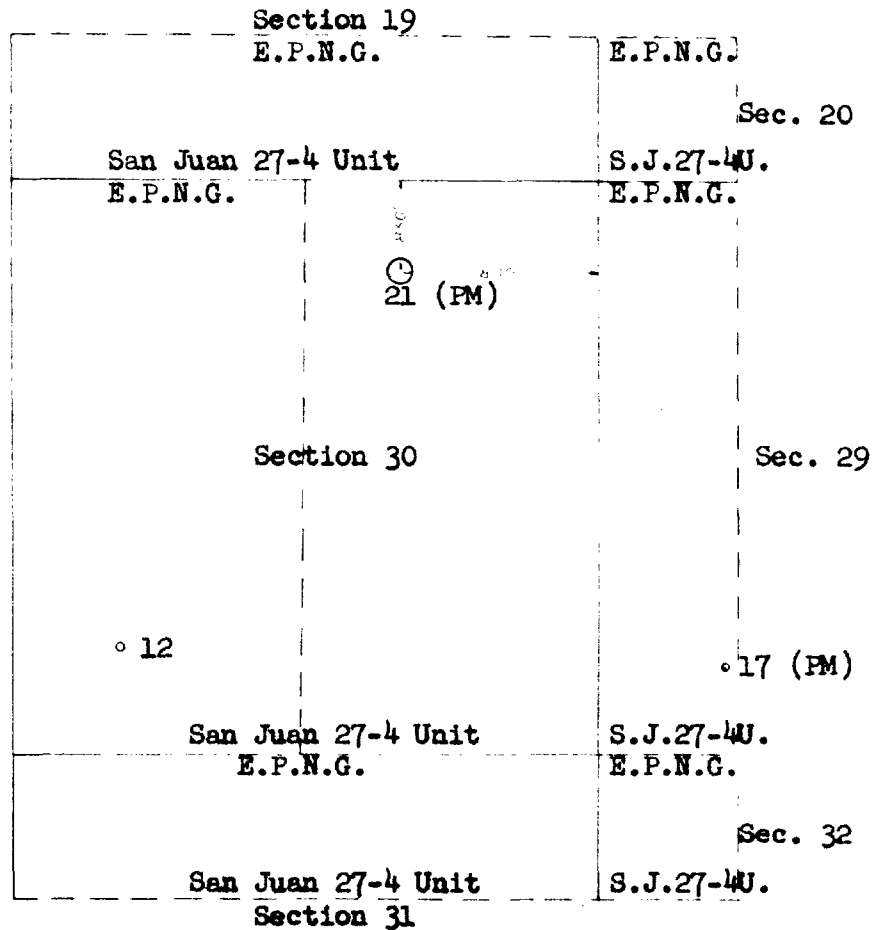


Plat Showing Location of Dually Completed
El Paso Natural Gas Co. San Juan 27-4 Unit No. 21 (PM)
and Offset Acreage

