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February 14, 2020

File: MV2019C0030

Mr. Mark Cliffe-Phillips
Mackenzie Valley Environmental Impact Review Board
200 Scotia Center
Box 938, 5102 - 50th Avenue
Yellowknife NT X1A 2N7

Sent via Email

Dear Mr. Cliffe-Phillips,

**Re: Notice of Preliminary Screening Determination – Application for Land Use Permit
Mineral Exploration – Glowworm Property, NT**

The Mackenzie Valley Land and Water Board (Board) met on February 13, 2020 and considered the Application from Dominion Diamond Mines ULC (Dominion) for Type A Land Use Permit (Permit) MV2019C0030 for mineral exploration on the Glowworm Lake Property NT (Project) in accordance with the *Mackenzie Valley Resource Management Act* (MVRMA).

The Board conducted a preliminary screening based on the Application and the public record for the proceeding. Based on the evidence provided, the Board is satisfied the screening has been completed according to section 125 of the MVRMA and has decided **not to refer** the project to environmental assessment. The Preliminary Screening Report includes the Board's reasons for decision, as required by section 121 of the MVRMA (attached).

If the Board does not receive notice of referral to environmental assessment, it will proceed with the issuance of Permit MV2019C0030 on Tuesday February 25, 2020

Our Board and staff look forward to continued communications throughout the pause period. If you have any questions or concerns regarding this letter, please contact Shelagh Montgomery at (867) 766-7457 or email smontgomery@mvlwb.com.

Yours sincerely,

A handwritten signature in blue ink, appearing to read "Mavis Cli-Michaud".

Mavis Cli-Michaud
Chair, MVLWB

Copied to: Akaitcho/Wek'eezhii East – Distribution List;
Ms. Claudine Lee – Dominion Diamond Mines ULC

Attached: Preliminary Screening Report, including Reasons for Decision

Preliminary Screening Report Form

<p>Preliminary screener: MVLWB</p> <p>Reference / File Number: MV2019C0030</p> <p>TITLE: Mineral Exploration, Glowworm Lake Area, NT</p> <p>ORGANIZATION: Dominion Diamond Mines ULC</p> <p>MEETING DATE: February 13, 2020</p>	<p>EIRB</p> <p>Reference number:</p>
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Type of Development:
(CHECK ALL THAT APPLY)

- New
- Amend, EIRB Ref. #
- Requires permit, licence, or authorization
- Does not require permit, licence, or authorization

Project Summary:

Mineral Exploration

- Large diameter drilling and/or Trenching to achieve up to 1,200 tonnes annually of bulk sample material
- Use and storage of explosives
- Winter roads for access to and within the property;
- Possible maintenance and operation of temporary camp;
- Fuel and equipment storage;
- Geological and geophysical surveys;
- Geochemical sampling;
- Waterless RC drilling to test glacial stratigraphy;
- Diamond drilling to test and delineate potential kimberlite targets;
- Seasonal shutdown of the temporary camp; and
- Abandonment and restoration both ongoing and for final closure.

Fuel

Fuel	Number of Containers	Capacity of Containers	Location
Diesel		250,000L (total of containers)	Base Camp/Drill Site
Gasoline		20,000L (total of containers)	Base Camp
Aviation fuel	500	205	Base Camp
Propane	50	45kg	Base Camp

Equipment

Type & Number	Size	Purposed Use
2 x Hornet dry RC drill rig or equivalent	4,350 kg	Drill testing glacial stratigraphy
3 x Boyles 25A/37 diamond drill rig or equivalent	8,600 kg	Drill testing potential kimberlite targets
2 Large Diameter RC Drilling Rig	40,000 kg	Drill testing identified kimberlite targets
4 Snowcat or similar	6,000 kg	Ice strip clearing, snow road development
2 A-Star 350 BA helicopter or equivalent	1, 300 kg	Drill and crew moves
15 x Bombardier skidoos or equivalent	250 kg each	Camp support
4 x Honda 350 ATV or equivalent	250 kg each	Camp support
2 10 kW diesel generator or equivalent	350 kg	Electric power supply
4 powered ice auger or equivalent	20 kg	Ice hold drilling for water supply
5 x Honda water pumps or equivalent	25 kg each	Camp and diamond drill water
2-33 kW Diesel Generator	800 kg	Electrical power supply
2 Snow-making machinery	600 kg	Ice road construction and maintenance
1 Portable compressed air rock drill with gasoline generator or equivalent	900 kg	Used to drill holes to set explosives for blasting rock for bulk sample trench
2 Haggglunds BV206 or similar	4,500 kg	Transportation of crew and equipment over snow
3 Skidded or tracked sloop	5,000 kg	Hauled behind snowcat or similar for transportation of

