

National Energy Board



Office national de l'énergie

**OUTGOING FACSIMILE - MESSAGE - À EXPÉDIER**

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## Comments / Commentaries:

*Western Geco Mackenzie / Liard Rivers  
2D Seismic Program  
NEB / DFO Referral to T2A.*

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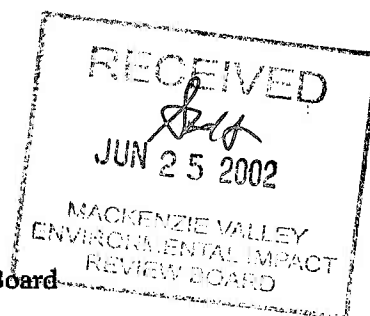
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22

National Energy  
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NEB File 9180-W730-2  
DFO File SC02019  
25 June 2002



Mr. Vern Christensen  
Executive Director  
Mackenzie Valley Environmental Impact Review Board  
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Dear Mr. Christensen:

**Notice of Preliminary Screening Decision to refer the WesternGeco Canada Limited  
Mackenzie River 2D Seismic Program 2002 to Environmental Assessment**

The National Energy Board (NEB) received a WesternGeco Canada Limited (WesternGeco) application on 23 April 2002 for an authorization pursuant to paragraph 5(1)(b) of the *Canada Oil and Gas Operations Act* to conduct a 2D, 1,800 linear km river seismic acquisition program on the Mackenzie and Liard rivers (the development). On 2 May 2002, the NEB notified the Mackenzie Valley Environmental Impact Review Board (MVEIRB) and initiated a preliminary screening pursuant to section 124 of the *Mackenzie Valley Resource Management Act* (MVRMA).

Pursuant to subsection 125(1) of the MVRMA, the NEB as the designated regulatory agency and Fisheries and Oceans Canada (DFO) as a regulatory authority are of the opinion that *the development might have a significant adverse impact on the environment*. Accordingly, the proposed 1,800 km development is referred to the MVEIRB for an environmental assessment.

**Reasons for Decision (section 121 of the MVRMA)**

The NEB and DFO feel that the acoustic effects and proposed mitigation measures of a river seismic program of this magnitude require further study in order adequately evaluate the residual impacts on fish and freshwater mammals. The potential impacts in question relate to changes in behaviour and physiology.

WesternGeco's proposed development entails a 2D river seismic program that runs the majority of the length of the Mackenzie and Liard rivers (approximately 1,800 km). The proposed seismic technology is a recorder/source and a source vessel each towing a 1500 in<sup>3</sup> airgun array. The environmental impact assessment submitted by WesternGeco in support of its application

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contained a synopsis of relevant literature and acoustic modeling as it relates to potential impacts and proposed mitigation measures for an airgun seismic program. The NEB received a number of comments and questions regarding the development in response to its preliminary screening notification and request for review and comment (dated 2 May 2002). While it was recognized that the seismic technology has been used under various conditions in the past, expert agencies including DFO and Government of Northwest Territories Department of Resources, Wildlife and Economic Development (RWED) identified key information gaps in the submission related to potential impacts and effectiveness of mitigation on fish and freshwater mammals in the Mackenzie and Liard river systems.

The NEB Information Request (IR) No. 1 (dated 31 May 2002) provided an opportunity for WesternGeco to address these comments and questions during the preliminary screening. Following review of WesternGeco's submission in response to IR No. 1 (dated 10 June 2002), the NEB and DFO are of the opinion that the submission does not contain sufficient evidence to address the key information gaps identified above. Furthermore, the NEB and DFO are of the opinion that the key information gaps can only be addressed through collection and analysis of test data that is relevant to the Mackenzie and Liard river systems such as:

- acoustic output and attenuation of the seismic energy source;
- behavioral impacts of the seismic energy source on fish and freshwater mammals;
- physiological impacts of the seismic energy source on fish and freshwater mammals; and
- effectiveness of proposed mitigation measures.


For the reasons stated above, the NEB and DFO are of the opinion that the lack of sufficient evidence related to the key information gaps coupled with the magnitude of the development as it relates to the Mackenzie and Liard rivers result in a decision that the *development might have a significant adverse impact on the environment*.

WesternGeco has proposed to undertake a test program, separate from its original application, to demonstrate that its proposed measures would effectively mitigate the potential significant adverse impacts on the environment. The NEB and DFO are of the opinion that the results of the test program are pertinent to the environmental assessment of the proposed development. The NEB and DFO anticipate that an appropriately designed test program would not result in a significant adverse impact on the environment.

The NEB and DFO anticipate that WesternGeco will finalize the design of the test program through consultation with DFO with respect to fish and fish habitat and RWED with respect to freshwater mammals. Following completion of the test program design, WesternGeco would submit an application to the NEB for a Geophysical Operation Authorization to conduct the test program. The NEB would conduct a preliminary screening on the test program, if required, utilizing relevant information gathered during the preliminary screening for the proposed 1,800 km development.

Please contact Laura Van Ham, Environmental Specialist, NEB, at 403-299-2769 or [lvaham@neb-one.gc.ca](mailto:lvaham@neb-one.gc.ca) or Pete Cott, Area Habitat Biologist, DFO, at 867-777-7520 or [cottp@dfo-mpo.gc.ca](mailto:cottp@dfo-mpo.gc.ca) if you have any questions or concerns related to this matter. Alternatively, please contact John Korec, NEB, at 403-292-6614 or [jkorec@neb-one.gc.ca](mailto:jkorec@neb-one.gc.ca).

Yours truly,

*for/*   
T.M. Baker  
Chief Conservation Officer  
National Energy Board

Attachment

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