

NEW MEXICO OIL CONSERVATION COMMISSION

HOBBS OFFICE OCC

Form C-122

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Revised 12-1-55

1958 SEP 19 AM 9:55

Pool Tubb Gas Formation Tubb County Lea, N. M.
Initial X Annual _____ Special _____ Date of Test 9-5 to 12, 1958
Company Shell Oil Company Lease Taylor Glenn Well No. 2
Unit I Sec. 3 Twp. 21 Rge. 37 Purchaser El Paso Natural Gas Company
Casing 5 1/2 Wt. 15.5 I.D. 4.976 Set at 6665 Perf. 6324 To 6436
Tubing 2 3/8 Wt. 4.7 I.D. 1.995 Set at 6683 Perf. 6648 To 6653
Gas Pay: From 6324 To 6436 L 6324 x MIX 0.735 -GL 4648 Bar.Press. 13.2
Producing Thru: Casing X Tubing _____ Type Well G. O. Dual
Date of Completion: Sept 12, 1958 Packer 6580 Reservoir Temp. 100° F
Single-Bradenhead-G. G. or G.O. Dual

OBSERVED DATA

Tested Through (Pressure) (Stroke) (Meter) Type Taps Flow.

No.	Flow Data			Tubing Data		Casing Data		Duration of Flow Hr.
	(Line) Size	(Stroke) (Orifice) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	
SI								
1.	4	1.250	562	4.84	73		1925	72
2.	4	1.250	572	8.41	76		1787	24
3.	4	1.250	573	27.04	64		1541	24
4.	4	1.250	567	42.25	71		1335	24
5.							1136	24

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	Prod. 24 Hours
1.	9.643	52.76	575.2	0.9859	0.9325	1.060	496	3.20
2.	9.643	70.13	585.2	0.9850	0.9325	1.060	659	4.93
3.	9.643	125.88	586.2	0.9962	0.9325	1.068	1.204	31.78
4.	9.643	156.97	588.2	0.9896	0.9325	1.064	1.482	31.47
5.								

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio 54,469 cf/bbl.
Gravity of Liquid Hydrocarbons 61 deg.
F_c 1.758 (1-e^{-S}) 0.274

Specific Gravity Separator Gas .688
Specific Gravity Flowing Fluid .7351
P_c 1938.2 P_c² 3756.6

No.	P _w P _t (psia)	P _t ²	F _c Q	(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.	1740.2	3028.3	.87	.76	.21	3028.3	783.1	1740.3	.90
2.	1554.2	2415.5	1.16	1.35	.37	2415.9	1340.7	1554.3	.80
3.	1348.2	1817.6	2.12	4.49	1.23	1818.8	1917.8	1348.6	.70
4.	1149.2	1320.7	2.61	6.81	1.67	1322.6	2434.0	1150.1	.59
5.									

Absolute Potential: 2,200 MCFPD; n .91

COMPANY Shell Oil Company
ADDRESS Box 845, Roswell, New Mexico
AGENT and TITLE A. L. Ellard - Gas Tester
WITNESSED Jack Whitting
COMPANY El Paso Natural Gas Company

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} = Supercompressability factor.

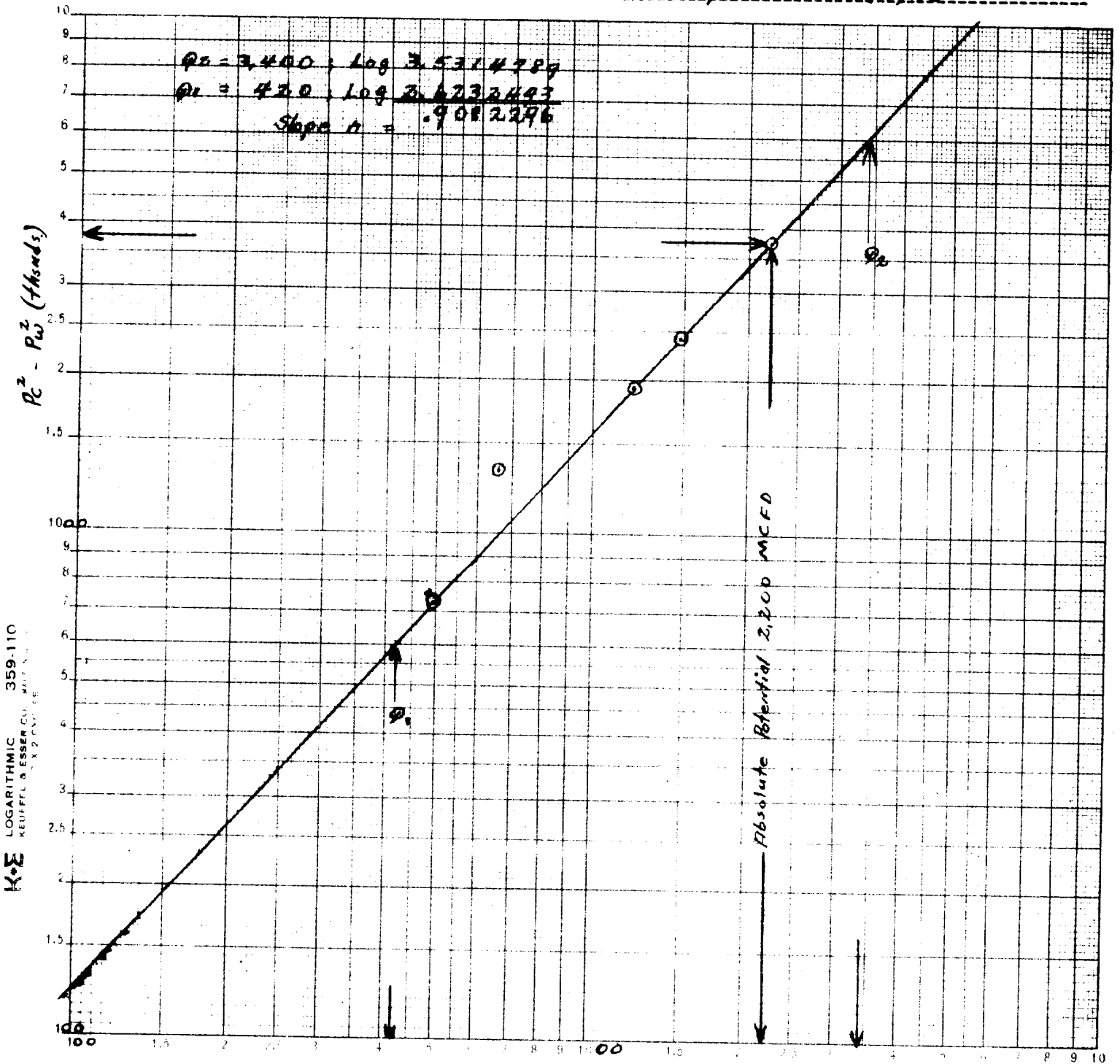
n = Slope of back pressure curve.

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 .

NGAS WELL 10000 BACK PRESSURE CURVE

1958 SEP 10 AM 9:55

County Lea, New Mex. Field Tubb Gas
Operator Shell Oil Company
Lease Taylor Glen Well No. 2
Volume 2,200 MCF/24 hr.
Date September 12, 1958



$Q = \text{MCFD} - 15.025 \text{ PSIA @ } 60^\circ\text{F}$