

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

NORTHWEST NEW MEXICO PACKER-LEAKAGE TEST

Operator Northwest Pipeline Corp. Lease Indian P Well No. #1
Location of Well: Unit 4 Sec. 16 Twp. 27N Rge. 3W 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	Gavilan PC	gas	flow	csg
Lower Completion	Blanco MV	"	"	tbg.

PRE-FLOW SHUT-IN PRESSURE DATA

	Hour, date shut-in	Length of time shut-in	SI press. psig	Stabilized? (Yes or No)
Upper Completion	8-15-88	3 days	csg. = 0	yes
Lower Completion	8-15-88	3 days	tbg. = 765	no

FLOW TEST NO. 1

Commenced at (hour, date)*		PRESSURE		Zone producing (Upper or Lower):	
TIME (hour, date)	LAPSED TIME SINCE*	Upper Completion	Lower Completion	PROD. ZONE TEMP.	REMARKS
8-19-88	24 hrs.	csg. = 0	tbg. = 450		Q = 88 mcf/d
8-20-88	48 hrs.	csg. = 0	tbg. = 318		Q = 0 mcf/d
Upper zone is dead and non-productive.					
Lower zone logged during second day of test. Will not flow against pipeline due to low pressure of reservoir.					

Production rate during test

Oil: _____ BOPD based on _____ Bbls. in _____ Hours. **RECEIVED** SEPI 7-1988 GOR _____

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

**OIL CON. DIV
DIST. 3**

MID-TEST SHUT-IN PRESSURE DATA

	Hour, date shut-in	Length of time shut-in	SI press. psig	Stabilized? (Yes or No)
Upper Completion				
Lower Completion				

NORTHWEST NEW MEXICO PACKER-LEAKAGE TEST

FLOW TEST NO. 2

Commenced at (hour, date) **		PRESSURE		Zone producing (Upper or Lower):	
TIME (hour, date)	LAPSED TIME SINCE **	Upper Completion	Lower Completion	PROD. ZONE TEMP.	REMARKS

Production rate during test

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

Gas: _____ MCFPD: Tested thru (Orifice or Meter): _____

Remarks: _____

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

Approved SEP 01 1988 19 _____
New Mexico Oil Conservation Division

Original Signed by CHARLES GIBLSON

By _____

Title DEPUTY OIL & GAS INSPECTOR, DIST. #3

Operator Northwest Pipeline Corp.

By Mike Turnbaugh

Title Senior Engineer

Date 8-31-88

NORTHWEST NEW MEXICO PACKER LEAKAGE TEST INSTRUCTIONS

1. 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 Division.
2. At least 72 hours prior to the commencement of any packer leakage test, the operator shall notify the Division in writing of the exact time the test is to be commenced. Offsite operators shall also be so notified.
3. 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.
4. 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, the flow period shall be three hours.
5. Following completion of Flow Test No. 1, the well shall again be shut-in, in accordance with Paragraph 3 above.
6. 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-zone tests must be measured on each zone with a deadweight pressure gauge at time intervals as follows: 3 hours tests: immediately prior to the beginning of each flow-period, at fifteen-minute intervals during the first hour thereof, and at hourly intervals thereafter, including one pressure measurement immediately prior to the conclusion of each flow period. 7-day tests: immediately prior to the beginning of each flow period, at least one time during each flow period (at approximately the midway point) and immediately prior to the conclusion of each flow period. Other pressures may be taken as desired, or may be requested on wells which have previously shown questionable test data.
- 24-hour oil zone tests: all pressures, throughout the entire test, shall be continuously measured and recorded with recording pressure gauges the accuracy of which must be checked at least twice, once at 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 required on the oil zone only, with deadweight pressures as required above being taken on the gas zone.
8. The results of the above-described tests shall be filed in triplicate within 15 days after completion of the test. Tests shall be filed with the Aztec District Office of the New Mexico Oil Conservation Division on Northwest New Mexico Packer Leakage Test Form Revised 10-01-78 with all deadweight pressures indicated thereon as well as the flowing temperatures (gas zones only) and gravity and GOR (oil zones only).

