ORIGINAL

Stage 1 Archaeological Assessment
(Background Study and Property Inspection)

Bracebridge North Transportation Corridor
Class Environmental Assessment Study

Former Townships of Monck and Macaulay
Muskoka District

District Municipality of Muskoka

Prepared for:

AECOM
345 Eccleston Drive
Bracebridge, ON, P1L 1R1
Tel: 705-645-5992
Fax: 705-645-1841
Chris.stilwell@aecom.com
www.aecom.com

Archaeological Licence P392 (Paul David Ritchie)
MTCS PIF P392-0020-2013
ASI File 12EA-005

September 23, 2013

Archaeological Services Inc.
528 Bathurst St.
Toronto, Ontario
Canada, M5S 2P9
T 416-966-1069
F 416-966-9723
info@iASI.to/www.iASI.to

Stage 1 Archaeological Assessment
(Background Study and Property Inspection)

Bracebridge North Transportation Corridor
Class Environmental Assessment Study

Former Townships of Monck and Macaulay
Muskoka District

District Municipality of Muskoka

EXECUTIVE SUMMARY

Archaeological Services Inc (ASI) was contracted by AECOM (Bracebridge) on behalf of the District Municipality of Muskoka to conduct a Stage 1 Archaeological Assessment (Background Study and Property Inspection) as part of the Bracebridge North Transportation Corridor Environmental Assessment (EA). ASI completed a Stage 1 Archaeological Assessment in 2003 for the west portion of the study area from Highway 118 East northerly to Highway 118. The current scope of work involves the northern section of the proposed road corridor from Highway 118 northerly to Highway 11.

The Stage 1 background study determined that four archaeological sites have been registered within 1 km of the study area. A review of the geography of the study area suggested that the study area has potential for the identification of Aboriginal and Euro-Canadian archaeological resources.

The Property Inspection determined that the majority of the study area possesses archaeological potential and will require Stage 2 archaeological assessment. Portions of the study area do not possess archaeological potential on account of documented low and wet conditions, steeply sloped ground, or deep and extensive land disturbance.

In light of these results, ASI makes the following recommendations:

1. Archaeological potential exists in the study area. Such lands require a Stage 2 archaeological assessment to be conducted by combination of pedestrian survey and test pit survey, where appropriate;

2. Portions of the study area are documented to be steeply sloped, to have low and wet conditions or extensive and deep land alterations that have severely damaged the integrity of any potential archaeological resources; and,

3. Should the proposed work extend beyond the current study area then further Stage 1 archaeological assessment must be conducted to determine the archaeological potential of such additional lands.

Notwithstanding the results and recommendations presented in this study, ASI notes that no archaeological assessment, no matter how thorough or carefully completed, can necessarily predict, account for, or identify every form of isolated or deeply buried archaeological deposit. In the event that archaeological remains are found during subsequent construction activities, the

consultant archaeologist, approval authority, and the Cultural Programs Unit of the Ministry of Tourism, Culture and Sport should be immediately notified.

ARCHAEOLOGICAL SERVICES INC.
ENVIRONMENTAL ASSESSMENT DIVISION

PROJECT PERSONNEL

Senior Project Manager and	Lisa Merritt, MSc [MTCS licence P094] *Senior Archaeologist, Class EA Manager, Environmental Assessment Division*
Project Director (licensee):	Paul David Ritchie, MA [MTCS licence P392] *Staff Archaeologst*
Project Manager	Paul David Ritchie
Project Coordinator:	Sarah Jagelewski, Hon. BA [MTCS license R405] *Staff Archaeologist*
Field Director	Rob Pihl, MA [MTCS licence P057] *Partner & Division Manager* *Environmental Assessment Division*
	Paul David Ritchie
Report Writer	Heidy Schopf, MES *Heritage Specialist*
	Paul David Ritchie
Graphics:	Jonas Fernandez, Msc [MTCS Licence R281] *Geomatics Specialist*
	Blake Williams, MLitt [MTCS licence P383] *Geomatics Specialist*
	Paul David Ritchie
Report Reviewer:	Lisa Merritt

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF PLATES

1.0 PROJECT CONTEXT

Archaeological Services Inc (ASI) was contracted by AECOM (Bracebridge) on behalf of the District Municipality of Muskoka to conduct a Stage 1 Archaeological Assessment (Background Study and Property Inspection) as part of the Bracebridge North Transportation Corridor Environmental Assessment (EA). Previously, ASI (2003) completed a Stage 1 archaeological assessment for the west portion of the study area from Highway 118 East northerly to Highway 118. The current scope of work involves the northern section of the proposed road corridor from Highway 118 northerly to Highway 11 (Figure 1).

This assessment was conducted under the project direction and project management of Paul David Ritchie (PIF P392-0020-2013) and senior project management of Lisa Merritt, both of ASI.

The objectives of this report are:

- To provide information about the geography, history, previous archaeological fieldwork and current land condition of the study area;

- To evaluate in detail the archaeological potential of the study area which can be used, if necessary, to support recommendations for Stage 2 archaeological assessment for all or parts of the property; and,

- To recommend appropriate strategies for Stage 2 archaeological assessment, if necessary.

This report describes the Stage 1 archaeological assessment that was conducted for this project and is organized as follows: Section 1.0 describes the project context and summarizes the background study that was conducted to provide the archaeological and historical context for the project study area; Section 2.0 describes appropriate field methods; Section 3.0 provides an analysis of the assessment results and evaluates the archaeological potential of the study area; Section 4.0 provides recommendations for the next assessment steps; and the remaining sections contain other report information that is required by the Ministry of Tourism, Culture and Sport's (MTCS) 2011 document *Standards and Guidelines for Consultant Archaeologists (S&G)*, e.g., advice on compliance with legislation, works cited, and mapping.

1.1 Development Context

All work has been undertaken as required by *Environmental Assessment Act,* RSO (1990) and regulations made under the Act, and are therefore subject to all associated legislation. This project is being conducted under the Schedule C of the Municipal Class EA process.

All activities carried out during this assessment were completed in accordance with the Municipal Engineers' Association document *Municipal Class Environmental Assessment* (2007, as amended in 2011), the Ministry of the Environment document *Code of Practice: Preparing, Reviewing and Using Class Environmental Assessments in Ontario* (2009), the *Ontario Heritage Act* (2005), and the *S & G*.

Permission to carry out all activities necessary for the completion of the assessment was granted by AECOM on February 15, 2012.

1.2 Historical Context

This section provides a brief summary of historic research for the study area. A review of available primary and secondary source material was undertaken to produce a contextual overview, including a general description of settlement and historic land use. Historically, the study area is located in the following Lots and Concessions in the Former Townships of Monck and Macaulay, Muskoka District:

Monck Township

- Lot 5, Concession 2
- Lots 5 and 6, Concession 3
- Lots 5 and 6, Concession 4
- Lots 3-6, Concession 5
- Lot 8, Concession A

Macaulay Township

- Lots 1 and 2, Concession 5
- Lots 1-4, 8 and 9, Concession 6
- Lots 3-9, Concession 7
- Lots 8 and 9, Concession 8
- Lots 8-10, Concession 9
- Lots 10 and 11, Concession 10

1.2.1 Aboriginal Land Use

Initial human occupation in the Muskoka District began considerably later than elsewhere in Ontario. This is on account of the prolonged glaciations beneath the Laurentide glacier and subsequent submersion beneath pro-glacial Lake Algonquin (see Section 1.3.2). The district is believed to have been first occupied during the Late Paleo-Indian period, likely following the recession of pro-glacial Lake Algonquin between ca. 10,500 and 10,000 BP (*c.f.* Karrow and Warner 1990). Populations at this period would have been highly mobile, inhabiting a boreal-parkland more similar to the modern sub-arctic (MacDonald *et al.* 1994). Occupation may have focussed along the receding Lake Algonquin strand which crosses the Muskoka District extending north-south from the Lake Simcoe Lowlands physiographic region, south of the study area, northwards.

Occupation in the Muskoka District appears to lapse until the Middle Archaic Period ca. 7,000 BP. This may be on account of the recession of Lake Algonquin to the low-water Lake Hough, submerged below present day Georgian Bay. While the effect of this low-water phase on the Muskoka Lakes system is difficult to approximate Early Archaic occupation in northern Ontario may have focussed on the Lake Hough shoreline and so Early Archaic sites may largely be submerged beneath Georgian Bay; this is only speculation. By the Middle Archaic period subsistence is believed to have exploited a greater diversity of resource bases and settlement likely focussed on areas such as fish spawning grounds, seasonal fruit patches, moose yards, and

beaver ponds (MacDonald *et al.* 1994). Evidence exists at this time for polished stone implements and worked native copper. The latter's source from the north shore of Lake Superior is evidence of extensive exchange networks.

