

Environmental Assessment of MKI's Northeast Newfoundland Slope Seismic Program,
2012-2017: Amendment (LGL Limited December 2015)

GENERAL COMMENTS

Canada-Newfoundland and Labrador Offshore Petroleum Board (C-NLOPB)

The purpose of the document is not explicitly stated. It is an amendment to the *Environmental Assessment Northeast Newfoundland Slope 2-D Seismic Survey Programme 2012-2017 Multi Klient Invest AS* (YOLO Environmental Inc. 2012) to assess the use of multi-vessel acquisition during a single operation. This activity has not been assessed in either the original Environmental Assessment (EA) Report or its three Amendments that addressed: inclusion of 3-D surveying (Keel HSE Management Inc. May 1, 2015); concurrent 2-D and 3-D surveys (RPS Energy Canada Ltd. June 11, 2015); and waste management on seismic and support vessels (PGS July 22, 2015).

It appears that the other purpose of the document is to consolidate and confirm commitments previously made by Multi Klient Invest AS (MKI) in the above documents, regarding the following:

- Seismic Surveying within Ecologically and Biologically Significant Areas (EBSAs);
- Marine Mammal/Sea Turtle Safety Zone;
- Airgun array shut-down for SARA listed species/EA identified species;
- Airgun array shut-down protocol;
- Airgun array ramp-up/soft starts;
- The Statement of Canadian Practice;
- Mitigation Measures and Follow-up; and
- Waste Management.

It should be clearly stated that the "Clearer definition" and "Clearer protocol" items listed above, and discussed in the "Amendment" are not amendments to the EA but confirmation by MKI that all mitigation and monitoring protocols, as described in the EA and associated documents and correspondence, will be applied to all vessels used in the operation.

The *Geophysical, Geological, Environmental and Geotechnical Program Guidelines* (C-NLOPB 2012), contains verbatim the *Statement of Canadian Practice with Respect to the Mitigation of Seismic Sound in the Marine Environment*, describes measures for the planning and conduct of marine seismic surveys intended to prevent or minimize potential effects. All aspects of the GGEG Program Guidelines applies equally to all seismic vessels that may be used during any planned multi vessel acquisition survey activity.

Environmental Assessment of MKI's Northeast Newfoundland Slope Seismic Program, 2012-2017: Amendment (LGL Limited December 2015)

SPECIFIC COMMENTS

Canada-Newfoundland and Labrador Offshore Petroleum Board (C-NLOPB)

Section 4.0, Assessment of Multi-vessel Acquisition during a Single Operation, page 8 – if the sound sources will not be activated simultaneously, then please indicate how they will be activated, i.e. the time between activation.

Environment Canada

Table 1, page 5 Mitigation Measures -Under the heading "Temporary or permanent hearing damage/disturbance to marine animals", add: "Ramp-up procedures should be implemented when the airgun(s) have been off for 20 or more minutes.", as described in section 2.5.

This mitigation measure will help to deter migratory birds from the area.

Table 1, page 5 Mitigation Measures - Under the heading "Exposure to hydrocarbons", replace "Use of solid streamer when feasible" to "Use of solid streamer".

Liquid-based streamers carry heightened risks of hydrocarbon spills and should not be used.

Section 4.0, Assessment of Multi-vessel Acquisition during a Single Operation, page 8 - All mitigation and monitoring protocols as described in the EA and associated documents and correspondence must apply to all vessels used in the operation.

Fisheries and Oceans Canada (DFO)

Section 2.1 Seismic Surveying within EBSAs, page 3 – while it is correctly noted that the information contained within the referenced DFO publications does not identify either of the three EBSAs as critical or unique areas for marine invertebrate or fish reproduction in the interests of completeness the Amendment should note that: the Orphan Spur EBSA is an area that is inhabited by spotted wolffish, Atlantic wolffish and Northern wolffish in the October - December timeframe; and the NE Shelf and Slope EBSA is an important spring feeding area for spotted wolffish and halibut.

Section 2.6 Adherence to the Statement of Canadian Practice, page 4 - while not explicitly stated it is understood / assumed that the commitment to adhere to all aspects of the Statement of Canadian Practice for the Mitigation of Seismic Sound in the Marine Environment applies equally to all seismic vessels that may be used during any planned multi vessel acquisition survey activity.

Environmental Assessment of MKI's Northeast Newfoundland Slope Seismic Program,
2012-2017: Amendment (LGL Limited December 2015)

Fish, Food and Allied Workers (FFAW) – Unifor

Section 2.1 Seismic Surveying within EBSAs, page 3 - FFAW-Unifor maintains that effects of seismic on key commercial species (i.e. groundfish, snow crab, northern shrimp) are unknown and that research has not provided a consistent evidentiary base to conclude the extent of effects. Thus, the statement that, "Effects of the Project on marine fish and shellfish in the Study Area are predicted to be non-significant," is a generalization with little support.

Table 1. Mitigation Measures, page 5 – A compensation program is listed as one of the primary mitigation measures to address the potential of fishing gear damage. FFAW-Unifor requests that details of this compensation package be made available as to address any questions regarding compensation before activity occurs.

Table 1. Mitigation Measures, page 5 – Regarding potential interference with DFO/FFAW research vessels, we reiterate that no activity is to interfere with the Industry-DFO Collaborative Post-Season Snow Crab Survey and communication is expected to ensure activity does not occur until survey stations are complete.