Carbon Copy
Letter SF 4-17-59

NEW MEXICO OIL CONSERVATION COMMISSION

SANTA FE, NEW MEXICO

7-3-58

APPLICATION FOR DUAL COMPLETION

Field Name	County	Date
Tapacito P. C. Ext. & Blanco M. V.	Rio Arriba	July 6, 1959

Operator	Lease	Well No.
El Paso Natural Gas Company	San Juan 27-4 Unit	27 (PM)

Location of Well	Unit	Section	Township	Range
	B	30	27N	4W

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 X NO _____
2. If answer is yes, identify one such instance: Order No. DC-666 ; Operator, Lease, and Well No.:

El Paso Natural Gas Company San Juan 27-4 Unit No. 17 (PM)

3. The following facts are submitted:	Upper Zone	Lower Zone
a. Name of reservoir	Pictured Cliffs	Mesa Verde
b. Top and Bottom of Pay Section (Perforations)	3820-3890	6000-6122 (Point Lookout
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.

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.

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.

New Mexico Oil Conservation Commission
1000 RIO BRAZOS ROAD
AZTEC, NEW MEXICO

July 15, 1959

Mr. D. F. Purse
Amerada Petroleum Corporation
Box #5
Bloomfield, New Mexico

Re: Jicarilla Apache "A" #3
Dual Completion, N-23-25W-5W
Rio Arriba County, New Mexico

Dear Mr. Purse:

Information on packer test form submitted July 14, 1959 for subject well indicates communication between the Chacra and Dakota zones.

Remedial action must be performed as soon as practical and must be initiated before August 15, 1959.

Further tests may be taken by your company to aid in learning the type and location of point of communication.

Notices of intent and subsequent reports of the remedial action shall be filed in a normal procedure through the U.S.G.S. Office in Farmington.

If we can be of assistance, please contact us.

Yours very truly

A. R. Kendrick
Engineer, District #3

cc: Amerada Petroleum Corp. (4)
Bloomfield, N.M.

United States Geological Survey
Farmington, N.M.

Oil Conservation Commission
Santa Fe, N.M.

New Mexico Oil Conservation Commission

This form is not to be used for reporting packer leakage tests in Southeast New Mexico

NEW MEXICO OIL CONSERVATION COMMISSION

Revised 11-1-58

NORTHWEST NEW MEXICO PACKER-LEAKAGE TEST

Operator Amerada Petroleum Corporation Lease J. Apache "A" Well No. 3

Location of Well: Unit N Sec. 23 Twp. 25N Rge. 5W County Rio Arriba

	Name of Reservoir or Pool	Type of Prod. (Oil or Gas)	Method of Prod. (Flow or Art. Lift)	Prod. Medium (Tbg. or Csg.)
Upper Completion	Chacra	Gas	Flow	Csg.
Lower Completion	Graneros	Gas	Flow	Tbg.

PRE-FLOW SHUT-IN PRESSURE DATA

Upper Compl	Hour, date 10AM Shut-in 6-14-59	Length of time shut-in 7 days	SI press. psig 714	Stabilized? (Yes or No) Yes
Lower Compl	Hour, date 10 AM Shut-in 6-14-59	Length of time shut-in 7 days	SI press. psig 903	Stabilized? (Yes or No) Yes

FLOW TEST NO. 1

Commenced at (hour, date)* | Zone producing (~~Upper or~~ Lower):

Time (hour, date)	Lapsed time since*	Pressure Upper Compl.	Pressure Lower Compl.	Prod. Zone Temp.	Remarks
11 AM 6-21-59	7 days	667	246	65 est.	Lower zone flowing

Production rate during test

Oil: _____ BOPD based on _____ Bbls. in _____ Hrs. _____ Grav. _____ GOR _____

Gas: 320 MCFPD; Tested thru (Orifice or Meter): Meter

MID-TEST SHUT-IN PRESSURE DATA

Upper Compl	Hour, date 10:30 AM Shut-in 6-14-59	Length of time shut-in 21 days	SI press. psig 770	Stabilized? (Yes or No) Yes
Lower Compl	Hour, date 10:30 AM Shut-in 6-29-59	Length of time shut-in 7 days	SI press. psig 825	Stabilized? (Yes or No) Yes

