

Advanced Technology Driving Change

WiTAP™ Heap Leach Operations Monitoring System

FEATURES

- Sealed and rugged devices for underground environments
- Complete turn-key underground Heap Monitoring Solution
- Small size and easy installation
- Web based delivery of data and reports
- Heap sensors include:
 - Moisture, Compaction, Temperature
- Low power
- Integrated battery can power device for years
- Redundant data storage
- Network status (e.g. battery, RF link quality)
- Simple and intuitive web reports
- Intrinsically safe

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BENEFITS

- Fast and easy to install
- Highly reliable and available
- Monitor underground locations
- Non-intrusive to normal heap operation
- Available on desktop and mobile devices
- Worldwide remote access to sensor data

APPLICATIONS

- Predict gold and other metals yield
- Monitor irrigation
- Monitor Heap stability
- Detect liner leaks
- Remediate Heap
- Compliance

GENERAL DESCRIPTION

Scanimetrics provides a complete industrial Internet of Things ("IoT") solution including wireless hardware and data analysis, for assessing Heap Leach operations and predicting yield and failure. The system measures moisture, compaction and temperature of ore deep inside the heap of a heap leach operation. The data is aggregated from the sensor network to the Scanimetrics' MoteScan™ cloud, analyzed and made available through a web application. The heap leach reports are used to increase productivity, improve safety, lower life-cycle cost and improve regulatory compliance. The products work in extreme environmental conditions for applications harsh environments such as open pit and underground mining, on shore and off shore production of oil and gas, wind energy production, pipeline integrity and public safety. The products have been used in Canada, the United States, Mexico and Chile.

Scanimetrics' Wireless Monitoring System provides a turn key web based measurement system with wireless data acquisition. It combines a sensor network of "WiTAP™ Motes" which acquire data and transmit the data to an internet gateway. Data is streamed wirelessly to the Scanimetrics' MoteScan™ Cloud. The WiTAP™ motes can be <u>embedded inside</u> the heap. The WiTAP™ devices incorporate a battery, eliminating the need for an external power supply.



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Once the WiTAP™ mote has been activated, it can be configured to provide years of continuous operation. The gateway can be located away from the WiTAP™ sensor network to receive the data being transmitted. The wireless WiTAP™ motes operate as a mesh network and can relay data between the internet gateway and other WiTAP™ motes which are not directly reachable by the gateway. This enables WiTAP™ motes to be placed deep inside machinery and still be accessible by the internet gateway.

Operators can be kept informed by email, text message, or web update when critical parameters are outside their normal operating range.

STANDARD SPECIFICATIONS

Operating Temperature Range -40 °C to +85 °C

Data Acquisition Rate 1 sample per minute

Maximum Wireless Operating Range 150 metres (extendable with repeaters)

Maximum Battery Life 2 years of continuous operation (See Note 1)

50 million samples

Modes of Operation Real-time data display, unaccompanied alarming, data logging and

data transmission

Sensor Types Supported Moisture, compaction and temperature

Size 9.5 cm x 5 cm x 3 cm (3.8" x 2.0" x 1.25")

Weight 110 g (4 oz)

Wireless Module Housing Sealed urethane compound (water and chemical resistant, built to

IP67 standard)

Wireless Module Mounting Method Underground

Certifications FCC and Industry Canada 900 MHz non licensed ISM band, ETSI 868

MHz non licensed SRD band

OPTIONS

Extended Life Battery Double the capacity

Sensor Types Vibration, Acceleration, Tilt,, Ultrasonic

Certifications Intrinsic Safety (Zone 0 or Class I, Division 1)

Note 1: Battery is rated for 50 million samples or 2 year of operation, whichever occurs first.

All specifications subject to change without notice

For more information on Scanimetrics' products, please contact:

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