

**CASE 1560: El Paso Nat. Gas Co. applica-
tion for dual completion of Huerfano Unit
Well #92, 7-26N-9W.**

Case No.

1560

Application, Transcript,
Small Exhibits, Etc.

BEFORE THE
OIL CONSERVATION COMMISSION
DECEMBER 10, 1958

IN THE MATTER OF:

APPLICATION OF EL PASO NATURAL GAS COMPANY, CASE 1560

TRANSCRIPT OF HEARING

DEARNLEY, MEIER & ASSOCIATES
GENERAL LAW REPORTERS
ALBUQUERQUE, NEW MEXICO
Phone CHapel 3-6691

BEFORE THE
OIL CONSERVATION COMMISSION
December 10, 1958

IN THE MATTER OF:

Application of El Paso Natural Gas Company)
for a dual completion. Applicant, in the)
above-styled cause, seeks an order authori-)
zing it to dually complete its Huerfano Unit)
Well No. 92 (DG) located in the SW/4 NW/4)
of Section 7, Township 26 North, Range 9 West,)
San Juan County, New Mexico, in such a manner)
as to permit the production of gas from an)
undesignated Gallup gas pool and gas from an)
undesignated Dakota gas pool.)

Case 1560

BEFORE:

Daniel S. Nutter, Examiner.

TRANSCRIPT OF HEARING

MR. NUTTER: The hearing will come to order, please.

The next Case on the docket will be Case 1560.

MR. PAYNE: Mr. Examiner, we have a letter dated
November 24, 1958, from El Paso Natural Gas Company asking the
case be dismissed without prejudice. I so move at this time.

MR. NUTTER: Is there objection to the dismissal
of Case 1560? If not, the case will be dismissed.

STATE OF NEW MEXICO)
) ss
 COUNTY OF BERNALILLO)

I, JOHN CALVIN BEVELL, Notary Public in and for the County of Bernalillo, State of New Mexico, do hereby certify that the foregoing and attached Transcript of Hearing before the New Mexico Oil Conservation Commission was reported by me in stenotype and reduced to typewritten transcript by me; that the same is a true and correct record, to the best of my knowledge, skill and ability.

WITNESS my Hand and Seal this 16th day of December, 1958, in the City of Albuquerque, County of Bernalillo, State of New Mexico.

John Calvin Bevell
 NOTARY PUBLIC

My Commission Expires:

January 24, 1962

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 1562 heard by me on 12-10, 1958.

[Signature], Examiner
 New Mexico Oil Conservation Commission

10/1/58
Case 1560

El Paso Natural Gas Company

El Paso, Texas

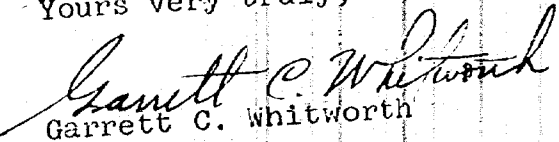
November 24, 1958

Mr. A. L. Porter, Jr.
Secretary-Director
New Mexico Oil Conservation Commission
P. O. Box 871
Santa Fe, New Mexico

Dear Mr. Porter:

We have been notified that our application for a gas-gas dual completion of our Huerfano Unit Well No. 92 (DG) in Section 7, Township 26 North, Range 9 West, has been set for an examiner hearing on December 10, 1958. El Paso Natural Gas Company is in the process of reworking this well and we are of the opinion that after reworking procedures are concluded, this well may be completed and produced as a gas-gas dual without the necessity of a hearing. Accordingly, we hereby request that said application be dismissed without prejudice.

Yours very truly,


Garrett C. Whitworth
Attorney

GCW:hsu

OIL CONSERVATION COMMISSION
P. O. BOX 871
SANTA FE, NEW MEXICO

P.O. Box 871
Santa Fe, New Mexico
December 18, 1958

Mr. Ben Howell
El Paso Natural Gas Company
P.O. Box 1492
El Paso, Texas

Dear Mr. Howell:

We enclose two copies of Orders R-1300 and R-1303
issued December 17, 1958, by the Oil Conservation Commission
in Cases 1498 and 1560, respectively.

