

Joanna Garland, PhD, FGS

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Career Outline

- Employment:** **2004 – Present: Cambridge Carbonates Ltd., UK.** Current position: Consultant Geologist and Company Director, working on proprietary and non-proprietary projects.
2002 – 2004: Statoil ASA, Norway. Position: Activity leader and geologist in Statoil's Carbonate Research Group.
1998 – 2002: Enterprise Oil Plc., UK. Positions: Geologist in the UK New Ventures Team; development geologist on the Jotun Field, Norway and Nelson Field, UK; operations geologist in UK North Sea and West of Ireland; geologist in the International New Ventures Team.
- Core skills:**
- Carbonate and siliciclastic sedimentology and sequence stratigraphy expertise.
 - Experienced in carbonate diagenesis.
 - Seismic recognition of carbonates.
 - Project management skills.
 - Statistical analysis of large porosity and permeability datasets
 - Experience with prospect evaluation and risk analysis through data-room and farm-in evaluations.
 - Experience in software includes Petrel, CoreCAD and ArcGIS
- Education:** **1994 – 1997:** Ph.D.: Middle to Upper Devonian (Givetian and Frasnian) Shallow-Water Carbonates of Western Europe: Facies Analysis and Cyclicity (Durham University).
1991 – 1994: B.Sc. (Hons.) Geology, First Class (Liverpool University)

Professional Experience

- 2004 – Present: Geologist and Company Director, Cambridge Carbonates Ltd., UK:**
Consultant geologist working on both proprietary and non-proprietary projects:
- **Sedimentology, sequence stratigraphy and reservoir characterisation projects:**
 - Zechstein reservoir characterisation: UK Mid North Sea High, UK Southern North Sea Elbow Spit High (Netherlands) and southern Permian Basin.
 - Permian-Carboniferous reservoirs of Norwegian Barents Sea, Mid Norway and UK Southern North Sea.
 - Devonian carbonates of UK Central North Sea and western Europe.
 - Carboniferous (Dinantian) reservoir characterisation for geothermal feasibility studies.

- Reservoir characterisation studies of multiple wells in Algeria (Jurassic and Cretaceous)
- Mesozoic reservoirs, Mexico.
- Lower Cretaceous reservoir characterisation studies, Kuwait.
- Cretaceous, Kurdistan, Iraq (including fieldwork).
- Permian Khuff Formation reservoir characterisation and modelling.
- Cretaceous successions in Iran (including extensive fieldwork).
- Mesozoic and Palaeozoic exploration wells, Oman.
- Cretaceous and Jurassic reservoirs in Qatar.
- Cretaceous carbonates Barents Sea.
- Reservoir characterisation studies, Cretaceous, UAE.
- Petrographic studies, Pakistan.
- **Diagenetic studies:**
 - Oman – Cretaceous
 - Iran – Permian and Cretaceous.
 - Kuwait – Lower Cretaceous
 - Iraq – Cretaceous
 - Fieldwork based studies of hydrothermal dolomites in Iran
 - Diagenesis studies of Permian and Carboniferous carbonates in Barents Sea
 - Permian carbonates Mid Norway
 - Diagenesis of siliciclastic reservoirs, Australia
 - Reservoir quality mapping, Kurdistan
 - Reservoir quality studies, Greece.
 - Strontium dating studies, Colombia
- **Seismic recognition of carbonates:** Compilation of diagnostic seismic characteristics for more than 600 proven carbonate fields, based on published seismic data.
- **New Ventures technical evaluations:** Devonian fields in Timan Pechora, Russia
- **Multiclient reports:** Carbonate Reservoirs of SE Asia; Carbonate reservoirs of the Circum-Adriatic; Fractured Carbonate reservoirs; Hydrothermal dolomites.
- **Exploration projects:** Semi regional evaluation of the Devonian of the eastern Barents Sea; regional reviews of plays in northern Iraq; evaluation of Cretaceous prospectivity in UAE.
- **Corporate Best Practice Guidelines:** Carbonate reservoir characterisation; carbonate reservoirs for Business Development; carbonate sequence stratigraphy
- **Reservoir analogue work:** Permian reservoirs of northern Europe; Middle East Cretaceous; Miocene of Indonesia; heavy oil in carbonates
- Analysis of large datasets on stratigraphic trapping in carbonates and seismic characteristics of carbonates
- Project management
- **Fieldwork:** Cretaceous of Iran; Cretaceous of Iraq (Kurdistan); Cretaceous to recent carbonates of southern Cyprus; Miocene and Cretaceous of Italy; Cretaceous northern Spain; fractured reservoirs of North Somerset Coast UK.
- **Courses taught:** Carbonate reservoir characterisation (ranging from ½ day to 5 days); carbonate sequence stratigraphy; core workshops.
- **Conferences:** convened Geological Society London “Advances in Carbonate Exploration and Reservoir analysis” conference in London, November 2010; co-convened carbonate session at IGC meeting in Oslo, August 2008. Presented at many conferences.
- **Books:** Editor of Geological Society London, Special Publication V370 “Advances in Carbonate Exploration and Reservoir Analysis”

2002 – 2004: Geologist, Statoil ASA, Norway: Activity Leader for exploration in the Carbonates Research Programme:

- Developed and managed the research programme for exploration in carbonates at Statoil.
- Produced “Corporate best practice documents” for both carbonate and evaporite sequence stratigraphy and exploration play analysis in carbonate successions.
- Peer reviews and peer assists with international exploration groups working in carbonate provinces (including Middle East, Mexico, Caspian area, Russia, Norway, Brazil, UK).
- Analysis of large global porosity and permeability datasets to understand controls on reservoir quality of carbonates in the exploration setting.
- Regional basin-scale analysis of Devonian carbonate plays in the Western Canada Basin.
- Organised a fieldtrip to Mexico for Statoil staff to study the Mesozoic and Cenozoic carbonate successions in the Sierra Madre Oriental.
- Provided geological support in data rooms for Statoil’s international New Ventures groups

1998 – 2002: Geologist, Enterprise Oil, UK.

- Geologist in the UK New Ventures Team, Aberdeen:
 - Responsible for new ventures and prospect generation in Central North Sea, in particular the Witch Ground Graben and East Central Graben.
 - Geologist for the 20th UKCS licensing round review. Principal geologist in the Witch Ground Graben, and also coordinator of a successful application in this area.
 - Provide geological support for the Business Development Group, actively working on farm-in opportunities and datarooms.
 - UK prospect Inventory coordinator in 2000.
 - Provided geological support for a major regional review of the Central North Sea, including generation of play maps and basin statistics for key plays.
 - Contributed to the Enterprise Oil New Ventures Strategy, providing regional G&G review and analysis of competitors portfolios.
 - Geologist for a number of non-operated and operated licenses within the New Venture Teams portfolio in 2000-2001
- Geologist in the Jotun reservoir development team, Stavanger.
- International New Ventures Team, London. Regional geological overview of the Tertiary of West Africa (Morocco to the Ivory Coast).
- North Sea Regional Team, London. Upper Jurassic regional play fairway mapping
- Geological Operations Team, London. Wellsite geological support.
- Geologist in the Nelson Reservoir Development Team, Aberdeen

Professional Affiliations

Active member of:

- PESGB
- AAPG
- Geological Society of London