

**ENVIRONMENTAL ASSESSMENT
REGISTRATION DOCUMENT**

Hickey's Contracting (1989) Ltd.

**Proposed Sand & Gravel Operation located at Piper's Hole,
Burin Peninsula Highway. Sites are located approximately 6.8 kilometres North
West from the Community of Swift Current.**

Department of Natural Resources (DNR) File Ref #'s 711:11998 & 711:12000

October 15, 2018

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1.0 Undertaking Title

Piper's Hole Sand & Gravel Quarries, Burin Peninsula, (DNR File #'s 711:11998 & 711:12000)

2.0 Proponent

2.1 Corporate Body Title

Hickey's Contracting (1989) Ltd.

2.2 Address

P.O. Box 8
Terrenceville
Fortune Bay, NL
A0E 2X0

2.3 Principle Contact Person

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Phone: John Hickey (709) 662-2314
P.O. Box 8
Terrenceville
Fortune Bay, NL
A0E 2X0

3.0 The Undertaking

3.1 Undertaking Title

Piper's Hole Sand & Gravel Quarries, Burin Peninsula, (DNR File #'s 711:11998 & 711:12000)

3.2 Purpose/Rationale

The purpose of this project is to secure an additional quality source of raw aggregates (sand & gravel) to provide various products to clientele and stakeholders. Such products will include winter sand and backfill and will satisfy the requirements of The Department of Transportation and Works, various contractors, residents of Swift Current and the general public. Securing additional sources of material is also critical to the success and longevity of the family business.

4.0 Description of the Undertaking

4.1 Geographical/Physical Location/Access

For the purpose of this document, file #711:11998 will be referenced as **Site A** and 711:12000 will be referenced as **Site B**.

The proposed quarries are located approximately 6.8 kilometres (straight line) northwest from the Community of Swift Current, south of Route 210 (Burin Peninsula Highway) and west of the Piper's Hole River. The closest point is approximately 790 metres. This is located in the Electoral District of Placentia West-Bellevue, NTS Map Sheet 1M/16 (Figures 1-3). The UTM coordinates (Nad 83) outlining the proposed undertaking are provided on Figure 4. There are no Municipal Controls in effect for this area.

Access to the general quarry area is via an existing road that exits the Burin Peninsula Highway (route 210) and then branches out into various roads to other quarries in the vicinity (Figure 5). The Piper's Hole quarry development area has long been an area of concern in the preservation of wetlands. Taking this into consideration, Hickey's Contracting (1989) Ltd. has applied for two separate quarries to avoid disruption of the wetlands. As a result of these two separate applications, two accesses are required to avoid the wetlands (Figure 6). Given these routes are already existing, only upgrading is required to make these accesses usable and as a result do not require an application to Crown Lands.

4.2 Physical Features

4.2.1 Site Descriptions

The proposed sites comprise an area of 3.3 hectares (DNR File #711:11998, Site A) and 0.53 hectares (DNR File #711:12000, Site B) respectively. Specific details of the physical locations are outlined below;

Site A; this site is located approximately 980 metres south of the Burin Peninsula Highway and is accessed by an existing gravel road. This site is located approximately 857 metres from the Piper's Hole River to the east. Separating this quarry from the river are wetlands, trees and vegetation, and other quarries located south (Sparke's Trucking Ltd. 711:12265) and east (several permits). A 30 metre buffer will be maintained at all times between the quarry working area and the wetlands or as directed by the Department of Environment and Wildlife (Water Resources). A portion of the existing access

will need to be upgraded as it has grown over with low lying brush and scrub (Figure 7).

Review of the topographic 1:50,000 scale mapping indicates that there was once a stream that flowed through the proposed quarry area (Figure 8). This stream flowed from two ponds located south west of the undertaking in a northerly direction and then diverted and flowed eastward. The stream then split into two tributaries, one continuing to flow northeasterly, while the second that flowed southeasterly, ceased flowing. This may be a result of a combination of factors; climate change, vegetation growth and commercial activity. All water is now managed through the east flowing tributary. Further investigation of the former southward flowing stream location reveals that low volumes of water may be percolating through the porous sand and making its way to the wetland areas away from the proposed quarry site. Approximately 240 metres southeast of the proposed quarry boundary, the stream starts flowing from the wetlands southward to Piper's Hole River.

The southern boundary of the site is shared with an active application for a 3 hectare quarry site by Sparke's Trucking Ltd. (DNR File #711:12265)(Figures 7 and 9).

Site B; this site is located approximately 875 metres south of the Burin Peninsula Highway and is accessed by an existing gravel road. This site is located approximately 732 metres from the Piper's Hole River to the east. Separating this quarry from the river are wetlands, trees and vegetation, and other quarries located north, south and east. A 30 metre buffer will be maintained at all times between the quarry working area and the wetlands or as directed by the Department of Environment and Wildlife (Water Resources). There is an existing access to this site and it will require widening to accommodate heavy equipment and dump trucks (Figure 7). No structures are to be erected at either location.

4.2.2 Physical and Biological Environment

There are seven physiographic regions that cover Canada. Of particular interest for this project is the Appalachian Region which covers Newfoundland and Labrador and the Maritimes.

