
**MAC-COURT HOLDINGS INC.
TERRA NOVA QUARRY PERMIT**

***Environmental Assessment
Registration Document***

Submitted by:
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1.0 NAME OF UNDERTAKING

Terra Nova Quarry Permit Application

- Quarry Permit Identification
 - File 711:12924 covering 4.94 ha

2.0 PROPONENT

2.1 Name of Corporate Body

Mac-Court Holdings Inc.

2.2 Address

P.O. Box 9068
Clareville, NL
A5A 2C2

2.3 Chief Executive Officer

Mr. Jim Brown
President
P.O. Box 9068, Clareville, NL
A5A 2C2
Telephone: 709-466-2515
Email: j1contracting@nfd.net

2.4 Principal Contact Person

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Telephone: 709-466-2515
Email: j1contracting@nfd.net

3.0 THE UNDERTAKING

3.1 Nature of the Undertaking

The proposed project, referred to as the Terra Nova Quarry, is a 4.94 ha quarry permit application area (File 711:12924) located ~ 2 km east of the Town of Terra Nova that will be developed under a quarry permit for producing specific sand products for use in the construction industry.

3.2 Purpose/Rationale/Requirement for the Undertaking

The main purpose/rationale of this project is to produce blending sand for asphalt production for the intent of supplying asphalt for multiple contracts including future contracts with the Government of Newfoundland and Labrador Department of Transportation and Infrastructure. There is established access to the quarry area via the adjacent J-1 Contracting quarry (File # 711:1787), with written permission from J-1.

4.0 DESCRIPTION OF THE UNDERTAKING

4.1 Geographic Location

The project is located roughly 2 km east of the Town of Terra Nova, on NTS Map Sheet 2D/09 (**Figures 1 to 3**). The area is zoned as Rural and is located within the municipal planning area of the Town of Terra Nova. It is also located within a domestic cutting area, a cottage planning area and a Newfoundland Power distribution area. The project, along with 5 other issued and approved adjacent quarries including Penney Paving's quarry (File 711:2777) and Dart Enterprises' quarry (File 711:12803) lie within a Pine Martin Habitat zone. All necessary precautions will be adhered to as per the Government of Newfoundland and Labrador Wildlife Divisions legislative requirements for areas known to have pine marten present. Sensitive human receptors near the project are shown on **Figure 4** and include private properties/houses, the closest of which is located ~1.6 km west of the project boundary, near the Town of Terra Nova. The Terra Nova National park boundary at its closest point is located ~2.5 km to the southeast.

4.2 Physical Features

4.2.1 Project Site Description

The 4.94 ha quarry permit application area is situated near 5 currently approved quarries. These include Penney Paving's quarry (File 711:2777) along the northern boundary, J-1 Contracting's active quarry (File 711:1787) along the northeastern boundary and a quarry permit application by Dart Enterprises' (File 711:12803) along the southern boundary. Two of Station Road Contracting's active quarries (File 711:7670 & File 711:7748) sit ~100 m to the south of the project (shown on **Figures 2 and 3**). Another developed quarry held by Triple H Trucking (File 711:9045) is located on the south side of Route 301.

