

NEW MEXICO OIL CONSERVATION COMMISSION
One-point Back Pressure Test for Gas Wells
(Deliverability)

REC'D

AUG 7 1961 Form C-122-C
4-1-54

Pool Atoka Formation Pennsylvanian County Red
Initial X Annual _____ Special _____ Date of test 8-3-61
Company Pan American Petroleum Corp. Lease Lee Gas Unit "G" Well No. 1
Unit 2 Sec. 22 Twp. 18-S Rge. 27-E 26 Purchaser Pan American Processing Facility
Casing 4-1/2 Wt. 9.5-11.6 I.D. _____ Set at 9380 Perf. 9003 To 9025
Tubing 2 Wt. 4.7 I.D. 1.995 Set at 8990 Perf. Open Holed To _____
Gas Pay: From 9003 To 9025 L 8990 x Gmix. 644 = GL 9790 Bar.Press. 13.2
Producing Thru: Casing _____ Tubing X Type Well Single
Single- Bradenhead-G.G. or G.O. Dual

FLOW DATA

Started		Taken		Duration Hours	Type Taps	Line Size	Orifice Size	Static Press.	Differ- ential	Flow Temp.
Date	time	Date	time							
8/2/61	AM	8/3/61	AM	24	Flange	4"	2.250	660 psig	16.10	73
	1:30 PM		1:30 PM							

FLOW CALCULATIONS

Static Pressure P _f	Differ- ential h _w	Meter Extension $\sqrt{P_f h_w}$	24-Hour Coeff- icient	Gravity Factor F _g	Temp. Factor F _t	Compress- ability F _{pv}	Rate of Flow MCF/Da. @ 15.025 psia Q
673.2	16.10	104.11	33.10	0.9744	0.9877	1.061	3519

SHUT-IN DATA

Shut-in		Press. Taken		Duration Hours	Wellhead Pressure (P _c) psia		W.H. Working Pressure (P _w) and (P _t) psia	
Date	Time	Date	Time		Tubing	Casing	Tubing	Casing
7/29/61	AM	8/1/61	AM	72	2763.2	2103.2 Packer	P _t = 2630.2 P _w = 2705.6	Packer
	1:30 PM		1:30 PM					

FLOW DATA

FRICTION CALCULATIONS(if necessary)

$$P_w^2 = (2630.2)^2 + [(9.936)(3519)]^2 \cdot 0.389 = 7320.1$$

DELIVERABILITY CALCULATIONS

P_w 2705.6 P_c 2763.2 P_w + P_c 0.97925

$$1 - \frac{P_w}{P_c} = 0.02085 \quad 1 + \frac{P_w}{P_c} = 1.97925 \quad \left| 1 - \frac{P_w}{P_c} \right| \left| 1 + \frac{P_w}{P_c} \right| = M \quad 0.04126$$

$$.36 + M = 2.7251 \quad \text{Log } 0.97925 \quad \times (n) = 0.88755$$

SUMMARY

P_c = 2763.2 psia
Q = 3519 MCF/Da.
P_w = 2705.6 psia
P_d = 2164.5 psia
D = 24.066 MCF/Da.

COMPANY Pan American Petroleum Corporation
ADDRESS Box 68, Hobbs, New Mexico
AGENT and TITLE J. M. Meek, Area Engineer
WITNESSED D. E. Taylor and J. E. Rodgers
COMPANY Pan American Petroleum Corporation

REMARKS

Deliverability test taken in conjunction with multi-point back pressure test as requested in MROC letter dated July 28, 1961, from A.L. Porter, Jr. to all operators in the Atoka-Pennsylvanian Gas pool.

Log Q = 3.546419
Log D = 4.381399
Antilog = 24.066 = D

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