

May 4, 2024



BREAKING NEWS

6:00am ET

Announcing the Launch of Electro Scan's U.S. Customer Engagement Center.

Your One-Stop Shop for Lead Testing



INVENTORY



GIS



CONTACT



SCHEDULING



INSPECTION



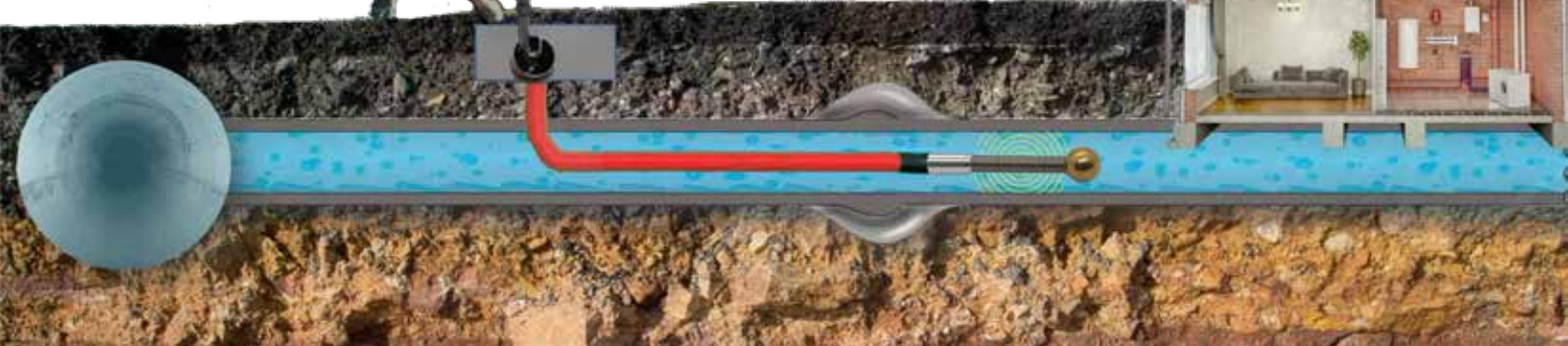
TESTING



REPLACEMENT

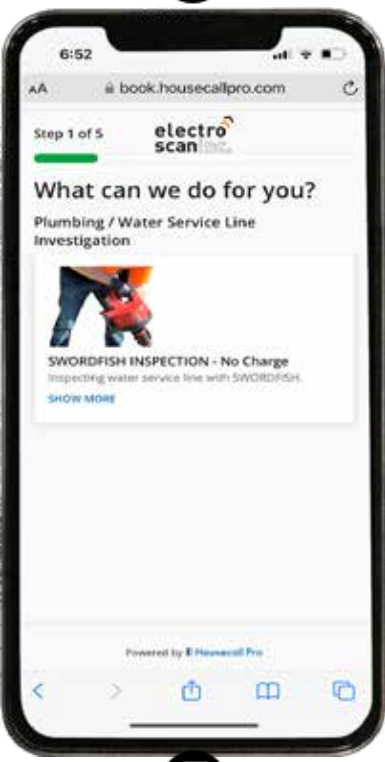


ONLINE BOOKING



BOOK YOUR SWORDFISH APPOINTMENT IN FIVE EASY STEPS.

1



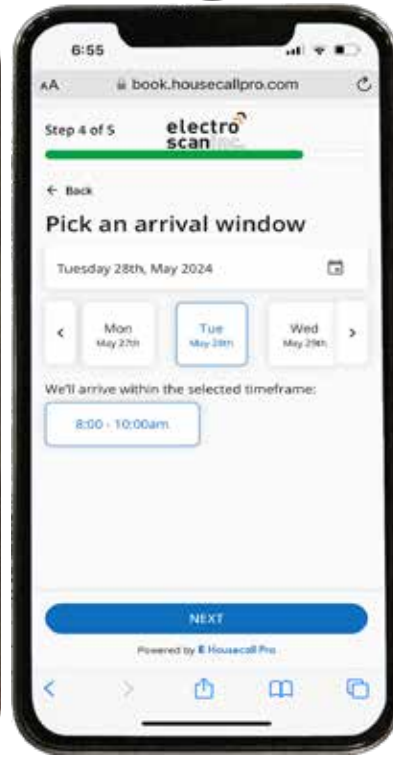
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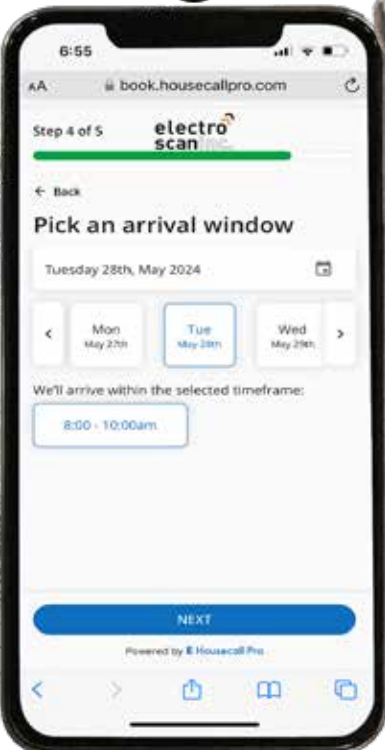
3



4



5



Book Your Electro Scan SWORDFISH Inspection Appointment in Less Than 5 Minutes.*



* Must be a current Electro Scan SWORDFISH services water system customer.



