

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)

74-671-01

Pool Blanco Formation Mesa Verde County San Juan
Purchasing Pipeline El Paso Natural Gas Date Test Filed _____

Operator El Paso Natural Gas Lease Bolack Well No. 13-C (N)
Unit N Sec. 29 Twp. 27 Rge. 8 Pay Zone: From 4630 To 4762
Casing: OD 5-1/2 WT. 15-1/2 Set At 4825 Tubing: OD 2 WT. 4.7 T. Perf. 4721
Produced Through: Casing _____ Tubing X Gas Gravity: Measured .730 Estimated _____
Date of Flow Test: From 10/22/58 To 10/30/58 * Date S.I.P. Measured 5/15/58 (14 days)
Meter Run Size _____ Orifice Size _____ Type Chart _____ Type Taps _____

OBSERVED DATA

Flowing casing pressure (Dwt) _____ psig + 12 = _____ psia (a)
Flowing tubing pressure (Dwt) _____ psig + 12 = _____ psia (b)
Flowing meter pressure (Dwt) _____ psig + 12 = _____ psia (c)
Flowing meter pressure (meter reading when Dwt. measurement taken):
Normal chart reading _____ psig + 12 = _____ psia (d)
Square root chart reading (_____) ² x spring constant _____ = _____ 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 _____ = _____ psi (f)
Seven day average static meter pressure (from meter chart):
Normal chart average reading _____ psig + 12 = _____ psia (g)
Square root chart average reading (7.05) ² x sp. const. 10 = 497 psia (g)
Corrected seven day avge. meter press. (p_f) (g) + (e) _____ = 497 psia (h)
P_t = (h) + (f) _____ = 497 psia (i)
Wellhead casing shut-in pressure (Dwt) _____ psig + 12 = _____ psia (j)
Wellhead tubing shut-in pressure (Dwt) 1088 psig + 12 = 1100 psia (k)
P_c = (j) or (k) whichever well flowed through _____ = 1100 psia (l)
Flowing Temp. (Meter Run) 61 °F + 460 _____ = 521 °Abs (m)
P_d = 1/2 P_c = 1/2 (l) _____ = 550 psia (n)

Q = _____ X $\left(\frac{\text{FLOW RATE CALCULATION}}{\frac{\sqrt{(c)}}{\sqrt{(d)}}} \right) = \underline{320} \text{ MCF/da}$
(integrated)

DELIVERABILITY CALCULATION

D = Q 320 $\left[\frac{(P_c^2 - P_d^2)}{(P_c^2 - P_w^2)} \right]^n = \underline{307} \text{ MCF/da.}$
 $\frac{.9443}{.9579}$

SUMMARY

P_c = 1100 psia
Q = 320 Mcf/day
P_w = 499 psia
P_d = 550 psia
D = 307 Mcf/day

Company El Paso Natural Gas
By Original Signed
Title Harold L. Kendrick
Witnessed by _____
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 (1-e ^{-S}) R ²	P _t ² (Column i)	P _t ² + R ²	P _w
<u>3446</u>	<u>.222</u>	<u>9.054</u>	<u>2010</u>	<u>247009</u>	<u>249019</u>	<u>499</u>

D at 500 = 316



*well
file*

NEW MEXICO
OIL CONSERVATION COMMISSION
AZTEC, NEW MEXICO

June 26, 1958

Mr. H. L. Kendrick
El Paso Natural Gas Co.
Box 997
Farmington, New Mexico

Re: EPNG #13 Bolack "C" (PM)
Dual Completion
SW/4 29, 27N, 8W

Dear Sir:

This letter will serve as your authorization to produce the Pictured Cliffs zone of the subject well into a gathering system for a period of five days during remedial action for repair of zone separation equipment in the well bore.

Such production is in the interest of conservation by the elimination of flaring the gas.

All such production shall be accountable against the future allowable of subject well in the South Blanco-Pictured Cliffs Pool.

Subject well is to be shut-in at the completion of such remedial action for communications tests.

Yours very truly,

cc: N.M.O.C.C
Santa Fe, N. M.

