

## Protocol for Water System Activities that Impact Lead Services

### I. Leaks on Lead Service Lines

Milwaukee Water Works (MWW) will respond to a report of a leak and investigate. If the leak is determined to be on a lead service line (LSL), the Water Distribution Utility Investigator will determine if it is on the “city side” or the “private side” of the service. If the leak is not causing a safety hazard or property damage, water will be kept on while preparations are made to fix the leak so that there will be water to the building. The water will be turned off at the time of excavation.

#### A. Leak on “City Side”

MWW will:

1. Inform resident of the likelihood of a lead service and work that will be done, risks of lead, and importance of flushing as per the Employee Script and Lead Service Line Questionnaire.
2. Contact owner and strongly encourage owner to replace their side of the service at the same time as MWW replaces the city side, as this will reduce risk of lead in drinking water and cost will likely be lower if coordinated with MWW work.
3. Transmit the completed questionnaire to the (email address) email group.
4. Offer certified pour-through water filter to customer at MWW expense.
5. If property has a focus on children (e.g., day care or school), extra caution must be exercised. If a day care, an alternative source of water must be provided BEFORE work begins. If a school, do no work until the Milwaukee Health Department (MHD) has been consulted.
6. Replace service from water main up to and including curb stop. A service insulator will be installed between the curb stop and remaining private lead service to prevent galvanic corrosion.
  - a. If customer is willing and conditions permit, allow private plumber hired by customer to utilize excavation to replace private service.
  - b. Otherwise, complete the MWW service replacement and close the excavation.
7. Under development: Procedure to utilize Safe Drinking Water Loan Program funds or general fund monies to replace the privately-owned portion of the LSL concurrently with the replacement of the city-owned portion.

It may be necessary to turn off a section of the water main in order to replace the service, in which case adjacent properties will be without water for some period of time. If between 6:00 a.m. and 10:00 p.m., properties where water was turned off will receive notice and a door hanger with the Lead Awareness brochure. If between 10:00 p.m. and 6:00 a.m., MWW will return during daylight to drop off the door hanger and brochure.

B. Leak on “Private Side”

MWW will:

1. Inform resident and property owner (if not resident) that leak must be fixed, likelihood of lead service, risks of lead, and importance of flushing as per the Employee Script and Lead Service Line Questionnaire.
2. Strongly encourage owner to replace their side of the service rather than repair it, as this will reduce risk of lead in drinking water.
3. If owner is willing to consider replacing their side:
  - a. Offer information on process to replace service and various financing options available.
  - b. Establish that MWW is willing to replace the city side at the same time and this will likely decrease cost to the owner to replace their side.
  - c. Provide a list of plumbing contractors who can complete/conduct the owner/private side replacement. (Under development)
4. If owner opts to replace their side of the service, MWW will replace the city side of the service from the water main up to and including the curb stop. The procedures for I. A. Leak on “City Side”, #1. through #6.b. above, will be used.
5. If owner declines:
  - a. Emphasize whole-house flushing after work is completed and leave brochure.
  - b. Offer certified pour-through water filter at MWW expense.
  - c. Advise customer that if they decide to replace their side of the service at a later date, to please inform MWW via contact information on supervisor’s business card which was left at the time they were notified of the leak. MWW will try to coordinate replacement of city side with work by owner.
  - d. Continue with normal MWW “Owner’s Leak” process.
6. Transmit the completed questionnaire to the (email address) email group.

## II. **Lead Service Line Identified During Water Main Relay Construction Work**

At this time, water main replacements that impact LSLs have been suspended. If a LSL is encountered during a water main replacement project, utilize the same procedures as described in I. A. Leak on “City Side”, #1. through #6.b. above.

## III. **Lead Service Lines in Sewer Construction Projects**

A. Before projects begin:

1. Sewer Design staff will provide to MWW (email to names):
  - a. Project limits and which side of street will have lead services exposed.
  - b. Exact addresses of all buildings with water services made of lead as determined by review of MWW records including tap numbers and address lookup.
  - c. Identify any day care facilities or schools within project limits.
  - d. Approximate project start date.

