

Letter to Santa Fe
9-11-58 al

El Paso Natural Gas Company

El Paso, Texas
August 28, 1958

ADDRESS REPLY TO:
POST OFFICE BOX 997
FARMINGTON, NEW MEXICO

Mr. A. L. Porter
Secretary and Director
Oil Conservation Commission
Box 871
Santa Fe, New Mexico



Dear Sir:

This is a request for administrative approval for a well dually completed in the Wildcat Chacra Pool and South Blanco Pictured Cliffs Pool. The El Paso Natural Gas Company Johnston State No. 3 (CP) is located 1273 feet from the North line and 990 feet from the East line of Section 32, Township 26 North, Range 6 West, N.M.P.M., Rio Arriba County, New Mexico.

This well has been completed in the Chacra formation and in the Pictured Cliffs formation. Completion has been accomplished in the following manner:

1. 10 3/4" surface casing set at 173 feet with 120 sacks of cement circulated to the surface.
2. 7 5/8" intermediate casing set at 3029 feet with 200 sacks of cement. Top of the cement is at 1520 feet, which is above the top of the Pictured Cliffs at 2843 feet.
3. 5 1/2" liner set from 2963 feet to 5291 feet with 300 sacks of cement.
4. The casing and liner were tested for leaks before perforating.
5. The Point Lookout section was perforated in four intervals and fractured with water and sand, and subsequently squeezed off with 100 sacks of cement.
6. The Chacra formation was perforated in two intervals and fractured with water and sand.
7. The Pictured Cliffs formation was perforated in one interval and fractured with water and sand.
8. All perforations were cleaned out after treatment and completion was accomplished by setting a Baker Model "EGJ" production packer on 2" EUE tubing at 3023 feet with tubing perforations set opposite the Chacra perforations. 1 1/4" EUE tubing siphon string was run with tubing perforations set opposite the Pictured Cliffs perforations. The Chacra gas will be produced through the 2" tubing and the Pictured Cliffs gas through the casing.
9. Initial potential tests have been run and commercial production has been found in both zones. A packer leakage test has been run and witnessed by a member of the Astec office of the Oil Conservation Commission. This test shows no communication in the well bore between the two producing formations.

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Administrative approval is requested for the dual completion to allow production from both known producing formations, eliminating the high initial cost of drilling two separate wells.

The operators offsetting the acreage dedicated to this well have waived all objections to El Paso Natural Gas Company's intention to dually complete the well. Enclosed are copies of said waivers. Also enclosed are:

- (a) Two copies of the schematic diagram of the mechanical installations.
- (b) Two copies of the affidavit from the packer setting company stating that the packer used was set at the depth shown.
- (c) Two copies of the packer leakage test as observed by a member of the Oil Conservation Commission.
- (d) Two copies of the initial potential test showing commercial production from the two formations.
- (e) Two plats showing the location of the well and offset operators.

Copies of the electric and radioactive logs will be sent to you under separate cover.

It is intended to dedicate the NE/4 of Section 32, Township 26 North, Range 6 West to the Chacra formation and the NE/4 of Section 32, Township 26 North, Range 6 West to the Pictured Cliffs formation.

Any further information required will be furnished upon your request. Thank you for your consideration in this matter.

Yours very truly,

OR'G'NAL SIGNED E. S. OBERLY

E. S. Oberly,
Division Petroleum Engineer

ESO:dgb

Encl.

cc: NMOCC (Emery Arnold) (2)✓
Sam Smith
USGS (Phil McGrath)

STATE OF NEW MEXICO }
COUNTY OF SAN JUAN }



I, J. E. Rowland, being first duly sworn upon my oath depose
and say as follows:

I am an employee of Baker Oil Tools, Inc., and that on July 6,
1958, I was called to the location of the El Paso Natural Gas Company Johnston
State No. 3 (CP) Well located in the NENE/4 of Section 32, Township 26 North,
Range 6 West, N.M.P.M., for advisory service in connection with installation
of a production packer. In my presence, a Baker Model "EGJ" production Packer
was set in this well at 3023 feet in accordance with the usual practices and
customs of the industry.

