



P.O. Box 119

GJOA HAVEN, NU X0B 1J0

TEL: (867) 360-6338

FAX: (867) 360-6369

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NUNAVUT WATER BOARD

NUNAVUT IMALIRIYIN KATIMAYIT

OFFICE DES EAUX DU NUNAVUT

APPLICATION FOR APPROVAL FOR THE USE OF WATER OR DEPOSIT OF WASTE WITHOUT A LICENCE

Refer to the Guide to the Approval for the Use of Water or Deposit of Waste Without a Licence
(Guide) in completing this Application.

APPLICATION NO: (for NWB use only)													
1. APPLICANT CONTACT INFORMATION (name, address) Bronzite Exploration Corp. Phone: 647 402 7356 Fax: - e-mail: sam.robbs@bronziteexploration.com	2. APPLICANT REPRESENTATIVE CONTACT INFORMATION if different from Block 1 (name, address) Phone: _____ Fax: _____ e-mail: _____ (Attach authorization letter)												
3. NAME OF THE OWNER OF THE LAND THAT WILL BE USED IN RELATION TO THE WATER TO BE USED OR THE WASTE TO BE DEPOSITED Crown land													
4. NAME OF PROJECT (consistent with the name of the project issued by other regulatory agencies) Somerset Trough Project													
5. LOCATION OF UNDERTAKING Project Extents (decimal degree format) <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10%;">NW</td> <td style="width: 40%; border-bottom: 1px solid black;">-95.154730</td> <td style="width: 40%; border-bottom: 1px solid black;">72.344394</td> </tr> <tr> <td>NE</td> <td style="border-bottom: 1px solid black;">-95.142464</td> <td style="border-bottom: 1px solid black;">72.342038</td> </tr> <tr> <td>SE</td> <td style="border-bottom: 1px solid black;">-95.147756</td> <td style="border-bottom: 1px solid black;">72.339584</td> </tr> <tr> <td>SW</td> <td style="border-bottom: 1px solid black;">-95.160596</td> <td style="border-bottom: 1px solid black;">72.342102</td> </tr> </table>		NW	-95.154730	72.344394	NE	-95.142464	72.342038	SE	-95.147756	72.339584	SW	-95.160596	72.342102
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NE	-95.142464	72.342038											
SE	-95.147756	72.339584											
SW	-95.160596	72.342102											

Camp Location(s) (decimal degree format)

-95.151548

72.341223

Name of the Water Management Area in which the Undertaking is located. (Please see Appendix D of the Guide):

Western Somerset Island Watershed

6. Previous Approvals or Licences Associated with Undertaking ("Type A", "Type B" or Approval Without a Licence)

NA or

Previous Licence/Approval Number: 2WLC-BEC2324

The Board reminds the Applicant that as stated in s. 46 of the NWNSRTA, the expiry or cancellation of any previous licence does not relieve the holder from any outstanding obligations imposed under the licence.

7. CLASSIFICATION OF UNDERTAKING - Indicate the classification of undertaking by checking one of the following boxes.

- ☐ Industrial
☒ Mining
☐ Conservation
☐ Municipal

- ☐ Agricultural
☐ Recreational
☐ Power
☐ Other: (describe)

See Appendix C of the Guide for descriptions of classifications of undertakings.

8. DESCRIPTION OF UNDERTAKING AND EQUIPMENT USED – Provide a brief description of the undertaking including a description of any equipment that will be used in using water or depositing waste.

The Somerset Trough Project is an early exploration program that will include the following activities: airborne and ground-based geophysical surveys, prospecting, sampling, and geological mapping. The program will be based out of an exploration camp constructed on Crown Land in the Western Somerset Island Watershed and will include a spring program to be conducted March to May, as well as a summer program to be conducted from June to early September. No drilling equipment or heavy machinery will be used during the 2024 exploration program. Only hand tools and a power saw will be used to complete ground-based tasks. Helicopters and fixed-wing aircraft will be used to transport personnel to and from field locations and to collect airborne geophysical data. Drones may also be used to collect airborne survey data. Helicopter operations will be based mainly at the camp, but fixed-wing aircraft will be based off site and called in, as required, to conduct surveys and support operations.