T-27-N
R-4-W



BEFORE EXAMINER NUTTER
OIL CONSERVATION COMMISSION
EXHIBIT NO. 28
CASE NO. 1747

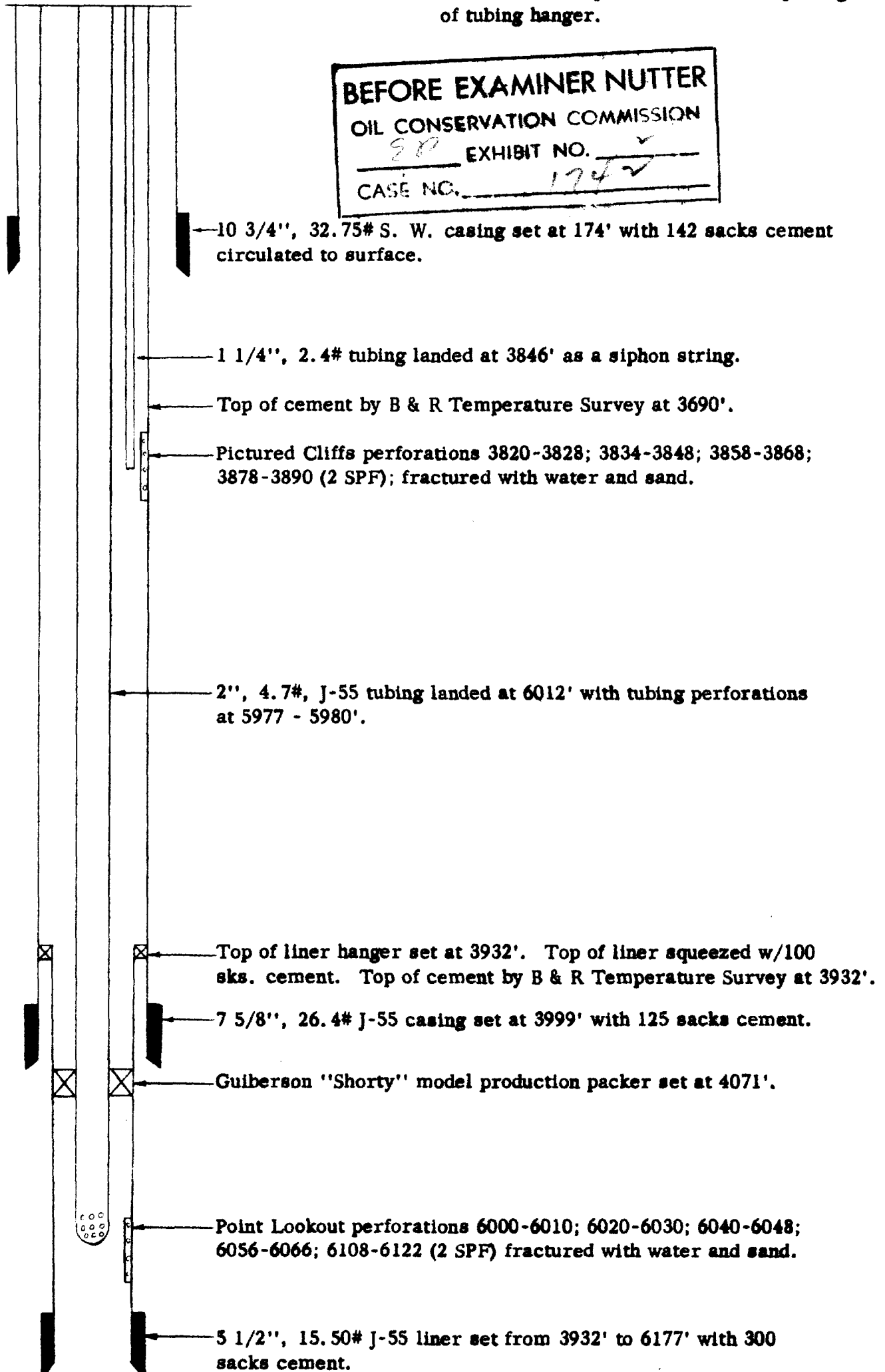
EL PASO NATURAL GAS COMPANY
EL PASO, TEXAS

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

Dual String
Xmas Tree

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

BEFORE EXAMINER NUTTER
OIL CONSERVATION COMMISSION
EP EXHIBIT NO. ✓
CASE NO. 174 ✓



T.D. 6180'

SCHLUMBERGER WELL SURVEYING CORPORATION

HOUSTON, TEXAS



ELECTRICAL LOG
GAMMA RAY NEUTRON LOG
INDUCTION LOG

COUNTY RIO ARriba, NEW MEX.
FIELD or BLANCO (MV)
LOCATION TAPACITO (PC)
WELL SAN JUAN 27-4 21
COMPANY EL PASO NATURAL GAS COMPANY

COMPANY EL PASO NATURAL

GAS COMPANY

WELL SAN JUAN 27-4

21 PM

FIELD BLANCO (MV)
TAPACITO (PC)

