

NEW MEXICO OIL CONSERVATION COMMISSION

SANTA FE, NEW MEXICO

7-3-58

APPLICATION FOR DUAL COMPLETION

Field Name Angel Peak Gallup Ext. & Wildcat Dakota		County San Juan	Date October 13, 1959
Operator El Paso Natural Gas Company		Lease Huerfano Unit	Well No. 109 (GD)
Location of Well I	Unit 2	Section 26N	Township 10W

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. **DC-677**; Operator, Lease, and Well No.:

El Paso Natural Gas Company Huerfano Unit No. 99 (GD)

3. The following facts are submitted:	Upper Zone	Lower Zone
a. Name of reservoir	Gallup	Dakota
b. Top and Bottom of Pay Section (Perforations)	5905 - 6027 (Upper Gallup)	6048 - 6022
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)

- Yes** 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.
- Yes** 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.
- No** 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.*
- No** 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.

El Paso Natural Gas Company is Huerfano Unit Operator.

ILLEGIBLE

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 Company** (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.

ORIGINAL SIGNED E. S. OBERLY

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.

STATE OF NEW MEXICO)
)
COUNTY OF SAN JUAN)

I, A. T. Fry, being first duly sworn upon my oath
depose and say as follows:

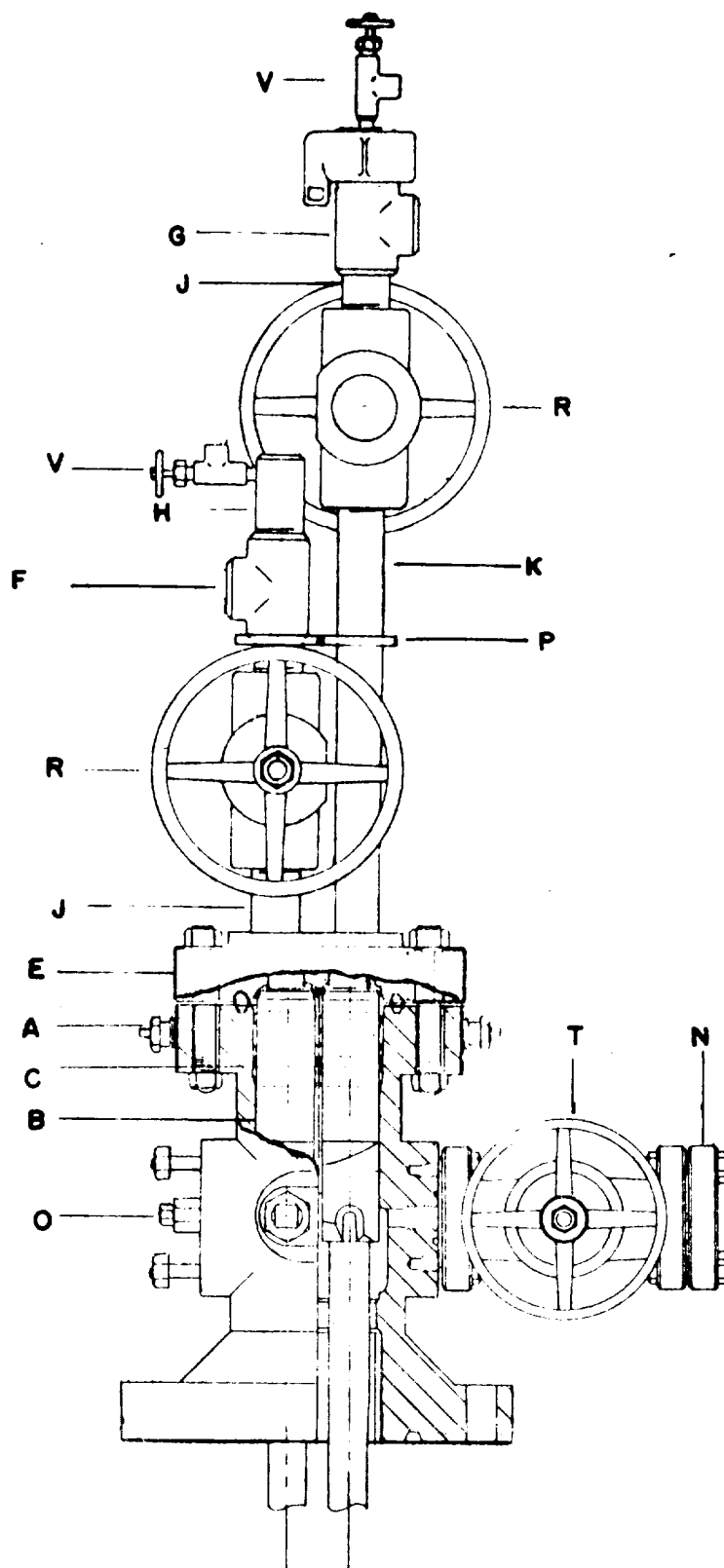
I am an employee of Guiberson Corporation, and that
on August 14, 1959, I was called to the location of the El Paso
Natural Gas Company Huertano Unit No. 109 (GD) Well located in the
NESE/4 of Section 2, Township 26 North, Range 10 West, N.M.P.M.,
for advisory service in connection with installation of a production
packer. In my presence, a Guiberson Model "AG" Production Packer
was set in this well at 6231 feet in accordance with the usual
practices and customs of the industry.