2. Construction staff will:
  - a. Provide to MWW the project start date, when known, and Public Works Inspector (PWI) contact information (email to same as above).
  - b. Distribute Lead Awareness brochures at the same time as sewer notices to all properties with LSLs within the project limits on both sides of the street.
  - c. To those properties where the LSL will be exposed during construction, include with the “construction start” notices and Lead Awareness brochures the letter describing:
    - 1) Sewer replacement project
    - 2) Risks of lead
    - 3) That a filter certified to remove lead is being offered at MWW expense; call (insert phone number) to arrange for delivery
    - 4) How to flush internal plumbing

***If the property has a focus on children (e.g., day care or school), extra caution must be exercised. If a day care, alternate source of water MUST be provided BEFORE WORK BEGINS. Milwaukee Health Department must be informed at (phone number). If a school, perform no work until MHD has been consulted.***

3. MWW will:
  - a. If no response to letter, make one attempt to go door-to-door to contact residents during business hours and another after hours to offer the certified pour-through filter.
    - 1) Arrange for sample collection and/or delivery of alternate water source.
      - a) If applicable, arrange for water dispensing devices to be picked up about 30 days after the project is completed.

B. As the project progresses:

1. The PWI will ensure that all properties within the project limits that have LSLs receive the “Flush Your Pipes” door hanger after the trench is backfilled, block by block, as the sewer work is completed.

C. If a LSL is severed during the project, Sewers will:

1. If the property is abandoned or a vacant lot, the PWI will direct the contractor to turn off the corporation stop at the water main and disconnect the pipe from the water main and abandon it.
2. If the property is not abandoned or a vacant lot, the PWI will direct the contractor to replace the service to include replacing the corporation stop with at least a 1” tap and copper tubing, curb stop, and service insulator to be installed on the outlet joint of the curb stop. Service replacement materials are to be obtained by the contractor with approval by the PWI using the MWW Water Materials Report Form (1/31/08). Materials can be obtained at (address).
3. The PWI or Construction Supervisor shall contact MWW (insert phone number) so that MWW protocols for customer outreach can be carried out by an MWW Supervisor, including encouraging the property owner to replace their side of the service at the same time and delivering a certified pour-through water filter.
4. Complete MWW “Addition and Change Form”. Keep one copy in the project file and send one to (name) in Water Engineering (address).

- D. If a leaking service is found and determined by the PWI to be a pre-existing condition, or if a service is cut that is not the fault of the contractor, Sewers will:
1. If the property is abandoned or a vacant lot, the PWI will direct the contractor to turn off the corporation stop at the water main and disconnect the pipe from the water main and abandon it.
  2. If the property is not abandoned or a vacant lot, the PWI will authorize the contractor to replace the LSL as noted in the contract provisions or on a time and materials change order. The service line replacement shall include replacing the corporation stop with at least a 1" tap and copper tubing, curb stop and service insulator to be installed on the outlet joint of the curb stop. Service replacement materials are to be obtained by the contractor with approval by the PWI using the MWW Water Materials Report Form (1/31/08). Materials can be obtained at (address).
  3. Contact MWW (phone number) so that MWW protocols for customer outreach can be carried out by an MWW Supervisor, including encouraging the property owner to replace their side of the service at the same time and delivering a certified pour-through water filter.
  4. Complete MWW "Addition and Change Form". Keep one copy in the project file and send one to (name) in Water Engineering (address).

#### **IV. Work Impacting Curb Stops or Water Meters**

If a LSL is severed during replacement of the curb stop or water meter valve(s), the procedures for I. A. Leak on "City Side", #1. through #6.b. above, will be used.

When the curb stop or meter valves are operated by MWW staff, and the LSL is not severed, MWW will provide resident with notification that water service is likely to be made of lead, information on importance of whole-house flushing, and Lead Awareness via the door hanger and brochure.

