# The Jewett City Water Company

PO Box 1088
Enfield, CT 06083-1088
Tel.: (800) 430-8073
Fax: (860) 749-5381

August 1, 2023

Re: Docket 20-10-31 – Application of The Jewett City Water Company to Amend Rate Schedules – Order #3

The NRW for each water system within the Company for the year 2023 from January to June is attached.

The report contains the production and revenue water for each system, a description of any leak, location of leak and repair date. Included in the report are the leak detection surveys performed by outside consultants for the S & W System and Hill & Dale System.

The leak detection survey of the S & W system in 2023 discovered service leaks on the customer side of the curb stop. To date three of the customers have had the service repaired/ replaced. The repair of these leaks has reduced the water production to the system. The Company will continue to monitor the S & W system for any increase in production and will utilize the leak detection service company to help identify the location of any leak.

The Company has contracted with the leak detection service for all systems to be surveyed. The main system survey is scheduled to begin in August. Any leaks discovered will be addressed as the Company is notified by the contractor of any possible leaks.

Respectively Submitted,

THE JEWETT CITY WATER COMPANY

Robert Sherwood
President

Jewett City Water Company
Non Revenue Water

Docket 20-10-31
Order # 3

## WATER PRODUCTION AND CONSUMPTION YEAR 2023

Quantities of water produced and purchased and the quantities delivered to consumer and lost or unaccounted for including system demand experience, during the year. Estimates for each of the listed items of non-revenue water

Potable water produced, metered, and discharged for consumptive use

**JCWC MAIN SYSTEM**

| Month | Thou. Gals. from terminal Reservoirs | Thou. Gals pumped from Wells | Thou. Gals. Purchased | Total Thou. Gals. delivered to mains |
|---|---|---|---|---|
| January | 8,977 | 4,651 | | 13,628 |
| February | 7,505 | 5,056 | | 12,561 |
| March | 8,595 | 5,675 | | 14,270 |
| April | 8,886 | 6,398 | | 15,284 |
| May | 9,982 | 6,555 | | 16,537 |
| June | 13,282 | 0 | | 13,282 |
| July | | | | |
| August | | | | |
| September | | | | |
| October | | | | |
| November | | | | |
| December | | | | |
| Total PRODUCTION WATER | 57,227 | 28,335 | | 85,562 |
| Total REVENUE Water (System only) | | | | 71,685 |
| Balance as NON-REVENUE Water | | (State Percentage: | 16.2% | 13,877 |
| Description and estimated consumption of Non-Revenue Water | | | | |
| a. Utility Usage -- at source/treatment plants | | | | 350 |
| b. Utility Usage -- flushing hydrants (No flushed 65 ) | | | | 280 |
| c. Utility Usage -- bleeders (No. in use ) | | | | |
| d. Utility Usage -- meter bench (No. meters tested ) | | | | |
| e. Utility Usage -- other purposes (specify): | | | | |
| New construction, fill, flush, | | | | |
| f. Fire Protection (No. of hydrant-using fires ) | | | | |
| g. Main Breaks (No. of breaks 1 ) | | | | 725 |
| h. Service Line losses before meters (No. of cases ) | | | | |
| I. Other Non-Revenue uses/losses (specify): | | | | |
| Total | | | | 1,355 |
| j. Balance (unknown) | | | | 12,522 |
| 6 mon Total Non-Revenue (Unaccounted-for) Water | | | 14.6% | 12,522 |

Jewett City Water Company
Non Revenue Water

Docket 20-10-31
Order # 3

## WATER PRODUCTION AND CONSUMPTION YEAR 2023

Quantities of water produced and purchased and the quantities delivered to consumer and lost or unaccounted for including system demand experience, during the year. Estimates for each of the listed items of non-revenue water

