

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Revised 12-1-55

Pool Wildcat Formation Dakota County San Juan
 Initial X Annual _____ Special _____ Date of Test _____
 Company M.J. Brannon Jr. Lease Federal 28 Well No. 1
 Unit _____ Sec. 28 Twp. 25 N Rge. 9 W Purchaser _____
 Casing 5 1/2 Wt. 14 & 15 I.D. _____ Set at 6484 Perf. 6242 To 6242
 Tubing 2 3/8 Wt. 4.7 I.D. _____ Set at 6325 Perf. _____ To _____
 Gas Pay: From 6334 To 6356 L _____ xG _____ -GL _____ Bar.Press. _____
 Producing Thru: Casing _____ Tubing X Type Well Single
 Date of Completion: 11-19-59 Packer No Reservoir Temp. 131

OBSERVED DATA

Tested Through X (Prover) (Choke) (Meter)

Type Taps _____

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 DIST. 3

No.	Flow Data			Tubing Data		Casing Data		Duration of Flow Hr.
	(Prover) (Line) Size	(Choke) (Orifice) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	
SI								
1.	2"	1/2	50		40	1715	1717	
2.	2"	1/2	242		60	960	1127	10.5
3.	2"	3/4	127		60	780	842	5.25
4.	2"	3/4	156		60	525	656	5.0
5.					60	460	580	1.5

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.	5.5233		62	1.0192	0.9408		335
2.	5.5233		240	1.0000	0.9408		1,380
3.	12.2025		129	1.0000	0.9408		1,430
4.	12.2025		170	1.0000	0.9408		1,968
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio 52,200 cf/bbl.
 Gravity of Liquid Hydrocarbons _____ deg.
 F_c _____ (1-e^{-s})

Specific Gravity Separator Gas _____
 Specific Gravity Flowing Fluid _____
 P_c 2224 P_c 4955 N

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.									
2.						2169	2755		
3.	242					1107	3848		
4.	127					870	4276		
5.	156					671	4684		

Absolute Potential: _____ MCFPD; n _____
 COMPANY 2.000 0.42
 ADDRESS M.J. Brannon Jr.
 AGENT and TITLE P.O. Box 1728, Farmington, New Mexico
 WITNESSED Ward & Jamison Engineering Company
 COMPANY H. Smith
 Southern Union Gas Company

REMARKS

All Pressures used in plotting taken with Amerada recording B.H.P. gauge
 All surface pressures measured with dead wt. tester

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 .

OIL CONSERVATION COMMISSION		
AZTEC DISTRICT OFFICE		
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WARD & JAMISON *Engineering Co.*

BOTTOM HOLE PRESSURE REPORT

W.O. No. _____

COMPANY M.I. Brannon Jr.

FIELD Wildcat COUNTY San Juan STATE New Mexico

LEASE Federal 28 WELL NO. 1

DATE Dec. 4, 5, 1959 TIME _____ STATUS OF WELL Back Pressure Test

DATUM 6341 ELEV. _____ TBG. PRESS. _____ CSG. _____ B. H. TEMP. 181 F

Time	Status	Elapsed Time	Tbg.	Osg.	B.H.P.
15:00	Well closed in	- 2:30	1715	1717	1713
15:15	Inst. in Lubricator	- 2:15	1715	1717	1713
15:30	@ 6370	- 2:00	1715	1717	2214
17:30	Opened to 14/64	0:00	1715	1717	2214
18:00	Well flowing	0:30			1960
18:30		1:00		1471	1835
19:00		1:30		1418	1765
20:00		2:30			1646
21:00		3:30		1280	1576
22:00		4:30		1260	1546
23:00		5:30		1212	1524
00:00	Dec. 5, 1959	6:30		1193	1504
01:00		7:30		1165	1488
02:00		8:30		1146	1480
02:30		9:00	960	1138	1474
03:00		9:30	960	1137	1471
03:30		10:00	960	1137	1471
04:00	Opened to 17 1/2/64	10:30	960	1137	1471
04:30		11:00			1300
05:00		11:30		970	1180

