



General Water Licence Application  
(Application for a new Water Licence)

Document Date: April 2013

Application Submission Date:

**April 16, 2015**

Month/Day/Year

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## DOCUMENT MANAGEMENT

Original Document Date: April 2010

### DOCUMENT AMENDMENTS

	Description	Date
(1)	Updated for public distribution as separate document from NWB Guide 4	June 2010
(2)	Updated NWB logos and reformatted table to allow rows to break across page	May 2011
(3)	Update NWB logo	April 2013
(4)		
(5)		
(6)		
(7)		
(8)		
(9)		
(10)		



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### GENERAL WATER LICENCE APPLICATION (APPLICATION FOR NEW WATER LICENCE)

The applicant is referred to the NWB's Guide 4: *Guide to Completing and Submitting a Water Licence Application for a New Licence* for more information about this application form.

LICENCE NO: (for NWB use only)	
<b>1. APPLICANT (PROPOSED LICENSEE) CONTACT INFORMATION</b> (name, address) <b>Robert L'Heureux</b> <b>APEX Geoscience Ltd.</b> <b>100 – 9797 45th Ave.</b> <b>Edmonton, AB</b> <b>T6E 5V8</b> Phone: <b>780-439-5380</b> Mob: <b>780-916-5482</b> Fax: <b>780-433-1336</b> e-mail: <a href="mailto:rlheureux@apexgeoscience.com">rlheureux@apexgeoscience.com</a>	<b>2. APPLICANT REPRESENTATIVE CONTACT INFORMATION</b> if different from Block 1 (name, address)  Phone: _____ Fax: _____ e-mail: _____ (Attach authorization letter.)
<b>3. NAME OF PROJECT</b> (including the name of the project location) <b>Muskox Diamond Project</b>	
<b>4. LOCATION OF UNDERTAKING</b> <b>Project Extents</b> <b>All drilling will be strictly within Prospecting Permits P-18 to P-25 (see attached figures)</b> NW: Latitude: (66° 52' 00" N) Longitude: (112° 16' 45" W) NE: Latitude: (66° 52' 45" N) Longitude: (110° 45' 45" W) SE: Latitude: (65° 45' 00" N) Longitude: (110° 45' 00" W) SW: Latitude: (65° 45' 00" N) Longitude: (112° 14' 30" W)  <b>Camp Location(s)</b> Proposed temporary camp Locations were selected from GIS and satellite imagery and therefore exact locations will be to be finalized upon mobilization. It is not anticipated that any more than one camp will be operational at a time. The camp sites will be used sequentially and reclaimed after each use.  <b>Contwoyto Camp:</b> Latitude: (65° 48' 20" N) Longitude: (110° 59' 36" W) <b>James River Camp:</b> Latitude: (66° 49' 17" N) Longitude: (111° 13' 23" W) <b>Muskox Camp:</b> Latitude: (66° 2' 17" N) Longitude: (111° 26' 42" W)	

**5. MAP** - Attach a topographical map, indicating the main components of the undertaking.

**1:250,000** NTS Map Sheet No.: **76E** Map Name: **Contwoyto Lake**

**1:50,000** NTS Map Sheet No.: **76E13, 14, 15**

**1:250,000** NTS Map Sheet No.: **76L** Map Name: **Kathawachaga Lake**

**1:50,000** NTS Map Sheet No.: **76L14**

**1:250,000** NTS Map Sheet No.: **86I** Map Name: **Napaktulik Lake**

**1:50,000** NTS Map Sheet No.: **86I01**

**6. NATURE OF INTEREST IN THE LAND** - Check any of the following that are applicable to the proposed undertaking (at least one box under the 'Surface' header must be checked).

**Sub-surface**

☐ Mineral Lease from Nunavut Tunngavik Incorporated (NTI)

Date (expected date) of issuance: \_\_\_\_\_ Date of expiry: \_\_\_\_\_

☐ Mineral Lease from Indian and Northern Affairs Canada (INAC)

Date (expected date) of issuance: \_\_\_\_\_ Date of expiry: \_\_\_\_\_

☒ Prospecting Permits from Aboriginal Affairs and Northern Development Canada (AANDC)

**P-18 to P-25 in the name of Michael Dufresne on behalf of APEX**

Date (expected date) of issuance: **February 1, 2015** Date of expiry: **February 1, 2018**

**Surface**

☒ Crown Land Use Authorization from Indian and Northern Affairs Canada (INAC)