By approximately 5,000 BP during the Lake Nipissing transgression the Lake Huron water levels had approximately reached their modern level (*c.f.* Jackson *et al.* 2000). Late Archaic populations are believed to have occupied (seasonally) the entire Muskoka Lakes system. Subsistence bases remained extensive and varied and populations continued to be highly mobile (MacDonald *et al.* 1994).

Early Woodland period (3,000-1,500 BP) occupation of Muskoka District appears to have little differentiation from the Late Archaic Period and is implicit that the settlement –subsistence patterns of these people had changed little from the preceding period. The Middle Woodland period (1,500-1,000 BP) is identified by the Laurel cultural tradition. This cultural tradition has been documented across the Canadian Shield from Quebec to Minnesota. The Laurel tradition site associations indicate that this culture was focussed on riverine and lake habitation. Subsistence involved varied and geographically extensive bases. The Laurel tradition exhibits the earliest evidence in northern Ontario for large settlements, particularly located near prime fishing grounds. This tradition is also associated with the earliest burial mounds in northern Ontario. The exotic nature of the grave offerings found associated with these burial mounds expands on the Late Archaic evidence for extensive exchange networks. All these new cultural features are indicative of new concepts of social organization, investment of labour, food procurement, and territorialism in Muskoka District (Brown 1995: 13; MacDonald *et al.* 1994: 7-8).

The Late Woodland period (1,000 BP – 300 BP) site evidence in the Muskoka District is limited. The Muskoka District is situated on the fringe of the Iroquoian world and so it is debated whether peoples in the Muskoka District were Iroquoian or Algonkian speaking. It seems likely that those in the southern area of the district spoke Iroquoian or were multi-lingual. Fishing remained an important focus of subsistence however peoples in southern Muskoka District also practiced horticulture. Late Woodland sites in southern Muskoka District demonstrate strong evidence of intensive exchange with the Huron-Wendat to the south in Simcoe County (MacDonald *et al.*1994).

European trade goods began to make an appearance in Aboriginal sites towards end of the Late Woodland period in the District of Muskoka (A.D. 1620). During the Fur Trade the Ojibwa continued to play an important intermediary role in this region. Maintaining this role became increasingly difficult due to the disruption caused by the dispersal of the Ontario Iroquoian groups by the Five Nation Iroquois from New York State and increasing conflict with central Algonkian "Fire Nation" of the southern Lake Huron Basin (MacDonald *et al.* 1994).

Before the arrival of Europeans in Ontario in the early seventeenth century, extensive exchange systems had developed in the Muskoka Region between the Odawa, Ojibwa and Cree of northcentral and northeastern Ontario and the Huron-Wendat and other Iroquoian groups to the south. The Odawa, in particular appear to have played an important role in this trade through dominating traffic in goods on the upper Great Lakes (MacDonald *et al.* 1994: 8).

The Algonquin were the first recorded inhabitants of the Muskoka region (Mika and Mika 1981: 705). The Algonquin were nomadic and traded meat and furs with the Huron-Wendat for agricultural products. In 1649 the Huron-Wendat were dispersed from southern Ontario and the

Algonquin moved southward to occupy the Muskoka area. By 1763, when the British arrived, an Ojibwa band (the Anishinabek) was located in the Muskoka District.

> Proofs of former Indian occupation of this district are abundant on the south branch of the Muskoka River near the corner post which marks the junction of the Townships of Muskoka (sic), Draper, Oakley and McLean, a thick second-growth covered the clearing formerly made by the Mohawk Indians. According to the statements of an old Indian Chief, deceased some six years ago [1873], these Mohawk pioneers of Muskoka settlement were driven away and dispersed after a succession of sanguinary engagements by another tribe of Indians who hunted and fished near Trading Lake [Lake of Bays] (Cumming 1972 [1874]: 14).

The Anishinabek occupied the Muskoka District until 1880 and utilised the Muskoka District landscape extensively across the entire district, practising hunting, fishing, farming and trapping. After 1880 the Muskoka District was settled by the Wahta Mohawks. The Wahta Mohawks utilised the area intensively and were based at Wahta (Gibson River) (Cooper 1994). The Wahta Mohawks were agriculturalists and activities such as hunting and fishing would have been more complementary to their subsistence.

Two areas of traditional Anishinabek land use have been identified in proximity to the study area. The North Branch of the Muskoka River is part of the traditional travel route to Lake of Bays, which was a focal point for trading. High Falls has been identified as a traditional portage along this route (Cooper 1994). The significance and longevity of the High Falls portage is evident by the location of three archaeological sites near this portage, the High Falls 1 *BgGt-1* site, the High Falls 2 *BgGt-2* site and the High Falls 3 *BgGt-3* site. These three sites are lithic sites but cannot be culturally identified beyond being pre-contact Aboriginal sites (MacDonald 1994). Local tradition claims that the former farm on the site of the High Falls Chalet Inn was an aboriginal gathering place.

1.2.2 Township Survey and Settlement

The Muskoka District came to be after the Ojibwa ceded an ill-defined area to the British in a treaty signed in 1850 (Mika and Mika 1981:706). The Muskoka District was joined to Simcoe County in 1851 but later became a separate district in 1888 (Rayburn 1997: 234). The name Muskoka is said to be derived from the Chippewa chief Nesqua Ukee, whose name meant “not easily turned back in battle.”

John Beal is thought to have been the first settler in the Muskoka District and is noted as the first settler to build a dwelling in the Township of Macaulay in 1860. Two other early settlers, James Cooper and McCabe, are credited with building wooden boats in the early 1860s, which were used to carry passengers and freight to various points in the Muskoka Lakes system.

A.P. Cockburn, a Beaverton businessman, had a significant role in the development of the Muskoka District. Cockburn became interested in the Muskoka region after he and some companions explored the region by canoe in 1865 (Mika and Mika 1981:706). After receiving petitions from settlers in the Muskoka area, Cockburn built a line of boats to navigate the lakes after the government offered to support the construction of a canal and locks system in 1869. The paddleboat *Wenonah* was launched in 1869 and the *Wabamik* followed soon after. The fleet was increased again in 1871 when the *Nipissing* was added, followed by the *Simcoe*, the *Muskoka*, and

later, the *Kenozha*. These lake steamers helped to move people and goods around the lake system and ultimately facilitated the settlement of the Muskoka District.

The land in the Muskoka District was made available under the *Public Lands Act* of 1860. Later, the *Free Grant and Homestead Act* was created in 1868 to help encourage settlement of northern Ontario. Under the act, 160 acres of free land was given to settlers who could clear at least 15 acres and cultivate at least two acres, build a habitable house at least 16 by 20 feet in size, and reside continuously on the land for five consecutive years (Rand McNally and Company 1902). Once these conditions were met then a patent for the land was issued to the settler. The first townships opened for settlement under the act were Cardwell, Macaulay, Watt, Brunel, Draper, McLean, Muskoka, and Stephenson (Mika and Mika 1981:707). In terms of population, in 1862 the Muskoka District boasted six people, in 1865, 45; and in 1871, 300 (Kirkwood and Murphy 1878:77).

Much of Muskoka was not suited for early settlement activities and many farms were abandoned after the thin layer of soil on the underlying bedrock was depleted (Mika and Mika 1981:707). In effect, many areas in the Muskoka District are covered with new forest and reforestation plantings since much of the old growth forest had been cut and cleared by pioneer families and lumbermen who later abandoned their holdings.

In 1970, Muskoka was reorganized as Ontario's only district municipality, with six area municipalities divided among three towns and three municipal townships (Rayburn 1997: 234). Muskoka is a popular resort and cottage destination and experiences dramatic fluctuations in population between the summer and winter months.

Monck Township

Monck Township was named in 1864 after Charles Stanley Monck, 4th Viscount Monck, who was the governor general of Canada from 1861-1868 (Rayburn 1997:225). Monck Township was one of the earliest settled townships in the Muskoka District (H.R. Page & Co. 1879). It was noted as having 27,835 acres of land, 483 acres of water, and an excellent agricultural industry. Monck Township is bordered by Lake Muskoka on the west and includes part of the Muskoka River.

Macaulay Township

The Township of Macaulay was named in 1857 after Sir James Buchanan Macaulay, who was the chief justice of the Court of Common Pleas of Upper Canada from 1849 to 1856 (Rayburn 1997:201). Macaulay Township is noted as having 38,639 acres of land and 1,341 acres of water (H.R. Page & Co. 1879: 20). Several important roads are included in the township, which radiate out of the town of Bracebridge. In addition to the early road network, both Lake Muskoka and the Muskoka River were used as a means of transit by early settlers. A large number of private boats navigated the river system in addition to Mr. Cockburn's fleet of steamers. Macaulay Township contains a number of significant waterfalls (Bracebridge Falls, Willson's Falls, High Falls, South Falls, and Tretheway Falls), which served as points for the establishment of water powered industry such as grist mills, wool mills, and saw mills (H.R. Page & Co. 1879:20).

