

OIL CONSERVATION DIVISION

P. O. BOX 2088

Form C-172
Revised 10-1-78

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

SANTA FE, NEW MEXICO 87501

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test ☒ Initial ☐ Annual ☐ Special		Test Date 1-19-82	
Company Pioneer Production Corp.		Connection	
Pool Undesignated Chacra		Formation Chacra	
Completion Date 1-1-82	Total Depth 6315'	Plug Back TD 6238'	Elevation 5465'
Form or Lease Name Shepherd & Kelsey #		Well No. 1E	
Ceq. Size 4 1/2"	Wt. 11.6#	d 4.000	Set At 6317'
Perforations: From 2502 To 2620		Well No. 1E	
Trq. Size 1 1/4"	Wt. 2.3#	d 1.380	Set At 2437'
Perforations: From open ended To		Unit Sec. Twp. R1/4 D 29 29N 11W	
Type Well - Single - Brdenhead - G.G. or G.O. Multiple Dual - Gas/Gas		Packer Set At 2875' RKB	
Producing Thru tbq.		Baro. Press. - P _a	
Reservoir Temp. °F		Mean Annual Temp. °F	
County San Juan		State NM	
L	H	G _g	% CO ₂ % N ₂ % H ₂ S
Prover		Meter Run Taps	

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	
1	SEE REVERSE FOR DETAILS OF 8 HOUR BACK PRESSURE TEST ON THE CHACRA FORMATION.								
2									
3									
4									
5									

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor Ft.	Gravity Factor Fg	Super. Compress. Factor, F _{sp}	Rate of Flow Q, Mcfd
1							
2							
3							
4							
5							

NO.	P _t	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	A.P.I. Gravity of Liquid Hydrocarbons	Specific Gravity Separator Gas	Specific Gravity Flowing Fluid	Critical Pressure P.S.I.A.	Critical Temperature
1										
2										
3										
4										
5										

NO.	P _t	P _w	P _c	P _c ² - P _w ²	(1) $\frac{P_c^2}{P_t^2 - P_w^2}$	(2) $\left[\frac{P_c^2}{P_t^2 - P_w^2} \right]^n$
1						
2						
3						
4						
5						

Absolute Open Flow		3998	Mcf/d @ 15.025	Angle of Slope	Slope, n
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Remarks:

Calculated By: _____ Checked By: _____

BACK PRESSURE TEST

Chacra Formation

2" Critical Flow Prover

1.25" Orifice

<u>1-19-82</u>	<u>CHACRA</u>			<u>DAKOTA</u>
	<u>Tbg. Press.</u>	<u>Csg. Press.</u>	<u>Prover Press.</u>	<u>Tbg. Press.</u>
9:30 a.m. Shut In	1010 psi	1008 psi		1040 psi
	Flowing thru dehydrator			
9:45 a.m.	752 psi	948 psi	50 psi	1040 psi
10:00 a.m.	680 psi	925 psi	50 psi	1040 psi
10:15 a.m.	660 psi	900 psi	50 psi	1040 psi
10:30 a.m.	520 psi	895 psi	50 psi	1040 psi
10:45 a.m.	270 psi	890 psi	50 psi	1040 psi
	Starting lifting liquid			
11:00 a.m.	220 psi	880 psi	45 psi	1040 psi
11:15 a.m.	220 psi	875 psi	42 psi	1040 psi
11:30 a.m.	215 psi	870 psi	41 psi	1040 psi
12:00 Noon	210 psi	860 psi	40 spi	1040 psi
12:30 p.m.	205 psi	850 psi	40 psi	1040 psi
1:30 p.m.	200 psi	840 psi	39 psi	1040 psi
2:30 p.m.	195 psi	825 psi	38 psi	1040 psi
3:30 p.m.	190 psi	815 psi	37 psi	1040 psi
4:00 p.m.	Caught sample in bomb			
4:30 p.m.	188 psi	805 psi	37 psi	1040 psi
5:30 p.m.	185 psi	800 psi	36 psi	1040 psi

Well made estimated 25 bbls. water in 8 hrs. and no oil.

Q = 1712 MCFGPD

AOF = 3998 MCFGPD