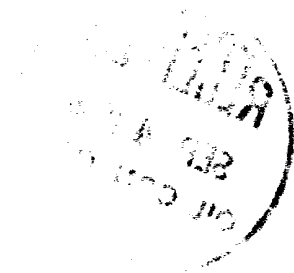
A handwritten signature of J. E. Rowland, written in cursive, over a horizontal line.

Subscribed and sworn to before me, a Notary Public in and for
San Juan County, New Mexico, the 29th day of August, 1958.

My commission expires August 26, 1959.

A handwritten signature of Glen Dale Hill, written in cursive, over a horizontal line.
Notary Public in and for San Juan County,
New Mexico

~~My commission expires February 24, 1960.~~



NEW YORK, N.Y., May 14, 1932.

Dear Sir:

I have the honor to acknowledge the receipt of your letter of May 10, 1932, in relation to the above-captioned matter.

The Bureau has been advised of the same and is taking the necessary steps to effect the same.

Very respectfully,
J. Edgar Hoover

[Handwritten signature]

Very respectfully,
J. Edgar Hoover

Enclosed for the Bureau are two copies of the letterhead memorandum.

[Handwritten signature]

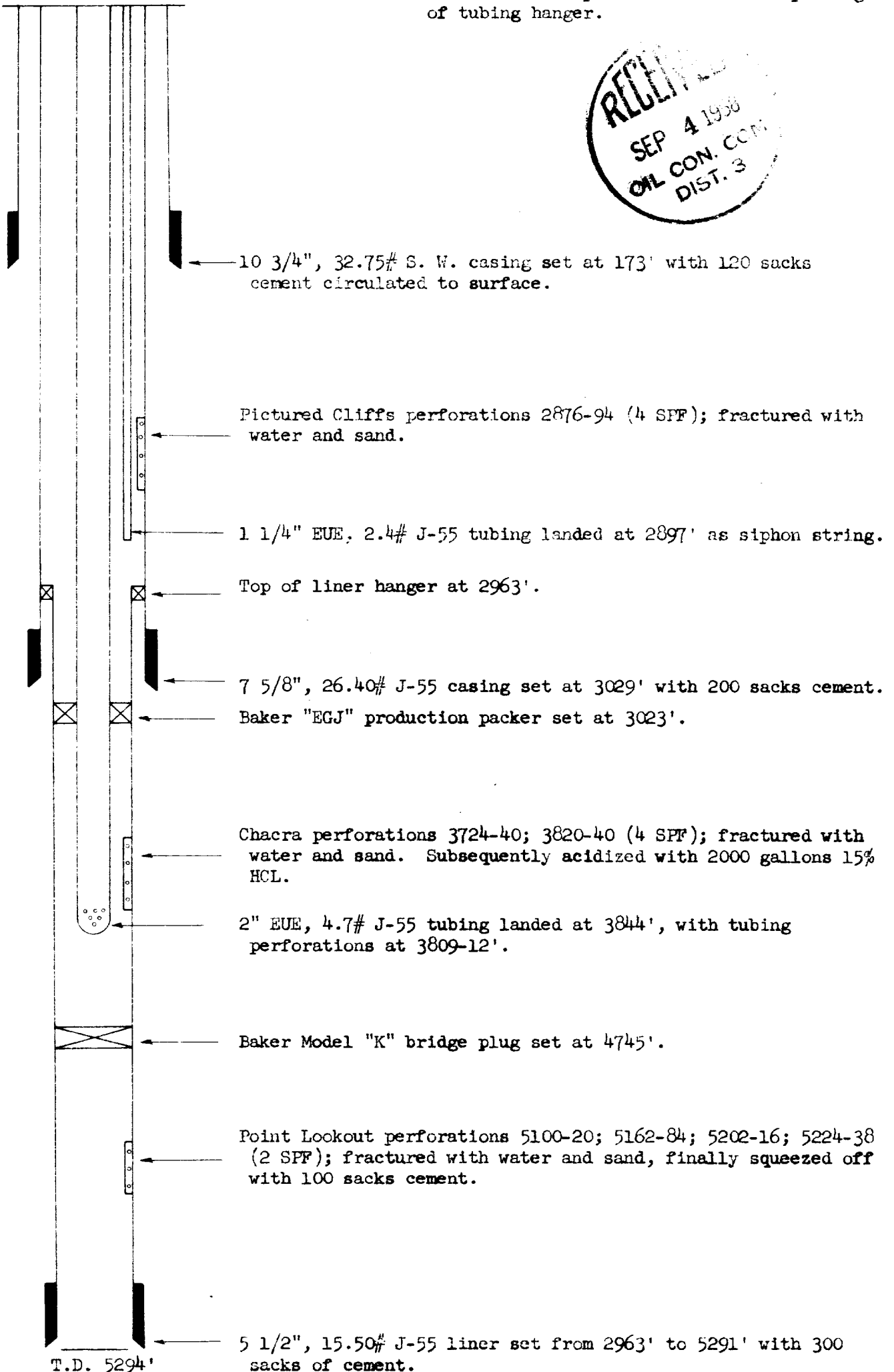
My commission expires August 30, 1933.