Very truly yours,

A. L. Porter, Jr.
Secretary - Director

bp
Encls.

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Y

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
COMMISSION OF NEW MEXICO FOR
THE PURPOSE OF CONSIDERING:

CASE NO. 1560
Order No. R-1303

APPLICATION OF EL PASO NATURAL GAS
COMPANY FOR AN ORDER AUTHORIZING A
GAS-GAS DUAL COMPLETION IN AN
UNDESIGNATED GALLUP GAS POOL AND
UNDESIGNATED DAKOTA GAS POOL IN SAN
JUAN COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on December 10, 1958, at Santa Fe, New Mexico, before Daniel S. Nutter, Examiner duly appointed by the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission," in accordance with Rule 1214 of the Commission Rules and Regulations.

NOW, on this 12th day of December, 1958, the Commission, a quorum being present, having considered the application and the recommendations of the Examiner, Daniel S. Nutter, and being fully advised in the premises,

FINDS:

(1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.

(2) That the applicant, El Paso Natural Gas Company, by letter dated November 24, 1958, requested that the case be dismissed.

IT IS THEREFORE ORDERED:

That Case 1560 be and the same is hereby dismissed.

DONE at Santa Fe, New Mexico, on the day and year herein-
above designated.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

E. L. Mechem
Edwin L. Mechem, Chairman

Murray E. Morgan
Murray E. Morgan, Member

A. L. Porter, Jr.
A. L. Porter, Jr., Member & Secretary



DOCKET: EXAMINER HEARING DECEMBER 10, 1958

OIL CONSERVATION COMMISSION 9 a.m., Mabry Hall, State Capitol, Santa Fe, New Mexico

The following cases will be heard before Daniel S. Nutter, Examiner:

CASE 1558:

Application of Sunray Mid-Continent Oil Company for permission to commingle the production from two separate oil pools. Applicant, in the above-styled cause, seeks an order authorizing it to commingle the production from the Blinebry Oil Pool and Drinkard Pool on its State Land "15" Lease comprising the S/2 S/2 of Section 16, Township 21 South, Range 37 East, Lea County, New Mexico. Applicant proposes to meter the production from the Blinebry Oil Pool prior to being commingled and to determine Drinkard Pool production by subtracting the metered volume on the total gauged production in the common tank battery.

CASE 1559:

Application of Sunray Mid-Continent Oil Company for an order authorizing a secondary recovery project in San Juan County, New Mexico, and for the promulgation of special rules and regulations in connection with said project. Applicant, in the above-styled cause, seeks an order authorizing it to institute a secondary recovery project in the Bisti-Lower Gallup Oil Pool for the injection of dry gas into the Gallup formation through its Federal "C" Well No. 18, located in the SW/4 NE/4 of Section 7, Township 25 North, Range 12 West, San Juan County, New Mexico. Applicant further proposes that special rules and regulations be promulgated to govern the operation of the above-referenced project, which rules would provide among other things for the conversion of additional injection wells without notice and hearing, the transfer of allowables from injection wells to producing wells, transfer of allowables from wells which have been shut-in for observation or to increase the efficiency of the project, exemption of all leases connected with the project from gas-oil ratio limitation provided gas produced therefrom is reinjected, and such other rules and regulations the Commission may deem appropriate.

CASE 1560:

Application of El Paso Natural Gas Company for a dual completion. Applicant, in the above-styled cause, seeks an order authorizing it to dually complete its Huerfano Unit Well No. 92 (DG) located in the SW/4 NW/4 of Section 7, Township 26 North, Range 9 West, San Juan County, New Mexico, in such a manner as to permit the production of gas from an undesignated Gallup gas pool and gas from an undesignated Dakota gas pool.

CASE 1561:

Application of Tidewater Oil Company for a dual completion. Applicant, in the above-styled cause, seeks an order authorizing it to dually complete its A. B. Coates "C" Well No. 17, located in the SE/4 NE/4 of Section 24, Township 25 South, Range 37 East, Lea County, New Mexico, in such a manner as to permit the production of oil from the Justis-McKee Pool and oil from the Justis-Ellenburger Pool through parallel strings of tubing.