Electro Scan Call Center Schedules & Dispatches Work.



electro scan

Job #9

Customer: Todd Rodman, 31 Waverly St, Potsdam, NY 13676

Invoice: Blanca Hansen

Line items: Services, Materials, Subtotal, Tax rate, Total

Map: Hybrid, HCP Map

LOCATION OFF

6:37

Job #9

Approve Invoice Pay More

On the way

ON MY WAY START FINISH

05/04 - 6:33p

Checklists

Customer

Todd Rodman

31 Waverly St, Potsdam, NY 13676

Customer history 1 >

31 Waverly St

31 Waverly St Building

Directions Save Nearby Send to phone Share

31 Waverly St, Potsdam, NY 13676

Suggest an edit on 31 Waverly St

Add a missing place

Add your business

Add a label

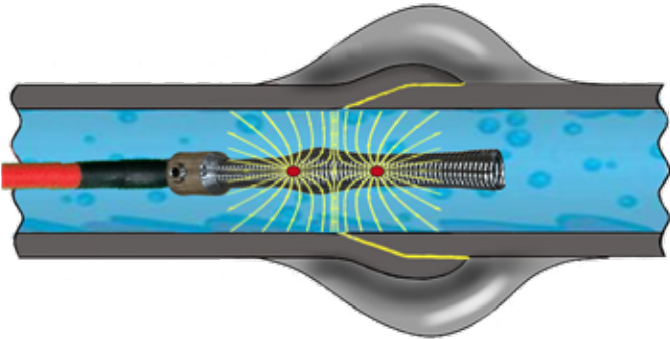
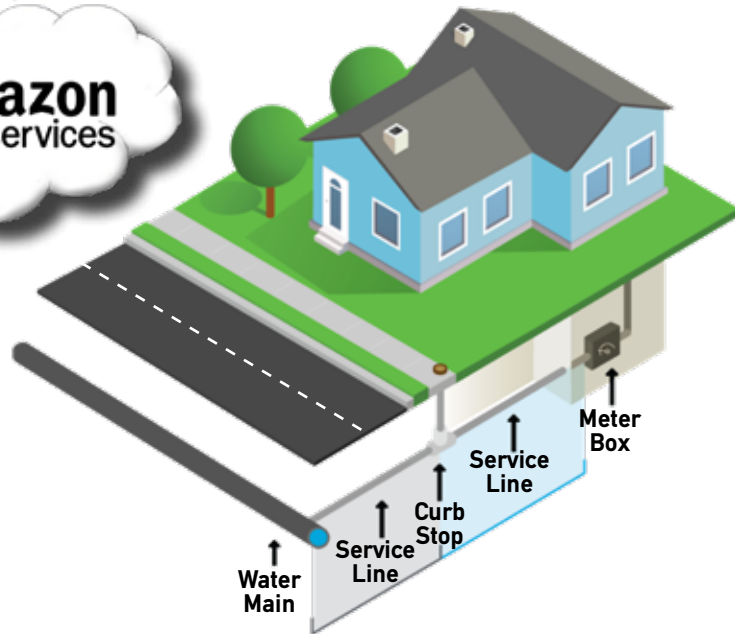
Your Maps activity

Photos

Map showing surrounding area: Beth's Place III, Canon-Potsdam Hospital, Jay Dewell MD, FACS, North Country Manor Apartments, Sullivan Optical, Toilet Garden #1.



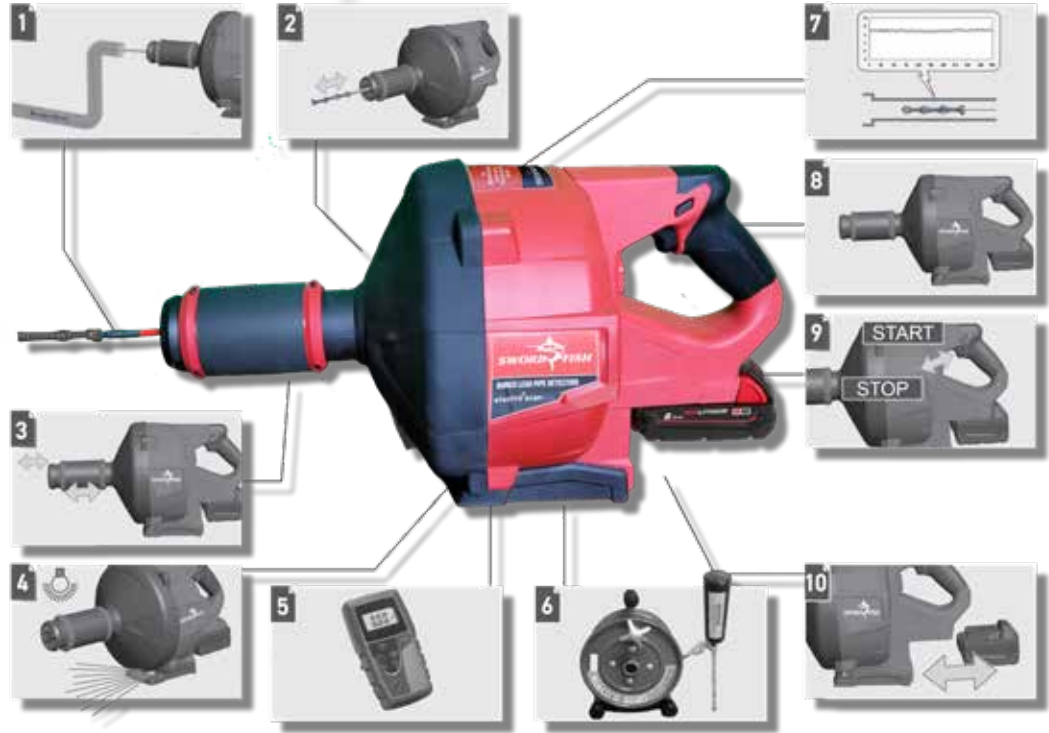
- **SWORDFISH** is the world's first hand-held buried lead pipe detection tool using an 18V battery with automatic system for cable feed in pipe diameters from ½ to 3 inches (12mm - 76mm)
- **SWORDFISH** is based on Electro Scan's patented machine-intelligent technology, developed in accordance with the American Water Works Association, Manual M77, Water Main Condition Assessment, to measure electric resistance using low-voltage conductivity to locate buried lead pipes.
- **SWORDFISH's** design enables users to grip the device with one hand and have the other hand free to guide the Electro Scan probe and cable in and out of the companion service line pipe insertion device.
- **SWORDFISH's** cable feed system maintains a selected feed speed with its rotating action allowing users to navigate multiple 90° pipe bends.
- **SWORDFISH's** fully enclosed drum eliminates free spinning parts, providing users with more protection to work in and around basement meters, bends and other obstructions.
- **SWORDFISH** readings are captured in real-time with data transmitted and processed in Electro Scan's Critical H₂O cloud application, with results independently verified using a commercially available lead test kit for 100% verification of lead pipe.