Exploration Camp

Construction of an exploration camp to support the Somerset Trough Project will begin in March 2024. The camp will include a series of Weatherhavens for accommodations, dining, camp dries, storage, sample processing, and first aid as well as a small generator building and a prefabricated metal building to enclose the camp incinerator. The Weatherhavens will be heated with diesel heaters complete with spill protection. Camp infrastructure and machinery such as a snowmobile and all-terrain vehicle (ATV) will be mobilized to site using either a Basler DC-3 or Twin Otter aircraft on skis. Camp infrastructure will be transported inland to the camp site using an ATV and snowmobile with trailers. The camp will include:

- 6 shared sleeper tents (14' x 16' each)
- 1 kitchen and dining hall (16' x 48')
- 2 camp dry tents (16' x 24' each)
- 1 storage tent (16' x 24')
- 1 first aid tent (14' x 16')
- 1 washroom with 2 Pacto toilets and small handwashing sink (14' x 16')
- 1 sample processing tent (16' x 24')
- 1 incinerator building
- 1 generator building (8' x 6')

Maps outlining the location and layout of the camp are attached for reference. The area will be ground-truthed by the construction crew and all camp structures will be placed on durable ground and located more than 50 metres from the nearest high-water mark. Exact placement and orientation of the Weatherhavens, incinerator, and generator may vary slightly from the maps provided to ensure stability and integrity of the structures.

A main fuel cache of aviation fuel, diesel, and gasoline in 205 L metal drums will be established near camp and greater than 31 m from the ordinary high-water mark of any water course. See attached maps for the approximate location of the fuel cache. The main fuel cache may contain up to 180,000 L of total fuel at times, and the drums will be placed within pop-up "Insta-Berms" with a volume capacity at least 10% greater than the capacity of the largest container placed therein. The fuel caches will be flagged to make them highly visible and clearly marked with the owner's name and contact information. Fully stocked spill kits will be present at fuel caches and fuel transfer areas. Any fuel caches associated with the program will be reported to the territorial engineer in accordance with the *Territorial Land Use Regulations*.

Minimal water will be used for this exploration program. Surface water will be collected from a nearby water body with a pump or portable containers and used for cooking, drinking, and washing in camp. It is anticipated that 10 m³ or less of water will be used each day to accommodate the staff members. Greywater will be deposited to a sump located more than 31 m from the ordinary high-water mark of any body of water. Human waste will be collected using Pacto toilets and the waste will be incinerated daily along with domestic waste. All water use and waste deposition will be documented and available for review as per requirements of the *Nunavut Water Regulations*.

Please see attached Waste Management Plan, Spill Contingency Plan, Wildlife Management Plan, and Environmental Protection Plan for further details on the environmental and safety management systems that will be employed at the Somerset Trough Project.

Spring Program

The Spring Program will run primarily from March to May and consist of a small crew (10 or less) running helicopter-based Time-Domain Electromagnetic (TDEM) surveys and fixed-wing airborne gravity surveys over the Project area. Helicopter operations will be based out of the field camp with up to two A-Star B3 machines stationed at the camp at any given time during the Spring Program. Fixed-wing surveys will run daily (weather permitting) out of Resolute and will be coordinated between camp personnel, the flight crew,

and flight personnel based in Resolute. The beach along the shorefront will be used as a landing strip for survey aircraft and weekly re-supply flights to site.

Following completion of the Spring Program, the camp will be temporarily shut down, secured, and left unattended for approximately one month before the Summer Program commences. All equipment and machinery will be properly secured within the site structures, and the buildings and Weatherhavens will be secured to keep out wildlife. All domestic waste will be incinerated prior to leaving camp, and all waste that could pose as an animal attractant will be removed from site when crews are demobilized.

Summer Program

The Summer Program will run from late June to early September and consist of a slightly larger crew (20 or less) conducting low-impact reconnaissance including geological mapping, sampling, prospecting, channel sampling with a power saw. Ground-based electromagnetic geophysical surveys will be completed in targeted areas based on results of the Spring Program surveys. There are currently no plans to conduct ground-based work on Inuit-Owned Land during the Summer Program. No ground-based work will be conducted on Inuit Owned Lands without the proper authorizations from either the Qikiqtani Inuit Association (QIA) or the Kitikmeot Inuit Association (KIA).

Field work for the Summer Program will be supported by up to two A-Star B2 or B3 helicopters. Helicopter operations will be based out of the field camp with up to two machines stationed at the camp at any given time. There will also be an ATV brought to site for the safety and convenience of the crew members for use at field locations closer to camp.