Potable water produced, metered, and discharged for consumptive use

### JCWC HILL N DALE SYSTEM

| Month | Thou. Gals. from terminal Reservoirs | Thou. Gals pumped from Wells | Thou. Gals. Purchased | Total Thou. Gals. delivered to mains |
|---|---|---|---|---|
| January | | 202 | | 202 |
| February | | 195 | | 195 |
| March | | 224 | | 224 |
| April | | 234 | | 234 |
| May | | 253 | | 253 |
| June | | 153 | | 153 |
| July | | | | |
| August | | | | |
| September | | | | |
| October | | | | |
| November | | | | |
| December | | | | |
| Total PRODUCTION WATER | 0 | 1,261 | | 1,261 |
| Total REVENUE Water (System only) | | | | 736 |
| Balance as NON-REVENUE Water | | (State Percentage: | 41.6% ) | 525 |
| Description and estimated consumption of Non-Revenue Water | | | | |
| a. Utility Usage -- at source/treatment plants | | | | 4 |
| b. Utility Usage -- flushing hydrants (No flushed ____ ) | | | | |
| c. Utility Usage -- bleeders (No. in use ____ ) | | | | |
| d. Utility Usage -- meter bench (No. meters tested ____ ) | | | | |
| e. Utility Usage -- other purposes (specify): ____ | | | | |
| New construction, fill, flush, filter bed malfunction | | | | |
| f. Fire Protection (No. of hydrant-using fires ____ ) | | | | |
| g. Main Breaks (No. of breaks ) | | | | |
| h. Service Line losses before meters (No. of cases ____ ) | | | | |
| I. Other Non-Revenue uses/losses (specify): ____ | | | | |
| | | | Total | 4 |
| j. Balance (unknown) | | | | 5 |
| 6 mon Total Non-Revenue (Unaccounted-for) Water | | | 41.3% | 521 |

Jewett City Water Company
Non Revenue Water

Docket 20-10-31
Order # 3

## WATER PRODUCTION AND CONSUMPTION YEAR 2023

Quantities of water produced and purchased and the quantities delivered to consumer and lost or unaccounted for including system demand experience, during the year. Estimates for each of the listed items of non-revenue water

1. Potable water produced, metered, and discharged for consumptive use

**JCWC S & W SYSTEM**

| Month | Thou. Gals. from terminal Reservoirs | Thou. Gals pumped from Wells | Thou. Gals. Purchased | Total Thou. Gals. delivered to mains |
|---|---|---|---|---|
| January | | 445 | | 445 |
| February | | 325 | | 325 |
| March | | 349 | | 349 |
| April | | 359 | | 359 |
| May | | 452 | | 452 |
| June | | 466 | | 466 |
| July | | | | |
| August | | | | |
| September | | | | |
| October | | | | |
| November | | | | |
| December | | | | |
| 1(a) Total PRODUCTION WATER | 0 | 2,396 | | 2,396 |
| 2. Total REVENUE Water (System only) | | | | 1,888 |
| 3. Balance as NON-REVENUE Water | | (State Percentage: | 21.2% | 508 |
| 4. Description and estimated consumption of Non-Revenue Water | | | | |
| a. Utility Usage -- at source/treatment plants | | | | 50 |
| b. Utility Usage -- flushing hydrants (No flushed ) | | | | |
| c. Utility Usage -- bleeders (No. in use ) | | | | |
| d. Utility Usage -- meter bench (No. meters tested ) | | | | |
| e. Utility Usage -- other purposes (specify): | | | | |
| New construction, fill, flush, filter bed malfunction | | | | |
| f. Fire Protection (No. of hydrant-using fires ) | | | | |
| g. Main Breaks (No. of breaks ) | | | | |
| h. Service Line losses before meters (No. of cases 1 ) | | | | 129 |
| I. Other Non-Revenue uses/losses (specify): | | | | |
| | | | Total | 179 |
| j. Balance (unknown) | | | | 329 |
| 6 mon Total Non-Revenue (Unaccounted-for) Water | | | 13.7% | 329 |

