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*Your file Votre référence*

*Our file Notre référence*  
BAB 3990-5

March 16, 2010

Mr. Darren Hicks  
Environmental Analyst  
Canada-Newfoundland and Labrador Offshore Petroleum Board  
5th Floor TD Place  
140 Water Street  
St. John's NL A1C 6H6

Dear Mr. Hicks:

**Subject: Investcan Labrador Shelf Area Seismic Survey Program 2010-2017  
Environmental Assessment**

Fisheries and Oceans Canada (DFO) has reviewed the document entitled '*Environmental Assessment for Proposed Seismic Program Offshore Labrador*', dated January 2010 and offer the following comments for your consideration.

### **General**

In general, literature establishing the potential for sub-lethal effects, of unknown consequence, to occur over broad scale geographical areas, as well as statements by experts noting that little is known about the effects of sound on marine organisms, have not been adequately covered in the environmental assessment (EA). Reference to these uncertainties was recently acknowledged in a European Workshop report: "*given the absence of existing standards and the many gaps in the knowledge on underwater noise and particularly on its effects on marine life, more steps will be needed to complete the effort and to fill in the issues that are still open*".

It was also noted that greater context should have been provided for some of the statements made in the EA document. For example, it was stated that the opportunistic study by LGL on a homogenous pool of snowcrab eggs resulted in only a ~1.0% mortality, yet the document failed to mention a major effect on egg development. The document also references an Australian study which found no effects on lobster populations in areas where seismic surveys had been carried out, yet it does not mention that seismic activities would have required a population reduction of up to 50% before being resolved from natural and fisheries mortality.

### *Commercial Fisheries*

The document appears to cover most of the commercial fishing activity in the area by species. It is important to note that the proposed project area occurs in one of the most significant commercial harvesting areas of Labrador, along the 2H-2J line. There is significant harvesting of groundfish and shellfish within this area and local communities depend heavily on the commercial fishing activities in this area. While the commercial fishing data covers the period of 2005-2008, groups such as the Nunatsiavut Government are only recently developing their commercial capabilities for harvesting in this area. There is an expectation that the project area will be significantly more important to these stakeholders in the coming years. It is recommended that the Nunatsiavut Government and the Torngat Joint Fisheries Board have input into this EA process.

### *SARA Species*

Given this document is intended to deal with the seismic program from 2010-2017, it raises questions in terms of considering species at risk. During that timeframe it is possible that more species could be added to Schedule 1 of SARA; COSEWIC will assess new species (examples of upcoming species assessments include Atlantic Cod, Deepwater and Acadian Redfish, Loggerhead Sea Turtle); new Recovery Strategies, Management Plans or Action Plans could be posted for listed species; and critical habitat could be identified; etc. There could be a lot of changes over this time period that may affect a species' status and its requirements under SARA. It is important to know how this will be addressed by the proponent.

### **Specific Comments**

#### **Section 4.2.3.1 Finfish**

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1<sup>st</sup> para- The species name for Atlantic Cod is incorrect.

2<sup>nd</sup> para- The Pacific species, boreal squid is incorrectly listed as a groundfish in this area.

3<sup>rd</sup> para- It states that there are seven species listed under species at risk and/or COSEWIC and yet 8 species are listed; and several of the species are incorrectly listed. Species status should be referenced as either 'extinct, extirpated, endangered, threatened, or species of special concern as per Schedule 1 of SARA' or 'recommended by COSEWIC for listing under SARA'.

#### **Section 4.2.6 Species at Risk – Marine Fish**

*Page 84,*

1<sup>st</sup> para- It mentions that eight fish species having designations under SARA and/or COSEWIC which could potentially be present within the Affected Area. Since 'COSEWIC assessed' species are included others that have also been recently assessed by COSEWIC should also be listed. For example, Roughhead Grenadier (assessed as special concern), Roundnose Grenadier (assessed as endangered) and American Plaice (assessed as threatened). These species are listed in Tables 4.13 and 4.14 on Commercial Harvests in the Project Area, however, they are not shown in the SARA section. For further information on species status, please refer to the SARA Registry.

Since 'SARA listed' and 'COSEWIC assessed' species are combined in this section, their individual status is not clear. The only SARA listed species in this section are the wolffishes, the rest are COSEWIC designations. Further, Atlantic Cod being listed as endangered is a COSEWIC designation, not a SARA listing. This needs to be clarified. It should also be made clear that under federal jurisdiction, the official list of Species at Risk is Schedule 1 of SARA (not to be confused with COSEWIC designations or species listed on Schedule 2 and 3 of SARA, which are species that still need assessment by COSEWIC).