Camp Closure

Following completion of the Summer Program, Bronzite proposes keeping the camp on the land for use in 2025 to continue exploration work. As per the *Territorial Land Use Regulations*, Bronzite will seek written approval from the Crown Indigenous and Northern Affairs Canada engineer to leave the camp largely intact until crews return the following year. Equipment will be stored in a manner, at a location, and for a duration approved by the engineer. Machinery such as the site snowmobile will likely be removed from site, while the ATV will likely be securely stored over the winter at the camp site.

All camp equipment will be properly stored within the site structures, and the buildings and Weatherhavens will be winterized and secured to keep out wildlife. Camp sumps will be backfilled and photographed prior to leaving site for reporting purposes. All domestic waste will be incinerated prior to final demobilization, and all ash will be removed from the incinerator chamber, packaged, and removed from site as per the Waste Management Plan. All other waste will be removed from site when crews are demobilized for the year.

Bronzite will conduct a thorough end-of-season inspection of the area to check for:

- Hydrocarbon staining
- Fire and safety hazards
- Debris or litter on the tundra, or unsecured products that could blow onto the tundra
- Possible points of entry for wildlife into camp structures
- Major sources of wildlife attraction, such as leftover food products or open fuel containers
- Compromised or unsealed in the main fuel cache, or fuel that is not contained within secondary containment

Bronzite commits to taking a series of photographs of the camp area prior to final demobilization for reporting purposes.

- 5

Type of Water Use indicated in Block 10	Name of water source	Estimated quantity of water to be used in cubic metres per day	Periods during which water will be extracted
Camp water (cooking, drinking, hand-washing)	Appropriate surface water source located near camp site	10	Daily for the extent of the program

12. TYPE OF DEPOSIT OF WASTE PROPOSED - Check the box that applies to the type of deposit of waste proposed. If none of the deposits of waste listed below apply to the proposed deposit of waste, an application for a water licence will be required. See the NWB's Guide 4 – Completing and Submitting a Water Licence Application for a New Licence.

- ☐ For an Industrial undertaking, for an activity related to hydrostatic testing or cleaning of storage tanks and pipelines, and for any deposit of waste resulting from hydrostatic testing or cleaning of unused storage tanks or pipelines.
- ☐ For an Industrial undertaking, for an activity related to quarrying and gravel washing, and for any deposit of waste that is not deposited to surface water and that results from quarrying or gravel washing above the ordinary high water mark.
- ☒ For a Mining undertaking, for an activity related to exploratory work, any deposit of sewage to a sump.
- ☐ For a Power undertaking, any deposit of sewage to a sump.
- ☐ For an Agricultural undertaking, any deposit of sewage to a sump.
- ☐ For a Conservation undertaking, any deposit of sewage to a sump.
- ☐ For a Recreation undertaking, any deposit of sewage to a sump.
- ☐ For any Other type of undertaking not listed above, other than Municipal, any deposit of sewage to a sump.

13. QUANTITY AND QUALITY OF WASTE INVOLVED – For each type of waste indicated in Block 12, describe the quantity in cubic metres/day, measures to avoid or mitigate adverse impacts, and periods of deposition.

Type of Waste indicated in Block 12	Quantity to be deposited in cubic metres per day	Measures to avoid or mitigate any adverse impacts	Periods during which waste will be deposited
Sewage	1	Sewage will be managed by Pacto toilets. Waste from the Pacto toilets will be incinerated using a dual-chamber, diesel-fired incinerator. Should the incinerator break down, waste will be stored in 205 L metal barrels and shipped off site to an approved waste receiver.	Daily for the extent of the program

14. SIGNATURE

I, Samuel Robb, certify that the information given on this form is, to the best of my knowledge, correct and complete.

☒ Yes

☐ No

OR

I, _____ (print name), as an authorized representative of the Applicant, _____, certify that the information given on this form is, to the best of my knowledge, correct and complete.

☐ Yes

☐ No

I certify that the Nunavut Planning Commission's land use planning requirements under Article 11 of the Nunavut Land Claims Agreement have been met.

☒ Yes

☐ No

I certify that the Nunavut Impact Review Board's development impact review requirements under Article 12 of the NLCA have been met.

