



AIMS

ASSET INTEGRITY MANAGEMENT SYSTEM

MAIN FEATURES

- A methodology focusing on sub-surface and surface issues, tailored to the specificities of the Underground Storage Industry,
- A robust and flexible workflow adapted to greenfield and existing facilities,
- Encompassing both the wells and the underground storage itself,
- Optimizing the storage design and performance envelope.

WHY AIMS ?

Asset lifetime can extend beyond 50 years and up to 100 years. Seventy-five percent of the natural gas storage wells in the world, are currently over 30 years-old.

In a more and more competitive market environment, owners want to make the best out of their storage assets. In that context, Geostock, based on its fifty-years? experience as a designer and operator of Underground Storage Facilities has developed a methodology that allows to efficiently address Subsurface and Surface Assets Integrity Management Issues under the dual perspective of optimized safety and performance.

KEY BENEFITS



- Early detection of abnormal events and risk of failure.
- Contingency planning and emergency response.
- Improved reliability through Risk Based Preventive maintenance.
- Improved Asset Safety, Efficiency, Performance, Sustainability and Risk Control.

WHAT IS IT ?

Asset Integrity Management System (AIMS) consists of a comprehensive, flexible, modular workflow encompassing both the wells and the storage space.

THE WELL INTEGRITY MANAGEMENT (WIM) MODULE specifically allows to monitor, review and assess the current status and to predict the evolution of the existing wells, in order to optimize their maintenance process and to keep these wells in optimal operating condition.

It helps in particular to:

- Organize and maintain Well Files for lifecycle analysis.
- Define and organize Monitoring & Controls
- Review periodically the Wells Operating Envelope and evaluate their Remaining Lifetime.
- Specify requirements for Preventive Maintenance based on a risk based prioritization approach.
- Coordinate with all stakeholders involved a maintenance schedule maximizing efficiency through pooling of services, and resulting in minimized downtime and impact on service availability.
- Provide a basis for decision making and for planned and optimized maintenance budgeting & allocation of resource.

THE STORAGE SPACE INTEGRITY MANAGEMENT MODULE follows a workflow similar to that of the WIM module.

Based on monitoring data and specific controls, it allows to:

- Assess the integrity of the storage space (salt caverns, mined rock caverns, porous reservoirs and caprock formations) in terms of stability and of stored product containment.
- Assess and update the inventory and the operating performance through studies and modelling.
- Evaluate the need for and organize specific controls and tests
- Investigate possibility for performance improvement.

