Atmos Portable Data Logger for Leak and Theft Detection

A portable and autonomous data logging solution that can be rapidly deployed in those pipelines in which leaks or illicit connections are suspected.

The challenge
There are situations where there is a need to find out quickly where and when a leak or suspected theft is occurring and there is no time or capital expenditure budget for a permanent leak detection system to be implemented. The size of the leak or theft could also be so small that it is difficult for conventional leak detection systems to detect without causing an unacceptable level of false alarms.

Features
- Simple installation procedure
- High resolution, high bandwidth pressure transmitters can be included
- Intrinsically safe and explosion proof options available for the pressure transmitters
- Four hour battery life for areas with intermittent power or for short term data logging

Benefits
- Quick and easy to install
- Rental/service model
- No capital expenditure outlay
- Very small leaks or intermittent illicit withdrawals can be identified and located
- Can be used to show the potential sensitivity and location accuracy of Atmos Wave and Atmos Wave Flow technology (connection to flow meters needed for Atmos Wave Flow), with real leak or theft events or controlled leak tests

System outputs
- Data logged over a period of time
- Atmos analysis service report
What is Atmos Portable Data Logger for Leak and Theft Detection?

Based on many years’ experience of working with leak detection systems, Atmos has developed a range of portable solutions that will facilitate the collection and analysis of data to identify where and when an incident is occurring. The Atmos Portable Data Logger for Leak and Theft Detection is installed on the pipeline and collects the pressure data (and flow if available). It is an autonomous data logging solution that can be rapidly deployed in those pipelines in which leaks or illicit connections are suspected, enabling the use of Atmos Wave and/or Atmos Wave Flow capabilities to detect and locate leaks and thefts. The data analysis takes place in Atmos servers, and the results are given by means of reports. It is also an effective temporary solution to mitigate the risk of illicit connections and determine the potential performance of a permanent leak detection system.

The Atmos Portable Data Logger kit is supplied in a protective case that contains one netbook for recording data, an Atmos AWAS-3 data acquisition unit, a power converter, an intrinsically safe barrier and a GPS antenna. In addition, it can be supplied with a high resolution, high bandwidth pressure sensor (for enhanced data quality), which is available in intrinsically safe and explosion proof protection levels. Otherwise, the kit is connected to the existing pressure (and flow) transmitters in the line.

The installation is made either by Atmos or the client and the data logger collects the data and stores it locally. A minimum of two kits per pipeline section is needed.

The acquired data can be retrieved by two different ways, either by directly copying the generated data files from the netbook using an external hard drive device, or by remote access using mobile broadband modems connected to the netbook computer of the data logger kit (provided there is mobile broadband coverage).

Once the data has been collected and sent to Atmos, it will be analyzed to identify and locate leak and theft events using the most advanced processing techniques available.

Atmos Portable Data Logger for Leak and Theft Detection enables rapid access to Atmos technologies and expertise to facilitate safe pipeline operation.