

## **GENERAL COMMENTS**

### **Department of National Defence (DND)**

DND is likely to be operating in the vicinity of the study area in a non-interference manner during the project timeframe.

A search of unexploded ordnates (UXOs) records was conducted to determine the possible presence of UXO within the proponent's project area and no wrecks are present within the survey area. Given their understanding of the survey activities to be conducted, the associated UXO risk is negligible. Nonetheless, due to the inherent dangers associated with UXO and the fact that the Atlantic Ocean was exposed to many naval engagements during WWII, should any suspected UXO be encountered during the course of the proponent's operations it should not be disturbed/manipulated. The proponent should mark the location and immediately inform the Coast Guard. Additional information is available in the 2012 Annual Edition – Notices to Mariners, Section F, No. 37.

In the event of activities which may have contact with the seabed (such as drilling or mooring), it is strongly advised that operational aids, such as remote operated vehicles, be used to conduct seabed surveys in order to prevent unintentional contact with harmful UXO items that may have gone unreported or undetected. General information regarding UXO is available at [www.uxocanada.forces.gc.ca](http://www.uxocanada.forces.gc.ca)

### **Environment Canada (EC)**

Environment Canada's comments for the draft scoping document (Western Geco Canada – Jeanne d'Arc Basin Seismic Program 2012-2015 prepared by the C-NLOPB on December 6, 2011) applies to the project report Environmental Assessment of WesternGeco's Seismic Program for the Jeanne d'Arc Basin, 2012–2015 prepared by LGL Ltd. (April 2012). (see attached).

### **Fisheries and Oceans Canada**

Please be advised that the "Statement of Canadian Practice with respect to the Mitigation of Seismic Sound in the Marine Environment" (SOCP) specifies the mitigation requirements that must be met during the planning and conduct of marine seismic surveys, in order to minimize impacts on life in the oceans. These requirements are set out as minimum standards to be implemented during the planning and conduct of seismic programs. As such it is advised that the proponent adhere to all relevant minimum mitigations outlined in the SOCP including the Planning Seismic Surveys, Safety Zone and Start-up, Shut-down of Air Source Array(s), Line Changes and Maintenance Shut-downs, Operations in Low Visibility and Additional Mitigative Measures and Modifications sections of the SOCP.

The report indicates that surveys may occur March to November from 2012-20, with surveys ranging in duration from 30-120 days. While the proponent does acknowledge that *Species at Risk Act (SARA)* requirements could change over this timeframe and that they will reassess accordingly, DFO would like to note that changes to the *SARA* could include additions to species on Schedule 1 of *SARA*, changes in species status, new recovery strategies, action plans and/or management plans and identification of critical habitat. Please continue to refer to the Species at Risk Public Registry ([www.sararegistry.gc.ca](http://www.sararegistry.gc.ca)) to get the most up to date information.

The use of a picket vessel manned by the marine mammal observer in advance of the seismic vessel may be a better place to detect and avoid marine mammals.

As is common practice sightings data for marine mammals and sea turtles should be forwarded to DFO.

### **Fish, Food and Allied Workers**

A consultation was held with fish harvesters during the development of this Environmental Assessment in February 2012. Issues and concerns addressed at that time concerning the impacts of seismic noise on the crab and shrimp resources are clearly documented in the EA. WesternGeco's 2012 area of interest for seismic survey does overlap with important crab fishing grounds. Recommendations were provided to the company to survey the eastern portion of the area last (preferably after the close of the snow crab fishery in 3L) and/or to maintain a 20 kilometre buffer from harvesting activities. Further communication regarding the deployment of streamers prior to the start of the 2012 survey is still warranted to mitigate conflict/fix gear interactions.

Further to this, several companies plan to conduct seismic programs, VSP programs and geohazard surveys in the same general area as WesternGeco this year and quite likely beyond. The potential for seismic work to be conducted concurrently increases the risk for potential conflicts with fishing vessels and gear. This also increases the potential impact of seismic activity on important fish and shellfish resources.

While the overall catch of various species from the entire project area is described as small or negligible in the document (page 61, 64, 72) it is important to note that the area provides significant economic return for many fishing enterprises that are restricted to fishing in those particular areas due to license conditions and where the species can actually be harvested. Fishing activity can change from year to year and during the season as well. It is very important that WesternGeco maintain regular communication with the FFAW to keep apprised of ongoing developments with fisheries in the project area throughout the duration of this Environmental Assessment (2012-2015).

## **SPECIFIC COMMENTS**

### **Environment Canada – Canadian Wildlife Service**

#### **Section 5.8 Mitigations and Follow, pgs 201-203**

##### ***Stranded Birds***

Should storm-petrels or other species become stranded on vessels, the proponent is expected to adhere to the protocol described in Williams and Chardine's brochure entitled, The Leach's Storm-Petrel: General Information and Handling Instructions (attached). A permit is required to implement the Williams and Chardine protocol. The proponent should be advised that it is required to complete a permit application form prior to proposed activities. This form is available from the EC-CWS by emailing Permi.atl@ec.gc.ca <mailto:Permi.atl@ec.gc.ca>.

##### ***Data Collection***

EC-CWS has developed a pelagic seabird monitoring protocol that we are recommending for all offshore projects. Attached is a version of the protocol for experienced observers. This protocol is a work in progress and we would appreciate feedback from the observers using it in the field. A guide sheet to the pelagic seabirds of Atlantic Canada has also been attached to this response, for assistance in identifying pelagic seabirds in the area.

A report of the seabird monitoring program, together with any recommended changes, is to be submitted to EC-CWS on a yearly basis.

