473		16.542	16.776	16.508
8 e ^s (Table XIV)	1.8340	1.8660	1.88015	1.8653	1.7757		1.8595	1.8759	1.8572	1.7865		1.8595	1.8759	1.8572	1.7865		1.8595	1.8759	1.8572	1.7865		1.8595	1.8759	1.8572
9 1-e ^s (Table XIV)		0.4644	0.4681	0.4639	0.4368		0.11422	0.4669	0.4615	0.4402		0.11422	0.4669	0.4615	0.4402		0.11422	0.4669	0.4615	0.4402		0.11422	0.4669	0.4615
10 P ₁	2741.2	2379.2	1911.2	1340.2	663.2		2379.2	1911.2	1340.2	663.2		2379.2	1911.2	1340.2	663.2		2379.2	1911.2	1340.2	663.2		2379.2	1911.2	1340.2
11 P ₁ 2/1000	7574.2	5660.59	3652.69	1796.14	439.83		5660.59	3652.69	1796.14	439.83		5660.59	3652.69	1796.14	439.83		5660.59	3652.69	1796.14	439.83		5660.59	3652.69	1796.14
12 F ₁ (Table XV)	1.60647	1.62382	1.63135	1.62344	1.57419		1.62033	1.62910	1.61906	1.58025		1.62033	1.62910	1.61906	1.58025		1.62033	1.62910	1.61906	1.58025		1.62033	1.62910	1.61906
13 = F ₁ TZ		6.11779	6.11042	6.1818	6.7119		6.72127	6.126	6.225	6.6418		6.72127	6.126	6.225	6.6418		6.72127	6.126	6.225	6.6418		6.72127	6.126	6.225
14 F ₁ Q _m		1.668	1.244	1.346	1.5235		0.1677	0.245	0.349	1.5114		0.1677	0.245	0.349	1.5114		0.1677	0.245	0.349	1.5114		0.1677	0.245	0.349
15 L/H (F ₁ Q _m) ²		1.0278	1.060	1.120	1.274		1.0281	0.060	0.1215	1.262		1.0281	0.060	0.1215	1.262		1.0281	0.060	0.1215	1.262		1.0281	0.060	0.1215
16 F _w = L/H (F ₁ Q _m) ² (1-e ^s)		0.01	0.03	0.06	0.12		0.01	0.03	0.06	0.12		0.01	0.03	0.06	0.12		0.01	0.03	0.06	0.12		0.01	0.03	0.06
17 P _w ² = (P ₁ ² + F _w)e ^s	13781.0	10562.7	6867.7	3350.5	781.2		10525.9	6861.5	3335.9	7286.0		10525.9	6861.5	3335.9	7286.0		10525.9	6861.5	3335.9	7286.0		10525.9	6861.5	3335.9
18 P _s ² = e ^s P _w ² + H ₂ O	13781.0	10562.7	6867.7	3350.5	781.2		10525.9	6861.5	3335.9	7286.0		10525.9	6861.5	3335.9	7286.0		10525.9	6861.5	3335.9	7286.0		10525.9	6861.5	3335.9
19 P _s	117.8	102.8	83.3	58.3	28.0		102.8	83.3	58.3	28.0		102.8	83.3	58.3	28.0		102.8	83.3	58.3	28.0		102.8	83.3	58.3
20 P = ($\frac{1}{2}P_s + P_s$)	3623.2	3255.9	2784.7	2240.6	1682.2		3253.7	2784.3	2239.5	1682.7		3253.7	2784.3	2239.5	1682.7		3253.7	2784.3	2239.5	1682.7		3253.7	2784.3	2239.5
21 P ₁ = (P/P _{cr})	4.624	4.156	3.554	2.860	2.147		4.153	3.553	2.858	2.147		4.153	3.553	2.858	2.147		4.153	3.553	2.858	2.147		4.153	3.553	2.858
22 T ₁ = (T/T _{cr})	1.388	1.393	1.398	1.401	1.4065		1.393	1.398	1.401	1.4065		1.393	1.398	1.401	1.4065		1.393	1.398	1.401	1.4065		1.393	1.398	1.401
23 Z (Table XI)	0.735	0.716	0.7035	0.713	0.758		0.716	0.7035	0.713	0.758		0.716	0.7035	0.713	0.758		0.716	0.7035	0.713	0.758		0.716	0.7035	0.713