Bracebridge

The major settlement in Macaulay Township was the Town of Bracebridge. Bracebridge was formerly the site of the Anishinabek settlement of Kekahpekong. Kekapekong was formerly the site of a trading post, possibly established in 1817. This trading post was abandoned in 1835 (Cooper 1994). The historical sketch of Bracebridge provided in the *Guide Book & Atlas of Muskoka and Parry Sound Districts* notes that the town benefited from its ideal location along the Muskoka River and had developed into the economic centre of the township and greater Muskoka District (H.R. Page & Co. 1879:20). Bracebridge was incorporated as a village in 1875 and by the 1880s it had become a thriving lumbering, manufacturing, and tourist centre with two large tanneries, a grist mill, wool mill, flour mill, and a saw mill (Mika and Mika 1977:245). In 1887 the population had reached 1600 and by 1889 Bracebridge had become a town.

1.2.3 Historic Map Review

The 1879 *Guide Book & Atlas of Muskoka and Parry Sound Districts* was reviewed to determine the potential for the presence of historic archaeological resources within the study area during the nineteenth century (Figure 2). It should be noted, however, that not all features of interest were mapped systematically in the Ontario series of historical atlases, given that they were financed by subscription, and subscribers were given preference with regard to the level of detail provided on the maps. Moreover, not every feature of interest would have been within the scope of the atlases.

Historically, the study area is located in the Former Townships of Monck and Macaulay, Muskoka District. The historic mapping demonstrates that numerous property owners and farmsteads were present in the study area. The 1879 map illustrates that High Falls Road, South Monck Drive, Crawford Road, the former alignment of Balls Drive, and the west-east alignment of Alpine Ranch Road are all historical transportation routes. The Muskoka River was also an important transportation corridor and played an important role in the nineteenth century logging of the area (Muskoka Watershed Council 2010b). Details of the property owners and historic features found in the study area are provided in Tables 1 and 2.

Table 1: Monck Township - Historic property owners and features in the study area

Concession	Lot	Property Owner(s)	Historic Feature(s)
2	5	N/A	-
3	5	Wm. Holditch	Farmstead
	6	Pat'k Fitzmaurice	-
4	5	Jonathan Speedie	-
	6	Jas Kay	-
5	3	Henry Pervical	-
	4	Wm Payne	-
	5	Wm Holman	-
	6	Martha Lovatt	-
6	3	Jas Foster	-
	4	David Gray	-
A	8	Jas. McKay	Farmstead

Table 2: Macauley Township - Historic property owners and features in the study area

Concession	Lot	Property Owner(s)	Historic Feature(s)
5	1	Sam'l Hills	-
	2	Sam'l Hills	-
6	1	N/A	-
	2	Geo. S. Yearly	-
	3	T. Armstrong	-
	4	T. Keel	-
	8	W. Daley	-
	9	J. Wardlaw	-
7	3	V. Nichols	-
	4	Jno Keel	Farmstead
	5	G. Yearly	Farmstead
	6	R. Hurst	-
	7	W. Tait	-
	8	S. Taylor	-
	9	S. Taylor	Farmstead
8	8	J. Perry (N.R.)	-
	9	W. Goggin	-
9	8	T. Peacock	Farmstead
	9	A. Hay	Farmstead
	10	Wm. Hay	-
10	10	R. Taylor (N.R.)	-
	11	J. Taylor	-

For the Euro-Canadian period, the majority of early nineteenth century farmsteads (i.e., those which are arguably the most potentially significant resources and whose locations are rarely recorded on nineteenth century maps) are likely to be captured by the basic proximity to the water model outlined in Section 1.2.2 of this report since these occupations were subject to similar environmental constraints.

1.3 Archaeological Context

This section provides background research pertaining to previous archaeological fieldwork conducted within and in the vicinity of the study area, its environmental characteristics (including drainage, soils or surficial geology and topography, etc.), and current land use and field conditions. Three sources of information were consulted to provide information about previous archaeological research in the study area; the site record forms for registered sites housed at the MTCS; published and unpublished documentary sources; and the files of ASI.

1.3.1 Current Land Use

The zoning information for the Town of Bracebridge and the Township of Muskoka Lakes was examined to determine the current land use of the study area (Town of Bracebridge 2006; Township of Muskoka Lakes 2011). The zoning maps demonstrate that the majority of the study area is designated as rural land, with some pockets of residential development and open space/residential areas.

The majority of the study area falls within the limits of the Town of Bracebridge. Zoning in this part of the study area is mainly rural including rural agricultural use (RU), rural residential (RR) rural commercial (RC) and rural industrial (RUI) (Town of Bracebridge 2006). In general, the rural residential, commercial, and industrial zones are concentrated along road corridors and the rural agricultural zones form the bulk of land in the centre of the study area. Residential zoning is also present along the Muskoka River in the form of shoreline residential (SR1) and shoreline narrow waterbody residential (SR3) zones. Open space zones (OS1) are also present along the Muskoka River.

The western limits of the study area along South Monck Drive partially fall within the limits of the Township of Muskoka Lakes (2011). The zoning designations in this part of the study area are similar to those of the Town of Bracebridge and include rural agricultural (RU3), rural residential (RUR), rural country residential (RU1), rural estate residential (RUER), open space private (OS2), and environmental protection (E1) zones. As with the Town of Bracebridge, the residential zoning designations are concentrated along road corridors with agricultural zones forming the bulk of open space.

1.3.2 Geography

In addition to the known archaeological sites, the state of the natural environment is an important predictor of archaeological potential. Accordingly, a brief description of the physiography and soils for the study area are provided below.

Section 1.3.1 of the *S&G* stipulates that primary water sources (lakes, rivers, streams, creeks, etc.), secondary water sources (intermittent streams and creeks, springs, marshes, swamps, etc.), ancient water sources (glacial lake shorelines indicated by the presence of raised sand or gravel beach ridges, relic river or stream channels indicated by clear dip or swale in the topography, shorelines of drained lakes or marshes, cobble beaches, etc.), as well as accessible or inaccessible shorelines (high bluffs, swamp or marsh fields by the edge of a lake, sandbars stretching into marsh, etc.) are characteristics that indicate archaeological potential.

Water has been identified as the major determinant of site selection and the presence of potable water is the single most important resource necessary for any extended human occupation or settlement. Since water sources have remained relatively stable in the Lake Huron basin since 5,000 BP (Karrow and Warner 1990: Figure 2.16), proximity to water can be regarded as a useful index for the evaluation of archaeological site potential. Indeed, distance from water has been one of the most commonly used variables for modeling of archaeological potential.

Section 1.3.1 of the *S&G* also lists other geographic characteristics that can indicate archaeological potential including: elevated topography (eskers, drumlins, large knolls, plateaux), pockets of well-drained sandy soil, especially near areas of heavy soil or rocky ground, distinctive land formations that might have been special or spiritual places, such as waterfalls, rock outcrops, caverns, mounds, and promontories and their bases. Physical indicators of use may be present, such as burials, structures, offerings, rock paintings or carvings. Resource areas, including; food or medicinal plants (migratory routes, spawning areas) are also considered characteristics that indicate archaeological potential.

The study area is located in the Algonquin Highlands physiographic region of southern Ontario in shallow till and rock ridges, and clay plain, and in the Number 11 Strip physiographic region of

southern Ontario in shallow till and rock ridges, and sand plain. The Algonquin Highlands is underlain by granite and other hard Precambrian rocks and covers and approximately 4,020 hectares (ha) of land (Chapman and Putnam 1984:211). This region is broadly dome shaped, with the crown standing at 1600-1800 feet above sea level (asl) and sloping down to approximately 900 feet asl in the west and 600 feet asl in the east. The local relief is rough and includes rounded knobs and ridges. There are frequent outcrops of bare rock but they do not amount to more than 5% of the total surface area. The soils in this region are generally shallow but thickness over the bedrock can vary greatly over short distances.

The Number 11 Strip physiographic region extends from Gravenhurst to North Bay and follows a narrow strip of sand, silt, and clay deposits that occupy a series of hollows (Chapman and Putnam 1984:214). This strip of land was situated just below the shoreline of glacial Lake Algonquin. Upland streams entering Lake Algonquin dropped sand as deltas and the silt and clay settles out in the deeper water offshore. An esker also flowed along this same strip from Bonfield to Gravenhurst, which deposited additional sediments in the Number 11 Strip region. The deep soils stand in stark contrast with the bare rock ridges and poor, shallow soil of the adjacent high ground (Chapman and Putnam 1984:14). Historically, the majority of farm operations in the Muskoka and Parry Sound fall within this region.

Soils in the study area include Wendigo loamy sand, Magnetawan silt loam, and Monteagle sandy loam. Rock outcrops are prevalent in this area. Wendigo loamy sand is a dominantly coarse textured soil formed on sand and gravel. It has hilly topography and good drainage.