~~Very respectfully,
J. Edgar Hoover~~

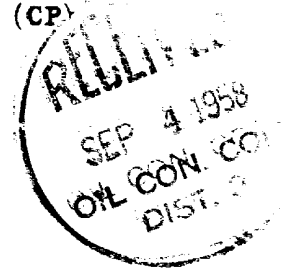
SCHEMATIC DIAGRAM OF DUAL COMPLETION
 El Paso Natural Gas Co. Johnston State No. 3 (CP)
 NE/4 Section 32, T-26-N, R-6-W

Dual String
 Xmas Tree

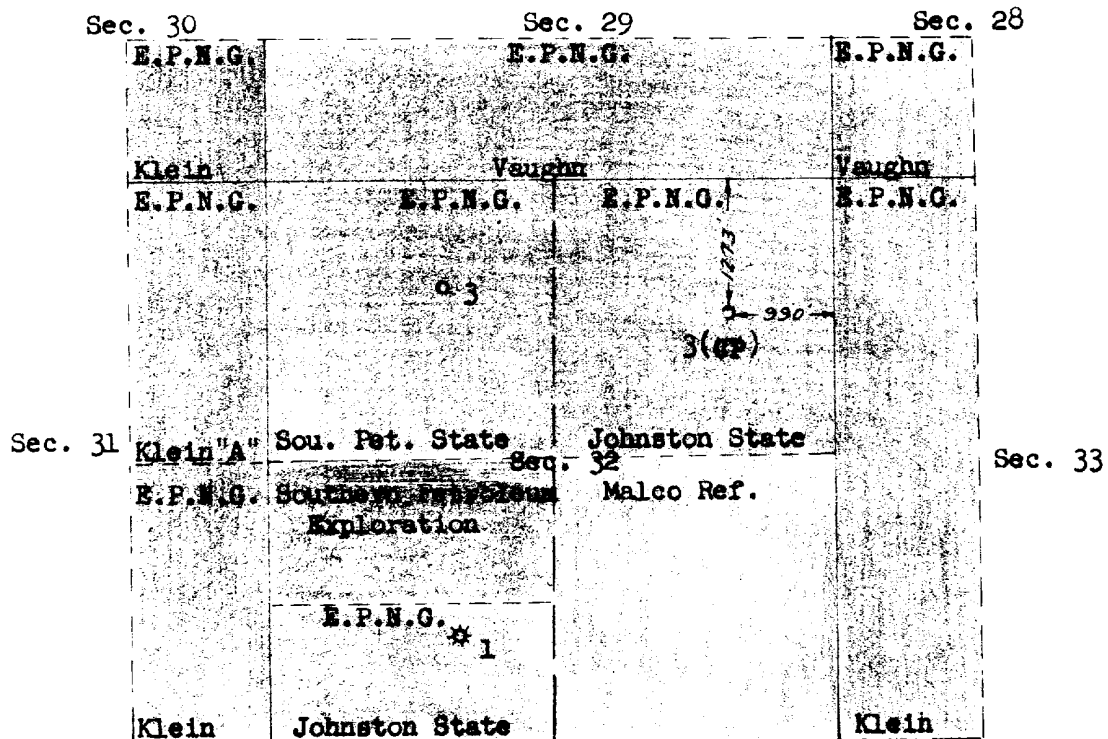
Zero reference point 10.0' above top flange
 of tubing hanger.