☒ Yes

☐ No

I certify that the proposed water use is of a type set out in column 2 of Schedule 2 of the Regulations that is further specified by column 3, in respect of an undertaking set out in column 1. See list in Block 10.

☒ Yes ☐ NA ☐ No

I certify that the proposed deposit of waste is an activity that is set out and then further specified in columns 2 and 3 of Schedule 3 of the Regulations, in respect of an undertaking that is set out in column 1 of Schedule 3. See list in Block 12.

☒ Yes ☐ NA ☐ No

I certify that the proposed water use or deposit of waste will not substantially affect the quality, quantity or flow of the watercourse whose waters are used.

☒ Yes ☐ No

I certify that the proposed water use or deposit of waste will not substantially affect the quality, quantity or flow of waters flowing through Inuit Owned Lands.

☒ Yes ☐ No

I certify that the proposed water use or deposit of waste will not affect the use of waters by a person who would be entitled to compensation under sections 58 or 60 of the *Nunavut Waters Nunavut Surface Rights Tribunal Act* (Act) if their use of these waters were to be adversely affected by an applicant for a licence.

☒ Yes ☐ No

I certify that a licence is not required for another use of water, or deposit of waste in respect of the proposed undertaking.

☒ Yes ☐ No

I have read and agree to comply with the following conditions outlined in sections 4(3), 5(4), 5(5) and 6 of the *Nunavut Waters Regulations*:

1. In the case of an applicant who has a mineral right and who intends to use waters or deposit waste in relation to that right, the applicant shall respect the priority conferred on Inuit by section 62 of the *Act* as if that applicant had a licence for the use or deposit.
2. Measures must be taken prior to using water to minimize any alteration to the bed or banks of a watercourse whose waters are to be used, and the measures shall be maintained during the operation of the undertaking.
3. No waste is to be deposited to surface water or within 31 metres of the ordinary high water mark of any body of water.
4. The waste shall not contain more than 15 milligrams per litre of petroleum or petroleum product and must not have a visible hydrocarbon sheen.
5. Prior to the closure or abandonment of the undertaking or end of the period authorized for the use of water or deposit of waste without a licence, whichever occurs first, the site shall be restored — to the extent practicable — to the state in which it was before the water was used or the waste was deposited.^a
6. An applicant who is authorized under the Regulations to use waters or deposit waste without a licence shall:
 - a. maintain accurate and detailed books and records of:
 - i. the quantity of water, in cubic metres, used each day,
 - ii. the quantity, in cubic metres, of waste deposited each day,
 - iii. the type of waste deposited each day,
 - iv. where the waste is deposited,
 - v. the concentration of the substance, or substances, in the deposited solid or liquid that has the effect of making the deposit waste,
 - vi. the methodology used to calculate or determine the information referred to in items (i) to (iv), and
 - vii. the measures that were taken to avoid or mitigate any adverse impacts of the deposit of waste.
 - b. keep the books and records on the site of the undertaking during the period of its operation and make them available during that period to an inspector on request;

- c. submit to the Board a report containing a summary description and supporting photographs of the restoration of the site of the undertaking within 30 days after the earliest of (i) the day on which the undertaking is closed or abandoned, and (ii) the last day of the period authorized for the use or deposit without a licence;^b and
- d. keep the books and records for two years after submitting the report describing the restoration of the site of the undertaking.

Notes:

a) A site need not be restored prior to the end of the period authorized for the water use or deposit of waste without a licence, as required by Item 5, if the Board issues a licence for the use of water or deposit of waste on that site prior to the end of that period.

b) An applicant need not submit the report referred to in Item 6 (c), to the Board if the applicant obtains the Board's approval for a use of water or deposit of waste without a licence, or a licence for a use of water or deposit of waste, on the same site within thirty (30) days after the last day of the period authorized for the use or deposit.

☒ Yes

☐ No

I understand that any approval granted by the Board for the use of water or deposit of waste without a licence will be authorized for a period of one year after the day on which the Board approves the Application. The use or deposit is not authorized until the Board approves the Application and it is only valid as long as the applicant is in compliance with the conditions set out in the declaration above.

☒ Yes

☐ No

I understand that if I have answered "No" to any of the above statements a water licence is required from the Nunavut Water Board prior to the use of water or deposit of waste.

☒ Yes

☐ No

Samuel Robb

Vice President,
Exploration


27/02/2024

Name (Print)

Title (Print)

Signature

Date