Magnetawan silt loam is a dominantly fine textured soil that was formed on till or lacustrine sediments. The topography for this group is rolling and hilly and it has good drainage.

Monteagle sandy loam is a dominantly coarse textures soil with Precambrian rock at less than half a metre depth. This soil group has hilly topographic characteristics and good drainage (Hoffman *et al.* 1964).

Surficial Geology of the study area is mapped in Figure 3.

The study area is located in the Muskoka River Watershed. The watershed is approximately 120 km long and drains an area of 466,000 ha. The Muskoka River descends approximately 1132 feet in elevation along its course to Georgian Bay. The Muskoka River is comprised of two main branches, the North Branch and the South Branch, which meet at Bracebridge (Muskoka Watershed Council 2013). The study area is located within the North Branch Muskoka River and the Lake Muskoka Subwatersheds.

The North Branch Muskoka River Subwatershed drains an area of approximately 25,123 ha and is approximately 28 km long. High Falls is also located in the southeast corner of the study area where High Falls Road meets Highway 11. Waterfalls as listed under Section 1.3.1 of the *S & G* as places of significance within the landscape and the Ministry of Natural Resources' 2007 document *Forest Management Guide for Cultural Heritage Values* indicates waterfalls and their soundscapes as potential foci of Aboriginal spiritual landscapes. The North Muskoka Canyon borders the southeast portion of the study area near High Falls. This valley is situated along the North Branch of the Muskoka River between High Falls and Wilson Falls. Just below High Falls, the valley is flanked by two large outcroppings of Canadian Shield Bedrock. The valley provides

shelter and habitat for a number of wildlife and plant species. The North Muskoka Canyon has been recommended for status as a Heritage Site (Muskoka Heritage Areas n.d.).

In addition to the Muskoka River, numerous unnamed creeks and streams run through the study area. Hillman Lake and another unnamed lake are both located approximately 200 m west of the study area (Muskoka Watershed Council 2010b).

The Lake Muskoka Subwatershed drains an area of approximately 46,545 ha. The subwatershed constitutes many lakes, 30 of which are over 8 ha in size. Lake Muskoka itself covers an area of approximately 10,000 ha. Lake Muskoka is primarily fed by the Muskoka River near Bracebridge and is drained by the Moon River near Bala (Muskoka Watershed Council 2010a).

Palaeoclimatology can provide some information on the past environment of the study area. Following the retreat of the Laurentide glacier the climate of the District of Muskoka is believed to have been characterised by harsh conditions of extreme cold accentuated by the cold waters of pro-glacial Lake Algonquin and extreme dryness caused by the polar front of the ice sheet (MacDonald *et al.*1994). Temperatures were approximately 3° Celsius colder than the modern average (McAndrews 1981). With the recession of pro-glacial Lake Algonquin temperatures experienced a warming trend until approximately 9,600 BP when the District of Muskoka experienced a climatic reversal with long severe winters and warm dry summers. This latter climate is attributed to either the low water levels of Lake Hough of by an influx from Glacial Lakes Agassiz and Ojibway (MacDonald *et al.*1994: 29). From approximately 8,000 BP to 6,500 BP the climate improved during the Nipissing transgression and temperatures rose to approximately 2° Celsius above the modern average (*c.f.* Edwards and Fritz 1988: Figure 8; Macdonald *et al.* 1994: 30). By 6,000 BP the climate of the District of Muskoka was approximately the modern average.

Pollen core data provides evidence on the flora of the past environment. Following the retreat of the Laurentide glacier central Ontario was a boreal wetland of predominantly white pine and sedge. By the second half of the 11th millennium BP the recession of Lake Algonquin and the general warming trend allowed a brief marginal rise in the representation of spruce, cypress and birch. Following this brief window, pine species re-dominate central Ontario and spruce and cypress are nearly absent. By approximately the 8th millennium BP white pine once again dominates central Ontario. This environment continued until approximately the 5th millennium BP when central Ontario becomes a mixed conifer-deciduous forest dominated by white pine and birch. By the middle of the 5th millennium BP the evolution of this forest follows the gradual trend of declining pine numbers and increasing birch numbers with marginal fluctuations of other species (MacDonald *et al.*1994: 34-37; *c.f.* Marsters 1990; McAndrews 1981).

1.3.3 Previous Archaeological Research

In Ontario, information concerning archaeological sites is stored in the Ontario Archaeological Sites Database (OASD) maintained by the MTCS. This database contains archaeological sites registered within the Borden system. Under the Borden system, Canada has been divided into grid blocks based on latitude and longitude. A Borden block is approximately 13 km east to west, and approximately 18.5 km north to south. Each Borden block is referenced by a four-letter designator, and sites within a block are numbered sequentially as they are found. The study area under review is located in Borden blocks *BgGu* and *BgGt.*

According to the OASD (email communication, Robert von Bitter, MTCS Data Coordinator, May 1, 2012), four identified archaeological sites are located within 1 km of the study area. Details of the registered archaeological sites are provided in Table 3.

Table 3: Details of archaeological sites registered within 1 km of the study area

Borden #	Site Name	Cultural Affiliation	Site Type	Researcher
BgGt-1	High Falls 1	Prehistoric	Camp	ASI (1993)
BgGt-2	High Falls 2	Prehistoric	Undetermined	ASI (1993)
BgGt-3	High Falls 3	Prehistoric	Undetermined	ASI (1993)
BgGu-1	The McIntosh	Euro-Canadian	Findspot	G. Dibb (1992)

Note: sites in bold are located within 300 m of study area
ASI – Archaeological Services Inc.

Of the four sites registered within 1 km of the study are, three sites are located within 300 m of the study area. These sites are discussed below.

The High Falls 1 site (*BgGt-1*) is located north of Highway 117 and west of Highway 11 on the south side of High Falls and the Muskoka River. The site comprised a lithic scatter of seven piece of debitage produced of high-quality grey mottled chert. The site was researched in 1993 by Ronald F. Williamson (ASI 1994).

The High Falls 2 site (*BgGt-2*) is located north of Highway 117 and west of Highway 11 on the south side of High Falls and the Muskoka River. The site comprised a lithic scatter of four pieces of debitage. Three of the lithics are of Balsam Lake Chert; the remaining piece is of grey chert. The site was researched in 1993 by Ronald F. Williamson (ASI 1994).

The High Falls 3 site (*BgGt-3*) is located north of Highway 117 and west of Highway 11 on the south side of High Falls and the Muskoka River. The site comprised 50 pieces of debitage as well as 38 fragments of calcine faunal bone. The site constitutes an area of approximately 100 m^2. The lithic artifacts are manufactured of Onondaga, Balsam Lake, Hudson's Bay Lowland, and Upper Gull River Formations cherts as well as quartz and quartzite; 13 pieces were manufactured from the latter two materials. The site is situated at the put-in for the High Falls portage however the integrity of the site is compromised to an unknown degree by the construction of a picnic area and erosion. The site was researched in 1993 by Ronald F. Williamson (ASI 1994).

According to the background research, one previous archaeological study (ASI 1994) and two previous archaeological assessments (ARA 2010; ASI 2003) have been conducted within 50 m of the study area. They are reviewed below.

ASI (1994) conducted a systematic survey programme in June and July of 1993 as part of the Master Plan of Archaeological Resources of the District Municipality of Muskoka and the Wahta Mohawks. ASI surveyed the vicinity of the North Branch Muskoka River below High Falls in Lots 4 and 5, Concessions 5 and 6, and Lots 6-9, Concession 6 in Macauley Township. This area was surveyed by combination of windshield survey, visual inspection by canoe, pedestrian survey and test-pit survey. Test-pit survey surrounding High Falls discovered the High Falls 1, High Falls 2, and High Falls 3 sites (see above; MacDonald 1994: 57-59).

ASI (2003) conducted a Stage 1 archaeological assessment of the Bracebridge West Transportation Corridor Class EA of the alternate routes for MR 118 in the District Municipality

of Muskoka under the project direction of Martin Cooper and Debbie Steiss (MCL CIF# P049-021). The Stage 1 archaeological assessment determined that the study area possessed archaeological potential and should be subject to Stage 2 archaeological assessment prior to any disturbance.

Archaeological Research Associated Ltd (ARA) conducted a Stage 1 and 2 archaeological assessment along Highway 11 from Muskoka Road 117/Cedar Lane in 2010. The Stage 1 component found that archaeological potential existed in the study area and recommended that Stage 2 work be performed. A Stage 2 archaeological assessment was conducted where permission to enter the property was granted. No archaeological materials were recovered during the Stage 2 property survey. The report recommended that the assessed lands be cleared of archaeological concern but the remaining properties should be subject to Stage 2 archaeological assessment (ARA 2010).