"OIL CONSERVATION DIVISION"
 "NORTHWEST NEW MEXICO PACKER-LEAKAGE TEST"

Operator: Northwest Pipeline Corp. Lease: Indian P #1
 Location of Well: Unit H Sec. 16, Twp. 27N, Rge. 3W County: Rio Arriba 86429

I	I	Res. or Pool	I	Prod. Type	I	Prod. Method	I	Prod. Medium	I
I	Upper	I	I	I	I	I	I	I	I
I	Compl.	I	I	I	I	I	I	I	I
I		I	I	I	I	I	I	I	I
I	Lower	I	I	I	I	I	I	I	I
I	Compl.	I	I	I	I	I	I	I	I
I		I	I	I	I	I	I	I	I

PRE-FLOW SHUT-IN DATA

I	I	Date Shut-In	I	Length Shut-In	I	SI Press	I	Stabilized?	I
I	Upper	I	I	I	I	I	I	I	I
I	Compl.	I	I	I	I	I	I	I	I
I		I	I	I	I	I	I	I	I
I	Lower	I	I	I	I	I	I	I	I
I	Compl.	I	I	I	I	I	I	I	I
I		I	I	I	I	I	I	I	I

FLOW TEST NO. 1

Commenced at:** 5-17-89 I Zone Producing: Upper I

I	I	Time	I	Pressures	I	Prod. Zone	I	Remarks	I
I	I	Time	I	Upper	I	Lower	I	Temp.	I
I	I	Since*	I	Compl.	I	Compl.	I		I
I	15-18-89	I	I	I	I	I	I	I	I
I		I	I	I	I	I	I	I	I
I		I	I	I	I	I	I	I	I
I	15-19-89	I	I	I	I	I	I	I	I
I		I	I	I	I	I	I	I	I
I		I	I	I	I	I	I	I	I

IComments:
 I Well logged during second day of flow test.
 I Upper zone is non-productive.
 I

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

Approved MAY 31 1989 Operator: Northwest Pipeline Corp.
 Original Signed by CHARLES GHOLSON By: Mike Turnbaugh
 Title: DEPUTY OIL & GAS INSPECTOR, DIST. #3 Title: Senior Engineer

Date: 5-26-89

RECEIVED
 MAY 31 1989
 OIL CON. DIV.
 DIST. 3

"OIL CONSERVATION DIVISION"
"NORTHWEST NEW MEXICO PACKER-LEAKAGE TEST"

Operator: Northwest Pipeline Corp. Lease: Indian P #1
Location 66429
of Well: Unit H Sec. 16, Twp. 27N, Rge. 3W County: Rio Arriba

I	I	I	I	I	I	I
I	Res. or Pool	Prod. Type	Prod. Method	Prod. Medium		
I	I	I	I	I	I	I
I	Upper I	I	I	I	I	I
I	Compl. I Gavilan PC	I Gas	I Flowing	I	I Casing	I
I	I	I	I	I	I	I
I	Lower I	I	I	I	I	I
I	Compl. I Blanco MV	I Gas	I Flowing	I	I Tubing	I
I	I	I	I	I	I	I

PRE-FLOW SHUT-IN DATA

I	I	I	I	I	I
I	Date Shut-In	Length Shut-In	SI Press	Stabilized?	
I	I	I	I	I	I
I	Upper I	I	I	I	I
I	Compl. I 9-22-91	I 3 days	I csg.=0	I yes	I
I	I	I	I	I	I
I	Lower I	I	I	I	I
I	Compl. I 9-22-91	I 3 days	I tbg.=1050	I no	I
I	I	I	I	I	I

FLOW TEST NO. 1

Commenced at:**		9-25-91	Zone Producing: Lower	
I	I	I	I	I
I	Time	Pressures	Prod. Zone	Remarks
I	Time	Upper	Lower	Temp.
I	Since*	Compl.	Compl.	
I	I	I	I	I
I	9-26-91	I 24 hrs. I csg.=0	I tbg.=476	I Q=120 mcf/d
I	I	I	I	I
I	I	I	I	I
I	9-27-91	I 48 hrs. I csg.=0	I tbg.=401	I Q=120 mcf/d
I	I	I	I	I
I	I	I	I	I
I Comments:				
I Upper zone is logged off.				
I				
I				

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

Approved OCT 08 1991 Operator: Northwest Pipeline Corp.

By Original Signed by CHARLES GHOLSON By: Mike Turnbaugh

Title DEPUTY OIL & GAS INSPECTOR, DIST. #3 Title: Senior Engineer

Date: 10-07-91

RECEIVED
OCT 8 1991
OIL CON. DIV.
DIST. 3