



# **NEW ERA OF LEAK DETECTION FOR GEOMEMBRANES**

**ELIS TECHNOLOGIES LIMITED**

**Company Presentation**



# More than 25 years of leak detection experience

ELIS Technologies offers advanced geomembrane leak location services and products.

Established by a team of geomembrane leak detection professionals, ELIS Technologies offers more than 25 years of leak location experience. Our expertise has been utilized and applied all over the world, ranging from waste storage sites in Canada, municipal landfills in the Czech Republic, tailings ponds in Jordan, to geomembrane liner sites in South Korea.

ELIS Technologies offers a wide spectrum of geomembrane leak location services and products to cater to the vast majority of leak location audiences. We help customers with both exposed as well as covered geomembrane liner leaks.

Why  
ELIS? (1)



**ELISTECH**  
INTELLIGENT LEAK DETECTION

# Improved geomembrane monitoring technology

Solutions provided by ELIS have been specifically designed to improve efficiency and accuracy of the leak detection process.

## Main advantages

- High efficiency when identifying leaks
  - saves time and produces fast results, thus limiting the interruptions to client operations
- Higher levels of automation
  - eliminating human error in the process
- Use of GPS precision tools
  - ensures that the entire site is fully surveyed
- Advanced software technology (AST)
  - AST enables better data interpretation
- Personnel friendly design
  - less fatigue for human operators means higher productivity and speed

Why  
ELIS? (2)



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# ELIS as an R&D partner

**Solutions provided by ELIS tech are not limited to the standard products and services portfolio. Thanks to our extensive experience with leak detection we are able to provide custom-made solutions to many of our clients.**

**Due to complexity, many projects require individual approach. Be it an intricate design of the project, hard-to-access location or similar challenge, ELIS always strives to deliver a solution that will help the operator with any leak detection challenge they may face.**

**Why  
ELIS? (3)**



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# ISO 9001:2015 Certified

**Design, production, sale and service of devices in the field of geomembrane integrity monitoring.**

**Provision of services in the field of geomembrane integrity monitoring.**

**Why  
ELIS? (4)**



**ELISTECH**  
INTELLIGENT LEAK DETECTION

**eLagoon**  
**eRover**

**eRex**

**eRaptor**

**eFix**

**eDipole**

**ELIS Products and  
Services Portfolio**



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## **eRex Technology**

**Ultraportable Arc-Tester for leak detection on exposed PVC, TPO, HDPE, LDPE, rubber, bitumen and similar non-conductive materials.**

**Technician performing a leak detection survey on a PVC roof liner.**



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- **Compatible with a multitude of materials up to 7mm:**
  - **PVC**
  - **TPO**
  - **HDPE**
  - **LDPE**
  - **rubber**
  - **bitumen**
  - **similar non-conductive materials**
- **Ultra-light and portable**
  - **only 650g**
- **Built-in battery**
- **Solid battery life**
  - **more than 1,5 hrs of spark production**
- **Visual alert for leaks**
- **Fast deployment**
- **Easy to use**

## eRex Features



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## **eRaptor Technology**

**Advanced Arc-  
Tester for leak  
detection on  
exposed PVC, TPO,  
HDPE, LDPE,  
rubber, bitumen  
and similar non-  
conductive  
materials.**

**Technician  
performing a leak  
detection survey on  
a bituminous roof  
liner.**



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Functions/Type	eRaptor	eRaptor +	eRaptor + GPS
Exposed geomembrane monitoring	✓	✓	✓
Mobile phone with ELIS app		✓	✓
Survey tracking		✓	✓
Automatically generated report		✓	✓
RTK GPS			✓

## eRaptor Types



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- **Compatible with multitude of materials**