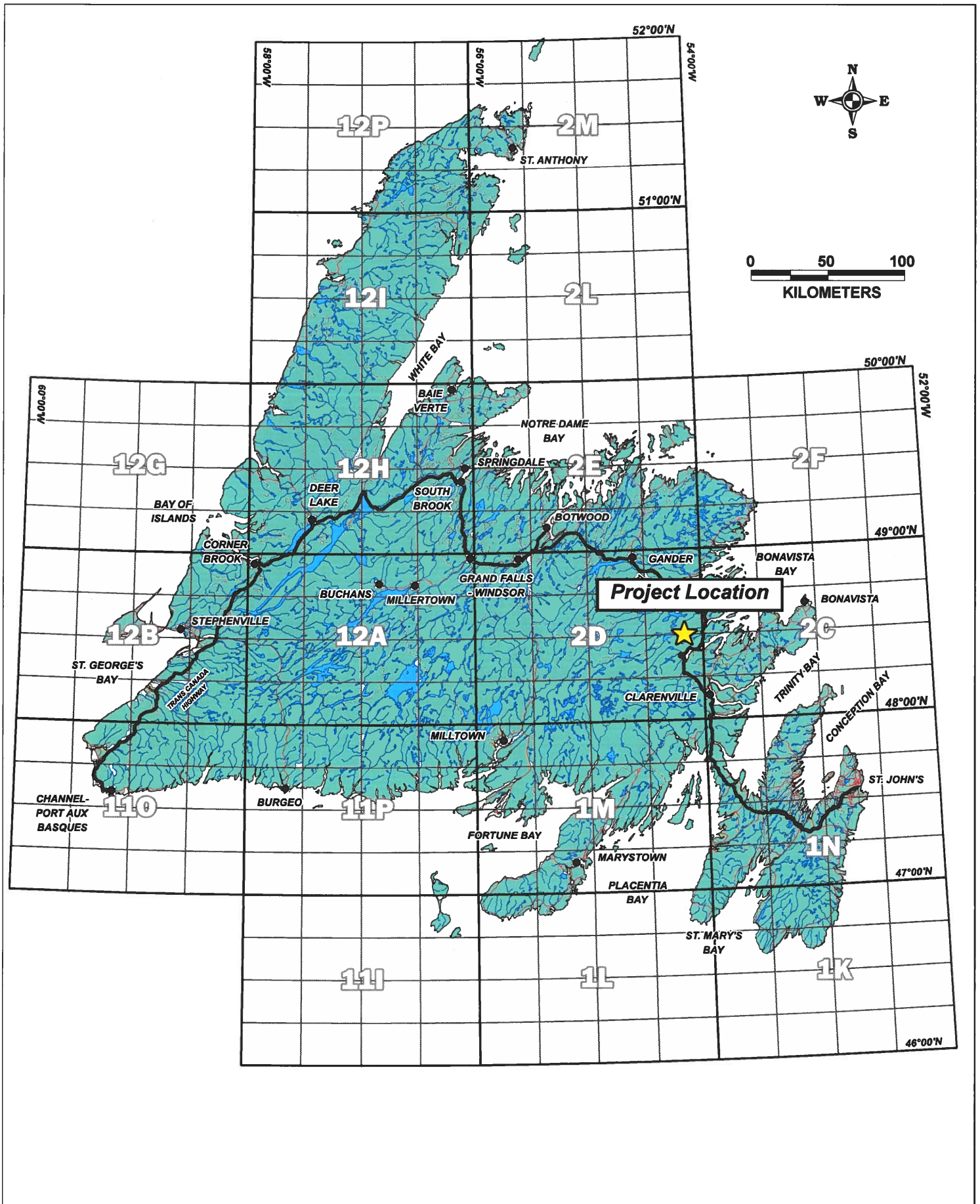


Figure 1: Project Location Map (N.T.S. 2D/09)

