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NUNAVUT WATER BOARD

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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)	
1. APPLICANT (PROPOSED LICENSEE) CONTACT INFORMATION (name, address) North Arrow Minerals Inc. Suite 960 - 789 West Pender St. Vancouver, BC V6C 1H2 Phone: 604-668-8355 Fax: 604-336-4813 e-mail: mmacmorran@northarrowminerals.com	2. APPLICANT REPRESENTATIVE CONTACT INFORMATION if different from Block 1 (name, address) Same as Proposed Licensee Phone: _____ Fax: _____ e-mail: _____ (Attach authorization letter.)
3. NAME OF PROJECT (including the name of the project location) Luxx Project/Luxx Property	
4. LOCATION OF UNDERTAKING Project Extents NW: Latitude: (63°37'30"N) Longitude: (-91°45'2.16"W) NE: Latitude: (63°37'30"N) Longitude: (-91°38'53.52"W) SE: Latitude: (63°35'2.4"N) Longitude: (-91°38'53.52"W) SW: Latitude: (63°35'2.4"N) Longitude: (-91°45'2.16"W) Camp Location(s) – NO CAMP PROPOSED Latitude: (° ' " N) Longitude: (° ' " W)	
5. MAP - Attach a topographical map, indicating the main components of the undertaking. See property maps included at bottom of application	

NTS Map Sheet No.: 55O/12 Map Name: Luxx Property Land Use Area Map Map Scale: 1:50,000

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: _____

Surface

☐ Crown Land Use Authorization from Indian and Northern Affairs Canada (INAC)
Date (expected date) of issuance: _____ Date of expiry: _____

☐ Inuit Owned Land (IOL) Authorization from Kitikmeot Inuit Association (KIA)
Date (expected date) of issuance: _____ 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: Mineral Exploration (Diamonds) – Mineral Claims _____
Date of issuance: **March 2013** Date of expiry: **n/a**

Name of entity(s) holding authorizations:

North Arrow Minerals Inc.

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

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

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

Is a land use plan conformity determination required?

✓ Yes ☐ No

If Yes, indicate date issued and attach copy: PENDING

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: PENDING

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. The land use activity being proposed is a drilling program on North Arrow Minerals Inc.'s ("North Arrow") Luxx Project – see project map(s) at the bottom of this application. The proposed land use activity will be conducted during the spring and/or summer months in 2016 and possibly beyond. The programs would be run out of Chesterfield Inlet – no camp is proposed as crews will stay in town. Drilling would take place on North Arrow's mineral claims which sit approximately 60 km west of town. Personnel working on the project may vary and typical personnel requirements will likely include 1 project geologist (with the possibility of up to 2 to 3 geologists/geo-technicians), 1 helicopter pilot, 1 helicopter engineer and 5 contract drillers. Phase 1 of the program is planned for spring and/or summer of 2016 and will involve drill-testing a small number of land- and lake-based geophysical targets. The drill program would run for approximately 1-2 weeks and drilling will be done with a small diamond drill and transported by helicopter.

10. OPTIONS – Provide a brief explanation of the alternative methods or locations that were considered to carry out the project.
No alternative methods/locations are proposed at this time.

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

☐ Industrial

☐ Agricultural

☒ Mining and Milling (includes exploration/drilling/exploration camps)

☐ Conservation

☐ Municipal (includes camps/lodges)

☐ Recreational

☐ Power

☐ 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.

☐ Hydrostatic Testing

☐ Tannery

☐ Tourist / Remote Camp

☐ Landfarm & On-Site Storage of Hydrocarbon Contaminated Soil

☐ Onshore Oil and Gas Exploration Drilling

☒ Mineral Exploration / Remote Camp (see NIRB Project Specific Information Request document submitted along with this application)

☐ Advanced Exploration

☐ Mine Development

	<input type="checkbox"/> Municipal <input type="checkbox"/> General Water Works <input type="checkbox"/> Power
12.	WATER USE - Check the appropriate box(s) to indicate the type(s) of water use(s) being applied for. <div style="display: flex; flex-wrap: wrap;"> <div style="width: 50%;"> <input type="checkbox"/> To obtain water for camp/ municipal purposes <input type="checkbox"/> To obtain water for industrial purposes <input type="checkbox"/> To cross a watercourse <input type="checkbox"/> To alter the flow of, or store water <input checked="" type="checkbox"/> Other: Diamond Drilling </div> <div style="width: 50%;"> <input type="checkbox"/> To divert a watercourse <input type="checkbox"/> To modify the bed or bank of a watercourse <input type="checkbox"/> Flood control </div> </div>
13.	QUANTITY AND QUALITY OF WATER INVOLVED - 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>Drill water will be re-circulated, but some may be lost in the rock face. The drill will be accompanied by a "Poly Drill" or similar filtration system to treat return water where applicable. Cuttings and sludges will be stored in sumps.</p> <p>Name of water source(s) (show location(s) on map): Water sources will include viable lakes, creeks, rivers or streams close to proposed drill locations within the proposed land use area shown on the map attached at the end of this application (exact drill locations are yet to be determined).</p> <p>Describe the quality of the water source(s) and the available capacity: 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. Water source quality and capacity will be verified for each drill site before drilling commences.</p> <p>Provide the overall estimated quantity of water to be used: Approximately 25-50 m³/day (if/when drilling is taking place)</p> <p>Provide the estimated quantity(s) of water to be used from each source: Drilling activities will likely consume 25-50 cubic metres per day (if/when drilling is taking place).</p> <p>Indicate the estimated quantities to be used for each purpose (camp, drilling, etc.) Approximately 25-50 cubic metres will be used per day for drilling purposes when drilling is taking place.</p> <p>Describe the method of extraction(s): Water will be extracted by pump. The drill pumps use a 1" inside diameter suction hose on the diesel pump with a fine screen on the foot valve. It is common practice for the drilling contractor to place the foot valve of the intake hose in a perforated 20 litre pail, which further protects against harmful materials and fish being entrained into water intake hoses.</p> <p>Estimated quantity(s) of water returned to source(s): Approximately 25-50 m³/day. Water used for 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 the high water mark of waterbodies used.</p> <p>Describe the quality of water(s) returned to source(s):</p>