		equipment and supplies over snow
1 Foremost Chieftain or similar	38 tonnes	This is a tracked articulated machine that would be used for moving supplies and people
3 Water trucks	11,250 kg	Ice road construction and maintenance
2 Grader	21,700 kg	Ice road construction and maintenance
2 Dozer	8,500 kg	Ice road construction and maintenance
2 skid-steer	4,500 kg	Materials handling and snow clearing
15 transport tractor-trailer combinations	16,000 kg	Transportation of freight to and from the property along ice roads
1 Excavator	8,400 kg	To move material from trench bulk sample
2 - Solids removal equipment with built in generator	3,000 kg	Self-contained cuttings removal equipment
2 15kW diesel generator	450 kg	Electric power supply
5 5kW gas generator	100 kg	Electrical power supply backup
7 Water pumps	25 kg	Camp and diamond drill water
3 Loaders	15,000 kg	Ice road construction and maintenance and materials handling
10 Pickup Trucks	4,000 kg	Movement of crew and equipment on proposed ice roads on the property
2 Plow truck	17,000 kg	Ice road construction and maintenance
2 Incinerator dual-chamber	1,000 kg	Disposable of combustible waste
2 Bell 407 Helicopter or similar	1,300 kg	Equipment & crew movements

Scope:

- a) Mineral exploration, including geophysical geochemical sampling, geophysics, diamond drilling and reverse circulation drilling;
- b) Large diameter drilling and/or trenching;
- c) Use and storage of explosives;
- d) Use of equipment, vehicles and machines;
- e) Construction, operation and maintenance of winter roads;
- f) Use and storage of fuel;
- g) Construction, operation and maintenance of temporary camps; and
- h) Associated closure and reclamation of the above activities.

Land Use Eligibility - Section 18 Mackenzie Valley Land Use Regulations:

Type of Disposition

Disposition Number(s)

- Mineral Claims
- NT-4424, NT-4423, NT-4422, NT-5379, NT05377, NT-5394, NT-5378, NT-4188, NT-4224, NT-4149, NT-4189, NT-4225, NT-5209, NT-5386, NT-5407, NT-5419, NT-5417, NT-5415, NT-5413, NT-5411, NT-5409, NT-5425, NT-5423, NT-5421, NT-4150, NT-4190, NT-4226, NT-5384, 5385, NT-4403, NT-5388, NT-4404, NT-4405, NT-4406, NT-5202, NT-5201, NT-4427, NT-4428, NT-4429, NT-4430, NT-4431, NT-4151, NT4191, NT-4418, NT-5368, NT-4958, NT-4419, NT-5375, NT-4420, NT-5376, NT4421, NT-5203, NT-5204, NT4411, NT-4412, NT-4220, NT-4221, NT-4222, NT-4223, NT-5366, NT-5369, NT-4413, NT-4414, NT-4415, NT-4416, NT-4417, NT-5197, NT-5198, NT-5199, NT-4410, NT-4163, NT-4162, NT-4161, NT-4230, NT-4231, NT-4232, NT-4233, NT-5367, NT-5370, NT-4393, NT-4394, NT-4395, NT-4396, NT-5213, NT-4402, NT-5214, NT-5381, NT-5200, NT-4207, NT-4206, NT-4205, NT-4169, NT-4170, NT-4171, NT-4172, NT-4173, NT-5391, NT-5372, NT-5373, NT-5374, NT-5215, NT-4401, NT-5205, NT-5206, NT-5207, NT-5208, 4196, NT-4195, NT-4194, NT-4090, NT-4091, NT-4092, NT-5362, NT-5363, NT-5364, NT-4407, NT-4408, NT-4409, NT-5365, NT-4096, NT-5189, NT-5191, NT-5190, NT-5193, NT-5192, NT-4426, NT-4425, NT-5383, NT-5382, GW1,GW2,GW3,GW4

