

# **DEAN CLARKE CONTRACTING LTD. PIPER'S HOLE QUARRY PERMIT**

## ***Environmental Assessment Registration Document***

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## **1.0 NAME OF UNDERTAKING**

Piper's Hole Quarry Permit Application

- Quarry Permit Identification
  - File 711:12951 covering 7.0 ha
- Environmental Assessment Registration Identification
  - File Reference No. 200.20.3116

## **2.0 PROPONENT**

### **2.1 Name of Corporate Body**

Dean Clark Contracting Ltd.

### **2.2 Address**

P.O. Box 176  
Terrenceville, NL  
A0E 2X0

### **2.3 Chief Executive Officer**

Mr. Dean Clarke  
President  
P.O. Box 176  
Terrenceville, NL  
A0E 2X0  
Telephone: [REDACTED]  
Email: [REDACTED]

### **2.4 Principal Contact Person**

Mr. Dean Clarke  
President  
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Terrenceville, NL  
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Email: [REDACTED]

### **3.0 THE UNDERTAKING**

#### **3.1 Nature of the Undertaking**

The proposed project, referred to as the Piper's Hole Quarry, is a 7.0 ha quarry permit application area (File# 711:12951) located ~ 5 km northwest of the community of Swift Current. The site will be developed for its sand and gravel aggregate resources under a quarry permit while primarily 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 winter sand which is provided to various Government of Newfoundland Department of Transportation and Infrastructure highway depots for winter road maintenance. The material will also likely be used to produce blending sand for asphalt and other civil construction needs. Access to the 7.0 ha project area will be obtained through the currently established access route to Dean Clarke Contracting's quarry permit (File # 711:6444) to the west, with written permission from Mr. Carmon Cramm of Boci Services to extend this access through their adjacent issued quarry permit area (File # 711:10363). There is established access to the currently issued Dean Clarke Contracting quarry permit (File # 711:6444), with written permission from Mr. Carmon Cramm of Boci Services to extend this access through their issued quarry permit (File # 711:10363) to the new 7.0 Ha site.

### **4.0 DESCRIPTION OF THE UNDERTAKING**

#### **4.1 Geographic Location**

The project is located roughly 5 km northwest of the community of Swift Current, on NTS Map Sheet 1M/16 in the historically developed quarry area known as Piper's Hole (**Figures 1 to 3**). The project area is on crown land near 16 approved quarry sites in the Piper's Hole area. Receptors near the project are shown on **Figure 4**. The single sensitive human receptor near the project is a private residence located ~2.1 km to the southeast of the project boundary, towards the Local Service District (LSD) of Swift Current. There are two cabins located in separate areas nearby, one located 2.4 km to the west and one at a remote site roughly 1.6 km to the southwest. The closest business to the quarry site is the Kilmory Vacation Resort located 3.2 km to the southeast.

#### **4.2 Physical Features**

##### **4.2.1 Project Site Description**

The 7.0 ha quarry permit application area is situated in the Piper's Hole quarry area which has undergone the industrial extraction of aggregates for several decades. Quarry sites adjacent to the application area include Boci Services quarry (File# 711:10363) and Mr. Rodney Sparkes quarry (File# 711:8638) along the northwestern boundary. Numerous other issued quarry sites are present as depicted on **Figure 2**.

