

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Jalnet Formation Seven Rivers County Lea

Initial Annual Special X Date of Test 4-1-60

Company Husky Oil Company Lease Northshore Woolworth Well No. 3

Unit 1 Sec. 33 Twp. 24 Rge. 37 Purchaser El Paso Natural Gas Company

Casing 7 Wt. 24 I.D. Set at 3419 Perf. 3078 To 3200

Tubing None Wt. I.D. Set at Perf. To

Gas Pay: From 3078 To 3200 L 3078 xG .652 -GL 2007 Bar.Press. 13.3

Producing Thru: Casing X Tubing Type Well Single

Date of Completion: 3-3-61 Packer Single-Bradenhead-G. G. or G.O. Dual Reservoir Temp.

OBSERVED DATA

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

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.	4	1.000	176	3.24	66	543		72
2.	4	1.000	190	16.81	62	549		24
3.	4	1.000	203	45.56	66	515		24
4.	4	1.000	209	75.69	62	505		24
5.								

FLOW CALCULATIONS

No.	Coefficient (24-Hour)	$\sqrt{h_{wDf}}$	Pressure psia	Flow Temp. Factor F _t	Gravity Factor F _g	Compress. Factor F _{pv}	Rate of Flow Q-MCFPD @ 15.025 psia
1.	6.135	24.76	189.2	.9943	.9593	1.017	147.3
2.	6.135	58.44	203.2	.9981	.9593	1.020	350.1
3.	6.135	99.25	216.2	.9943	.9593	1.020	592.4
4.	6.135	129.69	222.2	.9981	.9593	1.021	777.3
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio Dry cf/bbl.

Gravity of Liquid Hydrocarbons deg.

F_c .4915 (1-e^{-s}) .129

Specific Gravity Separator Gas

Specific Gravity Flowing Fluid

P_c 576.2 P_c² 332.0

No.	P _{XX} P _t (psia)	P _t ²	$\frac{P_c^2 - P_w^2}{P_c^2 - P_w^2}$	(F _c Q) ²	(F _c Q) ² (1-e ^{-s})	P _w ²	P _c ² - P _w ²	Cal. P _w	P _w P _c
1.	561.2	314.9	17.1	.07			17.1	314.9	1.0
2.	541.2	292.9	39.1	.17	.03		39.1	292.9	1.0
3.	523.2	273.0	53.0	.39	.08	.01	53.0	273.0	1.0
4.	518.2	268.5	63.5	.36	.14	.02	63.5	268.5	1.0
5.									

Absolute Potential: 4,000 MCFPD; n 1,000

COMPANY Husky Oil Company

ADDRESS 900 V & J Tower, Midland, Texas

AGENT and TITLE

WITNESSED

COMPANY Husky Oil Co.

REMARKS

INSTRUCTIONS

This form is to be used for reporting multi-point back pressure tests on gas wells in the State, except those on which special orders are applicable. Three copies of this form and the back pressure curve shall be filed with the Commission at Box 871, Santa Fe.

The log log paper used for plotting the back pressure curve shall be of at least three inch cycles.

NOMENCLATURE

Q = Actual rate of flow at end of flow period at W. H. working pressure (P_w).
MCF/da. @ 15.025 psia and 60° F.

P_c = 72 hour wellhead shut-in casing (or tubing) pressure whichever is greater.
psia

P_w = Static wellhead working pressure as determined at the end of flow period.
(Casing if flowing thru tubing, tubing if flowing thru casing.) psia

P_t = Flowing wellhead pressure (tubing if flowing through tubing, casing if flowing through casing.) psia

P_f = Meter pressure, psia.

h_w = Differential meter pressure, inches water.

F_g = Gravity correction factor.

F_t = Flowing temperature correction factor.

F_{pv} = Supercompressibility factor.

n = Slope of back pressure curve.

Note: If P_w cannot be taken because of manner of completion or condition of well, then P_w must be calculated by adding the pressure drop due to friction within the flow string to P_t .

Husky Oil Company
 North Shore Woolworth No. 3
 Sec. 33, Twp. 24, Rge. 37
 Lea County, N. M.
 April 1, 1960