Ecologically, the area is located in the Maritime Barrens eco-region of Canada. The eco-region is categorized as by having cool, foggy summers and short relatively moderate winters along the coast and colder inland. Mean annual

temperature is approximately 5.5°C. The mean summer temperature is 11.5°C and the mean winter temperature is -1°C. Given the location of the proposed site, plant species are typical of boreal forest species of this eco-region. Vegetation consists of low lying scrub, mosses and lichens. The topography consists of undulations, with minimal change in elevations. Trees are virtually non-existent, except closer to the Burin Peninsula Highway. This aids in reducing the visual impact of the operation to the travelling public and tourists.

Typical wildlife found in this area consists of moose, hare, lynx, fox, mink, coyote, ducks and black bear along with a variety of bird species and other small creatures.

4.3 Development

4.3.1 Site Access

Site A: As described previously, access to the site will be via the existing gravel road that exits the Burin Peninsula Highway, in a southerly direction into the quarry area (Figure 6). A portion of the access will require upgrading to remove vegetation and overburden (Figure 7). This vegetation will be stockpiled for future rehabilitation. Hickey's Contracting will ensure that wetlands are avoided and that excavation will only occur on "higher, treed" surfaces.

Site B: Access will be via the existing gravel road that exits the Burin Peninsula Highway and extends to the proposed quarry development area. No new road construction is required, however some widening is anticipated to accommodate heavy equipment (Figure 7).

4.3.2 Clearing

Sites A and B: Any and all clearing will be conducted in a manner as prescribed by the Department of Fisheries and Land Resources (Forestry and Agrifoods). This includes obtaining the proper cutting and operating permits.

4.3.3 Grubbing

All surface organic material including moss, peat and topsoil shall be stripped and stockpiled at the perimeter of the quarry for future use in rehabilitating the quarry once all resources have been exhausted. Only that portion of the quarry required for annual aggregate demands will be cleared.

4.3.4 Quarry Development

Site A: This site comprises an area of 3.3 hectares. Currently, Hickey's Contracting (1989) Ltd. operates two quarries in the Piper's Hole quarry development area. These additional sites are required to ensure there are sufficient reserves to meet future aggregate demands. Hickey's Contracting (1989) Ltd. is committed to ensuring the rehabilitation of its existing quarries as per the Terms and Conditions applied by the Department of Natural Resources, Mineral Lands Division, once all reserves have been exhausted.

Development will commence at the northeastern boundary parallel to the existing access road (on the southwest side) and continue to be worked in a southwest direction. No excavation of any sort to be conducted on the northeast side of the access. This will maintain the 30 metre wetland buffer zone. Additionally, the plot of the quarry site shows that a portion of the wetlands is included to the north-northwest. This area will not be excavated or disturbed and all activities will conform to the 30 metre wetland buffer.

Site B: This site comprises an area of 0.53 hectares. Development will commence at the northeastern boundary parallel to the existing access road (on the southwest side) and continue to be worked in a southwest direction. No excavation of any sort to be conducted on the northeast side of the access. Additionally, the plot of the quarry site shows that a portion of the wetlands is included to the northwest and to the southeast. This area will not be excavated or disturbed and all activities will conform to the 30 metre wetland buffer.

Sites A & B: Upon commencement of the project, activities to be confined to stripping and stockpiling overburden for future rehabilitation requirements, as set forth by the Quarry Materials Act, Quarry Materials Regulations and Terms and Conditions added to the permit. Sloping of the quarry and access road will be crucial in eliminating the possibility of debris (silt, sediments) from being deposited into the stream. Silt screens will be available should the need arise during periods of intense rainfall to prevent siltation of the stream.

Stripping operations will be limited to production requirements for the current operating season. This will help prevent erosion and siltation of nearby water bodies. The amount of work (contracts) secured will determine the area required to be cleared annually.

An anticipated start date of Spring 2019 is dependent on obtaining all appropriate permits.

4.4 Potential Sources of Pollution during Construction and Operation

The construction and operating phases of the development of the quarry shall involve noise, dust, human waste, litter, heavy equipment emissions, possible siltation as a result of drainage slopes, and possible accidental equipment leaks.

4.4.1 Noise and Emission Controls

Heavy equipment, namely dump trucks, excavators, loaders and screeners can produce increased noise, emissions levels and dust. Though this is not preventable, it can be minimized.

Some mitigative measures to be utilized during this project are:

1. All commercial equipment is fitted with functioning mufflers and pollution control devices.
2. All vehicles have functioning air conditioning. This eliminates the need to roll down the windows in a dusty environment.
3. All staff required to wear proper Personal Protective Equipment (PPE) as per Workplace NL guidelines.
4. Hickey's Contracting (1989) Ltd. is COR Certified. Machinery must be kept in good working order at all times.
5. Site is not located near any community or Town. No residences or dwellings nearby.
6. Water application shall be introduced to control dust, should the need arise.

4.4.2 Waste Materials

Development of the quarry will result in generating waste and litter. Given the isolation of this quarry site, to address this issue, the following will be introduced:

1. A fully functioning mobile travel trailer will be set up on site. This will provide washroom facilities and shelter should the need arise.
2. All on-site waste material, including lunch waste, will be securely contained so as not to attract nuisance wildlife to the site and will be removed to an approved waste disposal site on a weekly basis.

4.4.3 Site Run Off

Construction activities yield the potential of sediments such as silts, clays and other small particles to be carried during heavy precipitation events. This is due to the vegetation cover being stripped and the sediments being exposed to the elements. Such events can be managed by the following:

1. Minimize stripping the area of the site to what is required for the season. Less area exposed results in fewer materials exposed and susceptible to heavy precipitation events.
2. Ensure that the sloping of the area is controlled to prevent sediments from reaching outlets.
3. The use of silt screens installed across culverts, streams or other routes will help prevent sediments from entering water bodies.

