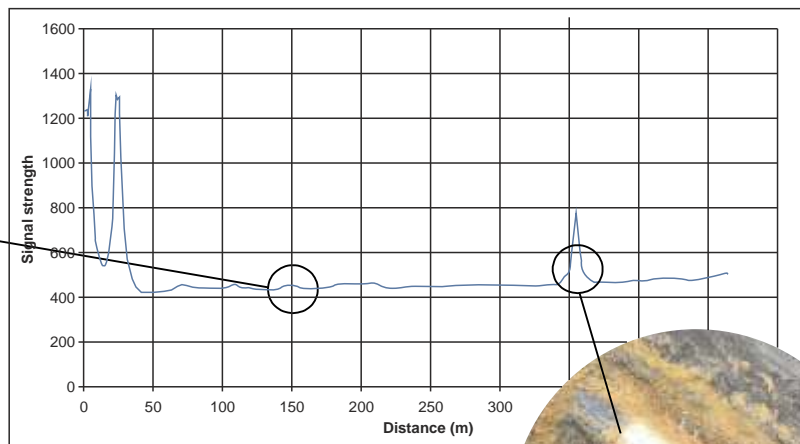


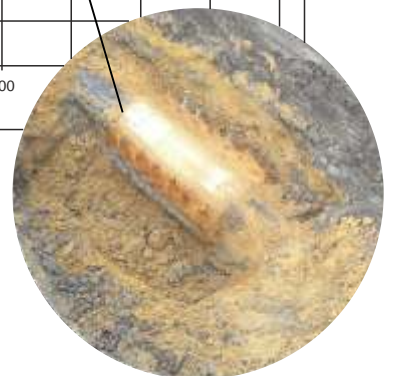
# The Sahara® Pipeline Inspection System Plastic Pipe Inspection

The Sahara® Conductivity Inspection Technique is specifically designed for use on plastic pipe materials. The technique will detect and pin-point leaks and buried metal fittings. In addition the Sahara system allows the line and depth of the pipeline to be established.



Key uses:

- Reduce risk - clean or waste water pipelines
- Improve management records
- Identify lost fittings
- Re-create the burst record
- Locate mains before working nearby
- Pin-point metallic fittings before pipe bursting
- Find leaks in newly laid pipelines



## Waste Water – Rising Mains

Check for leaks prior to or immediately after making a repair to ensure there are no other bursts on the pipeline.

Use the technique to pinpoint metallic fittings (repair clamps, pipe couplers) prior to any replacement project. This ensures any partial replacement will cover all sections with a history of bursts.

Identify metallic fittings prior to pipe bursting to improve efficiency and reliability of the re-laying process.

## Clean Water Pipelines

Detect and pin-point leaks in plastic pipes.

The technique combines two detection methods to ensure even the smallest leaks are found - this is vital when commissioning new pipework. Gauge the size of any leak before digging to prioritise repairs.

## Locating Pipelines

Plastic pipelines are traditionally extremely difficult to locate; this method allows both the line and depth of the pipeline to be found without excavation.

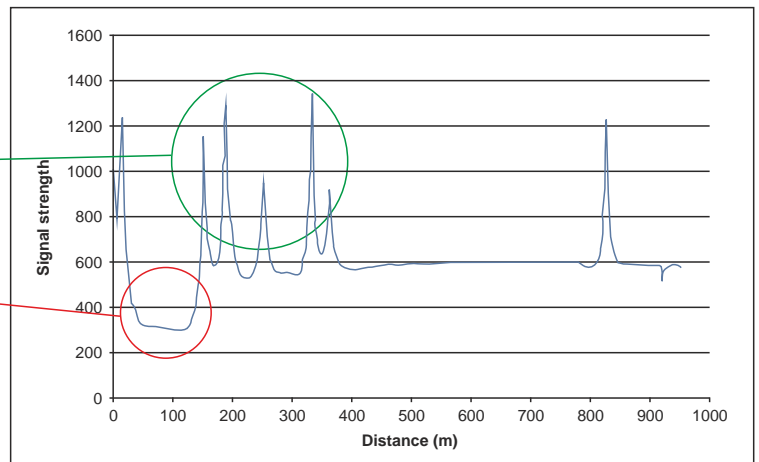
Pin-point the line of a pipe to better than +/-0.2 m at depths up to 15m. Reduce the risk from third party strikes by updating pipeline records.

**Case Study: 200mm Rising Main Inspection**

The graph alongside shows the result from a survey of a live PVC rising main. The survey covered the full 950m length of the pipeline.

The peaks (circled in green) correspond to metallic fittings and short sections of pipe used to repair previous bursts.

The section circled in red had been replaced using HPPE pipe shortly before the inspection. The difference in the response between the new and old pipe is clearly seen. The peaks at either end of the new section correspond to the metal fittings used to couple the new and old pipe together.



**Results from 200mm rising main**

On seeing the results, the water company contact stated,

***“Had we known there were further bursts downstream then the replacement would have been extended to cover the old repairs. This technique allows us to re-create the burst record.”***

**Normal Operating Parameters**

Minimum pipe size	100mm
Maximum pipe size	No upper limit
Minimum working pressure	No lower limit
Maximum operating pressure	16 bar (higher test pressures are possible – please ask)
Maximum survey length	2000m
Accuracy:	
Location	+/- 0.2m
Depth	+/-0.5m

The technique uses the flow of water to carry the sensor through the pipeline. The sensor is mounted on an umbilical cable so results are obtained immediately - allowing the precise location of any features identified to be marked during the survey.