#### **V. Street Reconstruction or Projects with Significant Vibration**

For street reconstruction or projects with significant vibration, DPW Construction/Streets will keep MWW informed of upcoming projects with buildings likely to have LSLs within the project limits.

Streets and MWW will:

- A. For new and added projects in 2016, (name) will provide a list of all addresses within the project limits to (name) in MWW. In future, (name) will provide list of all projects at beginning of year and any new ones as they arise.
- B. MWW (engineering or lead coordination point person, TBD in 2017) will review records and determine likely lead or copper service for each building within the project limits by using MWW records including tap numbers and address lookup.
- C. MWW/PWI will identify any day care facilities or schools within project limits.
- D. Streets will keep MWW informed of likely project start dates and will send Start Notices as they are generated.
- E. Streets will provide MWW with PWI contact information.

- F. Before the project is underway, the PWI will distribute MWW letter and Lead Awareness brochure to all properties that have LSLs in the project limits, and not to properties that have copper service lines.
- G. When the project is complete, the PWI will distribute the “Flush your pipes now” door hanger to properties with LSLs.

## **VI. Repairing Water Main Breaks When Lead Services are Within the Shut-off Area**

- A. In non-emergency situations, if the water services are likely to be made of lead, MWW will:
  - 1. Notify residents before the water is shut off that the water service is likely to be made of lead, provide the Lead Awareness brochure, and tell residents about the importance of whole-house flushing after water main is returned to service. If no response, the “Flush your plumbing now” door hanger and brochure will be left. If lead services are severed, the procedures for I. A. Leak on “City Side”, 1. through 6.b. above, will be used. After repairs are completed, water main will be flushed via hydrants and water quality measured in the field with turbidity monitors.
  - 2. At some repair locations, conditions permitting, ask if customer is interested in having water tested for lead at no cost to them. For those who wish to have their water tested, provide instructions, chain of custody forms and bottles to collect two samples:
    - a. The first liter of water that comes out of the kitchen tap when water is restored. The aerator will be removed for this sample, if possible. (The idea is to capture particles that may have come loose during flow reversal.)
    - b. A well-flushed sample collected after the whole-house flushing procedure has been carried out. (The idea is to assess whether the flushing procedure has removed lead particles that may have come loose during flow reversal. Therefore, the water in this sample will represent water that the resident would actually drink, so it **MUST** be clear.) Aerator will remain off for this sample to simplify procedure for residents.

The MWW representative should ensure that the second sample has, in fact, been well-flushed. If the sample is cloudy or has particles, additional flushing of the premise plumbing should occur. If the water does not clear, the water main should be flushed. If VI. Repairing Water Main Breaks When Lead Services are within the Shut-off Area, #1. through #2.b. above, has not been carried out because it was between 10:00 p.m. and 6:00 a.m., MWW will return during daylight hours and knock on the door. The door hanger and Lead Awareness brochure will be handed to the resident or placed on the doorknob if no response.

- B. In emergency situations, when water services are likely to be made of lead, MWW will:
  - 1. Notify residents after the main break has been controlled and before it is returned to service that the water service is likely to be made of lead, provide the Lead Awareness brochure and tell residents about the importance of whole-house flushing after water main is returned to service. If no response, leave Lead Awareness brochure and “Flush your plumbing now” door hanger. If lead services are severed, the procedures for I. A. Leak on “City Side”, #1. through #6.b. above, will be used.
  - 2. The situation will determine if there is an opportunity here for sample collection.

3. If VI. Repairing Water Main Breaks When Lead Services are within the Shut-off Area, #1. above, has not been carried out because it was between 10:00 p.m. and 6:00 a.m., MWW will return during daylight hours and knock on the door. The door hanger and Lead Awareness brochure will be handed to the resident or placed on the doorknob if no response.

## **VII. Work on Private Plumbing with Lead Service Line**

The brochure should be available at the Permit Center and be incorporated into the permit process.

