

NM OCC - 3  
Geo. Peppin - 1  
L. G. Truby - 1  
File - 1

PACIFIC NORTHWEST PIPELINE CORPORATION  
DRILLING DEPARTMENT

COMPANY Northwest Production Corporation

LEASE E WELL NO. 2-33

DATE OF TEST September 20, 1956

(Dual Completion)

SHUT IN PRESSURE (PSIG): TUBING 1025 CASING 1025 S.I. PERIOD 7 DAYS

SIZE BLOW NIPPLE 2 x 3/4 B-M Choke

FLOW THROUGH Tubing WORKING PRESSURES FROM --

TIME		CHOKE PRESSURE	Q (MCFD) 15.025 PSIA & 60°F	CASING <del>XXXXXXXXXXXX</del> PRESSURE (PSIG)	TEMP
HOURS	MINUTES				
11:30	am	352		1031	
11:45		328		1028	
12:00		309		1023	
12:15		295		1021	
1:15		252		1007	
2:15		234		998	66°

START TEST AT 11:15 am END TEST AT 2:15 pm

REMARKS: Second half of NM OCC Packer Leakage Test.

Well making heavy mist of oil, distillate & water.

TESTED BY W. B. Richardson III

**OIL CONSERVATION COMMISSION****AZTEC DISTRICT OFFICE****No. Copies Received****DISTRIBUTION**

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## NEW MEXICO OIL CONSERVATION COMMISSION

MM OCC - 3  
Geo Peppin - 1  
L. G. Truby - 1  
File - 1

Form C-122

Revised 12-1-55

## MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Wildcat Formation Mesaverde County Rio Arriba  
Initial            Annual            Special XX Date of Test 9-20-56  
Company Northwest Production Corp. Lease E Well No. 2-33  
Unit H Sec. 33 Twp. 26N Rge. 3W Purchaser Not connected  
Casing 7" 20# Wt. 11.5# I.D.            Set at 4301 4082 Perf. 5740 To 4108  
5"                                  6438                       6356  
Tubing 2-3/8 Wt. 4.7# I.D.            Set at 6334 Perf. - To -  
Gas Pay: From See above L 5772 x Cost. .690 -GL 3983 Bar. Press. 12.0  
Producing Thru: Casing            Tubing XX Type Well Dual - G.G.  
Date of Completion: 8-23-56 Packer Yes Single-Bradenhead-G. G. or G.O. Dual  
Reservoir Temp.           

## OBSERVED DATA

Tested Through (350000) (Choke) (40000)Type Taps ---

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	( <del>350000</del> ) ( <del>350000</del> ) Size	(Choke) ( <del>350000</del> ) Size	Press. psig	Diff. h <sub>w</sub>	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI						1025		1025		81
1.										
2.	2	3/4	234		66	234	66			3 hrs.
3.										
4.										
5.										

## FLOW CALCULATIONS

No.	Coefficient (24-Hour)	$\sqrt{h_w p_f}$	Pressure psia	Flow Temp. Factor F <sub>t</sub>	Gravity Factor F <sub>g</sub>	Compress. Factor F <sub>pv</sub>	Rate of Flow Q-MCFPD @ 15.025 psia
1.							
2.							
3.	14.1605		246	.9943	.9325	1.026	3314
4.							
5.							

## PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio            cf/bbl.  
Gravity of Liquid Hydrocarbons            deg.  
P<sub>c</sub> XXX 9.936 (1-e<sup>-s</sup>) .240

Specific Gravity Separator Gas             
Specific Gravity Flowing Fluid             
P<sub>c</sub> 1037 P<sub>c</sub><sup>2</sup> 1075.4

No.	P <sub>t</sub> (psia)	P <sub>t</sub> <sup>2</sup>	F <sub>c</sub> Q	(F <sub>c</sub> Q) <sup>2</sup>	(F <sub>c</sub> Q) <sup>2</sup> (1-e <sup>-s</sup> )	P <sub>w</sub> <sup>2</sup>	P <sub>c</sub> <sup>2</sup> -P <sub>w</sub> <sup>2</sup>	Cal. P <sub>w</sub>	P <sub>w</sub> / P <sub>c</sub>
1.									
2.									
3.	246	60.5	32.9	1082.4	259.8	320.3	755.1	566	1.424
4.									
5.									

