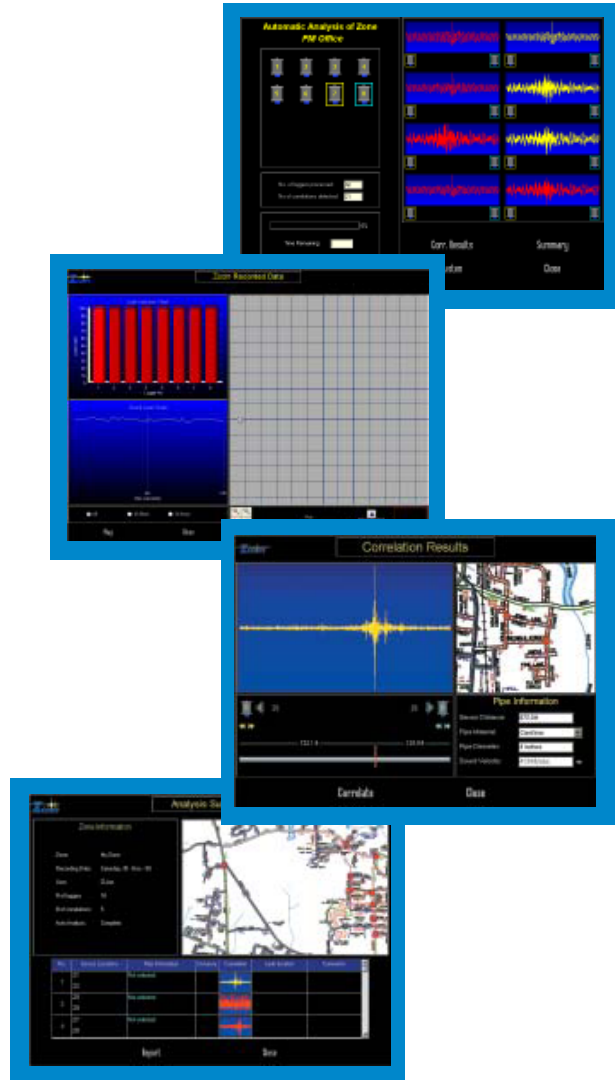


Leak Detection and Audits

ZCorr Advanced Digital Leak Detection System

Using the latest patented digital technology; the ZCorr system revolutionizes and simplifies the leak detection process for buried pipelines. ZCorr utilizes an intelligent listening mode during overnight surveys or during short term recordings during the day, testing pipelines up to four thousand feet at a time using four digital loggers. This system can also remotely run leak detection across pipeline networks anywhere in the world by preprogramming the loggers and transporting them ready to deploy. The data is then analyzed to pinpoint the location of any leaks.



FEATURE	ZCORR	CONVENTIONAL NOISE LOGGERS	PERMANENTLY INSTALLED NOISE LOGGERS
Pinpoints leak	Yes	No	No
Actual audio recording	Yes	No	No
Upgradeable/Reprogrammable	Yes	No	No
Digital mapping	Yes	No	No
Identifies multiple leaks	Yes	No	No
Communication mode	Internet/Docking Station	Docking Station	Drive-by-radio



Leak Detection Equipment

UNILOG Light-Activated Digital Sound Logger

Unilog economically surveys a wide area of a distribution system for leaks. It rules out leakage in most areas, allowing leak pinpointing efforts to be concentrated in areas where leaks are probable. Unilogs can detect leaks with either short-term recordings or long-term recordings. Short-term recordings allow immediate results by doing a single two minute test recording. Long term recordings results are much more accurate. By combining data from multiple night recordings usually over a period of weeks. The fifteen loggers can be deployed at intervals of 250 feet to 2,500 feet apart from each other. The shorter the distance they are apart the higher their sensitivity to leaks.



MLOG

Waterline Integrity Management for the 21st Century

MLog is the first proactive permanent tool for continuous assessment for pipeline integrity. The network of intelligent, leak detecting sensors monitor the entire water distribution system 365 days a year. Every night MLog sensors analyze sound patterns in their environment, detecting new, evolving and pre-existing leaks automatically.

Sensor units are maintenance-free, rugged, waterproof and battery powered (10 year life). They have digital radio transceivers awake 24-hours a day. Transponders will then collect data from up to four thousand sensors automatically during the normal meter reading process showing leak locations.