- Prospecting Permit (s)
- Mineral Leases
- Oil and Gas: EL/SDL/PL
- Quarry Permit
- Timber Permit
- Other:

Principal Activities (related to scoping) (CHECK ALL THAT APPLY)

- Construction
- Exploration
- Decommissioning

- | | | |
|--|---|--|
| <input type="checkbox"/> Installation | <input type="checkbox"/> Industrial | <input type="checkbox"/> Abandonment |
| <input type="checkbox"/> Maintenance | <input type="checkbox"/> Recreation | <input type="checkbox"/> Aerial |
| <input type="checkbox"/> Expansion | <input type="checkbox"/> Municipal | <input type="checkbox"/> Harvesting |
| <input checked="" type="checkbox"/> Operation | <input type="checkbox"/> Quarry | <input checked="" type="checkbox"/> Camp |
| <input type="checkbox"/> Repair | <input checked="" type="checkbox"/> Linear / Corridor | <input type="checkbox"/> Scientific/ |
| <input type="checkbox"/> Research | <input type="checkbox"/> Sewage | <input type="checkbox"/> Solid Waste |
| <input checked="" type="checkbox"/> Water Intake | | |
| <input type="checkbox"/> Other: | | |

Principal Development Components (related to scoping) (CHECK ALL THAT APPLY)

- | | |
|--|--|
| <input checked="" type="checkbox"/> Access Road <ul style="list-style-type: none"> <input checked="" type="checkbox"/> construction <input type="checkbox"/> abandonment/removal <input type="checkbox"/> modification e.g., widening, straightening | <input checked="" type="checkbox"/> Waste Management <ul style="list-style-type: none"> <input type="checkbox"/> disposal of hazardous waste <input checked="" type="checkbox"/> waste generation <input checked="" type="checkbox"/> sewage <input type="checkbox"/> disposal of sewage |
| <input checked="" type="checkbox"/> Automobile, Aircraft or Vessel Movement | <input checked="" type="checkbox"/> Geoscientific Sampling |
| <input checked="" type="checkbox"/> Blasting | <input checked="" type="checkbox"/> Trenching |
| <input type="checkbox"/> Building | <input checked="" type="checkbox"/> Diamond drill |
| <input type="checkbox"/> Burning | <input checked="" type="checkbox"/> Borehole core sampling |
| <input type="checkbox"/> Burying | <input checked="" type="checkbox"/> Bulk soil sampling <ul style="list-style-type: none"> <input type="checkbox"/> gravel <input type="checkbox"/> hydrological Testing |
| <input checked="" type="checkbox"/> Channelling | <input checked="" type="checkbox"/> Site Restoration <ul style="list-style-type: none"> <input type="checkbox"/> fertilization <input type="checkbox"/> grubbing <input type="checkbox"/> planting/seeding <input type="checkbox"/> reforestation <input type="checkbox"/> scarify <input type="checkbox"/> spraying <input type="checkbox"/> re-contouring |
| <input checked="" type="checkbox"/> Cut and Fill | <input type="checkbox"/> Slashing and removal of vegetation |
| <input type="checkbox"/> Cutting of Trees or Removal of Vegetation | <input type="checkbox"/> Soil Testing |
| <input type="checkbox"/> Dams and Impoundments <ul style="list-style-type: none"> <input type="checkbox"/> construction <input type="checkbox"/> abandonment/removal <input type="checkbox"/> modification | <input type="checkbox"/> Stream Crossing/Bridging |
| <input type="checkbox"/> Ditch Construction | <input type="checkbox"/> Tunnelling/Underground |
| <input type="checkbox"/> Drainage Alteration | <input type="checkbox"/> Other: |
| <input type="checkbox"/> Drilling other than Geoscientific | |
| <input type="checkbox"/> Ecological Surveys | |
| <input checked="" type="checkbox"/> Excavation | |
| <input checked="" type="checkbox"/> Explosive Storage | |
| <input checked="" type="checkbox"/> Fuel Storage | |
| <input checked="" type="checkbox"/> Topsoil, Overburden or Soil <ul style="list-style-type: none"> <input type="checkbox"/> fill <input type="checkbox"/> disposal <input checked="" type="checkbox"/> removal <input checked="" type="checkbox"/> storage | |