8/18/16

**Employee Script using Questionnaire for Partial Lead Service Line Replacement**

*Field Staff will interact with customer who answers the door, provide the Lead Awareness brochure, a business card and dark blue door hanger, "Please flush your plumbing as soon as possible after repairs are completed." We do not offer to test the water. If there is no answer or there is only a child at home, please leave the three items at the home.*

*(Show MWW photo ID)* **Hello, I'm with the Milwaukee Water Works and my name is \_\_\_\_\_.  
I'm here because we are working on \_\_\_\_\_.**

**Our records indicate your water service line may be made of lead.**

*(Describe the service line using the diagram on back or in the brochure)*

**Exposure to lead can cause health problems. Children under the age of six and women who are pregnant or breastfeeding are at special risk. If you have questions about the health effects of lead, please call the City of Milwaukee Health Department, (414) 286-3521. Water can dissolve lead from pipes when it sits unused for several hours or when there is construction work like we're doing here that disturbs the pipe.**

**After we are finished with the work, it is important you flush your household plumbing. It is best to do this after removing the screens and aerators from the faucets. If you cannot remove the screens, then at least flush your plumbing. The cost to flush four taps for 10 minutes is about 16 cents.** *(Show the instructions on back of script and back panel of brochure)*

**We are providing you with a pour-through filter certified to remove lead from water. Run your water until it is cold each time the water has been sitting in the pipes, and use this pitcher for the next month. Generally, the filter is good for 30 days but it includes a tester that will show if the filter is still working. Use the filtered water only for drinking and cooking. You can safely use tap water activities like bathing, washing hands, washing dishes and laundry. These activities help flush the pipes.** *(Explain basics of use -- see side of box)*