Jewett City Water Company
Main/ Service Leaks 2023, Jan-June

Docket 20-10-31
Order # 3

| REPAIR DATE | SYSTEM | LOCATION | TYPE OF REPAIR | DESCRIPTION OF REPAIRS | Estimated Water Loss 1000/gals |
|---|---|---|---|---|---|
| 28-Apr-23 | MAIN | 36 PLEASANT VIEW | Service | | 725 |
| 20-Jun-23 | S&W | 21 BONNIE ST | SERVICE | SPLIT BEFORE CURBSTOP, REPLACED FROM BREAK BACK TO MAIN | 129 |

# The Jewett City Water Company

PO Box 1088
Enfield, CT 06083-1088
Tel.: (800) 430-8073
Fax: (860) 749-5381

January 31, 2024

Re: Docket 20-10-31 – Application of The Jewett City Water Company to Amend Rate Schedules – Order #3

The NRW for each water system within the Company for the year 2023 from January to December is attached.

The report contains the production and revenue water for each system, a description of any leak, location of leak and repair date. Included in the report are the leak detection surveys performed by outside consultants for the Main System, S & W System and Hill & Dale System.

The leak detection survey of the S & W system in 2023 discovered service leaks on the customer side of the curb stop. To date three of the customers have had the service repaired/ replaced. The repair of these leaks has reduced the water production to the system. The Company will continue to monitor the S & W system for any increase in production and will utilize the leak detection service company to help identify the location of any leak.

The Company has contracted with the leak detection service for all systems to be surveyed. The Leak detection surveys have been completed. Any leaks discovered will be addressed as the Company is notified by the contractor of any possible leaks.

Respectively Submitted,

THE JEWETT CITY WATER COMPANY

*Robert Sherwood*

Robert Sherwood
President

Jewett City Water Company
Non Revenue Water

Docket 20-10-31
Order # 3

## WATER PRODUCTION AND CONSUMPTION YEAR 2023

Quantities of water produced and purchased and the quantities delivered to consumer and lost or unaccounted for including system demand experience, during the year. Estimates for each of the listed items of non-revenue water

Potable water produced, metered, and discharged for consumptive use

### JCWC MAIN SYSTEM

| Month | Thou. Gals. from terminal Reservoirs | Thou. Gals pumped from Wells | Thou. Gals. Purchased | Total Thou. Gals. delivered to mains |
|---|---|---|---|---|
| January | 8,977 | 4,651 | | 13,628 |
| February | 7,505 | 5,056 | | 12,561 |
| March | 8,595 | 5,675 | | 14,270 |
| April | 8,886 | 6,398 | | 15,284 |
| May | 9,982 | 6,555 | | 16,537 |
| June | 13,282 | 0 | | 13,282 |
| July | 12,925 | 3,061 | | 15,986 |
| August | 8,856 | 8,073 | | 16,929 |
| September | 8,685 | 7,473 | | 16,158 |
| October | 8,663 | 7,132 | | 15,795 |
| November | 9,182 | 6,724 | | 15,906 |
| December | 9,137 | 7,271 | | 16,408 |
| Total PRODUCTION WATER | 114,675 | 68,069 | | 182,744 |
| Total REVENUE Water (System only) | | | | 121,783 |
| Balance as NON-REVENUE Water | | (State Percentage: | 33.4% | 60,961 |
| Description and estimated consumption of Non-Revenue Water | | | | |
| a. Utility Usage -- at source/treatment plants | | | | 700 |
| b. Utility Usage -- flushing hydrants (No flushed 130 ) | | | | 561 |
| c. Utility Usage -- bleeders (No. in use ) | | | | |
| d. Utility Usage -- meter bench (No. meters tested ) | | | | |
| e. Utility Usage -- other purposes (specify): | | | | |
| New construction, fill, flush, | | | | |
| f. Fire Protection (No. of hydrant-using fires ) | | | | |
| g. Main Breaks (No. of breaks ) | | | | |
| h. Service Line losses before meters (No. of cases 3 ) | | | | 2,181 |
| I. Other Non-Revenue uses/losses (specify): | | | | |
| | | | Total | 3,442 |
| j. Balance (unknown) | | | | 57,519 |
| Total Non-Revenue (Unaccounted-for) Water | | | 31.5% | 57,519 |

