NEW MEXICO OIL CONSERVATION COMMISSION

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

Type Test: ☒ Initial ☐ Annual ☐ Special			Test Date: 8-27-82	
Company: THE SUPERIOR OIL COMPANY		Connection: TRANSWESTERN PIPELINE		
Pool: CARLSBAD ~~ATOKA~~		Formation: ATOKA		Unit: J
Completion Date: 8-13-82	Total Depth: 11950	Plug Back TD: 11,323	Elevation: 3225 GL	Farm or Lease Name: COLATT ESTATE COM
Csg. Size: 5 / Wt.: 15# / d: / Set At: 11,950		Perforations: From 10796 To 11066		Well No.: 1
Tbg. Size: 2 7/8 / Wt.: 6.5 / d: / Set At: ~~10620~~ 11,248		Perforations: From To		Unit: J / Sec.: 1 / Twp.: 23s / Rge.: 26 e
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: SINGLE GAS WELL		Packer Set At: 10620		County: EDDY
Producing Thru: TBG.	Reservoir Temp. °F: 180 @ 10620	Mean Annual Temp. °F: 60°	Baro. Press. – P_a: 13.2	State: NEW MEXICO

L	H	Gg	% CO_2	% N_2	% H_2S	Prover	Meter Run	Taps
10620	10620	.595	.475	1.133			4"	FLG.

	FLOW DATA				TUBING DATA		CASING DATA		
NO.	Prover Line Size X Orifice Size	Press. p.s.i.g.	Diff. h_w	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.	Temp. °F	Duration of Flow
SI					1875				45 HRS.
1.	4 X 1.250	120	8.0	93	1782				1 HR.
2.	4 X 1.250	120	15.0	93	1715				1 HR.
3.	4 X 1.250	120	24.0	90	1640				1 HR.
4.	4 x 1.250	125	36.0	87	1535				1 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	7.469	32.64	133.2	.9697	1.296	1.010	309
2	7.469	44.70	133.2	.9697	1.296	1.010	424
3	7.469	56.54	133.2	.9723	1.296	1.010	537
4	7.469	70.54	138.2	.9750	1.296	1.010	672
5							

NO.	P_t	Temp. °R	T_r	Z
1	.20	553	1.54	.981
2	.20	553	1.54	.981
3	.20	550	1.54	.981
4	.21	547	1.53	.980
5				

Gas Liquid Hydrocarbon Ratio: DRY Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons: Deg.
Specific Gravity Separator Gas: .595 XXXXXXXXXX
Specific Gravity Flowing Fluid: XXXXX
Critical Pressure: 671 P.S.I.A. P.S.I.A.
Critical Temperature: 358 R R

P_c 1888.2 P_c^2 3565.3

NO	P_t	P_w	P_w^2	$P_c^2 - P_w^2$
1		1795.5	3223.8	341.5
2		1728.8	2988.6	576.7
3		1654.1	2736.2	829.1
4		1549.8	2401.9	1163.4
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 3.065$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 2.078$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.396$

Tested ID-2 Form + plat

Absolute Open Flow: 1,396 Mcfd @ 15.025 Angle of Slope θ: 56.75° Slope, n: .653

Remarks:

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
	DAVIS SERVICES, INC.	RICK PAGAN	