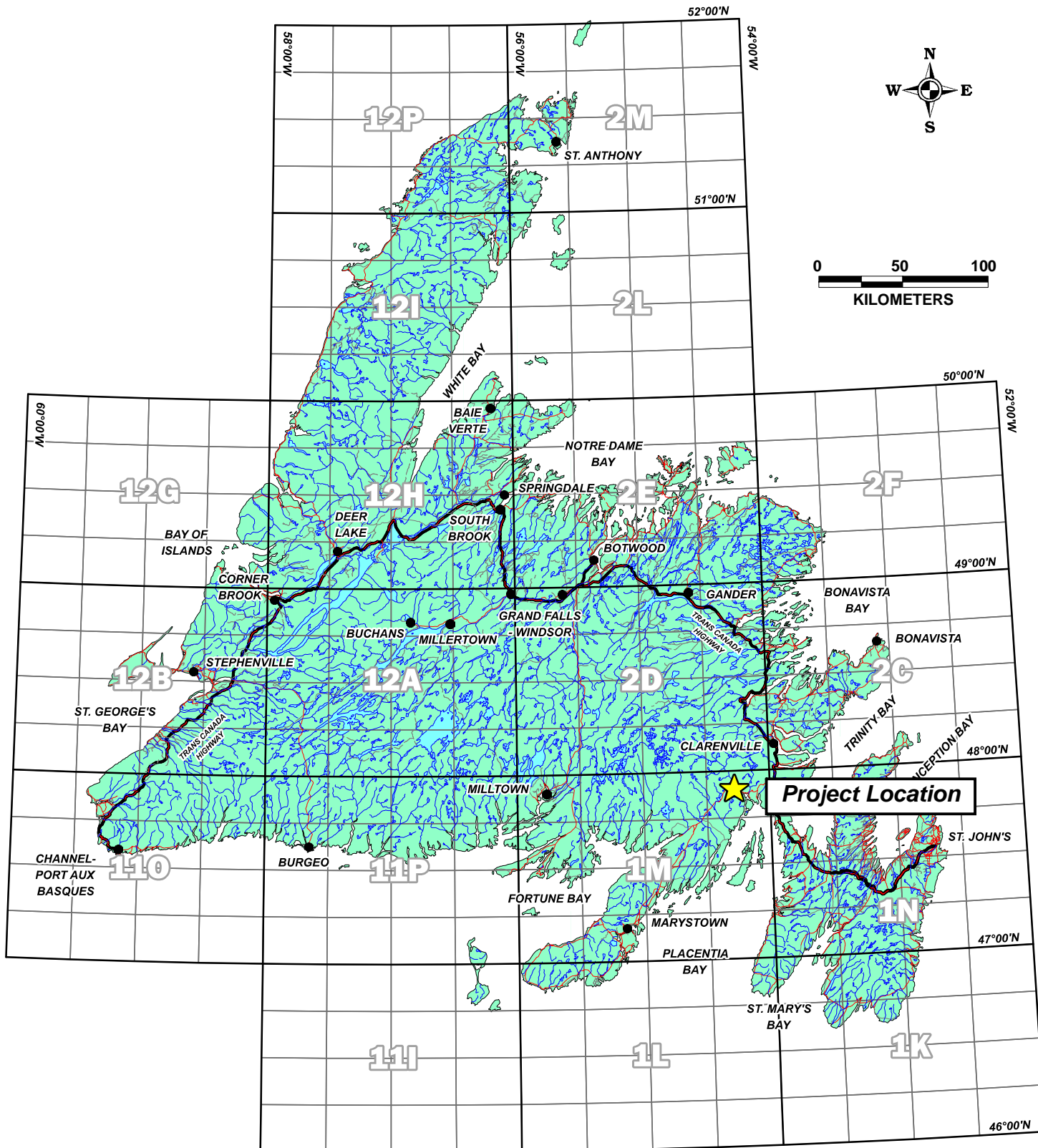


Figure 1: Project Location Map (N.T.S. 1M/16)