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Table 4.10- Specific references should be given for the information in the table under the column entitled 'Reason for Designation'. COSEWIC is mentioned, but the source of information should also be specified.

Table 4.10- For Atlantic Cod, the population (Newfoundland and Labrador population) should be specified as other cod populations have been given different designations by COSEWIC.

#### **Section 4.2.6 Species at Risk – Marine Mammals**

*Page 90*

Humpback whales are mentioned in this section. It should be noted that the Humpback Whale - western north Atlantic population was designated as being not at risk by COSEWIC in 2003.

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Table 4.12- Similar to comments provided on Table 4.10, specific references should be given under the column entitled 'Reason for Designation'.

Table 4.12 - Sowerby's Beaked Whale and Harbour Porpoise are listed with risk categories under Schedule 2 and 3 of SARA, respectively. Please note that the official list (federally) of species at risk is Schedule 1 of SARA; Schedules 2 and 3 contain species that were designated at risk by COSEWIC prior to October 1999 and which have to be reassessed by COSEWIC using revised criteria before they can be considered for listing on Schedule 1 of SARA.

Table 4.12- Earlier in the document it mentions that some populations of Beluga Whales occur in the area. These should also be referenced in this table (and section) since Beluga Whale populations were assessed by COSEWIC in 2004 and other COSEWIC assessed species have been included in this table.

#### **Section 4.2.7 Sensitive Areas**

*Page 92*

There is very little discussion in this report on marine habitat. This is surprising given the intent to discuss valued environmental components, such as sensitive areas. A discussion on the presence of cold-water corals in the study area should be included using the following:

*Gilkinson, K., and Edinger, E. (Eds.) 2009. The ecology of deep-sea corals of Newfoundland and Labrador waters: biogeography, life history, biogeochemistry, and relation to fishes. Can. Tech. Rep. Fish. Aquat. Sci. 2830: vi + 136 p.*

It has been documented that human activities, including oil and gas exploration/production may impact corals. Cold-Water corals are recognized internationally and domestically as vulnerable marine ecosystems.

1<sup>st</sup> para- The last sentence states: "*In the case that one of these areas are considered NMCAs in the future, no third-party activity will be permitted within the defined boundaries, including oil and gas exploration and/or development*" is incorrect. For additional information on National Marine Conservation Areas (NMCAs), please refer to Parks Canada.

#### Section 5.2.4 Effects Assessment and Mitigation

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2<sup>nd</sup> para- With respect to zoo- and ichthyo-plankton, there is concern regarding the statement that the "total mortality" caused by the airguns in this case has just one aspect of uncertainty. It is also important to establish the range (lateral and depth, as well as the confidence intervals) over which loss occurs and estimate the total effective volume impacted by the seismic surveys. While a first approximation could suggest that such loss is not particularly significant, related calculations should also be presented within the EA as these underlying assumptions become important in establishing the magnitude of the impact. Despite the high natural mortality experienced by various animal plankton, the issue at hand is whether the additional rate of loss caused by seismic surveys would result in notable differences in production.

#### Section 5.5.1 Boundaries

Page 184,

Based on the previous comment referring to populations of Beluga Whales occurring in the area (under Table 4.12), the number of species of cetaceans referred to in the third bullet on this page should be revised.

#### Section 5.5.4 Effects Assessment and Mitigation

Page 186,

The following statement '*Recovery plans for blue whales and cod are pending...*' is not accurate. A Recovery Strategy for Blue Whales is in fact posted on the SARA Registry.

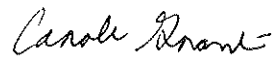
#### Section 5.5.7 Summary

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In Table 5.8, it lists as a mitigation "*Adherence to the Statement of Canadian Practice on the Mitigation of Seismic Noise in the Marine Environment to the extent (that is) reasonably practical*". Please clarify what is meant by "*to the extent (that is) reasonably practical*". As per the Statement of Canadian Practice with respect to the Mitigation of Seismic Sound in the Marine Environment it explicitly states that these requirements are set out as minimum standards which should be adhered to.

Thank you for providing DFO the opportunity to comment on this EA document. If you have any questions or comments regarding the above, please contact Elizabeth Bennett, Senior Biologist, Marine Section by phone at 772-0853 or by e-mail ([elizabeth.bennett@dfo-mpo.gc.ca](mailto:elizabeth.bennett@dfo-mpo.gc.ca)).

Yours truly,

A handwritten signature in cursive script that reads "Carole Grant".

Carole Grant  
Section Head – Marine Habitat  
Habitat Protection Division  
Oceans, Habitat and Species at Risk Branch

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