

## Helen Cen

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### Biography

Helen Cen is a Petroleum Geologist working with the Nova Scotia Department of Energy. She received her Bachelor of Science Degree in Geology from Northwest University, China in 1992. She then worked with the Research Institute of Petroleum Exploration and Development (RIPED), PetroChina for ten years. Her study mainly focuses on stratigraphy, sedimentology and reservoir quality of siliciclastic rocks in Songliao Basin, Hailar Basin and Turpan Basin. She also assisted in the research of basin-wide resource assessments in China. She came to Canada with her family in 2002. She decided to pursue a Master Degree in Carbonate Geology in 2005 and completed this from University of Regina in 2009. From 2007 to 2008, she joined Black Rider Resource Inc. in Calgary to work on the carbonate reservoir quality of the Midale and Frobisher formations of the Williston Basin. Helen has been a member of the NS Energy team since 2008, working with onshore basins with the Petroleum Resource Branch.

### Presentation Abstract: Onshore Atlas, Nova Scotia

Onshore oil and gas exploration in Nova Scotia has been going on since 1869. In that time, no commercial production has ever been established. The Nova Scotia Department of Energy, fearing that one of the barriers to successful exploration in the province was a lack of comprehensive knowledge of the sedimentary basins present, embarked on the "Onshore Petroleum Atlas Project". The Atlas will be a compilation of the geological, geophysical and geochemical data that has been generated over the years in the province.

The Atlas will be a summary of what we know about the sedimentary basins of Nova Scotia. It will feature published reports, non-confidential well and seismic data, maps and other information collected by universities, government and industry. It will feature an introduction, an examination of the eleven onshore basins in Nova Scotia, a reference section and appendix. Each basin will have a section on its geological setting, structural framework, generalized stratigraphy and sedimentology. The emphasis will be on the key elements of an active petroleum system that exists in each basin. This Atlas is seen as a geological synthesis of the petroleum potential of the onshore basins of Nova Scotia and a collection of the existing data and references in one place to aid new explorers in the province.