Field operation requires full compliance with EPA guidelines for drinking water pipe entry.

KEY FEATURES

1. Probe entry.
2. Cable feed and retraction.
3. Gripping surface.
4. Light beam.
5. Guard test.
6. Grounding reel and stake.
7. Electro Scan readings.
8. Fully enclosed drum.
9. On-Off switches
10. Rechargeable batteries.

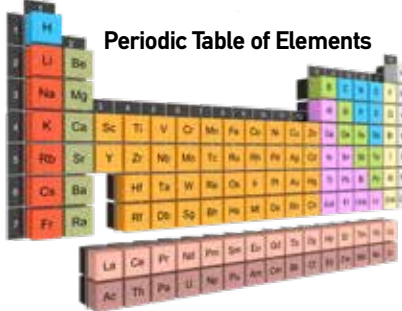


Electro Scan probes confirms lead pipe with an approved independent Lead Test Kits. Testing of probe is required after each survey.

Images shown are representation only. Electro Scan adapted M18 FDCPF8, Milwaukee Electric Tool Corporation ("Milwaukee Tool").

A Breakthrough in Buried Lead Pipe Detection

Electro Scan's SWORDFISH is a breakthrough in accurately & consistently locating buried lead pipes. Using its patented machine-intelligent low-voltage (i.e. non-acoustic, non-electro magnetic) technology, Electro Scan first discovered its ability to locate lead pipes when it was used to assess Asbestos Cement (AC) pipes; finding lead soldered joints used to seal pipe joints. Aided by the major difference in resistivity of pipe materials, Electro Scan developed SWORDFISH to enter pressurized pipes with 1/2-inch diameters with multiple 90° bends.



TECHNOLOGIES	Locate Buried Lead Pipes
Acoustic Monitors	NO
Fiber Optics	NO
Acoustic Sensors	NO
CCTV Inspection	NO

EPA Guidelines "Electrical Resistance Testing"

Office of Water (4606M)
EPA 816-B-22-001
August 2022





Equipment Sales & Professional Services*

IMPORTANT
 Utilities is currently conducting water line inventory.

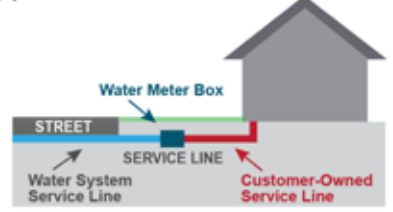
Water may be turned off temporarily at the meter while inspecting water lines.

IMPORTANT INFORMATION

The US EPA revised lead and copper rule for drinking water systems requires completion of two key milestones by October 16, 2024. See details about the rule and the status of your Utility's plan.

1 Your Water Utility is currently conducting required system inventory. We will identify pipe materials for both the public (utility-owned) and private (customer-owned) portions of water lines in the system.

City Utilities will use a tool that measures electrical conductivity of the pipe at the water meter box to identify pipe material type on both the public and private sides of the meter. This work will require water be turned off temporarily at the meter while crews perform pipe material verification.



2 Once water lines have been identified, your Utility will develop and submit a plan to replace any lines as required by the EPA's revised rule. For more information, please visit:
www.electroscan.com/pipeinventory
epa.gov/dwreginfo/lead-and-copper-rule
 Email questions: info@electroscan.com



IMPORTANT
 Actualmente, el departamento de agua está realizando un inventario de las líneas de agua.

Se podría cerrar el servicio de agua temporalmente desde el medidor mientras se inspeccionan las líneas de agua.

INFORMACIÓN IMPORTANTE

La EPA de EE. UU. regla revisada de plomo y cobre para los sistemas de agua potable requiere que la ciudad completa dos hitos importantes antes del 16 de octubre de 2024. Puede revisar los detalles sobre la regla y el estado del plan de servicios públicos de la ciudad.

1 Los servicios de agua de la ciudad actualmente están llevando a cabo el inventario del sistema requerido. Identificaremos los materiales de las tuberías tanto para la parte pública (propiedad de la ciudad) como para la parte privada (propiedad del cliente) de las líneas de agua del sistema.

