Exploration Activity in Greece
Exploration work in Greece began in the late 1930s. In the 1960s, the Greek state and its advisor I.F.P. conducted geologic studies that resulted in the drilling of two exploratory wells targeting the top carbonates and the pre-Triassic evaporite sequence (IGRS-I.F.P, 1966). In the late 1970s the Prinos oil and gas field was discovered and then in the 1980s more exploration work carried out by the public petroleum corporation of Greece (DEP, DEP-EKY) led to the Katakolon and Epanomi oil and gas discoveries. In 1995 the First Licensing Round was launched with further onshore and offshore exploration work and surveys in four concession areas continuing until 2000. The 2012 ‘Open Door Invitation’ for blocks off Ionian, offshore West Patsaiko Gulf and Katakolon in Western Greece attracted several international and domestic operators and partners. Currently, Greece has offshore oil and gas production in the Kavala and Prinos fields in the Northern Aegean Sea.

Geological Overview and Petroleum Systems
Western Greece belongs to the Helleneid, part of the Alpine Mediterranean Orogenic Belt (Alpen, Dinarides, Albanides and Hellenides). The External Hellenides consist of north-north-west to south-south-east trending geotectonic zones that are part of the fold and thrust belt system of Western Greece (Marnelis et al., 2007). After vast deposition of Triassic evaporites and platform carbonates, basin development began in the Early Jurassic due to crustal extension affecting the southern Tethyan margin. To the west, play types are controlled by thrust belt tectonics and related foreland basins, while to the south and south-western offshore play types are controlled by the Hellenic accretionary prism, including the forestal and Mediterranean ridge of the Hellenic subduction zone.

Greece is preparing for a new offshore licence round. The nearby Italian and Albanian discoveries and fields may be valid analogues since they share much of their geological history with offshore Greece. The external Hellenides consist of Western Greece belongs to the

With a working petroleum system in place, proven by the Katakolon discovery and a number of oil shows, seeps and gas leaks, Western Greece is ready to be explored.
lateral succession of an ocean-arc boundary: from the Mediterranean Ridge forming the outer part of the Hellenic accretionary prism with all its wedge-top basins to the forearc basins of the Hellenic trench system and finally the Hellenic fold and thrust belt. Mesozoic to Pliocene to Recent sediments, including Messinian evaporites, are found directly south of Crete. Published descriptions of mud volcanoes as well as gas emissions and their geochemistry indicate active thermogenic systems with potential for hydrocarbon accumulation.

2014 Bid Round

Greece is now preparing for an offshore licence round, expected to be launched in Q3 2014. The country offers political stability and an EU transparent framework for hydrocarbon exploration. Interpretation of the new geophysical data will be the basis for delineation of exploration blocks, which will cover all the areas from Western Greece (Ionian Sea) to the south of Crete. The oil and gas legal framework offers an investment-friendly platform and incorporates current developments and international best practices. The lease duration is 25 years with extension possibilities of five plus five years and a standard tax and royalty-based fiscal regime.

Acknowledgments:
The authors would like to thank YPEKA (Greek Ministry of Environment, Energy and Climate Change) and PGS for permission to publish this paper. Thanks to PGS colleagues in Operations, Data Processing & Technology, and MultiClient, who have worked with the Greek data. A thank-you should also be extended to Geoinnergy, which is reprocessing the legacy data.


References:
A complete list of references will be available on www.geoexpro.com