Jewett City Water Company
Non Revenue Water

Docket 20-10-31
Order # 3

## WATER PRODUCTION AND CONSUMPTION YEAR 2023

Quantities of water produced and purchased and the quantities delivered to consumer and lost or unaccounted for including system demand experience, during the year. Estimates for each of the listed items of non-revenue water

Potable water produced, metered, and discharged for consumptive use

### JCWC HILL N DALE SYSTEM

| Month | Thou. Gals. from terminal Reservoirs | Thou. Gals pumped from Wells | Thou. Gals. Purchased | Total Thou. Gals. delivered to mains |
|---|---|---|---|---|
| January | | 202 | | 202 |
| February | | 195 | | 195 |
| March | | 224 | | 224 |
| April | | 234 | | 234 |
| May | | 253 | | 253 |
| June | | 153 | | 153 |
| July | | 210 | | 210 |
| August | | 212 | | 212 |
| September | | 236 | | 236 |
| October | | 236 | | 236 |
| November | | 151 | | 151 |
| December | | 142 | | 142 |
| Total PRODUCTION WATER | 0 | 2,448 | | 2,448 |
| Total REVENUE Water (System only) | | | | 1,562 |
| Balance as NON-REVENUE Water | | (State Percentage: | 36.2% ) | 886 |
| Description and estimated consumption of Non-Revenue Water | | | | |
| a. Utility Usage -- at source/treatment plants | | | | 8 |
| b. Utility Usage -- flushing hydrants (No flushed ) | | | | |
| c. Utility Usage -- bleeders (No. in use ) | | | | |
| d. Utility Usage -- meter bench (No. meters tested ) | | | | |
| e. Utility Usage -- other purposes (specify): | | | | |
| New construction, fill, flush, filter bed malfunction | | | | |
| f. Fire Protection (No. of hydrant-using fires ) | | | | |
| g. Main Breaks (No. of breaks ) | | | | |
| h. Service Line losses before meters (No. of cases ) | | | | |
| I. Other Non-Revenue uses/losses (specify): | | | | |
| | | | Total | 8 |
| j. Balance (unknown) | | | | 878 |
| Total Non-Revenue (Unaccounted-for) Water | | | 35.9% | 878 |

Jewett City Water Company
Non Revenue Water

Docket 20-10-31
Order # 3

## WATER PRODUCTION AND CONSUMPTION YEAR 2023

Quantities of water produced and purchased and the quantities delivered to consumer and lost or unaccounted for including system demand experience, during the year. Estimates for each of the listed items of non-revenue water