Absolute Potential: 4321 MCFPD; n .75/1.304  
COMPANY NORTHWEST PRODUCTION CORPORATION  
ADDRESS 520 Simms Bldg., Albuquerque, New Mexico  
AGENT and TITLE V. E. Richardson III  
WITNESSED A. E. Kendrick  
COMPANY N. M. Oil Conservation Commission

REMARKS



## INSTRUCTIONS

This form is to be used for reporting multi-point back pressure tests on gas wells in the State, except those on which special orders are applicable. Three copies of this form and the back pressure curve shall be filed with the Commission at Box 871, Santa Fe.

The log log paper used for plotting the back pressure curve shall be of at least three inch cycles.

## NOMENCLATURE

$Q$  = Actual rate of flow at end of flow period at W. H. working pressure ( $P_w$ ).  
MCF/da. @ 15.025 psia and 60° F.

$P_c$  = 72 hour wellhead shut-in casing (or tubing) pressure whichever is greater.  
psia

$P_w$  = Static wellhead working pressure as determined at the end of flow period.  
(Casing if flowing thru tubing, tubing if flowing thru casing.) psia

$P_t$  = Flowing wellhead pressure (tubing if flowing through tubing, casing if flowing through casing.) psia

$P_f$  = Meter pressure, psia.

$h_w$  = Differential meter pressure, inches water.

$F_g$  = Gravity correction factor.

$F_t$  = Flowing temperature correction factor.

$F_{pv}$  = Supercompressibility factor.

$n$  = Slope of back pressure curve.

Note: If  $P_w$  cannot be taken because of manner of completion or condition of well, then  $P_w$  must be calculated by adding the pressure drop due to friction within the flow string to  $P_t$ .

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(SUBMIT IN TRIPLICATE)

Indian Agency \_\_\_\_\_

**Jicarilla**

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

Allottee \_\_\_\_\_

**Contract #117**

Lease No. \_\_\_\_\_

SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL _____	SUBSEQUENT REPORT OF WATER SHUT-OFF _____	<b>1</b>
NOTICE OF INTENTION TO CHANGE PLANS _____	SUBSEQUENT REPORT OF SHOOTING OR ACIDIZING _____	
NOTICE OF INTENTION TO TEST WATER SHUT-OFF _____	SUBSEQUENT REPORT OF ALTERING CASING _____	
NOTICE OF INTENTION TO REDRILL OR REPAIR WELL _____	SUBSEQUENT REPORT OF REDRILLING OR REPAIR _____	
NOTICE OF INTENTION TO SHOOT OR ACIDIZE _____	SUBSEQUENT REPORT OF ABANDONMENT _____	
NOTICE OF INTENTION TO PULL OR ALTER CASING _____	SUPPLEMENTARY WELL HISTORY _____	
NOTICE OF INTENTION TO ABANDON WELL _____		

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

**January 29**, 19**57**

Well No. **"E" 2-33** is located **1619** ft. from **[N]** line and **974** ft. from **[E]** line of sec. **33**

**SE/4 NE/4 33** **26N** **3W** **N80W**  
(1/4 Sec. and Sec. No.) (Twp.) (Range) (Meridian)

**Wildest NW & Tropicite FC** **Rio Arriba** **New Mexico**  
(Field) (County or Subdivision) (State or Territory)

The elevation of the ~~ungraded ground~~ **ungraded ground** above sea level is **7470.3** ft.

DETAILS OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work)

**TD 6460'. PBD 6415'. NI & RU compl unit 1-7-57. Pulled plug choke, landed the donut and both cones kicked off. Set Otis the pack-off from 4085-97 and released unit 12 noon 1-18. On 1-28-57 changed out packer cups, pulled and reran the pack-off fr 4088-4108. Blew well 1 hr thru the w/no change in casing press. Tstg.**



I understand that this plan of work must receive approval in writing by the Geological Survey before operations may be commenced.

Company **NORTHWEST PRODUCTION CORPORATION**

Address **520 Sims Building**

**Albuquerque, New Mexico**

**RAY PHILLIPS**

By **Ray Phillips**

Title **Asst. Mgr., Prod. Operations**

