STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION

P. O. BOX 2088
SANTA FE, NEW MEXICO 87501

C/SF

Form C-122
Revised 10-1-78

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

RECEIVED
FEB 12 1981
O. C. D.
ARTESIA, OFFICE

Type Test: [X] Initial [ ] Annual [ ] Special			Test Date: 1-20-81		
Company: Exxon ~~Company USA~~ Corp ✓	Connection: None			Unit	
Pool: ~~LaGuna Grande~~ Wildcat Atoka	Formation: Atoka				
Completion Date: 1-15-81	Total Depth: 13690'	Plug Back TD: 12600'	Elevation: 3013'GL	Farm or Lease Name: LaGuna Grande Unit	
Csg. Size: 5½" / Wt.: 20.8 / d: 4.778 / Set At: 12725'	Perforations: From 12104' To 12116'			Well No.: 3	
Tbg. Size: 2 7/8" / Wt.: 6.5 / d: 2.441 / Set At: 11900'	Perforations: From Open Ended To			Unit: B / Sec.: 29 / Twp.: 23 S / Rge.: 29 E	
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: Single		Packer Set At: 11900'		County: Eddy	
Producing Thru: Tubing	Reservoir Temp. °F: 0	Mean Annual Temp. °F: 60	Baro. Press. – P_a: 13.2	State: New Mexico	
L: 12110 / H: – / Gg: 0.5758 / % CO_2: 0.426 / % N_2: 0.917 / % H_2S: – / Prover: / Meter Run: 3.826 / Taps: F					

FLOW DATA

NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. h_w	Temp. °F	Press. p.s.i.g. SIWHT	Temp. °F	Press. p.s.i.g.	Temp. °F	Duration of Flow
SI							6785				67.0 hrs
1.	3.826	2/64	1.000	490	15	93	6115	58	Packer		1.0 hr
2.	3.826	3/64	1.000	500	26	88	5717	62			1.0 hr
3.	3.826	4/64	1.000	500	42	84	5305	62			1.0 hr
4.	3.826	5.5/64	1.000	510	68	82	4700	62			1.0 hr
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, Fpv	Rate of Flow Q, Mcfd
1	4.758	86.88	503.2	0.9697	1.318	1.029	543.64
2.	4.758	115.51	513.2	0.9741	1.318	1.031	727.48
3	4.758	146.81	513.2	0.9777	1.318	1.032	928.95
4	4.758	188.62	523.2	0.9795	1.318	1.034	1197.99
5							

NO.	P_r	Temp. °R	T_r	Z
1	0.75	553	1.62	0.945
2.	0.76	548	1.60	0.941
3	0.76	544	1.59	0.939
4.	0.78	542	1.58	0.936
5				

Gas Liquid Hydrocarbon Ratio: Dry Gas Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons: – Deg.
Specific Gravity Separator Gas: 0.5758 XXXXXXXXXX
Specific Gravity Flowing Fluid: XXXXX
Critical Pressure: 675 P.S.I.A. – P.S.I.A.
Critical Temperature: 342 R – R

P_c 8187.2 P_c^2 67030.2

NO	P_w *	P_w^2	$P_c^2 - P_w^2$
1	7589.2	57596.0	9434.2
2	7194.2	51756.5	15273.7
3	6760.2	45700.3	21329.9
4	6027.2	36327.1	30703.1
5			

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 7.105$

(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 3.669$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1995$

Absolute Open Flow: 1995 Mcfd @ 15.025
Angle of Slope θ: 56°28'
Slope, n: 0.663

Remarks: * BOTTOM HOLE PRESSURE (-9097)12110' USED FOR PRESSURE CALCULATIONS

Approved By Division	Conducted By:	Calculated By:	Checked By: PE# 2208
	JARREL SERVICES, INC.	Joe A. Coleman	Joe A. Coleman