Atmos Pig Point

Product overview

Atmos Pig Point works by inserting a bi-directional brushed cup pig into the pipeline during shut-in (static conditions) and allowing the pig to slowly move along the pipeline to a pre-defined distance. The bi-directional brushed pig provides a tight seal within the pipeline to effectively separate and monitor the pressure difference between the front and back of the pig. The pig is bi-directional allowing it to be retracted if the pig passes the suspected leak to accurately locate that leak. Additional pig runs can increase leak location accuracy.

The technique creates a pressure differential across the pig allowing observation of the change in pressure as the pig travels through the pipeline, similar to a hydrostatic test.

The pig is moved to a pre-defined distance in the pipeline, and the pipeline is then pressurized up to 1.5 times the design pressure. The pressure is then held for a specific time period and evaluated by the Atmos software, monitoring the rate of pressure decay between the front and back of the pig to determine the presence of a leak. If no pressure change is observed, the pig is moved further along the pipeline section and the procedure is repeated.

Figure 2 and 3 show pressure data from a pipeline using the Pig Point technique.

The Atmos International Portable Data Logger kits collect pressure data at the beginning and the end of the pipeline segment under inspection.

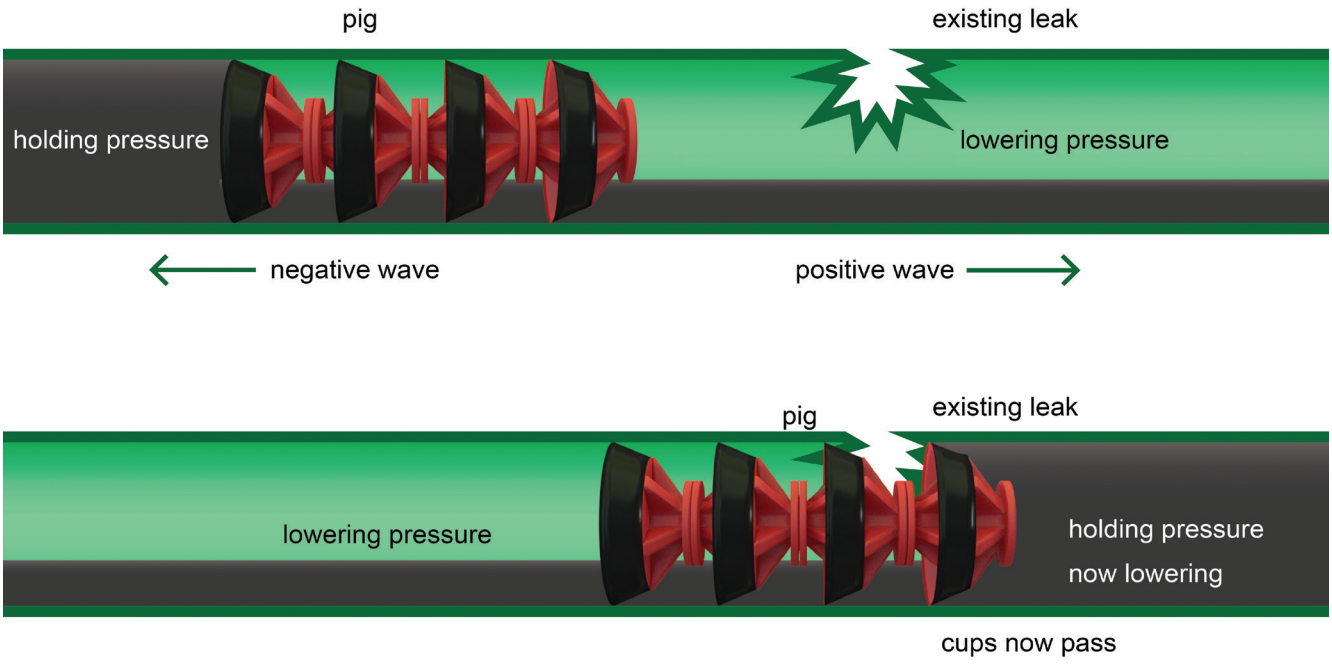

Figure 1 Schematic Diagram showing pig movement and pressure changes

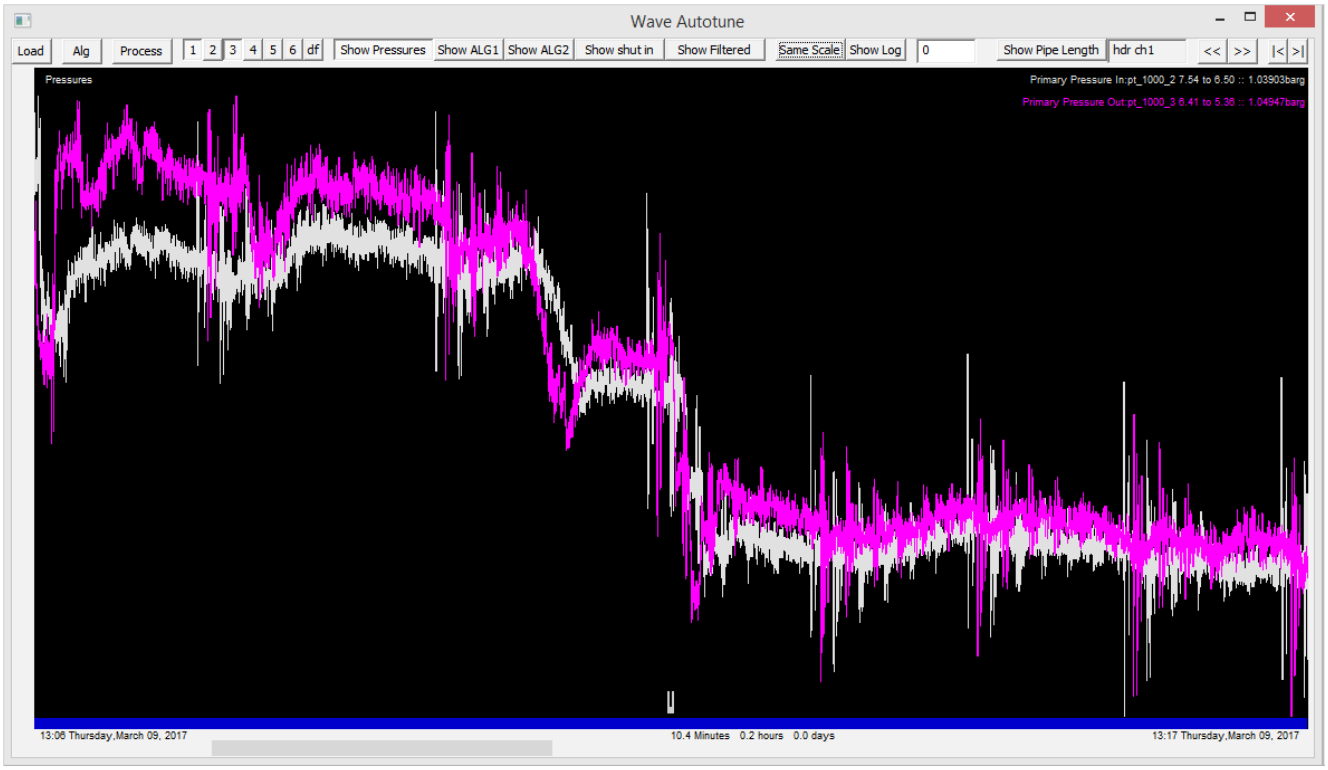

Figure 2: Pressure indication of the pig being moved in a pipeline

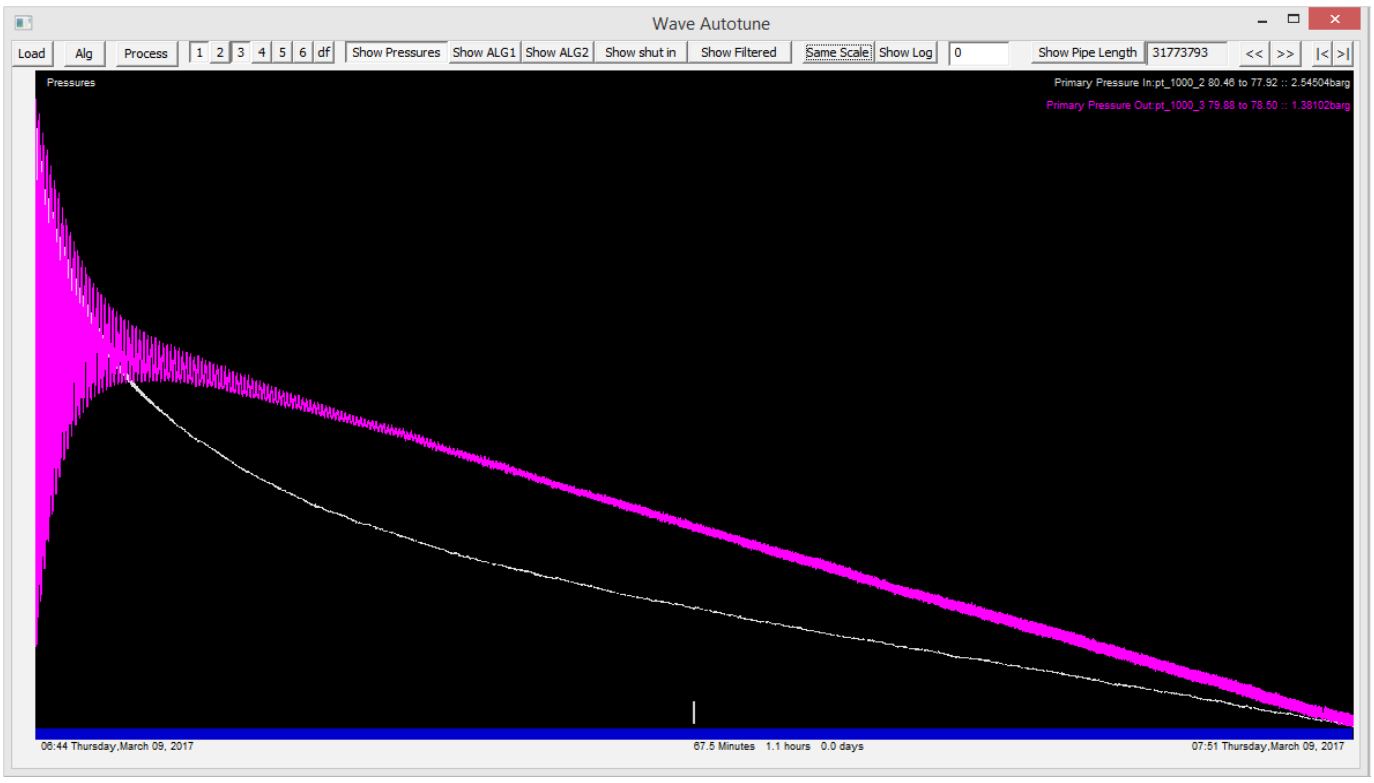

Figure 3: Pressure decay caused by a leak present in the pipeline

Equipment

Atmos International Portable Data Loggers and high-speed pressure transmitters are connected on both ends of the pipeline segment under inspection to collect the pressure data and pass the data to locally positioned laptops that perform the data analysis.