El departamento de agua de la ciudad podría usar una herramienta que mida la conductividad eléctrica de la tubería en la caja del medidor de agua para identificar el tipo de material de la tubería tanto en el lado público como en el privado del medidor. Este trabajo requerirá que el agua se cierre temporalmente en el medidor mientras el equipo realiza la verificación del material.



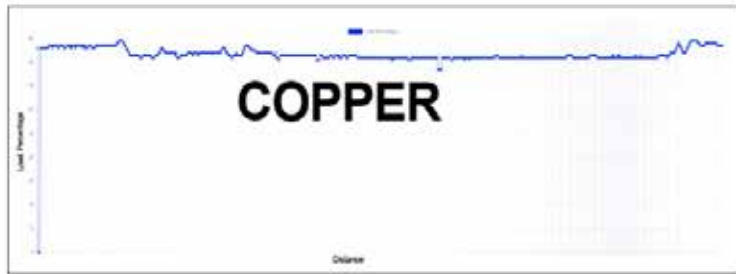
2 Una vez que hayan identificado las líneas de agua, el departamento de agua de la ciudad desarrollará y publicará un plan para reemplazar cualquier línea según lo requiera la regla revisada de la EPA. Para obtener más información, visite:
www.electroscan.com/pipeinventory
epa.gov/dwreginfo/lead-and-copper-rule
 Preguntas: info@electroscan.com



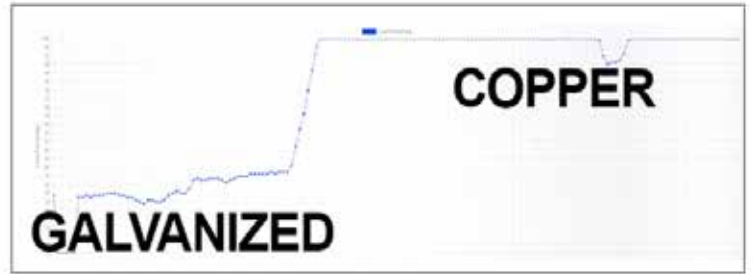
* Professional Services Available from SWORDFISH Authorized Service Providers.

S W O R D F I S H

Single Pipe Materials



Multiple Pipe Materials





Online Scheduling and Dispatching GIS

The screenshot shows the electroscan inc. web interface. At the top, there are navigation links: Home, Inbox, Schedule, Customers, and More. Below this is a header with 'Customers' and 'Employees' dropdowns. The main area features a map with 'Map', 'Hybrid', and 'HCP Map' options. A 'New' button is visible, with a dropdown menu listing: Job, Proposal, Estimate, Event, Customer, Intake, and Lead. The map shows various cities including Washington, Baltimore, and Philadelphia.

'Frequently Asked Questions

The screenshot shows a 'Frequently Asked Questions' page for 'Jake Billingsly'. It has two tabs: 'INTAKE FLOW' and 'FAQ'. A search bar is present. The questions listed are:

- How long will the inspection take?
- Will my water be turned off during the inspection?
- Will you change the quality of my drinking water?
- Will you be able to tell me if I have lead pipes after your inspection?
- What happens if you find lead water pipes?
- How much will this inspection cost? And, do I have to pay for the filtered water pitchers?
- How soon will the city be able to replace my lead pipes.

Automatic Call Taking

The screenshot shows an automatic call taking interface. It displays the name 'Tom Rodman' and phone number '(315) 783-3211'. Below this, it says 'Main business line'. There is a large green circular button with a white telephone handset icon and the word 'ANSWER' below it. At the bottom, there is a red 'IGNORE' button.

'On My Way' Notification

The screenshot shows an 'On My Way' notification for a customer named Matt Campos. It includes a profile picture, name, address (4721 Solano way, fair oaks, CA 95628), phone number (916) 879-0686, and email (matt@electroscan.com). Below the contact info is a map showing the location and a 'LOCATION ON' button.

Customer Signatures

The screenshot shows a customer signature screen. At the top, it says '6:38' and '\$0.00'. Below this is a 'Close' button. A line of text reads: 'By signing, I agree to all the terms and conditions of this agreement and authorize above work to be performed. Payment upon completion of work.' Below the text is a signature box containing the signature 'Tom Rodman'. At the bottom, there are 'CLEAR' and 'DONE SIGNING' buttons.

Job Marked as Complete

The screenshot shows a 'Job Marked as Complete' confirmation screen. It features a large green checkmark icon inside a circle. Below the icon, the text reads 'Job marked as complete'.

Swordfish deployed by mackenzie@electroscan.com at 236 Lucky Ln, Rock Hill on Thu Oct 26 2023 09:45:34 GMT-0500 (Central Daylight Time) with results indicating: No Lead

Agency
Rock Hill
757 Anderson Road S Operations Center
Rock Hill SC 29730
Maurice Walsh

Worksite
236 Lucky Ln
Rock Hill South Carolina 29730

Contractor
mackenzie@electroscan.com



Lead Test
Result: No Lead
Test Used: 3M Lead Check
Performed: Thu Oct 26 2023 09:45:34 GMT-0500 (Central Daylight Time)
Pipe Type: Not Known (XXX)
Pipe Diameter: 0.75
Max Load: 100
Pipe Entry Method: Meter To Home
Operator Notes: gvanized pipe 0-5 changed to copper



