

Utility Name _____ Utility ID _____ CDC Event ID _____

LOW PRESSURE EVENT FORM

1. Does this event affect at least 10 residential units? Yes (Please continue to question 2) No (This event is not eligible for study)

2. Briefly describe what happened during the event

3. Response Planned Emergency

3a. When was emergency reported? Date _____ Time _____

4. Event type

- Main break (answer 4a and 4b)
- Planned repair
- Supply disruption (describe below)
- _____
- Other _____

4a. What type of break? (mark all that apply)

- Circumferential Joint
- Longitudinal Split at Corporation
- Blowout Sleeve
- Other _____

5. When did repair/maintenance crew arrive on site?

Date _____ Time _____

4b. What factors contributed to the break? (mark all that apply)

- Defective part Deterioration
- Corrosion Excessive operating pressure
- Pumping changes Water hammer (surge)
- Vehicle accident Contractor main break
- Differential settlement Temperature change
- Other _____

6. When was repair/maintenance completed?

Date _____ Time _____

7. Main housing type in affected area

- Single family homes (detached)
- Duplexes/townhomes (attached)
- Apartments/condos
- Mobile homes
- Other _____

8. Location of work site (address) _____
(cross streets) _____
(GPS coordinates) (Lat.) _____ (Long.) _____

INFRASTRUCTURE AND WATER INFORMATION

9. Pipe diameter _____ Inches

10. Pipe age _____ Years

11. Pipe depth _____ Feet _____ Inches

12. Pipe material

- PVC Concrete Asbestos Cement
- Ductile Iron Cast iron Wood
- Galvanized HDPE Steel
- Don't know

13. Soil type (for example, sand, clay, rock backfill) _____

14. Pipe interior

14a. Tuberculation 1 2 3 4 5
(smooth) (highly tuberculated)

14b. Describe sediment or biofilm _____

15. Source water type Surface water Groundwater Mixed

16. Name of water storage facility, well, or plant serving area

Public reporting burden of this collection of information is estimated to average 45 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. An agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a currently valid OMB control number. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to CDC/ATSDR Information Collection Review Office, 1600 Clifton Road NE, MS D-74, Atlanta, Georgia 30333; ATTN: PRA (0920-0960).

Utility Name _____ **Utility ID** _____ **CDC Event ID** _____

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|-------------|-------|
| Other _____ | _____ |
|-------------|-------|

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WATER PRESSURE

17. How was low pressure verified? Pressure readings Verified at hose bibs (ground-level) Customer complaint
 Assumed (describe why) _____

18. Pressure readings

| Suggested reading locations | Location of reading (cross-streets, address, GPS coordinates) | Pressure during event (psi) | Date and time | Pressure after cleanup (psi) | Date and time |
|-----------------------------|---|-----------------------------|---------------|------------------------------|---------------|
| Near break/repair | | | | | |
| Upstream | | | | | |
| Downstream | | | | | |

REPAIR INFORMATION

19. Was the repair site valved off? No Completely valved off Partially valved off

20. What repair or maintenance activities occurred? (mark all that apply) Repair existing main Replace existing main
 Add new pipes to distribution system Fix cross-connection Exercise valves Flush Hydrant
 Cut open main for reasons other than pipe work (for example, install valve) _____
 Other (describe) _____

21. What type of repair was conducted? Clamp repair Cut and replace section of pipe Replace or repair fitting
 Other (describe) _____

22. Was the pipe ever submerged in trench water? No Yes → 22a. Describe water (rain, sewage, leakage from system) _____

23. Describe precipitation while the main was being repaired Heavy Rain Light Rain Snow or Sleet None

24. Were any sewage lines near the main being repaired? No Yes → 24a. Describe location, breaches, leaks _____

25. Were any reclaimed water lines near the main being repaired? No Yes → 25a. Describe location, breaches, leaks _____

26. Were replacement parts swabbed prior to being installed? Yes No N/A

27. Was the main flushed before being brought back into service? Yes No N/A

27a. Describe flushing process (for example, estimated velocity and duration) _____

28. Was the main chlorinated before being brought back into service? Yes No N/A

28a. Chlorination method and dose? (slug dose, swabbing, 100 mg/L, 25 mg/L) _____

28b. Disinfectant residual of bulk water in the main before being brought into service? _____

EVENT IMPACT

29. Number of households that experienced low pressure _____ 29a. Duration of low pressure _____ hrs. _____ min.

30. Was there a loss of household water service? No Yes → 30a. Num. of households lost service _____
 (include total time of loss of service, before and after area valved off) 30b. Duration of lost service _____ hrs. _____ min.

31. Was service to homes turned off? No Yes → 31a. Main lines closed? Service branches to homes closed?

31b. Num. of households out of service _____ 31c. Duration of shutoff _____ hrs. _____ min.

