

NORTHWEST NEW MEXICO PACKER-LEAKAGE TEST

Operator PAN AMERICAN PETROLEUM CORPORATION Lease Jicarilla Apache 102 Well No. 11
Location of Well: Unit C Sec. 10 Twp. 26N Rge. 4W County Rio Arriba
Type of Prod. (Oil or Gas) Gas Method of Prod. (Flow or Art. Lift) Flow Prod. Medium (Tbg. or Csg.) Csg.

Upper Completion	<u>B. S. Mesa Gallup</u>	<u>Gas</u>	<u>Flow</u>	<u>Csg.</u>
Lower Completion	<u>Basin Dakota</u>	<u>Gas</u>	<u>Flow</u>	<u>Tbg.</u>

PRE-FLOW SHUT-IN PRESSURE DATA

Upper Compl	Hour, date Shut-in	<u>3-18-70</u>	Length of time shut-in	<u>7 Days</u>	SI press. psig	<u>1230</u>	Stabilized? (Yes or No)	<u>Yes</u>
Lower Compl	Hour, date Shut-in	<u>3-18-70</u>	Length of time shut-in	<u>7 Days</u>	SI press. psig	<u>852</u>	Stabilized? (Yes or No)	<u>Yes</u>

FLOW TEST NO. 1

Commenced at (hour, date)* <u>3-25-70</u>				Zone producing (Upper or Lower): <u>Upper</u>			
Time (hour, date)	Lapsed time since*	Pressure		Prod. Zone Temp.	Remarks		
		Upper Compl.	Lower Compl.				
<u>8:45 A.M. 3-25-70</u>		<u>1230</u>	<u>852</u>		<u>Both zones shut in.</u>		
<u>9:00 A.M.</u>	<u>15 Min.</u>	<u>1190</u>	<u>852</u>		<u>Upper Flow; Lower shut in.</u>		
<u>9:15</u>	<u>"</u>	<u>1025</u>	<u>852</u>		<u>"</u>	<u>"</u>	<u>"</u>
<u>9:30</u>	<u>"</u>	<u>925</u>	<u>852</u>		<u>"</u>	<u>"</u>	<u>"</u>
<u>9:45</u>	<u>1 Hr.</u>	<u>825</u>	<u>852</u>		<u>"</u>	<u>"</u>	<u>"</u>
<u>10:45</u>	<u>2 Hr.</u>	<u>425#</u>	<u>852</u>		<u>"</u>	<u>"</u>	<u>"</u>
<u>11:45</u>	<u>3 Hr.</u>	<u>40#</u>	<u>852</u>		<u>"</u>	<u>"</u>	<u>"</u>

Production rate during test

Oil: BOPD based on Bbls. in Hrs. Grav. GOR
Gas: MCFPD; Tested thru (Orifice or Meter):

MID-TEST SHUT-IN PRESSURE DATA

Upper Compl	Hour, date Shut-in	<u>3-25-70</u>	Length of time shut-in	<u>7</u>	SI press. psig	<u>1230</u>	Stabilized? (Yes or No)	<u>Yes</u>
Lower Compl	Hour, date Shut-in	<u>3-18-70</u>	Length of time shut-in	<u>14</u>	SI press. psig	<u>933</u>	Stabilized? (Yes or No)	<u>Yes</u>

FLOW TEST NO. 2

Commenced at (hour, date)** <u>4-1-70</u>				Zone producing (Upper or Lower): <u>Lower</u>			
Time (hour, date)	Lapsed time since **	Pressure		Prod. Zone Temp.	Remarks		
		Upper Compl.	Lower Compl.				
<u>4-4-70</u>	<u>3 Days</u>	<u>1230</u>	<u>557</u>		<u>Upper Shut In; Lower Flow</u>		
<u>4-8-70</u>	<u>7 Days</u>	<u>1232</u>	<u>592</u>		<u>"</u>	<u>"</u>	<u>"</u>

