

Environment & Conservation
P.O. Box 1523
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September 29, 2000

Mackenzie Valley Environmental Impact
Review Board
P.O. Box 938
Yellowknife, NT, X1A 2N7

Attention: Gordon Stewart:

**RE: Information request - Explor Data Environmental Assessment - Land Use Permit
N1998B0861 - Amendment Seismic Program:**

This letter is in response to the Information Request (IR) of September 6, 2000, from the Mackenzie Valley Environmental Impact Review Board (Review Board), as part of the above noted environmental assessment.

Attached are the responses to the two IR s from the Review Board. (The IR questions are in italics followed by the response). If we can be of further assistance in this matter please do not hesitate to get in touch with me.

Sincerely,

Marie Adams
Environmental Specialist
Explor Data EA

attachments

- Map
- CD

IR #1 Subject: Cumulative effects and the state of the water resources of the South Nahanni River watershed:

a) An indication of the existing state of the environment and integrity of the water resources of the South Nahanni River watershed.

The watershed has been impacted to some extent from previous developments in the area but these impacts have largely been mitigated. It is DIAND's opinion that while there has been an increase in seismic and oil and gas activity in the area in recent years, the integrity of the water resources of the South Nahanni watershed have been maintained.

b) An indication of where water quality monitoring stations are and the extent of baseline water quality data available, for the area.

a) For an understanding of the existing state of the environment and integrity of the water resources of the South Nahanni River watershed please refer to the reports prepared by Environment Canada: *Protecting the Waters of Nahanni National Park Reserve, NWT*, 1992 and *Protecting the Aquatic Quality of Nahanni National Park Reserve*, 1998. Both reports were supplied to Gordon Stewart (MVEIRB) by Paula Pacholek of DOE.

b) All water quality monitoring stations and baseline water quality data is available within the two reports mentioned in part (a). Some of this data dates back to 1961.

**Attached to this document is a map showing the locations of active stations. Also included in this package is a CD (released by Environment Canada) entitled "Eco-Atlas - 705" giving a variety of information including climate data, water quality information, hydrometric data, ecoregions information and other information which may be useful to the Review Board.

c) Analysis and conclusions, with supporting rationale, of the potential for cumulative effects on water resources to occur from this proposed development;

DIAND is of the opinion that the potential for cumulative effects from this development is low given the implementation of standard permit conditions. It is DIAND's contention that standard terms and conditions of land use permits will provide adequate mitigation of potential impacts, resulting in no significant effects to the water resources encountered; thereby reducing the potential for cumulative effects on aquatic resources from the operations.

Rationale:

The development in question is a hand cut seismic line, with no mechanized vehicle use. The developer noted (teleconference Sept. 7, 2000), that while brush or shrub cutting would occur, there would be minimal removal of the canopy cover if a Navpak was utilized. It follows that if a Navpak operation was carried out the line would not even need to be 1.5m wide for access to each straight line drilling/dynamite location. Regardless of whether or not this is a Navpak

supported, the developer also noted that there would be no clearing adjacent to any creeks crossed, that DFO prohibits drilling within 100 m of a water body.

Due to the low impact of a hand cut seismic line, there are likely low impacts associated with the water resource in the area. Crossings would be scouted in advance to minimize impacts (remembering that one would be fording the water course on foot or would be flown over the crossing to either an existing clearing or an hand cut clearing). Sensor cables would be rubber coated to increase the strength and to insulate the cable from the water. These cables are carried across the water body as well and laid out to enable the attached instrumentation to record the blast impulse as well as the “reflected” impulse from the subsurface structures. The permit conditions as stated, would cover off more than one season, and more than one type of operation in that there are conditions requiring the use of clean materials (snow or ice) for constructed crossings as well as conditions to address the removal of the snow and ice prior to spring breakup. These types of crossings are more typical of an operation wherein heavy duty mechanical equipment are used on the cutting of the line and in the movement of the drills etc. (i.e. not reflective of the hand cut, heliportable drilling operation being assessed). It was also indicated by the developer, that helicopter access would be (as much as possible) through use of natural clearings which are frequently encountered as the proposed line travels above or close to the tree line.

With regard to potential cumulative effects resulting from increased access , the developer has indicated (Sept 7 teleconference), that the proposal called for a ‘straight line seismic’ which would not follow the path of least resistance. Should the developer be directed to use a Navpak supported operation, the width of the line will not be convenient for mechanized vehicle traffic thereby reducing the likelihood of increased access and again, reducing the potential cumulative impact on water resources.

d)A detailed explanation of how licence and permit terms and conditions that would normally be applied to regulatory authorizations for seismic programs ...could mitigate for direct, indirect and cumulative effects to water resources.

Currently there are no ‘typical conditions’ for a hand cut seismic operation and thus these conditions were taken from other permits (issued by DIAND), that would include mechanical, “conventionally”cut seismic as well as possibly some hand cut operations. If the operation were to be a mechanical operation, the impacts would be greater than this hand cut operation and would likely be conducted in the winter and thus conditions associated with snow fills and ice crossing construction and removal.

One must be reminded that this is already a permitted operation, and permit conditions already have been annexed to the permit. These conditions are likely adequate to address the amendment request. These conditions were recommended by the inspector who is likely more familiar with the types of operations in the area (past and present) and is likely more familiar with the terrain that would be operated on.

A sample of terms and conditions are attached as **Appendix A:**

Explor Data Environmental Assessment - DIAND Response to IR s

IR #2 Subject: Deh Cho Land Claim Process and implications

As noted to staff of the Review Board, the Sahtu Land Use Planning Board should be contacted for questions related to any area of the South Nahanni watershed that may be included in the Sahtu planning region.

As indicated by the note of confirmation on the Review Board's public registry, the line in question does not reach the proposed area of expansion for the Park.

The information below are the responses to the questions posed in the IR (*italics*):

a) An indication of the status of the Deh Cho First Nations Interim Measures Agreement, the Deh Cho First Nations Framework Agreement and any other agreements, and how these agreements affect, or may affect this development

The parties have a tentative agreement on a framework agreement.

The parties have substantial agreement on an interim measures agreement (IMA). The IMA includes the following subjects : land use planning; surface\sub-surface and sub-surface only land withdrawals; DCFN participation in the MVLWB and the EIRB; consultation measures; Commissioner's lands; mineral development; oil and gas activity; Forest management; Nahanni National Park reserve; Great Slave Lake Fishery; and funding arrangements.

The project is not affected by these negotiations directly, as there are no agreements flowing from the negotiations. However, both the Deh Cho First Nations and Parks Canada have identified interest in withdrawing lands in the South Nahanni River watershed in order to make informed decisions in future negotiations (ie., future ownership of the area, potential protected areas, including expansion of the existing park).

One of the two outstanding items in the interim measures agreement is the restriction of land use permits on withdrawn lands. At this point Canada has not agreed to this request from DCFN. The specific land use activity the DCFN wants restricted on withdrawn lands is seismic on spec. for oil and gas exploration. Again, Canada has not agreed to this condition.

b) An indication of any protection measures (e.g. land freezes) currently in place, or proposed to be in place to protect areas of interest to parties, and how these measures affect, or may affect this development.

The following wording is from the latest draft of the IMA.

Land Withdrawal

12. Upon signing this Agreement, Canada and the Deh Cho First Nations will

negotiate for the purpose of identifying lands to be withdrawn from disposal and mineral staking under the *Territorial Lands Act* and may use the following criteria for this purpose:

- (a) lands harvested for food and medicinal purposes;
- (b) culturally and spiritually significant areas;
- (c) lands which are ecologically sensitive; and
- (d) watershed protection.

13. Canada will withdraw from disposal, under the *Territorial Lands Act*, the lands identified in accordance with the process set out in 12.
14. With the agreement of Canada and the Deh Cho First Nations, additional lands may be withdrawn from disposal, and/or modifications made to the land withdrawals under 12, at another time, including following completion of the land use plan.
15. Lands identified under 12 to 14 may be subject to surface\sub-surface withdrawals while others may be subject to sub-surface withdrawals only.
16. The identification of lands for withdrawal shall take into account land use information compiled by the Deh Cho First Nations and the Planning Committee.
17. The identification of lands for withdrawal shall take into account potential overlap discussions between the Deh Cho First Nations and other Aboriginal people in the Northwest Territories.
18. Canada and the Deh Cho First Nations shall identify the land to be withdrawn on National Topographic Series map sheets. When the identification of the land has been agreed upon, Canada and the Deh Cho First Nations shall sign the maps to confirm that the land described is the land to be withdrawn.
19. Land withdrawn from disposal under this Agreement shall be subject to the continuing exercise of existing rights, titles, interests, entitlements, licences, permits, authorizations, reservations, reservations by notation, benefits and privileges.
20. (a) New permits may be issued on the withdrawn land under the *Territorial Quarrying Regulations* only:
 - (i) for sources of material which had been opened prior to the dates of the withdrawal orders; or
 - (ii) for new sources of material required for essential community

construction purposes; or

(iii)with the consent of the Deh Cho First Nations; or

(iv)in cases where, in the opinion of the Minister of DIAND, no alternative source of supply is reasonably available in the surrounding area and after consultation with the Deh Cho First Nations.

(b) No new leases may be issued on the withdrawn land under the *Territorial Quarrying Regulations*.

21. Any new permits or leases issued pursuant to 20 shall not thereafter be considered new permits or new leases for the purpose of 20.
22. The withdrawal of land under this Agreement shall not be interpreted as meaning that such land is identified for any specific purpose other than the purpose set out in the Order in Council.
23. The provisions of this Agreement shall not affect access to or across withdrawn land.
24. Canada will not revoke the Order in Council for the purpose of amending the schedules thereto or for any other purpose without prior consultation with the Deh Cho First Nations.

There is no way of knowing how this project will affect any future discussions with DCFN, until the parties have a completed the IMA and addressed the land withdrawal\restriction of seismic activity issue.

c)An indication that if expansion of NNPR is going to occur, one way or the other, what the implications to this development proposal are:

DIAND is aware that Parks Canada is interested in expanding NNPR. However, it is understood by the federal government, as a whole, that any park expansion would be concluded under the Deh Cho process.

APPENDIX A:

Explor Data Environmental Assessment - MVEIRB Information Request to DIAND

CONDITIONS ANNEXED TO AND FORMING PART

OF LAND USE PERMIT XXXXXX

31 (1) (a) - Location and Area

1. The Permittee shall not conduct this land PLANS use operation on any lands not designated in the accepted application, unless otherwise authorized in writing by the Engineer.
2. The Permittee shall remove from Territorial Lands, all scrap metal, discarded machinery and parts, barrels and kegs, buildings and building material. REMOVE WASTE MATERIAL
3. The Permittee shall not construct parallel lines or roads unless authorized by the Engineer. PARALLEL ROADS
4. The Permittee shall locate all lines, trails and rights-of-way to be constructed parallel to streams a minimum of 30 metres from any stream except at crossings unless otherwise authorized in writing by a land use inspector. PARALLELING STREAMS

31 (1) (b) - Time

5. The Permittee's Field Supervisor shall contact or meet with a land use inspector at the office of the Department of Indian Affairs and Northern Development, Phone Number at least 48 hours prior to the commencement of this land use operation. CONTACT INSPECTOR
6. The Permittee shall advise a land use inspector at least 10 days prior to the completion of the land use operation of (a) his plan for removal or storage of equipment and materials, and (b) when final clean-up and restoration of the REPORTS BEFORE REMOVAL

lands used will be completed.

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| 7. | The Engineer for the purpose of this operation designates March 31, as spring break-up. | SPRING
BREAK-UP |
| 8. | The Permittee shall remove all ice bridges prior to spring break-up or completion of the land use operation unless otherwise approved in writing by a land use inspector. | REMOVE
ICE
BRIDGE |
| 9. | The Permittee shall remove all snow fills from stream crossings prior to spring break-up or completion of the land use operation unless otherwise approved in writing by a land use inspector. | REMOVE
SNOW
FILLS |
| 10. | The Permittee shall complete all clean-up and restoration of the lands used prior to the expiry date of this permit. | CLEAN-UP |

31 (1) (c) - Equipment

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| 11. | The Permittee shall not use any equipment except of the type, size, and number that is listed in the accepted application, unless otherwise authorized in writing by a land use inspector. | ONLY
APPROVED
EQUIPMENT |
| 12. | The Permittee shall equip bulldozer blades used in this operation with "mushroom" type shoes or a similar type of device which shall be extended 15 centimetres below the cutting edge of the blade. | BULLDOZER
BLADES
& SHOES |
| 13. | The Permittee shall keep all garbage and debris in a covered metal container until disposed of. | GARBAGE
CONTAINERS |

31 (1) (d) - Methods and Techniques

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| 14. | The permittee shall scout proposed lines and routes to select the best location for crossing streams and avoiding terrain obstacles prior to the movement of any vehicle that exerts pressure on the ground | DETOURS
& CROSSINGS |
| 15. | The Permittee shall construct and maintain winter roads with a minimum of ten (10) | SNOW
ROADS |

centimetres packed snow at all times during this land use operation.
in excess of 35 k pa.

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| 16. | The permittee shall dogleg lines, trails and rights-of-way that approach lakes, streams or public roads, as specified in writing by a land use inspector. | DOGLEG
APPROACHES |
| 17. | The Permittee shall refill and restore bore hole craters as the land use operation progresses. | REFILL
CRATERS |
| 18. | The Permittee shall remove all wire from the land as the land use operation progresses. | REMOVE
WIRE |

31 (1) (f) - Control or Prevention of Flooding, Erosion
and Subsidence of Land

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| 19. | The Permittee shall remove any obstruction to natural drainage caused by any part of this land use operation. | NATURAL
DRAINAGE |
| 20. | The Permittee shall not cut any stream bank unless authorized in writing by a land use inspector. | STREAM
BANKS |
| 21. | The Permittee shall not use any material other than water in the construction of ice bridges. | ICE
BRIDGE
MATERIAL |
| 22. | The Permittee shall not use any material other than clean snow in snow fills. | SNOW
FILLS |
| 23. | The Permittee shall not use the bed of streams for access routes except for the purpose of crossing the streams unless otherwise authorized by a land use inspector. | STREAM
BEDS
ACCESS |
| 24. | The Permittee shall not move any equipment or vehicles unless the ground surface is in a state capable of fully supporting the equipment or vehicles without rutting or gouging. | VEHICLES
MOVEMENT
FREEZE-UP |
| 25. | The Permittee shall install erosion control structures as the land use operation | EROSION
CONTROL |

progresses unless otherwise authorized
by a land use inspector.

WHEN

31 (1) (g) - Use, Storage, Handling and Disposal of Chemical
or Toxic Material

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| 26. | The Permittee shall remove all garbage and debris from the area of the land use operation to a disposal site approved in writing by a land use inspector. | REMOVE
GARBAGE |
| 27. | The Permittee shall dispose of all combustible waste petroleum products by incineration or removal. | WASTE
PETROLEUM
DISPOSAL |
| 28. | The Permittee shall report all spills immediately in accordance with instructions contained in "Spill Report" form N.W.T. 1752/0593. Twenty four (24) hour spill report line (403)920-8130. | REPORT
CHEMICAL
AND
PETROLEUM
SPILLS |

31 (1) (h) - Wildlife and Fisheries Habitat

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| 29. | The Permittee shall not destroy or damage beaver dams. | BEAVER
DAMS |
| 30. | The Permittee shall not detonate explosives within fifteen (15) metres of any body of water which is not completely frozen to the bottom. | EXPLOSIVES
WATER |

31 (1) (k) - Petroleum Fuel Storage

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| 31. | The Permittee shall not place any petroleum fuel storage containers within thirty (30) metres of the normal high water mark of any stream. | FUEL
BY
STREAM |
| 32. | The Permittee shall locate mobile fuel facilities on land when stationary for any period of time exceeding twelve (12) hours. | FUEL
ON
LAND |
| 33. | The Permittee shall not allow petroleum products to spread to surrounding lands or into water bodies. | FUEL
CONTAINMENT |
| 34. | The Permittee shall construct a dyke around | DYKE |

<p>each stationary fuel container or group of stationary fuel containers where any one container has a capacity exceeding 4,000 litres.</p>	<p>FUEL CONTAINERS</p>
<p>35. The Permittee shall ensure that the dyke and the area enclosed by the dyke shall be impermeable to petroleum products at all times.</p>	<p>IMPERMEABLE DYKE</p>
<p>36. The volume of the dyked area shall be 10% greater than the capacity of the largest fuel container placed therein.</p>	<p>CAPACITY</p>
<p><u>31 (1) (1) - Debris and Brush Disposal</u></p>	
<p>37. The Permittee shall dispose of all debris and brush by:</p> <p>(a) windrowing the debris and brush to the side of the line, and</p> <p>(b) making breaks in the windrow of at least seven (7) metres wide at intervals of not more than three hundred and thirty (330) metres.</p>	<p>BRUSH DISPOSAL</p>
<p>38. The Permittee shall make the windrow of brush and debris lie flat and compact by:</p> <p>(a) bucking the material into suitable lengths and lopping the branches from the stem, and/or</p> <p>(b) crushing with heavy machinery in order to compact the material.</p>	<p>BRUSH DISPOSAL</p>
<p>39. The Permittee shall ensure that windrows are separated from standing timber.</p>	<p>WINDROWS LOCATION</p>
<p><u>31 (1) (m) - Matters Not Inconsistent with the Regulations</u></p>	
<p>40. The Permittee shall keep on hand, at all times during this Land Use Operation, a copy of the land use permit.</p>	<p>COPY OF PERMIT</p>
<p>41. The Permittee shall provide in writing to the Engineer, at least forty-eight (48)</p>	<p>IDENTIFY AGENT</p>

hours prior to commencement of this land use operation, the following information:

- (a) person, or persons, in charge of the field operation to whom notices, orders, and reports may be served;
- (b) alternates;
- (c) all the indirect methods for contacting the above person(s).

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| 42. | The Permittee shall, while preparing the access road, make every effort to avoid covering or destroying traps or snares that may be found along these routes. | TRAPS
PROTECTION |
| 43. | The Permittee shall restore any trails used by trappers or hunters along access routes by slashing any and all trees that may fall across these paths or trails and by removing any other obstructions such as snow piles or debris that may be pushed across the trails. | TRAILS
RESTORATION |
| 44. | The Permittee shall submit to the Engineer a contingency plan, for chemical and petroleum spills, for use during the construction and operation of the winter road. | CONTINGENCY
PLAN |