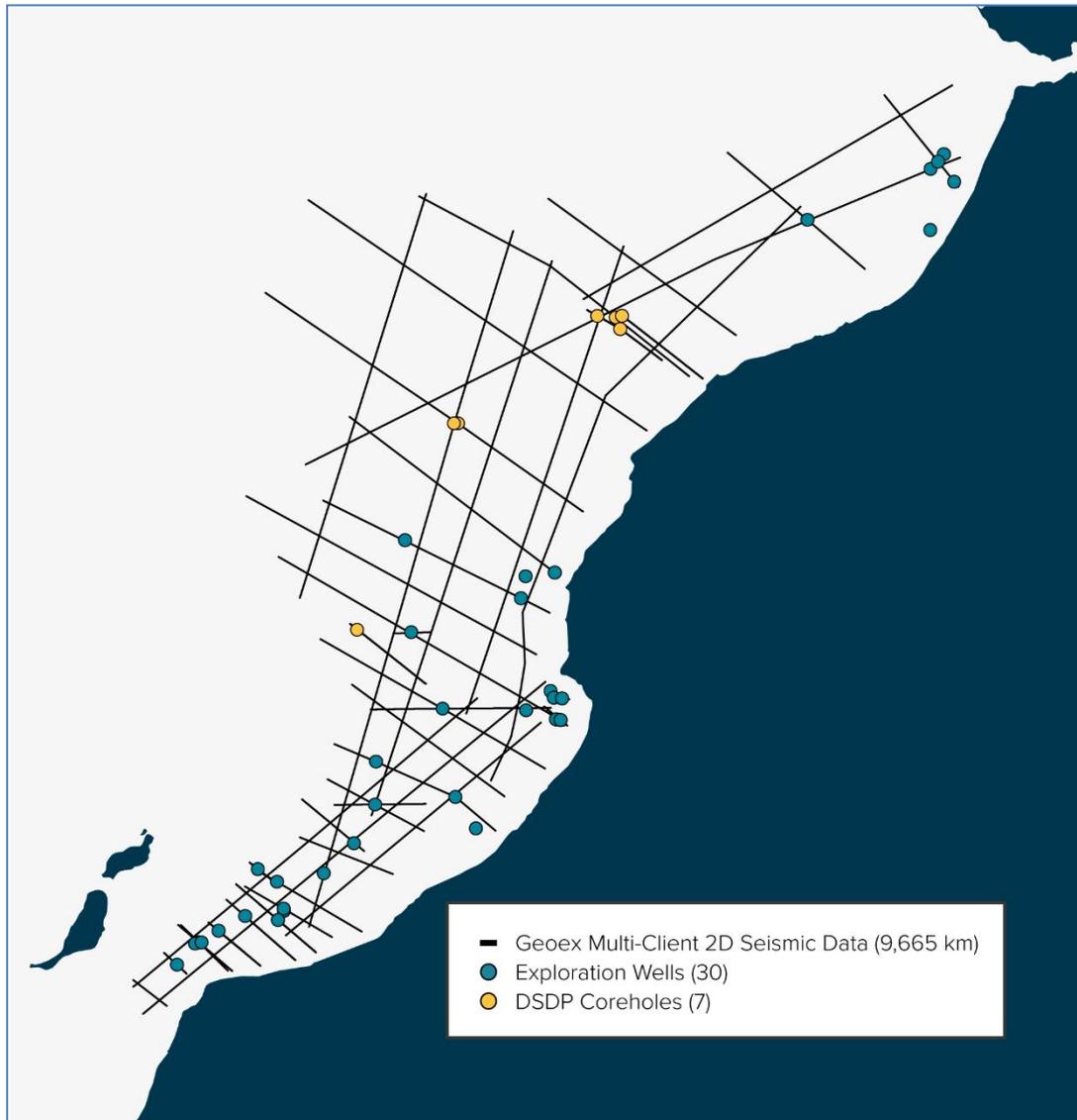


## Preparation of Morocco Atlas

### Background and Objective

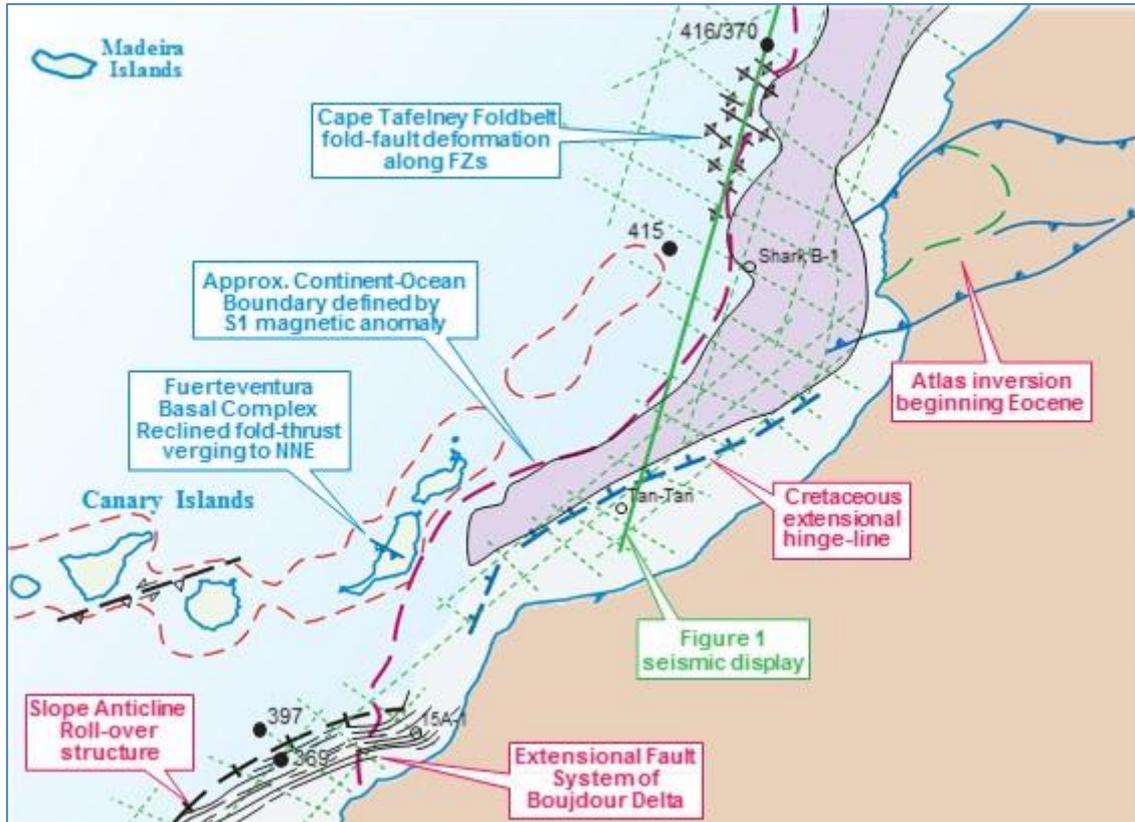
SRC, in collaboration with Bridgeport Limited, is preparing a new Seismic Atlas offshore Morocco on behalf of Geoex, who acquired regional high-resolution 2D seismic and G&M data, tied to released oil exploration wells and DSDP boreholes in the 2018 Morocco Atlantic Margin Well Tie MC2D Survey.



**Basemap**

The seismic data image the continent-ocean boundary and in places show the reflection of the Moho and the internal structural fabric of oceanic crust, and provide new insights into the Late Cretaceous-Tertiary crustal deformational history of the margin extending between continental and oceanic crust. Over the last 20 years exploration wells have unsuccessfully drilled Upper Cretaceous/Tertiary, Lower Cretaceous and Jurassic reservoir targets offshore Moroccan Atlantic. The lack of significant exploration success begs questions about the effectiveness of the petroleum system(s) associated with Mid Cretaceous source rocks. The regional Geoex dataset will allow a re-assessment of the exploration potential of this margin through new regional geological understanding.

The Morocco seismic atlas will provide a regional geological synthesis and stratigraphy drawing on SRC recent proprietary studies in the region and incorporating information arising from the ongoing Eastern Atlantic Oceanic Crusts project (EAOCP), incorporating the new evidence for source rocks in the 'deep' section of the distal domain comes from DSDP information.