Production rate during test

Oil: BOPD based on Bbls. in Hrs. Grav. GOR
Gas: MCFPD; Tested thru (Orifice or Meter):

REMARKS: Initial Packer Test

Upper Zone Not Connected to Pipe Line

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

Approved: 4-15 1970
New Mexico Oil Conservation Commission

By A. W. Eaton, Jr.
Title PETROLEUM ENGINEER DIST. NO. 3

Operator PAN AMERICAN PETROLEUM CORPORATION

By G. W. EATON, JR.
Original Signed By

Title Area Engineer

Date April 13, 1970

NORTHWEST NEW MEXICO PACKER LEAKAGE TEST INSTRUCTIONS

3. A packer leakage test shall be commenced on each multiply completed well within seven days after actual completion of the well, and annually thereafter as prescribed by the order authorizing the multiple completion. Such tests shall also be commenced on all multiple completions within seven days following recompletion and/or chemical or fracture treatment, and whenever remedial work has been done on a well during which the packer or the tubing have been disturbed. Tests shall also be taken at any time that communication is suspected or when requested by the Commission.
4. At least 72 hours prior to the commencement of any packer leakage test the operator shall notify the Commission in writing of the exact time the test is to be commenced. Offset operators shall also be so notified.
5. The packer leakage test shall commence when both zones of the dual completion are shut-in for pressure stabilization. Both zones shall remain shut-in until the well-head pressure in each has stabilized, provided however, that they need not remain shut-in more than seven days.
6. For Flow Test No. 1, one zone of the dual completion shall be produced at the normal rate of production, while the other zone remains shut-in. Such test shall be continued for seven days in the case of a gas well and for 24 hours in the case of an oil well. Note: If on an initial packer leakage test, a gas well is being flowed to the atmosphere due to the lack of a pipeline connection the flow period shall be three hours.
7. Following completion of Flow Test No. 1, the well shall again be shut-in, in accordance with Paragraph 3 above.
8. Flow Test No. 2 shall be conducted even though no leak was indicated during Flow Test No. 1. Procedure for Flow Test No. 2 is to be the same as for Flow Test No. 1 except that the previously produced zone shall remain shut-in while the zone which was previously shut-in is produced.

7. Pressures for gas flow tests may be recorded on each zone with a deadweight pressure gauge at five-minute intervals. Following 3-hour tests immediately prior to the beginning of each flow period, at fifteen-minute intervals during the first flow period, and at hourly intervals thereafter, including one pressure measurement immediately prior to the beginning of each flow period, 15-minute tests may be taken immediately prior to the beginning of each flow period, at least one time during each flow period, at approximately the midday point and immediately prior to the conclusion of each flow period. Other pressure measurements may be taken as desired, or may be requested on a 15-minute basis if desired, and the following test data.

