

NEW MEXICO OIL CONSERVATION COMMISSION

DUAL COMPLETION

Form C-122

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Revised 12-1-55

Pool Wildcat Formation Dakota County San Juan
Initial _____ Annual _____ Special X Date of Test April 22, 1957
Company The New Drilling Co. Lease Government-Cain Well No. 1
Unit _____ Sec. 38 Twp. 31N Rge. 13W Purchaser Southern Union Gas Co.
Casing 4-1/2" Wt. 11.0 I.D. _____ Set at 4280-6742 Perf. 6676 To 6719
Tubing 2 1/2" & 2" Wt. 6.5 & 4.7 I.D. _____ Set at 5100 Perf. Open End To --
Gas Pay: From 6676 To 6719 L _____ xG _____ -GL _____ Bar.Press. 12.0
Producing Thru: Casing _____ Tubing X Type Well Dual
Date of Completion: 4-22-57 Packer Baker Model Single-Bradenhead-G. G. or G.O. Dual
"BA" at 5100 Reservoir Temp. No Gauge

OBSERVED DATA

Tested Through (Prover) (Choke) (Meter)

Type Taps _____

Flow Data						Tubing Data		Casing Data		Duration of Flow Hr.
No.	(Prover) (Line) Size	(Choke) (Orifice) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
1.	SI	3/4"	120		65	2075		997		3 hours
2.						120	65	1000		
3.										
4.										
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.	12.9650		120	0.9943	0.9180	1.0000	1490
2.							
3.							
4.							
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio _____ cf/bbl.
Gravity of Liquid Hydrocarbons _____ deg.
F_c _____ (1-e^{-s})

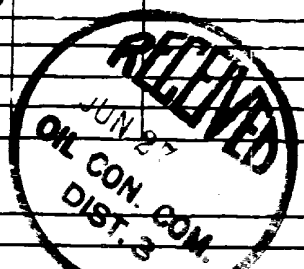
Specific Gravity Separator Gas _____
Specific Gravity Flowing Fluid _____
P_c _____ P_c _____

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.						4322.2	4394.3		
2.									
3.									
4.									
5.									

Absolute Potential: 1494.47 MCFPD; n 0.75
COMPANY The New Drilling Co.
ADDRESS 1918 Patterson Building, Denver 2, Colorado
AGENT and TITLE W. J. Hale, Vice President
WITNESSED Al Hendricks
COMPANY New Mexico Oil Conservation Commission

Belmer Farland
Southern Union 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 .

**DUAL COMPLETION
DAKOTA TEST
April 22, 1957**

PACHER LEAKAGE TEST

OPERATOR: THE New Drilling Co.
LEASE NAME: Government-Cain
LOCATION: Section 25, T31N, R13W

WELL NO. 1
COUNTY: San Juan

TEST DATA SHEET

<u>Time</u>	<u>Mesa Verde</u>	<u>Dakota</u>	<u>Remarks</u>
	997	2000	Shut-in.
1:45			Open. Dakota on 3/4" TC choke on tubing.
2:00	999	218	63°
2:15	1000	168	64°
2:30	1000	152	65°
2:45	999	143	65°
3:15	1000	134	65°
3:45	1000	123	65°
4:15	1000	124	66°
4:45	1000	120	66°

Gravity = 0.712

Note: This well completed shut-in 7 days before test.

U.S. DISTRICT COURT
DISTRICT OF NEW MEXICO
San Juan County
NOTICE OF PACHER LEAKAGE TEST
TO: THE NEW DRILLING CO.
FROM: U.S. DISTRICT COURT
DATE: April 22, 1957
BY: [Signature]

WELL NO. 1
DAKOTA TEST
April 22, 1937

WELL NO. 1

WELL NO. 1
COUNTY: San Juan

LOCATION: Section 22, T14N, R13W
LEASE NAME: Government-Cain
OPERATOR: THE NEW DRILLING CO.

TEST DATA SHEET

Time	Mass Volume	Pressure	Remarks
1:45	287	2000	Running in.
2:00	289	212	Open. Dakota on 3/4" to choke on tubing.
2:15	1000	128	23°
2:30	1000	128	24°
2:45	289	141	25°
3:15	1000	131	26°
3:45	1000	122	27°
4:15	1000	124	28°
4:45	1000	120	29°

Gravity = 0.712

Oil Conservation Commission
AZTEC DISTRICT OFFICE

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