CASE 1562:

Application of British American Oil Producing Company for permission to institute a secondary recovery project in San Juan County, New Mexico, and for the promulgation of special rules and regulations in connection therewith. Applicant, in the above-styled cause, seeks an order authorizing it to institute a secondary recovery project in the Bisti-Lower Gallup Oil Pool for the injection of dry gas and/or liquefied petroleum gas into the Gallup formation through four wells located in Sections 27 and 28, Township 26 North, Range 13 West, San Juan County, New Mexico. Applicant further proposes that

CASE 1562: (con't)

special rules and regulations be promulgated to govern the above-described project, which would include among other things conversion of additional injection wells without notice and hearing, transfer of allowables from injection wells, transfer of allowables from wells shut-in for observation purposes or to increase the efficiency of the project, exemption of all leases connected with the project from gas-oil ratio limitation provided gas produced therefrom is reinjected, and such other rules and regulations the Commission may deem appropriate.

CASE 1563:

Application of Caulkins Oil Company for a dual completion. Applicant, in the above-styled cause, seeks an order authorizing it to dually complete its Breech "A" Well No. D-204, located in the SE/4 SE/4 of Section 9, Township 26 North, Range 6 West, Rio Arriba County, New Mexico, in such a manner as to permit the production of oil from the South Blanco-Tocito Oil Pool and the production of gas from the South Blanco-Dakota Gas Pool through parallel strings of tubing.

CASE 1564:

Application of Great Western Drilling Company for approval of a unit agreement and a pilot water flood project. Applicant, in the above-styled cause, seeks an order approving its proposed North Central Caprock Queen Unit Agreement embracing 2,040 acres, more or less, of state and federal lands in Sections 13, 14, 15, and 24, of Township 13 South, Range 31 East, and Sections 17, 18, and 19, of Township 13 South, Range 32 East, Caprock-Queen Pool, Chaves and Lea Counties, New Mexico, and for authority to institute a pilot water flood project in the Queen formation underlying said unit area.

CASE 1565:

Application of Continental Oil Company for a dual completion. Applicant, in the above-styled cause, seeks an order authorizing it to dually complete its Warren Unit Well No. 9 located in the SW/4 NW/4 of Section 27, Township 20 South, Range 38 East, Lea County, New Mexico, in such a manner as to permit the production of gas from the Warren-Tubb Gas Pool and oil from the Warren-Drinkard Oil Pool through parallel strings of tubing.

CASE 1566:

Application of Pan American Petroleum Corporation for approval of a unit agreement. Applicant, in the above-styled cause, seeks an order approving its East Saunders Unit Agreement embracing approximately 2,320 acres of state acreage in Township 14 South, Range 34 East, Lea County, New Mexico.

CASE 1567:

Application of Olsen Oils, Inc., for a non-standard gas proration unit. Applicant, in the above-styled cause, seeks an order establishing a 160-acre non-standard gas proration unit in the Tubb Gas Pool consisting of the N/2 NW/4, SW/4 NW/4 and the NW/4 SW/4 of Section 25, Township 22 South, Range 37 East, Lea County, New Mexico; or in the alternative for a compulsory pooling order pooling all interests within the vertical limits of the Tubb Gas Pool in the NW/4 of said Section 25 as one Tubb Gas Unit and a like order pooling all interests within the vertical limits of the Tubb Gas Pool in the SW/4 of said Section 25 as another Tubb Gas Unit.

Case 1560 HEARING
NEW MEXICO OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO

APPLICATION FOR DUAL COMPLETION

7-3-58

Field Name	Wildcat	County	San Juan	Date	October 29, 1958
Operator	El Paso Natural Gas Company	Lease	Huerfano Unit	Well No.	92 (DG)
Location of Well	Unit	Section	Township	Range	
	E	7	26N	3N	

1. Has the New Mexico Oil Conservation Commission heretofore authorized the dual completion of a well in these same pools or in the same zones within one mile of the subject well? YES ☐ NO ☒
2. If answer is yes, identify one such instance: Order No. _____; Operator, Lease, and Well No.:

3. The following facts are submitted:	Upper Zone	Lower Zone
a. Name of reservoir	Gallup	Dakota
b. Top and Bottom of Pay Section (Perforations)	6107-6148	6715-6910
c. Type of production (Oil or Gas)	Gas	Gas
d. Method of Production (Flowing or Artificial Lift)	Flowing	Flowing

4. The following are attached. (Please mark YES or NO)
- ☒ a. Diagrammatic Sketch of the Dual Completion, showing all casing strings, including size and setting, top of cement, perforated intervals, tubing strings, including diameters and setting depth, location and type of packers and side door chokes, and such other information as may be pertinent.
- ☒ b. Plat showing the location of all wells on applicant's lease, all offset wells on offset leases, and the names and addresses of operators of all leases offsetting applicant's lease.
- ☐ c. Waivers consenting to such dual completion from each offset operator, or in lieu thereof, evidence that said offset operators have been furnished copies of the application. *
- ☐ d. Electrical log of the well or other acceptable log with tops and bottoms of producing zones and intervals of perforation indicated thereon. (If such log is not available at the time application is filed, it shall be submitted as provided by Rule 112-A.)

5. List all offset operators to the lease on which this well is located together with their correct mailing address.
- No offset operators

6. Were all operators listed in Item 5 above notified and furnished a copy of this application? YES ☐ NO ☐ . If answer is yes, give date of such notification _____

CERTIFICATE: I, the undersigned, state that I am the Division Petroleum Engr. of the El Paso Natural Gas Co. (company), and that I am authorized by said company to make this report; and that this report was prepared under my supervision and direction and that the facts stated therein are true, correct and complete to the best of my knowledge.

Signature

- * Should waivers from all offset operators not accompany an application for administrative approval, the New Mexico Oil Conservation Commission will hold the application for a period of twenty (20) days from date of receipt by the Commission's Santa Fe office. If, after said twenty-day period, no protest nor request for hearing is received by the Santa Fe office, the application will then be processed.
- NOTE: If the proposed dual completion will result in an unorthodox well location and/or a non-standard proration unit in either or both of the producing zones, then separate application for approval of the same should be filed simultaneously with this application.

NEW MEXICO
OIL CONSERVATION COMMISSION
P. O. Box 871
Santa Fe, New Mexico

Date November 3, 1958

El Paso Natural Gas Company
P.O. Box 997
Farmington, New Mexico

ATTENTION: Mr. Oberly

Gentlemen:

Your application for ~~a gas-gas dual completion of your Huerfano Unit Well~~
~~#92 (DG) in Section 7, Township 26 North, Range 9 West,~~

dated _____ has been received, and has been tentatively
scheduled for hearing before _____ on
~~December 10, 1958.~~

A copy of the docket will be forwarded to you as soon as the matter is
advertised.

Very truly yours,

A. L. Porter, Jr.
A. L. PORTER, Jr.,
Secretary-Director

ga

NOTARY PUBLIC
RECEIVED OCT 30 1958

STATE OF NEW MEXICO)
COUNTY OF SAN JUAN)

I, Mack M. Mahaffey, being first duly sworn upon my oath depose
and say as follows:

I am an employee of Baker Oil Tools, Inc., and that on April 6,
1958, I was called to the location of the El Paso Natural Gas Company
Huerfano Unit No. 92 (DG) Well located in the SENW/4 of Section 7,
Township 26 North, Range 9 West, N.M.P.M., for advisory service in
connection with installation of a production packer. In my presence, a
Baker Model "ECJ" Production Packer was set in this well at 6440 feet in
accordance with the usual practices and customs of the industry.

