From: DFO

Sent: Friday, May 05, 2017 11:51 AM

To: Hicks, Darren

Subject: Review of April 2017 EA Amendment WesternGeco Canada Southeastern

Newfoundland Offshore Seismic Program 2015 - 2024

## Hello Darren:

I am writing further to your April 11, 2017 email requesting review of the above noted EA Amendment. Please note that I have completed review and offer the following comments for your information and consideration.

- \* Although additional vessels and activities will be included, in general the activities are consistent with what was presented and assessed in the project EA. Concerns with respect to increase number of vessels have been described within the April 2017 Amendment and the proponent has noted (See Section 3.6 page 18) that in recognition of possible uncertainty associated with same they will be preparing a comprehensive marine mammal and sea turtle monitoring report. We look forward to this comprehensive monitoring / report.
- \* With respect to "Table 1 Summary of Mitigation measures presented in WesternGeco EA (LGL 2015) and supplemented for multi-vessel operations" (Page 7 and 8) it appears to be missing information that is presented in the 2015 project EA (e.g. from Tables 5.2 and 5.20). It is not clear if this is an omission or a removal of the commitment to the following mitigations: from Table 5.20 plan transit routes to and between survey area to minimize/mitigate "Interference with fishing vessels / mobile and fixed gear fisheries" and minimize/mitigate "Fishing gear damage"; from Table 5.20 request input from fishing captains through the FFAW PIL regarding streamer deployment to minimize / mitigate "Interference with fishing vessels / mobile and fixed gear fisheries"; and from Table 5.2 and 5.20 Advisories and communications to minimize/mitigate "Fishing gear damage". This should be clarified and Table 1 amended if necessary.
- \* With respect to Section 3.3.2 Simultaneous 2D, 3D and/or 4D Seismic Surveys (page 13) Marine Mammals and Sea Turtles Part of the project area is located near the Flemish Pass / Flemish Cap area and within the southern Grand Banks. Based on information coming out of surveys completed by Dalhousie University and that have been reported in various media (e.g. CBC News Online and VOCM) it would appear that that northern bottlenose whale from both the North Atlantic and Scotian Shelf populations frequented the Flemish Pass /Flemish Pass and Southern Grand Banks areas in 2016. It is felt that this section of the EA Amendment should note that there may be a reasonable or increased likelihood of occurrence of northern bottlenose whales from the Scotian Shelf population within the project area during the planned surveys.
- \* Furthermore with respect to Table 1 (page 8) and Section 3.3.2 Simultaneous 2D, 3D and/or 4D Seismic Surveys (page 13) Marine Mammals and Sea Turtles it is not clear what if

any measures will be employed to monitor for SARA listed endangered and/or threatened mammals (e.g. Scotian Shelf population northern bottlenose whales) and sea turtles during periods of darkness and/or low visibility. Based on information presented in recent Seismic EAs planned for the same general area the frequency of poor visibility (<500 m) in July ranges from 26%, 40% and 33% for the Flemish Cap, Grand Banks and Laurentian Basin respectively. Given this likelihood and the precautionary possibility of encountering northern bottlenose whale it is not clear why there is no acknowledgement that other more precautionary mitigation measures may be needed / used during periods of low visibility / darkness within the study/project area. It is felt that this should be clarified.

\* With respect to Section 3.3.2 Simultaneous 2D, 3D and/or 4D Seismic Surveys – it is not clear why the level of confidence associated with prediction for the effects of sound was medium in the Amendment and medium to high in the based on 2015 project EA (e.g. see Table 5.16 on page 215) or why the Level of confidence for accidental releases was medium to high in the Amendment, but medium in the 2015 project EA (e.g. see Tables 5.14 and 5.16 on page 220). This should be clarified.

Please let me know if you have any questions or comments in this regard.

Regards,

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