A. R. Kendrick
Engineer, District #3

EPNG (Farmington)
Z W M Rodgers

ARK/mp

NEW MEXICO
OIL CONSERVATION COMMISSION
ALBUQUERQUE, NEW MEXICO

June 30, 1928

Mr. H. J. Kendrick
El Paso Natural Gas Co
Box 997
Farmington, New Mexico

Re: EONG #13 Borehole "C" (RM)
Dual Completion
SW #2 29, 30, 31, 32

Dear Sir:

This letter will serve as your authorization to produce the Borehole
Cliffs zone of the subject well into a gathering system for a period
of five days during remedial action for repair of zone separation
equipment in the well bore.

Such production is in the interest of conservation of the formation
of flowing the gas.

All such production shall be accountable against the future allowance
of subject well in the South Blanco Borehole Cliffs field.

Subject well is to be shut in at the completion of such remedial
action for communications tests.

Yours very truly,

A. E. Kendrick
Engineer, District #3

cc: W.H.O.C.C.
State Geol. B. N.
EONG (Farmington)
W. H. Rogers

AOK:mo

El Paso Natural Gas Company

El Paso, Texas

DIRECT REPLY TO:
P. O. BOX 997
FARMINGTON, NEW MEXICO

June 26, 1958



Mr. E. C. Arnold
Oil Conservation Commission
1000 Rio Brazos Road
Aztec, New Mexico

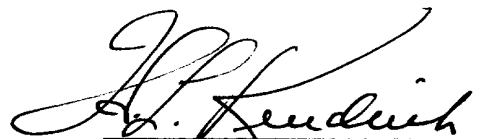
Re: El Paso Natural Gas Company Well
Bolack 13-C, SW 29-27-8.

Dear Mr. Arnold:

The above captioned well has been dually completed in the Mesa Verde and Pictured Cliffs zones. Tests that have been conducted on this well indicate there is leakage in the Mesa Verde tubing string, which permits Mesa Verde gas to flow into the Pictured Cliffs zone.

Presently an attempt is being made to seal the Mesa Verde tubing to stop this leak. In the process of sealing the tubing we need to produce the Pictured Cliffs zone. In order to prevent waste of gas (by flaring) we request permission to produce Pictured Cliff gas into our gathering system for this "work-over" period.

Very truly yours,


H. L. Kendrick
Gas Engineer

HLK/nb

New Mexico
OIL CONSERVATION COMMISSION
Aztec, New Mexico

April 11, 1958

*El Paso Natural Gas Company
Box 997
Farmington, New Mexico*

Attn: Mr. E. S. Oberly

*Re: El Paso Nat. Gas #13-C Belack
S⁴ Section 29-27N-8W
San Juan County*

Gentlemen:

This letter will serve as your tentative approval for the dual completion of the above well as a gas-gas dual in the Pictured Cliffs and Mesaverde Formations.

It is understood the well will be equipped as set out in your application. Upon final completion, application for administrative approval should be made to Mr. A. L. Porter in Santa Fe, as provided in Rule 112.

Yours very truly

*Emery C. Arnold
Supervisor, District #3*

ECA:ko

*cc: Mr. A. L. Porter Jr
OCC, Santa Fe, N.M.*

El Paso Natural Gas Company

El Paso, Texas

April 3, 1958

DIRECT REPLY TO:
P. O. BOX 997
FARMINGTON, NEW MEXICO

Mr. Emery Arnold
Oil Conservation Commission
1000 Rio Brazos Road
Aztec, New Mexico

Dear Mr. Arnold:

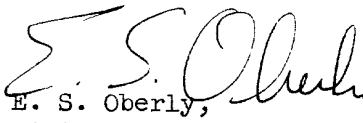
This letter is to inform you that El Paso Natural Gas Company is in the process of drilling and dually completing the following well:

Bolack No. 13-C (PM)

SW 29-27-8

This well will be dually completed in the Pictured Cliffs and Mesa Verde formations as a gas-gas dual. A production packer will be installed on 2" EUE tubing between the two zones, and a 1 1/4" siphon string will be landed opposite the upper zone. The Mesa Verde gas will be produced through the 2" tubing and the Pictured Cliffs gas will be produced through the casing. Upon final successful completion a formal application for administrative approval will be submitted to the Oil Conservation Commission in Santa Fe.

Yours very truly,


E. S. Oberly,
Division Petroleum Engineer

ESO:dgb

cc: U. S. G. S. (Phil McGrath)
D. N. Canfield