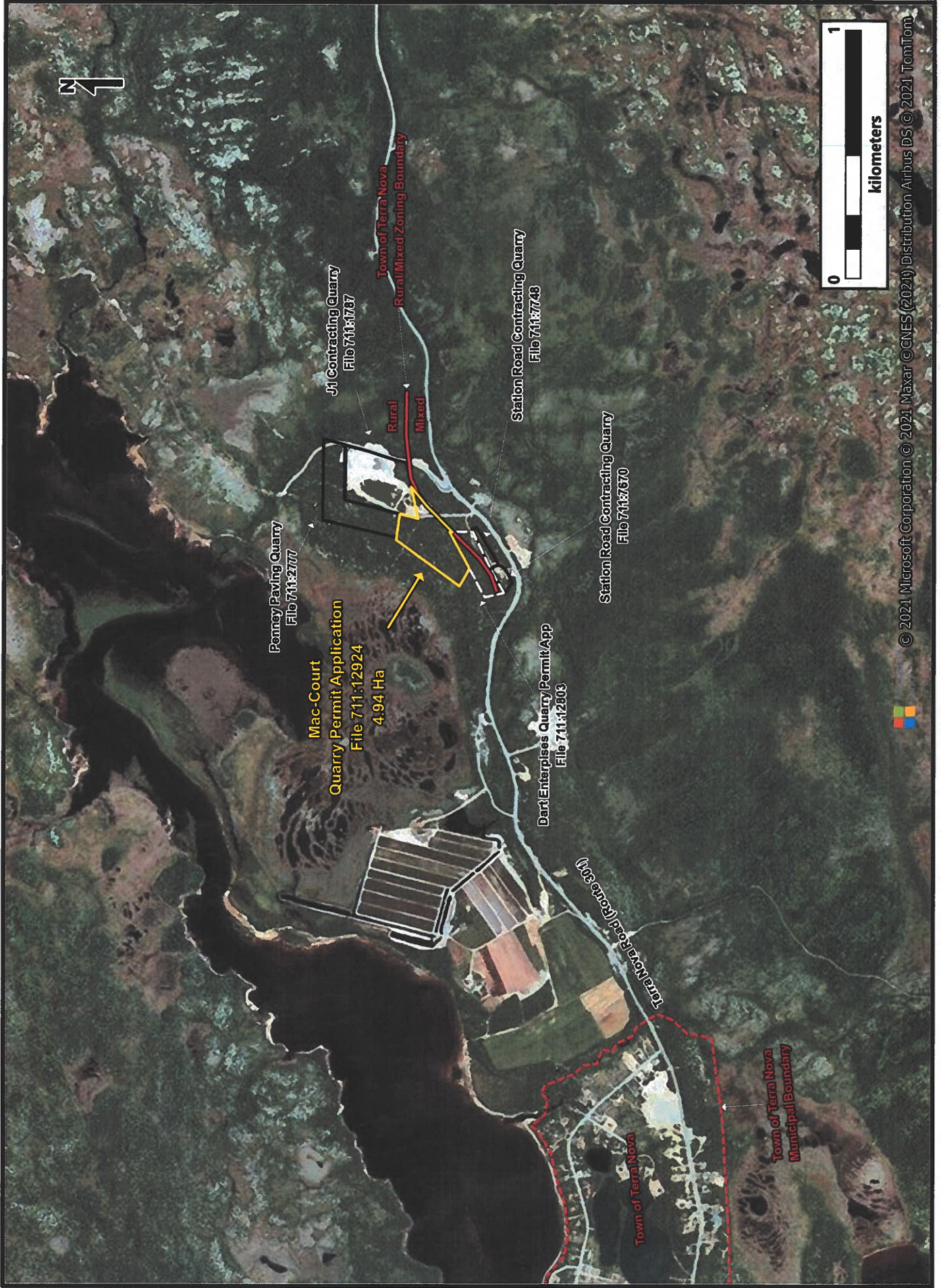
