# We see energy. Everywhere.

CORPORATE OVERVIEW



See the energy at TGS.com

TGS provides value to the global energy industry by offering the right data, in the right place at the right time. We create value by making geoscience driven investment decisions to anticipate and satisfy energy industry needs.

TGS offers extensive global libraries that include 2D and 3D seismic data, magnetic and gravity data, digital well logs, production data and directional surveys. Additionally, we offer advanced processing and imaging services, interpretation products and data integration solutions.

## **CORE PRODUCT LINES**



### **Geophysical Multi-Client Data**

For more than 30 years, TGS has provided multi-client seismic data to energy companies globally. Over that time we have built experience in exploration areas worldwide, established a vast global database, and become the leading multiclient data provider. We offer the most current data, acquired and imaged with the latest technologies.

In addition to seismic data, our geophysical library includes gravity, magnetics, seep, geothermal, controlled-source electromagnetic and multi-beam data. This library generates over 90% of our revenues and is organized by region: North and South America, Europe and Russia, Africa, Middle East and Asia Pacific.

Our multi-client success begins with excellent project development. When planning new seismic surveys, our first priority is to gain thorough geological and geophysical understanding. Our experienced geoscientists evaluate all available seismic, gravity and magnetic data to set the project objectives and optimize the survey design. We also work closely with energy companies, local governments and geoscience specialists to address each survey's specific challenges. Our process ensures we acquire the right data to meet our clients' needs.



## **Geological Multi-Client Data**

TGS also offers well data products, interpretive studies and services to help energy companies find hydrocarbons. We have the industry's largest global collection of digital well logs, and our U.S. library has expanded to include nationwide production data, directional surveys and a custom well file database. Additionally, we offer clients robust data-application integration, with advanced platforms, interfaces and adapters.

In 2014, we added more than 148,000 new Log ASCII Standard (LAS) wells, 358,000 validated well headers, 238,000 raster logs, 17,000 LAS+ wells, 15,000 DS+ directional surveys, and production data for 114,305 wells. This solidifies our position as one of the largest providers of well data in North America and in over 30 countries worldwide.



TGS Data Library	
2D Seismic	2,573,132 km
3D Seismic	471,560 km²
Wide Azimuth (WAZ)	52,537 km²
CSEM	13,109 km
Multibeam	402,000 km <sup>2</sup>
2D Gravity	1,374,638 km
3D Gravity	96,000 km²
Airborne Gravity / Magnetic	1,404,852 km
Digital Well Logs	8,675,005
Interpretation Studies	114
Seabed / Seep Studies	290,411



## Imaging

TGS employs the latest processing technologies to deliver the imaging products energy companies demand. We invest substantially in developing new proprietary technologies and workflows, which we use to provide imaging solutions directly to clients and to process our own global multi-client database.

TGS has offerings for both 2D and 3D, including depth and time imaging, marine, land, ocean bottom cable and nodes, anisotropic imaging, transition zone, multi-component, shear wave, 4D time-lapse and wide azimuth (WAZ) data processing. Our imaging teams have direct access to our well log database to calibrate seismic and well data.

In 2014, we processed over 375,000 km of 2D and 170,000 km<sup>2</sup> of 3D data from basins around the world. Most of the projects focused on WAZ and broadband processing and anisotropic depth imaging. During 2014 TGS continued to add computer resources and hire the industry's best imaging experts to grow our processing centers in Houston, London, Calgary and Perth.

Recent TGS imaging advances include:

- Clari-Fi<sup>™</sup>: a new processing technique that allows broadband seismic to be generated from narrow or wide azimuth data acquired with either conventional flat towed, slanted, or shaped streamers
- IG Tomo: an image-guided approach to tomography that produces a higher resolution velocity model and better conforms to the structural geology.
- Least Squares RTM (LSRTM), Orthorhombic Kirchhoff, Beam and RTM, and Full Waveform Inversion: the latest depth-imaging technologies
- Shear wave splitting analysis, fracture detection and converted wave imaging: for multi-component data processing
- Shallow Water and Interbed Multiple Elimination, and simultaneous source data processing routines



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