

OIL CONSERVATION COMMISSION  
1000 Rio Brazos Rd.  
Aztec, New Mexico

OIL CONSERVATION COMMISSION  
BOX 871  
SANTA FE, NEW MEXICO

DATE 11-4-59

RE: Proposed NSP \_\_\_\_\_  
Proposed NSL \_\_\_\_\_  
Proposed NFO \_\_\_\_\_  
Proposed DC ✓

Gentlemen:

I have examined the application dated 10-13-59  
for the PNW SJU 29-5<sup>2</sup> 29-29 29-29N-5W  
Operator Lease and Well No. S-T-R

and my recommendations are as follows:

Approve  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Yours very truly,

OIL CONSERVATION COMMISSION

*A. R. Jernigan*

## NEW MEXICO OIL CONSERVATION COMMISSION

SANTA FE, NEW MEXICO

7-3-58

## APPLICATION FOR DUAL COMPLETION

Field Name <b>Blanco Mesa Verde &amp; Wildcat Dakota</b>		County <b>Rio Arriba</b>	Date <b>October 13, 1959</b>
Operator <b>Pacific Northwest Pipeline Corp.</b>		Lease <b>San Juan 29-5 Unit</b>	Well No. <b>32-29-(MD)</b>
Location of Well <b>N</b>	Unit <b>29</b>	Section <b>29</b>	Range <b>5N</b>

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 **X** \_\_\_\_\_

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	<b>Mesa Verde</b>	<b>Dakota</b>
b. Top and Bottom of Pay Section (Perforations)	<b>5290-5322 (Cliff House) 5622-5724 (Point Lookout)</b>	<b>7775-7799 (Upper Dakota) 7828-7872 (Lower Dakota)</b>
c. Type of production (Oil or Gas)	<b>Gas</b>	<b>Gas</b>
d. Method of Production (Flowing or Artificial Lift)	<b>Flowing</b>	<b>Flowing</b>

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.

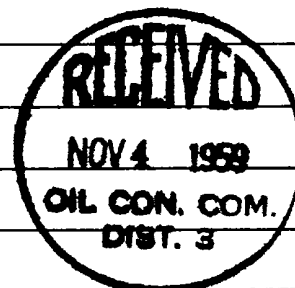
**Yes** b. Plat showing the location of all wells on applicant's lease, all offset wells on offset leases, and the names and addresses of operators of all leases offsetting applicant's lease.

**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.

**Pacific Northwest Pipeline Corp. is 29-5 Unit Operator.**



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 \_\_\_\_\_.

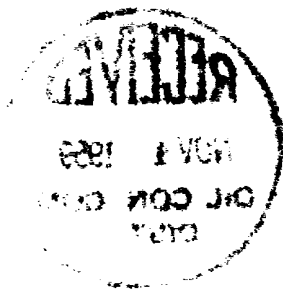
CERTIFICATE: I, the undersigned, state that I am the **Agent** of the **Pacific Northwest Pipeline Corporation** (company), and that I am authorized by said company to make this report; and that this report was prepared under my supervision and direction and that the facts stated therein are true, correct 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, W. D. Whitesides, being first duly sworn upon my oath depose and say as follows:

I am an employee of Halliburton Oil Well Cementing Company, and that on September 4, 1959, I was called to the location of the Pacific Northwest Pipeline Corporation San Juan 29-5 Unit No. 32-29 (MD) Well located in the SE<sup>1</sup>/<sub>4</sub> of Section 29, Township 29 North, Range 5 West, N.M.P.M., for advisory service in connection with installation of a production packer. In my presence, a Howco Type "C" Production Packer was set in this well at 7473 feet in accordance with the usual practices and customs of the industry.

