

JSP

Type Test ☒ Initial ☐ Annual ☐ Special		Test Date 2/13/2000	
Company YATES PETROLEUM CORPORATION		Connection AGAVE ENERGY	
Pool WILDCAT		Formation CISCO	
Completion Date 1/28/2000		Total Depth 8284	Plug Back TD 6099
Elevation 4460		Farm or Lease Name DEER CANYON SOUTH ACK FED CC	
Csg. Size 4.500	Wt. 11.600	d 4.000	Set At 8014
Perforations: From 5977 To 5987		Well No. 1	
Tbg. Size 2.375	Wt. 4.600	d 2.041	Set At 5921
Perforations: From 5977 To 5987		Unit Sec. Twp. Rge. E 35 20S 21E	
Type Well Single		Packer Set At 5921	
Producing Thru Tubing		Resv. Temp. °F 118 @ 5977	Mean Temp. °F 62
Baro. Press. - Pa 13.2		State NEW MEXICO	
L 8014	H 8014	Gg 0.642	%CO ₂ 0.322
%N ₂ 1.105	%H ₂ S 0.000	Prover 0.000	Meter Run 2.000
Taps Flange			
FLOW DATA			
NO.	Prover Line Size	Orifice Size	Press. p.s.i.g.
Sl.	0.000 x	0.000	0
1.	2.067 x	0.750	425
2.	2.067 x	0.750	425
3.	2.067 x	0.750	425
4.	2.067 x	0.750	425
5.	x		
TUBING DATA			
NO.	Press. p.s.i.g.	Temp. °F	Duration of Flow
Sl.	1100	0	0
1.	500	60	24
2.	475	60	24
3.	450	60	24
4.	425	60	24
5.			
CASING DATA			
NO.	Press. p.s.i.g.	Temp. °F	Duration of Flow
Sl.			
1.			
2.			
3.			
4.			
5.			
RATE OF FLOW CALCULATIONS			
NO.	Coefficient (24 Hour)	$\sqrt{hwPm}$	Pressure Pm
1.	2.709	93.6	438.2
2.	2.709	95.9	438.2
3.	2.709	98.2	438.2
4.	2.709	98.2	438.2
5.			
NO.	Pr	Temp °R	Tr
1.	0.65	520	1.42
2.	0.65	520	1.42
3.	0.65	520	1.42
4.	0.65	520	1.42
5.			
Gas Liquid Hydrocarbon Ratio		0	
A.P.I. Gravity of Liquid Hydrocarbons		0.000	
Specific Gravity Separator Gas		0.642	
Specific Gravity Flowing Fluid		XXXXXXXXXX	
Critical Pressure		670 P.S.I.A.	670 P.S.I.A.
Critical Temperature		366 °R	366 °R
Pc	1113.2	Pc'	1239.2
NO.	Pt'	Pw	Pw'
1.	263.4	515.6	265.8
2.	238.3	490.8	240.9
3.	214.6	466.1	217.3
4.	192.0	441.3	194.8
5.			
(1) $\frac{Pc^2}{Pc^2 - Pw^2} = 1.241$		(2) $\left[\frac{Pc^2}{Pc^2 - Pw^2} \right]^n = 1.236$	
AOF = Q		$\left[\frac{Pc^2}{Pc^2 - Pw^2} \right]^n = 418$	
Absolute Open Flow		Mcf @ 15.025	
Angle of Slope θ		44	
Slope, n		0.979	
Remarks:			
Approved By		Conducted By:	
TRACY RICHARDSON		MYKOL RENO	
Checked By:		PINSON MCWHORTER	

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

DATE 2/13/2000

COMPANY YATES PETROLEUM CORPORATION LEASE DEER CANYON SOUTH ACK.FED.COM

LOCATION: Unit E Section 35 Township 20S Range 21E

L 8014 H 8014 L/H 1.000 G 0.642 %CO₂ 0.322 %N₂ 1.105 %H₂S 0.000

d 2.041 Fr 0.016749 GH 5145.0 Pcr 670.1 Tcr 366.2

LINE	1st Rate	2nd Rate	3rd Rate	4th Rate	5th Rate
1 Qm	0.330	0.338	0.346	0.346	
2 Tw(W.H.°R)	520	520	520	520	
3 Ts(B.H.°R)	578	578	578	578	
4 T = (Tw+Ts) / 2	548.7	548.7	548.7	548.7	
5 Z (Est.)	0.916	0.919	0.923	0.927	
6 TZ	502.3	504.5	506.7	508.9	
7 GH / TZ	10.242	10.198	10.155	10.111	
8 e ^s (Table XIV)	1.468	1.466	1.463	1.461	
9 1-e ^s (Table XIV)	0.319	0.318	0.317	0.316	
10 Pt	513.2	488.2	463.2	438.2	
11 Pt ² / 1000	263.4	238.3	214.6	192.0	
12 Fr (Table XV)	0.016749	0.016749	0.016749	0.016749	
13 Fc = FrTZ	8.414	8.450	8.486	8.523	
14 FcQm	2.78	2.86	2.94	2.95	
15 L / H(FcQm) ²	7.7	8.2	8.6	8.7	
16 Fw = L / H(FcQm) ² (1-e ^s)	2.46	2.59	2.73	2.74	
17 Pw ² = Pt ² +Fw	265.8	240.9	217.3	194.8	
18 Ps ² = e ^s Pw ²	390.3	353.2	318.0	284.6	
19 Ps	624.7	594.3	563.9	533.4	
20 P = (Pt+Ps) / 2	569.0	541.2	513.6	485.8	
21 Pr = (P / Pcr)	0.85	0.81	0.77	0.73	
22 Tr = (T / Tcr)	1.50	1.50	1.50	1.50	
23 Z (Table XI)	0.916	0.919	0.923	0.927	

Company
Well
Location
10^4

YATES PETROLEUM CORPORATION
DEER CANYON SOUTH ACK FED COM #
E 35-20S-21E

County
Date

EDDY
2-13-2000

Q, Mcfd

10^3

10^2

10^2

10^3

AOF = 418

10^4

Pc-Rw

