



Mackenzie Valley
Environmental Impact
Review Board

MACKENZIE VALLEY ENVIRONMENTAL IMPACT REVIEW BOARD

**EA0506-007 Paramount Significant
Discovery Licence 8, 2D Geophysical
Program (SDL8)**

-

**Information Requests from
MVEIRB to Parties**

EA0506-007 Paramount SDL 8, 2D Geophysical Program (SDL8) – Information Requests

IR Number: IR0506-007-1
Source: MVEIRB
To: Ka'a'gee Tu First Nation

Preamble

The Ka'a'Gee Tu First Nation requested that the SDL8 seismic program be referred to environmental assessment due to its opinion that the proposed project could have an adverse impact on the environment of the Ka'a' Gee Tu's traditional territory.

In order to better understand how the SDL8 program could possibly adversely impact Ka'a' Gee Tu's traditional territory, the Review Board requires more information regarding how Ka'a'Gee Tu First Nation members use the SDL8 area.

Request

1. Please describe in detail what aspects of the SDL8 area are culturally important to you.
2. Within the SDL8 area, are there particular sites that are especially culturally significant? If so, could you describe how these sites are significant? (For example, are they important because of historical events? Are they important because of their spiritual significance?) Please be detailed where possible.
3. Please provide information about the importance of the SDL8 area for hunting and fishing.
4. Which species have been historically harvested in the project area?
5. Which species are currently harvested in the project area?
6. During what time of the year does harvesting commonly occur in this area?
7. If possible, please estimate the amount of resources harvested from the project area.
8. Please compare the estimate provided in #7 to the total amount harvested from all other areas by the community.
9. Based on your Traditional Knowledge or local knowledge, please describe how important the SDL8 area is to boreal caribou.

EA0506-007 Paramount SDL 8, 2D Geophysical Program (SDL8) – Information Requests

IR Number: IR0506-007-2
Source: MVEIRB
To: Katlodeeche First Nation

Preamble

It was noted during the Hay River Community Scoping Hearings that Katlodeeche First Nation identify the SDL8 area as part of their traditional territory. To evaluate how the proposed SDL8 seismic program could possibly adversely impact the Katlodeeche First Nation's traditional territory, the Review Board requires more information regarding how Katlodeeche First Nation members use the SDL8 area.

Request

1. Please describe in detail what aspects of the SDL8 area are culturally important to you.
2. Within the SDL8 area, are there particular sites that are especially culturally significant? If so, could you describe how these sites are significant? (For example, are they important because of historical events? Are they important because of their spiritual significance?) Please be detailed where possible.
3. Please provide information about the importance of the SDL8 area for hunting and fishing.
4. Which species have been historically harvested in the project area?
5. Which species are currently harvested in the project area?
6. During what time of the year does harvesting commonly occur in this area?
7. If possible, please estimate the amount of resources harvested from the project area.
8. Please compare the estimate provided in #7 to the total amount harvested from all other areas by the community.
9. Based on your Traditional Knowledge or local knowledge, please describe how important the SDL8 area is to boreal caribou.

EA0506-007 Paramount SDL 8, 2D Geophysical Program (SDL8) – Information Requests

IR Number: IR0506-007-3
Source: MVEIRB
To: Northwest Territory Métis Nation

Preamble

It was noted during the Hay River Community Scoping Hearings that the Northwest Territory Métis Nation identify the SDL8 area as part of their traditional territory. To better evaluate how the proposed SDL8 seismic program could potentially adversely impact the Northwest Territory Métis Nation's traditional territory, the Review Board requires more information regarding how Northwest Territory Métis Nation members use the SDL8 area.

Request

1. Please describe in detail what aspects of the SDL8 area are culturally important to you.
2. Within the SDL8 area, are there particular sites that are especially culturally significant? If so, could you describe how these sites are significant? (For example, are they important because of historical events? Are they important because of their spiritual significance?) Please be detailed where possible.
3. Please provide information about the importance of the SDL8 area for hunting and fishing.
4. Which species have been historically harvested in the project area?
5. Which species are currently harvested in the project area?
6. During what time of the year does harvesting commonly occur in this area?
7. If possible, please estimate the amount of resources harvested from the project area.
8. Please compare the estimate provided in #7 to the total amount harvested from all other areas by the community.
9. Based on your Traditional Knowledge or local knowledge, please describe how important the SDL8 area is to boreal caribou.

EA0506-007 Paramount SDL 8, 2D Geophysical Program (SDL8) – Information Requests

IR Number: IR0506-007-4
Source: MVEIRB
To: Deh Gah Got'ie Dene Council

Preamble

The Deh Gah Got'ie Dene Council identifies the SDL8 area as part of their traditional territory. To better evaluate how the proposed SDL8 seismic program could potentially adversely impact the Deh Gah Got'ie Dene Council's traditional territory, the Review Board requires more information regarding how Deh Gah Got'ie Dene Council members use the SDL8 area.