FLOW TEST NO. 2

Commenced at (hour, date)** | Zone producing (Upper ~~or Lower~~):

Time (hour, date)	Lapsed time since **	Pressure Upper Compl.	Pressure Lower Compl.	Prod. Zone Temp.	Remarks
11:30 AM 7-6-59	7 days	205	761	65 est.	Upper zone flowing

Production rate during test

Oil: _____ BOPD based on _____ Bbls. in _____ Hrs. _____ Grav. _____ GOR _____

Gas: 379 MCFPD; Tested thru (Orifice or Meter): Meter

REMARKS: _____

I hereby certify that the information herein contained is true and complete to the best of my knowledge.

Operator Amera da Petroleum Corporation

Approved: _____ 19____
New Mexico Oil Conservation Commission

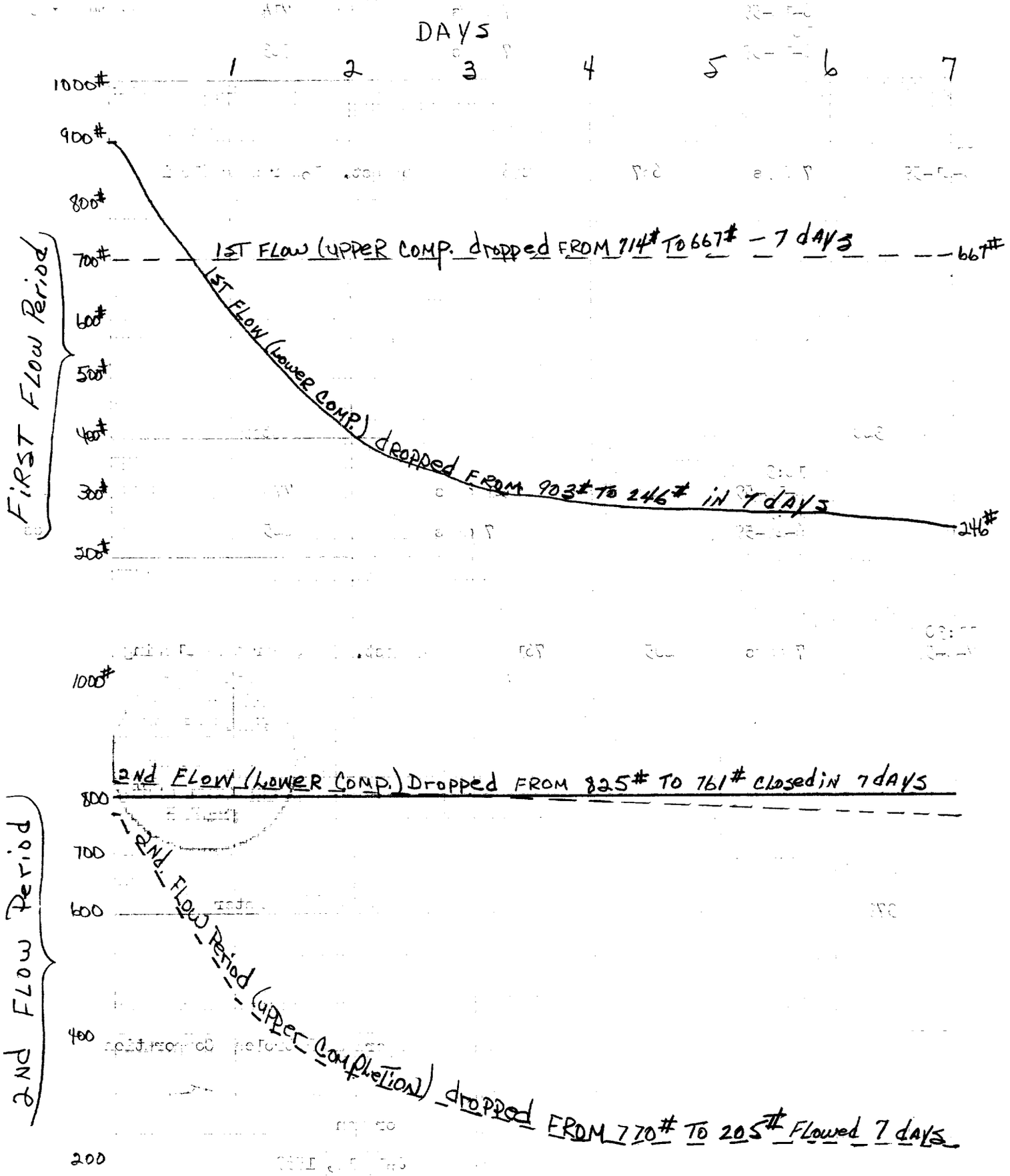
By A. F. Turner

By _____

Title Foreman

Title _____

Date July 14, 1959


DAYS
1
2
3
4
5
6
7
1000#
900#
800#
700#
600#
500#
400#
300#
200#
FIRST FLOW Period
1ST FLOW (UPPER COMP. dropped FROM 714# TO 667# - 7 DAYS
667#
1ST FLOW (LOWER COMP.) dropped FROM 903# TO 246# IN 7 DAYS
246#
1000#
800
700
600
400
200
2ND FLOW Period
2ND FLOW (LOWER COMP.) Dropped FROM 825# TO 761# closed IN 7 DAYS
2ND FLOW Period (UPPER Completion) dropped FROM 770# TO 205# Flowed 7 DAYS

STATE OF NEW MEXICO)
)
COUNTY OF SAN JUAN)

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

I am an employee of El Paso Natural Gas Company, and that on May 26, 1959, I was called to the location of the El Paso Natural Gas Company San Juan 27-4 Unit No. 21 (PM) Well located in the NWNE/4 of Section 30, Township 27 North, Range 4 West, N.M.P.M., for advisory service in connection with installation of a production packer. In my presence, a Guiberson Model "Shorty" Production Packer was set in this well at 4071 feet in accordance with the usual practices and customs of the industry.

