

SURFACE GEOCHEMICAL EXPLORATION & ENVIRONMENTAL BASELINE SURVEYS

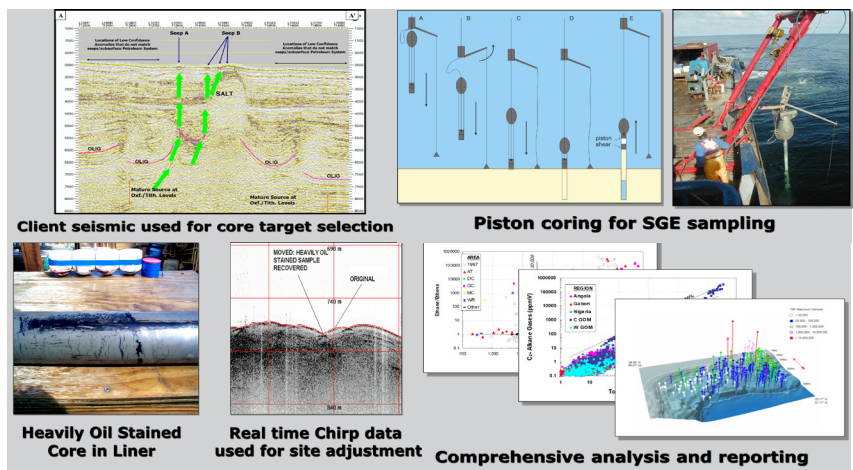
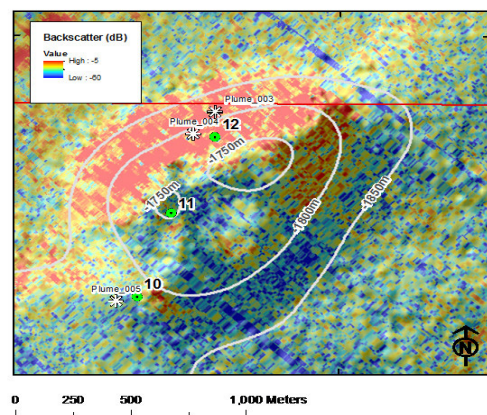
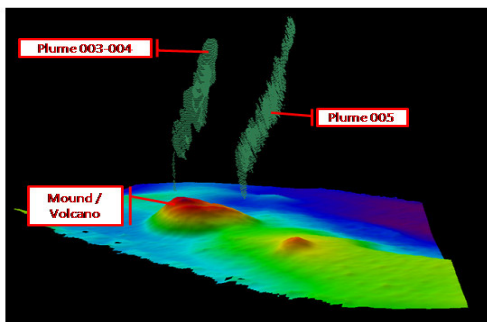
The TDI-Brooks team are experts in conducting offshore Surface Geochemical “Seep Hunting” Exploration (SGE) and Heat Flow programs and Environmental Baseline Surveys (EBS) for the world’s leading petroleum producers. We possess a large collection of global SGE and heat flow program data.

Surface Geochemical “Seep Hunting” Exploration (SGE) is a petroleum prospecting tool based on the premise that upward migrated petroleum from deep source rocks and reservoirs can be detected in near-surface sediments and used to evaluate exploration potential. Deep seismic and multibeam surveys are used to select piston coring locations based on surface expression of deep faults and other features related to conduits for upward migration of hydrocarbons.

TDI-Brooks uses a sequence of specific procedures that we developed and improved over several decades. Our method consistently yields highly accurate identification and a quantitative evaluation of potential sites with migrated oil. Our interpretation of survey results is made even more robust by comparison with our world-wide database of SGE survey results from 100,000+ samples we have collected, analysed, and interpreted over the years.

The science and art of seep hunting involves:

- (1) proper selection of core sites from the seismic records,
- (2) safe and skillful acquisition of seabed cores at these exact sites
- (3) analytically distinguishing promising samples from samples with varying levels of natural background concentrations
- (4) properly interpreting the geochemical results in a geologic context.

