NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122
Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Tubb Formation Tubb County Lea

Initial ____ Annual ____ Special X Date of Test 7-11 to 19, 1963

Company Shell Oil Co. Lease Taylor Glenn Well No. 2

Unit I Sec. 3 Twp. 21S Rge. 37E Purchaser El Paso Natural Gas Co.

Casing 5 1/2" Wt. 15.5 I.D. 4.976 Set at 6665 Perf. 6324 To 6436

Tubing 2" Wt. 4.7 I.D. 1.995 Set at 6683 Perf. 6648 To 6653

Gas Pay: From 6324 To 6436 L 6324 xG Mix. .731 -GL 4623 Bar.Press. 13.2

Producing Thru: Casing X Tubing ____ Type Well G.O. Dual
Single-Bradenhead-G. G. or G.O. Dual

Date of Completion: July 18, 195[illegible] Packer 65[illegible] Reservoir Temp. ____

OBSERVED DATA

Tested Through (Prover) (Orifice) (Meter) Type Taps ____

No.	Flow Data (Prover) (Line) Size	Flow Data (Orifice) Size	Flow Data Press. psig	Flow Data Diff. h_w	Flow Data Temp. °F.	Tubing Data Press. psig	Tubing Data Temp. °F.	Casing Data Press. psig	Casing Data Temp. °F.	Duration of Flow Hr.
SI								1102		72
1.	4	1.000	511	6.25	[illegible]0			961		24
2.	4	1.000	557	9.00	[illegible]0			[illegible]07		24
3.	4	1.000	576	16.[illegible]1	81			692		24
4.	4	1.000	574	39.69	82			609		24
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.	6.135	57.24	524.2	.9813	.9318	1.055	33[illegible].8
2.	6.135	71.64	570.2	.9813	.9318	1.058	425.2
3.	6.135	99.52	589.2	.9804	.9318	1.058	590.0
4.	6.135	152.66	587.2	.9795	.9318	1.058	904.4
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio 65.609 cf/bbl.
Gravity of Liquid Hydrocarbons 58.0 deg.
F_c 1.758 $(1-e^{-s})$ .272

Specific Gravity Separator Gas .691
Specific Gravity Flowing Fluid .7467
P_c 1115.2 P_c^2 1243.7

No.	Pt (psia)	P_t^2	F_cQ	$(F_cQ)^2$	$(F_cQ)^2 (1-e^{-s})$	P_w^2	$P_c^2-P_w^2$	Cal. P_w	$\frac{P_w}{P_c}$
1.	974.2	949.1	.5956	.3547	.0965	949.2	294.5	974.3	87.4
2.	820.2	672.7	.7875	.5587	.1520	672.8	570.9	820.3	73.5
3.	705.2	497.3	1.037	1.075	.2924	497.6	746.1	705.4	63.2
4.	622.2	387.1	1.590	2.528	.6876	387.3	855.9	622.7	55.8
5.									

Absolute Potential: 1,300 MCFPD; n 1.000
COMPANY Shell Oil Company
ADDRESS P. O. Box 1858, Roswell, New Mexico
AGENT and TITLE A. L. Kilard - Gas Tester A. L. Kilard
WITNESSED Jack T. Littlefield
COMPANY El Paso Natural Gas 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} = 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.

GAS WELL
BACK PRESSURE CURVE

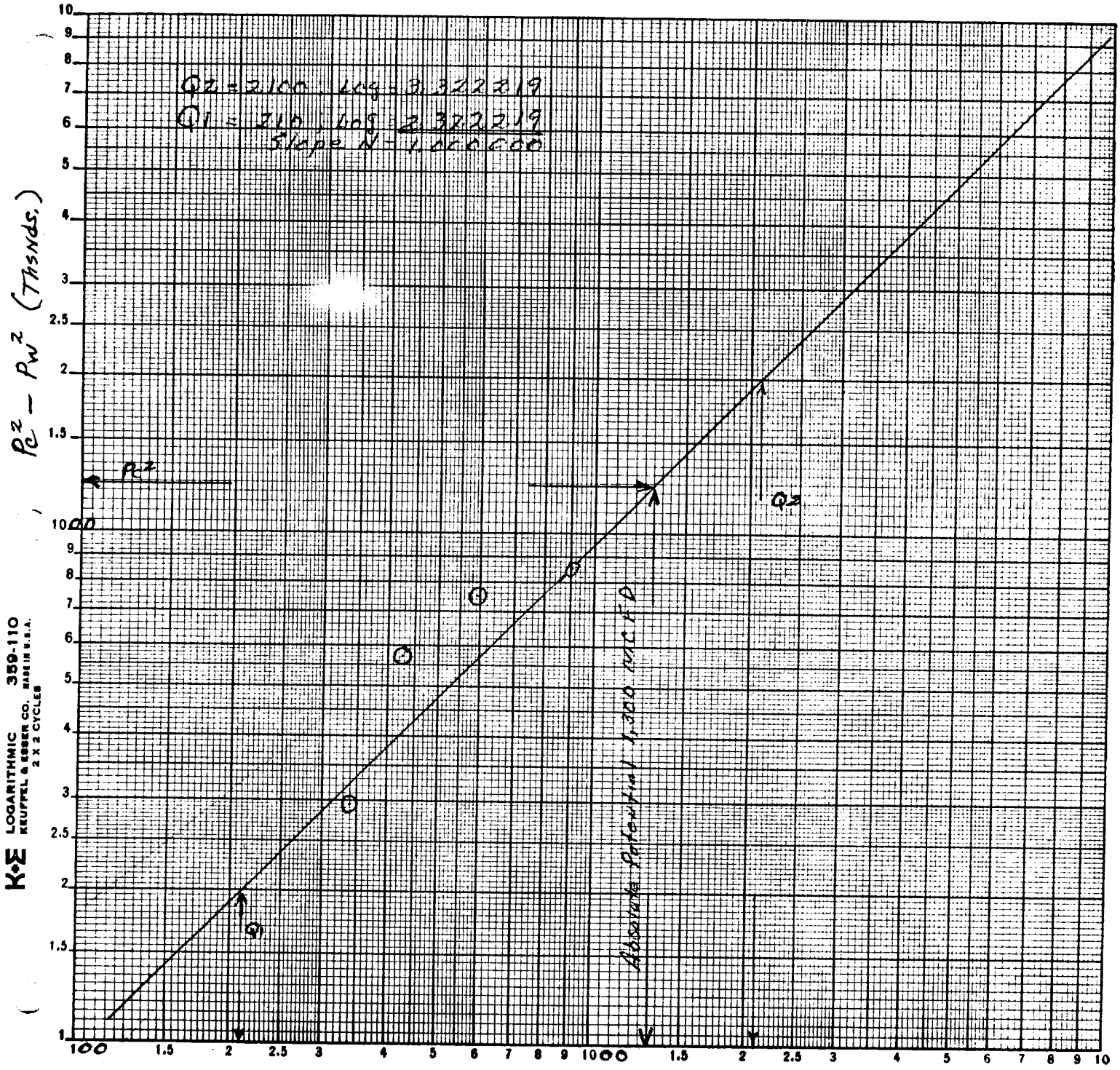
County LE Field TUBB GAS

Operator SHELL OIL COMPANY

Lease TAYLOR GLENN Well No. 2

Volume 1,300 MCF/24 hr.

Date JULY 19, 1963



Q - MCFD - 15.025 psia