4.4.4 Accidental Fuel Leaks/Equipment Failure

During construction activities there is a possibility of equipment failure. This may result in fuel/oil spills and other hydrocarbons. In addition to adhering to the conditions implemented by the Department of Service NL, the Company will implement the following mitigative measures:

1. Being COR Certified, all equipment must be regularly serviced and maintained.
2. Adhering to all Government Regulations, more particularly those imposed by Service NL pertaining to the handling of fuel.
3. Spills in excess of 70 litres and all leaks will be reported immediately to the 24-hour spill-report number (call 709-772-2083) or 1-800-563-9089.
4. All spills and leaks, regardless of volume, will be cleaned up immediately and the affected area shall be inspected and given clearance by Service NL prior to resuming activities.
5. Sufficient spill-response material (oil-absorbent pads and powder) will be available on site to clean up small spills.
6. Company has a dedicated safety officer on staff trained in the use of spill kits and emergency measures.

4.5 Operation

The operation of the quarry is a continuation of the quarry development stage. Once the site has been cleared and grubbed, and all preparation work has been completed, aggregate extraction can commence.

The development of a vertical face shall be utilized to obtain raw aggregates. Face heights will not be greater than 5 metres as per the Terms and Conditions set forth by the Department of Natural Resources (Mineral Lands Division). A loader or excavator is used to transport the material from the face to the screener. Materials are then sorted into various gradations by a conveyor belt system to meet contract specs or customer requirements.

As the screener sorts the aggregate into various piles, a loader is then used to stockpile these various gradations in another area of the quarry. This product is then available to the consumer for purchase. Some companies may purchase the material and transport using their own dump trucks, while winter sand may be transported by the quarry permit holder. Residential customers will require delivery of product as well and this is transported primarily by the permit holder or hired help.

This undertaking is a sand and gravel operation. No drilling and blasting will be conducted and no crushing operations are required.

Equipment to be used during the operation phase:

1. Dump trucks (4)
2. Excavator (1-2)
3. Loader (2)
4. Screener

4.6 Addressing Potential Resource Conflicts during Operations

There is minimal resource conflicts associated with this location. The wetlands located adjacent to the sites are the only concern of this nature. Proper environmental protective measures and buffer zones will alleviate any potential negative effects.

Other measures to prevent damage to the stream are:

1. Ensure 30m buffer maintained from the wetlands at all times or to that specified by Water Resources.
2. Use of silt screens to prevent siltation of water bodies.

3. Stripping only that portion of the site required for annual production volumes.
4. Spill kits on site at all times and trained personnel in the use of spill kits.
5. Waste/litter to be removed daily.
6. Facilities to accommodate human waste and follow Provincial waste disposal laws.

4.7 Rehabilitation and Closure

To be conducted in accordance with the Quarry Materials Act, SNL1998, Quarry Materials Regulations and the Terms and Conditions of a quarry permit as imposed by the Department of Natural Resources, Mineral Lands Division. This involves sloping criteria, re-spreading of organics to promote rapid regeneration of vegetation and leaving the site clean, free of refuse and safe.

4.8 Occupations (NOC Codes)

This project is expected to hire the following occupations as in accordance with the National Occupational Classification.

1. 4 dump truck drivers (7511)
2. 3 Heavy Equipment operators ; 1 loader, 1 excavator, 1 screen operator (7521)
3. 1 Labourer (7611)
4. 1 Safety Officer (2263)

Hickey's Contracting (1989) Ltd. is an equal opportunity employer. Hiring is based on the most qualified persons as required depending on work load and contracts secured for the season.

4.9 Project Related Documents

Permits required for the project:

1. Quarry Permit, Department of Natural Resources, Mineral Lands Division
2. Cutting and operating permit, Department of Fisheries and Land Resources (Forestry and Agrifoods)

Other permits and approvals may be required. This will be determined through the referral process prior to the approval and issuance of the quarry permit. No activity can commence until all authorizations have been obtained.

5.0 Approval of the Undertaking

Approvals are required from the following Departments for the project to proceed:

1. Crown Lands
2. Department of Natural Resources, Mineral Lands Division
3. Transportation & Works
4. Fisheries and Land Resources (Crown Lands)
5. Fisheries and Land Resources (Forestry)
6. Tourism, Culture, Industry & Innovation (Tourism)
7. Tourism, Culture, Industry & Innovation (Historic Resources)
8. Municipal Affairs and Environment (Provincial Planning)
9. Department of Environment and Wildlife (Environmental Assessment)
10. Service NL
11. Department of Environment and Conservation (Water Resources)

6.0 Schedule

Quarry Permit application submitted March 28, 2018

Environment Assessment document to be submitted April 2018

Commence operations immediately once approvals and permits have been obtained. Should this process be delayed, project may be postponed until spring 2019.

7.0 Funding

Funding for the project will be solely 100% by the proponent.