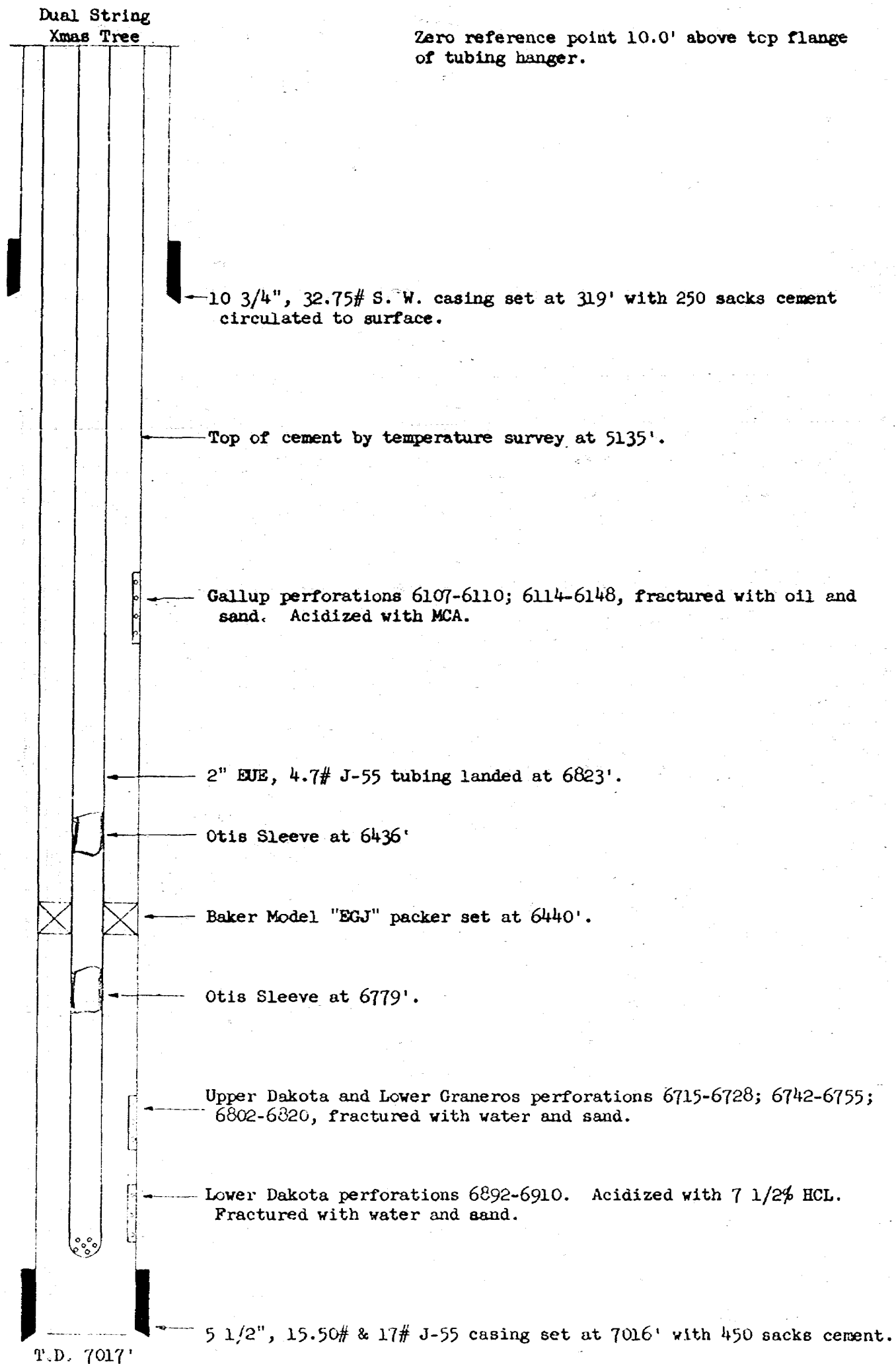
Mack M. Mahaffey

Subscribed and sworn to before me, a Notary Public in and for San
Juan County, New Mexico, the 30th day of October, 1958.

Paul J. [Signature]
Notary Public in and for San Juan County,
New Mexico

My commission Expires February 24, 1960.

