

# Pressure Test / Leakage Test Report

(Please print all information)



**Project Name:** \_\_\_\_\_

**Date of Testing:** \_\_\_\_\_

**Inspector Name:** \_\_\_\_\_

**Firm:** \_\_\_\_\_

**Location:** \_\_\_\_\_

**Watermain Diameter:** \_\_\_\_\_ inches

**Diameter of Reservoir:** \_\_\_\_\_ inches

**Watermain Type:**      DIP      PVC      PCCP

**Starting Depth:** \_\_\_\_\_ inches

If Reservoir is greater than 15" in diameter, the test shall be run for a minimum of four (4) hours.

**Ending Depth:** \_\_\_\_\_ inches

**Length of Main:** \_\_\_\_\_ linear feet

**Volume Loss:** \_\_\_\_\_ cf x 7.48 gal/cf = \_\_\_\_\_ gallons

(Maximum distance of 2,000 LF)

**Leakage Rate Allowed:** \_\_\_\_\_ g/hr/1000 LF x \_\_\_\_\_ LF x \_\_\_\_\_ hrs divided by 1000 = \_\_\_\_\_ gallon

Time (hrs:min)	Pressure Reading (psi)	Repressurized To (psi)	Pressure Loss (psi)	Cumulative Pressure Loss (psi)	Leakage Recorded (gal)
0:00			0	0	0
0:15					
0:30					
0:45					
1:00					
1:15					
1:30					
1:45					
2:00					
If the cumulative pressure loss is 3 psi or greater, run test for another 2 hours.					
2:30					
3:00					
3:30					
4:00					
<b>Total Recorded Leakage (gal):</b>					
<b>Total Allowed Leakage (gal):</b>					

1. Before the test, did you witness all the line valves opened, and all the end valves closed? Yes / No
2. Does the mainline, and every tee branch, have 2" or larger blowoffs for proper flushing? Yes / No
3. Did you witness the pressure gauge dropping to zero when the pressure was released? Yes / No
4. Was the total pressure loss recorded less than 5 psi? Yes / No
5. Do you believe the test passed per all current ECWA and Erie County Health Dept specifications? Yes / No

\_\_\_\_\_  
Inspector's Signature and Date

## Pressure Test (for PVC, DIP, and PCCP)

1. Pressure test apparatus must be installed as shown on the Drawings.
2. Test pressure shall be as specified in Section 15051, Buried Piping Installation, at the lowest point in the line.
3. Test pressure shall be held on the piping for a period of at least 2 hours, unless a longer period is requested by the ENGINEER. Pressure should not fluctuate by more than 5 psi during testing.
4. Pressure gauge must be in good working condition and must be demonstrated to be accurate to the ENGINEER prior to any testing.
5. Gauge must have proper labeling to allow ENGINEER to accurately distinguish the maximum allowable 5 psi change in pressure. Gauge must have markings at no greater than 2 psi increments to allow accurate readings.
6. ENGINEER may tap pressure gauge at each reading to ensure needle is measuring pressure accurately.
7. ENGINEER shall record pressure at 15 or 30 minute intervals to help determine if the pressure loss is stabilizing.
8. The CONTRACTOR will inform the ENGINEER when to begin the test.
9. If the pressure drop is greater than 5 psi in 2 hours, or if the ENGINEER believes the line is suspect, the CONTRACTOR shall explore for the cause of the excessive leakage and after repairs have been made, the line shall be retested. This procedure shall be repeated until the pressure loss is less than the maximum allowable and the ENGINEER is satisfied.
10. If the pressure drop is 3 psi or greater but less than 5 psi in 2 hours, the CONTRACTOR shall continue the test for another 2 hours. If the pressure drop over the 4 hour period is greater than 5 psi, the test failed and must be repeated after the cause of the leakage is explored and the necessary repairs have been made
11. The ENGINEER shall make a preliminary determination if the test passes or fails based on the pressure and volume losses recorded during testing.
12. After each test, the CONTRACTOR must demonstrate that the test apparatus, including the pressure gauge, is fully functional and accurate. Inaccurate gauges or non-satisfactory equipment will be grounds for test failure, regardless of test results. CONTRACTOR will resupply proper equipment and retest, at his expense.
13. The pressure loss recorded over the 2 or 4-hour test must be acceptable to the County Health Department and Erie County Water Authority for final hydrostatic testing approval to be given.

## Leakage Test (for PVC, DIP, and PCCP)

1. The leakage test shall be conducted concurrently with the pressure test.
2. The rate of leakage shall be determined at 15-minute intervals by means of volumetric measurement of the makeup water added to maintain the test pressure. The test shall proceed until the rate of leakage has stabilized or is decreasing below an allowable value, for three consecutive 15-minute intervals. After this, the test pressure shall be maintained for at least another 15 minutes.
3. At the completion of the test the pressure shall be released at the furthestmost point from the point of application.
4. All exposed piping shall be examined during the test and all leaks, defective material or joints shall be repaired or replaced before repeating the tests.
5. The leakage for pressure pipelines shall not exceed the following allowable rates in gallons per hour per 1000 feet of pipe at the test pressure specified in Section 15051, Buried Piping Installation:

<u>Pipe Diameter</u>	<u>Pipe Material</u>	<u>ECWA Allowable Leakage*</u>
4"	PVC, DIP	0.26
6"	PVC, DIP	0.40
8"	PVC, DIP	0.53
10"	PVC, DIP	0.66
12"	PVC, DIP	0.79
16"	DIP, PCCP	1.06
20"	DIP, PCCP	1.32
24"	DIP, PCCP	1.59
30"	DIP, PCCP	1.98
36"	DIP, PCCP	2.38
42"	DIP, PCCP	2.78
48"	DIP, PCCP	3.17

\* 75% of allowable leakage per AWWA C600-17.

6. Regardless of the above allowables, any visible leaks shall be permanently stopped.
7. The CONTRACTOR shall provide a meter certified within the last year and a source-water tank/barrel of small enough cross section so that measurable changes in water depth can be accurately recorded. If the change in water depth cannot be properly measured, the ENGINEER may require the test to be run more than 2 hours until an accurate depth change can be recorded and the ENGINEER is satisfied with the results.
8. The leakage volume recorded over the 2 or 4-hour test must be acceptable to the County Health Department and Erie County Water Authority for final waterline approval to be given.