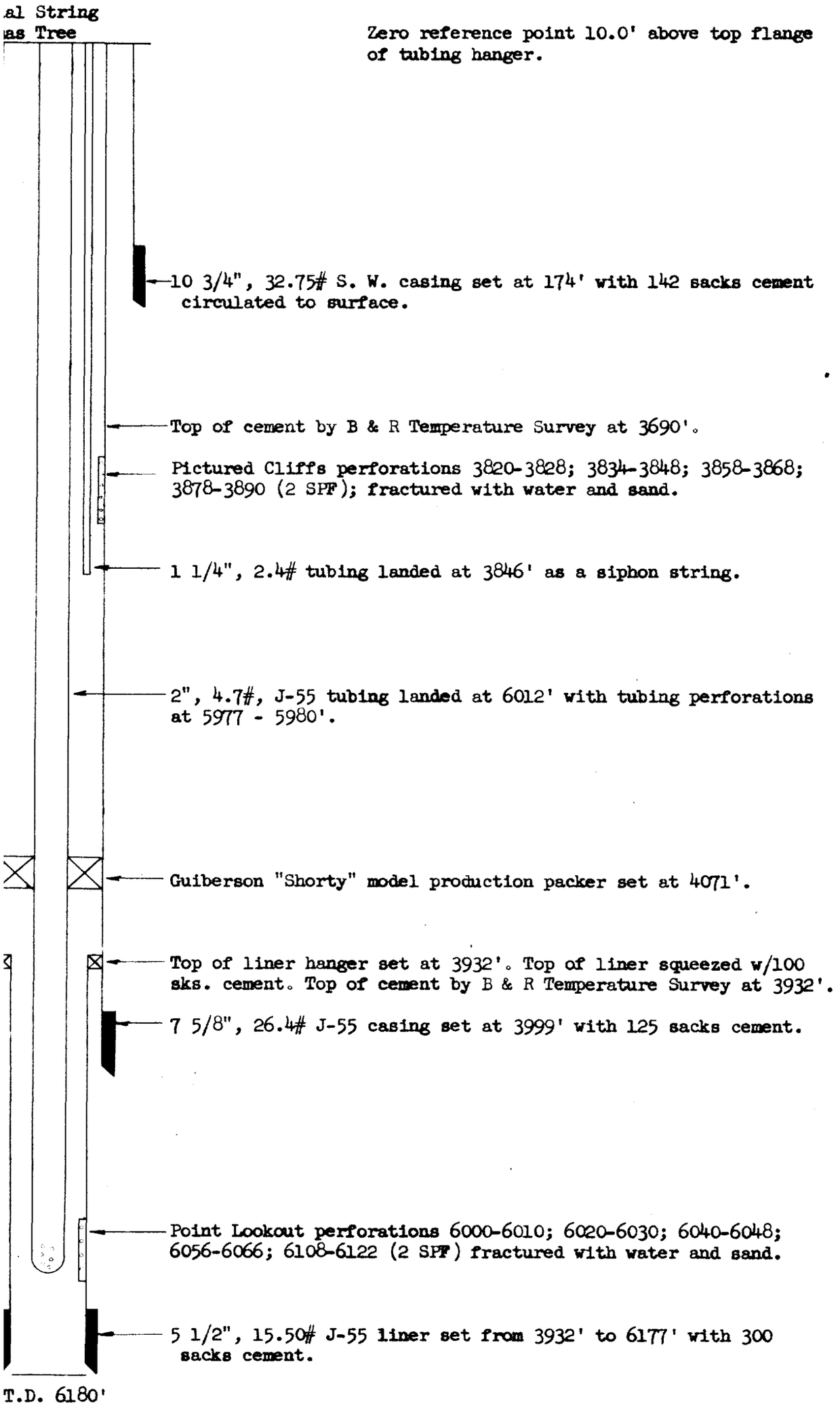
J J Tillerson

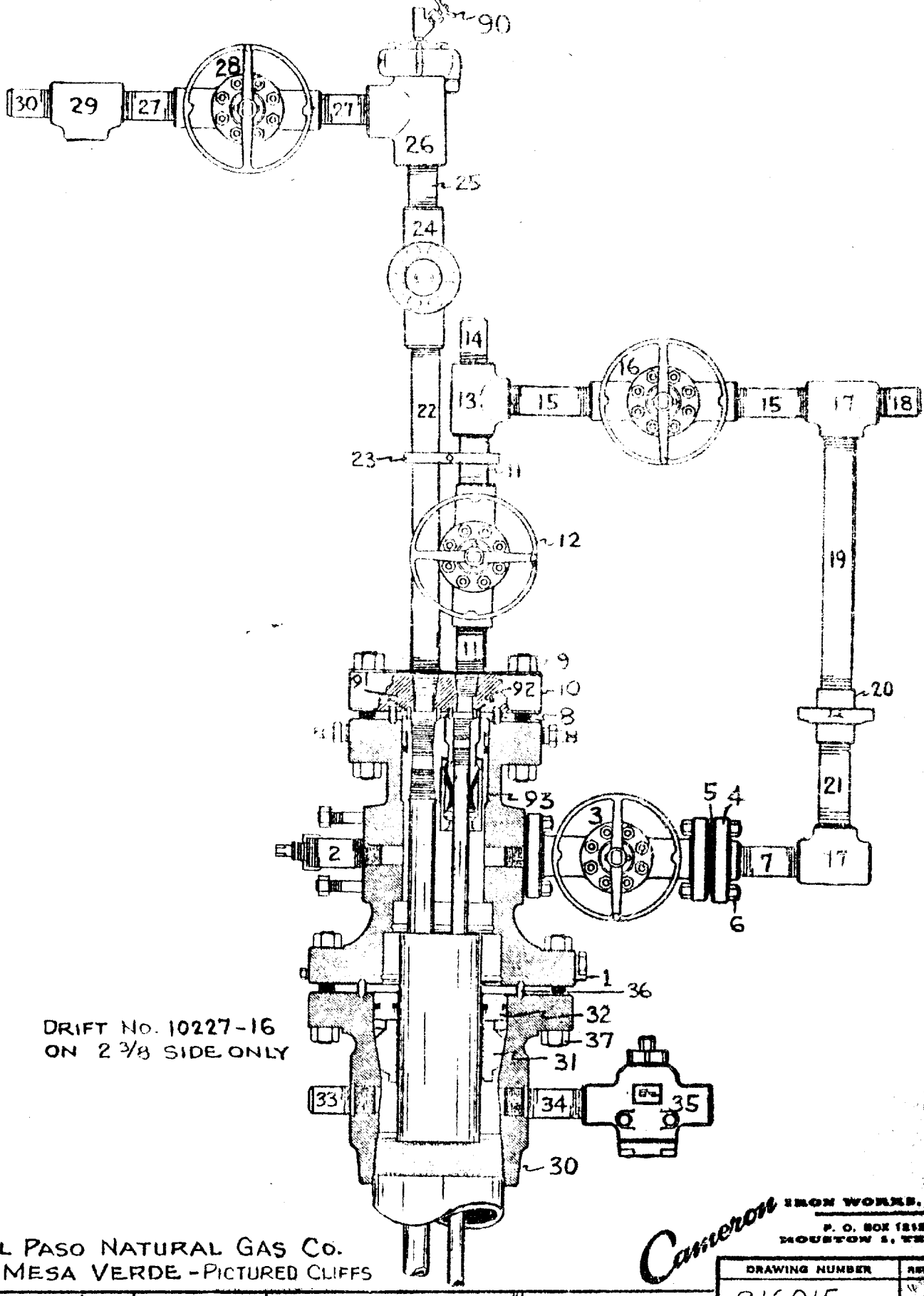
Subscribed and sworn to before me this 7th day of July, 1959.