PLAT SHOWING LOCATION OF DUALY COMPLETED
El Paso Natural Gas Co. Johnston State No. 3 (CP)
and Offset Acreage



T-26-N, R-6-W



EL PASO NATURAL GAS COMPANY
EL PASO, TEXAS

SCALE	DATE	No.
DRAWN BY	CHECKED BY	

EL PASO NATURAL GAS COMPANY

P. O. Box 997
Farmington, New Mexico

August 15, 1958



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

Re: Packer Leakage Test on the El Paso Natural Gas
Company Well, Johnston State No. 3 (C-P),
1273N, 990E; 32-26-6, Rio Arriba, New Mex.
(Name - Location - Company)

Dear Mr. Arnold:

The subject well was dually completed in the Pictured Cliffs and Chacra
zones and a packer was set at 3023 feet. The Chacra zone was tested
through a 3/4" choke for three hours August 1, 1958 with the following data obtained:

PC SIPC 827 psig; Shut-in 26 days

PC SIPT 828 psig;

ChXX SIPT 905 psig; Shut-in 26 days

Time Minutes	(CH) Flowing Pressure Tubing Psig	(PC) SIPC (C) Psig	(Ch) Working Pressure, Psig	Temp ° F
15	286	828		58
30	261	828		59
45	247	829		59
60	235	829		60
180	194	829	Calc. 352	64

The choke volume for the Chacra was 2403 MCF/D with an AOF of
2780 MCF/D.

The Pictured Cliffs zone was tested August 15, 1958 with a 3/4" choke
for 3 hours with the following data obtained:

PC SIPC 839 psig; Shut-in 40 days

PC SIPT 839 psig;

Ch XX SIPT 919 psig; Shut-in 14 days

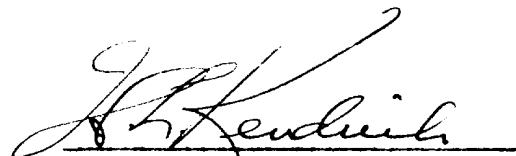
August 15, 1958

Time Minutes	(PC) Flowing Pressure <u>Casing Psig</u>	(C) SIP (T) Psig	(PC) Working Pressure, Psig	Temp ° F
0		919		
15	317	918		54
30	287	919		58
45	271	919		58
60	264	919		58
180	242	919	249	62

The choke volume for the Pictured Cliffs test was 3096 MCF/D with an AOF
of 3367 MCF/D.

The results of the above tests indicate there is no packer leakage.

