## **Crude Oil And Mercury Don't Mix**

**INNOVENE GRANGEMOUTH CALLED UPON ABLE INSTRUMENTS & CONTROLS LIMITED TO ASSIST IN DETECTION** OF MERCURY CONTAMINATION IN CRUDE OIL STREAMS

ABLE's highly sophisticated Jerome 431-XE Mercury Analyser uses a patented gold film sensor for accurate detection and measurement.

This portable hand-held unit can easily be carried to locations where mercury may be present, for applications such as industrial hygiene monitoring, mercury spill clean up and mercury exclusion testing. Simple, push-button operation allows users to measure mercury levels from 0.003 to 0.999 mg/m3 in just seconds.

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The Occupational Hygiene Specialist

The gold film sensor is inherently stable and selective to mercury, eliminating interferences common to ultraviolet analyzers, such as water vapor and hydrocarbons. When the sample cycle is activated, the internal pump in the 431-XE draws a precise volume of air over the sensor. Mercury in the sample is absorbed and integrated by the sensor, registering it as proportional change in electrical resistance. The instrument computes the concentration of mercury in milligrams per cubic meter or nanograms, and displays the final result in the LCD readout. An improved film regeneration circuit in the 431-XE makes for increased sensor longevity.

A Jerome Analyser is used around the Grangemouth site, within many of the different plants, measuring the mercury vapour levels in oil pipelines and also storage vessels.

"Levels of mercury in crude oil vary depending on the source of the oil. The Grangemouth site sources its crude oil feedstocks from around the world and these may contain differing levels of mercury within them." says an Occupation Hygiene Specialist working at the Innovene site. He goes on to say, "The main importance of mercury measurement is to protect employees' health. There are certain strict limits to which we adhere. If the levels detected exceed these, we change the way in which we carry out certain operations, for instance issuing breathing apparatus."

The Occupational Hygiene Specialist also confirms that "the Jerome is used because the analysis is almost instant. With other methods, the samples have to be sent to laboratories for analysis, which simply takes too long"

For further information regarding this application story please contact ABLE on Tel: +44 (0)118 9311188 or e-mail info@able.co.uk.