Notary Public in and for San Juan County, New Mexico

My commission expires February 24, 1960.

El Paso Natural Gas Co. San Juan 27-4 Unit No. 21 (PM)
NE/4 Section 30, T-27-N, R-4-W





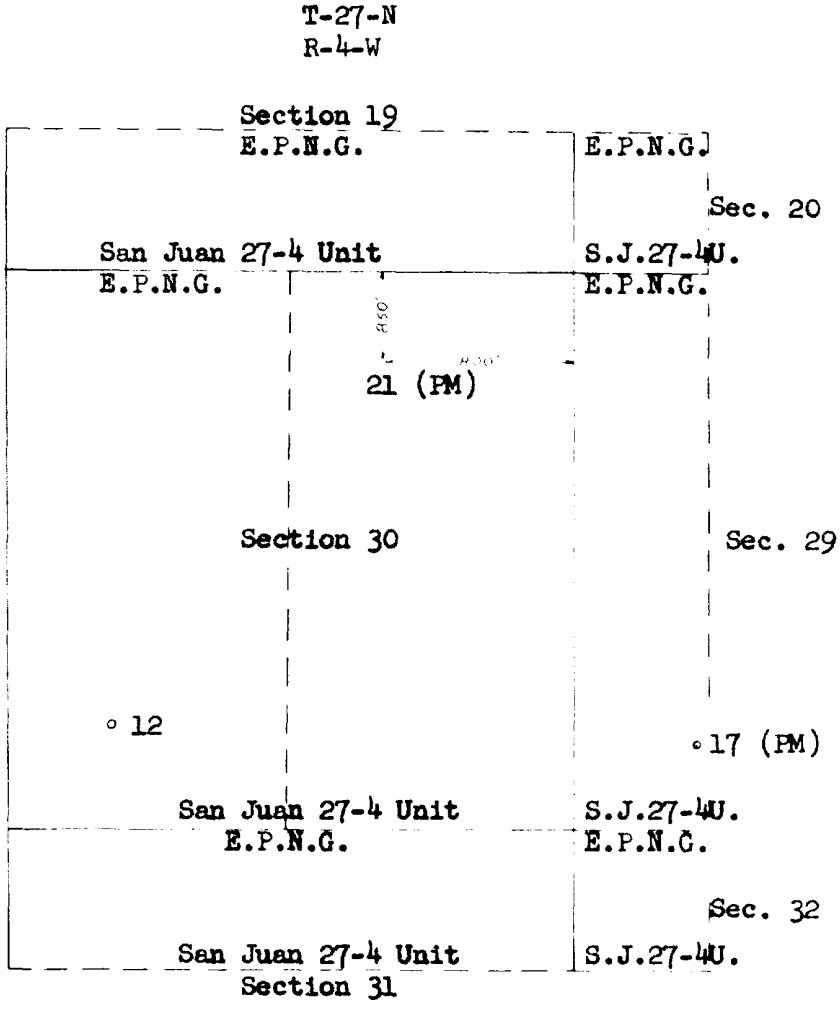
DRIFT NO. 10227-16
ON 2 3/8 SIDE ONLY

EL PASO NATURAL GAS CO.
MESA VERDE - PICTURED CLIFFS

Cameron IRON WORKS, INC.
P. O. BOX 1212
HOUSTON 1, TEXAS

DRAWN BY	DATE	WORKING PRESSURE	DRIFT NO.	DRAWING NUMBER	REVISION
E N	3-17-59	2,000 #		916015	"A"

Plat Showing Location of Dually Completed
El Paso Natural Gas Co. San Juan 27-4 Unit No. 21 (PM)
and Offset Acreage



EL PASO NATURAL GAS COMPANY
EL PASO, TEXAS

SCALE	DATE	No.
DRAWN BY	CHECKED BY	

FORM 7-132R (10-56)

OPEN FLOW TEST DATA

DUAL COMPLETION — June 5, 1959

El Paso Natural Gas		San Juan 27-4 No. 21 (M)	
850N, 1800E; 30-27-4		Rio Arriba	New Mexico
Mesa Verde		Blanco	
7-5/8	3999	2"	6002
6000	6122	6177 c/o 6134	Shut In: 5/26/59
Sand Water Frac.			X

.75	12.365	5-1/2 liner 3932-6177		
958 (PC)	970	10	1112 (MV)	1124 (MV)
215	227		Calc.	464
63	.75		1.022	.650

Initial SIPT (PC) = 959 psig
Final SIPC (PC) = 963 psig

Packer at 4071

CHOKE VOLUME $Q = C \times P_t \times F_t \times F_{pv}$

$12.365 \times 227 \times .9971 \times .9608 \times 1.022 = 2748$ MCF D

1263376
1048080

$1.2054^{.75} \times 2748 = 1.1505 \times 2748$

3162

Frank M. Clark

Fred Cook, N.M.O.C.C.

Checked By T. B. Grant

Lewis D. Galloway