LOCATION SEC. 30-27N-4W

COUNTY RIO ARRIBA

STATE NEW MEXICO

Location of Well

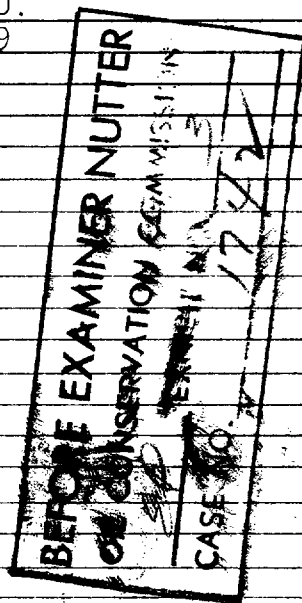
850' FR N/L
1800' FR E/L
SEC. 30-27N-4W

OTHER SURVEYS
ML - TEMP.

Elevation: D.F.: 6967
K.B.: 6968
or G.L.: 6958

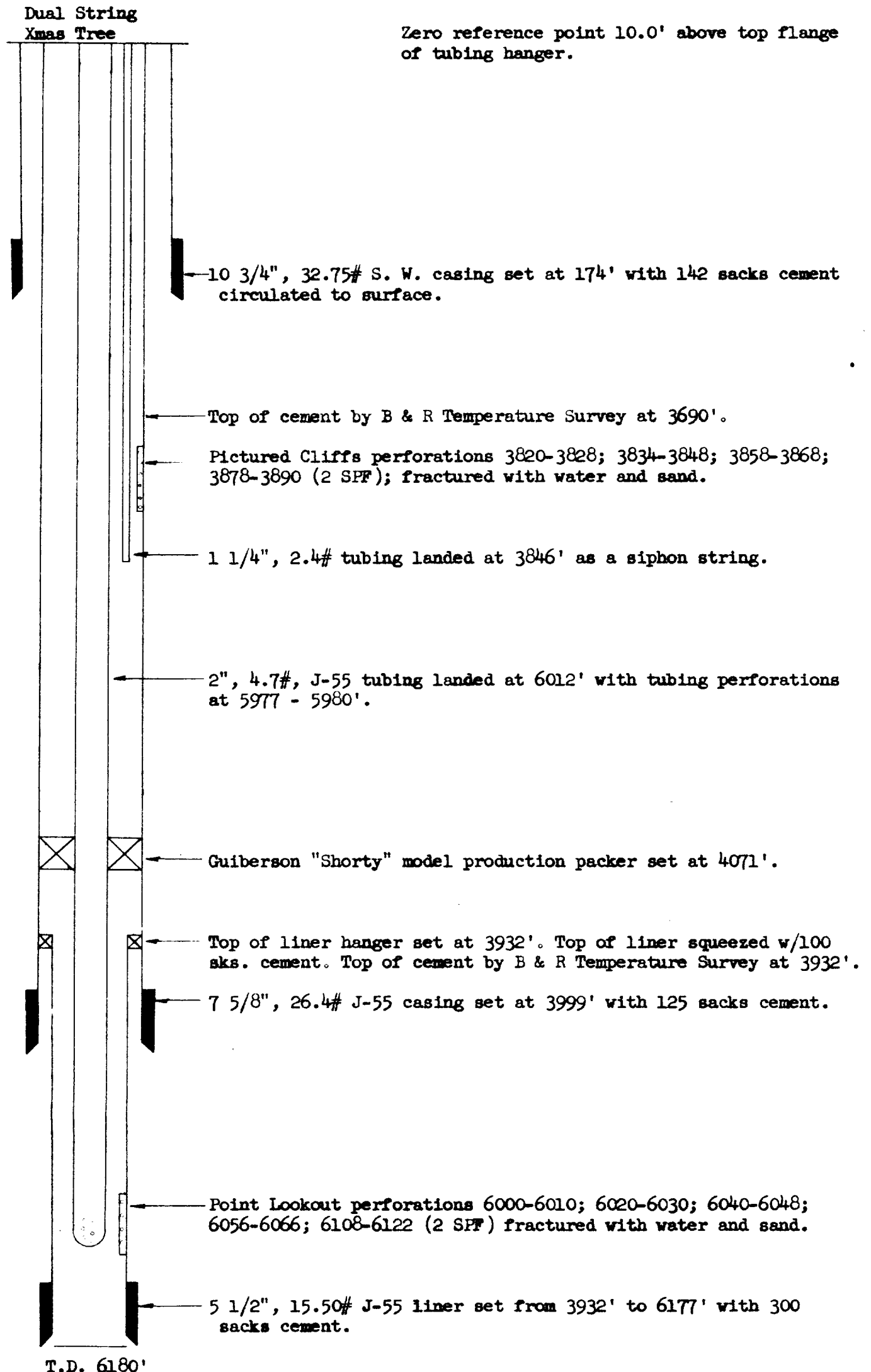
FILING No. _____

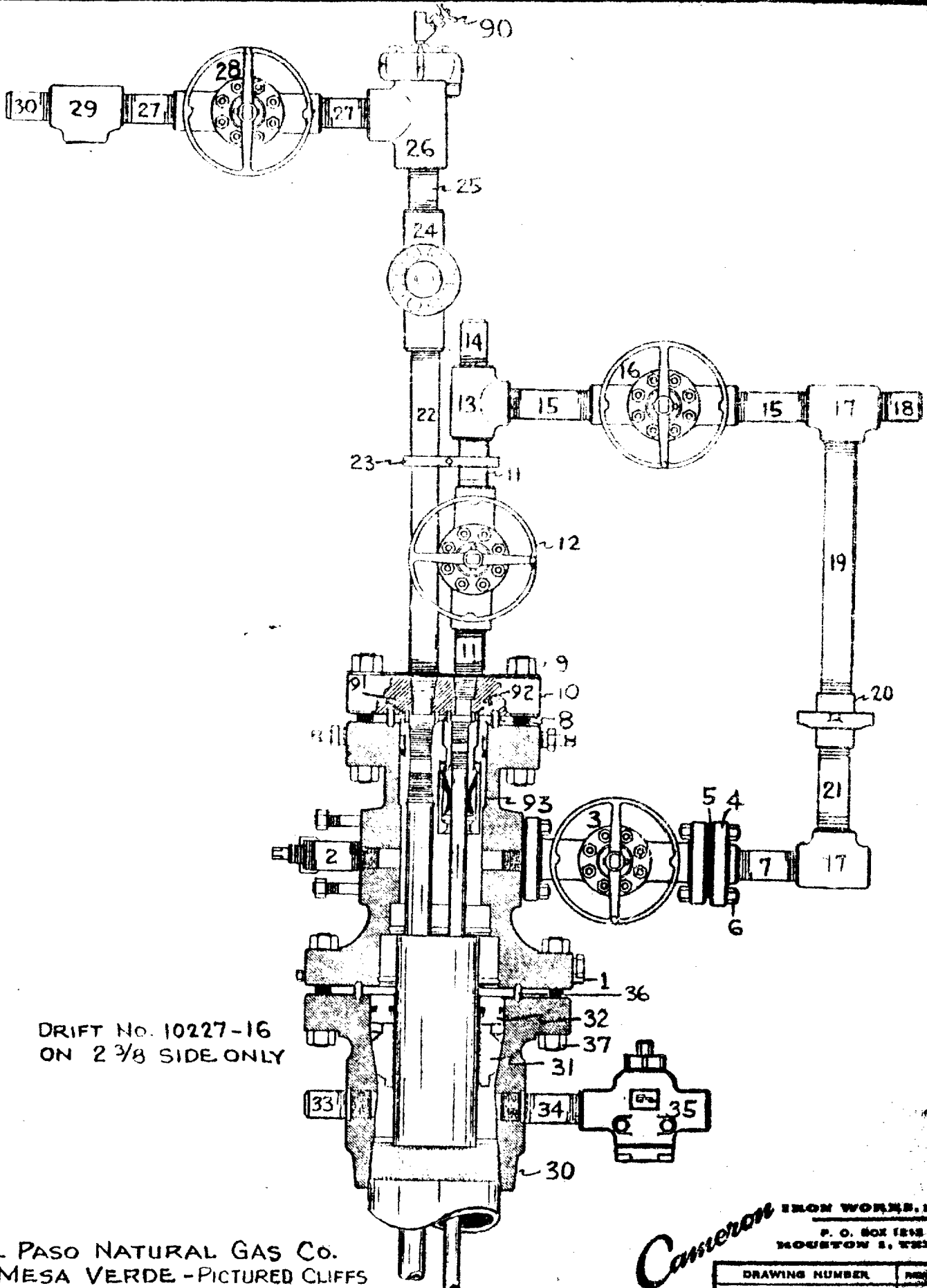
RUN No.	ONE ES	ONE GRN	ONE IND.
Date	5-11-59	5-19-59	5-19-59
First Reading	3988	6179	6176
Last Reading	250	3700	5899
Feet Measured	3738	2479	2177
Csg. Schlum.	--	3999	3999
Csg. Driller	170	3999	--
Depth Reached	3989	6180	6180
Bottom Driller	4000	6174	6174
Depth Datum	KB	KB	KB
Mud Nat.	GEL	GAS DRILLED	
" Density	9.7	--	--
" Viscosity	60	--	--
" Resist.	3.0 @ 60 °F	-- @ °F	--
" Res. BHT	1.7 @ 110 °F	-- @ °F	--
" pH	-- @ °F	-- @ °F	--
" Wtr. Loss	-- CC 30 min.	-- CC 30 min.	--
Max. Temp. °F	110	--	--
Bit Size	9 7/8"	6 3/4"	6 3/4"
SPCGS.	AM 16"		27"
TYPE EQUIP.	AM 64"	GNAM-4	
TYPE PANEL	AO 18'8"	GNP-C	
Opr. Rig Time	1 HR.	2 HRS.	1 1/2 HRS.
Truck No.	2515 FARM	1588 FARM	1588 FARM
Recorded By	KIMBALL	HANDLEY	HANDLEY
Witness	MR. ROSE		