32. Was a boil-water advisory (BWA) or notice administered as a result of this event? Yes No

33. Based on your observations, do you think there was any potential for contamination? Yes No Unsure

33a. Please explain why you selected yes, no, or unsure: _____

34. Do you have any other comments about the low pressure event? _____

WATER SAMPLE COLLECTION DATA SHEET

Location of sample (address or GPS coordinates): _____

Pipe material at service connection: _____ Area: Affected Unaffected

Field water temperature: _____ °C Chlorine residual (total or free) (Circle): _____ mg/L

pH: _____ Conductivity: _____ μS/cm

Grab sample collected? Yes No Preserved w/ Sodium Thiosulfate? Yes No

Filtration meter start reading: _____ Filtration start time: _____

Filter 100 liters + 26.4 gallons = _____ Filtration end time: _____

Stop filtration meter reading: _____ Preserved w/ Sodium Thiosulfate? Yes No

SAMPLE ID: _____ **Date & Time:** _____ **Collected By:** _____

Location of sample (address or GPS coordinates): _____

Pipe material at service connection: _____ Area: Affected Unaffected

Field water temperature: _____ °C Chlorine residual (total or free) (Circle): _____ mg/L

pH: _____ Conductivity: _____ μS/cm

Grab sample collected? Yes No Preserved w/ Sodium Thiosulfate? Yes No

Filtration meter start reading: _____ Filtration start time: _____

Filter 100 liters + 26.4 gallons = _____ Filtration end time: _____

Stop filtration meter reading: _____ Preserved w/ Sodium Thiosulfate? Yes No

SAMPLE ID: _____ **Date & Time:** _____ **Collected By:** _____

Location of sample (address or GPS coordinates): _____

Pipe material at service connection: _____ Area: Affected Unaffected

Field water temperature: _____ °C Chlorine residual (total or free) (Circle): _____ mg/L

pH: _____ Conductivity: _____ μS/cm

Grab sample collected? Yes No Preserved w/ Sodium Thiosulfate? Yes No

Filtration meter start reading: _____ Filtration start time: _____

Filter 100 liters + 26.4 gallons = _____ Filtration end time: _____

Stop filtration meter reading: _____ Preserved w/ Sodium Thiosulfate? Yes No

| | | | | | |
|------------------------------|-------------|-------|-------|---------------------|-------|
| SIGNATURE: | PRINT NAME: | DATE: | TIME: | SAMPLE CONDITION: | |
| RELINQUISHED BY: | | | | (FOR LAB USE ONLY) | |
| | | | | Actual Temperature: | |
| RECEIVED BY: | | | | Received On Ice | Y / N |
| RELINQUISHED BY: | | | | Preserved | Y / N |
| RECEIVED BY: | | | | Seals Present | Y / N |
| COMMENTS/FIELD OBSERVATIONS: | | | | Container Intact | Y / N |
| | | | | | |
| | | | | Preserved at Lab | Y / N |

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PLEASE CHILL SAMPLES ON ICE TO KEEP COLD DURING OVERNIGHT SHIPMENT

WATER SAMPLE COLLECTION DATA SHEET

SAMPLE ID: _____ **Date & Time:** _____ **Collected By:** _____

Location of sample (address or GPS coordinates): _____

Pipe material at service connection: _____ Area: Affected Unaffected

Field water temperature: _____ °C Chlorine residual (total or free) (Circle): _____ mg/L

pH: _____ Conductivity: _____ μS/cm

Grab sample collected? Yes No Preserved w/ Sodium Thiosulfate? Yes No

Filtration meter start reading: _____ Filtration start time: _____

Filter 100 liters + 26.4 gallons = _____ Filtration end time: _____

Stop filtration meter reading: _____ Preserved w/ Sodium Thiosulfate? Yes No

SAMPLE ID: _____ **Date & Time:** _____ **Collected By:** _____

Location of sample (address or GPS coordinates): _____

Pipe material at service connection: _____ Area: Affected Unaffected

Field water temperature: _____ °C Chlorine residual (total or free) (Circle): _____ mg/L

pH: _____ Conductivity: _____ μS/cm

Grab sample collected? Yes No Preserved w/ Sodium Thiosulfate? Yes No

Filtration meter start reading: _____ Filtration start time: _____

Filter 100 liters + 26.4 gallons = _____ Filtration end time: _____

Stop filtration meter reading: _____ Preserved w/ Sodium Thiosulfate? Yes No

SAMPLE ID: _____ **Date & Time:** _____ **Collected By:** _____

Location of sample (address or GPS coordinates): _____

Pipe material at service connection: _____ Area: Affected Unaffected

Field water temperature: _____ °C Chlorine residual (total or free) (Circle): _____ mg/L

pH: _____ Conductivity: _____ μS/cm

Grab sample collected? Yes No Preserved w/ Sodium Thiosulfate? Yes No

Filtration meter start reading: _____ Filtration start time: _____

Filter 100 liters + 26.4 gallons = _____ Filtration end time: _____

Stop filtration meter reading: _____ Preserved w/ Sodium Thiosulfate? Yes No

| | | | | |
|------------------------------|-------------|-------|-------|------------------------|
| SIGNATURE: | PRINT NAME: | DATE: | TIME: | SAMPLE CONDITION: |
| RELINQUISHED BY: | | | | (FOR LAB USE ONLY) |
| RECEIVED BY: | | | | Actual Temperature: |
| RELINQUISHED BY: | | | | Received On Ice Y / N |
| RECEIVED BY: | | | | Preserved Y / N |
| COMMENTS/FIELD OBSERVATIONS: | | | | Seals Present Y / N |
| | | | | Container Intact Y / N |
| | | | | Preserved at Lab Y / N |

Utility Name _____ **Utility Event ID** _____ **CDC Event ID** _____

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|---|--|--|
| PLEASE SHIP SAMPLES ON ICE TO KEEP COLD DURING OVERNIGHT SHIPMENT | | |
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