

NEW MEXICO OIL CONSERVATION COMMISSION
GAS WELL TEST DATA SHEET - - SAN JUAN BASIN

(To be used for Fruitland, Pictured Cliffs, Mesaverde, & all Dakota
except Barker Dome Storage Area)

POOL Blanco FORMATION Mesaverde COUNTY San Juan
PURCHASING PIPELINE Southern Union Gathering System DATE TEST FILED July 19, 1960
OPERATOR Astec Oil & Gas Company LEASE Grenier WELL NO. 2
UNIT D SEC. 18 TWP. 31 RGE. 11 PAY ZONE: From 3050 To 5333
CASING: OD 5 1/2 WT. 14 SET AT 3036 TUBING: OD 2 WT. 4.7 T.Perf. 5260
PRODUCED THROUGH: CASING TUBING X GAS GRAVITY: MEASURED 0.682 ESTIMATED
DATE OF FLOW TEST: From 5/31 To 6/7 *Date S.I.P. MEASURED 6/14/60
METER RUN SIZE 4 ORIFICE SIZE 0.700 TYPE CHART SR TYPE TAPS F

OBSERVED DATA

Flowing casing pressure (Dwt) 551 psig + 12 = 563 psia (a)
Flowing tubing pressure (Dwt) 551 psig + 12 = 563 psia (b)
Flowing meter pressure (Dwt) 551 psig + 12 = 563 psia (c)
Flowing meter pressure (meter reading when Dwt. measurement taken:
Normal chart reading. psig + 12 = psia (d)
Square root chart reading (7.50) ² x spring constant 10 = 563 psia (d)
Meter error (c) - (d) or (d) - (c) ± = — psi (e)
Friction loss, Flowing column to meter:
(b) - (c) Flow through tubing: (a) - (c) Flow through casing... = 0 psi (f)
Seven day average static meter pressure (from meter chart):
Normal chart average reading. 550 psig + 12 = 562 psia (g)
Square root chart average reading (—) ² x sp. const. = psia (g)
Corrected seven day avge. meter press. (pf) (g) + (e) = 562 psia (h)
P_t = (h) + (f) = 562 psia (i)
Wellhead casing shut-in pressure (Dwt) 758 psig + 12 = 770 psia (j)
Wellhead tubing shut-in pressure (Dwt) 753 psig + 12 = 765 psia (k)
P_c = (j) or (k) whichever well flowed through. = 765 psia (l)
Flowing Temp. (Meter Run) °F + 460 = °Abs (m)
P_d = $\frac{1}{2}$ P_c = $\frac{1}{2}$ (l) = 383 psia (n)

FLOW RATE CALCULATION

$$Q = \frac{245}{(\text{integrated})} \times \left(\frac{\sqrt{(c)}}{\sqrt{(d)}} = \frac{—}{—} = \frac{1.0000}{—} \right)^* = 245 \text{ MCF/da.}$$

DELIVERABILITY CALCULATION

$$D = Q \frac{245}{—} \left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right] = \frac{438536}{268161} \frac{0.73}{1.4450} = 354 \text{ MCF/da.}$$

SUMMARY

P_c = 765 psia Company Astec Oil & Gas Company
Q = 245 Mcf/day By ORIGINAL SIGNED BY L. M. STEVENS
P_w = 563 psia Title L. M. Stevens, Dist. Engr.
P_d = 383 psia Witnessed by
D = 354 Mcf/day Company

* This is date of completion test.

* Meter error correction factor

REMARKS OR FRICTION CALCULATIONS

GL	(1-e ^{-S})	(F _c Q) ²	(F _c Q) ² R ²	(1-e ^{-S})	P _t ² (Column 1)	P _t ² + R ²	P _w
3587	0.230	5.304	1.220		315.844	315.844	



NEW MEXICO GEOLOGICAL COMMISSION
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(To be used for hydraulic fracture treatments, & all lateral
except lateral flow fracture tests)

FOOT _____
BLANK _____
FORMATION _____
COUNTY _____
DATE TEST FILLED _____
OPERATOR _____
WELL NO. _____
DATE OF TEST _____
TYPE OF TEST _____
DATE OF FLOW TEST _____
WELL RUN TYPE _____

TEST DATA
(a) _____
(b) _____
(c) _____
(d) _____
(e) _____
(f) _____
(g) _____
(h) _____
(i) _____
(j) _____
(k) _____
(l) _____
(m) _____
(n) _____

PERMEABILITY CALCULATION

PERMEABILITY CALCULATION

SUMMARY

EXAMPLES OF FRICTION CALCULATIONS

Q	(1-2)	(3-4)	(5-6)	(7-8)	(9-10)
1.000	1.000	1.000	1.000	1.000	1.000

