

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Revised 12-1-55

Pool Jalmat Formation Yates County Lea
Initial _____ Annual _____ Special X Date of Test 4-29-57
Company Ralph Lowe Lease Coates "A" Well No. 2
Unit E Sec. 31 Twp. 25 Rge. 37 Purchaser El Paso Natural Gas Company
Casing 7 Wt. 20 I.D. 6.456 Set at 2728 Perf. Open Hole To _____
Tubing None Wt. _____ I.D. _____ Set at _____ Perf. _____ To _____
Gas Pay: From 2850 To 2900 L 2728 xG 0.670 -GL 1827 Bar.Press. 13.2
Producing Thru: Casing X Tubing _____ Type Well Single
Date of Completion: 12-24-46 Packer None Single-Bradenhead-G. G. or G.O. Dual
Reservoir Temp. _____

OBSERVED DATA

Tested Through (Prover) (~~choke~~) (~~meter~~) Type Taps None

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	(Prover) (choke) Size	(Choke) (meter) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI							<u>269-286-287</u>			<u>24-48-72</u>
1.	<u>2.000</u>	<u>1/16</u>	<u>224</u>		<u>60</u>		<u>224</u>			<u>3</u>
2.	<u>2.000</u>	<u>3/32</u>	<u>148</u>		<u>63</u>		<u>148</u>			<u>3</u>
3.	<u>2.000</u>	<u>1/8</u>	<u>67</u>		<u>60</u>		<u>67</u>			<u>3</u>
4.	<u>2.000</u>	<u>3/16</u>	<u>24</u>		<u>60</u>		<u>24</u>			<u>3</u>
5.	<u>2.000</u>	<u>3/16</u>	<u>5</u>		<u>65</u>		<u>5</u>			<u>24</u>

FLOW CALCULATIONS

No.	Coefficient Prover (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.	<u>.0827</u>		<u>237.2</u>	<u>1.0000</u>	<u>0.9463</u>	<u>1.024</u>	<u>19</u>
2.	<u>.1820</u>		<u>161.2</u>	<u>0.9971</u>	<u>0.9463</u>	<u>1.015</u>	<u>28</u>
3.	<u>.3418</u>		<u>80.2</u>	<u>1.0000</u>	<u>0.9463</u>	<u>1.000</u>	<u>26</u>
4.	<u>.7851</u>		<u>37.2</u>	<u>1.0000</u>	<u>0.9463</u>	<u>1.000</u>	<u>28</u>
5.	<u>.7702*</u>		<u>18.2</u>	<u>0.9463</u>	<u>0.9463</u>	<u>1.000</u>	<u>13</u>

PRESSURE CALCULATIONS

as Liquid Hydrocarbon Ratio Dry cf/bbl.
Gravity of Liquid Hydrocarbons _____ deg.
c 0.4682 (1-e^{-s}) 0.118
Specific Gravity Separator Gas 0.670
Specific Gravity Flowing Fluid _____
P_c 300.2 P_c 90.1

No.	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.	<u>237.2</u>	<u>56.3</u>				<u>56.3</u>	<u>33.9</u>	<u>237.2</u>	<u>1.000</u>
2.	<u>161.2</u>	<u>26.0</u>				<u>26.0</u>	<u>64.2</u>	<u>161.2</u>	<u>1.000</u>
3.	<u>80.2</u>	<u>6.4</u>	<u>Neg.</u>	<u>Neg.</u>	<u>Neg.</u>	<u>6.4</u>	<u>83.8</u>	<u>80.2</u>	<u>1.000</u>
4.	<u>37.2</u>	<u>1.4</u>				<u>1.4</u>	<u>88.8</u>	<u>37.2</u>	<u>1.000</u>
5.	<u>17.2</u>	<u>0.3</u>				<u>0.3</u>	<u>89.9</u>	<u>17.2</u>	<u>1.000</u>

Absolute Potential: 12.8 MCFPD; n 1.0000
COMPANY Ralph Lowe
ADDRESS P. O. Box 832, Midland, Texas
AGENT and TITLE Archib P. Farr, Petroleum Engineer
WITNESSED _____
COMPANY _____

REMARKS

* Non-critical coefficient calculated.

ELIAS A. IV
GAS ENGINEER

INSTRUCTIONS

This form is to be used for reporting multi-point back pressure curves 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 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.