**Under Application**

Date (expected date) of issuance: **June 2015** Date of expiry: \_\_\_\_\_

☒ Inuit Owned Land (IOL) Authorization from Kitikmeot Inuit Association (KIA)

**Under Application**

Date (expected date) of issuance: **June 2015** Date of expiry: \_\_\_\_\_

☐ IOL Authorization from Kivalliq Inuit Association (KivIA)

Date (expected date) of issuance: \_\_\_\_\_ Date of expiry: \_\_\_\_\_

☐ IOL Authorization from Qikiqtani Inuit Association (QIA)

Date (expected date) of issuance: \_\_\_\_\_ Date of expiry: \_\_\_\_\_

☐ Commissioner's Land Use Authorization

Date (expected date) of issuance: \_\_\_\_\_ Date of expiry: \_\_\_\_\_

☒ Other: Nunavut Water Board (NWB) Type B Water Licence

**Under Application**

Date (expected date) of issuance: : **June 2015** Date of expiry: \_\_\_\_\_

☒ Other: Nunavut Impact Review Board (NIRB) Authorization

**Under Application**

Date (expected date) of issuance: : **June 2015** Date of expiry: \_\_\_\_\_

☒ Other: Nunavut Planning Commission (NPC) Authorization

**Under Application**

Date (expected date) of issuance: : **March 2015** Date of expiry: \_\_\_\_\_

Name of entity(s) holding authorizations: **Will be held by APEX Geoscience Ltd.**

**7. NUNAVUT PLANNING COMMISSION (NPC) DETERMINATION**

Indicate the land use planning area in which the project is located.

- |                                       |  |
|---------------------------------------|--|
| <input type="checkbox"/> North Baffin | <input type="checkbox"/> Keewatin                  |
| <input type="checkbox"/> South Baffin | <input type="checkbox"/> Sanikiluaq                |
| <input type="checkbox"/> Akunnig      | <input checked="" type="checkbox"/> West Kitikmeot |

Is a land use plan conformity determination required?

- ☒ Yes ☐ No

If Yes, indicate date issued and attach copy **Under Application**

If No, provide written confirmation from NPC confirming that a land use plan conformity review is not required.

**8. NUNAVUT IMPACT REVIEW BOARD (NIRB) DETERMINATION**

Is an Article 12 Part 4 screening determination required?

- ☒ Yes ☐ No

If Yes, indicate date issued and attach copy **Under Application**

If No, provide written confirmation from NIRB confirming that a screening determination is not required.

**9. DESCRIPTION OF UNDERTAKING – List and attach plans and drawings or project proposal.**

**Muskox Diamond Property Non-Technical Summary - English**  
**Muskox Diamond Property Non-Technical Summary - Inuktitut**  
**Muskox Diamond Property Non-Technical Summary – Inuinnaqtun**  
**Muskox Diamond Property Water Licence Application - Inuktitut**  
**Muskox Diamond Property Water Licence Application – Inuinnaqtun**  
**Muskox Diamond Property Abandonment and Restoration Plan**  
**Muskox Diamond Property Fuel Management Plan**  
**Muskox Diamond Property Emergency Response Plan**  
**Muskox Diamond Property Spill Prevention and Response Plan**  
**Muskox Diamond Property Waste Management Plan**  
**Figure 1 Muskox Diamond Property Proposed Exploration**  
**Figure 2 Muskox Diamond Property Proposed General Camp Layout**

**10. OPTIONS – Provide a brief explanation of the alternative methods or locations that were considered to carry out the project.**

**Diamond drilling will only be conducted in areas that have sufficient historical data and/or preliminary exploration work to reduce the risk of unnecessary disturbances. Investigations were performed for use of preexisting camps, but none were identified or authorized.**

**11. CLASSIFICATION OF PRIMARY UNDERTAKING - Indicate the primary classification of undertaking by checking one of the following boxes.**

- |  |  |
|--|--|
| <input type="checkbox"/> Industrial  | <input type="checkbox"/> Agricultural                    |
| <input checked="" type="checkbox"/> Mining and Milling (includes exploration/drilling/exploration camps) |  |
| <input type="checkbox"/> Conservation  |  |
| <input type="checkbox"/> Municipal (includes camps/lodges)   | <input type="checkbox"/> Recreational                    |
| <input type="checkbox"/> Power   | <input type="checkbox"/> Miscellaneous (describe below): |