1. Potable water produced, metered, and discharged for consumptive use

**JCWC S & W SYSTEM**

| Month | Thou. Gals. from terminal Reservoirs | Thou. Gals pumped from Wells | Thou. Gals. Purchased | Total Thou. Gals. delivered to mains |
|---|---|---|---|---|
| January | | 445 | | 445 |
| February | | 325 | | 325 |
| March | | 349 | | 349 |
| April | | 359 | | 359 |
| May | | 452 | | 452 |
| June | | 466 | | 466 |
| July | | 407 | | 407 |
| August | | 380 | | 380 |
| September | | 374 | | 374 |
| October | | 335 | | 335 |
| November | | 302 | | 302 |
| December | | 300 | | 300 |
| 1(a) Total PRODUCTION WATER | 0 | 4,494 | | 4,494 |
| 2. Total REVENUE Water (System only) | | | | 3,637 |
| 3. Balance as NON-REVENUE Water | | (State Percentage: | 19.1% | 857 |
| 4. Description and estimated consumption of Non-Revenue Water | | | | |
| a. Utility Usage -- at source/treatment plants | | | | 100 |
| b. Utility Usage -- flushing hydrants (No flushed ) | | | | |
| c. Utility Usage -- bleeders (No. in use ) | | | | |
| d. Utility Usage -- meter bench (No. meters tested ) | | | | |
| e. Utility Usage -- other purposes (specify): | | | | |
| New construction, fill, flush, filter bed malfunction | | | | |
| f. Fire Protection (No. of hydrant-using fires ) | | | | |
| g. Main Breaks (No. of breaks ) | | | | |
| h. Service Line losses before meters (No. of cases 2 ) | | | | 260 |
| I. Other Non-Revenue uses/losses (specify): | | | | |
| | | | Total | 360 |
| j. Balance (unknown) | | | | 497 |
| Total Non-Revenue (Unaccounted-for) Water | | | 11.1% | 497 |

Jewett City Water Company
Main/ Service Leaks 2023, Jan-Dec

Docket 20-10-31
Order # 3

| REPAIR DATE | SYSTEM | LOCATION | TYPE OF REPAIR | DESCRIPTION OF REPAIRS | Estimated Water Loss 1000/gals |
|---|---|---|---|---|---|
| 28-Apr-23 | MAIN | 36 PLEASANT VIEW | Service | | 725 |
| 20-Jun-23 | S&W | 21 BONNIE ST | SERVICE | SPLIT BEFORE CURBSTOP, REPLACED FROM BREAK BACK TO MAIN | 129 |
| 14-Sep-23 | Main | 128 N main st | Service | hole in service, not sure of cause | 730 |
| 02-Oct-23 | Main | 9 Uncas Dr. | service | split on service line 2-3" long | 726 |
| 05-Oct-23 | S & W | 7 Lisa Ave | SERVICE | split on service line | 131 |

# Water Leak Survey Report For:
# Jewett City
# Water Company
# Jewett City Main System

Jewett City Water Company
#481 Taylor Rd
Enfield, CT 06083

## September/October 2023

Survey Completed by:

MATT GROUF

Grouf'sWater
LEAK SERVICES
DEAD ON IS MY NAME PINPOINT IS MY GAME

11 BIRCHES RD HUBBARDSTON, MA 01452
GROUFSWATER@GMAIL.COM

## Equipment used in this Survey

I use state-of-the-art technology to accurately identify and narrow down areas of interest. This included real-time or overnight correlating of water mains and services. High powered sonic equipment, capable of finding very small leaks, was applied to detect and pinpoint accurate leak locations quickly. This included listening on top of the ground over water mains, as well as contacting hydrants, services, and valves. Utilizing both digital correlating and sonic listening allowed me to precisely pinpoint water breaks for correction.

**SubSurface Leak Detection: LD-18 w/ High Sensitivity Contact and Ground Microphones**

**SubSurface Leak Detection: LD-15 w/ High Sensitivity Contact and Ground Microphones**

**SubSurface Leak Detection: Z-Corr Digital Correlating Loggers (8 Pack)**

**Sewerin: Stethophon 04 w/ Ground Microphone and Contact Microphone**

**Schonstedt: GA-92 XTd Magnetic Locator**

**Schonstedt: REX Pipe and Cable Locator**

## Scope of Survey

The water leak detection survey began September 22, 2023 and was completed on October 19, 2023. Acoustic listening and digital correlation of approximately 27 miles of mains were performed during this survey. Streets with heavy traffic were correlated and listened on during early morning hours for accurate testing results. Two service leaks were detected in this survey. The cross-country mains correlated, was the line that runs from Slater Ave under the river to the old mill on Wedgewood Dr, Hopeville Wellfield to December Drive, Stone Hill Tank to Banjo Sullivan Rd to Roger Rd, and the JC Easement. No leaks were found on these cross-country mains. Listening with sonic equipment on the hydrants, valves, curb stops (when accessible), and on top of the ground over all the water mains was performed. All leaks uncovered were immediately alerted to the Jewett City Water Company.

