

## Gale N-66: Exploration Drilling Results and Implications

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### Summary

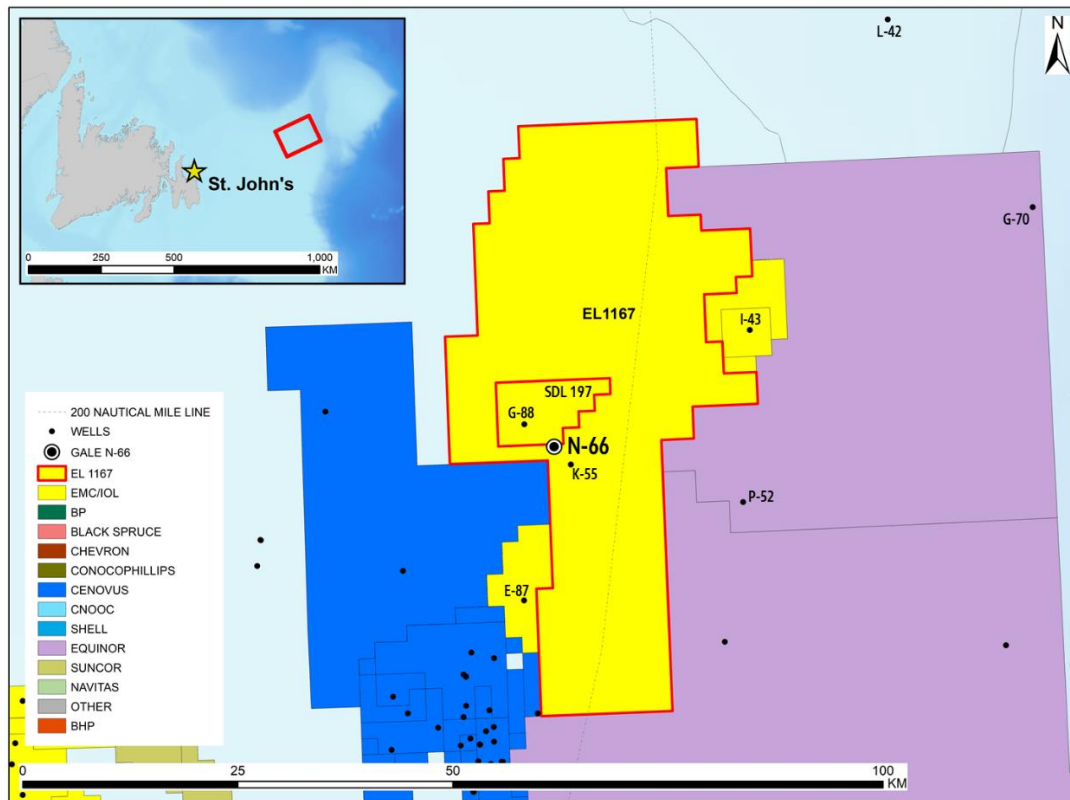
The Gale N-66 exploration well was drilled by a joint venture partnership comprising ExxonMobil and QatarEnergy on exploration license EL1167 in the summer of 2023 (Figure 1). The well was drilled using the Odfjell Hercules semi-submersible rig in ~170 m water depth. The well reached a total depth of 3084 m MD and successfully evaluated the hydrocarbon-bearing potential of Tithonian Jeanne d'Arc Formation sands in a fault block updip of reseroired oil that was discovered by the South Tempest G-88 well in the 1980's. The 30 year time gap between the G-88 discovery and the N-66 exploration well demonstrates how new data and new insights can bring new life to dormant exploration plays in Atlantic Canada.

The G-88 oil discovery proved a Late Jurassic oil play in the Central Ridge area of the Jeanne d'Arc Basin and led to the issuance of Significant Discovery License (SDL) 197 in 1987. Owing to relatively poor reservoir quality and complex faulting the discovery was considered too high risk and low reward to warrant further drilling. Improvements in seismic reprocessing combined with detailed quantitative interpretation in ~2018 helped to de-risk updip fault blocks in exploration acreage adjacent to SDL197 with a viable path to commercializing a sizeable oil field in a success case outcome.

The N-66 well was spudded in July 2023 and the rig was released on August 31<sup>st</sup> following a safe drilling campaign that successfully evaluated the primary Tithonian objective. Hydrocarbon-bearing sands were encountered in addition to wet sands that retain a strong signature of once having been hydrocarbon-bearing. Trap seal is considered to be the likely cause of failure, which is consistent with the pre-drill risking of this opportunity. Direct Hydrocarbon Indicators (DHIs) from seismic data have the potential to help mitigate charge and seal risks, but these attributes are often very subtle and require multiple phases of seismic reprocessing and interpretation to identify and analyze. In light of the well results, the DHI attributes observed at Gale N-66 are clearly not related to the presence of a retained oil column but could be interpreted as a paleo oil-water contact in a breached trap.

### Acknowledgements

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**Figure 1:** Location of the Gale N-66 exploration well on license EL1167 in the Central Ridge area of the Jeanne d'Arc Basin (2023 industry acreage holdings).