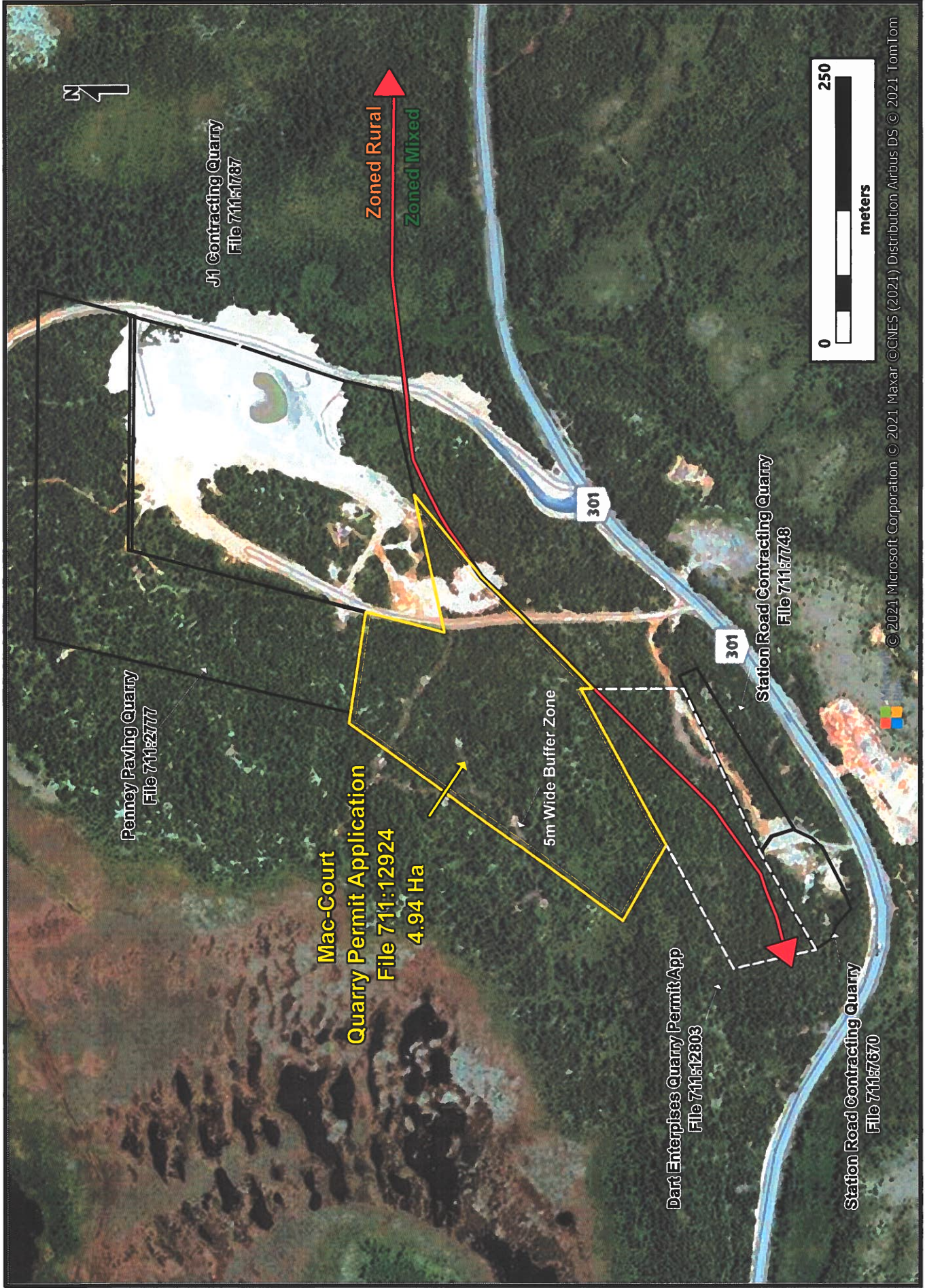