A. T. Fry

Subscribed and sworn to before me this 14th day of
October, 1959.

Paul M. Wallace
Notary Public in and for San Juan
County, New Mexico

My commission expires February 24, 1960.



CHRISTMAS TREE ASSEMBLY NO. X-1148-U REV.13			PROPERTY OF OIL CENTER TOOL CO., INC. HOUSTON, TEXAS		
PART NO.	SCALE	PATTERN NO.	DATE 2-24-53	SIZE	FILE NO.
MATERIAL SPEC. FOR EL PASO NATURAL GAS CO			DRN. BY BOC CHG. BY APPR.		DWG. NO.

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EL PASO NATURAL GAS COMPANY
OPEN FLOW TEST DATA

DUAL COMPLETION

DATE September 18, 1959

Operator El Paso Natural Gas		Lease Huerfano 109 (D)	
Location 1650S, 990E; 2-26-10		County San Juan	State New Mexico
Formation Dakota		Pool Angel Peak	
Casing: Diameter 7-5/8	Set At: Feet 6380	Tubing: Diameter 2"	Set At: Feet 6909
Pay Zone: From 6848	To 6922	Total Depth 7025 c/o 6936	Re Shut In: 8/31/59
Stimulation Method Sand Water Frac.		Flow Through Casing	Flow Through Tubing X

Choke Size, Inches .75		Choke Constant: C			
Shut-In Pressure, Casing, PSIG 1140 (Gal)	PSIA 1152	Days Shut-In 18	Shut-In Pressure, Tubing, PSIG 1840 (Dak)	PSIA 1852	
Flowing Pressure: P, PSIG 272	PSIA 284		Working Pressure, P, PSIG Calc.	PSIA 629	
Temperature: T, F 74			Fpv (From Tables) 1.031	Gravity .72	

Initial SIPT (G) = 1140 psig

Packer at 6231

Final SIPC (G) = 1149 psig

CHOKE VOLUME: $Q = C \times P_1 \times F_1 \times F_g \times F_{pv}$ Q Calculated from orifice meter reading 3432 MCF/D

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

$$Aof = \left(\frac{3429904}{3034263} \right)^n \quad 1.1303^{.75} \times 3432 = 1.0960 \times 3432$$