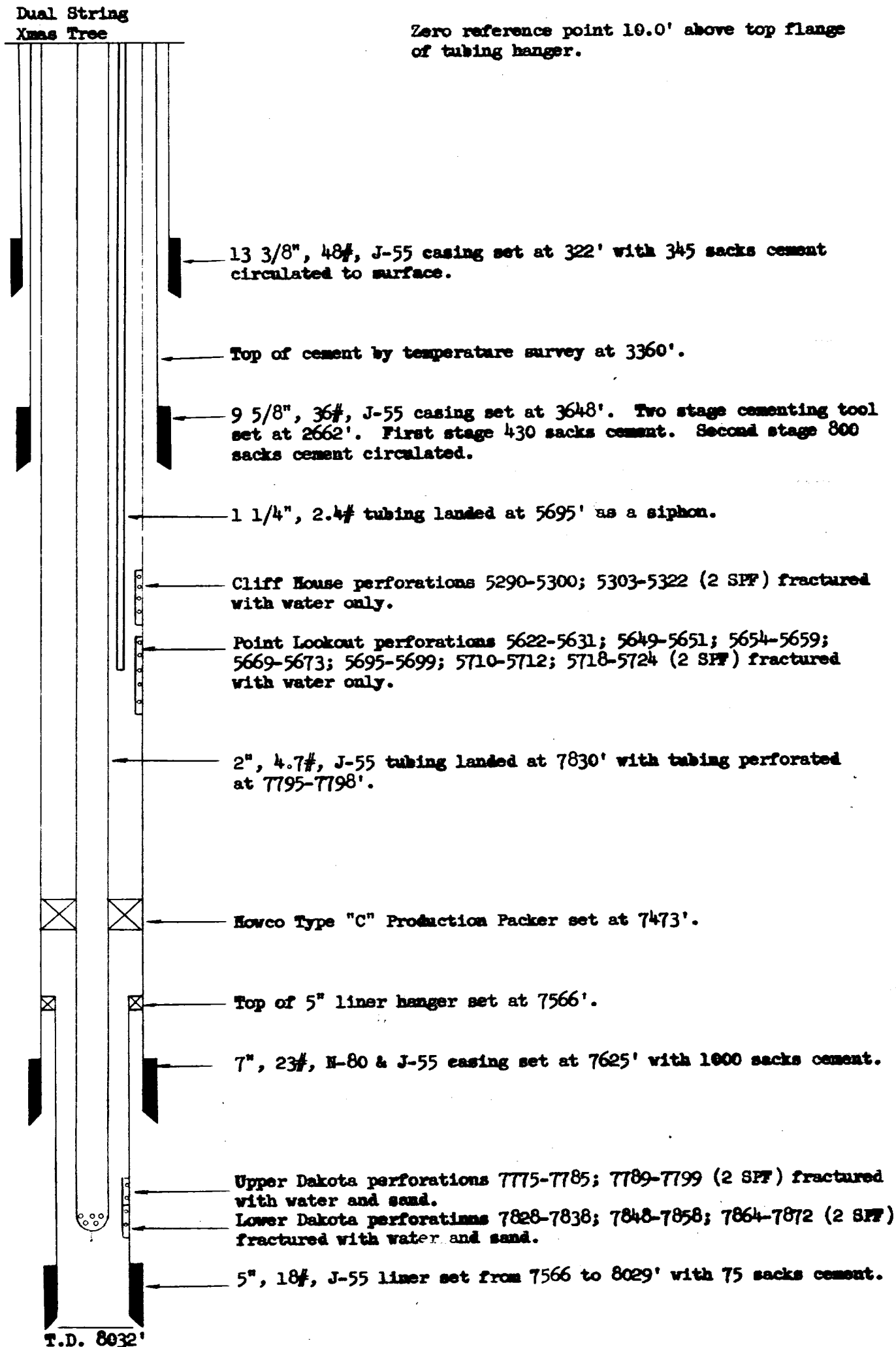
W. D. Whitesides

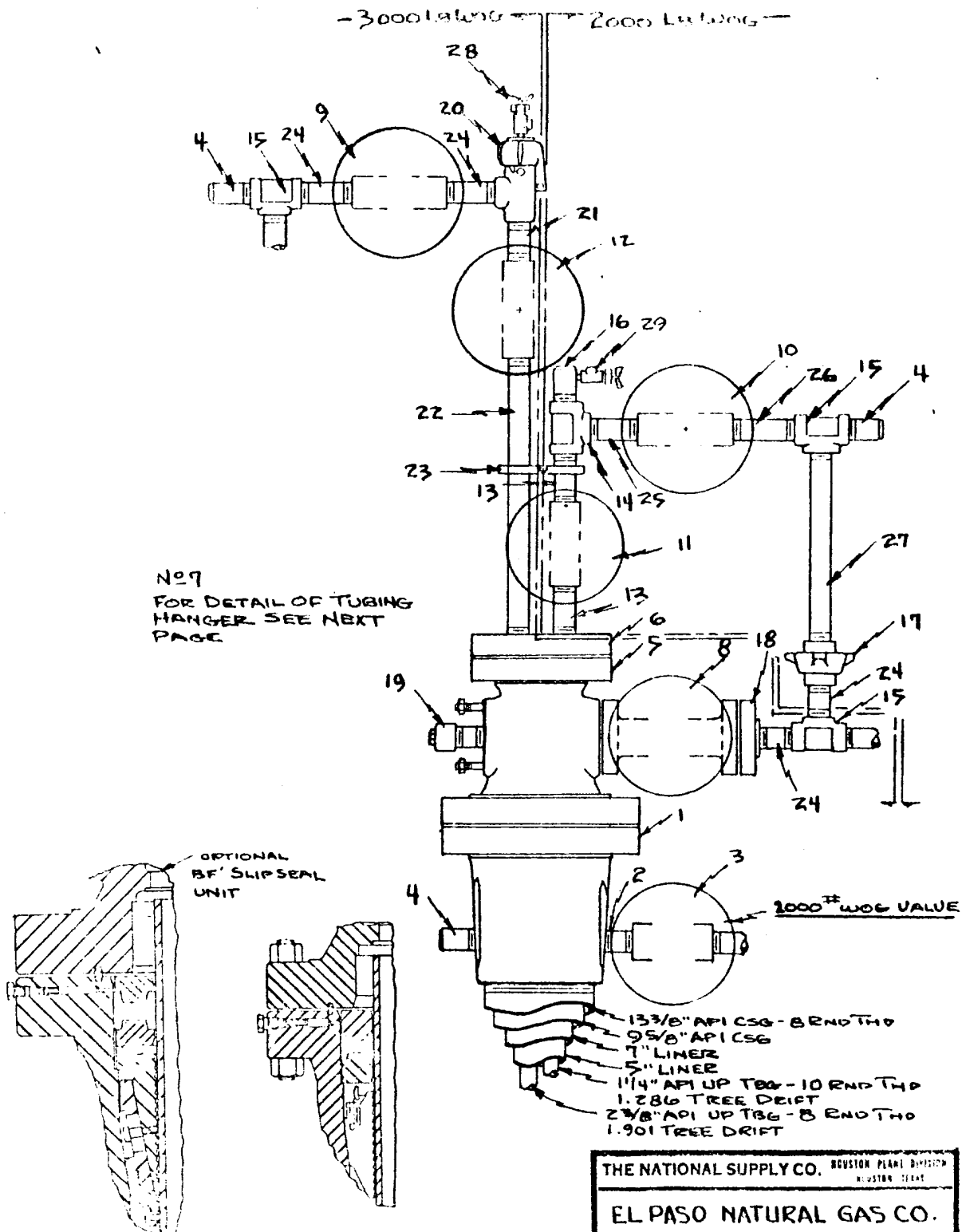
Subscribed and sworn to before me this 14th day of October, 1959.