See Schedule II of *Northwest Territories Waters Regulations* for Description of Undertakings. Information in accordance with applicable Supplemental Information Guidelines (SIG) must be submitted with a New Water Licence Application. Indicate which SIG(s) are applicable to your

	application.	<div style="display: flex; flex-direction: column; gap: 5px;"> <div><input type="checkbox"/> Hydrostatic Testing</div> <div><input type="checkbox"/> Tannery</div> <div><input type="checkbox"/> Tourist / Remote Camp</div> <div><input type="checkbox"/> Landfarm &amp; On-Site Storage of Hydrocarbon Contaminated Soil</div> <div><input type="checkbox"/> Onshore Oil and Gas Exploration Drilling</div> <div><input checked="" type="checkbox"/> Mineral Exploration / Remote Camp</div> <div><input type="checkbox"/> Advanced Exploration</div> <div><input type="checkbox"/> Mine Development</div> <div><input type="checkbox"/> Municipal</div> <div><input type="checkbox"/> General Water Works</div> <div><input type="checkbox"/> Power</div> </div>
12.	<b>WATER USE</b> - Check the appropriate box(s) to indicate the type(s) of water use(s) being applied for.	<div style="display: flex; flex-direction: column; gap: 5px;"> <div><input checked="" type="checkbox"/> To obtain water for camp/ municipal purposes</div> <div><input type="checkbox"/> To obtain water for industrial purposes</div> <div><input type="checkbox"/> To cross a watercourse</div> <div><input type="checkbox"/> To alter the flow of, or store water</div> <div><input type="checkbox"/> To divert a watercourse</div> <div><input type="checkbox"/> To modify the bed or bank of a watercourse</div> <div><input type="checkbox"/> Flood control</div> </div> <div><input checked="" type="checkbox"/> Other: <b>Diamond Drilling</b></div>
13.	<b>QUANTITY AND QUALITY OF WATER INVOLVED</b> - For each type of water use indicated in Block 12, provide the source of water, the quality of the water source and available capacity, the estimated quantity to be used in cubic meters per day, method of extraction, as well as the quantities and qualities of water to be returned to source.	<p>Name of water source(s) (show location(s) on map):  <b>Numerous unnamed sources</b></p> <p>Describe the quality of the water source(s) and the available capacity: <b>Water quality will be pristine. Care will be taken to ensure that water is drawn from bodies with sufficient capacity in order to avoid impact on lake level or flow</b></p> <p>Provide the overall estimated quantity of water to be used: <b>82 m<sup>3</sup>/day</b></p> <p>Provide the estimated quantity(s) of water to be used from each source:  <b>Camp: 2 m<sup>3</sup>/day from an adjacent body of water at each camp location</b>  <b>Diamond Drilling (per drill): 40 m<sup>3</sup>/day from numerous water sources</b></p> <p>Indicate the estimated quantities to be used for each purpose (camp, drilling, etc.):  <b>Camp Use: 2 m<sup>3</sup>/day</b>  <b>Diamond Drilling: 40 m<sup>3</sup>/day x 2 drills = 80 m<sup>3</sup>/day</b></p> <p>Describe the method of extraction(s): <b>The water intakes for the camp will use an electrically powered submersible pump with a fine screen (&lt;1/4" openings) on the intake. The drill pumps use a 1" inside diameter suction hose on the diesel pump with a fine screen on the foot valve. For drilling, a fiberglass window screen with a nominal opening size of less than 1/16" is also generally wrapped around the foot valve to prevent the intake of silt and sand into the pump, which can cause considerable damage to the pump chambers. In addition, it is common practice for the drilling contractor to place the foot valve of the intake hose in a perforated 20 L pail, which further protects against harmful materials and fish being entrained into water intake hoses.</b></p> <p>Estimated quantity(s) of water returned to source(s) _____ m<sup>3</sup>/day  <b>Water used for camp and drilling will not be returned directly to the source, but placed in a sump to allow for slow infiltration into the soil and will be located at least 31 m away from</b></p>

**a water body. Filters will be installed on kitchen drains to ensure solid food wastes do not enter sumps. Sumps will maintain a minimum 1 metre freeboard at all times.**

Describe the quality of water(s) returned to source(s): **Filters will be installed on the drill to collect cuttings and kitchen drains to ensure solid food wastes do not enter sumps.**

- 14. WASTE** – Check the appropriate box(s) to indicate the types of waste(s) generated and deposited.

☒ Sewage  
☒ Solid Waste  
☒ Hazardous  
☒ Bulky Items/Scrap Metal  
☐ Animal Waste  
☐ Other (describe): \_\_\_\_\_

☒ Waste oil  
☒ Greywater  
☐ Sludges  
☒ Contaminated soil and/or water

- 15. QUANTITY AND QUALITY OF WASTE INVOLVED** – For each type of waste indicated in Block 14, describe its composition, quantity in cubic meters/day, method of treatment and method of disposal.