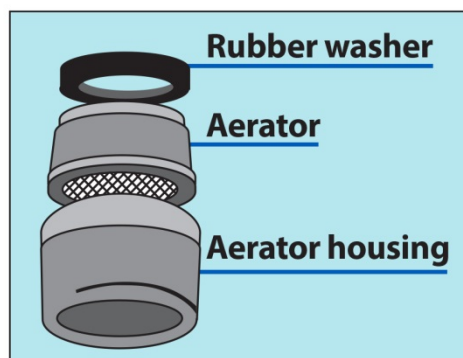
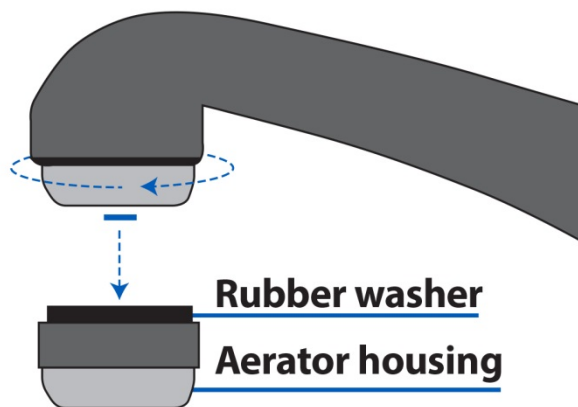
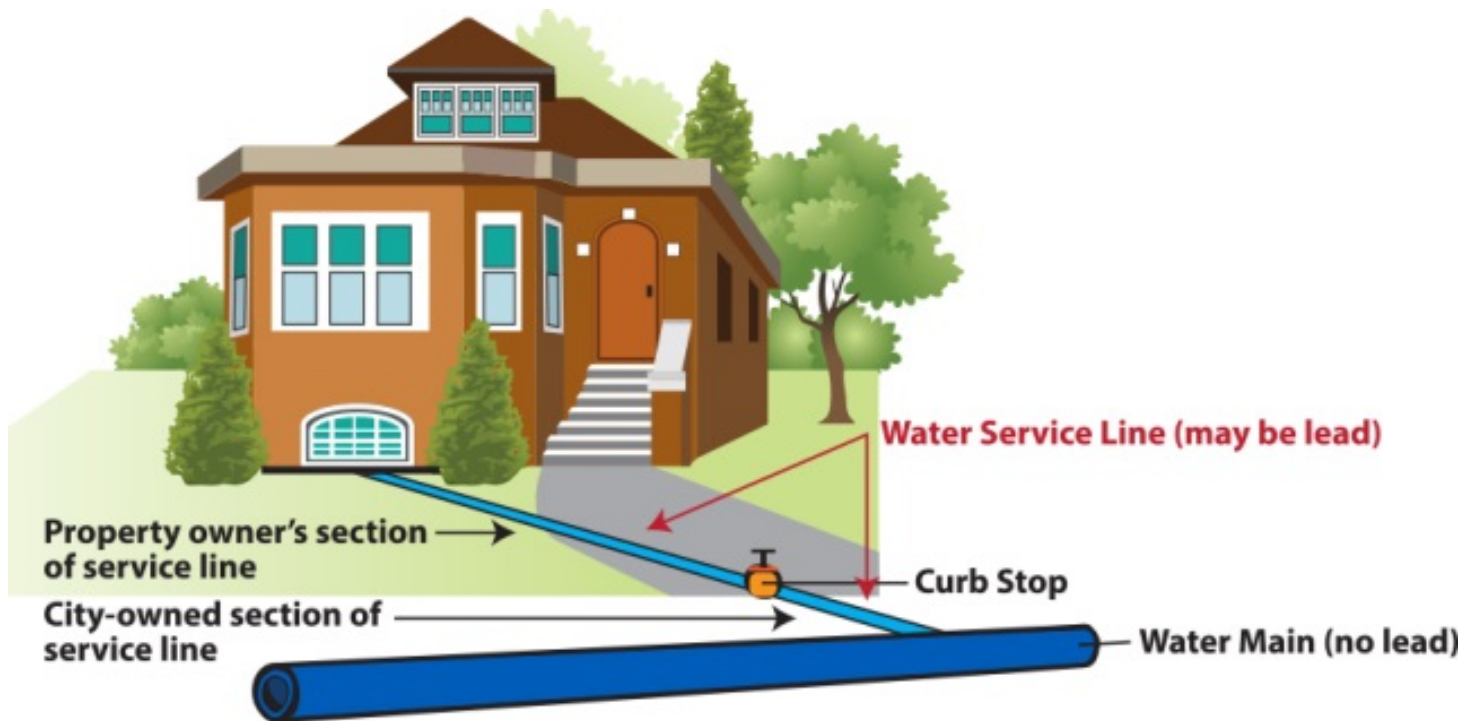
**We'd like you to answer a few questions to help us assess your situation and help reduce your exposure to lead. We will share this information with the City of Milwaukee Health Department.** *(Begin completing Questionnaire)*

**Thank you for your time. Remember, when we have completed our work you need to flush your household plumbing. If you have any questions, please call me or Customer Service, (414) 286-2830.**

*(Email questionnaire to [watleadsurvey@milwaukee.gov](mailto:watleadsurvey@milwaukee.gov) WQ staff follow up with customers within 30 days. Note special circumstances such as the property is a food preparation facility, day care, etc.)*

# Milwaukee Water Works

*Safe, Abundant Drinking Water.*







## Questionnaire for Partial Lead Service Line Replacement

*Safe, Abundant Drinking Water.*

**We'd like to ask you a few questions to help us assist in reducing your exposure to lead. We will share this information with the City of Milwaukee Health Department.**

Date \_\_\_\_\_

Customer name \_\_\_\_\_ Phone \_\_\_\_\_

Address \_\_\_\_\_ Apt # \_\_\_\_\_ Are you the owner? Yes No

If you are not the owner, can you provide the Name of the Owner? \_\_\_\_\_

Owner's Phone \_\_\_\_\_ How many people live here? \_\_\_\_\_

*Young children under the age of six and women who are pregnant or breastfeeding are at special risk for exposure to lead in water.*

**Are there children who live or visit here under the age of six? Yes / No**

**Are there women who live or visit here who are pregnant or breastfeeding? Yes / No**

*If yes, it is important to follow the three steps in the brochure every day.*

**If appropriate:** We are going to replace the "city side" of the service as part of our work. To reduce exposure to lead in your drinking water, we strongly recommend the owner's side of the service line also be replaced at this time. You would need to hire a licensed plumber to do this work. Your cost for the work may be lower if you coordinate the timing with our work.