Only suitable waterbodies within the proposed land use area will be used as a source for the drilling program. As most lakes in the area are fish-bearing, water intake will have suitable screens to prevent the impingement or entrainment of fish during pumping activities. The project will not substantially affect the quality or quantity of water returned to the source as drilling is carried out.

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

- | | |
|--|--|
| <input type="checkbox"/> Sewage | <input type="checkbox"/> Waste oil |
| <input type="checkbox"/> Solid Waste | <input type="checkbox"/> Greywater |
| <input type="checkbox"/> Hazardous | <input checked="" type="checkbox"/> Sludges (Drill cuttings) |
| <input type="checkbox"/> Bulky Items/Scrap Metal | <input type="checkbox"/> Contaminated soil and/or water |
| <input type="checkbox"/> Animal Waste | |
| <input type="checkbox"/> Other (describe): _____ | |

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
Drill cuttings	Pulverized rock	0.1-1 cubic meters per drill hole (approx.)	n/a	Pumped into sumps and/or natural depressions

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: n/a

Administering Agency: n/a

Project Activity: n/a

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.

Given the nature and scope of the proposed program, environmental impacts will be minimal. Affected areas will be drilling locations only. Coring will take place at each drill-site – this will result in the production of drill cuttings at the surface. Following the completion of each drill hole, holes left as a result of coring will be back-filled. Sumps filled with drill cuttings will be back-filled where appropriate.

18. WATER RIGHTS OF EXISTING AND OTHER USERS OF WATER

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.

Advise the Board if compensation has been paid and/or agreement(s) for compensation have been reached with any existing or other users.

North Arrow is not aware of anyone that will be affected by the proposed undertaking; however 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.

19. INUIT WATER RIGHTS

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).

There will be no substantial affect to the quality, quantity or flow of waters.

20. CONSULTATION – 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.

North Arrow representatives met with the Mayor of the Hamelt of Chesterfield Inlet (Harry Aggark), the Senior Administrative Officer (Douglas Aggark), Mark Amarok (HTO and Council), Marlene Aggark, Mary-Ann Issaluk (HTO), Louie Autut (elder) on May 22, 2014.

During the meeting a concern was raised about the impact on local wildlife from helicopter noise. It was suggested that the proponent use a camp to support work programs as this would result in less helicopter noise.

North Arrow has no plans to establish a camp at the project site, and the community will see additional benefits with crews staying in town. North Arrow suggested using a wildlife monitoring log or hiring a wildlife monitor to document all wildlife encounters during work programs. When wildlife is spotted, the proponent agrees to avoid disturbance where practicable (i.e. alter flight paths, no low-level flights except during takeoff/landing and in the event of an emergency).

21. SECURITY INFORMATION

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. 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. The estimate must also include contingency factors appropriate to the particular work to be undertaken.

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 *Mine Site Reclamation Policy for Nunavut*, Indian and Northern Affairs Canada, 2002.

See North Arrow's "Condensed Interim Consolidated Financial Statements" (attached)

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.

See North Arrow's "Condensed Interim Consolidated Financial Statements" (attached)

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

Assessment Report, Luxx Project, Chesterfield Inlet (2013)

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: _____ Proposed Completion Date: _____
(month/year) (month/year)

Operation

Proposed Start Date: **March 2016** Proposed Completion Date: **To be determined**
(month/year) (month/year)

Closure

Proposed Start Date: **To be determined** Proposed Completion Date: **To be determined**
(month/year) (month/year)

Post - Closure

Proposed Start Date: _____ Proposed Completion Date: _____
(month/year) (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): 2 years

Requested Date of Issuance: March/2016
(month/year)

Requested Expiry Date: March/2018
(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.

North Arrow will use the NWB's standardized form for annual reporting

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: PENDING

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

☐ Yes

☒ No

If no, date expected: PENDING

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 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

Mike MacMorran
Name (Print)

Geologist
Title (Print)


Signature

Oct. 13, 2015
Date