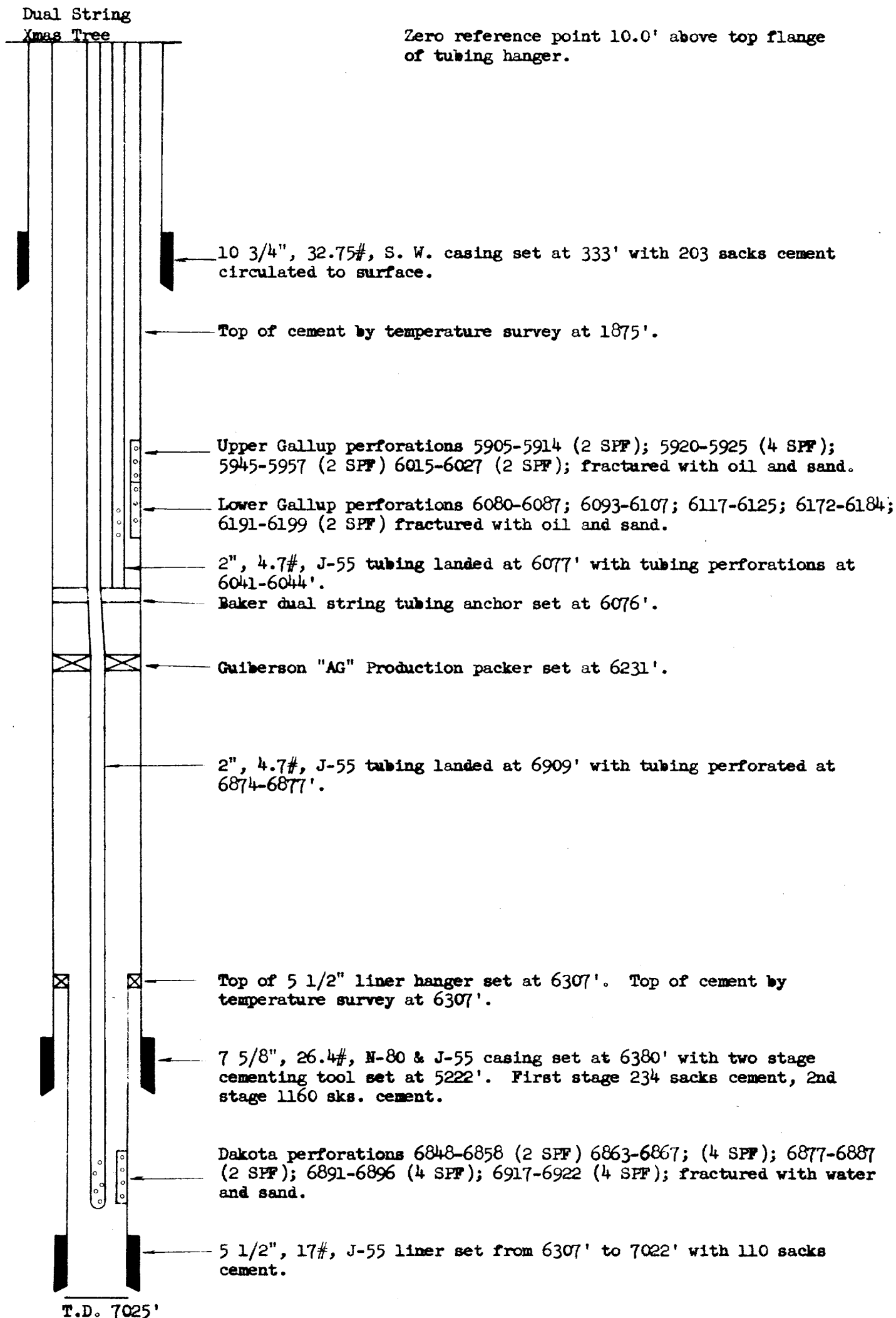
Aof 3761 MCF/DTESTED BY S. V. Roberts, W.D. Dawson, T.B. Grant

