

EW MEXICO OIL CONSERVATION COMMISS
MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122 *clsr file.*

Type Test: ☒ Initial ☐ Annual ☐ Special					Test Date: 06/19/92				
Company: Yates Petroleum Corp				Connection: Yates Petroleum Corp					
Pool: Strawn				Formation: Burton Flat East				Unit:	
Completion Date: 06/21/92		Total Depth: 12135		Plug Back TD: 12040		Elevation: 3269		Farm or Lease Name: Trigg AIN Federal	
Csg Size: 5.500	Wt: 17.000	d: 4.892	Set At: 12135	Perforations: From 10582 To 10611		Well No: 1			
Tbg Size: 2.875	Wt: 6.500	d: 2.441	Set At: 10501	Perforations: From 10582 To 10611		Unit: H Sec: 28 Twp: 20S Rge: 29E			
Type Well: Single					Packer Set At: 10509		County: Eddy		
Producing Thru: Tubing		Resv Temp °F: 168 @ 11085		Mean Temp °F: 62		Baro Press - Pa: 13.2		State: New Mexico	
L: 10501	H: 10501	Gg: 0.693	%CO ₂ : 0.248	%N ₂ : 0.928	%H ₂ S: 0.000	Prover: 0.000	Meter Run: 4.000	Taps: Flange	

FLOW DATA						TUBING DATA		CASING 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	0.000	x	0.000	0	0.0	0	670	0			0
1	4.026	x	1.250	101	10.1	97	590	62			24
2	4.026	x	1.250	91	40.0	103	427	62			24
3	4.026	x	1.250	100	76.0	102	263	62			24
4	4.026	x	1.250	100	95.0	101	100	62			24
5		x									

RATE OF FLOW CALCULATIONS							
NO	Coefficient (24 Hour)	$\sqrt{hwPm}$	Pressure Pm	Flow Temp. Factor Ft	Gravity Factor Fg	Super Compress. Factor, Fpv	Rate of Flow Q, Mcfd
1	7.469	34.0	114.4	0.9662	1.201	1.010	298
2	7.469	64.5	104.0	0.9610	1.201	1.009	561
3	7.469	92.8	113.2	0.9619	1.201	1.009	808
4	7.469	103.7	113.2	0.9627	1.201	1.010	904
5							

NO	Pr	Temp °R	Tr	Z	Gas Liquid Hydrocarbon Ratio	0	Mcf/bbl
					A.P.I. Gravity of Liquid Hydrocarbons	0.000	Deg
1	0.17	557	1.45	0.980	Specific Gravity Separator Gas	0.693	xxxxxxxxxx
2	0.16	563	1.47	0.983	Specific Gravity Flowing Fluid	xxxxxxxxxx	0.693
3	0.17	562	1.46	0.981	Critical Pressure	668	P.S.I.A. 668 P.S.I.A.
4	0.17	561	1.46	0.981	Critical Temperature	384	°R 384 °R
5							

Pc	683.2	Pc'	466.8
NO	Pt'	Pw	Pw'
1	363.9	604.1	364.9
2	193.8	444.6	197.7
3	76.3	291.1	84.7
4	12.8	154.1	23.7
5			

$(1) \frac{Pc'}{Pc' - Pw'} = 1.222$		$(2) \left[\frac{Pc'}{Pc' - Pw'} \right]^n = 1.163$	
$AOF = Q \left[\frac{Pc'}{Pc' - Pw'} \right]^n = 940$			

Absolute Open Flow: 940	Mcf/d @ 15.02%	Angle of Slope: 0 37	Slope, n: 0.755
Remarks:			
Approved By Commission:		Conducted By: Ed Perry	Calculated By: Andrea Carpenter
		Checked By:	

WORKSHEET FOR CALCULATION OF STATIC COLUMN WELLHEAD PRESSURE (Pw) C-122D

DATE 06/19/92

COMPANY Yates Petroleum Corp LEASE Trigg AIN Federal WELL NO. 1

LOCATION: Unit H Section 28 Township 20S Range 29E

L 10501 H 10501 L / H 1.000 G 0.693 %CO₂ 0.248 %N₂ 0.928 %H₂S 0.000

d 2.441 Fr 0.010495 GH 7277.2 Pcr 668.3 Tcr 383.7

LINE	1st Rate	2nd Rate	3rd Rate	4th Rate	5th Rate
1 Qm	0.298	0.561	0.808	0.904	
2 Tw(W.H.°R)	522	522	522	522	
3 Ts(B.H.°R)	628	628	628	628	
4 T = (Tw+Ts) / 2	574.7	574.7	574.7	574.7	
5 Z (Est.)	0.898	0.924	0.951	0.976	
6 TZ	515.8	531.0	546.4	561.1	
7 GH / TZ	14.108	13.704	13.319	12.970	
8 e ^{As} (Table XIV)	1.697	1.672	1.648	1.626	
9 1-e ^{As} (Table XIV)	0.411	0.402	0.393	0.385	
10 Pt	603.2	440.2	276.2	113.2	
11 Pt ² / 1000	363.9	193.8	76.3	12.8	
12 Fr (Table XV)	0.010495	0.010495	0.010495	0.010495	
13 Fc = FrTZ	5.413	5.573	5.734	5.888	
14 FcQm	1.61	3.13	4.63	5.32	
15 L / H(FcQm) ²	2.6	9.8	21.5	28.4	
16 Fw = L / H(FcQm) ² (1-e ^{As})	1.07	3.93	8.44	10.92	
17 Pw ² = Pt ² +Fw	364.9	197.7	84.7	23.7	
18 Ps ² = e ^{As} Pw ²	619.4	330.5	139.6	38.6	
19 Ps	787.0	574.9	373.6	196.5	
20 P = (Pt+Ps) / 2	695.1	507.6	324.9	154.8	
21 Pr = (P / Pcr)	1.04	0.76	0.49	0.23	
22 Tr = (T / Tcr)	1.50	1.50	1.50	1.50	
23 Z (Table XI)	0.898	0.924	0.951	0.976	

Company Yates Petroleum Corp
Well Trigg AIN Federal #1
Location H 28-20S-29E

County Eddy
Date 06-19-92