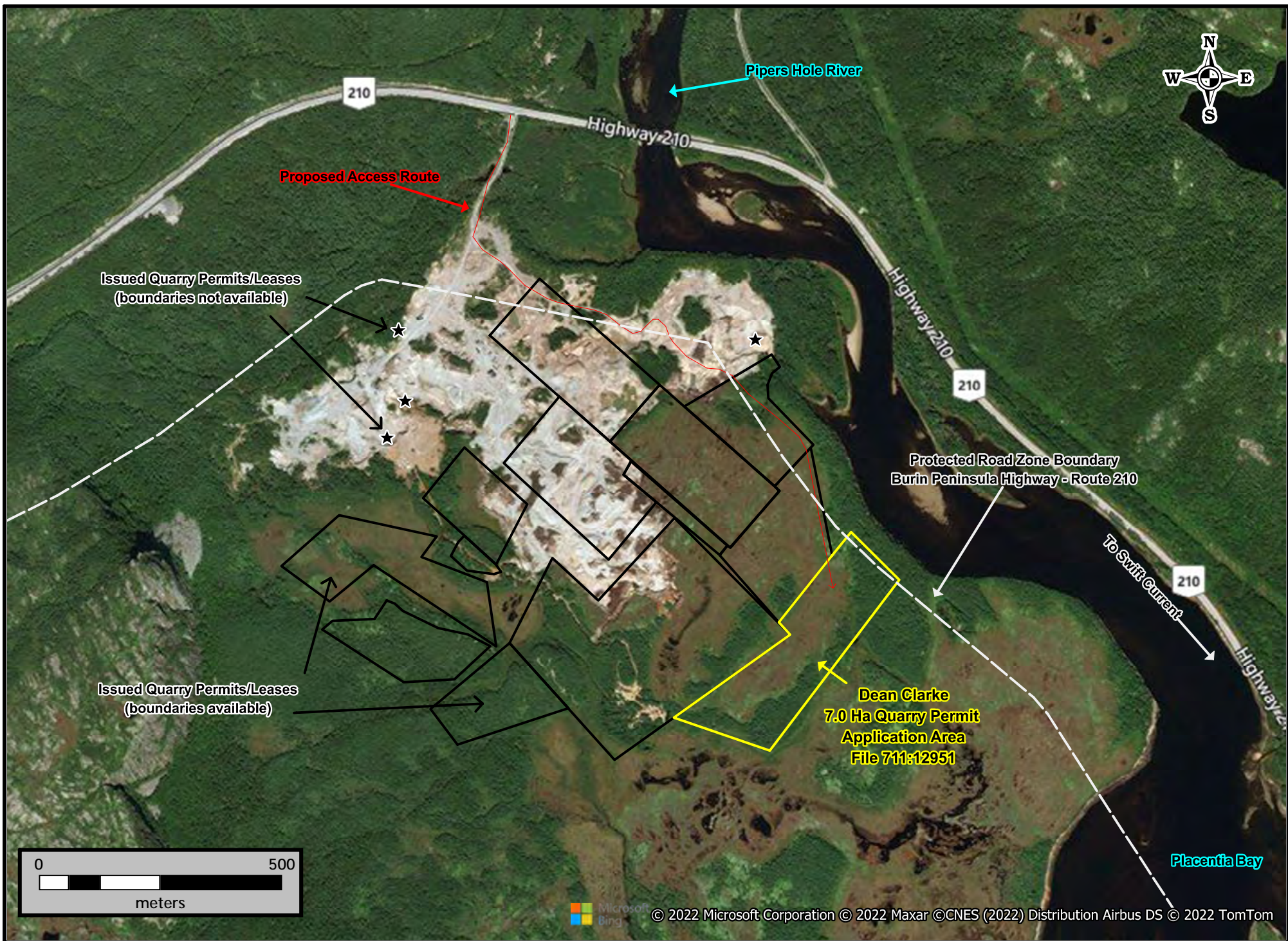


Figure 2: Detailed Project Location Map

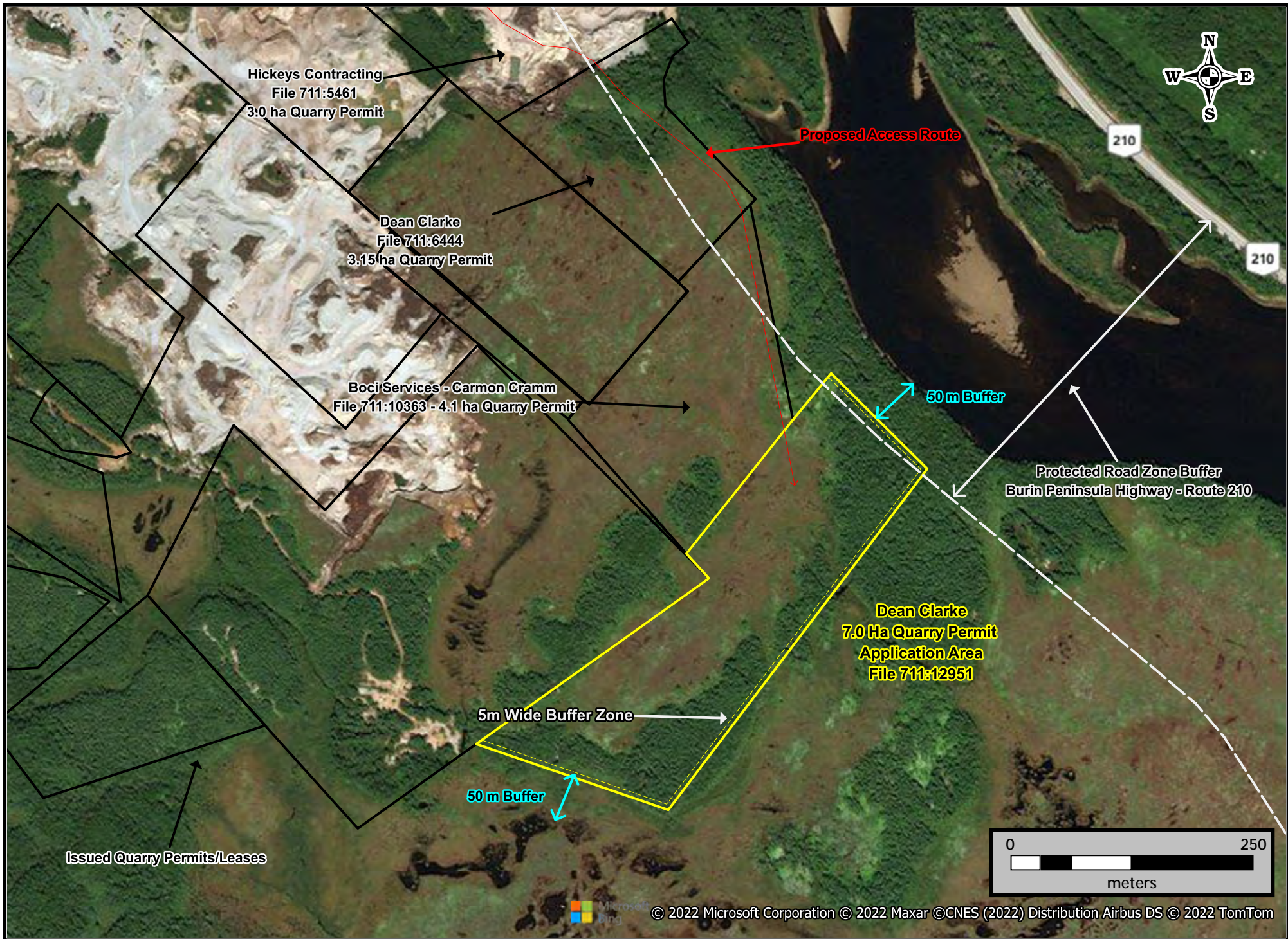


Figure 3: Quarry Permit Location Map



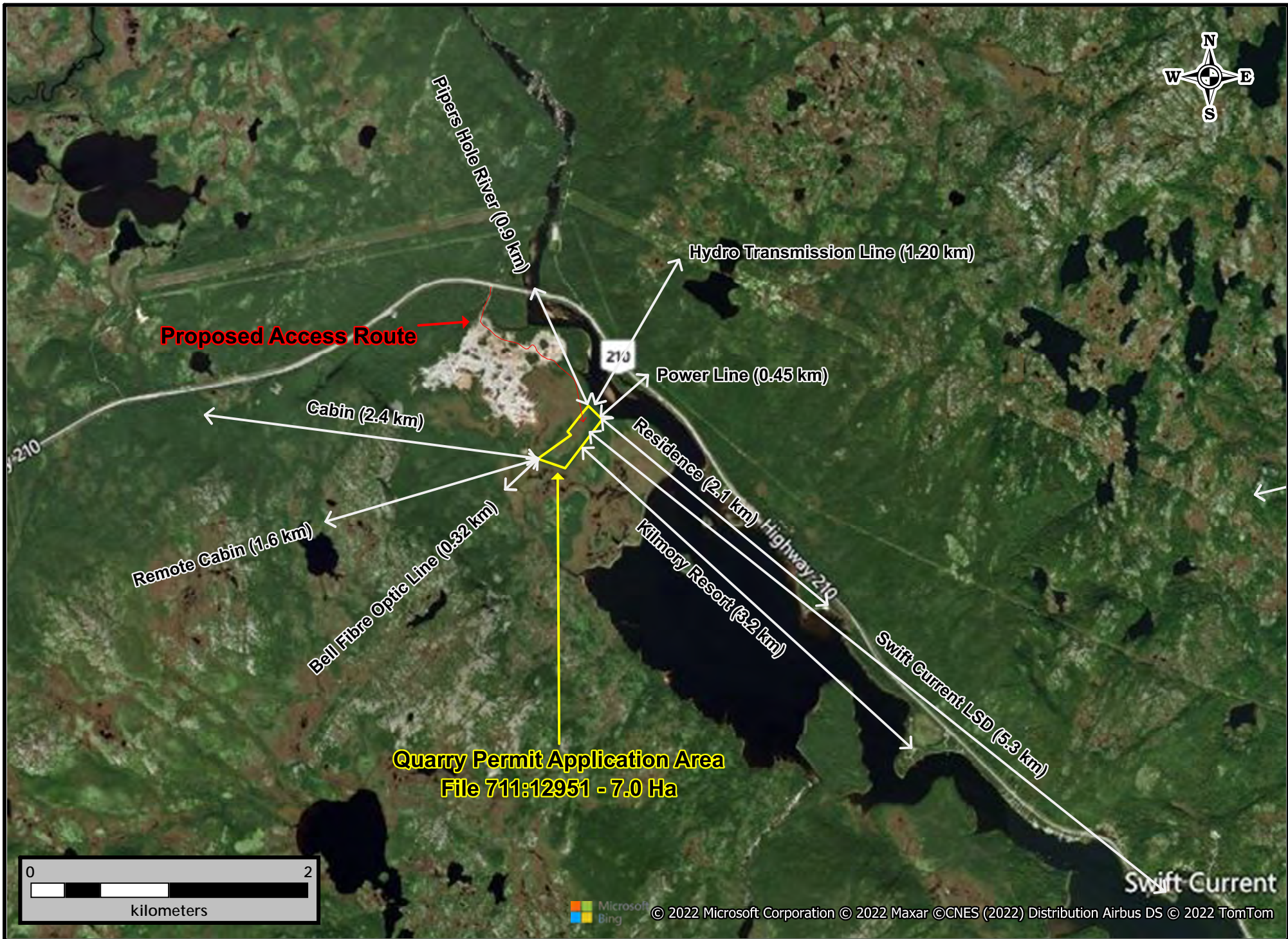


Figure 4: Receptor Location Map

The quarry application area is located ~50 m southwest of a saltwater inlet extending from Placentia Bay where the Piper's Hole River drains into it. The quarry area is also located ~50 m from pockets of shallow standing water to the southwest and there are no 1:50,000 wetlands or watercourses in the immediate project area. Thus, the quarry site is beyond a 30 m distance from all waterbodies/watercourses (including wetlands) as required by the Water Resources Management Division of the Department of Municipal Affairs and Environment under the Government of Newfoundland and Labrador. The Piper's Hole scheduled salmon river is over 900 m from the nearest quarry boundary.

#### ***4.2.2 Existing Biophysical Environment***

The site is located at the northern edge of the *Southeastern Barrens Subregion* of the *Maritime Barrens Ecoregion*. This region has foggy, cool summers and moderate winters along the coast with colder temperatures inland. The mean summer temperatures are around 11.5°C and the mean winter temperatures are roughly -1°C with annual precipitation around 1400 mm.