Request

1. Please describe in detail what aspects of the SDL8 area are culturally important to you.
2. Within the SDL8 area, are there particular sites that are especially culturally significant? If so, could you describe how these sites are significant? (For example, are they important because of historical events? Are they important because of their spiritual significance?) Please be detailed where possible.
3. Please provide information about the importance of the SDL8 area for hunting and fishing.
4. Which species have been historically harvested in the project area?
5. Which species are currently harvested in the project area?
6. During what time of the year does harvesting commonly occur in this area?
7. If possible, please estimate the amount of resources harvested from the project area.
8. Please compare the estimate provided in #7 to the total amount harvested from all other areas by the community.
9. Based on your Traditional Knowledge or local knowledge, please describe how important the SDL8 area is to boreal caribou.

EA0506-007 Paramount SDL 8, 2D Geophysical Program (SDL8) – Information Requests

IR Number: IR0506-007-5
Source: MVEIRB
To: Fort Providence Métis Council

Preamble

The Fort Providence Métis Council identifies the SDL8 area as part of their traditional territory. To better evaluate how the proposed SDL8 seismic program could potentially adversely impact the Fort Providence Métis Council's traditional territory, the Review Board requires more information regarding how Fort Providence Métis Council members use the SDL8 area.

Request

1. Please describe in detail what aspects of the SDL8 area are culturally important to you.
2. Within the SDL8 area, are there particular sites that are especially culturally significant? If so, could you describe how these sites are significant? (For example, are they important because of historical events? Are they important because of their spiritual significance?) Please be detailed where possible.
3. Please provide information about the importance of the SDL8 area for hunting and fishing.
4. Which species have been historically harvested in the project area?
5. Which species are currently harvested in the project area?
6. During what time of the year does harvesting commonly occur in this area?
7. If possible, please estimate the amount of resources harvested from the project area.
8. Please compare the estimate provided in #7 to the total amount harvested from all other areas by the community.
9. Based on your Traditional Knowledge or local knowledge, please describe how important the SDL8 area is to boreal caribou.

EA0506-007 Paramount SDL 8, 2D Geophysical Program (SDL8) – Information Requests

IR Number: IR0506-007-6
Source: MVEIRB
To: Environment Canada

Preamble

Concerns were noted in the Hay River Community Scoping Hearing about the potential project-specific and cumulative impacts of the SDL8 seismic exploration program on boreal caribou. As Environment Canada shares regulatory responsibilities for upholding the *Species at Risk Act* (SARA), the Review Board looks to Environment Canada as an expert advisor in helping to assess the potential significance of the SDL8 program on boreal caribou, a SARA-listed species.

Request

1. How important is the development area to boreal caribou?
2. Is enough known about the response of boreal caribou to industrial activities to assure Environment Canada that this development will not, directly or indirectly, affect the boreal caribou use of the area?
3. Is the SDL8 seismic program likely to adversely affect boreal caribou use of the area?
4. Is enough known about the response of boreal caribou to industrial activities, as well as the importance of the area to boreal caribou, to assure Environment Canada that the development will not, directly or indirectly, have implications at the population level?
5. Is the SDL8 seismic program on its own likely to adversely affect boreal caribou at the population level?
6. Is the SDL8 seismic program likely to contribute to an adverse cumulative effect on boreal caribou at the population level?
7. If the answer to the previous question (#6 above) is “yes”, please specify what other past, present or reasonably foreseeable future activities also contribute to the cumulative effect.
8. What components, if any, of the SDL8 program are the potential sources of the impacts on boreal caribou?
9. If so, what are the characteristics of the impacts?
10. Can Environment Canada suggest practices or technologies that can reliably mitigate the predicted impacts to boreal caribou?
11. To what degree can these mitigations reduce the impacts?
12. If Environment Canada cannot identify specific practices or technologies (#10 above), could it identify thresholds for levels of activities (such as cutline widths, crew sizes, or other activities that are part of the project) where, in Environment Canada’s expert opinion, no adverse impacts to boreal caribou would be expected?
13. Can Environment Canada provide the Review Board with a summary of how other jurisdictions attempt to mitigate adverse impacts to boreal caribou caused by seismic exploration?
14. How successful have these mitigations proven to be in protecting caribou populations and habitat effectiveness?

IR Number: IR0506-007-7
Source: MVEIRB
To: Government of Northwest Territories
Scoping Hearing Report: Page 18.

Preamble

During the Community Scoping Hearing, the GNWT indicated that it would be able to comment upon the potential impacts of the SDL8 seismic program on the sustainability of forestry operations in the area of the SDL8 program on the condition that the GNWT received Paramount’s endpoints for its line clearing activities. The Review Board understands that the endpoints have been provided to the GNWT by Paramount.

