



# FLIR

## APPLICATION STORY



**Lindum**  
Ressurs og Gjenvinning AS



## FLIR Systems ThermoCAM™ GasFindIR™ infrared camera spots methane leaks, prevents uncontrolled gas venting and keeps air clean at Norwegian landfill

*Economic and environmental concerns push for an increasingly streamlined waste disposal, treatment, neutralization and recycling process. Waste treatment companies increasingly turn into energy suppliers. The GasFindIR gas detection infrared camera supports these trends by providing immediate and tangible results.*

Lindum Ressurs og Gjenvinning AS, based in Norway, specializes in waste treatment solutions. Lindum follows a consistent waste-to energy conversion by composting, recycling, as well as extracting landfill gas for power production and residential heating. The company's main site at Drammen, one hour drive from Norway's capital Oslo, has a biogas production plant and a huge landfill consisting of selected solid waste covered with clay layers.

The methane gas produced by the landfill is extracted and used for power production and residential heating. Methane is an odourless, environmental harmful gas which is created as a result of pressure formed in the landfill. Moreover, the landfill discharges hydrogen sulphide (H<sub>2</sub>S) a malodorous gas that at times annoys surrounding residential areas.

To detect relevant leaks, Lindum decided to procure a FLIR Systems ThermoVision GasFindIR, an infrared camera that traces and visualizes about twenty Volatile Organic Compound gases including methane.

The landfill, with a surface of approx 10 hectares, is inspected twice a week at dawn for about one hour. The GasFindIR instantly shows gas leaks, visualized in black or white smoke. Landfill workers then cover the leaks with clay and an ironed mass to neutralize the sulphide odours.

The GasFindIR is also used for inspection of the biogas production piping on a weekly basis. And the Lindum company, convinced of the camera's benefits is offering inspections with



Gas leak on land fill surface

its GasFindIR to other landfill companies, as imagery can be easily recorded by a standard video recorder and stored.

"The GasFindIR's efficiency can be measured easily: we find some four to five leaks per week and we have been able to reduce the foul odour development considerably", says operations manager Aud Helene Rosenvinge.

"We consider the GasFindIR both a maintenance and a safety instrument that has become indispensable", says Rosenvinge, adding that she estimates cost savings at a minimum of EUR 12,000 per year.

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