Very truly yours,



H. L. Kendrick
Gas Engineer

HLK/nb

cc: M. M. Rodgers
E. S. Oberly (C)
File

EL PASO NATURAL GAS COMPANY
OPEN FLOW TEST DATA

DUAL COMPLETION

DATE August 1, 1958

Operator El Paso Natural Gas		Lease Johnston State No. 3 (C)	
Location 1273N, 990E; 32-26-6		County Rio Arriba	State New Mexico
Formation Chacara		Pool Undesignated	
Casing Diameter	Set At Feet 5-1/2 liner 2963 - 5291	Tubing Diameter 2"	Set At Feet 3834
Pay Zone: From 3724	To 3840	Total Depth 5294 c/o 3930	Shut-in 7/6/58
Stimulant or Method Acidized w/HCl		Flow Through Casing	Flow Through Tubing X

Choke Size, Inches .75	Choke Constant 12.365		
Shut-In Pressure, Casing, PSIG 827 (PC)	PSIA 839	Days Shut-in 25	Shut-In Pressure, Tubing, PSIG 905 (C)
Flowing Pressure, P, PSIG 194	PSIA 206		Working Pressure, P _w , PSIG Calc. 364
Temperature, T, F 64			Flow from Tables 1.023
			Gravity .700

Initial SIPT (PC) 828 psig

Packer at 3023

Final SIPC (PC) 829 psig

CHOKE VOLUME $Q = C \times P_1 \times F_1 \times F_2 \times F_{gv}$

$$C = 12.365 \times 206 \times .9962 \times .9258 \times 1.023$$

2403

MCF/D

OPEN FLOW: $A_{of} = Q$

$$\left(\frac{P_1^2 - P_2^2}{P_c^2 - P_w^2} \right)^n$$

A_{of}

$$\left(\frac{840889}{708393} \right)^n$$

$$1.1870^{.85} \times 2403 = 1.1570 \times 2403$$

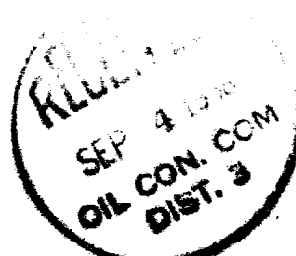
A_{of}

2780

MCF/D

TESTED BY Frank M. ClarkWITNESSED BY Fred Cook (NMOCC)Checked By M. W. Rischard

Lewis D. Galloway
L. D. Galloway



EL PASO NATURAL GAS COMPANY
OPEN FLOW TEST DATA

DUAL COMPLETION

DATE August 15, 1958

Operator El Paso Natural Gas		Lease Johnston State No. 3 (P)	
Location 1273N, 990E; 32-26-6		County Rio Arriba	State New Mexico
Formation Pictured Cliffs		Pool South Blanco P.C.	
Casing Diameter 7-5/8	Set At: Feet 3017	Tubing Diameter 1-1/4"	Set At: Feet 2887
Pay Zone: From 2876	To 2894	Total Depth: 5294 c/o 3930	Shut-in 7/6/58
Stimulation Method Azidized w/HCl		Flow Through Casing X	Flow Through Tubing

Choke Size, Inches 3/4	Choke Constant: C 12.365		
Shut-In Pressure, Casing, PSIG 839 (PC)	PSIA 851	Days Shut-In 40 (PC)	Shut-In Pressure, Tubing, PSIG 839 (PC)
Flowing Pressure: F, PSIG 242	PSIA 254	Working Pressure: Pw, PSIG 249	PSIA 261
Temperature: T, F 62	n .85	Fpv (From Tables) 1.024	Gravity .647

Initial SIPT (C) 919 psig

Final SIPT (C) 919 psig

Packer at 3023

2" at 3834

CHOKE VOLUME $Q = C \times P_c \times F_c \times F_g \times F_{pv}$

$$Q = 12.365 \times 254 \times .9981 \times .9645 \times 1.024$$

3096

MCF/D

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

$$A_{cf} = \left(\frac{724201}{656080} \right)^n$$

$$1.1038^{.85} (3096) = 1.0876 (3096)$$

$$A_{cf} = 3367 \text{ MCF/D}$$

TESTED BY **M. W. Rischard**WITNESSED BY **Fred Cook**

L. D. Galloway
L. D. Galloway *g. J. H. K.*

