dist. File

NEW MEXICO OIL CONSERVATION COMMISSION — Form C-122

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

RECEIVED

OCT 29 1991

O. C. D.
ARTESIA OFFICE

Type Test [x] Initial [ ] Annual [ ] Special						Test Date 8/26/89		
Company Yates Petroleum Corporation				Connection Transwestern Pipeline Company				
Pool Morrow				Formation Cemetary			Unit	
Completion Date 8/11/89		Total Depth 9530.0'		Plug Back TD 9465.0'		Elevation 3647.0'	Farm or Lease Name Conoco AGK Federal	
Csg Size 7.000"	Wt. 26.000#	d 6.276"	Set At 9530.0'	Perforations: From 9180.0' To 9195.0'			Well No. 1	
Tbg Size 2.875"	Wt. 6.500#	d 2.441"	Set At 9151.0'	Perforations: From 0.0' To 0.0'			Unit Sec C 11	Twp 20S Rge 24E
Type Well Single				Packer Set At 9151.0'			County Eddy	
Producing Thru Tubing		Resv. Temp. °F 139 @ 7762'		Mean Temp. °F 62.0		Baro. Press. - Pa 13.2 psia.	State New Mexico	

L	H	Gg	%CO2	%N2	%H2S	Prover	Meter Run	Taps
9151.0'	9151.0'	.591	.76	.27	0.00	0.000"	2.000"	Flange

	FLOW DATA				TUBING DATA		CASING DATA		
NO	Prover Size	Orifice X Size	Press. psig	Diff. hw	Temp. °F	Press. psig	Temp. °F	Press. psig	Temp. °F	Duration of Flow
SI	0.000	X 0.000	0	0.0	93	3000	0	0	0	0 hrs.
1.	3.068	X 2.250	250	35.6	87	2953	62	0	0	24 hrs.
2.	3.068	X 2.250	265	46.9	91	2933	62	0	0	24 hrs.
3.	3.068	X 2.250	280	69.7	93	2911	62	0	0	24 hrs.
4.	3.068	X 2.250	295	76.0	90	2900	62	0	0	24 hrs.
5.	0.000	X 0.000	0	0.0	0	0	0	0	0	0 hrs.

RATE OF FLOW CALCULATIONS

NO	Coefficient (24 HOUR)	$\sqrt{hw}Pm$	Pressure Pm	Flow Temp Factor Ft.	Gravity Factor Fg	Super Compress. Fact. Fpv	Rate of Flow Q, Mcfd
1.	28.748	96.80	263.20	.975	1.301	1.017	3588
2.	28.748	114.23	278.20	.971	1.301	1.017	4221
3.	28.748	142.95	293.20	.970	1.301	1.018	5277
4.	28.748	153.05	308.20	.972	1.301	1.019	5673
5.	0.000	0.00	0.00	0.000	0.000	0.000	0

NO	Pr	Temp. °R	Tr	Z
1.	.39	547	1.56	.968
2.	.41	551	1.57	.966
3.	.43	553	1.58	.965
4.	.46	550	1.57	.962
5.	0.00	0	0.00	0.000

Gas Liquid Hydrocarbon Ratio	Dry Mcf/bbl.	
A.P.I. Gravity of Liquid Hydrocarbons	0.000 Deg.	
Specific Gravity Separator Gas	.591	xxxxxxxxxxxx
Specific Gravity Flowing Fluid	xxxxx	.591
Critical Pressure	675.2 PSIA	675.2 PSIA
Critical Temperature	351.0°R	351.0°R

Pc 3013.2 Pc^2 9079.4

NO	Pt^2	Pw	Pw^2	Pc^2-Pw^2
1.	8798.3	2984.8	8909.3	170.1
2.	8680.1	2972.1	8833.4	245.9
3.	8550.9	2964.9	8790.3	289.0
4.	8486.7	2960.3	8763.2	316.2
5.	0.0	0.0	0.0	0.0

(1) $\frac{Pc^2}{Pc^2-Pw^2}$ = 28.6025 (2) $\left[\frac{Pc^2}{Pc^2-Pw^2}\right]^n$ = 11.7649

$AOF = Q\left[\frac{Pc^2}{Pc^2-Pw^2}\right]^n$ = 66739 Mcfd

Absolute Open Flow	66739 Mcfd @ 15.025	Angle of Slope, θ 36	Slope, n .735

Remarks:

Approved By:	Conducted By: Ed Perry	Calculated By: Andrea Carpenter	Checked By:

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

Adopted 9-1-65

DATE 10/28/91

COMPANY Yates Petroleum Corporation LEASE Conoco AGK Federal WELL NO. 1

LOCATION: Unit C Section 11 Township 20S Range 24E

L 9151.0 H 9151.0 L/H 1.000 G .591 %CO2 .76 %N2 .27 %H2S 0.00

d 2.441 Fr .010495 GH 5408.2 Pcr 675.2 Tcr 351.0

LINE	1st Rate	2nd Rate	3rd Rate	4th Rate	5th Rate
1 Qm	3.588	4.221	5.277	5.673	0.000
2 Tw(W.H.°R)	522.0	522.0	522.0	522.0	0.0
3 Ts(B.H.°R)	599.0	599.0	599.0	599.0	0.0
4 T=(Tw+Ts)/2	560.5	560.5	560.5	560.5	0.0
5 Z(Est.)	.846	.845	.844	.844	0.000
6 TZ	474.1	473.6	473.2	472.9	0.0
7 GH/TZ	11.408	11.420	11.430	11.435	0.000
8 e^s(Table XIV)	1.534	1.535	1.535	1.535	0.000
9 $1-e^{-s}$(Table XIV)	.348	.348	.349	.349	0.000
10 Pt	2966.2	2946.2	2924.2	2913.2	0.0
11 $Pt^2/1000$	8798.3	8680.1	8550.9	8486.7	0.0
12 Fr(Table XV)	.010495	.010495	.010495	.010495	0.000000
13 Fc=FrTZ	4.976	4.970	4.966	4.964	0.000
14 FcQm	17.852	20.980	26.207	28.158	0.000
15 $L/H(FcQm)^2$	318.693	440.173	686.794	792.878	0.000
16 $Fw=L/H(FcQm)^2(1-e^{-s})$	110.919	153.325	239.399	276.481	0.000
17 $Pw^2=Pt^2+Fw$	8909.3	8833.4	8790.3	8763.2	0.0
18 $Ps^2=e^sPw^2$	13665.4	13555.1	13494.0	13455.0	0.0
19 Ps	3696.7	3681.7	3673.4	3668.1	0.0
20 P=(Pt+Ps)/2	3331.4	3314.0	3298.8	3290.7	0.0
21 Pr=(P/Pcr)	4.93	4.91	4.89	4.87	0.00
22 Tr=(T/Tcr)	1.60	1.60	1.60	1.60	0.00
23 Z(Table XI)	.846	.845	.844	.844	0.000