

Mineralogy, porosity, and provenance of Upper Jurassic reservoir sandstones in Mizzen F-09 drillcore, Flemish Pass Basin, offshore Newfoundland, Canada

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The Flemish Pass Basin is located 450 km east of St. John's and is a highly faulted, syn-rift area. The basin is thought to be of similar origin to the producing Jeanne d'Arc Basin but has been relatively unexplored in comparison. The aim of this thesis is to compare the Flemish Pass Basin to the Jeanne d'Arc Basin by studying the mineralogy, porosity, and provenance of the Mizzen F-09 strata. The evaluation of the Mizzen F-09 well will help to improve our understanding of the stratigraphy and reservoir quality of the Upper Jurassic strata in the Bodhrán formation (informal) located in the Flemish Pass Basin. The goals of this project will be to (1) describe and log the 60 m of core and to create a stratigraphic section, (2) prepare the samples from the core for further analysis, and (3) analyze the prepared samples using SEM-MLA techniques. The data that will be collected will be used to help evaluate the economic potential of the F-09 well and of the Bodhrán formation sandstones. A comparison will also be made between the Mizzen F-09 well and the K-19 well in the Jeanne d'Arc Basin. It is thought that the sandstone units of the Flemish Pass Basin are correlative with producing reservoirs of the Jeanne d'Arc Basin. The comparison will help to determine if the source areas have predictable mineralogical and porosity characteristics. [Poster]