| Streets Correlated and Listened Early Morning |
|---|
| East Main Street |
| North Main Street |
| South Main Street |
| Stone Hill Road |
| River Road |
| Preston Road |
| Voluntown Road |
| Slater Ave |

## Dates in System

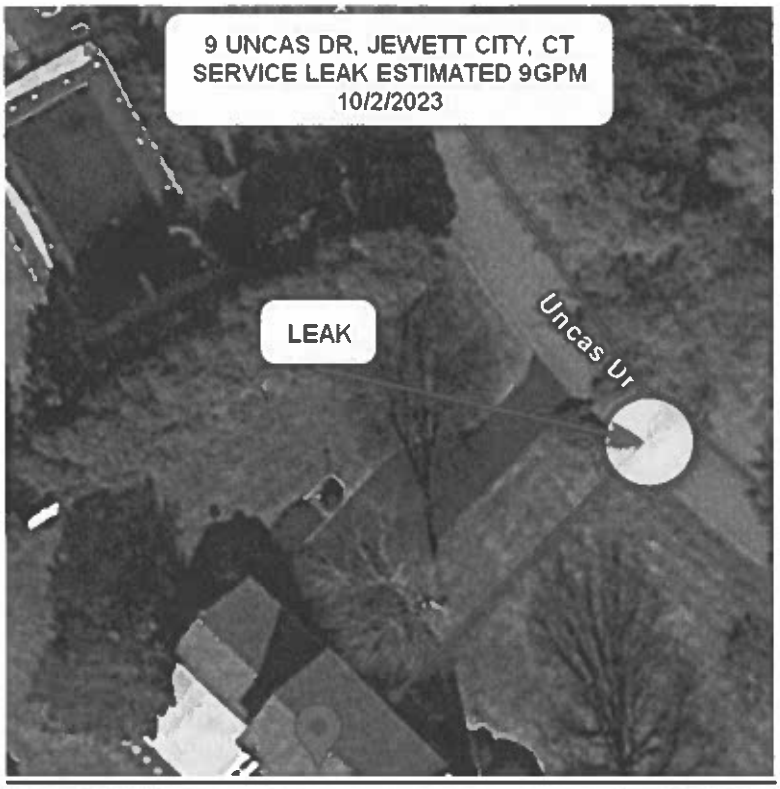
| DATES WORKED | JOB TYPE | DETAILS |
|---|---|---|
| 9/22/2023 | START SURVEY | STARTED SYSTEM SURVEY |
| 9/28/2023 | SURVEY | SURVEY/RECHECK POSSIBLE LEAKS |
| 10/2/2023 | SURVEY | SURVEY/RECHECK POSSIBLE LEAKS |
| 10/28/2023 | SURVEY COMPLETE | EARLY MORNING SURVEY |

## Leaks Located

Two service leaks were uncovered during this survey. An estimated total of 24 gallons per minute (GPM) loss, was due to these leaks. If left undetected, these leaks could add up to 34,560 gallons per day; 241,920 gallons per week; and a total of 12,579,840 gallons per year.

| LEAK LIST FOR JEWETT CITY, CT 10/2/2023 | | | | | |
|---|---|---|---|---|---|
| # | DATE | TYPE OF LEAK | ADDRESS | LOCATION DETAILS | ESTIMATED GPM |
| 1 | 10/2/2023 | SERVICE | 9 UNCAS DR | SERVICE LEAK | 9 |
| 2 | 10/2/2023 | SERVICE | 38 MCKENNA AVE | SERVICE LEAK | 15 |
| | | | | | |
| | TOTAL ESTIMATED GALLONS PER MINUTE LOSS | | | | 24 |