Type of Waste	Composition	Quantity Generated	Treatment Method	Disposal Method
Sewage	Human refuse	0.05	Lime	Privy Pit (outhouse)
Camp grey water	Kitchen and shower water	2	Sump	Disposed of in natural depressions or excavated pits located adjacent to camp and/or drill holes; allowed to percolate into overburden; minimum distance of 31 m from nearby water sources
Combustible solid waste	Food, paper, cardboard, untreated wood		Incineration	Incineration
Non-combustible solid waste	bulky items, scrap metal, empty barrels/fuel drums		Stored in sealed containers or other appropriate and safe containment	Removed and taken to approved recycling or disposal site
Contaminated soil/water	Soil/water plus hydrocarbons or other chemicals		Stored in sealed containers	Removed and taken to approved disposal site
Hazardous waste or oil	Used oil	0.005	Stored in sealed containers	Removed and taken to approved disposal site

- 16. OTHER AUTHORIZATIONS** – In addition to the sub-surface and surface land use authorizations provided in Block 6, indicate any other authorizations required in relation to the proposed undertaking. For each provide the following:

Authorization: \_\_\_\_\_

Administering Agency: \_\_\_\_\_

Project Activity: \_\_\_\_\_

Date (expected date) of issuance: \_\_\_\_\_ Date of expiry: \_\_\_\_\_

- 17. PREDICTED ENVIRONMENTAL IMPACTS OF UNDERTAKING AND PROPOSED MITIGATION MEASURES** - Describe direct, indirect, and cumulative impacts related to water and waste. **All potential environmental effects associated with the proposed Muskox Diamond Project are considered minor, localized effects that can be mitigated. No**

	<p>significant residual impacts to the environment are expected to occur as a result of the implementation of this program. While individually no significant effects are anticipated, consideration should be made to the combination of all existing or known planned activities within the vicinity of the project area. Some cumulative effects can be positive, such as the case with the establishment of the diamond mines in the NWT, more residents are finishing high school and earning higher salaries. Other positive cumulative effects can be increased employment rate, infrastructure and potential for investment in communities by government. Cumulative effects may also be negative and therefore attention should be given to the potential for these to occur in advance of project growth. Cumulative effects on the land might include changes to the number of wildlife, increases in non-native plants, or the melting of permafrost. Other potential exploration projects or sites in the Northern Contwoyto area include the Jericho and Lupin Mines; MMG's Izok Lake, Hood river, Ulu, Gondor and Dogbone projects; Strongbow's Napaktulik Project and HTX's Itchen lake Project.</p>
<p>18.</p>	<p><b>WATER RIGHTS OF EXISTING AND OTHER USERS OF WATER</b></p> <p>Provide the names, addresses and nature of use for any known persons or properties that may be adversely affected by the proposed undertaking, including those that hold licences for water use in precedent to the application, domestic users, in-stream users, authorized waste depositors, owners of property, occupiers of property, and/or holders of outfitting concessions, registered trapline holders, and holders of other rights of a similar nature.</p> <p>The nearest Inhabited community is Kugluktuk, approximately 350 km to the northwest. Bathurst Inlet is approximately 200 km to the northeast. The Property is covered by a portion of an Area of Traditional Land Use (BHC-R2 249) and The Kiugluktuk community water supply (BHC-R3 144B) as identified by the DNLUP, therefor all exploration activity planning will take into account any possible impacts to the cultural value, including subsistence harvesting, of the area and quality of water. Advise the Board if compensation has been paid and/or agreement(s) for compensation have been reached with any existing or other users.</p>
<p>19.</p>	<p><b>INUIT WATER RIGHTS</b></p> <p>Advise the Board of any substantial affect of the quality, quantity or flow of waters flowing through Inuit Owned Land (IOL), and advise the Board if negotiations have commenced or an agreement to pay compensation for any loss or damage has been reached with one or more Designated Inuit Organization (DIO).</p>
<p>20.</p>	<p><b>CONSULTATION</b> – Provide a summary of any consultation meetings including when the meetings were held, where and with whom. Include a list of concerns expressed and measures to address concerns.</p> <p>As the Muskox Diamond Project is still in a very early stage no consultations have been performed to this point.</p>
<p>21.</p>	<p><b>SECURITY INFORMATION</b></p> <p>Provide an estimate of the total financial security for final reclamation equal to the total outstanding reclamation liability for land and water combined sufficient to cover the highest liability over the life of the undertaking. <u>Estimates of reclamation costs must be based on the cost of having the necessary reclamation work done by a third party contractor if the operator defaults.</u> The estimate must also include contingency factors appropriate to the particular work to be undertaken.</p> <p>Where applicable, the financial security assessment should be prepared in a manner consistent with the principals respecting mine site reclamation and implementation found in the <i>Mine Site Reclamation Policy for Nunavut</i>, Indian and Northern Affairs Canada, 2002.</p>

**22. FINANCIAL INFORMATION**

Provide a statement of financial responsibility.