Swordfish deployed by matt@electroscan.com at Wed Oct 26 2023 12:10:17 GMT-0500 (Central Daylight Time) with results indicating: Lead Detected

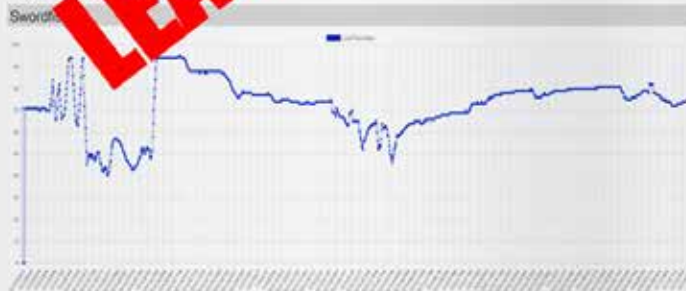
Agency

Worksite

Contractor
matt@electroscan.com



Lead Test
Result: Lead Detected
Test Used: 3M Lead Check
Performed: Wed Oct 26 2023 12:10:17 GMT-0500 (Central Daylight Time)
Pipe Type: Not Known (XXX)
Pipe Diameter: 0.75
Max Load: 95
Pipe Entry Method: Meter To Home
Operator Notes: 10 feet



SWORDFISH Training Manual 134-Pages

How to Create, Verify and Validate Your Water Service Line Inventory.

Release 1.5



What's Inside?

- Expanded Content
- LCR, LCRR, LCRI
- Example Scans
- Single v. Multiple Pipe Materials.
- New Chapter on API
- New Chapter on FAQs
- Chapter Tests

Learn from Water Industry Insiders How to Report!

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January 2024

WELCOME MESSAGE

Hello and Welcome to Electro Scan's SWORDFISH Training Manual.

Mike App
Executive Vice President

We all know how difficult it can be to accurately inventory drinking water service lines. Incomplete records, lack of updated information on meter installations or replacements, and the absence of customer data are just some of the challenges faced by U.S. water systems in creating their water service inventories.

Traditionally, operators and owners have been responsible for pipes extending from their water mains to property lines or meter pits. However, due to the use of lead pipes by contractors and plumbers, which were banned by the EPA in 1996, the industry now faces the necessity of inspecting buried pipelines from property lines to home foundations for the first time ever!

Uncovering buried pipes to determine pipe material is costly, disruptive, and inaccurate. Due to the prohibitive costs associated with accurately mapping or flagging water service lines, many water utilities resorted to drawing a single imaginary line that connected a customer's parcel to the nearest water main, regardless of whether that pipe actually delivered water service.

Faced with customer resistance to digging up their yards and the high number of unsuccessful digs where service lines were anticipated but not found, the water industry is now seeking alternatives.

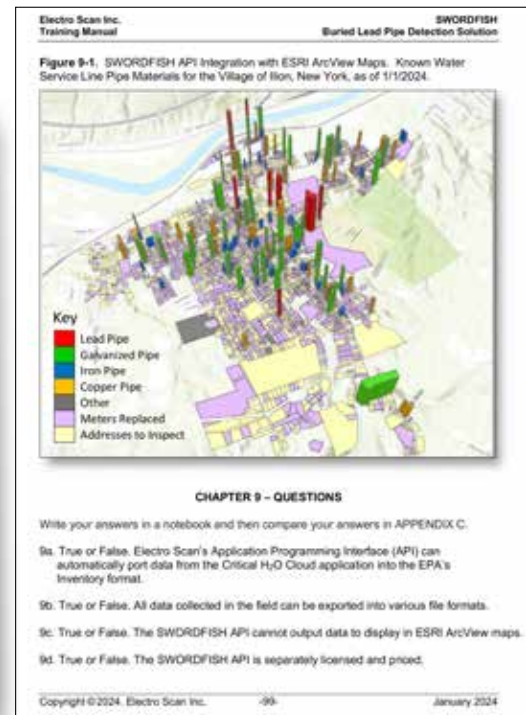
SWORDFISH is the answer.

The Electro Scan Team has re-engineered its patented and patent-pending electrical resistance testing technology to internally enter and assess smaller diameter pipes ranging from 1/2 to 3 inches in diameter. Tested, certified, and actively used by water utilities worldwide in larger diameter pipes to locate and quantify leaks, SWORDFISH represents the industry's first accurate and reliable tool to inventory and report the materials of buried water service lines.