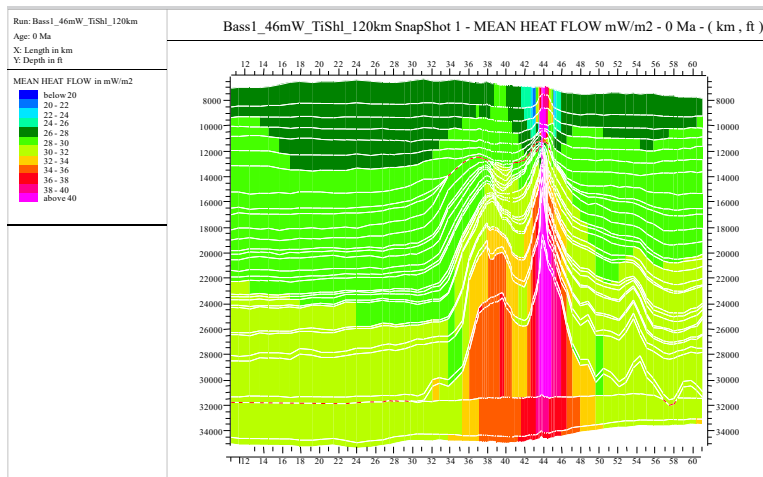
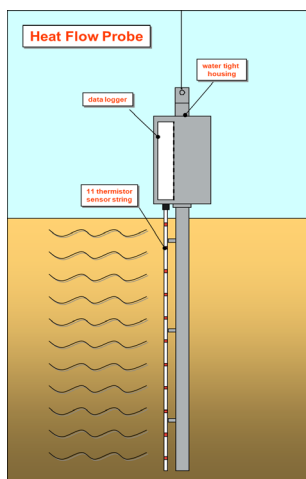


We add our knowledge of historical background levels of the analytes for an area, environmental factors, and any unique characteristics of the region being sampled. The process consists of the following sequential steps: Core Site Selection, Core Acquisition, Laboratory Analysis, and Interpretation.

Surface Heat Flow (HF) Measurements serve critical purposes in oil exploration and production, especially when combined with SGE data. The measured background or equilibrium heat flow, and measured sediment thermal conductivity provide strict constraints to geochemical models that determine regional scale maturation of basins with respect to oil and gas. In addition, area-wide heat flow surveys provide significant geological information on fluid flow from faults, lineaments, and around structures.

"Lister-type" Heat Flow Probe

- 11 Thermistors spaced
- at 50cm intervals
- Pressure Sensor
- Probe °Tilt Sensor
- Water Temp Sensor
- Heat Pulse Source
- Data Logger



Environmental Baseline Surveys (EBS) integrated marine environmental services with ecological surveys and laboratory testing which are often required in offshore prospects as a defence against potential litigation, to satisfy leasing stipulations, and as good faith measures in responsible environmental stewardship.

For a complete project management solution we provide a combination of marine planning, project management, data acquisition, survey, analysis and scientific laboratory services.

The projects involve components such as CTD/rosette water sampling system, box coring for sediment characterization, plankton sampling, SPI camera sediment profiling and bottom photography.

TDI-Brooks' International scientists have been performing EBS studies for clients in the most rigorous regulatory environments in an effort to resolving environmental impact issues in the marine environment.

TDI-Brooks also has extensive experience in conducting offshore geotechnical coring/engineering programs, environmental assessments, metocean, site surveys and seabed surveys.



TDI-Brooks International, Inc.

14391 South Dowling Road.

College Station, TX 77845 - USA

Telephone: +1 979 693 3446

email: info@tdi-bi.com

www.tdi-bi.com



TDI-Brooks is a privately held Texas firm incorporated in 1996 and headquartered in College Station, TX with a remote office located in Houston, TX and strategically located offices around the globe including Port Harcourt, Nigeria (TDI-Brooks Nigeria Ltd.), Rio de Janeiro, Brazil (GSI-Brooks), India and Colombia.