**Are you interested? Yes No Declined Not the owner Tenant Comment:**

**If yes, please contact us at 286-3710 for more information.**

**Thank you for your time. We will tell you when we have completed our work so you can flush your household plumbing. Look for instructions in the brochure I gave you. If you have any questions, please call me or Customer Service, (414) 286-2830.**

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Given brochure and door hanger: Yes No Declined No one home; left at door

Given pour-through filter: Yes No Declined

Name of Employee \_\_\_\_\_ Work Order # \_\_\_\_\_

Work performed \_\_\_\_\_ Date \_\_\_\_\_

Comments:

# Milwaukee Water Works

*Agua abundante y segura para beber.*

## **Texto del empleado que usa el Cuestionario para el Reemplazo Parcial de la Línea de Servicio de Plomo**

*El personal de campo interactuará con el cliente que abre la puerta, al cual le proporcionará un folleto de Conocimiento del Plomo, una tarjeta de presentación y un cartel para puerta color azul oscuro, "Por favor, lave su tubería tan pronto como sea posible después de que se han completado las reparaciones." No ofrecemos pruebas de agua. Si nadie abre la puerta o hay solamente un niño en el hogar, deje las tres cosas en el hogar.*

**(Muestre una Identificación con Foto de MWW) Hola, Trabajo con Milwaukee Water Works y me llamo \_\_\_\_\_.Vine porque estamos trabajando en \_\_\_\_\_.**

**Nuestros récords muestran que su línea de servicio de agua podría estar hecha de plomo.**

*(Describa la línea de servicio usando el diagrama al reverso o en el folleto)*

**Exponerse al plomo puede causar problemas de salud. Los niños menores de seis años y las mujeres embarazadas o dando de mamar tienen un riesgo especial. Si tiene preguntas sobre los efectos en la salud del plomo, por favor llame al Departamento de Salud de la Ciudad de Milwaukee, (414) 286-3521. El agua puede disolver el plomo de la cañería cuando se asienta sin usar por varias horas o cuando hay trabajo de construcción, como el que estamos haciendo aquí lo cual altera los tubos.**

**Después de que terminemos el trabajo, es importante que usted lave la tubería de su hogar. Lo mejor es hacer esto después de remover las pantallas y los aereadores de los grifos. Si usted no puede remover las pantallas, entonces por lo menos lave su tubería. El costo de lavar cuatro grifos durante 10 minutos es como de 16 centavos. *(Muestre las instrucciones al reverse del texto y el panel posterior del folleto)***

**Le estamos dando un filtro certificado de vaciar para remover el plomo del agua. Deje correr el agua suya hasta que esté fría, cada vez que el agua ha estado asentada en las tuberías y use esta jarra todo el mes siguiente. Generalmente, el filtro funciona bien por 30 días pero incluye un probador que mostrará si todavía está trabajando. Use el agua filtrada solamente para beber o para cocinar. Puede usar el agua del grifo con seguridad en actividades como bañarse, lavarse las manos, lavar platos y ropa. Estas actividades ayudan a lavar las tuberías. *(Explique lo básico del uso – ver el lado de la caja)***