Paul D. Michael  
Notary Public in and for San Juan County,  
New Mexico

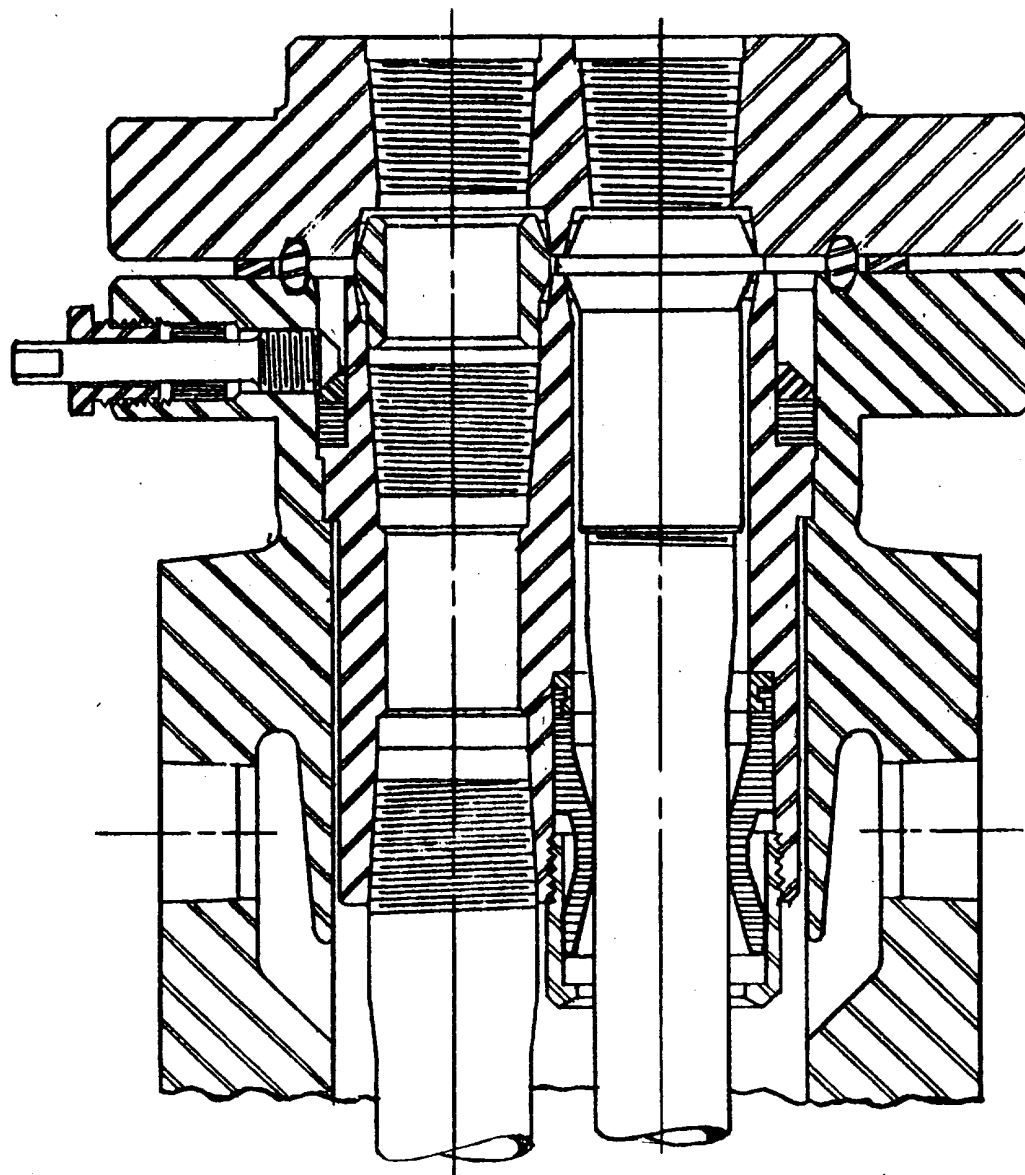
My commission expires February 24, 1960.

