NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122
Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Devils Fork Formation Gallup County Rio Arriba

Initial ____ Annual ____ Special X Date of Test 5-15-60

Company Reifern & Nord, Inc. Lease Largo Spur Well No. 2

Unit I Sec. 13 Twp. 24N Rge. 7W Purchaser Southern Union

Casing 5½ Wt. 15.5 I.D. ____ Set at 5668 Perf. 5488 To 5504

Tubing 2-3/8 Wt. 4.7 I.D. ____ Set at 5499 Perf. 5495 To 5499

Gas Pay: From 5488 To 5504 L ____ xG 0.690 -GL ____ Bar.Press. ____

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

Date of Completion: 1-7-60 Packer ____ Reservoir Temp. ____

OBSERVED DATA

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

No.	Flow Data (Prover) (Line) Size	(Choke) (Orifice) Size	Press. SR psig	Diff. SR h_w	Temp. $^oF.$	Tubing Data Press. psig	Tubing Data Temp. $^oF.$	Casing Data Press. psig	Casing Data Temp. $^oF.$	Duration of Flow Hr.
SI						1462		1472		
1.	4"	2.50	6.7	1.3	91	1432		1459		3 hrs
2.	"	"	6.92	2.1	89	1398		1441		3 hrs
3.	"	"	6.75	3.6	89	1319		1412		3 hrs
4.										
5.	"	"	7.4	6.7	81	710		1382		24 days

FLOW CALCULATIONS

No.	Coefficient (24-Hour)	3.162 $\sqrt{h_w p_f}$	Pressure Meter psia	Flow Temp. Factor F_t	Gravity Factor F_g	Compress. Factor F_{pv}	Rate of Flow Q-MCFPD @ 15.025 psia
1.	42.13	27.5	449	.9715	.9325	1.043	1094
2.	"	45.9	479	.9732	.9325	1.051	1844
3.	"	76.6	496	.9732	.9325	1.048	3077
4.							
5.	"	156.8	548	.9804	.9325	1.038	6389

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio ____ cf/bbl. Specific Gravity Separator Gas ____
Gravity of Liquid Hydrocarbons ____ deg. Specific Gravity Flowing Fluid ____
P_c ____ ($1-e^{-s}$) ____ P_c 1484 P_c^2 2202

No.	P_w P_t (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.	1471					2164	38		
2.	1439					2111	91		
3.	1424					2028	174		
4.									
5.	1334					1780	422		

Absolute Potential: ____ MCFPD; n ____

COMPANY Reifern & Nord, Inc.
ADDRESS Box 1747, Midland, Texas
AGENT and TITLE Thomas A. Dugan, Consulting Engineer
WITNESSED ____
COMPANY ____

REMARKS

RECEIVED
JUN1 1960
OIL CON. COM.
DIST. 3

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.

Back Pressure Potential Test

REDFERN & HERD INC.
Largo Spur #2
1850' FSL 790' FEL
Sec. 13 T24N R 7 W
Rio Arriba Co., New Mexico
Devils Fork Gallup Gas Pool

1-3 hr. test on 12/64" Choke 5-15-60

2-3 hr. test on 16/64" Choke 5-15-60

3-3 hr. test on 20/64" Choke 5-15-60

4-24 day State Deliverability Test 5-8-60