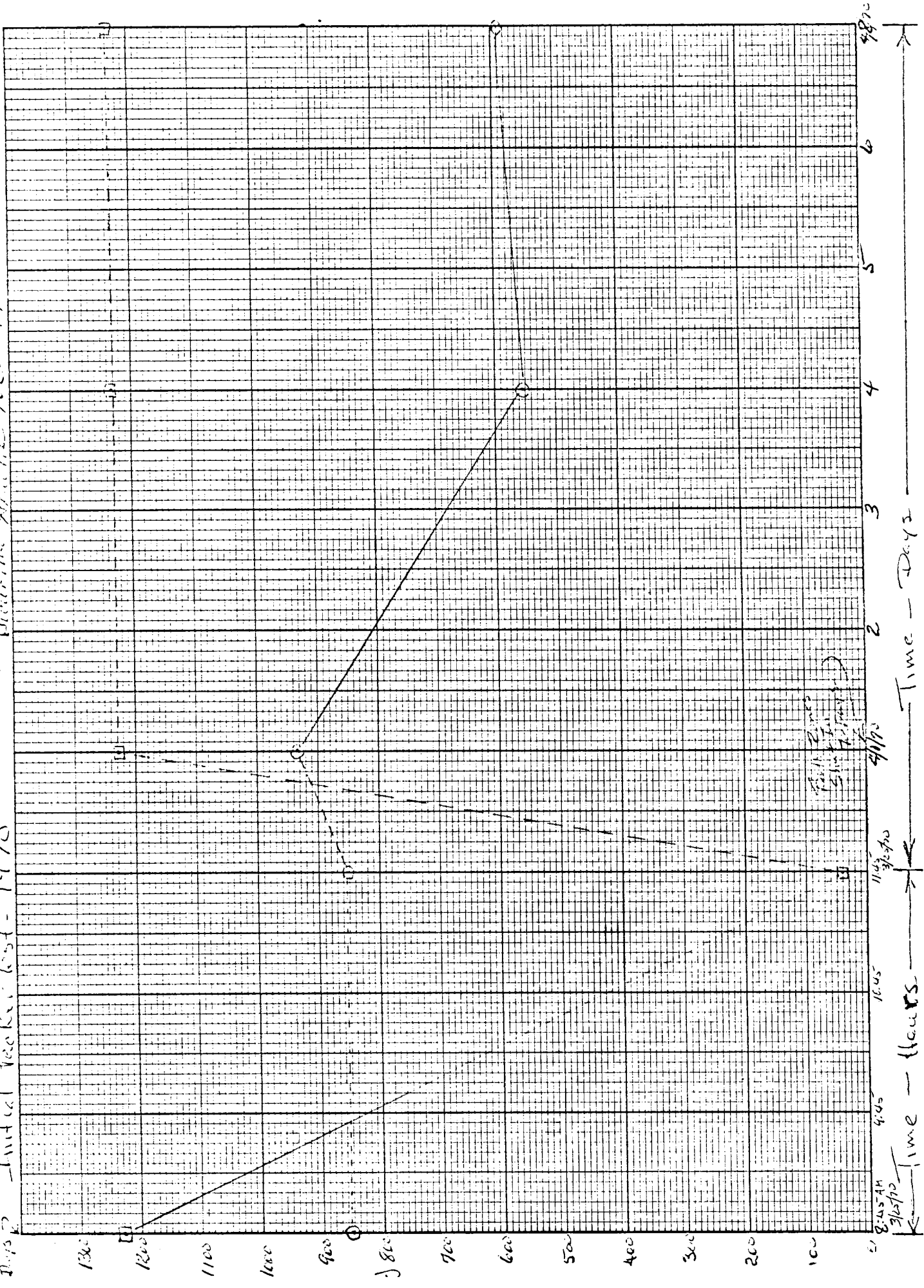
24-hour oil zone tests at pressures throughout the entire test shall be continuously recorded and recorded with recording pressure gauges, the accuracy of which will be checked at least twice during the beginning and once at the end of each test, with a deadweight pressure gauge. If a well is a gas-oil or an oil-gas dual completion, the recording gauge shall be checked at the oil zone only, and deadweight pressure, as required above being taken in the gas zone.

8. The results of the above-described tests shall be filed in triplicate within 15 days after completion of the tests. Tests shall be filed with the Aztec District office of the New Mexico Department of Conservation on Northwest New Mexico State Leasing Test Form revised 11/1/61 with all deadweight pressures indicated thereon as well as the flowing temperatures (gas zones only) and gravity and tank oil zones shall be plotted versus time curve for each zone of each test shall be constructed on the reverse side of the Packer Leakage Test Form with the deadweight pressure points taken indicated thereon. For all zones the pressure curve should also indicate all key pressure changes which may be reflected by the recording gauge charts. These key pressure changes should also be tabulated on the front of the Packer Leakage Test Form.

This image shows a full page of blank graph paper. The paper features a uniform grid of small squares, typical of standard graph paper used for mathematics or engineering. The grid covers the entire area of the page, with no margins or additional markings visible.

2nd 4th Zones
 3/15/73 Initial Peak Test - 1970
 11/2/73

Torville Arches 11/2/73



2nd 4th Zones
 3/15/73