

BACK PRESSURE TEST

Company Schermerhorn Oil Corporation Lease Gulf State Well No. 1
Field Bumont Formation Queen County Lea Loc. P Sec. 31 Twp. 18S Rge. 37E
Casing 5-1/2" Wt. 14.0# I.D. 5.012" Set at 3740' Perf. to
Tubing 2-3/8" Wt. 4.7# I.D. 1.995" Set at 3850' Perf. 3845' to 3849'
Gas Pay: From 3745' to 3890' L 3845' G 0.685 GL 2634'
Avg. S.I. Temp. B.H. Temp. Producing Thru: Casing Tubing X
Gas Liquid Ratio Mcf/bbl. Gravity of Liquids °API Bar. Press. 13.2
Separator Gas Gravity G Mix Date of Completion
Type Well Single Completion Acres 80 Date of Test 12-5/12-57 Fc 9.936 (1-e^{-s}) 0.166

CO₂ - 1.32% N₂ - 4.25%

OBSERVED DATA

Run No.	Line and Orifice Size	Prover Pressures Meter Pressures		Diff.	Flow Temp.	Wellhead Pressures				Duration of Flow Hours
		Psig	Psia			Casing		Tubing		
						Psig	Psia	Psig	Psia	
Shut-In								707.0	720.2	71-3/4
1	2 x 1/2"	98.7	111.9		60			102.5	115.7	168
2										
3										
4										
5										

FLOW CALCULATIONS

Run No.	Coeff. 24 Hr.	hwP _m	√hwP _m	Prover Press.-Psia	Gravity Factor	Temp. Factor	Compress. Factor	Flow Rate Mcf @ 15.025
1	5.5233			111.9	0.9359	1.0000	1.010	584
2								
3								
4								
5								15,000

PRESSURE CALCULATIONS

Run No.	P _t ²	FcQ	(FcQ) ²	(FcQ) ² x (1-e ^{-s})	P _c ² & P _w ²	Calc. P _w	P _c ² -P _w ²	P _w /P _c	P _c ² -P _t ²	P _t /P _c
Shut-In					518.7					
1	13.4	5.803	33.67	5.589	19.0	137.8	499.7	.19	505.3	.16
2										
3										
4										
5										

Remarks: Slope (n) taken from the four point back pressure test of 8-24-56. Good stabilization was obtained and the volume of gas above should be representative of what the well will actually produce at 100.0 psig.

Tested By: J. D. Horton & R. L. West (Permian) W.H. Potential 597 Slope (n) 0.76
Witness: None Abs. Potential 601 Slope (n) 0.76