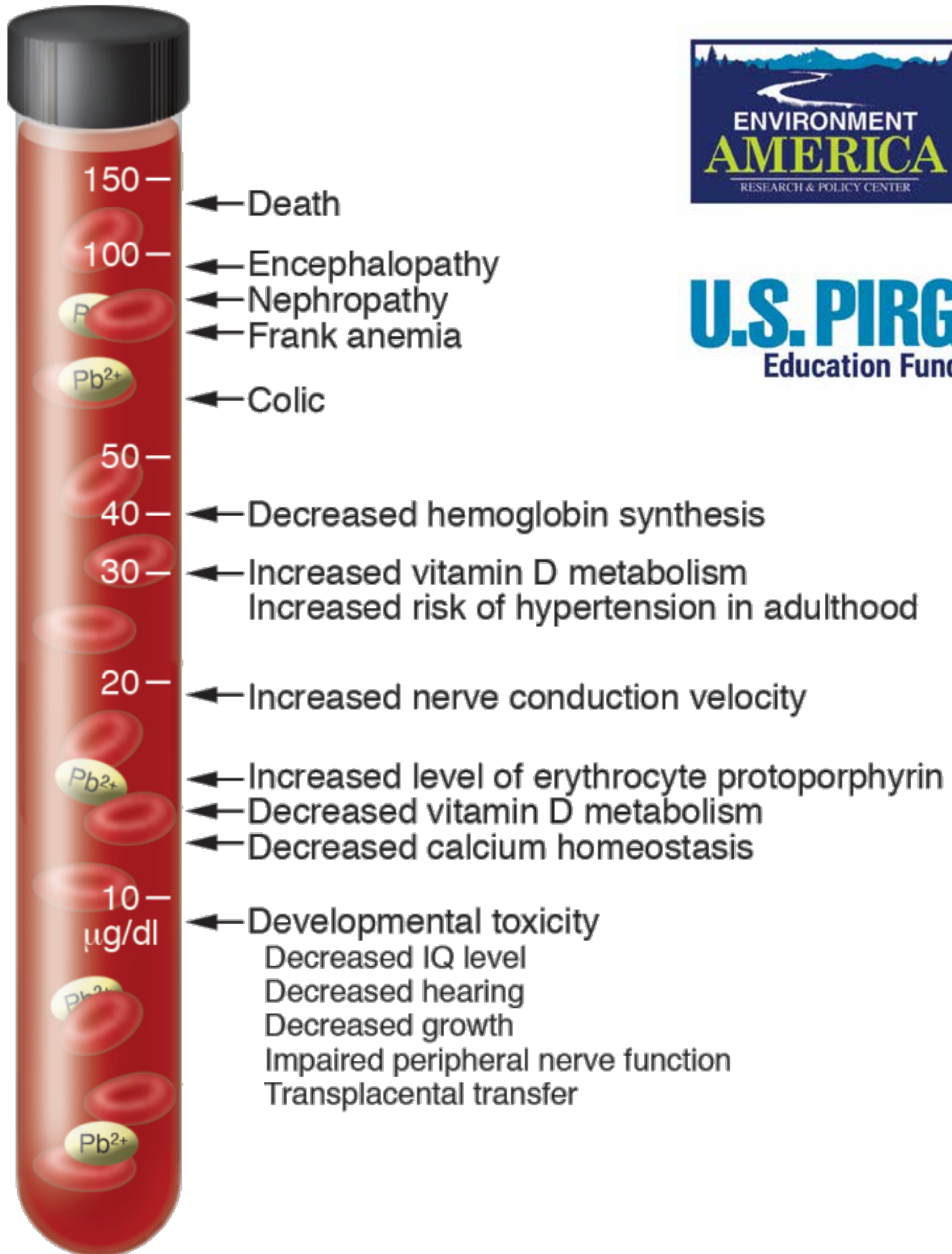
Welcome to the world of machine-intelligent tools capable of entering standard meter settings, navigate pipe bends and turns, and traverse pipes to automatically assess one or more pipe materials by measuring changes in the electrical resistance of pipe walls and joints.

Electro Scan's Team looks forward to assisting you in your successful inventory efforts to identify pipes that might pose a threat to America's drinking water systems.

Best regards,
Michael App
Mike App
Executive Vice President



Levels of Lead in Drinking Water



AS FEATURED IN AWWA M77

SWORDFISH Uses The Same Patented Technology That Finds Leaks Missed by Acoustic Sensors & CCTV

Figure 1. Electro Scan SWORDFISH Single-Sensor Probe

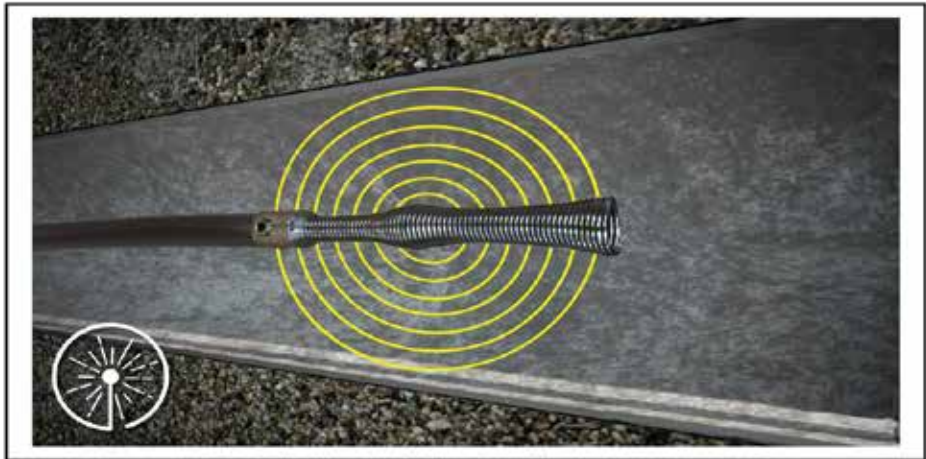
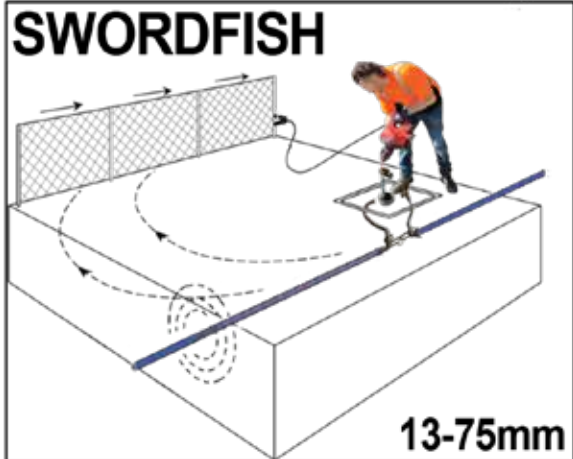