NTS topographic map sheet numbers:

76C and 76D

Latitude / longitude and UTM system:

64°20'22.8" - -110°32'42.9"

65°0'25.4" - 108°44'10.5"

Nearest community and water body:

Glowworm Lake

WekWeeti, NT

Land Status (consultation information)

- | | | | |
|--|--|---|---|
| <input type="checkbox"/> Free Hold/Private | <input checked="" type="checkbox"/> Commissioner's/Territorial Lands | <input type="checkbox"/> Federal Crown Land | <input type="checkbox"/> Municipal Land |
|--|--|---|---|

Transboundary/Transregional Implications

- | | | | |
|--|--|---|--------------------------------|
| <input type="checkbox"/> British Columbia | <input type="checkbox"/> Alberta | <input type="checkbox"/> Saskatchewan | <input type="checkbox"/> Yukon |
| <input type="checkbox"/> Nunavut | <input type="checkbox"/> National Park | <input type="checkbox"/> Inuvialuit Settlement Region | |
| <input checked="" type="checkbox"/> Wek'èezhii | <input type="checkbox"/> Gwich'in | <input type="checkbox"/> Sahtu | |

Type of transboundary implication:

Impact / Effect

Development

Public concern: _____
(Describe.)

Physical - Chemical Effects

Impact

Mitigation

1) Ground Water

water table alteration

water quality changes

Completed drill holes will be plugged to prevent cross-contamination of aquifers or artesian release of water to surface. Biodegradable drill additives will be used where possible.

Spills will be cleaned up as soon as possible as addressed in the Spill Contingency Plan.

Fuel locations will be inspected regularly
Personnel will be trained in proper spill procedures
Sealing of drill holes that encounter artesian aquifers
Proper waste management practise
Secondary containment for fuel caches(s)
Proper labelling and positioning of fuel drums

infiltration changes

other:

N/A

Impact

Mitigation

2) Surface Water

flow or level changes

water quality changes

Completed drill holes will be plugged to prevent cross-contamination of aquifers or artesian release of water to surface. Biodegradable drill additives will be used where possible.

Drilling fluids with toxic material will be minimal, if required at all, and will not be released into waterways or allowed to run uncontrolled.

All fuels are to be stored with secondary containment a minimum of 100 m from the Ordinary High Water Mark.

A Spill Contingency Plan in accordance with the INAC 2001 *Spill Contingency Planning Guidelines* was provided with the Application. Conditions from the 'Standard Conditions for a Land Use Permit' list will be proposed to mitigate possible water quality impacts.

Fuel locations will be inspected regularly.
Personnel will be trained in proper spill procedures
Sealing of drill holes that encounter artesian aquifers
Proper waste management practise
Secondary containment for fuel caches(s)
Proper labelling and positioning of fuel drums

water quantity changes

Depositing drill cuttings in a natural depression and locating sumps at least 100 meters from the high water mark of any water course will limit potential for contamination.

drainage pattern changes

temperature

wetland changes/loss

other:

N/A

Impact

Mitigation

3) Noise

noise in/near water

Noise increase is expected due to off road activities and the use of machinery. These impacts will be temporary in nature, and cease as soon as equipment passes by an area, or is turned off. No mitigation proposed.

other:

N/A

Impact

Mitigation

4) Land

geologic structure changes

soil contamination

There is the potential for soil contamination due to the fuel being transported and used by equipment. All fuels are to be stored with secondary containment a minimum of 100 m from the Ordinary High Water Mark.

A Spill Contingency Plan in accordance with the INAC 2001 *Spill Contingency Planning Guidelines* was provided with the Application.

Conditions from the 'Standard Conditions for a Land Use Permit' list will be proposed to mitigate possible soil contamination from fuel.

buffer zone loss

soil compaction and settling

Heavy equipment and vehicle movements have the potential to increase localized soil compaction and settling. Established erosion and sediment control measures should be followed.

Disturbed sites will be re-vegetated and the disturbed land be returned as close to original condition as possible

Will ensure the ground is capable to support vehicle movements so that the land is not disturbed.

Backfilling and restoring sumps following their use will limit potential for localized erosion

Provide adequate insulation of the ground surface beneath all camp structures to prevent vegetation from being removed, the melting of the permafrost, and the ground from settling/eroding.

destabilization/erosion

Erosion/sedimentation may increase as a result of heavy equipment operation. Standard prevention techniques and established erosion and sediment control measures should be followed.

- permafrost regime alteration
- explosives/scarring
- other:
- N/A

Impact
5) Non-renewable natural resources

Mitigation

- resource depletion
- other: air pollution
- N/A

Motorized vehicles will be turned off whenever possible.

Impact
6) Air/climate/atmosphere

Mitigation

- other:
- N/A

BIOLOGICAL ENVIRONMENT

Impact
1) Vegetation

Mitigation

- species composition
- species introduction
- toxin/heavy accumulation
- other: Linear Migration routes, habitat fragmentation
- N/A

Any contaminated materials will be removed from site for proper disposal.

Impact
2) Wildlife and Fish

Mitigation

- effects on rare, threatened or endangered species
- fish population changes
- waterfowl population changes
- breeding disturbance
- population reduction
- species diversity change
- health changes
- behavioural changes

Work crews will avoid interaction with any wildlife and monitor and record wildlife interactions, including those with species at risk or migratory birds. Conditions from the 'Standard Conditions for a Land Use Permit' list will be proposed to mitigate possible impacts on wildlife habitat.

habitat changes / effects

Work crews will avoid interaction with any wildlife and monitor and record wildlife interactions, including those with species at risk or migratory birds. Conditions from the 'Standard Conditions for a Land Use Permit' list will be proposed to mitigate possible impacts on wildlife habitat.

game species effects

toxins/ heavy metals

forestry changes

agricultural changes

other:

N/A

Interacting Environment

Impact

Mitigation

1) Habitat and Communities

predator-prey

wildlife habitat/ecosystem composition changes

Work crews will avoid interaction with any wildlife and monitor and record wildlife interactions, including those with species at risk or migratory birds. Conditions from the 'Standard Conditions for a Land Use Permit' list will be proposed to mitigate possible impacts on wildlife habitat.

reduction/removal of keystone or endangered species

removal of wildlife corridor or buffer zone

other:

N/A

Impact

Mitigation

2) Social and Economic

planning/zoning changes or conflicts

increase in urban facilities or services use

rental house

airport operations/capacity changes

human health hazard

impair the recreational use of water or aesthetic quality

affect water use for other purposes

affect other land use

operations

- quality of life changes
- public concern
- other:
- N/A

Impact

3) Cultural and Heritage

Mitigation

- effects to historic property
- increased economic pressure on historic properties
- change to or loss of historic resources

Conditions from the 'Standard Conditions for a Land Use Permit' list will be proposed to mitigate impacts on historic and archaeological resources, including requirements for an Archaeological Overview Assessment and, if necessary, an Archaeological Impact Assessment.

- change to or loss of archaeological resources

Conditions from the 'Standard Conditions for a Land Use Permit' list will be proposed to mitigate impacts on historic and archaeological resources, including requirements for an Archaeological Overview Assessment and, if necessary, an Archaeological Impact Assessment.

- increased pressure on archaeological sites
- change to or loss of aesthetically important sites
- effects to aboriginal lifestyle
- other:
- N/A

- Pursuant to Schedule 4.1 of the **Northwest Territory Métis Nation (NWTMN)** Interim Measures Agreement, the MVLWB determined that written notice was given to the NWTMN and that a reasonable period of time was allowed for NWTMN to make representations with respect to the application.
- Pursuant to subsection 1.6, paragraphs (a) and (b) of the **Akaiicho Territory Dene First Nations (ATDFN)** Interim Measures Agreement, the MVLWB determined that written notice was given to the ATDFN and that a reasonable period of time was allowed for ATDFN to make representations with respect to the Application.

Preliminary Screener / Referring Body Information

Akaiicho IMA Implementation Office
Athabasca Denesuline Council CO Prince Albert Cou
Bathurst Inlet Development Ltd.
Bathurst Inlet Lodge
BNT Gold Resources Ltd.
Canadian Northern Economic Development Agency
CanNor NWT Region
Chamber of Mines NWT & Nunavut
City of Yellowknife
Community Government of Behchoko
Community Government of Gameti
Community Government of Wekweeti
Community Government of Whati
Dene Nation
Deninu K'ue First Nation
Environment and Climate Change Canada
Fisheries and Oceans Canada
Fort Resolution Metis Council
Fort Smith Metis Council
GLWB
GNWT - ECE
GNWT - ENR
GNWT - Health
GNWT - INF
GNWT - ITI
GNWT - Lands
GNWT - MACA
GNWT- OROGO
Golder Associates
Gov of Canada
Hamlet of Fort Resolution
Hay River Metis Council
INAC - Contaminants and Remediation Directorate
INAC - NWT Inspectors
Katlodeeche First Nation
Kitikmeot Inuit Association
Kivalliq Inuit Association
Lutsel K'e Dene First Nation - Chief or Wildlife, Lands and Environment
Mackenzie Valley Environmental Impact Review Board
Manitoba Denesuline
MVLWB
National Energy Board
North Slave Metis Alliance
Northwest Territory Metis Nation
Salt River First Nations
Smith Landing First Nation
Snap Lake Environmental Monitoring Agency - SLEMA
Tłı̄chǫ Government
Tłı̄chǫ Lands Protection Department
Town of Fort Smith
Town of Hay River
Wek' eezhii Renewable Resources Board
Wekweeti Community Government
West Point First Nation
Wek' eezhii Land and Water Board
Workers' Safety and Compensation Commission
Yellowknives Dene First Nation

Reasons For Decision
(List all reasons and supporting rationales for preliminary screening decision)

DECISION

The Mackenzie Valley Land and Water Board (the Board) is satisfied that the preliminary screening of Application MV2019C0030, Dominion Diamond Holdings Limited, Mineral Exploration, Glowworm Lake Area, NT has been completed in accordance with section 125 of the *Mackenzie Valley Resource Management Act* (MVRMA).

The Board is satisfied that communities and First Nations affected by the Application have been notified and provided adequate time to provide comment on the Application as required by land claim and self government agreements, the MVRMA, policy directions relating to Interim Measures Agreements, and any other applicable legislation and agreements.

Having reviewed all relevant evidence on the Public Registry, including the submissions of the Applicant, the written comments received by the Board and any Staff Reports prepared for the Board, the Board has decided that in its opinion:

- The proposed development will not have a significant adverse impact on the environment; and
- The proposed development is not a cause of public concern.

The Board is also of the opinion that the Application can proceed through the regulatory process and that any impacts of the development on the environment can be mitigated through the imposition of the terms and conditions in the attached Land Use Permit.

As a result, the Board, having due regard to the facts and circumstances, the merits of the submissions made to it, and to the purpose, scope, and intent of the MVRMA and the Mackenzie Valley Land Use Regulations has decided that this Land Use Permit be issued subject to the terms and conditions contained therein.

Preliminary Screening Decision	
<input checked="" type="checkbox"/>	Outside Local Government Boundaries
<input type="checkbox"/>	The development proposal might have a significant adverse impact on the environment, <i>refer it to the EIRB.</i>
<input checked="" type="checkbox"/>	<i>Proceed with regulatory process and/or implementation.</i>
<input type="checkbox"/>	The development proposal might have public concern, <i>refer it to the EIRB.</i>
<input checked="" type="checkbox"/>	<i>Proceed with regulatory process and/or implementation.</i>
<input type="checkbox"/>	Wholly Within Local Government Boundaries
<input type="checkbox"/>	The development proposal is likely to have a significant adverse impact on air, water or renewable resources, <i>refer it to the EIRB.</i>
<input type="checkbox"/>	<i>Proceed with regulatory process and/or implementation.</i>
<input type="checkbox"/>	The development proposal might have public concern, <i>refer it to the EIRB.</i>
<input type="checkbox"/>	<i>Proceed with regulatory process and/or implementation.</i>

Preliminary Screening Organization

Mackenzie Valley Land and Water Board

February 13, 2020

Signatures

Mavis Cli-Michaud, Chair