8.0 Submission

Date:

Signature:

Name:

Position:

Appendix A – Figures

Figure 1

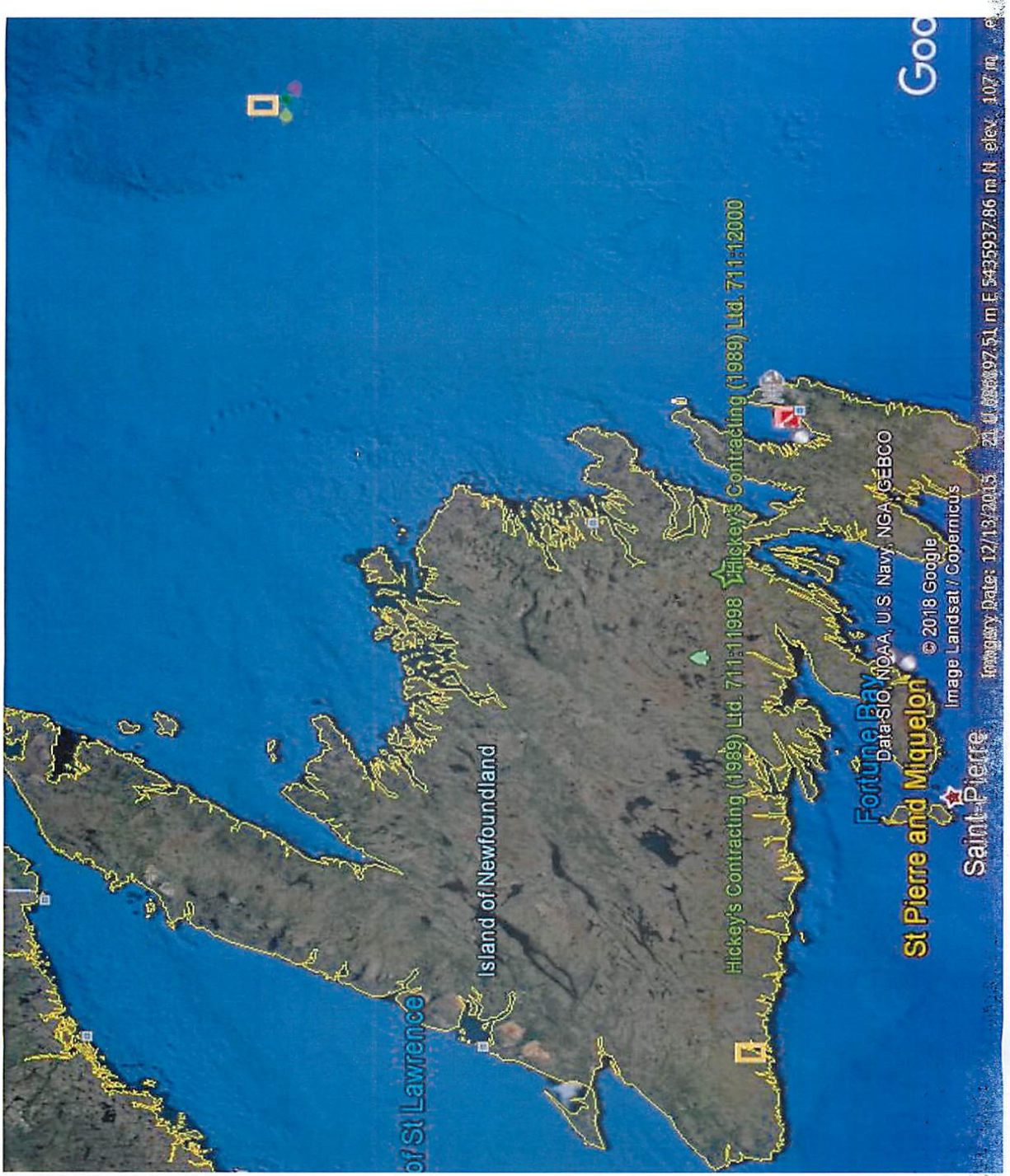


