

BHP • BU • PI • DD • GWT • RFS • GOR • FL • TS

TEFTELLER, INC.

reservoir engineering data

MIDLAND, TEXAS / FARMINGTON, NEW MEXICO

Associated with *Dennis Owens Co.*

P. O. Box 5247

Midland, Texas 79701

May 18, 1970

El Paso Natural Gas Co.
P. O. Box 990
Farmington, New Mexico

Attention: Mr. Carl E. Matthews

Subject: Temperature Survey
San Juan 27-5 Unit No. 120
Basin Dakota Field
Rio Arriba County, New Mexico
Our File No. 2-3890-T

L-23-27N-5W

Gentlemen:

Attached hereto are the results of a temperature survey which was made on the above captioned well May 3, 1970.

The data presented are in graphical form.

It has been our pleasure to have conducted this service for you. If we may be of further assistance, please call us at anytime.

Respectfully submitted,

TEFTELLER, INC.

Neil Tefteller

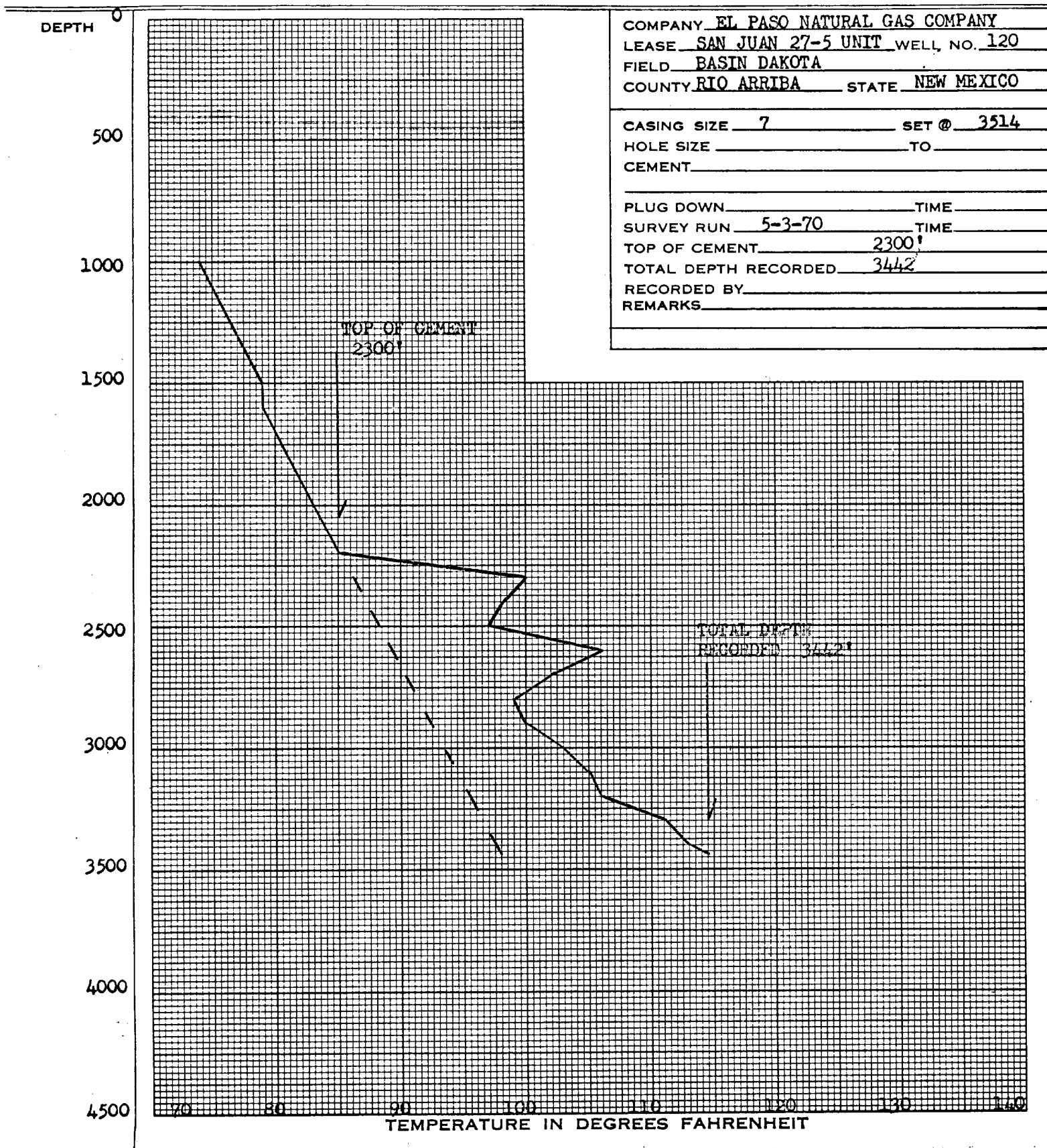
Neil Tefteller

NT/ct



Serving the Permian Basin & Rocky Mountain Area

TEMPERATURE SURVEY LOG



EL PASO NATURAL GAS COMPANY
OPEN FLOW TEST DATA

DATE 6-3-70

Operator El Paso Natural Gas Company		Lease San Juan 27-5 Unit No. 120	
Location 1840 S, 800 W, Sec. 23, T27N, R5W		County Rio Arriba	State New Mexico
Formation Dakota		Pool Basin	
Casing: Diameter 4.500	Set At: Feet 7809	Tubing: Diameter 1.900	Set At: Feet 7663
Pay Zone: From 7478	To 7688	Total Depth: 7809	Shut In 5-20-70
Stimulation Method SWF		Flow Through Casing XX	Flow Through Tubing

Choke Size, Inches .750	Choke Constant: C 12.365			
Shut-In Pressure, Casing, PSIG 2638	+ 12 = PSIA 2650	Days Shut-In 14	Shut-In Pressure, Tubing PSIG 2355	+ 12 = PSIA 2367
Flowing Pressure: P PSIG 222	+ 12 = PSIA 234		Working Pressure: P _w PSIG 488	+ 12 = PSIA 500
Temperature: T = 68 °F F _t = .9924	n = .75		F _{pv} (From Tables) 1.022	Gravity 650 F _g = .9608

CHOKE VOLUME = Q = C × P_i × F_t × F_g × F_{pv}

Q = 12.365 × 234 × .9924 × .9608 × 1.022 = 2820 MCF/D

OPEN FLOW = Aof = Q $\left(\frac{P_c^2}{P_c^2 - P_w^2} \right)^n$

Note: well produced light fog of water and distillate throughout test.

Aof = $\left(\frac{7022500}{6772500} \right)^n = (2820)(1.0369)^{.75} = (1.0275)(2820)$

Aof = 2898 MCF/D



TESTED BY Jesse B. Goodwin

WITNESSED BY

H. L. Kendrick
H. L. Kendrick