Request

1. Based upon the end point data, Paramount’s commitments to use avoidance cutting and meandering techniques, as well as the fact that 4 of its 7 proposed cutlines will be located in re-growth areas, can the GNWT indicate whether Paramount’s proposed SDL8 program will, in your view, significantly impact on the sustainability of forestry operations (potential or existing) in the area?
2. If you responded (above) that a significant impact is to be expected due to the SDL8 program, can the GNWT comment on the likely magnitude and duration of the impact? Is the GNWT aware of any methods that could mitigate the impacts and if so, could these be described in detail?

IR Number: IR0506-007-8
Source: MVEIRB
To: Government of Northwest Territories
Scoping Hearing Report: Page 18

Preamble

Concerns were noted in the Hay River Community Scoping Hearing about the potential project-specific and cumulative impacts of the SDL8 seismic exploration program on boreal caribou. As the GNWT shares regulatory responsibilities for upholding the *Species at Risk Act* (SARA), the Review Board looks to the GNWT as an expert advisor in helping to assess the potential significance of the SDL8 program on boreal caribou, a SARA-listed species.

Request

1. How important is the development area to boreal caribou?
2. Is enough known about the response of boreal caribou to industrial activities to assure the GNWT that this development will not, directly or indirectly, affect the boreal caribou use of the area?
3. Is the SDL8 seismic program likely to adversely affect boreal caribou use of the area?
4. Is enough known about the response of boreal caribou to industrial activities, and the importance of the area to boreal caribou, to assure the GNWT that the development will not, directly or indirectly, have implications at the population level?
5. Is the SDL8 seismic program on its own likely to adversely affect boreal caribou at the population level?
6. Is the SDL8 seismic program likely to contribute to an adverse cumulative effect on boreal caribou at the population level?
7. If the answer to the previous question (#6 above) is “yes”, please specify what other past, present or reasonably foreseeable future activities also contribute to the cumulative effect.
8. What components, if any, of the SDL8 program are the potential sources of the impacts on boreal caribou?
9. If so, what are the characteristics of the impacts?
10. Can the GNWT suggest practices or technologies that can reliably mitigate the predicted impacts to boreal caribou?
11. To what degree can these mitigations reduce the impacts?
12. If the GNWT cannot identify specific practices or technologies (#10 above), could it identify thresholds for levels of activities (such as cutline widths, crew sizes, or other activities that are part of the project) where, in the GNWT’s expert opinion, no adverse impacts to boreal caribou would be expected?
13. Can the GNWT provide the Review Board with a summary of how other jurisdictions attempt to mitigate adverse impacts to boreal caribou caused by seismic exploration?
14. How successful have these mitigations proven to be in protecting caribou populations and habitat effectiveness?

EA0506-007 Paramount SDL 8, 2D Geophysical Program (SDL8) – Information Requests

IR Number: IR0506-007-9
Source: MVEIRB
To: Government of Northwest Territories
Scoping Hearing Report: Page 15

Preamble

Measure 12 in the Review Board's *Report of Environmental Assessment for the Cameron Hills Extension Project* (EA03-005) called for the formation of a Dehcho Boreal Caribou Working Group to help development a Boreal Caribou Management Plan for boreal caribou populations in the southern Dehcho. During the Hay River Community Scoping Hearing, the GNWT committed to providing the Review Board with an update on the Working Group and its activities.

Request

Please provide an update regarding the Working Group's current status, including any progress it may have made in regards to development of the Boreal Caribou Management Plan.

EA0506-007 Paramount SDL 8, 2D Geophysical Program (SDL8) – Information Requests

IR Number: IR0506-007-10

Source: MVEIRB

To: INAC

Scoping Hearing Report: Page 7, 15, 16

Preamble

During the Hay River Community Scoping Hearing, the issue of socio-economic benefits arising from the SDL8 exploration program was raised by a number of Parties to the environmental assessment. Section 115(b) of the *Mackenzie Valley Resource Management Act* requires that the Review Board have regard for “*the protection of the social, cultural and economic well-being of residents and communities in the Mackenzie Valley.*”

Request

1. Are there conditions, policies or protocols enshrined in the *Canada Oil and Gas Operations Act*, the *Dehcho Framework Agreement* and the *Interim Measures Agreement*, or other applicable federal legislation or agreements that call for the establishment of a benefits plan, or similar socio-economic arrangement for a seismic exploration program such as the SDL8 program?
2. If such benefits plans or socio-economic arrangements are required, what are the criteria that a developer must follow in exercising this responsibility and how does INAC ensure that the requirements of the benefits plan or socio-economic arrangement are fulfilled?