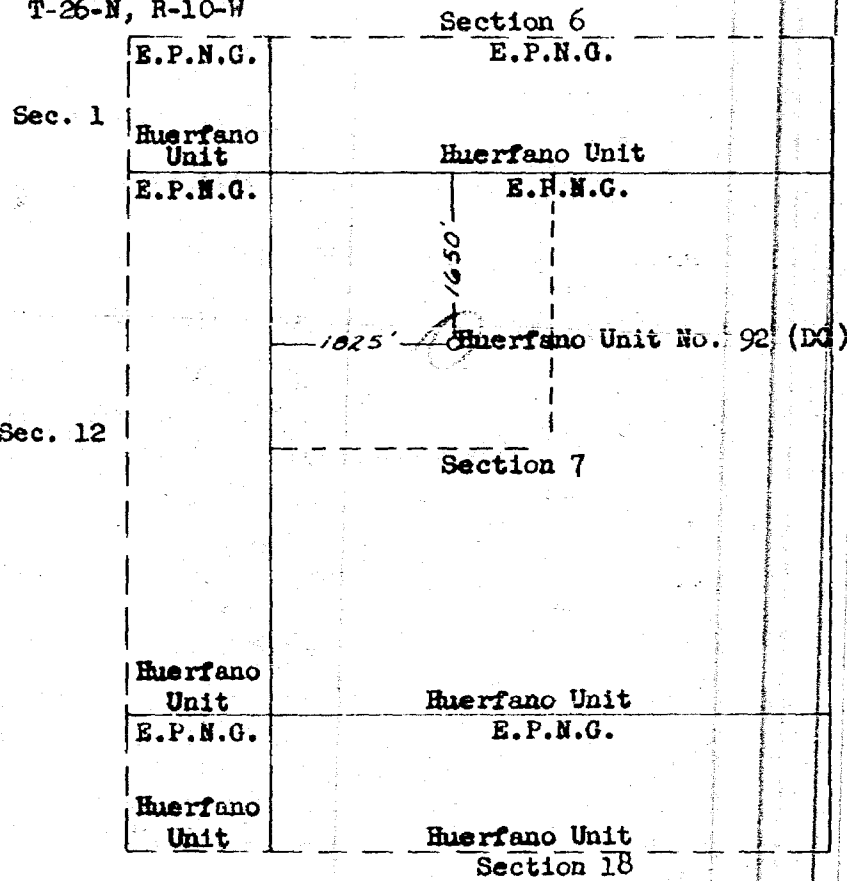
Schematic Diagram of Dually Completed
El Paso Natural Gas Co. Huerfano Unit No. 92 (DG)
NW/4 Section 7, T-26-N, R-9-W



Plat Showing Location of Dually Completed
El Paso Natural Gas Co. Huerfano Unit No. 92 (DG)
and offset Acreage

T-26-N, R-9-W

T-26-N, R-10-W



EL PASO NATURAL GAS COMPANY
EL PASO, TEXAS

FORM 7-132 (10-56)

SCALE

DRAWN BY

DATE

CHECKED BY

No.

EL PASO NATURAL GAS COMPANY

P. O. Box 997
Farmington, New Mexico

July 2, 1958

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

Re: Packer Leakage Test on the El Paso Natural Gas
Company Well Huerfano Unit No. 92 (DG), NW 7-26-9,
San Juan County, New Mexico.

Dear Mr. Arnold:

The subject well was dually completed in the Gallup and Mesa Verde zones and a packer was set at 6439'. The Gallup zone was tested thru a 3/4" choke for 3 hours, June 20, 1958, with the following data obtained:

SIPC (G) 1069 psig; Shut-In 15 days

SIPT (G) 1277 psig;

The choke volume for the Gallup was 1460 MCF/D with an AOF of 1585 MCF/D. This test was conducted with the Dakota sleeve closed and the Gallup sleeve open so that the Gallup could be tested through the tubing. This test could only serve as a Gallup potential test and not as a packer test.

The Dakota zone was tested through a 3/4" choke for three hours June 27, 1958, with the following data obtained:

SIPC (G) 1325 psig; Shut-In 7 days

SIPT (D) 1445 psig; Shut-In 15 days

Time Minutes	Dak. Flowing Pressure Tubing Psig	Cal. SIPC Psig	Dak. Working Pressure, Psig	Temp ° F
0	Opened Dak. tubing	1325		-
15	178	1328		64
30	165	1328		66
45	164	1328		66
60	149	1326		66
180	133	1291	Calc. 293	68

Washington, D.C.