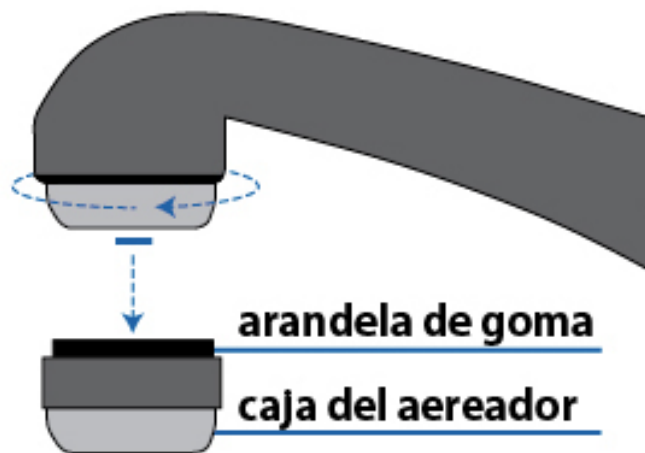
***Nos gustaría que responda a unas pocas preguntas para ayudarnos a evaluar su situación y ayudarle a reducir estar expuesto/a al plomo. Compartiremos esta información con el Departamento de Salud de la Ciudad de Milwaukee. (Empiece a completar el Cuestionario)***

**Le agradecemos mucho su tiempo. Recuerde, cuando hayamos completado nuestro trabajo, usted necesita lavar la tubería de su hogar. Si tiene cualquier pregunta, por favor llámeme a mí o al Servicio del Cliente, (414) 286-2830.**

*(email questionnaire to [watleadsurvey@milwaukee.gov](mailto:watleadsurvey@milwaukee.gov) WQ staff follow up with customers within 30 days. Note special circumstances such as the property is a food preparation facility, day care, etc.)*

# Milwaukee Water Works

Agua abundante y segura para beber.



# Milwaukee Water Works

Agua abundante y segura para beber.

## Questionnaire for Partial Lead Service Line Replacement

## Cuestionario para el Reemplazo Parcial de la Línea de Servicio de Plomo

Nos gustaría hacerle unas pocas preguntas para ayudarnos a asistirlo a usted en reducir su exposición al plomo. Compartiremos esta información con el Departamento de Salud de la Ciudad de Milwaukee.

Fecha \_\_\_\_\_

Nombre del cliente \_\_\_\_\_ Teléfono \_\_\_\_\_

Dirección \_\_\_\_\_ Apt # \_\_\_\_\_ ¿Es usted el dueño? Sí / No

Si usted no es el dueño, ¿puede darnos el nombre del dueño? \_\_\_\_\_

Teléfono del dueño \_\_\_\_\_ ¿Cuántas personas viven aquí? \_\_\_\_\_

*Los niños menores de seis años y las mujeres que estén embarazadas o amamantando tienen un riesgo especial si se exponen al plomo en el agua.*

¿Hay niños que viven aquí o que vienen de visita que son menores de seis de edad? Sí / No

¿Hay mujeres que viven aquí o que vienen de visita que están embarazadas o amamantando? Sí / No  
*Si la respuesta es Sí, es importante seguir los tres pasos del folleto todos los días.*

**Si es apropiado:** *Nosotros vamos a reemplazar el "lado de la ciudad" del servicio como parte de nuestro trabajo. Para reducir la exposición al plomo en su agua potable, le recomendamos encarecidamente que el lado del dueño del servicio también sea reemplazado al mismo tiempo. Usted tendría que contratar a un plomero con licencia para hacer este trabajo. Su costo por el trabajo podría ser más bajo si usted coordina el momento de hacerlo con nuestro trabajo.*

¿Está usted interesado? Sí No Rehusó No soy el dueño Arrendatario Comentarios:  
Si la respuesta es Sí, por favor contáctenos al 286-3710 para más información.

**Gracias por su tiempo.** *Nosotros le diremos cuando hemos completado nuestro trabajo para que pueda lavar la tubería de su casa. Vea las instrucciones en el folleto que le he dado. Si usted tiene alguna pregunta, por favor llámeme o llame al Servicio del Cliente, (414) 286-2830.*

Entregado el folleto y el indicador de puerta: Sí No Rehusó Nadie en la casa, se dejó en la puerta.

Se le dio un filtro de vaciar: Sí No Rehusó

Nombre del empleado \_\_\_\_\_ Orden de trabajo # \_\_\_\_\_

Trabajo realizado \_\_\_\_\_ Fecha \_\_\_\_\_

Comentarios: