June 20, 2018

Ms. Alex Hood
Regulatory Specialist, Environment & Permitting
De Beers Canada Inc.
300-5120 49th Street
Yellowknife, NT X1A 1P8

Dear Ms. Hood:

Re: Issuance of Type A Land Use Permit – Amendment #1
Mining - Snap Lake, NT

Attached is the amended Type A Land Use Permit MV2017D0032 granted by the Mackenzie Valley Land and Water Board (MVLWB or the Board) in accordance with the Mackenzie Valley Resource Management Act (MVRMA).

Preliminary Screening

Based on the evidence provided, the Board has also confirmed that the Application is exempt from preliminary screening as per Schedule 1, section 2.1 of the Exemption List Regulations of the MVRMA which states:

A development, or a part thereof, for which a permit, licence or authorization is requested that

(a) was part of a development that fulfilled the requirements of the environmental assessment process established by the Mackenzie Valley Resource Management Act; and

(b) has not been modified since the development referred to in paragraph (a) fulfilled the requirements of the environmental assessment process by the Mackenzie Valley Resource Management Act.

Please read all conditions carefully.

Reclamation Security

In accordance with Permit condition 50 a security deposit in the amount of $51,118,424.00 shall be posted with the Minister and copied to the Board by September 18, 2018. As delegated under Schedule A of the Delegation Instrument under the MVRMA, this security deposit, payable to the Government of the Northwest Territories in the amount of $51,118,424.00, shall be submitted to: Government of the Northwest Territories, Department of Lands, North Slave Regional Office, 140 Bristol Avenue, Yellowknife NT, X1A 3T2. For more information about posting security with the GNWT, please contact Charlene Coe, Land Use Advisor, at (867) 767-
9187 (ext. 24194). Please send a copy of the receipt for the security deposit to the MVLWB office prior to the start of your operation.

Management Plans

The Board hereby approves the following Plans as summarized in Table 1:

Table 1: Plans that have been approved under Amended Permit MV2017D0032

<table>
<thead>
<tr>
<th>Condition Number</th>
<th>Title of Plan</th>
<th>Date Received</th>
</tr>
</thead>
<tbody>
<tr>
<td>42</td>
<td>Waste Management Plan</td>
<td>March 19, 2018</td>
</tr>
<tr>
<td>66</td>
<td>Spill Contingency Plan</td>
<td>March 19, 2018</td>
</tr>
<tr>
<td>71</td>
<td>Interim Closure and Reclamation Plan, Version 3.2,</td>
<td>July 11, 2013</td>
</tr>
<tr>
<td></td>
<td>including the following updates:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Extended Care and Maintenance Plan, version 3</td>
<td>March 19, 2018</td>
</tr>
<tr>
<td></td>
<td>• Water Management Plan for Extended Care and Maintenance, version 3</td>
<td>March 19, 2018</td>
</tr>
<tr>
<td></td>
<td>• Emergency Response Plan for Extended Care and Maintenance, version 2</td>
<td>December 14, 2017</td>
</tr>
</tbody>
</table>

The Board reminds De Beers that the management plans approved with this June 20, 2018 issuance letter have only been approved under the Permit MV2017D0032 authorization.

The Board reminds De Beers that the Inspector has the authority to require more frequent in person site visits during periods of zero-occupancy if conditions in the Permit are not being adhered to, or if De Beers' is not following their approved Management Plans.

The Board directs De Beers to submit the Final Closure and Reclamation Plan by January 30, 2019 to allow sufficient time to begin closure discussions prior to the submission of the Water Licence Application.

As was outlined in the Boards February 22, 2018 Decision Letter to De Beers, the Board requires De Beers to submit details about new remote monitoring systems at least 60 days prior to their implementation to replace a physical presence at Snap Lake, for approval, including, at a minimum, information on the new technology proposed, data and results of field trials, relevant studies, and rationale for the proposed program.

Lastly, the Board requires De Beers to submit their monthly site inspection checklists/reports as part of the Annual Water Licence Report submission due on March 31 each year, commencing March 31, 2019.

A copy of this Permit and all related correspondence and documents has been filed on the Public Registry at the MVLWB office. Please be advised that this letter, inspection reports, and related correspondence is part of the Public Registry and is intended to keep all interested parties informed of the manner in which the Permit requirements are being met. All Public Registry material will be considered if an amendment to the Permit is requested.
The full cooperation of De Beers is anticipated and appreciated. If you have any questions or concerns, please contact Kierney Leach at (867) 766-7470 or email kleach@mvlnwb.com.

Yours sincerely,

Mavis Cli-Michaud
MVLWB Chair

Copied to:  Distribution List

Attached:  Land Use Permit MV2017D0032 – Current to June 20, 2018
          Reasons for Decision
Subject to the Mackenzie Valley Land Use Regulations and the terms and conditions in this Permit, authority is hereby granted to:

De Beers Canada Inc.

Permittee

to proceed with the land use operation described in the Application of:

<table>
<thead>
<tr>
<th>Signature</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ms. Alexandra Hood</td>
<td>August 25, 2017</td>
</tr>
</tbody>
</table>

Type of Land Use Operation
Diamond Mining

Location
Snap Lake, NT

This Permit may be assigned, extended, discontinued, suspended, or cancelled pursuant to the Mackenzie Valley Land Use Regulations.

Dated at Yellowknife this 20 day of June , 2018

Signature Chair

Mavis Cli-Michaud

Signature Witness

Tanya Lantz

Commencement Date
October 12, 2017

Expire Date
October 11, 2022

**ATTENTION**

It is a condition of this Permit that the Permittee comply with the provisions of the *Mackenzie Valley Resource Management Act* and Regulations and the terms and conditions set out herein. A failure to comply may result in suspension or cancellation of this Permit.
Conditions Annexed to and Forming Part of Land Use Permit #MV2017D0032

Part A: Scope of Permit

1. This Permit entitles the Permittee to conduct mining and milling production and associated activities at the Snap Lake Diamond Project, including:
   i. Extraction of waste rock and ore;
   ii. Development and operation of the site facilities shown in Figure 4 of the Consolidated Project Description (including the airstrip);
   iii. Construction of Fuel Storage Facilities;
   iv. Storage of fuel;
   v. Development and progressive Reclamation of the North Pile;
   vi. Construction and maintenance of site roads and lay down areas;
   vii. Quarrying of materials from specified areas;
   viii. Maintenance and operation of the winter road from the Tibbett-Contwoyo winter road to the Project; this also includes the winter access road to the Esker quarry site; and
   ix. Progressive closure and Reclamation of site components.

These activities are described in submissions to the Mackenzie Valley Land and Water Board, including, but not limited to:

   x. The application submitted by the Permittee on February 2, 2001, and updated October 29, 2010;
   xi. The Consolidated Project Description, submitted by the Permittee on November 24, 2003 (shown specifically in Figures 3 and 5);
   xii. The application submitted by the Permittee on April 15, 2014; and

2. This Permit is issued subject to the conditions contained herein with respect to the use of land for the activities and area identified in Part A, item 1 of this Permit.

3. Compliance with the terms and conditions of this Permit does not excuse the Permittee from its obligation to comply with the requirements of any applicable Federal, Territorial, Tłı̨chǫ, or Municipal laws.
Part B: Definitions (defined terms are capitalized throughout the Permit)


Amendment #1 – the Amendment to conditions within Permit MV2017D0032 that was approved by the Board on June 20, 2018.

Board - the Mackenzie Valley Land and Water Board established under Part 4 of the Act.

Borehole - a hole that is made in the surface of the ground by drilling or boring.

Construction - any activities undertaken to construct or build any component of, or associated with, the Project.


Drilling Fluids - any liquid mixture of water, sediment, drilling muds, chemical additives or other wastes that are pumped down hole while drilling and are specifically related to drilling activity.

Drilling Waste - all materials or chemicals, solid or liquid, associated with drilling, including drill cuttings and Drilling Fluids.

Engagement Plan - a document, developed in accordance with the Board’s Engagement and Consultation Policy and the Engagement Guidelines for Applicants and Holders of Water Licences and Land Use Permits, that clearly describes how, when, and which engagement activities will occur with an affected party during the life of the Project.

Esker - the Esker (deposition from a glacial stream) referred to in the Consolidated Project Description (pg. 35). This Esker is located nine kilometres from the Project site and was previously used as a gravel source during the advanced exploration program.

Flowing Artesian Well - a well in which water:
   a) Naturally rises above the ground surface or the top of any casing; and
   b) Flows naturally, either intermittently or continuously.

Fuel Storage Container - a container for the storage of petroleum or allied petroleum products with a capacity of less than 230 litres.

Fuel Storage Facilities - the facilities as described in the Application for Land Use Permit MV2014D0010 for increased fuel storage, dated April 15, 2014.

Fuel Storage Tank - a closed container for the storage of petroleum or allied petroleum products with a capacity of more than 230 litres.
Greywater - all liquid wastes from showers, baths, sinks, kitchens, and domestic washing facilities but not including toilet wastes.

Habitat - the area or type of site where a species or an individual of a species of wildlife naturally occurs or on which it depends, directly or indirectly, to carry out its life processes.

Inspector - an Inspector designated by the Minister under the Act.

Minister - the Minister of Indian Affairs and Northern Development Canada or the Minister of the Government of the Northwest Territories – Department of Lands, as the case may be.

North Pile - the above-ground facility designated for the storage of Processed Kimberlite and other waste materials.

Ordinary High Water Mark - the usual or average level to which a body of water rises at its highest point and remains for sufficient time so as to change the characteristics of the land. In flowing waters (rivers, streams) this refers to the "active channel/bank-full level" which is often the 1:2 year flood flow return level. In inland lakes, wetlands, or marine environments, it refers to those parts of the Watercourse bed and banks that are frequently flooded by water so as to leave a mark on the land and where the natural vegetation changes from predominately aquatic vegetation to terrestrial vegetation (excepting water tolerant species). For reservoirs, this refers to normal high operating levels (full supply level).

Processed Kimberlite - the material rejected from the process plant after the recoverable minerals have been extracted.

Permafrost - ground (soil or rock) that remains at or below 0°C for at least two consecutive years.

Permittee - the holder of this permit.

Professional Engineer - a person who is registered with the Northwest Territories and Nunavut Association of Professional Engineers and Geoscientists (NAPEG) in accordance with the Engineering and Geoscience Professions Act, S.N.W.T. 2006, c.16, or amendments, as a Professional Engineer, and whose principal field of specialization is appropriate to address the components of the project at hand.

Project - the Snap Lake Diamond Project as described in Part A, item 1 of this Permit.

Reclamation - the process of restoring disturbed land to its former or other productive uses.

Secondary Containment - containment that prevents liquids that leak from Fuel Storage Tanks or containers from reaching outside the containment area and includes double-walled Tanks, piping, liners, and impermeable barriers.

Sewage - all toilet wastes and Greywater.
Spill Contingency Plan - a document, developed in accordance with Aboriginal Affairs and Northern Development Canada's *Guidelines for Spill Contingency Planning* (April 2007), that describes the set of procedures to be implemented to minimize the effects of a spill.

Sump - a man-made pit or natural depression in the earth's surface used for the purpose of depositing Waste that does not contain Toxic Material, such as non-toxic Drilling Waste or Sewage, therein.

Toxic Material - any substance that enters or may enter the environment in a quantity or concentration or under conditions such that it:
   a) Has or may have an immediate or long-term harmful effect on the environment or its biological diversity;
   b) Constitutes or may constitute a danger to the environment on which life depends; or
   c) Constitutes or may constitute a danger in Canada to human life or health.

Waste - any garbage, debris, chemical, or Toxic Material to be used, stored, disposed of, or handled on land, and also as defined in section 51 of the Act.

Waste Management Plan - a document, developed in accordance with the Board's *Guidelines for Developing a Waste Management Plan*, that describes the methods of Waste management from Waste generation to final disposal.

Watercourse - a natural body of flowing or standing water or an area occupied by water during part of the year, and includes streams, springs, swamps and gulches but does not include groundwater.
Part C: Conditions Applying to All Activities (headings correspond to subsection 26(1) of the Mackenzie Valley Land Use Regulations)

<table>
<thead>
<tr>
<th>Condition</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>26(1)(a) Location and Area</strong></td>
<td></td>
</tr>
<tr>
<td>1. The Permittee shall use an existing campsite, as described in the complete application.</td>
<td>EXISTING CAMP</td>
</tr>
<tr>
<td>2. Prior to the commencement of drilling, the Permittee shall submit the drill target locations on a 1:50,000-scale map with coordinates and map datum to the Board and an Inspector.</td>
<td>DRILL LOCATIONS</td>
</tr>
<tr>
<td>3. The Permittee shall not conduct a quarry operation within 100 metres of the Ordinary High Water Mark of any Watercourse, unless otherwise authorized in writing by an Inspector.</td>
<td>QUARRY SETBACK</td>
</tr>
<tr>
<td>4. The Permittee shall locate all lines, trails, and right-of-ways to be constructed parallel to any Watercourse a minimum of 100 metres from the Ordinary High Water Mark, except at crossings.</td>
<td>PARALLEL WATERCOURSE</td>
</tr>
<tr>
<td>5. The Permittee shall not conduct this land-use operation on any lands not designated in Part A, item 1.</td>
<td>LOCATION OF ACTIVITIES</td>
</tr>
<tr>
<td><strong>26(1)(b) Time</strong></td>
<td></td>
</tr>
<tr>
<td>6. At least 48 hours prior to the commencement of the land-use operation, the Permittee's Field Supervisor shall contact an Inspector at (867) 767-9187.</td>
<td>CONTACT INSPECTOR</td>
</tr>
<tr>
<td>7. At least 48 hours prior to commencement of the land-use operation, the Permittee shall provide the following information, in writing, to the Board and an Inspector:</td>
<td>IDENTIFY AGENT</td>
</tr>
<tr>
<td>a) the name(s) of the person(s) in charge of the field operation;</td>
<td></td>
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<tr>
<td>b) alternates; and</td>
<td>REPORTS BEFORE REMOVAL</td>
</tr>
<tr>
<td>c) all methods for contacting the above person(s).</td>
<td></td>
</tr>
<tr>
<td>8. At least ten days prior to the completion of the land-use operation, the Permittee shall advise an Inspector of:</td>
<td></td>
</tr>
<tr>
<td>a) the plan for removal or storage of equipment and materials; and</td>
<td>DAM SAFETY GUIDELINES</td>
</tr>
<tr>
<td>b) when final cleanup and reclamation of the land used will be completed.</td>
<td>FINAL DETAILED DESIGN REPORT</td>
</tr>
<tr>
<td>9. The Permittee shall ensure that all structures intended to contain, withhold, divert, or retain water or Wastes, and which meet the definition of a dam under the Dam Safety Guidelines, are designed, constructed, and maintained to meet or exceed the Dam Safety Guidelines.</td>
<td></td>
</tr>
<tr>
<td>10. A minimum of 90 days prior to the start of Construction of any structures intended to contain, withhold, divert, or retain water or Wastes, the Permittee shall submit to the Board, a Final Detailed Design Report, Construction drawings and specifications, and a Quality Control Plan stamped by a Professional Engineer.</td>
<td></td>
</tr>
</tbody>
</table>
11. A minimum of 48 hours prior to the commencement of Construction of structures identified to contain, withhold, divert, or retain water or Wastes, the Permittee shall provide written notification to the Board and an Inspector. Notification shall include the name and contact information for the Construction superintendent.

12. Within 90 days of the completion of the Construction of any structures, the Permittee shall submit to the Board, a Geotechnical Engineering Report prepared by a Professional Engineer. This shall include as-built drawings, documentation of field decisions that deviate from the Final Detailed Design Report, and any data used to support these decisions.

13. The Permittee shall submit in writing to the Board and the Inspector, all modification requests a minimum of 60 days prior to the proposed modification commencing.

26(1)(c) Type and Size of Equipment

14. The Permittee shall not use any equipment except of a similar type, size, and number to that listed in Part A, item 1.

26(1)(d) Methods and Techniques

15. Immediately upon completion of operations at each Borehole, the Permittee shall remove or cut off and seal each drill casing at ground level.

16. The Permittee shall construct and maintain the overland portion of winter roads with a minimum of 10 cm of packed snow and/or ice at all times during this land-use operation.

17. The Permittee shall not erect camps or store material, other than that required for immediate use, on the ice surface of a Watercourse.

26(1)(e) Type, Location, Capacity, and Operation of All Facilities

18. The Permittee shall ensure that the land use area is kept clean at all times.

19. The Permittee shall not locate any Sump within 50 metres of the Ordinary High Water Mark of any Watercourse, unless otherwise authorized in writing by an Inspector.

26(1)(f) Control or Prevention of Ponding of Water, Flooding, Erosion, Slides, and Subsidence of Land

20. The Permittee shall install and maintain culverts such that scouring does not occur.

21. The Permittee shall insulate the ground surface beneath all structures associated with this land-use operation to prevent:
   a) any vegetation present from being removed;
   b) the melting of Permafrost; and
   c) the ground settling and/or eroding.
22. The Permittee shall minimize erosion by installing erosion control structures as the land-use operation progresses.
23. The Permittee shall, where flowing water from a Borehole is encountered:
   a) plug the Borehole in such a manner as to permanently prevent any further outflow of water; and
   b) immediately report the occurrence to the Board and an Inspector.
24. The Permittee shall ensure that vehicle travel is restricted to site roads unless otherwise authorized in writing by the Inspector.
25. The Permittee shall suspend overland travel of equipment or vehicles at the first sign of rutting.
26. The Permittee shall not use any material other than clean water and snow in the construction of ice bridges.
27. The Permittee shall not use any materials other than clean snow and water in the construction of snow fills.
28. Prior to spring break-up or completion of the land-use operation, the Permittee shall clean up and either remove or v-notch all snowfills from stream crossings, unless otherwise authorized in writing by an Inspector.
29. Prior to spring break-up or completion of the land-use operation, the Permittee shall clean up and v-notch all ice bridges, unless otherwise authorized in writing by an Inspector.
30. The Permittee shall not cut any stream bank, unless otherwise authorized in writing by an Inspector.
31. The Permittee shall slope the sides of Waste material piles, excavations, and embankments — except in solid rock — to a minimum ratio of 2:1 vertical, unless otherwise authorized in writing by an Inspector.

26(1)(g) Use, Storage, Handling, and Ultimate Disposal of Any Chemical or Toxic Material

32. At least seven days prior to the use of any chemicals that were not identified in the complete application, the MSDS sheets must be provided to the Board and an Inspector.
33. When drilling within 100 metres of the Ordinary High Water Mark of any Watercourse, and when drilling on ice, the Permittee shall contain all drill water and Drilling Waste in a closed circuit system for reuse, off-site disposal, or deposit into a land-based Sump or natural depression.
34. The Permittee may deposit Drilling Waste that does not contain Toxic Material in a Sump or natural depression. Any Sumps or natural depressions used to deposit Drilling Waste must be located at least 100 metres from the Ordinary High Water Mark of any Watercourse, unless otherwise authorized in writing by an Inspector.
35. The Permittee shall not allow any Drilling Waste to spread to the surrounding lands or Watercourses.

36. The Permittee shall remove all Drill Waste from ice surfaces.

37. Prior to the expiry date of this Permit or the end of the land-use operation whichever comes first, the Permittee shall backfill and restore all Sumps, unless otherwise authorized in writing by an Inspector.

38. The Permittee shall maintain a record of all spills. For all reportable spills, in accordance with the GNWT Spill Contingency Planning and Reporting Regulations, the Permittee shall:
a) immediately report each spill to the 24-hour Spill Report Line (867) 920-8130;
b) report each spill to an Inspector within 24 hours; and
c) submit, to the Board and an Inspector, a detailed report on each spill within 30 days.

39. The Permittee shall dispose of all Toxic Material as described in the approved Waste Management Plan.

40. The Permittee shall dispose of all Waste petroleum products by removal to an approved disposal facility or by incineration in a device designed for this purpose, as described in the approved Waste Management Plan.

26(1)(h) Wildlife and Fish Habitat

41. The Permittee shall take all reasonable measures to prevent damage to wildlife and fish Habitat during this land-use operation.

26(1)(i) Storage, Handling, and Disposal of Refuse or Sewage

42. The Permittee shall adhere to the Waste Management Plan, once approved, and shall annually review the plan and make any necessary revisions to reflect changes in operations, technology, chemicals, or fuels, or as directed by the Board. Revisions to the plan shall be submitted to the Board for approval.

43. The Permittee shall keep all garbage and debris in a secure container until disposal.

44. The Permittee shall dispose of all garbage, Waste, and debris as described in the approved Waste Management Plan, unless otherwise authorized in writing by an Inspector.

45. The Permittee shall use a forced-air, fuel-fired incinerator to burn all combustible garbage except plastics. The Permittee shall select a unit that is capable of meeting an emission concentration limit for dioxans and furans of 80 picogram Toxic Equivalency/cubic meter (80 pg TEQ/m^3).
46. The Permittee shall dispose of all Sewage and Greywater as described in the approved Waste Management Plan.

_SEWAGE DISPOSAL — PLAN_

26(1)(j) Protection of Historical, Archaeological, and Burial Sites

47. The Permittee shall not operate any vehicle or equipment within 30 metres of a known or suspected historical or archaeological site or burial ground.

_ARCHAEOLOGICAL BUFFER_

48. The Permittee shall not knowingly remove, disturb, or displace any archaeological specimen or site.

_SITE DISTURBANCE_

49. The Permittee shall, where a suspected archaeological or historical site, or burial ground is discovered:

a) immediately suspend operations on the site; and
b) notify the Board at (867) 669-0506 or an Inspector at (867) 765-6655, and the Prince of Wales Northern Heritage Centre at 767-9347 ext. 71250 or ext. 71251.

_SITE DISCOVERY AND NOTIFICATION_

26(1)(k) Objects and Places of Recreational, Scenic, and Ecological Value

_Intentionally left blank_

26(1)(l) Security Deposit

50. Within 90 days of the approval of Amendment #1, dated June 20, 2018, the Permittee shall post and maintain a security deposit with the Minister in the amount of $51,118,424.00.

_SECURITY DEPOSIT — COMMENCEMENT_

51. All costs to remediate the area under this Permit are the responsibility of the Permittee.

_RESPONsIBILITY FOR REMEDIATION COSTS_

26(1)(m) Fuel Storage

52. The Permittee shall:

a) During periods of zero-occupancy, examine all Fuel Storage Containers and Tanks for leaks a minimum of once per month;
b) During periods of occupancy, examine all Fuel Storage Containers and Tanks for leaks a minimum of once per day; and
c) repair all leaks immediately.

_CHECK FOR LEAKS_

53. The Permittee shall not place any Fuel Storage Containers or Tanks within 100 metres of the Ordinary High Water Mark of any Watercourse, unless otherwise authorized in writing by an Inspector.

_FUEL NEAR WATER_

54. The Permittee shall ensure that all fuel caches have adequate Secondary Containment. The Permittee shall, upon request of the Inspector, provide proof of adequate Secondary Containment.

_FUEL CACHE SECONDARY CONTAINMENT_
55. The Permittee shall locate all fuel storage containers within the Fuel Storage Facilities, unless otherwise authorized in writing by an Inspector.

56. The Permittee shall maintain a dyke around the Fuel Storage Facilities. The Permittee shall ensure that the dyke and the area enclosed by the dyke shall be impermeable to petroleum products at all time.

57. The volume of the dyked area shall be 10 percent greater than the capacity of the largest fuel container placed therein.

58. A certified double-walled tank will be deemed to satisfy requirements of an impermeable dyke.

59. The Permittee shall not allow petroleum products to spread to surrounding lands or into water bodies.

60. The Permittee shall set up all refueling points with Secondary Containment.

61. The Permittee shall locate mobile fuel facilities on land when the facilities are stationary for more than 12 hours.

62. The Permittee shall mark all Fuel Storage Containers and Tanks with the Permittee's name.

63. The Permittee shall mark all stationary fuel caches and fuel storage facilities with flags, posts, or similar devices so that they are at all times plainly visible to local vehicle travel.

64. The Permittee shall have a maximum of 52,600,000 litres of fuel stored on the land use site at any time, unless otherwise authorized in writing by the Board.

65. Within ten days of the establishment of any fuel cache, the Permittee shall report the location and quantity of the cache in writing to the Board and an Inspector.

66. The Permittee shall adhere to the Spill Contingency Plan, once approved, and shall annually review the plan and make any necessary revisions to reflect changes in operations, technology, chemicals, or fuels, or as directed by the Board. Revisions to the plan shall be submitted to the Board for approval.

67. Prior to commencement of the land-use operation the Permittee shall ensure that spill-response equipment is in place to respond to any potential spills.

68. All equipment that may be parked for two hours or more, shall have a haz-mat/drip tray under it or be sufficiently diapered. Leaky equipment shall be repaired immediately.

69. The Permittee shall clean up all leaks, spills, and contaminated material.
26(1)(n) Methods and Techniques for Debris and Brush Disposal

70. The Permittee shall not clear areas larger than identified in the complete application.

26(1)(o) Restoration of the Lands

71. The Permittee shall adhere to the Interim Closure and Reclamation Plan, once approved. Revisions to the Plan shall be submitted to the Board, for approval, every 3 years after the date of approval, or as directed by the Board.

72. The Permittee shall submit to the Board, a minimum of 24 months prior to the end of operations, for approval, a Final Closure and Reclamation Plan.

73. The Permittee shall act in accordance with the Final Closure and Reclamation Plan, once approved, and shall submit revisions to the Plan as directed by the Board.

74. The Permittee shall carry out progressive reclamation of disturbed areas as soon as it is practical to do so.

26(1)(p) Display of Permits and Permit Numbers

75. The Permittee shall keep a copy of this Permit on hand at all times during this land-use operation.

76. The Permittee shall ensure that all persons working under authority of the Permit are notified of the conditions in this Permit.

26(1)(q) Biological and Physical Protection of the Land

77. If any plan is not approved by the Board, the Permittee shall revise the plan according to the Board’s direction and re-submit it to the Board for approval.

78. The Permittee shall adhere to the Engagement Plan, once approved, and shall annually review the plan and make any necessary revisions to reflect changes in operations or as directed by the Board. Revisions to the plan shall be submitted to the Board for approval.

79. The Permittee shall submit to the Board for approval, by January 30, 2018, a North Pile Management Plan, and shall annually review the plan and make any necessary revisions to reflect changes in operations or as directed by the Board. Revisions to the plan shall be submitted to the Board for approval.

80. All revised plans submitted to the Board shall include a brief summary of the changes made to the plan.
Reasons for Decision

Issued pursuant to paragraph 40(2)(c) of the Mackenzie Valley Land Use Regulations (MVLUR)

<table>
<thead>
<tr>
<th>Land Use Permit Amendment Application</th>
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<tbody>
<tr>
<td>Preliminary Screener</td>
</tr>
<tr>
<td>Reference/File Number</td>
</tr>
<tr>
<td>Company</td>
</tr>
<tr>
<td>Project</td>
</tr>
<tr>
<td>Date of Decision</td>
</tr>
</tbody>
</table>

These Reasons for Decision set out the Mackenzie Valley Land and Water Board’s (the Board or MVLWB) decision on an Amendment Application made by De Beers Canada Inc. (De Beers) to the Board on March 19, 2018 for Land Use Permit (Permit) MV2017D0032.

1.0 Background

- October 12, 2017 – Issuance of Permit MV2017D0032;
- March 19, 2018 – Amendment Application received;
- March 21, 2018 – Amendment Application deemed incomplete;
- May 14, 2018 – Additional information provided; Amendment Application deemed complete and review commenced;
- May 31, 2018 – Reviewer comments and recommendations due and received;
- June 6, 2018 – Responses due and received;
- June 7, 2018 – Additional details from SLEMA on their ORS comment submitted;
- June 12, 2018 – De Beers’ response to the addition details from SLEMA submitted;
- June 20, 2018 – Amendment Application presented to the Board for decision; and
- June 25, 2018 – End of 42-day timeline.

On February 22, 2018, the Board issued a letter to De Beers deferring decision on De Beers’ Extended Care and Maintenance Plan (ECMP), version 2, and associated Management Plans, because Condition 52, which requires an examination of all Fuel Storage Containers and Tanks a minimum of once per day, and to repair all leaks immediately, directly contradicted information presented in the ECMP version 2 (periods of zero-occupancy from near freeze up to prior to freshet). In addition, the Board deferred decision on De Beers’ request to not file the Interim Closure and Reclamation Plan (ICRP), version 4 because this submission, with a due January 30, 2018, as required by Permit condition 71. This letter also outlined required updates to some of the ECMP management plans based on reviewer comments and recommendations. Thus, on March 19, 2018, De Beers applied to amend Type A Permit MV2017D0032, with an updated ECMP version 3, and associated Management Plans; this application was deemed incomplete on March 21, 2018. On May 14, 2018, De Beers provided the outstanding information, and the application was deemed complete and the review commenced.
De Beers is requesting to amend 3 conditions in Permit MV2017D0032. These are:

**Condition 52: “Check for Leaks”**. As outlined in the Amendment Application cover letter, De Beers has requested that this condition be updated to align with requirements in the Storage tank systems for Petroleum Products and Allied Petroleum Products Regulations (the regulations), specifically Clause 19(1).

**Condition 71: “Interim Closure and Reclamation Plan”**. De Beers has requested that this condition be removed from the Permit, as they plan to submit the Final Closure and Reclamation Plan (required by Condition 72) in 2019.


**Condition 71: “Interim Closure and Reclamation Plan”**

The previous ICRP (Version 3.2) was approved by the Board January 30, 2014, with the next submission due 3 years later (January 30, 2017). On August 17, 2016, De Beers submitted a request to extend the submission deadline of ICRP Version 4; the Board approved this extension on September 23, 2016 and set a new submission date of January 30, 2018.

On December 14, 2017, De Beers submitted a letter notifying the Board they are preparing for the final closure of the Snap Lake Mine. In this letter De Beers requested they not file the ICRP (Version 4), which was due to the Board January 30, 2018; De Beers proposed to submit a Final Closure Plan (FCRP) in 2019 instead.

The ICRP is required under Part I, condition 1 of Licence MV2011L2-0004, and Condition 71 of Permit MV2017D0032. Condition 71 of Permit MV2017D0032 currently states the following:

*The Permittee shall submit to the Board for approval, by January 30, 2018, an Interim Closure and Reclamation Plan. Revisions to the Plan shall be submitted to the Board, for approval, every 3 years after the date of approval, or as directed by the Board.*

This non-standard condition was included in Permit MV2017D0032 so that the next version of the ICRP could be reviewed and considered concurrently under both the Licence MV2011L2-0004 and Permit MV2017D0032 authorizations. On February 22, 2018, the Board decided to defer making a decision on the request to not file the ICRP version 4 until De Beers submitted an application to amend condition 71 of Permit MV2017D0032. De Beers has requested the removal of condition 71, however, the Extended Care and Maintenance Plans are submitted under section 7.0 of the ICRP, and therefore in order for those plans to be considered under the Permit authorization, there needs to be a condition in the Permit requiring an ICRP.
2.0 Public Review

By May 31, 2018, comments and recommendations on the Amendment Application, Extended Care and Maintenance Plans, and 2018 Financial Security Estimate Report, version 2 were received from the following reviewers:

- Environment and Climate Change Canada (ECCC);
- Government of the Northwest Territories – Environment and Natural Resources (GNWT-ENR);
- Government of the Northwest Territories – Lands Inspector;
- Board staff; and
- Snap Lake Environmental Monitoring Agency (SLEMA).

De Beers responded on June 6, 2018.

3.0 Adequacy of Management Plans

An Engagement Plan was submitted with the Amendment Application. This same Engagement Plan was submitted with the new Type A Permit MV2017D0032 application on August 25, 2017 and was approved by the Board upon issuance on October 12, 2017. No changes have been made by De Beers to the Engagement Plan since it was last approved.

A conformity check on the Extended Care and Maintenance Plan version 3, and associated Management Plans was conducted. The Board determined the updates requested by the Board in the February 22, 2018 decision letter were made. The plans requiring updates (version 3) also went out for a review with the Amendment Application.

4.0 Security

De Beers included a security calculation (report version 1) using RECLAIM and determined a total reclamation cost of $79,363,769.00. During the review, GNWT-ENR commented, resulting in De Beers revising and resubmitting the security calculation (report version 2). Following a additional round of review, GNWT-ENR provided further comments and recommendation to De Beers; a revised security calculation version 3 (report version 3) was submitted to consider these additional comments. Table 1 below compares De Beers' Summary Table from the 2018 Security Estimate Report Version 1 (January 30, 2018), Version 2 (April 16, 2018) and Version 3 (June 4, 2018). The differences for land and water liabilities between report versions are highlighted in green and blue, respectively.
### Table 1: Breakdown of De Beers’ 2018 Security Estimate Report

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Land</td>
<td>Water</td>
<td>Land</td>
</tr>
<tr>
<td>Open pit</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>Underground mine</td>
<td>$357,643</td>
<td>$0</td>
<td>$357,643</td>
</tr>
<tr>
<td>Tailings facility</td>
<td>$6,612,779</td>
<td>$1,085,293</td>
<td>$6,612,779</td>
</tr>
<tr>
<td>Rock pile</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>Buildings and</td>
<td>$18,948,846</td>
<td>$75,000</td>
<td>$18,948,846</td>
</tr>
<tr>
<td>Chemicals and contaminated soil</td>
<td>$2,528,688</td>
<td>$2,528,688</td>
<td>$2,528,688</td>
</tr>
<tr>
<td>Surface &amp; groundwater</td>
<td>$3,543,769</td>
<td></td>
<td>$3,543,769</td>
</tr>
<tr>
<td>management</td>
<td>$8,263,107</td>
<td></td>
<td>$8,263,107</td>
</tr>
<tr>
<td>Interim care and maintenance</td>
<td>$28,447,956</td>
<td>$15,495,857</td>
<td>$28,447,956</td>
</tr>
<tr>
<td><strong>SUBTOTAL: Capital Costs</strong></td>
<td><strong>65%</strong></td>
<td><strong>35%</strong></td>
<td><strong>65%</strong></td>
</tr>
<tr>
<td>Indirect Costs</td>
<td>Land</td>
<td>Water</td>
<td>Land</td>
</tr>
<tr>
<td>Mobilization/demobilization</td>
<td>$5,994,744</td>
<td>$3,265,391</td>
<td>$5,191,364</td>
</tr>
<tr>
<td>Post-closure monitoring and</td>
<td>$7,831,767</td>
<td>$4,266,033</td>
<td>$7,831,767</td>
</tr>
<tr>
<td>maintenance</td>
<td>$1,422,398</td>
<td>$774,793</td>
<td>$1,422,398</td>
</tr>
<tr>
<td>Engineering (5%)</td>
<td>$1,422,398</td>
<td>$774,793</td>
<td>$1,422,398</td>
</tr>
<tr>
<td>Project management (5%)</td>
<td>$284,480</td>
<td>$154,959</td>
<td>$284,480</td>
</tr>
<tr>
<td>Health and safety plans/ monitoring &amp;</td>
<td>$284,480</td>
<td>$154,959</td>
<td>$284,480</td>
</tr>
<tr>
<td>QA/QC (1%)</td>
<td>$284,480</td>
<td>$154,959</td>
<td>$284,480</td>
</tr>
<tr>
<td>Bonding/insurance (1%)</td>
<td>$5,689,591</td>
<td>$3,099,171</td>
<td>$5,689,591</td>
</tr>
<tr>
<td>Contingency (20%)</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>Market price factor adjustment (0%)</td>
<td>$22,929,857</td>
<td>$12,490,099</td>
<td>$22,126,477</td>
</tr>
<tr>
<td><strong>SUBTOTAL: Indirect Costs</strong></td>
<td><strong>51,377,813</strong></td>
<td><strong>27,985,956</strong></td>
<td><strong>50,574,433</strong></td>
</tr>
<tr>
<td><strong>TOTAL COSTS</strong></td>
<td><strong>$79,363,769</strong></td>
<td><strong>$78,122,780</strong></td>
<td><strong>$78,963,088</strong></td>
</tr>
</tbody>
</table>

As portrayed in the above table, the only difference between the security estimates presented in all 3 versions of De Beers’ 2018 Security Estimate Reports is the Mobilization/demobilization line item. The resulting total costs of all three estimates are relatively the same.
The GNWT currently holds a total of $60,401,918.00 under both the Licence and Permit authorizations combined. De Beers has suggested that the liability security held under the Licence be reduced by approximately 11 million dollars, and the liability security held under the Permit be increased by approximately 30 million dollars. Therefore, overall, De Beers has suggested an increase in reclamation liability security of approximately 18.6 million dollars for the Snap Lake Mine.

It is important to note that the mine is no longer in operation/production, which greatly contributes to the decrease in reclamation liability for the water portion of the estimate. The Board should also note that the version of RECLAIM used during Licence issuance in 2012 was an older version than the RECLAIM 7.0 used by De Beers for the 2018 estimate.

5.0 Decision

In rendering its decision, the Board is satisfied that:

- notice of the Amendment Application was given in accordance with sections 63 and 64 of the MVRMA. The Board is satisfied that a reasonable period of notice was given to communities and First Nations so comments could be provided to the Board;
- the development is exempt from preliminary screening as per Schedule 1, section 2.1 of the MVRMA Exemption List Regulations;
- any potential adverse environmental effects are insignificant or mitigable with known technology; and,
- there is no likelihood that the proposed development might be a cause of public concern.

After reviewing the evidence and submissions of De Beers, the written comments and submissions received by the Board and the Staff Report prepared for the Board, the Board, having due regard to the facts, circumstances, the merits of the submissions made to it, and to the purpose, scope, and intent of the MVRMA and Regulations made thereunder, has determined that Land Use Permit MV2017D0032 be amended subject to the term, scope, definitions, and conditions contained therein. The Board’s determinations and reasons for this decision are set out below.

- The Board is satisfied that appropriate consultation has been conducted and that advice has been sought and considered, in accordance with sections 63 and 64 of the MVRMA.
- The use of land proposed by De Beers is of a nature contemplated by the MVRMA.
- The Board has reviewed the information contained in the June 11, 2018 Staff Report regarding environmental impacts and/or public concerns.
- The conditions set forth in the Permit have been imposed to address the Board’s statutory responsibilities and ensure the land-use operation is conducted in a manner which ensures impacts to surrounding lands and waters are minimized.
- The Board has approved the following Plans under Permit MV2017D0032 as follows:
  - Waste Management Plan, version 3 (for Extended Care and Maintenance) as required by condition 42 of Land Use Permit MV2017D0032;
  - Spill Contingency Plan, version 3 (for Extended Care and Maintenance) as required by condition 66 of Land Use Permit MV2017D0032; and
  - Interim Closure and Reclamation Plan, version 3.2, to fulfill Condition 71 of Land Use Permit (Permit) MV2017D0032, including:
    - Extended Care and Maintenance Plan, version 3
    - Water Management Plan for Extended Care and Maintenance, version 3 and
    - Emergency Response Plan for Extended Care and Maintenance, version 2.
- The updates to the management plans requested by the Board in the February 22, 2018 decision letter have been made.
- The definitions and conditions in the Permit are from the MVLWB’s *Standard Land Use Permit Conditions Template* (Standard Template) and are not discussed in detail in these reasons unless notable due to recommendations or concerns raised by reviewers. After considering the information gathered through the public review, the Board made the following changes, with rationale, to the definitions and conditions:

<table>
<thead>
<tr>
<th>Definition/Condition</th>
<th>Previous Wording and Changes</th>
<th>Rationale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Definition: Amendment #1</td>
<td>Previous: The Amendment to conditions within Permit MV2017D0032 that was approved by the Board on June 20, 2018.</td>
<td>Added to provide clarity on the timing of the Security deposit.</td>
</tr>
</tbody>
</table>
| Condition 50: SECURITY DEPOSIT - COMMENCEMENT            | Previous: The Permittee shall post security totaling $21,335,671.00 based on the schedule set out below:  
a) Prior to commencement of the land-use operation, the Permittee shall deposit with the Minister a security deposit in the amount of $21,035,671.00; and  
b) Prior to the commencement of Construction of the Fuel Storage Facilities, the Permittee shall deposit with the Minister an additional security deposit in the amount of $300,000.00, to maintain a total security deposit of $21,335,671.00.  

New:  
*Within 90 days of the approval of Amendment #1, dated June 20, 2018, the Permittee shall post and maintain a security deposit with the Minister in the amount of $51,118,424.00.*  

Security was set at $51,118,424.00, as was presented in version 3 of the 2018 Security Estimate and outlined in Table 1 above and being the most accurate as it incorporated two rounds of review comments and recommendations. |
| Condition 52: CHECK FOR LEAKS                            | Previous: The Permittee shall:  
a) examine all Fuel Storage Containers and Tank for leaks a minimum of once per day; and  
b) repair all leaks immediately.  

New: The Permittee shall:  
a) during periods of zero-occupancy, examine all Fuel Storage Containers and Tanks for leaks a minimum of once per *month*;  
b) during periods of occupancy, examine all Fuel Storage Containers and Tanks for leaks a minimum of once per day; and  
c) repair all leaks immediately.  

The Board has changed the frequency of in person examinations for leaks to monthly during periods of zero-occupancy as requested by De Beers in their amendment application. As the Permittee is required to have adequate Secondary Containment at all times, and will be visually monitoring the site via cameras, the Board has decided to approve the monthly in-person examination frequency during periods of zero-occupancy (from freeze-up to prior to freshet). |
| Condition 54: FUEL CACHE SECONDARY CONTAINMENT           | Previous: The Permittee shall ensure that all fuel caches have adequate Secondary Containment.  

New: The Permittee shall ensure that all fuel caches have adequate Secondary Containment. *The Permittee*  

This language was added to ensure that adequate Secondary Containment is being monitored and ensured during periods of zero-occupancy. |
| Condition 71: INTERIM CLOSURE AND RECLAMATION | Previous: The Permittee shall submit to the Board for approval, by January 30, 2018, an Interim Closure and Reclamation Plan. Revisions to the Plan shall be submitted to the Board, for approval, every 3 years after the date of approval, or as directed by the Board.  

New: The Permittee shall **adhere to the Interim Closure and Reclamation Plan, once approved.** Revisions to the Plan shall be submitted to the Board, for approval, every 3 years after the date of approval, or as directed by the Board. |
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>De Beers is no longer required to submit an update to the full Interim Closure and Reclamation Plan, version 4, by January 30, 2018 as was outlined in the previous condition 71. Instead, De Beers shall submit the Final Closure and Reclamation Plan, required by condition 72, by January 30, 2019. Under condition 71, the Board has approved the Interim Closure and Reclamation Plan, version 3.2, which was submitted to the Board July 11, 2013 and approved under Licence authorization MV20112-0004 on January 30, 2014. This allows Extended Care and Maintenance Plans to be considered under the Permit authorization, as they are submitted as an update to ‘Section 7.0: Temporary Closure’ of the Interim Closure and Reclamation Plan.</td>
<td></td>
</tr>
</tbody>
</table>

### 6.0 Conclusion

Land Use Permit MV2017D0032 contains provisions that the Board deems necessary to ensure and monitor compliance with the MVRMA and the Regulations made thereunder, and to provide appropriate safeguards in respect of De Beers’ use of the land affected by the Permit.

SIGNATURE

Mackenzie Valley Land and Water Board

Mavis Gii-Michaud, Chair

June 20, 2018

Date
Subject to the Mackenzie Valley Land Use Regulations and the terms and conditions in this Permit, authority is hereby granted to:

De Beers Canada Inc.

Permittee

to proceed with the land use operation described in the Application of:

<table>
<thead>
<tr>
<th>Signature</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ms. Alexandra Hood</td>
<td>August 25, 2017</td>
</tr>
</tbody>
</table>

Type of Land Use Operation
Diamond Mining

Location
Snap Lake, NT

This Permit may be assigned, extended, discontinued, suspended, or cancelled pursuant to the Mackenzie Valley Land Use Regulations.

Dated at Yellowknife this 20\text{th} day of June, 2018

Signature Chair
Mavis Cl-Michaud

Signature Witness
Tanya Lantz

Commencement Date
October 12, 2017

Expire Date
October 11, 2022

ATTENTION
It is a condition of this Permit that the Permittee comply with the provisions of the Mackenzie Valley Resource Management Act and Regulations and the terms and conditions set out herein. A failure to comply may result in suspension or cancellation of this Permit.

________________________
De Beers Canada Inc.
Conditions Annexed to and Forming Part of Land Use Permit #MV2017D0032

Part A: Scope of Permit

1. This Permit entitles the Permittee to conduct mining and milling production and associated activities at the Snap Lake Diamond Project, including:
   i. Extraction of waste rock and ore;
   ii. Development and operation of the site facilities shown in Figure 4 of the Consolidated Project Description (including the airstrip);
   iii. Construction of Fuel Storage Facilities;
   iv. Storage of fuel;
   v. Development and progressive Reclamation of the North Pile;
   vi. Construction and maintenance of site roads and lay down areas;
   vii. Quarrying of materials from specified areas;
   viii. Maintenance and operation of the winter road from the Tibbett-Contwoytto winter road to the Project; this also includes the winter access road to the Esker quarry site; and
   ix. Progressive closure and Reclamation of site components.

   These activities are described in submissions to the Mackenzie Valley Land and Water Board, including, but not limited to:

   x. The application submitted by the Permittee on February 2, 2001, and updated October 29, 2010;
   xi. The Consolidated Project Description, submitted by the Permittee on November 24, 2003 (shown specifically in Figures 3 and 5);
   xii. The application submitted by the Permittee on April 15, 2014; and

2. This Permit is issued subject to the conditions contained herein with respect to the use of land for the activities and area identified in Part A, item 1 of this Permit.

3. Compliance with the terms and conditions of this Permit does not excuse the Permittee from its obligation to comply with the requirements of any applicable Federal, Territorial, Tłı̨chǫ, or Municipal laws.
Part B: Definitions (defined terms are capitalized throughout the Permit)


Amendment #1 – the Amendment to conditions within Permit MV2017D0032 that was approved by the Board on June 20, 2018.

Board - the Mackenzie Valley Land and Water Board established under Part 4 of the Act.

Borehole - a hole that is made in the surface of the ground by drilling or boring.

Construction - any activities undertaken to construct or build any component of, or associated with, the Project.


Drilling Fluids - any liquid mixture of water, sediment, drilling muds, chemical additives or other wastes that are pumped down hole while drilling and are specifically related to drilling activity.

Drilling Waste - all materials or chemicals, solid or liquid, associated with drilling, including drill cuttings and Drilling Fluids.

Engagement Plan - a document, developed in accordance with the Board’s Engagement and Consultation Policy and the Engagement Guidelines for Applicants and Holders of Water Licences and Land Use Permits, that clearly describes how, when, and which engagement activities will occur with an affected party during the life of the Project.

Esker - the Esker (deposition from a glacial stream) referred to in the Consolidated Project Description (pg. 35). This Esker is located nine kilometres from the Project site and was previously used as a gravel source during the advanced exploration program.

Flowing Artesian Well - a well in which water:
   a) Naturally rises above the ground surface or the top of any casing; and
   b) Flows naturally, either intermittently or continuously.

Fuel Storage Container - a container for the storage of petroleum or allied petroleum products with a capacity of less than 230 litres.

Fuel Storage Facilities - the facilities as described in the Application for Land Use Permit MV2014D0010 for increased fuel storage, dated April 15, 2014.

Fuel Storage Tank - a closed container for the storage of petroleum or allied petroleum products with a capacity of more than 230 litres.
**Greywater** - all liquid wastes from showers, baths, sinks, kitchens, and domestic washing facilities but not including toilet wastes.

**Habitat** - the area or type of site where a species or an individual of a species of wildlife naturally occurs or on which it depends, directly or indirectly, to carry out its life processes.

**Inspector** - an Inspector designated by the Minister under the Act.

**Minister** - the Minister of Indian Affairs and Northern Development Canada or the Minister of the Government of the Northwest Territories – Department of Lands, as the case may be.

**North Pile** - the above-ground facility designated for the storage of Processed Kimberlite and other waste materials.

**Ordinary High Water Mark** - the usual or average level to which a body of water rises at its highest point and remains for sufficient time so as to change the characteristics of the land. In flowing waters (rivers, streams) this refers to the “active channel/bank-full level” which is often the 1:2 year flood flow return level. In inland lakes, wetlands, or marine environments, it refers to those parts of the Watercourse bed and banks that are frequently flooded by water so as to leave a mark on the land and where the natural vegetation changes from predominately aquatic vegetation to terrestrial vegetation (excepting water tolerant species). For reservoirs, this refers to normal high operating levels (full supply level).

**Processed Kimberlite** - the material rejected from the process plant after the recoverable minerals have been extracted.

**Permafrost** - ground (soil or rock) that remains at or below 0°C for at least two consecutive years.

**Permittee** - the holder of this permit.

**Professional Engineer** - a person who is registered with the Northwest Territories and Nunavut Association of Professional Engineers and Geoscientists (NAPEG) in accordance with the *Engineering and Geoscience Professions Act*, S.N.W.T. 2006, c.16, or amendments, as a Professional Engineer, and whose principal field of specialization is appropriate to address the components of the project at hand.

**Project** - the Snap Lake Diamond Project as described in Part A, item 1 of this Permit.

**Reclamation** - the process of restoring disturbed land to its former or other productive uses.

**Secondary Containment** - containment that prevents liquids that leak from Fuel Storage Tanks or containers from reaching outside the containment area and includes double-walled Tanks, piping, liners, and impermeable barriers.

**Sewage** - all toilet wastes and Greywater.
Spill Contingency Plan - a document, developed in accordance with Aboriginal Affairs and Northern Development Canada’s Guidelines for Spill Contingency Planning (April 2007), that describes the set of procedures to be implemented to minimize the effects of a spill.

Sump - a man-made pit or natural depression in the earth’s surface used for the purpose of depositing Waste that does not contain Toxic Material, such as non-toxic Drilling Waste or Sewage, therein.

Toxic Material - any substance that enters or may enter the environment in a quantity or concentration or under conditions such that it:

a) Has or may have an immediate or long-term harmful effect on the environment or its biological diversity;
b) Constitutes or may constitute a danger to the environment on which life depends; or
c) Constitutes or may constitute a danger in Canada to human life or health.

Waste - any garbage, debris, chemical, or Toxic Material to be used, stored, disposed of, or handled on land, and also as defined in section 51 of the Act.

Waste Management Plan - a document, developed in accordance with the Board’s Guidelines for Developing a Waste Management Plan, that describes the methods of Waste management from Waste generation to final disposal.

Watercourse - a natural body of flowing or standing water or an area occupied by water during part of the year, and includes streams, springs, swamps and gulches but does not include groundwater.
Part C: Conditions Applying to All Activities (headings correspond to subsection 26(1) of the Mackenzie Valley Land Use Regulations)

<table>
<thead>
<tr>
<th>Condition</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>26(1)(a) Location and Area</td>
<td></td>
</tr>
<tr>
<td>1. The Permittee shall use an existing campsite, as described in the complete application.</td>
<td>EXISTING CAMP</td>
</tr>
<tr>
<td>2. Prior to the commencement of drilling, the Permittee shall submit the drill target locations on a 1:50,000-scale map with coordinates and map datum to the Board and an Inspector.</td>
<td>DRILL LOCATIONS</td>
</tr>
<tr>
<td>3. The Permittee shall not conduct a quarry operation within 100 metres of the Ordinary High Water Mark of any Watercourse, unless otherwise authorized in writing by an Inspector.</td>
<td>QUARRY SETBACK</td>
</tr>
<tr>
<td>4. The Permittee shall locate all lines, trails, and right-of-ways to be constructed parallel to any Watercourse a minimum of 100 metres from the Ordinary High Water Mark, except at crossings.</td>
<td>PARALLEL WATERCOURSE</td>
</tr>
<tr>
<td>5. The Permittee shall not conduct this land-use operation on any lands not designated in Part A, item 1.</td>
<td>LOCATION OF ACTIVITIES</td>
</tr>
<tr>
<td>26(1)(b) Time</td>
<td></td>
</tr>
<tr>
<td>6. At least 48 hours prior to the commencement of the land-use operation, the Permittee's Field Supervisor shall contact an Inspector at (867) 767-9187.</td>
<td>CONTACT INSPECTOR</td>
</tr>
<tr>
<td>7. At least 48 hours prior to commencement of the land-use operation, the Permittee shall provide the following information, in writing, to the Board and an Inspector:</td>
<td>IDENTIFY AGENT</td>
</tr>
<tr>
<td>a) the name(s) of the person(s) in charge of the field operation;</td>
<td>REPORTS BEFORE REMOVAL</td>
</tr>
<tr>
<td>b) alternates; and</td>
<td></td>
</tr>
<tr>
<td>c) all methods for contacting the above person(s).</td>
<td></td>
</tr>
<tr>
<td>8. At least ten days prior to the completion of the land-use operation, the Permittee shall advise an Inspector of:</td>
<td>DAMAGES</td>
</tr>
<tr>
<td>a) the plan for removal or storage of equipment and materials; and</td>
<td></td>
</tr>
<tr>
<td>b) when final cleanup and reclamation of the land used will be completed.</td>
<td></td>
</tr>
<tr>
<td>9. The Permittee shall ensure that all structures intended to contain, withhold, divert, or retain water or Wastes, and which meet the definition of a dam under the Dam Safety Guidelines, are designed, constructed, and maintained to meet or exceed the Dam Safety Guidelines.</td>
<td>DAM SAFETY GUIDELINES</td>
</tr>
<tr>
<td>10. A minimum of 90 days prior to the start of Construction of any structures intended to contain, withhold, divert, or retain water or Wastes, the Permittee shall submit to the Board, a Final Detailed Design Report, Construction drawings and specifications, and a Quality Control Plan stamped by a Professional Engineer.</td>
<td>FINAL DETAILED DESIGN REPORT</td>
</tr>
</tbody>
</table>
11. A minimum of 48 hours prior to the commencement of Construction of structures identified to contain, withhold, divert, or retain water or Wastes, the Permittee shall provide written notification to the Board and an Inspector. Notification shall include the name and contact information for the Construction superintendent.

12. Within 90 days of the completion of the Construction of any structures, the Permittee shall submit to the Board, a Geotechnical Engineering Report prepared by a Professional Engineer. This shall include as-built drawings, documentation of field decisions that deviate from the Final Detailed Design Report, and any data used to support these decisions.

13. The Permittee shall submit in writing to the Board and the Inspector, all modification requests a minimum of 60 days prior to the proposed modification commencing.

26(1)(c) Type and Size of Equipment

14. The Permittee shall not use any equipment except of a similar type, size, and number to that listed in Part A, item 1.

26(1)(d) Methods and Techniques

15. Immediately upon completion of operations at each Borehole, the Permittee shall remove or cut off and seal each drill casing at ground level.

16. The Permittee shall construct and maintain the overland portion of winter roads with a minimum of 10 cm of packed snow and/or ice at all times during this land-use operation.

17. The Permittee shall not erect camps or store material, other than that required for immediate use, on the ice surface of a Watercourse.

26(1)(e) Type, Location, Capacity, and Operation of All Facilities

18. The Permittee shall ensure that the land use area is kept clean at all times.

19. The Permittee shall not locate any Sump within 50 metres of the Ordinary High Water Mark of any Watercourse, unless otherwise authorized in writing by an Inspector.

26(1)(f) Control or Prevention of Ponding of Water, Flooding, Erosion, Slides, and Subsidence of Land

20. The Permittee shall install and maintain culverts such that scouring does not occur.

21. The Permittee shall insulate the ground surface beneath all structures associated with this land-use operation to prevent:
   a) any vegetation present from being removed;
   b) the melting of Permafrost; and
   c) the ground settling and/or eroding.
22. The Permittee shall minimize erosion by installing erosion control structures as the land-use operation progresses.

23. The Permittee shall, where flowing water from a Borehole is encountered:
   a) plug the Borehole in such a manner as to permanently prevent any further outflow of water; and
   b) immediately report the occurrence to the Board and an Inspector.

24. The Permittee shall ensure that vehicle travel is restricted to site roads unless otherwise authorized in writing by the Inspector.

25. The Permittee shall suspend overland travel of equipment or vehicles at the first sign of rutting.

26. The Permittee shall not use any material other than clean water and snow in the construction of ice bridges.

27. The Permittee shall not use any materials other than clean snow and water in the construction of snow fills.

28. Prior to spring break-up or completion of the land-use operation, the Permittee shall clean up and either remove or v-notch all snowfills from stream crossings, unless otherwise authorized in writing by an Inspector.

29. Prior to spring break-up or completion of the land-use operation, the Permittee shall clean up and v-notch all ice bridges, unless otherwise authorized in writing by an Inspector.

30. The Permittee shall not cut any stream bank, unless otherwise authorized in writing by an Inspector.

31. The Permittee shall slope the sides of Waste material piles, excavations, and embankments — except in solid rock — to a minimum ratio of 2:1 vertical, unless otherwise authorized in writing by an Inspector.

26(1)(g) Use, Storage, Handling, and Ultimate Disposal of Any Chemical or Toxic Material

32. At least seven days prior to the use of any chemicals that were not identified in the complete application, the MSDS sheets must be provided to the Board and an Inspector.

33. When drilling within 100 metres of the Ordinary High Water Mark of any Watercourse, and when drilling on ice, the Permittee shall contain all drill water and Drilling Waste in a closed circuit system for reuse, off-site disposal, or deposit into a land-based Sump or natural depression.

34. The Permittee may deposit Drilling Waste that does not contain Toxic Material in a Sump or natural depression. Any Sumps or natural depressions used to deposit Drilling Waste must be located at least 100 metres from the Ordinary High Water Mark of any Watercourse, unless otherwise authorized in writing by an Inspector.
35. The Permittee shall not allow any Drilling Waste to spread to the surrounding lands or Watercourses.

36. The Permittee shall remove all Drill Waste from ice surfaces.

37. Prior to the expiry date of this Permit or the end of the land-use operation whichever comes first, the Permittee shall backfill and restore all Sumps, unless otherwise authorized in writing by an Inspector.

38. The Permittee shall maintain a record of all spills. For all reportable spills, in accordance with the GNWT Spill Contingency Planning and Reporting Regulations, the Permittee shall:
   a) immediately report each spill to the 24-hour Spill Report Line (867) 920-8130;
   b) report each spill to an inspector within 24 hours; and
   c) submit, to the Board and an Inspector, a detailed report on each spill within 30 days.

39. The Permittee shall dispose of all Toxic Material as described in the approved Waste Management Plan.

40. The Permittee shall dispose of all Waste petroleum products by removal to an approved disposal facility or by incineration in a device designed for this purpose, as described in the approved Waste Management Plan.

26(1)(h) Wildlife and Fish Habitat

41. The Permittee shall take all reasonable measures to prevent damage to wildlife and fish Habitat during this land-use operation.

26(1)(i) Storage, Handling, and Disposal of Refuse or Sewage

42. The Permittee shall adhere to the Waste Management Plan, once approved, and shall annually review the plan and make any necessary revisions to reflect changes in operations, technology, chemicals, or fuels, or as directed by the Board. Revisions to the plan shall be submitted to the Board for approval.

43. The Permittee shall keep all garbage and debris in a secure container until disposal.

44. The Permittee shall dispose of all garbage, Waste, and debris as described in the approved Waste Management Plan, unless otherwise authorized in writing by an Inspector.

45. The Permittee shall use a forced-air, fuel-fired incinerator to burn all combustible garbage except plastics. The Permittee shall select a unit that is capable of meeting an emission concentration limit for dioxans and furans of 80 picogram Toxic Equivalency/cubic meter (80 pg TEQ/m³).
46. The Permittee shall dispose of all Sewage and Greywater as described in the approved Waste Management Plan.

**SEWAGE DISPOSAL – PLAN**

26(1)(f) Protection of Historical, Archaeological, and Burial Sites

47. The Permittee shall not operate any vehicle or equipment within 30 metres of a known or suspected historical or archaeological site or burial ground.

**ARCHAEOLOGICAL BUFFER**

48. The Permittee shall not knowingly remove, disturb, or displace any archaeological specimen or site.

**SITE DISTURBANCE**

49. The Permittee shall, where a suspected archaeological or historical site, or burial ground is discovered:

a) immediately suspend operations on the site; and  
b) notify the Board at (867) 669-0506 or an Inspector at (867) 765-6655, and the Prince of Wales Northern Heritage Centre at 767-9347 ext. 71250 or ext. 71251.

**SITE DISCOVERY AND NOTIFICATION**

26(1)(k) Objects and Places of Recreational, Scenic, and Ecological Value

*Intentionally left blank*

26(1)(l) Security Deposit

50. Within 90 days of the approval of Amendment #1, dated June 20, 2018, the Permittee shall post and maintain a security deposit with the Minister in the amount of $51,118,424.00.

**SECURITY DEPOSIT – COMMENCEMENT**

51. All costs to remediate the area under this Permit are the responsibility of the Permittee.

**RESPONSIBILITY FOR REMEDIATION COSTS**

26(1)(m) Fuel Storage

52. The Permittee shall:

a) During periods of zero-occupancy, examine all Fuel Storage Containers and Tanks for leaks a minimum of once per month;

b) During periods of occupancy, examine all Fuel Storage Containers and Tanks for leaks a minimum of once per day; and

c) repair all leaks immediately.

**CHECK FOR LEAKS**

53. The Permittee shall not place any Fuel Storage Containers or Tanks within 100 metres of the Ordinary High Water Mark of any Watercourse, unless otherwise authorized in writing by an Inspector.

**FUEL NEAR WATER**

54. The Permittee shall ensure that all fuel caches have adequate Secondary Containment. The Permittee shall, upon request of the Inspector, provide proof of adequate Secondary Containment.

**FUEL CACHE SECONDARY CONTAINMENT**
55. The Permittee shall locate all fuel storage containers within the Fuel Storage Facilities, unless otherwise authorized in writing by an Inspector.

56. The Permittee shall maintain a dyke around the Fuel Storage Facilities. The Permittee shall ensure that the dyke and the area enclosed by the dyke shall be impermeable to petroleum products at all time.

57. The volume of the dyked area shall be 10 percent greater than the capacity of the largest fuel container placed therein.

58. A certified double-walled tank will be deemed to satisfy requirements of an impermeable dyke.

59. The Permittee shall not allow petroleum products to spread to surrounding lands or into water bodies.

60. The Permittee shall set up all refueling points with Secondary Containment.

61. The Permittee shall locate mobile fuel facilities on land when the facilities are stationary for more than 12 hours.

62. The Permittee shall mark all Fuel Storage Containers and Tanks with the Permittee's name.

63. The Permittee shall mark all stationary fuel caches and fuel storage facilities with flags, posts, or similar devices so that they are at all times plainly visible to local vehicle travel.

64. The Permittee shall have a maximum of 52,600,000 litres of fuel stored on the land use site at any time, unless otherwise authorized in writing by the Board.

65. Within ten days of the establishment of any fuel cache, the Permittee shall report the location and quantity of the cache in writing to the Board and an Inspector.

66. The Permittee shall adhere to the Spill Contingency Plan, once approved, and shall annually review the plan and make any necessary revisions to reflect changes in operations, technology, chemicals, or fuels, or as directed by the Board. Revisions to the plan shall be submitted to the Board for approval.

67. Prior to commencement of the land-use operation the Permittee shall ensure that spill-response equipment is in place to respond to any potential spills.

68. All equipment that may be parked for two hours or more, shall have a haz-mat/drip tray under it or be sufficiently diapered. Leaky equipment shall be repaired immediately.

69. The Permittee shall clean up all leaks, spills, and contaminated material.
26(1)(n) Methods and Techniques for Debris and Brush Disposal

70. The Permittee shall not clear areas larger than identified in the complete application.

26(1)(o) Restoration of the Lands

71. The Permittee shall adhere to the Interim Closure and Reclamation Plan, once approved. Revisions to the Plan shall be submitted to the Board, for approval, every 3 years after the date of approval, or as directed by the Board.

72. The Permittee shall, submit to the Board, a minimum of 24 months prior to the end of operations, for approval, a Final Closure and Reclamation Plan.

73. The Permittee shall act in accordance with the Final Closure and Reclamation Plan, once approved, and shall submit revisions to the Plan as directed by the Board.

74. The Permittee shall carry out progressive reclamation of disturbed areas as soon as it is practical to do so.

26(1)(p) Display of Permits and Permit Numbers

75. The Permittee shall keep a copy of this Permit on hand at all times during this land-use operation.

76. The Permittee shall ensure that all persons working under authority of the Permit are notified of the conditions in this Permit.

26(1)(q) Biological and Physical Protection of the Land

77. If any plan is not approved by the Board, the Permittee shall revise the plan according to the Board's direction and re-submit it to the Board for approval.

78. The Permittee shall adhere to the Engagement Plan, once approved, and shall annually review the plan and make any necessary revisions to reflect changes in operations or as directed by the Board. Revisions to the plan shall be submitted to the Board for approval.

79. The Permittee shall submit to the Board for approval, by January 30, 2018, a North Pole Management Plan, and shall annually review the plan and make any necessary revisions to reflect changes in operations or as directed by the Board. Revisions to the plan shall be submitted to the Board for approval.

80. All revised plans submitted to the Board shall include a brief summary of the changes made to the plan.
Issued pursuant to paragraph 40(2)(c) of the Mackenzie Valley Land Use Regulations (MVLUR)

<table>
<thead>
<tr>
<th>Land Use Permit Amendment Application</th>
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<tbody>
<tr>
<td>Preliminary Screener</td>
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<tr>
<td>Reference/File Number</td>
</tr>
<tr>
<td>Company</td>
</tr>
<tr>
<td>Project</td>
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<td>Date of Decision</td>
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These Reasons for Decision set out the Mackenzie Valley Land and Water Board’s (the Board or MVLWB) decision on an Amendment Application made by De Beers Canada Inc. (De Beers) to the Board on March 19, 2018 for Land Use Permit ( Permit) MV2017D0032.

1.0 Background

- October 12, 2017 – Issuance of Permit MV2017D0032;
- March 19, 2018 – Amendment Application received;
- March 21, 2018 – Amendment Application deemed incomplete;
- May 14, 2018 – Additional information provided; Amendment Application deemed complete and review commenced;
- May 31, 2018 – Reviewer comments and recommendations due and received;
- June 6, 2018 – Responses due and received;
- June 7, 2018 – Additional details from SLEMA on their ORS comment submitted;
- June 12, 2018 – De Beers’ response to the addition details from SLEMA submitted;
- June 20, 2018 – Amendment Application presented to the Board for decision; and
- June 25, 2018 – End of 42-day timeline.

On February 22, 2018, the Board issued a letter to De Beers deferring decision on De Beers’ Extended Care and Maintenance Plan (ECMP), version 2, and associated Management Plans, because Condition 52, which requires an examination of all Fuel Storage Containers and Tanks a minimum of once per day, and to repair all leaks immediately, directly contradicted information presented in the ECMP version 2 (periods of zero-occupancy from near freeze up to prior to freshet). In addition, the Board deferred decision on De Beers’ request to not file the Interim Closure and Reclamation Plan (ICRP), version 4 because this submission, with a due January 30, 2018, as required by Permit condition 71. This letter also outlined required updates to some of the ECMP management plans based on reviewer comments and recommendations. Thus, on March 19, 2018, De Beers applied to amend Type A Permit MV2017D0032, with an updated ECMP version 3, and associated Management Plans; this application was deemed incomplete on March 21, 2018. On May 14, 2018, De Beers provided the outstanding information, and the application was deemed complete and the review commenced.
De Beers is requesting to amend 3 conditions in Permit MV2017D0032. These are:

**Condition 52: "Check for Leaks"**. As outlined in the Amendment Application cover letter, De Beers has requested that this condition be updated to align with requirements in the Storage tank systems for Petroleum Products and Allied Petroleum Products Regulations (the regulations), specifically Clause 19(1).

**Condition 71: "Interim Closure and Reclamation Plan"**. De Beers has requested that this condition be removed from the Permit, as they plan to submit the Final Closure and Reclamation Plan (required by Condition 72) in 2019.

**Condition 50: "Security Deposit – Commencement"**. On January 30, 2018 De Beers submitted a 2018 Financial Security Estimate report, version 1. This was reviewed in February 2018 and reviewer comments were provided. De Beers updated the 2018 Financial Security Estimate report as per reviewer recommendations and resubmitted version 2 with this Amendment Application. On May 31, 2018 GNWT-ENR provided an additional recommendation. De Beers has requested that the Security amount in Condition 50 of Permit MV2017D0032 be amended to the value suggested in the updated 2018 Financial Security Estimate report, version 3, as submitted June 4, 2018 in response to GNWT-ENR comment ID-4.

**Condition 71: "Interim Closure and Reclamation Plan"**

The previous ICRP (Version 3.2) was approved by the Board January 30, 2014, with the next submission due 3 years later (January 30, 2017). On August 17, 2016, De Beers submitted a request to extend the submission deadline of ICRP Version 4; the Board approved this extension on September 23, 2016 and set a new submission date of January 30, 2018.

On December 14, 2017, De Beers submitted a letter notifying the Board they are preparing for the final closure of the Snap Lake Mine. In this letter De Beers requested they not file the ICRP (Version 4), which was due to the Board January 30, 2018; De Beers proposed to submit a Final Closure Plan (FCRP) in 2019 instead.

The ICRP is required under Part I, condition 1 of Licence MV2011L2-0004, and Condition 71 of Permit MV2017D0032. Condition 71 of Permit MV2017D0032 currently states the following:

*The Permittee shall submit to the Board for approval, by January 30, 2018, an Interim Closure and Reclamation Plan. Revisions to the Plan shall be submitted to the Board, for approval, every 3 years after the date of approval, or as directed by the Board.*

This non-standard condition was included in Permit MV2017D0032 so that the next version of the ICRP could be reviewed and considered concurrently under both the Licence MV2011L2-0004 and Permit MV2017D0032 authorizations. On February 22, 2018, the Board decided to defer making a decision on the request to not file the ICRP version 4 until De Beers submitted an application to amend condition 71 of Permit MV2017D0032. De Beers has requested the removal of condition 71, however, the Extended Care and Maintenance Plans are submitted under section 7.0 of the ICRP, and therefore in order for those plans to be considered under the Permit authorization, there needs to be a condition in the Permit requiring an ICRP.
2.0 **Public Review**

By May 31, 2018, comments and recommendations on the Amendment Application, Extended Care and Maintenance Plans, and 2018 Financial Security Estimate Report, version 2 were received from the following reviewers:

- Environment and Climate Change Canada (ECCC);
- Government of the Northwest Territories – Environment and Natural Resources (GNWT-ENR);
- Government of the Northwest Territories – Lands Inspector;
- Board staff; and
- Snap Lake Environmental Monitoring Agency (SLEMA).

De Beers responded on June 6, 2018.

3.0 **Adequacy of Management Plans**

An Engagement Plan was submitted with the Amendment Application. This same Engagement Plan was submitted with the new Type A Permit MV2017D00032 application on August 25, 2017 and was approved by the Board upon issuance on October 12, 2017. No changes have been made by De Beers to the Engagement Plan since it was last approved.

A conformity check on the Extended Care and Maintenance Plan version 3, and associated Management Plans was conducted. The Board determined the updates requested by the Board in the February 22, 2018 decision letter were made. The plans requiring updates (version 3) also went out for a review with the Amendment Application.

4.0 **Security**

De Beers included a security calculation (report version 1) using RECLAIM and determined a total reclamation cost of $79,363,769.00. During the review, GNWT-ENR commented, resulting in De Beers revising and resubmitting the security calculation (report version 2). Following a additional round of review, GNWT-ENR provided further comments and recommendation to De Beers; a revised security calculation version 3 (report version 3) was submitted to consider these additional comments. Table 1 below compares De Beers’ Summary Table from the 2018 Security Estimate Report Version 1 (January 30, 2018), Version 2 (April 16, 2018) and Version 3 (June 4, 2018). The differences for land and water liabilities between report versions are highlighted in green and blue, respectively.
Table 1: Breakdown of De Beers’ 2018 Security Estimate Report

<table>
<thead>
<tr>
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<tbody>
<tr>
<td></td>
<td>Land</td>
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<td>Open pit</td>
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<td>Surface &amp; groundwater management</td>
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<td>$3,543,769</td>
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<tr>
<td>Interim care and maintenance</td>
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<td>PERCENT OF SUBTOTAL</td>
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<table>
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<tr>
<th>Indirect Costs</th>
<th>Land</th>
<th>Water</th>
<th>Land</th>
<th>Water</th>
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<td>maintenance</td>
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<tr>
<td>Engineering (5%)</td>
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<td>Project management (5%)</td>
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<td>Health and safety plans/</td>
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<td>monitoring &amp; QA/QC (1%)</td>
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<tr>
<td>Bonding/insurance (1%)</td>
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<td>Market price factor adjustment (0%)</td>
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<td>SUBTOTAL: Indirect Costs</td>
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<td>$22,126,477</td>
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<td>TOTAL COSTS</td>
<td>$79,363,769</td>
<td>$78,122,780</td>
<td>$78,963,088</td>
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As portrayed in the above table, the only difference between the security estimates presented in all 3 versions of De Beers’ 2018 Security Estimate Reports is the Mobilization/demobilization line item. The resulting total costs of all three estimates are relatively the same.
The GNWT currently holds a total of $60,401,918.00 under both the Licence and Permit authorizations combined. De Beers has suggested that the liability security held under the Licence be reduced by approximately 11 million dollars, and the liability security held under the Permit be increased by approximately 30 million dollars. Therefore, overall, De Beers has suggested an increase in reclamation liability security of approximately 18.6 million dollars for the Snap Lake Mine.

It is important to note that the mine is no longer in operation/production, which greatly contributes to the decrease in reclamation liability for the water portion of the estimate. The Board should also note that the version of RECLAIM used during Licence issuance in 2012 was an older version than the RECLAIM 7.0 used by De Beers for the 2018 estimate.

5.0 Decision

In rendering its decision, the Board is satisfied that:

- notice of the Amendment Application was given in accordance with sections 63 and 64 of the MVRMA. The Board is satisfied that a reasonable period of notice was given to communities and First Nations so comments could be provided to the Board;
- the development is exempt from preliminary screening as per Schedule 1, section 2.1 of the MVRMA Exemption List Regulations;
- any potential adverse environmental effects are insignificant or mitigable with known technology; and,
- there is no likelihood that the proposed development might be a cause of public concern.

After reviewing the evidence and submissions of De Beers, the written comments and submissions received by the Board and the Staff Report prepared for the Board, the Board, having due regard to the facts, circumstances, the merits of the submissions made to it, and to the purpose, scope, and intent of the MVRMA and Regulations made thereunder, has determined that Land Use Permit MV2017D0032 be amended subject to the term, scope, definitions, and conditions contained therein. The Board’s determinations and reasons for this decision are set out below.

- The Board is satisfied that appropriate consultation has been conducted and that advice has been sought and considered, in accordance with sections 63 and 64 of the MVRMA.
- The use of land proposed by De Beers is of a nature contemplated by the MVRMA.
- The Board has reviewed the information contained in the June 11, 2018 Staff Report regarding environmental impacts and/or public concerns.
- The conditions set forth in the Permit have been imposed to address the Board’s statutory responsibilities and ensure the land-use operation is conducted in a manner which ensures impacts to surrounding lands and waters are minimized.
- The Board has approved the following Plans under Permit MV2017D0032 as follows:
  - Waste Management Plan, version 3 (for Extended Care and Maintenance) as required by condition 42 of Land Use Permit MV2017D0032;
  - Spill Contingency Plan, version 3 (for Extended Care and Maintenance) as required by condition 66 of Land Use Permit MV2017D0032; and
  - Interim Closure and Reclamation Plan, version 3.2, to fulfill Condition 71 of Land Use Permit (Permit) MV2017D0032, including:
    - Extended Care and Maintenance Plan, version 3
    - Water Management Plan for Extended Care and Maintenance, version 3 and
    - Emergency Response Plan for Extended Care and Maintenance, version 2.
- The updates to the management plans requested by the Board in the February 22, 2018 decision letter have been made.
- The definitions and conditions in the Permit are from the MVLWB’s *Standard Land Use Permit Conditions Template* (Standard Template) and are not discussed in detail in these reasons unless notable due to recommendations or concerns raised by reviewers. After considering the information gathered through the public review, the Board made the following changes, with rationale, to the definitions and conditions:

<table>
<thead>
<tr>
<th>Definition/Condition</th>
<th>Previous Wording and Changes</th>
<th>Rationale</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Definition: Amendment #1</strong></td>
<td>New: the Amendment to conditions within Permit MV2017D0032 that was approved by the Board on June 20, 2013.</td>
<td>Added to provide clarity on the timing of the Security deposit.</td>
</tr>
<tr>
<td><strong>Condition 50: SECURITY DEPOSIT - COMMENCEMENT</strong></td>
<td>Previous: The Permittee shall post security totaling $21,335,671.00 based on the schedule set out below: a) Prior to commencement of the land-use operation, the Permittee shall deposit with the Minister a security deposit in the amount of $21,035,671.00; and b) Prior to the commencement of Construction of the Fuel Storage Facilities, the Permittee shall deposit with the Minister an additional security deposit in the amount of $300,000.00, to maintain a total security deposit of $21,335,671.00. New: <strong>Within 90 days of the approval of Amendment #1, dated June 20, 2018, the Permittee shall post and maintain a security deposit with the Minister in the amount of $51,118,424.00.</strong></td>
<td>Security was set at $51,118,424.00, as was presented in version 3 of the 2018 Security Estimate and outlined in Table 1 above and being the most accurate as it incorporated two rounds of review comments and recommendations.</td>
</tr>
<tr>
<td><strong>Condition 52: CHECK FOR LEAKS</strong></td>
<td>Previous: The Permittee shall: a) examine all Fuel Storage Containers and Tank for leaks a minimum of once per day; and b) repair all leaks immediately. New: The Permittee shall: a) <strong>during periods of zero-occupancy,</strong> examine all Fuel Storage Containers and Tanks for leaks a minimum of once per month; b) <strong>during periods of occupancy,</strong> examine all Fuel Storage Containers and Tanks for leaks a minimum of once per day; and c) repair all leaks immediately.</td>
<td>The Board has changed the frequency of in person examinations for leaks to monthly during periods of zero-occupancy as requested by De Beers in their amendment application. As the Permittee is required to have adequate Secondary Containment at all times, and will be visually monitoring the site via cameras, the Board has decided to approve the monthly in-person examination frequency during periods of zero-occupancy (from freeze-up to prior to freeze).</td>
</tr>
<tr>
<td><strong>Condition 54: FUEL CACHE SECONDARY CONTAINMENT</strong></td>
<td>Previous: The Permittee shall ensure that all fuel caches have adequate Secondary Containment. New: The Permittee shall ensure that all fuel caches have adequate Secondary Containment. <strong>The Permittee</strong></td>
<td>This language was added to ensure that adequate Secondary Containment is being monitored and ensured during periods of zero-occupancy.</td>
</tr>
</tbody>
</table>
shall, upon request of the Inspector, provide proof of adequate Secondary Containment.

Condition 71: INTERIM CLOSURE AND RECLAMATION

Previous:
The Permittee shall submit to the Board for approval, by January 30, 2018, an Interim Closure and Reclamation Plan. Revisions to the Plan shall be submitted to the Board, for approval, every 3 years after the date of approval, or as directed by the Board.

New:
The Permittee shall **adhere to the Interim Closure and Reclamation Plan, once approved**. Revisions to the Plan shall be submitted to the Board, for approval, every 3 years after the date of approval, or as directed by the Board.

De Beers is no longer required to submit an update to the full Interim Closure and Reclamation Plan, version 4, by January 30, 2018 as was outlined in the previous condition 71. Instead, De Beers shall submit the Final Closure and Reclamation Plan, required by condition 72, by January 30, 2019.

Under condition 71, the Board has approved the Interim Closure and Reclamation Plan, version 3.2, which was submitted to the Board July 11, 2013 and approved under Licence authorization MV2011L2-0004 on January 30, 2014. This allows Extended Care and Maintenance Plans to be considered under the Permit authorization, as they are submitted as an update to 'Section 7.0: Temporary Closure' of the Interim Closure and Reclamation Plan.

6.0 Conclusion

Land Use Permit MV2017D0032 contains provisions that the Board deems necessary to ensure and monitor compliance with the MVRMA and the Regulations made thereunder, and to provide appropriate safeguards in respect of De Beers' use of the land affected by the Permit.

**SIGNATURE**

Mackenzie Valley Land and Water Board

Mavis Eli-Michaud, Chair

June 20, 2018

Date
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<tr>
<td>NWT Metis Nation</td>
<td>Tim Heron</td>
<td>NWTMN IMA Coordinator</td>
<td>(867)872-3586; <a href="mailto:rcc.nwtmn@northwestel.net">rcc.nwtmn@northwestel.net</a></td>
</tr>
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</table>

Please contact our office to report any errors in this list.
Good afternoon,

Attached is a revised letter, due to an administrative error, we are re-sending. Please disregard the email sent this morning at 9:46 am. If you have any questions please contact Kierney Leach at 867-766-7470 or at kleach@mvlwb.com.

Warm regards,

Ms. Tanya Lantz
Executive Coordinator
Mackenzie Valley Land and Water Board
7th Floor, 4922 48th St, PO Box 2130 | Yellowknife, NT | X1A 2P6
ph 867.766.7460 | fax 867.873.6610
tlantz@mvlwb.com | www.mvlwb.com
From: Tanya Lantz  
Sent: June 27, 2018 9:46 AM  
To: Alexandra.Hood@debeersgroup.com  
Cc: aadnc.ntcard.aandc@canada.ca; admin@dkfn.ca; adrian.paradis@canada.ca; Alexandra.Hood@debeersgroup.com; Andrew.Williams@debeersgroup.com; Angela Love <angela.love@mvlwb.com>; Angela Plautz <aplautz@mvlwb.com>; apower@ykdene.com; Carolc.lands@gmail.com; Charlene_Coe@gov.nt.ca; cheryl_larocque@gov.nt.ca; chief.dkfn@gmail.com; chief.srfn@northwestel.net; debbie_mills@gov.nt.ca; ec.ea.nwt.ec@canada.ca; Environmental_health@gov.nt.ca; Erik.Madsen@debeersgroup.com; esangris@ykdene.com; exec@siema.ca; executivedirector@miningnorth.com; fieldworker.frmc53@northwestel.net; fisheriesprotection@dfo-mpo.gc.ca; gary@truenorthsafaris.com; ginger.gibson@thefirelightgroup.com; Glen_Mackay@gov.nt.ca; gnwt_ea@gov.nt.ca; gracemackenzie@tiicho.com; ima@dkfn.ca; Iqbal_Arshad@gov.nt.ca; Jamie_Steele@gov.nt.ca; jblack@ykdene.com; jessica.taylor@dfo-mpo.gc.ca; jhood@fortsmith.ca; joe_heron@gov.nt.ca; johnny_lennie@gov.nt.ca; Jon_Posynick@gov.nt.ca; Jen Potten <jpotten@mvlwb.com>; kfnchief@katlodeeche.com; Kierney Leach <kleach@mvlwb.com>; land@wpfn.ca; lands@denenation.com; laurie_mcgregor@gov.nt.ca; LeeAnn_Malley@gov.nt.ca; Lindsey_Cymbalisty <lindsey@mvlwb.com>; lkdfnlands@gmail.com; Lorraine_Seale@gov.nt.ca; Marty_Sanderson@gov.nt.ca; melissa.pinto@canada.ca; Michelle_Peters@debeersgroup.com; Nathen_Richea@gov.nt.ca; patrick_clancy@gov.nt.ca; Paul_Bedell@golder.com; Paul_Green@gov.nt.ca; Pauline_Delong@gov.nt.ca; Permits <permits@mvlwb.com>; Peter_Fast@gov.nt.ca; preliminaryscreening@reviewboard.ca; rcc.nwtmn@northwestel.net; Rick_Walbourne@gov.nt.ca; Robert_Jenkins@gov.nt.ca; sally.wong@dfo-mpo.gc.ca; Scott_Stewart@gov.nt.ca; screeningofficer@eastarm.com; Sean.Whitaker@debeersgroup.com; Sarah_Elsasser <selsasser@mvlwb.ca>; shin.shiga@nsma.net; shirley_standaerpflister@gov.nt.ca; Tasha_Hall@golder.com; Tracy_Covey@gov.nt.ca; tyannasteinwand@tiicho.com; vanguilkarktissolutions.com; zliu@siema.ca; Permits <permits@mvlwb.com>; Kierney Leach (kleach@mvlwb.com) <kleach@mvlwb.com>; Angela Love (angela.love@mvlwb.com) <angela.love@mvlwb.com>  
Subject: MV2017D0032 – De Beers Snap Lake – Permit Amendment Application

Good morning,

Please see the attached documents, if you have any questions please contact Kierney Leach at 867-766-7470 or at kleach@mvlwb.com

Warm regards,

Ms. Tanya Lantz  
Executive Coordinator  
Mackenzie Valley Land and Water Board  
7th Floor, 4922 48th St, PO Box 2130 | Yellowknife, NT | X1A 2P6  
ph 867.766.7460 | fax 867.873.6610  
tlantz@mvlwb.com | www.mvlwb.com

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7th Floor - 4922 48th Street
P.O. Box 2189
YELLOWKNIFE NT X1A 2P6
Phone (867) 669-6506
Fax (867) 673-9610

FILE NUMBER MV2017D0032

Date: June 27, 2018
To: various
Organization: various
Fax: various
Copied to: Tanya Lantz
From: Tanya Lantz

Number of pages including cover 26

Remarks: Please see the attached documents.

Enclosures
☐ For your information
☐ For your reference
☐ For your action
☐ For your approval

Delivered by Tanya Lantz
Date June 27, 2018

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