E-3

Schematic Diagram of Dual Completion
El Paso Natural Gas Co. San Juan 27-4 Unit No. 21 (FM)
NE/4 Section 30, T-27-N, R-4-W





T-27-N
R-4-W



FORM 7-132R (10-56)

OPEN FLOW TEST DATA

DUAL COMPLETION

DATE 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	2"	3999	6002
6000	6177 c/o 6134	6122	Shut In: 5/26/59
Sand Water Frac.		X	

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

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

Packer at 4071

$$12.365 \times 227 \times .9971 \times .9608 \times 1.022$$

2748

1263376
1048080

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

3162

ILLEGIBLE

Frank M. Clark

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

Checked By T. B. Grant

Lewis D. Galloway
L. D. Galloway

EL PASO NATURAL GAS COMPANY
OPEN FLOW TEST DATA

DUAL COMPLETION

DATE June 28, 1959

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)
Flowing Pressure: P 188	- 12 = PSIA 200	Working Pressure: P _w 196	- 12 = PSIA 208
Temperature: T 63	F .85	F _{pv} (From Tables) 1.021	Gravity .689

Initial SIPT (MV) = 1121 psig

Packer at 4071

Final SIPT (MV) = 1123 psig

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

$$Q = 12.365 \times 200 \times .9971 \times .9359 \times 1.021 = 2356 \text{ MCF/D}$$

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

$$Aof = \left(\frac{1042441}{999177} \right)^n \quad 1/.0432^{.88} \times 2356 = 1.0366 \times 2356$$

$$Aof = 2442 \text{ MCF/D}$$

TESTED BY S. V. RobertsWITNESSED BY F. Cook (N.M.O.C.C.)

Lewis D. Galloway
L. D. Galloway