Figure 2: Detailed Project Location



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Figure 3: Quarry Permit Location

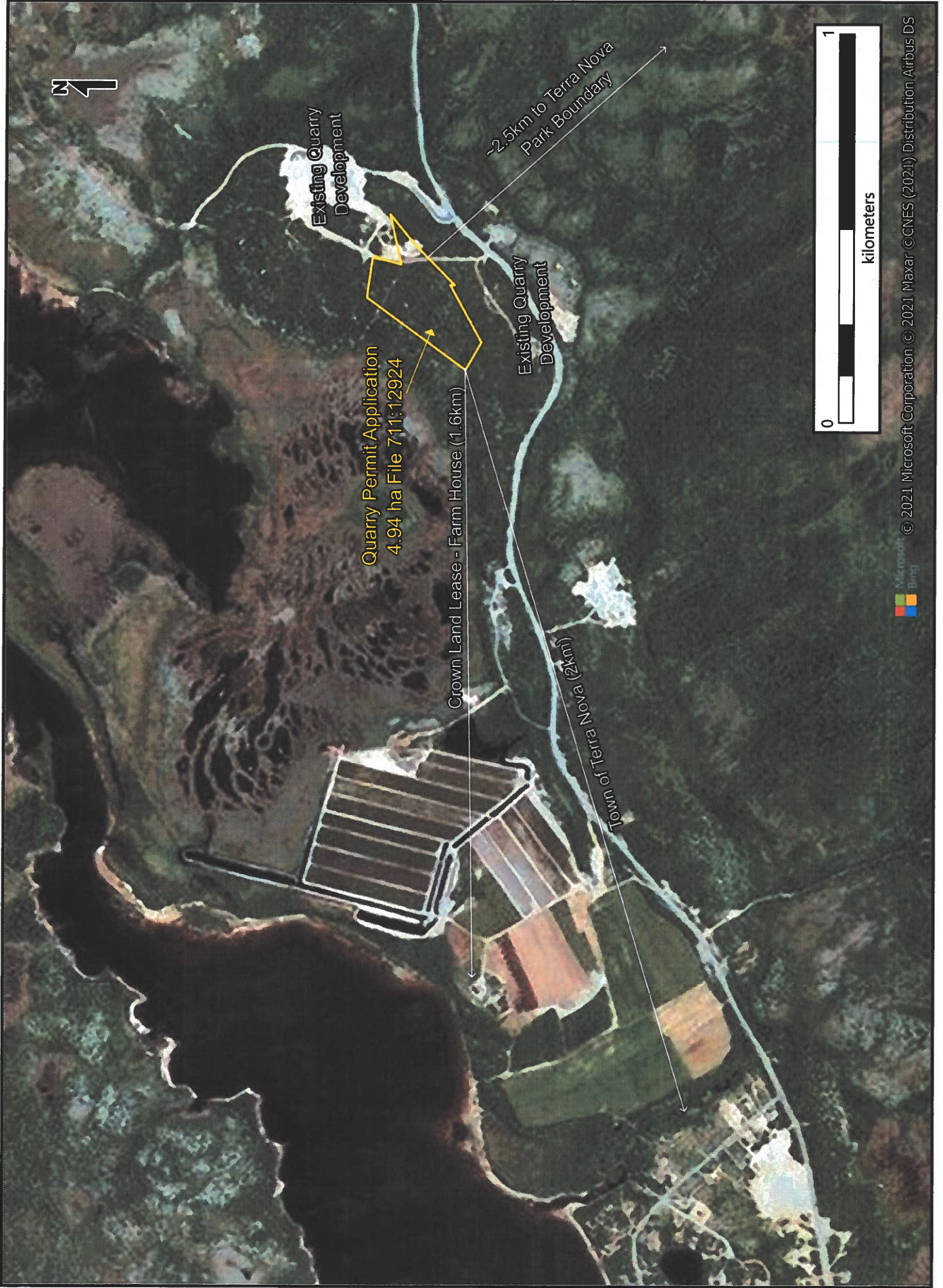


Figure 4: Receptor Locations

The quarry area is located ~130 m southeast of a wetlands area adjacent to The Terra Nova River, allowing the quarry to easily maintain the 30 m reservation from all waterbodies (including wetlands) required by the Water Resources Management Division of the Municipal Affairs and Environment Department of the Government of Newfoundland and Labrador. An inlet along the Terra Nova River, a scheduled salmon river, is over 500 m from the nearest quarry boundary.

4.2.2 Existing Biophysical Environment

The site is located within the *Northcentral Subregion* of the *Central Newfoundland Forest Ecoregion*. This region has higher summer maximum temperatures and lower rainfall than other portions of Newfoundland with the mean annual precipitation ranging from 1000 mm to 1300 mm. The mean annual temperature is around 4.5°C, with a mean summer temperature of 12.5°C and a mean winter temperature of -3.5°C. Night frost can occur in any summer month and due to the warm summer and high evapo-transpiration losses.

The rolling to undulating topography is characterized by shallow, medium quality till with soil texture ranging from sandy loam to loam. Balsam fir, black spruce and aspen stands broadly dominate this area. Some areas lack good forest growth due to exposure to winds and poor soil conditions. The higher elevations are rugged and rocky, while lower areas have a rolling terrain.