# Aerial Reports






## Conclusion

Smaller Water Systems like Jewett City Water Company, benefit immensely from Leak Detection programs. In this survey two leaks were uncovered. These leaks may never have surfaced, which is why yearly Leak Detection Surveys are essential to the conservation efforts of pure and clean water. Conserving this natural resource will help ensure a water supply is available for future generations. These surveys cut down on non-revenue water, which in turn increases revenues, and saves on rate payers resources. Underground leaks that do not surface, can undermine public and private property causing extensive damage. These leaks pose an increased risk for safety and are uncovered with routine leak detection. The amount of non-revenue water saved during this survey should decrease the amount of non-revenue water in the system.

## Number of Leaks located:

0 Main Break – **0 GPM**

2 Service Leaks - approximately leaking a total of **24 GPM**

0 Hydrant Leaks - approximately leaking a total of **0 GPM**

0 Valve Leaks – **0 GPM**

Approximate system total gallons per minute loss: **24 GPM**

Approximate system yearly loss: **12,579,840 Gallons Per Year**

## Recommendations

Full system comprehensive leak detection survey conducted once per calendar year.

## Recognition

I would like to thank Jon and James at the Jewett City Water Company for their immediate response to all inquiries and leak locations. The system is maintained very well, with no leaking hydrants and valves.

# Water Leak Survey Report For:
# Jewett City
# Water Company
# S & W System

Hazardville Water Company
#481 Taylor Rd
Enfield, CT 06083

# July and September 2023

Survey Completed by:

MATT GROUF

Grouf'sWater
LEAK SERVICES
DEAD ON IS MY NAME PINPOINT IS MY GAME

11 BIRCHES RD HUBBARDSTON, MA 01452
GROUFSWATER@GMAIL.COM

## Equipment used in this Survey

I use state-of-the-art technology to accurately identify and narrow down areas of interest. This includes real-time or overnight correlating of water mains and services. High powered sonic equipment, capable of finding very small leaks, was applied to detect and pinpoint accurate leak locations quickly. This included listening on top of the ground over water mains, as well as contacting hydrants, services, and valves. Utilizing both digital correlating and sonic listening allowed me to precisely pinpoint water breaks for correction.

SubSurface Leak Detection: LD-18 w/ High Sensitivity Contact and Ground Microphones

SubSurface Leak Detection: Z-Corr Digital Correlating Loggers (8 Pack)

Sewerin: Stethophon 04 w/ Ground Microphone and Contact Microphone

Schonstedt: GA-92 XTd Magnetic Locator

Schonstedt: REX Pipe and Cable Locator

## Scope of Survey

The water leak detection survey began July 26, 2022 and was completed on September 28, 2023. Acoustic listening and digital correlation of the entire system of mains and services were performed during this survey. 1 service leak was uncovered during this survey. The cross-country mains correlated, were the lines that run from the pump house to Bonnie St and the pump house to Lisa Ave. No leaks were found on these cross-country mains. Listening with sonic equipment on the valves, curb stops and silcocks (when accessible), and on top of the ground over all the water mains was performed. All leaks uncovered were immediately alerted to the Jewett City Water Company.

