it’s good to trust, but you may prefer to verify
Regardless of your industry, you invest great amounts of time, manpower, and money to manage your resources, run a profitable operation, and balance the demands of regulatory requirements while providing quality service to your customers. Because you can’t afford the cost of a shut down, heavy fines, legal fees, or product loss, you take every step necessary to ensure the integrity of your lining system. But once installation is complete, how will you demonstrate to regulators and others that the system is performing in order to minimize liability?

**THE NEXT LEVEL OF ASSURANCE**

GSE Leak Location Liner System has proven to be the most effective method for locating and quickly repairing leaks before a facility is put into operation. It is more difficult to detect leaks that develop during operation-related activities or as a result of changes in subsurface conditions. The GSE Liner Integrity Monitoring System is the newest advance in a long history of innovative products from GSE. It provides the next level of quality assurance and risk management: continuous, long-term monitoring of a geomembrane system for early detection of leaks.
LONG-TERM RELIABILITY

The system works by measuring the electrical fields above and below GSE Leak Location Liner using electrical sensors embedded in the geomembrane. The custom developed software reads these measurements from the site and stores the information in the database. When electrical current is introduced below the liner and the system does not detect any change in the electrical field above the liner, the geomembrane is secure and liner integrity is confirmed. If the liner is damaged, the change in electric current will signal a leak. This process is repeated in cycles to continuously monitor the site and provide real-time information to the operator.

The GSE Liner Integrity Monitoring System Consists Of Three Main Components

GSE Leak Location Liner
A white or black, high performance geomembrane with an insulated conductive bottom layer that, when installed with the GSE IsoWedge, enables the most reliable Electrical Liner Integrity surveys on both covered and exposed geomembranes, across seams, on slopes, and over wrinkles.

GSE Modules
Each GSE module consists of one sensor and one source within a high quality HDPE casing designed to be embedded directly into GSE Leak Location Liner through extrusion welding. The sensors are proven to have the same durability and long lifespan as the liner.

GSE Central Monitoring Unit
The GSE modules are connected by a durable cable to Data Acquisition Units which are stored together in the GSE Central Monitoring Unit, which interprets the site data cycle after cycle and makes them available at one glance. All data is stored in a database and can be accessed anytime via secure wireless networks or remotely via an internet connection.
WHEN YOU NEED TO BE SURE

GSE Liner Integrity Monitoring System will add another layer of protection to any application where you can’t afford a leak. The system can help mitigate the risk of environmental pollution, which is a deep concern to owners of landfills, mines and industrial sites. It can also help protect against expensive solution loss in mining applications or help preserve fresh water resources on fracking and other water storage sites. Whatever the application, if you have a critical need to ensure the integrity of the lining system, the GSE Liner Integrity Monitoring System can do the job.

KEY BENEFITS

• GSE modules are embedded directly into the GSE Leak Location Liner from the top with the connection cable positioned above the liner. This allows for easy maintenance and repairs.

• GSE Leak Location Liner requires only one sensor per every 3,000 m2 of liner surface.

• GSE Central Monitoring Unit can pinpoint damage to a practical and desired accuracy, making it easy to find and repair leaks in time.

• GSE Liner Integrity Monitoring System can be installed in new or existing applications or expanded at any time.

• GSE sends a team of experts to the site during installation to ensure the system is working properly and operators are trained.

• All electrical and monitoring components are stored on site for easy access and maintenance.
GSE & LINER INTEGRITY - A History Of Innovation

GSE is known as the innovator in the field of geosynthetics. With quality and forward thinking being part of our DNA, GSE invented the spark testable GSE Conductive* geomembrane more than 20 years ago; leading the way to the future and placing key emphasis on quality assurance early on. Spark testing** is instantly convincing to most, who have seen it work. Building on that live experience with exposed geomembrane the idea was born to extend that functionality to covered geomembrane and make it repeatable over time. So the vision was to provide our clients with an easy to handle data generation network that automatically sends status updates of the geomembrane. With GSE Liner Integrity Monitoring System we have made that vision come true in that it provides reliable proof of liner integrity at any time. The system does all the hard work so you can take a quick glance as needed, but otherwise lets you focus on growing your business. The status updates are delivered as an easy to read color coded site map to your preferred communication device, be that your smart phone, your tablet or your touch screen computer. Great value at what you will find very reasonable cost. Get in touch with our regional business development managers for this product and find out.

* which today is the basis for GSE Leak Location Geomembrane introduced in 2012  **according to ASTM D 7240

The Original Innovators

1982 - First to produce a seamless geomembrane>15’ wide
1988 - First to develop Coextruded Texture
1988 - DRS Texture
1991 - White Surfaced Geomembrane
1992 - Conductive Geomembrane
2012 - High Performance Geomembrane
2012 - Leak Location Geomembrane
2012 - Textured Geomembrane
2012 - CoalDrain Geocomposite
2013 - High Temperature Liner
2014 - Long Term Green Surfaced Geomembrane