

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Revised 12-1-55

Pool Sawyer Formation San Andres (Gas) County Lea
 Initial _____ Annual X Special _____ Date of Test April 27, 1965
 Company Western Drilling Company Lease Gulf Federal Well No. 2
 Unit G Sec. 29 Twp. 9S Rge. 38E Purchaser Nearburg & Ingram
 Casing 5 1/2" Wt. 15.50# I.D. 4.95" Set at 5,010' Perf. 4,908' To 4,938'
 Tubing 2-3/8" Wt. 4.70# I.D. 1.995" Set at 4,965' Perf. Open To _____
 Gas Pay: From 4,908' To 4,995' L 4951 1/2 SG .805 GL 3986 Bar. Press. 13.2 psia
 Producing Thru: Casing _____ Tubing X Type Well Single
 Date of Completion: Nov. 5, 1960 Packer None Single-Bradenhead-G. G. or G.O. Dual
 Reservoir Temp. _____

OBSERVED DATA

Tested Through (Prover) (Choke) (Meter) _____ Type Taps Flange

No.	Flow Data			Tubing Data		Casing Data		Duration of Flow Hr.
	(Prover) (Line) Size	(Choke) (Orifice) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	
SI			1,075			1,074		72 hrs
1.	2"	0.0625"	1,000		640	932		1 hr 45 min
2.	2"	0.1250"	796		640	721		3 hrs 0 min
3.	3.066"	0.625"	351	79.21"	590	581		3 hrs 0 min
4.	3.066"	1.250"	356	6.25"	600	575		20 hrs 0 min
5.								

FLOW CALCULATIONS

No.	Coefficient (24-Hour)	$\sqrt{h_w p_f}$	Pressure psia	Flow Temp. Factor F _t	Gravity Factor F _g	Compress. Factor F _{pv}	Rate of Flow Q-MCFPD @ 15.025 psia
1.	0.0827	-	1013.2	.9962	.8635	1.104	80
2.	0.3418	-	809.2	.9962	.8635	1.081	257
3.	1.8500	172.14	374.2	1.0010	1.1146	1.038	369
4.	7.5773	48.02	369.2	1.0000	1.1146	1.037	421
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio _____ cf/bbl.
 Gravity of Liquid Hydrocarbons _____ deg.
 P_c P_w Measured (1-e⁻³) _____
 Specific Gravity Separator Gas 0.805
 Specific Gravity Flowing Fluid _____
 P_c 1088.2 P₂ 1,184.2

No.	P _w P _t (psia)	P _t ²	F _c Q	(F _c Q) ²	(P _c Q) ² (1-e ⁻³)	P _w ²	P _c ² -P _w ²	Cal. P _w	P _w /P _c
1.	1013.2					1026.6	157.6		93.11
2.	809.2					654.8	529.4		74.36
3.	668.2					446.5	737.7		61.40
4.	599.2					359.5	825.2		55.06
5.									

Absolute Potential: 590 MCFPD; 0.99294
 COMPANY Denton Oil Company
 ADDRESS Post Office Box 4359 Tech Station, Lubbock, Texas
 AGENT and TITLE C. J. Jordan, Jr., Gas Engineer
 WITNESSED _____
 COMPANY _____

REMARKS

CO₂ and N composition of gas considered as being 10% each.
 *Note: Critical flow prover used on points No. 1 and 2 due to hydrate formation in choke while producing into pipeline.

DENTON OIL COMPANY

COMPANY: Western Drilling Company
 LSE & WELL: Gulf Federal No. 2
 LOCATION: G-29-9S-38E
 FIELD: Sawyer
 COUNTY: Lea
 DATE: April 27, 1965