- **up to 30mm:**

- PVC
- TPO
- HDPE
- LDPE
- rubber
- bitumen
- similar non-conductive materials

- **Light and portable**

- **Built-in battery**

- **Solid battery life**

- more than 12 hrs of spark production

- **Visual and sound alert for leaks**

- **Display with easy menu**

- **Automatic report generation**

- **Advanced software system for leak location**

- **Active GPS tracking (eRaptor+)**

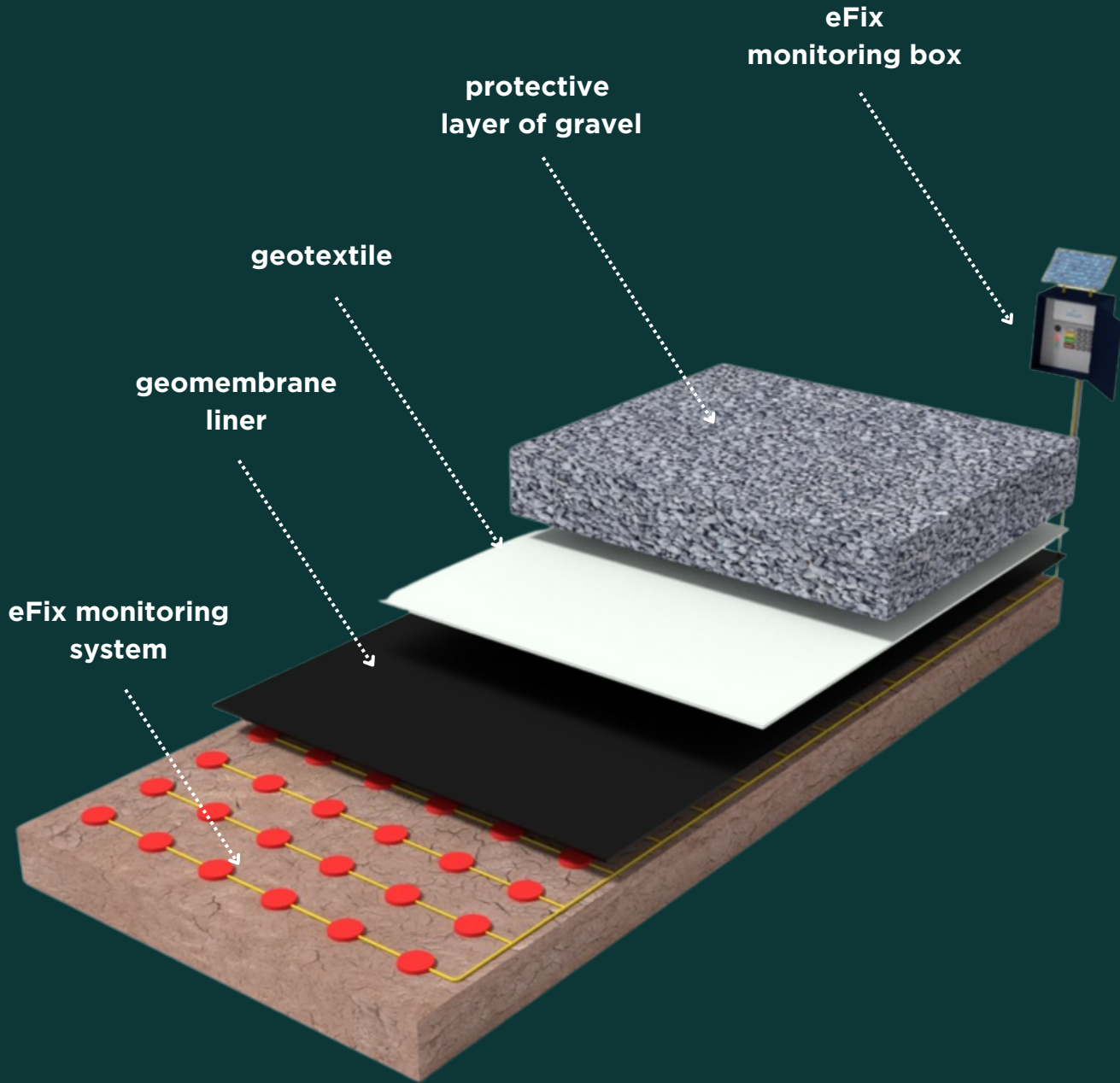
- **Fast deployment**

- **Easy to use**

## eRaptor Features



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## eFix Technology

Permanent leak detection system installed underneath the monitored geomembrane capable of leak detection throughout the lifetime of a project.



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# eFix

## eFix comes in three configurations:

### Offline eFix

Offline eFix is the basic version. It is capable of monitoring the project throughout its expected lifetime. Every survey requires technician to come on site and collect data. Data is then sent to ELIS and processed. Customer then obtains a leak detection report.

### Semi-automatic eFix

Semi-automatic eFix is the mid-range product. It is capable of monitoring the project throughout its expected lifetime. This model is capable of autonomous data collection. This means that no technician is required on site for survey. Data is then sent to ELIS and processed. Customer then obtains a leak detection report.

### Automatic eFix

Automatic eFix is the flagship product. It is capable of monitoring the project throughout its expected lifetime. This model is capable of autonomous data collection and data evaluation. This means that no technician is required on site for survey and the site can be monitored 24/7. Customer has instant access to leak detection data.

## Types of eFix



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## Automatic eFix

eFix automatic monitoring box during installation.



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## **eLagoon Technology**

**Aquatic AI-  
powered drone  
capable of leak  
detection on  
submerged  
geomembranes.**

**eLagoon drone  
performing a leak  
detection survey on  
a liquid storage  
pond.**



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## Survey area

- liquid depth up to 6m
- up to 20 000m<sup>2</sup> of surveyed area in 8 hours

## Battery life

- up to 8 hrs (replaceable)

## Operating temperature

- 5 - 42 Celsius

## Deployment time

- < 1hr

## Max waves

- up to 10 cm

## Service interval

- every 2160 survey hours

**eLagoon  
Specs**



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## **eRover Technology**

**Land**  
**AI-powered drone**  
**capable of leak**  
**detection**  
**on exposed and**  
**covered**  
**geomembranes.**

**eRover with a**  
**discovered**  
**geomembrane**  
**damage on a newly**  
**constructed landfill**  
**site.**



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## **Survey area**

- cover material depth up to 1m
- up to 20 000m<sup>2</sup> of surveyed area in 8 hours

## **Battery life**

- up to 8 hrs (replaceable)

## **Operating temperature**

- 5 - 42 Celsius

## **Deployment time**

- < 1hr

## **Restrictions**

- deep water puddles

## **Service interval**

- every 2160 survey hours

**eRover  
Specs**



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## Manual ELIS GPS eDipole Kit

Dipole testing allows technicians to identify faults in the geomembrane material covered by sand or other similar materials. GPS tracking provides coordinates of the discovered leaks.



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## Features

- **Light and portable**
- **Active GPS tracking**
- **Data logger**
- **Highly accurate**
- **Portable**
- **Short deployment time**

## Survey speed

- **1 technician capable of covering about 10 000 m<sup>2</sup> in 8 hours**

**Manual  
ELIS GPS  
eDipole**



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**Learn more at  
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