Integrated Structural Study

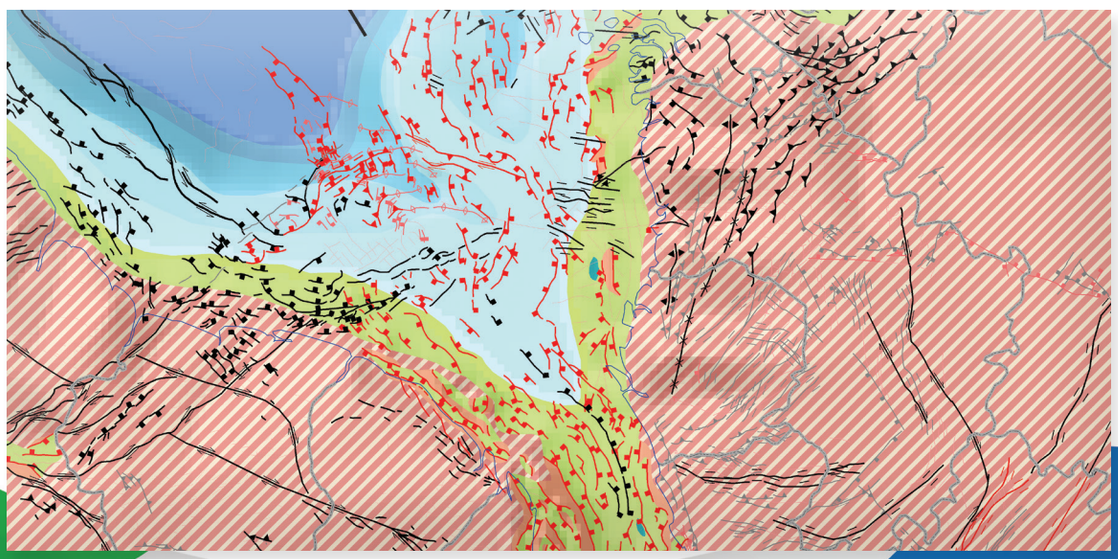
The structural framework of Sierra Leone and implications for hydrocarbon exploration

PDSL - Petroleum Directorate of Sierra Leone
Multi-Client Technical Data, Report and Products

This project will synthesise the Getech Group's regional geological knowledge with their expertise in potential field data processing, interpretation and modelling with the focussed expertise and data of the PDSL for Sierra Leone.

Focusing on the offshore and proximal onshore of Sierra Leone that is the current focus of interest to the petroleum industry, the Study will comprise an integrated analysis of all available gravity and magnetic data, together with selected PDSL and UNCLOS seismic, well and other geological data to map the local structural framework, estimate depth-to-basement /sediment thickness and identify local positive structures and depo-centres. The integration of newly available seismic and well data will give robust constraint to the gravity and magnetic interpretation.

The Study will develop the understanding of the regional geological framework including the relationship with the MSGBC Basin to the north, the influence of the Guinea fracture zone and the connection to the conjugate margin basins of offshore south America. The Report is a valuable partner to other studies in the evaluation of the hydrocarbon potential of Sierra Leone.



Deliverables

ArcGIS Project

- Georeferenced images of all gravity and magnetic data and data enhancements/derivatives/filters (linked new and legacy)
- Locations and images of supporting data where appropriate
- Geodatabase/shapefile of mapped faults (fully attributed and categorised)
- Six 2D profile models hyperlinked within the ArcGIS project
- Depth-to-basement/sediment thickness map from 3D gravity and magnetic inversions constrained by seismic, well and 2D modelling, integrated with the structural interpretation
- Identification of local structural highs and lows
- Identification of anomalous intra-basement and intra-sedimentary basin bodies

Digital Grids and XYZ Files

- All gravity and aeromagnetic data and data enhancements/derivatives grids (linked new and legacy)
- Final depth-to-basement map from 3D inversion

All grids provided in Geosoft .grd and Ascii XYZ format.

Report

- Technical report (in PDF format) detailing the interpretation methodologies, results, conclusions and recommendations.

A full discussion of all technical work with the final conclusions and recommendations will be included in a project report in PDF format, together with a summary presentation in PowerPoint format.

Report Sections

- Executive Summary and Introduction
- Data and Methods
- Geological Setting
- Structural Mapping
- 2D Gravity and Magnetic Modelling
- Depth to Basement
- Crustal Architecture
- Summary and Conclusions
- Appendices

For more information about pricing and availability please contact:
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