



## Geological and Geophysical Characterization of Heavy Oil Reservoirs - HORC

### COURSE

#### About the Course

With conventional hydrocarbon resources growing thinner, heavy oil and bitumen are being looked at as the next resource that could be exploited in the near future. As both heavy oil and bitumen are a global resource, they are fast becoming an asset base for many energy companies. Economic development of heavy oil reservoir requires accurate characterization of the rocks as well as the fluids contained therein. As heavy oil properties are different from conventional oil, its exploration and production requires special seismic strategies and rock physics models. Geophysical characterization of heavy oil reservoirs is therefore at the heart of production of this resource.

#### Target Audience

Seismic interpreters, seismic processors, stratigraphers, structural geologists, and reservoir engineers.

#### You Will Learn

- Evaluation of the available reservoir characterization options, and selection of the options suitable for the project
- To apply the appropriately chosen techniques to your data to extract meaningful information
- To evaluate the application of the various techniques discussed during the course
- The sweet spots within the reservoir zone based on characterization with application of different attributes
- To integrate the different attribute applications to generate a comprehensive characterization of the zone of interest

#### Course Content

- Mechanisms for the formation of heavy oil
- General phase behavior of hydrocarbons and heavy oil
- Properties of heavy oil and rock physics analysis
- Geophysical approaches to characterization of heavy oil reservoirs
- Measuring and monitoring heavy oil properties
- Methods of extraction of heavy oil (CHOPS, SAGD, etc.)
- Challenges for heavy oil production
- Seismic monitoring of hot and cold heavy oil production

- Optimization of Canadian heavy oil production through reservoir characterization
- Environmental issues
- Jeopardy exercises on each of these units

## Product Details

Categories: [Upstream](#)

Disciplines: [Geology](#) [Geophysics](#)

Levels: [Basic](#)

Product Type: [Course](#)

Formats Available: [In-Classroom](#)

Instructors: [PetroSkills Specialist](#) [Satinder Chopra](#)