If the applicant is a business entity, provide a list of the officers of the company.

If the applicant is a business entity attach a copy of the Certificate of Incorporation or evidence of registration of the company name.

**23. STUDIES UNDERTAKEN TO DATE** - List and attach copies of studies, reports, research, etc.

**No Studies/reports on the project performed by APEX geoscience to date.**

**24. PROPOSED TIME SCHEDULE** – Indicate the proposed start and completion dates for each applicable phase of development (construction, operation, closure, and post closure).

Construction

Proposed Start Date: **June/2015**  
(month/year)

Proposed Completion Date: **June/2015**  
(month/year)

Operation

Proposed Start Date: **June/2015**  
(month/year)

Proposed Completion Date: **September/2020**  
(month/year)

Closure

Proposed Start Date: **September/2020**  
(month/year)

Proposed Completion Date: **September/2020**  
(month/year)

Post - Closure

Proposed Start Date: **September/2020**  
(month/year)

Proposed Completion Date: **Unknown**  
(month/year)

For each applicable phase of development indicate which season(s) activities occur.

Construction

☐ Winter ☒ Spring ☒ Summer ☐ Fall ☐ All season

Operation

☐ Winter ☐ Spring ☐ Summer ☐ Fall ☒ All season

Closure

☐ Winter ☐ Spring ☒ Summer ☒ Fall ☐ All season

Post - Closure

☐ Winter ☐ Spring ☐ Summer ☐ Fall ☒ All season

**25. PROPOSED TERM OF LICENCE**

Number of years (maximum of 25 years): 5 years

Requested Date of Issuance: **June/2015** Requested Expiry Date: **September/2020**  
(month/year) (month/year)

(The requested date of issuance must be at least three (3) months from the date of application for a type B water licence and at least one (1) year from the date of application for a type A water licence, to allow for processing of the water licence application. These timeframes are approximate and do not account for the time to complete any pre-licensing land use planning or development impact requirements, time for the applicant to prepare and submit a water licence application in accordance with any project specific guidelines issued by the NWB, or the time for the applicant to respond to requests for additional information. See the NWB's *Guide 5: Processing Water Licence Applications* for more information)

**26. ANNUAL REPORTING** – If not using the NWB's *Standardized Form for Annual Reporting*, provide details regarding the content of annual reports and a proposed outline or template of the annual report.

**27. CHECKLIST** – The following must be included with the application for the water licensing process to begin.

Written confirmation from the NPC confirming that NPC's requirements regarding land use plan conformity have been addressed.

☐ Yes ☒ No If no, date expected **April, 2015**

Written confirmation from the NIRB confirming that NIRB's requirements regarding development impact assessment have been addressed.

☐ Yes ☒ No If no, date expected **June, 2015**

Completed General Water Licence Application form.

☒ Yes ☐ No If no, date expected \_\_\_\_\_

Information addressing Supplemental Information Guideline (SIG) , where applicable (see Block 11)

☒ Yes ☐ No If no, date expected \_\_\_\_\_

English Summary of Application.

☒ Yes ☐ No If no, date expected \_\_\_\_\_

Inuktitut and/or Inuinnaqtun Summary of Application.

☒ Yes ☐ No If no, date expected \_\_\_\_\_

Application Fee of \$30.00 CDN (Payee Receiver General for Canada).

☒ Yes ☐ No If no, date expected \_\_\_\_\_

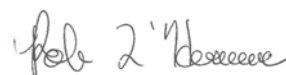
Water Use Fee Deposit of \$30.00 CDN (Payee Receiver General for Canada). The actual water use fee will be calculated by the NWB based upon the amount of water authorized for use in accordance with the Regulations at the time of issuance of the licence.

☒ Yes ☐ No If no, date expected \_\_\_\_\_

**28. SIGNATURE**

**Robert L'Heureux**

**Vice President**



**April 16, 2015**

**Name (Print)**

**Title (Print)**

**Signature**

**Date**