-3 NMOCC
5 Austral
1 EPNG
1 File

Initial Deliverability Test

Form C-122-A
Revised April 21, 1955

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 Basin - Dakota Formation Dakota County San Juan

Purchasing Pipeline El Paso Natural Gas Co. Date Test Filed 8-10-65

Operator Austral Oil Co. Lease ~~Navajo~~ Marshall Well No. 2

Unit F Sec. 15 Twp. 27N Rge. 9W Pay Zone: From 6484 To 6712

Casing: OD 4½" WT. 10.5# Set At 6762 Tubing: OD 2 7/8" WT. 6.4# T. Perf. 6442

Produced Through: Casing ____ Tubing X Gas Gravity: Measured .662 Estimated ____

Date of Flow Test: From 6-29-65 To 7-7-65 * Date S.I.P. Measured 2-3-65

Meter Run Size 4" Orifice Size 1.500" Type Chart S.R. Type Taps Flange

OBSERVED DATA

Flowing casing pressure (Dwt) Packer	psig + 12 =	____	psia (a)
Flowing tubing pressure (Dwt) 512	psig + 12 =	524	psia (b)
Flowing meter pressure (Dwt) 476	psig + 12 =	488	psia (c)
Flowing meter pressure (meter reading when Dwt. measurement taken:			
Normal chart reading ____	psig + 12 =	____	psia (d)
Square root chart reading (6.95)² x spring constant 10	=	483	psia (d)
Meter error (c) - (d) or (d) - (c) ±	=	+5	psi (e)
Friction loss, Flowing column to meter:			
(b) - (c) Flow through tubing: (a) - (c) Flow through casing	=	+36	psi (f)
Seven day average static meter pressure (from meter chart):			
Normal chart average reading ____	psig + 12 =	____	psia (g)
Square root chart average reading (____)² x sp. const. ____	=	483	psia (g)
Corrected seven day avge. meter press. (p_f) (g) + (e)	=	488	psia (h)
P_t = (h) + (f)	=	524	psia (i)
Wellhead casing shut-in pressure (Dwt) ____	psig + 12 =	____	psia (j)
Wellhead tubing shut-in pressure (Dwt) 2047	psig + 12 =	2059	psia (k)
P_c = (j) or (k) whichever well flowed through	=	2059	psia (l)
Flowing Temp. (Meter Run) ____ °F + 460	=	____	°Abs (m)
P_d = ½ P_c = ½ (l)	=	1030	psia (n)

FLOW RATE CALCULATION

$$Q = 1189 \text{ (integrated)} \times \left(\frac{\sqrt{(c)}}{\sqrt{(d)}} = \frac{\text{xxx } / 1.0104}{\quad} = 1.0052 \right)^{*} = 1195 \text{ MCF/da}$$

DELIVERABILITY CALCULATION

$$D = Q\,1195 \left[\frac{P_c^2 - P_d^2 = 3,178,581}{P_c^2 - P_w^2 = 3,953,246} \right]^{n} \frac{.8490}{(.8040)^{.75}} = 1015 \text{ MCF/da.}$$

SUMMARY

P_c =	2059	psia
Q =	1195	Mcf/day
P_w =	535	psia
P_d =	1030	psia
D =	1015	Mcf/day

Company Austral Oil Co.
By J. A. Angel (J. A. A.)
Title Consulting Engineer
Witnessed by ____
Company ____

* This is date of completion test.
* Meter error correction factor

REMARKS OR FRICTION CALCULATIONS

GL	$(1-e^{-S})$	$(F_cQ)^2$	$\frac{(F_cQ)^2}{R^2}(1-e^{-S})$	Pt^2 (Column i)	$P_t^2 + R^2$	P_w
4265	.267	44.002	11.749	274.576	286.325	535

Fc = 5.551

RECEIVED
AUG 11 1965
OIL CON. COM.
DIST. 3