**Proposed Scope of Work**

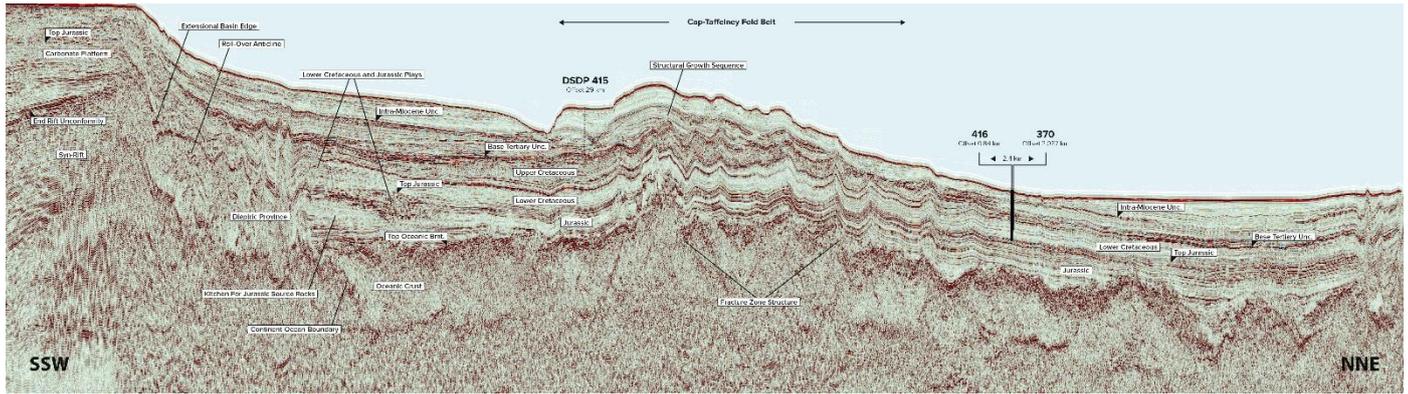
SRC will provide overall project direction, with a Peer Review process ensuring the work is undertaken to a high standard.

The Morocco Atlantic Margin Well Tie MC2D survey is a modern high resolution 2D seismic survey designed to connect all wells (including DSDP wells) drilled offshore and image the geological basins in this promising area full of exploration opportunities. Data were processed with a record length of 18 seconds.

PSTM and PSDM products, using the full integrated DUG Broad processing workflow with integration of gravity data and well data for velocity building and calibration, are available.

The project will include provision of a regional geological synthesis and stratigraphy drawing on SRC recent proprietary studies in the region and incorporating information arising from the ongoing Eastern Atlantic Oceanic Crusts project (EAOCP).

SRC envisages seismic interpretation would be undertaken for c. 16 key regional profiles. Well ties will be established for c. 9 DSDP wells (sites 547, 545, 370, 415, 416, 369 & 397) and key regional horizons picked and mapped along the selected profiles.



**Figure 1 Example of Morocco Regional Line**

SRC will work with Bridgeport who will model the gravity and magnetics data acquired as part of the Geoex survey. Detailed 2D modelling for selected profiles will follow on from the qualitative interpretation to establish balanced seismic/potential field cross sections. The modelling results will be used to investigate crustal architecture and model the crustal transitions evident in the seismic data.

**Work Programme**

The Seismic Atlas is anticipated to be completed by end July 2019, and available to license from Geoex as part of the integrated well, seismic and G&M data package that it is making available to industry.

**Deliverables**

Materials for the seismic atlas will be prepared in a flexible manner to allow compilation based on the datasets that are licensed by oil companies from Geoex.

Deliverables will include

1. A basic introductory report plus supporting profiles in an Atlas style. The report text will include a summary of the seismic survey (including details of acquisition and processing parameters), a regional geological overview, a description of the interpretation and modelling methodology, and summary of key results and conclusions.
2. A series of profiles each presenting:
  - The seismic data with annotations
  - Potential field modelling section (where undertaken)
  - Text to discuss the key geological issues and
  - Implications for petroleum prospectivity

The report will be fully illustrated for delivery to oil company licensees in Acrobat format.