**SCHEMATIC DIAGRAM OF DUAL COMPLETION**  
**Pacific Northwest Pipeline Corp. San Juan 29-5 Unit No. 32-29 (MD)**  
**SW/4 Section 29, T-29-N, R-5-W**

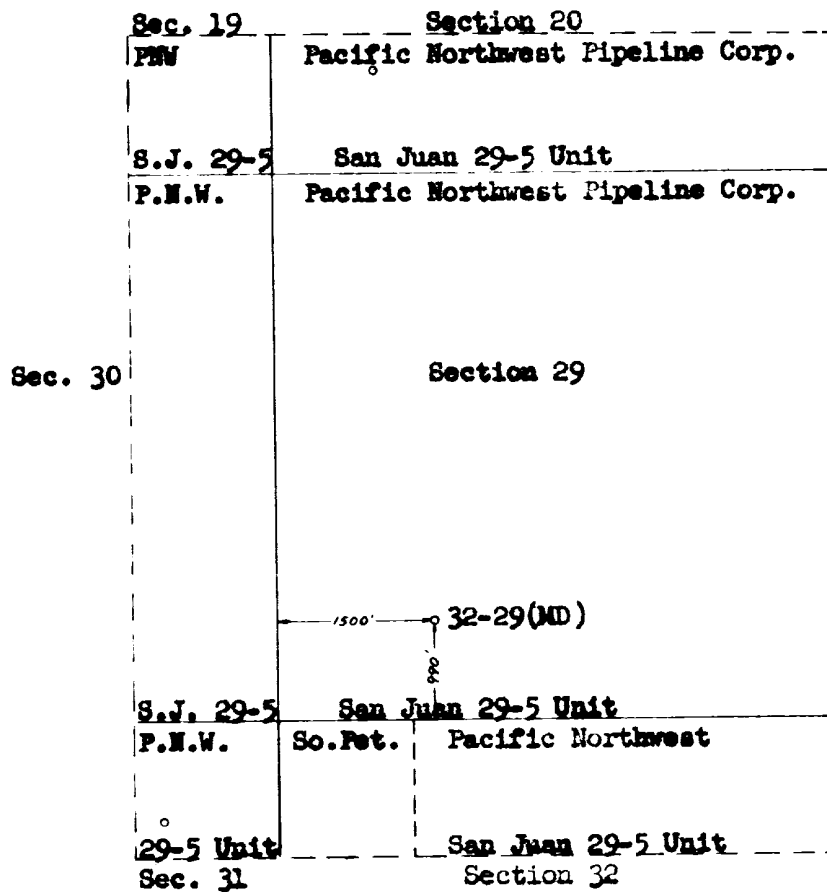




THE NATIONAL SUPPLY CO. HOUSTON PLANT DIVISION HOUSTON, TEXAS		
EL PASO NATURAL GAS CO.		
SCALE 3'-5'-59"	SUPERSEDING	35690
DRAWN D.M.		



**PLAT SHOWING LOCATION OF DUALY COMPLETED  
Pacific Northwest Pipeline Corp. San Juan 29-5 Unit No. 32-29 (MD)  
and Offset Acreage**



**EL PASO NATURAL GAS COMPANY**  
EL PASO, TEXAS

SCALE

DATE

No.

DRAWN BY

CHECKED BY



EL PASO NATURAL GAS COMPANY  
OPEN FLOW TEST DATA

DUAL COMPLETION

DATE September 14, 1959

Operator <b>El Paso Natural Gas</b>		Lease <b>San Juan 29-5 No. 32-29- (D)</b>	
Location <b>9908, 1500W; 29-29-5</b>		County <b>Rio Arriba</b>	State <b>New Mexico</b>
Formation <b>Dakota</b>		Pool <b>Undesignated</b>	
Casing: Diameter <b>7"</b>	Set At: Feet <b>7625</b>	Tubing: Diameter <b>2"</b>	Set At: Feet <b>7820</b>
Pay Zone: From <b>7775</b>	To <b>7872</b>	Total Depth: <b>8030 c/o</b>	Shut in: <b>9/5/59</b>
Stimulation Method <b>Sand Water Frac.</b>		Flow Through Casing	Flow Through Tubing <b>X</b>