Figure 2. Electro Scan TRIDENT Dual-Sensor Probe

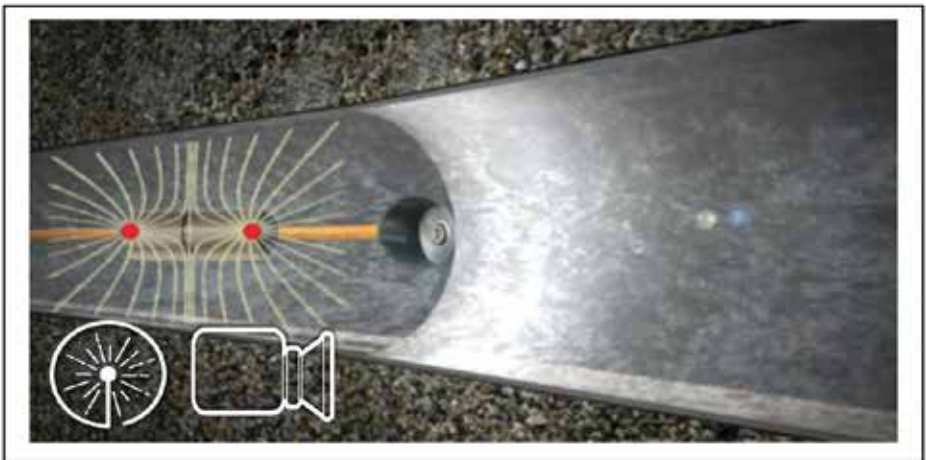
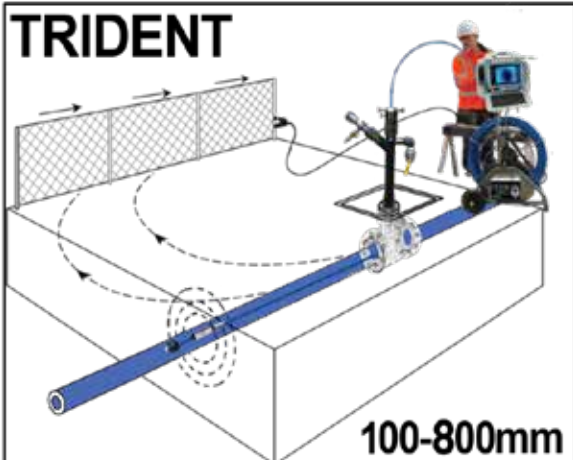
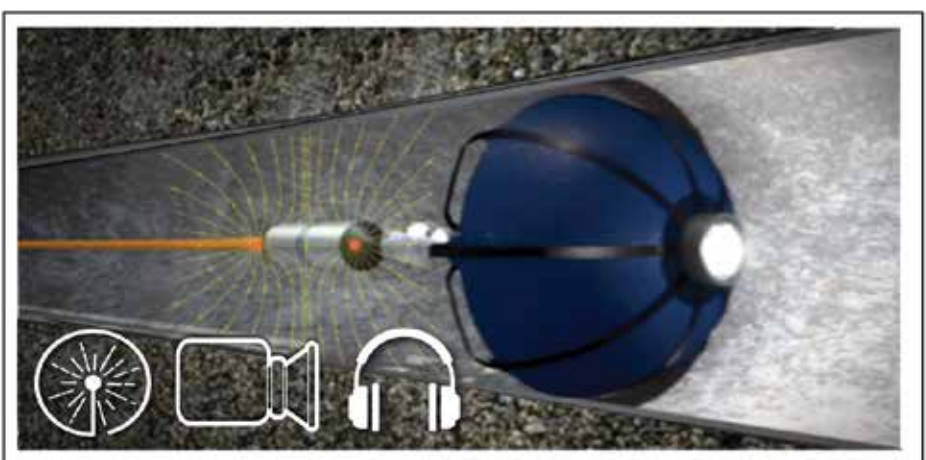
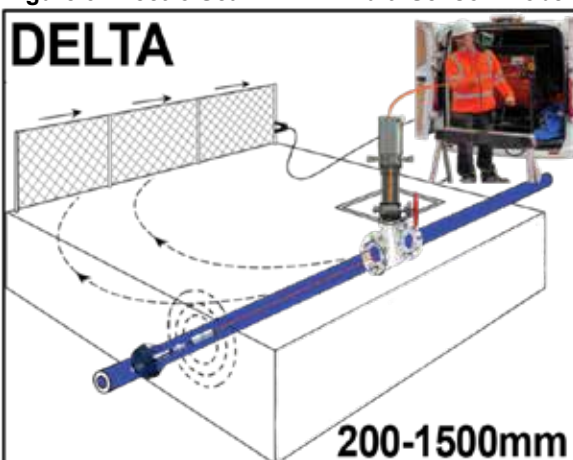


Figure 3. Electro Scan DELTA Multi-Sensor Probe



LEGEND

-  Electro Scan
-  CCTV
-  Acoustic

Utility-Side, Customer-Side

- Lead, Lead
- Lead, Non-lead
- Lead, No information
- Non-lead, Lead
- Non-lead, Non-lead
- Non-lead, No information
- No information, Lead
- No information, Non-lead
- No information, No information



LEAD

OLD WAY

Aboveground Lead Test: **Exposed Pipe**



Disruptive. Expensive. Inaccurate. Messy.