1.3.4 Summary of Archaeological Context

The review of archaeological work conducted in the area demonstrated that four archaeological sites have been registered within 1 km of the study area. The registered sites are both Aboriginal and Euro-Canadian sites and reflect the long term use and settlement of the locale.

The study area is located in proximity to the North Branch of the Muskoka River, High Falls, the Muskoka River canyon, and within the foreshore of pro-glacial Lake Algonquin.

The study area impacts upon numerous historic farmsteads as indicated by the historic mapping. The study area also impacts upon numerous historic transportation routes and is in proximity to the Muskoka River.

The presence of the above listed features are indicative that the study area has the potential for the recovery of Aboriginal and Euro-Canadian archaeological resources.

2.0 FIELD METHODS

The Stage 1 archaeological assessment property inspection was conducted by Rob Pihl, (P057), and Paul David Ritchie (P392), both of ASI, on August 15 and 16, 2013, in order to gain first-hand knowledge of the geography, topography, and current conditions and to evaluate and map archaeological potential of the study area. It was a visual inspection only and did not include excavation or collection of archaeological resources.

Weather conditions for the inspection were sunny and clear with a light breeze with seasonal temperatures. Previously identified features of archaeological potential were examined; additional features of archaeological potential not visible on mapping were identified and documented as well as any features that will affect assessment strategies. Field observations are compiled onto maps of the study area in Section 7.0 (Figures 5-13) and associated photography is presented in Section 8.0 (Plates 1-55).

3.0 ANALYSIS AND CONCLUSIONS

The historical and archaeological contexts have been analyzed to help determine the archaeological potential of the study area. This data is presented below in Section 3.1. Results of the analysis of the property inspection are then presented for the study area in Section 3.2.

3.1 *Analysis of Archaeological Potential*

Section 1.3.1 of the *S&G* lists criteria that are indicative of archaeological potential. Accordingly, the study area meets the following criteria indicating archaeological potential:

- Previously identified archaeological sites (e.g. High Falls 1 *BgGt-1*)
- Water source: primary, secondary, or past water source (e.g. Muskoka River)
- Early historical transportation routes (e.g. Muskoka River, Naismith Road, Carlee Road)
- Areas of Euro-Canadian settlement (e.g. farmsteads)
- Distinctive land formations that might have been special or spiritual places (e.g. High Falls, North Muskoka Canyon)
- Property that local historians or informants have identified with possible archaeological sites, historical events, activities, or occupations (e.g. High Falls)

These criteria characterize the study area as having potential for the identification of Aboriginal and Euro-Canadian archaeological resources.

3.2 *Analysis of Property Inspection Results*

The majority of the study area possesses archaeological potential (Figures 5-13: areas marked in green and purple). As per Sections 2.1.1 and 2.1.2 of the *S &* G these lands require Stage 2 archaeological assessment by pedestrian survey and test-pit survey, where appropriate.

Portions of the study area were documented to be steeply sloped (Figure 5: areas marked in red), to have deep and extensive land disturbance (Figures 5-13: areas marked in yellow) and low and wet conditions (Figures 5, 7-13: areas in blue). As per Sections 1.3.2 and 2.1 of the *S &* G, these lands do not require Stage 2 archaeological assessment.

4.0 RECOMMENDATIONS

In light of the results of the background research undertaken for the Stage 1 archaeological assessment of the study area, ASI makes the following recommendations:

1. Archaeological potential exists in the study area (Figures 5-13: areas marked in green and purple). Such lands require Stage 2 archaeological assessment to be conducted by combination of pedestrian survey and test pit survey, where appropriate;

2. Portions of the study area are documented as steeply sloping ground (figure 5: areas marked in red), to have low and wet conditions (Figures 5, 7-13: areas marked in blue) or extensive and deep land alterations (Figures 5-13: areas marked in yellow) that have severely damaged the integrity of any potential archaeological resources; and,

3. Should the proposed work extend beyond the current study area then further Stage 1 archaeological assessment must be conducted to determine the archaeological potential of such additional areas.

Notwithstanding the results and recommendations presented in this study, ASI notes that no archaeological assessment, no matter how thorough or carefully completed, can necessarily predict, account for, or identify every form of isolated or deeply buried archaeological deposit. In the event that archaeological remains are found during subsequent construction activities, the consultant archaeologist, approval authority, and the Cultural Programs Unit of the MTCS should be immediately notified.

5.0 ADVICE ON COMPLIANCE WITH LEGISLATION

ASI advises compliance with the following legislation:

- This report is submitted to the Minister of Tourism, Culture and Sport as a condition of licensing in accordance with Part VI of the *Ontario Heritage Act*, R.S.O. 1990, c 0.18. The report is reviewed to ensure that it complies with the standards and guidelines that are issued by the Minister, and that the archaeological fieldwork and report recommendations ensure the conservation, protection and preservation of the cultural heritage of Ontario. When all matters relating to archaeological sites within the project area of a development proposal have been addressed to the satisfaction of the MTCS, a letter will be issued by the ministry stating that there are no further concerns with regard to alterations to archaeological sites by the proposed development;

- It is an offence under Sections 48 and 69 of the *Ontario Heritage Act* for any party other than a licensed archaeologist to make any alteration to a known archaeological site or to remove any artifact or other physical evidence of past human use or activity from the site, until such time as a licensed archaeologist has completed archaeological fieldwork on the site, submitted a report to the Minister stating that the site has no further cultural heritage value or interest , and the report has been filed in the Ontario Public Register of Archaeology Reports referred to in Section 65.1 of the *Ontario Heritage Act*.

- Should previously undocumented archaeological resources be discovered, they may be a new archaeological site and therefore subject to Section 48 (1) of the *Ontario Heritage Act*. The proponent or person discovering the archaeological resources must cease alteration of the site immediately and engage a licensed consultant archaeologist to carry out archaeological fieldwork, in compliance with sec. 48 (1) of the *Ontario Heritage Act*; and

- The *Cemeteries Act*, R.S.O. 1990 c. C.4 (as amended 2012) and the *Funeral, Burial and Cremation Services Act*, 2002, S.O. 2002, c.33 require that any person discovering human remains must notify the police or coroner.

6.0 BIBLIOGRAPHY

Archaeological Research Associated Ltd. (ARA)
2010 *Stage 1 and 2 Archaeological Assessment, Highway 11 from Muskoka Road 117/Cedar Lane northerly 6.3 km, Town of Bracebridge, District Municipality of Muskoka, Ontario, GWP 322-00-00. PIF P007-20902009 and P00-230-2010.*

Archaeological Services Inc. (ASI)
1994 *Report of the Master Plan of Archaeological Resources of the District Municipality of Muskoka and the Wahta Mohawks. 3 Volumes.*

2003 *Stage 1 Archaeological Assessment of the Bracebridge West Transportation Corridor Class Environmental Assessment of the Alternate Routes for MR 118, District Municipality of Muskoka, Ontario.*

Brown, J.
1995 On Mortuary Analysis – with Special Reference to the Saxe-Binford Research Program. In: R*egional Approaches to Mortuary Analysis*, edited by L. A. Beck. NewYork: Plenum Press, pp. 3-23.

Chapman, L. J. and F. Putnam
1984 *The Physiography of Southern Ontario.* Ontario Geological Survey, Special Volume 2. Ontario Ministry of Natural Resources, Toronto.

Cooper, M.S.
1994 Anishinabek Traditional-Use Sites and Oral History. In: *Report of the Master Plan of Archaeological Resources of the District Municipality of Muskoka and the Wahta Mohawks. Volume 2: Traditional-Use Study and Archaeological Survey.* ASI, pp. 1-28.

Cumming, R. (Ed.)
1972 *Guide Book and Atlas of Muskoka and Parry Sound Districts*. Toronto: H.R. Page & Co. (Originally published 1879. Owen Sound: Richardson, Bond & Wright).

Department of Emergy, Mines and Resources Canada
1996 1:50,000. *Bracebridge 31 E/3.*

Edwards, T.W.D. and P. Fritz
1988 Stable-isotope palaeoclimate records from southern Ontario, Canada: comparison of results from marl and wood. *Canadian Journal of Earth Sciences,* 25: 1397-1406.

Hoffman, D.W., Matthews, B.C., and R.E. Wicklund
1964 *Soil Associations of Southern Ontario, Report No. 30 of the Ontario Soil Survey.* Canada Department of Agriculture and the Ontario Agricultural College. Guelph, Ontario.

H.R. Page & Co.
1879 *Guide Book & Atlas of Muskoka and Parry Sound Districts*. H.R. Page & Co, Toronto. [*Ontario Genealogy*. M. Stephenson. <http://www.ontariogenealogy.com/muskokamaps.html>]

Jackson, L.J., C. Ellis, A.V. Morgan, and J.H. McAndrews.
2000 Glacial Lake Levels and Eastern Great Lakes Palaeo-Indians. *Geoarchaeology,* 15: 415-440.

