

Beyond First Oil: An Overview of the Geology of the Terra Nova Oil Field

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On January 20, 2001 the Petro-Canada et al Terra Nova L-98 4 well flowed oil at an initial rate of 2000m³/d to the FPSO, marking a significant milestone since the Project's sanction in 1998, and the offshore Field's discovery in 1984. Beyond the time required for commissioning the facilities to achieve the designed, sustained average production rate of 125, 000 bbl/d (19,876m³/d) oil production, the characterization and property prediction of the late-Jurassic age reservoir will be further investigated.

Of the planned 24 development wells (14 producers, seven water injectors and three gas injectors), 10 have been completed, and together with the eight appraisal wells, their logged and cored sections have provided clues of the faulted, braidplain/channelled stratigraphy. Equivocal correlations between wells that have used "static" litho, bio and chemostratigraphic techniques will now be augmented by pressure and other dynamic data. Recent drilling results have also introduced complexities beyond defining porous sand distribution, such as imputed oil-water contacts and relatively overpressured sections.

Production history that will validate or disprove compartmentalization within the Graben and East Flank, seismic inversion advances that can better define sand fairways, and conceptual development plans for the prospective Far East area are but three issues that will involve the team as the Field moves toward a steady-state period of production.