BOTTOM HOLE PRESSURE REPORT

W.O. No. _____

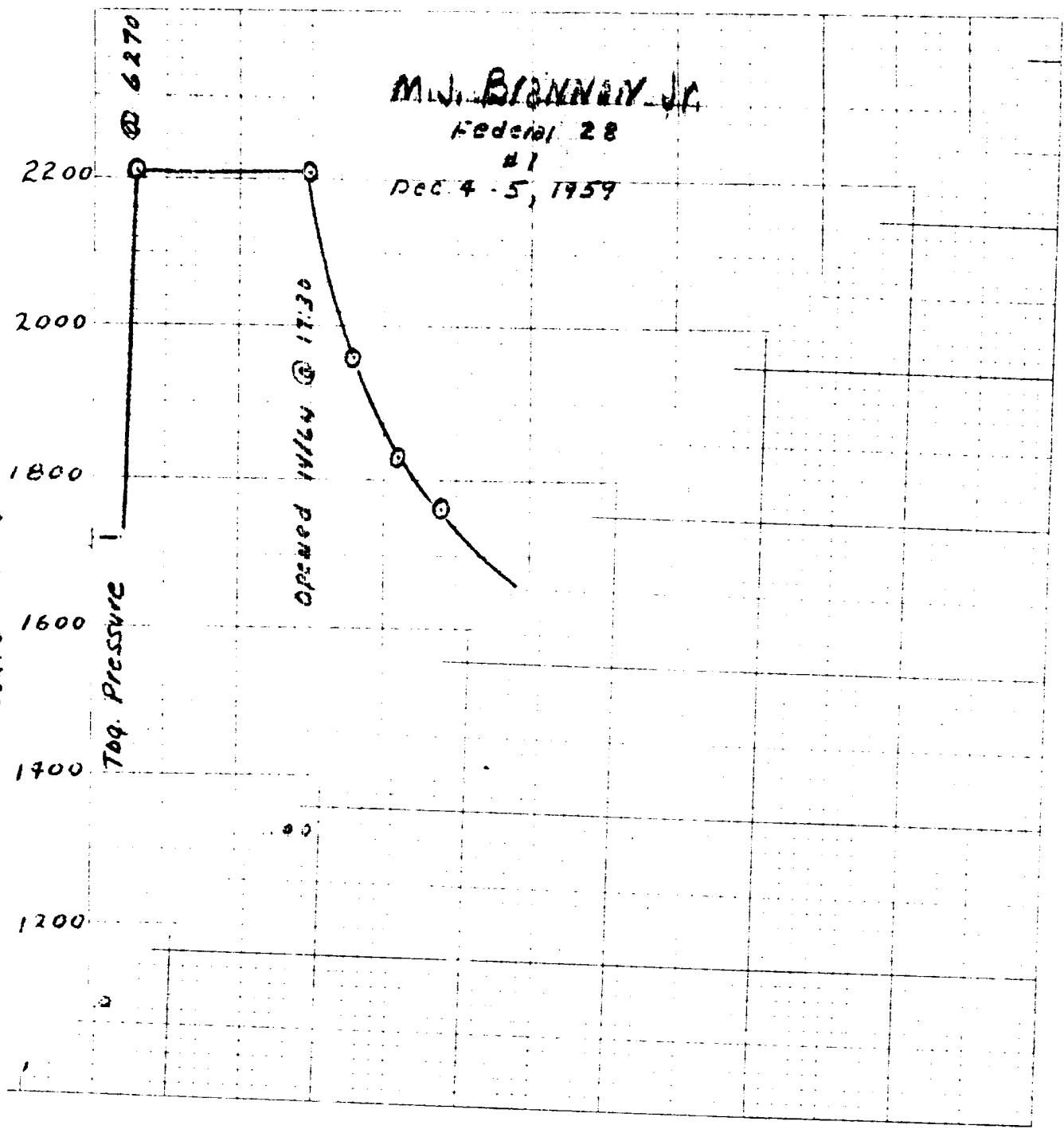
COMPANY M. J. Brennan Jr.FIELD Wildcat COUNTY San Juan STATE New MexicoLEASE Federal 20 WELL NO. 1DATE Dec. 4, 5, 1959 TIME _____ STATUS OF WELL Back Pressure TestDATUM 6241 ELEV. _____ TBG. PRESS. _____ CSG. _____ B. H. TEMP. 131 F

Time	Status	Elapsed Time	Tbg.	Csg.	B.H.P.
05:30	Dec. 5, 1959	12:00		952	1120
06:30		13:00		837	1085
07:30		14:00		875	1040
08:00		14:30		863	1050
08:30		15:00	780	880	1040
09:00		15:30	780	848	1040
09:15	Opened to 22/64	15:45	780	848	1040
09:45		16:15			960
10:15		16:45		730	890
10:45		17:15			840
11:15		17:45		690	830
11:45		18:15		680	826
12:15		18:45	525	670	812
12:00	Opened to 32/64	19:30	525	658	812
13:15		19:45			760
13:30		20:00		548	690
14:00		20:30	460	558	680
14:15		20:45	460	550	678
14:30		21:00	460	550	674
15:00	Left 6270	21:30	460	550	674

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
WASHINGTON, D.C. 20250

CLEARING CHART

Bottom Hole Pressure - P.S.I.G



$P_e^2 - P_w$ Transient

W. J. BOWEN, JR.
Federal 28
H /
Dec 4-5, 1959
SAN JUAN, MICHIGAN