The subregion is typically forested with balsam fir, black spruce, juniper and mixed shrubs, lichens, and mosses. Generally, the topography in this ecoregion ranges from 0 to 250 m above sea level with rolling terrain of low relief and some rugged and rocky uplands. The main wildlife species include moose, black bear, caribou, lynx, coyote and fox.

The immediate project area is located in the bottom of a valley adjacent to an inlet from Placentia Bay that is very well sheltered. Elevations rise from sea level to over 200 m to the southwest quickly and to over 100 m on the opposite side of the inlet. The specific project area is ~55% barren with ~45% forested cover as seen on **Figure 3**. The forested areas occurring just beyond the northeast and eastern boundary will provide a tree screen for the development when viewed from the north, east and southeast.

### **4.3 Construction and Operation**

The construction aspect of the proposed project will consist of clearing the site from trees and organics/grubbing/contaminated mineral soil before proceeding to remove the underlying sand and gravel aggregate. Any organic material will be preserved 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 Burin Peninsula Highway (Route 210) to the Dean Clarke Contracting quarry (File#

711:6444) located ~200 m to the northwest of the project area. The existing access will be extended along the northeastern boundary, continuing through the neighboring approved quarry held by Boci Services (File# 711:10363) to the northern portion of the quarry area. Written approval for this access has been obtained from Boci Services (**Figures 2 and 3**).

The access to the project area is ~1.4 km from Route 210 primarily along various existing quarry access routes. It is difficult to restrict access in this area due to the continuous nature of development by adjacent quarry operators. Access could be restricted in the 711:6444 Dean Clarke quarry by means of a gate or armourstone but it would be most effective to restrict access at the main entrance to the Piper's Hole quarry area immediately off Route 210.

#### ***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 within the designated buffer area. This windrowed material will be used to construct perimeter berms for future reclamation and to control any potential access to the site from the southeast.