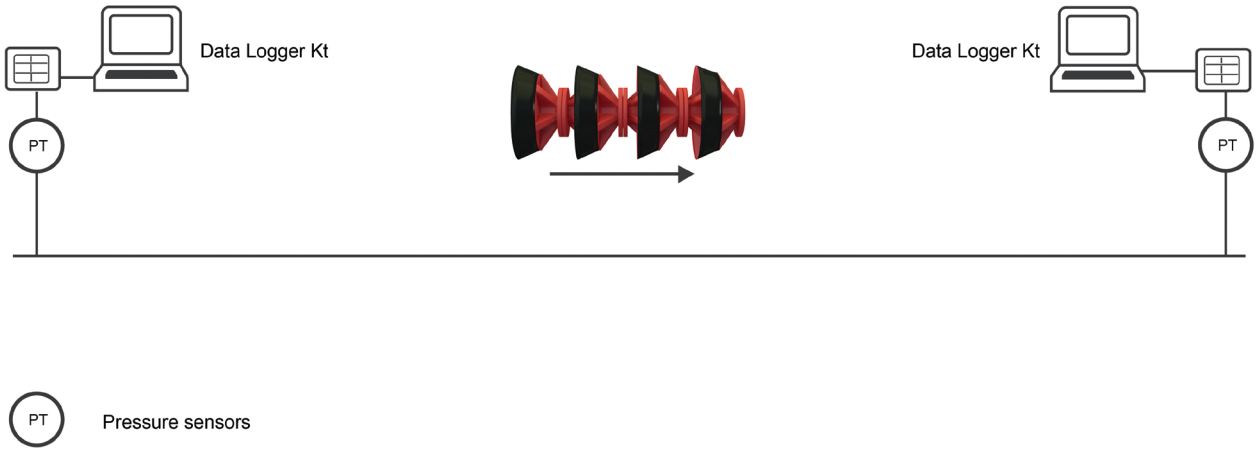

Figure 4: Example of a Pig Point configuration

Figure 5: Leak detected on a pipeline in Oman using the Pig Point technique

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ATMOS INTERNATIONAL

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About Atmos International

Founded in 1995, Atmos International provides pipeline leak and theft detection, simulation technology, instrumentation and engineering services to the energy, water and associated industries. Atmos is the first choice of most pipeline companies worldwide, and is extensively used by major operators like Shell, BP, ExxonMobil, Petrobras, Enbridge and Total. With associated offices in the USA, China, Russia, Singapore, Indonesia, Colombia, Ecuador, Peru and Costa Rica, and local agents in 28 countries, our multi-cultural and multilingual team is dedicated to effective global support for the lifetime of our products all around the world.

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