4.3 Construction and Operation

The construction aspect of the proposed project will consist of clearing the site from trees and grubbing/organics/contaminated mineral soil before proceeding to remove the overlying coarser aggregate material which will be stockpiled and used at a later date, possibly as winter maintenance sand. The underlying finer sandy aggregate more suited for the purpose of asphalt blending, will be the focus of development at the quarry. Any organic material will be stockpiled for future reclamation work.

4.3.1 Site Access

The main access to the project site will be via the already established site access from the J-1 Contracting quarry (File: 711:1787) which sits along the northeastern boundary of the permit area. Written approval for this access has been obtained from J-1 (**Figures 2 and 3**).

Access to the J-1 Contracting quarry is gained by travelling ~11.5 km from the Trans-Canada Highway along Terra Nova Road (Route 301), ~2 km east of the Town of Terra Nova. A short (~200 m) road which branches off Terra Nova Road, leads north to the J-1 site (**Figures 1 to 3**). There is currently no gate installed due to concerns of restricting

access to individuals utilizing the access beyond the lease area to the north; no trespassing signs are installed at the entrance however the quarry entrance could be restricted by installing boulders at the end of each season if required and agreed upon by local users.

4.3.2 Site Clearing

Any merchantable timber will be cleared either by handheld chainsaws or mechanical harvesting equipment and will be garnered under a commercial cutting permit issued by the Department of Fisheries, Forestry and Agriculture. Surficial soils, subsoils and grubbing will be stripped and windrowed to the permit boundary. This windrowed material will be used to construct perimeter berms for future reclamation and to control access to the site.

4.3.3 Quarry Development and Operation

The initial development phase of the project will begin in the northeastern corner of the permit area and work towards the southwest. This initial development start point was chosen as the most practical approach as the quarry access is gained in the northeastern corner from the adjacent J-1 Contracting Quarry.

The construction aspect of this project will be carried out across the 4.94 ha area, starting in the previously mentioned northeastern corner. The work will consist of clearing the site from trees and grubbing while removing and stockpiling organics as mentioned in ***Section 4.3.2.***

There is an overlying layer of coarser glaciofluvial sandy material which is not suitable for the main purpose of the quarry, which is producing blending sand for asphalt production. Initially, the coarser material, which has a locally variable thickness, will be removed, and stockpiled for use possibly as winter maintenance sand. Once the horizon between the coarse material and the targeted finer blending sand material is fully exposed, development will be planned in phases for efficient and safe production based on contract demands.

Operational activities will consist of removing the sand and/or gravel material by heavy equipment, which will then be screened, if required, and stockpiled. Both the construction and operation stages of the quarry will employ the use of heavy equipment such as excavators, front-end loaders and dump trucks.

Processing activities will include the use of a front-end loader to transfer material into the screener for separation. The oversized material will be stockpiled separately from the blending sand product within the quarry. The screener will be mobile in nature and will be

readily moved as required to facilitate a more productive processing setup. The use of water for secondary processing and/or crushing will not be required.

Both the winter maintenance sand and the asphalt blending sand material will be transported out of the quarry as needed for active contract requirements. Typical quarrying activities will take place between April and December, with any schedule changes corresponding to the seasonal conditions and product demand.

4.4 Potential Sources of Pollution During Construction and Operation

The construction and operational phases of the development will utilize equipment such as chainsaws, timber harvesting equipment, front end loaders, excavators and dump trucks. This equipment and related activities represent a potential source of noise disturbance, exhaust emissions, the potential release of petroleum hydrocarbons, dust, domestic waste and general refuse.

4.4.1 Air

Air pollution will be controlled by having all equipment on site fitted with the appropriate emission-control equipment. Site clearing will be completed in phases, with only areas required for production cleared, reducing the overall potential of excessive dust and pollution impacts. Dust created by equipment operation along roads will be kept at a minimum by the watering of roads as required. All activities within the quarry will be conducted in a manner that respects the province's *Air pollution Control Regulations (2004)*.

