

## Product: Kittiwake Moisture Sensor for Diesel engine Applications

## User: Korea Electric Power Corporation

The Korea Electric Power Corporation (KEPCO) uses various MAN B&W diesel engines lubricated by GSCaltex oil. The Diesel engine generator continuously supplies electric power for the islands of Korea. In the past, these engines have had occasional trouble with corrosion of crosshead bearings and other system parts due to excessive water ingress and contamination of the lube oil system.

KEPCO researched available options and made the decision to install sensors in the lube oil flow to monitor the ingress of water and ultimately prevent the damage caused by corrosive wear of the overlayer and crosshead bearing. Solge, Kittiwake's exclusive agent in Korea have stated that Kittiwake's reputation for quality and service along with the Solge catalogue and website helped KEPCO make the decision to work with the ANALEXrs Moisture Sensor.



Solge have now supplied and installed more than 60 Kittiwake Moisture Sensors on lube oil return lines of the KEPCO engines to continually monitor the humidity level of the oil.

The digital outputs provide maintenance engineers with actionable and trend-able readings which can be used to improve maintenance scheduling, minimise wear of the bearings and detect ingress of water.

The sensors have provided an early warning system which allows the engineers to remove water or change the oil limiting damage until the next maintenance opportunity, and extending the life of the oil.

In one instance the sensors enabled the KEPCO staff to decrease lubricant failure by up to 50% which represented an annual saving of over **\$150,000**.

Kittiwake's Moisture Sensors have given KEPCO the opportunity to react instantly to water problems and optimise the electric power supply for islands of KOREA.



### About the KEPCO

Staff: 20,898  
 Engine: Man B&W  
 Power: Total 303 MW  
 Service: Electric power  
 Year Built: 1982  
 Web: [www.KEPCO.com](http://www.KEPCO.com)

### Benefits

- Avoid bearing damage due to excessive water contamination
- Optimise lube oil consumption
- Early warning allows real-time detect and repair while damage is at a minor level.
- Detect the ingress of water in real time.
- Improved maintenance scheduling and decreased sampling & testing costs.

### Comments

**KEPCO says**  
*"Kittiwake's Moisture Sensors contribute to a stable electric power supply for islands of Korea"*