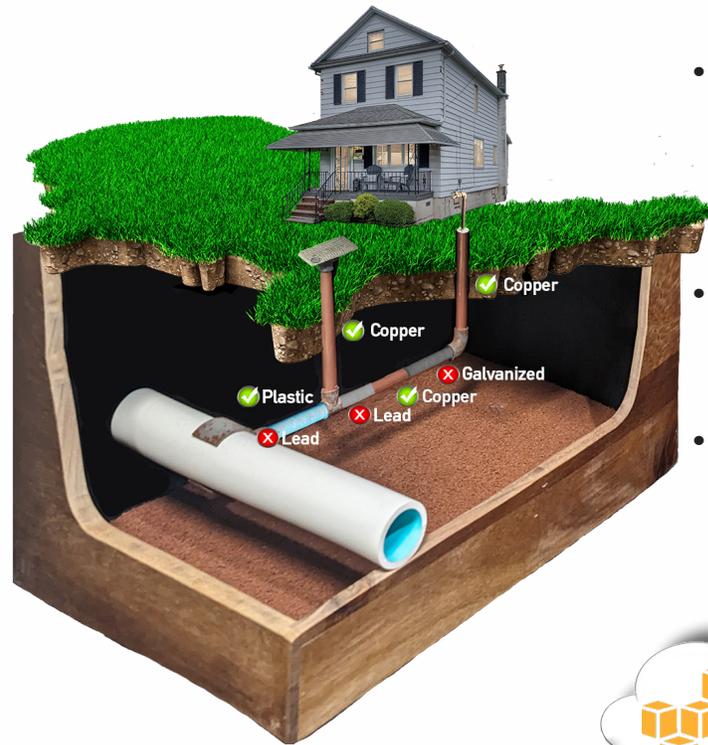


Only Commercially Available Technology That Locates Buried Lead Pipes, Without Digging

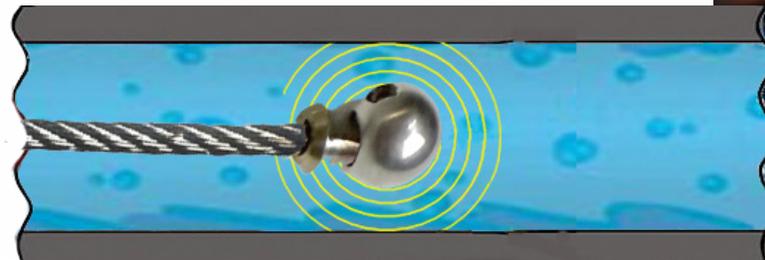
Automatically Identify One or More Copper, Galvanized, Plastic & Lead Pipe Materials, in a Single Pipe.

SWORDFISH

- SWORDFISH is the world's first buried lead pipe detection solution using a low voltage, high frequency cable fed into pipe diameters ranging from ½ to 3 inches (12mm - 76mm).
- SWORDFISH is based on Electro Scan's patented machine-intelligent technology, developed in accordance with the AWWA M77, Water Main Condition Assessment, to measure electrical resistance using to assess buried pipe materials, including copper, galvanized, plastic, and lead.
- SWORDFISH's design enables users to guide the Electro Scan probe and cable in and out of the companion service line pipe insertion device.
- 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.



All data automatically uploaded & stored on Electro Scan's Critical Water cloud.

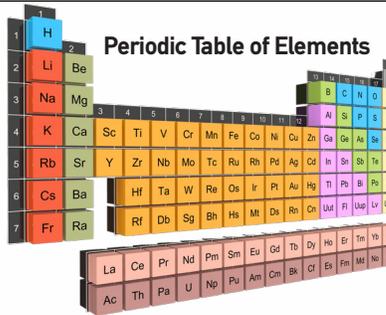


SWORDFISH confirms lead pipes and galvanized pipes requiring replacement with an approved independent Lead Test Kit. Swab testing required after each survey.



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.



82
Pb
Lead
207.2

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

EPA "Electrical Resistance Testing"

"There is one commercially available technology that can locate lead pipes. And, that is electrical resistance technology."

PIPE MATERIAL REPORTING

PROBES

FIELD APP

INSERTION TUBE

Chlorination Chamber, Plus Footage Encoder

RE-DIRECT TUBE
For Meter Fitting Navigation

GROUNDING STAKE

- Customer Address
- GIS Map to Confirm Location
- Service Line Condition
- Full Line Assessment
- Pipe Diameters
- Photos

LEAD TEST SWABS

SUPPORT