

TECHNICAL MEMORANDUM

DATE August 19, 2019

Project No. 1780495

TO Darren Stokes
Repsol Oil & Gas Canada Inc.

CC Toivo Pallop, Golder Associates

FROM Paul Dewaele, P.Eng.

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F-68 SATELLITE BAY CONTAINMENT CELL CONSTRUCTION UPDATE

This technical memo is provided to describe the construction status of the containment structure currently at the Satellite Bay F-68 Remediation Project site (Site) per Part I, Item 1a of IWB licence N5L8-1837. This memo is provided to update Repsol and the Inuvialuit Water Board (IWB). The final as-built drawings will be completed and stamped as per the Water Licence and sent to the IWB.

The containment structure consists of a geosynthetic liner system overlying contaminated soils, further covered by a minimum 2.4 metre layer of sand providing a thermal and protective barrier. The thickness of the thermal barrier was based on modelling of the potential thickness of the transition zone at the Site under a conservative climate warming scenario. The lined containment cell horizontal dimensions of approximately 34 metres (m) by 70 m are based on the need to contain of an estimated 2,300 m³ of contaminated soil excavated from the Site. The current design for the containment structure was provided to Repsol in a letter dated March 1, 2018.

Approximately 1,200 m³ of contaminated soil was excavated in 2019 and placed in the containment cell within the approved design footprint, in addition to the approximately 1,000 m³ placed in 2017. The resulting height and overall volume of the contaminated soil are slightly lower than the original design volume. As a result, the final dimensions of the containment cell will be adjusted to match the design requirements relating to minimum thermal cover thickness and dimensions, including 6:1 sideslopes beyond the containment cell and a 10 m buffer area where positive drainage will be established and any depressions will be filled to prevent standing water.

It is recommended that this memo be provided to the Inuvialuit Water Board and the GNWT Lands Department. Please let us know if you have any questions with respect to the above.