Magnetic Test

Sticks →



steel pipe

Doesn't Stick

Scratch Test

Color of a Penny →



copper pipe

No Shine →



plastic pipe

Silver Streaks →



lead pipe



Copper



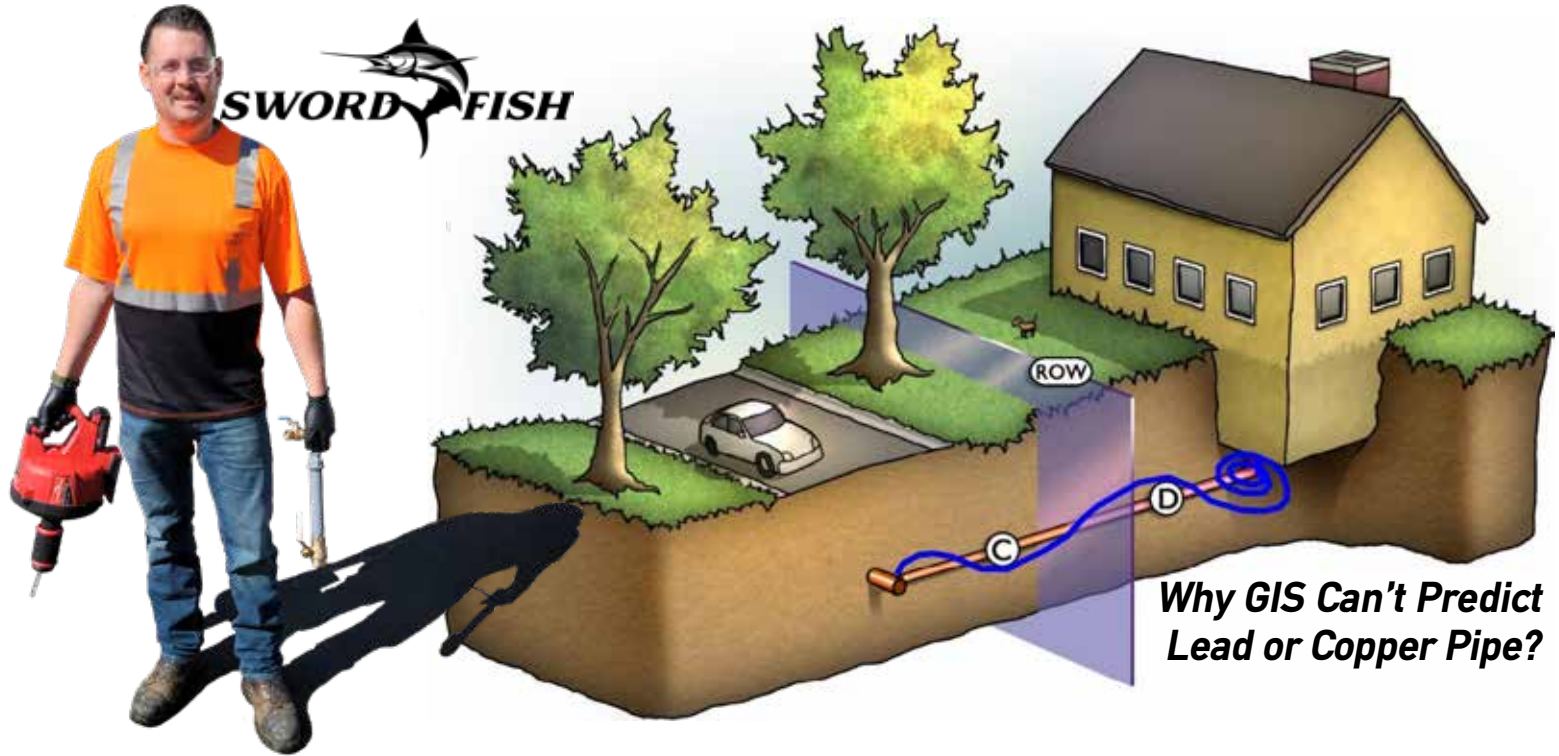
Lead



Galvanized Steel

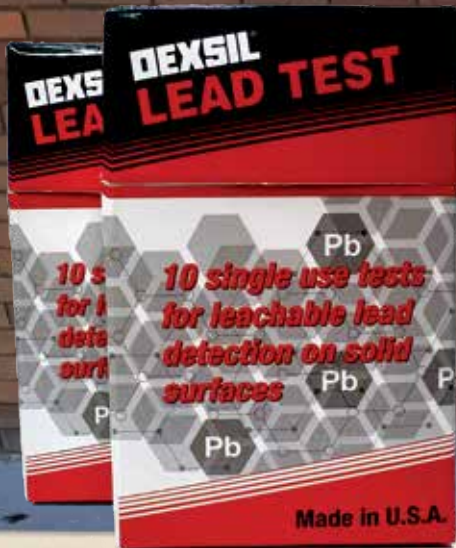
NEW WAY

Below Ground Lead Test: **Buried Pipe**



Accurate. Direct Access. Fast.

Including a Swab Test to Confirm Results from Electrical Resistance Testing When Lead is Found.



CONTACTS



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Since October 2011



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Since September 2011

GRAVITY & UNPRESSURIZED PIPELINES

GRAVITY & PRESSURIZED PIPELINES