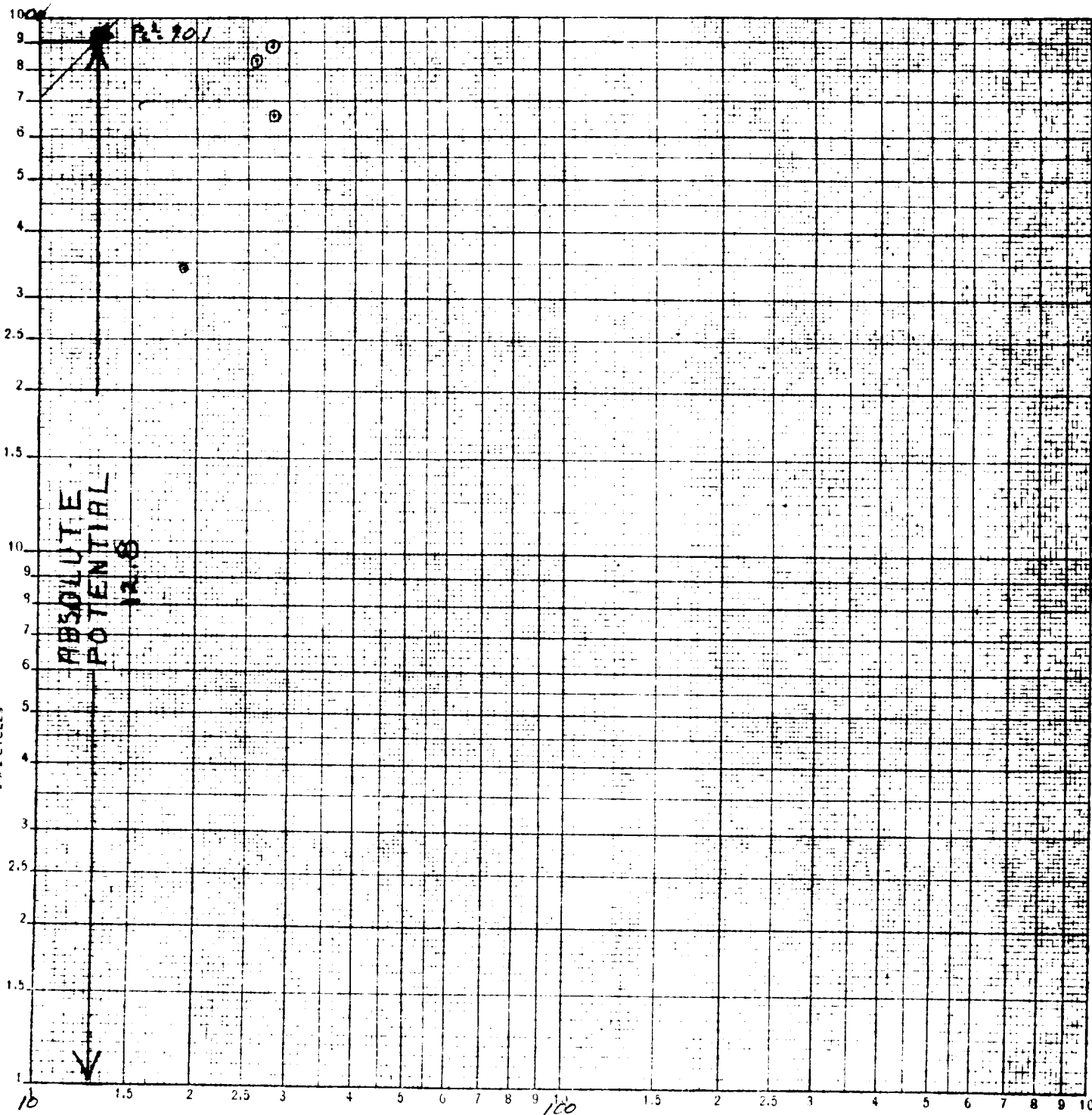
n = Slope of back pressure curve.

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

Ralph Howe
Coast H. 112
12-20-31

1.22 (m.m.s)

K-E LOGARITHMIC 359-110
 KEUFFEL & ESSER CO. WALLINGFORD, U.S.A.
 2 X 2 CYCLES



C. 10-12