Dear Sir:

Very truly yours,

The above information was obtained from a confidential source who has provided reliable information in the past. It is being furnished to you for your information and is not to be distributed outside your office.

Very truly yours,
[Signature]

Enclosure

11/1/46

cc: Mr. Tolson
Mr. E. A. Tamm
Mr. Clegg
Mr. Glavin
Mr. Ladd
Mr. Nichols
Mr. Rosen
Mr. Tracy
Mr. Carson
Mr. Egan
Mr. Gurnea
Mr. Hendon
Mr. Pennington
Mr. Quinn
Mr. Nease
Miss Gandy

OPEN FLOW TEST DATA

June 20, 1958

DUAL COMPLETION

El Paso Natural Gas Company

1650N, 1825W; 7-26-9

Gallup

Casing Diameter

5-1/2"

7004

Flow Line From

6114

6148

Flow Line To

Sand Water Frac.

Huerfano No. 92 (0)

San Juan

New Mexico

Undesignated

2"

Set At Feet

6813

7016 c/o 6877

Re Shut-in 6/5/58

Flow Through Tubing

X

Choke Size, Inches

.75

12.365

Shut-in Pressure, PSIG

1069 (G)

1081

Days Shut-in

15

Pressure Tubing

1277 (G)

PSIG - 12 - PSIA

1289

Flowing Pressure, PSIG

117

129

Pressure, PSIG

403

PSIG - 12 - PSIA

415

Temperature

72

.75

Flow From Tubing

1.014

Gravity

.72

Note: Dakota gas blocked off to wellhead!

Packer at 6439

CHOKE VOLUME $Q = C \times P_1 \times F_1 \times F_g \times F_v$

$(12.365)(129)(.9887)(.9129)(1.014)$

1460

MCF/D

OPEN FLOW $Q = \left(\frac{P_1^2 - P_2^2}{P_1 - P_2} \right)^n$

$\left(\frac{1,661,521}{1,489,296} \right)^n$

$(1.1156)^{.75} (1460) = (1.0853)(1460)$

1585 MCF/D

REMARKS: Unloaded heavy yellow stream of oil in 3 min. Diminishing to light oily fog for remainder of test.

S. V. Roberts

L. D. Calloway
L. D. Calloway *L.D.C.*

OPEN FLOW TEST DATA

DUAL COMPLETION

DATE June 27, 1958

Owner El Paso Natural Gas Company		Lease Huerfano No. 92 (D)	
Location 1650N, 1825W; 7-26-9		County San Juan State New Mexico	
Formation Dakota		Pool Undesignated	
Casing Diameter 5-1/2	Set At Feet 7004	Tubing Diameter 2"	Set At Feet 6813
Flow Zone Feet 6715	To 6910	Total Depth 7016 c/o 6877	Shut-in 6/12/58
Simulation Method Sand Water Frac		Flow Through Tubing X	

Choke Size, Inches .75	Choke Constant, C 12.365	Packer at 6439
Shut-in Pressure, Casing, PSIG 1325 (Gallup)	PSIG + 12 = PSIA 1337	Shut-in Pressure, Tubing, PSIG 1445 (Dakota)
Flowing Pressure, P, PSIG 133	PSIG + 12 = PSIA 145	Working Pressure, P, PSIG Calc.
Temperature, T, F 68	.75	Flow (From Tables), Gravity 1.017
		305

Final SIPC (G) = 1291 psig

CHOKED VOLUME = $Q = C \times P \times F \times F_g \times F_v$

$$Q = (12.365) (145) (.9924) (.9129) (1.017)$$

1652

MCF/D

OPEN FLOW $Q = \left(\frac{2,122,849}{2,029,824} \right)^n$

$$Q = \left(\frac{2,122,849}{2,029,824} \right)^n$$

$$(1.0458)^{.75} (1652) = (1.0342) (1652)$$

Ant. 1708

MCF/D

S. V. Roberts

Fred Cook (NADCC)

Lewis D. Galloway
L. D. Galloway