WITNESSED BY _____

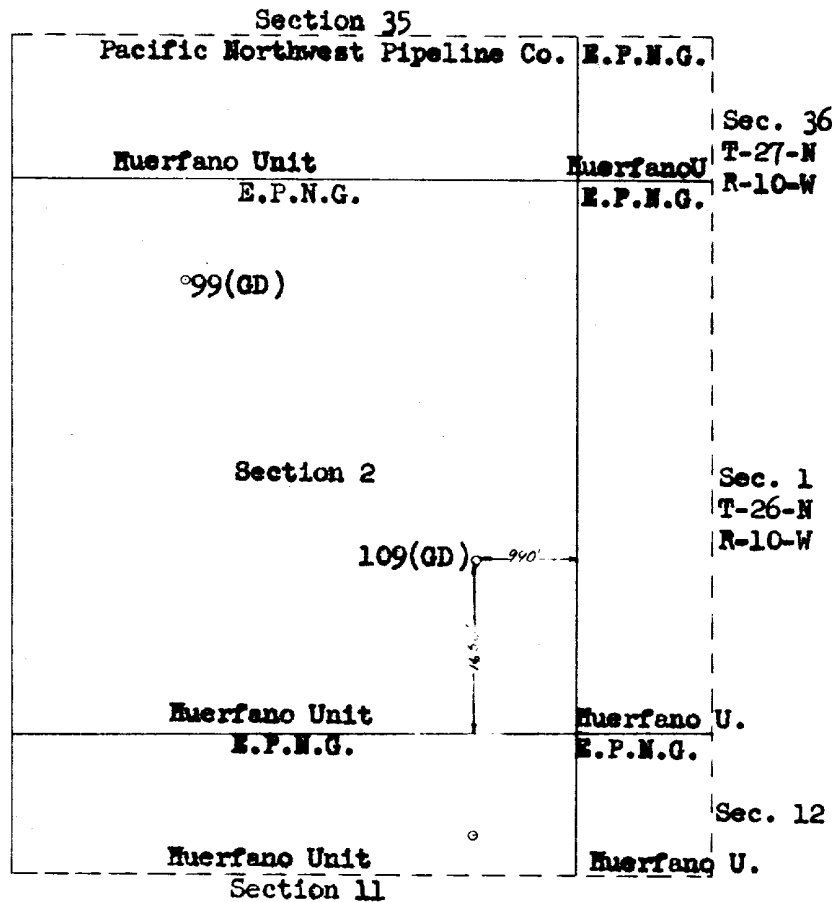
L. D. Galloway
L. D. Galloway

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SCHEMATIC DIAGRAM OF DUAL COMPLETION
El Paso Natural Gas Co. Huerfano Unit No. 109 (GD)
SE/4 Section 2, T-26-N, R-10-W



PLAT SHOWING LOCATION OF DUALY COMPLETED
El Paso Natural Gas Co. Huerfano Unit No. 109 (GD)
and Offset Acreage



EL PASO NATURAL GAS COMPANY
EL PASO, TEXAS

EL PASO NATURAL GAS COMPANY
OPEN FLOW TEST DATA

DUAL COMPLETION

DATE **September 28, 1959**

Operator El Paso Natural Gas Company		Lease Huerfano No. 109 (G)	
Location 16508, 990E; 2-26-10		County San Juan	State New Mexico
Formation Gallup		Pool Undesignated	
Casing: Diameter 7-5/8	Set At: Feet 6380	Tubing: Diameter 2"	Set At: Feet 6067
Pay Zone: From 5905	To 6199	Total Depth: 7025 c/o 6936	Shut In: 8/14/59
Stimulation Method Sand Oil Frac.		Flow Through Casing	Flow Through Tubing X

Choke Size, Inches .75		Choke Constant: C 5-1/2 liner 6307 - 7022	
Shut-In Pressure, Casing, PSIG 1139	- 12 - PSIA 1151	Days Shut-In 45	Shut-In Pressure, Tubing, PSIG 1137
Flowing Pressure: P, PSIG 198	- 12 - PSIA 210		Working Pressure: Pw, PSIG 631
Temperature: T, °F 75	n = .75		Fpv (From Tables) 1.022
			Gravity .72

Initial SIPT (D) = 1853 psig

Final SIPT (D) = 1873 psig

Packer at 6231

CHOKE VOLUME = $Q = C \times P_r \times F_r \times F_g \times F_{pv}$ Q - Calculated from orifice meter reading = **2293** MCF/D

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

$$A_{of} = \left(\frac{1324801}{911352} \right)^n = 1.4536^{.75} \times 2293 = 1.3240 \times 2293$$

Aof = **3036** MCF/DTESTED BY **S.V. Roberts, T.B. Grant, D.E. Mortensen**

WITNESSED BY _____

Lewis D. Galloway
L. D. Galloway