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O. C. D.
ARTESIA, OFFICE
Form C-122NEW MEXICO OIL CONSERVATION COMMISSION
MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test [x] Initial [] Annual [] Special					Test Date 6/14/90	
Company Yates Petroleum Corporation			Connection Transwestern Pipeline Company			
Pool Abo			Formation Pecos Slope 4/1/94 pool			
Completion Date 2/25/85		Total Depth 4150.0'		Plug Back TD 4089.5'		
Elevation 3554.7'		Farm or Lease Name Harvest ABR State		Unit 82730		
Csg Size 4.500"	Wt. 9.500#	d 4.090"	Set At 4150.0'	Perforations: From 3450.0' To 3571.0'		
Tbg Size 2.375"	Wt. 4.700#	d 1.995"	Set At 3598.0'	Perforations: From 0.0' To 0.0'		
Type Well Single				Packer Set At 4498.0'		
Producing Thru Tubing		Resv. Temp. °F 99 @ 3510'		Baro. Press. - Pa 13.2 psia.		
L 3598.0'		H 3598.0'		Gg .654		
XCO2 0.00		XN2 9.29		XH2S 0.00		
Prover 0.000"		Meter Run 2.000"		Taps Flange		

FLOW DATA						TUBING DATA		CASING DATA		Duration of Flow
NO	Prover Size	Orifice X Size	Press. psig	Diff. hw	Temp. °F	Press. psig	Temp. °F	Press. psig	Temp. °F	
SI	0.000	X 0.000	0	0.0	92	1035	0	0	0	0 hrs.
1.	2.067	X .625	150	51.6	92	868	62	0	0	24 hrs.
2.	2.067	X .625	150	72.9	93	836	62	0	0	24 hrs.
3.	2.067	X .625	155	83.0	92	787	62	0	0	24 hrs.
4.	2.067	X .625	155	94.0	91	765	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)	Pressure Pm	Flow Temp Factor Ft.	Gravity Factor Fg	Super Compress. Fact. Fpv	Rate of Flow Q, Mcfd
1.	1.866	91.77	163.20	.971	1.237	1.010
2.	1.866	109.07	163.20	.970	1.237	1.010
3.	1.866	118.15	168.20	.971	1.237	1.011
4.	1.866	125.74	168.20	.971	1.237	1.011
5.	0.000	0.00	0.00	0.000	0.000	0.000

NO	Pr	Temp. °R	Tr	Z	Gas Liquid Hydrocarbon Ratio Dry	Rate of Flow Q, Mcfd
1.	.25	552	1.59	.980	A.P.I. Gravity of Liquid Hydrocarbons 0.000 Deg.	208
2.	.25	553	1.59	.980	Specific Gravity Separator Gas .654	247
3.	.26	552	1.59	.979	Specific Gravity Flowing Fluid .654	267
4.	.26	551	1.58	.979	Critical Pressure 654.6 PSIA	285
5.	0.00	0	0.00	0.000	Critical Temperature 347.8°R	0

Pc 1048.2	Pc ² 1098.7					
NO	Pt ²	Pw	Pw ²	Pc ² -Pw ² (1)	Pc ²	Pc ² -Pw ² (2)
1.	776.5	881.5	777.0	321.7	2.2195	1.7980
2.	721.1	849.6	721.9	376.8		
3.	640.3	800.8	641.2	457.5		
4.	605.6	778.8	606.6	492.1		
5.	0.0	0.0	0.0	0.0		

$$ROF = Q \left[\frac{Pc^2}{Pc^2 - Pw^2} \right]^n = 512 \text{ Mcfd}$$

Absolute Open Flow 512 Mcfd @ 15.025 Angle of Slope, 0 36 Slope, n .736
Remarks:

Approved By:	Conducted By: David Weaver	Calculated By: Andrea Carpenter	Checked By:
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WORKSHEET FOR CALCULATION OF STATIC COLUMN WELLHEAD PRESSURE (Pw) C-1221

Adopted 9-1-65

DATE 5/13/91

COMPANY Yates Petroleum Corporation LEASE Harvest ABR State WELL NO. 1

LOCATION: Unit A Section 36 Township 9S Range 24E

L 3598.0 H 3598.0 L/H 1.000 G .654 %CO₂ 0.00 %N₂ 9.29 %H₂S 0.00

d 1.995 Fr .017777 GH 2353.1 Pcr 654.6 Tcr 347.8

LINE	1st Rate	2nd Rate	3rd Rate	4th Rate	5th Rate
1 Qm	.208	.247	.267	.285	0.000
2 Tw(W.H.°R)	522.0	522.0	522.0	522.0	0.0
3 Ts(B.H.°R)	559.0	559.0	559.0	559.0	0.0
4 T=(Tw+Ts)/2	540.5	540.5	540.5	540.5	0.0
5 Z(Est.)	.883	.887	.893	.896	0.000
6 TZ	477.5	479.5	482.7	484.2	0.0
7 GH/TZ	4.928	4.907	4.875	4.860	0.000
8 es(Table XIV)	1.203	1.202	1.201	1.200	0.000
9 1-e-s(Table XIV)	.169	.168	.167	.167	0.000
10 Pt	881.2	849.2	800.2	778.2	0.0
11 Pt ² /1000	776.5	721.1	640.3	605.6	0.0
12 Fr(Table XV)	.017777	.017777	.017777	.017777	0.000000
13 Fc=FrTZ	8.488	8.524	8.581	8.611	0.000
14 FcQm	1.762	2.102	2.295	2.453	0.000
15 L/H(FcQm) ²	3.106	4.418	5.267	6.019	0.000
16 Fw=L/H(FcQm) ² (1-e-s)	.524	.743	.880	1.002	0.000
17 Pw ² =Pt ² +Fw	777.0	721.9	641.2	606.6	0.0
18 Ps ² =eSPw ²	934.8	867.7	769.8	727.8	0.0
19 Ps	966.8	931.5	877.4	853.1	0.0
20 P=(Pt+Ps)/2	924.0	890.4	838.8	815.7	0.0
21 Pr=(P/Pcr)	1.41	1.36	1.28	1.25	0.00
22 Tr=(T/Tcr)	1.55	1.55	1.55	1.55	0.00
23 Z(Table XI)	.883	.887	.893	.896	0.000

Company	Yates Petroleum Corporation
Well	Harvest ABR State No. 1
Location	A, 36-9S-24E
County	Chaves
Date	5/13/91