Figure 2

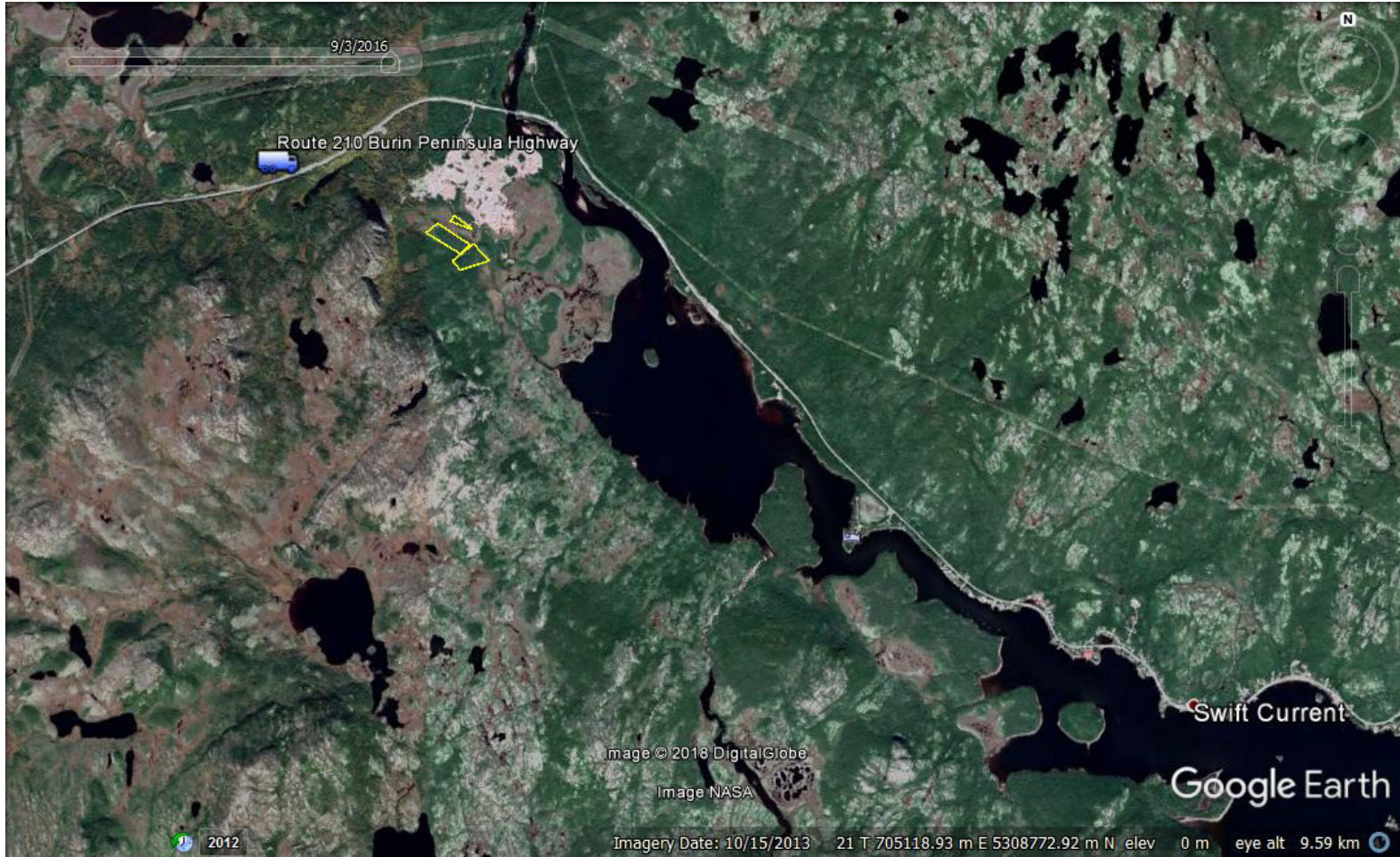


Figure 3

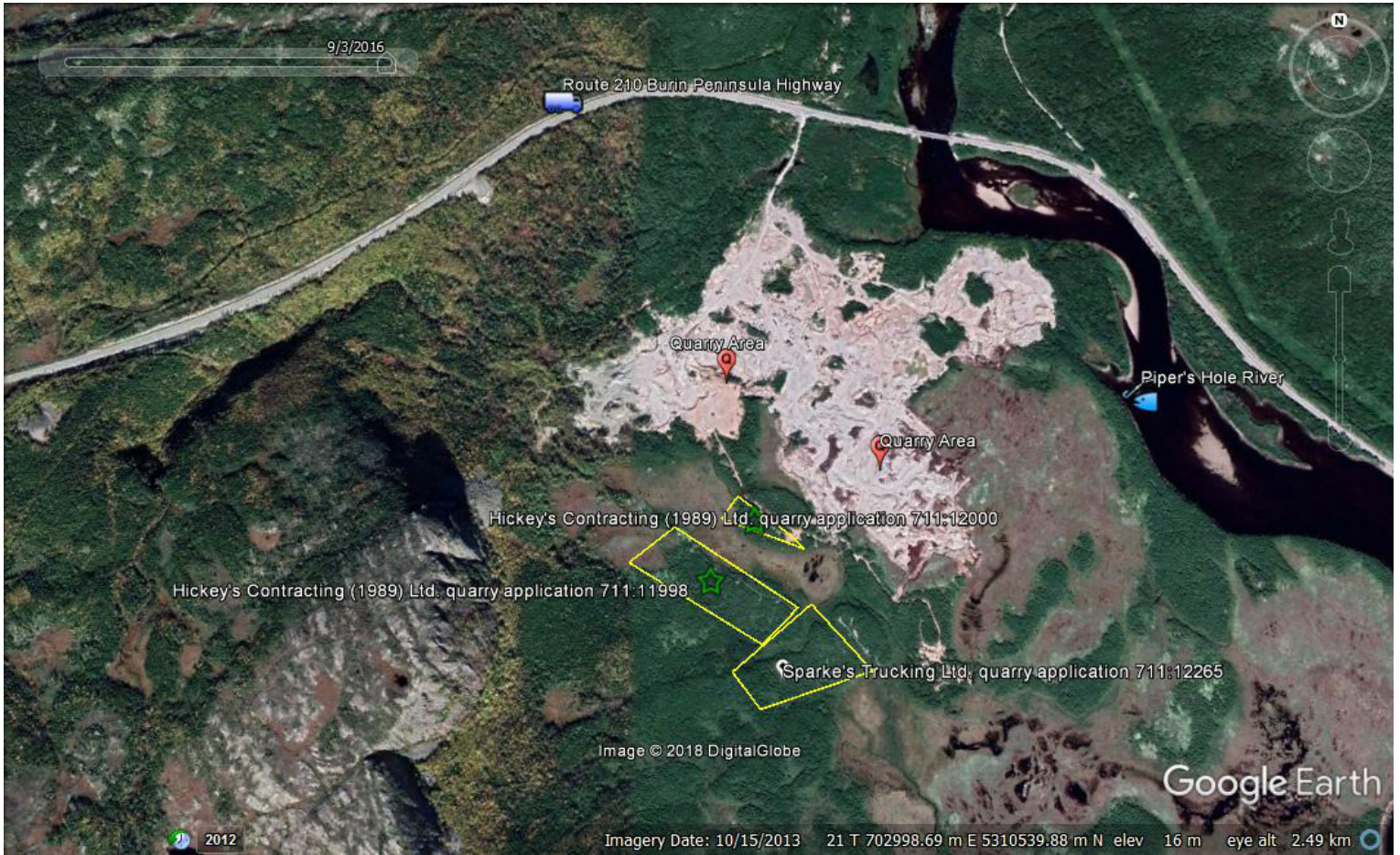