IR Number: IR0506-007-11
Source: MVEIRB
To: INAC
Scoping Hearing Report: Page 7

Preamble

Concerns about revegetation, particularly the use of potentially-invasive reclamation species, was noted in the Hay River Community Scoping Hearing, as well as in the GNWT's correspondence to the MVLWB during the screening of the SDL8 program. Paramount, in a letter dated October 13, 2005, responded to concerns about invasive species and identified the seed mix that it proposes for use in the Cameron Hills area.

The Review Board understands that it is the responsibility of the INAC land inspector to determine if reseeding is required following seismic exploration activities.

Request

1. Does INAC agree that the plant seed mix listed in Paramount's October 13, 2005 letter will not be competitive with local vegetation or otherwise significantly impact native vegetation in the SDL8 area?
2. Is the plant seed mix, approved for the Cameron Hills main developments, suitable for the SDL8 area, which has different topography, aspect, drainage, altitude, and ecological characteristics?
3. Can INAC comment on the reasons why agronomic plant species are preferred for use in reclamation as opposed to species native to the area?

EA0506-007 Paramount SDL 8, 2D Geophysical Program (SDL8) – Information Requests

IR Number: IR0506-007-12

Source: MVEIRB

To: INAC

Scoping Hearing Report: Page 13,14,15

Preamble

Concerns regarding the potential impacts to water from the SDL8 seismic program were noted during the Hay River Community Scoping Hearing. The Review Board has also noted that during the MVLWB's screening of the development, the following correspondence was issued regarding the protection of water resources which may be affected by the SDL8 program:

- A Letter of Advice from Dave Tyson, Area Habitat Biologist, DFO, which lists mitigation measures intended to prevent any potentially harmful impacts to fish and fish habitat;
- A list of recommended permit conditions provided by Andrew Forbes, Resource Management Officer for INAC;
- Comments by Kathleen Racher, Manager Water Resources Division, INAC; and
- Comments and Recommendation provided by Wade Romanko, Environmental Emergencies and Assessment Officer, EC.

Request

1. Could INAC provide a list of the standard water protection-related terms and conditions that the Mackenzie Valley Land and Water Board issues for seismic exploration programs?
2. Can INAC comment upon how these terms and conditions are practically enforced in the field by INAC inspectors?
3. Please describe any other actions that INAC inspectors may undertake, when inspecting seismic programs, to ensure that impacts to water do not occur.
4. If Paramount is made to adhere to the terms and conditions provided in Item #1, as well those recommended by reviewers during the MVLWB screening phase, does INAC expect that a significant adverse impact to water is likely to occur from the SDL8 seismic program?

IR Number: IR0506-007-13

Source: MVEIRB

To: NEB

Scoping Hearing Report: Page 7

Preamble

During the Hay River Community Scoping Hearing, Paramount noted that the SDL8 area is situated in a region where extensive, massive glacial gravel deposits exist. It was suggested that the presence of such gravel deposits may inhibit the quality of data produced from a dynamite-based seismic exploration program and would likely make vibroseis the default option for acquiring seismic data.

Request

1. Based upon the NEB's experience and expertise of regulating seismic exploration in other areas, could it comment on the potential effects that the presence of large gravel deposits would have on the acquisition of dynamite-based seismic data? Could the NEB comment upon situations where it has encountered these concerns and if so, what were the outcomes?
2. Would a program undertaken when ground conditions are frozen, as proposed by Paramount, have an effect on the acquisition on either dynamite- or vibroseis-based seismic data compared to similar activities occurring when conditions are thawed?
3. How would the magnitude, depth from surface and average aggregate size of the gravel deposits influence the acquisition of dynamite- or vibroseis-based seismic data?
4. Is the NEB aware of, or in possession of any information regarding the gravel deposits that are present in the SDL8 area? If so, could it provide this information to the Review Board?

EA0506-007 Paramount SDL 8, 2D Geophysical Program (SDL8) – Information Requests

IR Number: IR0506-007-14

Source: MVEIRB

To: NEB

Preamble

The evaluation of alternatives to carry out a development is an integral part of environmental impact assessment practice. In reviewing Paramount's proposed SDL8 project, it is important for the Review Board to be aware of various ways that seismic exploration in the SDL8 area could be conducted. Of particular interest to the Review Board are those activities that are the most effective technologies and practices that are proven to minimize environmental impacts.

Request

Based upon the NEB's experience and expertise in seismic exploration, please comment upon the availability and applicability of best practices and alternative means for seismic exploration in the SDL8 area. In particular, please ensure the following components are considered:

1. Windrowing material, including frequency of window breaks;
2. Options for reducing width of cutlines in vibroseis-based seismic exploration;
3. Low-impact clearing techniques;
4. Helicopter-based seismic;
5. Hand-cut seismic;
6. Any other techniques or technologies that the NEB may believe are relevant.