NEW MEXICO OIL CONSERVATION COMMSSION

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

RECEIVED
JAN 29 1973
O. C. C.
ARTESIA, OFFICE

Type Test: [X] Initial [ ] Annual [ ] Special — Test Date: 1-8-73

Company: The Superior Oil Company	Connection: None				Unit
Pool: Undesignated South Carlsbad (Morrow)	Formation: Morrow				
Completion Date: 12-30-72	Total Depth: 11,915		Plug Back TD: 11,825	Elevation: KB: 3196	Farm or Lease Name: Ryan
Csg. Size: 7" / Wt.: 26# & 23# / d: / Set At: 11,915	Perforations: From 11,750 To 11,760				Well No.: 1
Tbg. Size: 2-7/8" / Wt.: 6.5 / d: 2.441 / Set At: 11,638	Perforations: From To				Unit: D / Sec.: 5 / Twp.: 23-S / Rge.: 27-E
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: Dual - G.G.			Packer Set At: 11,610'		County: Eddy
Producing Thru: tbg	Reservoir Temp. °F: 180 @ 11,760	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
11,638	11,638	.580	- - -	- - -	- - -	- - -	3"	Flange

	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					3938	60	Pkr	- -	41 hr.
1.	3 x 1.00	448	4.5	120	3723	60	--	- -	1½ hr.
2.	3 x 1.00	823	5.8	120	3620	60	--	- -	1 hr.
3.	3 x 1.00	900	11.9	120	3397	60	--	- -	1 hr.
4.	3 x 1.00	913	23.2	120	3041	60	--	- -	2 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	4.789	45.56	461.2	.9469	1.313	1.024	277.8
2.	4.789	69.64	836.2	.9469	1.313	1.043	432.5
3.	4.789	104.2	913.2	.9469	1.313	1.047	649.6
4.	4.789	146.6	926.2	.9469	1.313	1.048	914.8
5.							

NO.	P_r	Temp. °R	T_r	Z
1.	.69	580	1.66	.954
2.	1.24	580	1.66	.919
3.	1.36	580	1.66	.912
4.	1.38	580	1.66	.911
5.				

Gas Liquid Hydrocarbon Ratio 70 Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons 56 Deg.
Specific Gravity Separator Gas .580 XXXXXXXXX
Specific Gravity Flowing Fluid XXXXX .592
Critical Pressure 672 P.S.I.A. 672 P.S.I.A.
Critical Temperature 350 R 354 R

P_c 3951.2 P_c^2 15612

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1	13959		13960	1652
2	13200		13202	2410
3	11630		11635	3977
4	9328.1		9337.9	6274.1
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 2.488$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 2.04$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1866$

Absolute Open Flow 1866 Mcfd @ 15.025 Angle of Slope θ _____ Slope, n .781

Remarks: _____

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
	J. C. Willner	Willner	J. C. Willner