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April 4, 2018

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PATH #16-HNFL-00560

Darren Hicks  
Canada-Newfoundland and Labrador Offshore Petroleum Board  
140 Water St., 4th Floor  
St. John's, NL A1C 6H6

Dear Mr. Hicks:

***Re: Review of Environmental Assessment of Multiklient Invest Newfoundland Offshore  
Seismic Program, 2018- 2023***

I am writing further to your March 8, 2018 letter requesting review of the March 2018 Environmental Assessment (EA) Report prepared in relation to the above noted offshore seismic program proposed by MultiKlient Invest AS.

Based on review of the above noted EA Report the following comments are offered for your review and consideration.

- Section 4.2.1.1 Plankton (paragraph 1, last sentence, page 42) – Recommend removing reference to offshore Labrador when providing baseline information on the Study Area, as it causes some confusion. This comment applies to various portions of Section 4.0.
- Section 4.2.2.1 Principal Macro-invertebrates and Fishes Commercially Harvested (Northern Shrimp, paragraph 3, page 52) – If possible, provide the status of commercial shrimp fishery closure in 2018.
- Section 4.2.2.1 Principal Macro-invertebrates and Fishes Commercially Harvested (Cockles, paragraph 2, page 52) – Data is somewhat outdated. Recommend plotting Cockle harvesting locations with more recent data.
- Section 4.2.2.1 Principal Macro-invertebrates and Fishes Commercially Harvested (Stimpson's Surf Clam, paragraph 2, page 52) – References should be provided for current fishing patterns and stock status.
- Section 4.2.2.2 Other Fishes of Note (Swordfish, page 56) – Some fishery statistics on Swordfish should be provided.
- Section 4.2.2.2 Other Fishes of Note (Anadromous Fishes, page 56) – Recommend providing list of Atlantic Salmon populations that may utilize the Study Area, as well as information on their distribution.
- Section 4.3.3.1 Historical Fisheries (paragraph 2, sentence 3, page 61) – It is unclear whether this sentence is describing Northern Shrimp or Snow Crab, as the reference is



- for shrimp, but crab is described. Please revise and include appropriate updated reference.
- Section 4.3.3.1 Historical Fisheries (paragraph 1, last sentence, page 62) - If possible, provide the status of fishing moratoria in 2018.
  - Section 4.3.3.2 Study Area Catch Analysis, 2010-2015 (paragraph 1, sentences 2-3, page 63) – Based on Table 4.3, Yellowtail Flounder has the third highest catch weight in the Study Area. Revise this text accordingly.
  - Section 4.3.3.2 Study Area Catch Analysis, 2010-2015 (Tables 4.4 to 4.8, Figure 4.4, pages 65-70) – Additional description on quartiles used in these Tables and Figure should be provided. For example, it is not clear why the sum of quartiles can be used as a proxy for catch in Figure 4.4, as few counts in a larger quartile could represent greater catch weight than more counts in the lower quartile. Additionally, the quartile ranges are not consistent between years, which further complicates the evaluation of inter-annual trends. Please justify the use of these data and provide explanation as to how they can be interpreted for the above noted Tables and Figure and other related Figures in Section 4.0.
  - Section 4.3.3.2 Study Area Catch Analysis, 2010-2015 (Other Notable Species: Yellowtail Flounder, Atlantic Cod, Redfish, Atlantic Halibut and American Plaice, pages 82-90) – Based on Table 4.3, Whelk is an important commercial species, and consequently, should be discussed in the above noted section.
  - Section 4.3.7 Macroinvertebrates and Fishes Collected during DFO Research Vessel (RV) Surveys (final sentence, page 94) – Based on Table 4.11, it would also be valuable to include a figure for catch locations of Capelin.
  - Figure 4.33 (page 104) – Catch locations cannot be easily seen. Please revise to improve figure quality.
  - Table 4.16 (pages 122-123) – Some nomenclature should be revised. Minke Whale should be referred to as the Common Minke Whale North Atlantic subspecies. Atlantic population should be specified for the Sei Whale and Blue Whale. Atlantic and Eastern Arctic subspecies should be specified for the Harbour Seal.
  - Section 4.5.1.2 Baleen Whales (Mysticetes) (pages 123-127) – When describing mysticetes, ensure that population or subspecies is noted. Periods of sightings described in the text (e.g., Humpback Whale, paragraph 1, sentence 2, page 123) are inconsistent with Table 4.17 and should be revised accordingly.
  - Section 4.5.1.3 Toothed Whales (Odontocetes) (pages 128-133) – When describing odontocetes, ensure that population is noted. Periods of sightings described in the text (e.g., Northern Bottlenose Whale, paragraph 2, final sentence, page 128) are often inconsistent with Table 4.17 and should be revised accordingly.
  - Table 4.19 (pages 138-139) – For Atlantic Salmon (various populations), please provide the population names.