Choke Size, Inches <b>.75</b>	Choke Constant: C <b>14.1605</b>	<b>5" liner 7566 - 8029</b>	
Shut-In Pressure, Casing, PSIG <b>998 (MV)</b>	- 12 - PSIA <b>1010</b>	Days Shut-In <b>9</b>	Shut-In Pressure, Tubing, PSIG <b>2560 (Dak)</b>
Flowing Pressure: P, PSIG <b>202</b>	- 12 - PSIA <b>214</b>	Working Pressure, Fw, PSIG <b>Calc.</b>	- 12 - PSIA <b>532</b>
Temperature: T, F <b>70</b>	F <b>.75</b>	Fpv (From Tables) <b>1.015</b>	Gravity <b>.586</b>

Initial SIPT (MV) = 994 psig  
Final SIPC (MV) = 1005 psig

Packer at 7473

CHOKE VOLUME =  $Q = C \times P_r \times F_v \times F_g \times F_{pv}$ 

$$Q = 14.1605 \times 214 \times .9905 \times 1.012 \times 1.015 = 3083 \text{ MCF D}$$

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

$$Aof = \left( \frac{6615184}{6332160} \right)^n \quad 1.0446^{.75} \times 3083 = 1.0332 \times 3083$$

$$Aof = 3185 \text{ MCF D}$$

TESTED BY W. D. DawsonWITNESSED BY W. B. Smith (Phillips)

*L. D. Galloway*  
L. D. Galloway

by TBG

EL PASO NATURAL GAS COMPANY  
OPEN FLOW TEST DATA

DUAL COMPLETION

DATE September 21, 1959

Operator <b>El Paso Natural Gas Company</b>		Lease <b>San Juan 29-5 No. 32-29 (MV)</b>	
Location <b>9908, 1500W; 29-29-5</b>		County <b>Rio Arriba</b>	State <b>New Mexico</b>
Formation <b>Mesa Verde</b>		Pool <b>Blanco</b>	
Casing: Diameter <b>7</b>	Set At: Feet <b>7625</b>	Tubing: Diameter <b>1-1/4</b>	Set At: Feet <b>5685</b>
Pay Zone: From <b>5622</b>	To <b>5724</b>	Total Depth <b>8030 c/o 7933</b>	Shut In: <b>9/5/59</b>
Stimulation Method <b>Sand Water Frac.</b>		Flow Through Casing <b>X</b>	Flow Through Tubing

Choke Size, Inches <b>.75</b>	Choke Constant: C <b>14.1605</b>		<b>5" liner 7566 - 8029</b>	
Shut-In Pressure, Casing <b>1045 (MV)</b> PSIG	- 12 = PSIA <b>1057</b>	Days Shut-In <b>16</b>	Shut-In Pressure, Tubing <b>1039 (MV)</b> PSIG	- 12 = PSIA <b>1051</b>
Flowing Pressure: P <b>355</b> PSIG	- 12 = PSIA <b>367</b>		Working Pressure: P <sub>w</sub> <b>394</b> PSIG	- 12 = PSIA <b>406</b>
Temperature: T <b>68</b> °F	n = <b>.75</b>		Fpv (From Tables) <b>1.040</b>	Gravity <b>.680</b>

Initial SIPT (D) = 2611 psig

Packer at 7473

Final SIPT (D) = 2629 psig

CHOKE VOLUME =  $Q \cdot C \cdot P_r \cdot x \cdot F_r \cdot x \cdot F_{pv}$ 

$$Q = 14.1605 \times 367 \times .9924 \times .9393 \times 1.040 \quad 5038 \quad \text{MCF D}$$

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

$$A_{of} = \left( \frac{1117249}{952413} \right)^n \quad 1.1730^{.75} \times 5038 = 1.1270 \times 5038$$

$$A_{of} = 5678 \quad \text{MCF D}$$

TESTED BY W. D. Dawson

WITNESSED BY \_\_\_\_\_

*Lewis D. Galloway*  
L. D. Galloway