Karrow, P.F. and B.G. Warner
1990 The Geological and Biological Environment for Human Occupation in Southern Ontario. In *The Archaeology of Southern Ontario to A.D. 1650*. Edited by: C.J. Ellis and N. Ferris. London Chapter, OAS, No. 5. London: Ontario Archaeological Society Inc., pp. 5-36.

Kirkwood, A. and J.J. Murphy
1878 *The Undeveloped Lands in Northern &Western Ontario*. Hunter, Rose & Co., Toronto.

MacDonald, R.I.
1994 Archaeological Survey: Refinement of Prehistoric Archaeological Site Potential Model. In: *Report of the Master Plan of Archaeological Resources of the District Municipality of Muskoka and the Wahta Mohawks. Volume 2: Traditional-Use Study and Archaeological Survey.* ASI, pp. 29-96.

MacDonald, R.I., D.S. Robertson and M.S. Cooper
1994 Landbased Archaeological Research in Muskoka. In: *Report of the Master Plan of Archaeological Resources of the District Municipality of Muskoka and the Wahta Mohawks. Volume 1: Background Research.* ASI, pp.5-52.

Marsters, S.G.
1990 Post-Glacial Vegetation History near Burke's Falls, Eastern Lake Algonquin Basin, Ontario. Unpublished M.Sc. Thesis, University of Waterloo.

McAndrews, J.H.
1981 Late Quarternary Climate of Ontario: Temperature Trends from the Fossil Pollen Record. *Quaternary Paleoclimate,* 1981: 319-333.

Mika, N. and H. Mika
1977 *Places in Ontario: Their Name Origins and History, Part I A-E*. Mika Publishing Company, Bellevillle.

1981 *Places in Ontario: Their Name Origins and History, Part II F-M*. Mika Publishing Company. Belleville, Ontario.

Municipal Engineers Association
2011 *Municipal Class Environmental Assessment*

Muskoka Heritage Areas
n.d. *North Muskoka Canyon.*. <https://maps.muskoka.on.ca/exponare/Hyperlink_Files/Muskoka_Heritage_Areas_NHE/North%20Muskoka%20Canyon%20NHE1994.PDF>

Muskoka Watershed Council
2010a *Lake Muskoka Subwatershed.* < http://www.muskokawatershed.org/wp-content/uploads/2012/01/muskoka_rc1.pdf>

2010b *North Branch Muskoka River Subwatershed.* <http://www.muskokawatershed.org/wp-content/uploads/2012/01/n_muskoka_rc1.pdf>

2013 *Muskoka River Watershed.* <http://www.muskokawatershed.org/watersheds/muskoka-river-watershed/>

Ontario Ministry of Consumer Services
1990 *Cemeteries Act* [amended 2012]

2002 *Funeral, Burial and Cremation Services Act*

Ontario Ministry of Environment
1990 *Environmental Assessment Act*

2009 *Code of Practice: Preparing, Reviewing and Using Class Environmental Assessments in Ontario*

Ontario Ministry of Natural Resources
2007 *forest Management Guide for Cultural Heritage Values*.

Ontario Ministry of Tourism, Culture and Sport (MTCS)
2005 *Ontario Heritage Act*.

2011 *Standards and Guidelines for Consultant Archaeologists*. Cultural Programs Branch, Ontario Ministry of Tourism and Culture, Toronto, Ontario.

Rand McNally and Company
1902 *New Ontario including the districts of Nipissing, Algoma, Sault Ste. Marie, Thunder Bay, Fort William, Port Arthur, lake Neigon, Rainy River, Alberton, Fort Frances, Rat Portage, Keewatin, Wabigoon, Dryden*.

Rayburn Alan
1997 *Places Names of Ontario*. University of Toronto Press, Toronto.

Town of Bracebridge
2006 *Town of Bracebridge in the District of Muskoka, Monck South Ward, Zoning By-law 2006-120 as amended by By-law 2008-081*. Schedules C3, C4, and D2. <http://www.bracebridge.ca/index.php/townhall/departments/developmentservicesdepartment/opazoningbylaw.html>

Township of Muskoka Lakes
2011 *Draft Schedule 39 to By-law 87-87 as amended*.
<http://www.muskokalakes.ca/siteengine/ActivePage.asp?PageID=22>

7.0 MAPS

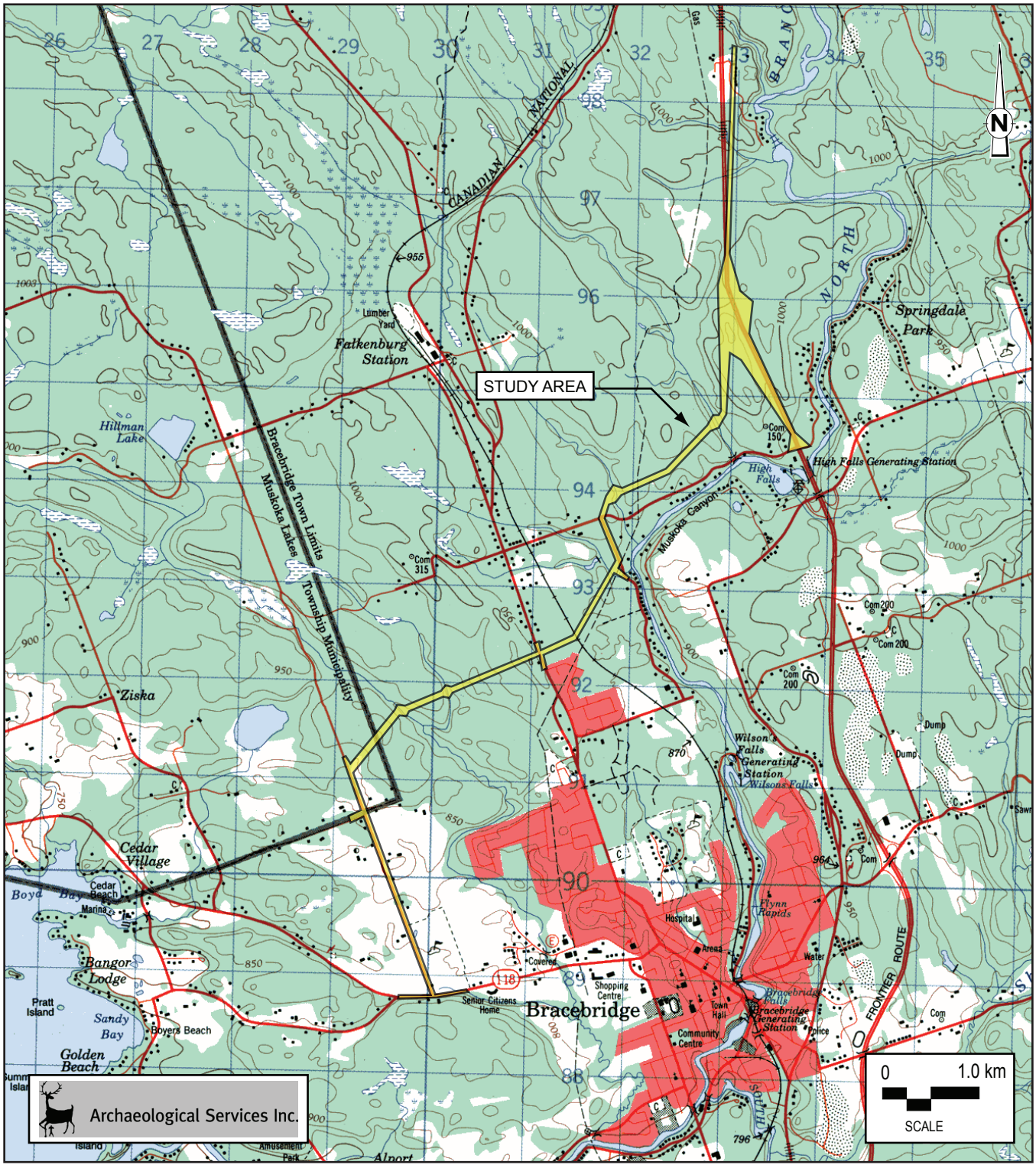


Figure 1: Approximate location of study area

Base map: (NTS 31 E/3)