In an effort to expedite the process of data exchange, EC-CWS would appreciate that the data (as it relate to migratory birds or species at risk) collected from the seabird monitoring surveys be forwarded in digital format to our office. These data will be centralized for our internal use to help ensure that the best possible natural resource management decisions are made for these species in Newfoundland and Labrador. Metadata will be retained to identify source of data and will not be used for the purpose of publication. The Canadian Wildlife Service will not copy, distribute, loan, lease, sell, or use of this data as part of a value added product or otherwise make the data available to any other party without the prior express written consent.

### **Fisheries and Oceans Canada**

**Section 4.6.1 Profiles of SARA-Listed species, Table 4.13, p. 105** – It should be noted that the Humpback Whale was assessed by COSEWIC as “not as risk.”

**Section 4.7.1 Integrated Management Areas, p. 110** - The identification of EBSAs is not solely directed at the potential establishment of Areas of Interest for Marine Protected Areas. They are simply one of any number of potential management measures that may

be determined for EBSAs. The Southern Newfoundland Strategic Environmental Assessment included a discussion of EBSAs (based on DFO input) that is more comprehensive than the more MPA directed focus of the above noted write-up. It is suggested that this more comprehensive explanation of EBSAs be referred to for potential revision of section 4.7 to ensure its accuracy. (see pp. A1 -A2)  
<http://www.cnlopb.nl.ca/pdfs/snsea/snseaapp1.pdf>

**Section 4.7.3 Coral and Sponge Areas, Figure 4.36, pg 112** - Coral/Sponge Closure Area #5 has been revised. Please see attached. (Proposal for a Resolution concerning the extension of Closed Area 5).

**Section 5.4.4.2, Geographic Scope, pg. 121** - Geographic Extent rating criteria is defined as", the 5 = >1,000-10,000 km<sup>2</sup> should be = >1,000-10,000 km<sup>2</sup>.

**Section 5.6.5 Effects of Project on Species at Risk, last bullet, pg 196** – This section lists mitigation and monitoring measures to minimize potential effects on SARA-listed species, which including monitoring by marine mammals observers during the daylight hours that the air gun array is active. Please be advised that monitoring during reduced visibility, including darkness, requires that cetacean detection technology, such as Passive Acoustic Monitoring, must be used prior to ramp-up for the same time period as for visual monitoring.

### **Canada-Newfoundland and Labrador Offshore Petroleum Board**

**Section 1.1 Relevant Legislation and Regulatory Approvals, pg 2** – The *Geophysical, Geological, Environmental and Geotechnical Program Guidelines* (C-NLOPB) were revised in January 2012.

**Section 2.1 Name and Location, pg 5** – The Project Area should include the area required for seismic vessel turning as stated on page 119.

**Section 2.1 Name and Location, pg 5** –The corner coordinates are provided for the Study Area. They should also be provided for the Project Area and 2012 Exploration Area. The total area for the 2012 Exploration Area should be provided.

**Section 2.2.9.1 Picket Vessel, pg. 8** - “A standby or picket vessel may be required as a mitigation measure”. It is stated in Section 5.6.4.5 on pg 194 that “a picket vessel will be on site during most of the program (>60 days in 2012)”. Please confirm that a picket vessel will be part of the program.

**Section 5.5 Effects of the Environment on the Project, pg 191** – This section should contain an integrative discussion of the intersection of the physical environment and the project aspects. It is not appropriate in the first sentence to point to the physical environmental data in Section 3.0 and ask the reader to make any inferences about the operability of the proposed equipment in that environment. As per Section 5.2.1 of the Scoping Document, the EA shall provide a brief summary description of the

meteorological and oceanographic characteristics, including extreme conditions, and any change to the Project that may be caused by the environment. The discussion of the operability of vessels, seismic arrays, support craft and other equipment in the environment likely to be encountered could focus on:

- Wave height vs vessel operational capability (seismic vessel, chase vessel, service vessel, and seismic array within the program temporal window);
- Wind speed vs vessel operational capability (seismic vessel, chase vessel, service vessel, and seismic array within the program temporal window);
- Pack ice presence vs operability (seismic vessel, chase vessel, service vessel, and seismic array within the program temporal window); and
- Iceberg presence vs operability (seismic vessel, chase vessel, service vessel, and seismic array within the program temporal window).

**Section 5.5 Effects of the Environment on the Project, pg 124** – Please provide the Oceans (2012) report.

**Section 5.5 Effects of the Environment on the Project, pg 124** –It is stated that surveys will be suspended once wind and wave conditions reach certain levels. What are these levels?

**Section 5.6.2 Effects on Fishery VEC, pg 143** – As previously stated, the *Geophysical, Geological, Environmental and Geotechnical Program Guidelines* were revised in 2012. The mitigation outlined should be reviewed against the revised guidelines.

**Section 5.6.2.2 Vessel Presence, pg 146** – “As already noted in the EA...beyond the actual survey area”. As previously noted, the seismic vessel turning area should be within the Project Area.

**Section 5.6.2.2 Vessel Presence, pg 146** – “During transit to the seismic survey area, streamers may be deployed”. If this activity is being considered, it should be assessed as part of the project and included in the environmental assessment.

**Section 5.8 Mitigations and Follow-up, 2nd para., line 4, pg 201** – “within 24 h of the contact”. The Guidelines state that it should be reported immediately.

**Section 5.9 Residual Effects of the Project, Table 5.19, pg 204** – In the “Project Activity” column, picket vessels have been included in the “Effects Assessment” of the EA Report.