- Section 4.6.2.3 Marine Mammals and Sea Turtles (pages 141-144) – Atlantic population should be specified for the Leatherback Sea Turtle (paragraph 1, sentence 1, page 141; Leatherback Sea Turtle, paragraph 1, sentence 1, page 143). For the Northern Bottlenose Whale, period of sightings described in the text (Northern Bottlenose Whale, paragraph 2, sentence 3, page 142) is inconsistent with Table 4.17 and should be revised accordingly. Designation status of Loggerhead Sea Turtle should be provided (Loggerhead Sea Turtle, pages 143-144).
- Figure 4.40 (page 145) – A number of additional areas should be included in this Figure and described throughout the Report as appropriate.
  - There are several additional EBSA's identified by the Conference of the Parties to the Convention on Biological Diversity located outside Canada's EEZ in the Northwest Atlantic, some of which may overlap the Study Area.
    - <https://www.cbd.int/ebsa/>
    - Southeast Shoal and Adjacent Areas on the Tail of the Grand Bank <https://chm.cbd.int/database/record?documentID=204105>
    - Slopes of the Flemish Cap and Grand Bank <https://chm.cbd.int/database/record?documentID=204104>
    - Orphan Knoll <https://chm.cbd.int/database/record?documentID=204103>
    - Seabird Foraging Zone in the Southern Labrador Sea <https://chm.cbd.int/database/record?documentID=204102>
  - The St. Anns Bank Marine Protected Area designation under the *Oceans Act* was announced on June 8, 2017. It is located east of Cape Breton, and includes most of St. Anns Bank, Scatarie Bank, and a portion of the Laurentian Slope and Channel. The area is 4,364 km<sup>2</sup>. <http://www.dfo-mpo.gc.ca/oceans/mpa-zpm/stanns-sainteanne-eng.html>
  - The Northeast Newfoundland Slope Marine Refuge was announced in December 2017 to protect coral and sponge areas and prohibits bottom contact fishing. This closure overlaps the Study Area. <http://www.dfo-mpo.gc.ca/oceans/oeabcm-amcepz/refuges/northeastnewfoundlandslope-talusnordestdeterreneuve-eng.html>
- Section 4.7.1 Sensitive Areas associated with the Study Area (paragraph 3, page 146) – The sentence “for a description of this AOI, listed as ‘Laurentian Channel and Slope EBSA’” requires some clarification. The original AOI was based on the EBSA (biological/physical features and boundaries); however since the AOI announcement in 2010, these boundaries have since been refined with separate conservation and management objectives. EBSAs are meant to focus management attention and apply a higher degree of risk aversion to these areas whereas AOI's are identified as containing ecologically-sensitive land or species that require extra protection. This is the first step in the *Oceans Act* MPA process. <http://www.dfo-mpo.gc.ca/oceans/aoi-si/laurentian-laurentien-eng.html>
- Section 4.7.1 Sensitive Areas associated with the Study Area (paragraph 1, page 147) – The new delineation of EBSAs discussed here is expected to be released soon. Please note that in addition to the boundaries, the number of EBSAs is expected to change.
- Section 4.7.2 Data Gaps associated with the Sensitive Areas VEC (paragraph 3, page 147) – In reference to the ERAs and proposed fisheries closures, several marine refuges within the Newfoundland and Labrador Region were announced in December 2017. The



list of marine refuges can be found at the following link: <http://www.dfo-mpo.gc.ca/oceans/oeabcm-amcepz/refuges/index-eng.html>

Thank you for providing the opportunity to review and provide comment on this project EA Report. If you have any questions or comments with respect to the above or if you require anything further please contact me by phone (709.772.3521) or email (Darrin.Sooley@dfo-mpo.gc.ca.).

Sincerely,

Darrin Sooley  
Senior Fisheries Protection Biologist – Marine, Coastal, Oil and Gas Development  
Fisheries Protection Program  
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