4.4.2 Noise

The day-to-day operations of the quarry site are not anticipated to have an effect on nearby receptors anymore than ongoing and previous operations at the adjacent operational quarries. All equipment will be kept in good operating order to ensure that maximum manufacture decibel levels produced are not exceed. Workers will have the proper hearing protection and the work site is a controlled work environment.

4.4.3 Domestic Waste and Sewage

Domestic waste generated during construction will be collected and disposed of in accordance with the Environmental Protection Act 2002. Portable lavatories located within in the proposed quarry boundaries will be utilized as required. Waste will be removed by an approved sewage service provider.

4.4.4 Fuel

Fuel will not be stored on site but will be brought in as required by a petroleum product service company. The handling of petroleum products on site will comply with the Storage and Handling of Gasoline and Associated Products Regulations. Complete and regularly checked emergency spill kits will be available on site at all times for containment and cleanup of any hydrocarbon leaks. Any leaks or spills in excess of 70 liters will be reported immediately to the Environmental Emergency Telephone Line and will be cleaned up immediately.

4.4.5 Effluent

Sediment erosion and control is one of the more significant items to be addressed with quarrying activities. There is a potential for erosion and transport of fine-grained particles during construction activities in relation to clearing of the land. Constant monitoring of this potential will take place during construction while clearing takes place and if required appropriate mitigating measures in line with industry best management practices will be utilized. The first step will be to create erosion control ditches with check dams, hay bales, and silt fencing to filter water leaving the site. Site runoff will then be directed towards vegetated areas, acting as a filter for fine particles. With the development of the site in phases and not the complete stripping of the organic layer throughout the entire 4.94 Ha site, the amount of erosion will be reduced.

The same process will be applied for the operational phase of the project. Site runoff will be directed to various vegetated areas depending on what stage of development is occurring. If required as a larger footprint is developed, and progressive reclamation is in progress, small shallow depressions maybe be constructed to temporarily hold water within the quarry and allow for suspended sediment to deposit prior to water being released into vegetated areas along ditches with check dams, hay bales and silt fencing. The in-situ aggregate material present is somewhat permeable thus natural drainage of some surface water into the subsurface will occur within the quarry area.

All water released into the environment will meet the regulatory requirements of the *Environmental Control Water and Sewage Regulations (2003)* as well as provincial permits.

4.5 Potential Resource Conflicts During Construction and Operation

Potential resource conflicts during construction and operation of the quarry could include the following: encounter with wildlife, the use of the area for recreational purposes such as big and small game hunting, berry harvesting, and domestic wood cutting.

Any encounter with wildlife shall follow regulations stated in the Wildlife Regulations under the *Wildlife Act (CC. 96-809)* and legislative requirements for areas known to have pine marten. The historical nature of industrial activity in the area is expected to limit recreational activities, hunting and berry picking activity in favor of less developed areas further north in the region.

The 4.94 ha project is within a domestic cutting area, the immediate use of land for domestic cutting is anticipated to be minimal because of the amount of merchantable timber in the quarry area compared to the overall domestic cutting area, which encompasses over 6,000 ha.

The quarry area is located ~130 m southeast of a wetlands area adjacent to the Terra Nova River, placing the quarry well beyond the 30 m reservation from all waterbodies (including wetlands) required by the Water Resources Management Division of the Municipal Affairs and Environment Department of the Government of Newfoundland and Labrador. The following quarry development plan will be applied as precautionary measures to prevent suspended solids from reaching any watercourses:

- Within the proposed quarry area, a 5 m wide buffer will be left intact where no resources will be excavated alongside all permit boundaries, except for where the boundary overlaps the J-1 quarry boundary. Berms constructed from the windrowed organics will be placed within the 5 m buffer area.
- The pit floor will be kept lower than the perimeter berms where present as development progresses so as to contain precipitation water within the quarry site and contain any suspended solids to within the quarry area.
- Precipitation water for the entire site will be controlled at exit points using the mitigation measures previously mentioned in **Section 4.4.5**.