Figure 4

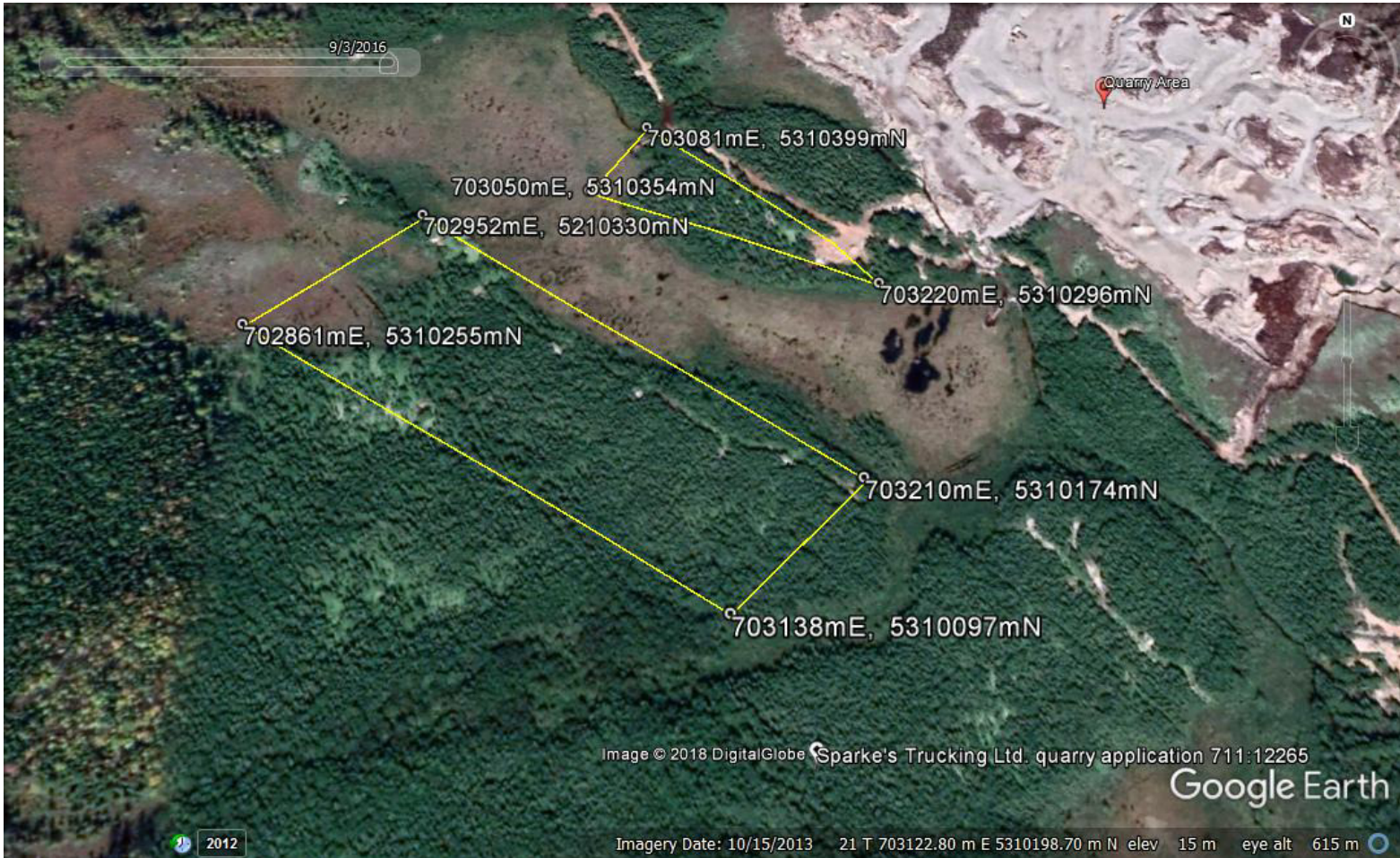


Figure 5

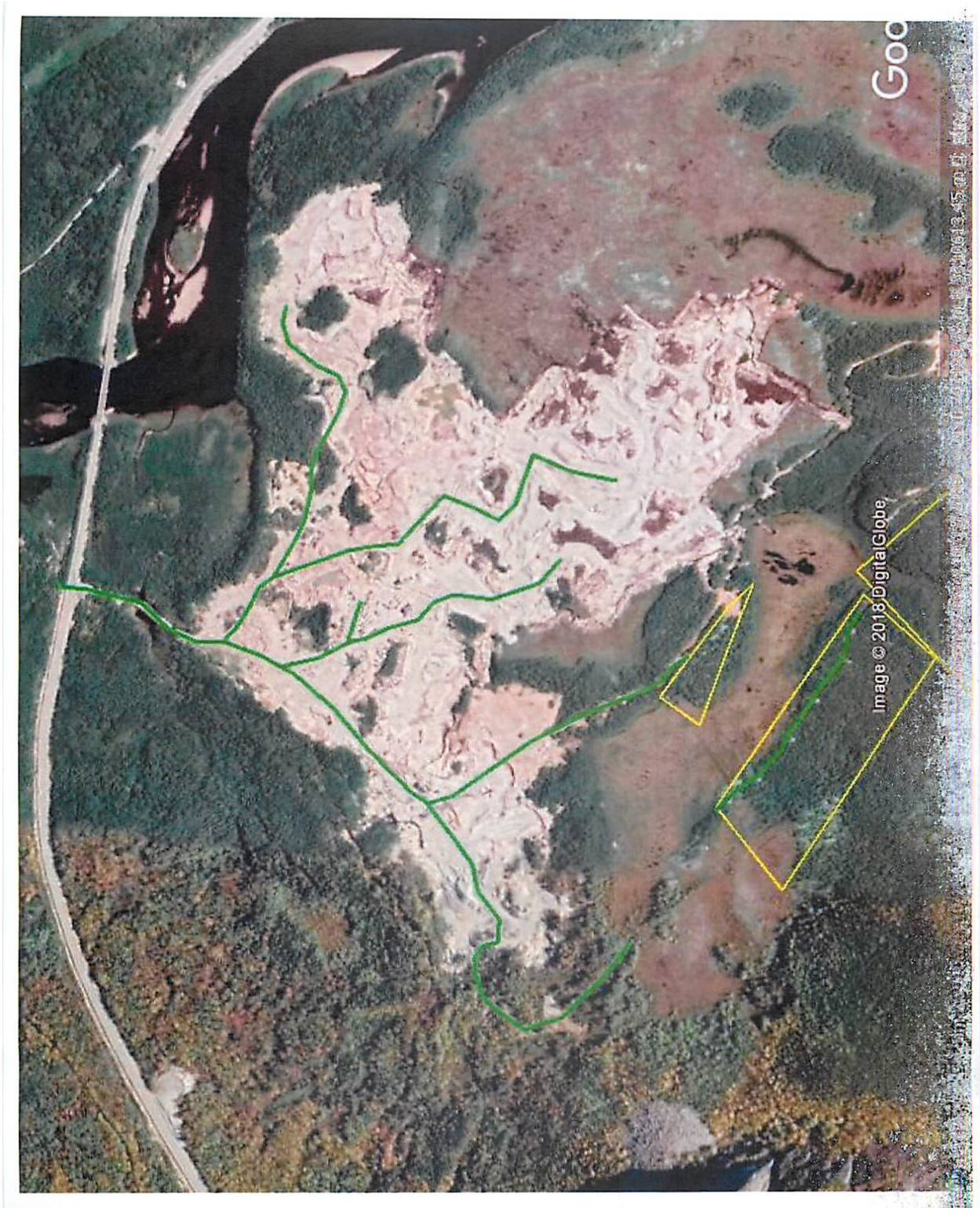


