

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.

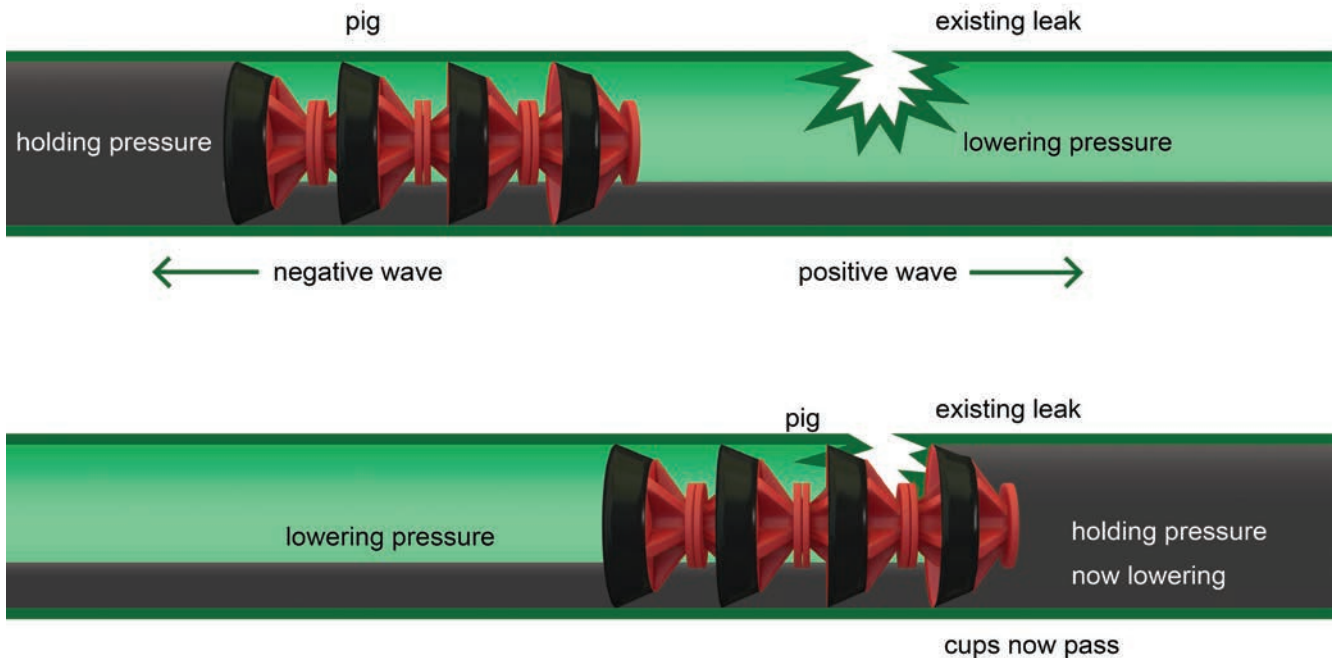


Figure 1 Schematic Diagram showing pig movement and pressure changes

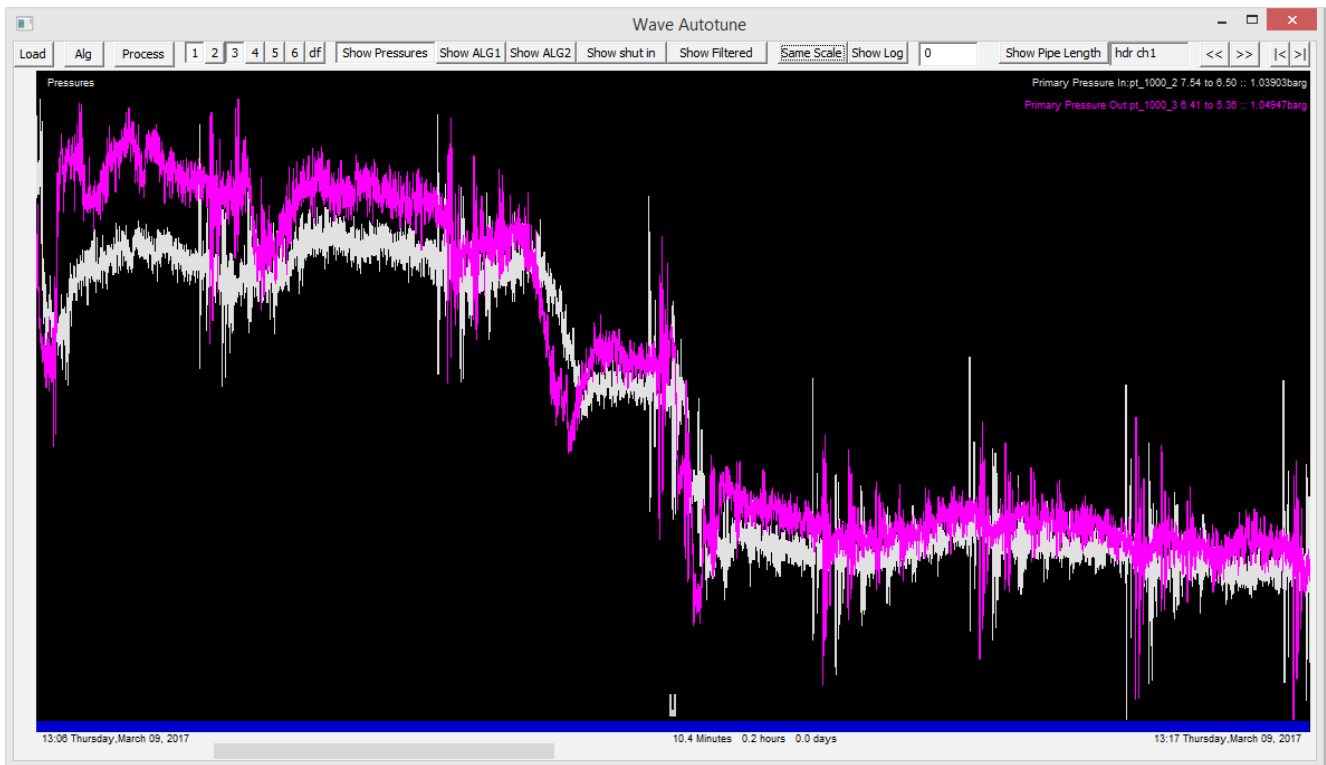


Figure 2: Pressure indication of the pig being moved in a pipeline

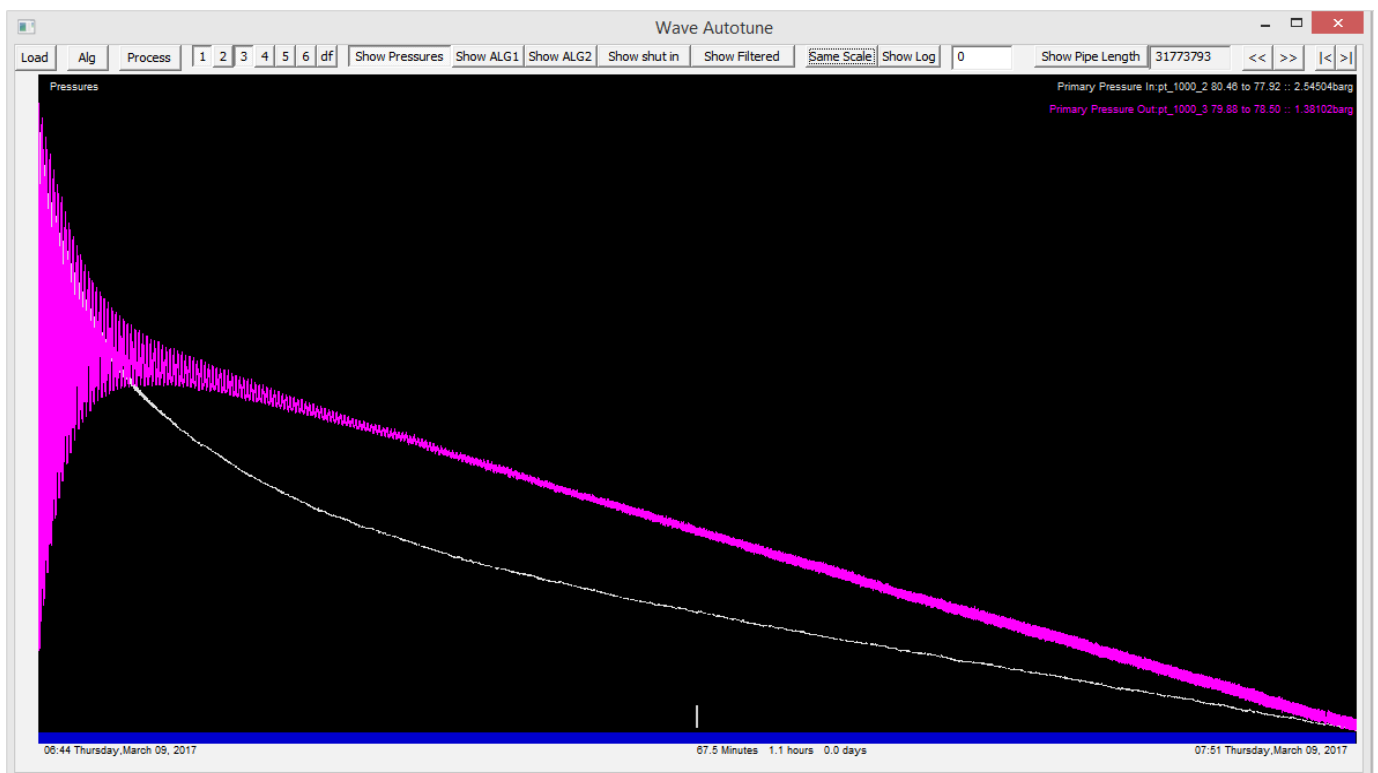


Figure 3: Pressure decay caused by a leak present in the pipeline

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

Atmos International
Email: info@atmosi.com

UK
St Paul's 781 Wilmslow Road
Manchester M20 2RW
Tel: +44 161 445 8080
Fax: +44 161 434 6979

USA
14607 San Pedro Avenue Suite 290
San Antonio TX 78232 USA
Tel: +1 210 562 3164
Fax: +1 714 520 5326

3100 E. Miraloma Ave Suite 240 D
Anaheim CA 92806
Tel: +1 714 520 5325
Fax: +1 714 520 5326

Latin America S.A.
Edificio Murano
piso 2 oficina 23
147 Radial
200 mts N. de la Cruz Roja
Santa Ana San José
Costa Rica 10901
Tel: +1 (714) 783-3962

People's Republic of China
705 RuiChen International Center
No13 Nongzhanguan South Road
Chaoyang District Beijing 100027
Tel: +86 10 65033031- 808
Fax: +86 10 65033085

Russian Federation
Office 1012, 1013
Marshal Rybalko St. 2
Moscow 123060
Tel: +7 499 918 4140

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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 over the world.

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