L. D. Galloway

Operator: **El Paso Natural Gas Company**		Lease: **San Juan 27-4 No. 21 (P)**	
Location: **850N, 1800E; 30-27-4**		County: **Rio Arriba**	State: **New Mexico**
Formation: **Pictured Cliffs**		Pool: **Tapacito**	
Casing: Diameter: **7- 5/8**	Set At: Feet: **3999**	Tubing: Diameter: **1-1/4**	Set At: Feet: **3836**
Pay Zone: From: **3820**	To: **3890**	Total Depth: **6177 c/o 6134**	**Shut In: 5/26/59**
Stimulation Method: **Sand Water Frac.**		Flow Through: Casing: **X**	Flow Through: Tubing:

Choke Size, Inches: **.75**	Choke Constant: C: **12.365**	**5-1/2 liner 3932-6177**	
Shut-in Pressure, Casing, PSIG: **1007 (PC)**	+ 12 = PSIA: **1019**	Days Shut-in: **23**	Shut-in Pressure, Tubing, PSIG: **1009 (PC)** + 12 = PSIA: **1021**
Flowing Pressure: P, PSIG: **188**	+ 12 = PSIA: **200**		Working Pressure: P_w, PSIG: **196** + 12 = PSIA: **208**
Temperature: T, °F: **63**	n: **.85**		Fpv (From Tables): **1.021** Gravity: **.689**

Initial SIPT (MV) = 1121 psig
Final SIPT (MV) = 1123 psig

Packer at 4071

CHOKE VOLUME = Q = C x P_t x F_t x F_g x F_{pv}

Q = **12.365 x 200 x .9971 x .9359 x 1.021** = **2356** MCF D

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

Aof = $\left(\frac{1042441}{999177} \right)^n$ = $1.0432^{.85}$ x 2356 = 1.0366 x 2356

Aof = **2442** MCF D

TESTED BY: **S. V. Roberts**

WITNESSED BY: **F. Cook (N.M.O.C.C.)**

Lewis D. Galloway
L. D. Galloway