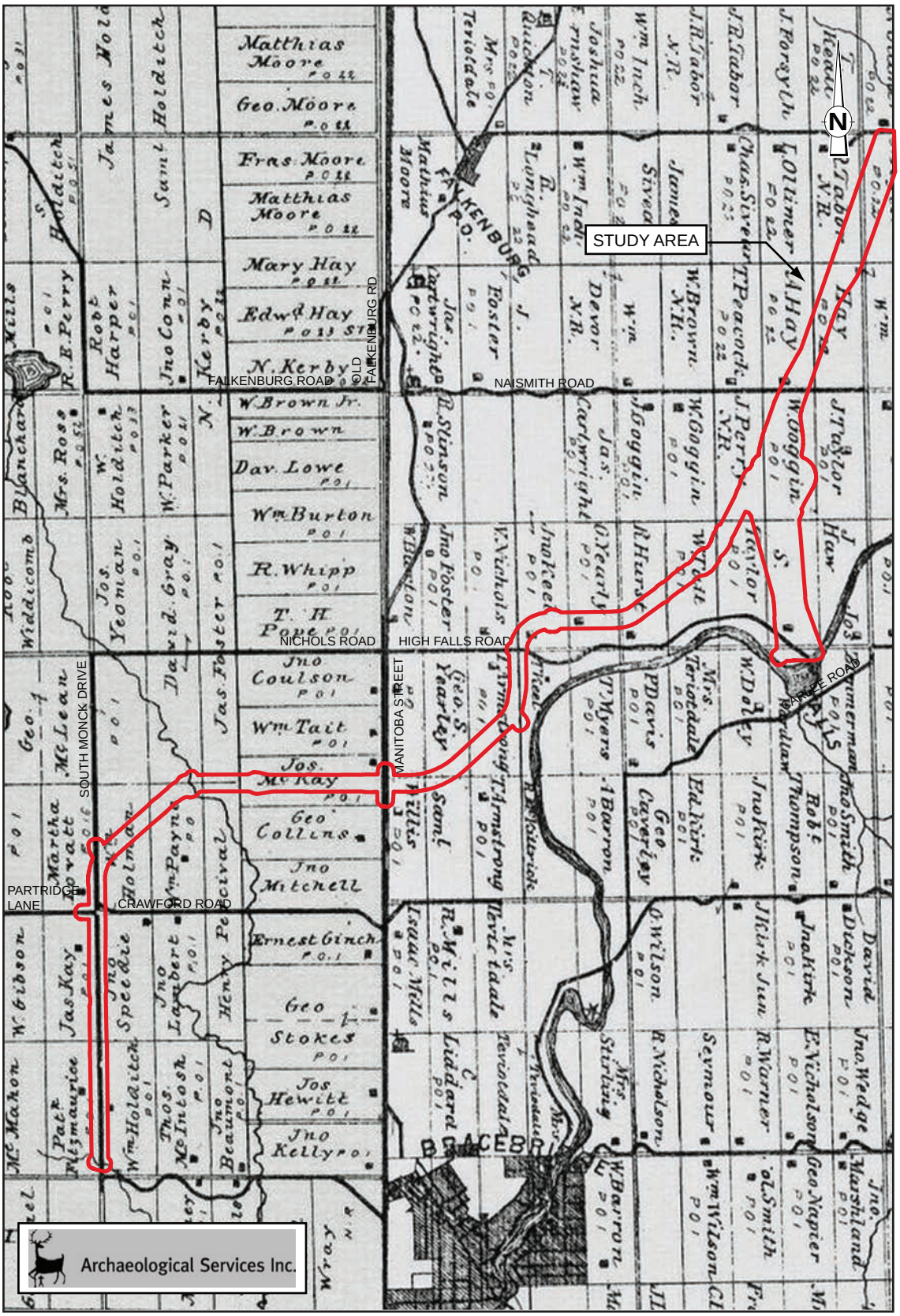


Figure 2: The study area (approximate location) overlaid on the 1879 maps of Monck and Macaulay Township

Base Map: (H.R. Page & Co. 1879)

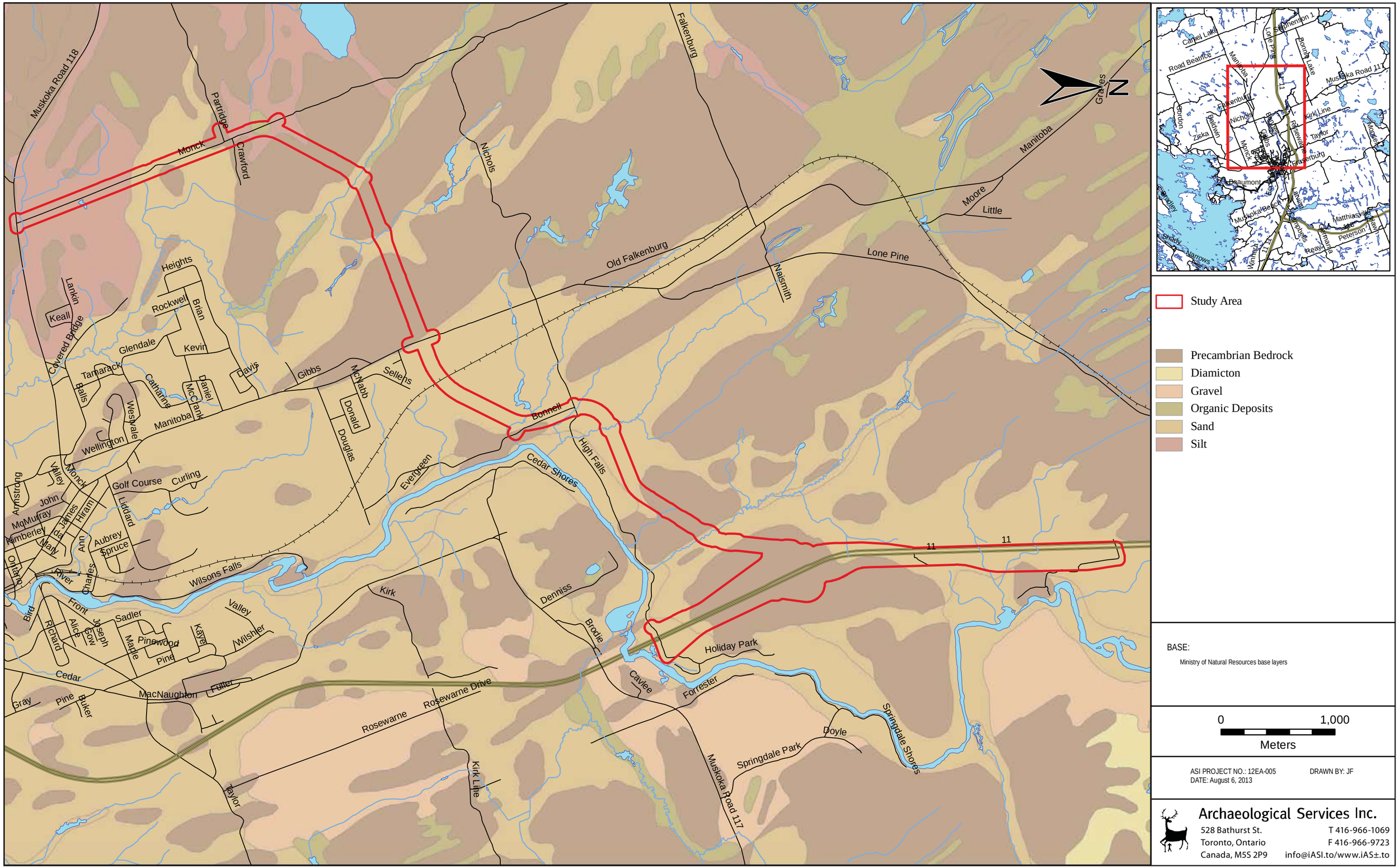
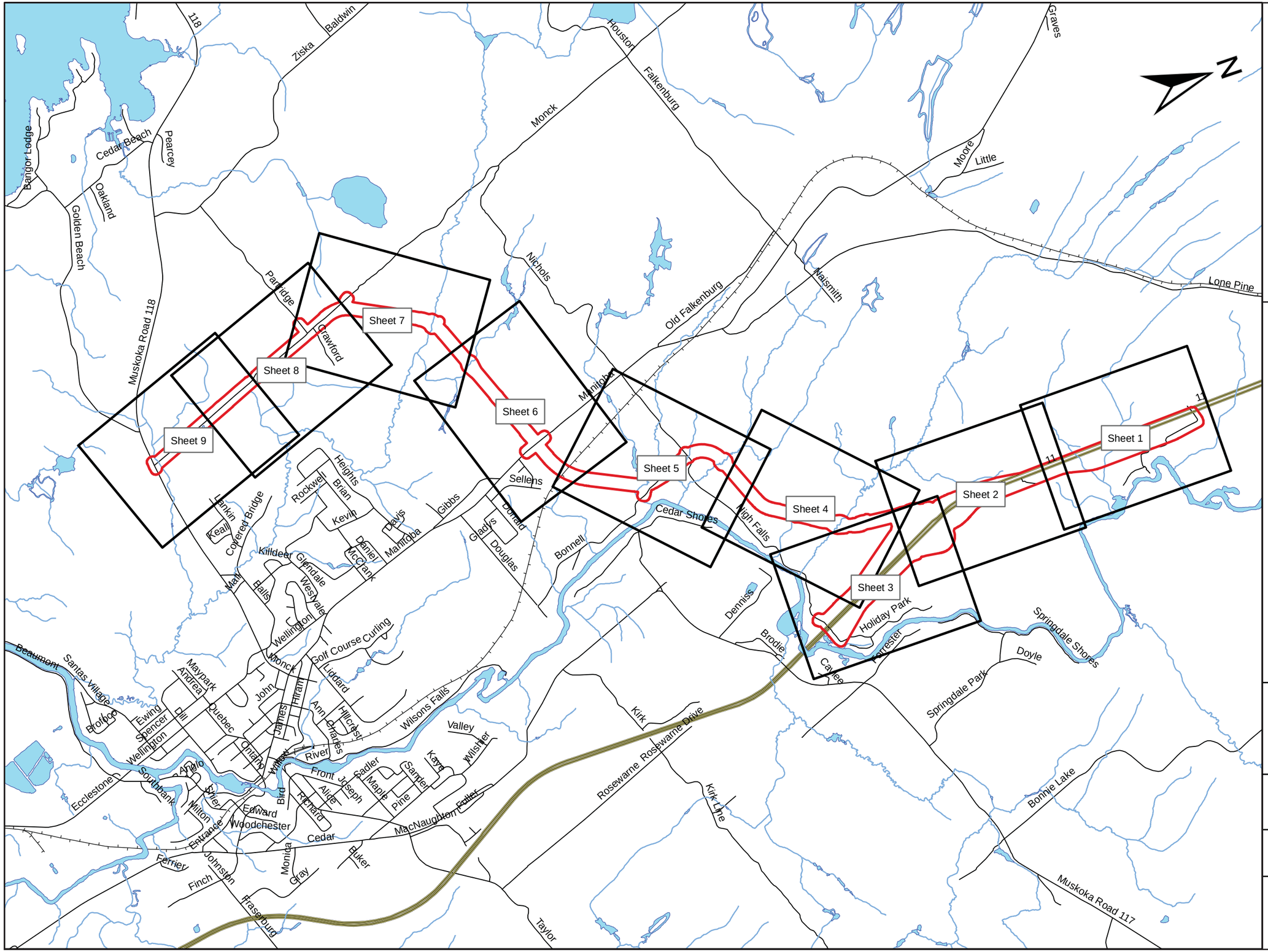
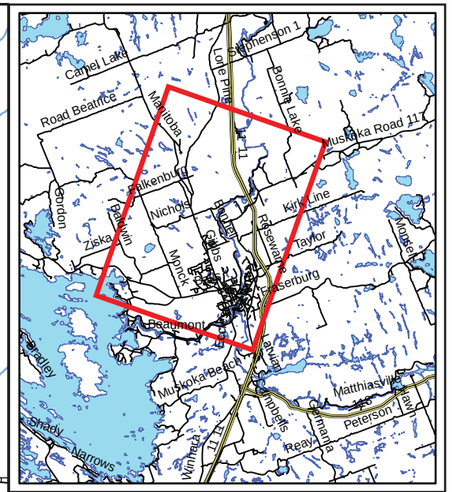