Figure 6

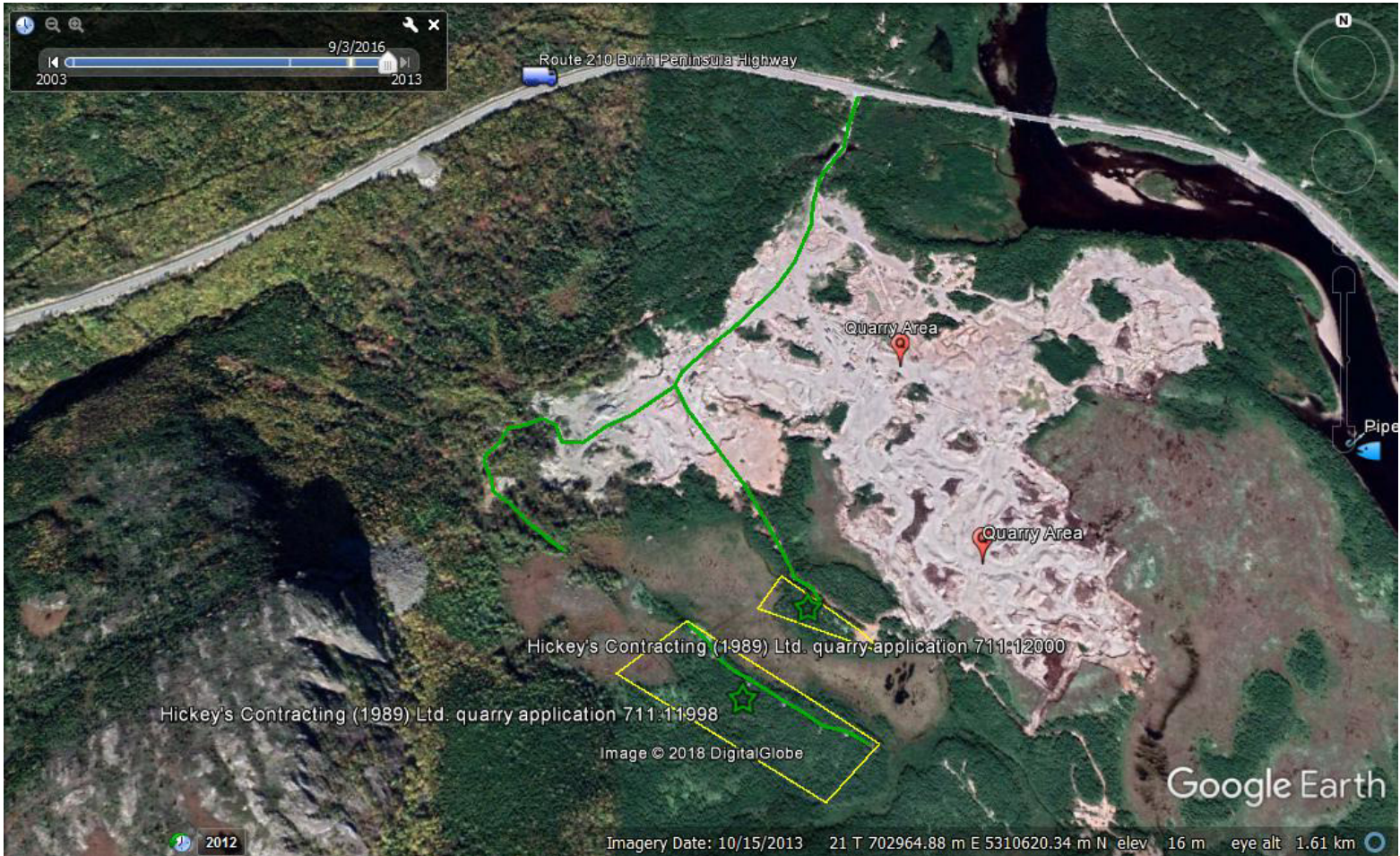


Figure 7



Figure 8

Source: Newfoundland and Labrador Geoscience Atlas