4.6 Occupation

The occupations required for the proponent's site are listed below and classified as per the National Occupational Classification (2016):

Construction

- 1 Quarry Supervisor (8221)
- 2 Heavy Equipment Operators –Excavator/Dump Truck (7521)
- 1 Heavy Equipment Operator – Tree Harvester/Mulcher (7521)

Operation

- 1 Quarry Supervisor (8221)
- 1 Heavy Equipment Operator – Loader/Excavator (7521)
- 1 Heavy Equipment Operator – Screener (7521)
- 3 Heavy Equipment Operators (amount may vary on demand) – Tandem, Tandem-Tandem, or Semi Dump Trailers (7521)

Operation of the quarry will require up to 6 employees to run at the anticipated production rate of ~5,000 m³ annually, although fluctuations in material demand may lead to a change in the number of required employees and annual production.

4.7 Reclamation and Closure

The project will be rehabilitated under a reclamation plan under a quarry permit issued by the Department of Industry, Energy and Technology. Ultimately quarry faces will be resurfaced to implement 30-degree sloping.

Windrowed and preserved organic material that was stripped during the construction phase will be re-spread to promote natural revegetation. It is projected that rehabilitation can begin once the quarry reaches a development phase that will not require additional expansion. Rehabilitation will be completed in a phased approach, generally following the development phases, until its completion.

5.0 APPROVAL OF THE UNDERTAKING

Table 1 contains a list of referral agencies, responses received, and possible permits required for the project, some of which are already in progress.

Table 1: Referral Agencies, Responses and Possible Permits Required

Department/Regulatory Agency	Status	Possible Required Approvals/Permits
Town of Terra Nova	Approved	
Municipal Affairs and Environment - Land Use Planning	Approved	
Municipal Affairs and Environment - Water Resources Management Division	Conditional Approval	
Municipal Affairs and Environment - Environmental Assessment Division	Project Registration Required	Environmental Assessment Registration
Industry, Energy and Technology - Electricity and Alternative Energy Division	Approved	
Industry, Energy and Technology - Mineral Lands Division	Approved	Quarry Permit
Tourism, Culture, Arts and Recreation - Archeology	Approved	
Tourism, Culture, Arts and Recreation - Parks	Approved	
Tourism, Culture, Arts and Recreation - Product Development	Approved	
Service NL	Conditional Approval	
Transportation and Infrastructure	Approved (existing access to site)	
Department of Fisheries and Oceans Canada	No Response	
Fisheries, Forestry and Agriculture - Forestry	Approved	Operating permit & Commercial Cutting Permit
Fisheries, Forestry and Agriculture - Crown Lands	Approved	
Fisheries, Forestry and Agriculture - Land Management	Approved	
Fisheries, Forestry and Agriculture - Wildlife	Conditional Approval	

6.0 SCHEDULE

The proposed schedule for this project is as follows:

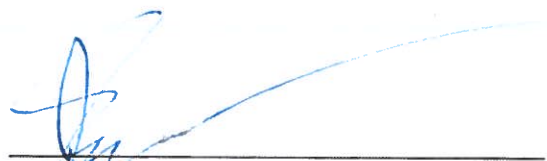
Submission of Registration Document	January 2022
Review of Submission Document by Government	March 2022
Commencement of Construction and Operations	April 2022

7.0 FUNDING

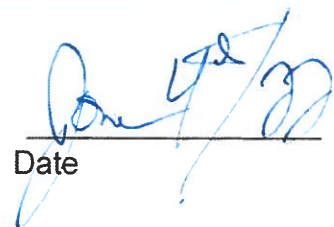
Funding for the construction and operation of project will be provided entirely by the proponent.

8.0 LIMITATIONS

This environmental registration document was prepared by NCD Consulting Ltd. in consultation with Mac-Court Holdings Inc. for their use under the terms defined in a written contract between the two parties. The information included in this document was provided by the client and relates to the scope of this project exclusively. NCD Consulting Ltd. has worked with the client and utilized NCD's combined extensive knowledge in quarry development and potential environment related concerns to, as accurately as possible and with the information available, layout the development of the site in a safe and environmentally sustainable manner.



Name: Mr. Jim Brown
Position: President
Mac-Court Holdings Inc.


Date

