

Natural Hydrogen Exploration

Employing a world-leading database with a mineral systems approach and hydrocarbon expertise to target natural hydrogen accumulations

APPROACH

- Getech has amassed its unrivalled Globe™ knowledge platform of geological observations and interpretations and applied it to natural resource identification for more than three decades.
- Globe™ is underpinned by Getech's world leading gravity & magnetic data coverage, its unique plate reconstruction and paleoclimate models along with spatial analysis and machine learning expertise.
- Globe™ has now also been applied successfully to natural, or geological, hydrogen exploration worldwide.
- Integrating its experience in mineral systems, hydrocarbon exploration and geothermal energy enables Getech to identify natural hydrogen sweetspots, and quantify source, reservoir, seal and structure.

BENEFITS

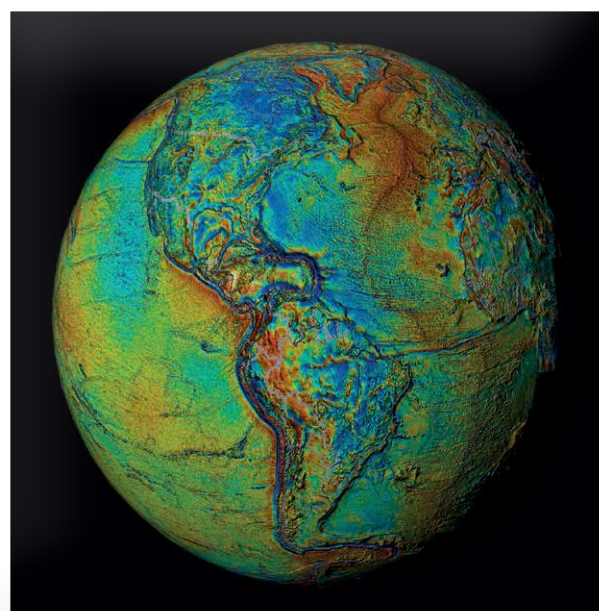
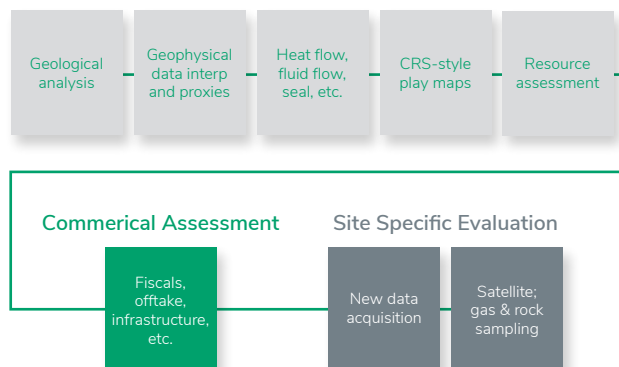
- Genetic criteria for hydrogen accumulations are determined using latest hydrogen generation & migration research.
- Thousands of Globe™ data layers are assessed to identify proxies that represent the genetic criteria (e.g. rock type, thermal gradient, subsurface ophiolites, regional stress field, structures, seals, etc.).
- 'Play Maps' are constructed indicating co-location of positive genetic conditions at each point in a study area to generate regional exploration targets.
- Results are prioritised using extensive geological and occurrence databases, while remote sensing analysis allows detection of surface hydrogen seeps.

EXPERTISE

We can provide the following deliverables as individual components or as part of a fully integrated evaluation:

- **Data Integration** - Globe™ data, combined with complementary data from clients, accelerates exploration for geological hydrogen and helium.
- **Remote Sensing Interpretation** of multiple satellite data sources using traditional and machine learning techniques.
- **Multiphysics Interpretation** of all available data containing rock properties, to define reservoirs and source rocks.
- **Structural Interpretation** by leading experts using unmatched gravity and magnetic data combined with palaeotectonographic reconstructions and stress field analysis to model fault-based migration.
- **Magnetic Vector Inversions** that can significantly improve subsurface potential fields modelling to discriminate causative bodies and their geometries.
- **Geochemical Analysis** in conjunction with a partner to provide state-of-the-art analytical and interpretative techniques.
- **Thermal Mapping and Hydrodynamics** for H2 genesis and transport, interpreted by Getech experts using proprietary thermal gradient and structural models.
- **Hydrogen Generation Quantification** using an array of tools to interpret volume using decades of hydrocarbon experience.
- **Indicative Volume Assessment & Project Economics** - probabilistic and deterministic volumetric scenarios for prospective resource potential and associated economics based on expected exploration and exploitation cost.

Basin Scale Hydrogen Evaluation



TRACK RECORD

Getech enables informed, simplified decision-making using interactive GIS maps, dashboards and apps for cost-effective natural hydrogen and helium exploration.

To learn more about Natural Hydrogen targeting email info@getech.com or visit www.getech.com

ABOUT GETECH

Getech applies its world-leading geoscience data and unique geospatial software products to accelerate the energy transition by locating, developing and operating geoenery and green hydrogen projects.