#### ***4.3.3 Quarry Development and Operation***

The initial development phase of the project will begin in the northeastern portion of the permit area and work towards the southwest. This initial development start point was chosen as the most practical development approach as quarry access is gained in the northern corner and it will limit disturbance within the site.

The construction aspect of this project will be carried out across the entire quarry area, starting in the previously mentioned northern area in phases. The work will consist of clearing the site from trees and grubbing while removing and stockpiling organics as noted in **Section 4.3.2**. The overall development will be planned in phases for efficient and safe production based on annual 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

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/washing of aggregates and/or crushing will not be required.

Produced stockpiled materials, including winter maintenance sand and/or asphalt blending sand, 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 any greater effects on nearby receptors than the currently 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 exceeded. 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 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 spill or leaks in excess of 70 liters will be immediately contained, cleaned up and reported to the Environmental Emergency Telephone Line.

#### **4.4.5 Effluent**

The control of sediment and erosion 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 area. Site runoff will then be directed towards vegetated areas, acting as a secondary filter for fine particles. With the development of the site in phases and not the complete stripping of the organic layer throughout the entirety of its 7.0 Ha, 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 sand and gravel 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: encounters 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)*. The historical nature of industrial activity in the area is expected to limit recreational activities, hunting activities and berry picking in favor of less developed areas in the region. The Piper's Hole quarry is in a confined area with Route 210 to the north, an inlet from Placentia Bay to the east-southeast and mountainous terrain to the south and west. This terrain has created a naturally isolated quarry development area that does not have obvious use by local individuals.

The quarry area is located beyond the 30 m reservation from all waterbodies and watercourses (including wetlands) required by the Water Resources Management Division. The following quarry development plan will be applied as a precautionary measure to prevent suspended solids from entering the above noted:

- 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 is adjacent to other quarry operators. 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 as development progresses, to contain precipitation water within the quarry site and retain suspended solids to within the quarry area. This will also provide line of site restrictions of the work area.
- Precipitation for the entire site will be controlled at discharge 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)
- 2 Heavy Equipment Operators (amount may vary depending on demand) – Tandem, Tandem-Tandem, or Semi Dump Trailers (7521)

Operation of the quarry will require up to 5 employees to run at the anticipated annual production rate of ~7,000 m<sup>3</sup>, 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 typical reclamation plan where 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

Typically, a quarry permit application is referred to the various applicable agencies by the Quarry Materials Division. In this case, only the Environmental Assessment Division was consulted and because the project required registration under Section 52 of the Environmental Assessment Regulations 2003, the development was not referred further. Based on the historic nature of this site and available information pertaining to quarry development and required approvals, a limited list of possible referral agencies is provided in **Table 1** below.

**Table 1: Referral Agencies, Responses and Possible Permits Required**

Department/Regulatory Agency	Status	Possible Required Approvals/Permits
Local Service District of Swift Current	Unknown	
Municipal Affairs and Environment - Water Resources Management Division	Unknown	
Municipal Affairs and Environment - Environmental Assessment Division	Project Registration Required	Environmental Assessment Registration
Industry, Energy and Technology - Mineral Lands Division	Unknown	Quarry Permit
Tourism, Culture, Arts and Recreation - Archeology	Unknown	
Service NL	Unknown	Protected Road Zone Permit
Transportation and Infrastructure	Unknown	
Fisheries, Forestry and Agriculture - Forestry	Unknown	Operating Permit & Commercial Cutting Permit
Fisheries, Forestry and Agriculture - Crown Lands	Unknown	
Fisheries, Forestry and Agriculture - Wildlife	Unknown	

## 6.0 SCHEDULE

The proposed schedule for this project is as follows:

Submission of Registration Document	March 2022
Review of Submission Document by Government	May/June 2022
Commencement of Construction and Operations	July/August 2022

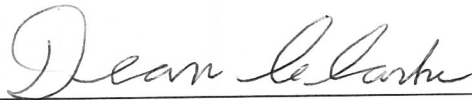
## 7.0 FUNDING

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

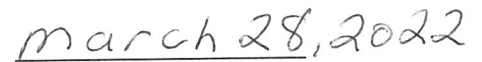


## 8.0 LIMITATIONS

This environmental registration document was prepared by NCD Consulting Ltd. in consultation with Dean Clarke Contracting Ltd. 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. Dean Clarke  
Position: President  
Dean Clarke Contracting Ltd.



Date