## Dates in System

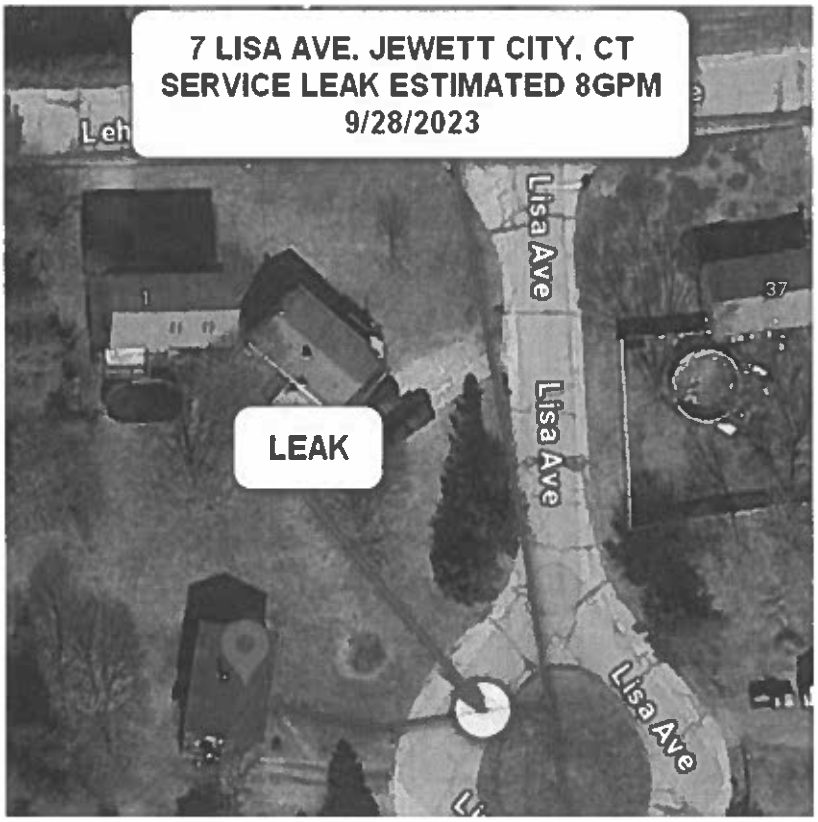
| DATES WORKED | JOB TYPE | DETAILS |
|---|---|---|
| 7/26/2023 | START SURVEY | SURVEY |
| 7/27/2023 | SURVEY | SURVEY/RECHECKS |
| 9/28/2023 | SURVEY | CORELATE LINES FROM WELL/PINPOINT 7 LISA AVE |

## Leaks Located

One Service Leak was uncovered during this survey. An estimated total of 8 gallons per minute (GPM) loss, was due to this leak. If left undetected, this leak could add up to 11,520 gallons per day, 80,640 gallons per week, and a total of 4,193,280 gallons per year.

| S & W SYSTEM FINAL LEAK LIST | | | | | |
|---|---|---|---|---|---|
| # | DATE | TYPE OF LEAK | ADDRESS | LOCATION DETAILS | ESTIMATED GPM |
| 1 | 9/28/2023 | SERVICE | #7 LISA AVE | SERVICE LEAK | 8 |
| | | | | TOTAL ESTIMATED GALLONS PER MINUTE LOSS | 8 |

## Aerial Reports



## Conclusion

Smaller Water Systems like the S & W system, benefit immensely from Leak Detection programs. In this survey one leak was uncovered. Conserving this natural resource will help ensure a water supply is available for future generations. These surveys cut down on non-revenue water, which in turn increases revenues, and saves on rate payers resources. Underground leaks that do not surface, can undermine public and private property causing extensive damage. These leaks pose an increased risk for safety and are uncovered with routine leak detection. The amount of non-revenue water saved during this survey should decrease the amount of unaccounted for water being pumped into the system.

## Number of Leaks located:

0 Main Leaks – **0 GPM**

1 Service Leak - approximately leaking a total of **8 GPM**

0 Hydrant Leaks - approximately leaking a total of **0 GPM**

0 Valve Leaks – **0 GPM**

Approximate system total gallons per minute loss: **8 GPM**

Approximate system yearly loss: **4,193,280 Gallons**

## Recommendations

Full system comprehensive leak detection survey conducted once per calendar year. Leak detection surveys save an extensive amount of money and resources for the Jewett City Water Company, by detecting leaks that can go unnoticed.

## Recognition

I would like to thank Bob, Jon, and James at the Hazardville Water Company and Jewett City Water Company for their immediate response to all inquiries and leak locations.