Figure 3: Bracebridge North Transportation Corridor - Surficial Geology





BASE:

Ministry of Natural Resources base layers

0 1,500

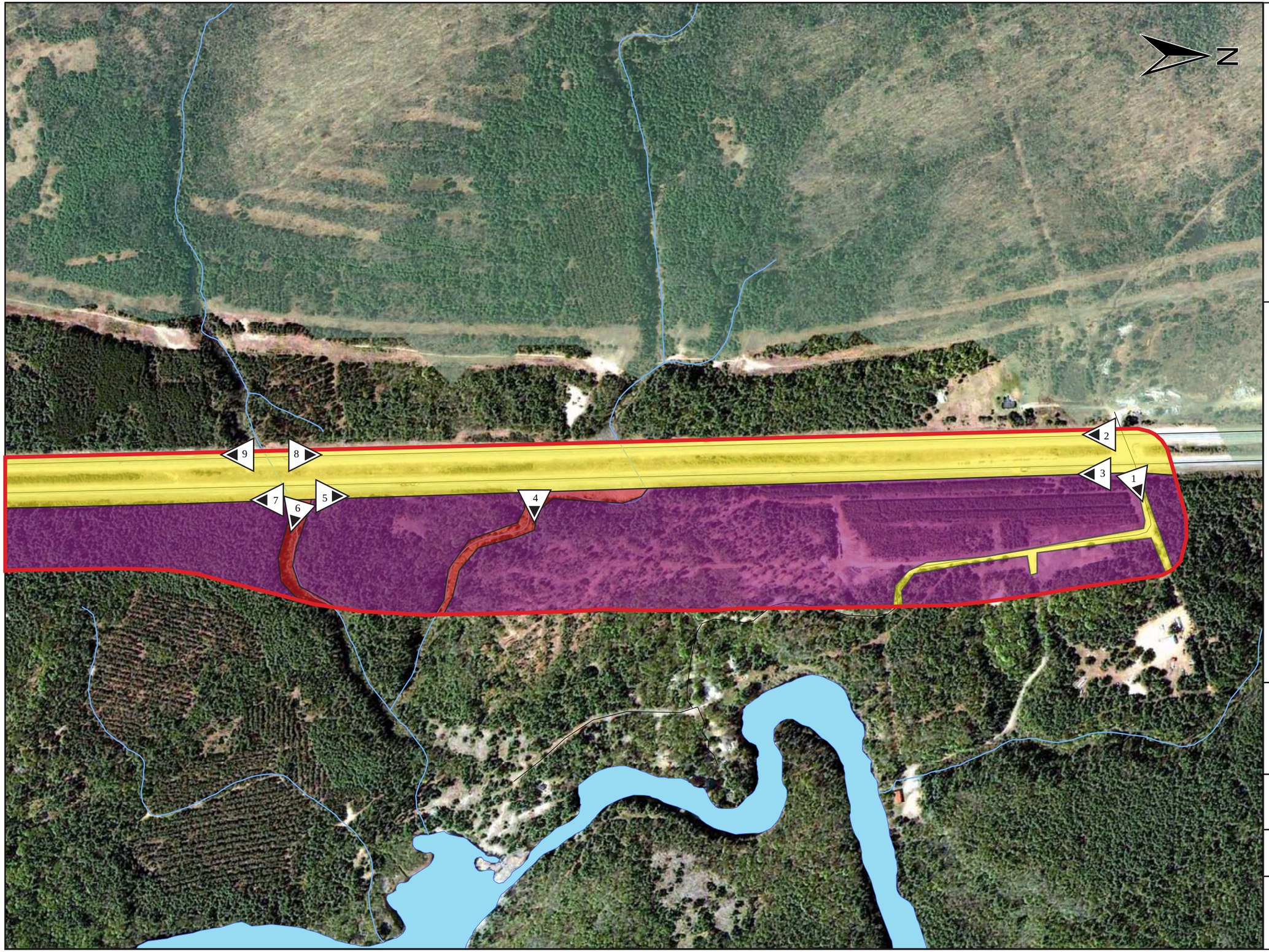
Meters

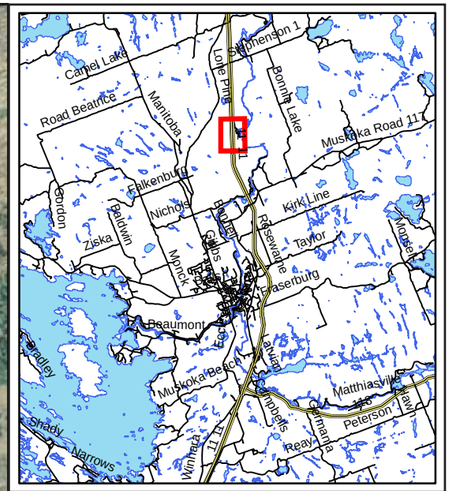
ASI PROJECT NO.: 12EA-005
DATE: August 6, 2013

DRAWN BY: JF

Archaeological Services Inc.
528 Bathurst St.
Toronto, Ontario
Canada, M5S 2P9
T 416-966-1069
F 416-966-9723
info@iASI.to/www.iAS±.to

Figure 4: Bracebridge North Transportation Corridor - Property Inspection Results (Key Map)





Study Area

No Potential (Disturbed)

Potential (Req. Stage 2 Test-pit Survey)

Steep Slope

1 Photographic Plate

BASE:

Ministry of Natural Resources base layers

0 150

Meters

ASI PROJECT NO.: 12EA-005
DATE: August 26, 2013

DRAWN BY: JF BW PR

Archaeological Services Inc.
528 Bathurst St.
Toronto, Ontario
Canada, M5S 2P9
T 416-966-1069
F 416-966-9723
info@iASI.to/www.iAS±.to

Figure 5: Bracebridge North Transportation Corridor - Property Inspection Results (Sheet 1)