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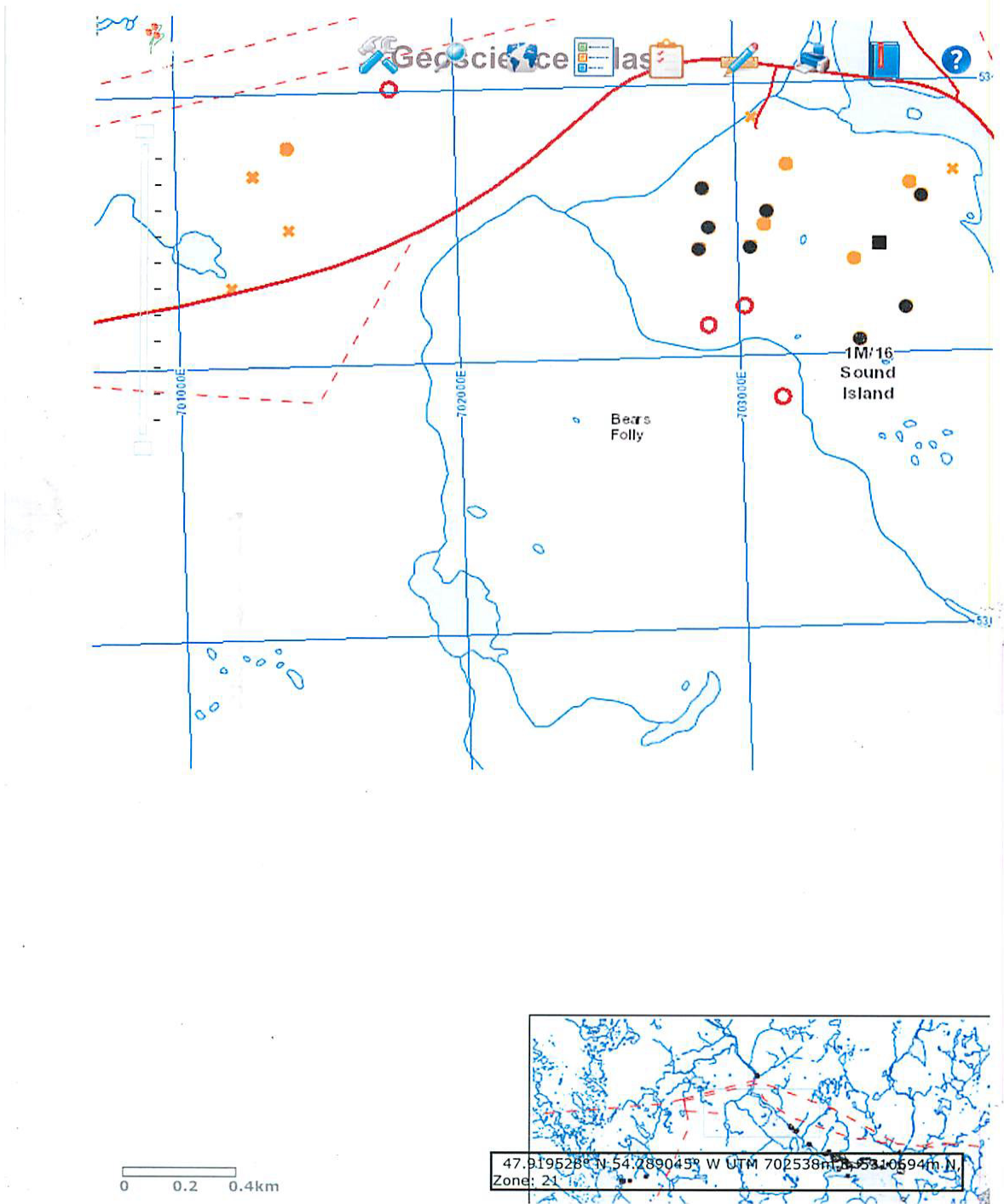


Figure 9

